

Appendix C

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Wi-Fi Adapter

Trade Mark: N/A

Test Model: AP0100

Environmental Conditions

| | |
|--------------------|-------------|
| Temperature: | 23.8 °C |
| Relative Humidity: | 54.1% |
| ATM Pressure: | 100.0 kPa |
| Test Engineer: | Wang.Chuang |
| Supervised by: | Tom.Liu |

C.1 Duty Cycle

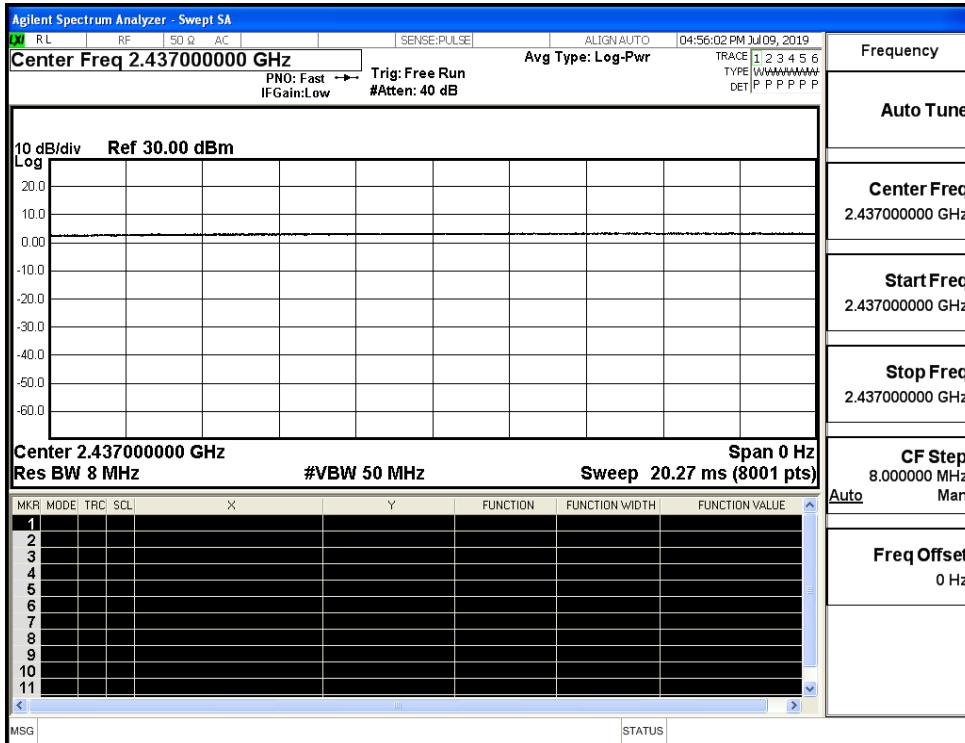
Antenna 0

| Test Mode | Test Channel | Ant | Duty Cycle[%] | Verdict |
|-----------|--------------|------|---------------|---------|
| 11B | 2437 | Ant0 | 100 | PASS |
| 11G | 2437 | Ant0 | 100 | PASS |
| 11N20SISO | 2437 | Ant0 | 100 | PASS |
| 11N40SISO | 2437 | Ant0 | 100 | PASS |

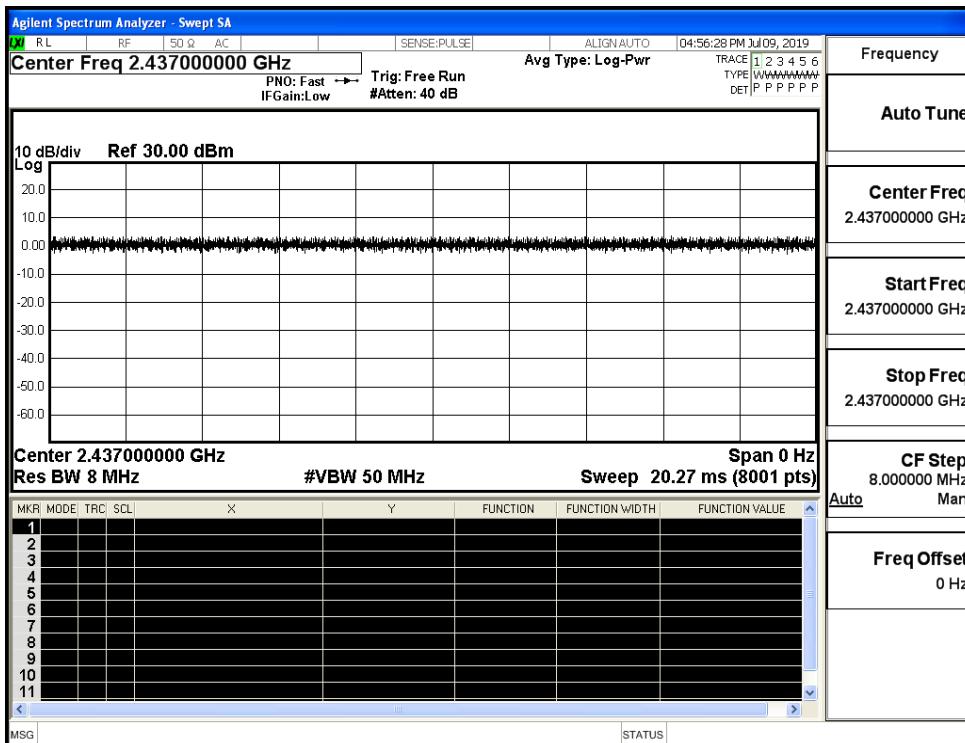
Antenna 1

| 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 |

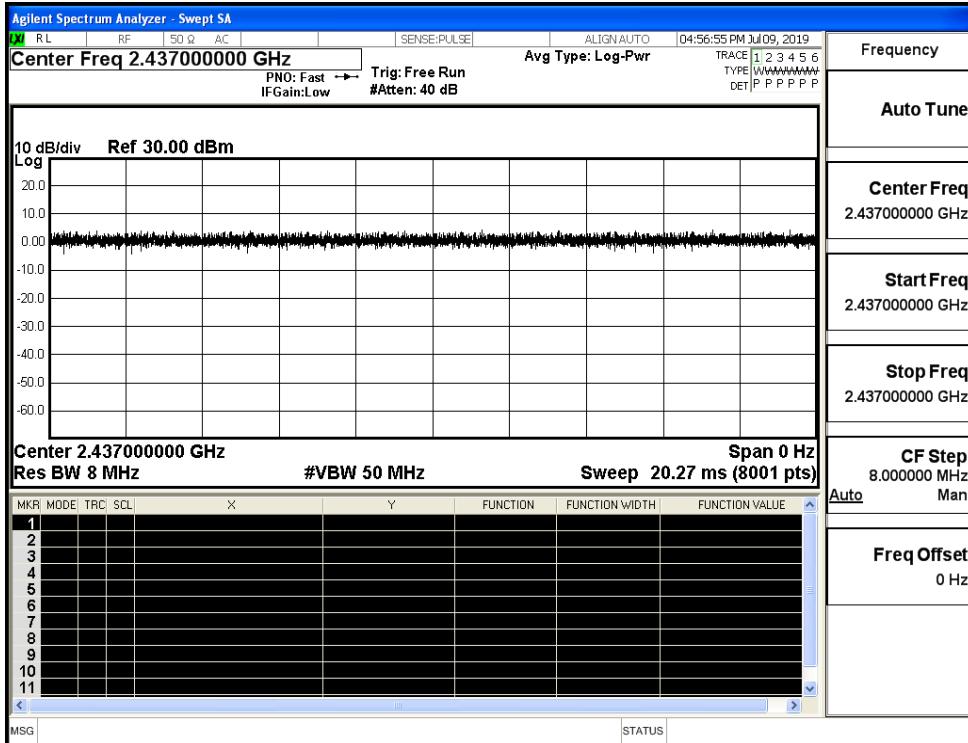
Duty Cycle_11B_2437_Ant0



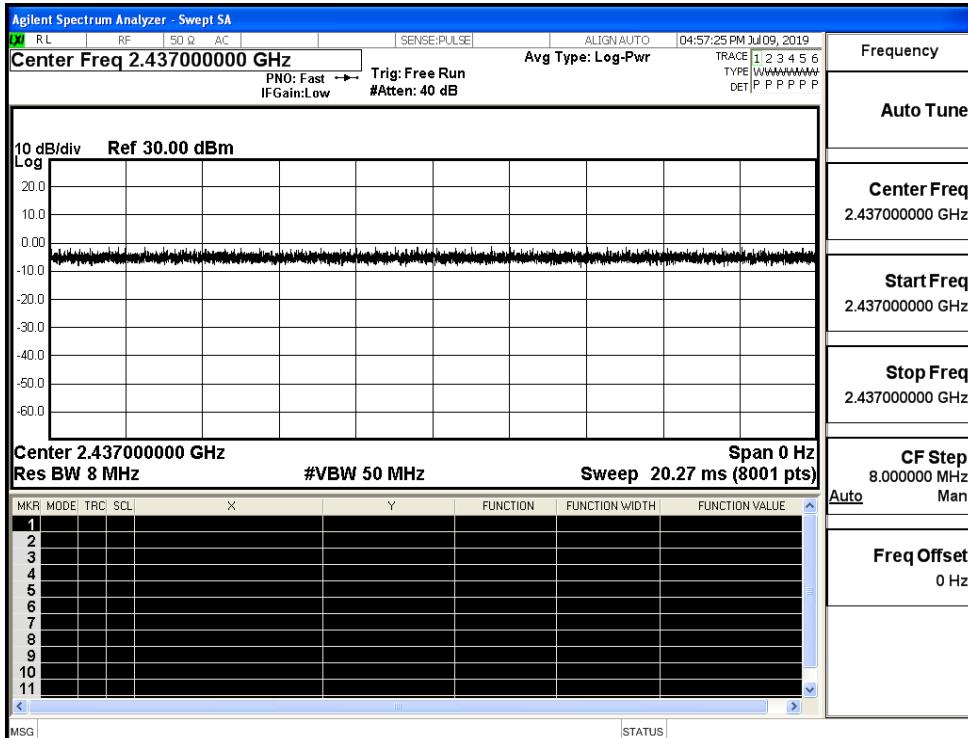
Duty Cycle_11G_2437_Ant0



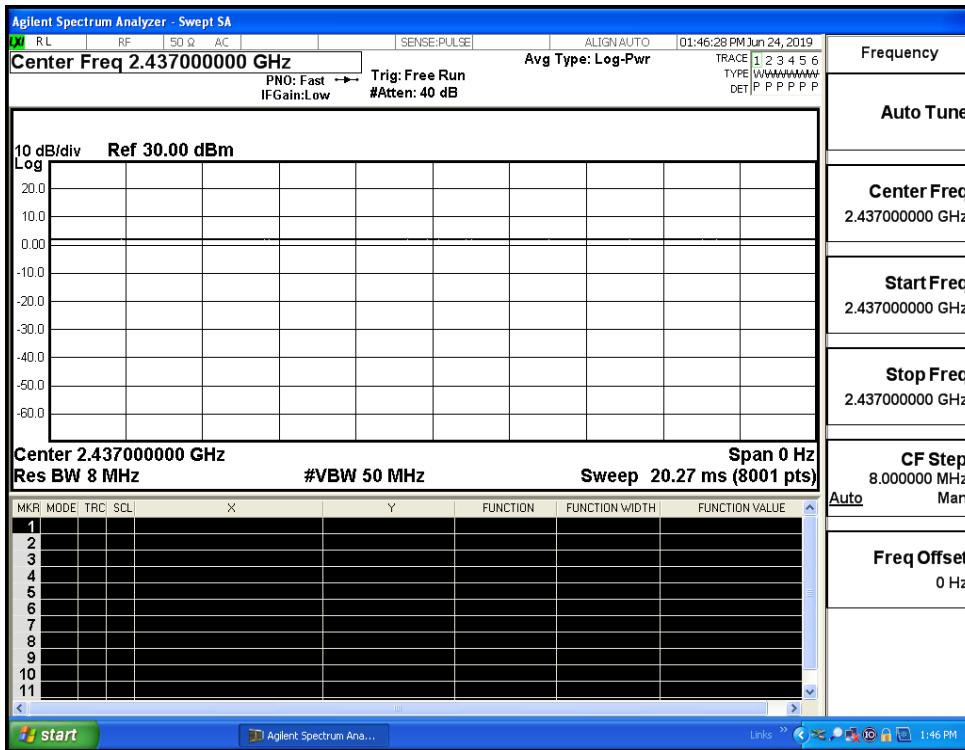
Duty Cycle_11N20SISO_2437_Ant0



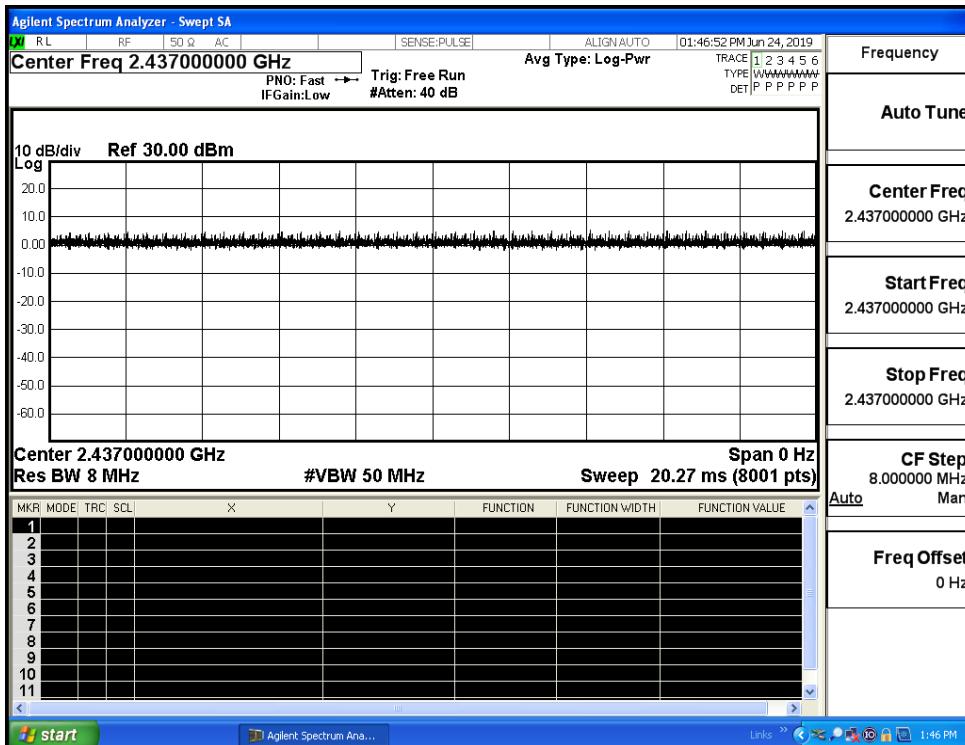
Duty Cycle_11N40SISO_2437_Ant0



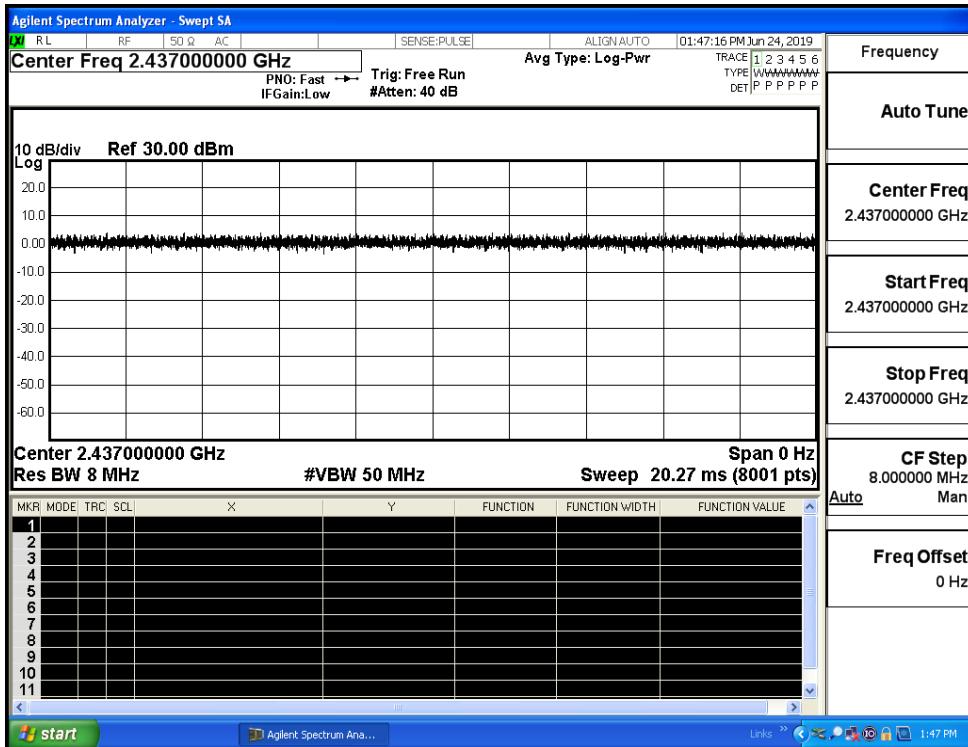
Duty Cycle_11B_2437_Ant1



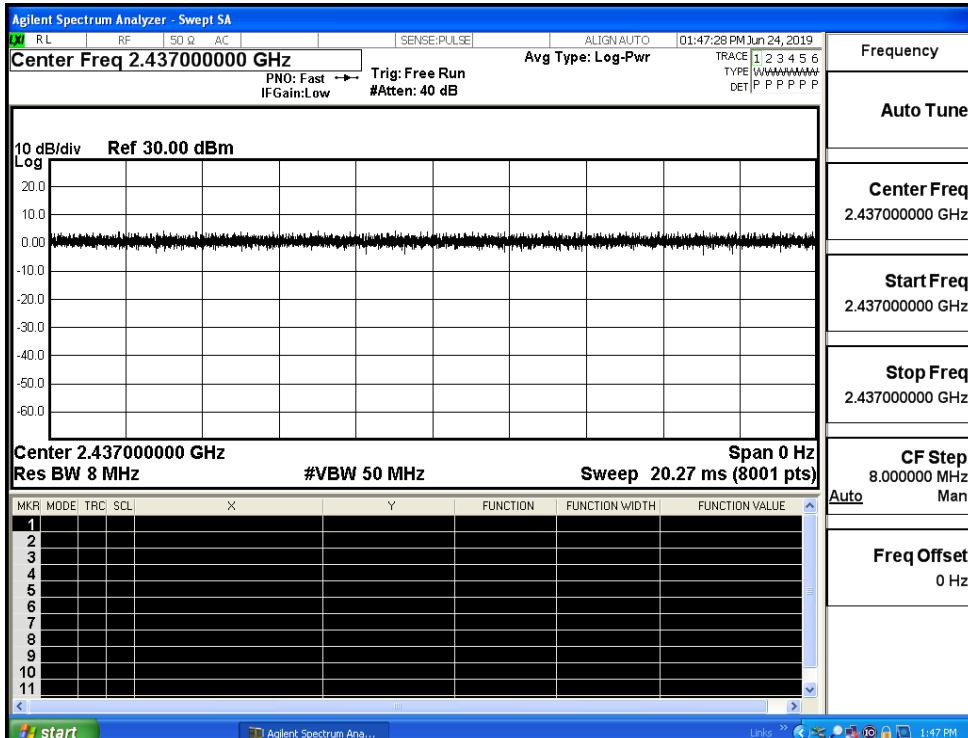
Duty Cycle_11G_2437_Ant1



Duty Cycle_11N20SISO_2437_Ant1



Duty Cycle_11N40SISO_2437_Ant1



C.2 Maximum Conducted Output Power

Antenna 0

| Mode | Channel | Meas.Level [dBm] | Limit [dBm] | Verdict |
|-----------|---------|------------------|-------------|---------|
| 11B | LCH | 17.76 | 30 | PASS |
| | MCH | 17.19 | 30 | PASS |
| | HCH | 17.69 | 30 | PASS |
| 11G | LCH | 16.29 | 30 | PASS |
| | MCH | 16.96 | 30 | PASS |
| | HCH | 16.06 | 30 | PASS |
| 11N20SISO | LCH | 15.63 | 30 | PASS |
| | MCH | 15.89 | 30 | PASS |
| | HCH | 15.36 | 30 | PASS |
| 11N40SISO | LCH | 14.98 | 30 | PASS |
| | MCH | 14.51 | 30 | PASS |
| | HCH | 14.82 | 30 | PASS |

