

## Appendix A

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

Product Name: Smart AC Adapter

Trade Mark: atomi/Fenergy

Test Model: AT1310

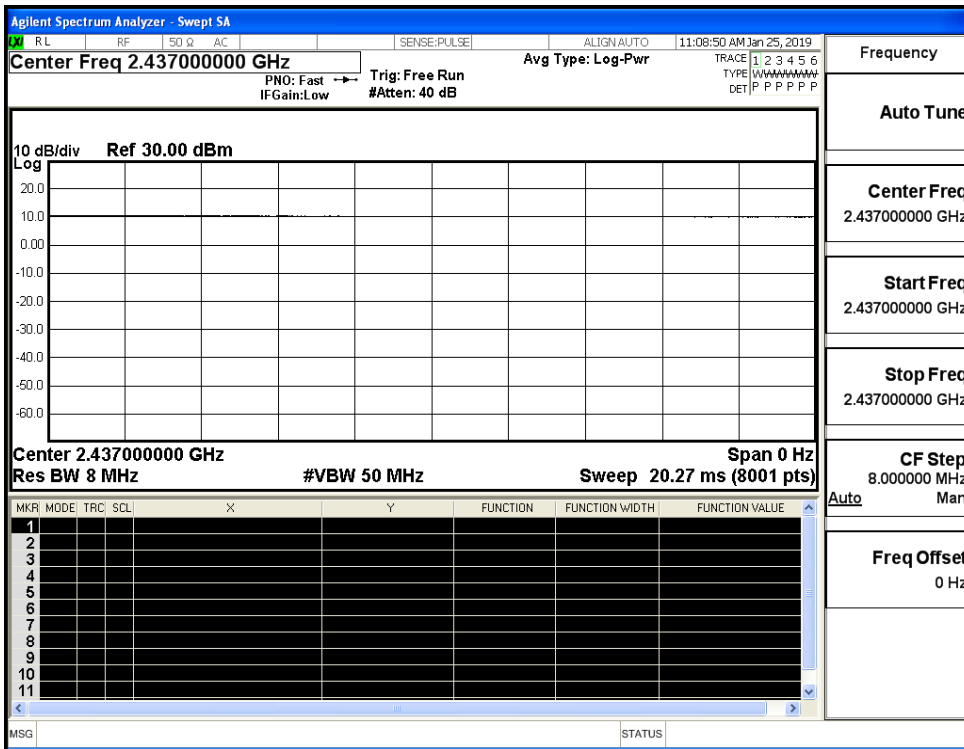
#### Environmental Conditions

|                    |             |
|--------------------|-------------|
| Temperature:       | 24.4 ° C    |
| Relative Humidity: | 53.7%       |
| ATM Pressure:      | 100.0 kPa   |
| Test Engineer:     | Mina.Xu     |
| Supervised by:     | Jayden.Zhuo |

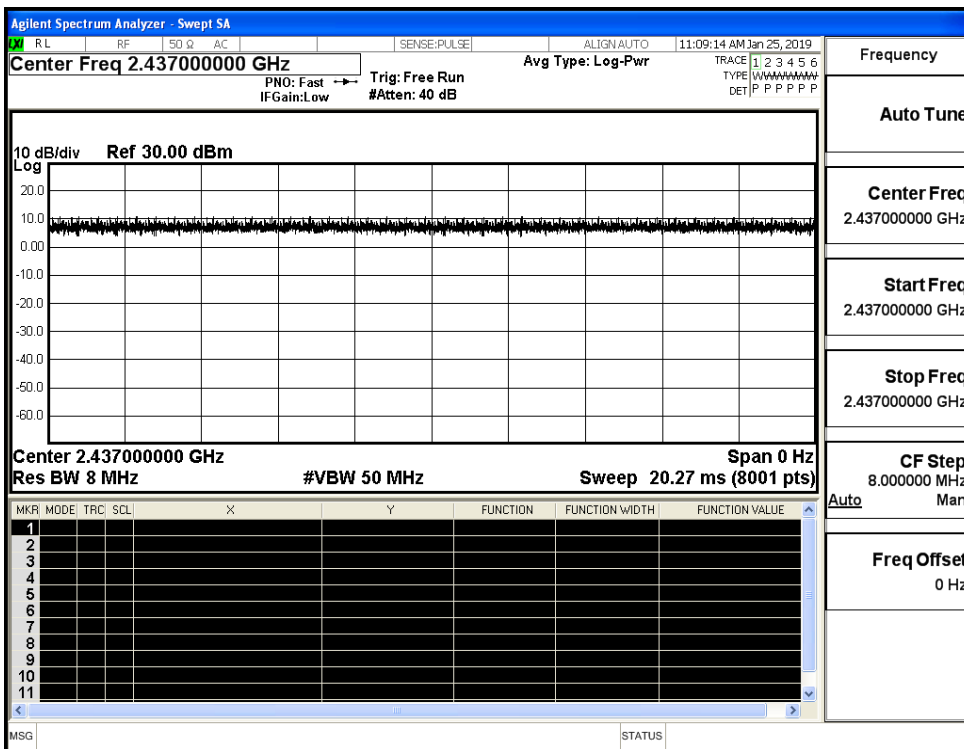
#### A.1 Duty Cycle

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

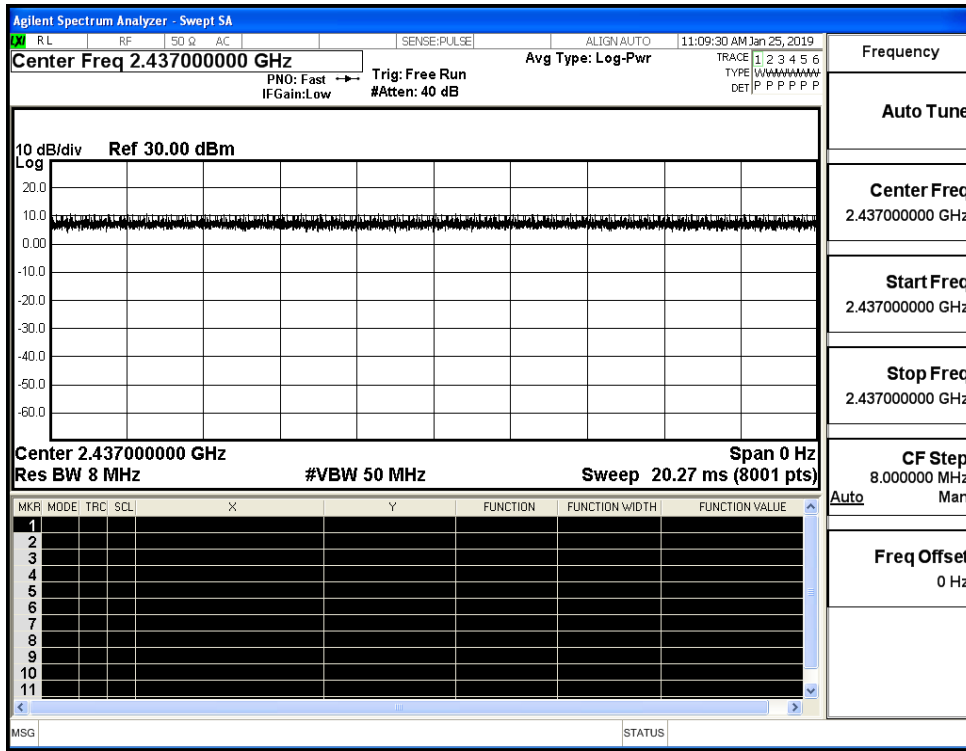
Duty Cycle\_11B\_2437\_Ant1



Duty Cycle\_11G\_2437\_Ant1



Duty Cycle\_11N20SISO\_2437\_Ant1

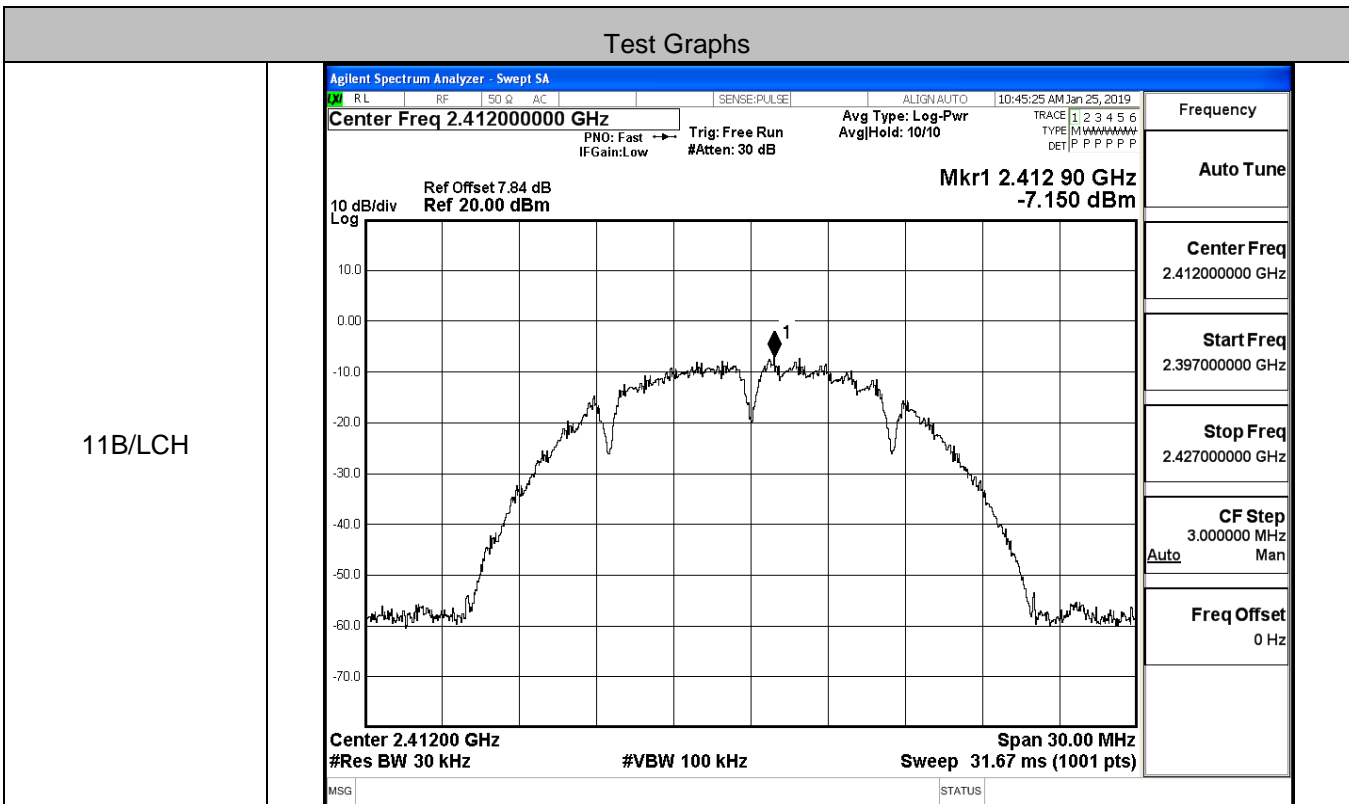


**A.2 Maximum Conducted Output Power**

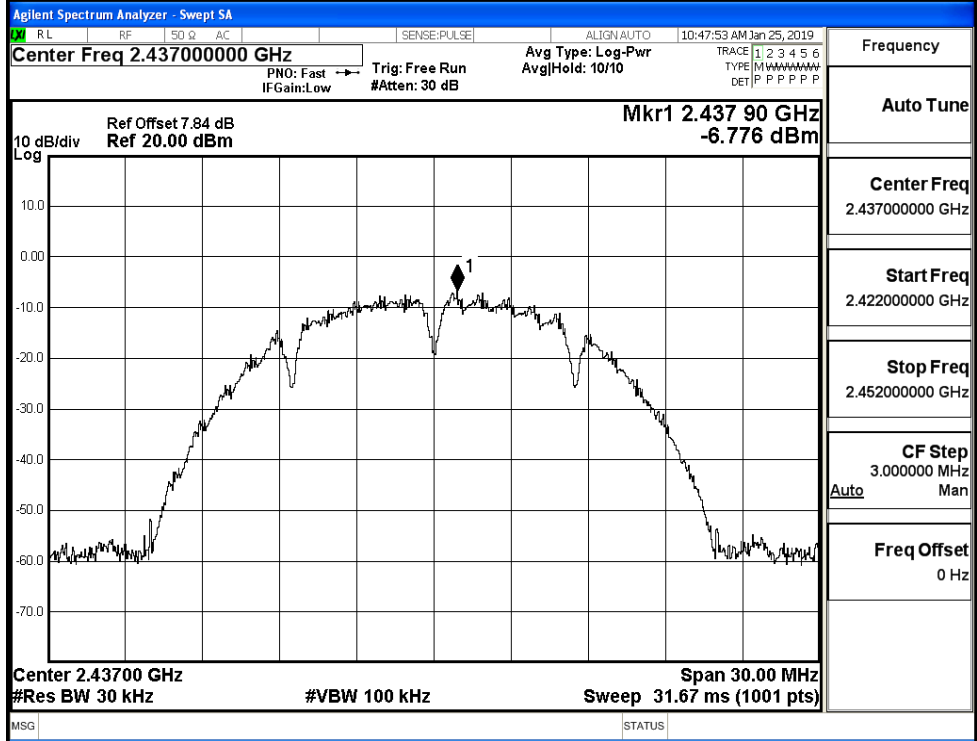
| Mode      | Channel | Meas.Level [dBm] | Limit [dBm] | Verdict |
|-----------|---------|------------------|-------------|---------|
| 11B       | LCH     | 11.12            | 30          | PASS    |
|           | MCH     | 11.42            | 30          | PASS    |
|           | HCH     | 10.18            | 30          | PASS    |
| 11G       | LCH     | 10.23            | 30          | PASS    |
|           | MCH     | 9.66             | 30          | PASS    |
|           | HCH     | 9.38             | 30          | PASS    |
| 11N20SISO | LCH     | 9.67             | 30          | PASS    |
|           | MCH     | 9.77             | 30          | PASS    |
|           | HCH     | 9.52             | 30          | PASS    |

### A.3 Maximum Power Spectral Density

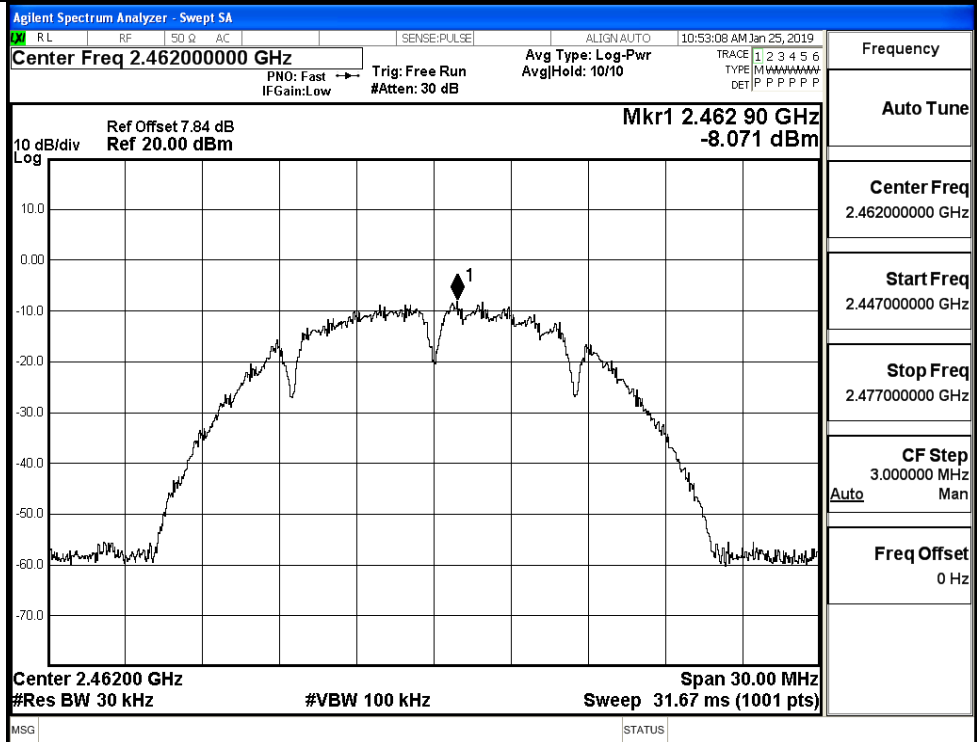
| Mode      | Channel | Meas.Level [dBm/30KHz] | Limit [dBm/3KHz] | Verdict |
|-----------|---------|------------------------|------------------|---------|
| 11B       | LCH     | -7.150                 | 8                | PASS    |
|           | MCH     | -6.776                 | 8                | PASS    |
|           | HCH     | -8.071                 | 8                | PASS    |
| 11G       | LCH     | -14.655                | 8                | PASS    |
|           | MCH     | -14.580                | 8                | PASS    |
|           | HCH     | -15.398                | 8                | PASS    |
| 11N20SISO | LCH     | -15.131                | 8                | PASS    |
|           | MCH     | -14.754                | 8                | PASS    |
|           | HCH     | -15.782                | 8                | PASS    |



