

Appendix: 2.4G WIFI

Contents

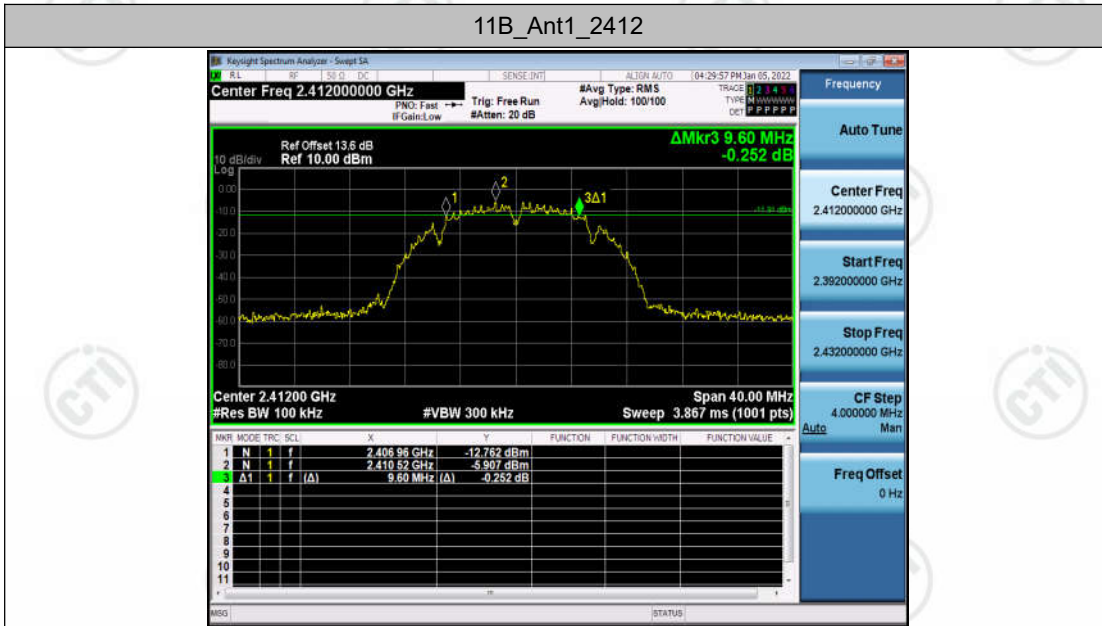
| | |
|---|----|
| Appendix A: DTS Bandwidth..... | 3 |
| Test Result..... | 3 |
| Test Graphs..... | 4 |
| Appendix B: Occupied Channel Bandwidth..... | 9 |
| Test Result..... | 9 |
| Test Graphs..... | 10 |
| Appendix C: Maximum conducted output power..... | 15 |
| Test Result..... | 15 |
| Appendix D: Maximum power spectral density..... | 16 |
| Test Result..... | 16 |
| Test Graphs..... | 17 |
| Appendix E: Band edge measurements..... | 22 |
| Test Result..... | 22 |
| Test Graphs..... | 23 |
| Appendix F: Conducted Spurious Emission..... | 26 |
| Test Result..... | 26 |
| Test Graphs..... | 27 |
| Appendix G: Duty Cycle..... | 41 |
| Test Result..... | 41 |
| Test Graphs..... | 42 |

Appendix A: DTS Bandwidth**Test Result**

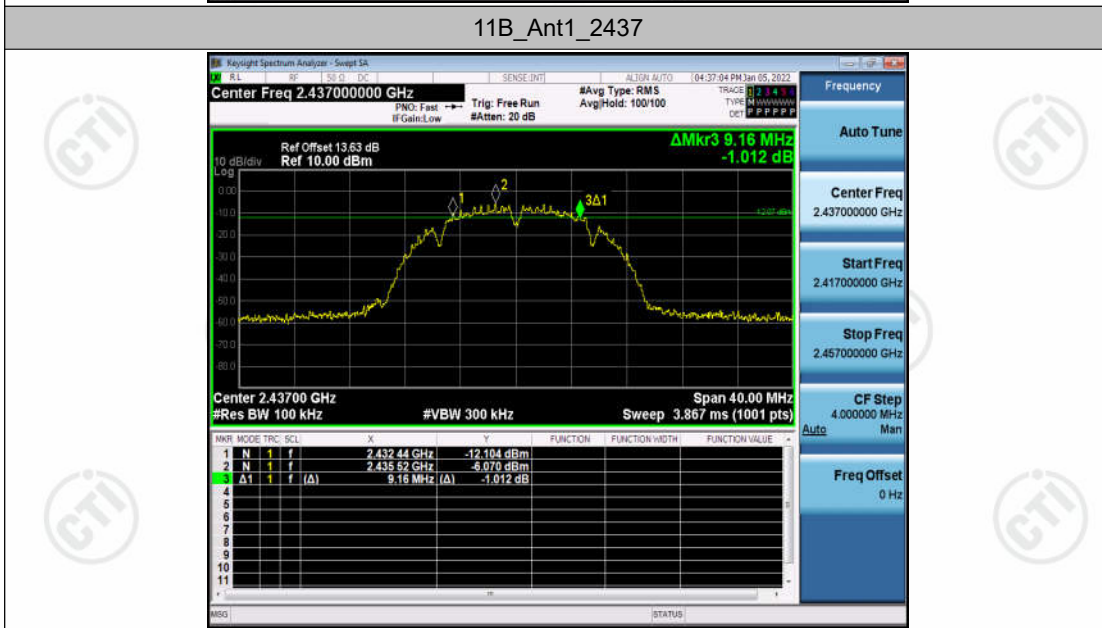
| Test Mode | Antenna | Channel | DTS BW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|---------------|---------|---------|--------------|----------|----------|------------|---------|
| 11B | Ant1 | 2412 | 9.600 | 2406.960 | 2416.560 | 0.5 | PASS |
| | | 2437 | 9.160 | 2432.440 | 2441.600 | 0.5 | PASS |
| | | 2462 | 9.160 | 2457.400 | 2466.560 | 0.5 | PASS |
| 11G | Ant1 | 2412 | 16.440 | 2403.800 | 2420.240 | 0.5 | PASS |
| | | 2437 | 16.640 | 2428.720 | 2445.360 | 0.5 | PASS |
| | | 2462 | 16.440 | 2453.800 | 2470.240 | 0.5 | PASS |
| 11N20SI SO | Ant1 | 2412 | 17.640 | 2403.200 | 2420.840 | 0.5 | PASS |
| | | 2437 | 17.640 | 2428.200 | 2445.840 | 0.5 | PASS |
| | | 2462 | 17.400 | 2453.200 | 2470.600 | 0.5 | PASS |