Antenna 1

| Mode | Channel | Meas.Level [dBm] | Limit [dBm] | Verdict |
|-----------|---------|------------------|-------------|---------|
| 11B | LCH | 17.29 | 30 | PASS |
| | MCH | 17.95 | 30 | PASS |
| | HCH | 17.02 | 30 | PASS |
| 11G | LCH | 16.75 | 30 | PASS |
| | MCH | 16.88 | 30 | PASS |
| | HCH | 16.86 | 30 | PASS |
| 11N20SISO | LCH | 15.18 | 30 | PASS |
| | MCH | 15.37 | 30 | PASS |
| | HCH | 15.26 | 30 | PASS |
| 11N40SISO | LCH | 14.19 | 30 | PASS |
| | MCH | 14.17 | 30 | PASS |
| | HCH | 14.21 | 30 | PASS |

ANT0+ANT1:

| Test Mode | Channel | Frequency (MHz) | Measured Peak Output Power (dBm) | | | Limits (dBm) | Verdict |
|----------------------|---------|--------------------|-------------------------------------|---------|-------|-----------------|---------|
| | | | Chain 0 | Chain 1 | Sum | | |
| IEEE 802.11n HT20 | 1 | 2412 | 15.63 | 15.18 | 18.42 | 30 | PASS |
| | 6 | 2437 | 15.89 | 15.37 | 18.65 | | |
| | 11 | 2462 | 15.36 | 15.26 | 18.32 | | |
| IEEE 802.11n HT40 | 3 | 2422 | 14.98 | 14.19 | 17.61 | 30 | PASS |
| | 6 | 2437 | 14.51 | 14.17 | 17.35 | | |
| | 9 | 2452 | 14.82 | 14.21 | 17.54 | | |

C.3 Maximum Power Spectral Density

Antenna 0

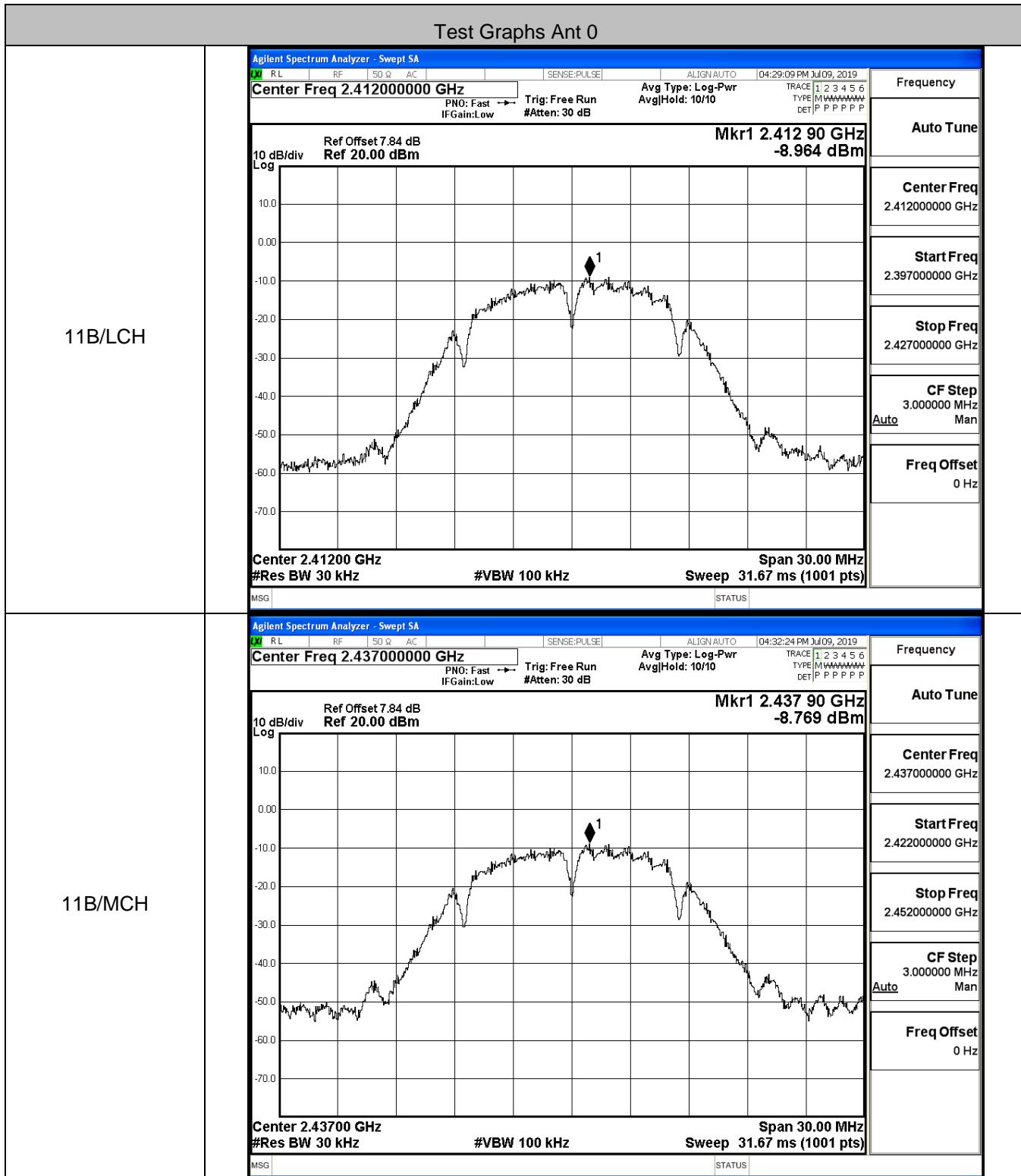
| Mode | Channel | Meas.Level [dBm/30KHz] | Limit [dBm/3KHz] | Verdict |
|-----------|---------|------------------------|------------------|---------|
| 11B | LCH | -8.964 | 8 | PASS |
| | MCH | -8.769 | 8 | PASS |
| | HCH | -10.219 | 8 | PASS |
| 11G | LCH | -12.492 | 8 | PASS |
| | MCH | -11.343 | 8 | PASS |
| | HCH | -11.846 | 8 | PASS |
| 11N20SISO | LCH | -12.384 | 8 | PASS |
| | MCH | -10.981 | 8 | PASS |
| | HCH | -10.826 | 8 | PASS |
| 11N40SISO | LCH | -13.279 | 8 | PASS |
| | MCH | -12.970 | 8 | PASS |
| | HCH | -13.129 | 8 | PASS |

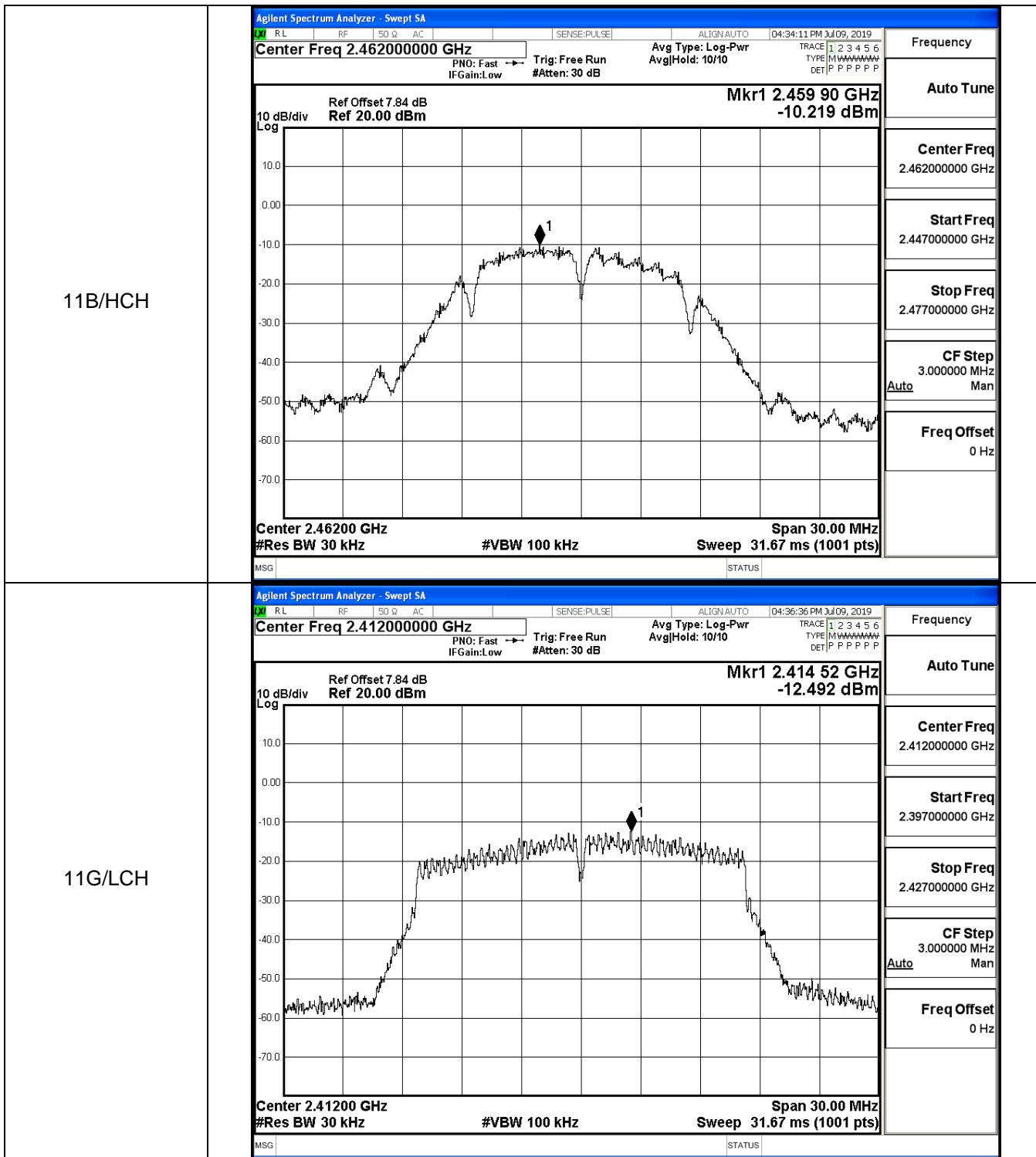
Antenna 1

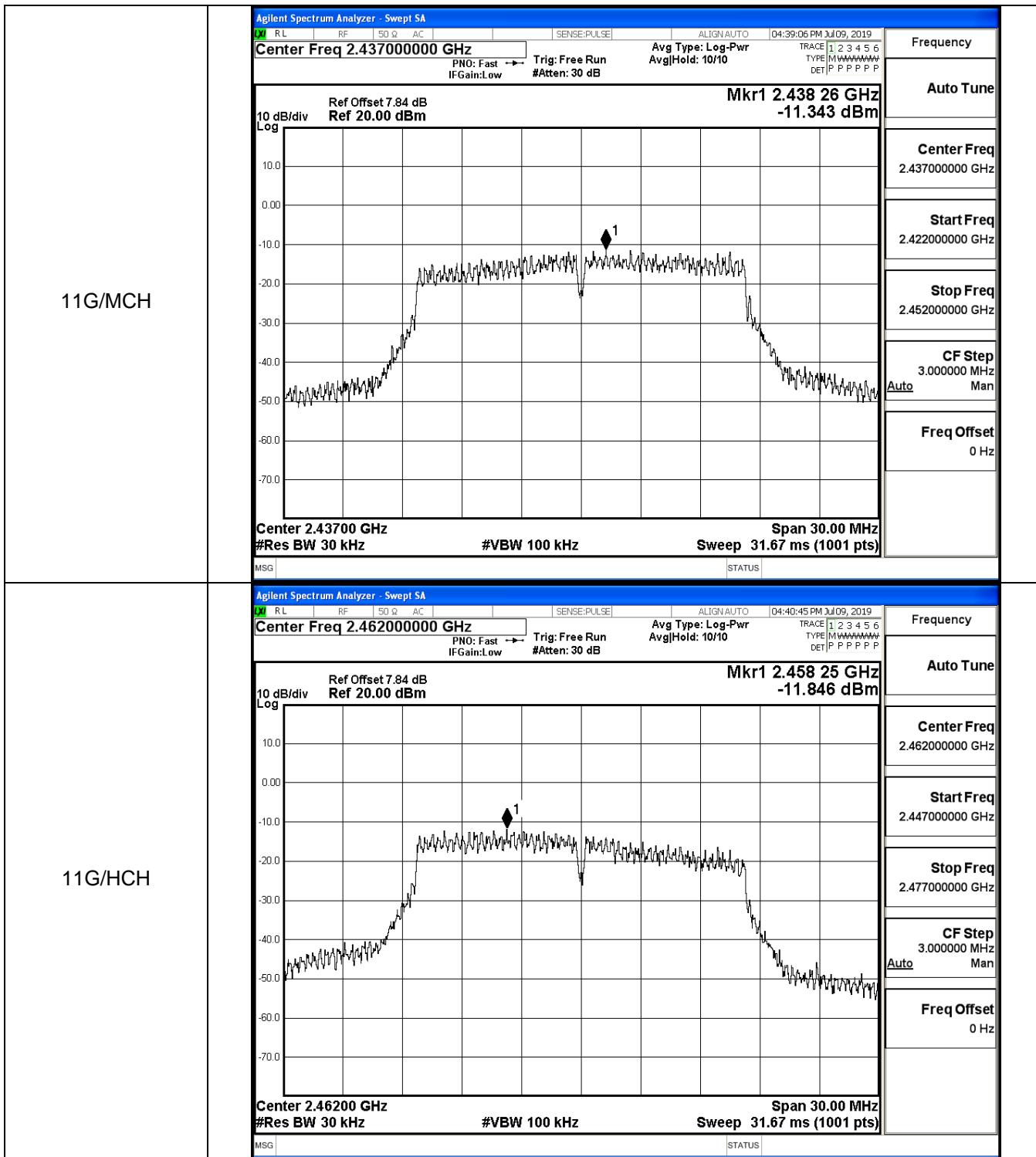
| Mode | Channel | Meas.Level [dBm/30KHz] | Limit [dBm/3KHz] | Verdict |
|-----------|---------|------------------------|------------------|---------|
| 11B | LCH | -1.974 | 8 | PASS |
| | MCH | -5.627 | 8 | PASS |
| | HCH | -6.132 | 8 | PASS |
| 11G | LCH | -12.100 | 8 | PASS |
| | MCH | -11.062 | 8 | PASS |
| | HCH | -11.324 | 8 | PASS |
| 11N20SISO | LCH | -12.226 | 8 | PASS |
| | MCH | -10.623 | 8 | PASS |
| | HCH | -11.736 | 8 | PASS |
| 11N40SISO | LCH | -12.916 | 8 | PASS |
| | MCH | -13.774 | 8 | PASS |
| | HCH | -12.483 | 8 | PASS |

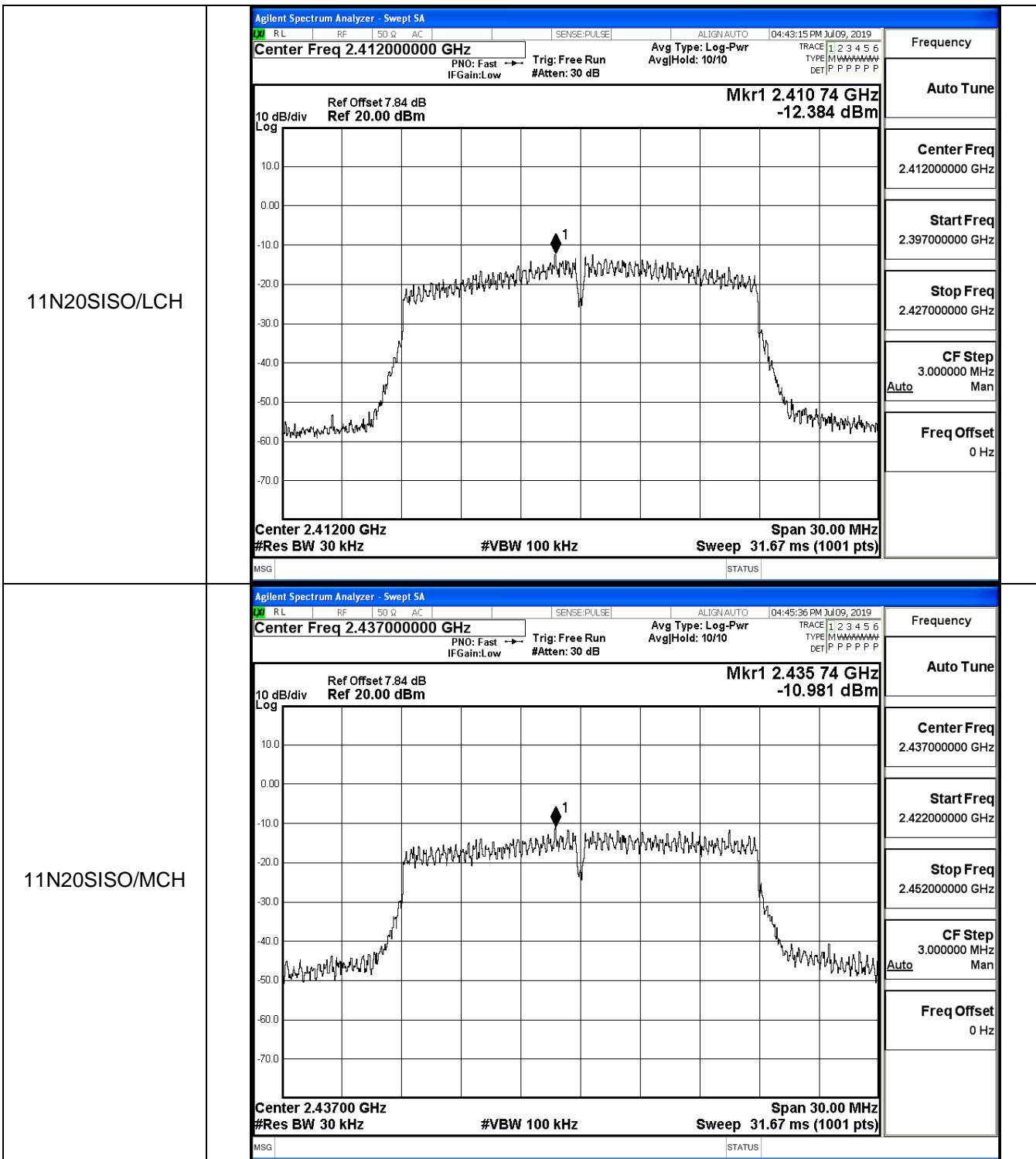
ANT0+ANT1:

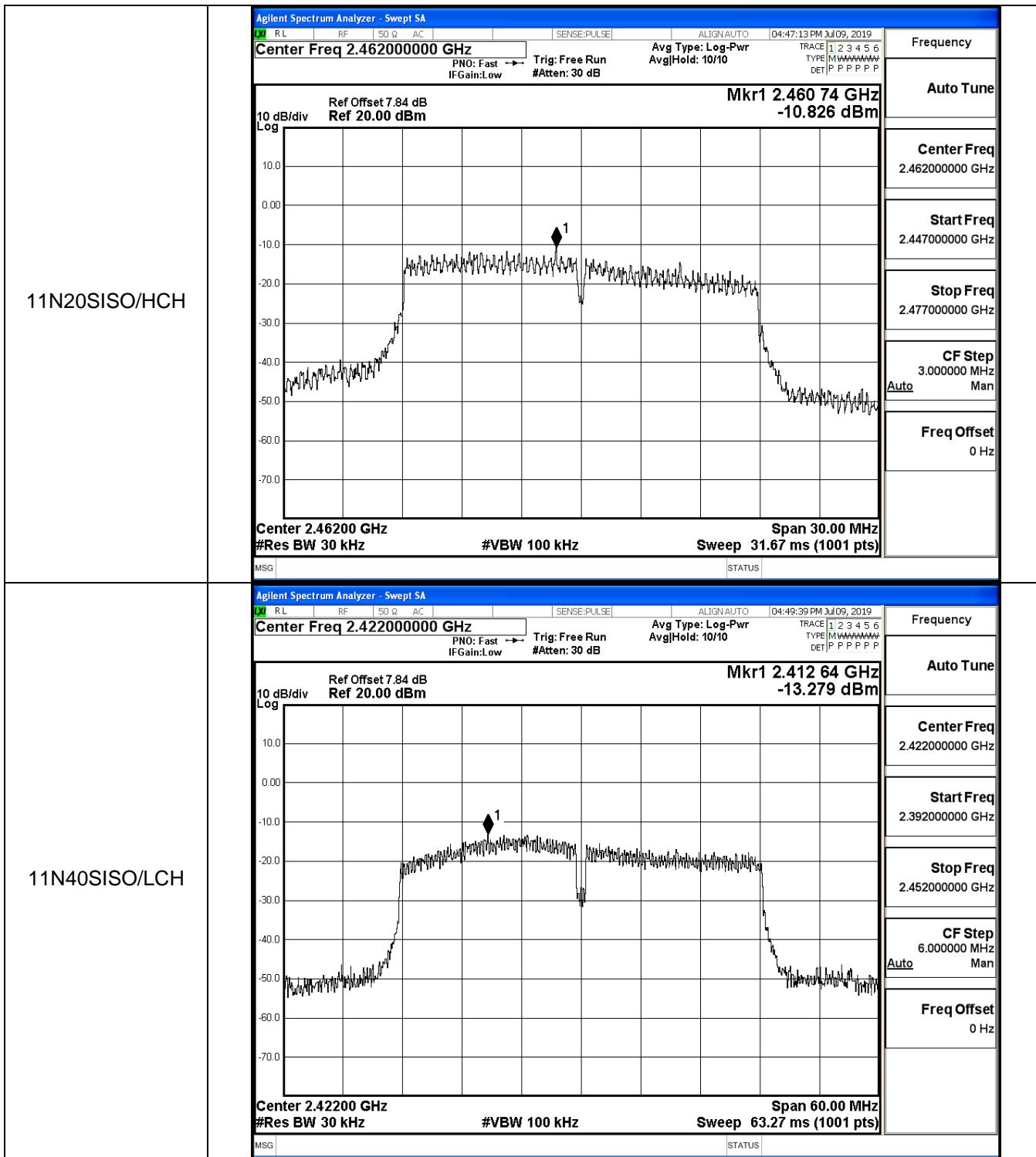
| Test Mode | Channel | Frequency (MHz) | Meas.Level [dBm/30KHz] | | | Limit [dBm/3KHz] | Verdict |
|----------------------|---------|--------------------|------------------------|---------|---------|---------------------|---------|
| | | | Chain 0 | Chain 1 | Sum | | |
| IEEE 802.11n HT20 | 1 | 2412 | -12.384 | -12.226 | -9.294 | 8 | PASS |
| | 6 | 2437 | -10.981 | -10.623 | -7.788 | | |
| | 11 | 2462 | -10.826 | -11.736 | -8.247 | | |
| IEEE 802.11n HT40 | 3 | 2422 | -13.279 | -12.916 | -10.083 | 8 | PASS |
| | 6 | 2437 | -12.970 | -13.774 | -10.343 | | |
| | 9 | 2452 | -13.129 | -12.483 | -9.784 | | |

