



## Appendix for test report

## 1Appendix\_A: Effective (Isotropic) Radiated Power Output Data

### Part I - Test Results

| Test Band | Test Mode | Test Channel | Conducted Power [dBm] | ERP [dBm]  | Limit [dBm] | Verdict |
|-----------|-----------|--------------|-----------------------|------------|-------------|---------|
| GSM850    | GSM/TM1   | LCH          | 33.08                 | 27.83      | 38.5        | PASS    |
|           |           | MCH          | 33.21                 | 27.96      | 38.5        | PASS    |
|           |           | HCH          | 33.19                 | 27.94      | 38.5        | PASS    |
|           | GSM/TM2   | LCH          | 27.33                 | 22.08      | 38.5        | PASS    |
|           |           | MCH          | 27.32                 | 22.43      | 38.5        | PASS    |
|           |           | HCH          | 27.31                 | 22.27      | 38.5        | PASS    |
| Test Band | Test Mode | Test Channel | Conducted Power [dBm] | EIRP [dBm] | Limit [dBm] | Verdict |
| GSM1900   | GSM/TM1   | LCH          | 30.19                 | 28.8       | 33          | PASS    |
|           |           | MCH          | 29.8                  | 28.2       | 33          | PASS    |
|           |           | HCH          | 29.7                  | 28.1       | 33          | PASS    |
|           | GSM/TM2   | LCH          | 26.02                 | 24.42      | 33          | PASS    |
|           |           | MCH          | 25.98                 | 24.6       | 33          | PASS    |
|           |           | HCH          | 25.95                 | 24.35      | 33          | PASS    |

Note1:

a, For getting the ERP (Efficient Radiated Power) or EIRP (Efficient Isotropic Radiated Power) in substitution method, the following formula should be taken to calculate it,

$$\text{ERP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBd]}$$

$$\text{EIRP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBi]}$$

b, SGP=Signal Generator Level

Note2: RBW > emission bandwidth, VBW > 3 x RBW.

Detector: RMS

## 2Appendix\_B: Peak-to-Average Ratio

### Part I - Test Results

| Test Band | Test Mode | Test Channel | Measured[dB] | Limit [dB] | Verdict |
|-----------|-----------|--------------|--------------|------------|---------|
| GSM1900   | GSM/TM1   | LCH          | 0.19         | 13         | PASS    |
|           |           | MCH          | 0.17         | 13         | PASS    |
|           |           | HCH          | 0.18         | 13         | PASS    |
|           | GSM/TM2   | LCH          | 3.02         | 13         | PASS    |
|           |           | MCH          | 3.14         | 13         | PASS    |
|           |           | HCH          | 3            | 13         | PASS    |

## 3Appendix\_C: Modulation Characteristics

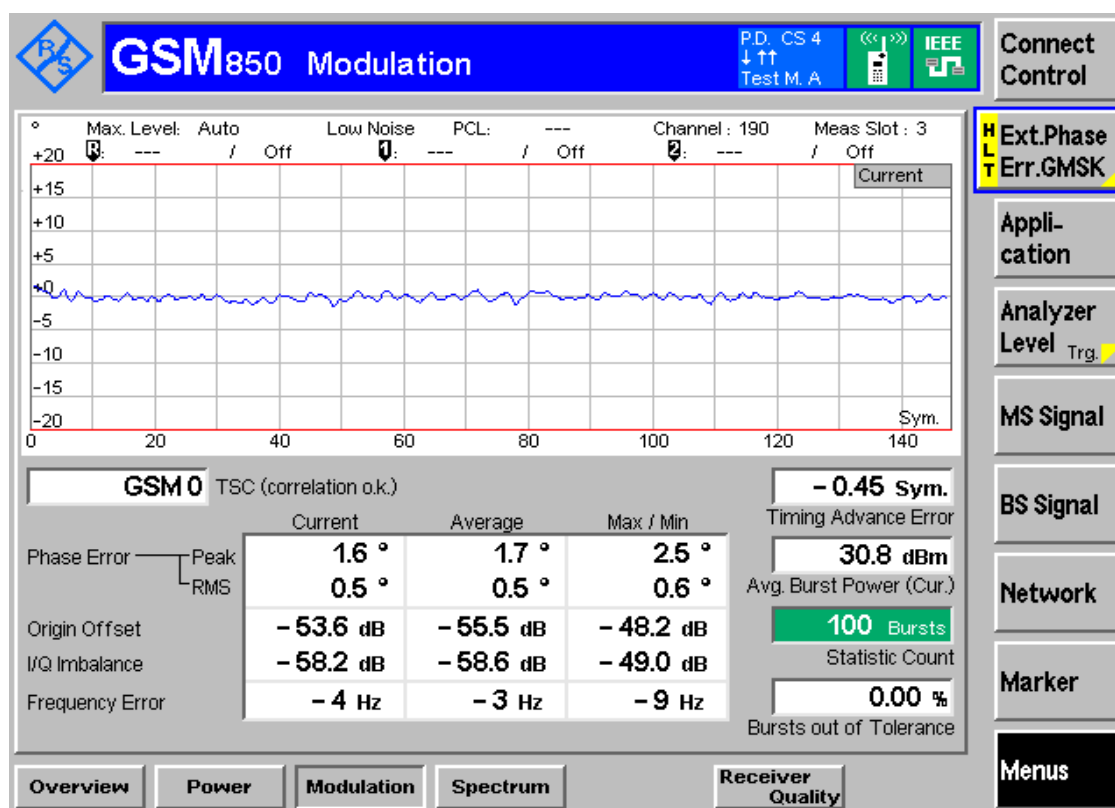
### Part I - Test Plots

#### 3.1 For GSM

##### 3.1.1 Test Band = GSM850

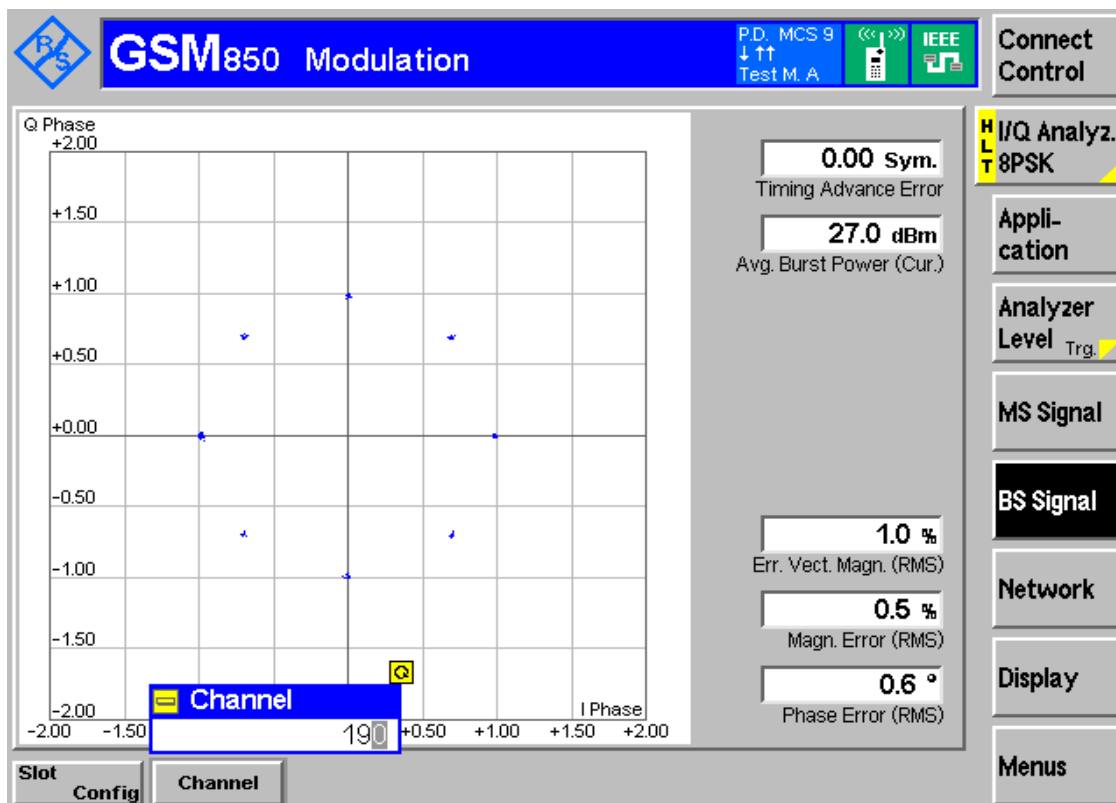
##### 3.1.1.1 Test Mode = GSM/TM1

##### 3.1.1.1.1 Test Channel = MCH



### 3.1.1.2 Test Mode = GSM/TM2

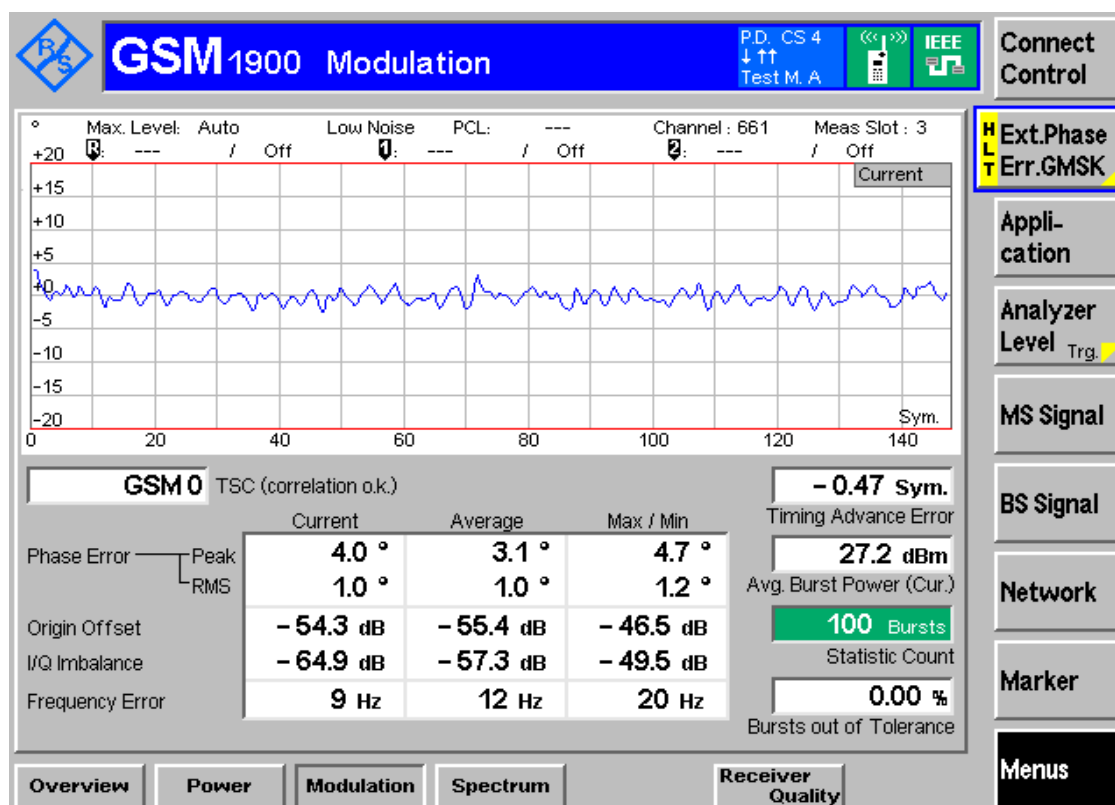
#### 3.1.1.2.1 Test Channel = MCH



### 3.1.2 Test Band = GSM1900

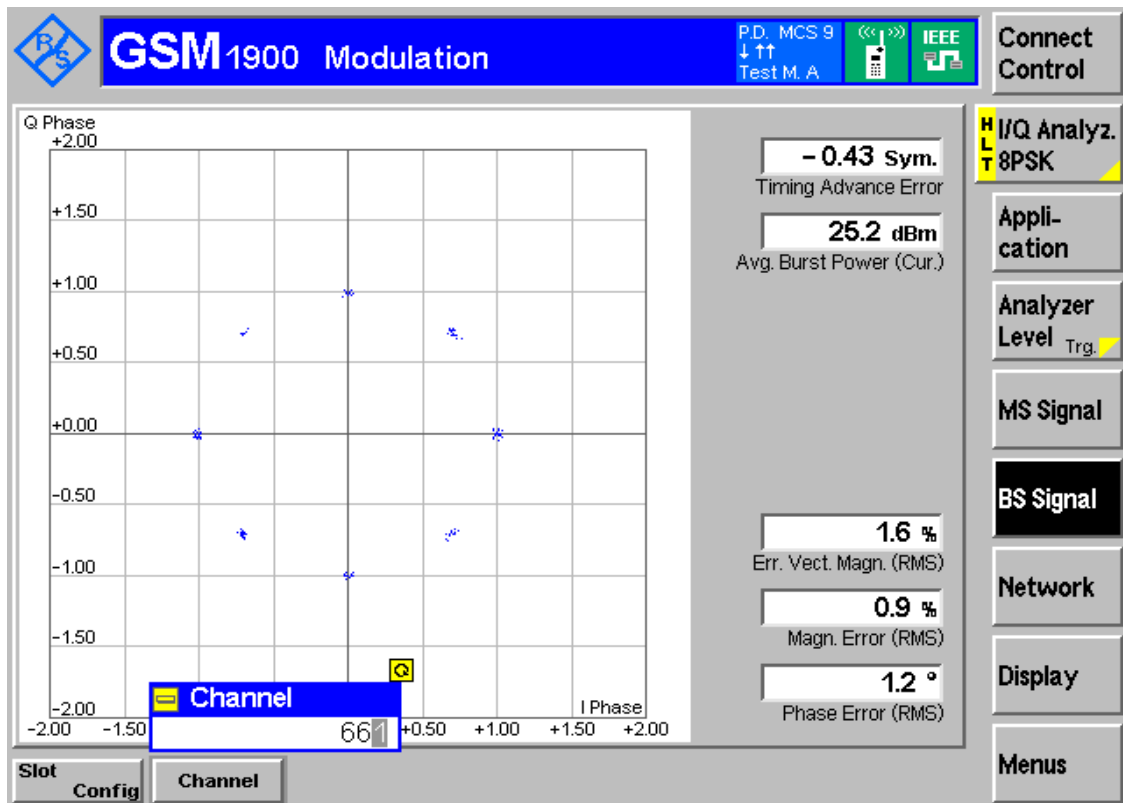
#### 3.1.2.1 Test Mode = GSM/TM1

##### 3.1.2.1.1 Test Channel = MCH



### 3.1.2.2 Test Mode = GSM/TM2

#### 3.1.2.2.1 Test Channel = MCH



## 4Appendix\_D: Bandwidth

### Part I - Test Results

| Test Band | Test Mode | Test Channel | Occupied Bandwidth [kHz] | Emission Bandwidth [kHz] | Verdict |
|-----------|-----------|--------------|--------------------------|--------------------------|---------|
| GSM850    | GSM/TM1   | LCH          | 242.33                   | 322.45                   | Pass    |
|           |           | MCH          | 248.60                   | 316.23                   | Pass    |
|           |           | HCH          | 247.00                   | 311.75                   | Pass    |
|           | GSM/TM2   | LCH          | 236.36                   | 306.46                   | Pass    |
|           |           | MCH          | 234.35                   | 292.35                   | Pass    |
|           |           | HCH          | 234.82                   | 293.30                   | Pass    |
| GSM1900   | GSM/TM1   | LCH          | 242.38                   | 313.11                   | Pass    |
|           |           | MCH          | 244.13                   | 314.01                   | Pass    |
|           |           | HCH          | 240.12                   | 310.84                   | Pass    |
|           | GSM/TM2   | LCH          | 242.65                   | 314.78                   | Pass    |
|           |           | MCH          | 242.15                   | 309.42                   | Pass    |
|           |           | HCH          | 244.69                   | 307.16                   | Pass    |

