



Appendix for Test report

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1Appendix_A: RF Power Output

Part I - Test Results

| Test Band | Test Mode | Freq. [MHz] | Substitution Level (ERP) [dBm] | FCC limit [dBm] | Result |
|-----------|-----------|-------------|--------------------------------|-----------------|--------|
| GSM850 | GSM/TM 1 | 824.2 | 30.28 | 38.5 | Pass |
| | | 836.6 | 30.39 | 38.5 | Pass |
| | | 848.8 | 30.4 | 38.5 | Pass |
| | GSM/TM 2 | 824.2 | 23.69 | 38.5 | Pass |
| | | 836.6 | 23.53 | 38.5 | Pass |
| | | 848.8 | 23.32 | 38.5 | Pass |
| WCDMA8 50 | UMTS/T M1 | 826.4 | 19.86 | 38.5 | Pass |
| | | 836.4 | 19.77 | 38.5 | Pass |
| | | 846.6 | 20 | 38.5 | Pass |

| Test Band | Test Mode | Freq. [MHz] | Substitution Level (EIRP) [dBm] | FCC limit [dBm] | Result |
|------------|-----------|-------------|---------------------------------|-----------------|--------|
| GSM1900 | GSM/TM 1 | 1850.2 | 30.31 | 33 | Pass |
| | | 1880 | 30.38 | 33 | Pass |
| | | 1909.8 | 30.48 | 33 | Pass |
| | GSM/TM 2 | 1850.2 | 25.92 | 33 | Pass |
| | | 1880 | 26.08 | 33 | Pass |
| | | 1909.8 | 26.48 | 33 | Pass |
| WCDMA1 900 | UMTS/T M1 | 1852.4 | 23.15 | 33 | Pass |
| | | 1880 | 23.02 | 33 | Pass |
| | | 1907.6 | 23.25 | 33 | Pass |

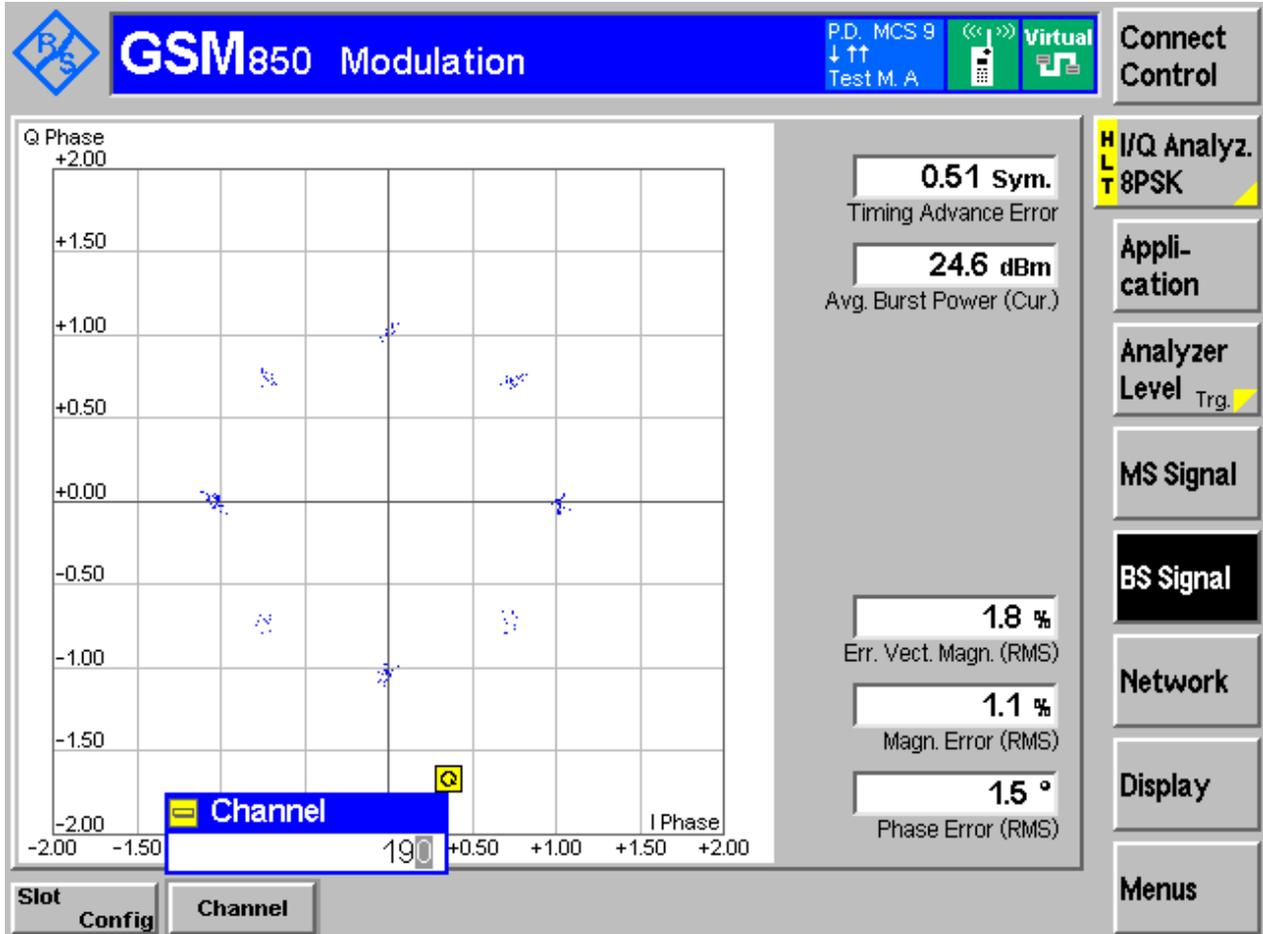
2Appendix_B: Peak-to-Average Ratio

Part I - Test Results

| Test Band | Test Mode | Test Channel | Measured[dB] | Limit [dB] | Verdict |
|-----------|-----------|--------------|--------------|------------|---------|
| GSM1900 | GSM/TM1 | LCH | 0.44 | 13 | PASS |
| | | MCH | 0.5 | 13 | PASS |
| | | HCH | 0.45 | 13 | PASS |
| | GSM/TM2 | LCH | 3.15 | 13 | PASS |
| | | MCH | 3.08 | 13 | PASS |
| | | HCH | 2.98 | 13 | PASS |
| Test Band | Test Mode | Test Channel | Measured[dB] | Limit [dB] | Verdict |
| WCDMA1900 | UMTS/TM1 | LCH | 3.3 | 13 | PASS |
| | | MCH | 3.3 | 13 | PASS |
| | | HCH | 3.31 | 13 | PASS |

3.1.1.2 Test Mode = GSM/TM2

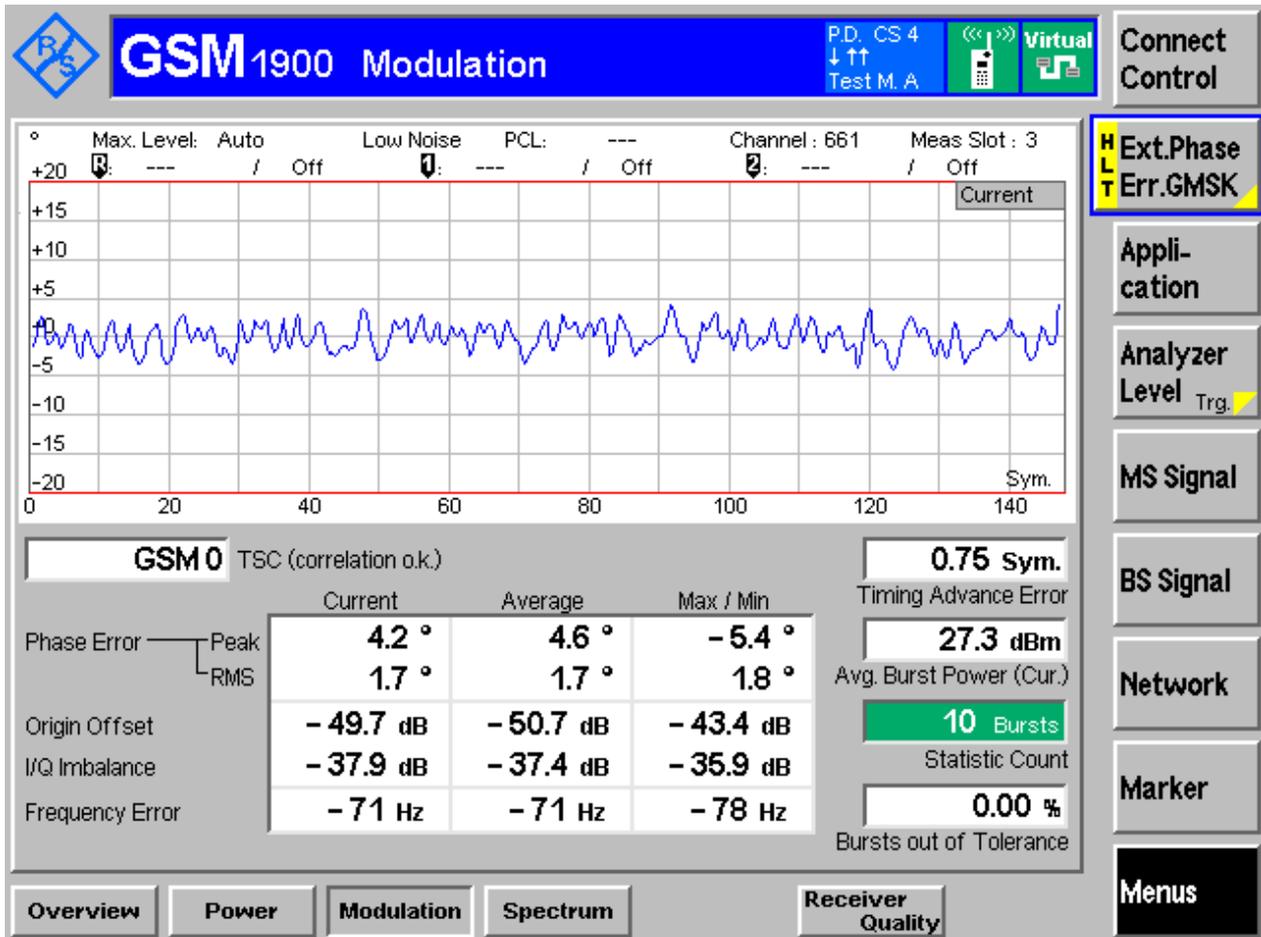
3.1.1.2.1 Test Channel = MCH



3.1.2 Test Band = GSM1900

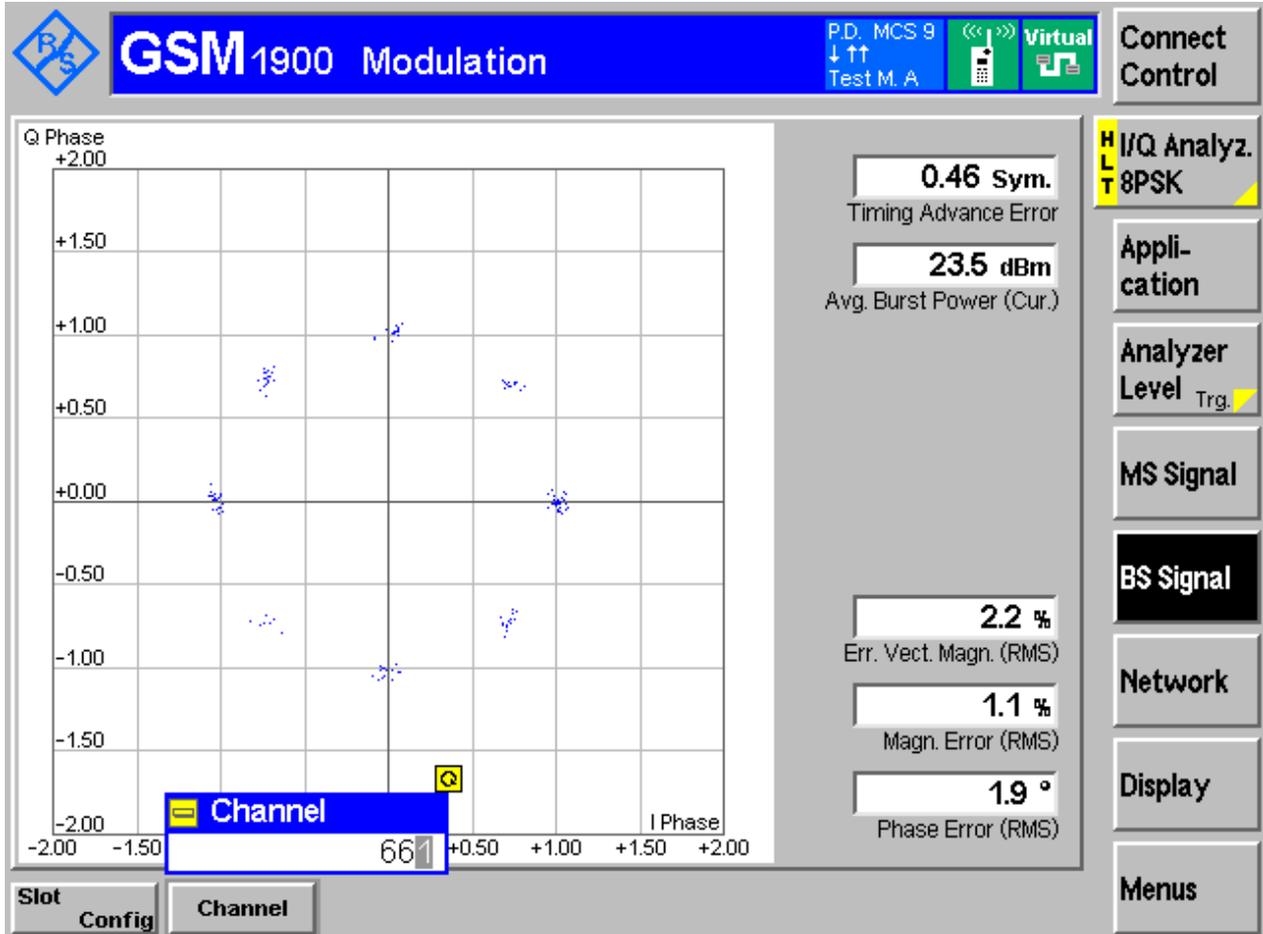
3.1.2.1 Test Mode = GSM/TM1

3.1.2.1.1 Test Channel = MCH



3.1.2.2 Test Mode = GSM/TM2

3.1.2.2.1 Test Channel = MCH

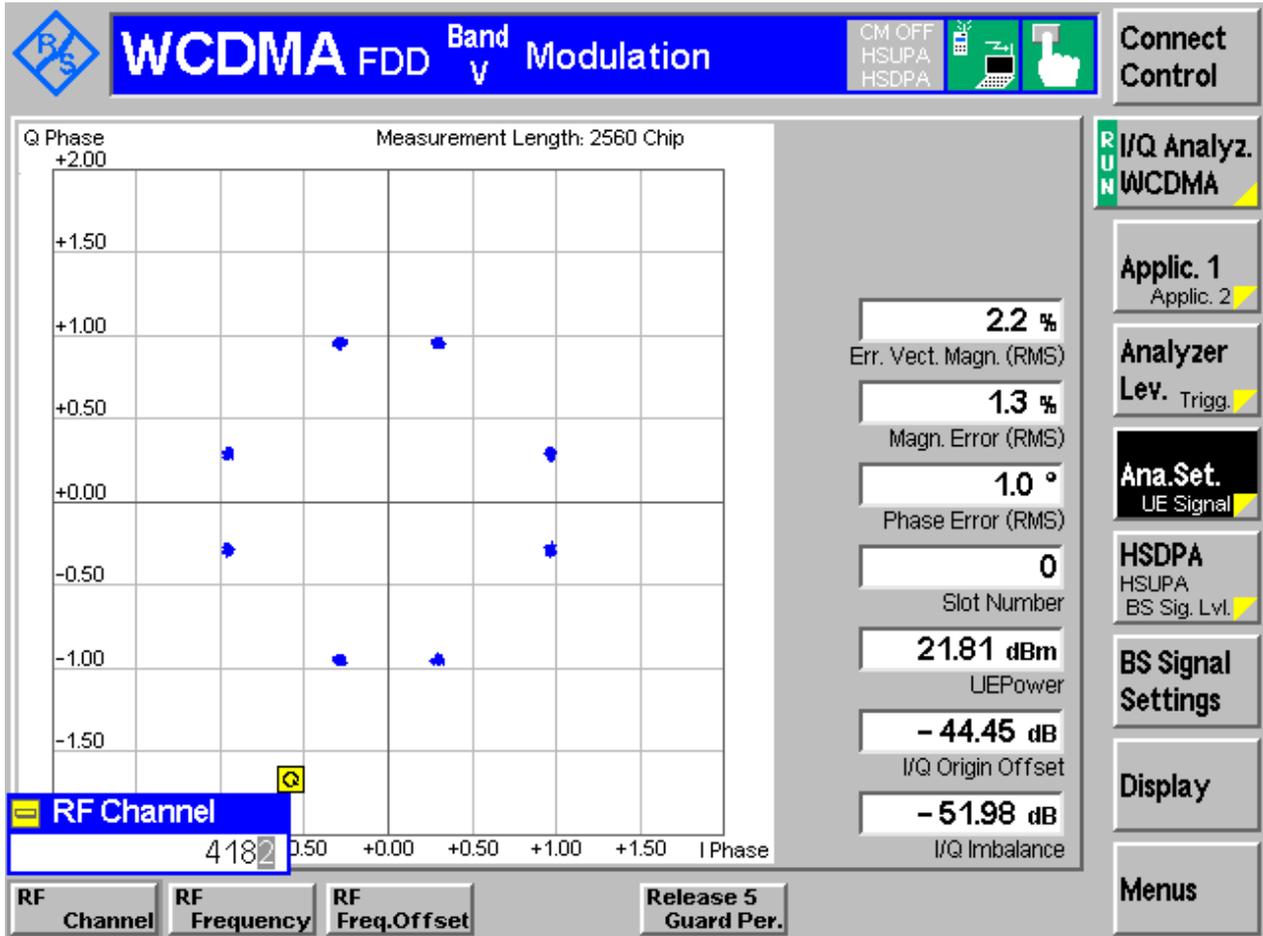


3.2 For UMTS

3.2.1 Test Band = WCDMA850

3.2.1.1 Test Mode = UMTS/TM1

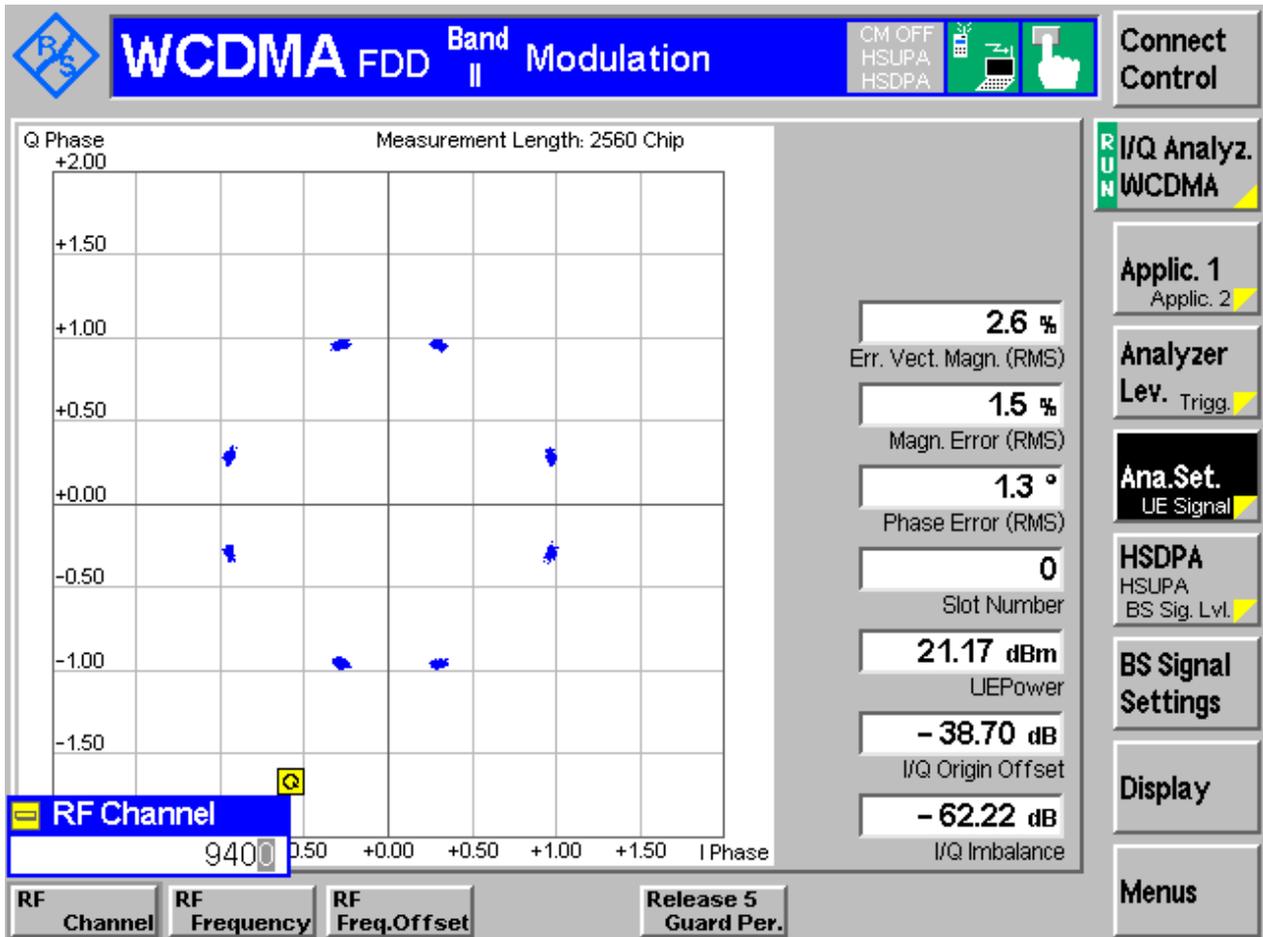
3.2.1.1.1 Test Channel = MCH



3.2.2 Test Band = WCDMA1900

3.2.2.1 Test Mode = UMTS/TM1

3.2.2.1.1 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 | 247.48 | 320.84 | Pass |
| | | MCH | 244.96 | 321.25 | Pass |
| | | HCH | 249.53 | 317.59 | Pass |
| | GSM/TM2 | LCH | 250.89 | 318.58 | Pass |
| | | MCH | 253.91 | 319.16 | Pass |
| | | HCH | 250.66 | 324.24 | Pass |
| GSM1900 | GSM/TM1 | LCH | 245.11 | 310.87 | Pass |
| | | MCH | 245.65 | 308.25 | Pass |
| | | HCH | 246.15 | 320.63 | Pass |
| | GSM/TM2 | LCH | 245.25 | 302.72 | Pass |
| | | MCH | 249.17 | 316.34 | Pass |
| | | HCH | 249.38 | 314.81 | Pass |
| Test Band | Test Mode | Test Channel | Occupied Bandwidth [MHz] | Emission Bandwidth [MHz] | Verdict |
| WCDMA850 | UMTS/TM1 | LCH | 4.16 | 4.73 | Pass |
| | | MCH | 4.15 | 4.73 | Pass |
| | | HCH | 4.15 | 4.73 | Pass |
| WCDMA1900 | UMTS/TM1 | LCH | 4.15 | 4.73 | Pass |
| | | MCH | 4.15 | 4.72 | Pass |
| | | HCH | 4.15 | 4.72 | Pass |



