

## Appendix C

### RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Action Camera

Trade Mark: GURUGEAR™

Test Model: B1KS+

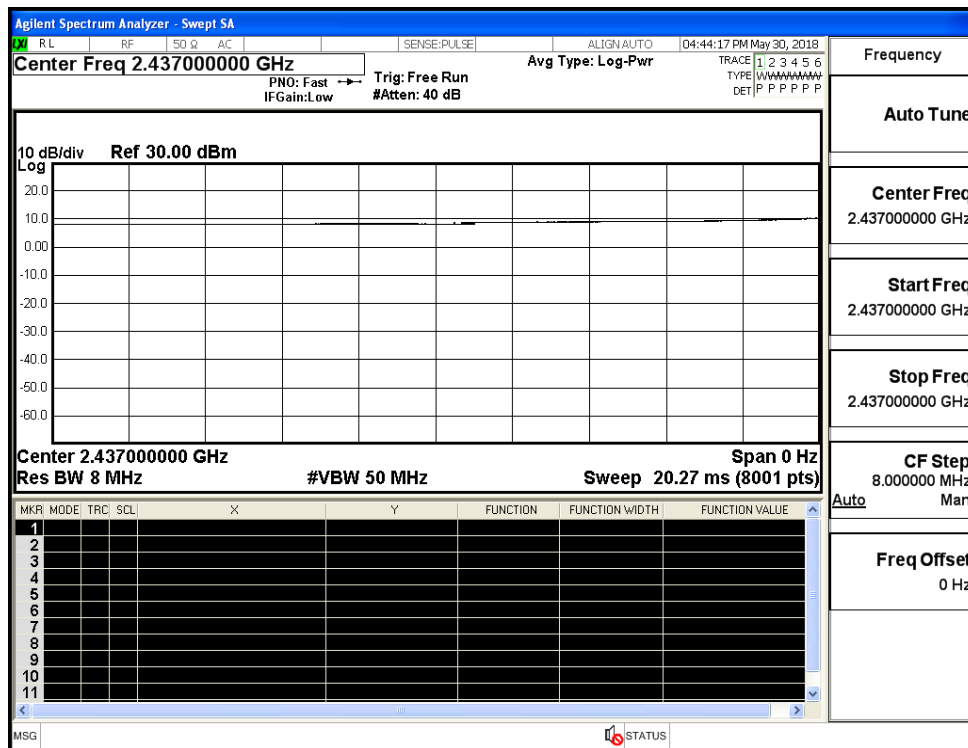
#### Environmental Conditions

|                    |             |
|--------------------|-------------|
| Temperature:       | 23.5 ° C    |
| Relative Humidity: | 52.8%       |
| ATM Pressure:      | 100.0 kPa   |
| Test Engineer:     | WANGCHUANG  |
| Supervised by:     | Jayden.Zhuo |

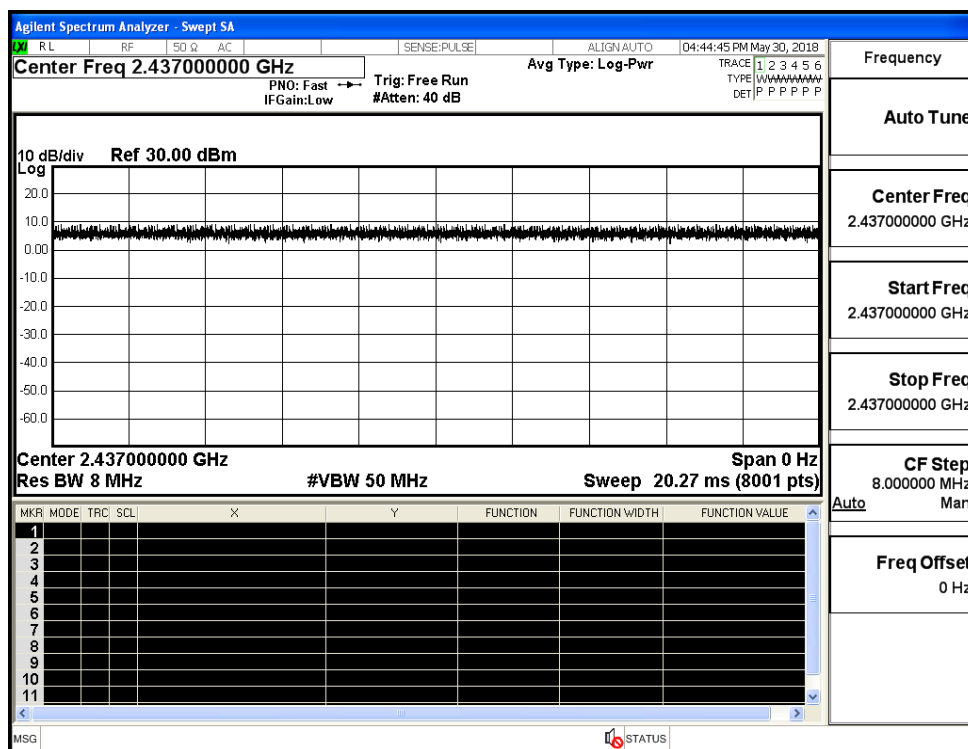
#### C.1 Duty Cycle

| Test Mode | Test Channel | Ant  | Duty Cycle[%] | Verdict |
|-----------|--------------|------|---------------|---------|
| 11B       | 2437         | Ant1 | 100           | PASS    |
| 11G       | 2437         | Ant1 | 100           | PASS    |
| 11N20SISO | 2437         | Ant1 | 100           | PASS    |
| 11N40SISO | 2437         | Ant1 | 100           | PASS    |

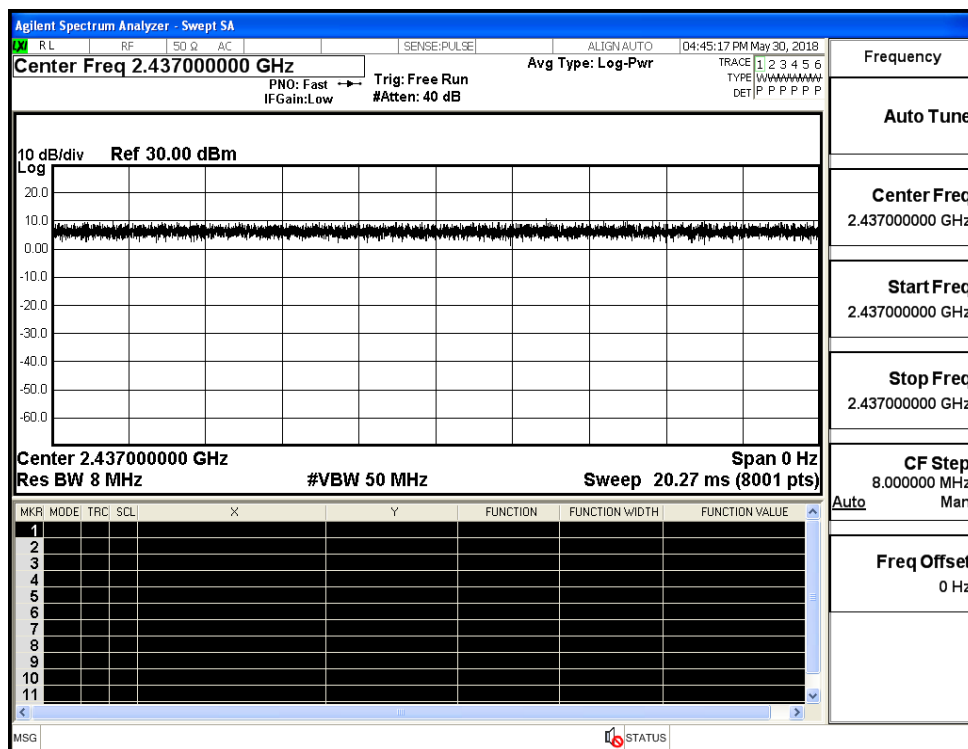
## Duty Cycle\_11B\_2437\_Ant1



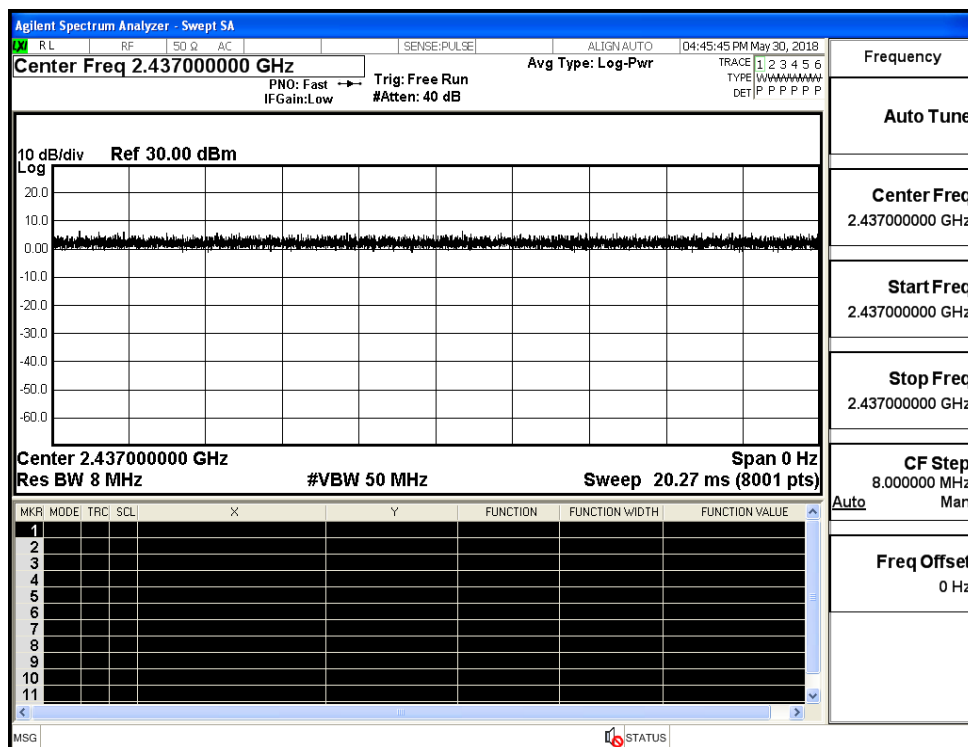
## Duty Cycle\_11G\_2437\_Ant1



## Duty Cycle\_11N20SISO\_2437\_Ant1



## Duty Cycle\_11N40SISO\_2437\_Ant1



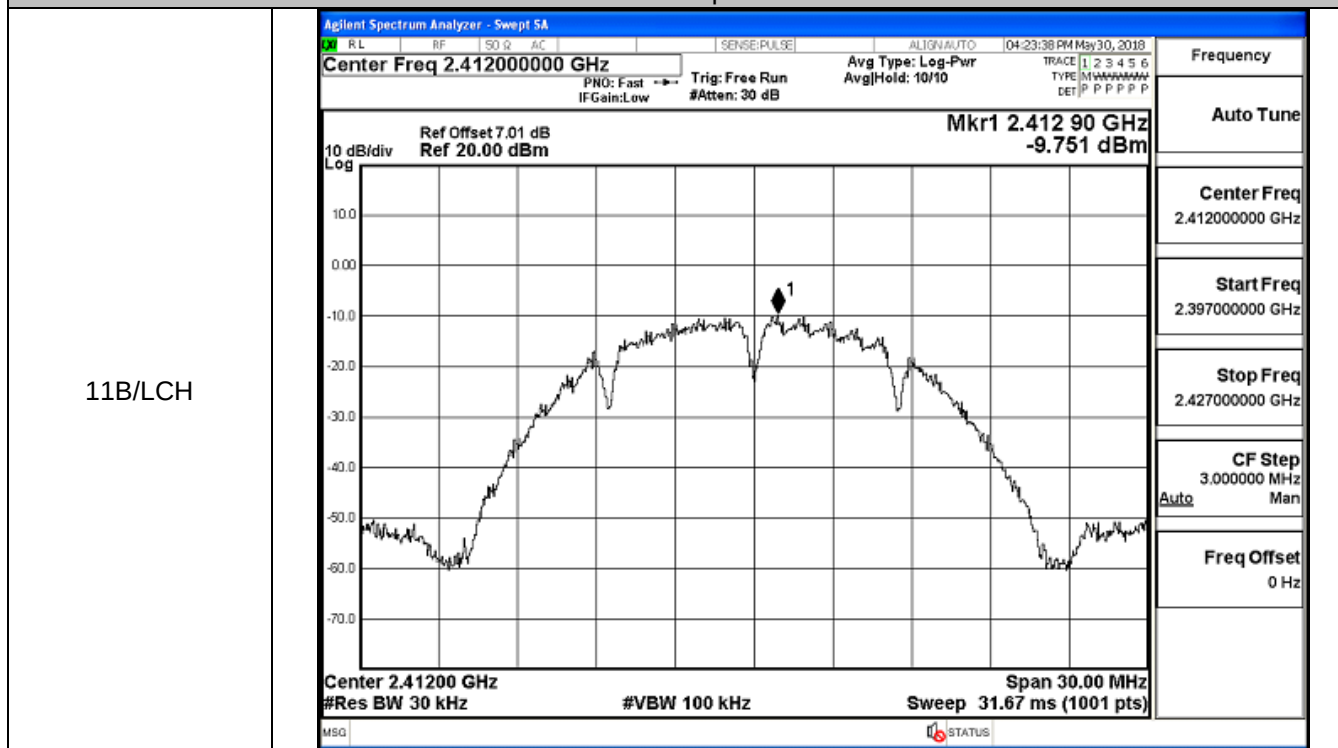
**C.2 Maximum Conducted Output Power**

| Mode      | Channel | Meas.Level [dBm] | Limit [dBm] | Verdict |
|-----------|---------|------------------|-------------|---------|
| 11B       | LCH     | 8.29             | 30          | PASS    |
|           | MCH     | 8.25             | 30          | PASS    |
|           | HCH     | 8.34             | 30          | PASS    |
| 11G       | LCH     | 8.13             | 30          | PASS    |
|           | MCH     | 8.18             | 30          | PASS    |
|           | HCH     | 8.24             | 30          | PASS    |
| 11N20SISO | LCH     | 8.28             | 30          | PASS    |
|           | MCH     | 8.32             | 30          | PASS    |
|           | HCH     | 8.22             | 30          | PASS    |
| 11N40SISO | LCH     | 7.65             | 30          | PASS    |
|           | MCH     | 7.87             | 30          | PASS    |
|           | HCH     | 7.69             | 30          | PASS    |

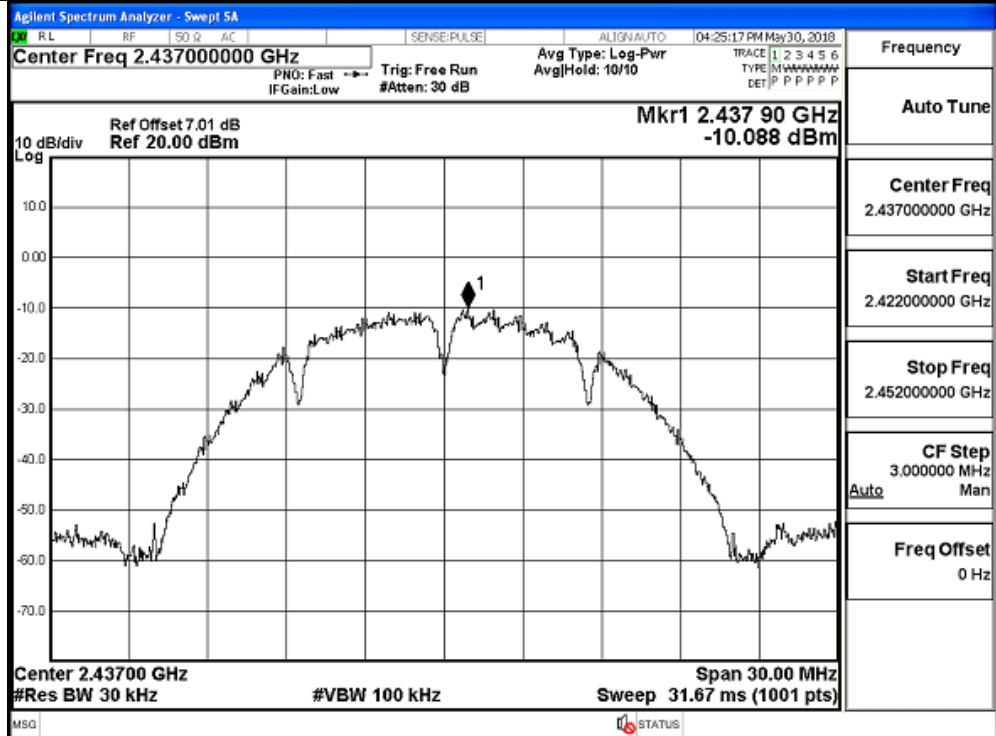
### C.3 Maximum Power Spectral Density

| Mode      | Channel | Meas.Level [dBm/30KHz] | Limit [dBm/3KHz] | Verdict |
|-----------|---------|------------------------|------------------|---------|
| 11B       | LCH     | -9.751                 | 8                | PASS    |
|           | MCH     | -10.088                | 8                | PASS    |
|           | HCH     | -10.665                | 8                | PASS    |
| 11G       | LCH     | -16.119                | 8                | PASS    |
|           | MCH     | -16.846                | 8                | PASS    |
|           | HCH     | -17.277                | 8                | PASS    |
| 11N20SISO | LCH     | -16.153                | 8                | PASS    |
|           | MCH     | -16.150                | 8                | PASS    |
|           | HCH     | 16.886                 | 8                | PASS    |
| 11N40SISO | LCH     | -18.821                | 8                | PASS    |
|           | MCH     | -20.243                | 8                | PASS    |
|           | HCH     | -20.009                | 8                | PASS    |