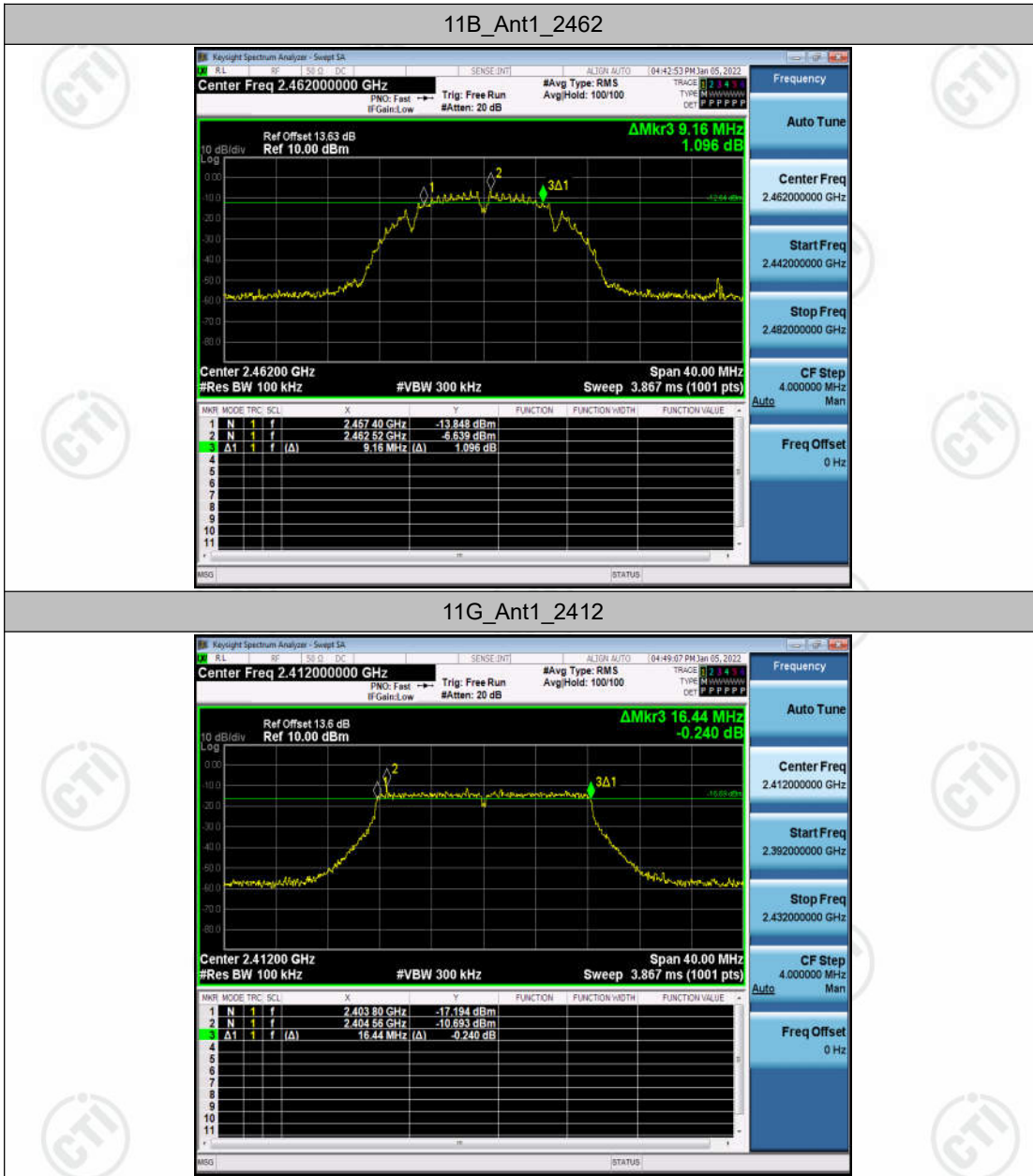
Test Graphs

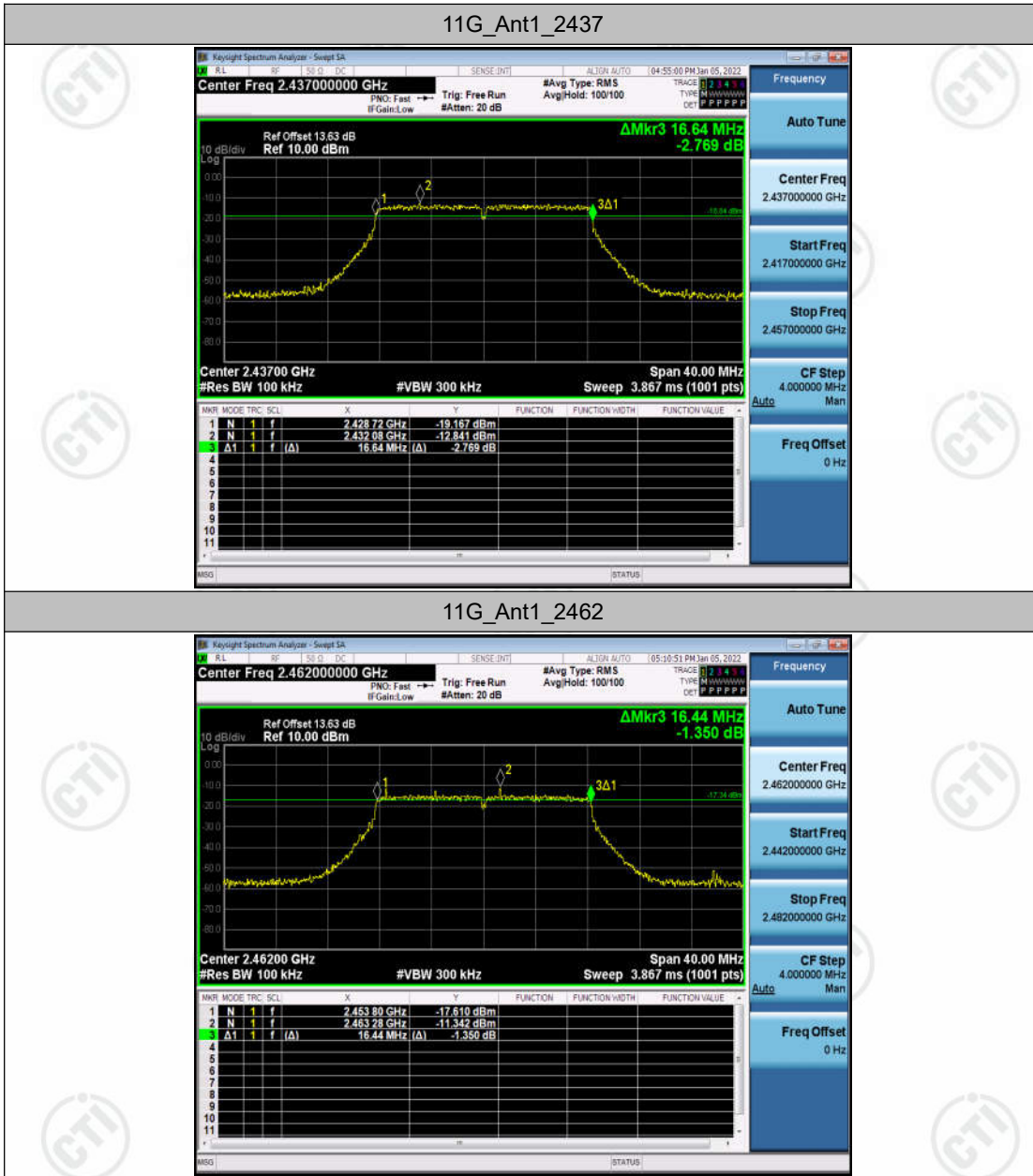
11B_Ant1_2412

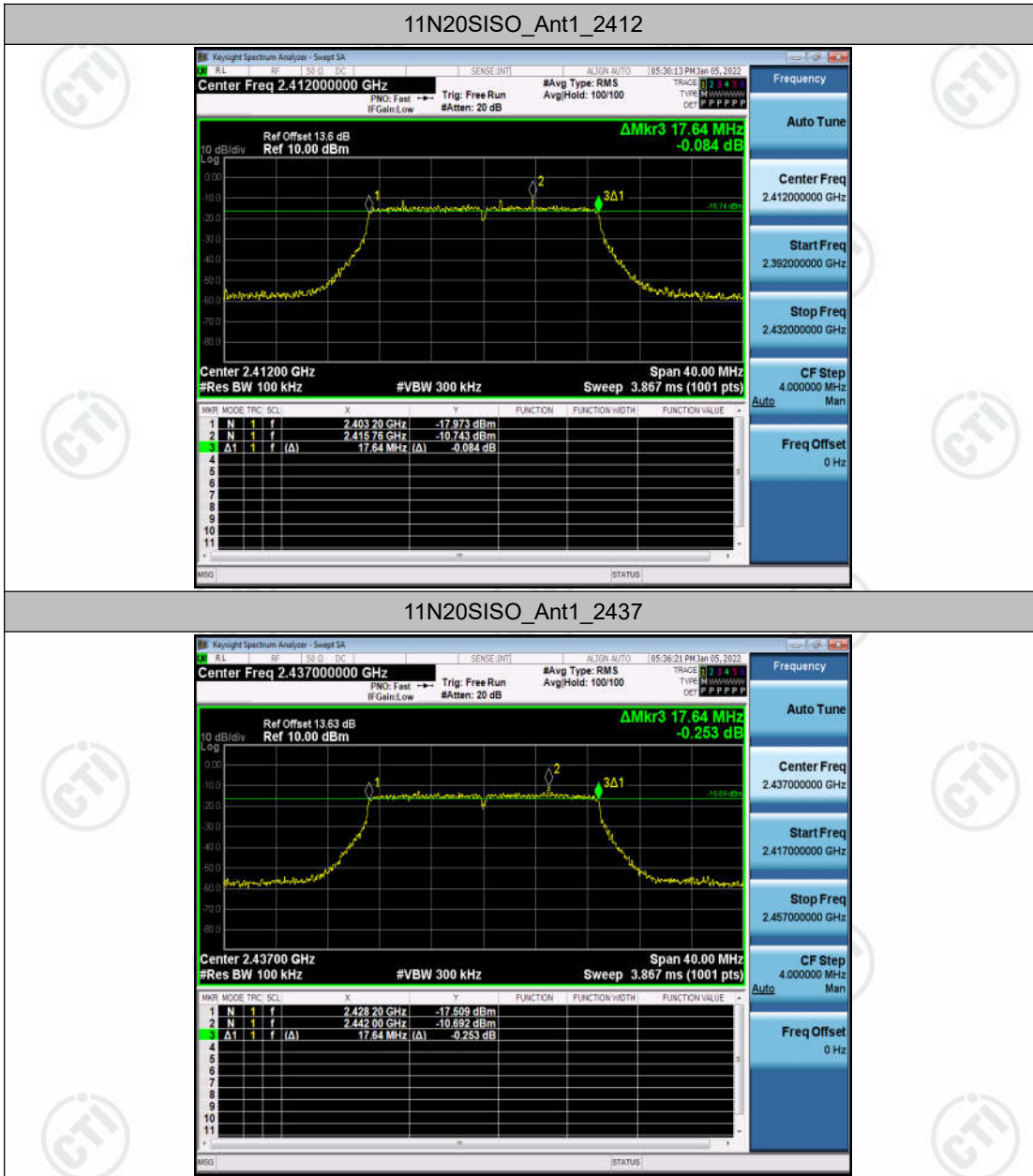


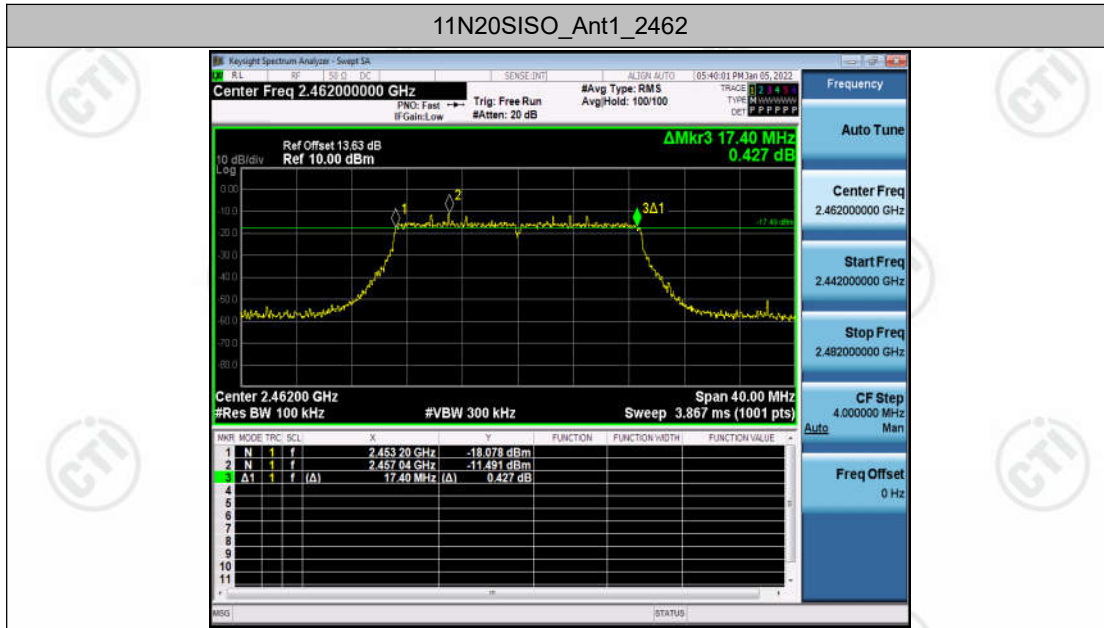
11B_Ant1_2437







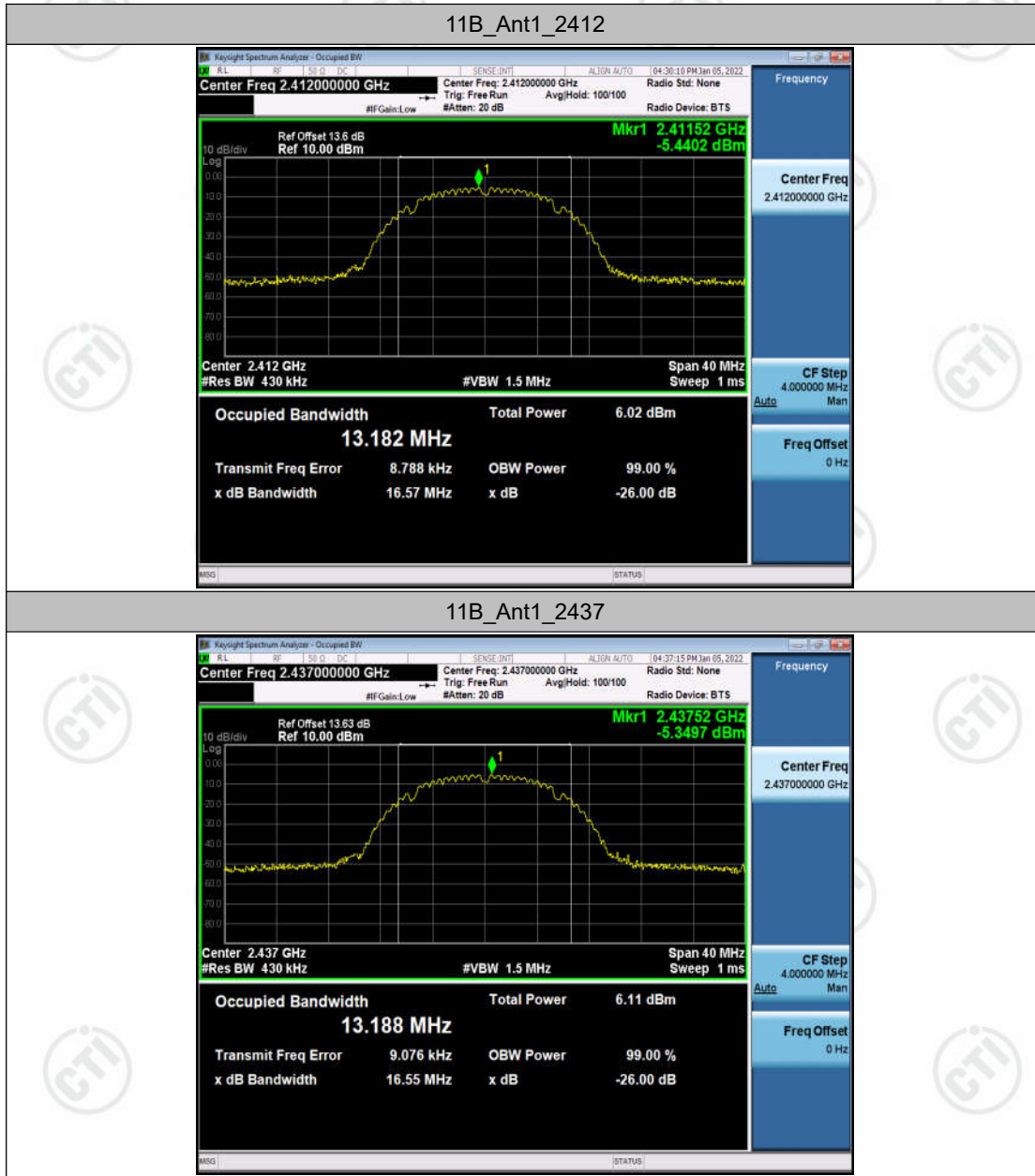


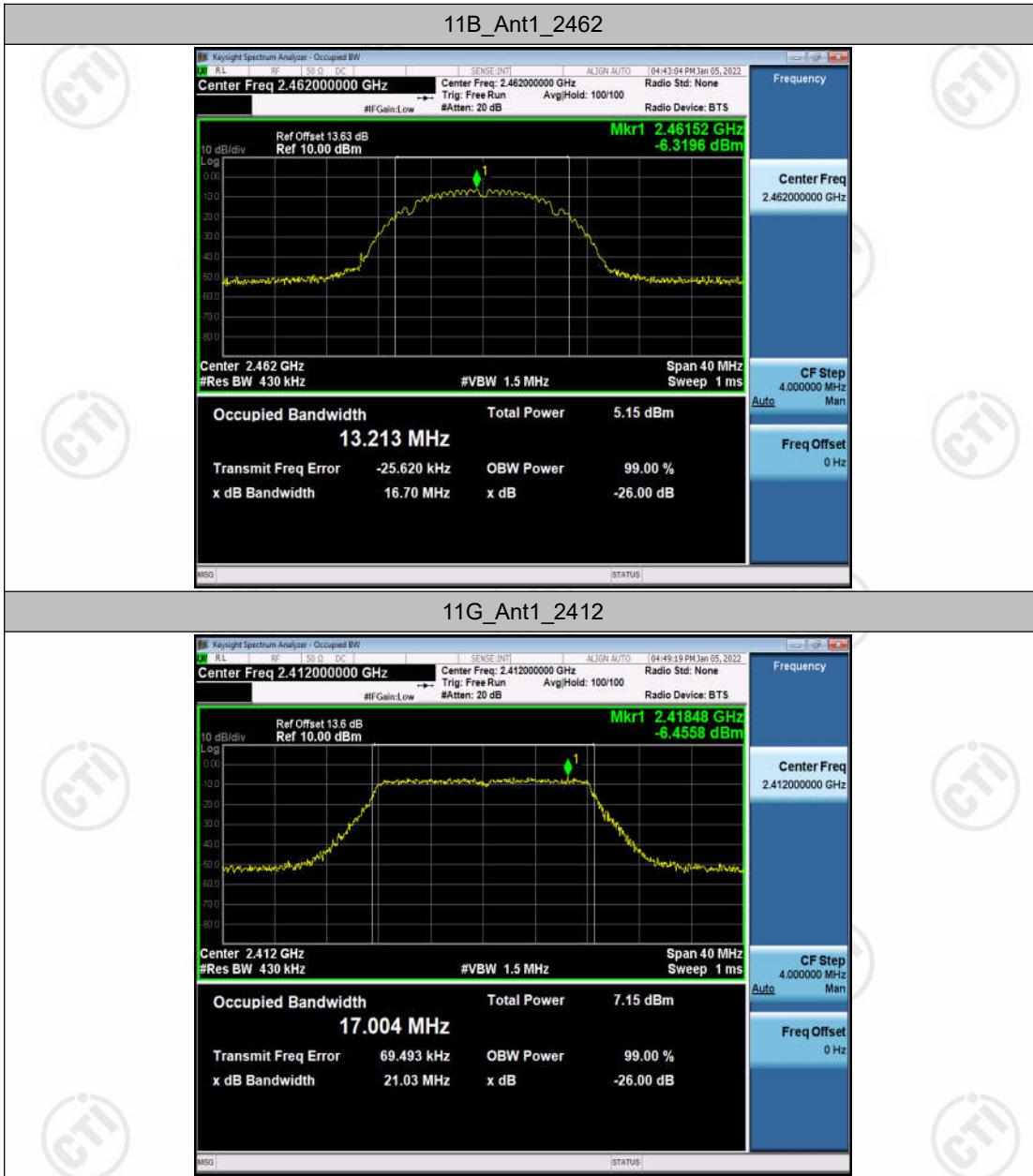


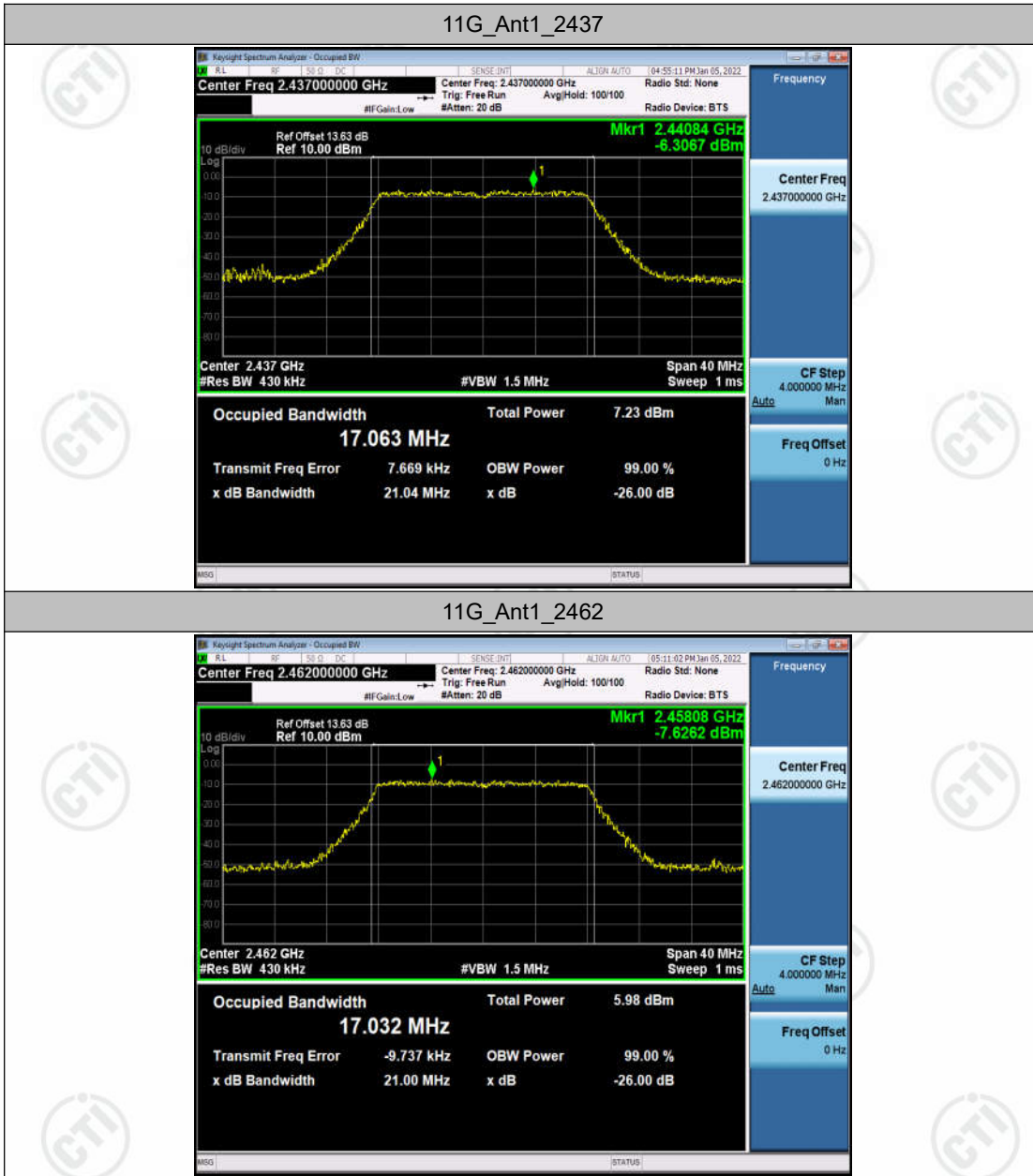
Appendix B: Occupied Channel Bandwidth**Test Result**

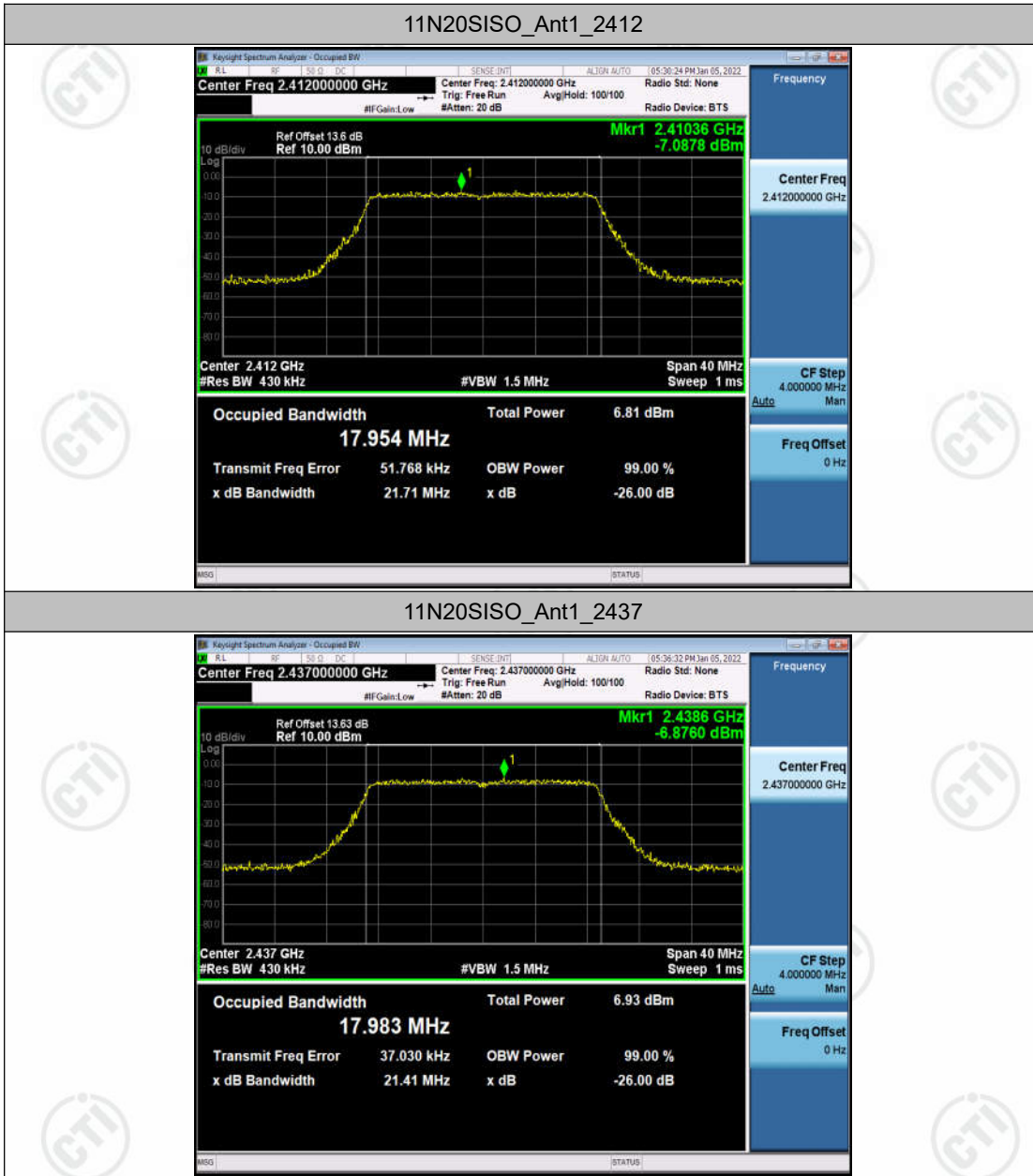
| Test Mode | Antenna | Channel | OCB [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|---------------|---------|---------|-----------|----------|----------|------------|---------|
| 11B | Ant1 | 2412 | 13.182 | 2405.418 | 2418.600 | --- | PASS |
| | | 2437 | 13.188 | 2430.415 | 2443.603 | --- | PASS |
| | | 2462 | 13.213 | 2455.368 | 2468.581 | --- | PASS |
| 11G | Ant1 | 2412 | 17.004 | 2403.567 | 2420.571 | --- | PASS |
| | | 2437 | 17.063 | 2428.476 | 2445.539 | --- | PASS |
| | | 2462 | 17.032 | 2453.474 | 2470.506 | --- | PASS |
| 11N20SI SO | Ant1 | 2412 | 17.954 | 2403.075 | 2421.029 | --- | PASS |
| | | 2437 | 17.983 | 2428.046 | 2446.029 | --- | PASS |
| | | 2462 | 18.025 | 2452.999 | 2471.024 | --- | PASS |