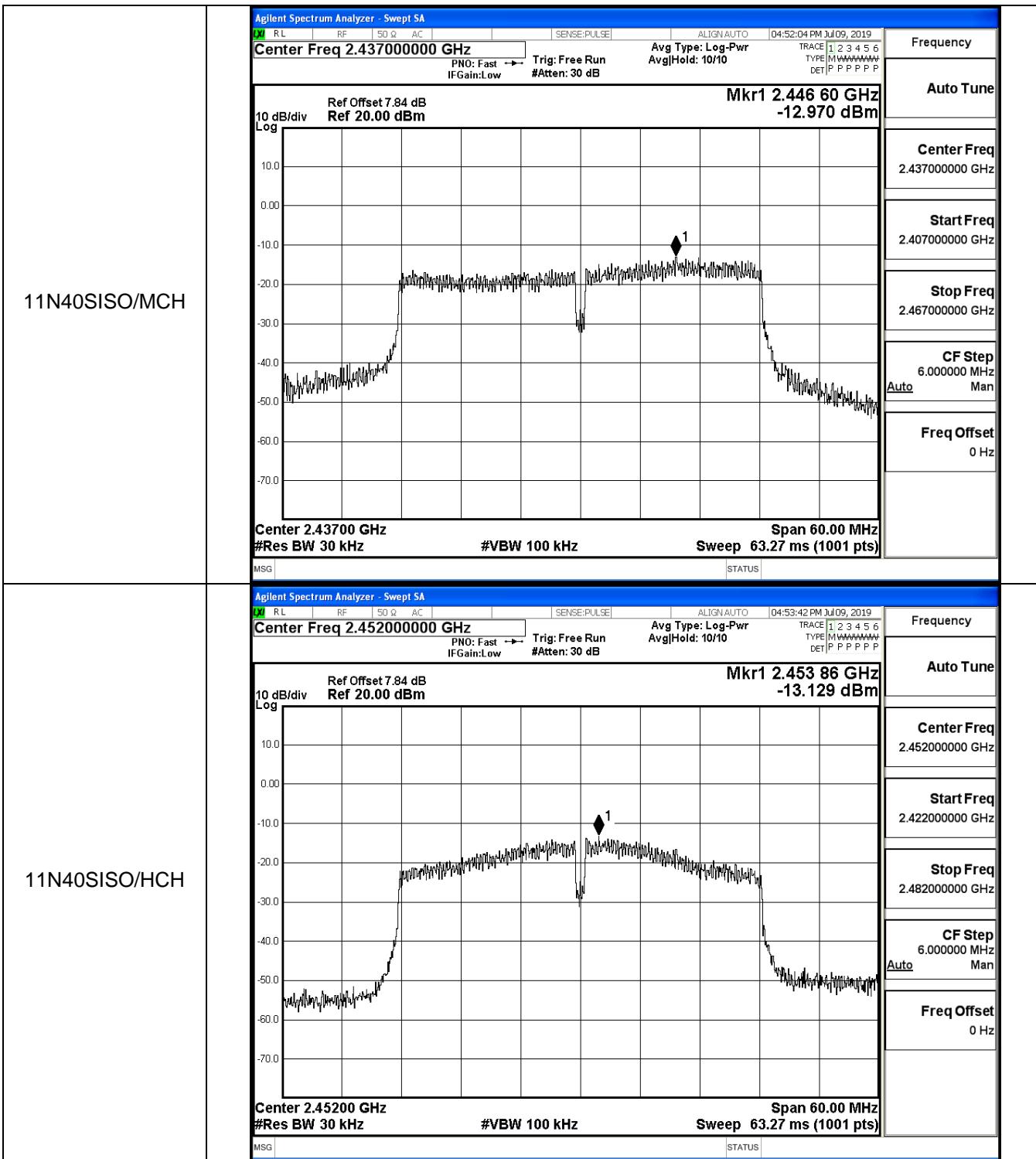


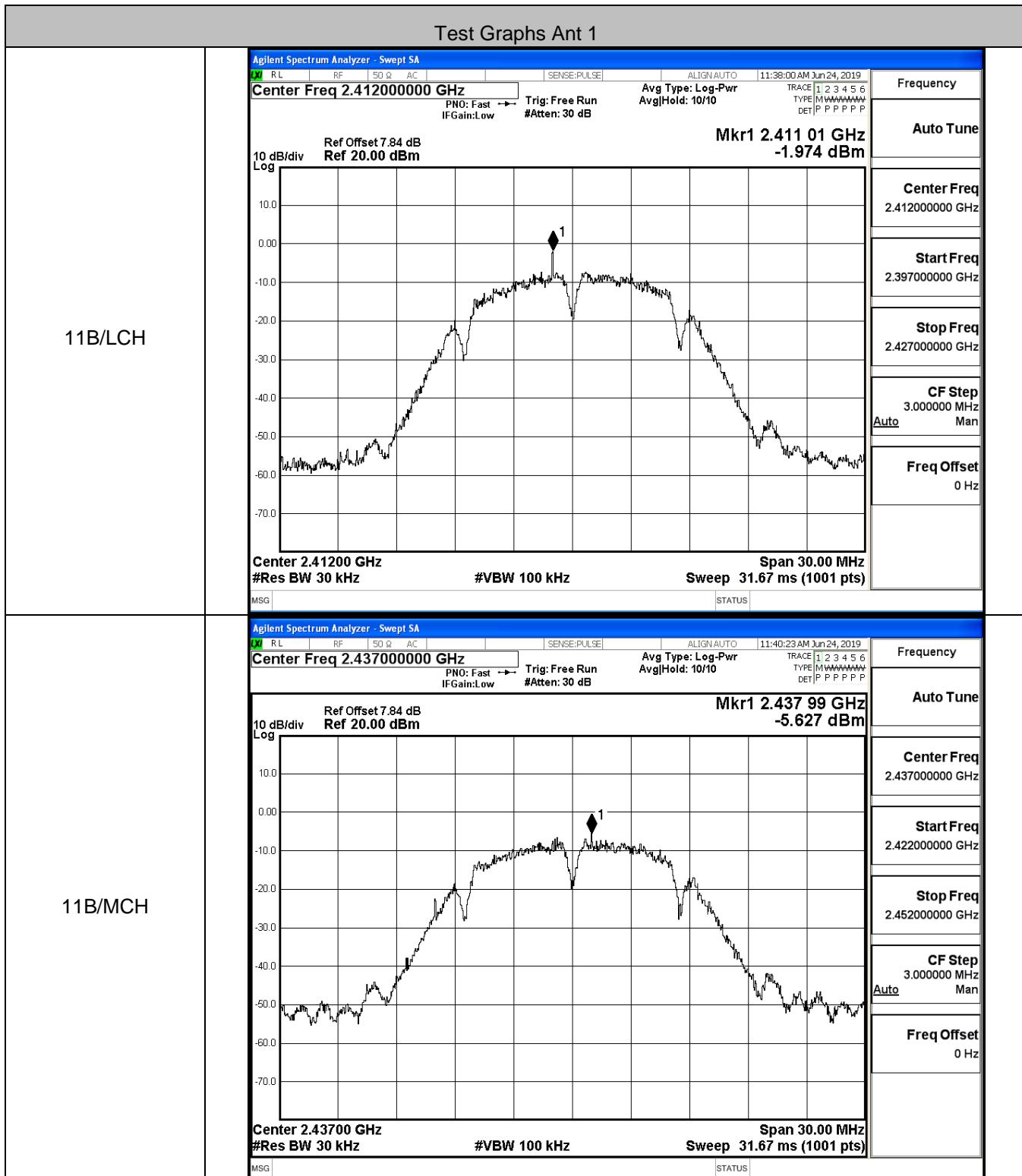


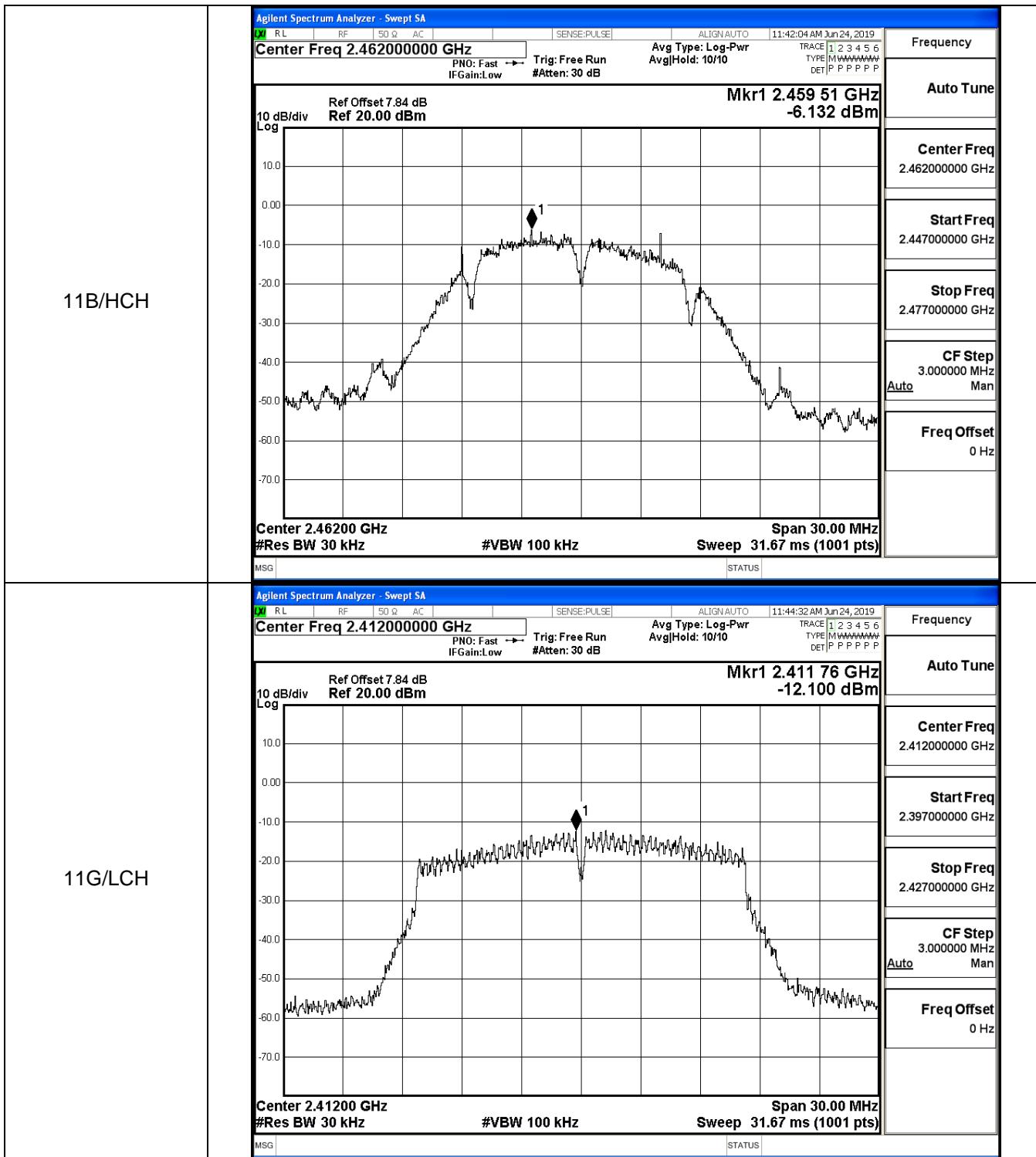


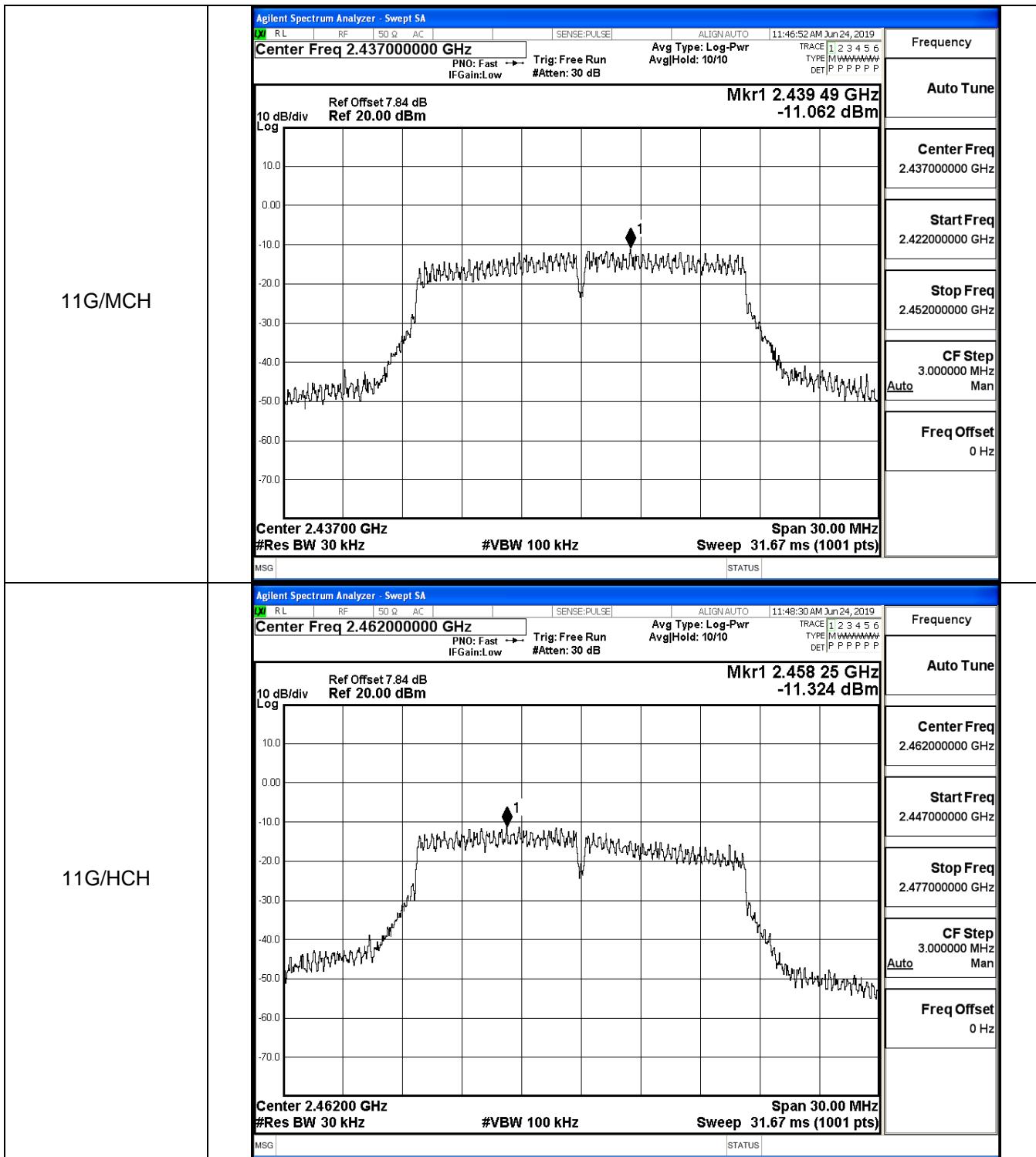


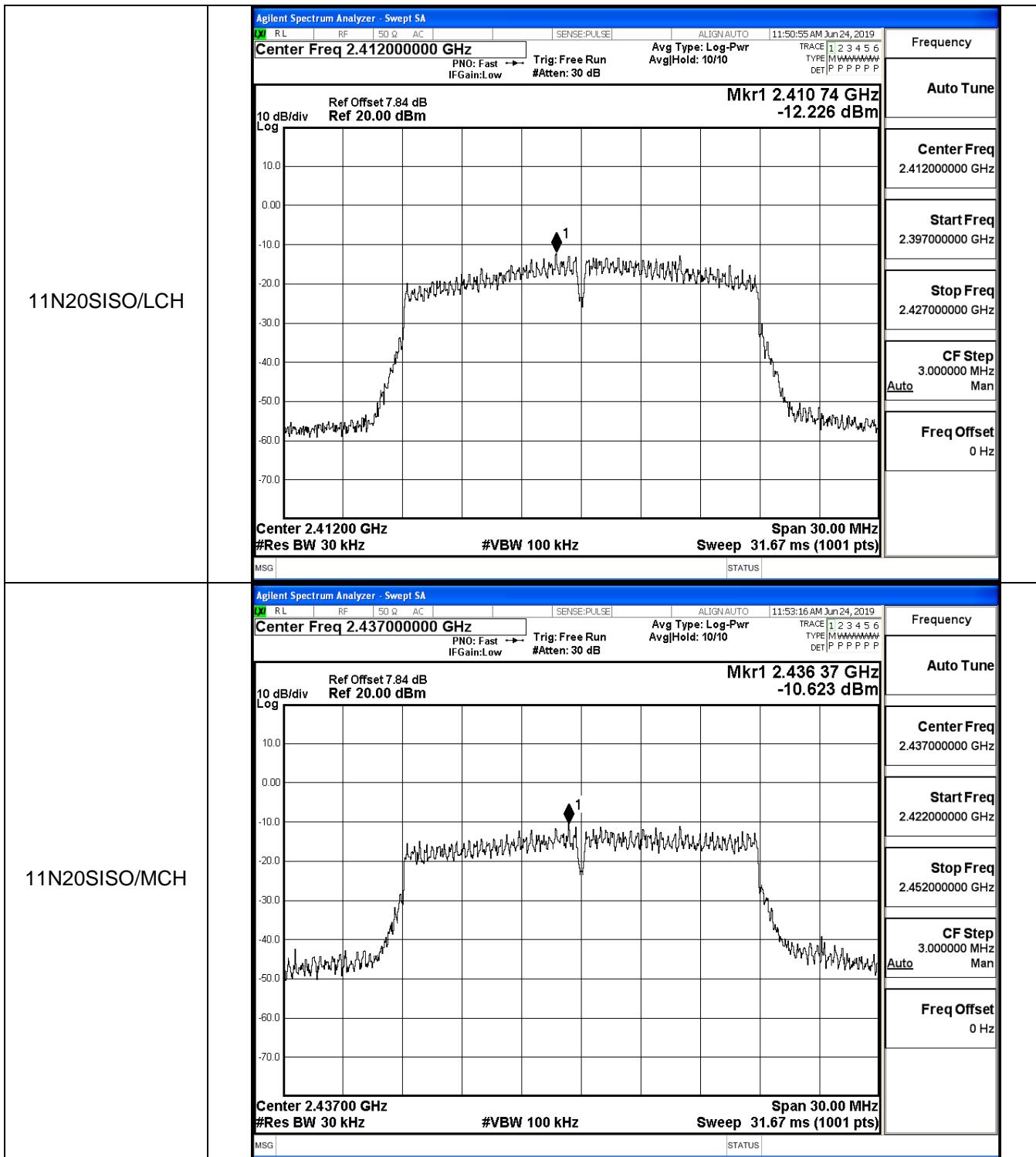


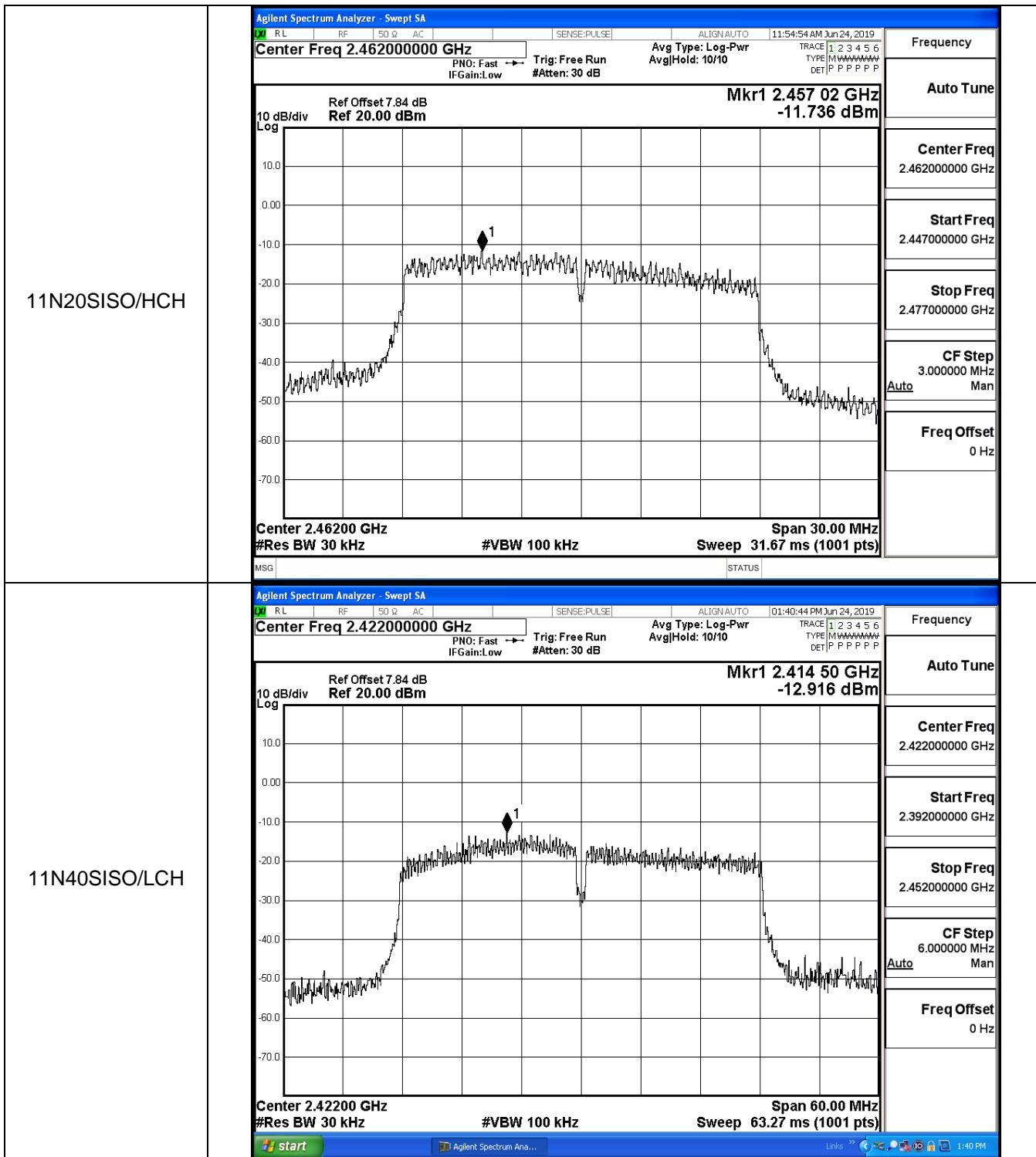


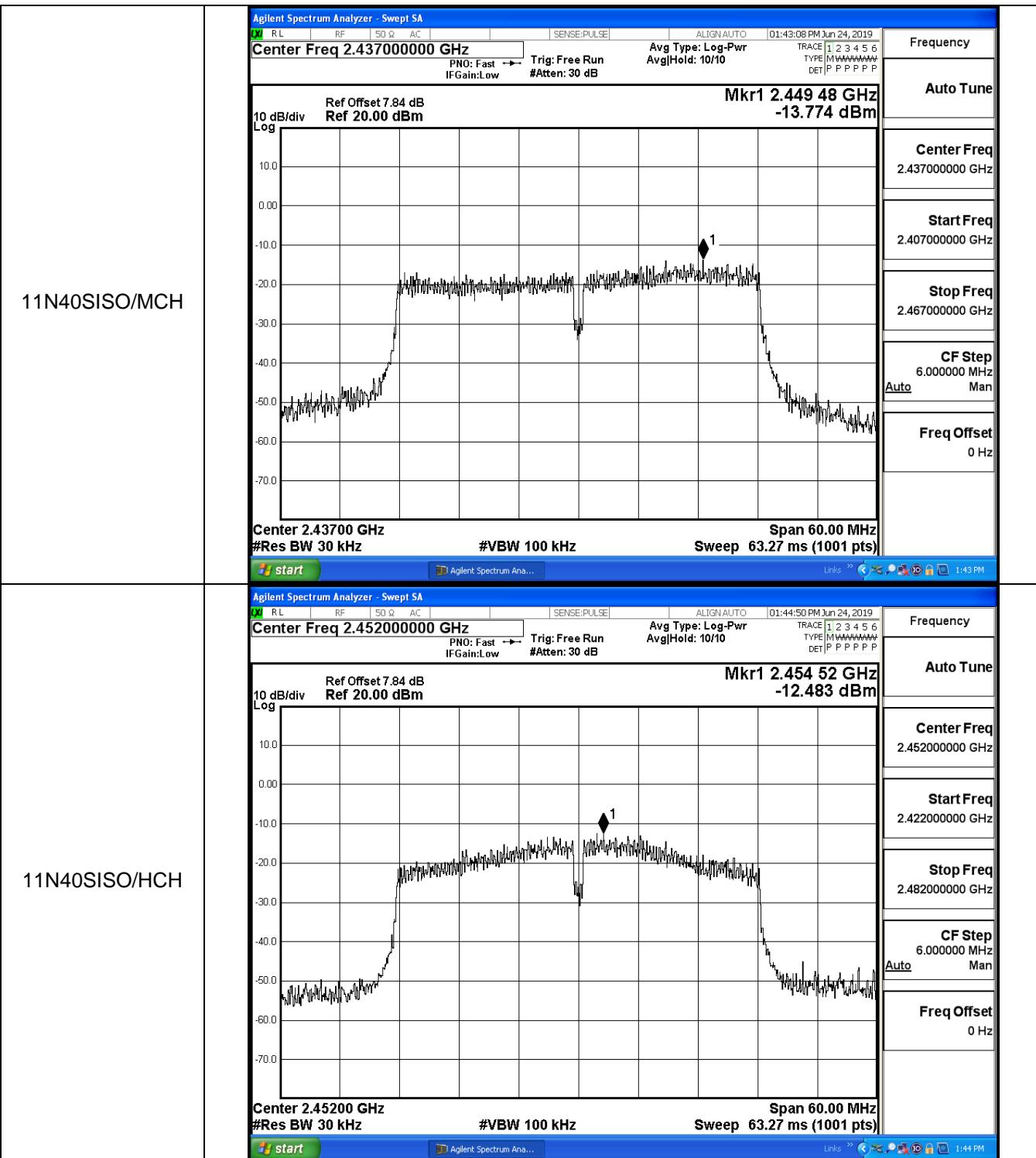












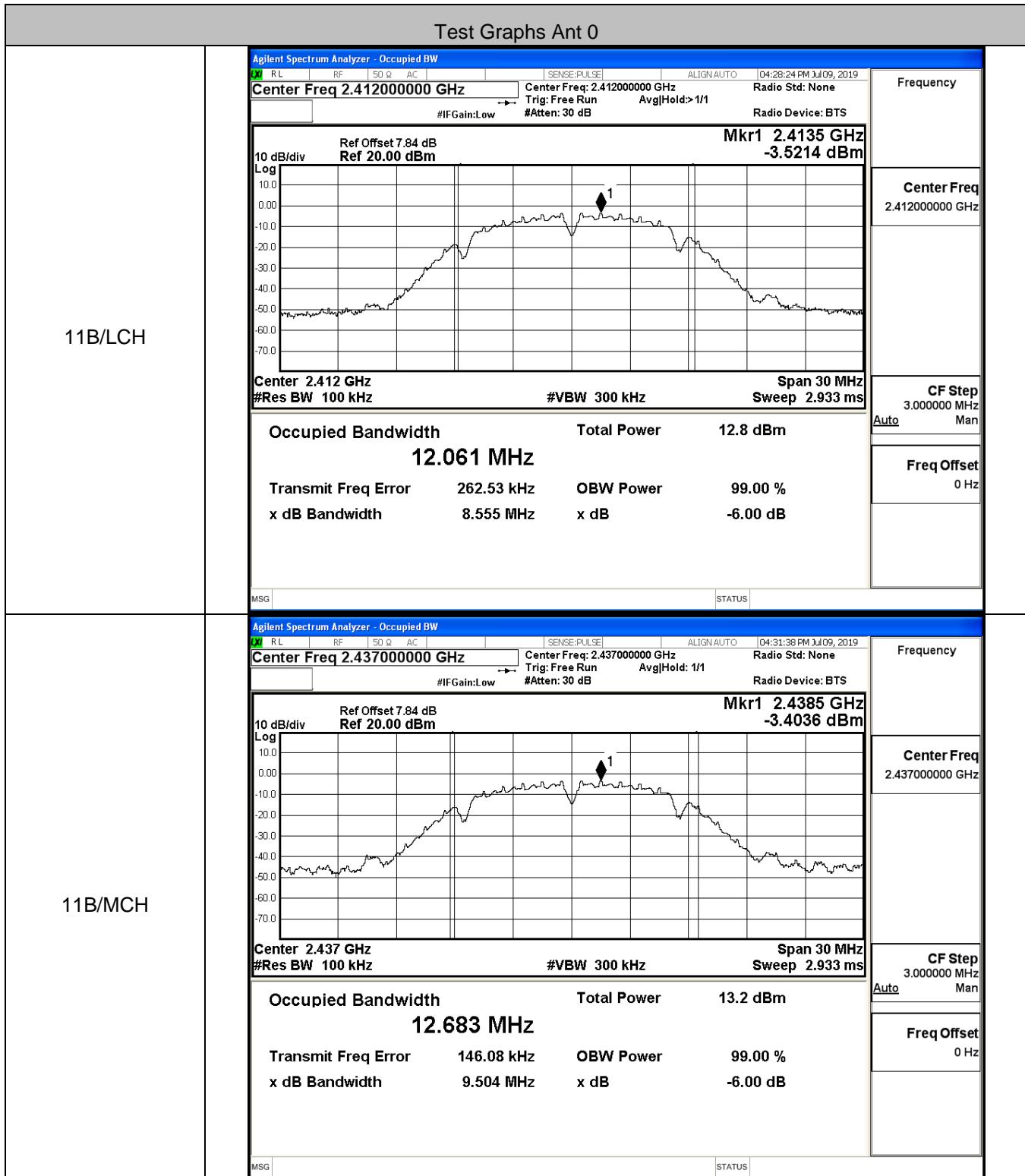
C.4 6dB Bandwidth

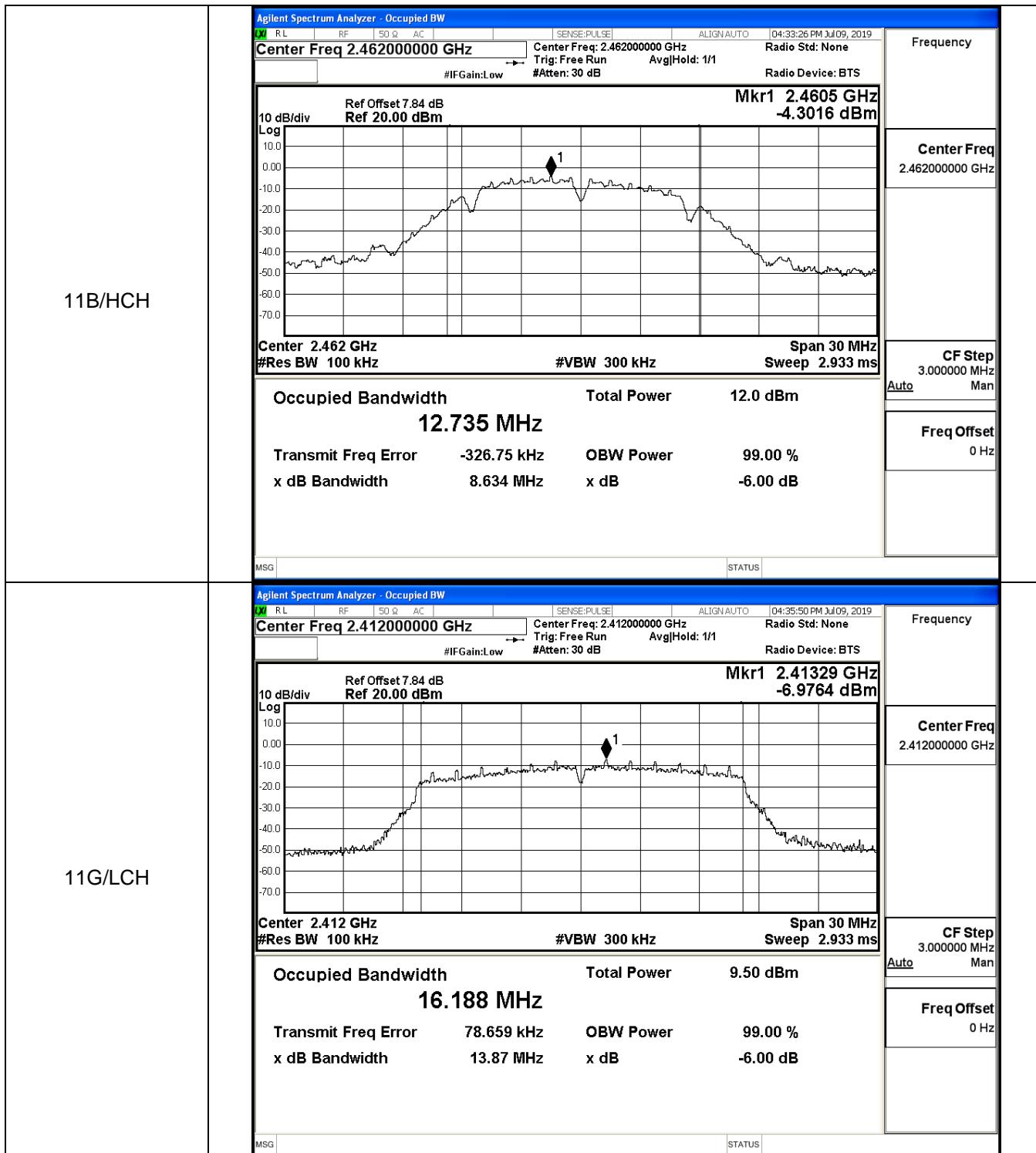
Antenna 0

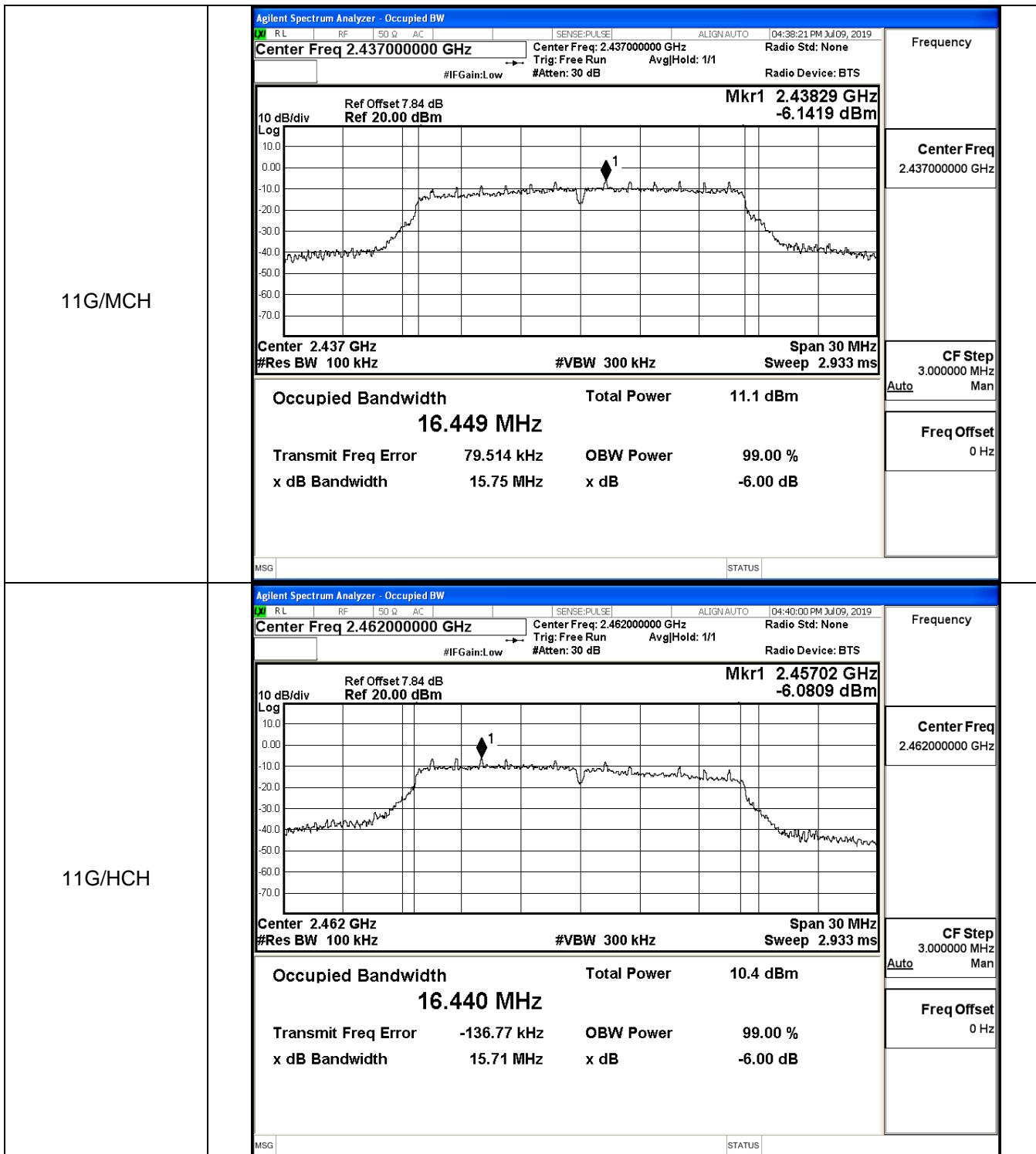
| Mode | Channel | 6dB Bandwidth [MHz] | Limit [MHz] | Verdict |
|-----------|---------|---------------------|-------------|---------|
| 11B | LCH | 8.555 | ≥0.5 | PASS |
| | MCH | 9.504 | ≥0.5 | PASS |
| | HCH | 8.634 | ≥0.5 | PASS |
| 11G | LCH | 13.87 | ≥0.5 | PASS |
| | MCH | 15.75 | ≥0.5 | PASS |
| | HCH | 15.71 | ≥0.5 | PASS |
| 11N20SISO | LCH | 13.86 | ≥0.5 | PASS |
| | MCH | 16.29 | ≥0.5 | PASS |
| | HCH | 16.30 | ≥0.5 | PASS |
| 11N40SISO | LCH | 34.18 | ≥0.5 | PASS |
| | MCH | 36.44 | ≥0.5 | PASS |
| | HCH | 24.71 | ≥0.5 | PASS |

