

## Appendix A

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

Product Name: Notebook computer

Trade Mark: WWNEO12A-2BK32

Test Model: THOMSON

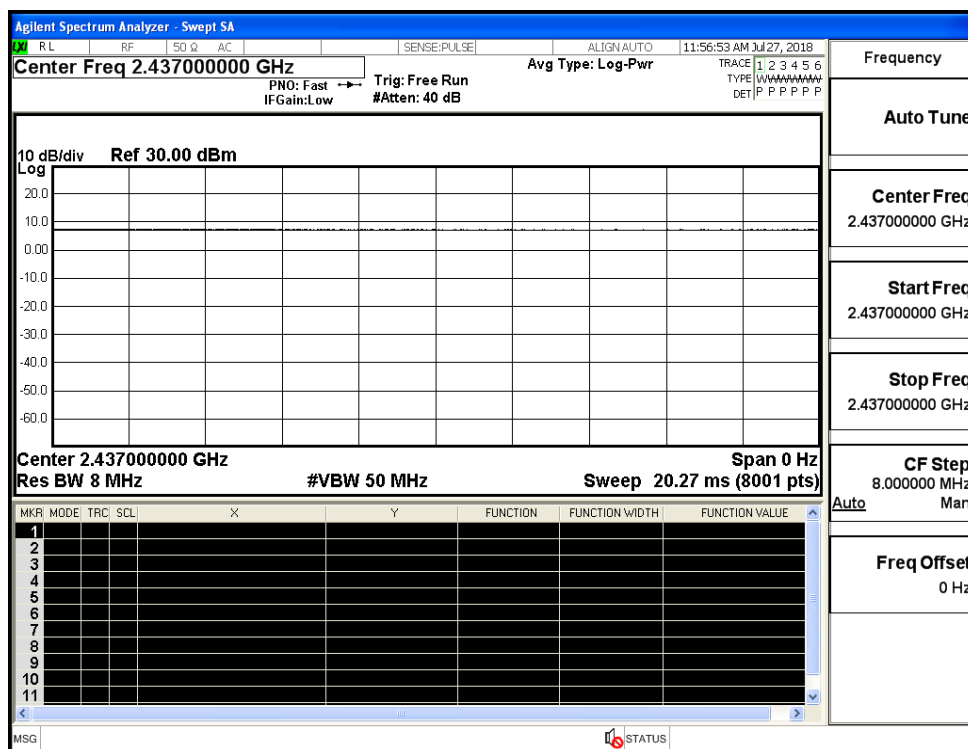
#### Environmental Conditions

|                    |             |
|--------------------|-------------|
| Temperature:       | 23.3° C     |
| Relative Humidity: | 52.4%       |
| ATM Pressure:      | 100.0 kPa   |
| Test Engineer:     | WangChang   |
| Supervised by:     | Jayden.Zhuo |

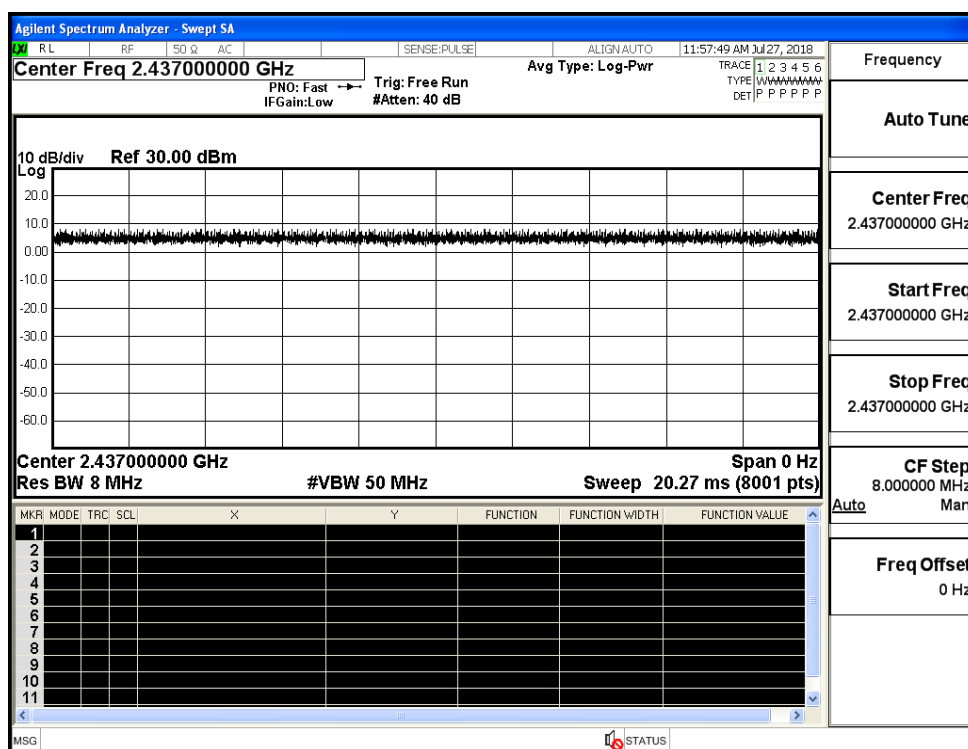
#### A.1 Duty Cycle

| 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    |

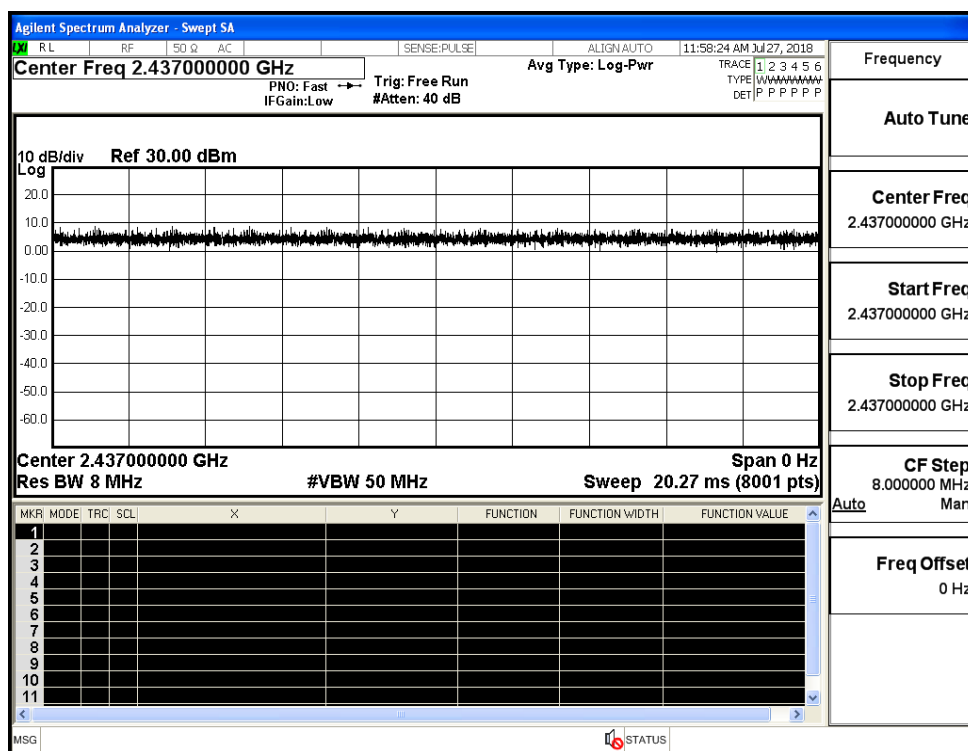
## Duty Cycle\_11B\_2437\_Ant1



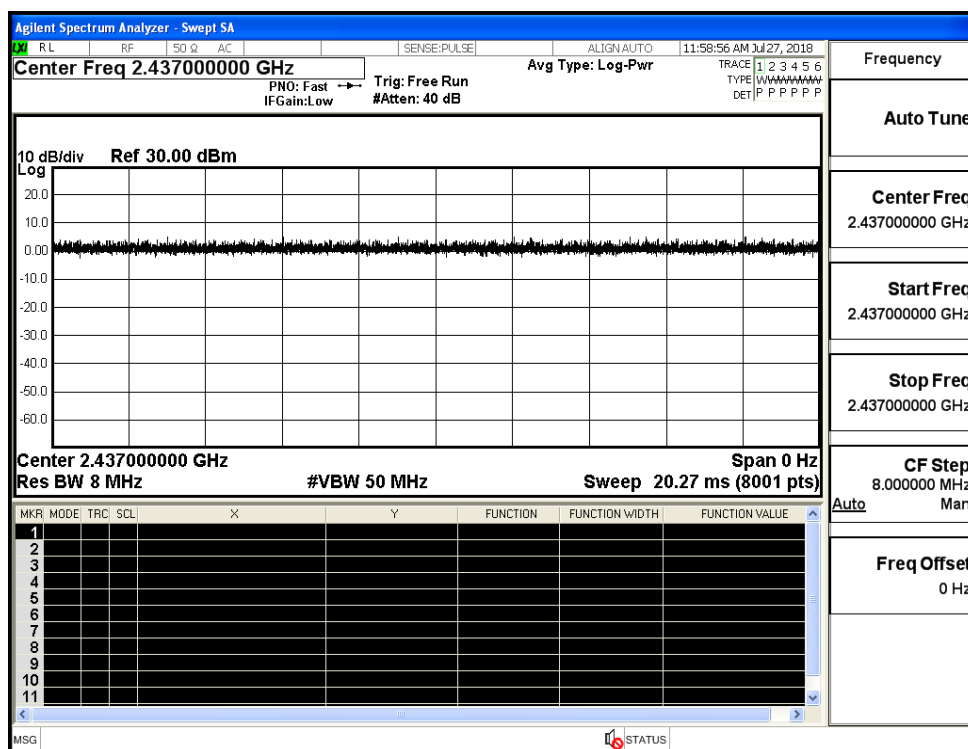
## Duty Cycle\_11G\_2437\_Ant1



## Duty Cycle\_11N20SISO\_2437\_Ant1



## Duty Cycle\_11N40SISO\_2437\_Ant1



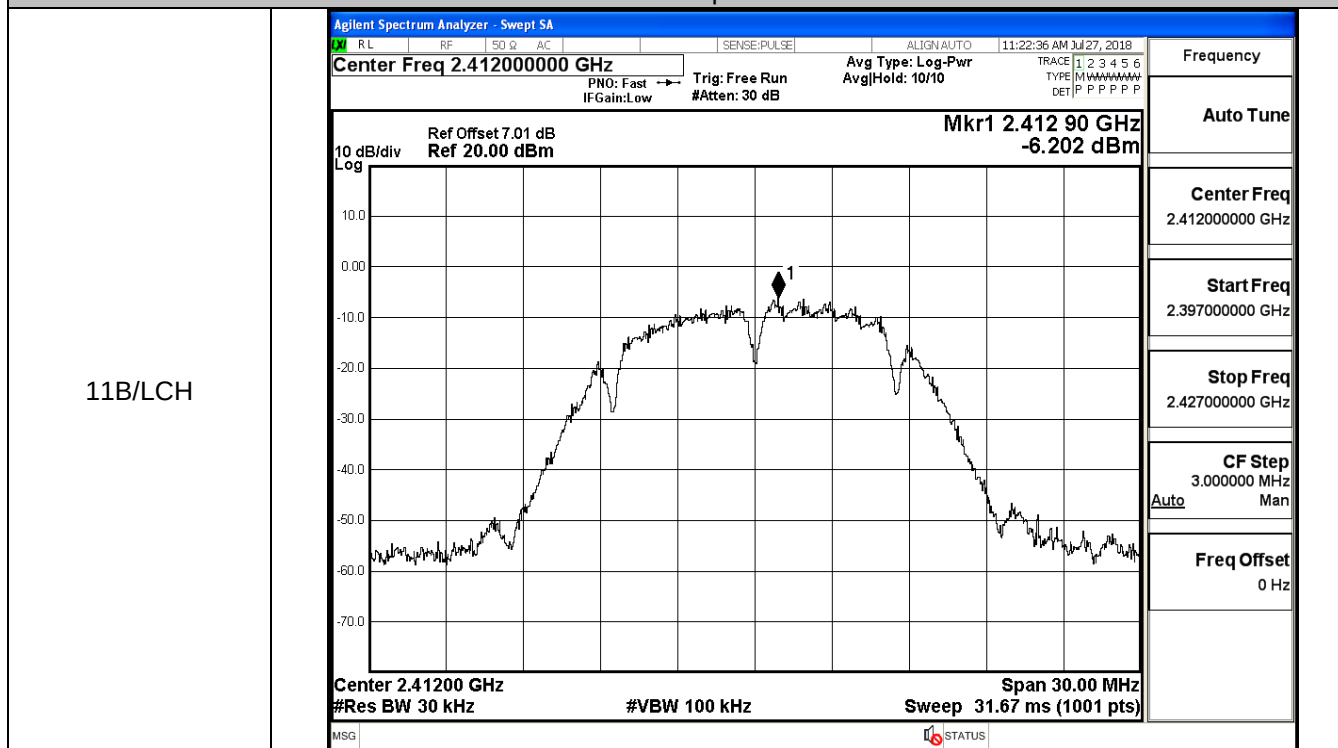
**A.2 Maximum Conducted Output Power**

| Mode      | Channel | Meas.Level [dBm] | Limit [dBm] | Verdict |
|-----------|---------|------------------|-------------|---------|
| 11B       | LCH     | 10.65            | 30          | PASS    |
|           | MCH     | 11.14            | 30          | PASS    |
|           | HCH     | 10.72            | 30          | PASS    |
| 11G       | LCH     | 12.59            | 30          | PASS    |
|           | MCH     | 12.91            | 30          | PASS    |
|           | HCH     | 13.18            | 30          | PASS    |
| 11N20SISO | LCH     | 13.59            | 30          | PASS    |
|           | MCH     | 13.39            | 30          | PASS    |
|           | HCH     | 13.45            | 30          | PASS    |
| 11N40SISO | LCH     | 14.27            | 30          | PASS    |
|           | MCH     | 14.52            | 30          | PASS    |
|           | HCH     | 14.26            | 30          | PASS    |

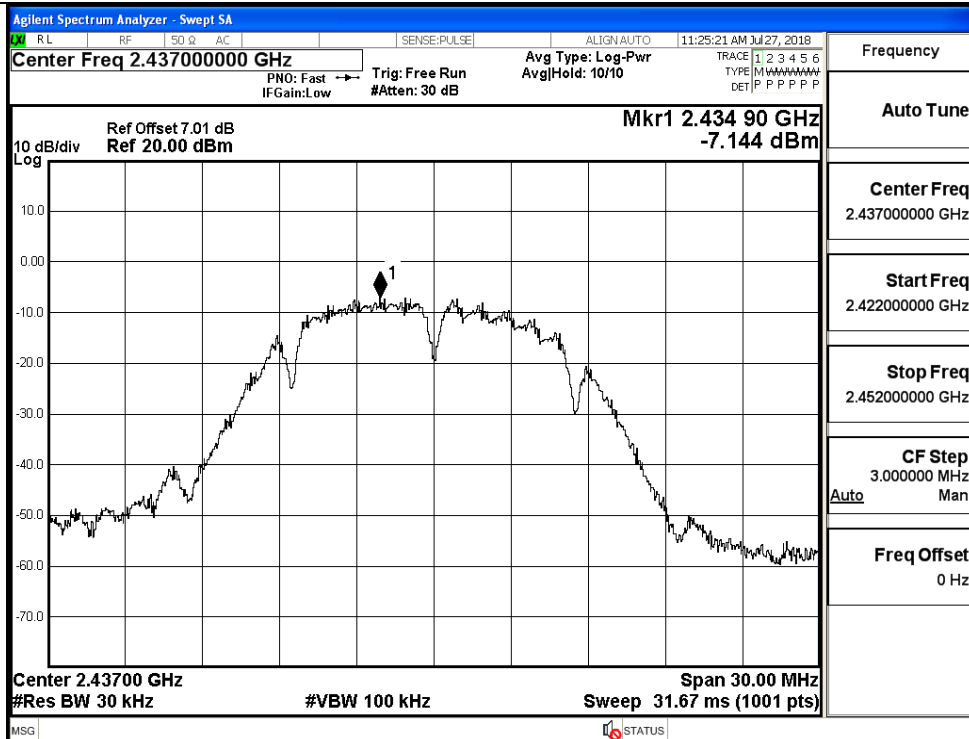
### A.3 Maximum Power Spectral Density

| Mode      | Channel | Meas.Level [dBm/30KHz] | Limit [dBm/3KHz] | Verdict |
|-----------|---------|------------------------|------------------|---------|
| 11B       | LCH     | -6.202                 | 8                | PASS    |
|           | MCH     | -7.144                 | 8                | PASS    |
|           | HCH     | -6.122                 | 8                | PASS    |
| 11G       | LCH     | -10.300                | 8                | PASS    |
|           | MCH     | -11.058                | 8                | PASS    |
|           | HCH     | -11.165                | 8                | PASS    |
| 11N20SISO | LCH     | -11.247                | 8                | PASS    |
|           | MCH     | -10.939                | 8                | PASS    |
|           | HCH     | -12.212                | 8                | PASS    |
| 11N40SISO | LCH     | -9.605                 | 8                | PASS    |
|           | MCH     | -13.394                | 8                | PASS    |
|           | HCH     | -15.300                | 8                | PASS    |