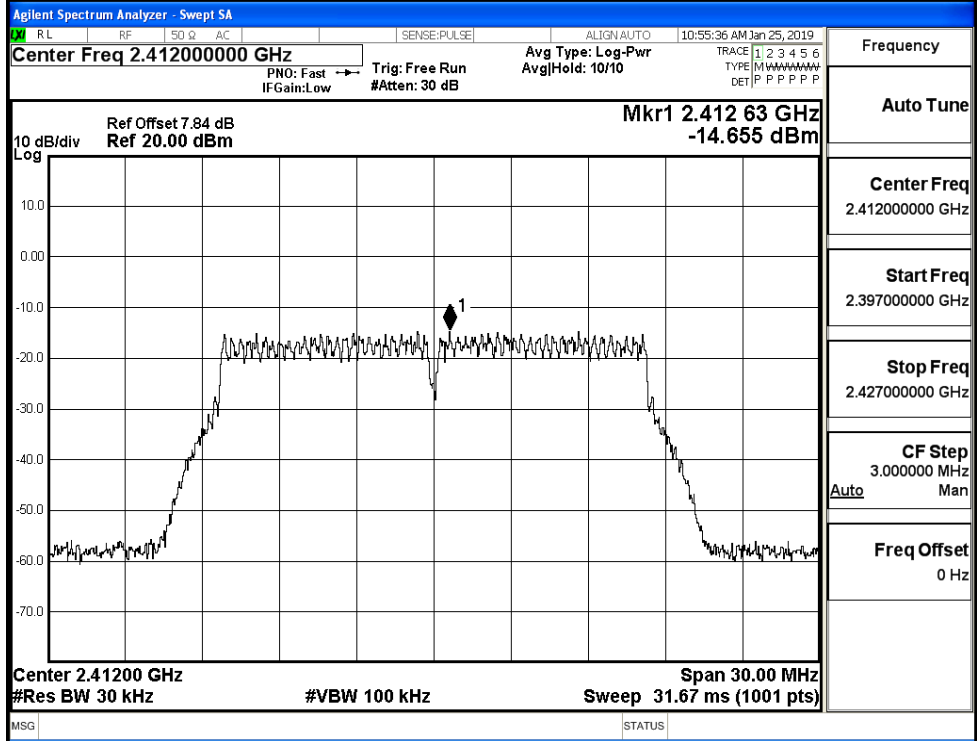
11B/MCH



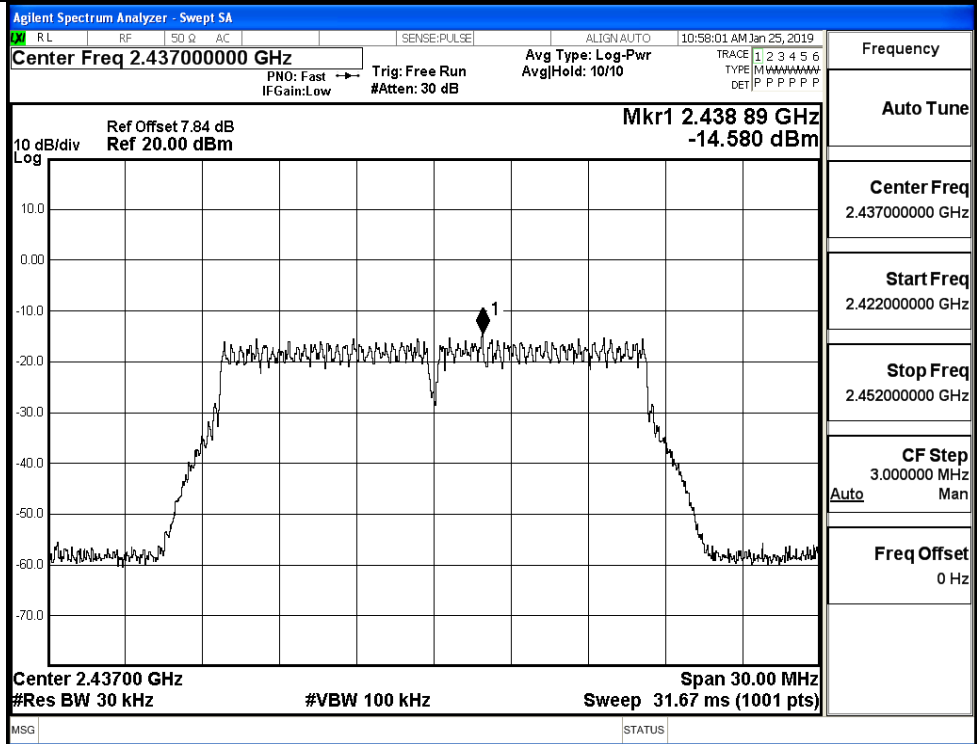
11B/HCH



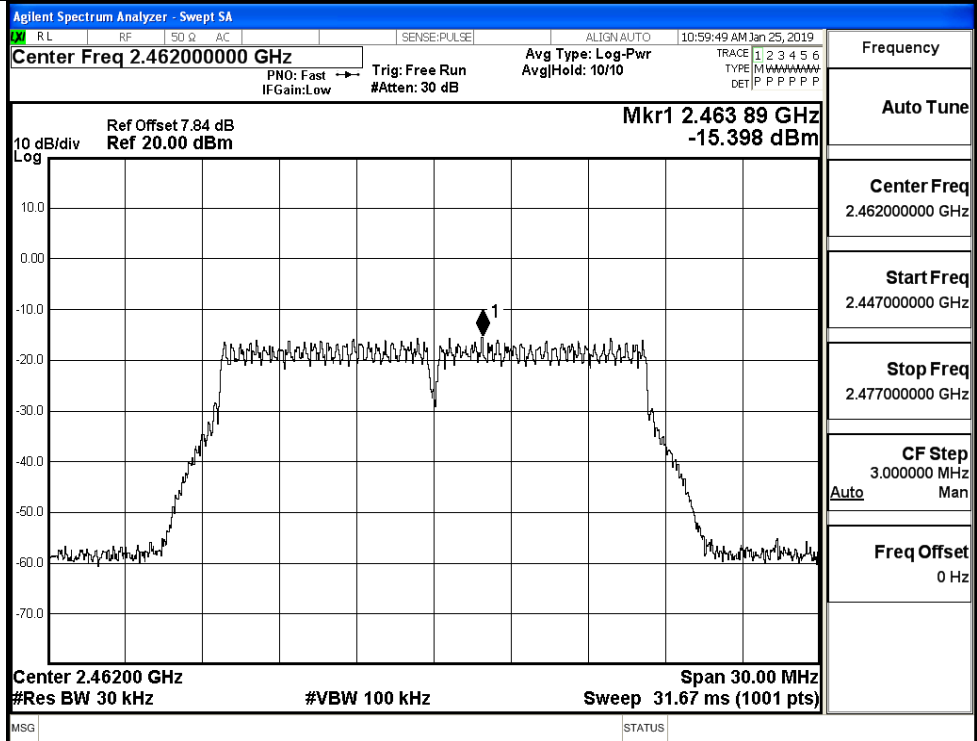
11G/LCH



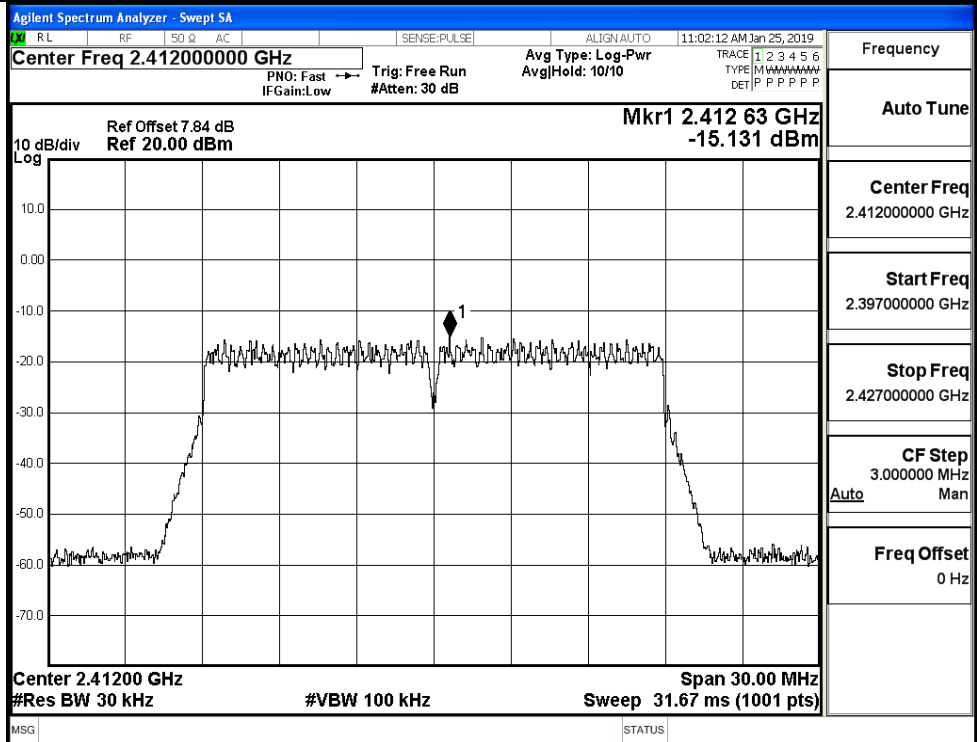
11G/MCH



11G/HCH

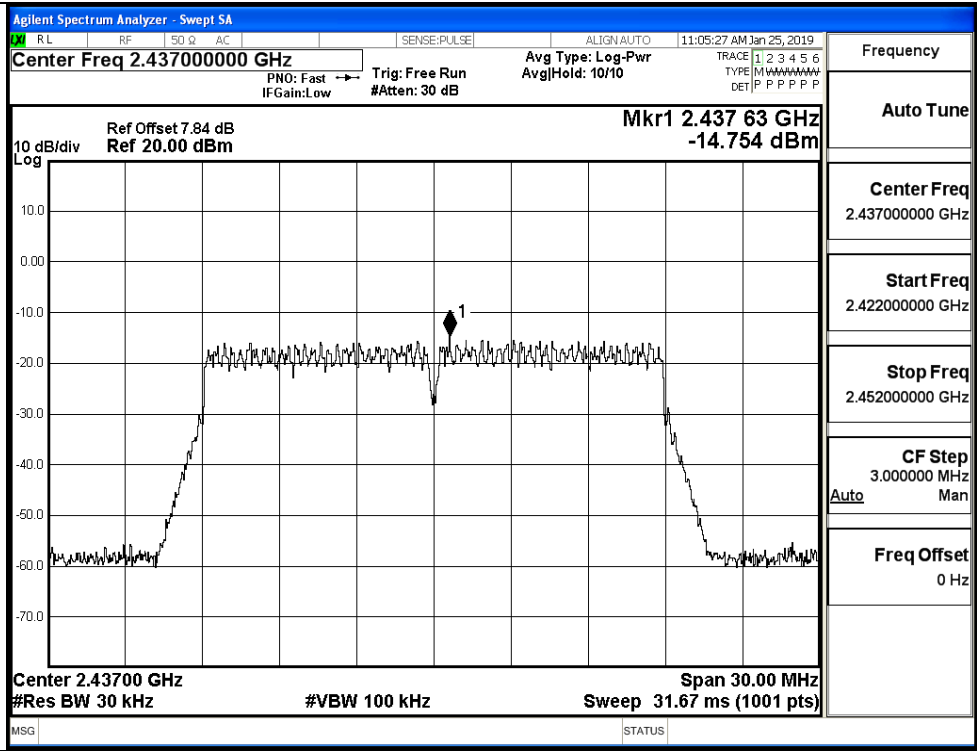


11N20SISO/LCH

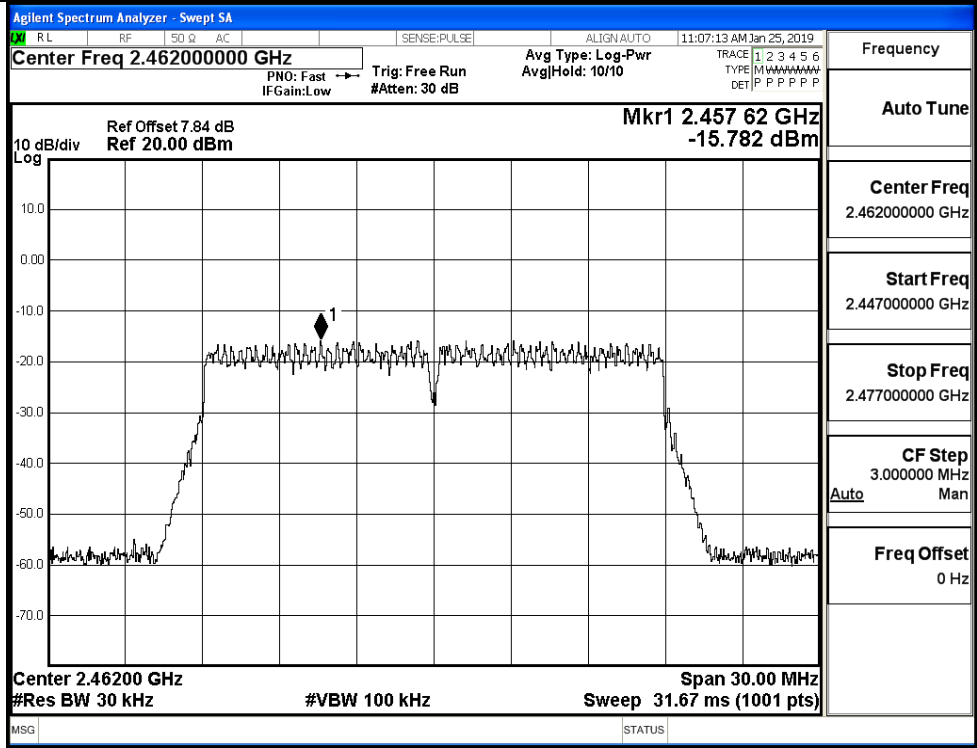




11N20SISO/MCH

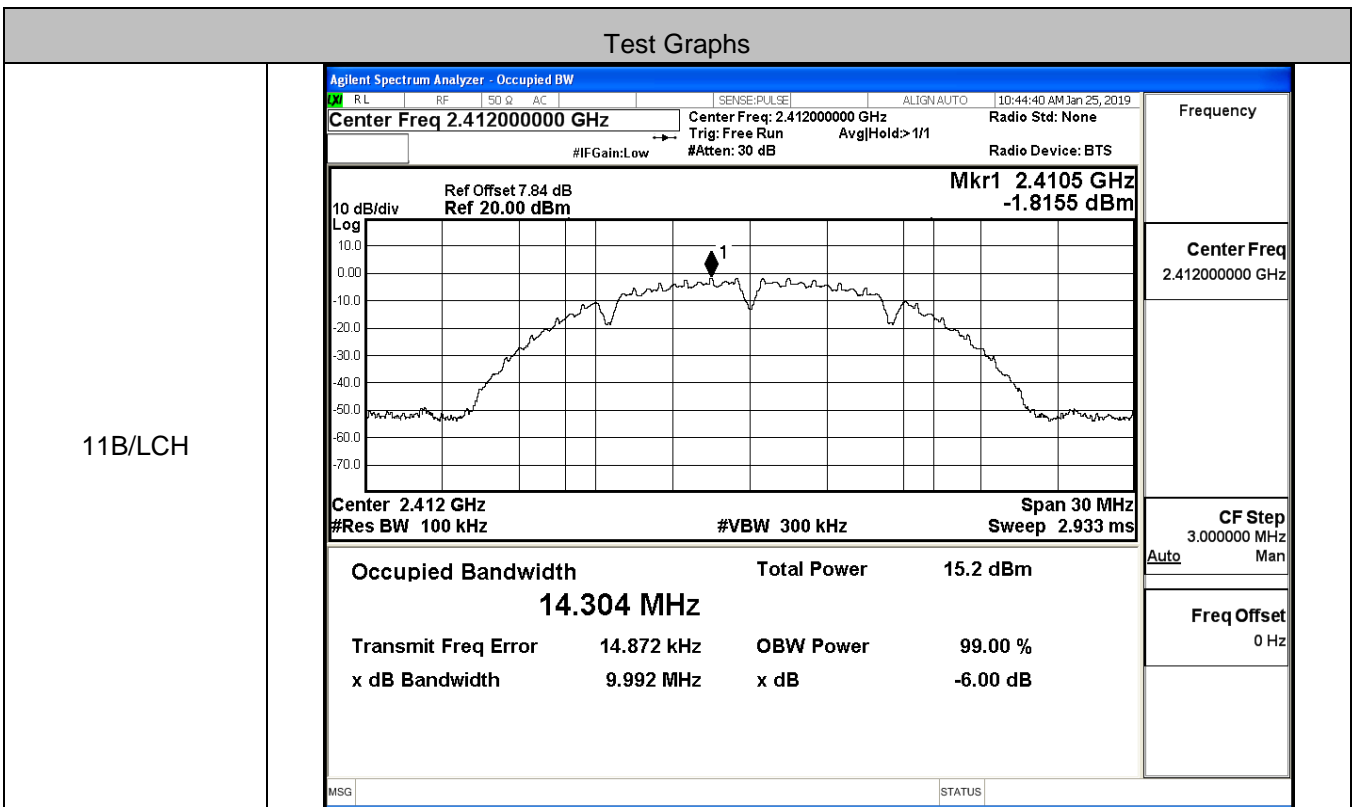


11N20SISO/HCH

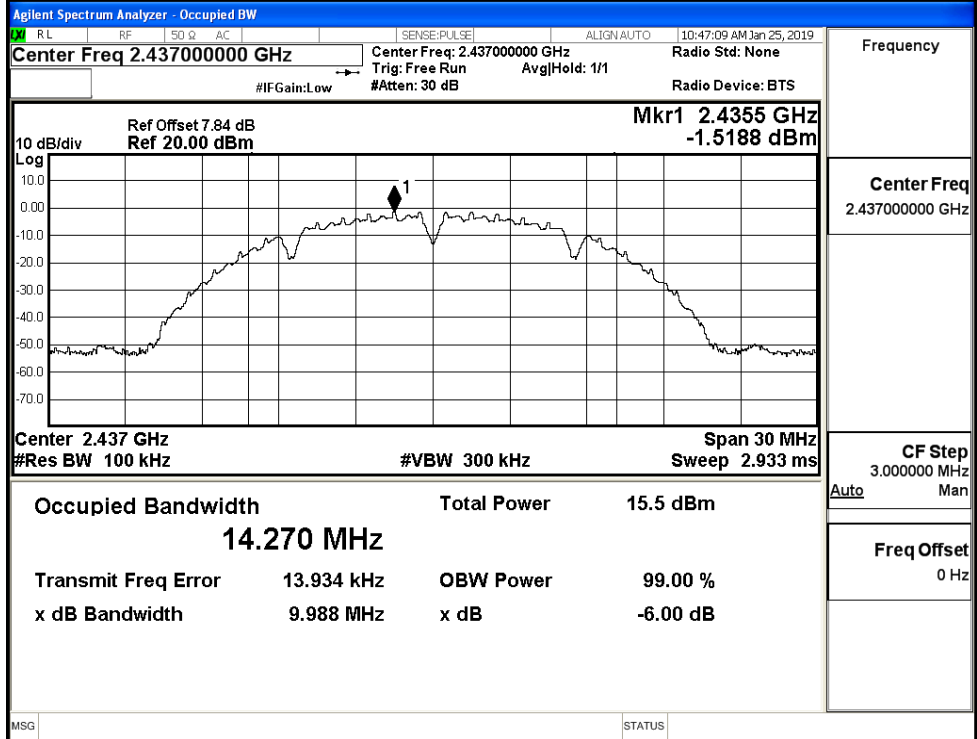


**A.4 6dB Bandwidth**

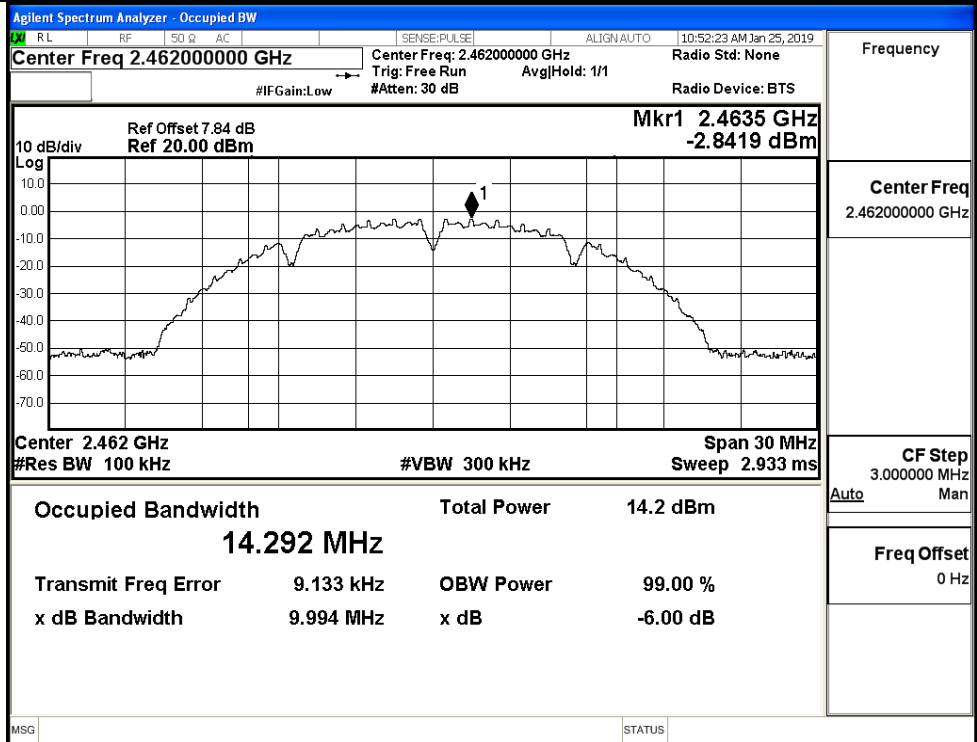
| Mode      | Channel | 6dB Bandwidth [MHz] | Limit [MHz] | Verdict |
|-----------|---------|---------------------|-------------|---------|
| 11B       | LCH     | 9.992               | ≥0.5        | PASS    |
|           | MCH     | 9.988               | ≥0.5        | PASS    |
|           | HCH     | 9.994               | ≥0.5        | PASS    |
| 11G       | LCH     | 16.62               | ≥0.5        | PASS    |
|           | MCH     | 16.60               | ≥0.5        | PASS    |
