



Appendix C

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Rugged Tablet

Test Model: LT901

Environmental Conditions

| | |
|--------------------|-----------|
| Temperature: | 23.5° C |
| Relative Humidity: | 52.2% |
| ATM Pressure: | 100.0 kPa |
| Test Engineer: | Ling Zhu |
| Supervised by: | Li huan |



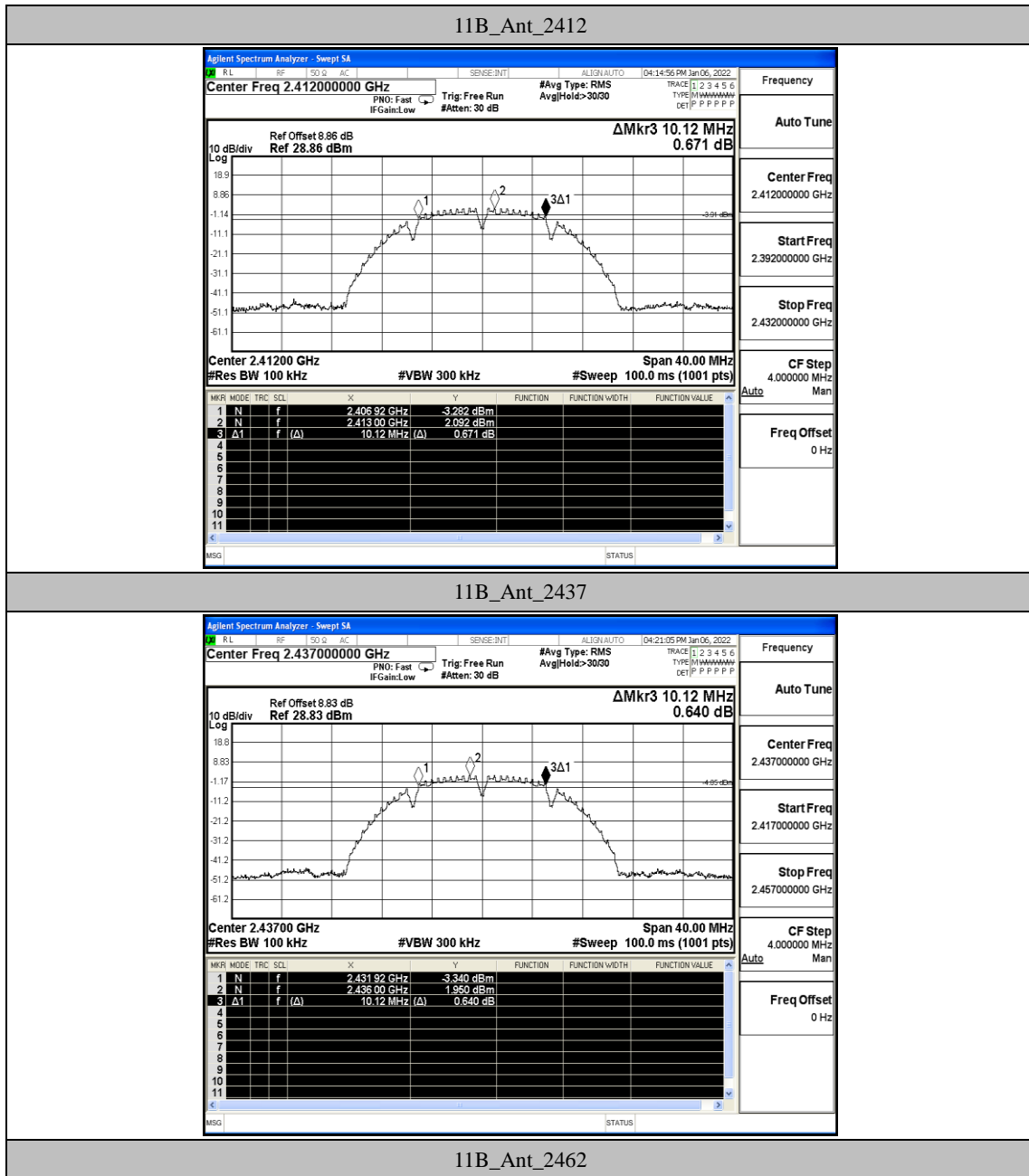
C.1 6dB Bandwidth

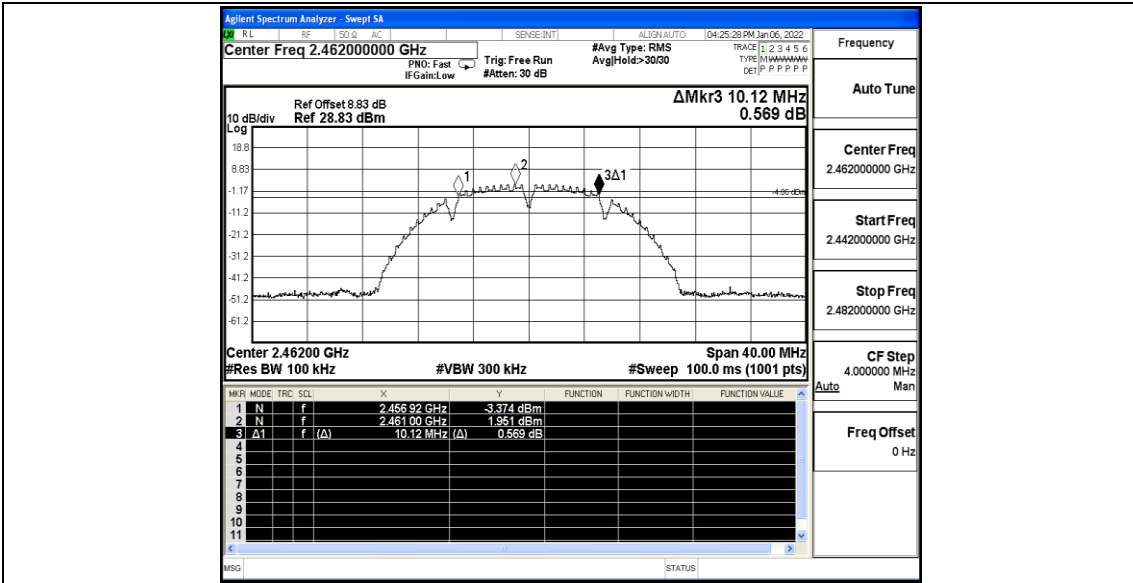
Test Result

| TestMode | Antenna | Channel | DTS BW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|-----------|---------|---------|--------------|----------|----------|------------|---------|
| 11B | Ant | 2412 | 10.120 | 2406.920 | 2417.040 | 0.5 | PASS |
| | | 2437 | 10.120 | 2431.920 | 2442.040 | 0.5 | PASS |
| | | 2462 | 10.120 | 2456.920 | 2467.040 | 0.5 | PASS |
| 11G | Ant | 2412 | 16.360 | 2403.800 | 2420.160 | 0.5 | PASS |
| | | 2437 | 16.360 | 2428.800 | 2445.160 | 0.5 | PASS |
| | | 2462 | 16.360 | 2453.800 | 2470.160 | 0.5 | PASS |
| 11N20SISO | Ant | 2412 | 17.560 | 2403.200 | 2420.760 | 0.5 | PASS |
| | | 2437 | 17.560 | 2428.200 | 2445.760 | 0.5 | PASS |
| | | 2462 | 17.600 | 2453.200 | 2470.800 | 0.5 | PASS |
| 11N40SISO | Ant | 2422 | 36.320 | 2403.840 | 2440.160 | 0.5 | PASS |
| | | 2437 | 36.320 | 2418.840 | 2455.160 | 0.5 | PASS |
| | | 2452 | 36.320 | 2433.840 | 2470.160 | 0.5 | PASS |

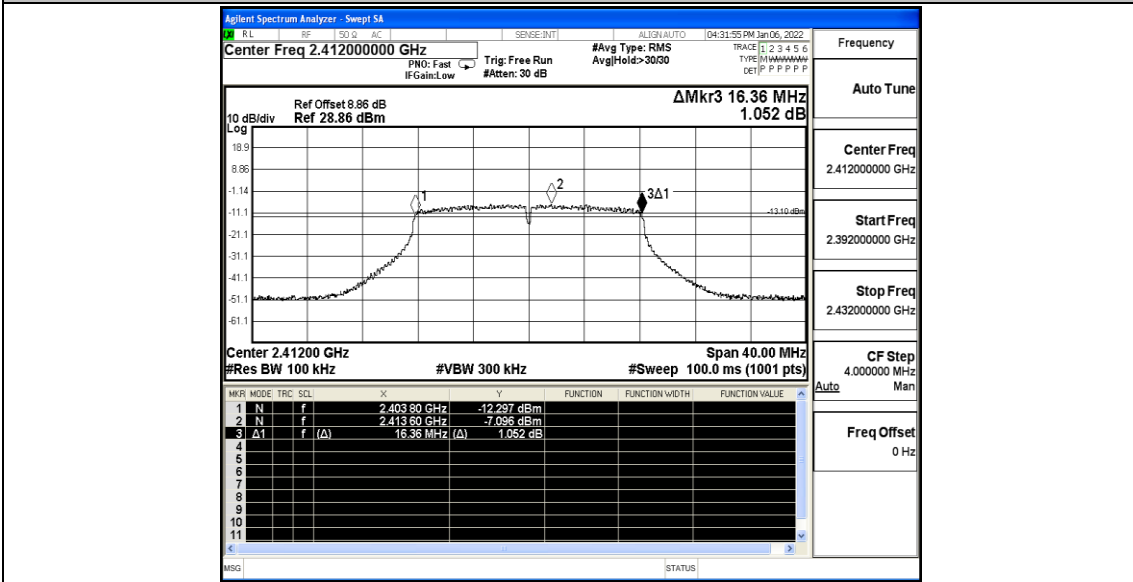


Test Graphs

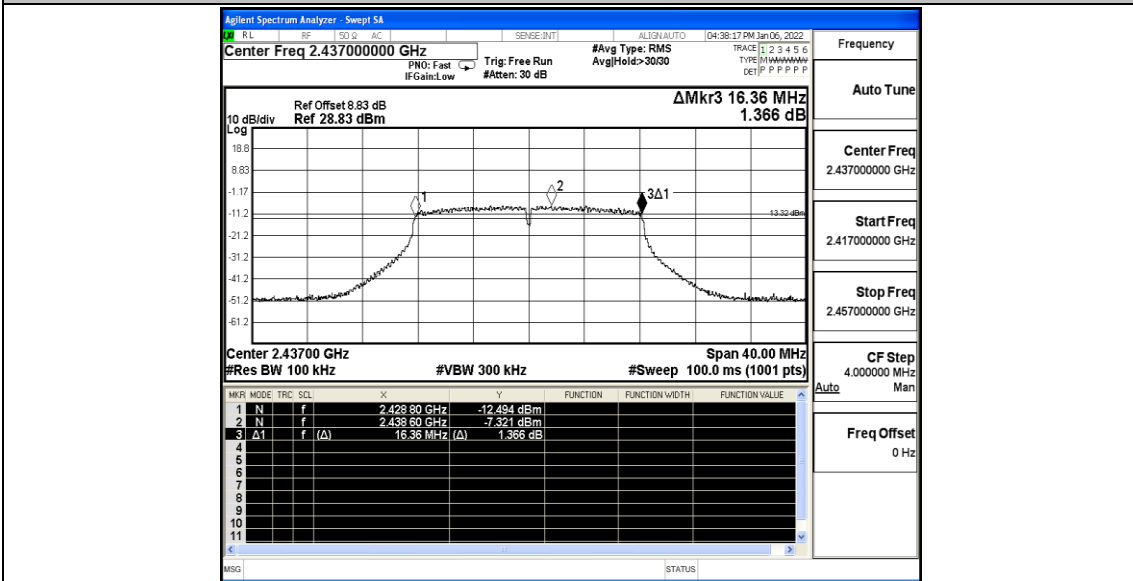




11G_Ant_2412

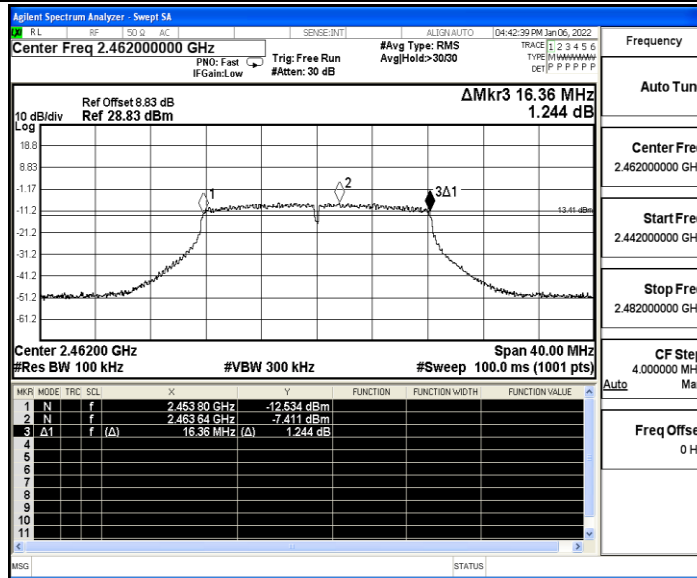


11G_Ant_2437

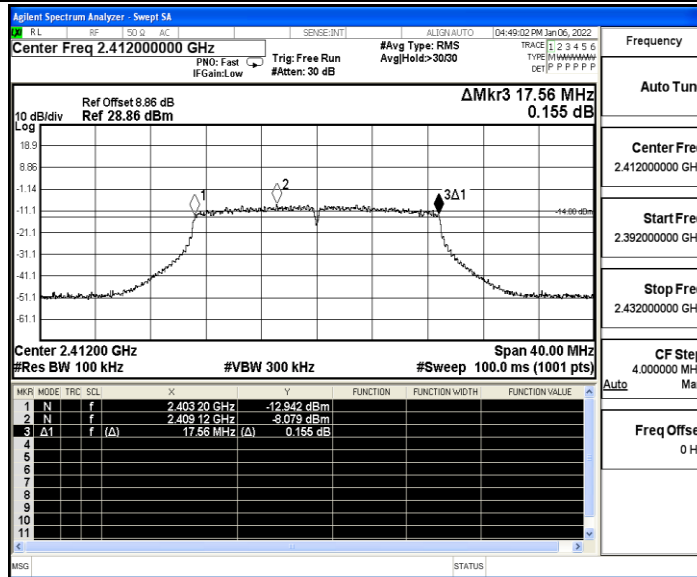




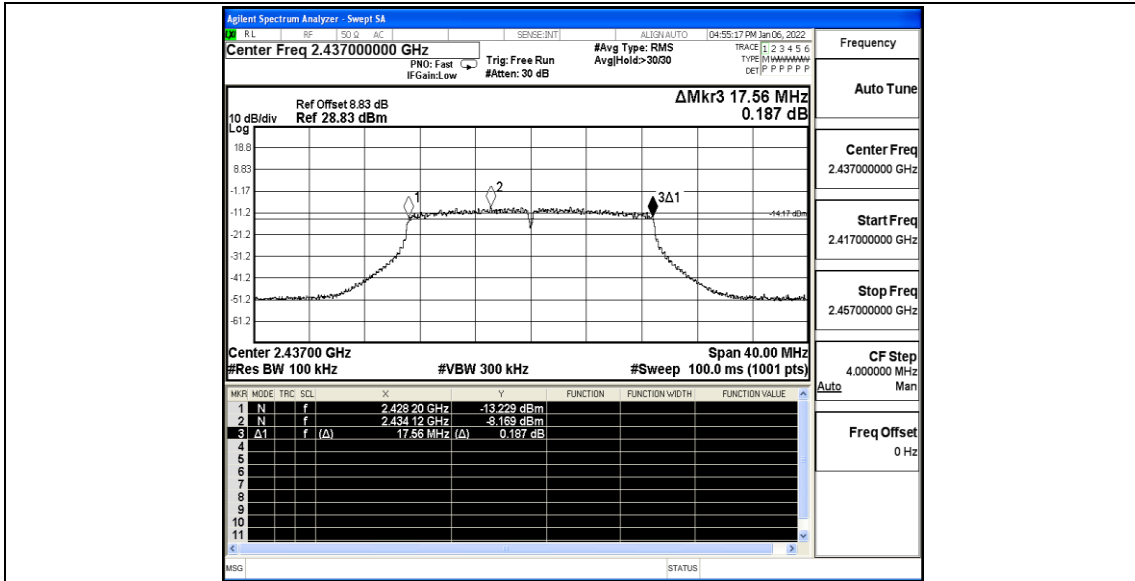
11G_Ant_2462



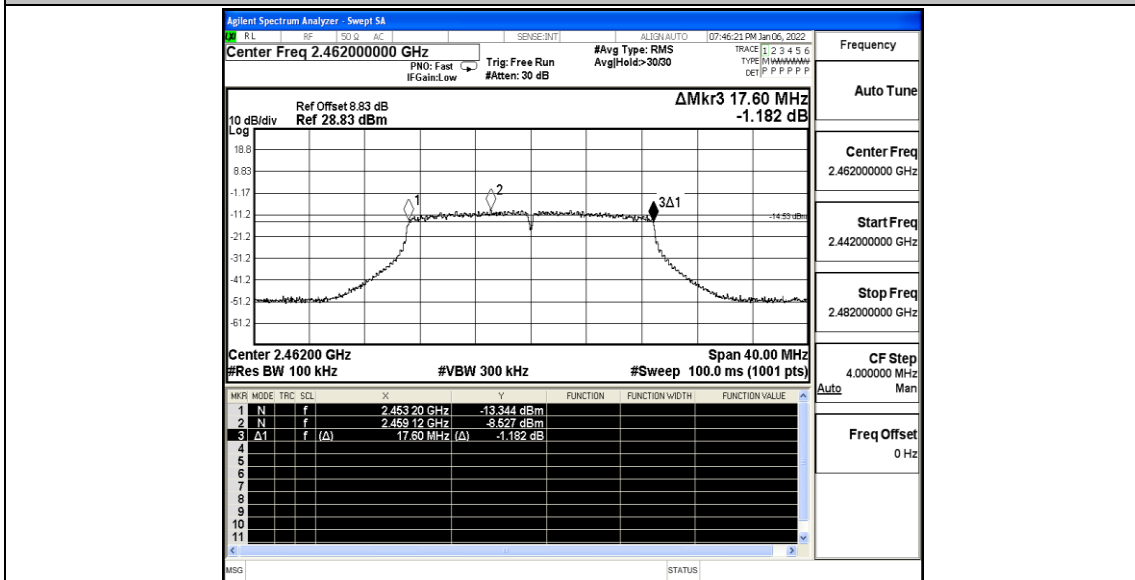
11N20SISO_Ant_2412



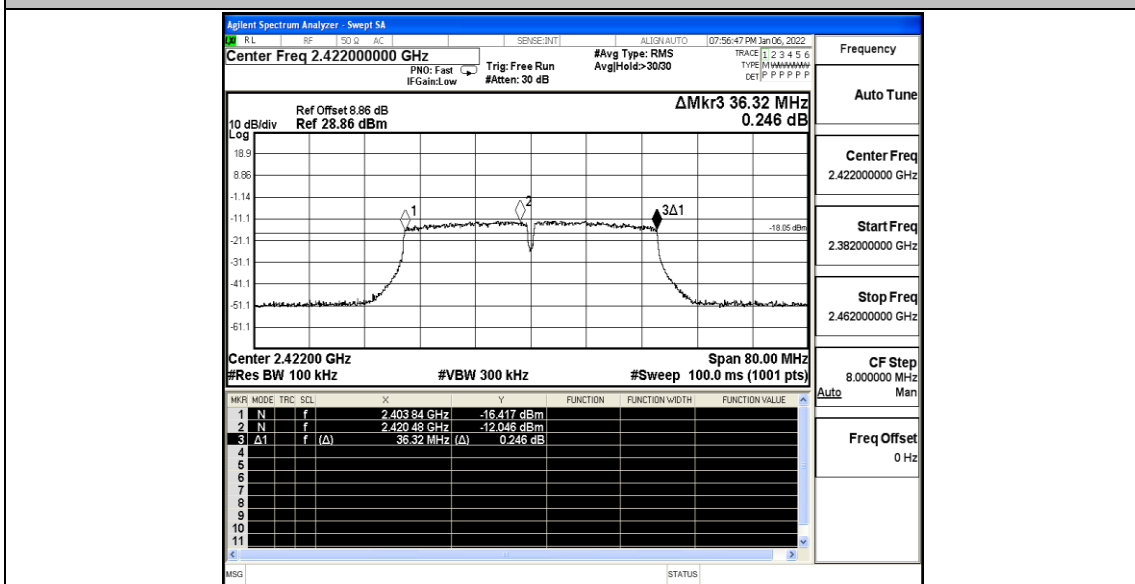
11N20SISO_Ant_2437



11N20SISO_Ant_2462

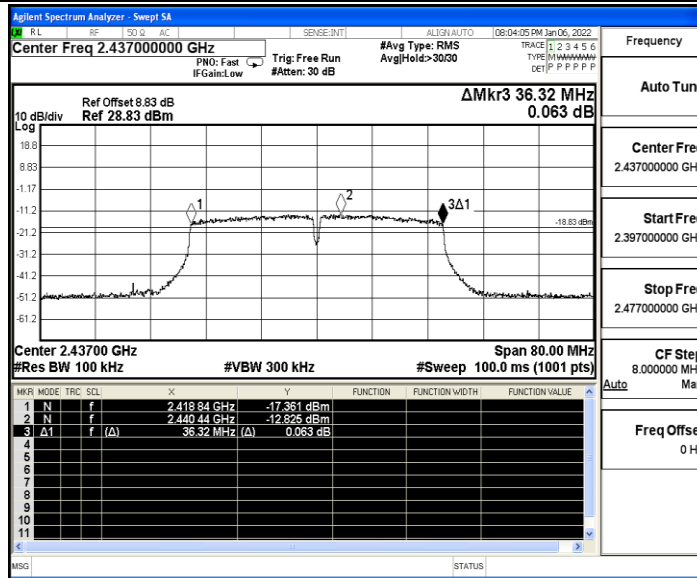


11N40SISO_Ant_2422

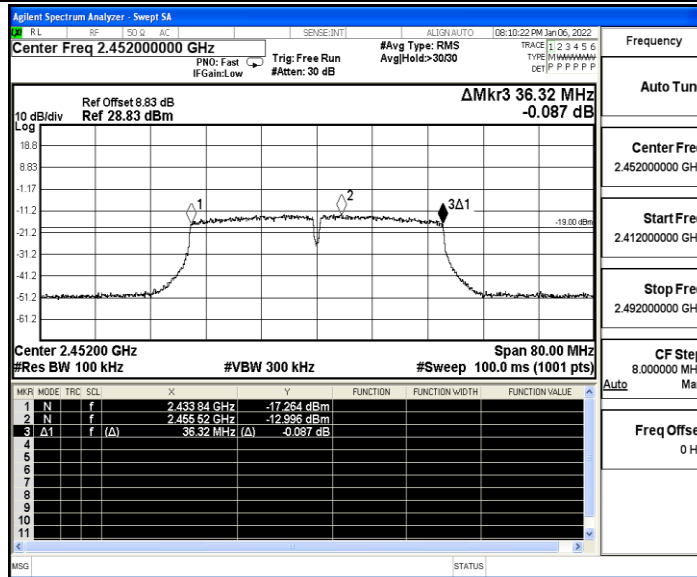




11N40SISO_Ant_2437



11N40SISO_Ant_2452





C.2 Maximum conducted output power

Test Result

| TestMode | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|---------|-------------|------------|---------|
| 11B | Ant | 2412 | 15.86 | ≤30.00 | PASS |
| | | 2437 | 15.82 | ≤30.00 | PASS |
| | | 2462 | 15.74 | ≤30.00 | PASS |
| 11G | Ant | 2412 | 14.73 | ≤30.00 | PASS |
| | | 2437 | 14.54 | ≤30.00 | PASS |
| | | 2462 | 14.44 | ≤30.00 | PASS |
| 11N20SISO | Ant | 2412 | 13.54 | ≤30.00 | PASS |
| | | 2437 | 13.32 | ≤30.00 | PASS |
| | | 2462 | 13.00 | ≤30.00 | PASS |
| 11N40SISO | Ant | 2422 | 13.18 | ≤30.00 | PASS |
| | | 2437 | 12.30 | ≤30.00 | PASS |
| | | 2452 | 12.24 | ≤30.00 | PASS |