Test Graphs



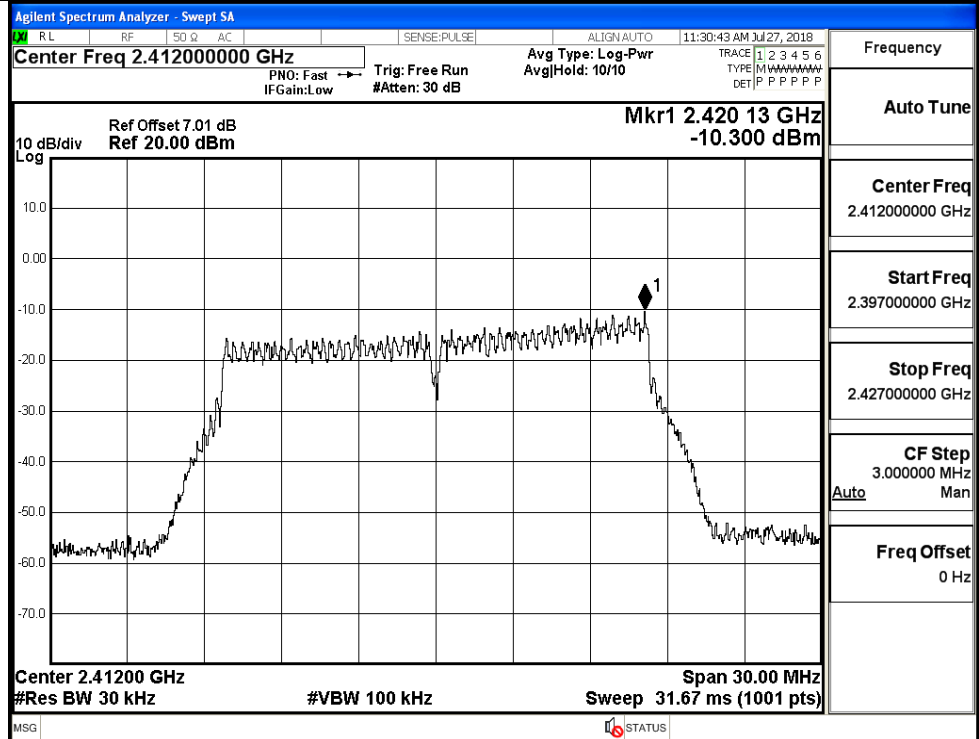
11B/MCH



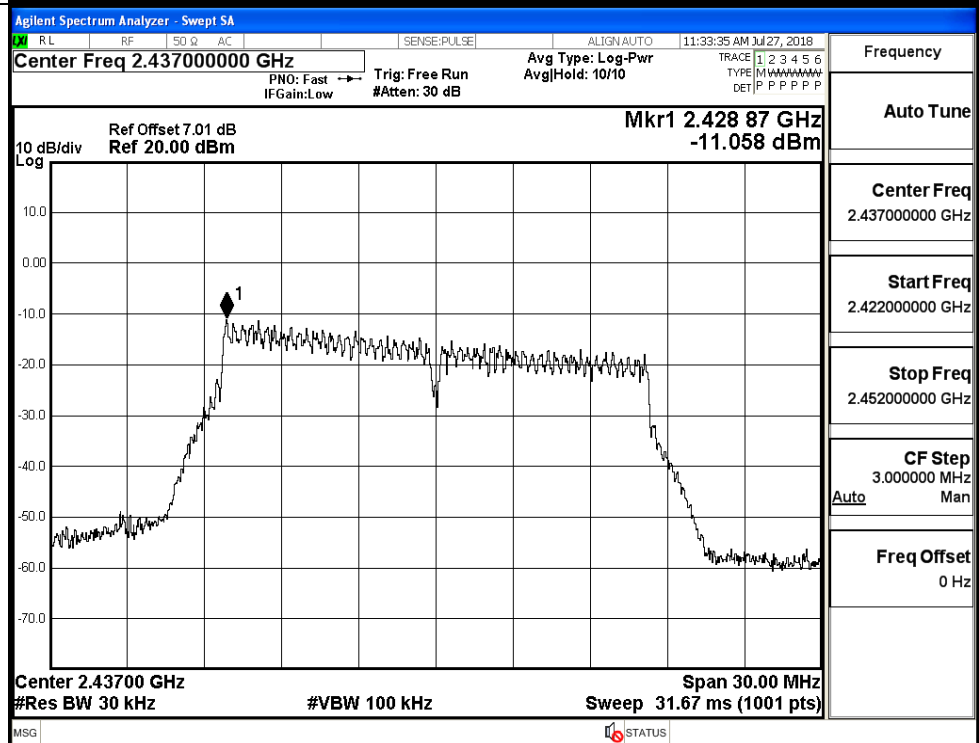
11B/HCH



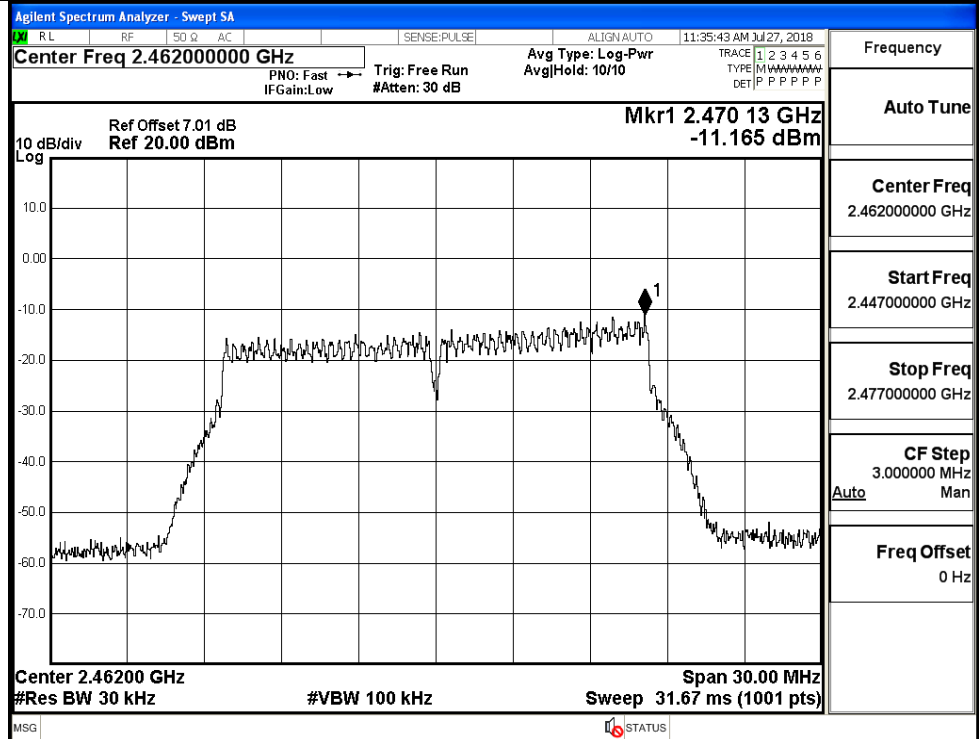
11G/LCH



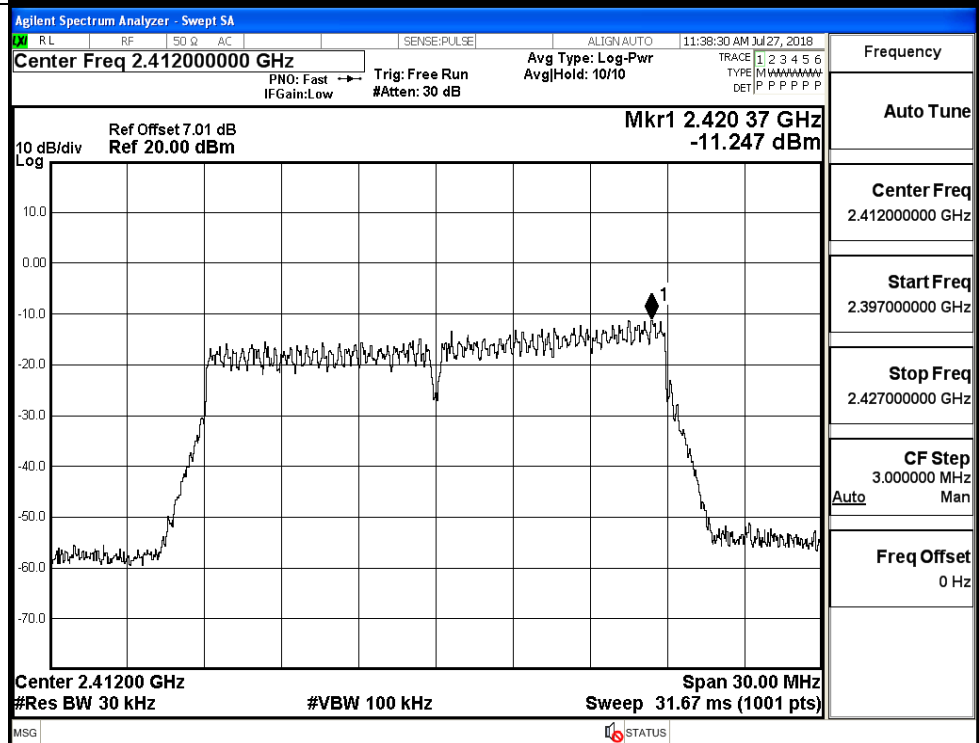
11G/MCH



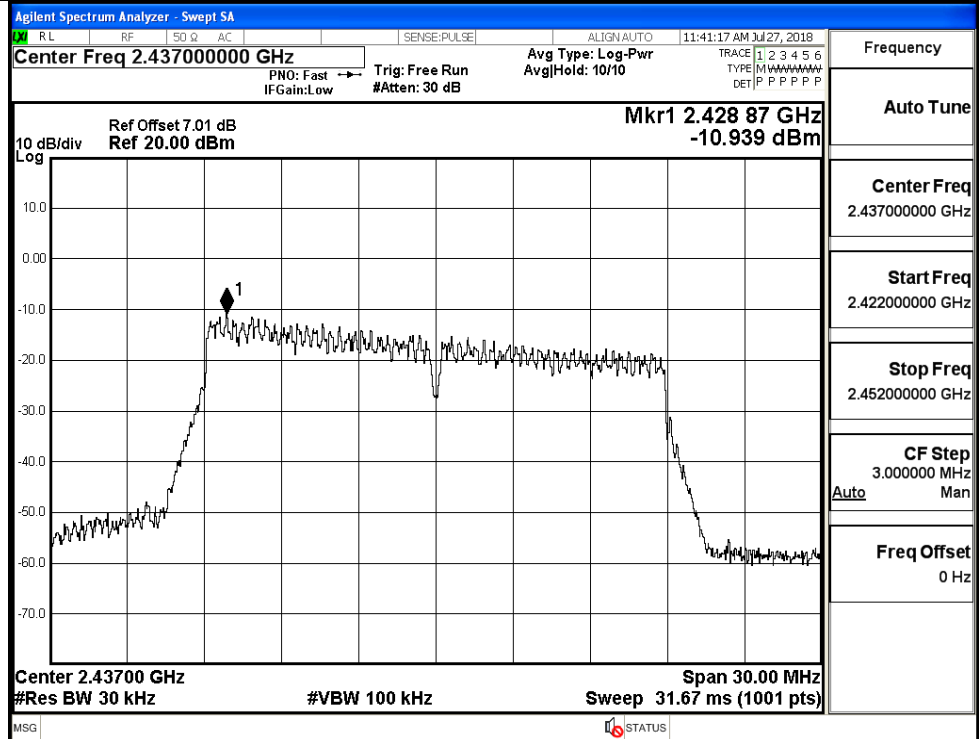
11G/HCH



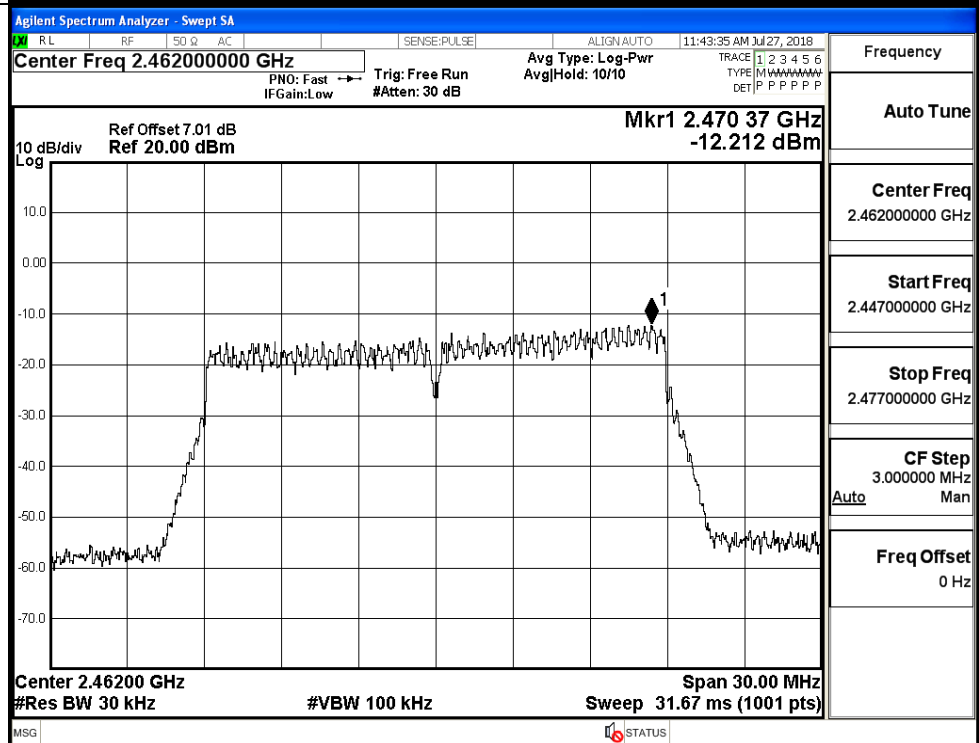
11N20SISO/LCH



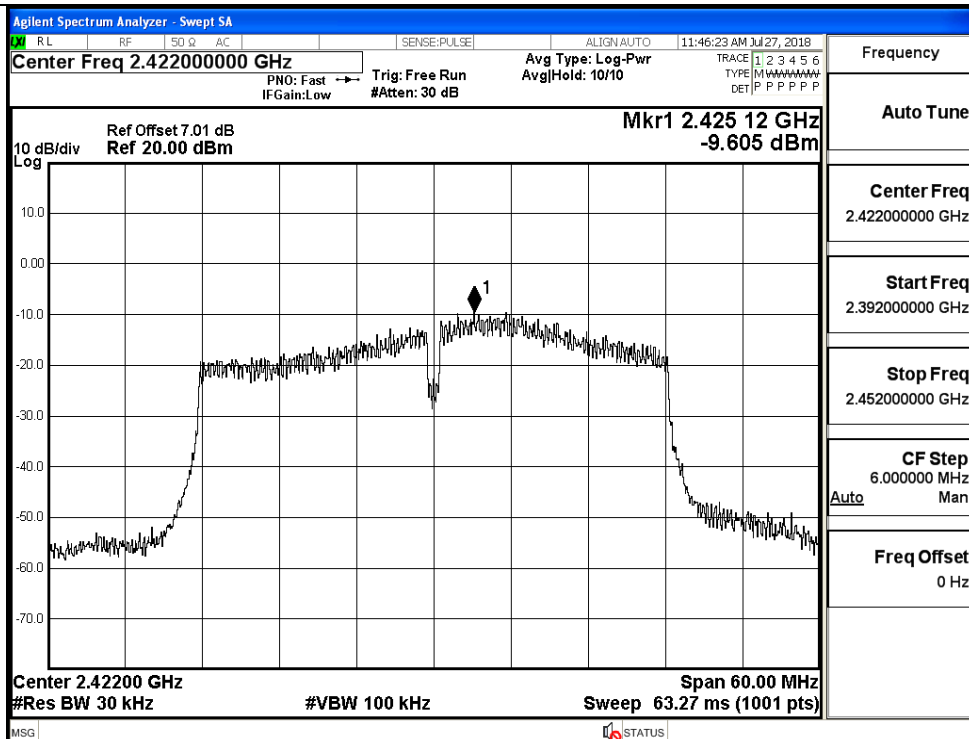
11N20SISO/MCH



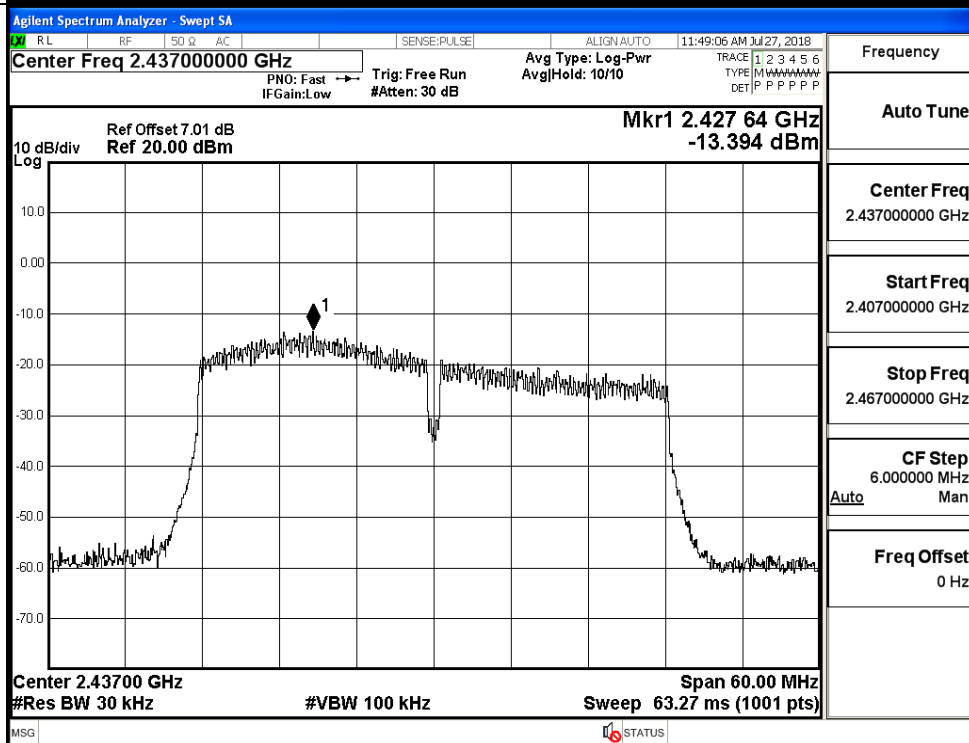
11N20SISO/HCH



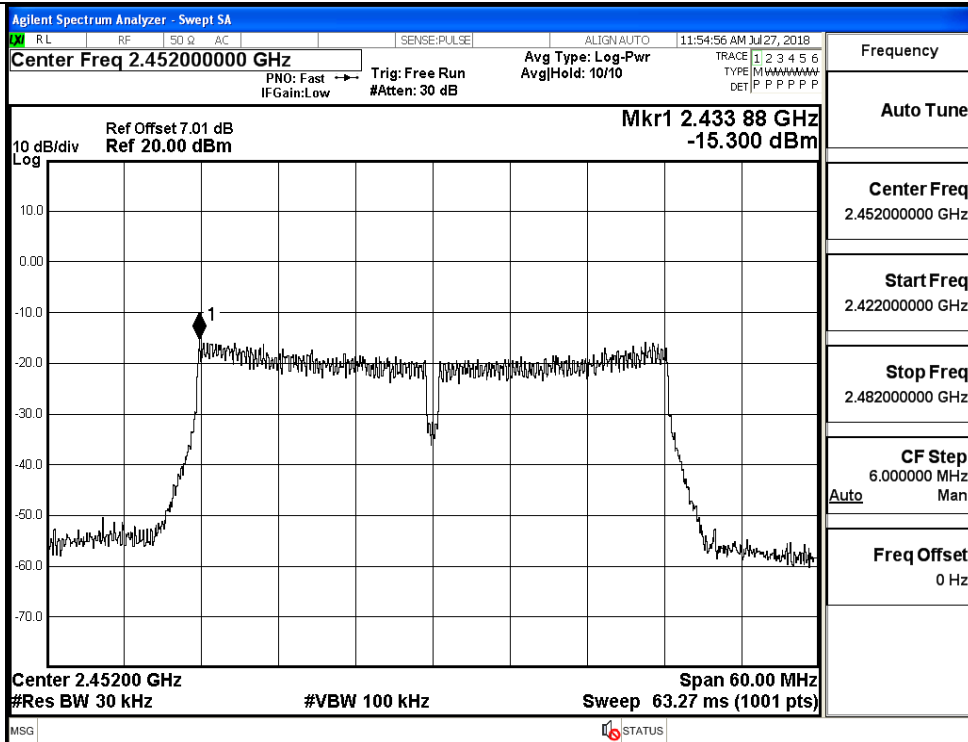
11N40SISO/LCH



11N40SISO/MCH



11N40SISO/HCH

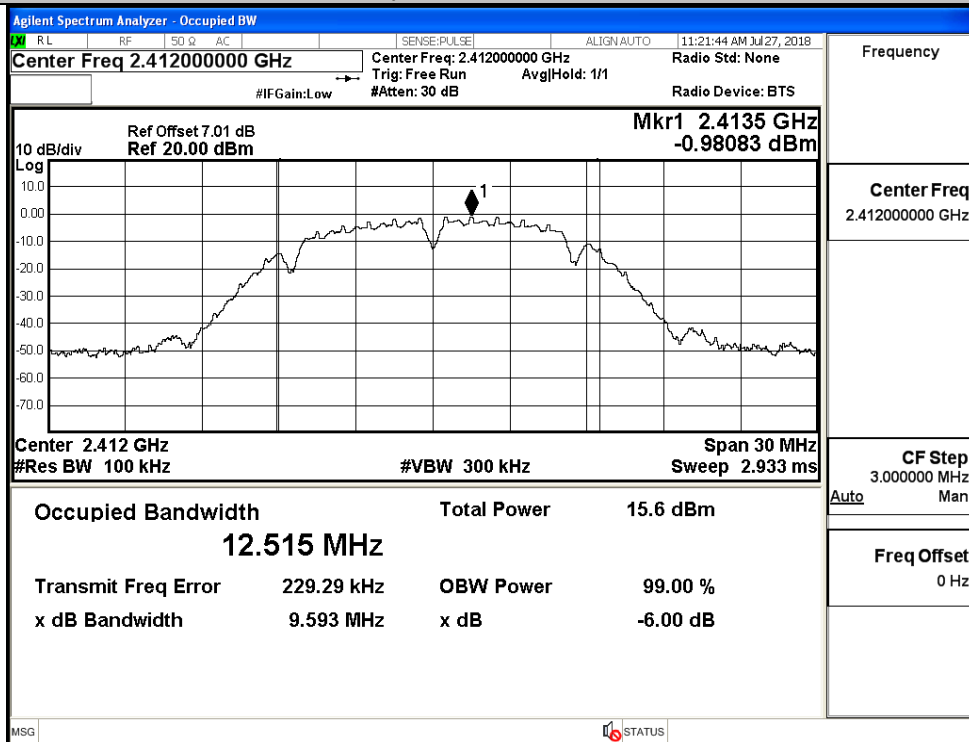


## A.4 6dB Bandwidth

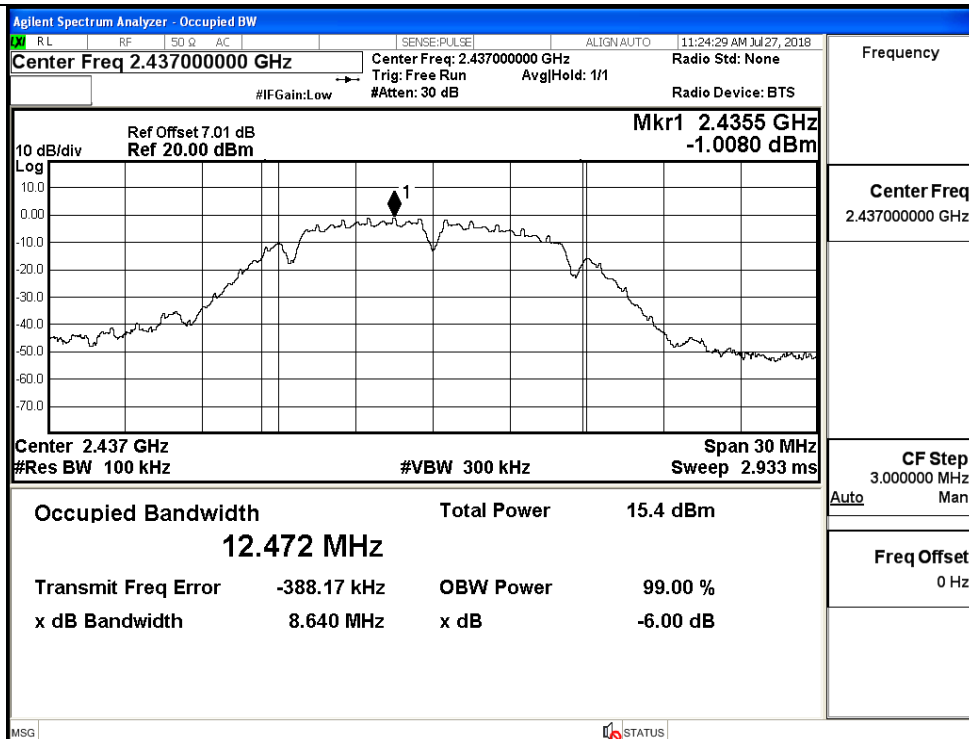
| Mode      | Channel | 6dB Bandwidth [MHz] | Limit [MHz] | Verdict |
|-----------|---------|---------------------|-------------|---------|
| 11B       | LCH     | 9.593               | $\geq 0.5$  | PASS    |
|           | MCH     | 8.640               | $\geq 0.5$  | PASS    |
|           | HCH     | 9.577               | $\geq 0.5$  | PASS    |
| 11G       | LCH     | 16.47               | $\geq 0.5$  | PASS    |
|           | MCH     | 13.34               | $\geq 0.5$  | PASS    |
|           | HCH     | 16.50               | $\geq 0.5$  | PASS    |
| 11N20SISO | LCH     | 17.34               | $\geq 0.5$  | PASS    |
|           | MCH     | 12.73               | $\geq 0.5$  | PASS    |
|           | HCH     | 17.71               | $\geq 0.5$  | PASS    |
| 11N40SISO | LCH     | 19.67               | $\geq 0.5$  | PASS    |
|           | MCH     | 21.91               | $\geq 0.5$  | PASS    |
|           | HCH     | 36.62               | $\geq 0.5$  | PASS    |

