

Appendix A

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Dash Cam

Trade Mark: N/A

Test Model: EC4

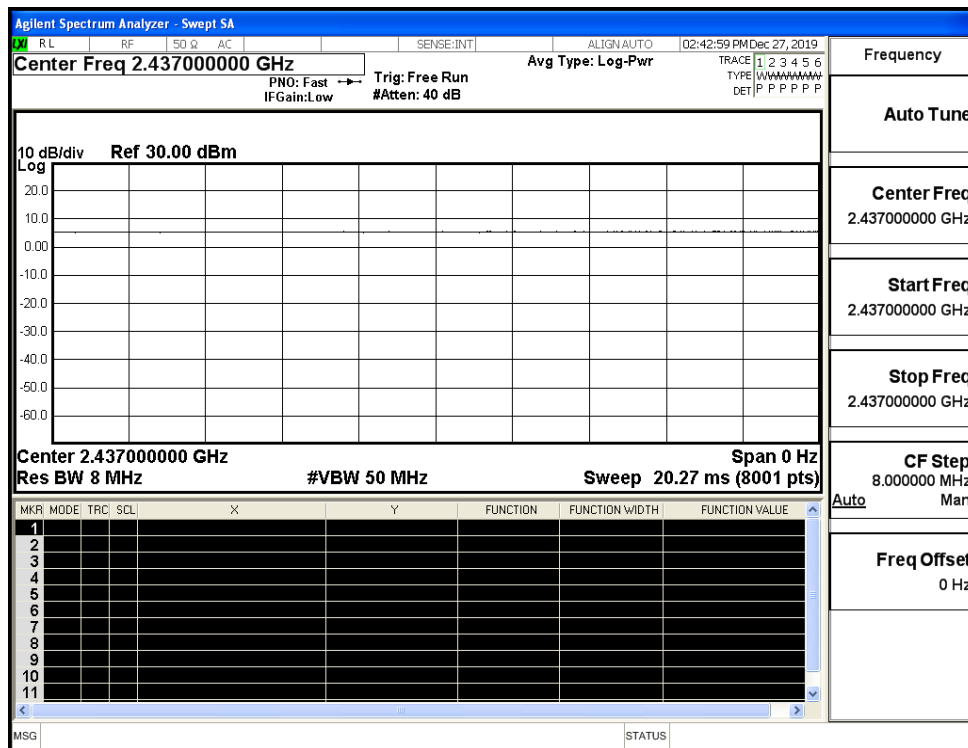
Environmental Conditions

| | |
|--------------------|-------------|
| Temperature: | 24.3 ° C |
| Relative Humidity: | 53.1% |
| ATM Pressure: | 100.0 kPa |
| Test Engineer: | Qu Xin |
| Supervised by: | Wang Chuang |

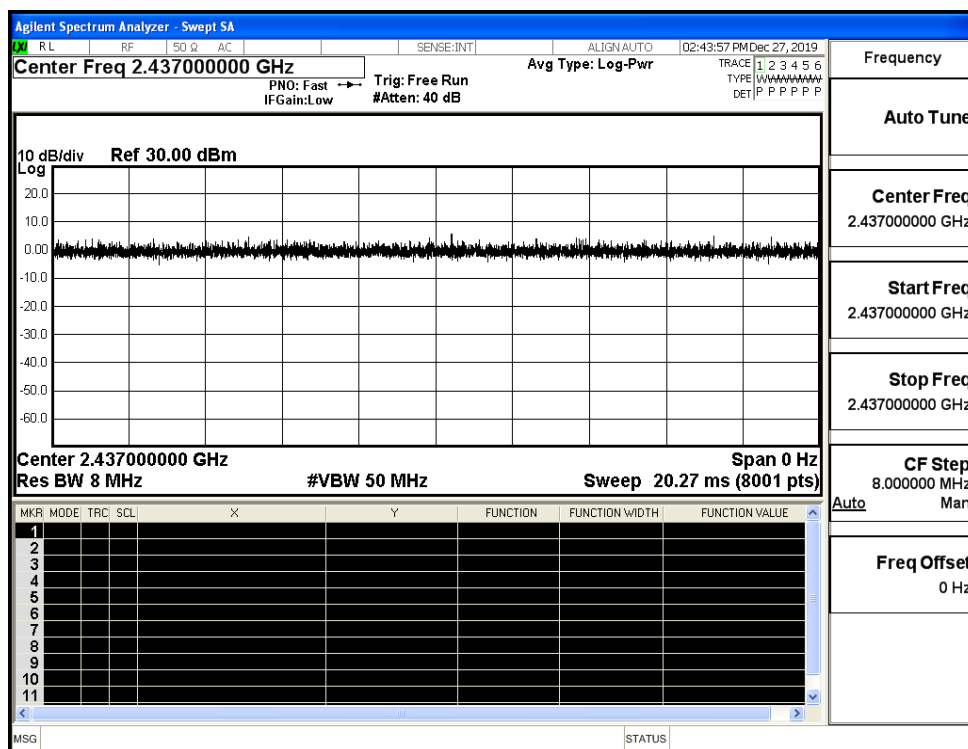
A.1 Duty Cycle

| Test Mode | Test Channel | Ant | Duty Cycle[%] | Verdict |
|-----------|--------------|------|---------------|---------|
| 11B | 2437 | Ant1 | 100 | PASS |
| 11G | 2437 | Ant1 | 100 | PASS |
| 11N20SISO | 2437 | Ant1 | 100 | PASS |
| 11N40SISO | 2437 | Ant1 | 100 | PASS |

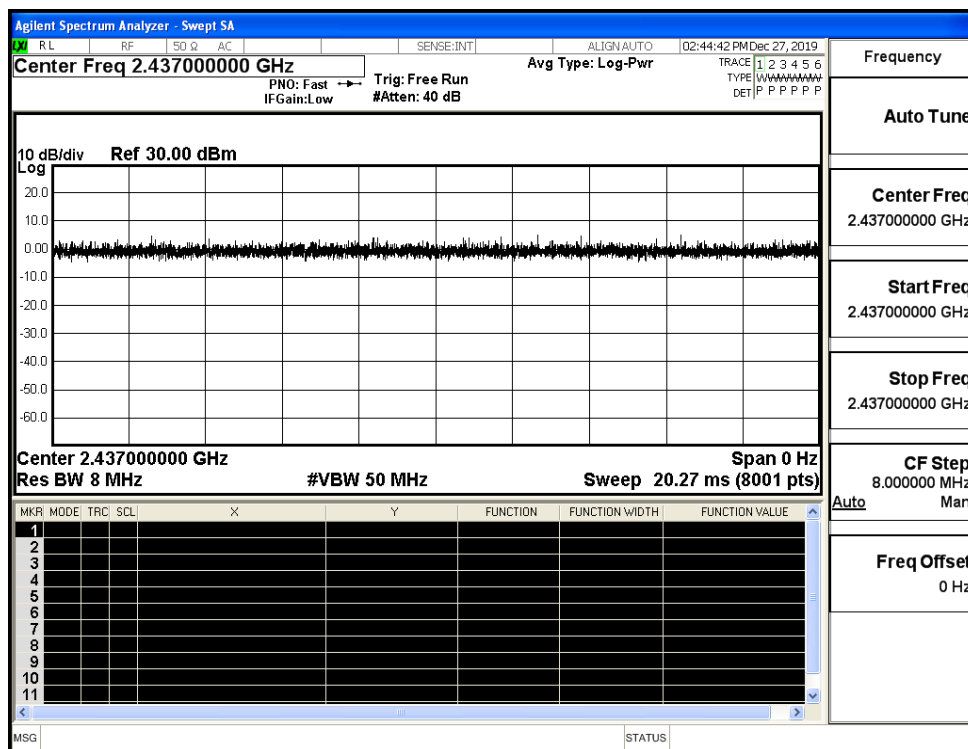
Duty Cycle_11B_2437_Ant1



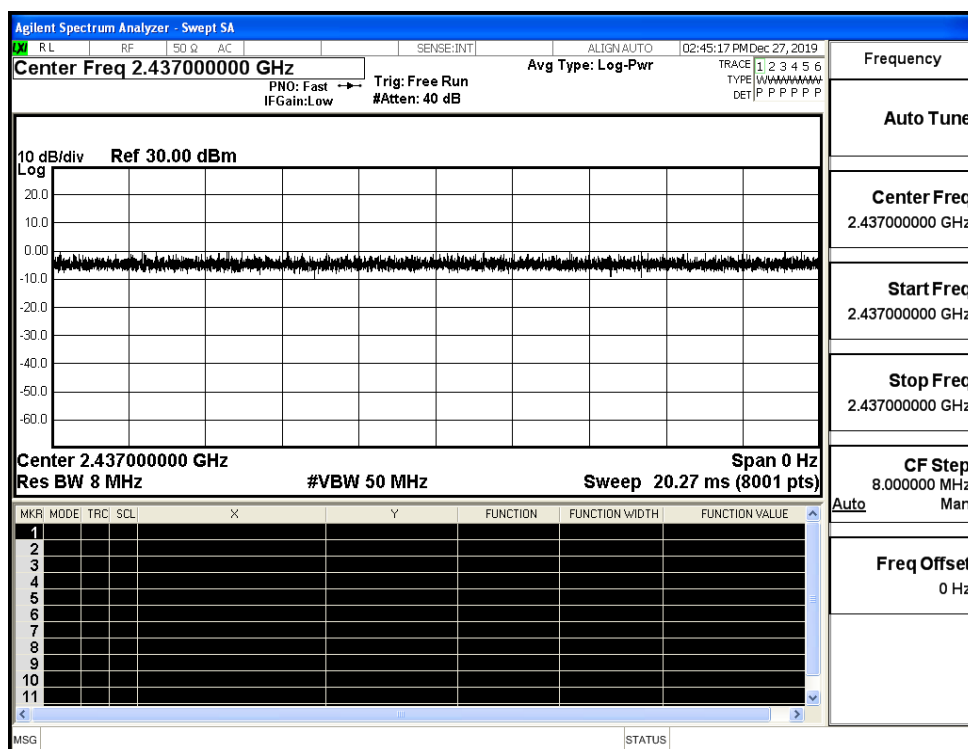
Duty Cycle_11G_2437_Ant1



Duty Cycle_11N20SISO_2437_Ant1



Duty Cycle_11N40SISO_2437_Ant1



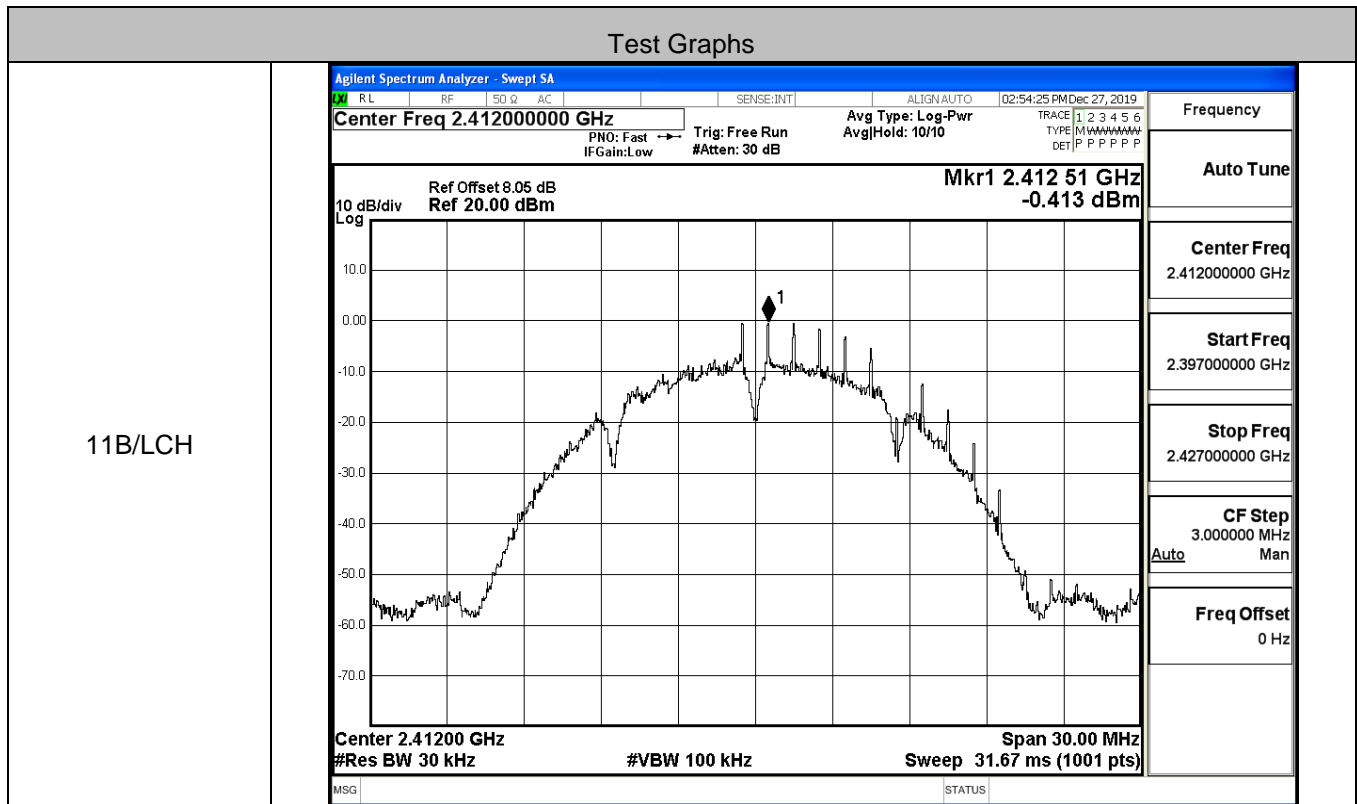
A.2 Maximum Conducted Output Power

| Mode | Channel | Meas.Level [dBm] | Limit [dBm] | Verdict |
|-----------|---------|------------------|-------------|---------|
| 11B | LCH | 10.53 | 30 | PASS |
| | MCH | 9.03 | 30 | PASS |
| | HCH | 9.17 | 30 | PASS |
| 11G | LCH | 13.44 | 30 | PASS |
| | MCH | 10.8 | 30 | PASS |
| | HCH | 11.02 | 30 | PASS |
| 11N20SISO | LCH | 10.63 | 30 | PASS |
| | MCH | 10.82 | 30 | PASS |
| | HCH | 10.94 | 30 | PASS |
| 11N40SISO | LCH | 10.94 | 30 | PASS |
| | MCH | 11.03 | 30 | PASS |
| | HCH | 11.14 | 30 | PASS |

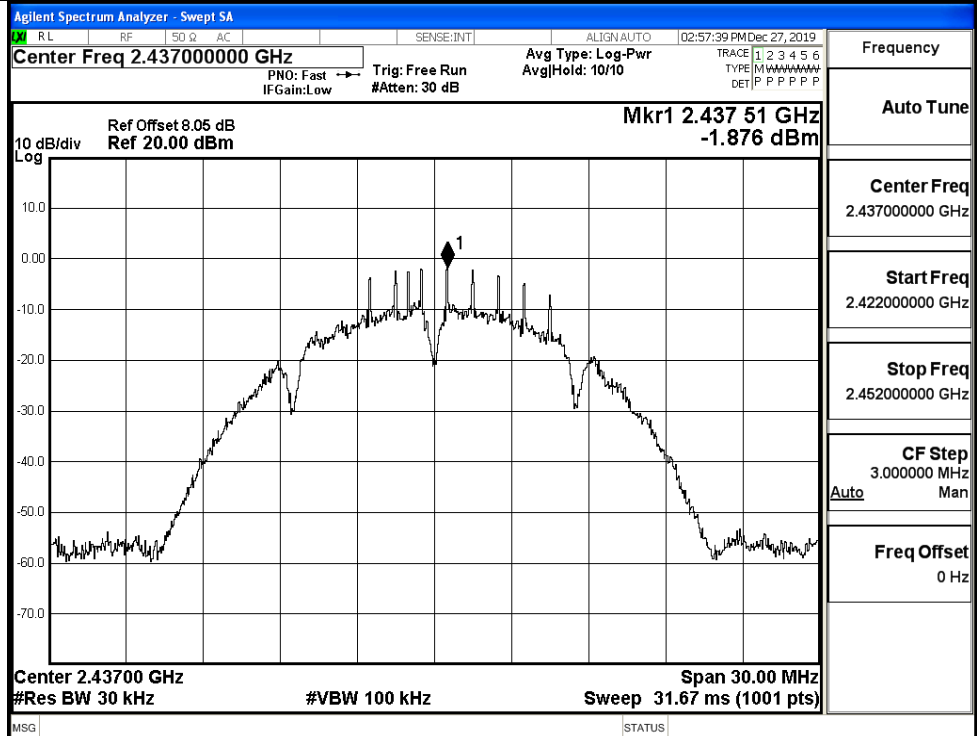
A.3 Maximum Power Spectral Density

| Mode | Channel | Meas.Level [dBm/30KHz] | Limit [dBm/3KHz] | Verdict |
|-----------|---------|------------------------|------------------|---------|
| 11B | LCH | -0.413 | 8 | PASS |
| | MCH | -1.876 | 8 | PASS |
| | HCH | -2.148 | 8 | PASS |
| 11G | LCH | -10.596 | 8 | PASS |
| | MCH | -13.552 | 8 | PASS |
| | HCH | -11.770 | 8 | PASS |
| 11N20SISO | LCH | -13.043 | 8 | PASS |
| | MCH | -12.896 | 8 | PASS |
| | HCH | -12.263 | 8 | PASS |
| 11N40SISO | LCH | -15.025 | 8 | PASS |
| | MCH | -15.674 | 8 | PASS |
| | HCH | -14.913 | 8 | PASS |