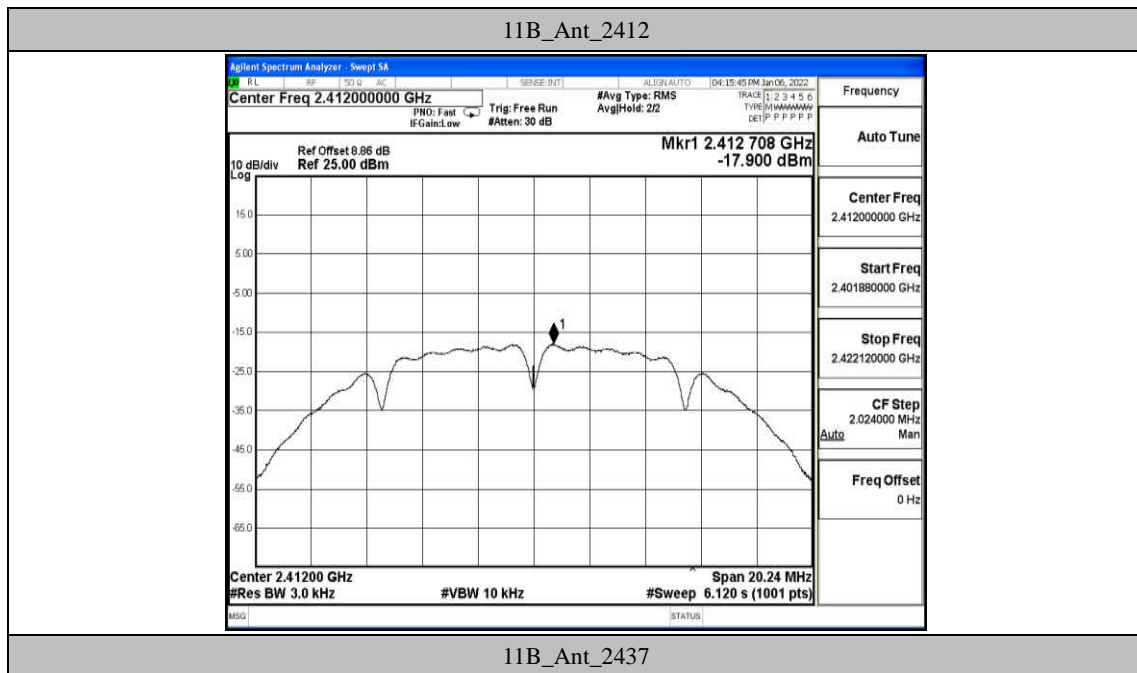


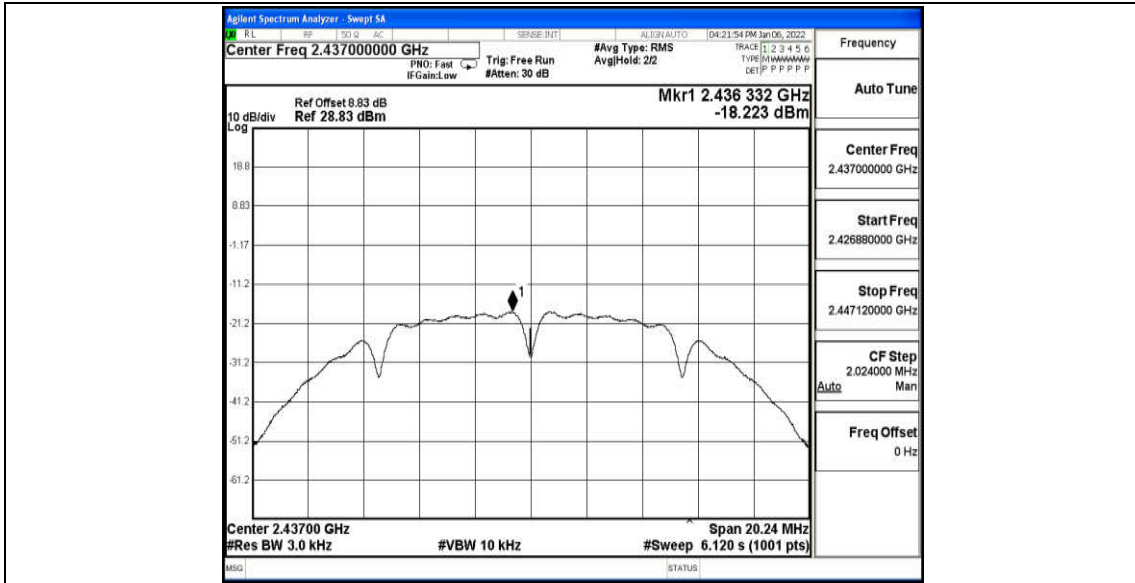
C.3 Maximum power spectral density

Test Result

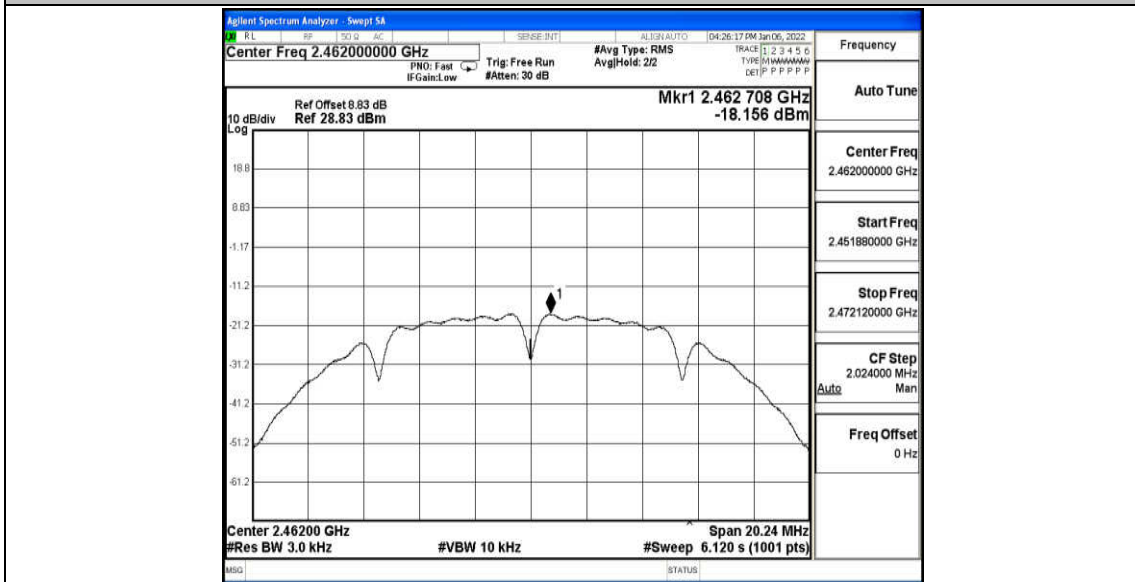
| TestMode | Antenna | Channel | Result[dBm/3kHz] | Limit[dBm/3kHz] | Verdict |
|-----------|---------|---------|------------------|-----------------|---------|
| 11B | Ant | 2412 | -17.90 | ≤8.00 | PASS |
| | | 2437 | -18.22 | ≤8.00 | PASS |
| | | 2462 | -18.16 | ≤8.00 | PASS |
| 11G | Ant | 2412 | -21.48 | ≤8.00 | PASS |
| | | 2437 | -21.67 | ≤8.00 | PASS |
| | | 2462 | -21.56 | ≤8.00 | PASS |
| 11N20SISO | Ant | 2412 | -22.14 | ≤8.00 | PASS |
| | | 2437 | -22.96 | ≤8.00 | PASS |
| | | 2462 | -23.32 | ≤8.00 | PASS |
| 11N40SISO | Ant | 2422 | -24.43 | ≤8.00 | PASS |
| | | 2437 | -24.19 | ≤8.00 | PASS |
| | | 2452 | -26.14 | ≤8.00 | PASS |