## Test Graphs

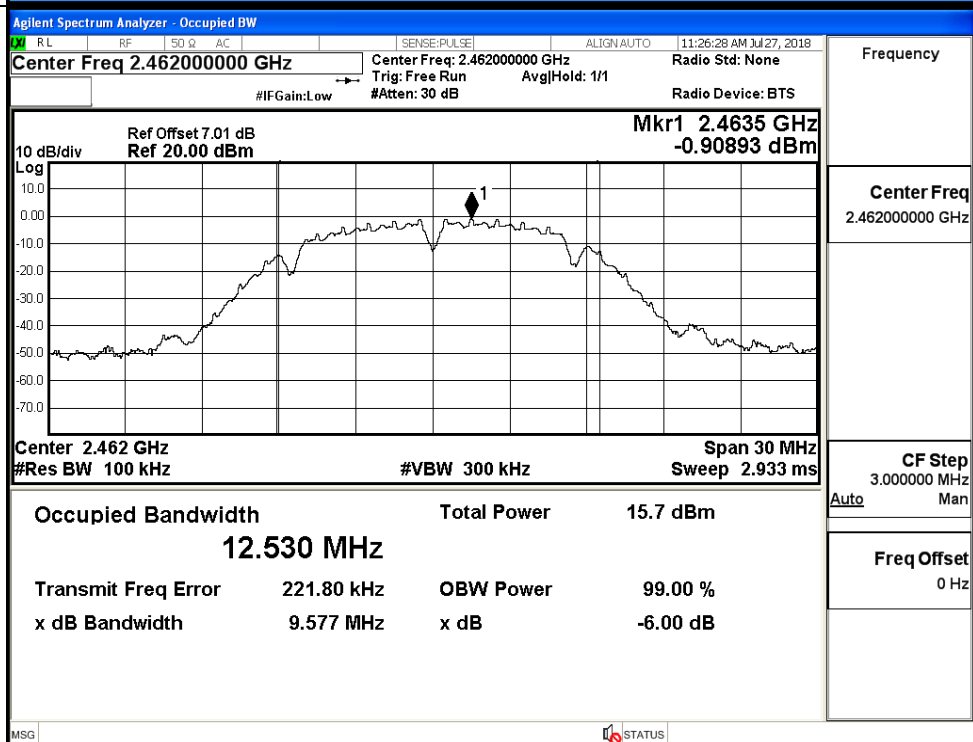
11B/LCH



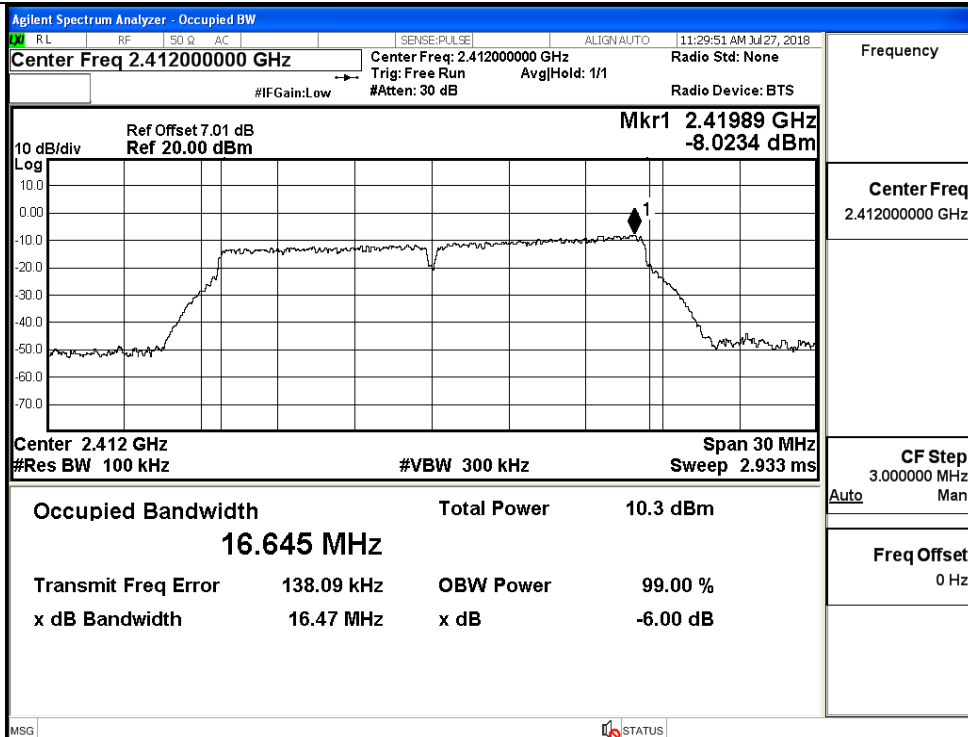
11B/MCH



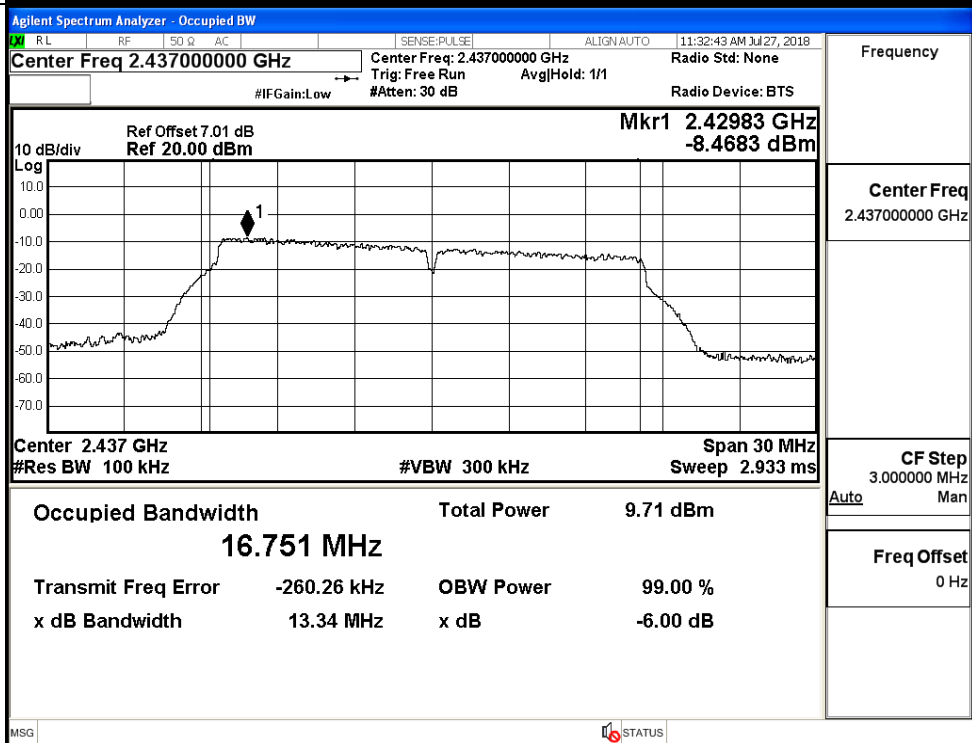
11B/HCH



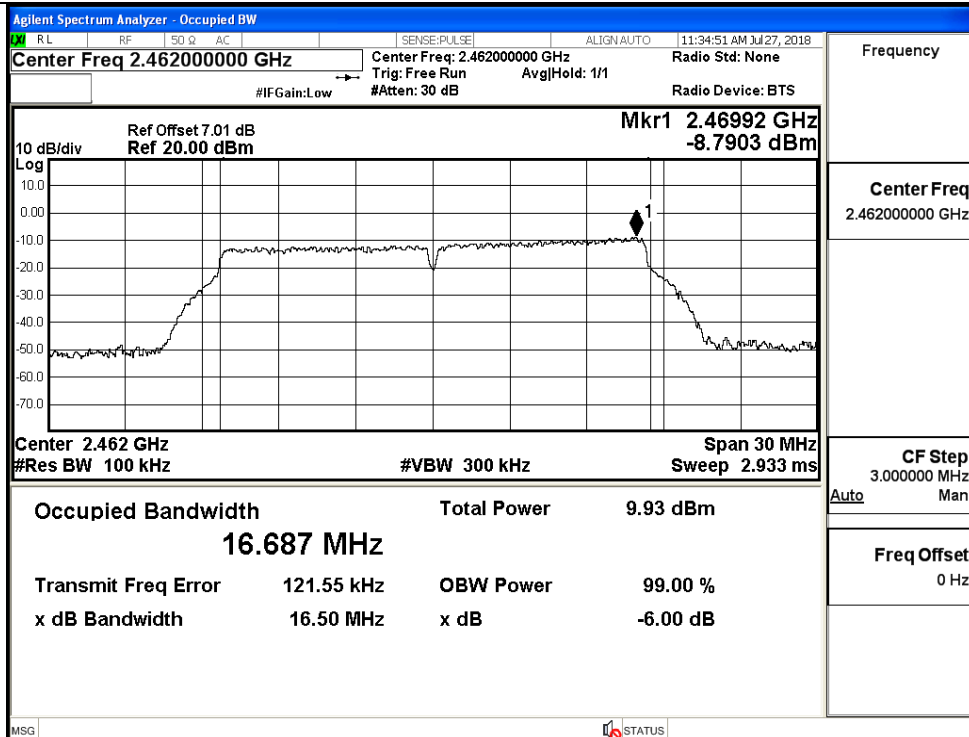
11G/LCH



11G/MCH



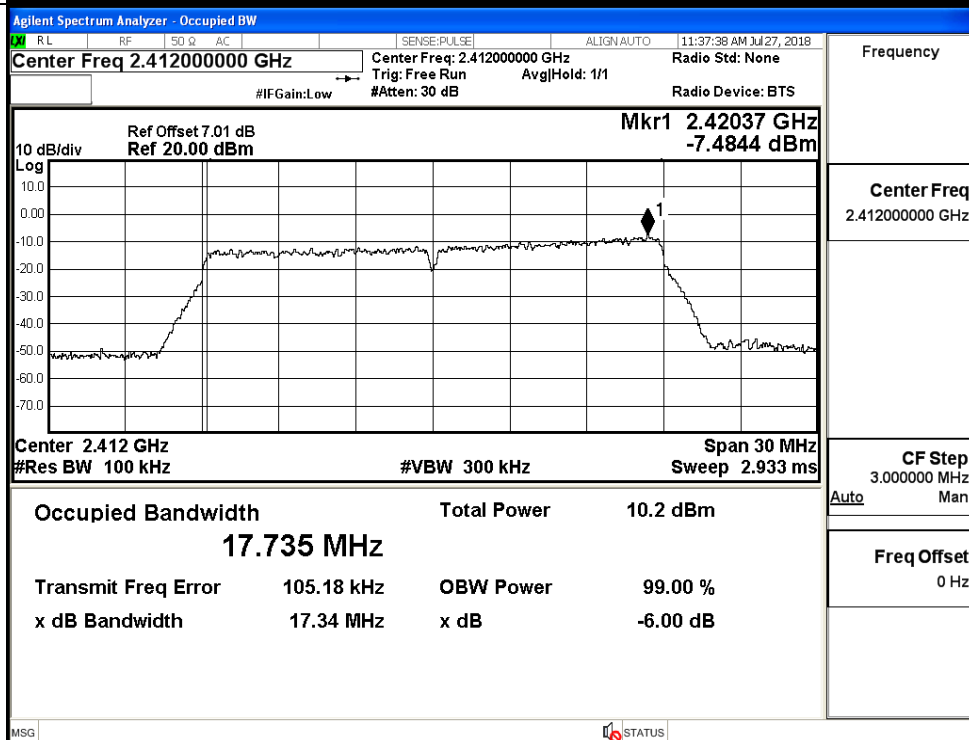
11G/HCH



Frequency

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

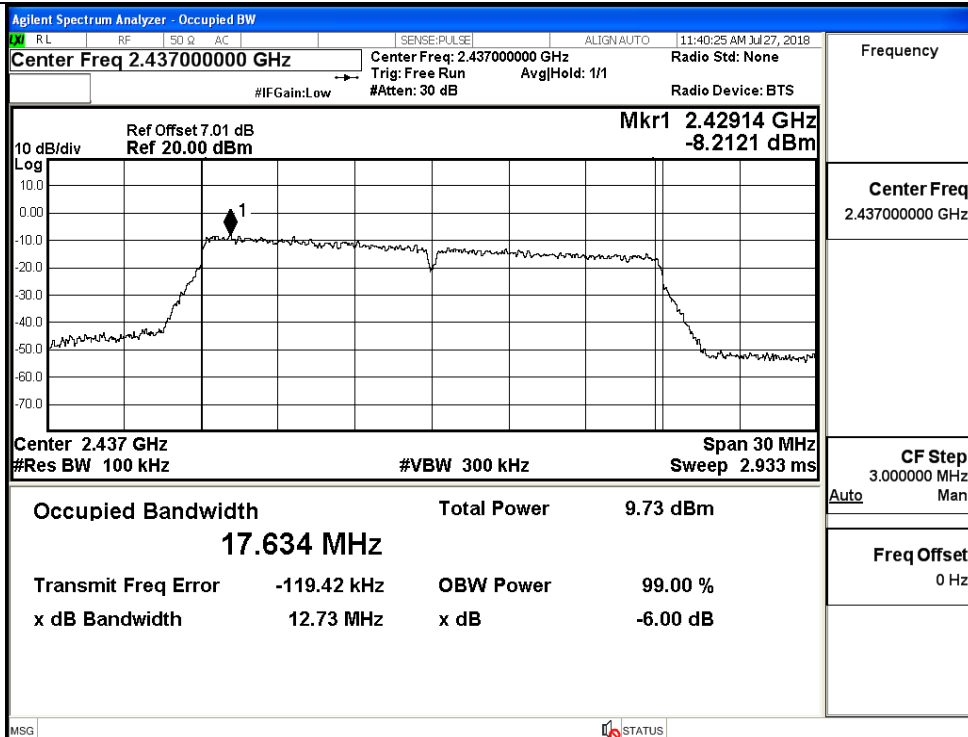
11N20SISO/LCH



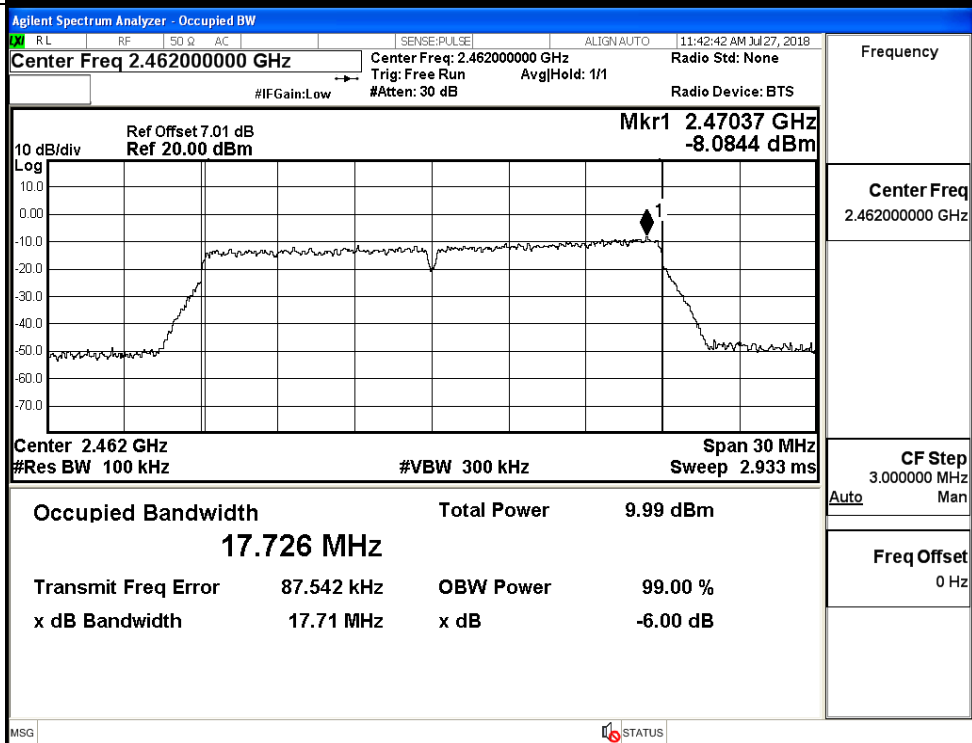
Frequency

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

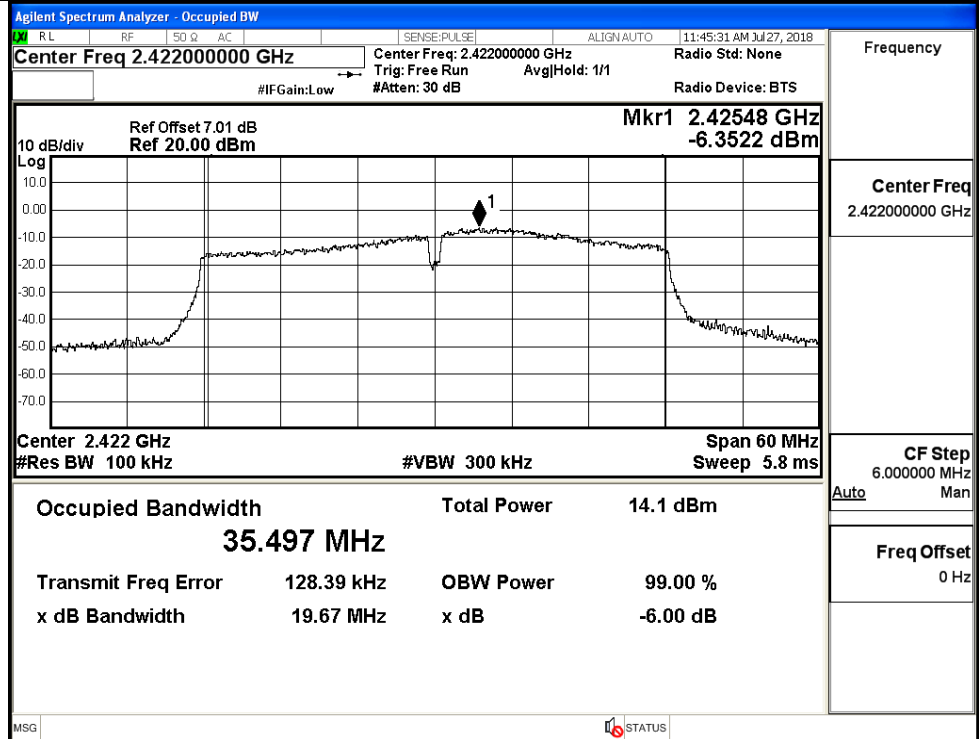
11N20SISO/MCH



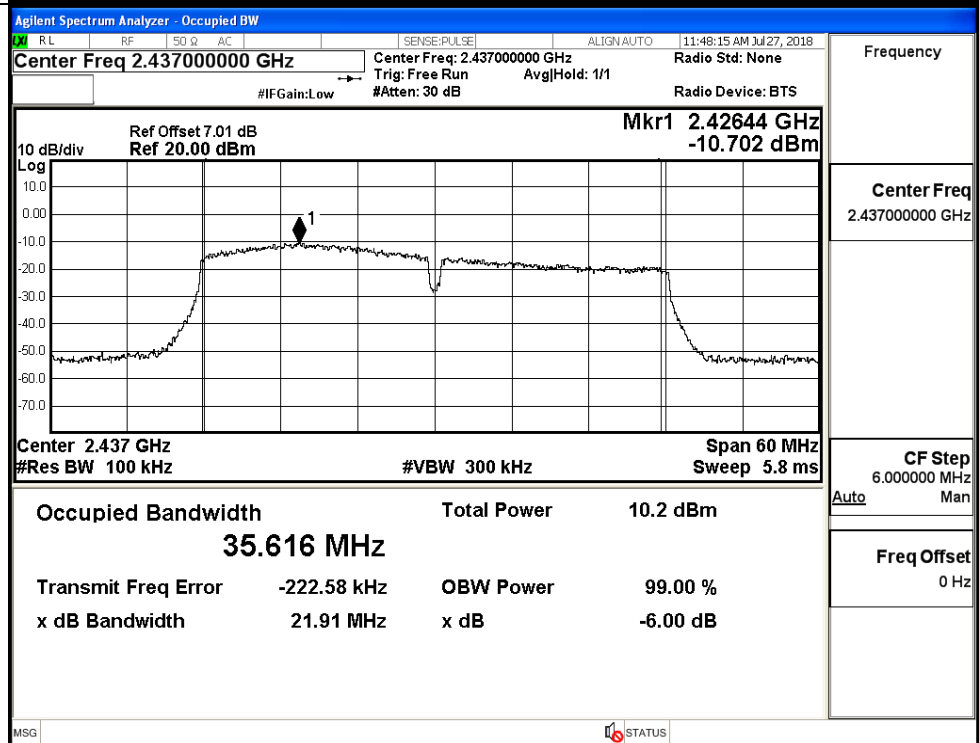
11N20SISO/HCH



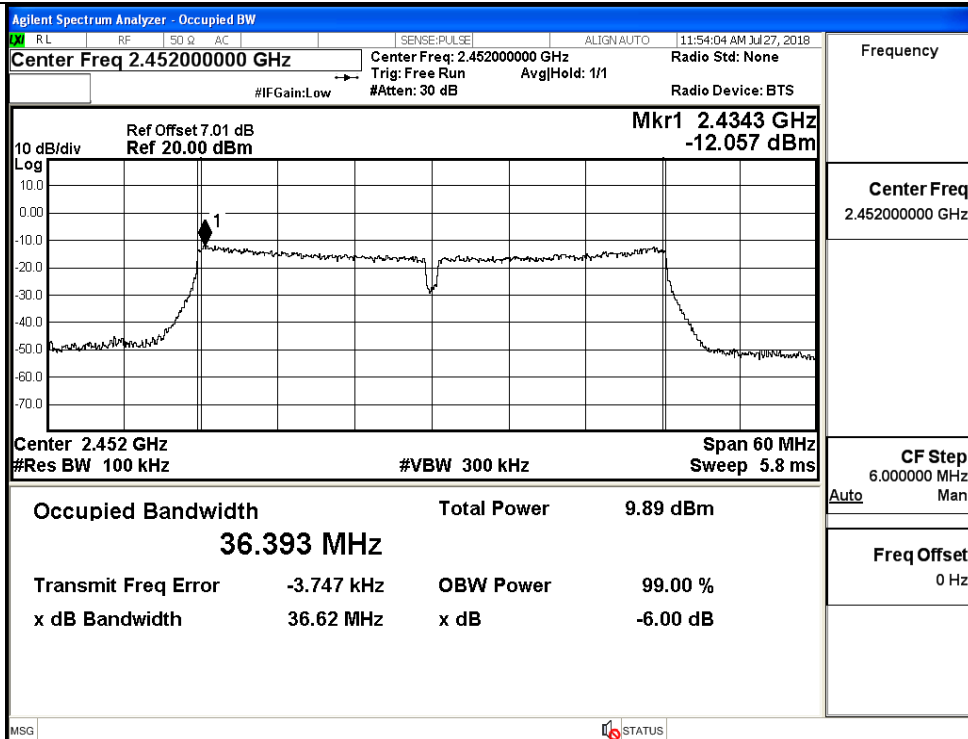
11N40SISO/LCH



11N40SISO/MCH



11N40SISO/HCH

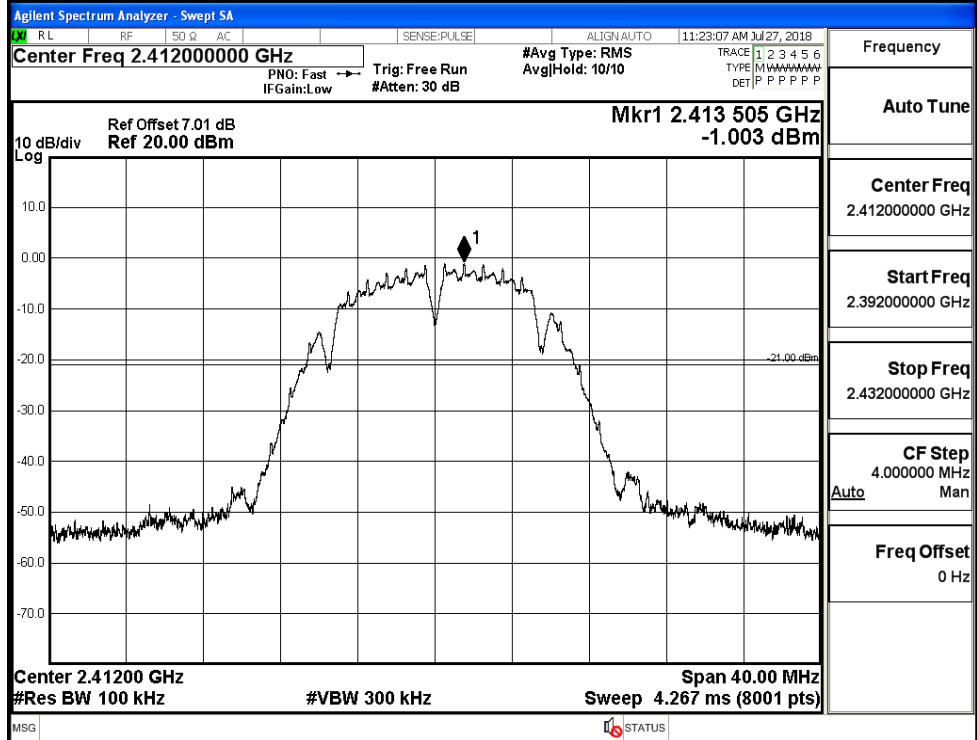


## A.5 RF Conducted Spurious Emissions

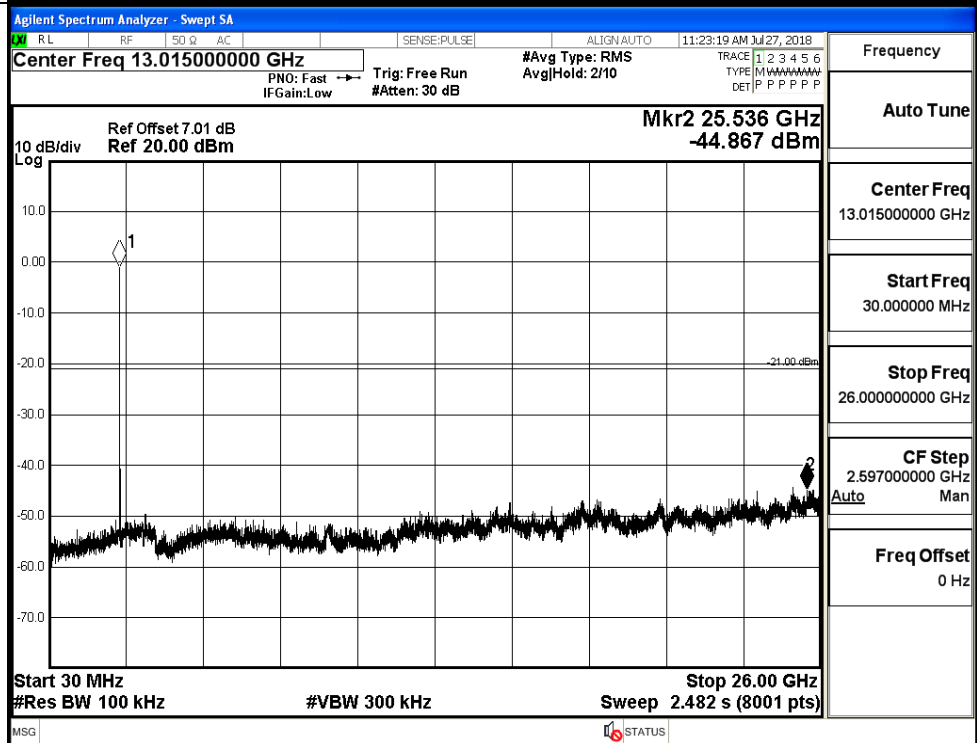
| Mode          | Channel | Pref [dBm] | Max. Level [dBm] | Limit [dBm] | Verdict |
|---------------|---------|------------|------------------|-------------|---------|
| 11B           | LCH     | -1.003     | -44.867          | -21.003     | PASS    |
|               | MCH     | -1.177     | -43.939          | -21.177     | PASS    |
|               | HCH     | -0.992     | -45.313          | -20.992     | PASS    |
| 11G           | LCH     | -8.002     | -42.553          | -28.002     | PASS    |
|               | MCH     | -8.691     | -37.650          | -28.691     | PASS    |
|               | HCH     | -8.948     | -44.459          | -28.948     | PASS    |
| 11N20<br>SISO | LCH     | -7.422     | -38.450          | -27.422     | PASS    |
|               | MCH     | -8.512     | -45.023          | -28.512     | PASS    |
|               | HCH     | -8.083     | -44.983          | -28.083     | PASS    |
| 11N40<br>SISO | LCH     | -6.391     | -40.400          | -26.391     | PASS    |
|               | MCH     | -10.736    | -45.076          | -30.736     | PASS    |
|               | HCH     | -12.184    | -44.732          | -32.184     | PASS    |

