

Appendix A

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: ETH Wi-Fi Bridge

Trade Mark: N/A

Test Model: ALXB10

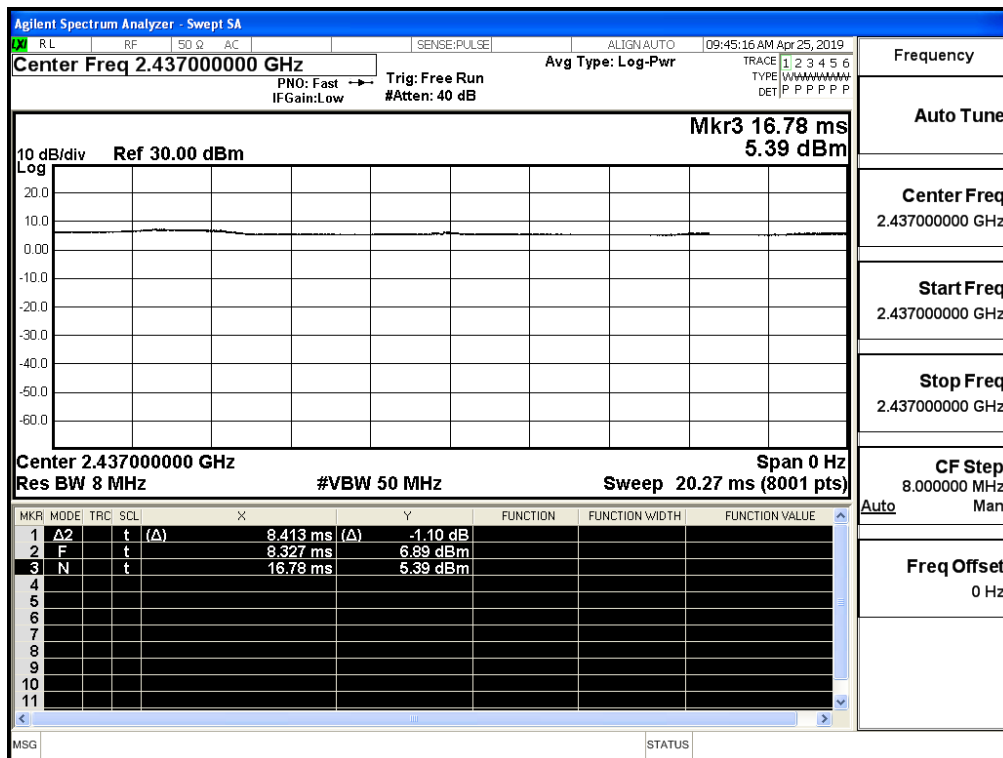
Environmental Conditions

| | |
|--------------------|-----------|
| Temperature: | 24.6 ° C |
| Relative Humidity: | 52.9% |
| ATM Pressure: | 100.0 kPa |
| Test Engineer: | SCENT HU |
| Supervised by: | Tom.Liu |

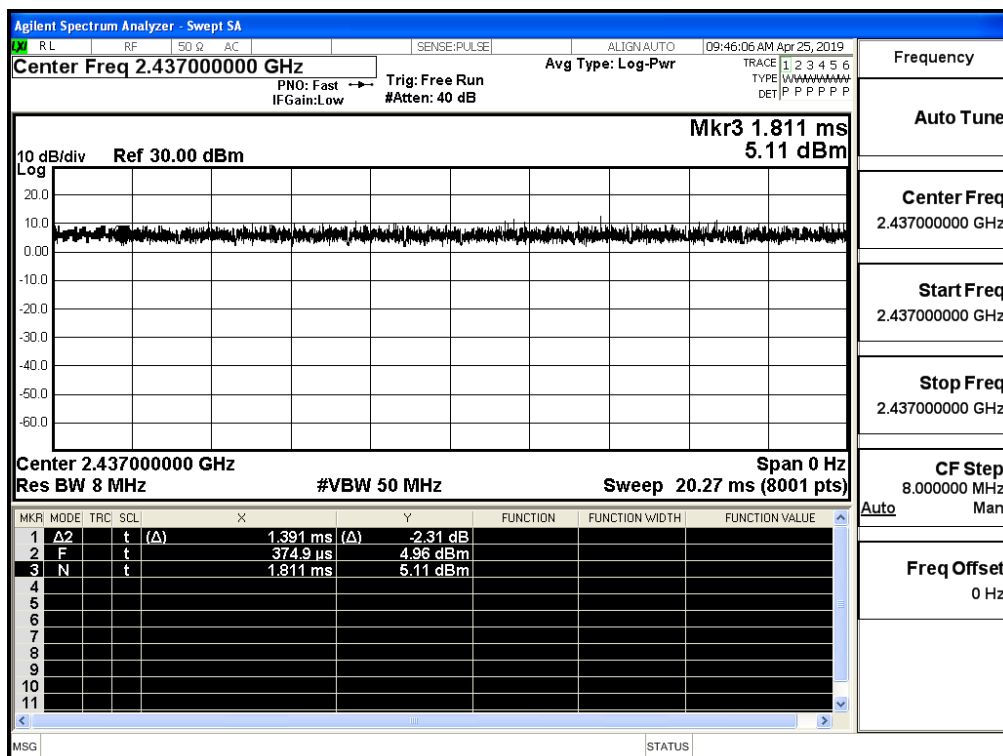
A.1 Duty Cycle

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

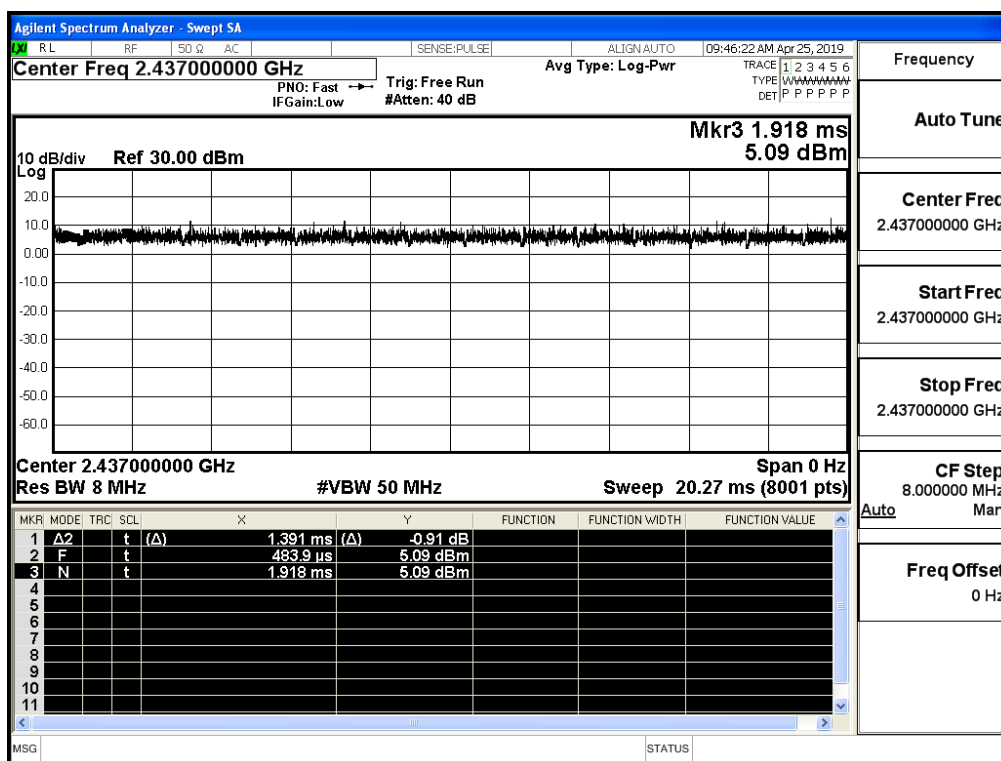
Duty Cycle_11B_2437_Ant1



Duty Cycle_11G_2437_Ant1



Duty Cycle_11N20SISO_2437_Ant1



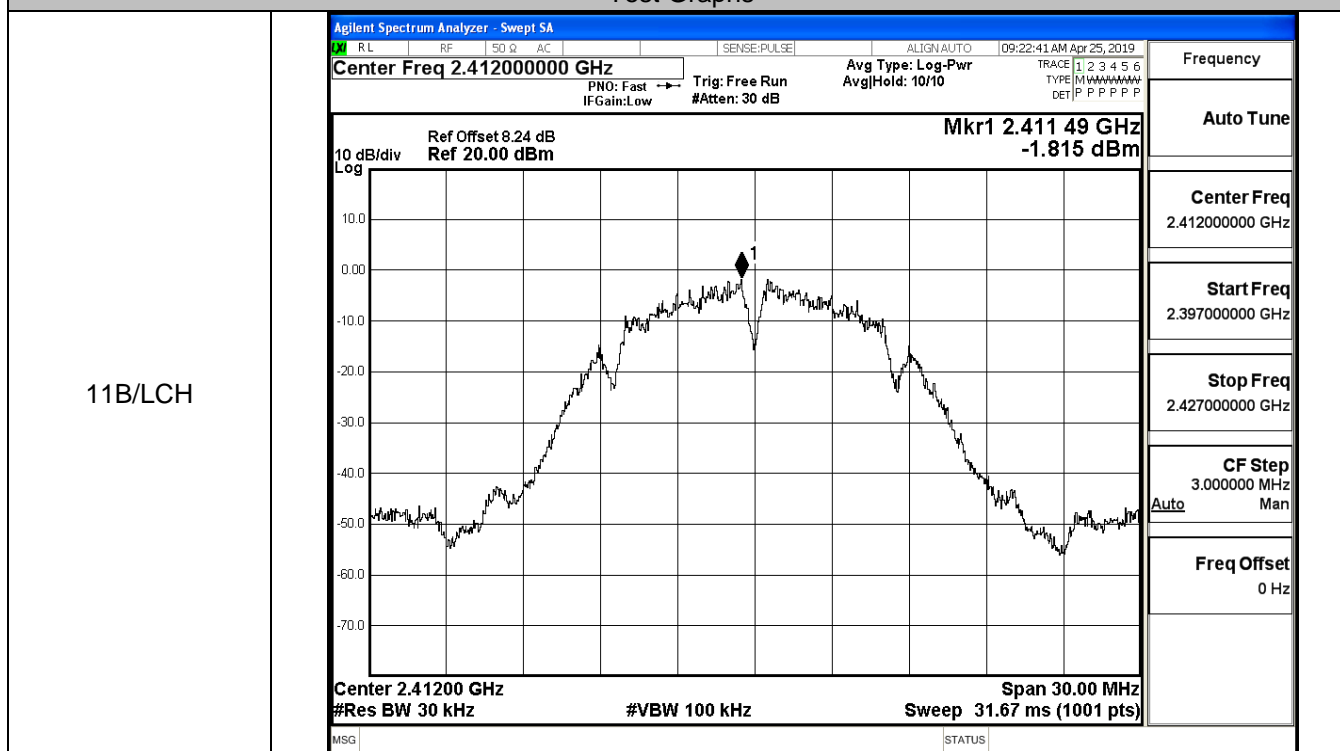
A.2 Maximum Conducted Output Power

| Mode | Channel | Meas.Level [dBm] | Limit [dBm] | Verdict |
|-----------|---------|------------------|-------------|---------|
| 11B | LCH | 12.59 | 30 | PASS |
| | MCH | 12.68 | 30 | PASS |
| | HCH | 12.56 | 30 | PASS |
| 11G | LCH | 18.75 | 30 | PASS |
| | MCH | 18.84 | 30 | PASS |
| | HCH | 18.7 | 30 | PASS |
| 11N20SISO | LCH | 19.24 | 30 | PASS |
| | MCH | 19.45 | 30 | PASS |
| | HCH | 19.46 | 30 | PASS |

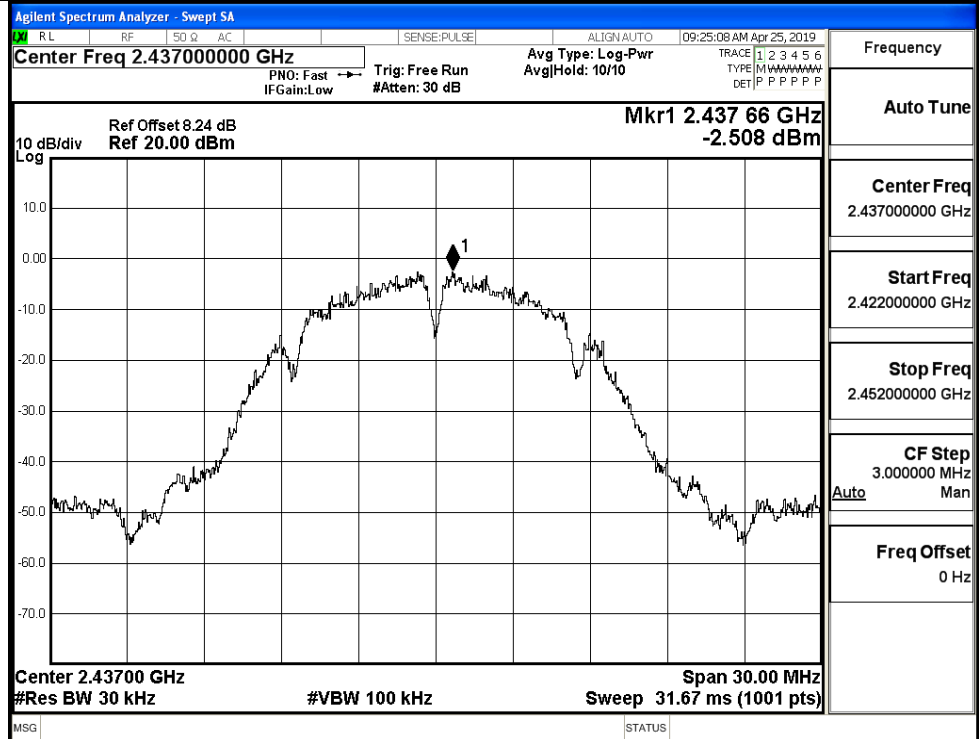
A.3 Maximum Power Spectral Density

| Mode | Channel | Meas.Level [dBm/30KHz] | Limit [dBm/3KHz] | Verdict |
|-----------|---------|------------------------|------------------|---------|
| 11B | LCH | -1.815 | 8 | PASS |
| | MCH | -2.508 | 8 | PASS |
| | HCH | -2.557 | 8 | PASS |
| 11G | LCH | -4.721 | 8 | PASS |
| | MCH | -3.958 | 8 | PASS |
| | HCH | -4.430 | 8 | PASS |
| 11N20SISO | LCH | -4.138 | 8 | PASS |
| | MCH | -4.241 | 8 | PASS |
| | HCH | -4.478 | 8 | PASS |