|           | HCH     | 16.61               | ≥0.5        | PASS    |
| 11N20SISO | LCH     | 17.82               | ≥0.5        | PASS    |
|           | MCH     | 17.82               | ≥0.5        | PASS    |
|           | HCH     | 17.82               | ≥0.5        | PASS    |



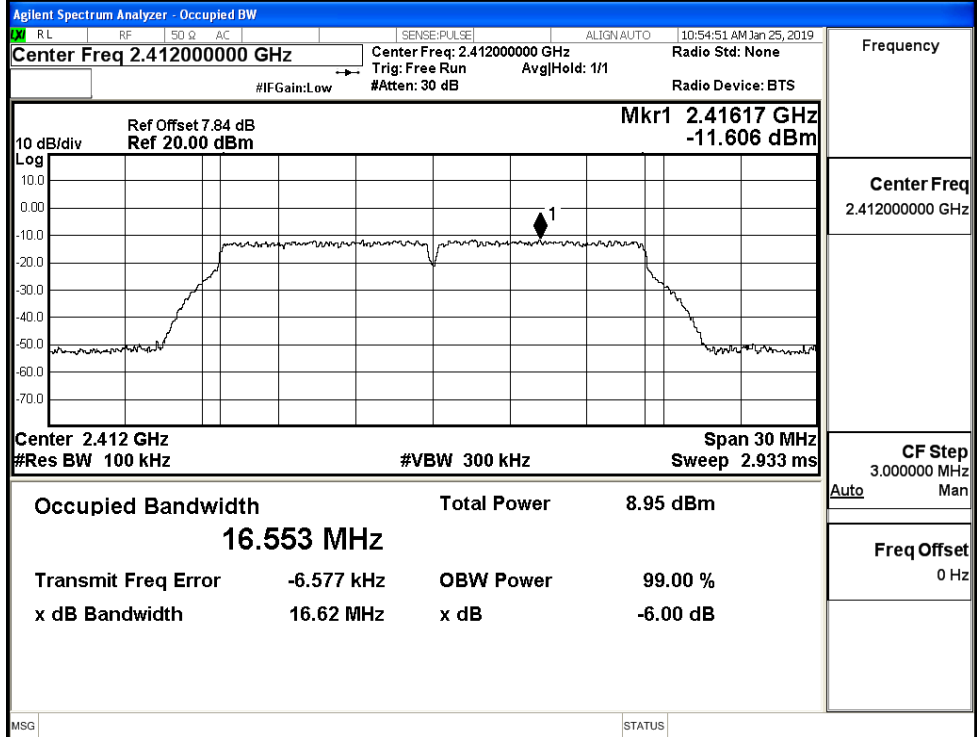
11B/MCH



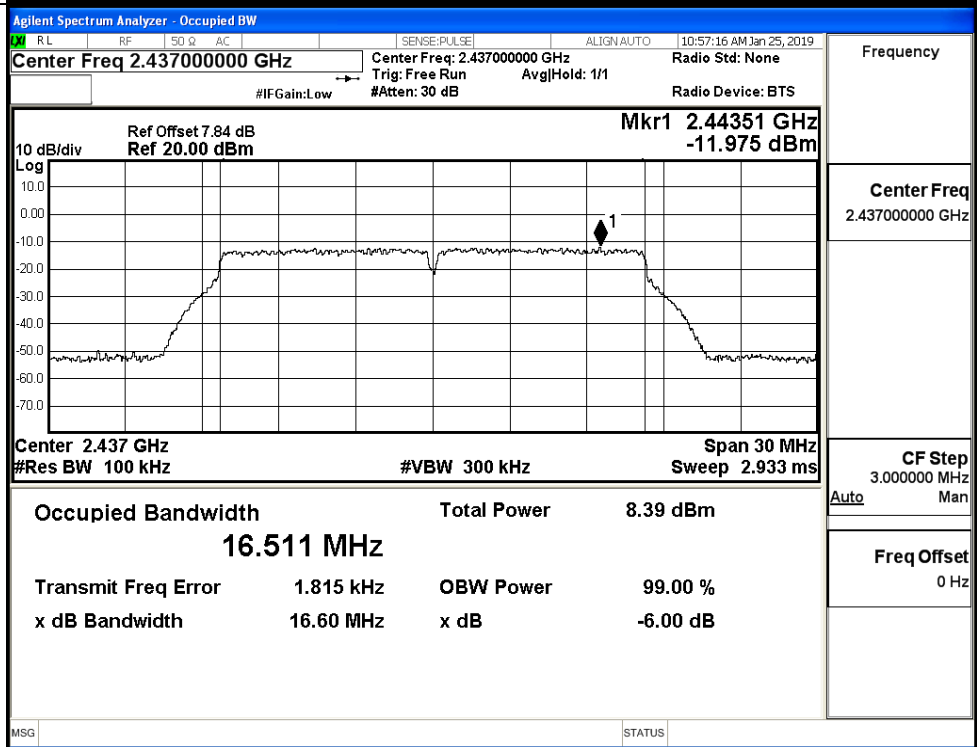
11B/HCH



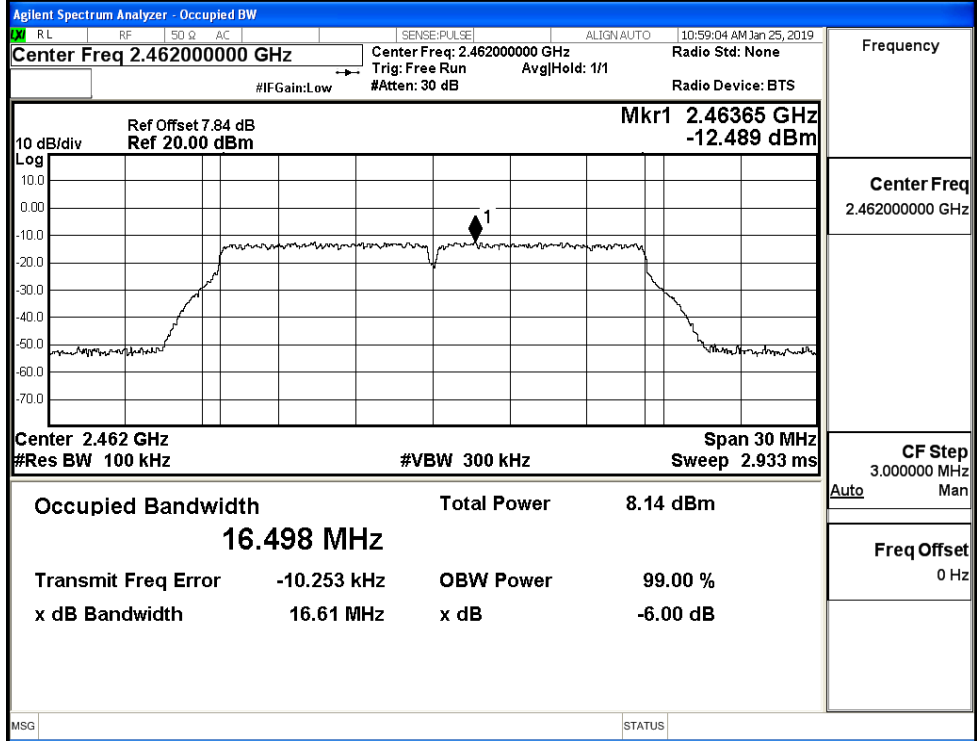
11G/LCH



11G/MCH

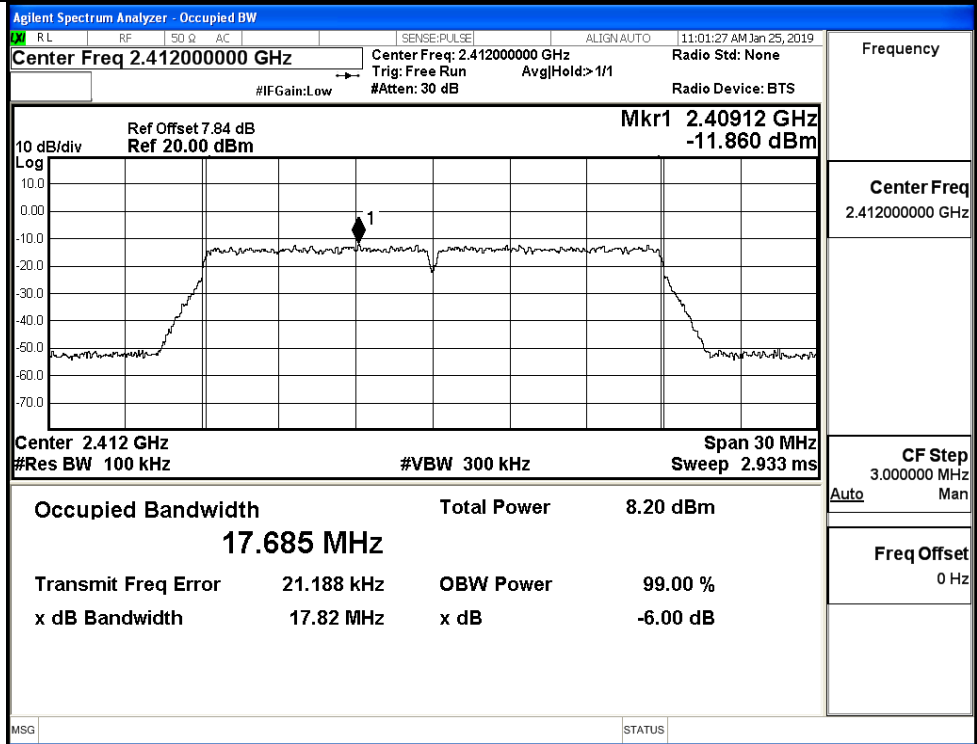


11G/HCH



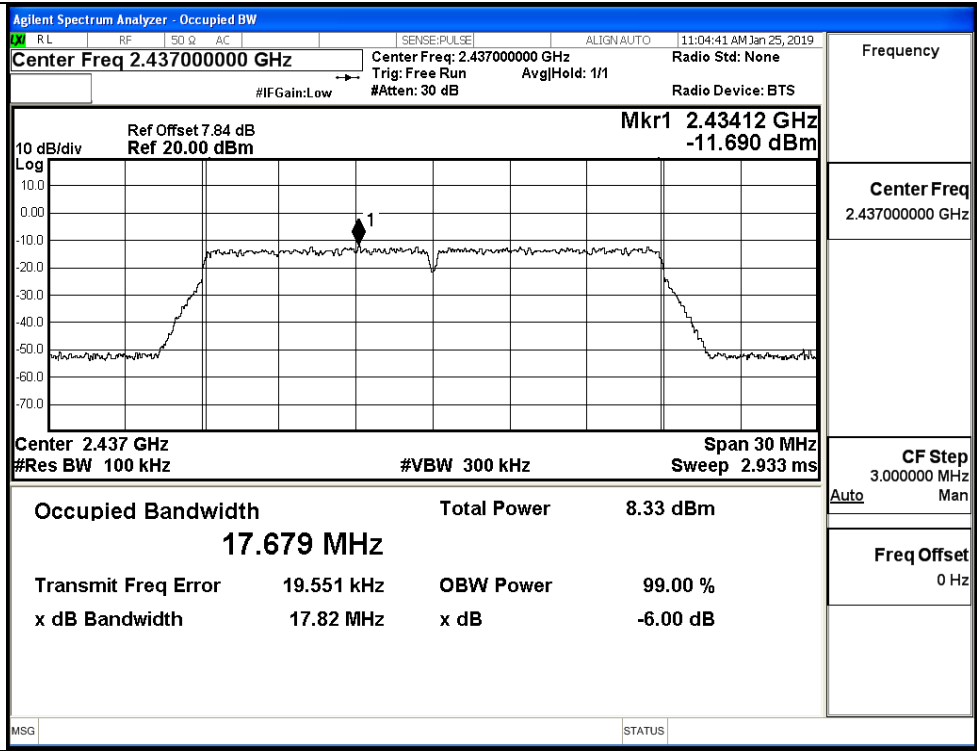
|             |                |
|-------------|----------------|
| Frequency   | 2.46200000 GHz |
| Center Freq | 2.46200000 GHz |
| CF Step     | 3.000000 MHz   |
| Freq Offset | 0 Hz           |

11N20SISO/LCH

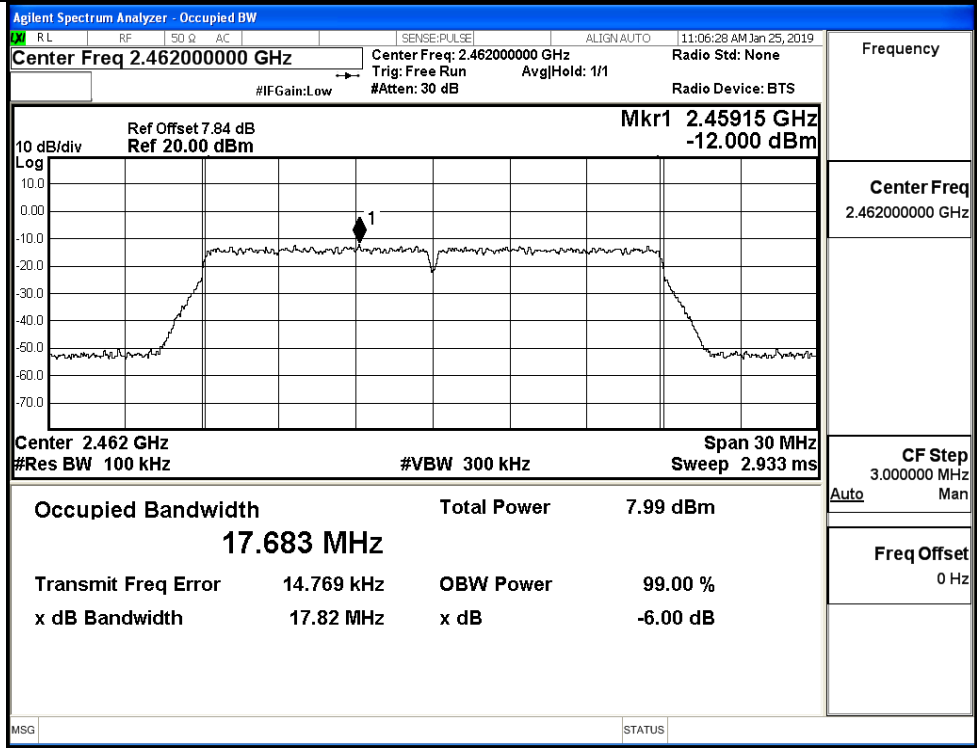


|             |                |
|-------------|----------------|
| Frequency   | 2.41200000 GHz |
| Center Freq | 2.41200000 GHz |
| CF Step     | 3.000000 MHz   |
| Freq Offset | 0 Hz           |