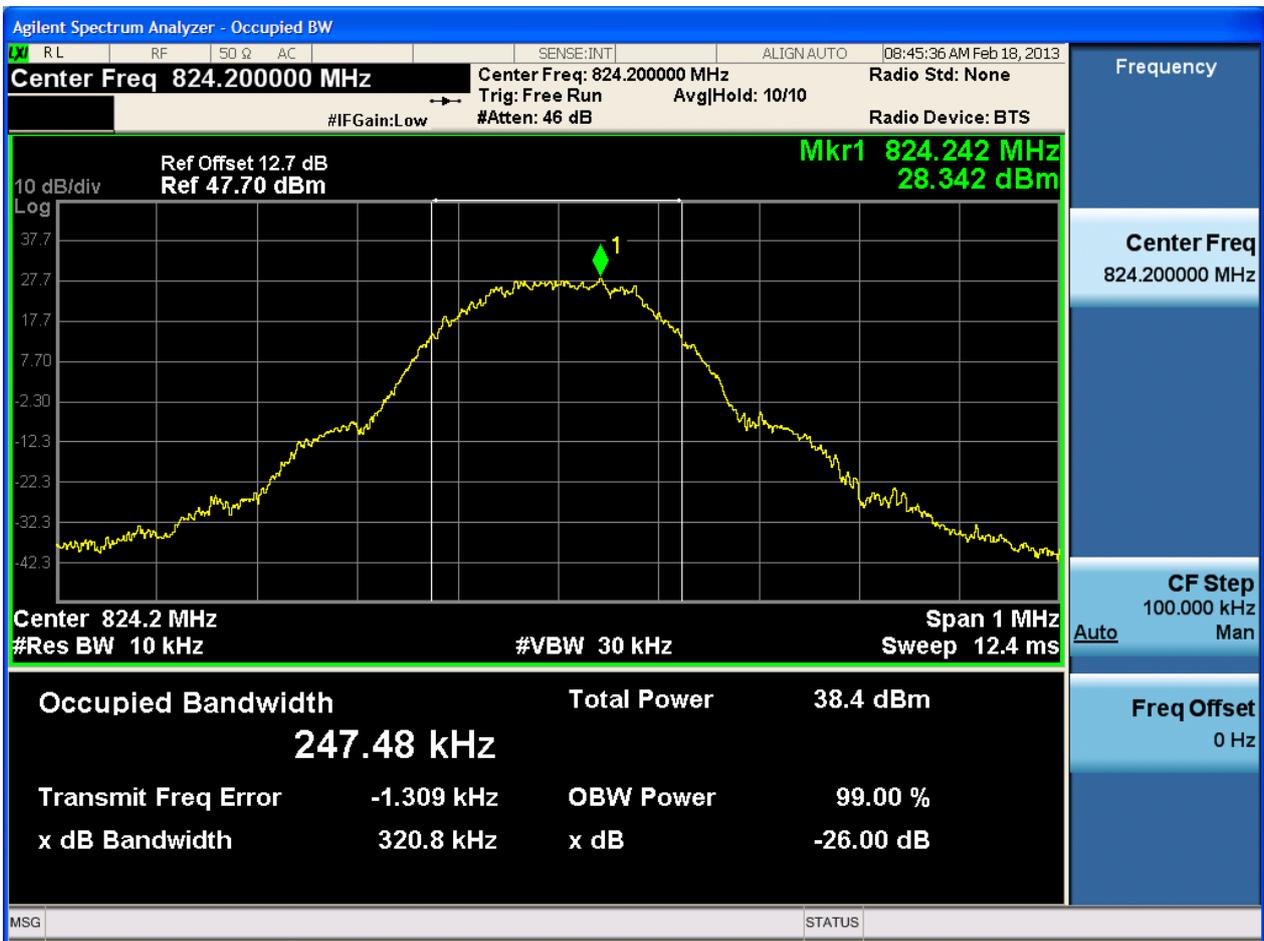
Part II - Test Plots

4.1 For GSM

4.1.1 Test Band = GSM850

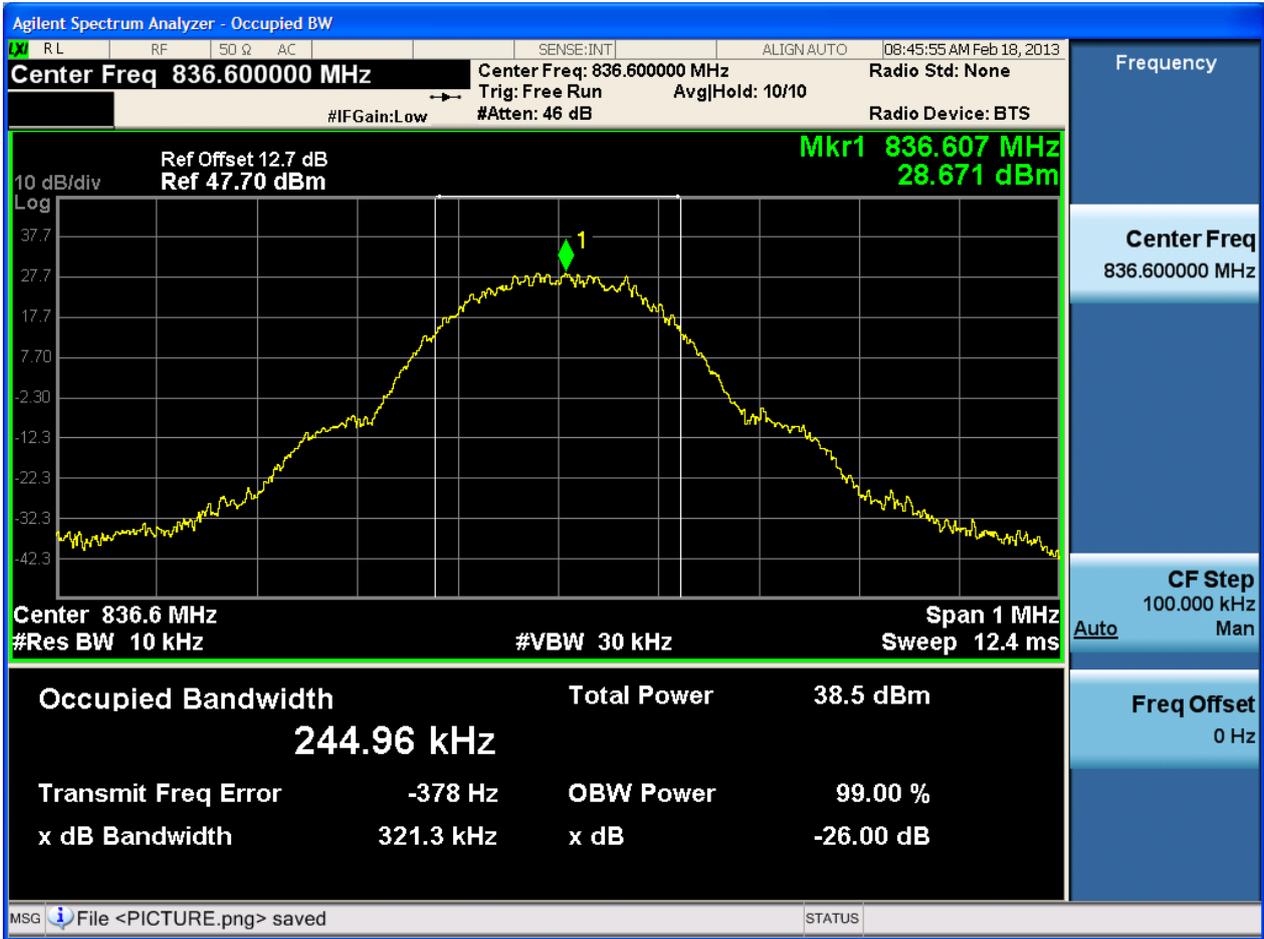
4.1.1.1 Test Mode = GSM/TM1

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



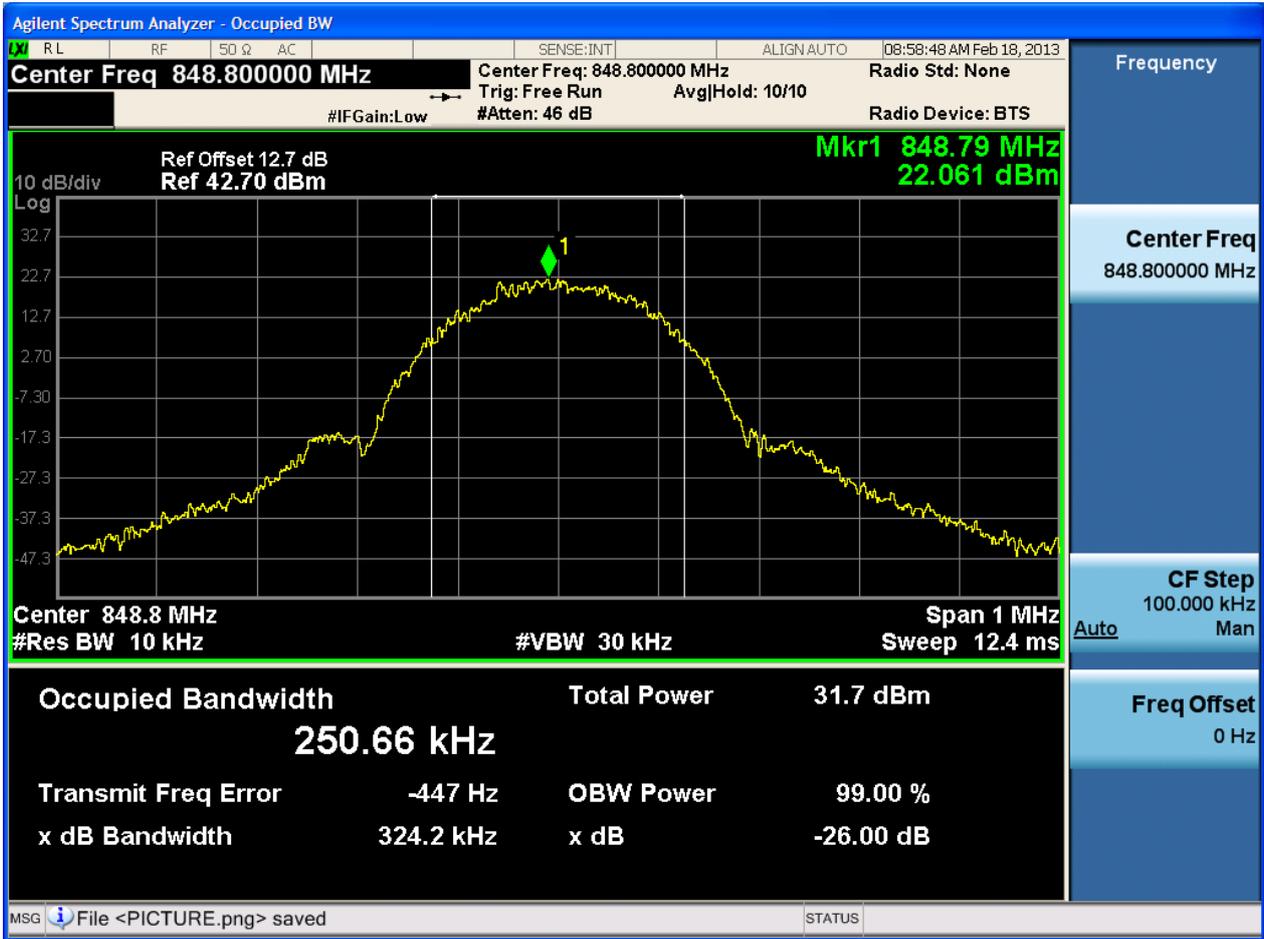


4.1.1.2.2 Test Channel = MCH





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



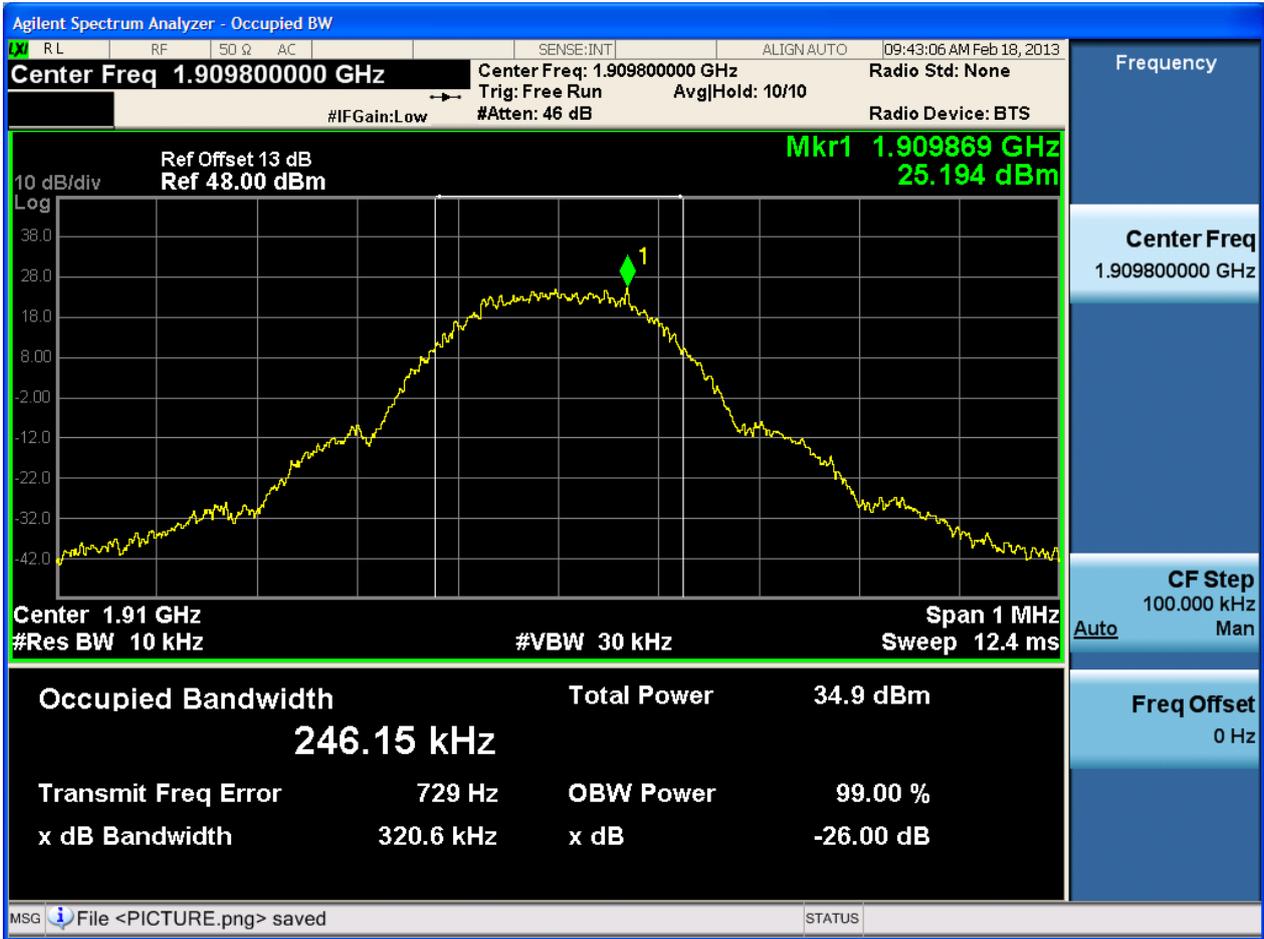


4.1.2.1.2 Test Channel = MCH





4.1.2.1.3 Test Channel = HCH





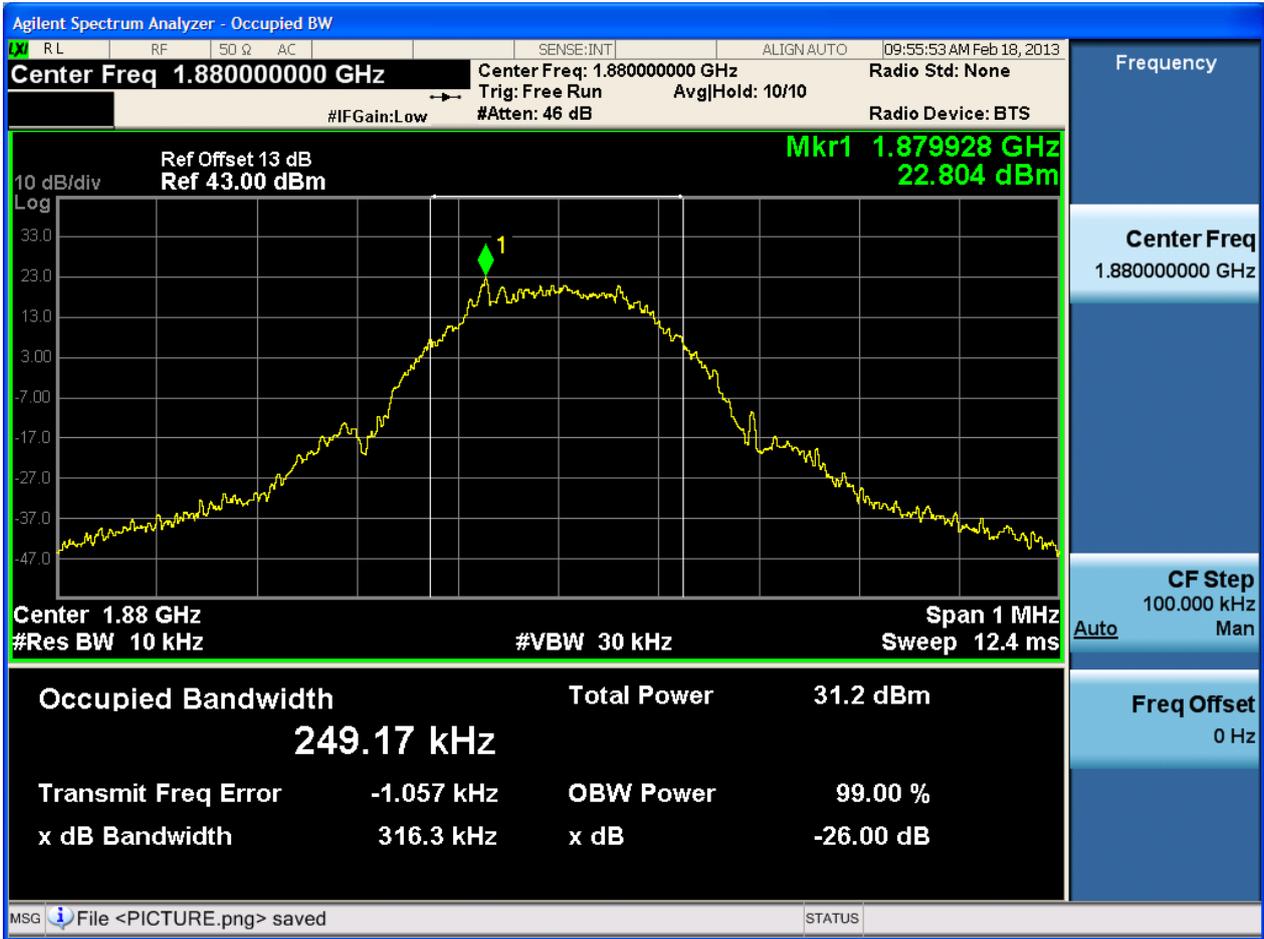
4.1.2.2 Test Mode = GSM/TM2

4.1.2.2.1 Test Channel = LCH



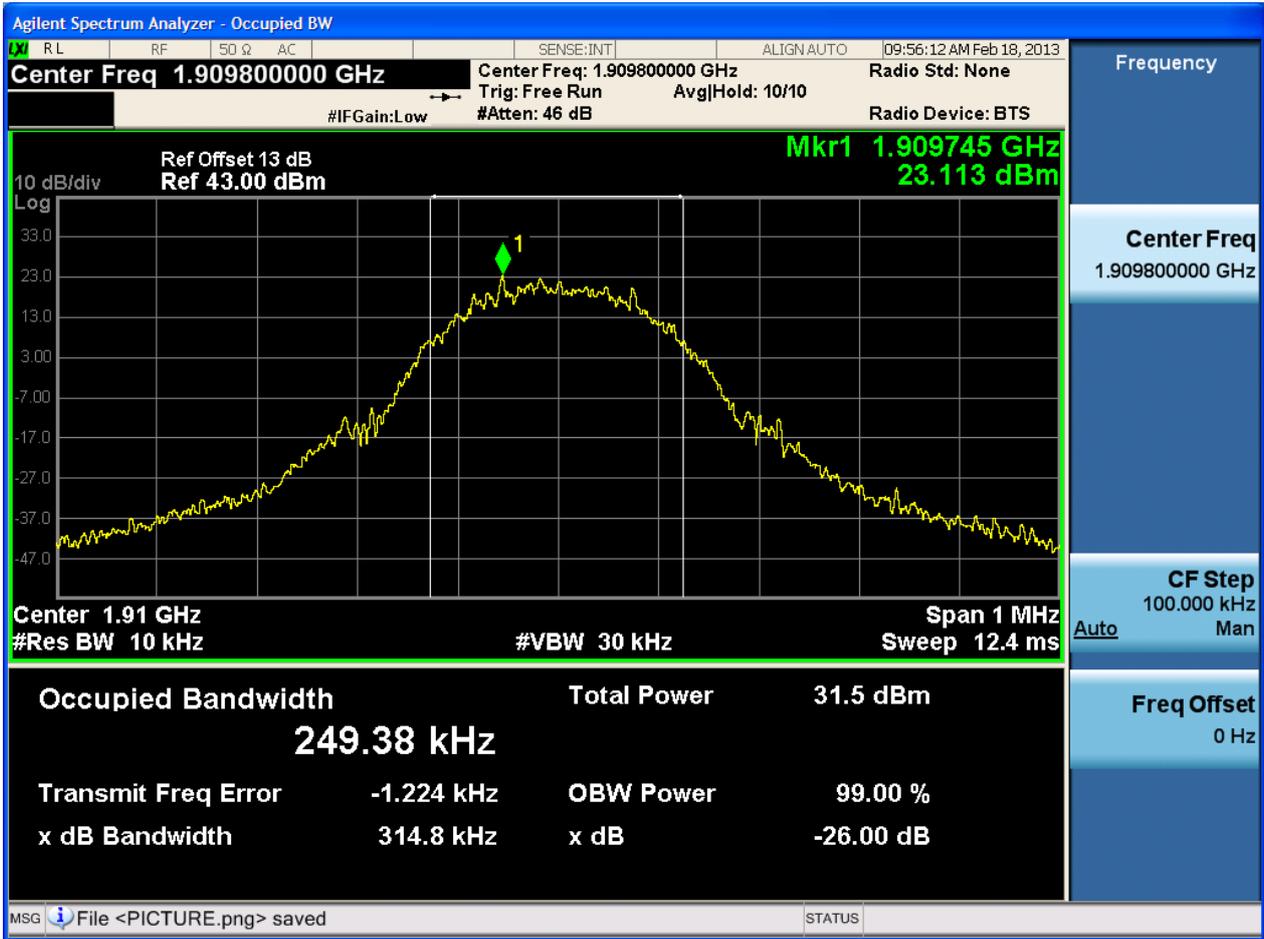


4.1.2.2.2 Test Channel = MCH





4.1.2.2.3 Test Channel = HCH



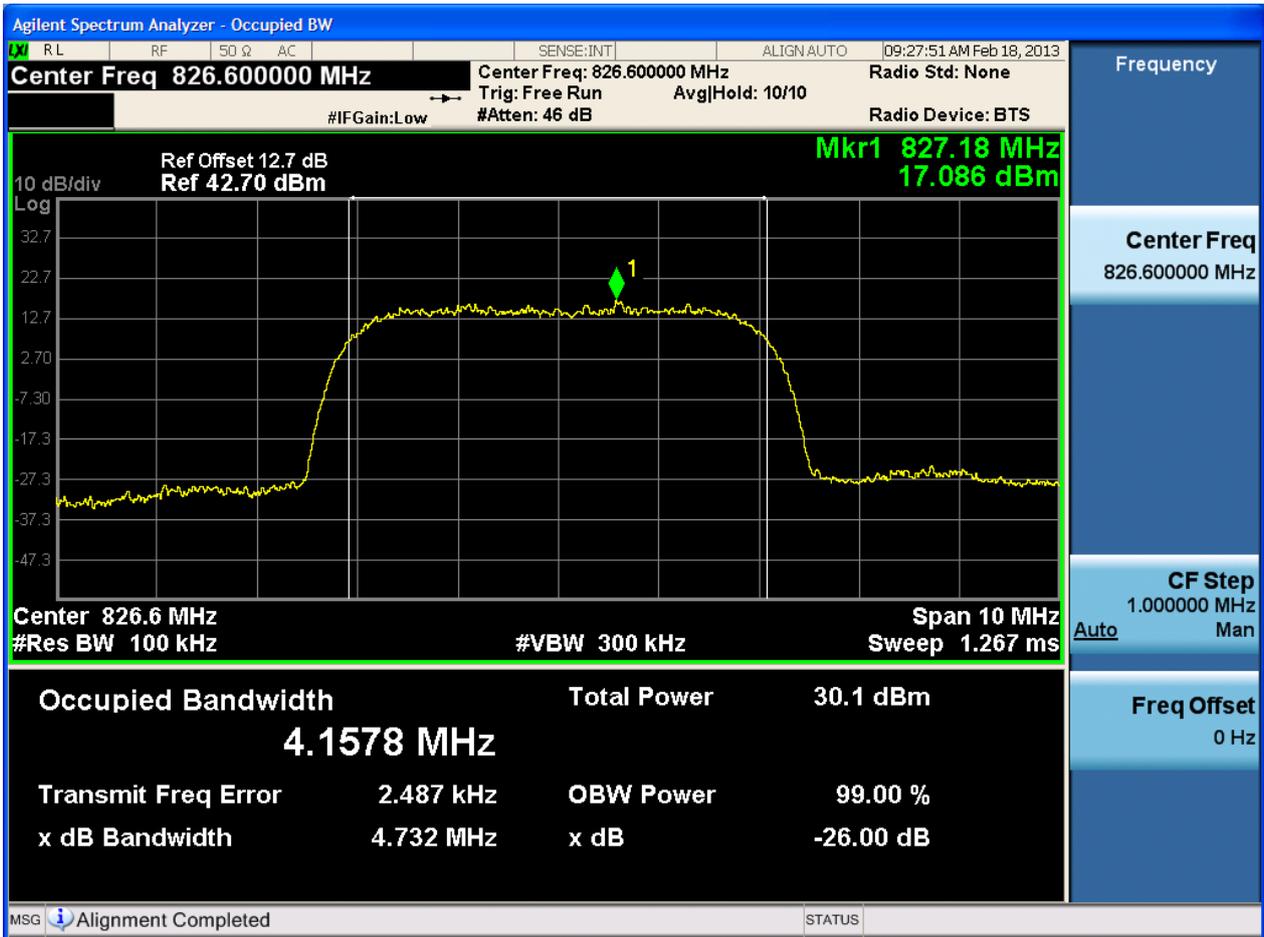


4.2 For UMTS

4.2.1 Test Band = WCDMA850

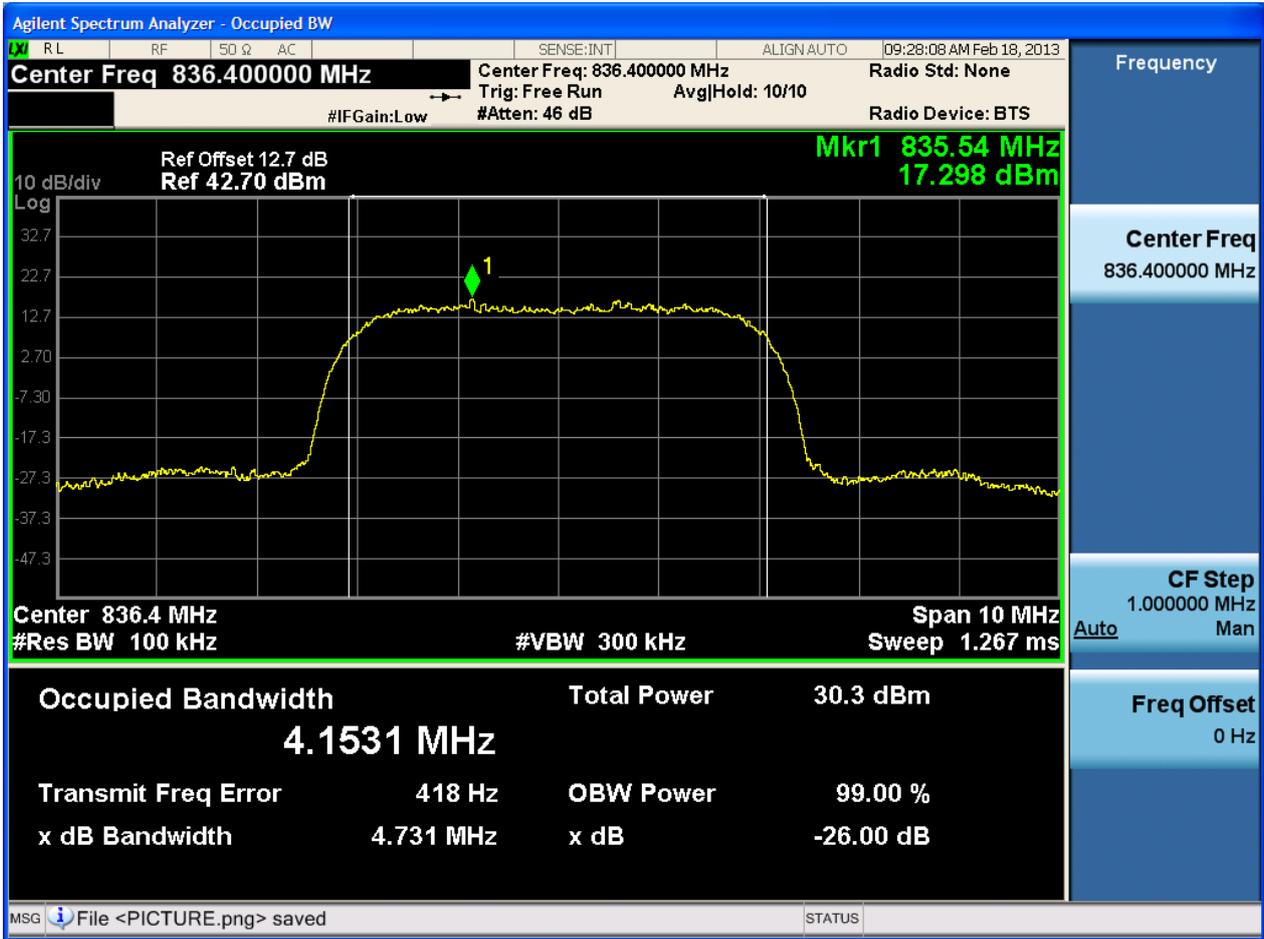