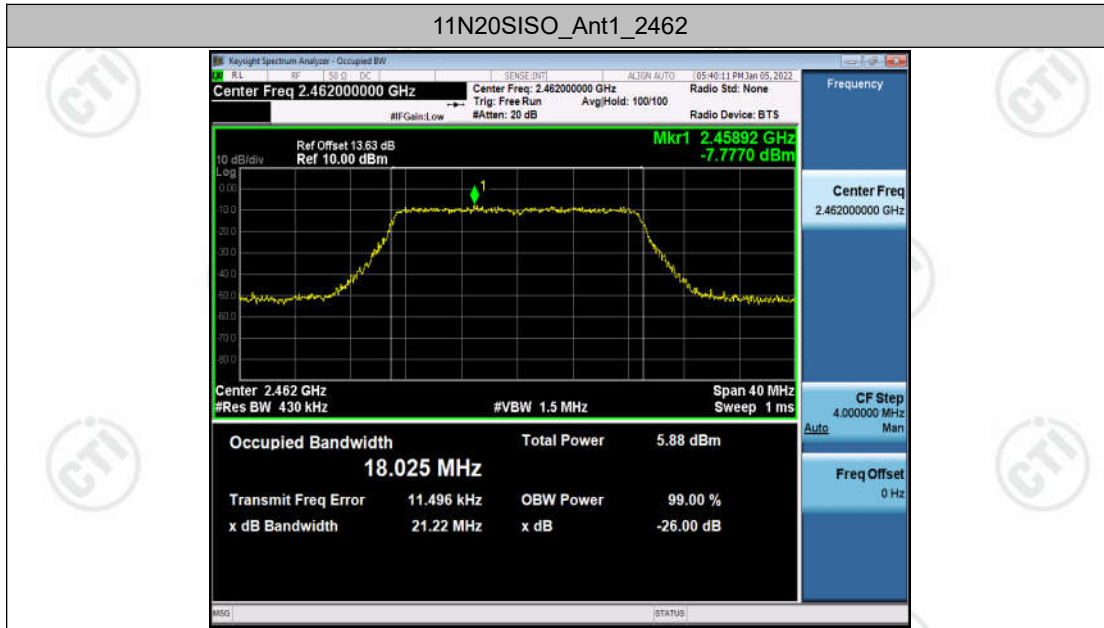
Test Graphs











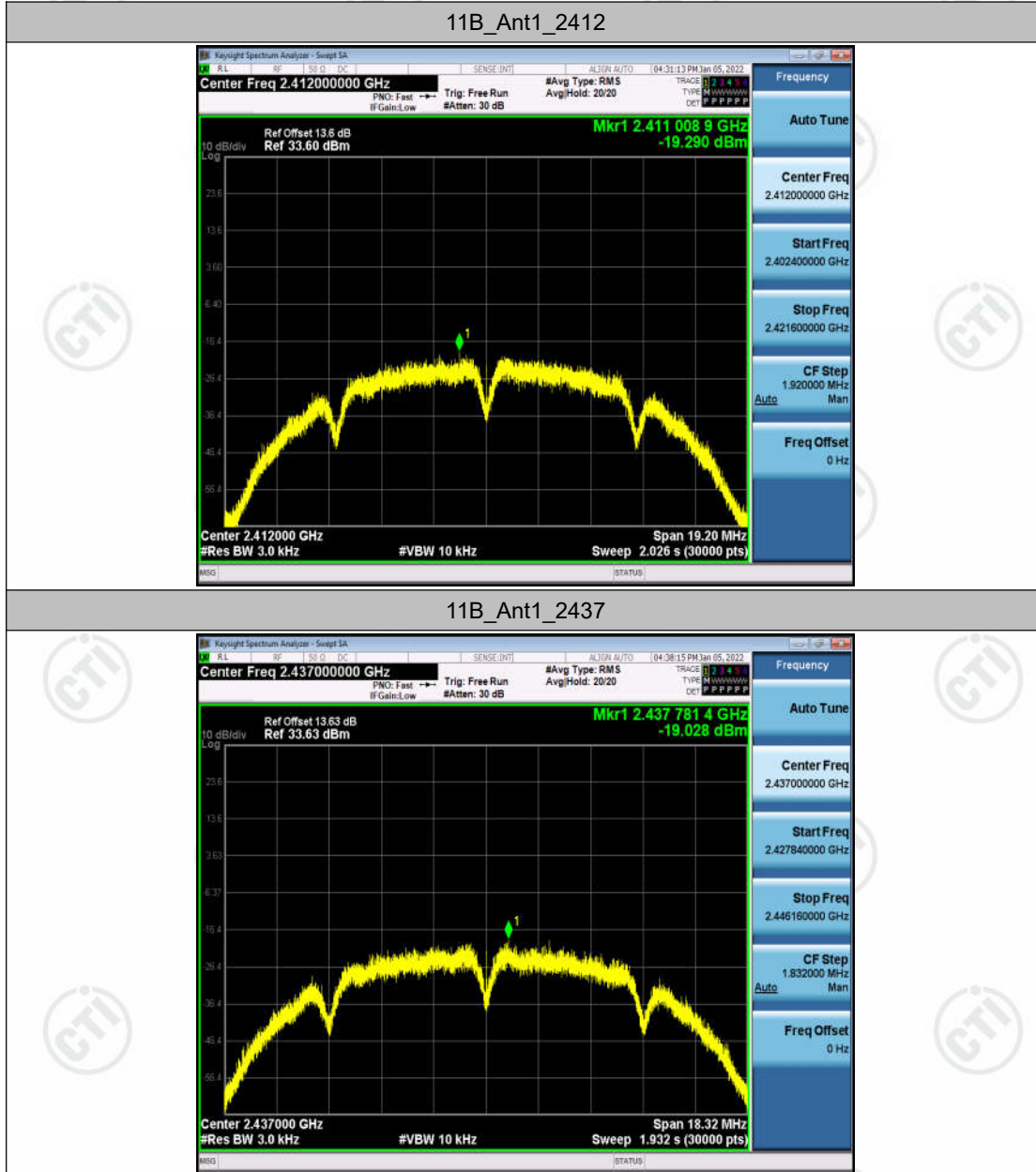
Appendix C: Maximum conducted output power**Test Result**

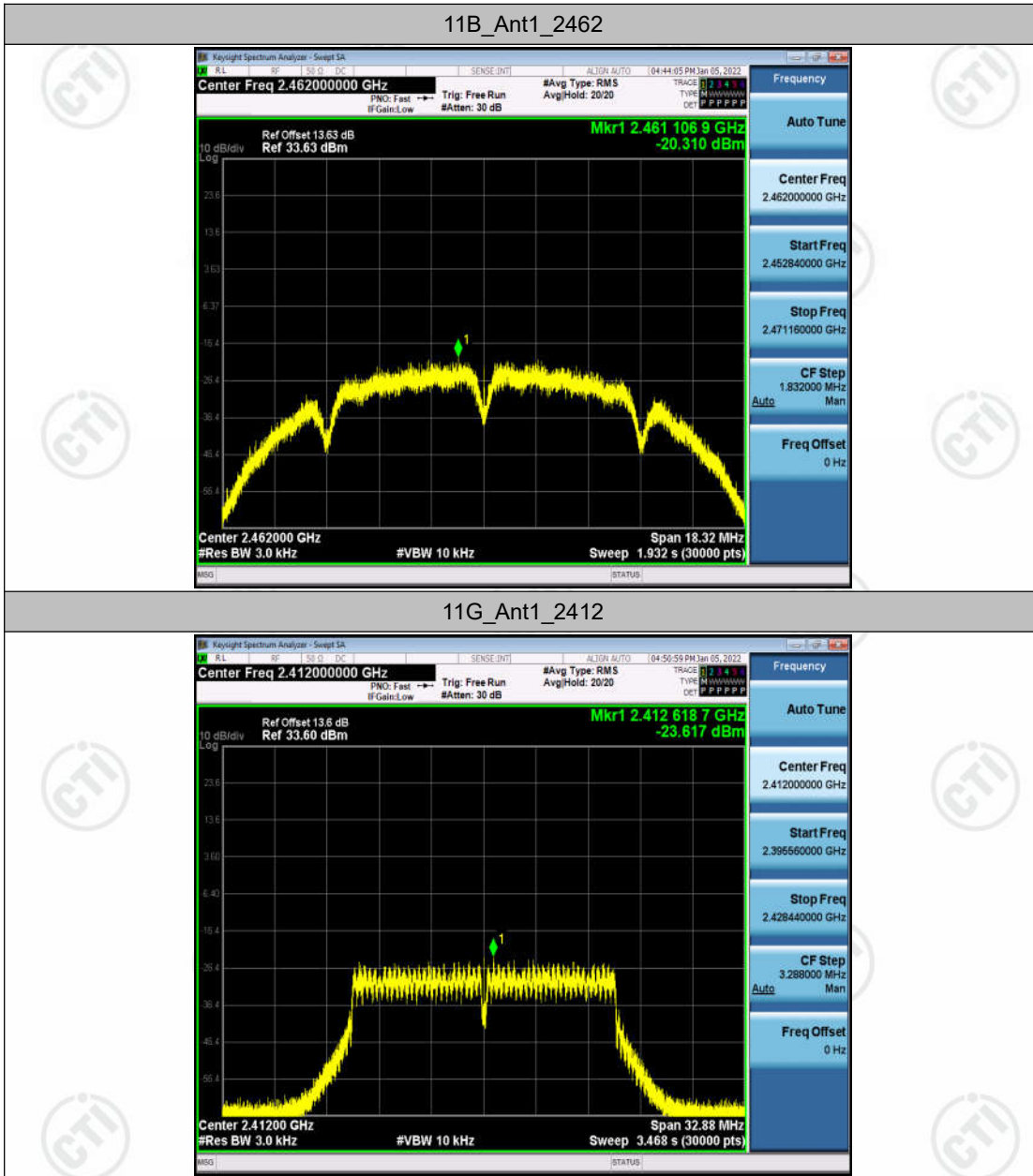
| Test Mode | Antenna | Channel | Power [dBm] | Limit [dBm] | Verdict |
|-----------|---------|---------|-------------|-------------|---------|
| 11B | Ant1 | 2412 | 10.46 | <=30 | PASS |
| | | 2437 | 10.50 | <=30 | PASS |
| | | 2462 | 10.85 | <=30 | PASS |
| 11G | Ant1 | 2412 | 10.45 | <=30 | PASS |
| | | 2437 | 10.43 | <=30 | PASS |
| | | 2462 | 10.56 | <=30 | PASS |
| 11N20SISO | Ant1 | 2412 | 9.44 | <=30 | PASS |
| | | 2437 | 9.55 | <=30 | PASS |
| | | 2462 | 9.93 | <=30 | PASS |

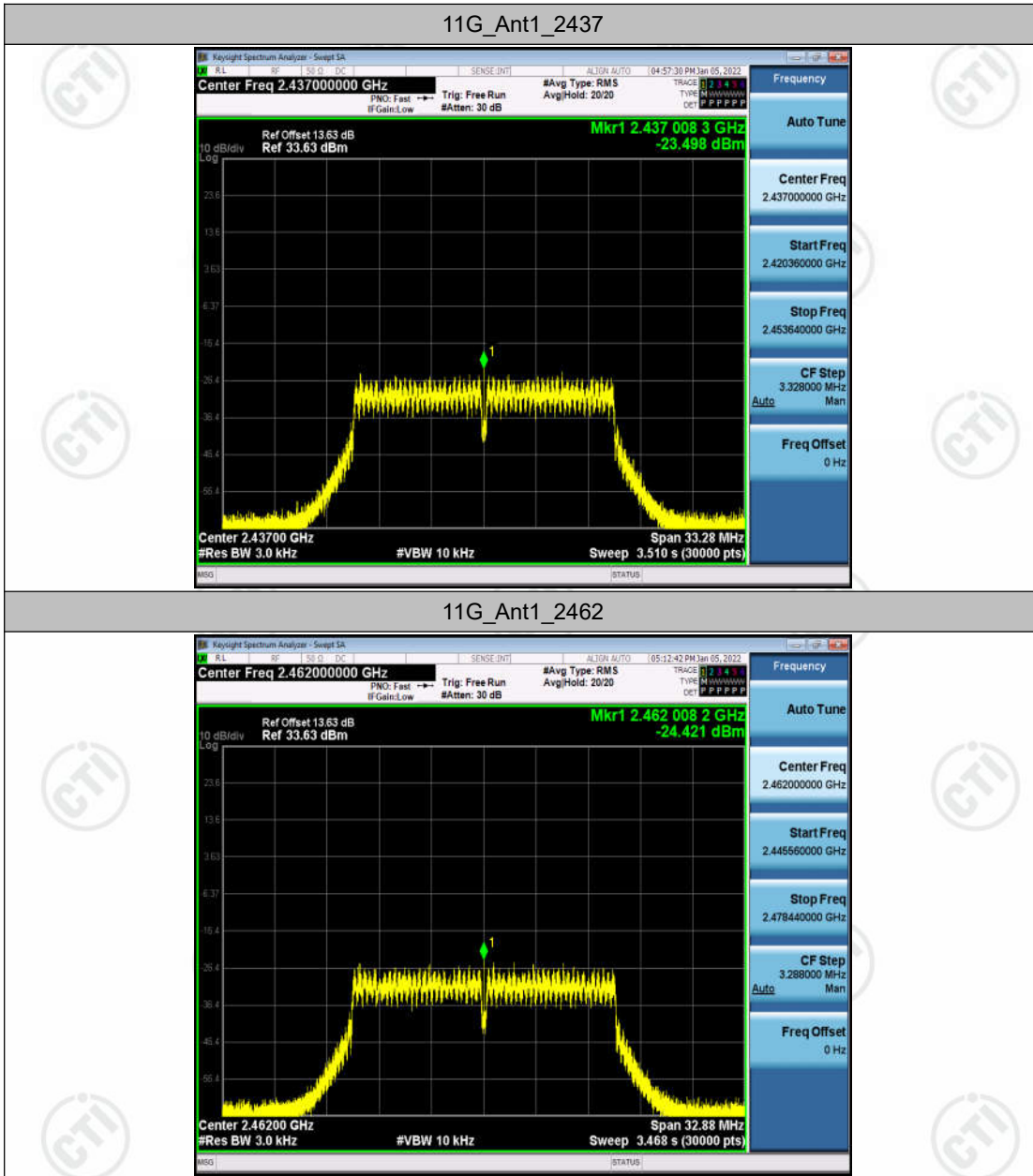
Appendix D: Maximum power spectral density**Test Result**

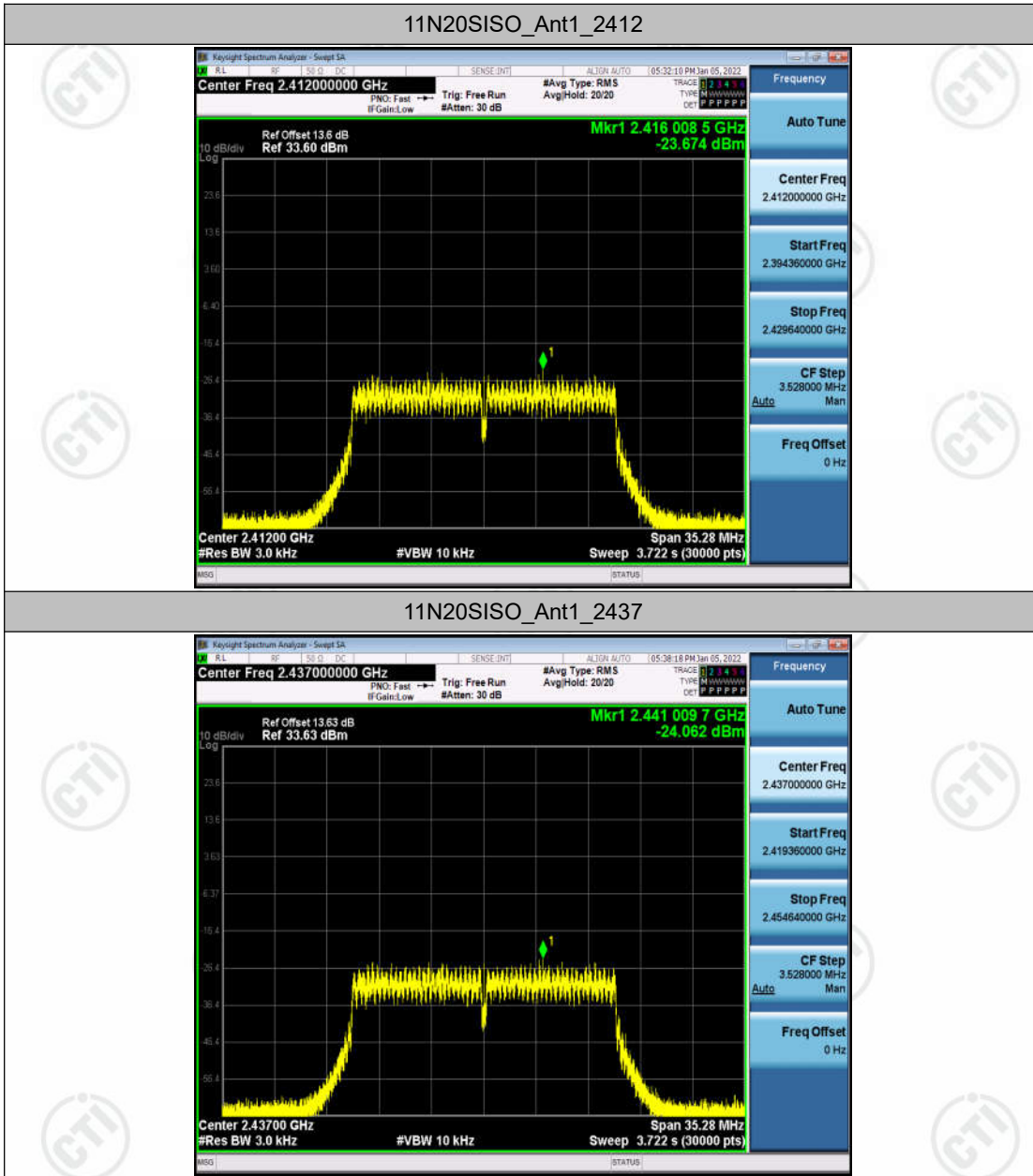
| Test Mode | Antenna | Channel | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|-----------|---------|---------|----------------------|-----------------|---------|
| 11B | Ant1 | 2412 | -19.29 | <=8 | PASS |
| | | 2437 | -19.03 | <=8 | PASS |
| | | 2462 | -20.31 | <=8 | PASS |
| 11G | Ant1 | 2412 | -23.62 | <=8 | PASS |
| | | 2437 | -23.5 | <=8 | PASS |
| | | 2462 | -24.42 | <=8 | PASS |
| 11N20SISO | Ant1 | 2412 | -23.67 | <=8 | PASS |
| | | 2437 | -24.06 | <=8 | PASS |
| | | 2462 | -24.61 | <=8 | PASS |