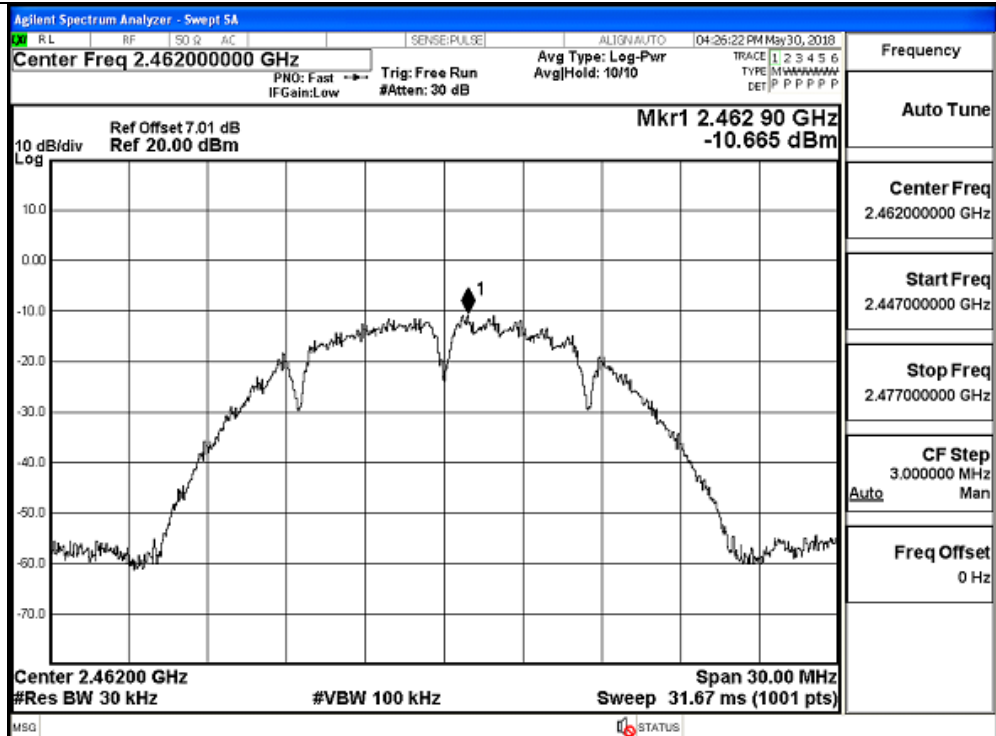
Test Graphs



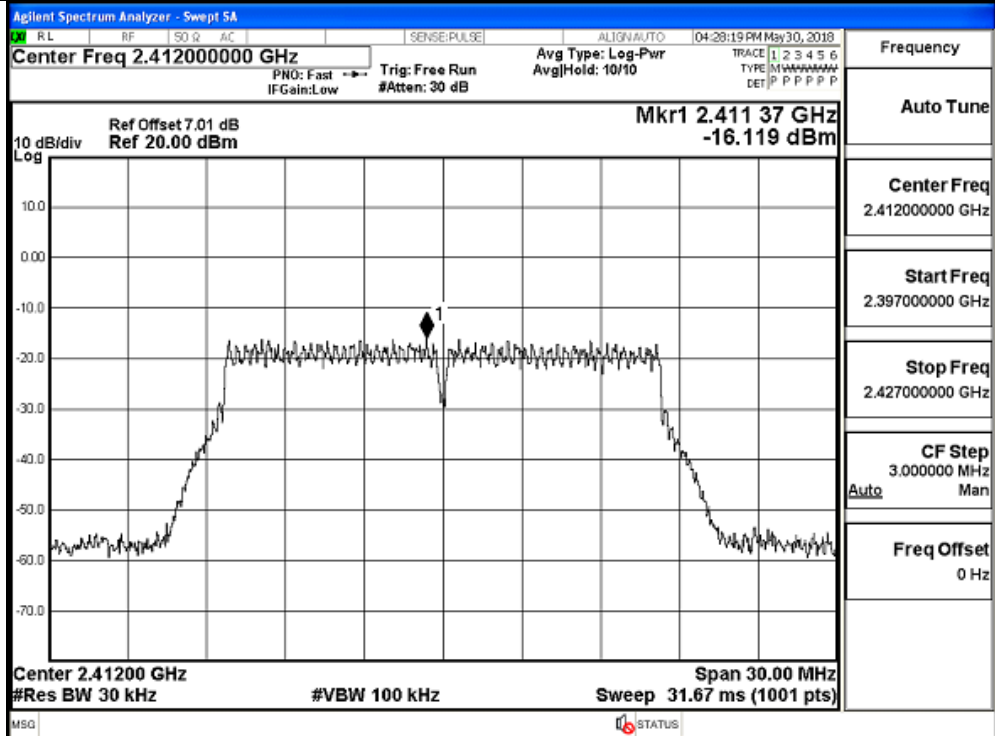
11B/MCH



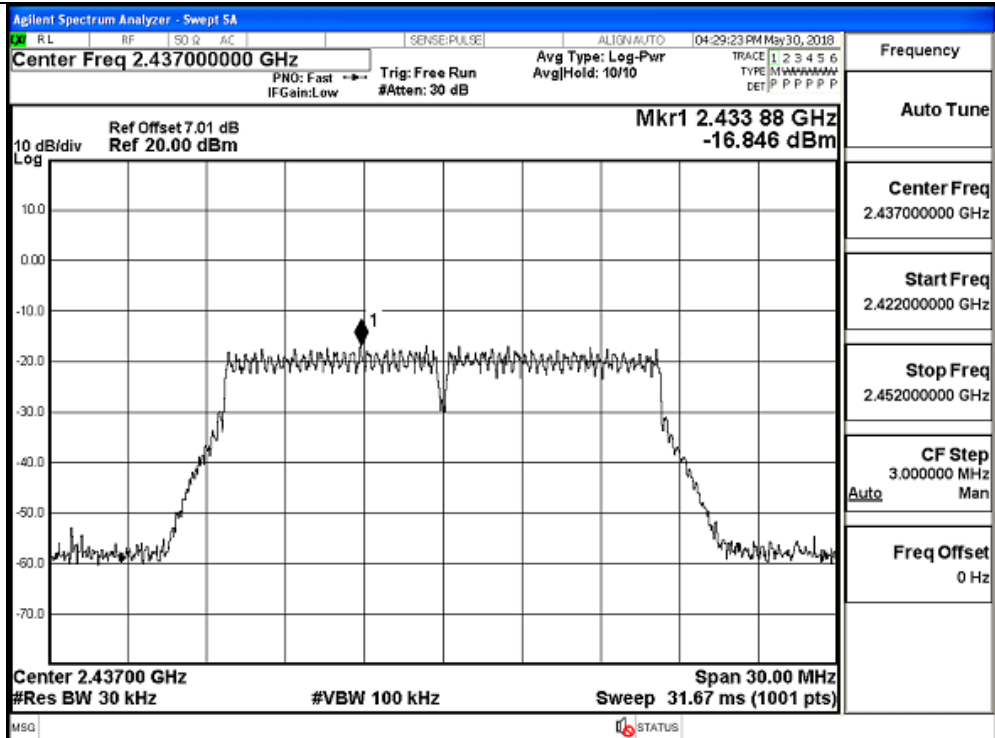
11B/HCH



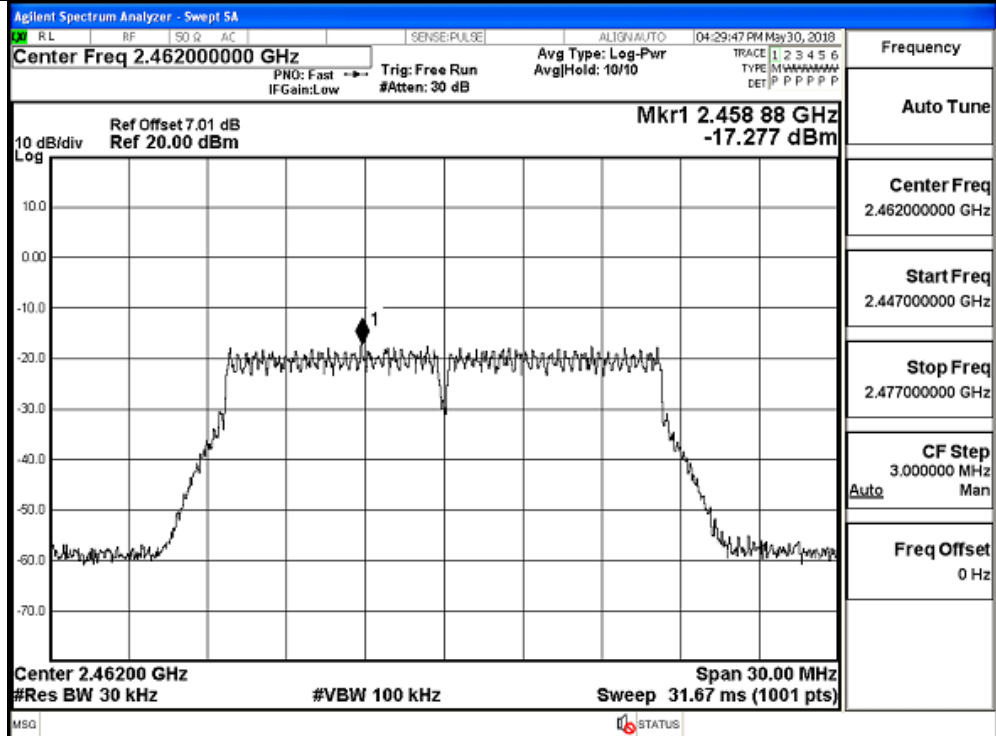
11G/LCH



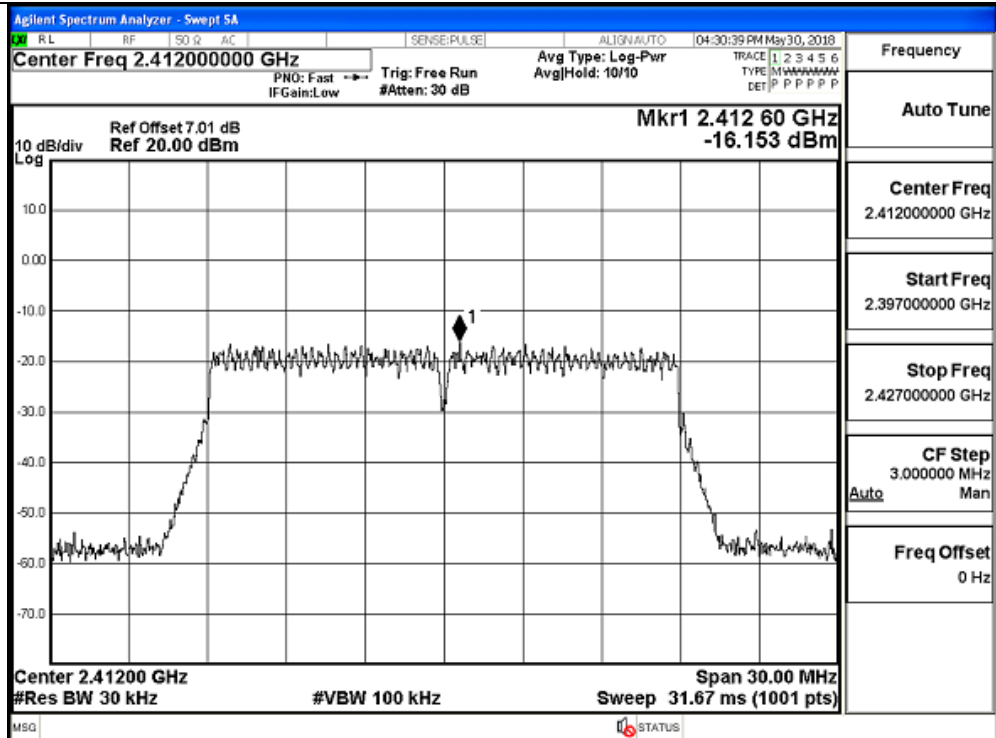
11G/MCH



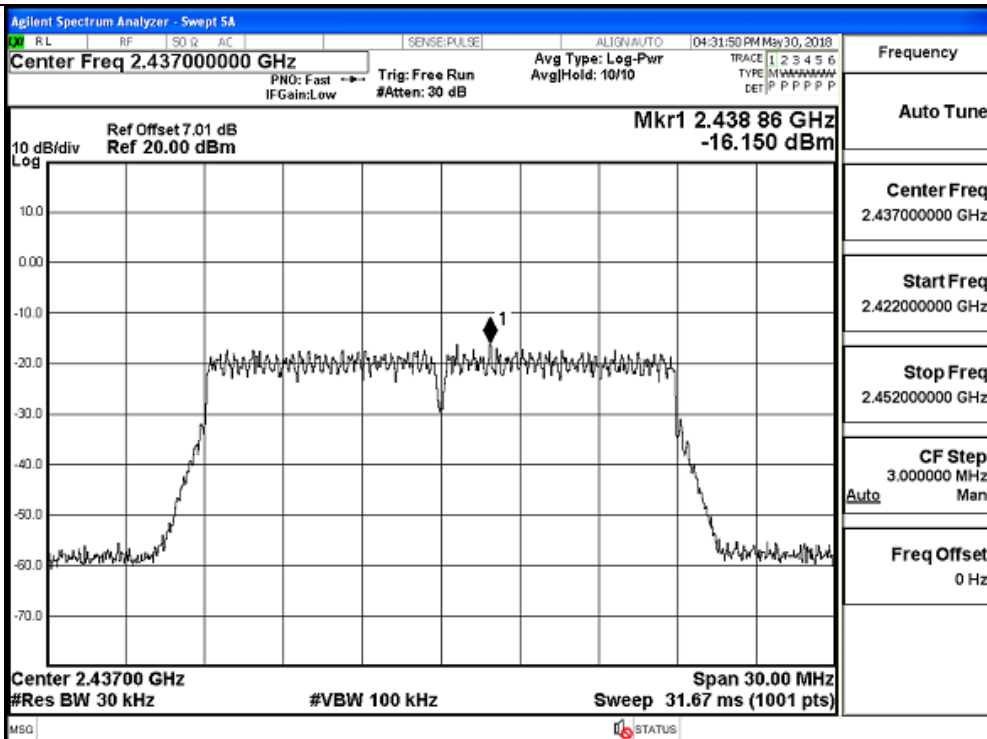
11G/HCH



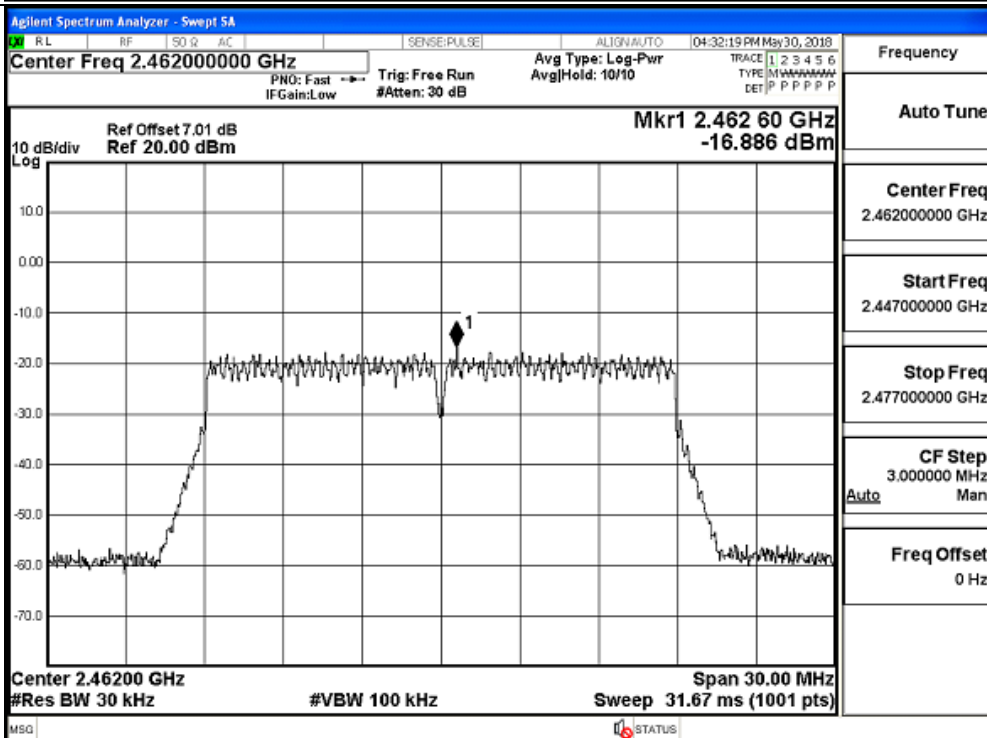
11N20SISO/LCH



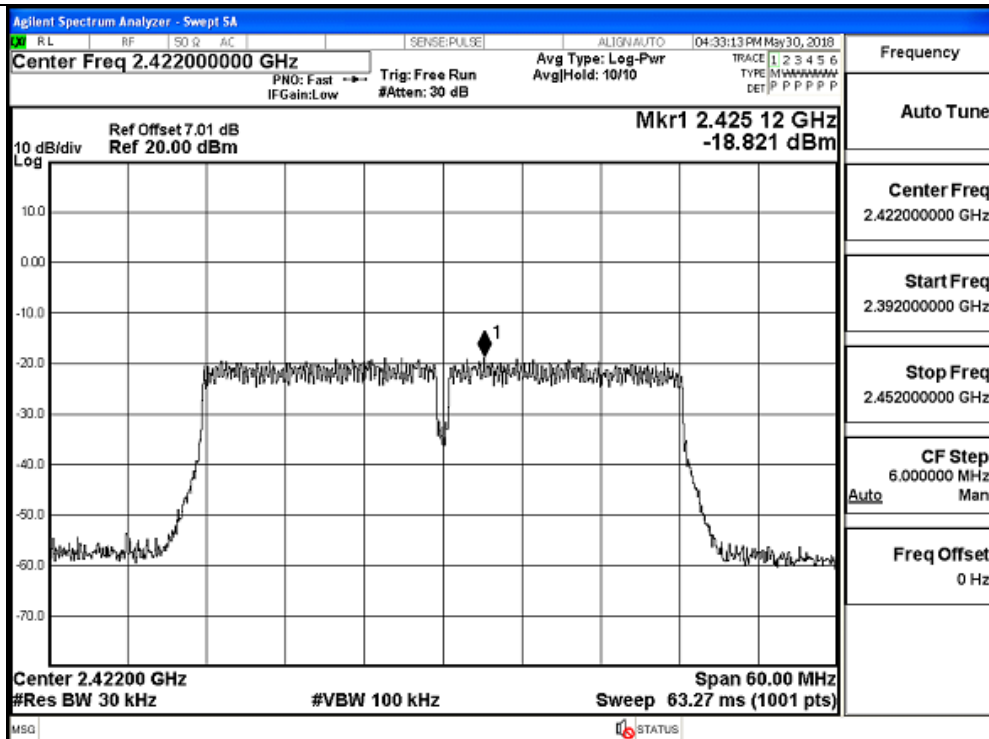
11N20SISO/MCH



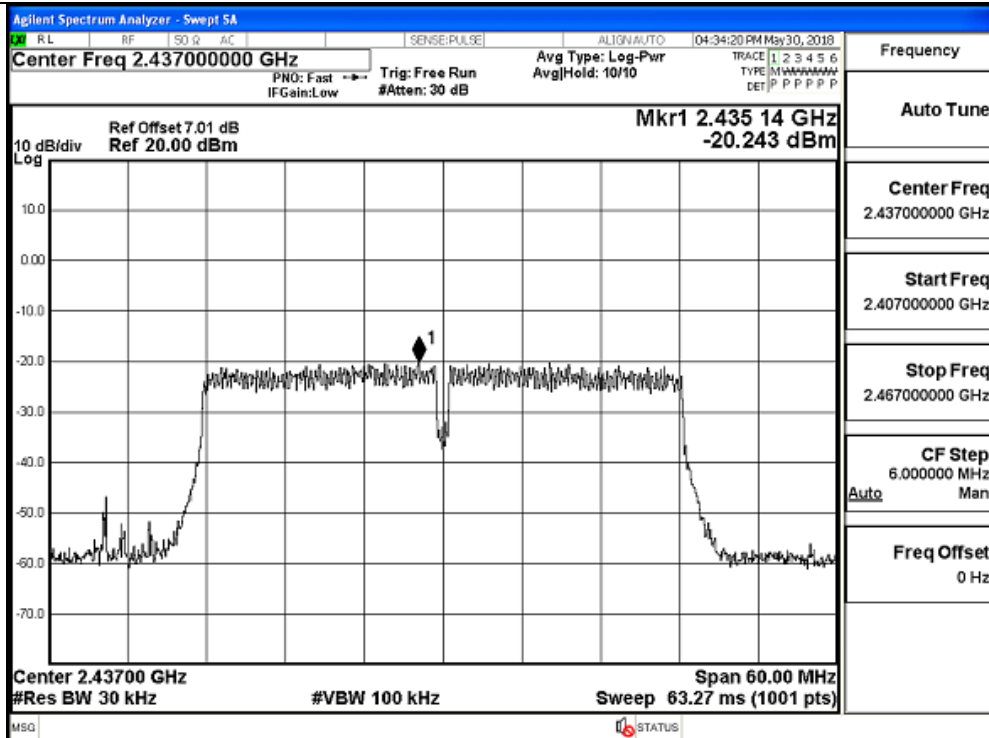
11N20SISO/HCH



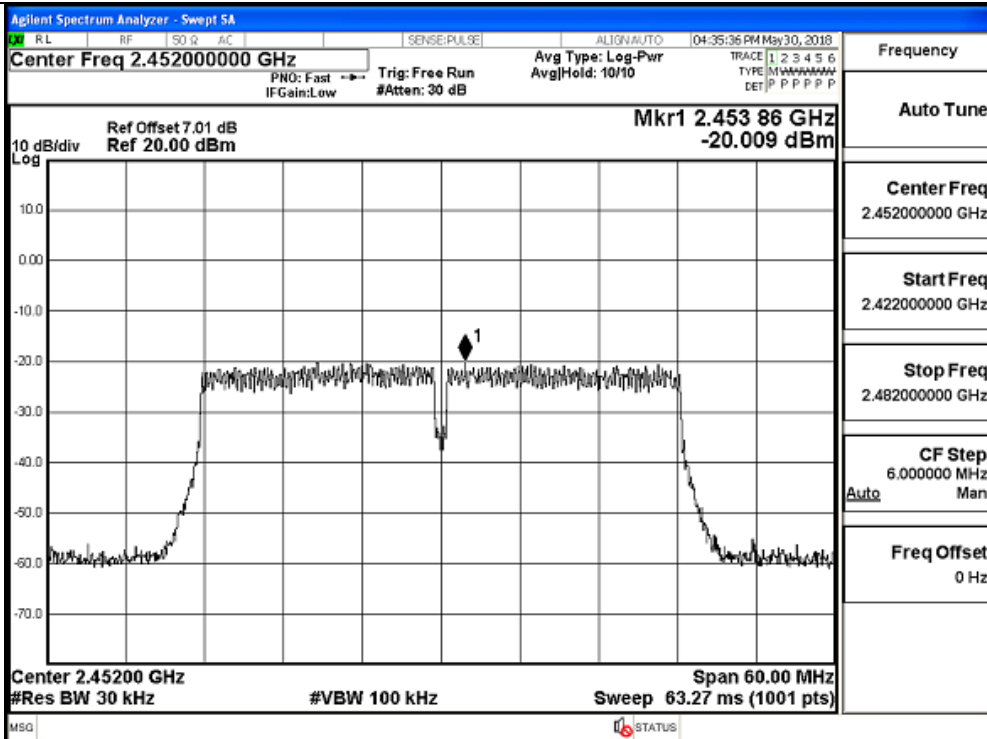
11N40SISO/LCH



11N40SISO/MCH



11N40SISO/HCH

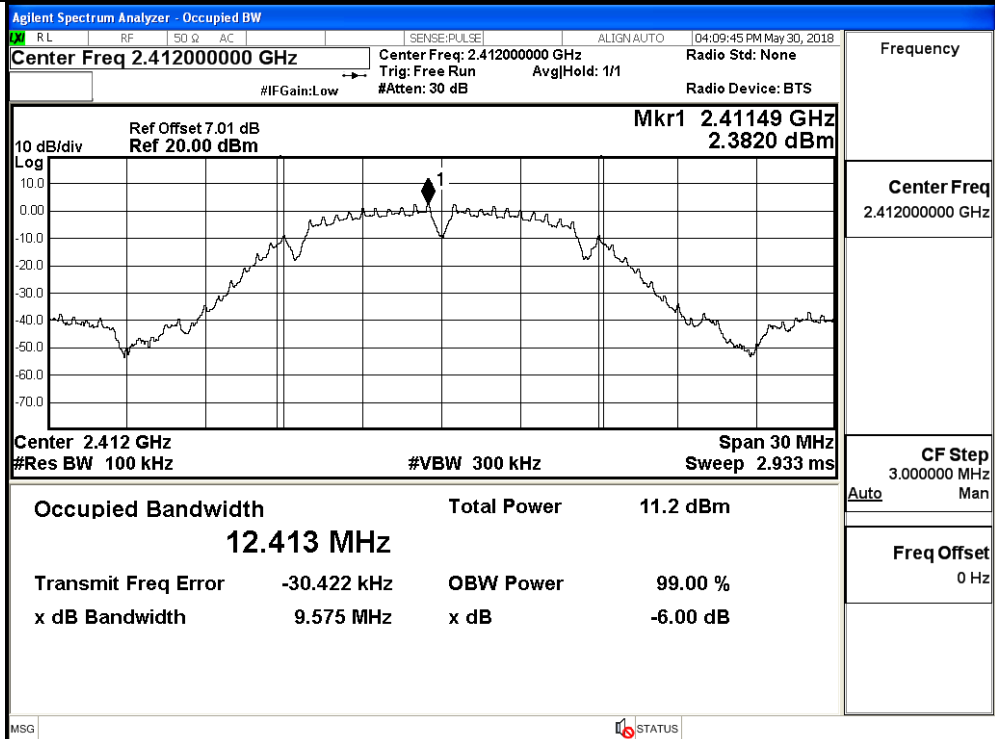


## C.4 6dB Bandwidth

| Mode      | Channel | 6dB Bandwidth [MHz] | Limit [MHz] | Verdict |
|-----------|---------|---------------------|-------------|---------|
| 11B       | LCH     | 9.575               | $\geq 0.5$  | PASS    |
|           | MCH     | 10.04               | $\geq 0.5$  | PASS    |
|           | HCH     | 9.123               | $\geq 0.5$  | PASS    |
| 11G       | LCH     | 15.15               | $\geq 0.5$  | PASS    |
|           | MCH     | 15.15               | $\geq 0.5$  | PASS    |
|           | HCH     | 15.11               | $\geq 0.5$  | PASS    |
| 11N20SISO | LCH     | 15.15               | $\geq 0.5$  | PASS    |
|           | MCH     | 15.12               | $\geq 0.5$  | PASS    |
|           | HCH     | 15.36               | $\geq 0.5$  | PASS    |
| 11N40SISO | LCH     | 35.25               | $\geq 0.5$  | PASS    |
|           | MCH     | 35.22               | $\geq 0.5$  | PASS    |
|           | HCH     | 35.24               | $\geq 0.5$  | PASS    |