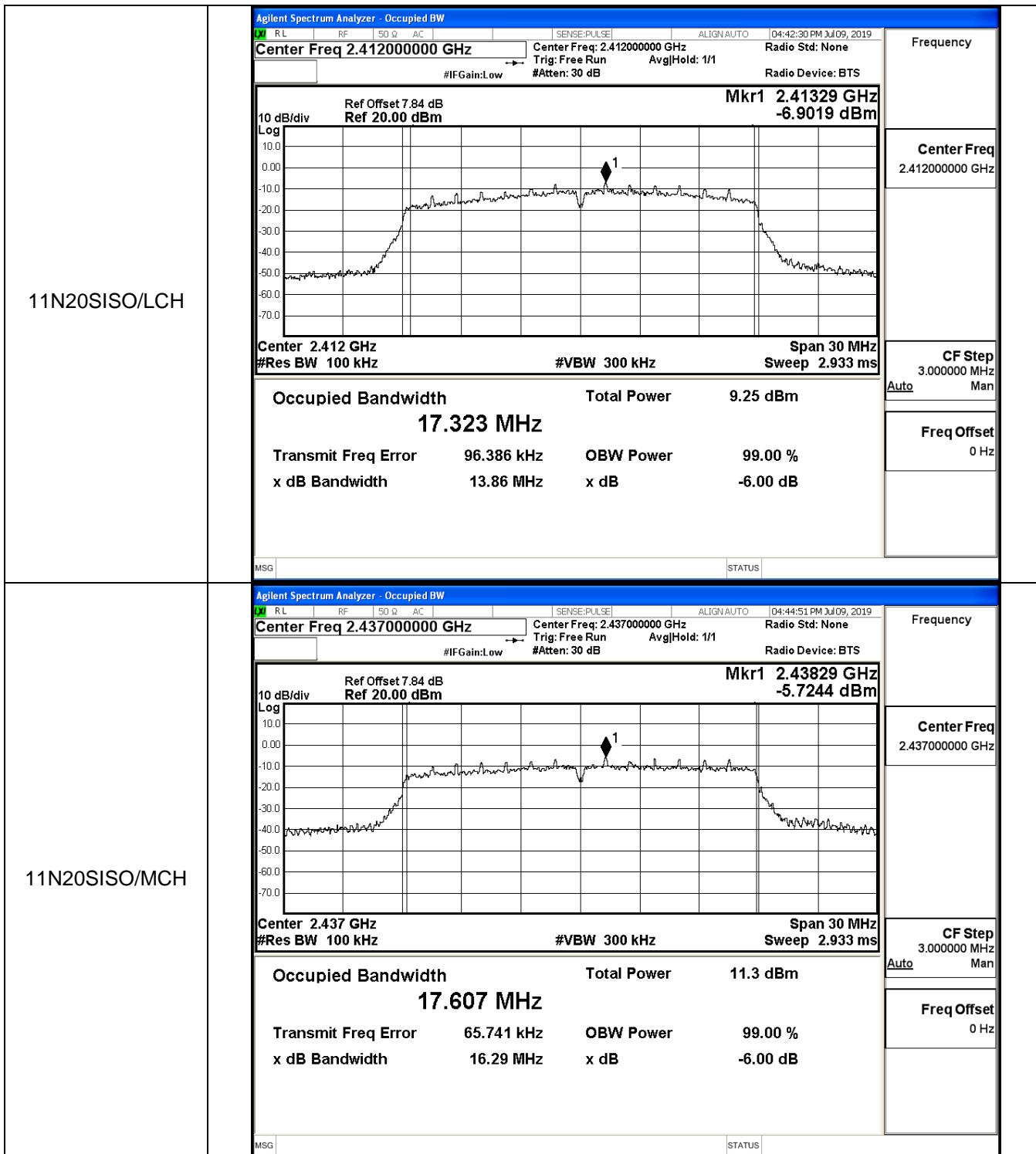
Antenna 1

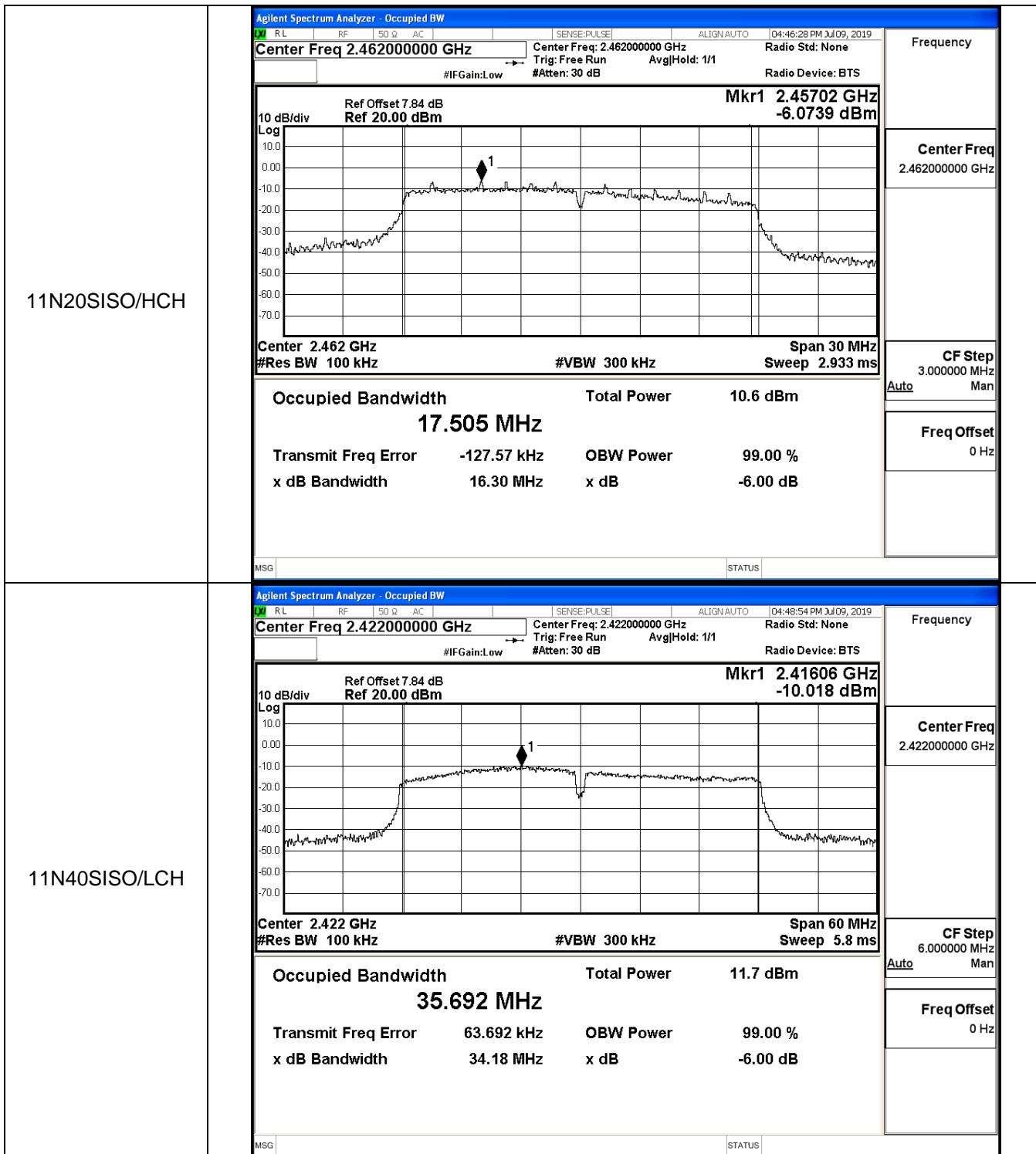
| Mode | Channel | 6dB Bandwidth [MHz] | Limit [MHz] | Verdict |
|-----------|---------|---------------------|-------------|---------|
| 11B | LCH | 9.035 | ≥0.5 | PASS |
| | MCH | 9.584 | ≥0.5 | PASS |
| | HCH | 8.629 | ≥0.5 | PASS |
| 11G | LCH | 13.88 | ≥0.5 | PASS |
| | MCH | 15.71 | ≥0.5 | PASS |
| | HCH | 15.72 | ≥0.5 | PASS |
| 11N20SISO | LCH | 13.82 | ≥0.5 | PASS |
| | MCH | 16.34 | ≥0.5 | PASS |
| | HCH | 16.34 | ≥0.5 | PASS |
| 11N40SISO | LCH | 33.89 | ≥0.5 | PASS |
| | MCH | 35.53 | ≥0.5 | PASS |
| | HCH | 24.71 | ≥0.5 | PASS |

