



5.1.1.2.4.2.2 Test RB = RB1#99





5.1.1.2.4.2.3 Test RB = RB50#25





5.1.1.2.4.2.4 Test RB = RB100#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 = BAND7

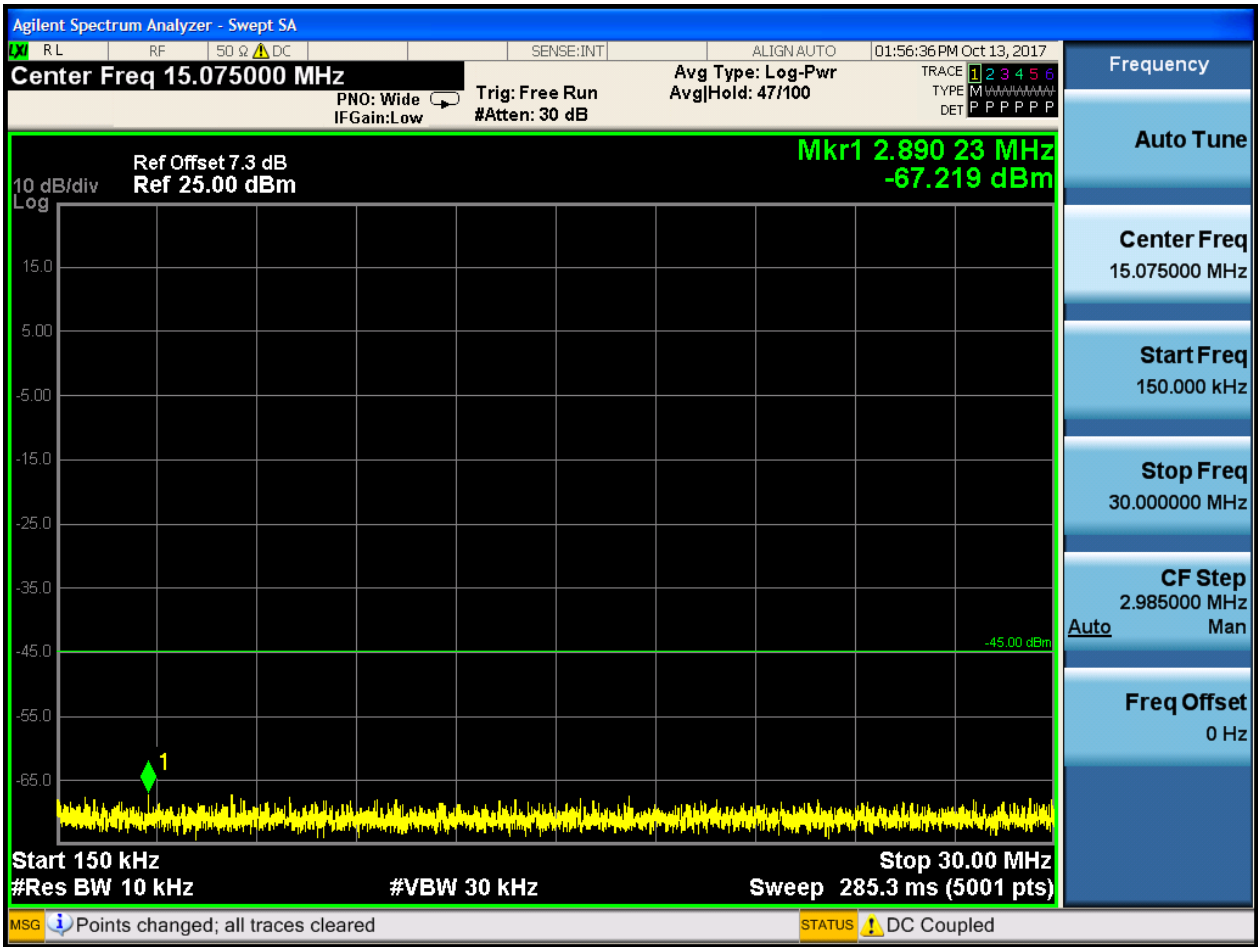
##### 6.1.1.1 Test Mode = LTE/TM1

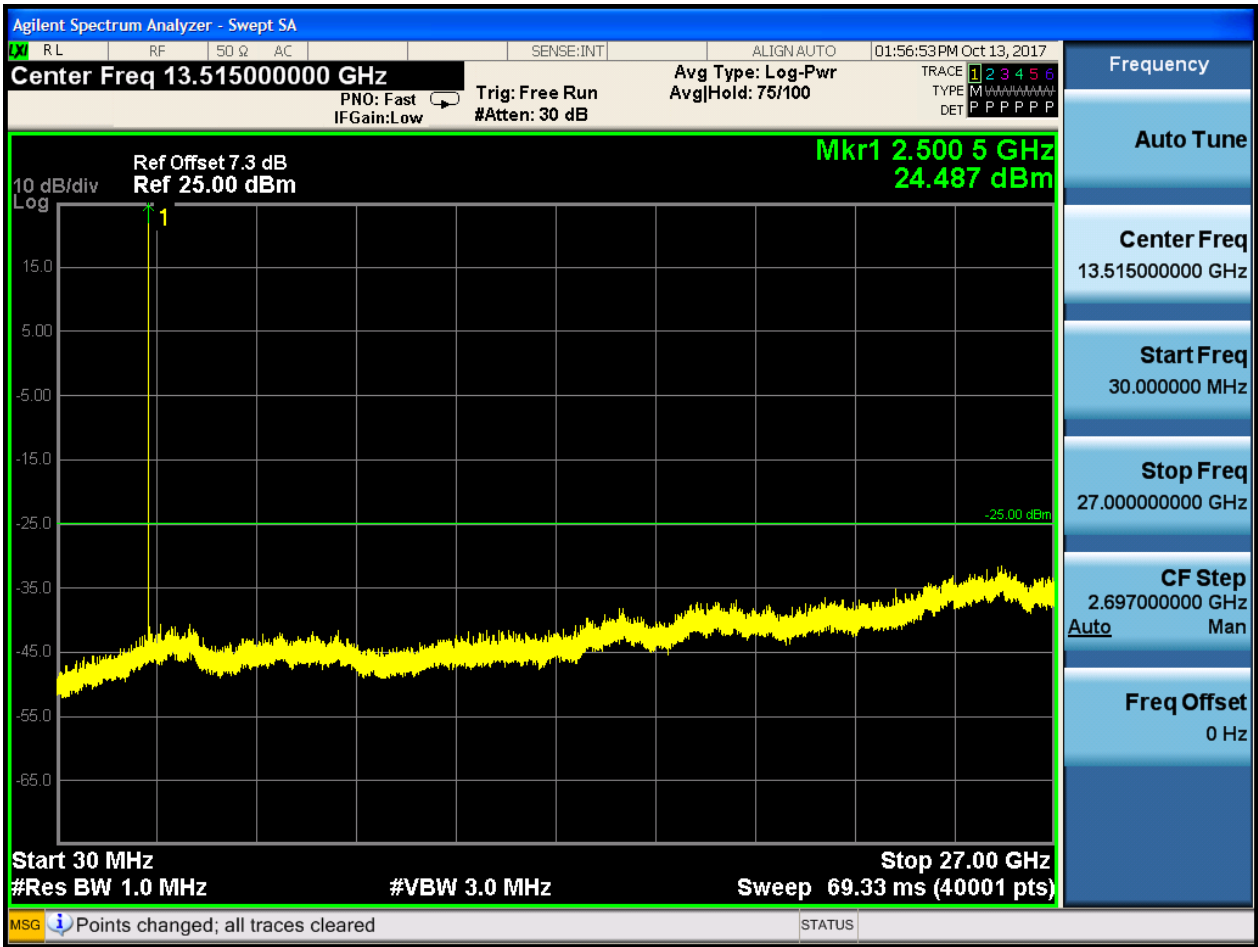
##### 6.1.1.1.1 Test Bandwidth = 5

##### 6.1.1.1.1.1 Test Channel = LCH

##### 6.1.1.1.1.1.1 Test RB = RB1#0



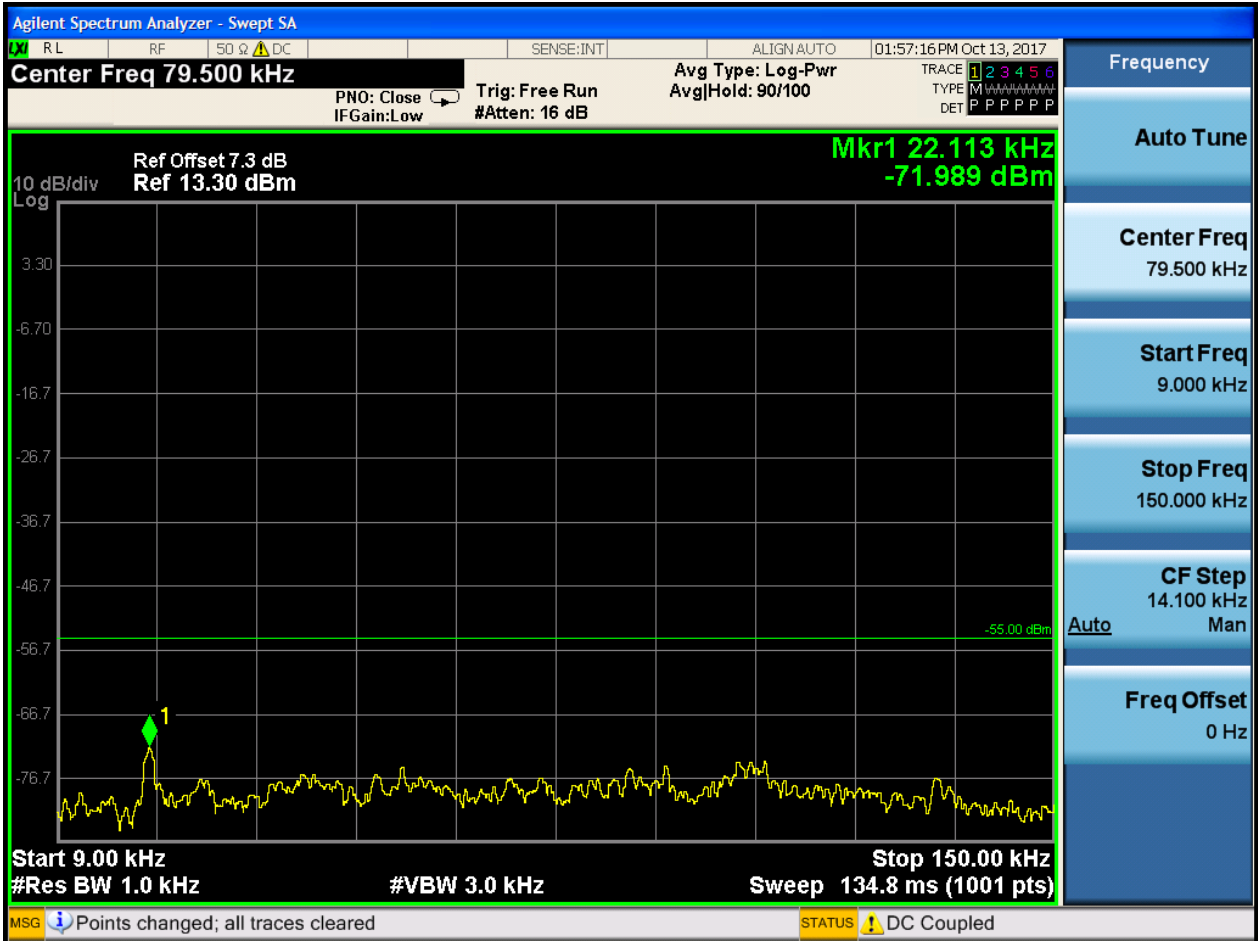






6.1.1.1.1.2 Test Channel = MCH

6.1.1.1.1.2.1 Test RB = RB1#0





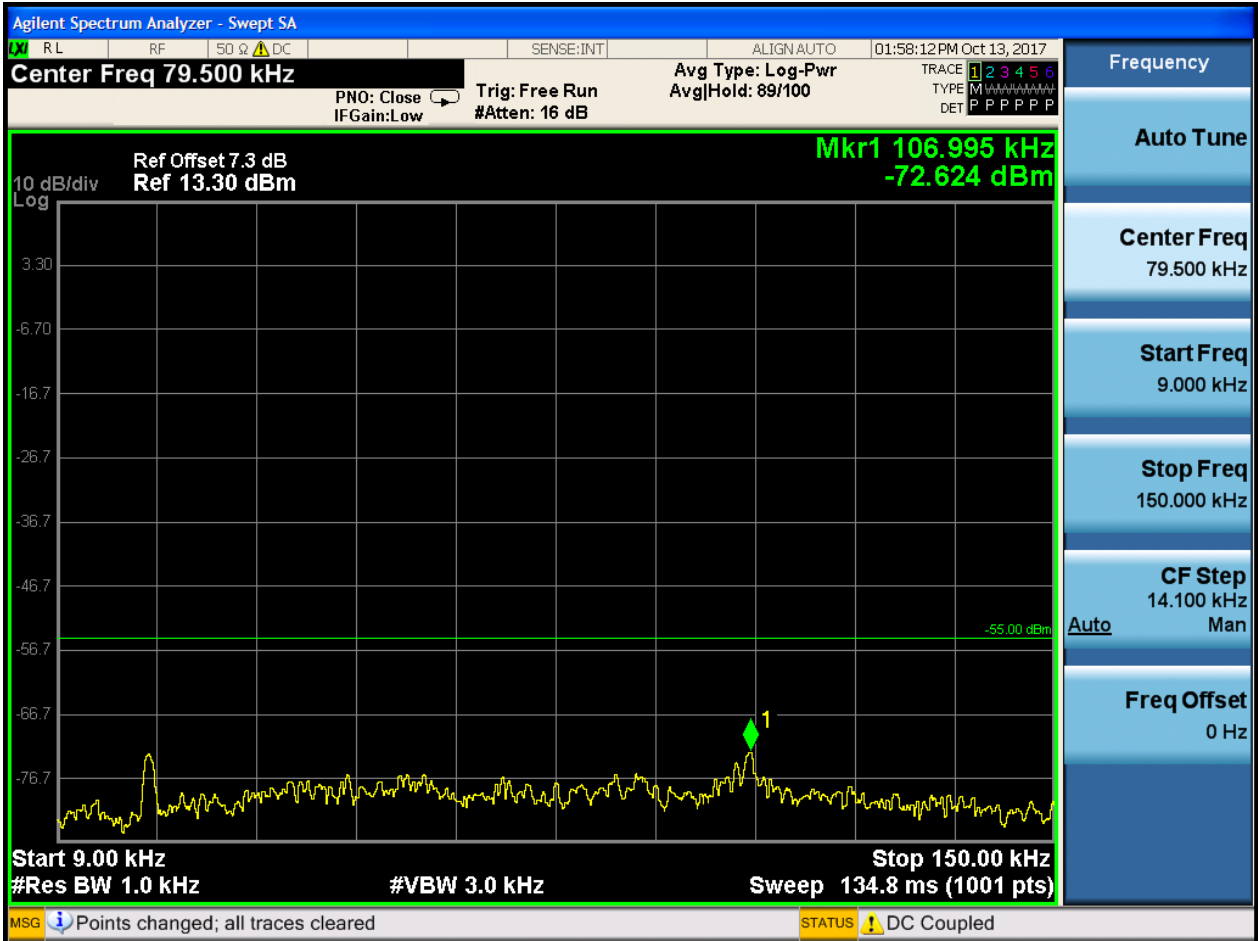






6.1.1.1.1.3 Test Channel = HCH

6.1.1.1.1.3.1 Test RB = RB1#0





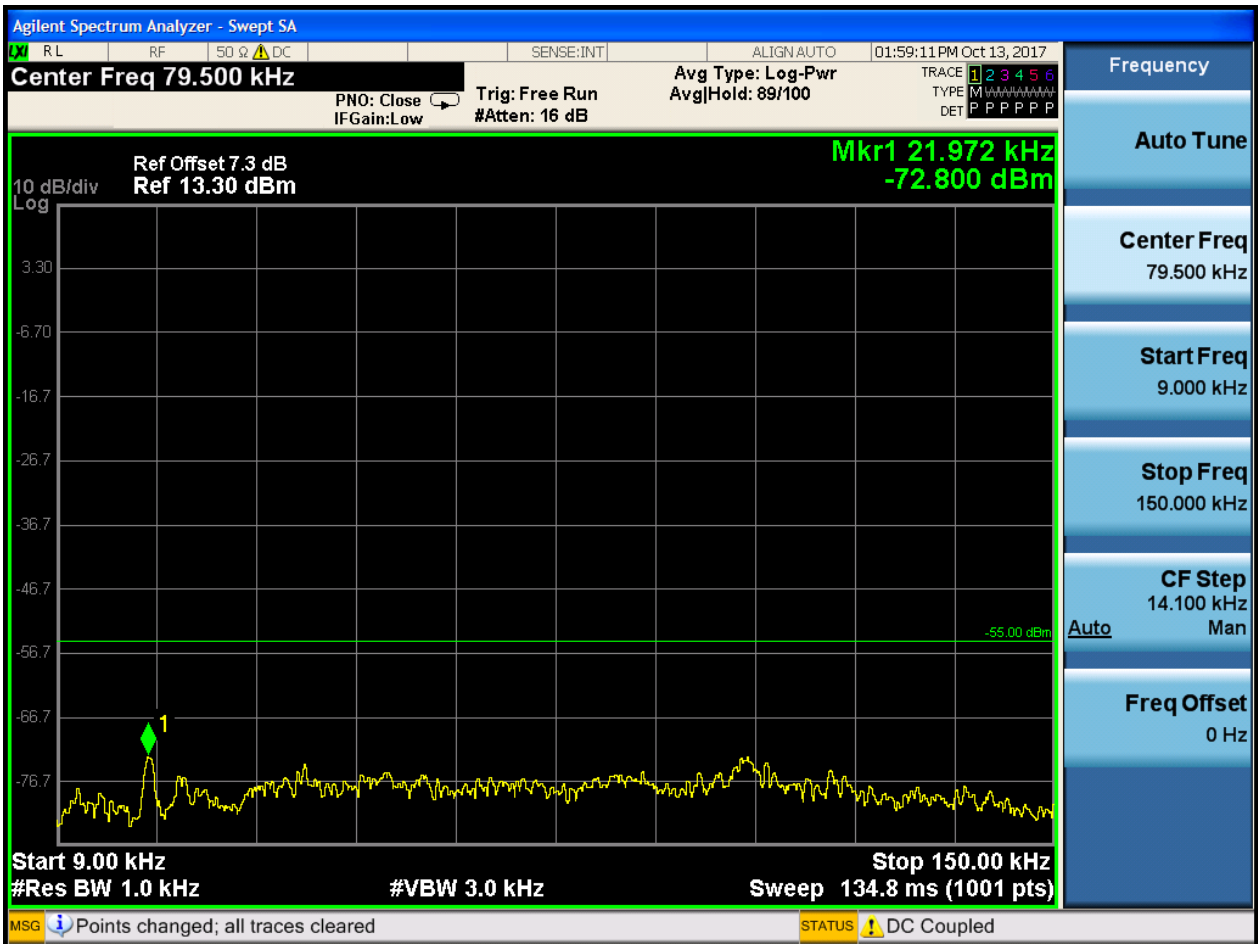


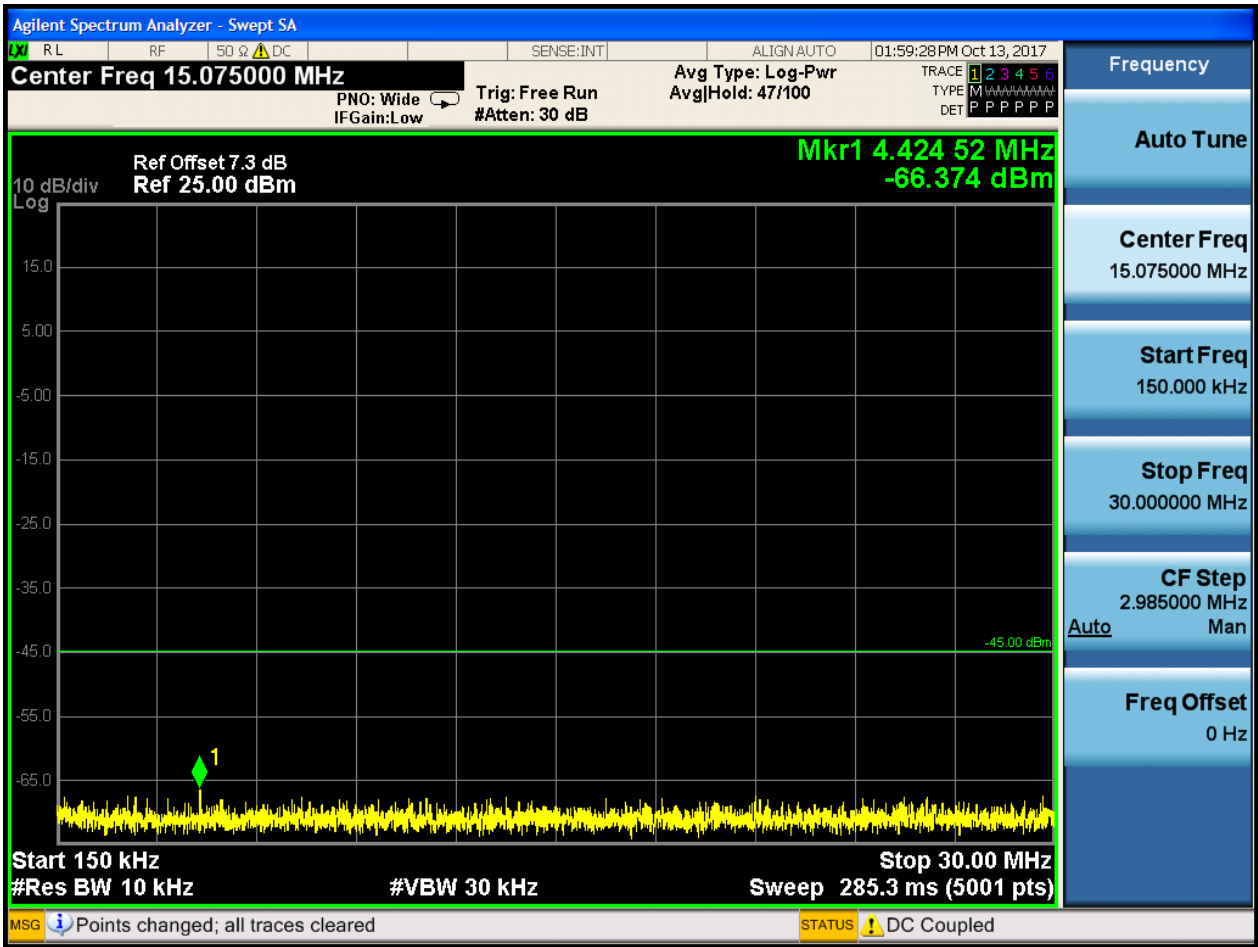