11N20SISO/MCH



11N20SISO/HCH

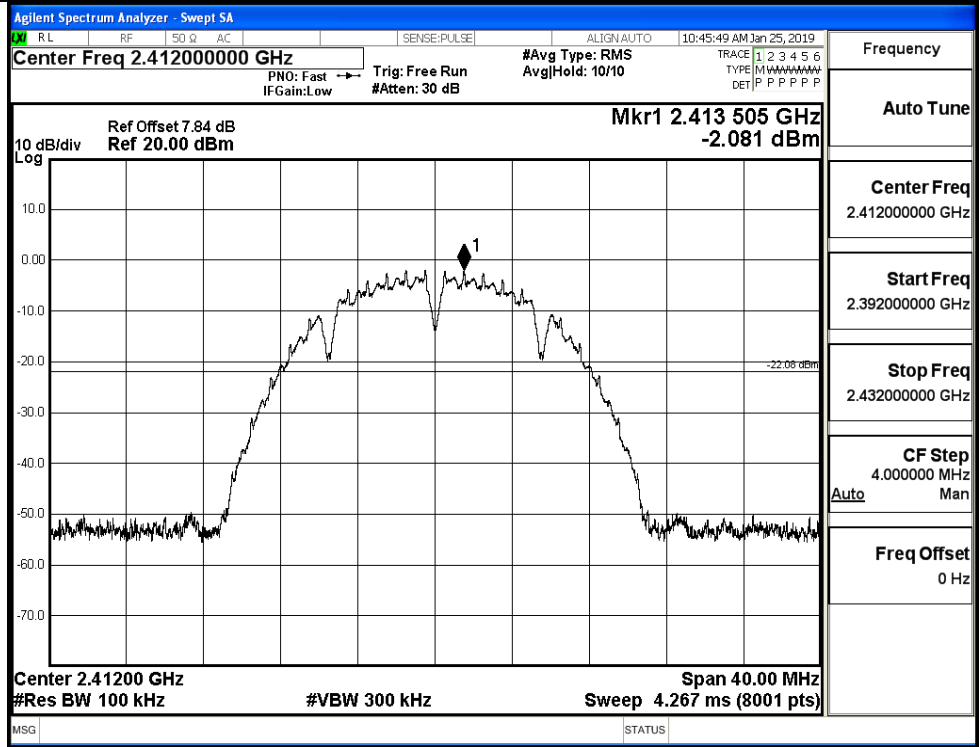


**A.5 RF Conducted Spurious Emissions**

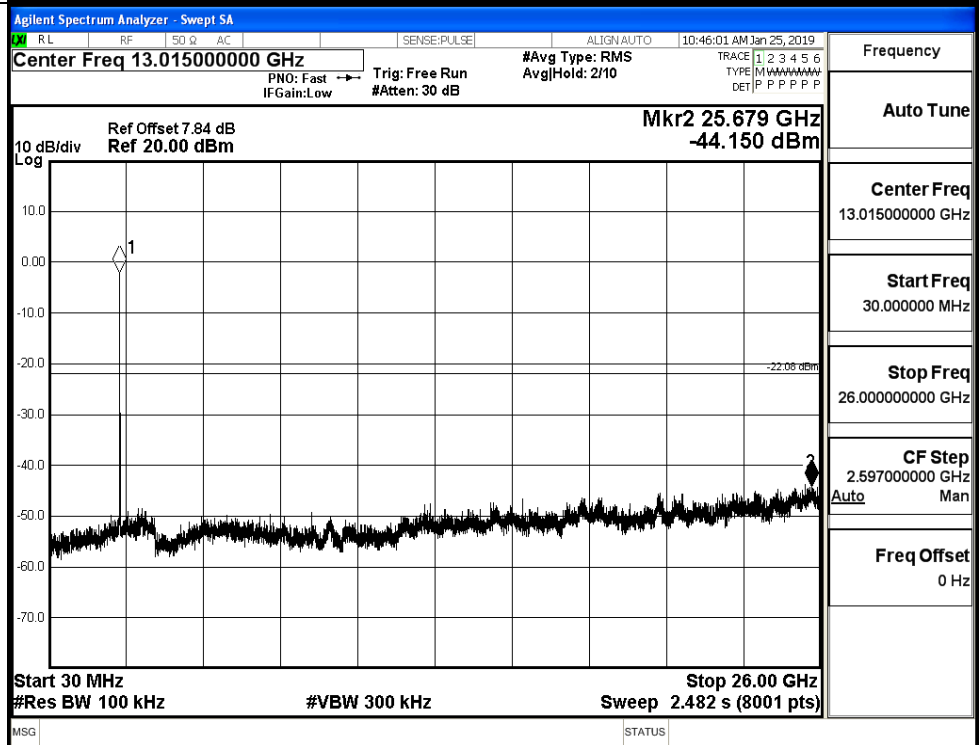
| Mode      | Channel | Pref [dBm] | Max. Level [dBm] | Limit [dBm] | Verdict |
|-----------|---------|------------|------------------|-------------|---------|
| 11B       | LCH     | -2.081     | -44.150          | -22.081     | PASS    |
|           | MCH     | -1.685     | -43.519          | -21.685     | PASS    |
|           | HCH     | -2.793     | -43.612          | -22.793     | PASS    |
| 11G       | LCH     | -11.761    | -43.593          | -31.761     | PASS    |
|           | MCH     | -12.316    | -42.727          | -32.316     | PASS    |
|           | HCH     | -12.68     | -43.838          | -32.680     | PASS    |
| 11N20SISO | LCH     | -12.354    | -44.365          | -32.354     | PASS    |
|           | MCH     | -12.363    | -43.752          | -32.363     | PASS    |
|           | HCH     | -12.14     | -44.097          | -32.140     | PASS    |