4.2.1.1 Test Mode = UMTS/TM1

4.2.1.1.1 Test Channel = LCH



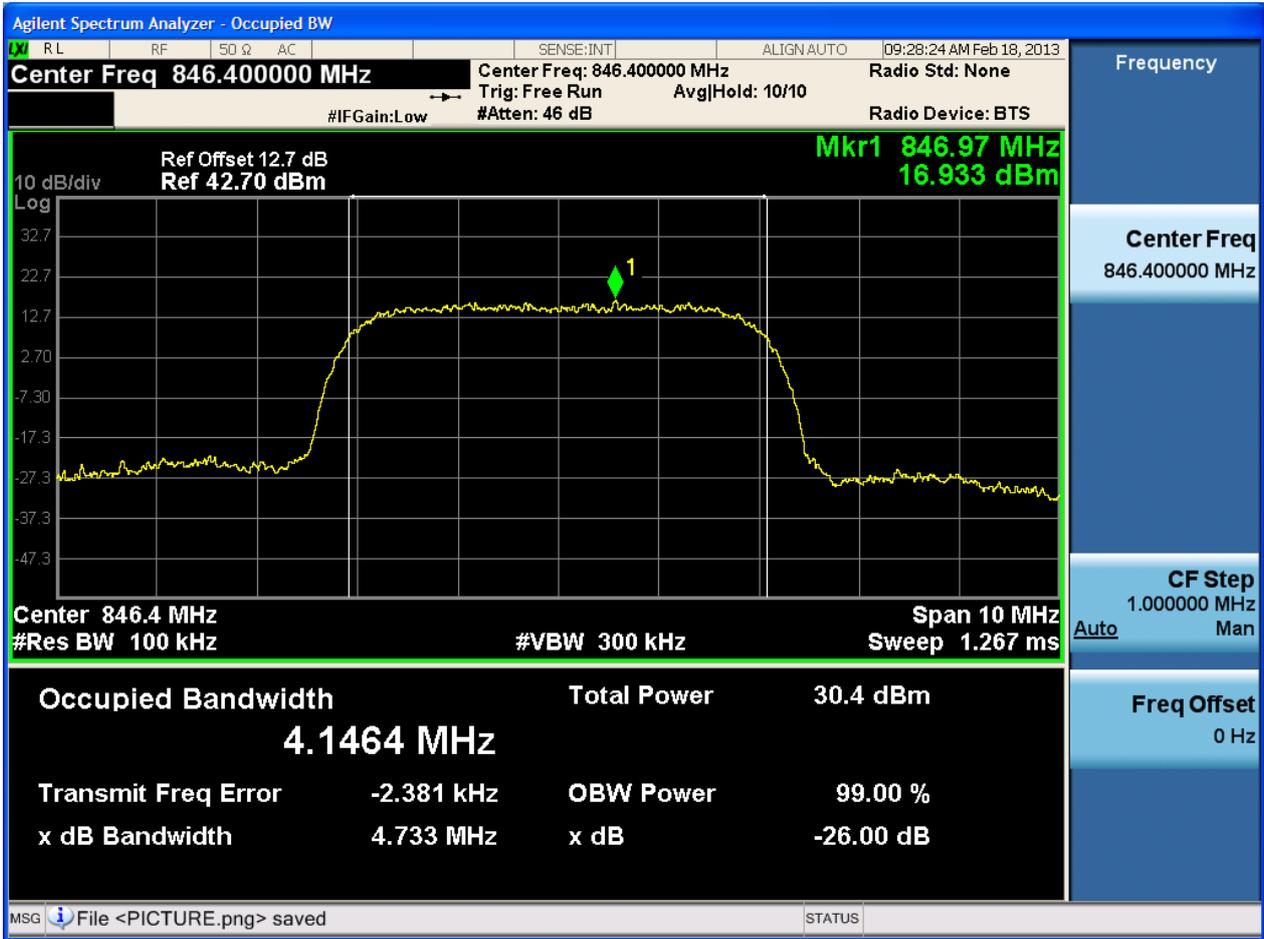


4.2.1.1.2 Test Channel = MCH





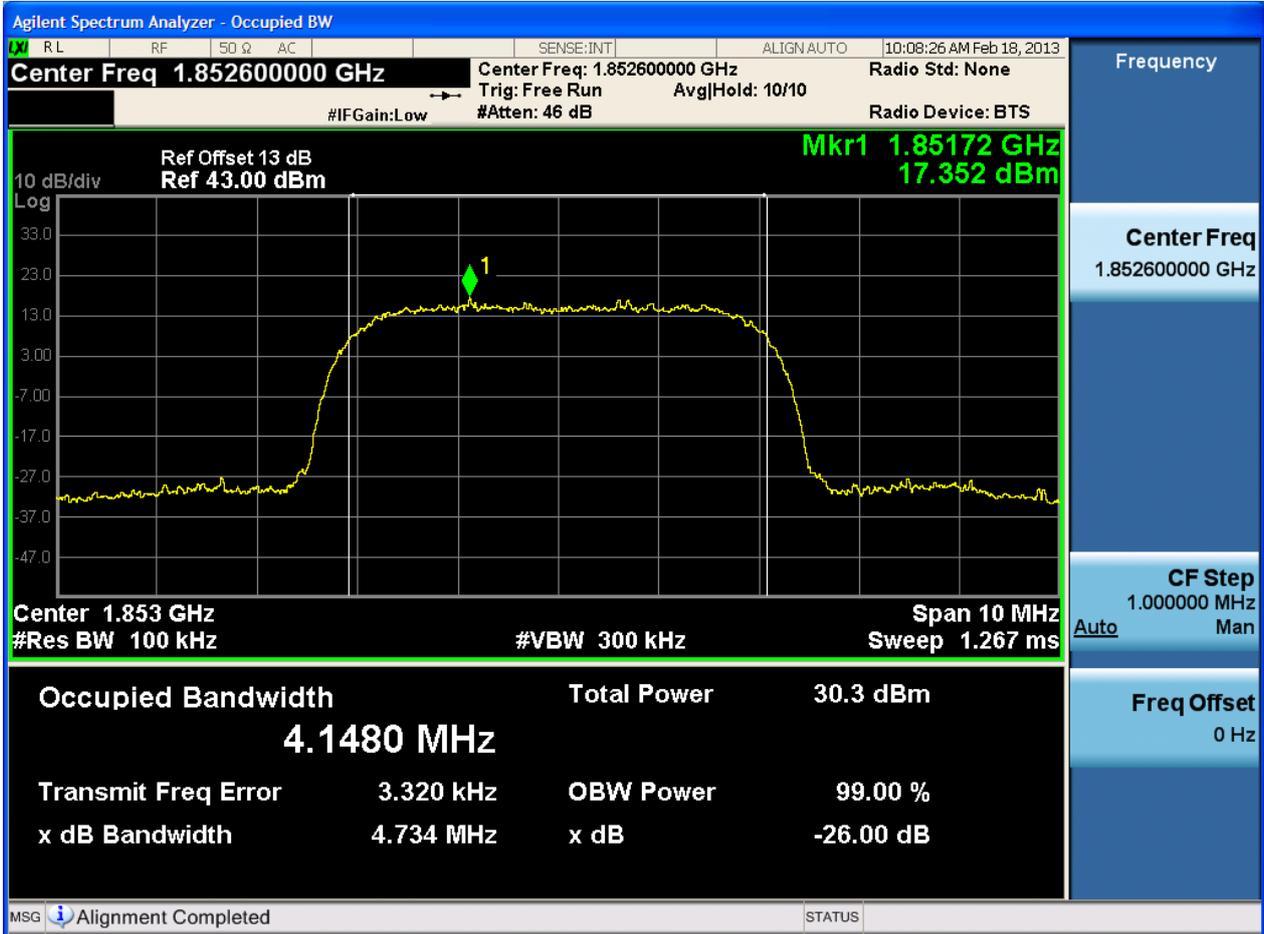
4.2.1.1.3 Test Channel = HCH



4.2.2 Test Band = WCDMA1900

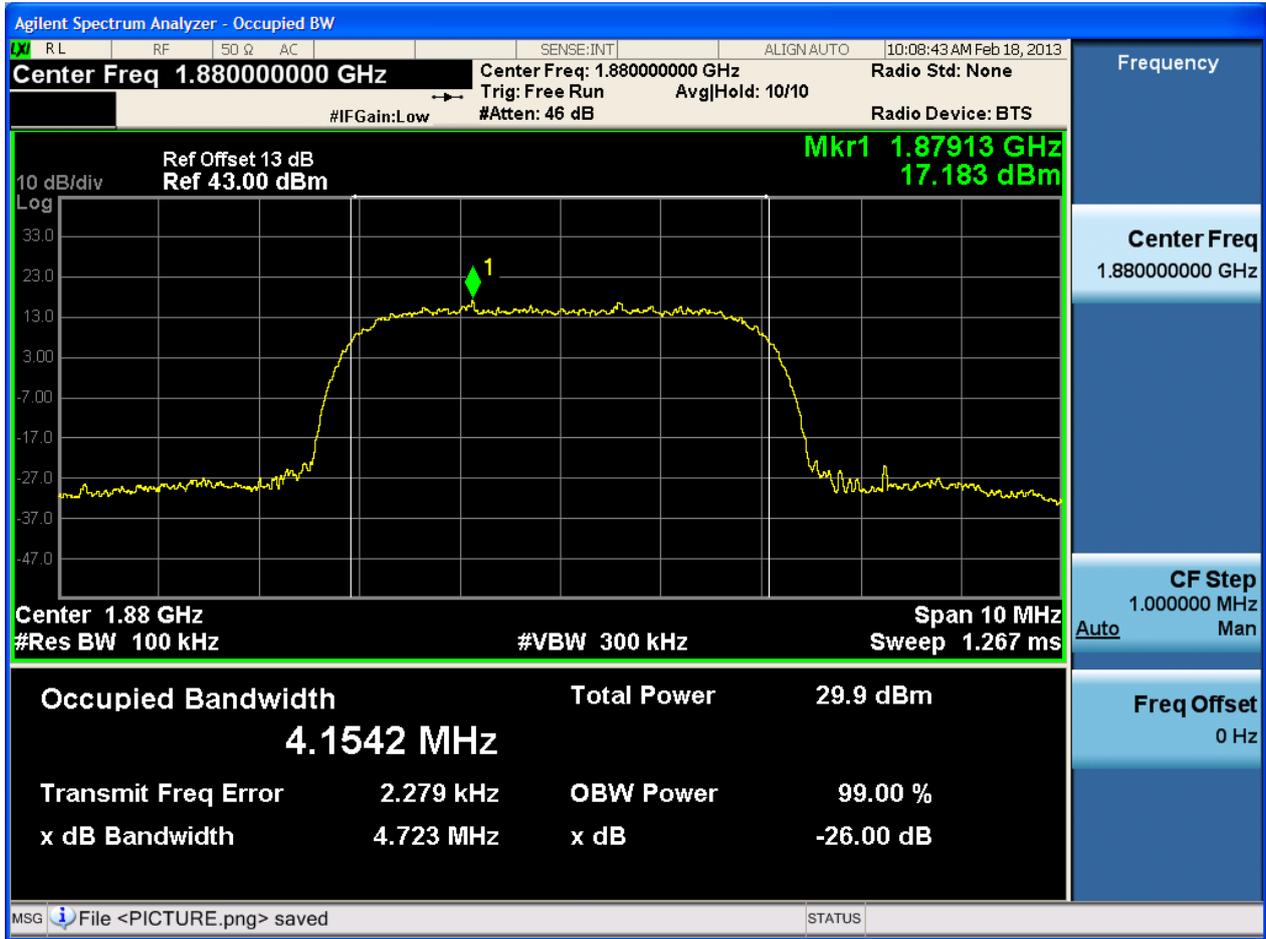
4.2.2.1 Test Mode = UMTS/TM1

4.2.2.1.1 Test Channel = LCH



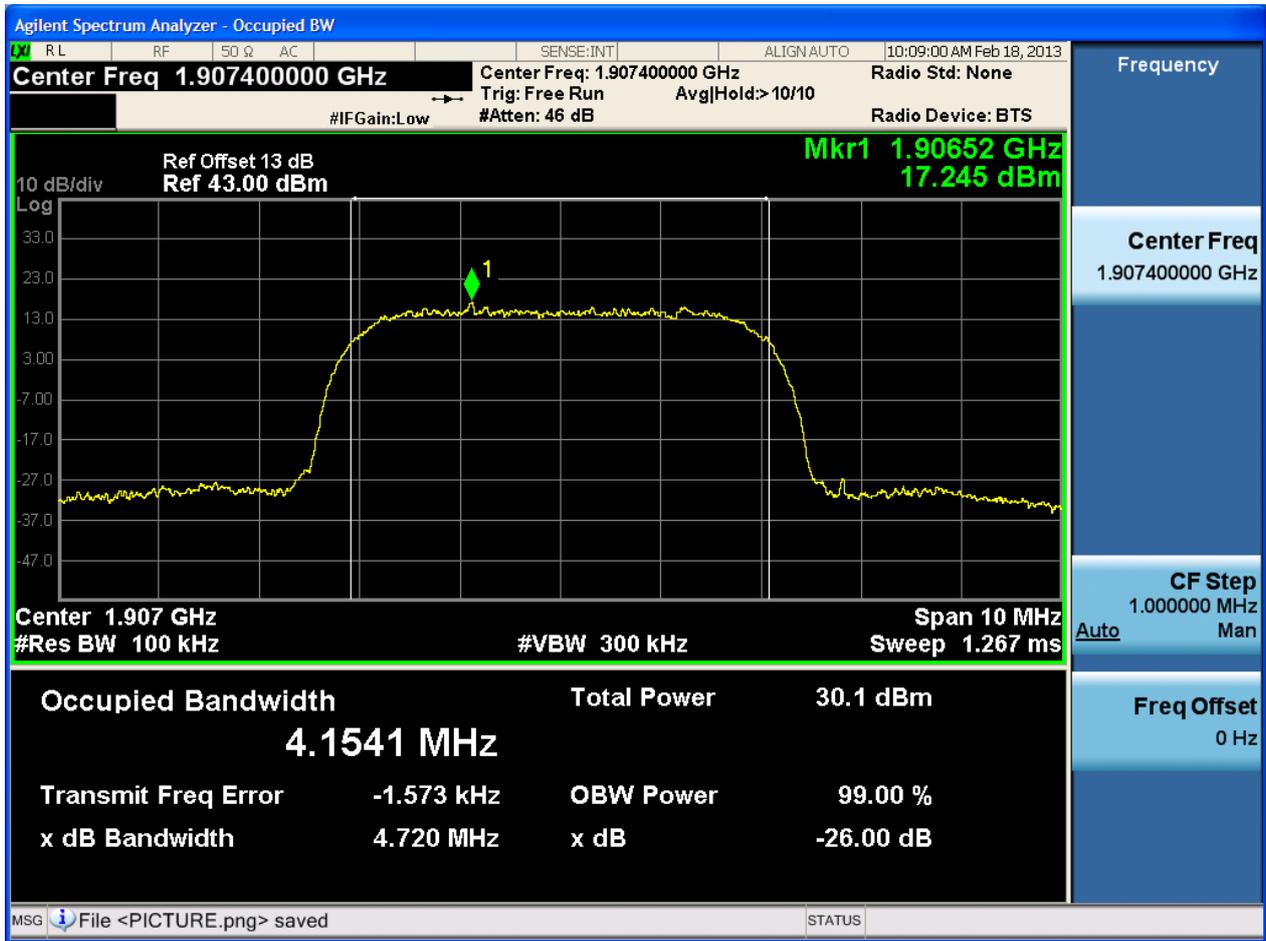


4.2.2.1.2 Test Channel = MCH





4.2.2.1.3 Test Channel = HCH





5Appendix_E: Band Edges Compliance

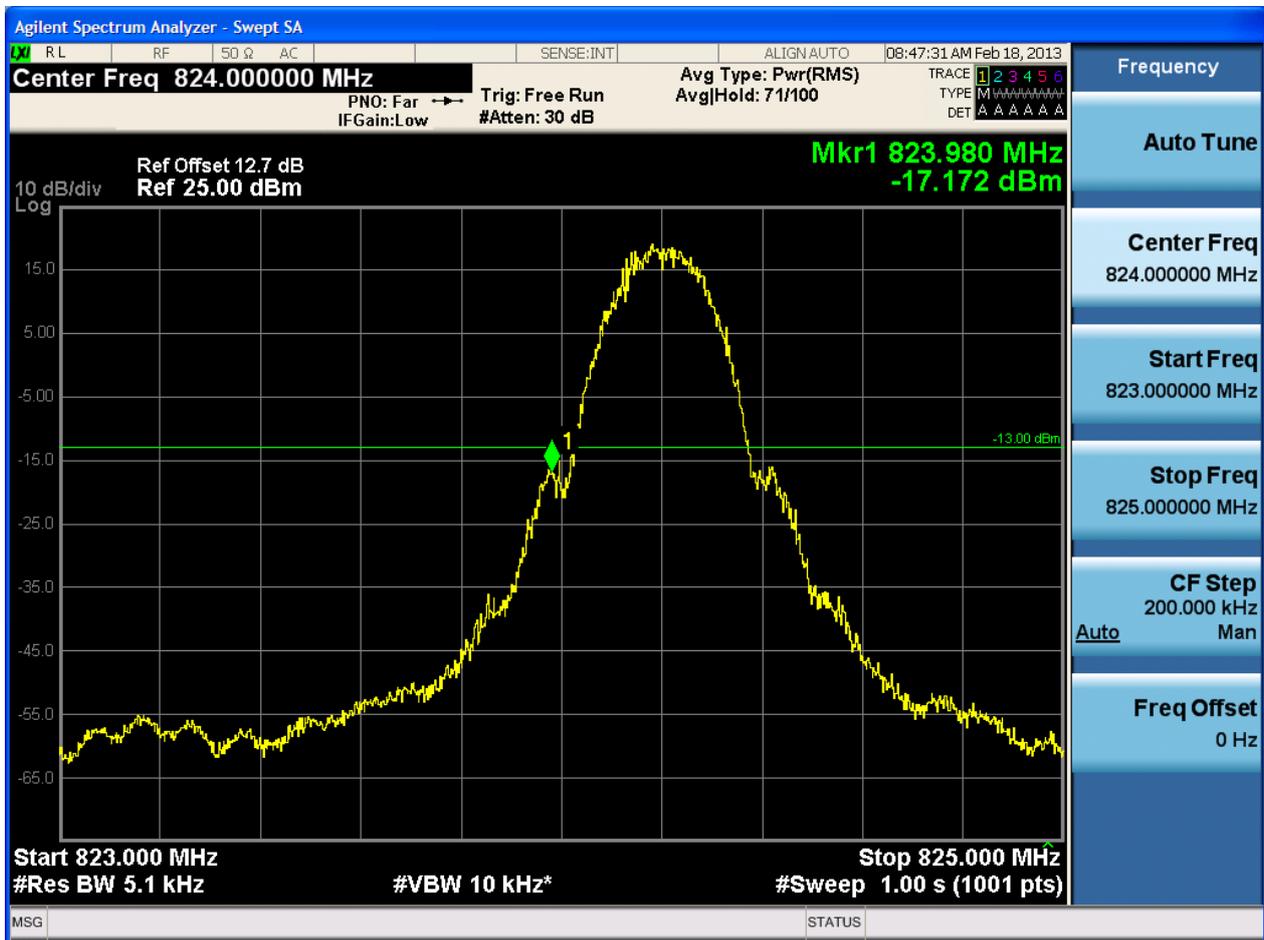
Part I - Test Plots

5.1 For GSM

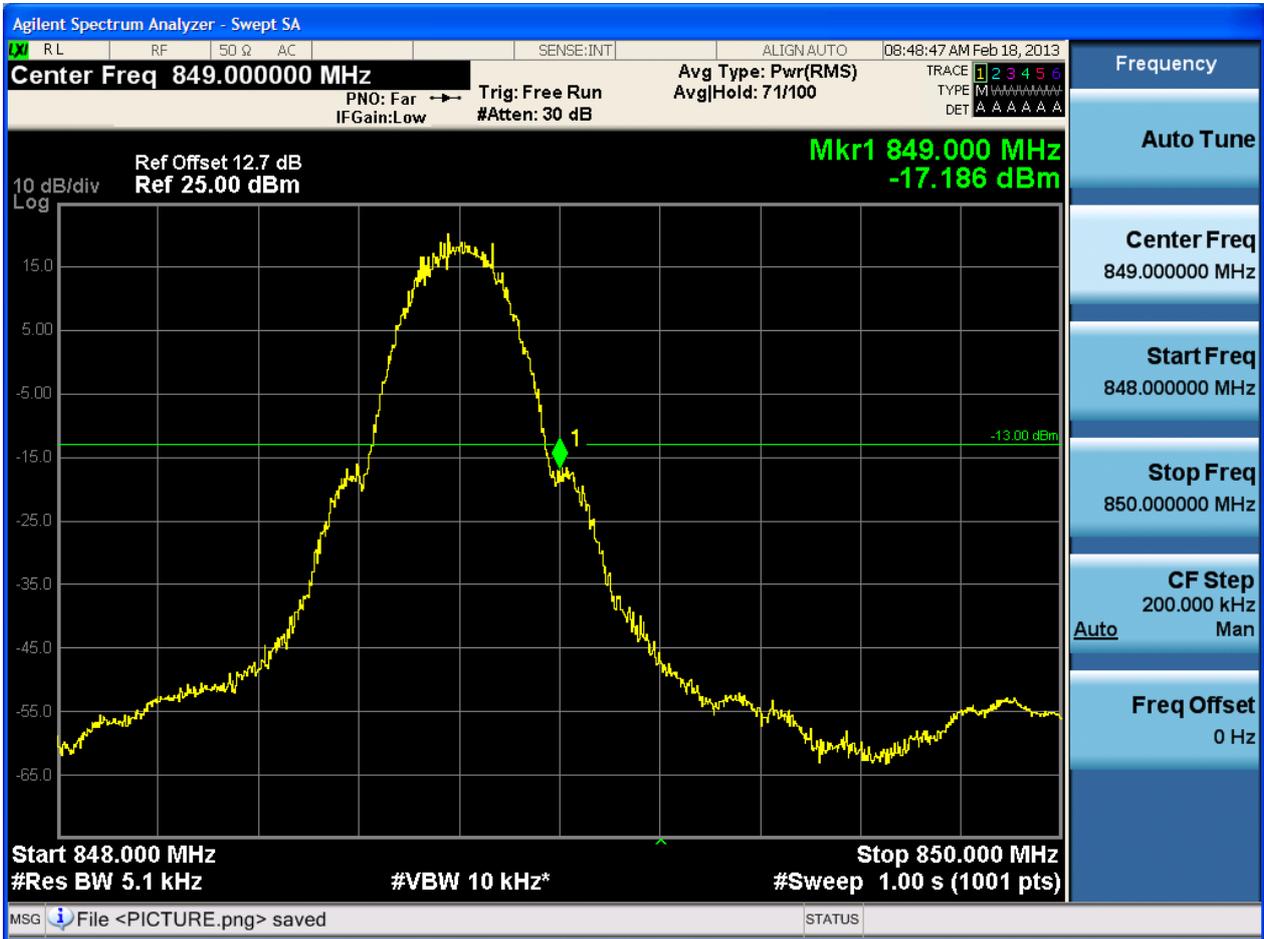
5.1.1 Test Band = GSM850

5.1.1.1 Test Mode = GSM/TM1

5.1.1.1.1 Test Channel = LCH

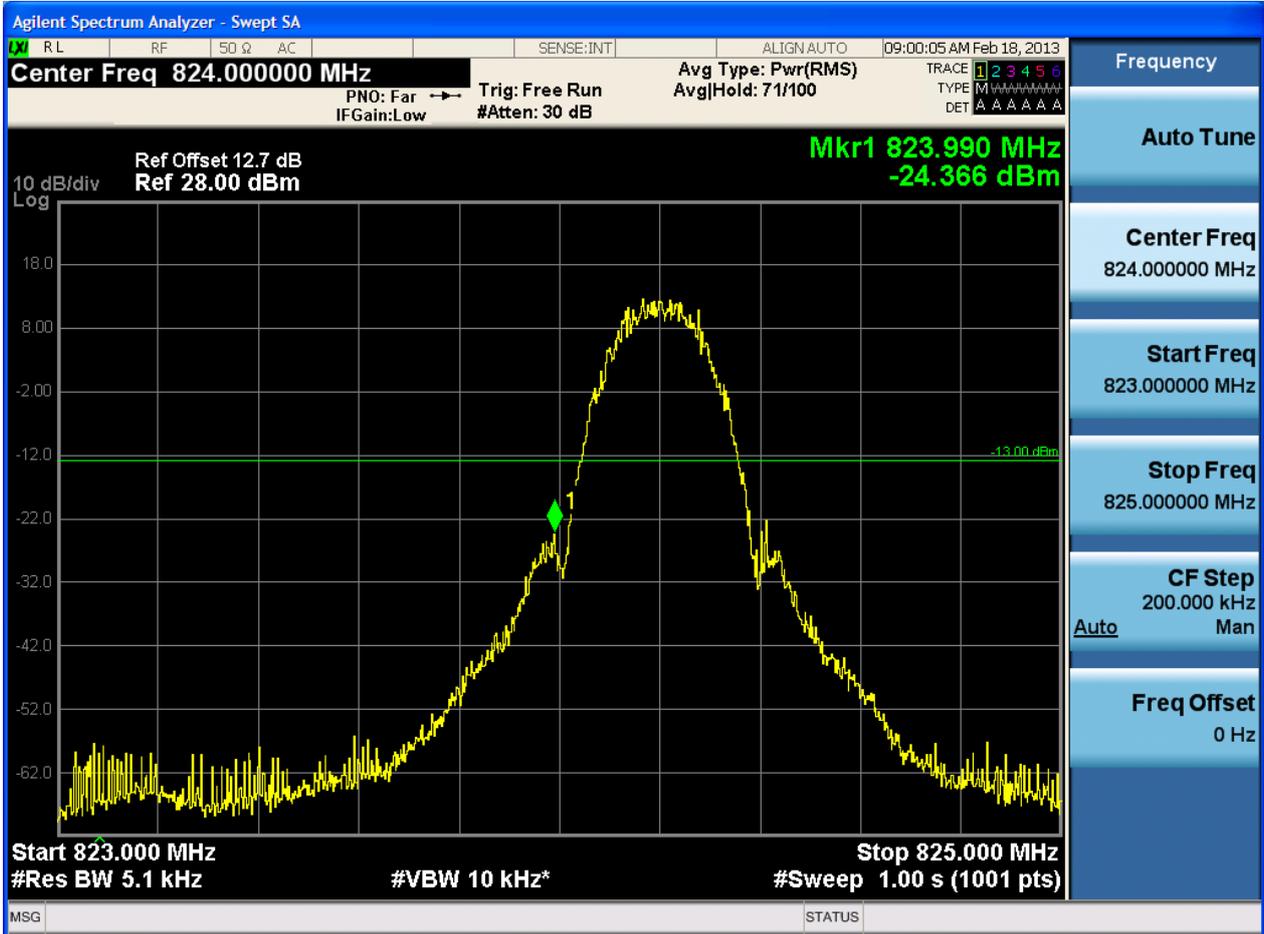


5.1.1.1.2 Test Channel = HCH