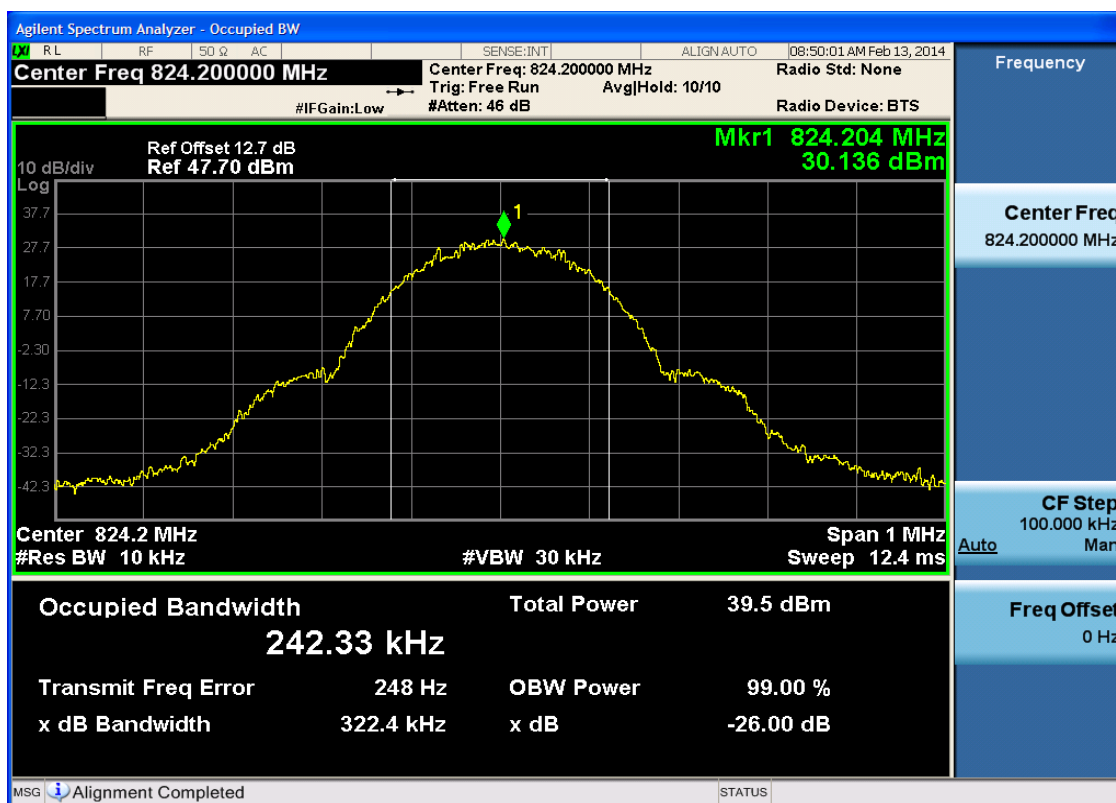
## Part II - Test Plots

### 4.1 For GSM

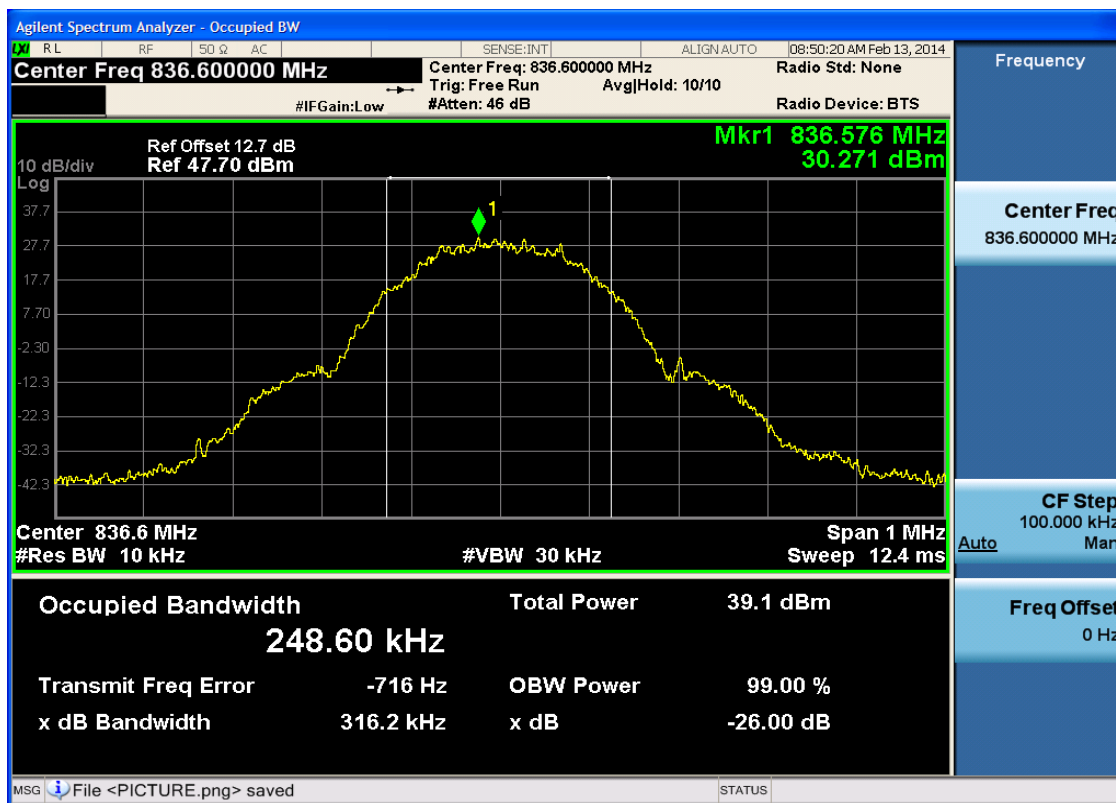
#### 4.1.1 Test Band = GSM850

##### 4.1.1.1 Test Mode = GSM/TM1

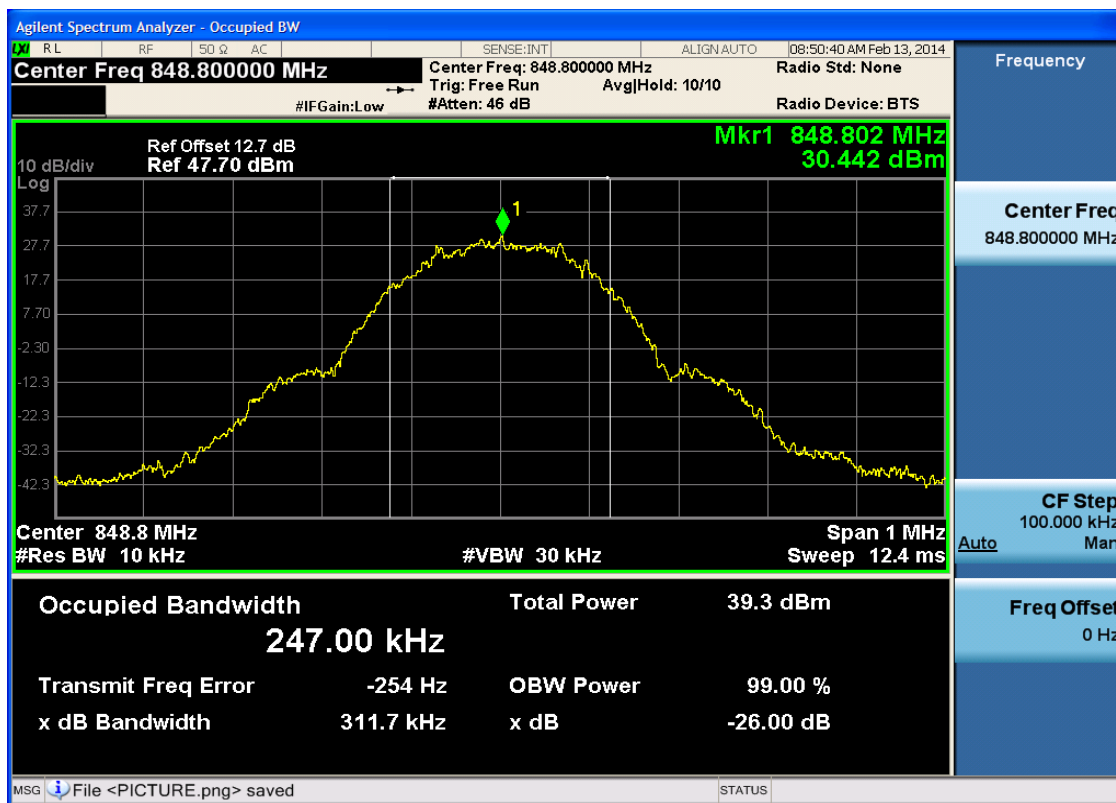
##### 4.1.1.1.1 Test Channel = LCH



#### 4.1.1.1.2 Test Channel = MCH

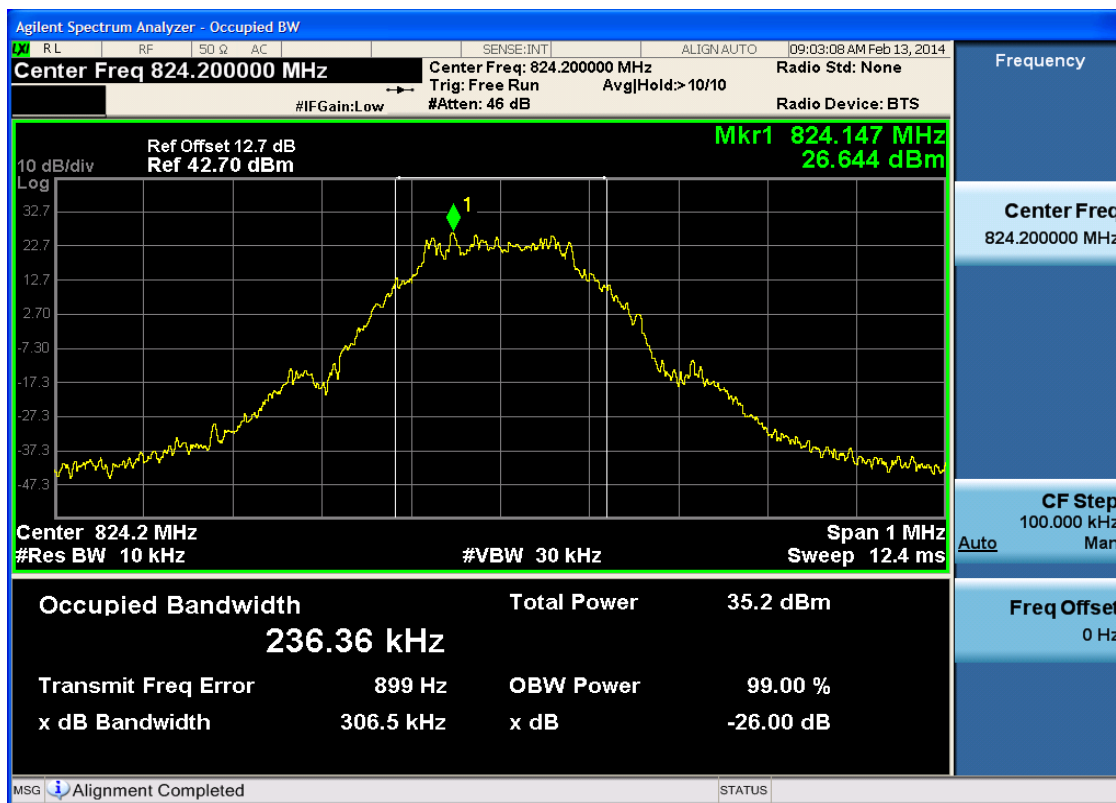


#### 4.1.1.1.3 Test Channel = HCH



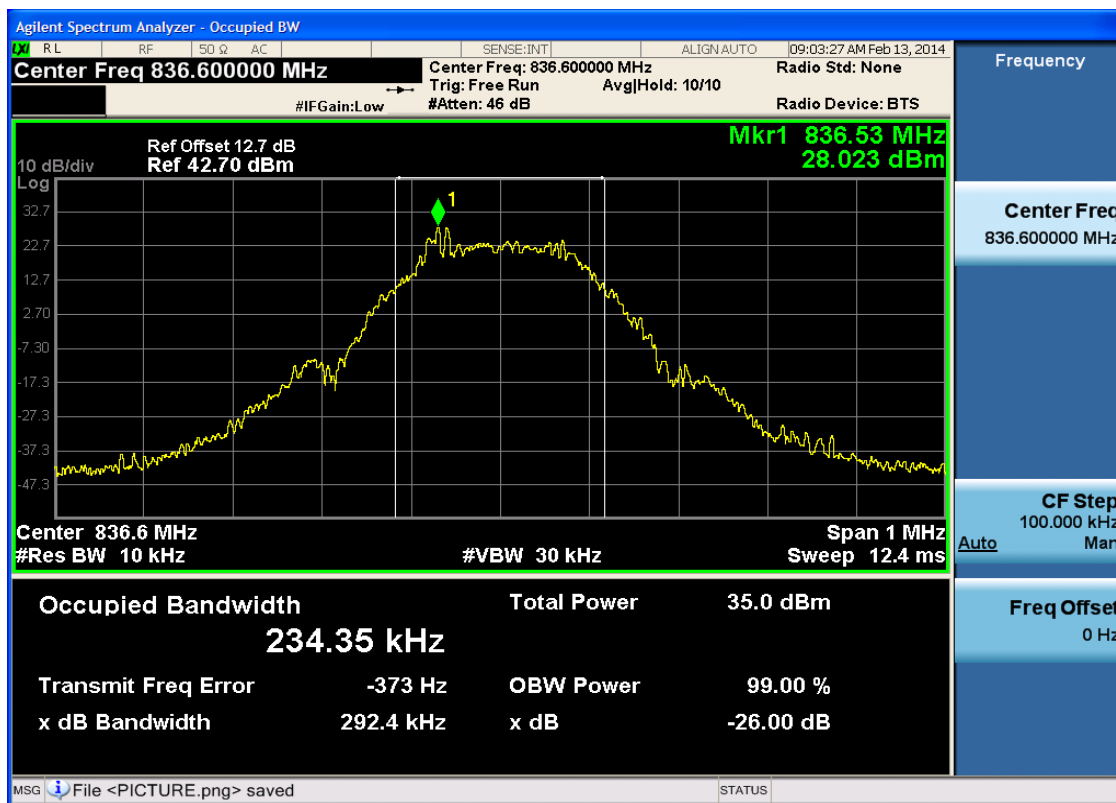
#### 4.1.1.2 Test Mode = GSM/TM2

##### 4.1.1.2.1 Test Channel = LCH

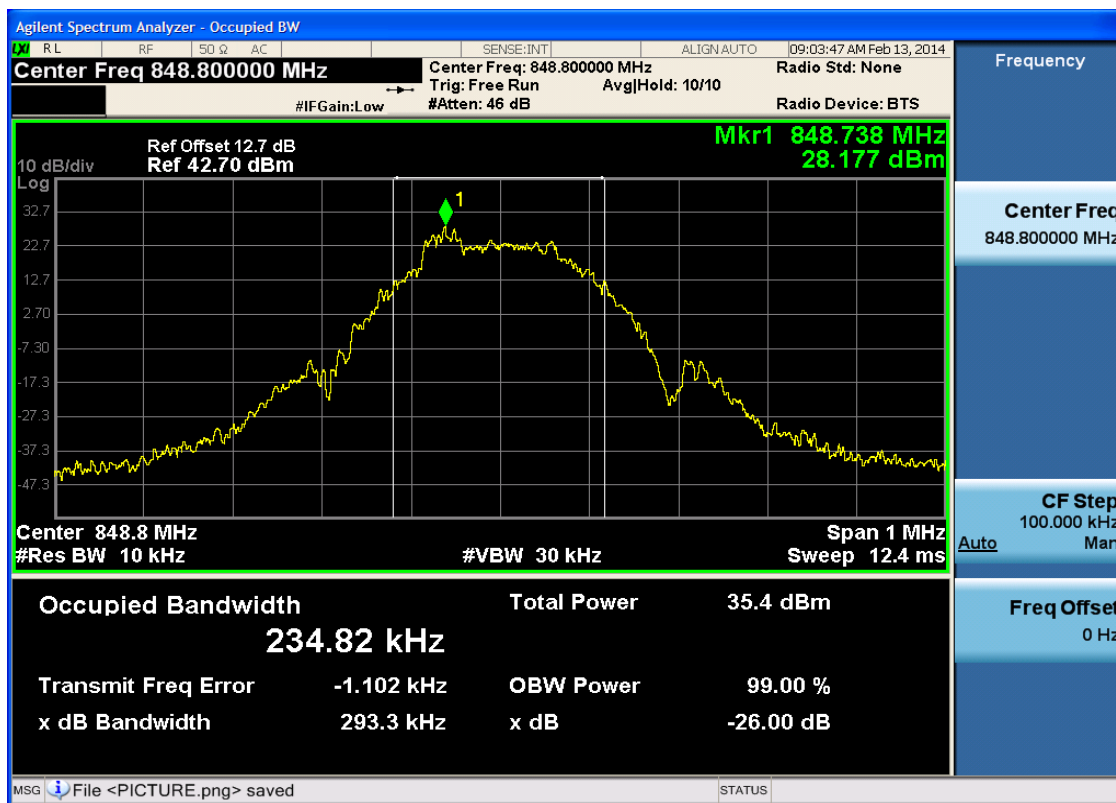




## 4.1.1.2.2 Test Channel = MCH



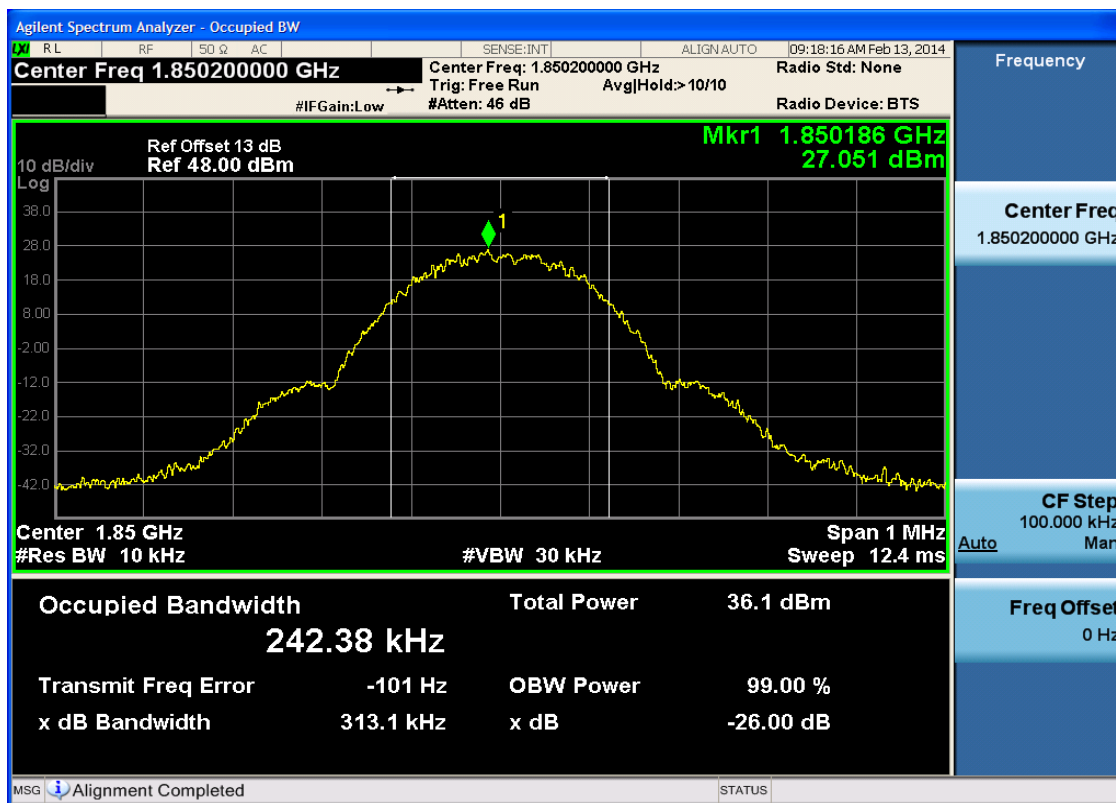
#### 4.1.1.2.3 Test Channel = HCH



#### 4.1.2 Test Band = GSM1900

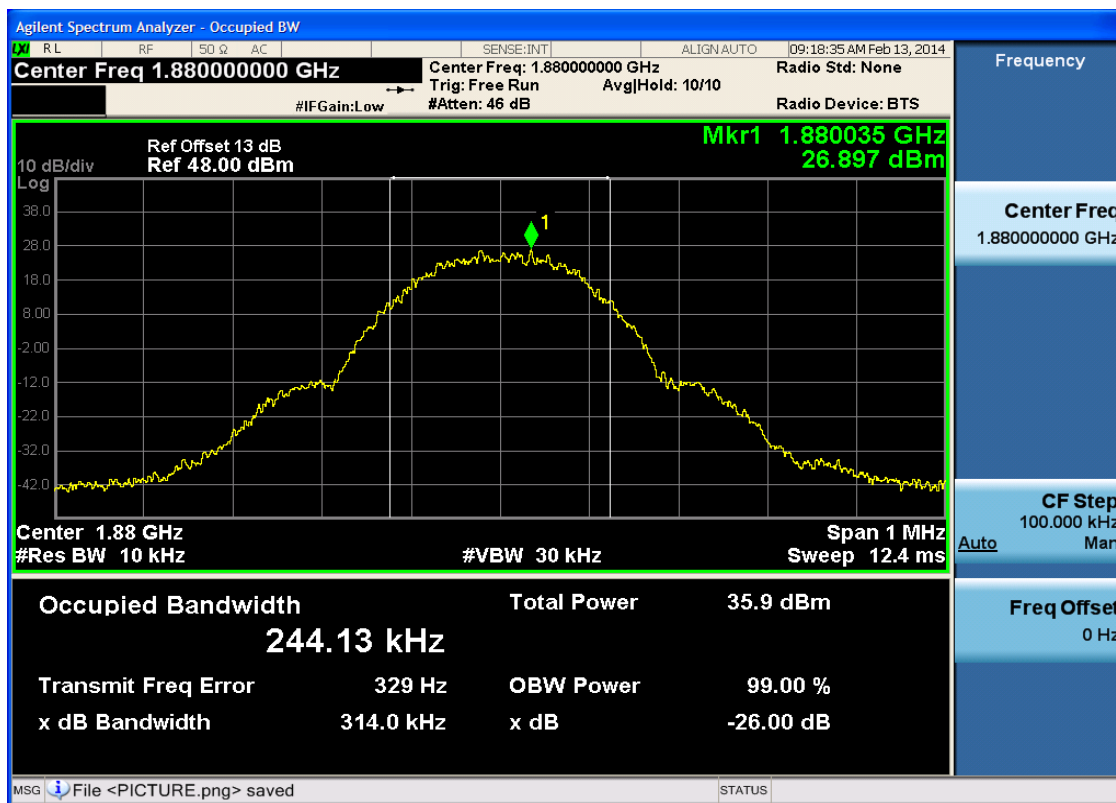
##### 4.1.2.1 Test Mode = GSM/TM1

##### 4.1.2.1.1 Test Channel = LCH

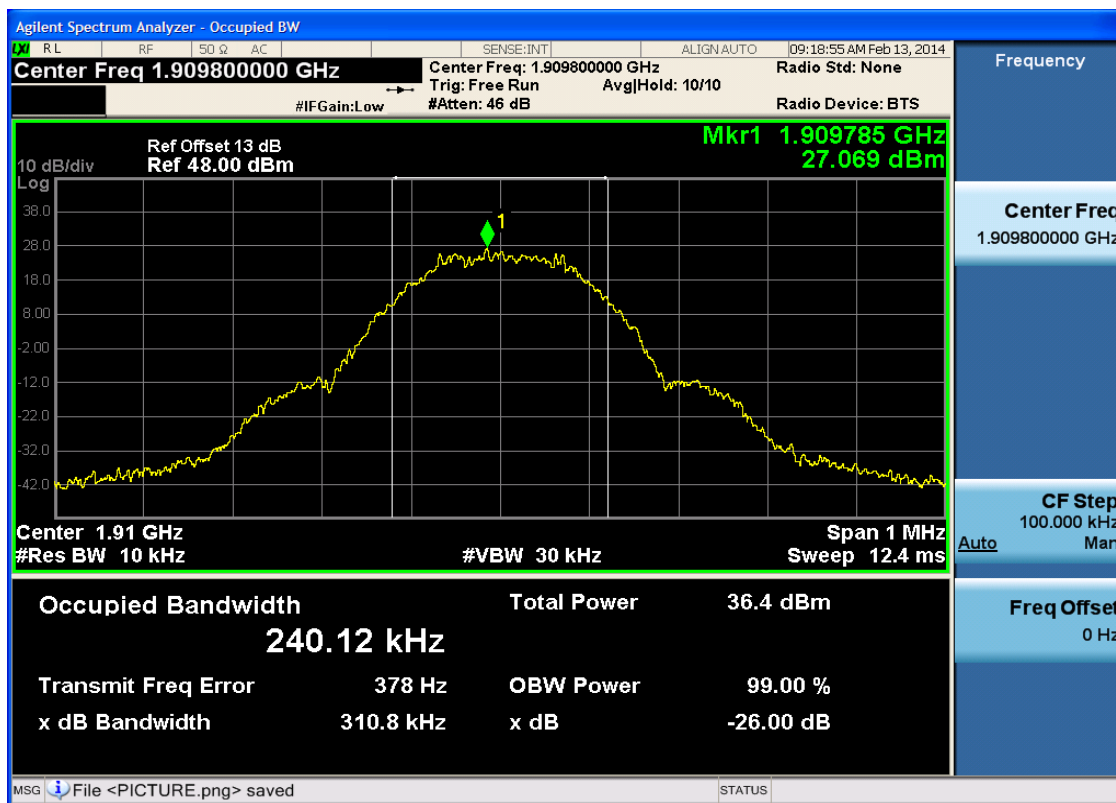




## 4.1.2.1.2 Test Channel = MCH

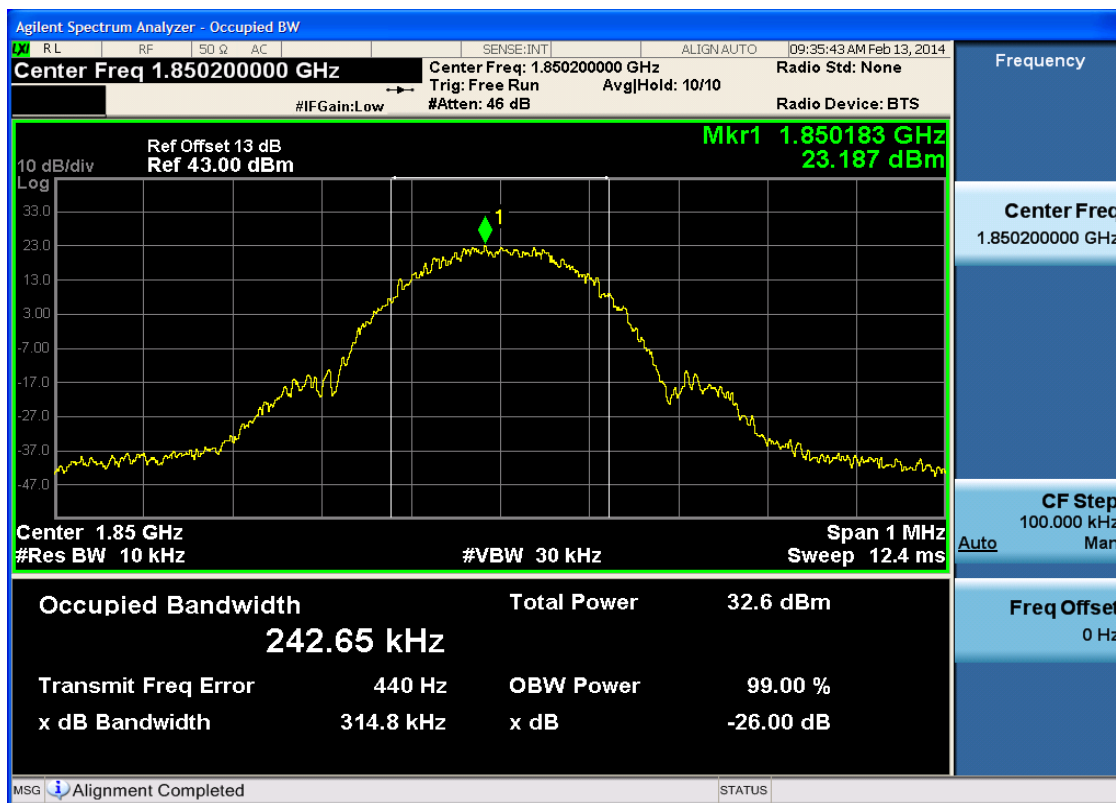


#### 4.1.2.1.3 Test Channel = HCH

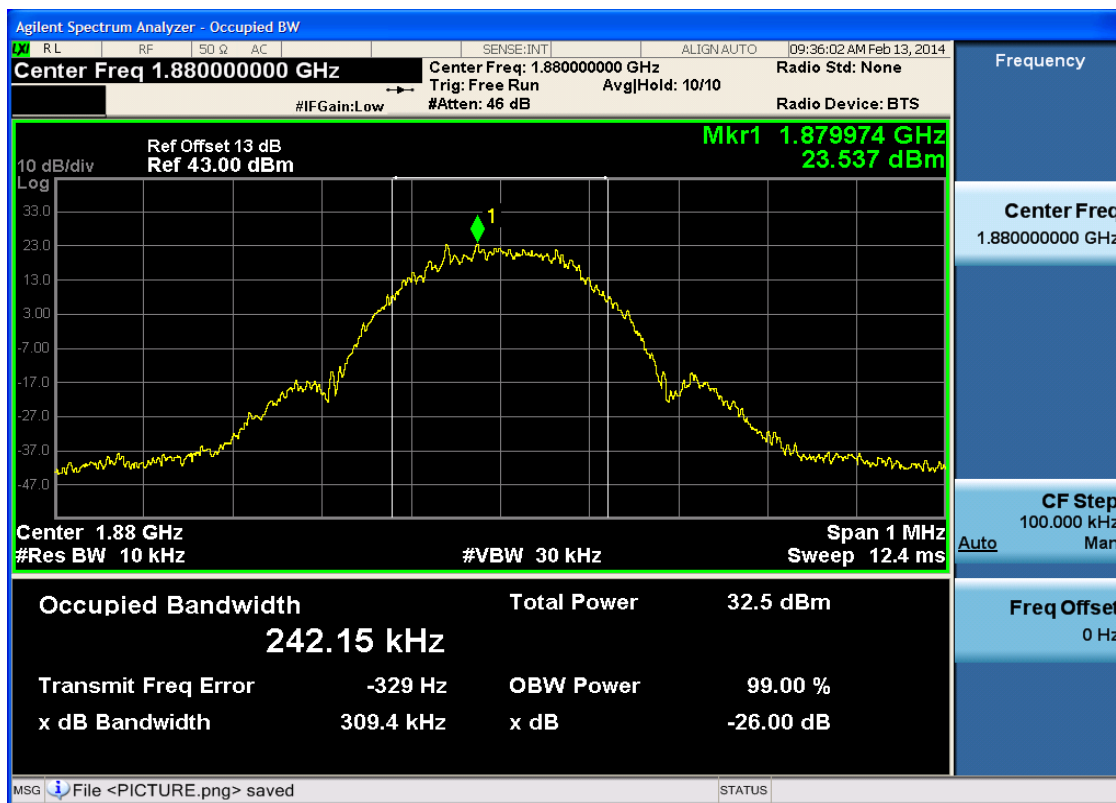


#### 4.1.2.2 Test Mode = GSM/TM2

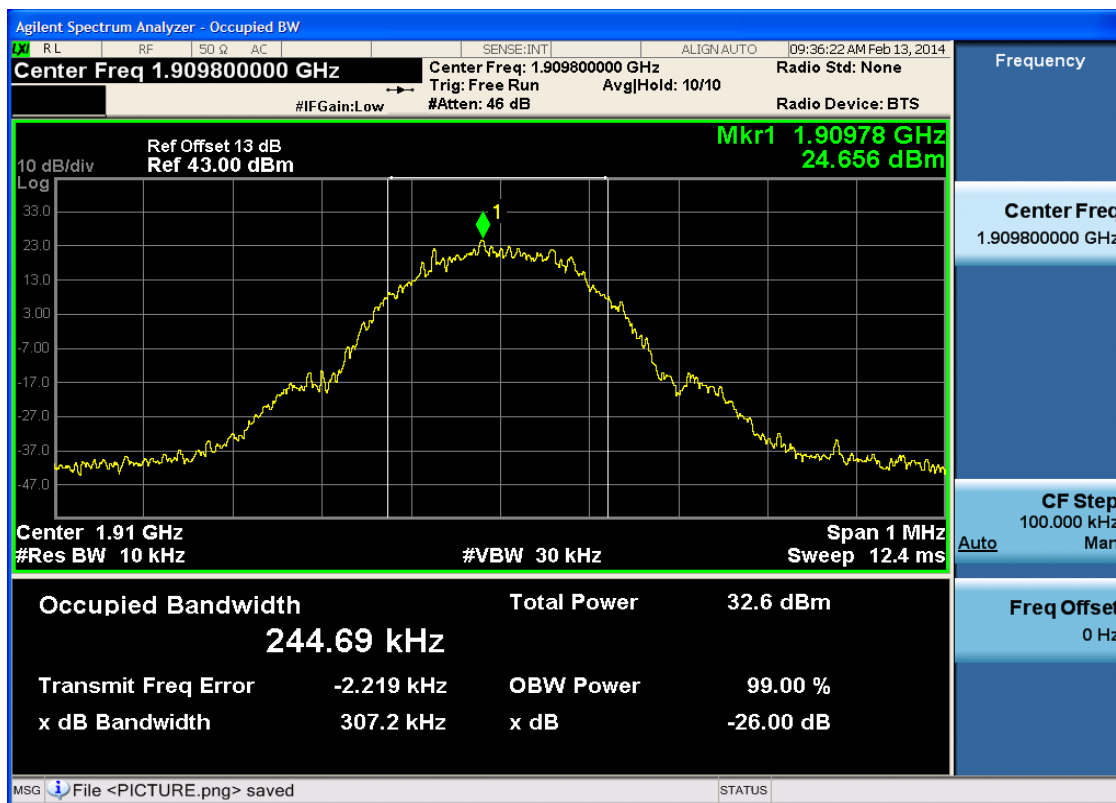