Test Graphs

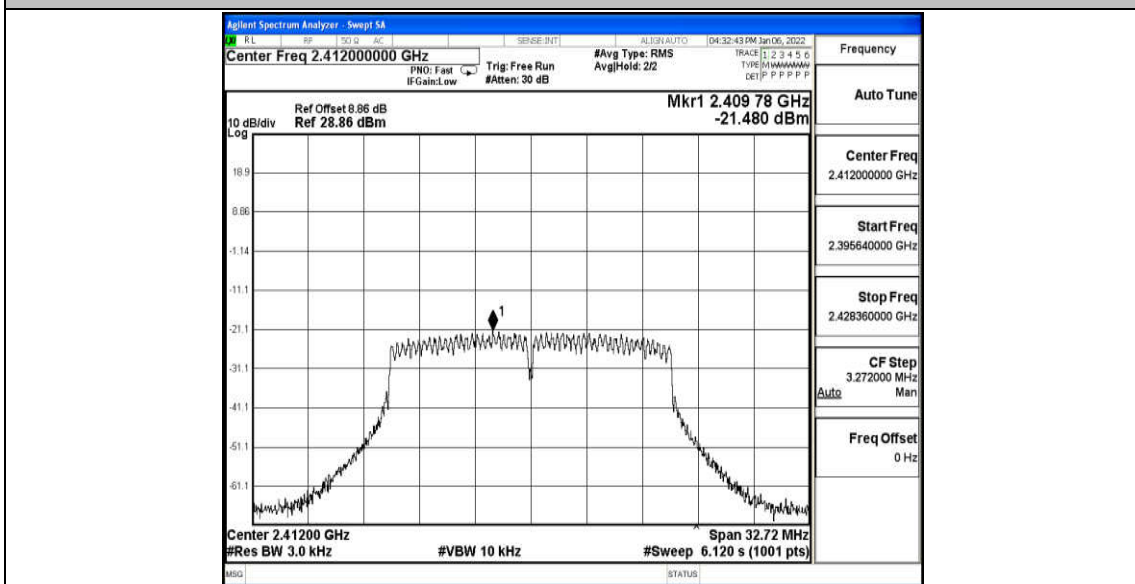




11B_Ant_2462

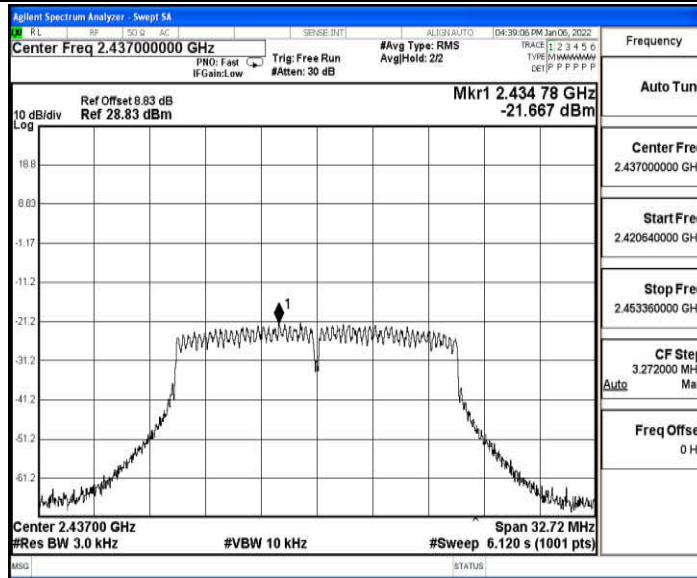


11G_Ant_2412

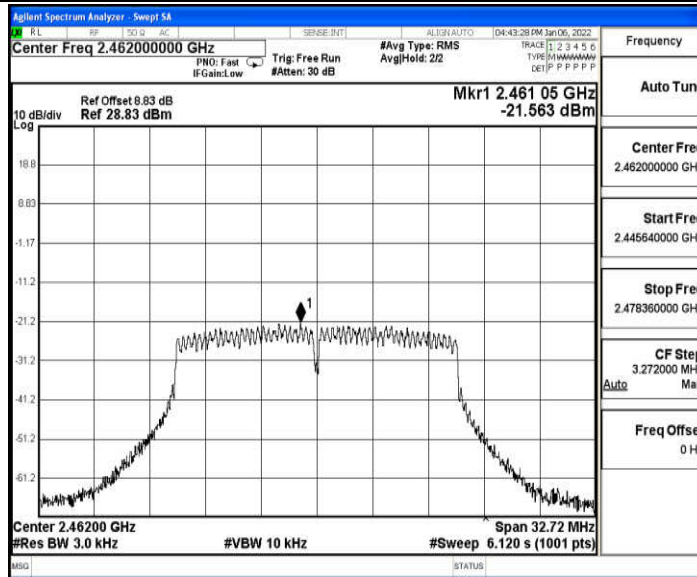




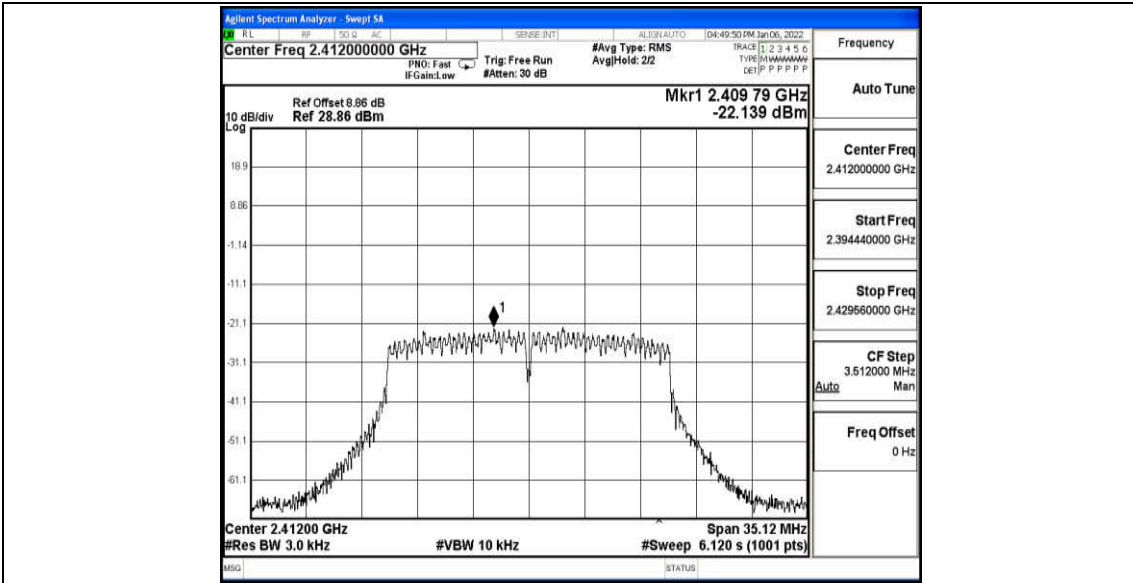
11G_Ant_2437



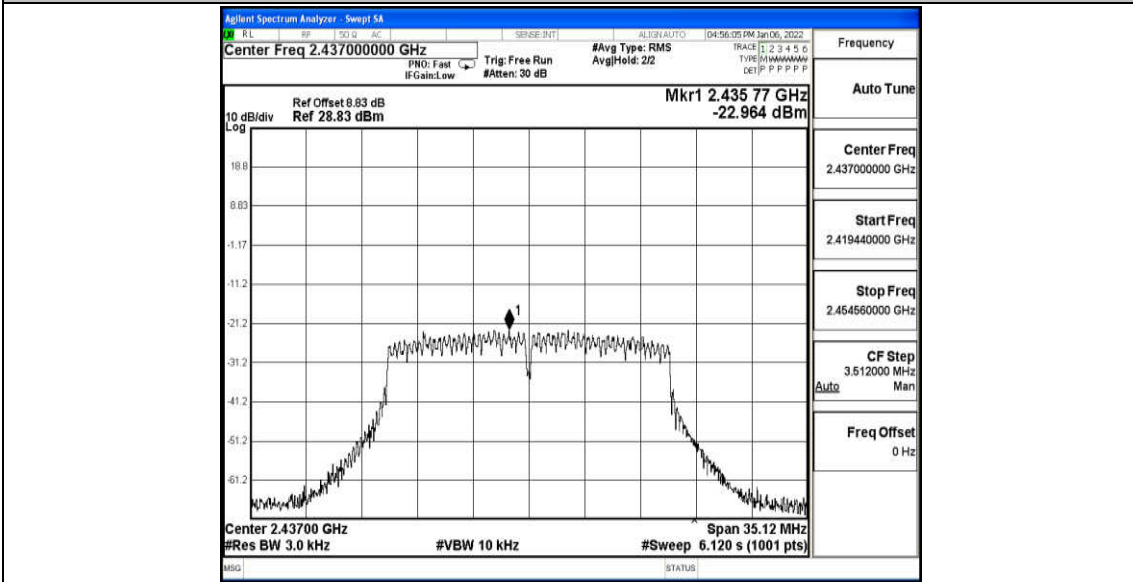
11G_Ant_2462



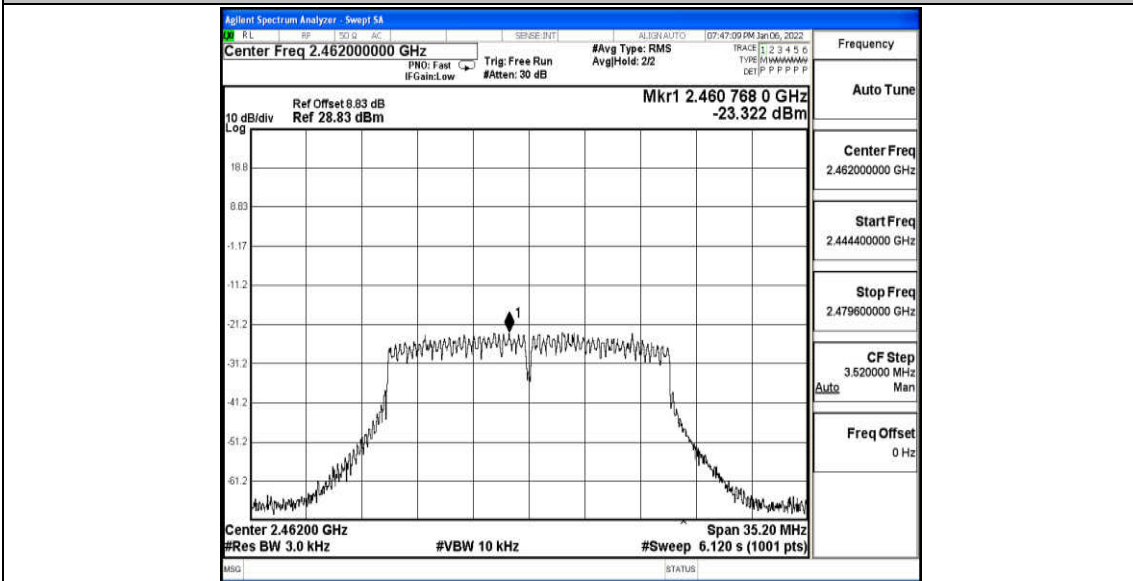
11N20SISO_Ant_2412



11N20SISO_Ant_2437

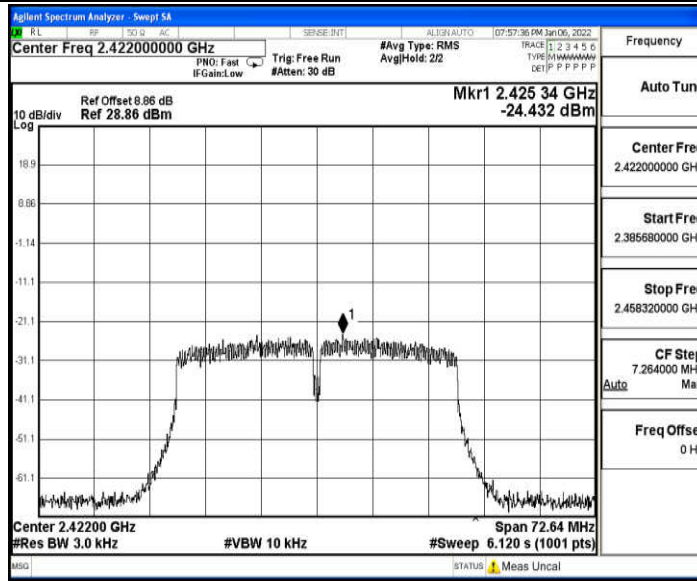


11N20SISO_Ant_2462

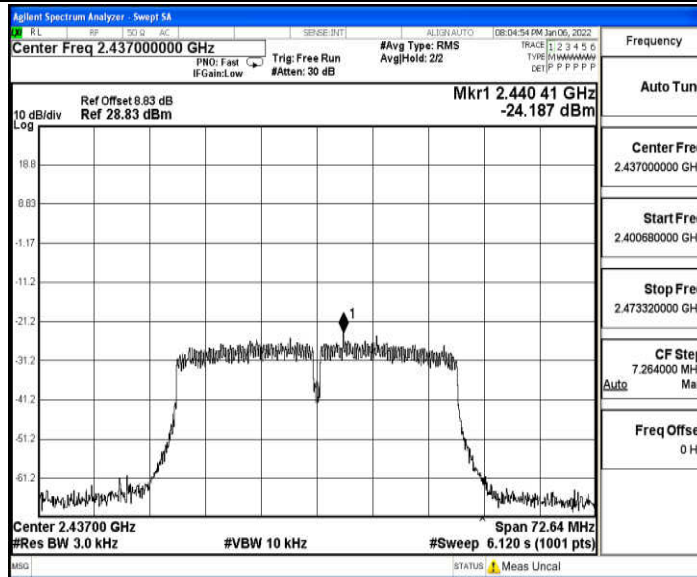




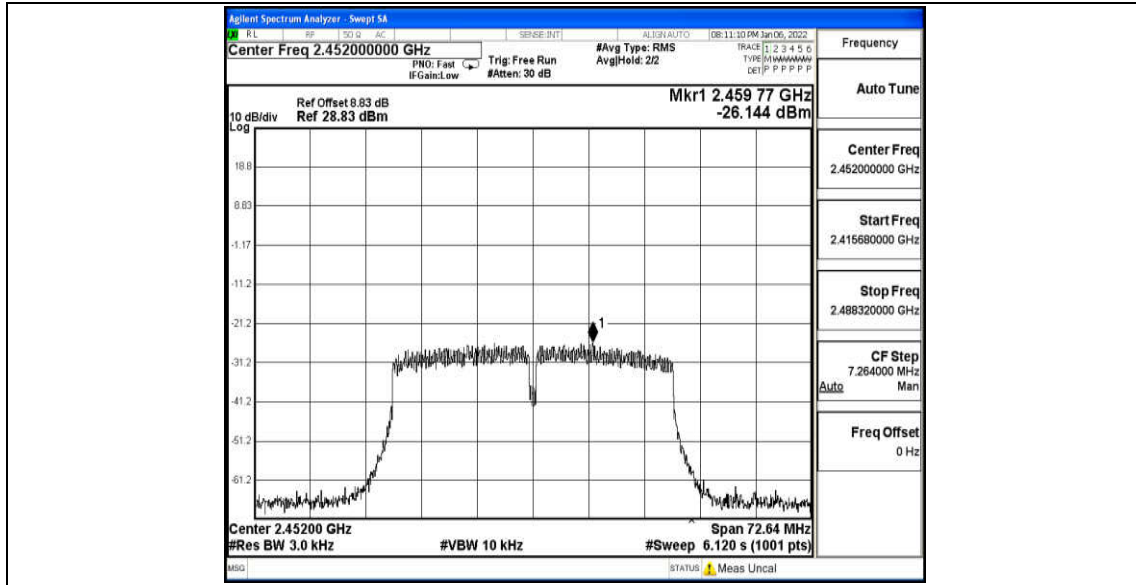
11N40SISO_Ant_2422



11N40SISO_Ant_2437



11N40SISO_Ant_2452



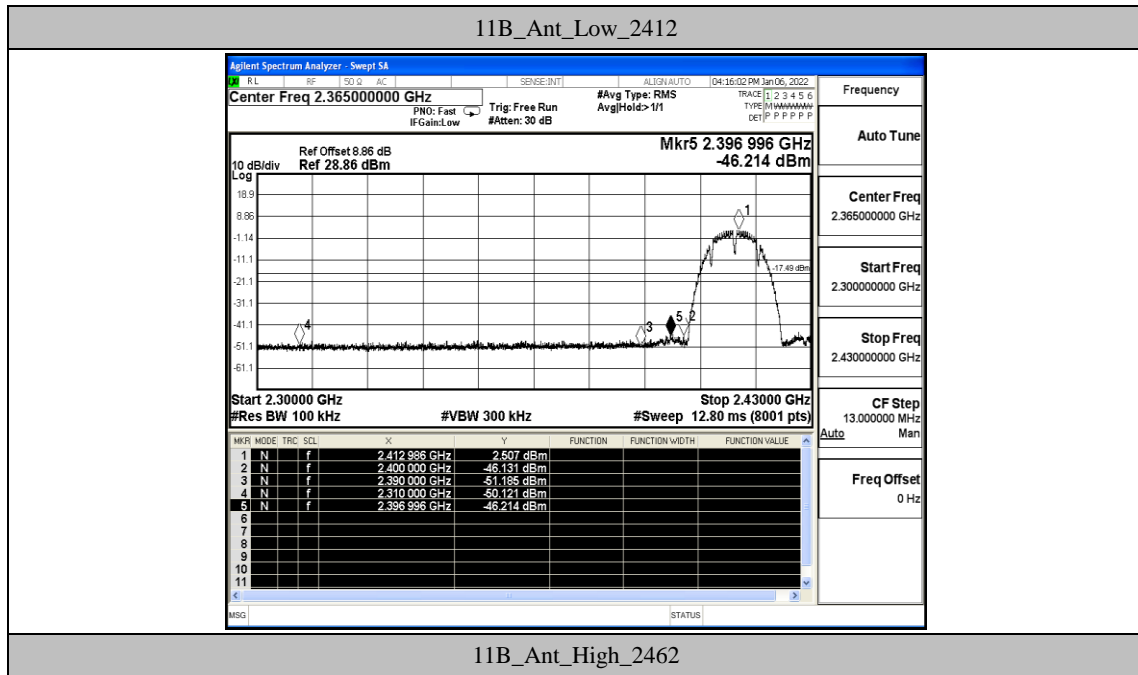


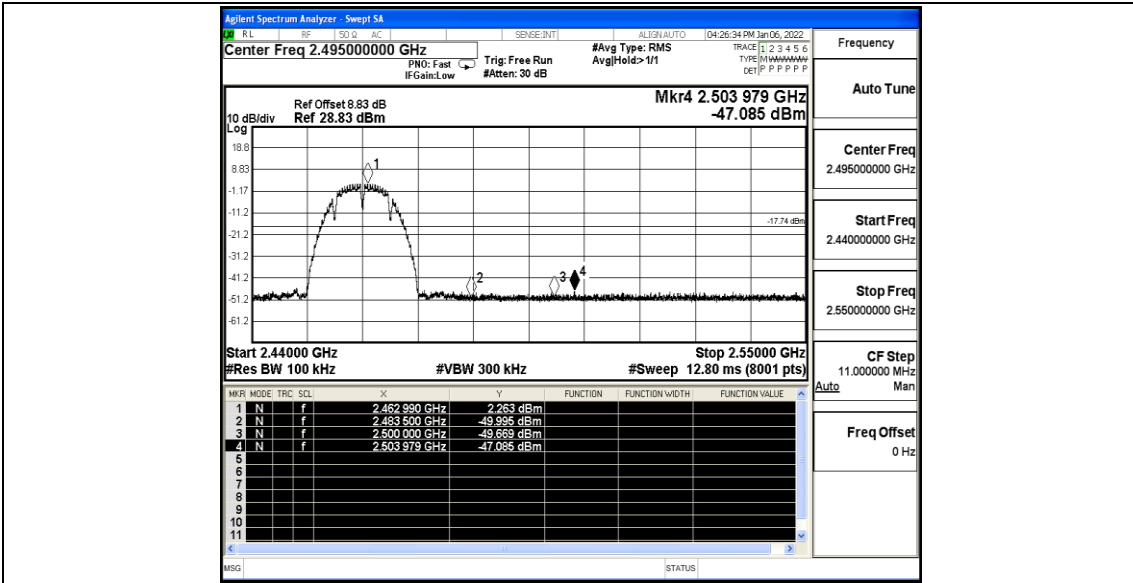
C.4 Band edge measurements

Test Result

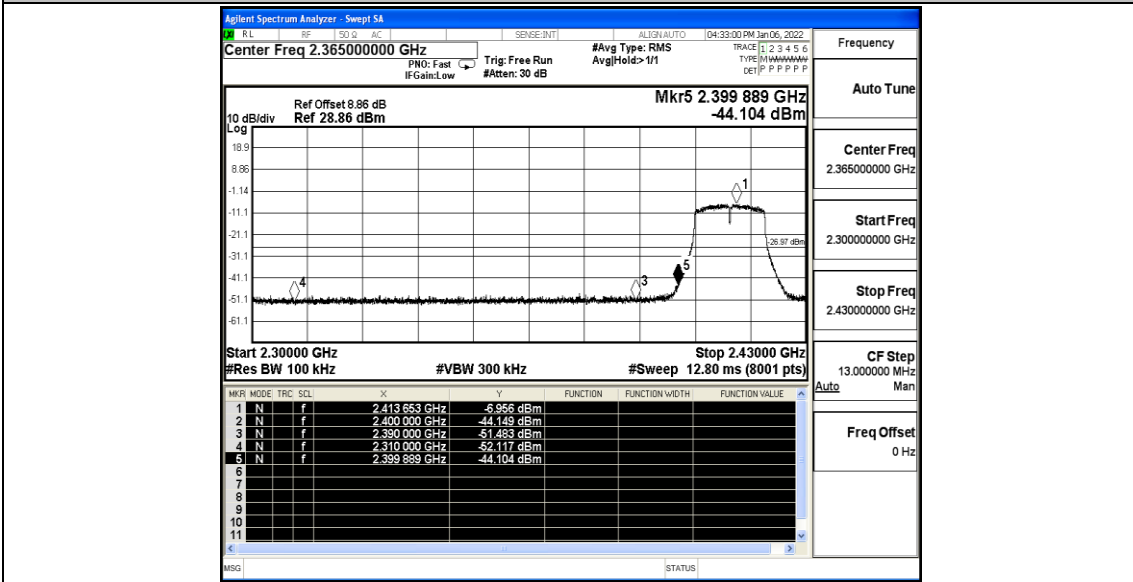
| TestMode | Antenna | ChName | Channel | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|--------|---------|---------------|-------------|------------|---------|
| 11B | Ant | Low | 2412 | 2.51 | -46.21 | ≤-17.49 | PASS |
| | | High | 2462 | 2.26 | -47.09 | ≤-17.74 | PASS |
| 11G | Ant | Low | 2412 | -6.97 | -44.1 | ≤-26.97 | PASS |
| | | High | 2462 | -7.38 | -47.34 | ≤-27.38 | PASS |
| 11N20SISO | Ant | Low | 2412 | -8.10 | -42.73 | ≤-28.1 | PASS |
| | | High | 2462 | -8.34 | -47.68 | ≤-28.34 | PASS |
| 11N40SISO | Ant | Low | 2422 | -11.77 | -45.45 | ≤-31.77 | PASS |
| | | High | 2452 | -12.74 | -46.82 | ≤-32.74 | PASS |

Test Graphs

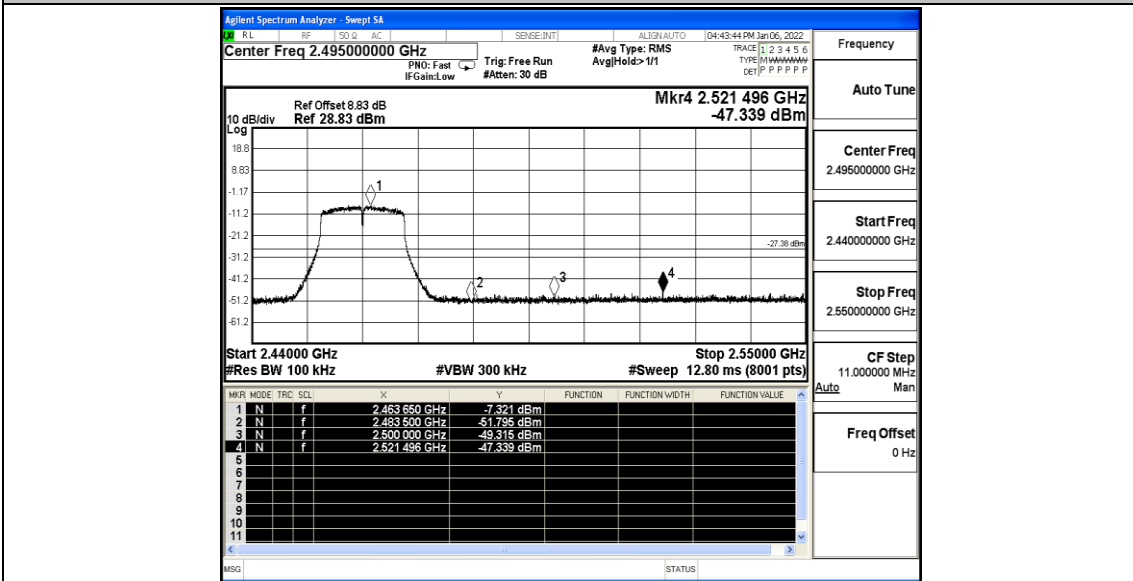




11G_Ant_Low_2412

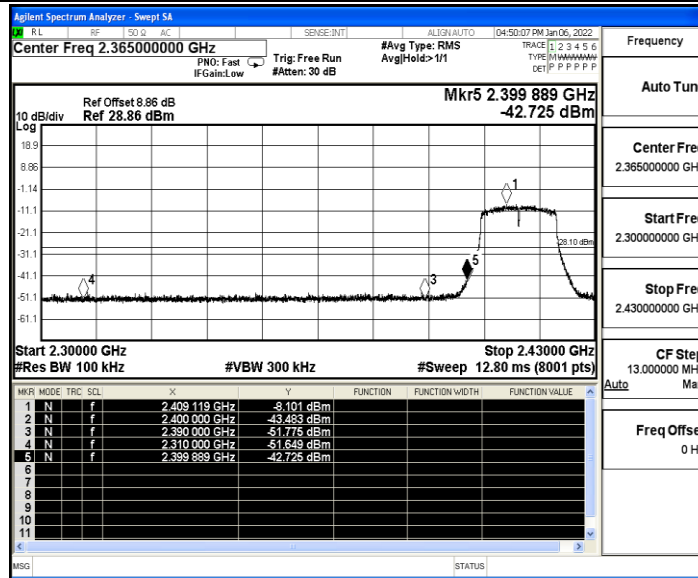


11G_Ant_High_2462

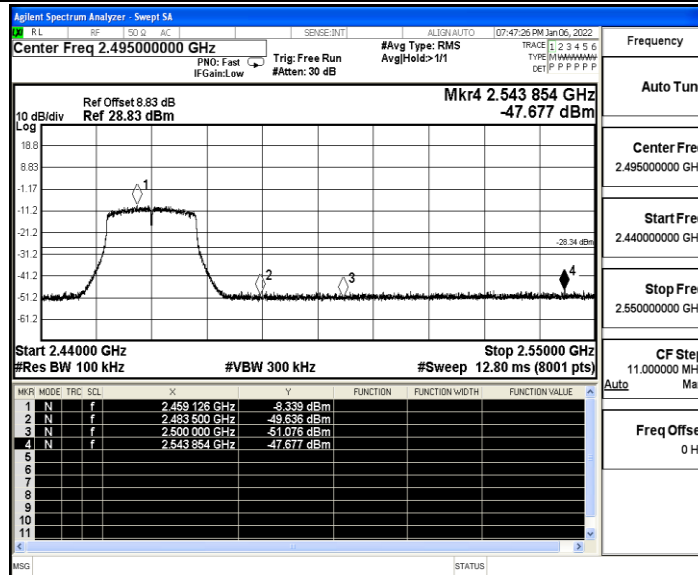




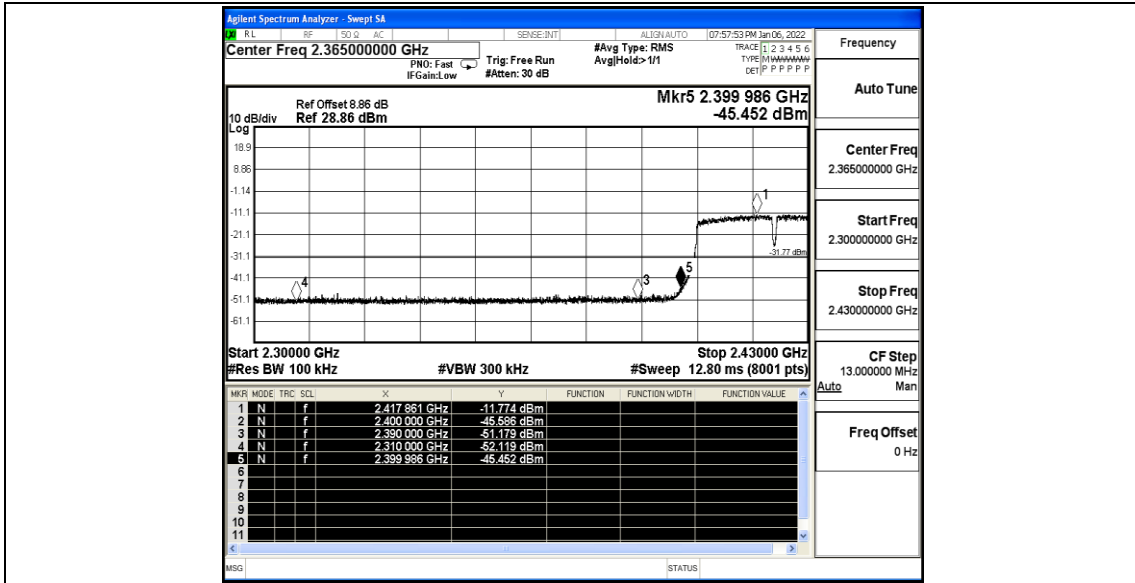
11N20SISO_Ant_Low_2412



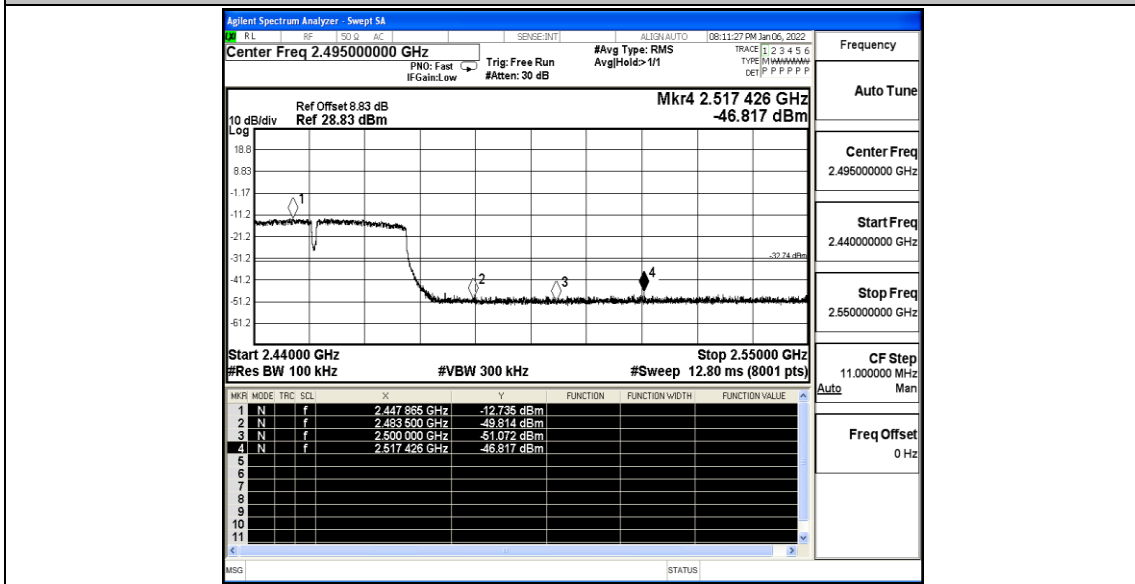
11N20SISO_Ant_High_2462



11N40SISO_Ant_Low_2422



11N40SISO_Ant_High_2452





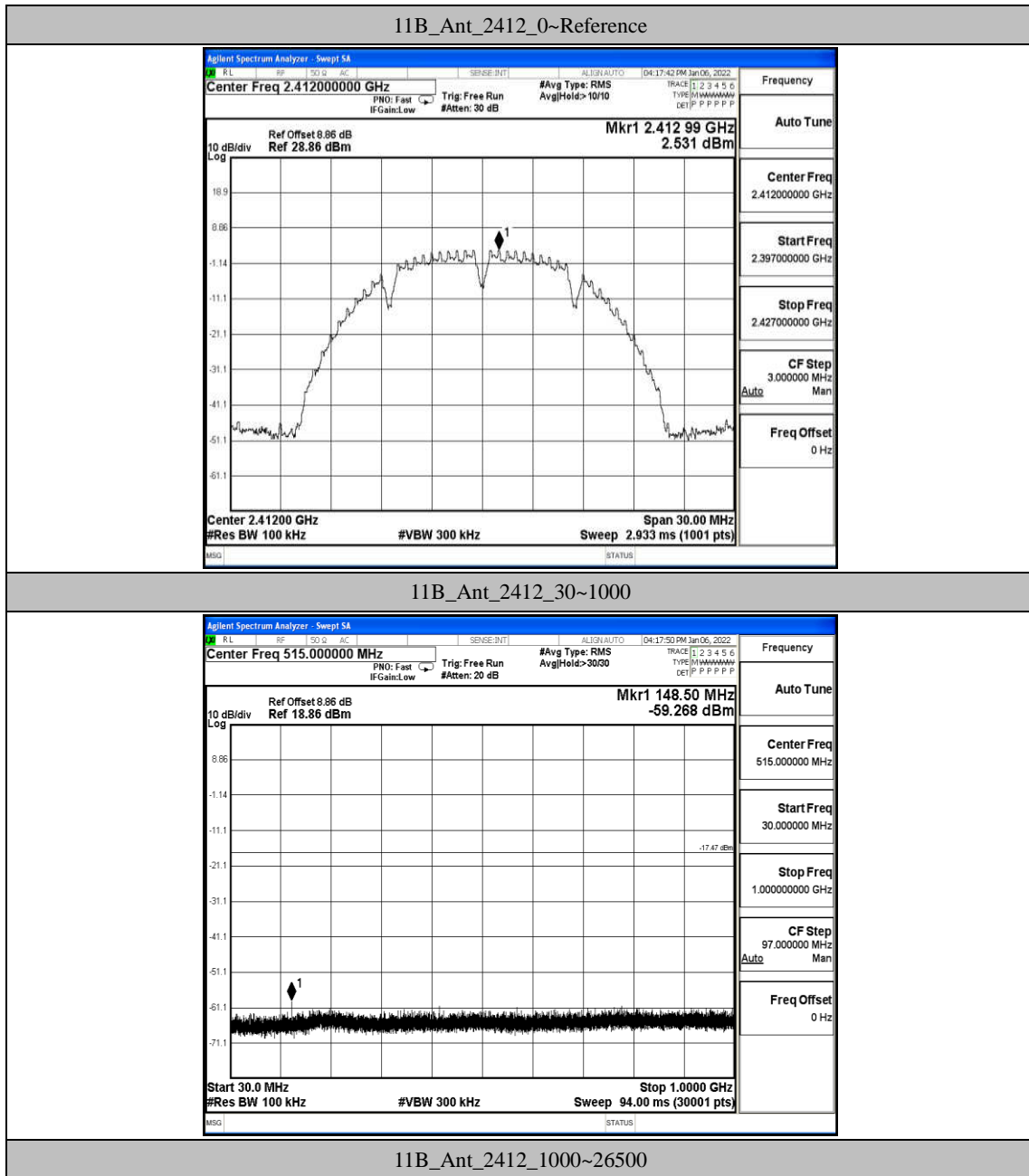
C.5 Conducted Spurious Emission

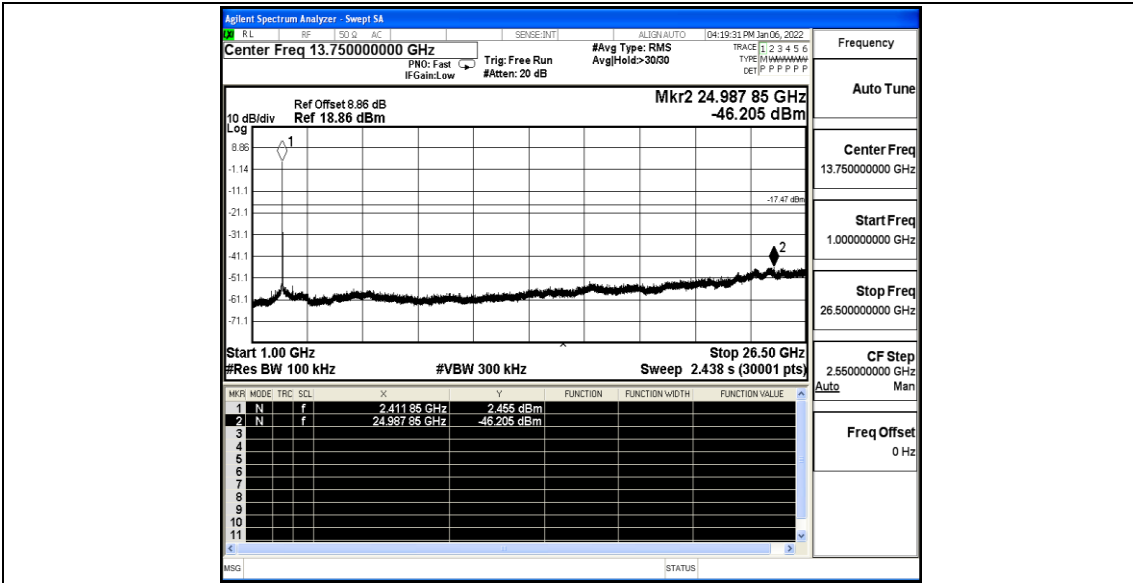
Test Result

| TestMode | Antenna | Channel | FreqRange [Mhz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|-----------|---------|---------|--------------------|-------------------|-----------------|----------------|---------|
| 11B | Ant | 2412 | Reference | 2.53 | 2.53 | --- | PASS |
| | | | 30~1000 | 2.53 | -59.27 | ≤-17.47 | PASS |
| | | | 1000~26500 | 2.53 | -46.21 | ≤-17.47 | PASS |
| | | 2437 | Reference | 2.39 | 2.39 | --- | PASS |
| | | | 30~1000 | 2.39 | -60.03 | ≤-17.61 | PASS |
| | | | 1000~26500 | 2.39 | -46.17 | ≤-17.61 | PASS |
| | | 2462 | Reference | 2.38 | 2.38 | --- | PASS |
| | | | 30~1000 | 2.38 | -60.43 | ≤-17.62 | PASS |
| | | | 1000~26500 | 2.38 | -46.15 | ≤-17.62 | PASS |
| 11G | Ant | 2412 | Reference | -6.91 | -6.91 | --- | PASS |
| | | | 30~1000 | -6.91 | -60.63 | ≤-26.91 | PASS |
| | | | 1000~26500 | -6.91 | -45.22 | ≤-26.91 | PASS |
| | | 2437 | Reference | -7.27 | -7.27 | --- | PASS |
| | | | 30~1000 | -7.27 | -60.45 | ≤-27.27 | PASS |
| | | | 1000~26500 | -7.27 | -45.92 | ≤-27.27 | PASS |
| | | 2462 | Reference | -7.20 | -7.20 | --- | PASS |
| | | | 30~1000 | -7.20 | -59.68 | ≤-27.2 | PASS |
| | | | 1000~26500 | -7.20 | -45.74 | ≤-27.2 | PASS |
| 11N20SISO | Ant | 2412 | Reference | -8.02 | -8.02 | --- | PASS |
| | | | 30~1000 | -8.02 | -59.13 | ≤-28.02 | PASS |
| | | | 1000~26500 | -8.02 | -45.61 | ≤-28.02 | PASS |
| | | 2437 | Reference | -8.29 | -8.29 | --- | PASS |
| | | | 30~1000 | -8.29 | -40.11 | ≤-28.29 | PASS |
| | | | 1000~26500 | -8.29 | -45.42 | ≤-28.29 | PASS |
| | | 2462 | Reference | -8.31 | -8.31 | --- | PASS |
| | | | 30~1000 | -8.31 | -59.57 | ≤-28.31 | PASS |
| | | | 1000~26500 | -8.31 | -45.98 | ≤-28.31 | PASS |
| 11N40SISO | Ant | 2422 | Reference | -11.77 | -11.77 | --- | PASS |
| | | | 30~1000 | -11.77 | -59.37 | ≤-31.77 | PASS |
| | | | 1000~26500 | -11.77 | -46.31 | ≤-31.77 | PASS |
| | | 2437 | Reference | -12.55 | -12.55 | --- | PASS |
| | | | 30~1000 | -12.55 | -60.35 | ≤-32.55 | PASS |
| | | | 1000~26500 | -12.55 | -45.47 | ≤-32.55 | PASS |
| | | 2452 | Reference | -12.72 | -12.72 | --- | PASS |
| | | | 30~1000 | -12.72 | -59.92 | ≤-32.72 | PASS |
| | | | 1000~26500 | -12.72 | -45.89 | ≤-32.72 | PASS |