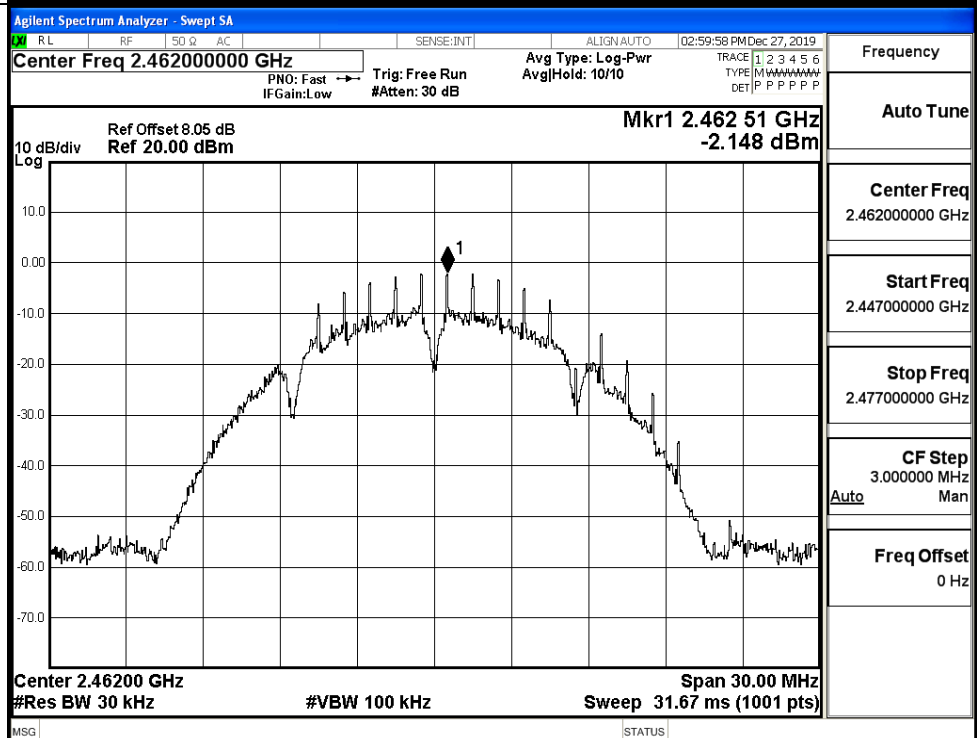
Test Graphs



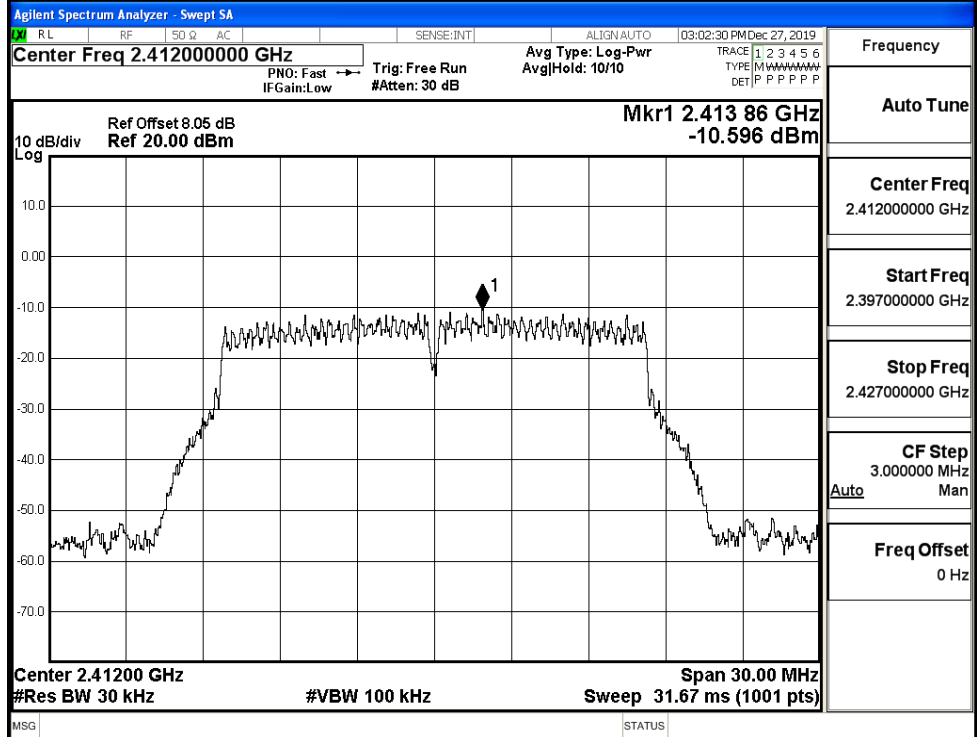
11B/MCH



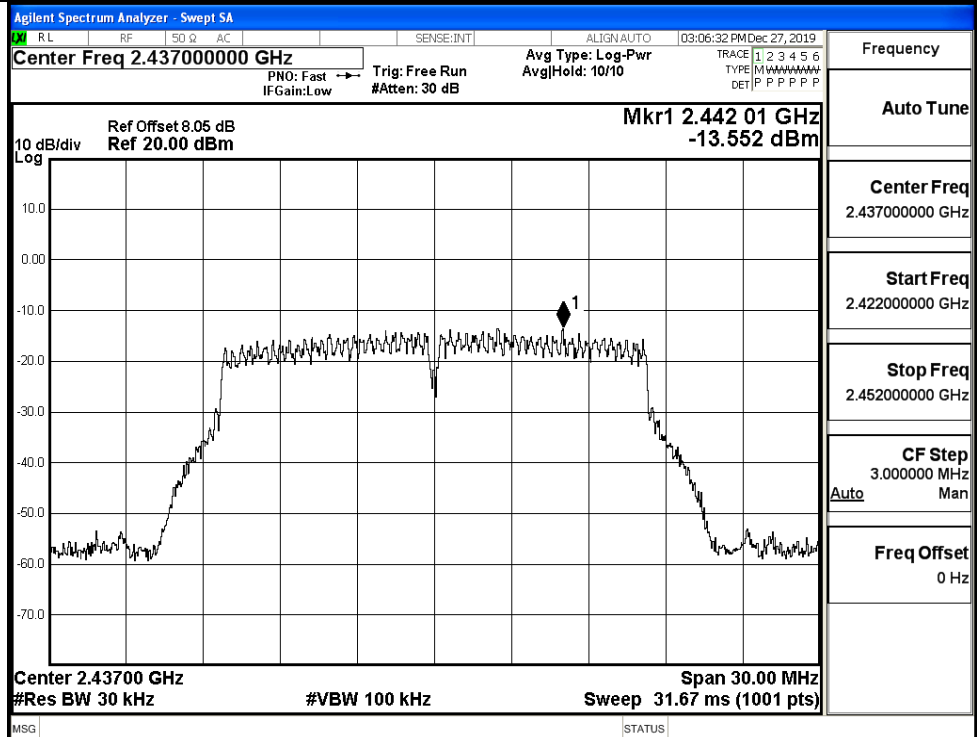
11B/HCH



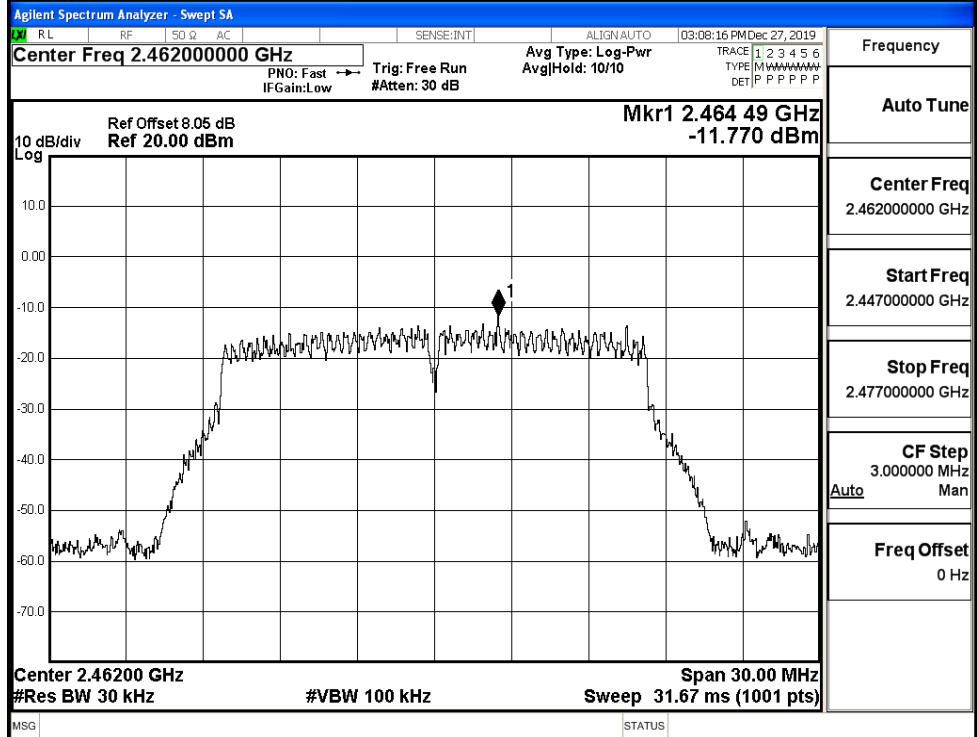
11G/LCH



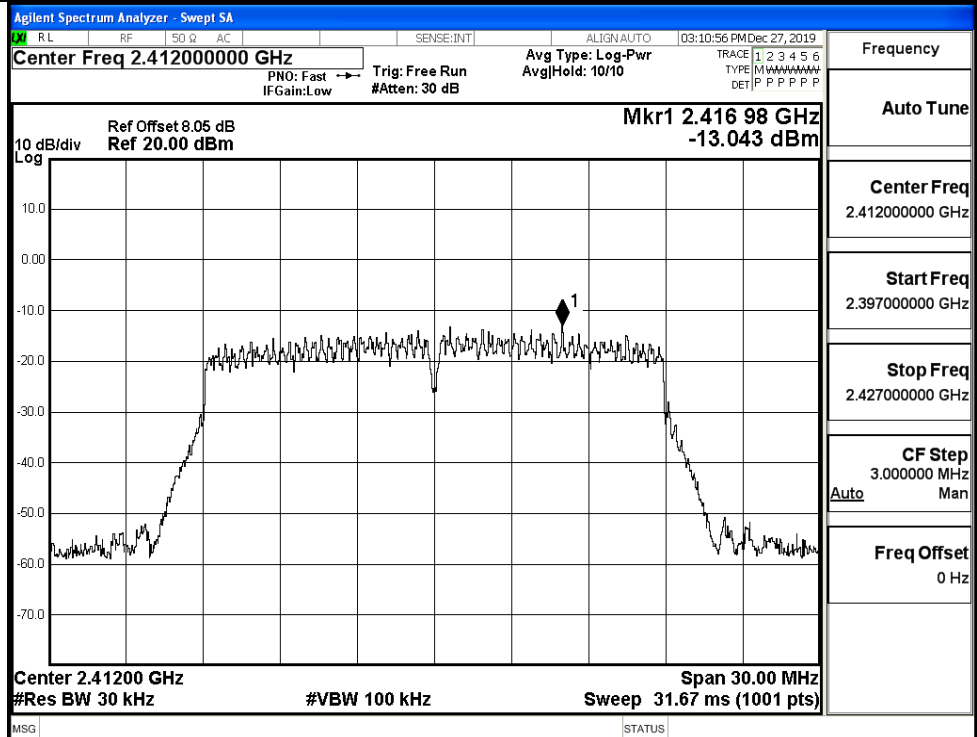
11G/MCH



11G/HCH

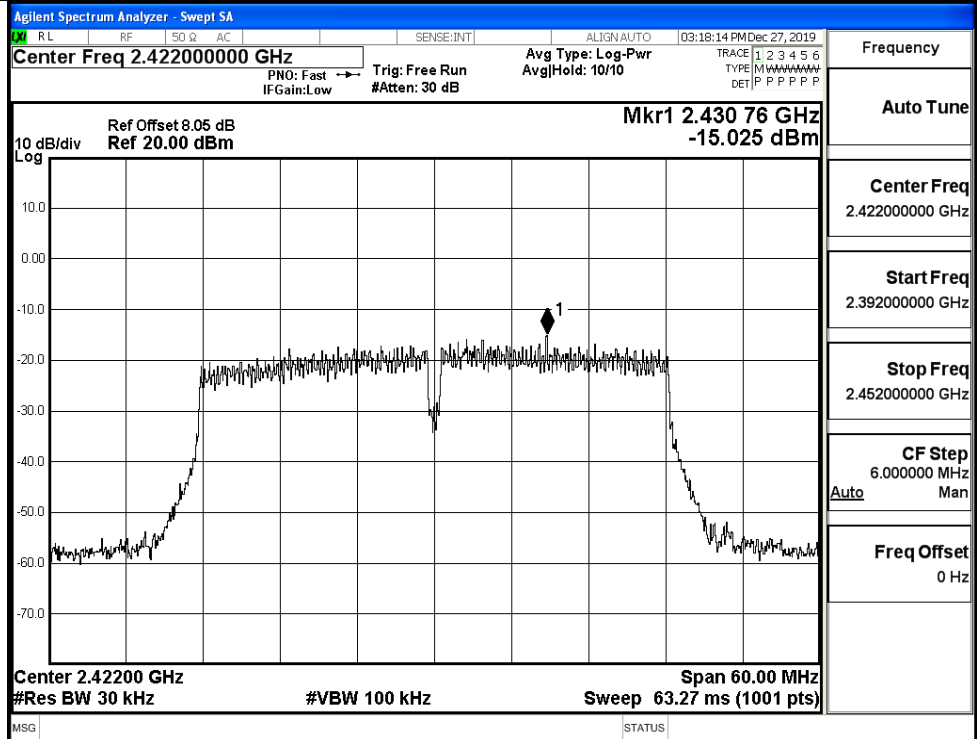


11N20SISO/LCH

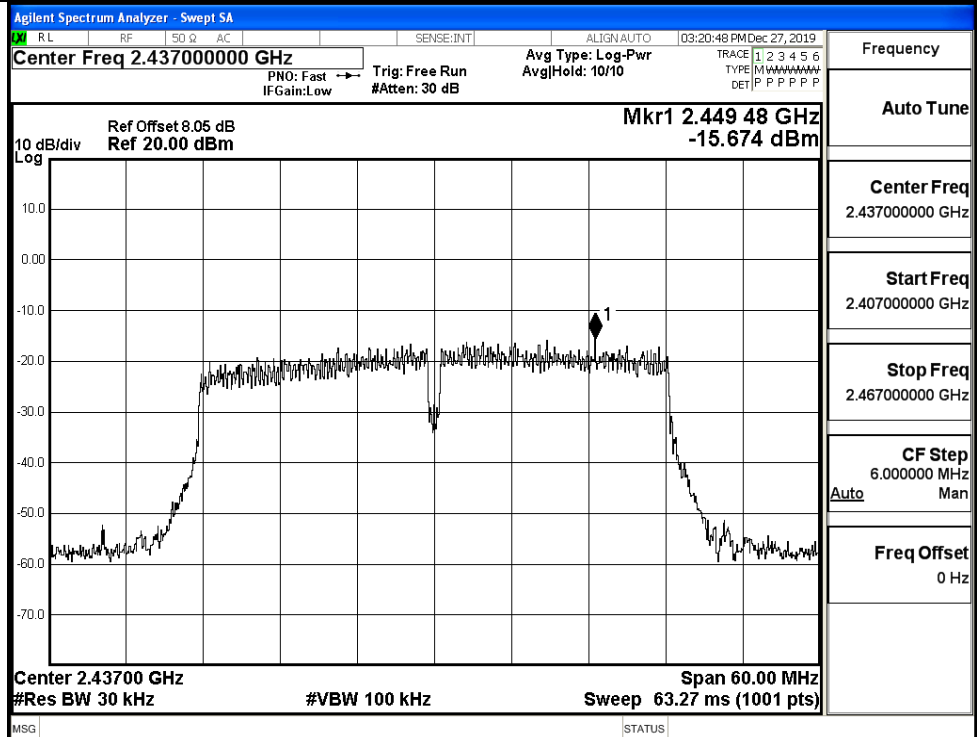


Page 9 of 46

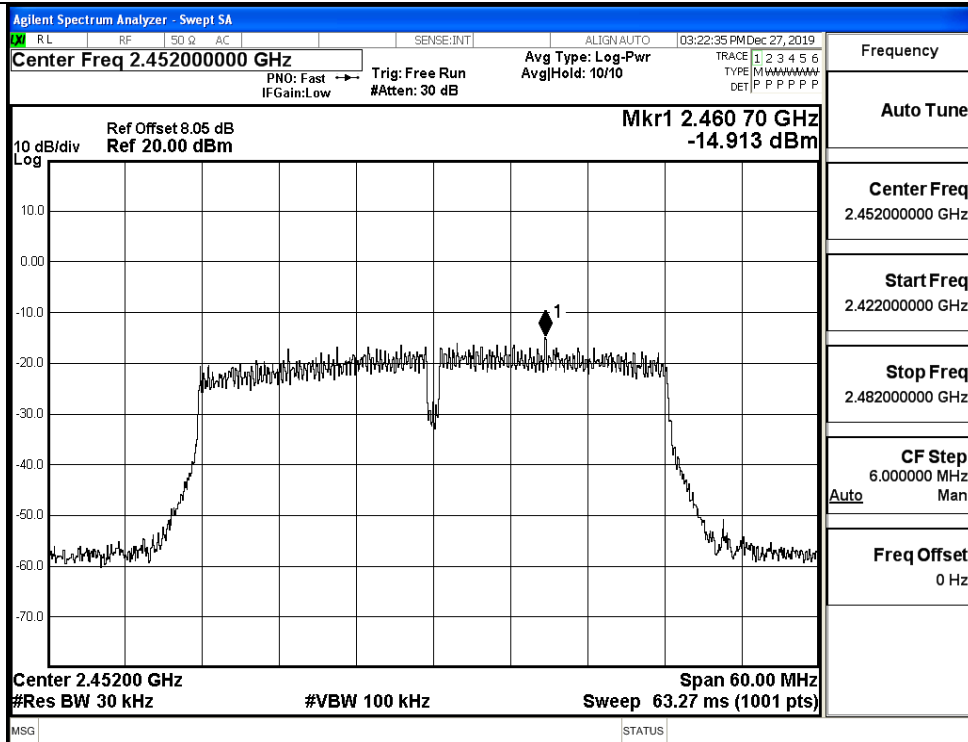
11N40SISO/LCH



11N40SISO/MCH



11N40SISO/HCH

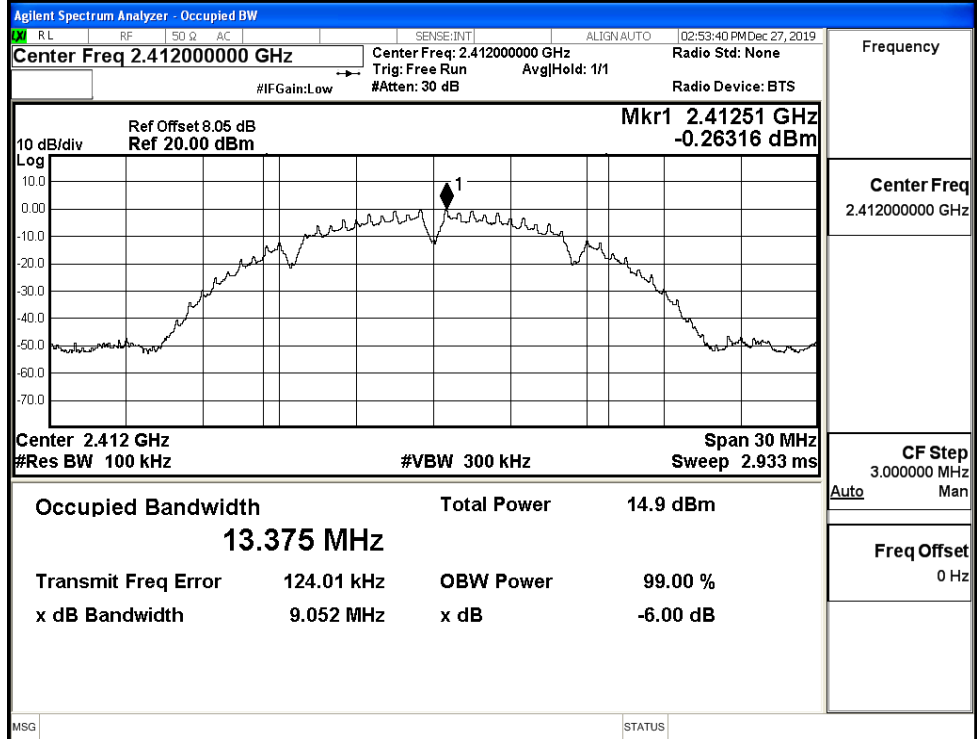


A.4 6dB Bandwidth

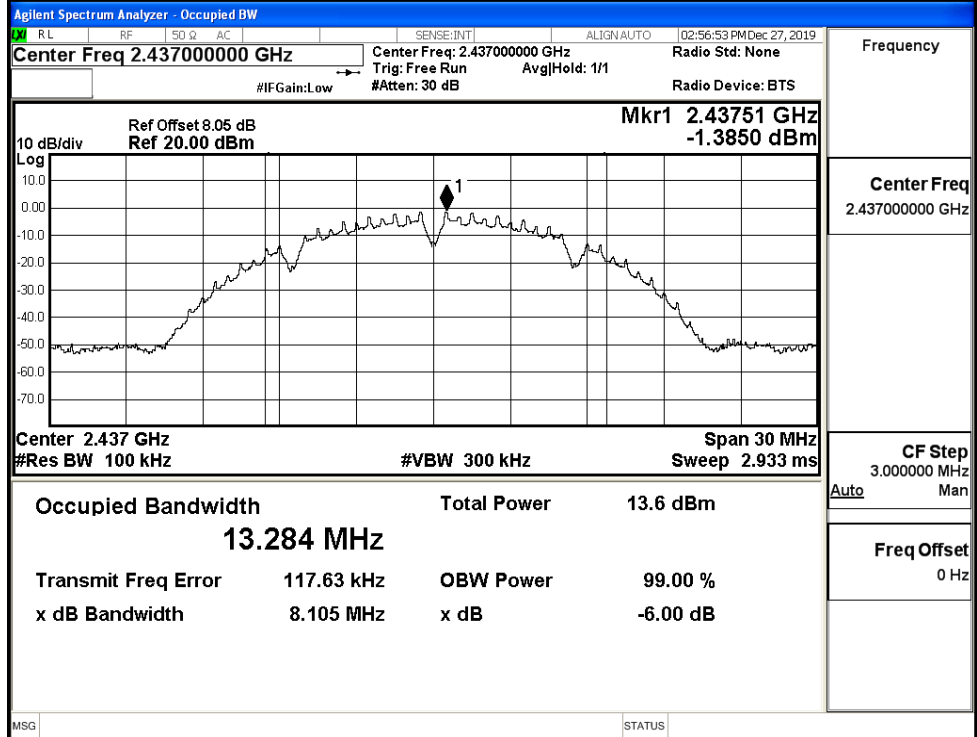
| Mode | Channel | 6dB Bandwidth [MHz] | Limit [MHz] | Verdict |
|-----------|---------|---------------------|-------------|---------|
| 11B | LCH | 9.052 | ≥ 0.5 | PASS |
| | MCH | 8.105 | ≥ 0.5 | PASS |
| | HCH | 9.044 | ≥ 0.5 | PASS |
| 11G | LCH | 15.46 | ≥ 0.5 | PASS |
| | MCH | 15.51 | ≥ 0.5 | PASS |
| | HCH | 15.74 | ≥ 0.5 | PASS |
| 11N20SISO | LCH | 16.31 | ≥ 0.5 | PASS |
| | MCH | 15.98 | ≥ 0.5 | PASS |
| | HCH | 15.98 | ≥ 0.5 | PASS |
| 11N40SISO | LCH | 35.71 | ≥ 0.5 | PASS |
| | MCH | 35.17 | ≥ 0.5 | PASS |
| | HCH | 35.16 | ≥ 0.5 | PASS |