## Test Graphs

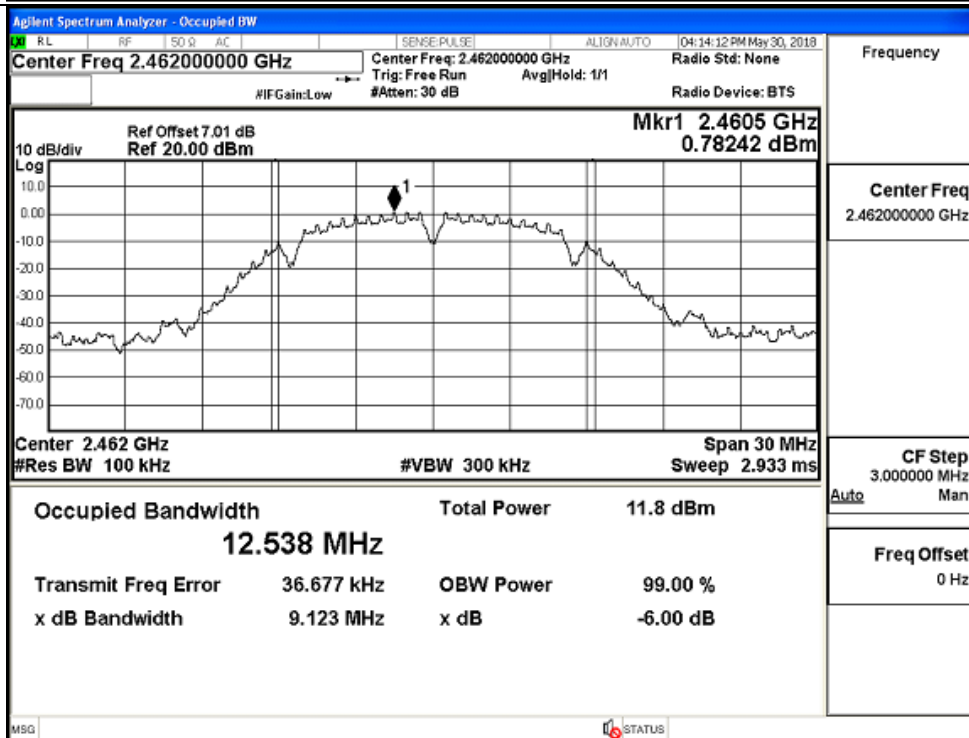
11B/LCH



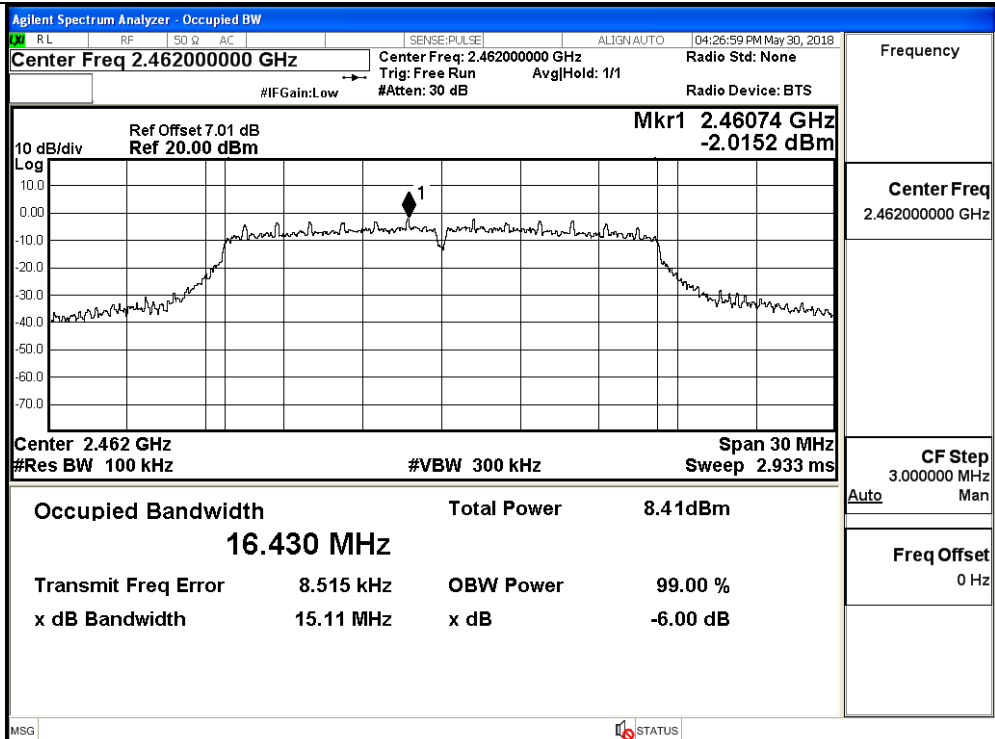
11B/MCH



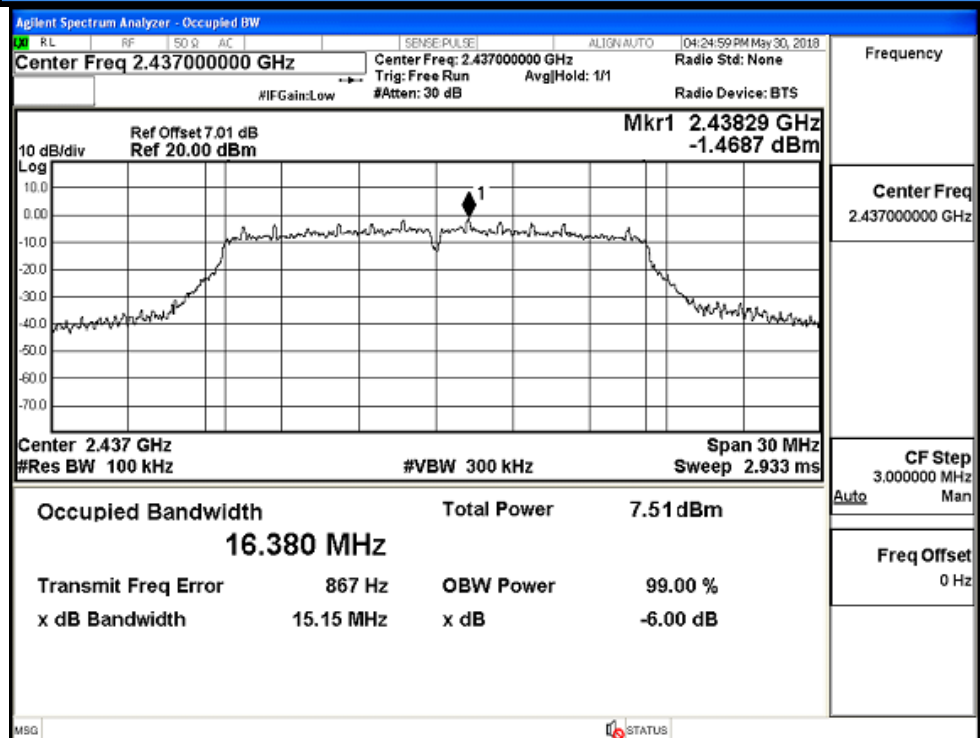
11B/HCH



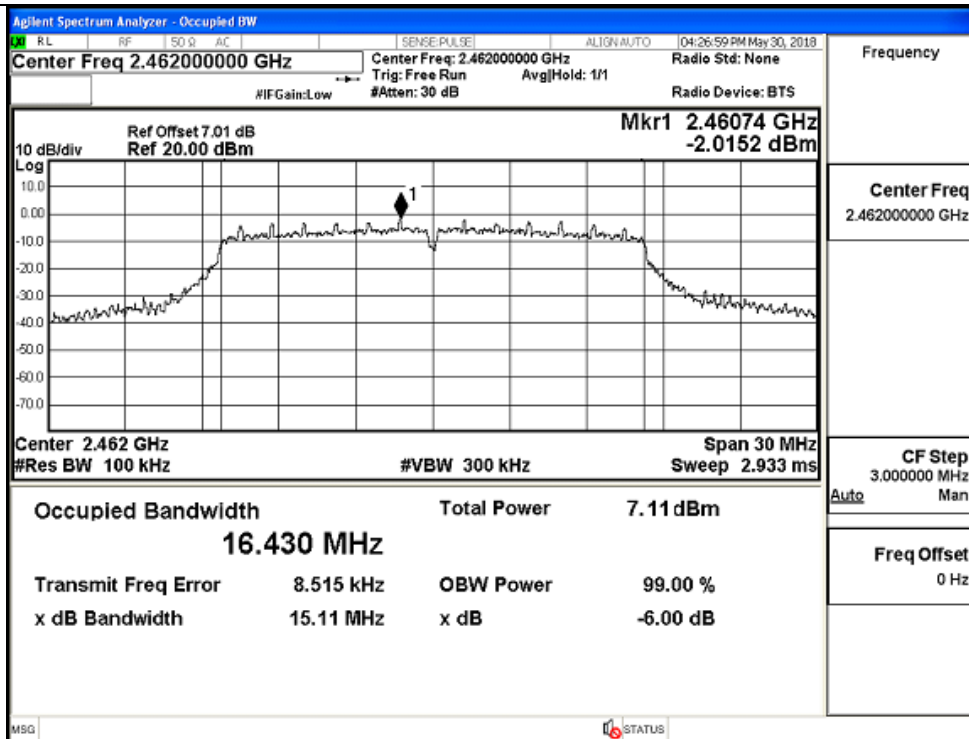
11G/LCH



11G/MCH



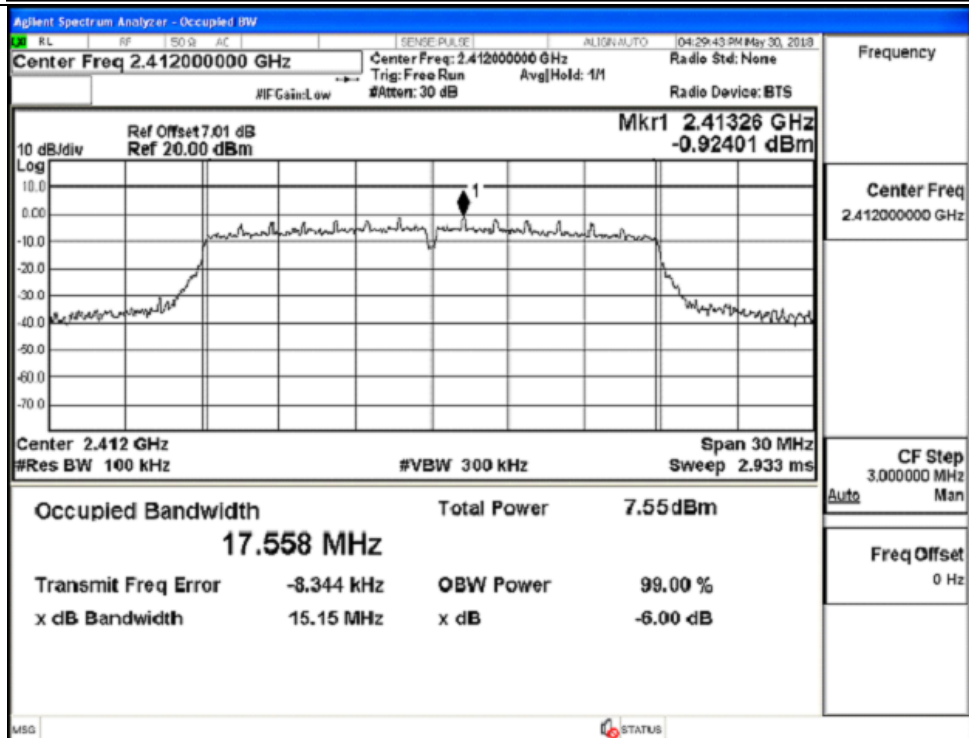
11G/HCH



Frequency

Center Freq  
2.462000000 GHzCF Step  
3.000000 MHz  
Auto ManFreq Offset  
0 Hz

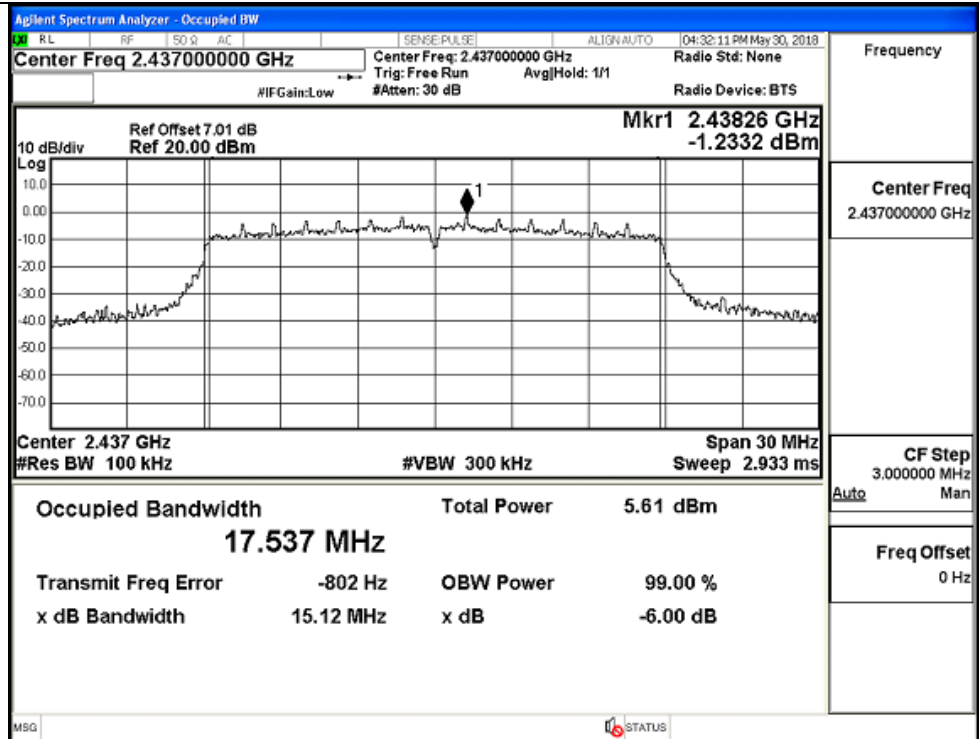
11N20SISO/LCH



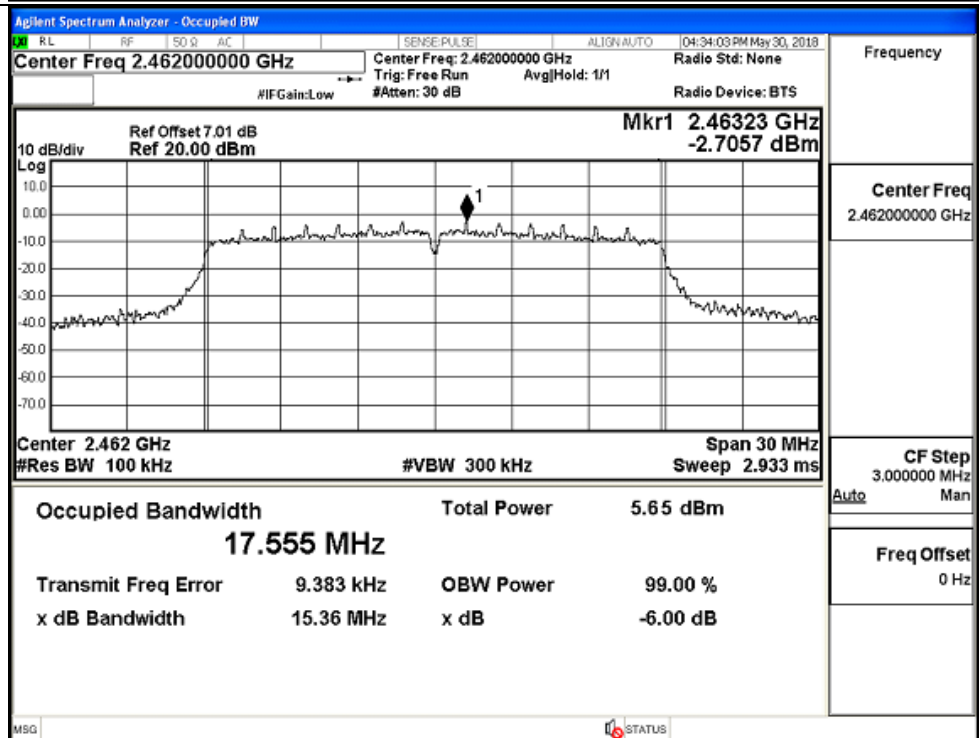
Frequency

Center Freq  
2.412000000 GHzCF Step  
3.000000 MHz  
Auto ManFreq Offset  
0 Hz

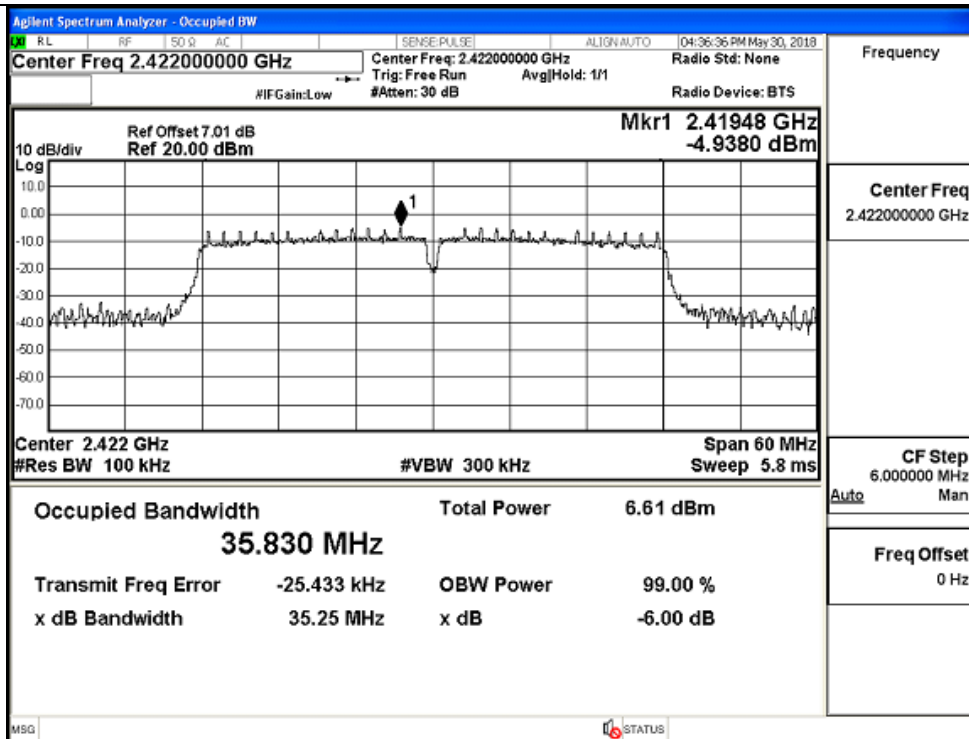
11N20SISO/MCH



11N20SISO/HCH



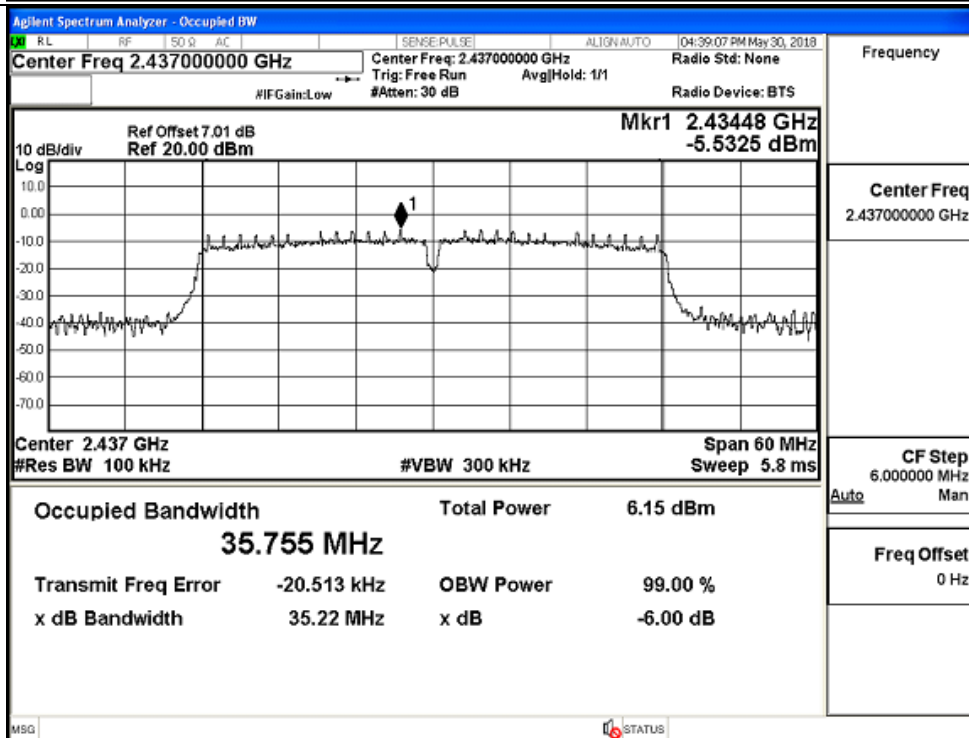
11N40SISO/LCH



Frequency

Center Freq  
2.422000000 GHzCF Step  
6.000000 MHz  
Auto ManFreq Offset  
0 Hz

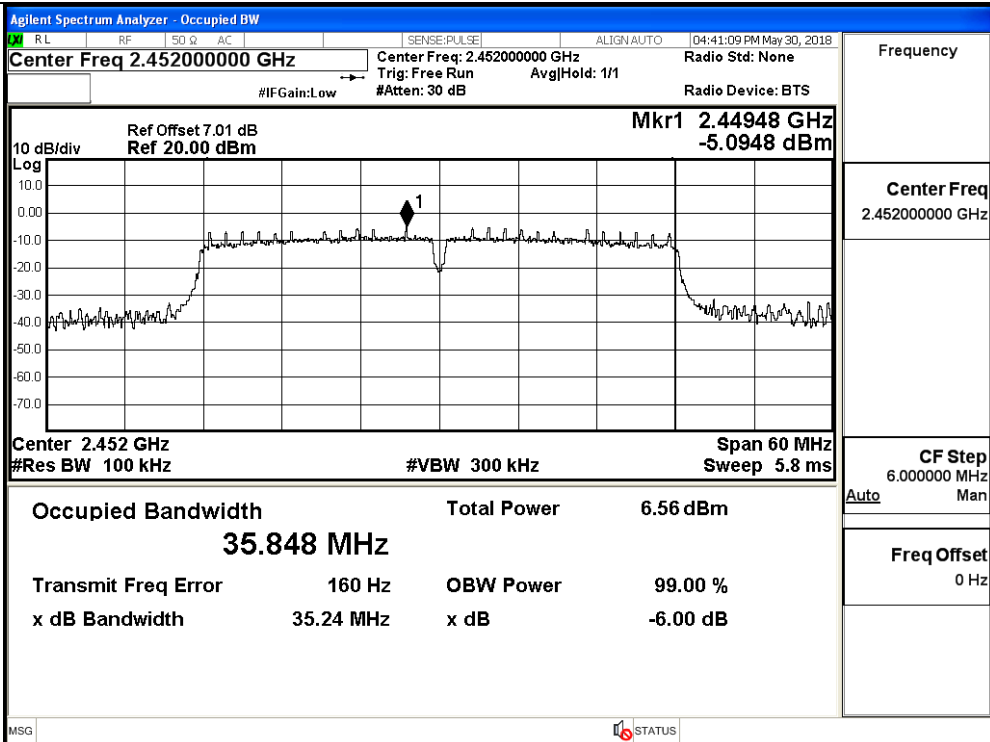
11N40SISO/MCH



Frequency

Center Freq  
2.437000000 GHzCF Step  
6.000000 MHz  
Auto ManFreq Offset  
0 Hz

11N40SISO/HCH

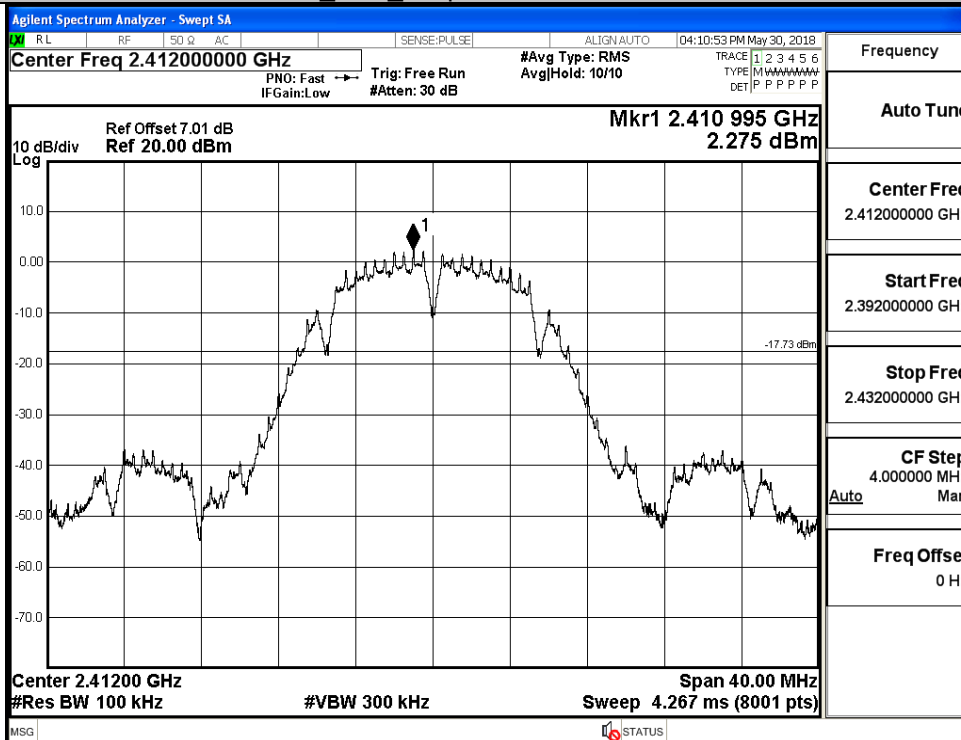


**C.5 RF Conducted Spurious Emissions**

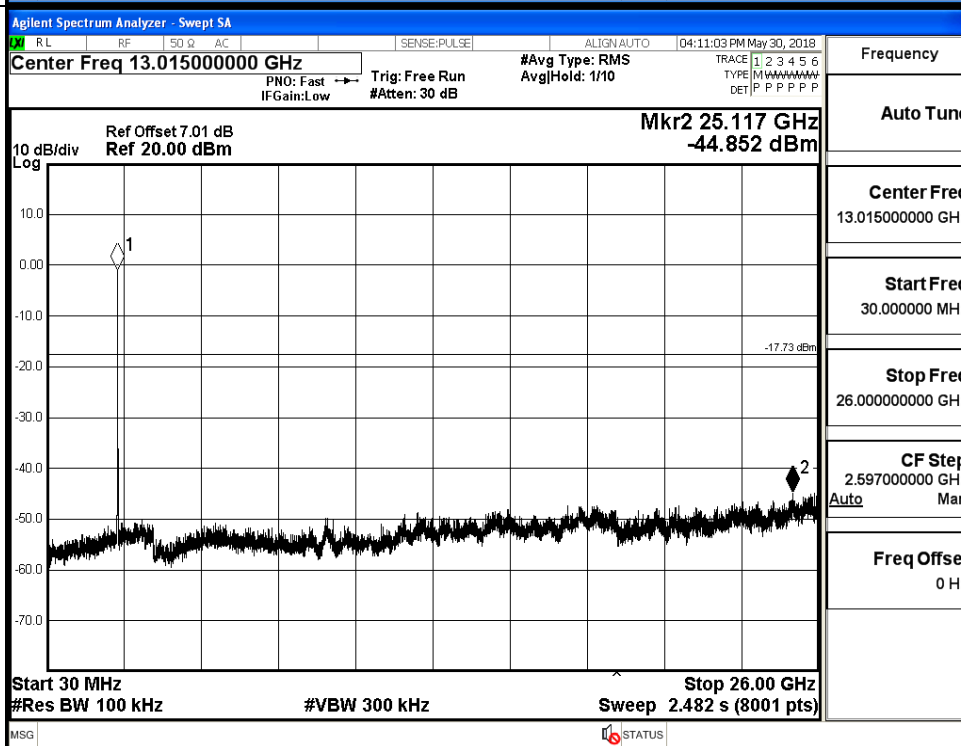
| Mode          | Channel | Pref [dBm] | Max. Level [dBm] | Limit [dBm] | Verdict |
|---------------|---------|------------|------------------|-------------|---------|
| 11B           | LCH     | 2.275      | -44.852          | -17.725     | PASS    |
|               | MCH     | 1.102      | -26.936          | -18.898     | PASS    |
|               | HCH     | 0.509      | -44.571          | -19.491     | PASS    |
| 11G           | LCH     | -1.047     | -44.758          | -21.047     | PASS    |
|               | MCH     | -1.342     | -45.027          | -21.342     | PASS    |
|               | HCH     | -1.527     | -43.604          | -21.527     | PASS    |
| 11N20<br>SISO | LCH     | -1.217     | -43.702          | -21.217     | PASS    |
|               | MCH     | -1.841     | -43.659          | -21.841     | PASS    |
|               | HCH     | -2.295     | -42.293          | -22.295     | PASS    |
| 11N40<br>SISO | LCH     | -5.134     | -44.503          | -25.134     | PASS    |
|               | MCH     | -5.571     | -45.158          | -25.571     | PASS    |
|               | HCH     | -5.234     | -44.875          | -25.234     | PASS    |

