



Appendix for test report



1Appendix_A: Effective (Isotropic) Radiated Power Output Data

Part I - Test Results

| Test Band(LTE) | Test Mode | Test Bandwidth | Test Channel | Test RB | Measured[dBm] | ERP [dBm] | Limit [dBm] | Verdict |
|----------------|-----------|----------------|--------------|---------|---------------|-----------|-------------|---------|
| BAND17 | LTE/TM1 | 5 | LCH | RB1#0 | 22.95 | 18.5 | 34.7 | PASS |
| | | | | RB1#13 | 23.09 | 18.64 | 34.7 | PASS |
| | | | | RB1#24 | 22.96 | 18.51 | 34.7 | PASS |
| | | | | RB12#0 | 22.08 | 17.63 | 34.7 | PASS |
| | | | | RB12#6 | 22.15 | 17.7 | 34.7 | PASS |
| | | | | RB12#13 | 22.14 | 17.69 | 34.7 | PASS |
| | | | | RB25#0 | 22.12 | 17.67 | 34.7 | PASS |
| | | | MCH | RB1#0 | 23.03 | 18.58 | 34.7 | PASS |
| | | | | RB1#13 | 22.83 | 18.38 | 34.7 | PASS |
| | | | | RB1#24 | 22.93 | 18.48 | 34.7 | PASS |
| | | | | RB12#0 | 22.05 | 17.6 | 34.7 | PASS |
| | | | | RB12#6 | 22.05 | 17.6 | 34.7 | PASS |
| | | | | RB12#13 | 21.98 | 17.53 | 34.7 | PASS |
| | | | | RB25#0 | 22.06 | 17.61 | 34.7 | PASS |

| Test Band(LTE) | Test Mode | Test Bandwidth | Test Channel | Test RB | Measured[dBm] | ERP [dBm] | Limit [dBm] | Verdict |
|----------------|-----------|----------------|--------------|---------|---------------|-----------|-------------|---------|
| | | | HCH | RB1#0 | 22.84 | 18.39 | 34.7 | PASS |
| | | | | RB1#13 | 22.86 | 18.41 | 34.7 | PASS |
| | | | | RB1#24 | 22.83 | 18.38 | 34.7 | PASS |
| | | | | RB12#0 | 22.09 | 17.64 | 34.7 | PASS |
| | | | | RB12#6 | 22.03 | 17.58 | 34.7 | PASS |
| | | | | RB12#13 | 22.08 | 17.63 | 34.7 | PASS |
| | | | | RB25#0 | 22.04 | 17.59 | 34.7 | PASS |
| | | 10 | LCH | RB1#0 | 23.17 | 18.72 | 34.7 | PASS |
| | | | | RB1#25 | 23.34 | 18.89 | 34.7 | PASS |
| | | | | RB1#49 | 23.17 | 18.72 | 34.7 | PASS |
| | | | | RB25#0 | 22.24 | 17.79 | 34.7 | PASS |
| | | | | RB25#13 | 22.11 | 17.66 | 34.7 | PASS |
| | | | | RB25#25 | 22.14 | 17.69 | 34.7 | PASS |
| | | | | RB50#0 | 22.14 | 17.69 | 34.7 | PASS |
| | | | MCH | RB1#0 | 23.05 | 18.6 | 34.7 | PASS |
| | | | | RB1#25 | 23.36 | 18.91 | 34.7 | PASS |
| | | | | RB1#49 | 23.18 | 18.73 | 34.7 | PASS |

| Test Band(LTE) | Test Mode | Test Bandwidth | Test Channel | Test RB | Measured[dBm] | ERP [dBm] | Limit [dBm] | Verdict |
|----------------|-----------|----------------|--------------|---------|---------------|-----------|-------------|---------|
| | | | | RB25#0 | 22.12 | 17.67 | 34.7 | PASS |
| | | | | RB25#13 | 22.07 | 17.62 | 34.7 | PASS |
| | | | | RB25#25 | 22.09 | 17.64 | 34.7 | PASS |
| | | | | RB50#0 | 22.09 | 17.64 | 34.7 | PASS |
| | | | HCH | RB1#0 | 22.94 | 18.49 | 34.7 | PASS |
| | | | | RB1#25 | 23.07 | 18.62 | 34.7 | PASS |
| | | | | RB1#49 | 22.91 | 18.46 | 34.7 | PASS |
| | | | | RB25#0 | 22.07 | 17.62 | 34.7 | PASS |
| | | | | RB25#13 | 22.1 | 17.65 | 34.7 | PASS |
| | | | | RB25#25 | 22.05 | 17.6 | 34.7 | PASS |
| | | | | RB50#0 | 22.09 | 17.64 | 34.7 | PASS |
| | | | | LCH | RB1#0 | 21.54 | 17.09 | 34.7 |
| | | | RB1#13 | | 21.84 | 17.39 | 34.7 | PASS |
| | | | RB1#24 | | 21.49 | 17.04 | 34.7 | PASS |
| RB12#0 | 20.91 | 16.46 | 34.7 | | PASS | | | |
| RB12#6 | 21.09 | 16.64 | 34.7 | | PASS | | | |
| RB12#13 | 21.17 | 16.72 | 34.7 | | PASS | | | |



| Test Band(LTE) | Test Mode | Test Bandwidth | Test Channel | Test RB | Measured[dBm] | ERP [dBm] | Limit [dBm] | Verdict |
|----------------|-----------|----------------|--------------|---------|---------------|-----------|-------------|---------|
| | | | | RB25#0 | 21.2 | 16.75 | 34.7 | PASS |
| | | | MCH | RB1#0 | 21.87 | 17.42 | 34.7 | PASS |
| | | | | RB1#13 | 21.36 | 16.91 | 34.7 | PASS |
| | | | | RB1#24 | 21.34 | 16.89 | 34.7 | PASS |
| | | | | RB12#0 | 20.71 | 16.26 | 34.7 | PASS |
| | | | | RB12#6 | 20.8 | 16.35 | 34.7 | PASS |
| | | | | RB12#13 | 20.74 | 16.29 | 34.7 | PASS |
| | | | | RB25#0 | 21.16 | 16.71 | 34.7 | PASS |
| | | | | HCH | RB1#0 | 22.19 | 17.74 | 34.7 |
| | | | RB1#13 | | 22.3 | 17.85 | 34.7 | PASS |
| | | | RB1#24 | | 21.95 | 17.5 | 34.7 | PASS |
| | | | RB12#0 | | 21.06 | 16.61 | 34.7 | PASS |
| | | | RB12#6 | | 21.13 | 16.68 | 34.7 | PASS |
| | | | RB12#13 | | 21.03 | 16.58 | 34.7 | PASS |
| | | | RB25#0 | | 21.03 | 16.58 | 34.7 | PASS |
| | | 10 | LCH | RB1#0 | 22.26 | 17.81 | 34.7 | PASS |
| | | | | RB1#25 | 22.28 | 17.83 | 34.7 | PASS |

| Test Band(LTE) | Test Mode | Test Bandwidth | Test Channel | Test RB | Measured[dBm] | ERP [dBm] | Limit [dBm] | Verdict |
|----------------|-----------|----------------|--------------|---------|---------------|-----------|-------------|---------|
| | | | | RB1#49 | 21.87 | 17.42 | 34.7 | PASS |
| | | | | RB25#0 | 21.15 | 16.7 | 34.7 | PASS |
| | | | | RB25#13 | 21.02 | 16.57 | 34.7 | PASS |
| | | | | RB25#25 | 21.07 | 16.62 | 34.7 | PASS |
| | | | | RB50#0 | 21.21 | 16.76 | 34.7 | PASS |
| | | | MCH | RB1#0 | 21.33 | 16.88 | 34.7 | PASS |
| | | | MCH | RB1#25 | 22.27 | 17.82 | 34.7 | PASS |
| | | | MCH | RB1#49 | 21.55 | 17.1 | 34.7 | PASS |
| | | | MCH | RB25#0 | 21.12 | 16.67 | 34.7 | PASS |
| | | | MCH | RB25#13 | 21.24 | 16.79 | 34.7 | PASS |
| | | | MCH | RB25#25 | 21.22 | 16.77 | 34.7 | PASS |
| | | | MCH | RB50#0 | 21.06 | 16.61 | 34.7 | PASS |
| | | | HCH | RB1#0 | 21.95 | 17.5 | 34.7 | PASS |
| | | | HCH | RB1#25 | 22.34 | 17.89 | 34.7 | PASS |
| | | | HCH | RB1#49 | 21.57 | 17.12 | 34.7 | PASS |
| | | | HCH | RB25#0 | 21.41 | 16.96 | 34.7 | PASS |
| | | | HCH | RB25#13 | 21.09 | 16.64 | 34.7 | PASS |



| Test Band(LTE) | Test Mode | Test Bandwidth | Test Channel | Test RB | Measured[dBm] | ERP [dBm] | Limit [dBm] | Verdict |
|----------------|-----------|----------------|--------------|---------|---------------|-----------|-------------|---------|
| | | | | RB25#25 | 21.12 | 16.67 | 34.7 | PASS |
| | | | | RB50#0 | 21.17 | 16.72 | 34.7 | 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:

$$\text{SET Span} = 1.5 * \text{OBW}$$

$$\text{SET RBW} = 1\% \text{ of the OBW, not to exceed 1MHz}$$

$$\text{SET VBW} \geq 3 * \text{RBW}$$

SET Sweep time=auto-couple.

Detector:RMS

2Appendix_B: Peak-to-Average Ratio

Part I - Test Results

| Test Band(For LTE) | Test Mode | Test Bandwidth (MHz) | Test Channel | Test RB | Measured[dB] | Limit [dB] | Verdict |
|--------------------|-----------|----------------------|--------------|---------|--------------|------------|---------|
| BAND17 | LTE/TM1 | 5 | LCH | RB1#0 | 3.77 | 13 | PASS |
| | | | | RB1#13 | 3.52 | 13 | PASS |
| | | | | RB1#24 | 3.86 | 13 | PASS |
| | | | | RB12#0 | 4.44 | 13 | PASS |
| | | | | RB12#6 | 4.21 | 13 | PASS |
| | | | | RB12#13 | 4.42 | 13 | PASS |
| | | | | RB25#0 | 4.84 | 13 | PASS |
| | | | MCH | RB1#0 | 3.79 | 13 | PASS |
| | | | | RB1#13 | 3.97 | 13 | PASS |
| | | | | RB1#24 | 4.1 | 13 | PASS |
| | | | | RB12#0 | 4.54 | 13 | PASS |
| | | | | RB12#6 | 4.48 | 13 | PASS |
| | | | | RB12#13 | 4.63 | 13 | PASS |
| | | | | RB25#0 | 5.15 | 13 | PASS |
| | | HCH | RB1#0 | 4.22 | 13 | PASS | |
| | | | RB1#13 | 4.04 | 13 | PASS | |
| | | | RB1#24 | 3.79 | 13 | PASS | |
| | | | RB12#0 | 4.68 | 13 | PASS | |
| | | | RB12#6 | 4.49 | 13 | PASS | |
| | | | RB12#13 | 4.46 | 13 | PASS | |
| | | | RB25#0 | 5.02 | 13 | PASS | |
| | | 10 | LCH | RB1#0 | 3.71 | 13 | PASS |
| | | | | RB1#25 | 3.76 | 13 | PASS |
| | | | | RB1#49 | 3.93 | 13 | PASS |
| | | | | RB25#0 | 4.42 | 13 | PASS |
| | | | | RB25#13 | 4.5 | 13 | PASS |
| | | | | RB25#25 | 4.7 | 13 | PASS |
| | | | | RB50#0 | 5.73 | 13 | PASS |
| MCH | RB1#0 | | 3.76 | 13 | PASS | | |
| | RB1#25 | | 3.92 | 13 | PASS | | |
| | RB1#49 | | 4.01 | 13 | PASS | | |
| | RB25#0 | | 4.52 | 13 | PASS | | |



| Test Band(For LTE) | Test Mode | Test Bandwidth (MHz) | Test Channel | Test RB | Measured[dB] | Limit [dB] | Verdict |
|--------------------|-----------|----------------------|--------------|---------|--------------|------------|---------|
| | | | | RB25#13 | 4.54 | 13 | PASS |
| | | | | RB25#25 | 4.73 | 13 | PASS |
| | | | | RB50#0 | 5.7 | 13 | PASS |
| | | | HCH | RB1#0 | 3.7 | 13 | PASS |
| | | | | RB1#25 | 3.98 | 13 | PASS |
| | | | | RB1#49 | 3.66 | 13 | PASS |
| | | | | RB25#0 | 4.66 | 13 | PASS |
| | | | | RB25#13 | 4.59 | 13 | PASS |
| | | | | RB25#25 | 4.66 | 13 | PASS |
| | | | LCH | RB50#0 | 5.59 | 13 | PASS |
| | | | | RB1#0 | 4.65 | 13 | PASS |
| | | | | RB1#13 | 4.64 | 13 | PASS |
| | | | | RB1#24 | 4.98 | 13 | PASS |
| | | | | RB12#0 | 5.32 | 13 | PASS |
| | | | | RB12#6 | 5.17 | 13 | PASS |
| | MCH | RB12#13 | 5.34 | 13 | PASS | | |
| | | RB25#0 | 5.8 | 13 | PASS | | |
| | | RB1#0 | 4.77 | 13 | PASS | | |
| | | RB1#13 | 5 | 13 | PASS | | |
| | | RB1#24 | 5.2 | 13 | PASS | | |
| | | RB12#0 | 5.45 | 13 | PASS | | |
| | | RB12#6 | 5.36 | 13 | PASS | | |
| | HCH | RB12#13 | 5.52 | 13 | PASS | | |
| | | RB25#0 | 5.83 | 13 | PASS | | |
| | | RB1#0 | 4.68 | 13 | PASS | | |
| | | RB1#13 | 4.49 | 13 | PASS | | |
| | | RB1#24 | 4.41 | 13 | PASS | | |
| | | RB12#0 | 5.54 | 13 | PASS | | |
| | | RB12#6 | 5.38 | 13 | PASS | | |
| | 10 | LCH | RB12#13 | 5.34 | 13 | PASS | |
| RB25#0 | | | 6.03 | 13 | PASS | | |
| RB1#0 | | | 4.79 | 13 | PASS | | |
| RB1#25 | | | 4.66 | 13 | PASS | | |
| RB1#49 | | | 5.07 | 13 | PASS | | |
| RB25#0 | | | 5.37 | 13 | PASS | | |
| RB25#13 | | | 5.39 | 13 | PASS | | |
| RB25#25 | | 5.66 | 13 | PASS | | | |
| MCH | RB50#0 | 6.39 | 13 | PASS | | | |
| | | | MCH | RB1#0 | 4.87 | 13 | PASS |

| Test Band(For LTE) | Test Mode | Test Bandwidth (MHz) | Test Channel | Test RB | Measured[dB] | Limit [dB] | Verdict |
|--------------------|-----------|----------------------|--------------|---------|--------------|------------|---------|
| | | | | RB1#25 | 4.93 | 13 | PASS |
| | | | | RB1#49 | 4.94 | 13 | PASS |
| | | | | RB25#0 | 5.32 | 13 | PASS |
| | | | | RB25#13 | 5.37 | 13 | PASS |
| | | | | RB25#25 | 5.56 | 13 | PASS |
| | | | | RB50#0 | 6.14 | 13 | PASS |
| | | | HCH | RB1#0 | 4.54 | 13 | PASS |
| | | | | RB1#25 | 4.81 | 13 | PASS |
| | | | | RB1#49 | 4.76 | 13 | PASS |
| | | | | RB25#0 | 5.45 | 13 | PASS |
| | | | | RB25#13 | 5.5 | 13 | PASS |
| | | | | RB25#25 | 5.58 | 13 | PASS |
| | | | | RB50#0 | 6.22 | 13 | PASS |

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

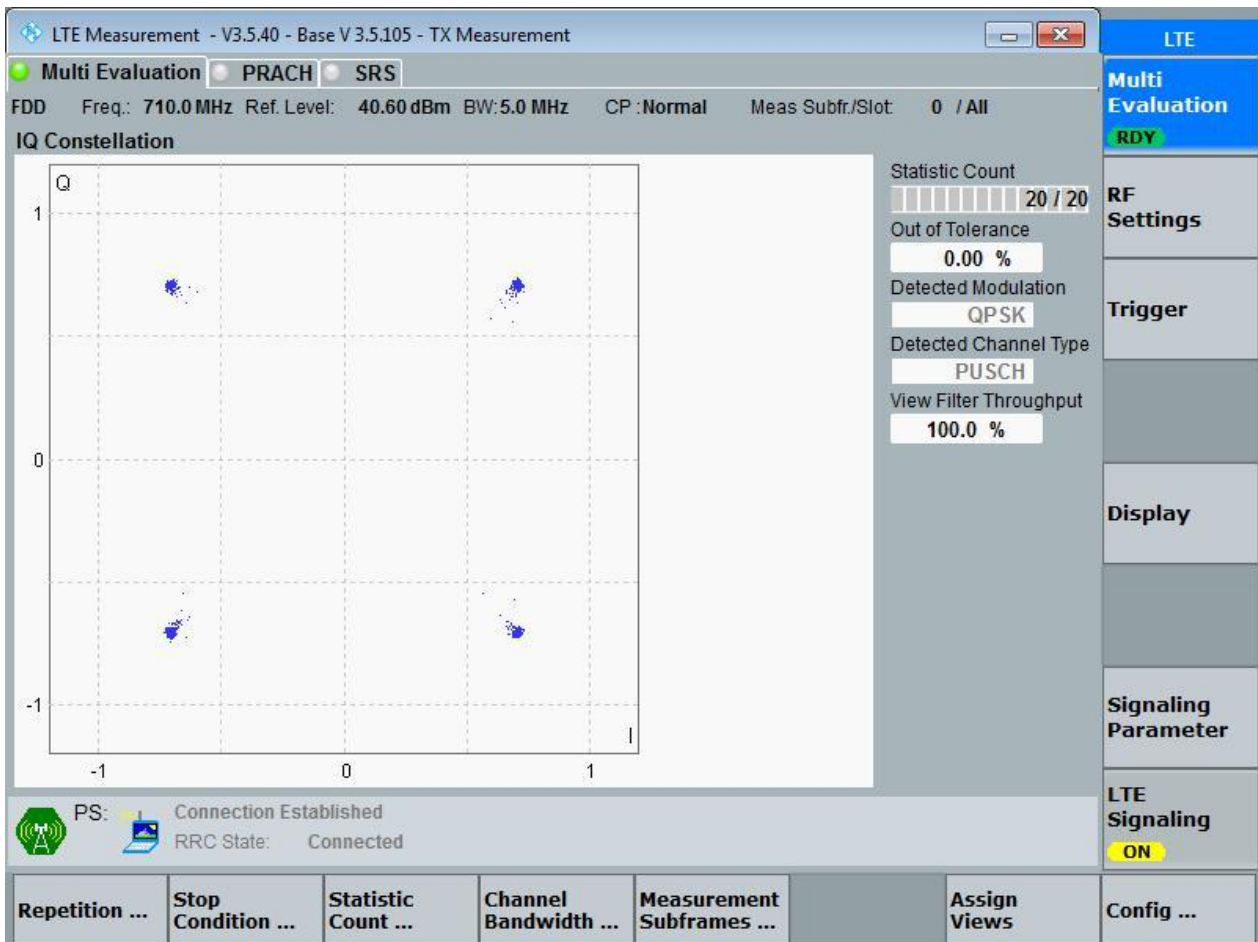
3.1.1 Test Band = BAND17

3.1.1.1 Test Mode = LTE/TM1

3.1.1.1.1 Test Bandwidth = 5

3.1.1.1.1.1 Test Channel = MCH

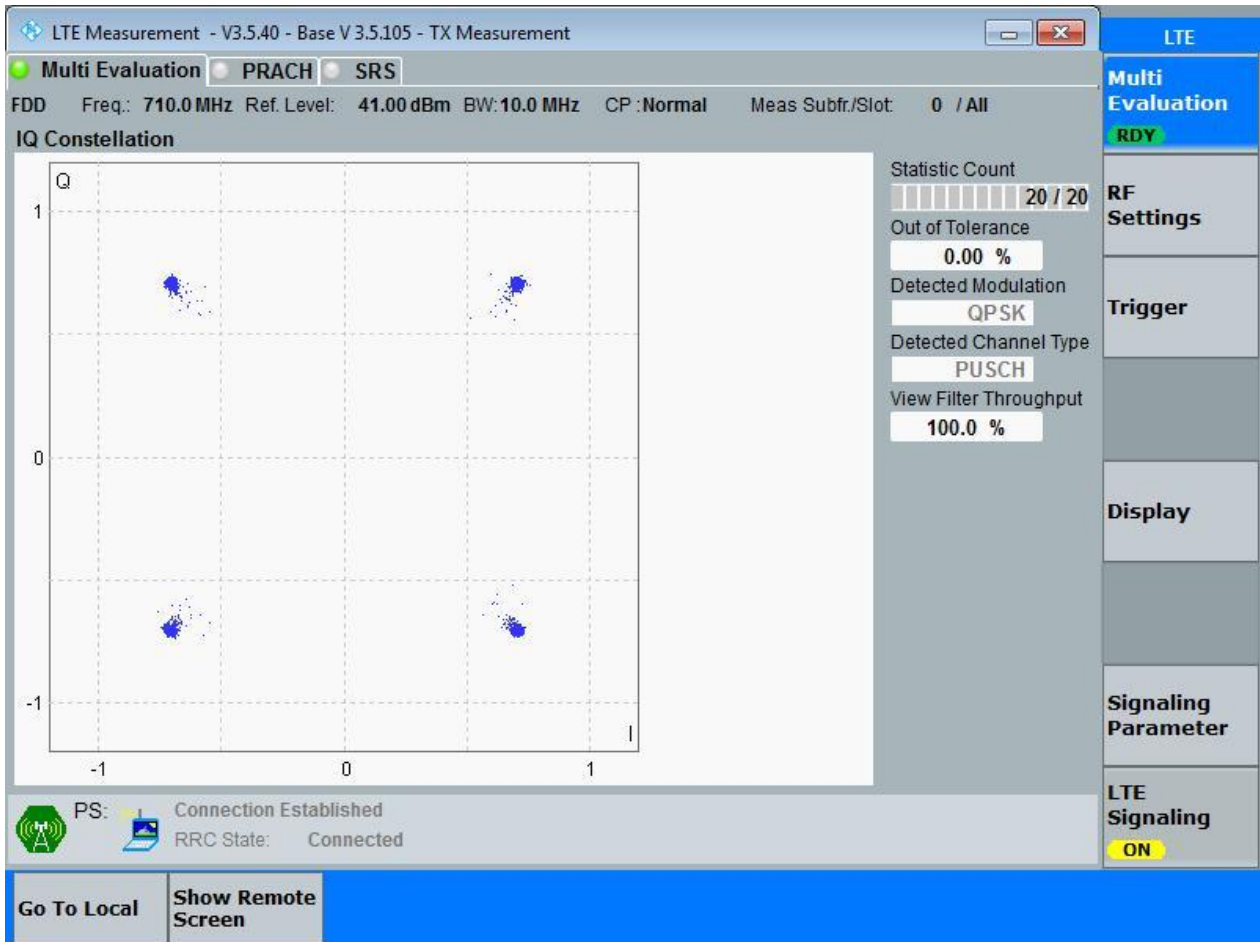
3.1.1.1.1.1.1 Test RB = RB25#0



3.1.1.1.2 Test Bandwidth = 10

3.1.1.1.2.1 Test Channel = MCH

3.1.1.1.2.1.1 Test RB = RB50#0

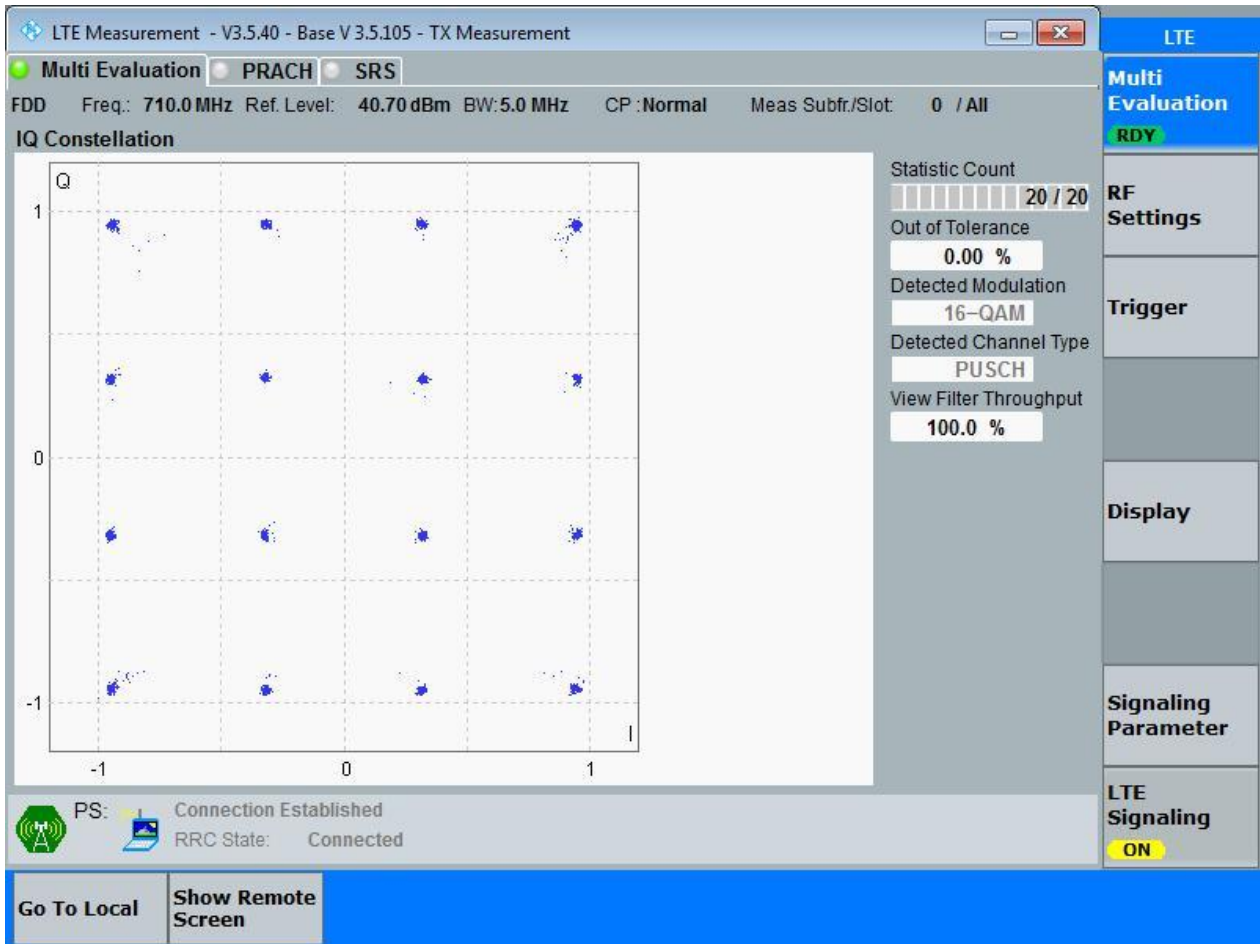


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 5

3.1.1.2.1.1 Test Channel = MCH

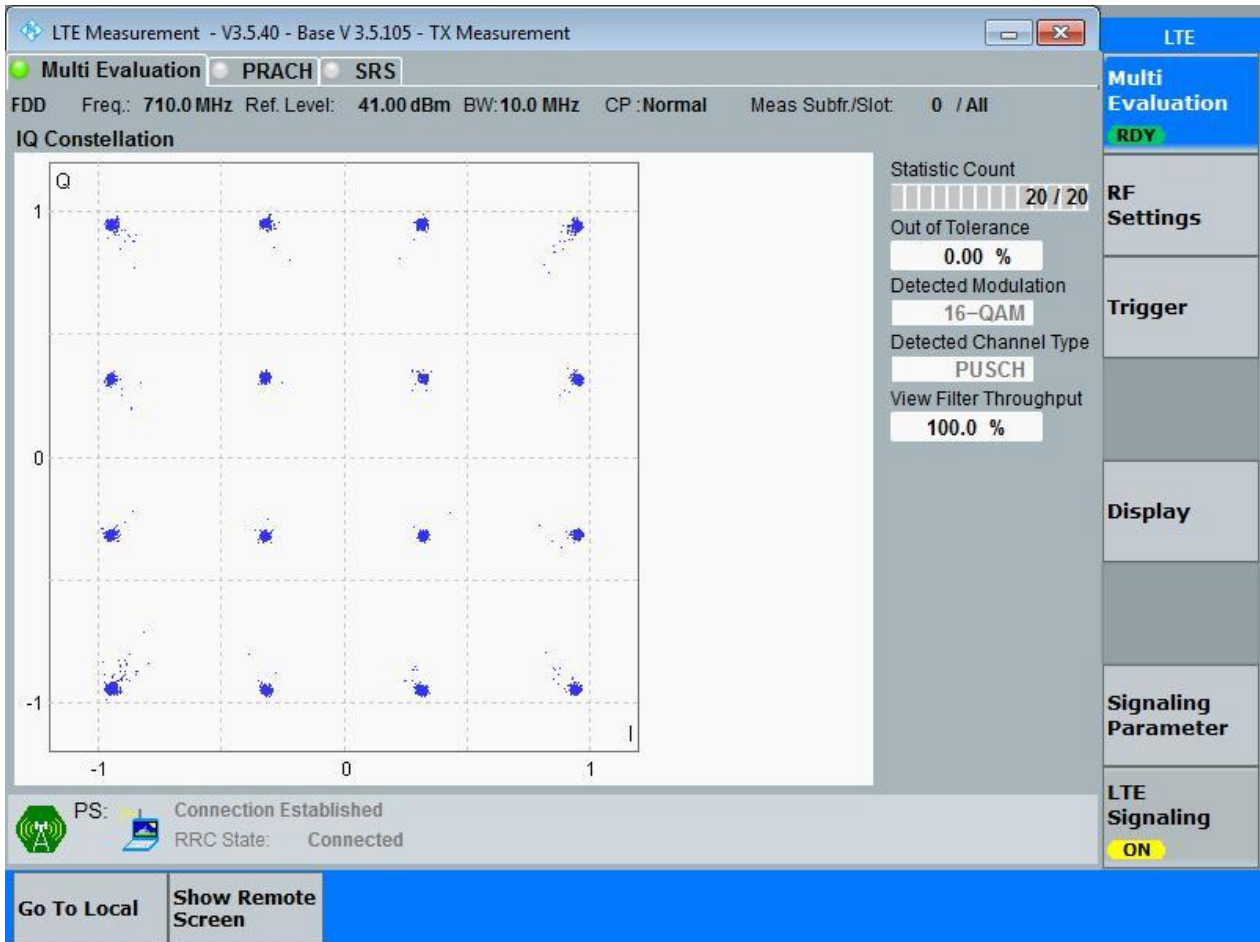
3.1.1.2.1.1.1 Test RB = RB25#0



3.1.1.2.2 Test Bandwidth = 10

3.1.1.2.2.1 Test Channel = MCH

3.1.1.2.2.1.1 Test RB = RB50#0



4Appendix_D: Bandwidth

Part I - Test Results

| Test Band | Test Mode | Test Bandwidth | Test Channel | Test RB | Occupied Bandwidth [MHz] | Emission Bandwidth [MHz] | Verdict |
|-----------|-----------|----------------|--------------|---------|--------------------------|--------------------------|---------|
| BAND17 | LTE/TM1 | 5 | LCH | RB25#0 | 4.51 | 5.00 | Pass |
| | | | MCH | RB25#0 | 4.49 | 5.00 | Pass |
| | | | HCH | RB25#0 | 4.49 | 5.01 | Pass |
| | | 10 | LCH | RB50#0 | 8.99 | 9.97 | Pass |
| | | | MCH | RB50#0 | 8.97 | 9.94 | Pass |
| | | | HCH | RB50#0 | 8.98 | 9.89 | Pass |
| | LTE/TM2 | 5 | LCH | RB25#0 | 4.50 | 5.03 | Pass |
| | | | MCH | RB25#0 | 4.49 | 4.96 | Pass |
| | | | HCH | RB25#0 | 4.49 | 5.00 | Pass |
| | | 10 | LCH | RB50#0 | 8.99 | 10.00 | Pass |
| | | | MCH | RB50#0 | 8.99 | 9.91 | Pass |
| | | | HCH | RB50#0 | 8.97 | 9.92 | Pass |