Test Graphs

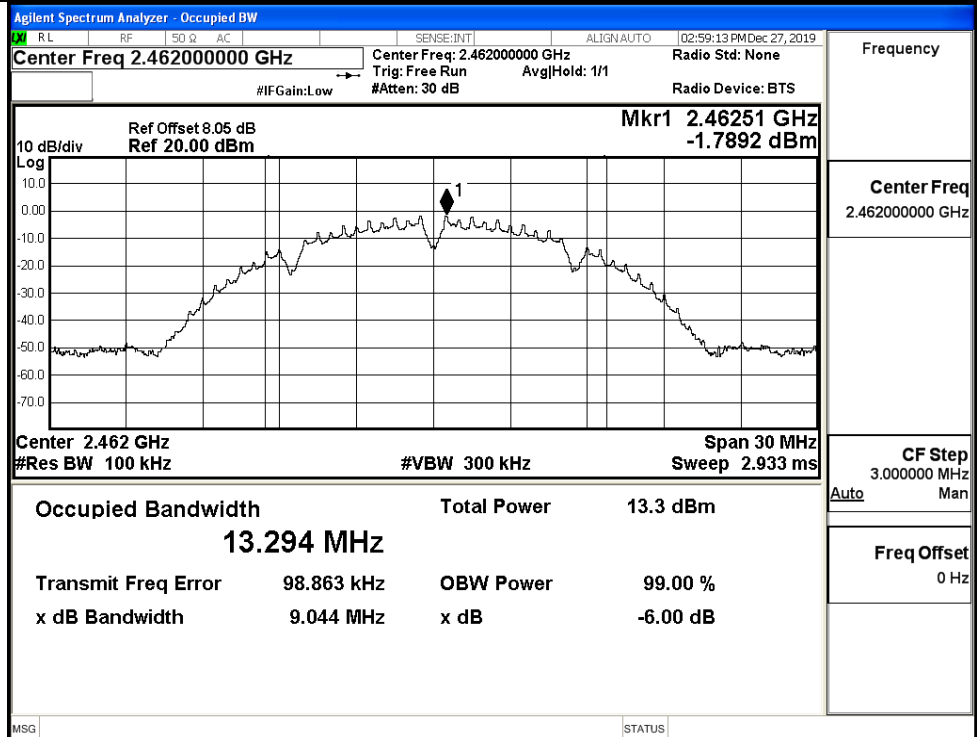
11B/LCH



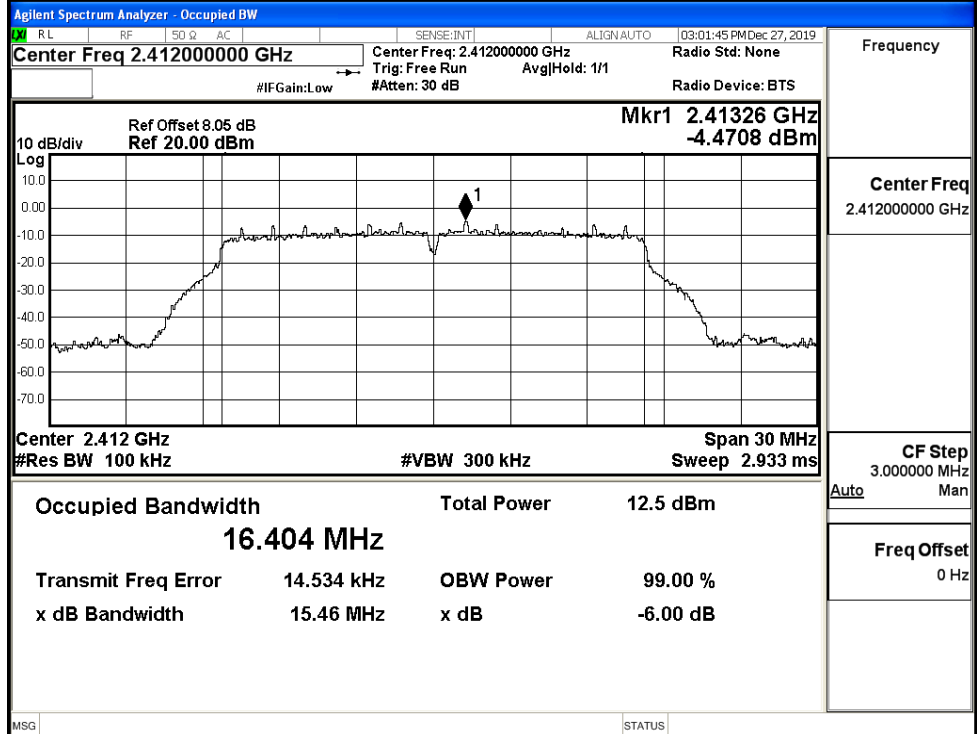
11B/MCH



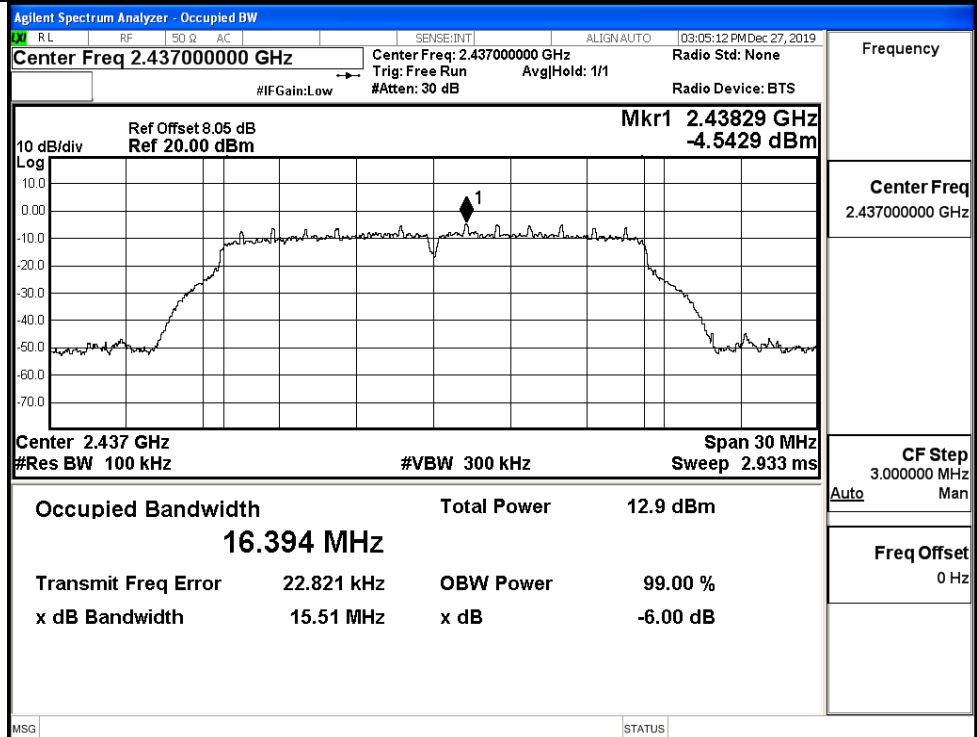
11B/HCH



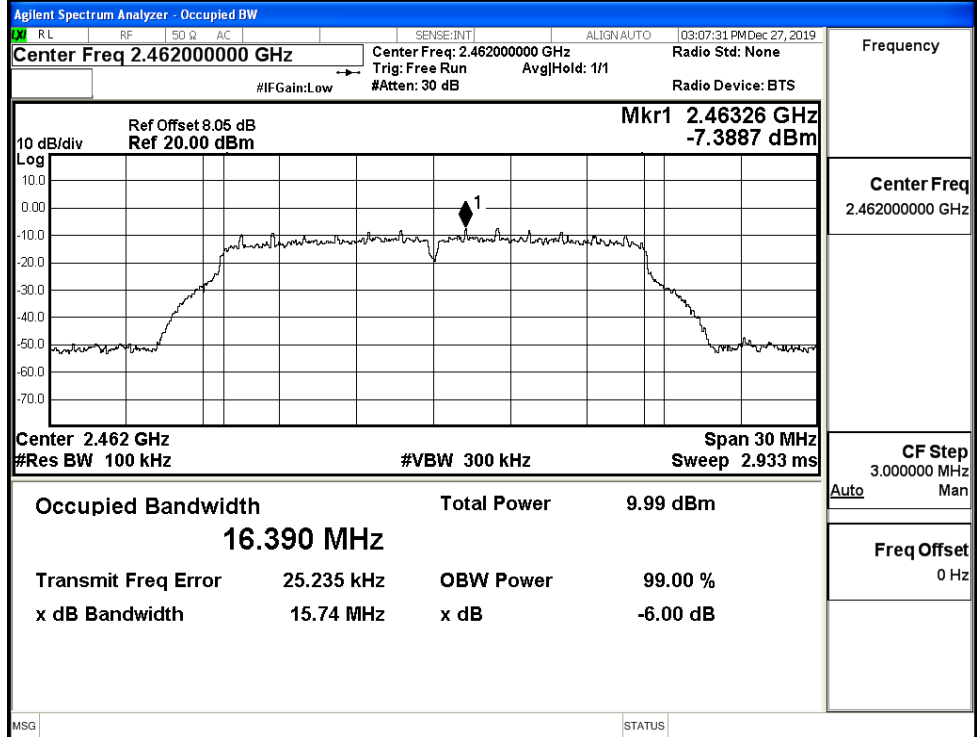
11G/LCH



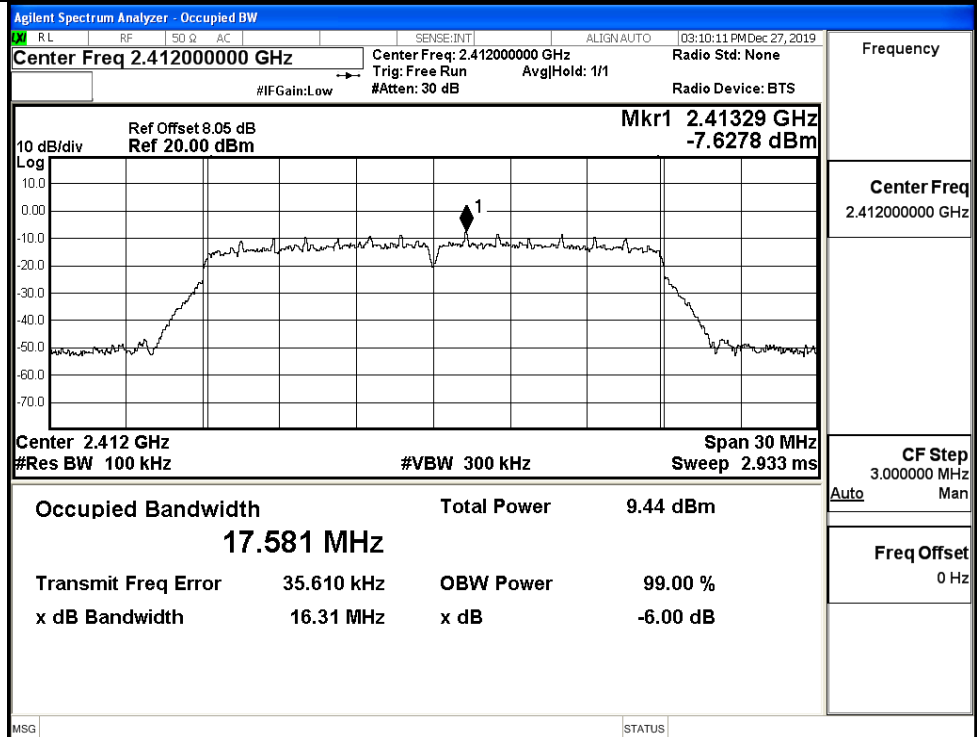
11G/MCH



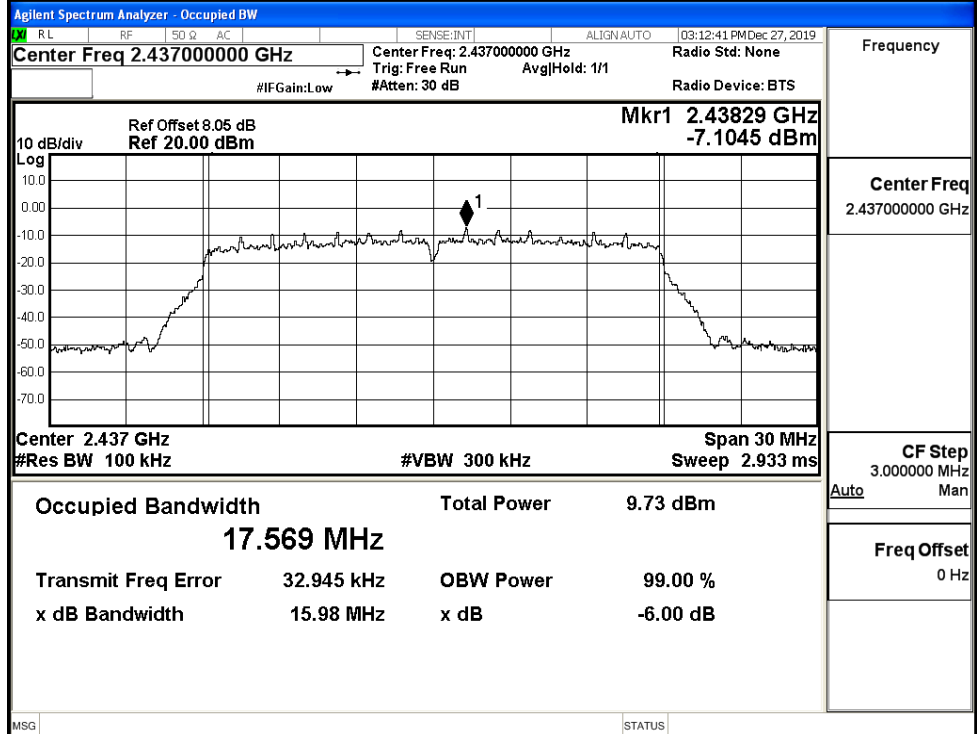
11G/HCH



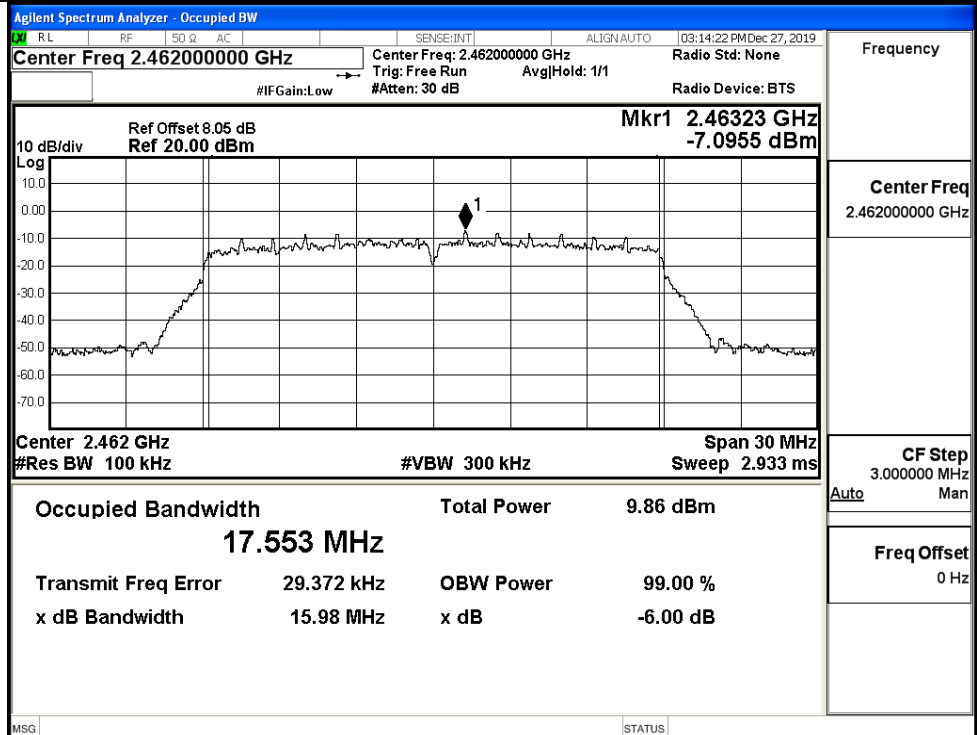
11N20SISO/LCH



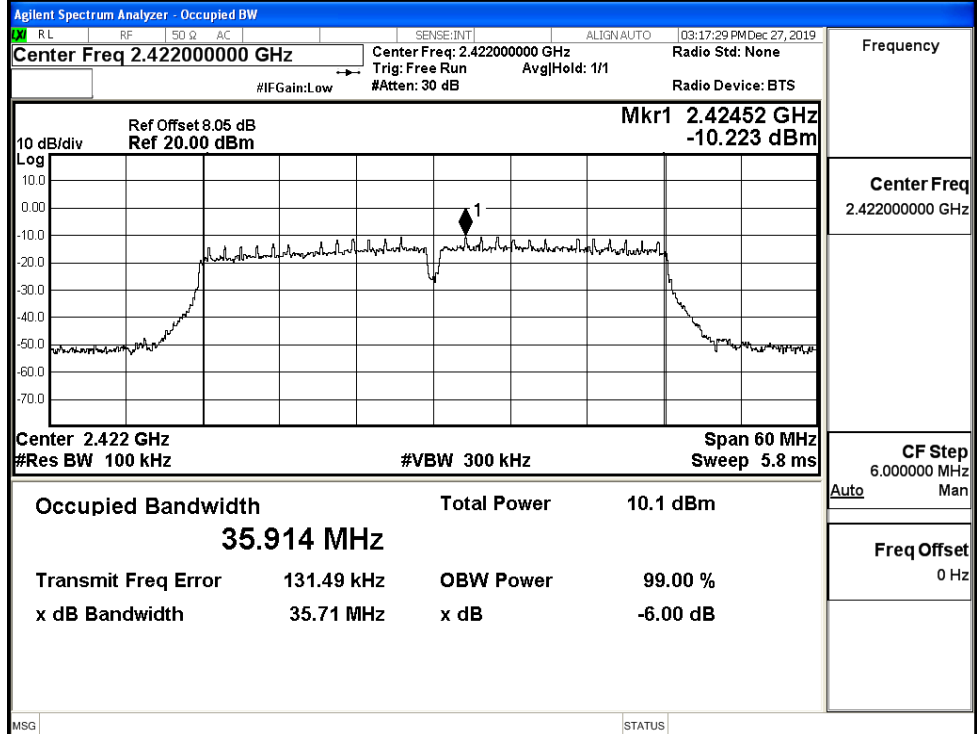
11N20SISO/MCH



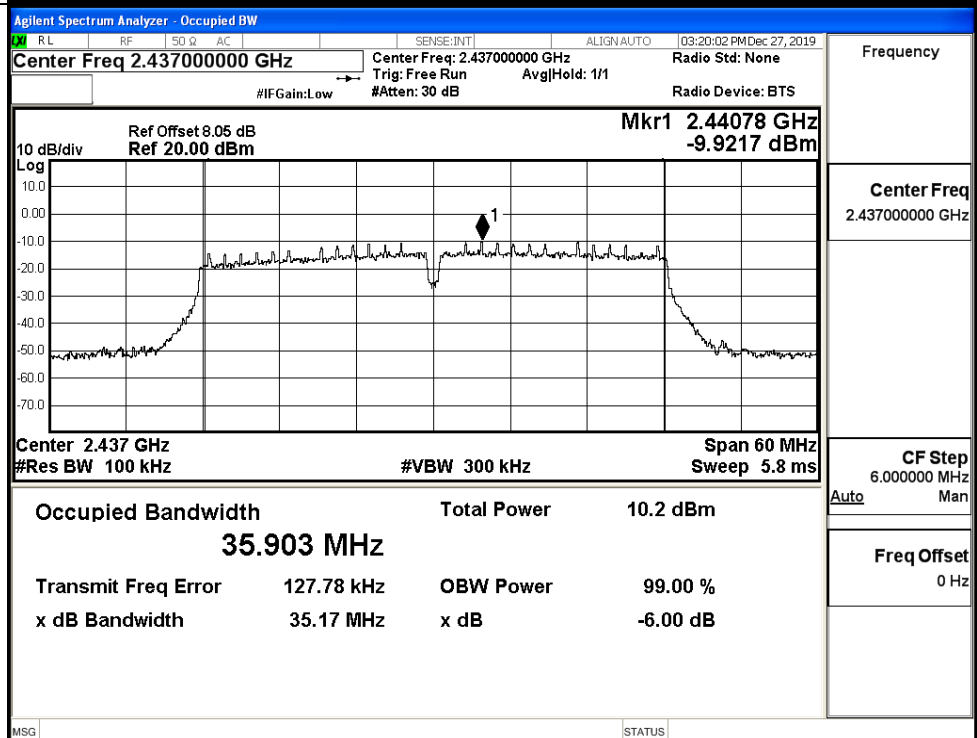
11N20SISO/HCH



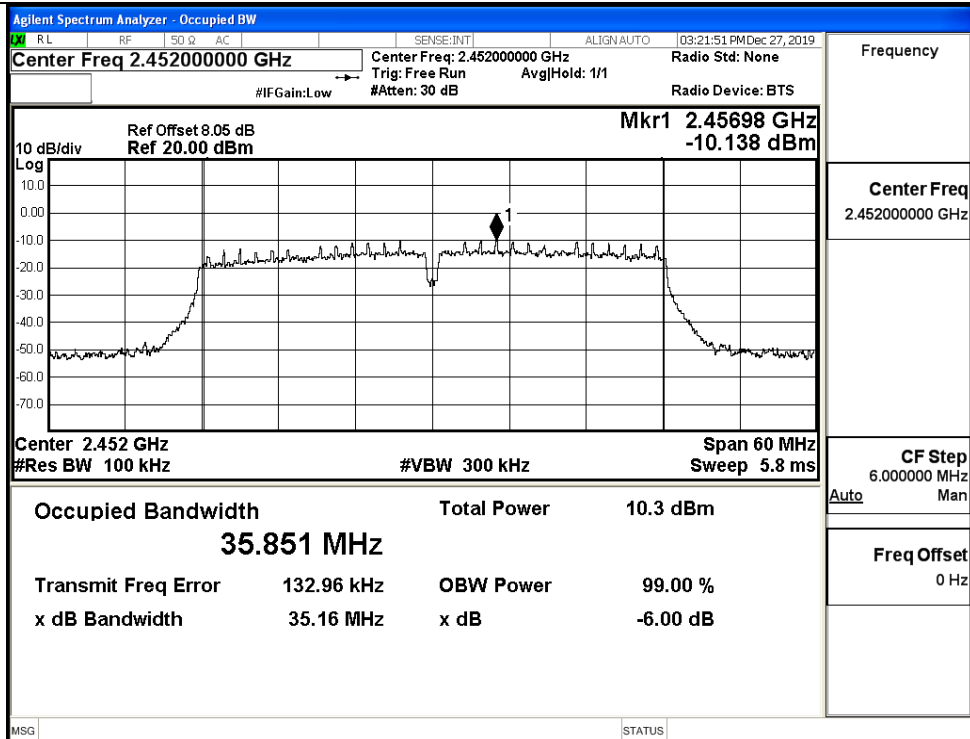
11N40SISO/LCH



11N40SISO/MCH



11N40SISO/HCH

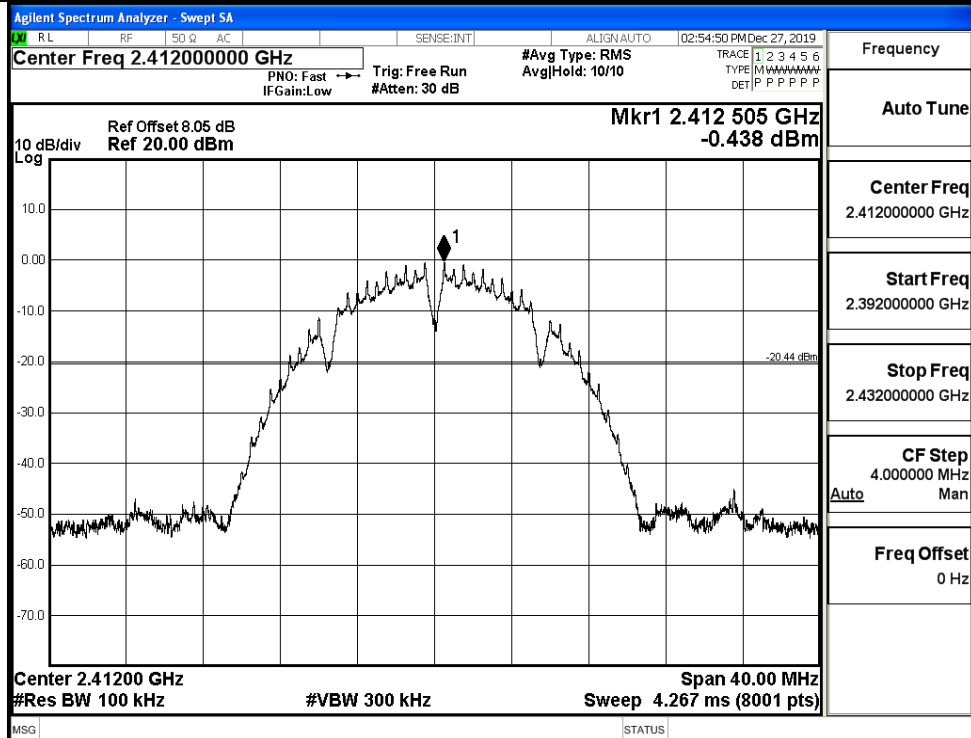


A.5 RF Conducted Spurious Emissions

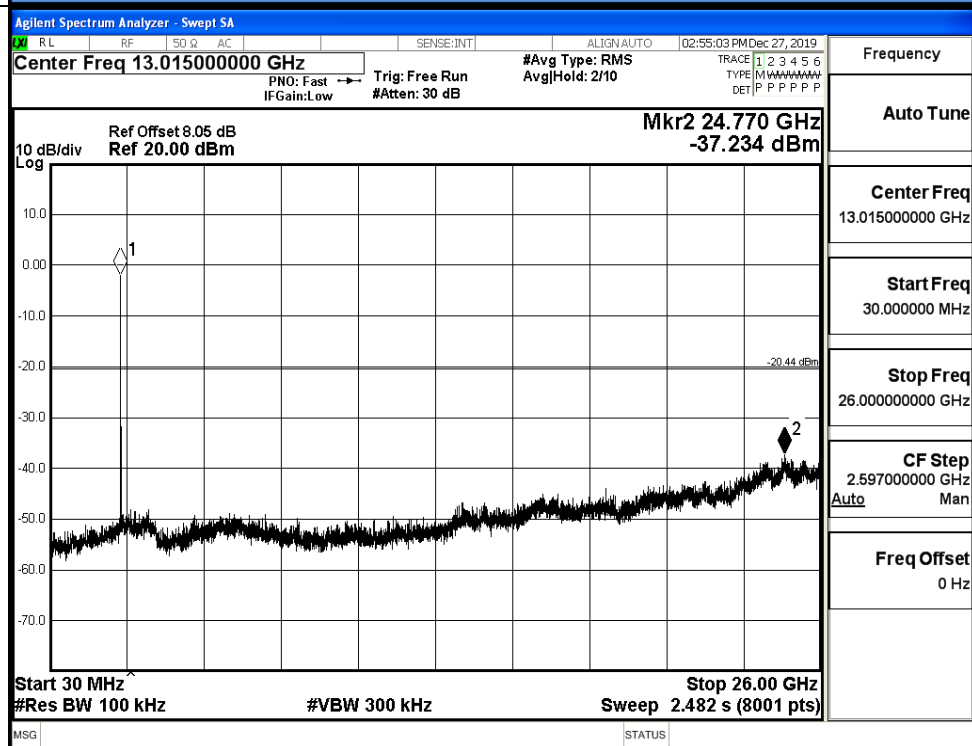
| Mode | Channel | Pref [dBm] | Max. Level [dBm] | Limit [dBm] | Verdict |
|---------------|---------|------------|------------------|-------------|---------|
| 11B | LCH | -0.438 | -37.234 | -20.438 | PASS |
| | MCH | -1.629 | -37.449 | -21.629 | PASS |
| | HCH | -2.11 | -37.079 | -22.110 | PASS |
| 11G | LCH | -5.432 | -37.844 | -25.432 | PASS |
| | MCH | -7.41 | -35.836 | -27.410 | PASS |
| | HCH | -6.838 | -37.589 | -26.838 | PASS |
| 11N20 SISO | LCH | -8.242 | -36.831 | -28.242 | PASS |
| | MCH | -7.647 | -37.586 | -27.647 | PASS |
| | HCH | -7.588 | -38.088 | -27.588 | PASS |
| 11N40 SISO | LCH | -10.185 | -37.526 | -30.185 | PASS |
| | MCH | -10.237 | -38.061 | -30.237 | PASS |
| | HCH | -10.179 | -37.422 | -30.179 | PASS |