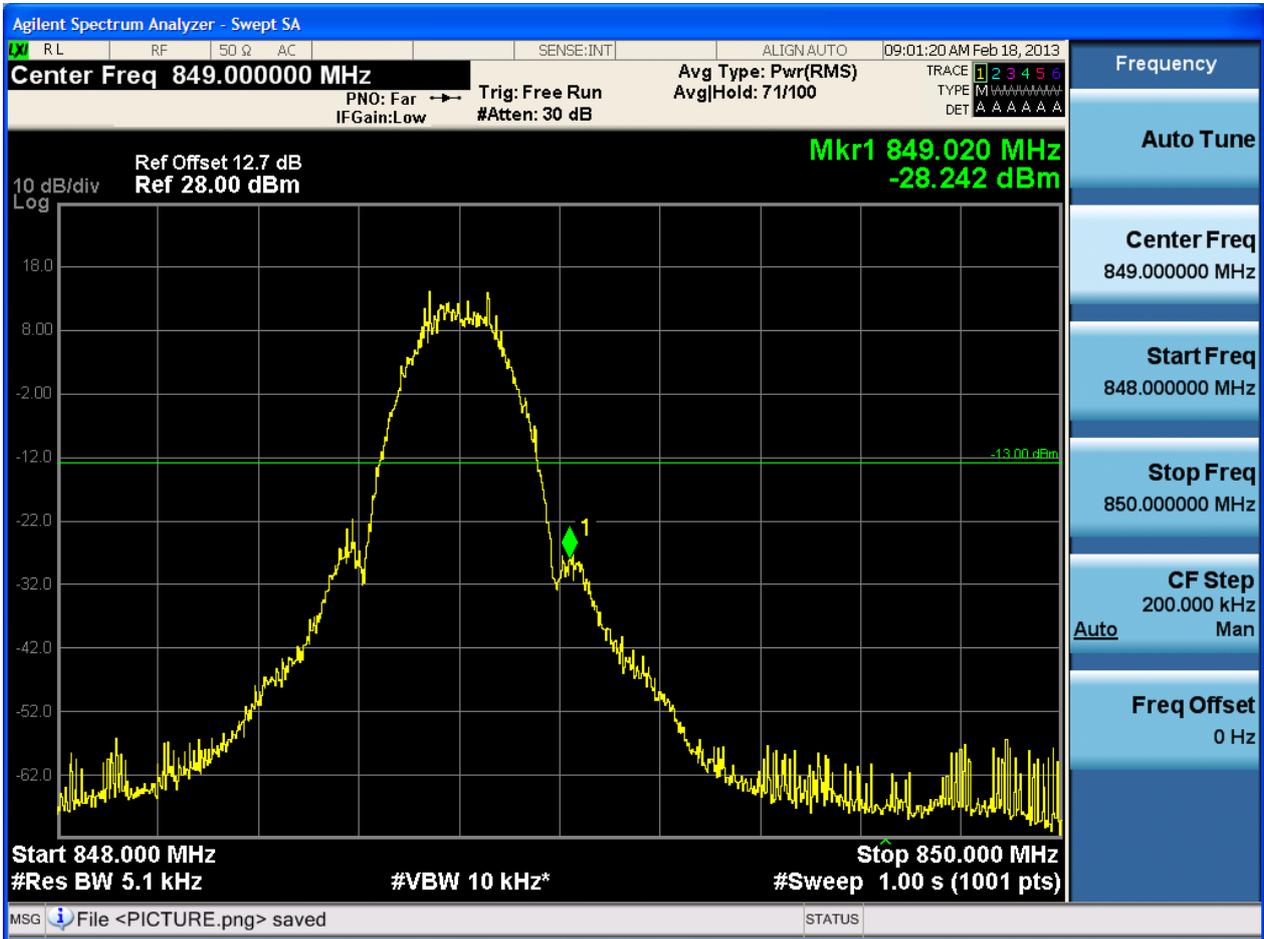


5.1.1.2 Test Mode = GSM/TM2

5.1.1.2.1 Test Channel = LCH



5.1.1.2.2 Test Channel = HCH

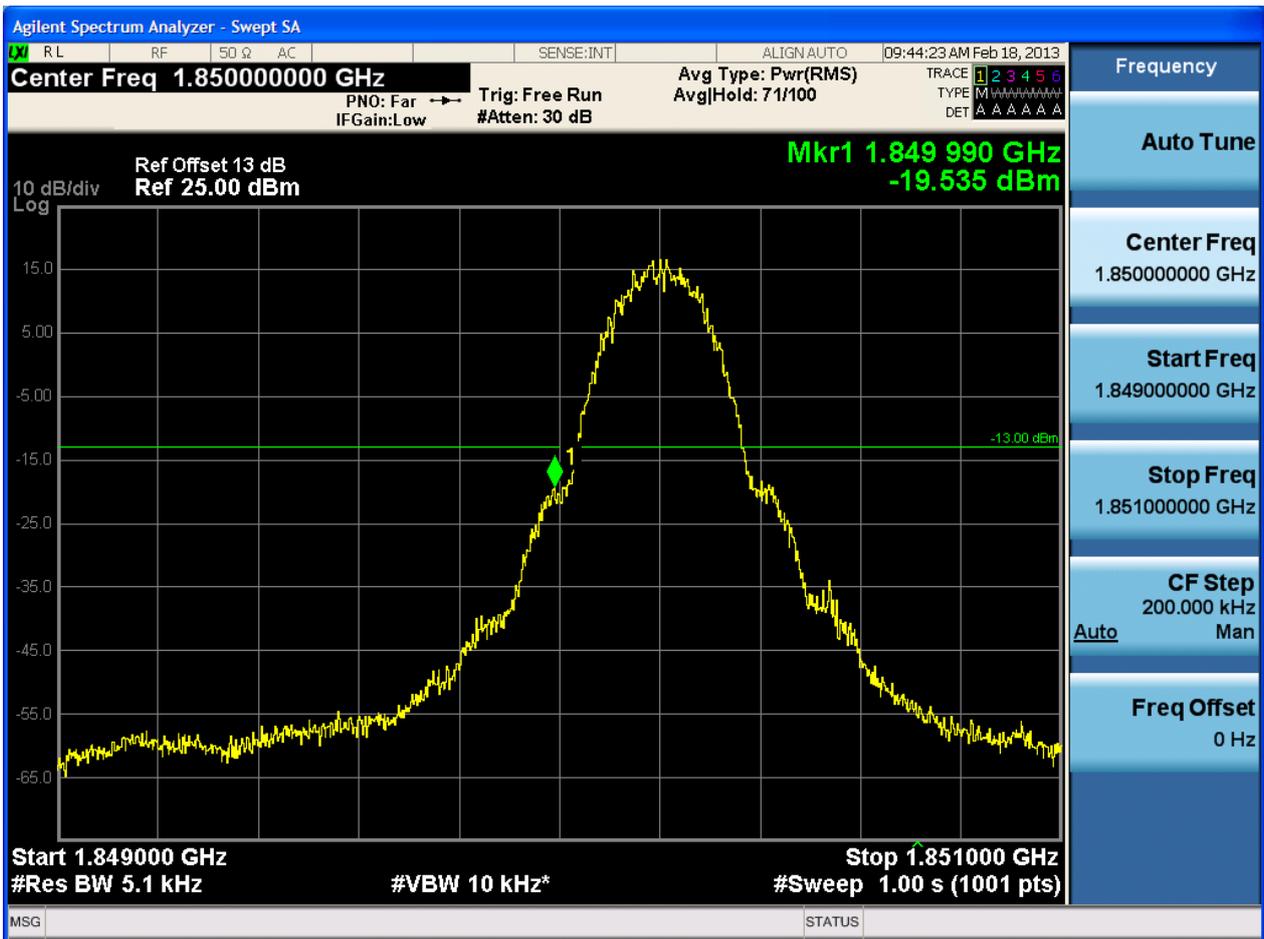




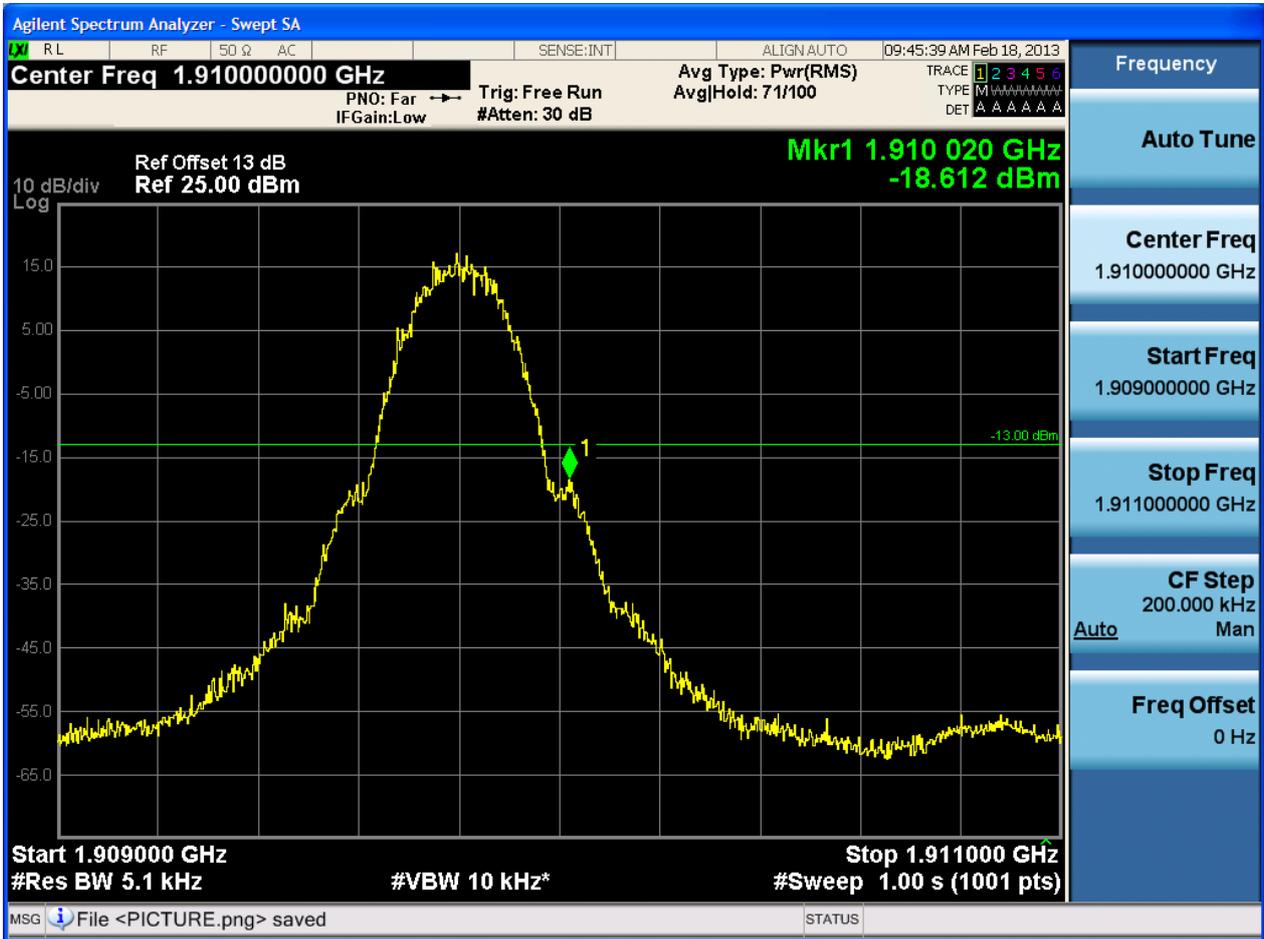
5.1.2 Test Band = GSM1900

5.1.2.1 Test Mode = GSM/TM1

5.1.2.1.1 Test Channel = LCH

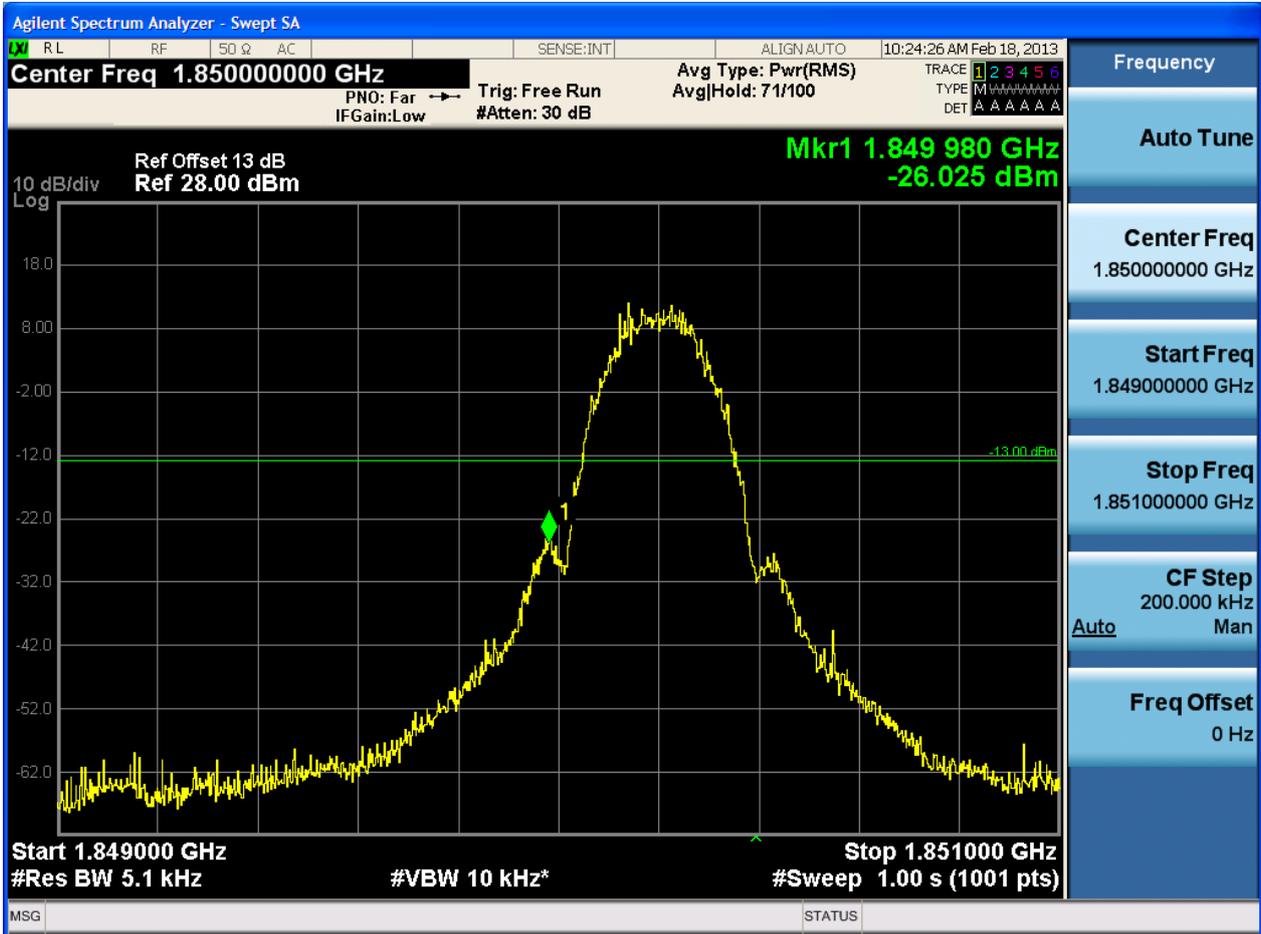


5.1.2.1.2 Test Channel = HCH

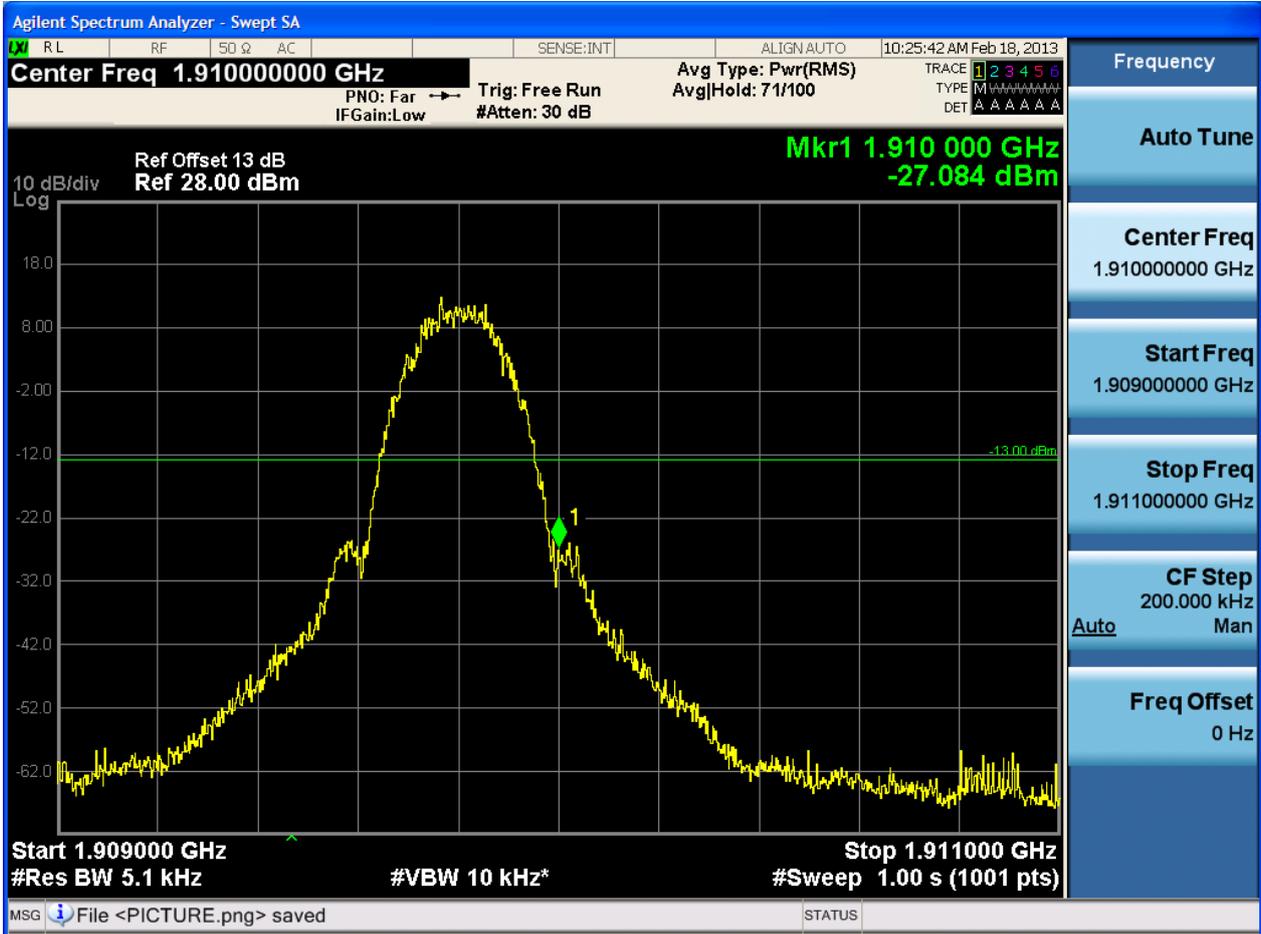


5.1.2.2 Test Mode = GSM/TM2

5.1.2.2.1 Test Channel = LCH



5.1.2.2.2 Test Channel = HCH





5.2 For UMTS

5.2.1 Test Band = WCDMA850

5.2.1.1 Test Mode = UMTS/TM1

5.2.1.1.1 Test Channel = LCH



5.2.1.1.2 Test Channel = HCH





5.2.2 Test Band = WCDMA1900

5.2.2.1 Test Mode = UMTS/TM1

5.2.2.1.1 Test Channel = LCH



5.2.2.1.2 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.