Part II - Test Plots

4.1 For LTE

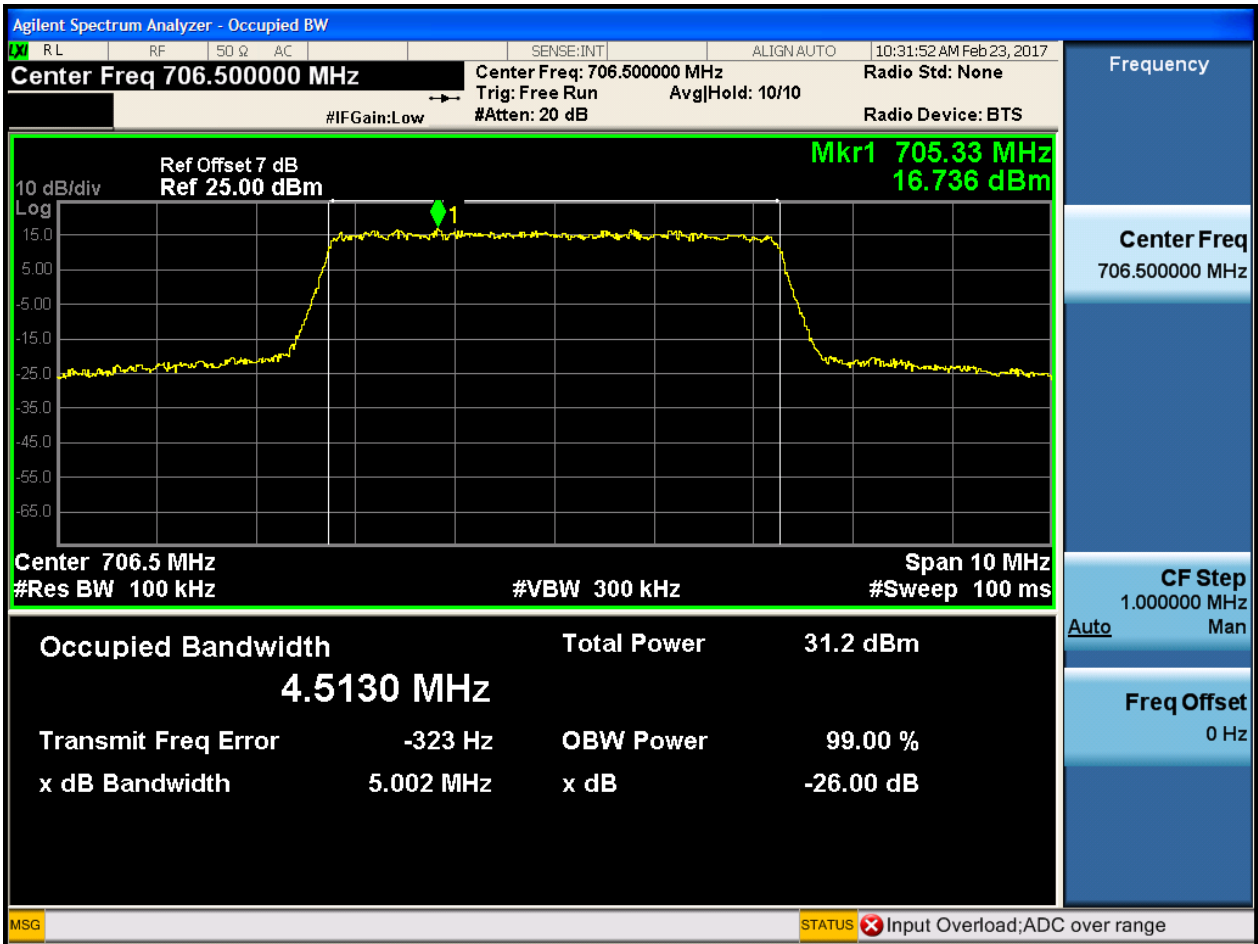
4.1.1 Test Band = BAND17

4.1.1.1 Test Mode = LTE/TM1

4.1.1.1.1 Test Bandwidth = 5

4.1.1.1.1.1 Test Channel = LCH

4.1.1.1.1.1.1 Test RB = RB25#0





4.1.1.1.1.2 Test Channel = MCH

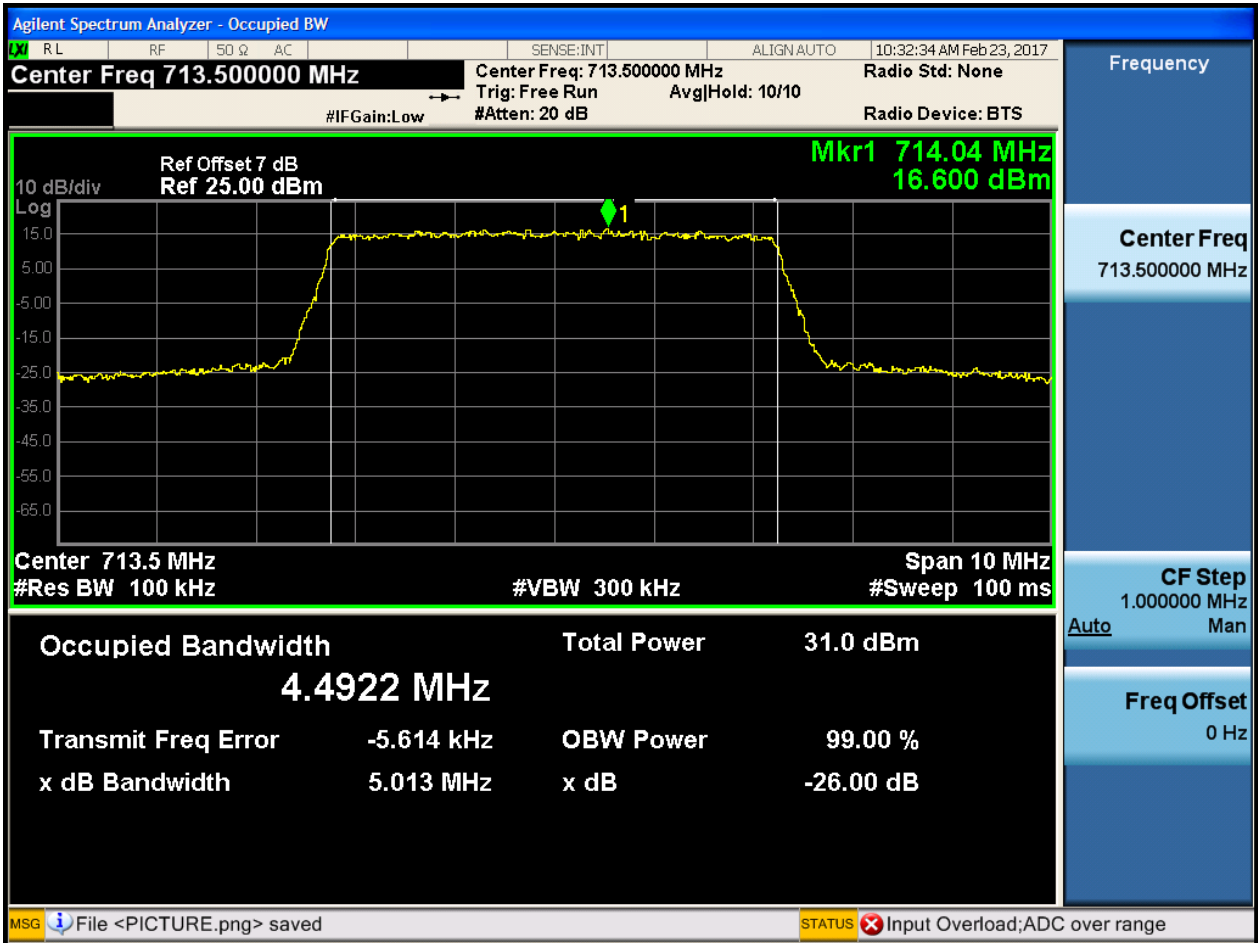
4.1.1.1.1.2.1 Test RB = RB25#0





4.1.1.1.1.3 Test Channel = HCH

4.1.1.1.1.3.1 Test RB = RB25#0

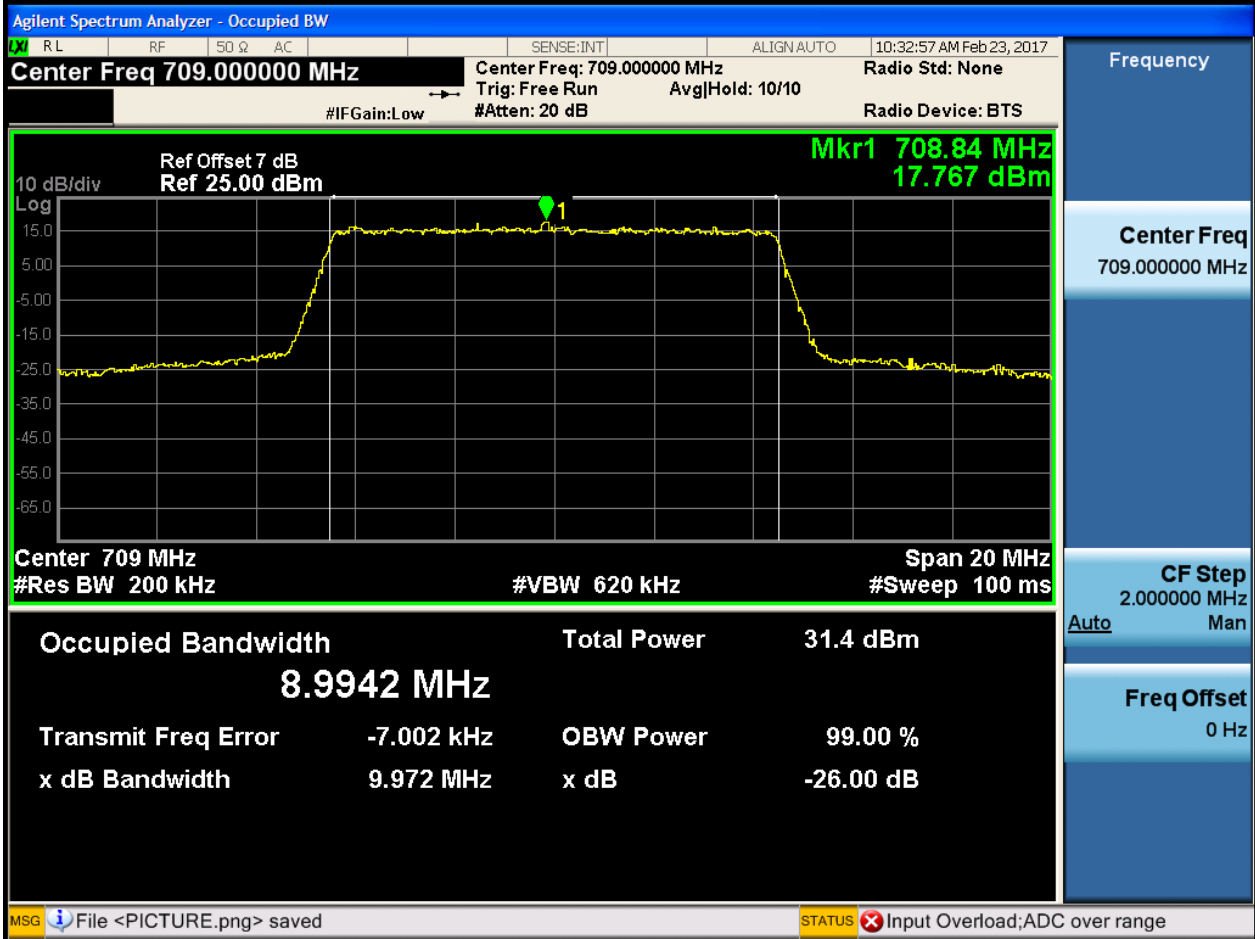




4.1.1.1.2 Test Bandwidth = 10

4.1.1.1.2.1 Test Channel = LCH

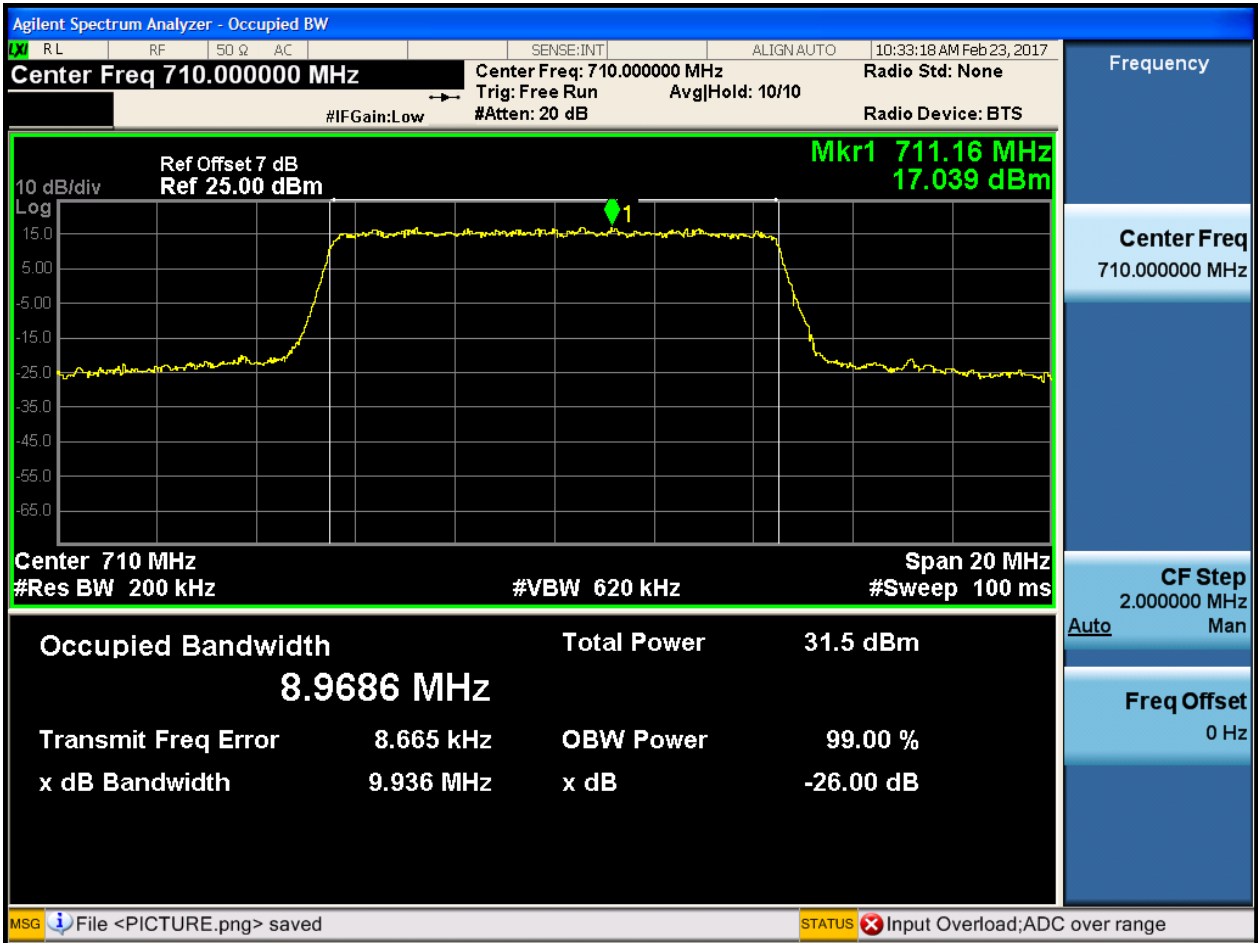
4.1.1.1.2.1.1 Test RB = RB50#0





4.1.1.1.2.2 Test Channel = MCH

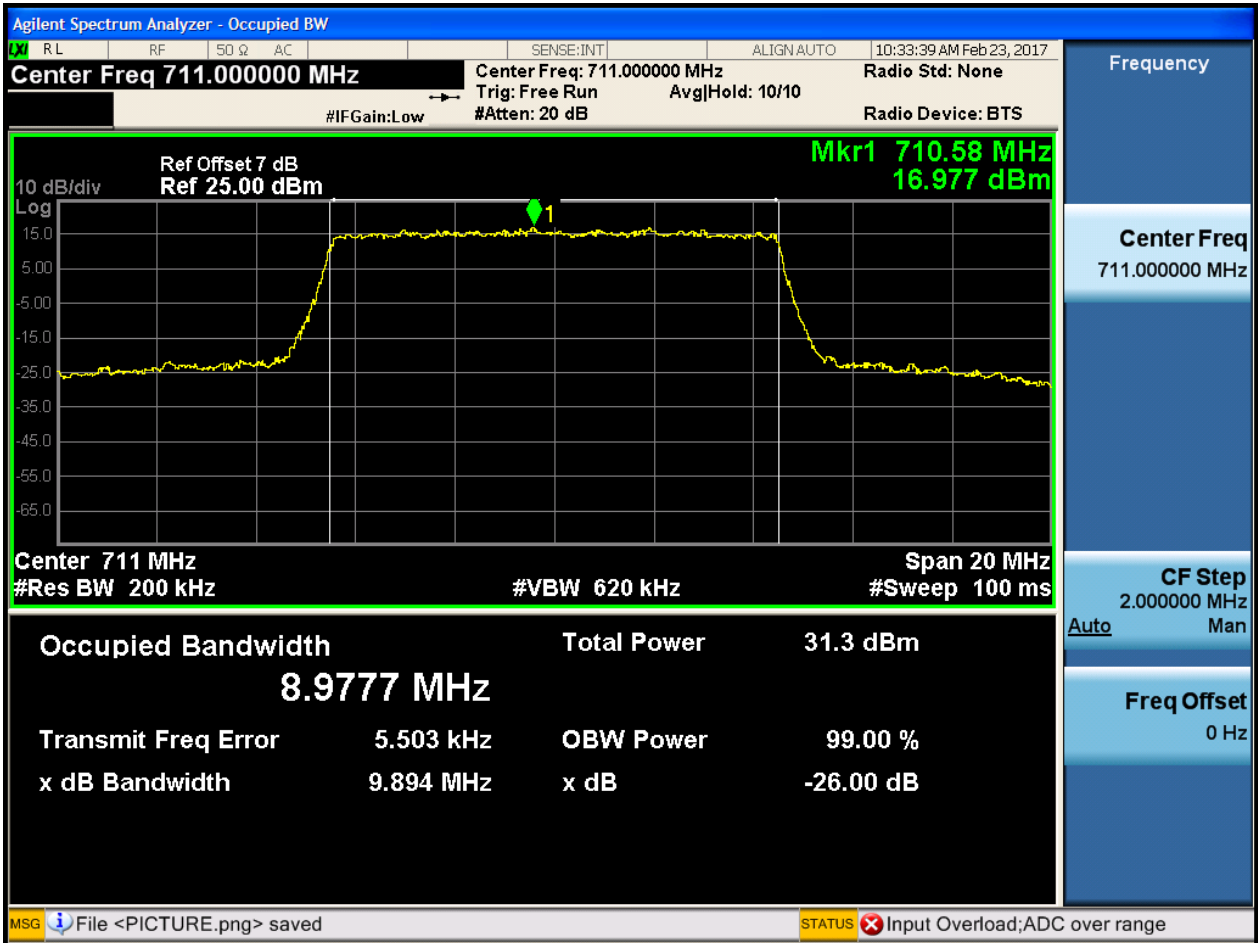
4.1.1.1.2.2.1 Test RB = RB50#0





4.1.1.1.2.3 Test Channel = HCH

4.1.1.1.2.3.1 Test RB = RB50#0



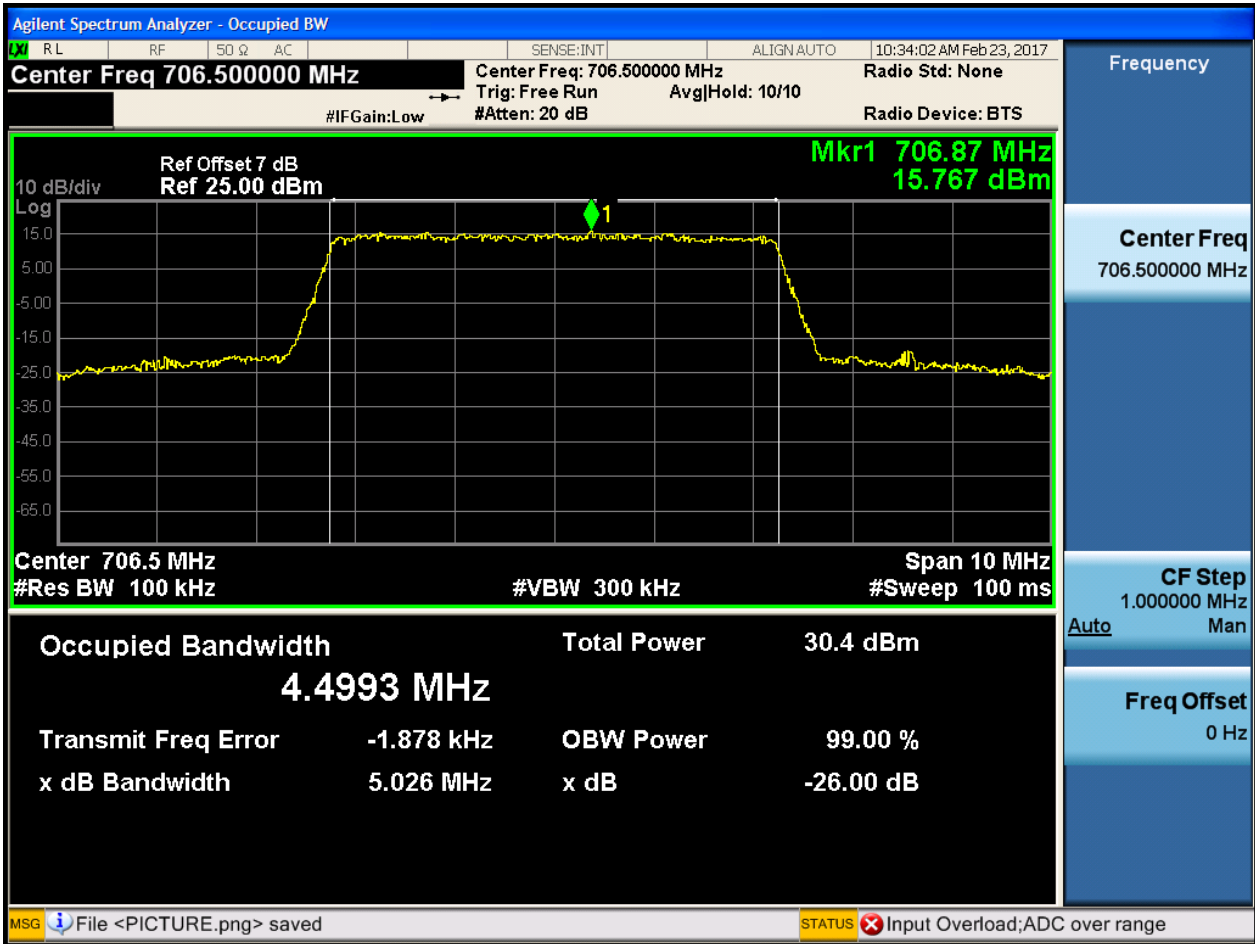


4.1.1.2 Test Mode = LTE/TM2

4.1.1.2.1 Test Bandwidth = 5

4.1.1.2.1.1 Test Channel = LCH

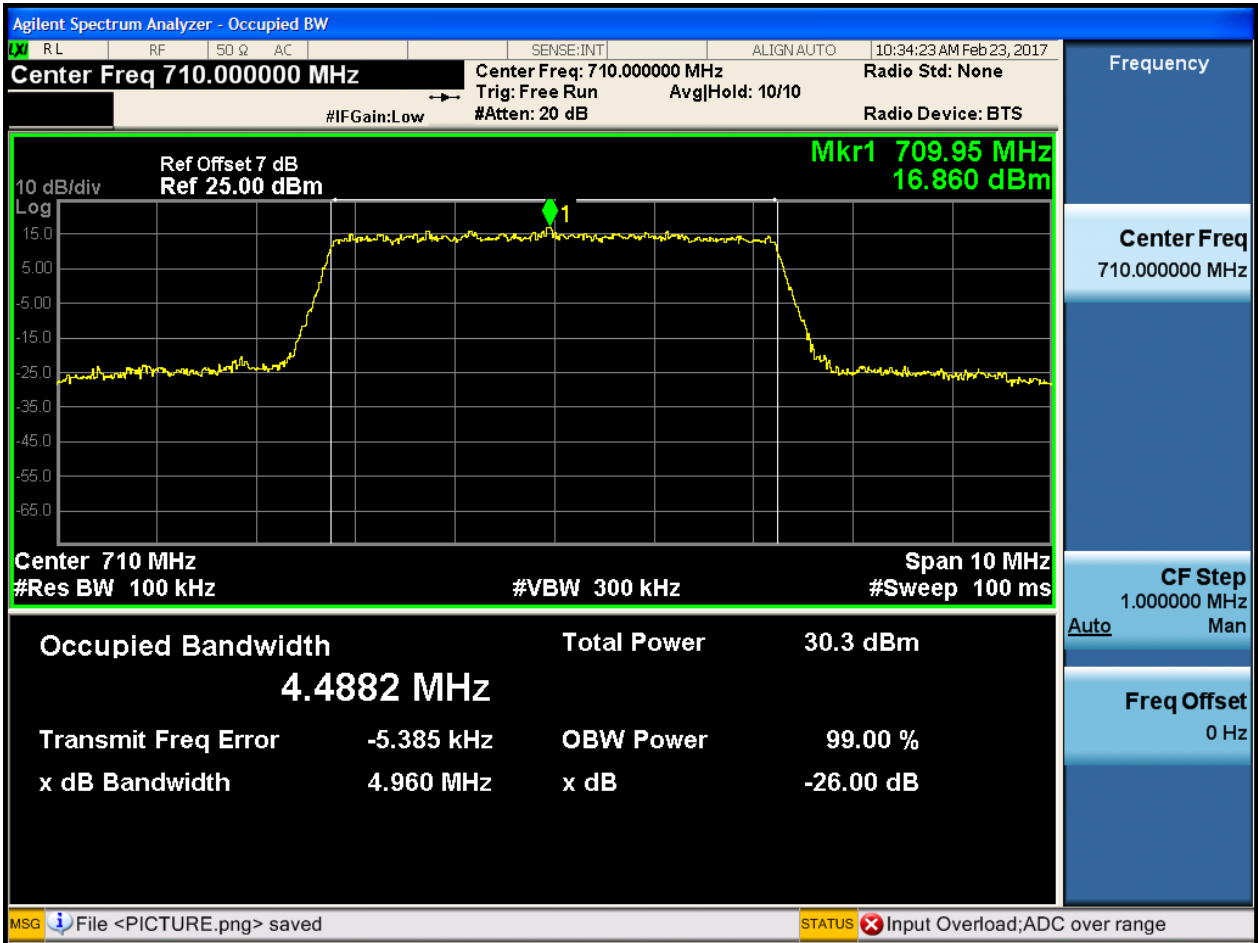
4.1.1.2.1.1.1 Test RB = RB25#0





4.1.1.2.1.2 Test Channel = MCH

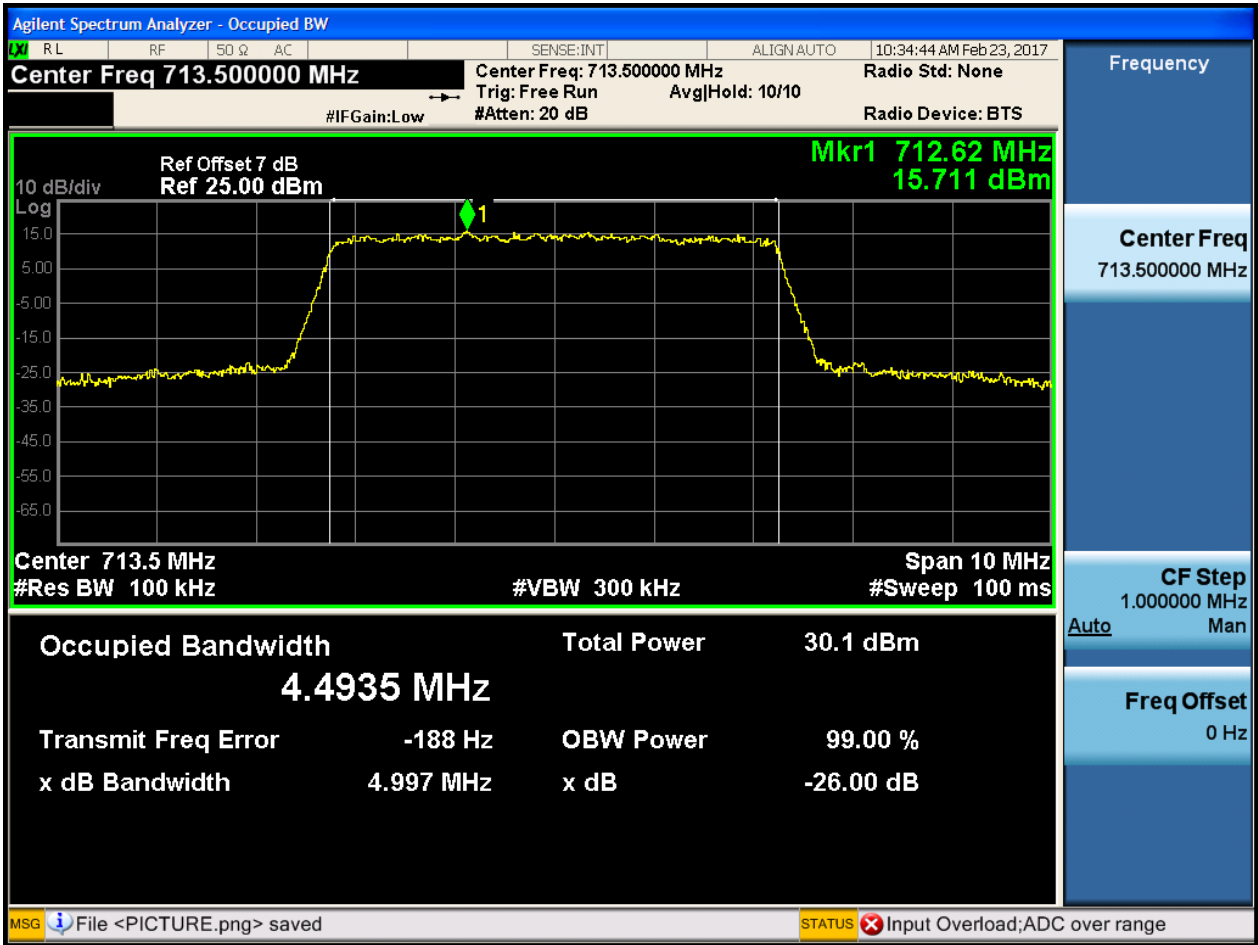
4.1.1.2.1.2.1 Test RB = RB25#0





4.1.1.2.1.3 Test Channel = HCH

4.1.1.2.1.3.1 Test RB = RB25#0

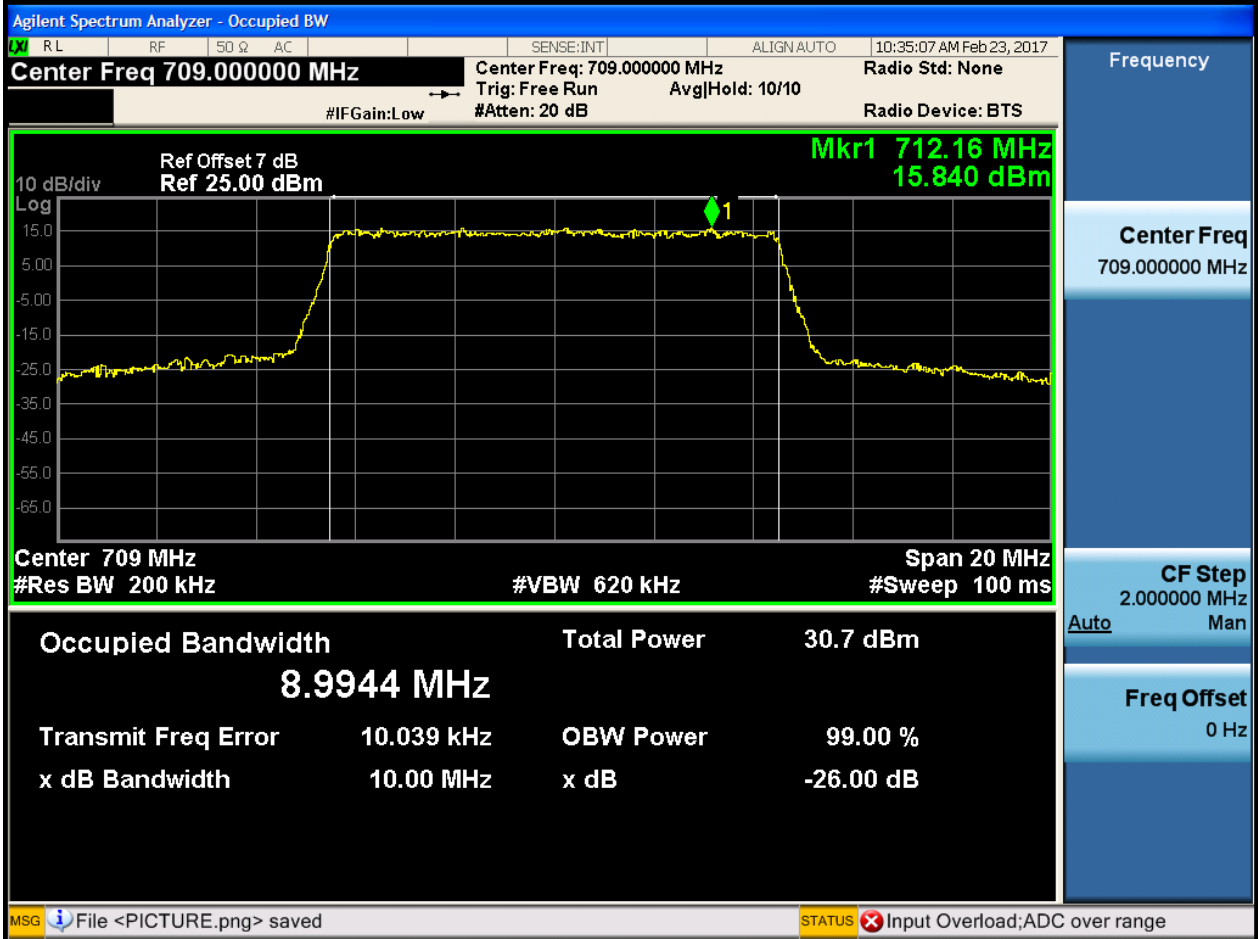




4.1.1.2.2 Test Bandwidth = 10

4.1.1.2.2.1 Test Channel = LCH

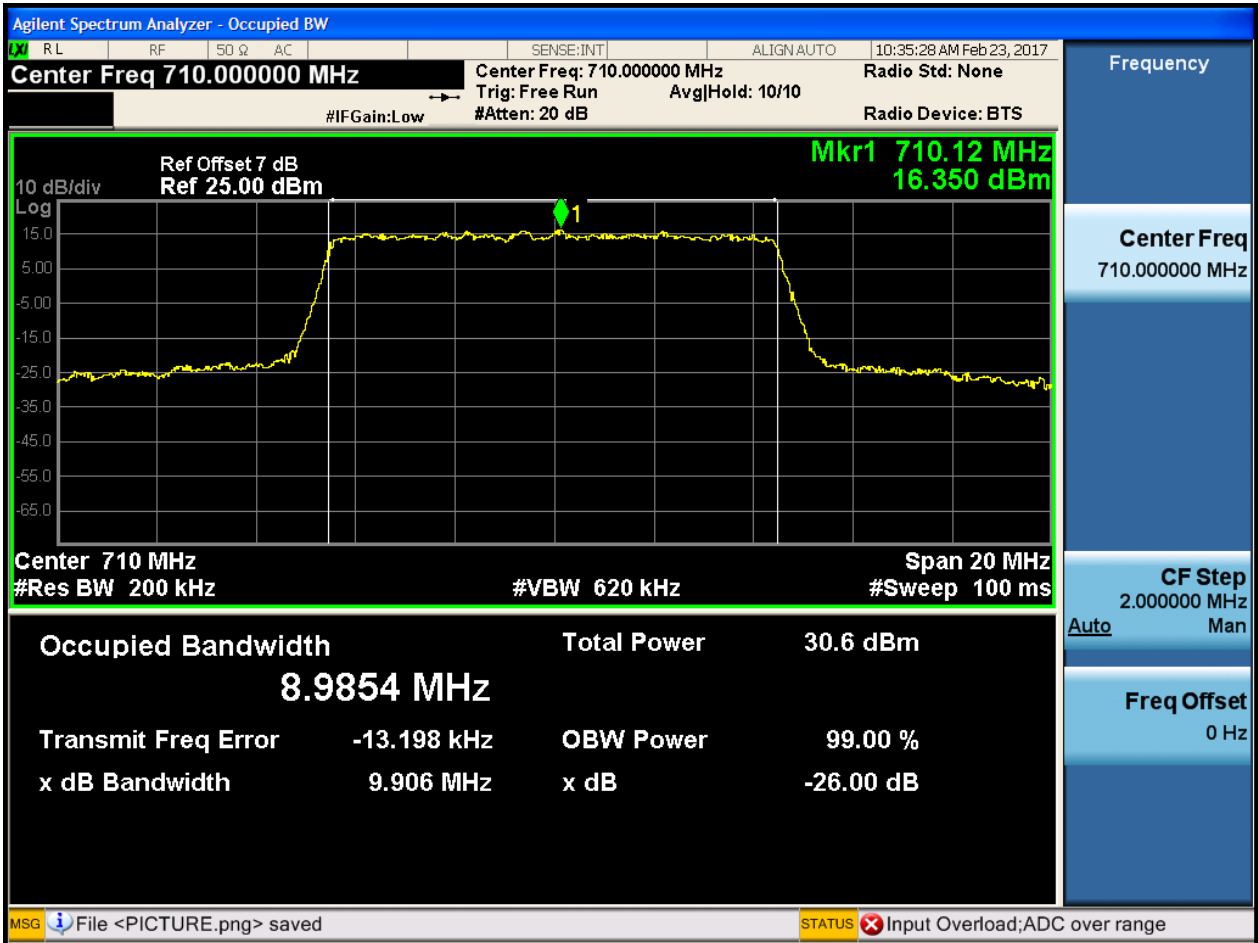
4.1.1.2.2.1.1 Test RB = RB50#0





4.1.1.2.2.2 Test Channel = MCH

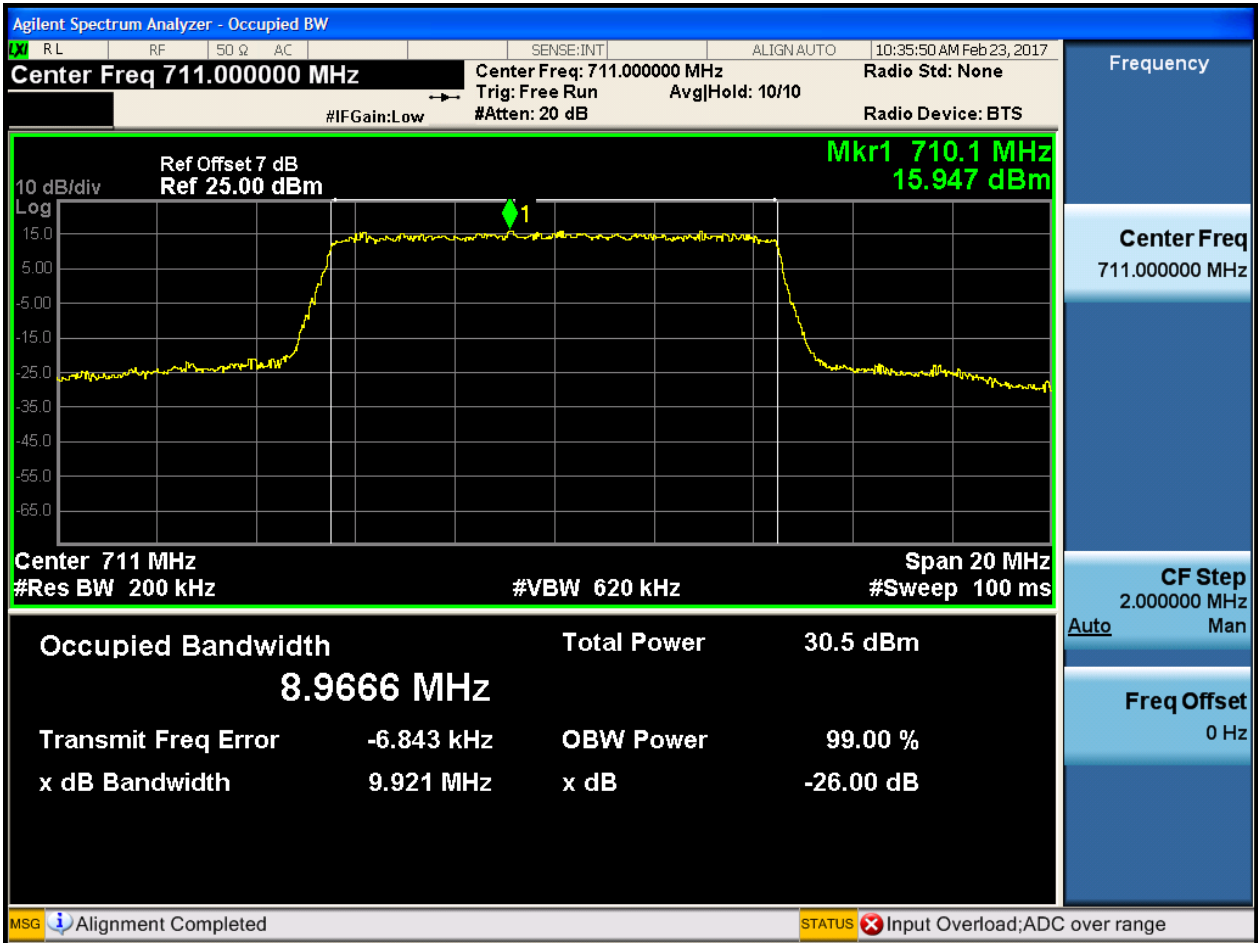
4.1.1.2.2.2.1 Test RB = RB50#0





4.1.1.2.2.3 Test Channel = HCH

4.1.1.2.2.3.1 Test RB = RB50#0





1Appendix_E: Band Edges Compliance

Part I - Test Plots

5.1 For LTE

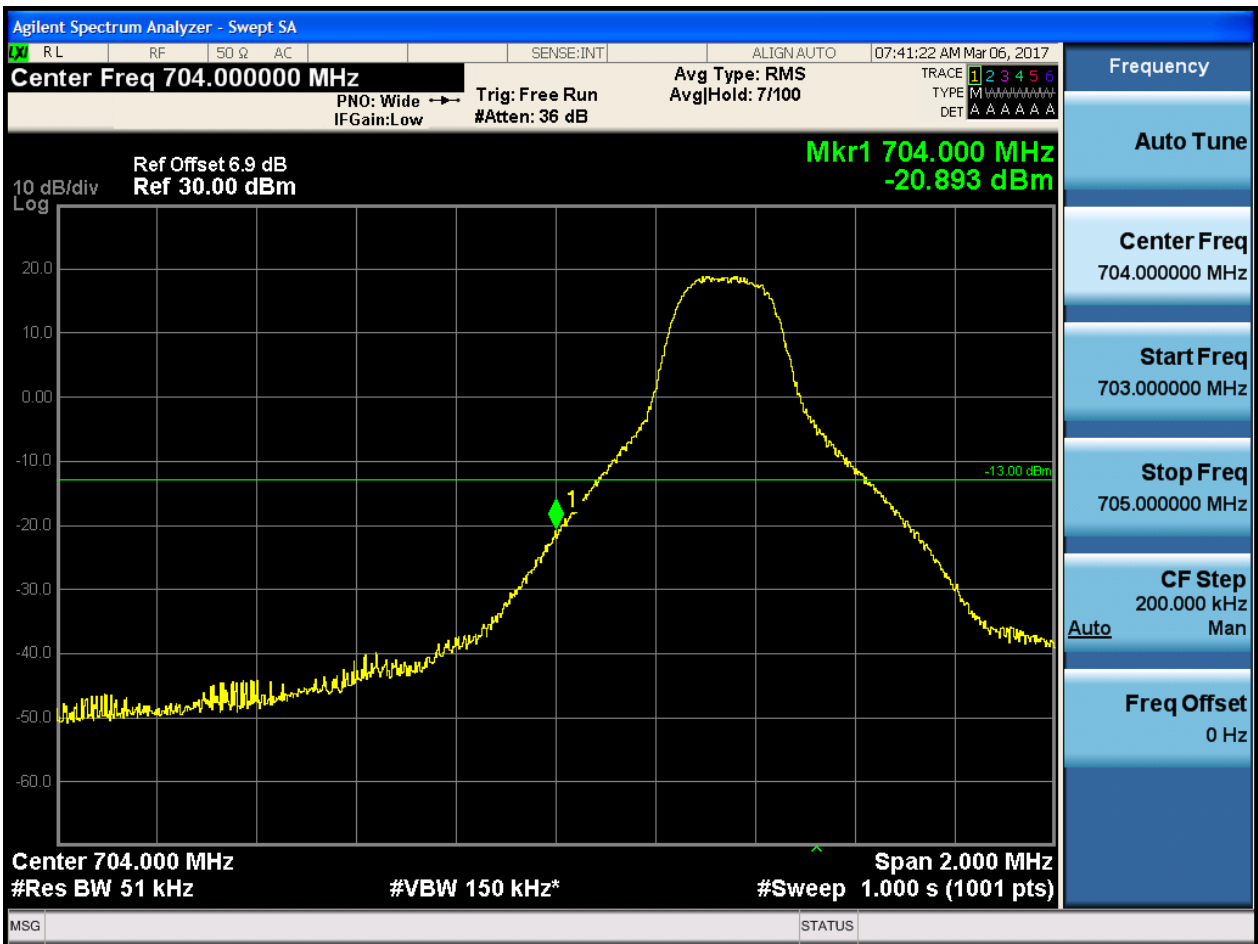
5.1.1 Test Band = BAND17

5.1.1.1 Test Mode = LTE/TM1

5.1.1.1.1 Test Bandwidth = 5

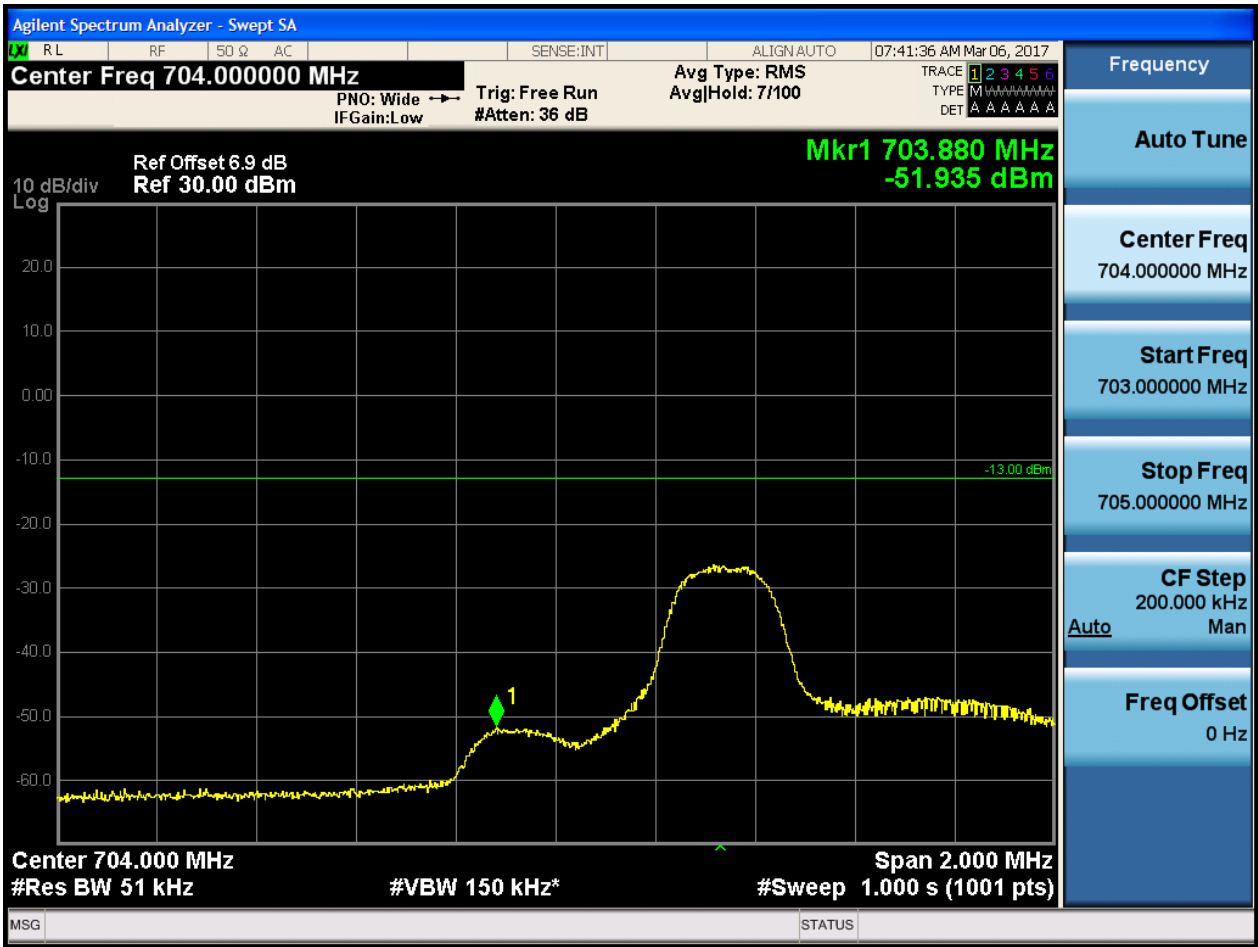
5.1.1.1.1.1 Test Channel = LCH

5.1.1.1.1.1.1 Test RB = RB1#0





5.1.1.1.1.2 Test RB = RB1#24



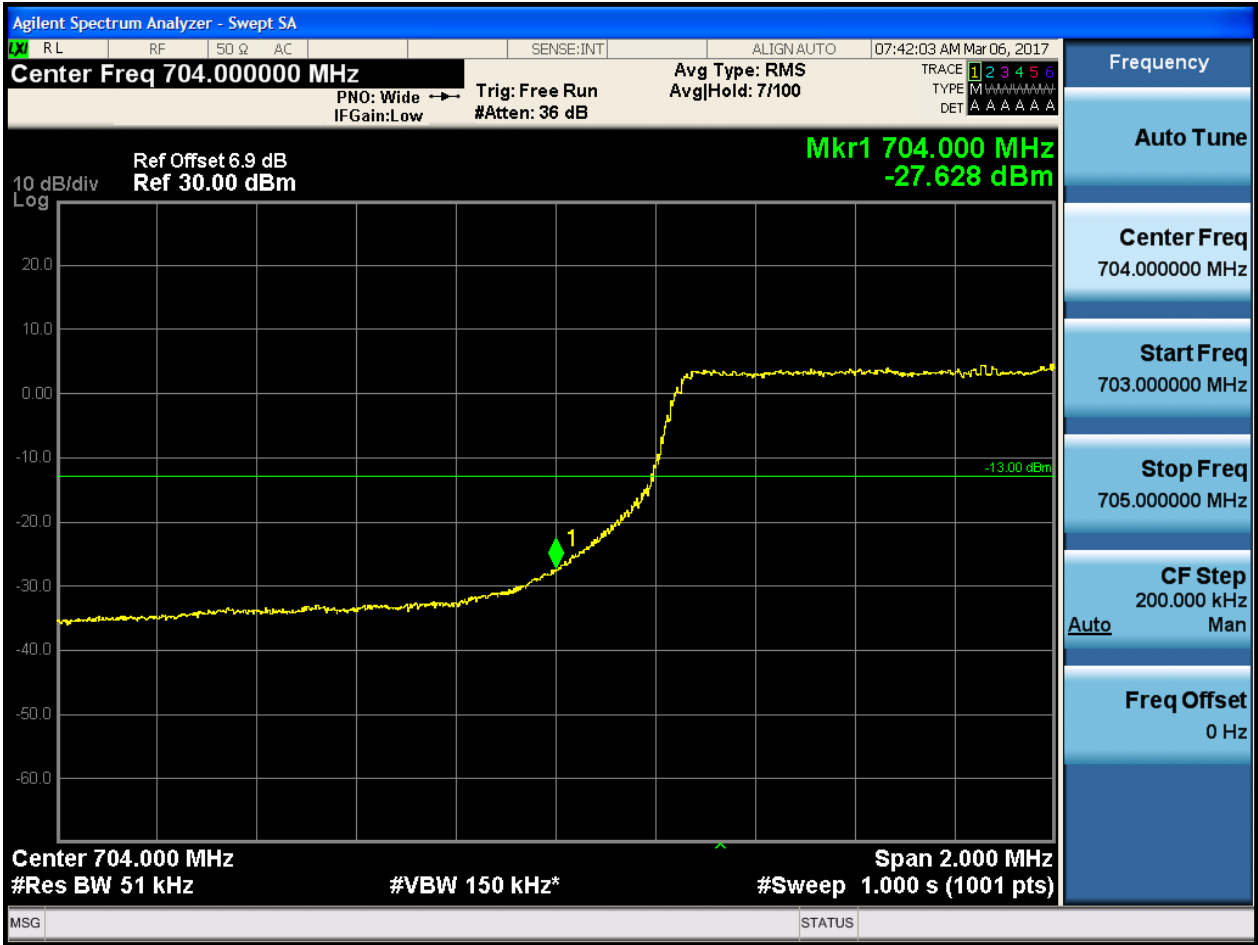


5.1.1.1.1.3 Test RB = RB12#6





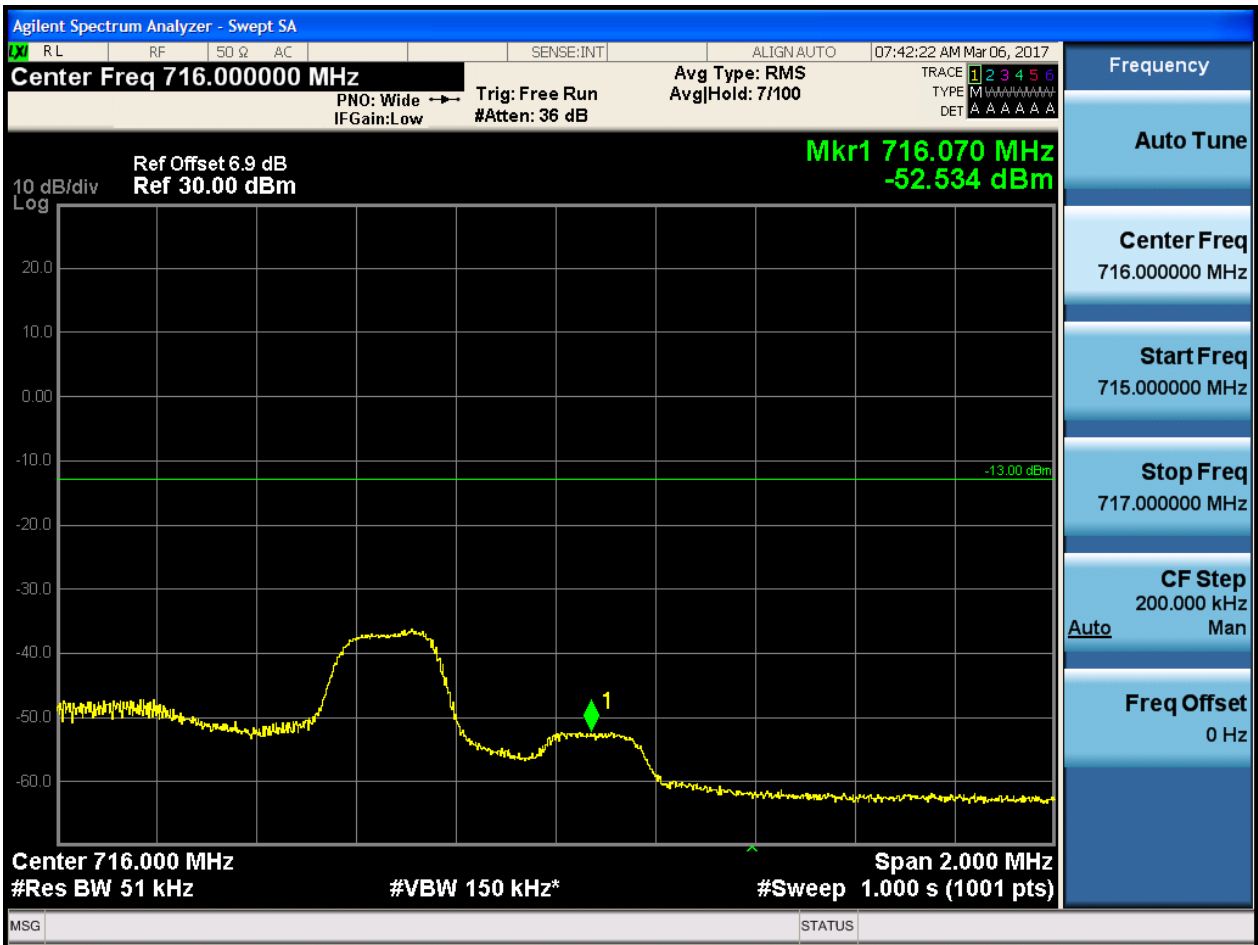
5.1.1.1.1.4 Test RB = RB25#0





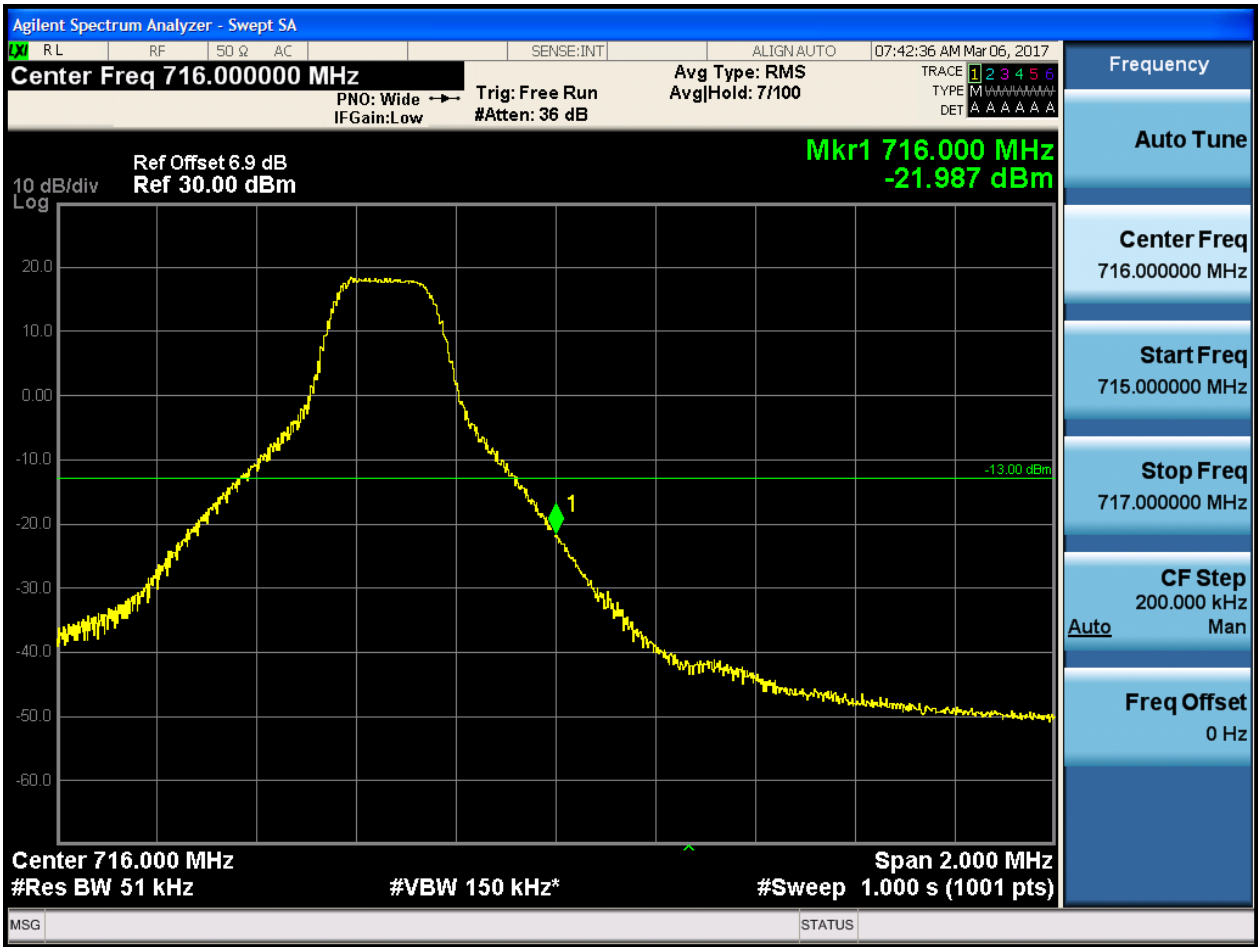
5.1.1.1.1.2 Test Channel = HCH

5.1.1.1.1.2.1 Test RB = RB1#0





5.1.1.1.1.2.2 Test RB = RB1#24





5.1.1.1.1.2.3 Test RB = RB12#6





5.1.1.1.1.2.4 Test RB = RB25#0

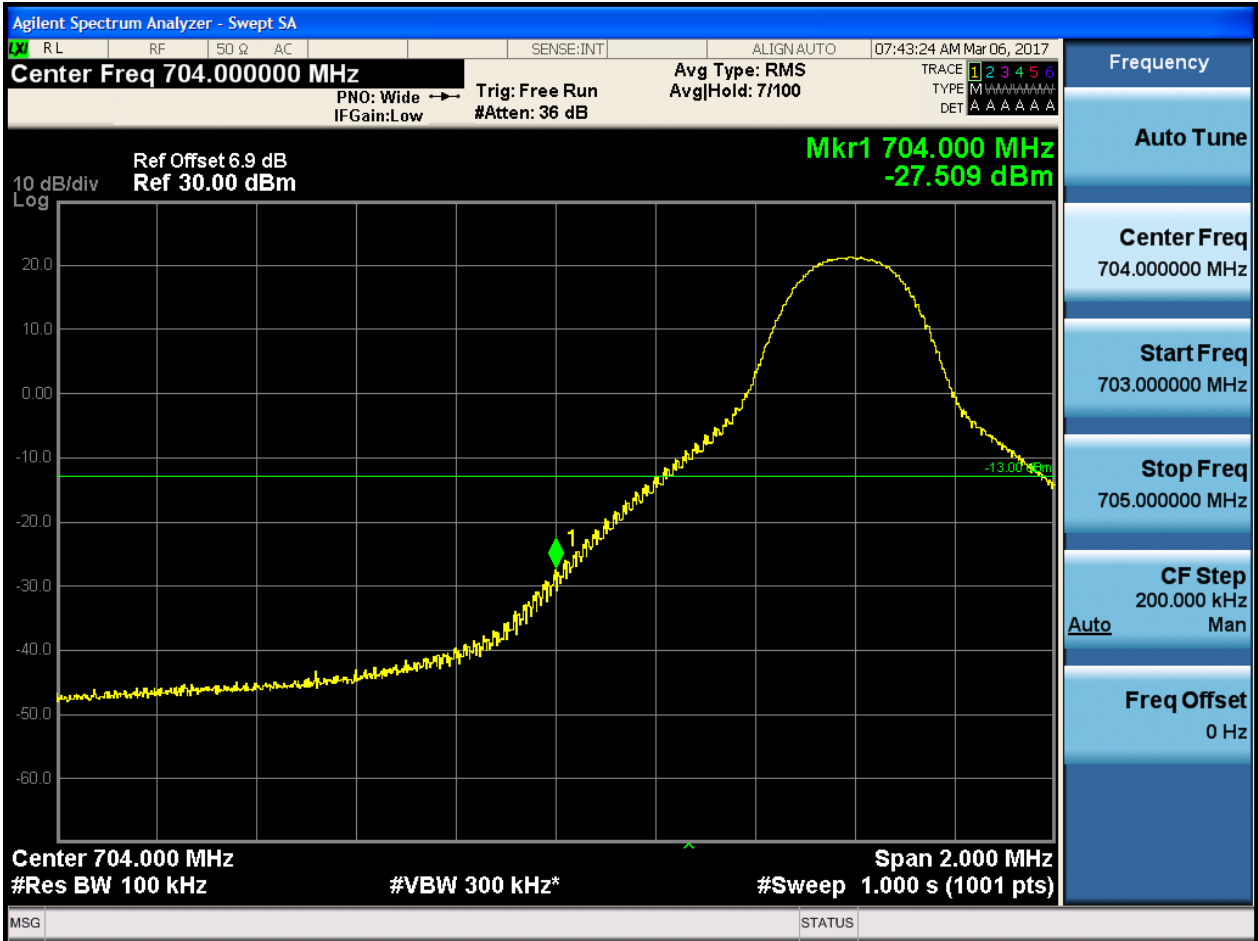