11B_LCH_Graphs

Pref/11B/LCH

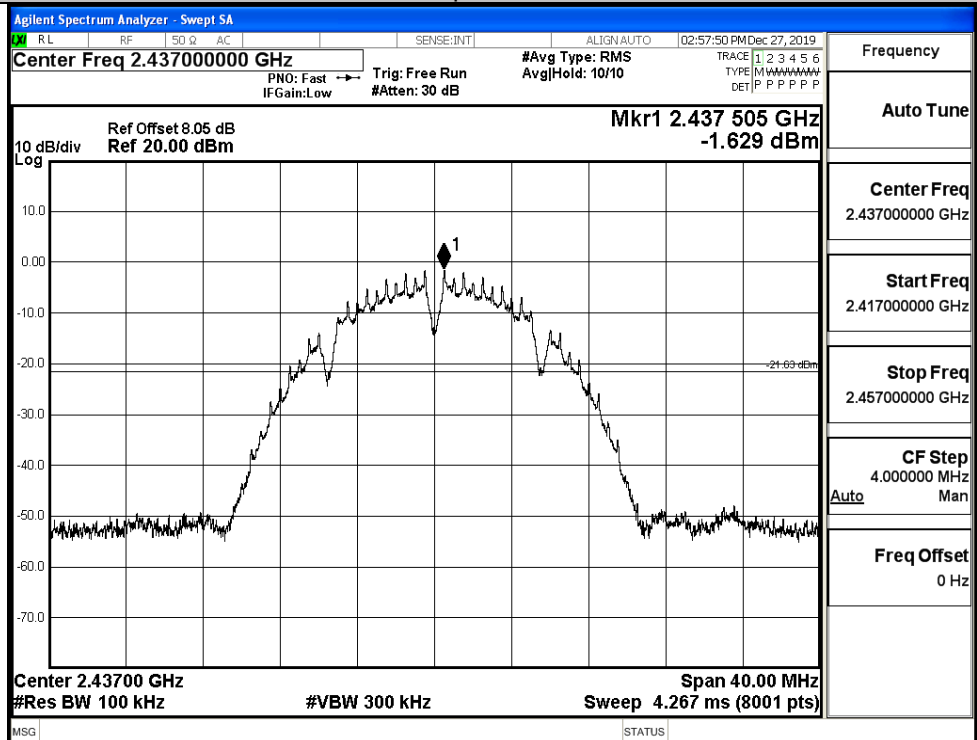


Puw/11B/LCH

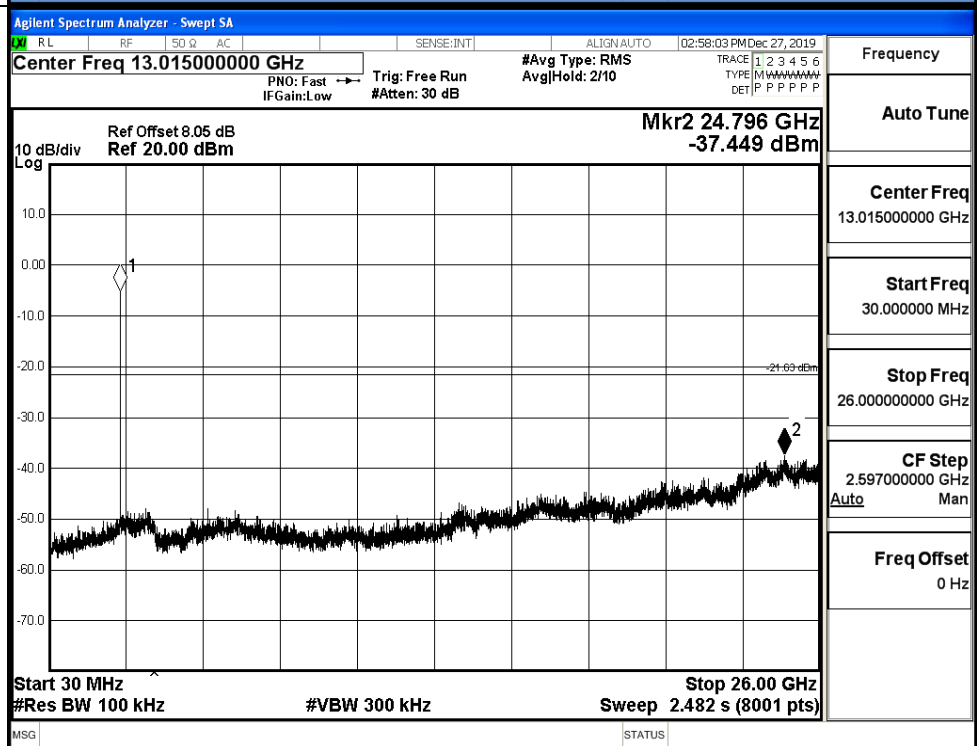


11B_MCH_Graphs

Pref/11B/MCH

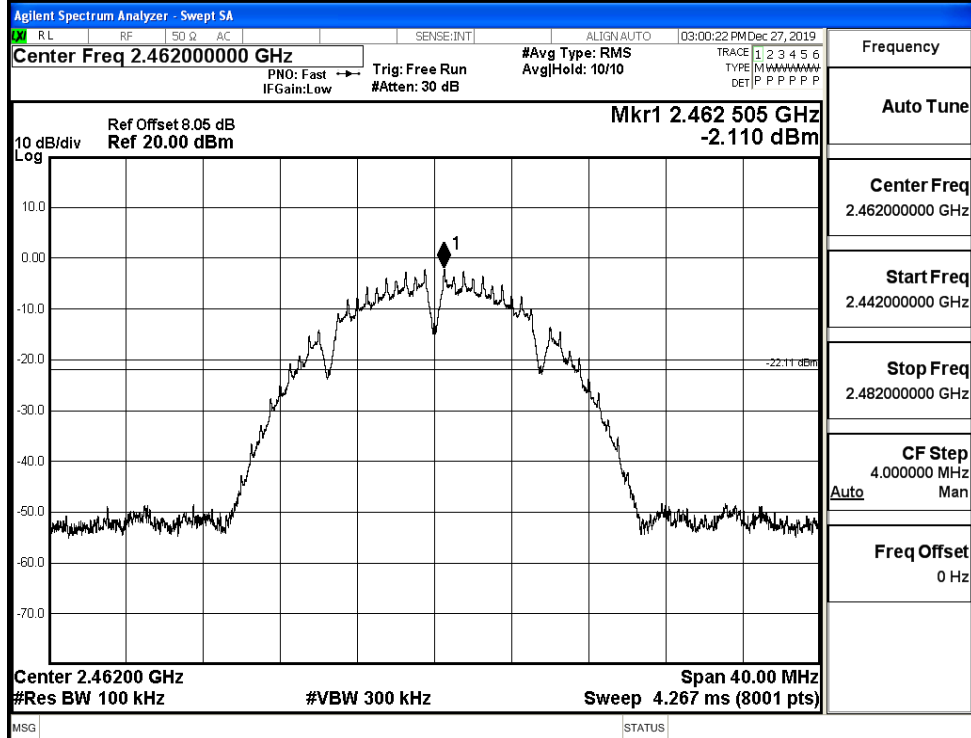


Puw/11B/MCH

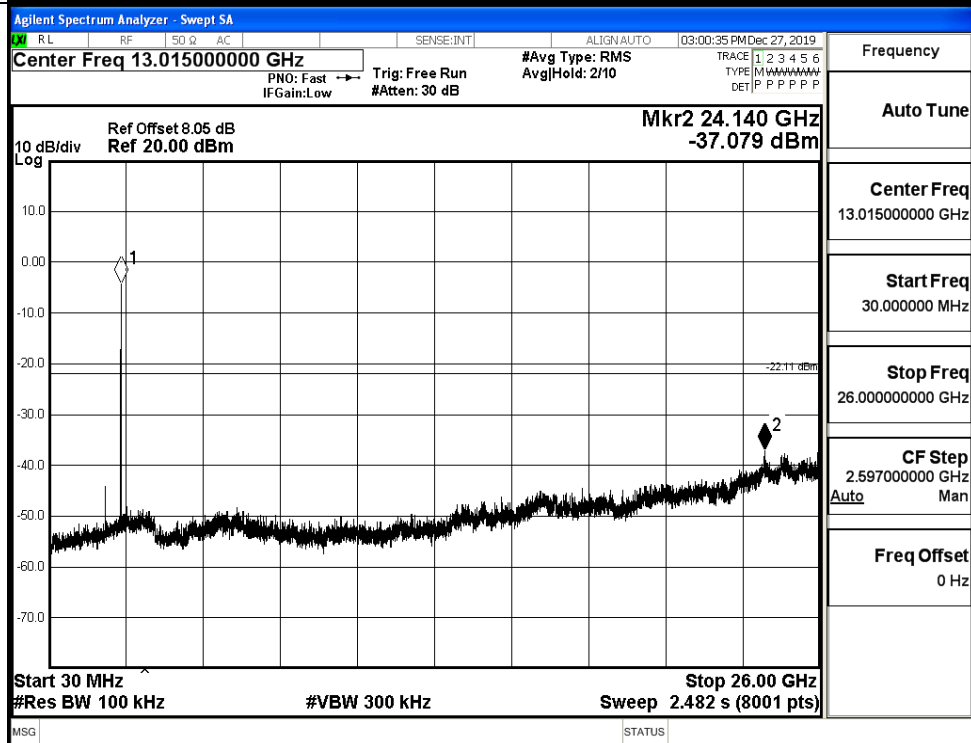


11B_HCH_Graphs

Pref/11B/HCH

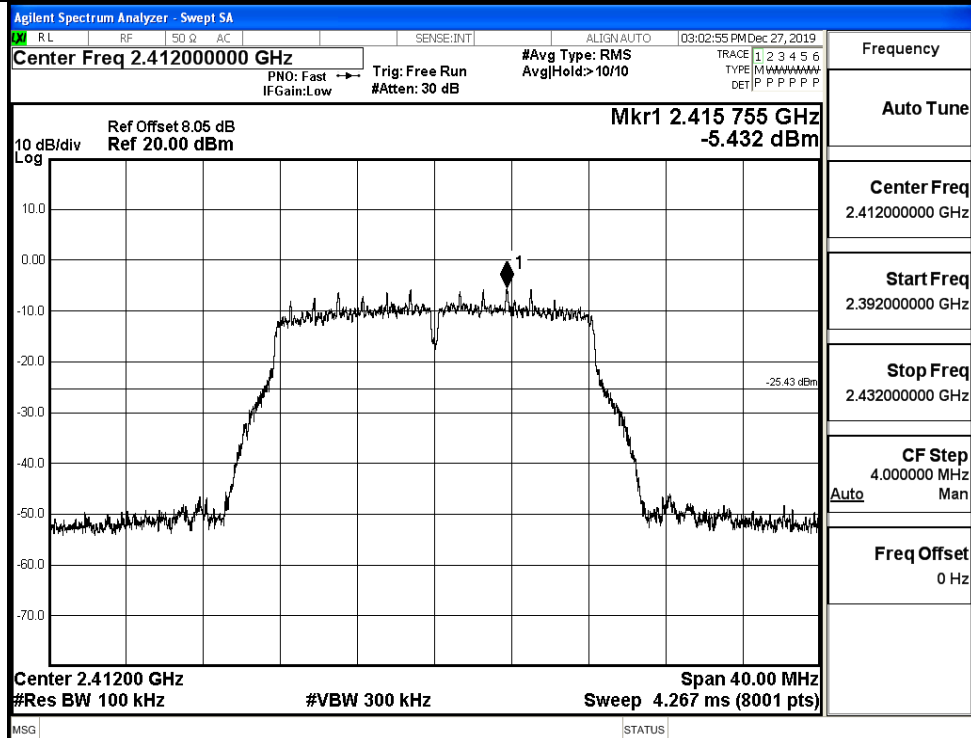


Puw/11B/HCH

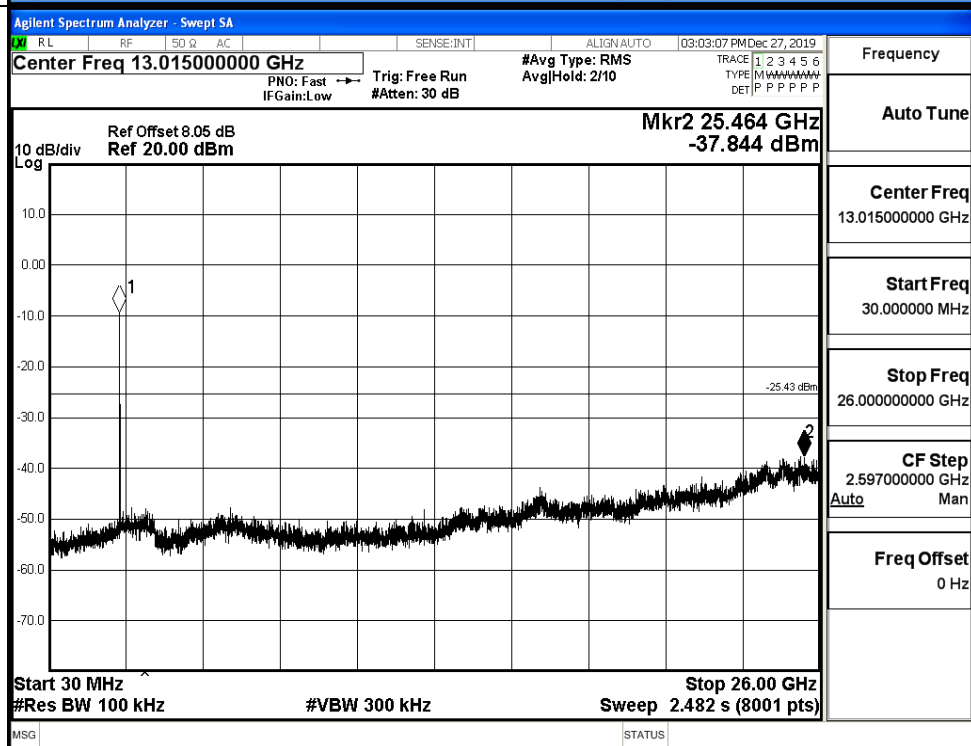


11G_LCH_Graphs

Pref/11G/LCH

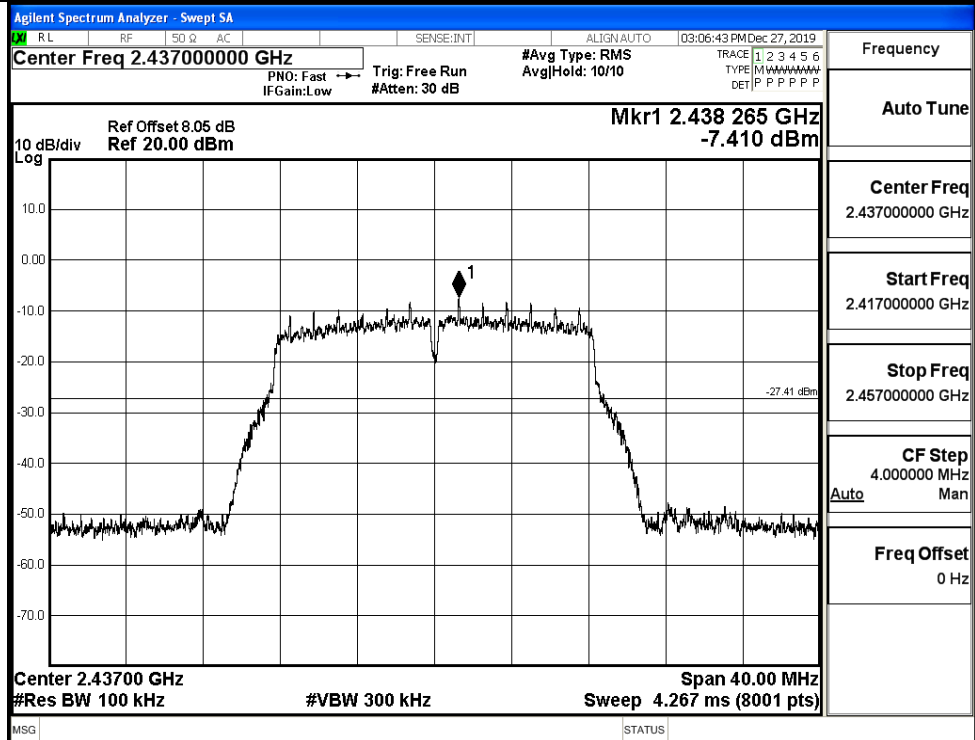


Puw/11G/LCH

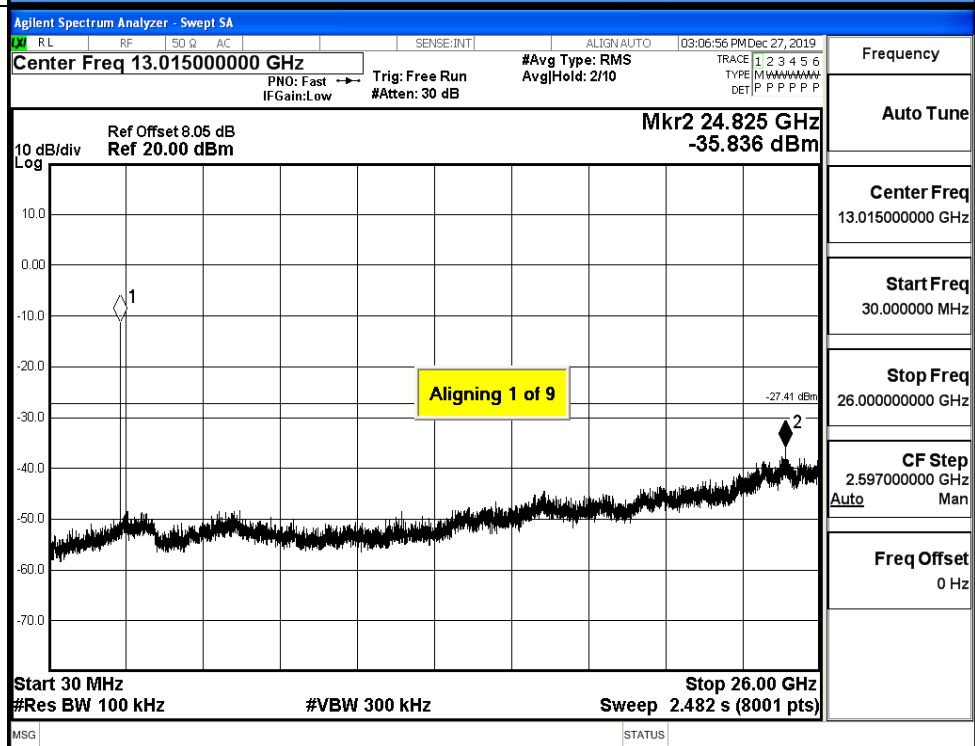


11G_MCH_Graphs

Pref/11G/MCH

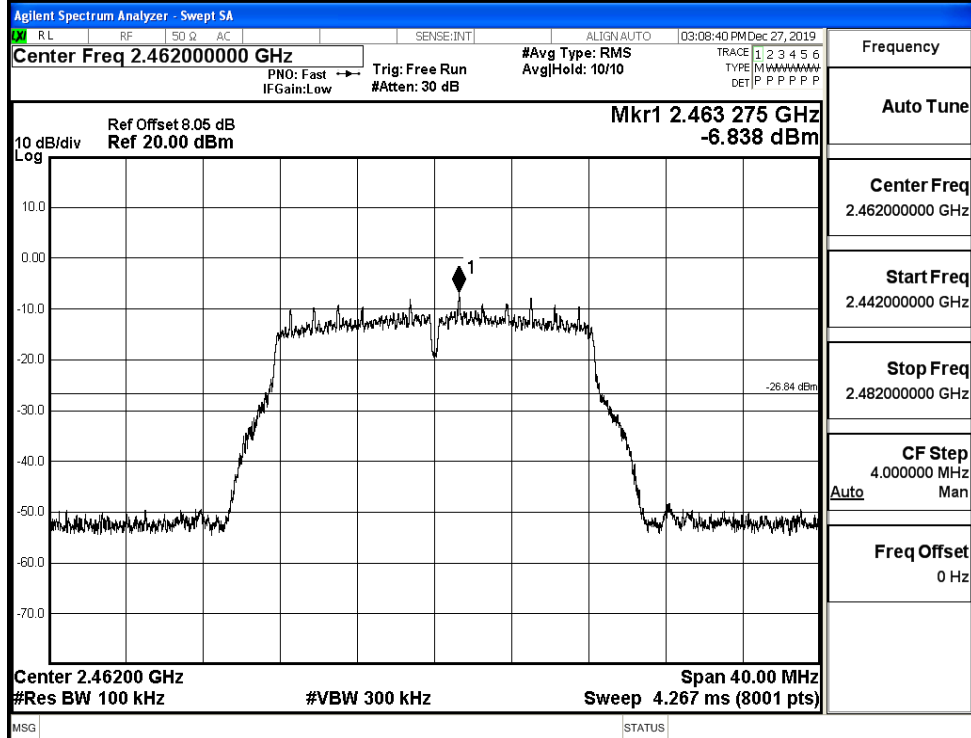


Puw/11G/MCH