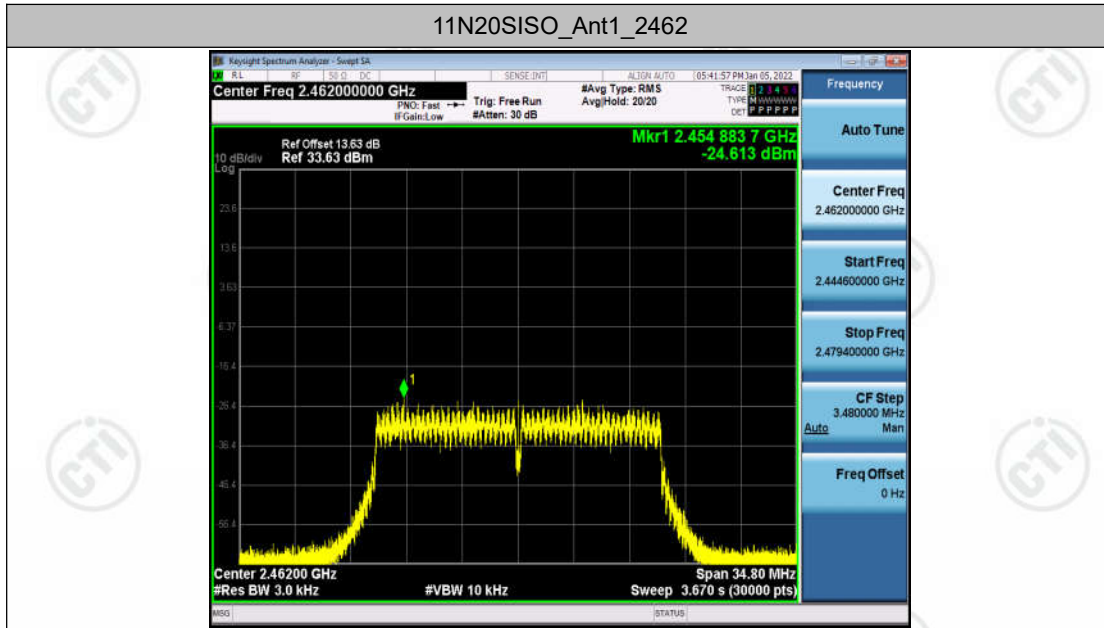
Test Graphs







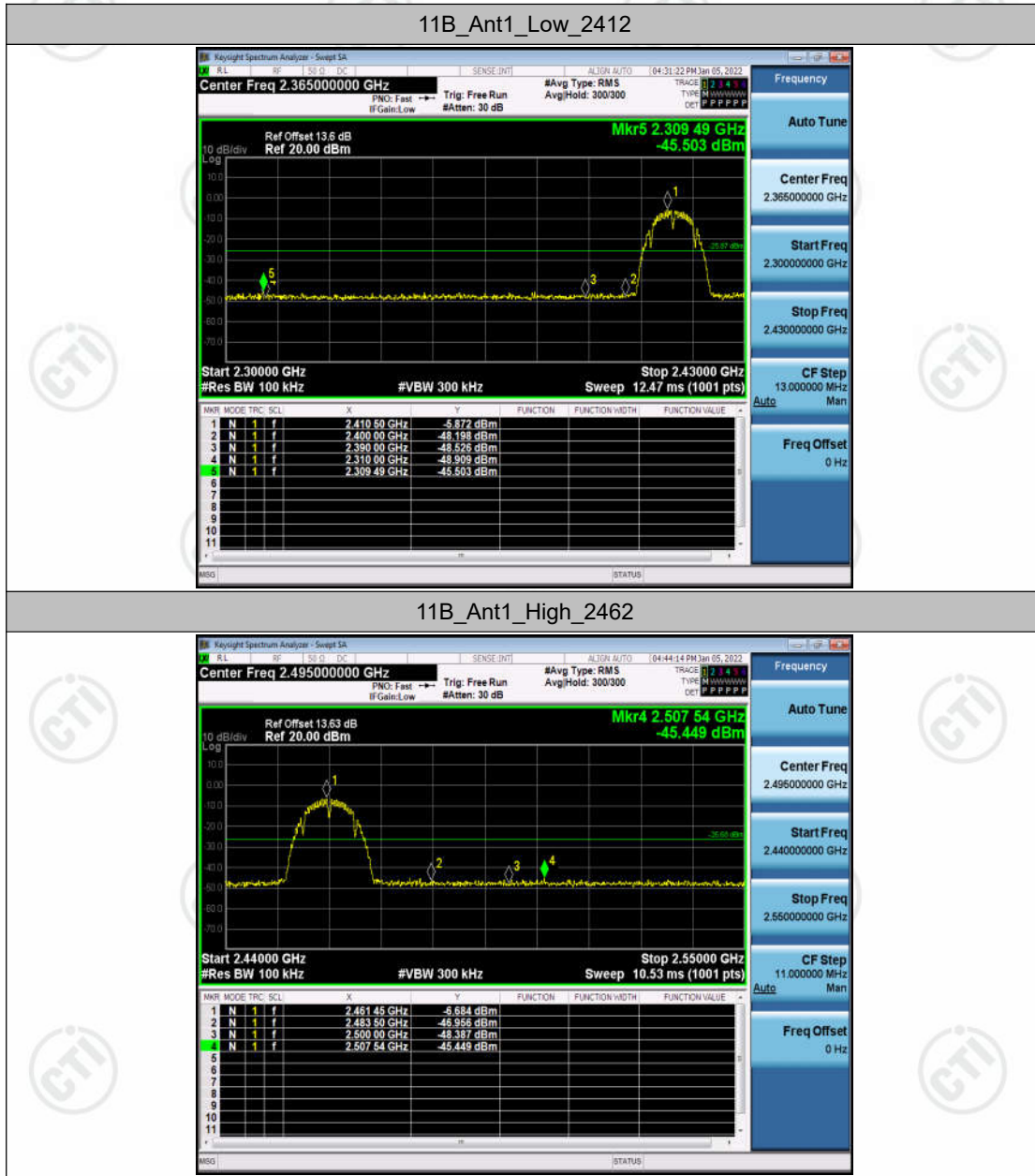




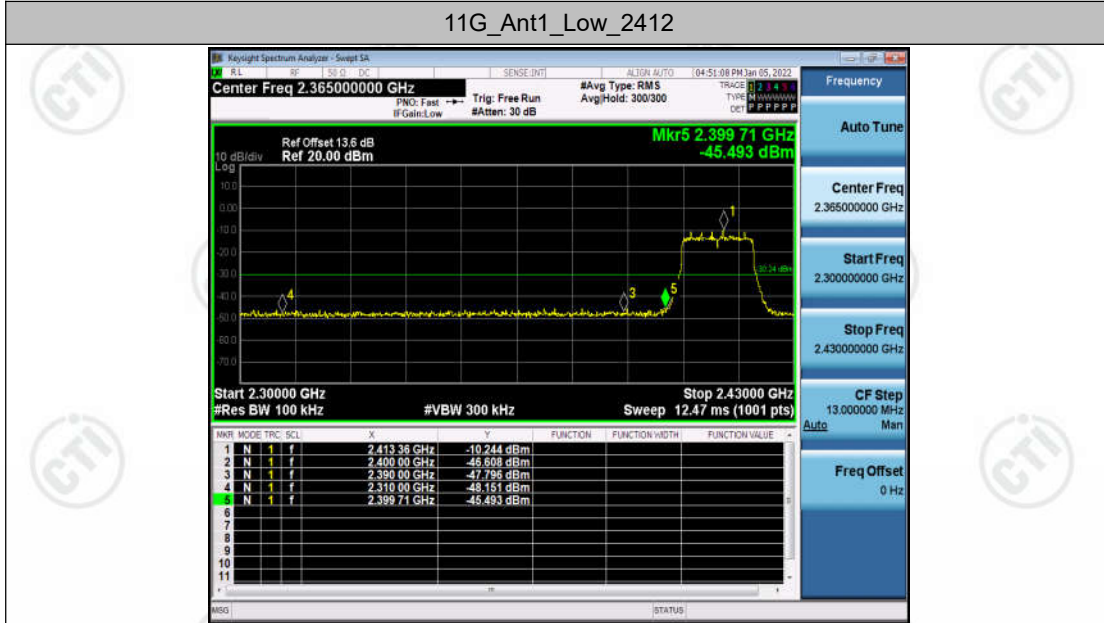
Appendix E: Band edge measurements**Test Result**

| Test Mode | Antenna | ChName | Channel | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|--------|---------|---------------|-------------|------------|---------|
| 11B | Ant1 | Low | 2412 | -5.87 | -45.5 | <=-25.87 | PASS |
| | | High | 2462 | -6.68 | -45.45 | <=-26.68 | PASS |
| 11G | Ant1 | Low | 2412 | -10.24 | -45.49 | <=-30.24 | PASS |
| | | High | 2462 | -11.48 | -44.07 | <=-31.48 | PASS |
| 11N20SISO | Ant1 | Low | 2412 | -10.81 | -45.8 | <=-30.81 | PASS |
| | | High | 2462 | -11.64 | -44.75 | <=-31.64 | PASS |

