

## Appendix C

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

Product Name: smart multi plug outlet

Trade Mark: Gosund

Test Model: P2

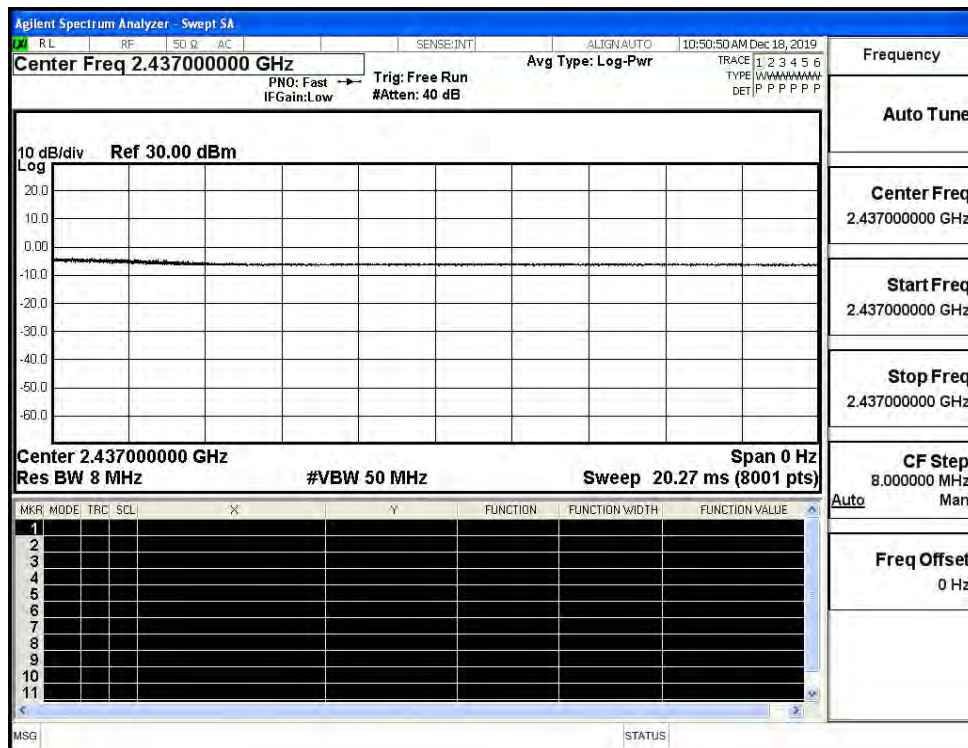
#### Environmental Conditions

|                    |           |
|--------------------|-----------|
| Temperature:       | 22.6 ° C  |
| Relative Humidity: | 52.8%     |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Zhuo Zhuo |
| Supervised by:     | Li Huan   |

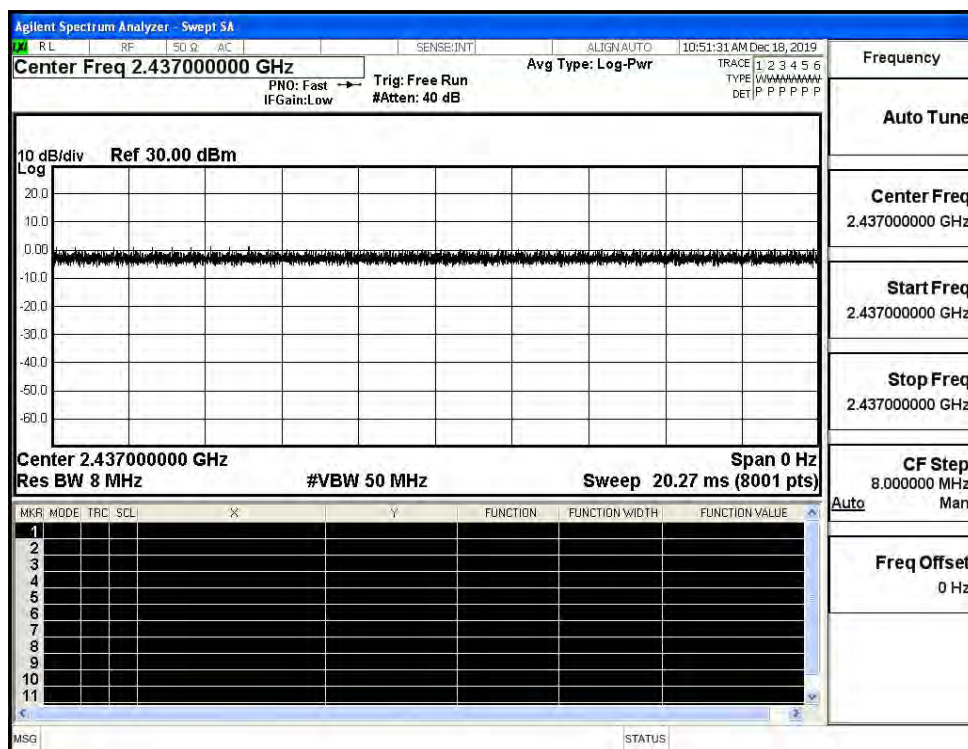
#### C.1 Duty Cycle

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

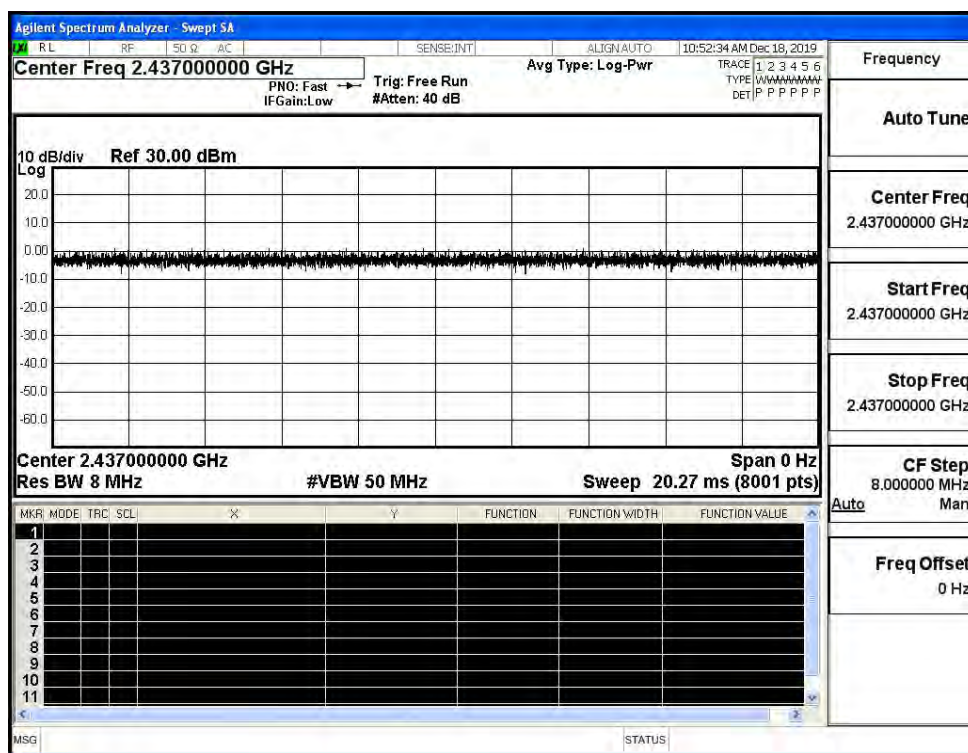
## Duty Cycle\_11B\_2437\_Ant1



## Duty Cycle\_11G\_2437\_Ant1



## Duty Cycle\_11N20SISO\_2437\_Ant1

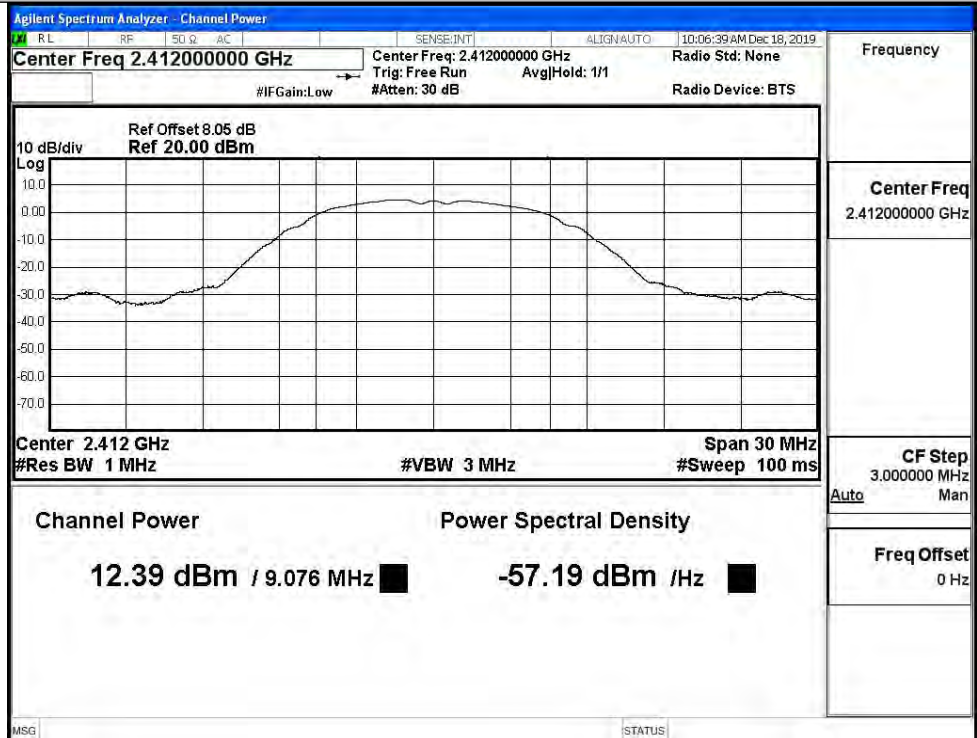


**C.2 Maximum Conducted Output Power**

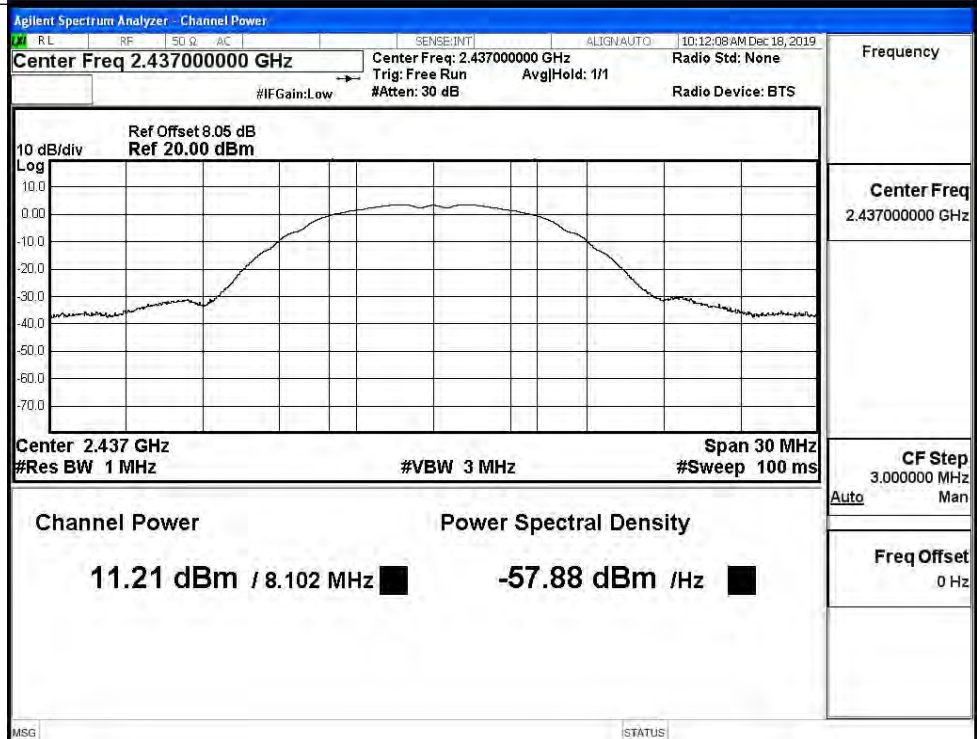
| Mode      | Channel | Meas.Level [dBm] | Limit [dBm] | Verdict |
|-----------|---------|------------------|-------------|---------|
| 11B       | LCH     | 12.39            | 30          | PASS    |
|           | MCH     | 11.21            | 30          | PASS    |
|           | HCH     | 10.84            | 30          | PASS    |
| 11G       | LCH     | 16.15            | 30          | PASS    |
|           | MCH     | 15.59            | 30          | PASS    |
|           | HCH     | 15.19            | 30          | PASS    |
| 11N20SISO | LCH     | 16.07            | 30          | PASS    |
|           | MCH     | 15.28            | 30          | PASS    |
|           | HCH     | 14.96            | 30          | PASS    |

