

## Appendix B

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

Product Name: Projector

Trade Mark: DBPOWER, TENKER, SPACEKEY

Test Model: Q6

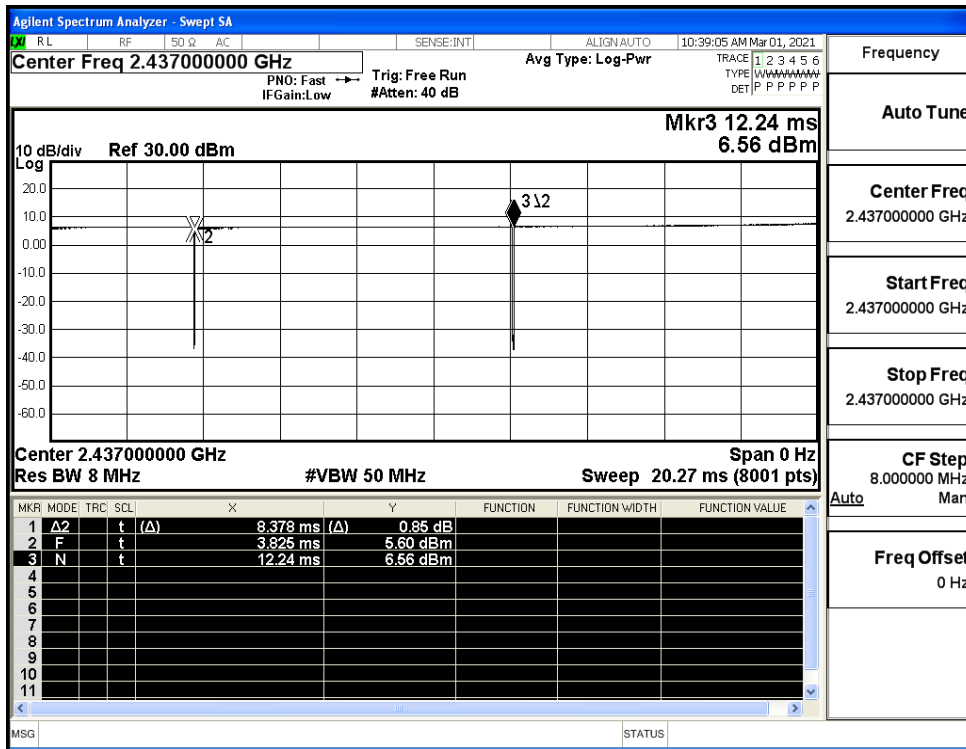
#### Environmental Conditions

|                    |           |
|--------------------|-----------|
| Temperature:       | 23.2° C   |
| Relative Humidity: | 51.7%     |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Ken He    |
| Supervised by:     | Li Huan   |

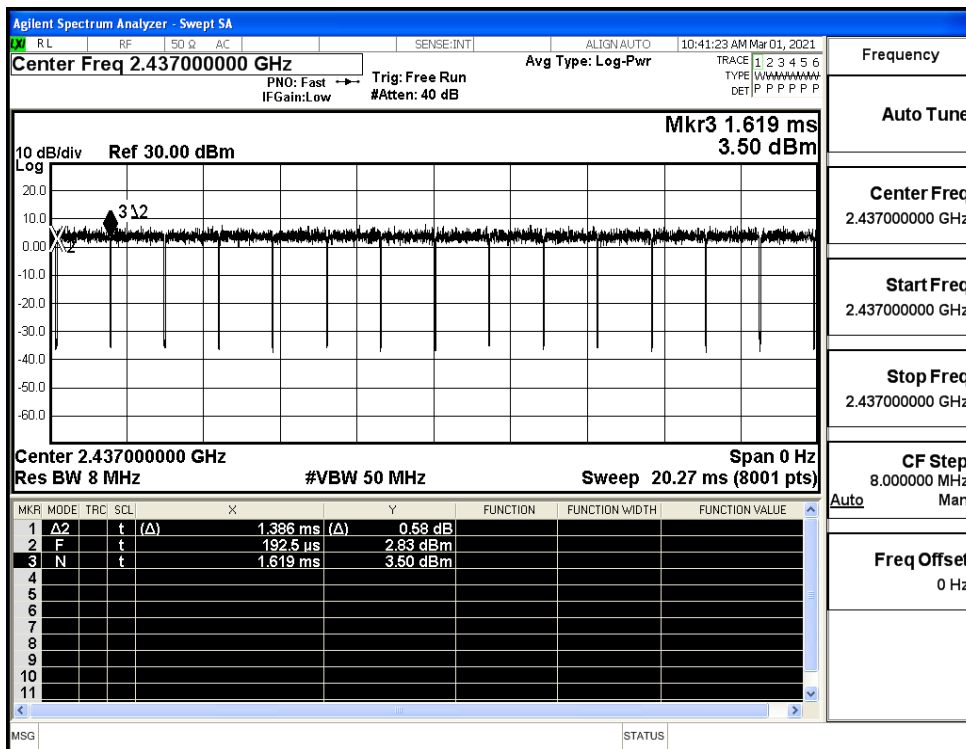
#### B.1 Duty Cycle

| Test Mode | Test Channel | Ant  | Duty Cycle[%] | 10log(1/x) Factor (dB) | 1/B Minimum VBW(KHz) |
|-----------|--------------|------|---------------|------------------------|----------------------|
| 11B       | 2437         | Ant1 | 99.58         | 0.02                   | 0.01                 |
| 11G       | 2437         | Ant1 | 97.16         | 0.13                   | 0.01                 |
| 11N20SISO | 2437         | Ant1 | 96.78         | 0.14                   | 0.01                 |
| 11N40SISO | 2437         | Ant1 | 94.07         | 0.27                   | 0.01                 |

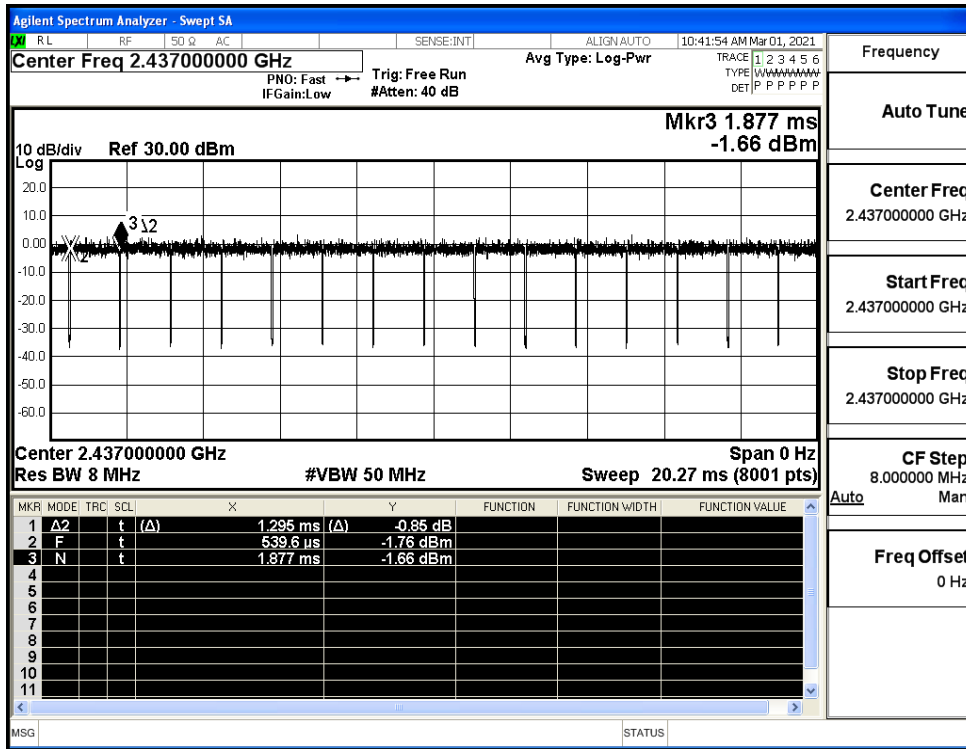
Duty Cycle\_11B\_2437\_Ant1



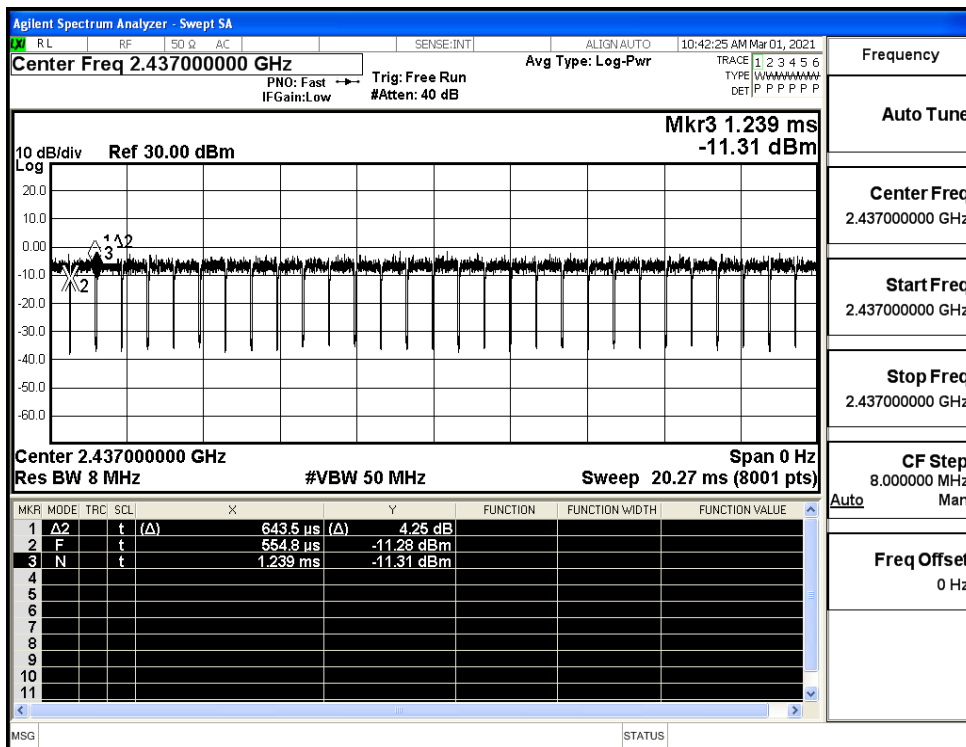
Duty Cycle\_11G\_2437\_Ant1



Duty Cycle\_11N20SISO\_2437\_Ant1



Duty Cycle\_11N40SISO\_2437\_Ant1



**B.2 Maximum Conducted Output Power**

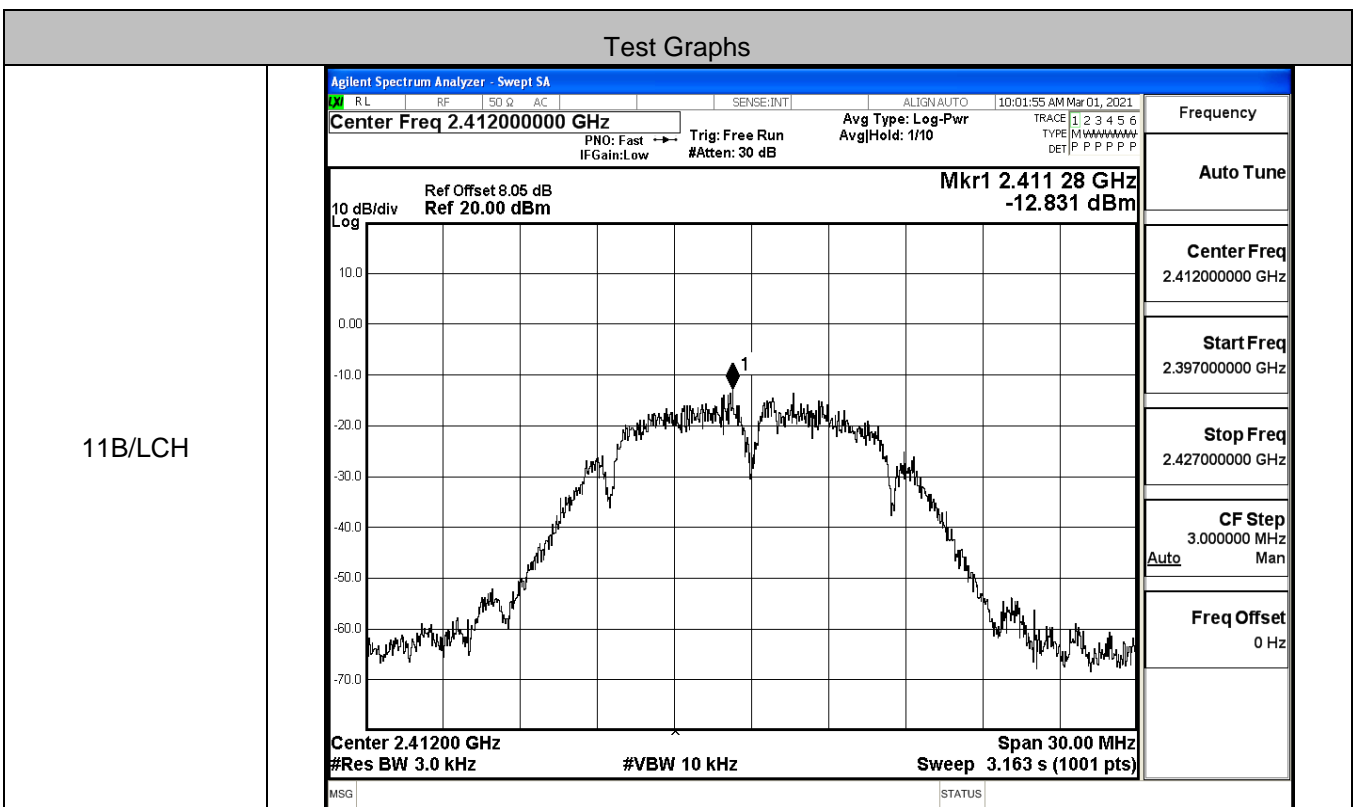
| Mode      | Channel | AVG Conducted Power (dBm) | Duty Cycle Factor(dB) | Report Conducted Power(dBm) | Limit [dBm] | Verdict |
|-----------|---------|---------------------------|-----------------------|-----------------------------|-------------|---------|
| 11B       | LCH     | 12.81                     | 0.02                  | 12.83                       | 30          | PASS    |
|           | MCH     | 13.28                     | 0.02                  | 13.30                       | 30          | PASS    |
|           | HCH     | 12.54                     | 0.02                  | 12.56                       | 30          | PASS    |
| 11G       | LCH     | 11.27                     | 0.13                  | 11.40                       | 30          | PASS    |
|           | MCH     | 11.78                     | 0.13                  | 11.91                       | 30          | PASS    |
|           | HCH     | 10.99                     | 0.13                  | 11.12                       | 30          | PASS    |
| 11N20SISO | LCH     | 9.53                      | 0.14                  | 9.67                        | 30          | PASS    |
|           | MCH     | 9.84                      | 0.14                  | 9.98                        | 30          | PASS    |
|           | HCH     | 9.16                      | 0.14                  | 9.30                        | 30          | PASS    |
| 11N40SISO | LCH     | 9.82                      | 0.27                  | 10.09                       | 30          | PASS    |
|           | MCH     | 9.89                      | 0.27                  | 10.16                       | 30          | PASS    |
|           | HCH     | 9.67                      | 0.27                  | 9.94                        | 30          | PASS    |

### B.3 Maximum Power Spectral Density

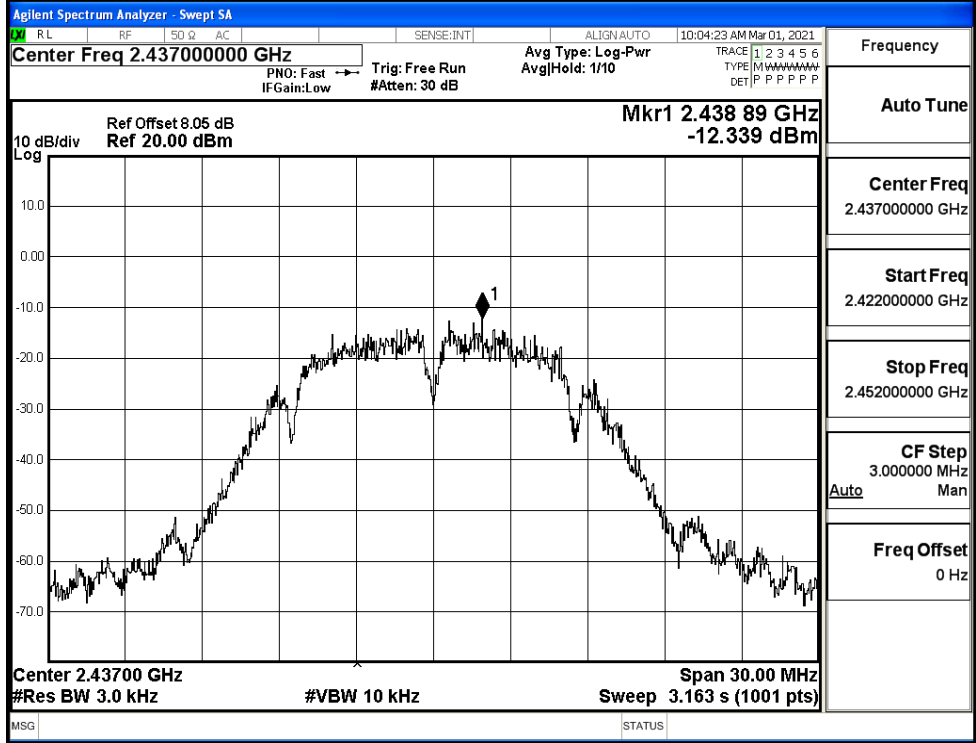
| Mode       | Channel | Power Density [dBm/3KHz] | Duty Cycle Factor (dB) | RBW Factor (dB) | Report Power Density [dBm/3KHz] | Limit [dBm/3KHz] | Verdict |
|------------|---------|--------------------------|------------------------|-----------------|---------------------------------|------------------|---------|
| 11B        | LCH     | -12.831                  | 0.02                   | 0               | -12.811                         | 8                | PASS    |
|            | MCH     | -12.339                  | 0.02                   | 0               | -12.319                         | 8                | PASS    |
|            | HCH     | -13.269                  | 0.02                   | 0               | -13.249                         | 8                | PASS    |
| 11G        | LCH     | -23.256                  | 0.13                   | 0               | -23.126                         | 8                | PASS    |
|            | MCH     | -20.971                  | 0.13                   | 0               | -20.841                         | 8                | PASS    |
|            | HCH     | -20.999                  | 0.13                   | 0               | -20.869                         | 8                | PASS    |
| 11N20 SISO | LCH     | -25.140                  | 0.14                   | 0               | -25.000                         | 8                | PASS    |
|            | MCH     | -24.820                  | 0.14                   | 0               | -24.680                         | 8                | PASS    |
|            | HCH     | -24.841                  | 0.14                   | 0               | -24.701                         | 8                | PASS    |
| 11N40 SISO | LCH     | -28.073                  | 0.27                   | 0               | -27.803                         | 8                | PASS    |
|            | MCH     | -25.404                  | 0.27                   | 0               | -25.134                         | 8                | PASS    |
|            | HCH     | -26.129                  | 0.27                   | 0               | -25.859                         | 8                | PASS    |

Note: 1. RBW Factor(dB)=10log(3/3)

2. Report Power Density [dBm/3KHz]= Power Density[dBm/3KHz]+ Duty Cycle Factor(dB)+ RBW Factor(dB)

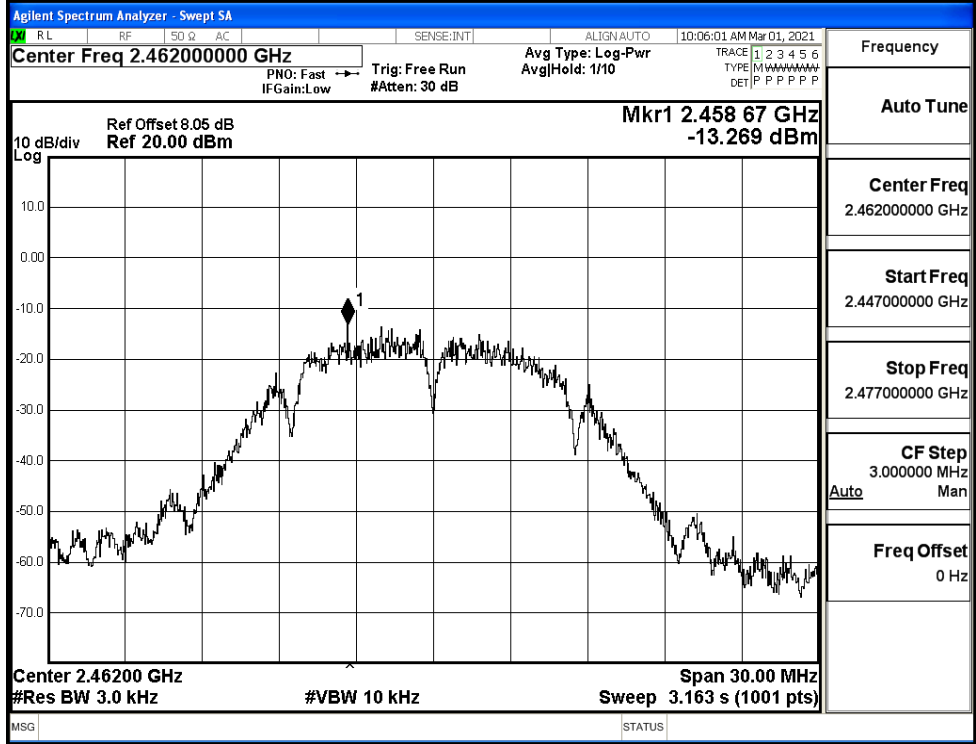


11B/MCH



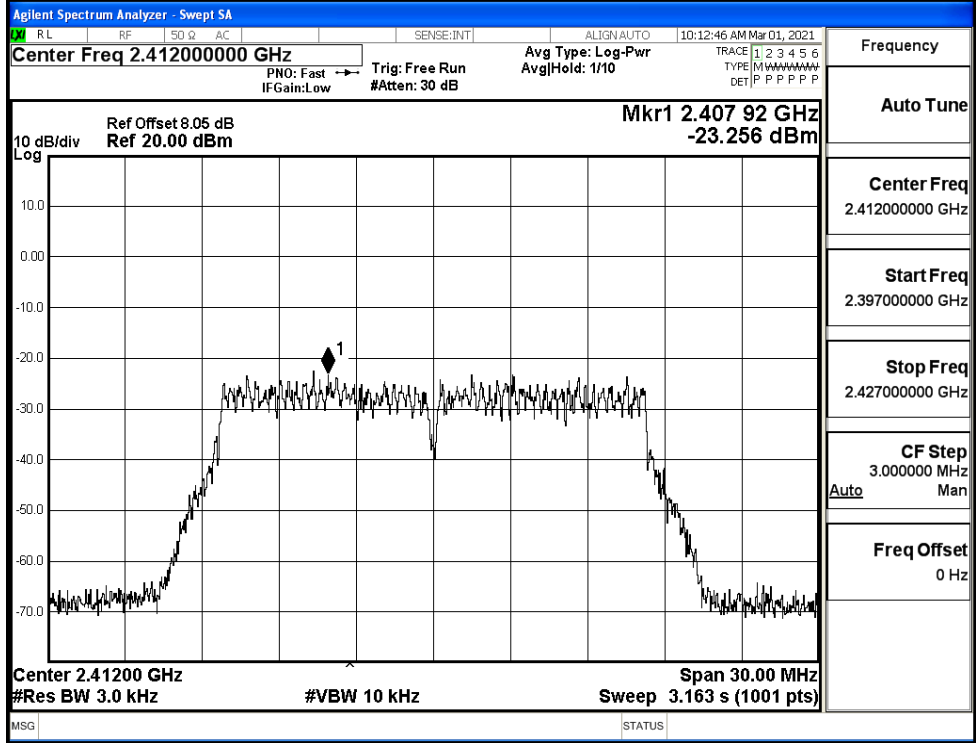
|             |                          |
|-------------|--------------------------|
| Frequency   | 2.43700000 GHz           |
| Auto Tune   |                          |
| Center Freq | 2.43700000 GHz           |
| Start Freq  | 2.42200000 GHz           |
| Stop Freq   | 2.45200000 GHz           |
| CF Step     | 3.000000 MHz<br>Auto Man |
| Freq Offset | 0 Hz                     |