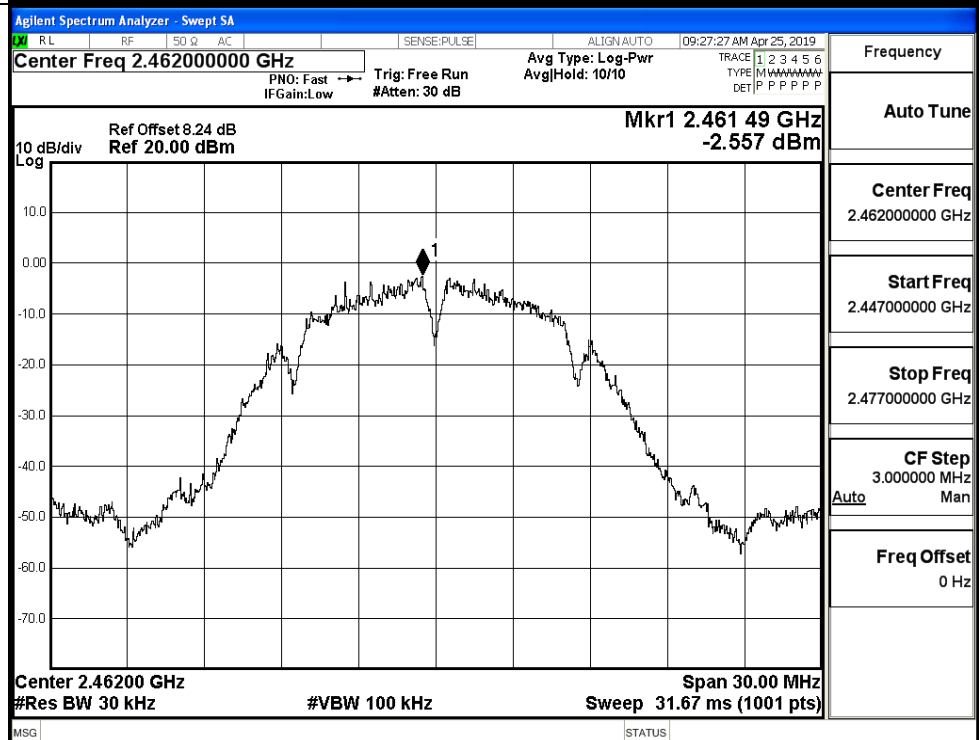
Test Graphs



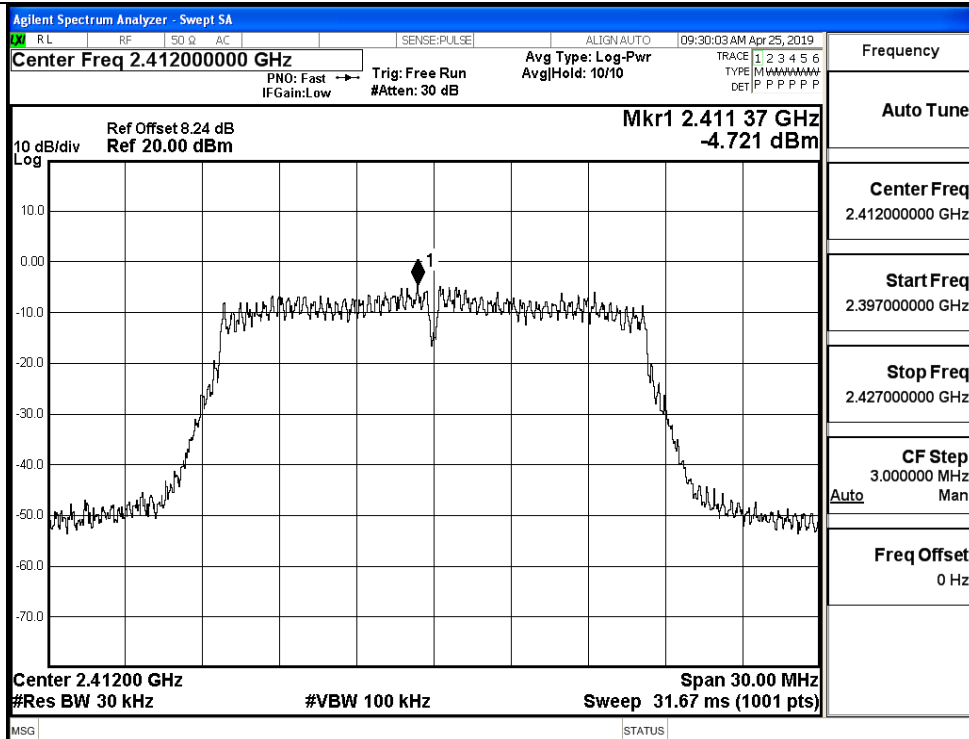
11B/MCH



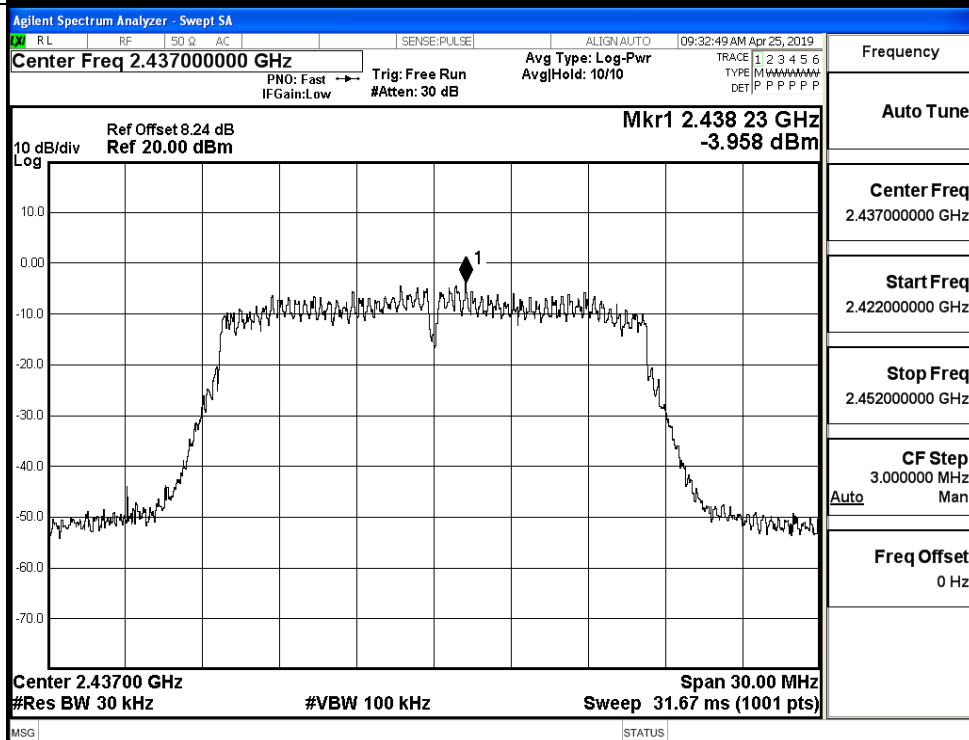
11B/HCH



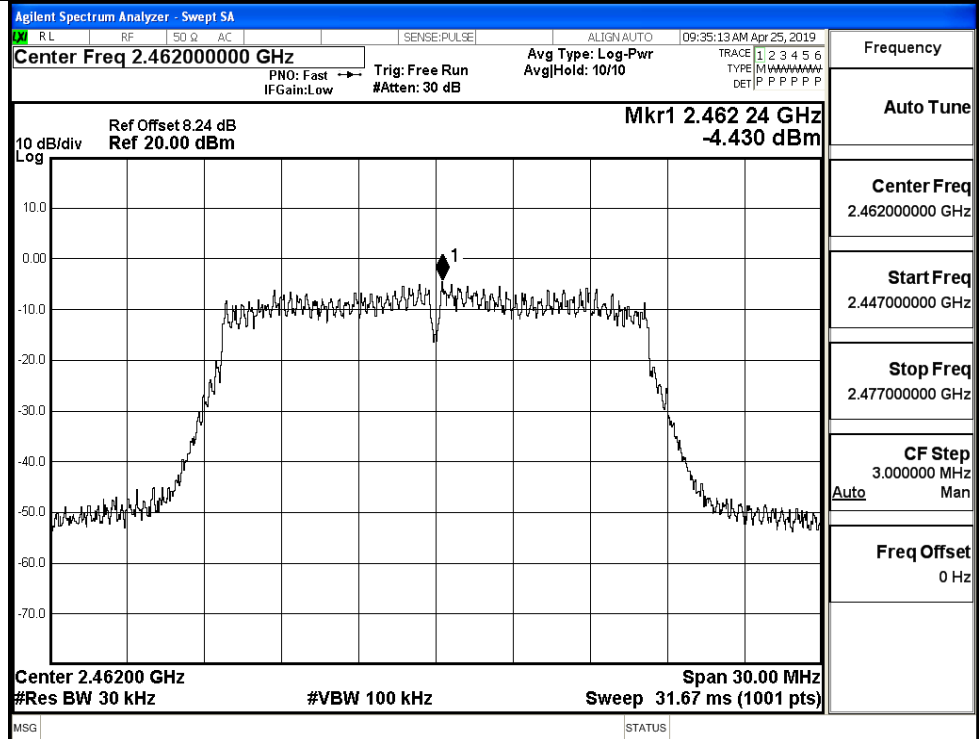
11G/LCH



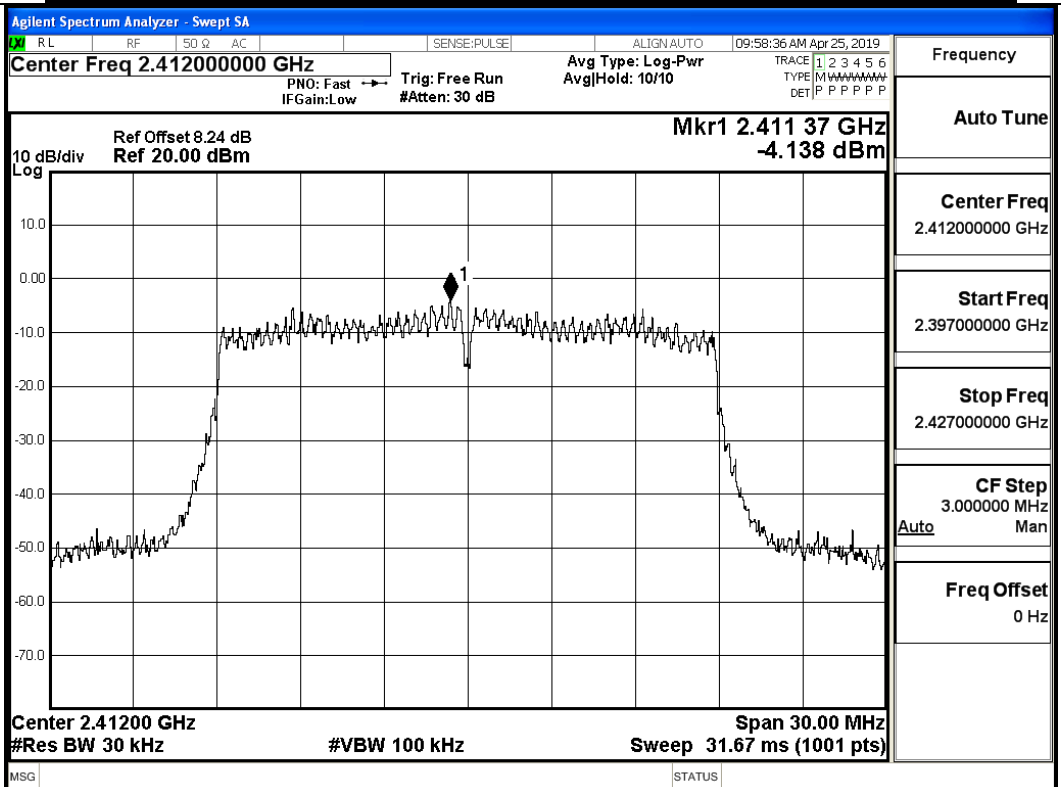
11G/MCH



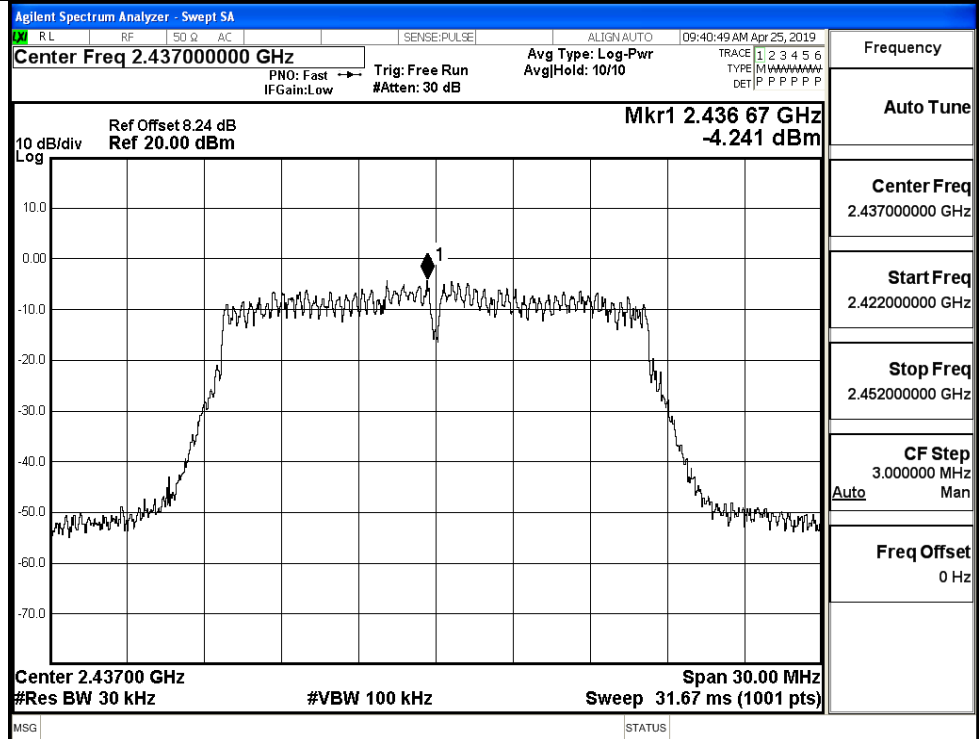
11G/HCH



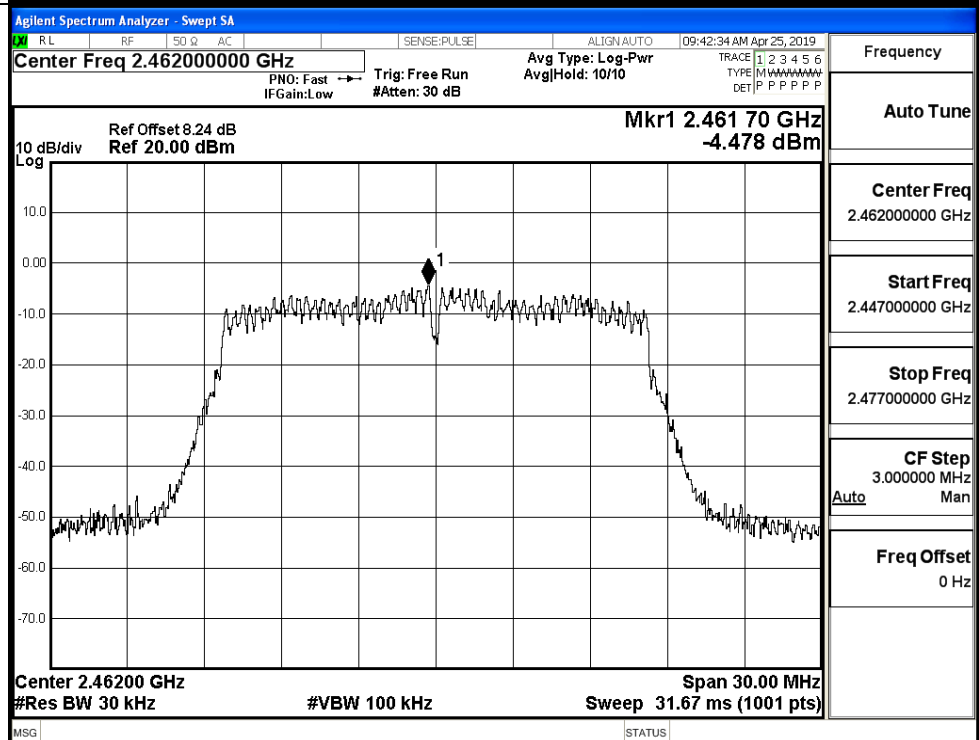
11N20SISO/LCH



11N20SISO/MCH



11N20SISO/HCH

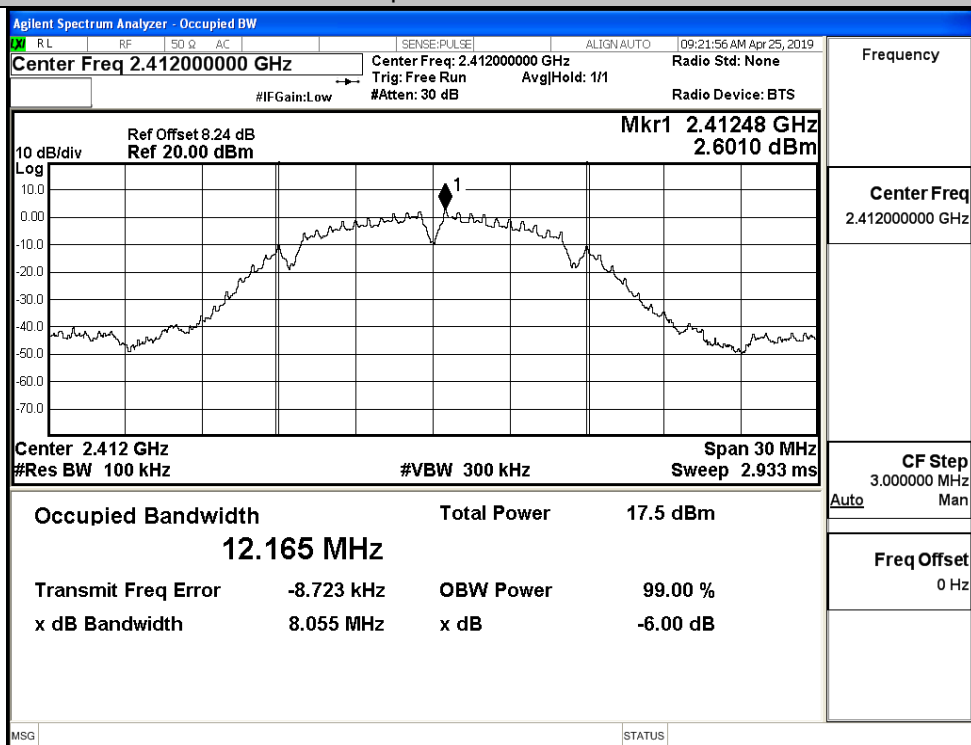


A.4 6dB Bandwidth

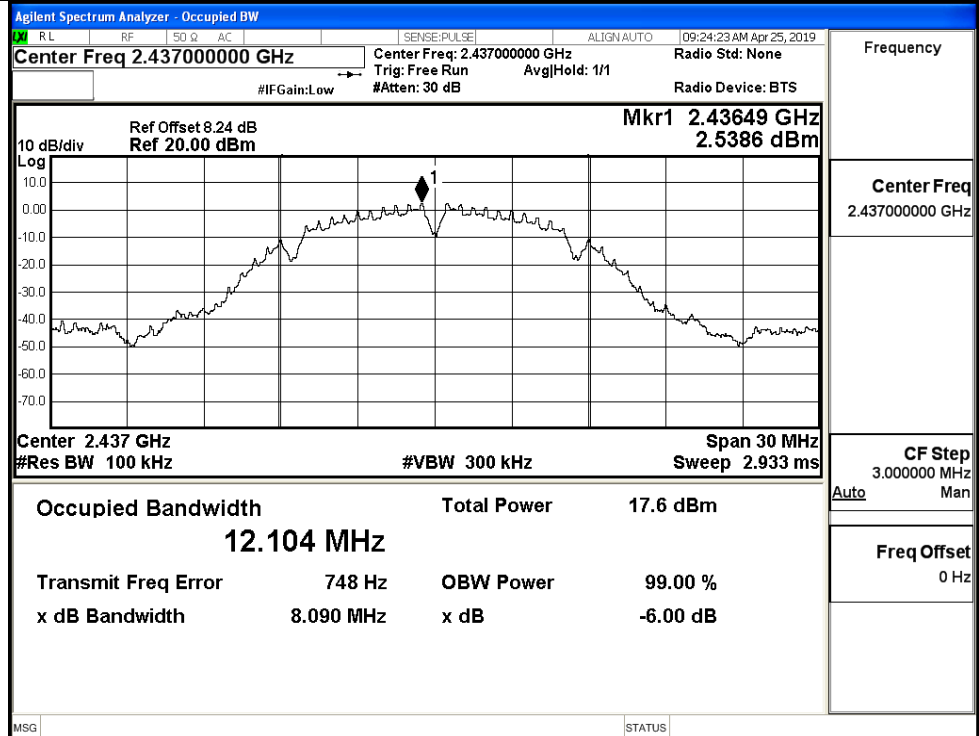
| Mode | Channel | 6dB Bandwidth [MHz] | Limit [MHz] | Verdict |
|-----------|---------|---------------------|-------------|---------|
| 11B | LCH | 8.055 | ≥ 0.5 | PASS |
| | MCH | 8.090 | ≥ 0.5 | PASS |
| | HCH | 8.101 | ≥ 0.5 | PASS |
| 11G | LCH | 15.08 | ≥ 0.5 | PASS |
| | MCH | 15.13 | ≥ 0.5 | PASS |
| | HCH | 15.08 | ≥ 0.5 | PASS |
| 11N20SISO | LCH | 15.15 | ≥ 0.5 | PASS |
| | MCH | 15.36 | ≥ 0.5 | PASS |
| | HCH | 15.72 | ≥ 0.5 | PASS |