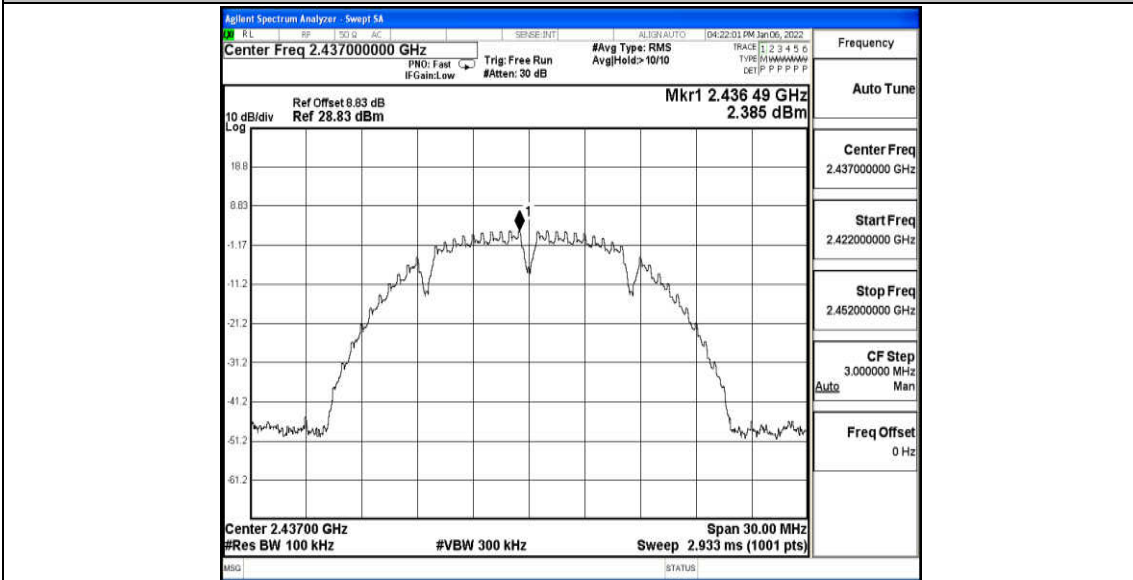


Test Graphs

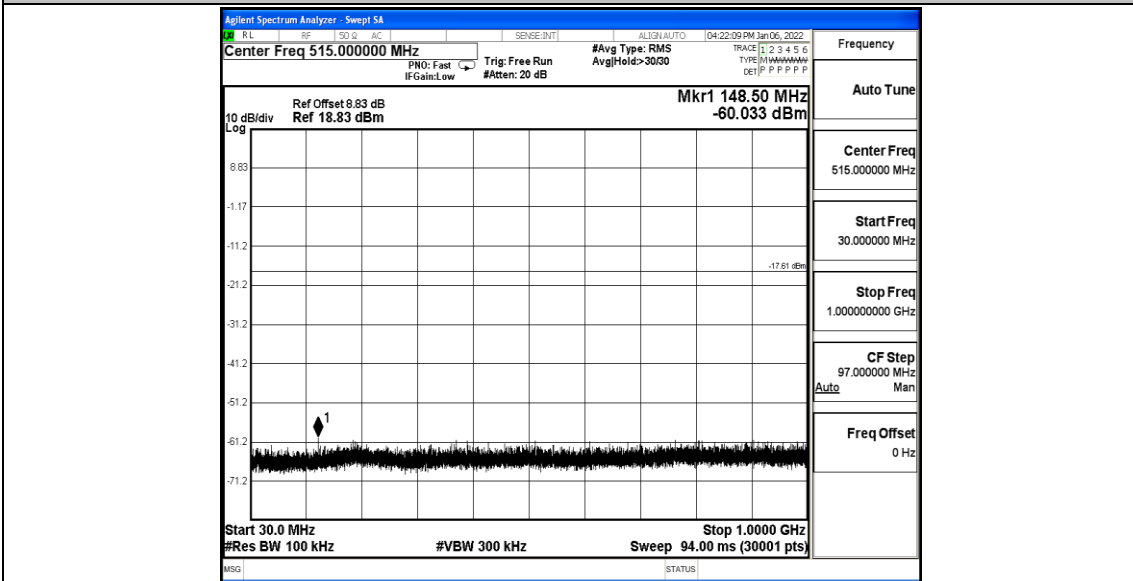




11B_Ant_2437_0~Reference

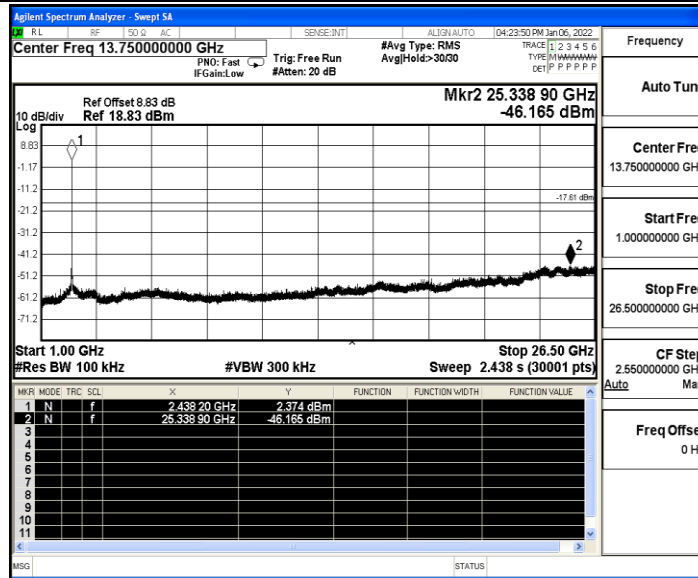


11B_Ant_2437_30~1000

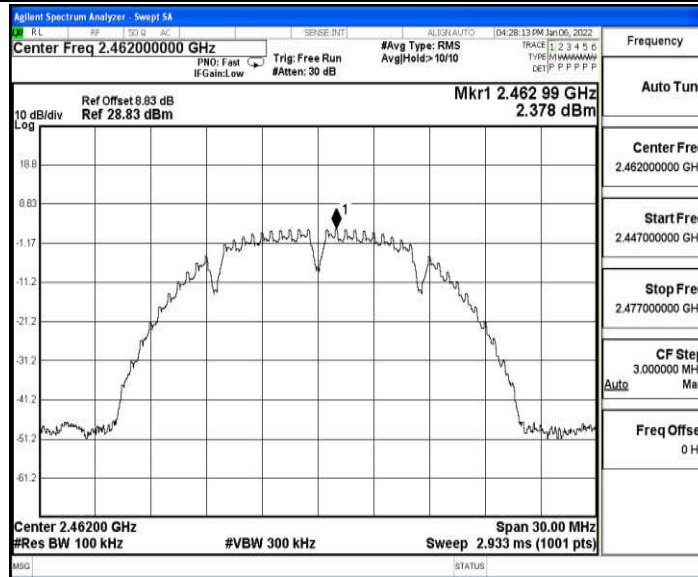




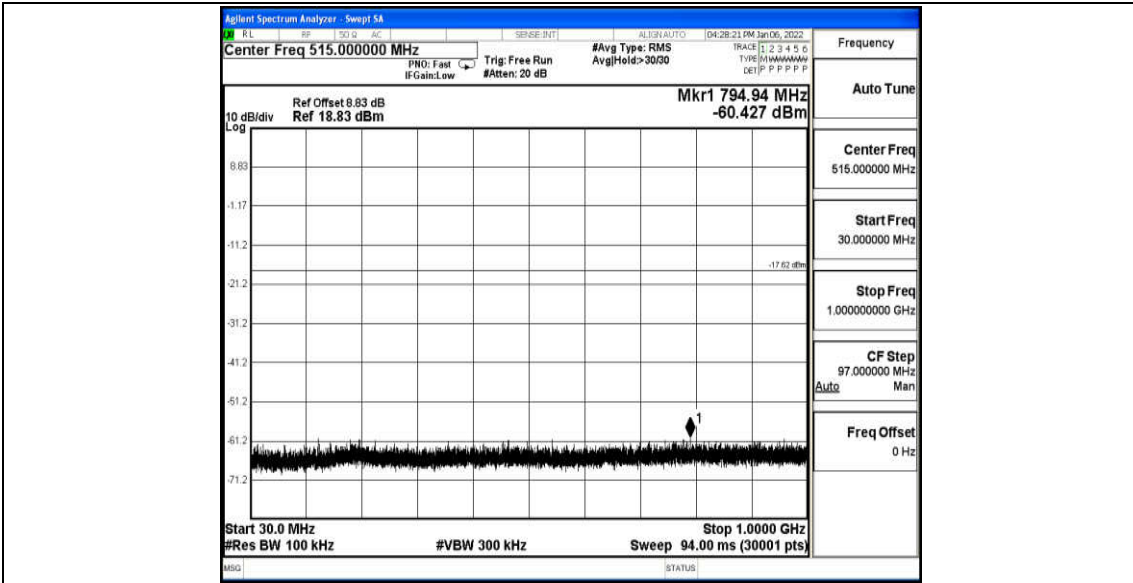
11B_Ant_2437_1000~26500



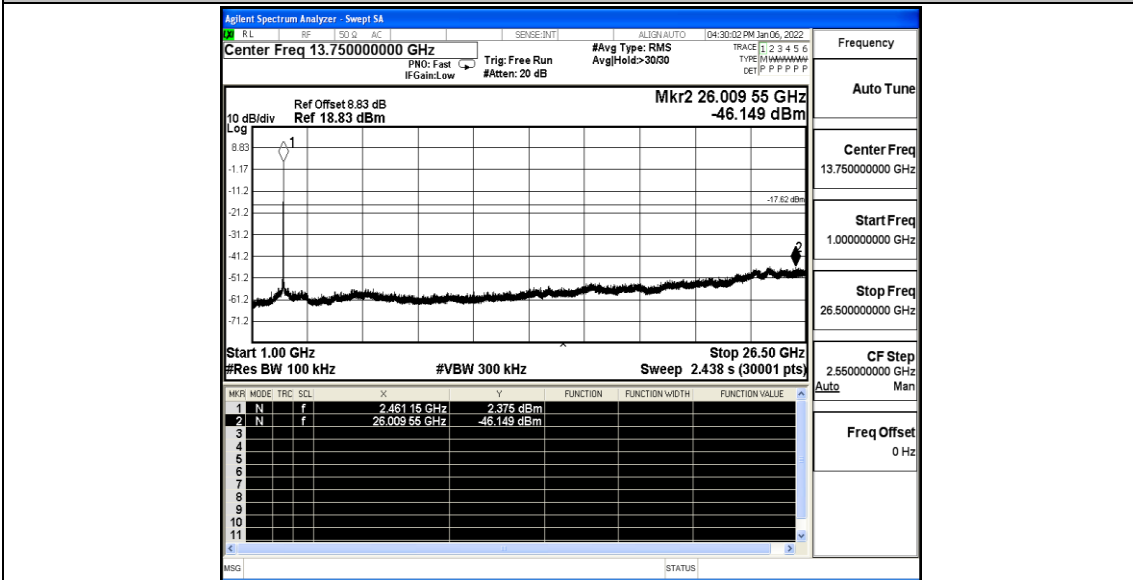
11B_Ant_2462_0~Reference



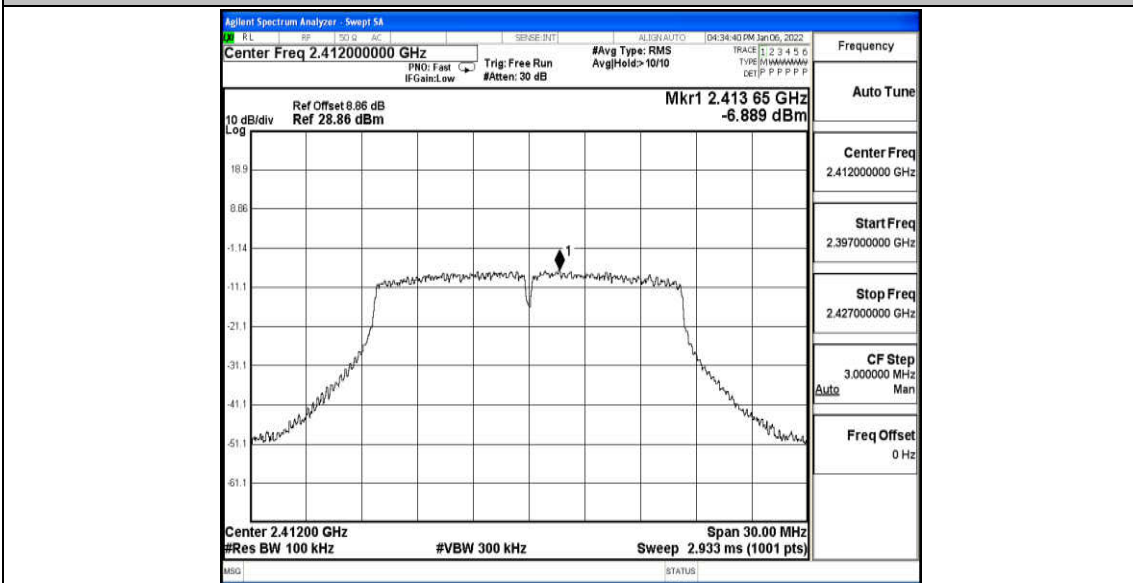
11B_Ant_2462_30~1000



11B_Ant_2462_1000~26500

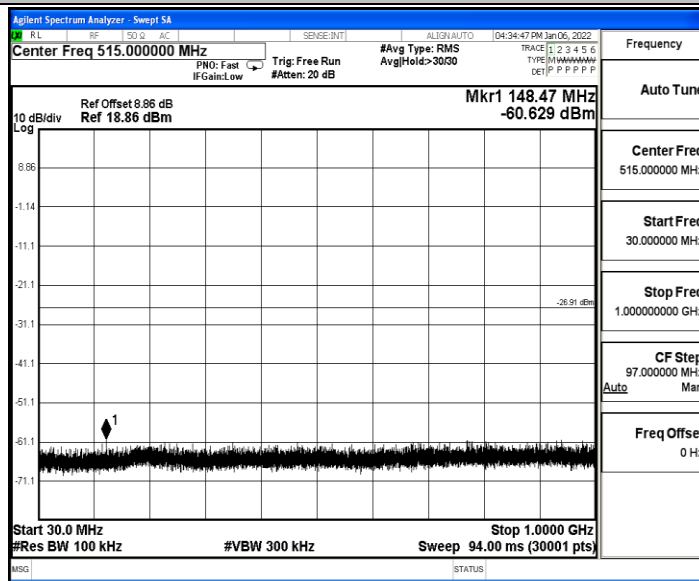


11G_Ant_2412_0~Reference

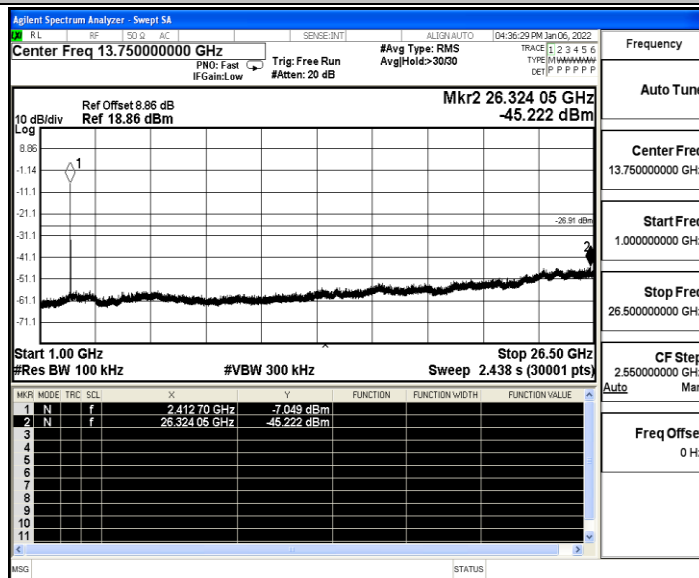




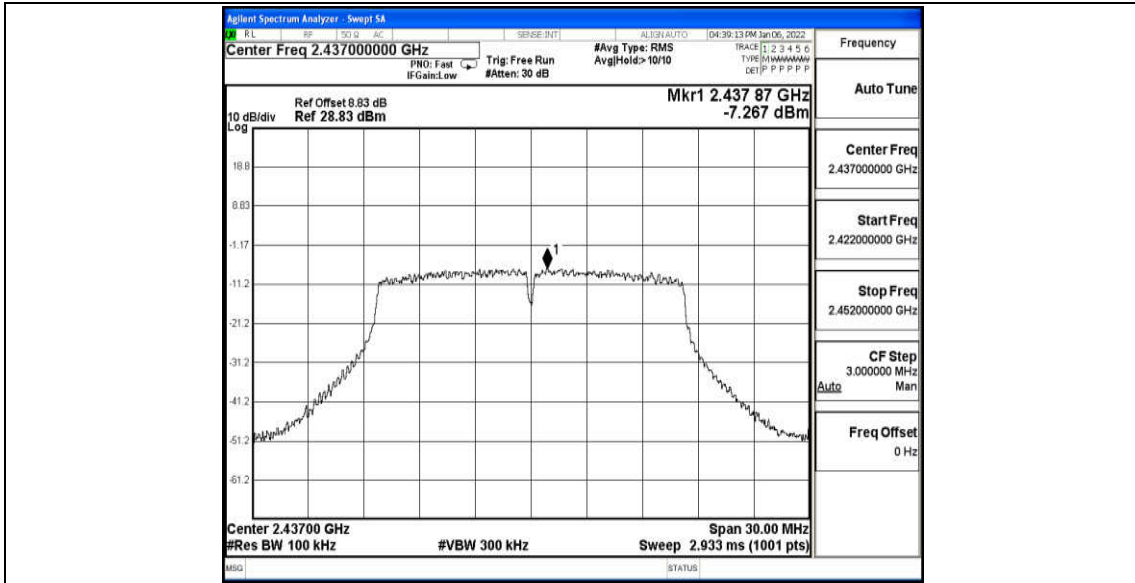
11G_Ant_2412_30~1000



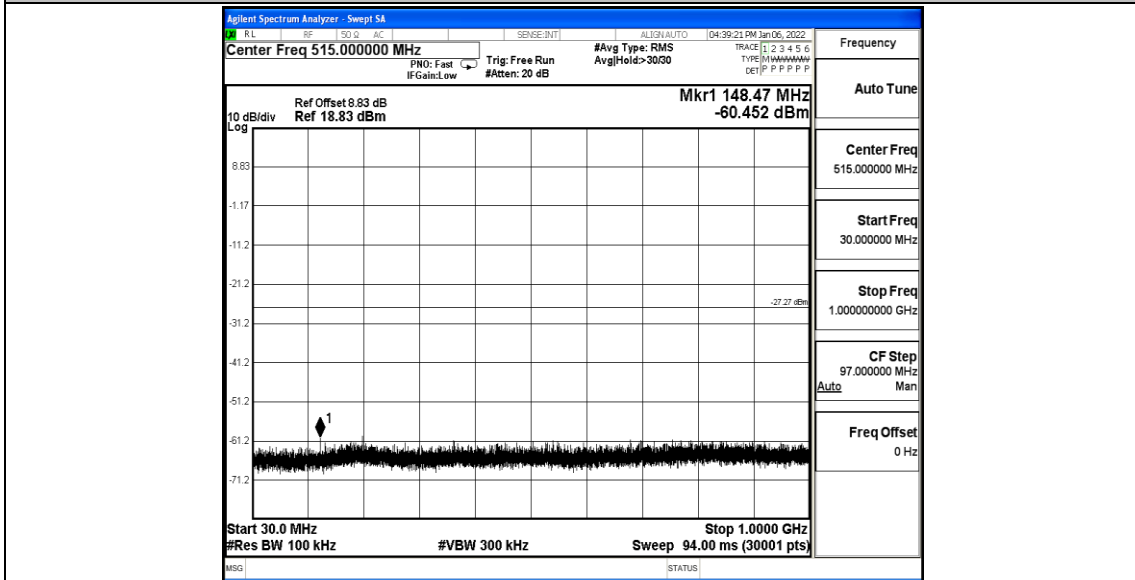
11G_Ant_2412_1000~26500



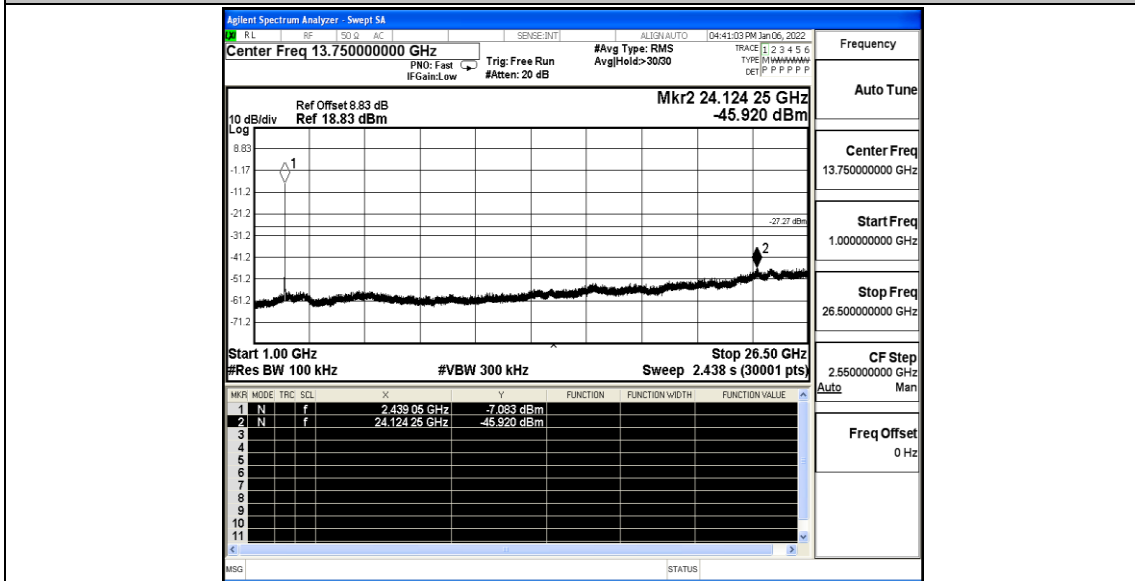
11G_Ant_2437_0~Reference



11G_Ant_2437_30~1000

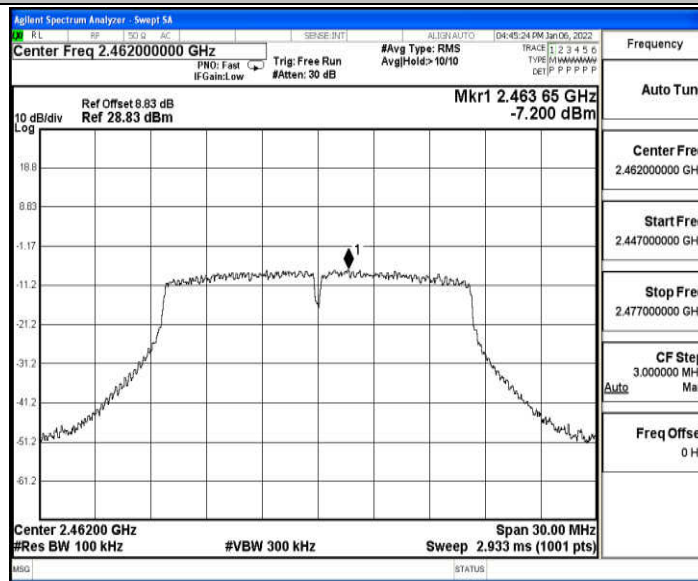


11G_Ant_2437_1000~26500

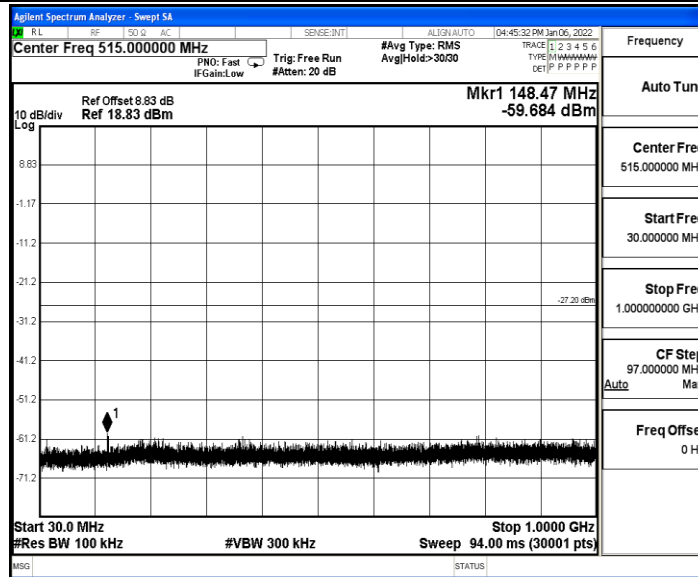




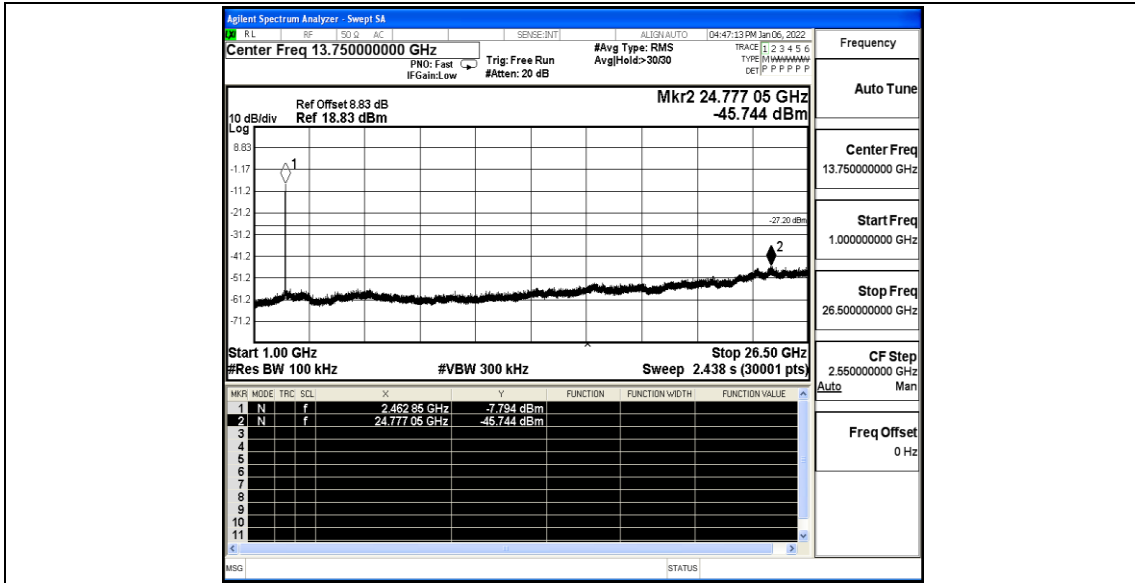
11G_Ant_2462_0~Reference



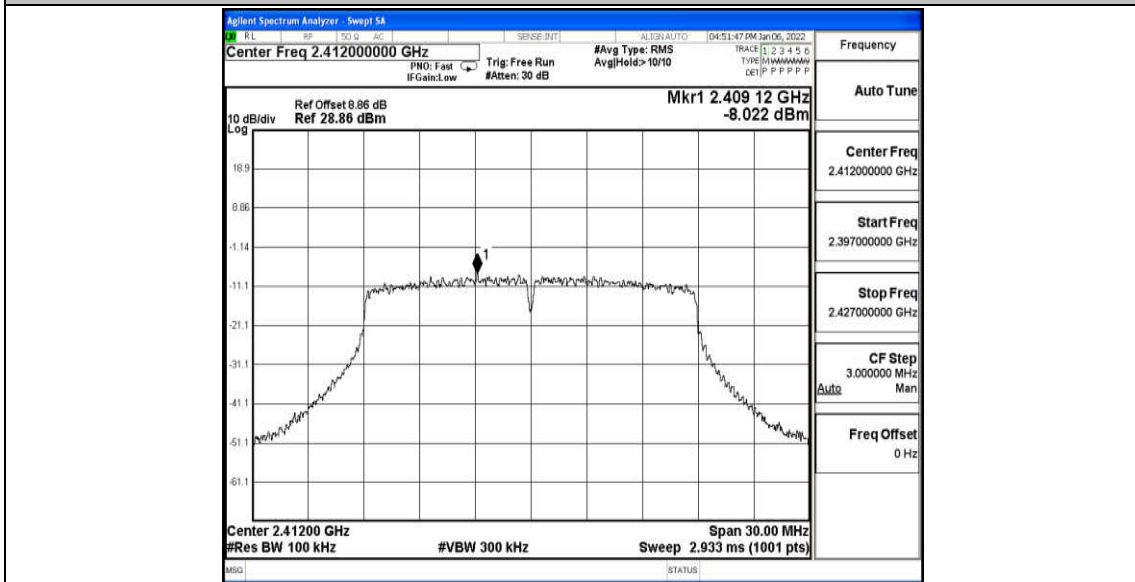
11G_Ant_2462_30~1000



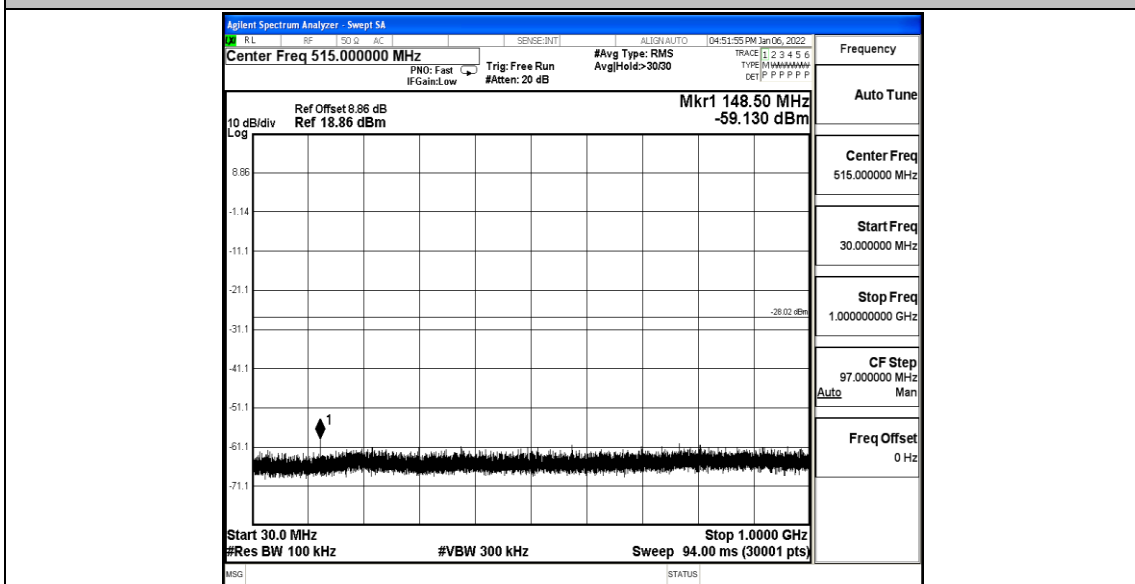
11G_Ant_2462_1000~26500