## Test Graphs

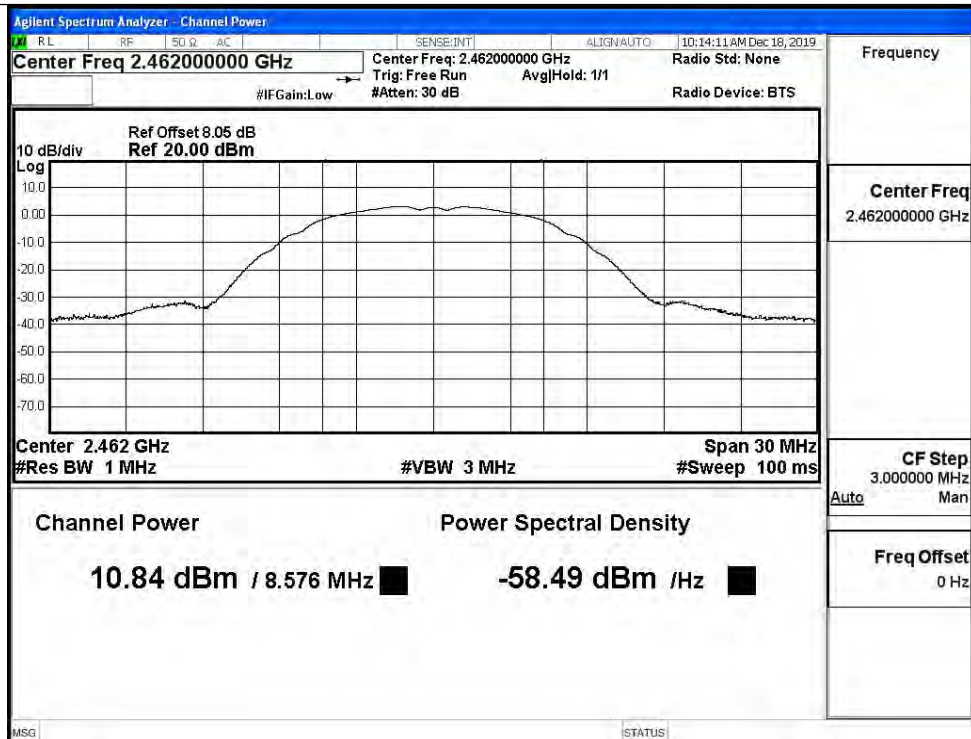
11B/LCH



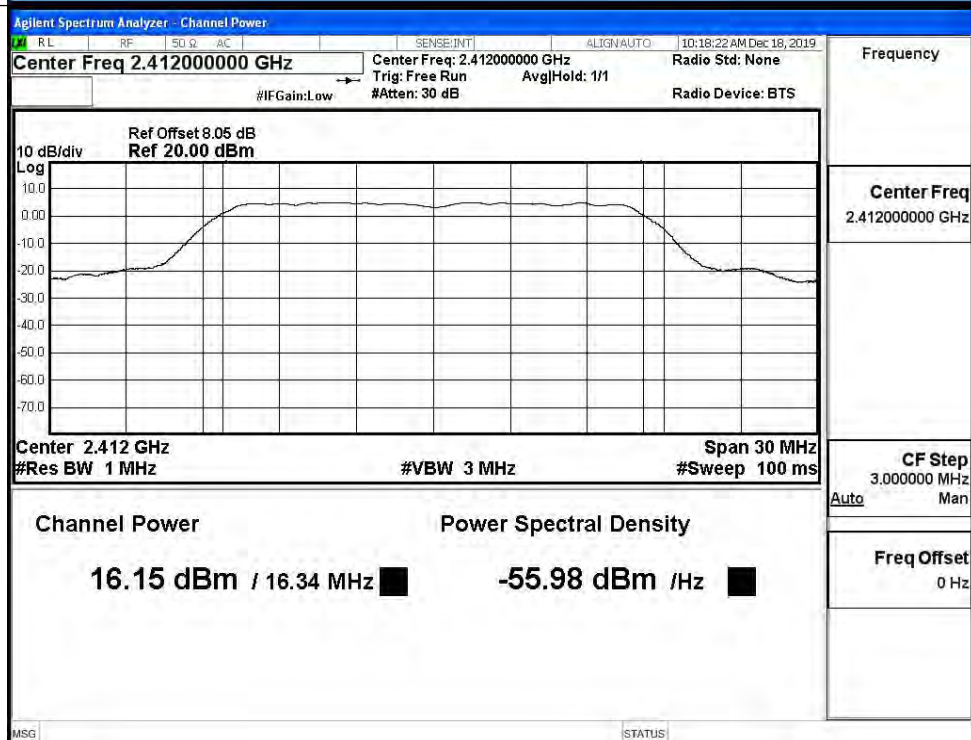
11B/MCH



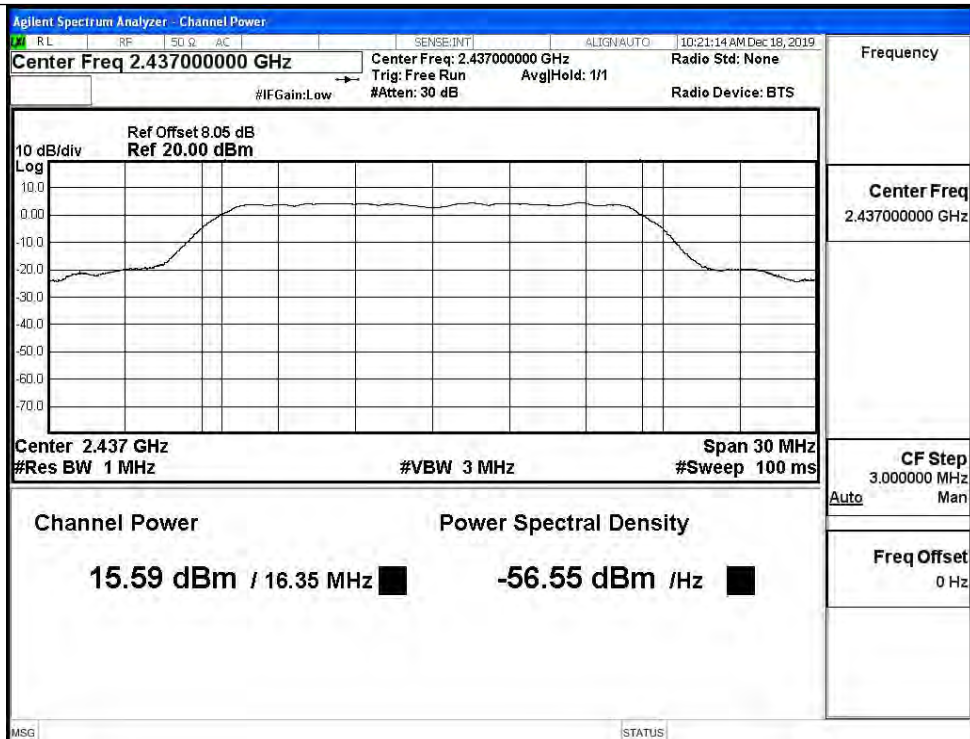
11B/HCH



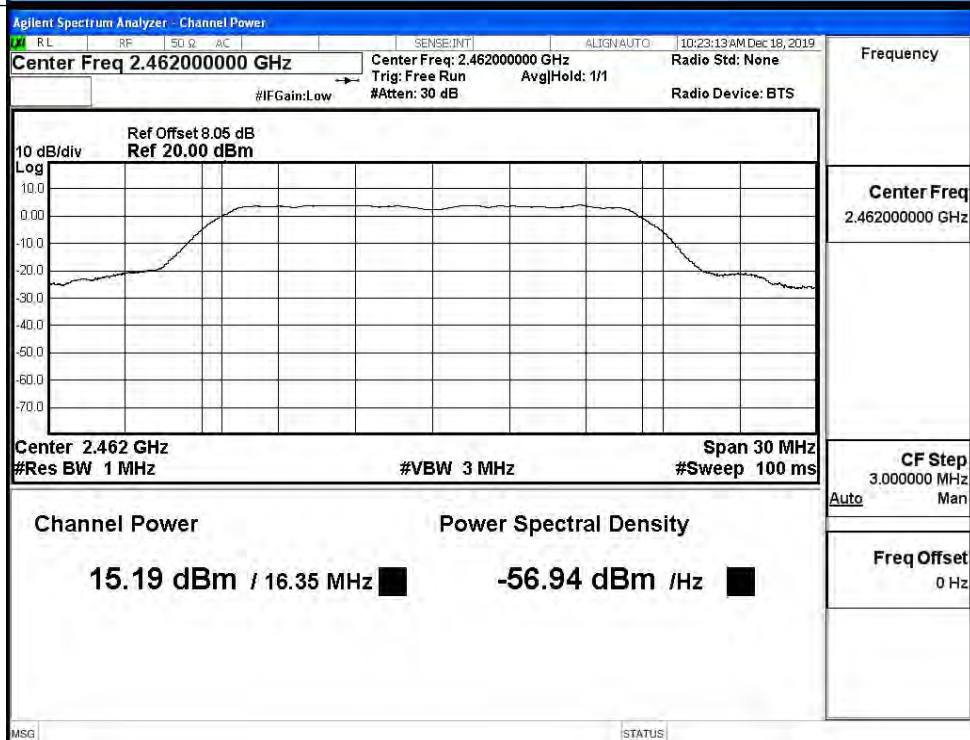
11G/LCH



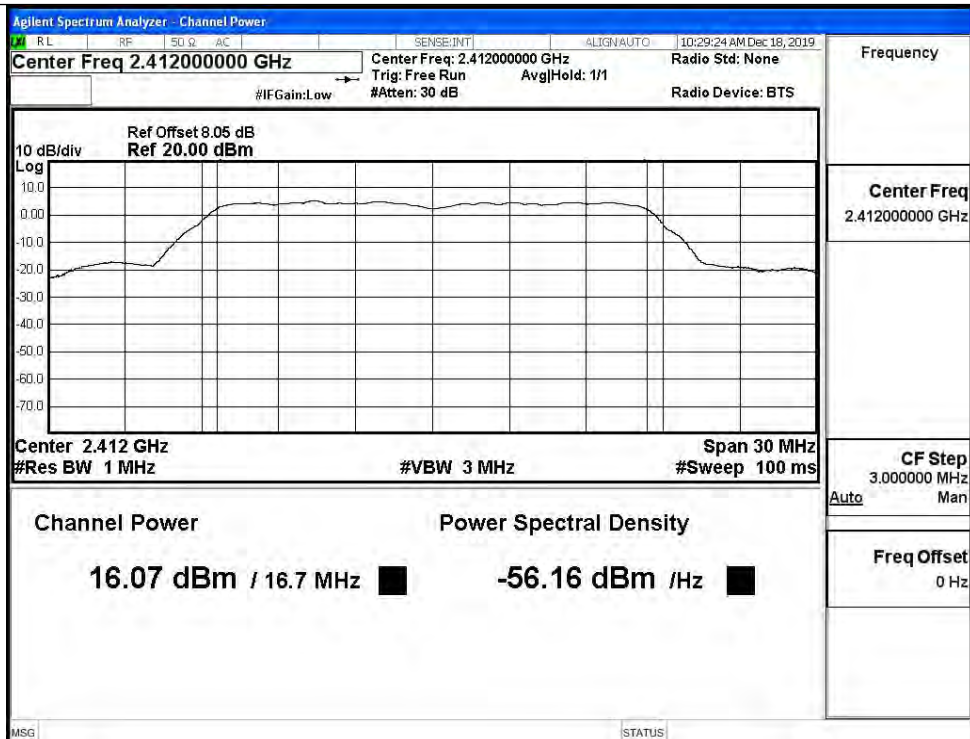
11G/MCH



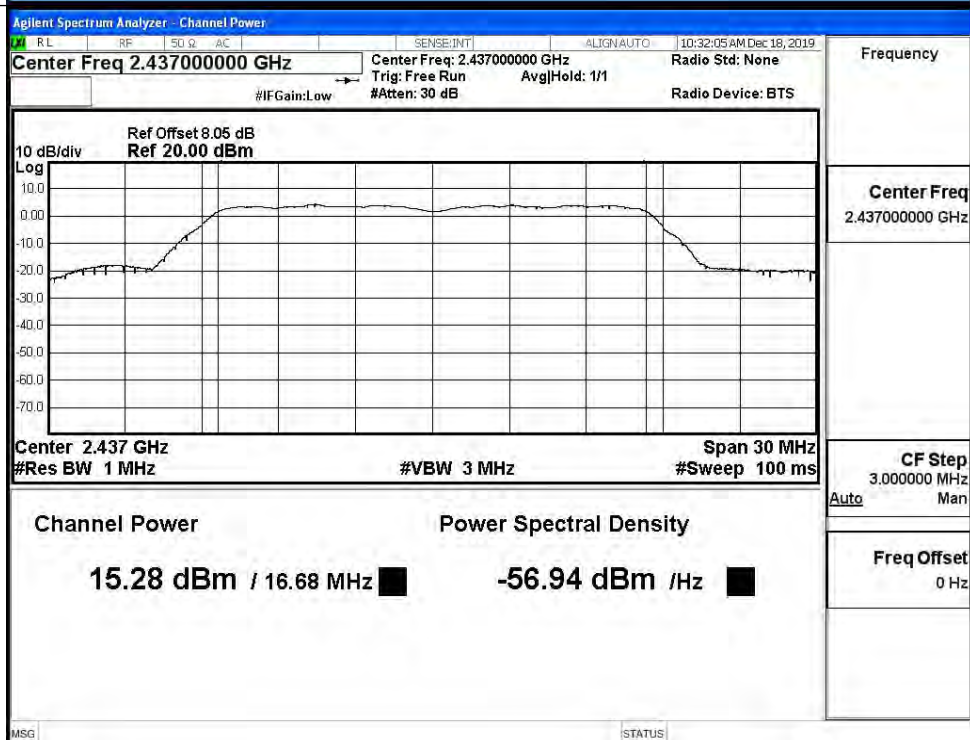
11G/HCH



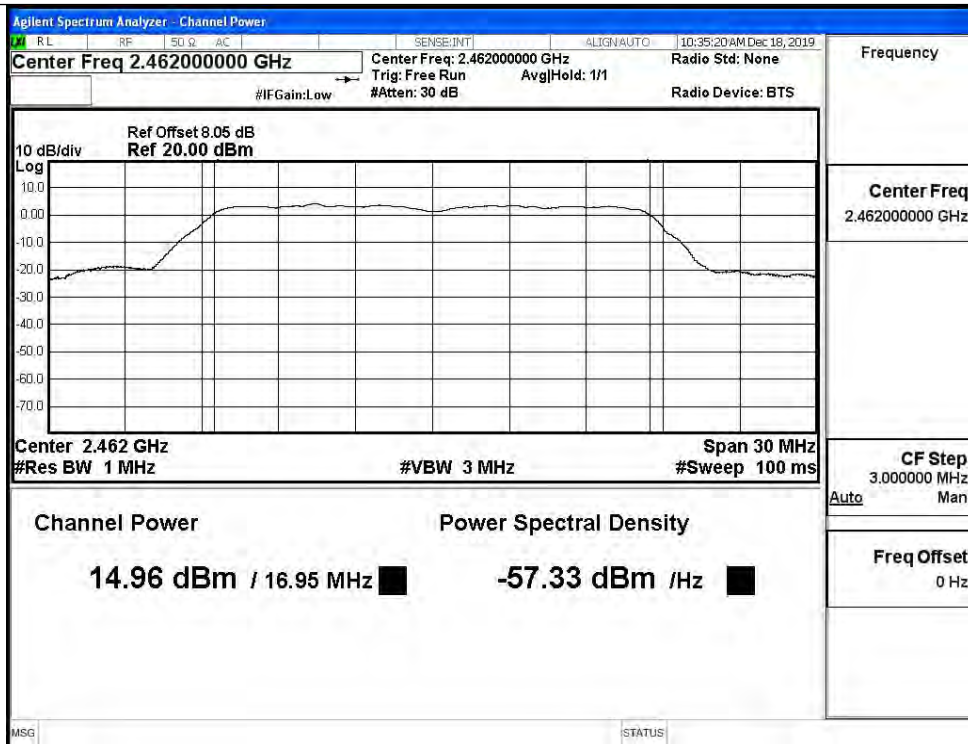
11N20SISO/LCH



11N20SISO/MCH



11N20SISO/HCH



### C.3 Maximum Power Spectral Density

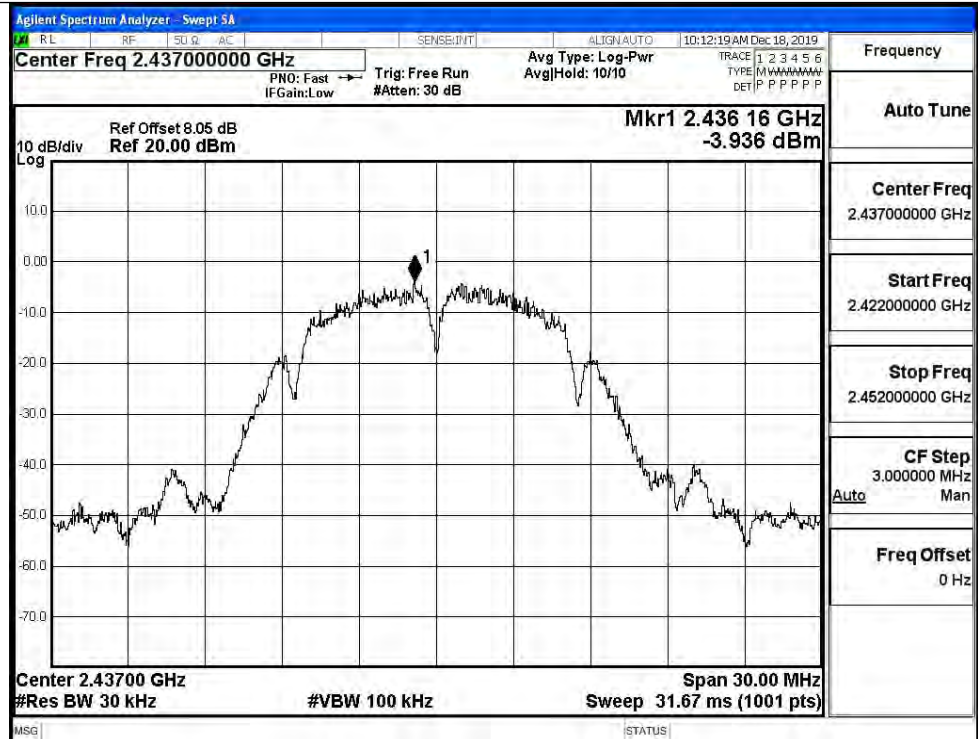
| Mode      | Channel | Meas.Level [dBm/30KHz] | Limit [dBm/3KHz] | Verdict |
|-----------|---------|------------------------|------------------|---------|
| 11B       | LCH     | -3.049                 | 8                | PASS    |
|           | MCH     | -3.936                 | 8                | PASS    |
|           | HCH     | -4.630                 | 8                | PASS    |
| 11G       | LCH     | -7.616                 | 8                | PASS    |
|           | MCH     | -8.164                 | 8                | PASS    |
|           | HCH     | -8.772                 | 8                | PASS    |
| 11N20SISO | LCH     | -6.972                 | 8                | PASS    |
|           | MCH     | -7.773                 | 8                | PASS    |
|           | HCH     | -8.187                 | 8                | PASS    |