## 11B LCH Graphs

Pref/11B/LCH

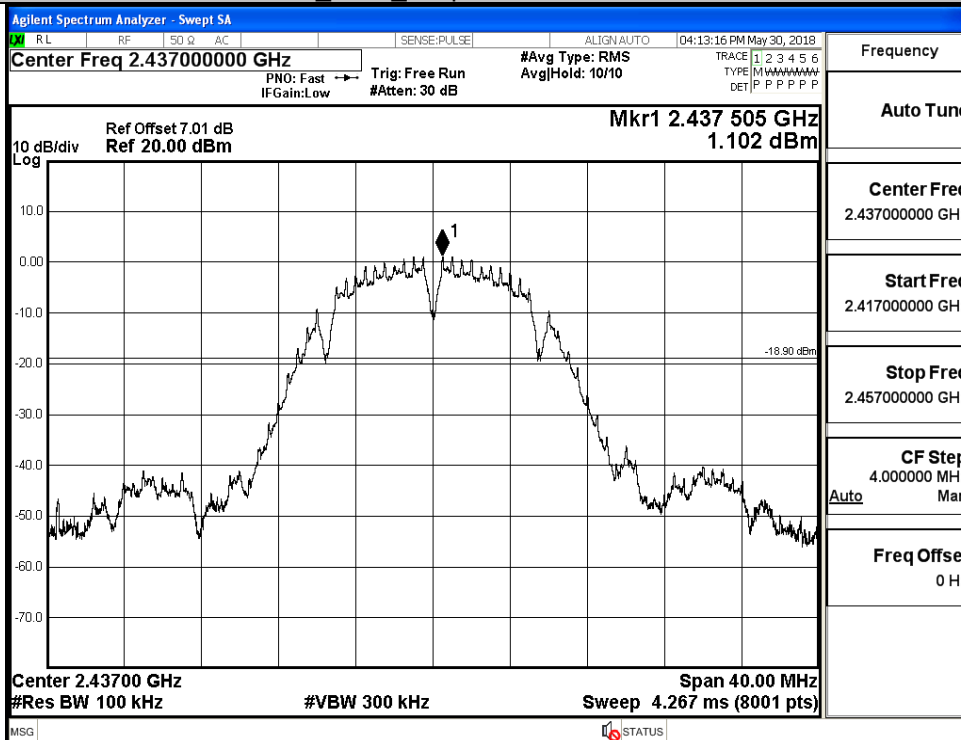


Puw/11B/LCH

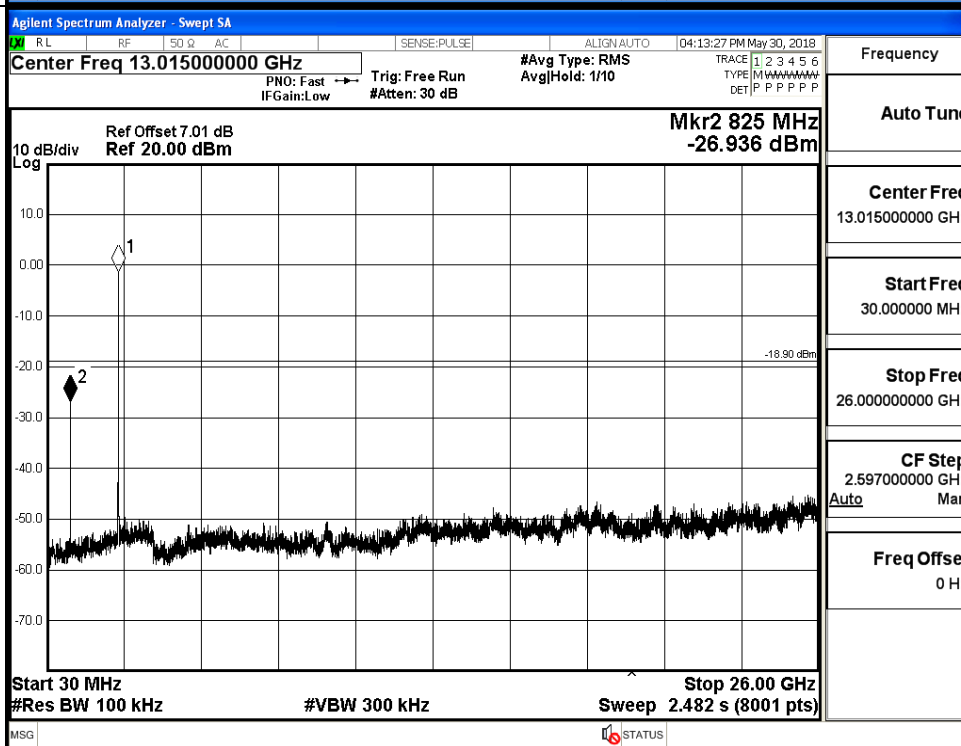


## 11B MCH Graphs

Pref/11B/MCH

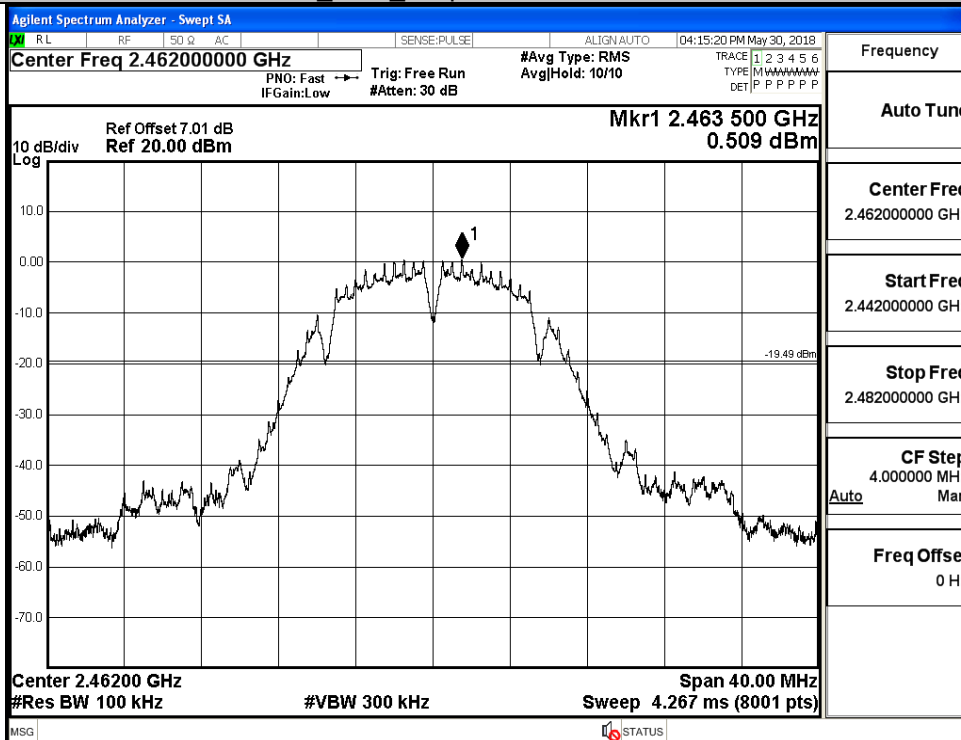


Puw/11B/MCH

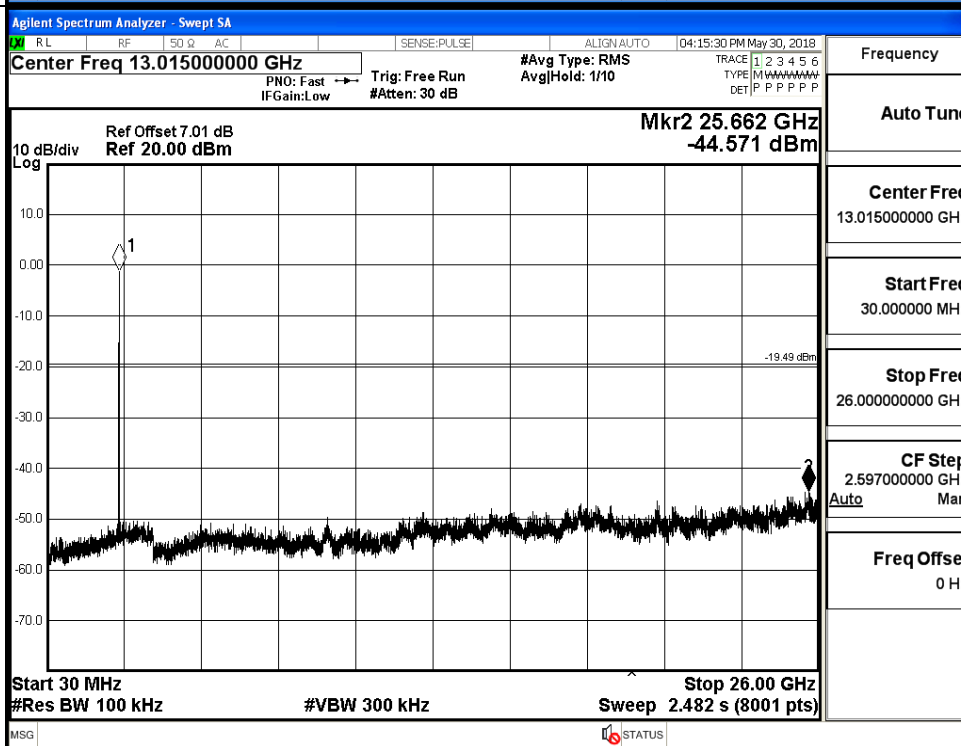


## 11B HCH Graphs

Pref/11B/HCH

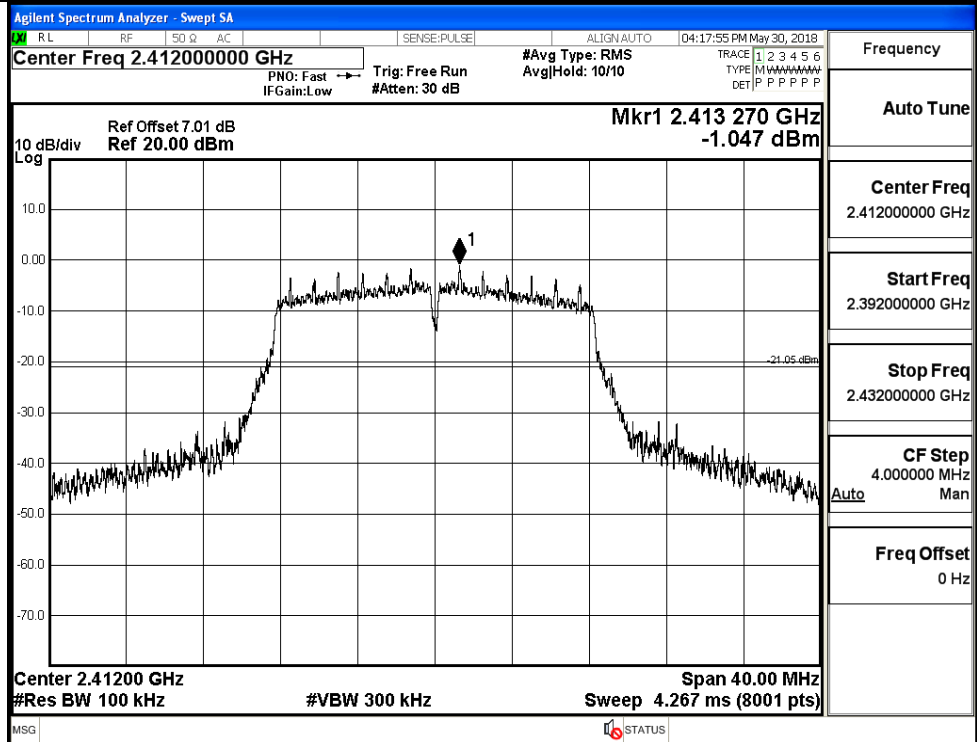


Puw/11B/HCH

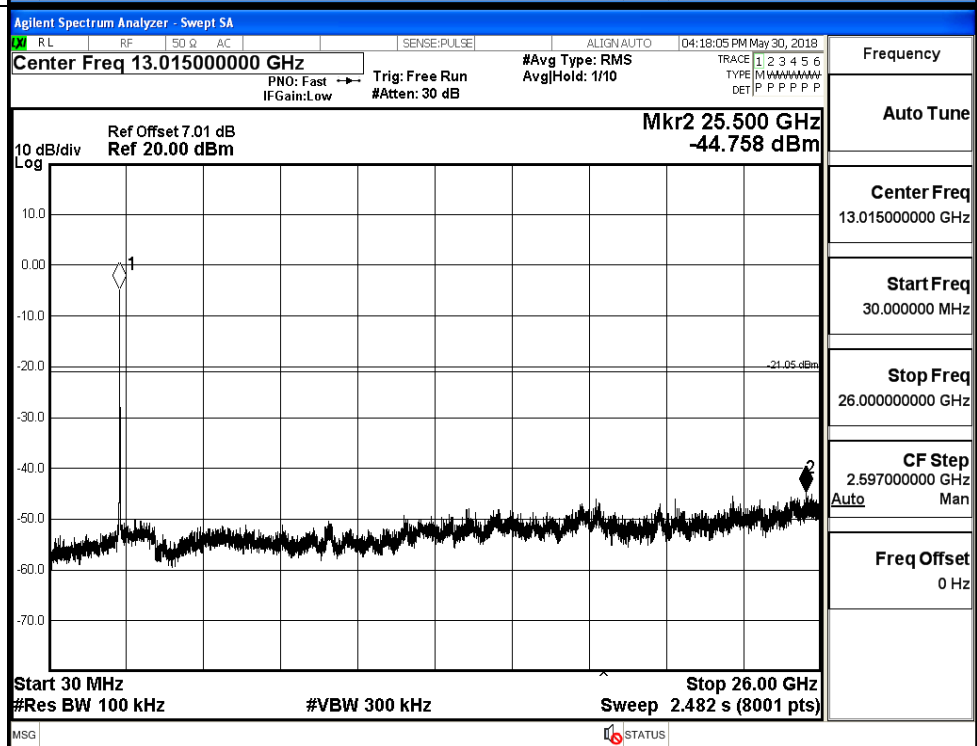


## 11G LCH Graphs

Pref/11G/LCH

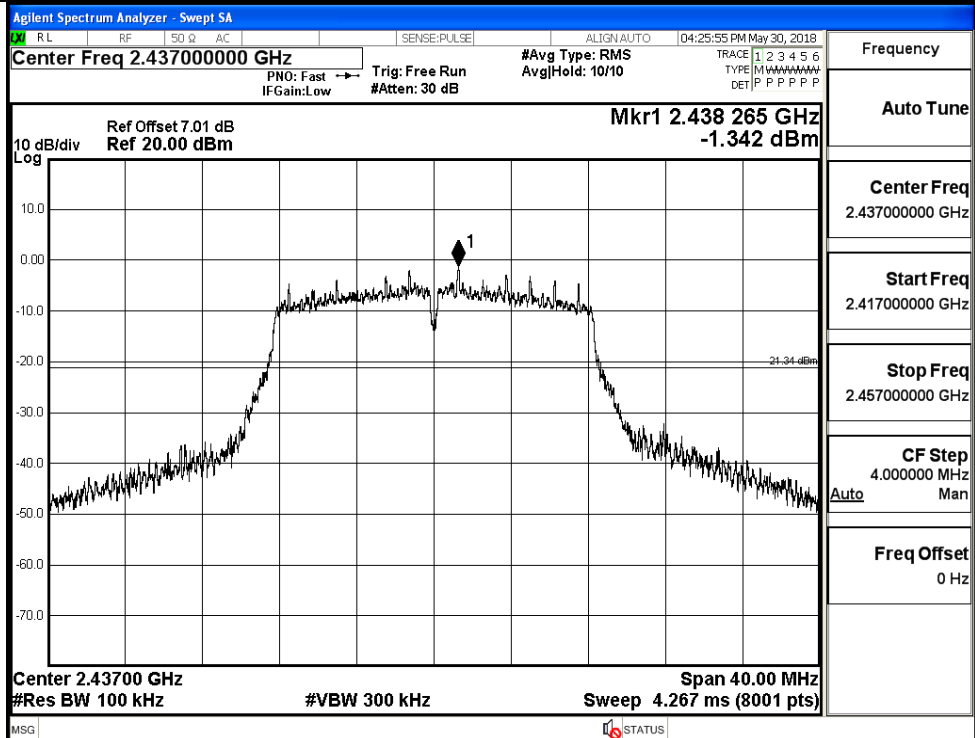


Puw/11G/LCH

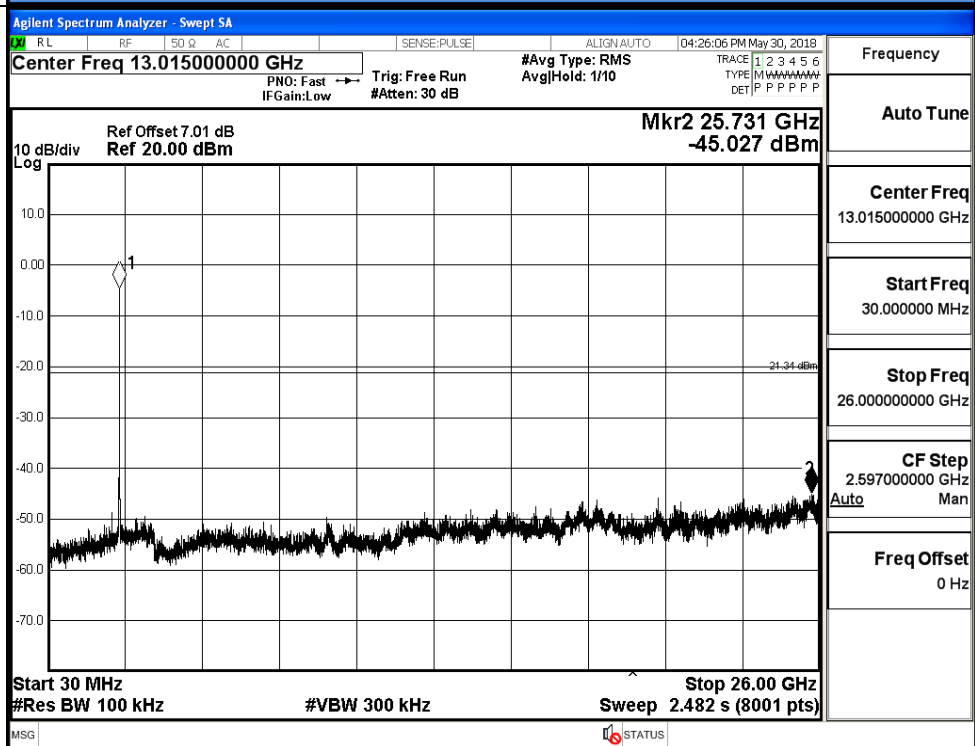


## 11G MCH Graphs

Pref/11G/MCH