11N20SISO_Ant_2412_0~Reference

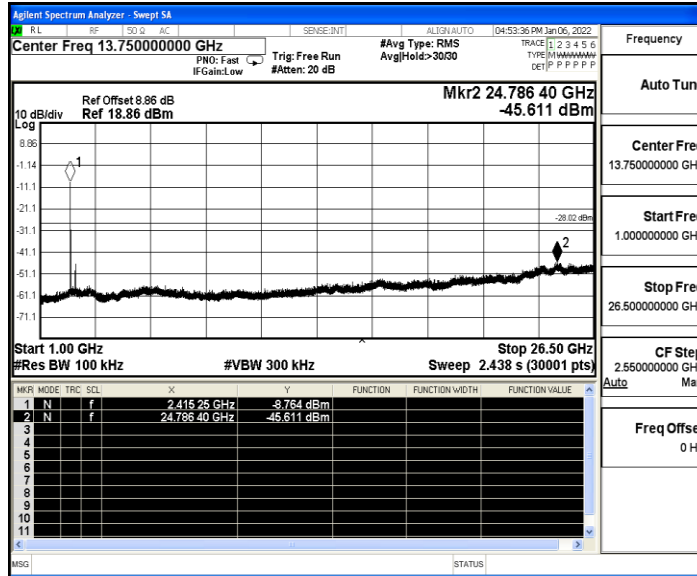


11N20SISO_Ant_2412_30~1000

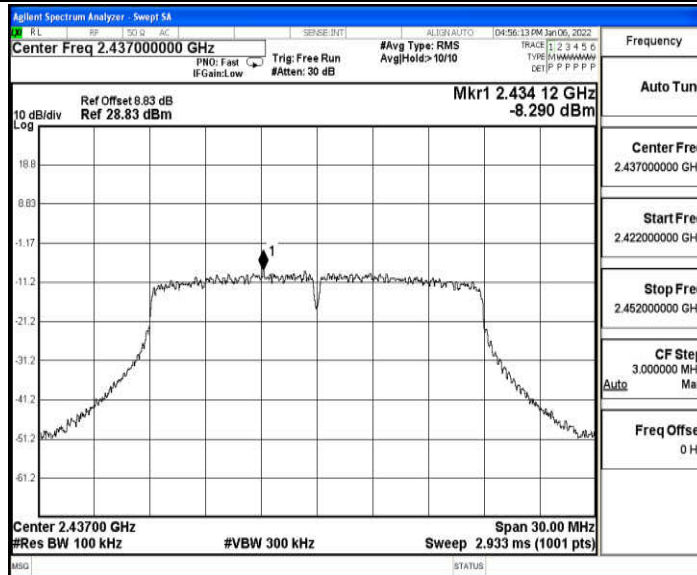




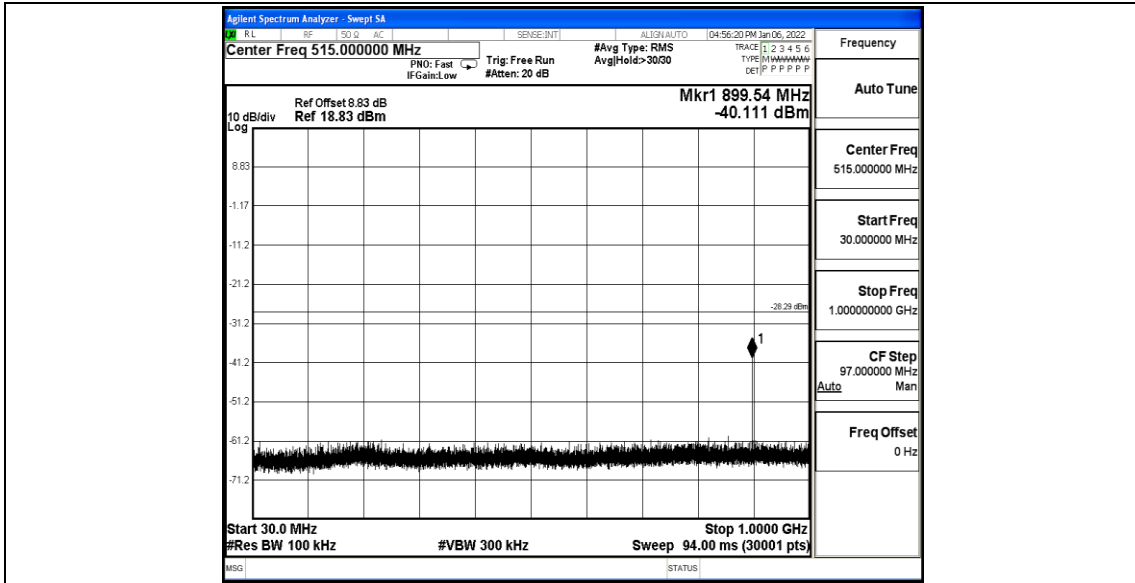
11N20SISO_Ant_2412_1000~26500



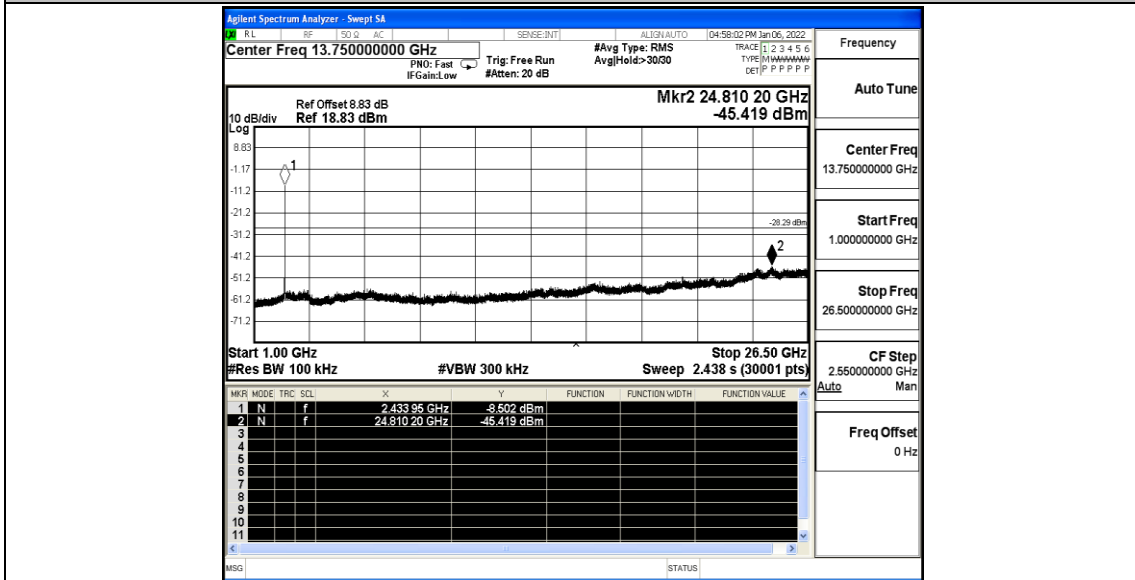
11N20SISO_Ant_2437_0~Reference



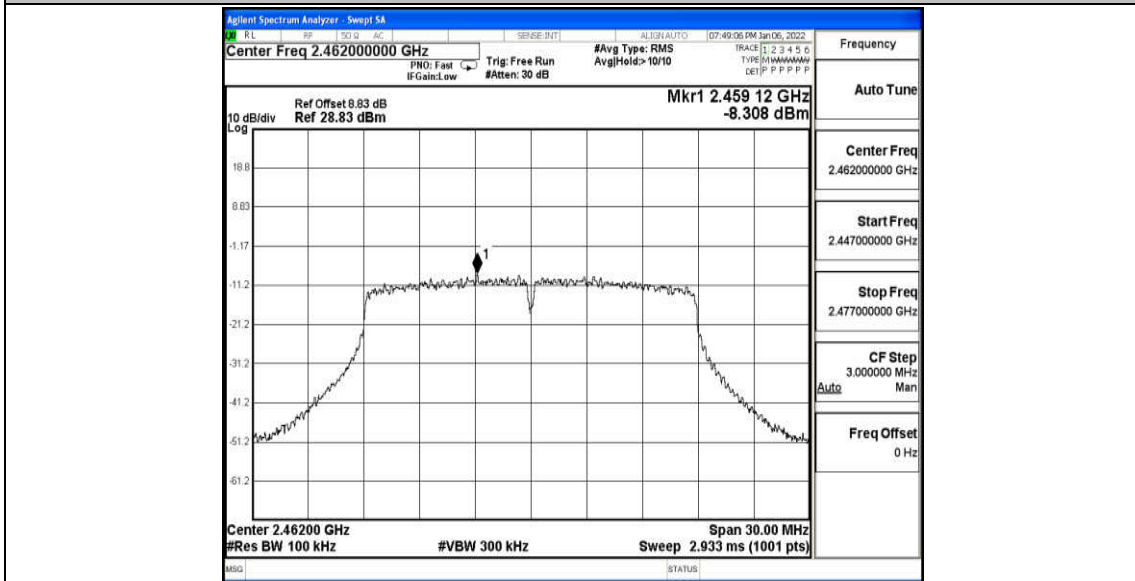
11N20SISO_Ant_2437_30~1000



11N20SISO_Ant_2437_1000~26500

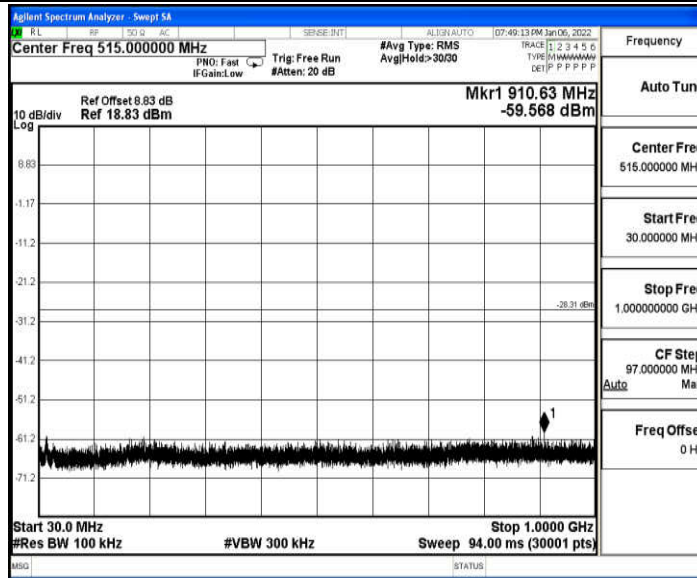


11N20SISO_Ant_2462_0~Reference

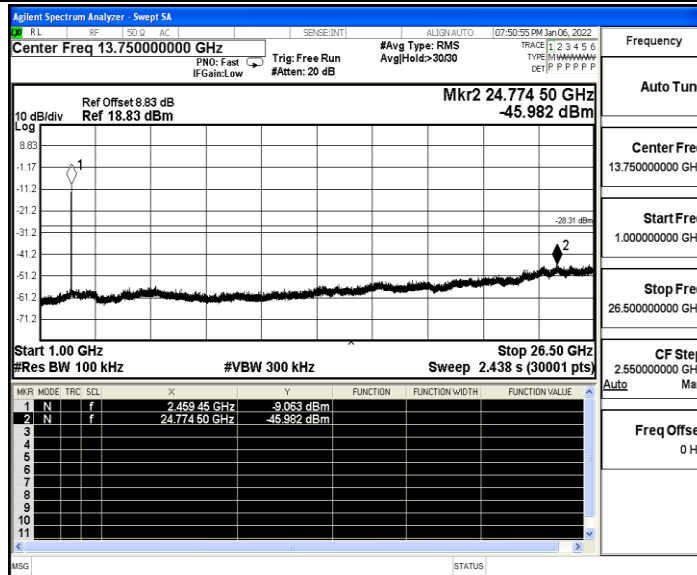




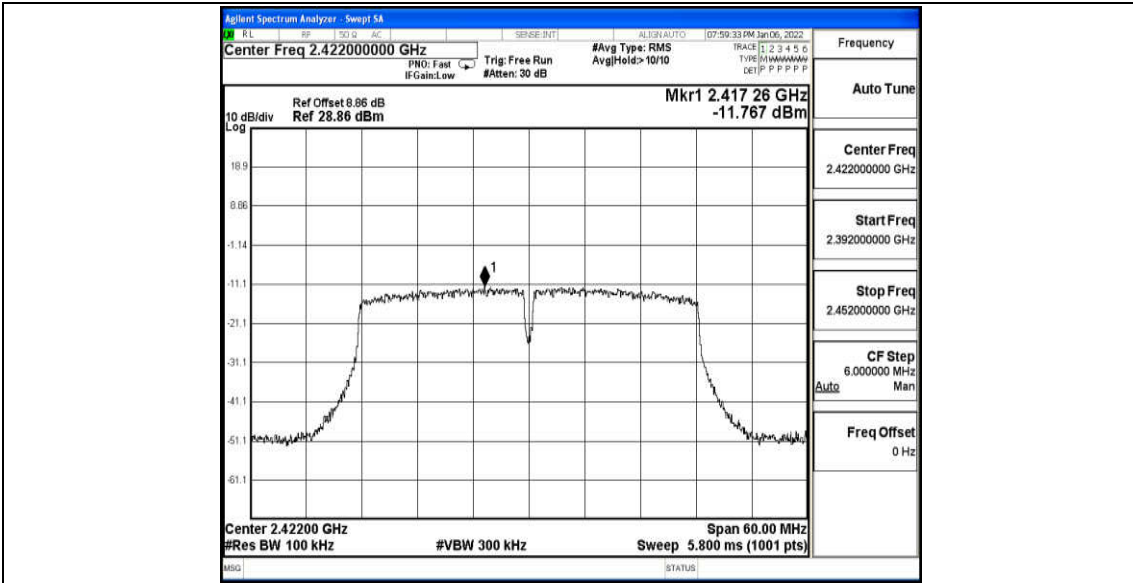
11N20SISO_Ant_2462_30~1000



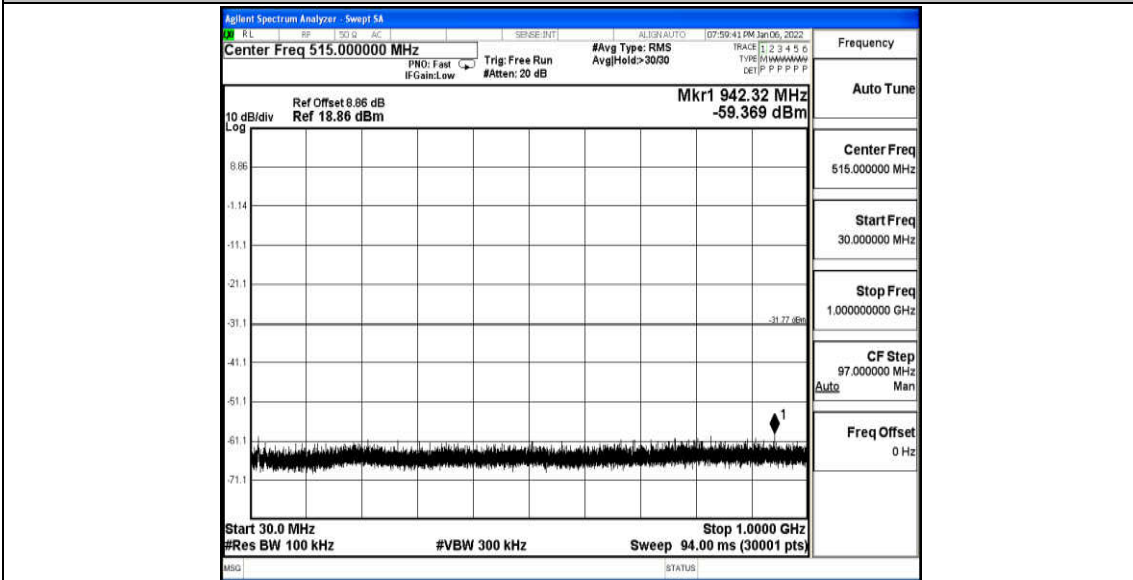
11N20SISO_Ant_2462_1000~26500



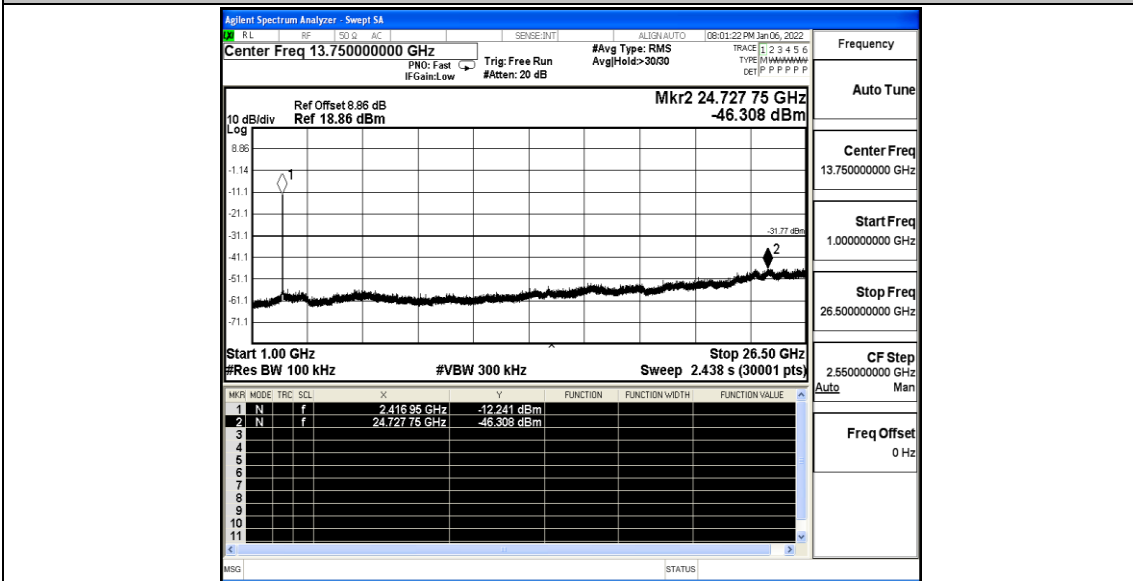
11N40SISO_Ant_2422_0~Reference



11N40SISO_Ant_2422_30~1000

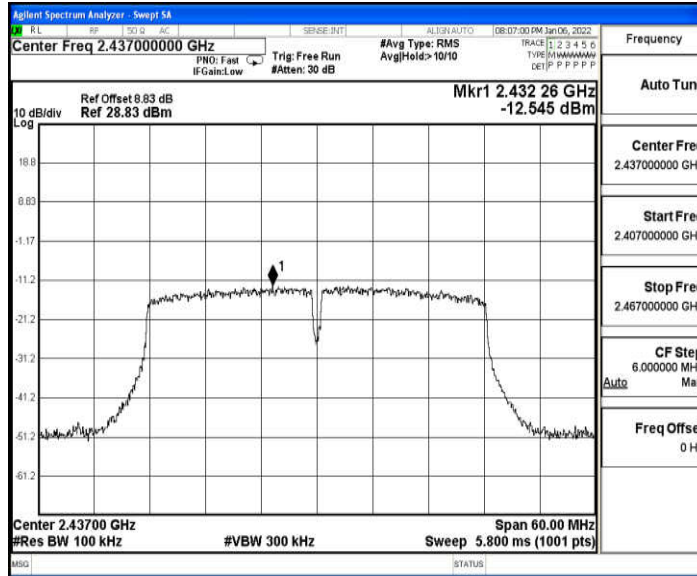


11N40SISO_Ant_2422_1000~26500

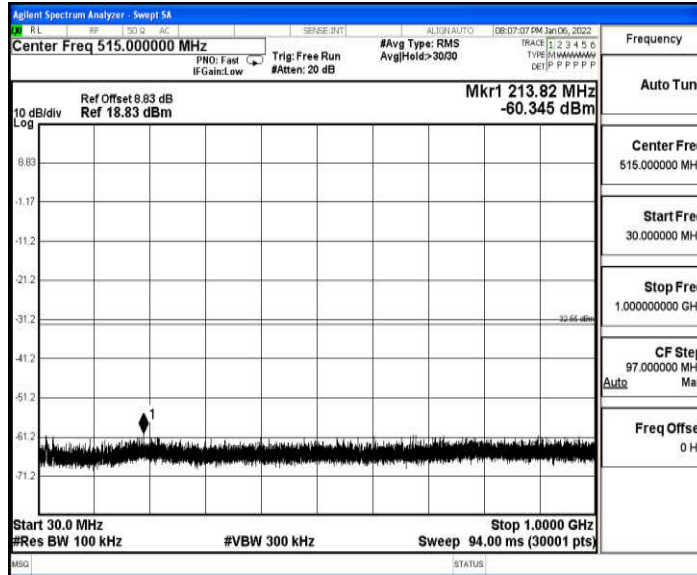




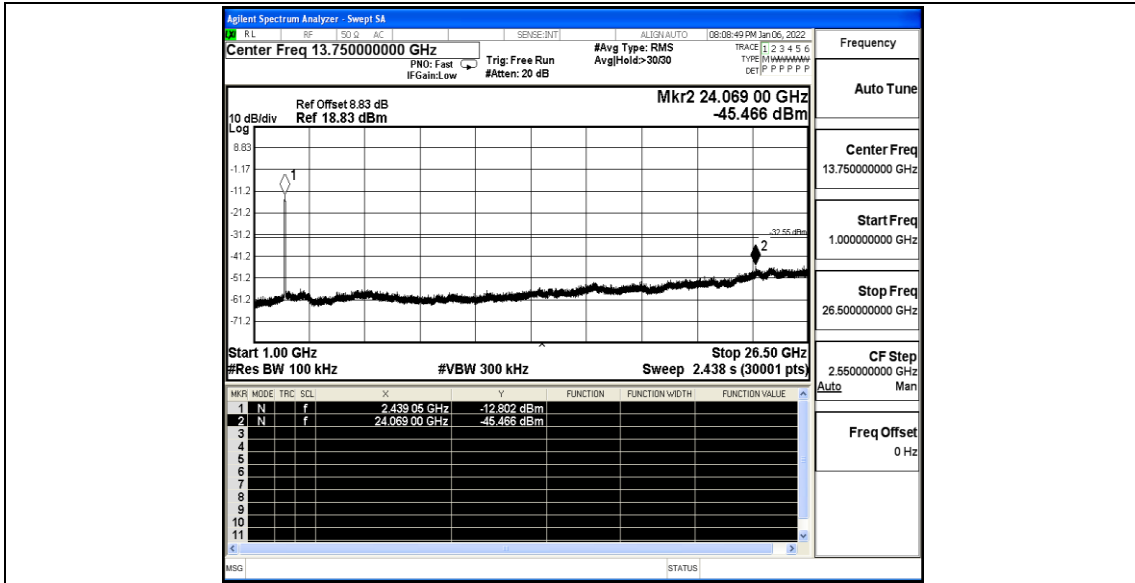
11N40SISO_Ant_2437_0~Reference



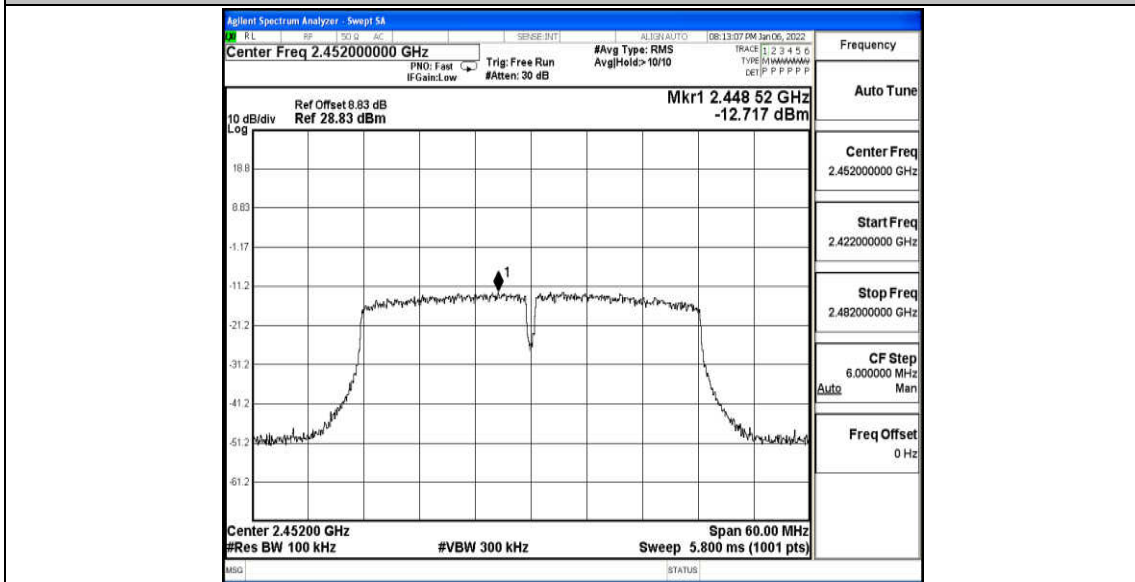
11N40SISO_Ant_2437_30~1000



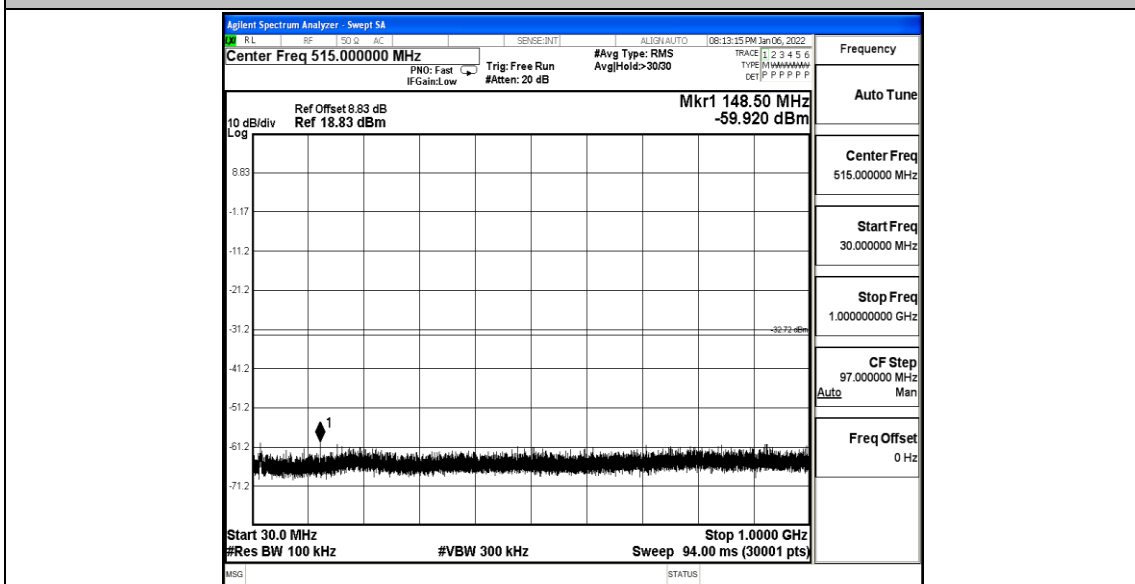
11N40SISO_Ant_2437_1000~26500



11N40SISO_Ant_2452_0~Reference