##### 4.1.2.2.1 Test Channel = LCH



#### 4.1.2.2.2 Test Channel = MCH



#### 4.1.2.2.3 Test Channel = HCH



## 5Appendix\_E: Band Edges Compliance

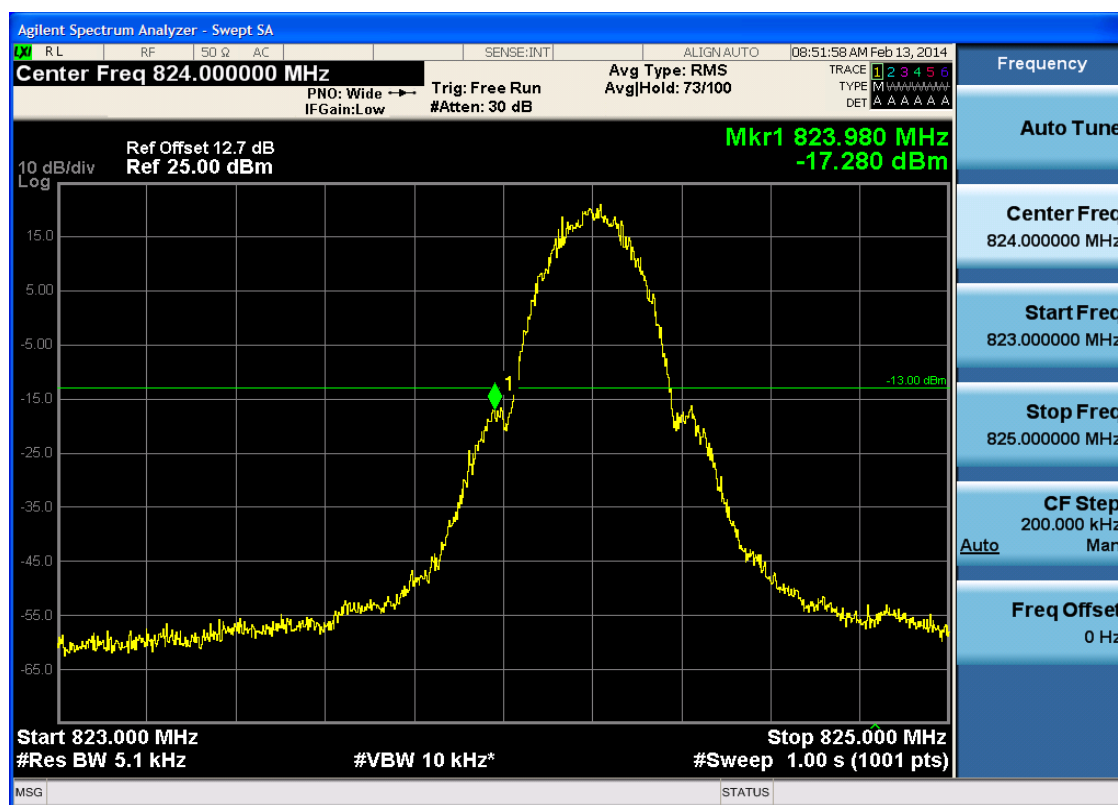
### Part I - Test Plots

#### 5.1 For GSM

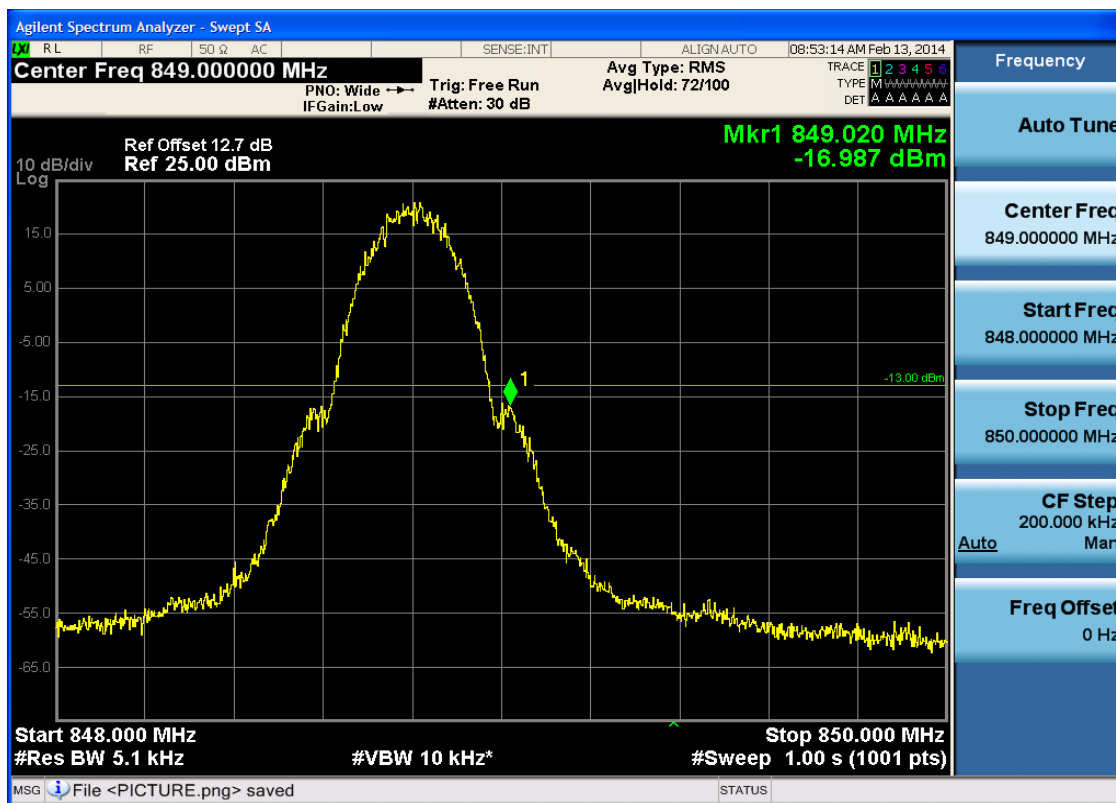
##### 5.1.1 Test Band = GSM850

##### 5.1.1.1 Test Mode = GSM/TM1

##### 5.1.1.1.1 Test Channel = LCH

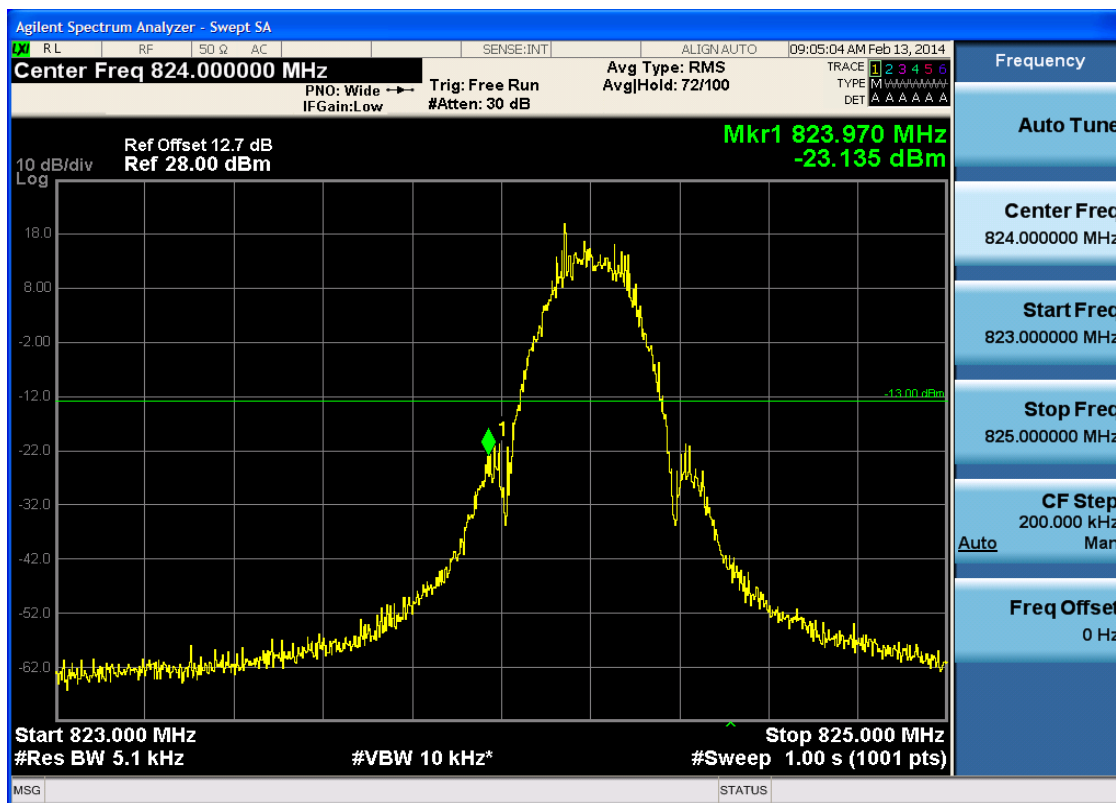


### 5.1.1.1.2 Test Channel = HCH

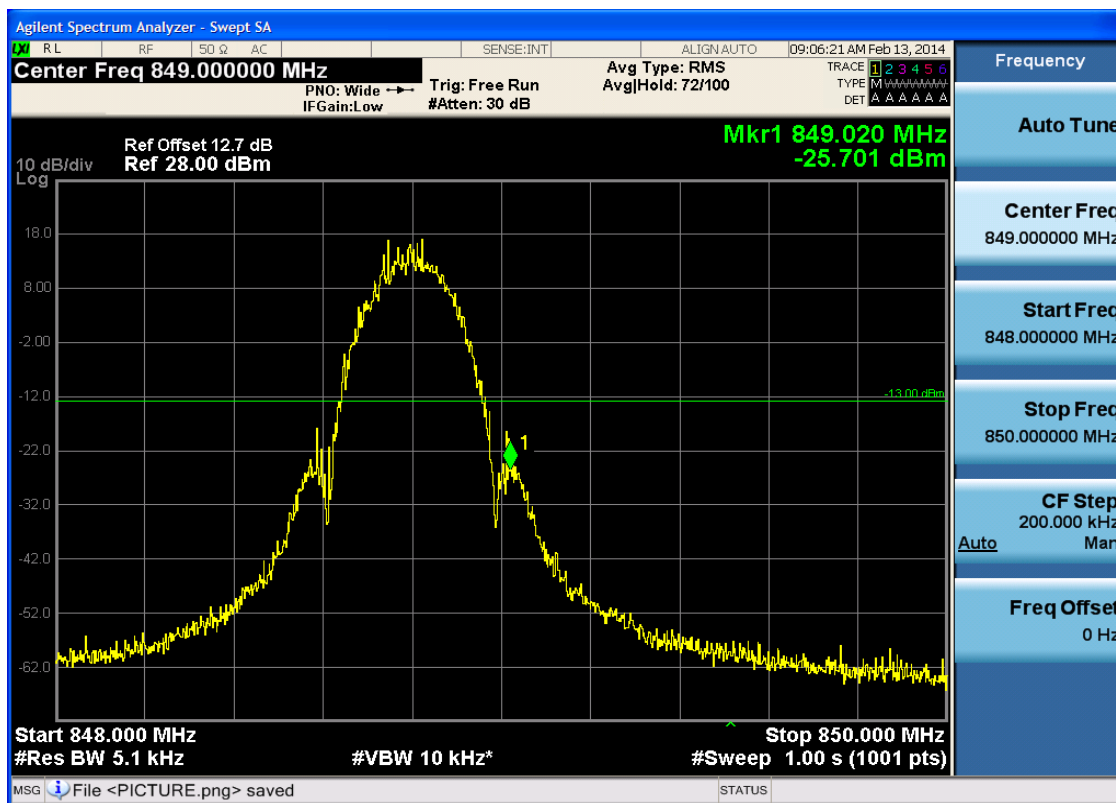


### 5.1.1.2 Test Mode = GSM/TM2

#### 5.1.1.2.1 Test Channel = LCH

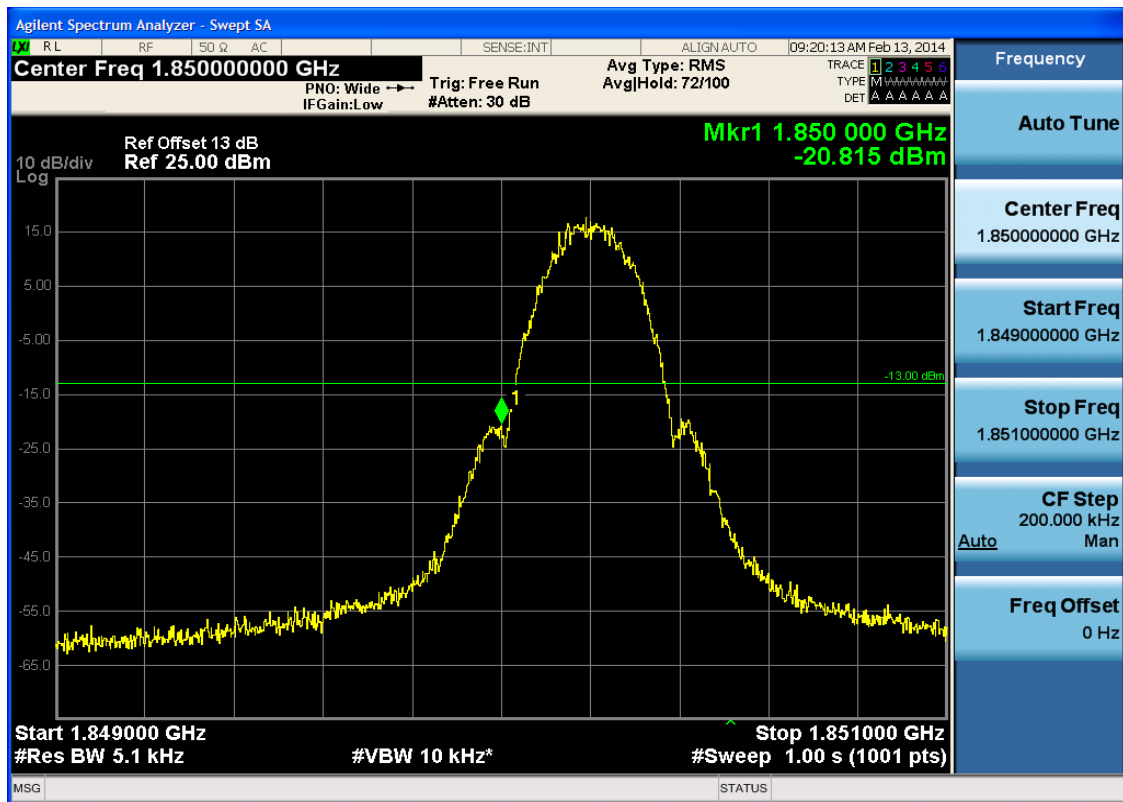


### 5.1.1.2.2 Test Channel = HCH

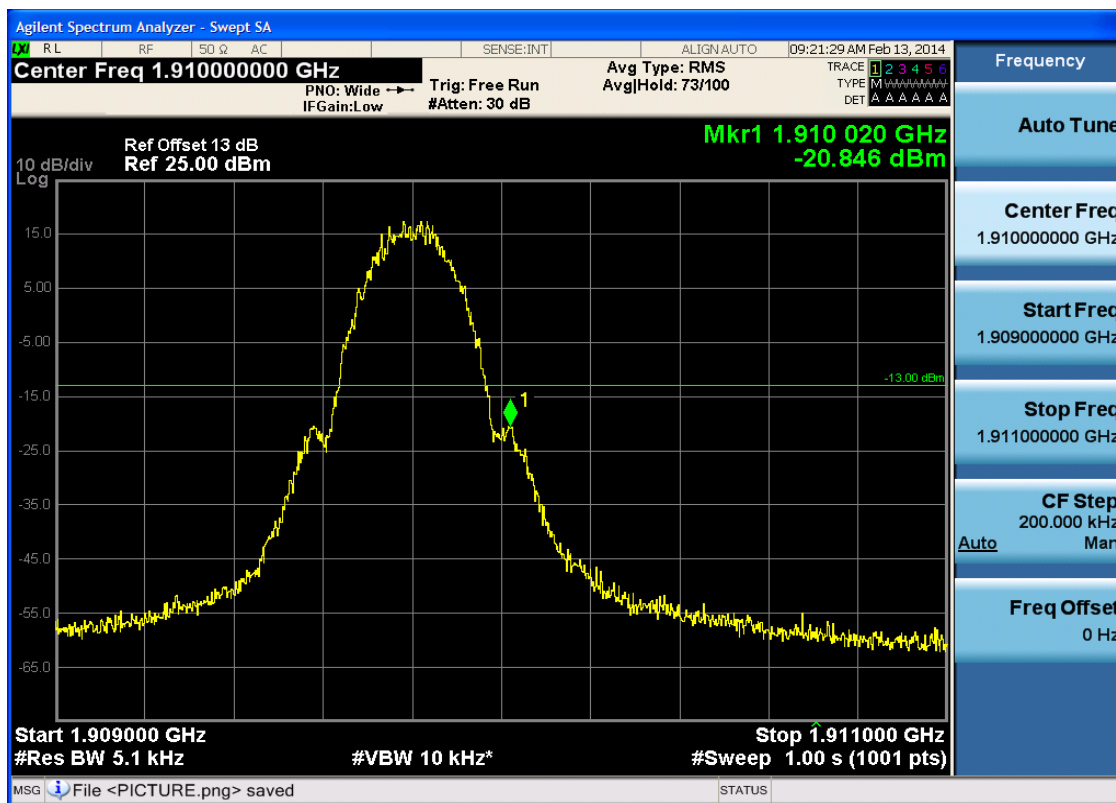




#### 5.1.2.1.1 Test Channel = LCH

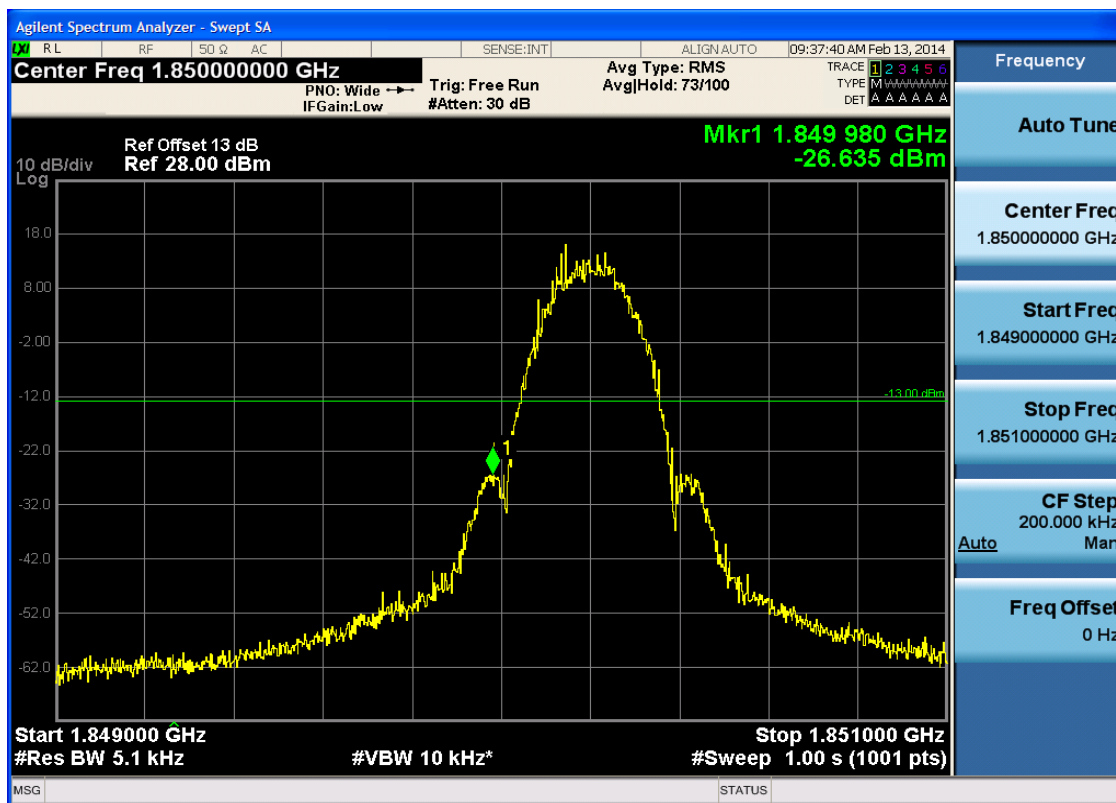


### 5.1.2.1.2 Test Channel = HCH

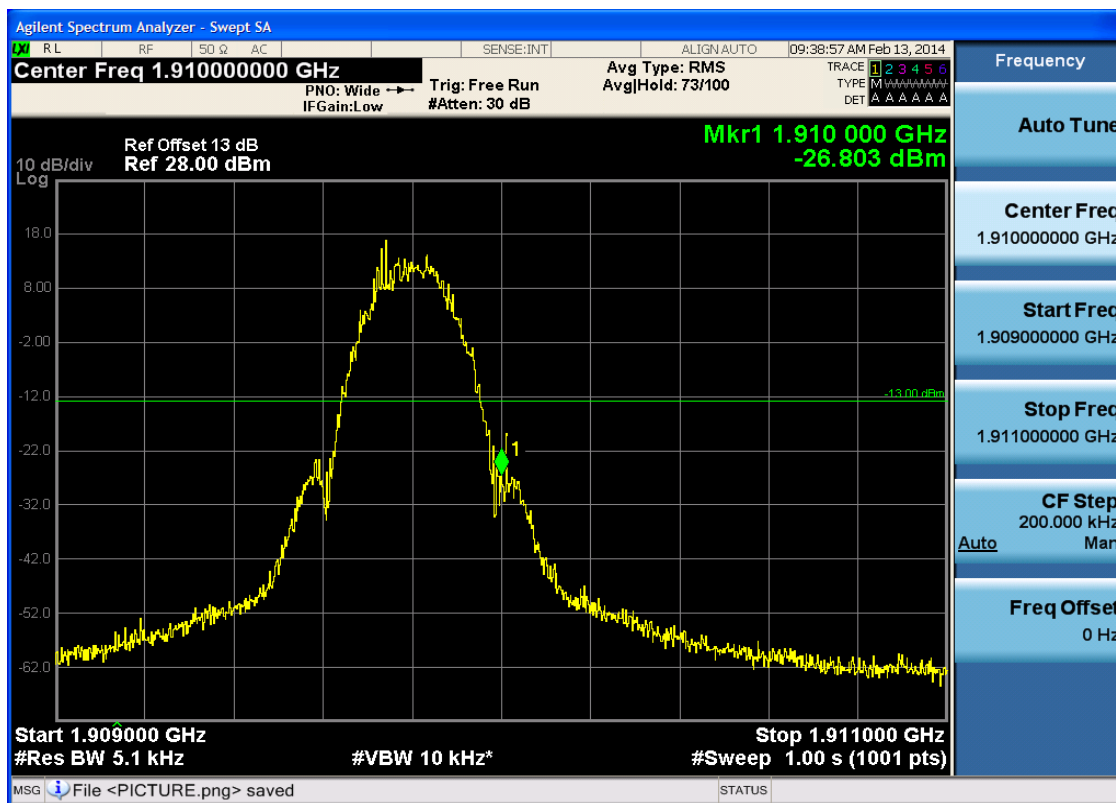


### 5.1.2.2 Test Mode = GSM/TM2

#### 5.1.2.2.1 Test Channel = LCH



### 5.1.2.2.2 Test Channel = HCH



## 6Appendix\_F: Spurious Emission at Antenna Terminal

NOTE: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of  $< RBW/2$  so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points =  $k * (Span / RBW)$ " with  $k$  between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