11B/HCH

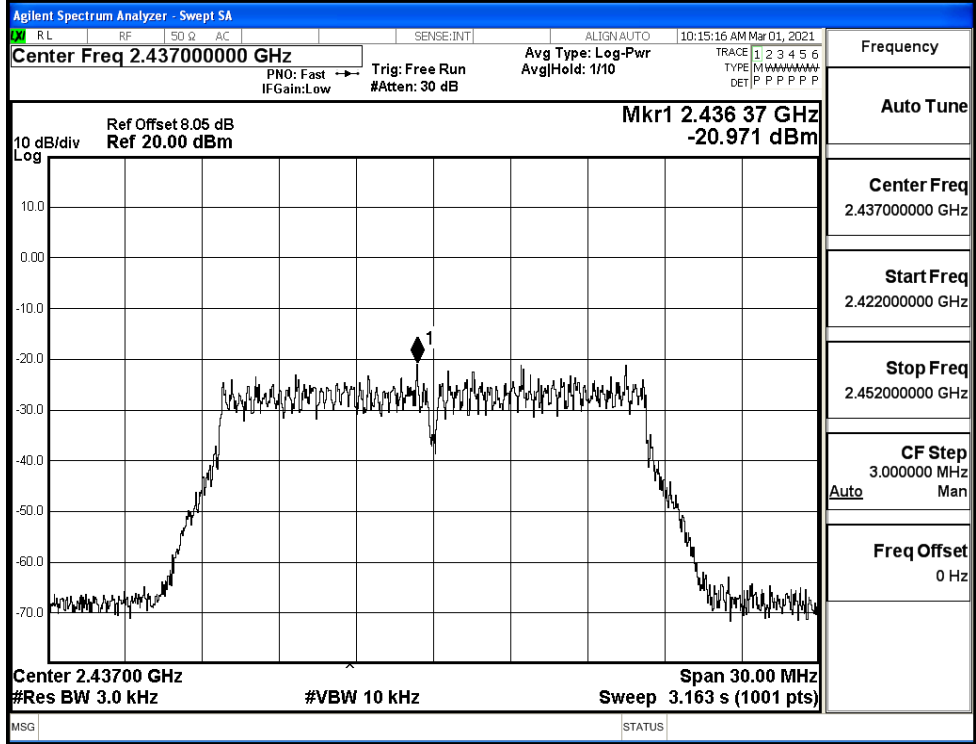


|             |                          |
|-------------|--------------------------|
| Frequency   | 2.46200000 GHz           |
| Auto Tune   |                          |
| Center Freq | 2.46200000 GHz           |
| Start Freq  | 2.44700000 GHz           |
| Stop Freq   | 2.47700000 GHz           |
| CF Step     | 3.000000 MHz<br>Auto Man |
| Freq Offset | 0 Hz                     |

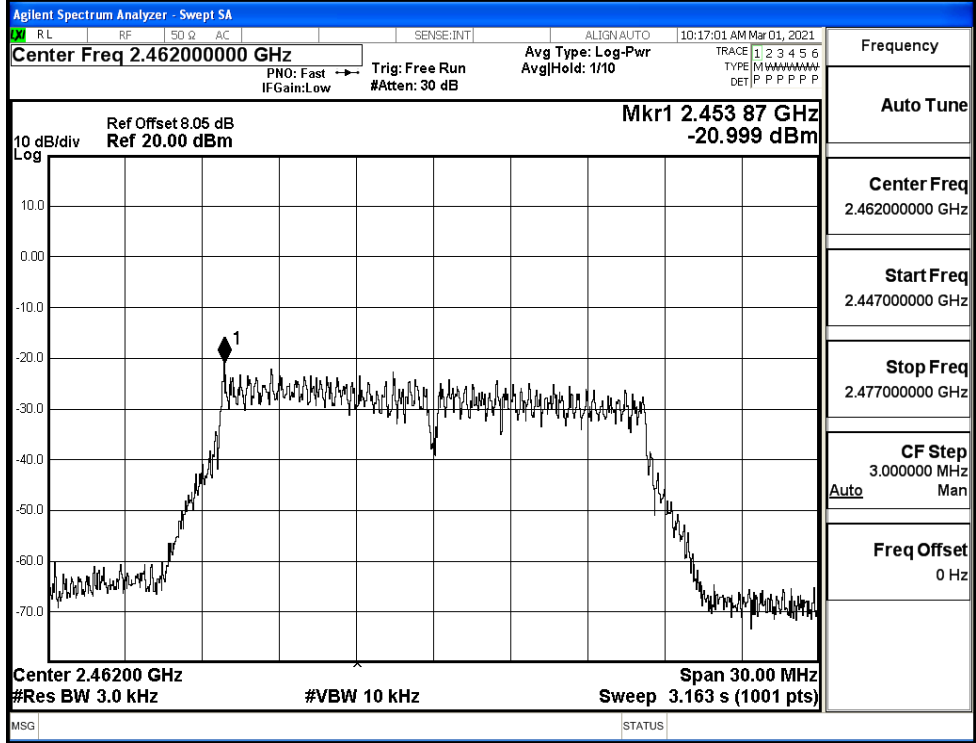
11G/LCH



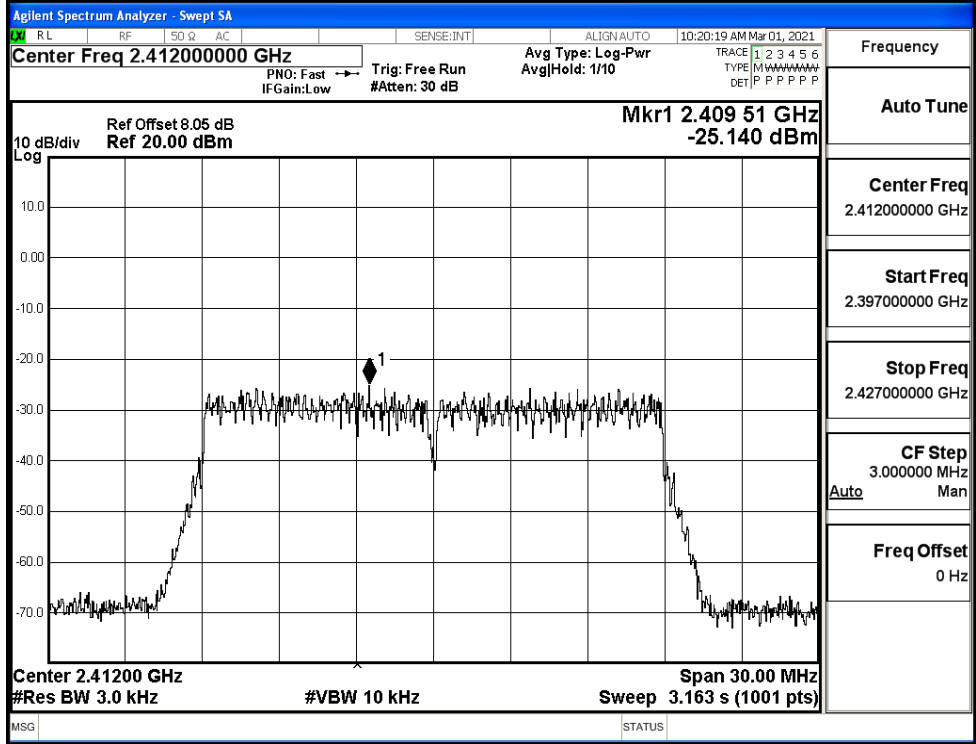
11G/MCH



11G/HCH

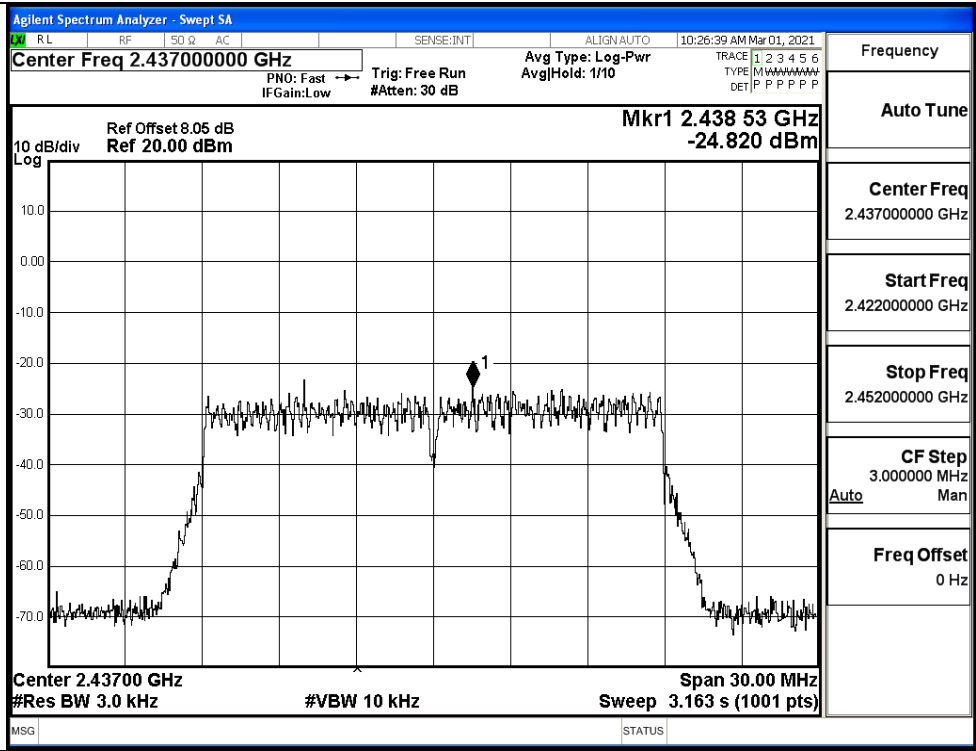


11N20SISO/LCH

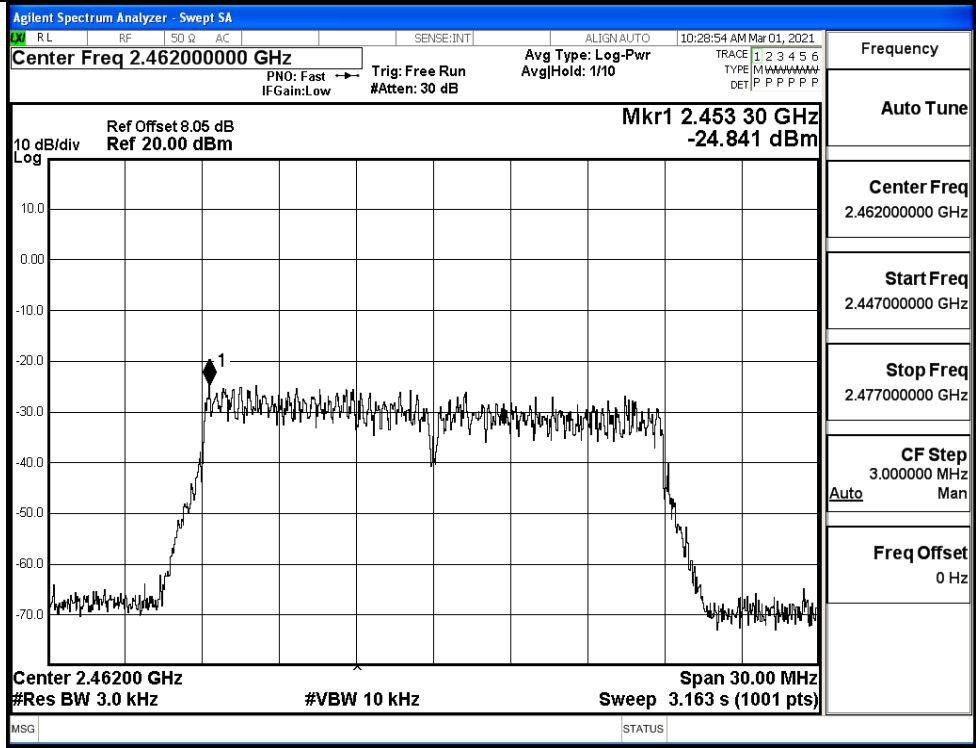




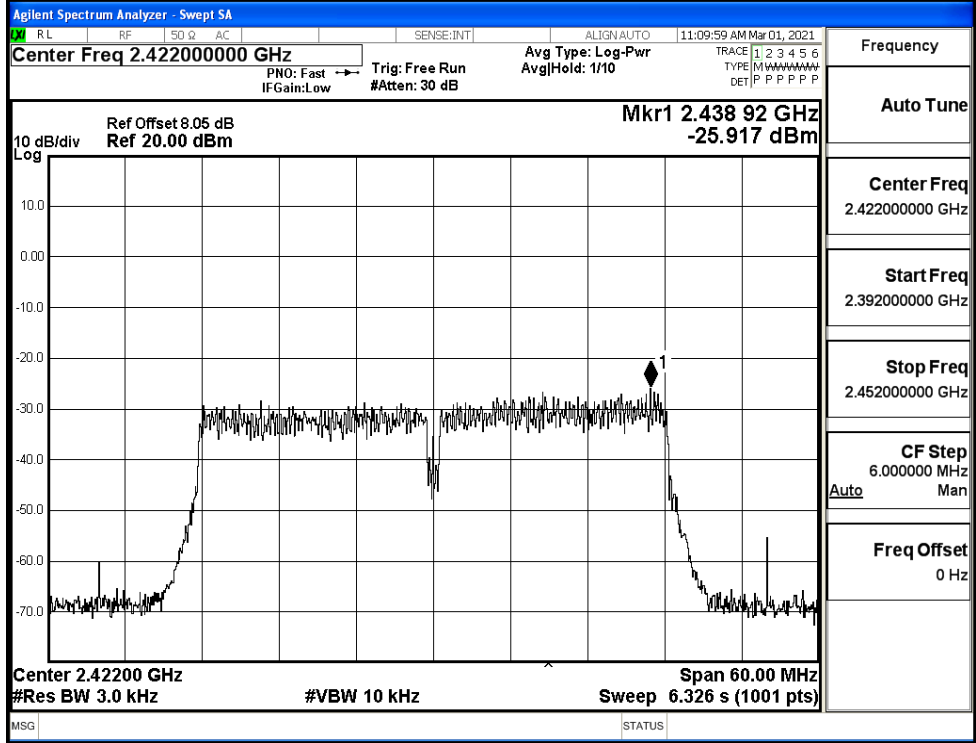
11N20SISO/MCH



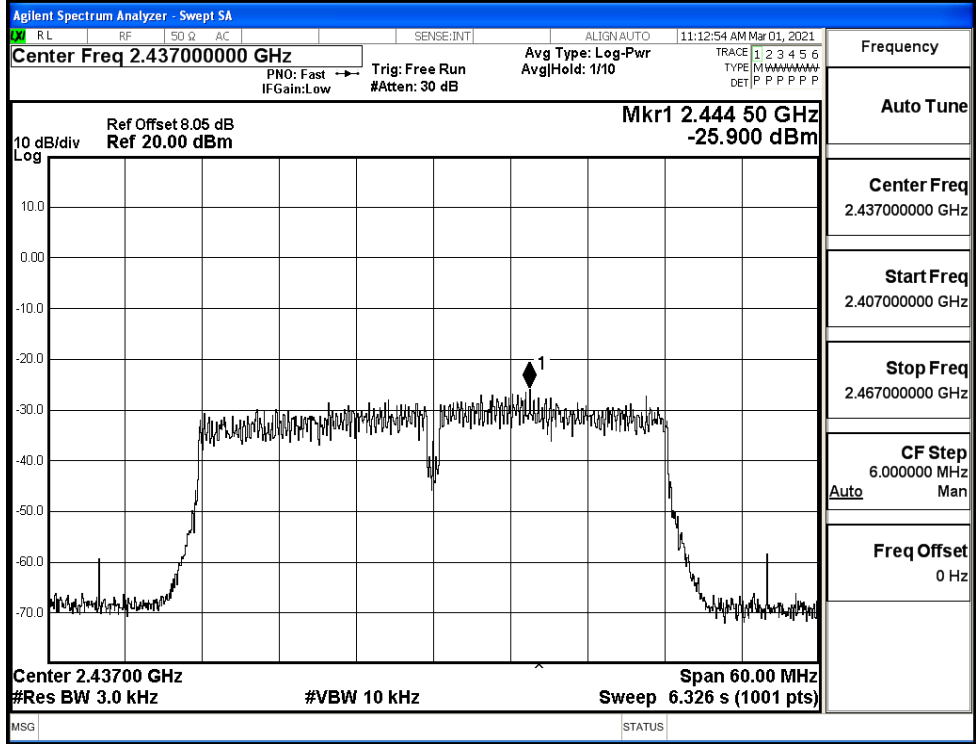
11N20SISO/HCH



11N40SISO/LCH



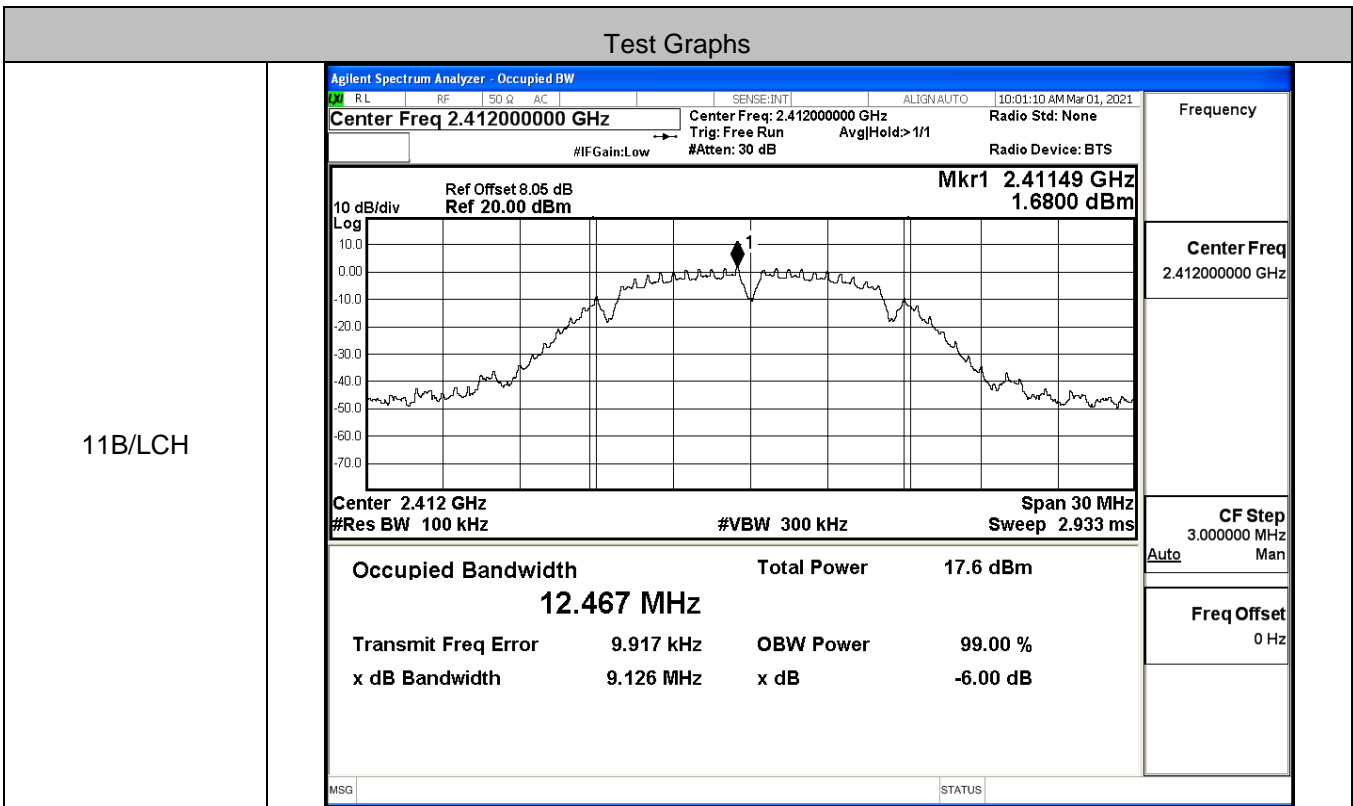
11N40SISO/MCH



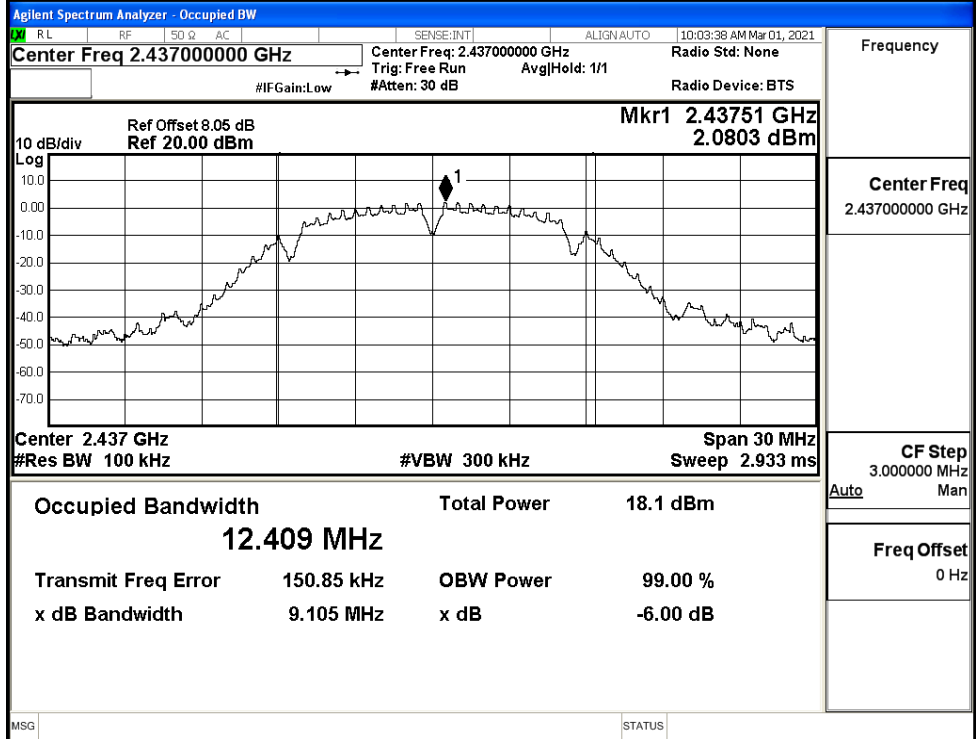


**B.4 6dB Bandwidth**

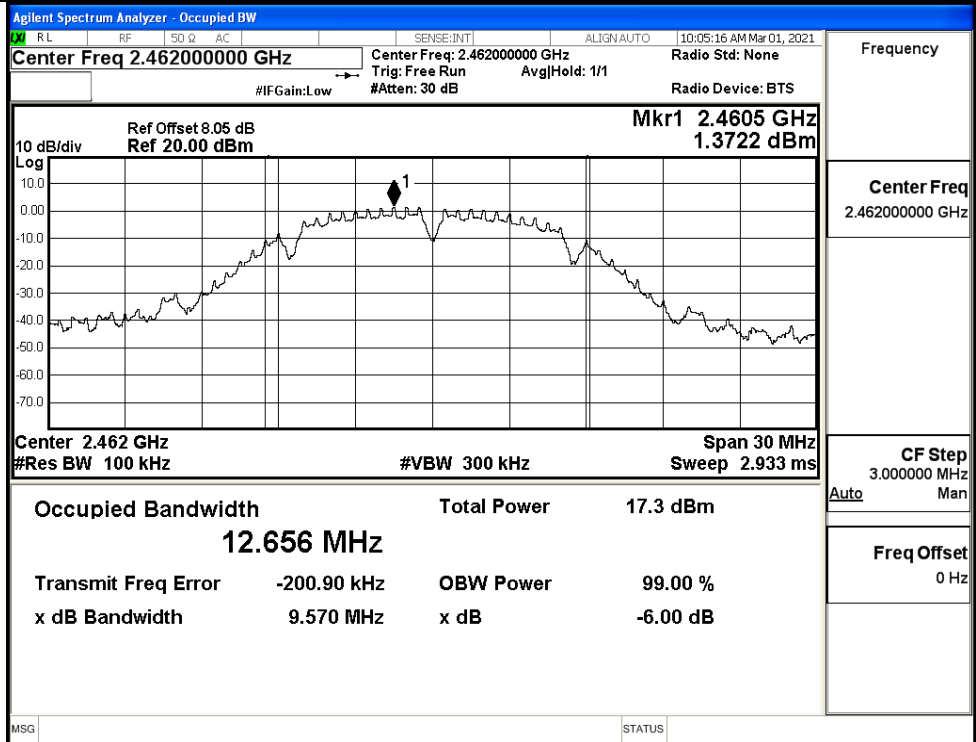
| Mode      | Channel | 6dB Bandwidth [MHz] | Limit [MHz] | Verdict |
|-----------|---------|---------------------|-------------|---------|
| 11B       | LCH     | 9.126               | ≥0.5        | PASS    |
|           | MCH     | 9.105               | ≥0.5        | PASS    |
|           | HCH     | 9.570               | ≥0.5        | PASS    |
| 11G       | LCH     | 16.43               | ≥0.5        | PASS    |
|           | MCH     | 16.12               | ≥0.5        | PASS    |
|           | HCH     | 15.79               | ≥0.5        | PASS    |
| 11N20SISO | LCH     | 17.66               | ≥0.5        | PASS    |
|           | MCH     | 17.36               | ≥0.5        | PASS    |
|           | HCH     | 17.19               | ≥0.5        | PASS    |
| 11N40SISO | LCH     | 35.78               | ≥0.5        | PASS    |
|           | MCH     | 35.51               | ≥0.5        | PASS    |
|           | HCH     | 35.47               | ≥0.5        | PASS    |