## 11B LCH Graphs

Pref/11B/LCH

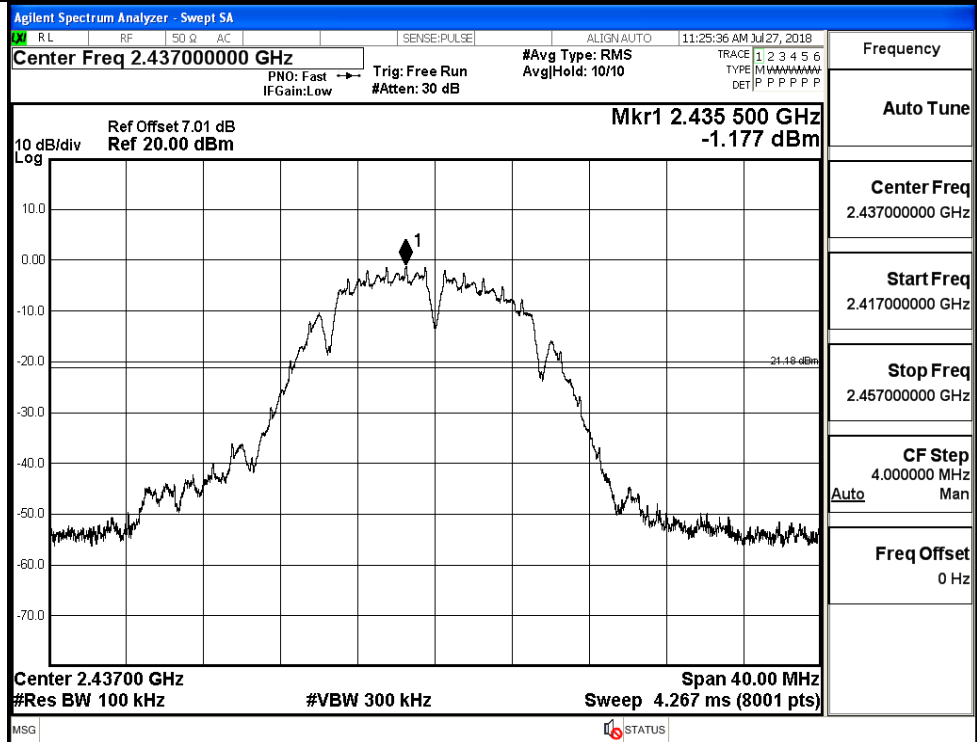


Puw/11B/LCH

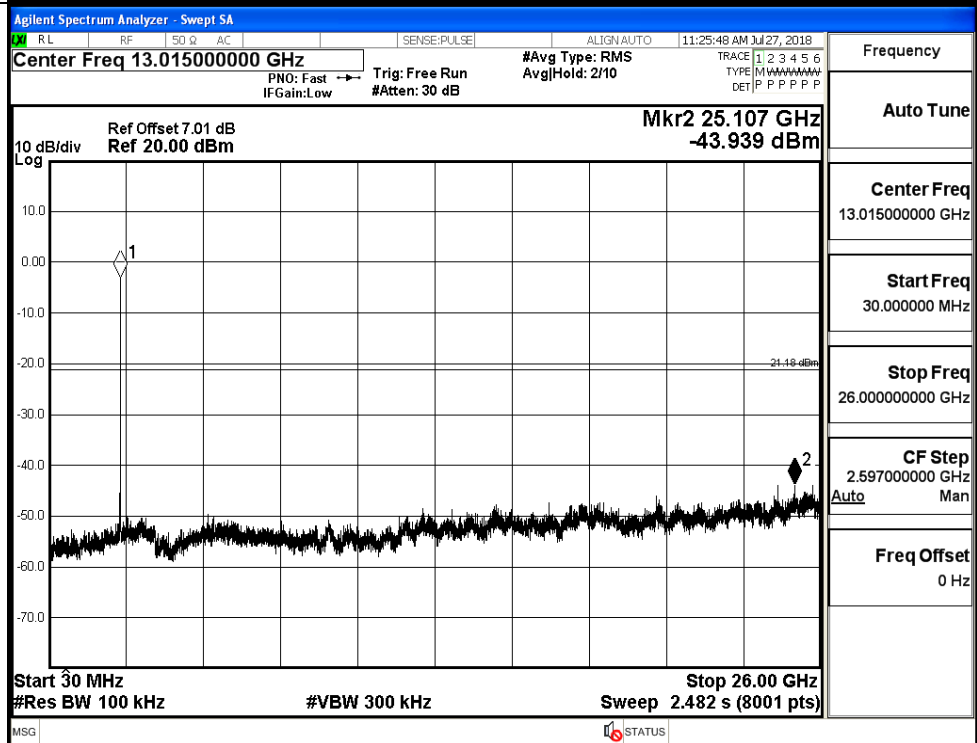


## 11B MCH Graphs

Pref/11B/MCH

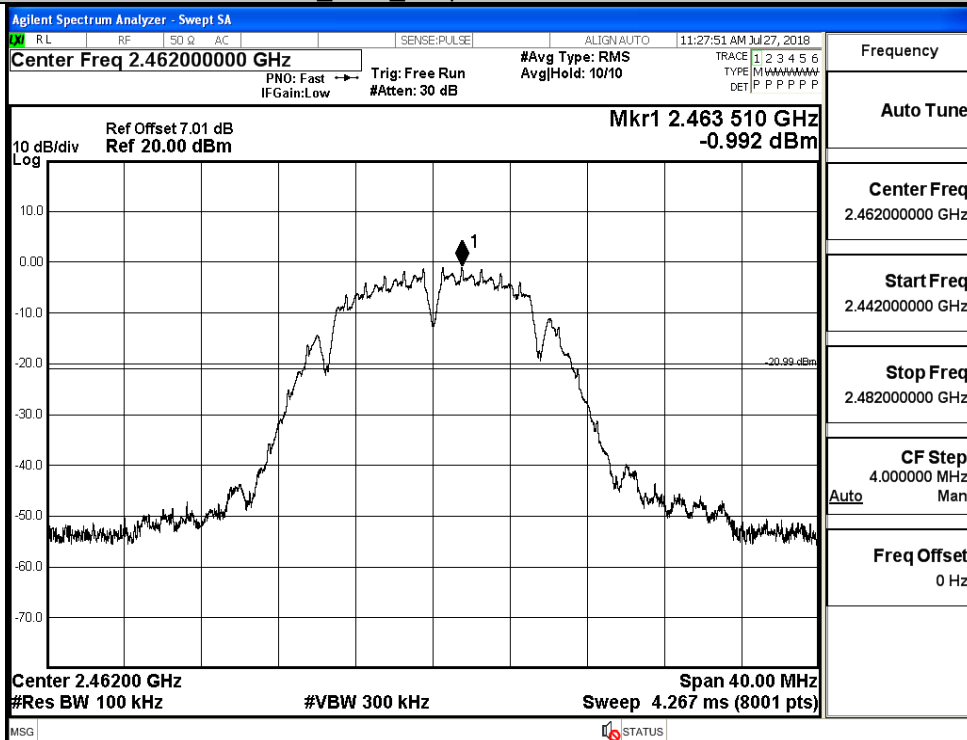


Puw/11B/MCH

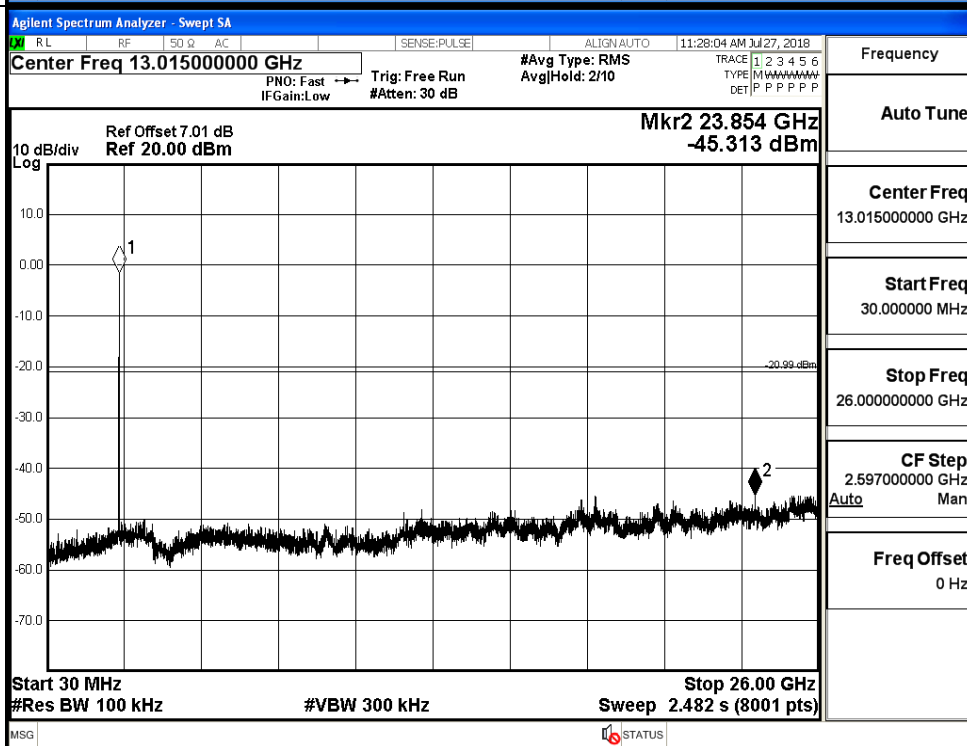


## 11B HCH Graphs

Pref/11B/HCH

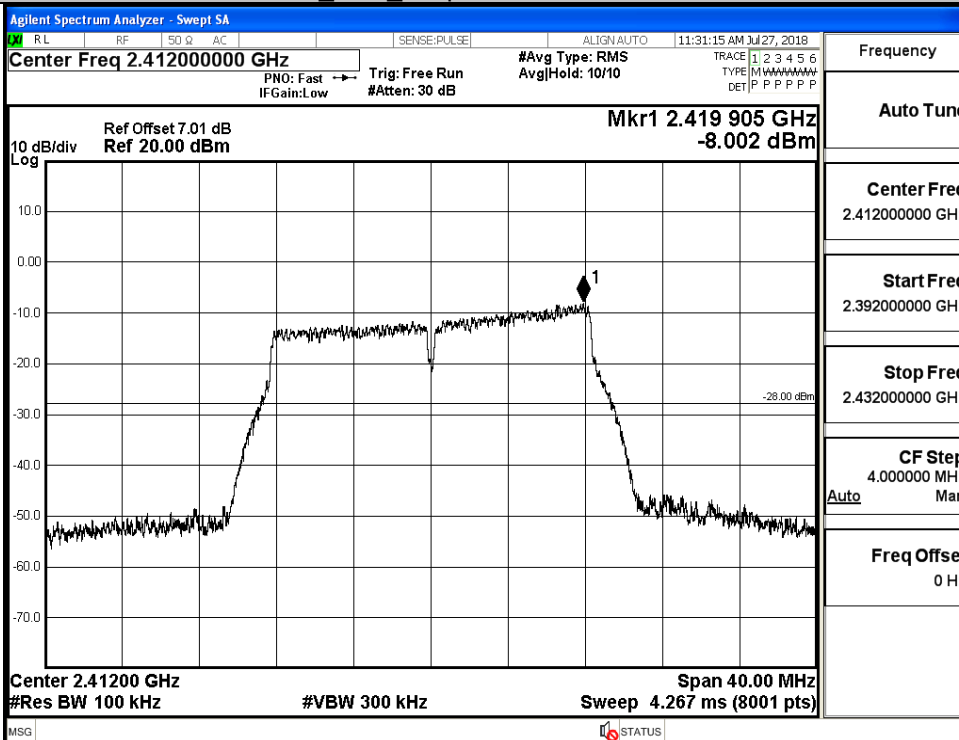


Puw/11B/HCH

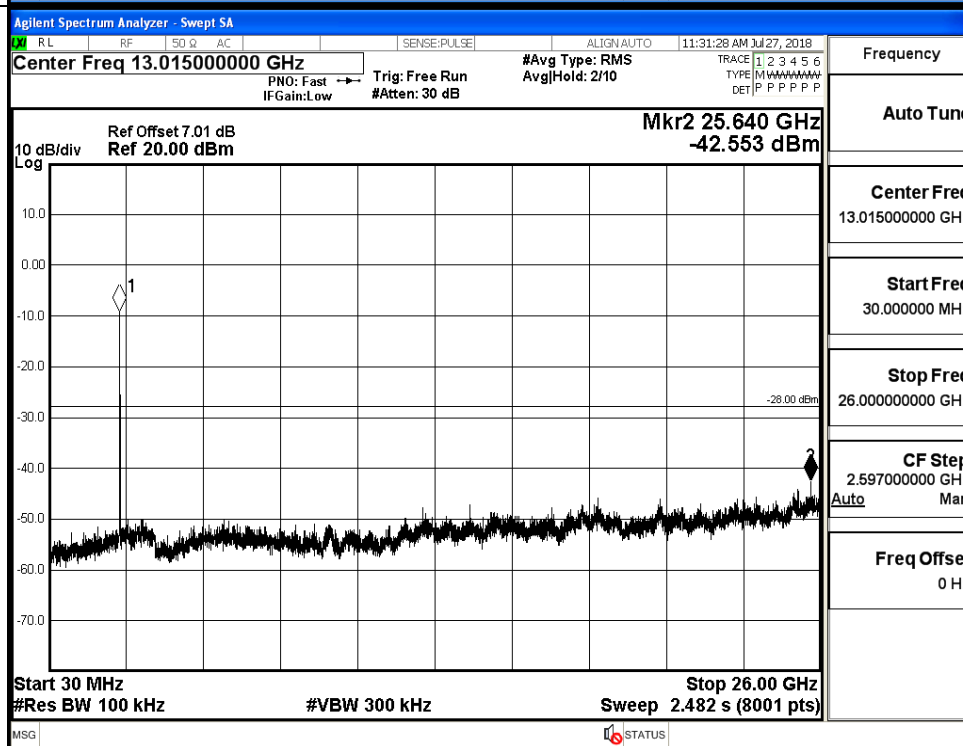


## 11G LCH Graphs

Pref/11G/LCH

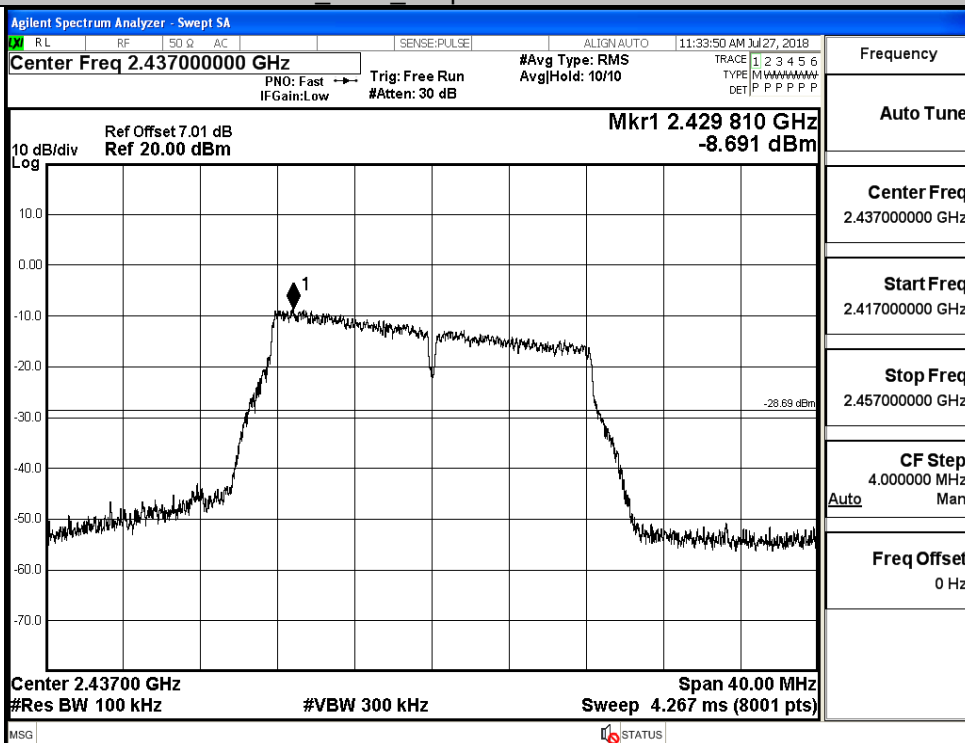


Puw/11G/LCH

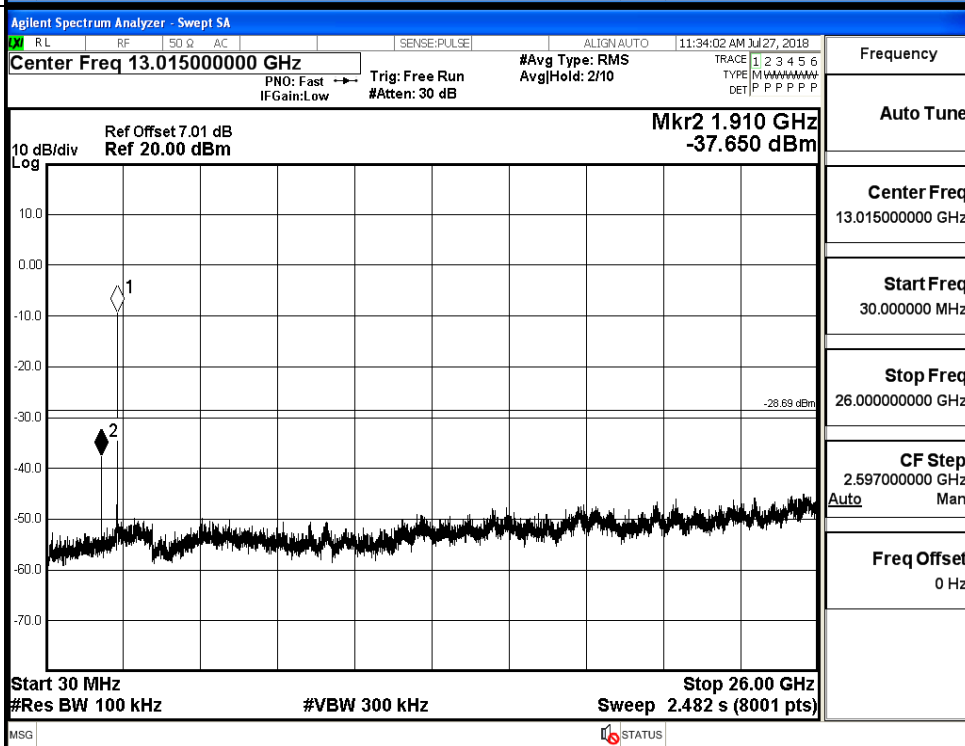


## 11G MCH Graphs

Pref/11G/MCH