Test Graphs

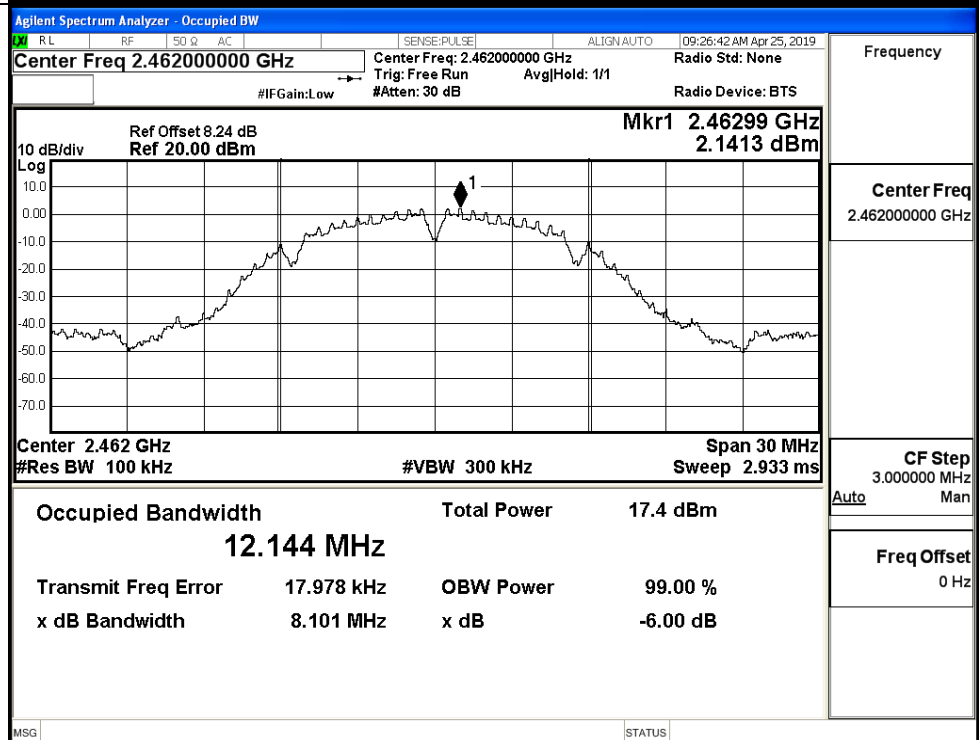
11B/LCH



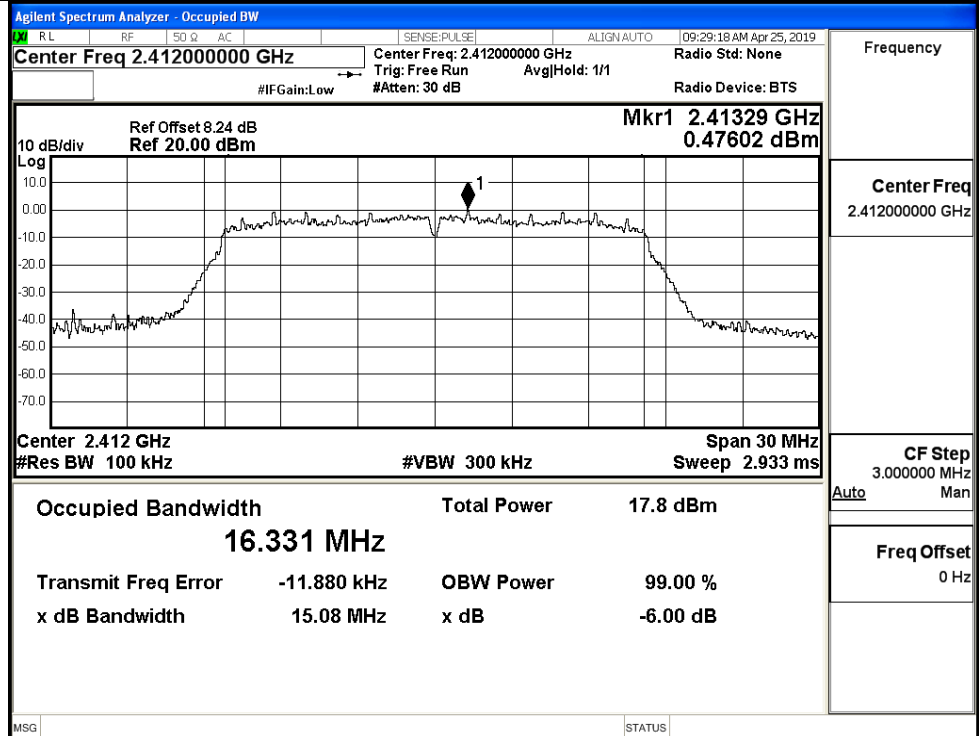
11B/MCH



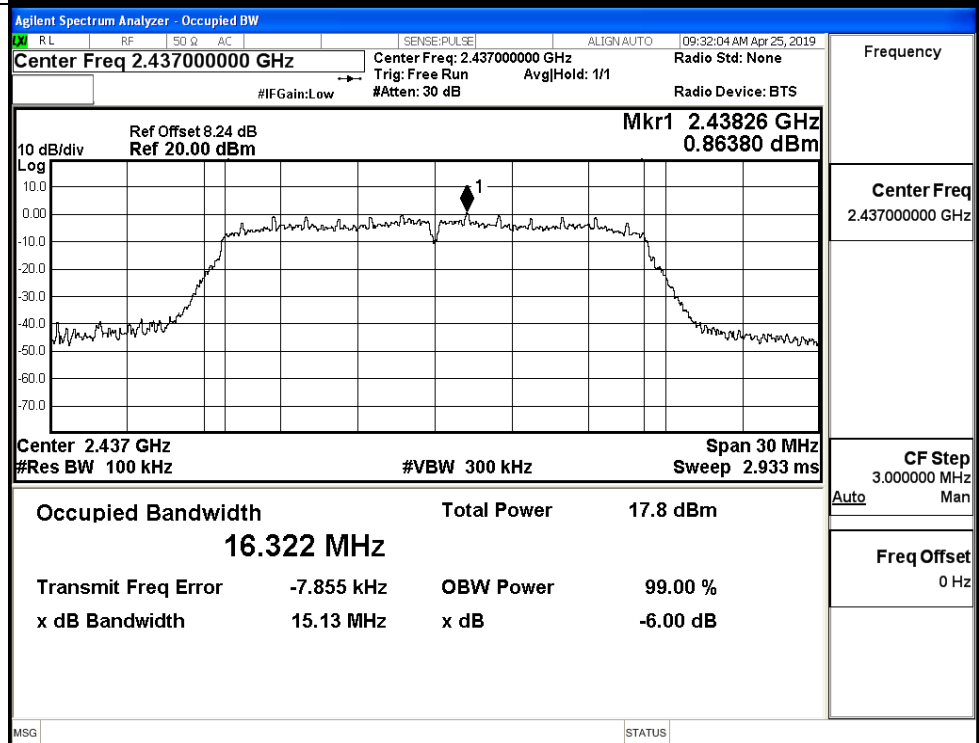
11B/HCH



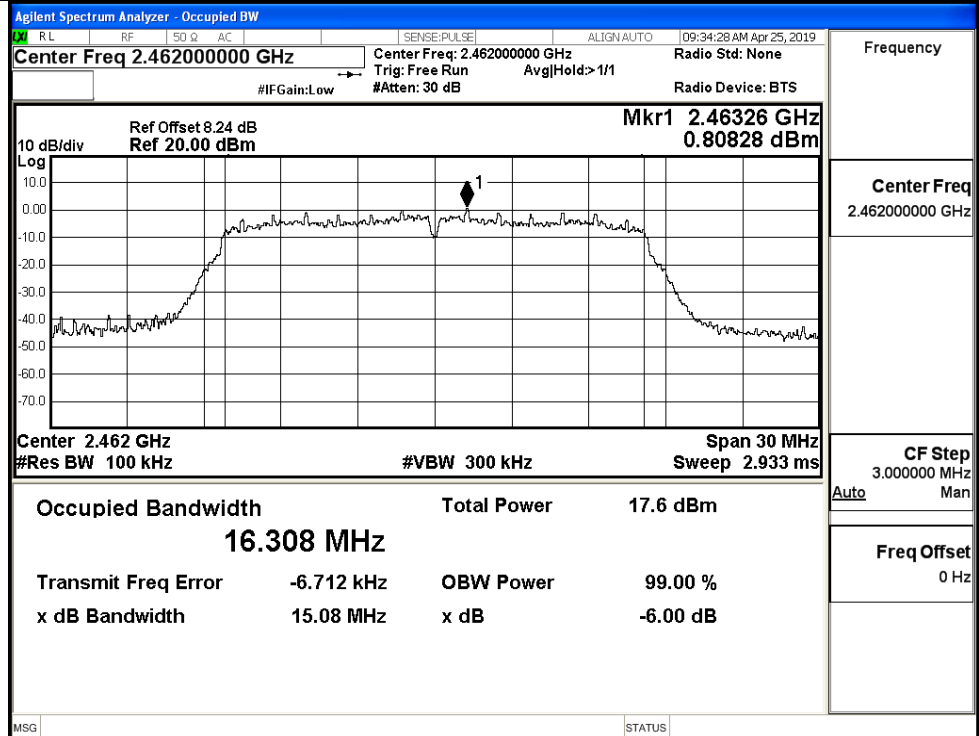
11G/LCH



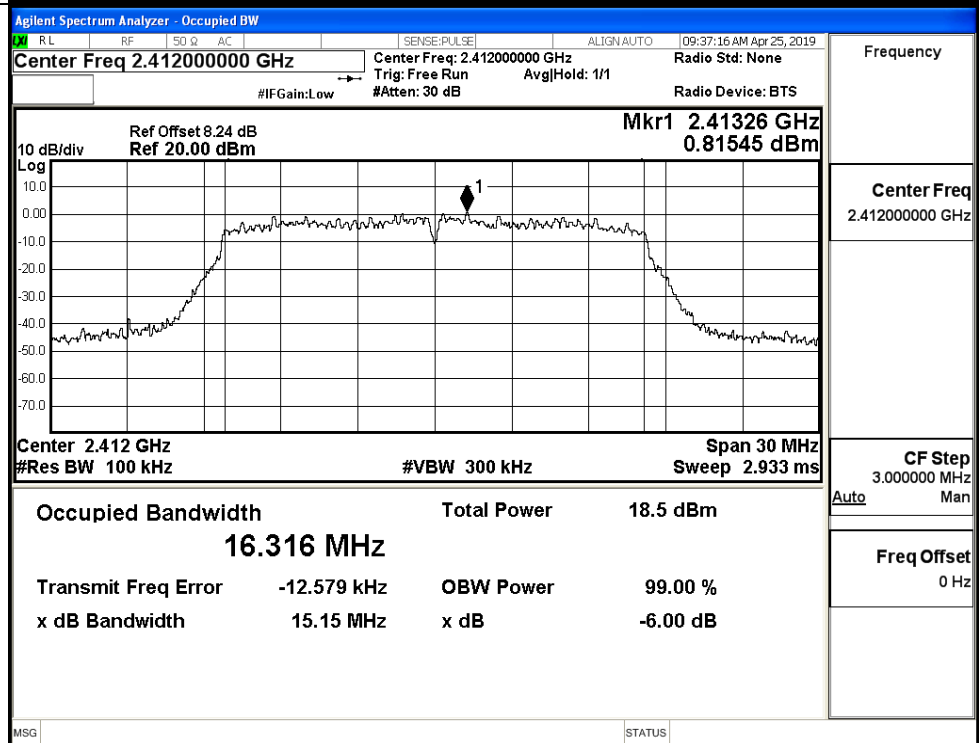
11G/MCH



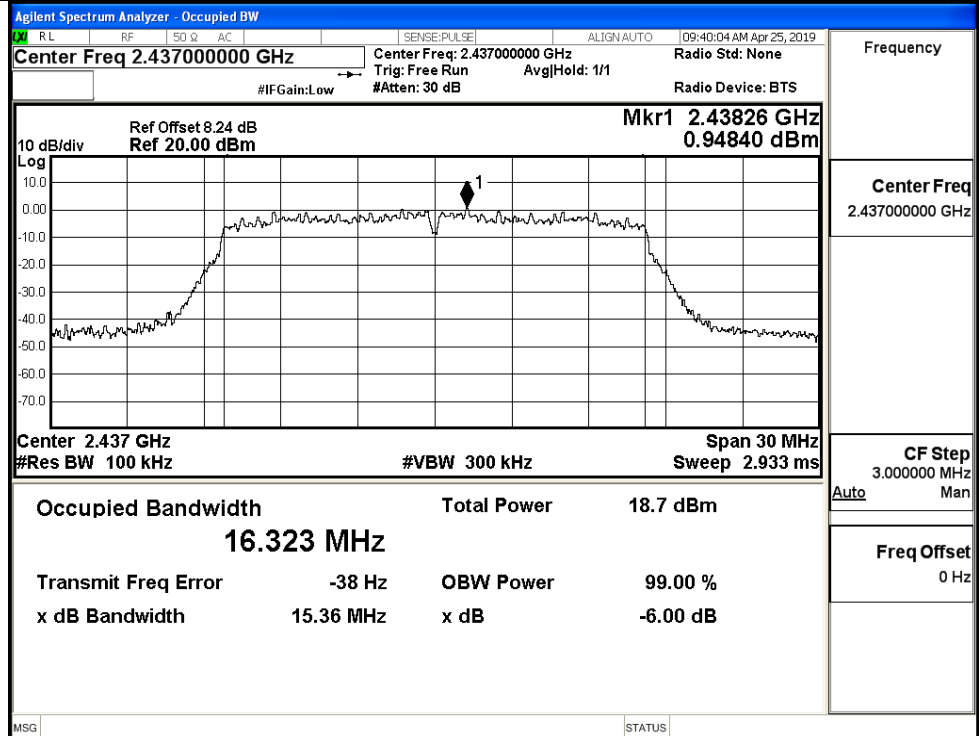
11G/HCH



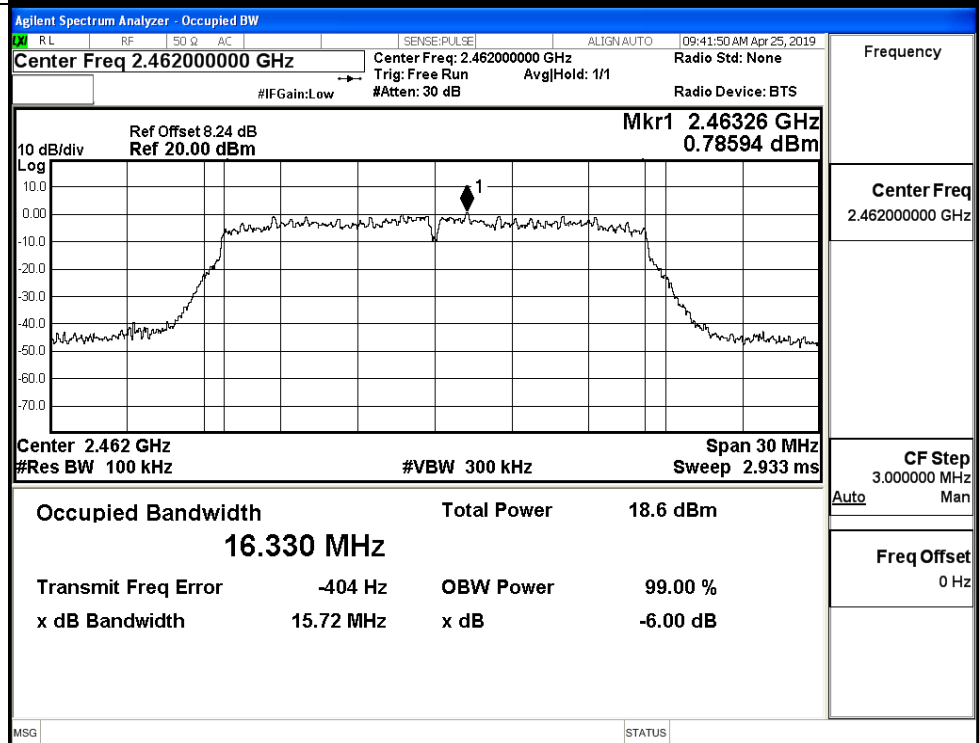
11N20SISO/LCH



11N20SISO/MCH



11N20SISO/HCH

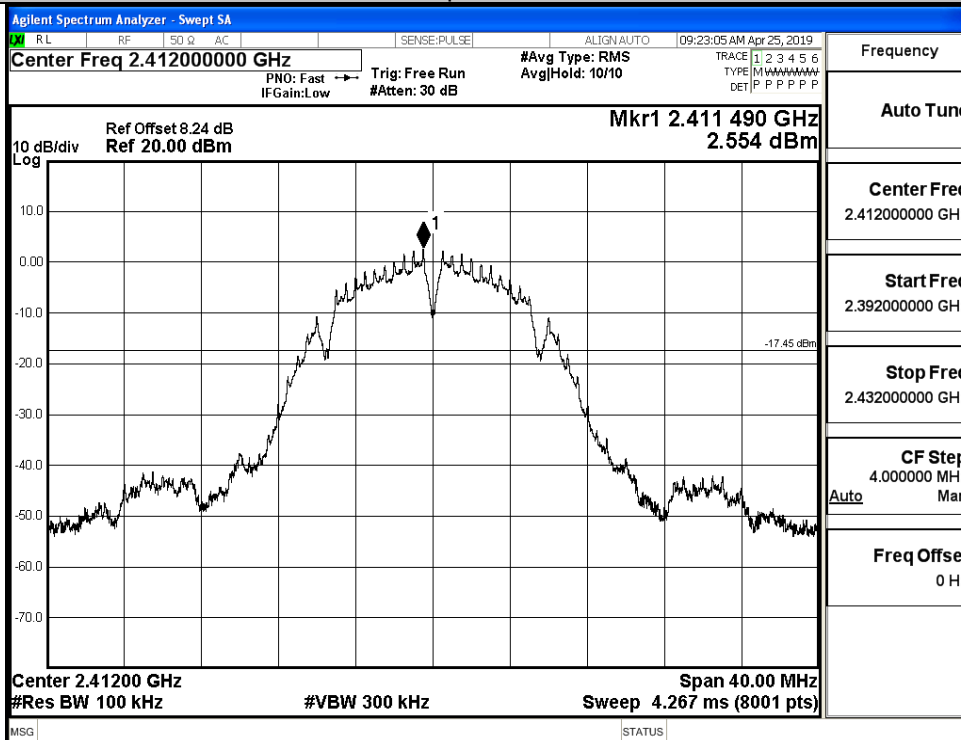


A.5 RF Conducted Spurious Emissions

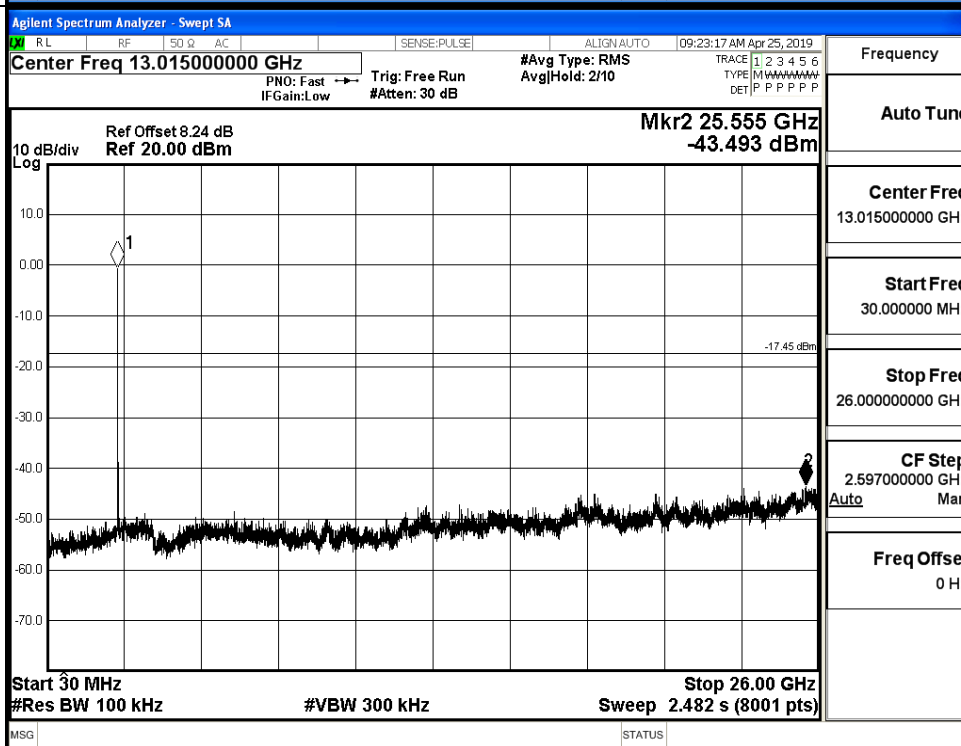
| Mode | Channel | Pref [dBm] | Max. Level [dBm] | Limit [dBm] | Verdict |
|-----------|---------|------------|------------------|-------------|---------|
| 11B | LCH | 2.554 | -43.493 | -17.446 | PASS |
| | MCH | 2.456 | -42.865 | -17.544 | PASS |
| | HCH | 2.357 | -43.694 | -17.643 | PASS |
| 11G | LCH | 0.258 | -43.984 | -19.742 | PASS |
| | MCH | 0.204 | -42.907 | -19.796 | PASS |
| | HCH | -0.192 | -43.222 | -20.192 | PASS |
| 11N20SISO | LCH | 0.653 | -44.044 | -19.347 | PASS |
| | MCH | 0.859 | -42.528 | -19.141 | PASS |
| | HCH | 0.829 | -43.087 | -19.171 | PASS |