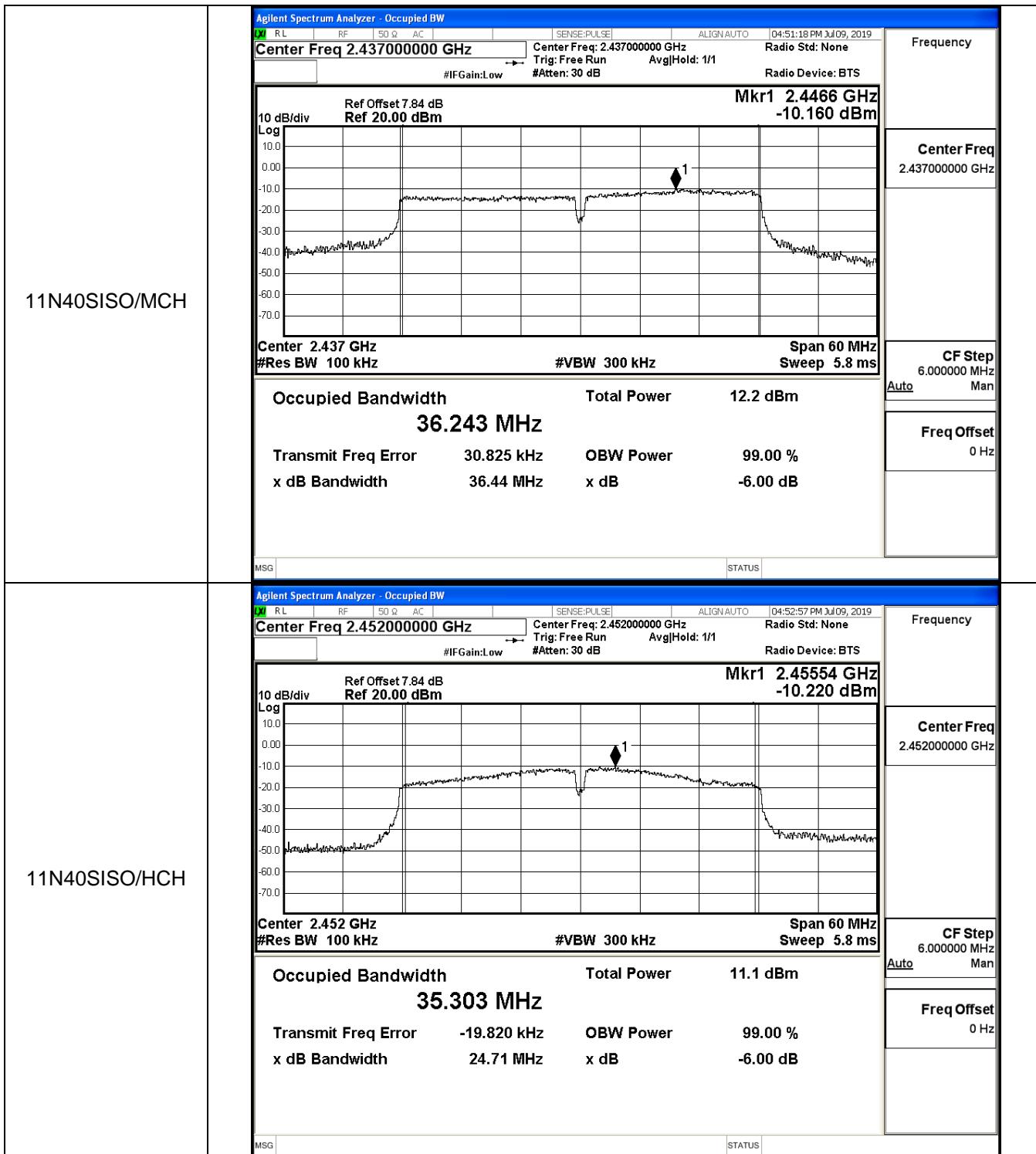


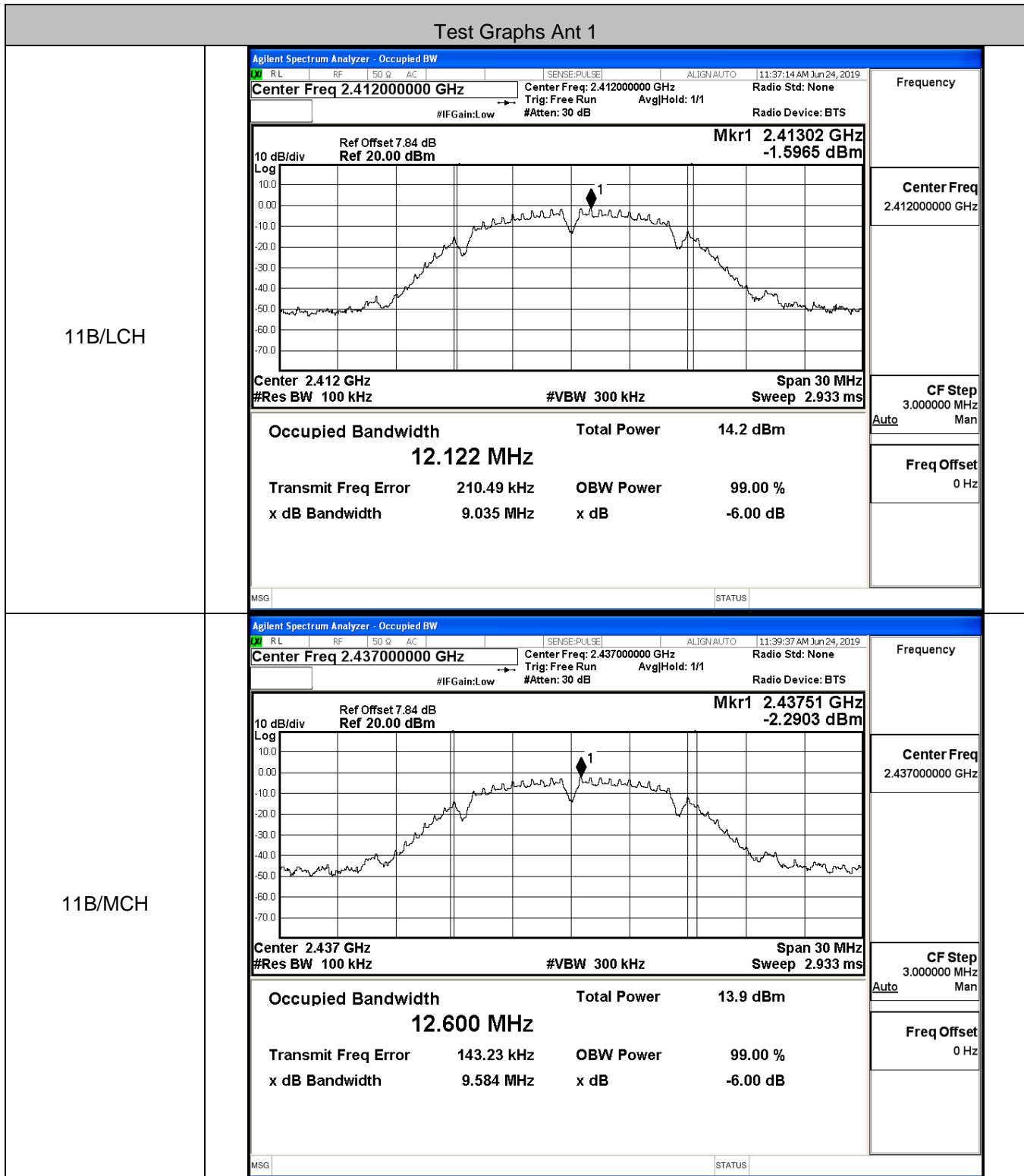


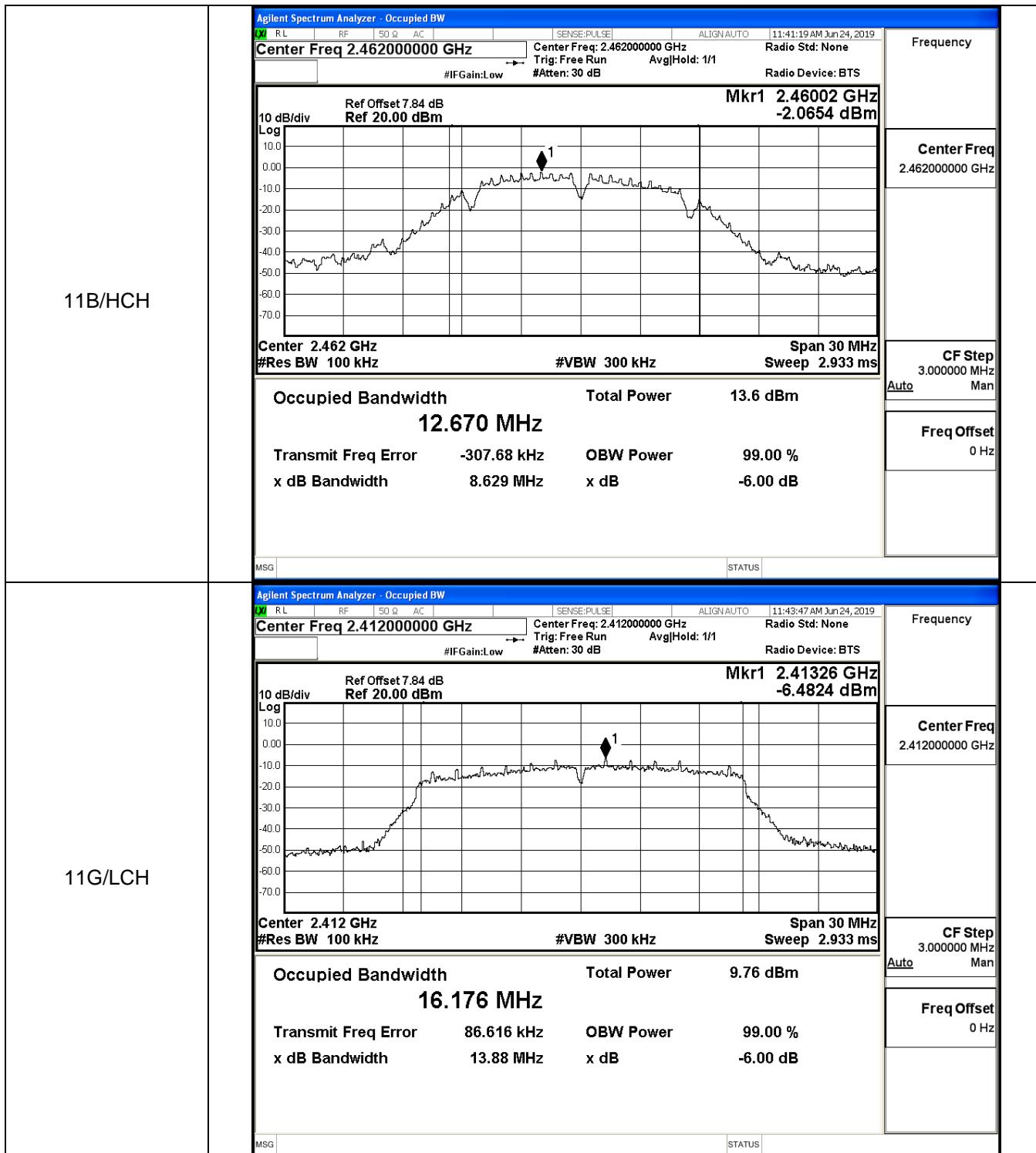


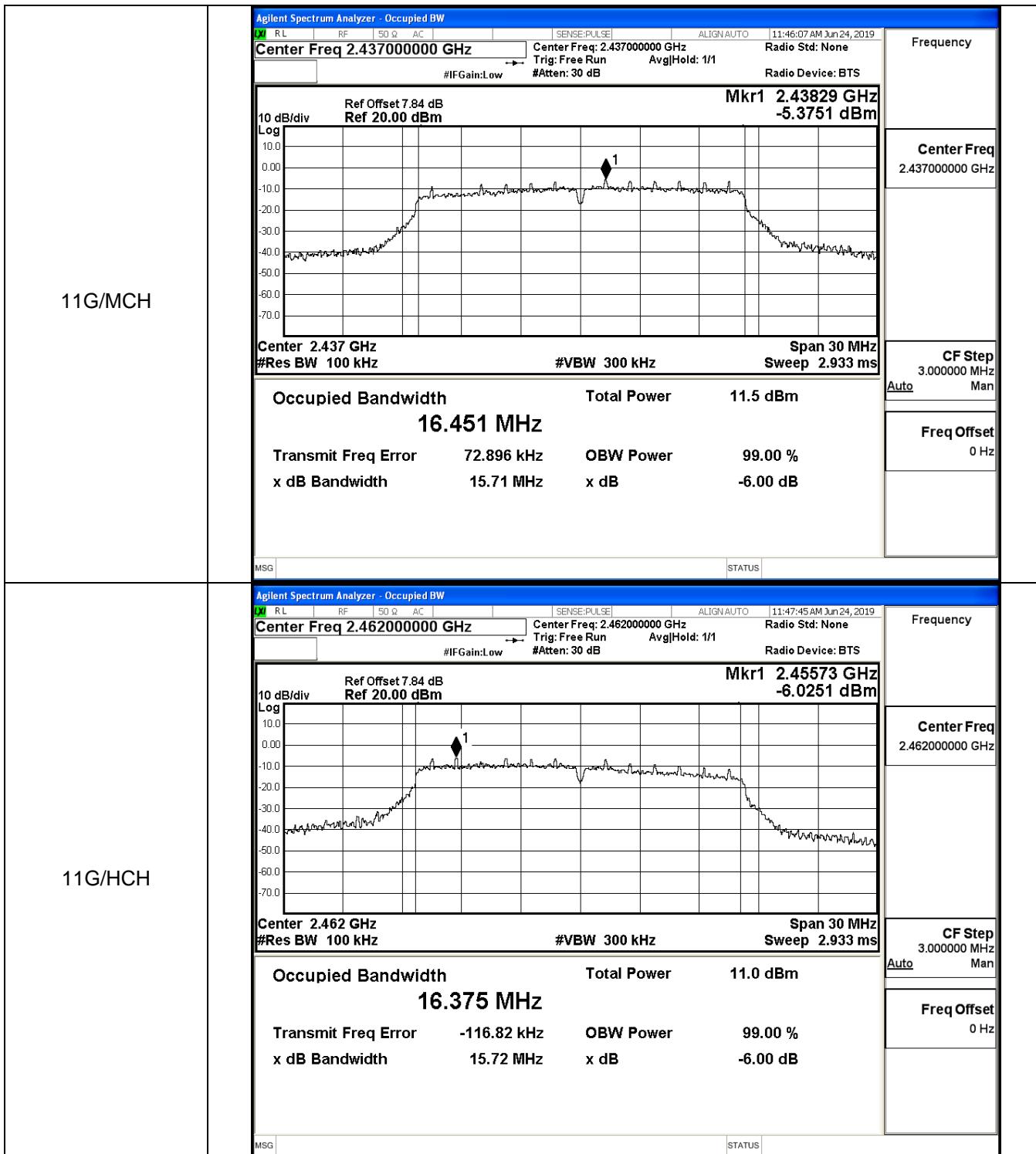


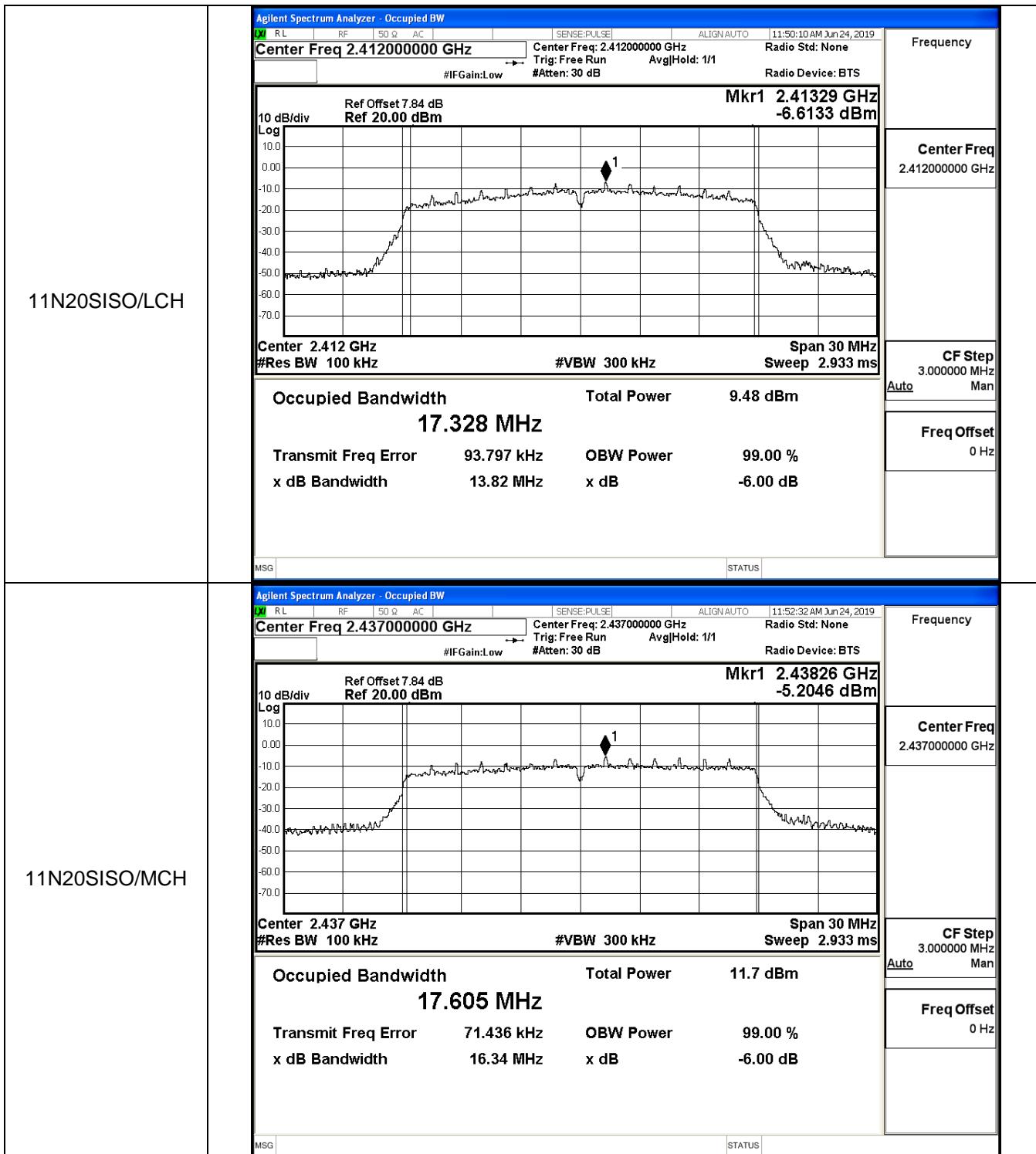


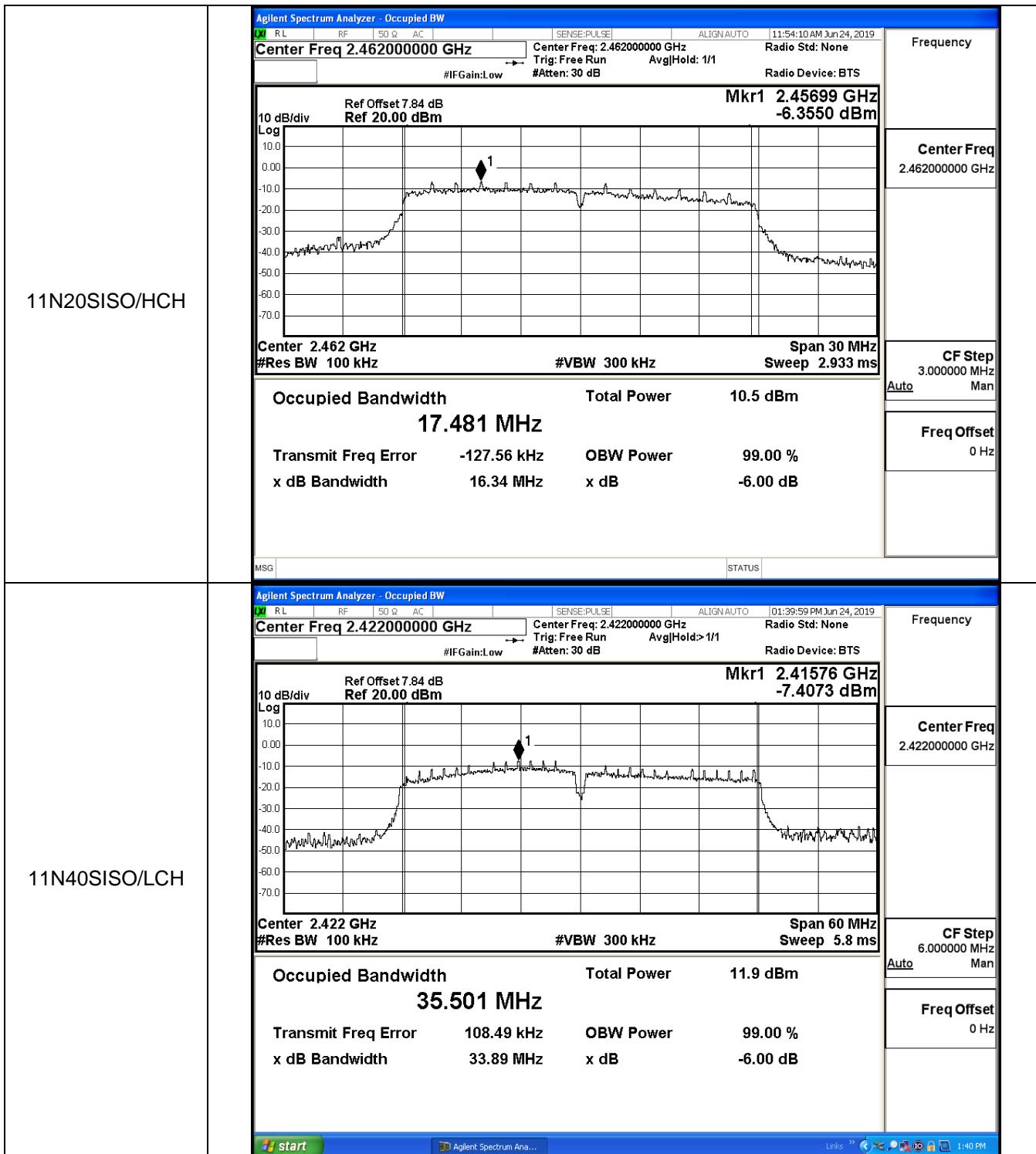


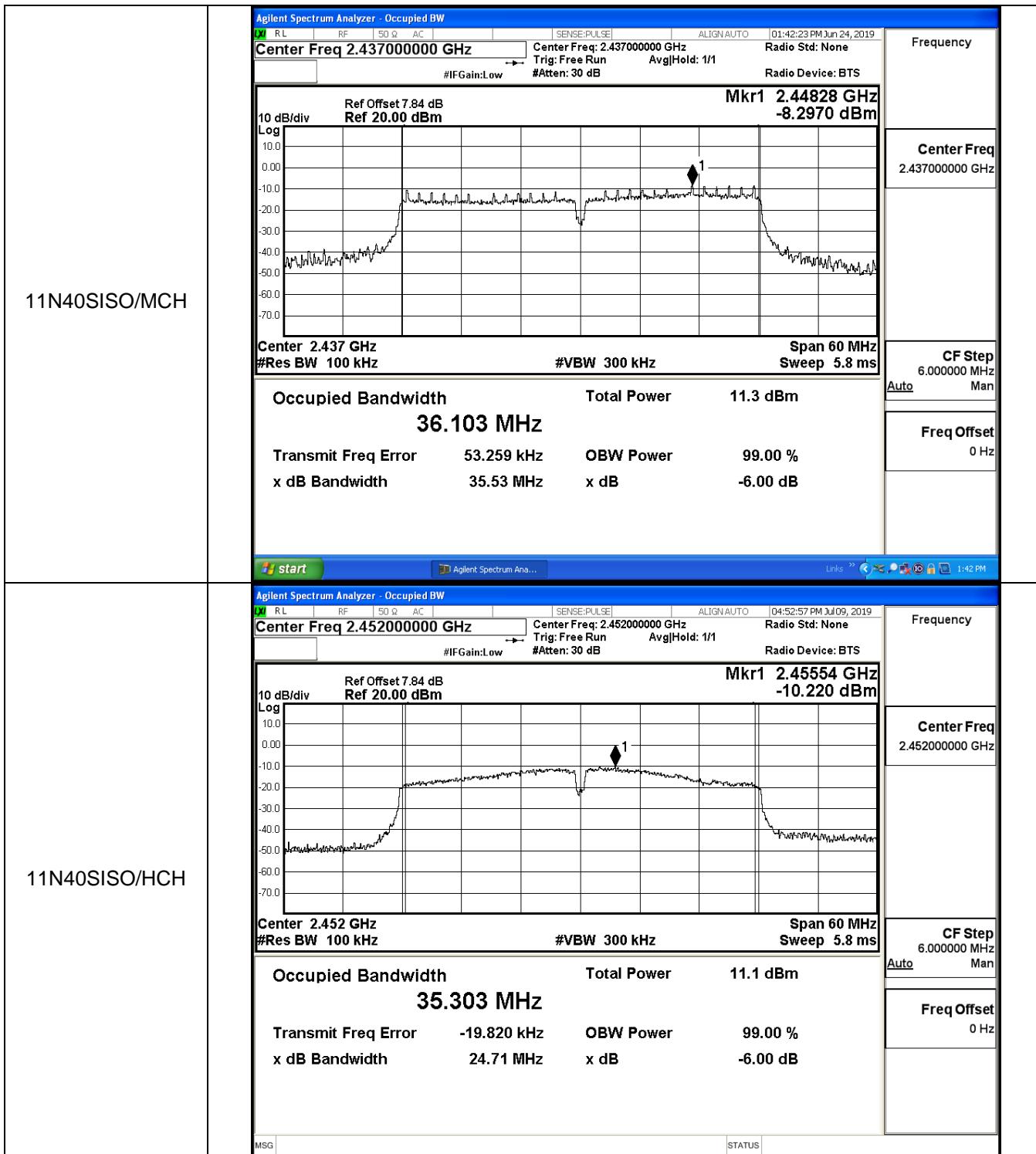












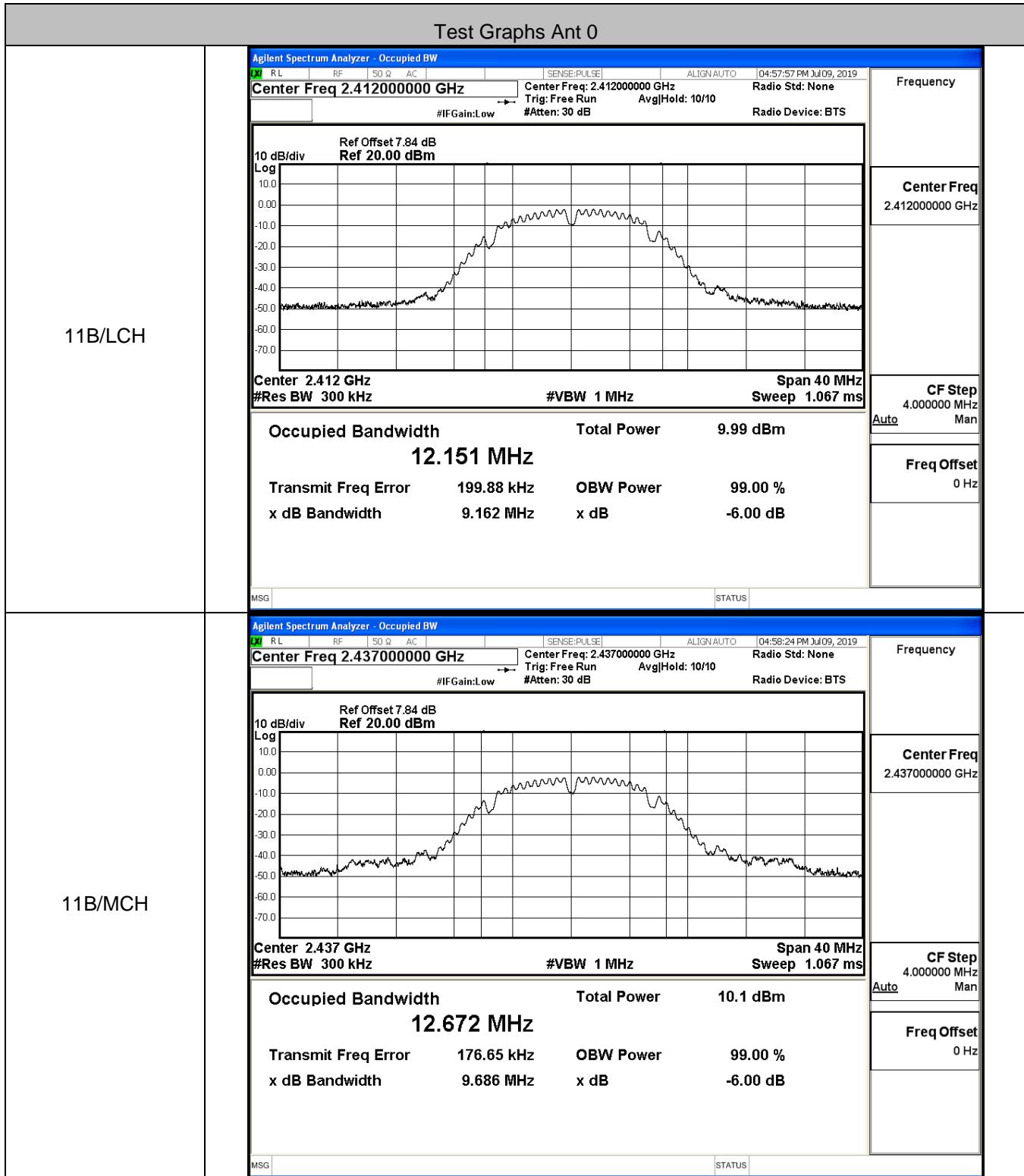
C.5 Occupied Bandwidth

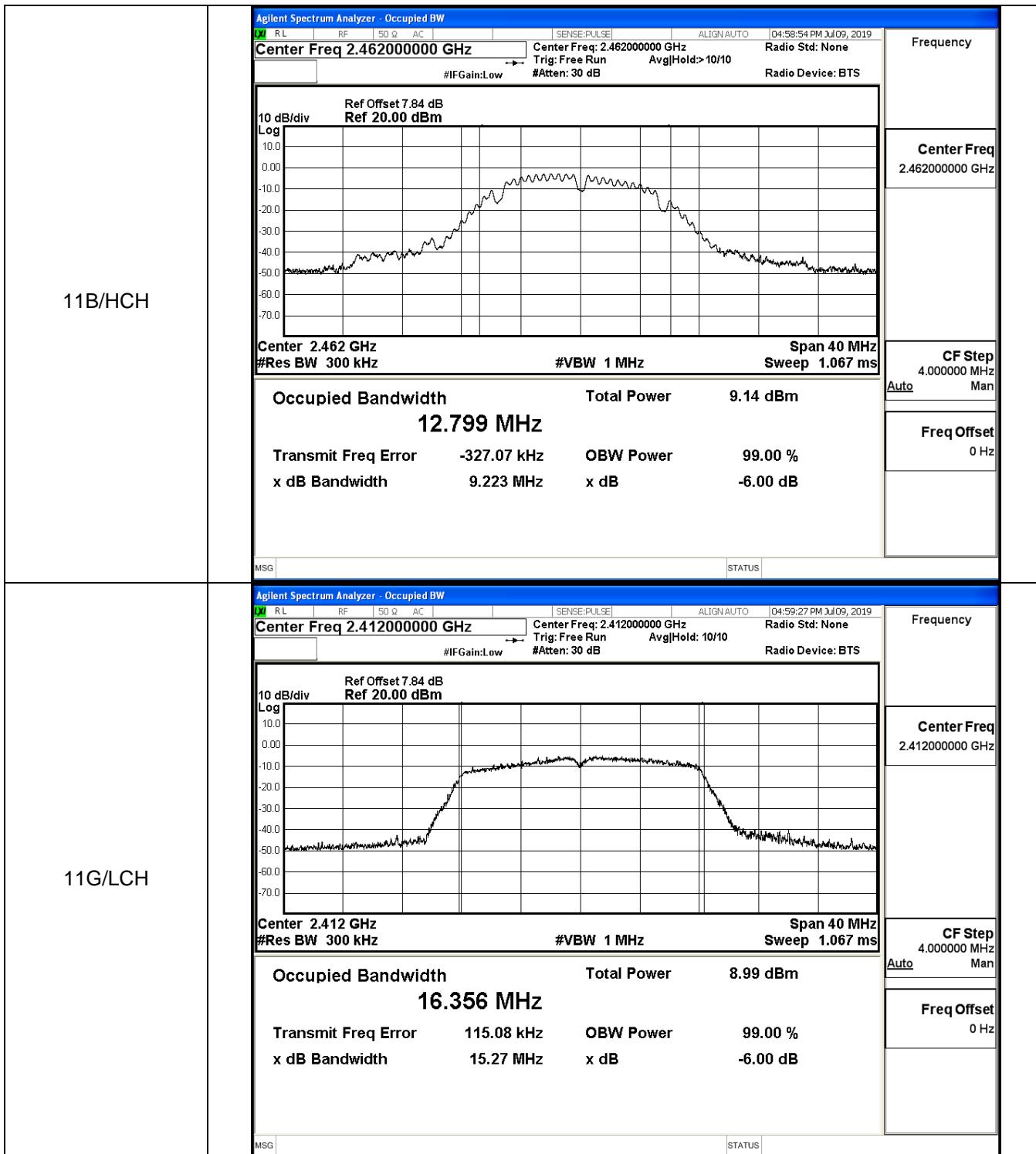
Antenna 0

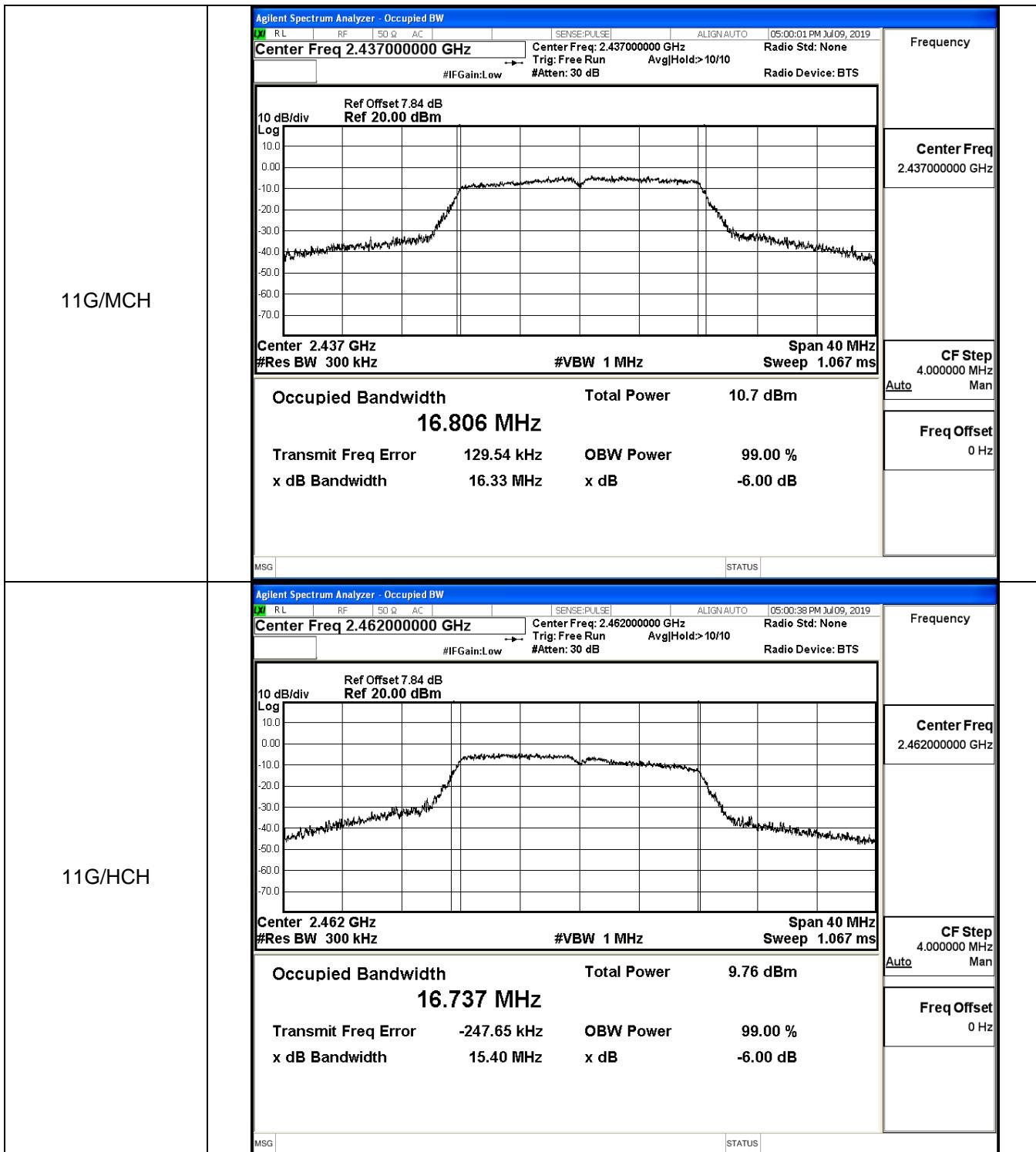
| Mode | Channel | Occupied Bandwidth [MHz] | Limit [MHz] | Verdict |
|-----------|---------|--------------------------|-------------|---------|
| 11B | LCH | 12.151 | No Limits | PASS |
| | MCH | 12.672 | No Limits | PASS |
| | HCH | 12.799 | No Limits | PASS |
| 11G | LCH | 16.356 | No Limits | PASS |
| | MCH | 16.806 | No Limits | PASS |
| | HCH | 16.737 | No Limits | PASS |
| 11N20SISO | LCH | 17.387 | No Limits | PASS |