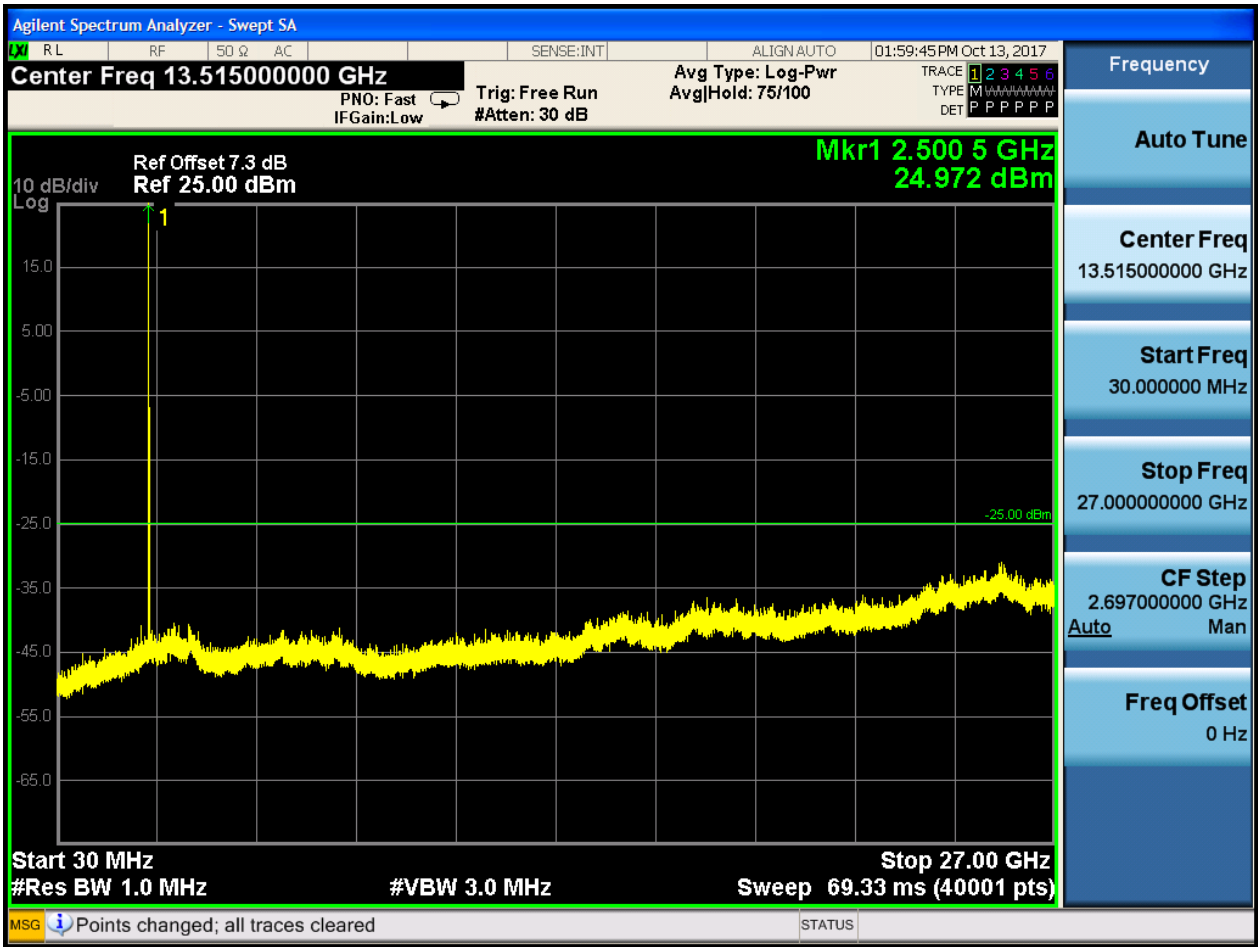
6.1.1.1.2 Test Bandwidth = 10

6.1.1.1.2.1 Test Channel = LCH

6.1.1.1.2.1.1 Test RB = RB1#0





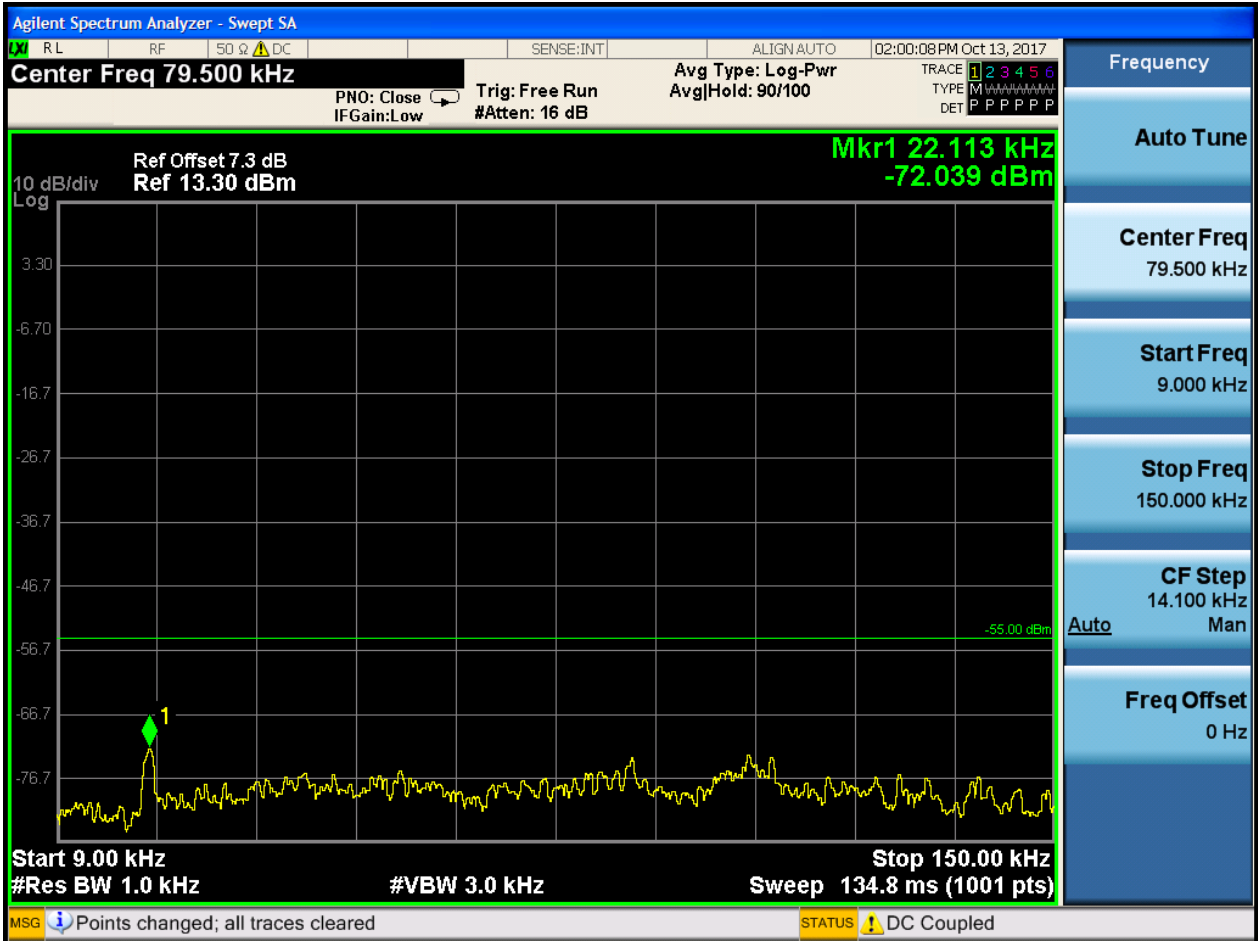


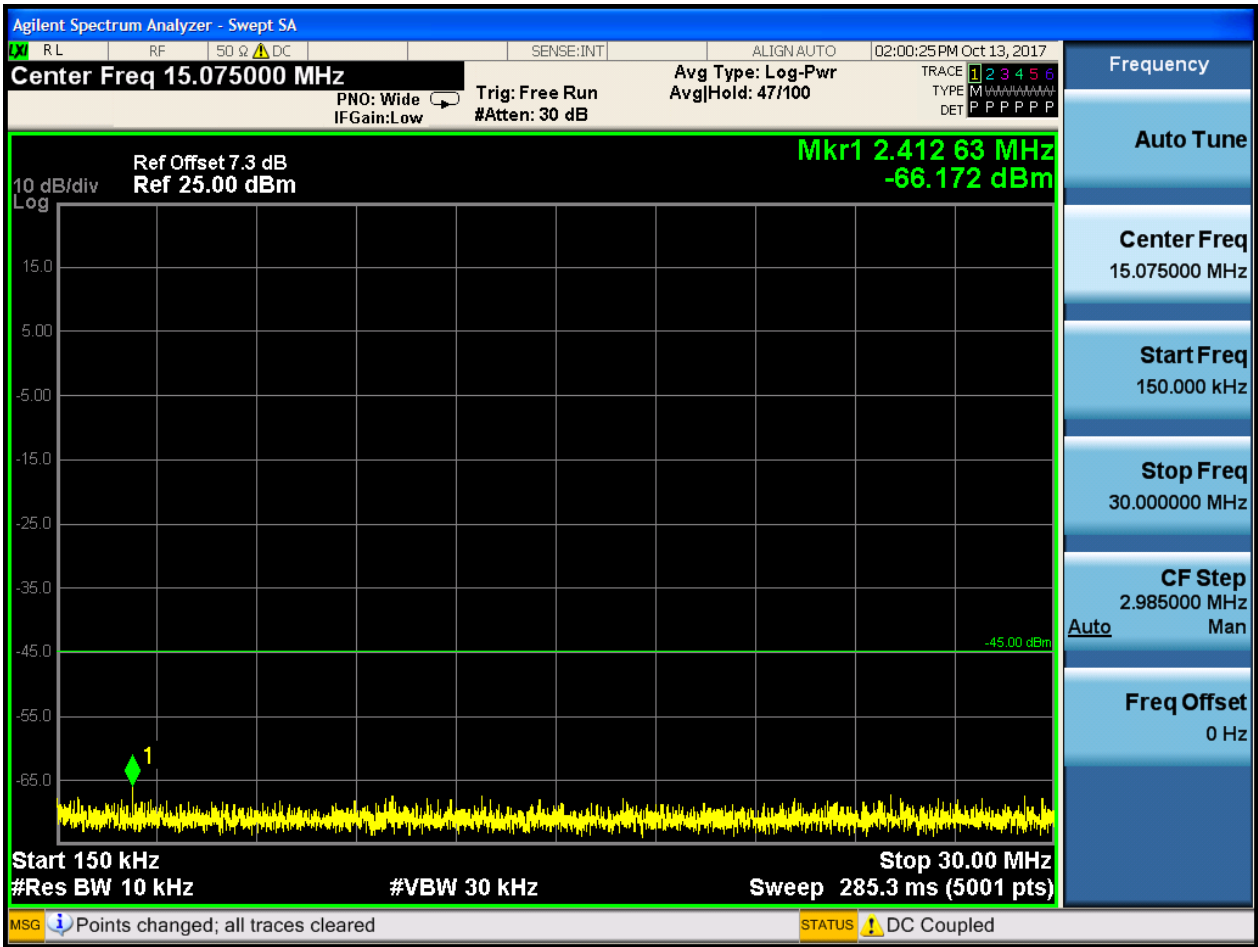


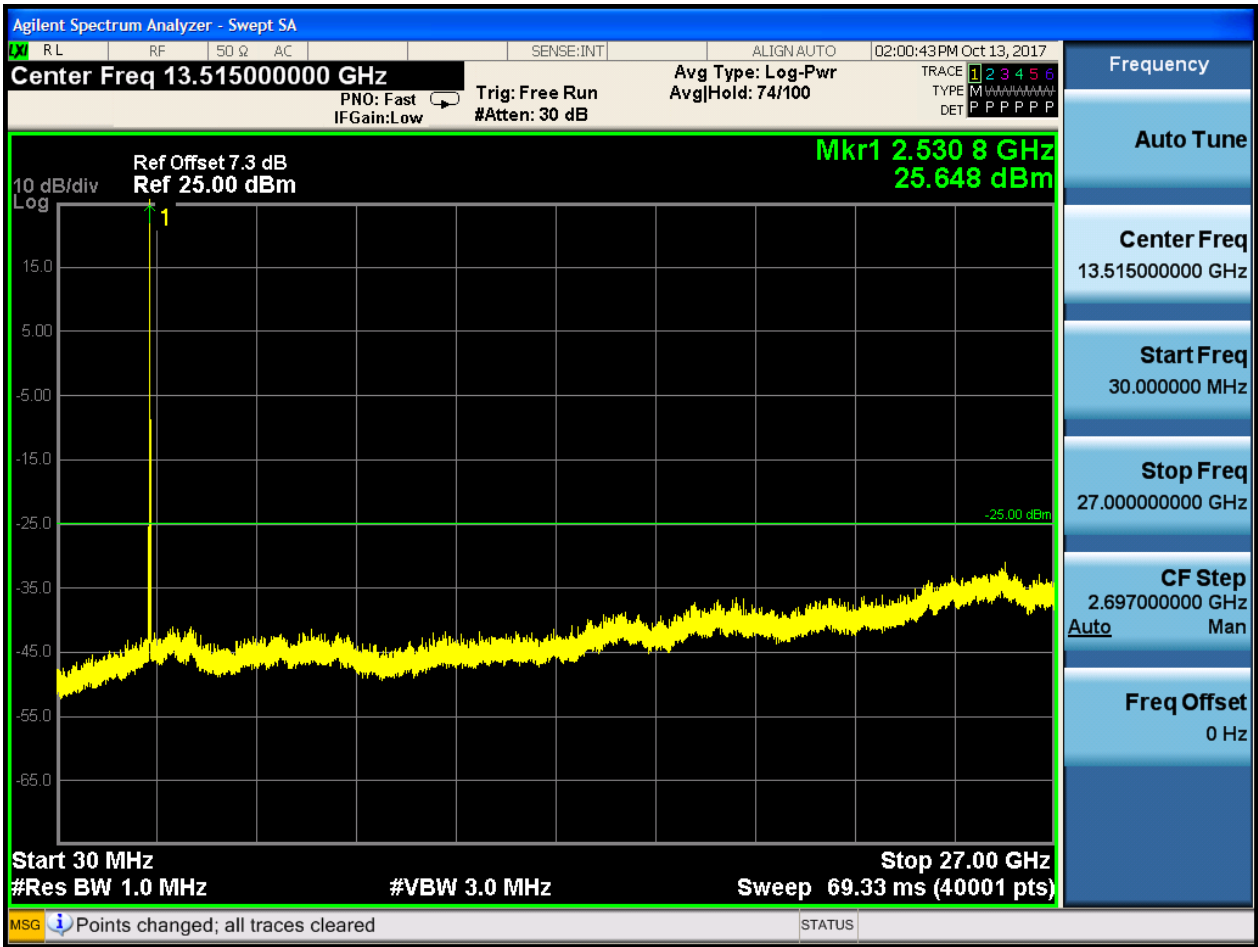


6.1.1.1.2.2 Test Channel = MCH

6.1.1.1.2.2.1 Test RB = RB1#0



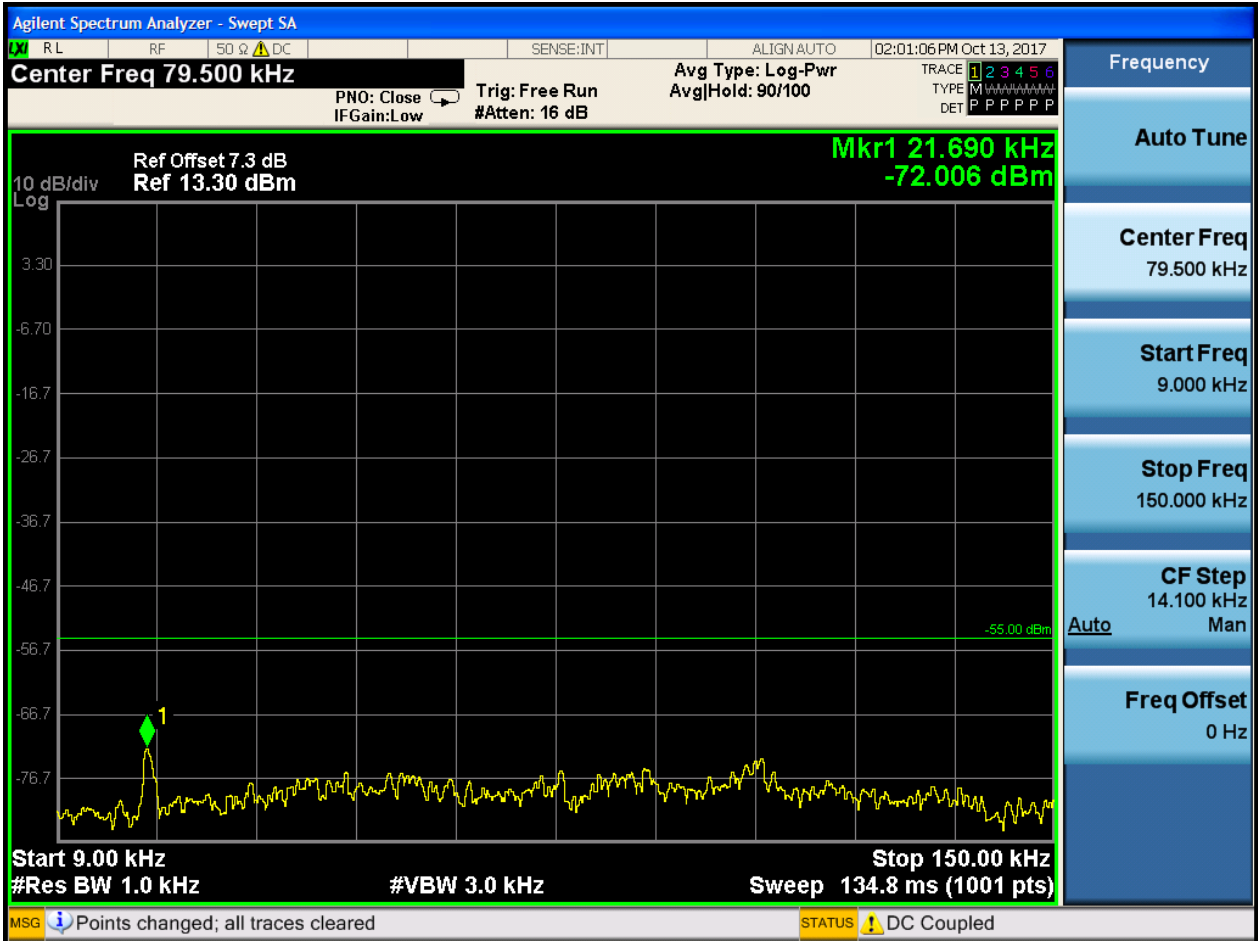


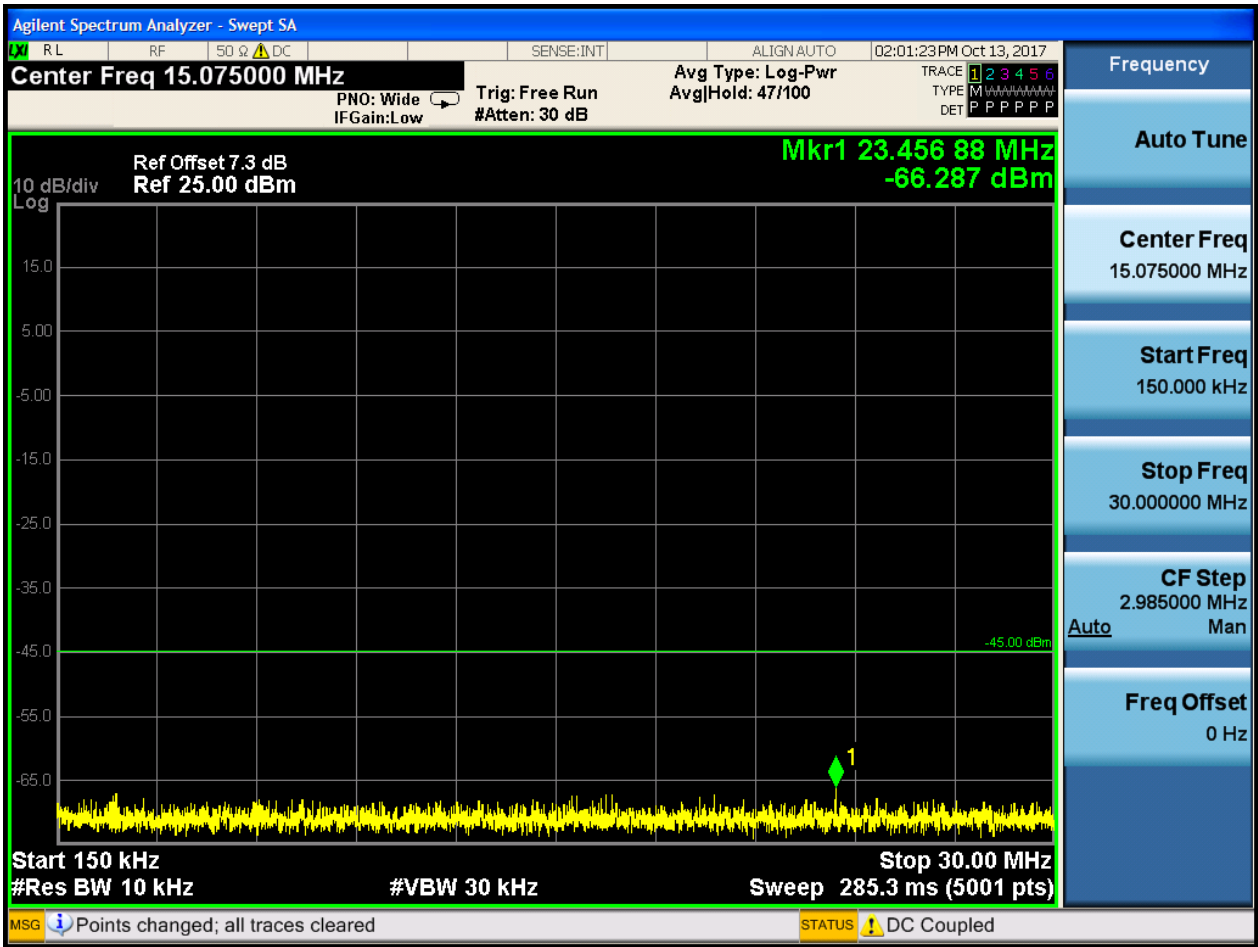




6.1.1.1.2.3 Test Channel = HCH

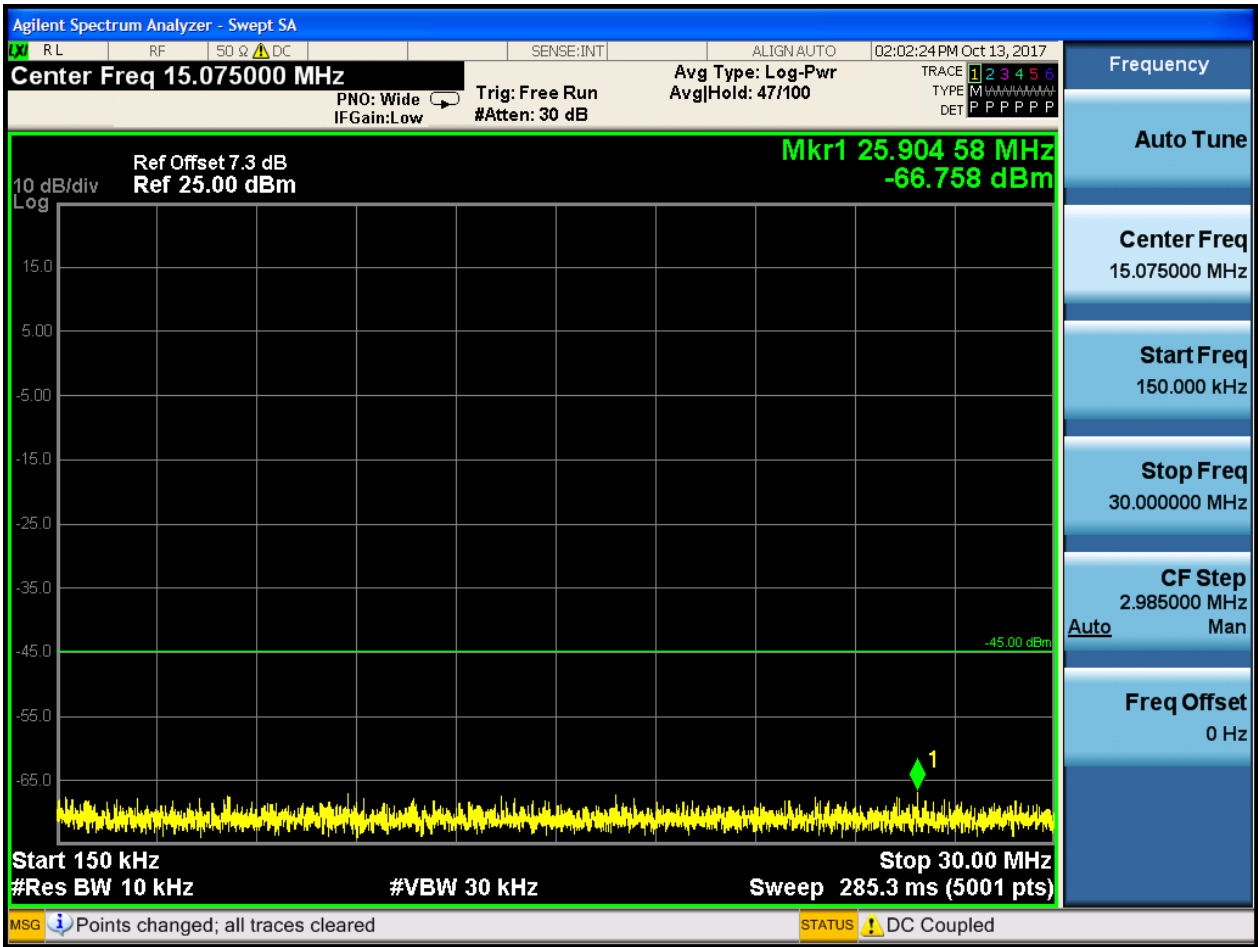
6.1.1.1.2.3.1 Test RB = RB1#0



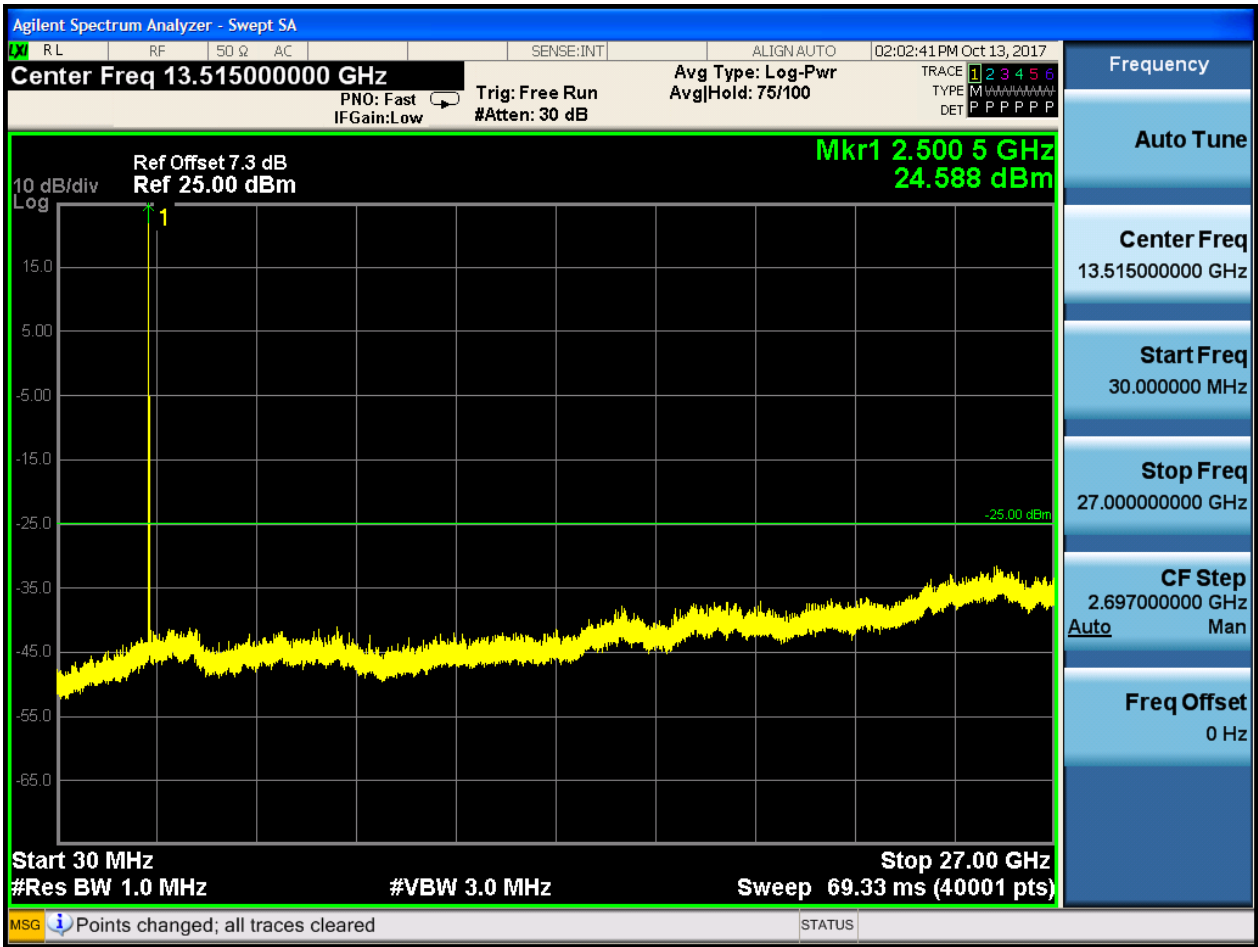




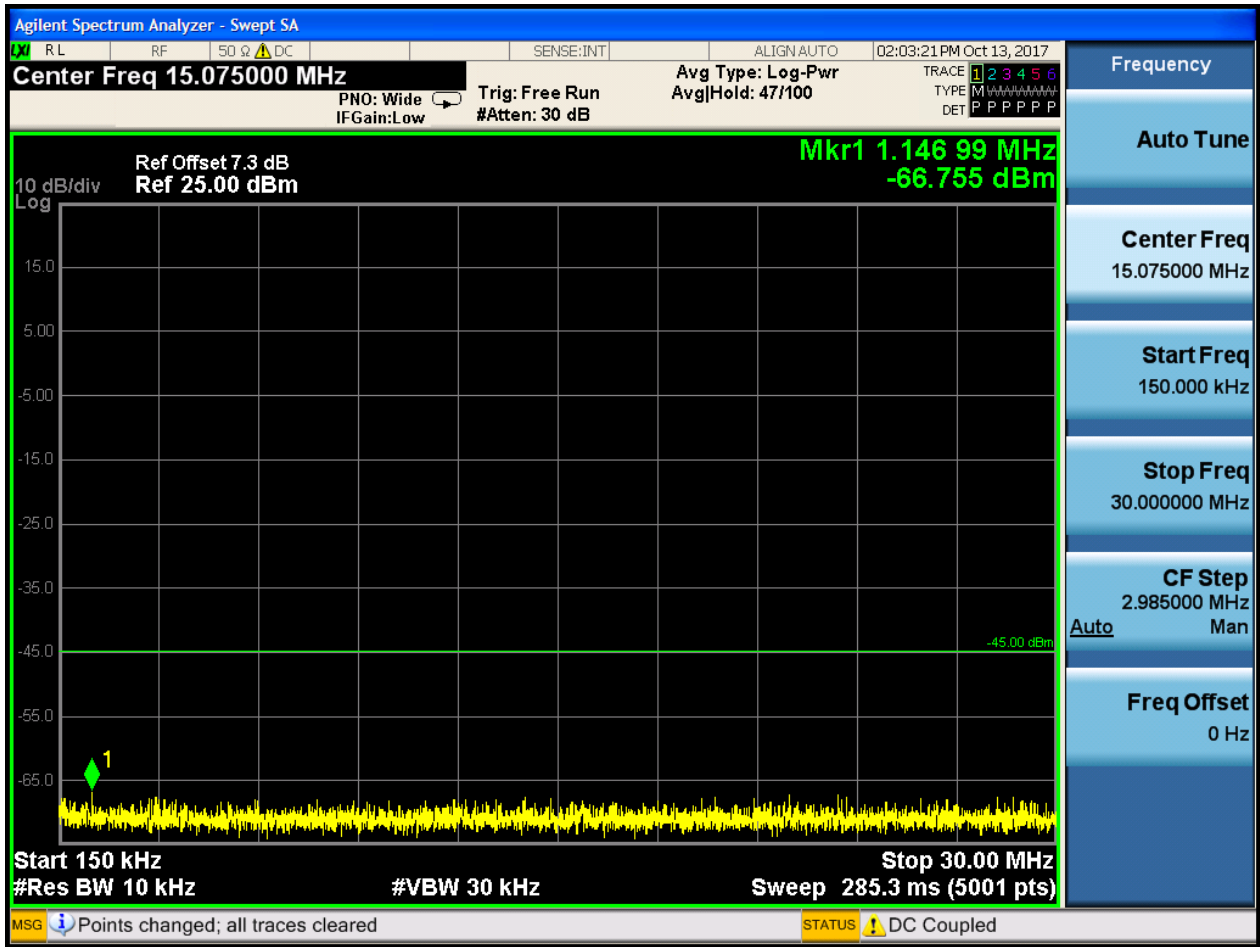










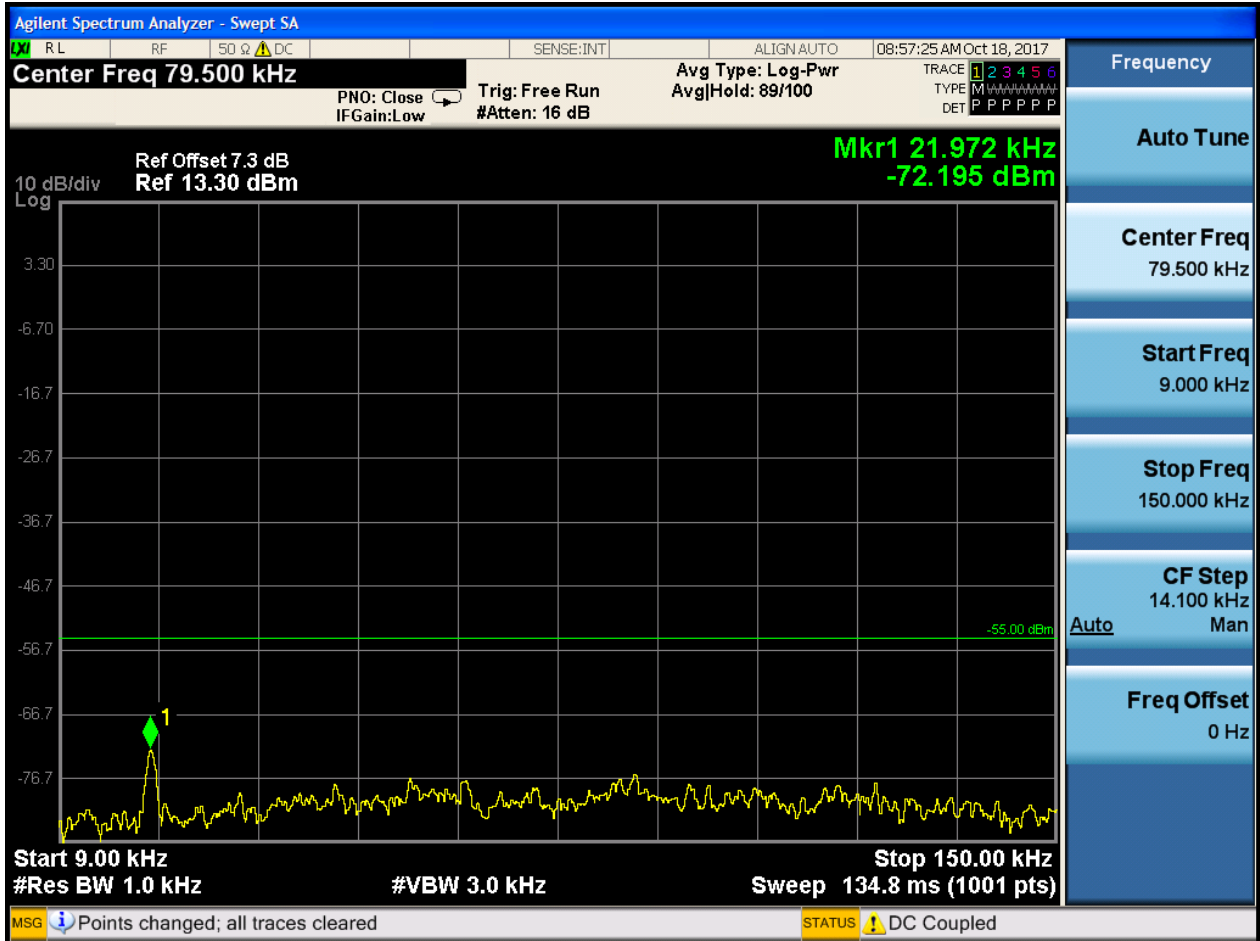




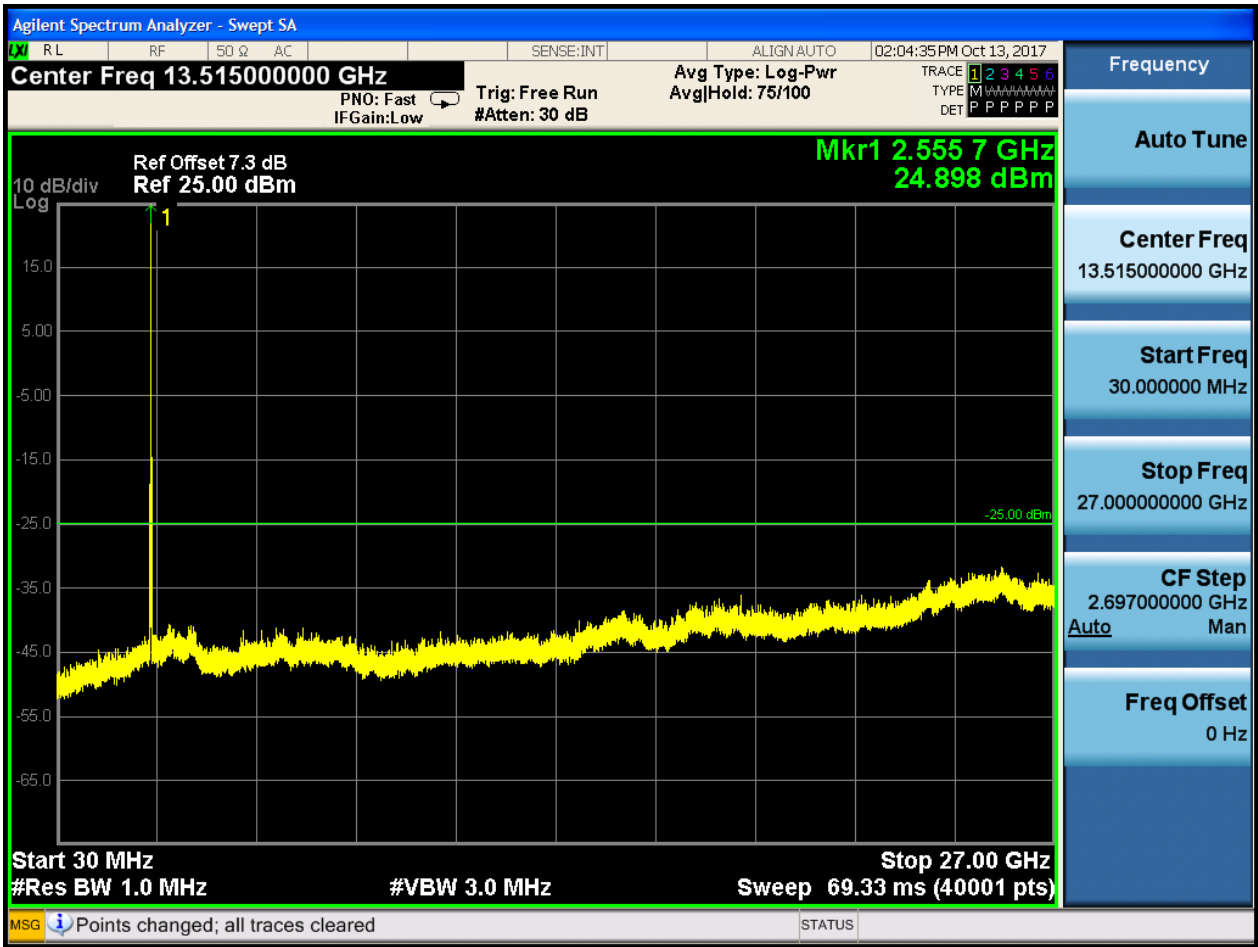


6.1.1.1.3.3 Test Channel = HCH