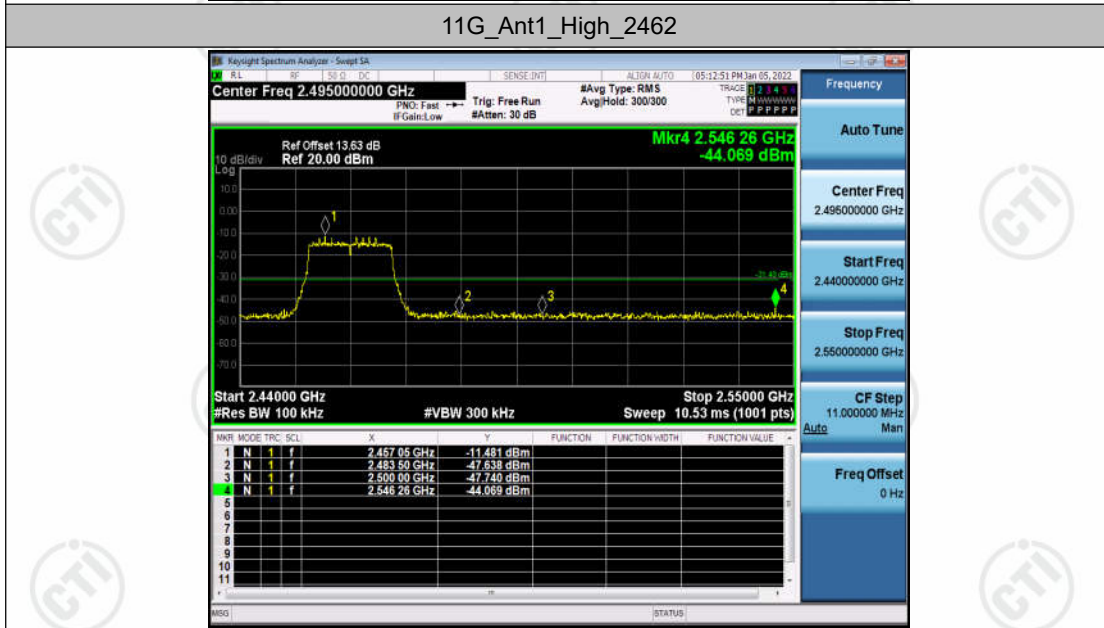
Test Graphs

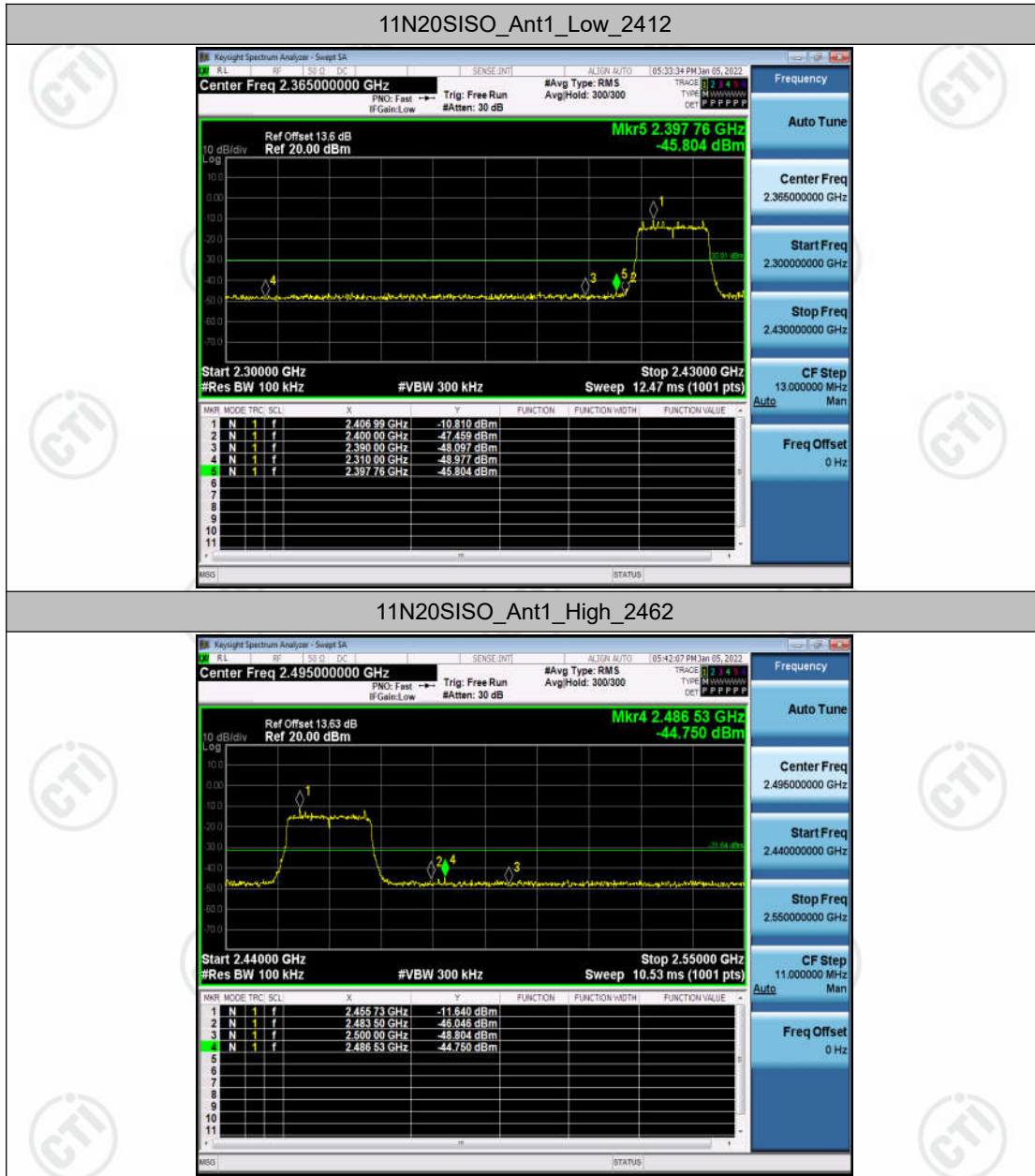


11G_Ant1_Low_2412



11G_Ant1_High_2462



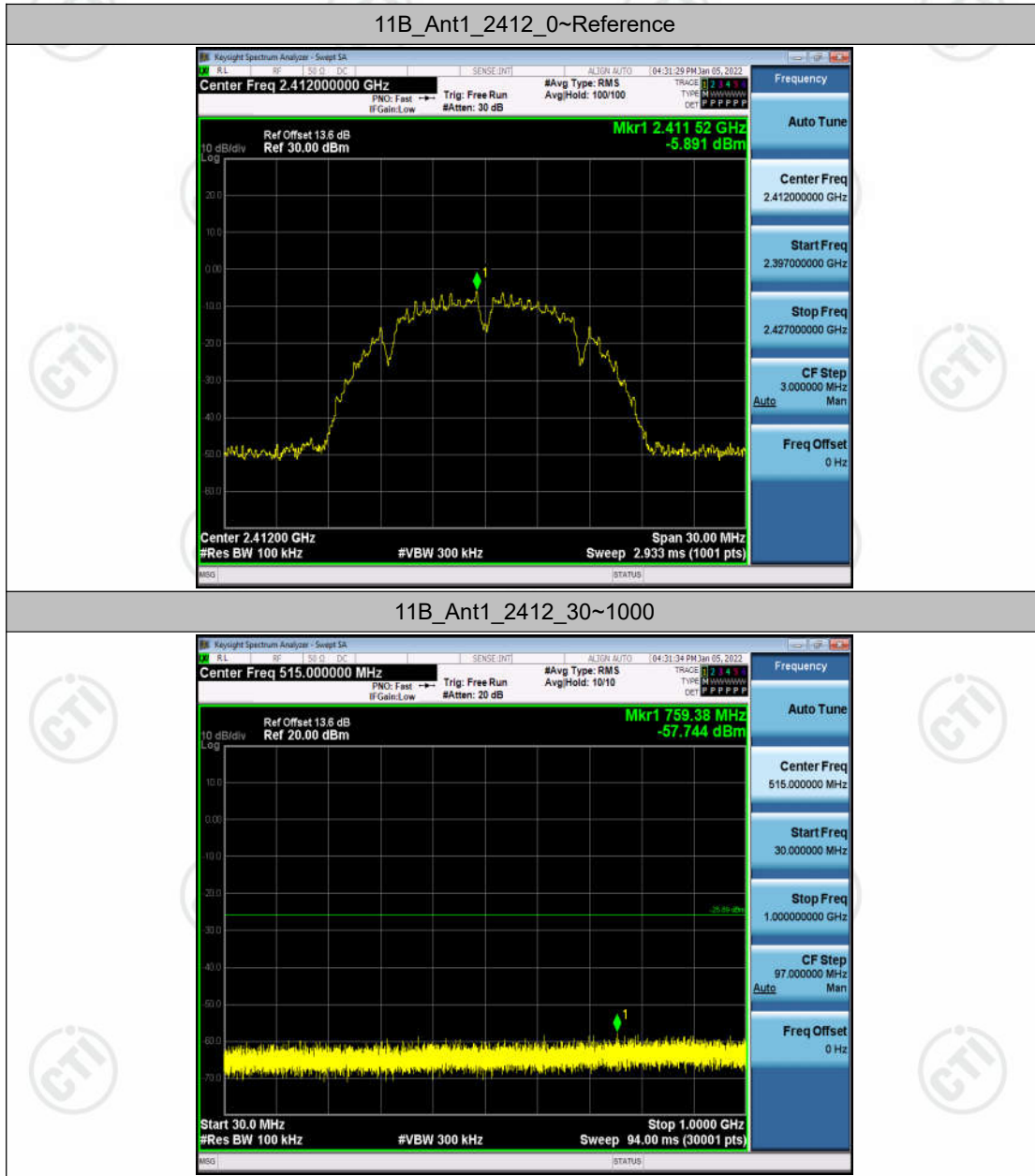


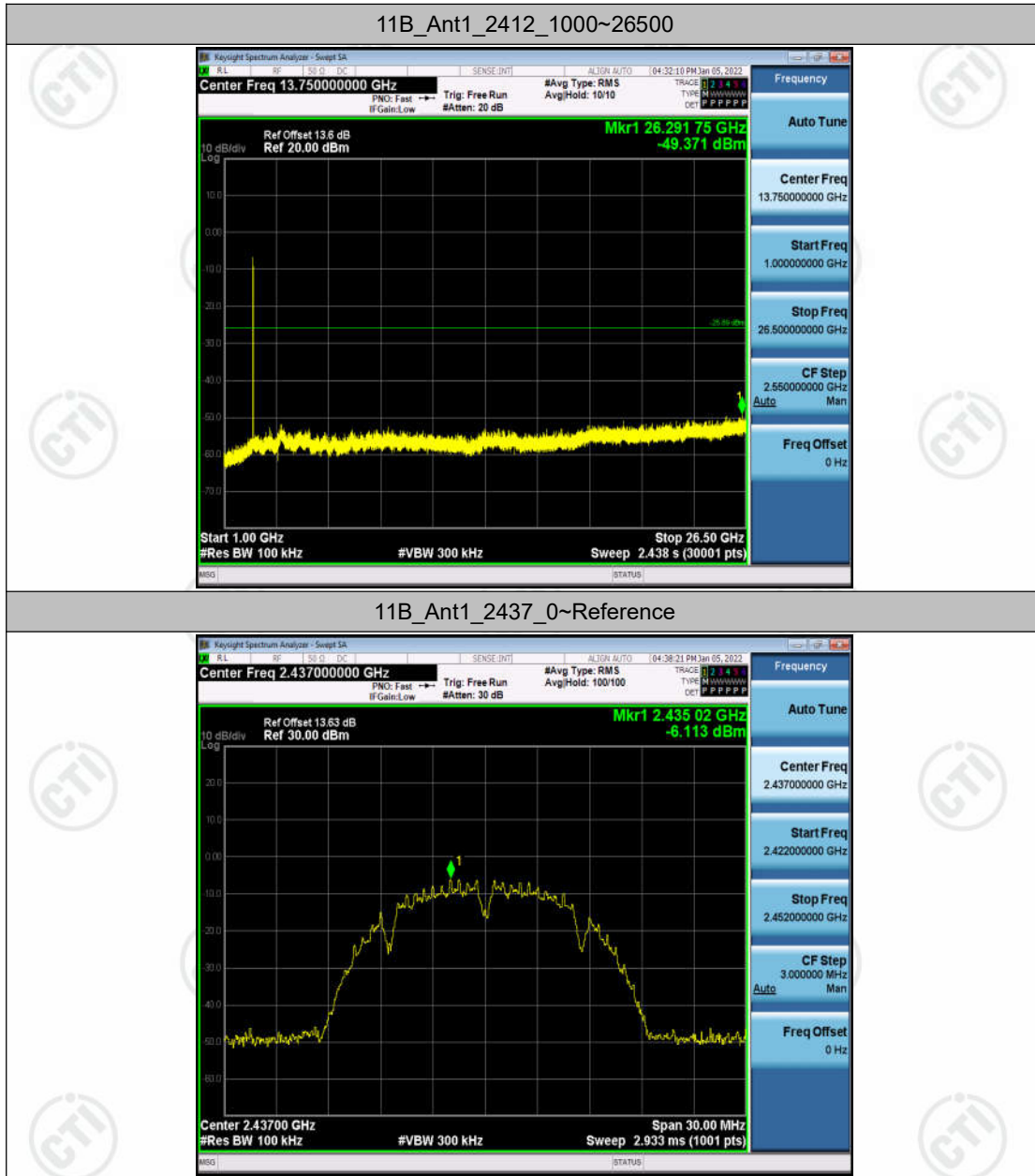
Appendix F: Conducted Spurious Emission

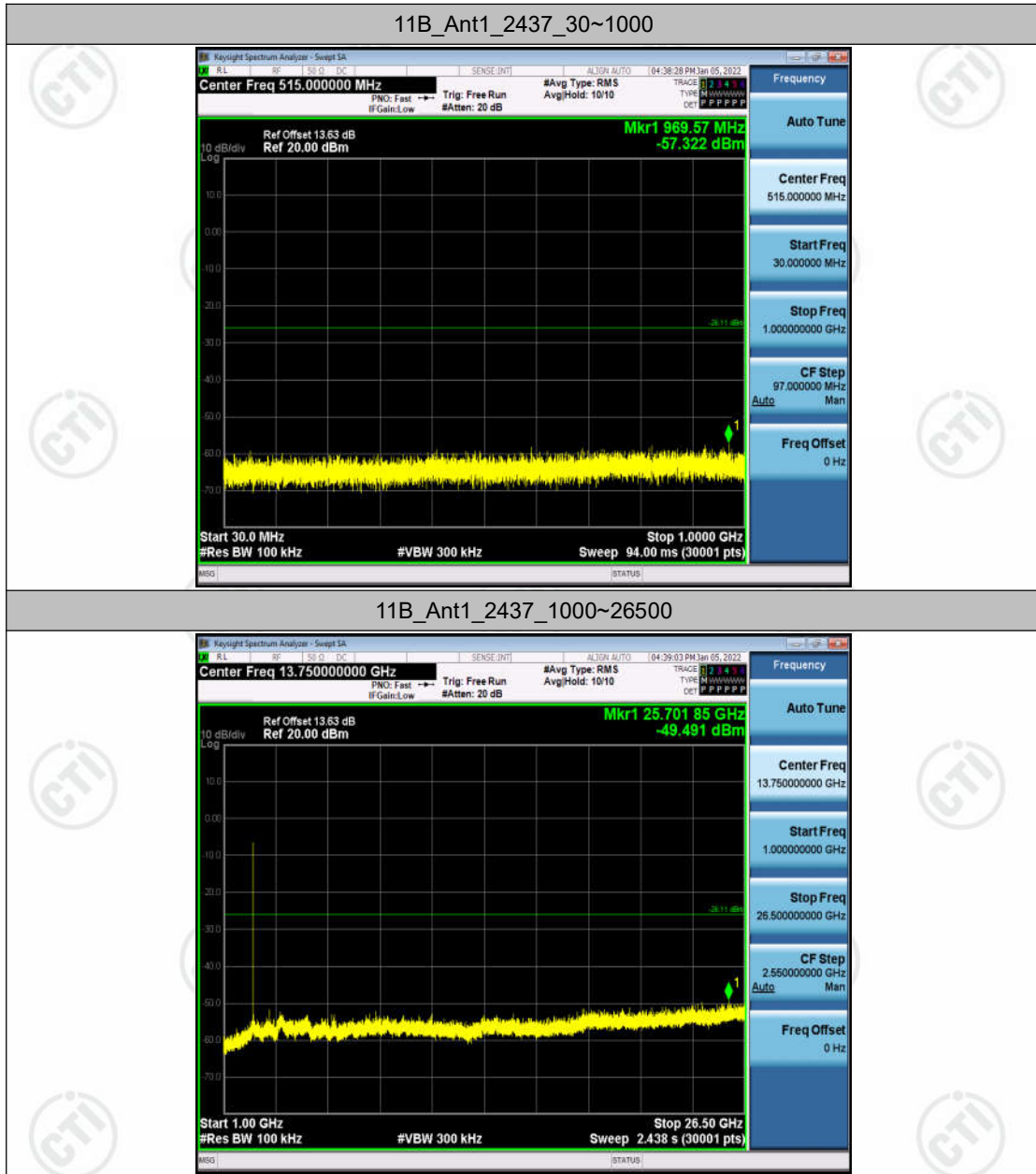
Test Result

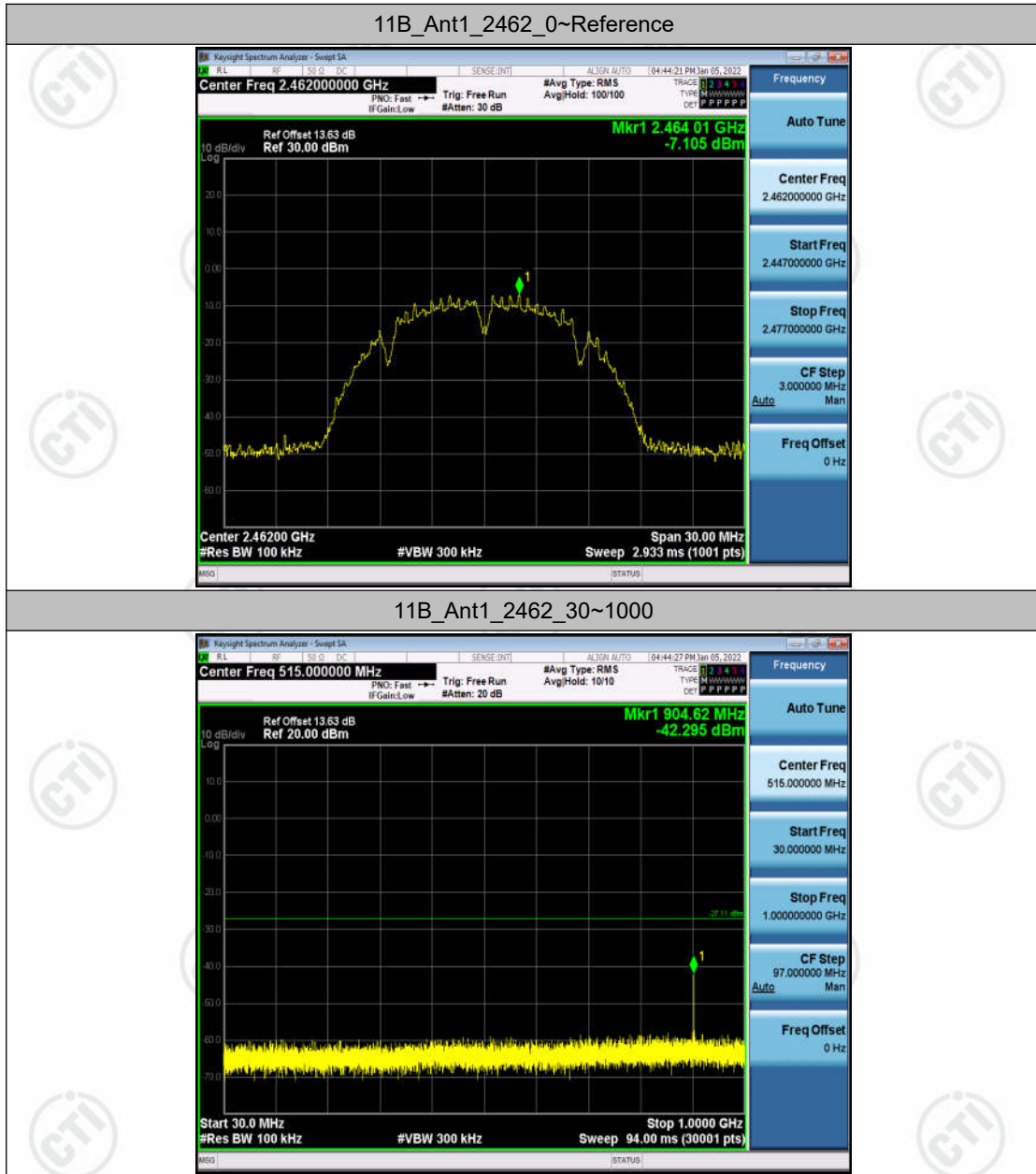
| Test Mode | Antenna | Channel | FreqRange [Mhz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|---------------|---------|---------|-----------------|----------------|--------------|-------------|---------|
| 11B | Ant1 | 2412 | Reference | -5.89 | -5.89 | --- | PASS |
| | | | 30~1000 | 30~1000 | -57.744 | <=-25.891 | PASS |
| | | | 1000~26500 | 1000~26500 | -49.371 | <=-25.891 | PASS |
| | | 2437 | Reference | -6.11 | -6.11 | --- | PASS |
| | | | 30~1000 | 30~1000 | -57.322 | <=-26.113 | PASS |
| | | | 1000~26500 | 1000~26500 | -49.491 | <=-26.113 | PASS |
| | | 2462 | Reference | -7.11 | -7.11 | --- | PASS |
| | | | 30~1000 | 30~1000 | -42.295 | <=-27.105 | PASS |
| | | | 1000~26500 | 1000~26500 | -48.803 | <=-27.105 | PASS |
| 11G | Ant1 | 2412 | Reference | -10.86 | -10.86 | --- | PASS |
| | | | 30~1000 | 30~1000 | -56.9 | <=-30.859 | PASS |
| | | | 1000~26500 | 1000~26500 | -49.519 | <=-30.859 | PASS |
| | | 2437 | Reference | -10.64 | -10.64 | --- | PASS |
| | | | 30~1000 | 30~1000 | -35.58 | <=-30.636 | PASS |
| | | | 1000~26500 | 1000~26500 | -48.934 | <=-30.636 | PASS |
| | | 2462 | Reference | -12.24 | -12.24 | --- | PASS |
| | | | 30~1000 | 30~1000 | -57.261 | <=-32.236 | PASS |
| | | | 1000~26500 | 1000~26500 | -48.833 | <=-32.236 | PASS |
| 11N20SI SO | Ant1 | 2412 | Reference | -13.35 | -13.35 | --- | PASS |
| | | | 30~1000 | 30~1000 | -57.315 | <=-33.345 | PASS |
| | | | 1000~26500 | 1000~26500 | -49.463 | <=-33.345 | PASS |
| | | 2437 | Reference | -10.37 | -10.37 | --- | PASS |
| | | | 30~1000 | 30~1000 | -57.496 | <=-30.372 | PASS |
| | | | 1000~26500 | 1000~26500 | -49.159 | <=-30.372 | PASS |
| | | 2462 | Reference | -13.44 | -13.44 | --- | PASS |
| | | | 30~1000 | 30~1000 | -56.759 | <=-33.439 | PASS |
| | | | 1000~26500 | 1000~26500 | -49.359 | <=-33.439 | PASS |