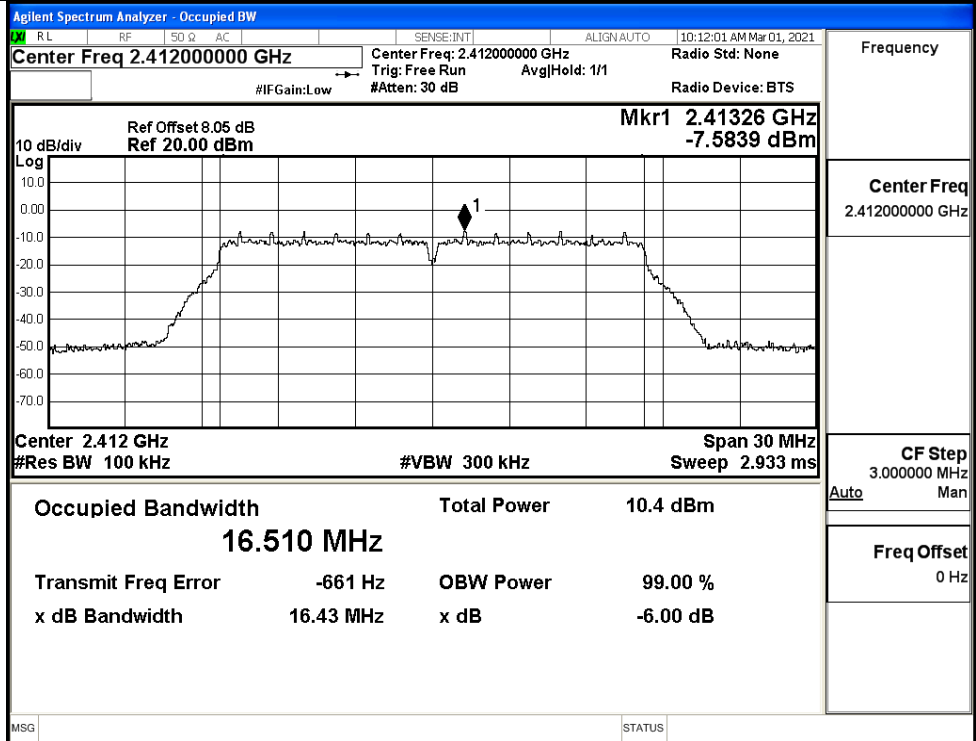
11B/MCH



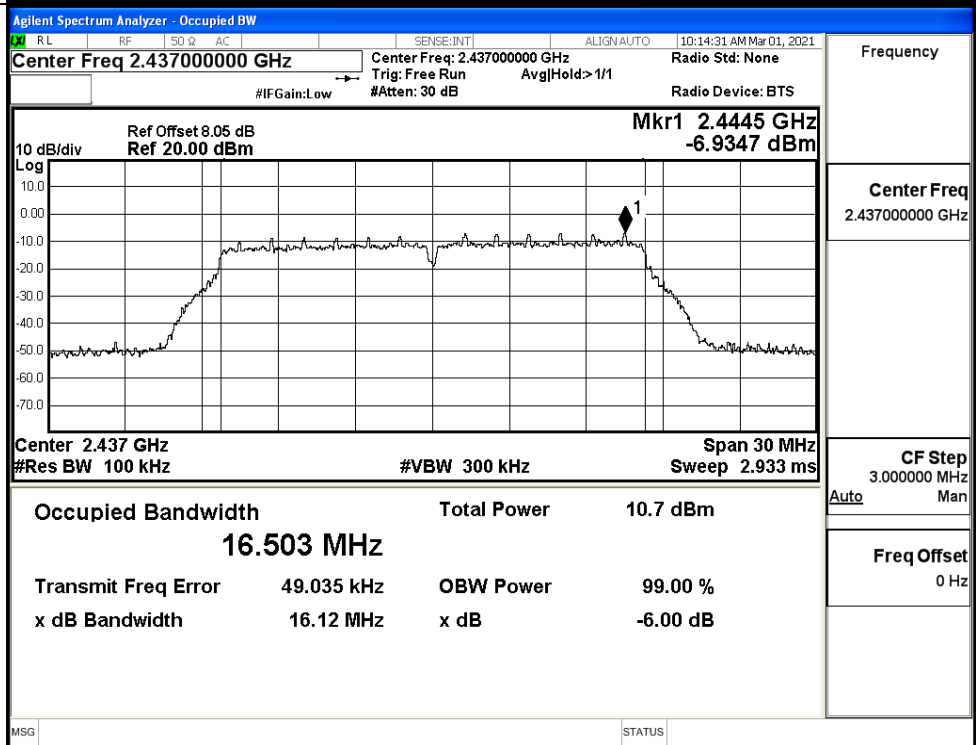
11B/HCH



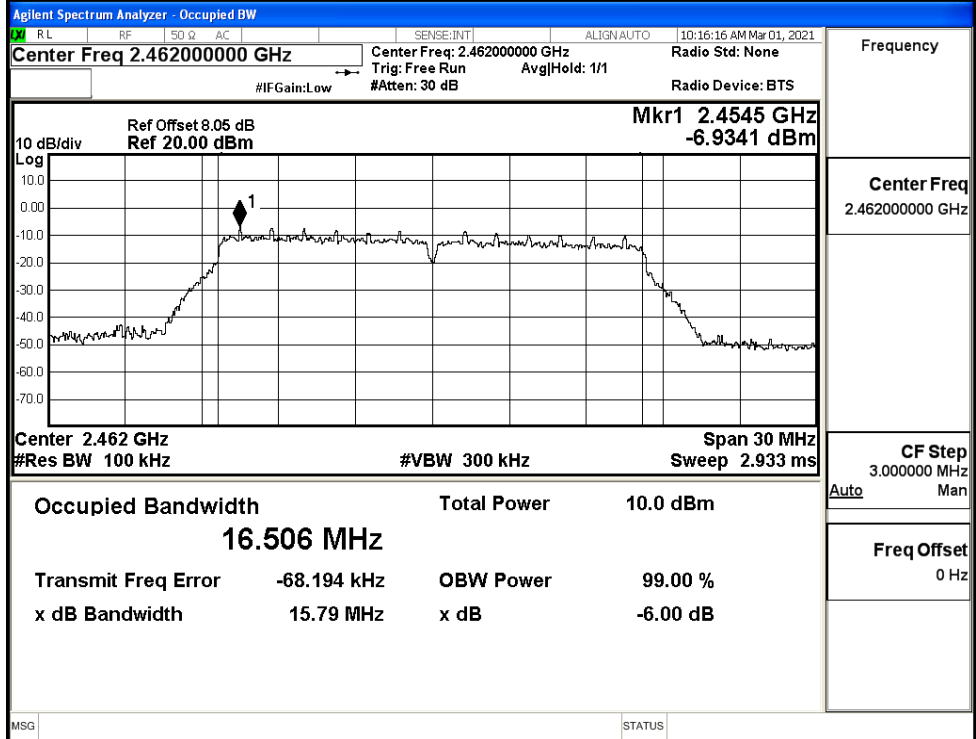
11G/LCH



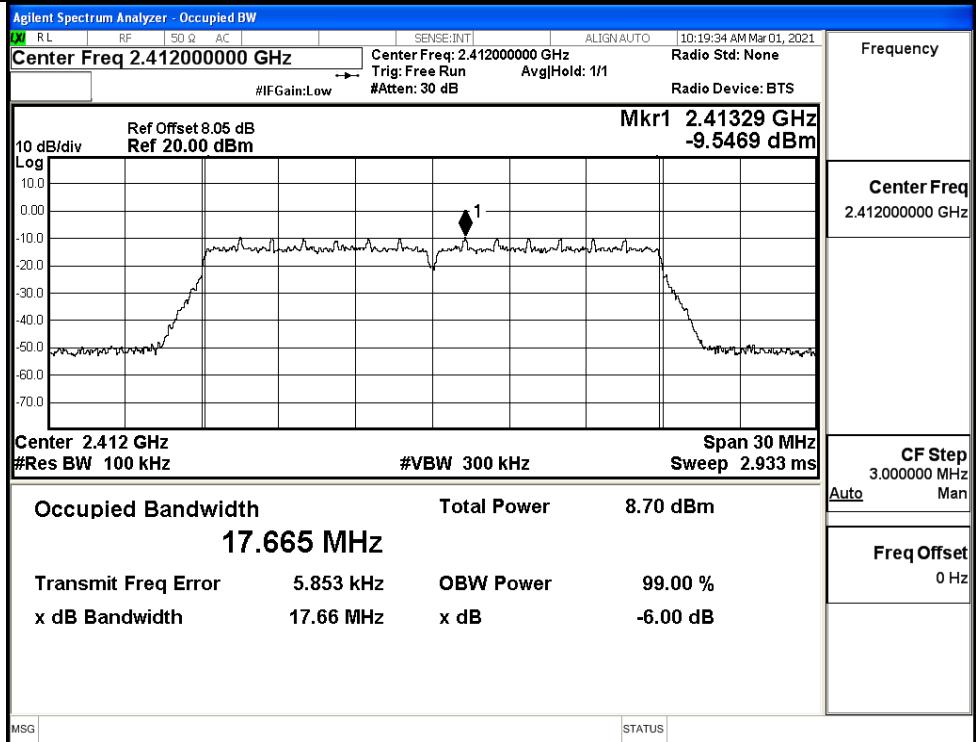
11G/MCH



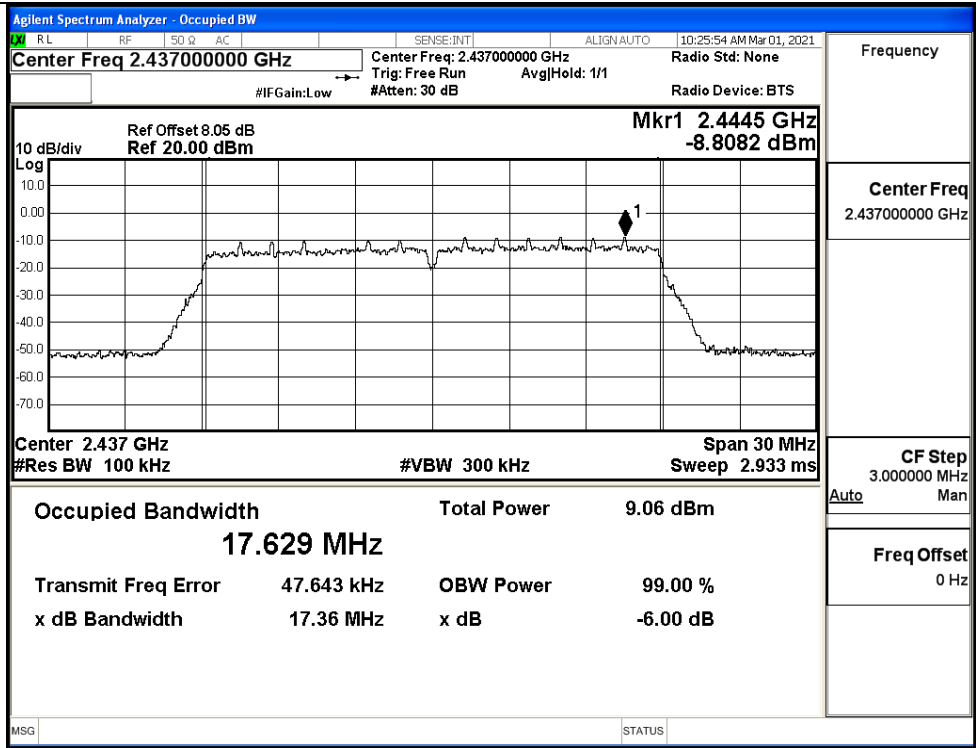
11G/HCH



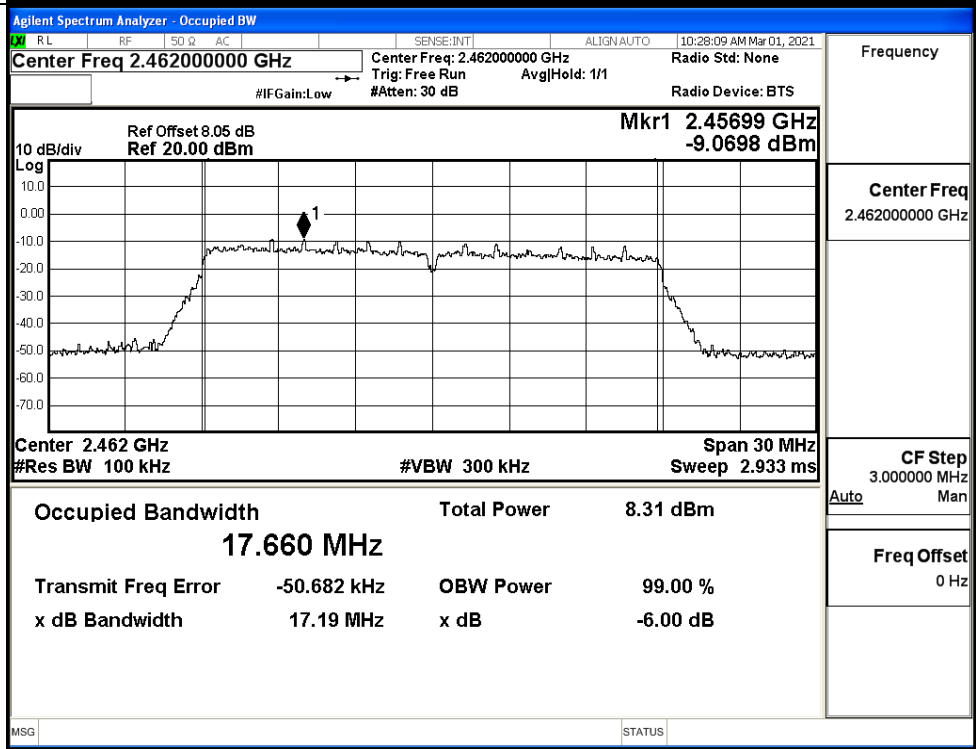
11N20SISO/LCH



11N20SISO/MCH

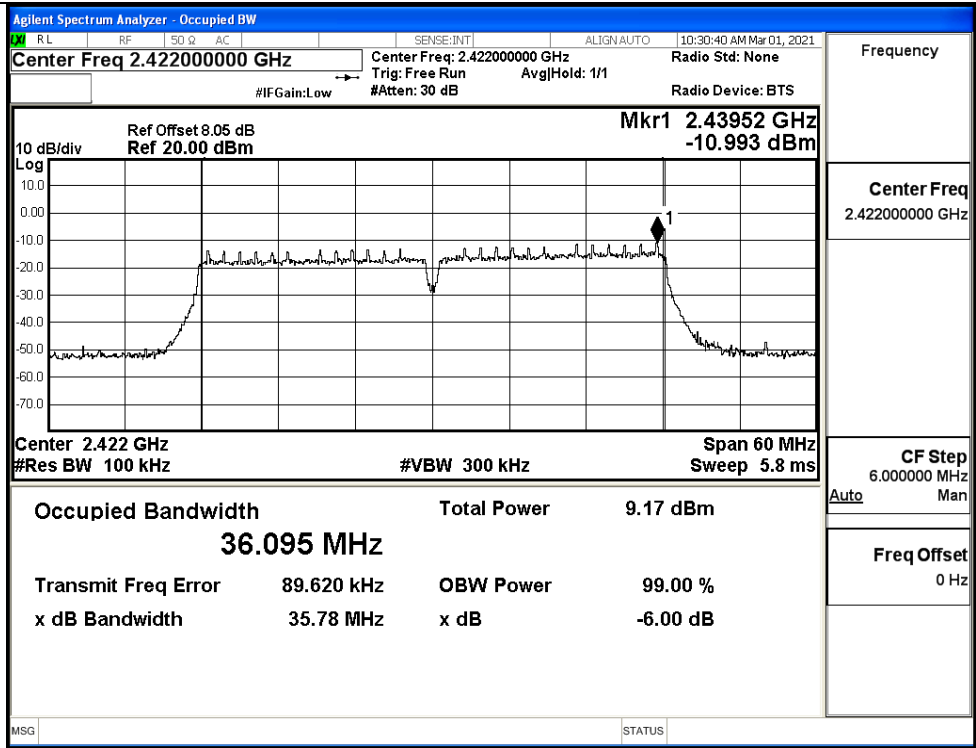


11N20SISO/HCH

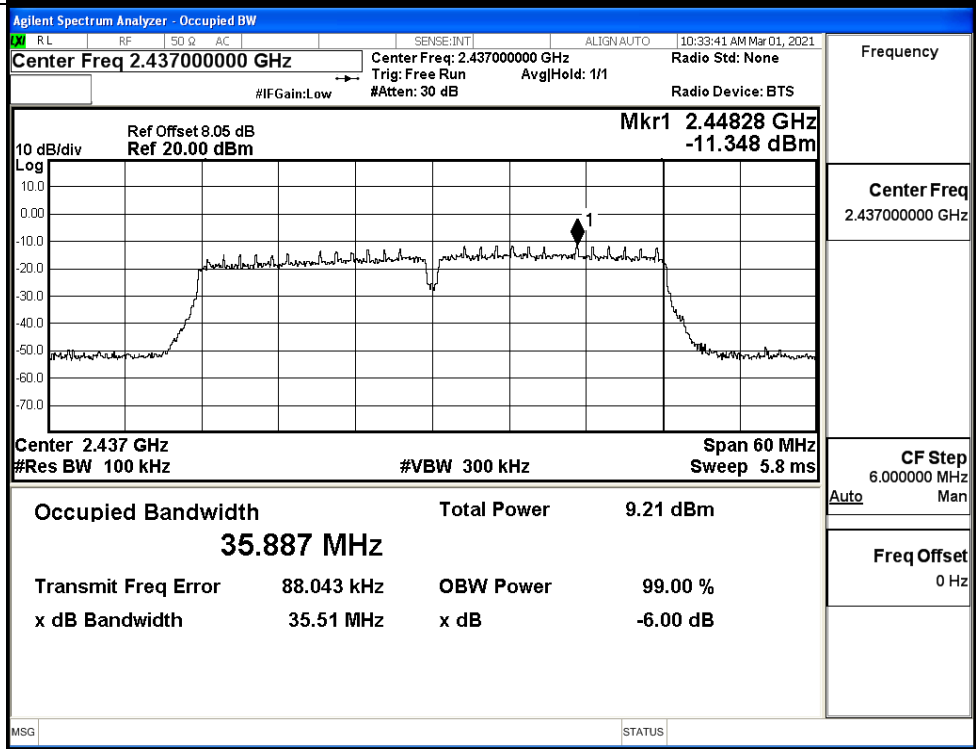




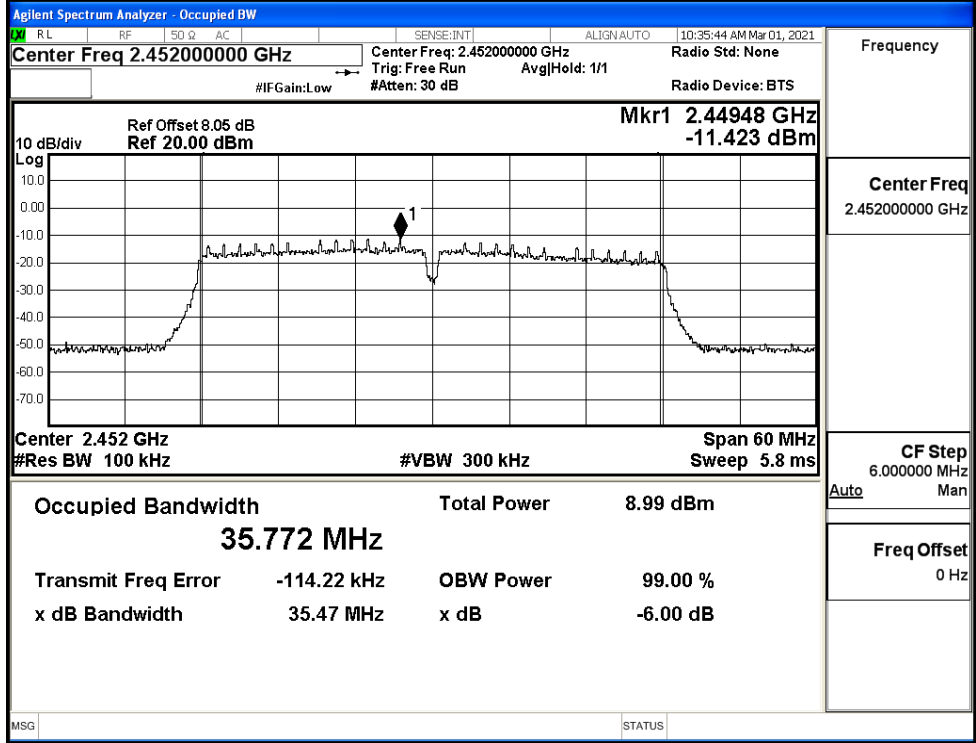
11N40SISO/LCH



11N40SISO/MCH



11N40SISO/HCH

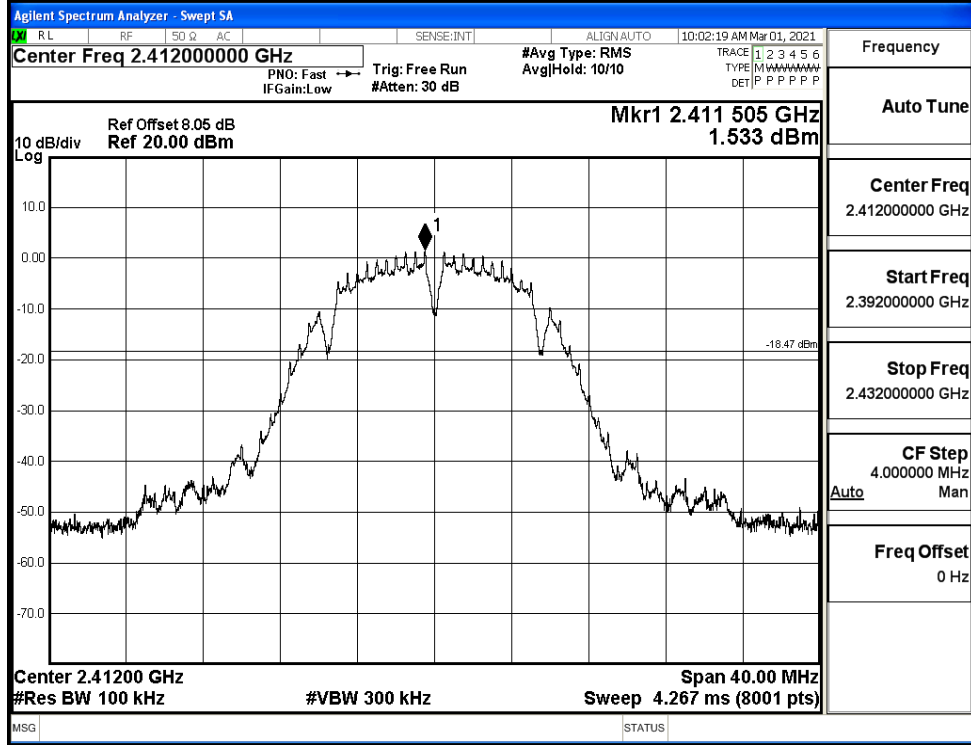


**B.5 RF Conducted Spurious Emissions**

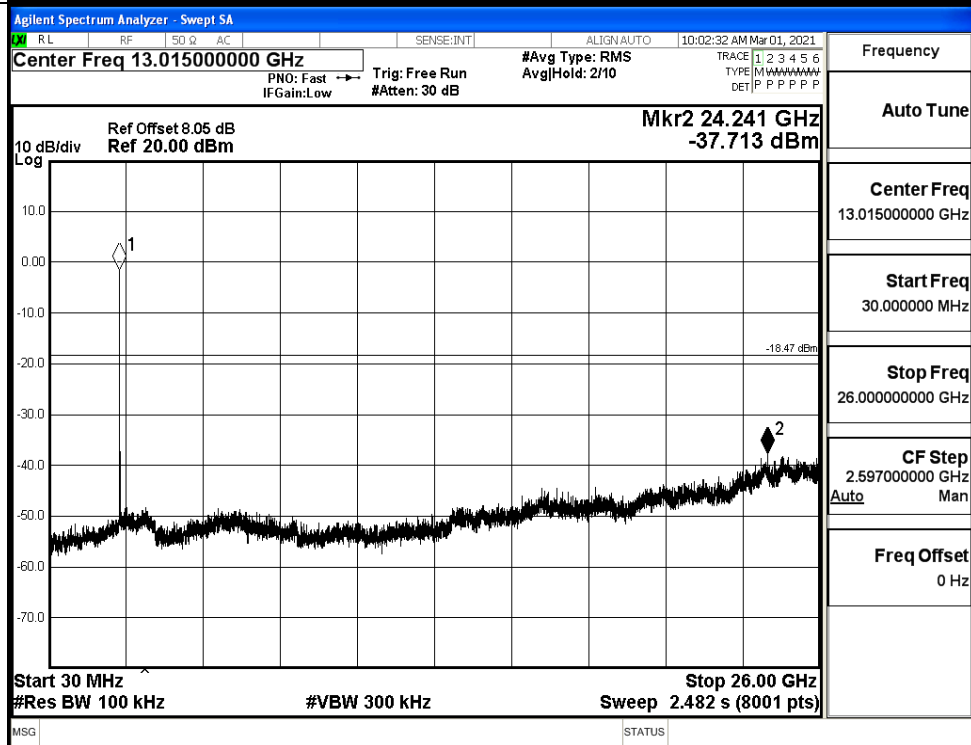
| Mode          | Channel | Pref [dBm] | Max. Level [dBm] | Limit [dBm] | Verdict |
|---------------|---------|------------|------------------|-------------|---------|
| 11B           | LCH     | 1.533      | -37.713          | -18.467     | PASS    |
|               | MCH     | 2.1        | -38.512          | -17.900     | PASS    |
|               | HCH     | 1.225      | -38.349          | -18.775     | PASS    |
| 11G           | LCH     | -7.989     | -38.348          | -27.989     | PASS    |
|               | MCH     | -6.782     | -38.247          | -26.782     | PASS    |
|               | HCH     | -7.171     | -36.749          | -27.171     | PASS    |
| 11N20<br>SISO | LCH     | -10.177    | -38.076          | -30.177     | PASS    |
|               | MCH     | -8.733     | -38.035          | -28.733     | PASS    |
|               | HCH     | -8.914     | -38.279          | -28.914     | PASS    |
| 11N40<br>SISO | LCH     | -11.054    | -37.625          | -31.054     | PASS    |
|               | MCH     | -11.517    | -38.082          | -31.517     | PASS    |
|               | HCH     | -11.25     | -38.106          | -31.250     | PASS    |