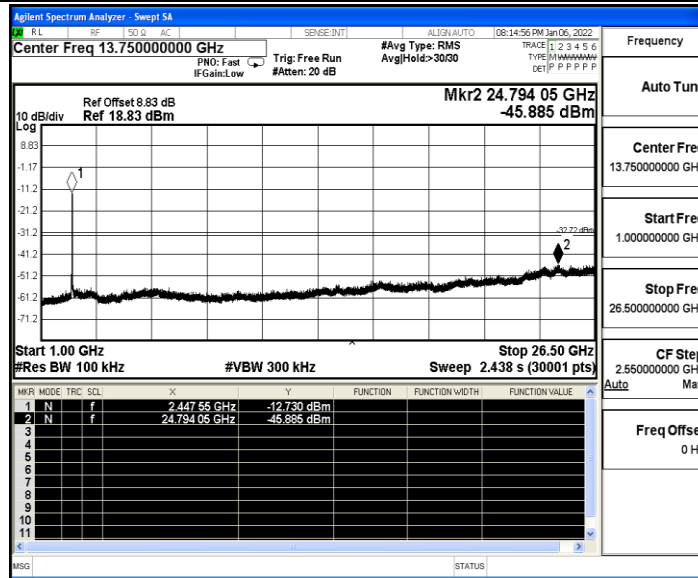


11N40SISO_Ant_2452_30~1000





11N40SISO_Ant_2452_1000~26500



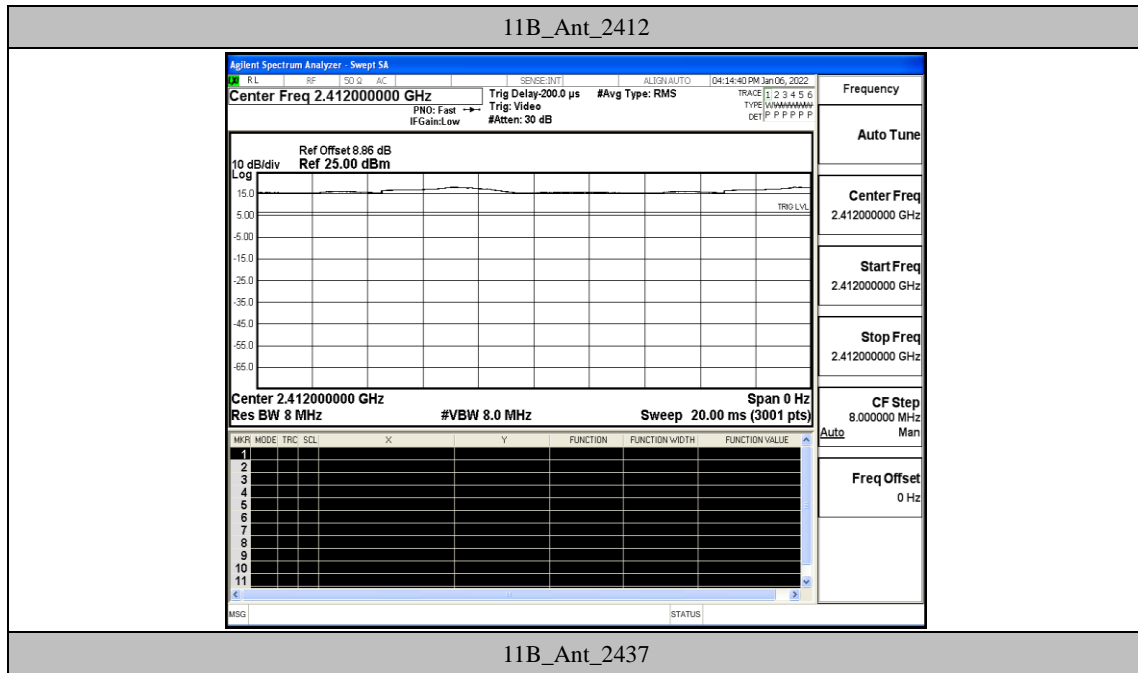


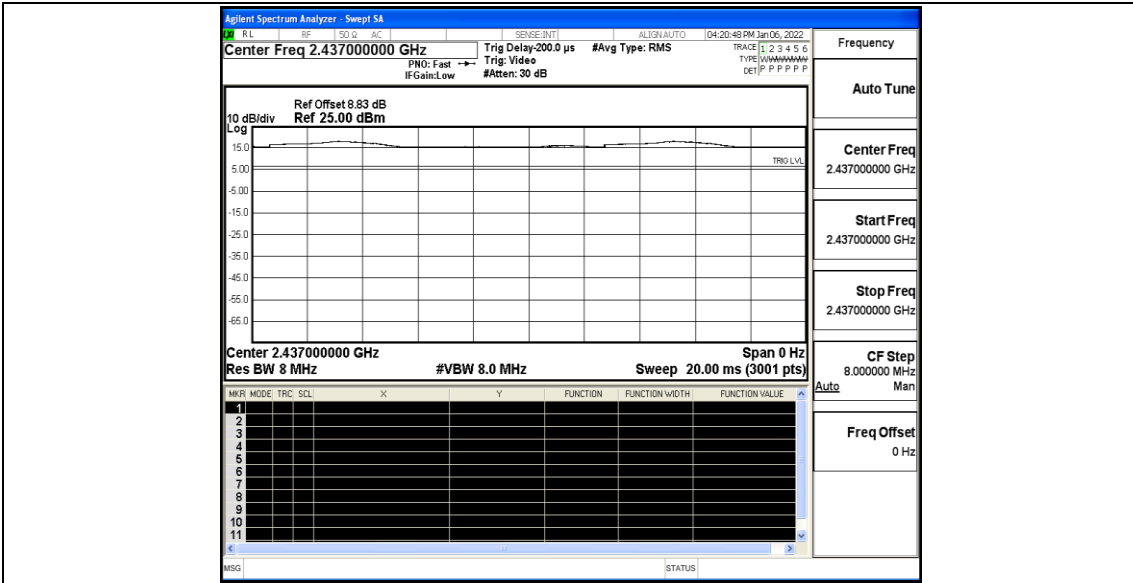
C.6 Duty Cycle

Test Result

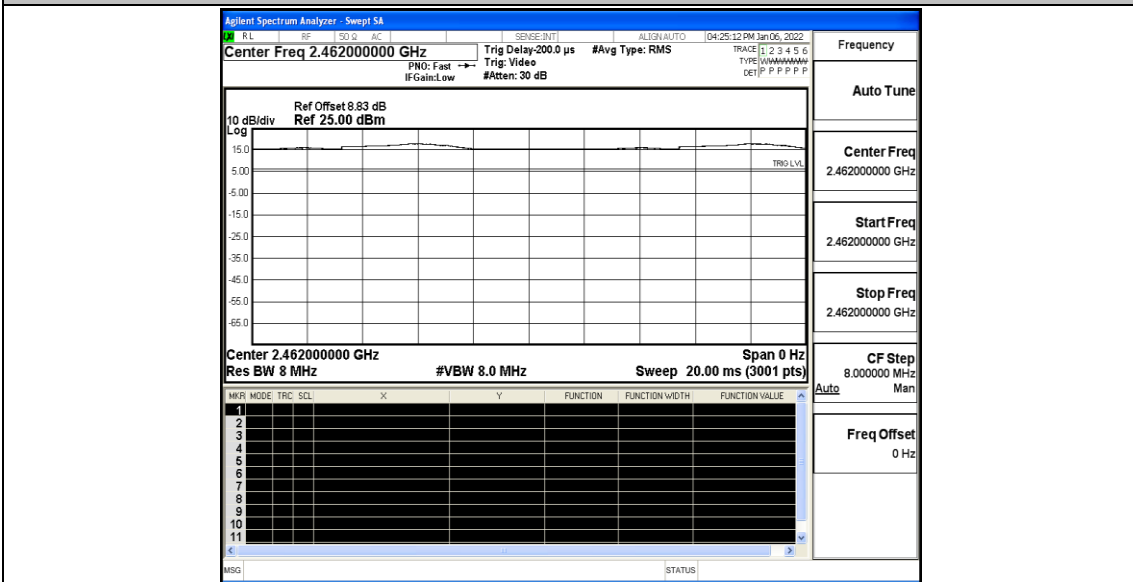
| TestMode | Antenna | Channel | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] | Limit | Verdict |
|-----------|---------|---------|----------------------------|--------------------------|----------------|-------|---------|
| 11B | Ant | 2412 | 20.00 | 20.00 | 100.00 | --- | --- |
| | | 2437 | 20.00 | 20.00 | 100.00 | --- | --- |
| | | 2462 | 20.00 | 20.00 | 100.00 | --- | --- |
| 11G | Ant | 2412 | 20.00 | 20.00 | 100.00 | --- | --- |
| | | 2437 | 20.00 | 20.00 | 100.00 | --- | --- |
| | | 2462 | 20.00 | 20.00 | 100.00 | --- | --- |
| 11N20SISO | Ant | 2412 | 20.00 | 20.00 | 100.00 | --- | --- |
| | | 2437 | 20.00 | 20.00 | 100.00 | --- | --- |
| | | 2462 | 20.00 | 20.00 | 100.00 | --- | --- |
| 11N40SISO | Ant | 2422 | 20.00 | 20.00 | 100.00 | --- | --- |
| | | 2437 | 20.00 | 20.00 | 100.00 | --- | --- |
| | | 2452 | 20.00 | 20.00 | 100.00 | --- | --- |