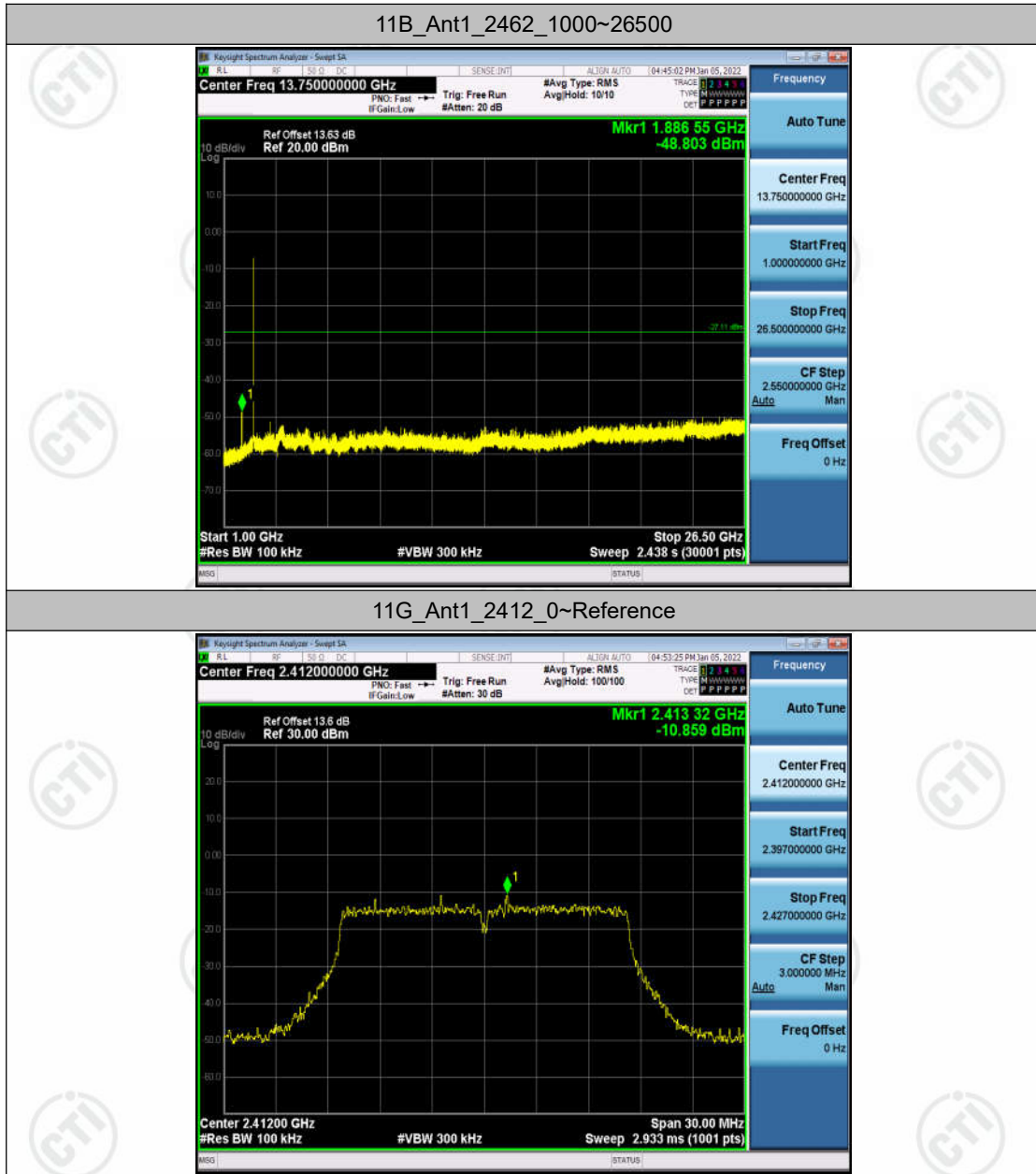
Test Graphs

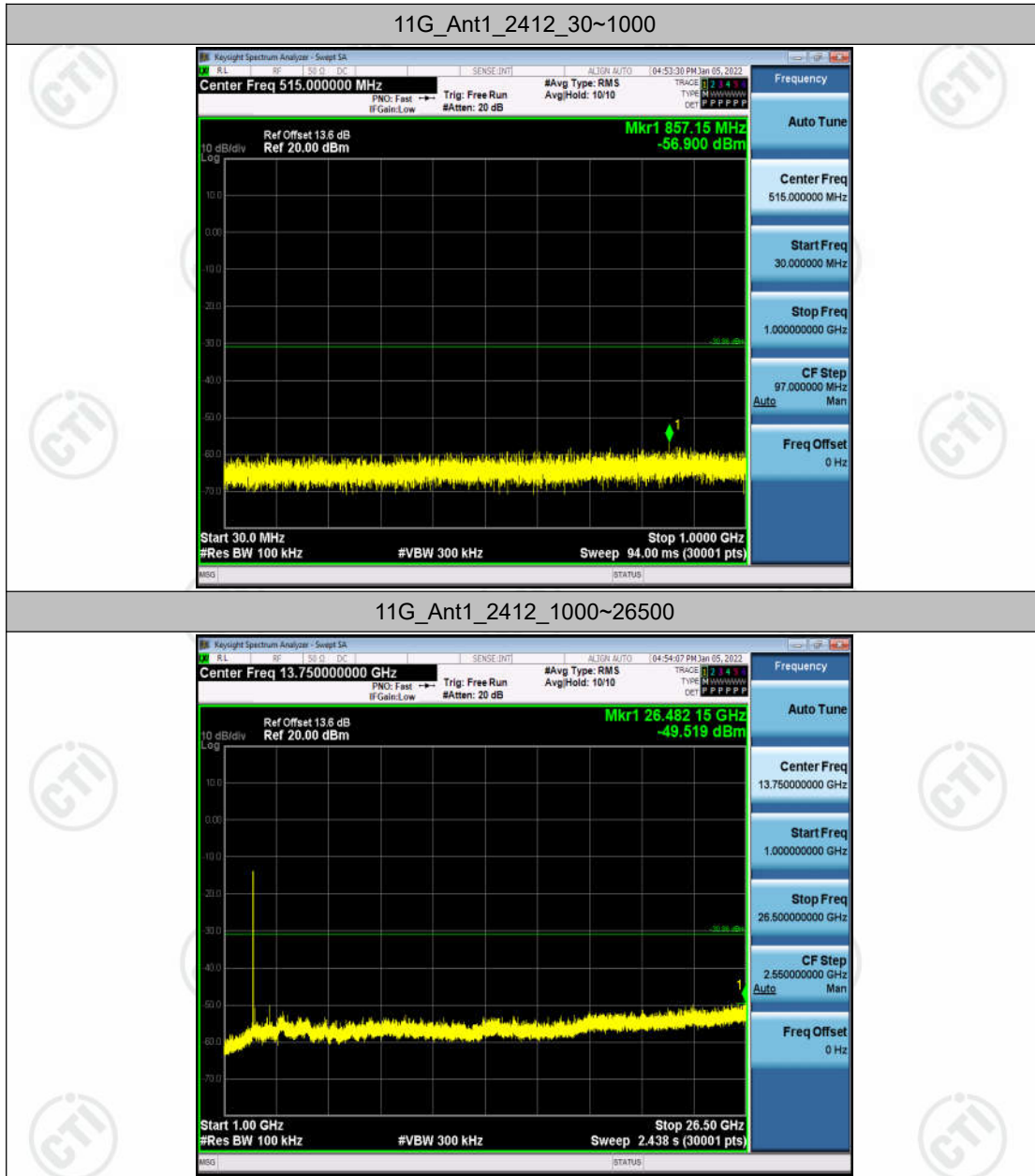


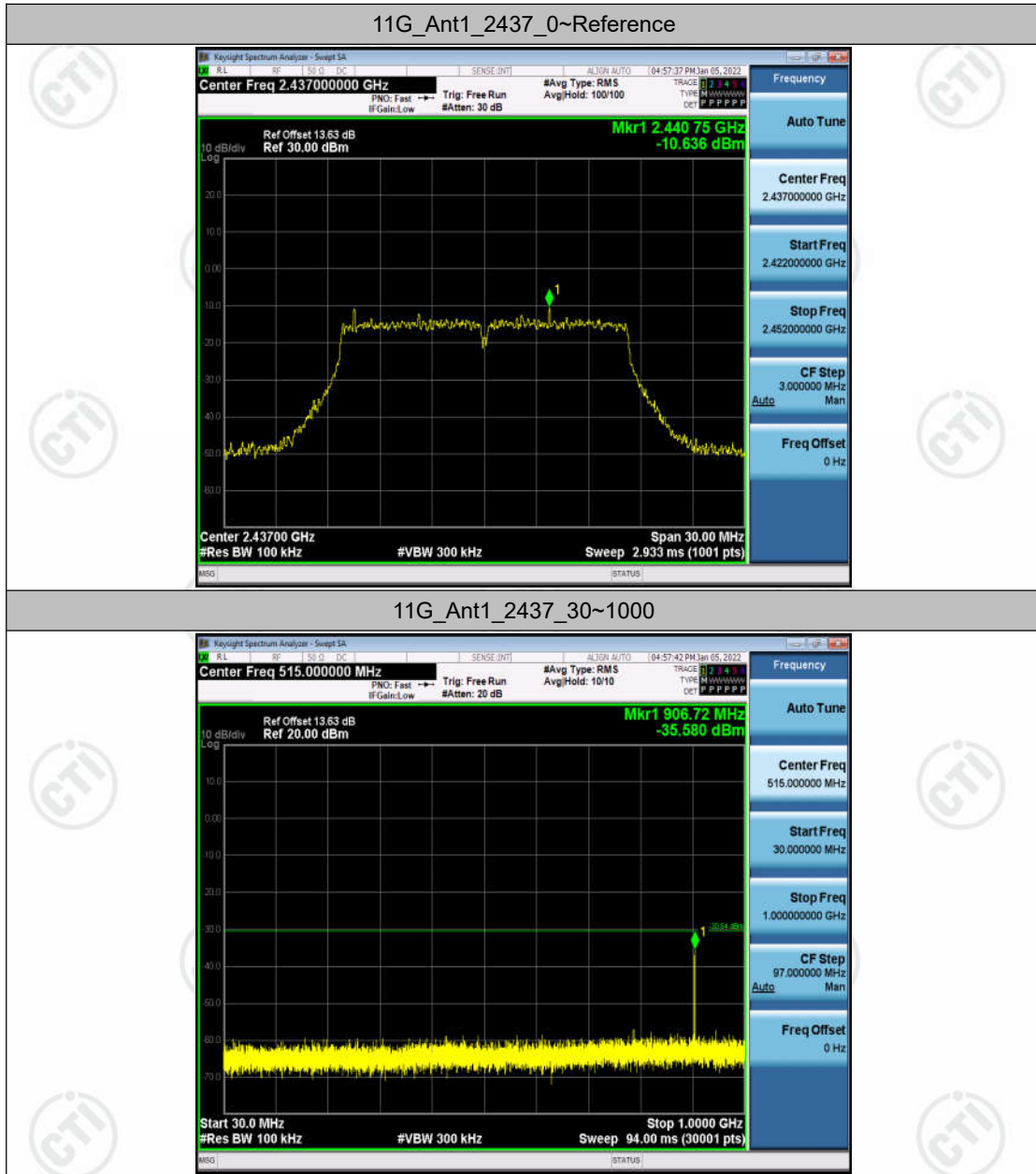


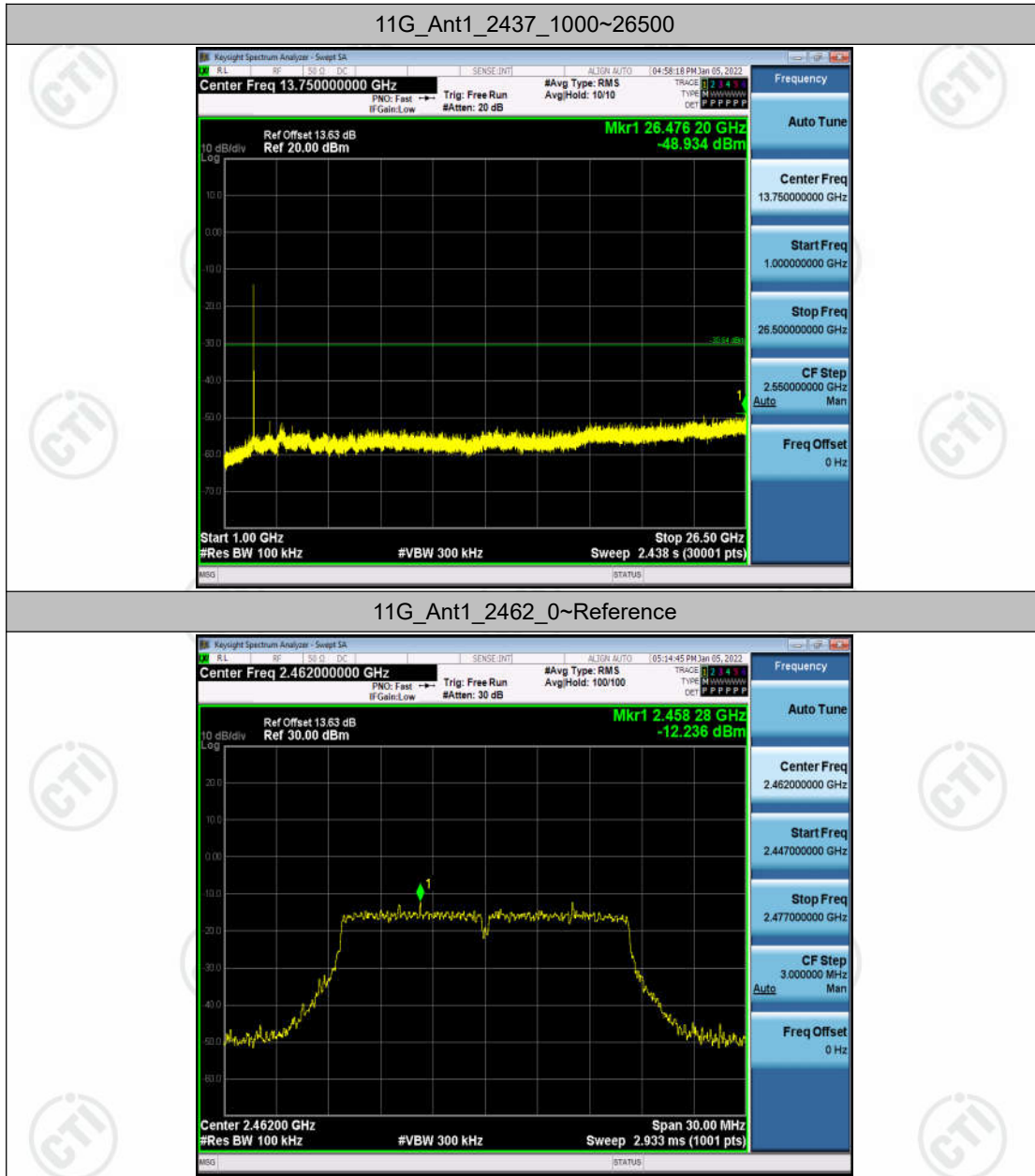


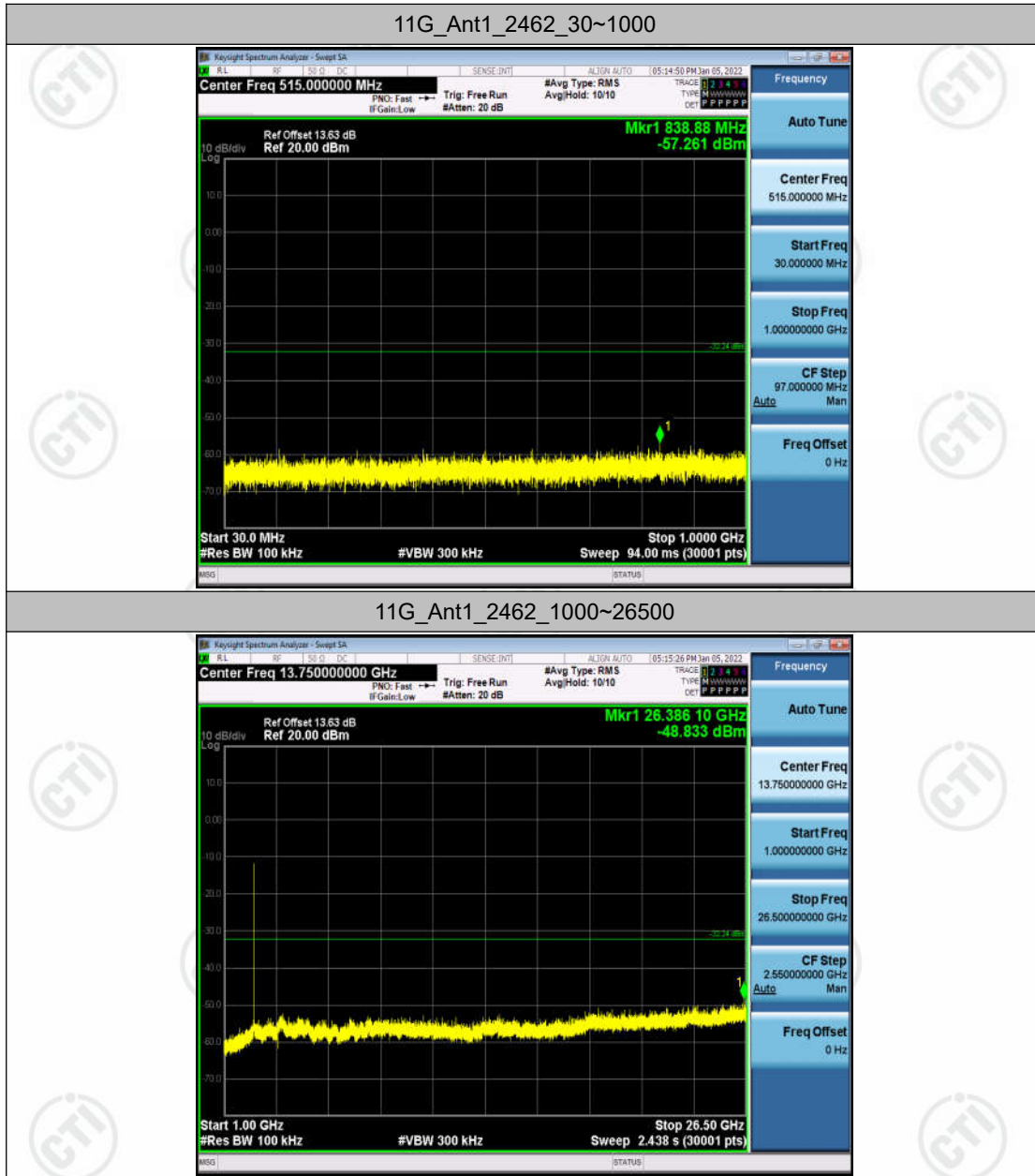


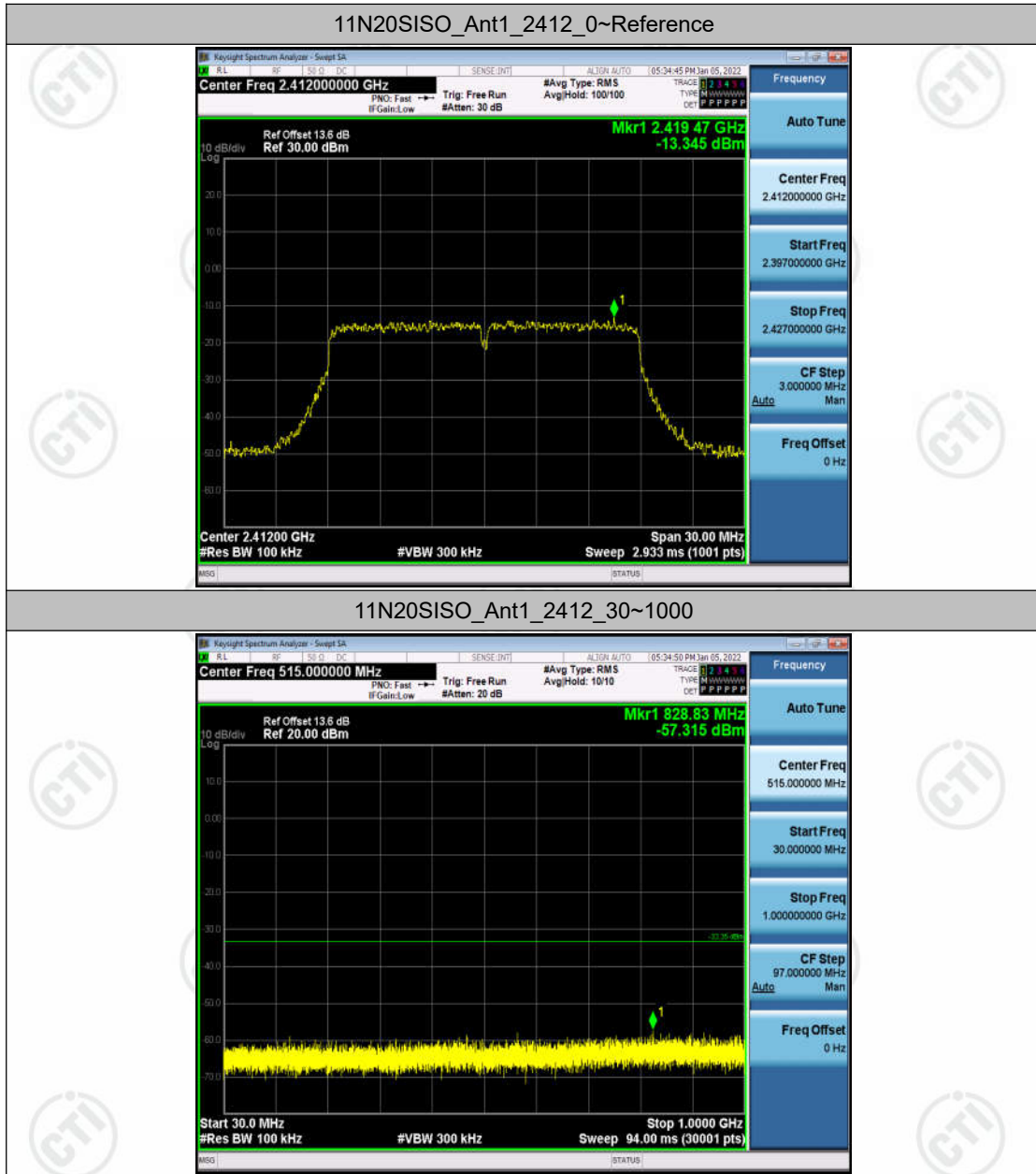


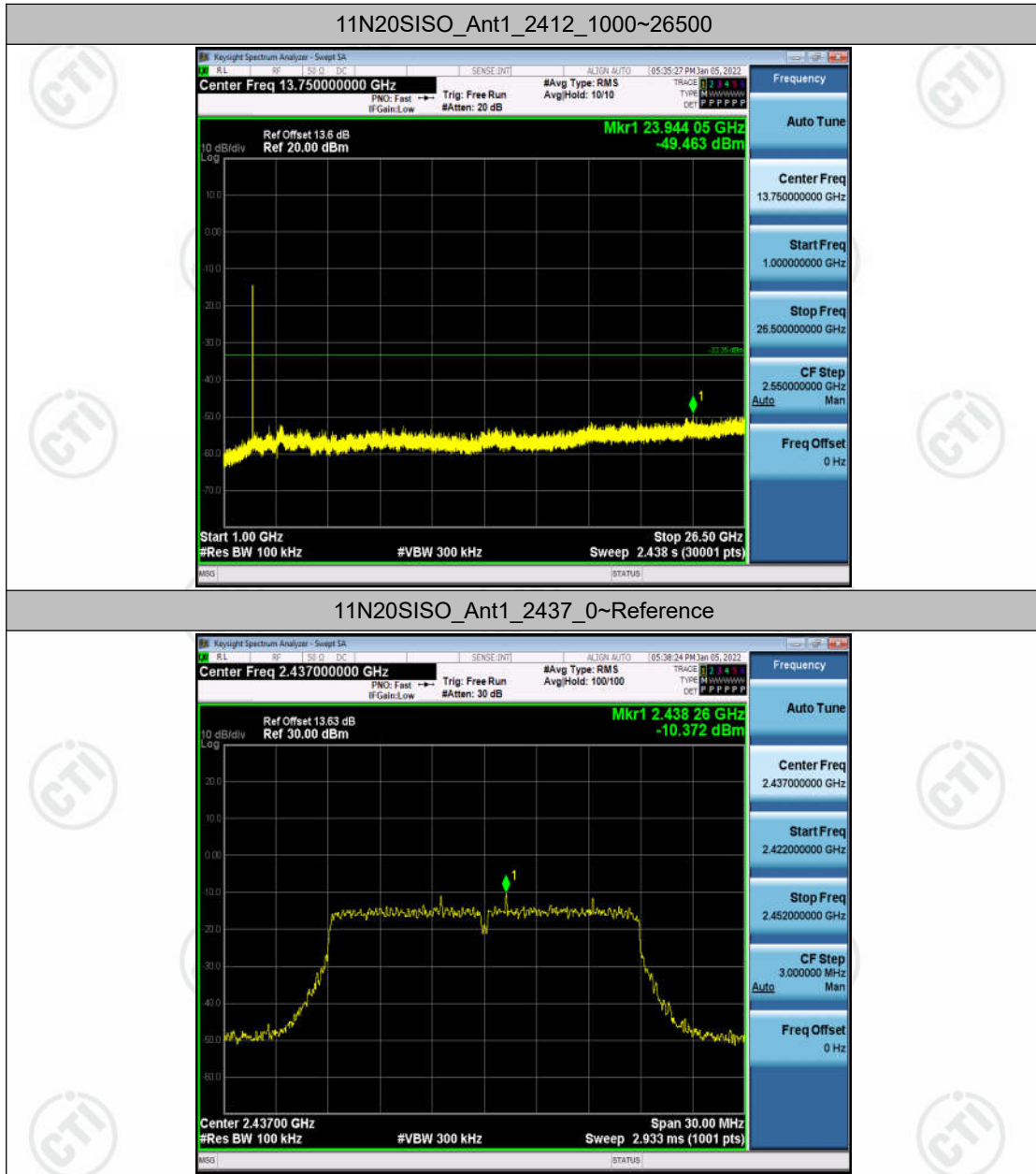


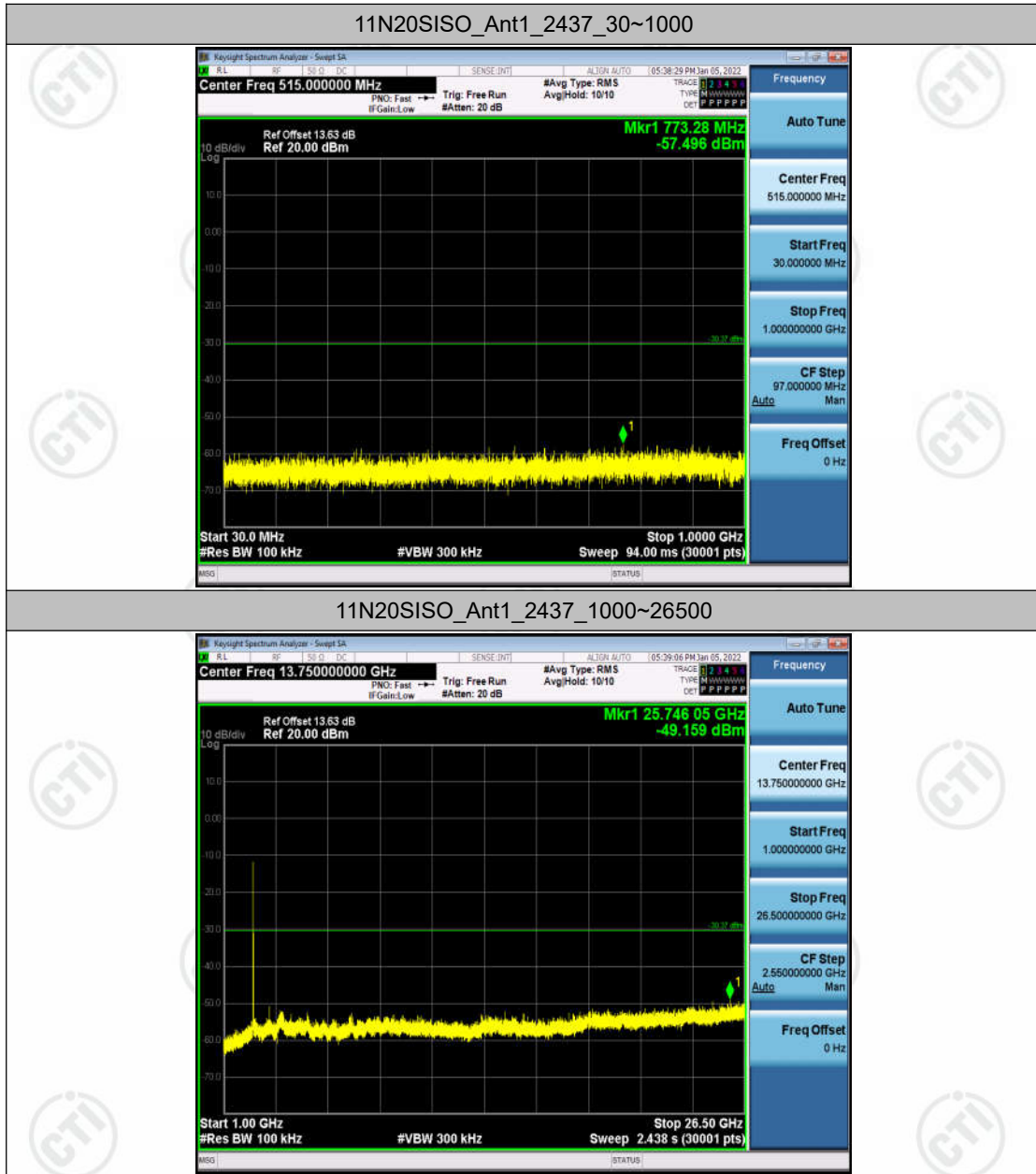


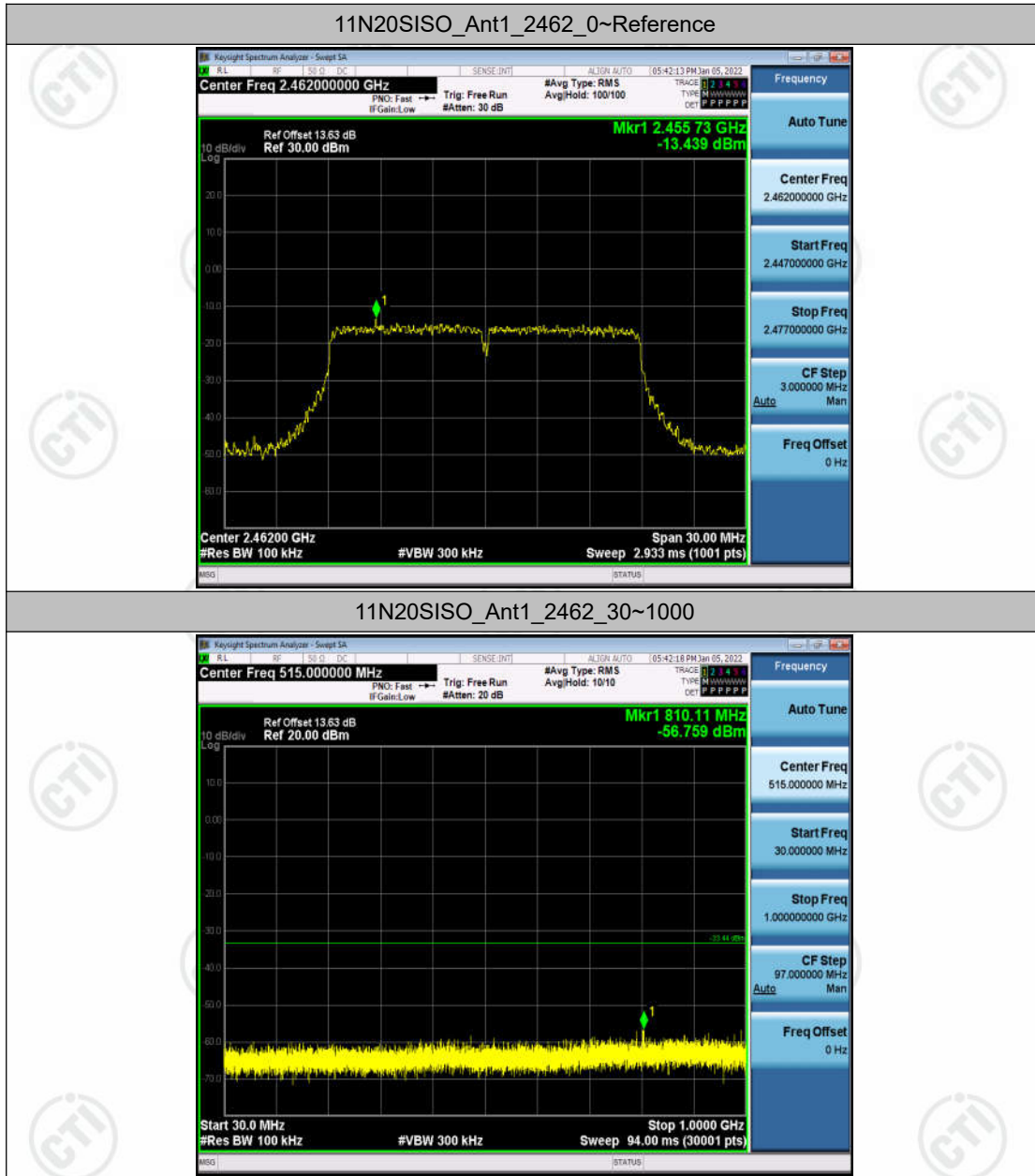


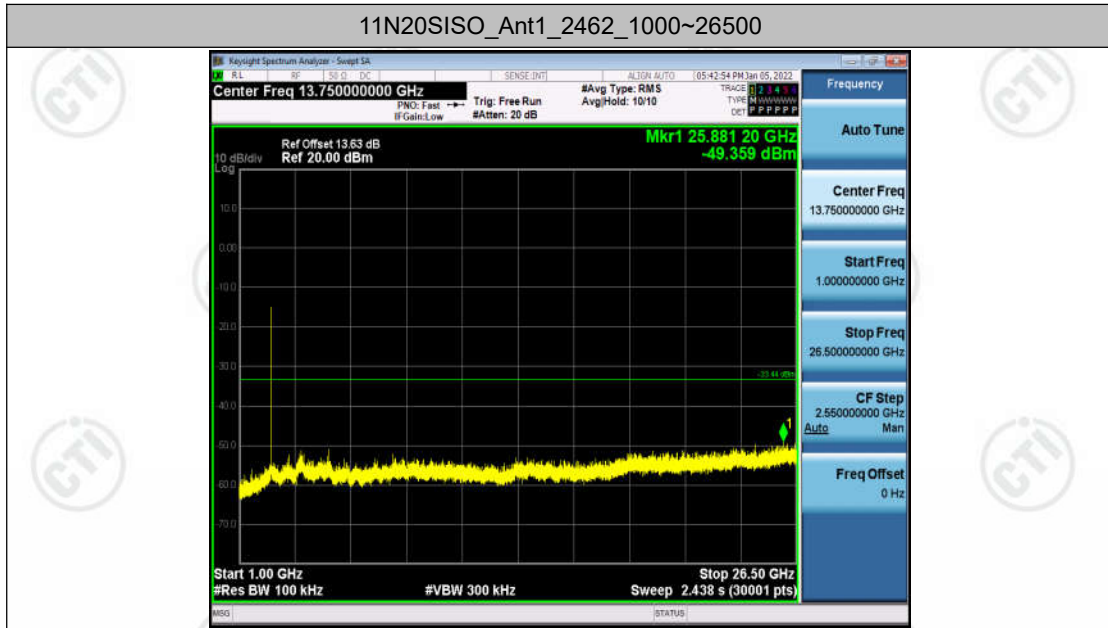








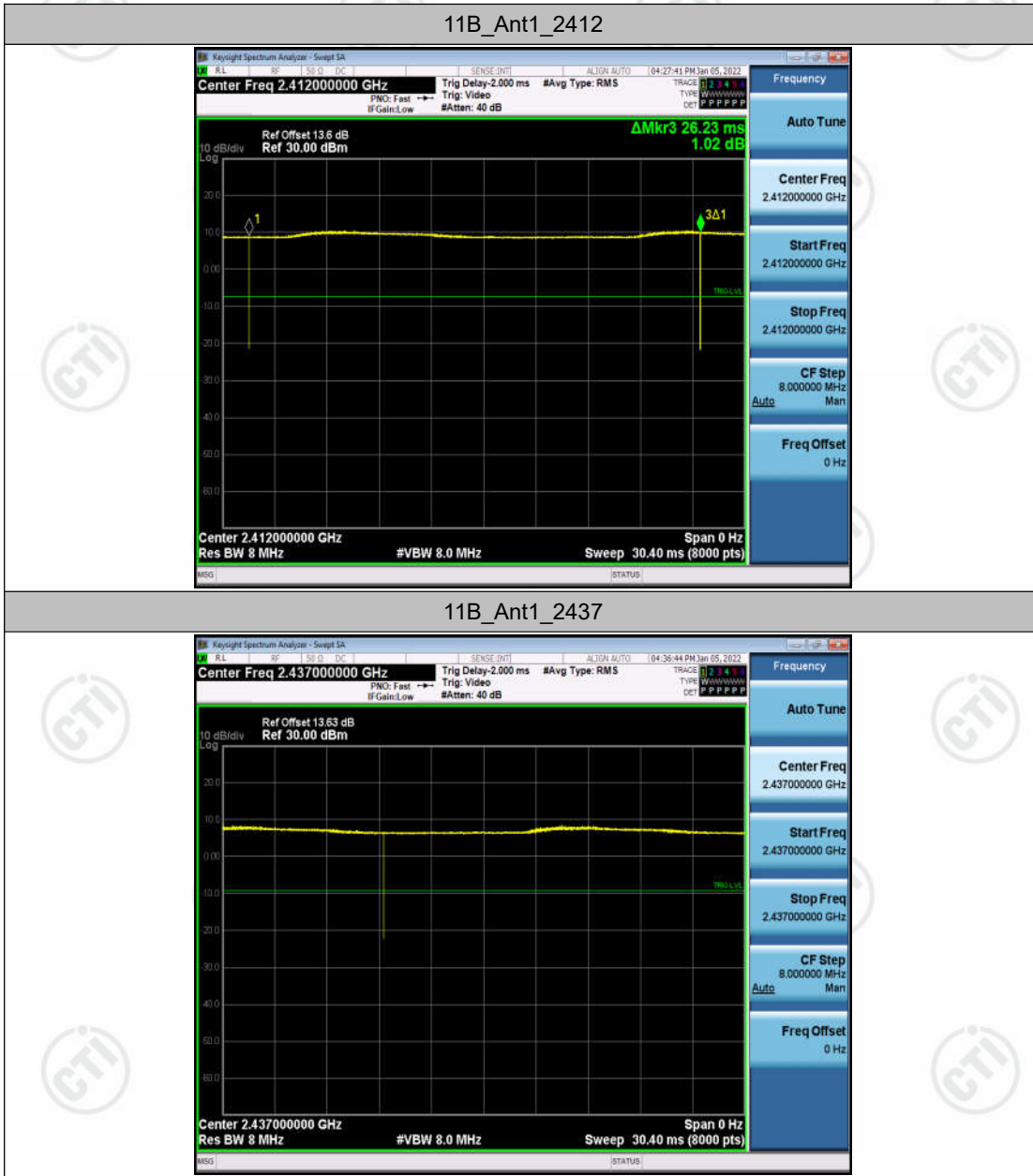