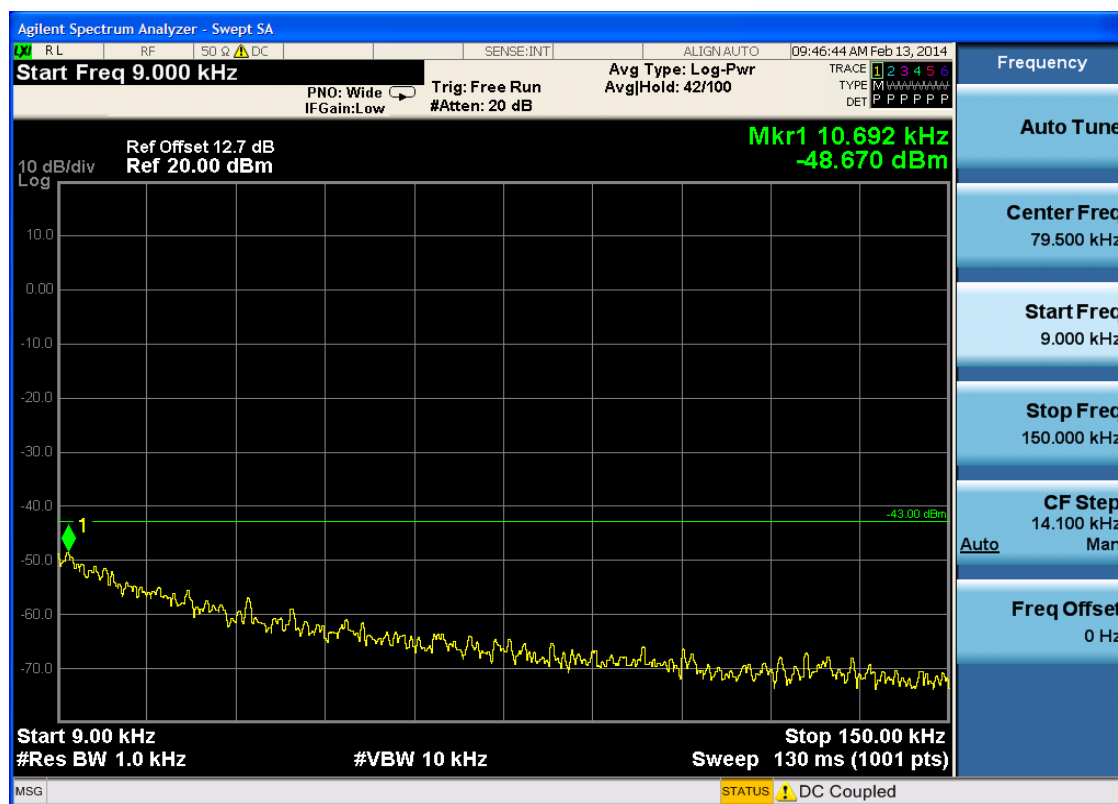
### Part I - Test Plots

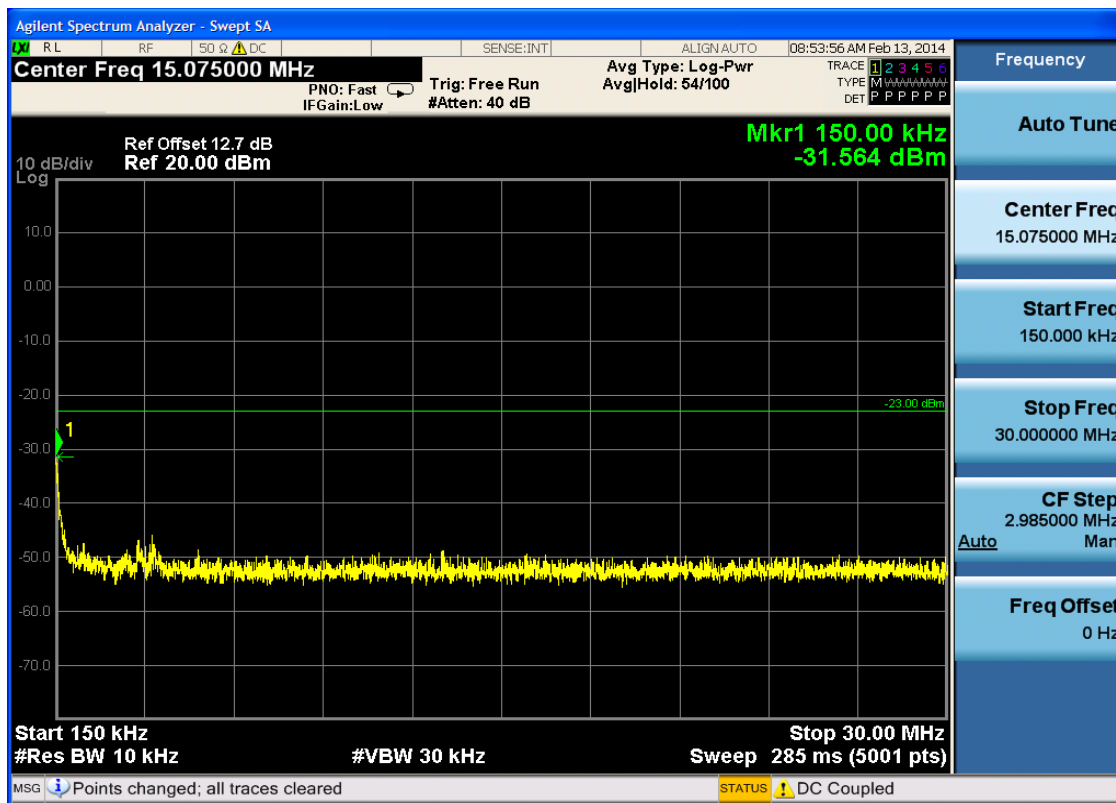
#### 6.1 For GSM

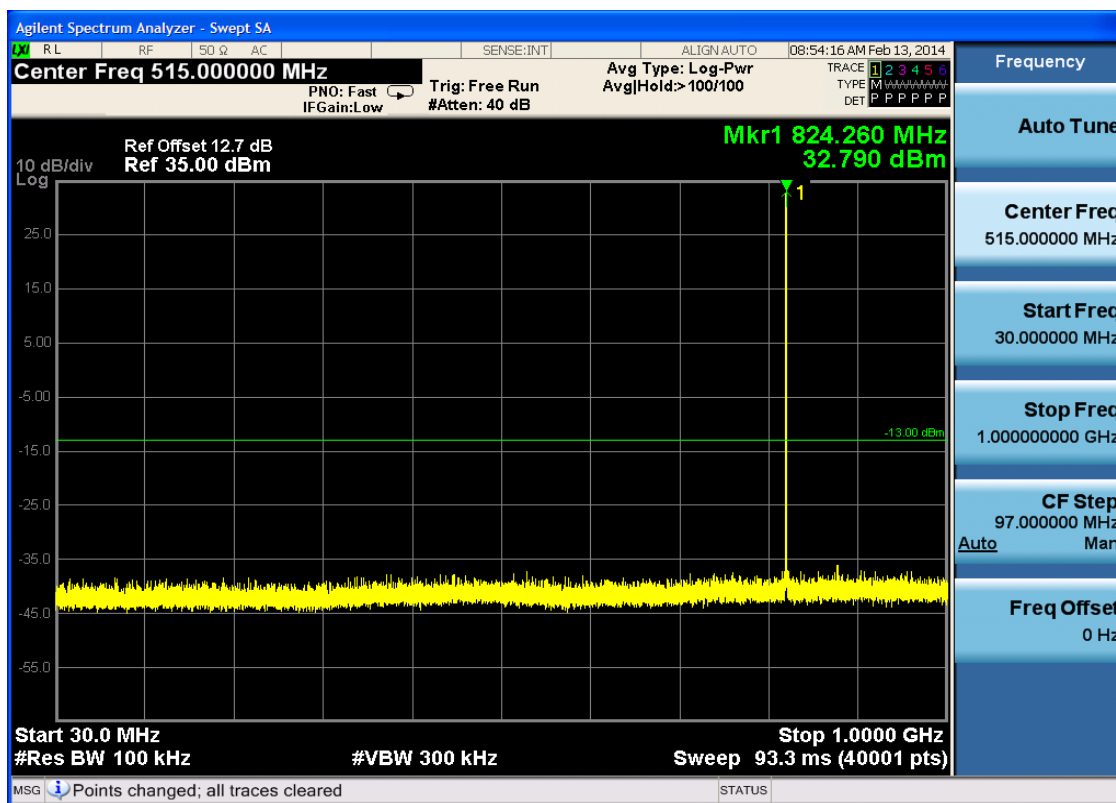
##### 6.1.1 Test Band = GSM850

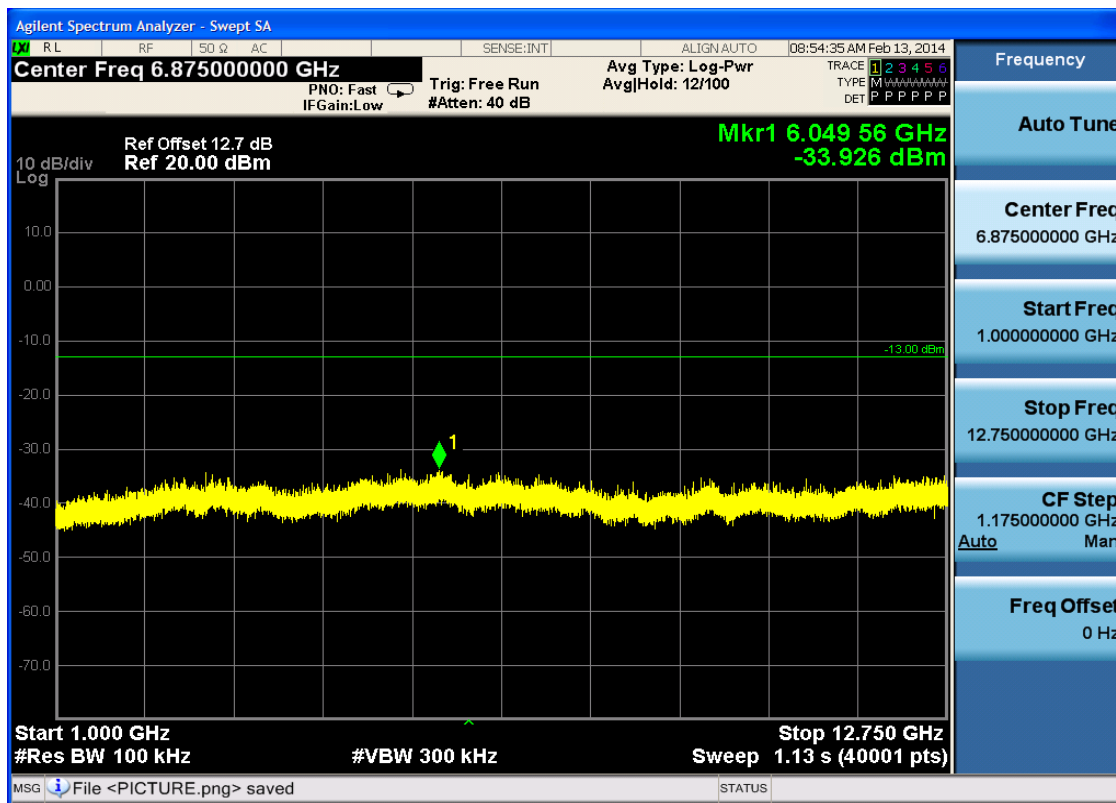
##### 6.1.1.1 Test Mode = GSM/TM1

##### 6.1.1.1.1 Test Channel = LCH

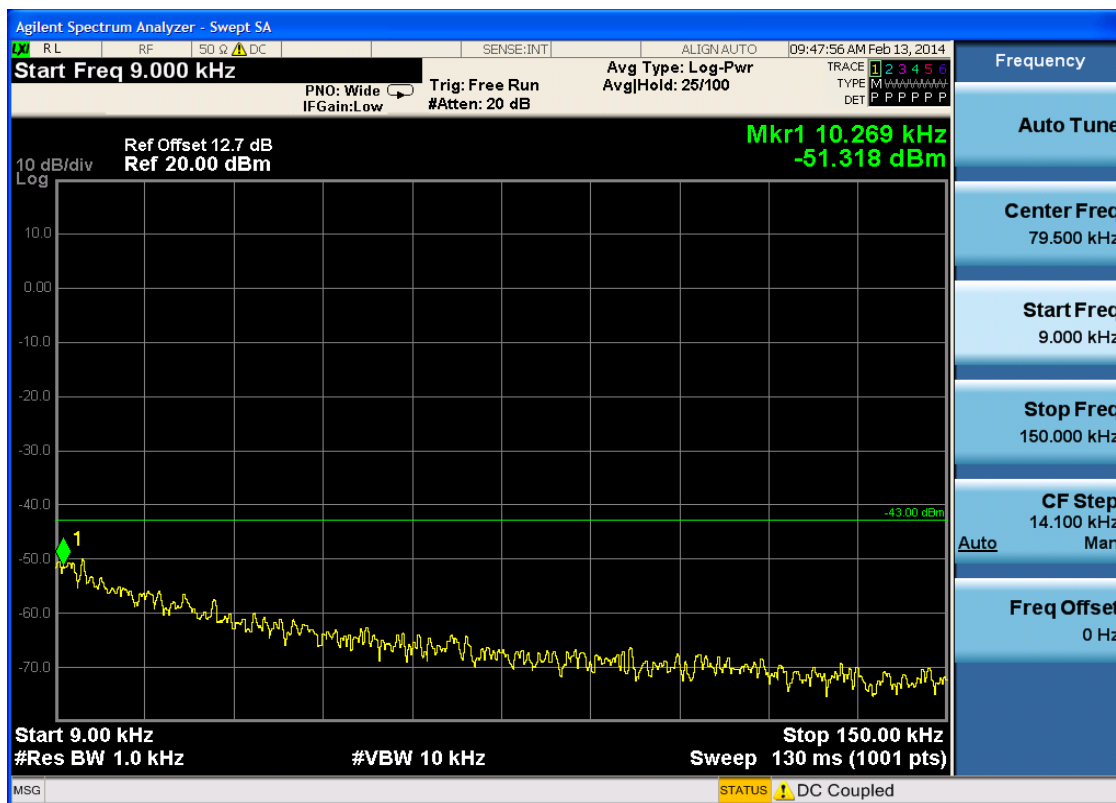


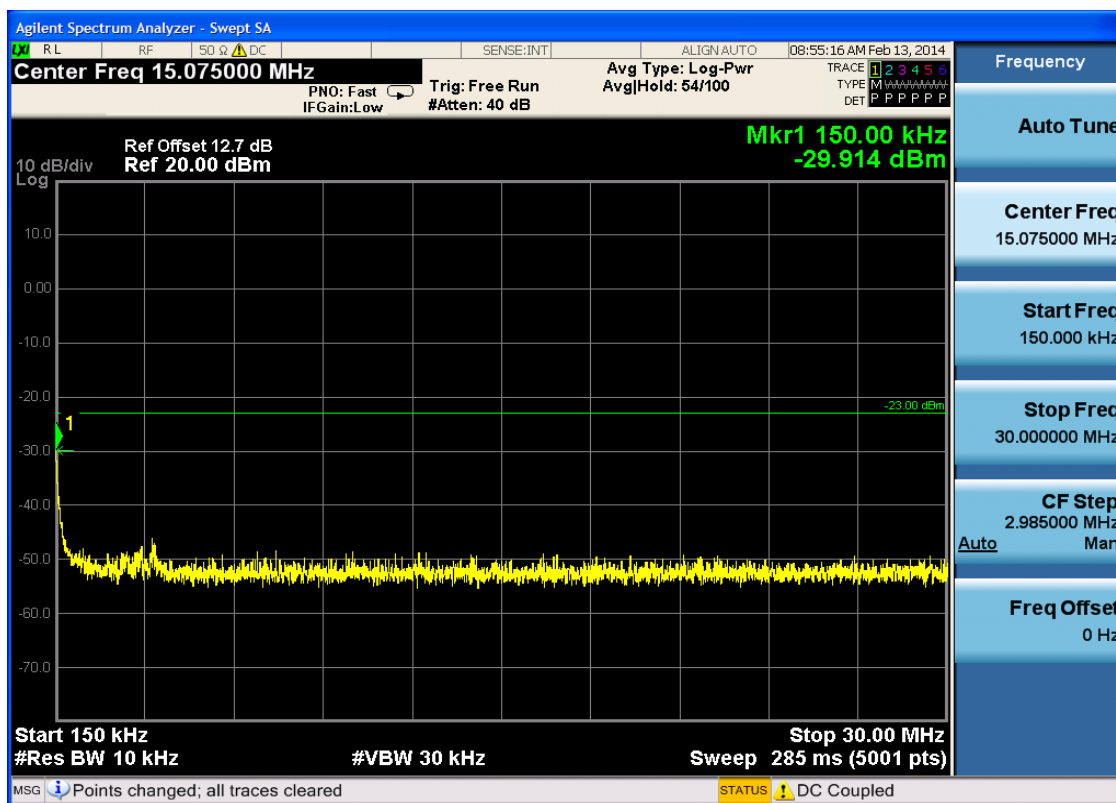


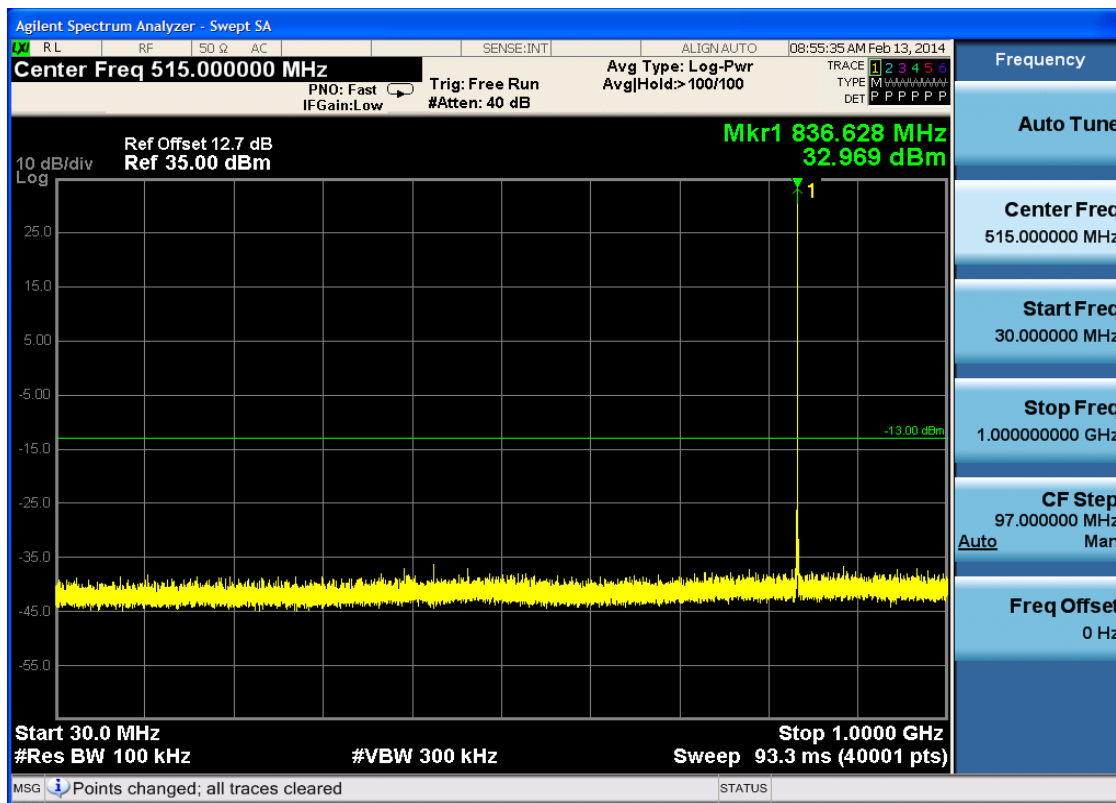


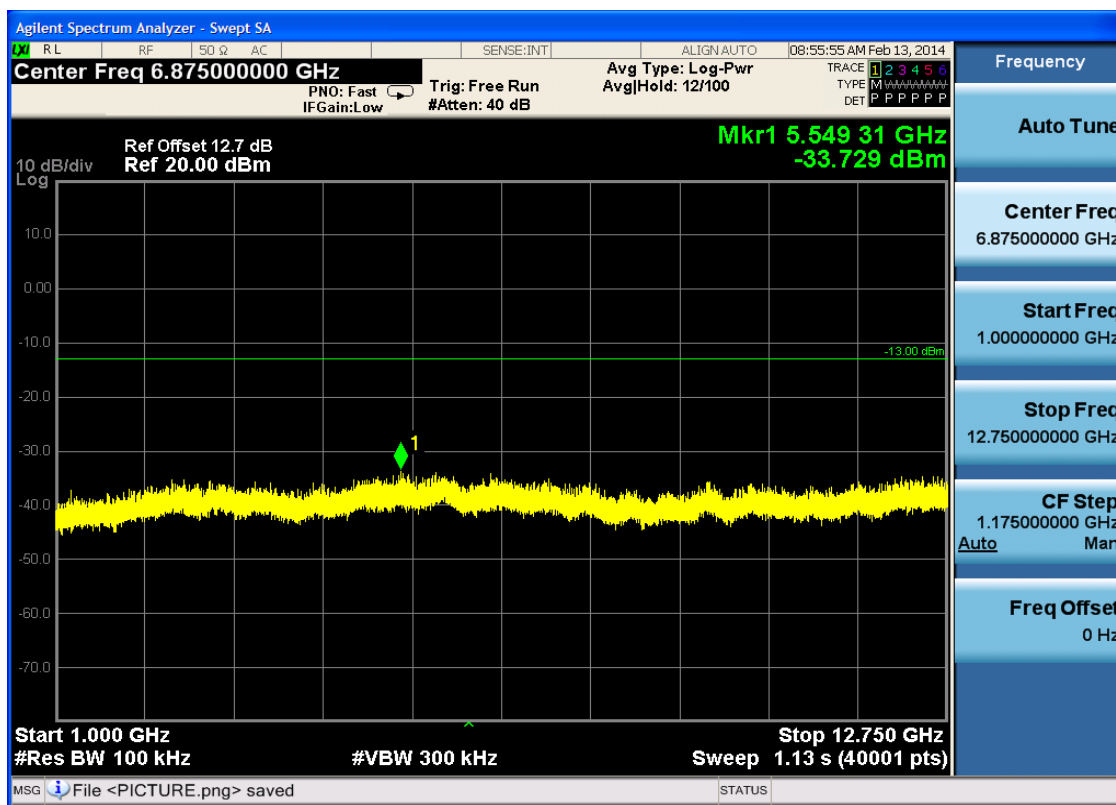


### 6.1.1.1.2 Test Channel = MCH



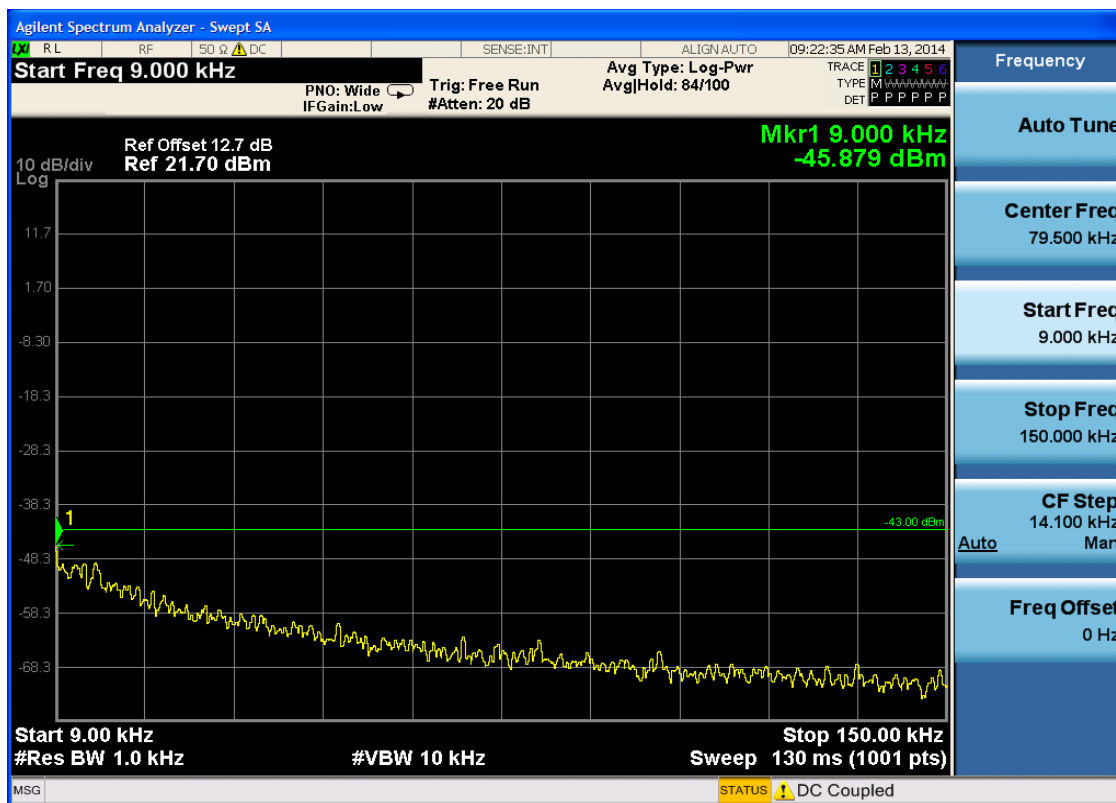


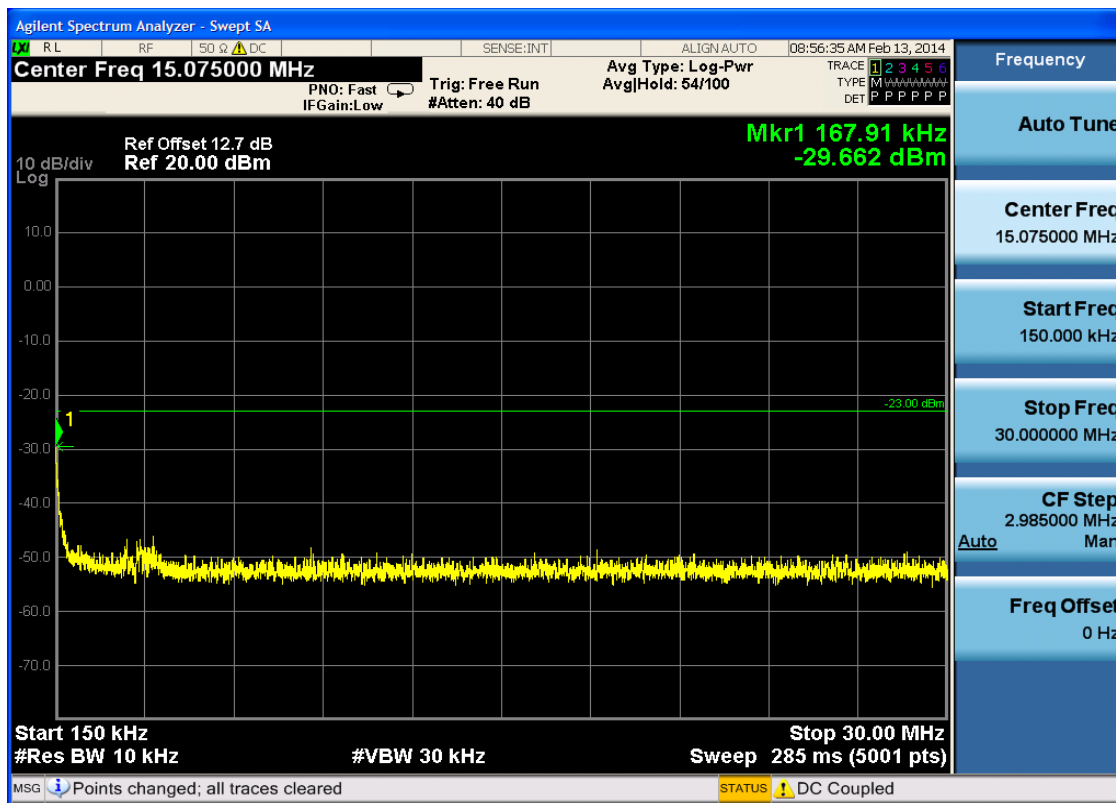


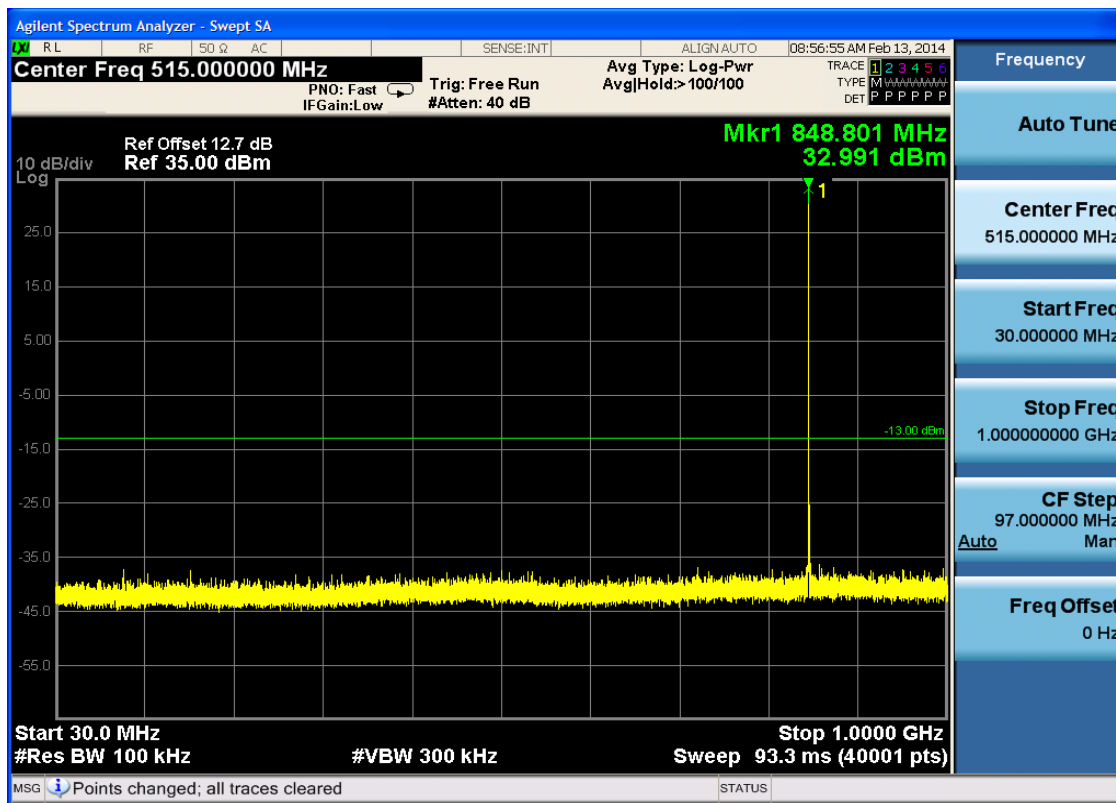


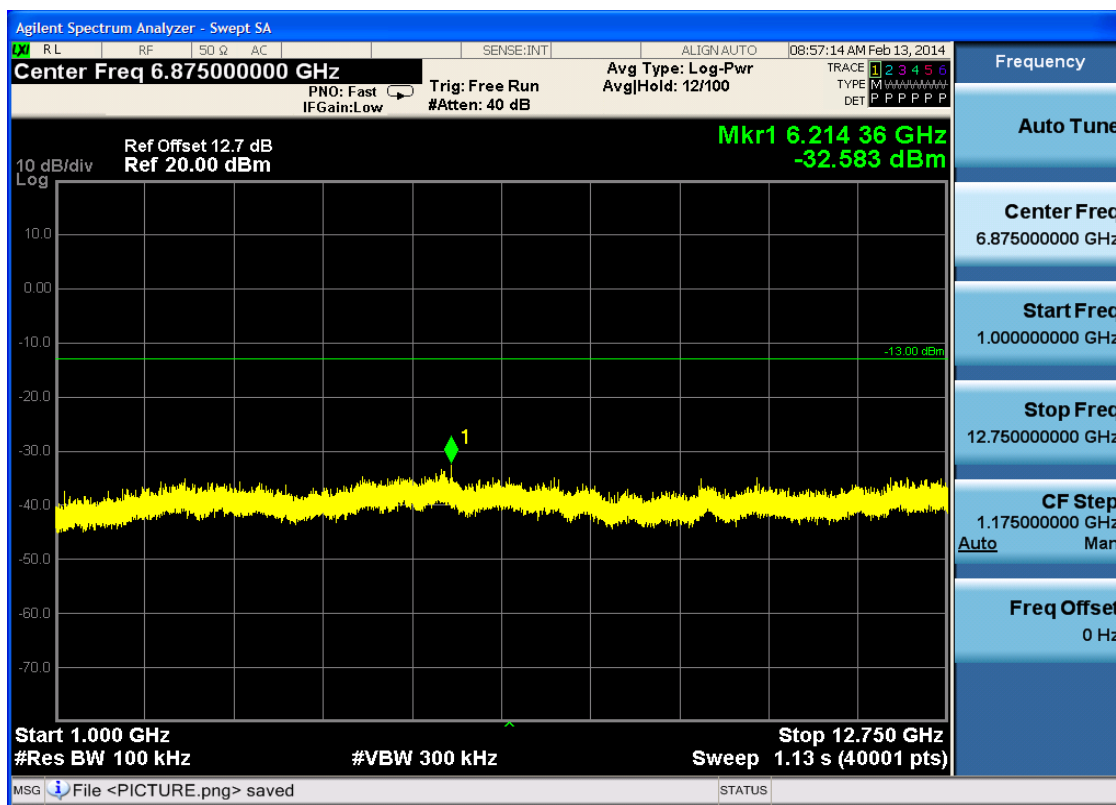


## 6.1.1.1.3 Test Channel = HCH



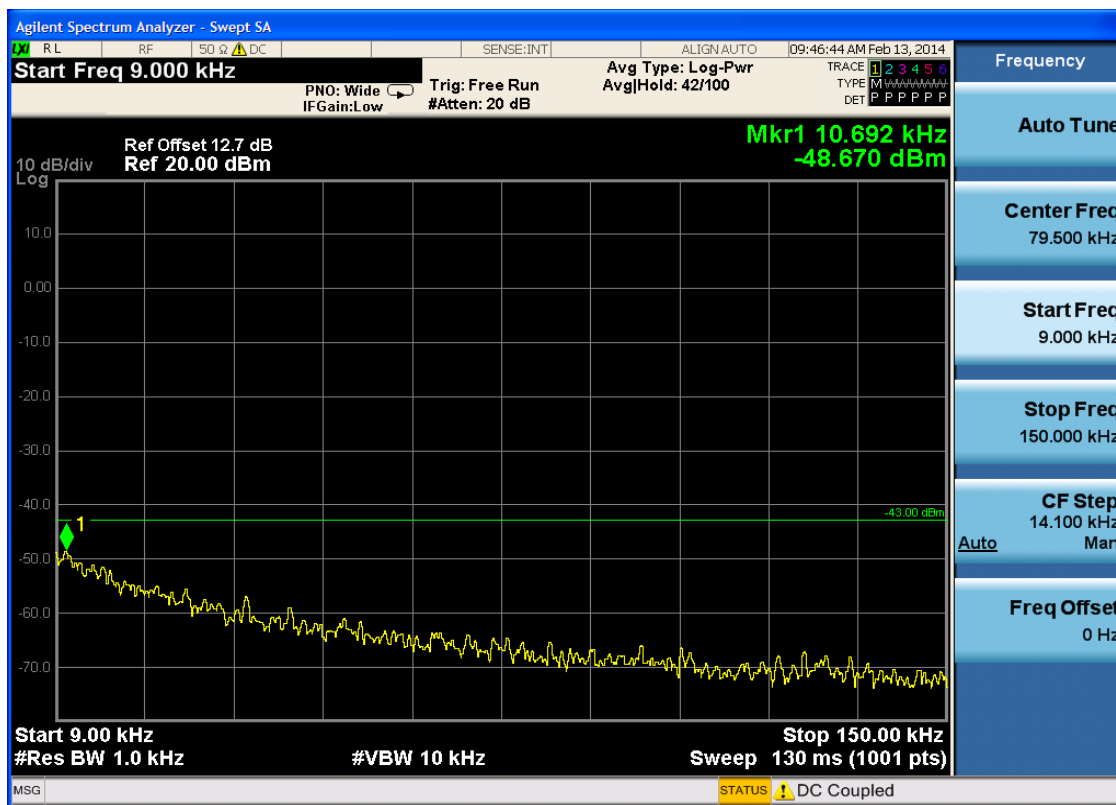


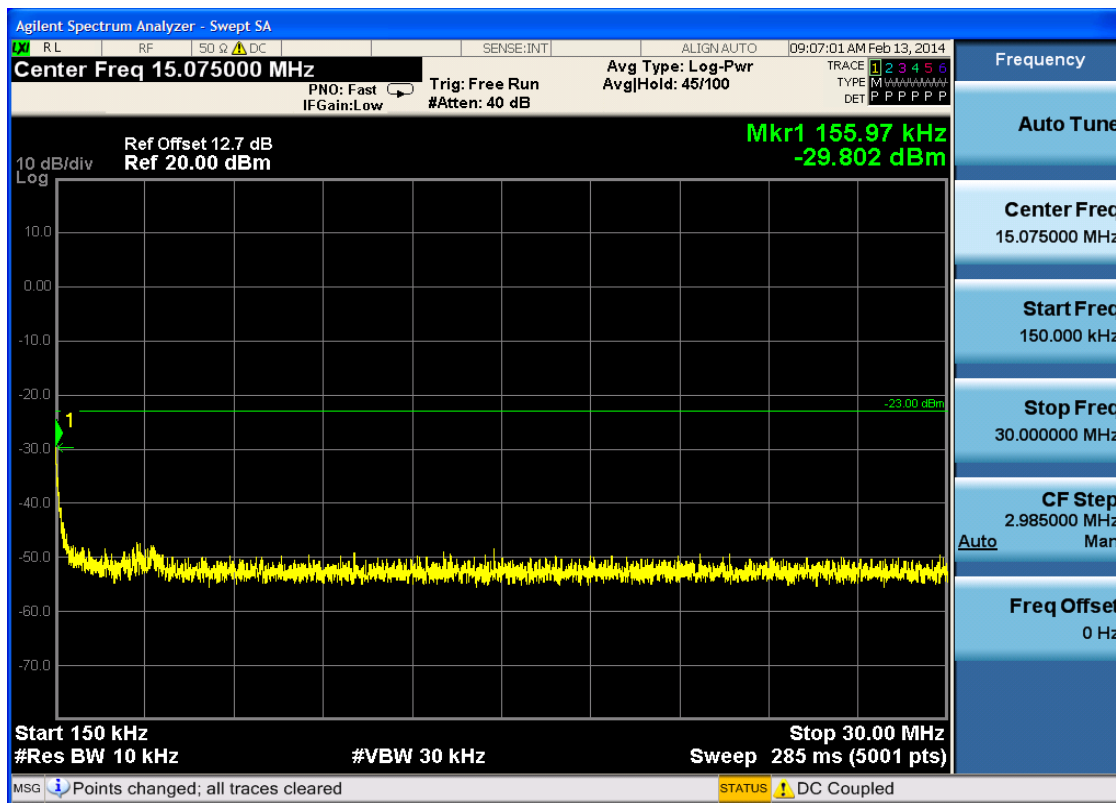


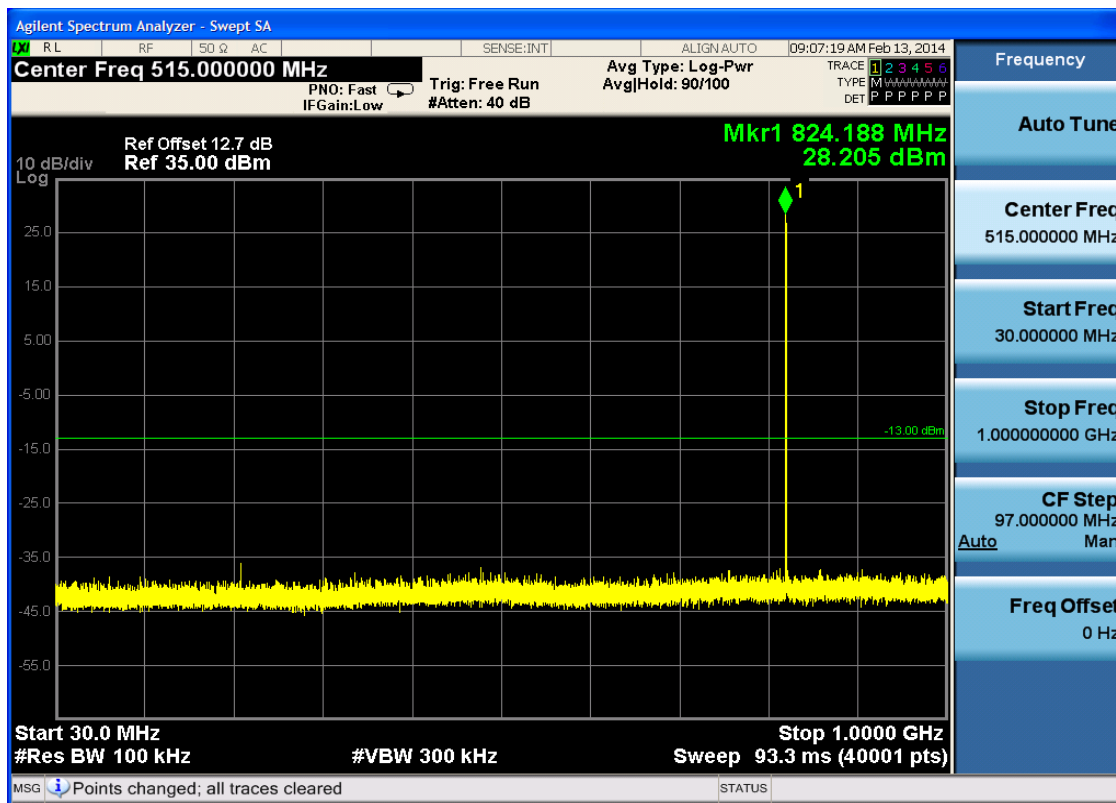