#### Test Graphs

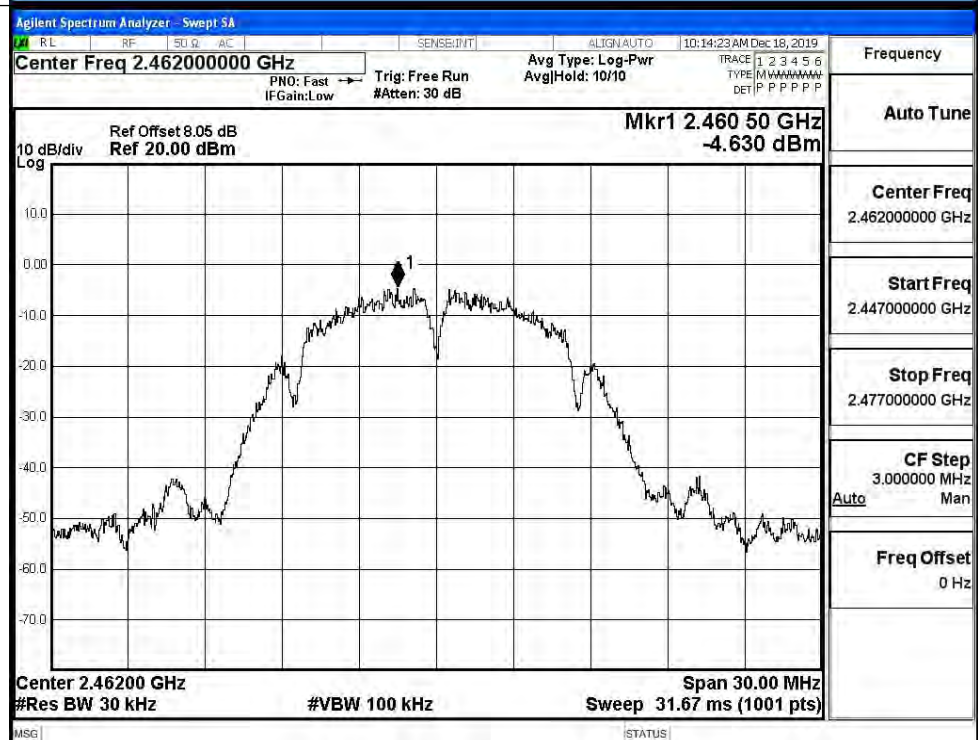
11B/LCH



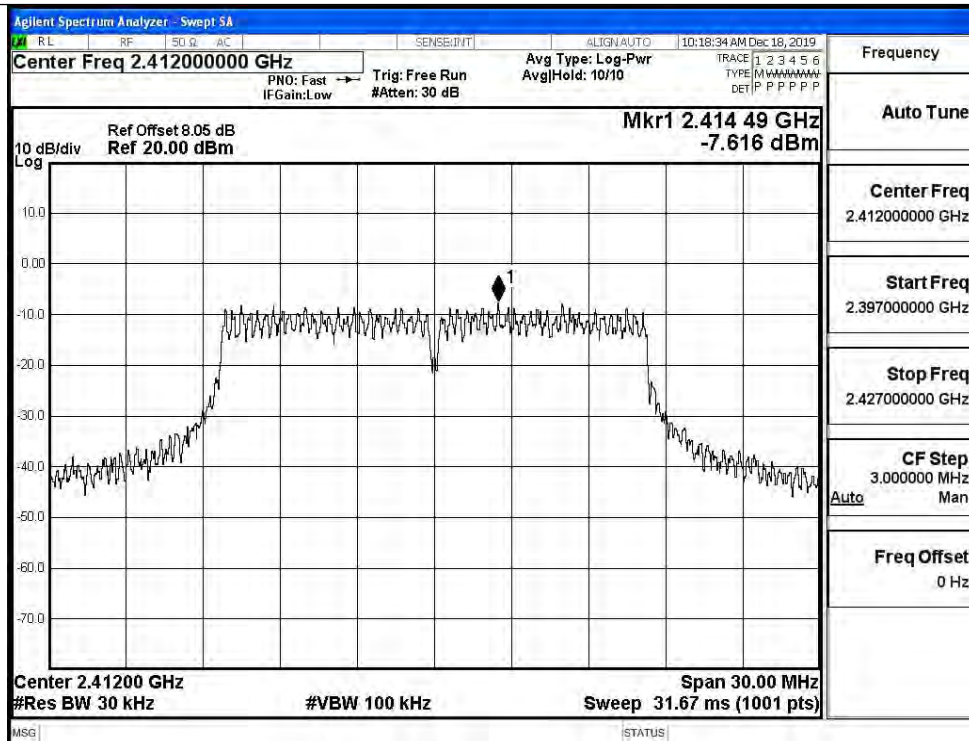
11B/MCH



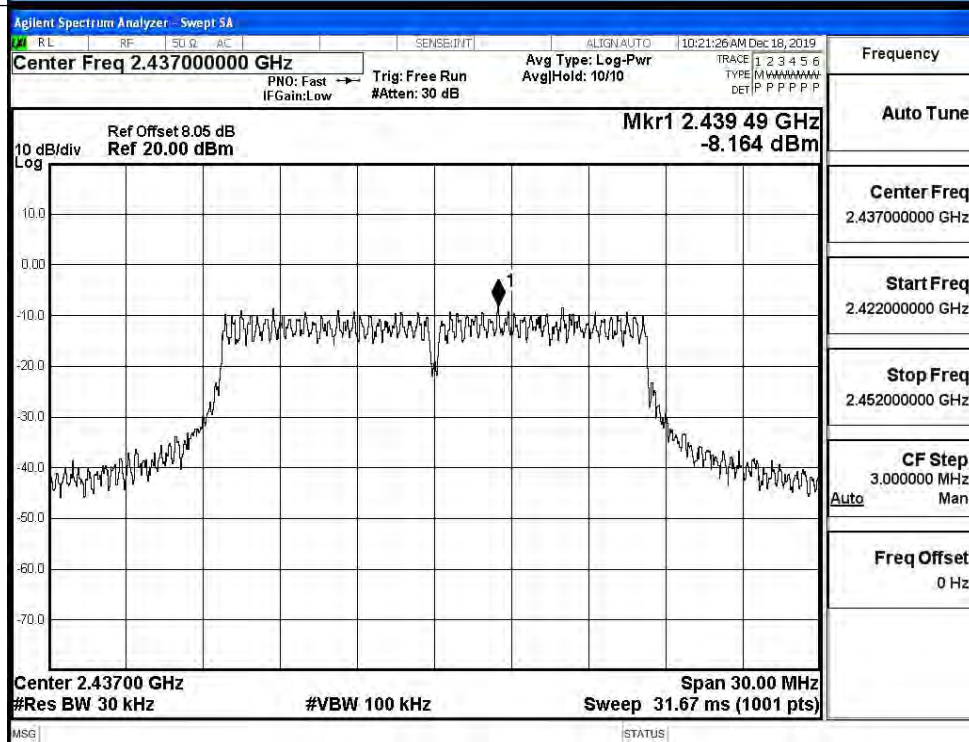
11B/HCH



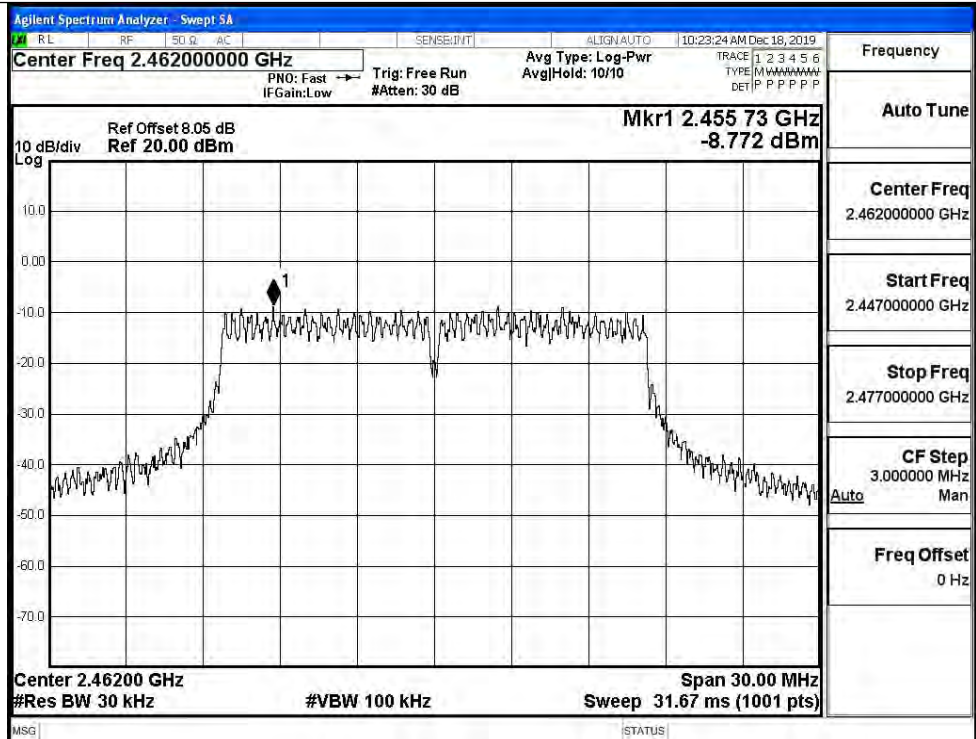
11G/LCH



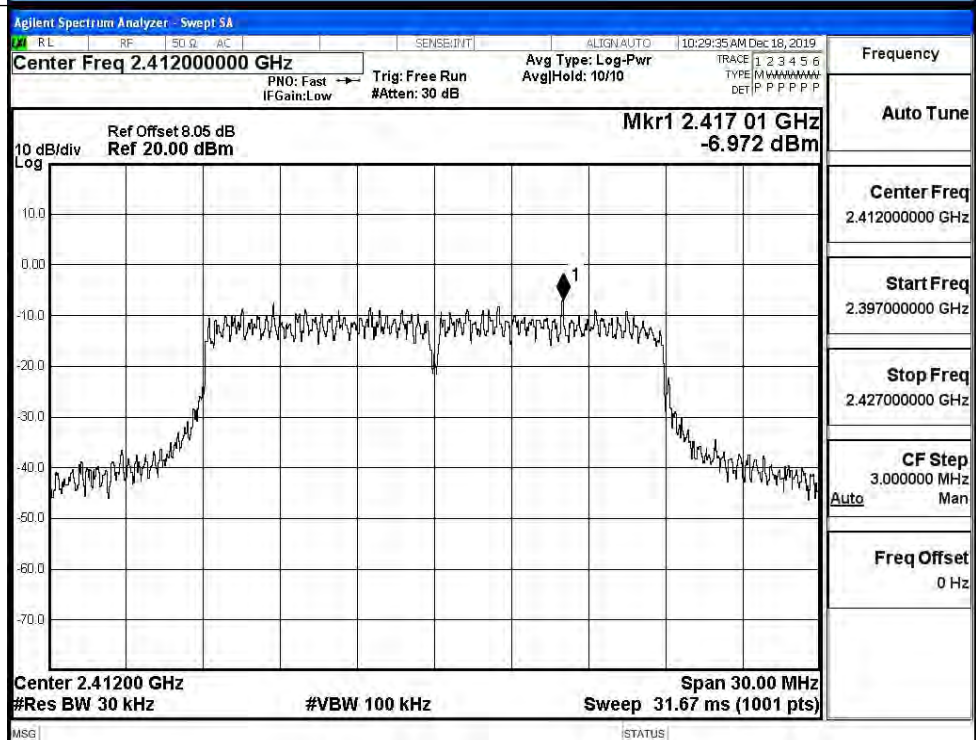
11G/MCH



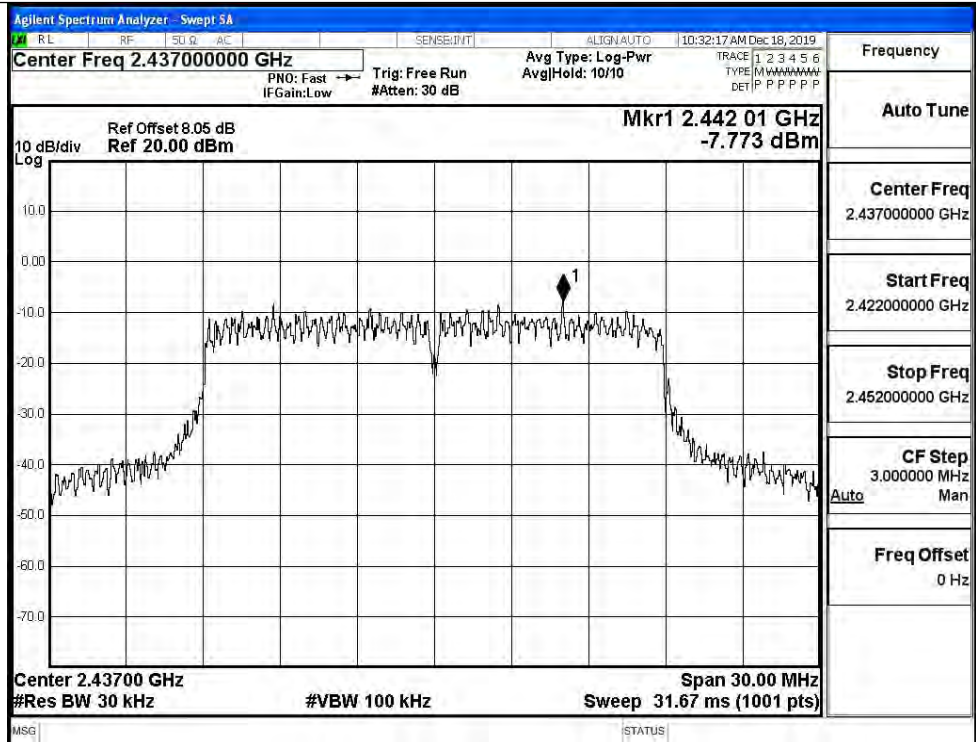
11G/HCH



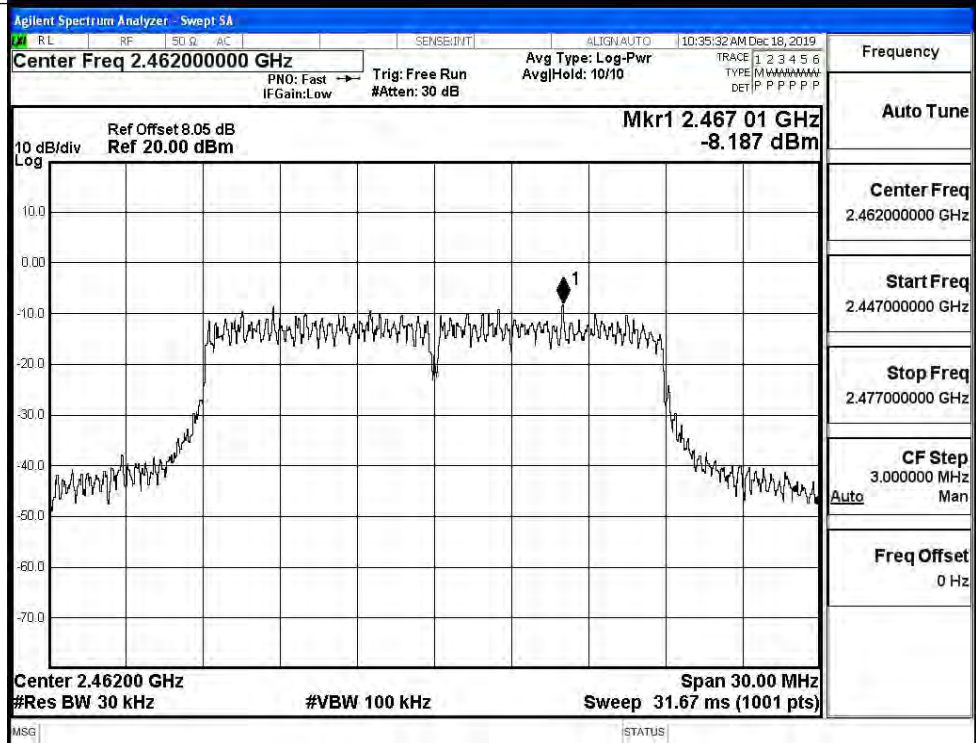
11N20SISO/LCH



11N20SISO/MCH



11N20SISO/HCH

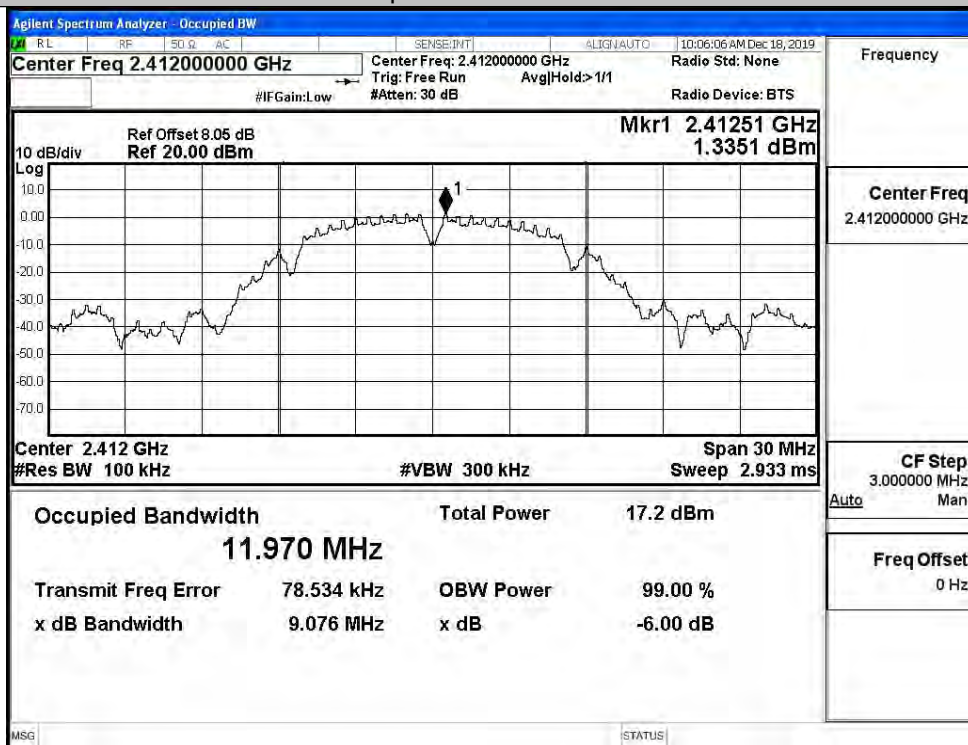


## C.4 6dB Bandwidth

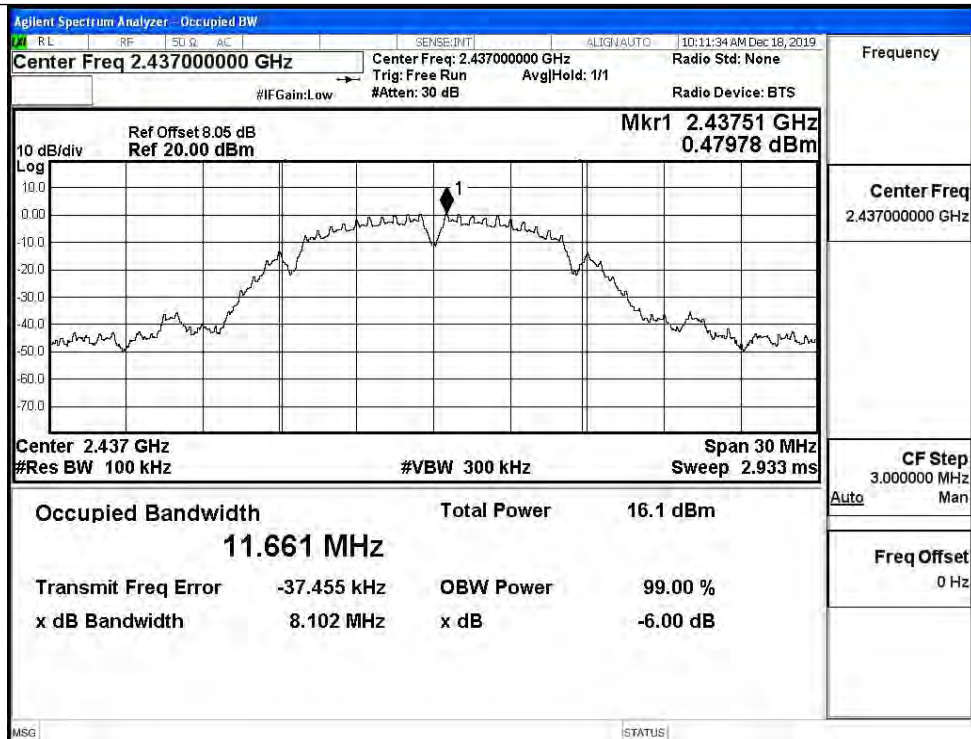
| Mode      | Channel | 6dB Bandwidth [MHz] | Limit [MHz] | Verdict |
|-----------|---------|---------------------|-------------|---------|
| 11B       | LCH     | 9.076               | $\geq 0.5$  | PASS    |
|           | MCH     | 8.102               | $\geq 0.5$  | PASS    |
|           | HCH     | 8.576               | $\geq 0.5$  | PASS    |
| 11G       | LCH     | 16.34               | $\geq 0.5$  | PASS    |
|           | MCH     | 16.35               | $\geq 0.5$  | PASS    |
|           | HCH     | 16.35               | $\geq 0.5$  | PASS    |
| 11N20SISO | LCH     | 16.70               | $\geq 0.5$  | PASS    |
|           | MCH     | 16.68               | $\geq 0.5$  | PASS    |
|           | HCH     | 16.95               | $\geq 0.5$  | PASS    |