| | MCH | 17.808 | No Limits | PASS |
| | HCH | 17.675 | No Limits | PASS |
| 11N40SISO | LCH | 35.710 | No Limits | PASS |
| | MCH | 36.402 | No Limits | PASS |
| | HCH | 35.351 | No Limits | PASS |

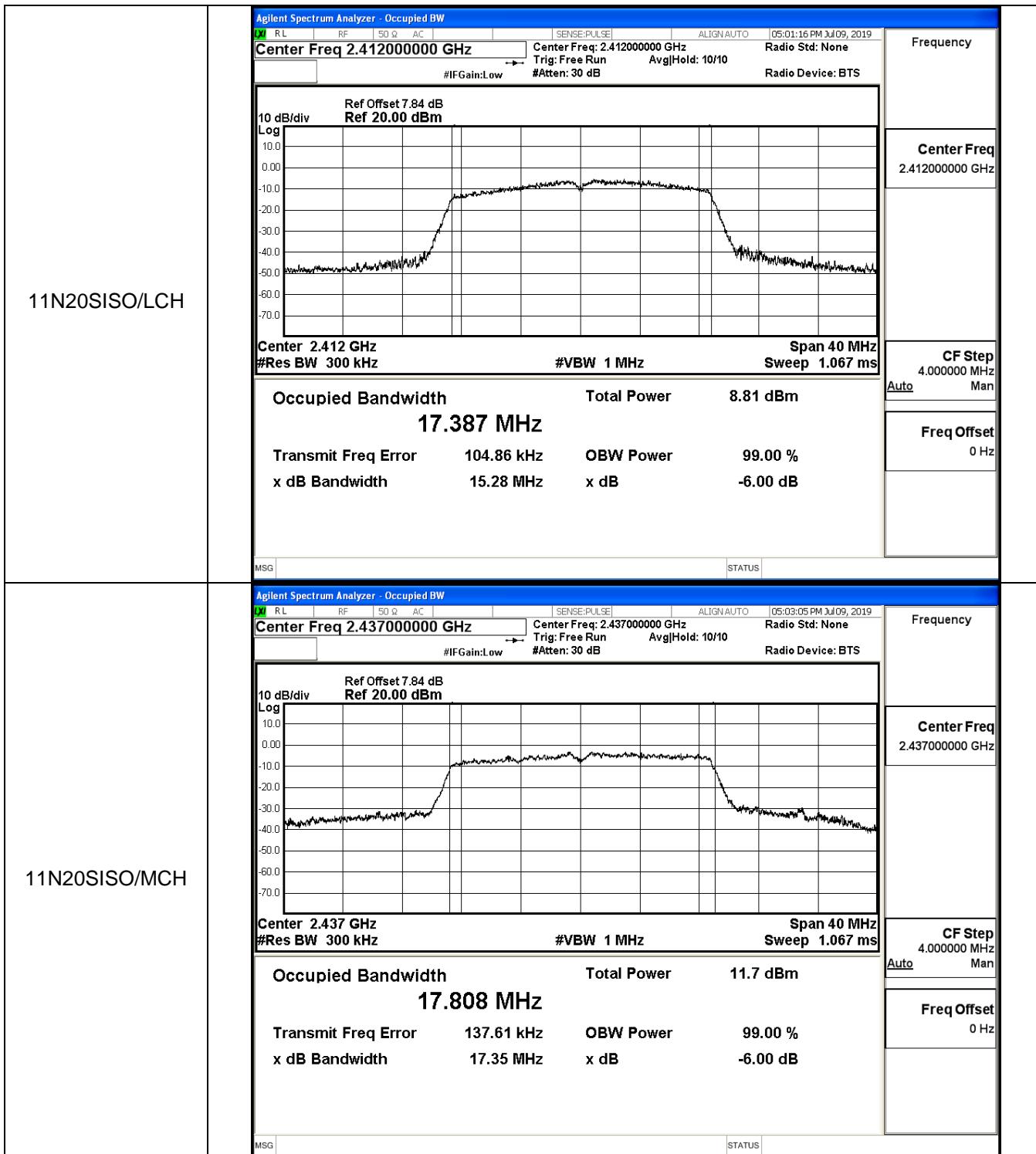
Antenna 1

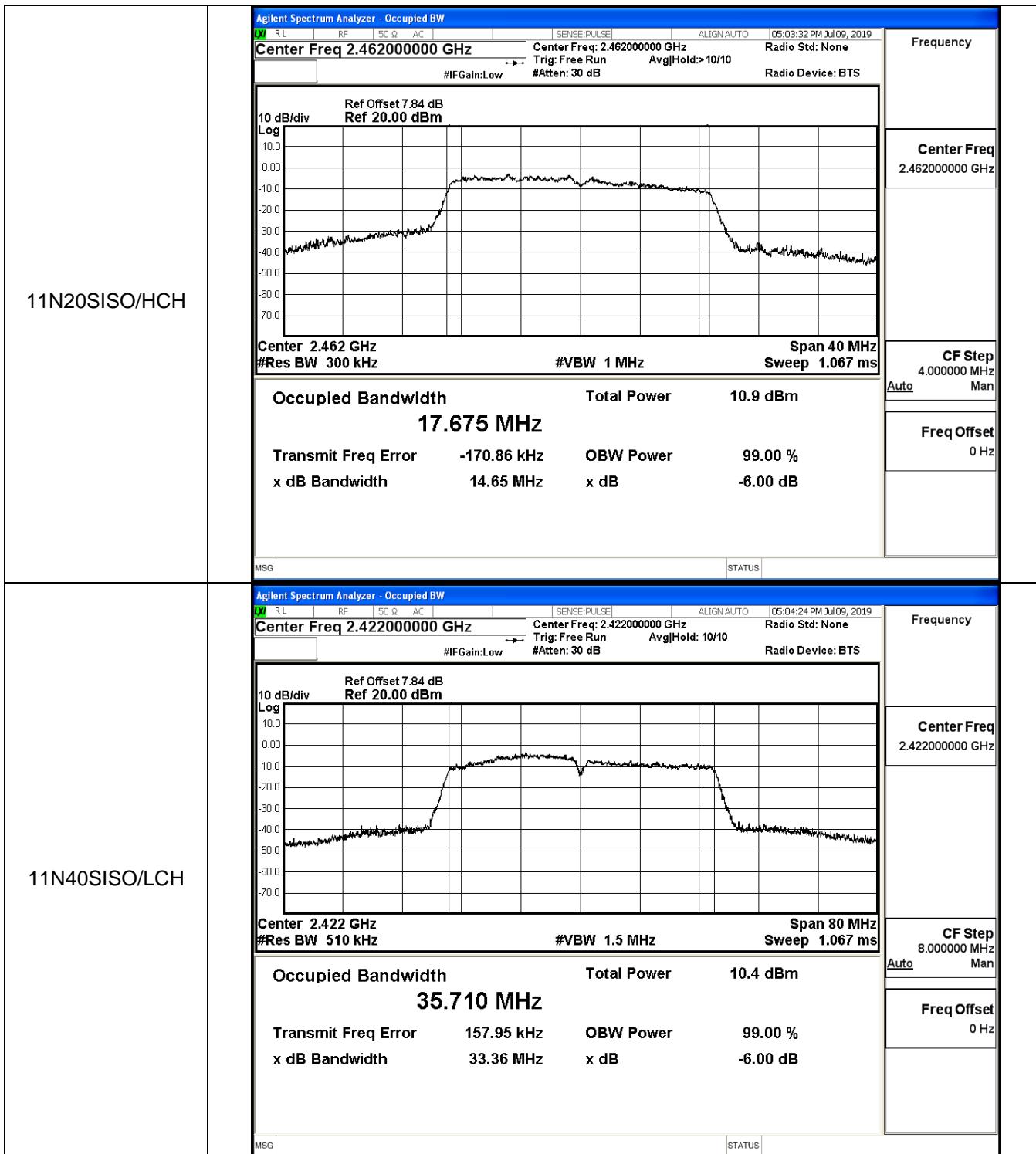
| Mode | Channel | Occupied Bandwidth [MHz] | Limit [MHz] | Verdict |
|-----------|---------|--------------------------|-------------|---------|
| 11B | LCH | 12.180 | No Limits | PASS |
| | MCH | 12.663 | No Limits | PASS |
| | HCH | 12.662 | No Limits | PASS |
| 11G | LCH | 16.373 | No Limits | PASS |
| | MCH | 16.807 | No Limits | PASS |
| | HCH | 16.690 | No Limits | PASS |
| 11N20SISO | LCH | 17.388 | No Limits | PASS |
| | MCH | 17.827 | No Limits | PASS |
| | HCH | 17.659 | No Limits | PASS |
| 11N40SISO | LCH | 35.755 | No Limits | PASS |
| | MCH | 36.465 | No Limits | PASS |
| | HCH | 35.417 | No Limits | PASS |