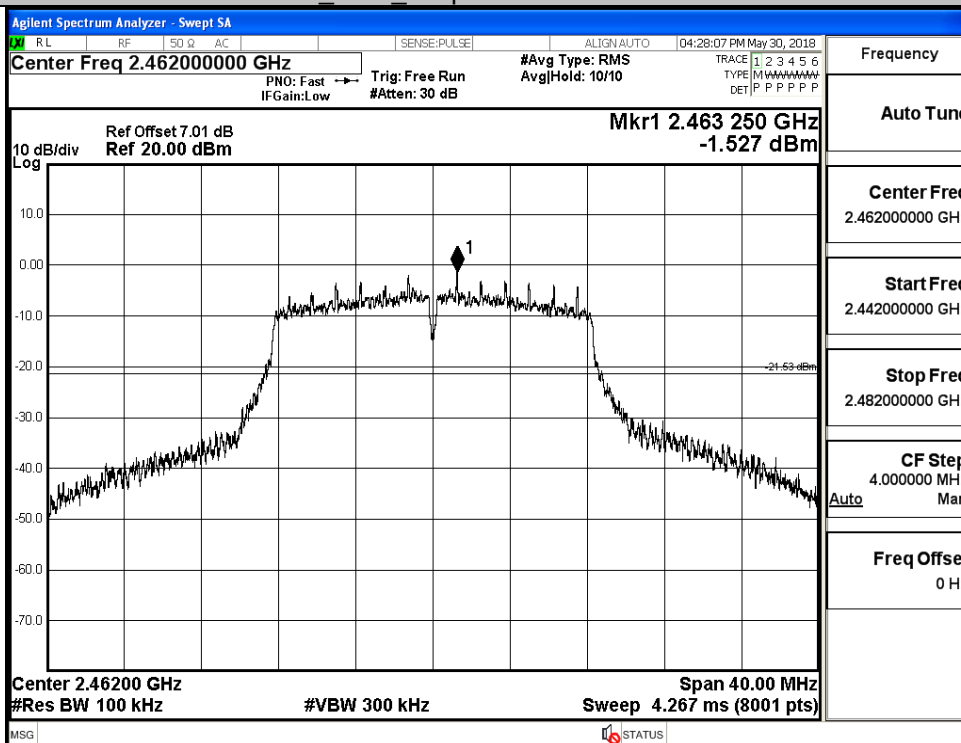


Puw/11G/MCH

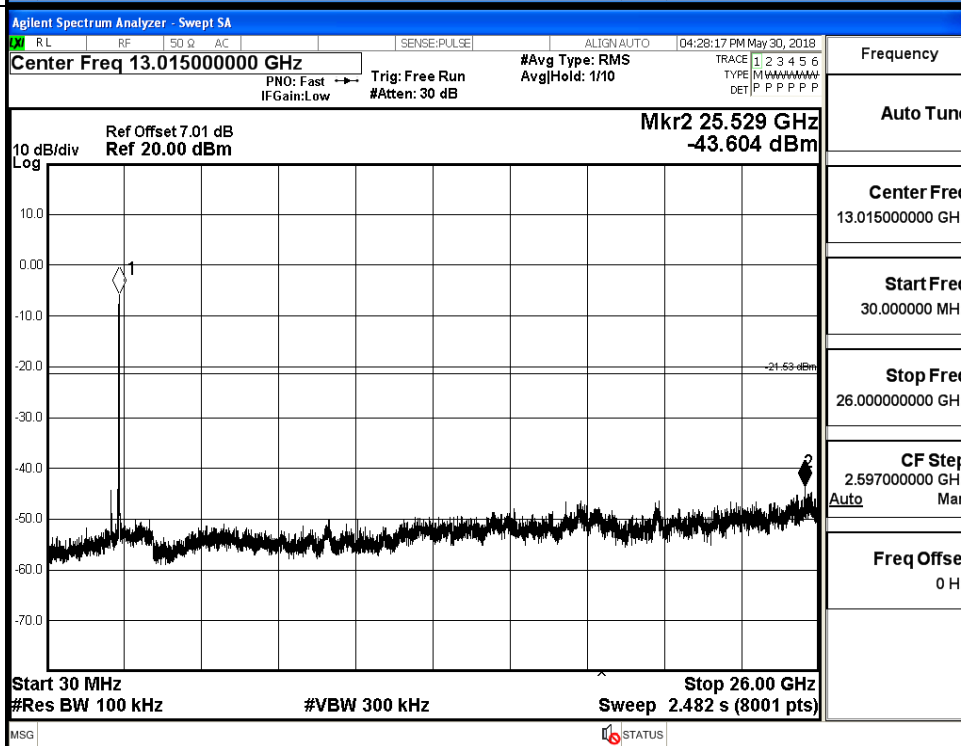


## 11G HCH Graphs

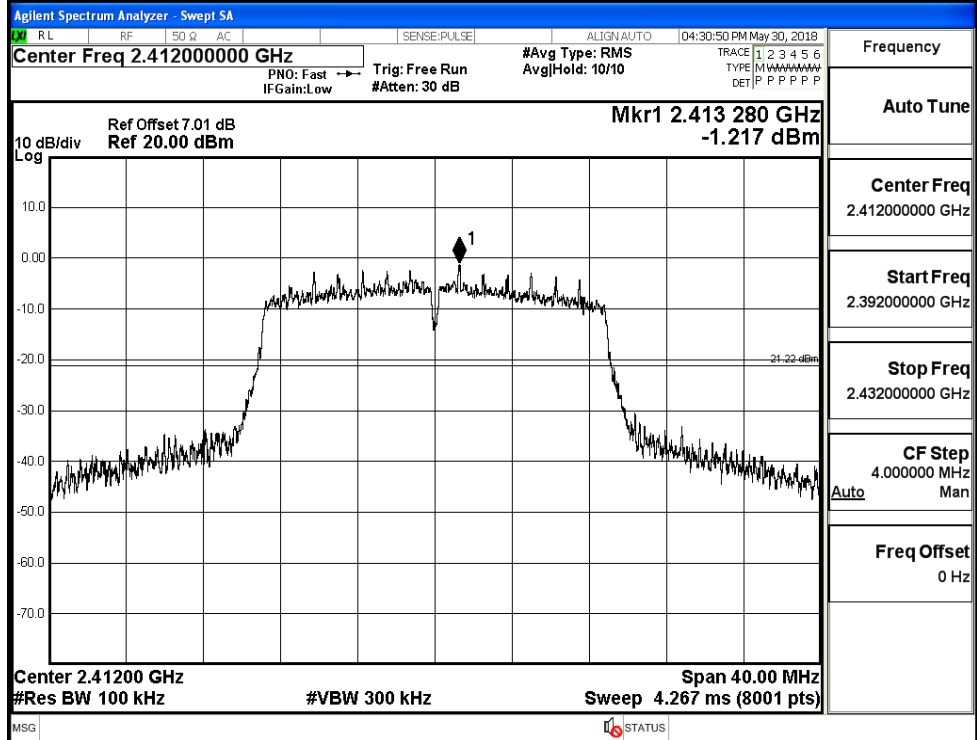
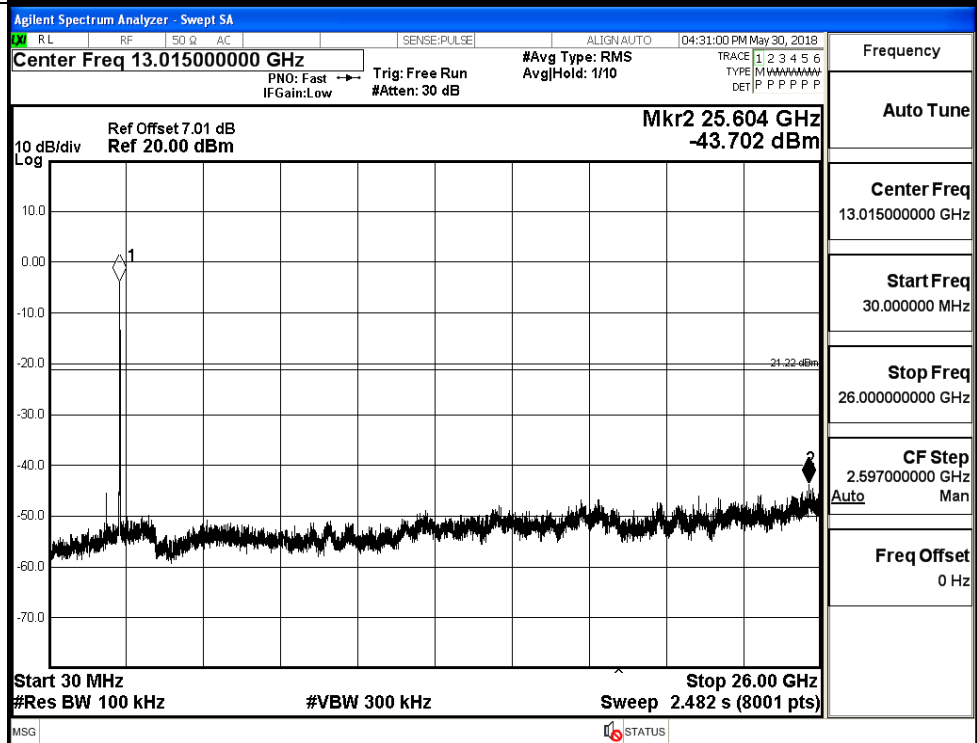
Pref/11G/HCH



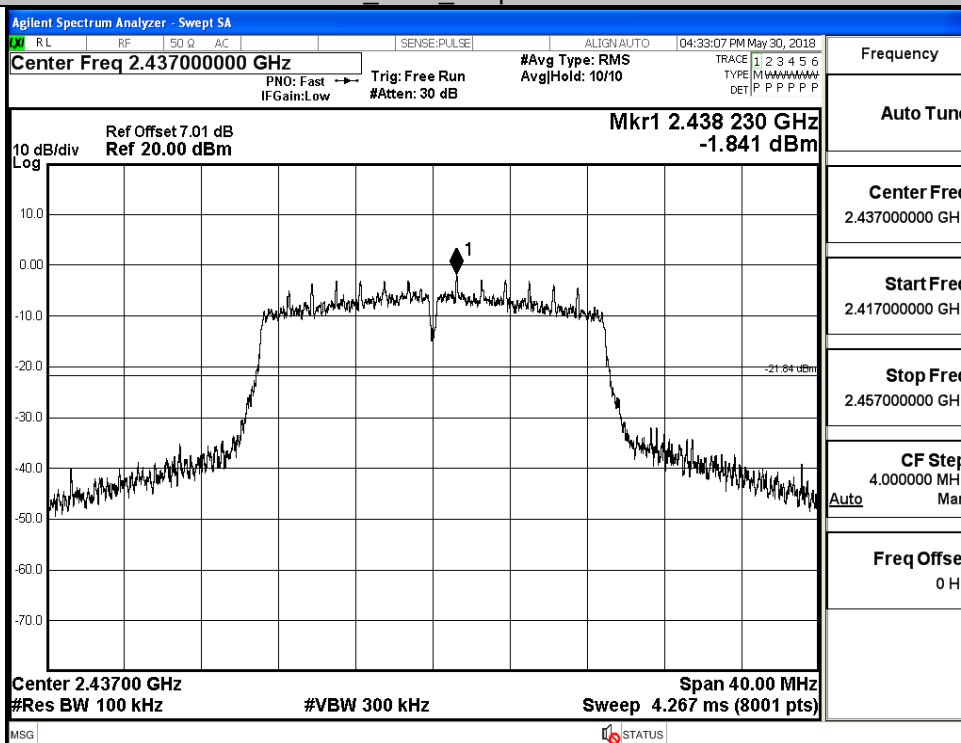
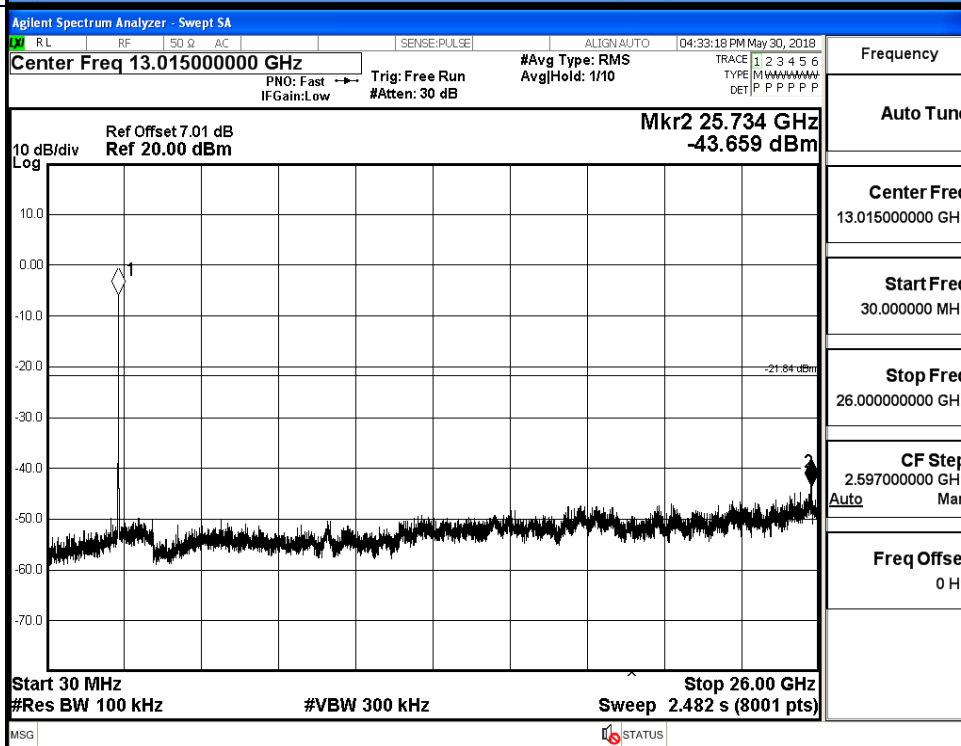
Puw/11G/HCH



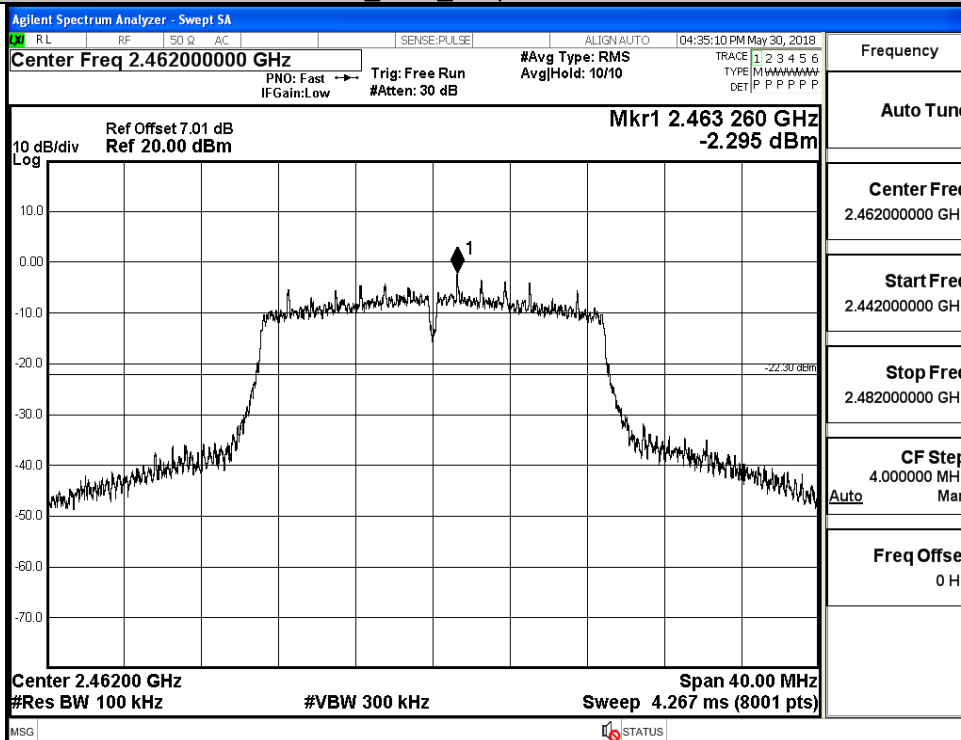
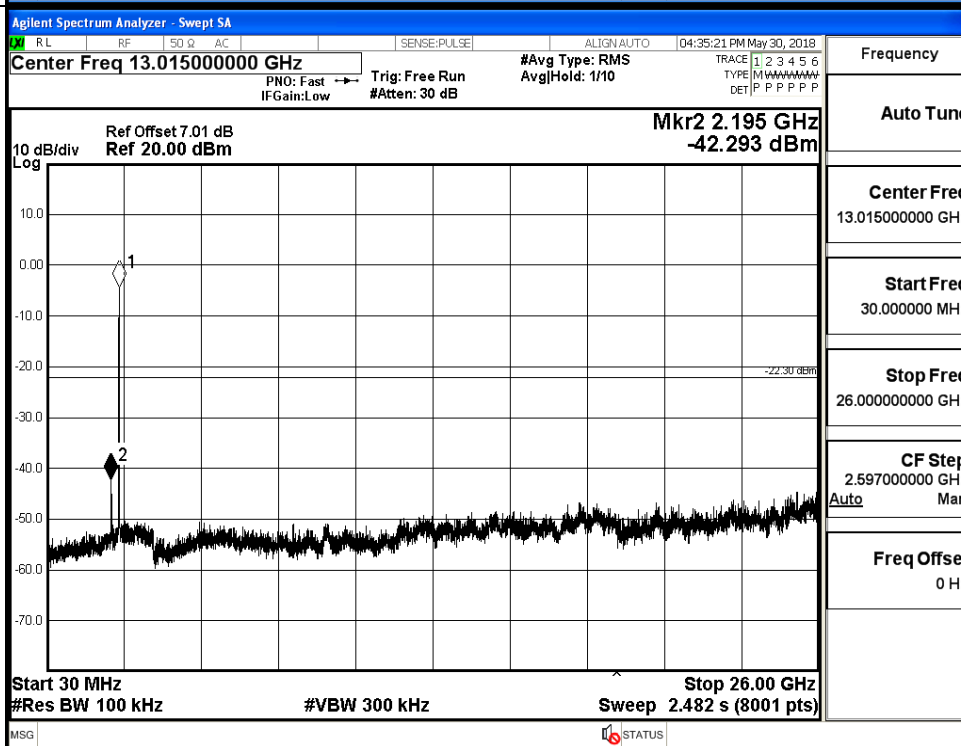
## 11N20SISO LCH Graphs

Pref/11N20SIS  
O/LCHPuw/11N20  
SISO/LCH

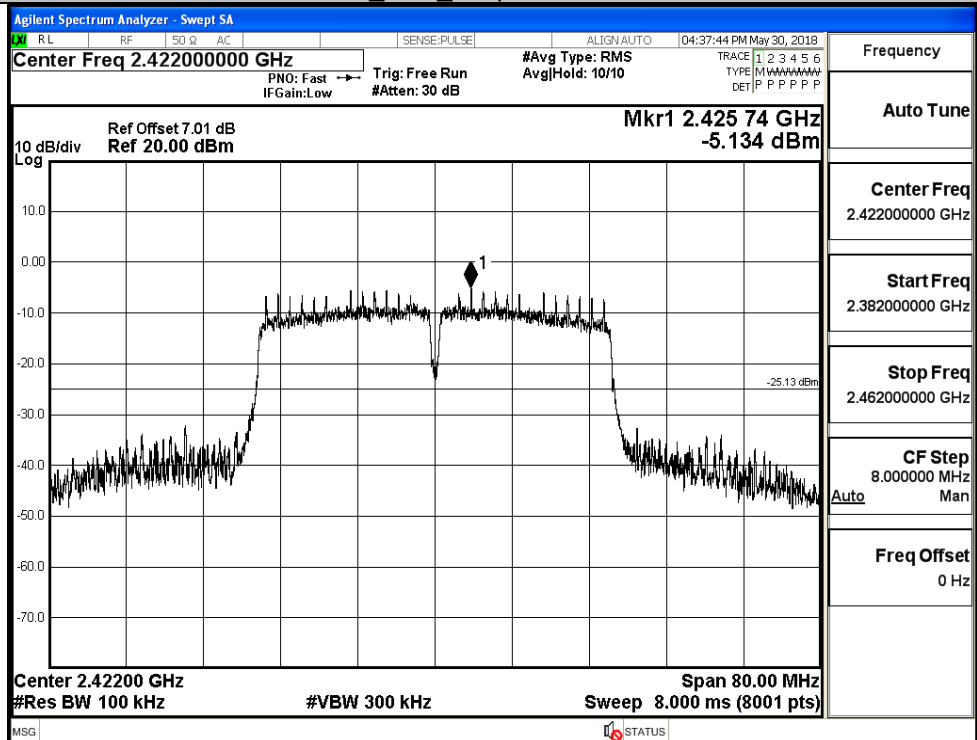
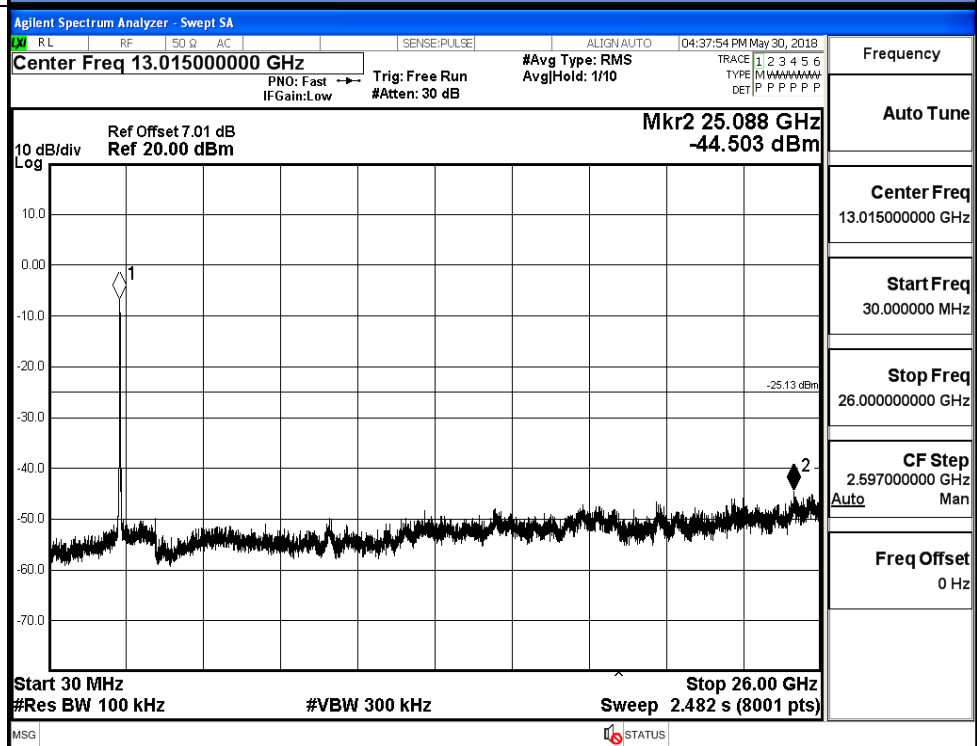
## 11N20SISO MCH Graphs