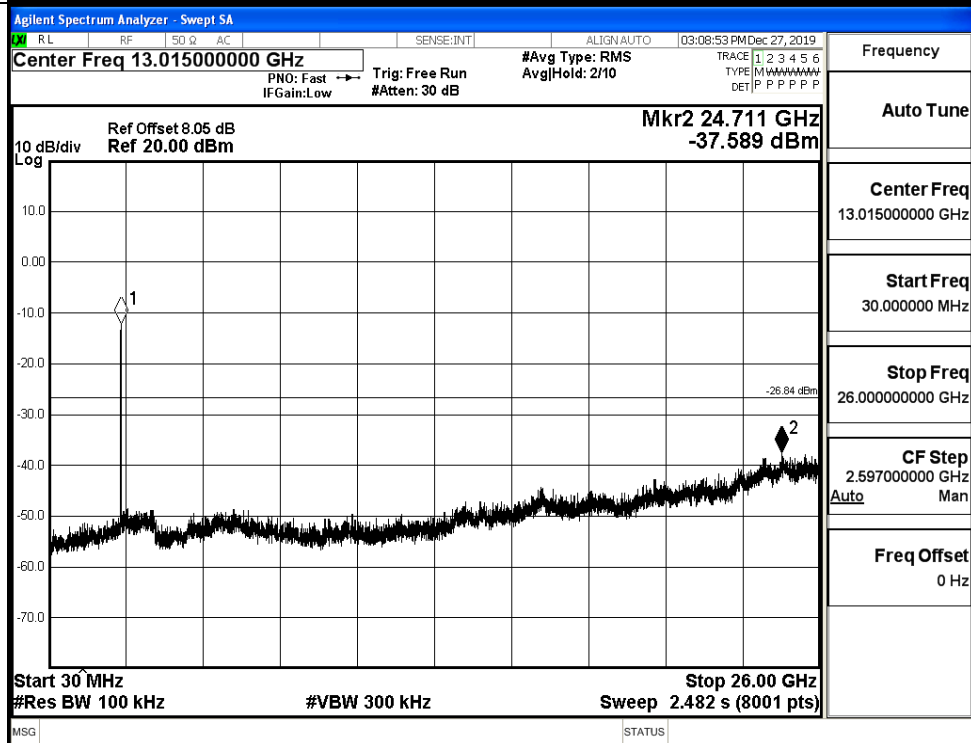


11G_HCH_Graphs

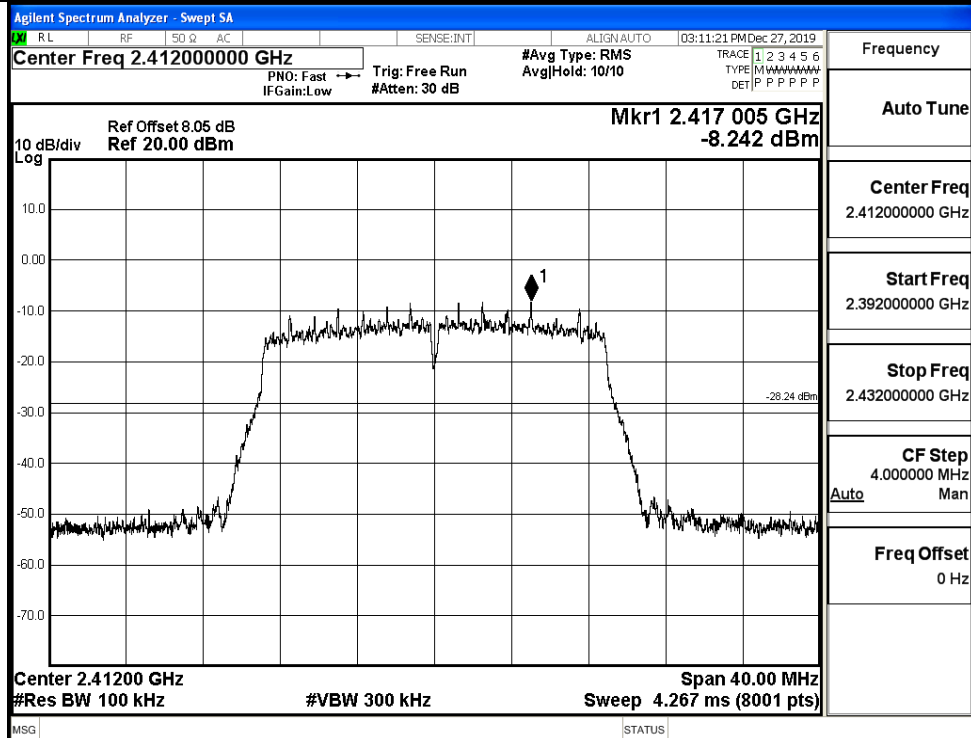
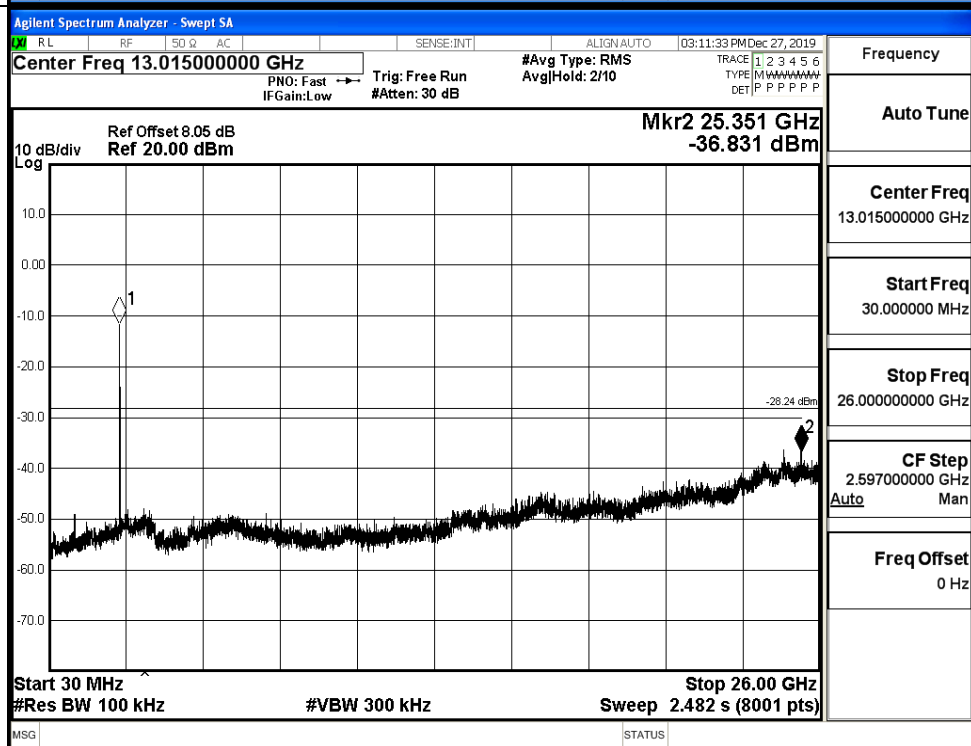
Pref/11G/HCH



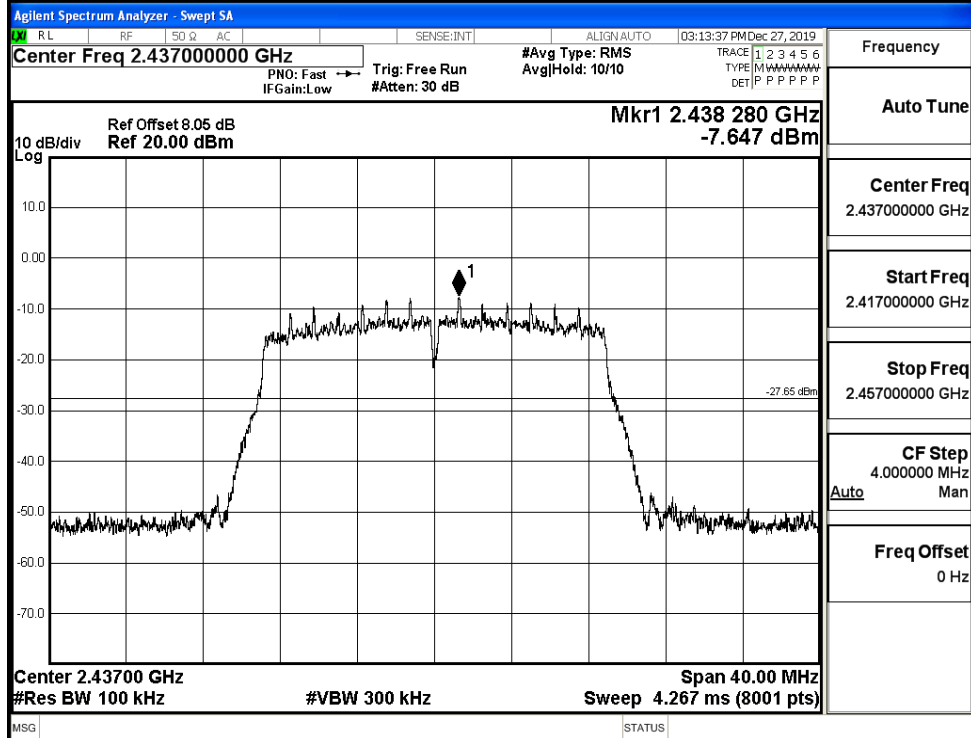
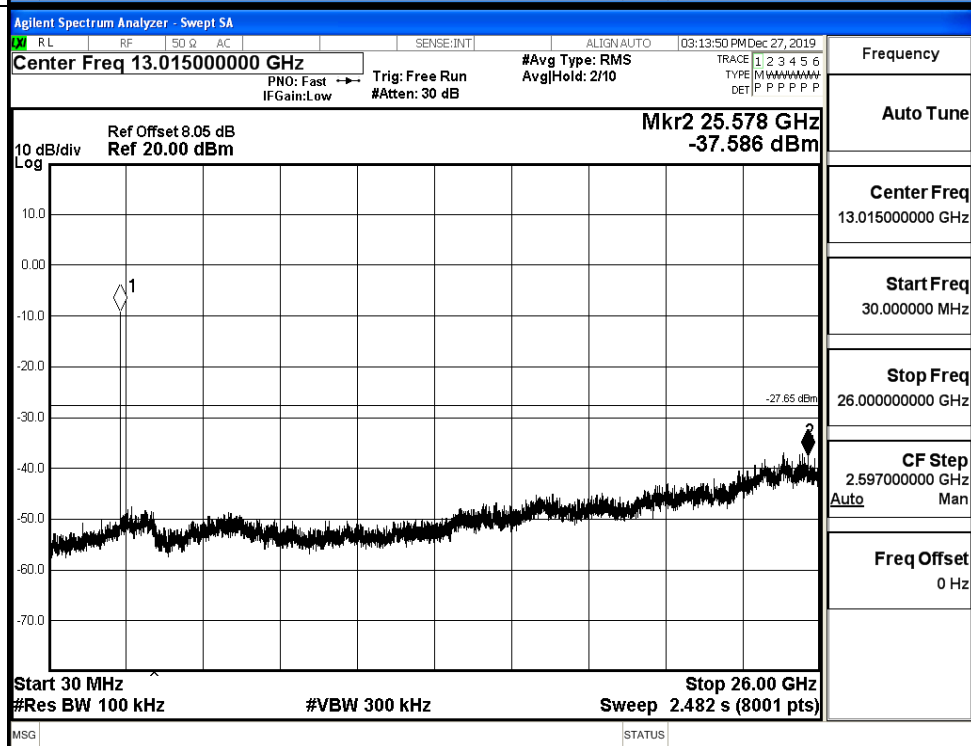
Puw/11G/HCH



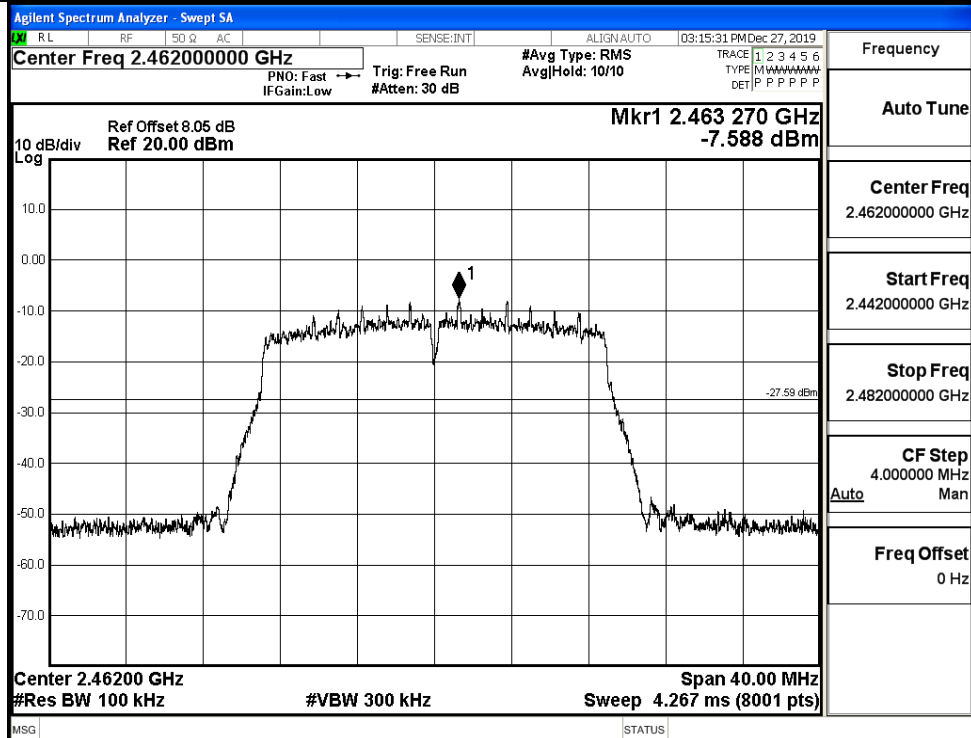
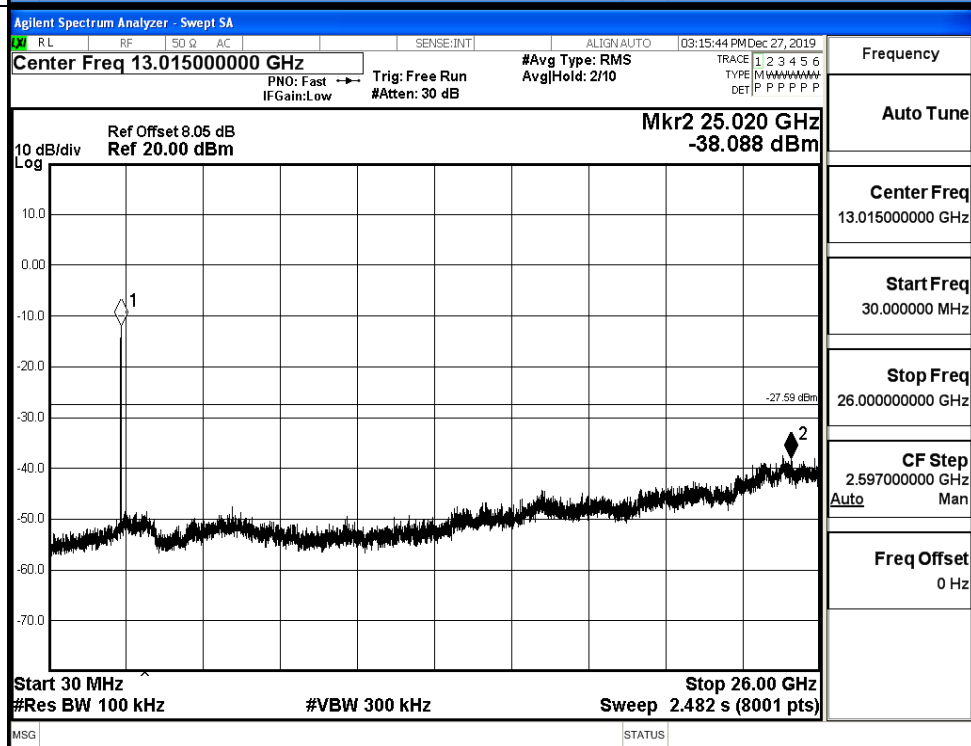
11N20ISO_LCH_Graphs

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

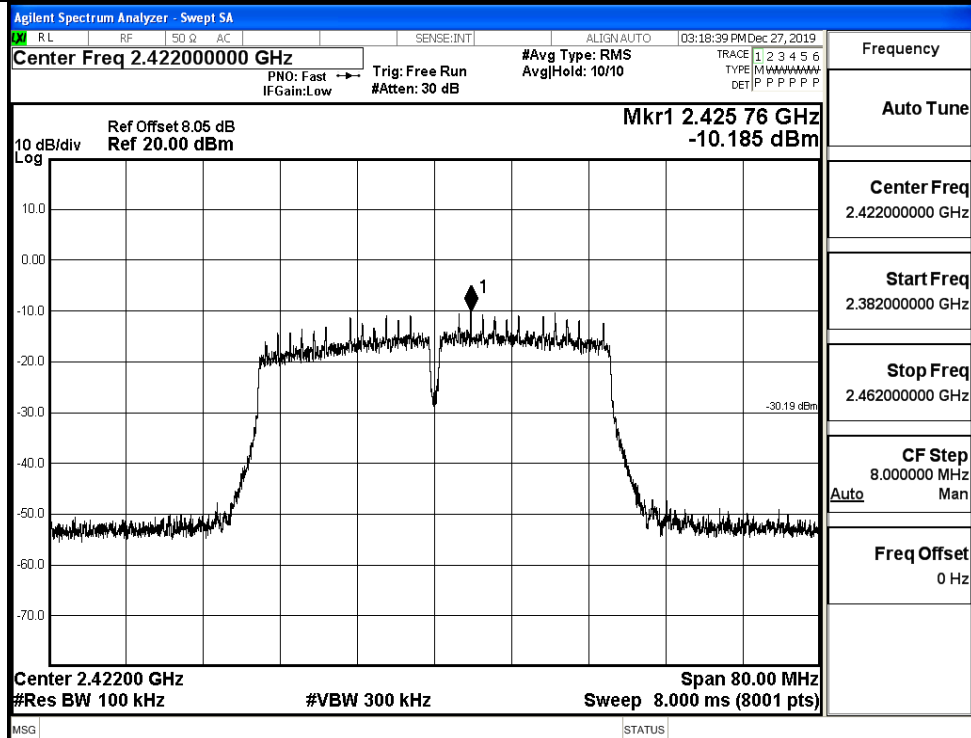
11N20SISO_MCH_Graphs

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

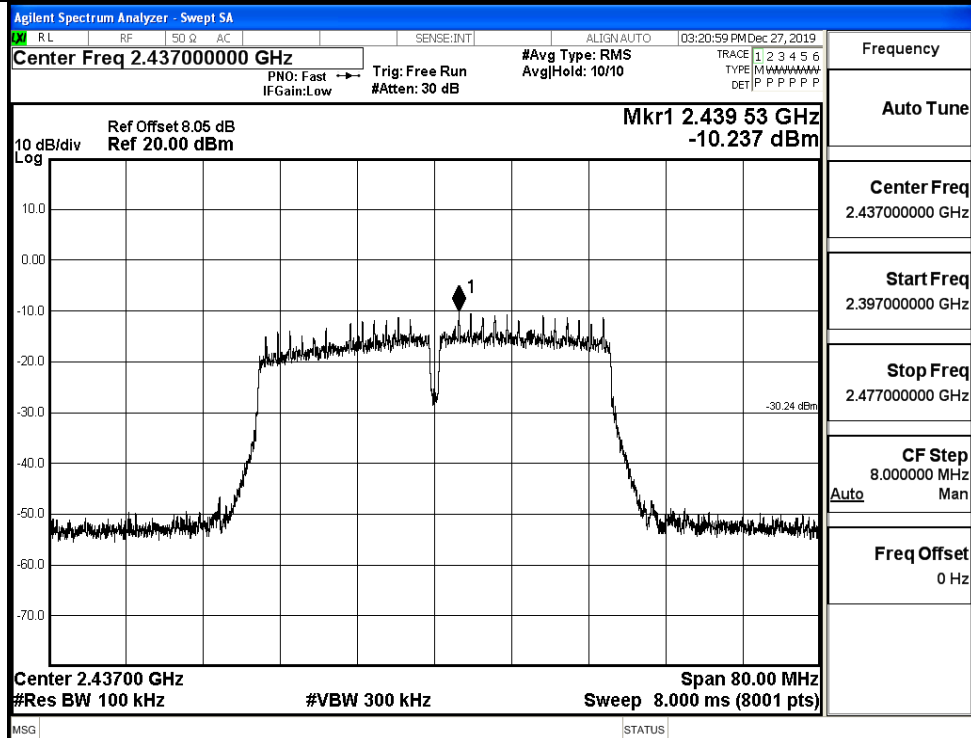
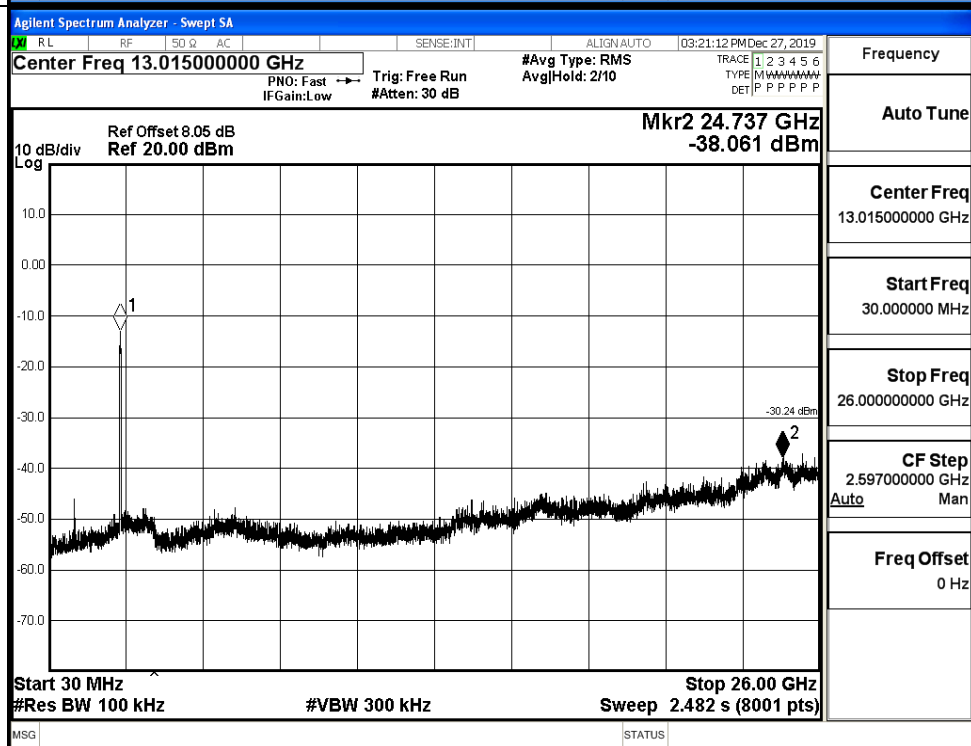
11N20ISO_HCH_Graphs