6.1.1.1.3.3.1 Test RB = RB1#0





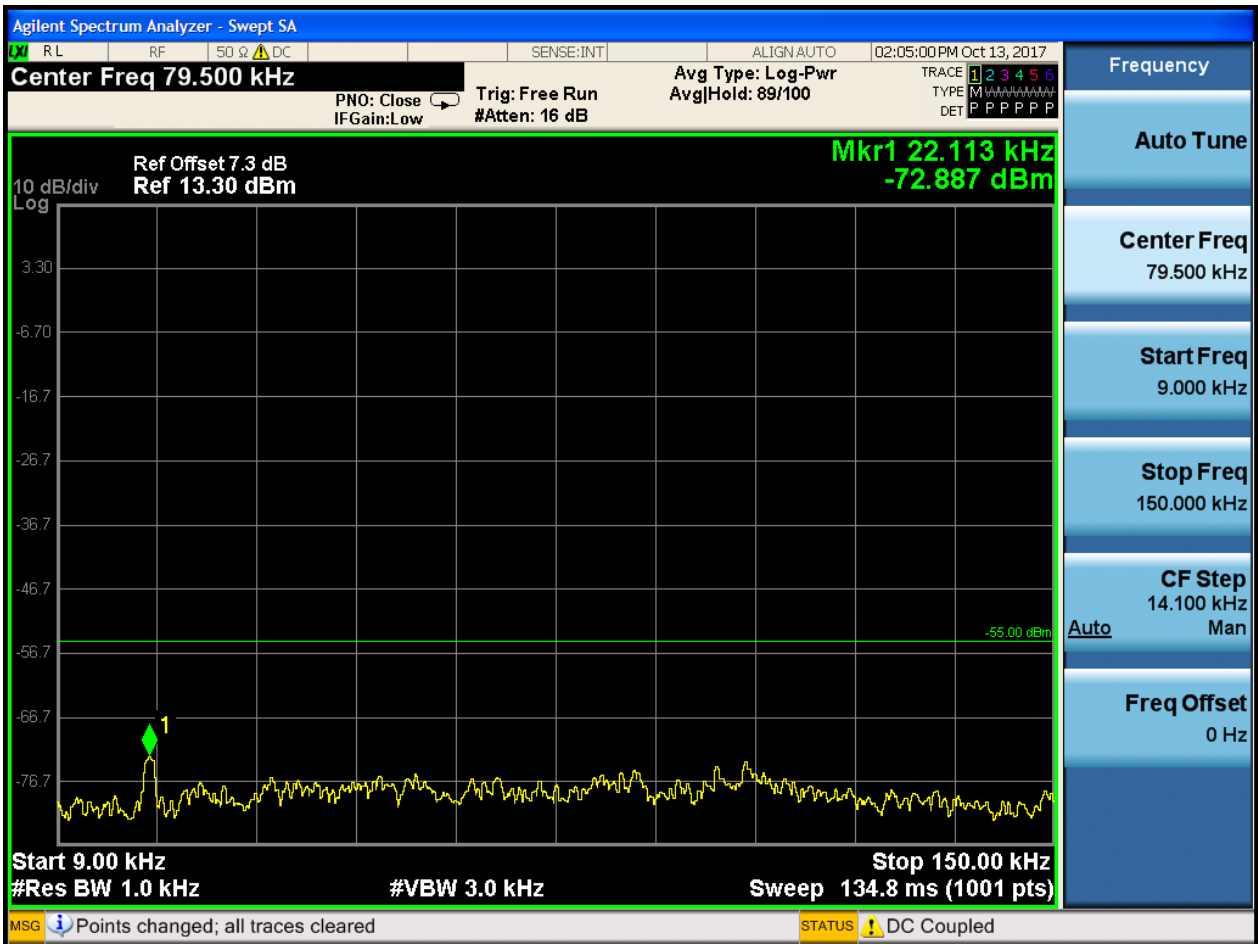




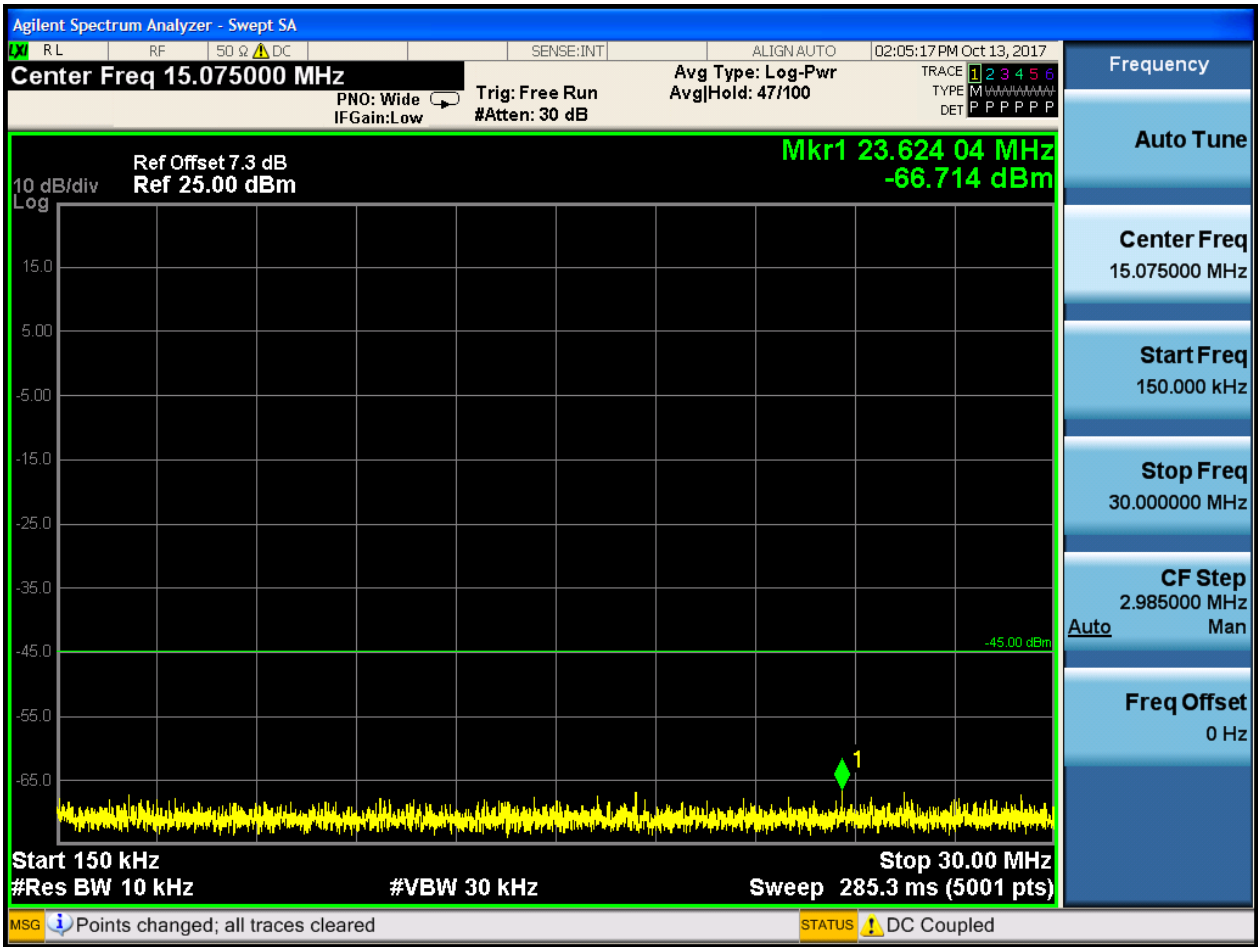
6.1.1.1.4 Test Bandwidth = 20

6.1.1.1.4.1 Test Channel = LCH

6.1.1.1.4.1.1 Test RB = RB1#0





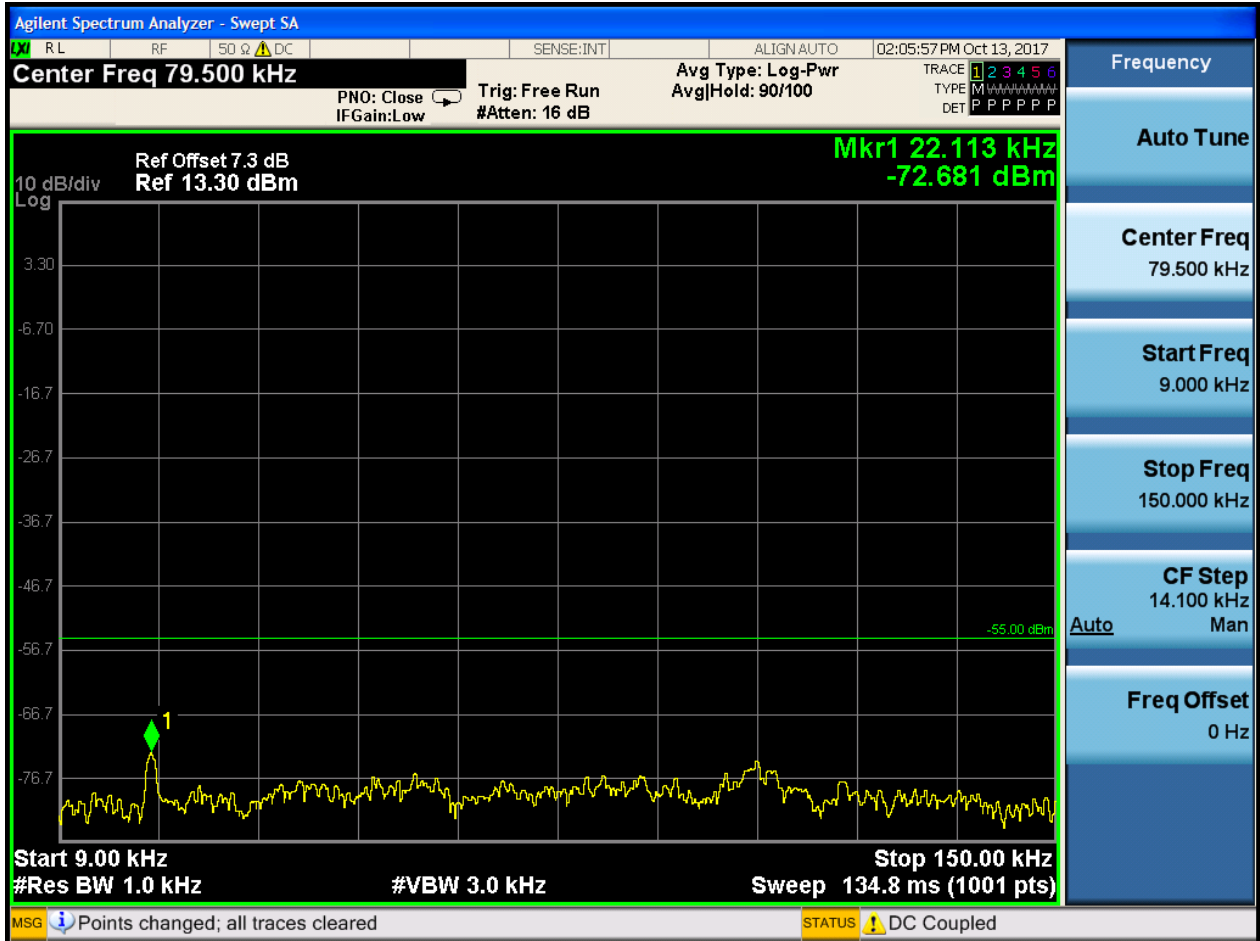






6.1.1.1.4.2 Test Channel = MCH

6.1.1.1.4.2.1 Test RB = RB1#0



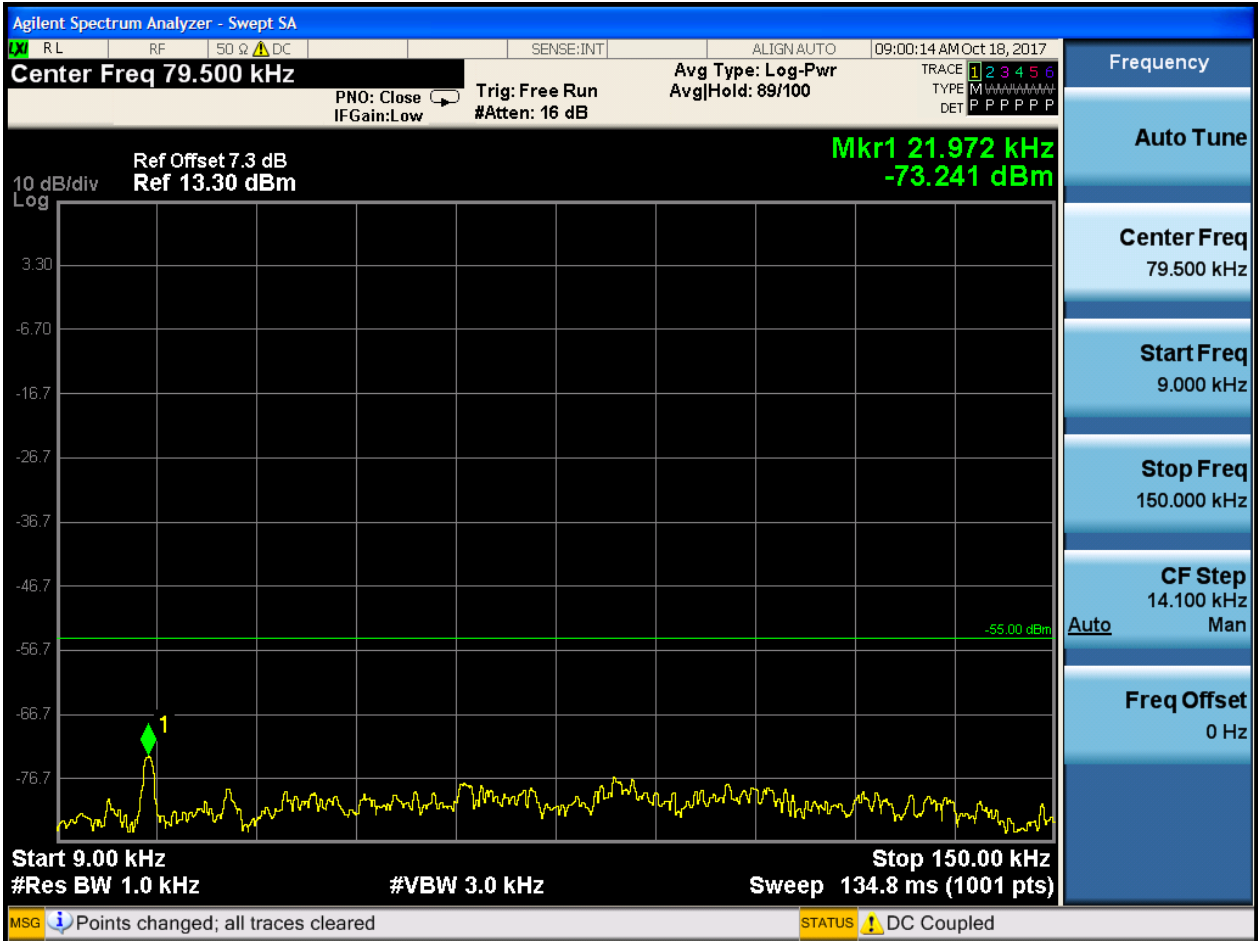


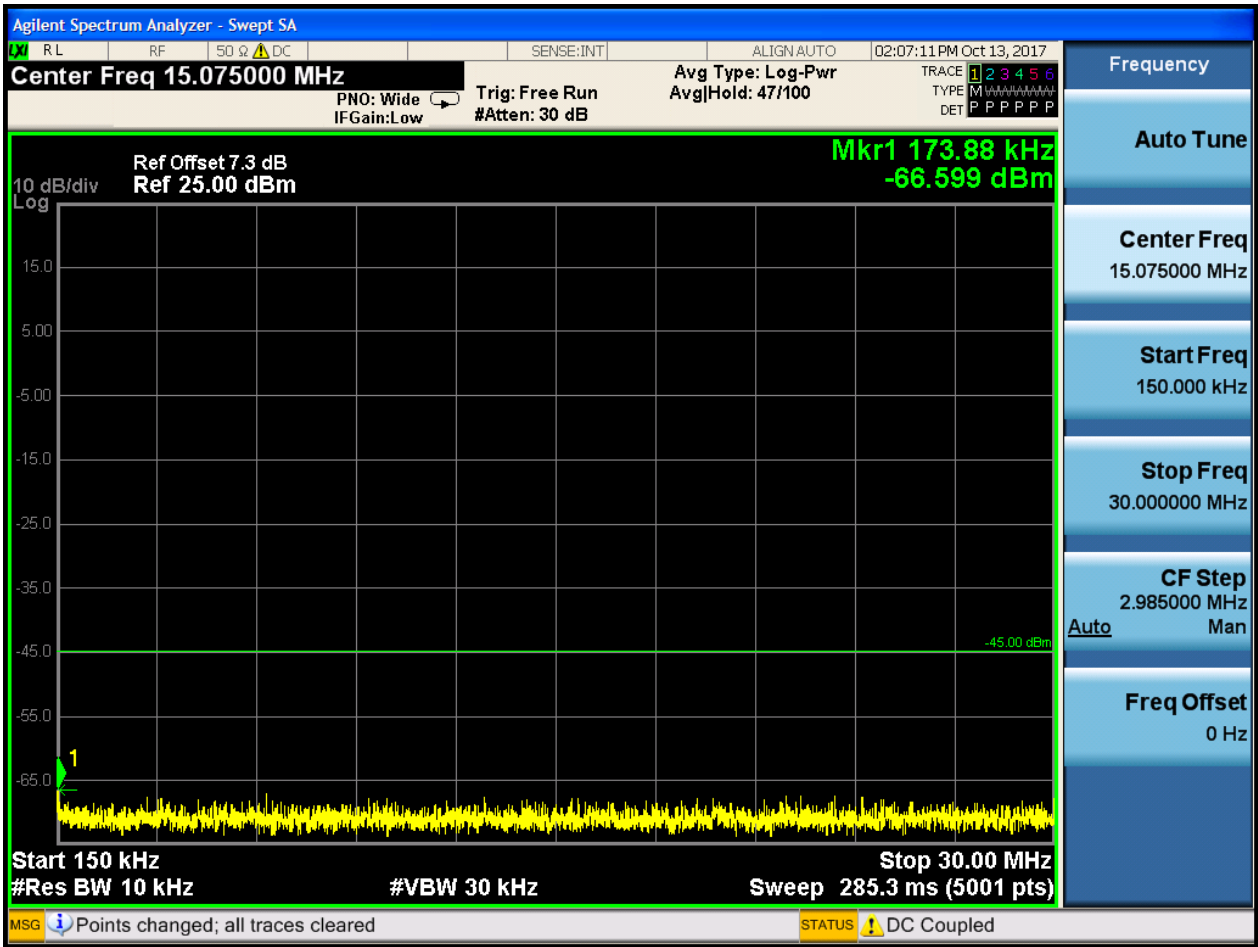




6.1.1.1.4.3 Test Channel = HCH

6.1.1.1.4.3.1 Test RB = RB1#0









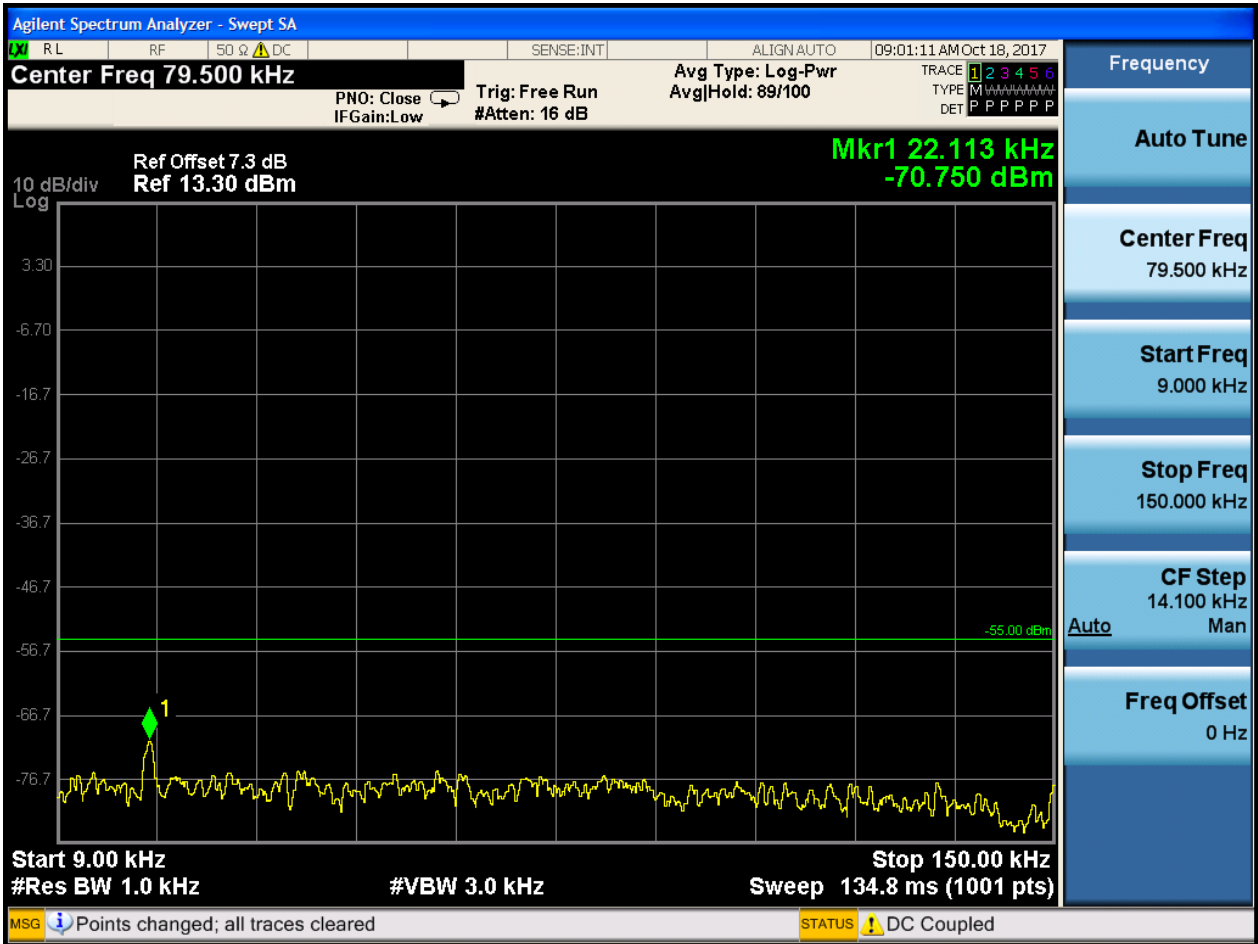


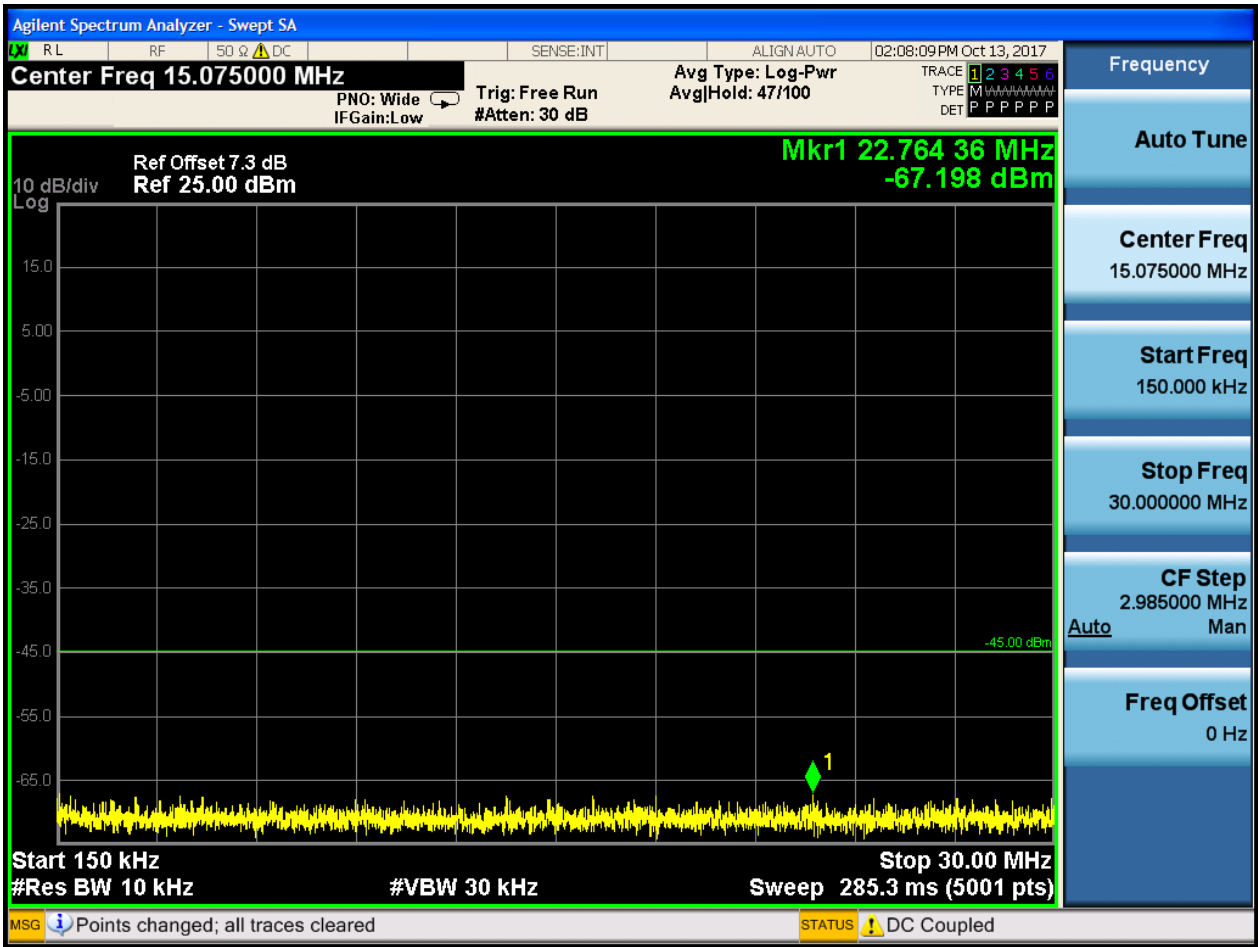
6.1.1.2 Test Mode = LTE/TM2

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



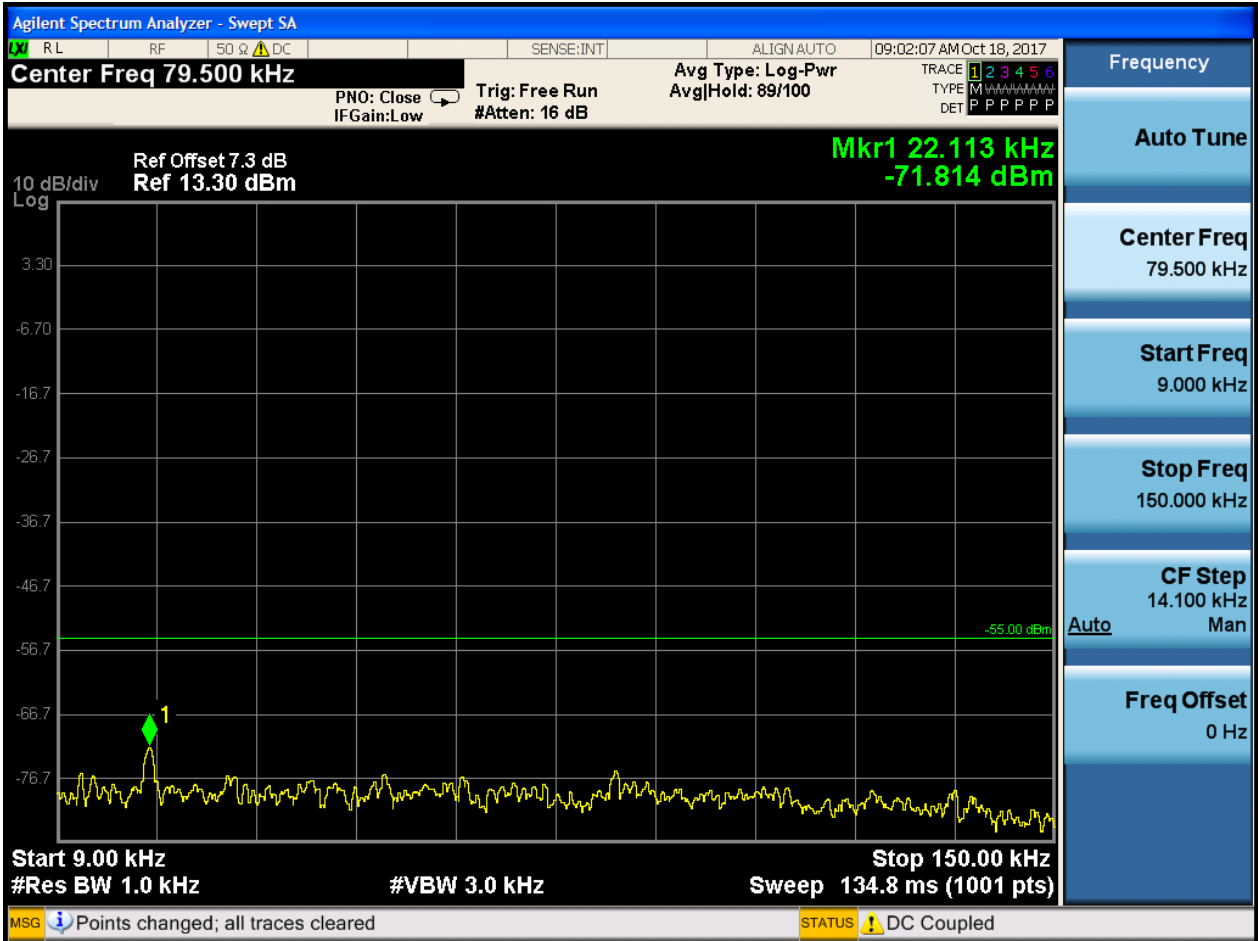