Pref/11N20  
SISO/MCHPuw/11N20  
SISO/MCH

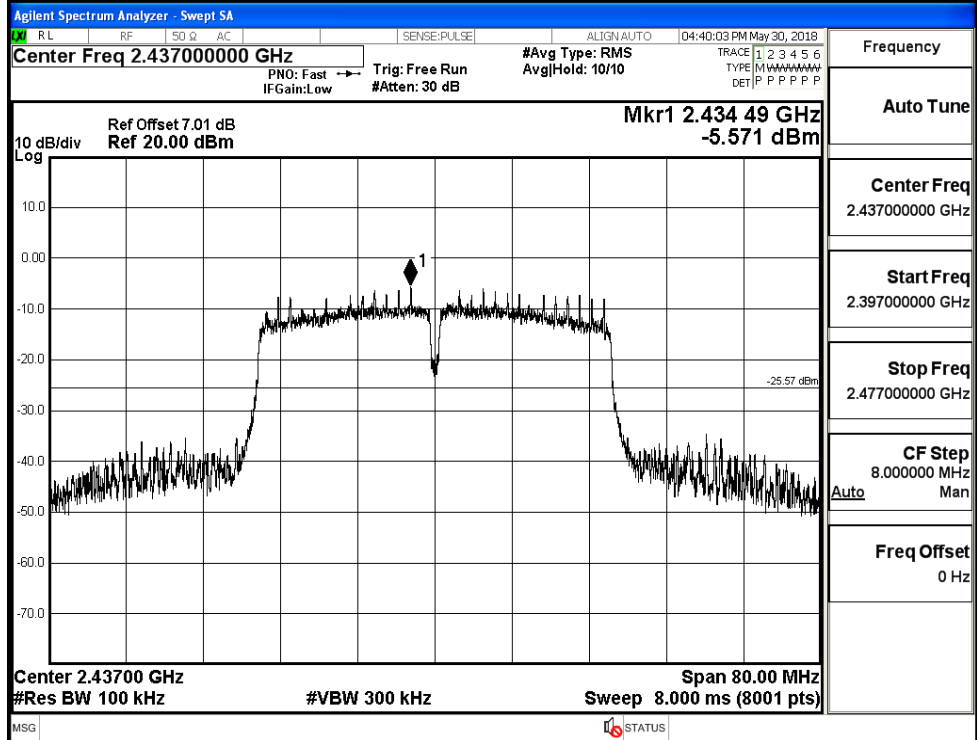
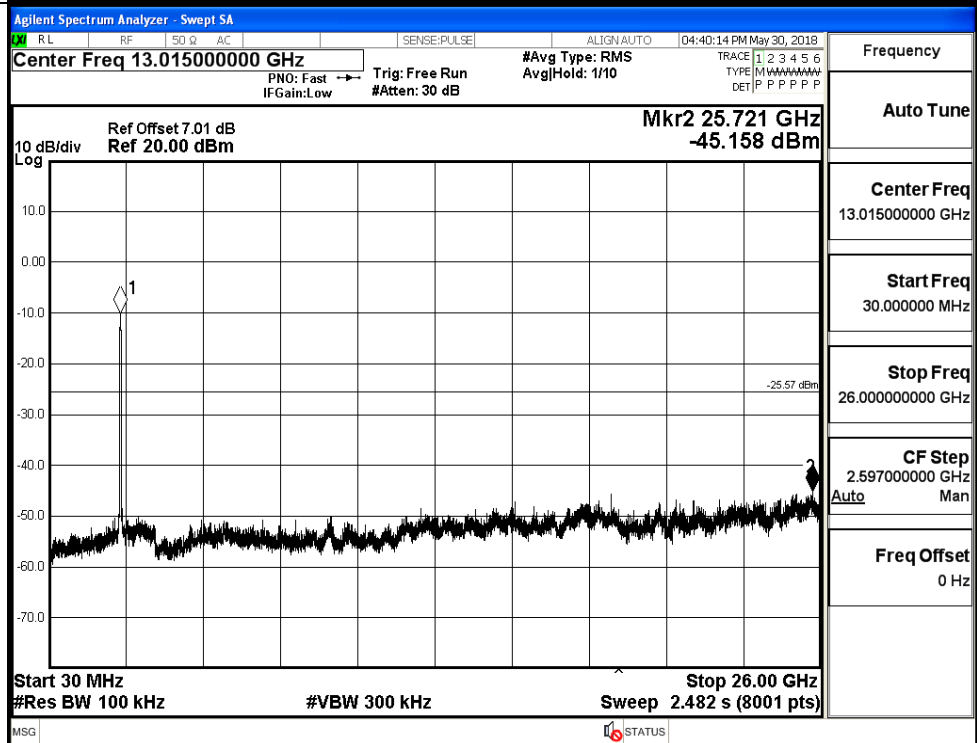
## 11N20SISO HCH Graphs

Pref/11N20  
SISO/HCHPuw/11N20  
SISO/HCH

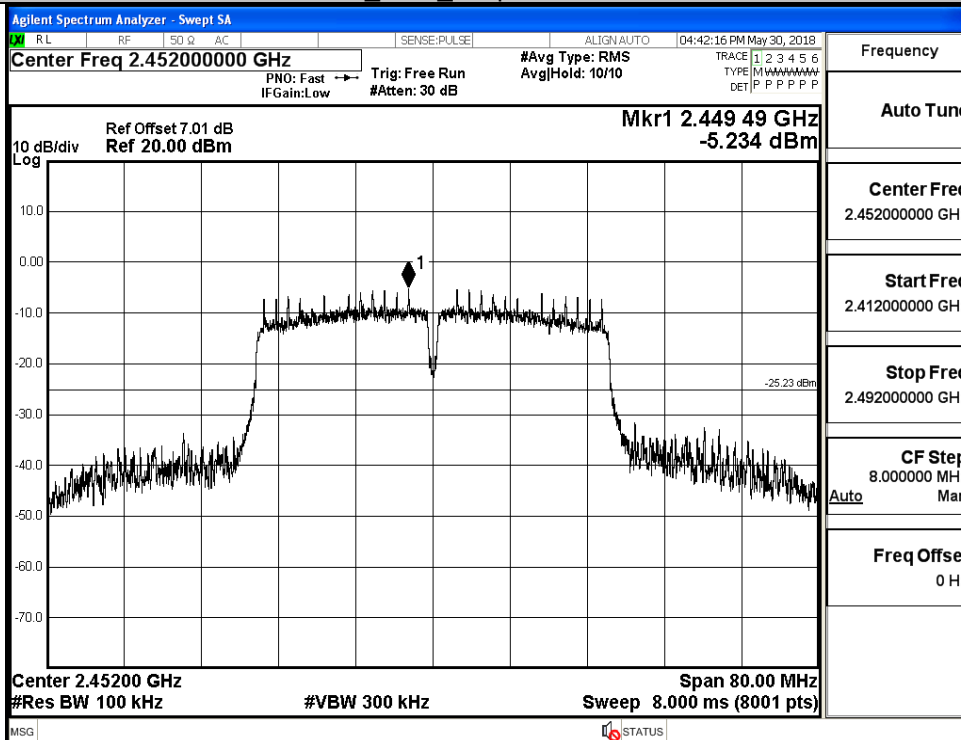
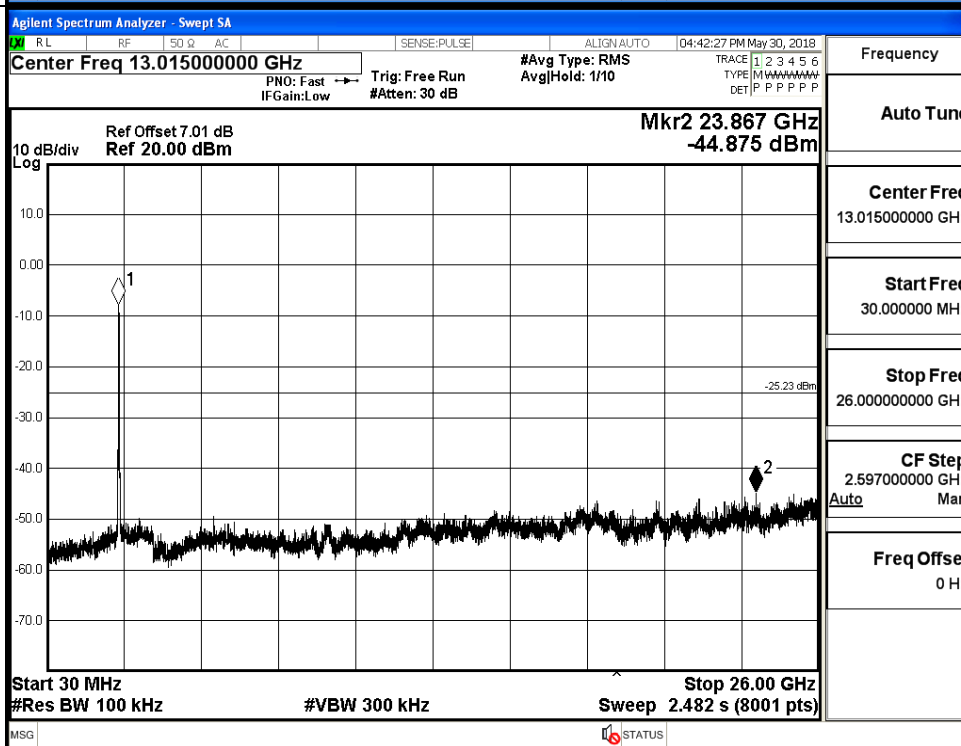
## 11N40SISO LCH Graphs

Pref/11N40  
SISO/LCHPuw/11N40  
SISO/LCH

## 11N40SISO MCH Graphs

Pref/11N40  
SISO/MCHPuw/11N40  
SISO/MCH

## 11N40SISO HCH Graphs

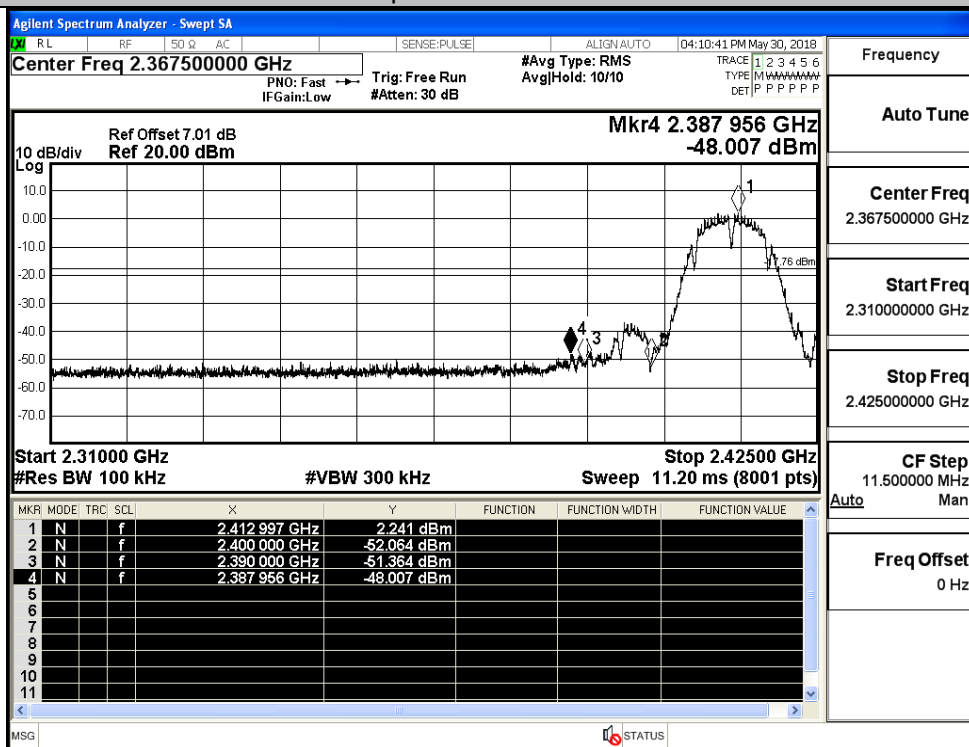
Pref/11N40  
SISO/HCHPuw/11N40  
SISO/HCH

## C.6 Band-edge for RF Conducted Emissions

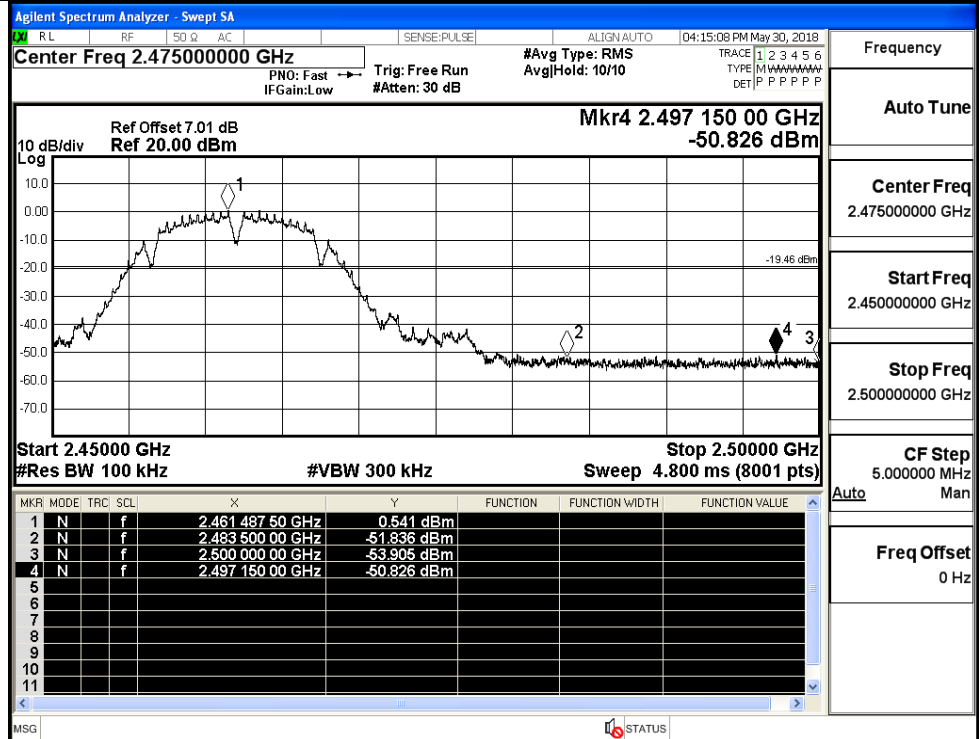
| Mode      | Channel | Carrier Power[dBm] | Max.Spurious Level [dBm] | Limit [dBm] | Verdict |
|-----------|---------|--------------------|--------------------------|-------------|---------|
| 11B       | LCH     | 2.241              | -48.007                  | -17.76      | PASS    |
|           | HCH     | 0.541              | -50.826                  | -19.46      | PASS    |
| 11G       | LCH     | -1.182             | -43.710                  | -21.18      | PASS    |
|           | HCH     | -1.523             | -46.830                  | -21.52      | PASS    |
| 11N20SISO | LCH     | -0.922             | -42.778                  | -20.92      | PASS    |
|           | HCH     | -3.441             | -46.703                  | -23.44      | PASS    |
| 11N40SISO | LCH     | -5.132             | -36.134                  | -25.13      | PASS    |
|           | HCH     | -5.369             | -35.914                  | -25.37      | PASS    |

## Test Graphs

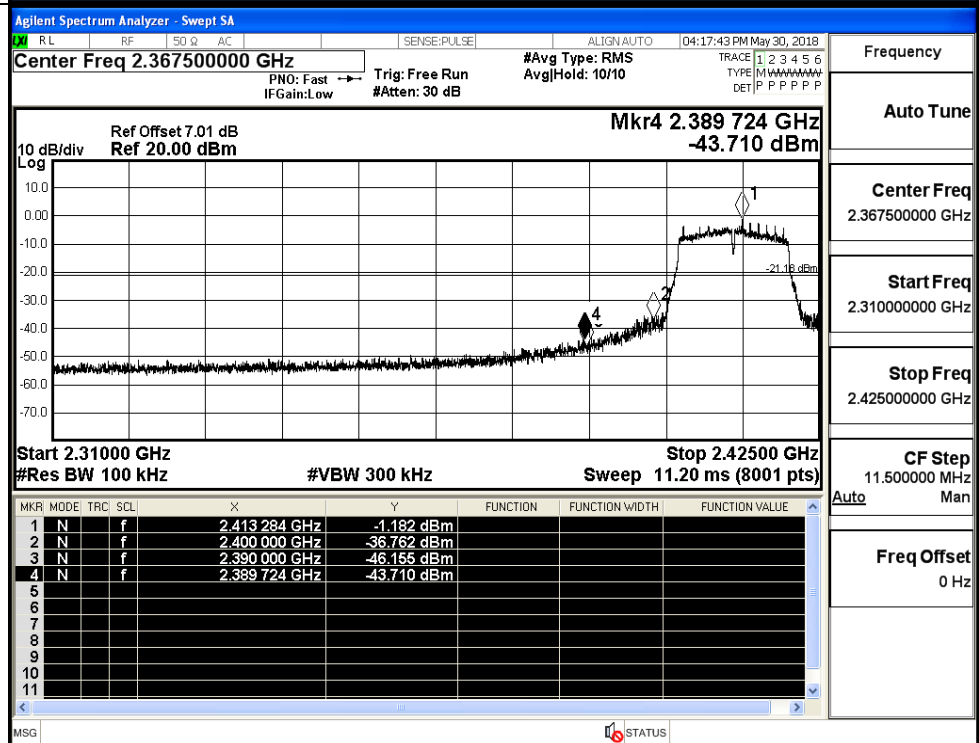
11B/LCH



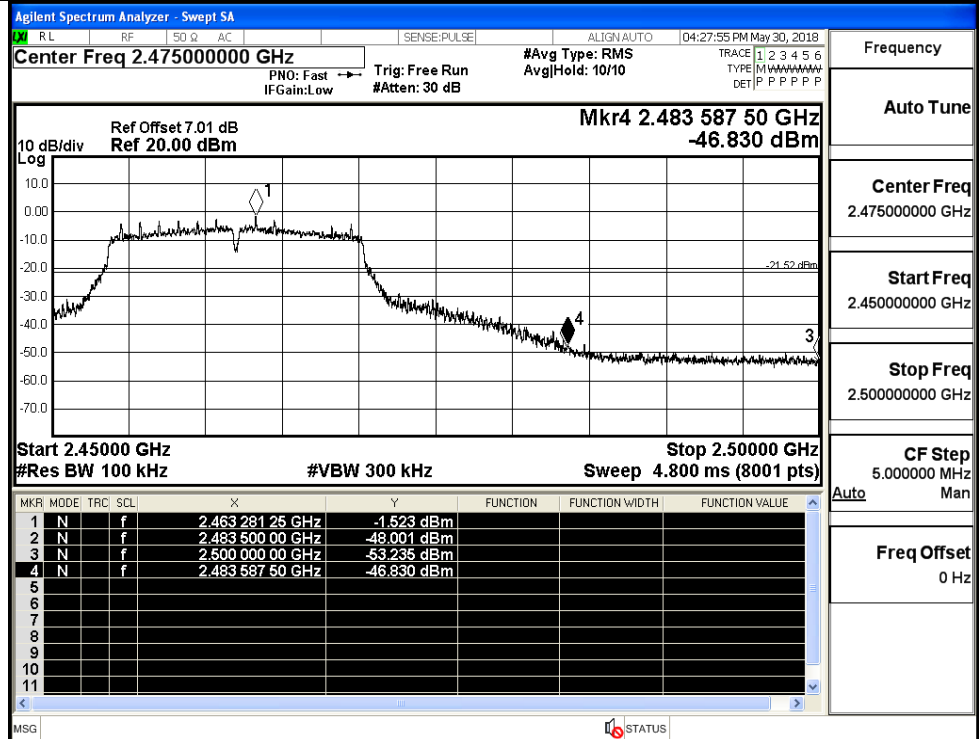
11B/HCH



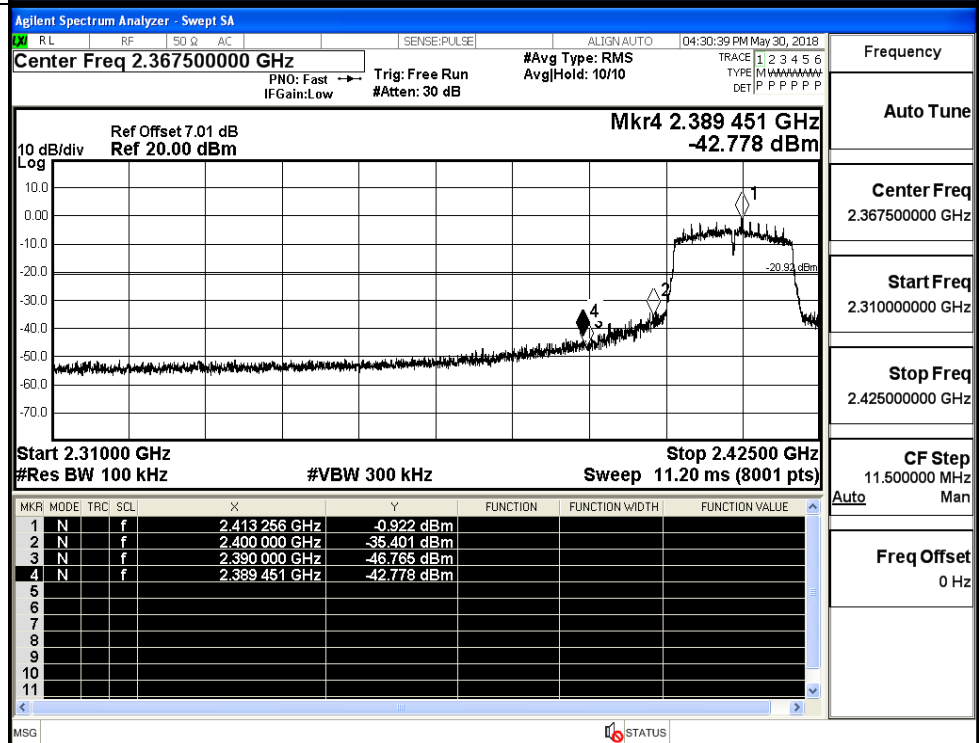
11G/LCH



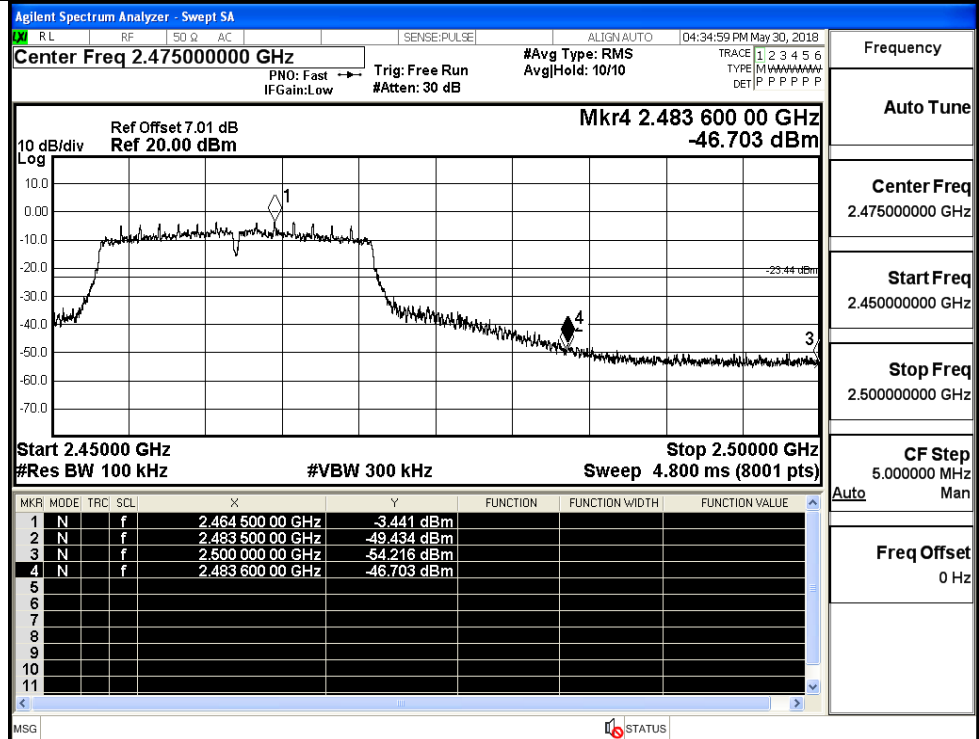
11G/HCH



11N20SISO/LCH



11N20SISO/HCH

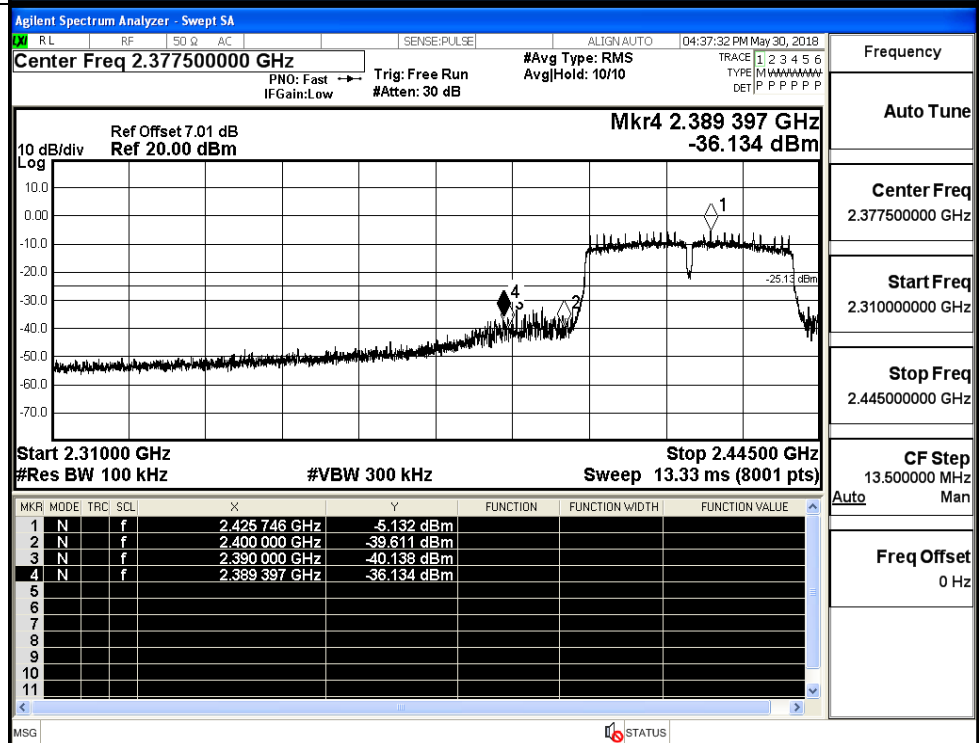


Frequency

Auto Tune

Center Freq  
2.475000000 GHzStart Freq  
2.450000000 GHzStop Freq  
2.500000000 GHzCF Step  
5.000000 MHz  
Auto ManFreq Offset  
0 Hz

