# Appendix Test Data

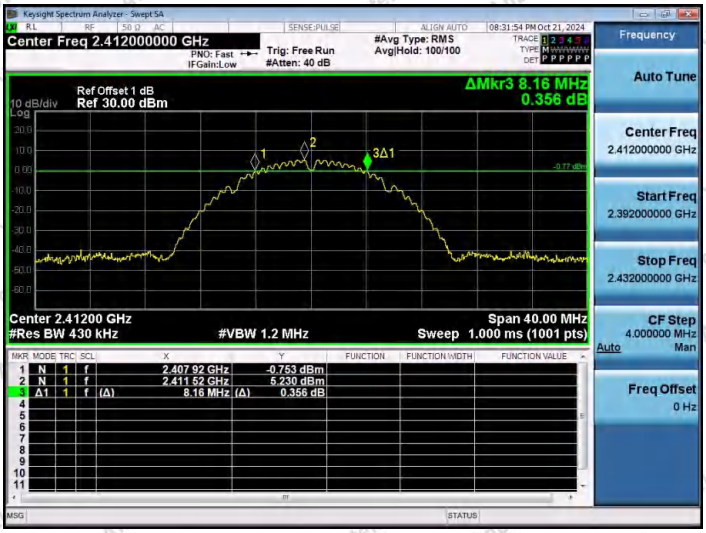
| | | | |
|---|---|---|---|
| Report No.: | 1815C40145312502 | Test Sample No.: | 1-2-2 |
| Start Test Date: | 2024.10.21 | Finish Test Date: | 2024.10.21 |
| Test Engineer: | Jokes Huang | Auditor: | Justin Feng |
| Temperature: | 22.9℃ | Relative Humidity: | 50% |
| Pressure: | 101kPa | | |

## Appendix A: 6dB Bandwidth

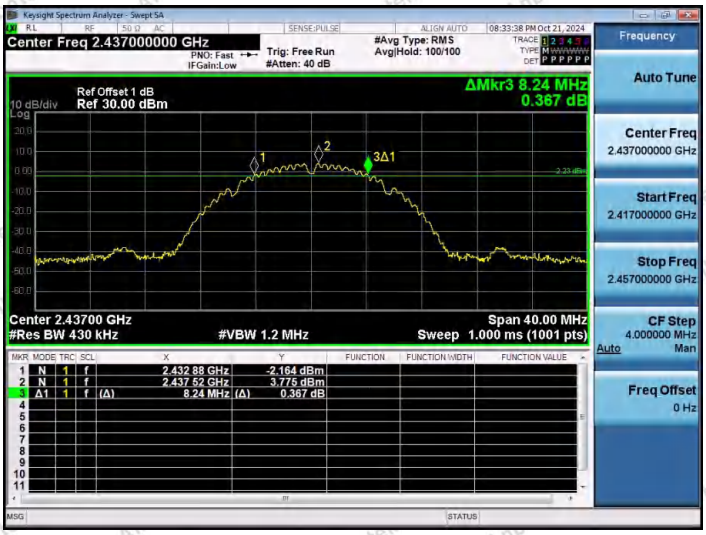
### Test Result

| TestMode | Antenna | Frequency[MHz] | 6dB BW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|---|---|---|
| 11B | Ant1 | 2412 | 8.160 | 2407.920 | 2416.080 | 0.5 | PASS |
| 11B | Ant1 | 2437 | 8.240 | 2432.880 | 2441.120 | 0.5 | PASS |
| 11B | Ant1 | 2462 | 8.160 | 2457.880 | 2466.040 | 0.5 | PASS |
| 11G | Ant1 | 2412 | 14.160 | 2404.840 | 2419.000 | 0.5 | PASS |
| 11G | Ant1 | 2437 | 16.160 | 2429.000 | 2445.160 | 0.5 | PASS |
| 11G | Ant1 | 2462 | 15.800 | 2454.080 | 2469.880 | 0.5 | PASS |
| 11N20SISO | Ant1 | 2412 | 15.720 | 2403.520 | 2419.240 | 0.5 | PASS |
| 11N20SISO | Ant1 | 2437 | 17.280 | 2428.320 | 2445.600 | 0.5 | PASS |
| 11N20SISO | Ant1 | 2462 | 17.120 | 2453.400 | 2470.520 | 0.5 | PASS |
| 11N40SISO | Ant1 | 2422 | 35.520 | 2404.400 | 2439.920 | 0.5 | PASS |
| 11N40SISO | Ant1 | 2437 | 35.840 | 2419.080 | 2454.920 | 0.5 | PASS |
| 11N40SISO | Ant1 | 2452 | 35.360 | 2434.320 | 2469.680 | 0.5 | PASS |