11B_LCH_Graphs

Pref/11B/LCH

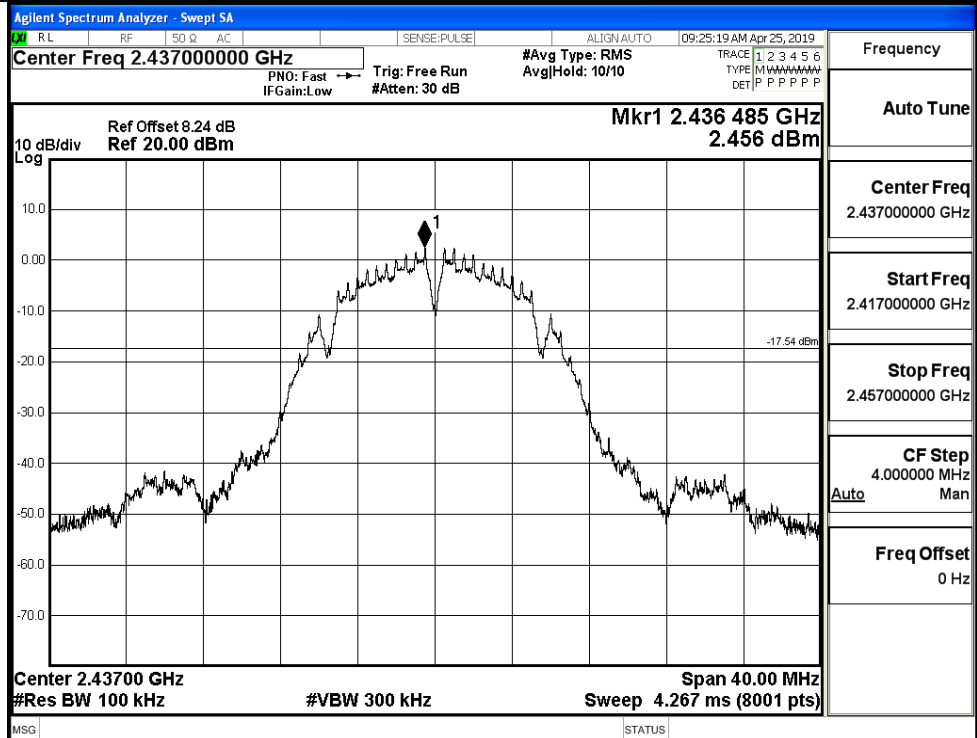


Puw/11B/LCH

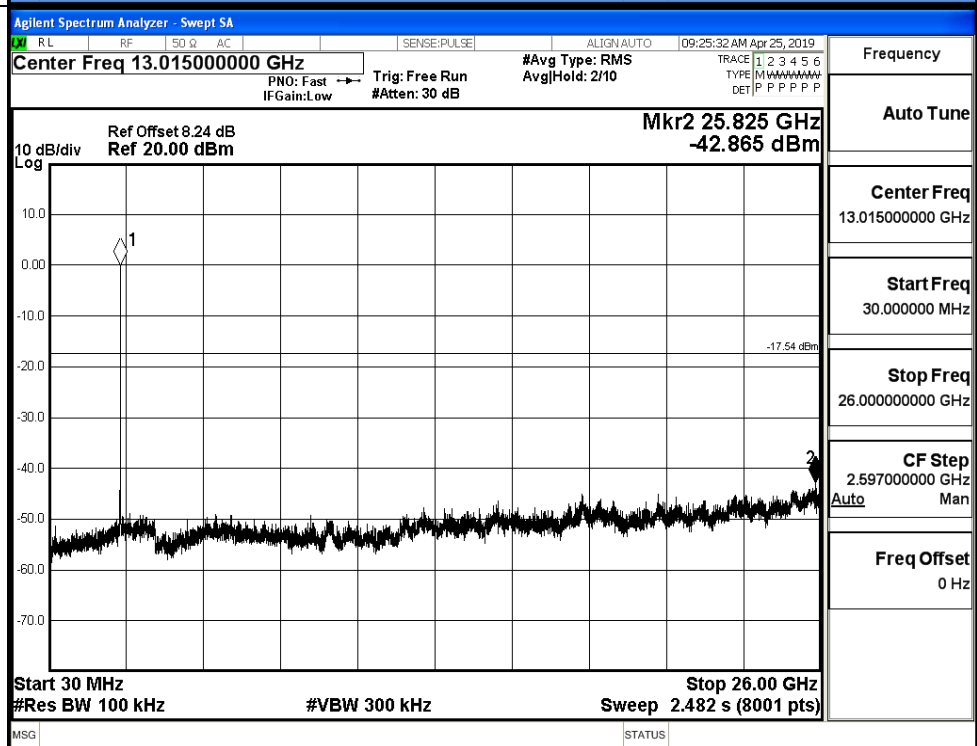


11B_MCH_Graphs

Pref/11B/MCH

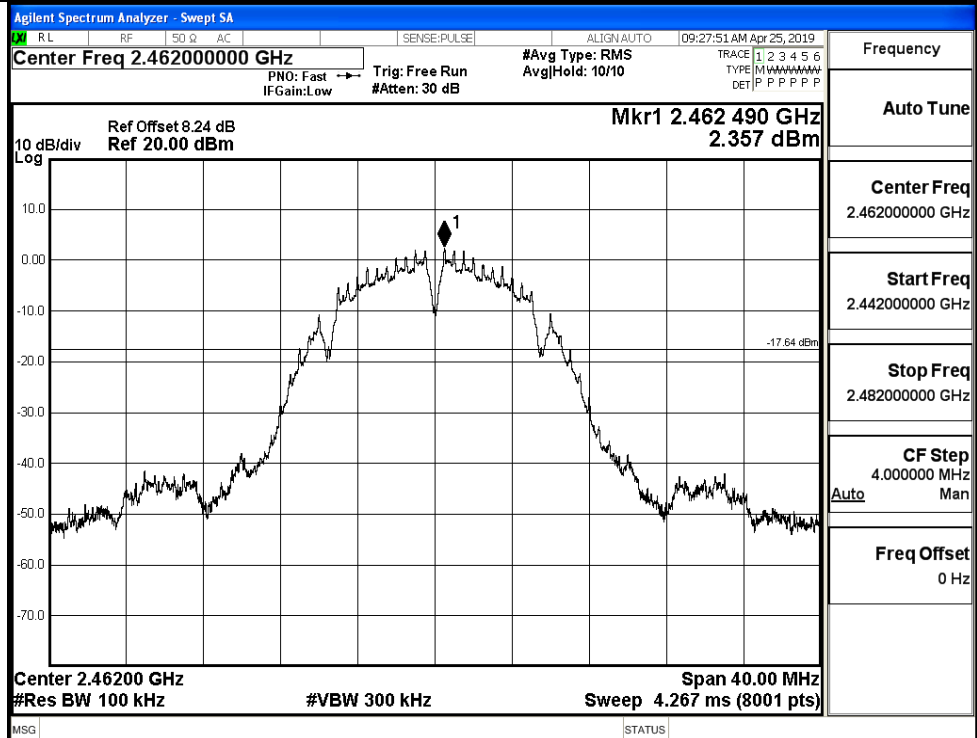


Puw/11B/MCH

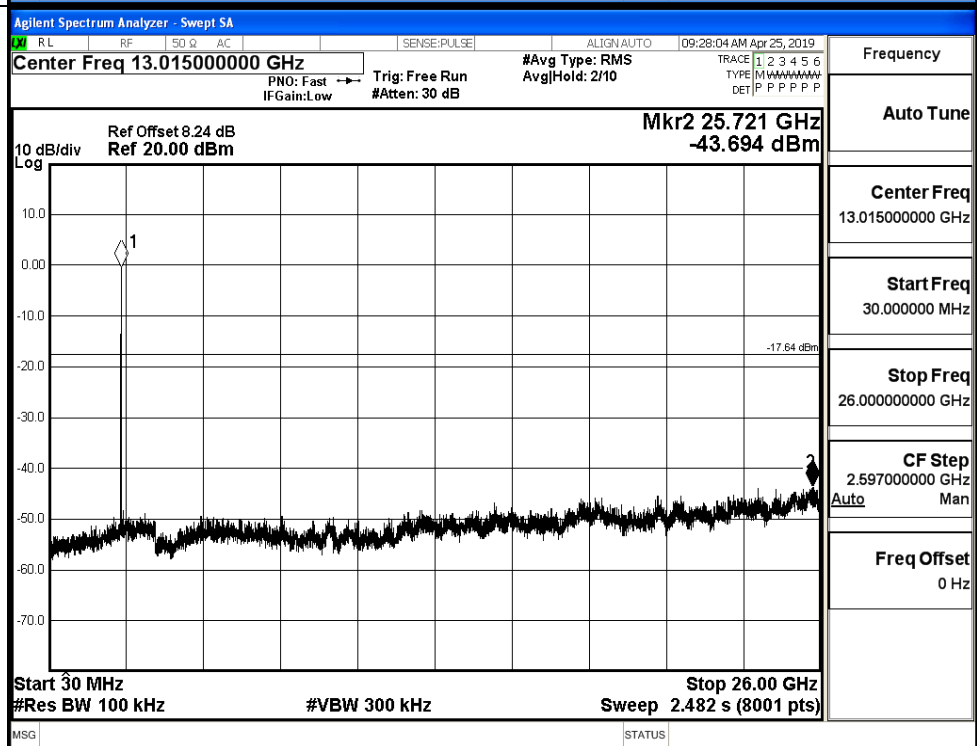


11B_HCH_Graphs

Pref/11B/HCH

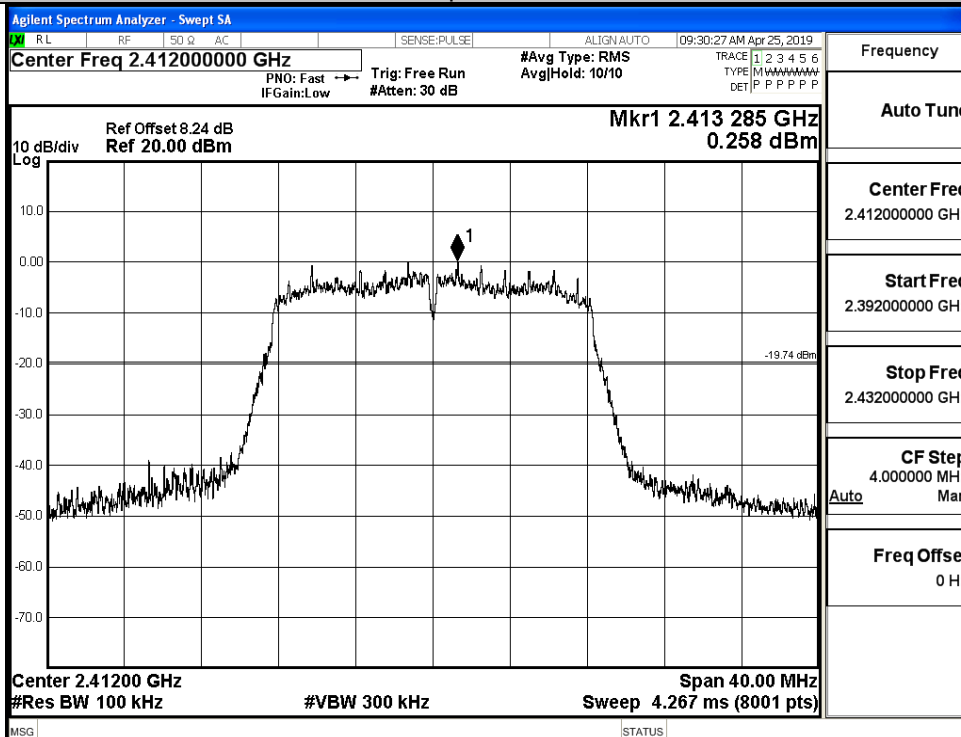


Puw/11B/HCH

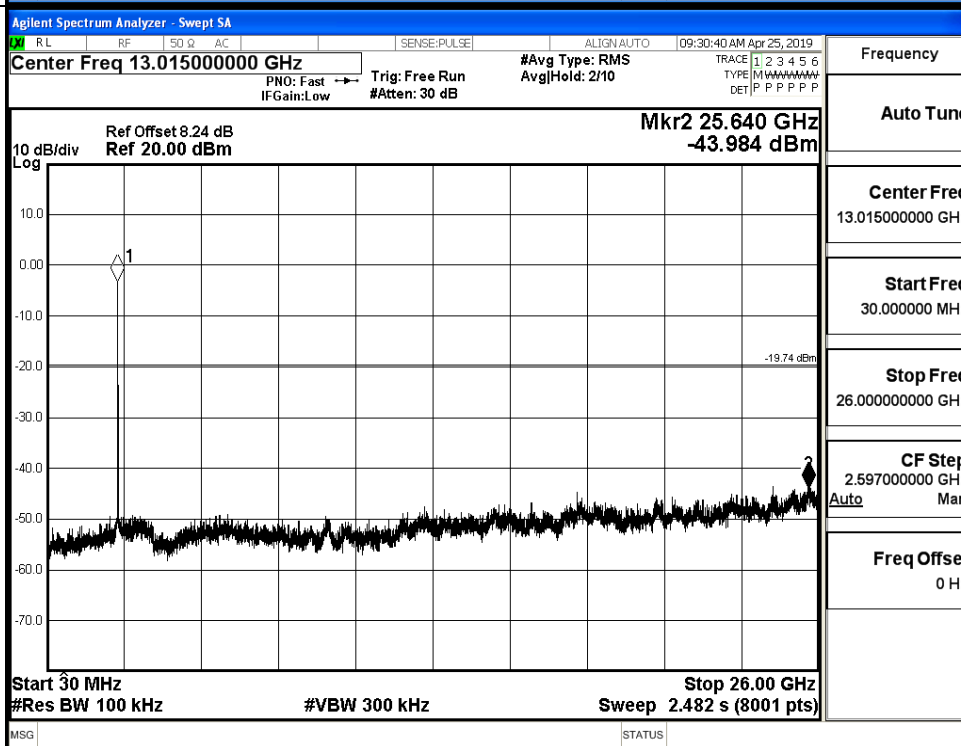