11N40SISO/LCH

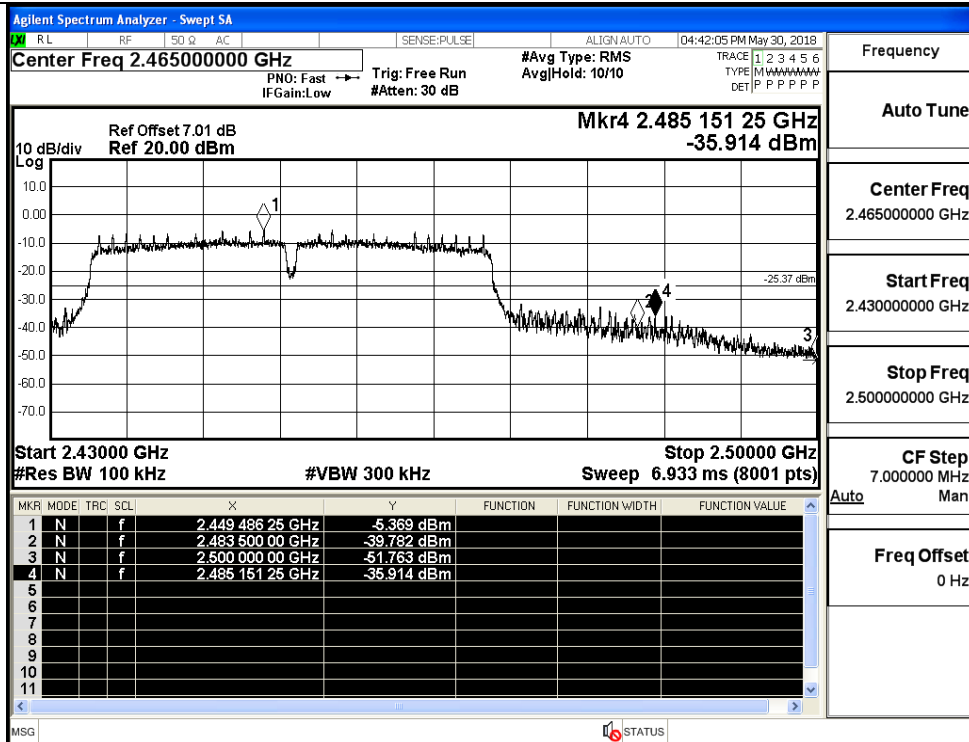


Frequency

Auto Tune

Center Freq  
2.377500000 GHzStart Freq  
2.310000000 GHzStop Freq  
2.445000000 GHzCF Step  
13.500000 MHz  
Auto ManFreq Offset  
0 Hz

11N40SISO/HCH

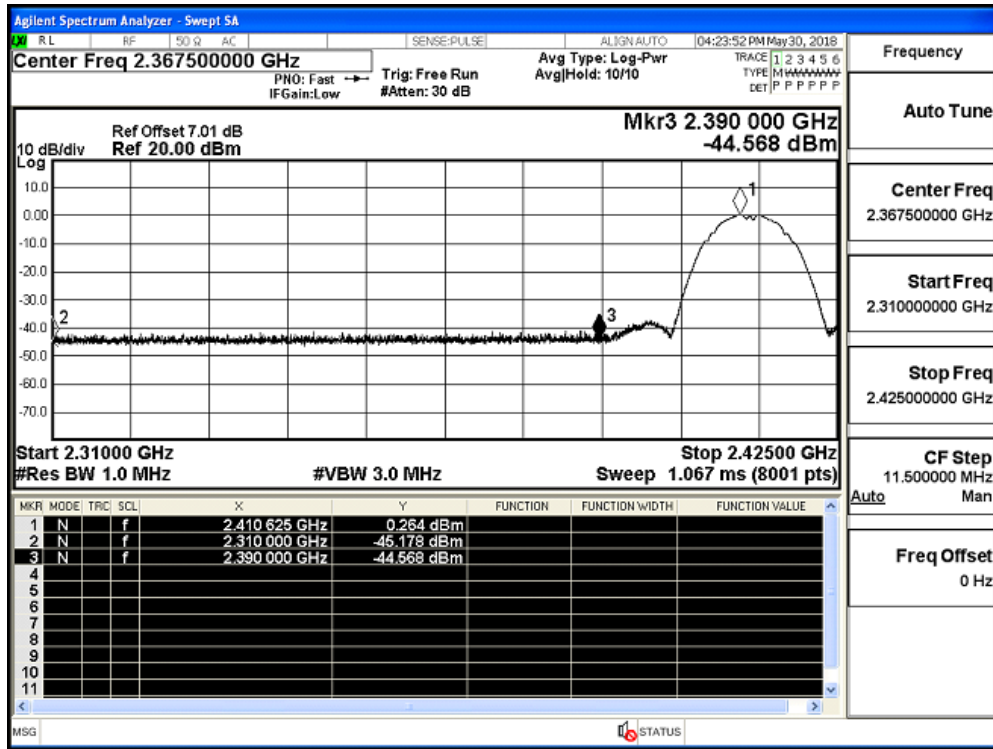


## C.7 Restrict-band band-edge measurements

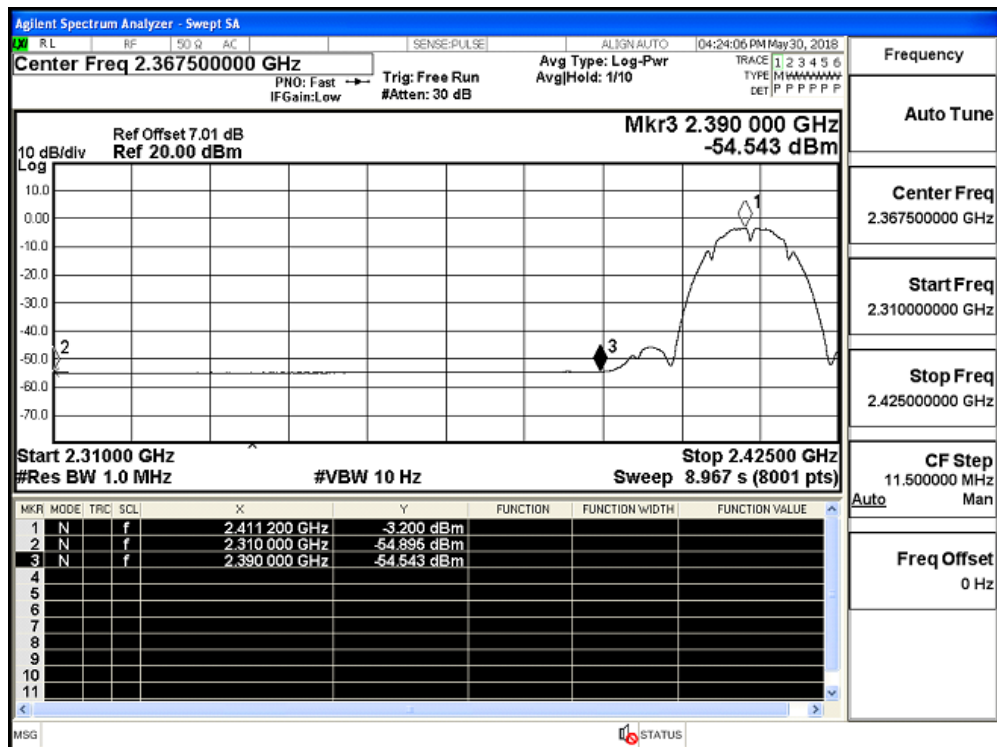
| Test Mode     | Test Channel | Ant  | Freq.  | Power [dBm] | Gain | Ground Factor | E [dBuV/m] | Detector | Limit [dBuV/m] | Verdict |
|---------------|--------------|------|--------|-------------|------|---------------|------------|----------|----------------|---------|
| 11B           | 2412         | Ant1 | 2310.0 | -45.178     | 2.0  | 0             | 52.08      | PEAK     | 74             | PASS    |
|               | 2412         | Ant1 | 2310.0 | -54.895     | 2.0  | 0             | 42.37      | AV       | 54             | PASS    |
|               | 2412         | Ant1 | 2390.0 | -44.568     | 2.0  | 0             | 52.69      | PEAK     | 74             | PASS    |
|               | 2412         | Ant1 | 2390.0 | -54.543     | 2.0  | 0             | 42.72      | AV       | 54             | PASS    |
|               | 2462         | Ant1 | 2483.5 | -43.803     | 2.0  | 0             | 53.46      | PEAK     | 74             | PASS    |
|               | 2462         | Ant1 | 2483.5 | -54.340     | 2.0  | 0             | 42.92      | AV       | 54             | PASS    |
|               | 2462         | Ant1 | 2500.0 | -44.777     | 2.0  | 0             | 52.48      | PEAK     | 74             | PASS    |
|               | 2462         | Ant1 | 2500.0 | -54.292     | 2.0  | 0             | 42.97      | AV       | 54             | PASS    |
| 11G           | 2412         | Ant1 | 2310.0 | -44.536     | 2.0  | 0             | 52.72      | PEAK     | 74             | PASS    |
|               | 2412         | Ant1 | 2310.0 | -54.885     | 2.0  | 0             | 42.38      | AV       | 54             | PASS    |
|               | 2412         | Ant1 | 2390.0 | -43.221     | 2.0  | 0             | 54.04      | PEAK     | 74             | PASS    |
|               | 2412         | Ant1 | 2390.0 | -54.052     | 2.0  | 0             | 43.21      | AV       | 54             | PASS    |
|               | 2462         | Ant1 | 2483.5 | -44.293     | 2.0  | 0             | 52.97      | PEAK     | 74             | PASS    |
|               | 2462         | Ant1 | 2483.5 | -54.265     | 2.0  | 0             | 43.00      | AV       | 54             | PASS    |
|               | 2462         | Ant1 | 2500.0 | -42.364     | 2.0  | 0             | 54.90      | PEAK     | 74             | PASS    |
|               | 2462         | Ant1 | 2500.0 | -54.217     | 2.0  | 0             | 43.04      | AV       | 54             | PASS    |
| 11N20<br>SISO | 2412         | Ant1 | 2310.0 | -44.030     | 2.0  | 0             | 53.23      | PEAK     | 74             | PASS    |
|               | 2412         | Ant1 | 2310.0 | -54.855     | 2.0  | 0             | 42.41      | AV       | 54             | PASS    |
|               | 2412         | Ant1 | 2390.0 | -43.432     | 2.0  | 0             | 53.83      | PEAK     | 74             | PASS    |
|               | 2412         | Ant1 | 2390.0 | -53.949     | 2.0  | 0             | 43.31      | AV       | 54             | PASS    |
|               | 2462         | Ant1 | 2483.5 | -44.171     | 2.0  | 0             | 53.09      | PEAK     | 74             | PASS    |
|               | 2462         | Ant1 | 2483.5 | -54.237     | 2.0  | 0             | 43.02      | AV       | 54             | PASS    |
|               | 2462         | Ant1 | 2500.0 | -42.934     | 2.0  | 0             | 54.33      | PEAK     | 74             | PASS    |
|               | 2462         | Ant1 | 2500.0 | -54.209     | 2.0  | 0             | 43.05      | AV       | 54             | PASS    |
| 11N40<br>SISO | 2422         | Ant1 | 2310.0 | -43.779     | 2.0  | 0             | 53.48      | PEAK     | 74             | PASS    |
|               | 2422         | Ant1 | 2310.0 | -54.867     | 2.0  | 0             | 42.39      | AV       | 54             | PASS    |

|  |      |      |        |         |     |   |       |      |    |      |
|--|------|------|--------|---------|-----|---|-------|------|----|------|
|  | 2422 | Ant1 | 2390.0 | -43.794 | 2.0 | 0 | 53.47 | PEAK | 74 | PASS |
|  | 2422 | Ant1 | 2390.0 | -52.889 | 2.0 | 0 | 44.37 | AV   | 54 | PASS |
|  | 2452 | Ant1 | 2483.5 | -44.147 | 2.0 | 0 | 53.11 | PEAK | 74 | PASS |
|  | 2452 | Ant1 | 2483.5 | -54.176 | 2.0 | 0 | 43.08 | AV   | 54 | PASS |
|  | 2452 | Ant1 | 2500.0 | -44.239 | 2.0 | 0 | 53.02 | PEAK | 74 | PASS |
|  | 2452 | Ant1 | 2500.0 | -54.149 | 2.0 | 0 | 43.11 | AV   | 54 | PASS |

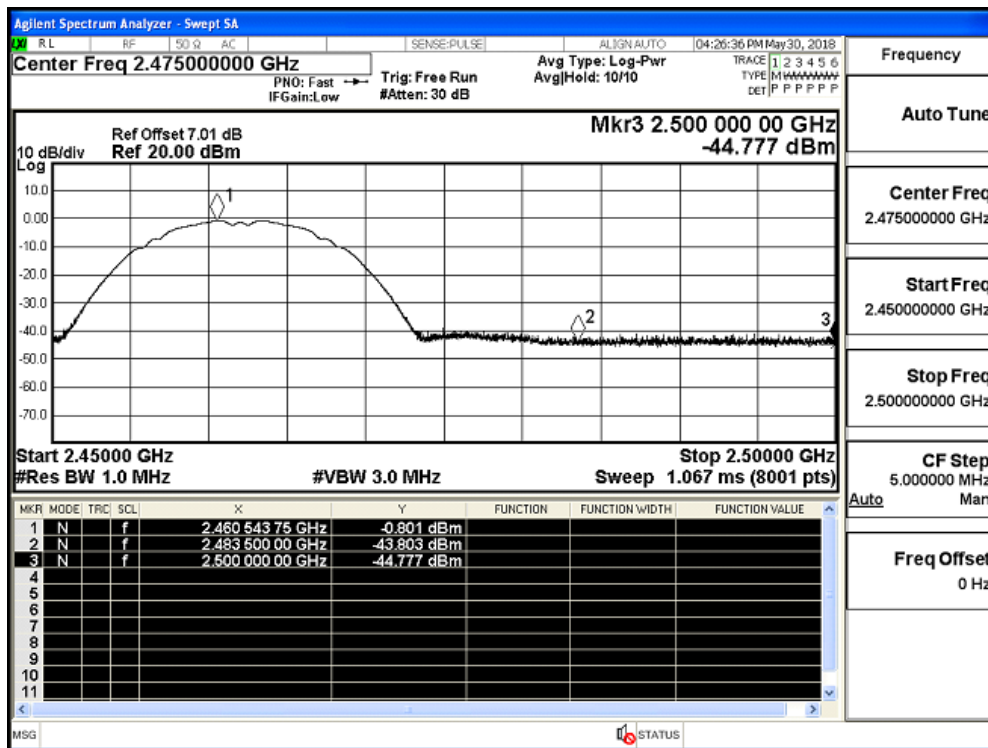
## Restrict-band band-edge measurements\_11B\_2412\_Ant1\_PEAK



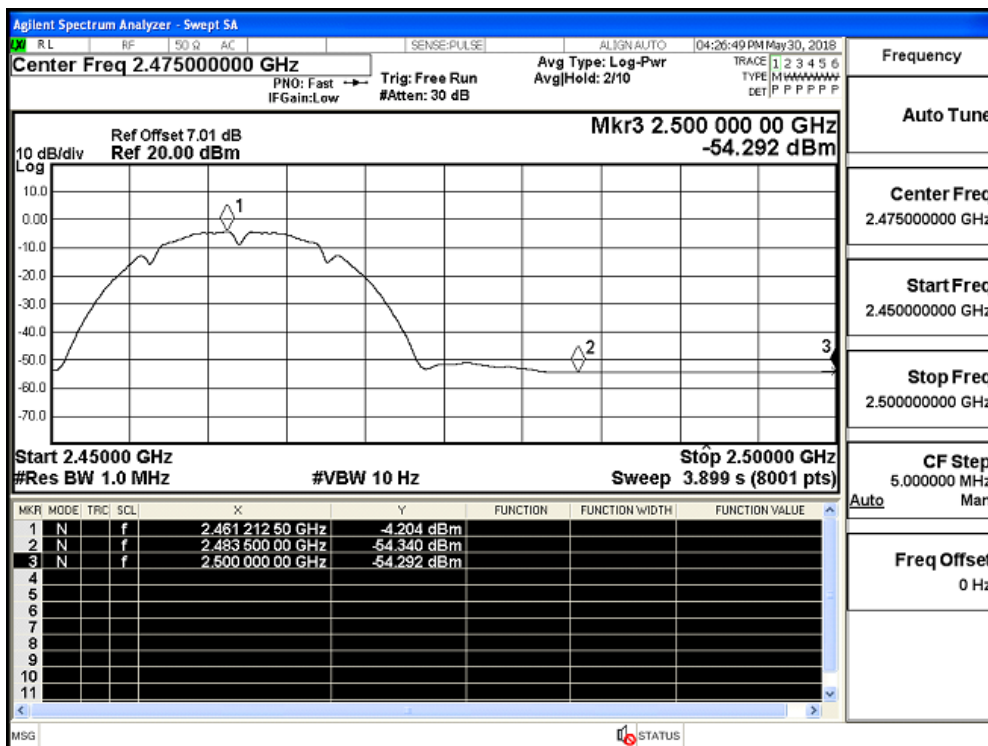
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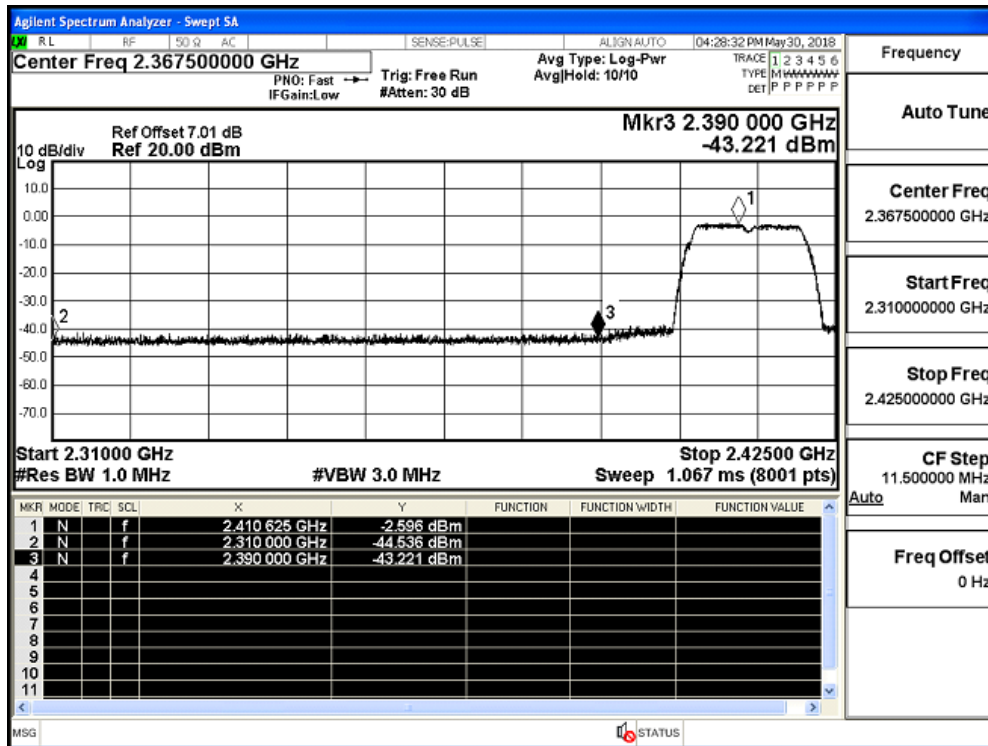
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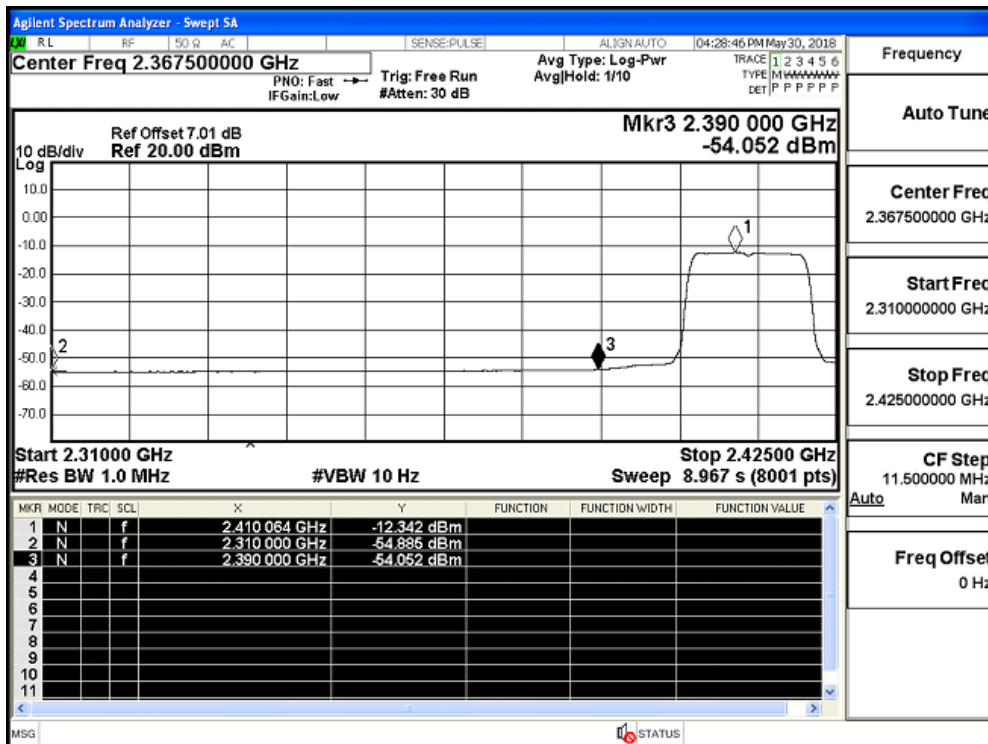
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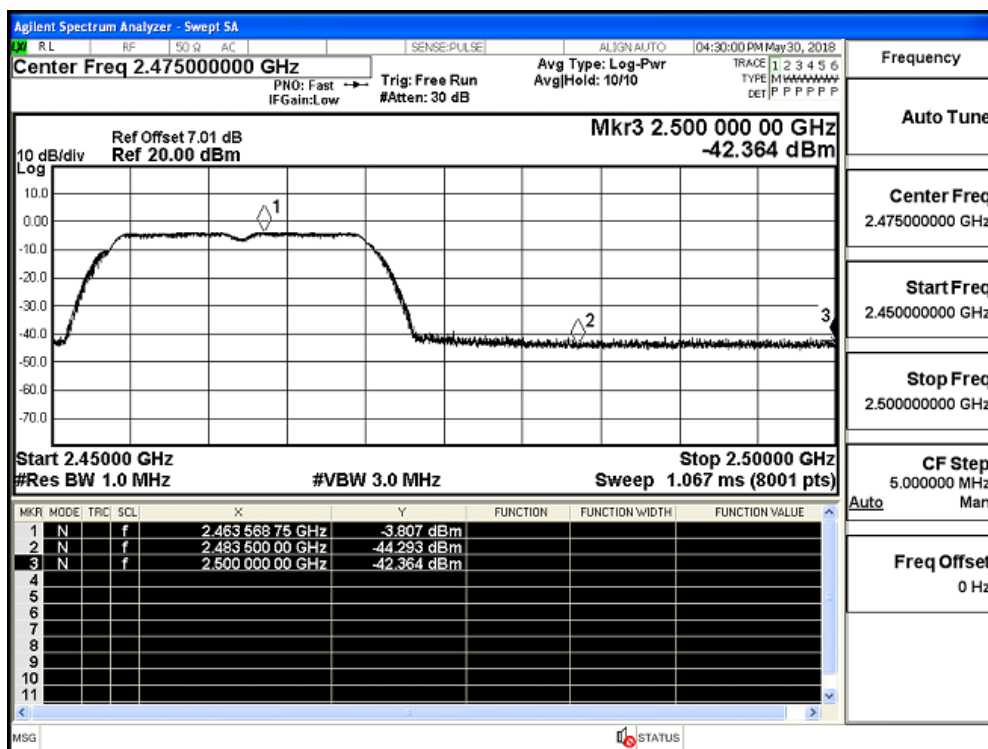
## Restrict-band band-edge measurements\_11G\_2412\_Ant1\_PEAK