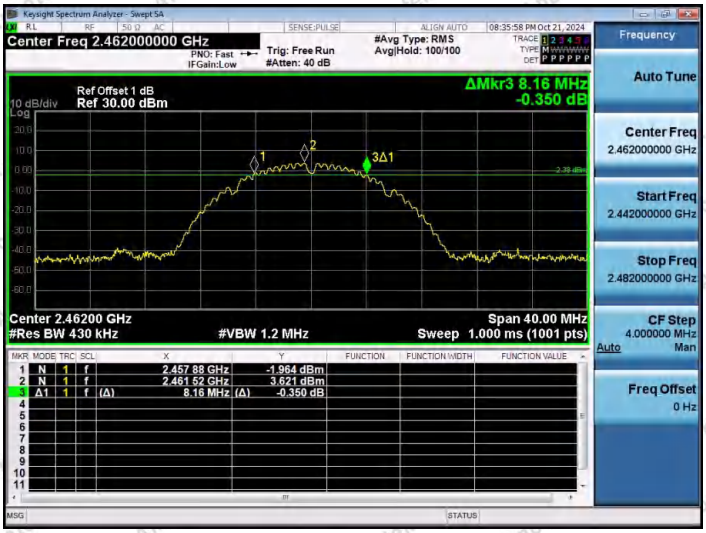
## Test Graphs




11B-Ant1-2412-PASS




11B-Ant1-2437-PASS




11B-Ant1-2462-PASS

11G-Ant1-2412-PASS

11G-Ant1-2437-PASS

11G-Ant1-2462-PASS

11N20SISO-Ant1-2412-PASS

11N20SISO-Ant1-2437-PASS

11N20SISO-Ant1-2462-PASS

11N40SISO-Ant1-2422-PASS

11N40SISO-Ant1-2437-PASS

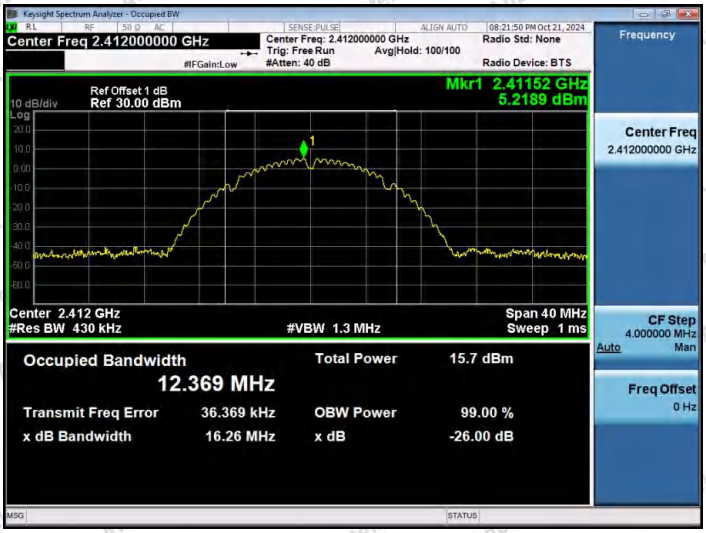
11N40SISO-Ant1-2452-PASS

# Appendix B: 99% Occupied Bandwidth

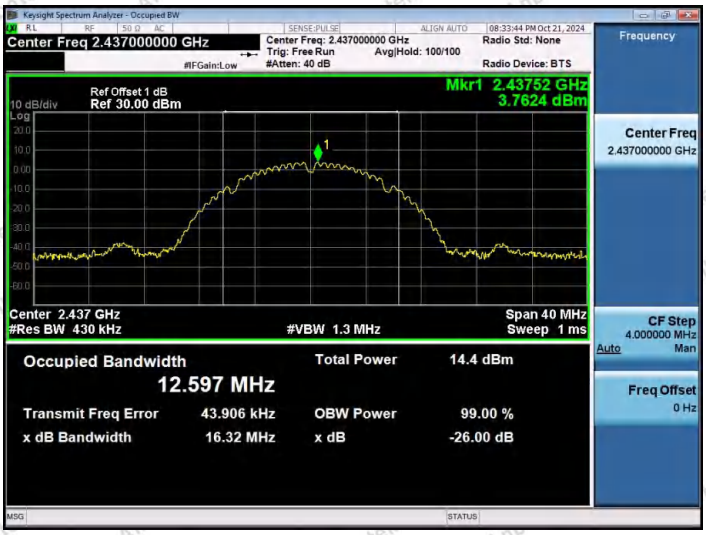
## Test Result

| TestMode | Antenna | Channel Frequency[MHz] | OCB [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|---|---|---|
| 11B | Ant1 | 2412 | 12.369 | 2405.8519 | 2418.2209 | --- | --- |
| 11B | Ant1 | 2437 | 12.597 | 2430.7454 | 2443.3424 | --- | --- |
| 11B | Ant1 | 2462 | 12.476 | 2455.6584 | 2468.1344 | --- | --- |
| 11G | Ant1 | 2412 | 16.326 | 2403.8024 | 2420.1284 | --- | --- |
| 11G | Ant1 | 2437 | 16.768 | 2428.6789 | 2445.4469 | --- | --- |
| 11G | Ant1 | 2462 | 16.758 | 2453.5386 | 2470.2966 | --- | --- |
| 11N20SISO | Ant1 | 2412 | 17.435 | 2403.2381 | 2420.6731 | --- | --- |
| 11N20SISO | Ant1 | 2437 | 17.766 | 2428.1407 | 2445.9067 | --- | --- |
| 11N20SISO | Ant1 | 2462 | 17.736 | 2453.0881 | 2470.8241 | --- | --- |
| 11N40SISO | Ant1 | 2422 | 35.994 | 2404.1077 | 2440.1017 | --- | --- |
| 11N40SISO | Ant1 | 2437 | 36.158 | 2418.9758 | 2455.1338 | --- | --- |
| 11N40SISO | Ant1 | 2452 | 35.909 | 2434.0378 | 2469.9468 | --- | --- |