## Test Graphs

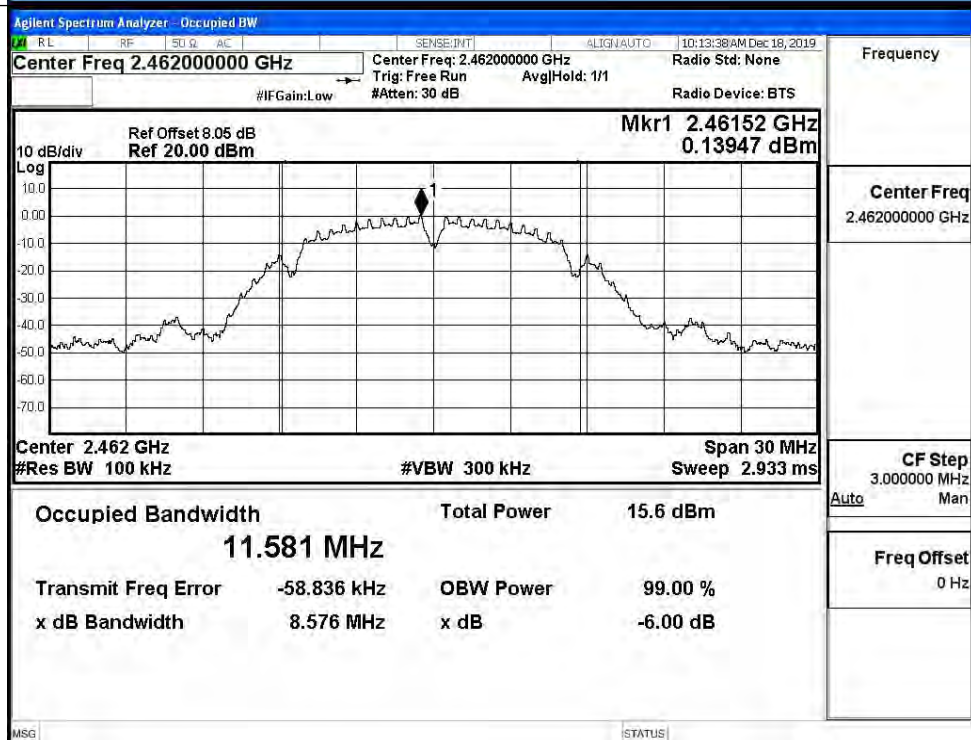
11B/LCH



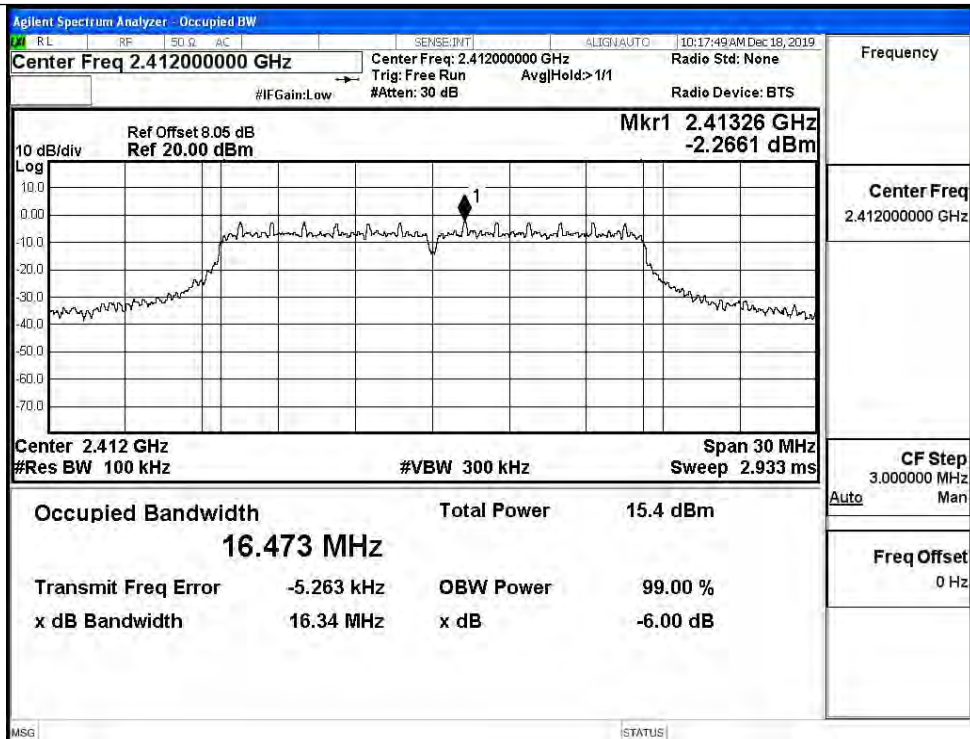
11B/MCH



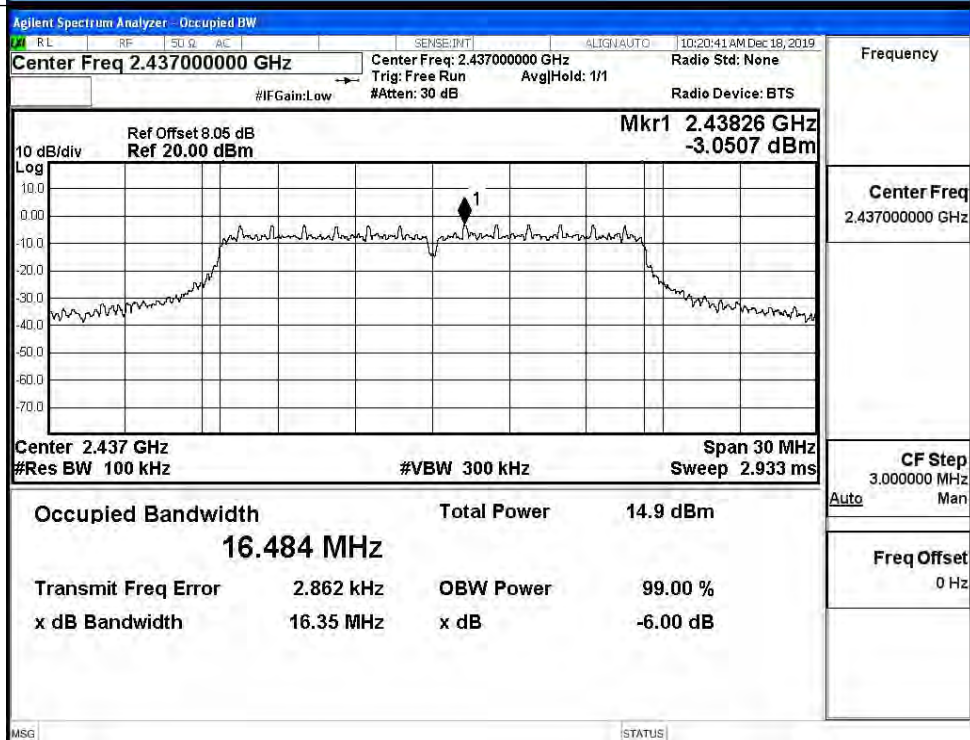
11B/HCH



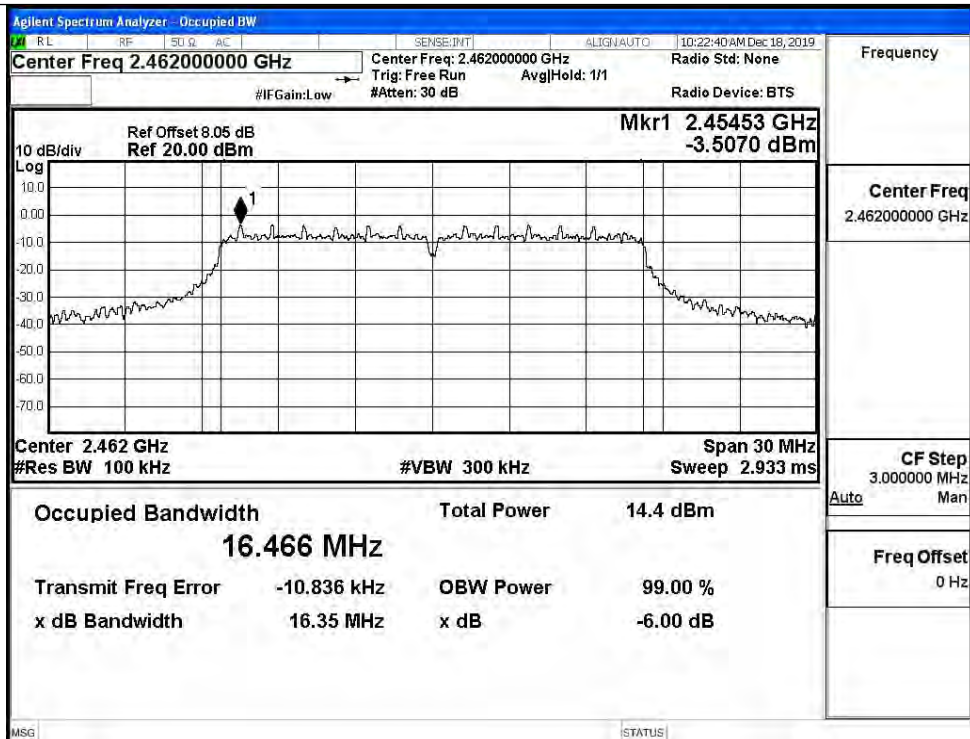
11G/LCH



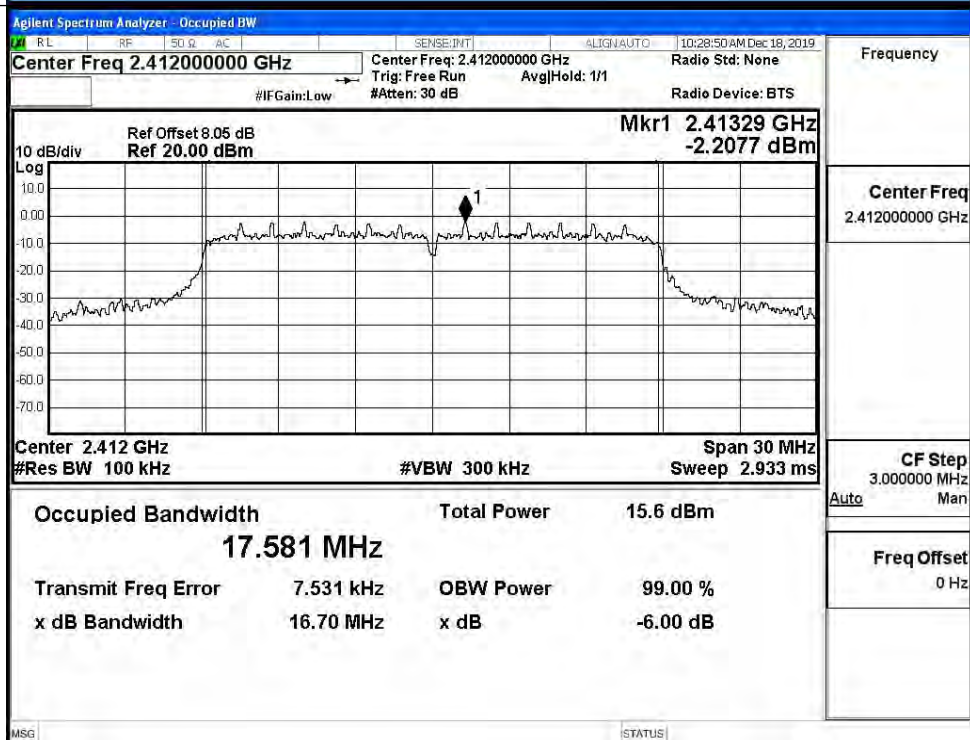
11G/MCH



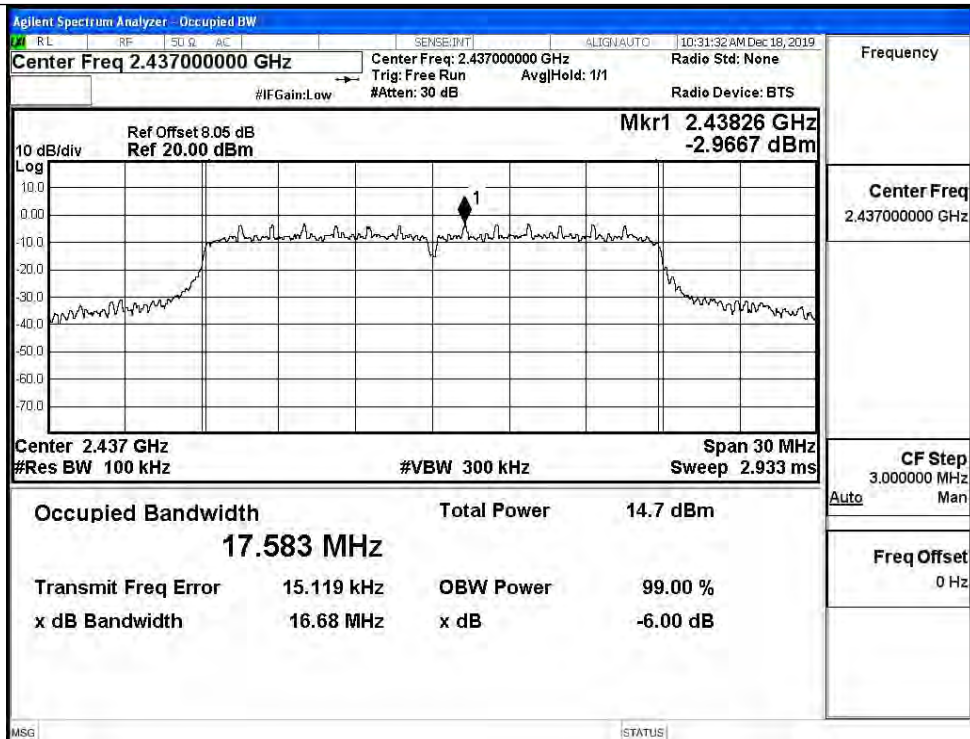
11G/HCH



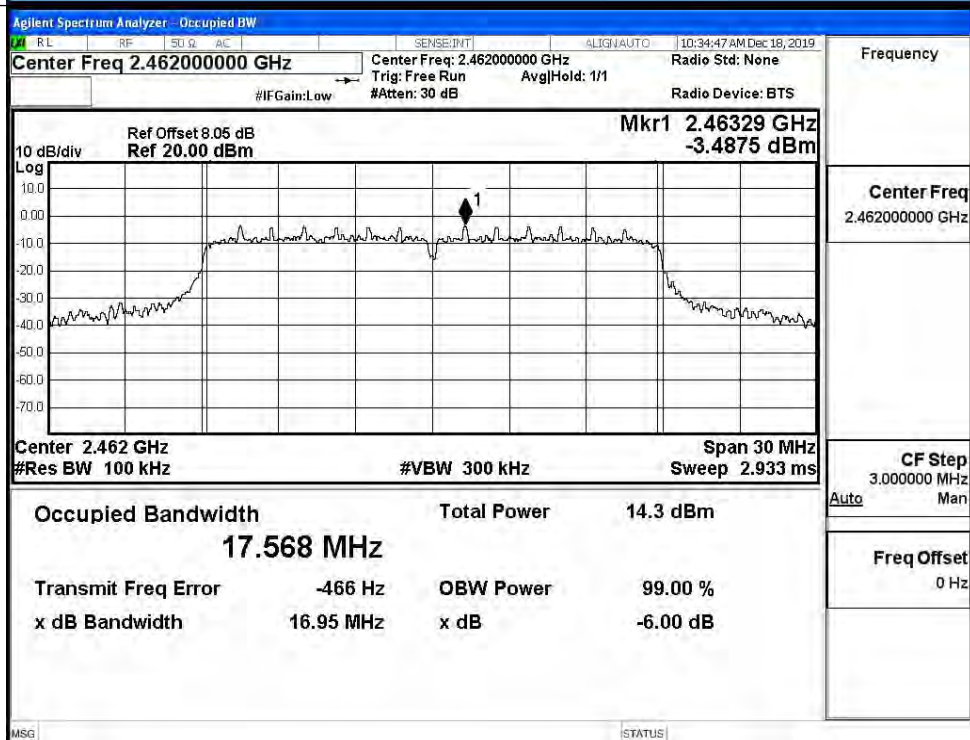
11N20SISO/LCH



11N20SISO/MCH



11N20SISO/HCH

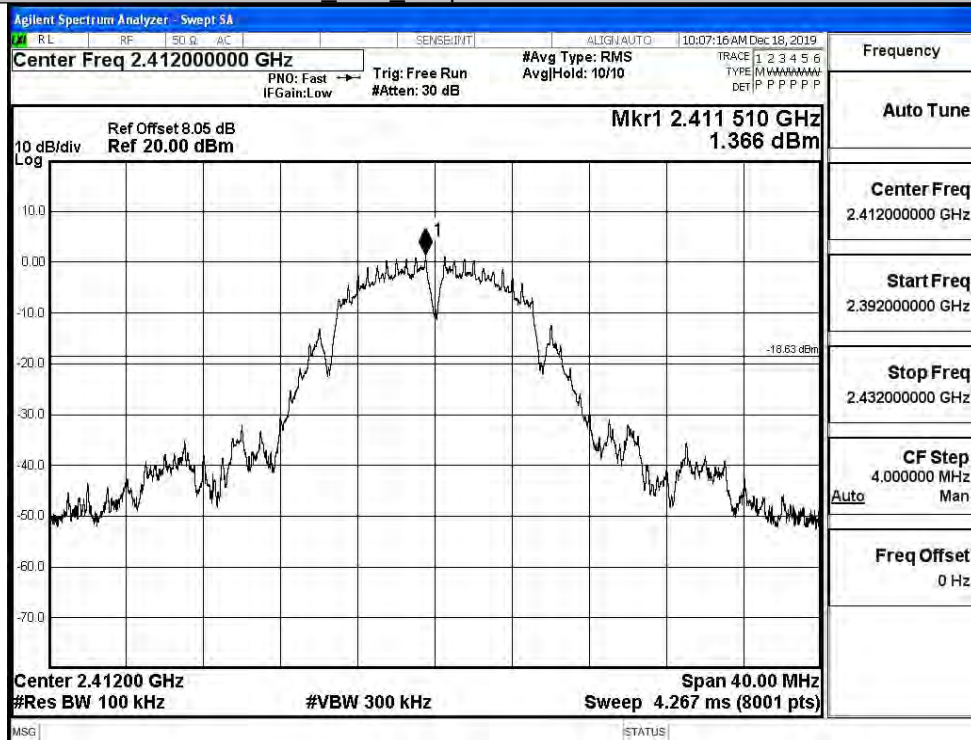


**C.5 RF Conducted Spurious Emissions**

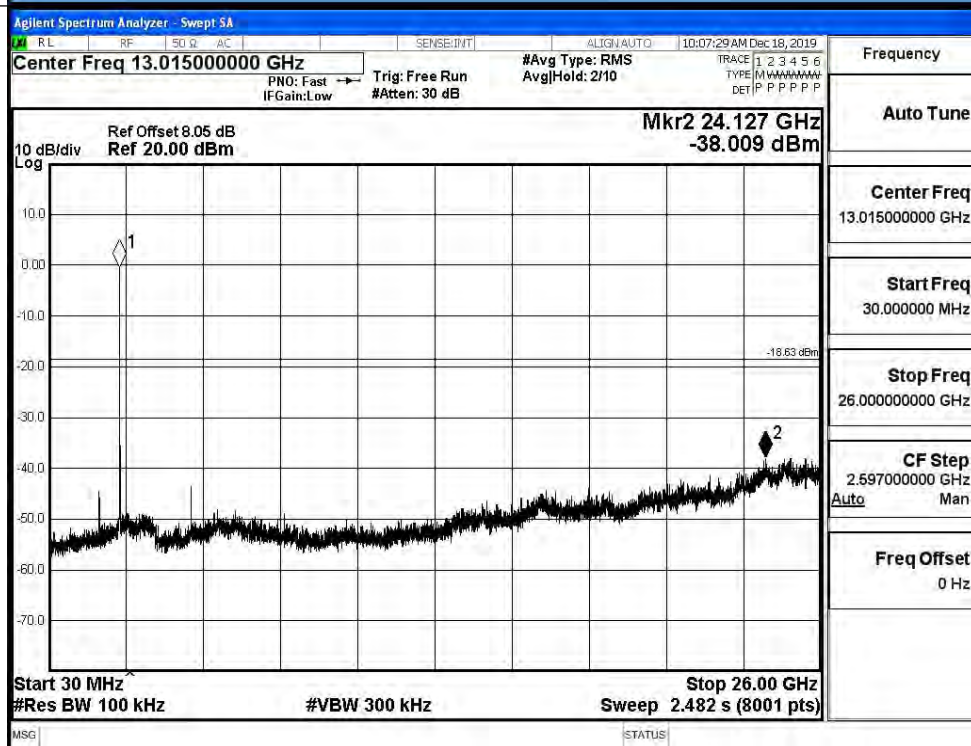
| Mode          | Channel | Pref [dBm] | Max. Level [dBm] | Limit [dBm] | Verdict |
|---------------|---------|------------|------------------|-------------|---------|
| 11B           | LCH     | 1.366      | -38.009          | -18.634     | PASS    |
|               | MCH     | 0.117      | -37.510          | -19.883     | PASS    |
|               | HCH     | -0.319     | -37.772          | -20.319     | PASS    |
| 11G           | LCH     | -2.445     | -37.515          | -22.445     | PASS    |
|               | MCH     | -3.271     | -37.320          | -23.271     | PASS    |
|               | HCH     | -3.459     | -37.710          | -23.459     | PASS    |
| 11N20<br>SISO | LCH     | -2.705     | -37.750          | -22.705     | PASS    |
|               | MCH     | -3.282     | -37.199          | -23.282     | PASS    |
|               | HCH     | -3.57      | -37.845          | -23.570     | PASS    |