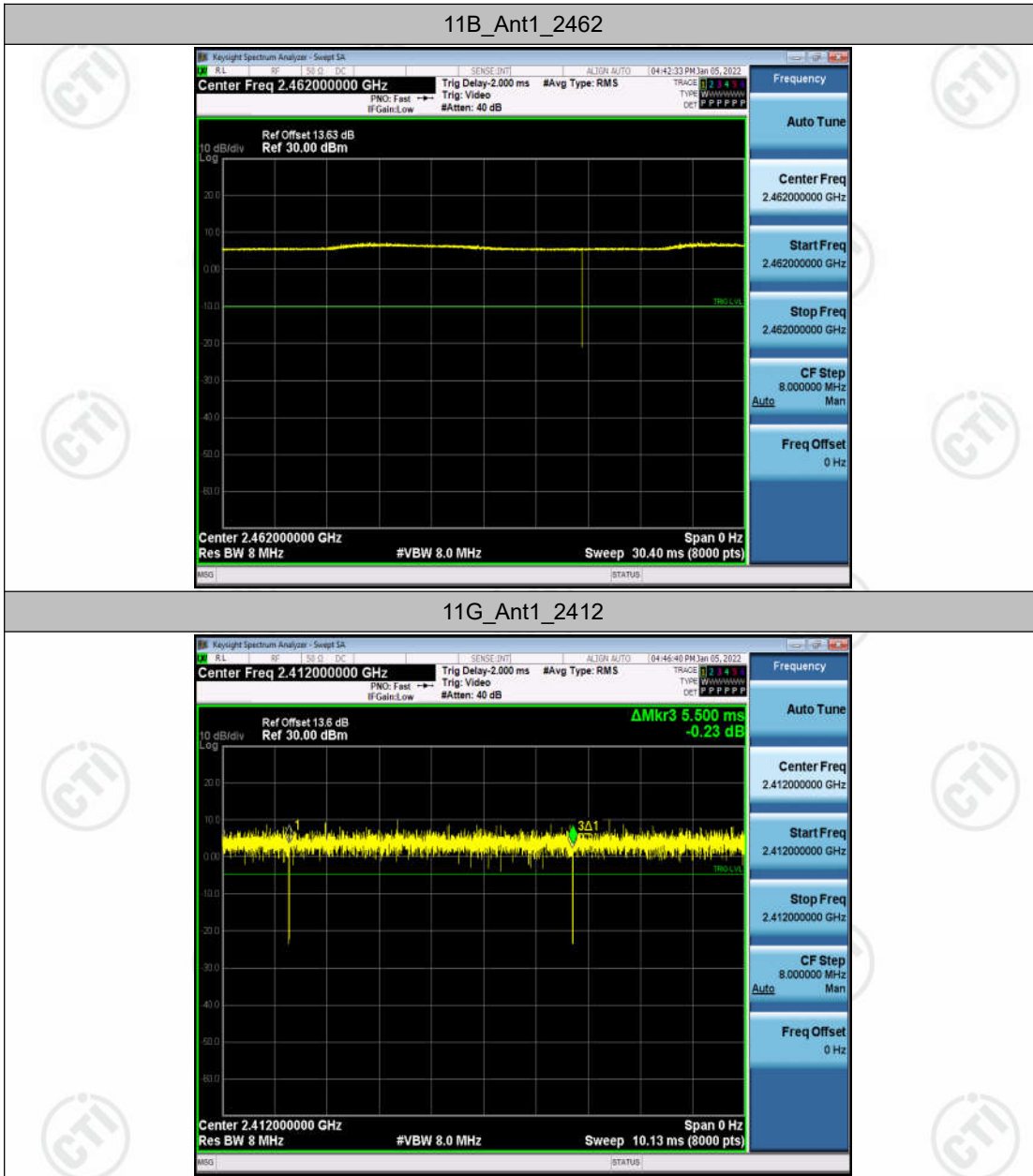


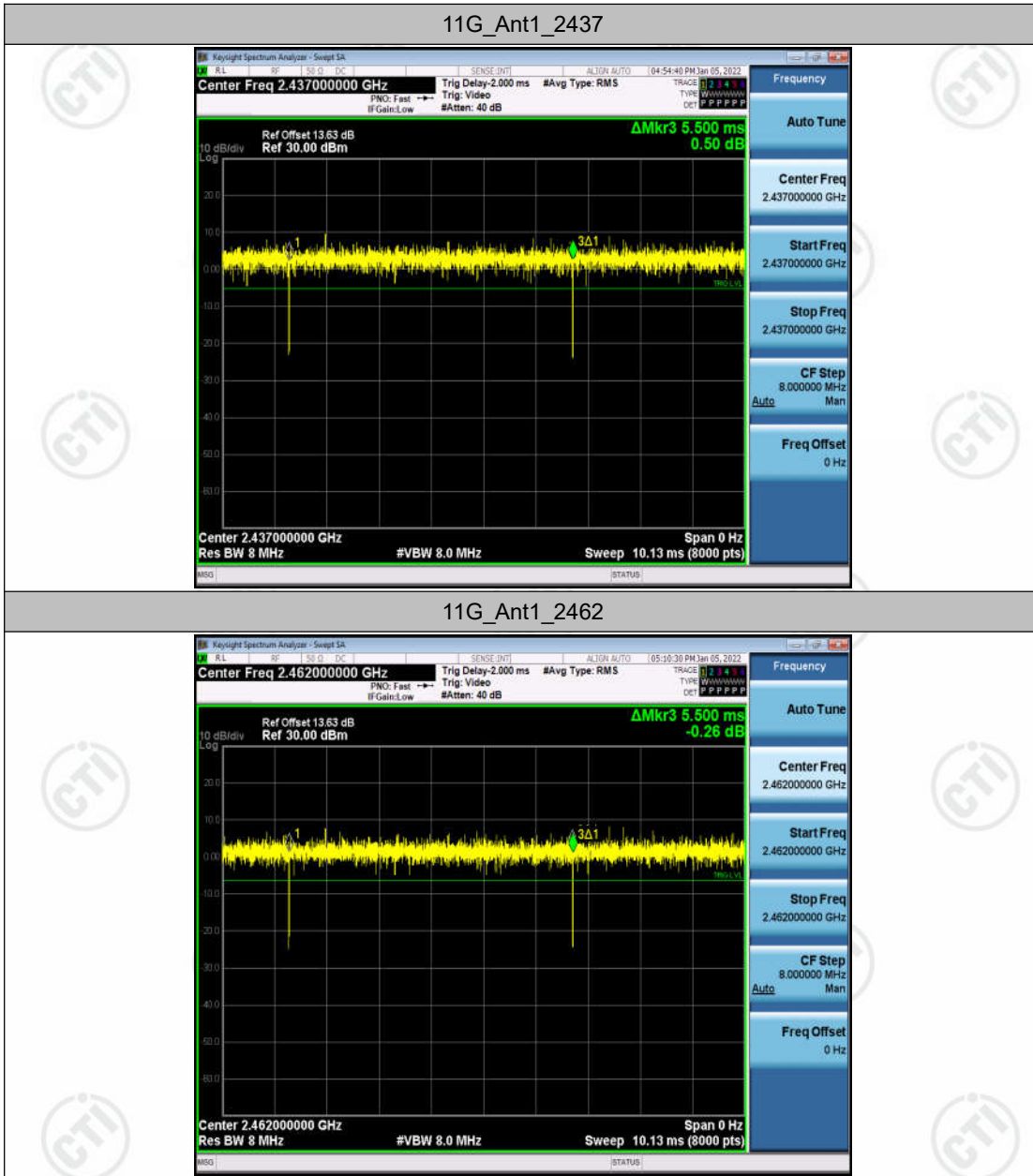
Appendix G: Duty Cycle**Test Result**

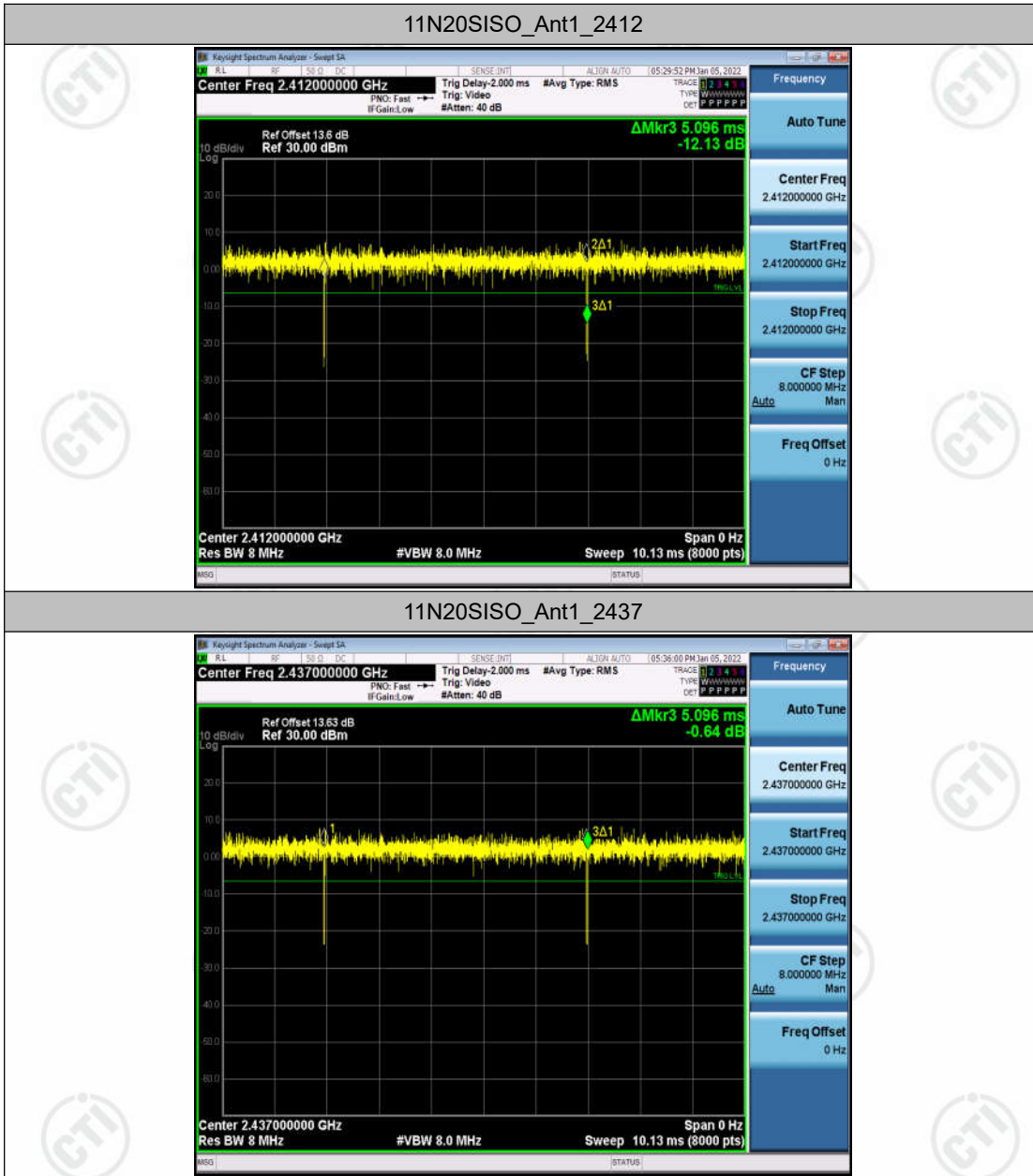
| Test Mode | Antenna | Channel | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] | Limit | Verdict |
|-----------|---------|---------|----------------------------|--------------------------|----------------|-------|---------|
| 11B | Ant1 | 2412 | 26.20 | 26.23 | 99.91 | --- | PASS |