## Test Graphs



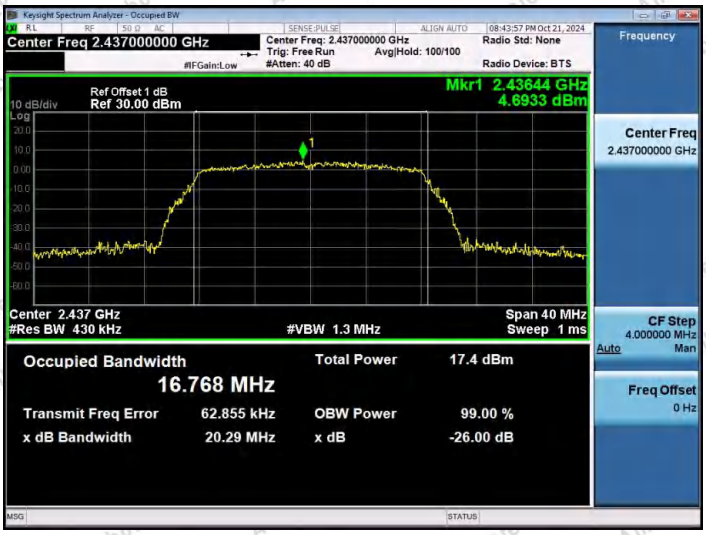

11B-Ant1-2412



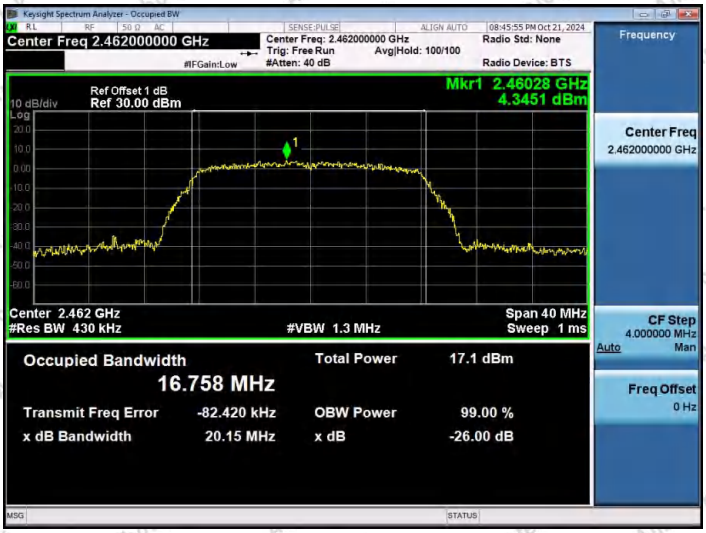

11B-Ant1-2437

11B-Ant1-2462

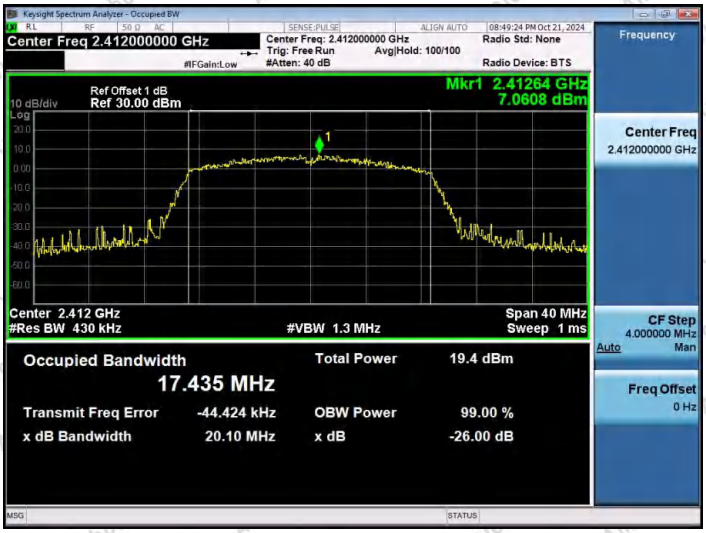
11G-Ant1-2412



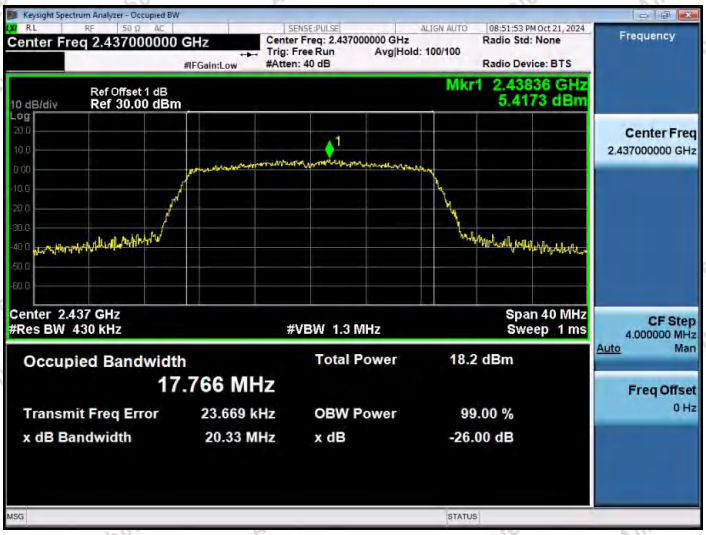

11G-Ant1-2437