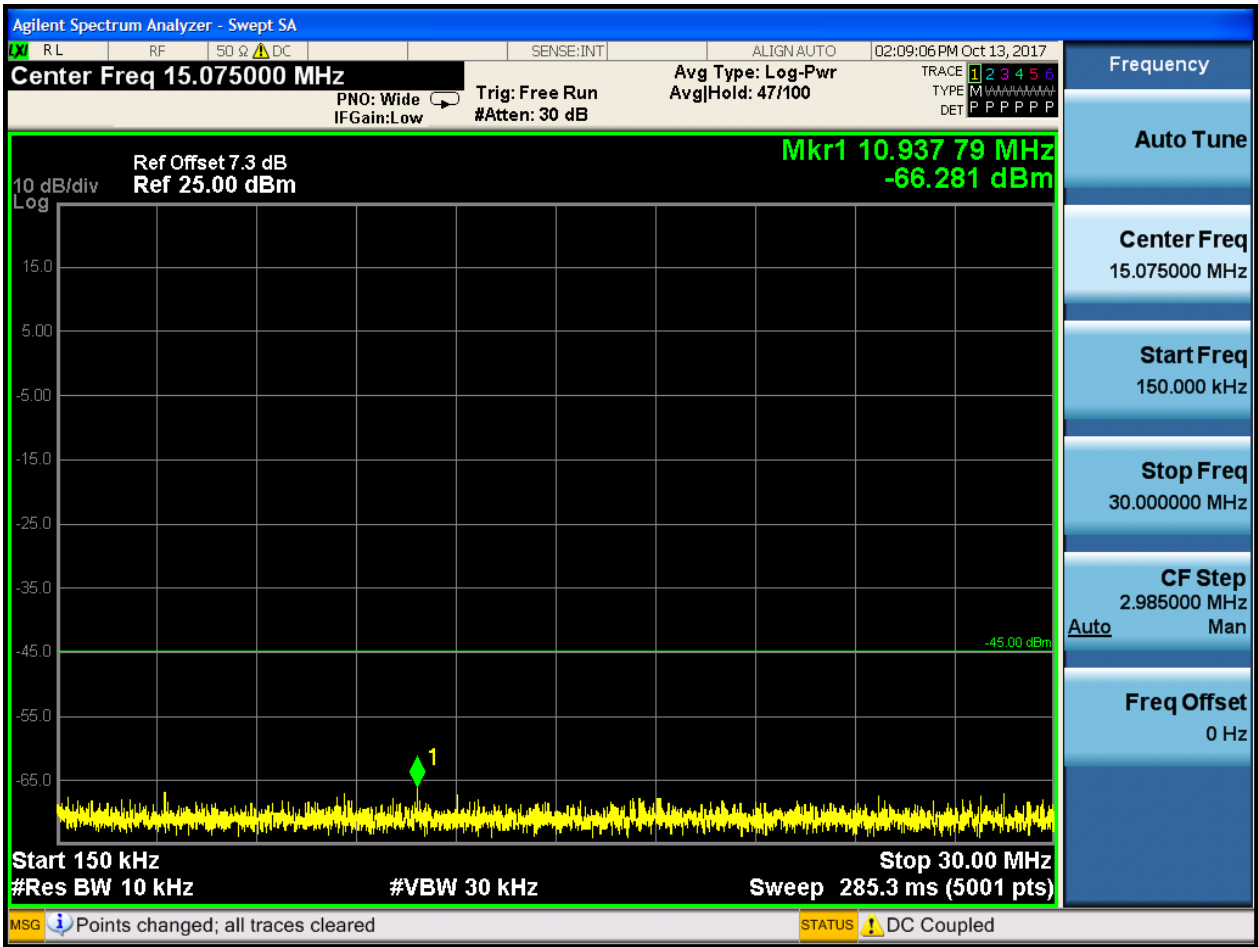




6.1.1.2.1.2 Test Channel = MCH

6.1.1.2.1.2.1 Test RB = RB1#0



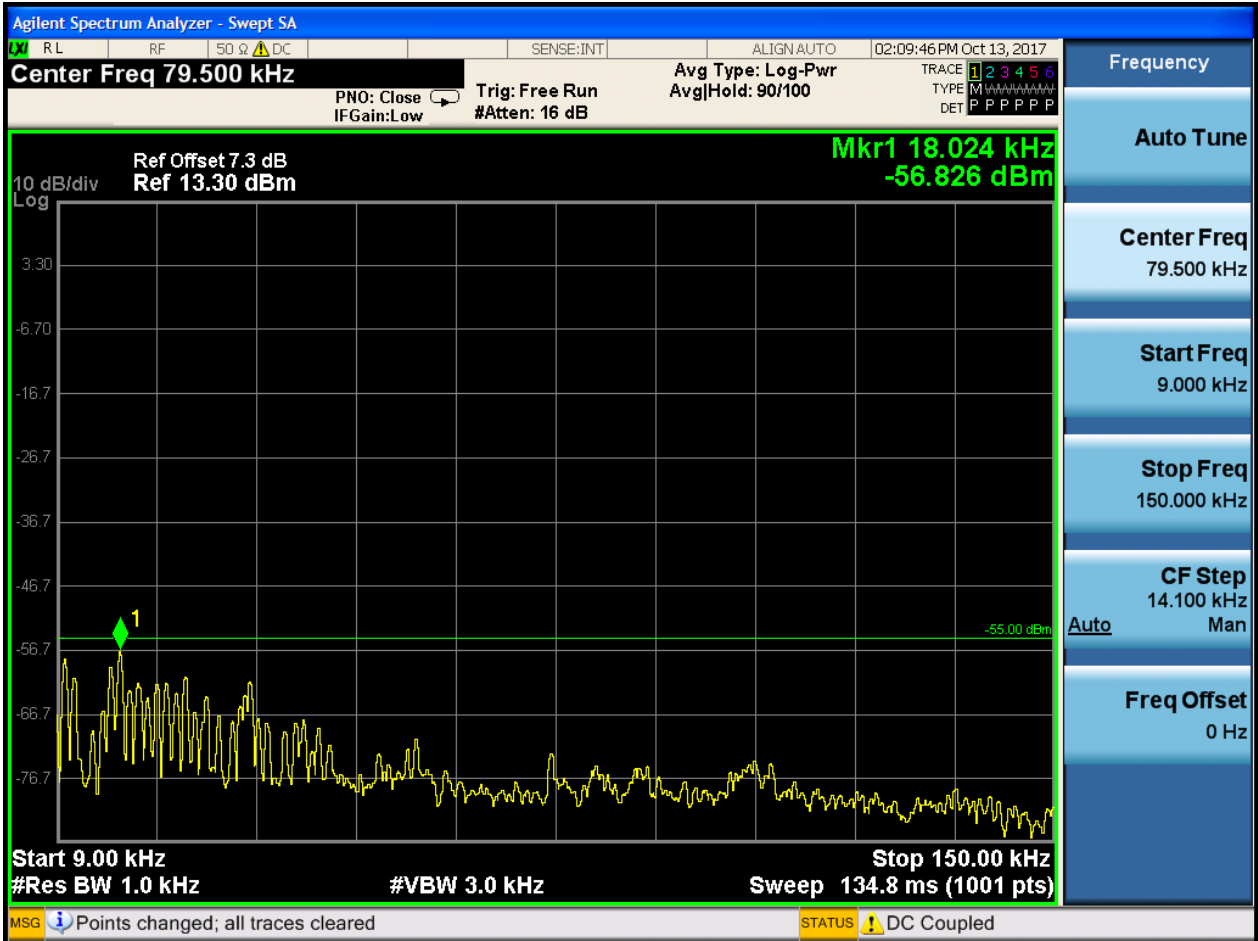






6.1.1.2.1.3 Test Channel = HCH

6.1.1.2.1.3.1 Test RB = RB1#0







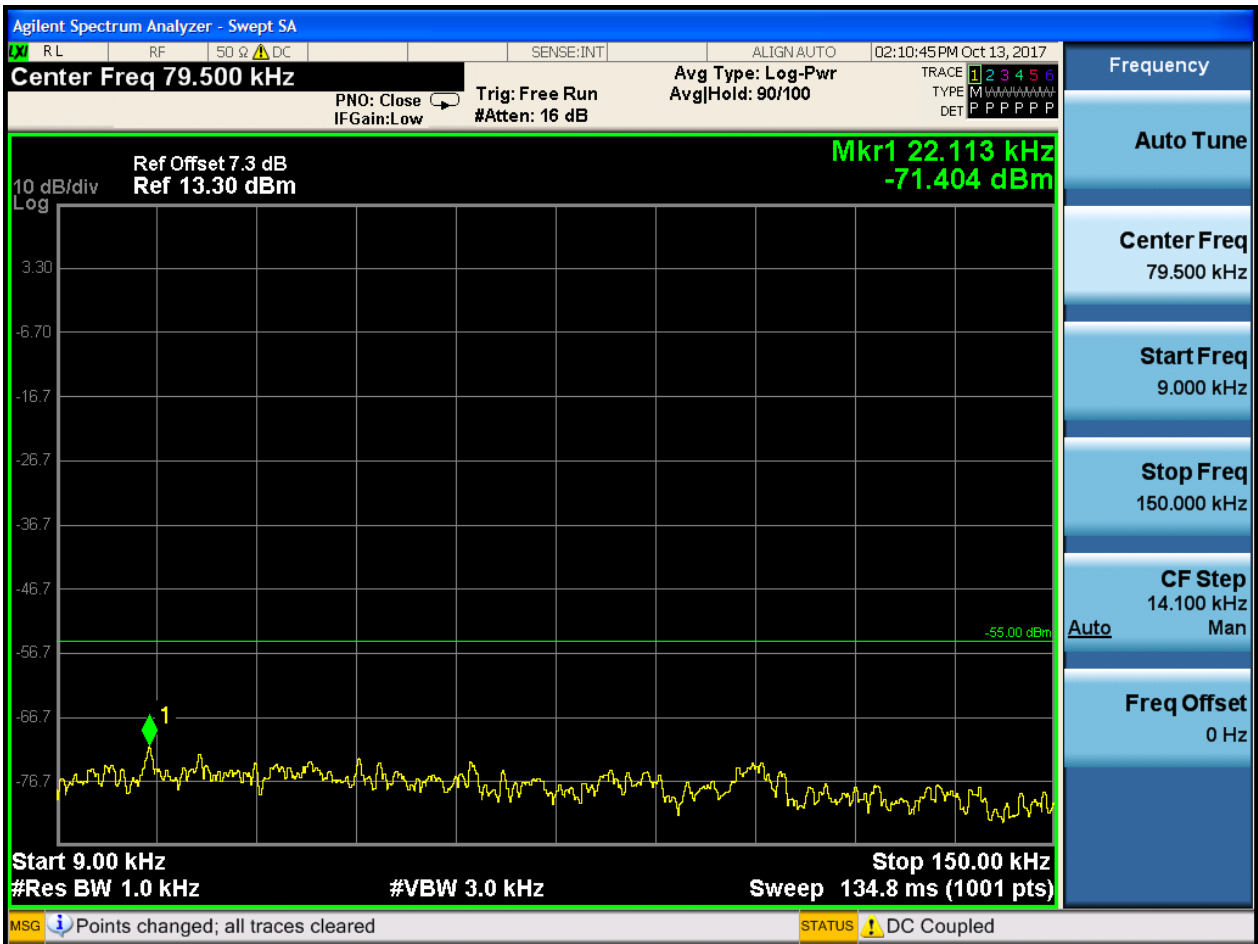


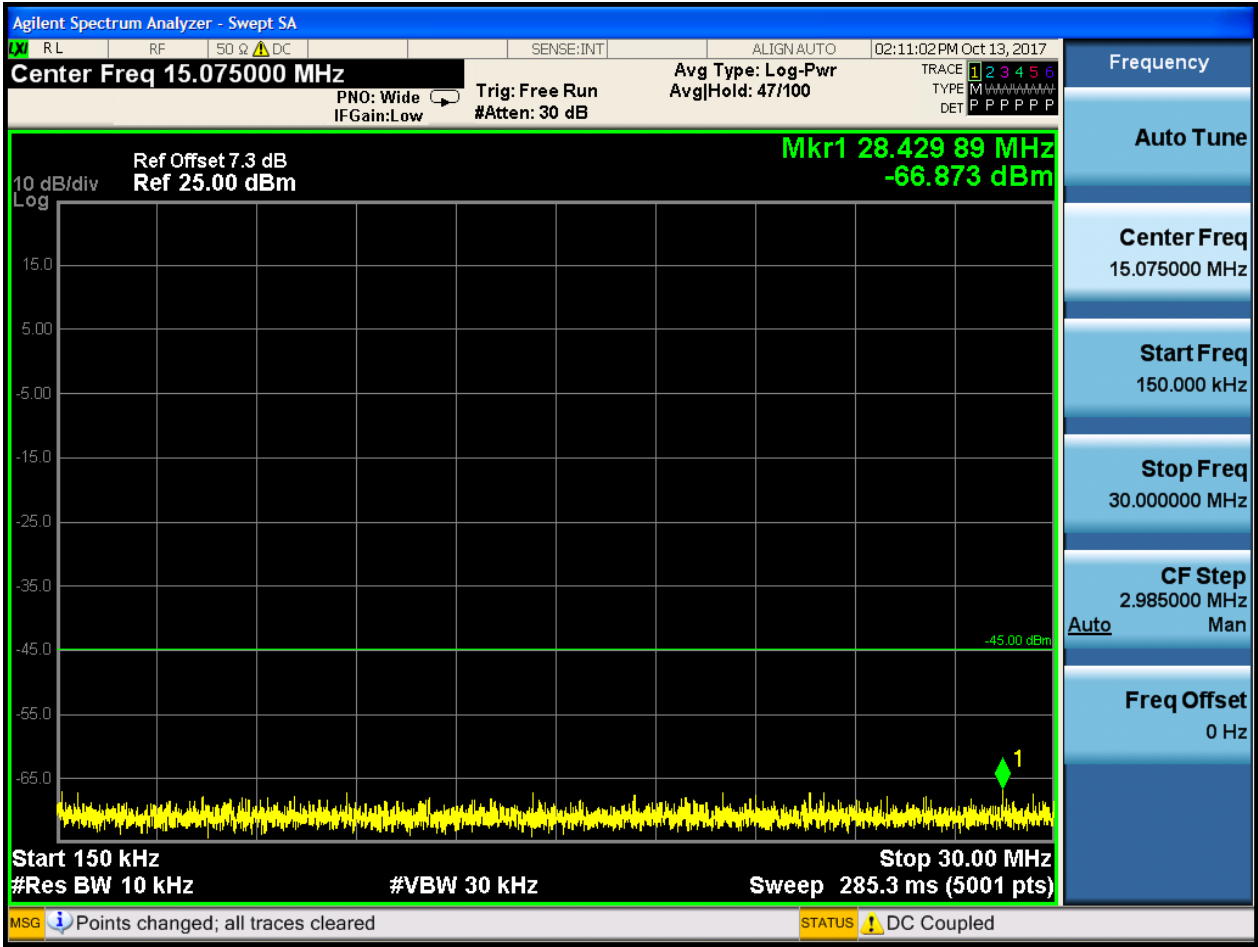


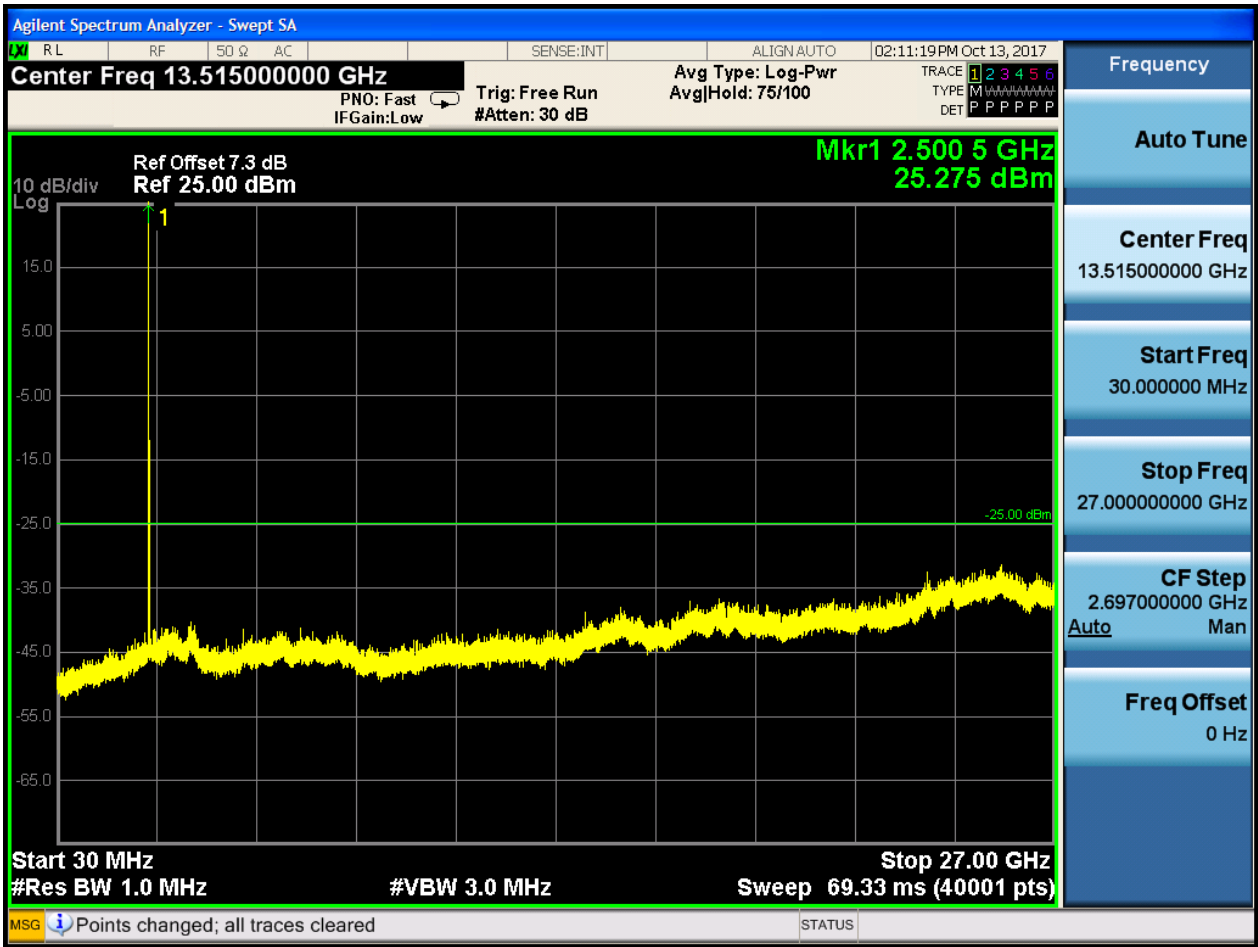
6.1.1.2.2 Test Bandwidth = 10

6.1.1.2.2.1 Test Channel = LCH

6.1.1.2.2.1.1 Test RB = RB1#0



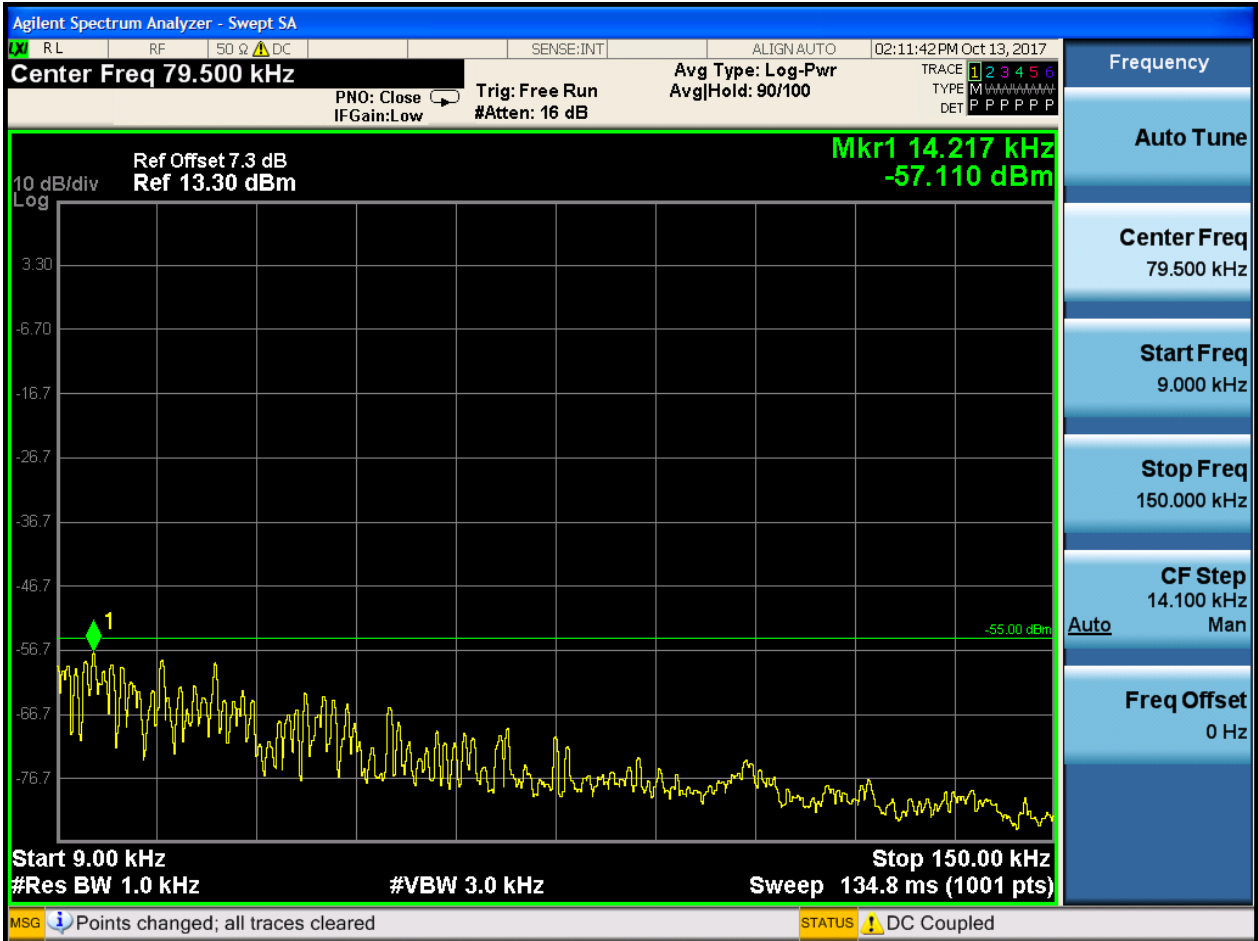


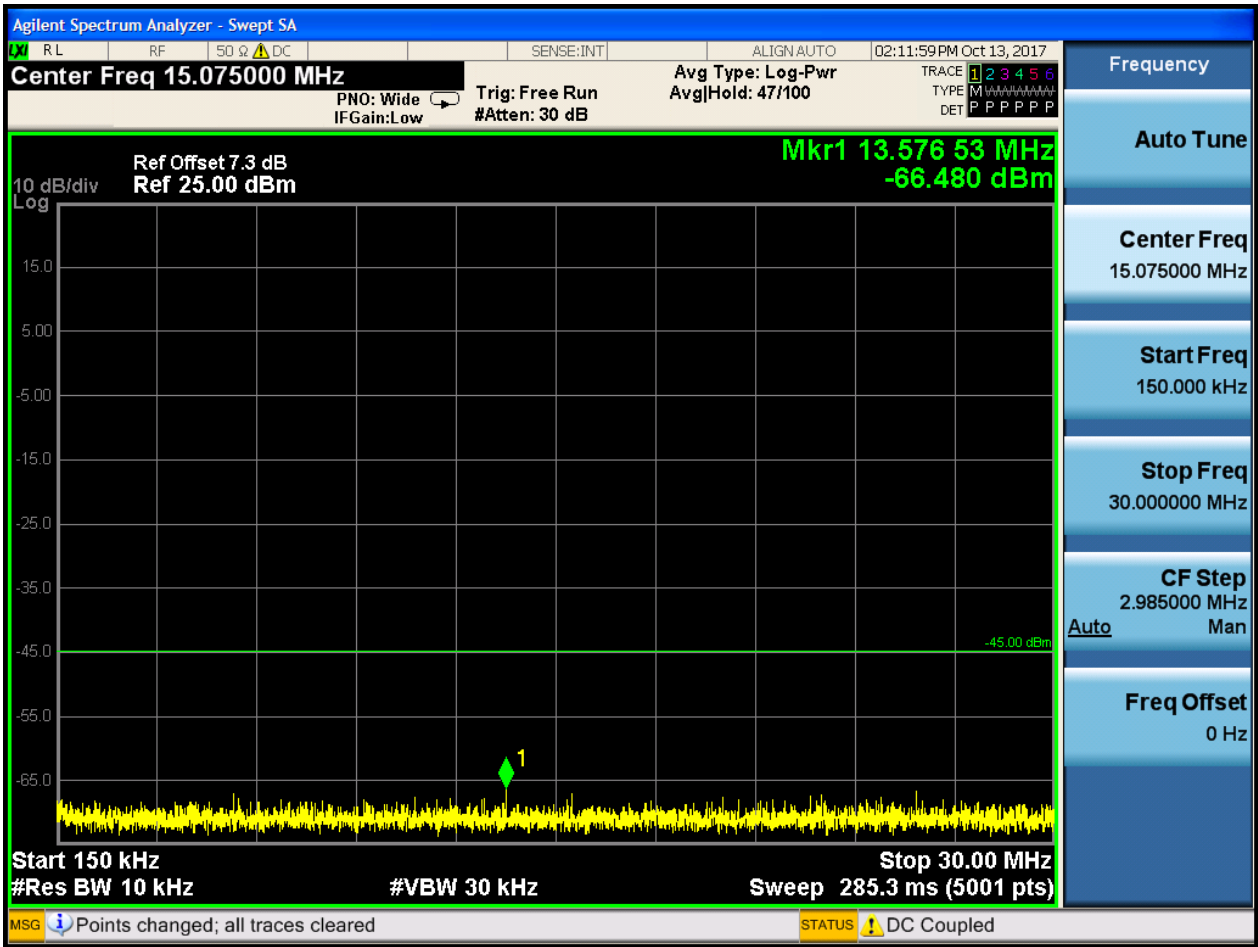


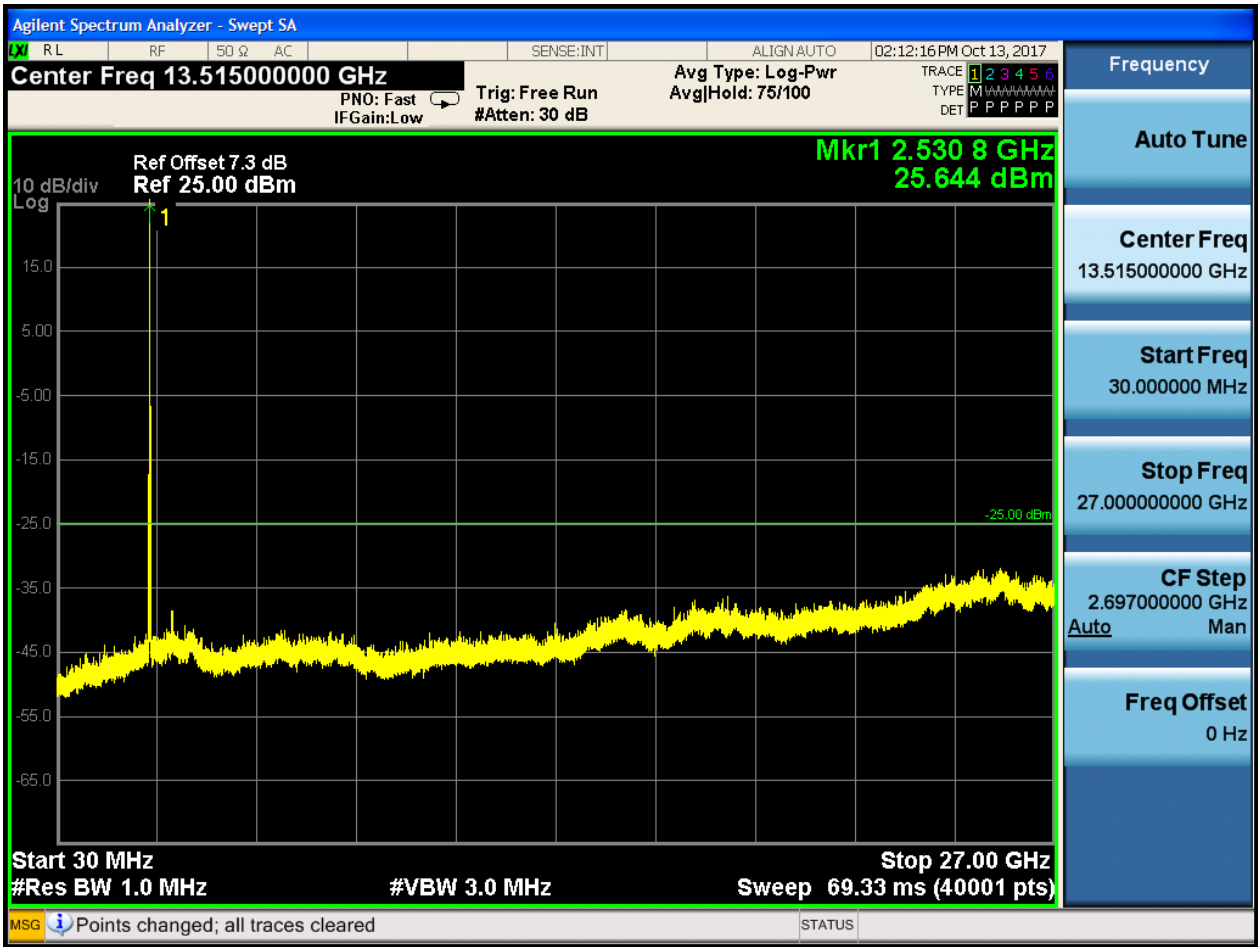


6.1.1.2.2 Test Channel = MCH

6.1.1.2.2.1 Test RB = RB1#0



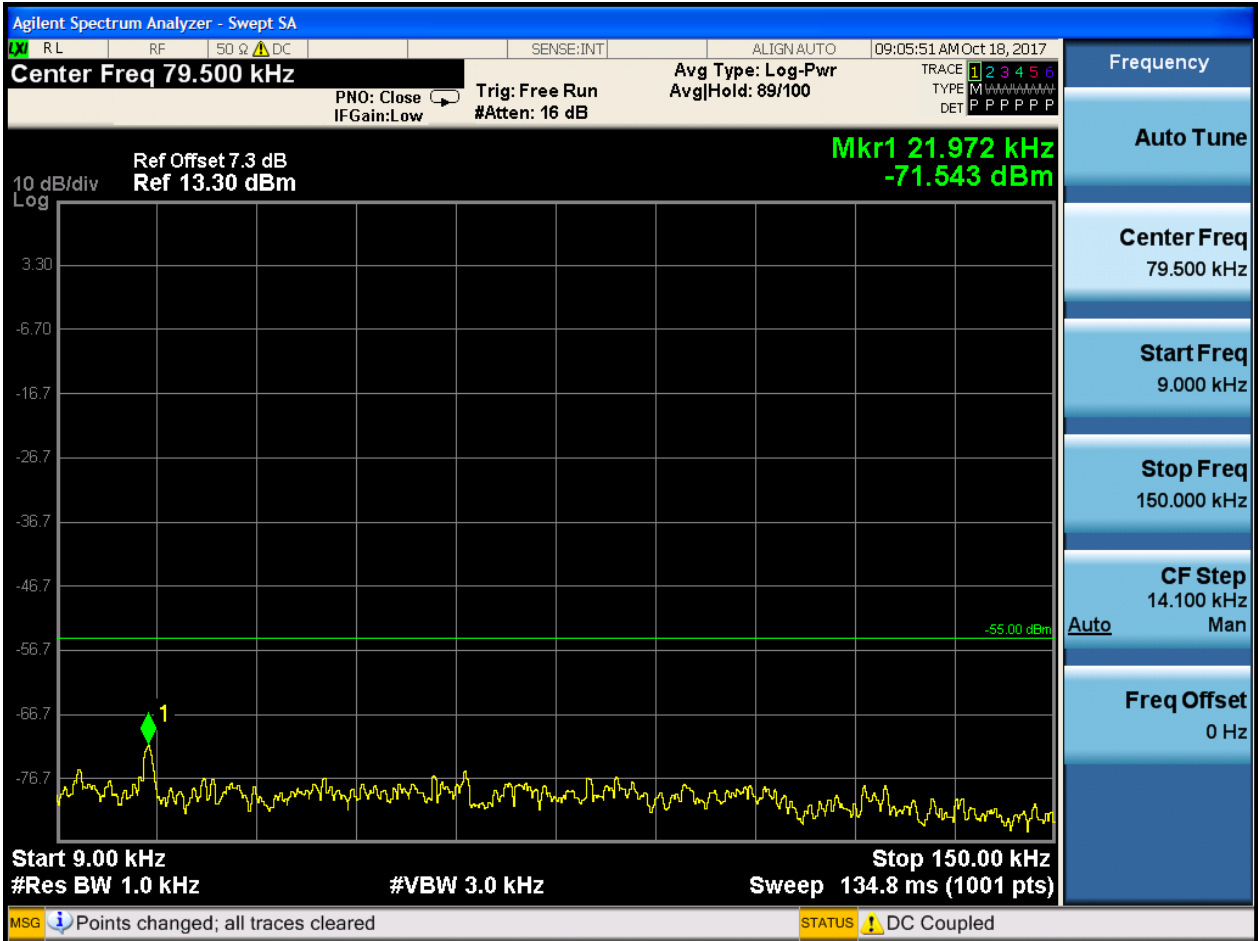




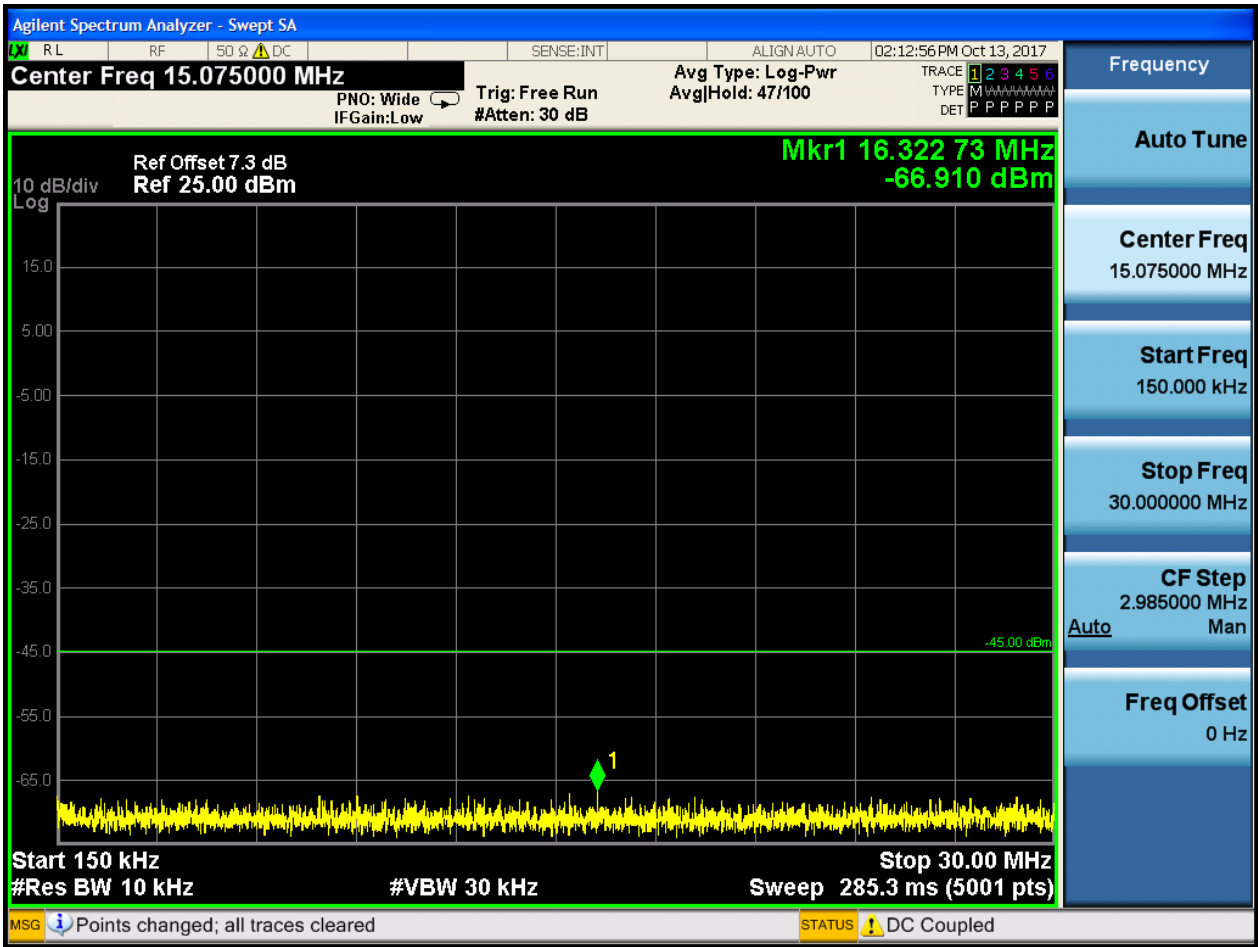