## 11B LCH Graphs

Pref/11B/LCH

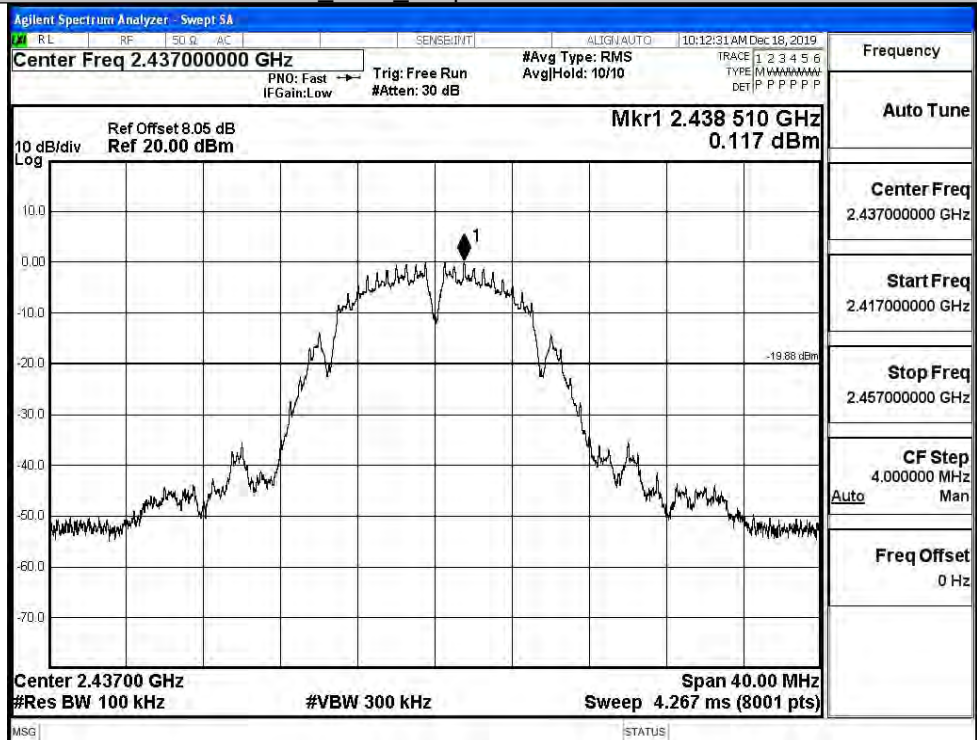


Puw/11B/LCH

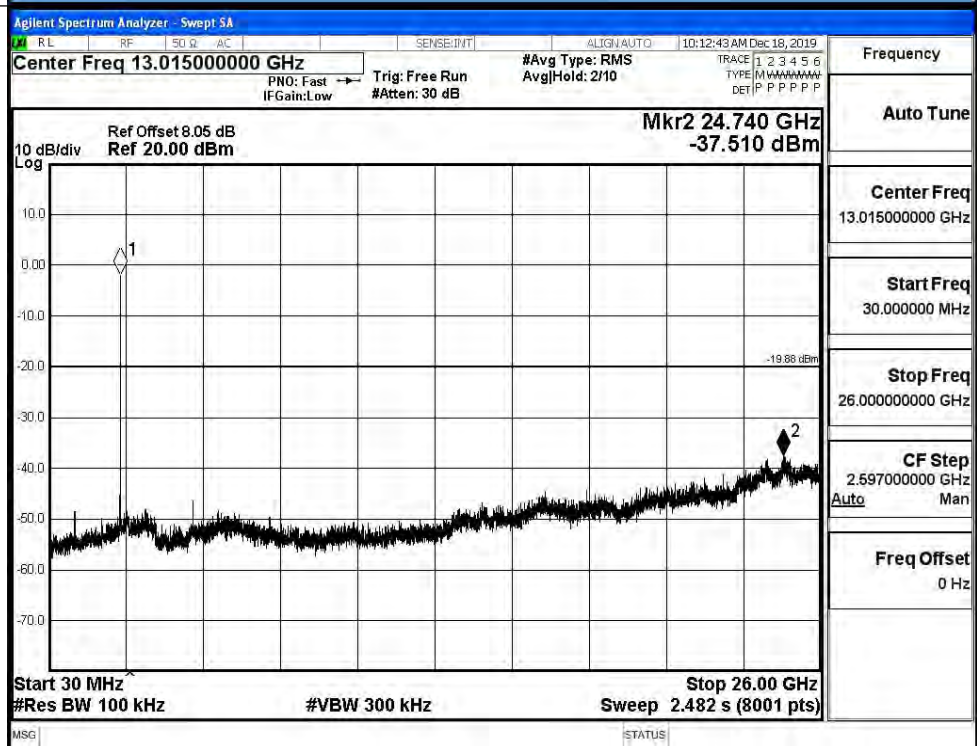


## 11B MCH Graphs

Pref/11B/MCH

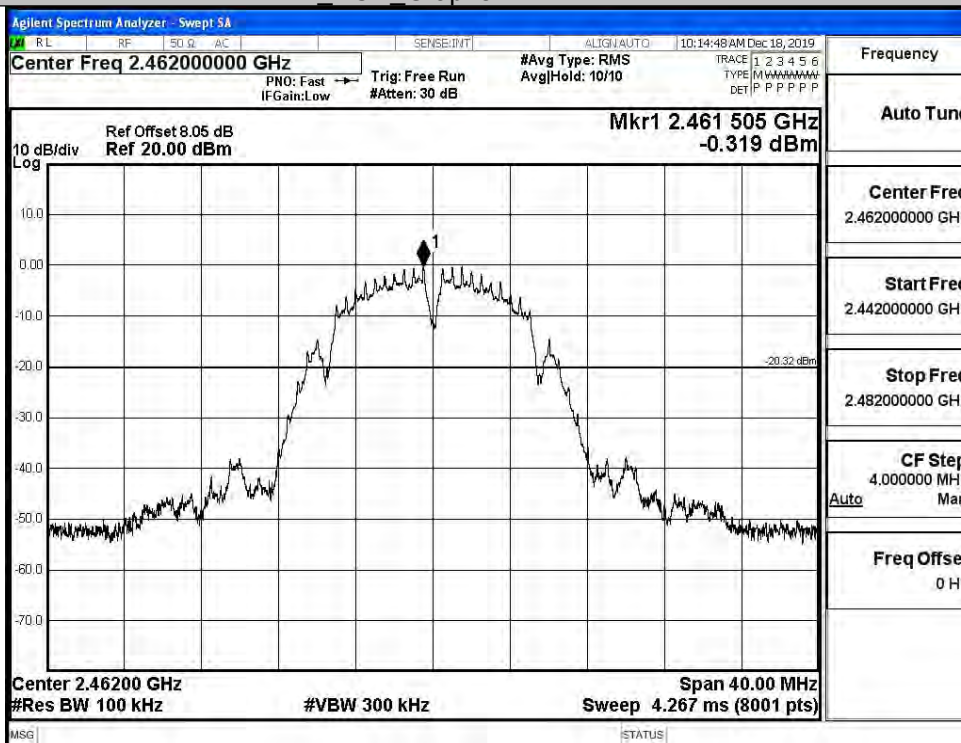


Puw/11B/MCH

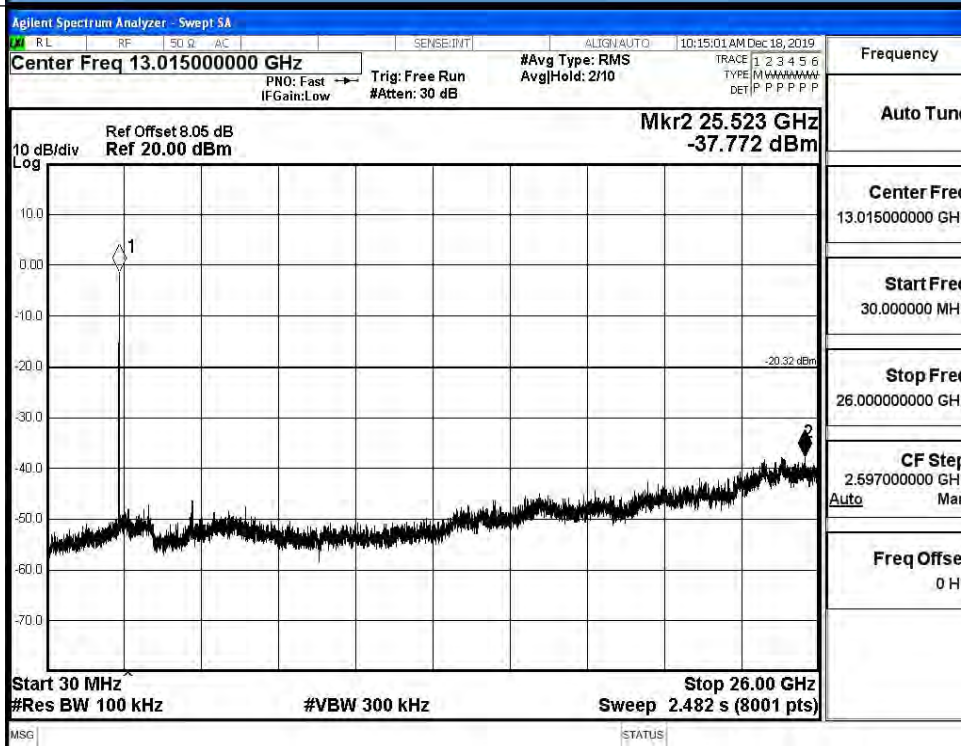


## 11B HCH Graphs

Pref/11B/HCH

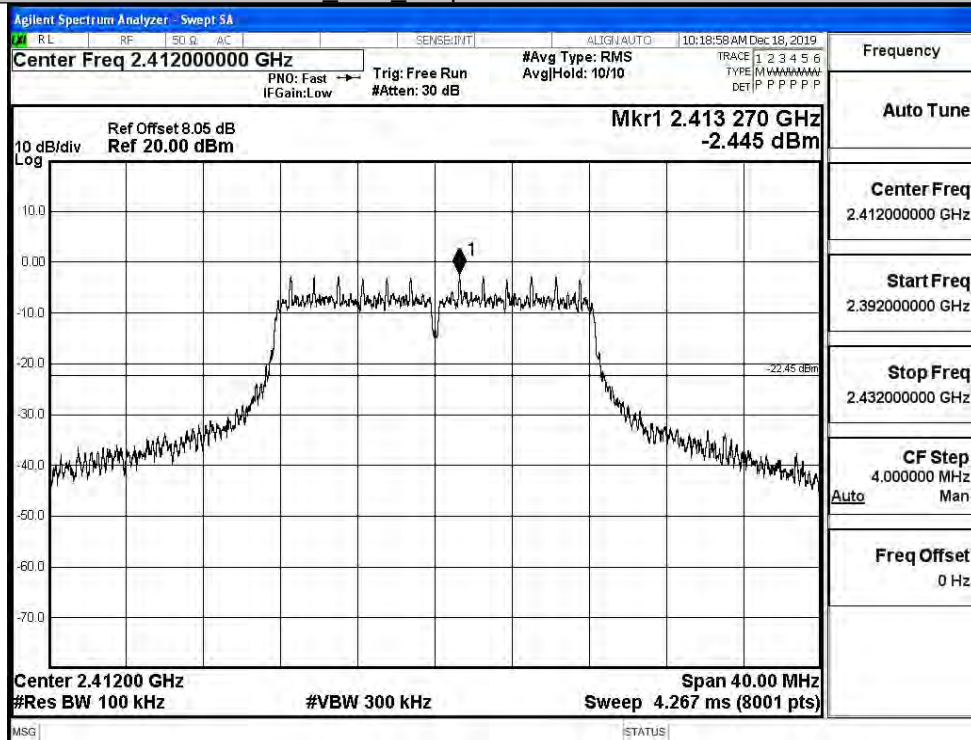


Puw/11B/HCH

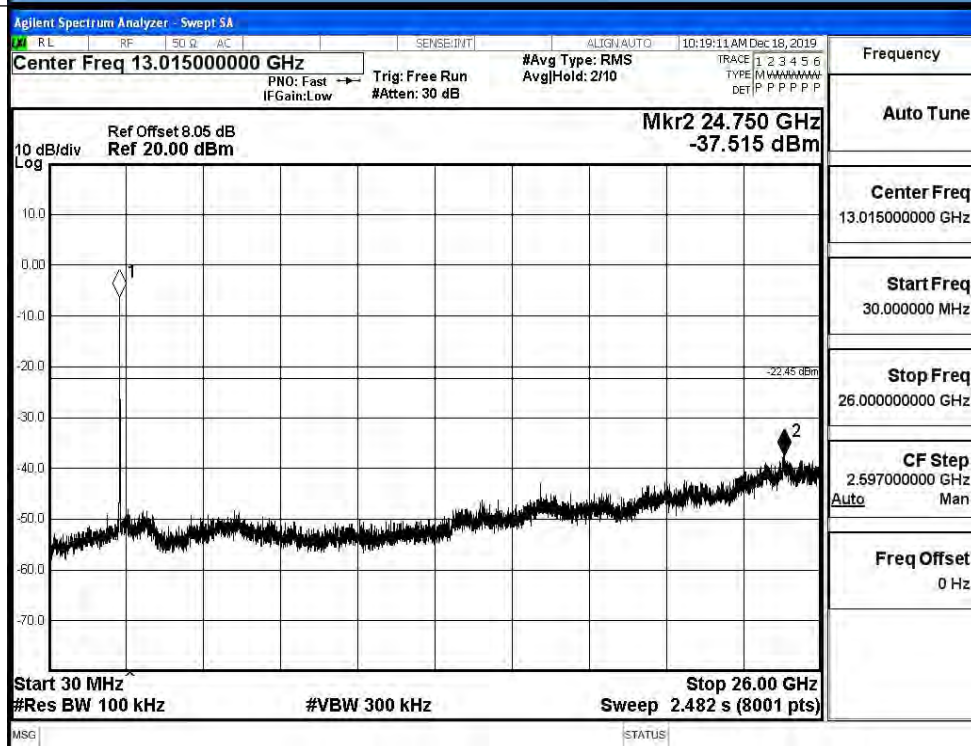


## 11G LCH Graphs

Pref/11G/LCH

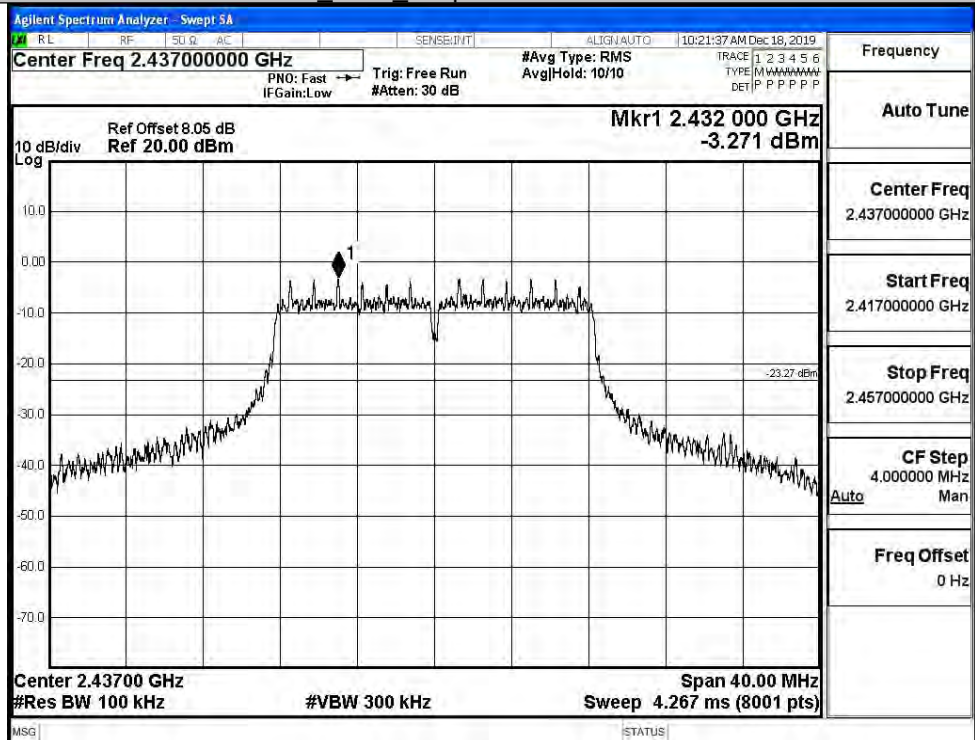


Puw/11G/LCH

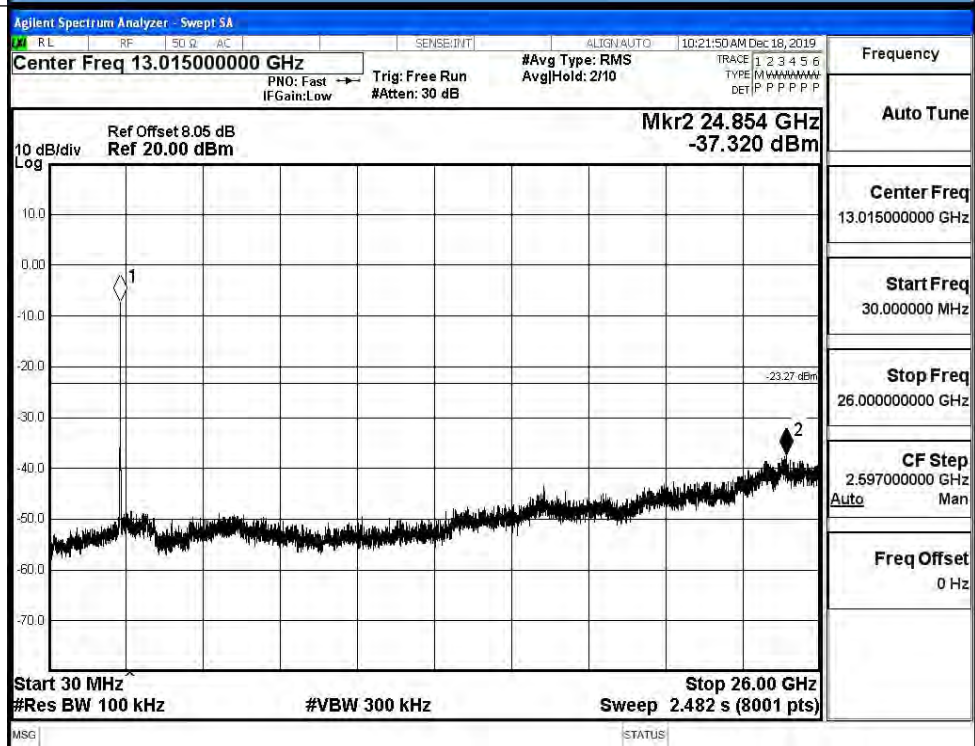


## 11G MCH Graphs

Pref/11G/MCH

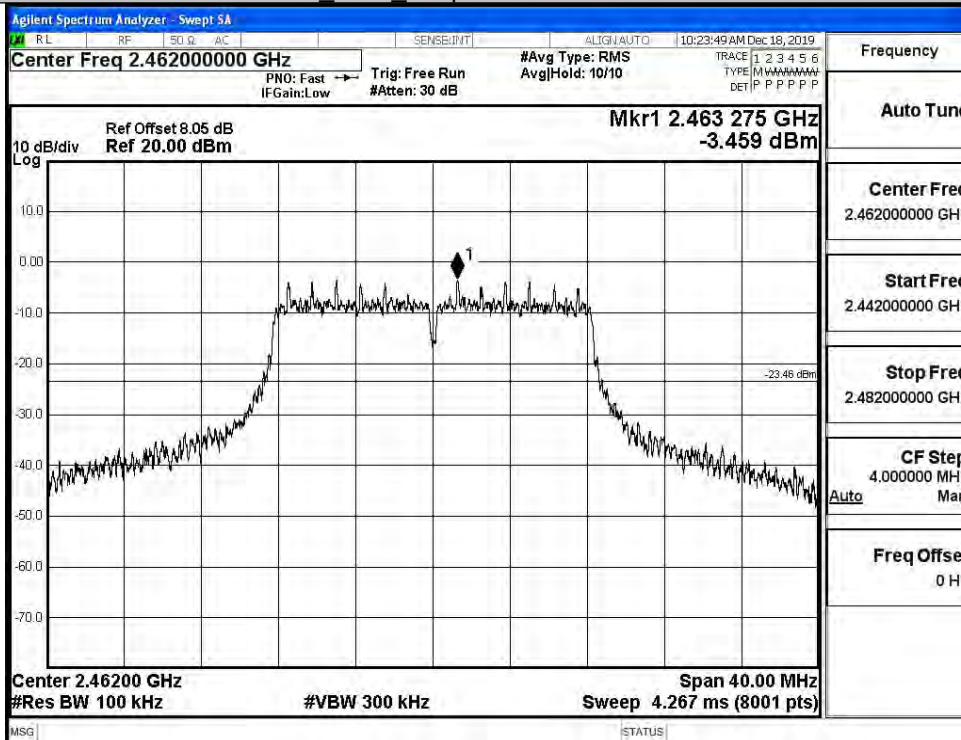


Puw/11G/MCH

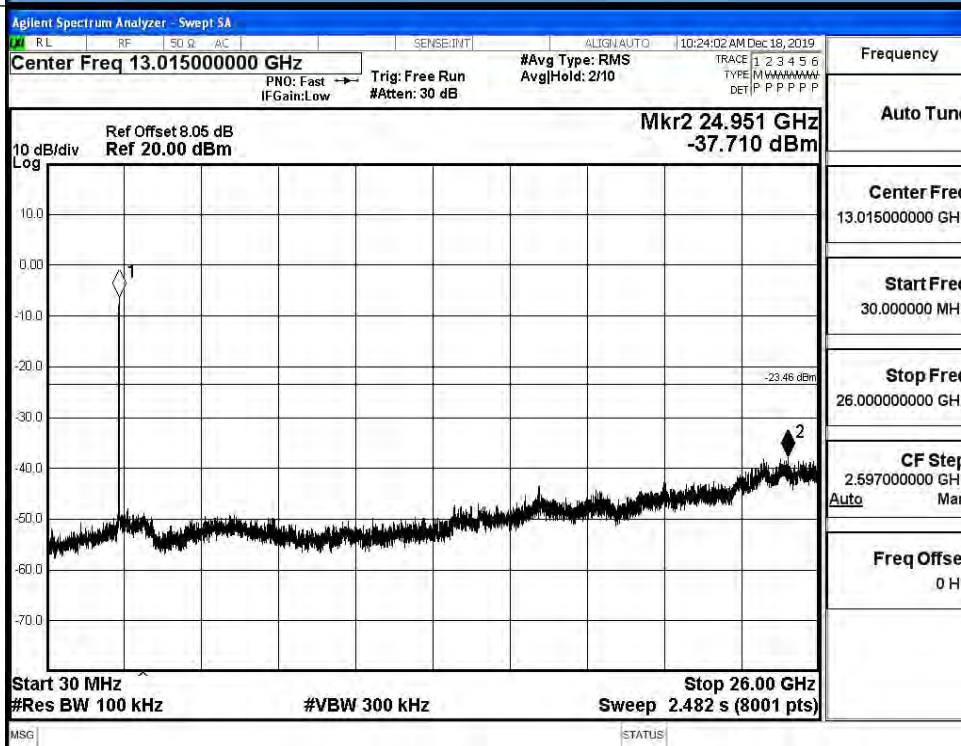


## 11G HCH Graphs

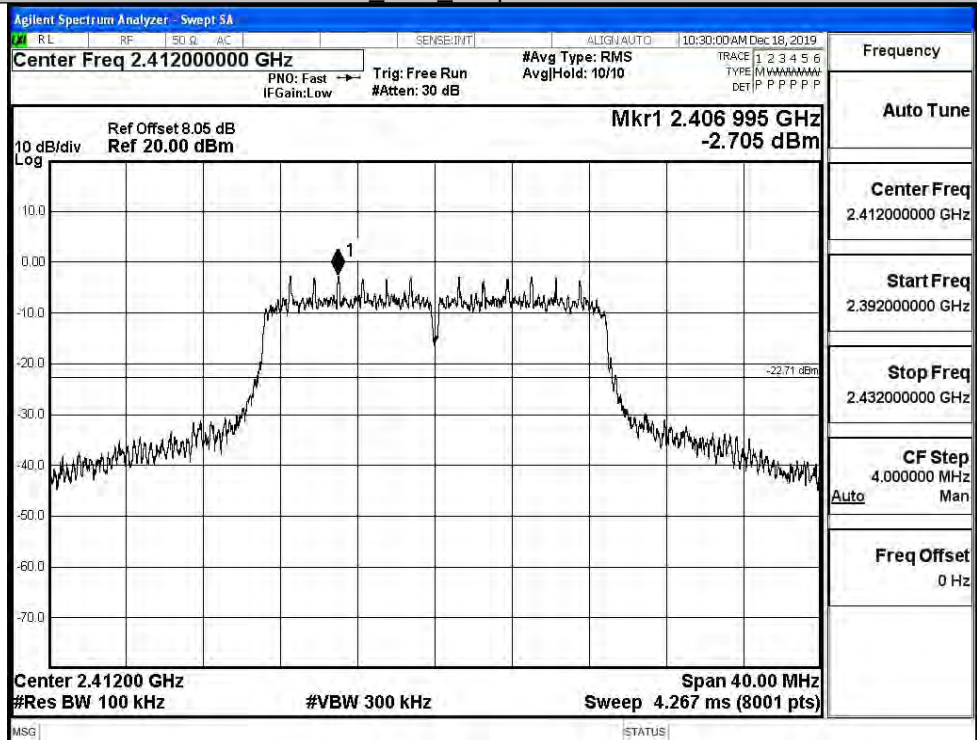
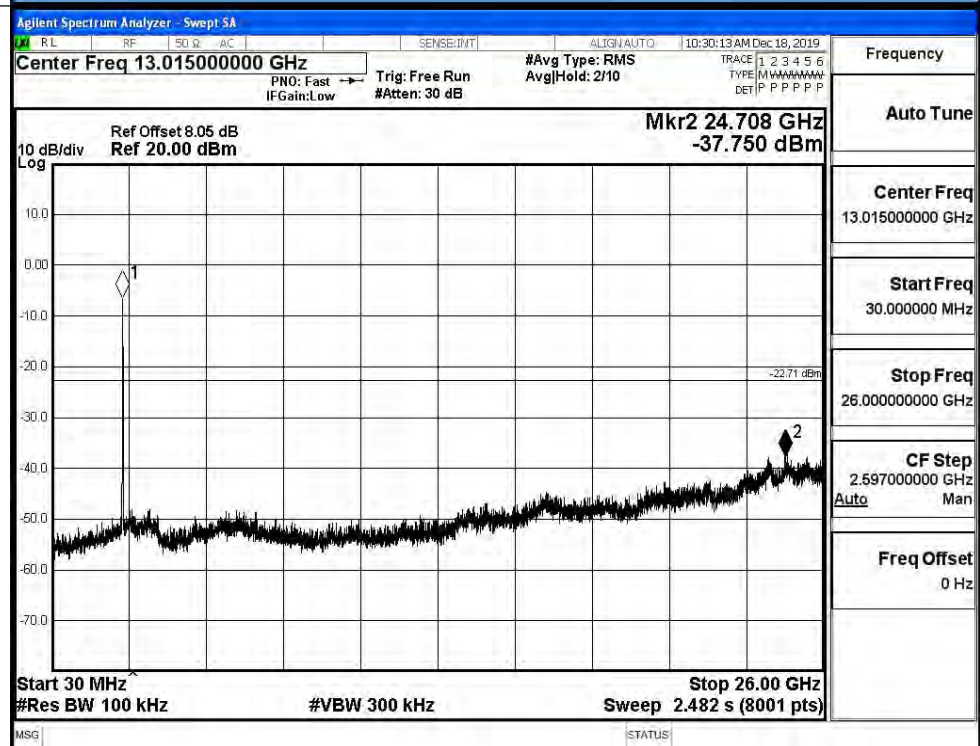
Pref/11G/HCH



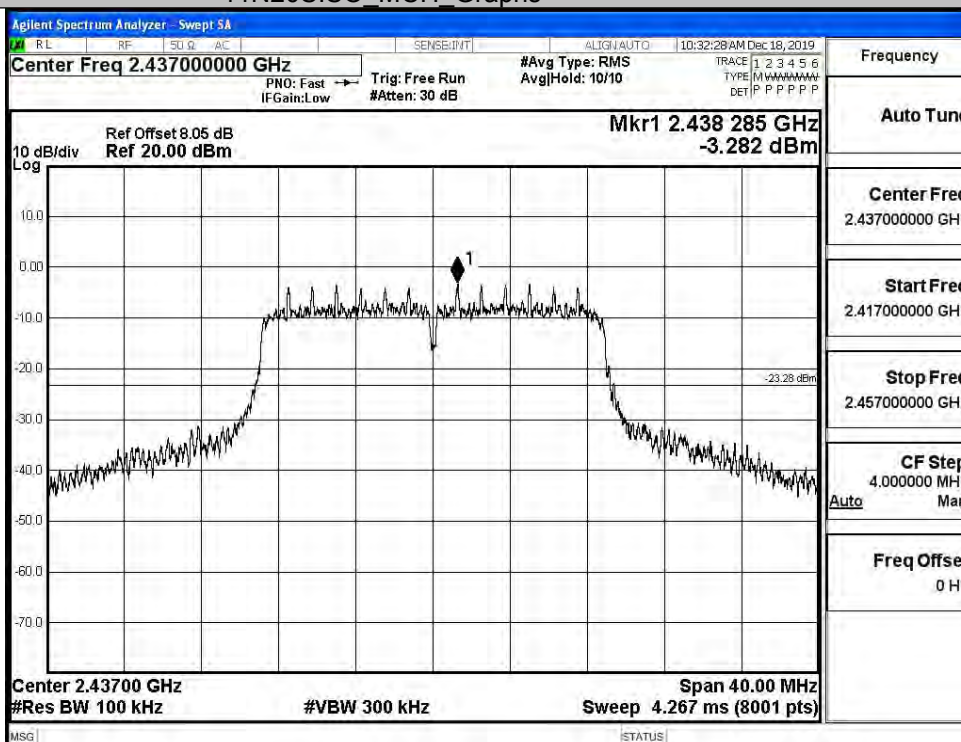
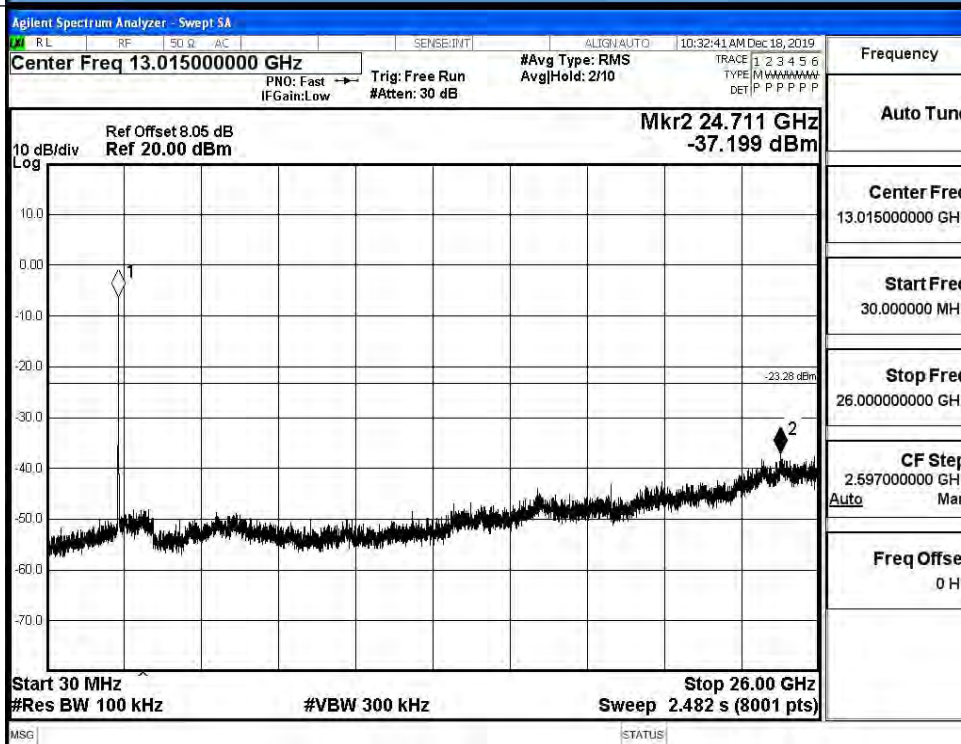
Puw/11G/HCH



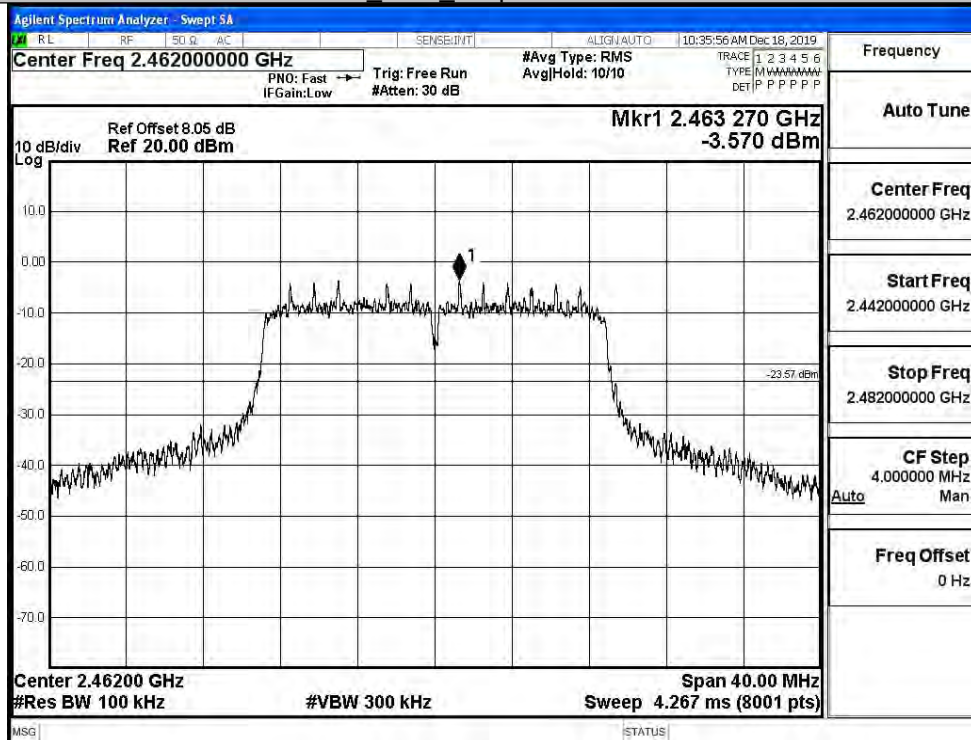
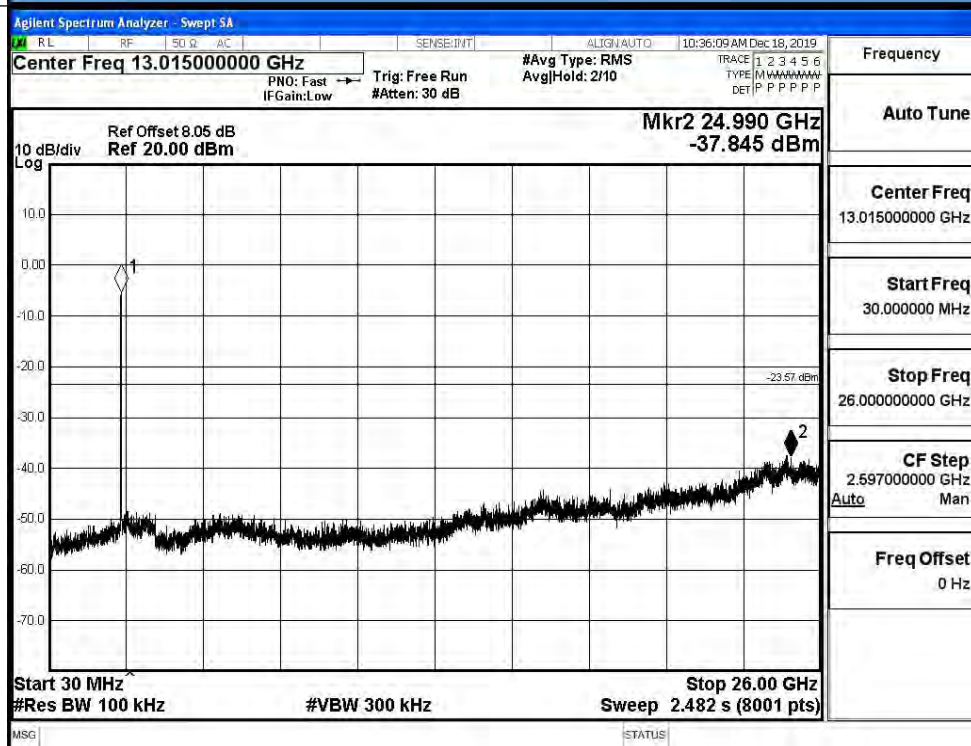
## 11N20SISO LCH Graphs

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