11B\_LCH\_Graphs

Pref/11B/LCH



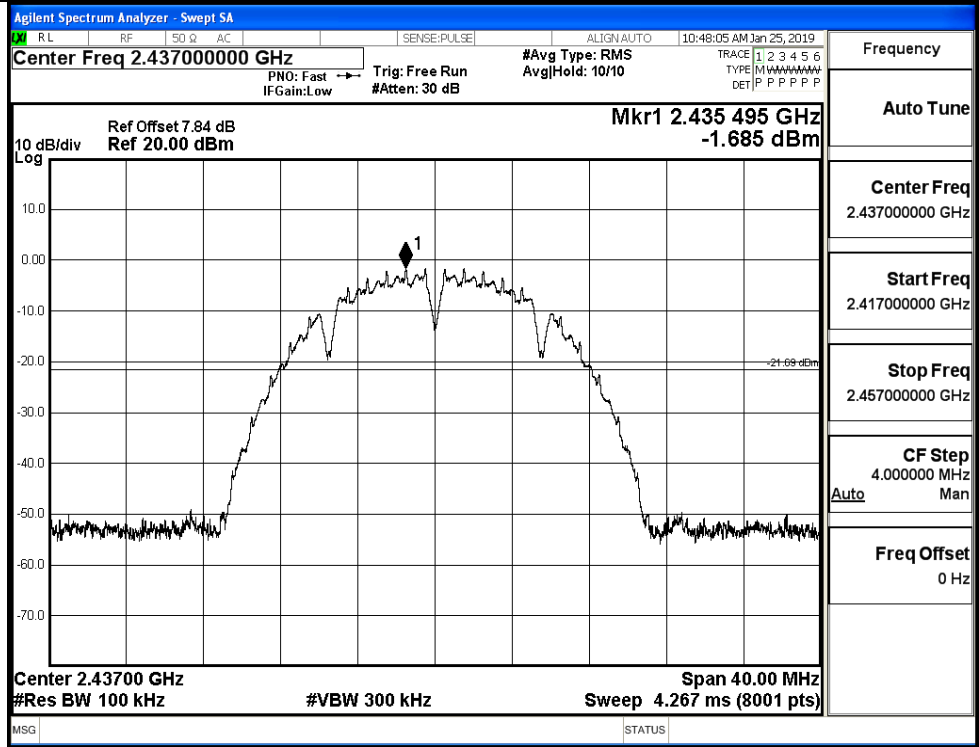
Puw/11B/LCH



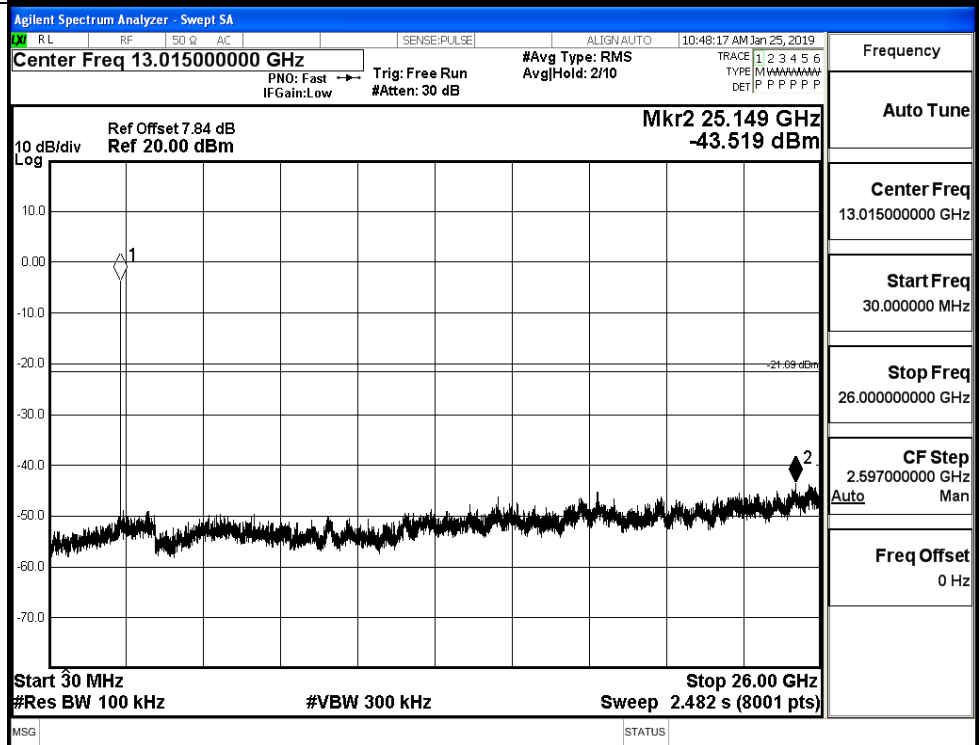


11B\_MCH\_Graphs

Pref/11B/MCH

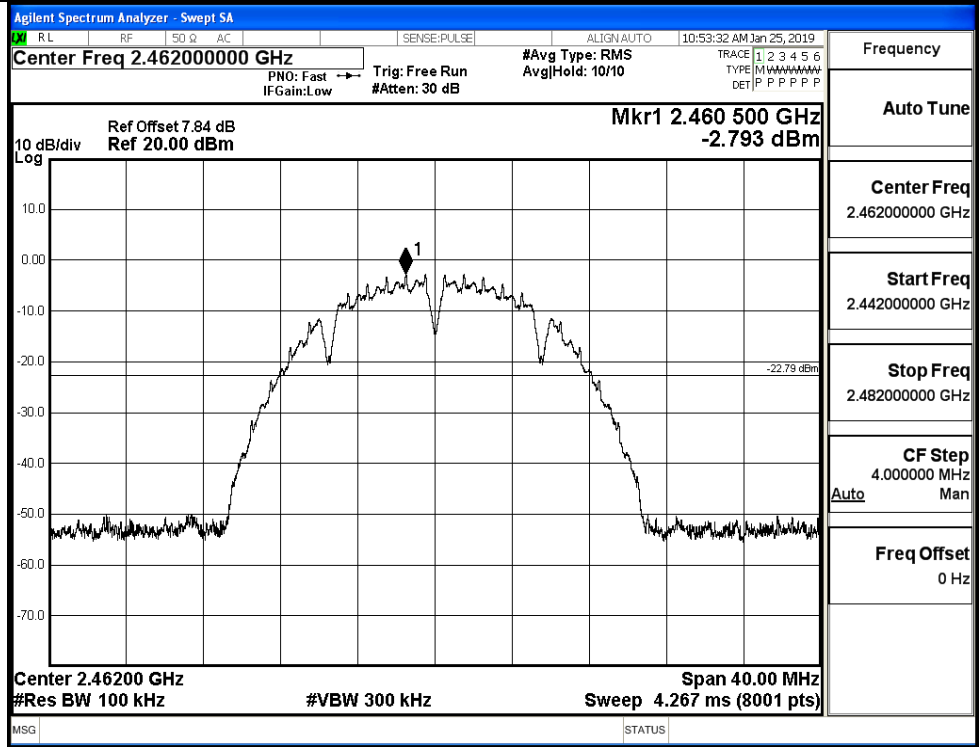


Puw/11B/MCH

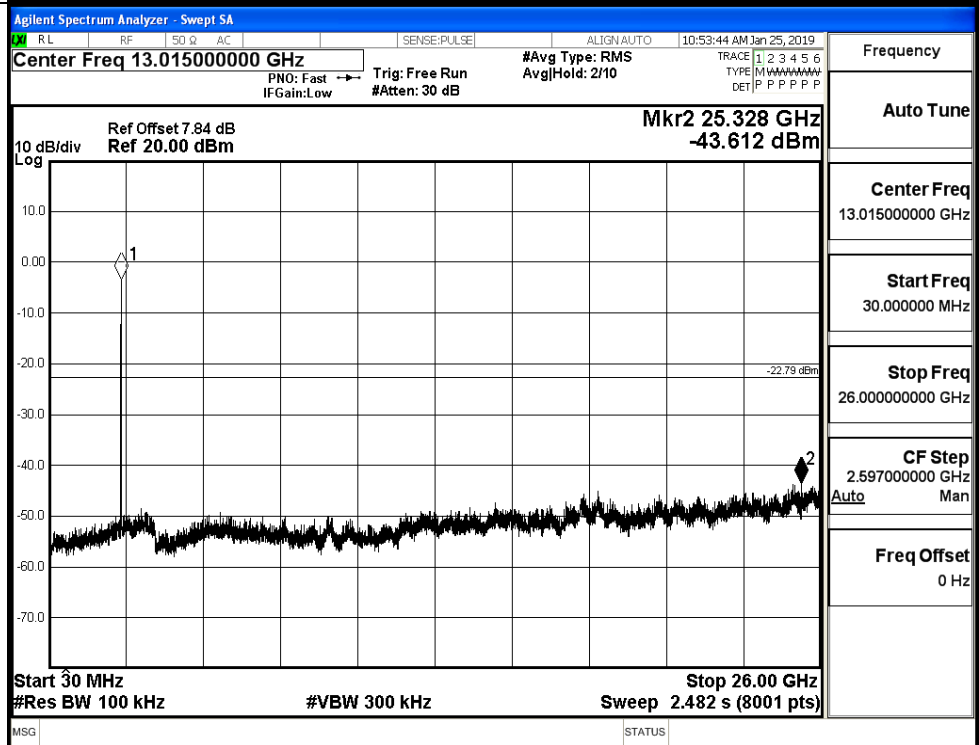


11B\_HCH\_Graphs

Pref/11B/HCH

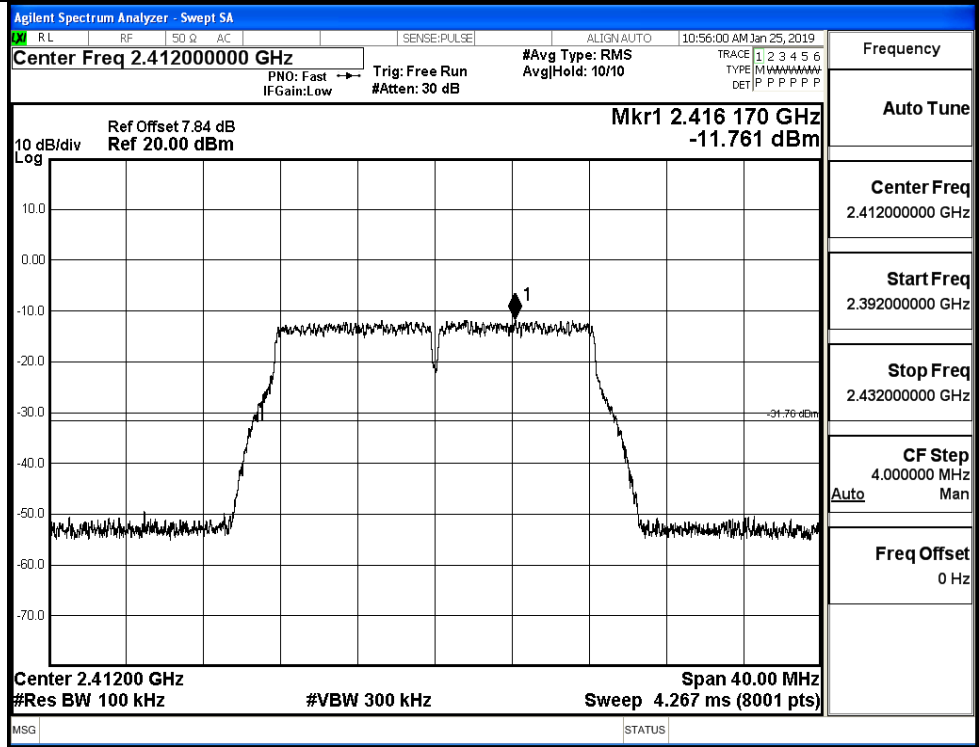


Puw/11B/HCH

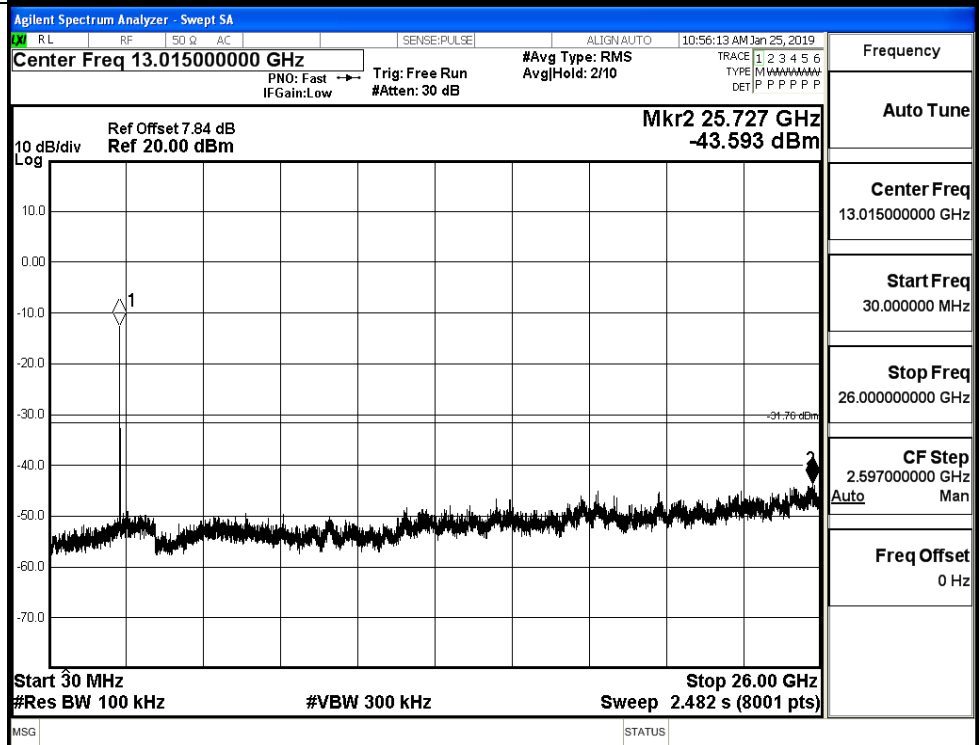


11G\_LCH\_Graphs

Pref/11G/LCH

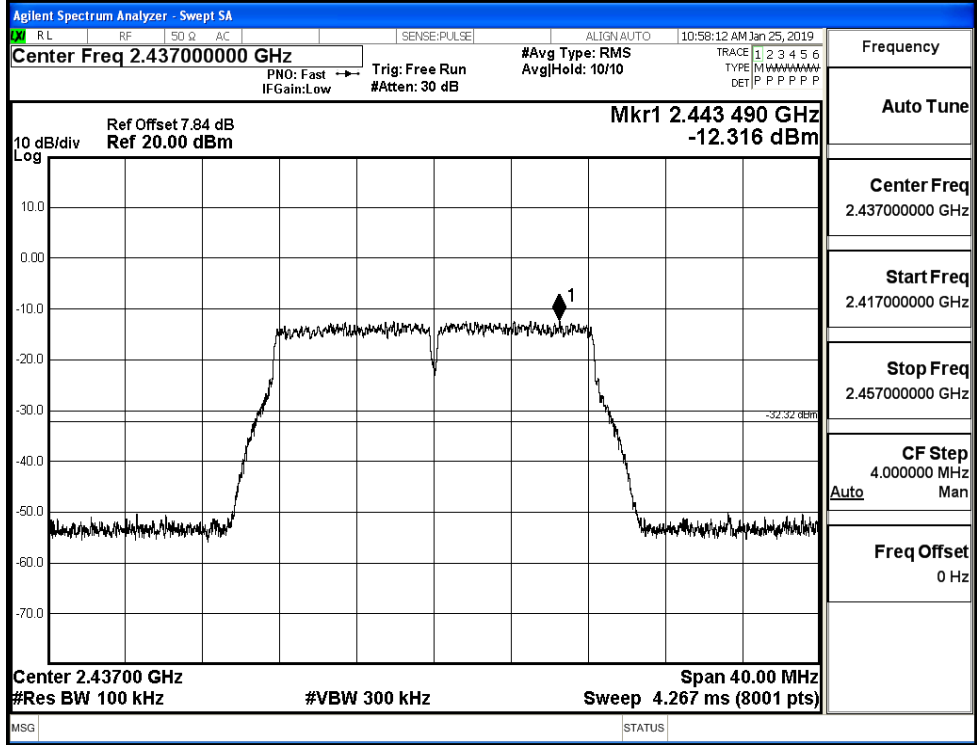


Puw/11G/LCH

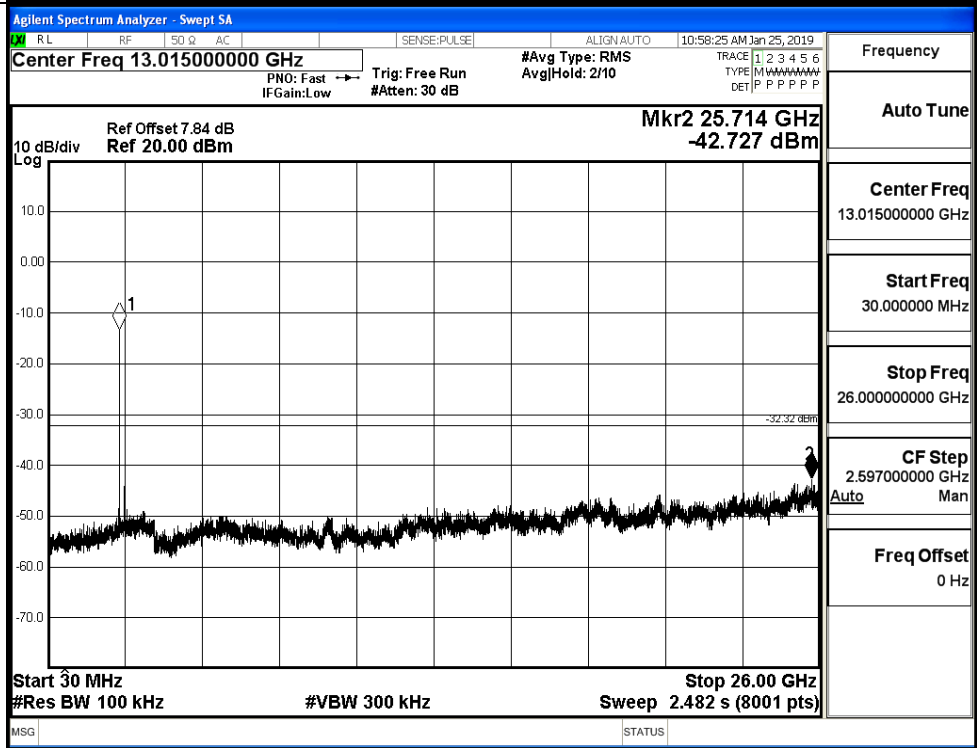


11G\_MCH\_Graphs

Pref/11G/MCH

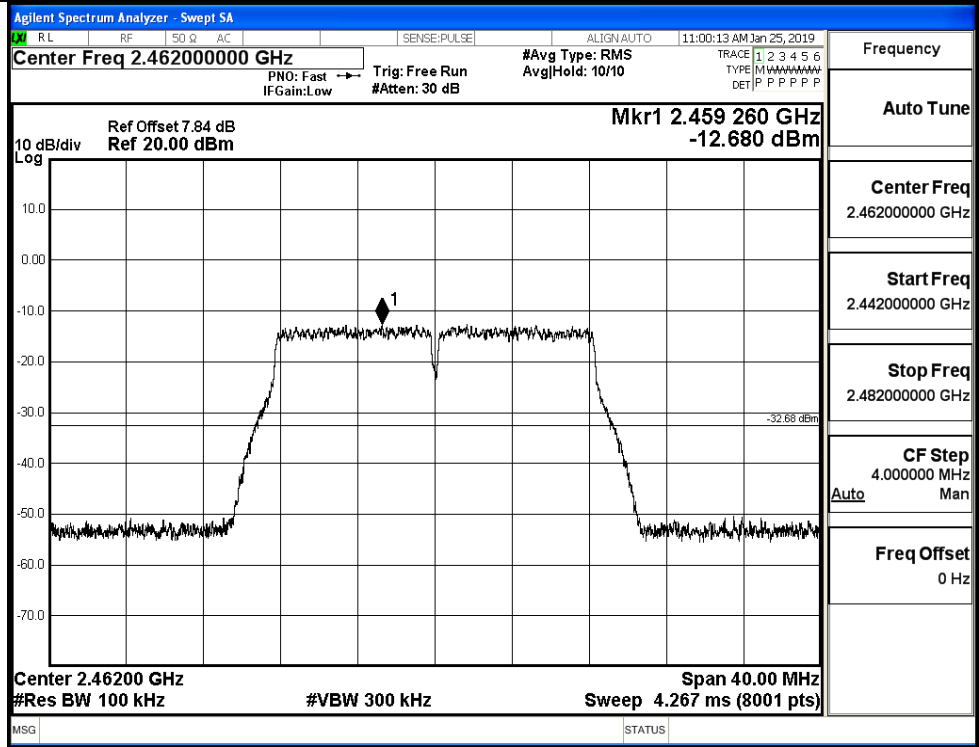


Puw/11G/MCH

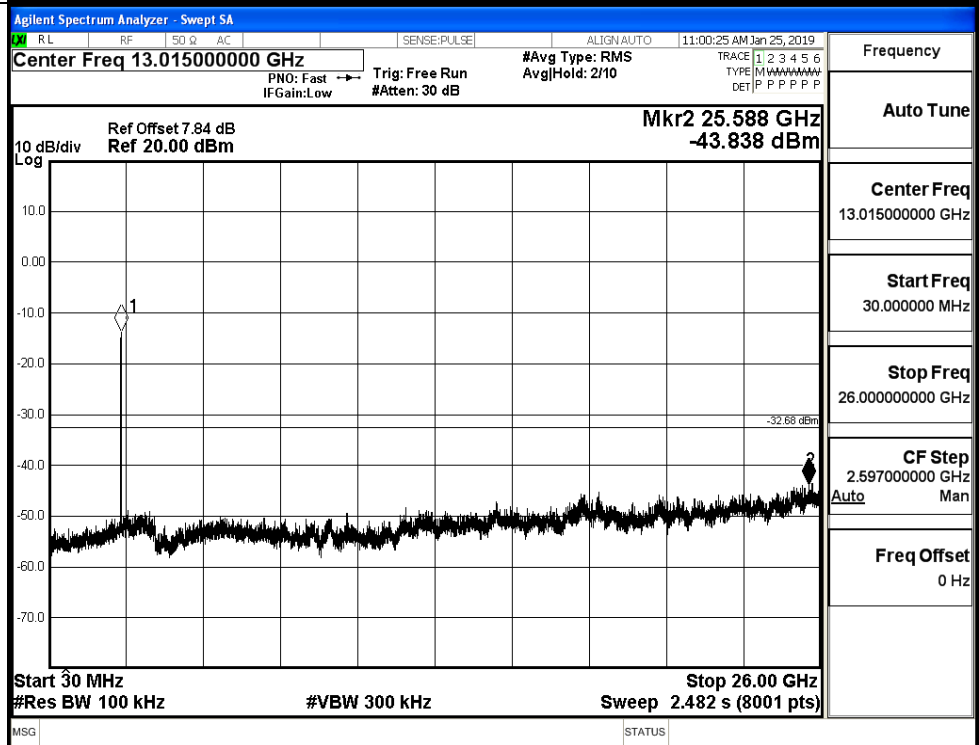


11G\_HCH\_Graphs

Pref/11G/HCH

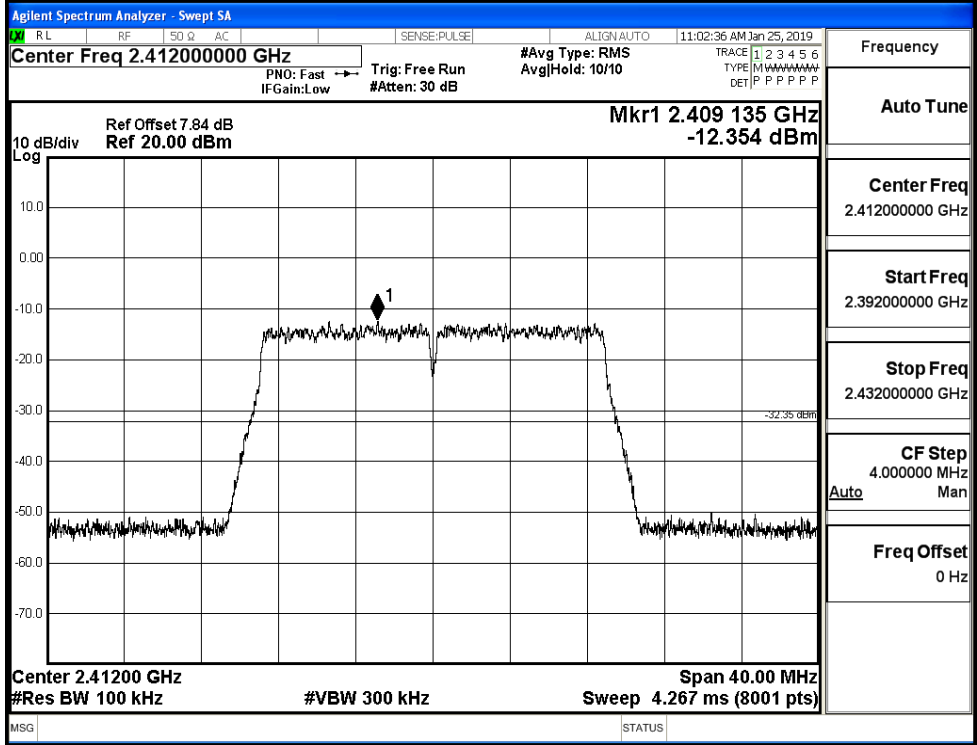


Puw/11G/HCH

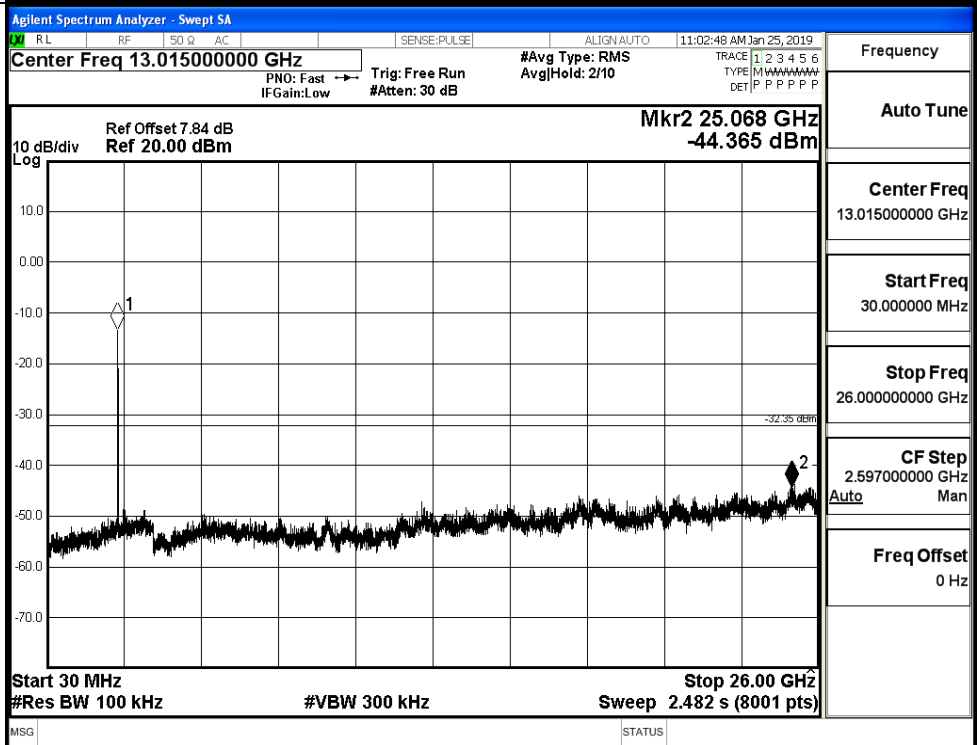


11N20SISO\_LCH\_Graphs

Pref/11N20SIS  
O/LCH

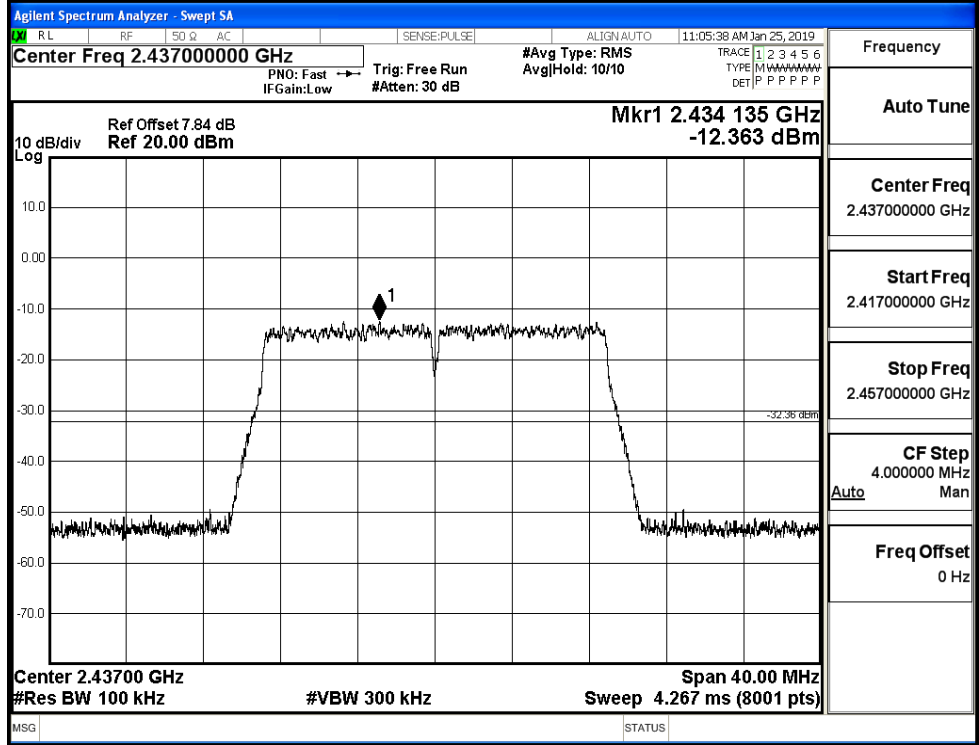


Puw/11N20  
SISO/LCH

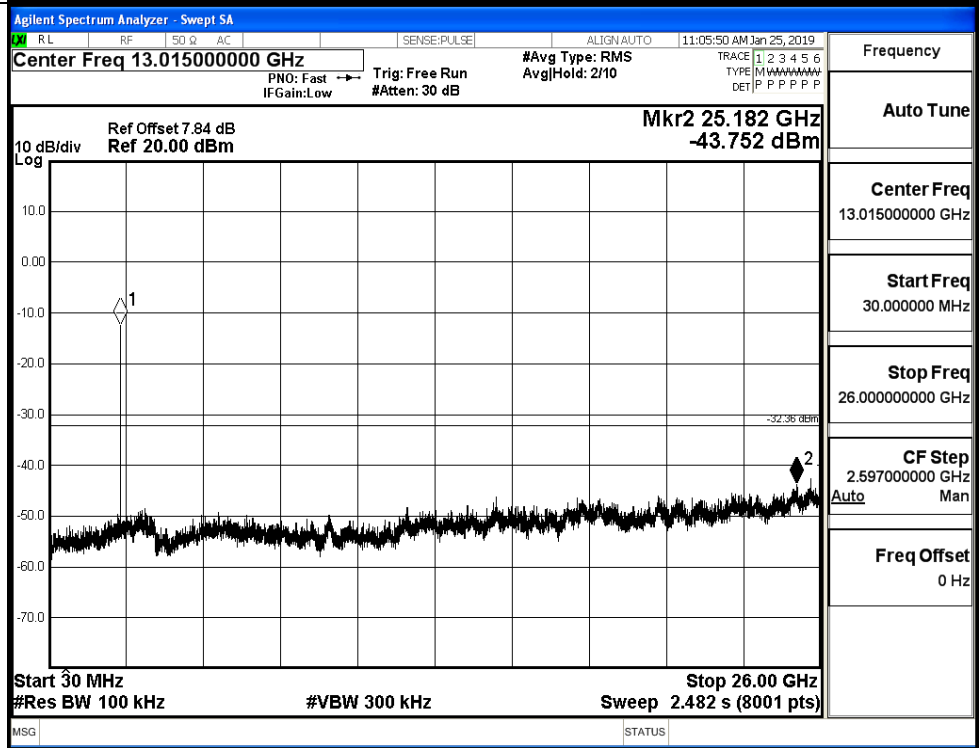


11N20SISO\_MCH\_Graphs

Pref/11N20  
SISO/MCH

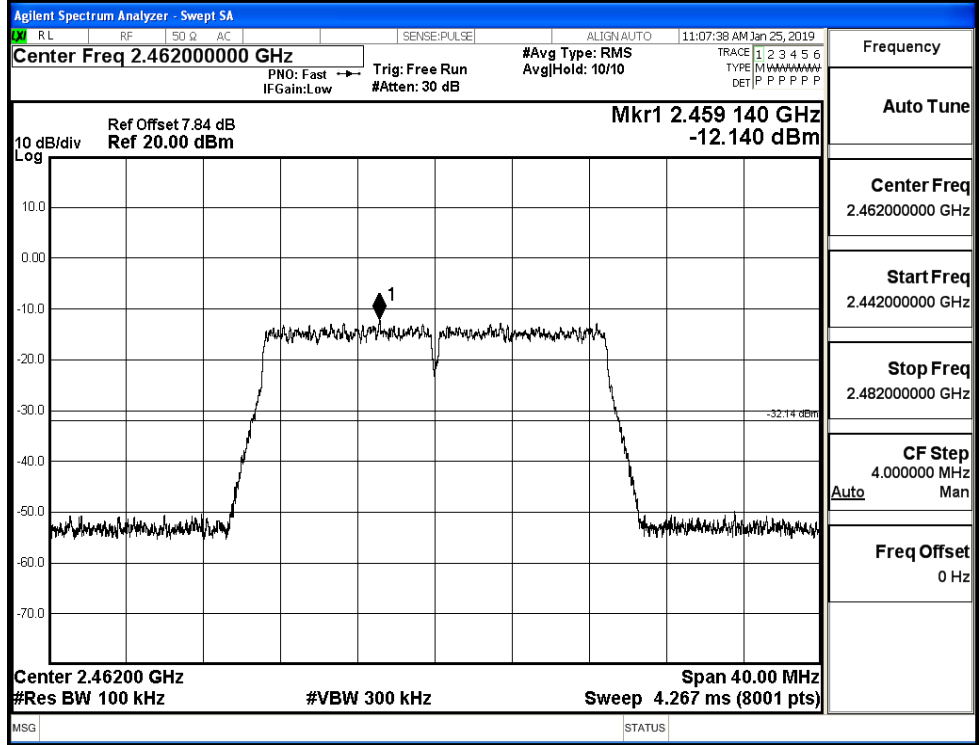