5.1.1.1.2 Test Bandwidth = 10

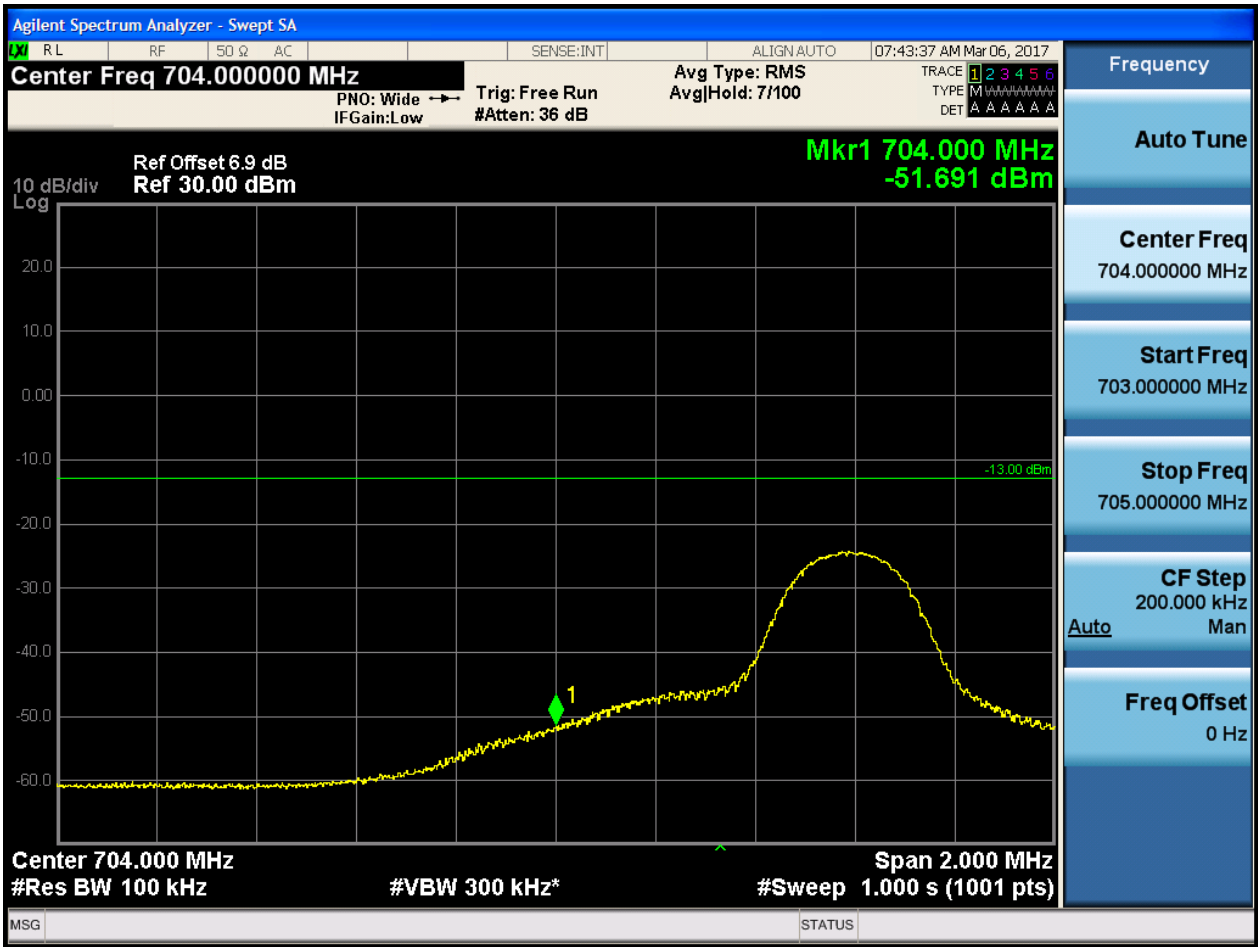
5.1.1.1.2.1 Test Channel = LCH

5.1.1.1.2.1.1 Test RB = RB1#0



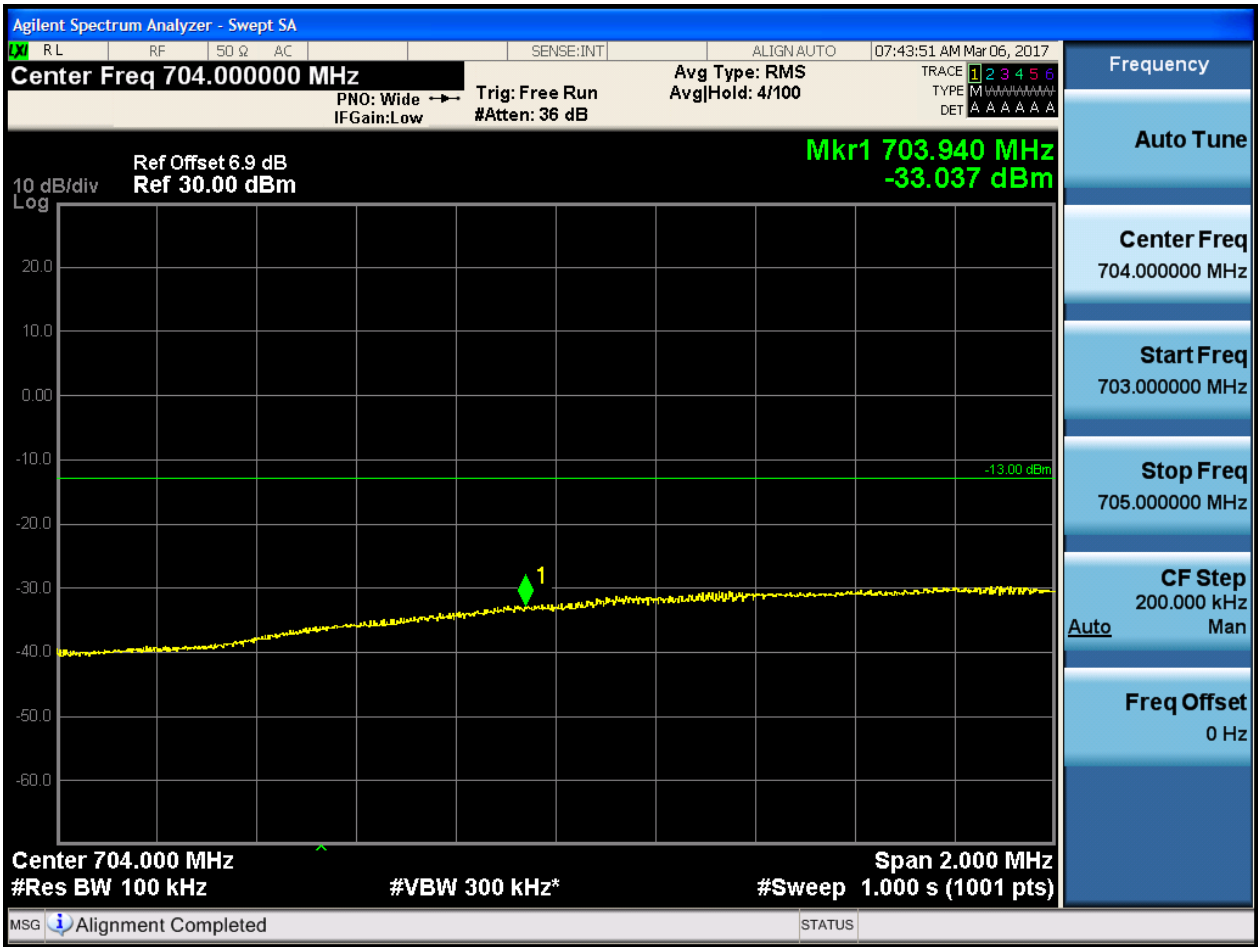


5.1.1.1.2.1.2 Test RB = RB1#49





5.1.1.1.2.1.3 Test RB = RB25#13





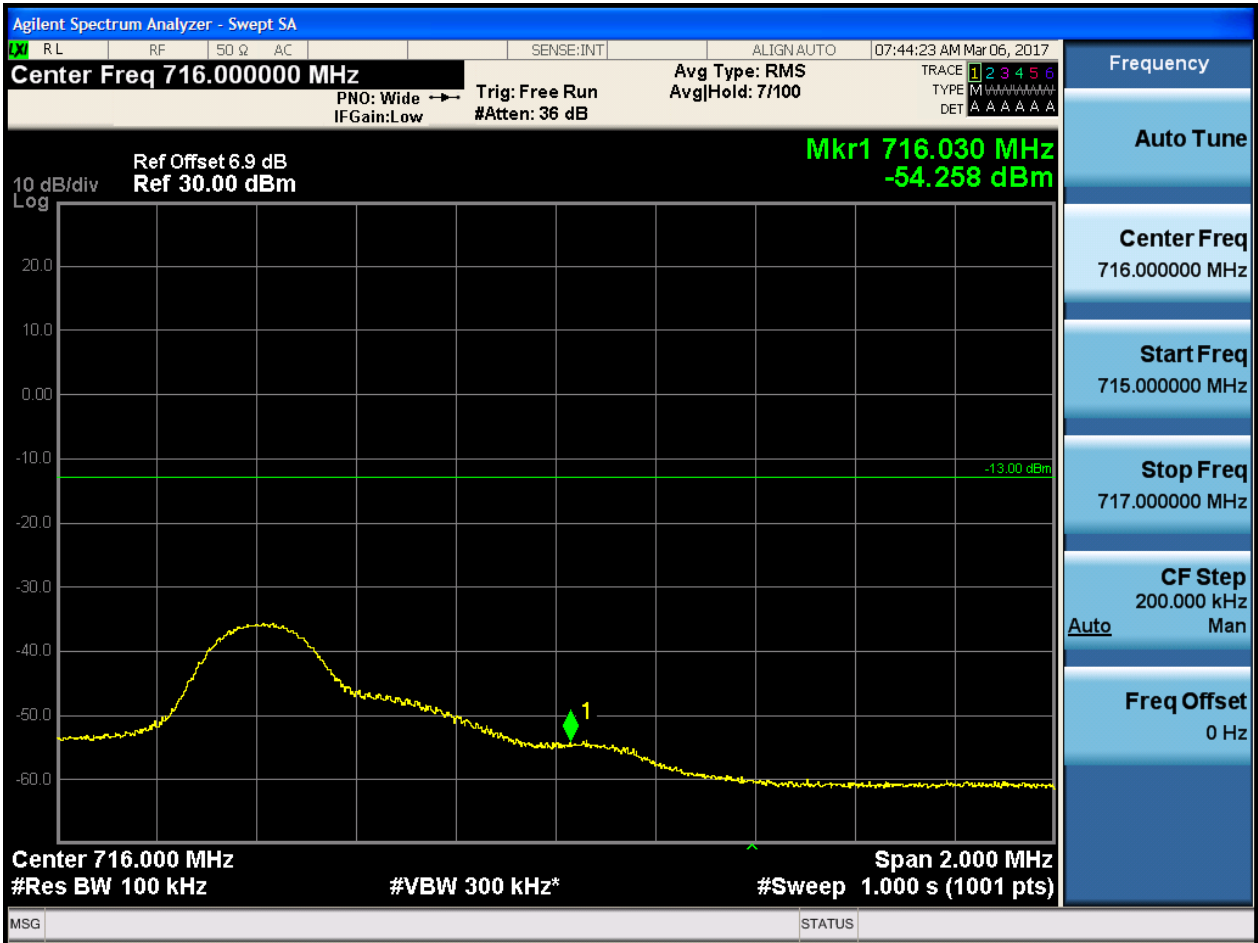
5.1.1.1.2.1.4 Test RB = RB50#0





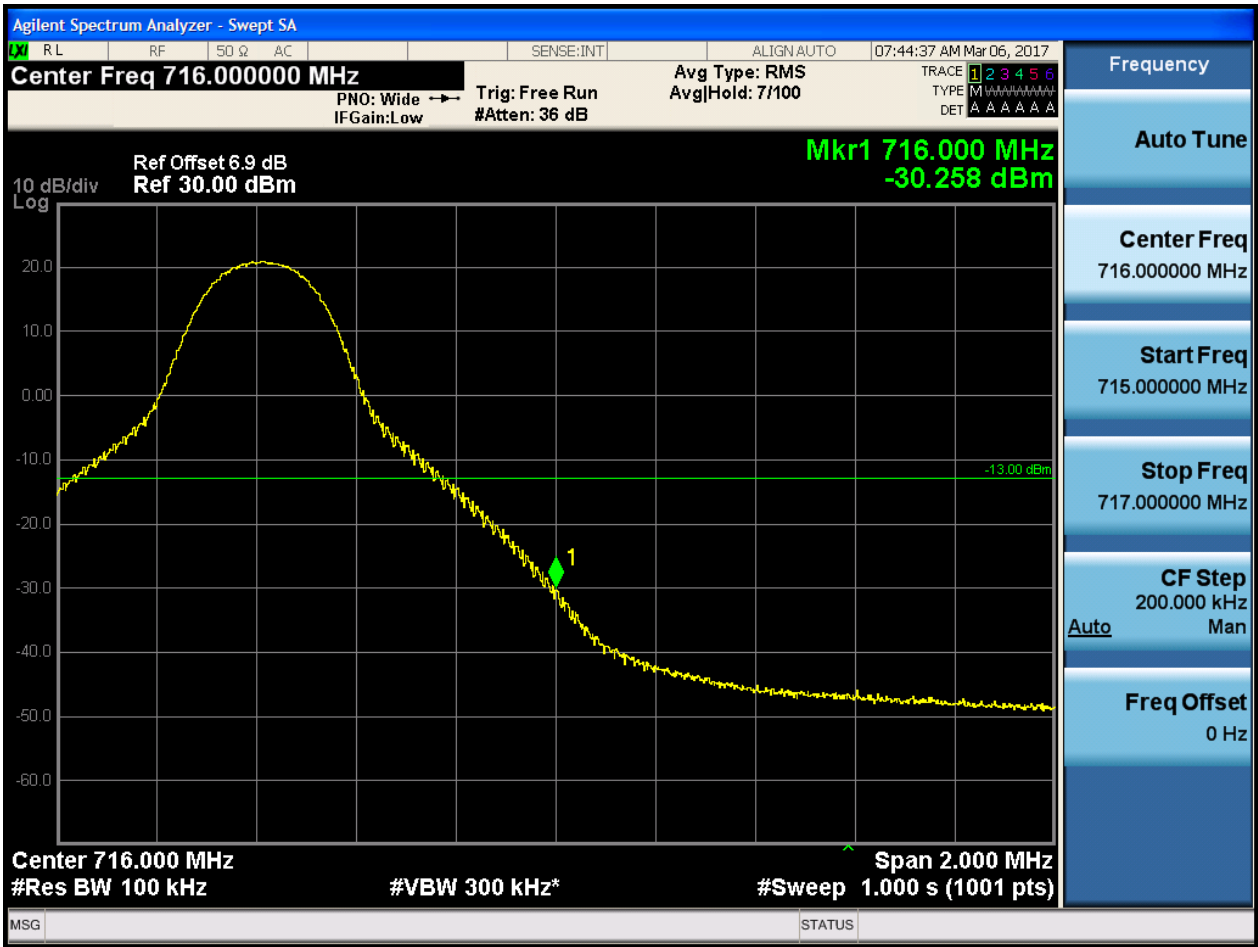
5.1.1.1.2.2 Test Channel = HCH

5.1.1.1.2.2.1 Test RB = RB1#0





5.1.1.1.2.2.2 Test RB = RB1#49



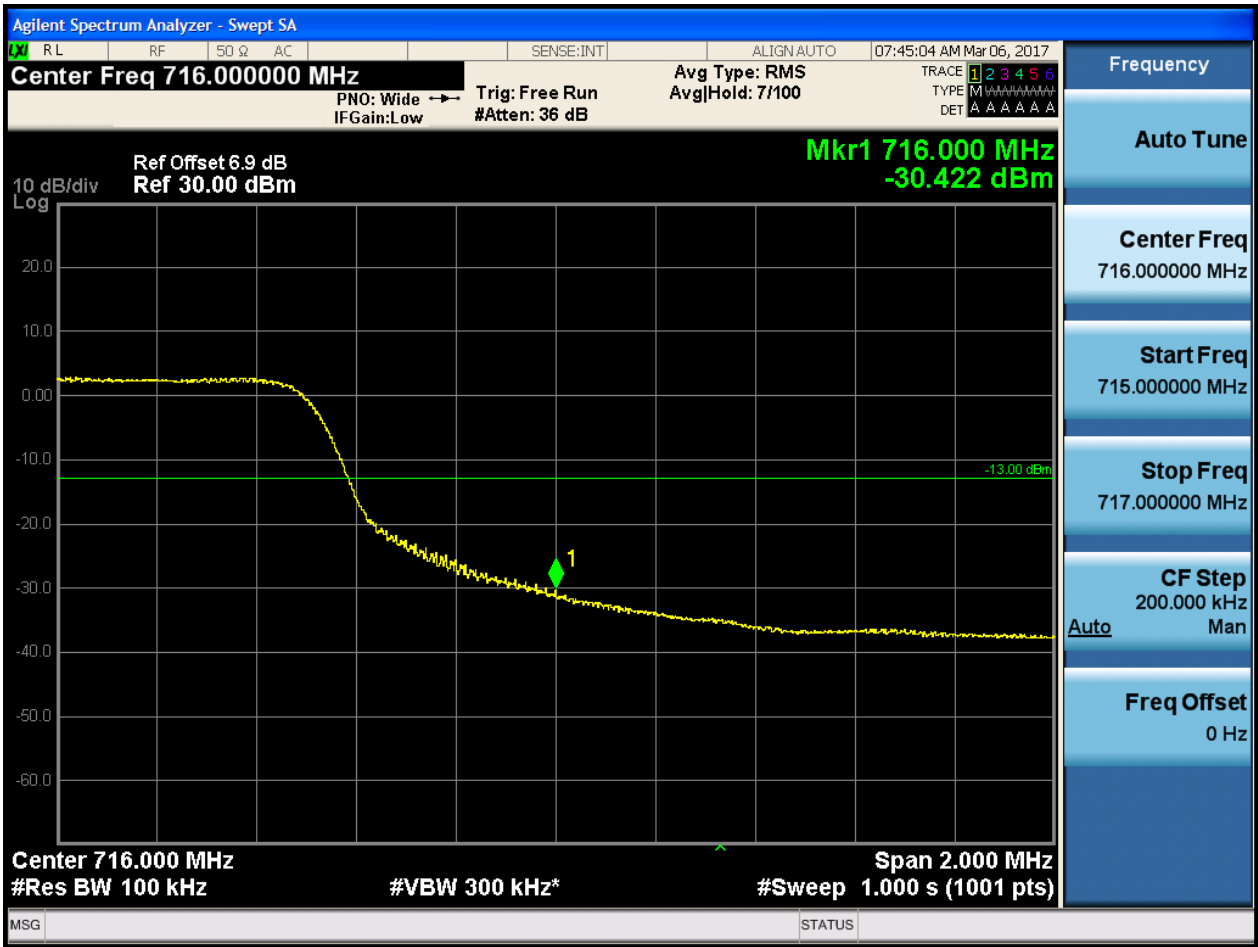


5.1.1.1.2.2.3 Test RB = RB25#13





5.1.1.1.2.2.4 Test RB = RB50#0



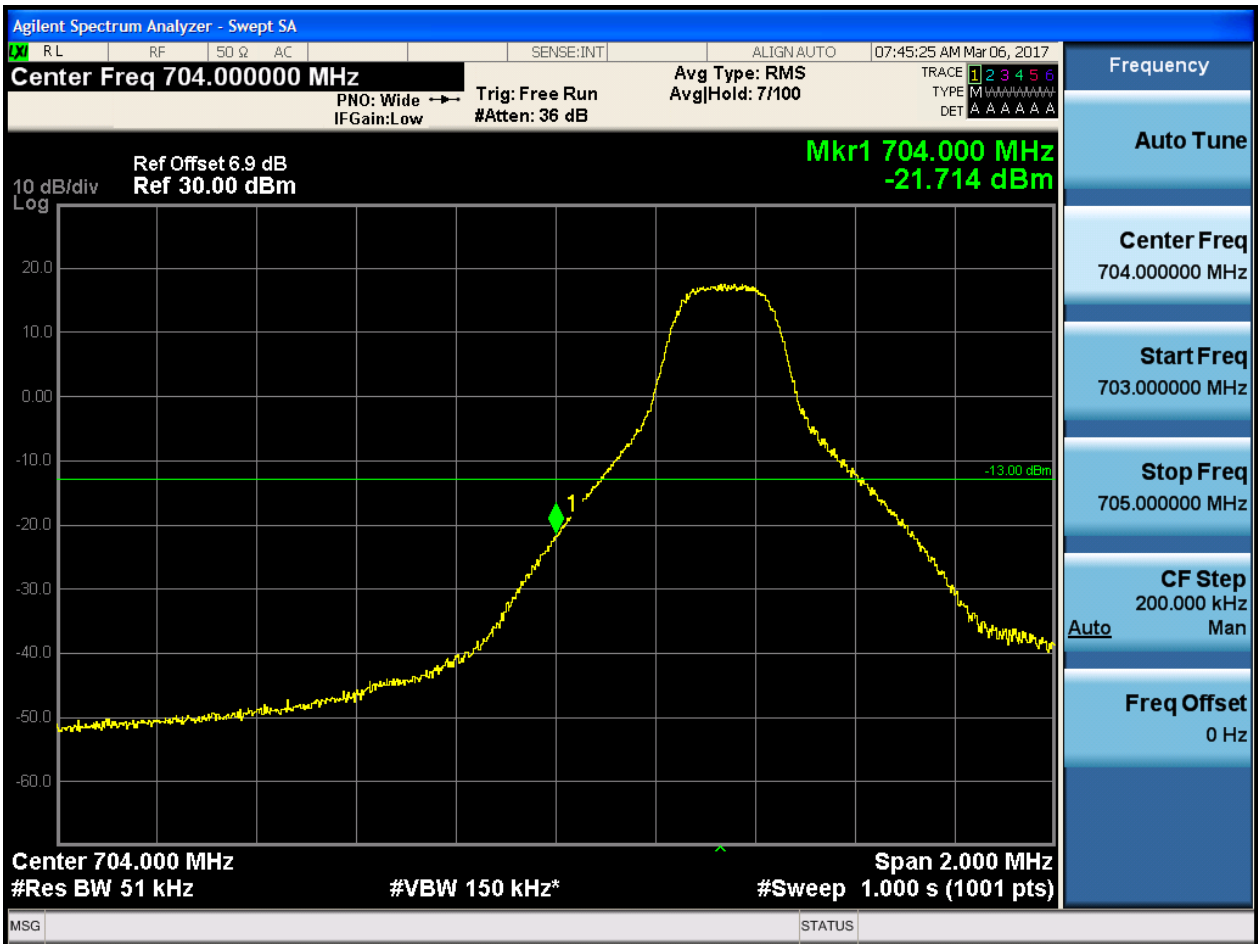


5.1.1.2 Test Mode = LTE/TM2

5.1.1.2.1 Test Bandwidth = 5

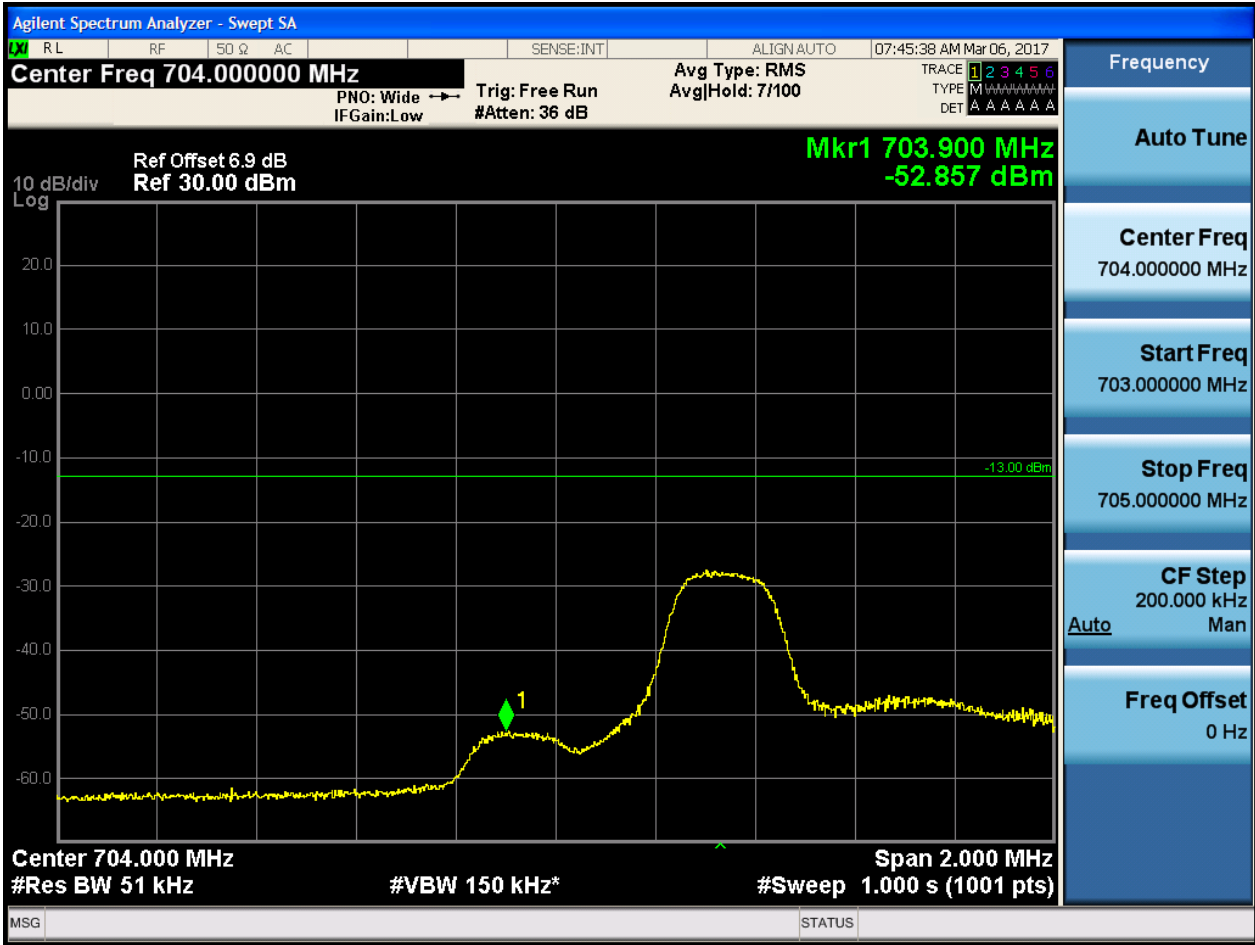
5.1.1.2.1.1 Test Channel = LCH

5.1.1.2.1.1.1 Test RB = RB1#0





5.1.1.2.1.1.2 Test RB = RB1#24



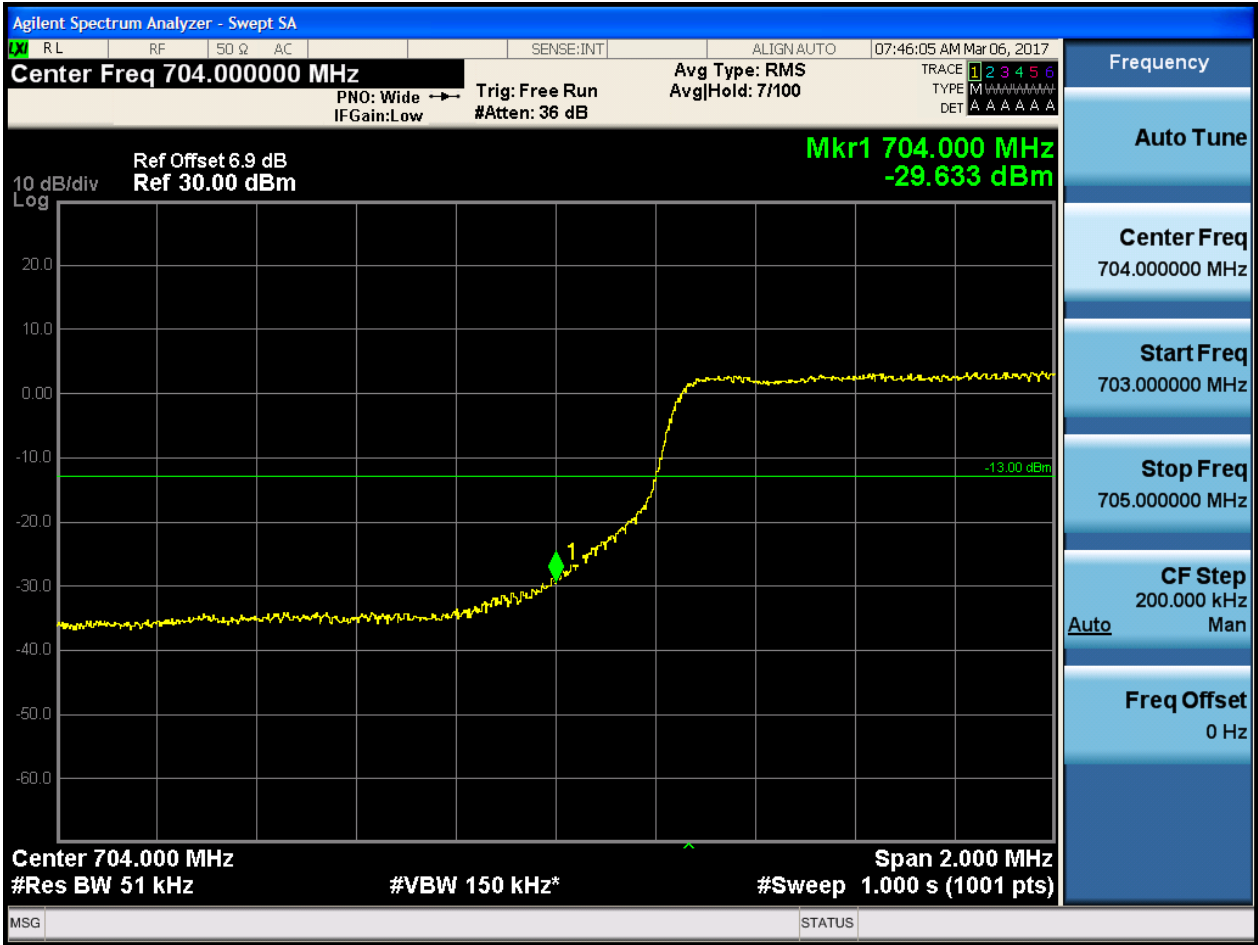


5.1.1.2.1.1.3 Test RB = RB12#6





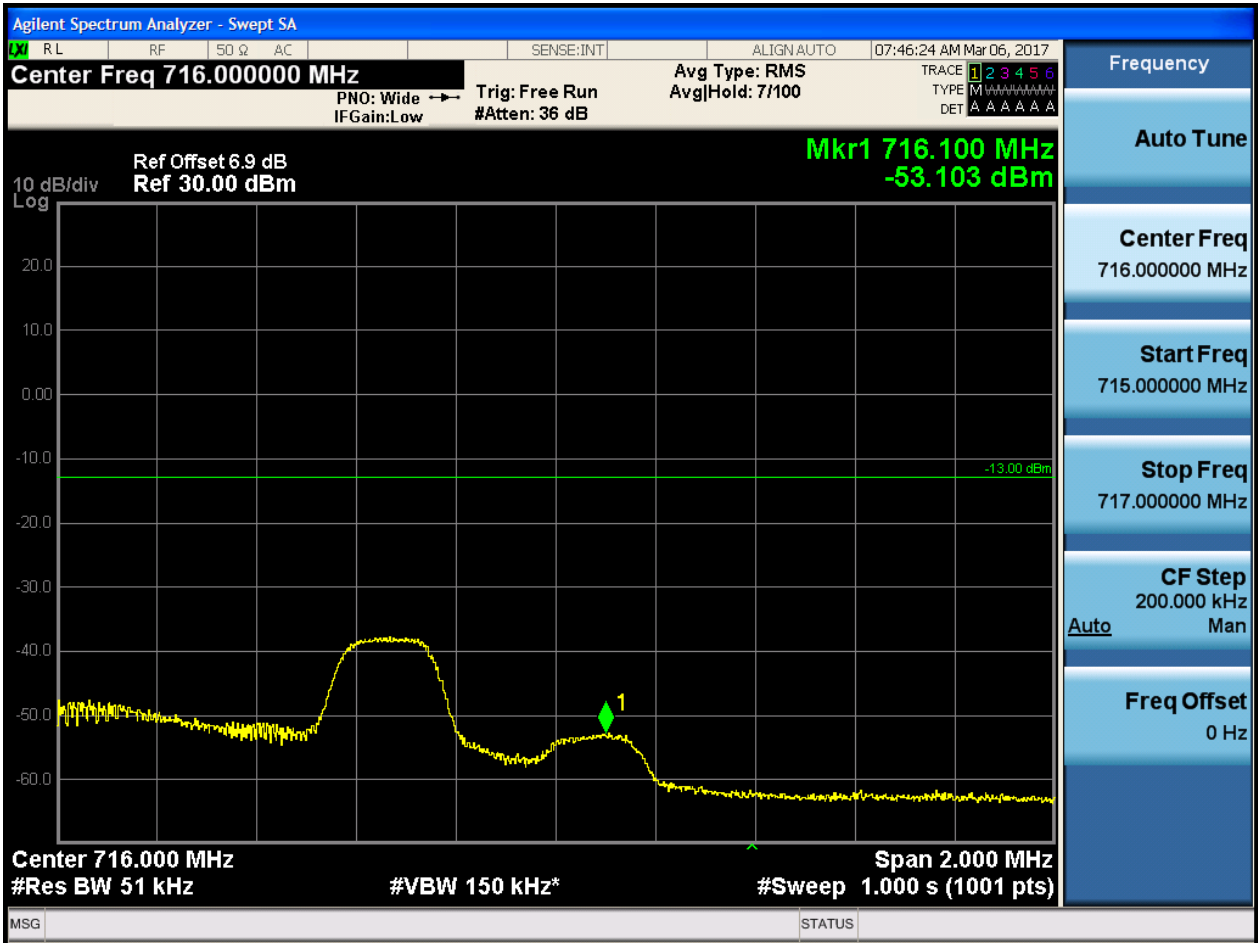
5.1.1.2.1.1.4 Test RB = RB25#0





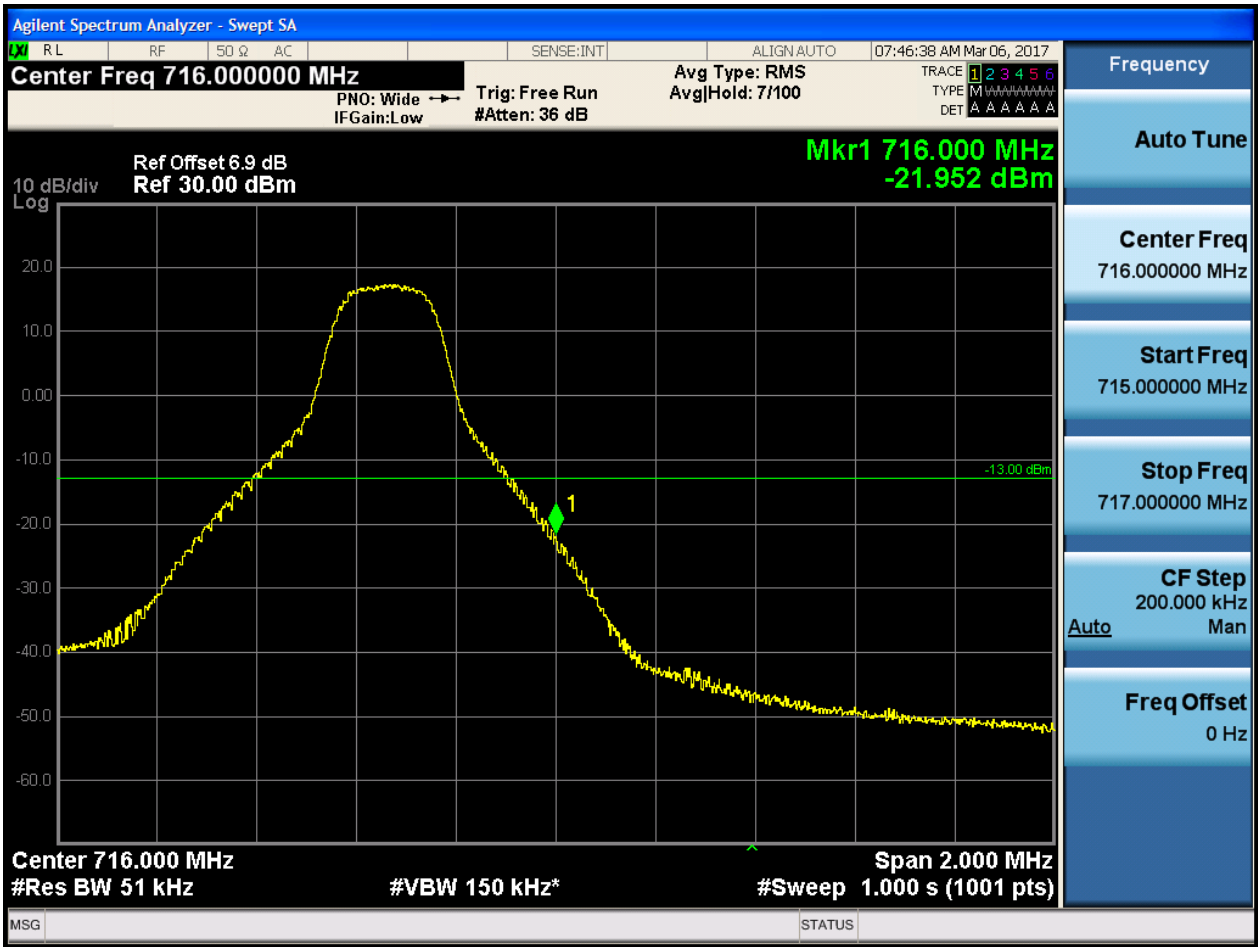
5.1.1.2.1.2 Test Channel = HCH

5.1.1.2.1.2.1 Test RB = RB1#0





5.1.1.2.1.2.2 Test RB = RB1#24





5.1.1.2.1.2.3 Test RB = RB12#6





5.1.1.2.1.2.4 Test RB = RB25#0

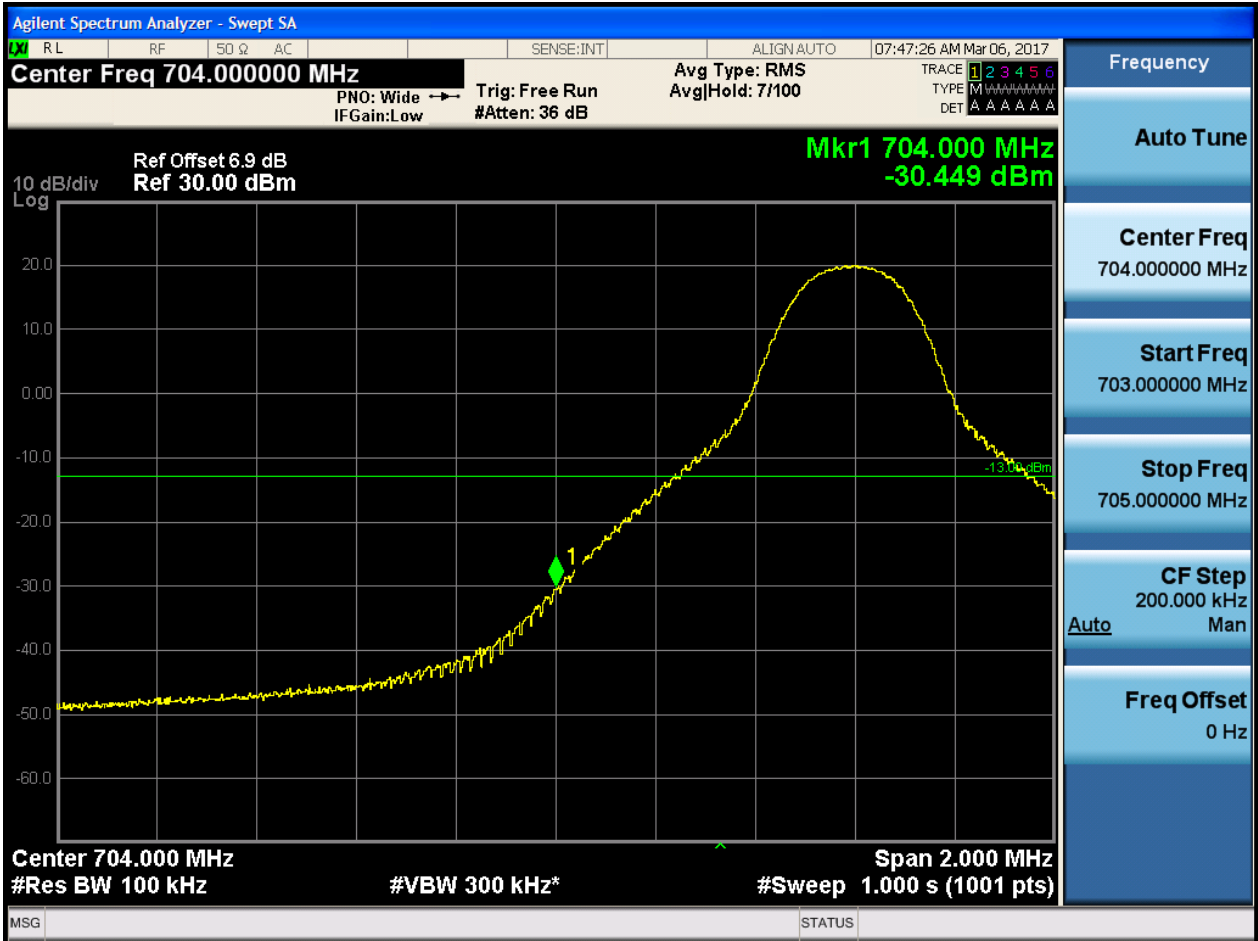




5.1.1.2.2 Test Bandwidth = 10

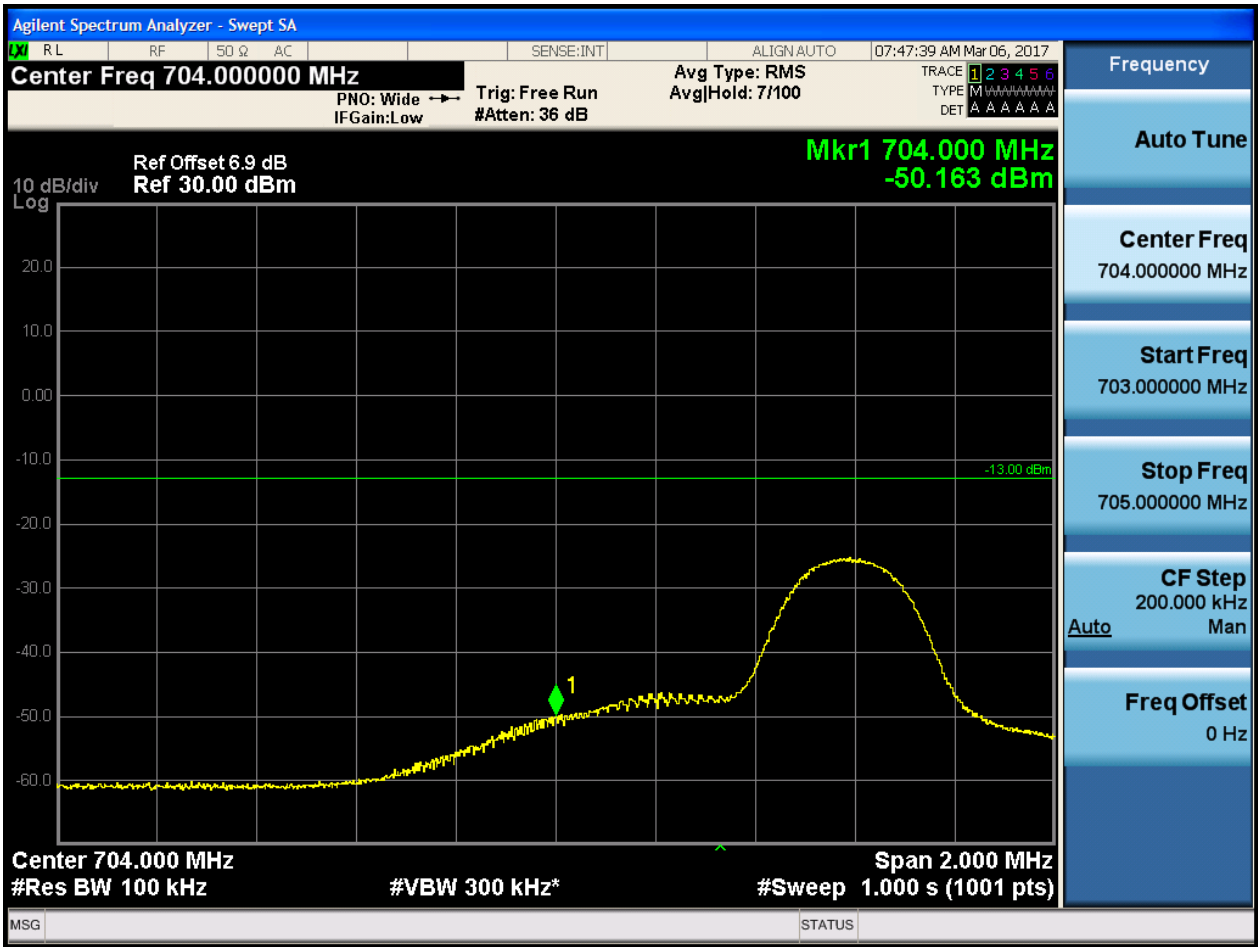
5.1.1.2.2.1 Test Channel = LCH

5.1.1.2.2.1.1 Test RB = RB1#0



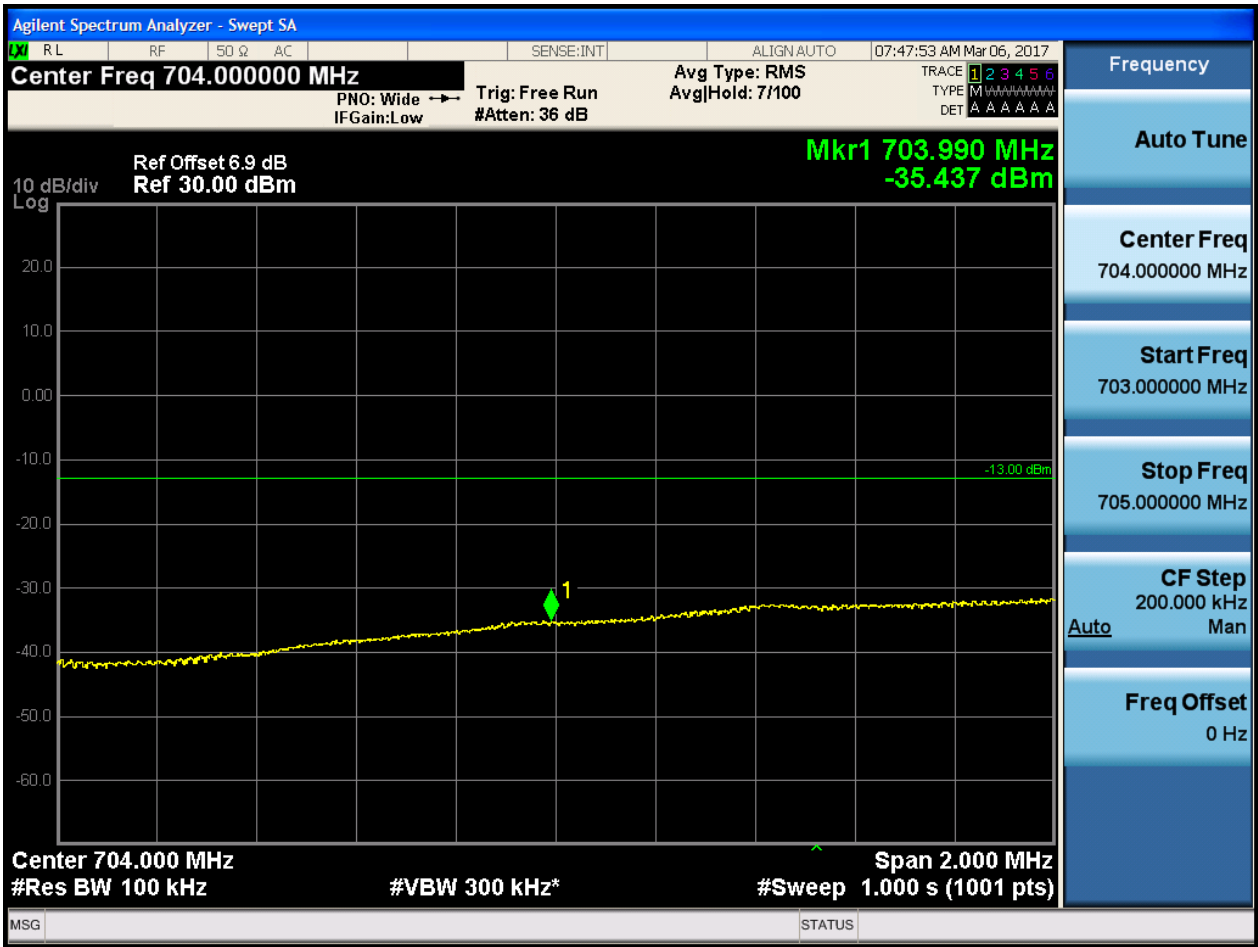


5.1.1.2.2.1.2 Test RB = RB1#49



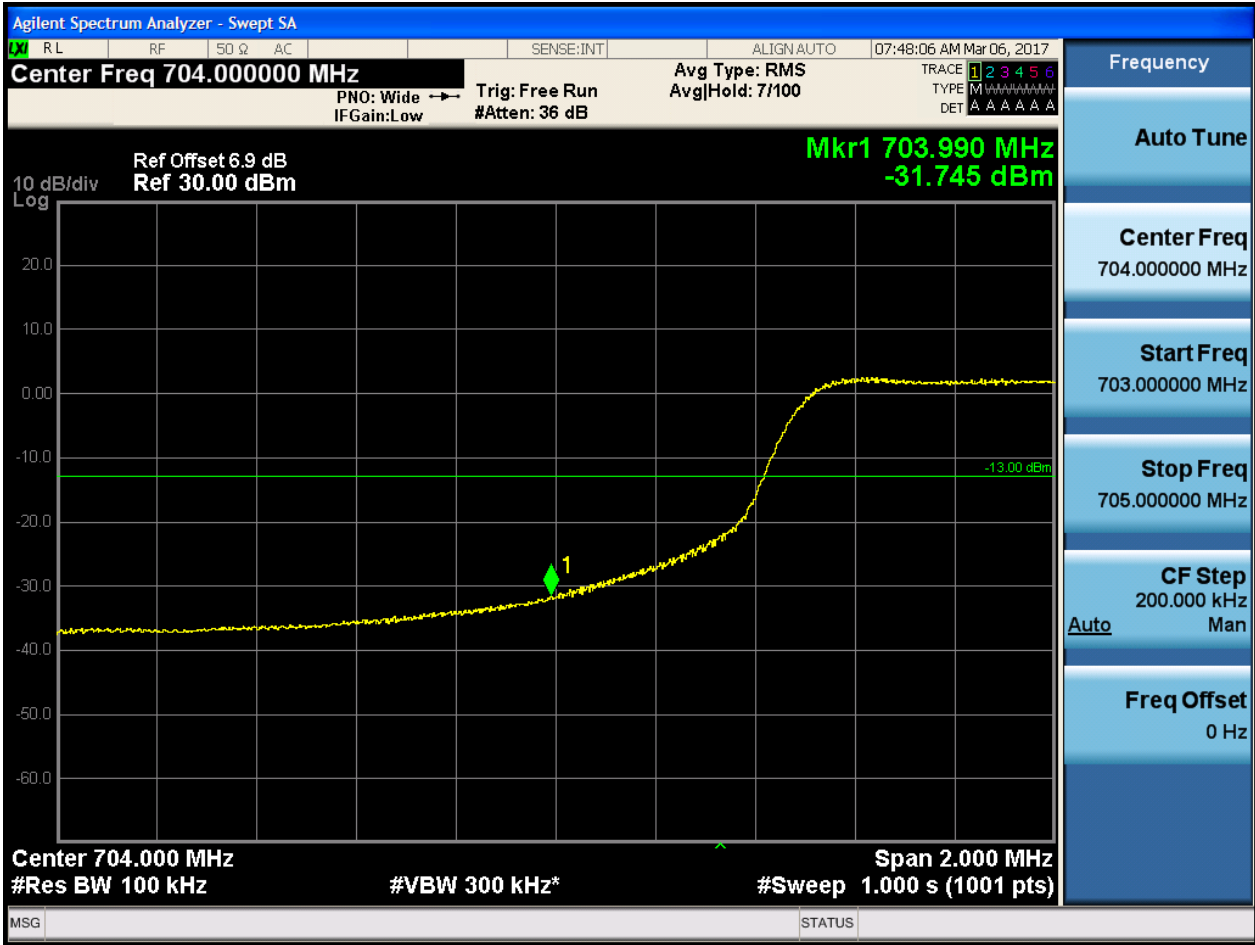


5.1.1.2.2.1.3 Test RB = RB25#13





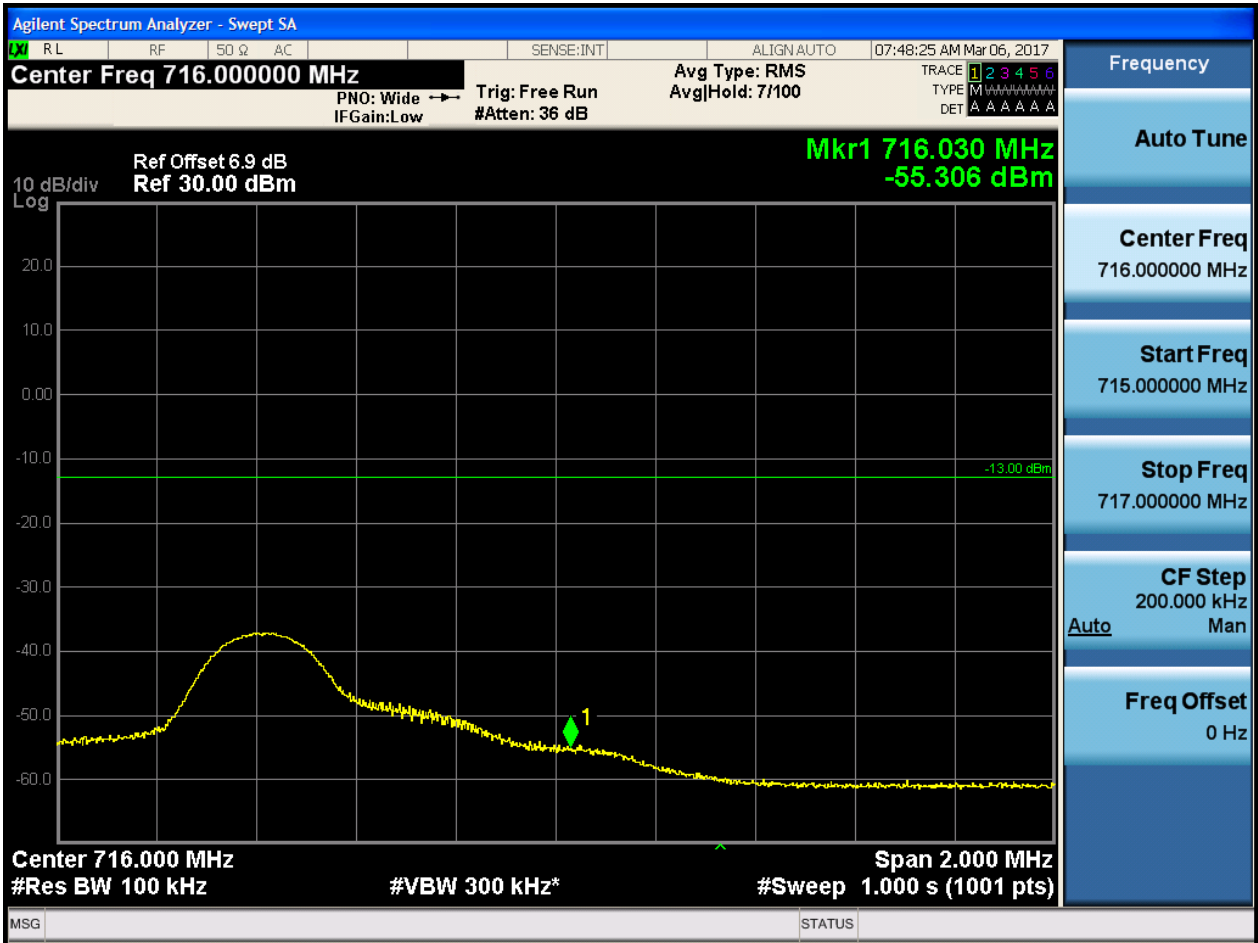
5.1.1.2.2.1.4 Test RB = RB50#0





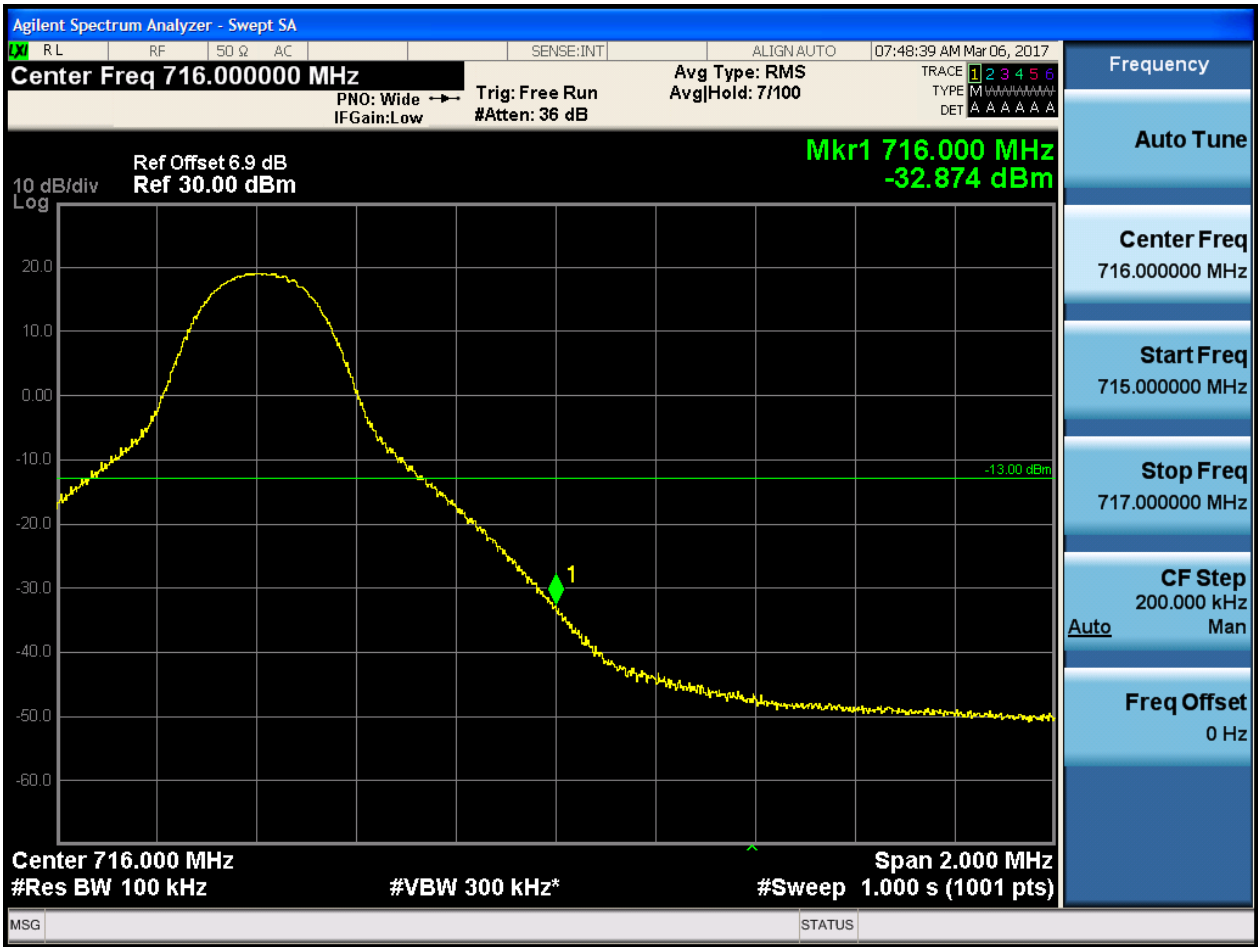
5.1.1.2.2.2 Test Channel = HCH

5.1.1.2.2.2.1 Test RB = RB1#0





5.1.1.2.2.2 Test RB = RB1#49





5.1.1.2.2.3 Test RB = RB25#13





5.1.1.2.2.4 Test RB = RB50#0





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 LTE

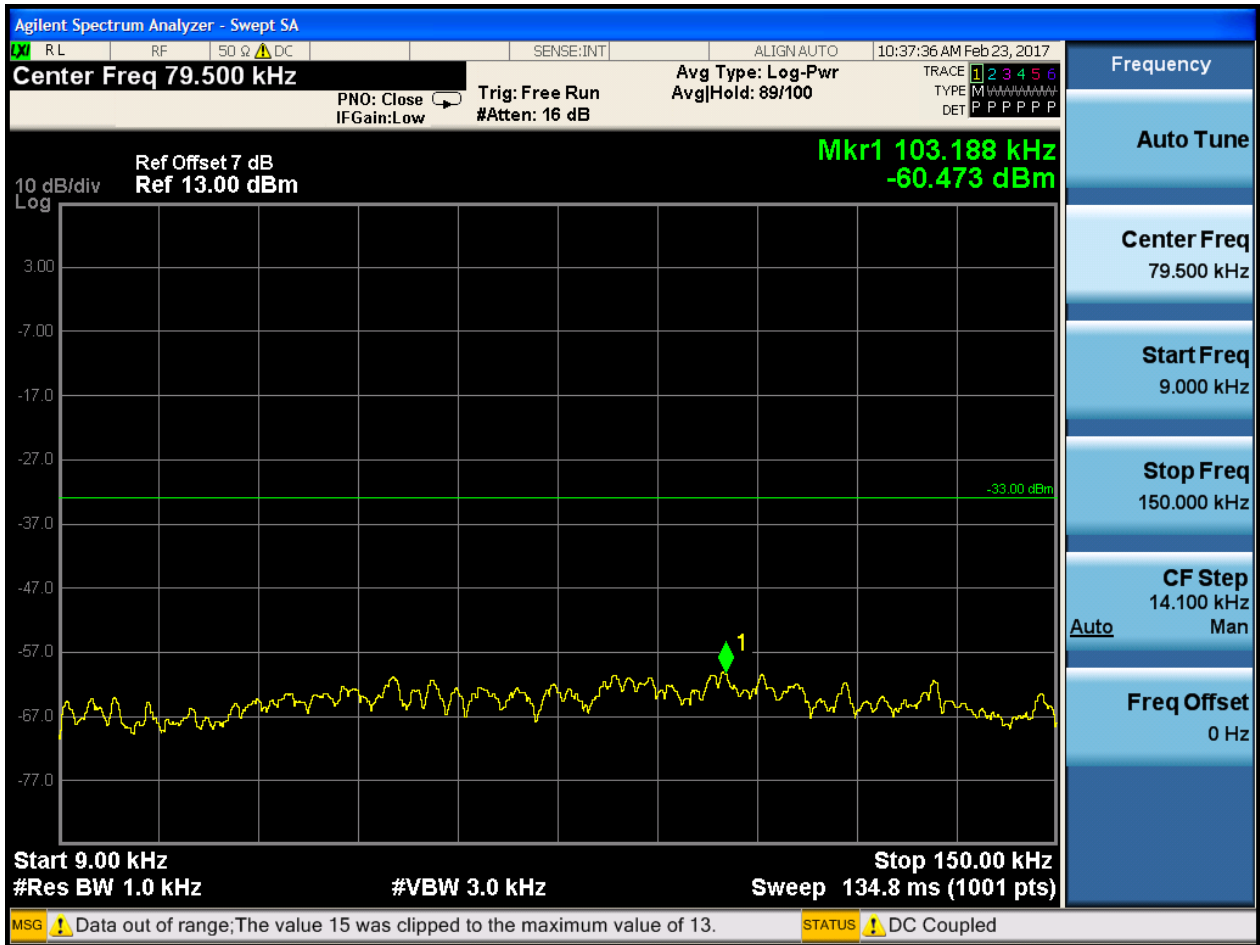
6.1.1 Test Band = BAND17

6.1.1.1 Test Mode = LTE/TM1

6.1.1.1.1 Test Bandwidth = 5

6.1.1.1.1.1 Test Channel = LCH

6.1.1.1.1.1.1 Test RB = RB1#0

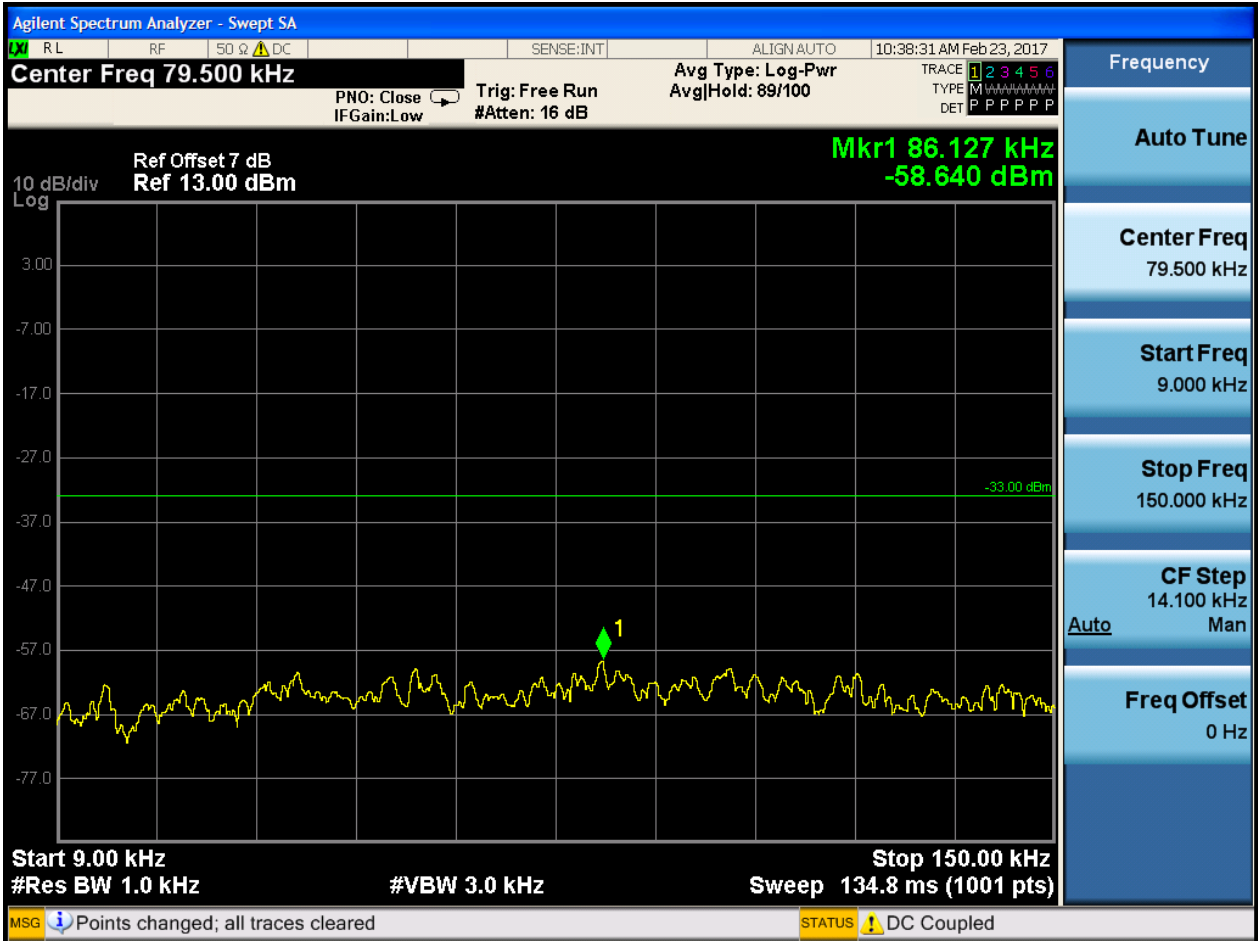


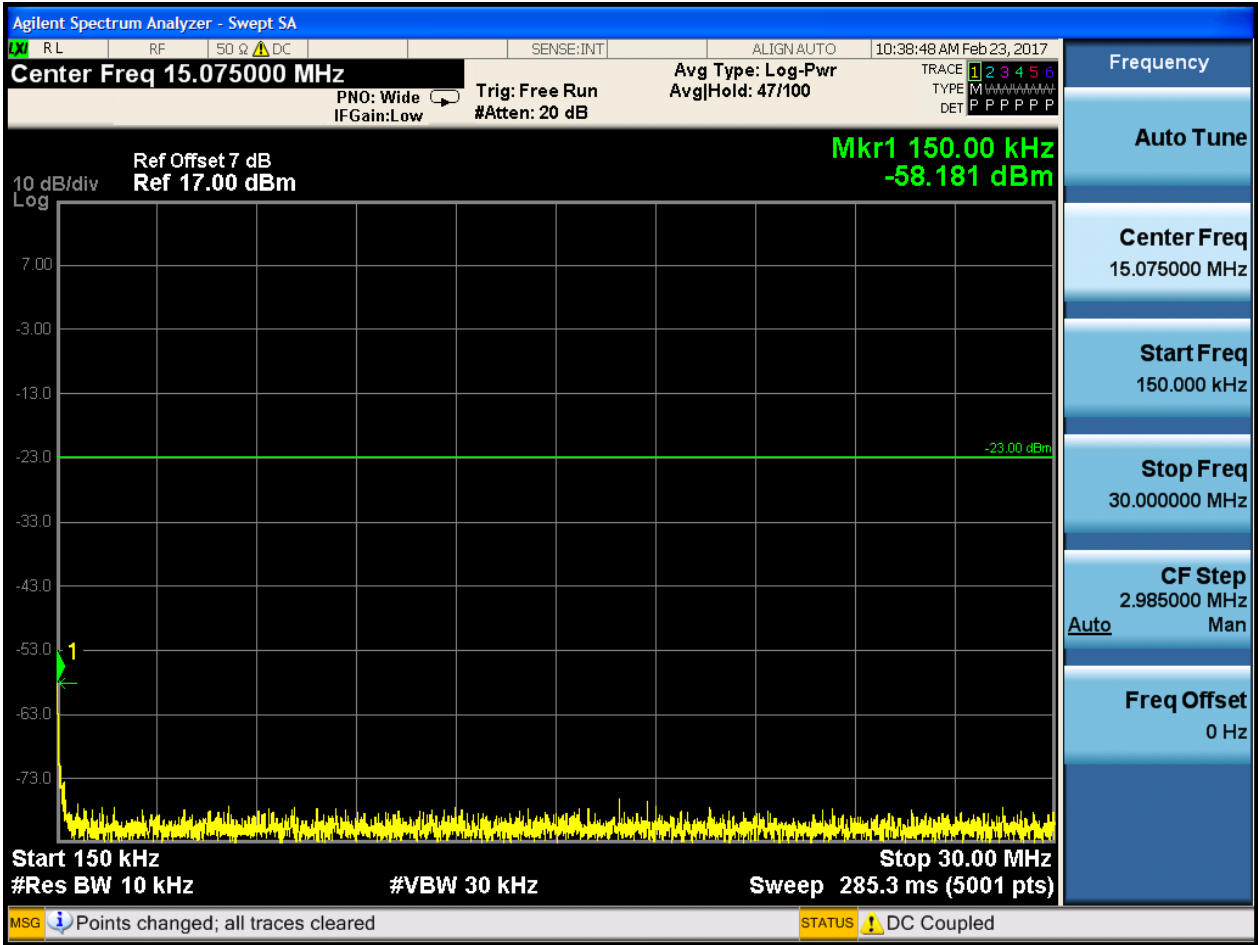


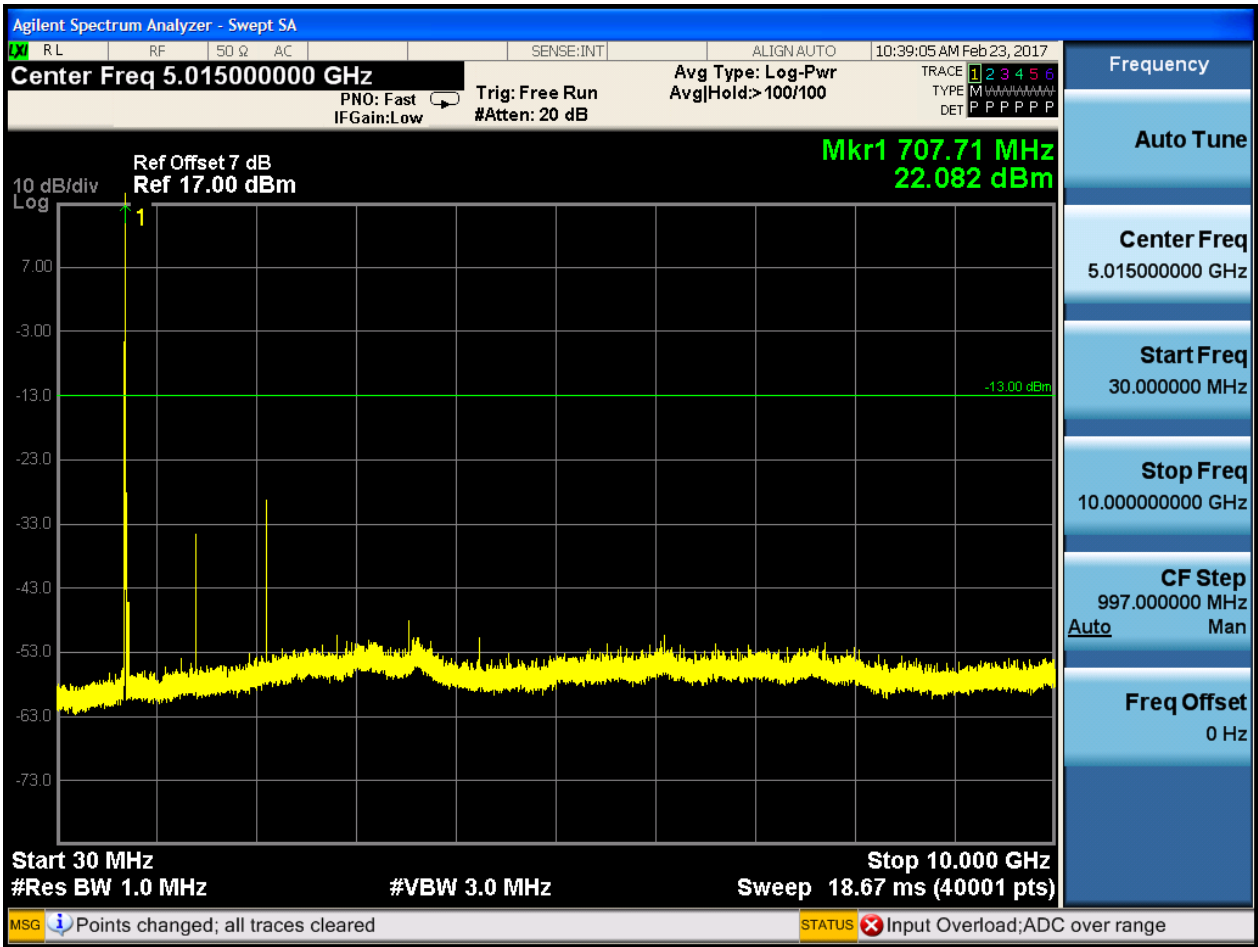


6.1.1.1.1.2 Test Channel = MCH

6.1.1.1.1.2.1 Test RB = RB1#0