11G_LCH_Graphs

Pref/11G/LCH

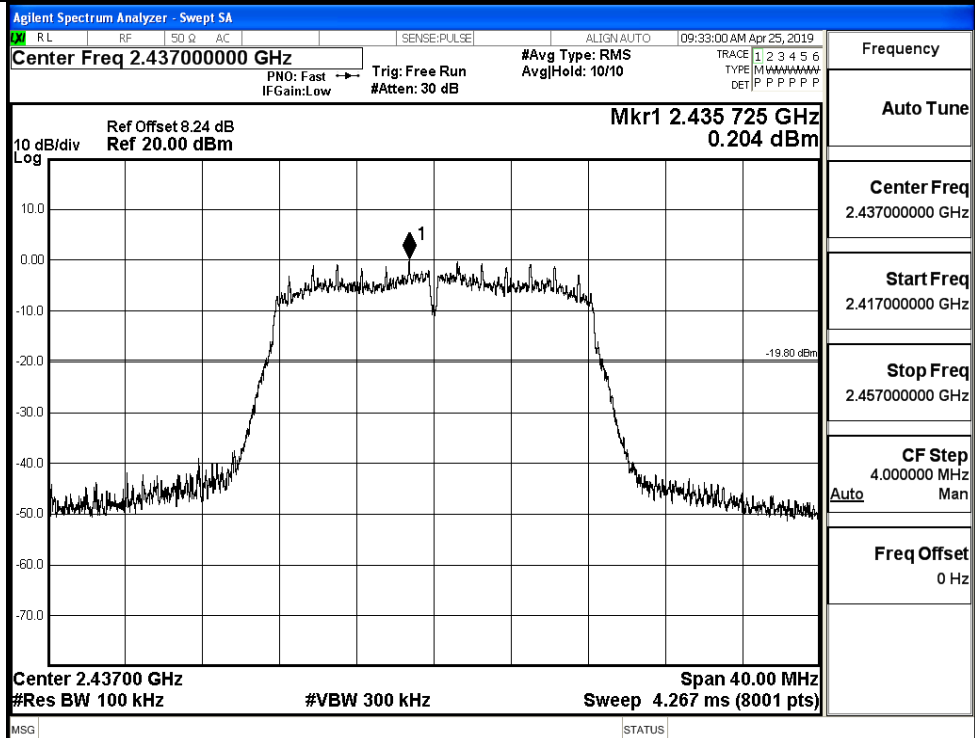


Puw/11G/LCH

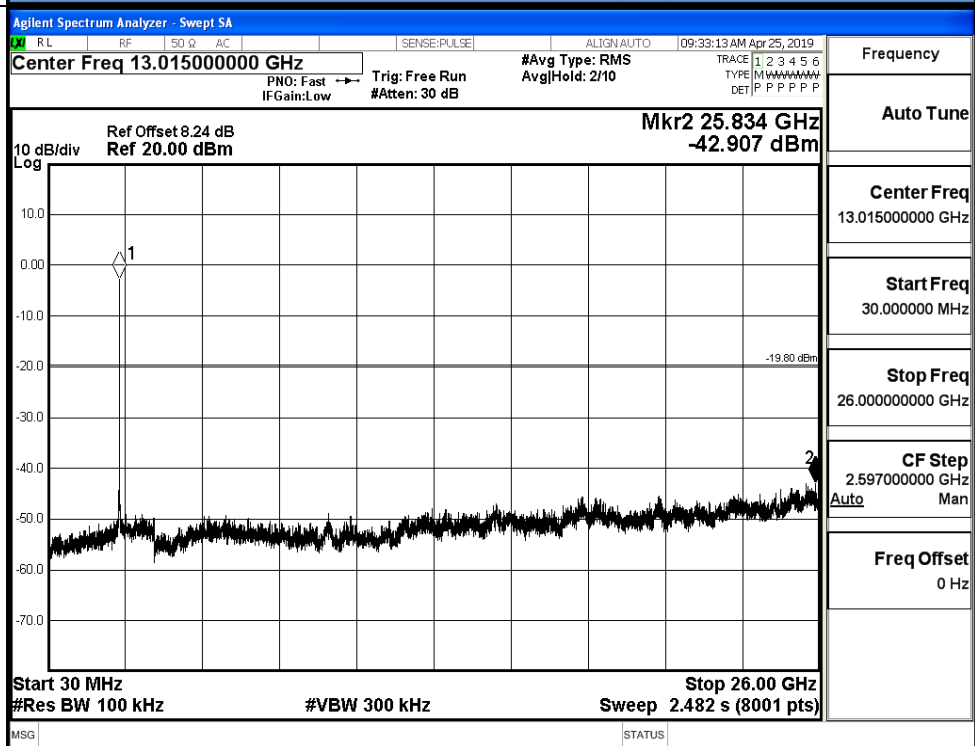


11G_MCH_Graphs

Pref/11G/MCH

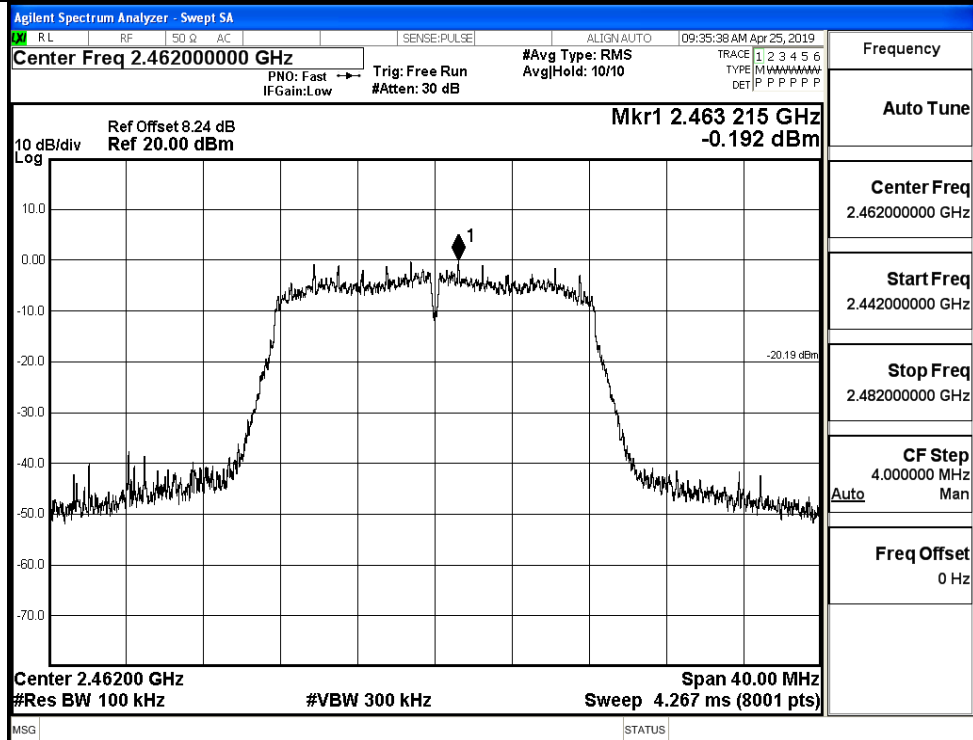


Puw/11G/MCH

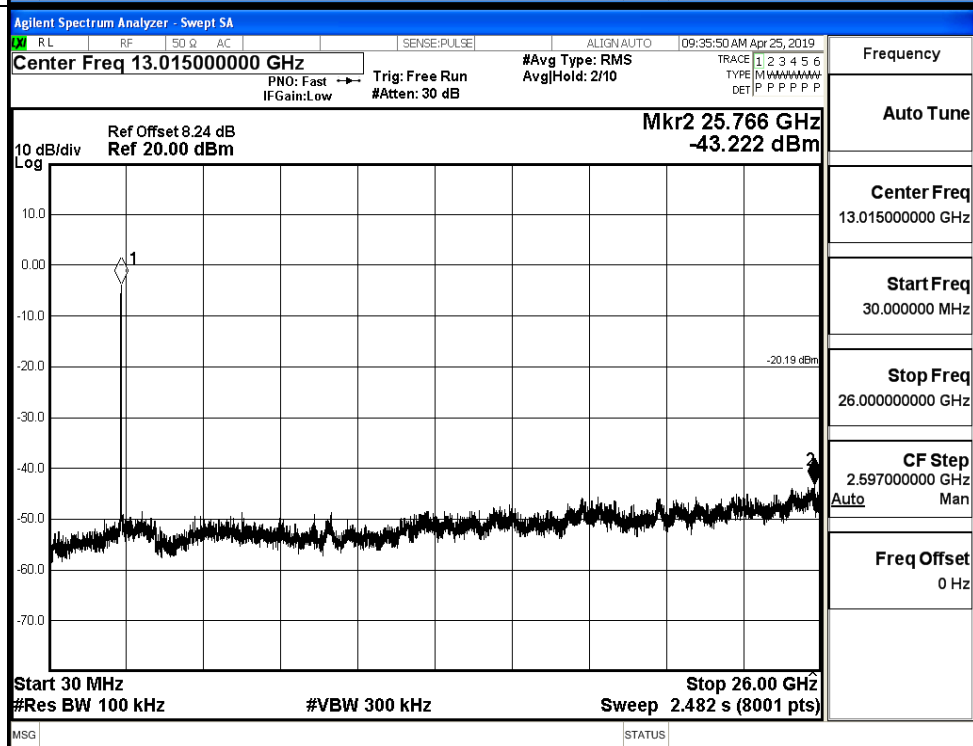


11G_HCH_Graphs

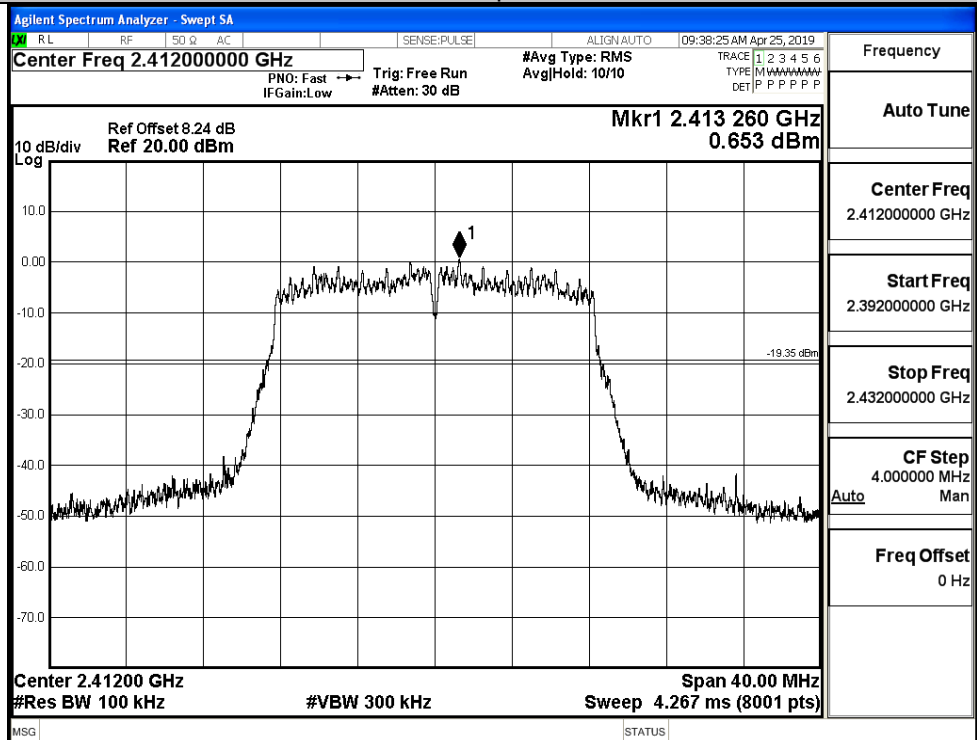
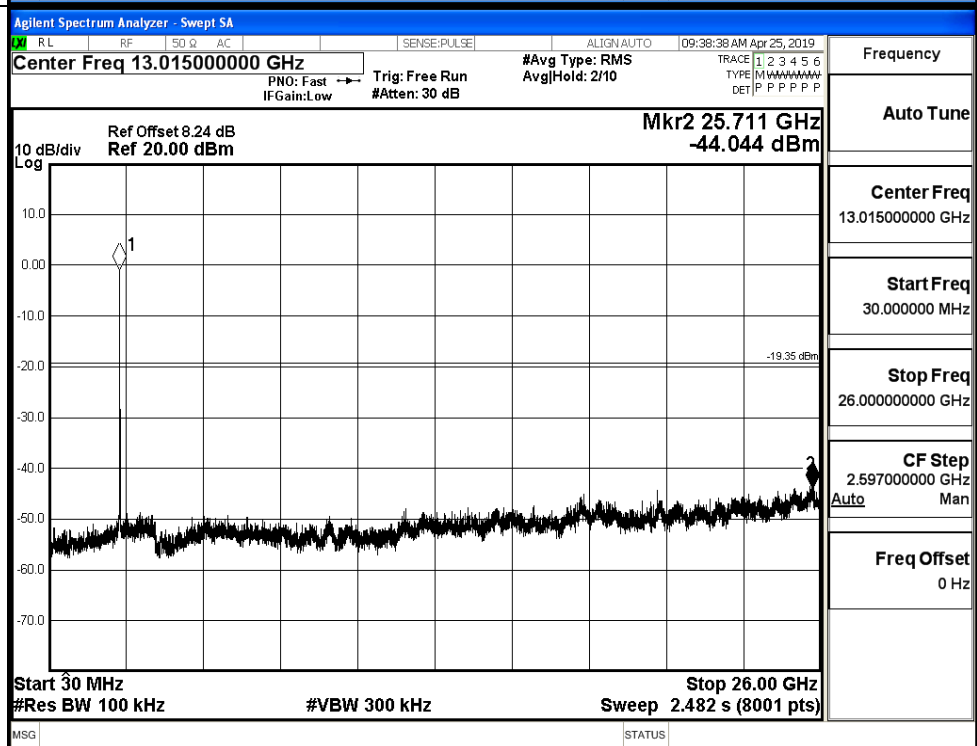
Pref/11G/HCH