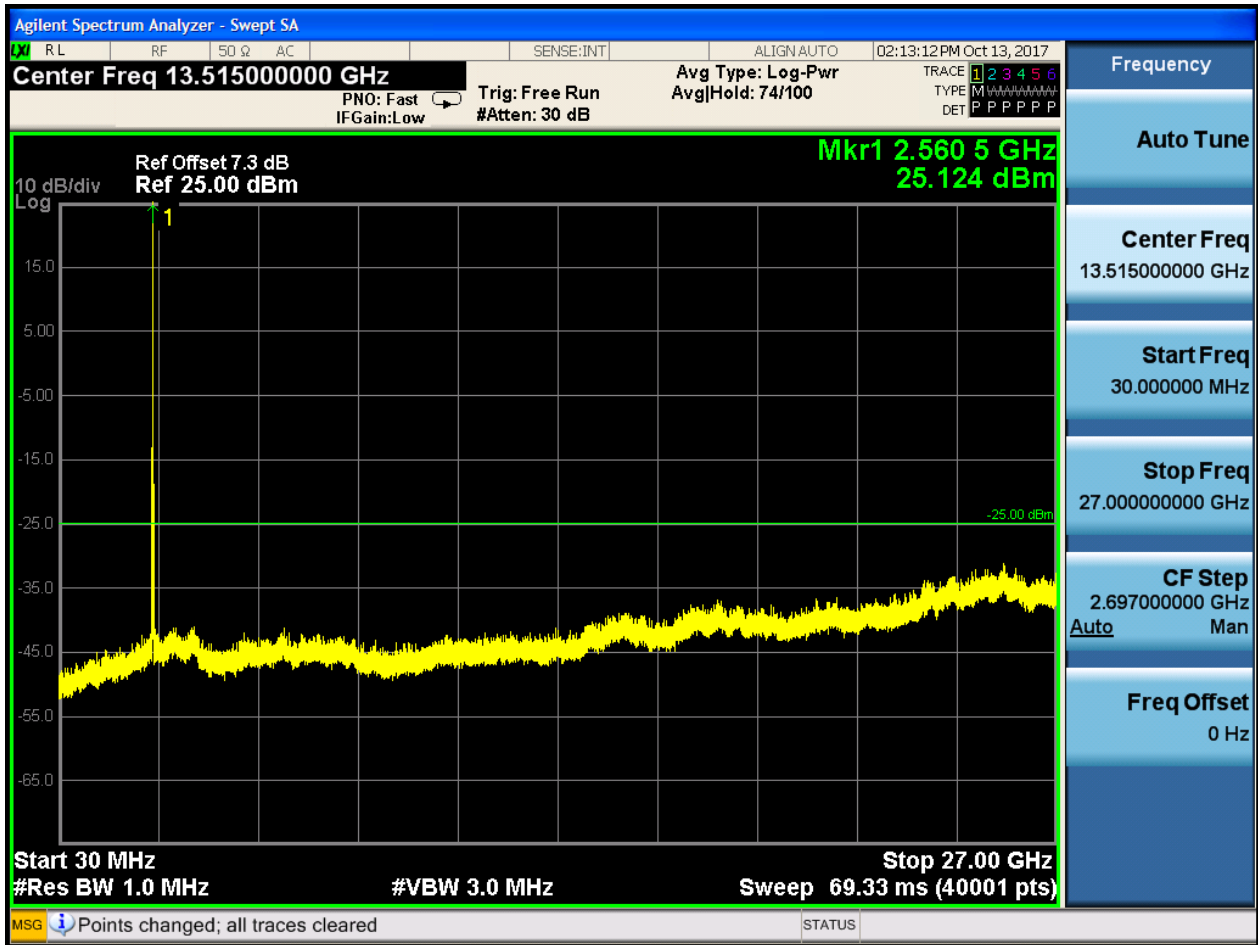
6.1.1.2.2.3 Test Channel = HCH

6.1.1.2.2.3.1 Test RB = RB1#0







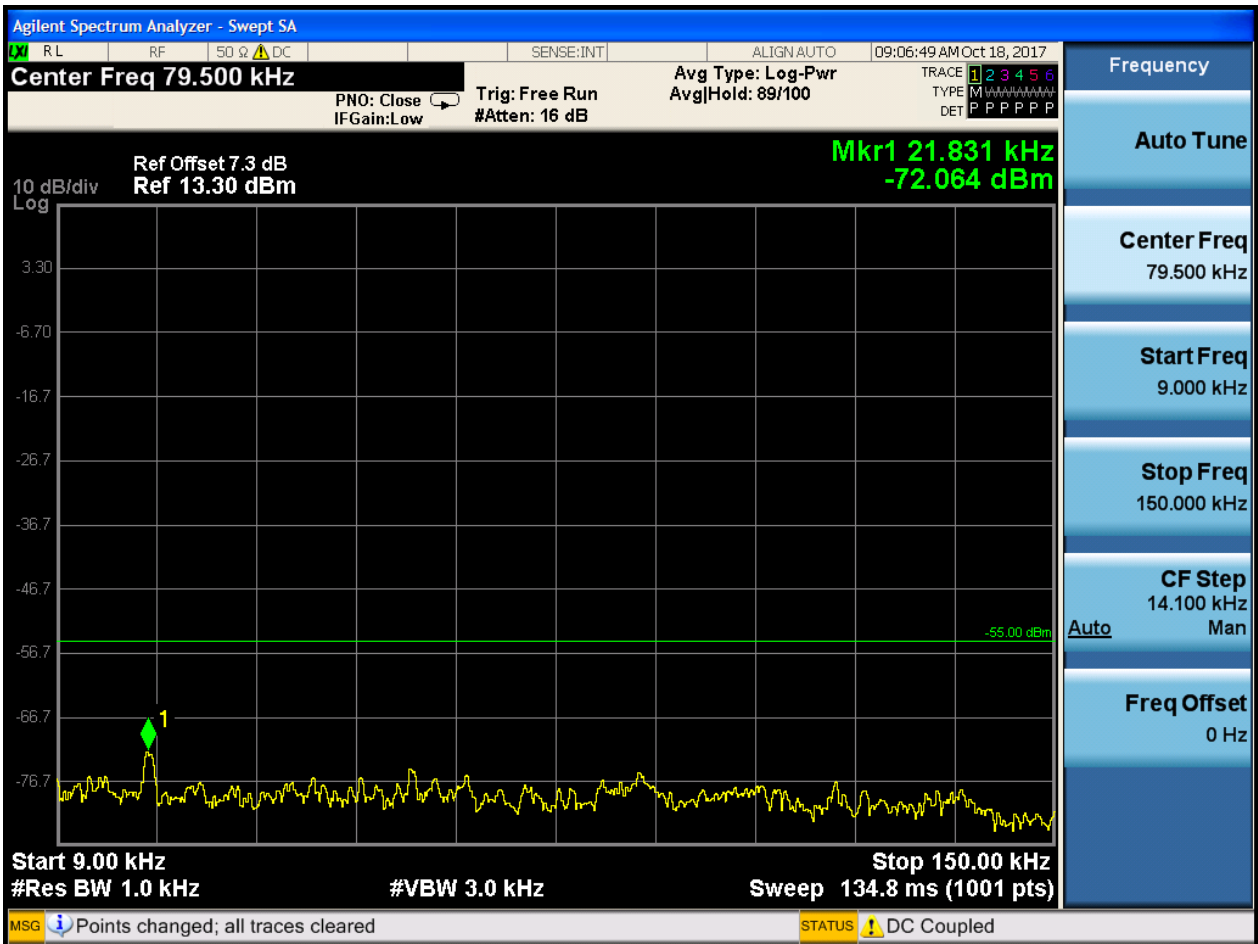


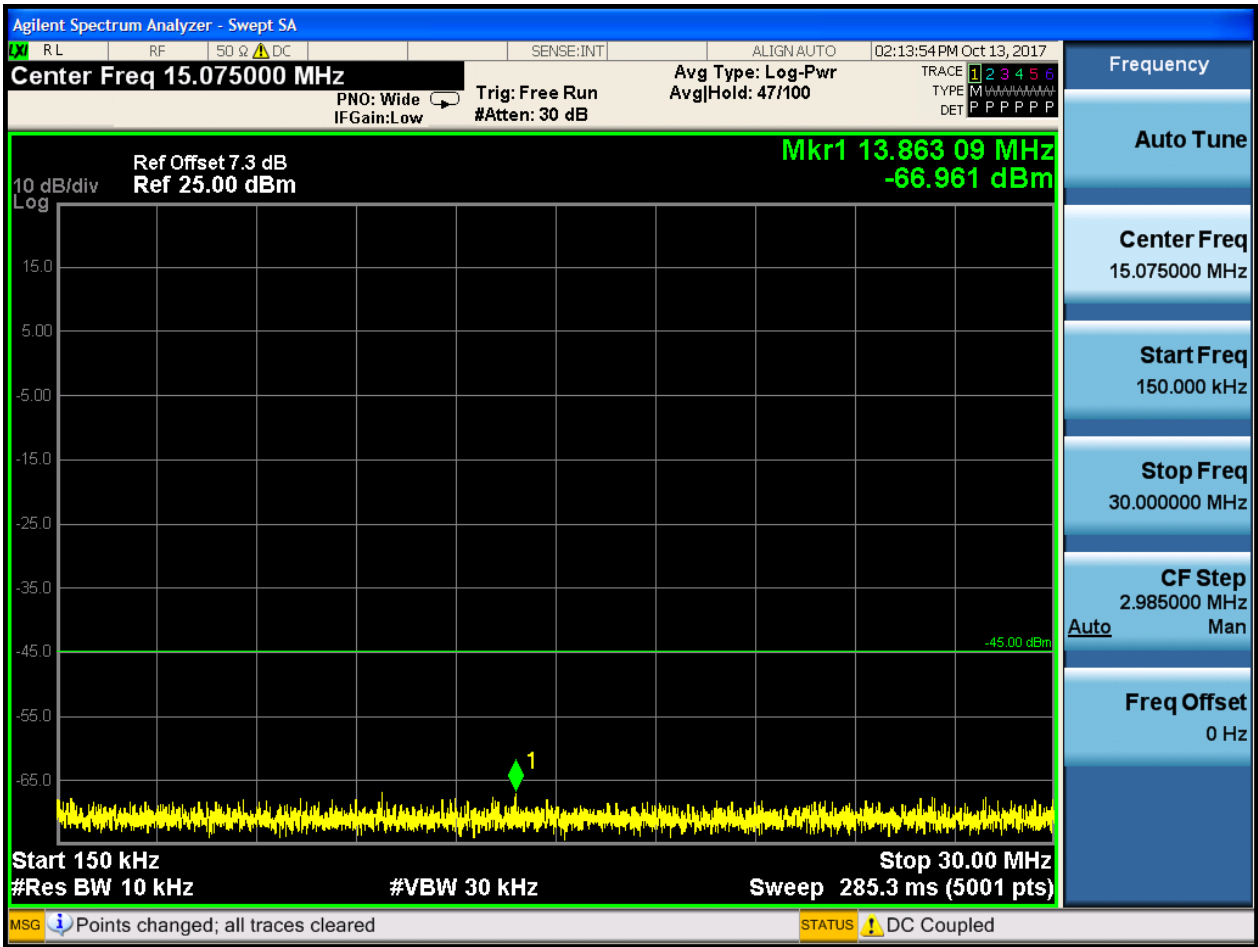


6.1.1.2.3 Test Bandwidth = 15

6.1.1.2.3.1 Test Channel = LCH

6.1.1.2.3.1.1 Test RB = RB1#0



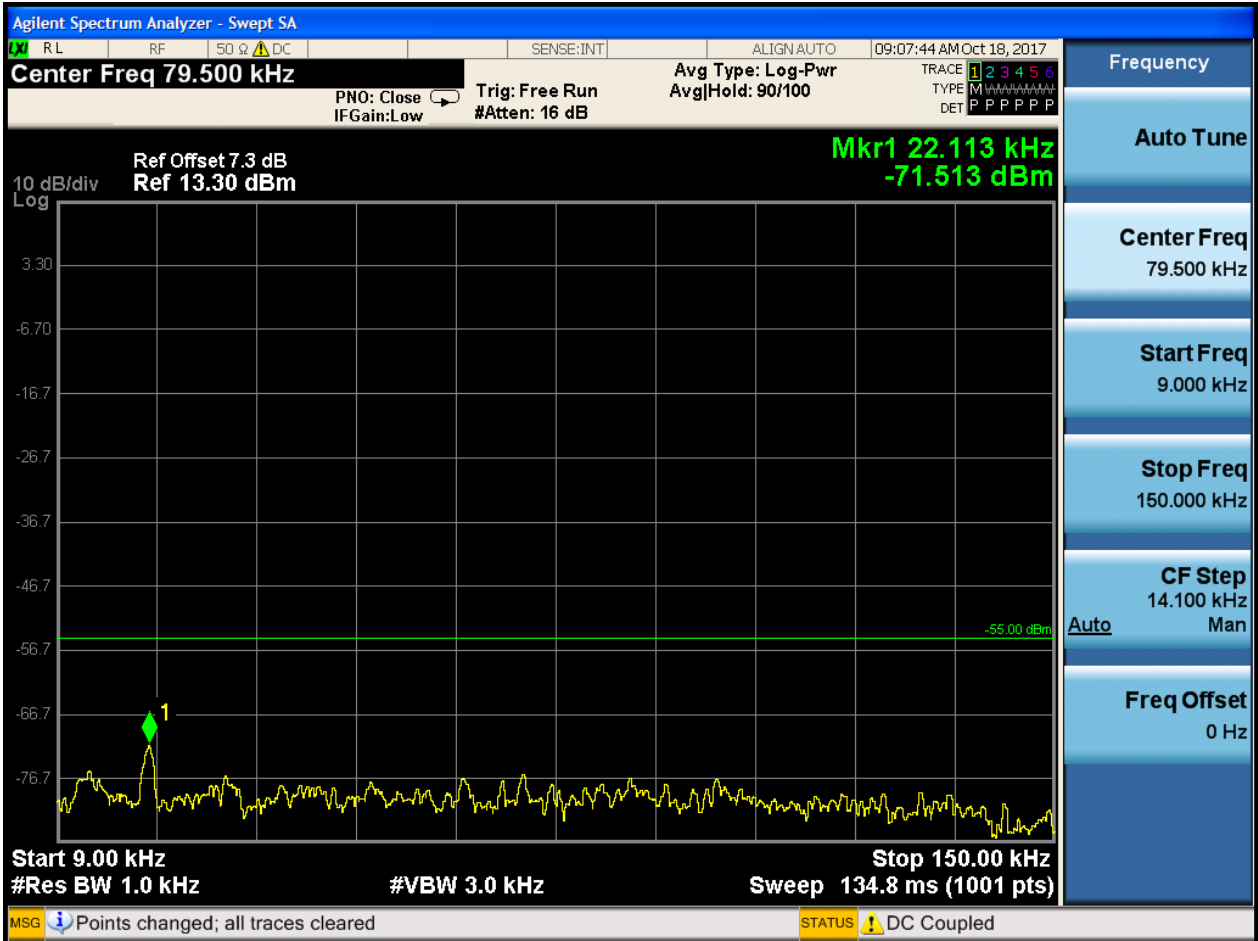


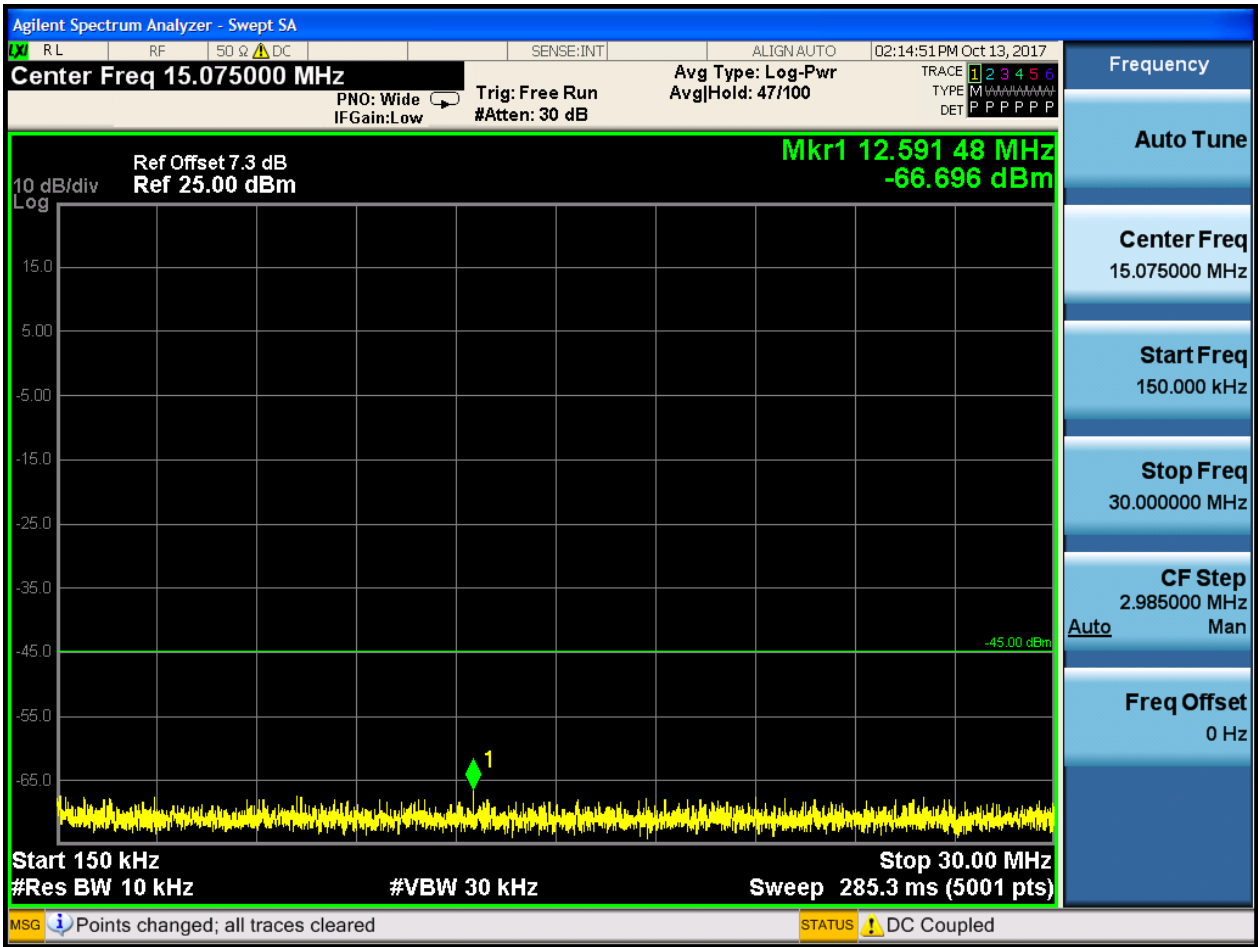




### 6.1.1.2.3.2 Test Channel = MCH

#### 6.1.1.2.3.2.1 Test RB = RB1#0





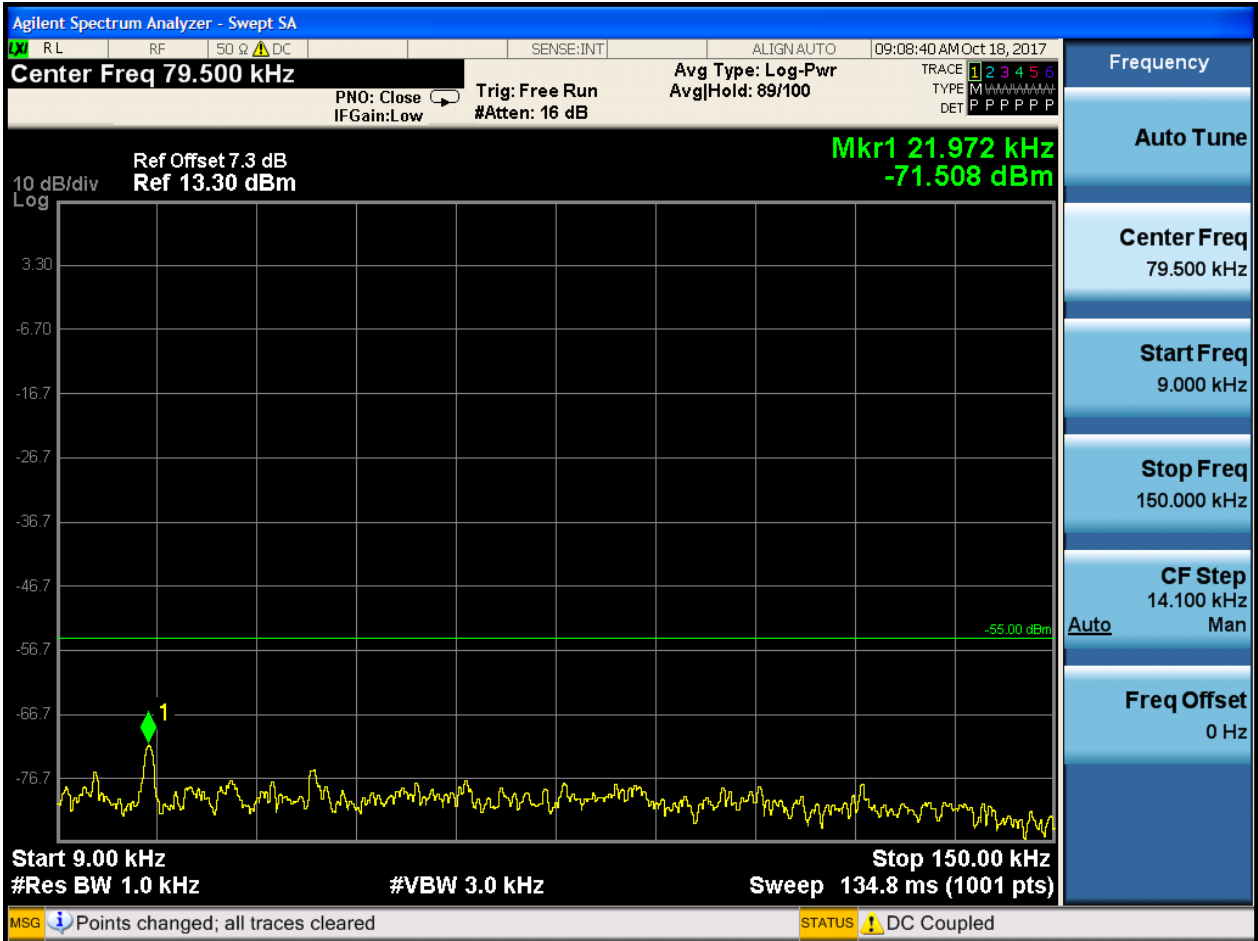


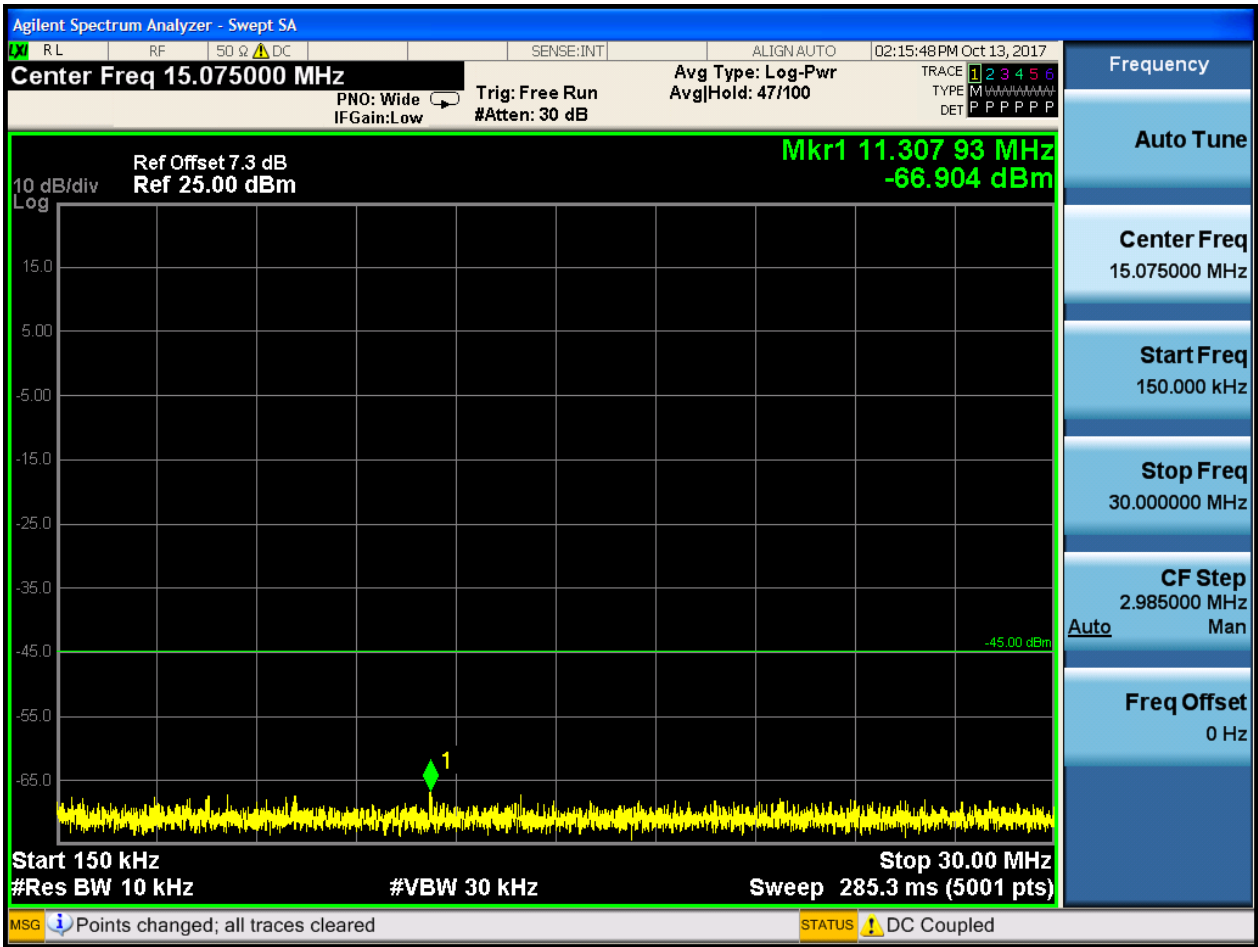


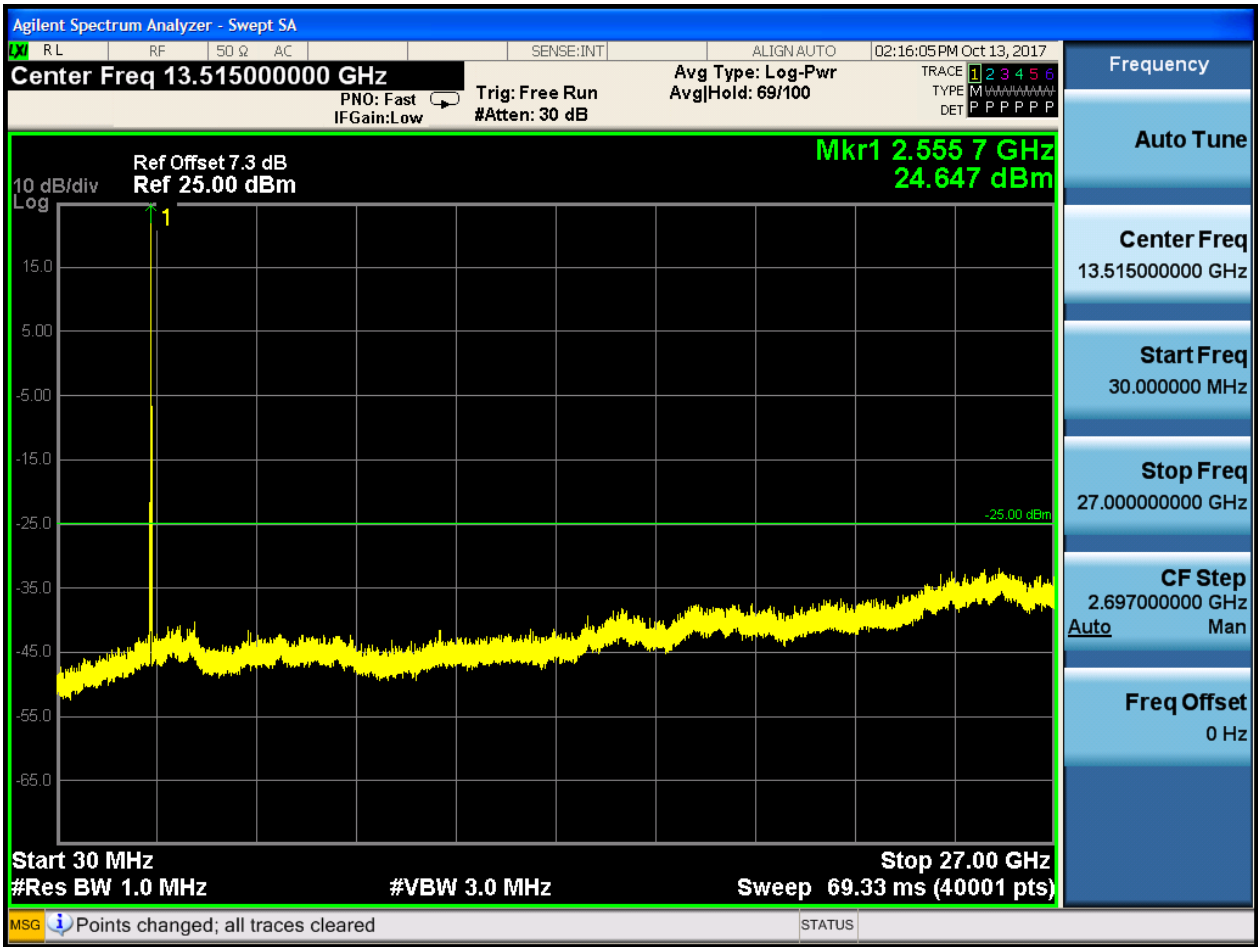


6.1.1.2.3.3 Test Channel = HCH

6.1.1.2.3.3.1 Test RB = RB1#0





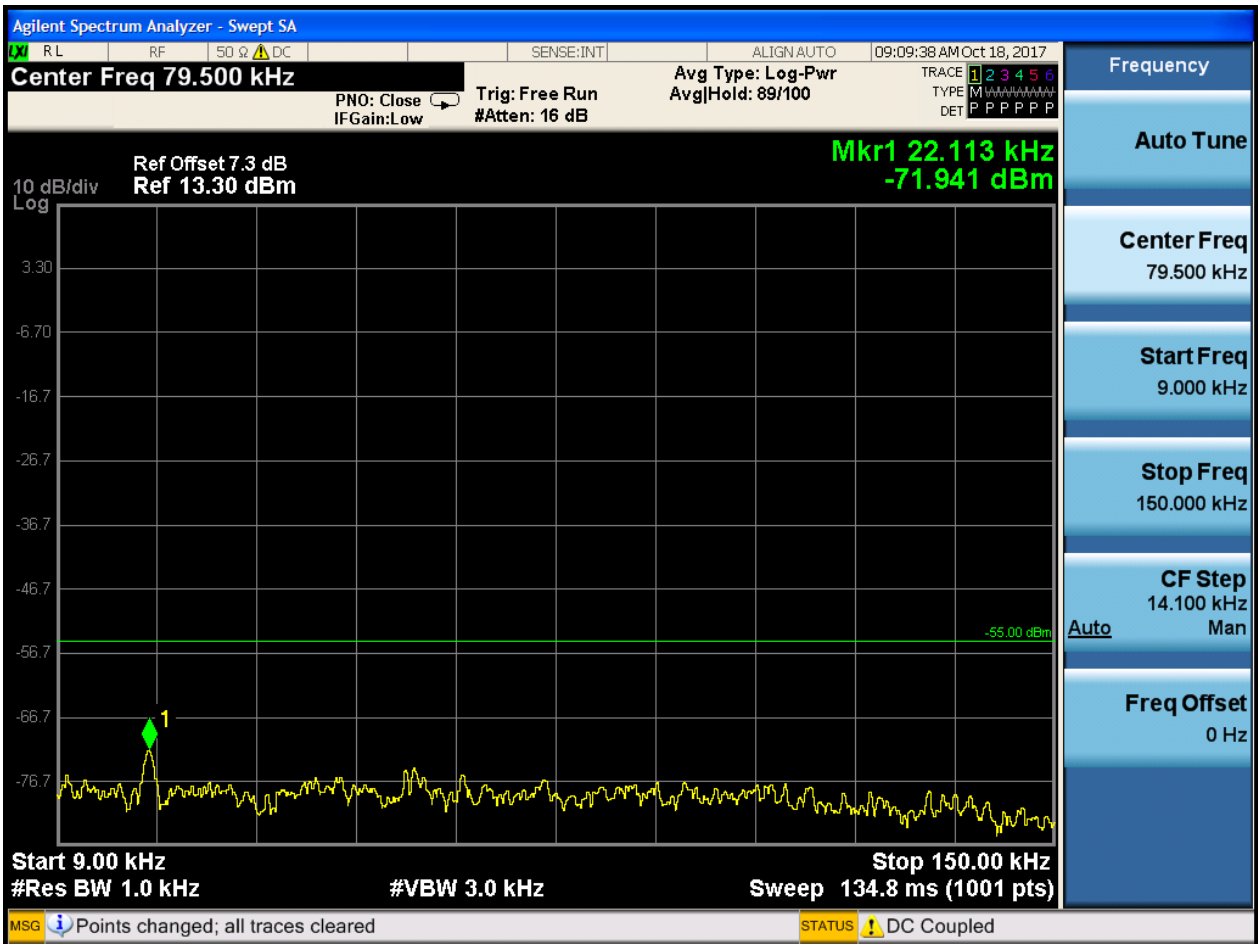


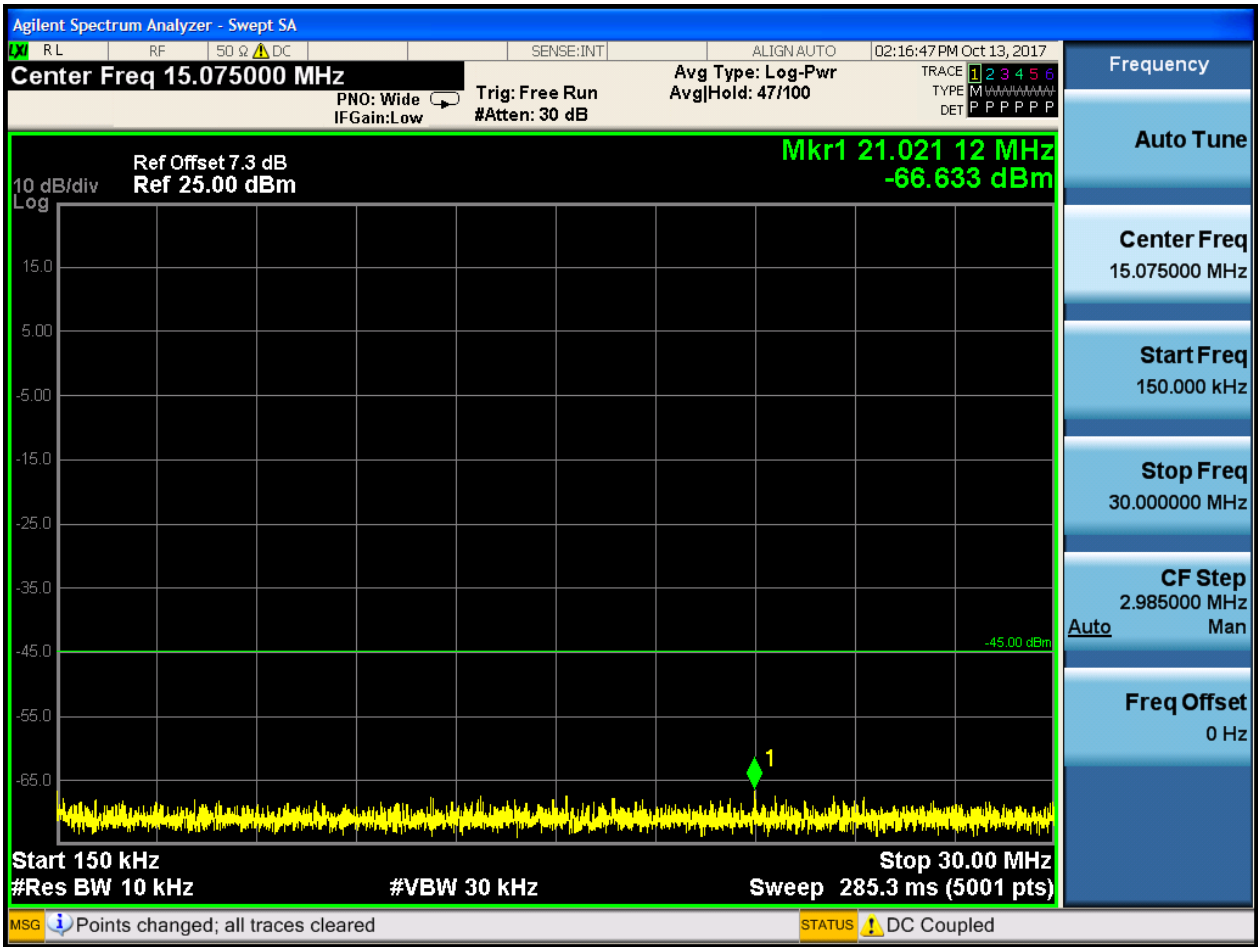