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

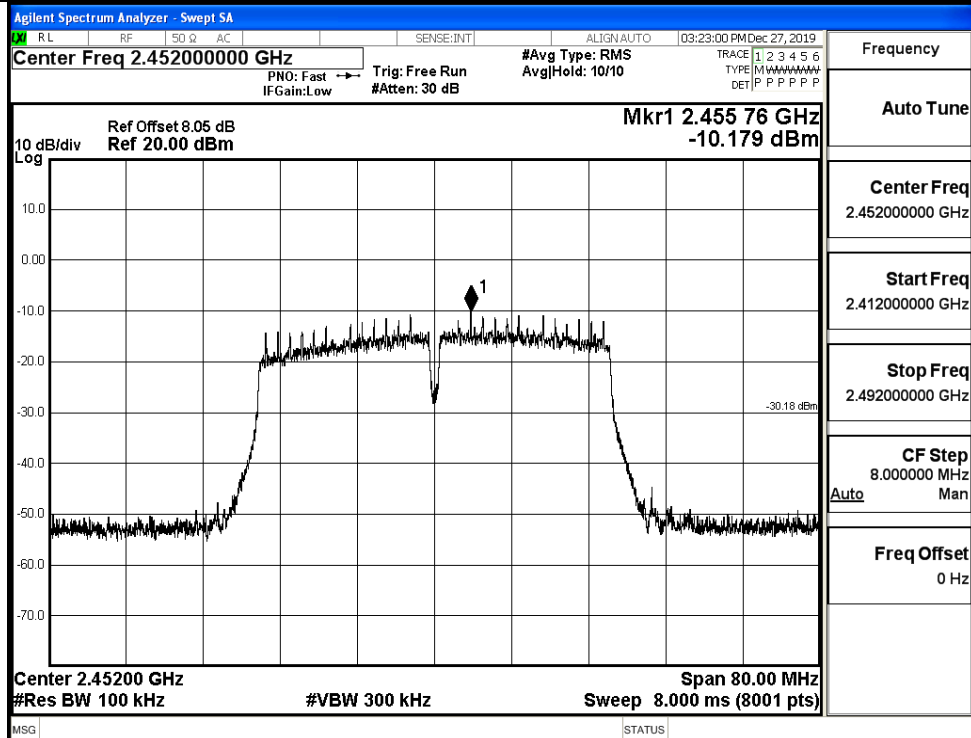
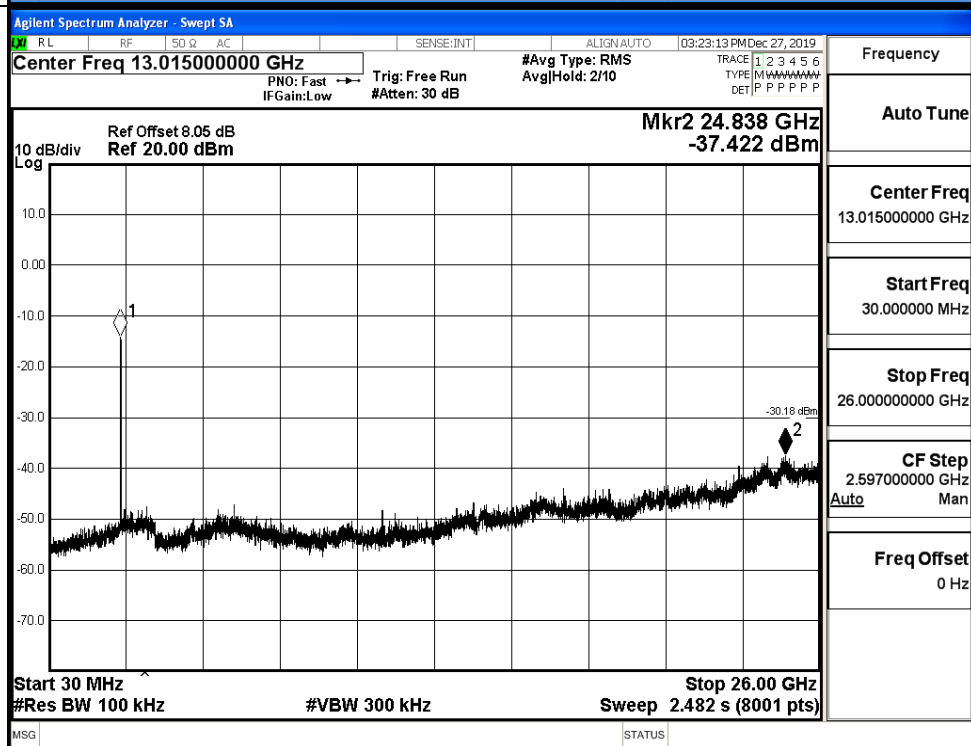
11N40SISO_LCH_Graphs

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

11N40SISO_MCH_Graphs

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

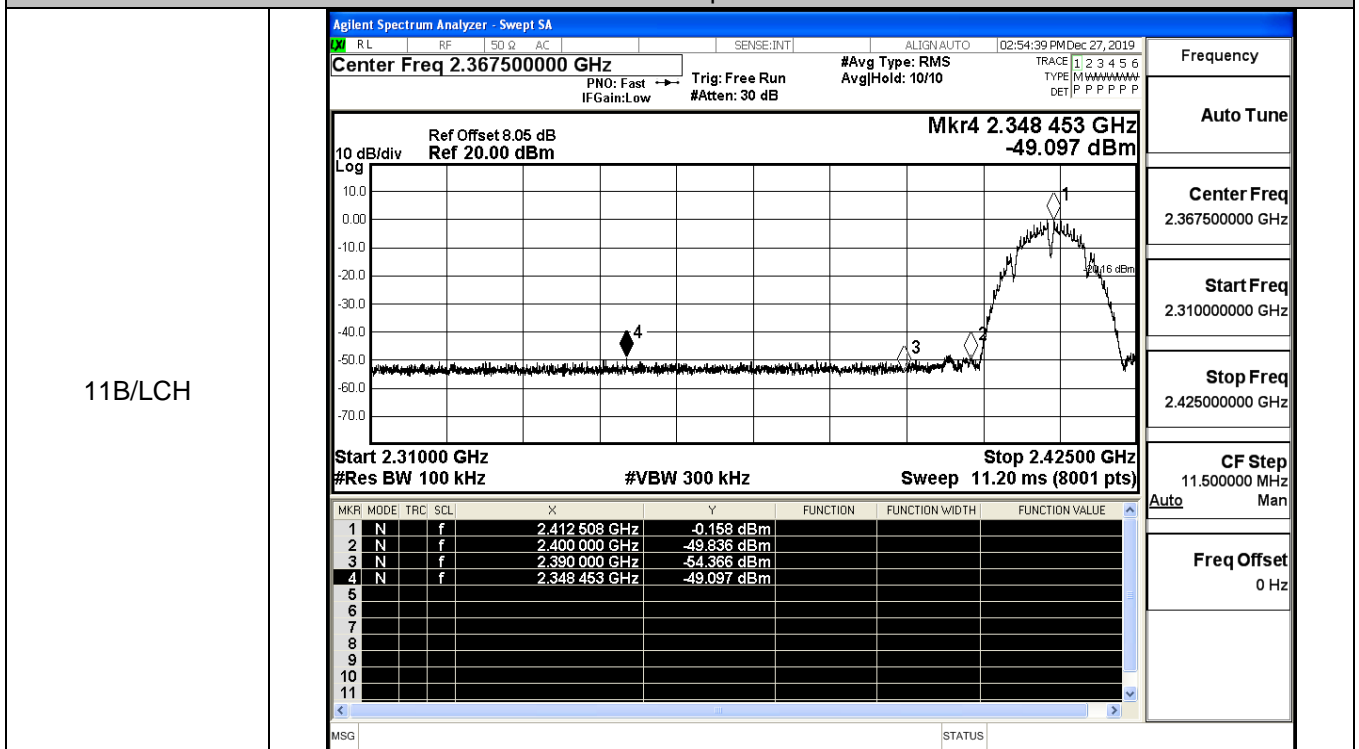
11N40SISO_HCH_Graphs

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

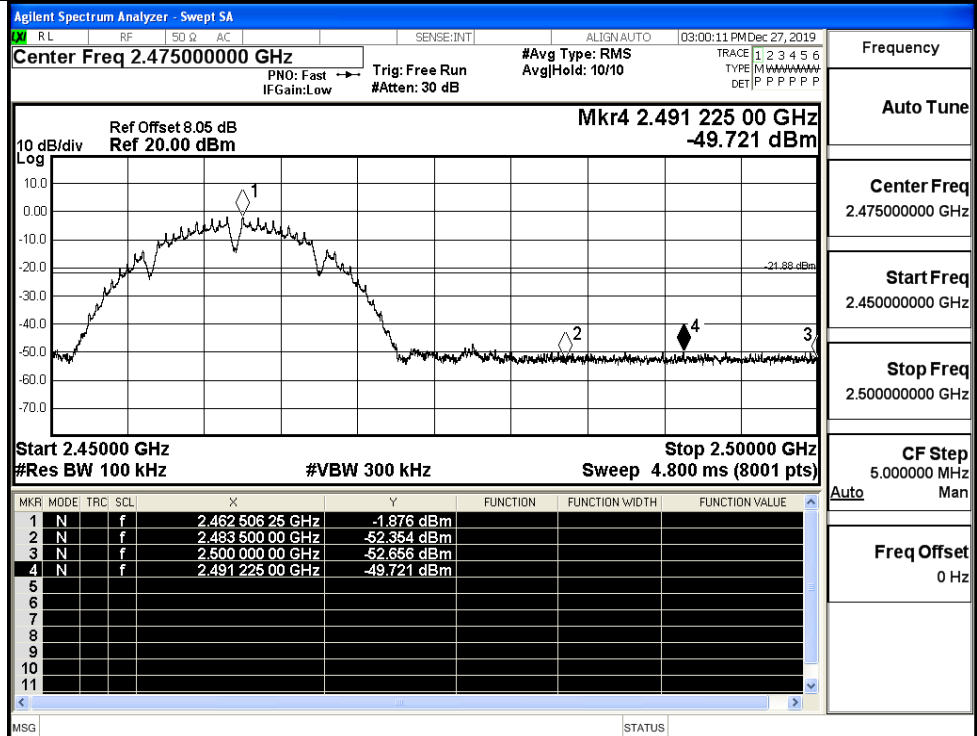
A.6 Band-edge for RF Conducted Emissions

| Mode | Channel | Carrier Power[dBm] | Max.Spurious Level [dBm] | Limit [dBm] | Verdict |
|-----------|---------|--------------------|--------------------------|-------------|---------|
| 11B | LCH | -0.158 | -49.097 | -20.16 | PASS |
| | HCH | -1.876 | -49.721 | -21.88 | PASS |
| 11G | LCH | -5.474 | -49.467 | -25.47 | PASS |
| | HCH | -7.426 | -48.463 | -27.43 | PASS |
| 11N20SISO | LCH | -8.301 | -49.641 | -28.3 | PASS |
| | HCH | -7.262 | -49.702 | -27.26 | PASS |
| 11N40SISO | LCH | -10.718 | -50.091 | -30.72 | PASS |
| | HCH | -9.897 | -49.436 | -29.9 | PASS |