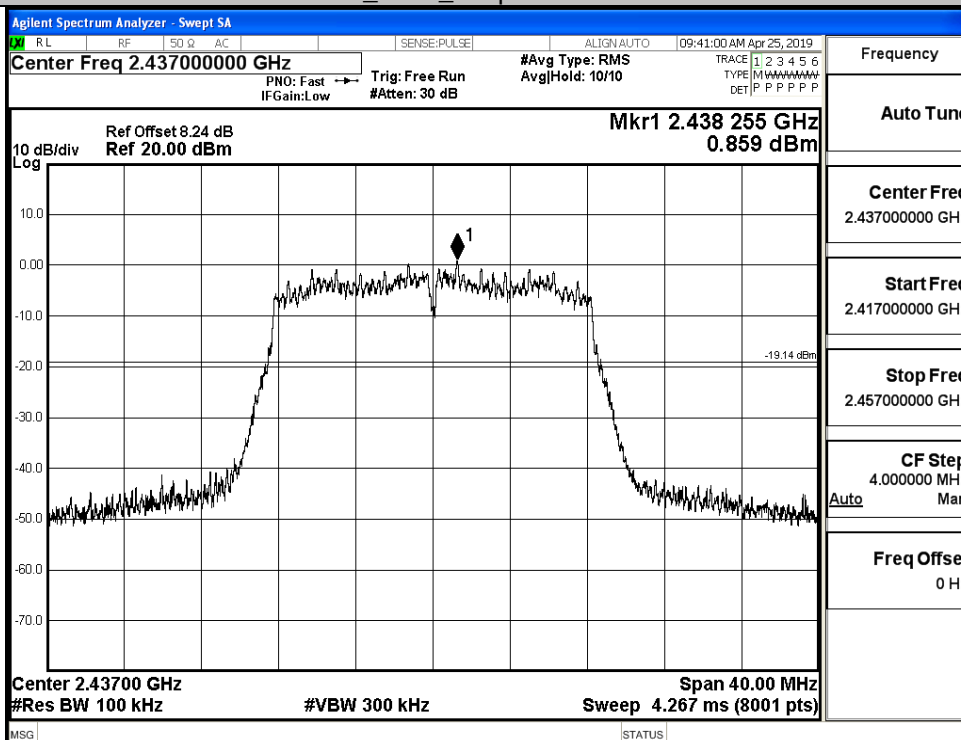
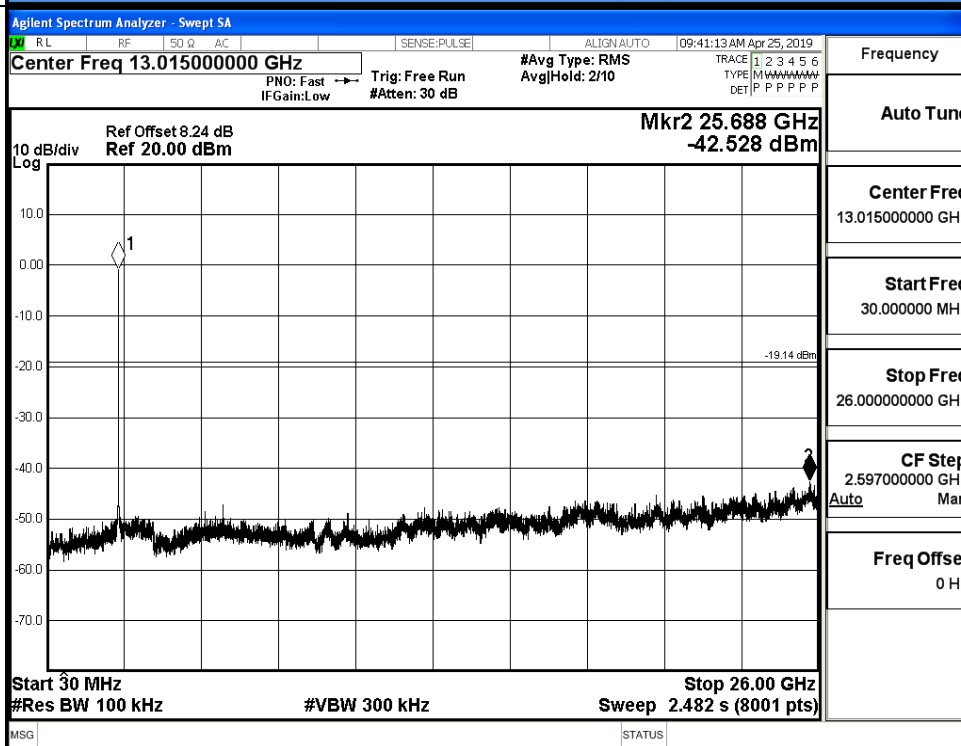
Puw/11G/HCH



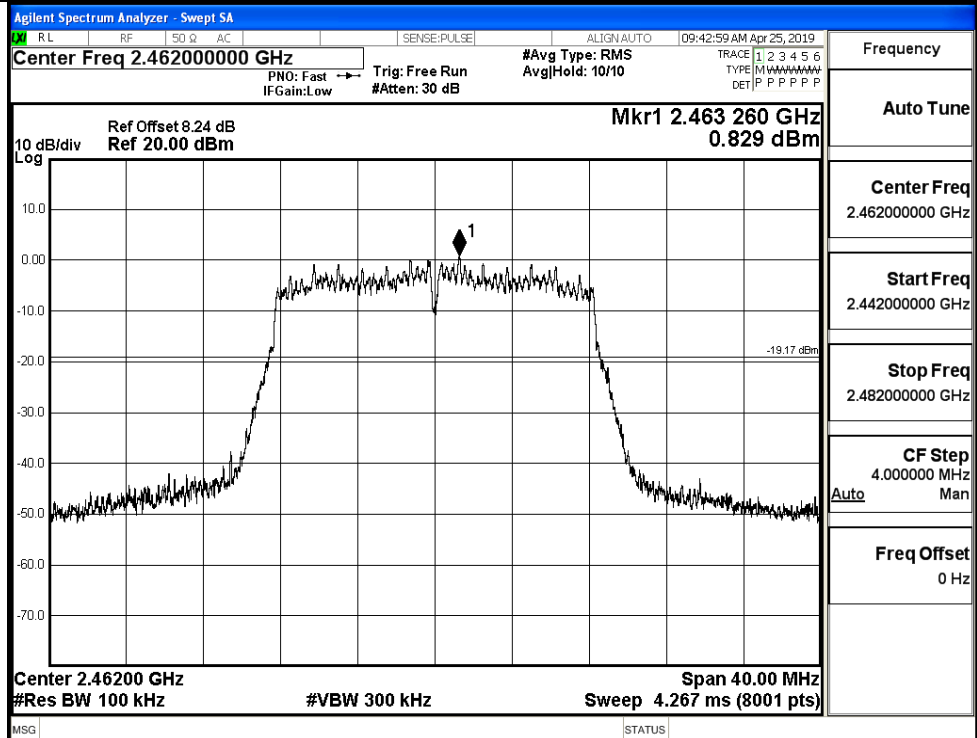
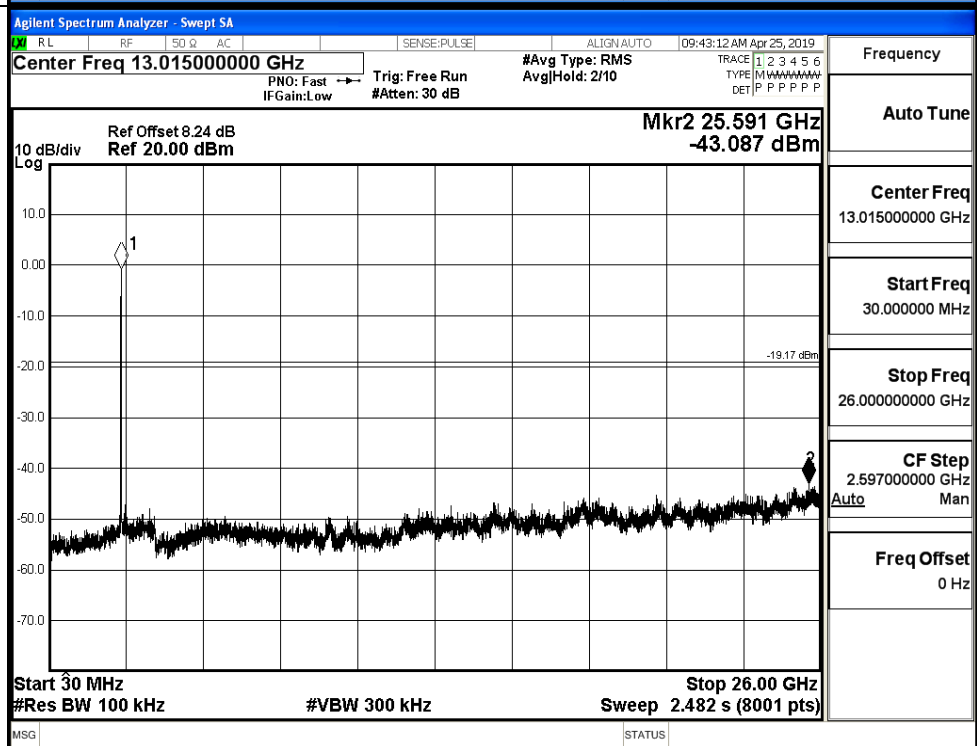
11N20SISO_LCH_Graphs

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

11N20ISO_MCH_Graphs

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

11N20ISO_HCH_Graphs

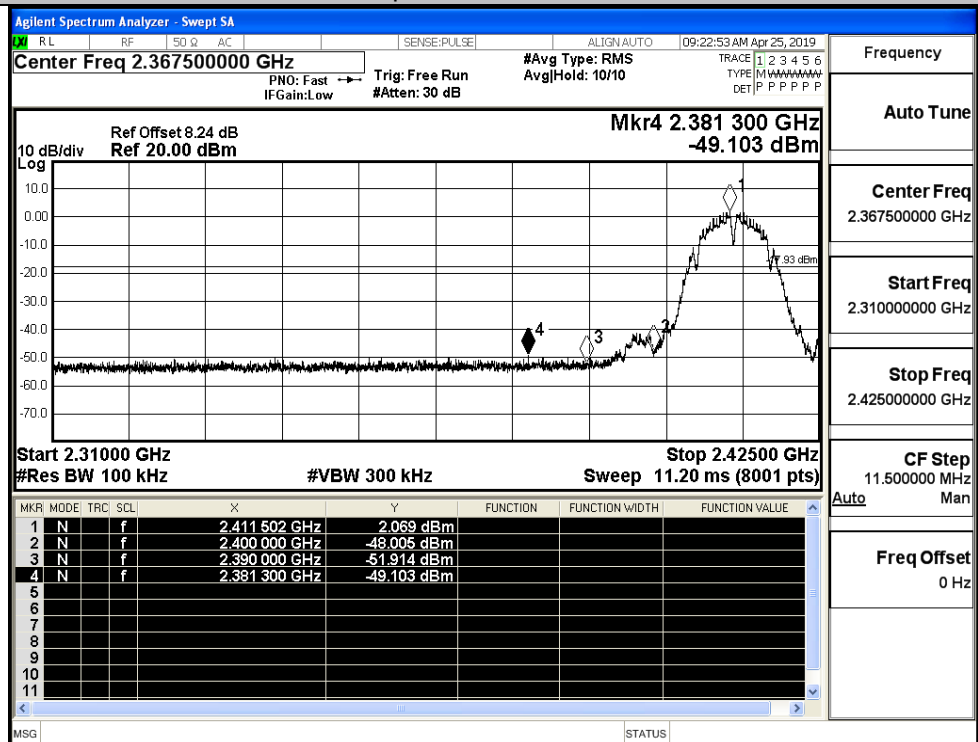
Pref/11N20
SISO/HCHPuw/11N20
SISO/HCH

A.6 Band-edge for RF Conducted Emissions

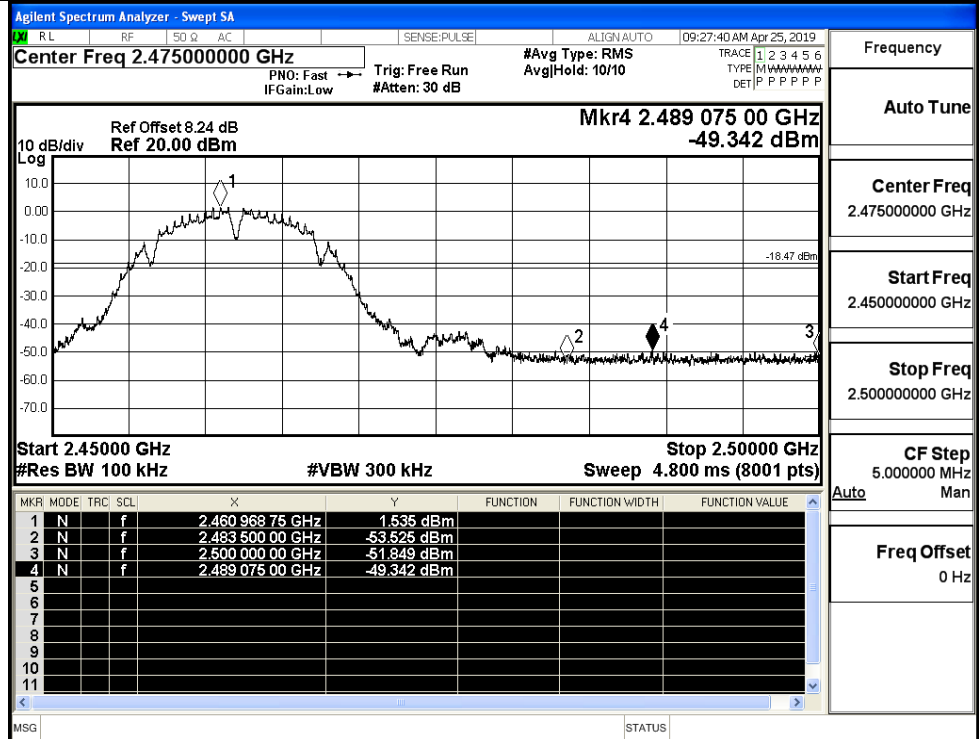
| Mode | Channel | Carrier Power[dBm] | Max.Spurious Level [dBm] | Limit [dBm] | Verdict |
|-----------|---------|--------------------|--------------------------|-------------|---------|
| 11B | LCH | 2.069 | -49.103 | -17.93 | PASS |
| | HCH | 1.535 | -49.342 | -18.47 | PASS |
| 11G | LCH | 0.679 | -46.521 | -19.32 | PASS |
| | HCH | -0.009 | -47.630 | -20.01 | PASS |
| 11N20SISO | LCH | 0.709 | -46.622 | -19.29 | PASS |
| | HCH | 0.904 | -47.798 | -19.1 | PASS |