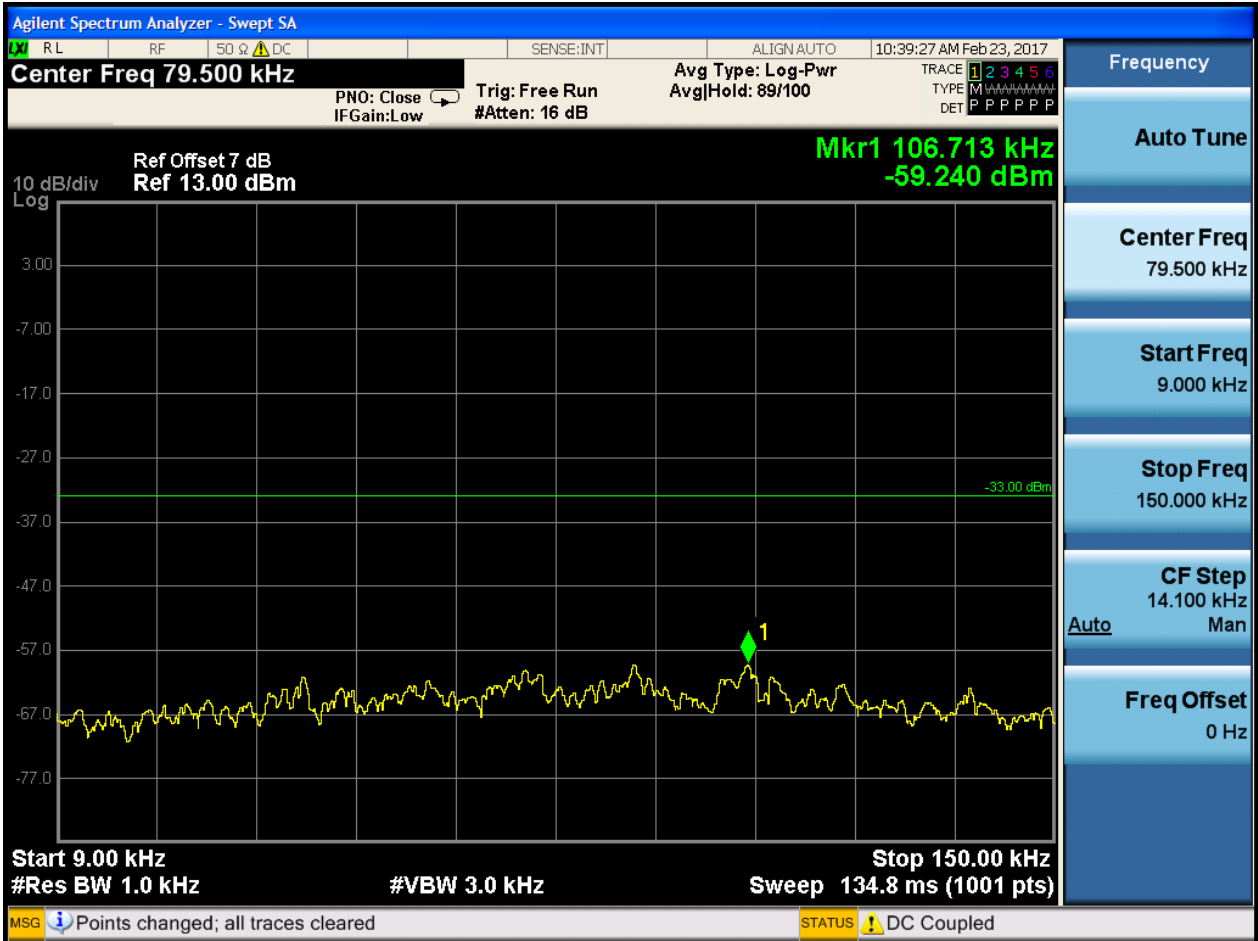


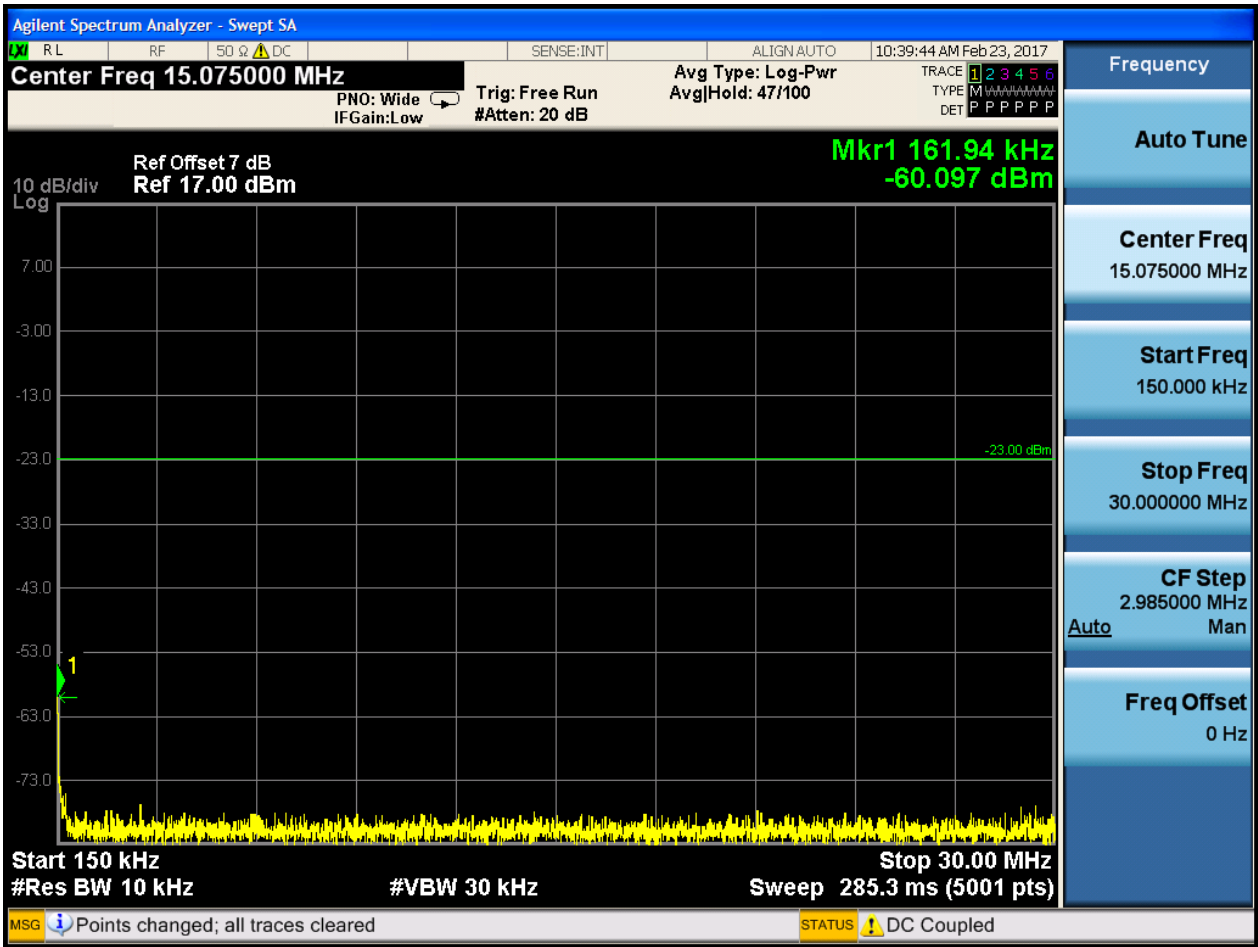


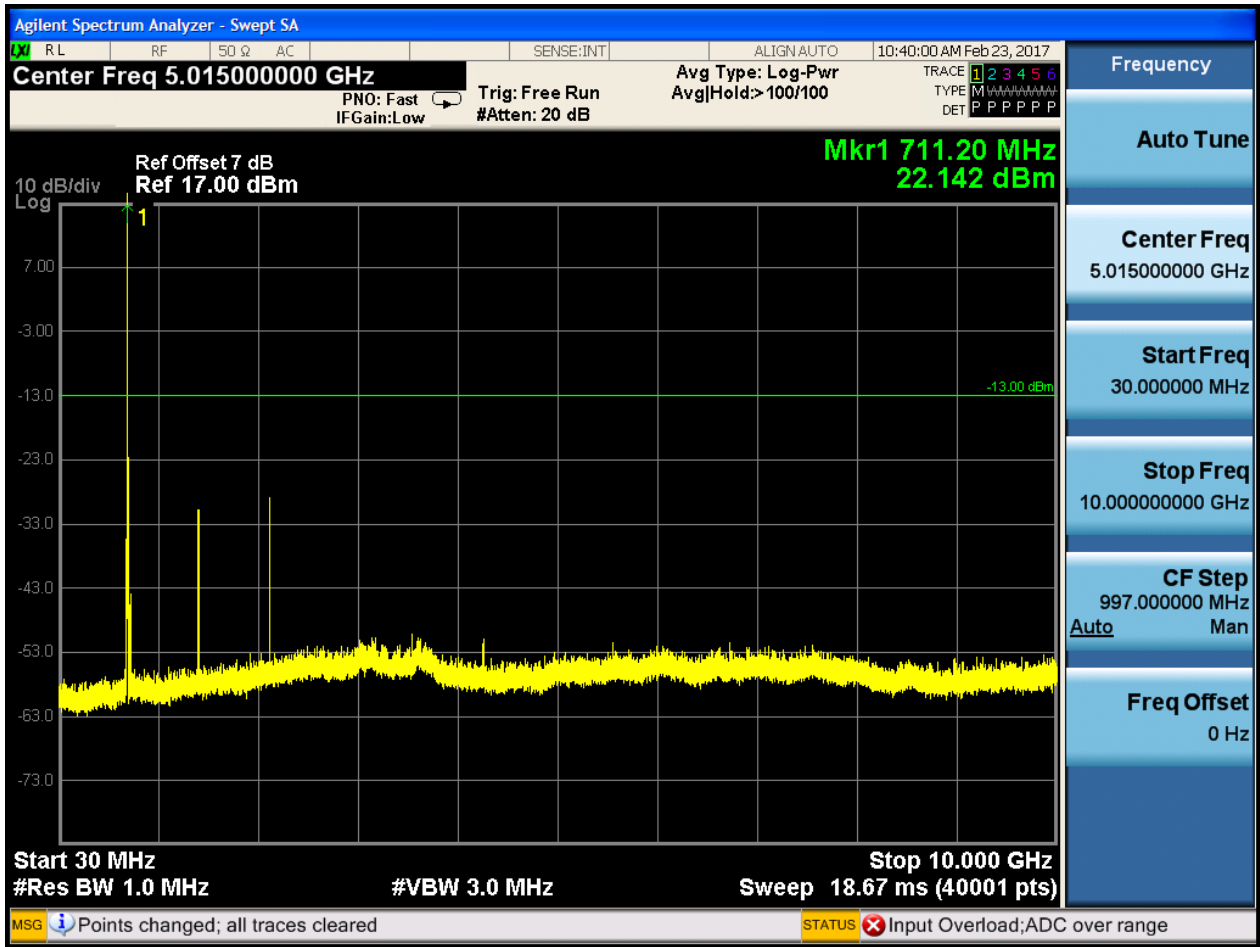


6.1.1.1.1.3 Test Channel = HCH

6.1.1.1.1.3.1 Test RB = RB1#0





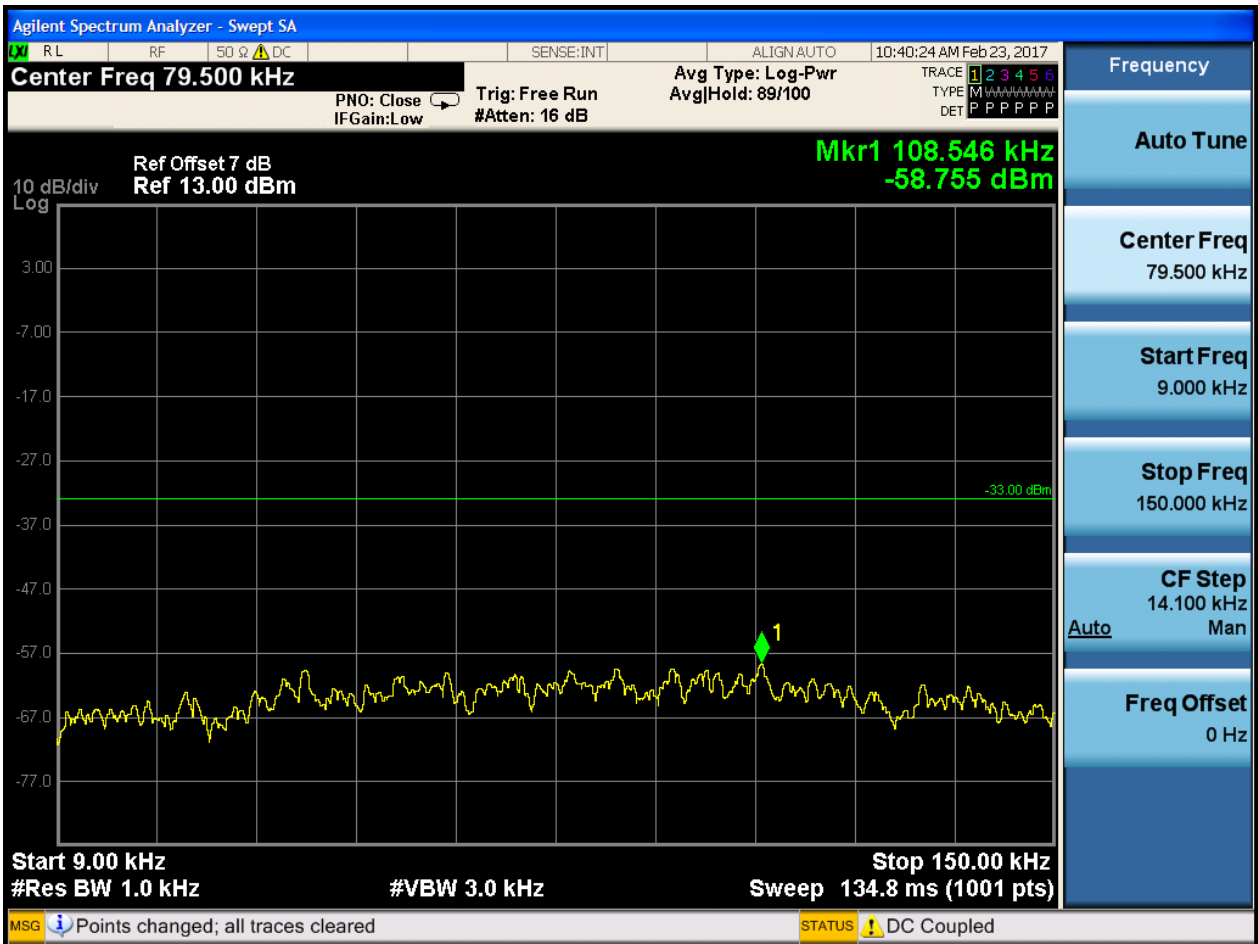


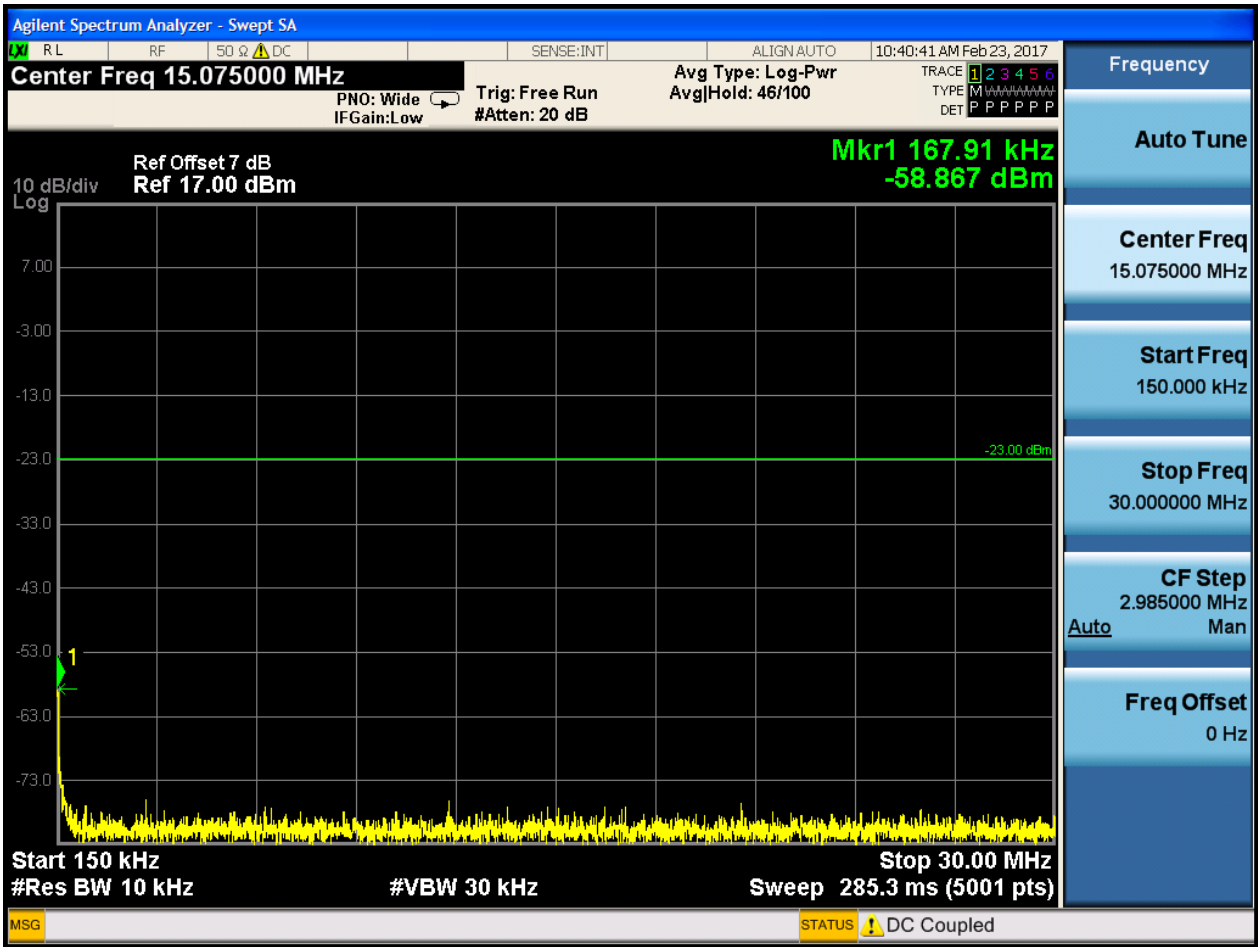


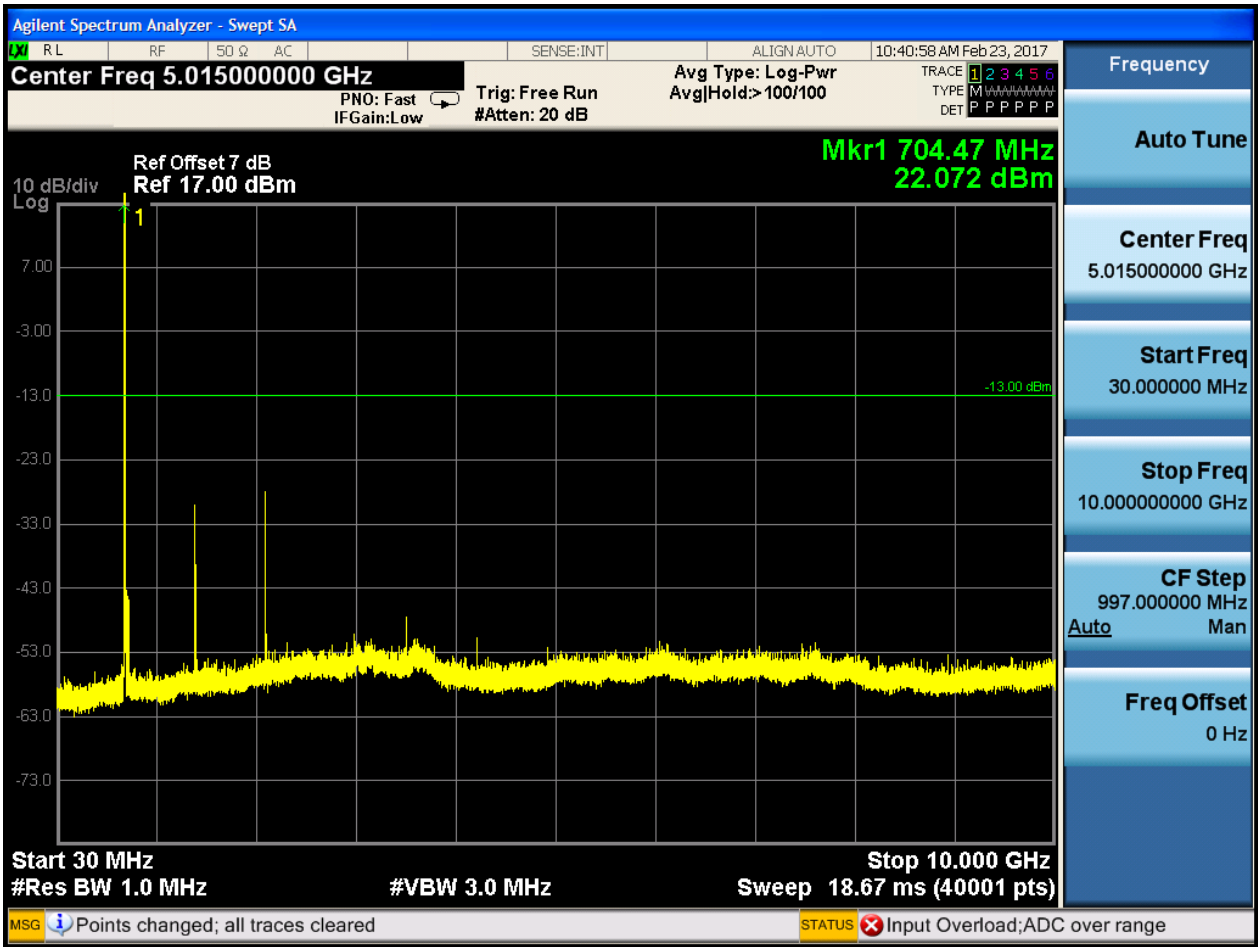
6.1.1.1.2 Test Bandwidth = 10

6.1.1.1.2.1 Test Channel = LCH

6.1.1.1.2.1.1 Test RB = RB1#0



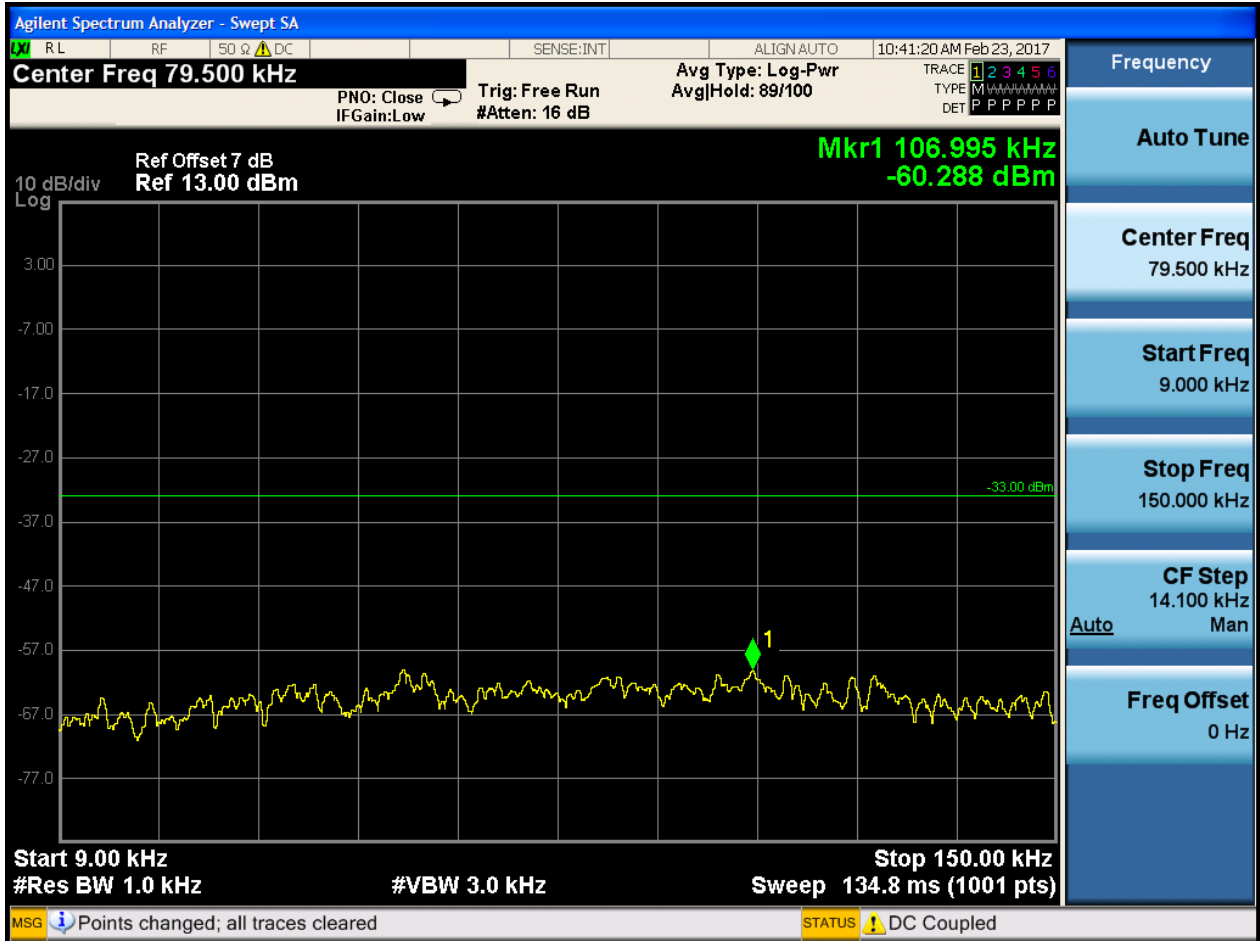


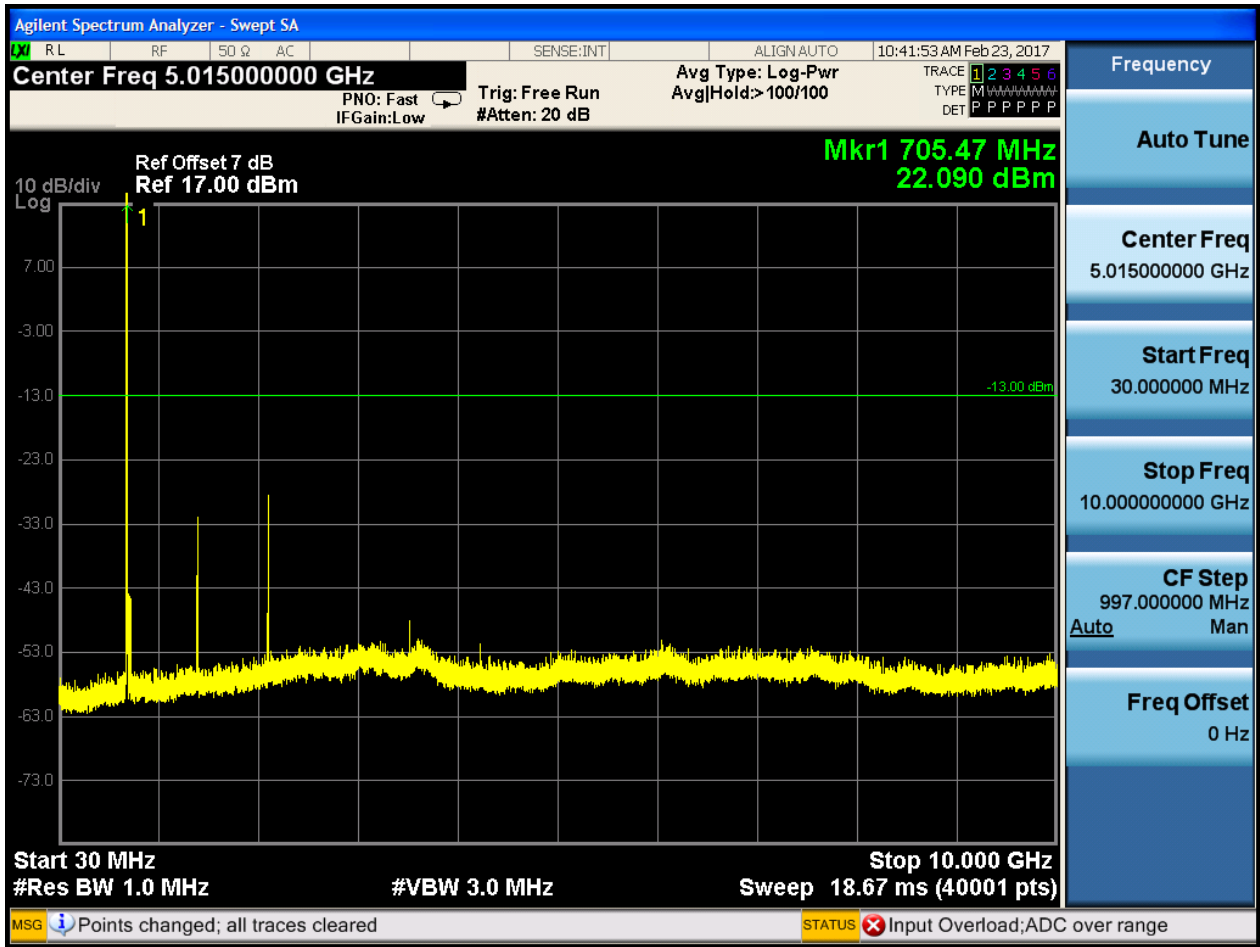




6.1.1.1.2.2 Test Channel = MCH

6.1.1.1.2.2.1 Test RB = RB1#0

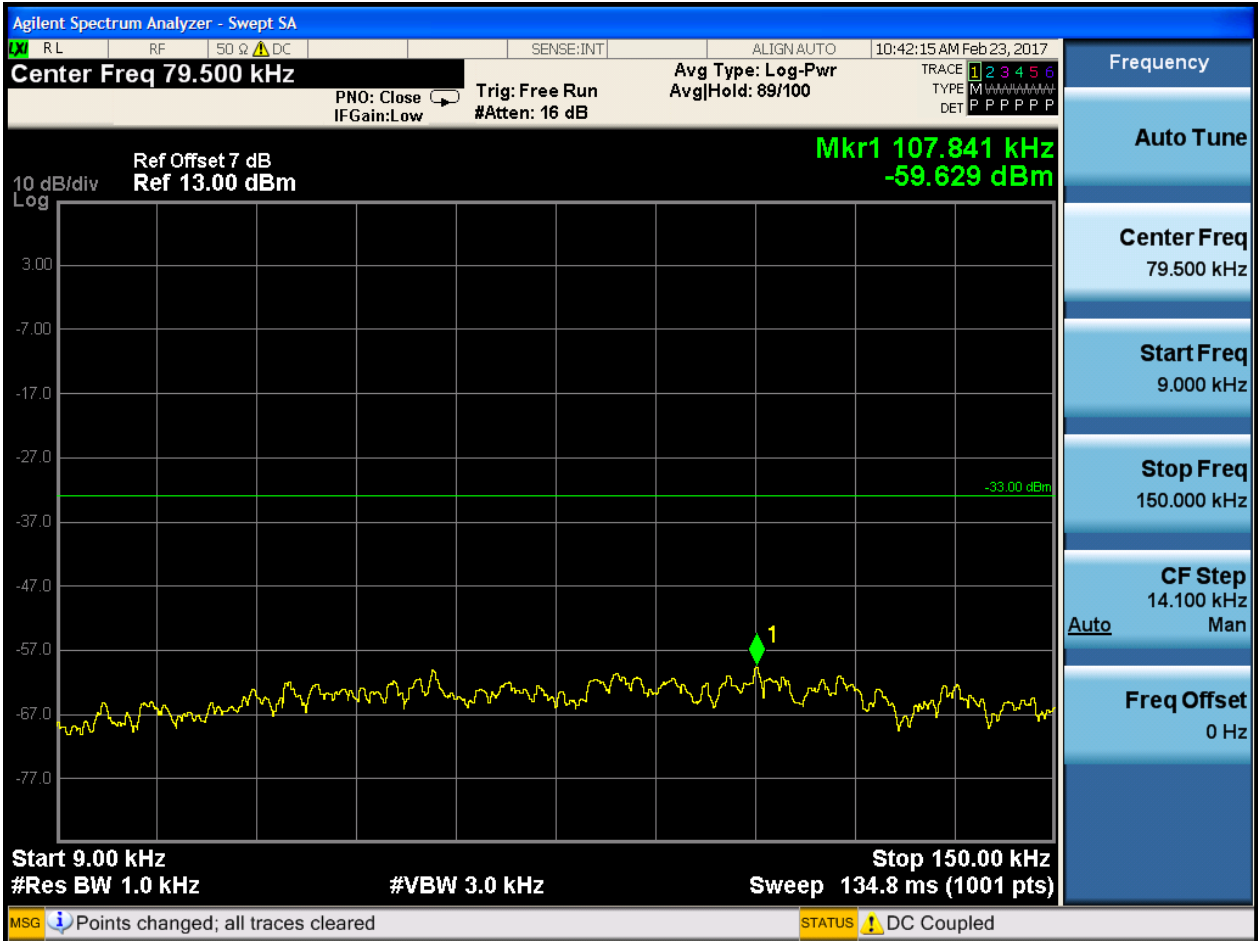


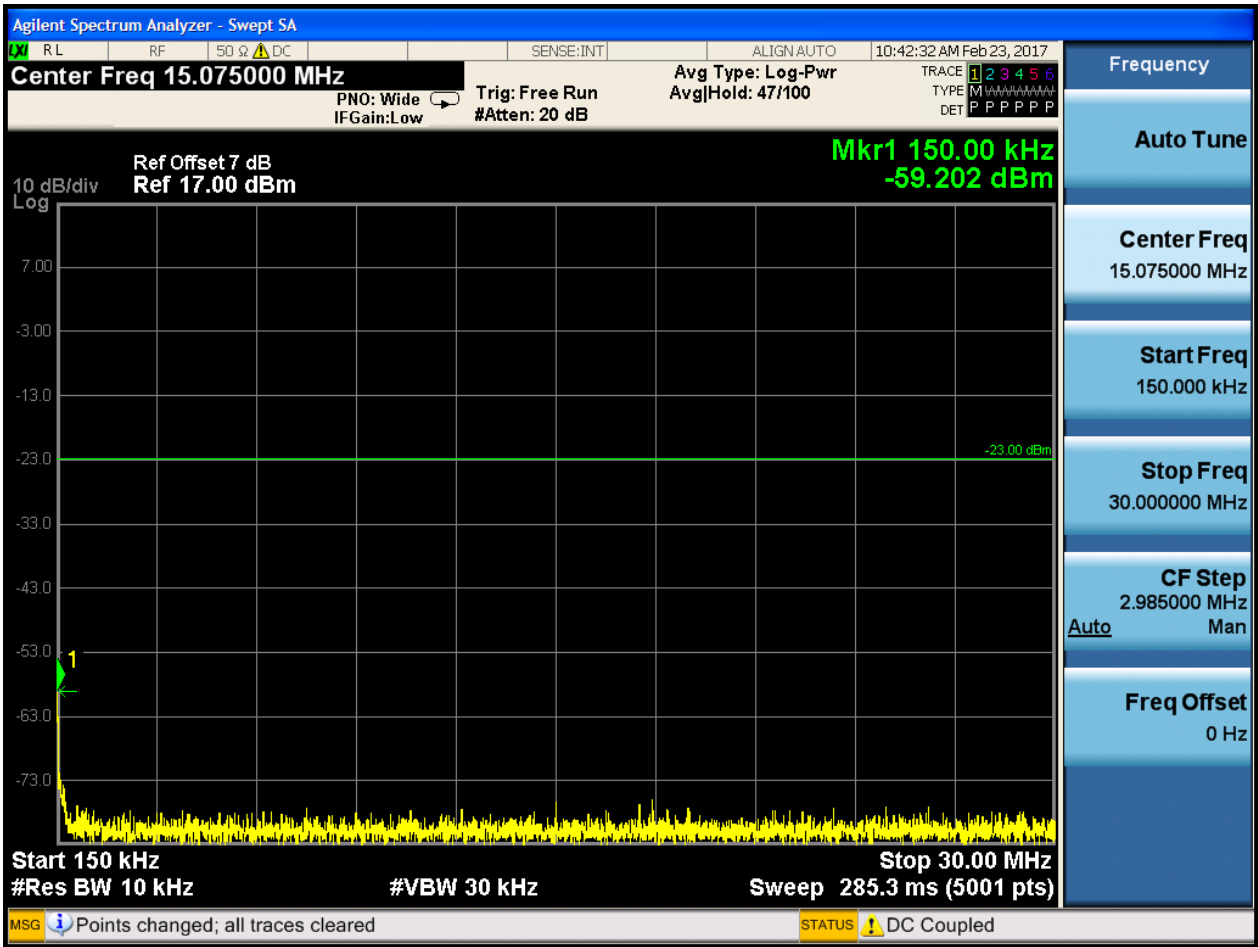


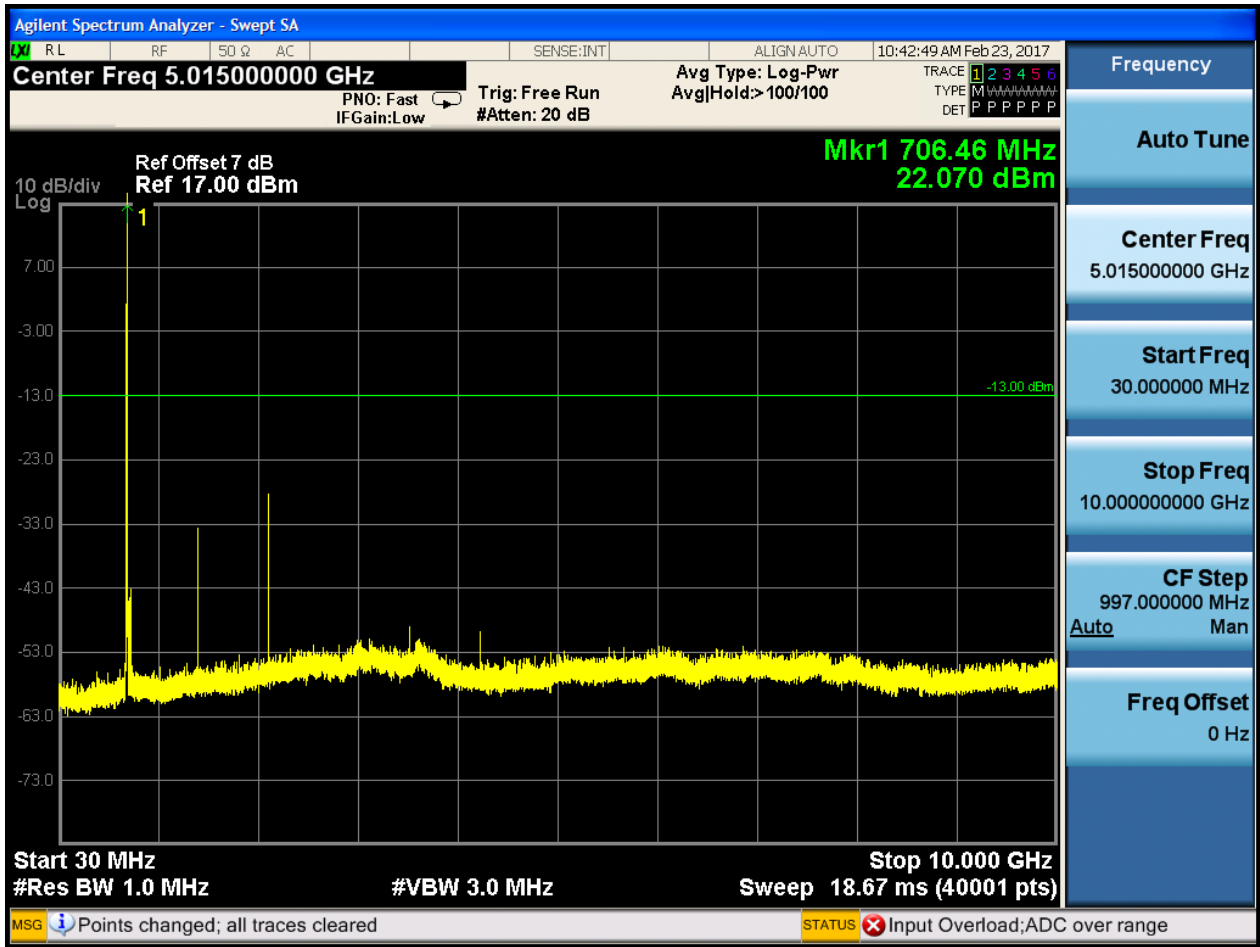


6.1.1.1.2.3 Test Channel = HCH

6.1.1.1.2.3.1 Test RB = RB1#0







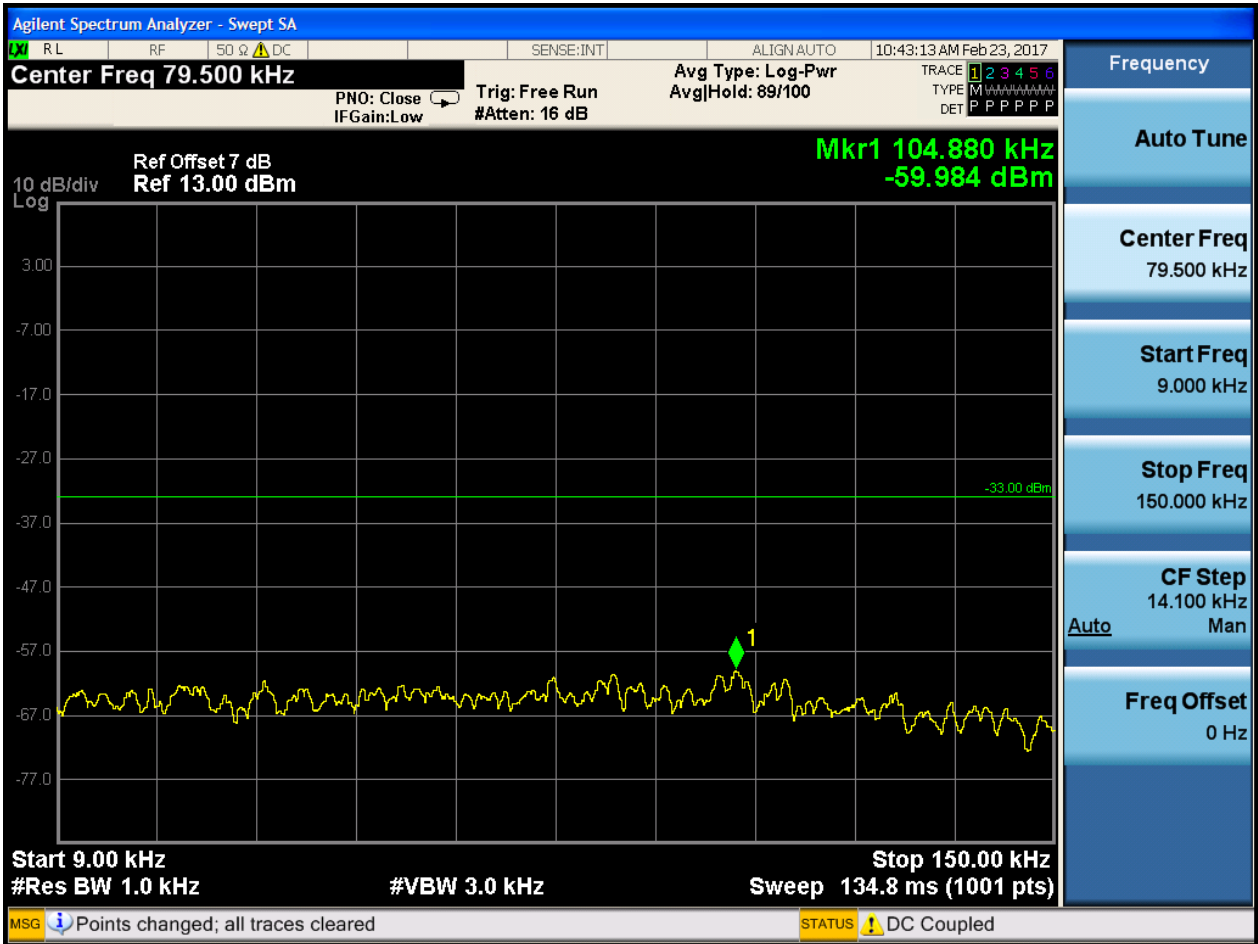


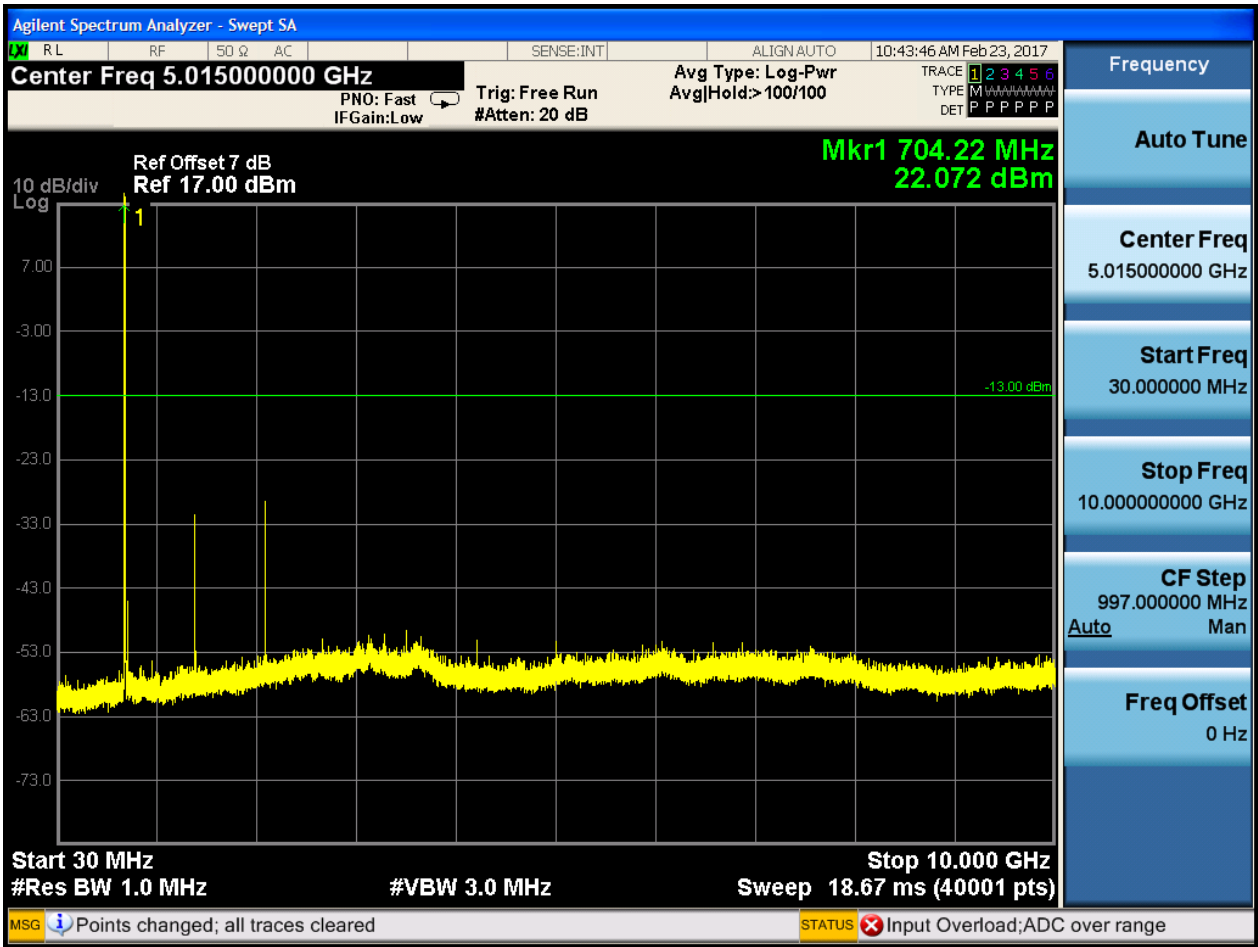
6.1.1.2 Test Mode = LTE/TM2

6.1.1.2.1 Test Bandwidth = 5

6.1.1.2.1.1 Test Channel = LCH

6.1.1.2.1.1.1 Test RB = RB1#0

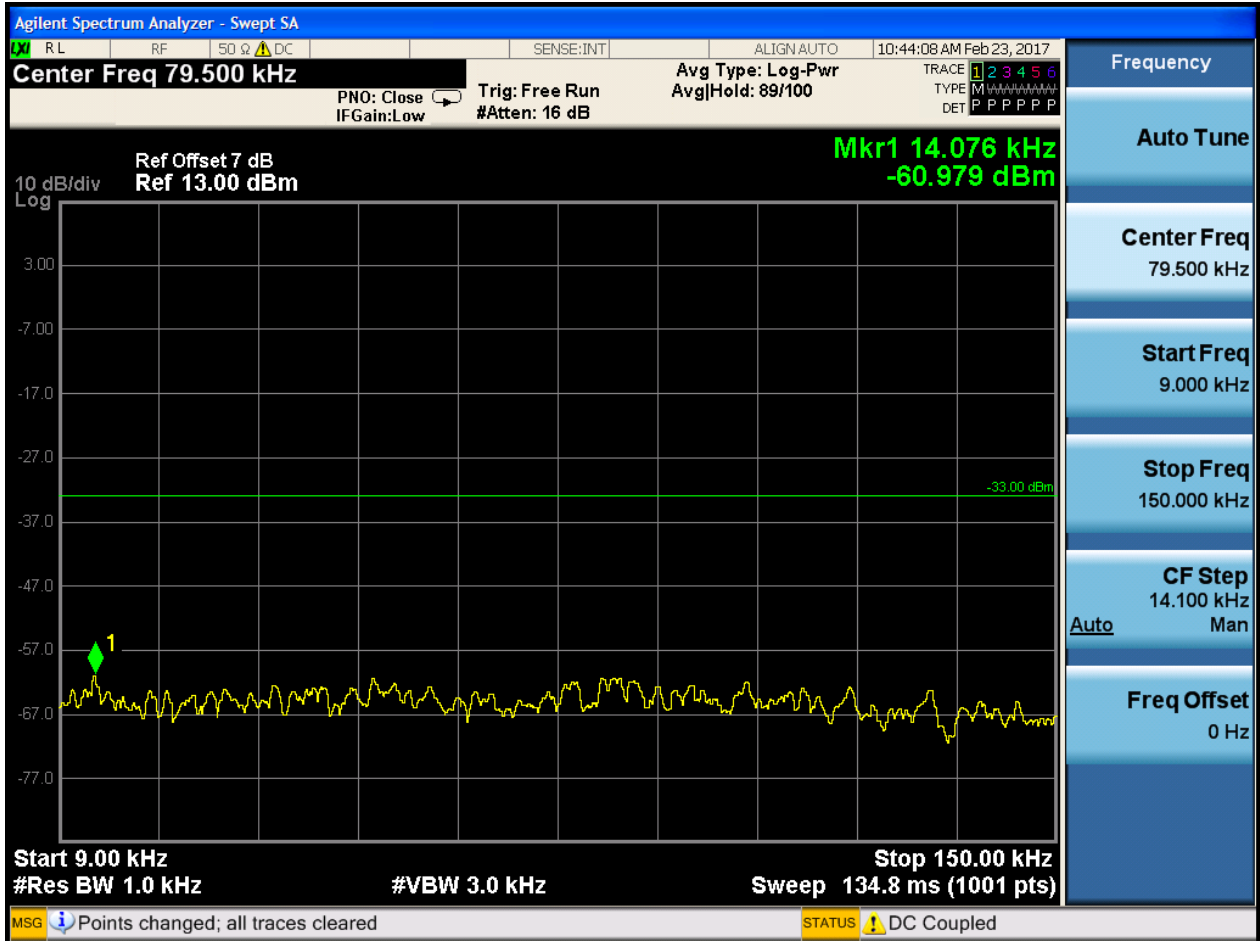


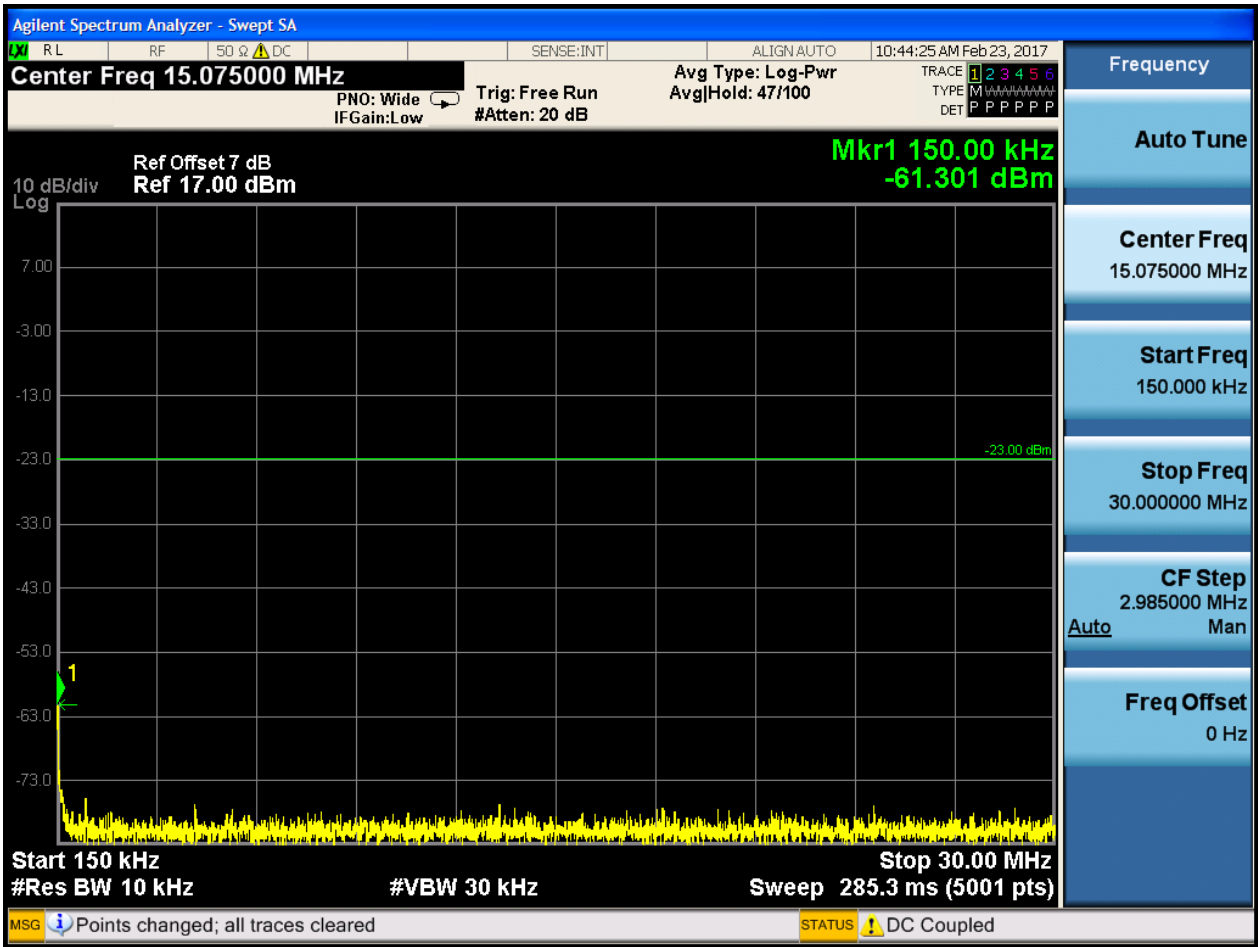


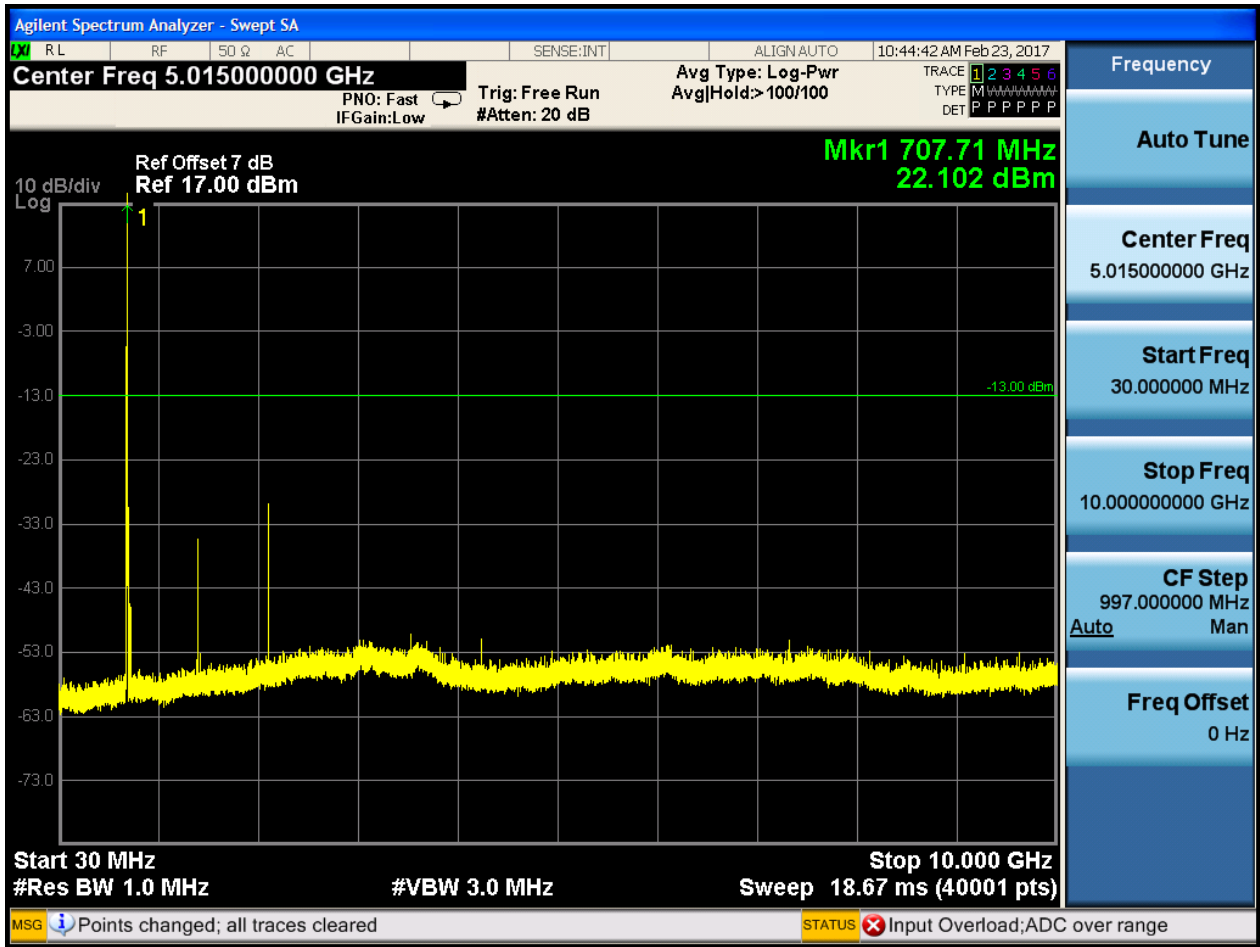


6.1.1.2.1.2 Test Channel = MCH

6.1.1.2.1.2.1 Test RB = RB1#0



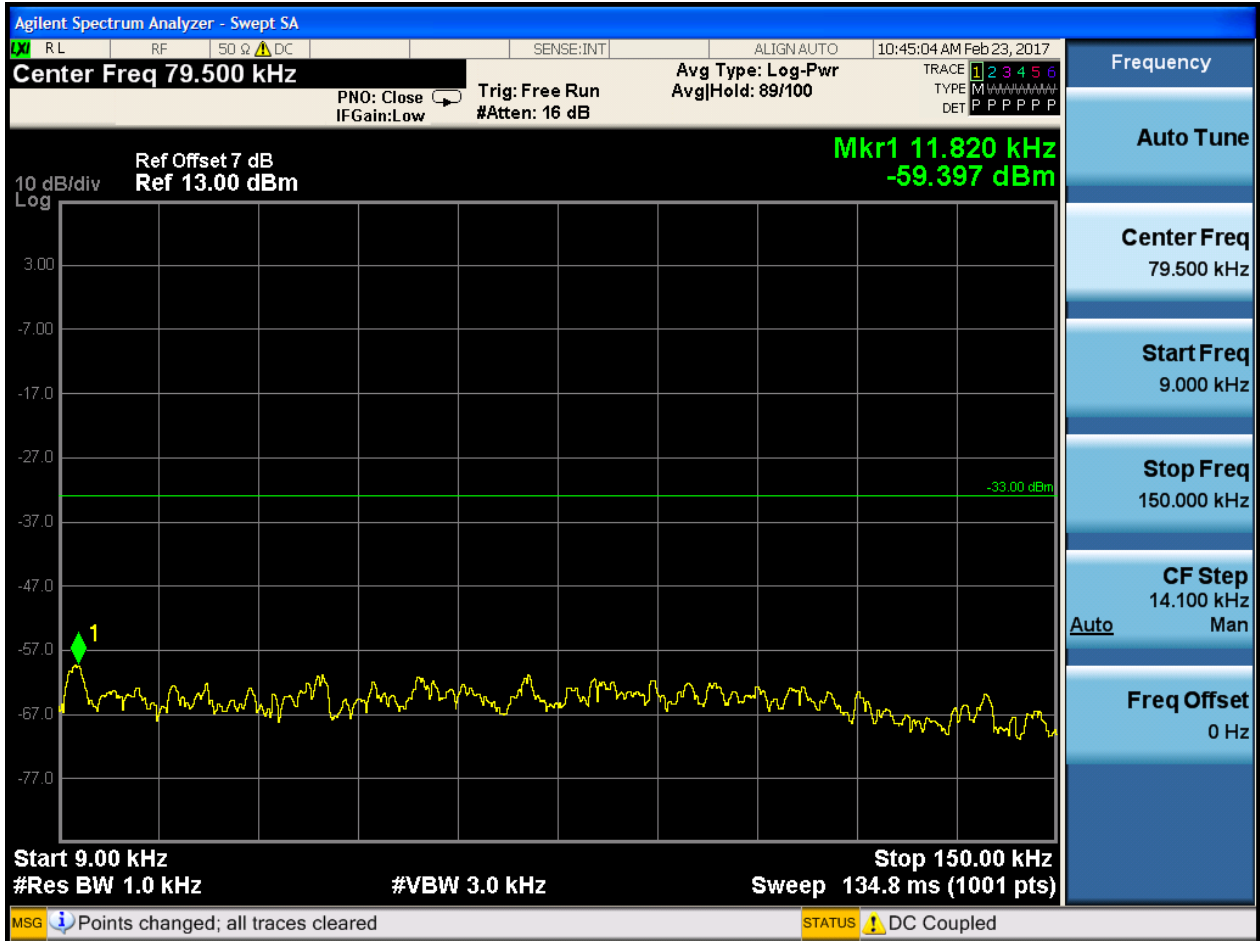




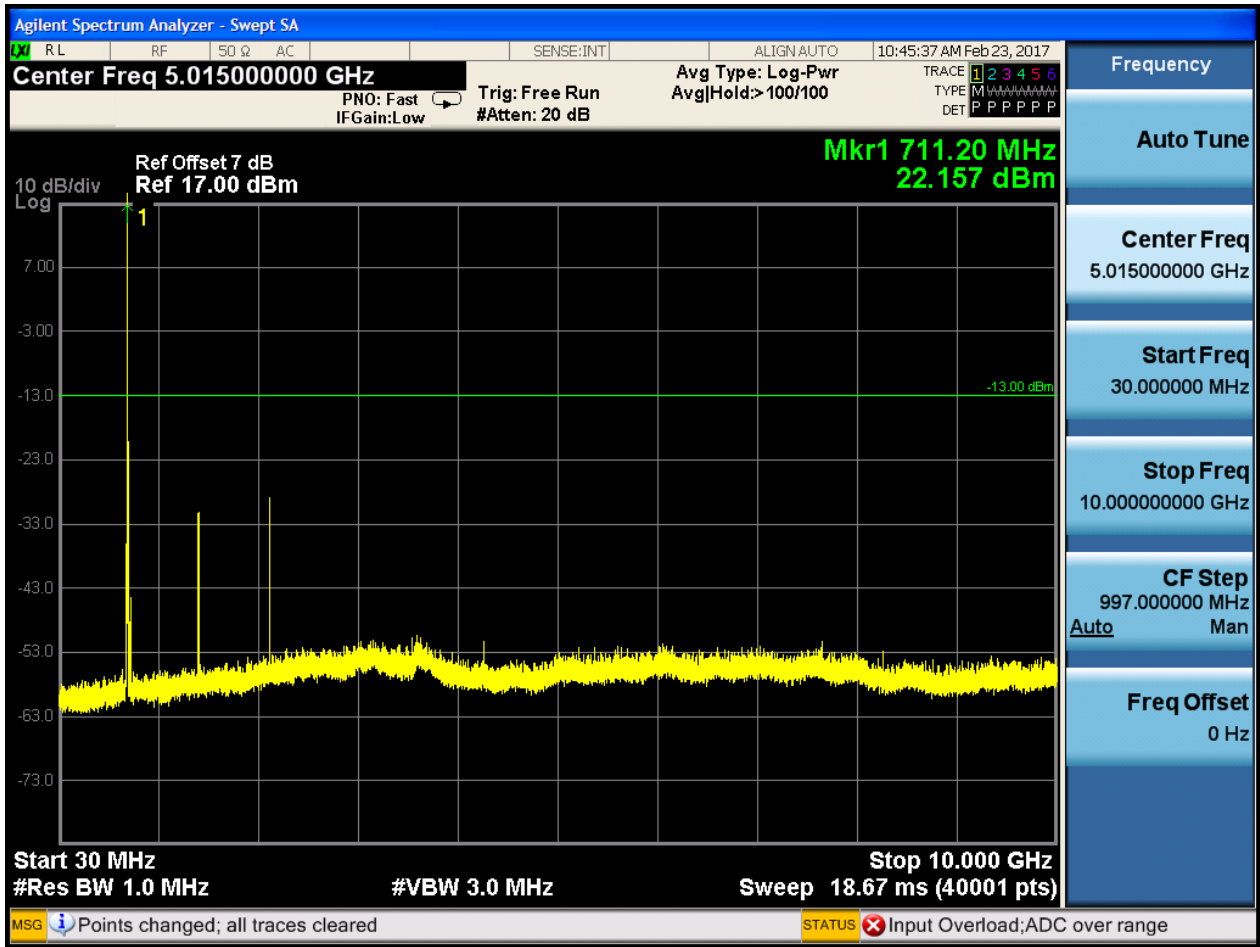


6.1.1.2.1.3 Test Channel = HCH

6.1.1.2.1.3.1 Test RB = RB1#0





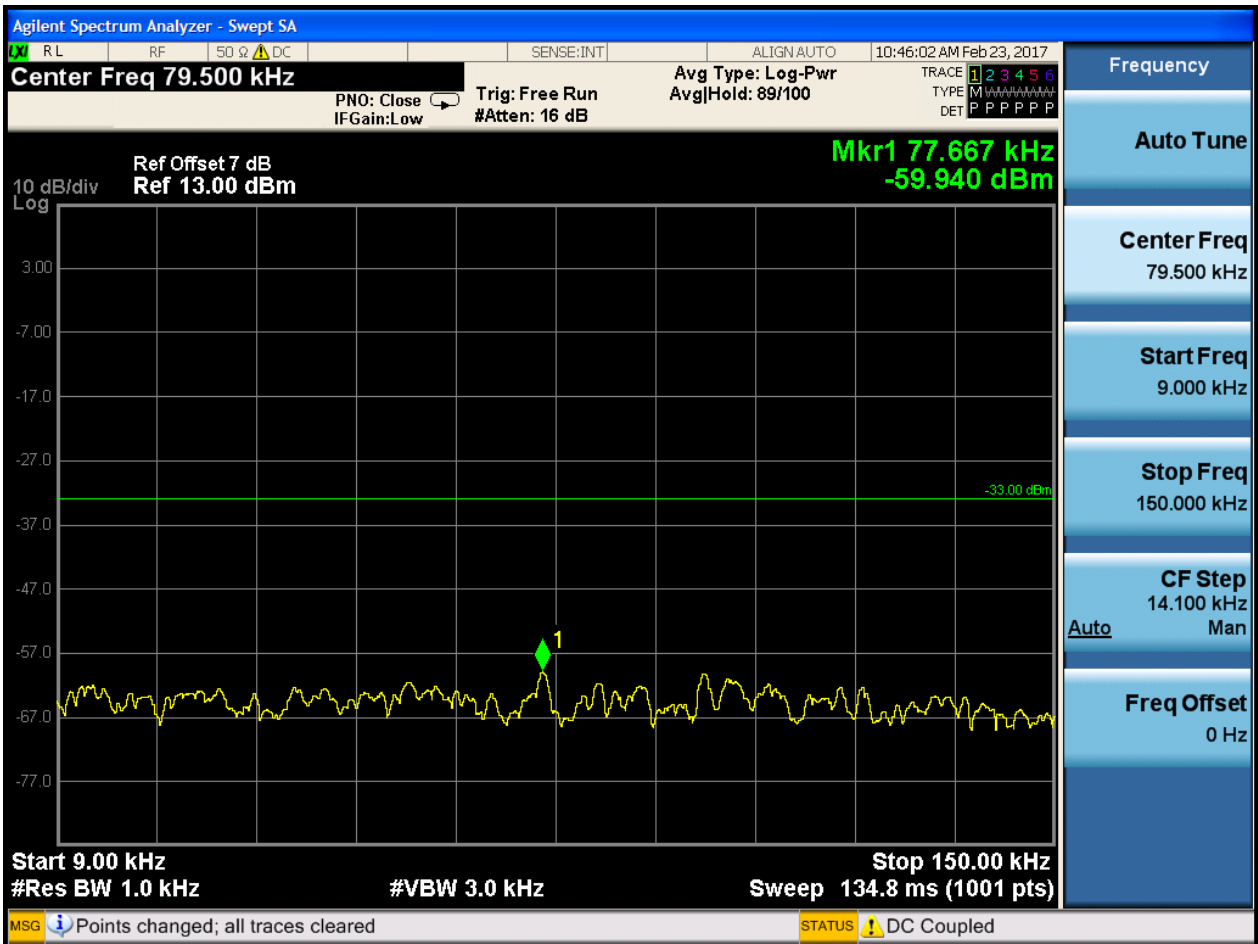


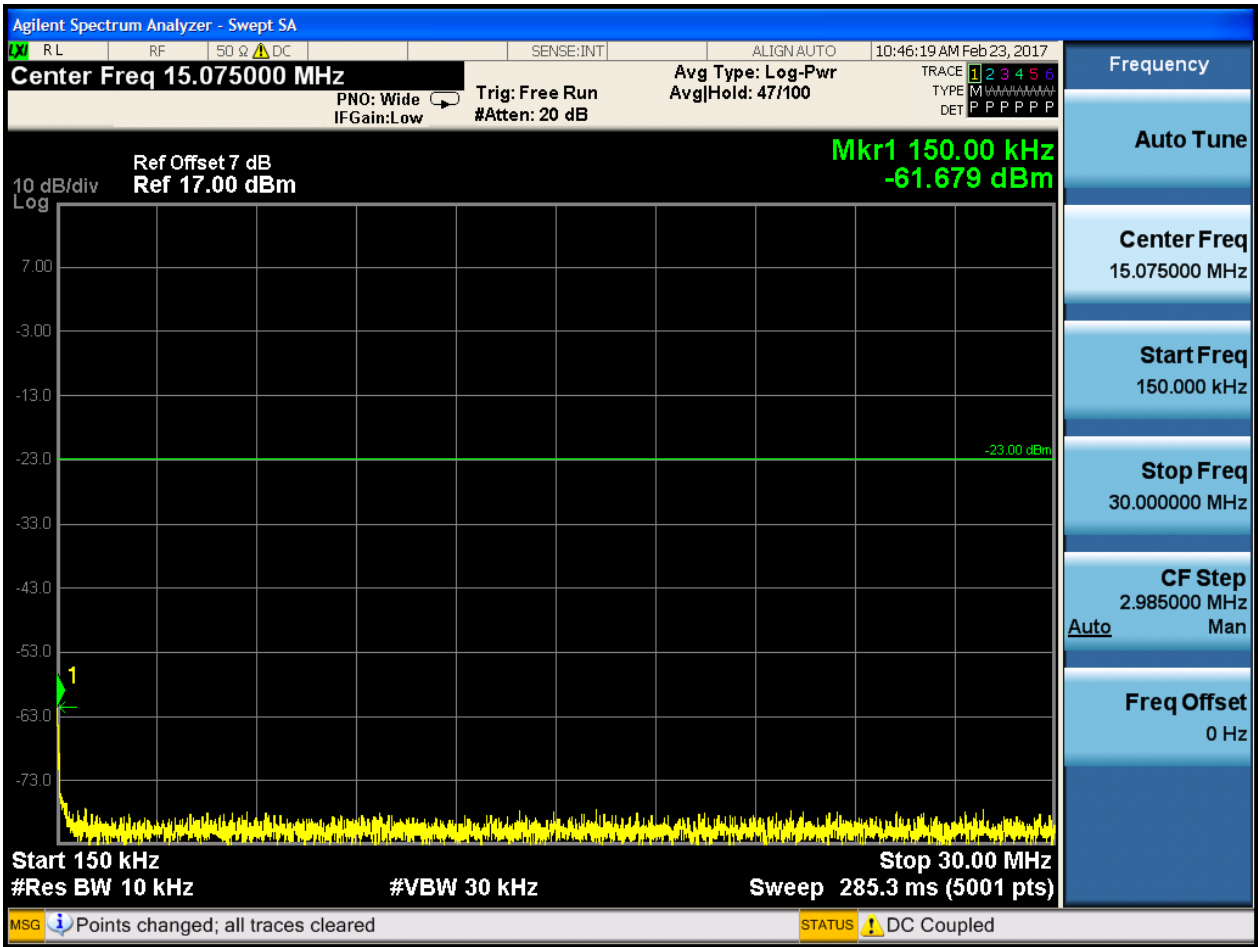


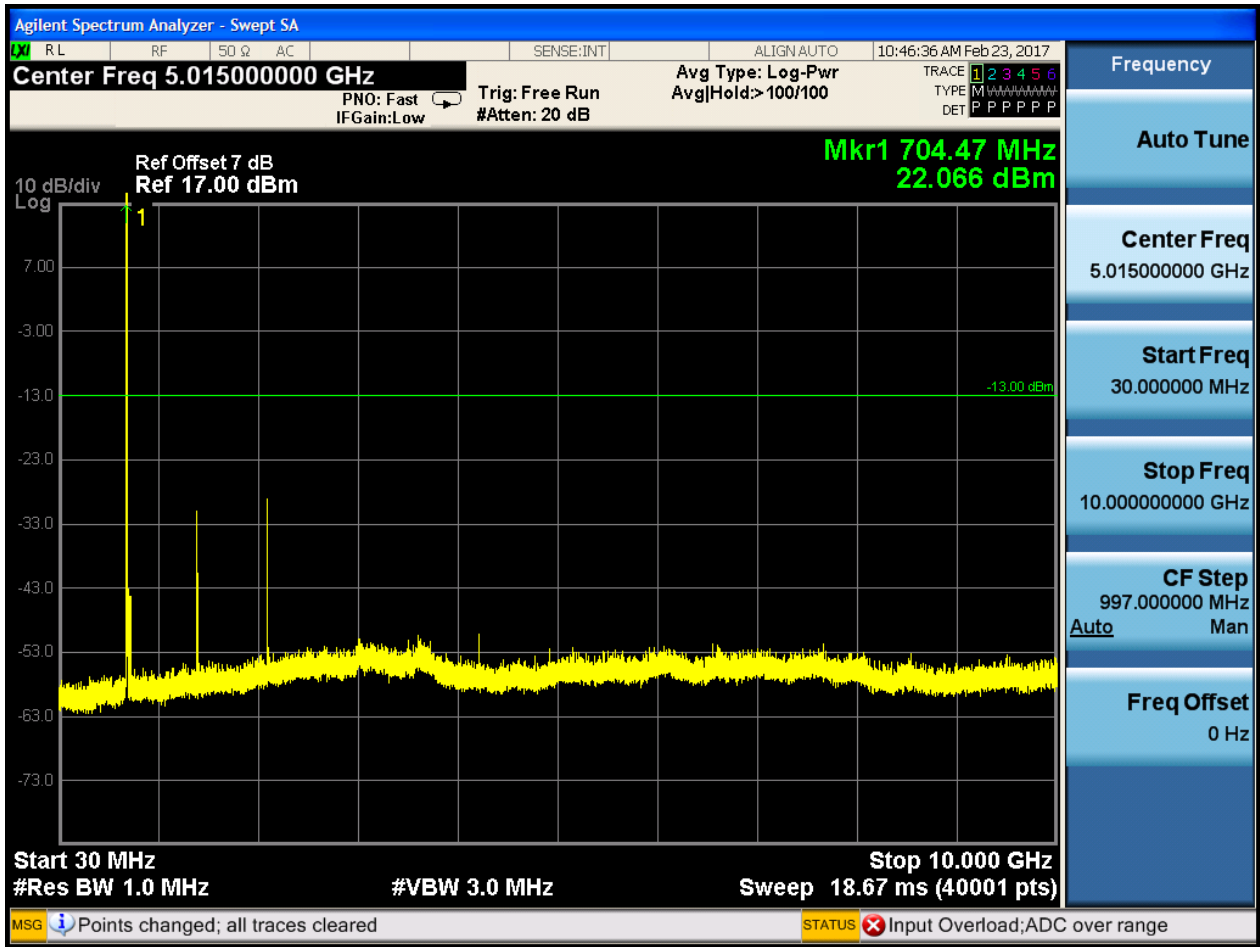
6.1.1.2.2 Test Bandwidth = 10

6.1.1.2.2.1 Test Channel = LCH

6.1.1.2.2.1.1 Test RB = RB1#0



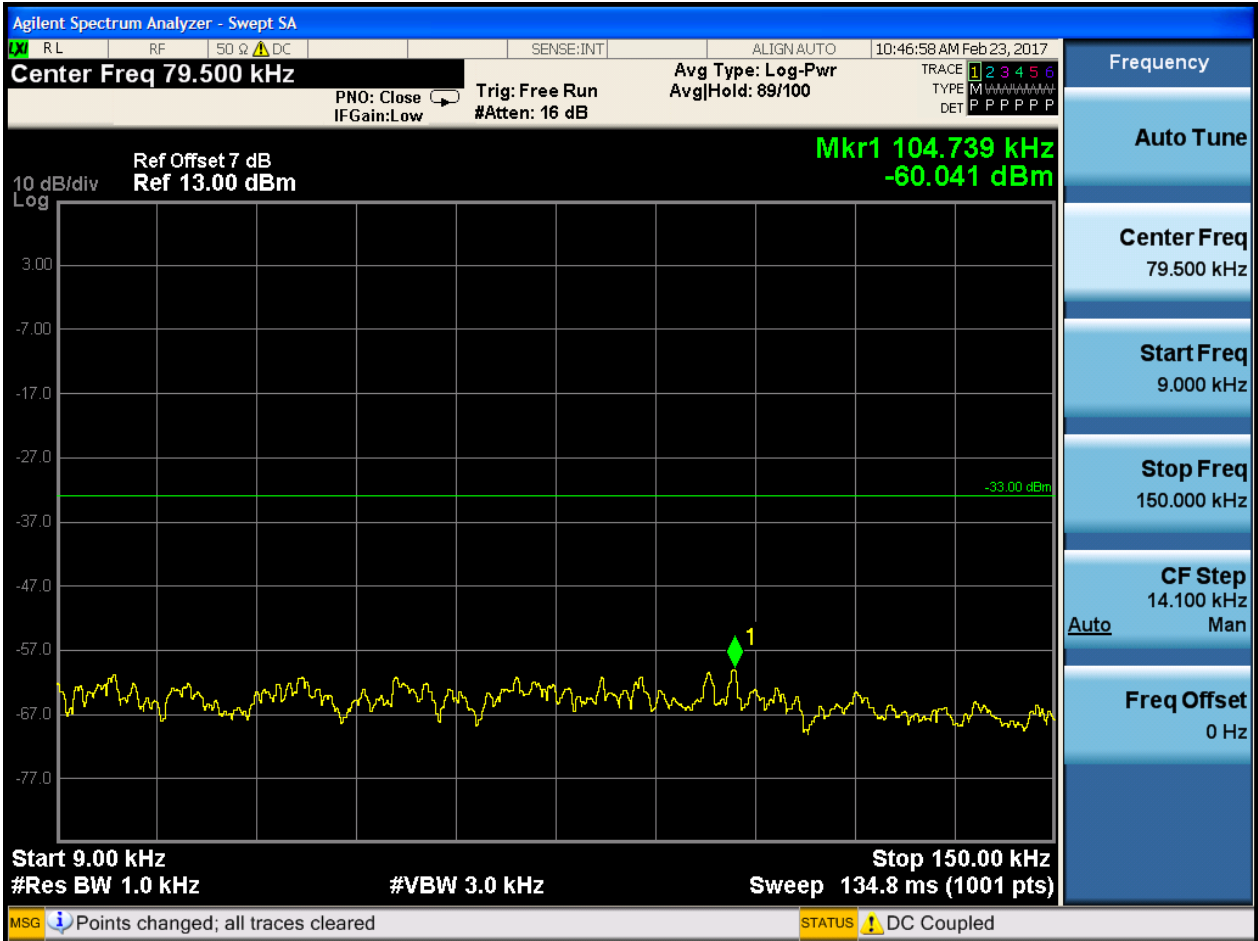


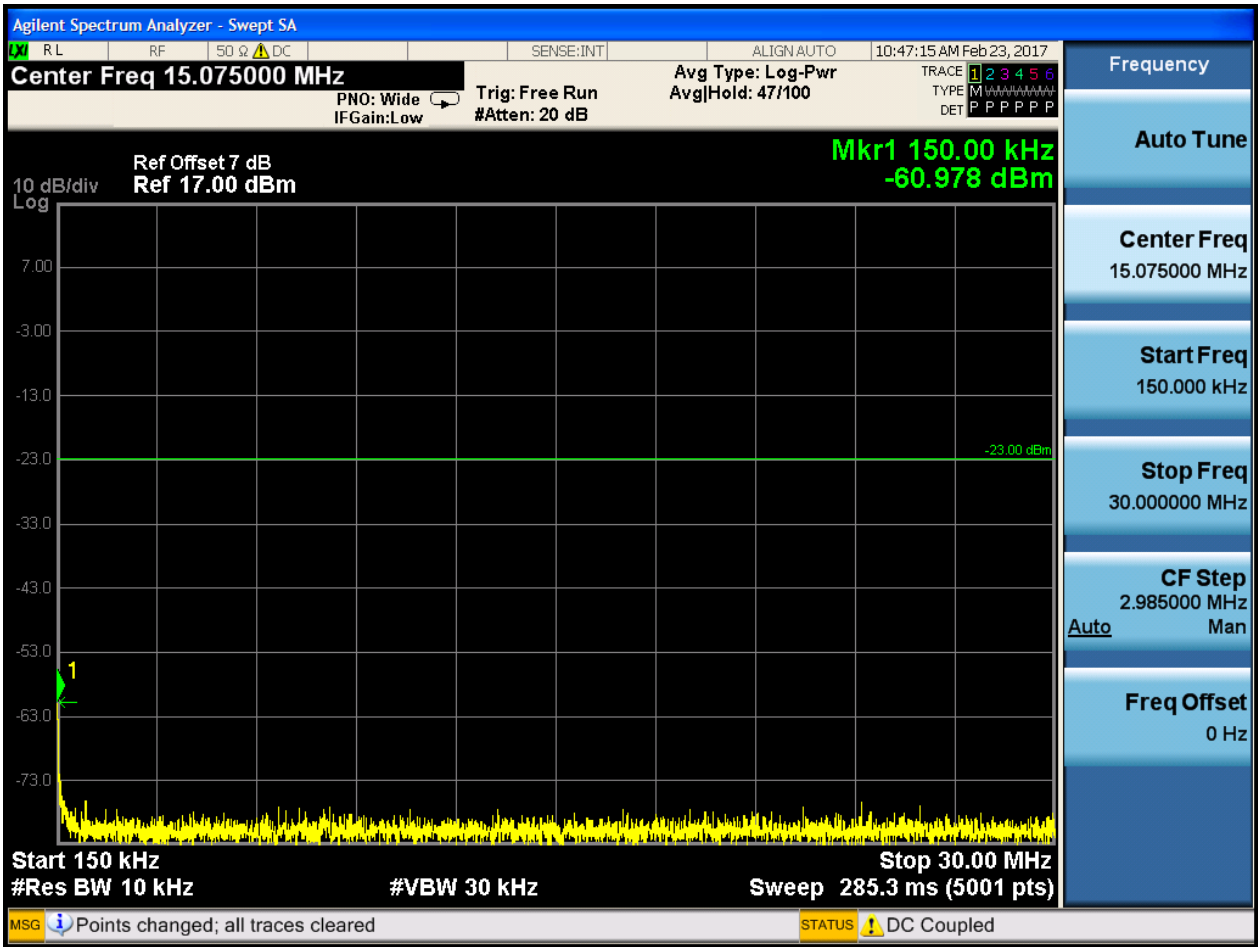


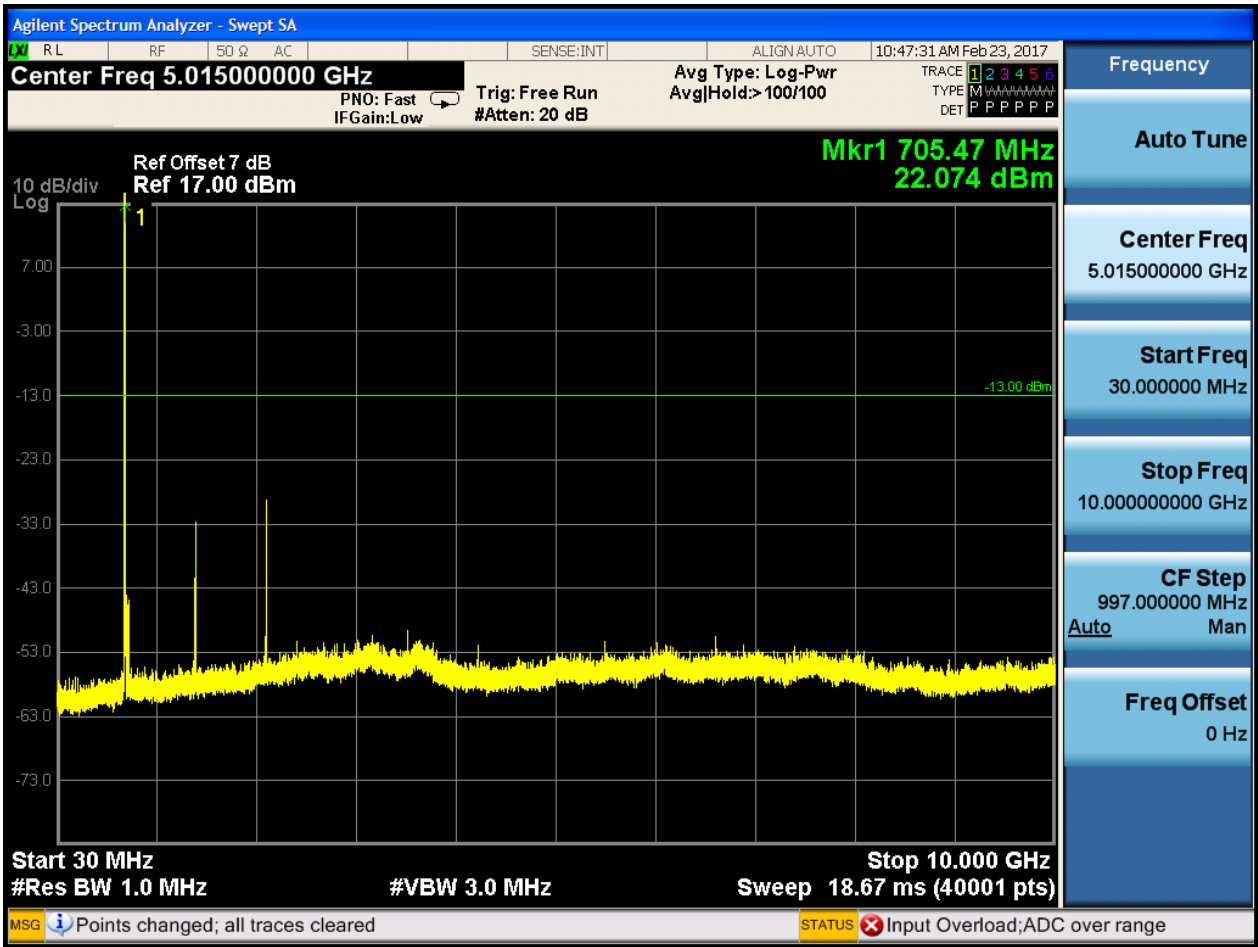


6.1.1.2.2.2 Test Channel = MCH

6.1.1.2.2.2.1 Test RB = RB1#0



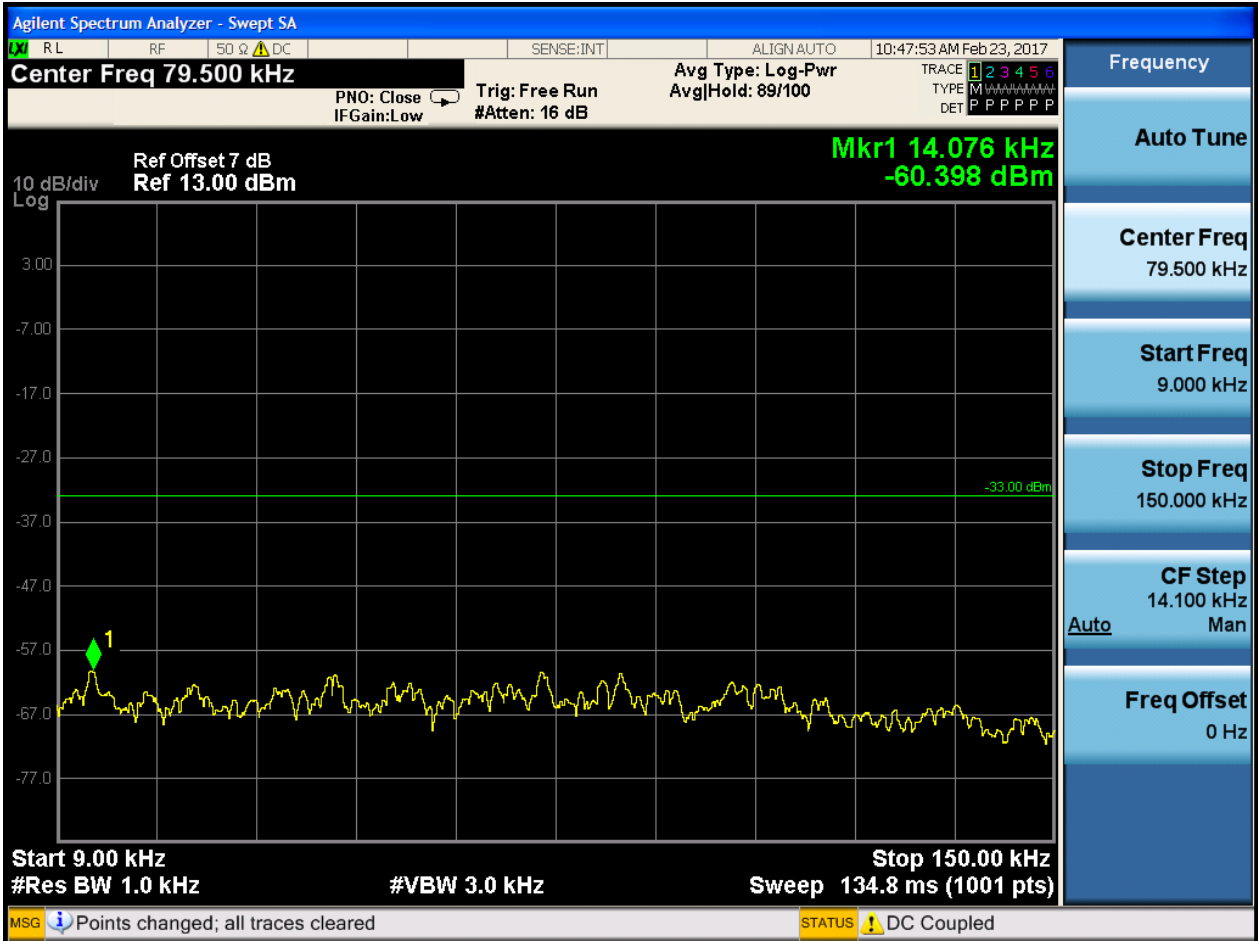


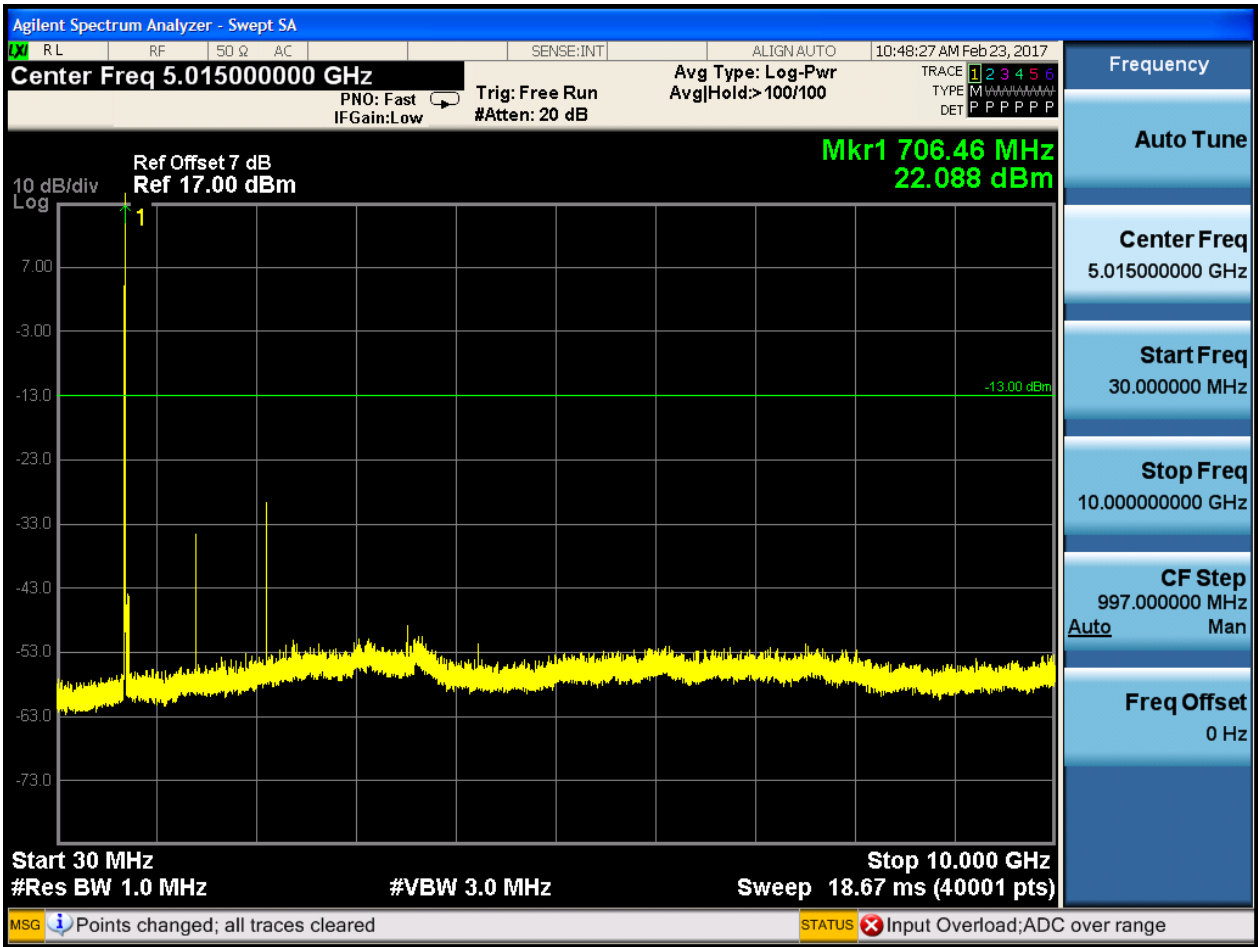




6.1.1.2.2.3 Test Channel = HCH

6.1.1.2.2.3.1 Test RB = RB1#0





7Appendix_G: Field Strength of Spurious Radiation

Note: We tested all modes, but the data presented below is the worst case.

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

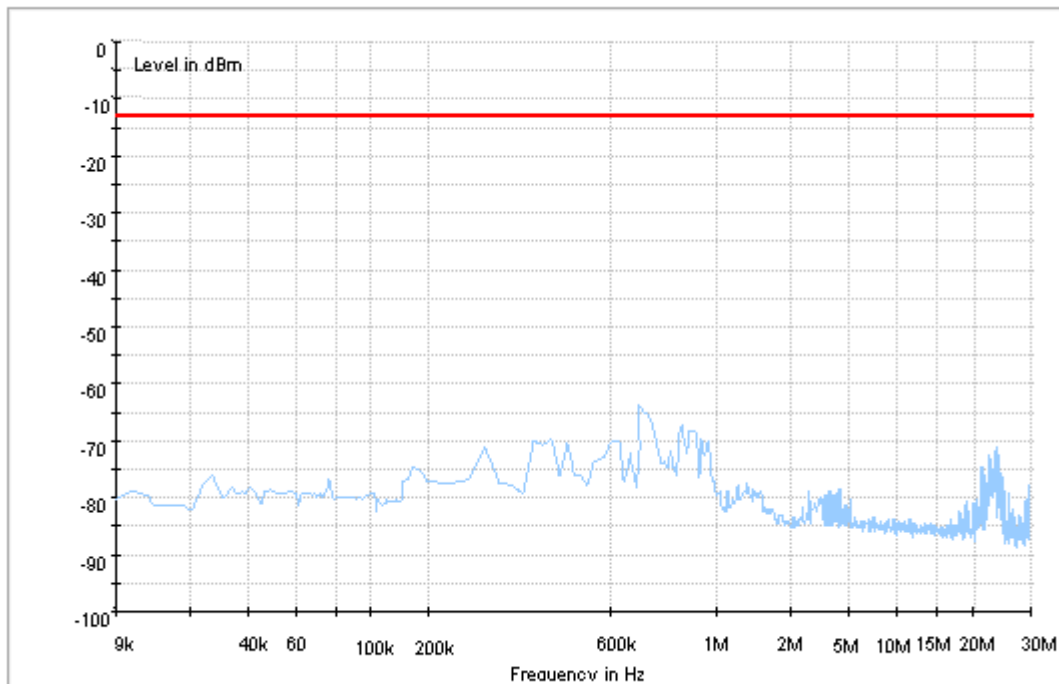
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

Part I - Test Plots

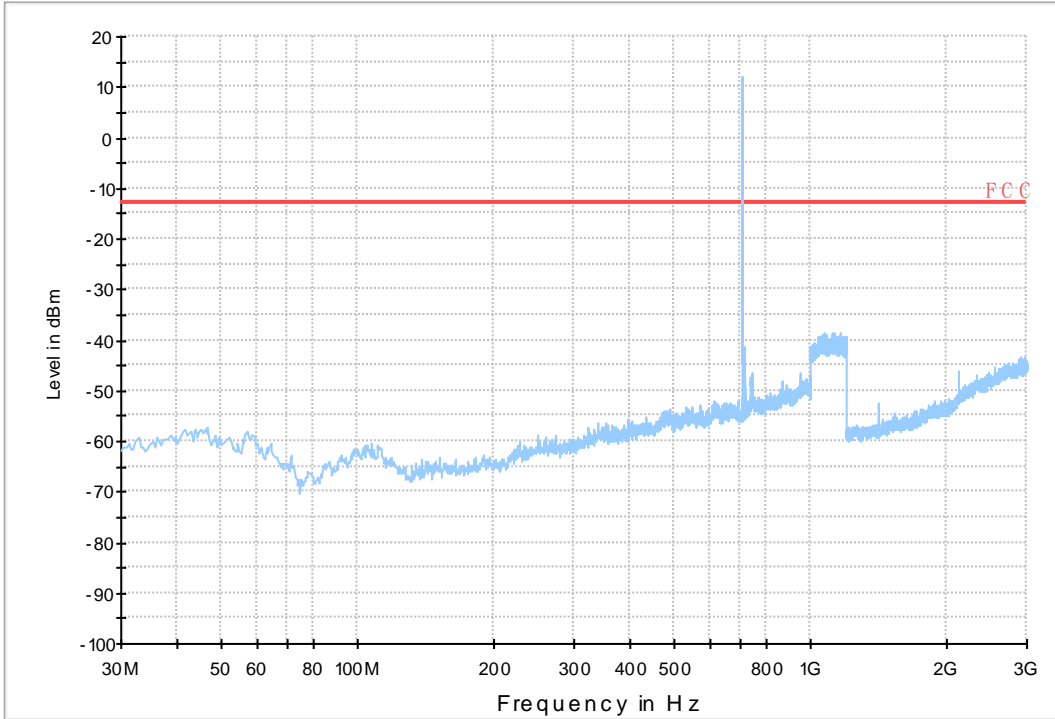
7.1 For LTE