11B\_LCH\_Graphs

Pref/11B/LCH

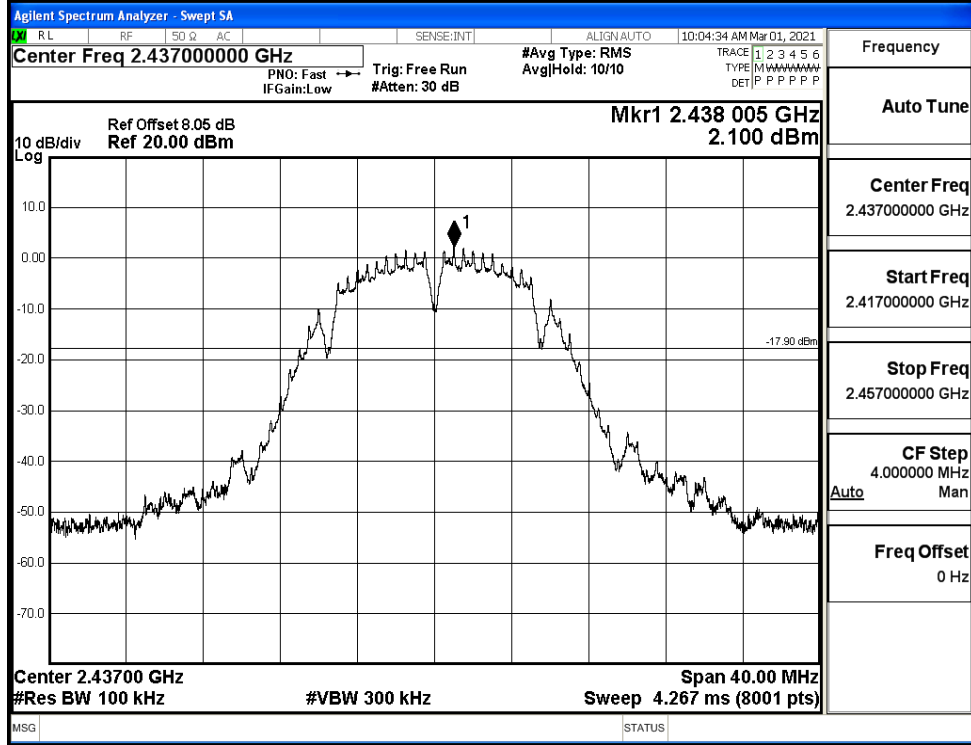


Puw/11B/LCH

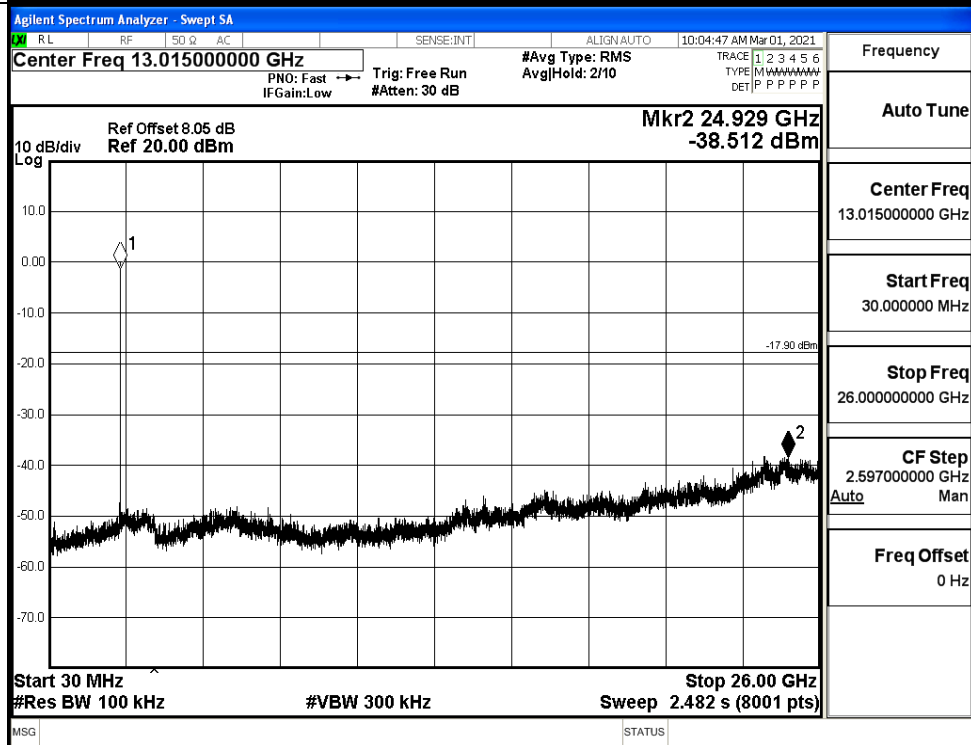


11B\_MCH\_Graphs

Pref/11B/MCH

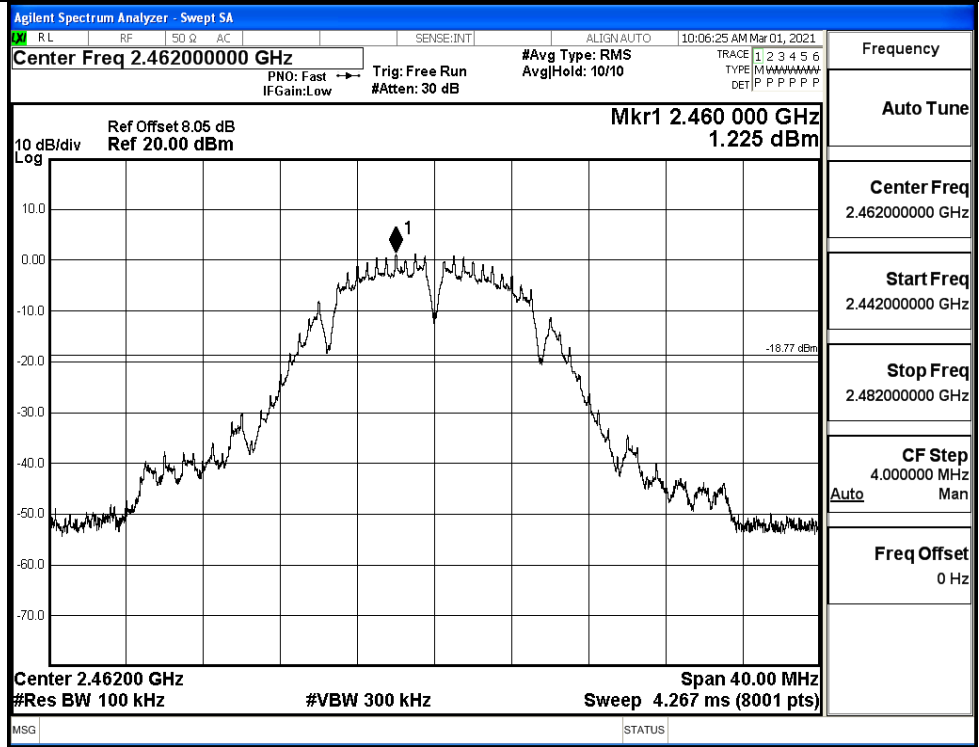


Puw/11B/MCH

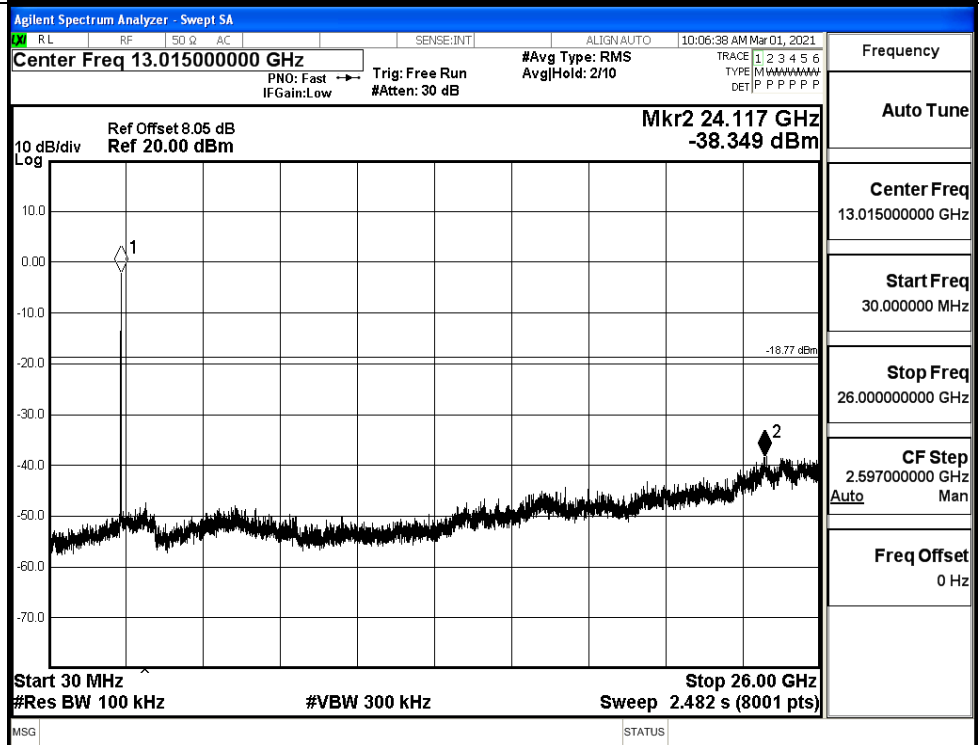


11B\_HCH\_Graphs

Pref/11B/HCH

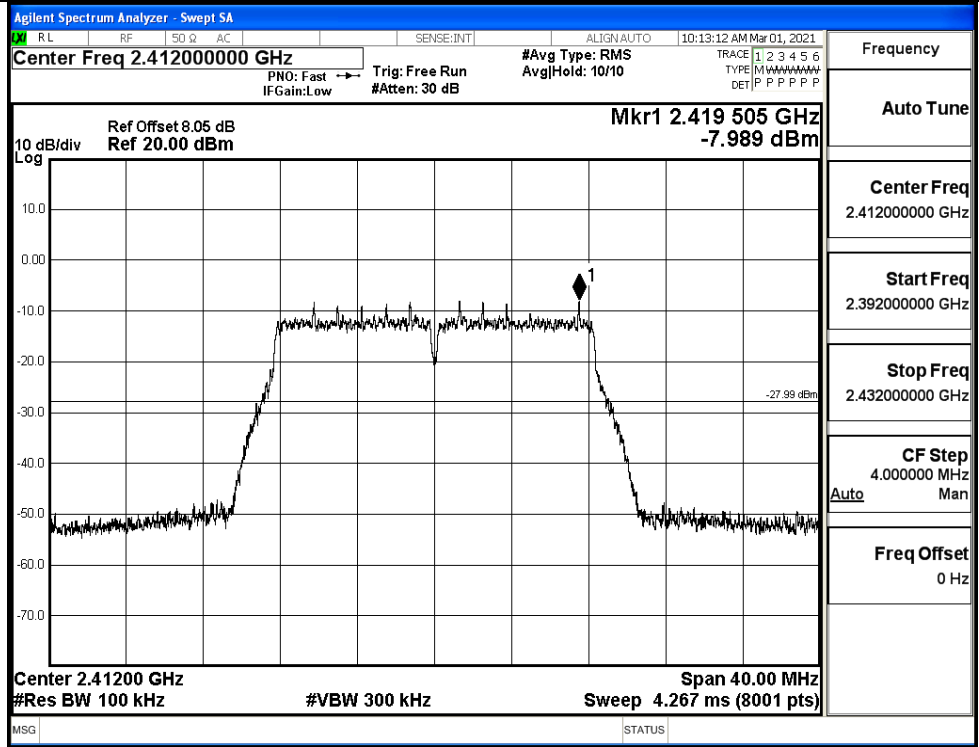


Puw/11B/HCH

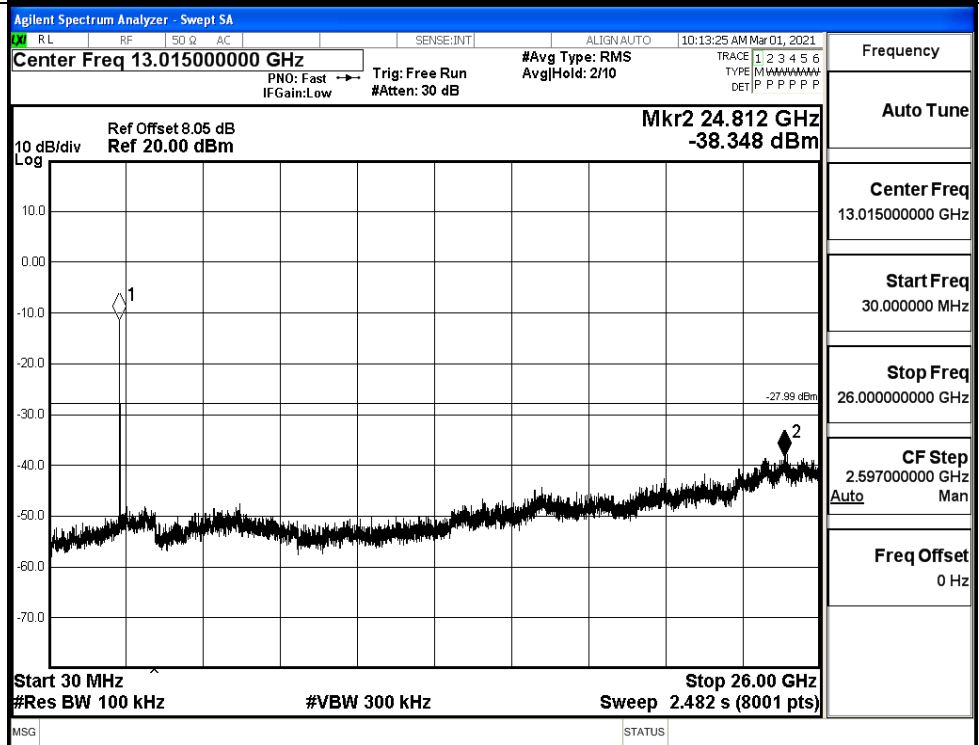


11G\_LCH\_Graphs

Pref/11G/LCH

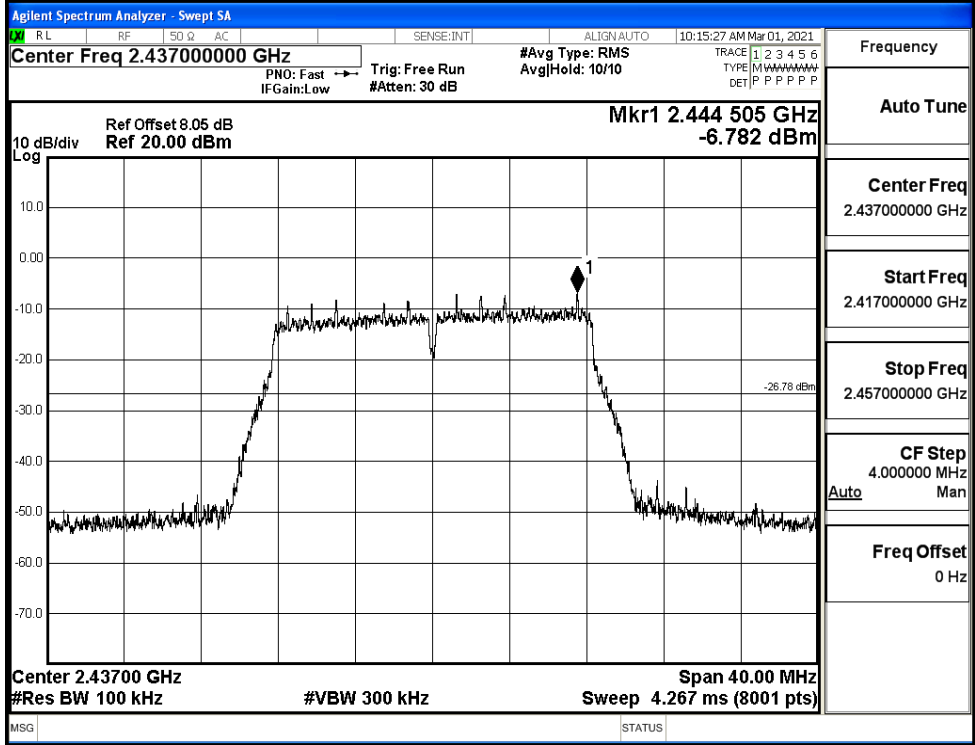


Puw/11G/LCH

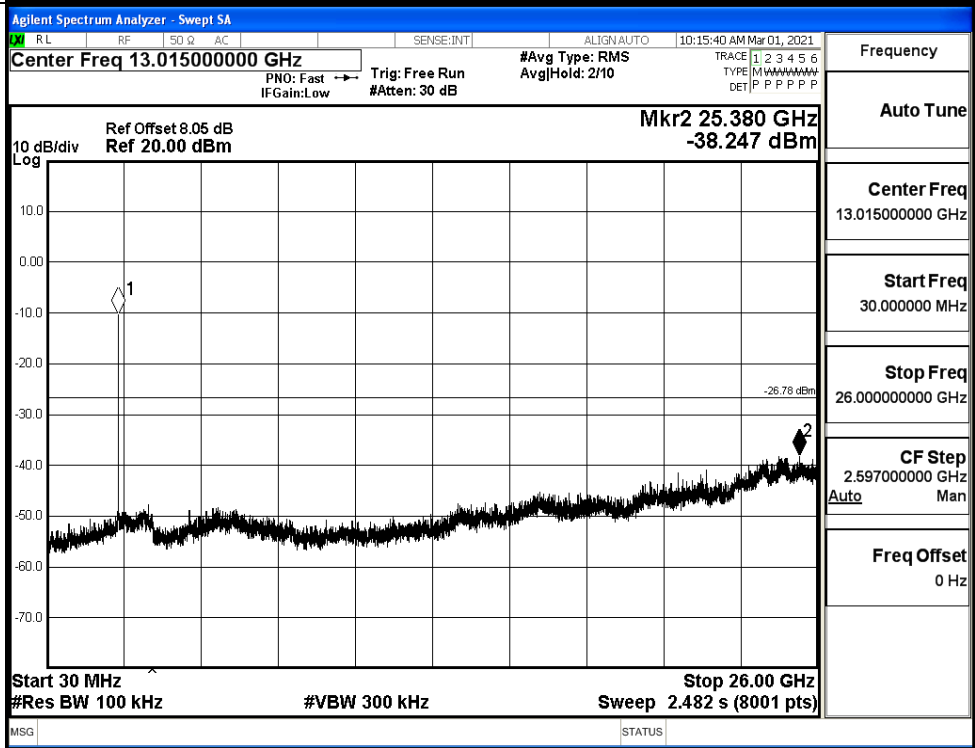


11G\_MCH\_Graphs

Pref/11G/MCH



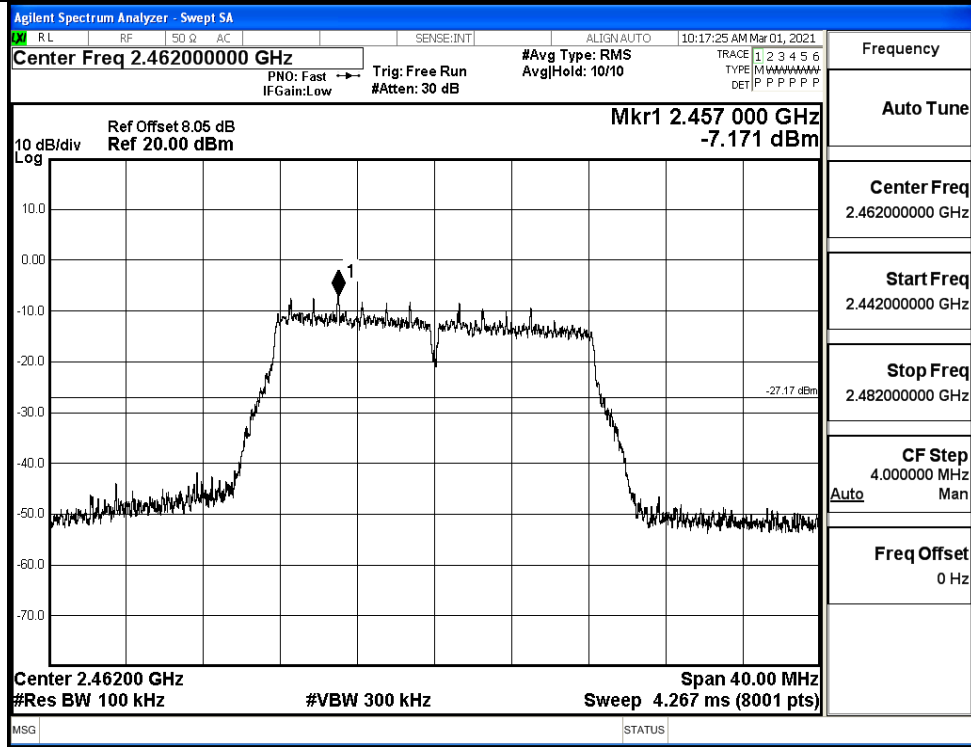
Puw/11G/MCH



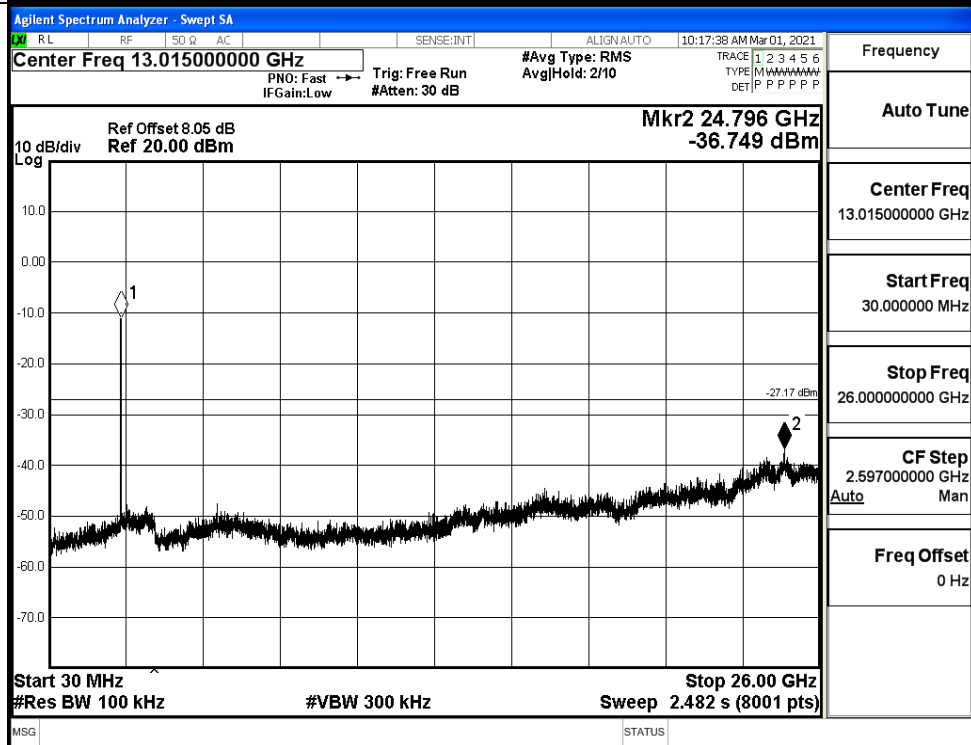


11G\_HCH\_Graphs

Pref/11G/HCH

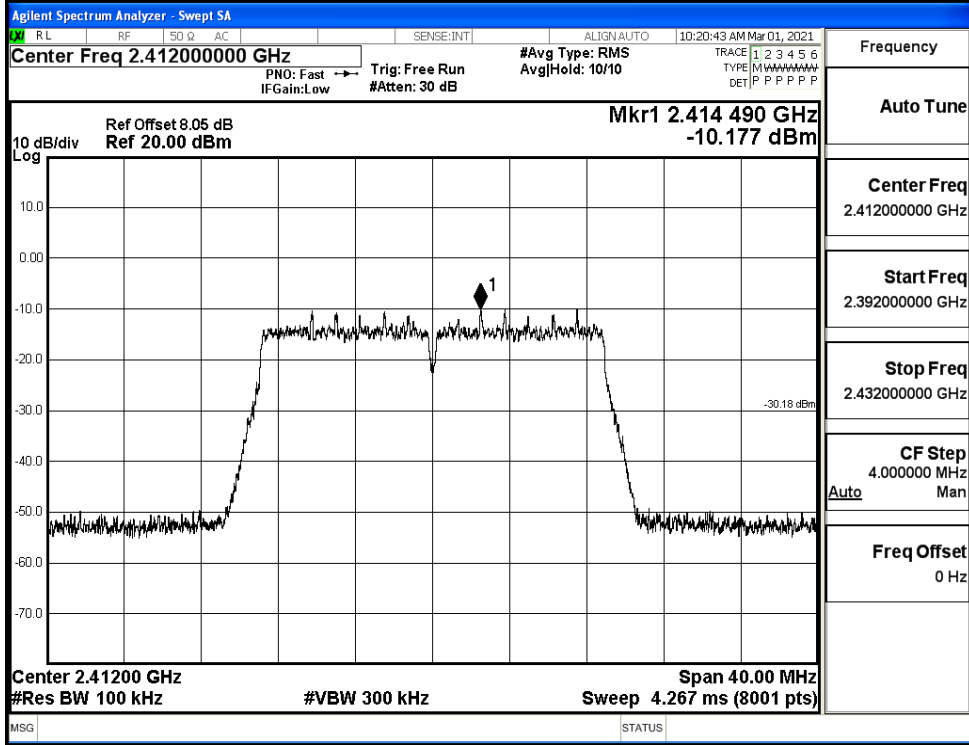


Puw/11G/HCH

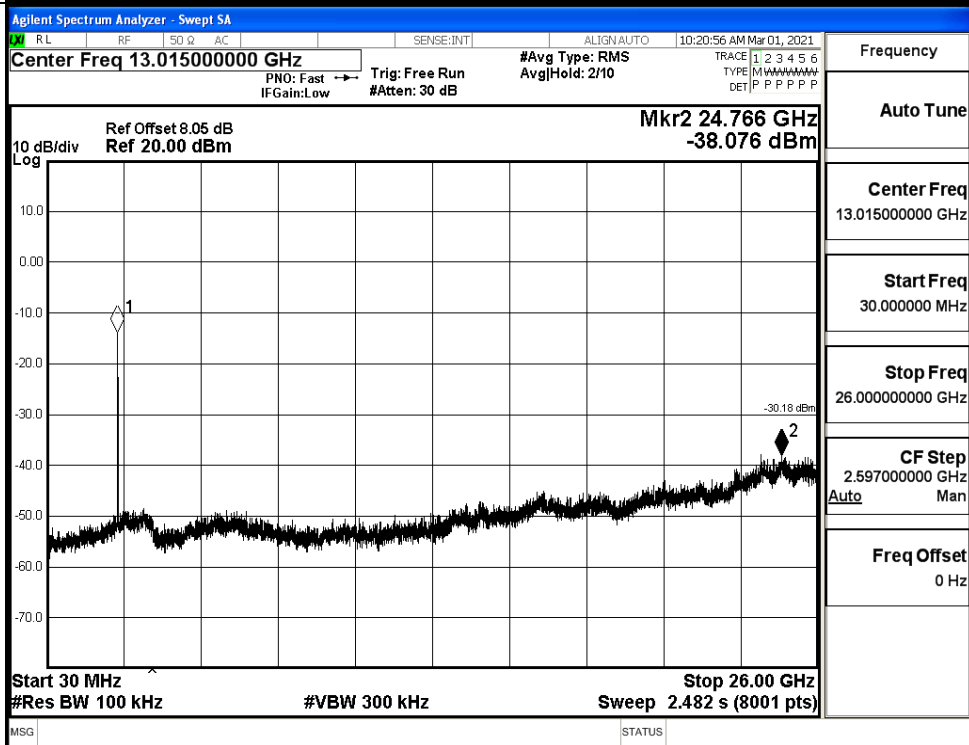


11N20SISO\_LCH\_Graphs

Pref/11N20SIS  
O/LCH

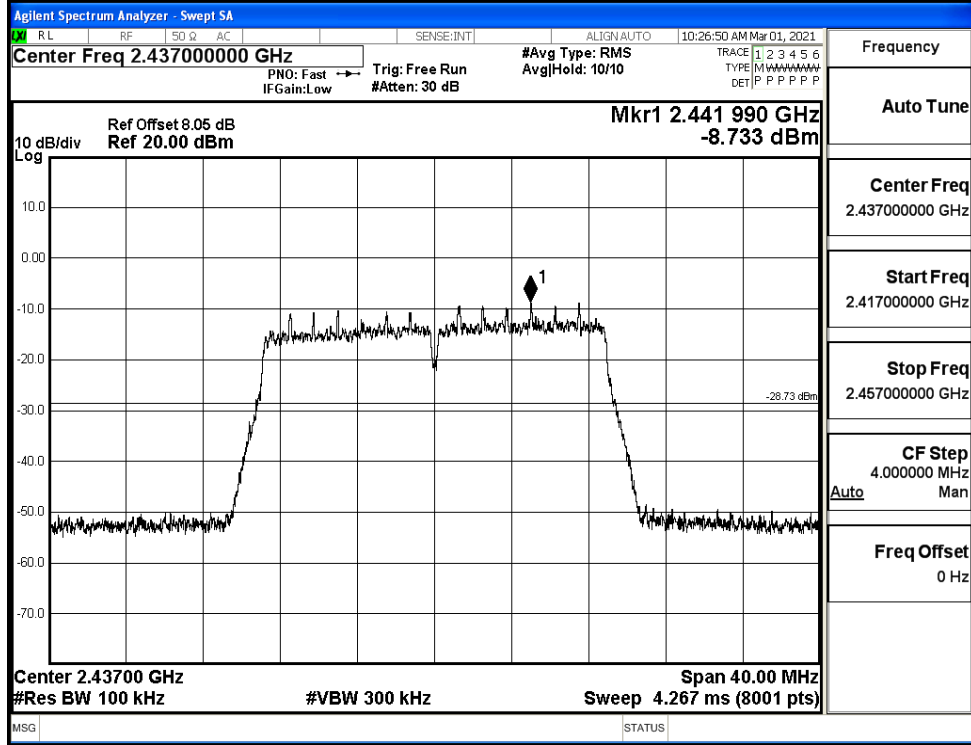


Puw/11N20  
SISO/LCH

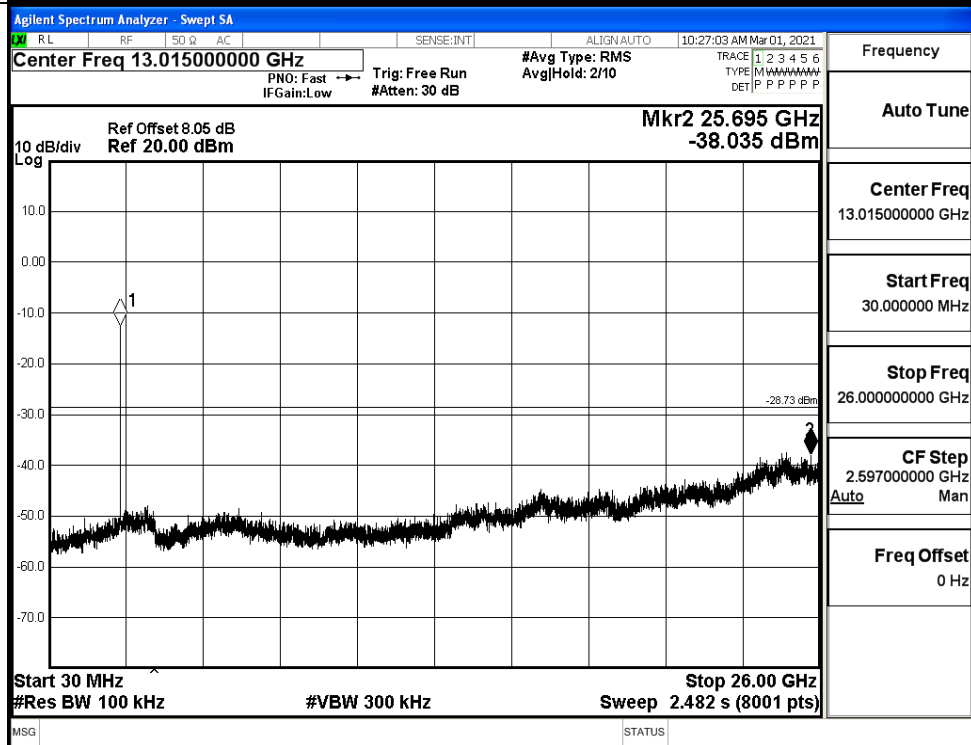


11N20SISO\_MCH\_Graphs

Pref/11N20  
SISO/MCH

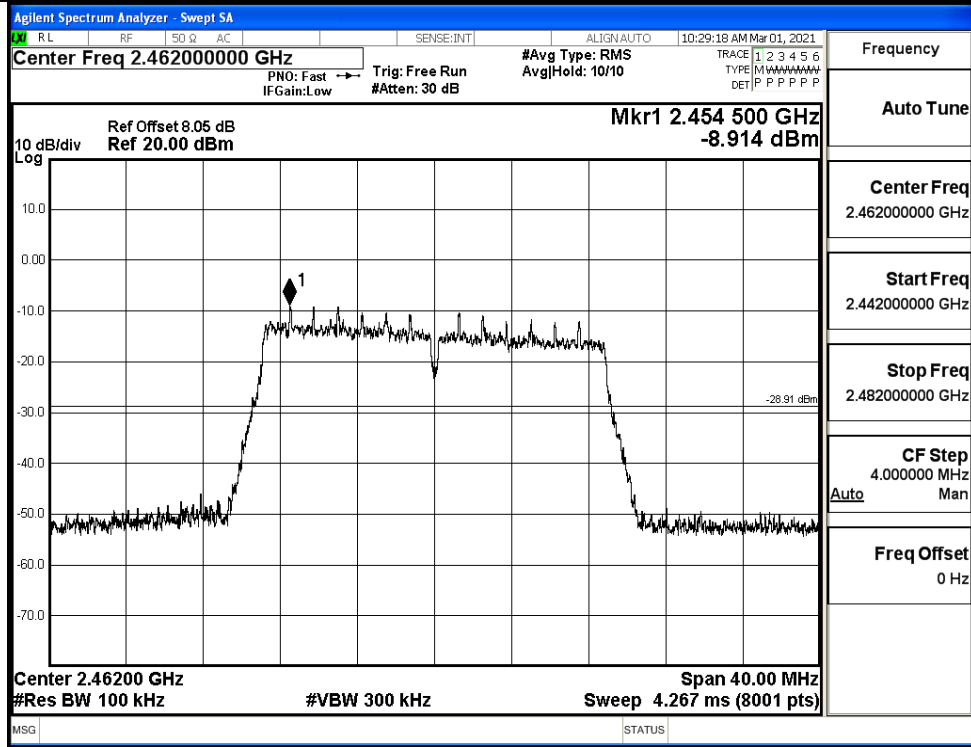


Puw/11N20  
SISO/MCH

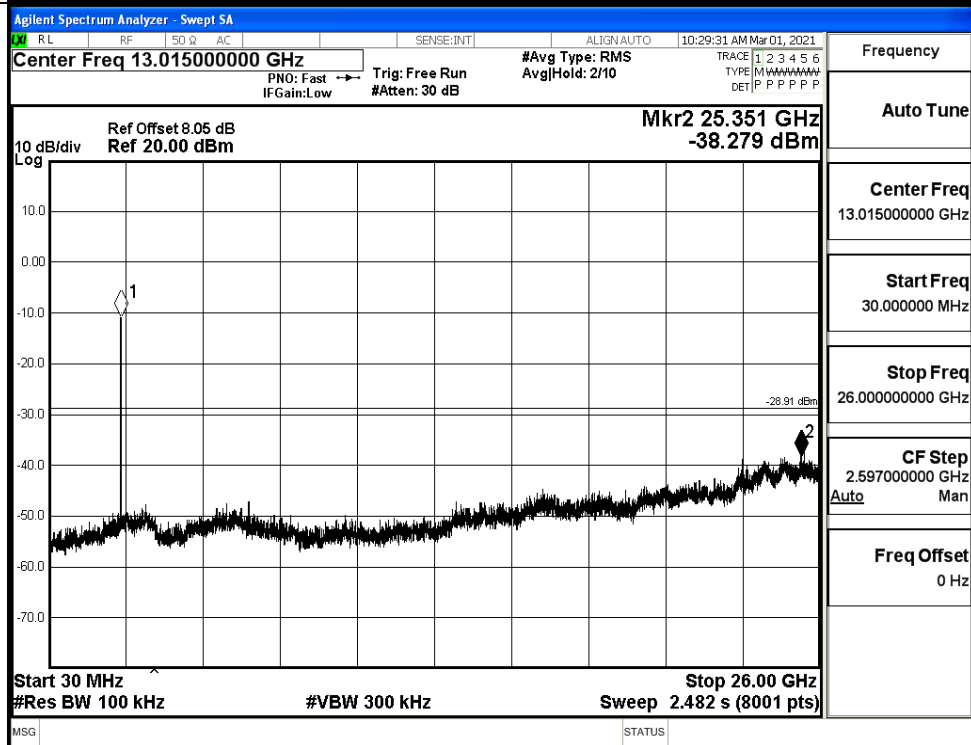