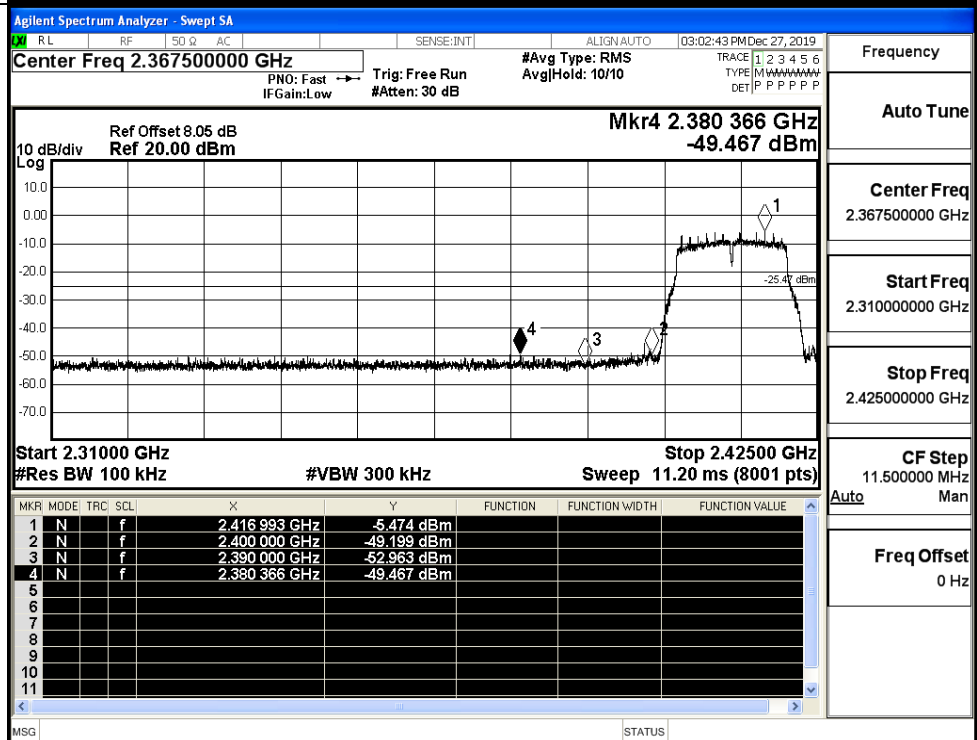
Test Graphs



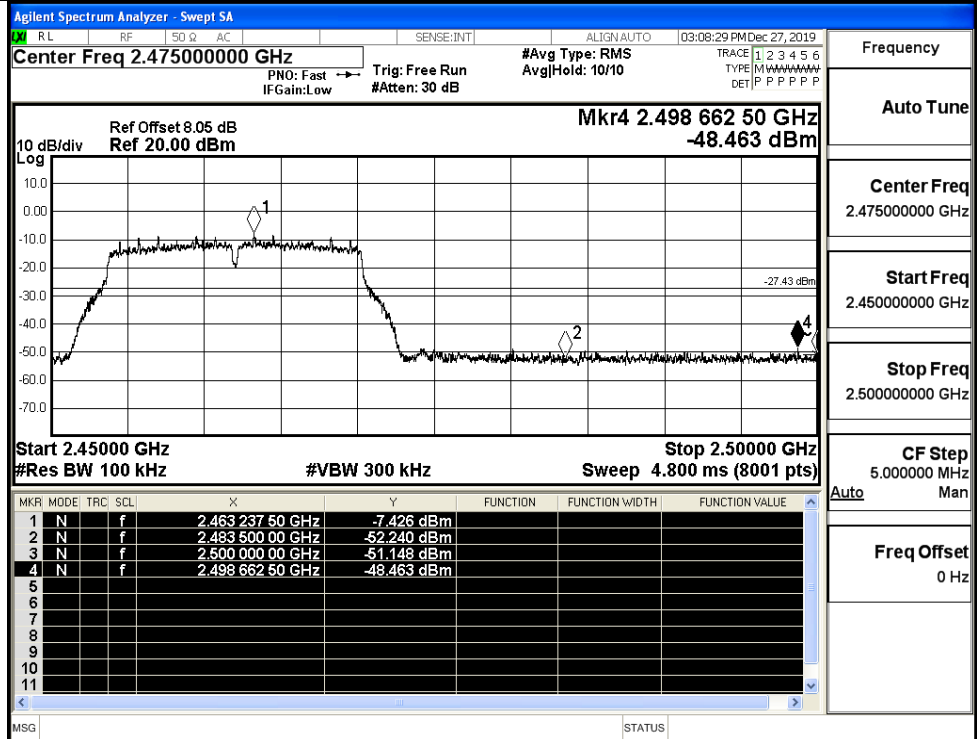
11B/HCH



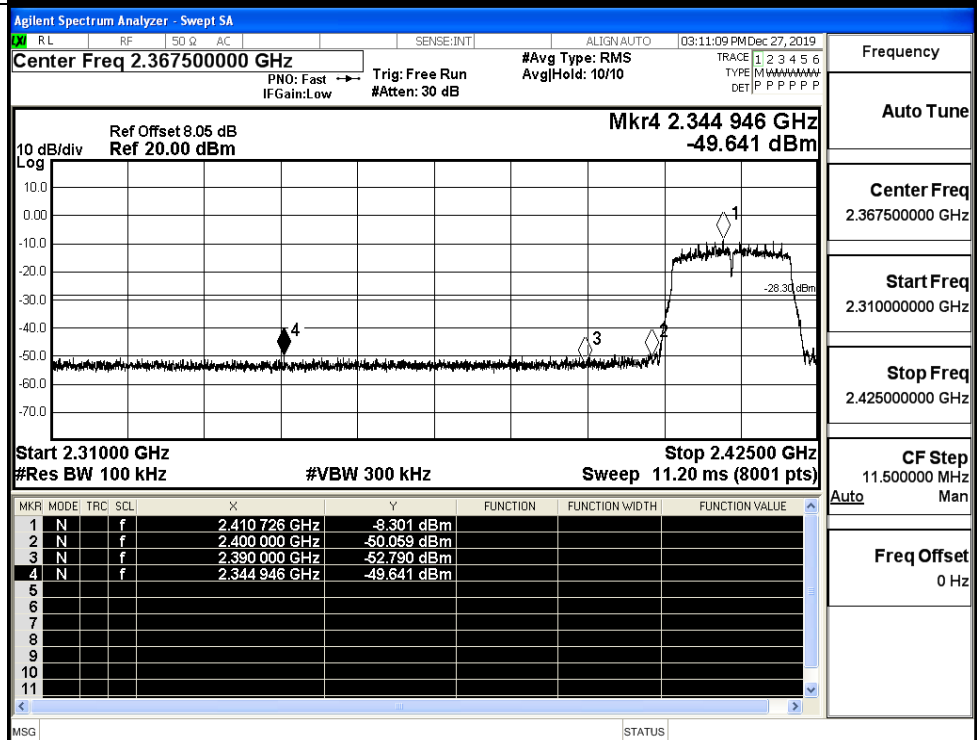
11G/LCH



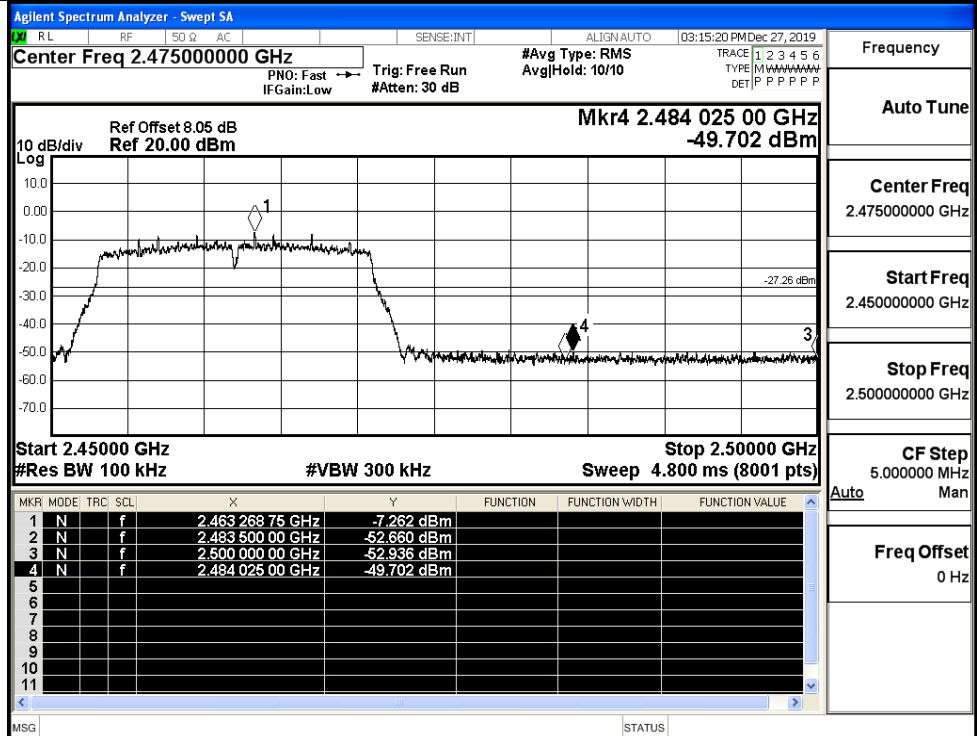
11G/HCH



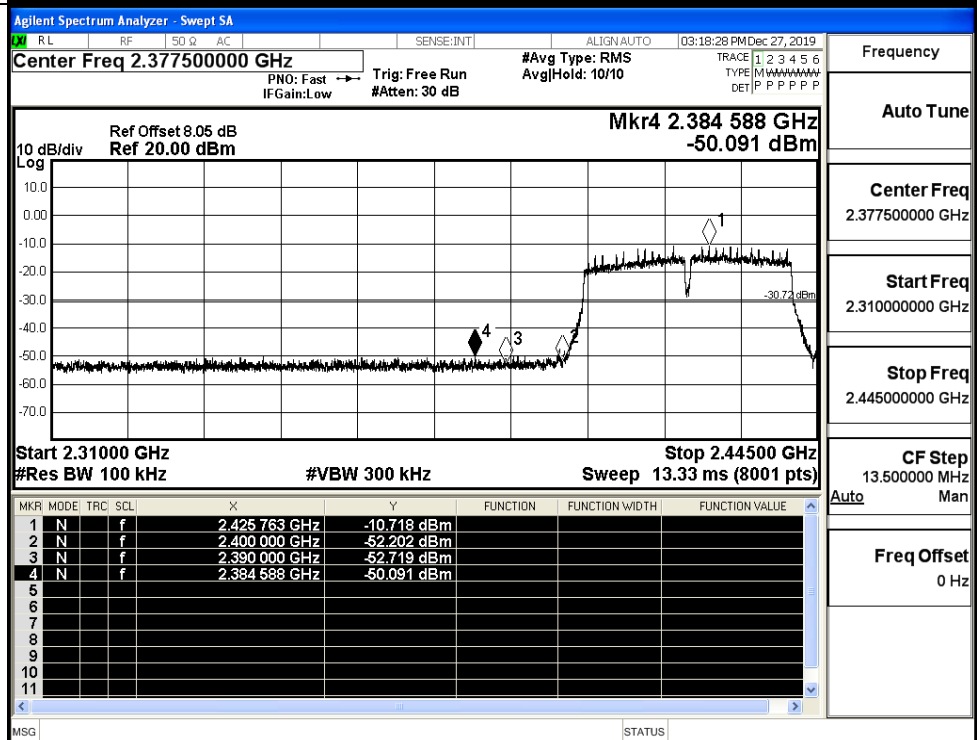
11N20SISO/LCH



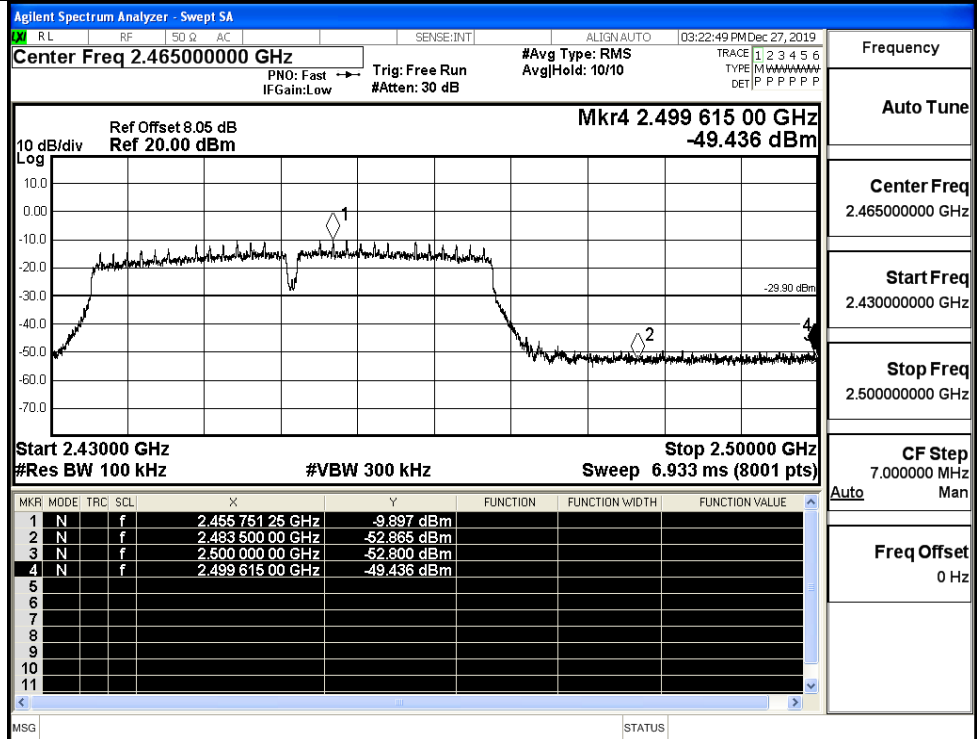
11N20SISO/HCH



11N40SISO/LCH



11N40SISO/HCH

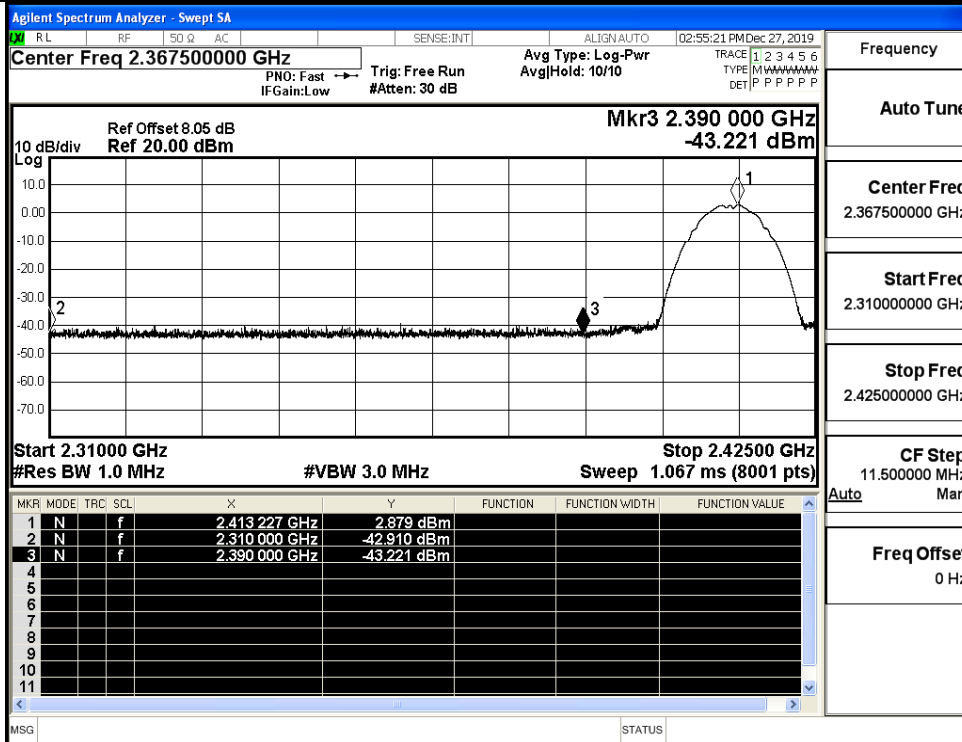


A.7 Restrict-band band-edge measurements

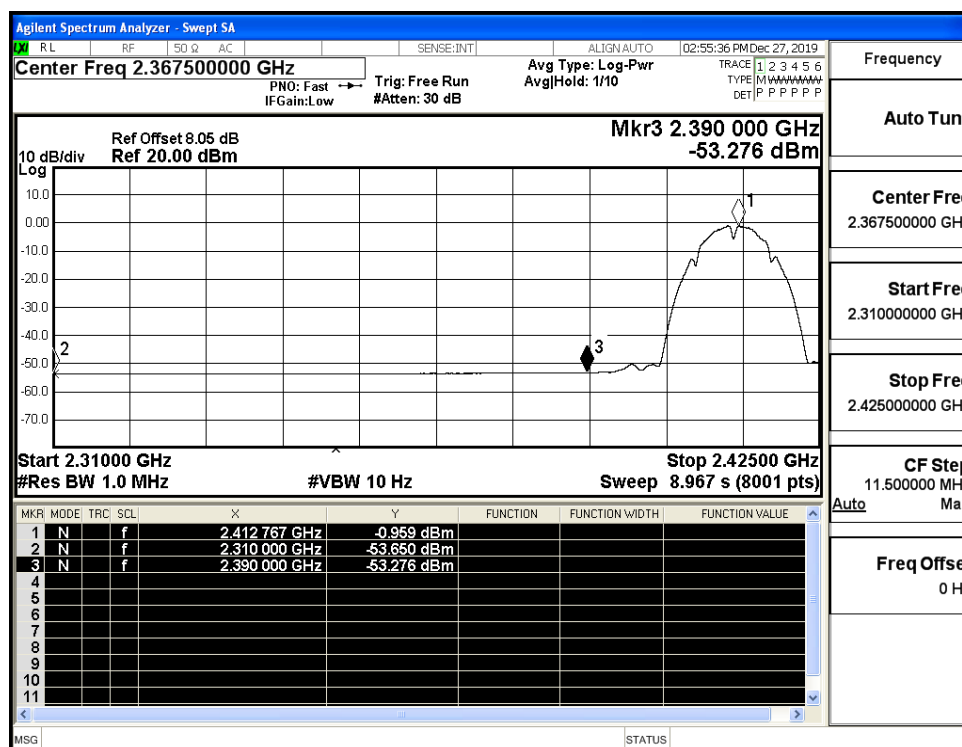
| Test Mode | Test Channel | Ant | Freq. | Power [dBm] | Gain | Ground Factor | E [dBuV/m] | Detector | Limit [dBuV/m] | Verdict |
|------------|--------------|------|--------|-------------|------|---------------|------------|----------|----------------|---------|
| 11B | 2412 | Ant1 | 2310.0 | -42.91 | 2.0 | 0 | 54.35 | PEAK | 74 | PASS |
| | 2412 | Ant1 | 2310.0 | -53.65 | 2.0 | 0 | 43.61 | AV | 54 | PASS |
| | 2412 | Ant1 | 2390.0 | -43.22 | 2.0 | 0 | 54.04 | PEAK | 74 | PASS |
| | 2412 | Ant1 | 2390.0 | -53.28 | 2.0 | 0 | 43.98 | AV | 54 | PASS |
| | 2462 | Ant1 | 2483.5 | -42.28 | 2.0 | 0 | 54.98 | PEAK | 74 | PASS |
| | 2462 | Ant1 | 2483.5 | -52.90 | 2.0 | 0 | 44.36 | AV | 54 | PASS |
| | 2462 | Ant1 | 2500.0 | -42.73 | 2.0 | 0 | 54.52 | PEAK | 74 | PASS |
| | 2462 | Ant1 | 2500.0 | -52.69 | 2.0 | 0 | 44.57 | AV | 54 | PASS |
| 11G | 2412 | Ant1 | 2310.0 | -42.47 | 2.0 | 0 | 54.79 | PEAK | 74 | PASS |
| | 2412 | Ant1 | 2310.0 | -53.59 | 2.0 | 0 | 43.67 | AV | 54 | PASS |
| | 2412 | Ant1 | 2390.0 | -42.58 | 2.0 | 0 | 54.67 | PEAK | 74 | PASS |
| | 2412 | Ant1 | 2390.0 | -53.01 | 2.0 | 0 | 44.25 | AV | 54 | PASS |
| | 2462 | Ant1 | 2483.5 | -43.20 | 2.0 | 0 | 54.06 | PEAK | 74 | PASS |
| | 2462 | Ant1 | 2483.5 | -52.72 | 2.0 | 0 | 44.54 | AV | 54 | PASS |
| | 2462 | Ant1 | 2500.0 | -43.41 | 2.0 | 0 | 53.85 | PEAK | 74 | PASS |
| | 2462 | Ant1 | 2500.0 | -52.60 | 2.0 | 0 | 44.66 | AV | 54 | PASS |
| 11N20 SISO | 2412 | Ant1 | 2310.0 | -43.27 | 2.0 | 0 | 53.99 | PEAK | 74 | PASS |
| | 2412 | Ant1 | 2310.0 | -53.63 | 2.0 | 0 | 43.63 | AV | 54 | PASS |
| | 2412 | Ant1 | 2390.0 | -42.94 | 2.0 | 0 | 54.31 | PEAK | 74 | PASS |
| | 2412 | Ant1 | 2390.0 | -53.21 | 2.0 | 0 | 44.05 | AV | 54 | PASS |
| | 2462 | Ant1 | 2483.5 | -42.54 | 2.0 | 0 | 54.72 | PEAK | 74 | PASS |
| | 2462 | Ant1 | 2483.5 | -52.71 | 2.0 | 0 | 44.55 | AV | 54 | PASS |
| | 2462 | Ant1 | 2500.0 | -41.21 | 2.0 | 0 | 56.05 | PEAK | 74 | PASS |
| | 2462 | Ant1 | 2500.0 | -52.60 | 2.0 | 0 | 44.66 | AV | 54 | PASS |
| 11N40 SISO | 2422 | Ant1 | 2310.0 | -43.33 | 2.0 | 0 | 53.93 | PEAK | 74 | PASS |
| | 2422 | Ant1 | 2310.0 | -53.61 | 2.0 | 0 | 43.65 | AV | 54 | PASS |

| | | | | | | | | | | |
|--|------|------|--------|--------|-----|---|-------|------|----|------|
| | 2422 | Ant1 | 2390.0 | -42.08 | 2.0 | 0 | 55.17 | PEAK | 74 | PASS |
| | 2422 | Ant1 | 2390.0 | -53.13 | 2.0 | 0 | 44.13 | AV | 54 | PASS |
| | 2452 | Ant1 | 2483.5 | -42.79 | 2.0 | 0 | 54.46 | PEAK | 74 | PASS |
| | 2452 | Ant1 | 2483.5 | -52.58 | 2.0 | 0 | 44.68 | AV | 54 | PASS |
| | 2452 | Ant1 | 2500.0 | -42.47 | 2.0 | 0 | 54.79 | PEAK | 74 | PASS |
| | 2452 | Ant1 | 2500.0 | -52.56 | 2.0 | 0 | 44.70 | AV | 54 | PASS |