11G-Ant1-2462



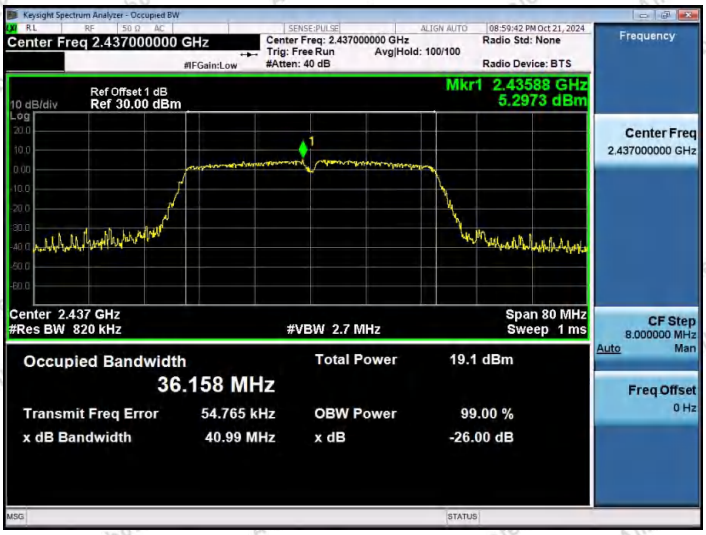

11N20SISO-Ant1-2412




11N20SISO-Ant1-2437

11N20SISO-Ant1-2462

11N40SISO-Ant1-2422




11N40SISO-Ant1-2437

11N40SISO-Ant1-2452

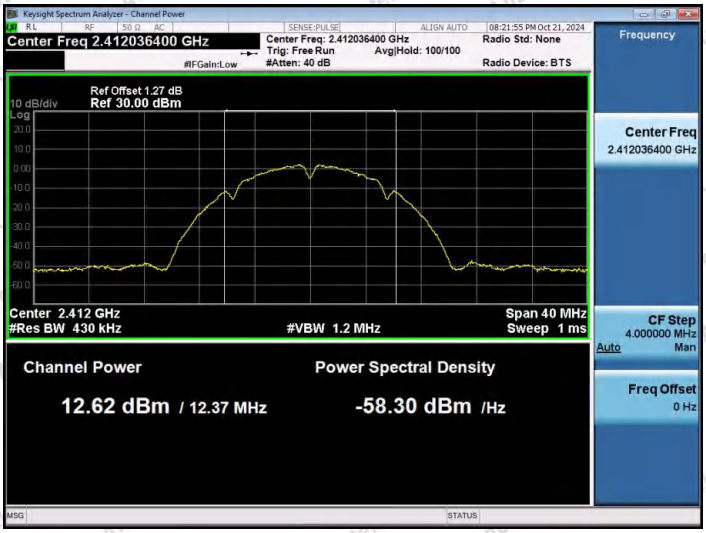
# Appendix C: Maximum conducted output power