11N20SISO\_HCH\_Graphs

Pref/11N20  
SISO/HCH

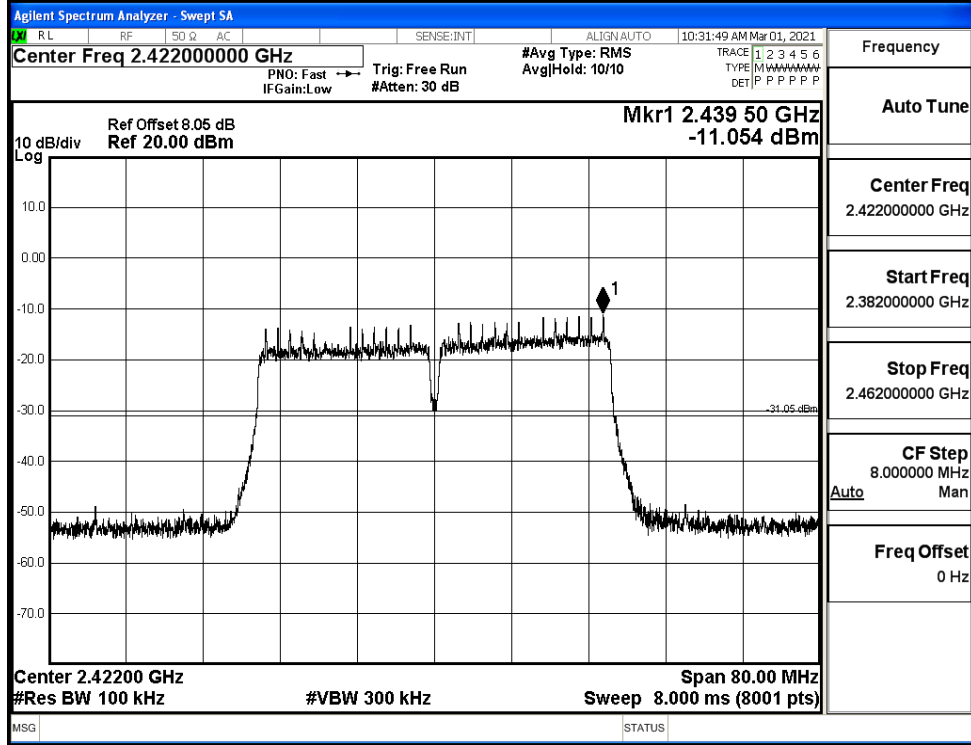


Puw/11N20  
SISO/HCH

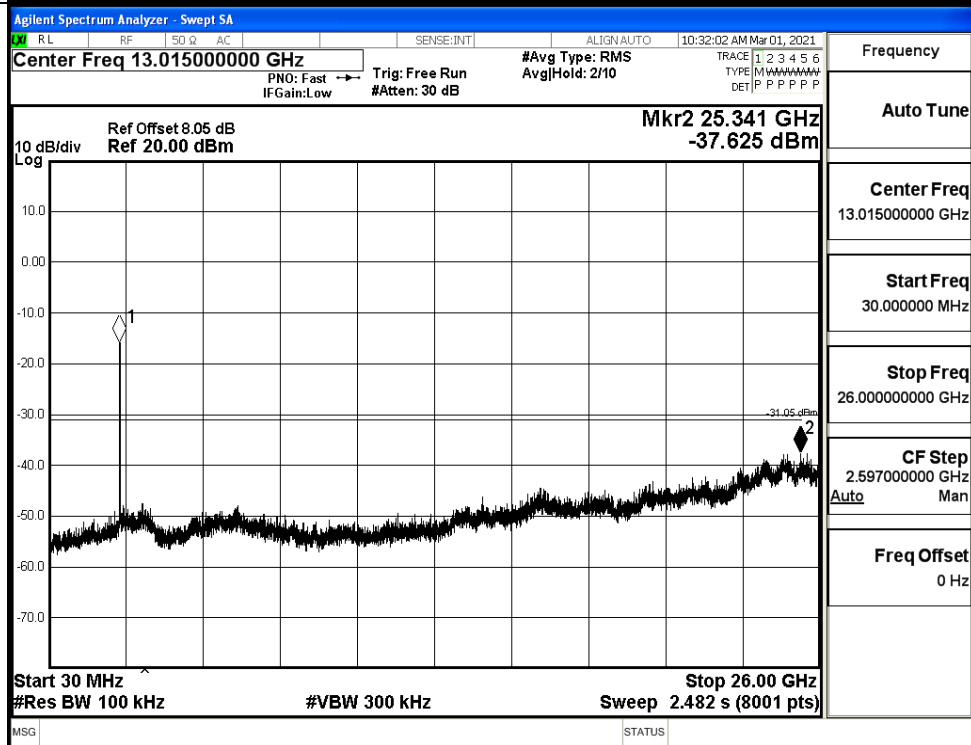


11N40SISO\_LCH\_Graphs

Pref/11N40  
SISO/LCH

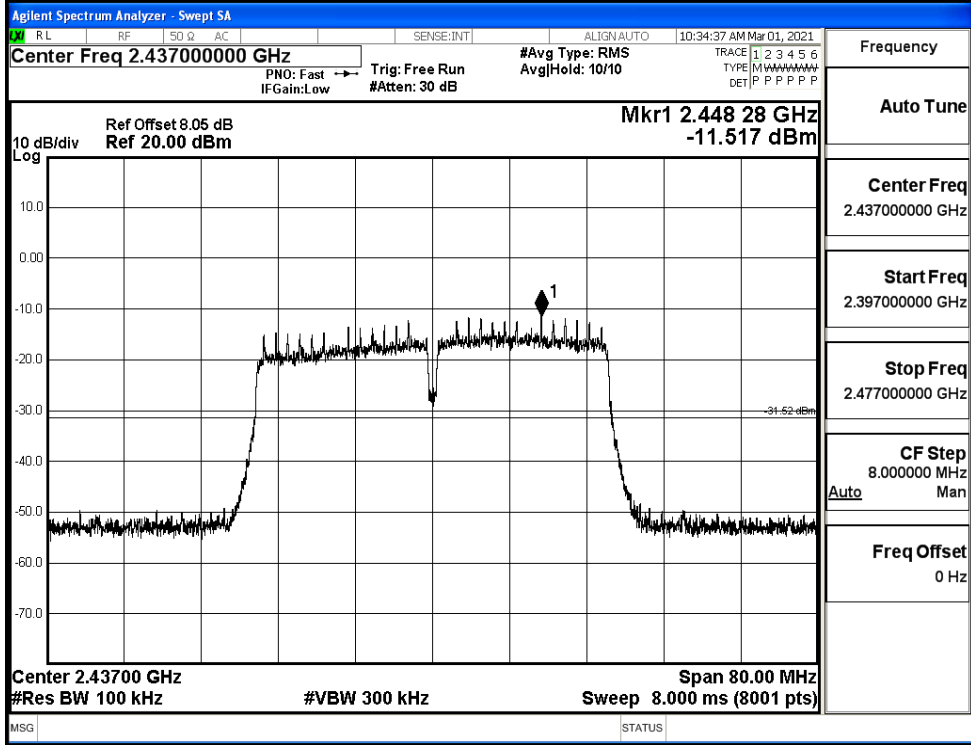


Puw/11N40  
SISO/LCH

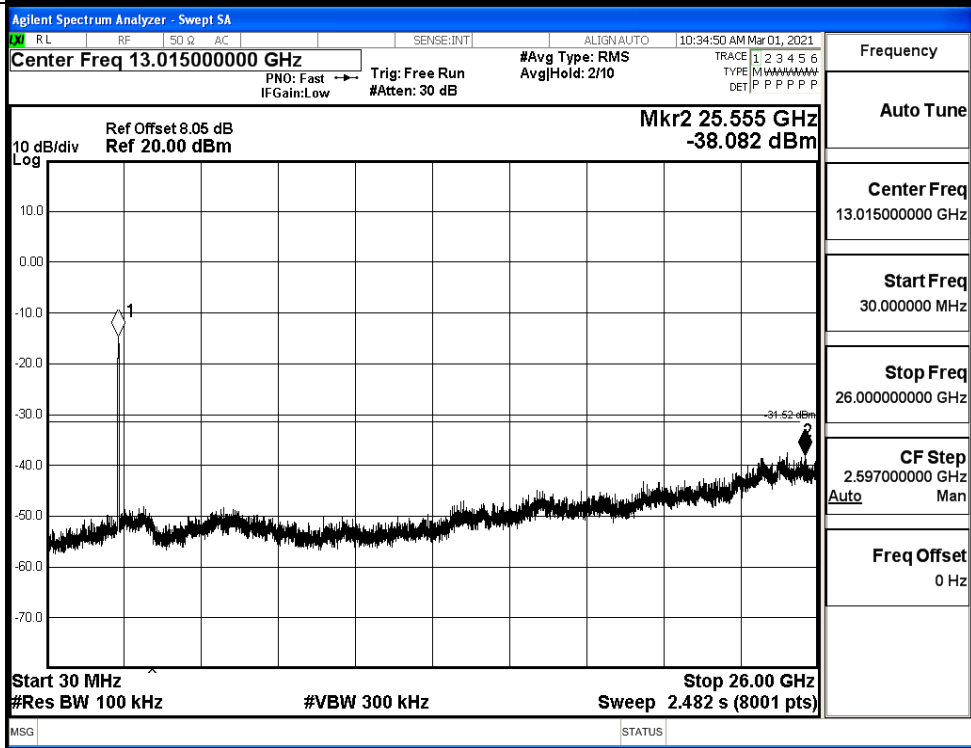


11N40SISO\_MCH\_Graphs

Pref/11N40  
SISO/MCH

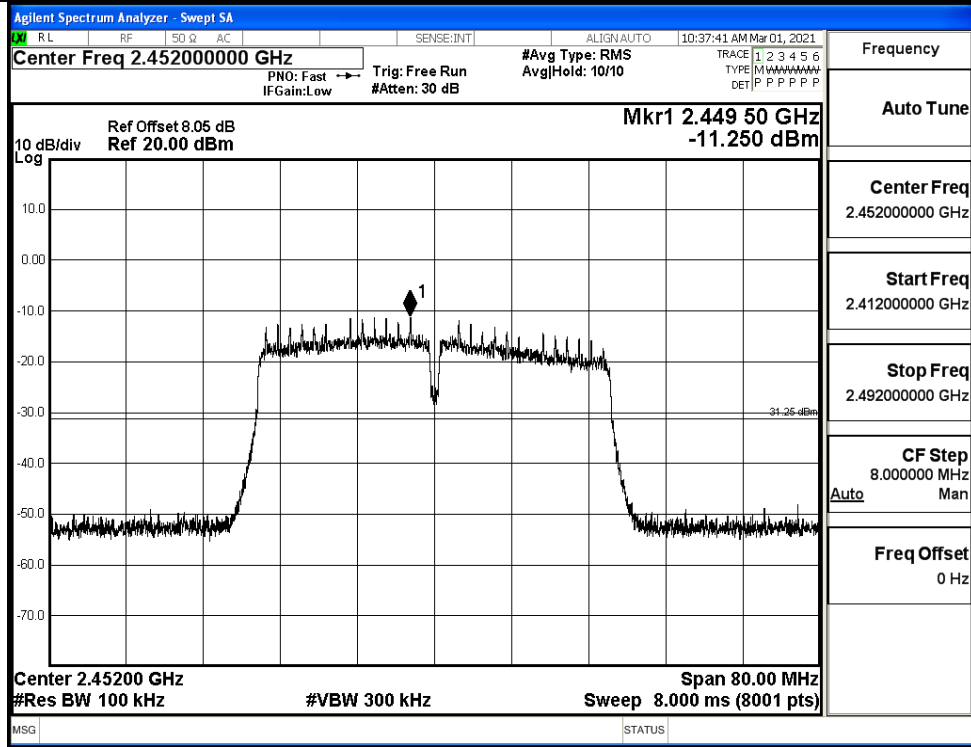


Puw/11N40  
SISO/MCH

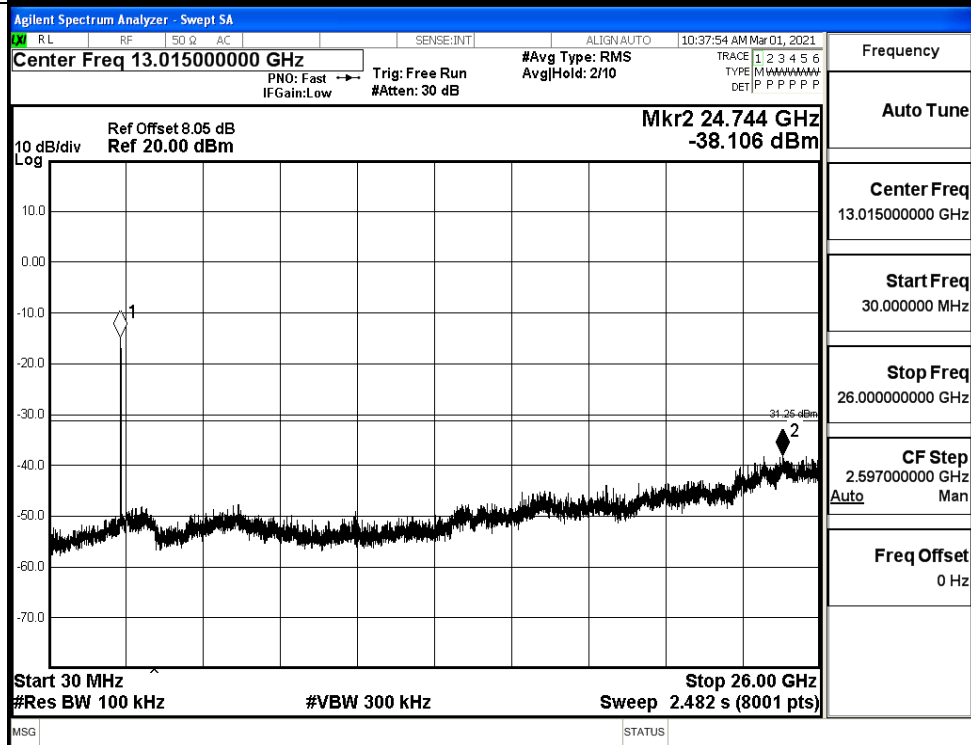


11N40SISO\_HCH\_Graphs

Pref/11N40  
SISO/HCH

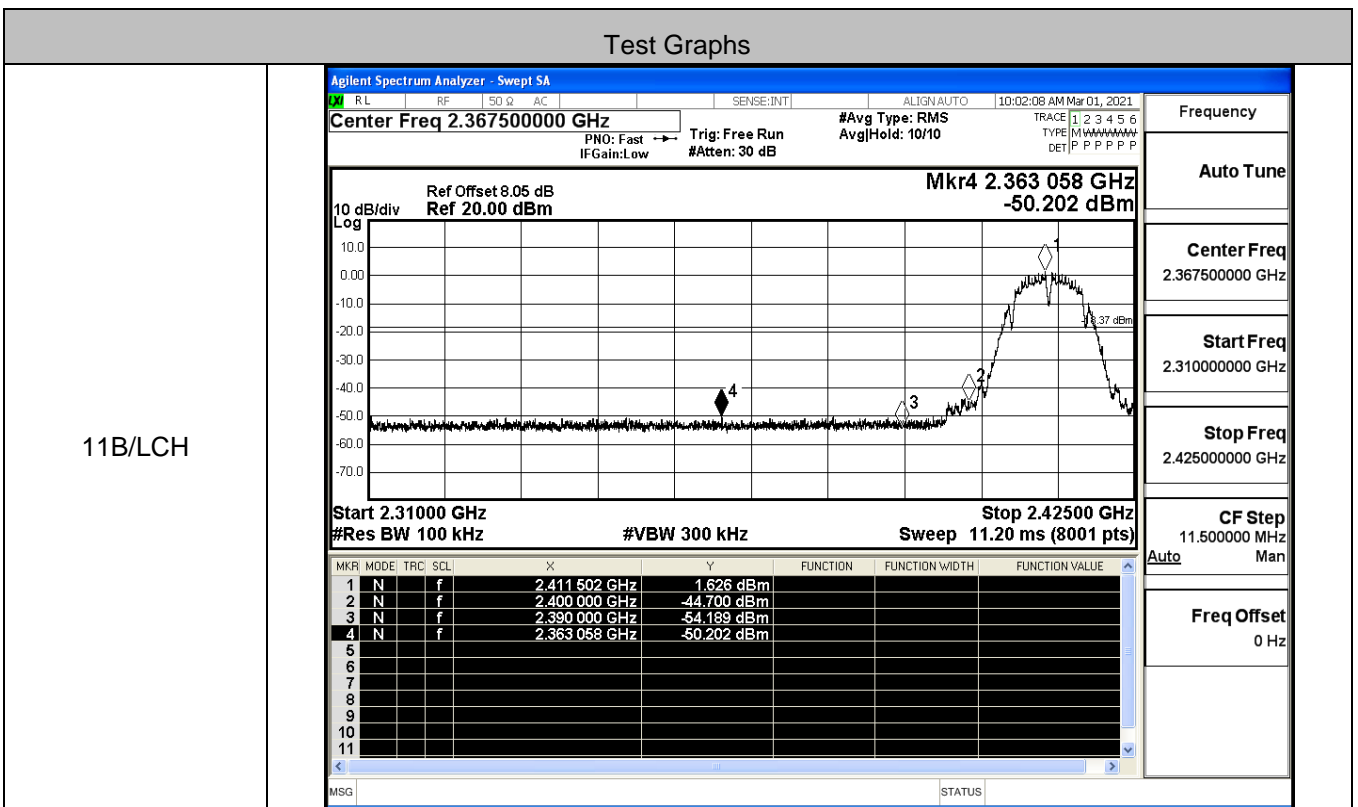


Puw/11N40  
SISO/HCH



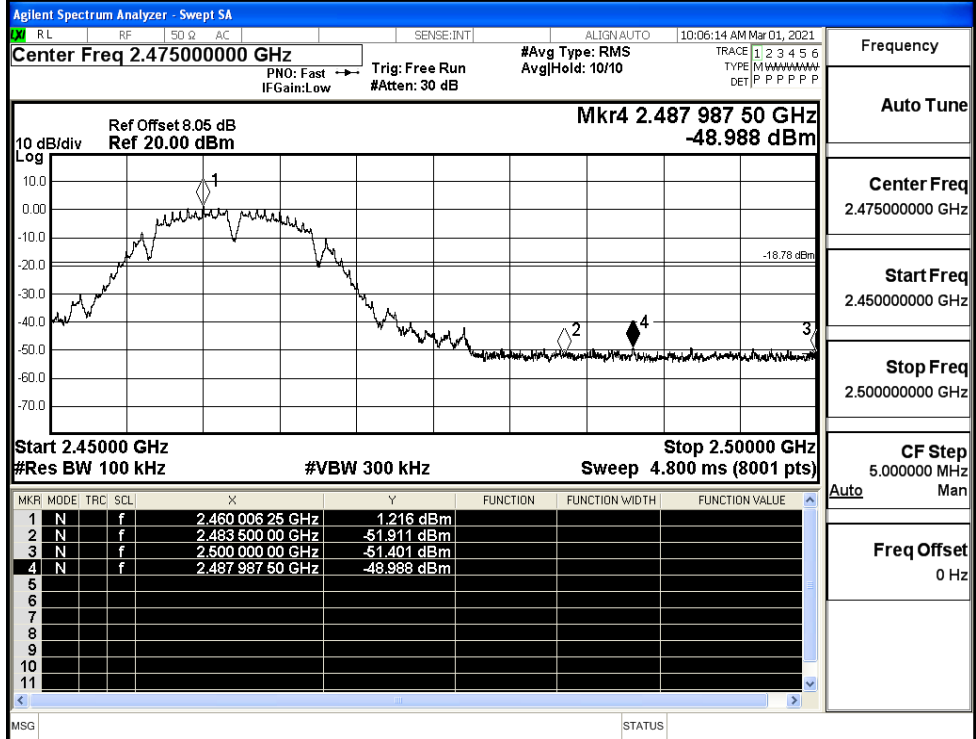
### B.6 Band-edge for RF Conducted Emissions

| Mode      | Channel | Carrier Power[dBm] | Max.Spurious Level [dBm] | Limit [dBm] | Verdict |
|-----------|---------|--------------------|--------------------------|-------------|---------|
| 11B       | LCH     | 1.626              | -50.202                  | -18.37      | PASS    |
|           | HCH     | 1.216              | -48.988                  | -18.78      | PASS    |