| | | 2437 | 30.00 | 30.00 | 100.00 | --- | PASS |
| | | 2462 | 30.00 | 30.00 | 100.00 | --- | PASS |
| 11G | Ant1 | 2412 | 5.48 | 5.50 | 99.68 | --- | PASS |
| | | 2437 | 5.48 | 5.50 | 99.65 | --- | PASS |
| | | 2462 | 5.48 | 5.50 | 99.65 | --- | PASS |
| 11N20SISO | Ant1 | 2412 | 5.08 | 5.10 | 99.65 | --- | PASS |
| | | 2437 | 5.08 | 5.10 | 99.63 | --- | PASS |
| | | 2462 | 5.08 | 5.10 | 99.63 | --- | PASS |

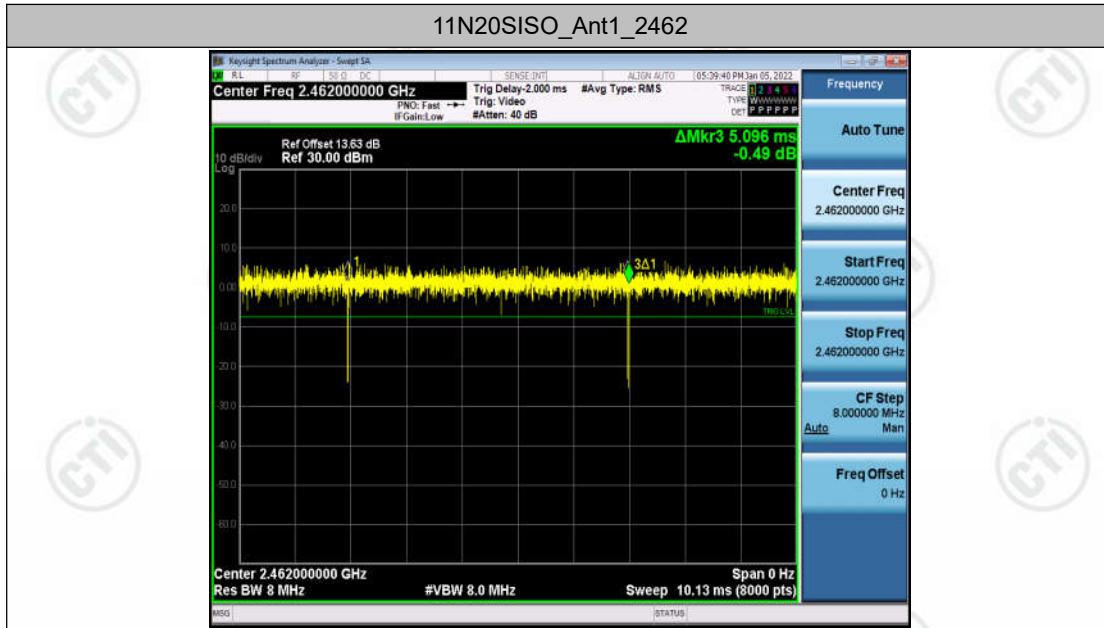
Test Graphs











*** End of Report ***