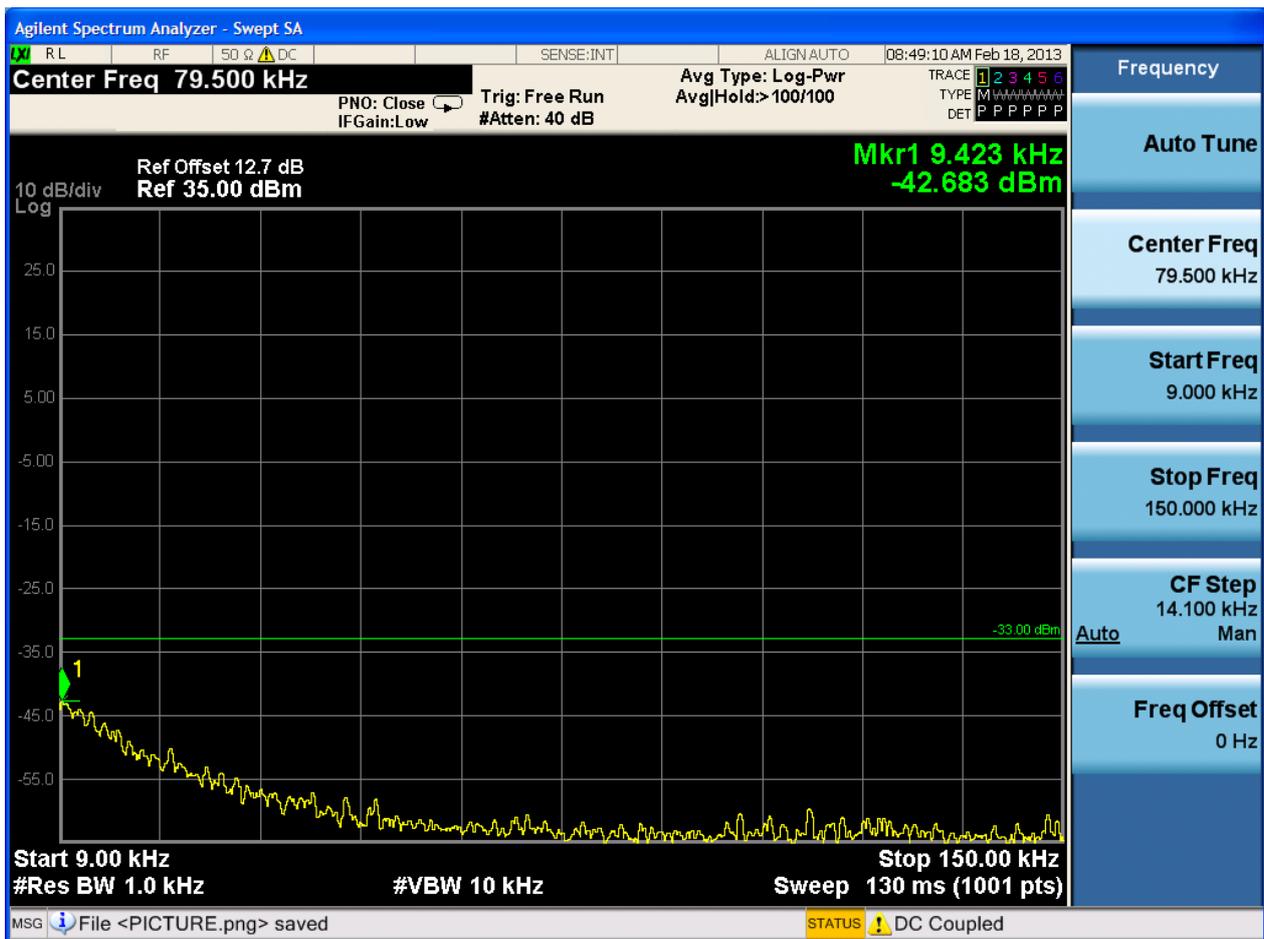
Part I - Test Plots

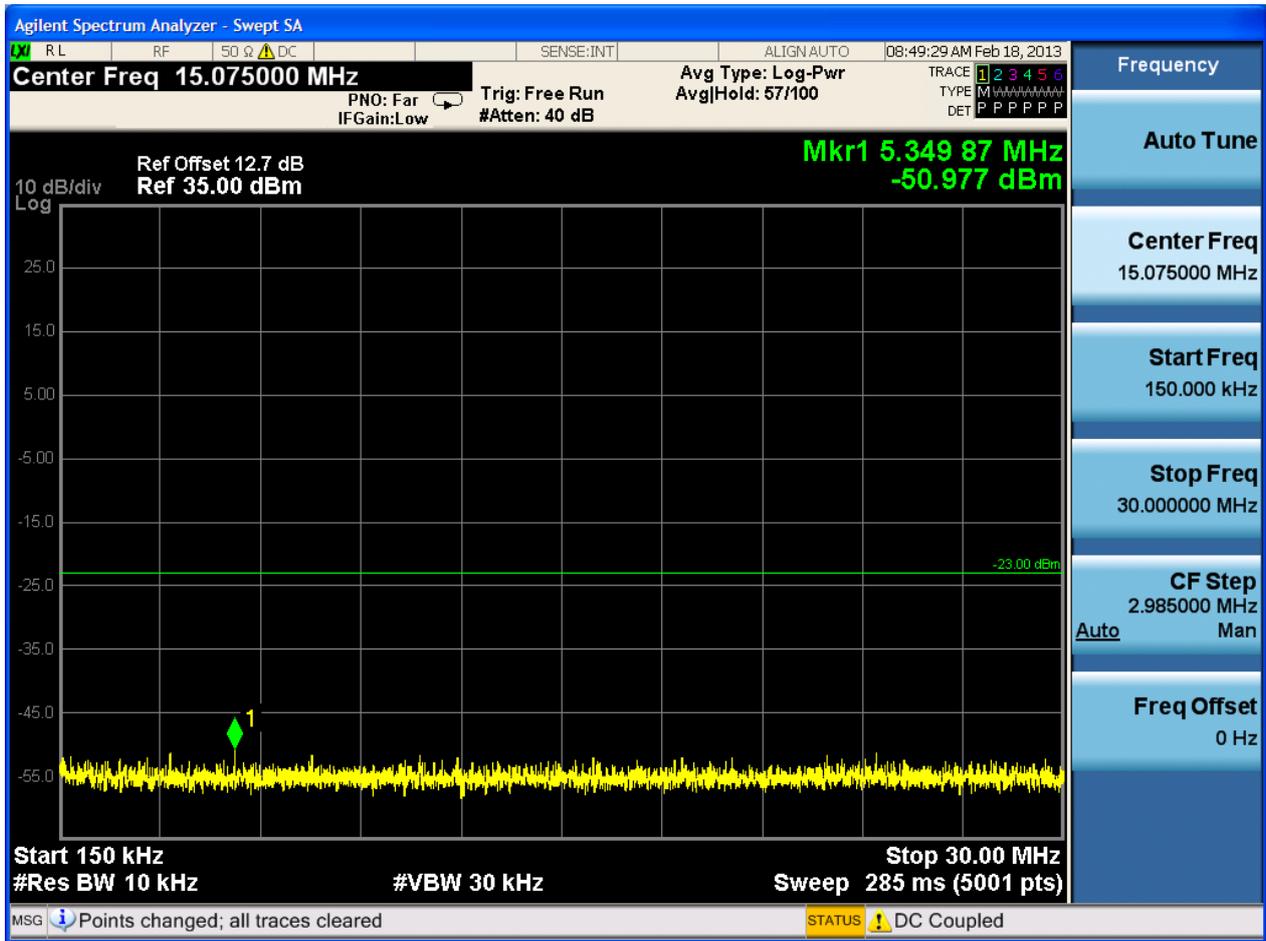
6.1 For GSM

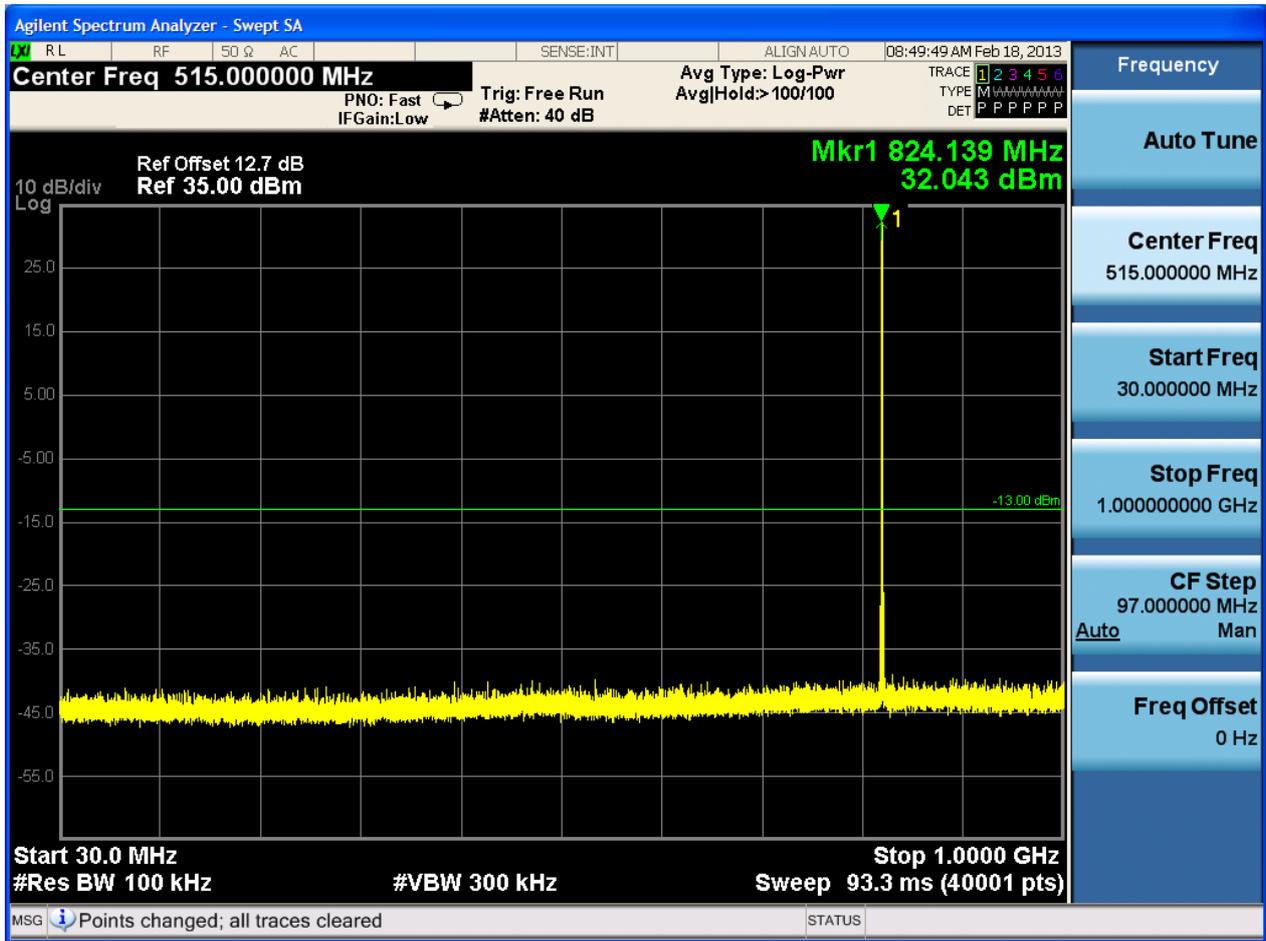
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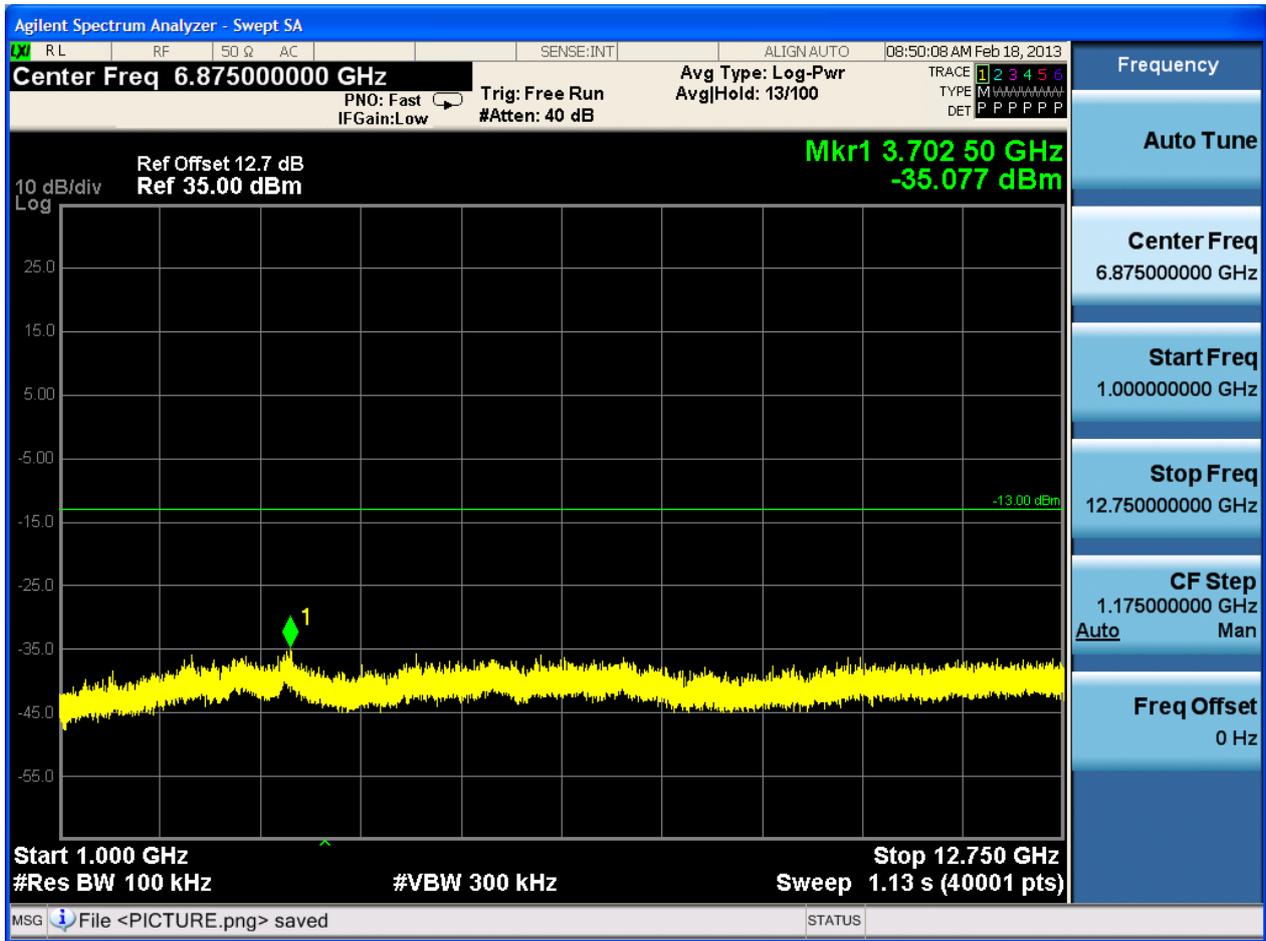
6.1.1.1 Test Mode = GSM/TM1