| 11G       | LCH     | -7.944             | -50.314                  | -27.94      | PASS    |
|           | HCH     | -6.768             | -49.228                  | -26.77      | PASS    |
| 11N20SISO | LCH     | -9.492             | -49.827                  | -29.49      | PASS    |
|           | HCH     | -9.068             | -48.549                  | -29.07      | PASS    |
| 11N40SISO | LCH     | -11.460            | -50.180                  | -31.46      | PASS    |
|           | HCH     | -11.300            | -49.922                  | -31.3       | PASS    |

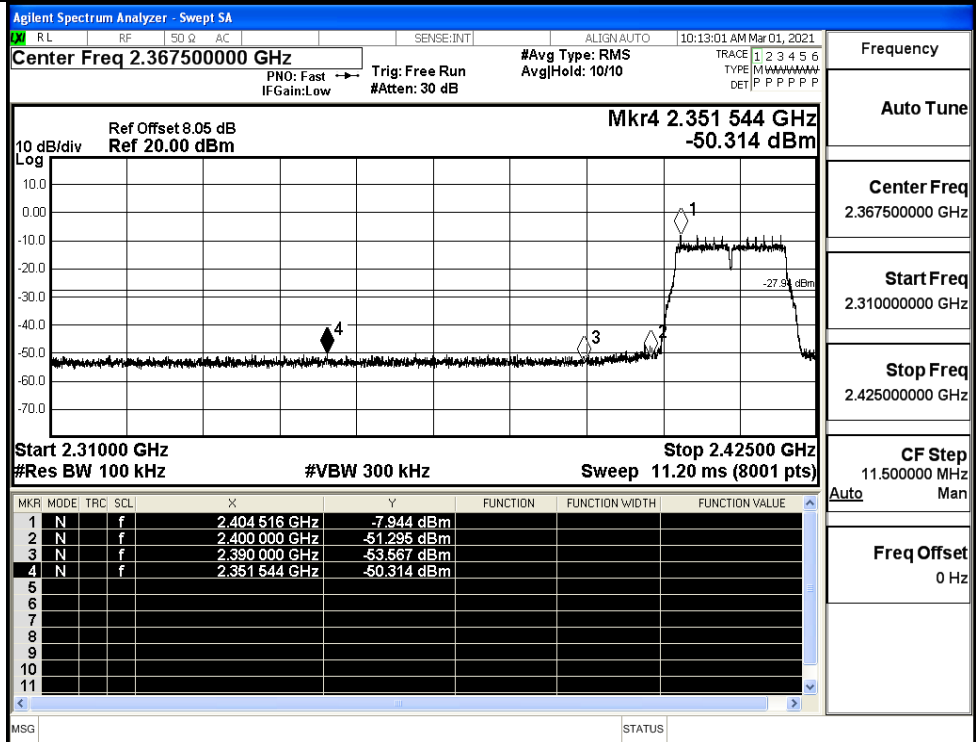




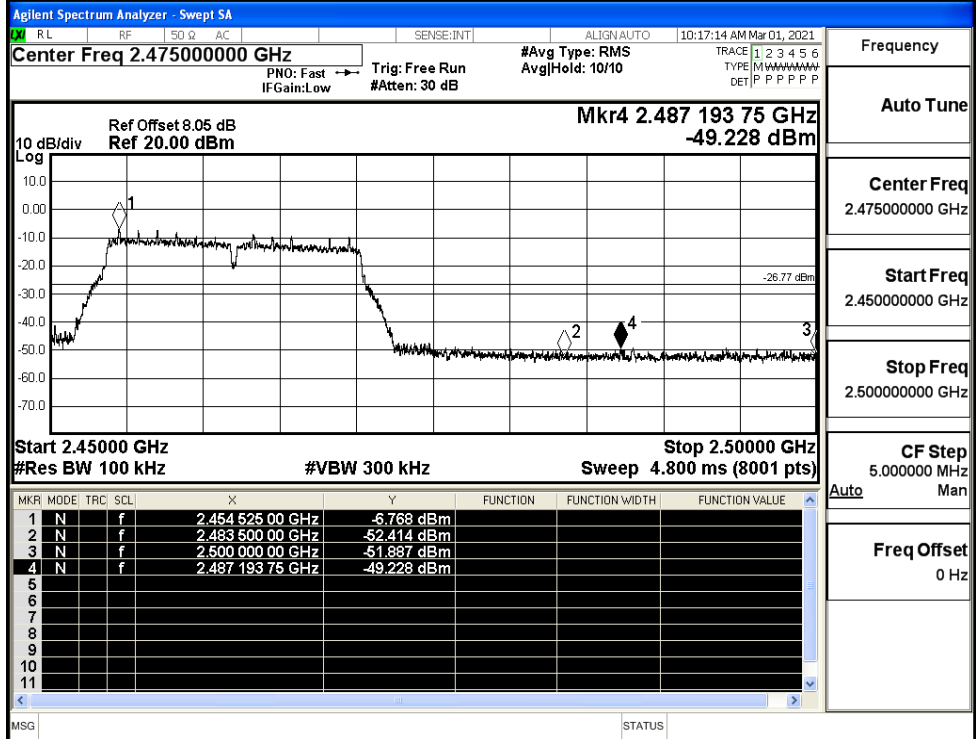
11B/HCH



11G/LCH

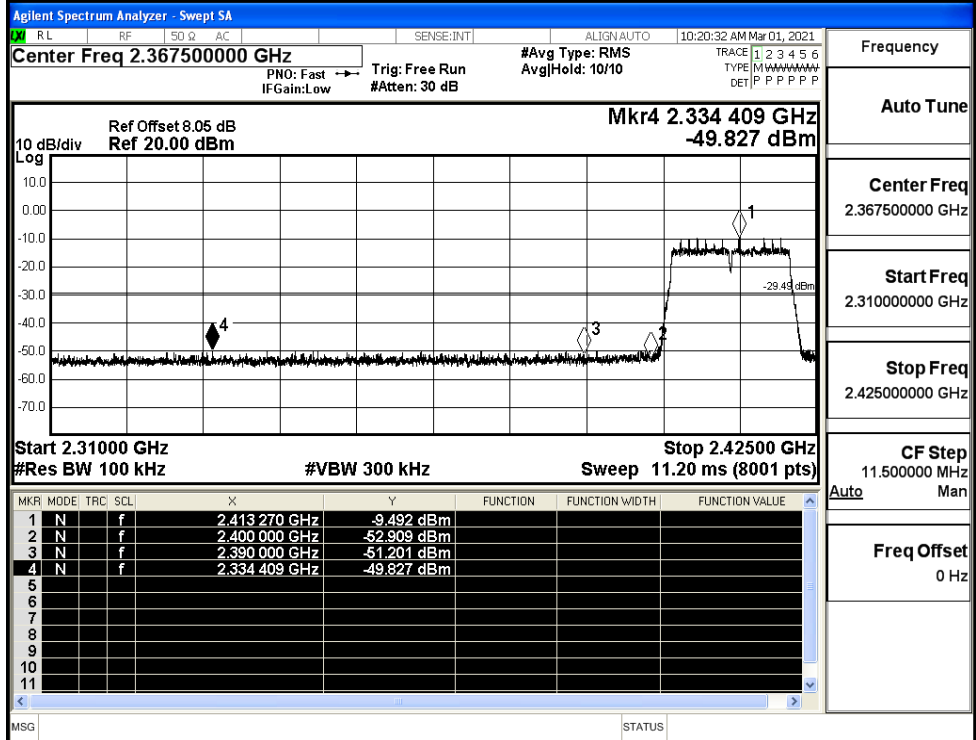


11G/HCH



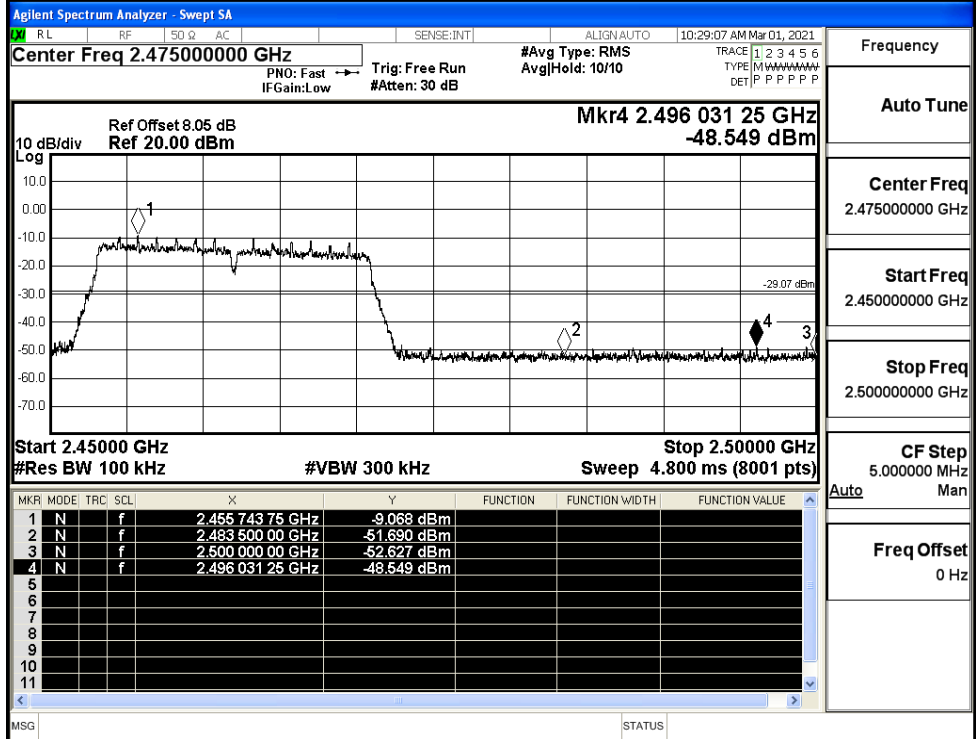
|             |                 |
|-------------|-----------------|
| Frequency   | 2.475000000 GHz |
| Auto Tune   |                 |
| Center Freq | 2.475000000 GHz |
| Start Freq  | 2.450000000 GHz |
| Stop Freq   | 2.500000000 GHz |
| CF Step     | 5.000000 MHz    |
| Freq Offset | 0 Hz            |