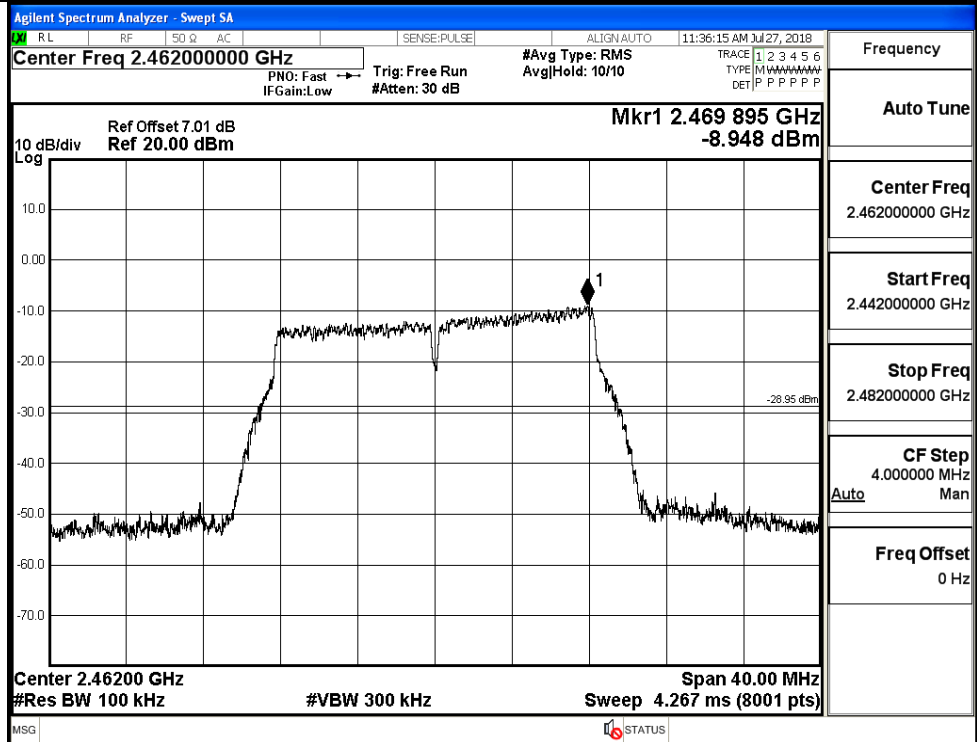


Puw/11G/MCH

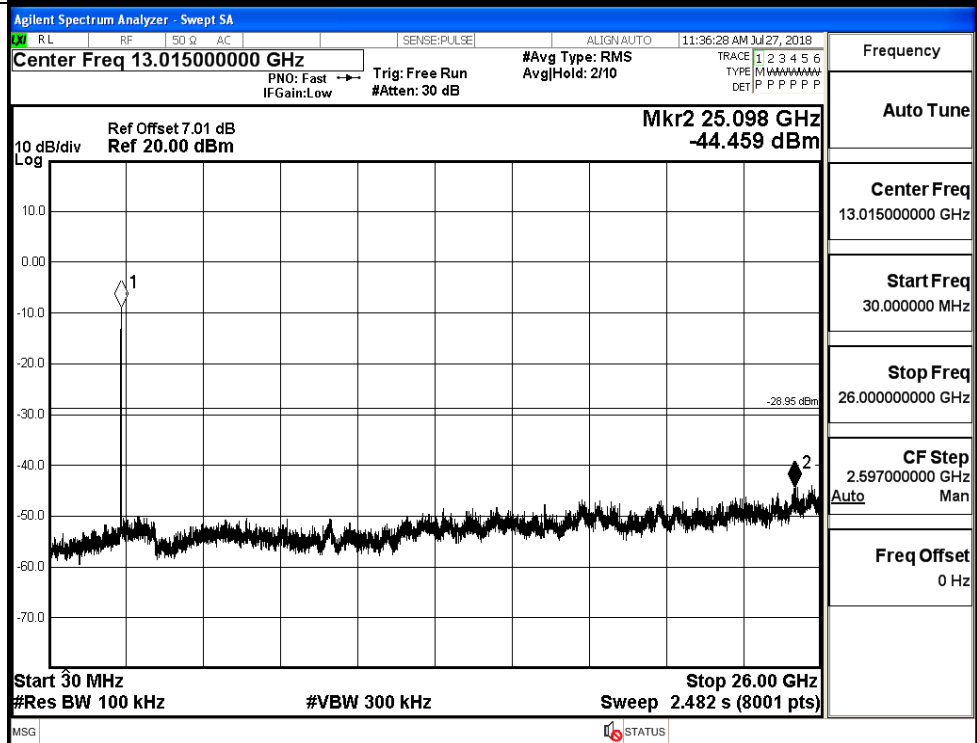


## 11G HCH Graphs

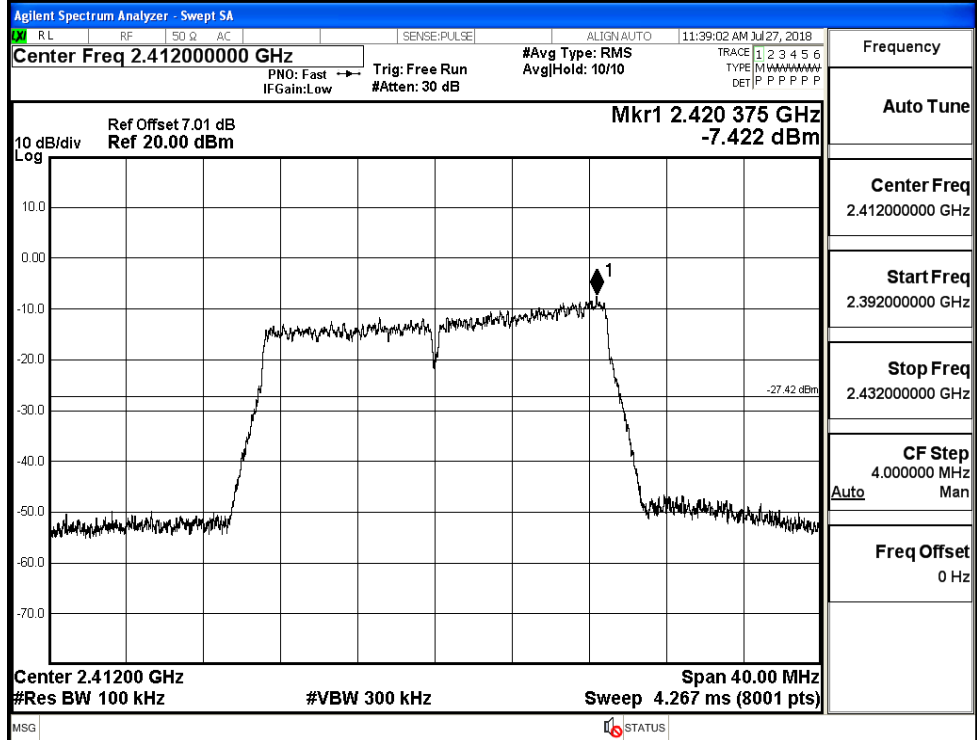
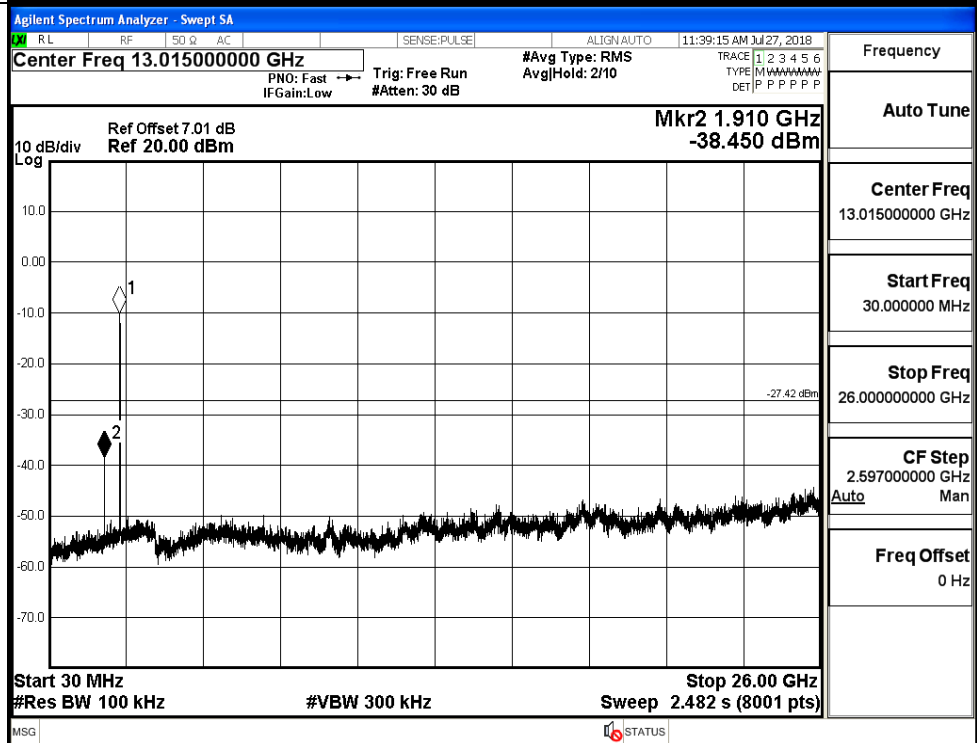
Pref/11G/HCH



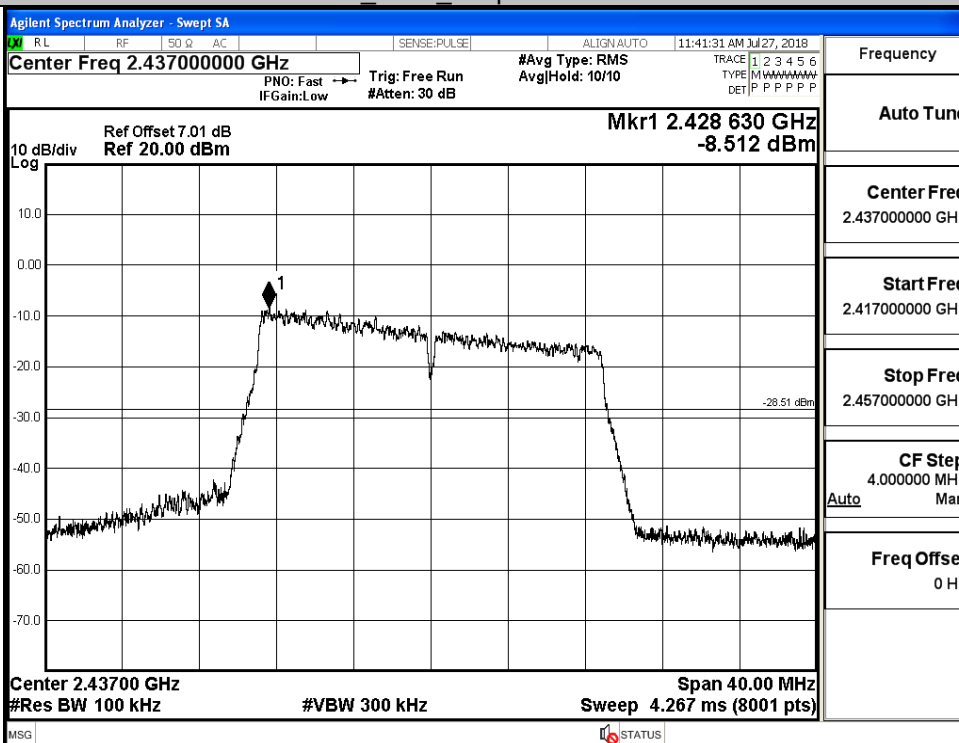
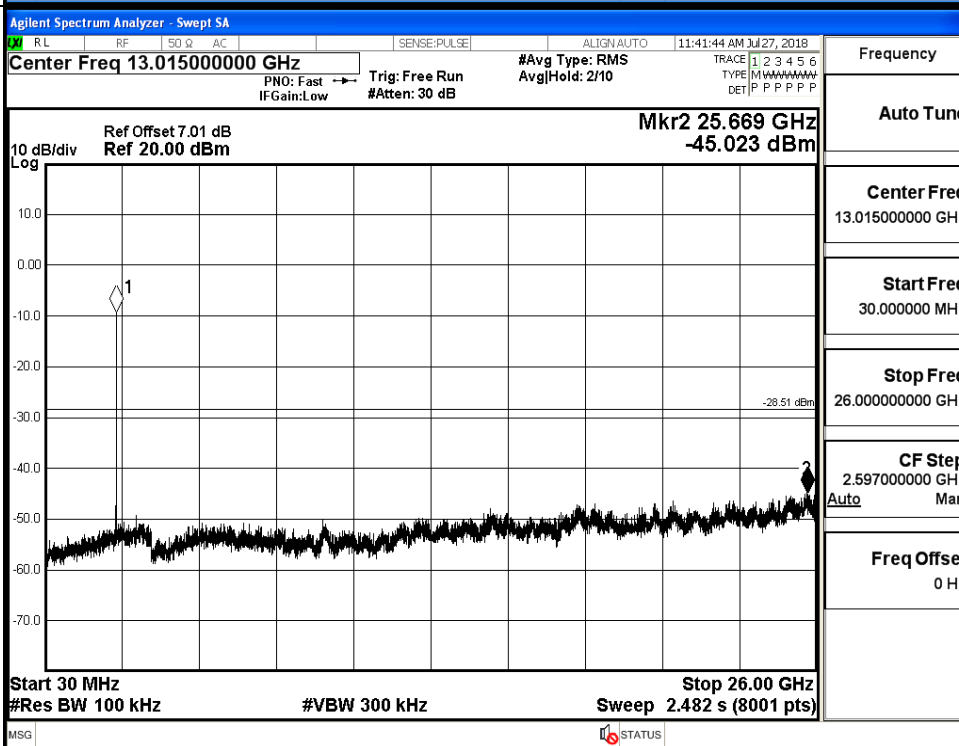
Puw/11G/HCH



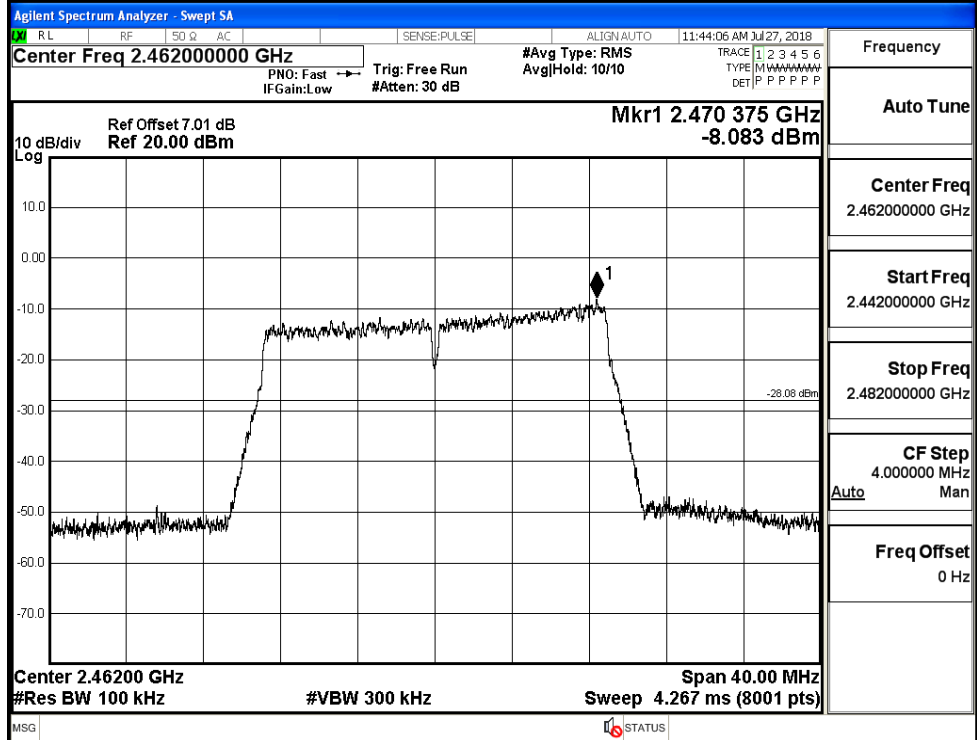
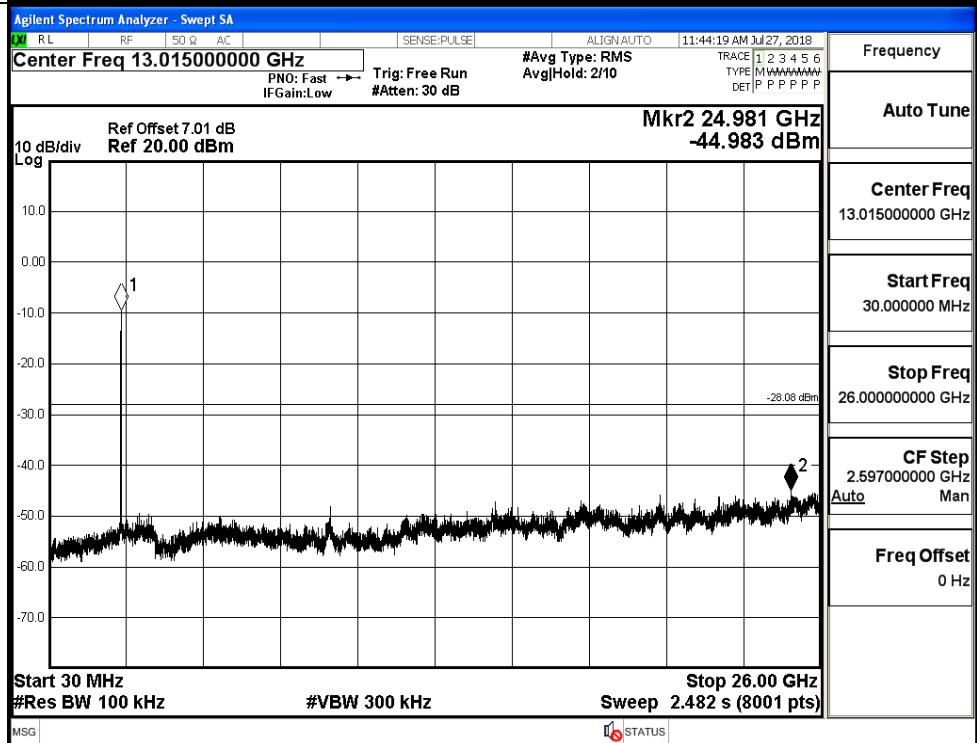
## 11N20SISO LCH Graphs

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

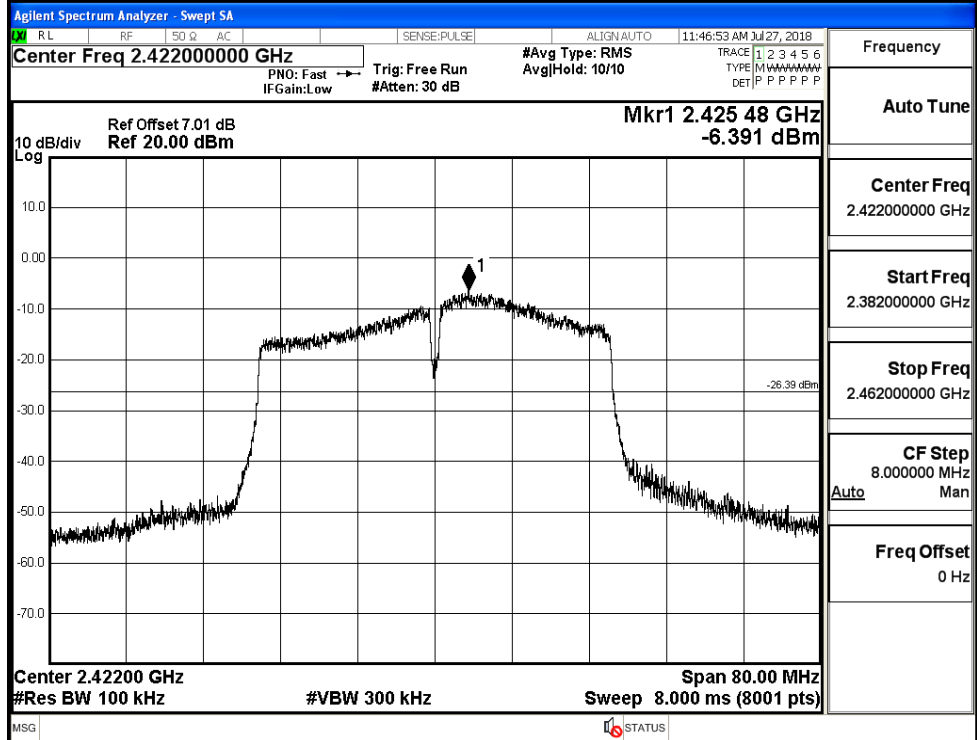
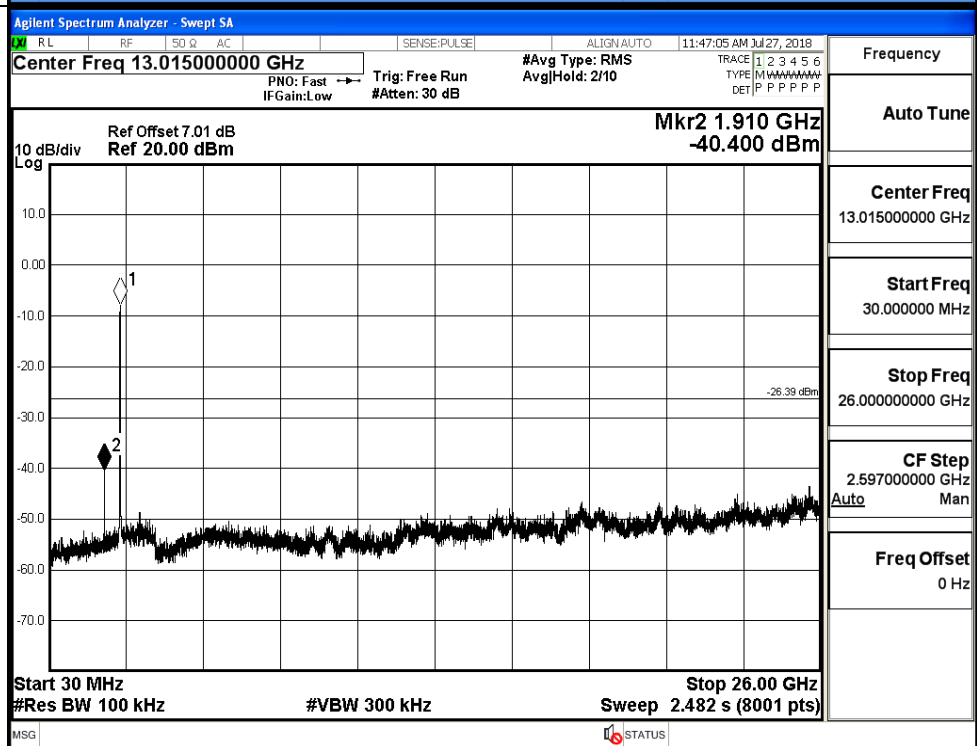
## 11N20SISO\_MCH\_Graphs