6.1.1.1.1 Test Channel = LCH





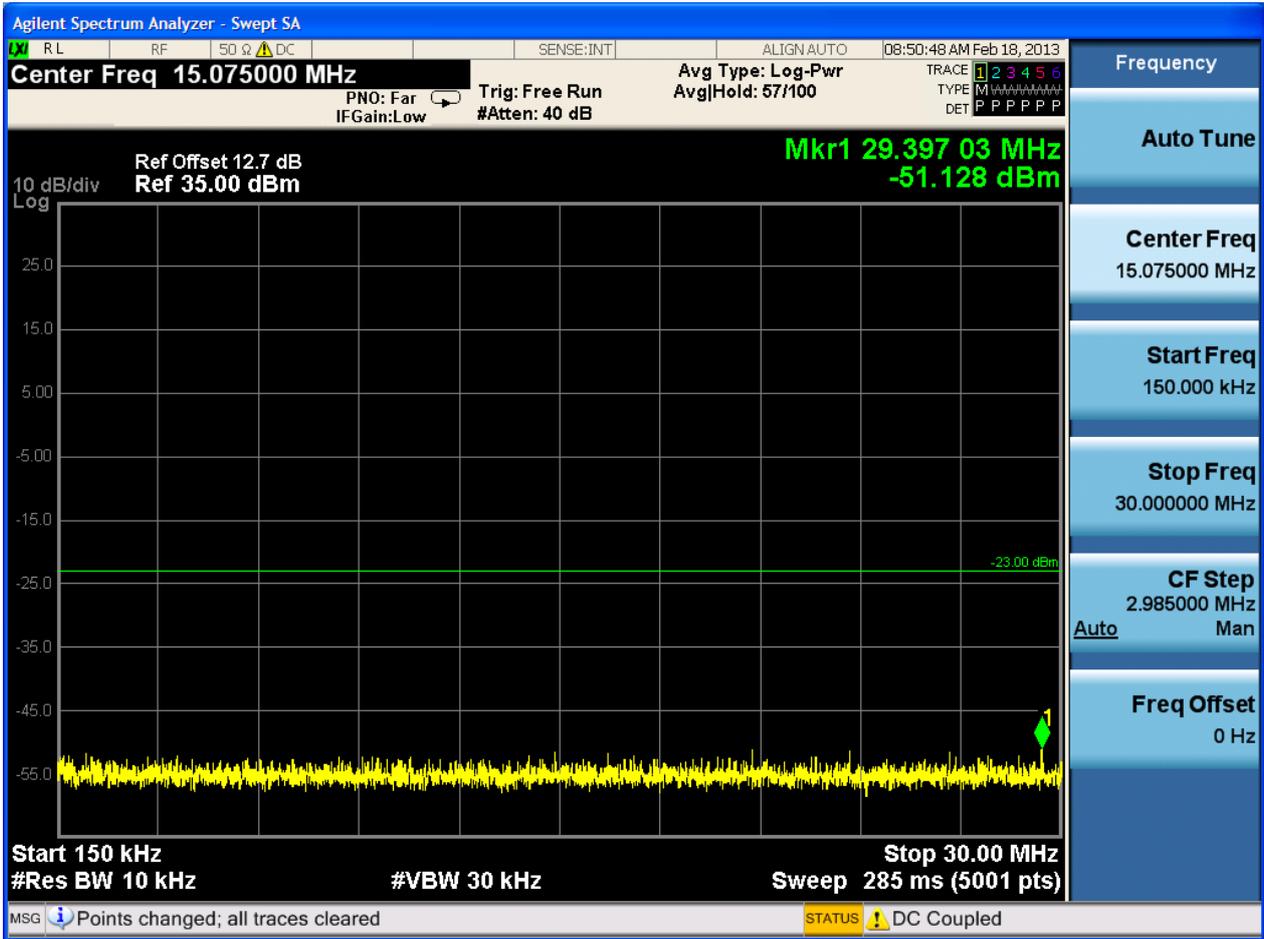


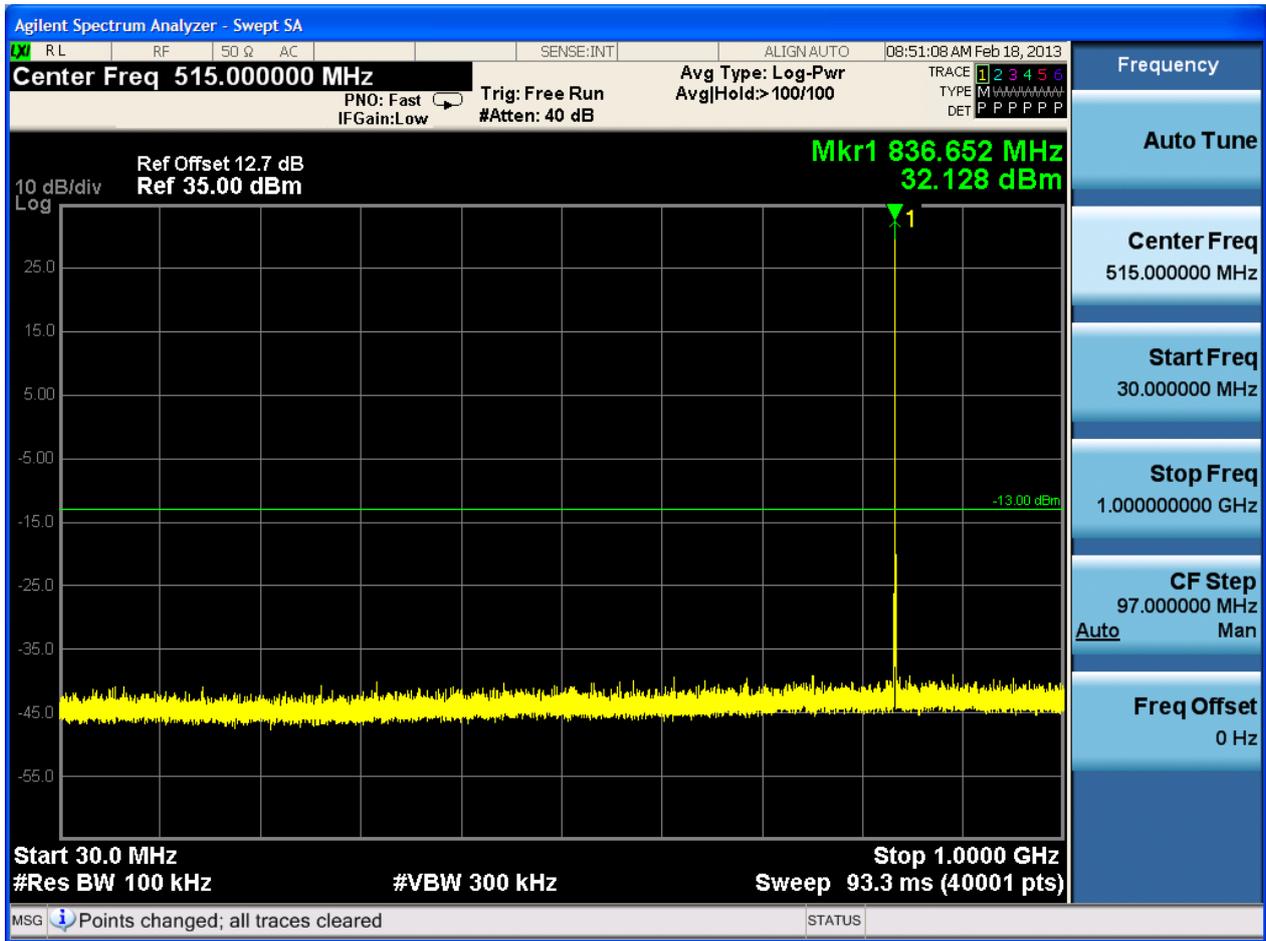


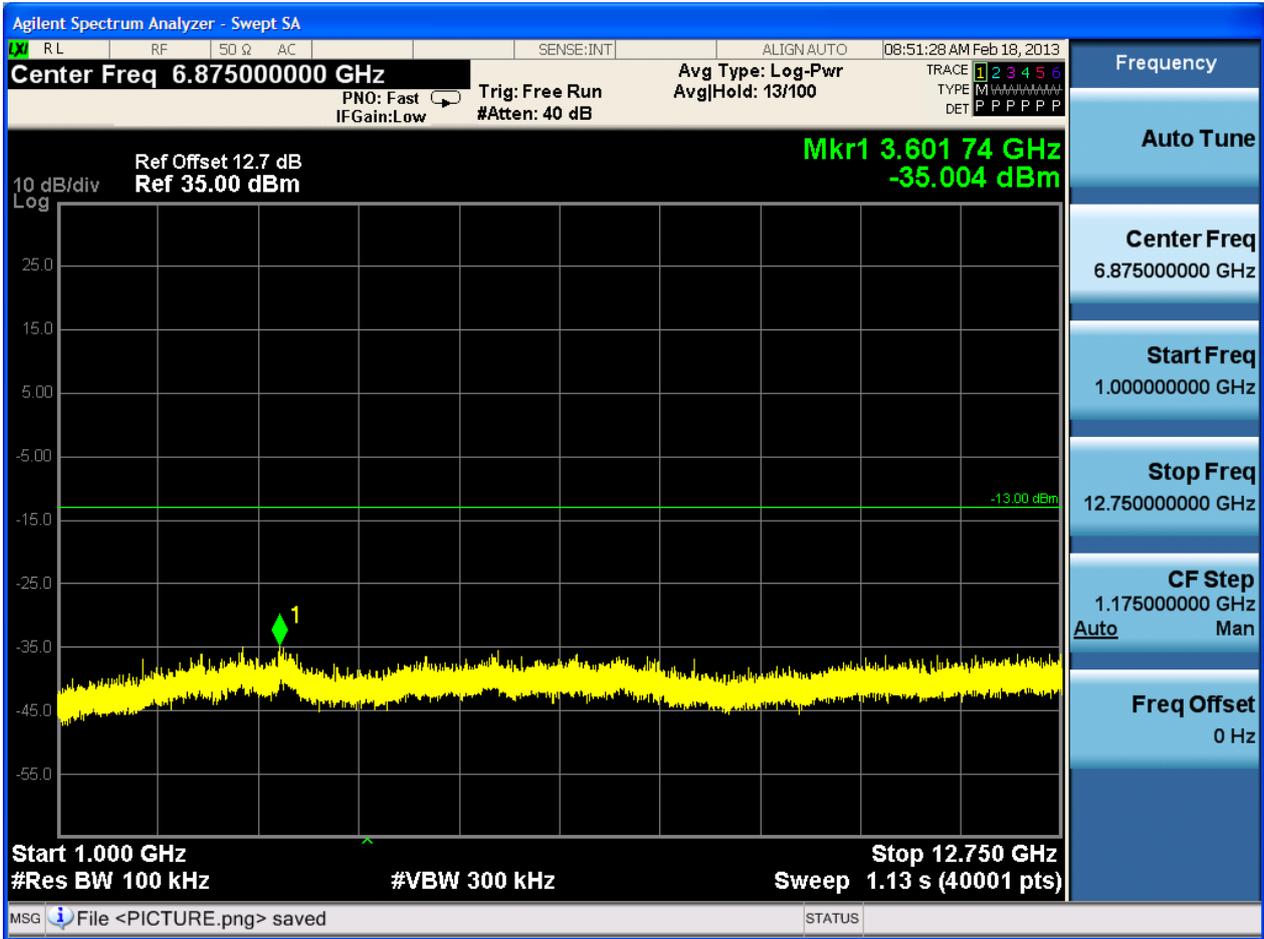


6.1.1.1.2 Test Channel = MCH

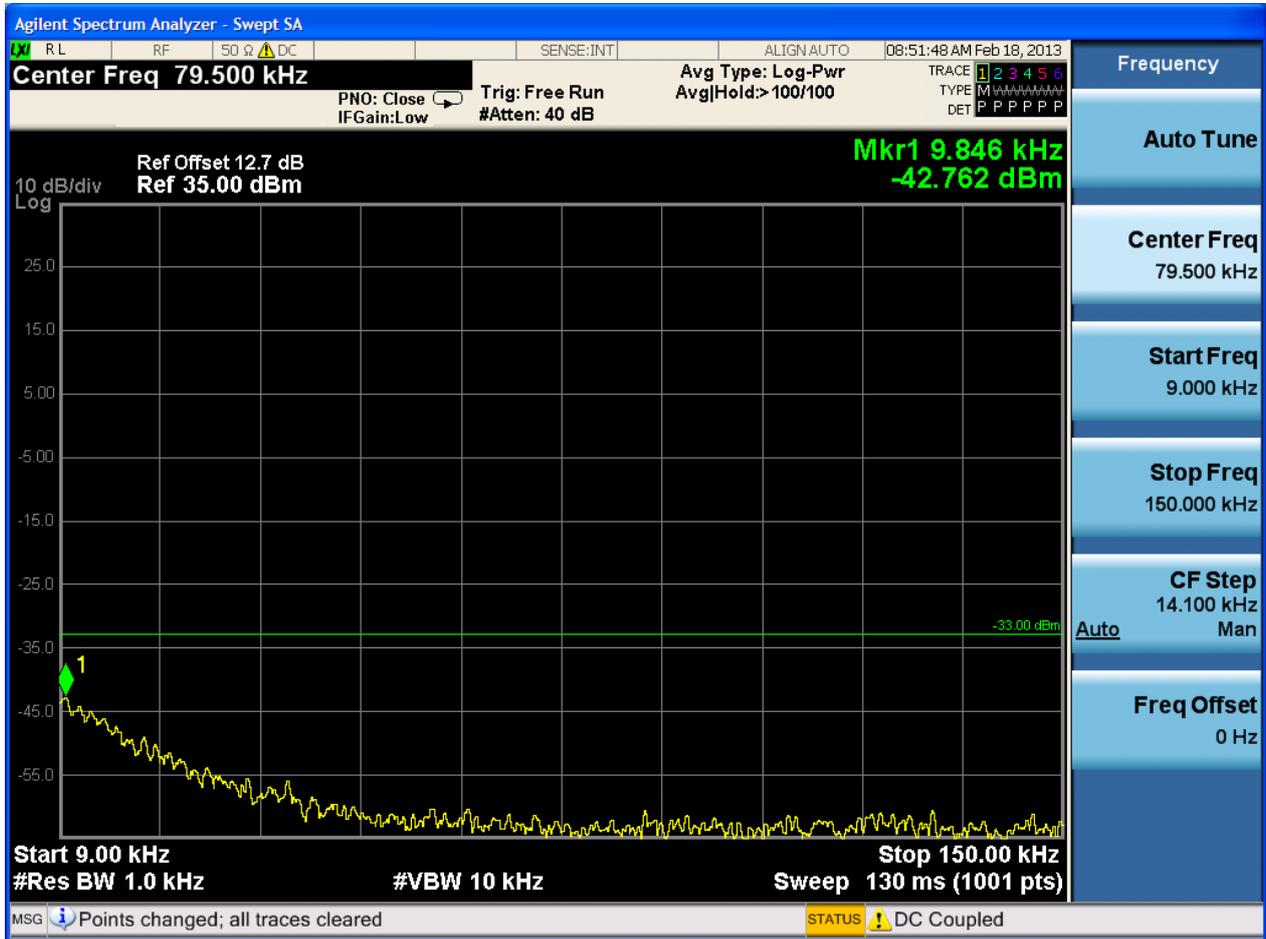


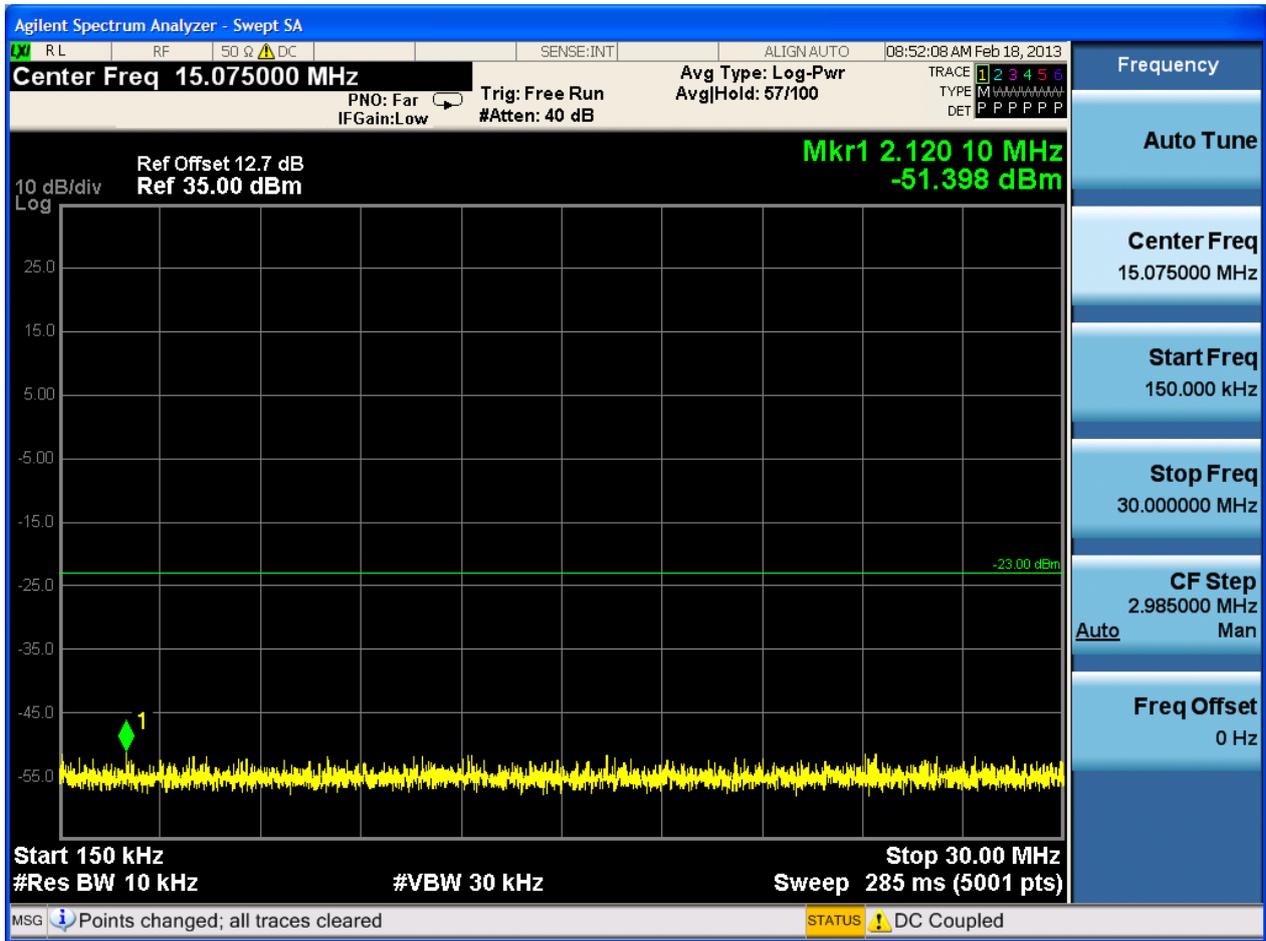


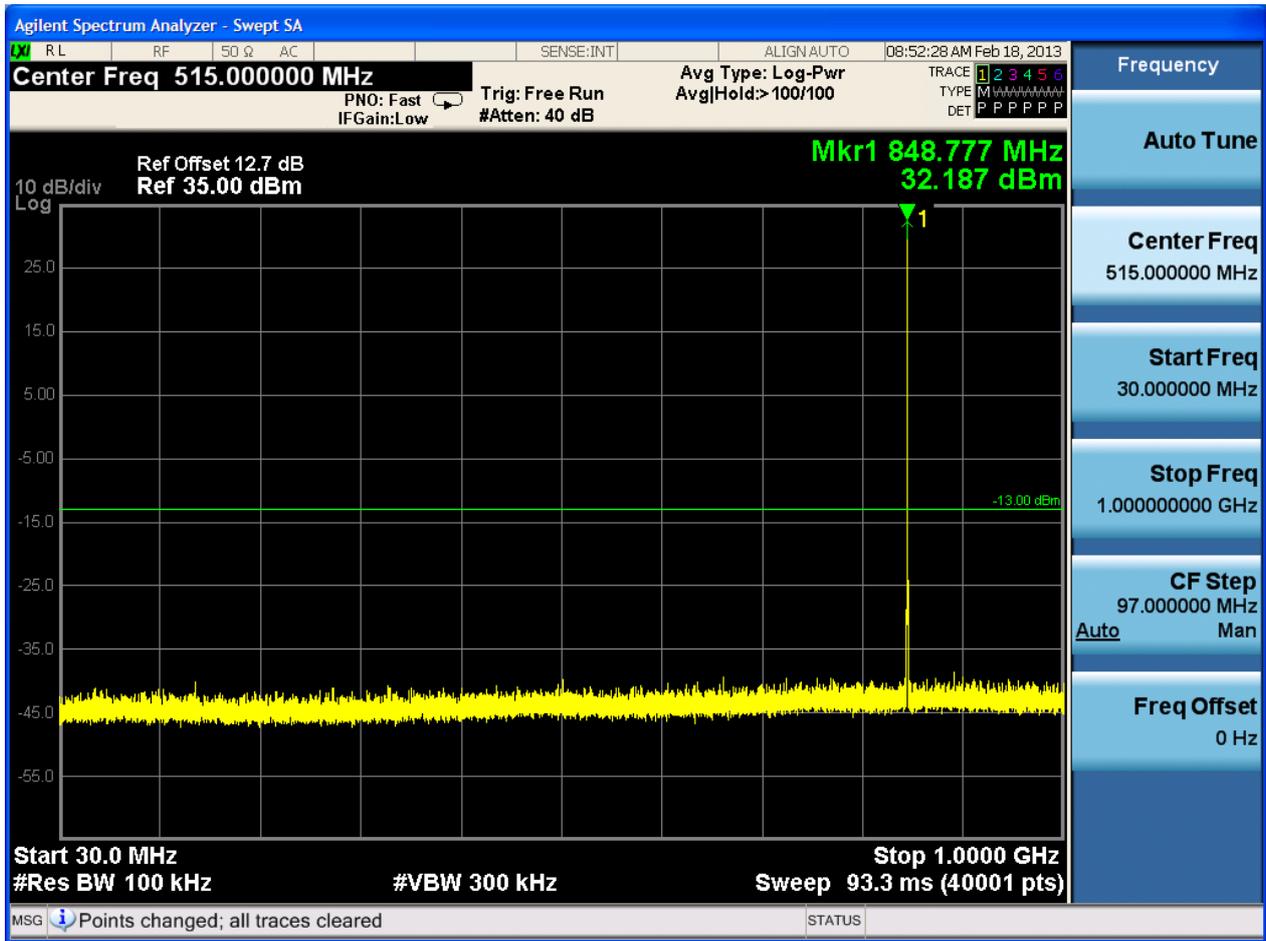


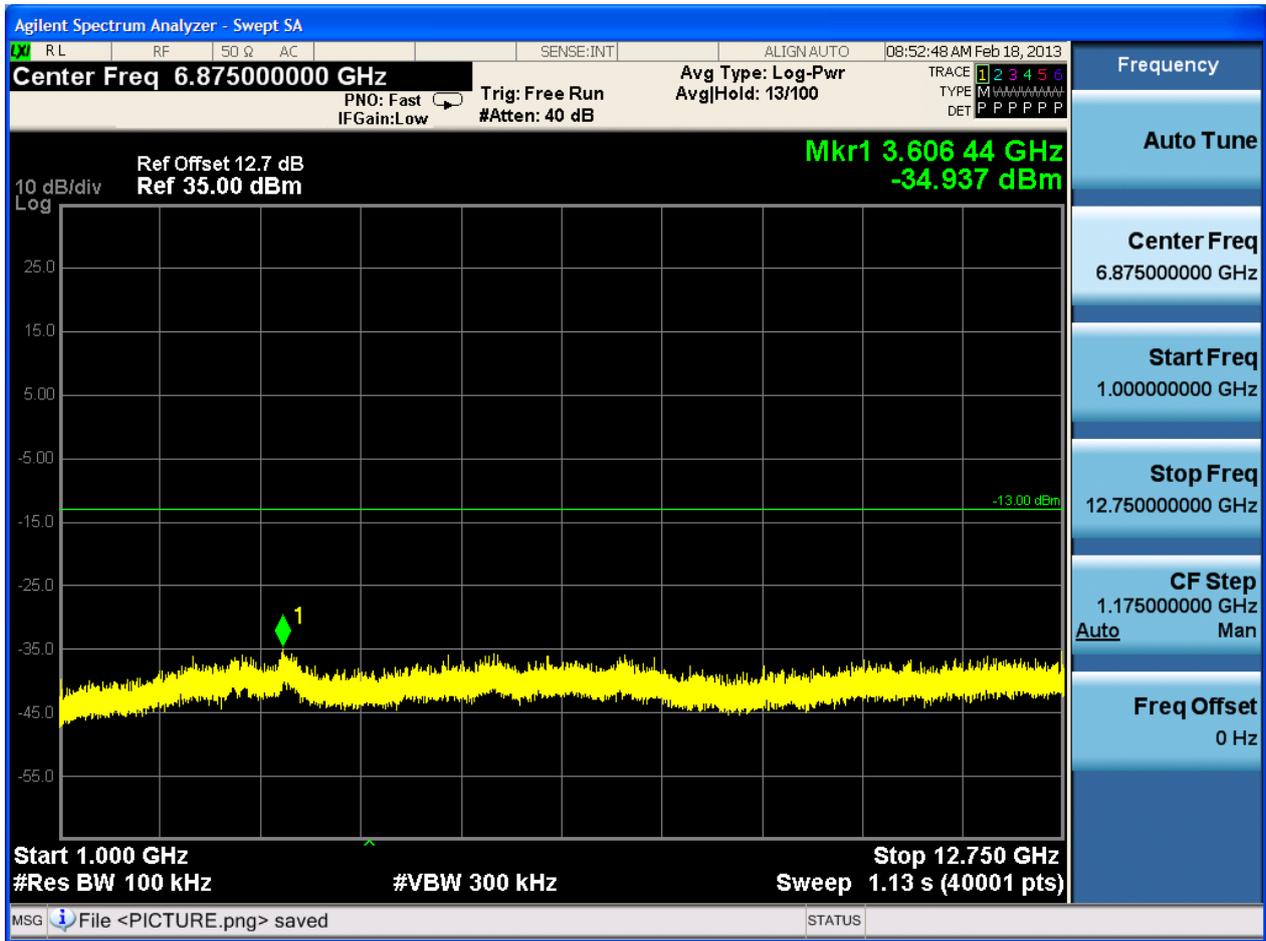


6.1.1.1.3 Test Channel = HCH