7.1.1 Test Band = BAND17

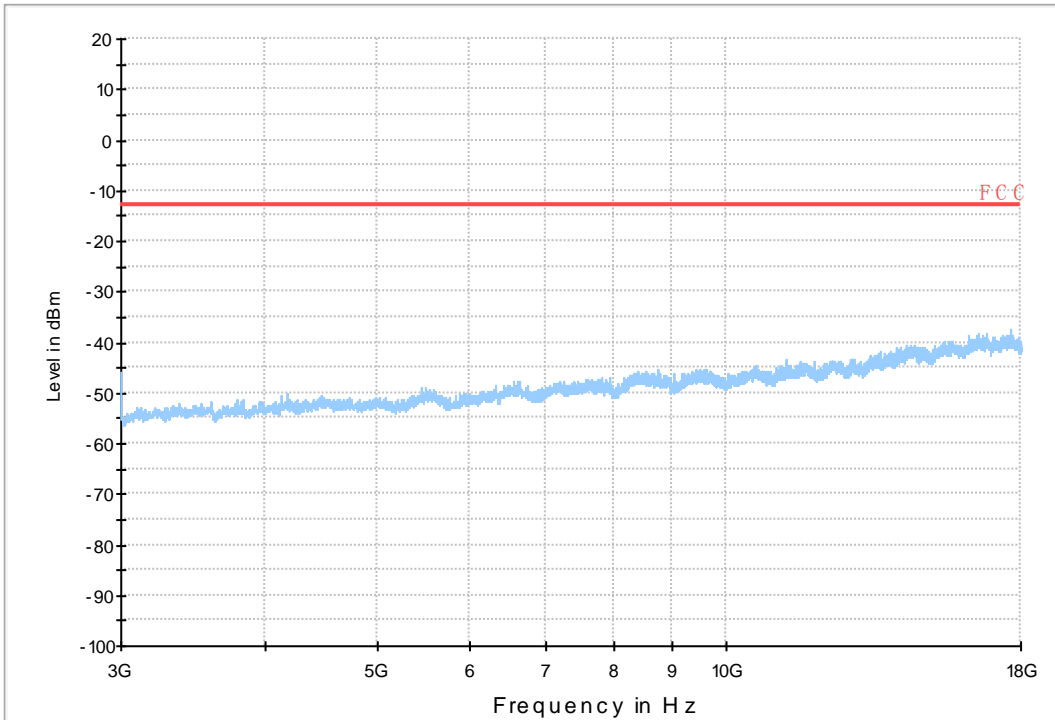
7.1.1.1 Test Bandwidth = 5



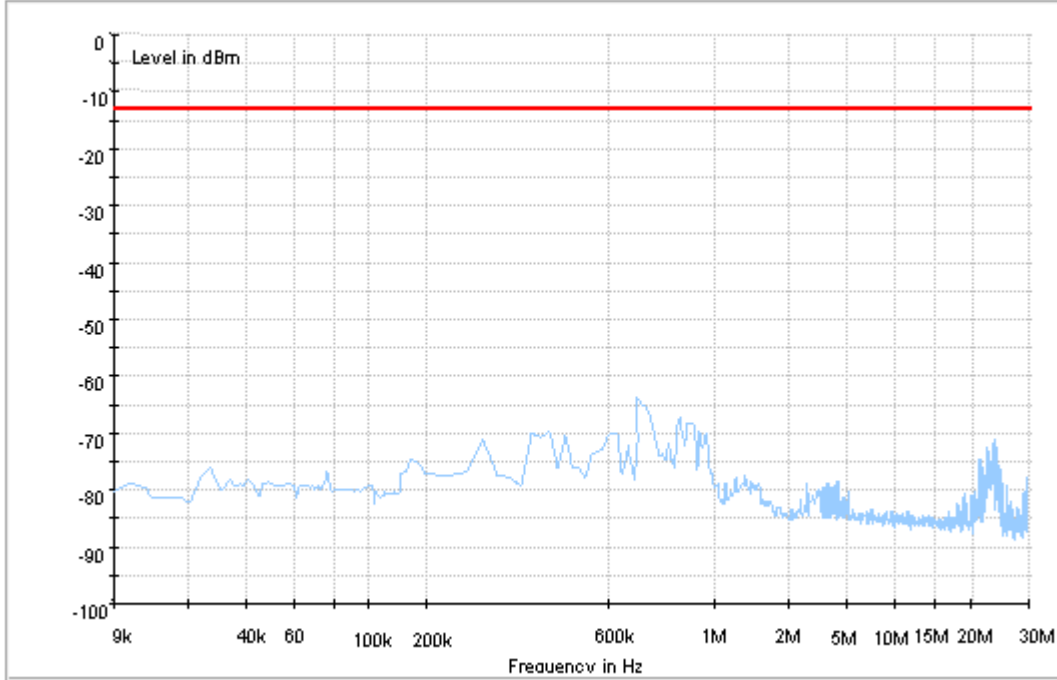
Copy of RSE-TX-DIRECTOR BELOW 1G_L



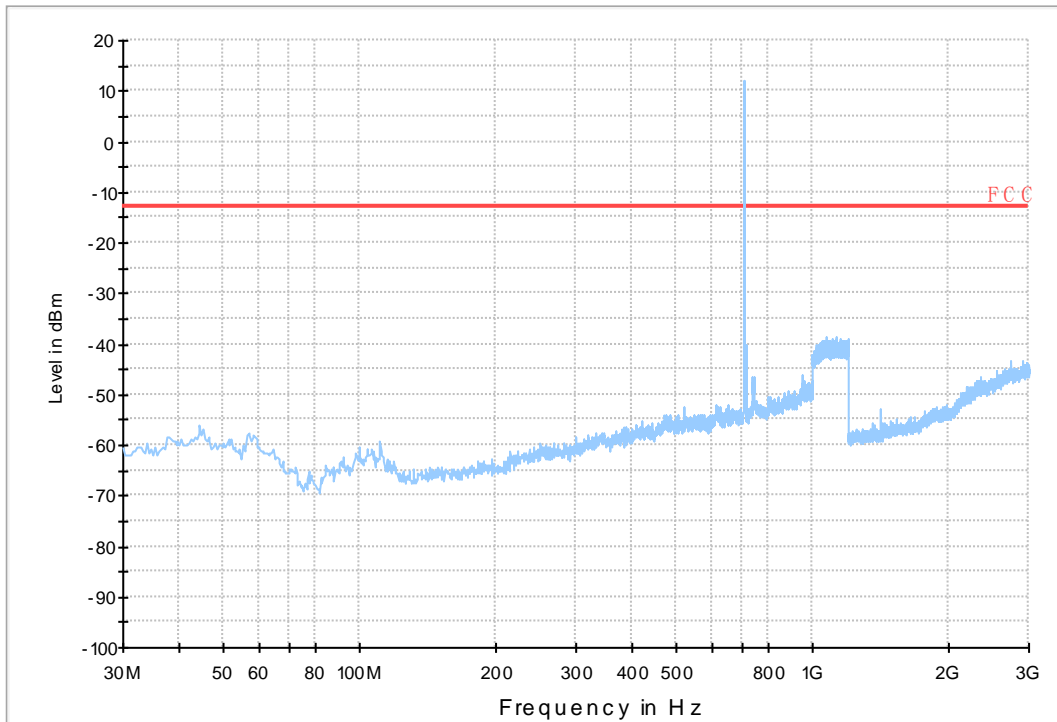
Copy of RSE-TX-DIRECTOR BELOW 1G_H



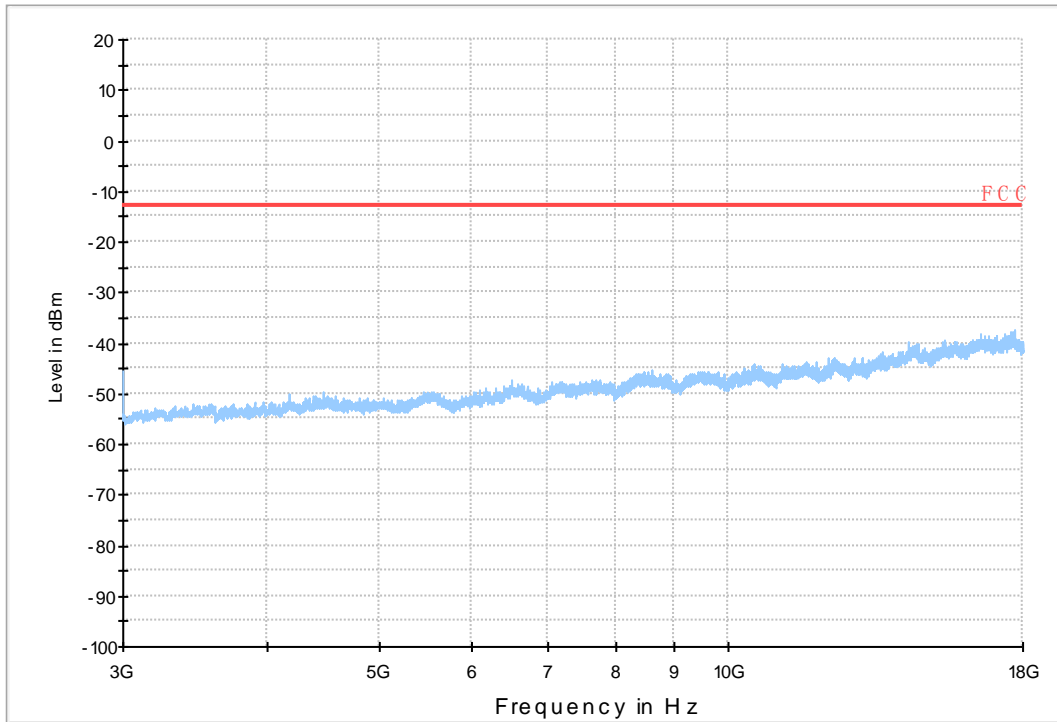
7.1.1.2 Test Bandwidth = 10



Copy of RSE-TX-DIRECTOR BELOW 1G_L



Copy of RSE-TX-DIRECTOR BELOW 1G_H



8Appendix_H: Frequency Stability

8.1 For LTE

8.1.1 Frequency Error vs. Voltage:

| Test Band | Test Mode | Test Bandwidth (MHz) | Test Channel | Test Temp. | Test Volt. | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict |
|-----------|-----------|----------------------|--------------|------------|------------|------------------|-----------------------|---------|
| BAND17 | LTE/TM1 | 5 | LCH | TN | VL | -0.97 | -0.00137 | PASS |
| | | | | | VN | -1.09 | -0.00154 | PASS |
| | | | | | VH | -0.86 | -0.00122 | PASS |
| | | | MCH | TN | VL | 0.56 | 0.00079 | PASS |
| | | | | | VN | -0.20 | -0.00028 | PASS |
| | | | | | VH | 0.56 | 0.00079 | PASS |
| | | HCH | TN | VL | 0.93 | 0.0013 | PASS | |
| | | | | VN | 0.57 | 0.0008 | PASS | |
| | | | | VH | 0.54 | 0.00076 | PASS | |
| | | 10 | LCH | TN | VL | -0.03 | -0.00004 | PASS |
| | | | | | VN | -0.43 | -0.00061 | PASS |
| | | | | | VH | -0.50 | -0.00071 | PASS |
| | MCH | | TN | VL | -0.99 | -0.00139 | PASS | |
| | | | | VN | -1.13 | -0.00159 | PASS | |
| | | | | VH | -2.93 | -0.00413 | PASS | |
| | HCH | TN | VL | -1.39 | -0.00195 | PASS | | |
| | | | VN | -0.60 | -0.00084 | PASS | | |
| | | | VH | -0.76 | -0.00107 | PASS | | |
| | LTE/TM2 | 5 | LCH | TN | VL | 0.23 | 0.00033 | PASS |
| | | | | | VN | -0.51 | -0.00072 | PASS |
| | | | | | VH | 0.17 | 0.00024 | PASS |
| | | | MCH | TN | VL | 0.66 | 0.00093 | PASS |
| | | | | | VN | -0.21 | -0.0003 | PASS |
| | | | | | VH | 1.67 | 0.00235 | PASS |
| HCH | | TN | VL | -0.06 | -0.00008 | PASS | | |
| | | | VN | 0.11 | 0.00015 | PASS | | |
| | | | VH | 0.43 | 0.0006 | PASS | | |
| 10 | | LCH | TN | VL | 1.23 | 0.00173 | PASS | |
| | | | | VN | 0.73 | 0.00103 | PASS | |
| | | | | VH | 2.33 | 0.00329 | PASS | |
| | MCH | TN | VL | 1.36 | 0.00192 | PASS | | |