## 11N20SISO MCH\_Graphs

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

## 11N20SISO HCH Graphs

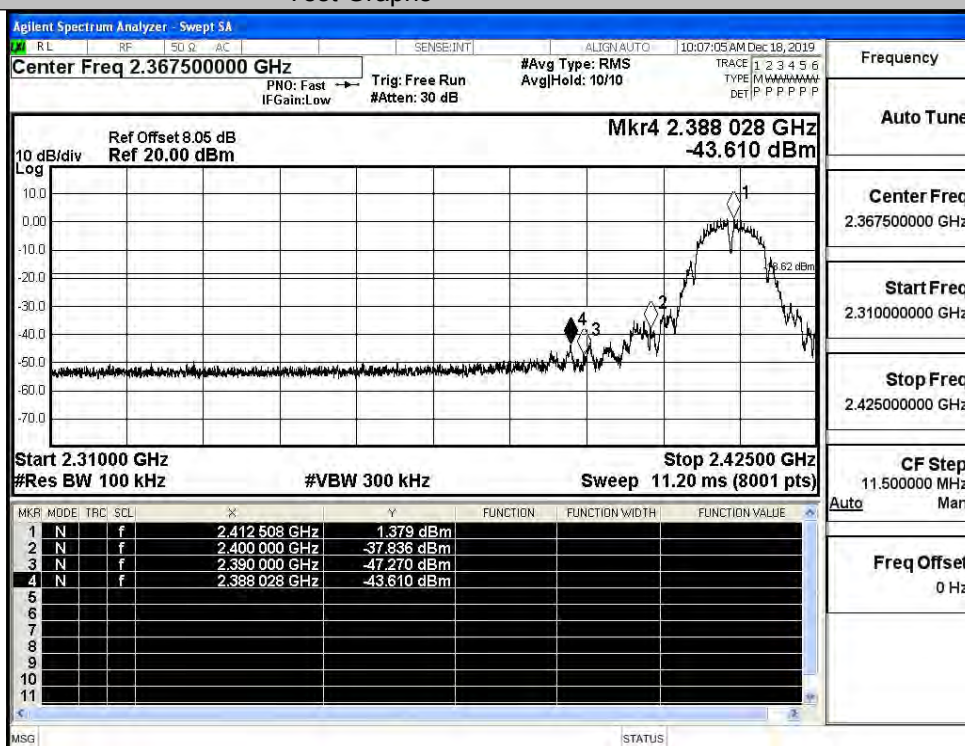
Pref/11N20  
SISO/HCHPuw/11N20  
SISO/HCH

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

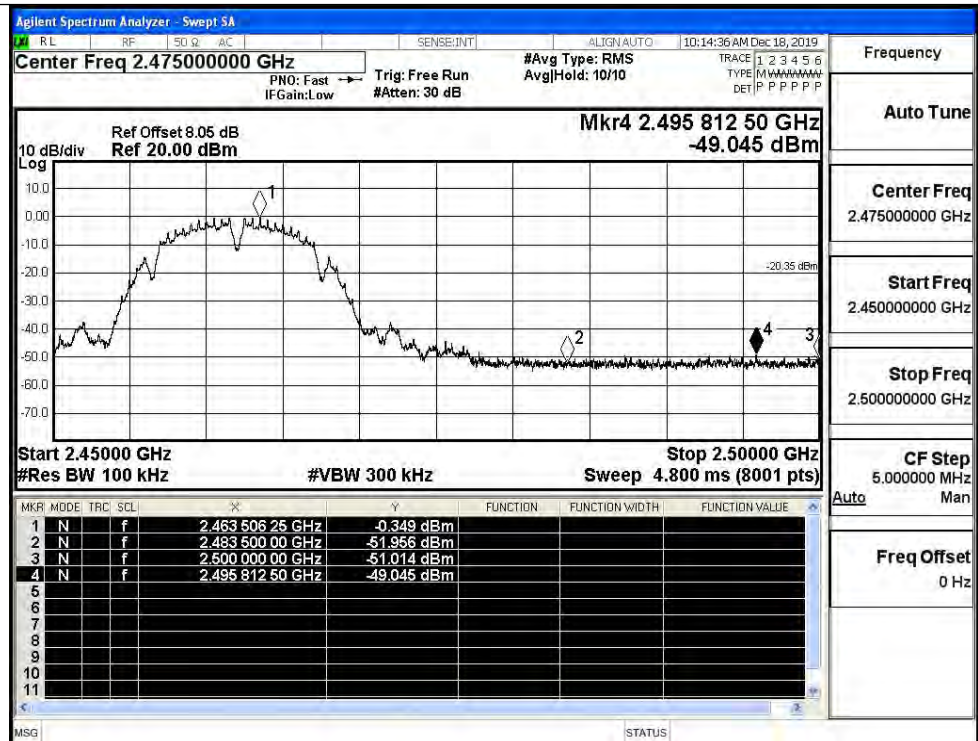
| Mode      | Channel | Carrier Power[dBm] | Max.Spurious Level [dBm] | Limit [dBm] | Verdict |
|-----------|---------|--------------------|--------------------------|-------------|---------|
| 11B       | LCH     | 1.379              | -43.610                  | -18.62      | PASS    |
|           | HCH     | -0.349             | -49.045                  | -20.35      | PASS    |
| 11G       | LCH     | -2.549             | -43.608                  | -22.55      | PASS    |
|           | HCH     | -3.345             | -44.124                  | -23.35      | PASS    |
| 11N20SISO | LCH     | -2.420             | -42.364                  | -22.42      | PASS    |
|           | HCH     | -3.459             | -44.669                  | -23.46      | PASS    |