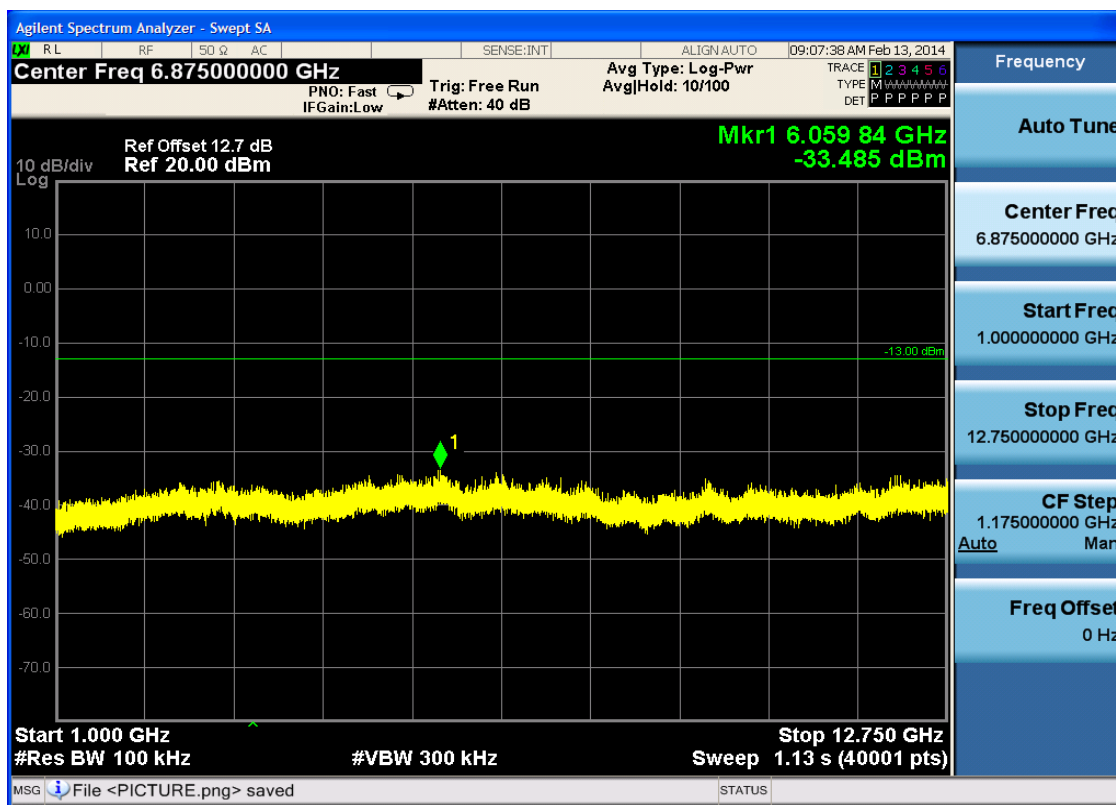
### 6.1.1.2 Test Mode = GSM/TM2

#### 6.1.1.2.1 Test Channel = LCH



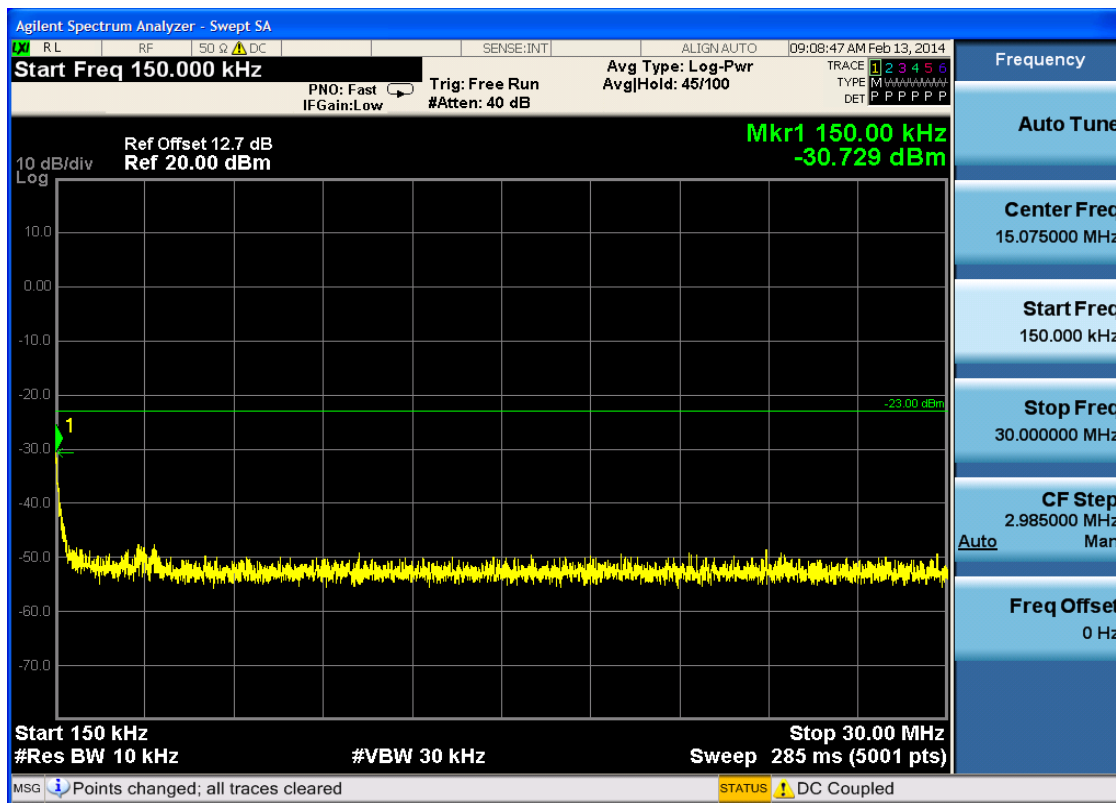


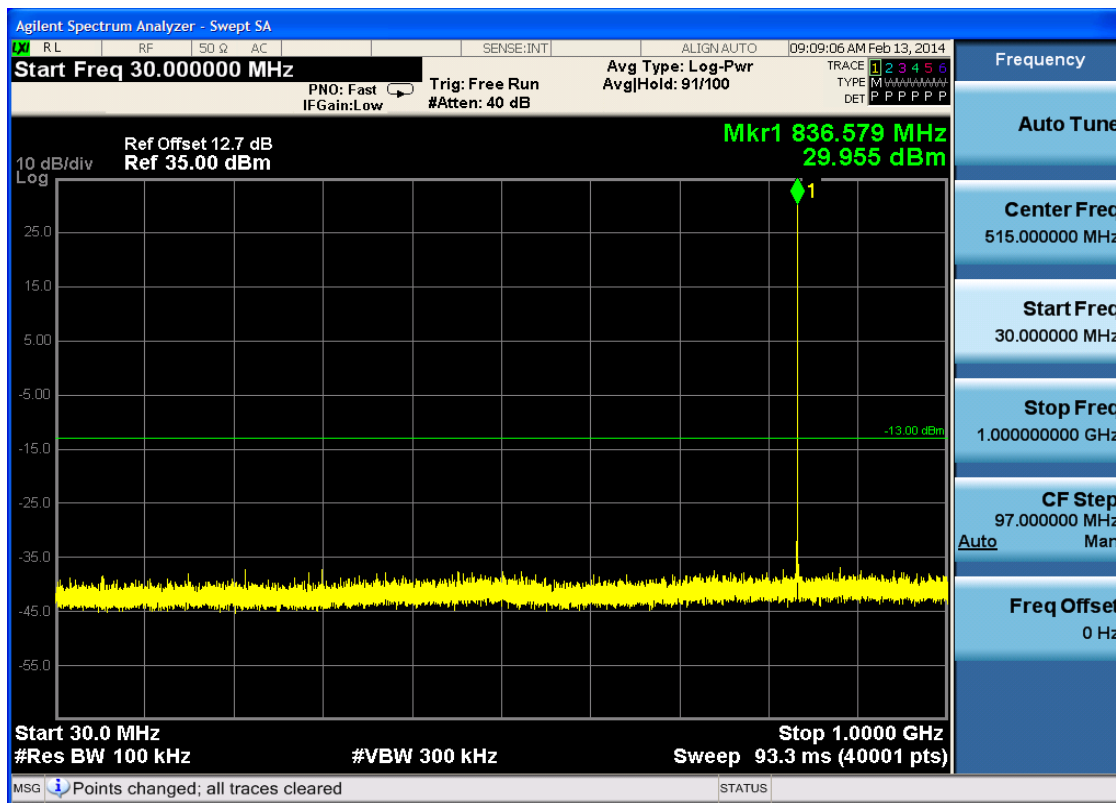


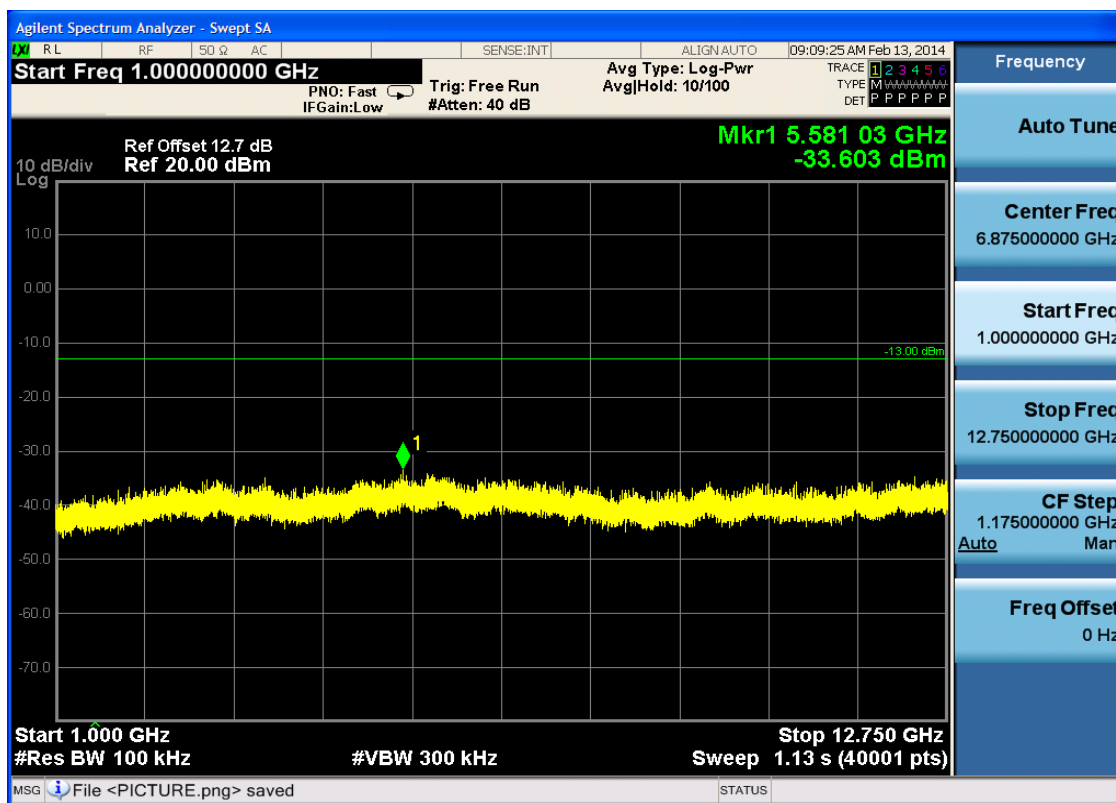


### 6.1.1.2.2 Test Channel = MCH











Agilent Spectrum Analyzer - Swept SA

R/L RF 50 Ω DC SENSE:INT ALIGN:AUTO 09:10:31 AM Feb 13, 2014

**Reference Level 10.00 dBm**

PNO: Wide Trig: Free Run Avg Type: Log-Pwr  
IFGain:Low #Atten: 30 dB AvglHold>100/100

TRACE 1 2 3 4 5 6  
TYPE M HHHHHHHH  
DET P P P P P P

Ref Offset 12.7 dB  
Ref 10.00 dBm

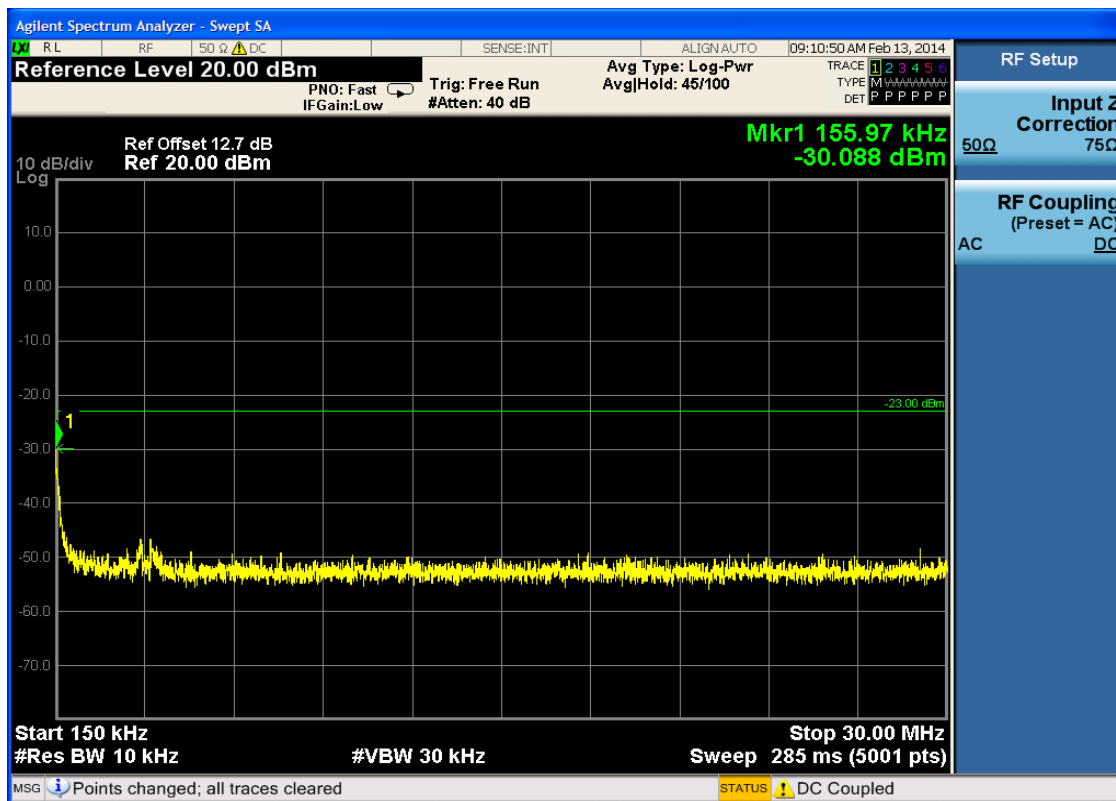
Mkr1 10.128 kHz  
-36.970 dBm

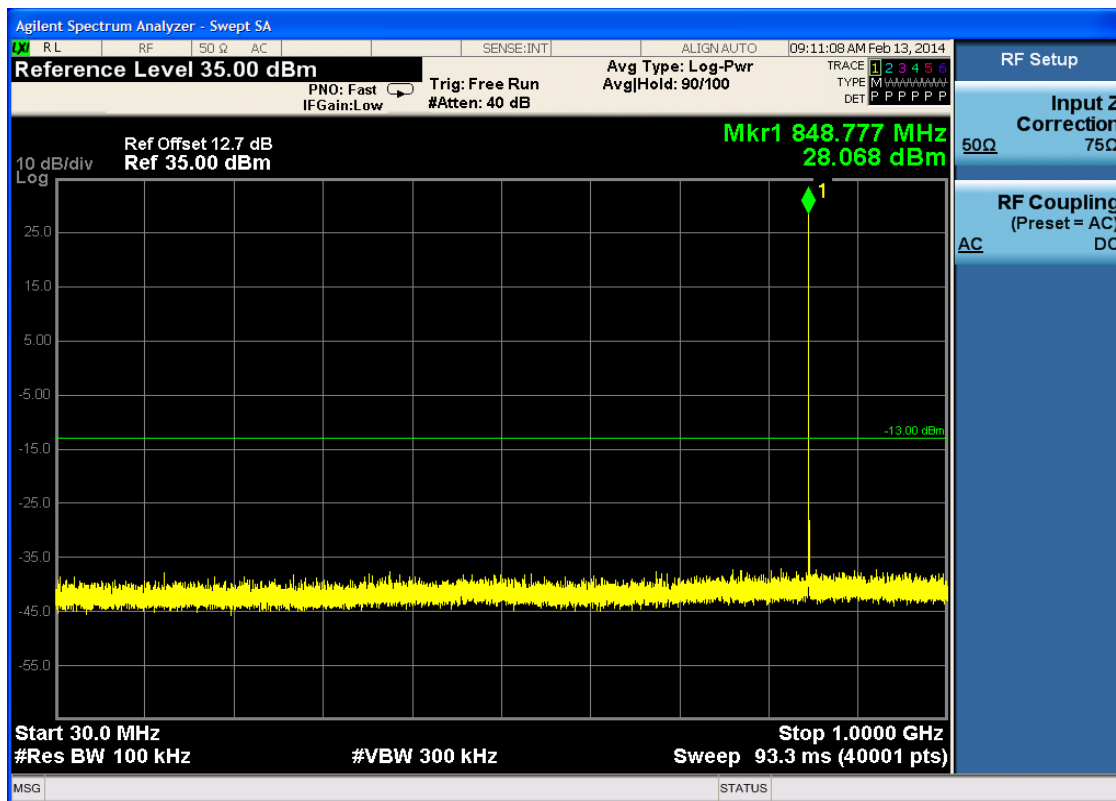
10 dB/div  
Log

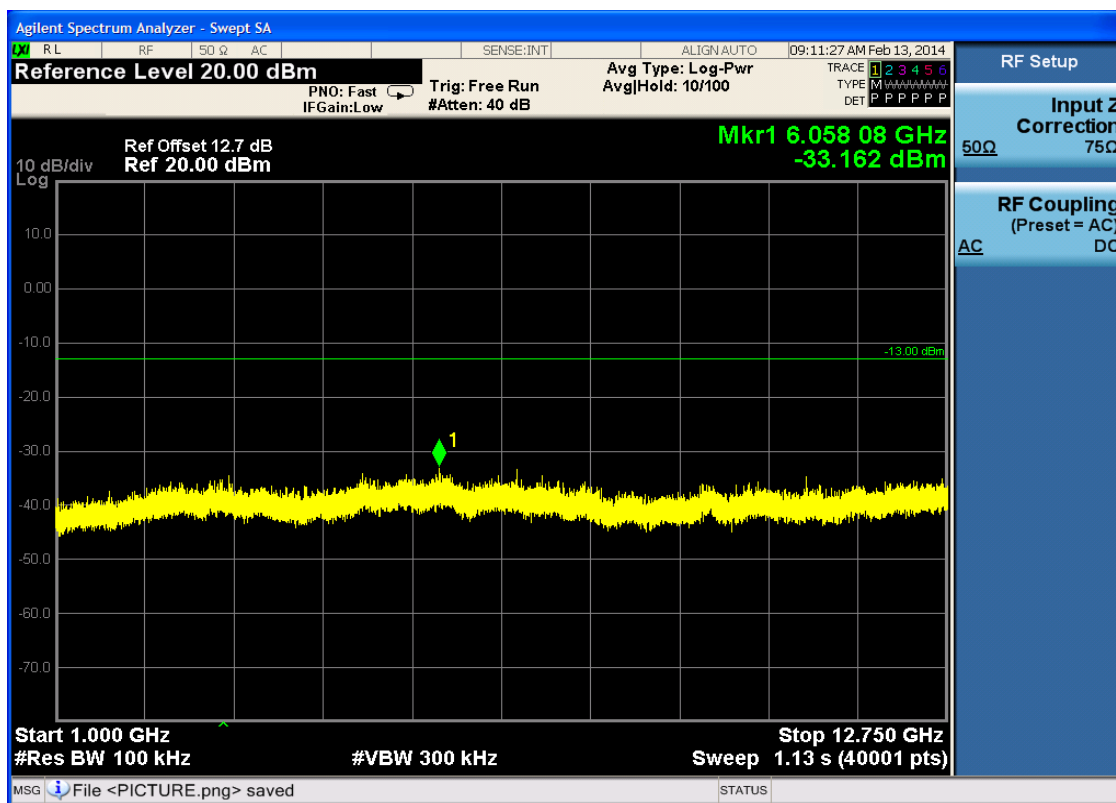
Start 9.00 kHz Stop 150.00 kHz  
#Res BW 1.0 kHz #VBW 10 kHz Sweep 130 ms (1001 pts)