| Test Band | Test Mode | Test Bandwidth (MHz) | Test Channel | Test Temp. | Test Volt. | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict | |
|-----------|-----------|----------------------|--------------|------------|------------|------------------|-----------------------|----------|------|
| | | | | | VN | 1.07 | 0.00151 | PASS | |
| | | | | | VH | 1.42 | 0.002 | PASS | |
| | | | HCH | | TN | VL | -0.03 | -0.00004 | PASS |
| | | | | | VN | 0.89 | 0.00125 | PASS | |
| | | | | | VH | 1.96 | 0.00276 | PASS | |

8.1.2 Frequency Error vs. Temperature:

| Test Band | Test Mode | Test Bandwidth (MHz) | Test Channel | Test Volt | Test Temp | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict | | | |
|-----------|-----------|----------------------|--------------|-----------|-----------|------------------|-----------------------|---------|------|---------|------|
| BAND17 | LTE/TM1 | 5 | LCH | VN | -30 | -1.32 | -0.00187 | PASS | | | |
| | | | | | -20 | -0.26 | -0.00037 | PASS | | | |
| | | | | | -10 | 0.00 | 0 | PASS | | | |
| | | | | | 0 | -0.63 | -0.00089 | PASS | | | |
| | | | | | 10 | -0.53 | -0.00075 | PASS | | | |
| | | | | | 20 | -0.73 | -0.00103 | PASS | | | |
| | | | | | 30 | -0.80 | -0.00113 | PASS | | | |
| | | | | | 40 | -0.19 | -0.00027 | PASS | | | |
| | | | MCH | VN | 50 | -0.64 | -0.00091 | PASS | | | |
| | | | | | -30 | -0.16 | -0.00023 | PASS | | | |
| | | | | | -20 | 1.19 | 0.00168 | PASS | | | |
| | | | | | -10 | 0.93 | 0.00131 | PASS | | | |
| | | | | | 0 | 1.29 | 0.00182 | PASS | | | |
| | | | | | 10 | 0.99 | 0.00139 | PASS | | | |
| | | | | | 20 | 0.50 | 0.0007 | PASS | | | |
| | | | | | 30 | 1.32 | 0.00186 | PASS | | | |
| | | | HCH | VN | 40 | 1.83 | 0.00258 | PASS | | | |
| | | | | | 50 | 0.47 | 0.00066 | PASS | | | |
| | | | | | -30 | 0.31 | 0.00043 | PASS | | | |
| | | | | | -20 | 0.31 | 0.00043 | PASS | | | |
| | | | | | -10 | 0.50 | 0.0007 | PASS | | | |
| | | | | | 0 | 0.94 | 0.00132 | PASS | | | |
| | | | | | 10 | 0.79 | 0.00111 | PASS | | | |
| | | | | | 20 | 0.62 | 0.00087 | PASS | | | |
| | | | LCH | VN | 30 | 0.03 | 0.00004 | PASS | | | |
| | | | | | 40 | -0.39 | -0.00055 | PASS | | | |
| | | | | | 10 | | | 50 | 0.97 | 0.00136 | PASS |
| | | | | | 10 | LCH | VN | -30 | 0.51 | 0.00072 | PASS |