**Test Graphs**

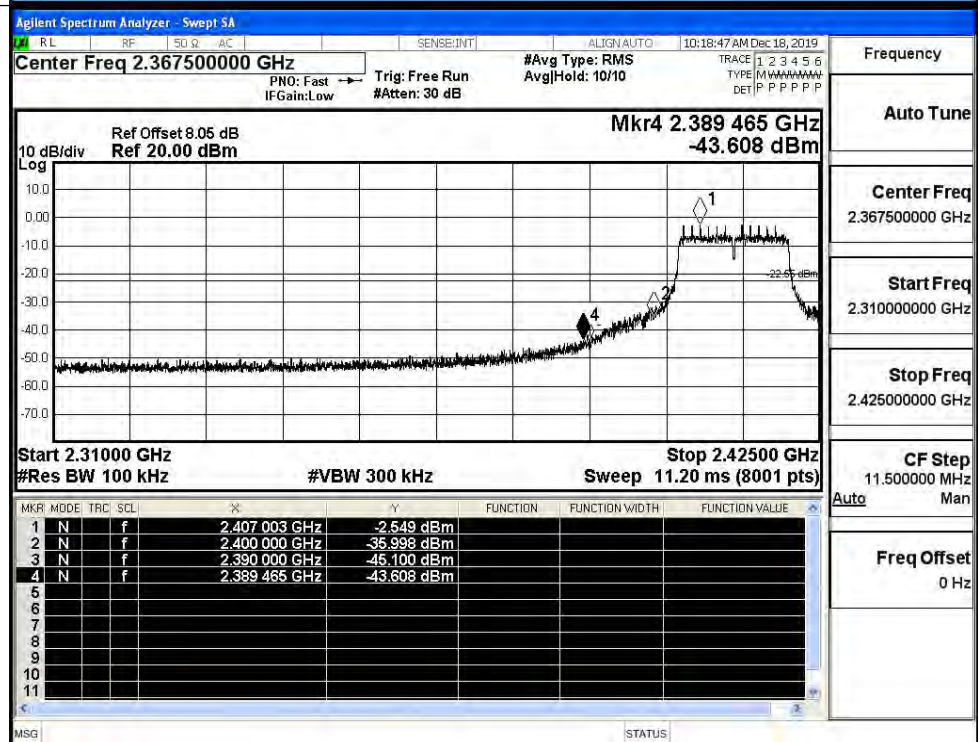
11B/LCH



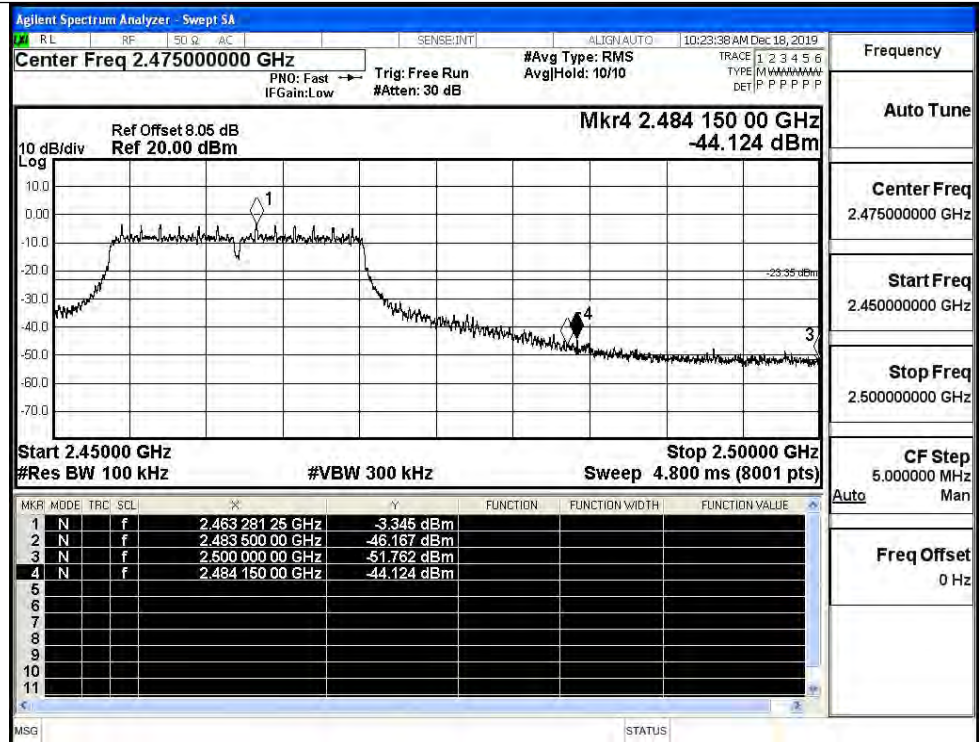
11B/HCH



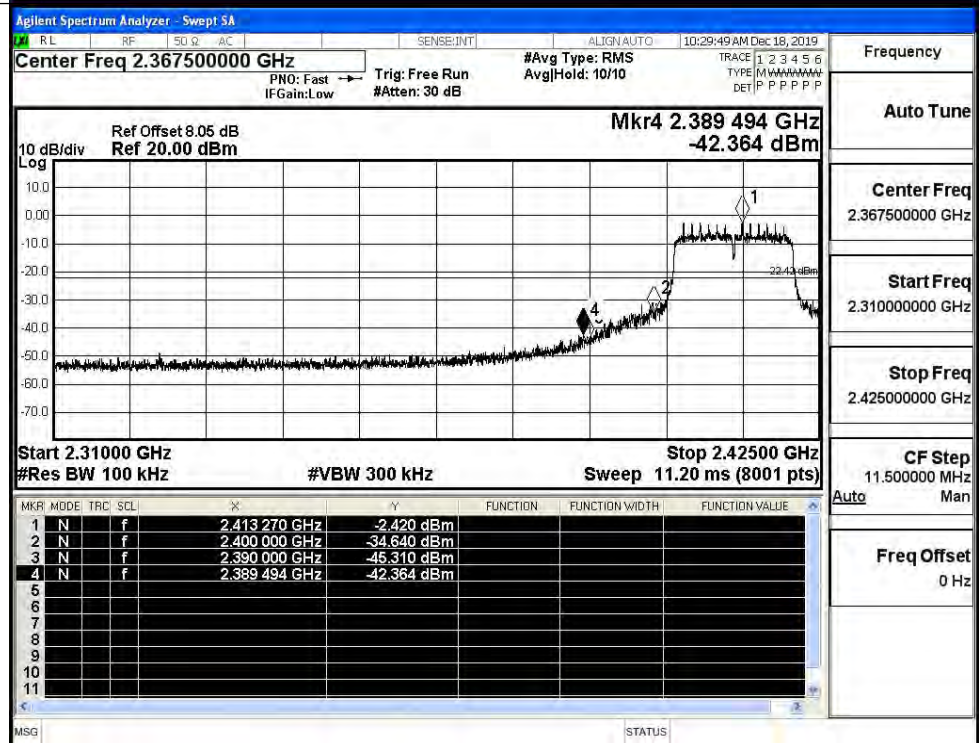
11G/LCH



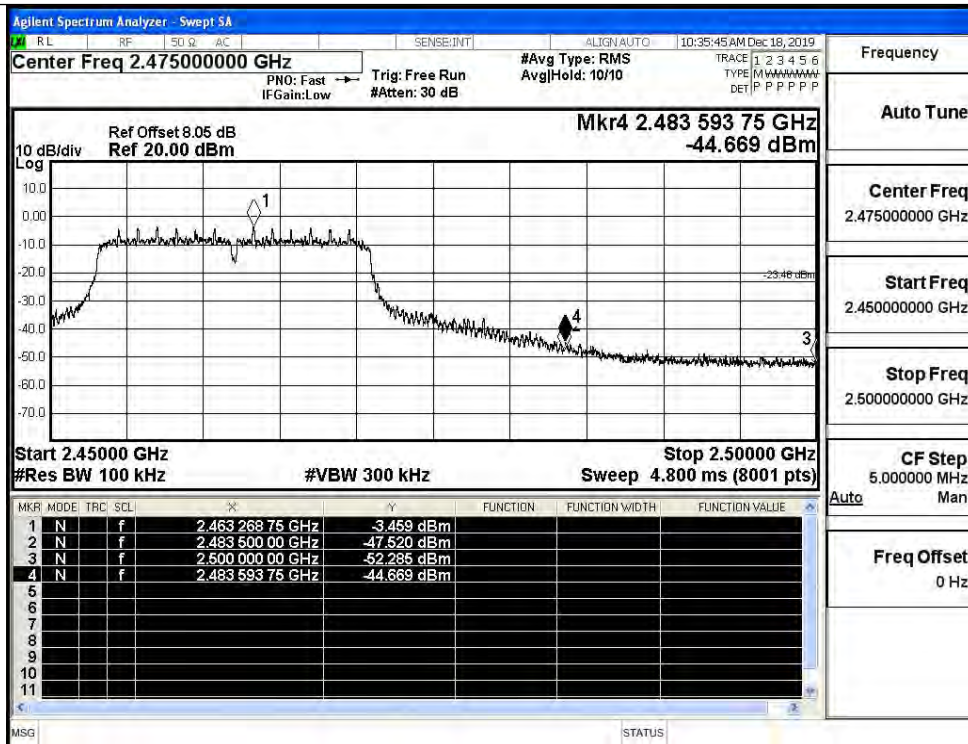
11G/HCH



11N20SISO/LCH



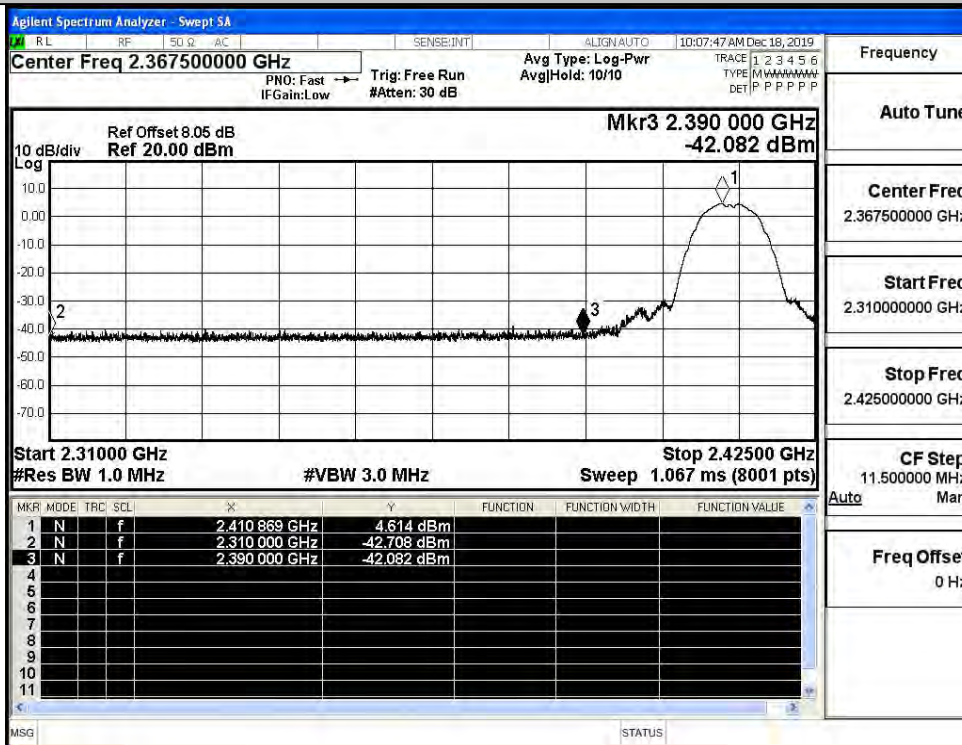
11N20SISO/HCH



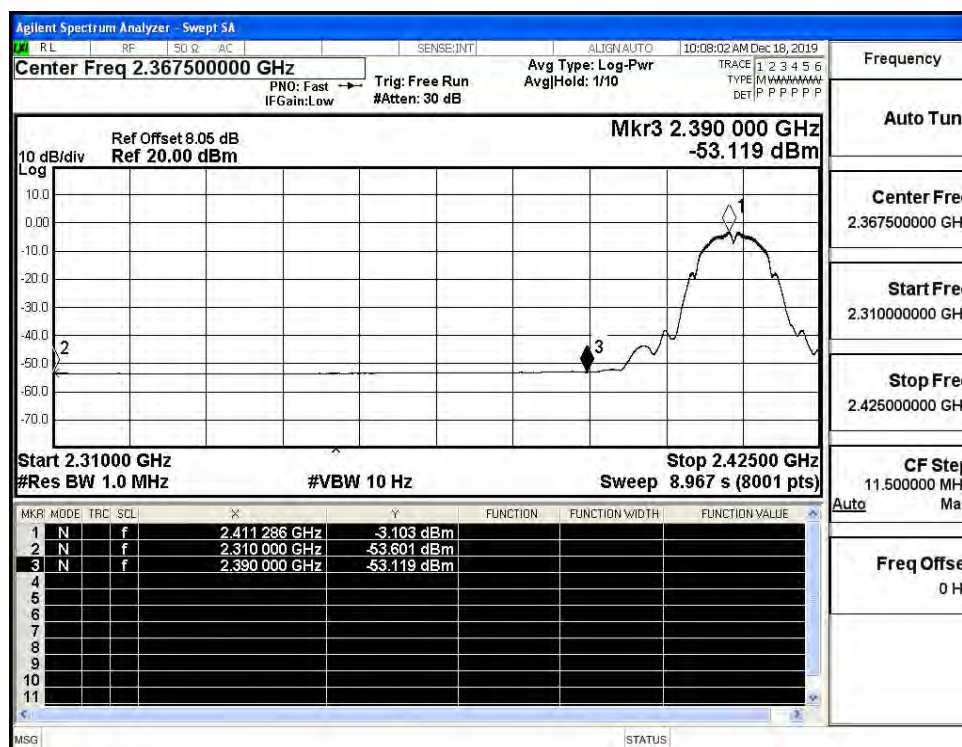
## C.7 Restrict-band band-edge measurements

| Test Mode     | Test Channel | Ant  | Freq.  | Power [dBm] | Gain | Ground Factor | E [dBuV/m] | Detector | Limit [dBuV/m] | Verdict |
|---------------|--------------|------|--------|-------------|------|---------------|------------|----------|----------------|---------|
| 11B           | 2412         | Ant1 | 2310.0 | -42.71      | 2.0  | 0             | 54.55      | PEAK     | 74             | PASS    |
|               | 2412         | Ant1 | 2310.0 | -53.60      | 2.0  | 0             | 43.66      | AV       | 54             | PASS    |
|               | 2412         | Ant1 | 2390.0 | -42.08      | 2.0  | 0             | 55.18      | PEAK     | 74             | PASS    |
|               | 2412         | Ant1 | 2390.0 | -53.12      | 2.0  | 0             | 44.14      | AV       | 54             | PASS    |
|               | 2462         | Ant1 | 2483.5 | -42.82      | 2.0  | 0             | 54.44      | PEAK     | 74             | PASS    |
|               | 2462         | Ant1 | 2483.5 | -52.72      | 2.0  | 0             | 44.54      | AV       | 54             | PASS    |
|               | 2462         | Ant1 | 2500.0 | -42.15      | 2.0  | 0             | 55.11      | PEAK     | 74             | PASS    |
|               | 2462         | Ant1 | 2500.0 | -52.56      | 2.0  | 0             | 44.70      | AV       | 54             | PASS    |
| 11G           | 2412         | Ant1 | 2310.0 | -43.11      | 2.0  | 0             | 54.15      | PEAK     | 74             | PASS    |
|               | 2412         | Ant1 | 2310.0 | -53.58      | 2.0  | 0             | 43.68      | AV       | 54             | PASS    |
|               | 2412         | Ant1 | 2390.0 | -29.74      | 2.0  | 0             | 67.52      | PEAK     | 74             | PASS    |
|               | 2412         | Ant1 | 2390.0 | -46.82      | 2.0  | 0             | 50.43      | AV       | 54             | PASS    |
|               | 2462         | Ant1 | 2483.5 | -33.58      | 2.0  | 0             | 63.68      | PEAK     | 74             | PASS    |
|               | 2462         | Ant1 | 2483.5 | -48.62      | 2.0  | 0             | 48.64      | AV       | 54             | PASS    |
|               | 2462         | Ant1 | 2500.0 | -41.92      | 2.0  | 0             | 55.33      | PEAK     | 74             | PASS    |
|               | 2462         | Ant1 | 2500.0 | -52.26      | 2.0  | 0             | 45.00      | AV       | 54             | PASS    |
| 11N20<br>SISO | 2412         | Ant1 | 2310.0 | -41.76      | 2.0  | 0             | 55.50      | PEAK     | 74             | PASS    |
|               | 2412         | Ant1 | 2310.0 | -53.59      | 2.0  | 0             | 43.67      | AV       | 54             | PASS    |
|               | 2412         | Ant1 | 2390.0 | -28.82      | 2.0  | 0             | 68.44      | PEAK     | 74             | PASS    |
|               | 2412         | Ant1 | 2390.0 | -46.60      | 2.0  | 0             | 50.65      | AV       | 54             | PASS    |
|               | 2462         | Ant1 | 2483.5 | -34.19      | 2.0  | 0             | 63.06      | PEAK     | 74             | PASS    |
|               | 2462         | Ant1 | 2483.5 | -48.08      | 2.0  | 0             | 49.18      | AV       | 54             | PASS    |
|               | 2462         | Ant1 | 2500.0 | -41.73      | 2.0  | 0             | 55.53      | PEAK     | 74             | PASS    |
|               | 2462         | Ant1 | 2500.0 | -52.33      | 2.0  | 0             | 44.93      | AV       | 54             | PASS    |

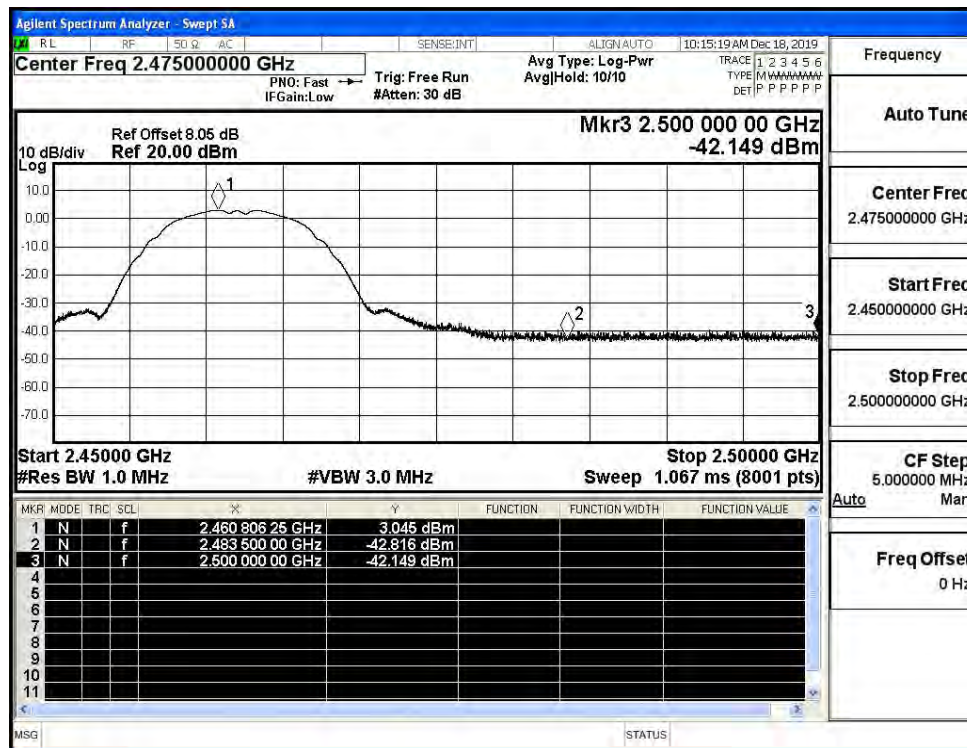
## Restrict-band band-edge measurements\_11B\_2412\_Ant1\_PEAK