Puw/11N20  
SISO/MCH

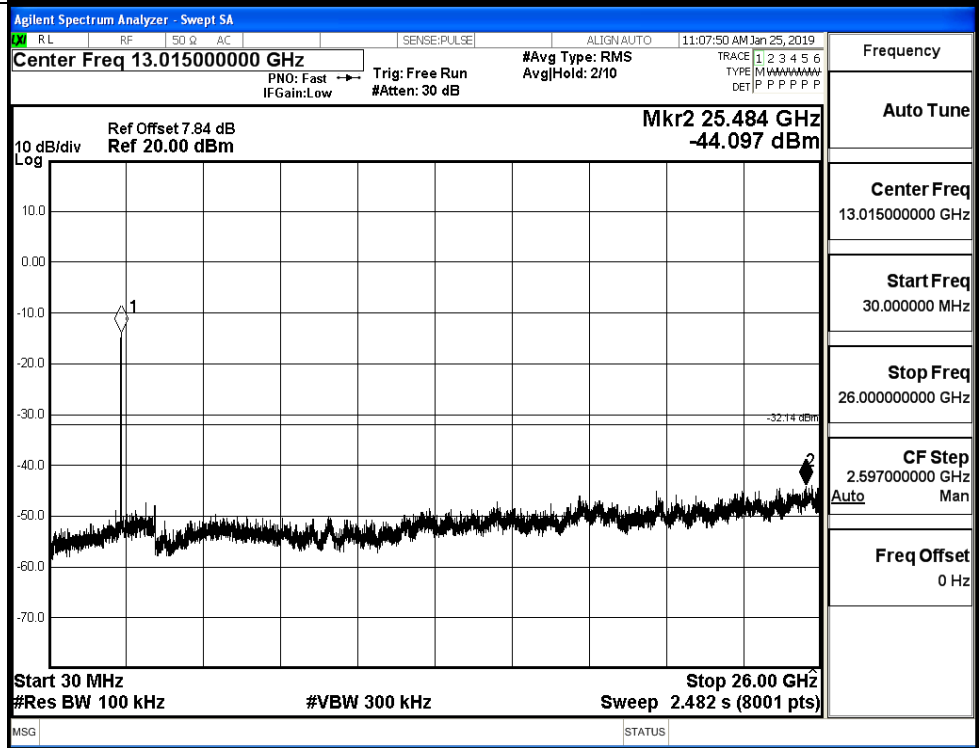


11N20SISO\_HCH\_Graphs

Pref/11N20  
SISO/HCH



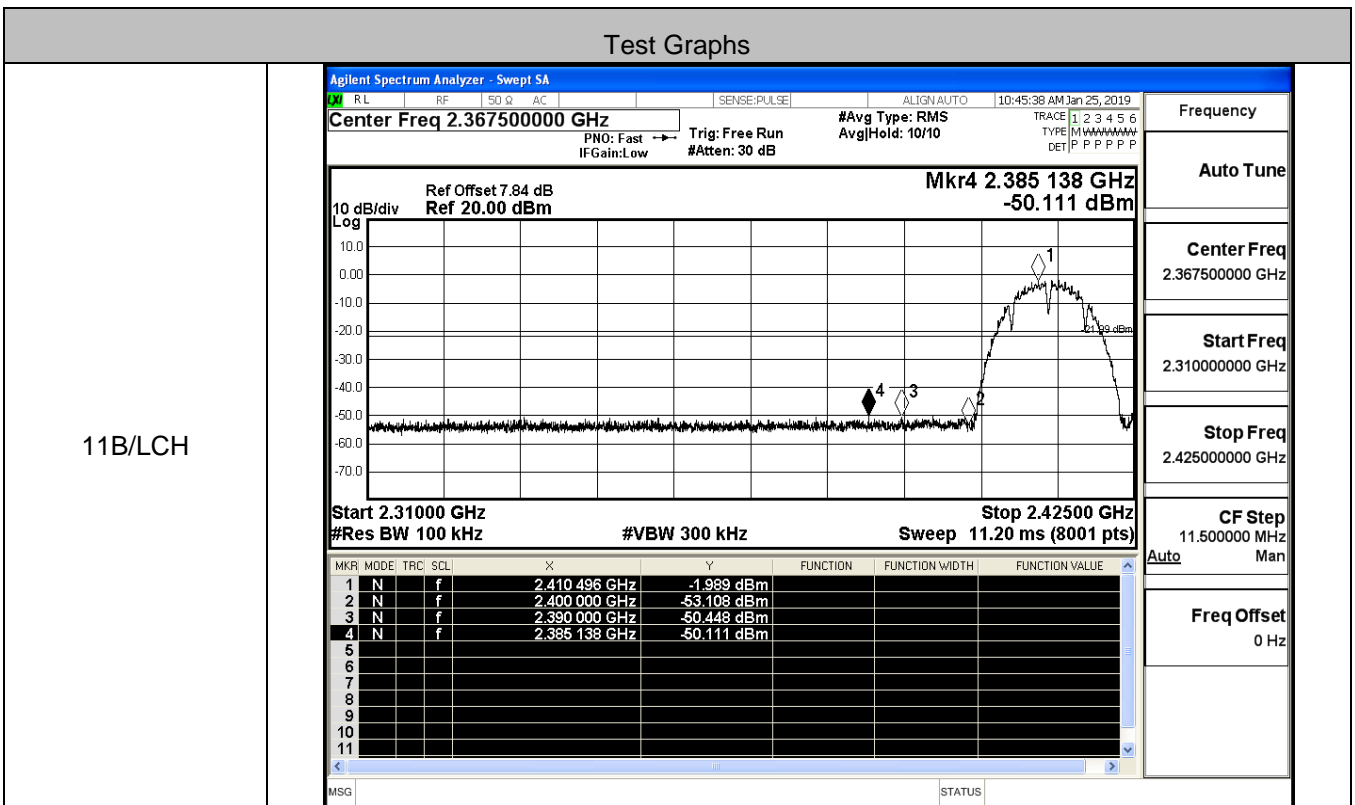
Puw/11N20  
SISO/HCH



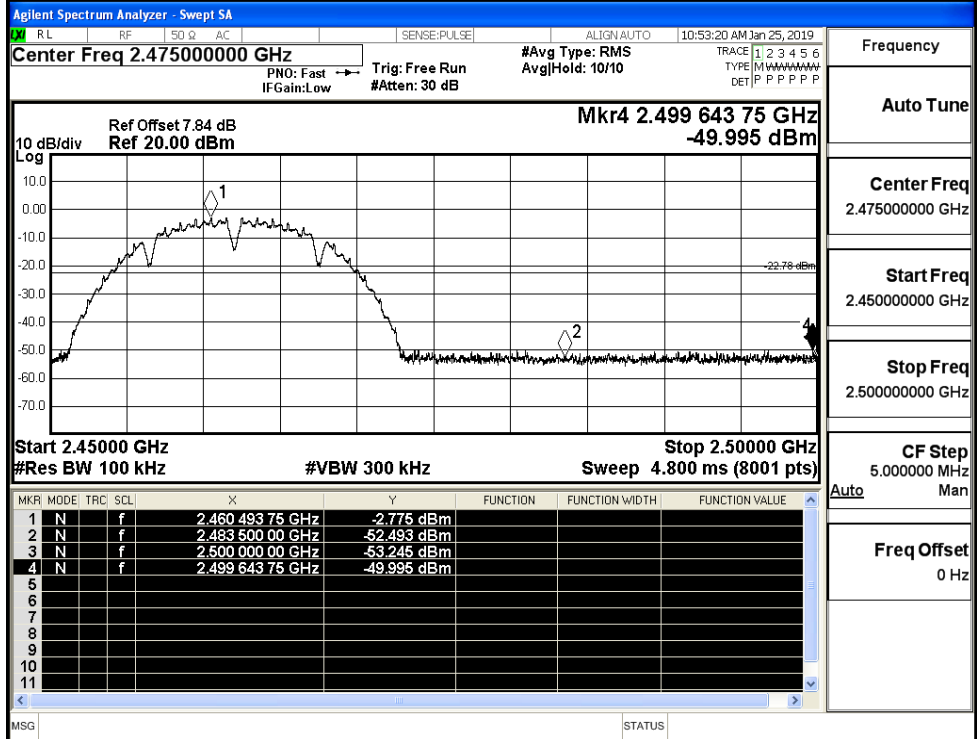


### A.6 Band-edge for RF Conducted Emissions

| Mode      | Channel | Carrier Power[dBm] | Max.Spurious Level [dBm] | Limit [dBm] | Verdict |
|-----------|---------|--------------------|--------------------------|-------------|---------|
| 11B       | LCH     | -1.989             | -50.111                  | -21.99      | PASS    |
|           | HCH     | -2.775             | -49.995                  | -22.78      | PASS    |
| 11G       | LCH     | -11.601            | -49.767                  | -31.6       | PASS    |
|           | HCH     | -12.604            | -50.146                  | -32.6       | PASS    |
| 11N20SISO | LCH     | -12.228            | -50.322                  | -32.23      | PASS    |
|           | HCH     | -12.081            | -49.993                  | -32.08      | PASS    |