## Test Result Average

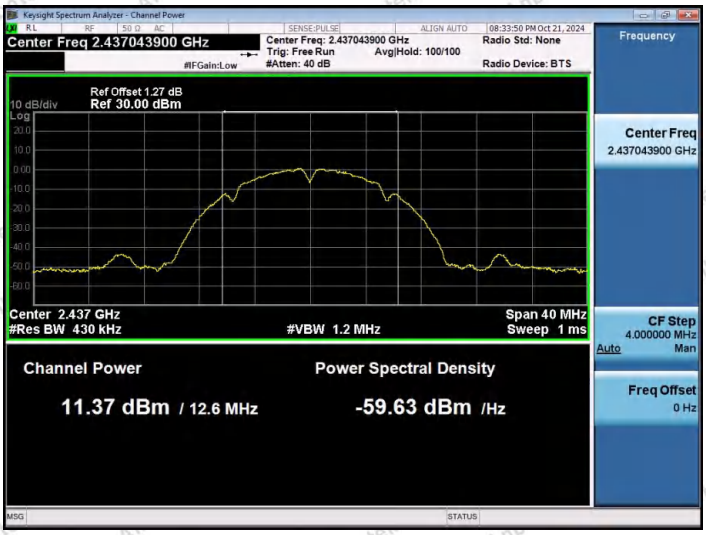
| Test Mode | Antenna | Frequency [MHz] | Set Power | Average power [dBm] | Duty Cycle [%] | DC Factor [dB] | Result [dBm] | Limit [dBm] | Verdict |
|---|---|---|---|---|---|---|---|---|---|
| 11B | Ant1 | 2412 | --- | 12.35 | 94.06 | 0.27 | 12.62 | ≤30.00 | PASS |
| 11B | Ant1 | 2437 | --- | 11.10 | 93.95 | 0.27 | 11.37 | ≤30.00 | PASS |
| 11B | Ant1 | 2462 | --- | 10.97 | 93.74 | 0.28 | 11.25 | ≤30.00 | PASS |
| 11G | Ant1 | 2412 | --- | 11.11 | 72.02 | 1.43 | 12.54 | ≤30.00 | PASS |
| 11G | Ant1 | 2437 | --- | 9.21 | 72.26 | 1.41 | 10.62 | ≤30.00 | PASS |
| 11G | Ant1 | 2462 | --- | 9.77 | 72.02 | 1.43 | 11.20 | ≤30.00 | PASS |
| 11N20SISO | Ant1 | 2412 | --- | 12.37 | 70.65 | 1.51 | 13.88 | ≤30.00 | PASS |
| 11N20SISO | Ant1 | 2437 | --- | 10.72 | 70.27 | 1.53 | 12.25 | ≤30.00 | PASS |
| 11N20SISO | Ant1 | 2462 | --- | 10.56 | 70.65 | 1.51 | 12.07 | ≤30.00 | PASS |
| 11N40SISO | Ant1 | 2422 | --- | 9.65 | 52.89 | 2.77 | 12.42 | ≤30.00 | PASS |
| 11N40SISO | Ant1 | 2437 | --- | 9.93 | 54.62 | 2.63 | 12.56 | ≤30.00 | PASS |
| 11N40SISO | Ant1 | 2452 | --- | 10.07 | 54.24 | 2.66 | 12.73 | ≤30.00 | PASS |

Note：The Duty Cycle Factor(10*log(1/D)) and cable loss are compensated in the graph.