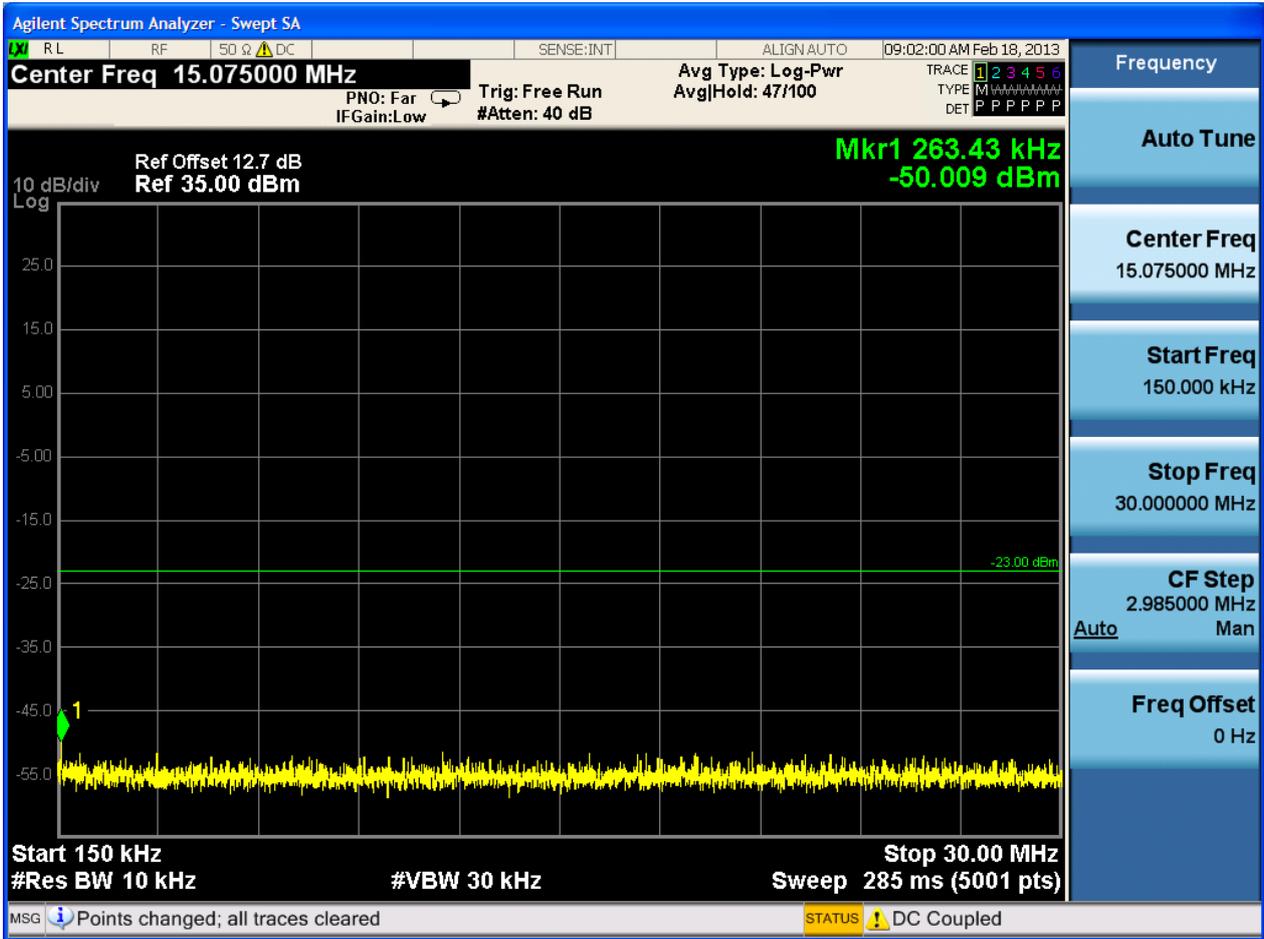


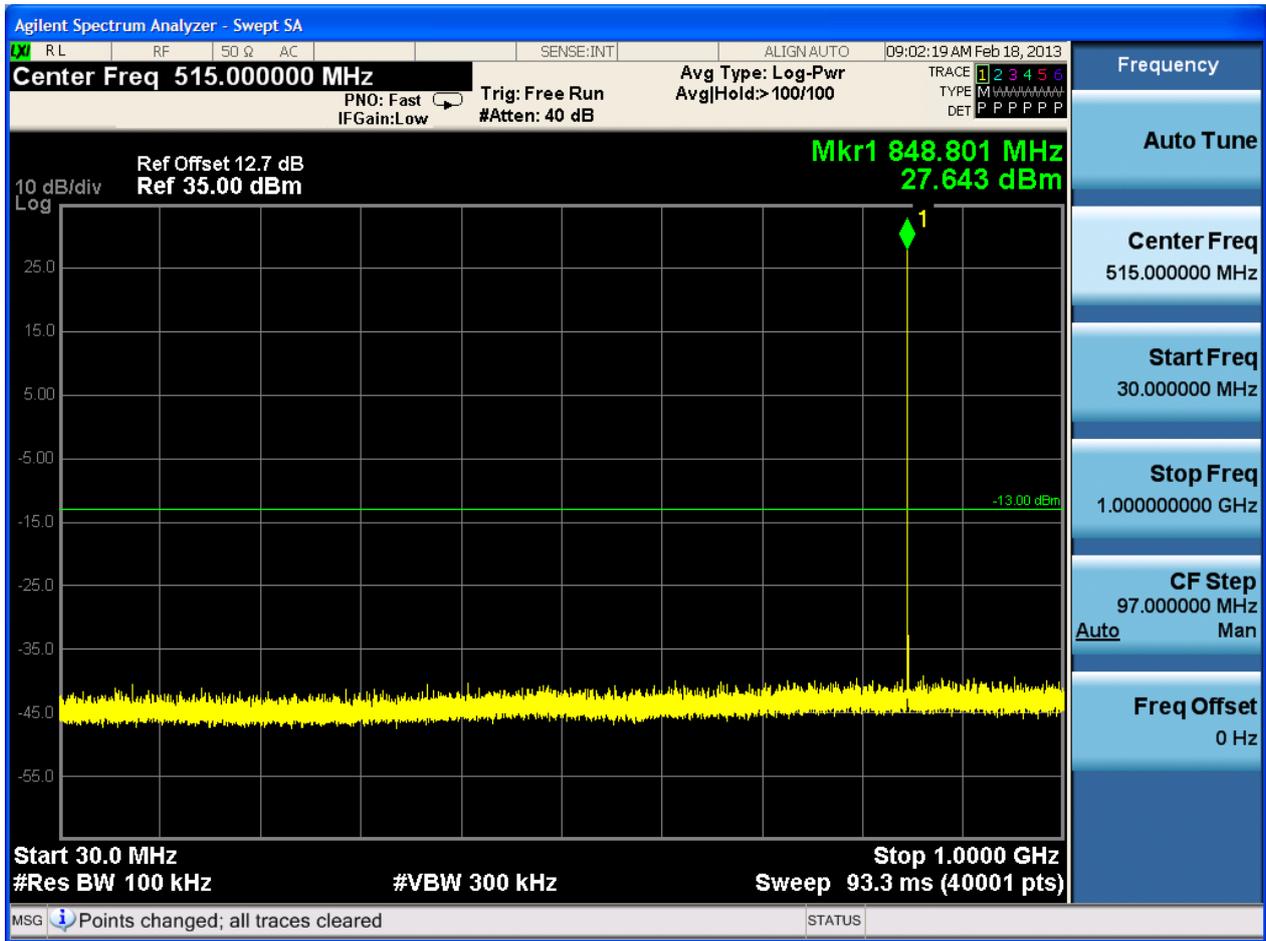


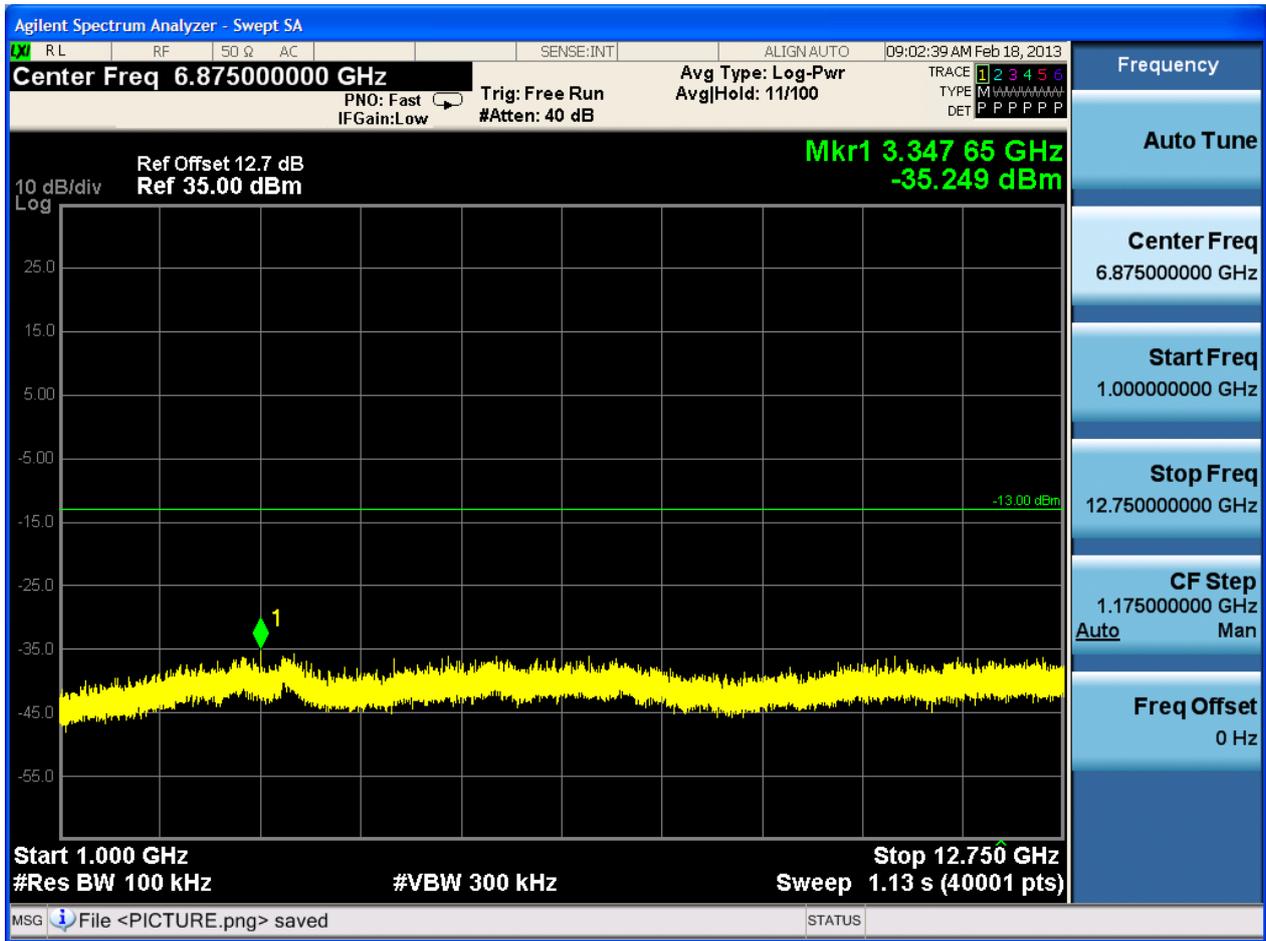
6.1.1.2 Test Mode = GSM/TM2

6.1.1.2.1 Test Channel = LCH





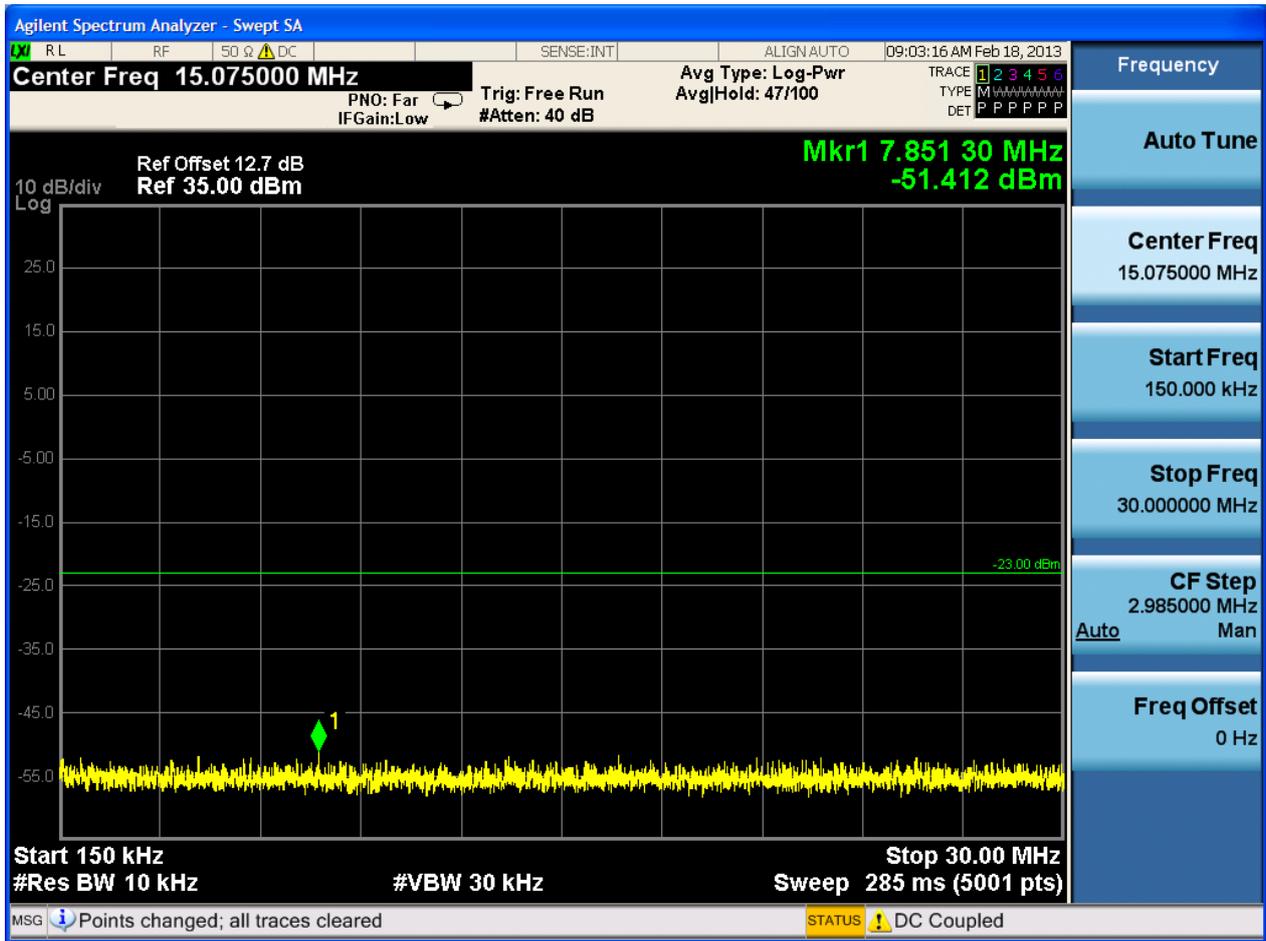


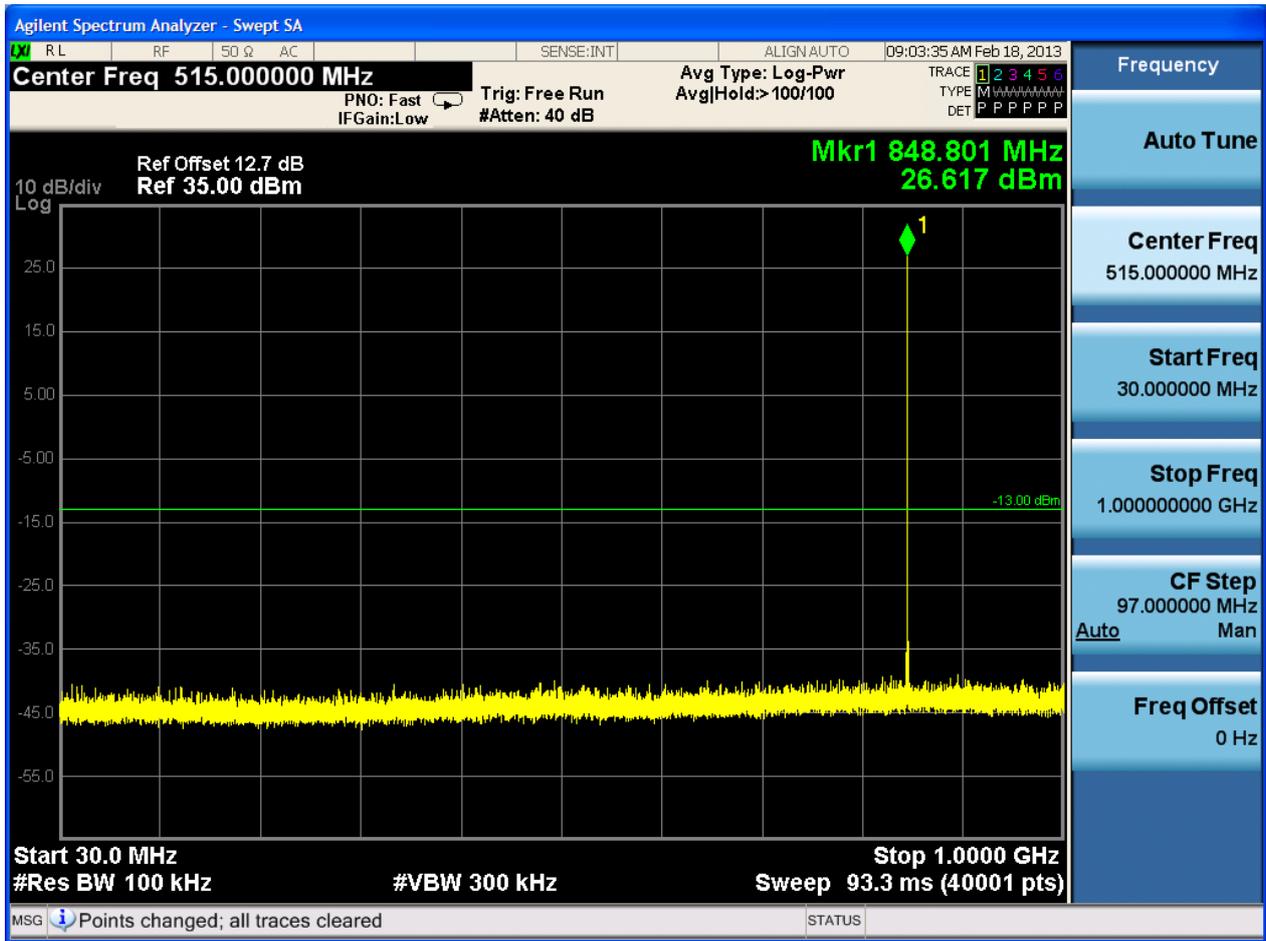




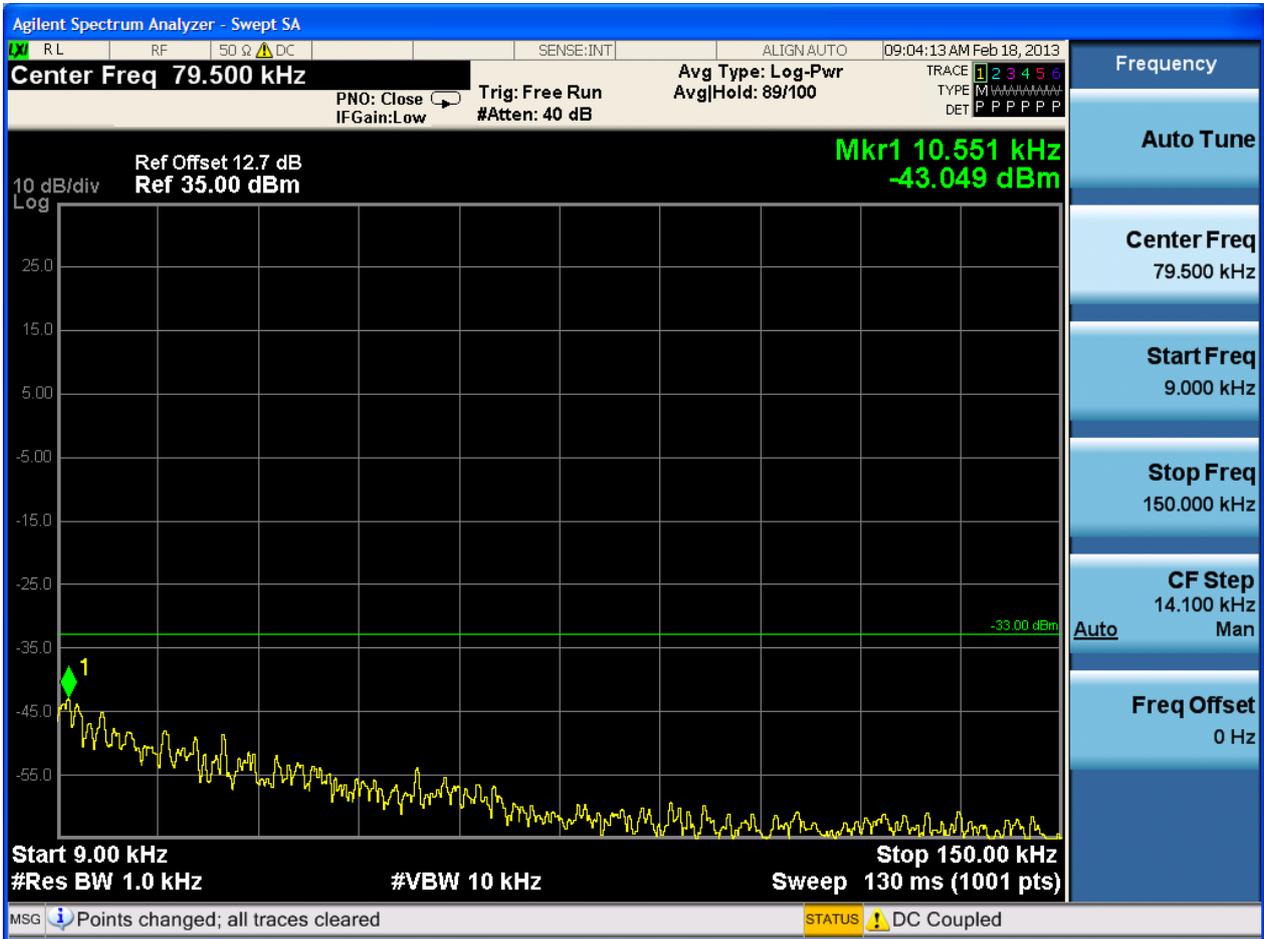
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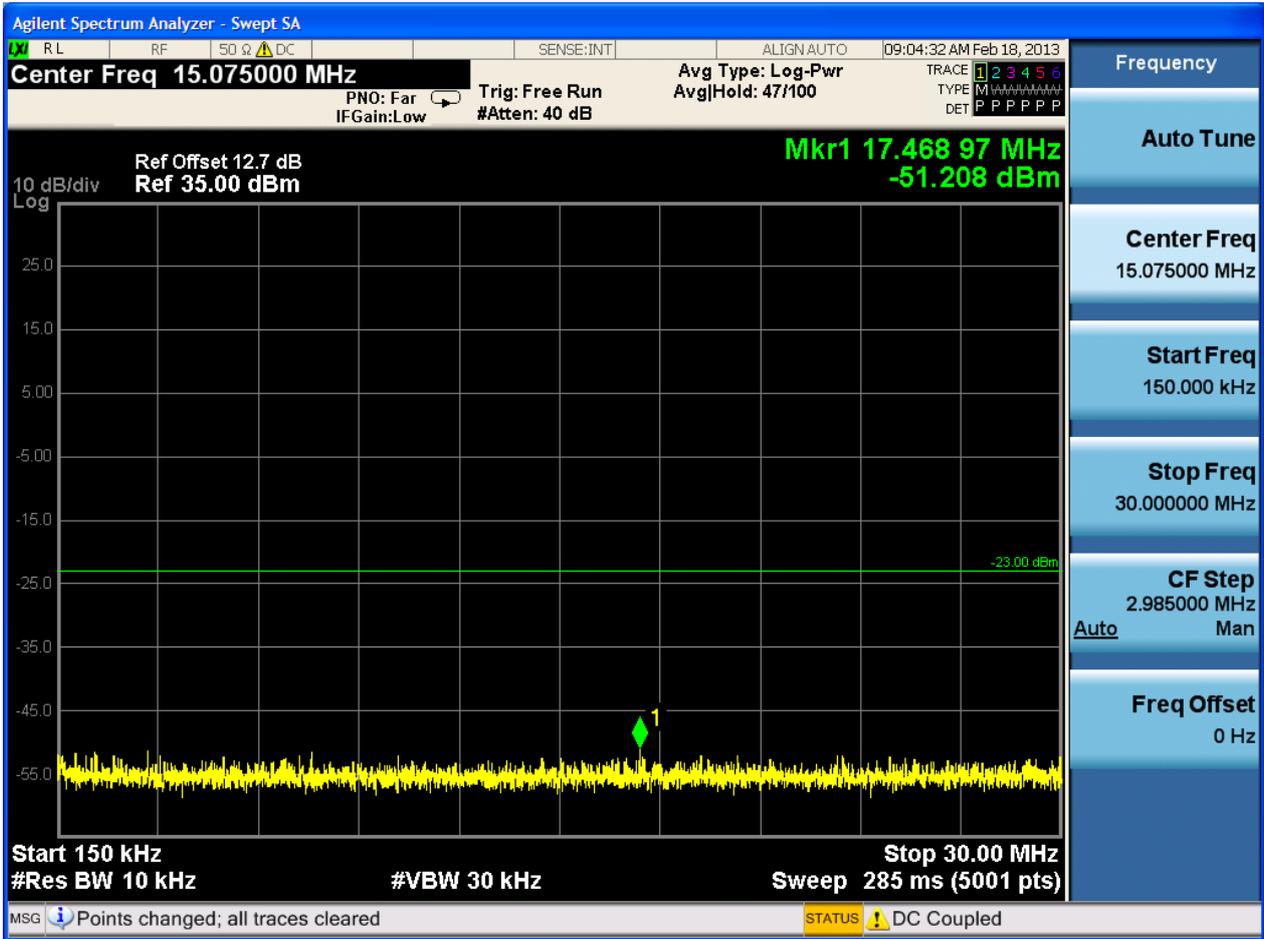