MSG STATUS DC Coupled

RF Setup  
Input 2 Correction 75Ω  
RF Coupling (Preset = AC) DC



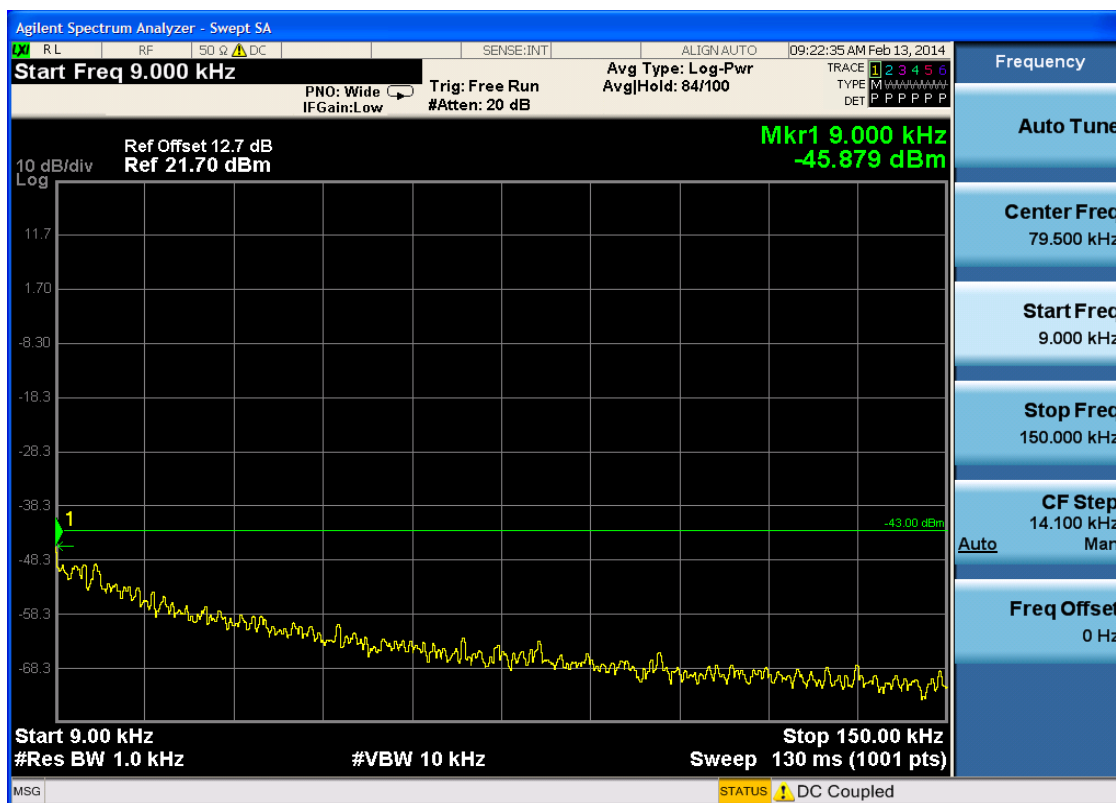


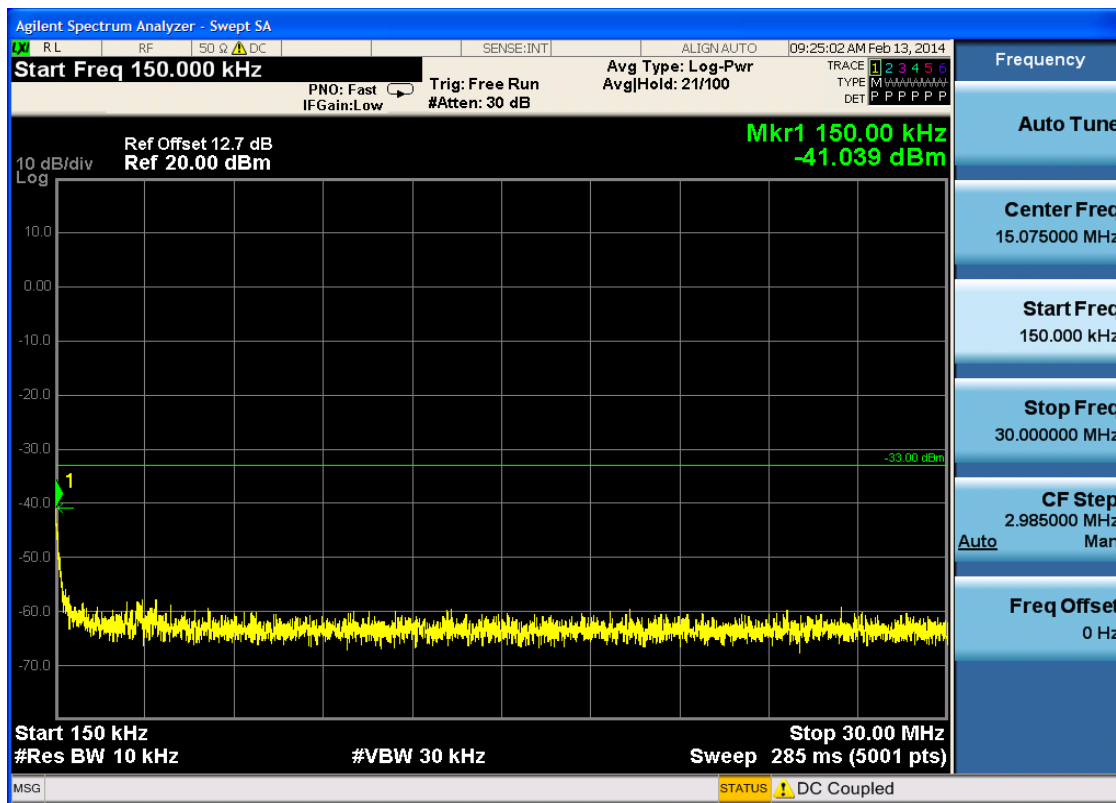


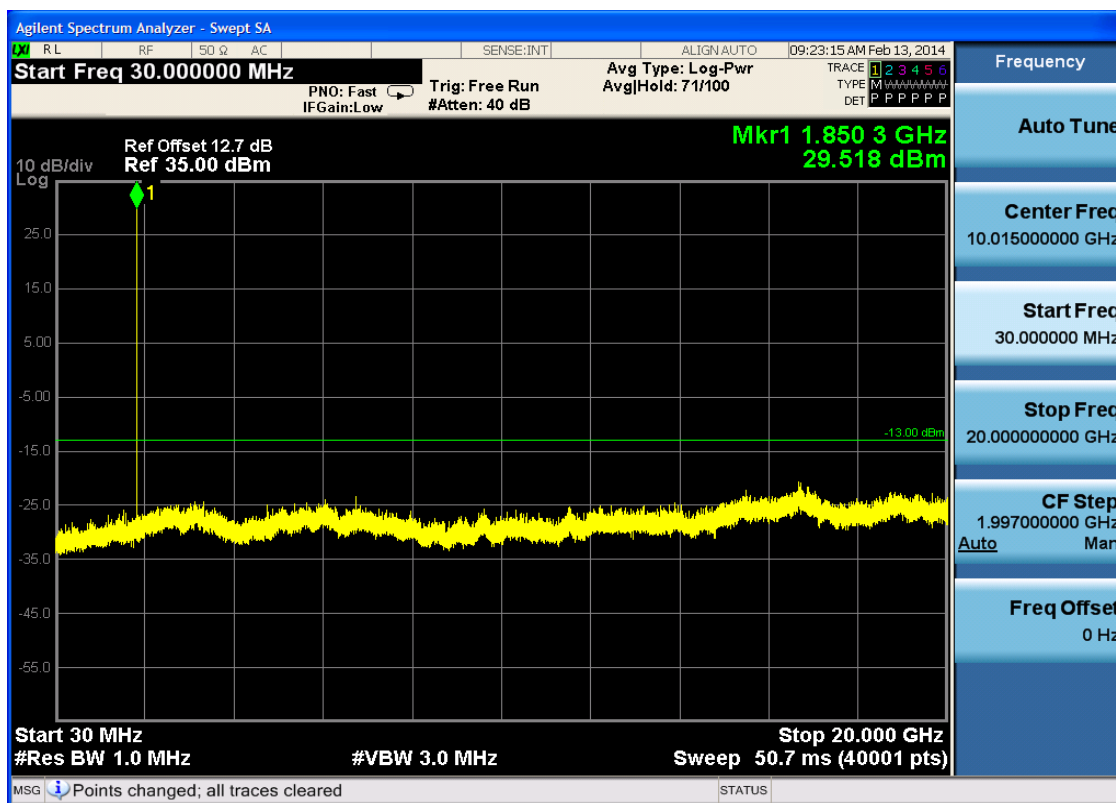
## 6.1.2 Test Band = GSM1900

### 6.1.2.1 Test Mode = GSM/TM1

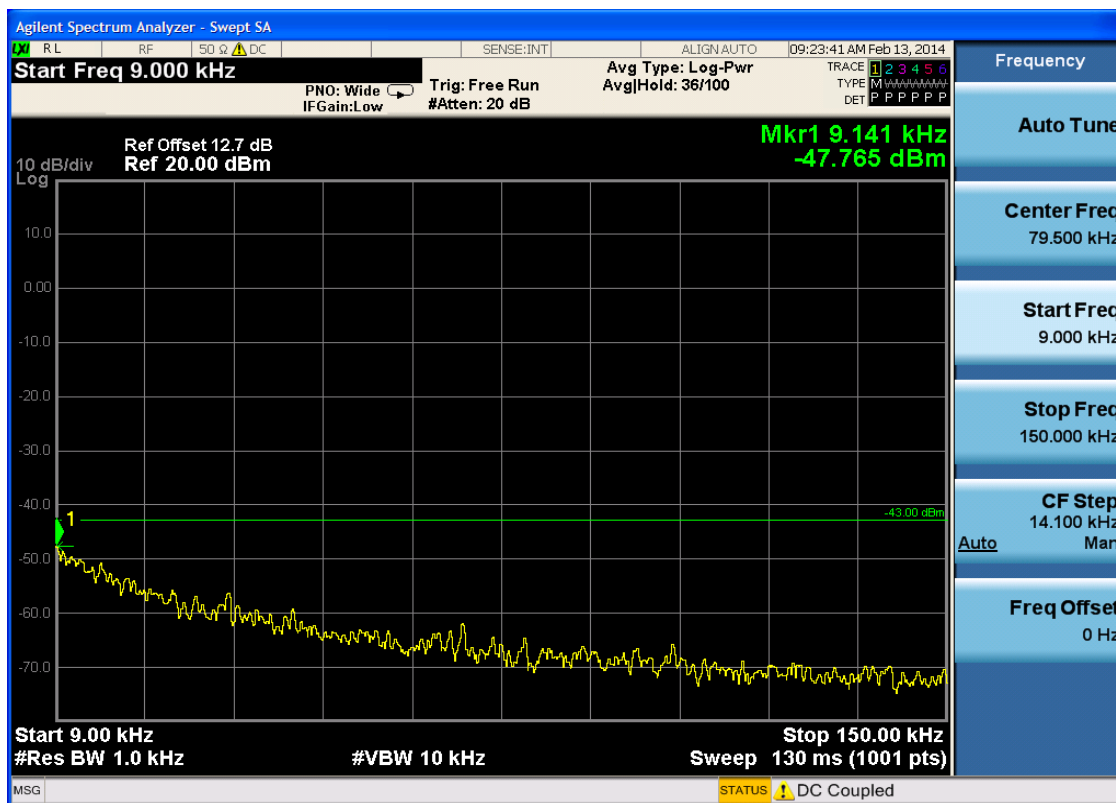
#### 6.1.2.1.1 Test Channel = LCH

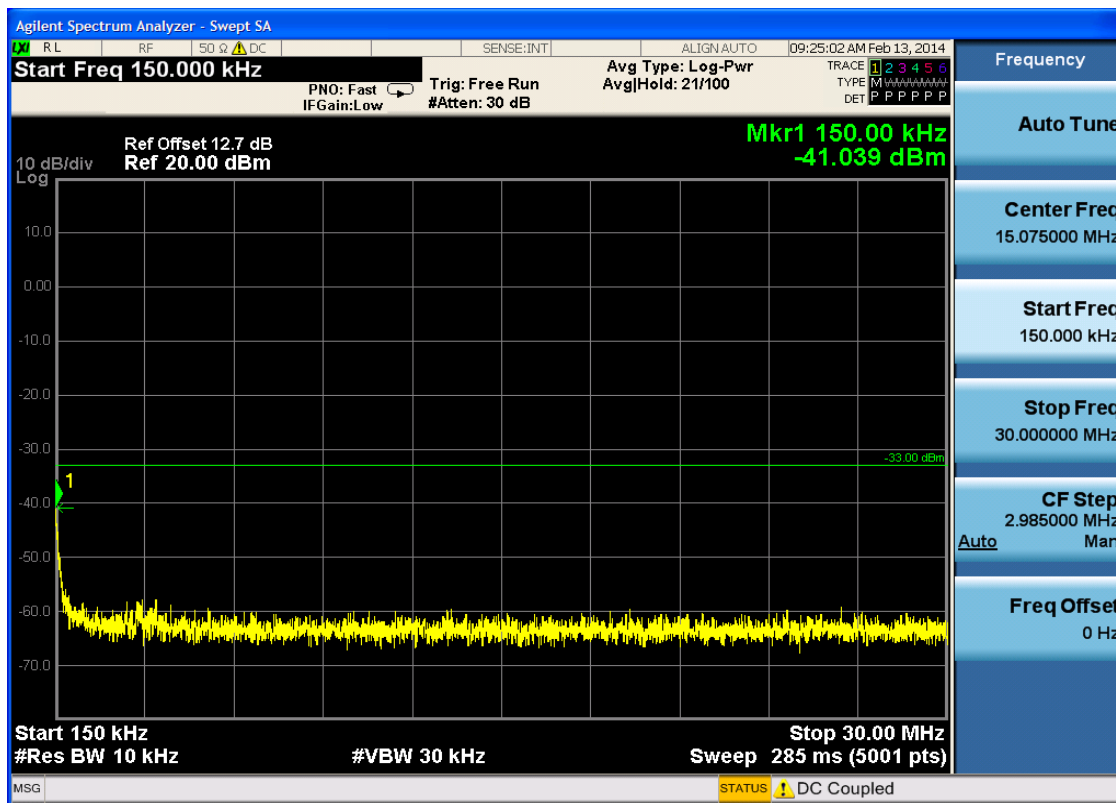


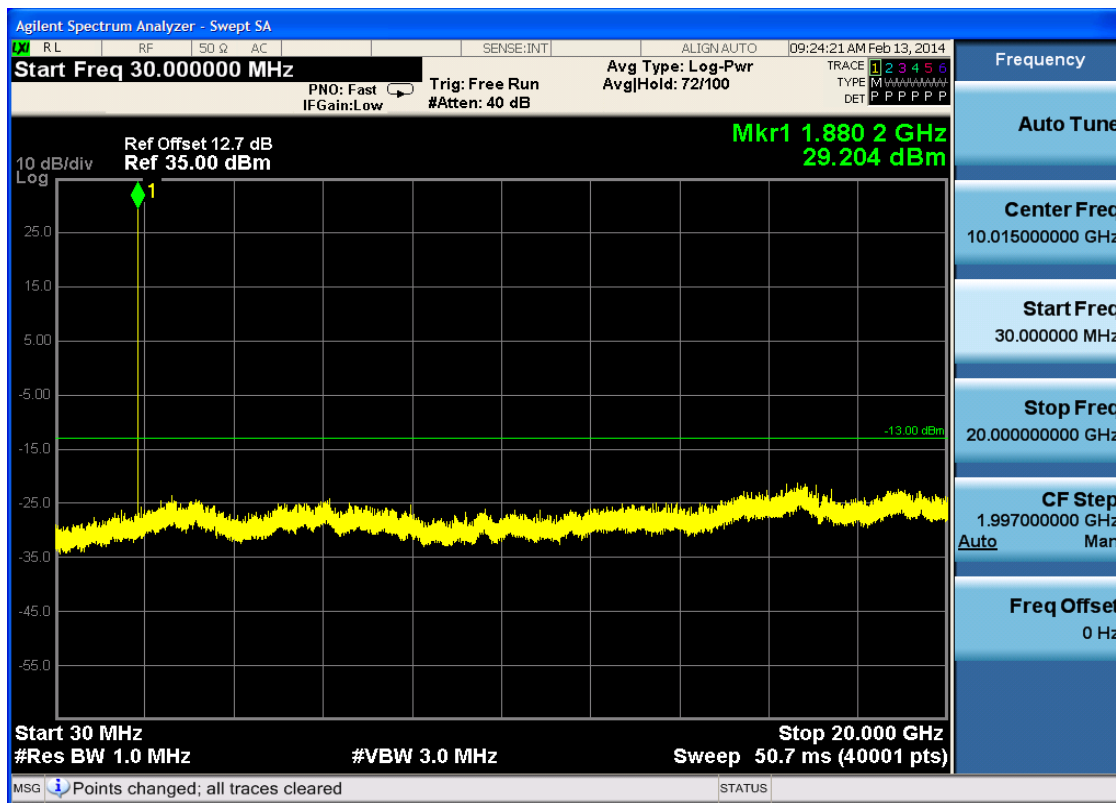




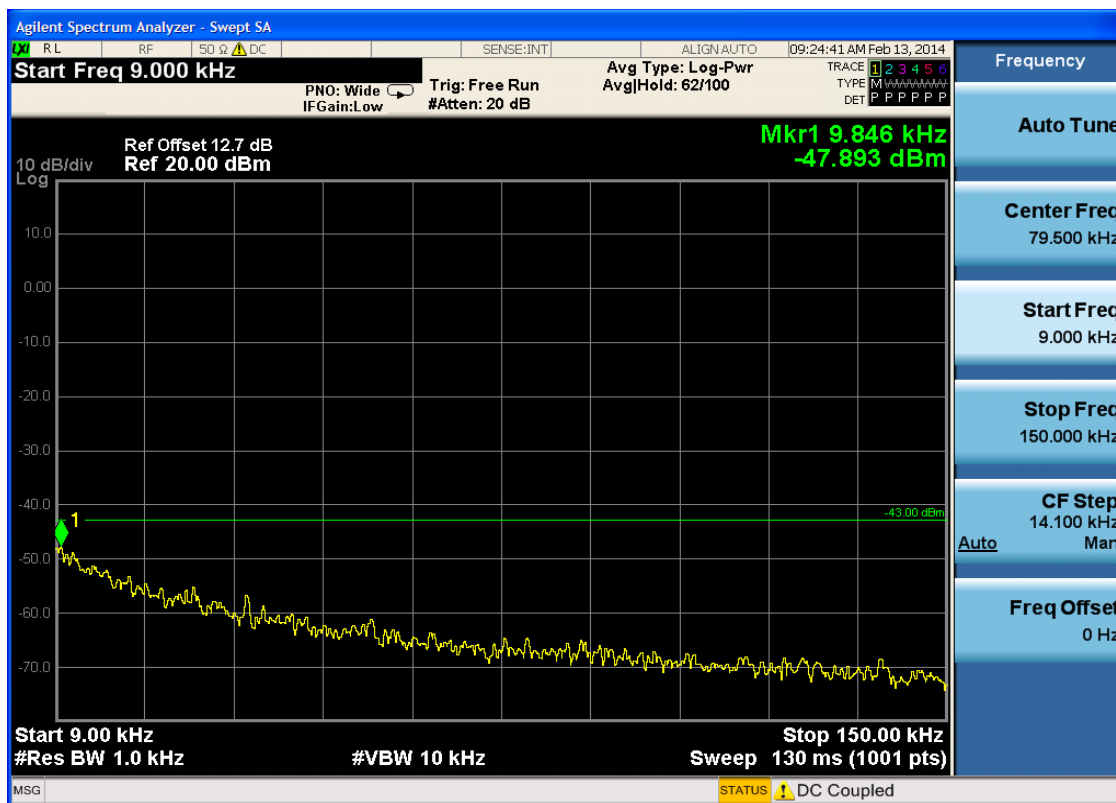
### 6.1.2.1.2 Test Channel = MCH

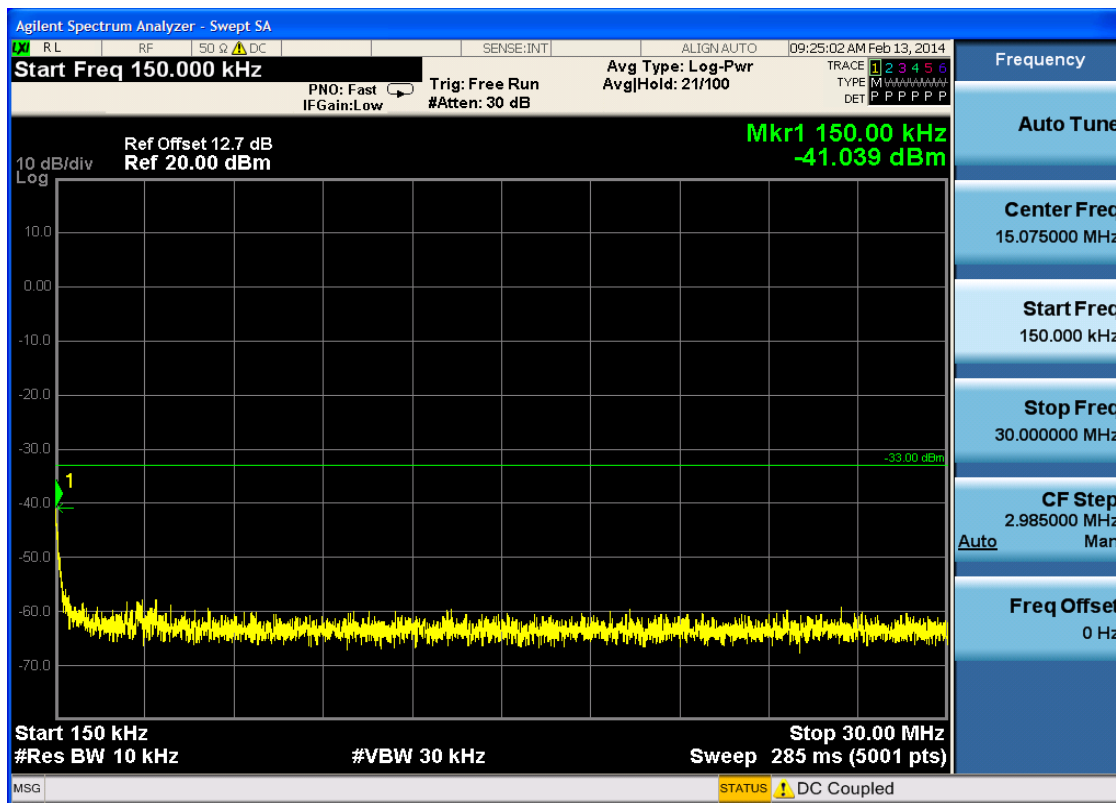


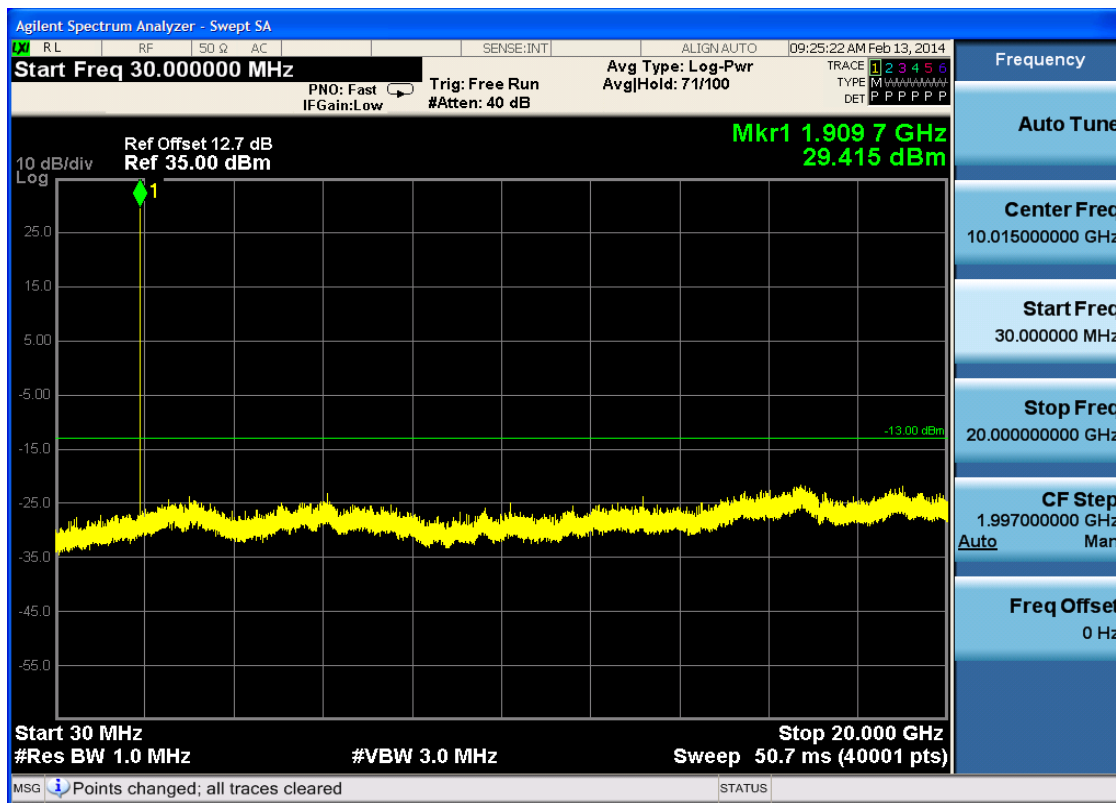




### 6.1.2.1.3 Test Channel = HCH

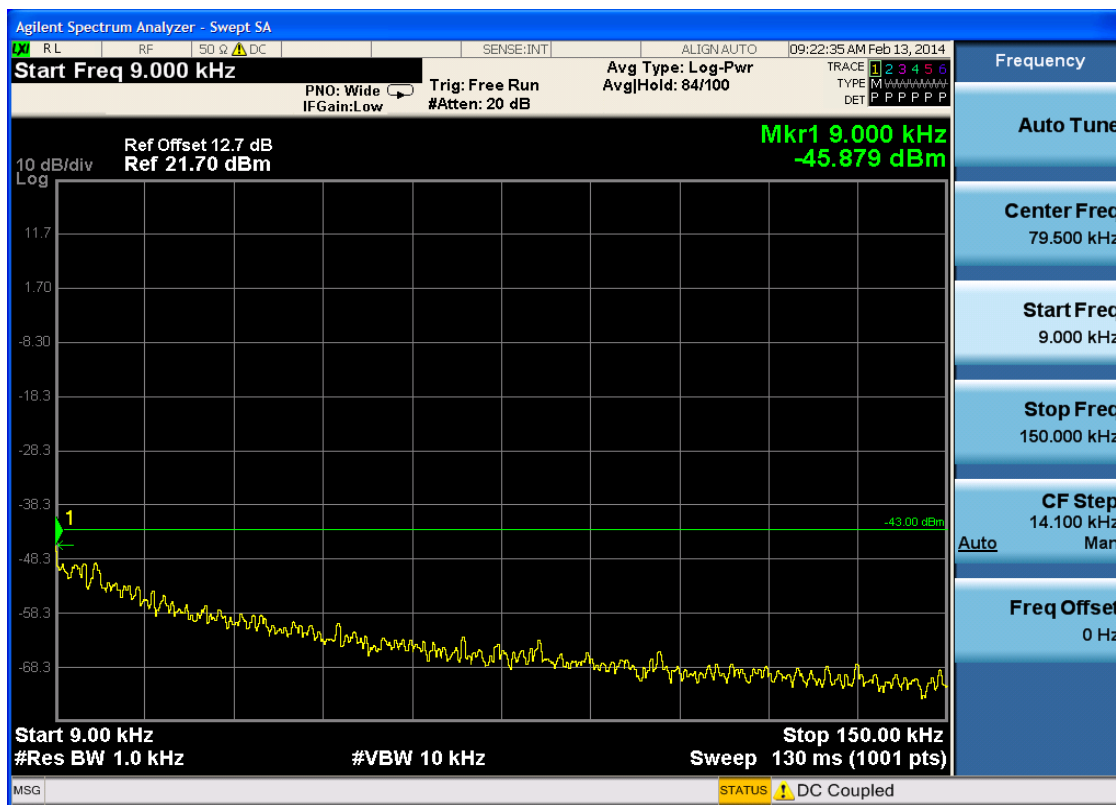


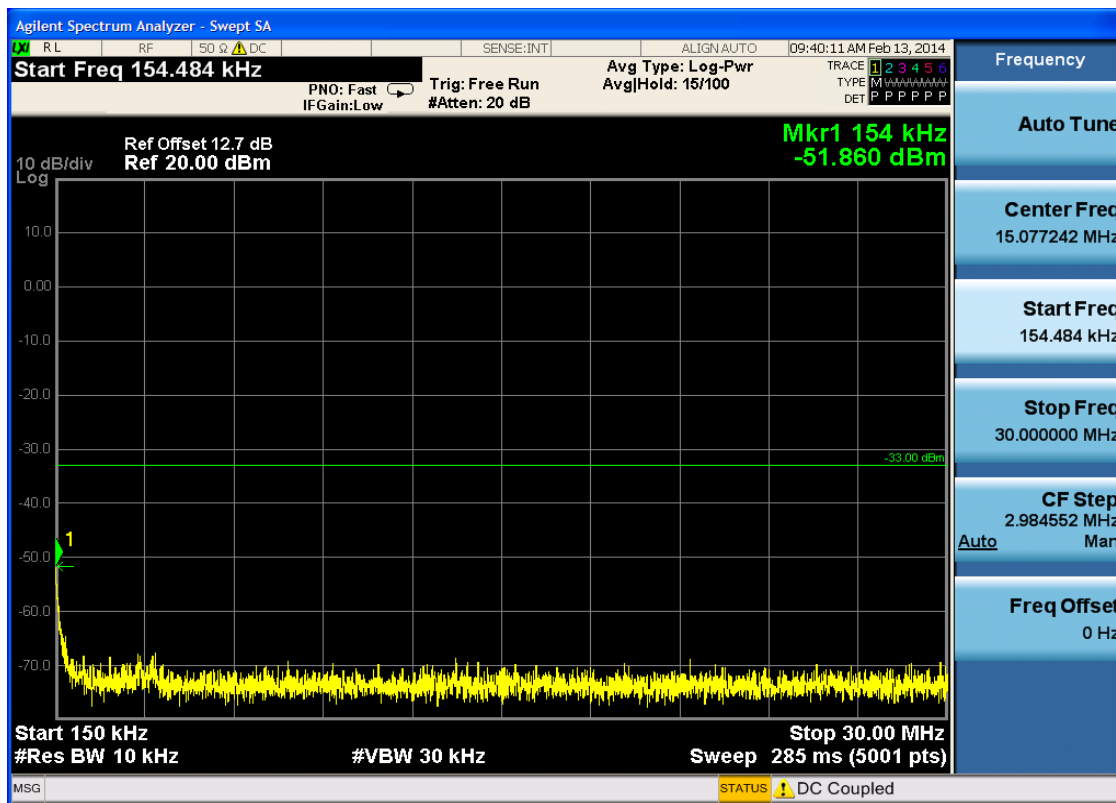