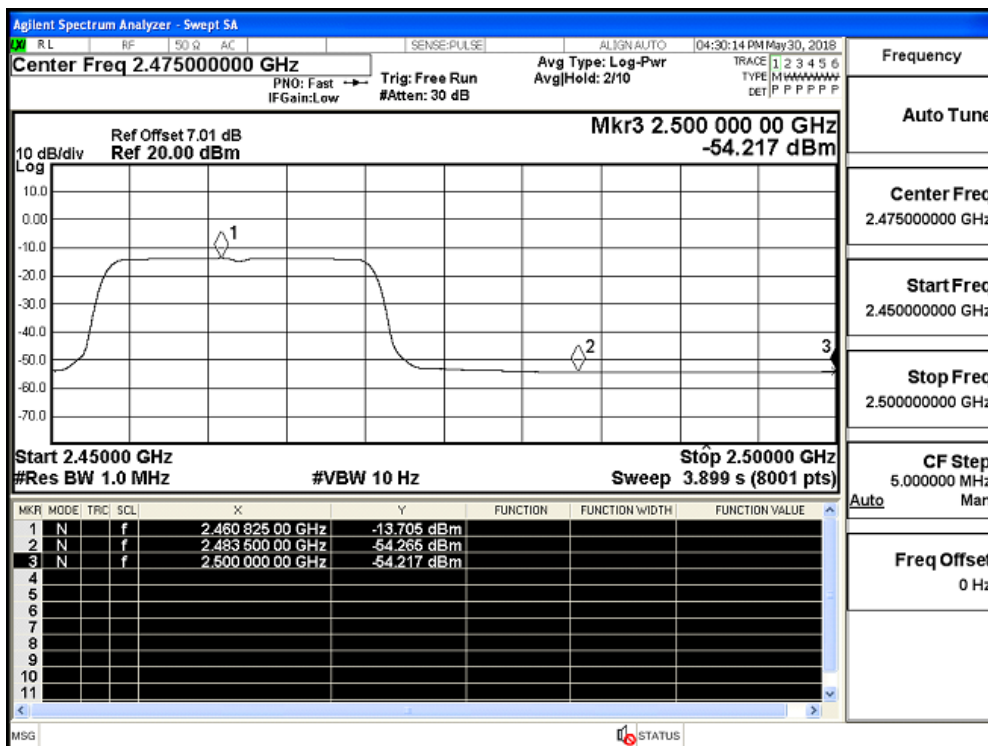
## Restrict-band band-edge measurements\_11G\_2412\_Ant1\_AV



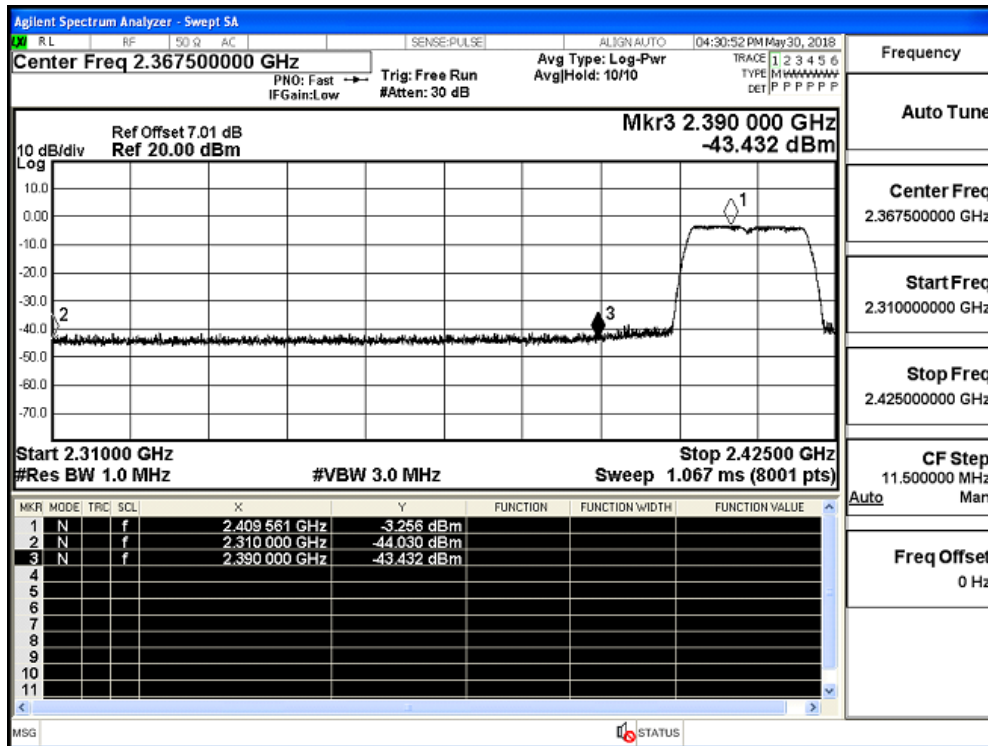
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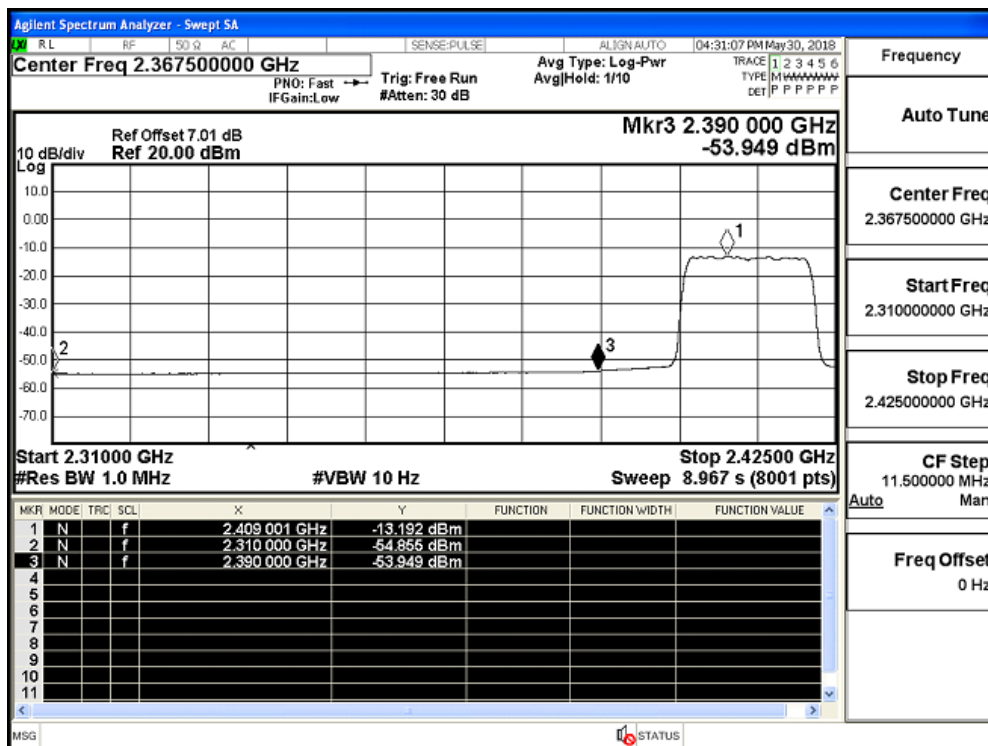
## Restrict-band band-edge measurements\_11G\_2462\_Ant1\_AV



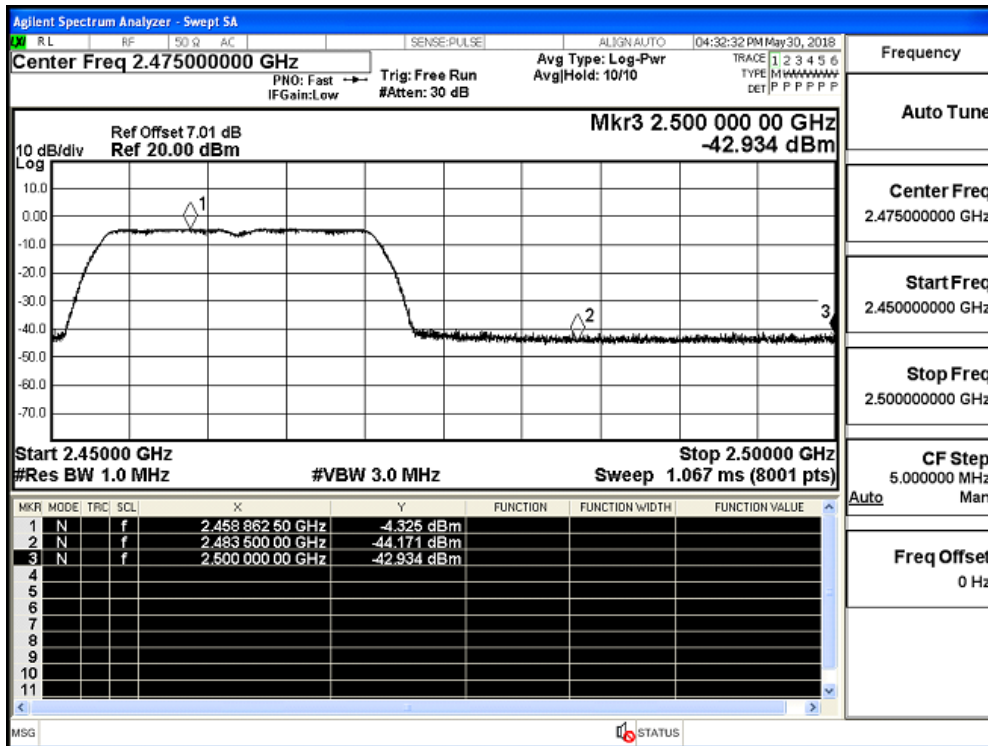
## Restrict-band band-edge measurements\_11N20SISO\_2412\_Ant1\_PEAK



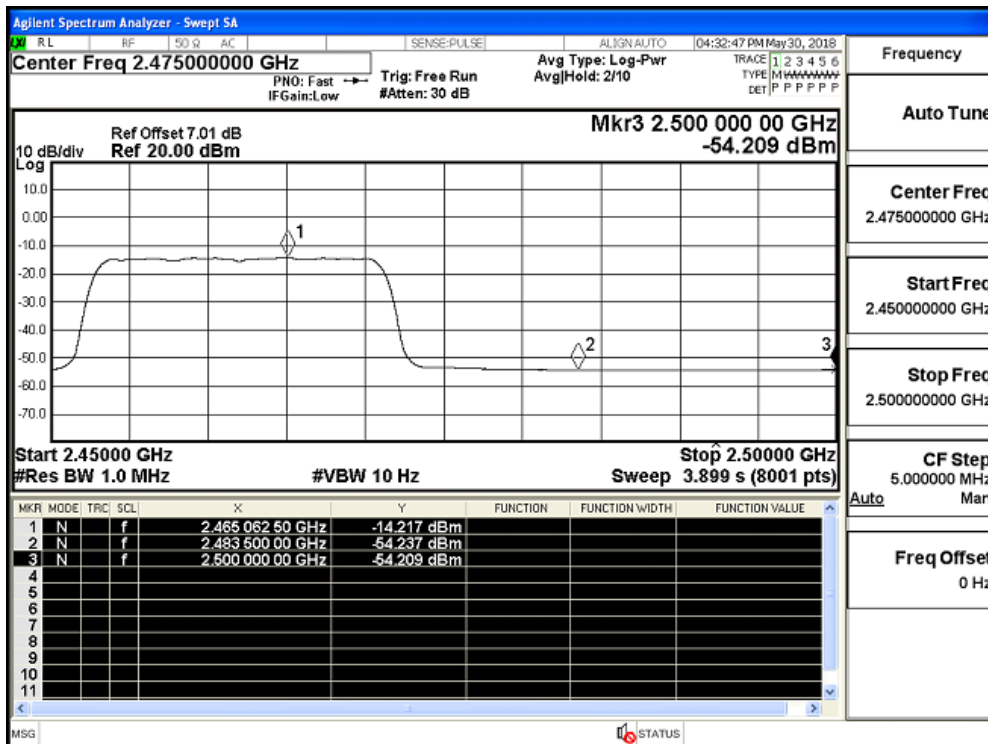
## Restrict-band band-edge measurements\_11N20SISO\_2412\_Ant1\_AV



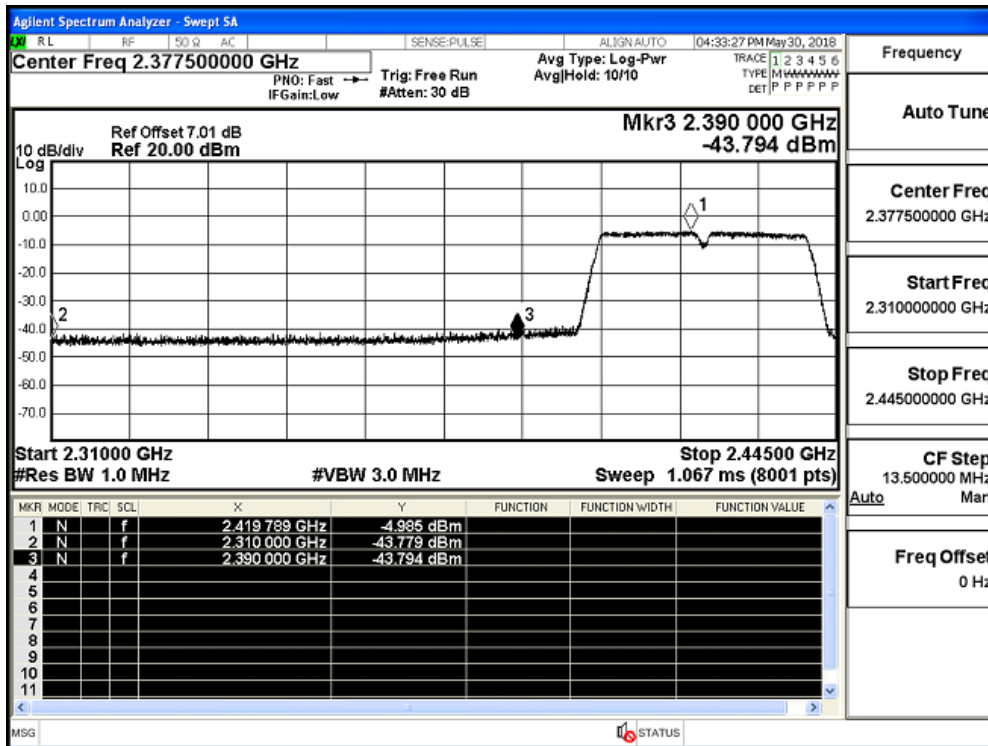
## Restrict-band band-edge measurements\_11N20SISO\_2462\_Ant1\_PEAK



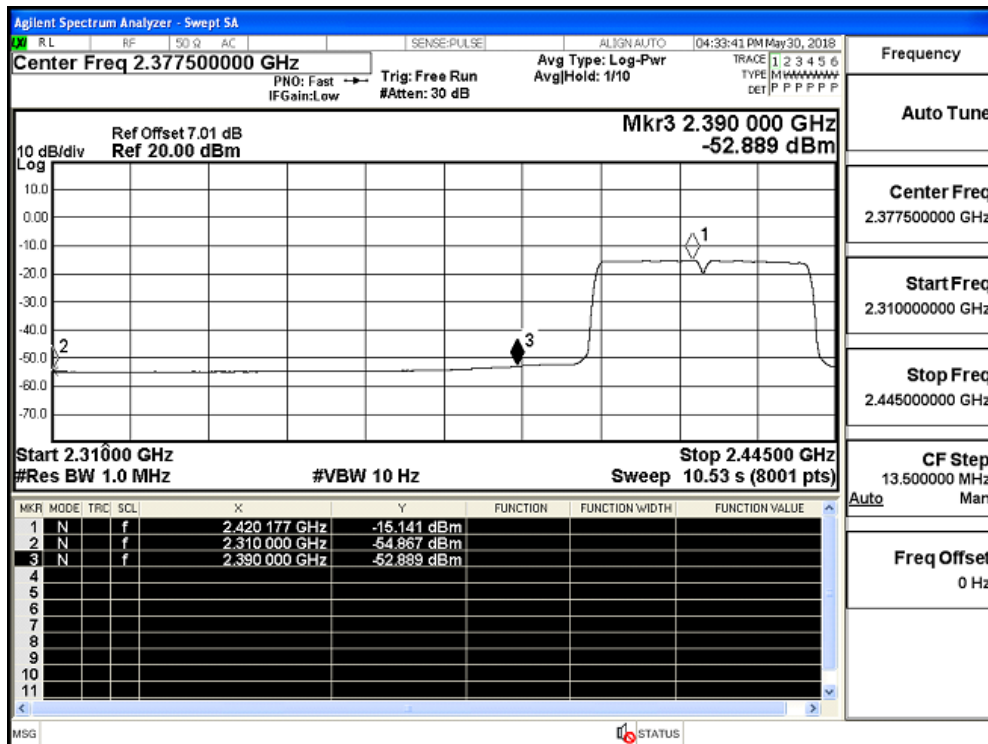
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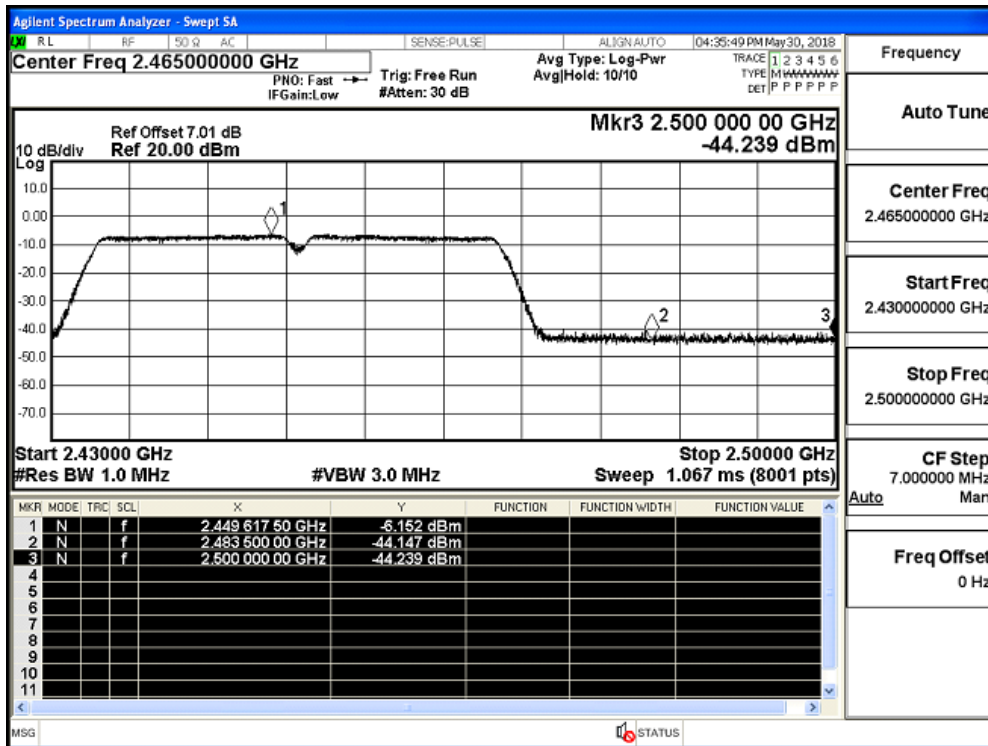
## Restrict-band band-edge measurements\_11N40SISO\_2422\_Ant1\_PEAK



## Restrict-band band-edge measurements\_11N40SISO\_2422\_Ant1\_AV



## Restrict-band band-edge measurements\_11N40SISO\_2452\_Ant1\_PEAK



## Restrict-band band-edge measurements\_11N40SISO\_2452\_Ant1\_AV