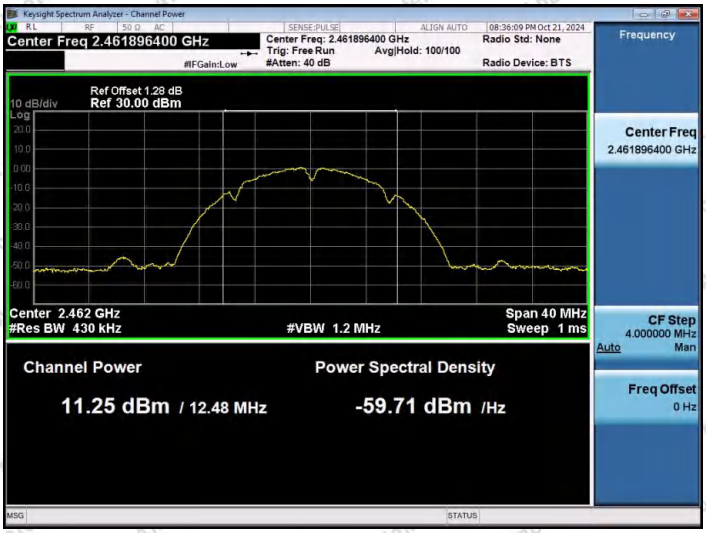
## Test Graphs Average



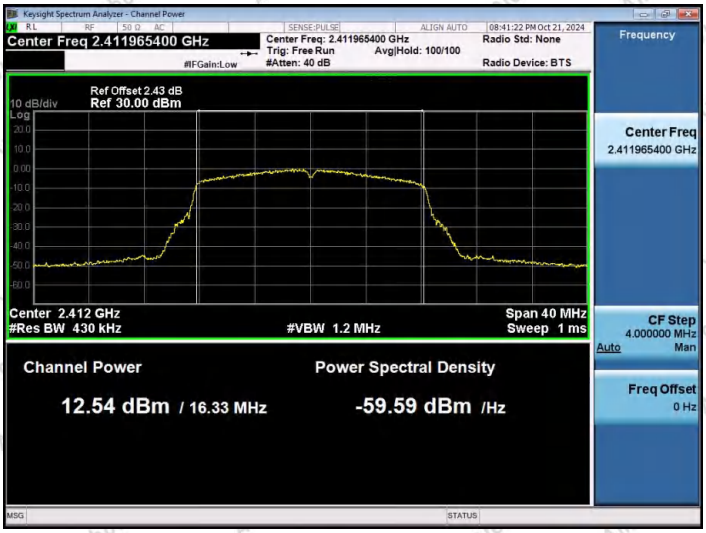

11B-Ant1-2412-PASS



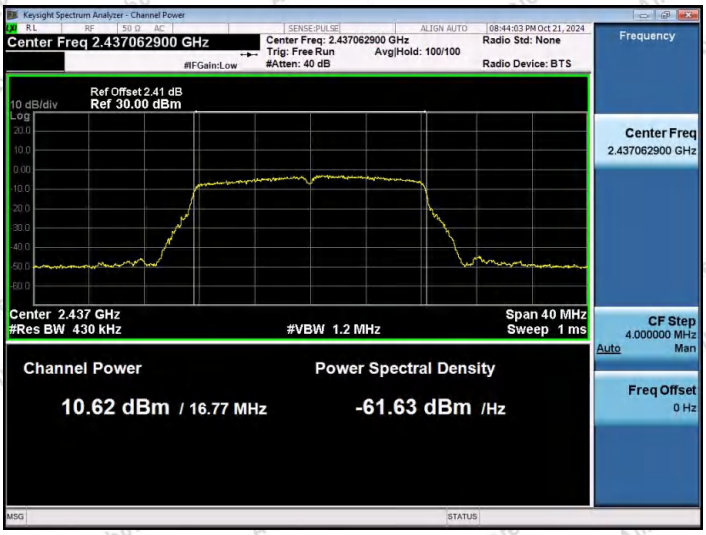

11B-Ant1-2437-PASS



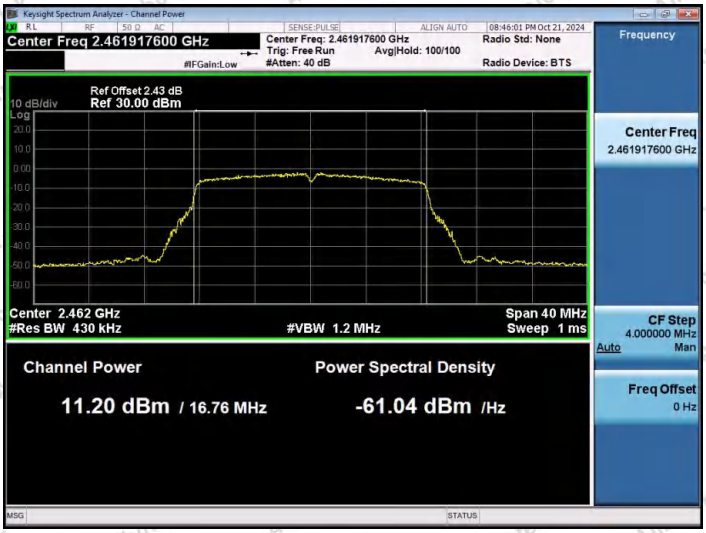

11B-Ant1-2462-PASS



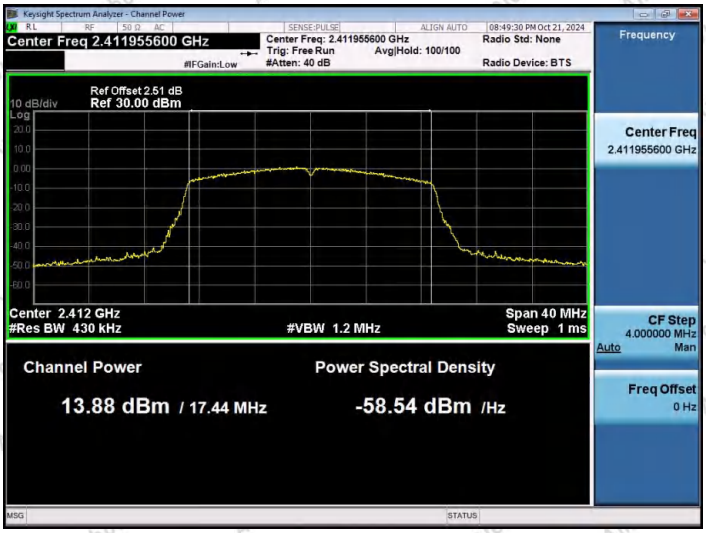

11G-Ant1-2412-PASS



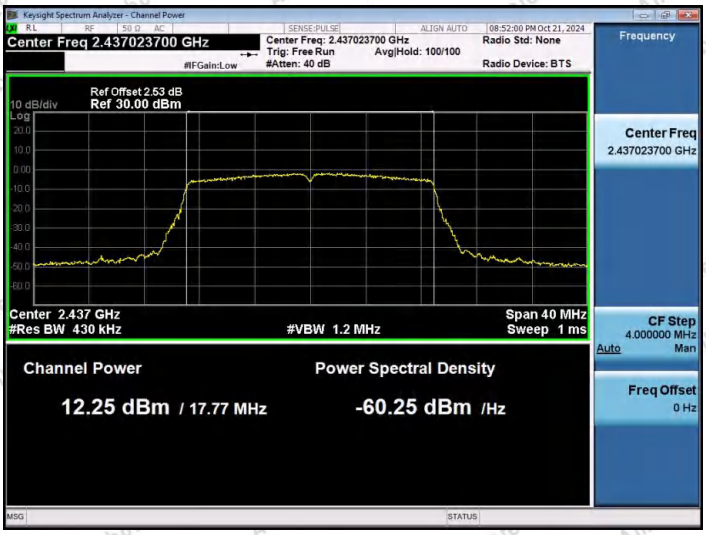

11G-Ant1-2437-PASS



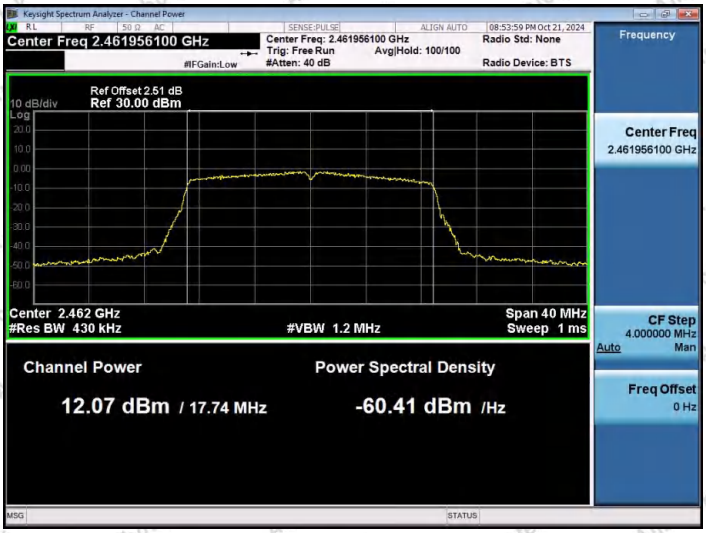

11G-Ant1-2462-PASS



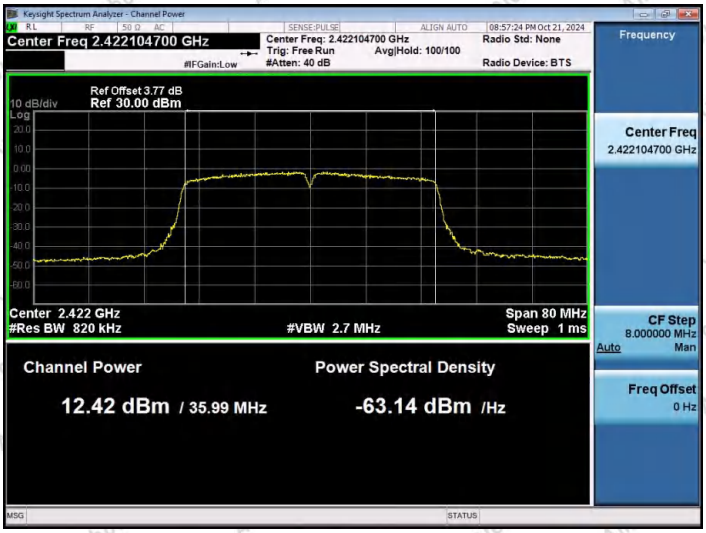

11N20SISO-Ant1-2412-PASS



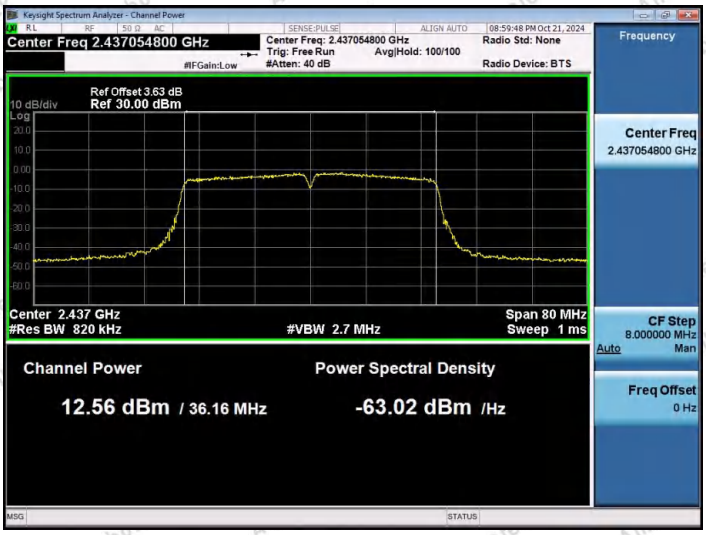

11N20SISO-Ant1-2437-PASS



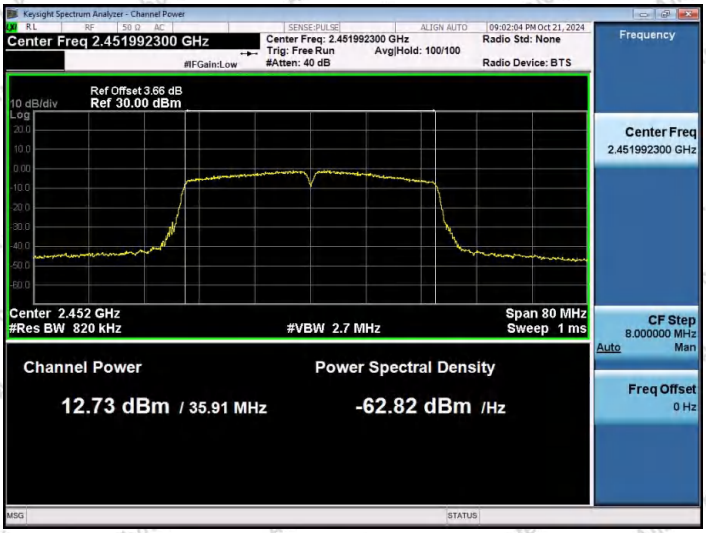