11B/HCH



Frequency

Auto Tune

Center Freq  
2.47500000 GHz

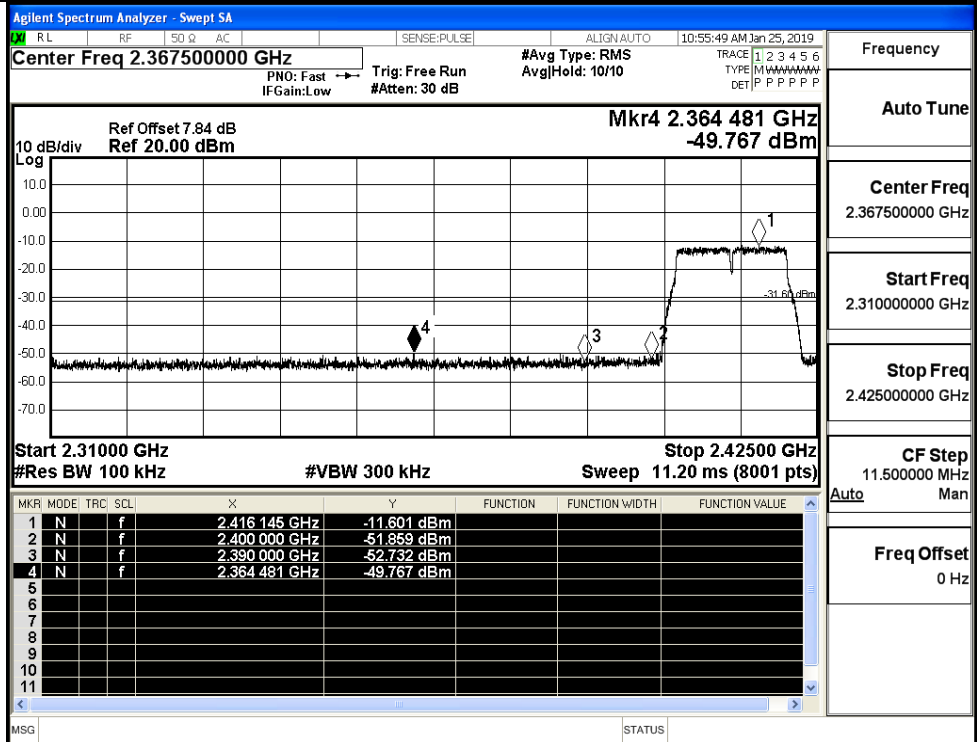
Start Freq  
2.45000000 GHz

Stop Freq  
2.50000000 GHz

CF Step  
5.000000 MHz

Freq Offset  
0 Hz

11G/LCH



Frequency

Auto Tune

Center Freq  
2.36750000 GHz

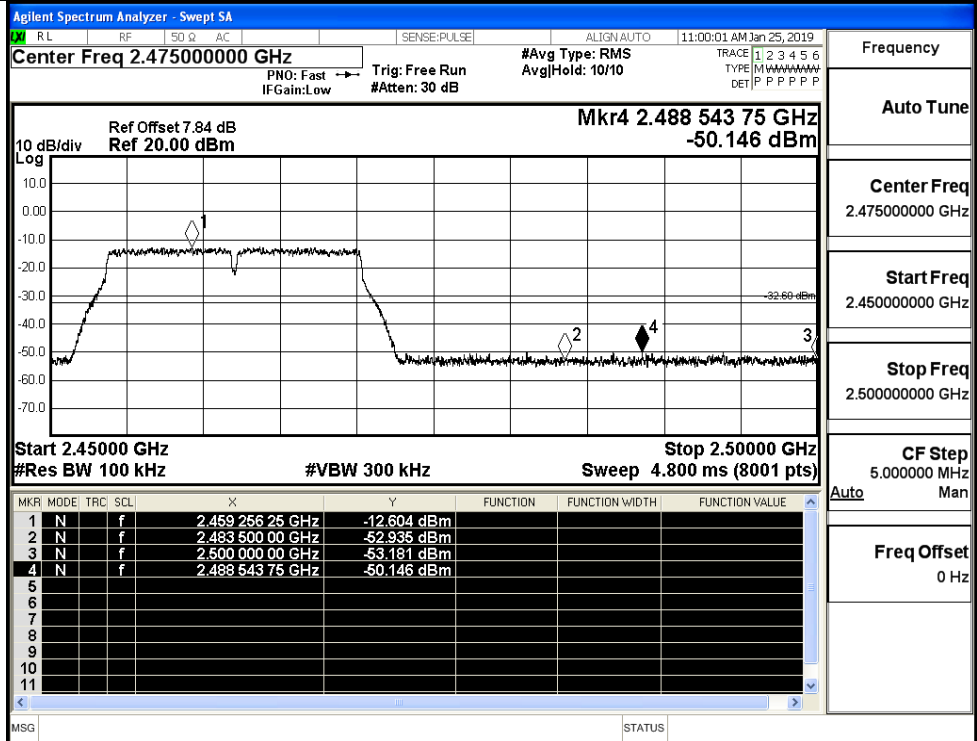
Start Freq  
2.31000000 GHz

Stop Freq  
2.42500000 GHz

CF Step  
11.500000 MHz

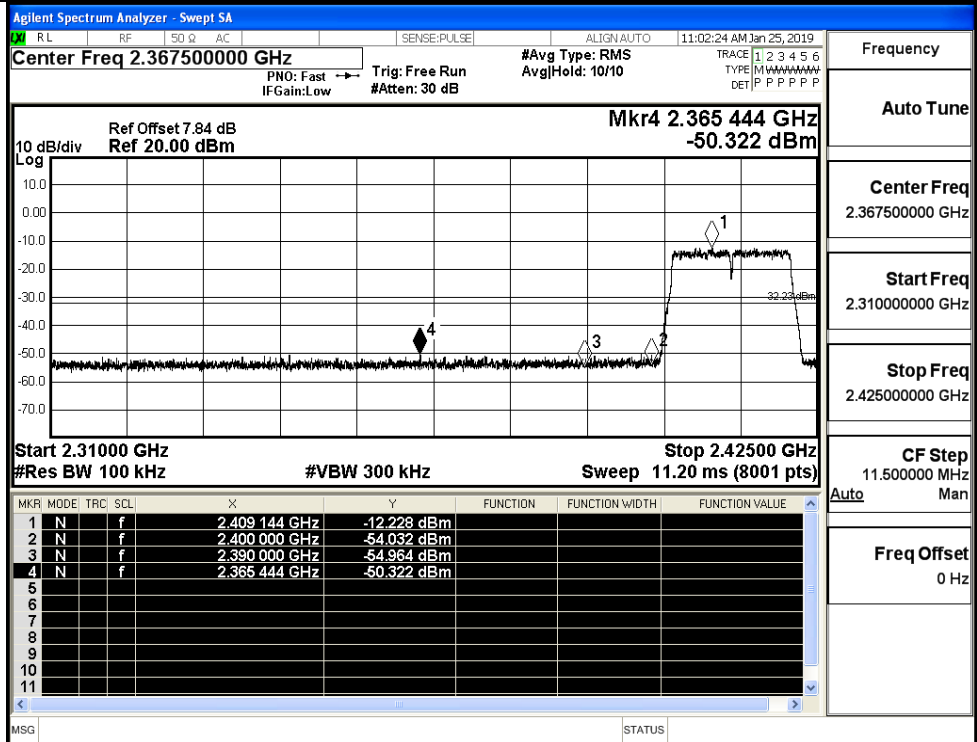
Freq Offset  
0 Hz

11G/HCH



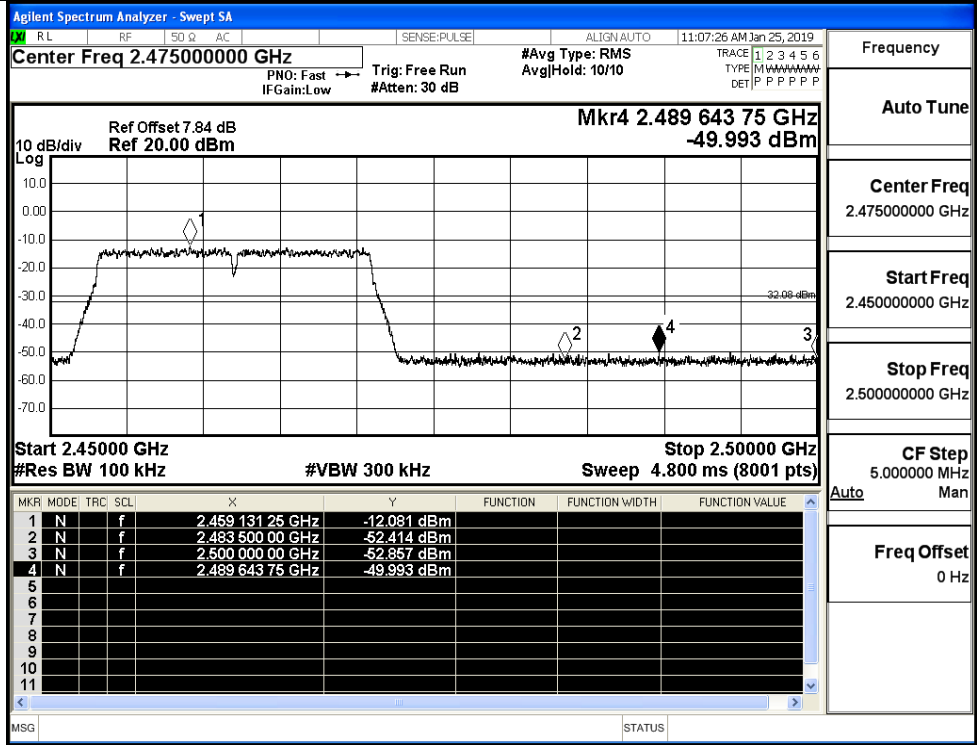
|             |                |
|-------------|----------------|
| Frequency   |                |
| Auto Tune   |                |
| Center Freq | 2.47500000 GHz |
| Start Freq  | 2.45000000 GHz |
| Stop Freq   | 2.50000000 GHz |
| CF Step     | 5.000000 MHz   |
| Freq Offset | 0 Hz           |

11N20SISO/LCH



|             |                |
|-------------|----------------|
| Frequency   |                |
| Auto Tune   |                |
| Center Freq | 2.36750000 GHz |
| Start Freq  | 2.31000000 GHz |
| Stop Freq   | 2.42500000 GHz |
| CF Step     | 11.500000 MHz  |
| Freq Offset | 0 Hz           |

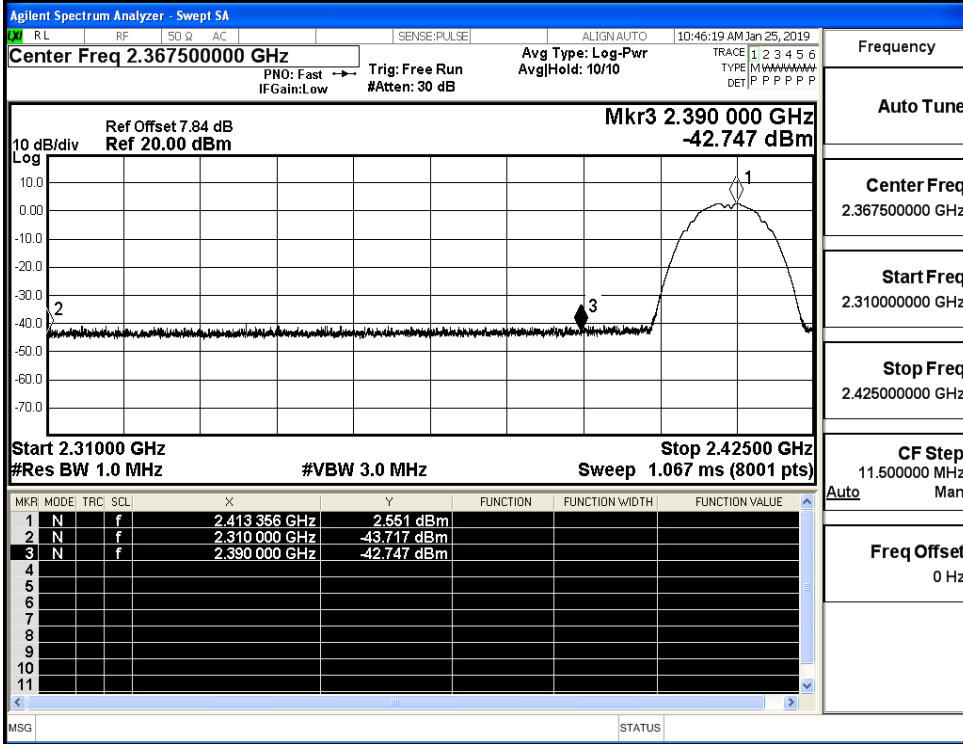
11N20SISO/HCH



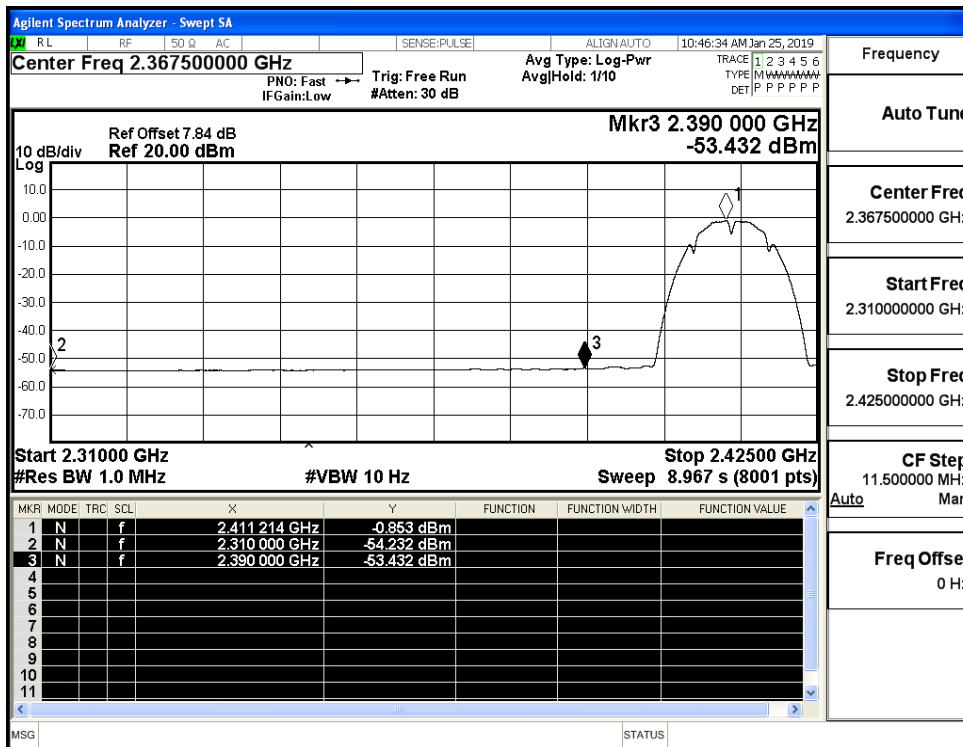
## A.7 Restrict-band band-edge measurements

| Test Mode     | Test Channel | Ant  | Freq.  | Power [dBm] | Gain | Ground Factor | E [dBuV/m] | Detector | Limit [dBu V/m] | Verdict |
|---------------|--------------|------|--------|-------------|------|---------------|------------|----------|-----------------|---------|
| 11B           | 2412         | Ant1 | 2310.0 | -43.717     | 3.00 | 0             | 54.511     | PEAK     | 74              | PASS    |
|               | 2412         | Ant1 | 2310.0 | -54.232     | 3.00 | 0             | 43.996     | AV       | 54              | PASS    |
|               | 2412         | Ant1 | 2390.0 | -42.747     | 3.00 | 0             | 55.481     | PEAK     | 74              | PASS    |
|               | 2412         | Ant1 | 2390.0 | -53.432     | 3.00 | 0             | 44.796     | AV       | 54              | PASS    |
|               | 2462         | Ant1 | 2483.5 | -43.130     | 3.00 | 0             | 55.098     | PEAK     | 74              | PASS    |
|               | 2462         | Ant1 | 2483.5 | -53.557     | 3.00 | 0             | 44.671     | AV       | 54              | PASS    |
|               | 2462         | Ant1 | 2500.0 | -43.283     | 3.00 | 0             | 54.945     | PEAK     | 74              | PASS    |
|               | 2462         | Ant1 | 2500.0 | -53.530     | 3.00 | 0             | 44.698     | AV       | 54              | PASS    |
| 11G           | 2412         | Ant1 | 2310.0 | -43.578     | 3.00 | 0             | 54.650     | PEAK     | 74              | PASS    |
|               | 2412         | Ant1 | 2310.0 | -54.240     | 3.00 | 0             | 43.988     | AV       | 54              | PASS    |
|               | 2412         | Ant1 | 2390.0 | -42.669     | 3.00 | 0             | 55.559     | PEAK     | 74              | PASS    |
|               | 2412         | Ant1 | 2390.0 | -53.597     | 3.00 | 0             | 44.631     | AV       | 54              | PASS    |
|               | 2462         | Ant1 | 2483.5 | -42.667     | 3.00 | 0             | 55.561     | PEAK     | 74              | PASS    |
|               | 2462         | Ant1 | 2483.5 | -53.447     | 3.00 | 0             | 44.781     | AV       | 54              | PASS    |
|               | 2462         | Ant1 | 2500.0 | -42.686     | 3.00 | 0             | 55.542     | PEAK     | 74              | PASS    |
|               | 2462         | Ant1 | 2500.0 | -53.428     | 3.00 | 0             | 44.800     | AV       | 54              | PASS    |
| 11N20<br>SISO | 2412         | Ant1 | 2310.0 | -43.646     | 3.00 | 0             | 54.582     | PEAK     | 74              | PASS    |
|               | 2412         | Ant1 | 2310.0 | -54.276     | 3.00 | 0             | 43.952     | AV       | 54              | PASS    |
|               | 2412         | Ant1 | 2390.0 | -44.097     | 3.00 | 0             | 54.131     | PEAK     | 74              | PASS    |
|               | 2412         | Ant1 | 2390.0 | -53.695     | 3.00 | 0             | 44.533     | AV       | 54              | PASS    |
|               | 2462         | Ant1 | 2483.5 | -44.043     | 3.00 | 0             | 54.185     | PEAK     | 74              | PASS    |
|               | 2462         | Ant1 | 2483.5 | -53.494     | 3.00 | 0             | 44.734     | AV       | 54              | PASS    |
|               | 2462         | Ant1 | 2500.0 | -43.630     | 3.00 | 0             | 54.598     | PEAK     | 74              | PASS    |
|               | 2462         | Ant1 | 2500.0 | -53.402     | 3.00 | 0             | 44.826     | AV       | 54              | PASS    |

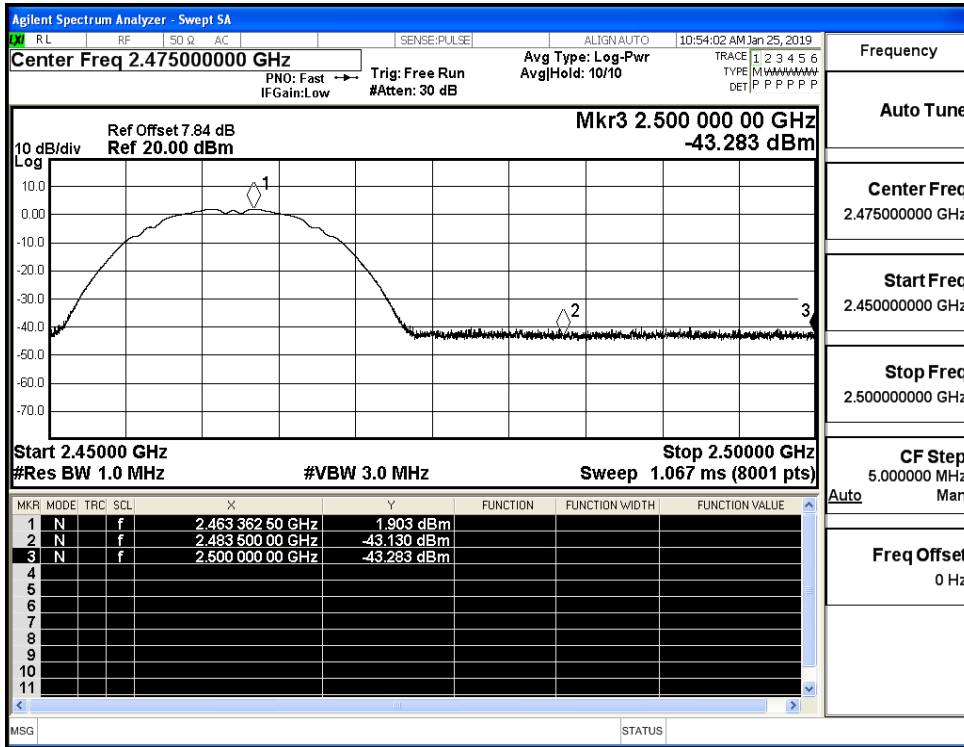
Restrict-band band-edge measurements\_11B\_2412\_Ant1\_PEAK