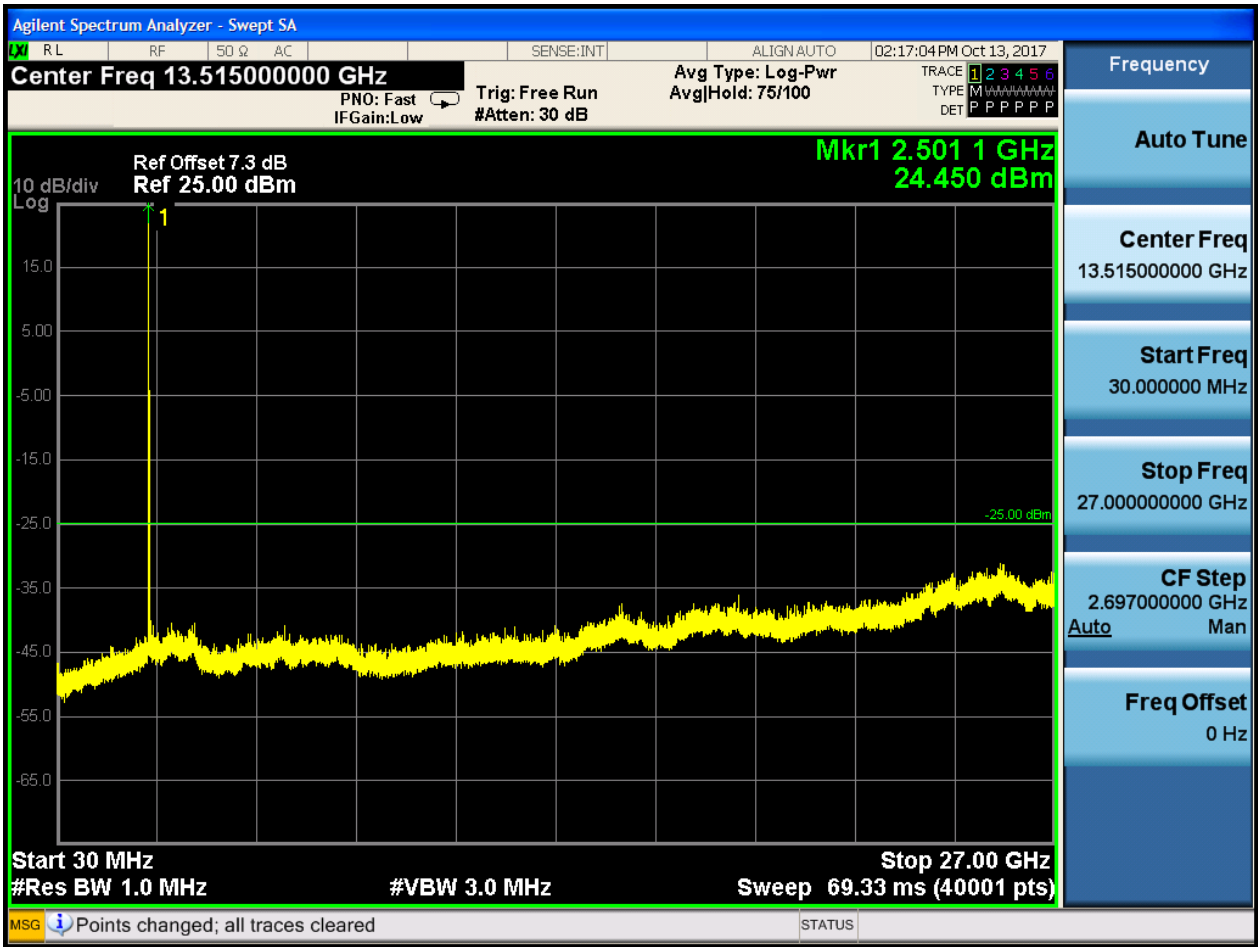
6.1.1.2.4 Test Bandwidth = 20

6.1.1.2.4.1 Test Channel = LCH

6.1.1.2.4.1.1 Test RB = RB1#0



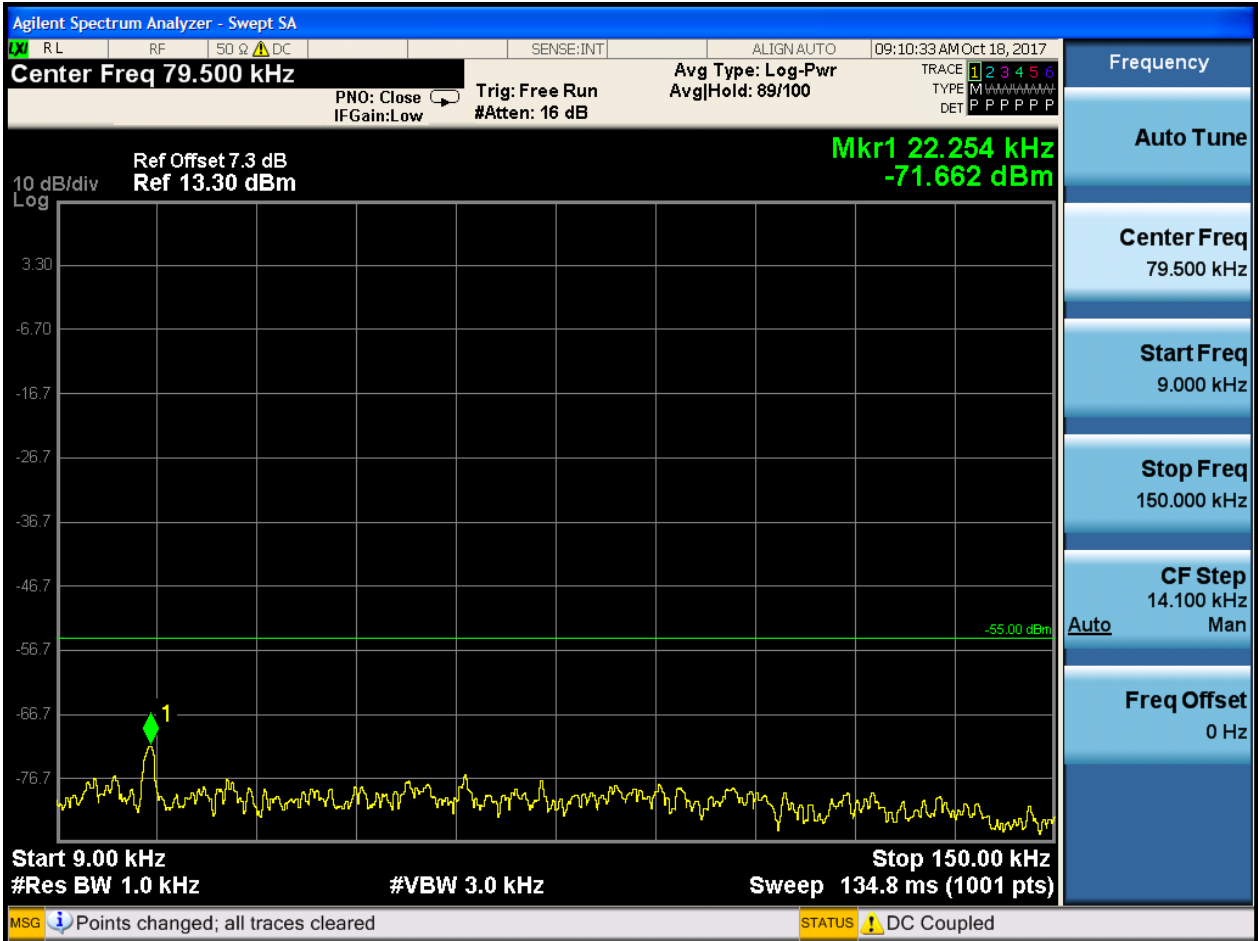


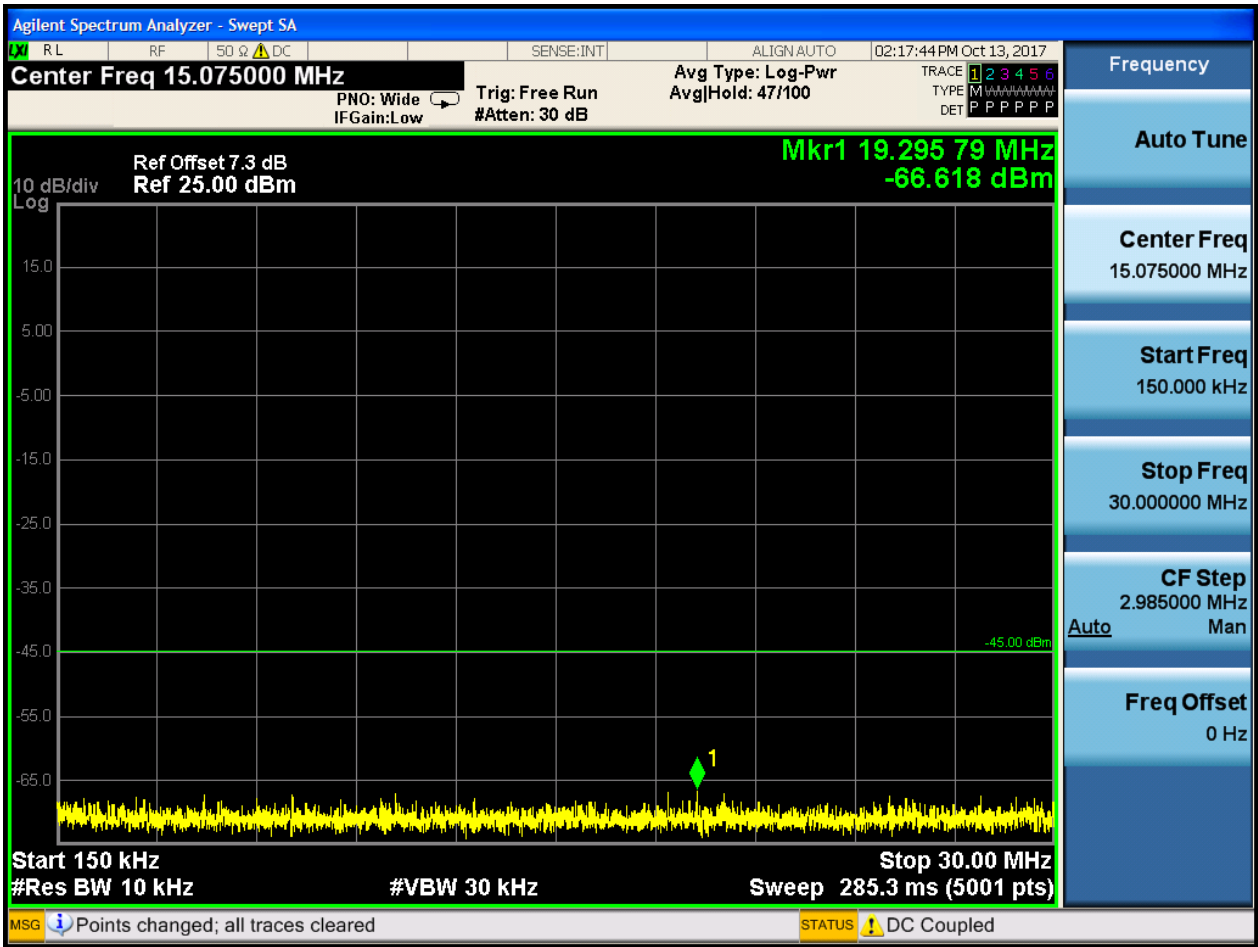




6.1.1.2.4.2 Test Channel = MCH

6.1.1.2.4.2.1 Test RB = RB1#0





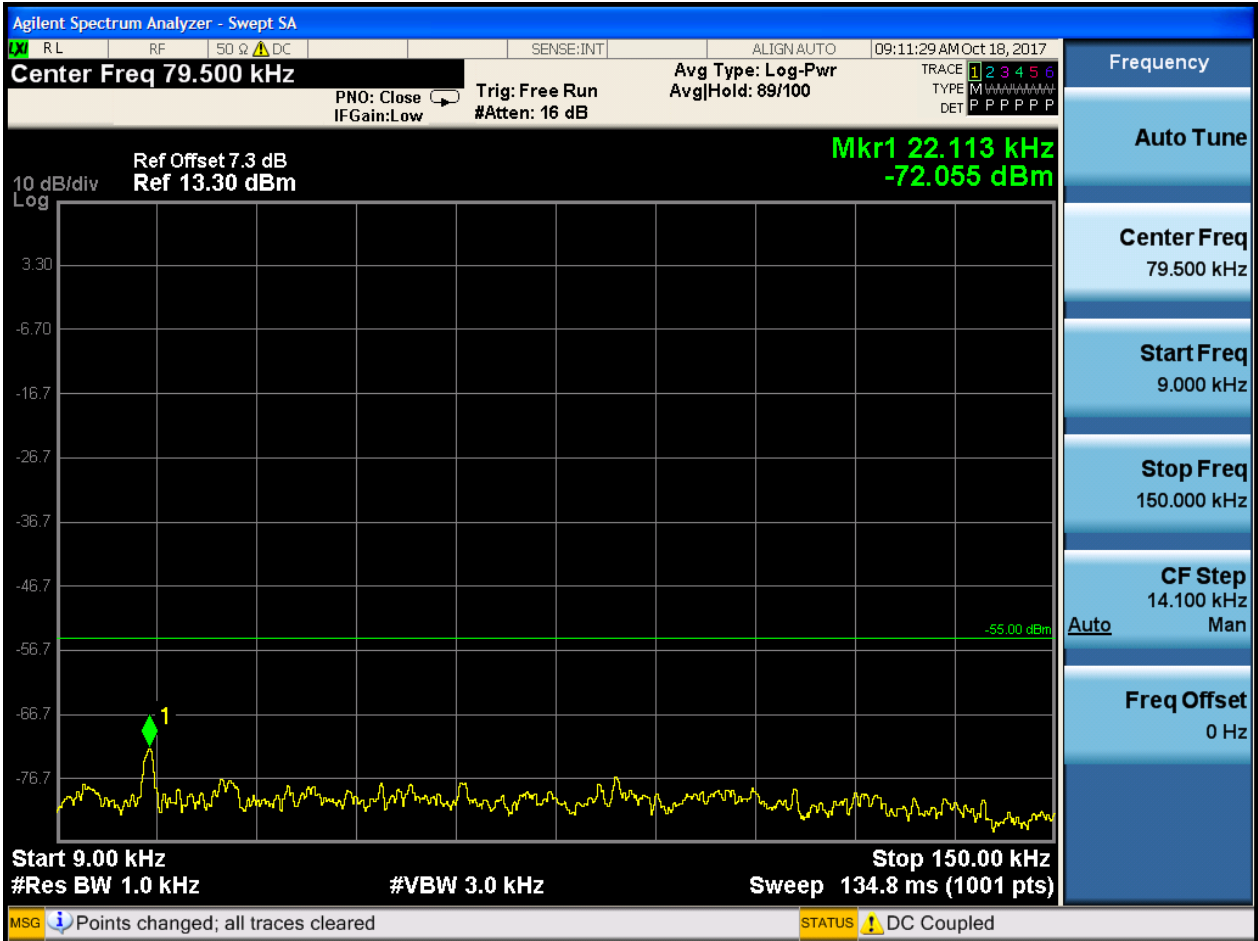


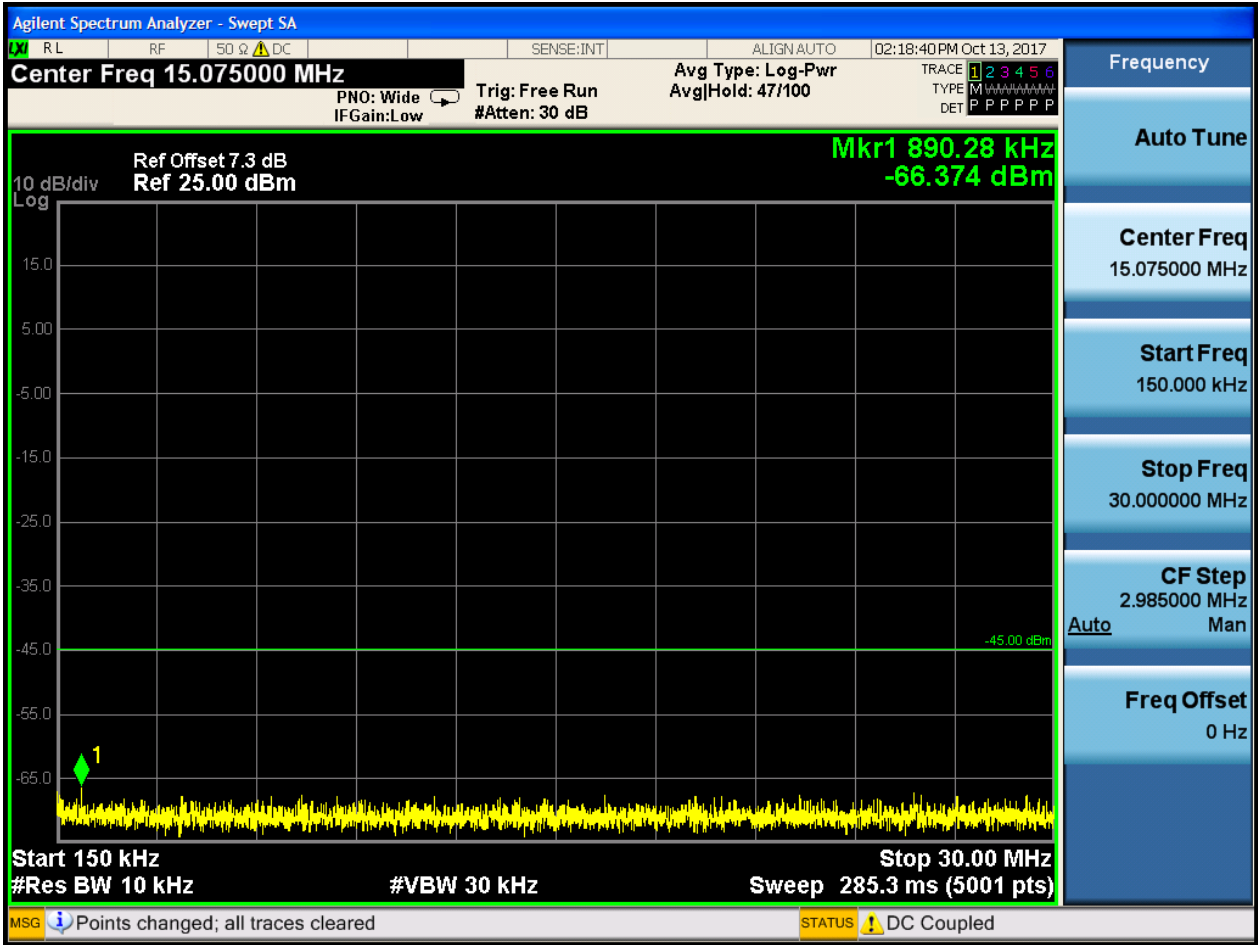




6.1.1.2.4.3 Test Channel = HCH

6.1.1.2.4.3.1 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, RBW = 200Hz, VBW = 600 Hz, Detector: PK

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

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

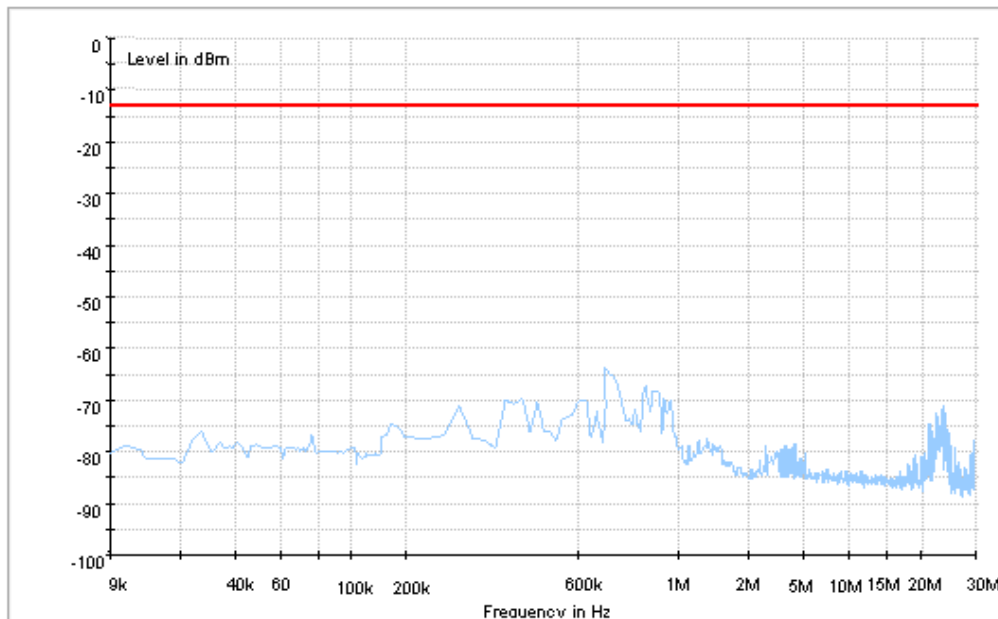
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