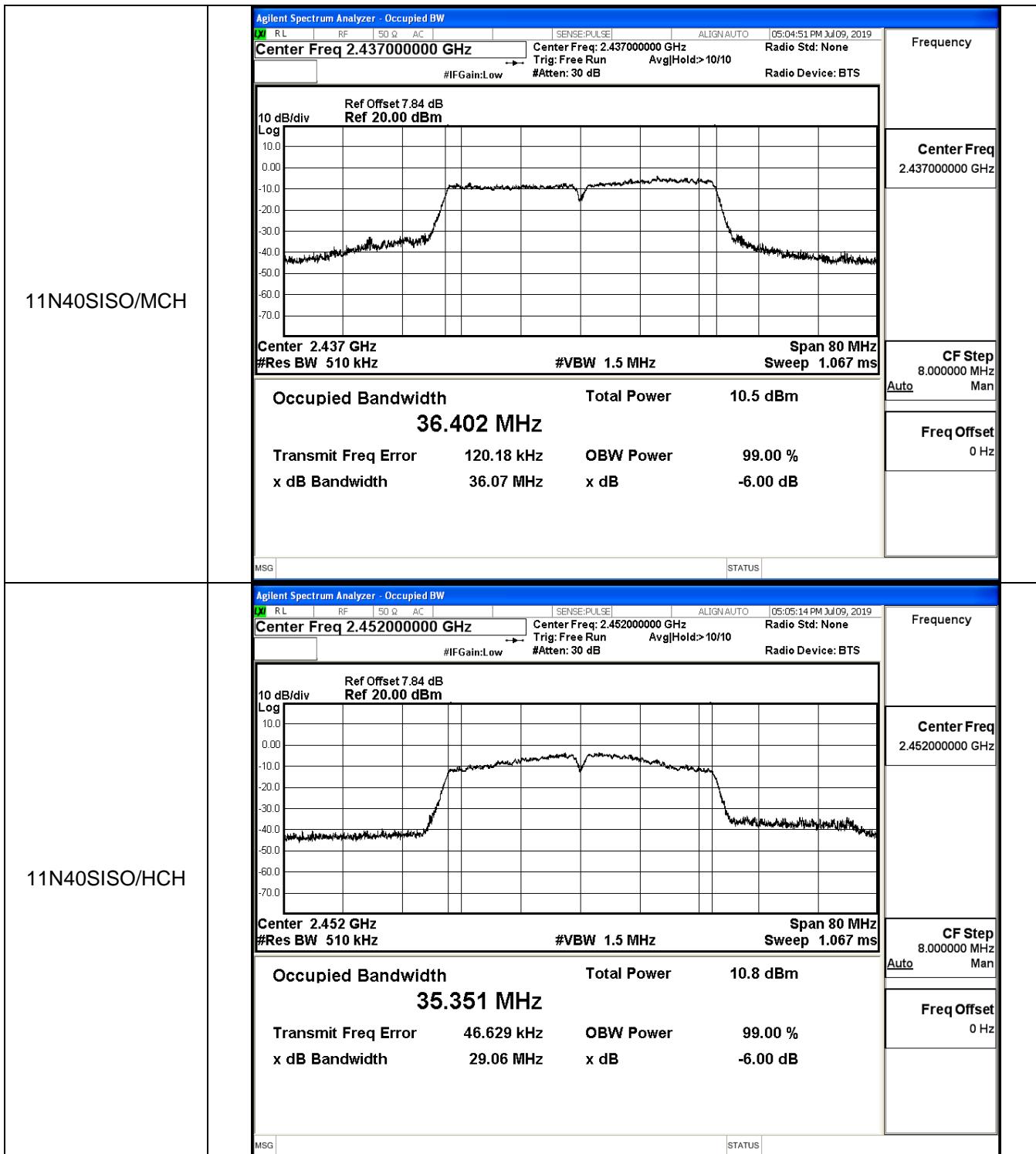


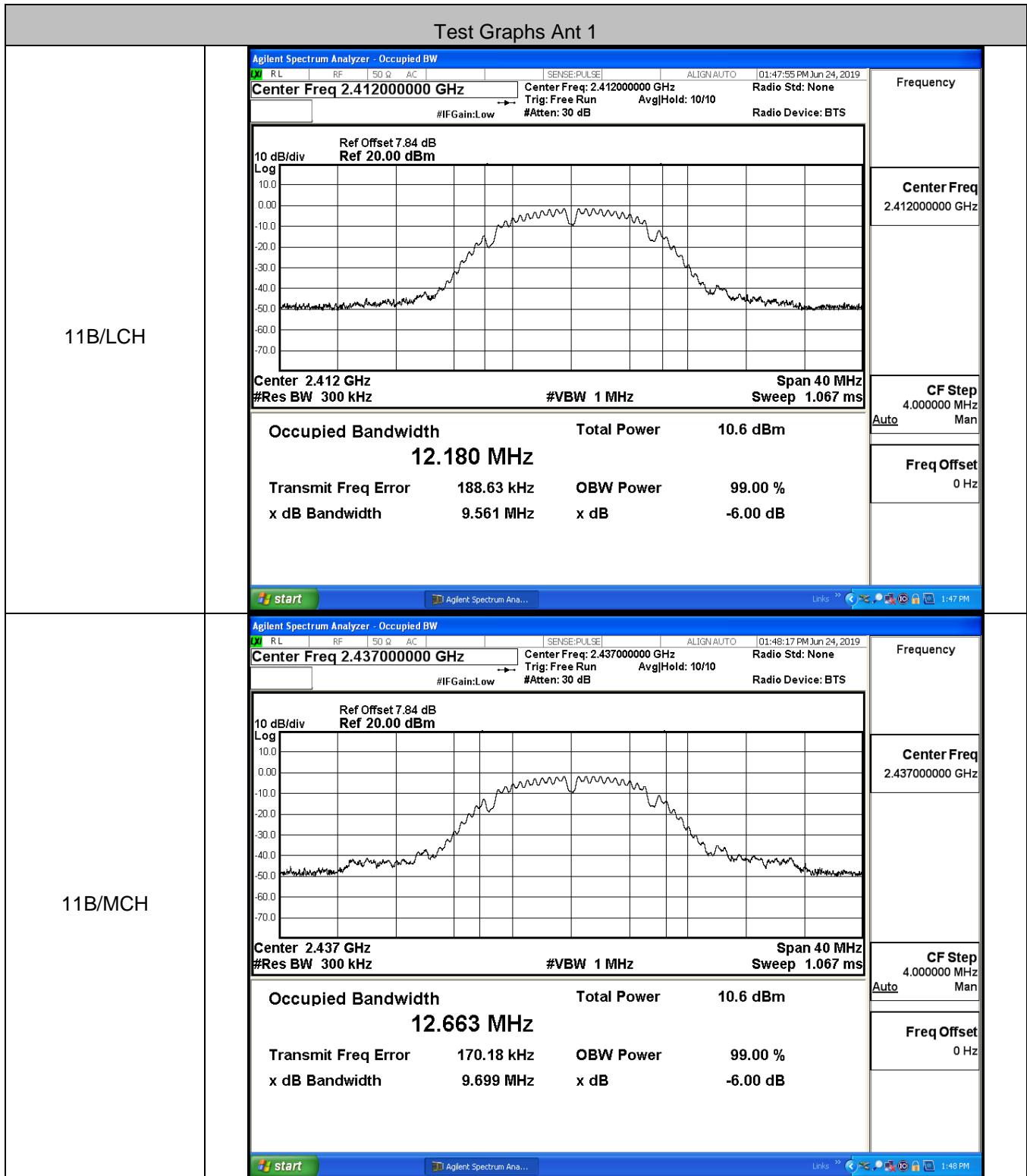


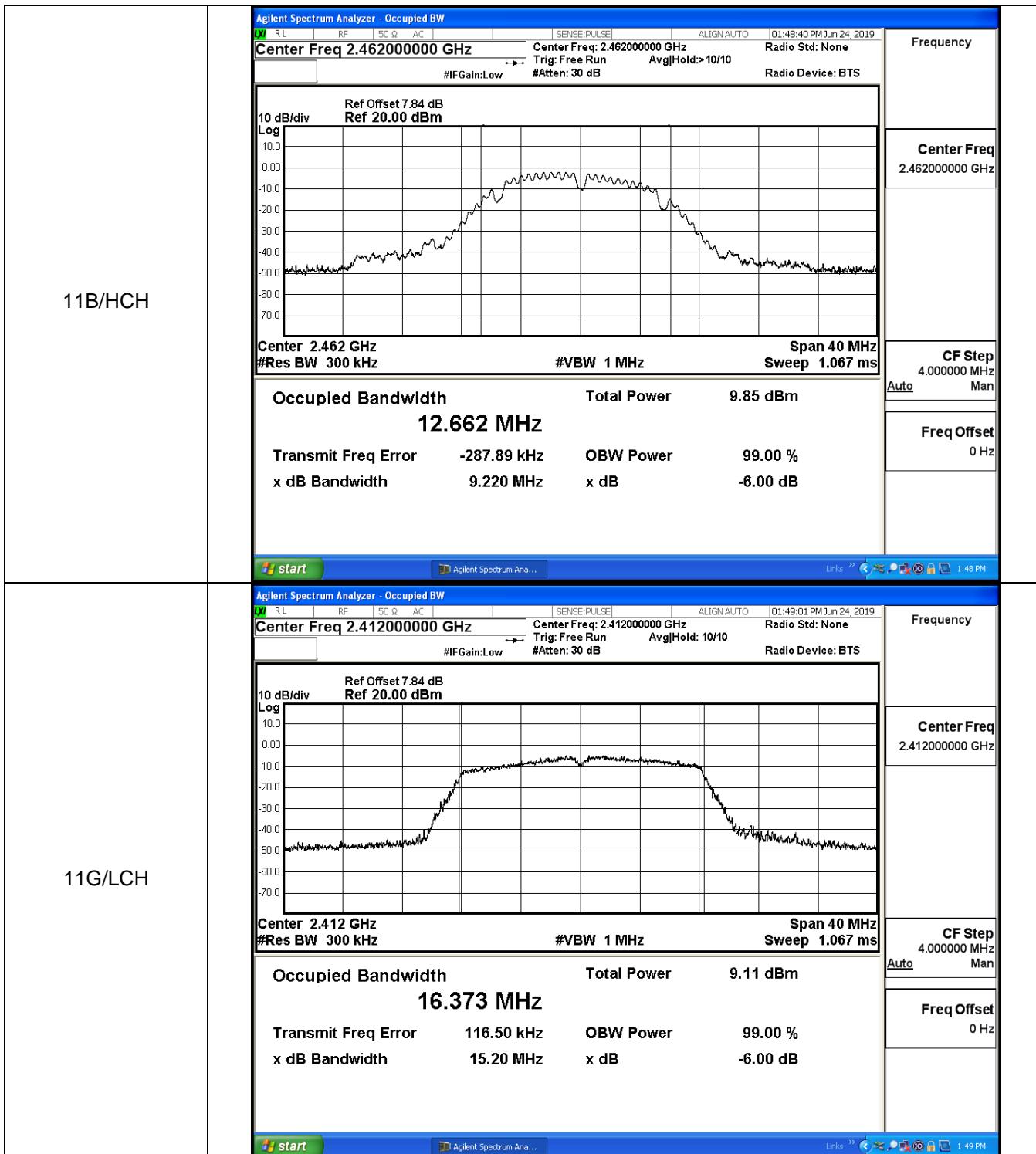


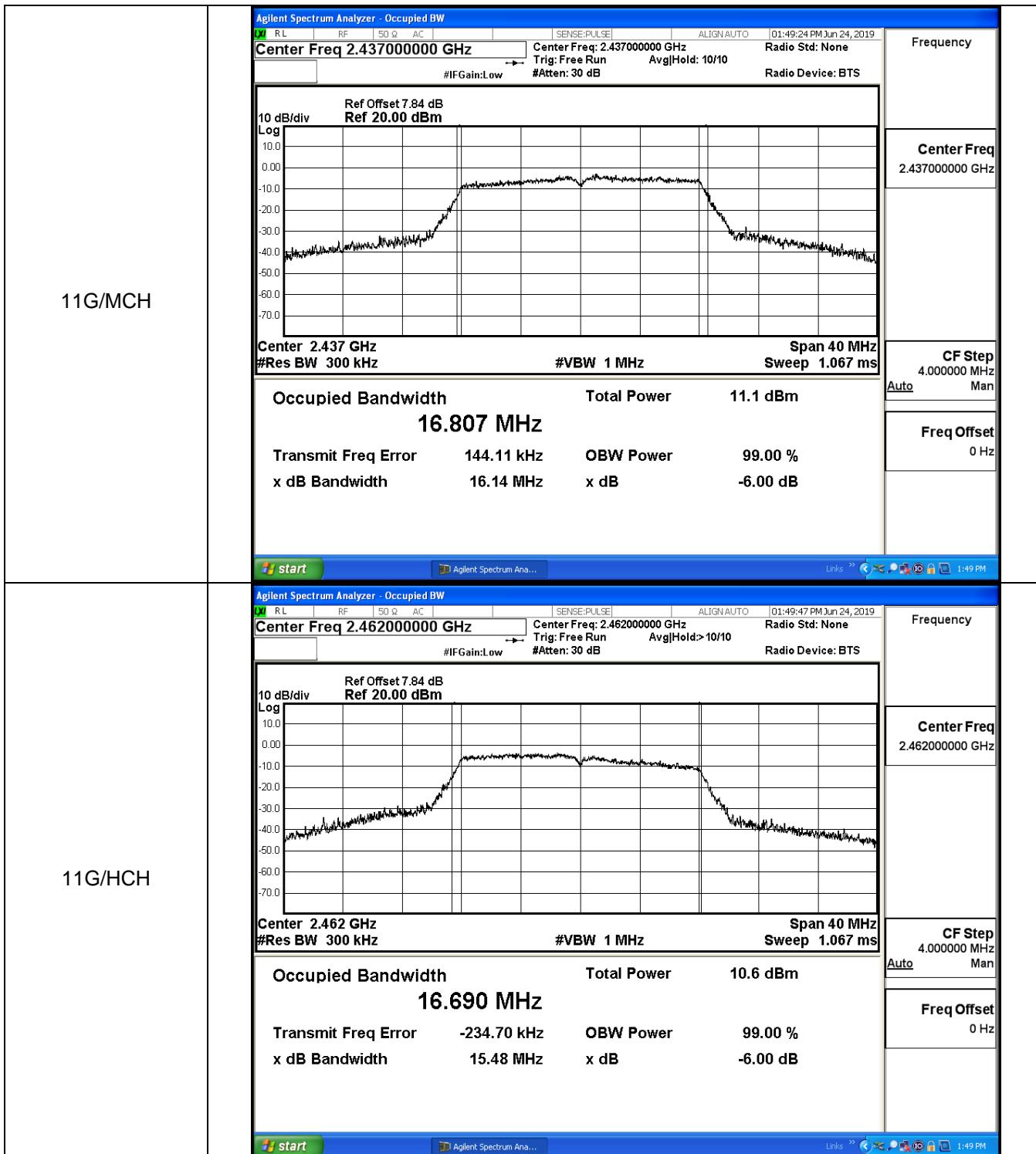


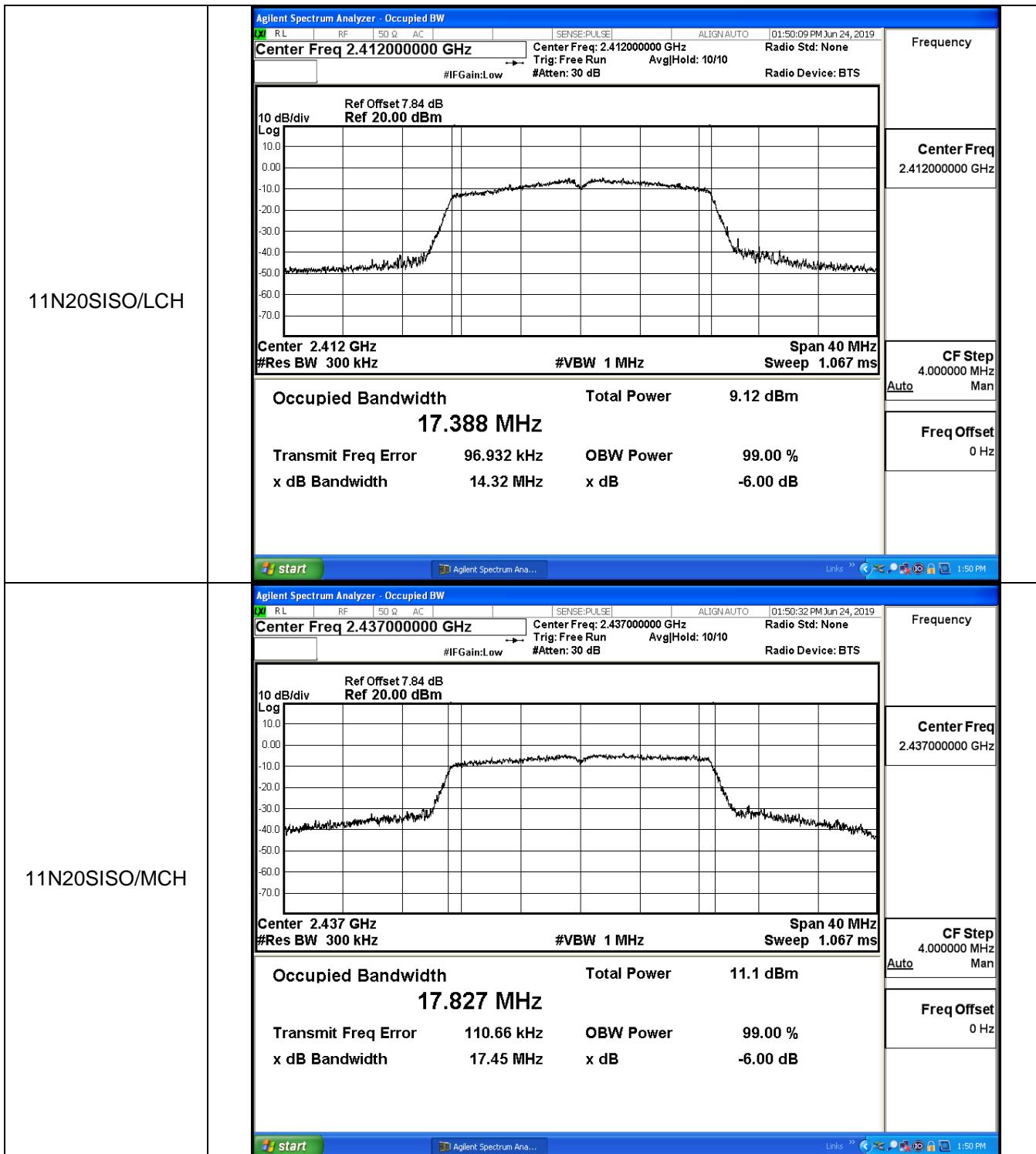


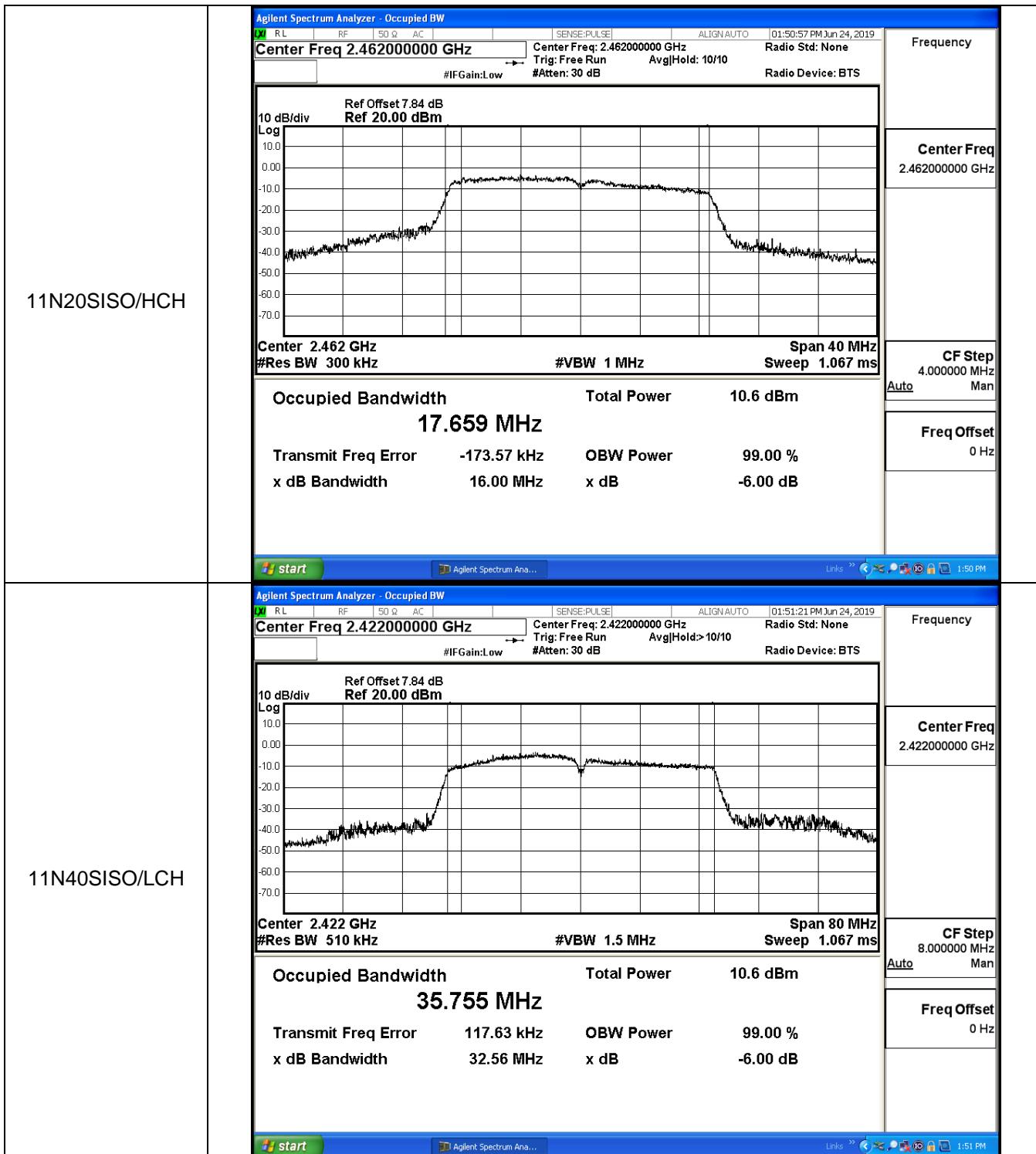


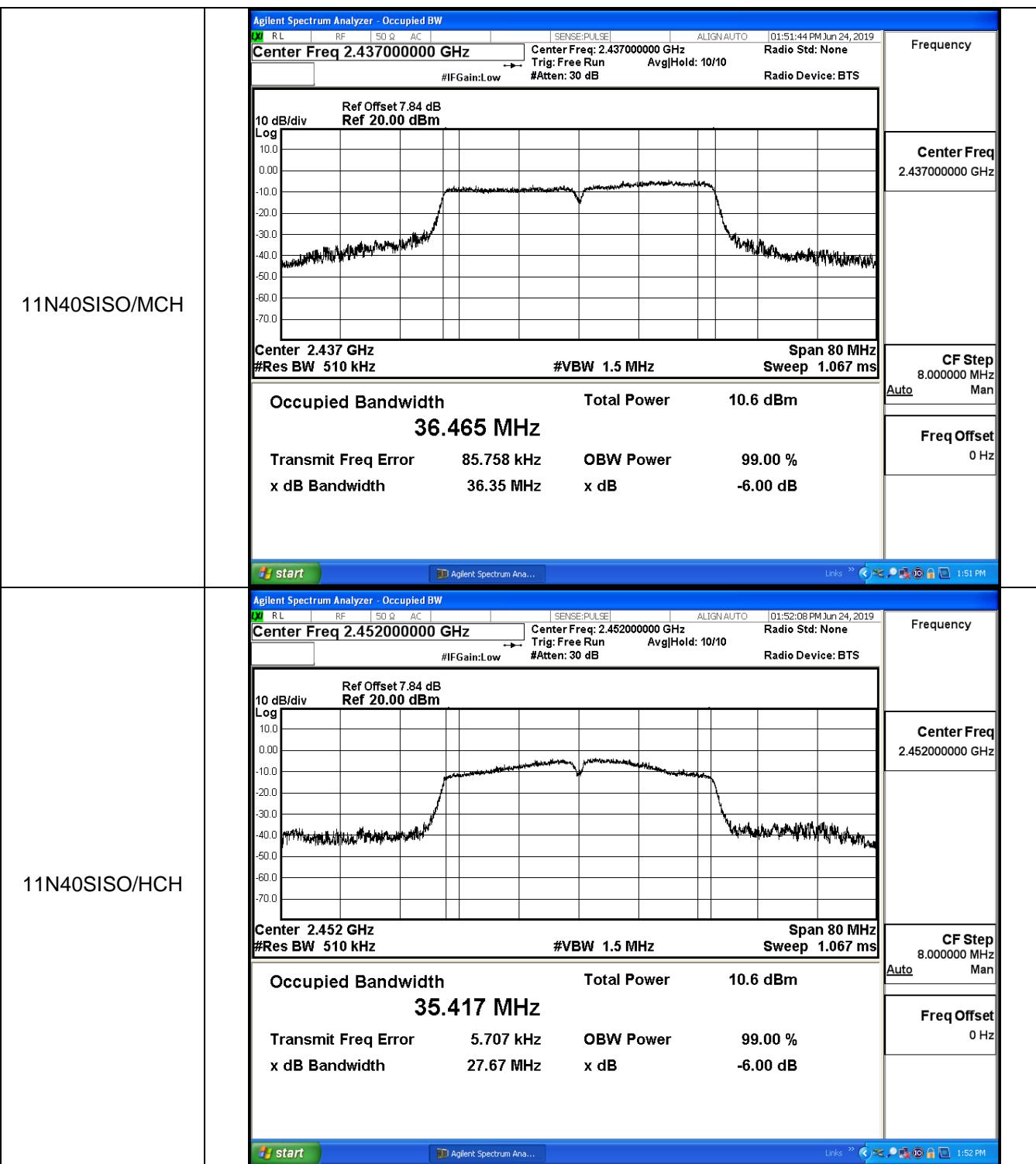












C.6 RF Conducted Spurious Emissions

Antenna 0

| Mode | Channel | Pref [dBm] | Max. Level [dBm] | Limit [dBm] | Verdict |
|---------------|---------|------------|------------------|-------------|---------|
| 11B | LCH | -3.616 | -43.679 | -23.616 | PASS |
| | MCH | -3.604 | -44.340 | -23.604 | PASS |
| | HCH | -4.374 | -43.143 | -24.374 | PASS |
| 11G | LCH | -6.809 | -43.243 | -26.809 | PASS |
| | MCH | -6.395 | -43.189 | -26.395 | PASS |
| | HCH | -6.17 | -44.502 | -26.170 | PASS |
| 11N20 SISO | LCH | -7.128 | -44.288 | -27.128 | PASS |
| | MCH | -5.77 | -43.478 | -25.770 | PASS |
| | HCH | -5.964 | -44.415 | -25.964 | PASS |
| 11N40 SISO | LCH | -10.164 | -44.431 | -30.164 | PASS |
| | MCH | -10.365 | -44.647 | -30.365 | PASS |
| | HCH | -10.155 | -44.224 | -30.155 | PASS |

Antenna 1

| Mode | Channel | Pref [dBm] | Max. Level [dBm] | Limit [dBm] | Verdict |
|---------------|---------|------------|------------------|-------------|---------|
| 11B | LCH | -2.091 | -43.832 | -22.091 | PASS |
| | MCH | -2.137 | -44.129 | -22.137 | PASS |
| | HCH | -2.319 | -41.099 | -22.319 | PASS |
| 11G | LCH | -6.615 | -44.018 | -26.615 | PASS |
| | MCH | -6.249 | -44.012 | -26.249 | PASS |
| | HCH | -5.869 | -44.321 | -25.869 | PASS |
| 11N20 SISO | LCH | -7.781 | -43.649 | -27.781 | PASS |
| | MCH | -5.665 | -43.816 | -25.665 | PASS |
| | HCH | -5.794 | -44.044 | -25.794 | PASS |
| 11N40 SISO | LCH | -7.481 | -41.934 | -27.481 | PASS |
| | MCH | -8.688 | -43.918 | -28.688 | PASS |
| | HCH | -7.011 | -44.298 | -27.011 | PASS |