11N20SISO/LCH



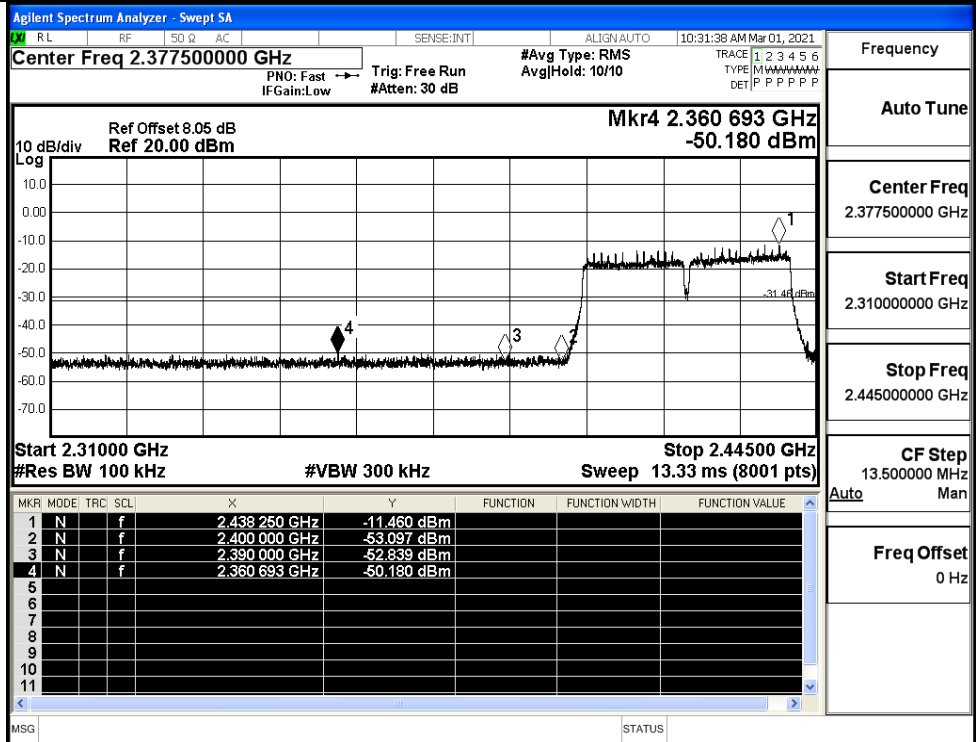
|             |                 |
|-------------|-----------------|
| Frequency   | 2.367500000 GHz |
| Auto Tune   |                 |
| Center Freq | 2.367500000 GHz |
| Start Freq  | 2.310000000 GHz |
| Stop Freq   | 2.425000000 GHz |
| CF Step     | 11.500000 MHz   |
| Freq Offset | 0 Hz            |

11N20SISO/HCH



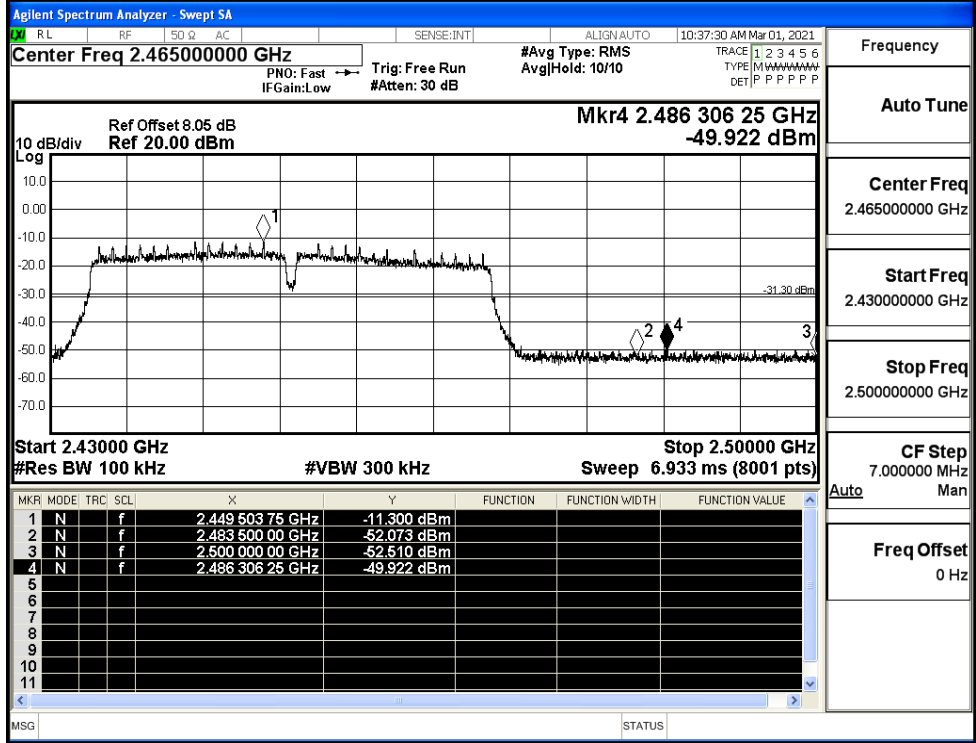
|             |                |
|-------------|----------------|
| Frequency   | 2.47500000 GHz |
| Auto Tune   |                |
| Center Freq | 2.47500000 GHz |
| Start Freq  | 2.45000000 GHz |
| Stop Freq   | 2.50000000 GHz |
| CF Step     | 5.000000 MHz   |
| Freq Offset | 0 Hz           |

11N40SISO/LCH



|             |                |
|-------------|----------------|
| Frequency   | 2.37750000 GHz |
| Auto Tune   |                |
| Center Freq | 2.37750000 GHz |
| Start Freq  | 2.31000000 GHz |
| Stop Freq   | 2.44500000 GHz |
| CF Step     | 13.500000 MHz  |
| Freq Offset | 0 Hz           |

11N40SISO/HCH

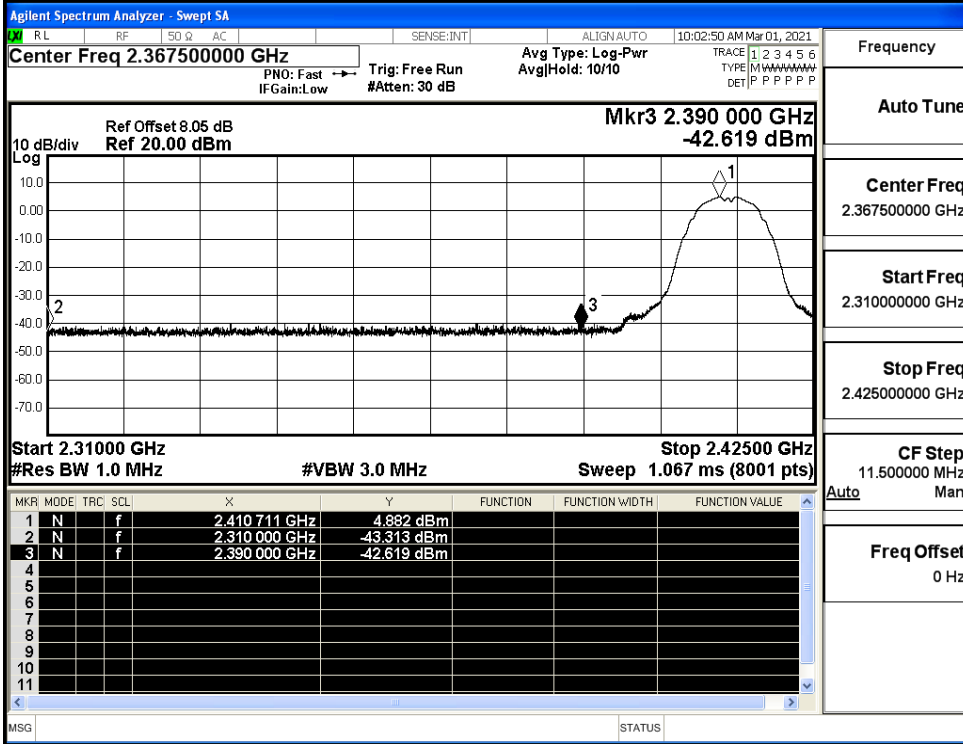


## B.7 Restrict-band band-edge measurements

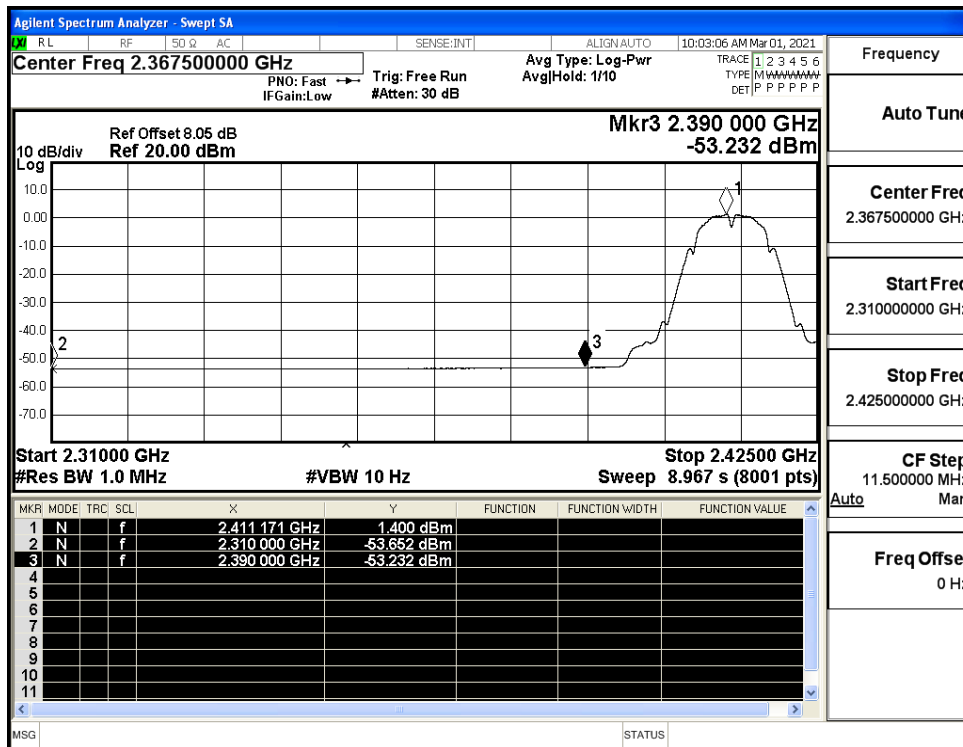
| Test Mode     | Test Channel | Ant  | Freq.  | Power [dBm] | Gain | Ground Factor | E [dBuV/m] | Detector | Limit [dBu V/m] | Verdict |
|---------------|--------------|------|--------|-------------|------|---------------|------------|----------|-----------------|---------|
| 11B           | 2412         | Ant1 | 2310.0 | -43.31      | 2.0  | 0             | 51.94      | PEAK     | 74              | PASS    |
|               | 2412         | Ant1 | 2310.0 | -53.65      | 2.0  | 0             | 41.61      | AV       | 54              | PASS    |
|               | 2412         | Ant1 | 2390.0 | -42.62      | 2.0  | 0             | 52.64      | PEAK     | 74              | PASS    |
|               | 2412         | Ant1 | 2390.0 | -53.23      | 2.0  | 0             | 42.03      | AV       | 54              | PASS    |
|               | 2462         | Ant1 | 2483.5 | -40.21      | 2.0  | 0             | 55.05      | PEAK     | 74              | PASS    |
|               | 2462         | Ant1 | 2483.5 | -51.95      | 2.0  | 0             | 43.31      | AV       | 54              | PASS    |
|               | 2462         | Ant1 | 2500.0 | -42.79      | 2.0  | 0             | 52.47      | PEAK     | 74              | PASS    |
|               | 2462         | Ant1 | 2500.0 | -52.67      | 2.0  | 0             | 42.58      | AV       | 54              | PASS    |
| 11G           | 2412         | Ant1 | 2310.0 | -42.35      | 2.0  | 0             | 52.91      | PEAK     | 74              | PASS    |
|               | 2412         | Ant1 | 2310.0 | -53.67      | 2.0  | 0             | 41.59      | AV       | 54              | PASS    |
|               | 2412         | Ant1 | 2390.0 | -42.28      | 2.0  | 0             | 52.98      | PEAK     | 74              | PASS    |
|               | 2412         | Ant1 | 2390.0 | -53.30      | 2.0  | 0             | 41.96      | AV       | 54              | PASS    |
|               | 2462         | Ant1 | 2483.5 | -42.24      | 2.0  | 0             | 53.02      | PEAK     | 74              | PASS    |
|               | 2462         | Ant1 | 2483.5 | -52.56      | 2.0  | 0             | 42.70      | AV       | 54              | PASS    |
|               | 2462         | Ant1 | 2500.0 | -42.79      | 2.0  | 0             | 52.47      | PEAK     | 74              | PASS    |
|               | 2462         | Ant1 | 2500.0 | -52.74      | 2.0  | 0             | 42.52      | AV       | 54              | PASS    |
| 11N20<br>SISO | 2412         | Ant1 | 2310.0 | -43.28      | 2.0  | 0             | 51.98      | PEAK     | 74              | PASS    |
|               | 2412         | Ant1 | 2310.0 | -53.71      | 2.0  | 0             | 41.54      | AV       | 54              | PASS    |
|               | 2412         | Ant1 | 2390.0 | -42.89      | 2.0  | 0             | 52.37      | PEAK     | 74              | PASS    |
|               | 2412         | Ant1 | 2390.0 | -53.30      | 2.0  | 0             | 41.95      | AV       | 54              | PASS    |
|               | 2462         | Ant1 | 2483.5 | -42.31      | 2.0  | 0             | 52.95      | PEAK     | 74              | PASS    |
|               | 2462         | Ant1 | 2483.5 | -52.71      | 2.0  | 0             | 42.55      | AV       | 54              | PASS    |
|               | 2462         | Ant1 | 2500.0 | -42.66      | 2.0  | 0             | 52.60      | PEAK     | 74              | PASS    |
|               | 2462         | Ant1 | 2500.0 | -52.71      | 2.0  | 0             | 42.55      | AV       | 54              | PASS    |
| 11N40<br>SISO | 2422         | Ant1 | 2310.0 | -43.32      | 2.0  | 0             | 51.94      | PEAK     | 74              | PASS    |
|               | 2422         | Ant1 | 2310.0 | -53.67      | 2.0  | 0             | 41.58      | AV       | 54              | PASS    |

|  |      |      |        |        |     |   |       |      |    |      |
|--|------|------|--------|--------|-----|---|-------|------|----|------|
|  | 2422 | Ant1 | 2390.0 | -42.29 | 2.0 | 0 | 52.97 | PEAK | 74 | PASS |
|  | 2422 | Ant1 | 2390.0 | -53.30 | 2.0 | 0 | 41.95 | AV   | 54 | PASS |
|  | 2452 | Ant1 | 2483.5 | -43.52 | 2.0 | 0 | 51.74 | PEAK | 74 | PASS |
|  | 2452 | Ant1 | 2483.5 | -52.74 | 2.0 | 0 | 42.52 | AV   | 54 | PASS |
|  | 2452 | Ant1 | 2500.0 | -42.35 | 2.0 | 0 | 52.91 | PEAK | 74 | PASS |
|  | 2452 | Ant1 | 2500.0 | -52.71 | 2.0 | 0 | 42.55 | AV   | 54 | PASS |

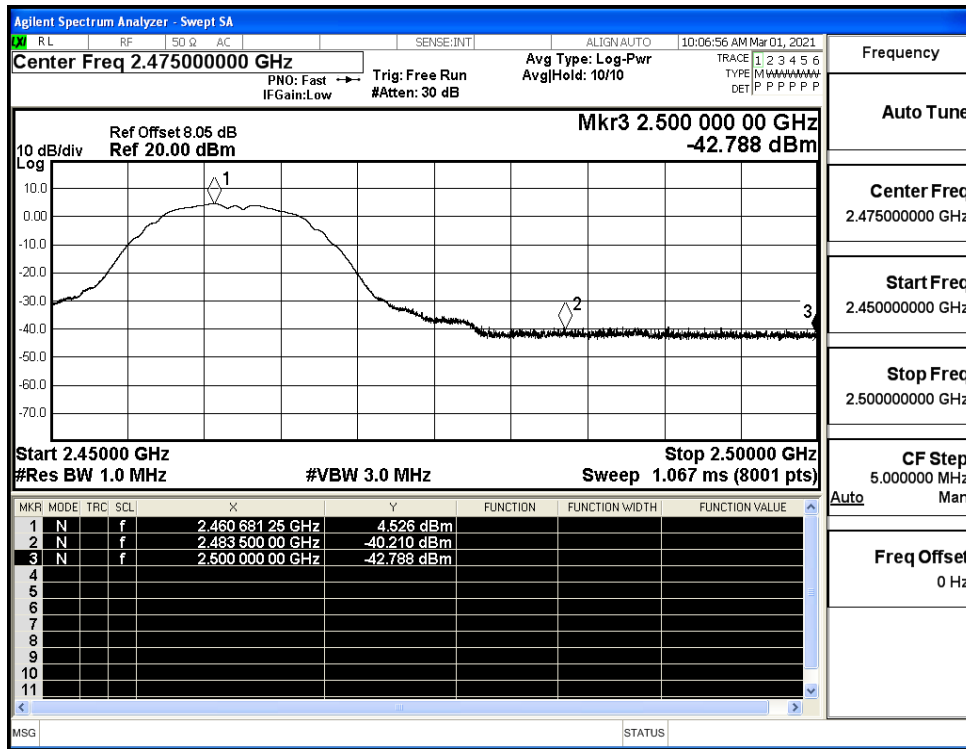
Restrict-band band-edge measurements\_11B\_2412\_Ant1\_PEAK



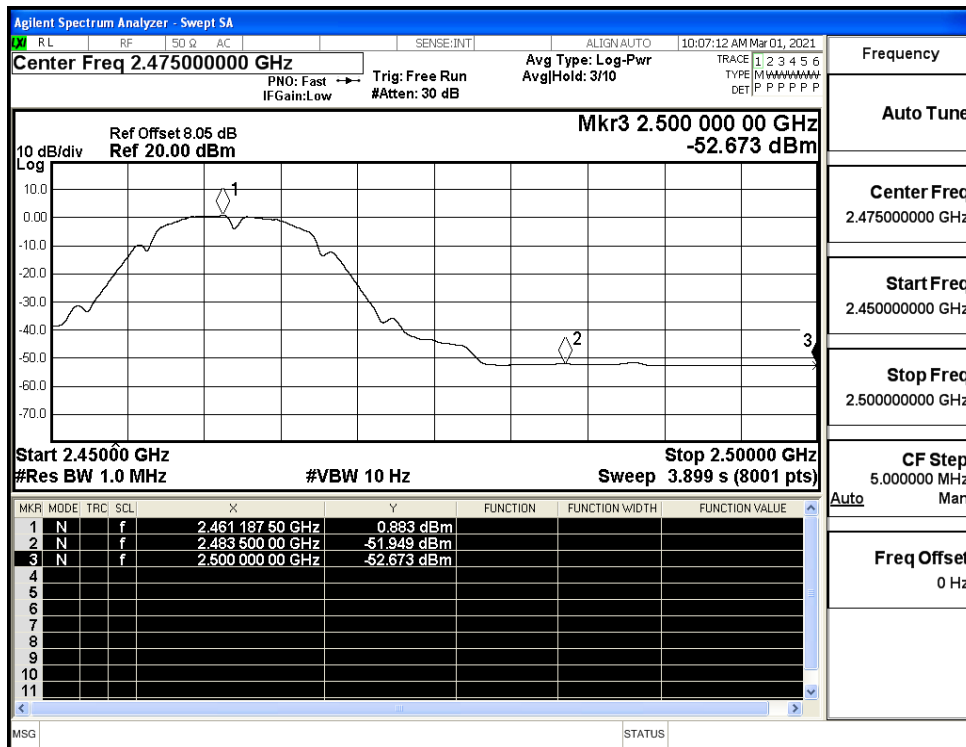
Restrict-band band-edge measurements\_11B\_2412\_Ant1\_AV