Test Graphs

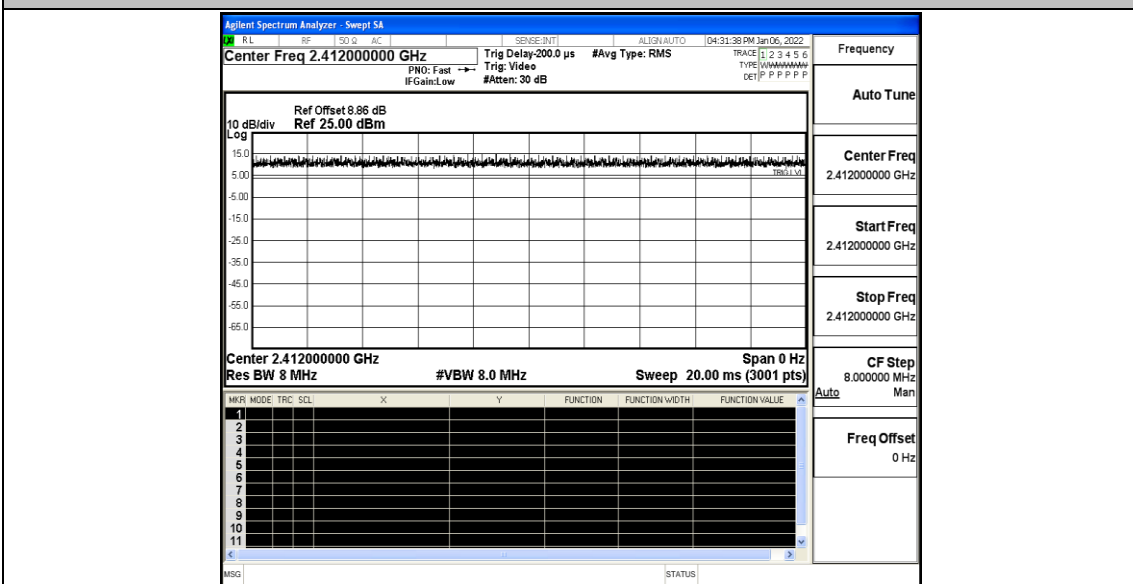




11B_Ant_2462

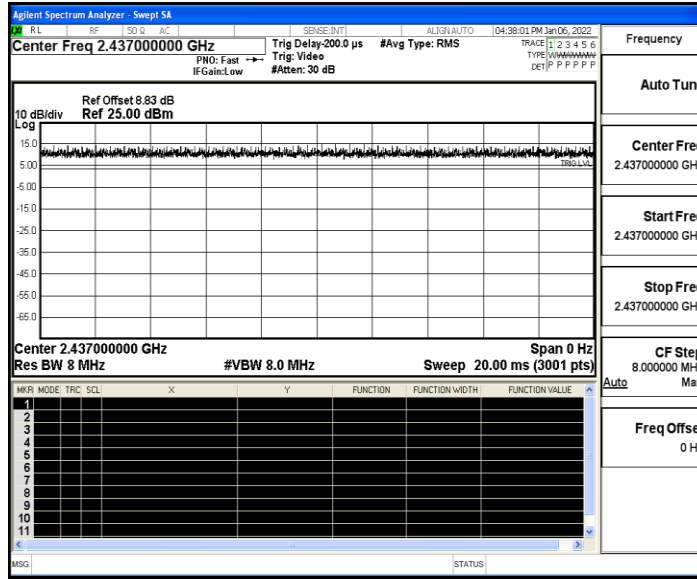


11G_Ant_2412

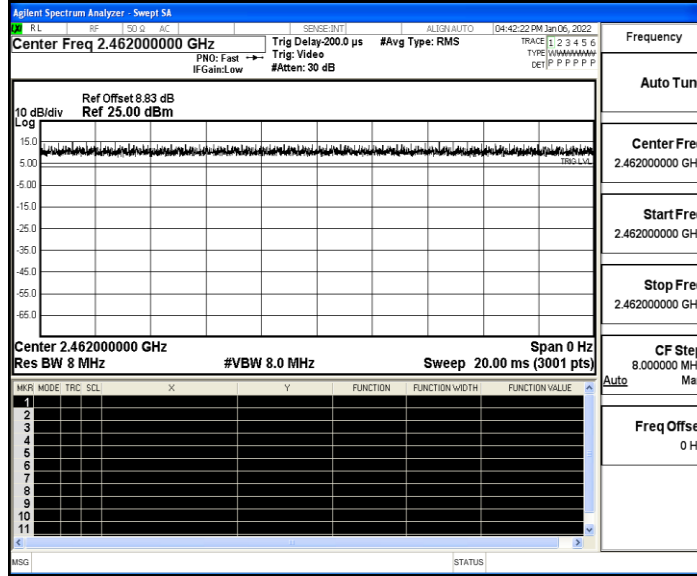




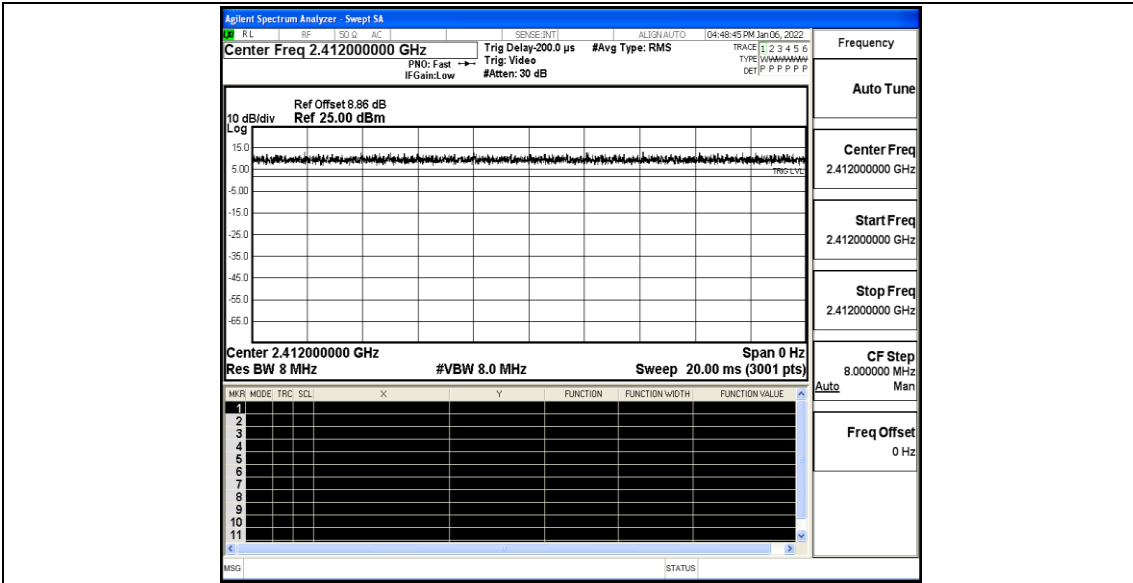
11G_Ant_2437



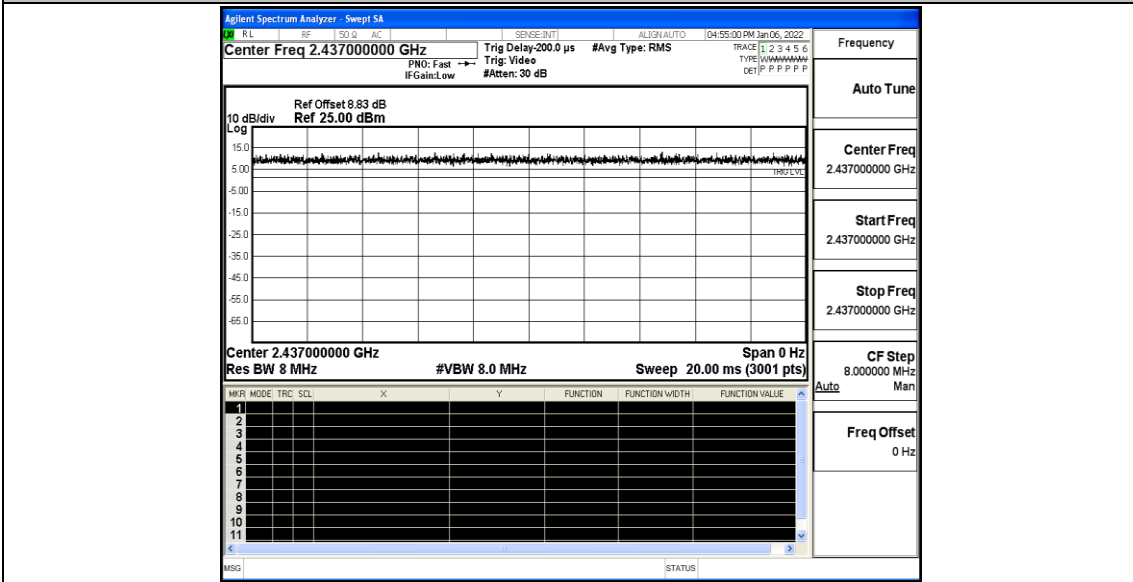
11G_Ant_2462



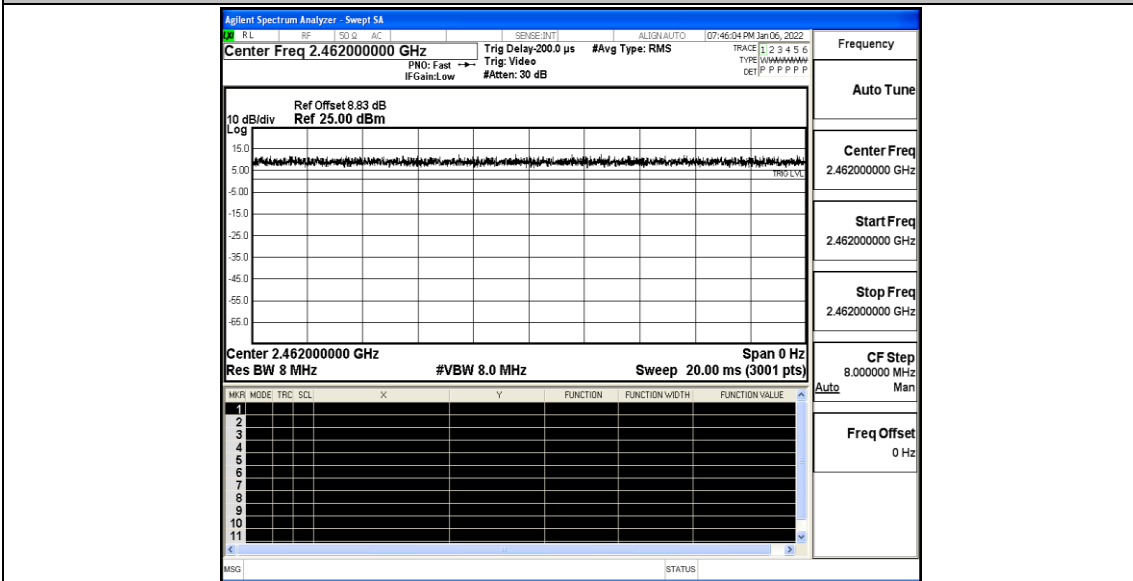
11N20SISO_Ant_2412



11N20SISO_Ant_2437

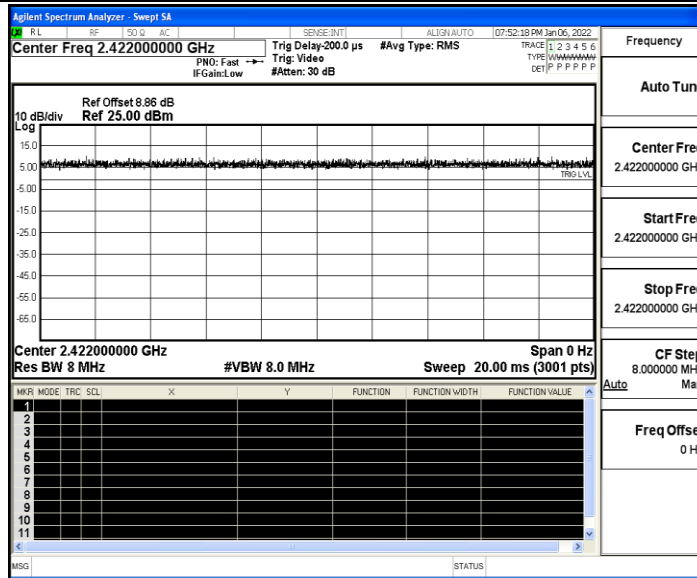


11N20SISO_Ant_2462

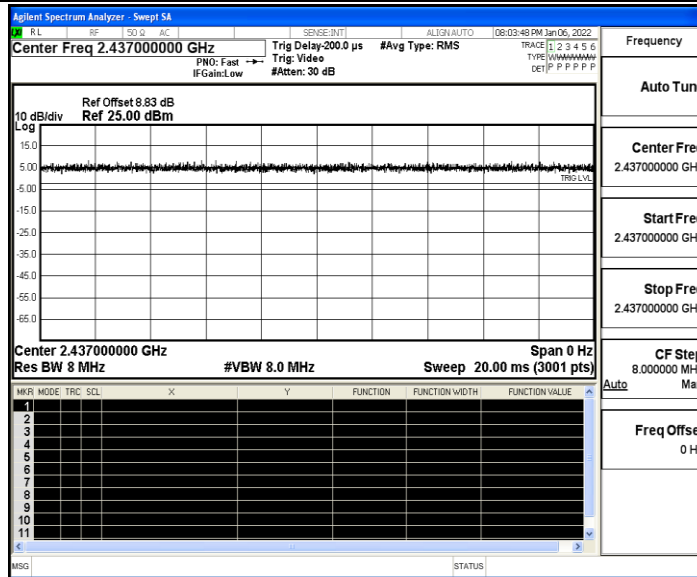




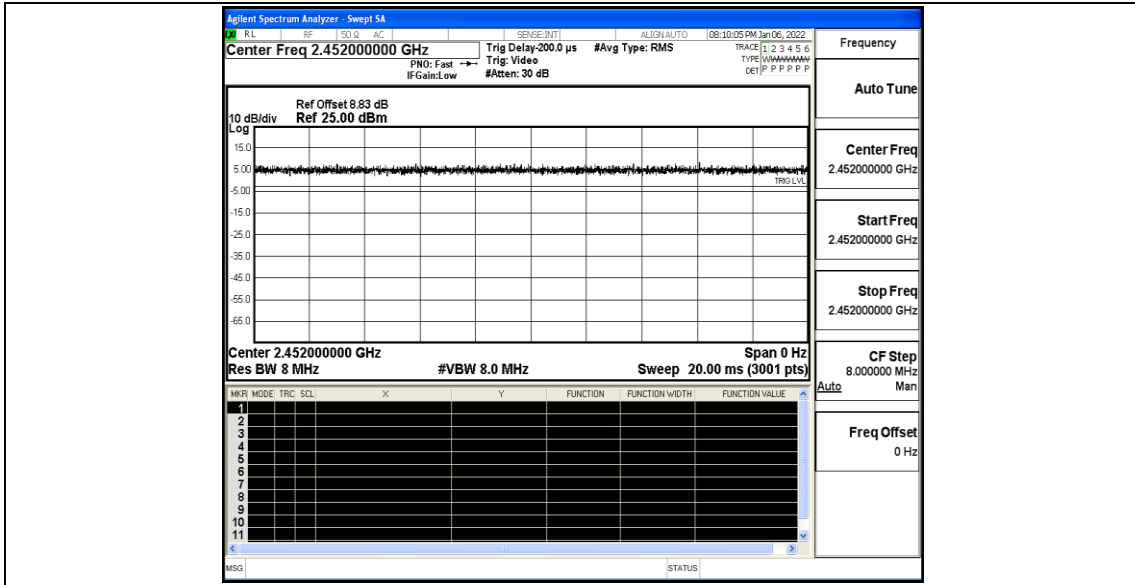
11N40SISO_Ant_2422



11N40SISO_Ant_2437



11N40SISO_Ant_2452





C.7 Emissions in Restricted Bands

Test Result

| TestMode | Antenna | ChName | Channel | Detector | Freq. [MHz] | Result [dBm] | Limit [dBm] | Result [dBuV/m] | Limit [dBuV/m] | Verdict |
|---------------|---------|--------|---------|----------|----------------|-----------------|----------------|--------------------|-------------------|---------|
| 11B | Ant | Low | 2412 | AV | 2310.000 | -47.87 | ≤-41.20 | 47.33 | ≤54 | PASS |
| | | | | AV | 2387.360 | -46.69 | ≤-41.20 | 48.51 | ≤54 | PASS |
| | | | | AV | 2390.000 | -46.88 | ≤-41.20 | 48.32 | ≤54 | PASS |
| | | | | Peak | 2310.000 | -37.97 | ≤-21.20 | 57.23 | ≤74 | PASS |
| | | | | Peak | 2379.690 | -35.01 | ≤-21.20 | 60.19 | ≤74 | PASS |
| | | | | Peak | 2390.000 | -36.99 | ≤-21.20 | 58.21 | ≤74 | PASS |
| | | High | 2462 | AV | 2483.500 | -46.74 | ≤-41.20 | 48.46 | ≤54 | PASS |
| | | | | AV | 2487.850 | -46.59 | ≤-41.20 | 48.61 | ≤54 | PASS |
| | | | | AV | 2500.000 | -46.87 | ≤-41.20 | 48.33 | ≤54 | PASS |
| | | | | Peak | 2483.500 | -36.32 | ≤-21.20 | 58.88 | ≤74 | PASS |
| | | | | Peak | 2489.170 | -34.94 | ≤-21.20 | 60.26 | ≤74 | PASS |
| | | | | Peak | 2500.000 | -36.93 | ≤-21.20 | 58.27 | ≤74 | PASS |
| 11G | Ant | Low | 2412 | AV | 2310.000 | -48.28 | ≤-41.20 | 46.92 | ≤54 | PASS |
| | | | | AV | 2389.960 | -47.75 | ≤-41.20 | 47.45 | ≤54 | PASS |
| | | | | AV | 2390.000 | -47.75 | ≤-41.20 | 47.45 | ≤54 | PASS |
| | | | | Peak | 2310.000 | -37.9 | ≤-21.20 | 57.30 | ≤74 | PASS |
| | | | | Peak | 2385.280 | -35.48 | ≤-21.20 | 59.72 | ≤74 | PASS |
| | | | | Peak | 2390.000 | -37.32 | ≤-21.20 | 57.88 | ≤74 | PASS |
| | | High | 2462 | AV | 2483.500 | -47.57 | ≤-41.20 | 47.63 | ≤54 | PASS |
| | | | | AV | 2498.740 | -47.45 | ≤-41.20 | 47.75 | ≤54 | PASS |
| | | | | AV | 2500.000 | -47.46 | ≤-41.20 | 47.74 | ≤54 | PASS |
| | | | | Peak | 2483.500 | -36.44 | ≤-21.20 | 58.76 | ≤74 | PASS |
| | | | | Peak | 2492.030 | -35.61 | ≤-21.20 | 59.59 | ≤74 | PASS |
| | | | | Peak | 2500.000 | -37.12 | ≤-21.20 | 58.08 | ≤74 | PASS |
| 11N20SIS O | Ant | Low | 2412 | AV | 2310.000 | -48.3 | ≤-41.20 | 46.90 | ≤54 | PASS |
| | | | | AV | 2389.700 | -47.76 | ≤-41.20 | 47.44 | ≤54 | PASS |
| | | | | AV | 2390.000 | -47.8 | ≤-41.20 | 47.40 | ≤54 | PASS |
| | | | | Peak | 2310.000 | -38.11 | ≤-21.20 | 57.09 | ≤74 | PASS |
| | | | | Peak | 2373.580 | -35.59 | ≤-21.20 | 59.61 | ≤74 | PASS |
| | | | | Peak | 2390.000 | -36.88 | ≤-21.20 | 58.32 | ≤74 | PASS |
| | | High | 2462 | AV | 2483.500 | -47.64 | ≤-41.20 | 47.56 | ≤54 | PASS |
| | | | | AV | 2499.400 | -47.51 | ≤-41.20 | 47.69 | ≤54 | PASS |
| | | | | AV | 2500.000 | -47.52 | ≤-41.20 | 47.68 | ≤54 | PASS |
| | | | | Peak | 2483.500 | -37.49 | ≤-21.20 | 57.71 | ≤74 | PASS |
| | | | | Peak | 2489.280 | -35.47 | ≤-21.20 | 59.73 | ≤74 | PASS |
| | | | | Peak | 2500.000 | -37.29 | ≤-21.20 | 57.91 | ≤74 | PASS |
| 11N40SIS | Ant | Low | 2422 | AV | 2310.000 | -48.3 | ≤-41.20 | 46.90 | ≤54 | PASS |



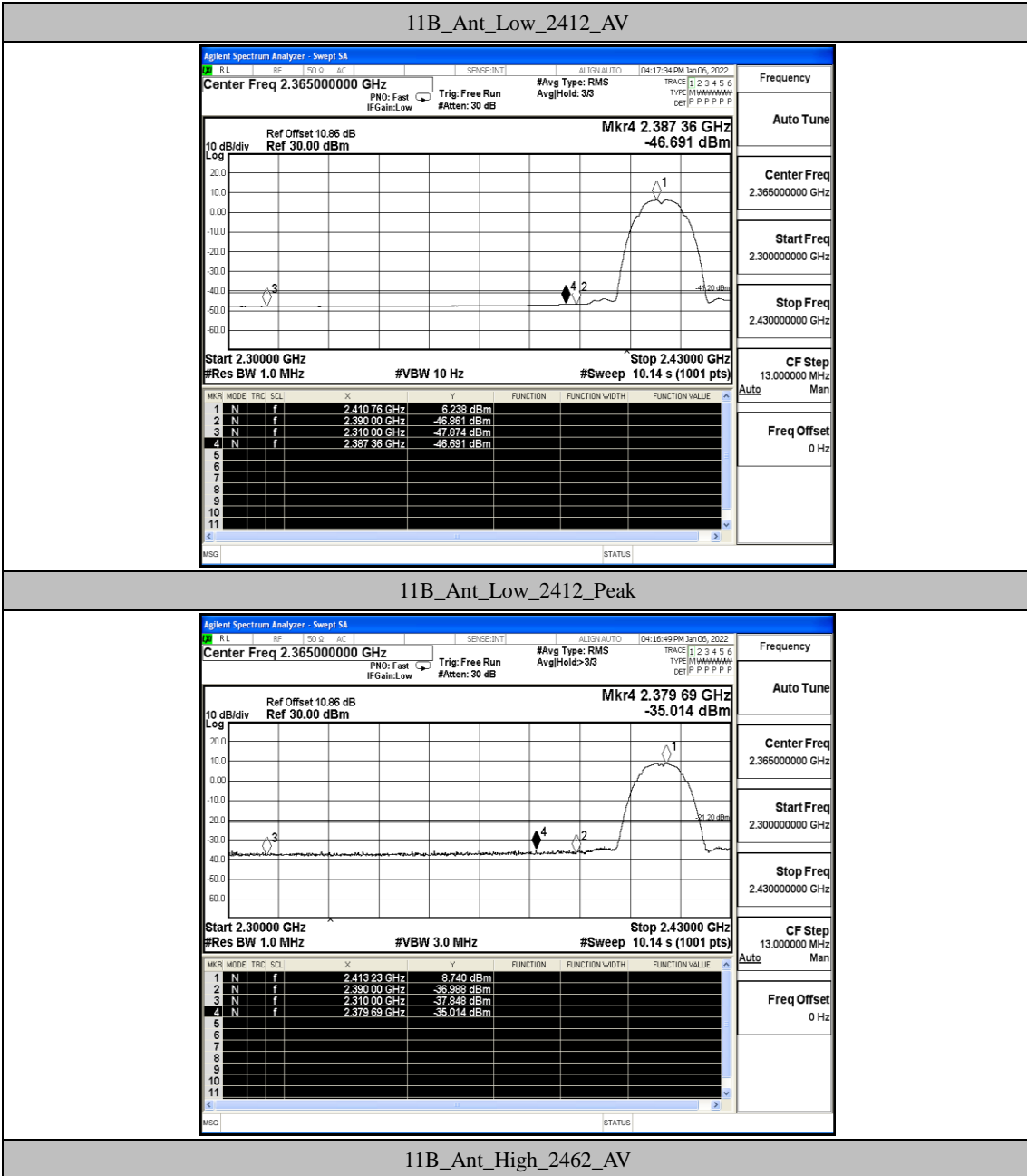
| | | | | | | | | | |
|---|------|------|------|----------|--------|---------------|-------|-----------|------|
| O | | | AV | 2389.960 | -47.68 | ≤ -41.20 | 47.52 | ≤ 54 | PASS |
| | | | AV | 2390.000 | -47.68 | ≤ -41.20 | 47.52 | ≤ 54 | PASS |
| | | | Peak | 2310.000 | -37.69 | ≤ -21.20 | 57.51 | ≤ 74 | PASS |
| | | | Peak | 2361.230 | -35.68 | ≤ -21.20 | 59.52 | ≤ 74 | PASS |
| | | | Peak | 2390.000 | -37.57 | ≤ -21.20 | 57.63 | ≤ 74 | PASS |
| | High | 2452 | AV | 2483.500 | -47.23 | ≤ -41.20 | 47.97 | ≤ 54 | PASS |
| | | | AV | 2483.560 | -47.24 | ≤ -41.20 | 47.96 | ≤ 54 | PASS |
| | | | AV | 2500.000 | -47.48 | ≤ -41.20 | 47.72 | ≤ 54 | PASS |
| | | | Peak | 2483.500 | -36.46 | ≤ -21.20 | 58.74 | ≤ 74 | PASS |
| | | | Peak | 2484.440 | -35.35 | ≤ -21.20 | 59.85 | ≤ 74 | PASS |
| | | | Peak | 2500.000 | -36.64 | ≤ -21.20 | 58.56 | ≤ 74 | PASS |
| | | | | | | | | | |