| Test Band | Test Mode | Test Bandwidth (MHz) | Test Channel | Test Volt | Test Temp | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict | | |
|-----------|-----------|----------------------|--------------|-----------|-----------|------------------|-----------------------|---------|----------|------|
| | | | | | -20 | 0.63 | 0.00089 | PASS | | |
| | | | | | -10 | 1.49 | 0.0021 | PASS | | |
| | | | | | 0 | 1.27 | 0.00179 | PASS | | |
| | | | | | 10 | 0.63 | 0.00089 | PASS | | |
| | | | | | 20 | 0.04 | 0.00006 | PASS | | |
| | | | | | 30 | 0.06 | 0.00008 | PASS | | |
| | | | | | 40 | -0.31 | -0.00044 | PASS | | |
| | | | | | 50 | -0.09 | -0.00013 | PASS | | |
| | | | MCH | VN | -30 | -1.16 | -0.00163 | PASS | | |
| | | | | | -20 | -1.79 | -0.00252 | PASS | | |
| | | | | | -10 | 0.03 | 0.00004 | PASS | | |
| | | | | | 0 | -0.04 | -0.00006 | PASS | | |
| | | | | | 10 | -0.80 | -0.00113 | PASS | | |
| | | | | | 20 | -0.76 | -0.00107 | PASS | | |
| | | | | | 30 | -1.07 | -0.00151 | PASS | | |
| | | | | | 40 | -0.07 | -0.0001 | PASS | | |
| | | | HCH | VN | -30 | -0.26 | -0.00037 | PASS | | |
| | | | | | -20 | -0.70 | -0.00098 | PASS | | |
| | | | | | -10 | -0.06 | -0.00008 | PASS | | |
| | | | | | 0 | -0.99 | -0.00139 | PASS | | |
| | | | | | 10 | -0.51 | -0.00072 | PASS | | |
| | | | | | 20 | -1.13 | -0.00159 | PASS | | |
| | | | | | 30 | -1.04 | -0.00146 | PASS | | |
| | | | | | 40 | -1.13 | -0.00159 | PASS | | |
| | | | LTE/TM2 | 5 | LCH | VN | -30 | -0.33 | -0.00047 | PASS |
| | | | | | | | -20 | -0.27 | -0.00038 | PASS |
| | | | | | | | -10 | -1.19 | -0.00168 | PASS |
| | | | | | | | 0 | -0.79 | -0.00112 | PASS |
| | 10 | -0.17 | | | | | -0.00024 | PASS | | |
| | 20 | -0.46 | | | | | -0.00065 | PASS | | |
| | 30 | -0.60 | | | | | -0.00085 | PASS | | |
| | 40 | 0.77 | | | | | 0.00109 | PASS | | |
| | 50 | -0.10 | | | -0.00014 | PASS | | | | |
| | MCH | VN | | | -30 | 0.69 | 0.00097 | PASS | | |
| | | | | | -20 | 0.63 | 0.00089 | PASS | | |
| | | | | | -10 | 0.72 | 0.00101 | PASS | | |
| | | | 0 | 0.70 | 0.00099 | PASS | | | | |

| Test Band | Test Mode | Test Bandwidth (MHz) | Test Channel | Test Volt | Test Temp | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict | | |
|-----------|-----------|----------------------|--------------|-----------|-----------|------------------|-----------------------|---------|----------|------|
| | | | | | 10 | 1.02 | 0.00144 | PASS | | |
| | | | | | 20 | 0.73 | 0.00103 | PASS | | |
| | | | | | 30 | 0.41 | 0.00058 | PASS | | |
| | | | | | 40 | 0.50 | 0.0007 | PASS | | |
| | | | | | 50 | 0.11 | 0.00015 | PASS | | |
| | | | | | HCH | VN | -30 | 0.23 | 0.00032 | PASS |
| | | | | | | | -20 | 0.72 | 0.00101 | PASS |
| | | | | | | | -10 | 0.89 | 0.00125 | PASS |
| | | | | | | | 0 | -0.76 | -0.00107 | PASS |
| | | | 10 | 0.46 | | | 0.00064 | PASS | | |
| | | | 20 | -0.36 | | | -0.0005 | PASS | | |
| | | | 30 | 1.06 | | | 0.00149 | PASS | | |
| | | | 40 | 1.14 | | | 0.0016 | PASS | | |
| | | | 50 | 0.46 | | | 0.00064 | PASS | | |
| | | | 10 | LCH | VN | -30 | 2.26 | 0.00319 | PASS | |
| | | | | | | -20 | 1.69 | 0.00238 | PASS | |
| | | | | | | -10 | 1.62 | 0.00228 | PASS | |
| | | | | | | 0 | 1.34 | 0.00189 | PASS | |
| | | 10 | | | | 2.02 | 0.00285 | PASS | | |
| | | 20 | | | | 3.22 | 0.00454 | PASS | | |
| | | 30 | | | | 2.59 | 0.00365 | PASS | | |
| | | 40 | | | | 2.06 | 0.00291 | PASS | | |
| | | 50 | | | | 2.69 | 0.00379 | PASS | | |
| | | MCH | | VN | -30 | 1.46 | 0.00206 | PASS | | |
| | | | | | -20 | 1.75 | 0.00246 | PASS | | |
| | | | | | -10 | 3.73 | 0.00525 | PASS | | |
| | | | | | 0 | 2.55 | 0.00359 | PASS | | |
| | | | | | 10 | 3.13 | 0.00441 | PASS | | |
| | | | | | 20 | 2.85 | 0.00401 | PASS | | |
| | | | | | 30 | 2.30 | 0.00324 | PASS | | |
| | | | | | 40 | 1.63 | 0.0023 | PASS | | |
| | | | | | 50 | 2.03 | 0.00286 | PASS | | |
| | | HCH | VN | -30 | 0.70 | 0.00098 | PASS | | | |
| | | | | -20 | 0.82 | 0.00115 | PASS | | | |
| | | | | -10 | 1.44 | 0.00203 | PASS | | | |
| | | | | 0 | 0.24 | 0.00034 | PASS | | | |
| 10 | 0.83 | | | 0.00117 | PASS | | | | | |
| 20 | -0.47 | | | -0.00066 | PASS | | | | | |
| 30 | 0.59 | | | 0.00083 | PASS | | | | | |



| Test Band | Test Mode | Test Bandwidth (MHz) | Test Channel | Test Volt | Test Temp | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict |
|-----------|-----------|----------------------|--------------|-----------|-----------|------------------|-----------------------|---------|
| | | | | | 40 | 1.04 | 0.00146 | PASS |
| | | | | | 50 | 0.39 | 0.00055 | PASS |

END