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

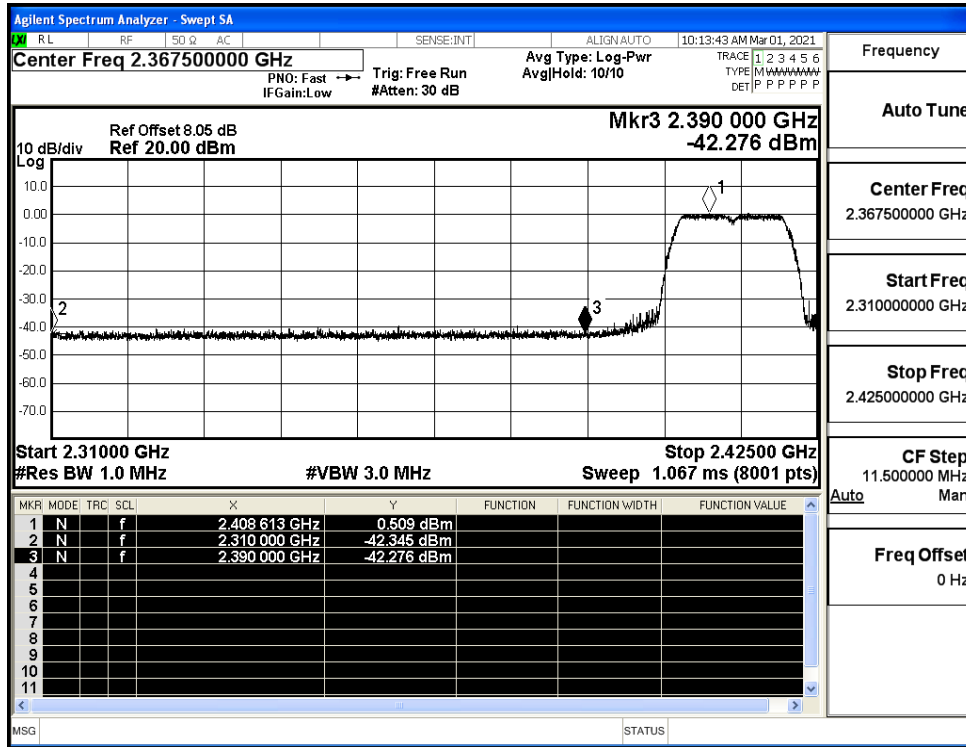


Restrict-band band-edge measurements\_11B\_2462\_Ant1\_AV

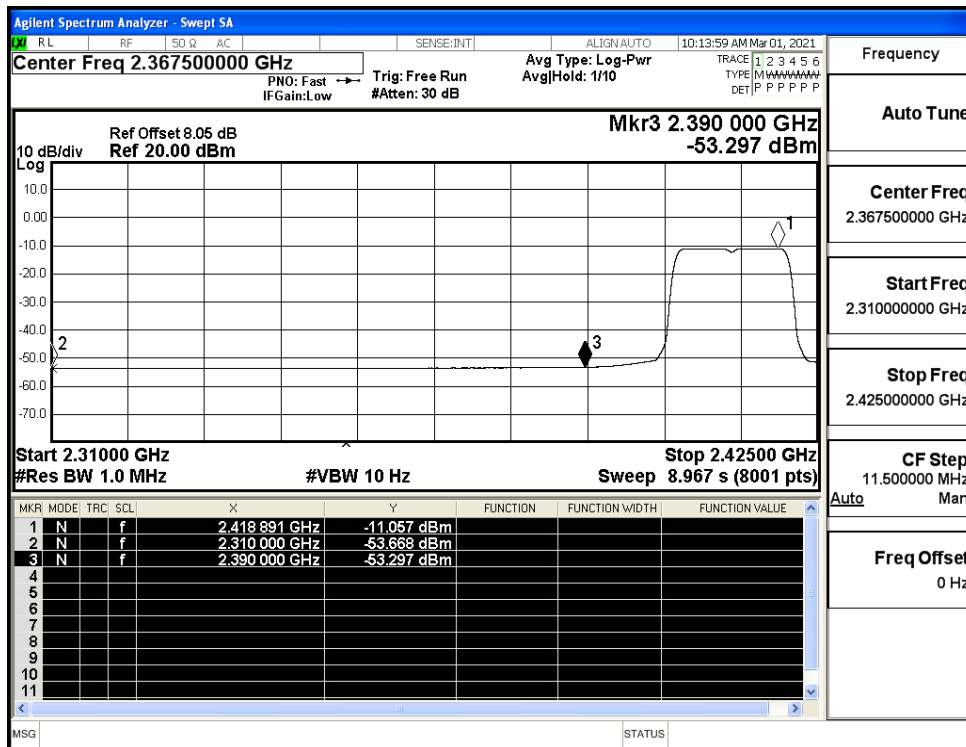




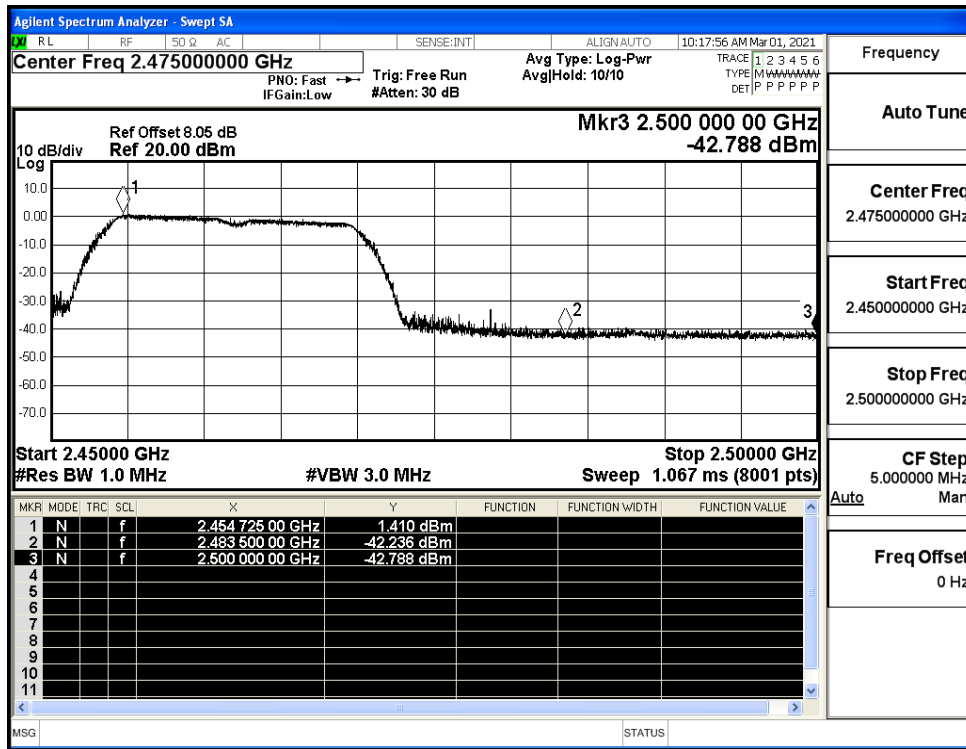
Restrict-band band-edge measurements\_11G\_2412\_Ant1\_PEAK



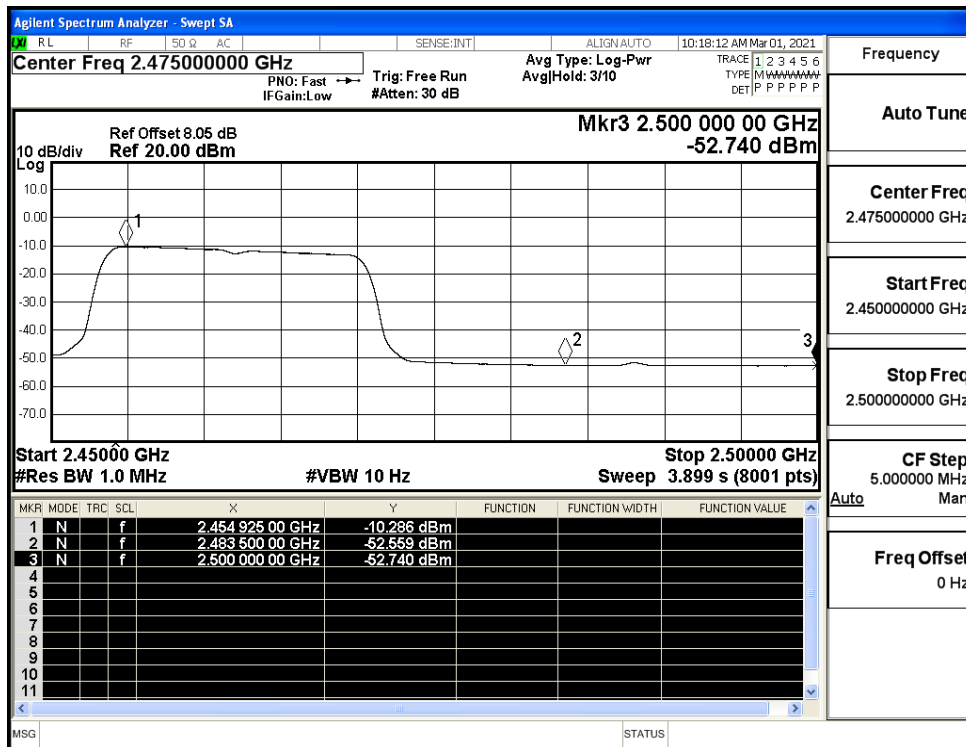
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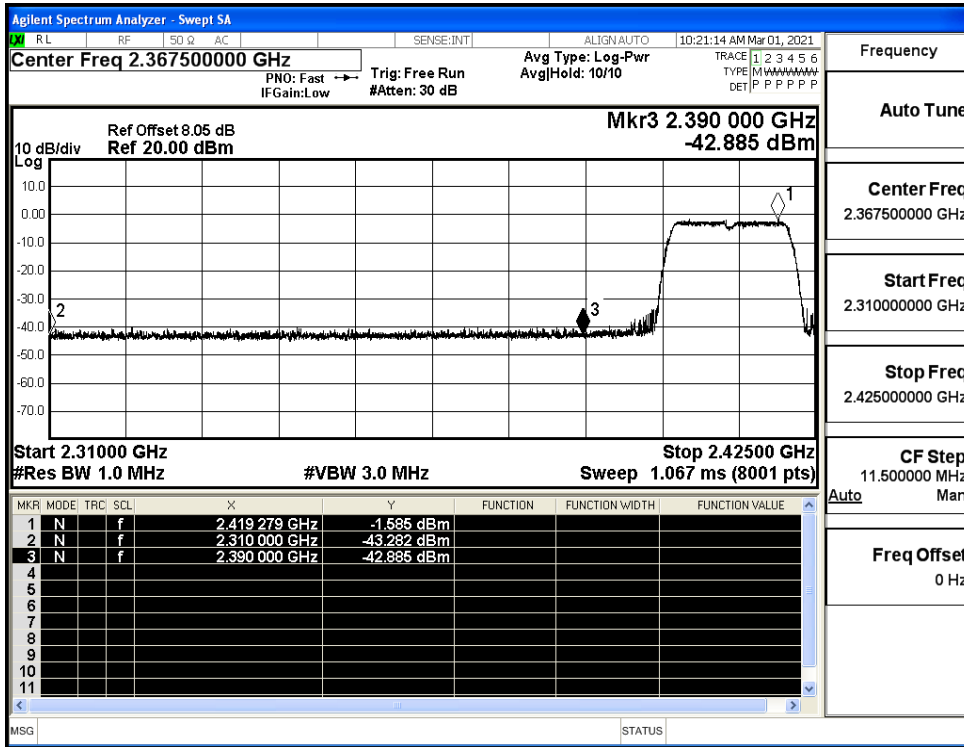
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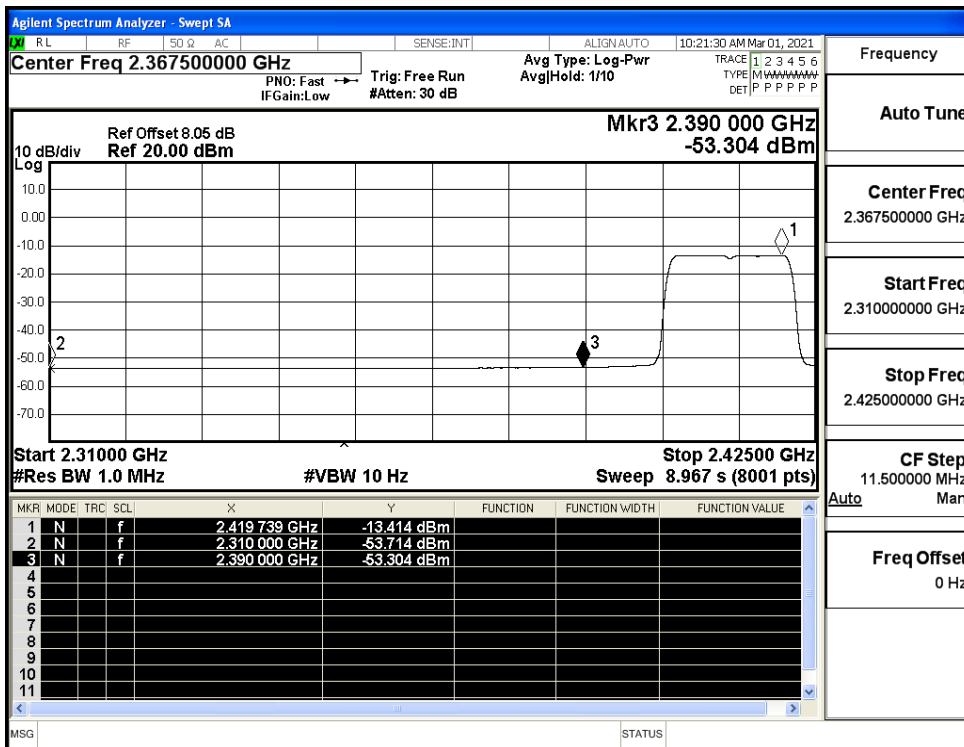
Restrict-band band-edge measurements\_11G\_2462\_Ant1\_AV



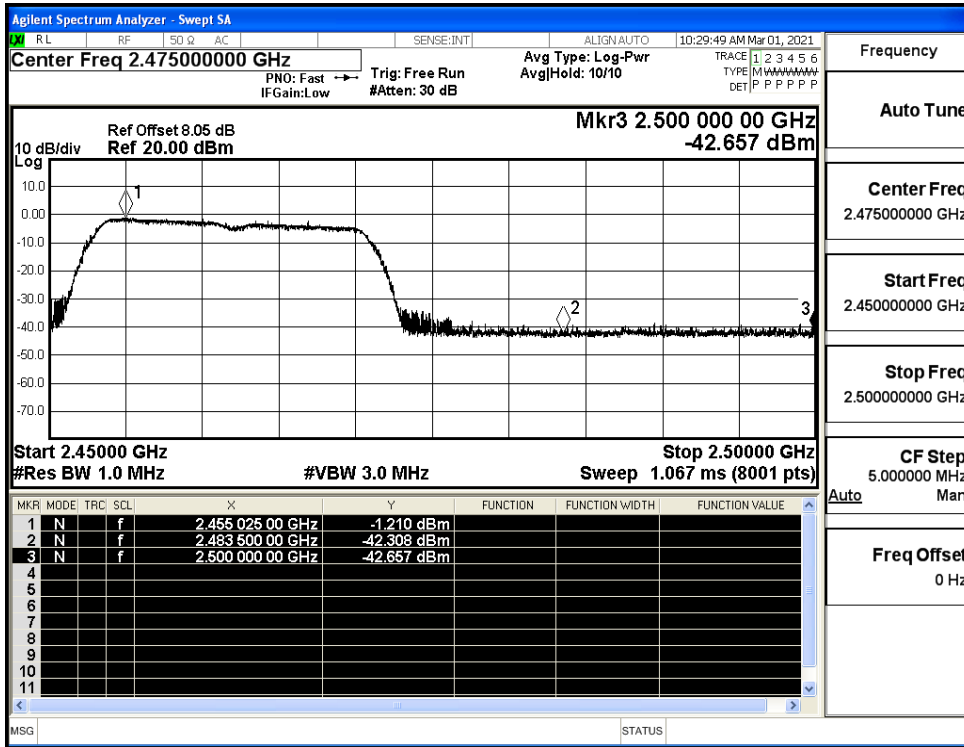
Restrict-band band-edge measurements\_11N20SISO\_2412\_Ant1\_PEAK



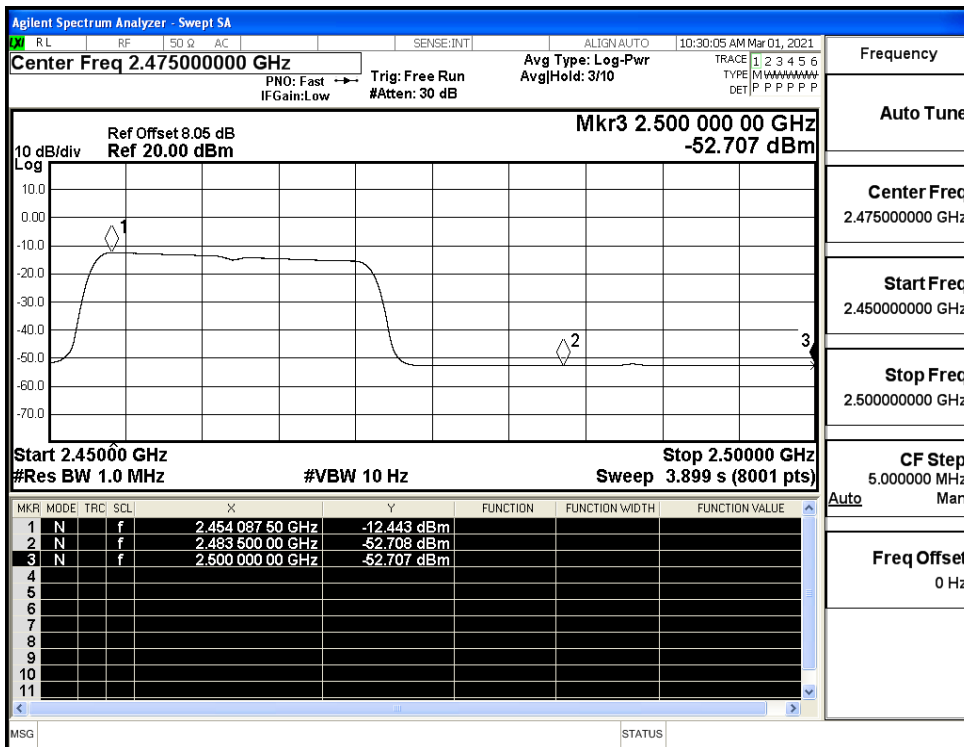
Restrict-band band-edge measurements\_11N20SISO\_2412\_Ant1\_AV



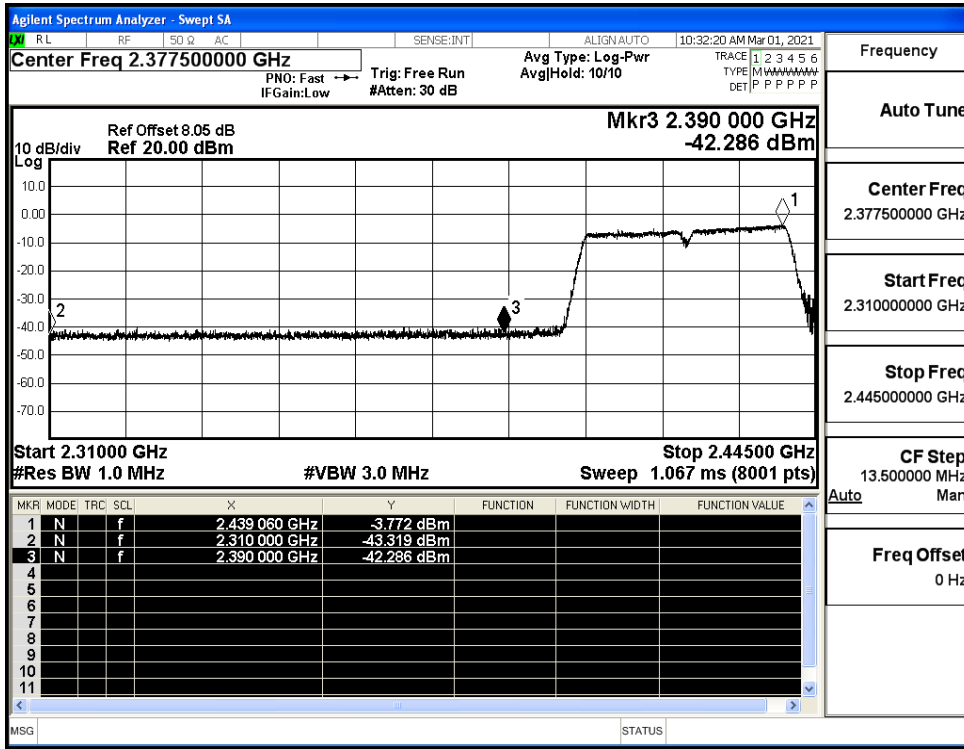
Restrict-band band-edge measurements\_11N20SISO\_2462\_Ant1\_PEAK



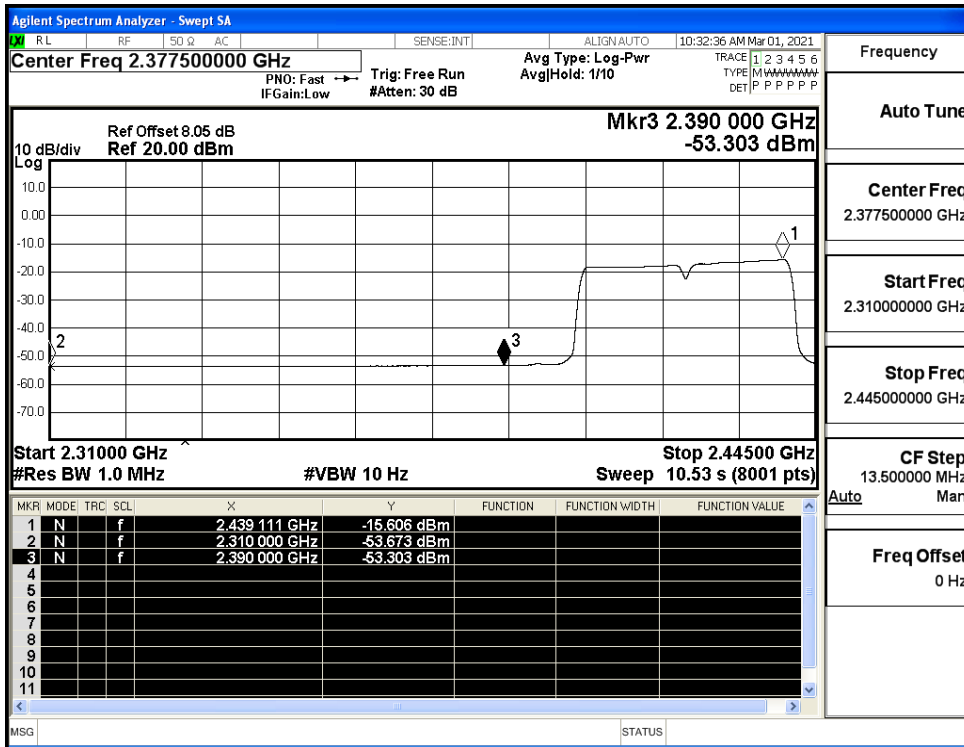
Restrict-band band-edge measurements\_11N20SISO\_2462\_Ant1\_AV



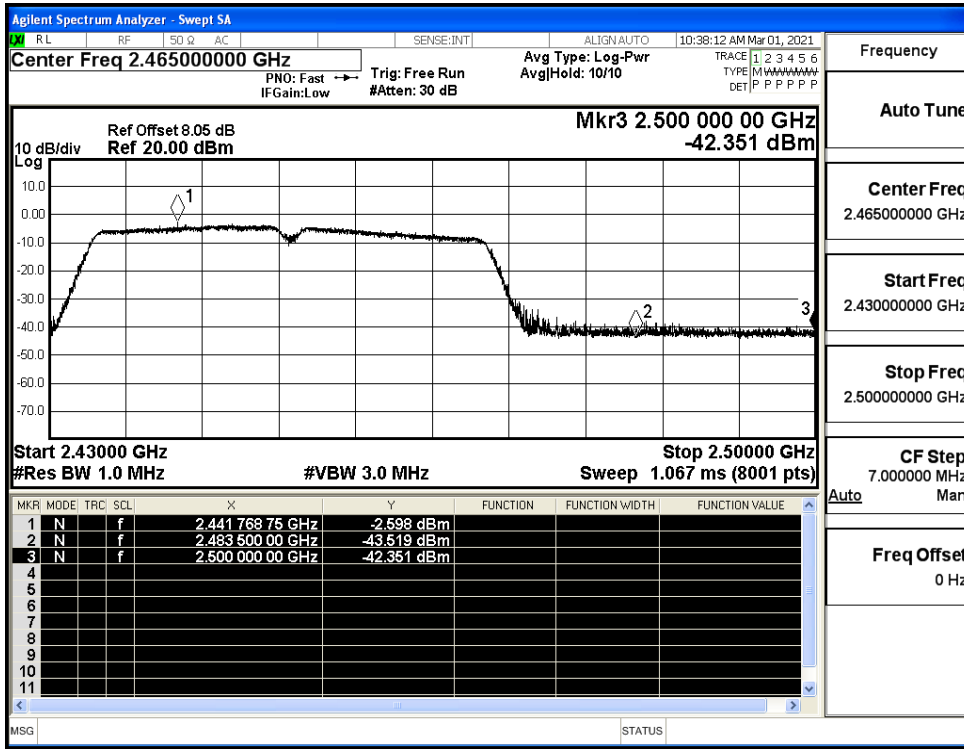
Restrict-band band-edge measurements\_11N40SISO\_2422\_Ant1\_PEAK



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