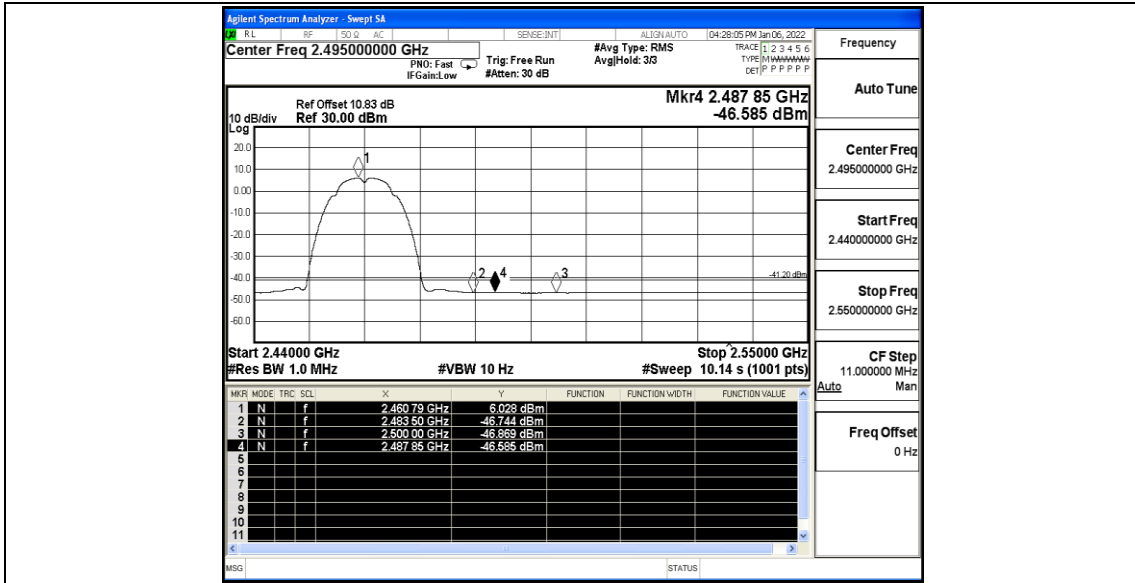
Note:

1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

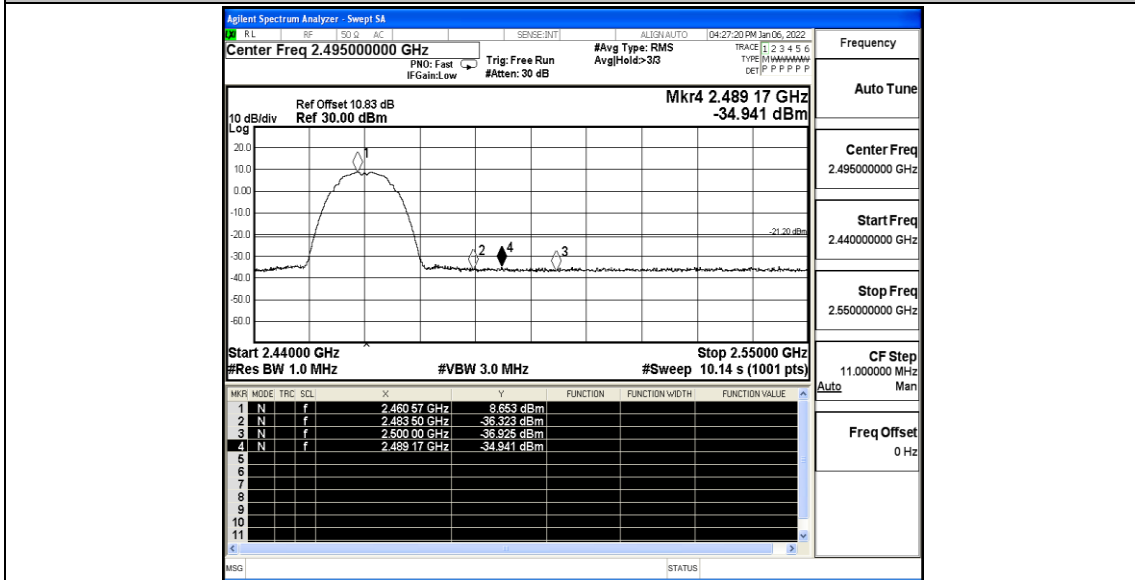


Test Graphs

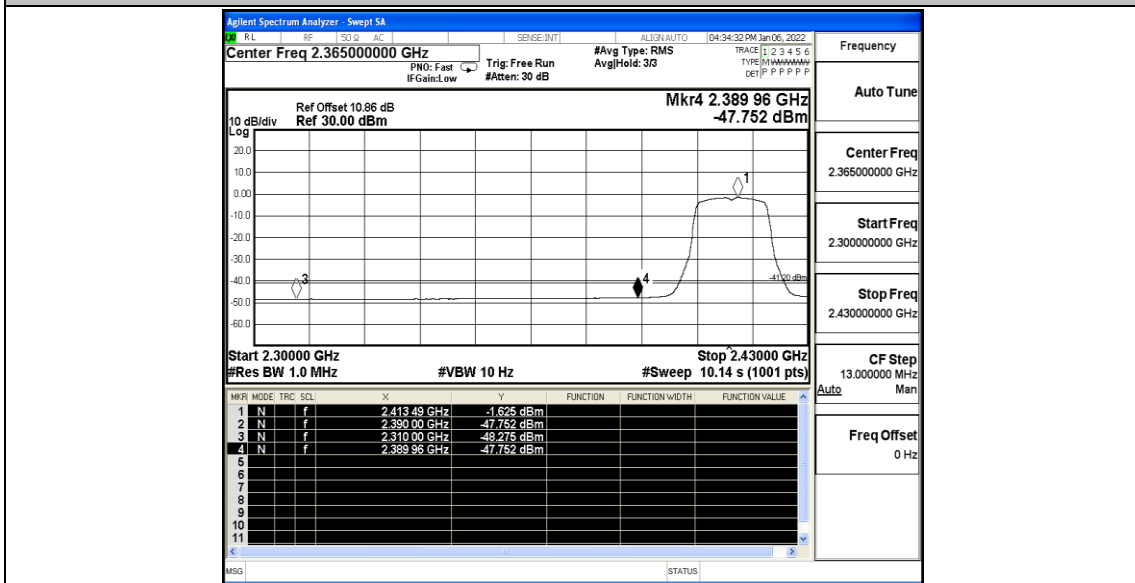




11B_Ant_High_2462_Peak

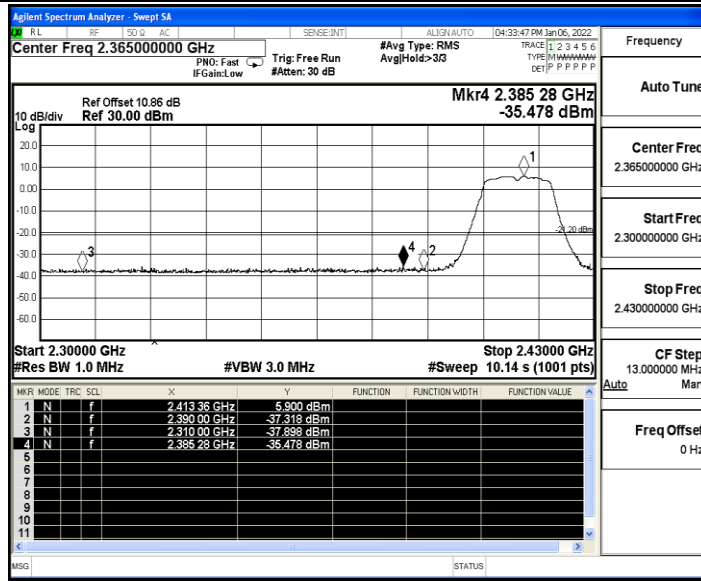


11G_Ant_Low_2412_AV

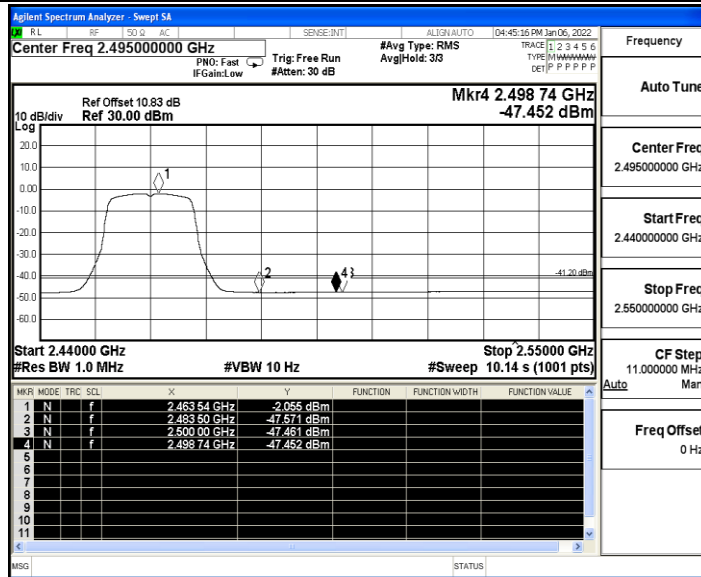




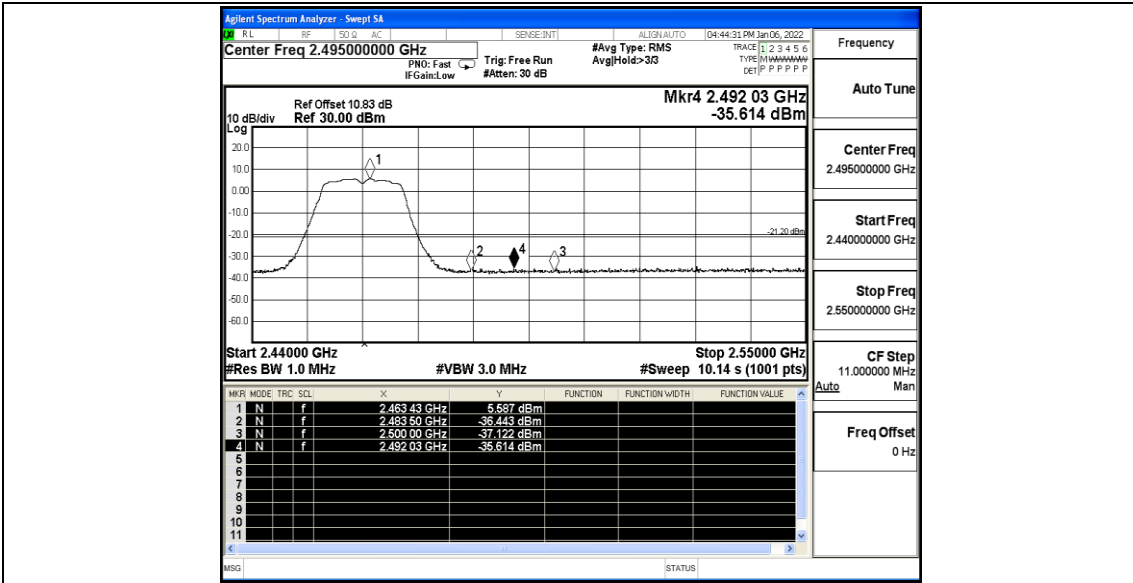
11G_Ant_Low_2412_Peak



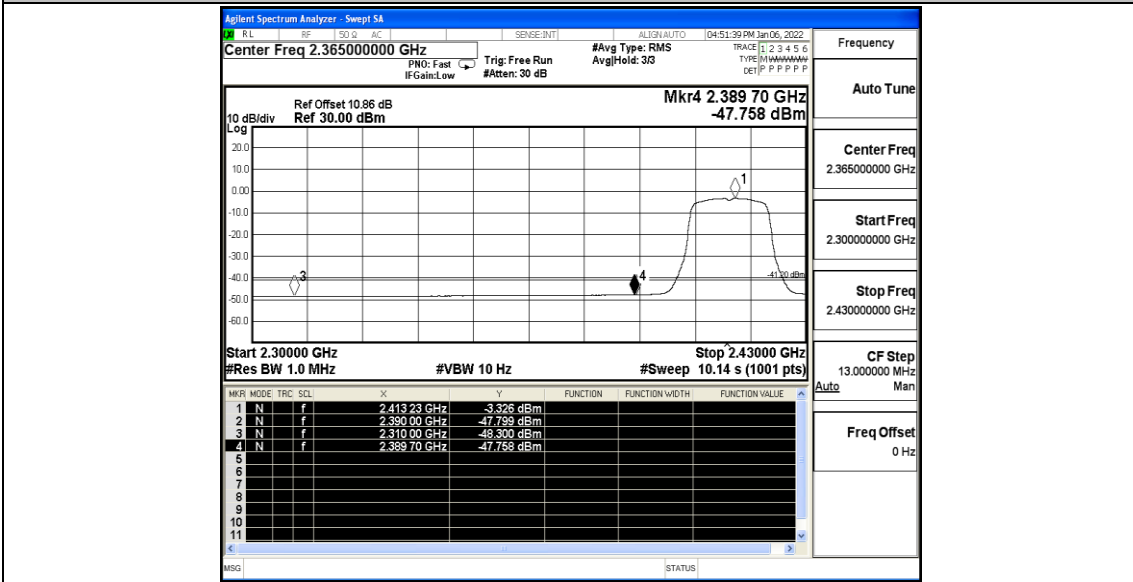
11G_Ant_High_2462_AV



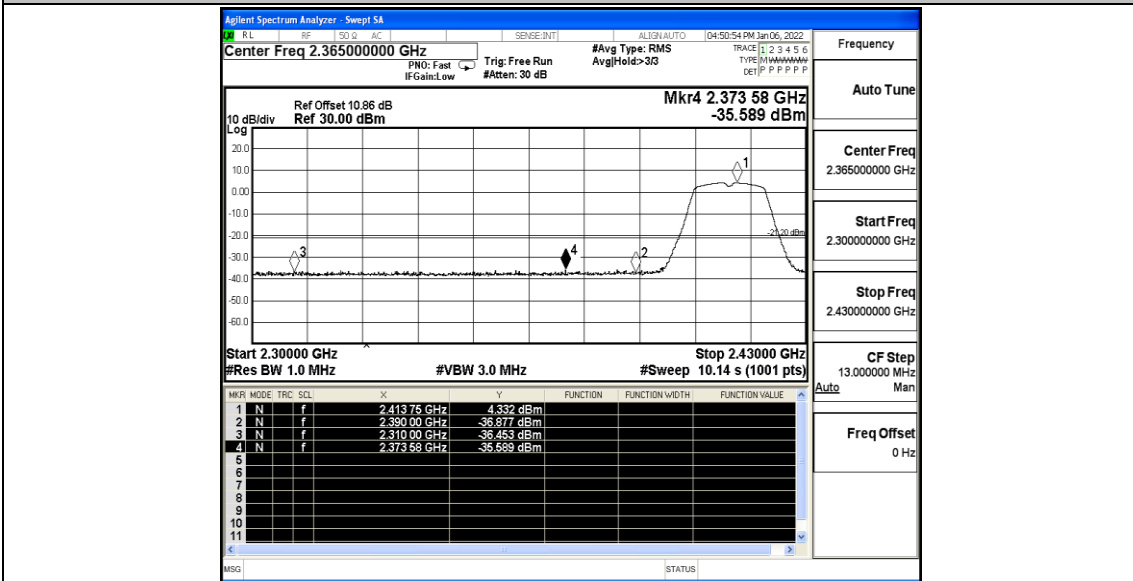
11G_Ant_High_2462_Peak



11N20SISO_Ant_Low_2412_AV

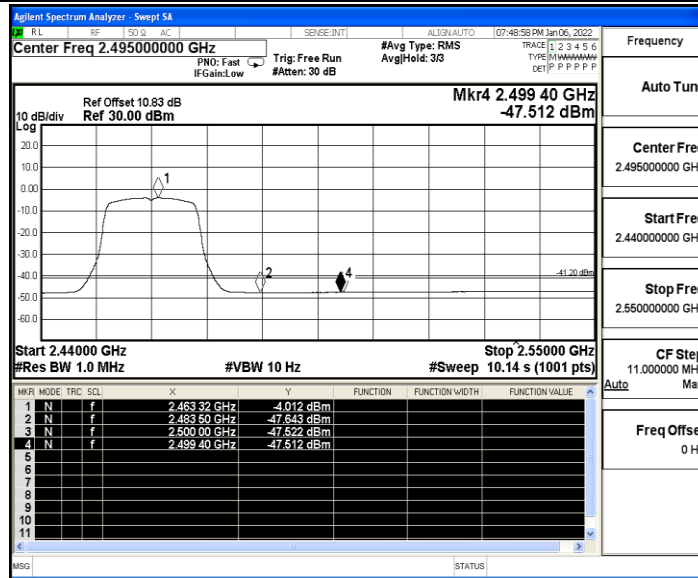


11N20SISO_Ant_Low_2412_Peak

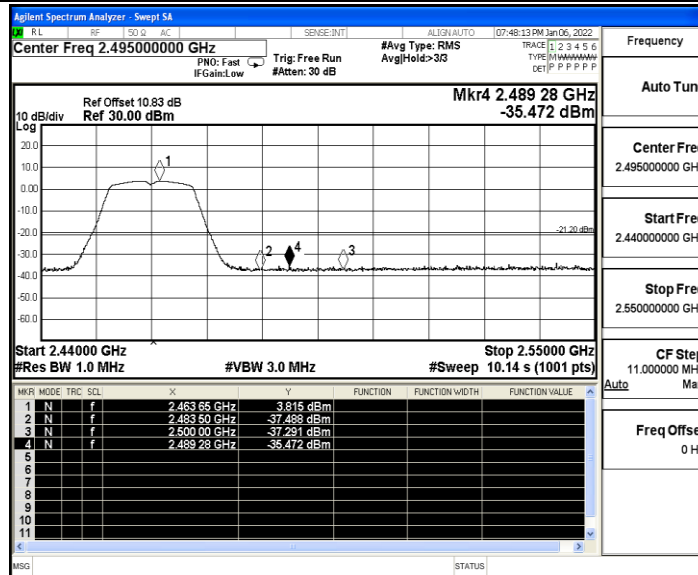




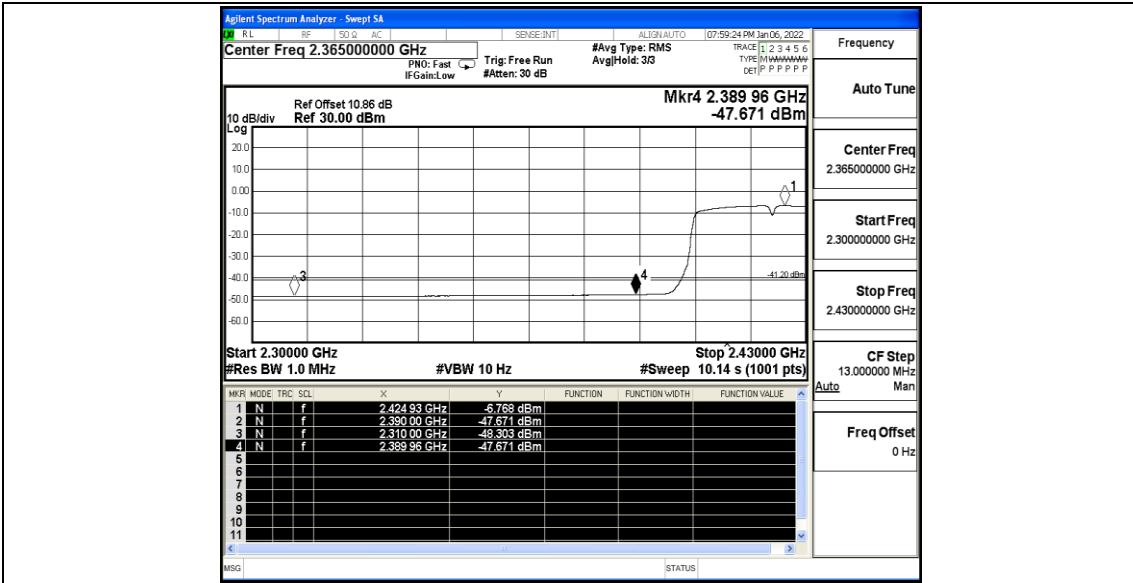
11N20SISO_Ant_High_2462_AV



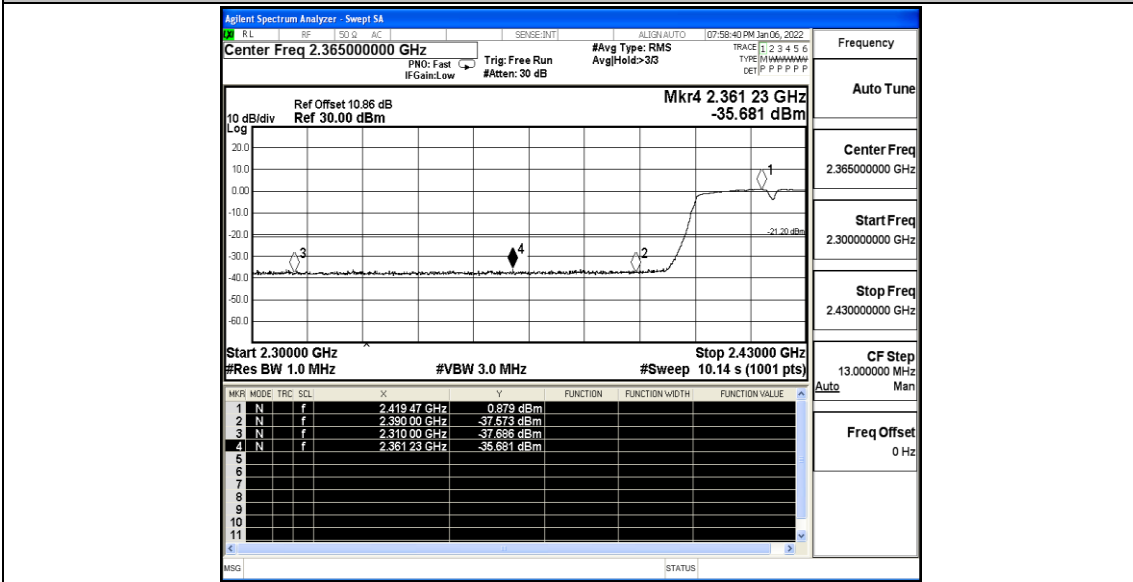
11N20SISO_Ant_High_2462_Peak



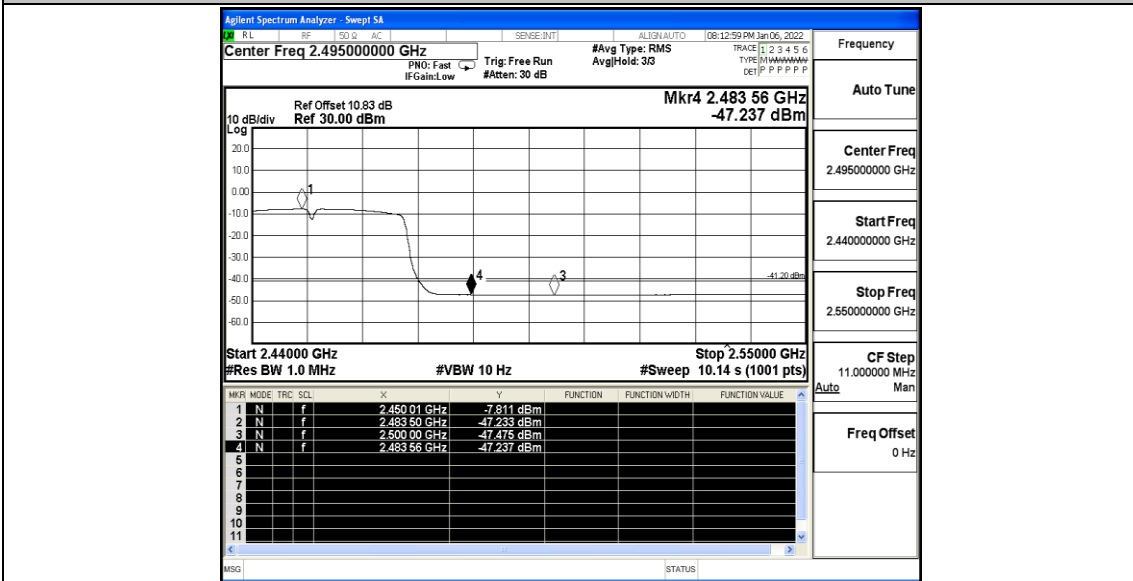
11N40SISO_Ant_Low_2422_AV



11N40SISO_Ant_Low_2422_Peak



11N40SISO_Ant_High_2452_AV





11N40SISO_Ant_High_2452_Peak