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

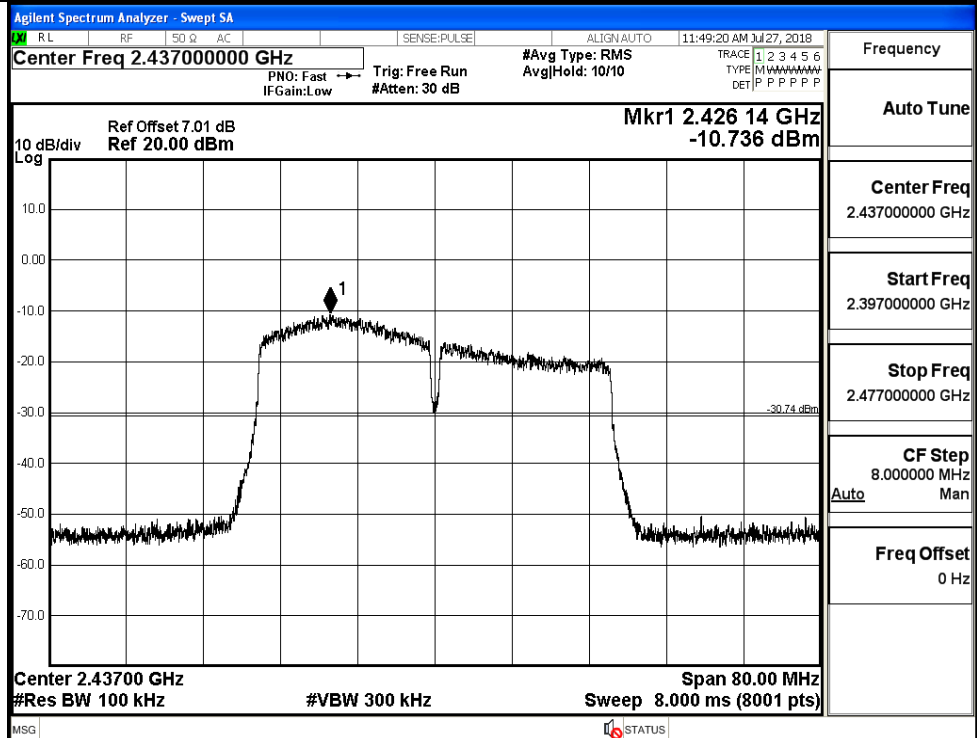
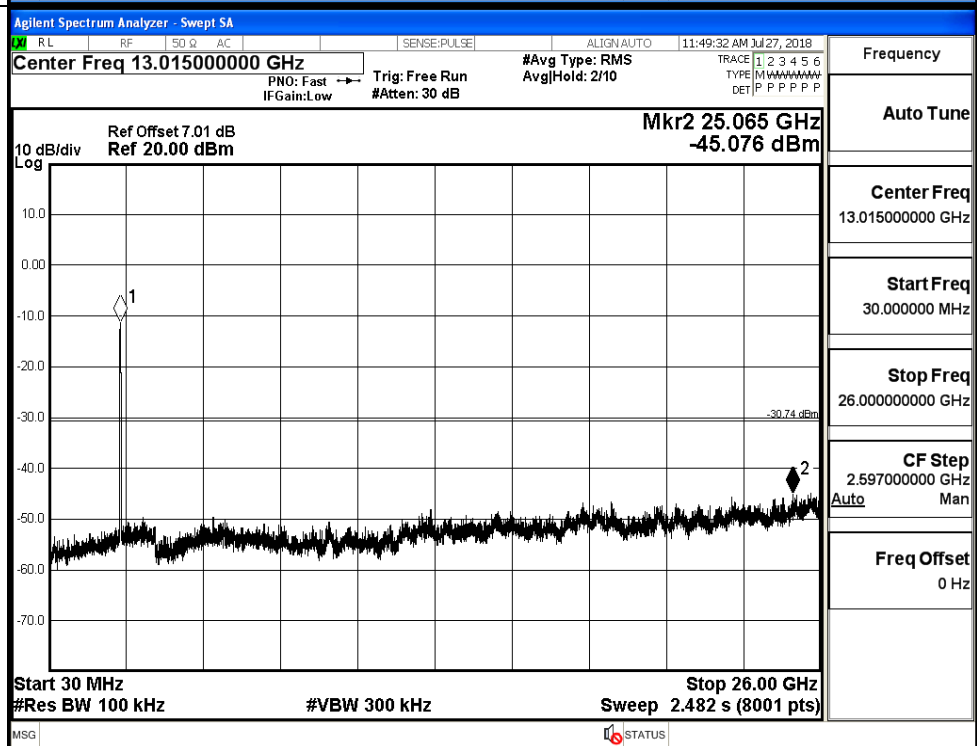
## 11N20SISO HCH Graphs

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

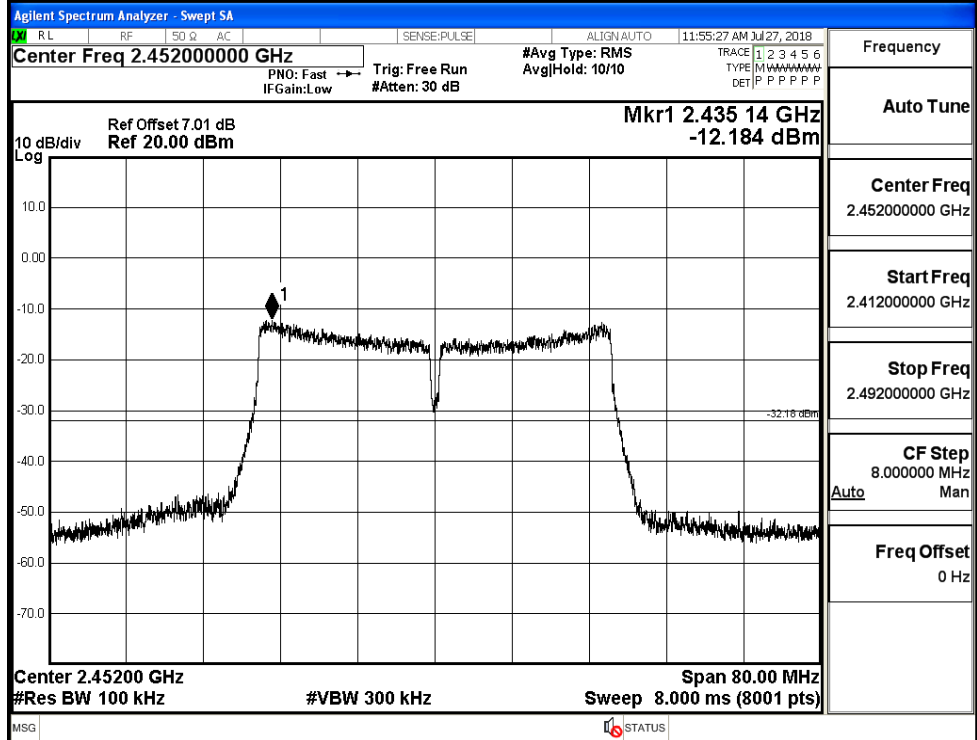
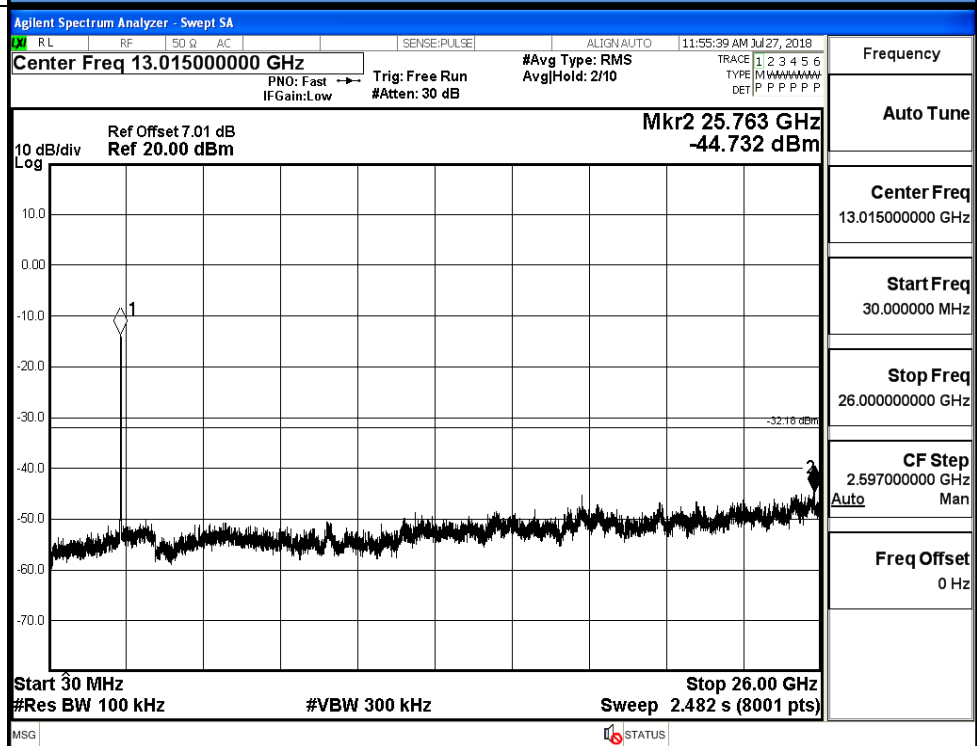
## 11N40SISO LCH Graphs

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

## 11N40SISO\_MCH\_Graphs

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

## 11N40SISO HCH Graphs

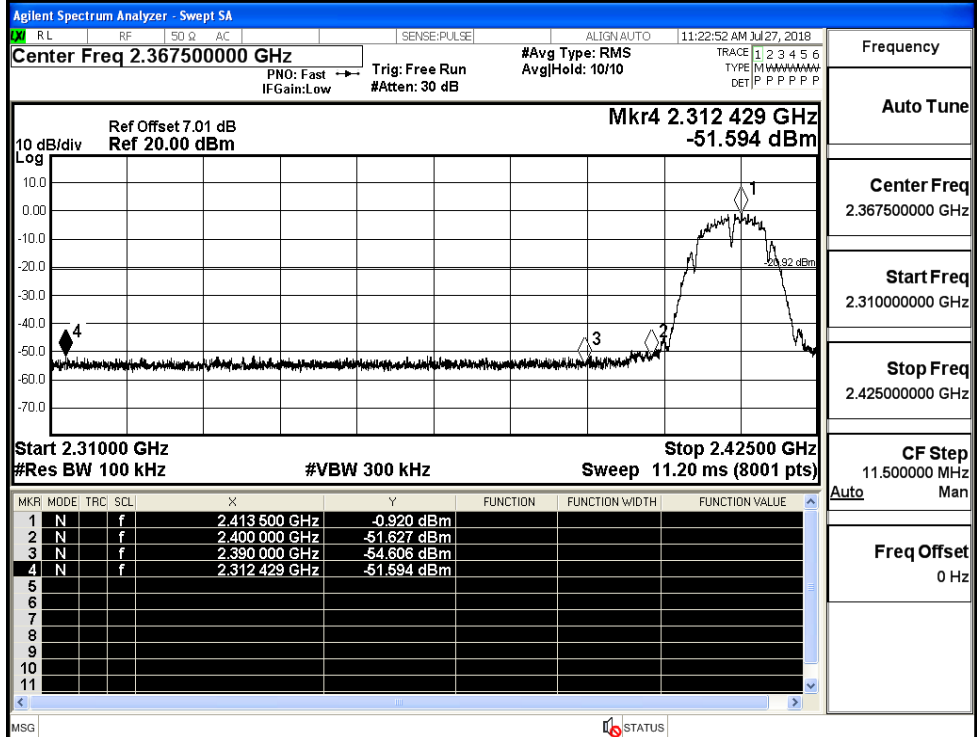
Pref/11N40  
SISO/HCHPuw/11N40  
SISO/HCH

**A.6 Band-edge for RF Conducted Emissions**

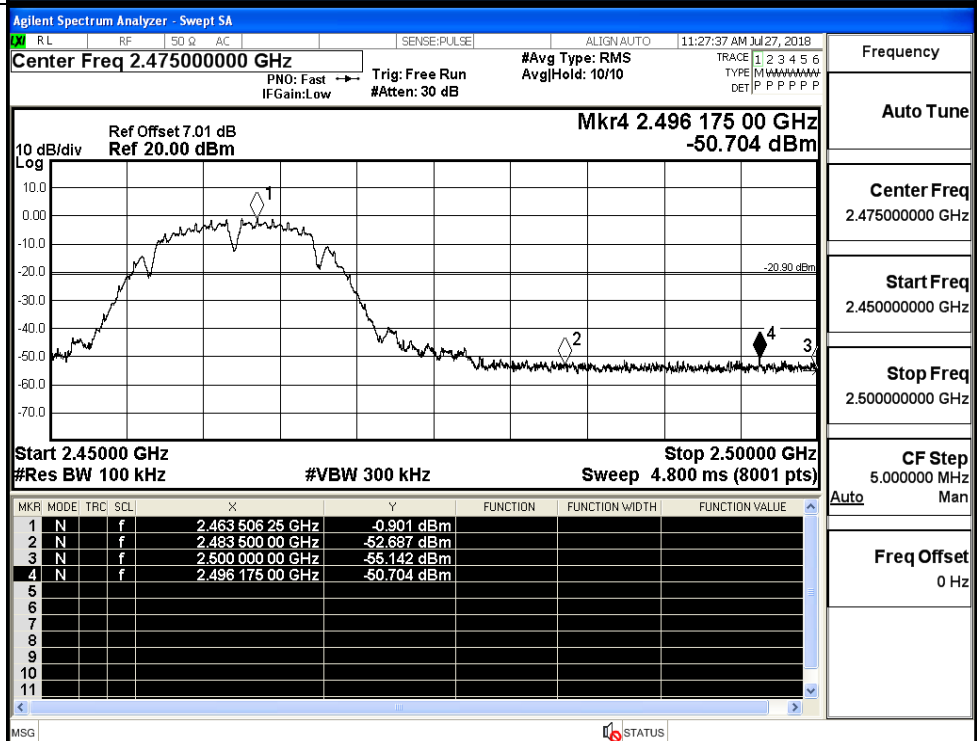
| Mode      | Channel | Carrier Power[dBm] | Max.Spurious Level [dBm] | Limit [dBm] | Verdict |
|-----------|---------|--------------------|--------------------------|-------------|---------|
| 11B       | LCH     | -0.920             | -51.594                  | -20.92      | PASS    |
|           | HCH     | -0.901             | -50.704                  | -20.9       | PASS    |
| 11G       | LCH     | -8.238             | -50.423                  | -28.24      | PASS    |
|           | HCH     | -9.031             | -50.320                  | -29.03      | PASS    |
| 11N20SISO | LCH     | -7.610             | -51.071                  | -27.61      | PASS    |
|           | HCH     | -8.084             | -50.661                  | -28.08      | PASS    |
| 11N40SISO | LCH     | -6.545             | -51.292                  | -26.55      | PASS    |
|           | HCH     | -12.122            | -49.855                  | -32.12      | PASS    |

## Test Graphs

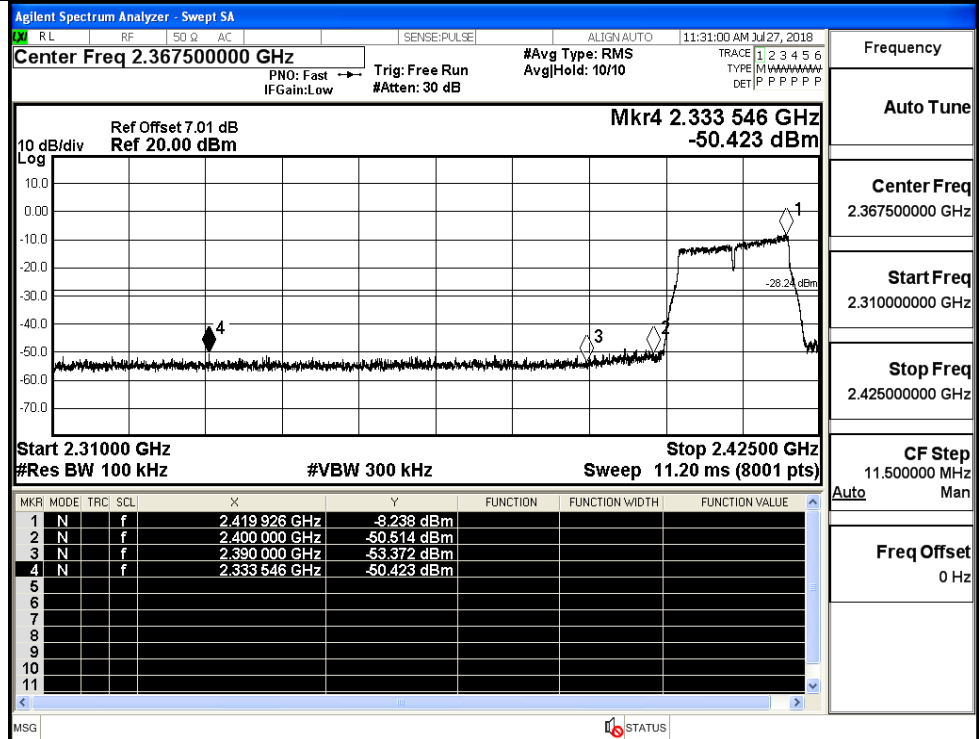
11B/LCH



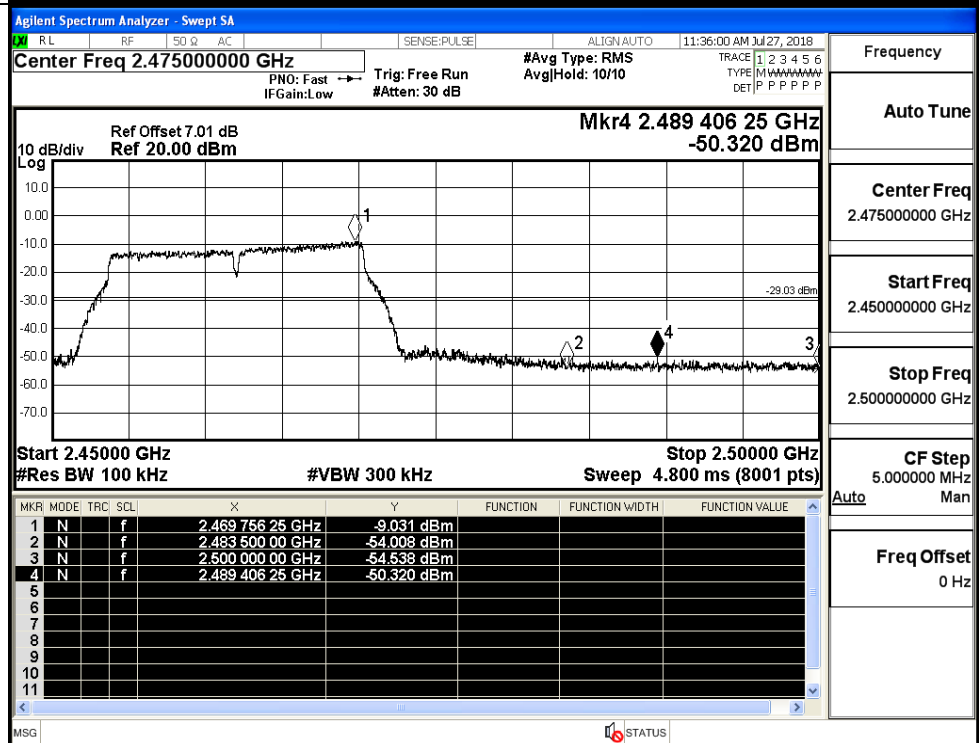
11B/HCH



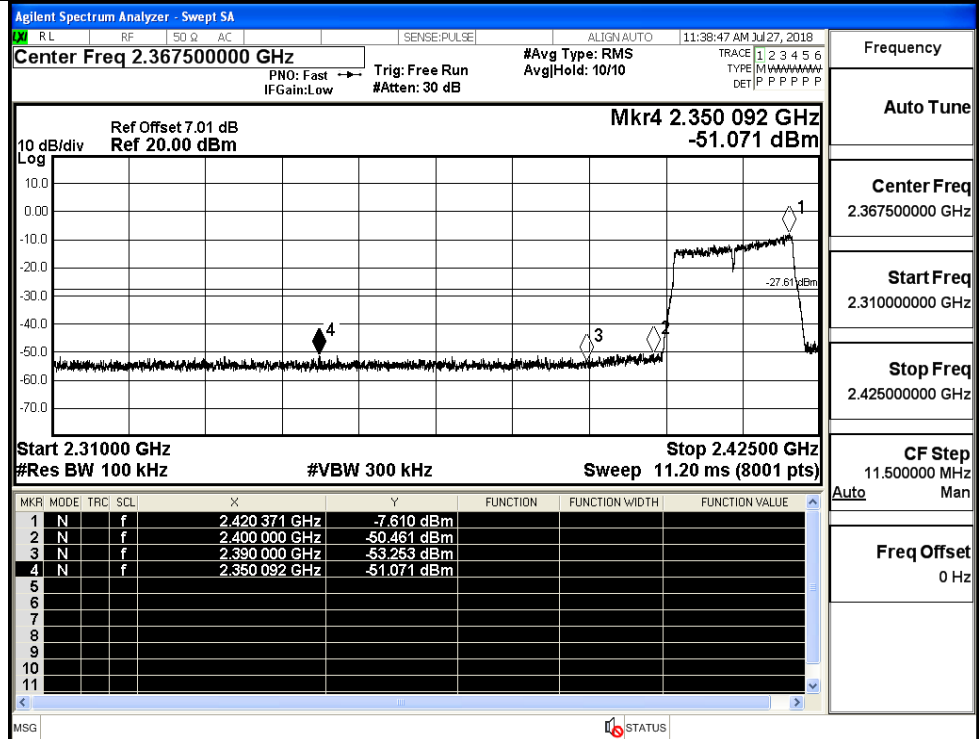
11G/LCH



11G/HCH



11N20SISO/LCH

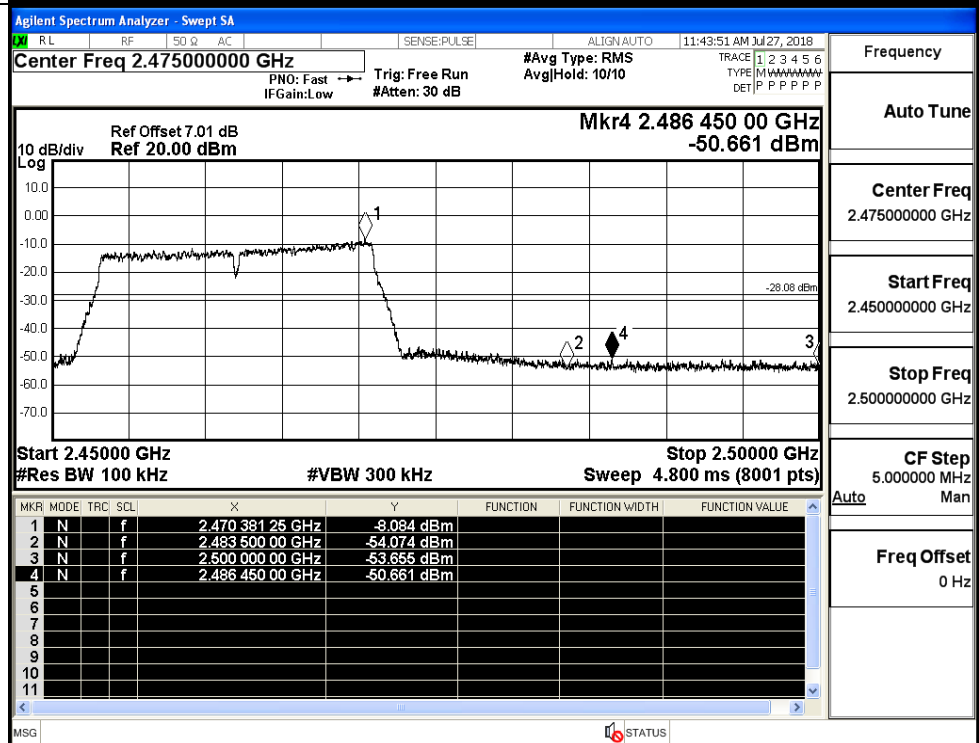


Frequency

Auto Tune

Center Freq  
2.367500000 GHzStart Freq  
2.310000000 GHzStop Freq  
2.425000000 GHzCF Step  
11.500000 MHz  
Auto ManFreq Offset  
0 Hz