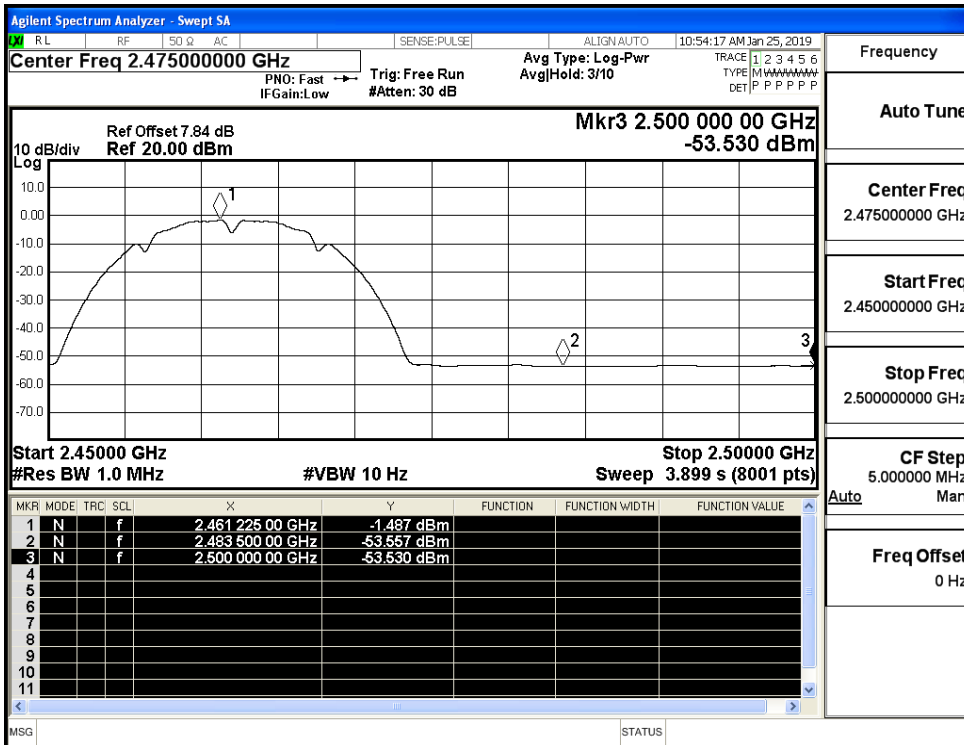
Restrict-band band-edge measurements\_11B\_2412\_Ant1\_AV



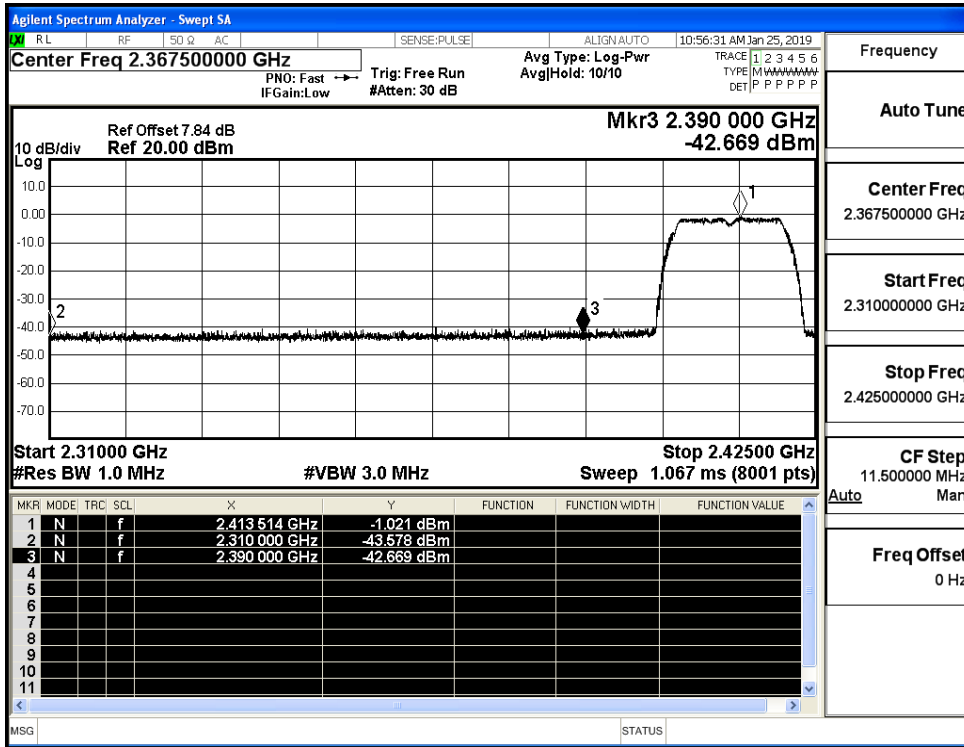
Restrict-band band-edge measurements\_11B\_2462\_Ant1\_PEAK



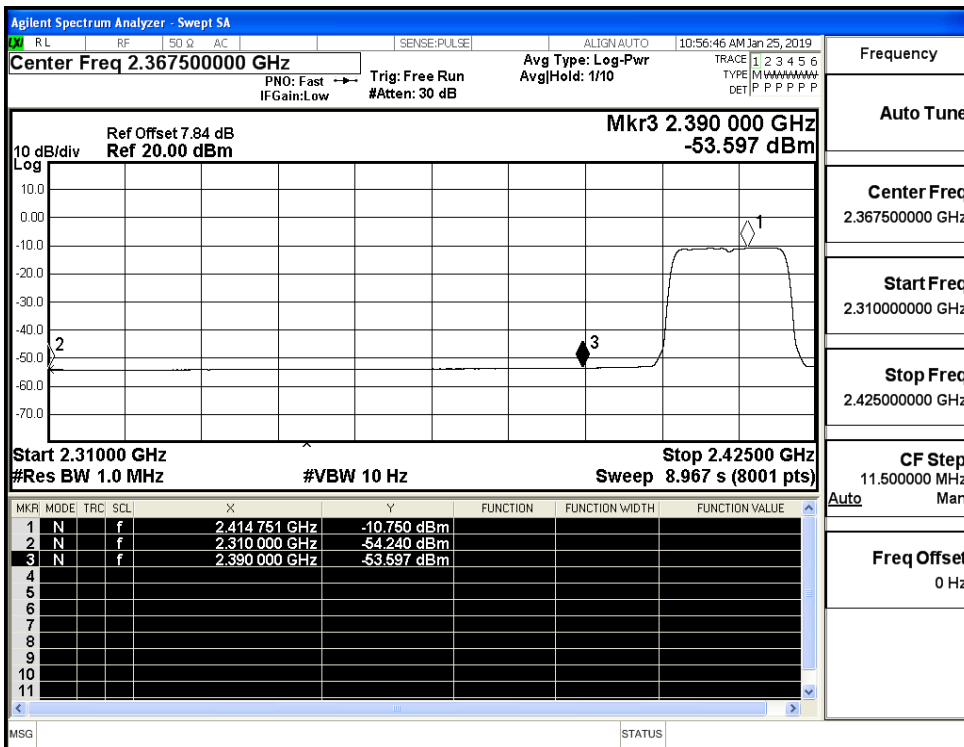
Restrict-band band-edge measurements\_11B\_2462\_Ant1\_AV



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

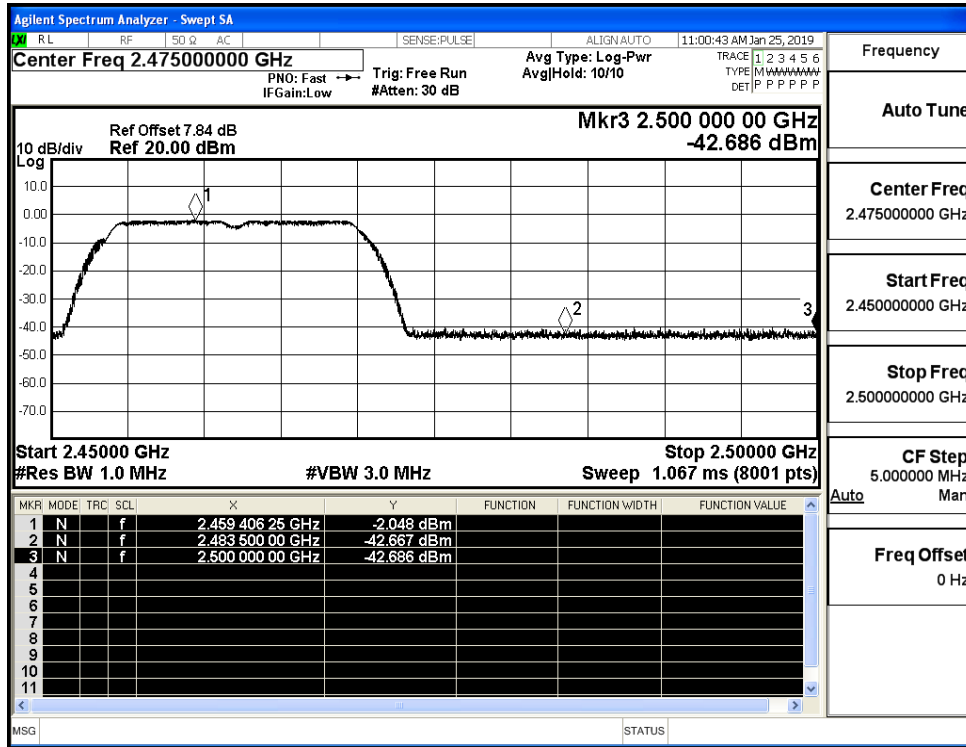


Restrict-band band-edge measurements\_11G\_2412\_Ant1\_AV

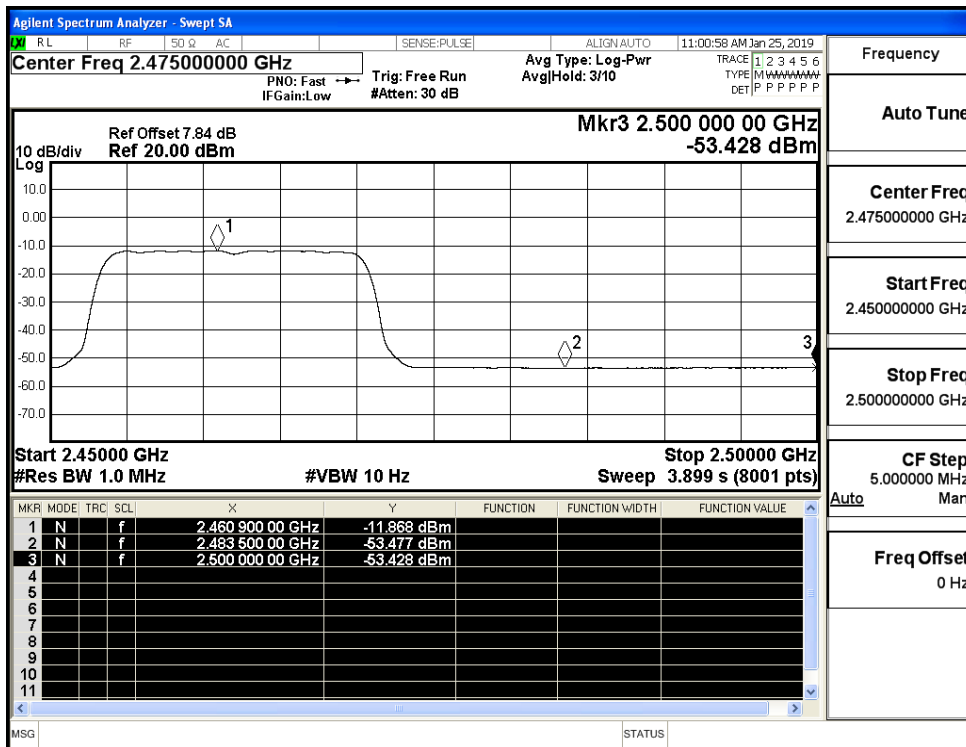




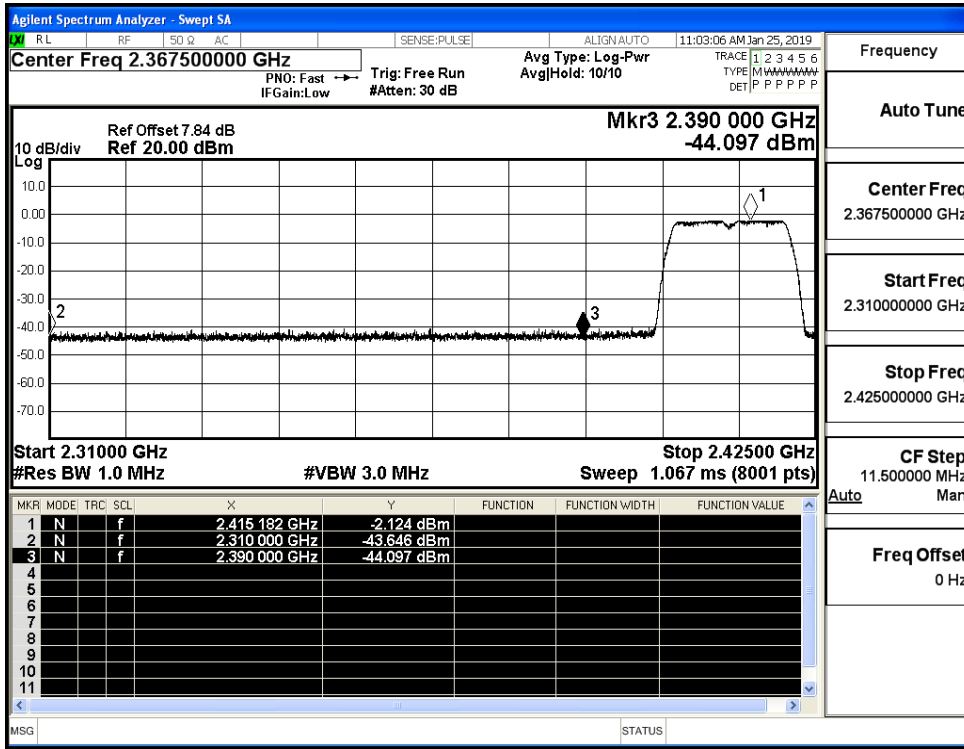
Restrict-band band-edge measurements\_11G\_2462\_Ant1\_PEAK



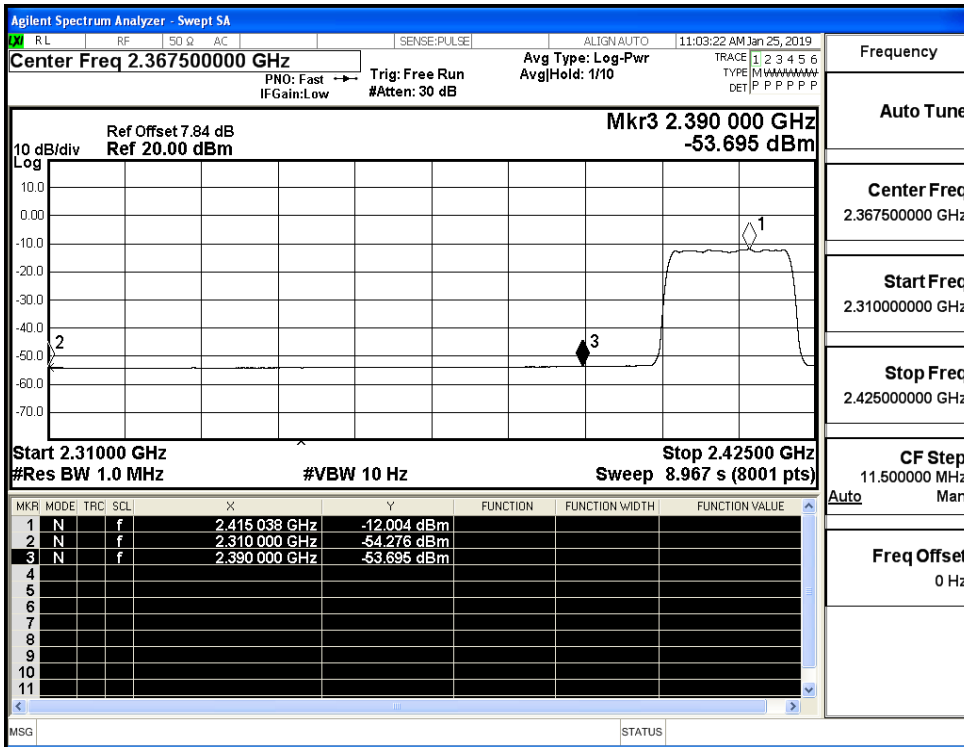
Restrict-band band-edge measurements\_11G\_2462\_Ant1\_AV



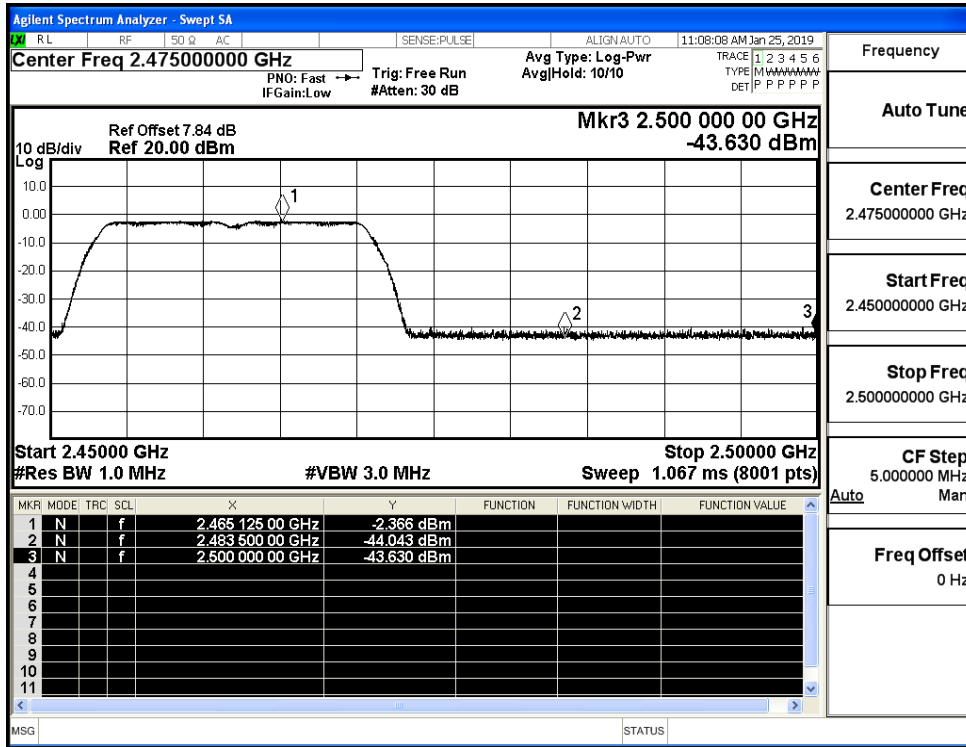
Restrict-band band-edge measurements\_11N20SISO\_2412\_Ant1\_PEAK



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



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



Restrict-band band-edge measurements\_11N20SISO\_2462\_Ant1\_AV