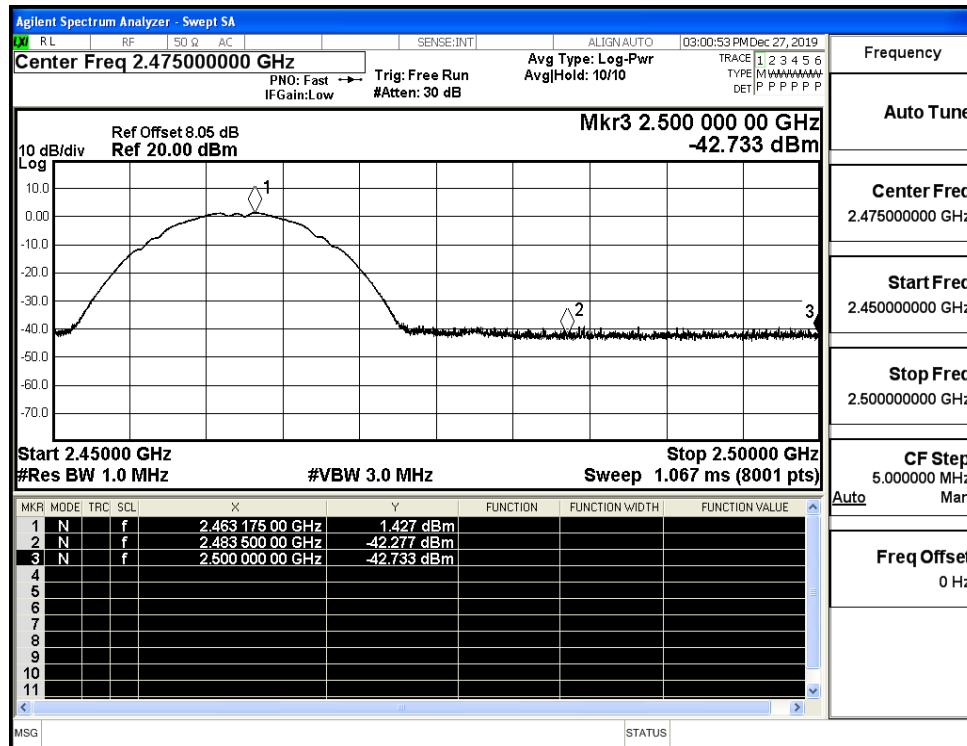
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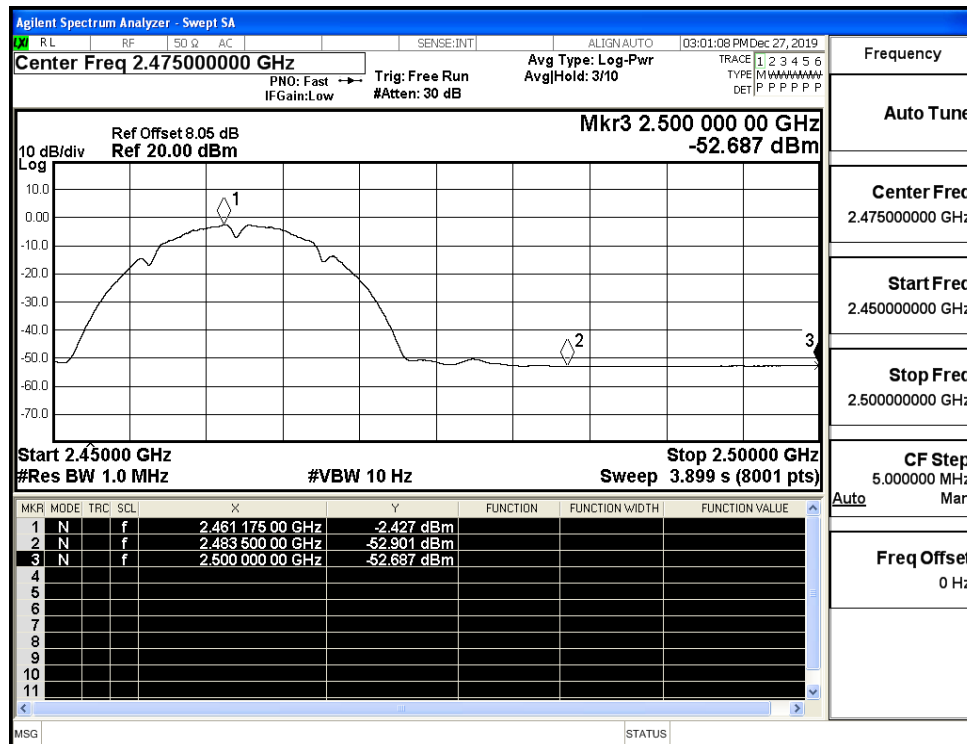
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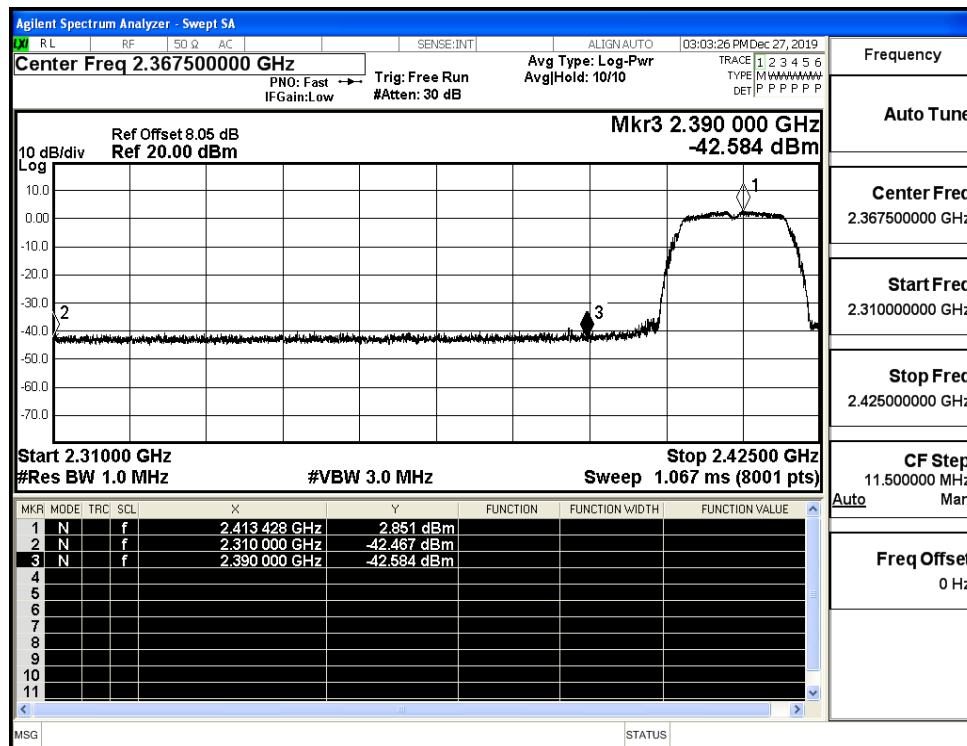
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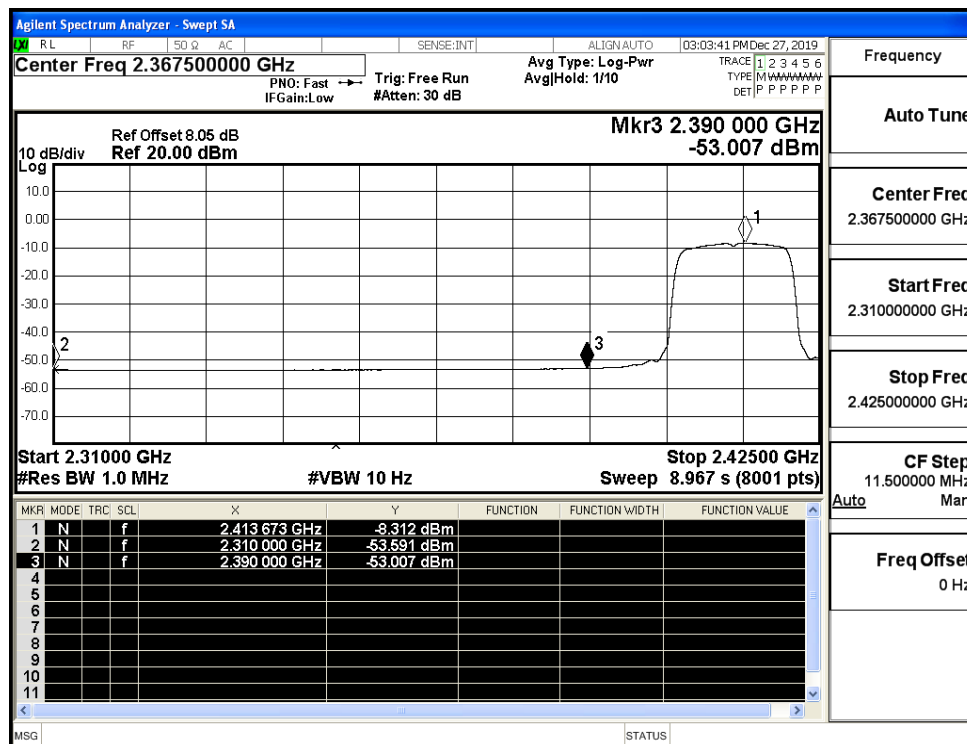
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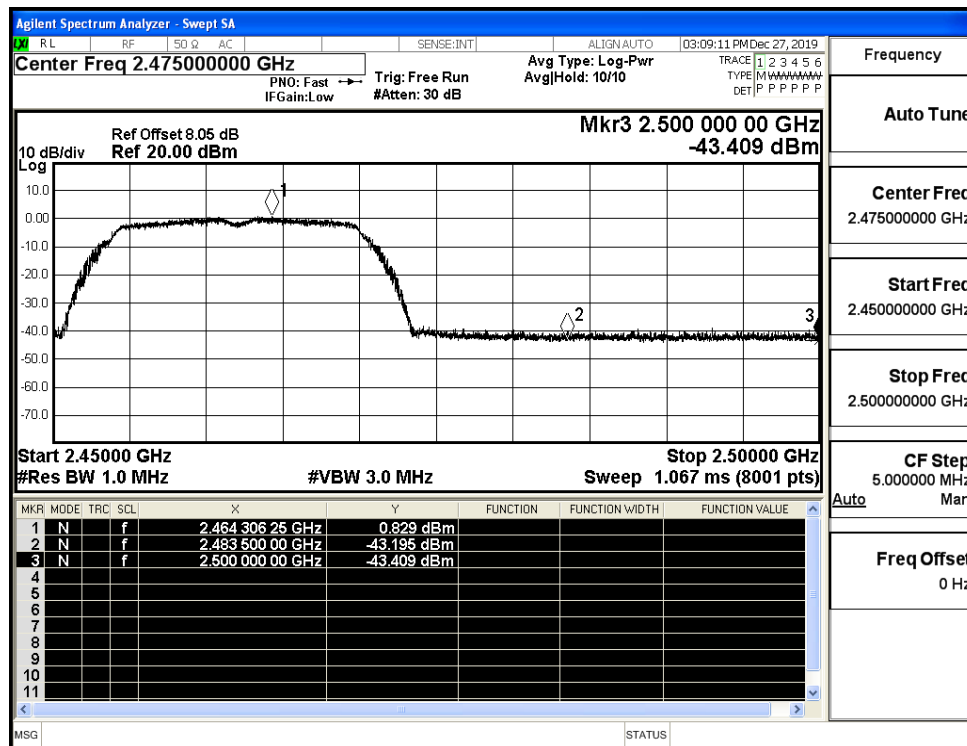
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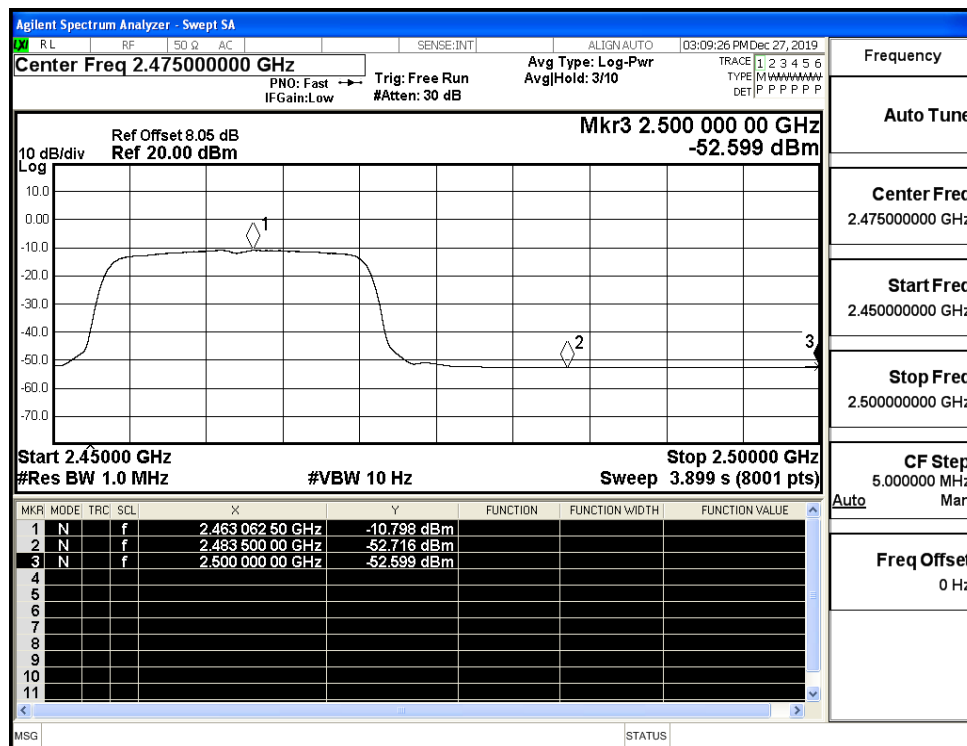
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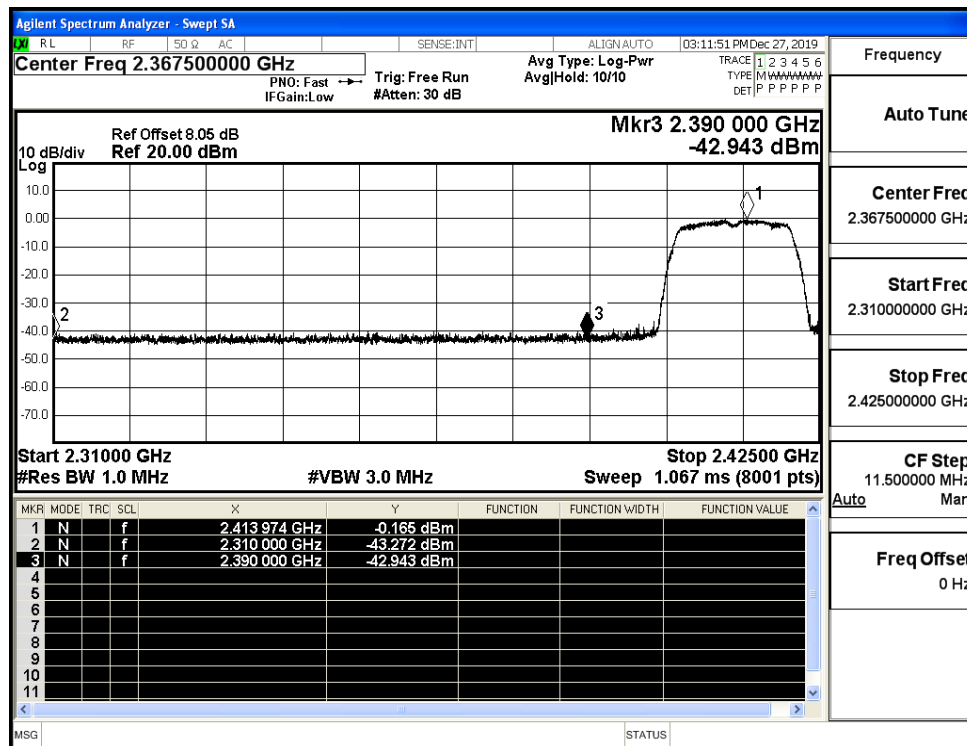
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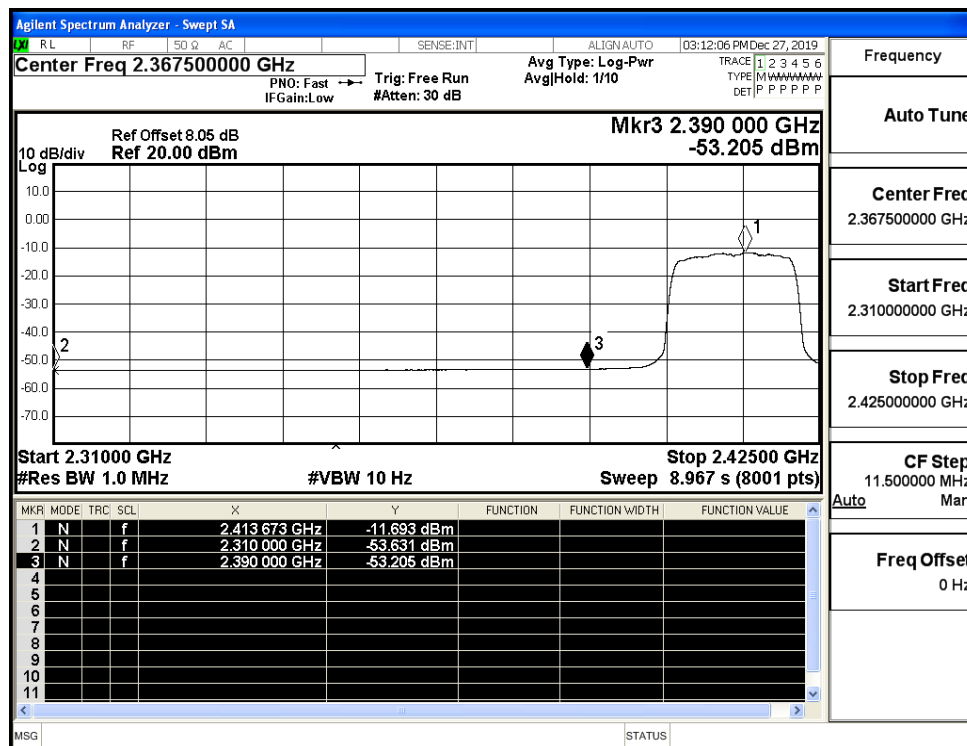
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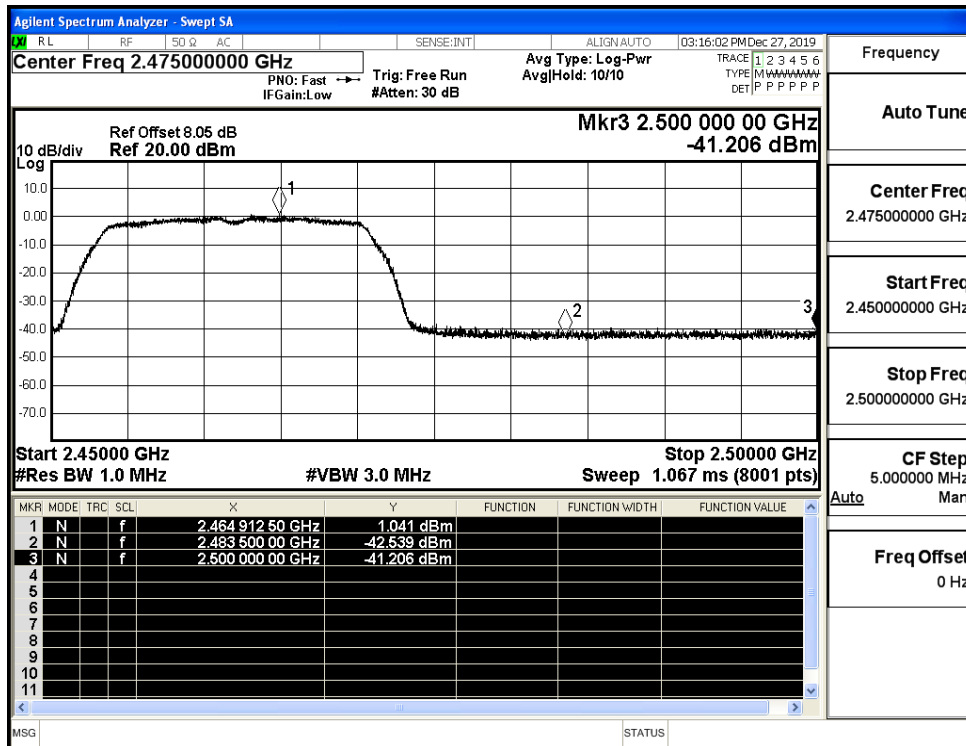
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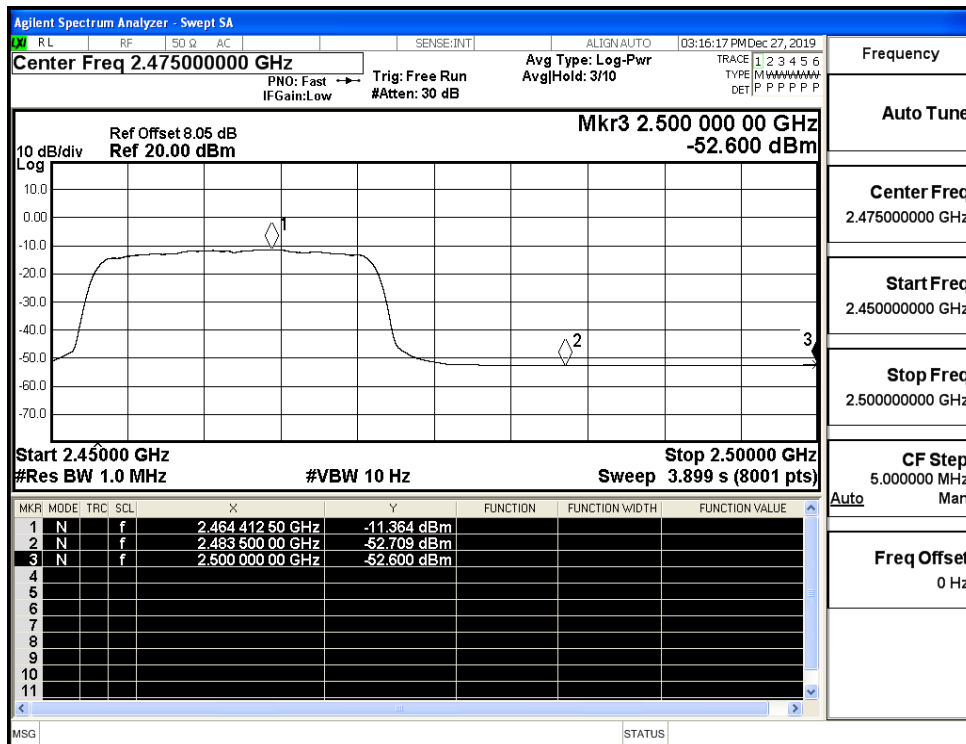
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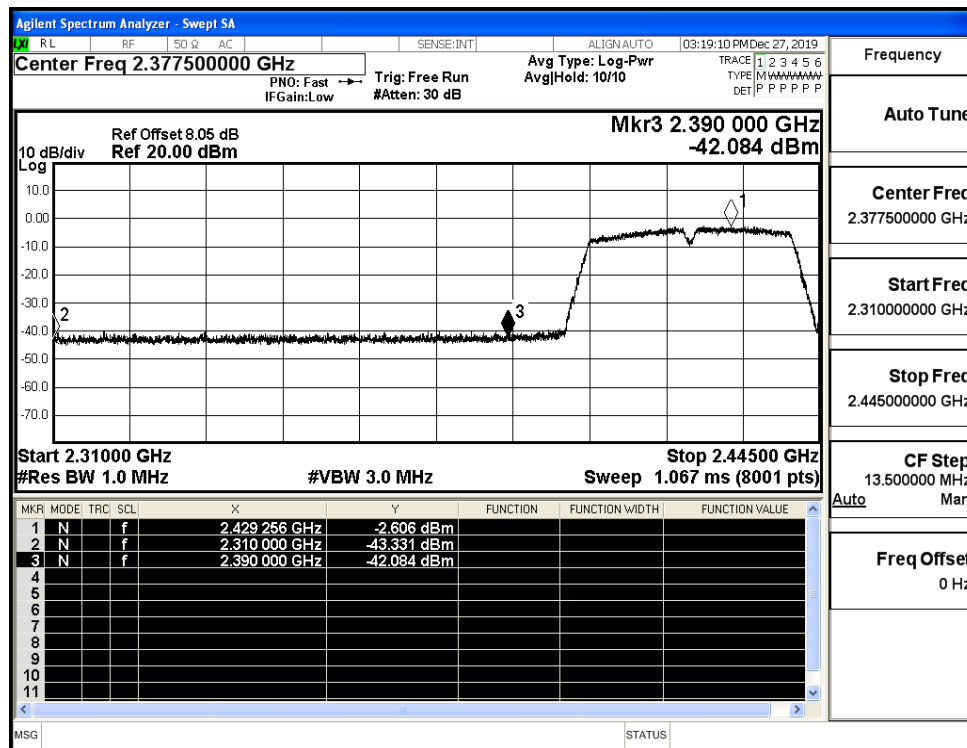
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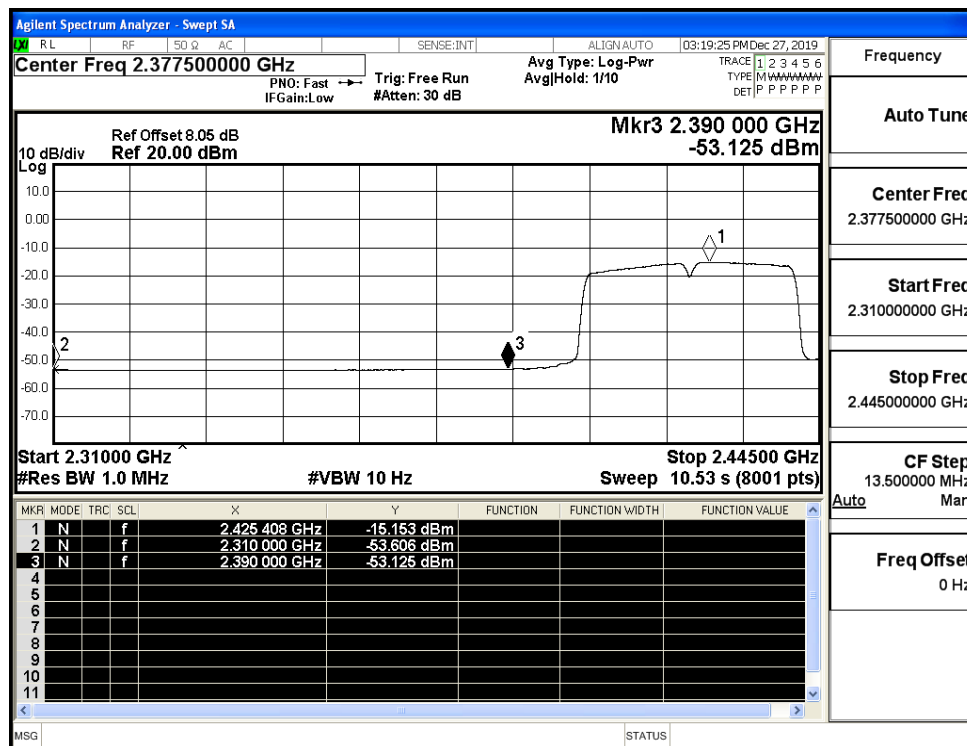
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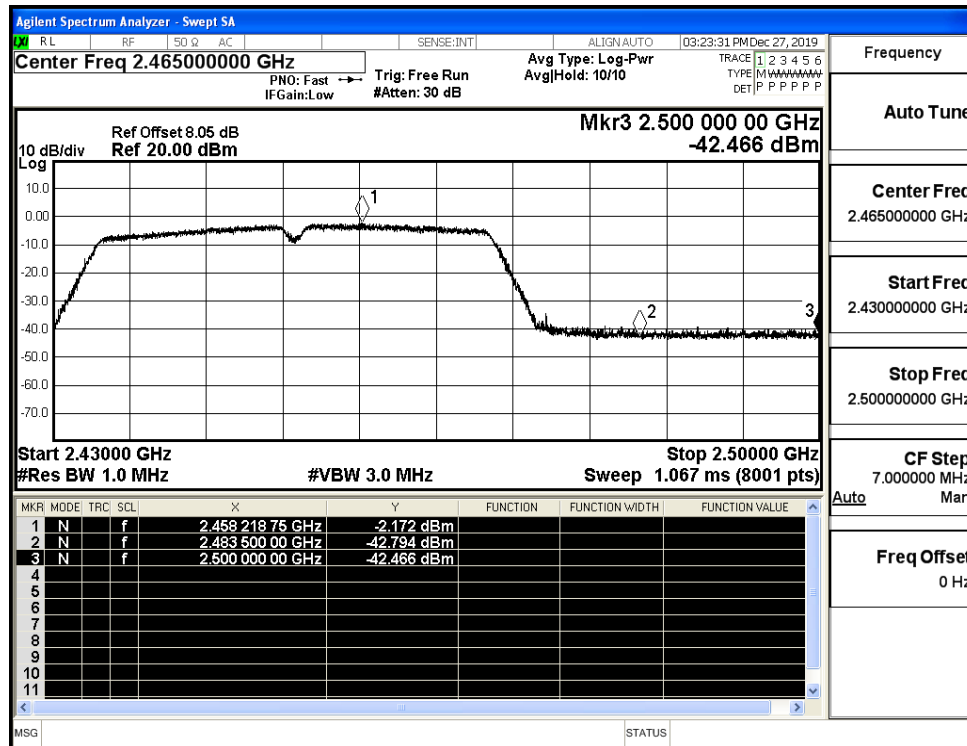
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Restrict-band band-edge measurements_11N40SISO_2452_Ant1_PEAK



Restrict-band band-edge measurements_11N40SISO_2452_Ant1_AV