Test Graphs

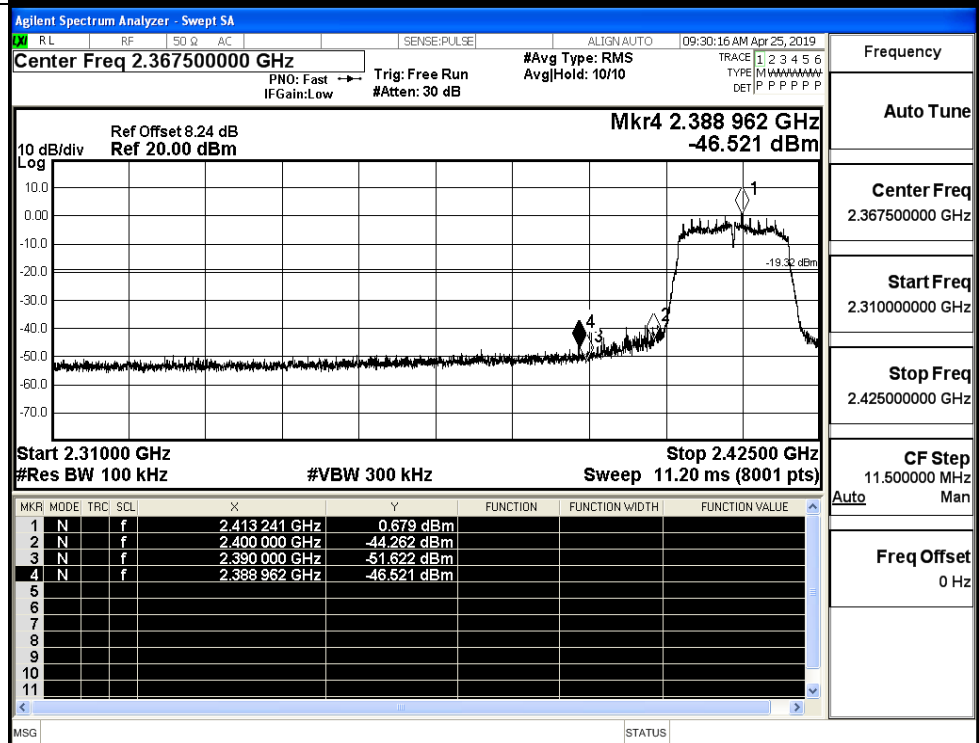
11B/LCH



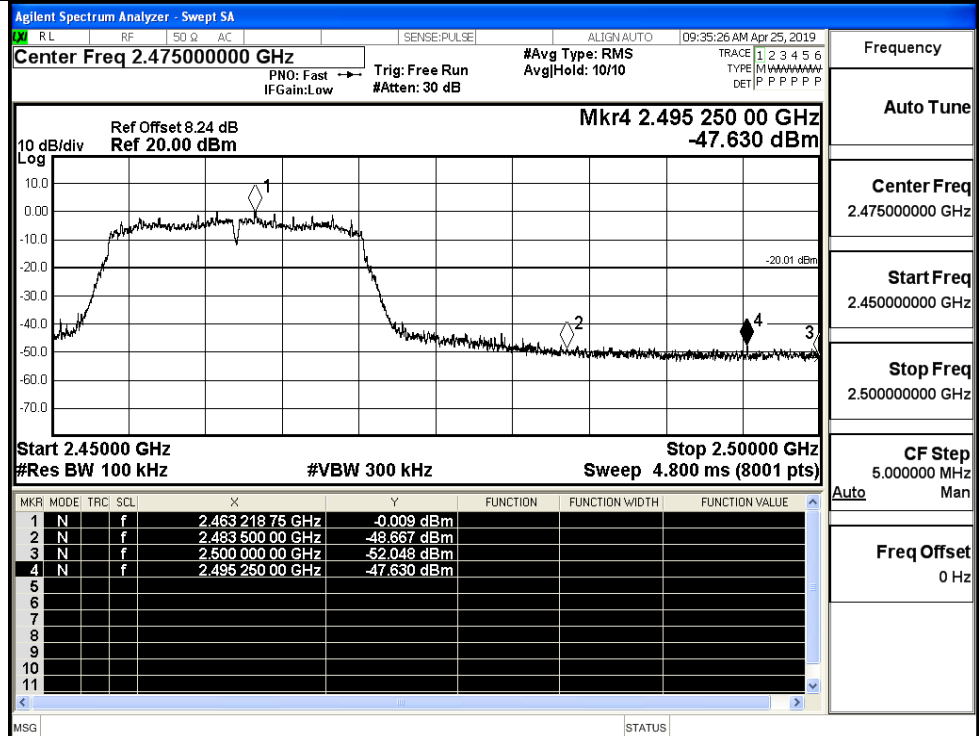
11B/HCH



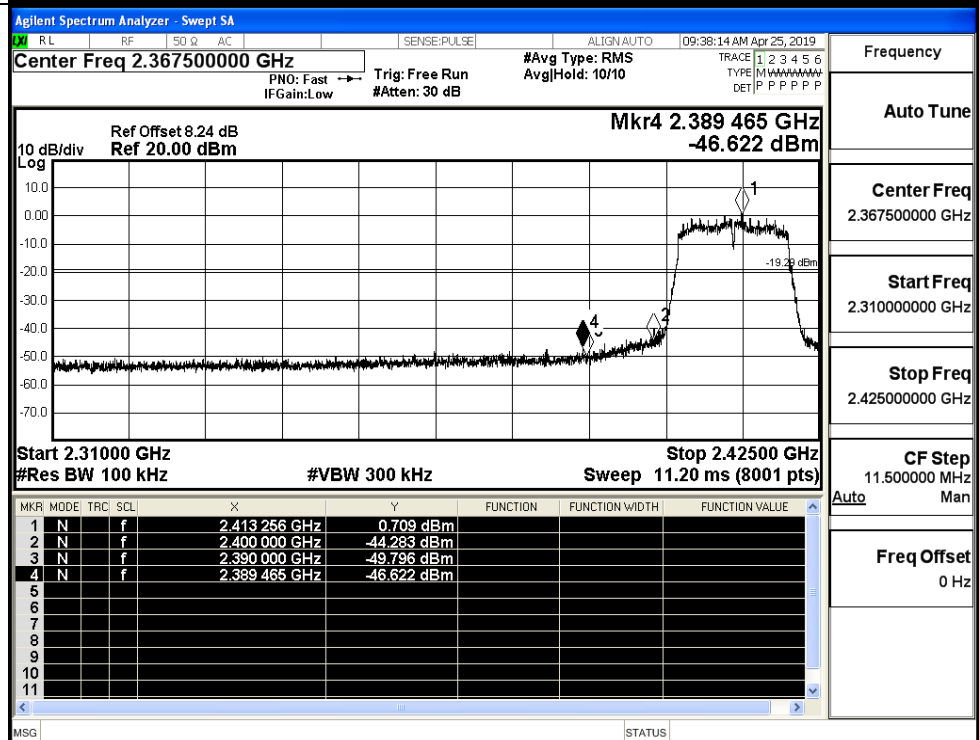
11G/LCH



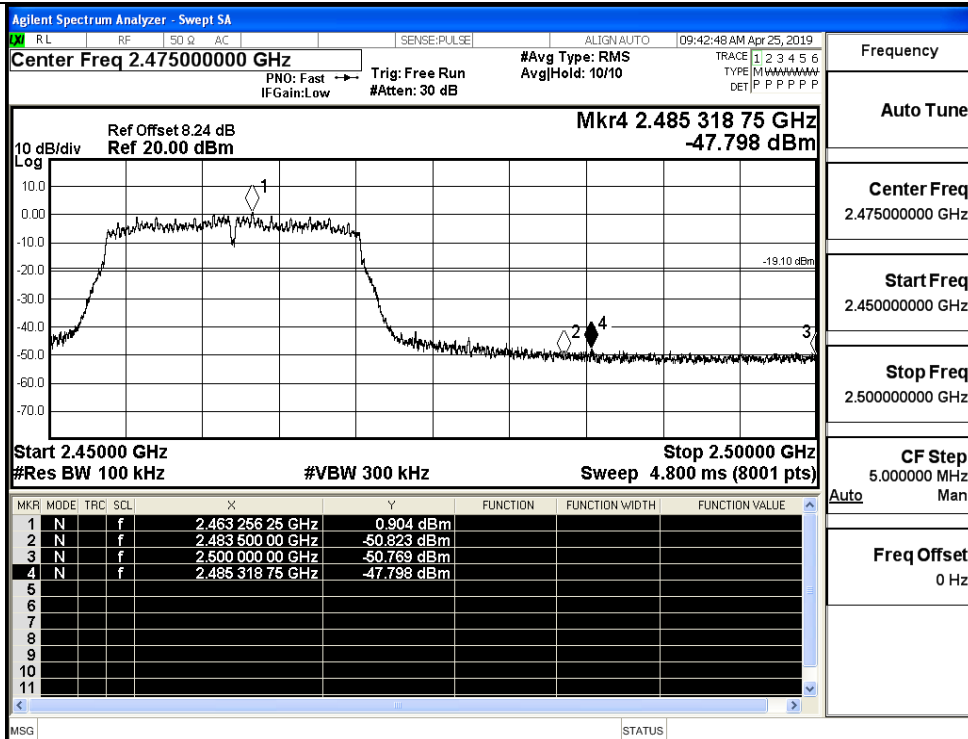
11G/HCH



11N20SISO/LCH



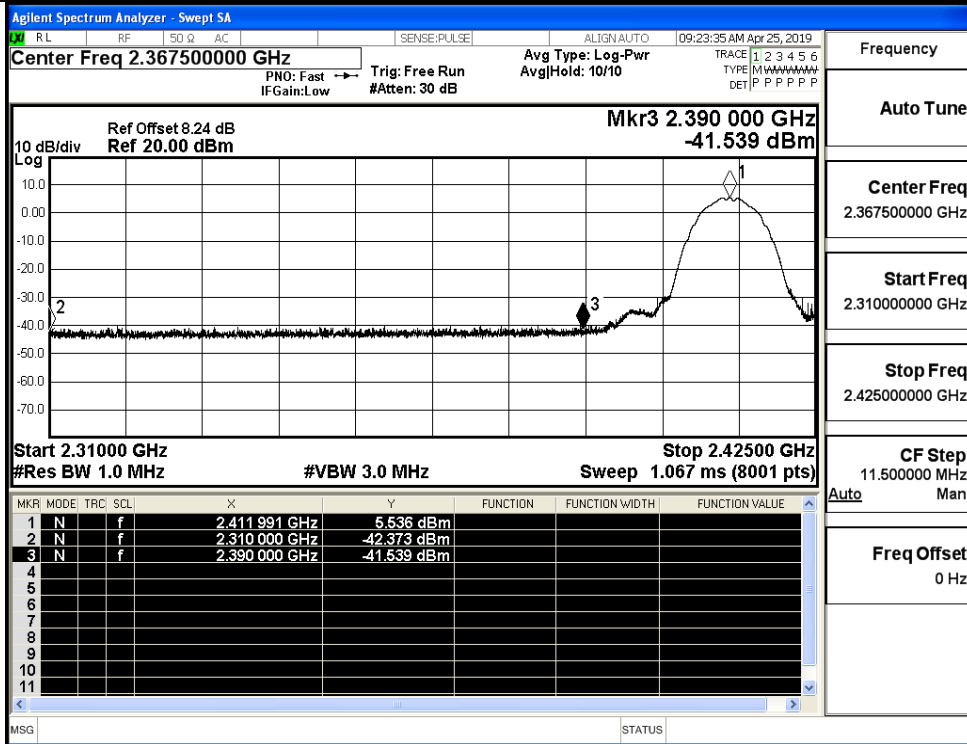
11N20SISO/HCH



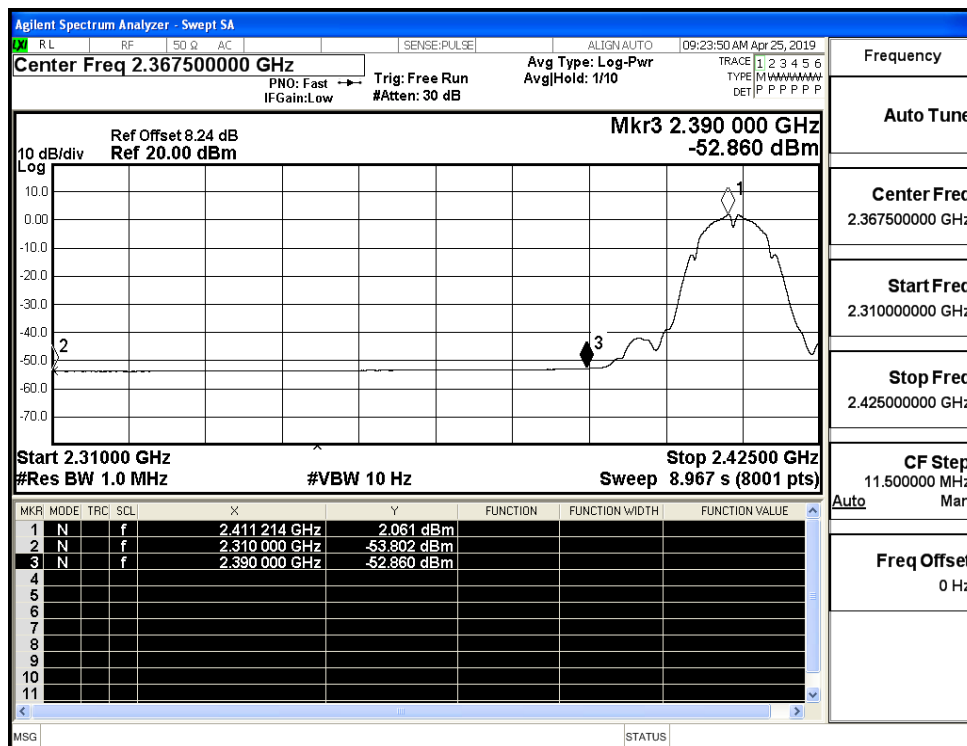
A.7 Restrict-band band-edge measurements

| Test Mode | Test Channel | Ant | Freq. | Power [dBm] | Gain | Ground Factor | E [dBuV/m] | Detector | Limit [dBuV/m] | Verdict |
|------------|--------------|------|--------|-------------|------|---------------|------------|----------|----------------|---------|
| 11B | 2412 | Ant1 | 2310.0 | -42.37 | 5.0 | 0 | 57.89 | PEAK | 74 | PASS |
| | 2412 | Ant1 | 2310.0 | -53.80 | 5.0 | 0 | 46.46 | AV | 54 | PASS |
| | 2412 | Ant1 | 2390.0 | -41.54 | 5.0 | 0 | 58.72 | PEAK | 74 | PASS |
| | 2412 | Ant1 | 2390.0 | -52.86 | 5.0 | 0 | 47.40 | AV | 54 | PASS |
| | 2462 | Ant1 | 2483.5 | -41.60 | 5.0 | 0 | 58.66 | PEAK | 74 | PASS |
| | 2462 | Ant1 | 2483.5 | -52.66 | 5.0 | 0 | 47.60 | AV | 54 | PASS |
| | 2462 | Ant1 | 2500.0 | -42.27 | 5.0 | 0 | 57.99 | PEAK | 74 | PASS |
| | 2462 | Ant1 | 2500.0 | -52.83 | 5.0 | 0 | 47.43 | AV | 54 | PASS |
| 11G | 2412 | Ant1 | 2310.0 | -43.51 | 5.0 | 0 | 56.75 | PEAK | 74 | PASS |
| | 2412 | Ant1 | 2310.0 | -53.56 | 5.0 | 0 | 46.70 | AV | 54 | PASS |
| | 2412 | Ant1 | 2390.0 | -39.74 | 5.0 | 0 | 60.52 | PEAK | 74 | PASS |
| | 2412 | Ant1 | 2390.0 | -50.35 | 5.0 | 0 | 49.91 | AV | 54 | PASS |
| | 2462 | Ant1 | 2483.5 | -38.21 | 5.0 | 0 | 62.05 | PEAK | 74 | PASS |
| | 2462 | Ant1 | 2483.5 | -50.42 | 5.0 | 0 | 49.84 | AV | 54 | PASS |
| | 2462 | Ant1 | 2500.0 | -40.60 | 5.0 | 0 | 59.66 | PEAK | 74 | PASS |
| | 2462 | Ant1 | 2500.0 | -51.45 | 5.0 | 0 | 48.81 | AV | 54 | PASS |
| 11N20 SISO | 2412 | Ant1 | 2310.0 | -42.21 | 5.0 | 0 | 58.05 | PEAK | 74 | PASS |
| | 2412 | Ant1 | 2310.0 | -53.55 | 5.0 | 0 | 46.71 | AV | 54 | PASS |
| | 2412 | Ant1 | 2390.0 | -34.91 | 5.0 | 0 | 65.35 | PEAK | 74 | PASS |
| | 2412 | Ant1 | 2390.0 | -51.16 | 5.0 | 0 | 49.10 | AV | 54 | PASS |
| | 2462 | Ant1 | 2483.5 | -34.99 | 5.0 | 0 | 65.27 | PEAK | 74 | PASS |
| | 2462 | Ant1 | 2483.5 | -51.26 | 5.0 | 0 | 49.00 | AV | 54 | PASS |
| | 2462 | Ant1 | 2500.0 | -39.64 | 5.0 | 0 | 60.62 | PEAK | 74 | PASS |
| | 2462 | Ant1 | 2500.0 | -51.66 | 5.0 | 0 | 48.60 | AV | 54 | PASS |

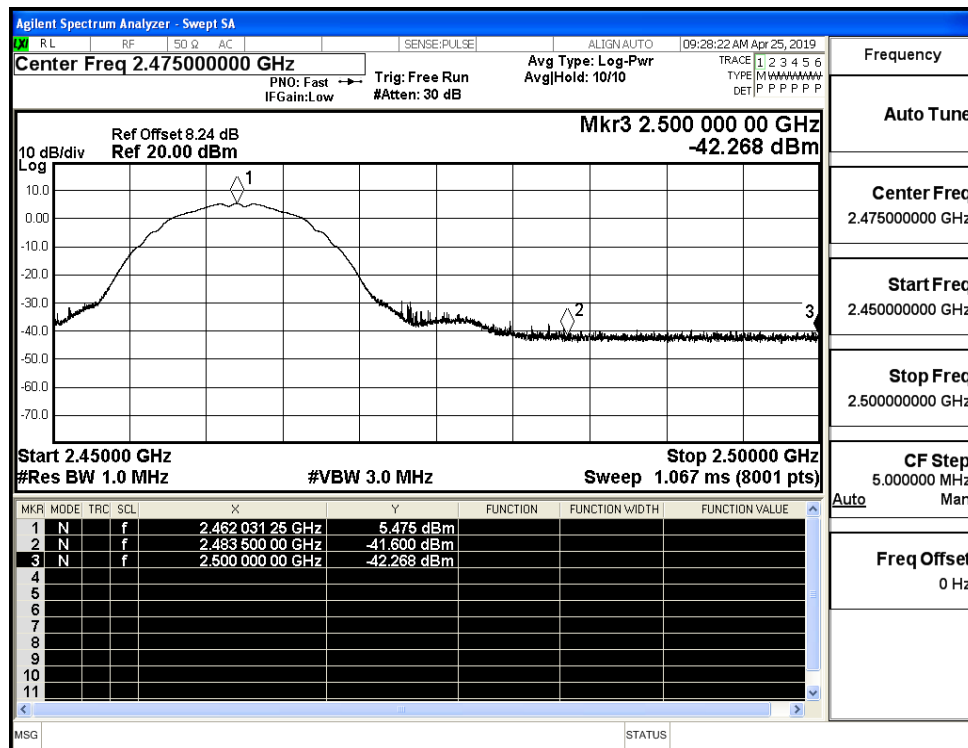
Restrict-band band-edge measurements_11B_2412_Ant1_PEAK



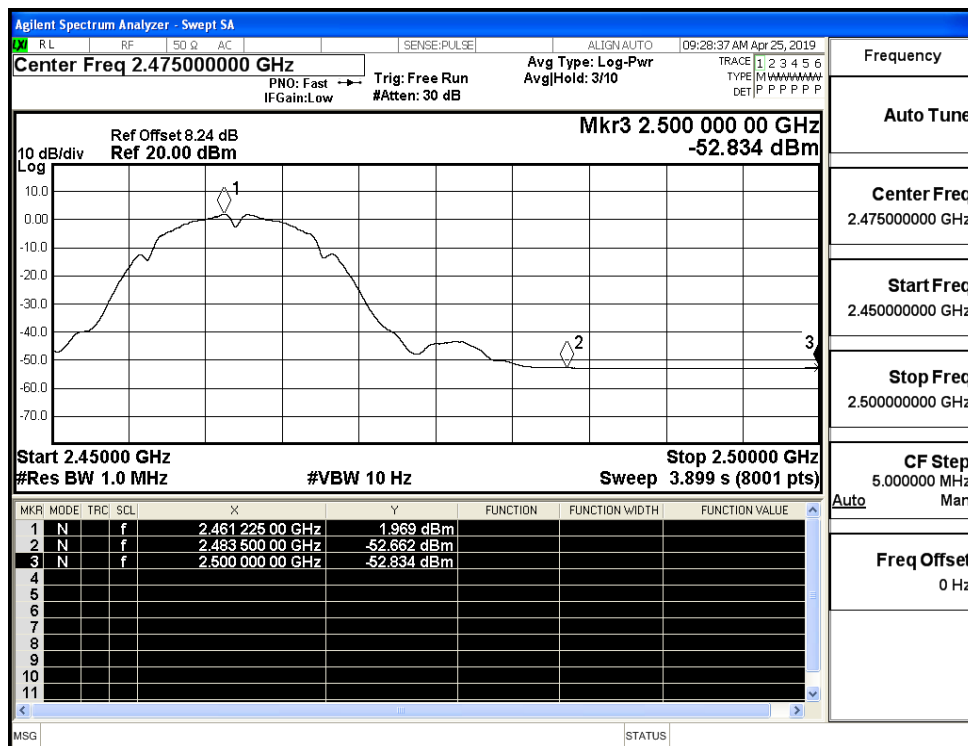
Restrict-band band-edge measurements_11B_2412_Ant1_AV