### Part I - Test Plots

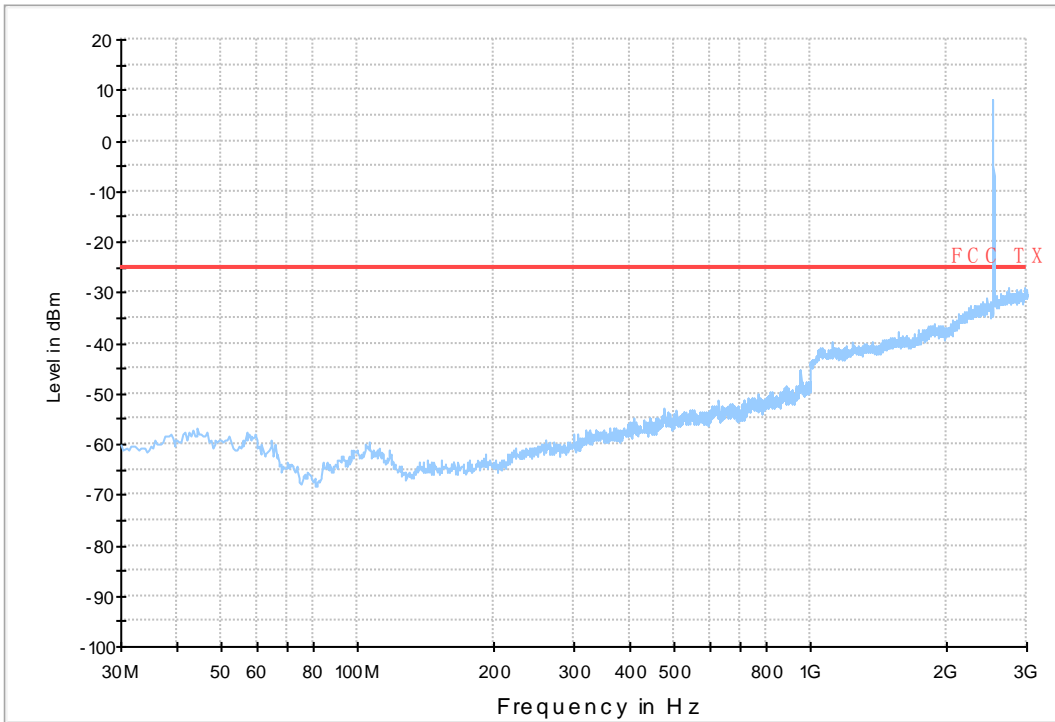
#### 7.1 For LTE

##### 7.1.1 Test Band = BAND7\_ANT1

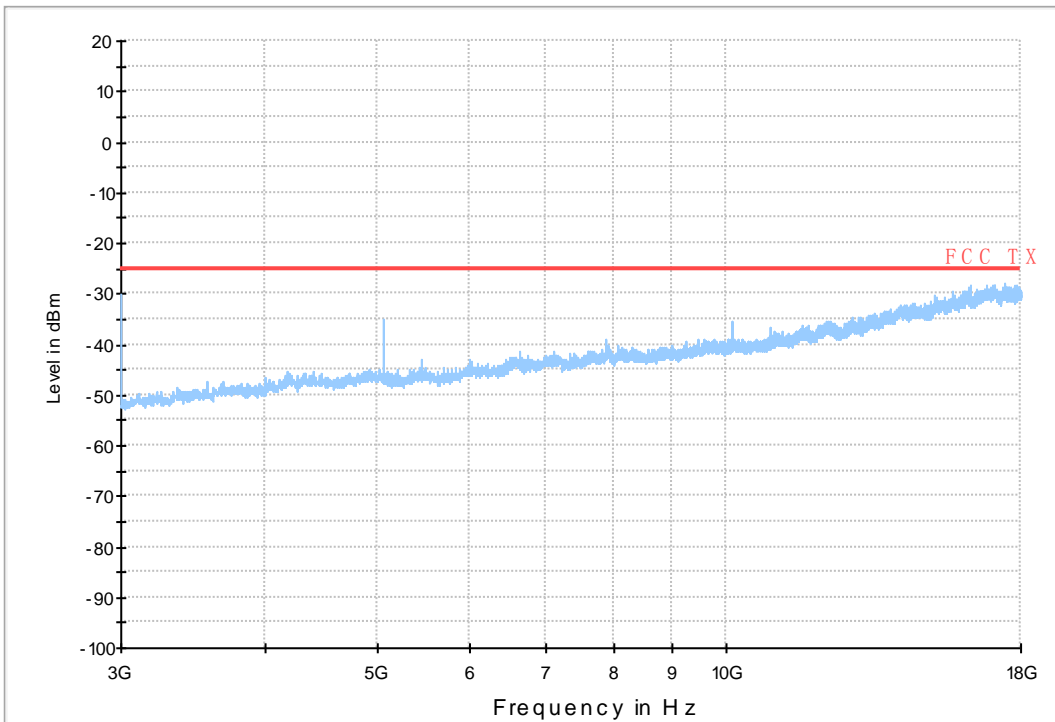
##### 7.1.1.1 Test Bandwidth = 5

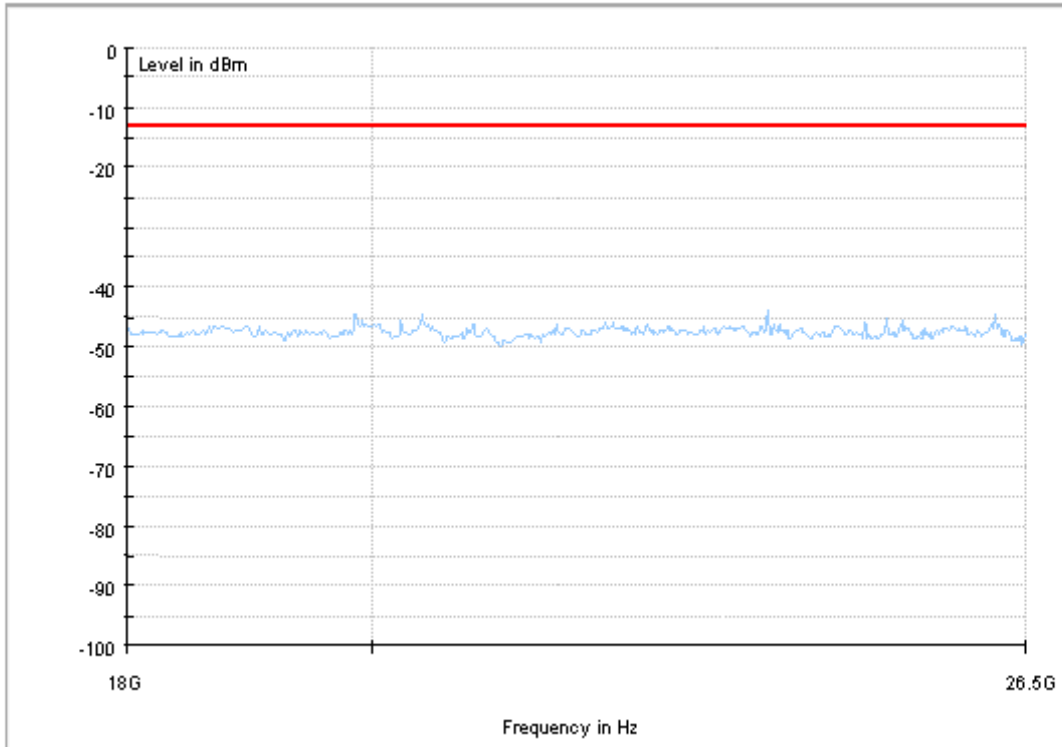


Copy of RSE-TX-DIRECTOR ABOVE 1.5G Limit -25\_L

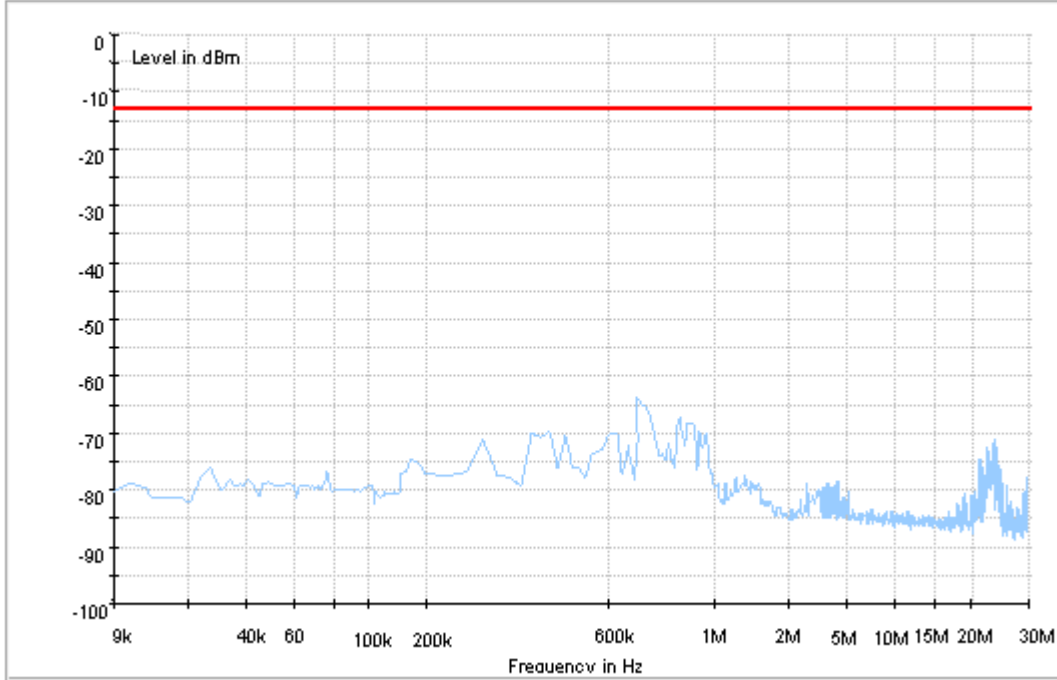


Copy of RSE-TX-DIRECTOR ABOVE 1.5G Limit -25\_H

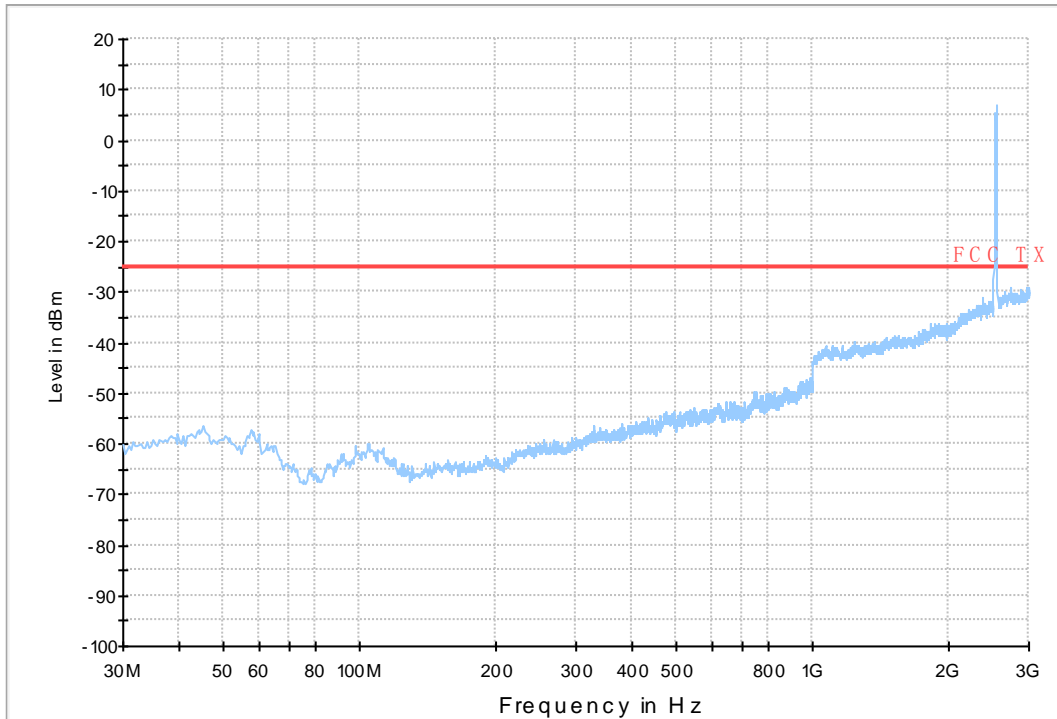




### 7.1.1.2 Test Bandwidth = 20

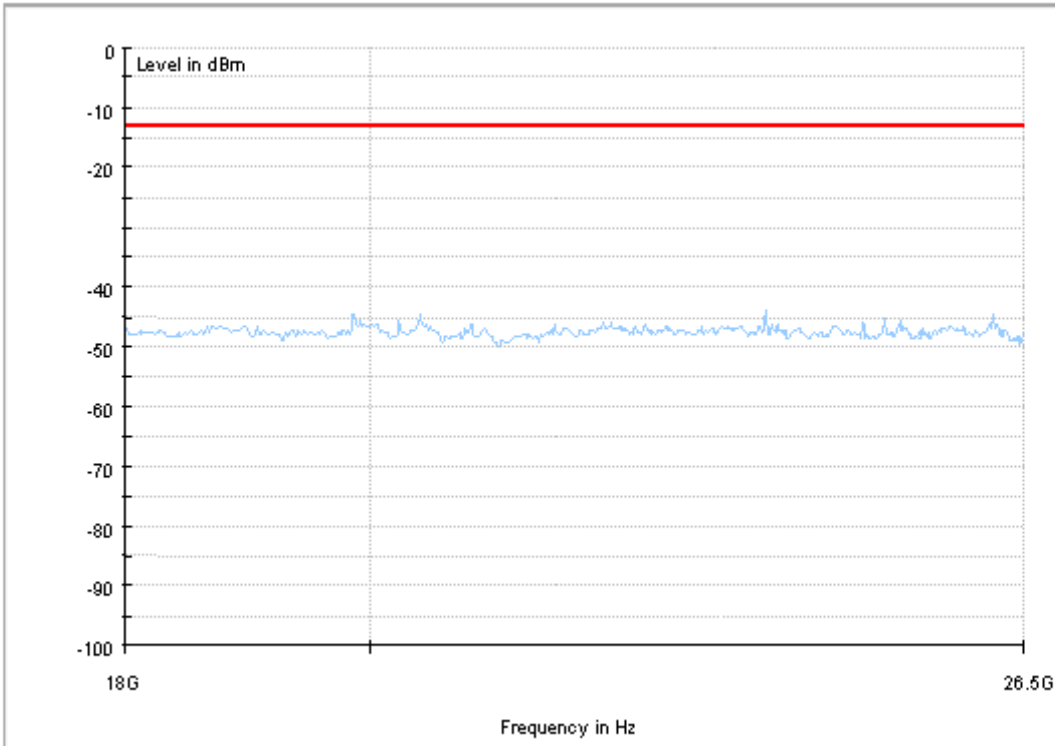
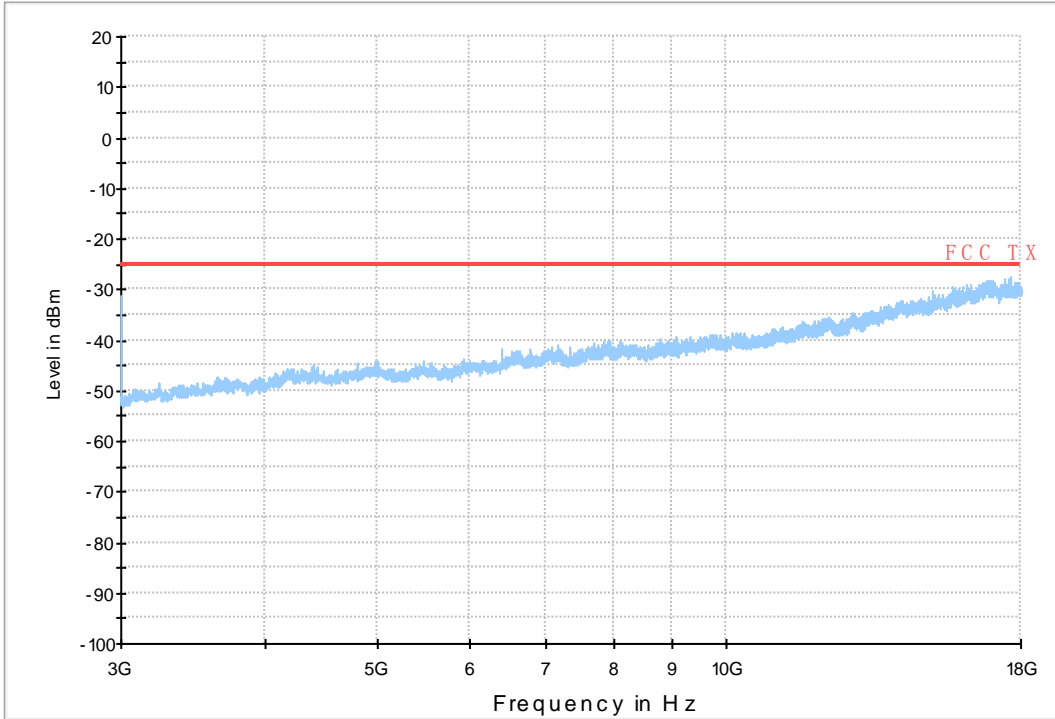


Copy of RSE-TX-DIRECTOR ABOVE 1.5G Limit -25\_L



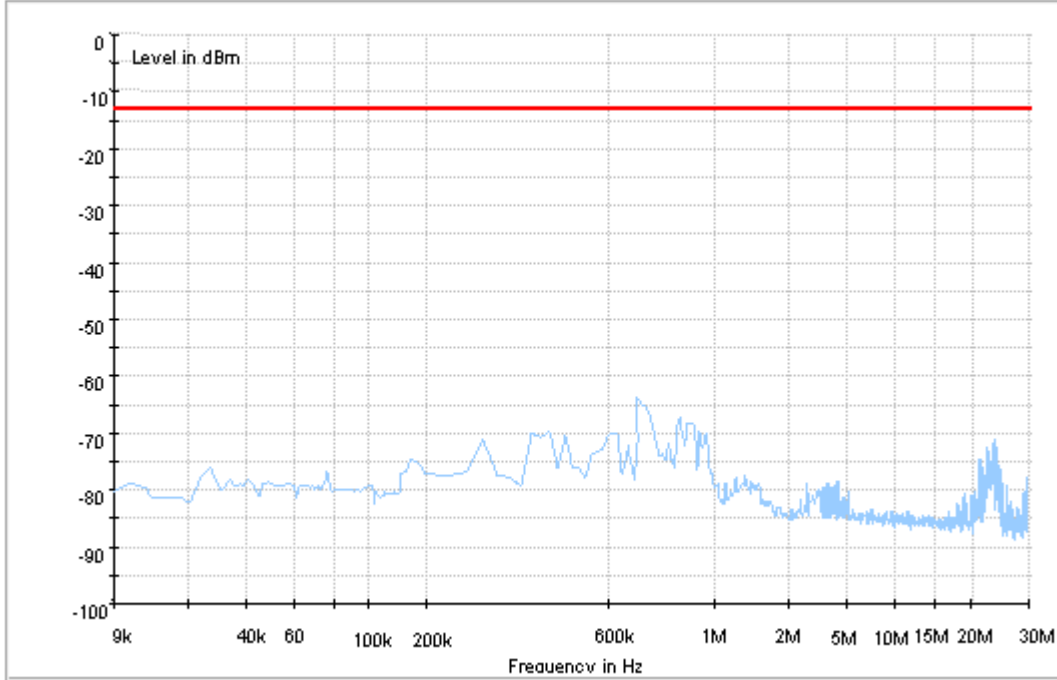


Copy of RSE-TX-DIRECTOR ABOVE 1.5G Limit -25\_H

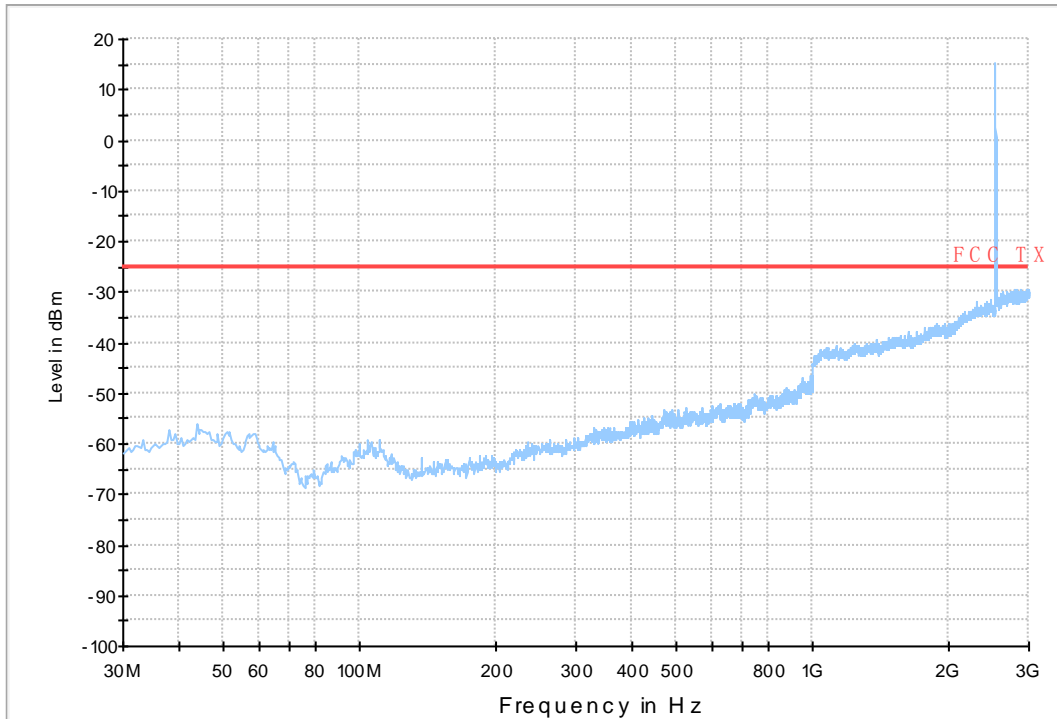


### 7.2.1 Test Band = BAND7\_ANT2

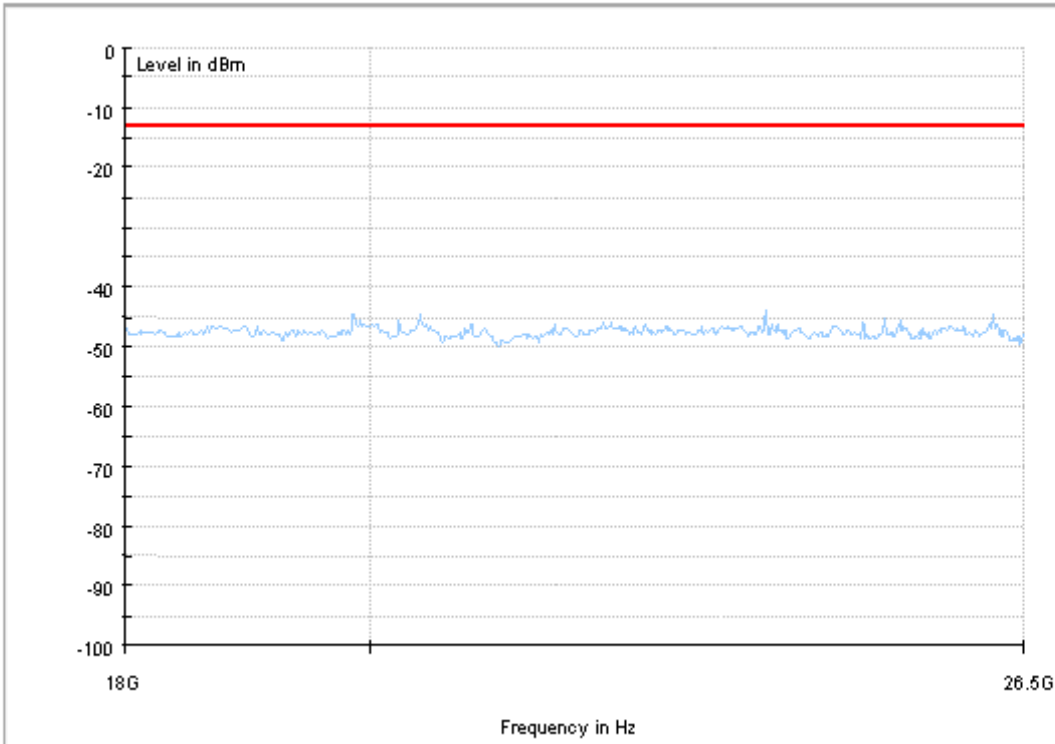
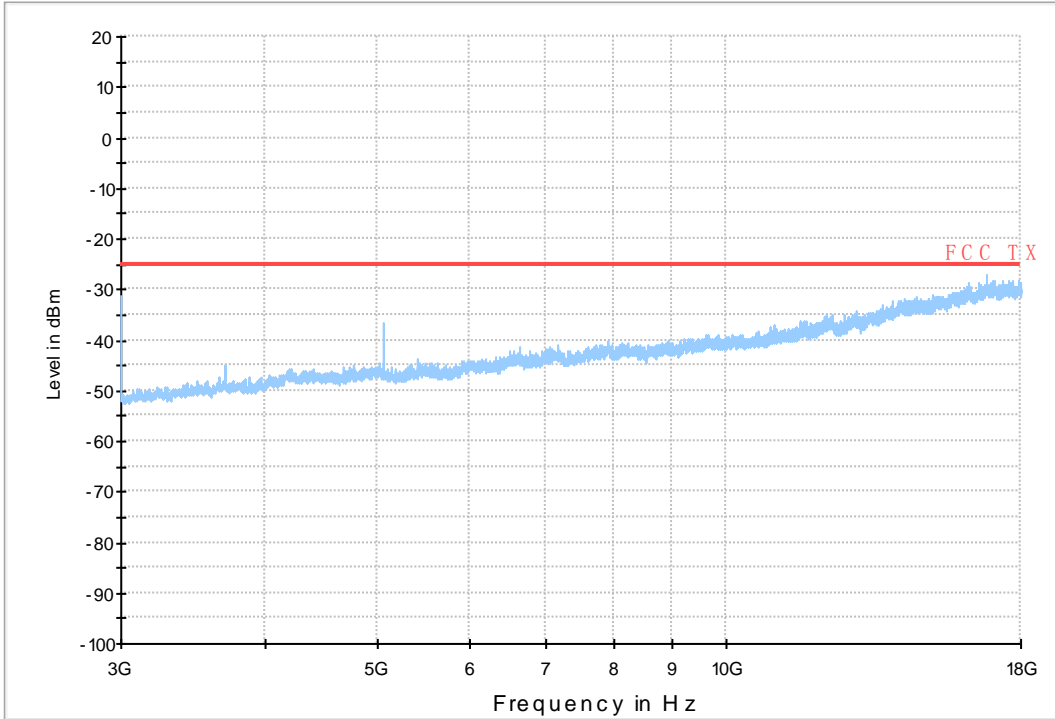
#### 7.2.1.1 Test Bandwidth = 5



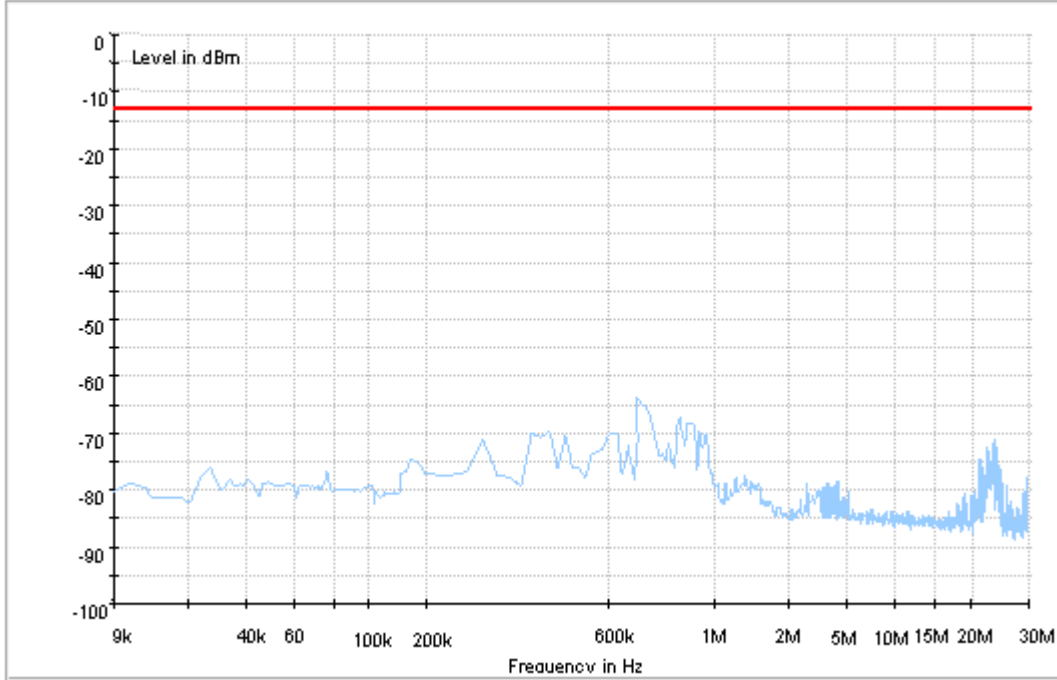
Copy of RSE-TX-DIRECTOR ABOVE 1.5G Limit -25\_L



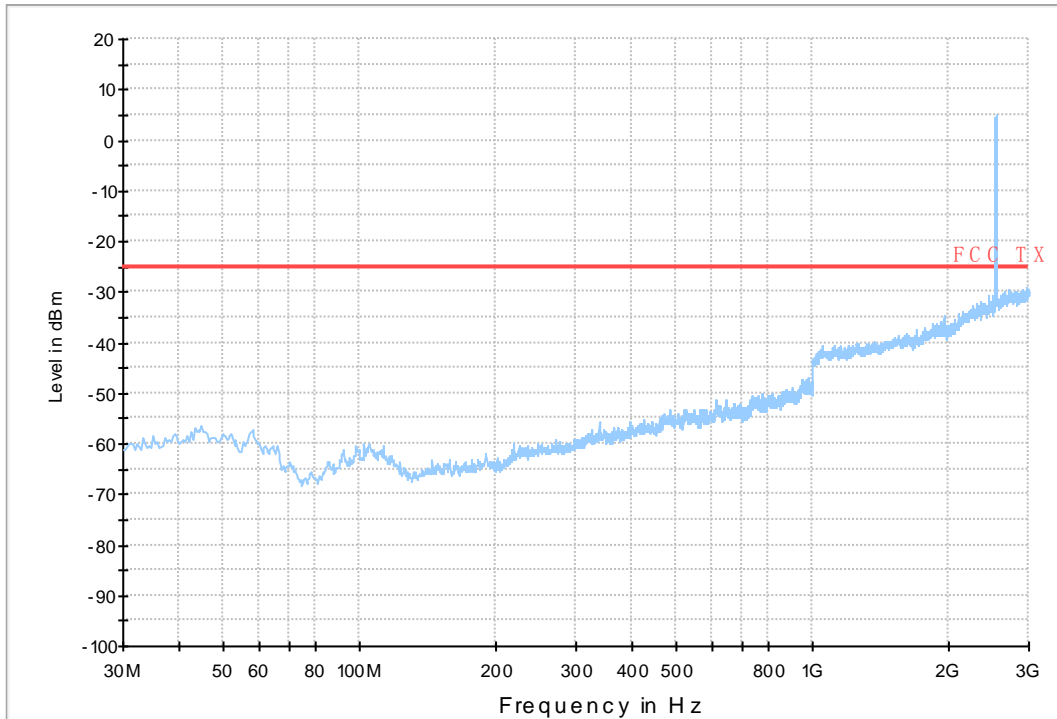
Copy of RSE-TX-DIRECTOR ABOVE 1.5G Limit -25\_H



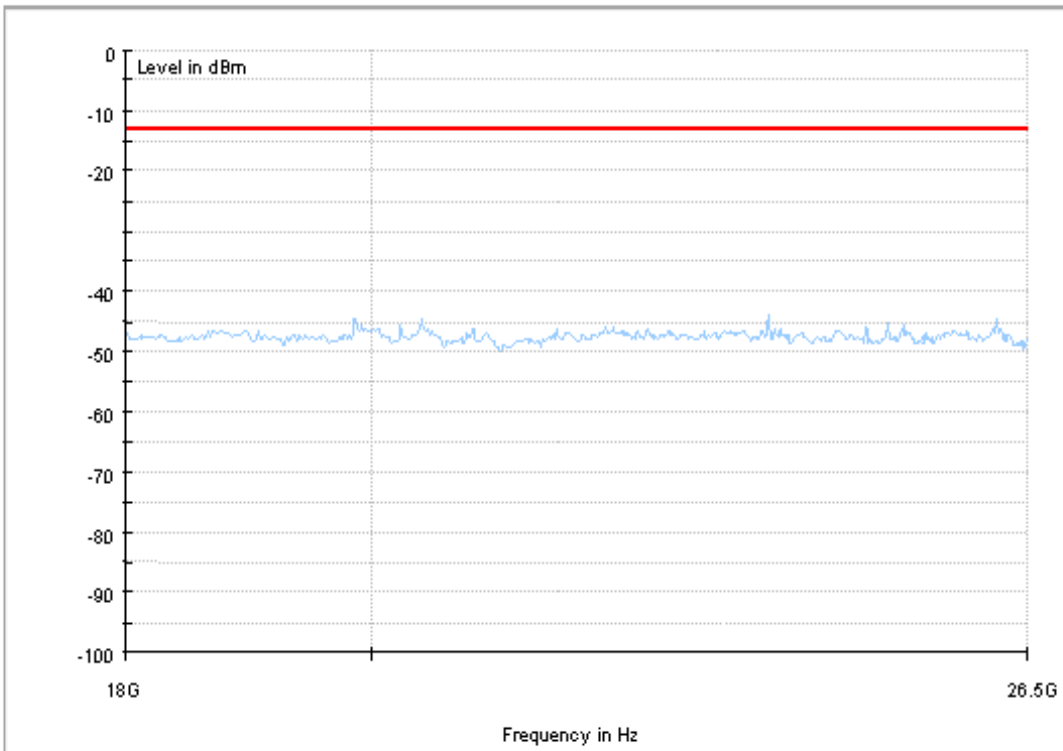
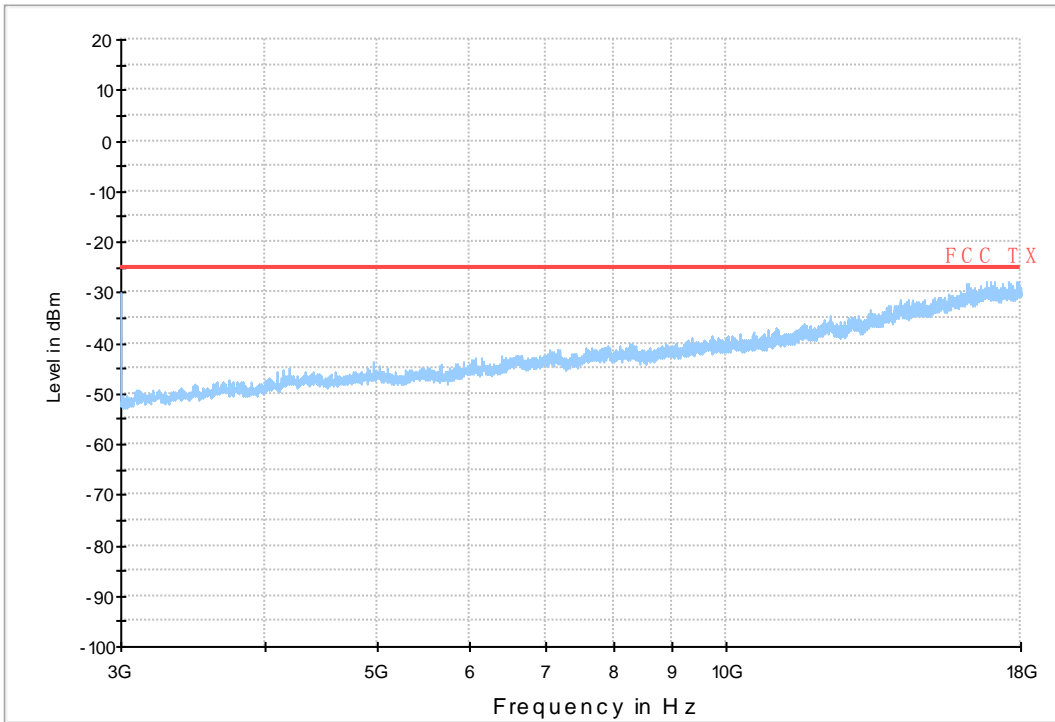
### 7.2.1.2 Test Bandwidth = 20