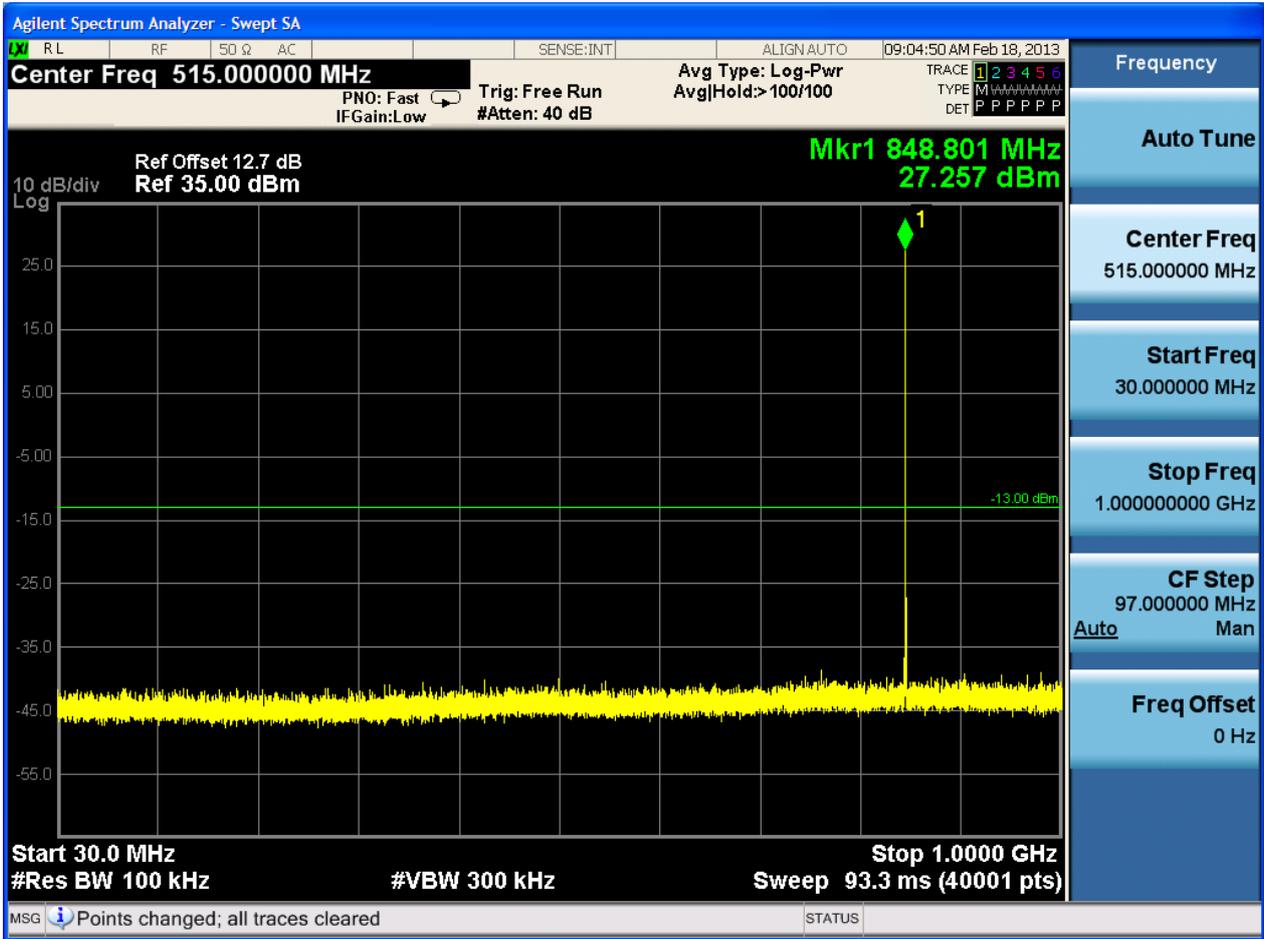


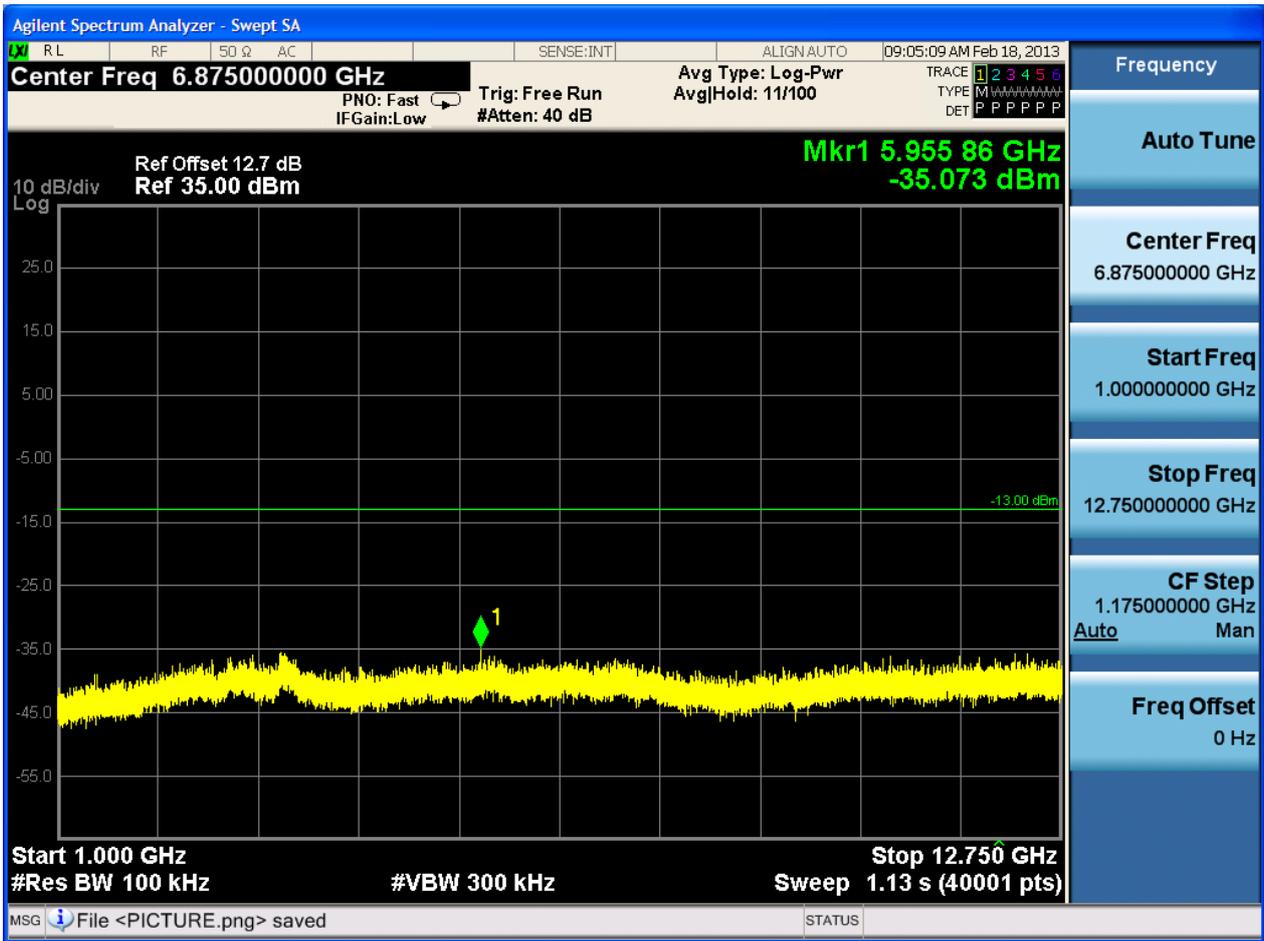


6.1.1.2.3 Test Channel = HCH







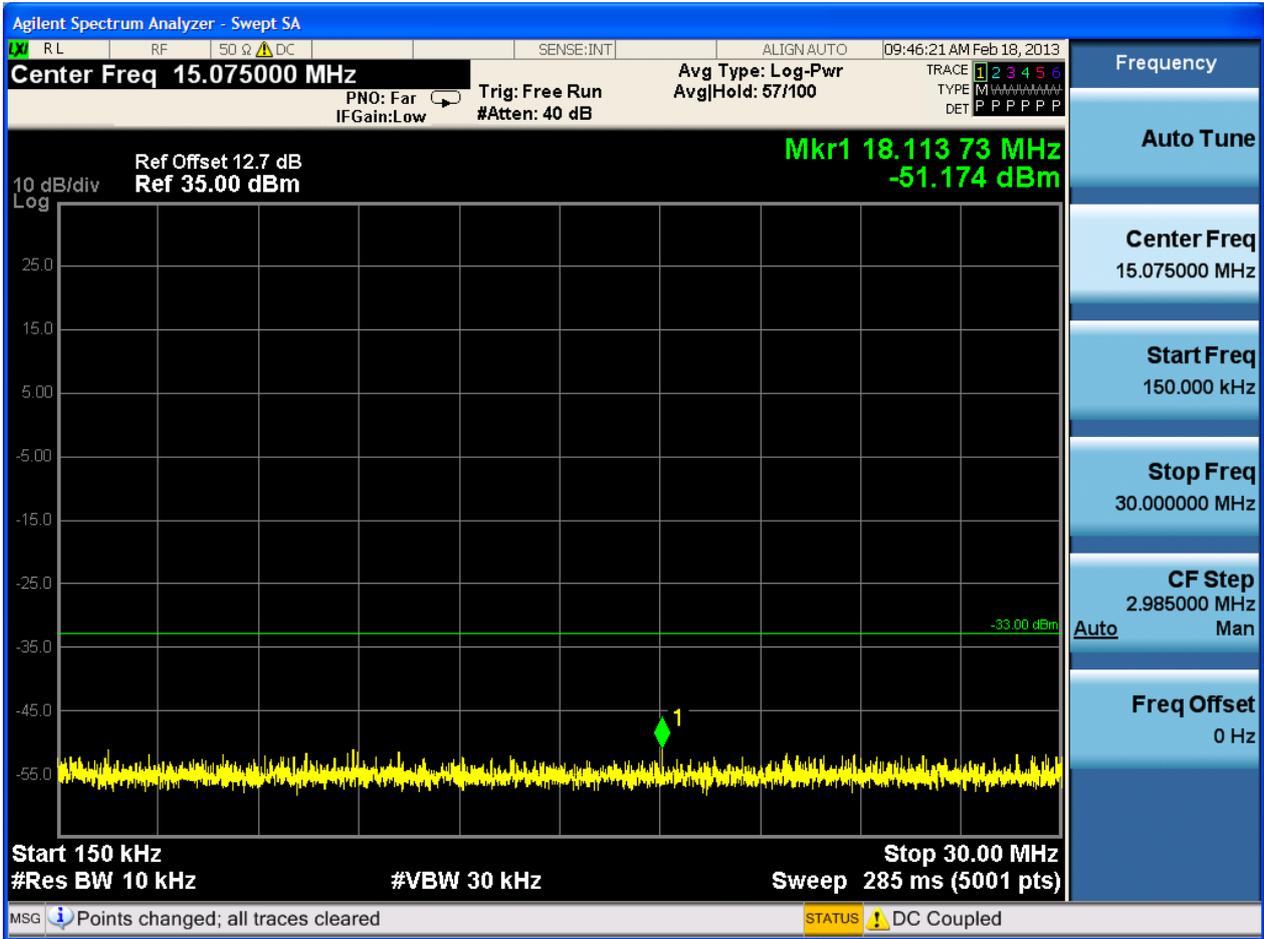


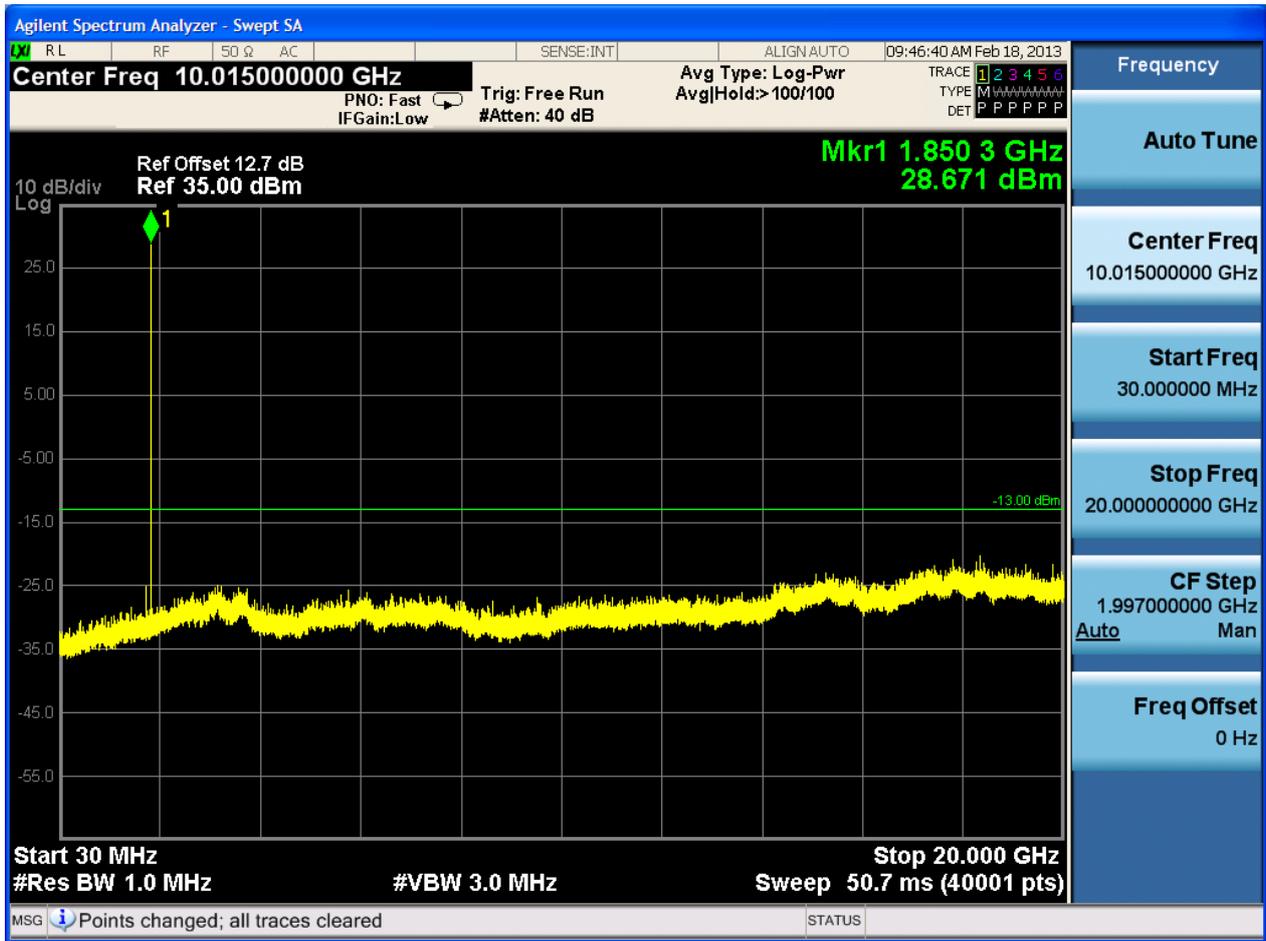
6.1.2 Test Band = GSM1900

6.1.2.1 Test Mode = GSM/TM1

6.1.2.1.1 Test Channel = LCH

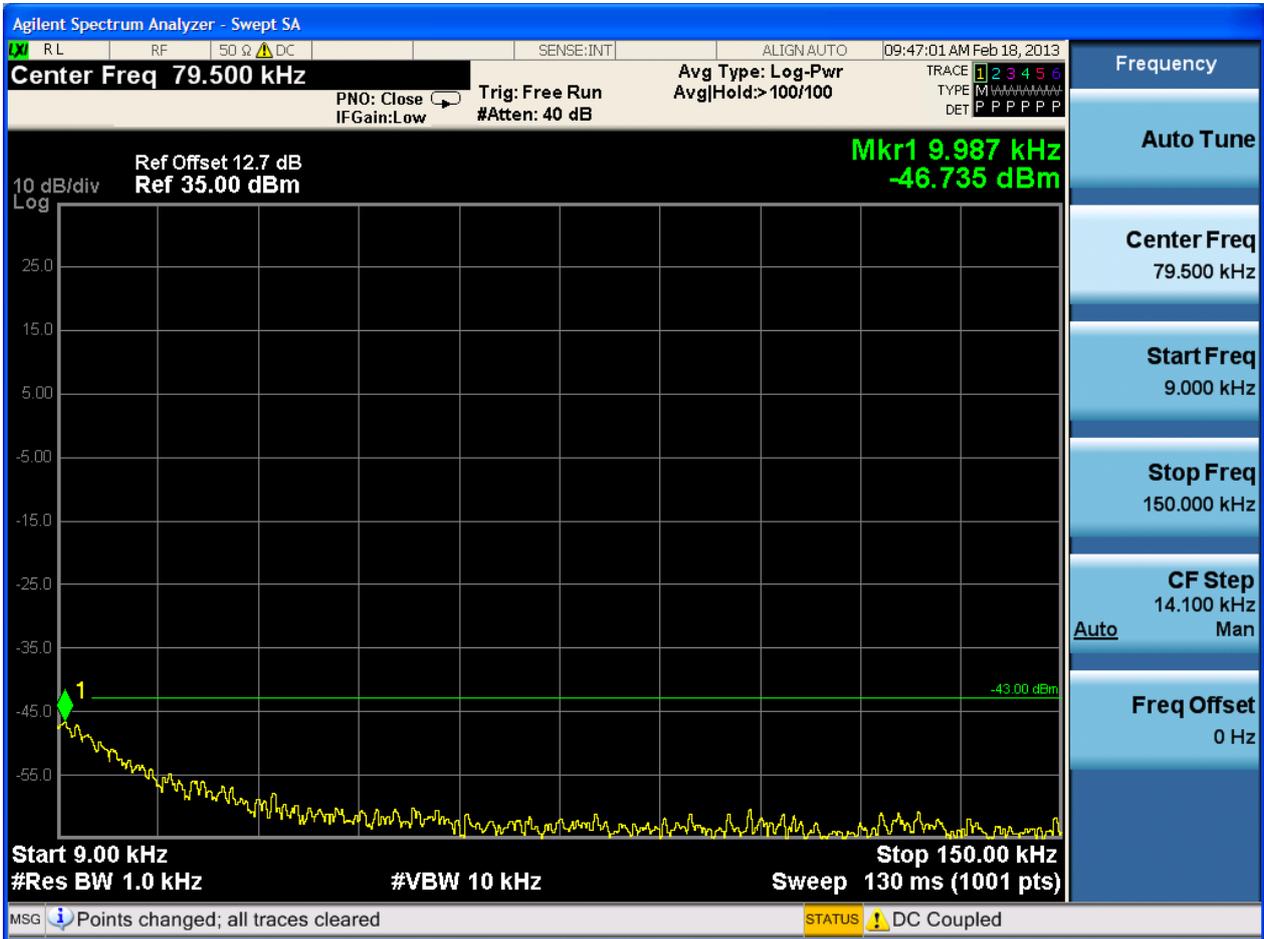


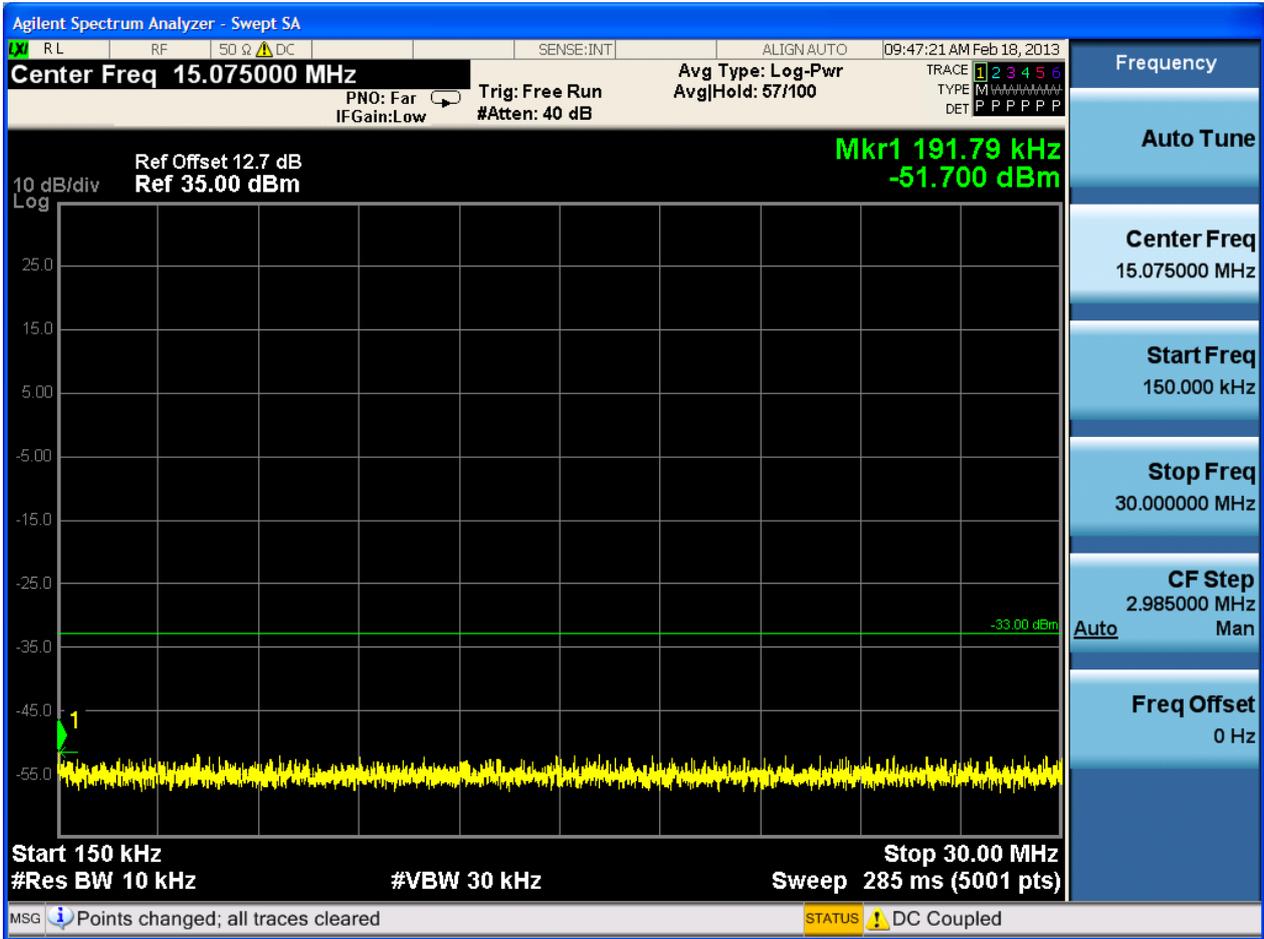






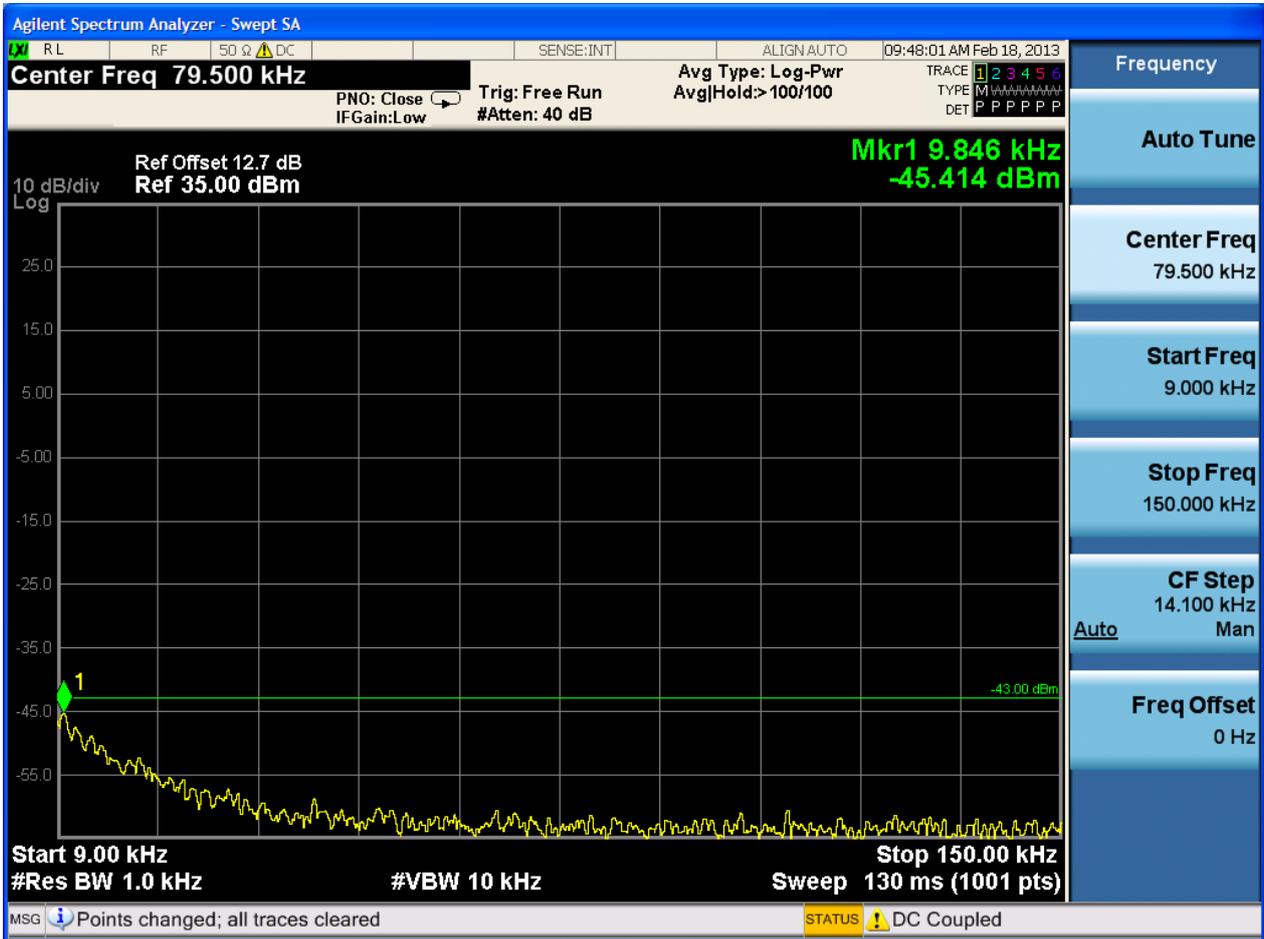
6.1.2.1.2 Test Channel = MCH

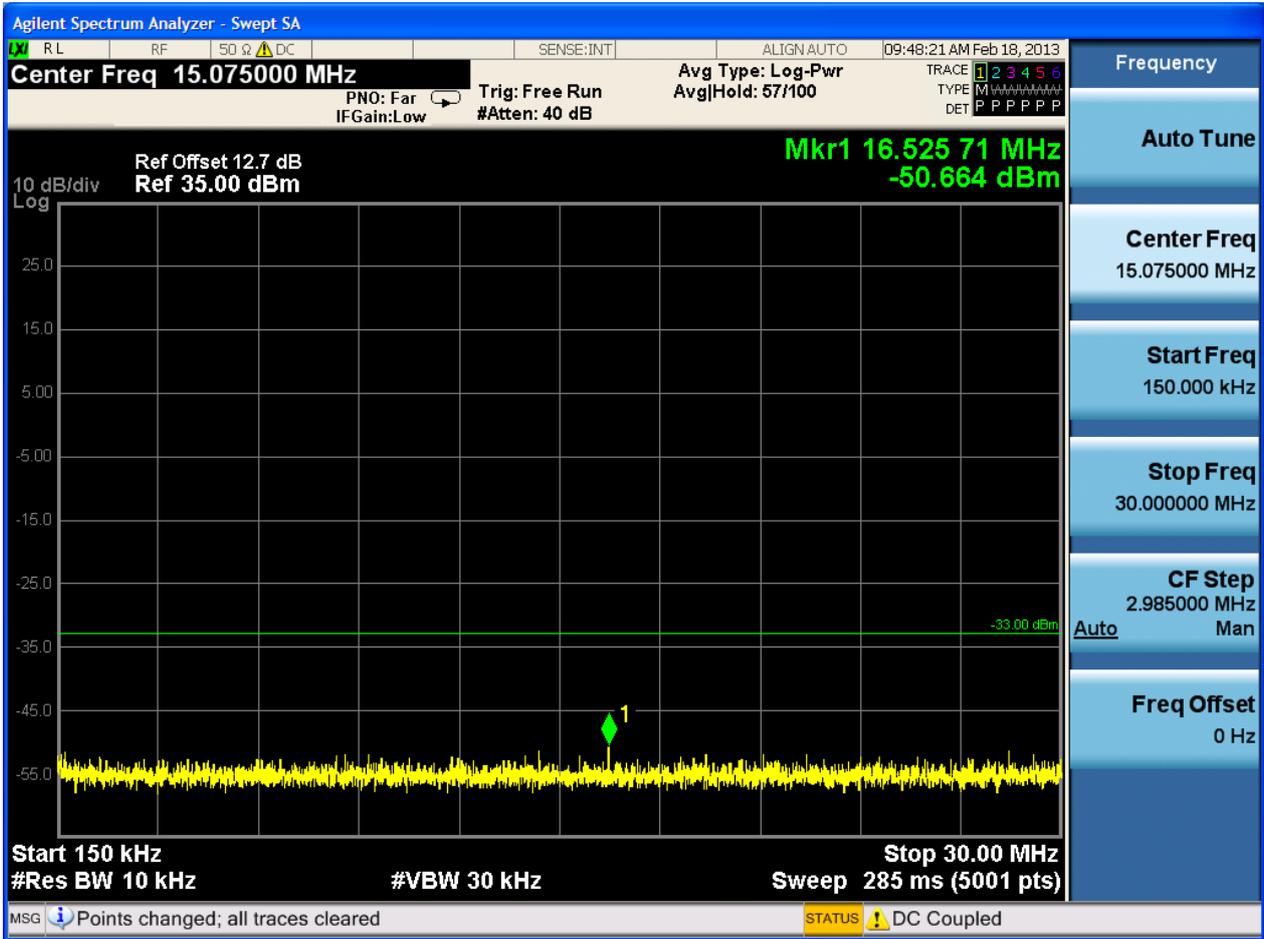






6.1.2.1.3 Test Channel = HCH



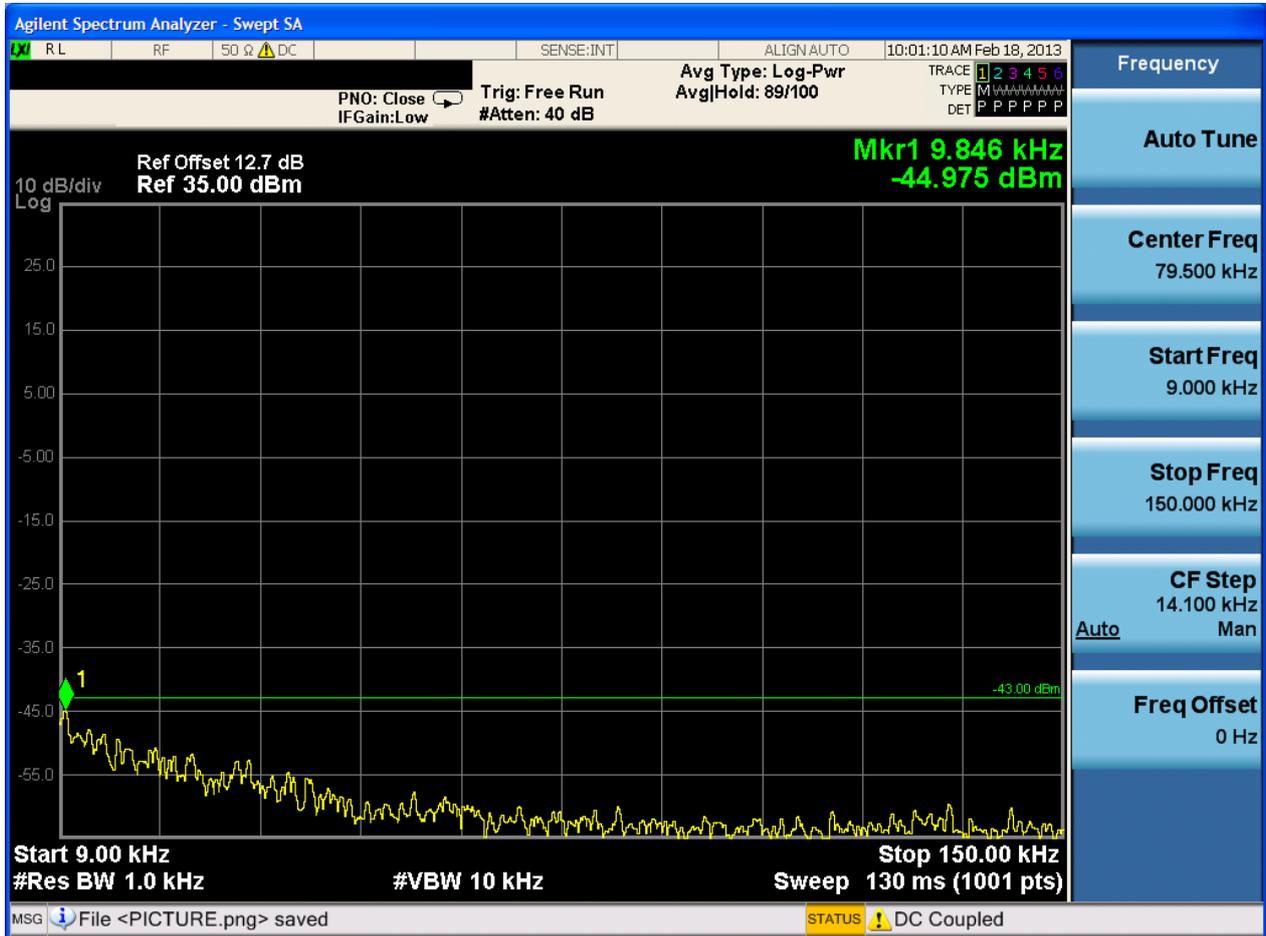


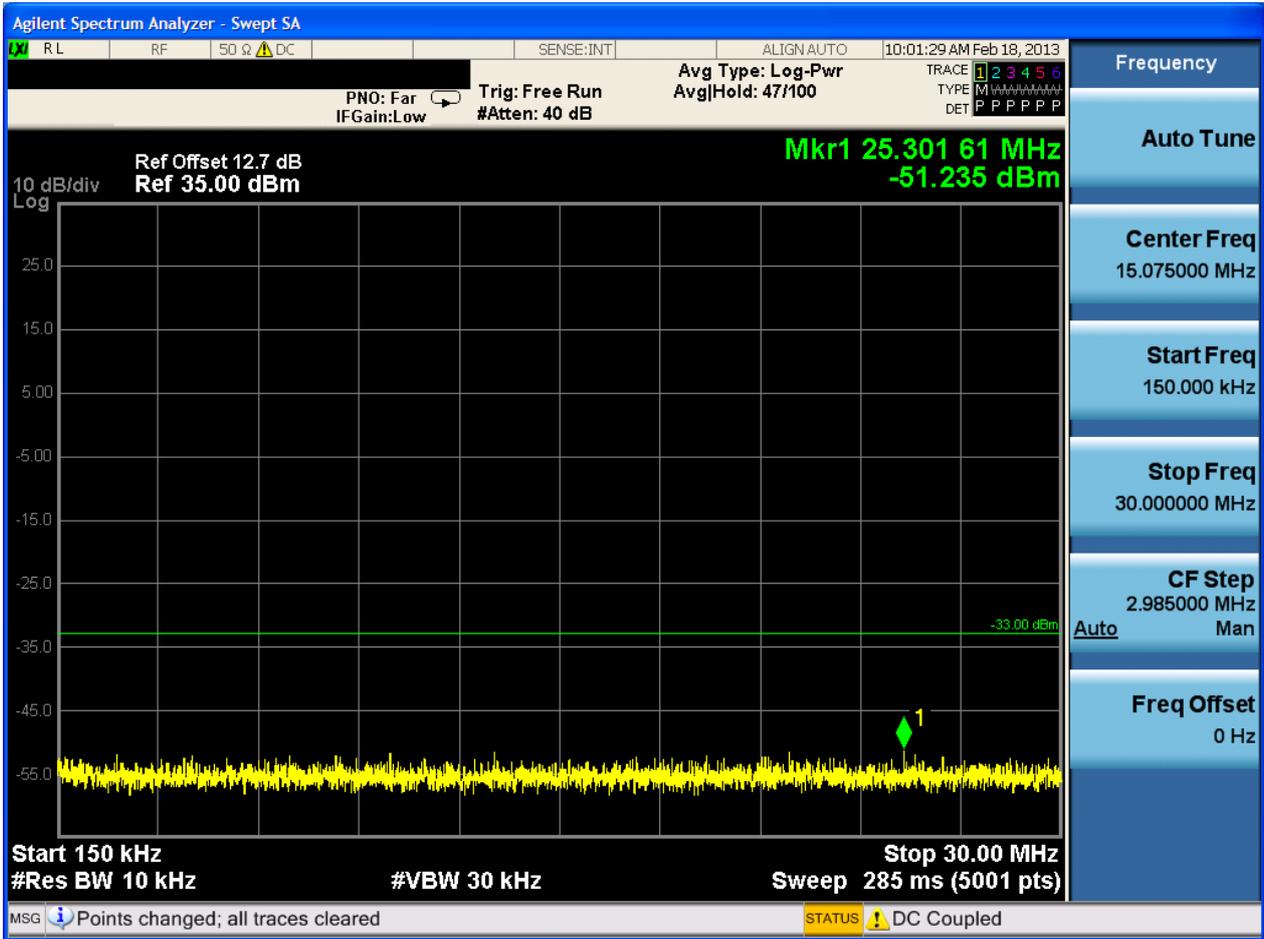




6.1.2.2 Test Mode = GSM/TM2

6.1.2.2.1 Test Channel = LCH









6.1.2.2.2 Test Channel = MCH