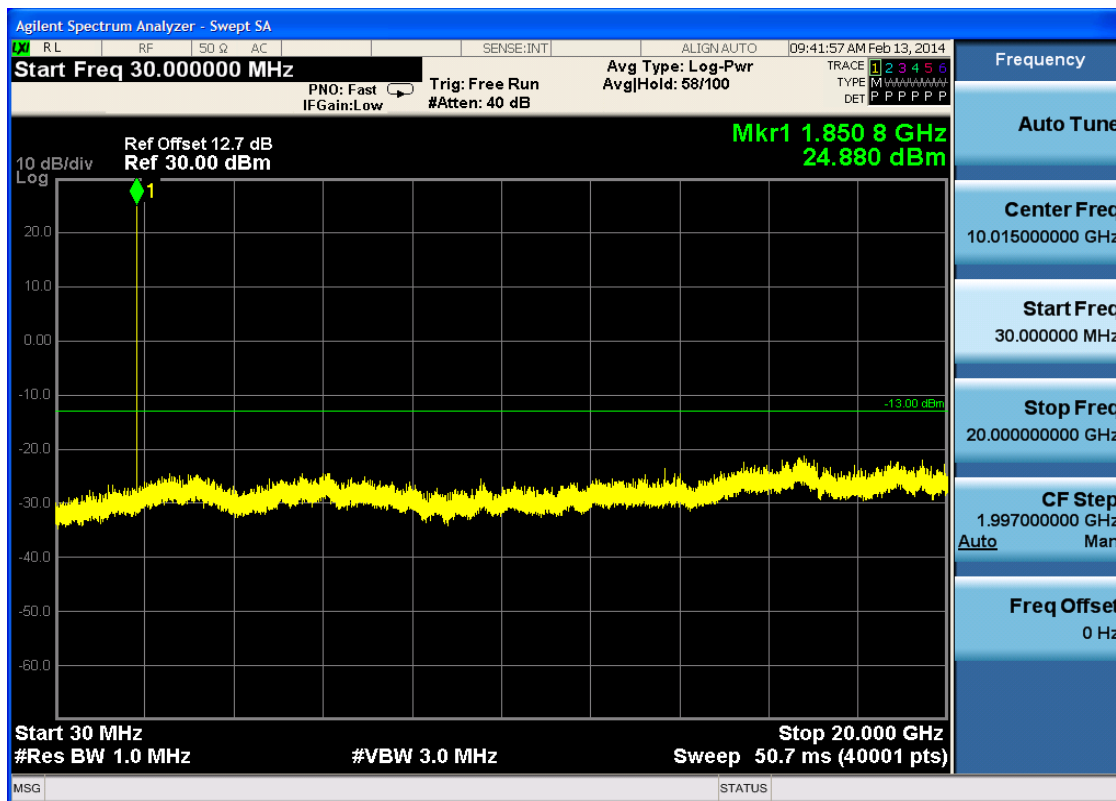


### 6.1.2.2 Test Mode = GSM/TM2

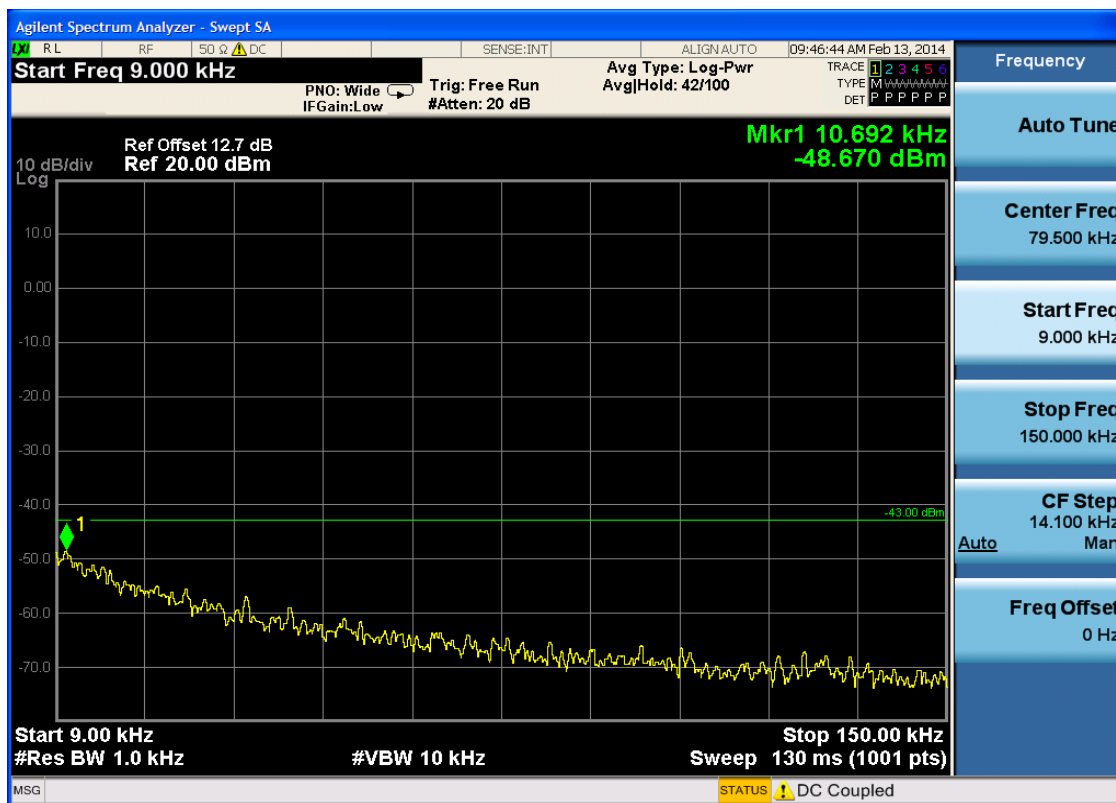
#### 6.1.2.2.1 Test Channel = LCH

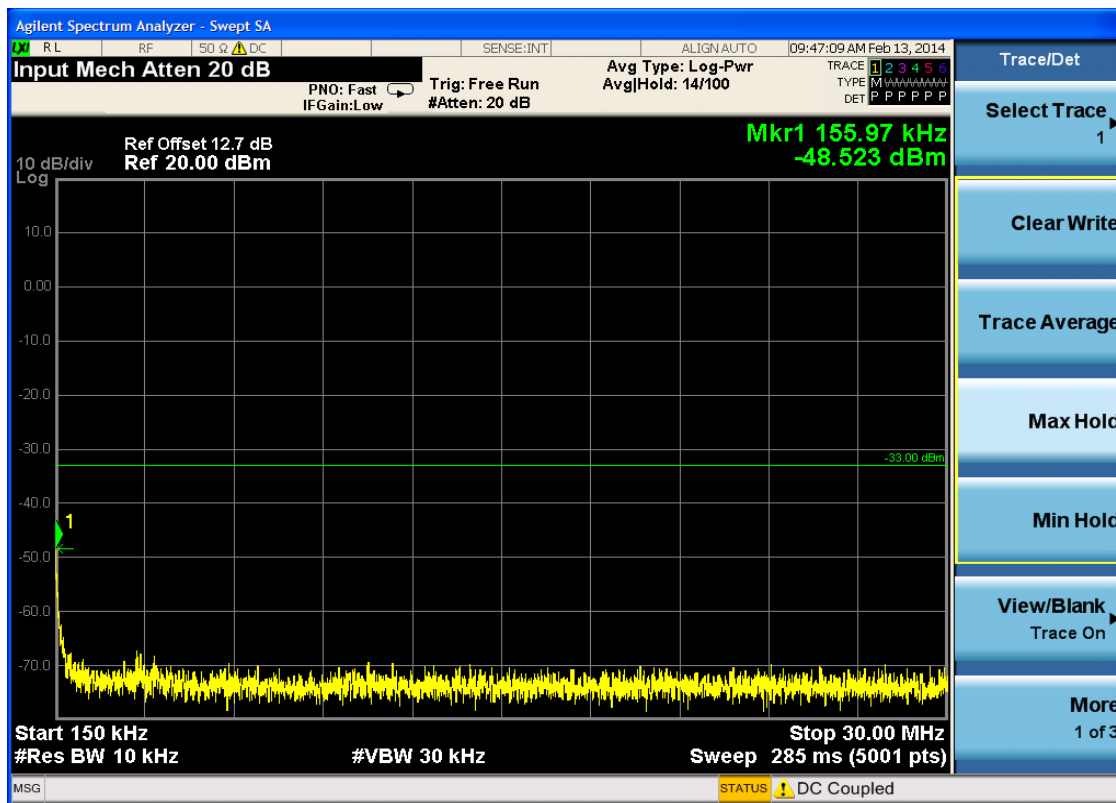


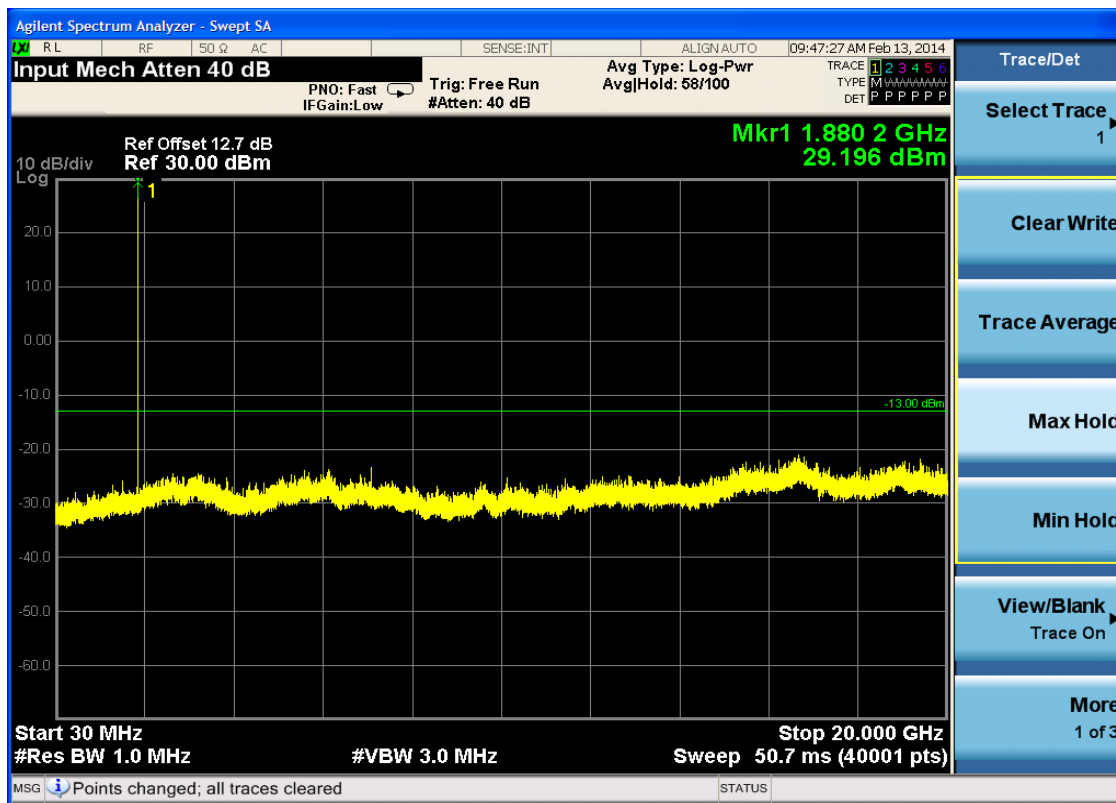




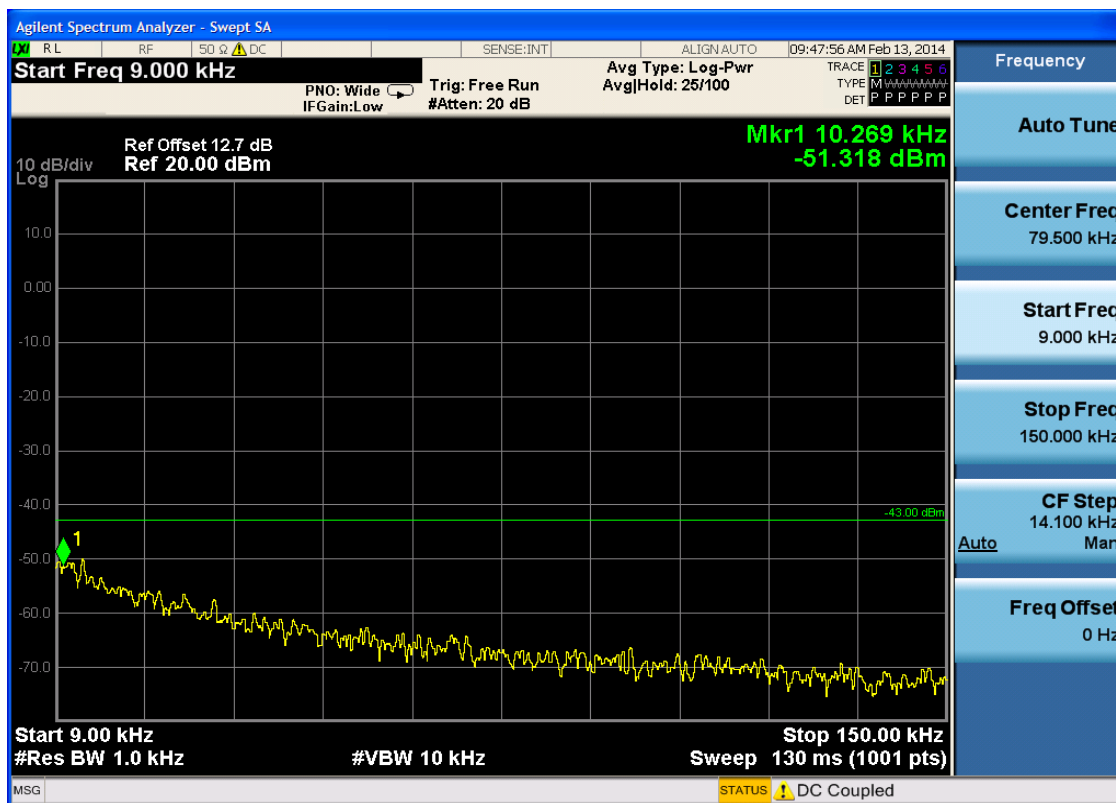
### 6.1.2.2.2 Test Channel = MCH

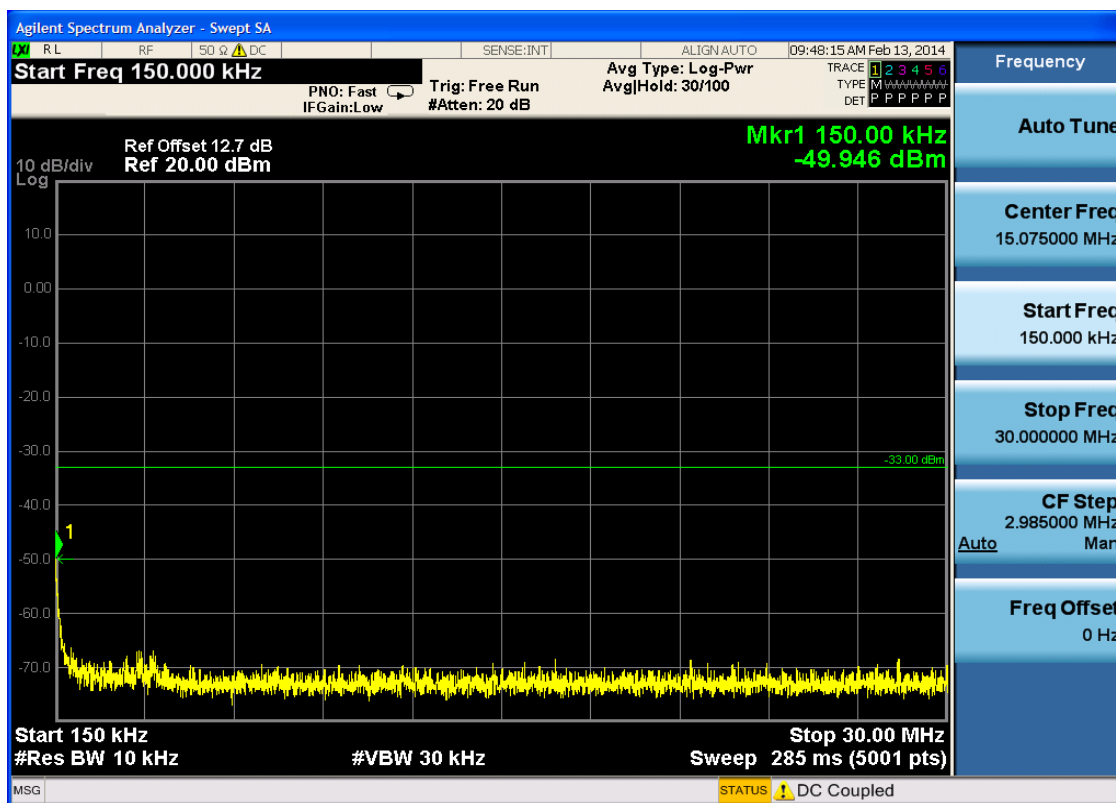


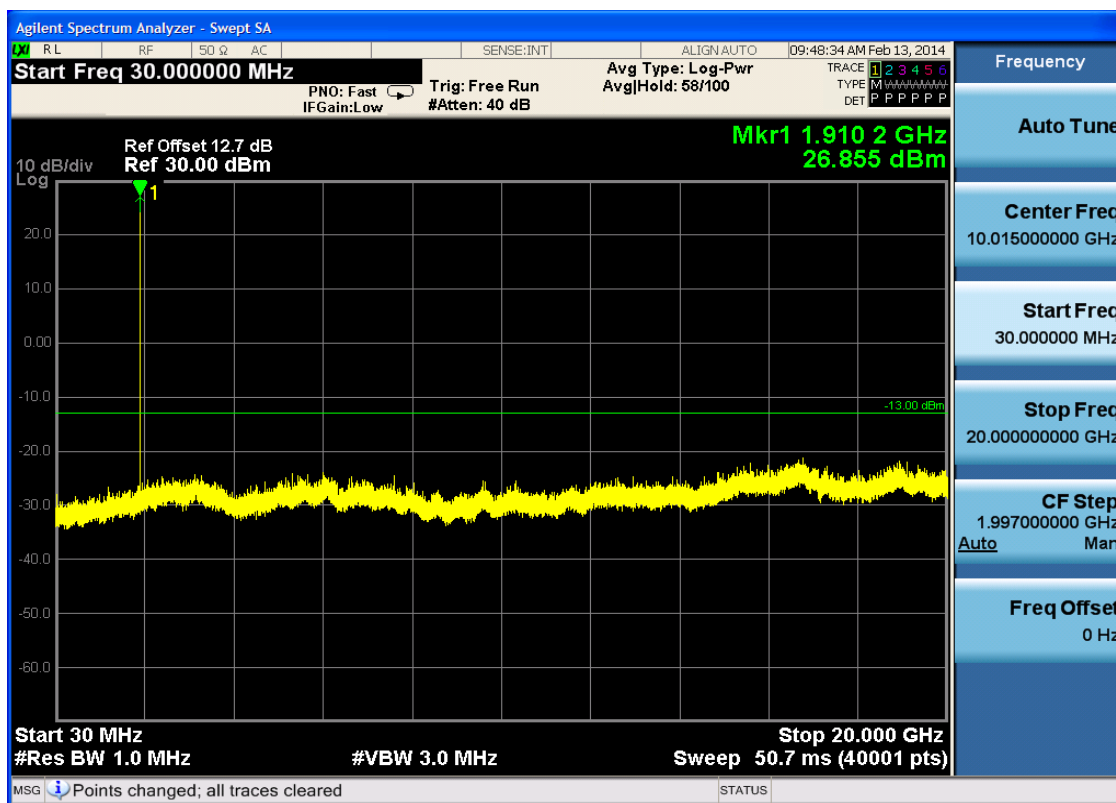




### 6.1.2.2.3 Test Channel = HCH







## 7Appendix\_G: Field Strength of Spurious Radiation

Note:

9kHz~150kHz, VBW = 200Hz, VBW = 600 Hz, Detector: PK

150kHz~30MHz, VBW = 9kHz, VBW = 30k Hz, Detector: PK

30MHz~1GHz, RBW = 100 kHz, VBW = 300 kHz. Detector: PK

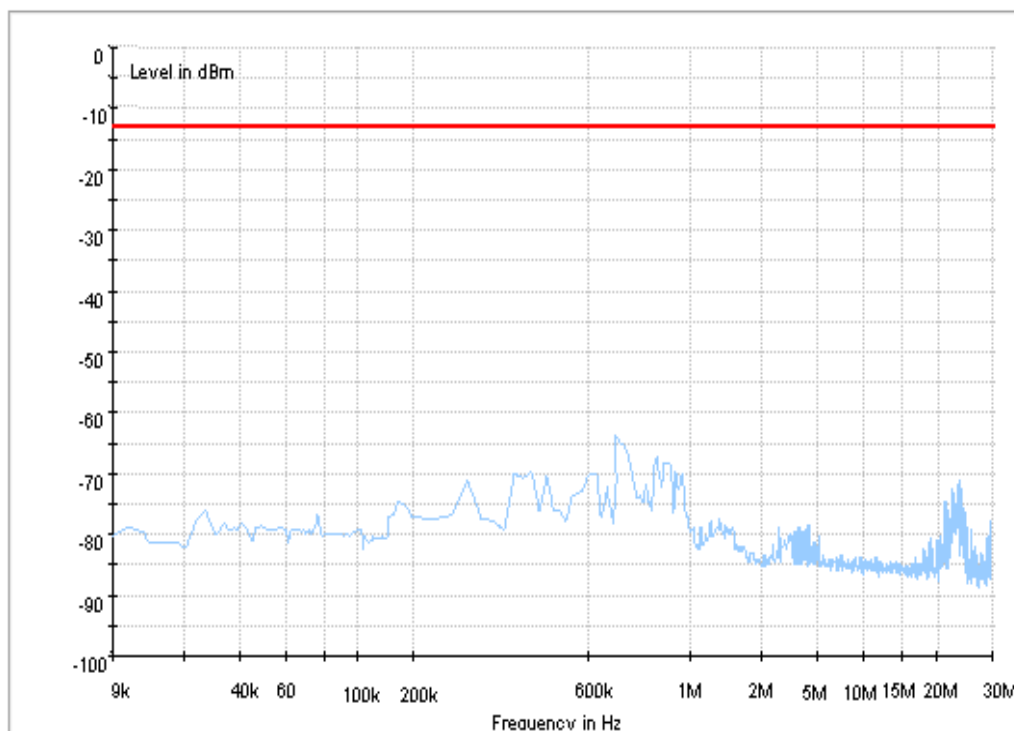
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