Copy of RSE-TX-DIRECTOR ABOVE 1.5G Limit -25\_L



Copy of RSE-TX-DIRECTOR ABOVE 1.5G Limit -25\_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 |
|-----------|-----------|----------------------|--------------|------------|------------|------------------|-----------------------|---------|
| BAND7     | LTE/TM1   | 5                    | LCH          | TN         | VL         | 1.27             | 0.00051               | PASS    |
|           |           |                      |              |            | VN         | 1.80             | 0.00072               | PASS    |
|           |           |                      |              |            | VH         | -2.60            | -0.00104              | PASS    |
|           |           |                      | MCH          | TN         | VL         | 0.06             | 0.00002               | PASS    |
|           |           |                      |              |            | VN         | 1.50             | 0.00059               | PASS    |
|           |           |                      |              |            | VH         | -0.46            | -0.00018              | PASS    |
|           |           |                      | HCH          | TN         | VL         | -9.73            | -0.00379              | PASS    |
|           |           |                      |              |            | VN         | -2.17            | -0.00085              | PASS    |
|           |           |                      |              |            | VH         | -0.73            | -0.00028              | PASS    |
|           |           | 10                   | LCH          | TN         | VL         | -3.65            | -0.00146              | PASS    |
|           |           |                      |              |            | VN         | -4.96            | -0.00198              | PASS    |
|           |           |                      |              |            | VH         | 0.90             | 0.00036               | PASS    |
|           |           |                      | MCH          | TN         | VL         | -1.73            | -0.00068              | PASS    |
|           |           |                      |              |            | VN         | 2.88             | 0.00114               | PASS    |
|           |           |                      |              |            | VH         | -2.06            | -0.00081              | PASS    |
|           |           |                      | HCH          | TN         | VL         | 1.62             | 0.00063               | PASS    |
|           |           |                      |              |            | VN         | -2.92            | -0.00114              | PASS    |
|           |           |                      |              |            | VH         | 0.34             | 0.00013               | PASS    |
|           |           | 15                   | LCH          | TN         | VL         | -1.54            | -0.00061              | PASS    |
|           |           |                      |              |            | VN         | -0.56            | -0.00022              | PASS    |
|           |           |                      |              |            | VH         | -3.13            | -0.00125              | PASS    |
|           |           |                      | MCH          | TN         | VL         | -2.49            | -0.00098              | PASS    |
|           |           |                      |              |            | VN         | -2.33            | -0.00092              | PASS    |
|           |           |                      |              |            | VH         | -2.13            | -0.00084              | PASS    |
| HCH       | TN        |                      | VL           | 1.32       | 0.00052    | PASS             |                       |         |
|           |           |                      | VN           | -2.63      | -0.00103   | PASS             |                       |         |
|           |           |                      | VH           | -0.09      | -0.00004   | PASS             |                       |         |
| 20        | LCH       | TN                   | VL           | -3.58      | -0.00143   | PASS             |                       |         |

| Test Band | Test Mode | Test Bandwidth (MHz) | Test Channel | Test Temp. | Test Volt. | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict |          |          |      |
|-----------|-----------|----------------------|--------------|------------|------------|------------------|-----------------------|---------|----------|----------|------|
|           |           |                      | MCH          | TN         | VN         | -2.78            | -0.00111              | PASS    |          |          |      |
|           |           |                      |              |            | VH         | -0.09            | -0.00004              | PASS    |          |          |      |
|           |           |                      |              |            | VL         | -1.20            | -0.00047              | PASS    |          |          |      |
|           |           |                      |              |            | VN         | -2.02            | -0.0008               | PASS    |          |          |      |
|           |           |                      |              |            | VH         | -1.59            | -0.00063              | PASS    |          |          |      |
|           |           |                      |              |            | VL         | -1.33            | -0.00052              | PASS    |          |          |      |
|           |           |                      | HCH          | TN         | VN         | -0.67            | -0.00026              | PASS    |          |          |      |
|           |           |                      |              |            | VH         | 0.47             | 0.00018               | PASS    |          |          |      |
|           |           |                      |              |            | 5          | LCH              | TN                    | VL      | -0.50    | -0.0002  | PASS |
|           |           |                      |              |            |            |                  |                       | VN      | -5.99    | -0.00239 | PASS |
|           |           |                      |              |            |            |                  |                       | VH      | 4.02     | 0.00161  | PASS |
|           |           |                      |              |            |            | MCH              | TN                    | VL      | -0.93    | -0.00037 | PASS |
|           | VN        | -2.52                | -0.00099     | PASS       |            |                  |                       |         |          |          |      |
|           | VH        | -2.85                | -0.00112     | PASS       |            |                  |                       |         |          |          |      |
|           | HCH       | TN                   | VL           | -0.37      | -0.00014   | PASS             |                       |         |          |          |      |
|           |           |                      | VN           | 0.09       | 0.00004    | PASS             |                       |         |          |          |      |
|           |           |                      | VH           | 3.60       | 0.0014     | PASS             |                       |         |          |          |      |
|           | 10        | LCH                  | TN           | VL         | 3.00       | 0.0012           | PASS                  |         |          |          |      |
|           |           |                      |              | VN         | -2.76      | -0.0011          | PASS                  |         |          |          |      |
|           |           |                      |              | VH         | 1.34       | 0.00053          | PASS                  |         |          |          |      |
|           |           |                      |              | VL         | 2.39       | 0.00094          | PASS                  |         |          |          |      |
|           |           |                      |              | VN         | -1.33      | -0.00052         | PASS                  |         |          |          |      |
|           |           |                      |              | VH         | -2.03      | -0.0008          | PASS                  |         |          |          |      |
|           |           | MCH                  | TN           | VL         | 2.83       | 0.0011           | PASS                  |         |          |          |      |
|           |           |                      |              | VN         | -3.78      | -0.00147         | PASS                  |         |          |          |      |
|           |           |                      |              | VH         | 0.21       | 0.00008          | PASS                  |         |          |          |      |
|           |           |                      |              | 15         | LCH        | TN               | VL                    | 0.01    | 0        | PASS     |      |
|           |           |                      |              |            |            |                  | VN                    | 1.63    | 0.00065  | PASS     |      |
|           |           |                      |              |            |            |                  | VH                    | -1.39   | -0.00055 | PASS     |      |
|           | MCH       | TN                   | VL           |            | -3.35      | -0.00132         | PASS                  |         |          |          |      |
|           |           |                      | VN           |            | 1.19       | 0.00047          | PASS                  |         |          |          |      |
|           |           |                      | VH           |            | 1.34       | 0.00053          | PASS                  |         |          |          |      |
|           | HCH       | TN                   | VL           | -0.60      | -0.00023   | PASS             |                       |         |          |          |      |
|           |           |                      | VN           | 0.33       | 0.00013    | PASS             |                       |         |          |          |      |
|           |           |                      | VH           | -1.90      | -0.00074   | PASS             |                       |         |          |          |      |
|           | 20        | LCH                  | TN           | VL         | -0.89      | -0.00035         | PASS                  |         |          |          |      |
|           |           |                      |              | VN         | -0.20      | -0.00008         | PASS                  |         |          |          |      |
|           |           |                      |              | VH         | -0.86      | -0.00034         | PASS                  |         |          |          |      |
|           |           | MCH                  | TN           | VL         | 0.77       | 0.0003           | PASS                  |         |          |          |      |

| Test Band | Test Mode | Test Bandwidth (MHz) | Test Channel | Test Temp. | Test Volt. | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict |
|-----------|-----------|----------------------|--------------|------------|------------|------------------|-----------------------|---------|
|           |           |                      |              |            | VN         | 0.73             | 0.00029               | PASS    |
|           |           |                      |              |            | VH         | -1.34            | -0.00053              | PASS    |
|           |           |                      | HCH          | TN         | VL         | -0.54            | -0.00021              | PASS    |
|           |           |                      |              |            | VN         | -1.34            | -0.00052              | PASS    |
|           |           |                      |              |            | VH         | -1.40            | -0.00055              | PASS    |

**8.1.2 Frequency Error vs. Temperature:**

| Test Band | Test Temp. | Test Mode | Test Bandwidth (MHz) | Test Channel | Test Volt. | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict |
|-----------|------------|-----------|----------------------|--------------|------------|------------------|-----------------------|---------|
| BAND7     | -30        | LTE/TM1   | 5                    | LCH          | VN         | 2.10             | 0.00084               | PASS    |
|           |            |           |                      | MCH          | VN         | 4.76             | 0.00188               | PASS    |
|           |            |           |                      | HCH          | VN         | -0.36            | -0.00014              | PASS    |
|           |            |           | 10                   | LCH          | VN         | -6.29            | -0.00251              | PASS    |
|           |            |           |                      | MCH          | VN         | -1.09            | -0.00043              | PASS    |
|           |            |           |                      | HCH          | VN         | -0.44            | -0.00017              | PASS    |
|           |            | 15        | LCH                  | VN           | -1.89      | -0.00075         | PASS                  |         |
|           |            |           | MCH                  | VN           | -0.92      | -0.00036         | PASS                  |         |
|           |            |           | HCH                  | VN           | -1.65      | -0.00064         | PASS                  |         |
|           |            | 20        | LCH                  | VN           | -1.56      | -0.00062         | PASS                  |         |
|           |            |           | MCH                  | VN           | 0.37       | 0.00015          | PASS                  |         |
|           |            |           | HCH                  | VN           | -0.74      | -0.00029         | PASS                  |         |
|           | -20        | LTE/TM2   | 5                    | LCH          | VN         | 2.37             | 0.00095               | PASS    |
|           |            |           |                      | MCH          | VN         | -5.29            | -0.00209              | PASS    |
|           |            |           |                      | HCH          | VN         | -0.49            | -0.00019              | PASS    |
|           |            |           | 10                   | LCH          | VN         | -2.86            | -0.00114              | PASS    |
|           |            |           |                      | MCH          | VN         | -2.00            | -0.00079              | PASS    |
|           |            |           |                      | HCH          | VN         | 1.46             | 0.00057               | PASS    |
|           |            | 15        | LCH                  | VN           | -6.21      | -0.00248         | PASS                  |         |
|           |            |           | MCH                  | VN           | 4.03       | 0.00159          | PASS                  |         |
|           |            |           | HCH                  | VN           | -1.39      | -0.00054         | PASS                  |         |
|           |            | 20        | LCH                  | VN           | -0.62      | -0.00025         | PASS                  |         |
|           |            |           | MCH                  | VN           | 0.56       | 0.00022          | PASS                  |         |
|           |            |           | HCH                  | VN           | -1.65      | -0.00064         | PASS                  |         |
| LTE/TM1   | 5          | LCH       | VN                   | -4.48        | -0.00179   | PASS             |                       |         |
|           |            | MCH       | VN                   | 0.03         | 0.00001    | PASS             |                       |         |
|           |            | HCH       | VN                   | -1.50        | -0.00058   | PASS             |                       |         |
|           |            | 10        | LCH                  | VN           | -1.16      | -0.00046         | PASS                  |         |



| Test Band | Test Temp. | Test Mode | Test Bandwidth (MHz) | Test Channel | Test Volt. | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict  |      |
|-----------|------------|-----------|----------------------|--------------|------------|------------------|-----------------------|----------|------|
|           |            | LTE/TM2   |                      | MCH          | VN         | 0.00             | 0                     | PASS     |      |
|           |            |           |                      | HCH          | VN         | -1.22            | -0.00048              | PASS     |      |
|           |            |           | 15                   | LCH          | VN         | -4.69            | -0.00187              | PASS     |      |
|           |            |           |                      | MCH          | VN         | -1.19            | -0.00047              | PASS     |      |
|           |            |           |                      | HCH          | VN         | -2.47            | -0.00096              | PASS     |      |
|           |            |           |                      | LCH          | VN         | -6.72            | -0.00268              | PASS     |      |
|           |            |           | 20                   | MCH          | VN         | 1.16             | 0.00046               | PASS     |      |
|           |            |           |                      | HCH          | VN         | 3.15             | 0.00123               | PASS     |      |
|           |            |           | LTE/TM2              | 5            | LCH        | VN               | -1.52                 | -0.00061 | PASS |
|           |            |           |                      |              | MCH        | VN               | 4.36                  | 0.00172  | PASS |
|           |            |           |                      |              | HCH        | VN               | 0.54                  | 0.00021  | PASS |
|           |            |           |                      | 10           | LCH        | VN               | -5.29                 | -0.00211 | PASS |
|           |            | MCH       |                      |              | VN         | -1.46            | -0.00058              | PASS     |      |
|           |            | HCH       |                      |              | VN         | 0.73             | 0.00028               | PASS     |      |
|           |            | 15        |                      | LCH          | VN         | -2.56            | -0.00102              | PASS     |      |
|           |            |           |                      | MCH          | VN         | 0.34             | 0.00013               | PASS     |      |
|           |            |           |                      | HCH          | VN         | -0.53            | -0.00021              | PASS     |      |
|           |            | 20        |                      | LCH          | VN         | -3.23            | -0.00129              | PASS     |      |
|           |            |           |                      | MCH          | VN         | 2.20             | 0.00087               | PASS     |      |
|           |            |           |                      | HCH          | VN         | 0.97             | 0.00038               | PASS     |      |
|           |            | LTE/TM1   | 5                    | LCH          | VN         | -5.68            | -0.00227              | PASS     |      |
|           |            |           |                      | MCH          | VN         | 3.46             | 0.00136               | PASS     |      |
|           |            |           |                      | HCH          | VN         | -3.35            | -0.0013               | PASS     |      |
|           |            |           | 10                   | LCH          | VN         | -0.21            | -0.00008              | PASS     |      |
|           |            |           |                      | MCH          | VN         | -3.98            | -0.00157              | PASS     |      |
|           |            |           |                      | HCH          | VN         | -0.27            | -0.00011              | PASS     |      |
|           |            |           | 15                   | LCH          | VN         | -4.62            | -0.00184              | PASS     |      |
|           |            |           |                      | MCH          | VN         | -1.30            | -0.00051              | PASS     |      |
|           |            |           |                      | HCH          | VN         | -1.43            | -0.00056              | PASS     |      |
|           |            |           | 20                   | LCH          | VN         | -4.99            | -0.00199              | PASS     |      |
|           |            |           |                      | MCH          | VN         | -1.20            | -0.00047              | PASS     |      |
|           |            |           |                      | HCH          | VN         | -2.00            | -0.00078              | PASS     |      |
|           |            |           | LTE/TM2              | 5            | LCH        | VN               | -7.47                 | -0.00299 | PASS |
|           |            |           |                      |              | MCH        | VN               | 6.92                  | 0.00273  | PASS |
|           |            |           |                      |              | HCH        | VN               | -0.94                 | -0.00037 | PASS |
|           |            |           |                      | 10           | LCH        | VN               | -0.39                 | -0.00016 | PASS |
|           |            |           |                      |              | MCH        | VN               | 1.46                  | 0.00058  | PASS |
|           |            |           |                      |              | HCH        | VN               | -0.29                 | -0.00011 | PASS |
|           |            | 15        |                      | LCH          | VN         | -5.12            | -0.00204              | PASS     |      |



| Test Band | Test Temp. | Test Mode | Test Bandwidth (MHz) | Test Channel | Test Volt. | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict |
|-----------|------------|-----------|----------------------|--------------|------------|------------------|-----------------------|---------|
|           | 0          | LTE/TM1   |                      | MCH          | VN         | 0.44             | 0.00017               | PASS    |
|           |            |           |                      | HCH          | VN         | -2.19            | -0.00085              | PASS    |
|           |            |           | 20                   | LCH          | VN         | -2.50            | -0.001                | PASS    |
|           |            |           |                      | MCH          | VN         | 1.43             | 0.00056               | PASS    |
|           |            |           |                      | HCH          | VN         | -2.00            | -0.00078              | PASS    |
|           |            |           | 5                    | LCH          | VN         | -0.80            | -0.00032              | PASS    |
|           |            |           |                      | MCH          | VN         | 2.65             | 0.00105               | PASS    |
|           |            |           |                      | HCH          | VN         | -5.44            | -0.00212              | PASS    |
|           |            |           | 10                   | LCH          | VN         | -1.09            | -0.00044              | PASS    |
|           |            | MCH       |                      | VN           | -1.20      | -0.00047         | PASS                  |         |
|           |            | HCH       |                      | VN           | 2.95       | 0.00115          | PASS                  |         |
|           |            | 15        | LCH                  | VN           | -1.87      | -0.00075         | PASS                  |         |
|           |            |           | MCH                  | VN           | -2.17      | -0.00086         | PASS                  |         |
|           |            |           | HCH                  | VN           | 0.13       | 0.00005          | PASS                  |         |
|           |            | 20        | LCH                  | VN           | -2.95      | -0.00118         | PASS                  |         |
|           |            |           | MCH                  | VN           | -0.92      | -0.00036         | PASS                  |         |
|           |            |           | HCH                  | VN           | -0.14      | -0.00005         | PASS                  |         |
|           |            | LTE/TM2   | 5                    | LCH          | VN         | 5.24             | 0.00209               | PASS    |
|           | MCH        |           |                      | VN           | -1.43      | -0.00056         | PASS                  |         |
|           | HCH        |           |                      | VN           | 0.26       | 0.0001           | PASS                  |         |
|           | 10         |           | LCH                  | VN           | -2.07      | -0.00083         | PASS                  |         |
|           |            |           | MCH                  | VN           | -2.96      | -0.00117         | PASS                  |         |
|           |            |           | HCH                  | VN           | 0.27       | 0.00011          | PASS                  |         |
|           | 15         |           | LCH                  | VN           | -4.13      | -0.00165         | PASS                  |         |
|           |            |           | MCH                  | VN           | -2.27      | -0.0009          | PASS                  |         |
|           |            |           | HCH                  | VN           | 3.13       | 0.00122          | PASS                  |         |
|           | 20         |           | LCH                  | VN           | -1.44      | -0.00057         | PASS                  |         |
|           |            |           | MCH                  | VN           | -0.40      | -0.00016         | PASS                  |         |
|           |            |           | HCH                  | VN           | 1.14       | 0.00045          | PASS                  |         |
|           | 10         | LTE/TM1   | 5                    | LCH          | VN         | 0.17             | 0.00007               | PASS    |
|           |            |           |                      | MCH          | VN         | -1.42            | -0.00056              | PASS    |
|           |            |           |                      | HCH          | VN         | -17.12           | -0.00667              | PASS    |
|           |            |           | 10                   | LCH          | VN         | -1.79            | -0.00071              | PASS    |
|           |            |           |                      | MCH          | VN         | -4.02            | -0.00159              | PASS    |
|           |            |           |                      | HCH          | VN         | -0.49            | -0.00019              | PASS    |
|           |            |           | 15                   | LCH          | VN         | -5.69            | -0.00227              | PASS    |
| MCH       |            |           |                      | VN           | 2.07       | 0.00082          | PASS                  |         |
| HCH       |            |           |                      | VN           | -2.20      | -0.00086         | PASS                  |         |
| 20        |            | LCH       | VN                   | -2.00        | -0.0008    | PASS             |                       |         |



| Test Band | Test Temp. | Test Mode | Test Bandwidth (MHz) | Test Channel | Test Volt. | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict |
|-----------|------------|-----------|----------------------|--------------|------------|------------------|-----------------------|---------|
|           |            |           |                      | MCH          | VN         | -2.16            | -0.00085              | PASS    |
|           |            |           |                      | HCH          | VN         | -0.83            | -0.00032              | PASS    |
|           |            | LTE/TM2   | 5                    | LCH          | VN         | -0.53            | -0.00021              | PASS    |
|           |            |           |                      | MCH          | VN         | 2.22             | 0.00088               | PASS    |
|           |            |           |                      | HCH          | VN         | 1.07             | 0.00042               | PASS    |
|           |            |           | 10                   | LCH          | VN         | -3.56            | -0.00142              | PASS    |
|           |            |           |                      | MCH          | VN         | 2.62             | 0.00103               | PASS    |
|           |            |           |                      | HCH          | VN         | 2.15             | 0.00084               | PASS    |
|           |            | 15        | LCH                  | VN           | -1.53      | -0.00061         | PASS                  |         |
|           |            |           | MCH                  | VN           | 3.72       | 0.00147          | PASS                  |         |
|           |            |           | HCH                  | VN           | -4.53      | -0.00177         | PASS                  |         |
|           |            | 20        | LCH                  | VN           | -0.99      | -0.00039         | PASS                  |         |
|           |            |           | MCH                  | VN           | -0.24      | -0.00009         | PASS                  |         |
|           |            |           | HCH                  | VN           | -2.59      | -0.00101         | PASS                  |         |
|           |            | 20        | LTE/TM1              | 5            | LCH        | VN               | 0.41                  | 0.00016 |
|           | MCH        |           |                      |              | VN         | -3.63            | -0.00143              | PASS    |
|           | HCH        |           |                      |              | VN         | -0.59            | -0.00023              | PASS    |
|           | 10         |           |                      | LCH          | VN         | -3.30            | -0.00132              | PASS    |
|           |            |           |                      | MCH          | VN         | -1.90            | -0.00075              | PASS    |
|           |            |           |                      | HCH          | VN         | 0.49             | 0.00019               | PASS    |
|           | 15         |           |                      | LCH          | VN         | -1.70            | -0.00068              | PASS    |
|           |            |           |                      | MCH          | VN         | 0.77             | 0.0003                | PASS    |
|           |            |           |                      | HCH          | VN         | -0.84            | -0.00033              | PASS    |
|           | 20         |           | LCH                  | VN           | -3.45      | -0.00137         | PASS                  |         |
|           |            |           | MCH                  | VN           | -0.40      | -0.00016         | PASS                  |         |
|           |            |           | HCH                  | VN           | 0.93       | 0.00036          | PASS                  |         |
|           | LTE/TM2    |           | 5                    | LCH          | VN         | -2.98            | -0.00119              | PASS    |
|           |            |           |                      | MCH          | VN         | -1.29            | -0.00051              | PASS    |
|           |            |           |                      | HCH          | VN         | 2.60             | 0.00101               | PASS    |
|           |            |           | 10                   | LCH          | VN         | -0.74            | -0.0003               | PASS    |
|           |            |           |                      | MCH          | VN         | -6.11            | -0.00241              | PASS    |
|           |            |           |                      | HCH          | VN         | 0.31             | 0.00012               | PASS    |
|           |            | 15        | LCH                  | VN           | -1.26      | -0.0005          | PASS                  |         |
| MCH       |            |           | VN                   | -1.09        | -0.00043   | PASS             |                       |         |
| HCH       |            |           | VN                   | -2.43        | -0.00095   | PASS             |                       |         |
| 20        | LCH        | VN        | -3.98                | -0.00159     | PASS       |                  |                       |         |
|           | MCH        | VN        | 0.83                 | 0.00033      | PASS       |                  |                       |         |
|           | HCH        | VN        | -0.44                | -0.00017     | PASS       |                  |                       |         |
| 30        | LTE/TM1    | 5         | LCH                  | VN           | 0.96       | 0.00038          | PASS                  |         |



| Test Band | Test Temp. | Test Mode | Test Bandwidth (MHz) | Test Channel | Test Volt. | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict  |      |
|-----------|------------|-----------|----------------------|--------------|------------|------------------|-----------------------|----------|------|
|           | 40         | LTE/TM2   |                      | MCH          | VN         | -1.26            | -0.0005               | PASS     |      |
|           |            |           |                      | HCH          | VN         | 3.43             | 0.00134               | PASS     |      |
|           |            |           | 10                   | LCH          | VN         | -8.11            | -0.00324              | PASS     |      |
|           |            |           |                      | MCH          | VN         | 1.06             | 0.00042               | PASS     |      |
|           |            |           |                      | HCH          | VN         | -1.13            | -0.00044              | PASS     |      |
|           |            |           |                      | 15           | LCH        | VN               | -3.92                 | -0.00156 | PASS |
|           |            |           | MCH                  |              | VN         | -0.90            | -0.00036              | PASS     |      |
|           |            |           | HCH                  |              | VN         | -3.09            | -0.00121              | PASS     |      |
|           |            |           | 20                   | LCH          | VN         | -5.68            | -0.00226              | PASS     |      |
|           |            |           |                      | MCH          | VN         | 0.82             | 0.00032               | PASS     |      |
|           |            |           |                      | HCH          | VN         | -1.37            | -0.00054              | PASS     |      |
|           |            |           | LTE/TM2              | 5            | LCH        | VN               | -1.29                 | -0.00052 | PASS |
|           |            |           |                      |              | MCH        | VN               | -0.77                 | -0.0003  | PASS |
|           |            |           |                      |              | HCH        | VN               | 1.24                  | 0.00048  | PASS |
|           |            |           |                      | 10           | LCH        | VN               | -4.39                 | -0.00175 | PASS |
|           |            |           |                      |              | MCH        | VN               | -3.42                 | -0.00135 | PASS |
|           |            |           |                      |              | HCH        | VN               | 0.47                  | 0.00018  | PASS |
|           |            |           |                      | 15           | LCH        | VN               | -4.81                 | -0.00192 | PASS |
|           |            | MCH       |                      |              | VN         | -0.30            | -0.00012              | PASS     |      |
|           |            | HCH       |                      |              | VN         | -0.67            | -0.00026              | PASS     |      |
|           |            | 20        |                      | LCH          | VN         | -3.06            | -0.00122              | PASS     |      |
|           |            |           |                      | MCH          | VN         | 2.07             | 0.00082               | PASS     |      |
|           |            |           |                      | HCH          | VN         | -3.10            | -0.00121              | PASS     |      |
|           |            | LTE/TM1   | 5                    | LCH          | VN         | -3.40            | -0.00136              | PASS     |      |
|           |            |           |                      | MCH          | VN         | 1.97             | 0.00078               | PASS     |      |
|           |            |           |                      | HCH          | VN         | -0.40            | -0.00016              | PASS     |      |
|           |            |           | 10                   | LCH          | VN         | -8.68            | -0.00347              | PASS     |      |
|           |            |           |                      | MCH          | VN         | 4.89             | 0.00193               | PASS     |      |
|           |            |           |                      | HCH          | VN         | -1.26            | -0.00049              | PASS     |      |
|           |            |           | 15                   | LCH          | VN         | -2.75            | -0.0011               | PASS     |      |
|           |            |           |                      | MCH          | VN         | -1.14            | -0.00045              | PASS     |      |
|           |            |           |                      | HCH          | VN         | -0.01            | 0                     | PASS     |      |
|           |            |           | 20                   | LCH          | VN         | -5.19            | -0.00207              | PASS     |      |
|           |            |           |                      | MCH          | VN         | -1.20            | -0.00047              | PASS     |      |
|           |            |           |                      | HCH          | VN         | 1.30             | 0.00051               | PASS     |      |
|           |            |           | LTE/TM2              | 5            | LCH        | VN               | -1.27                 | -0.00051 | PASS |
| MCH       | VN         |           |                      |              | 0.49       | 0.00019          | PASS                  |          |      |
| HCH       | VN         |           |                      |              | -0.83      | -0.00032         | PASS                  |          |      |
| 10        | LCH        | VN        |                      | -0.01        | 0          | PASS             |                       |          |      |



| Test Band | Test Temp. | Test Mode | Test Bandwidth (MHz) | Test Channel | Test Volt. | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict  |          |      |
|-----------|------------|-----------|----------------------|--------------|------------|------------------|-----------------------|----------|----------|------|
|           |            |           |                      | MCH          | VN         | 0.29             | 0.00011               | PASS     |          |      |
|           |            |           |                      | HCH          | VN         | 2.09             | 0.00081               | PASS     |          |      |
|           |            |           | 15                   | LCH          | VN         | -3.52            | -0.0014               | PASS     |          |      |
|           |            |           |                      | MCH          | VN         | 0.87             | 0.00034               | PASS     |          |      |
|           |            |           |                      | HCH          | VN         | -7.30            | -0.00285              | PASS     |          |      |
|           |            |           | 20                   | LCH          | VN         | -0.03            | -0.00001              | PASS     |          |      |
|           |            |           |                      | MCH          | VN         | -0.87            | -0.00034              | PASS     |          |      |
|           |            |           |                      | HCH          | VN         | 1.13             | 0.00044               | PASS     |          |      |
|           |            |           | 50                   | LTE/TM1      | 5          | LCH              | VN                    | -5.74    | -0.00229 | PASS |
|           |            |           |                      |              |            | MCH              | VN                    | 0.21     | 0.00008  | PASS |
|           |            |           |                      |              |            | HCH              | VN                    | 1.65     | 0.00064  | PASS |
|           |            |           |                      |              | 10         | LCH              | VN                    | -3.88    | -0.00155 | PASS |
|           |            |           |                      |              |            | MCH              | VN                    | -1.67    | -0.00066 | PASS |
|           |            |           |                      |              |            | HCH              | VN                    | -2.00    | -0.00078 | PASS |
|           |            |           |                      |              | 15         | LCH              | VN                    | -5.35    | -0.00213 | PASS |
|           | MCH        | VN        |                      |              |            | 1.79             | 0.00071               | PASS     |          |      |
|           | HCH        | VN        |                      |              |            | -1.27            | -0.0005               | PASS     |          |      |
|           | 20         | LCH       |                      |              | VN         | 0.70             | 0.00028               | PASS     |          |      |
|           |            | MCH       |                      |              | VN         | -3.78            | -0.00149              | PASS     |          |      |
|           |            | HCH       |                      |              | VN         | 0.66             | 0.00026               | PASS     |          |      |
|           | LTE/TM2    | 5         |                      |              | LCH        | VN               | -0.46                 | -0.00018 | PASS     |      |
|           |            |           |                      |              | MCH        | VN               | 3.99                  | 0.00157  | PASS     |      |
|           |            |           |                      |              | HCH        | VN               | 0.77                  | 0.0003   | PASS     |      |
|           |            | 10        | LCH                  | VN           | -2.02      | -0.00081         | PASS                  |          |          |      |
|           |            |           | MCH                  | VN           | -2.16      | -0.00085         | PASS                  |          |          |      |
|           |            |           | HCH                  | VN           | 1.76       | 0.00069          | PASS                  |          |          |      |
|           |            | 15        | LCH                  | VN           | -1.32      | -0.00053         | PASS                  |          |          |      |
|           |            |           | MCH                  | VN           | 2.03       | 0.0008           | PASS                  |          |          |      |
|           |            |           | HCH                  | VN           | -2.93      | -0.00114         | PASS                  |          |          |      |
|           |            | 20        | LCH                  | VN           | -1.09      | -0.00043         | PASS                  |          |          |      |
| MCH       |            |           | VN                   | 0.27         | 0.00011    | PASS             |                       |          |          |      |
| HCH       |            |           | VN                   | 1.57         | 0.00061    | PASS             |                       |          |          |      |

END