11N20SISO/HCH

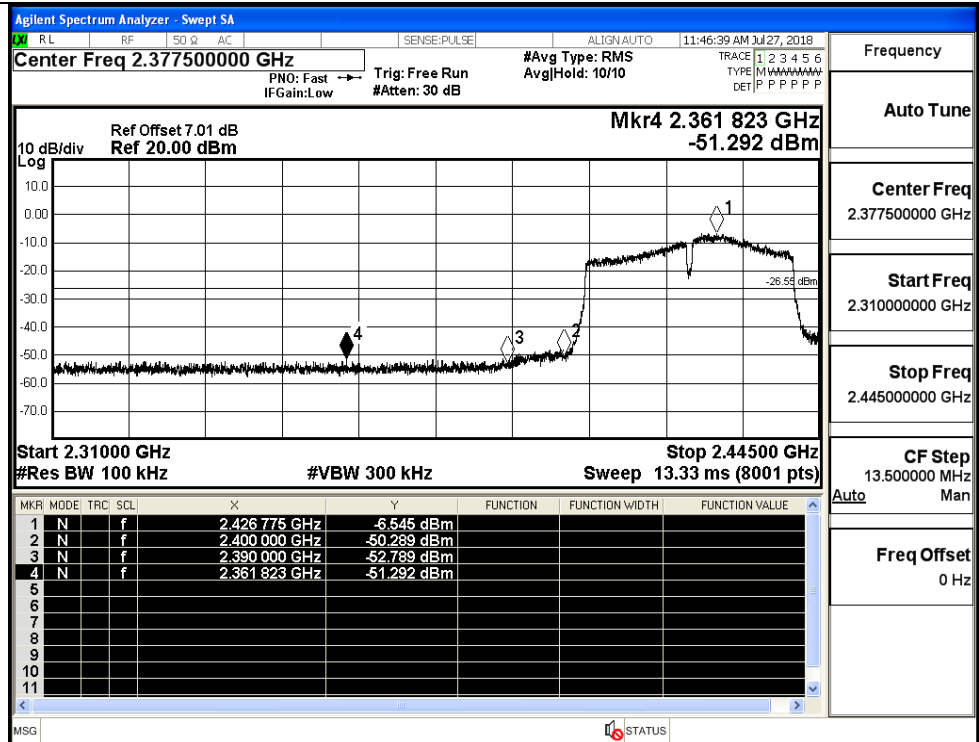


Frequency

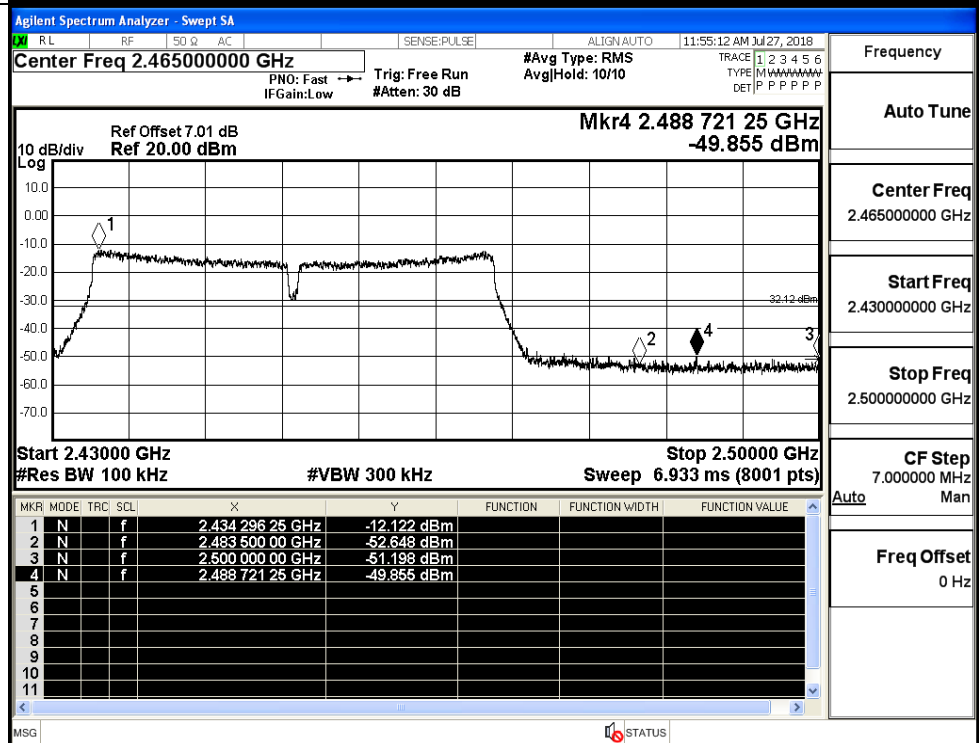
Auto Tune

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

11N40SISO/LCH



11N40SISO/HCH

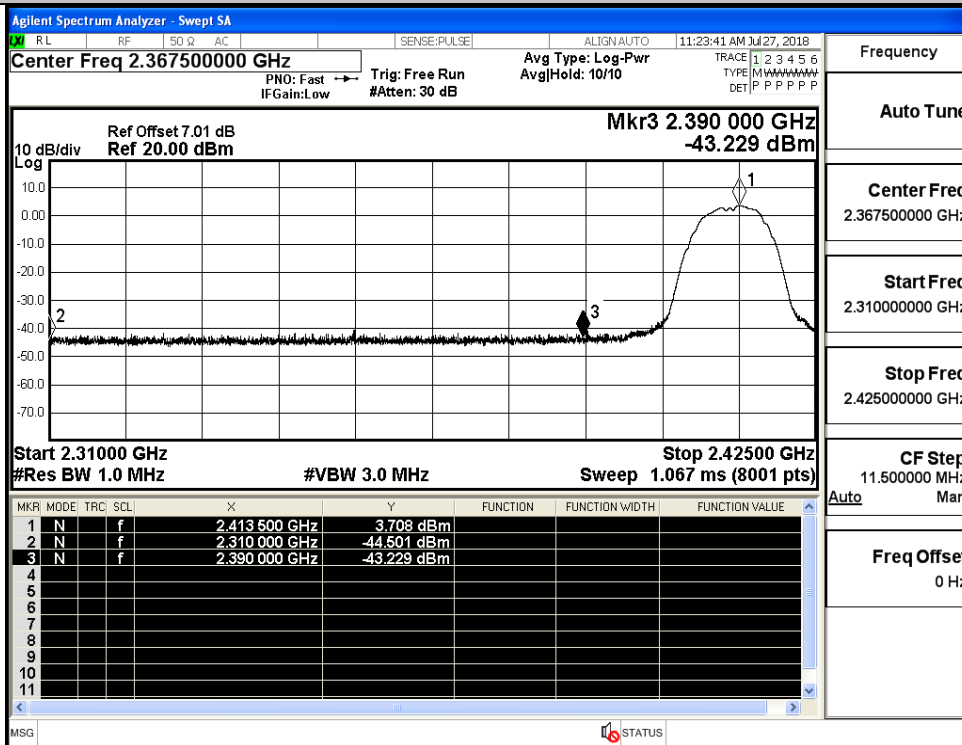


## A.7 Restrict-band band-edge measurements

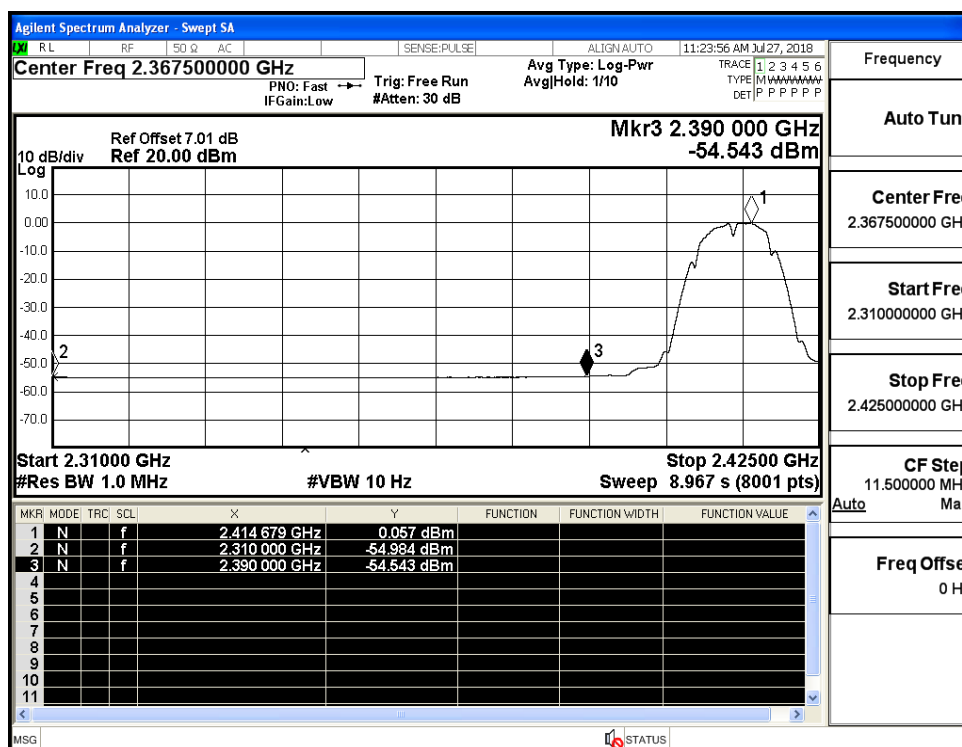
| Test Mode     | Test Channel | Ant  | Freq.  | Power [dBm] | Gain | Ground Factor | E [dBuV/m] | Detector | Limit [dBuV/m] | Verdict |
|---------------|--------------|------|--------|-------------|------|---------------|------------|----------|----------------|---------|
| 11B           | 2412         | Ant1 | 2310.0 | -44.50      | 2.0  | 0             | 52.76      | PEAK     | 74             | PASS    |
|               | 2412         | Ant1 | 2310.0 | -54.98      | 2.0  | 0             | 42.27      | AV       | 54             | PASS    |
|               | 2412         | Ant1 | 2390.0 | -43.23      | 2.0  | 0             | 54.03      | PEAK     | 74             | PASS    |
|               | 2412         | Ant1 | 2390.0 | -54.54      | 2.0  | 0             | 42.71      | AV       | 54             | PASS    |
|               | 2462         | Ant1 | 2483.5 | -43.28      | 2.0  | 0             | 53.98      | PEAK     | 74             | PASS    |
|               | 2462         | Ant1 | 2483.5 | -53.76      | 2.0  | 0             | 43.49      | AV       | 54             | PASS    |
|               | 2462         | Ant1 | 2500.0 | -44.03      | 2.0  | 0             | 53.23      | PEAK     | 74             | PASS    |
|               | 2462         | Ant1 | 2500.0 | -54.10      | 2.0  | 0             | 43.16      | AV       | 54             | PASS    |
| 11G           | 2412         | Ant1 | 2310.0 | -43.89      | 2.0  | 0             | 53.36      | PEAK     | 74             | PASS    |
|               | 2412         | Ant1 | 2310.0 | -55.00      | 2.0  | 0             | 42.26      | AV       | 54             | PASS    |
|               | 2412         | Ant1 | 2390.0 | -43.16      | 2.0  | 0             | 54.10      | PEAK     | 74             | PASS    |
|               | 2412         | Ant1 | 2390.0 | -54.39      | 2.0  | 0             | 42.87      | AV       | 54             | PASS    |
|               | 2462         | Ant1 | 2483.5 | -42.53      | 2.0  | 0             | 54.73      | PEAK     | 74             | PASS    |
|               | 2462         | Ant1 | 2483.5 | -53.28      | 2.0  | 0             | 43.98      | AV       | 54             | PASS    |
|               | 2462         | Ant1 | 2500.0 | -42.99      | 2.0  | 0             | 54.27      | PEAK     | 74             | PASS    |
|               | 2462         | Ant1 | 2500.0 | -53.85      | 2.0  | 0             | 43.41      | AV       | 54             | PASS    |
| 11N20<br>SISO | 2412         | Ant1 | 2310.0 | -44.15      | 2.0  | 0             | 53.11      | PEAK     | 74             | PASS    |
|               | 2412         | Ant1 | 2310.0 | -55.01      | 2.0  | 0             | 42.25      | AV       | 54             | PASS    |
|               | 2412         | Ant1 | 2390.0 | -44.44      | 2.0  | 0             | 52.81      | PEAK     | 74             | PASS    |
|               | 2412         | Ant1 | 2390.0 | -54.36      | 2.0  | 0             | 42.90      | AV       | 54             | PASS    |
|               | 2462         | Ant1 | 2483.5 | -42.23      | 2.0  | 0             | 55.03      | PEAK     | 74             | PASS    |
|               | 2462         | Ant1 | 2483.5 | -53.21      | 2.0  | 0             | 44.05      | AV       | 54             | PASS    |
|               | 2462         | Ant1 | 2500.0 | -43.21      | 2.0  | 0             | 54.05      | PEAK     | 74             | PASS    |
|               | 2462         | Ant1 | 2500.0 | -53.84      | 2.0  | 0             | 43.42      | AV       | 54             | PASS    |
| 11N40<br>SISO | 2422         | Ant1 | 2310.0 | -43.82      | 2.0  | 0             | 53.44      | PEAK     | 74             | PASS    |
|               | 2422         | Ant1 | 2310.0 | -55.00      | 2.0  | 0             | 42.25      | AV       | 54             | PASS    |

|  |      |      |        |        |     |   |       |      |    |      |
|--|------|------|--------|--------|-----|---|-------|------|----|------|
|  | 2422 | Ant1 | 2390.0 | -42.68 | 2.0 | 0 | 54.58 | PEAK | 74 | PASS |
|  | 2422 | Ant1 | 2390.0 | -53.47 | 2.0 | 0 | 43.79 | AV   | 54 | PASS |
|  | 2452 | Ant1 | 2483.5 | -43.86 | 2.0 | 0 | 53.40 | PEAK | 74 | PASS |
|  | 2452 | Ant1 | 2483.5 | -53.69 | 2.0 | 0 | 43.57 | AV   | 54 | PASS |
|  | 2452 | Ant1 | 2500.0 | -42.20 | 2.0 | 0 | 55.06 | PEAK | 74 | PASS |
|  | 2452 | Ant1 | 2500.0 | -53.90 | 2.0 | 0 | 43.36 | AV   | 54 | PASS |