### Part I - Test Plots

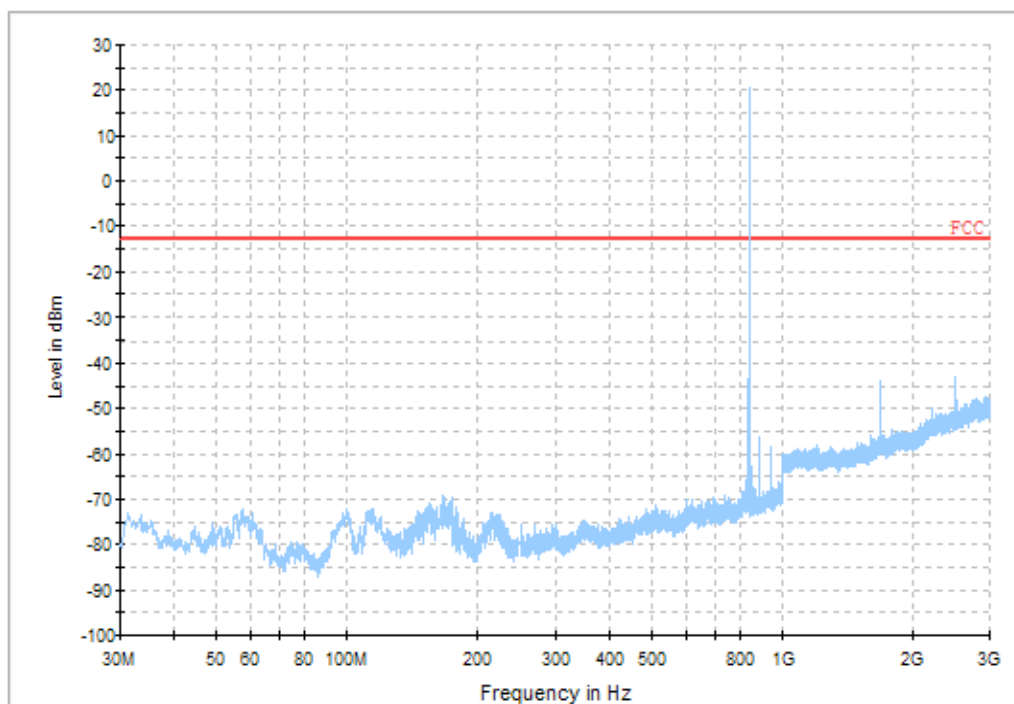
#### 7.1 For GSM

##### 7.1.1 Test Band = GSM850

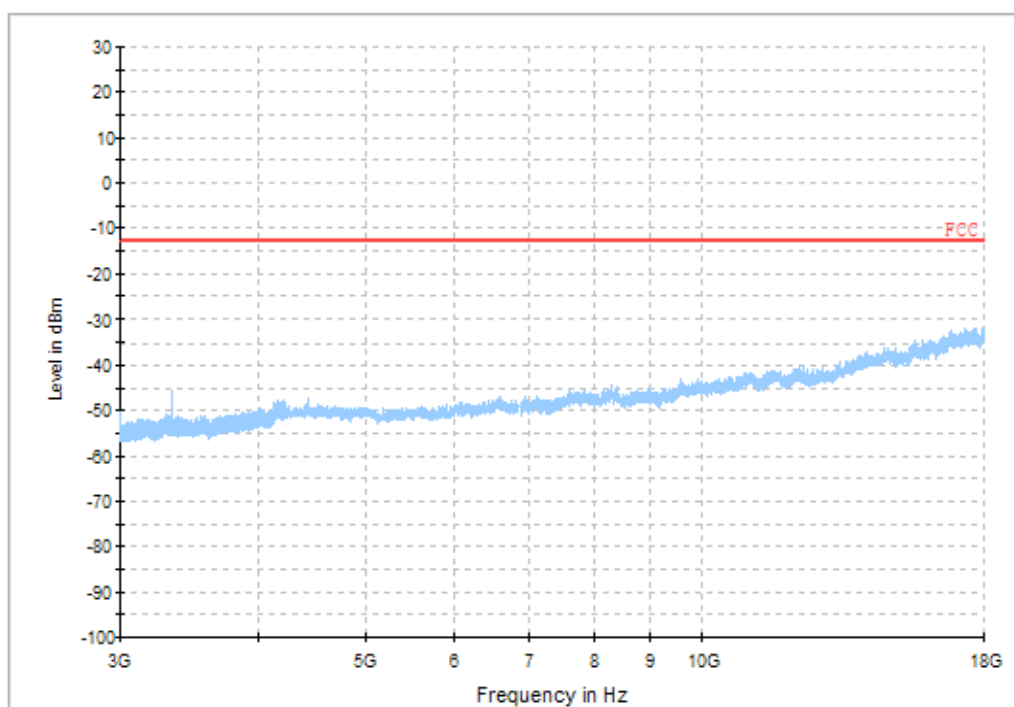
##### 7.1.1.1 Test Mode = GSM/TM1



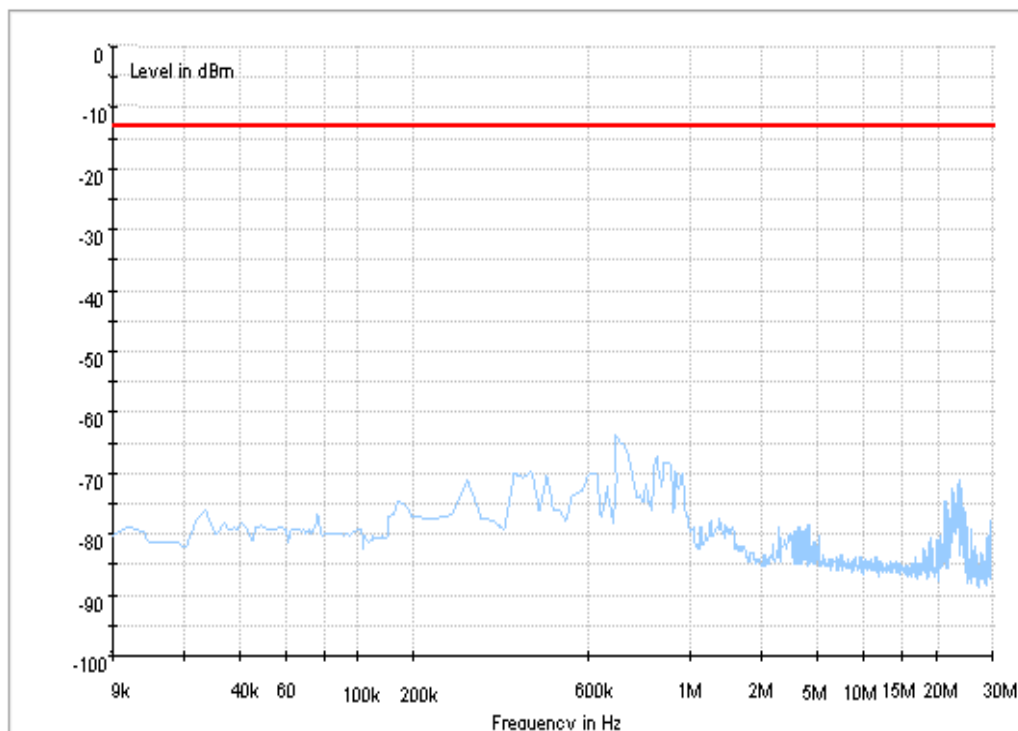
Copy of FCC PART22 GSM850\_L



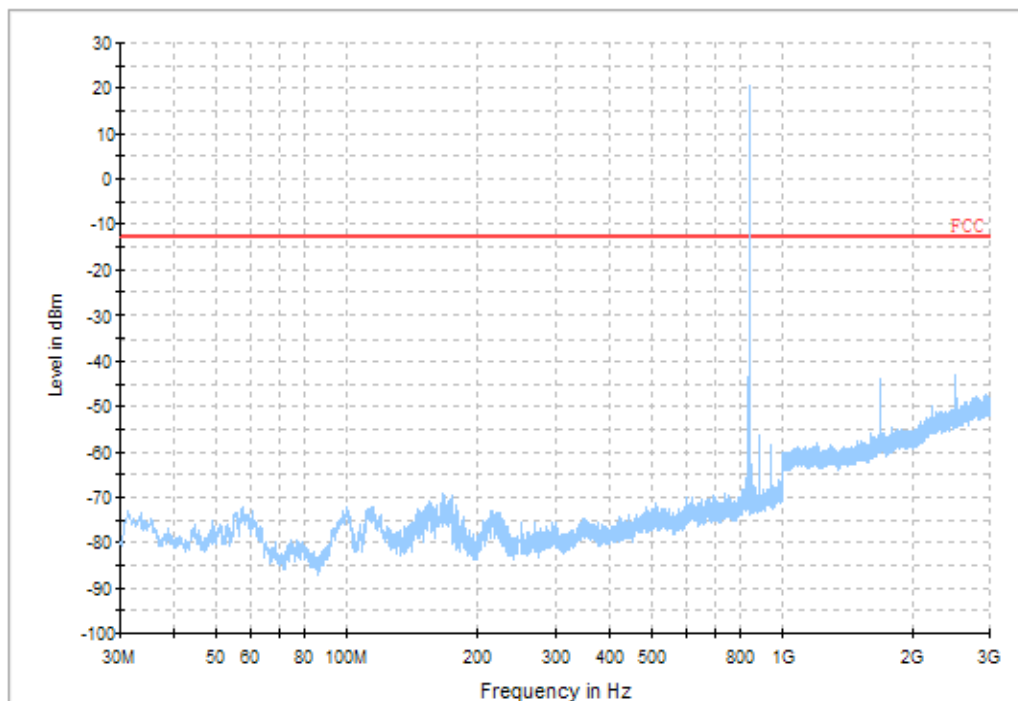
Copy of FCC PART22 GSM850\_H



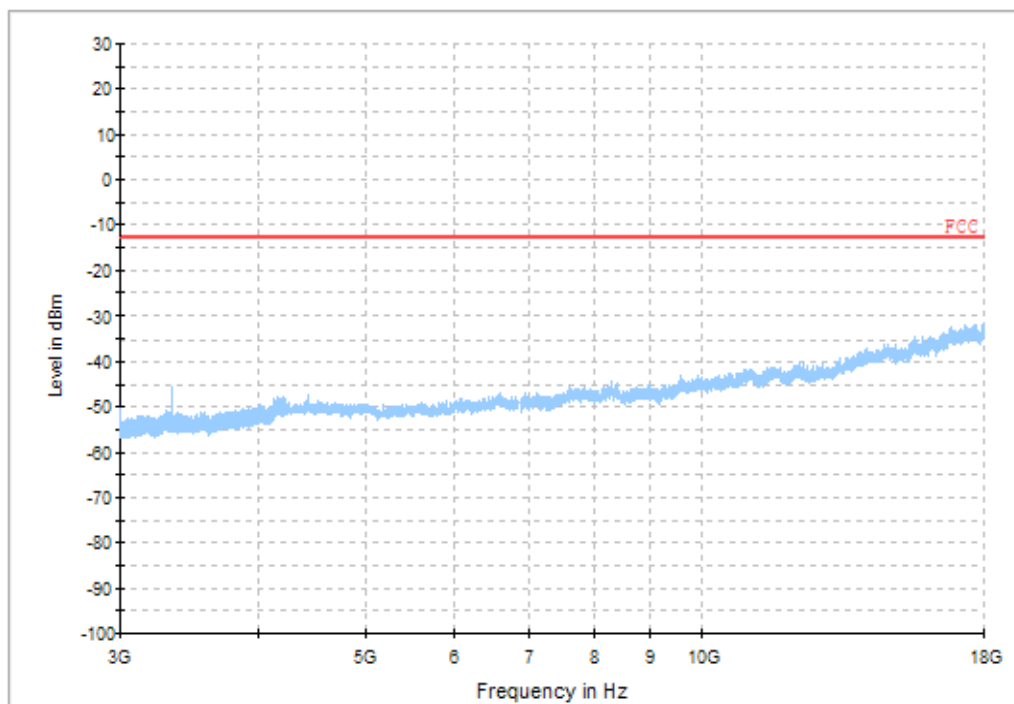
### 7.1.1.2 Test Mode = GSM/TM2



Copy of FCC PART22 GSM850\_L

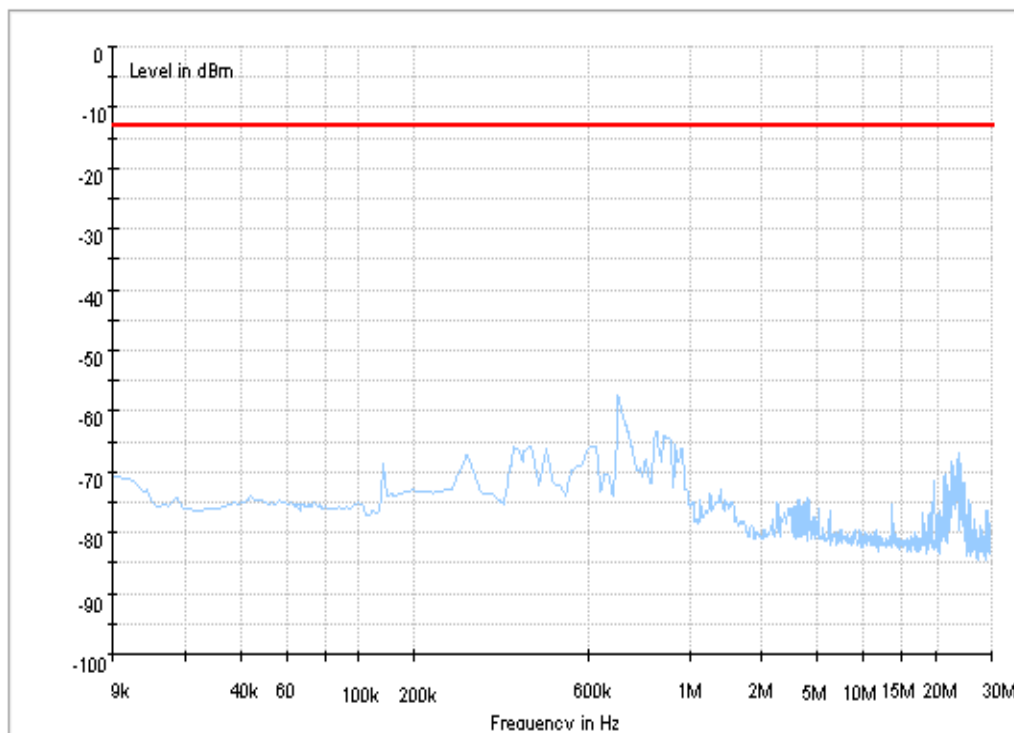


Copy of FCC PART22 GSM850\_H

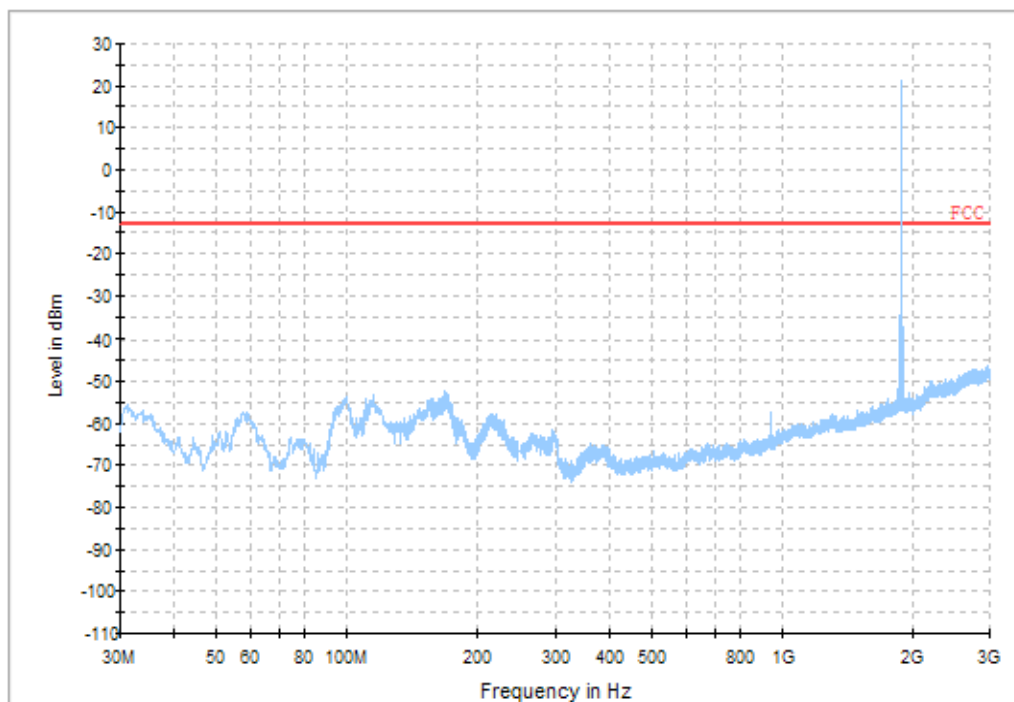


### 7.1.2 Test Band = GSM1900

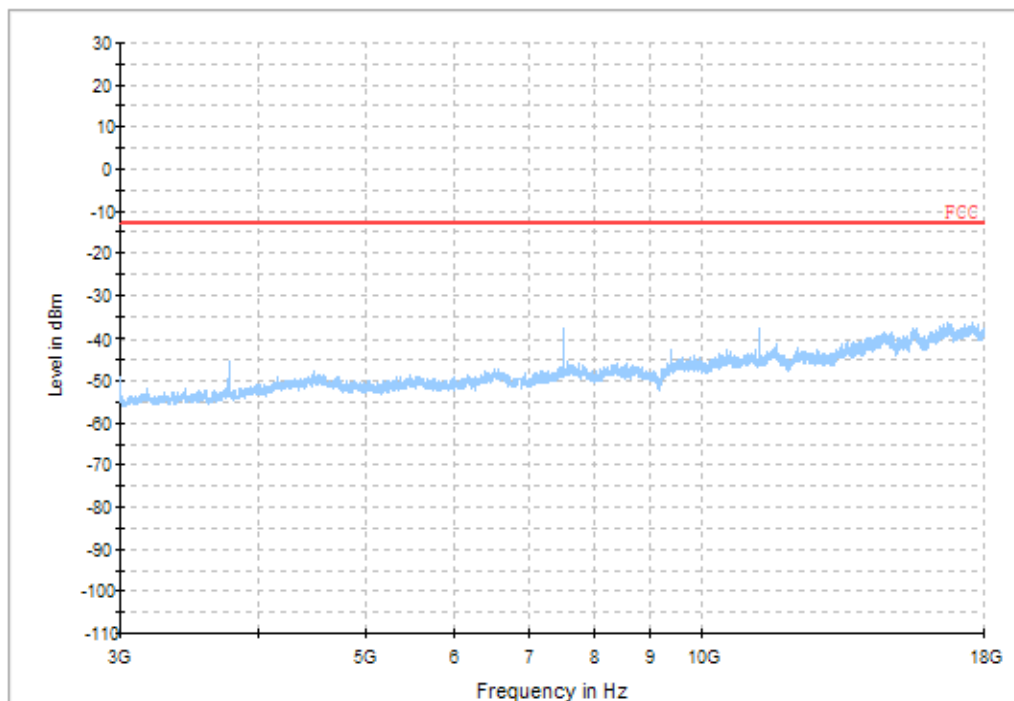
#### 7.1.2.1 Test Mode = GSM/TM1

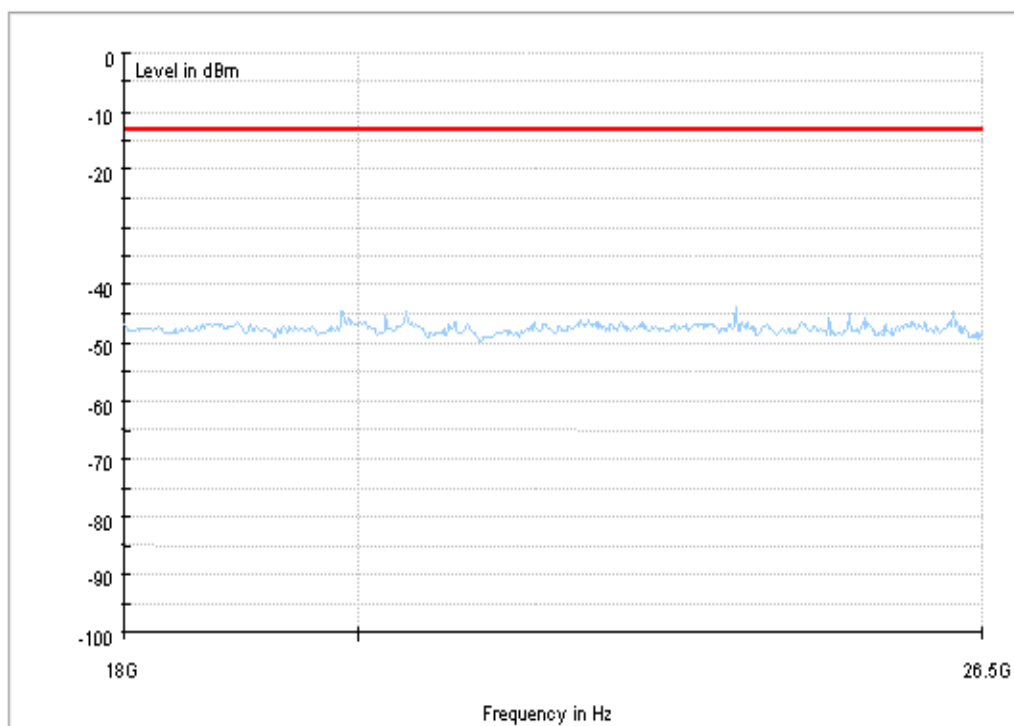


Copy of FCC PART24 GSM1900\_L

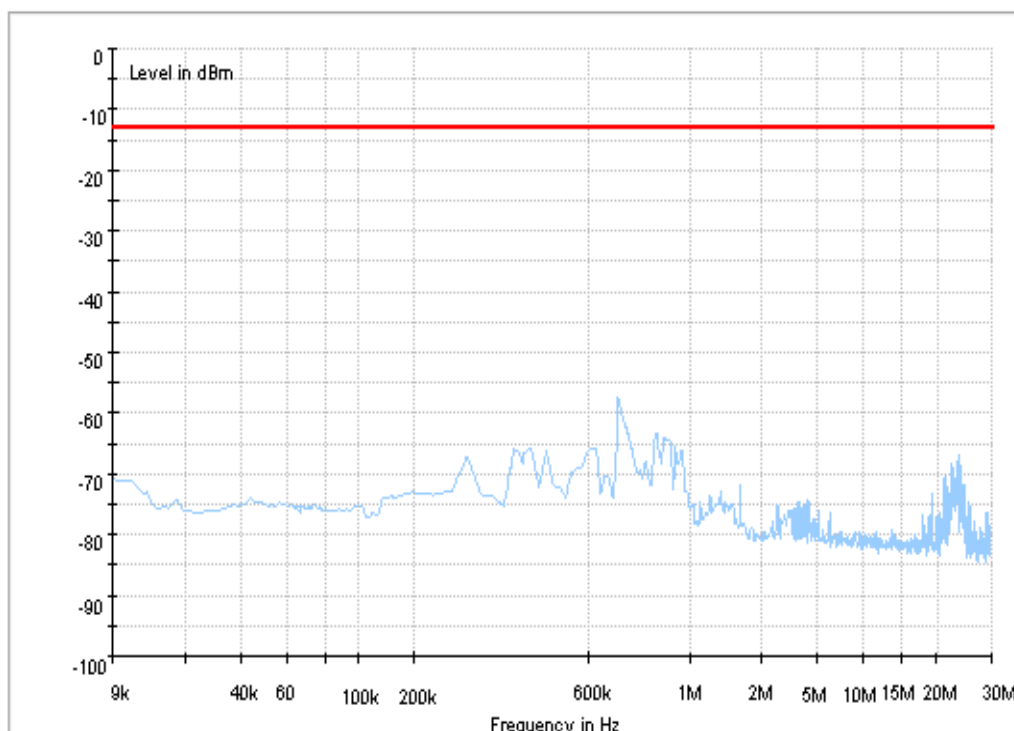


Copy of FCC PART24 GSM1900\_H

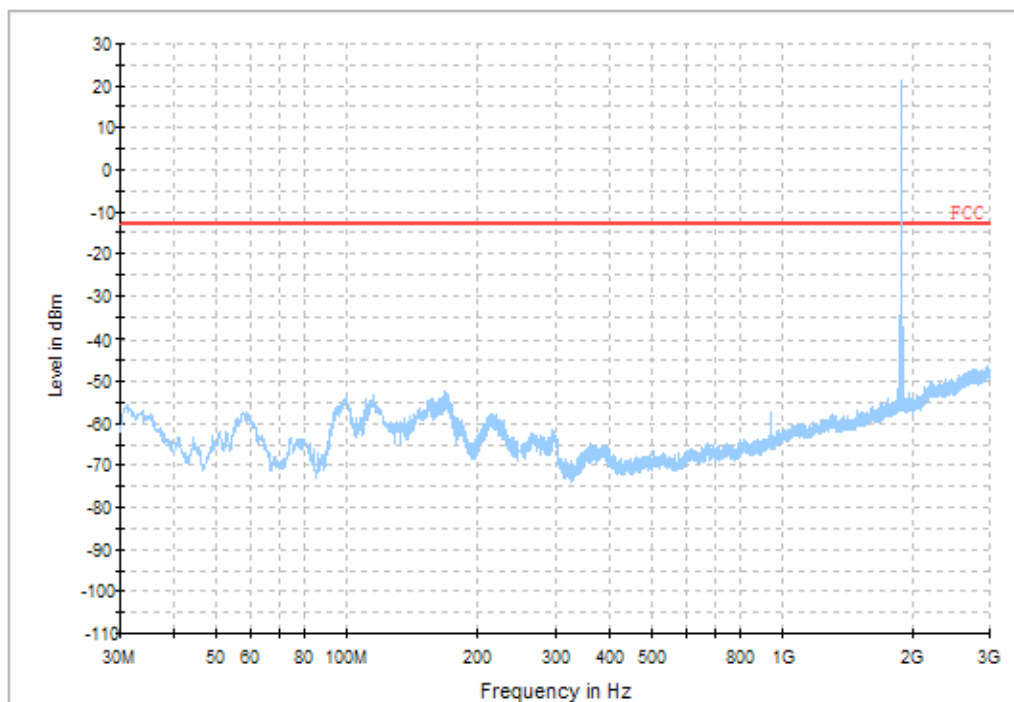




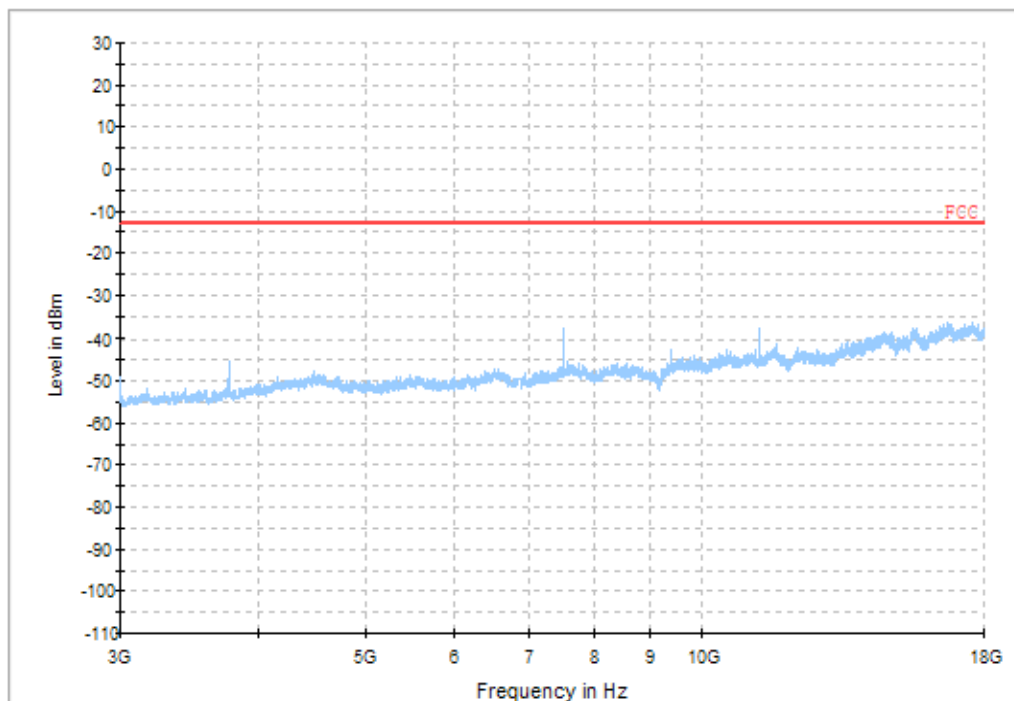
### 7.1.2.2 Test Mode = GSM/TM2

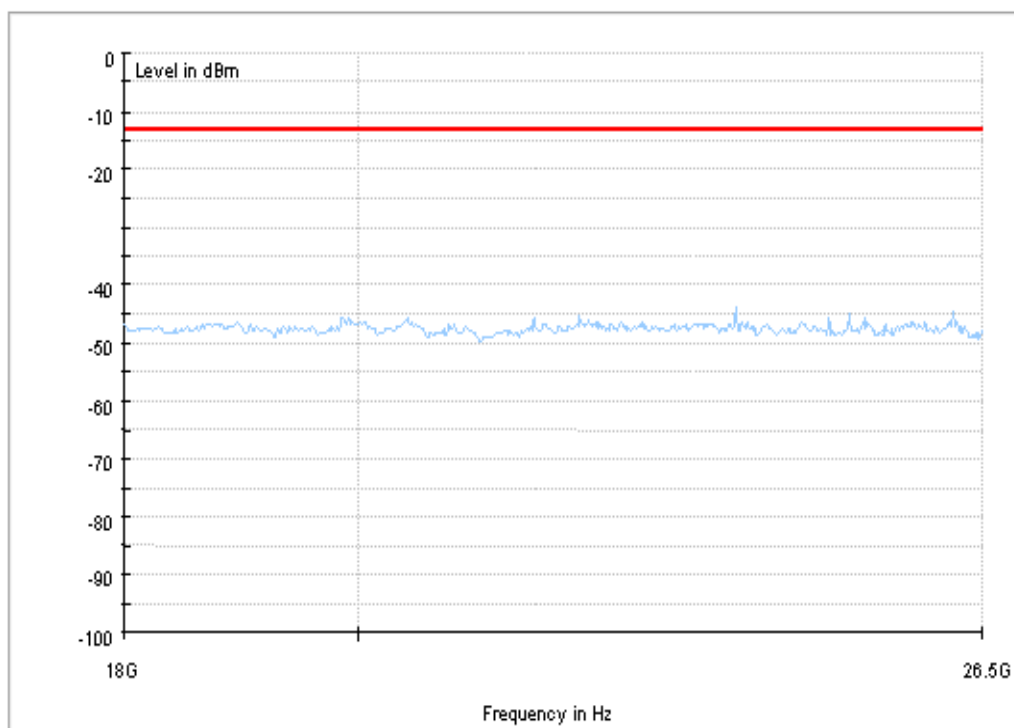


Copy of FCC PART24 GSM1900\_L



Copy of FCC PART24 GSM1900\_H





## 8Appendix\_H: Frequency Stability

### 8.1 For GSM

#### 8.1.1Frequency Error vs. Voltage:

| Test Band | Test Mode | Test Channel | Test Temp. | Test Volt. | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict |
|-----------|-----------|--------------|------------|------------|------------------|-----------------------|---------|
| GSM850    | GSM/TM1   | LCH          | TN         | VL         | -7.17            | -0.0087               | PASS    |
|           |           |              |            | VN         | -4.20            | -0.0051               | PASS    |
|           |           |              |            | VH         | -0.13            | -0.00016              | PASS    |
|           |           | MCH          | TN         | VL         | -2.39            | -0.00286              | PASS    |
|           |           |              |            | VN         | -1.74            | -0.00208              | PASS    |
|           |           |              |            | VH         | -0.45            | -0.00054              | PASS    |
|           |           | HCH          | TN         | VL         | 1.29             | 0.00152               | PASS    |
|           |           |              |            | VN         | -4.07            | -0.0048               | PASS    |
|           |           |              |            | VH         | -1.55            | -0.00183              | PASS    |
|           | GSM/TM2   | LCH          | TN         | VL         | -14.72           | -0.01786              | PASS    |
|           |           |              |            | VN         | -7.85            | -0.00952              | PASS    |
|           |           |              |            | VH         | -16.72           | -0.02029              | PASS    |
|           |           | MCH          | TN         | VL         | -2.74            | -0.00328              | PASS    |
|           |           |              |            | VN         | -7.85            | -0.00938              | PASS    |
|           |           |              |            | VH         | -10.04           | -0.012                | PASS    |
|           |           | HCH          | TN         | VL         | -2.23            | -0.00263              | PASS    |
|           |           |              |            | VN         | -9.36            | -0.01103              | PASS    |
|           |           |              |            | VH         | -0.68            | -0.0008               | PASS    |
| GSM1900   | GSM/TM1   | LCH          | TN         | VL         | -3.42            | -0.00185              | PASS    |
|           |           |              |            | VN         | -9.23            | -0.00499              | PASS    |
|           |           |              |            | VH         | -16.47           | -0.0089               | PASS    |
|           |           | MCH          | TN         | VL         | 5.81             | 0.00309               | PASS    |
|           |           |              |            | VN         | 0.71             | 0.00038               | PASS    |
|           |           |              |            | VH         | 14.85            | 0.0079                | PASS    |
|           |           | HCH          | TN         | VL         | -5.81            | -0.00304              | PASS    |
|           |           |              |            | VN         | -3.94            | -0.00206              | PASS    |
|           |           |              |            | VH         | -2.52            | -0.00132              | PASS    |
|           | GSM/TM2   | LCH          | TN         | VL         | -4.81            | -0.0026               | PASS    |
|           |           |              |            | VN         | -13.92           | -0.00752              | PASS    |
|           |           |              |            | VH         | -17.72           | -0.00958              | PASS    |

| Test Band | Test Mode | Test Channel | Test Temp. | Test Volt. | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict |
|-----------|-----------|--------------|------------|------------|------------------|-----------------------|---------|
|           |           | MCH          | TN         | VL         | 6.94             | 0.00369               | PASS    |
|           |           |              |            | VN         | 4.49             | 0.00239               | PASS    |
|           |           |              |            | VH         | 5.71             | 0.00304               | PASS    |
|           |           | HCH          | TN         | VL         | -3.23            | -0.00169              | PASS    |
|           |           |              |            | VN         | -6.78            | -0.00355              | PASS    |
|           |           |              |            | VH         | -5.78            | -0.00303              | PASS    |

### 8.1.2 Frequency Error vs. Temperature:

| Test Band | Test Mode | Test Channel | Test Volt. | Test Temp. | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict |
|-----------|-----------|--------------|------------|------------|------------------|-----------------------|---------|
| GSM850    | GSM/TM1   | LCH          | VN         | -30        | -6.13            | -0.00744              | PASS    |
|           |           |              |            | -20        | -2.32            | -0.00281              | PASS    |
|           |           |              |            | -10        | 1.16             | 0.00141               | PASS    |
|           |           |              |            | 0          | 5.23             | 0.00635               | PASS    |
|           |           |              |            | 10         | -0.06            | -0.00007              | PASS    |
|           |           |              |            | 20         | -6.97            | -0.00846              | PASS    |
|           |           |              |            | 30         | -0.26            | -0.00032              | PASS    |
|           |           |              |            | 40         | 0.39             | 0.00047               | PASS    |
|           |           |              |            | 50         | -1.03            | -0.00125              | PASS    |
|           |           | MCH          | VN         | -30        | -2.58            | -0.00308              | PASS    |
|           |           |              |            | -20        | -3.10            | -0.00371              | PASS    |
|           |           |              |            | -10        | -3.49            | -0.00417              | PASS    |
|           |           |              |            | 0          | -0.52            | -0.00062              | PASS    |
|           |           |              |            | 10         | 0.00             | 0                     | PASS    |
|           |           |              |            | 20         | 1.81             | 0.00216               | PASS    |
|           |           |              |            | 30         | -1.55            | -0.00185              | PASS    |
|           |           |              |            | 40         | -5.42            | -0.00648              | PASS    |
|           |           |              |            | 50         | -1.49            | -0.00178              | PASS    |
|           |           | HCH          | VN         | -30        | 0.13             | 0.00015               | PASS    |
|           |           |              |            | -20        | -6.78            | -0.00799              | PASS    |
|           |           |              |            | -10        | -0.19            | -0.00022              | PASS    |
|           |           |              |            | 0          | -4.33            | -0.0051               | PASS    |
|           |           |              |            | 10         | 0.52             | 0.00061               | PASS    |
|           |           |              |            | 20         | -5.36            | -0.00631              | PASS    |
|           |           |              |            | 30         | -3.29            | -0.00388              | PASS    |
|           |           |              |            | 40         | -7.75            | -0.00913              | PASS    |
|           |           |              |            | 50         | -3.42            | -0.00403              | PASS    |
|           | GSM/TM2   | LCH          | VN         | -30        | -6.04            | -0.00733              | PASS    |
|           |           |              |            | -20        | -6.81            | -0.00826              | PASS    |

| Test Band | Test Mode | Test Channel | Test Volt. | Test Temp. | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict |
|-----------|-----------|--------------|------------|------------|------------------|-----------------------|---------|
|           |           |              |            | -10        | -4.52            | -0.00548              | PASS    |
|           |           |              |            | 0          | -9.10            | -0.01104              | PASS    |
|           |           |              |            | 10         | -7.43            | -0.00901              | PASS    |
|           |           |              |            | 20         | -10.07           | -0.01222              | PASS    |
|           |           |              |            | 30         | -1.55            | -0.00188              | PASS    |
|           |           |              |            | 40         | -3.78            | -0.00459              | PASS    |
|           |           |              |            | 50         | -1.55            | -0.00188              | PASS    |
|           |           | MCH          | VN         | -30        | -5.36            | -0.00641              | PASS    |
|           |           |              |            | -20        | -7.46            | -0.00892              | PASS    |
|           |           |              |            | -10        | -4.20            | -0.00502              | PASS    |
|           |           |              |            | 0          | -10.17           | -0.01216              | PASS    |
|           |           |              |            | 10         | -10.14           | -0.01212              | PASS    |
|           |           |              |            | 20         | -4.39            | -0.00525              | PASS    |
|           |           |              |            | 30         | -4.10            | -0.0049               | PASS    |
|           |           |              |            | 40         | -4.10            | -0.0049               | PASS    |
|           |           |              |            | 50         | -10.01           | -0.01197              | PASS    |
|           |           | HCH          | VN         | -30        | -8.52            | -0.01004              | PASS    |
|           |           |              |            | -20        | -10.72           | -0.01263              | PASS    |
|           |           |              |            | -10        | -0.58            | -0.00068              | PASS    |
|           |           |              |            | 0          | -12.33           | -0.01453              | PASS    |
|           |           |              |            | 10         | -11.30           | -0.01331              | PASS    |
|           |           |              |            | 20         | 0.36             | 0.00042               | PASS    |
|           |           |              |            | 30         | 4.94             | 0.00582               | PASS    |
|           |           |              |            | 40         | -12.43           | -0.01464              | PASS    |
|           |           |              |            | 50         | -1.26            | -0.00148              | PASS    |
| GSM1900   | GSM/TM1   | LCH          | VN         | -30        | -13.37           | -0.00723              | PASS    |
|           |           |              |            | -20        | -8.91            | -0.00482              | PASS    |
|           |           |              |            | -10        | -17.89           | -0.00967              | PASS    |
|           |           |              |            | 0          | -0.77            | -0.00042              | PASS    |
|           |           |              |            | 10         | -7.68            | -0.00415              | PASS    |
|           |           |              |            | 20         | -12.14           | -0.00656              | PASS    |
|           |           |              |            | 30         | -5.17            | -0.00279              | PASS    |
|           |           |              |            | 40         | -5.81            | -0.00314              | PASS    |
|           |           |              |            | 50         | -6.13            | -0.00331              | PASS    |
|           |           | MCH          | VN         | -30        | 0.52             | 0.00028               | PASS    |
|           |           |              |            | -20        | 7.04             | 0.00374               | PASS    |
|           |           |              |            | -10        | 13.82            | 0.00735               | PASS    |
|           |           |              |            | 0          | 10.98            | 0.00584               | PASS    |
|           |           |              |            | 10         | 6.91             | 0.00368               | PASS    |
|           |           |              |            | 20         | 2.52             | 0.00134               | PASS    |

| Test Band | Test Mode | Test Channel | Test Volt. | Test Temp. | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict |
|-----------|-----------|--------------|------------|------------|------------------|-----------------------|---------|
|           |           |              |            | 30         | -2.39            | -0.00127              | PASS    |
|           |           |              |            | 40         | -4.97            | -0.00264              | PASS    |
|           |           |              |            | 50         | 16.79            | 0.00893               | PASS    |
|           |           | HCH          | VN         | -30        | -10.59           | -0.00555              | PASS    |
|           |           |              |            | -20        | -7.17            | -0.00375              | PASS    |
|           |           |              |            | -10        | -8.59            | -0.0045               | PASS    |
|           |           |              |            | 0          | -5.49            | -0.00287              | PASS    |
|           |           |              |            | 10         | -17.63           | -0.00923              | PASS    |
|           |           |              |            | 20         | -14.85           | -0.00778              | PASS    |
|           |           |              |            | 30         | -12.40           | -0.00649              | PASS    |
|           |           |              |            | 40         | -7.10            | -0.00372              | PASS    |
|           |           |              |            | 50         | -3.94            | -0.00206              | PASS    |
|           | GSM/TM2   | LCH          | VN         | -30        | -3.49            | -0.00189              | PASS    |
|           |           |              |            | -20        | -4.46            | -0.00241              | PASS    |
|           |           |              |            | -10        | -12.82           | -0.00693              | PASS    |
|           |           |              |            | 0          | -4.62            | -0.0025               | PASS    |
|           |           |              |            | 10         | -16.69           | -0.00902              | PASS    |
|           |           |              |            | 20         | -6.65            | -0.00359              | PASS    |
|           |           |              |            | 30         | -13.53           | -0.00731              | PASS    |
|           |           |              |            | 40         | -8.30            | -0.00449              | PASS    |
|           |           |              |            | 50         | -8.56            | -0.00463              | PASS    |
|           |           | MCH          | VN         | -30        | 1.07             | 0.00057               | PASS    |
|           |           |              |            | -20        | 12.85            | 0.00684               | PASS    |
|           |           |              |            | -10        | 12.85            | 0.00684               | PASS    |
|           |           |              |            | 0          | 2.36             | 0.00126               | PASS    |
|           |           |              |            | 10         | 2.10             | 0.00112               | PASS    |
|           |           |              |            | 20         | 13.92            | 0.0074                | PASS    |
|           |           |              |            | 30         | 6.78             | 0.00361               | PASS    |
|           |           |              |            | 40         | -0.06            | -0.00003              | PASS    |
|           |           |              |            | 50         | 5.26             | 0.0028                | PASS    |
|           |           | HCH          | VN         | -30        | -5.07            | -0.00265              | PASS    |
|           |           |              |            | -20        | -2.26            | -0.00118              | PASS    |
|           |           |              |            | -10        | -5.94            | -0.00311              | PASS    |
|           |           |              |            | 0          | -2.26            | -0.00118              | PASS    |
|           |           |              |            | 10         | -12.11           | -0.00634              | PASS    |
|           |           |              |            | 20         | -13.11           | -0.00686              | PASS    |
|           |           |              |            | 30         | -14.92           | -0.00781              | PASS    |
|           |           |              |            | 40         | -6.52            | -0.00341              | PASS    |
|           |           |              |            | 50         | -4.78            | -0.0025               | PASS    |



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END