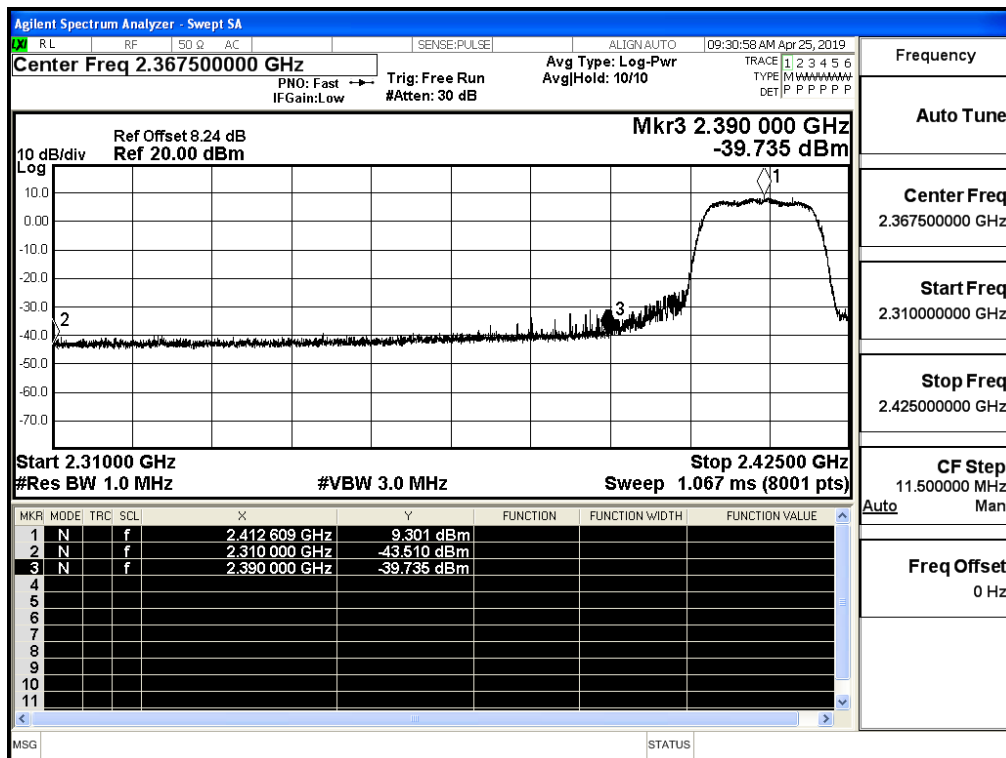
Restrict-band band-edge measurements_11B_2462_Ant1_PEAK



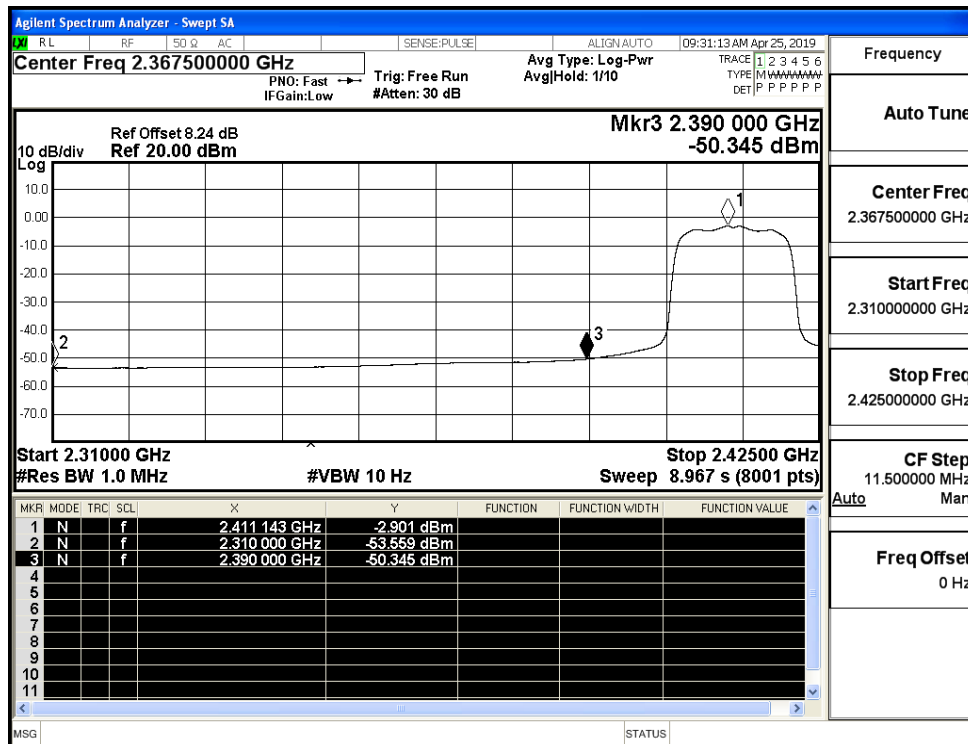
Restrict-band band-edge measurements_11B_2462_Ant1_AV



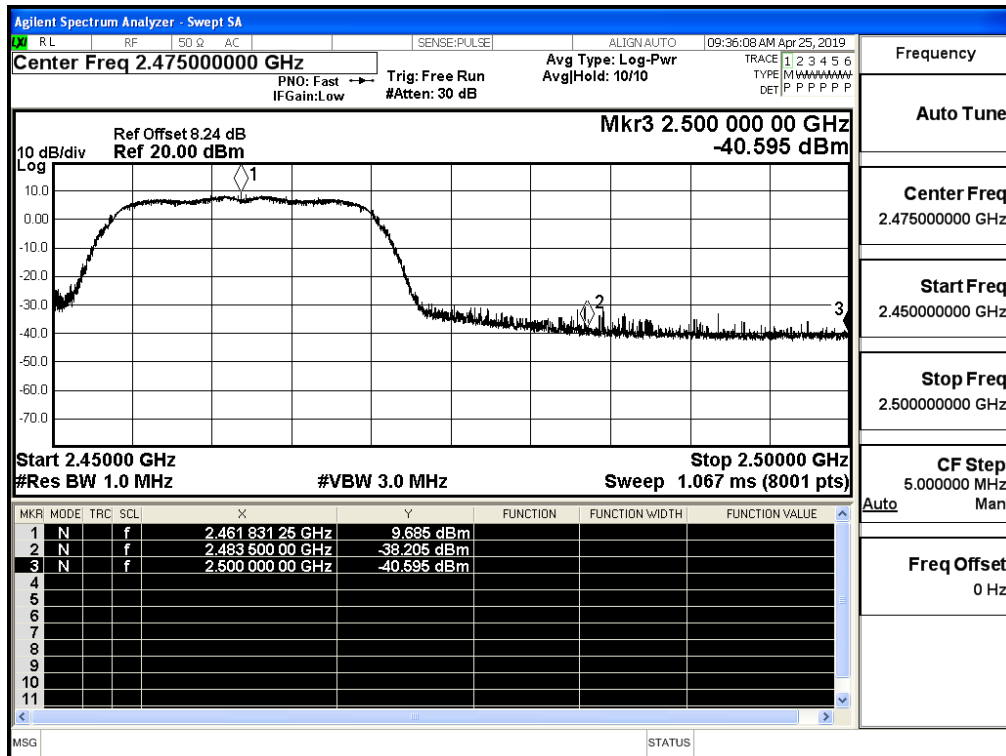
Restrict-band band-edge measurements_11G_2412_Ant1_PEAK



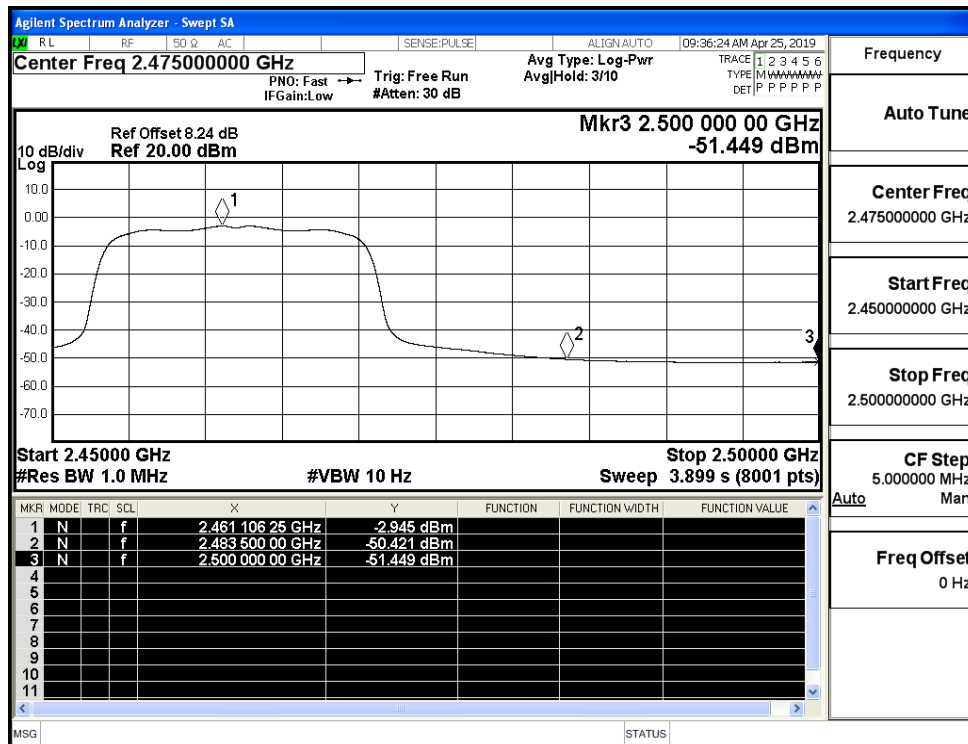
Restrict-band band-edge measurements_11G_2412_Ant1_AV



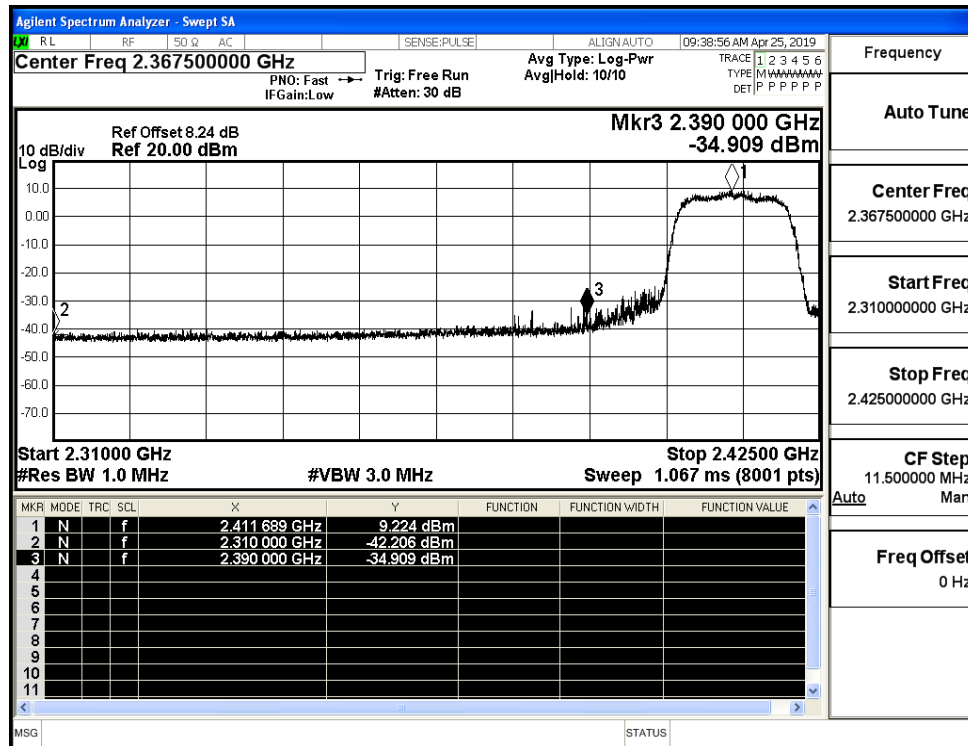
Restrict-band band-edge measurements_11G_2462_Ant1_PEAK



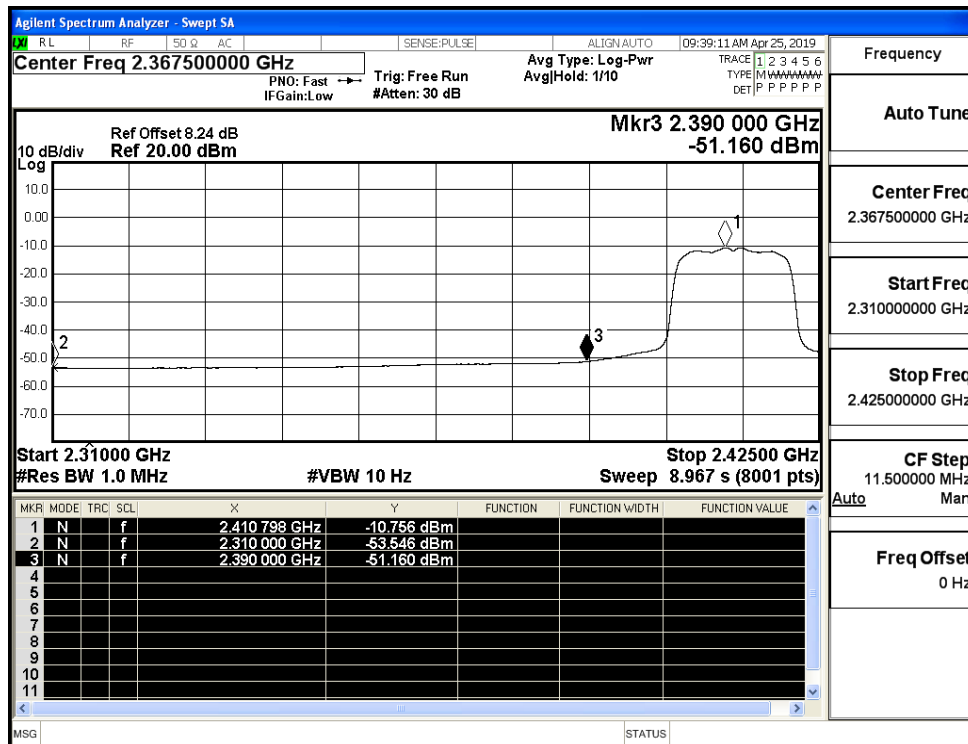
Restrict-band band-edge measurements_11G_2462_Ant1_AV



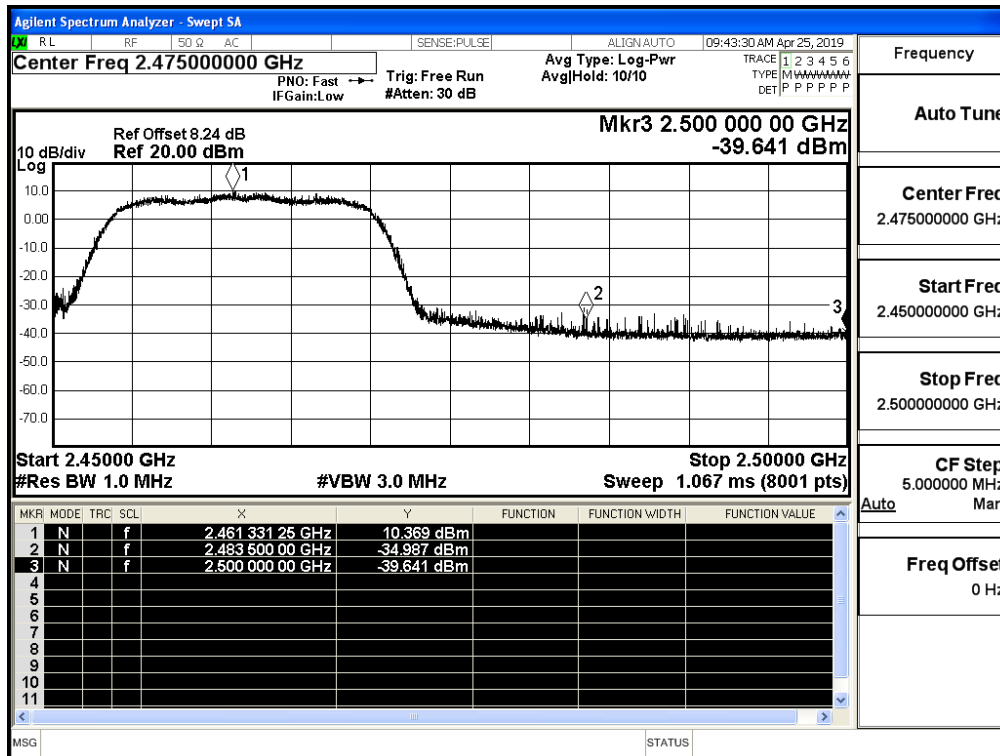
Restrict-band band-edge measurements_11N20SISO_2412_Ant1_PEAK



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