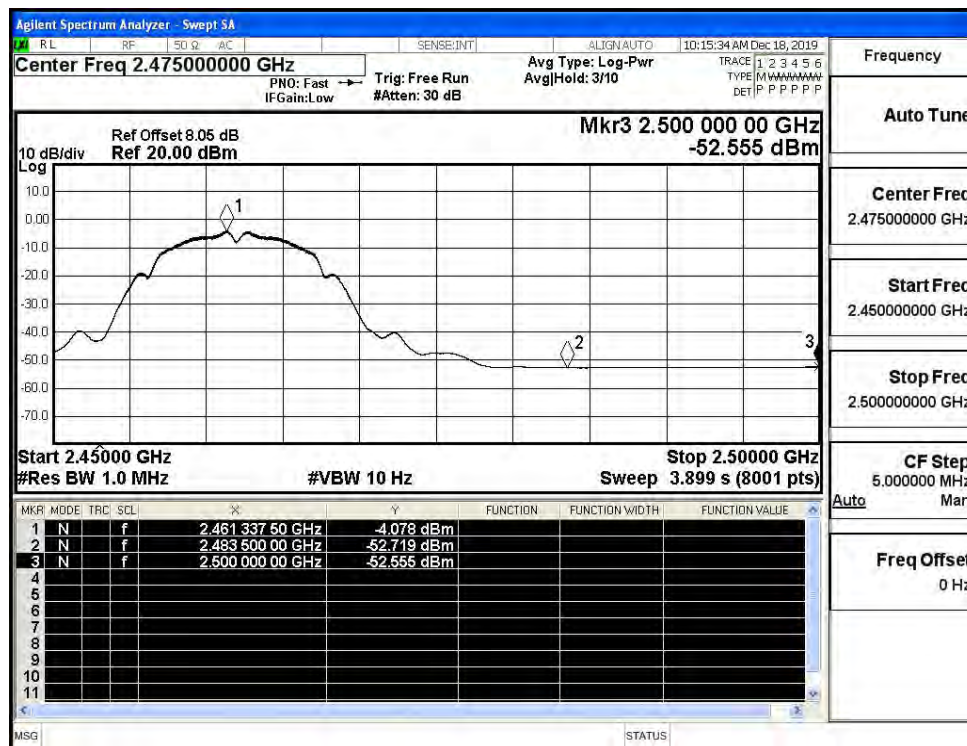
## Restrict-band band-edge measurements\_11B\_2412\_Ant1\_AV



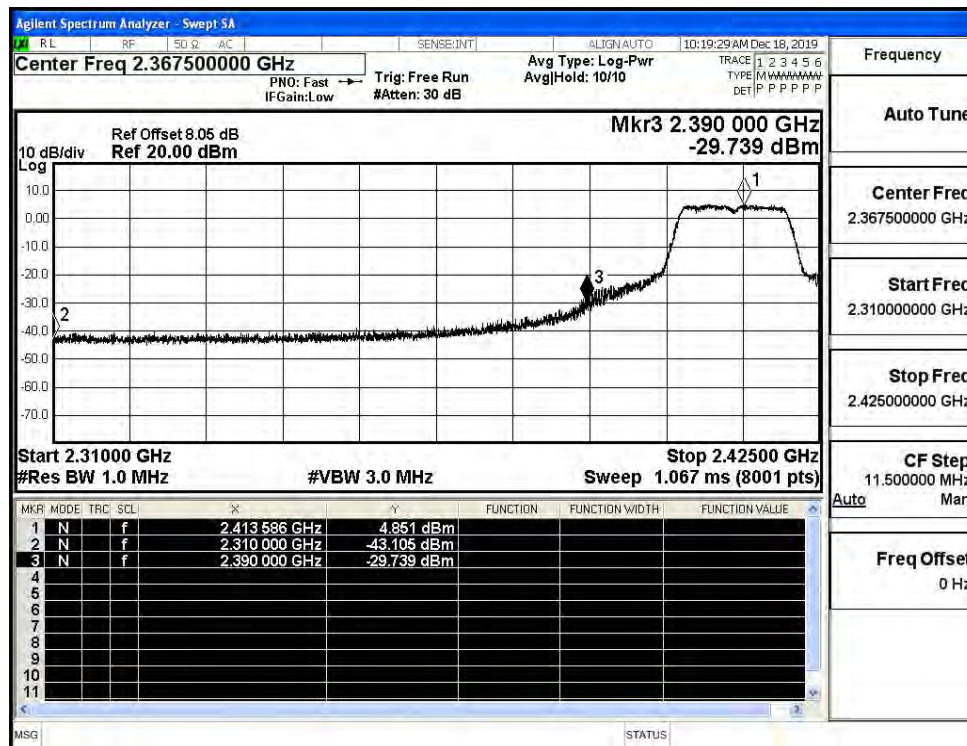
## Restrict-band band-edge measurements\_11B\_2462\_Ant1\_PEAK



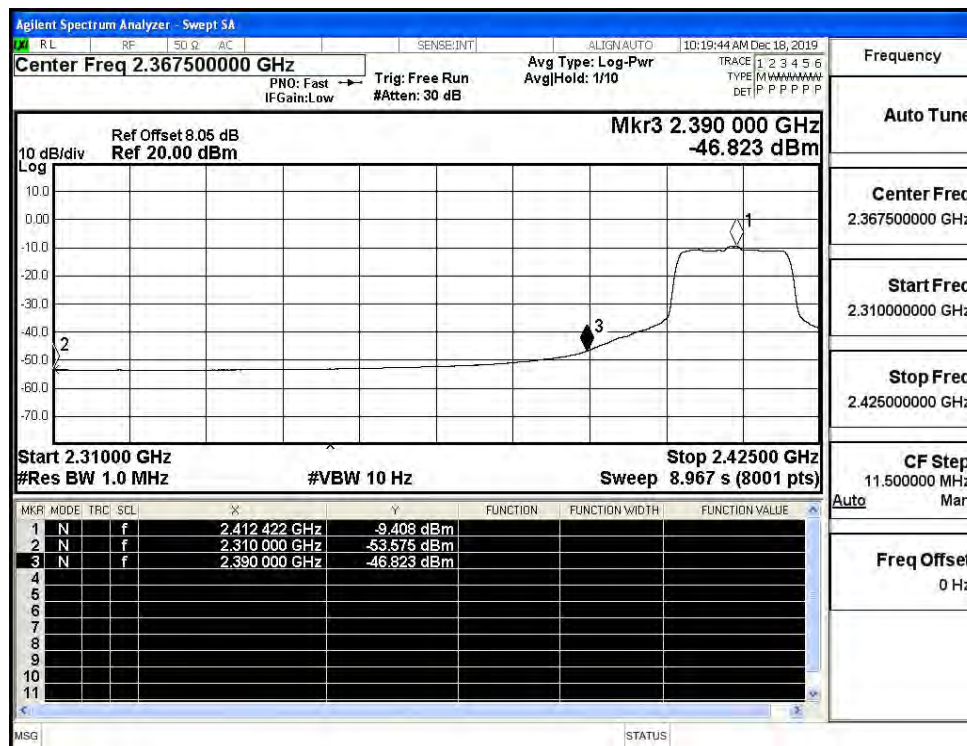
## Restrict-band band-edge measurements\_11B\_2462\_Ant1\_AV



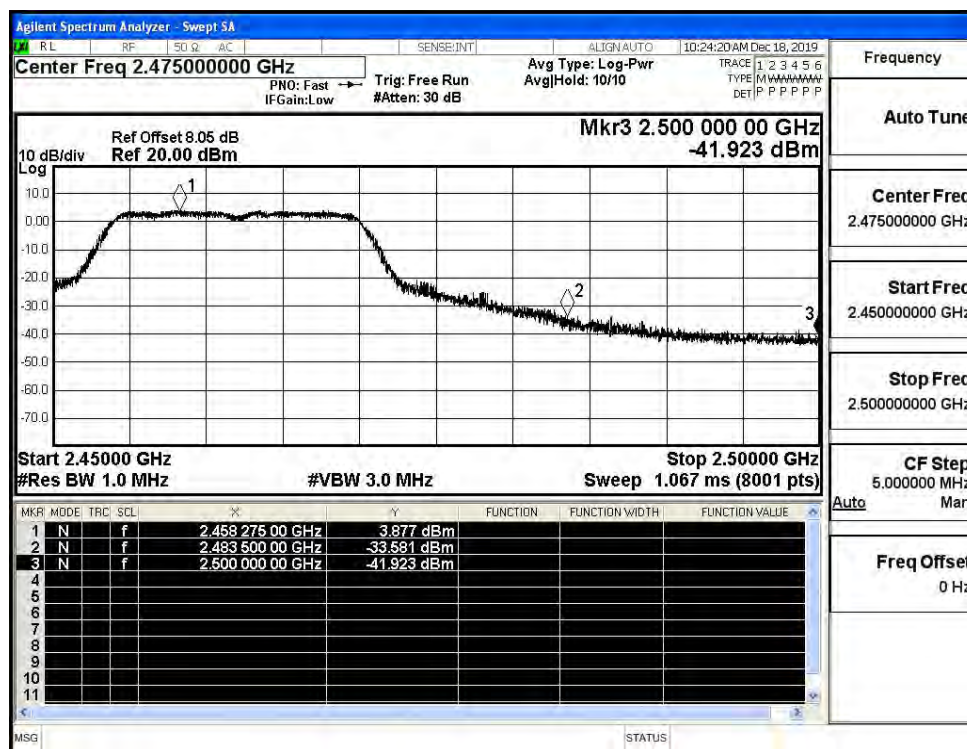
## Restrict-band band-edge measurements\_11G\_2412\_Ant1\_PEAK



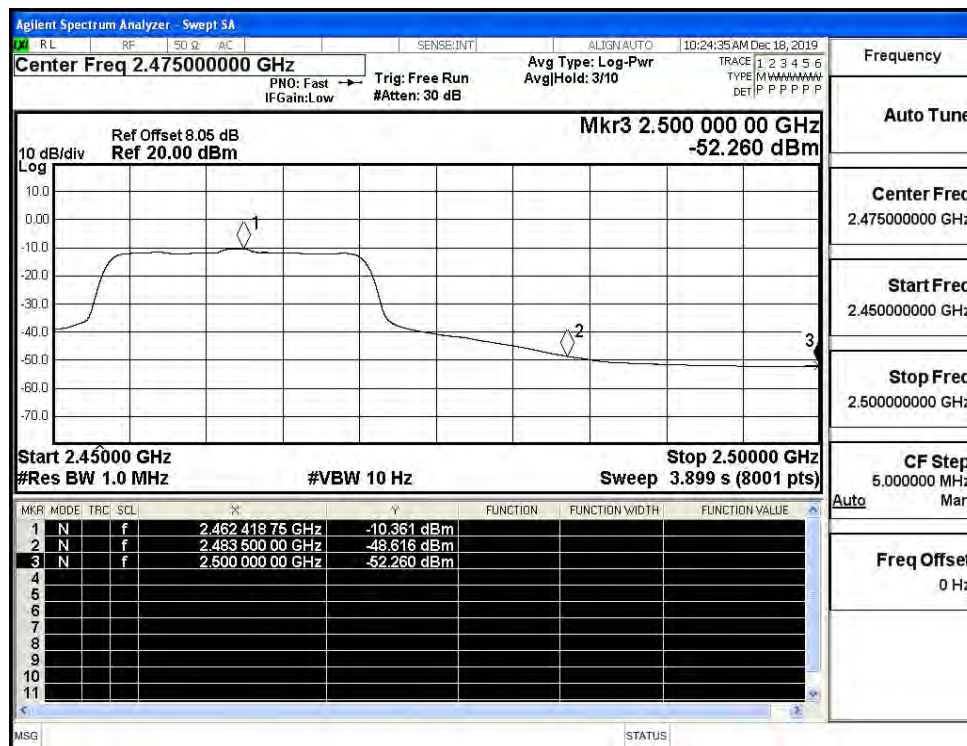
## Restrict-band band-edge measurements\_11G\_2412\_Ant1\_AV



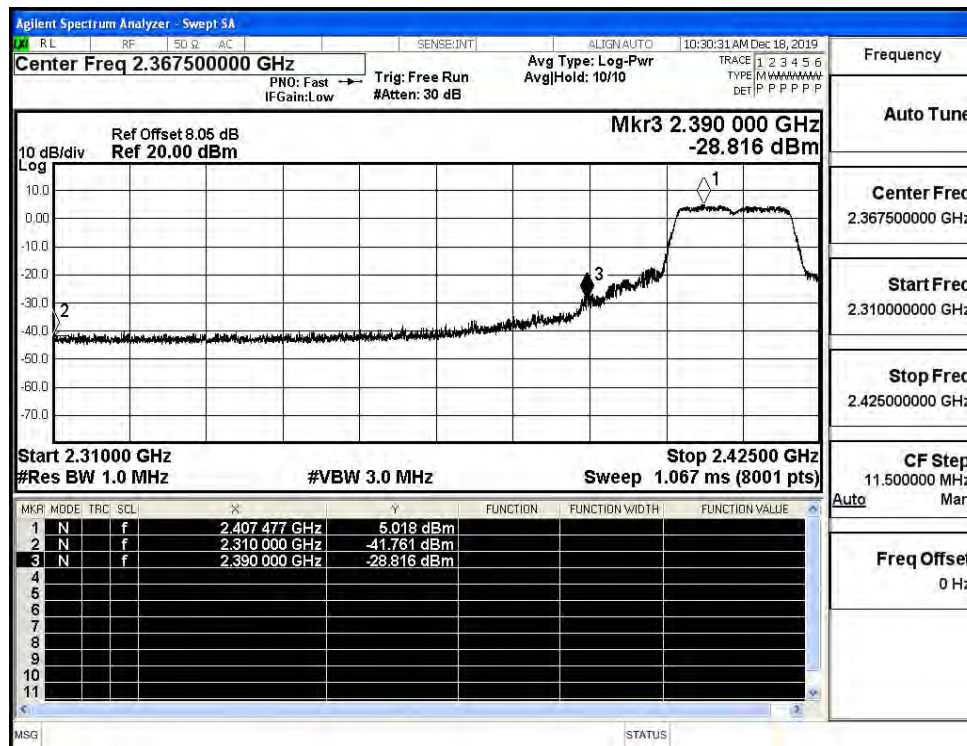
## Restrict-band band-edge measurements\_11G\_2462\_Ant1\_PEAK



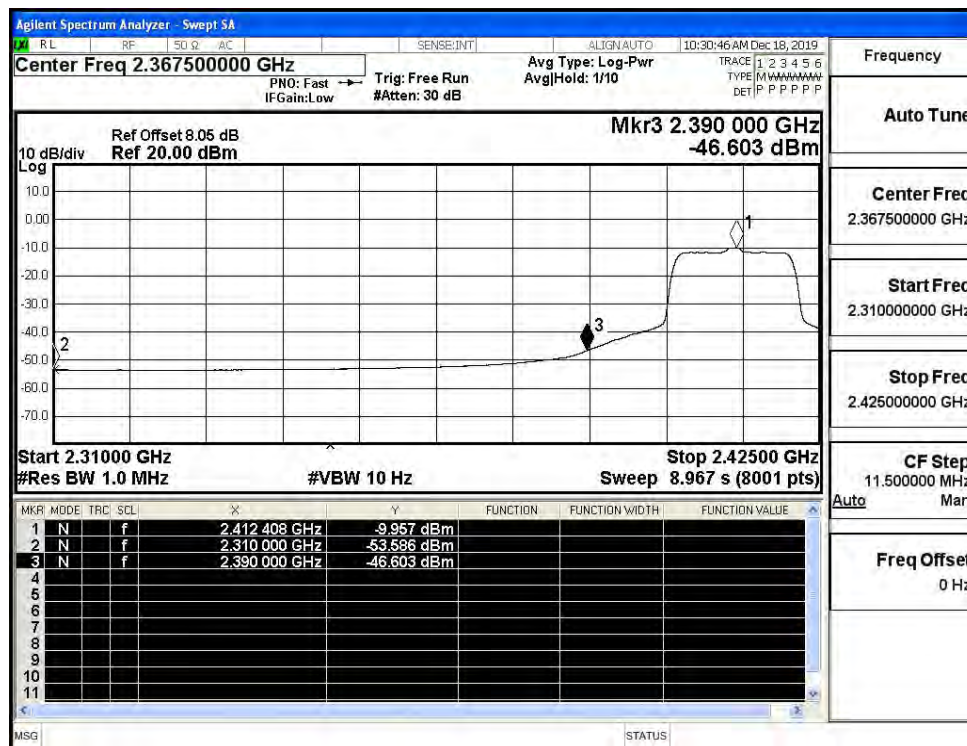
## Restrict-band band-edge measurements\_11G\_2462\_Ant1\_AV



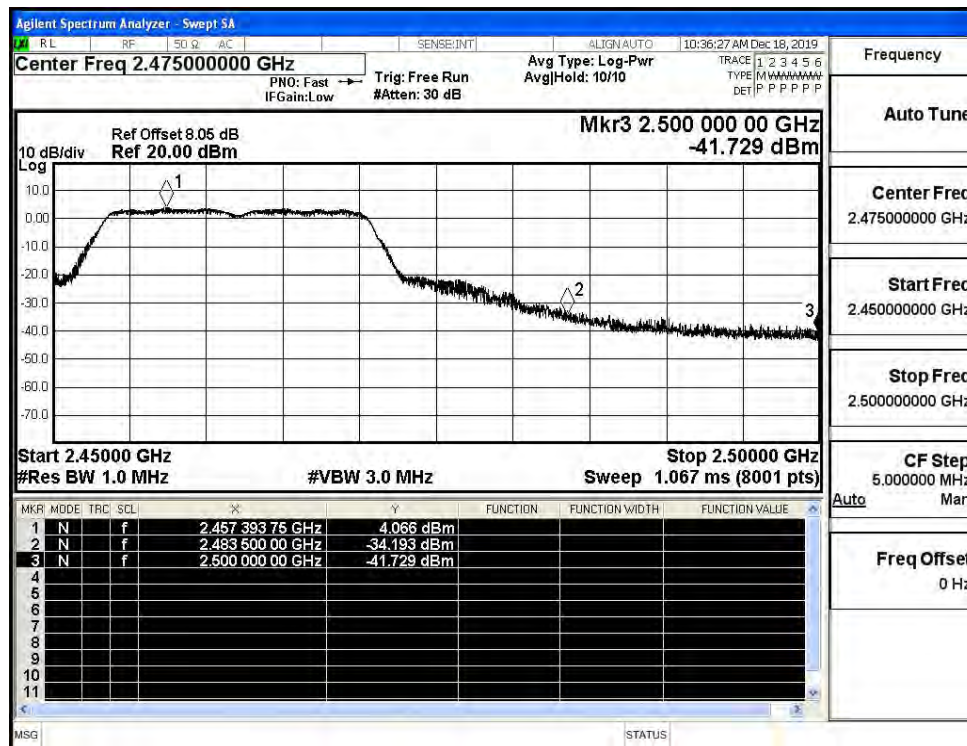
## Restrict-band band-edge measurements\_11N20SISO\_2412\_Ant1\_PEAK



## 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