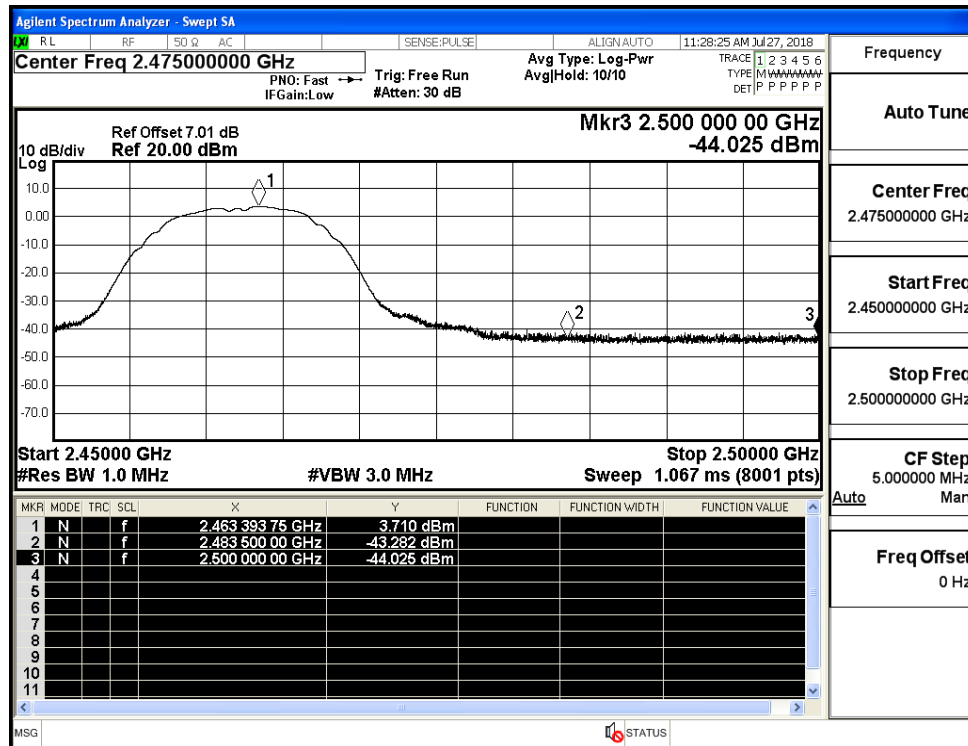
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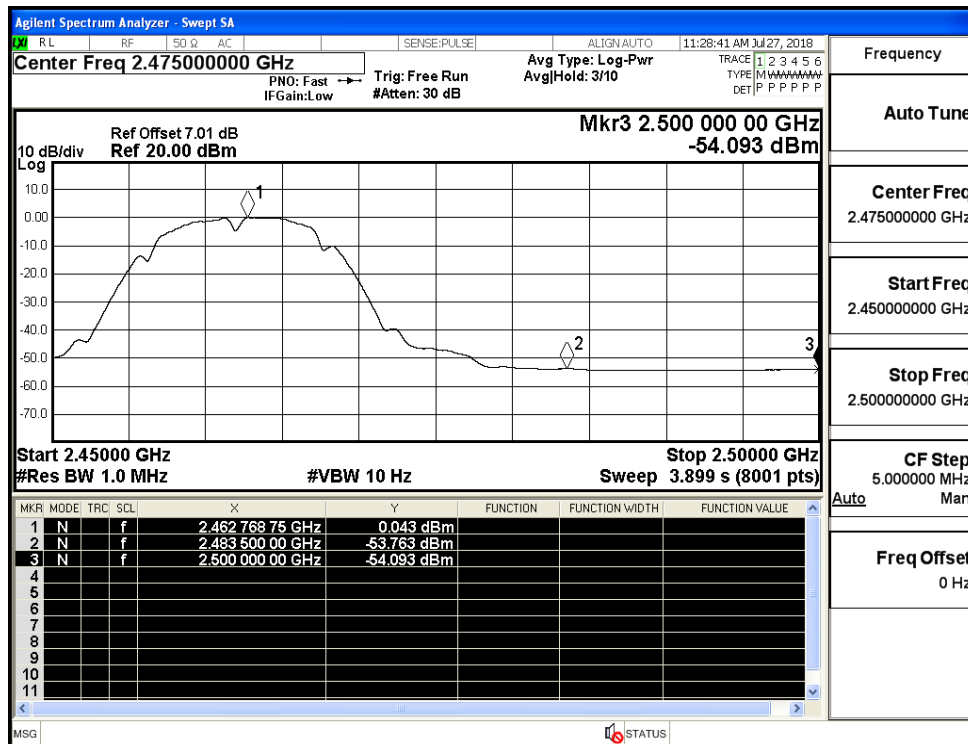
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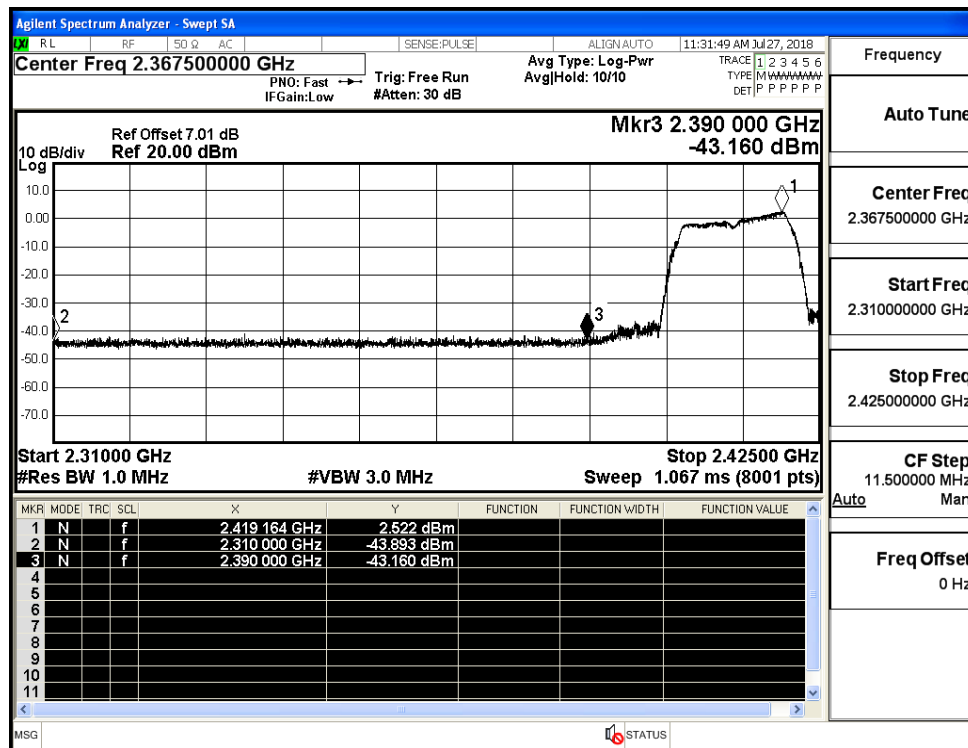
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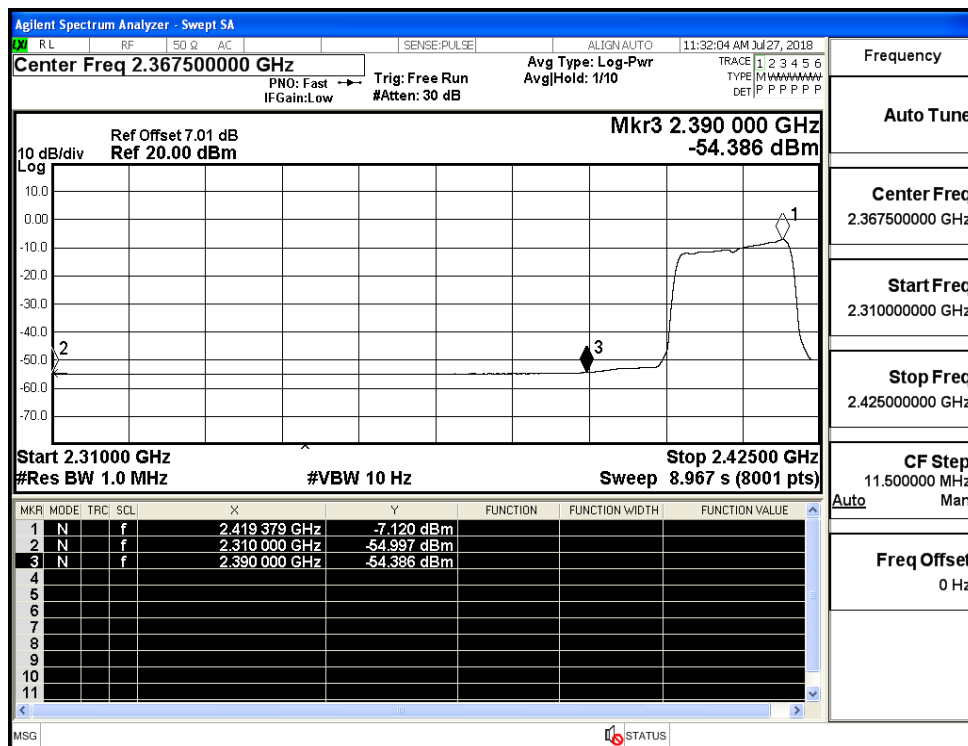
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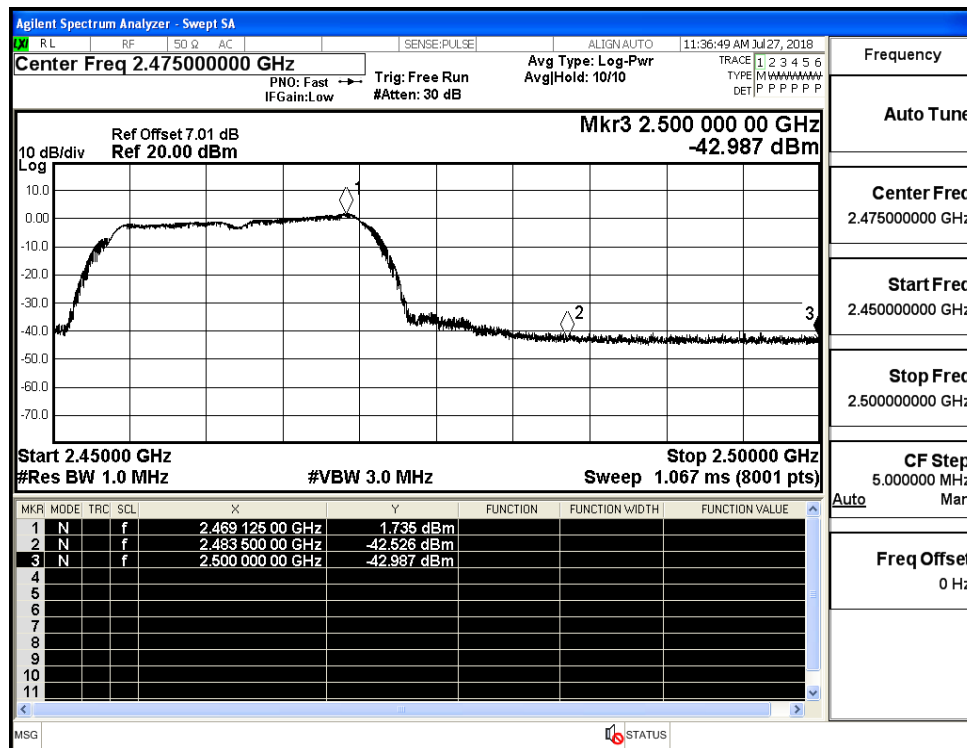
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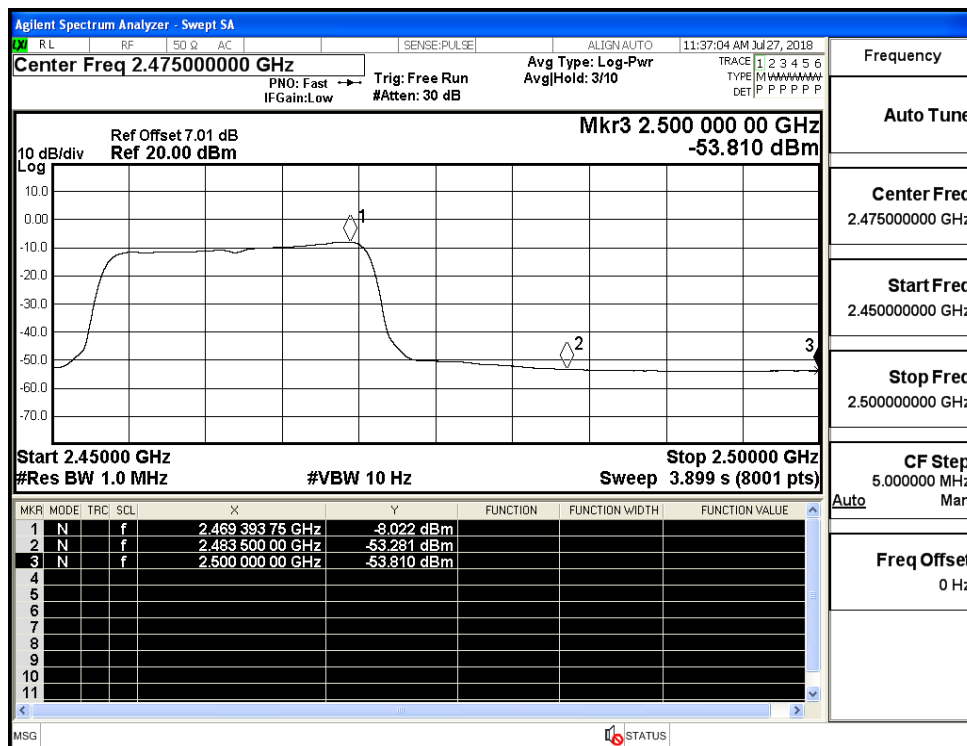
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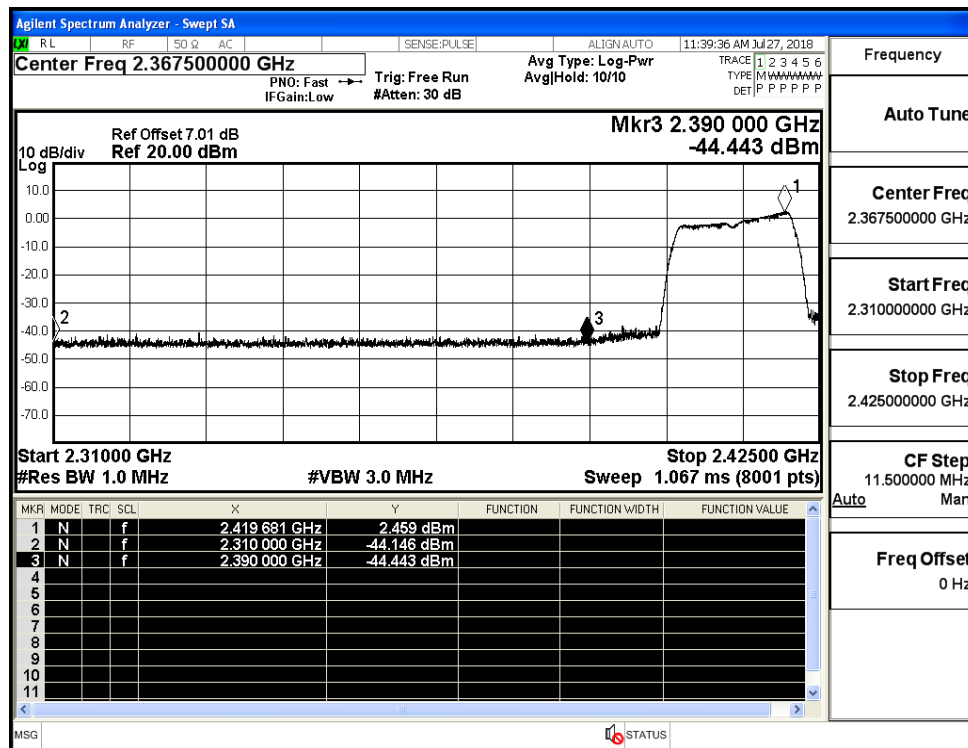
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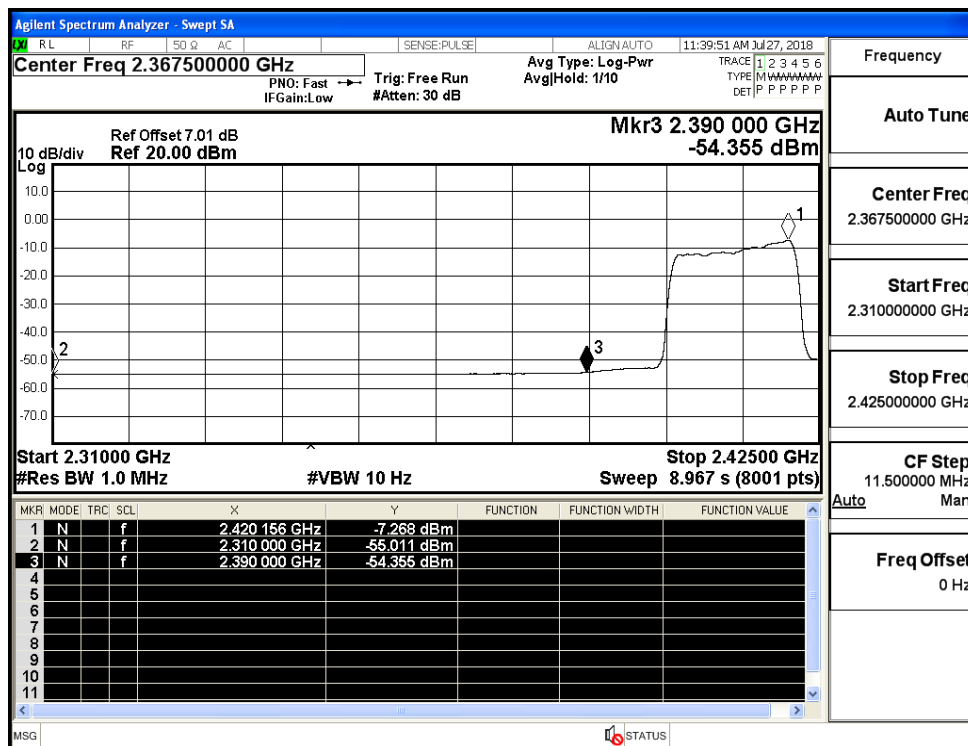
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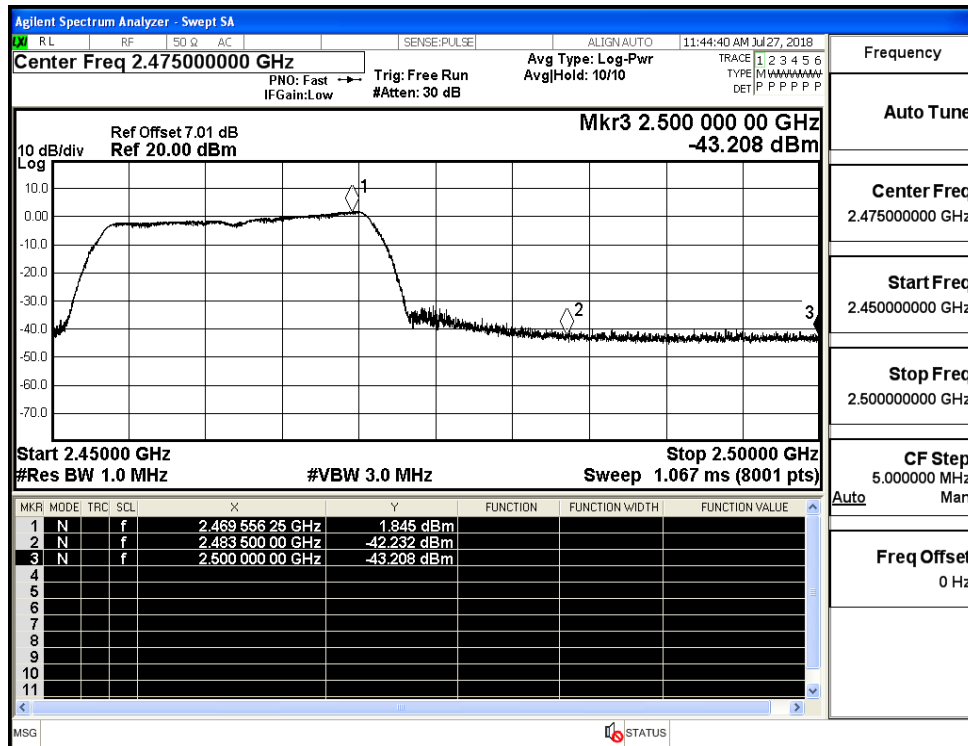
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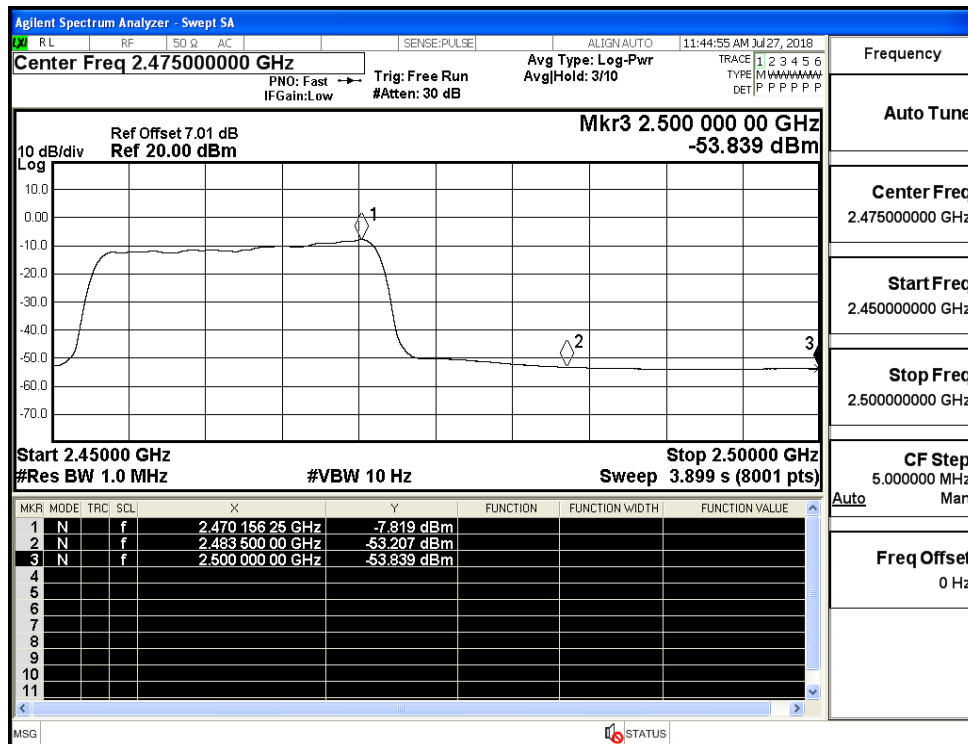
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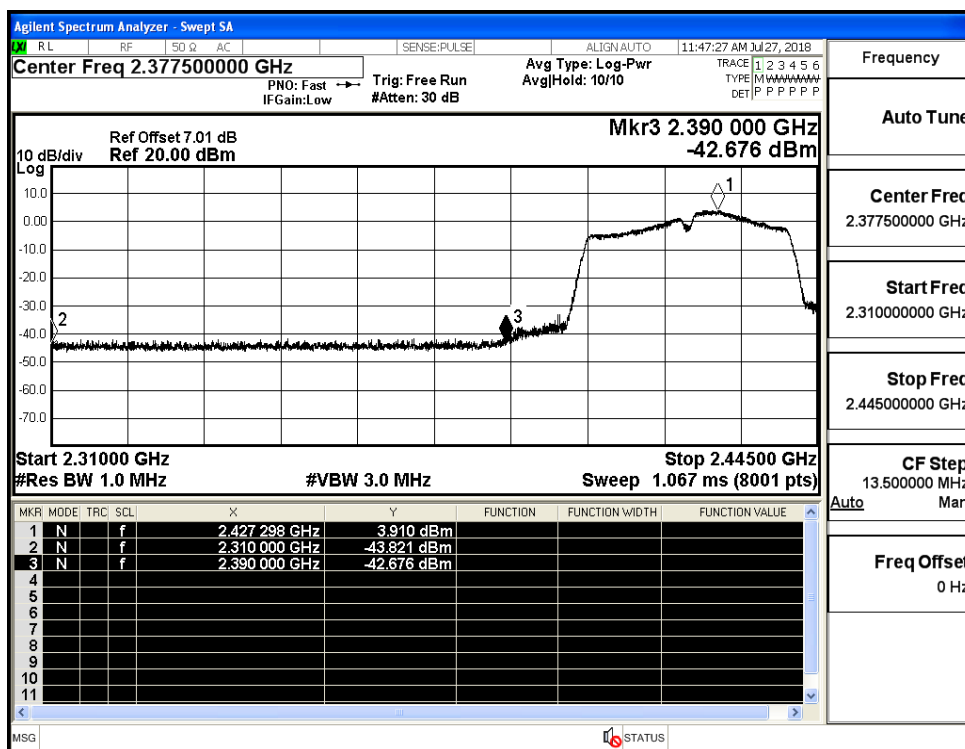
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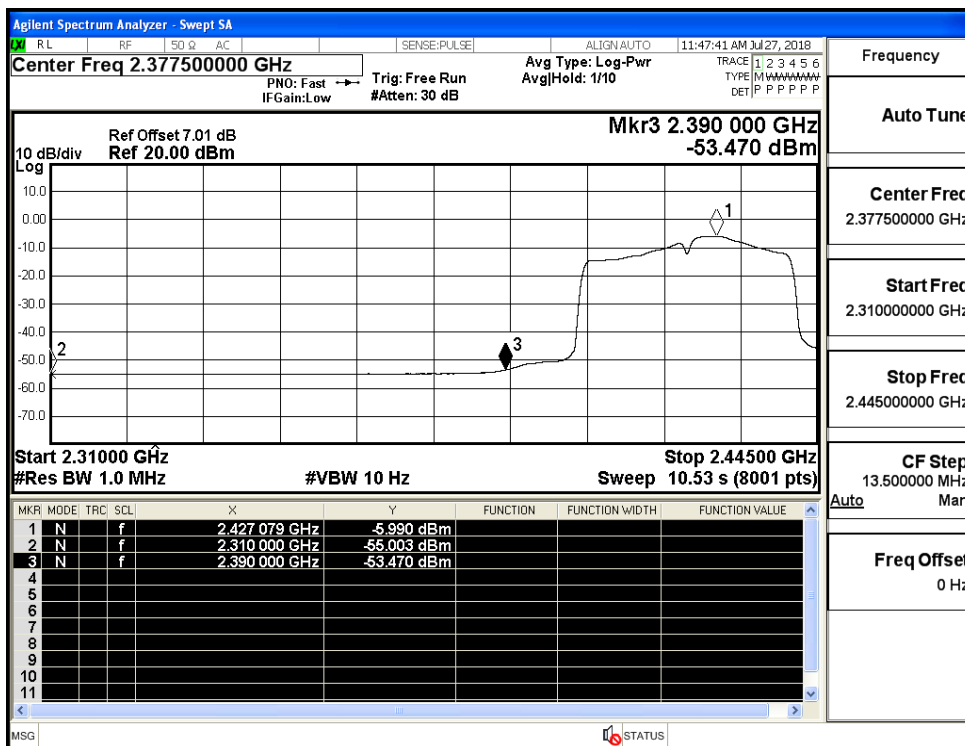
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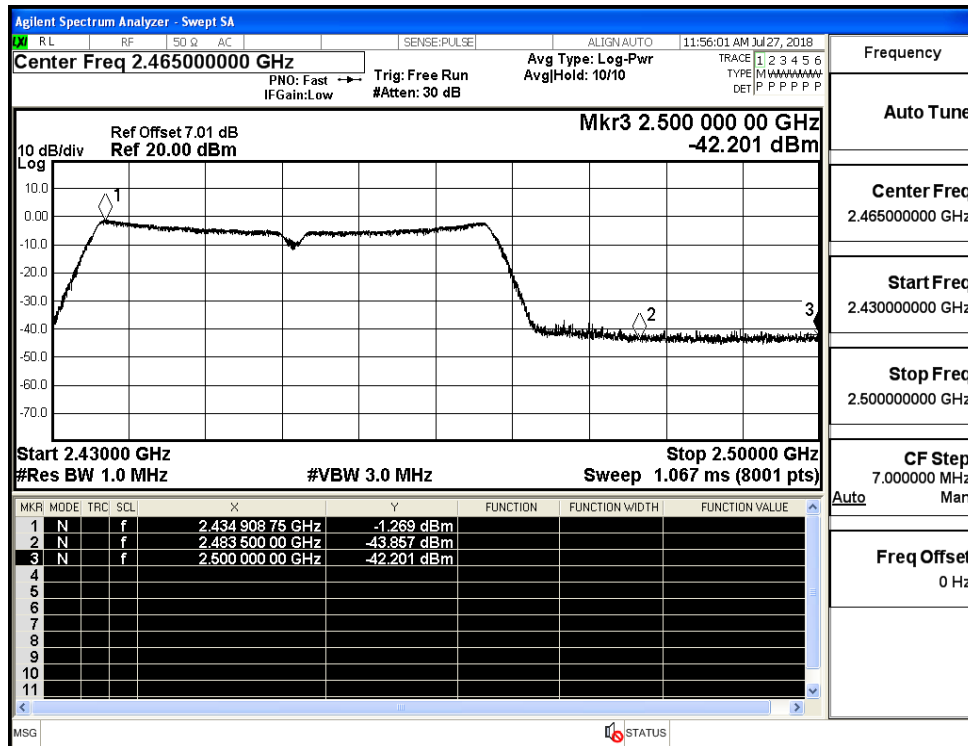
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## Restrict-band band-edge measurements\_11N40SISO\_2422\_Ant1\_AV



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



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