11N20SISO-Ant1-2462-PASS




11N40SISO-Ant1-2422-PASS




11N40SISO-Ant1-2437-PASS




11N40SISO-Ant1-2452-PASS

# Appendix D: Maximum power spectral density

## Test Result

| TestMode | Antenna | Frequency[MHz] | Result [dBm/30kHz] | Result [dBm/3kHz] | Limit [dBm/3kHz] | Verdict |
|---|---|---|---|---|---|---|
| 11B | Ant1 | 2412 | -8.35 | -18.35 | ≤8.00 | PASS |
| 11B | Ant1 | 2437 | -9.60 | -19.60 | ≤8.00 | PASS |
| 11B | Ant1 | 2462 | -9.65 | -19.65 | ≤8.00 | PASS |
| 11G | Ant1 | 2412 | -10.26 | -20.26 | ≤8.00 | PASS |
| 11G | Ant1 | 2437 | -12.04 | -22.04 | ≤8.00 | PASS |
| 11G | Ant1 | 2462 | -12.09 | -22.09 | ≤8.00 | PASS |
| 11N20SISO | Ant1 | 2412 | -8.95 | -18.95 | ≤8.00 | PASS |
| 11N20SISO | Ant1 | 2437 | -10.74 | -20.74 | ≤8.00 | PASS |
| 11N20SISO | Ant1 | 2462 | -11.12 | -21.12 | ≤8.00 | PASS |
| 11N40SISO | Ant1 | 2422 | -12.57 | -22.57 | ≤8.00 | PASS |
| 11N40SISO | Ant1 | 2437 | -13.23 | -23.23 | ≤8.00 | PASS |
| 11N40SISO | Ant1 | 2452 | -12.87 | -22.87 | ≤8.00 | PASS |

Note：

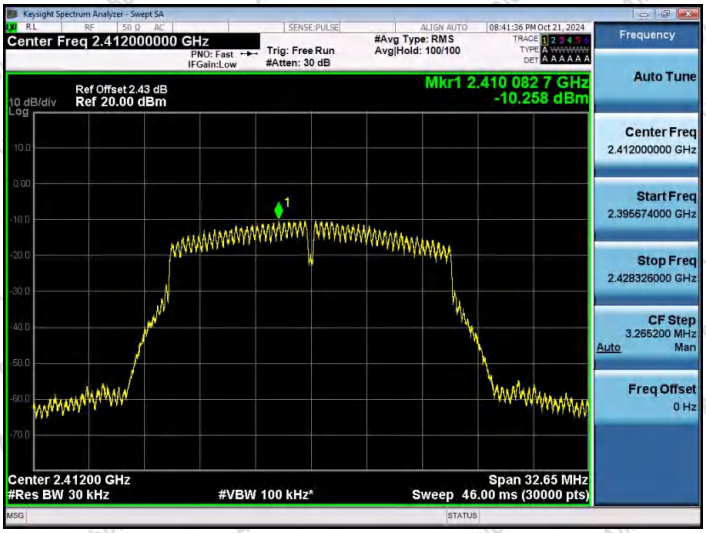
1. The Duty Cycle Factor(10*log(1/D)) and cable loss are compensated in the graph.
2. PSD(dBm/3kHz)= PSD(dBm/30kHz)- (10*log(30/3))

## Test Graphs

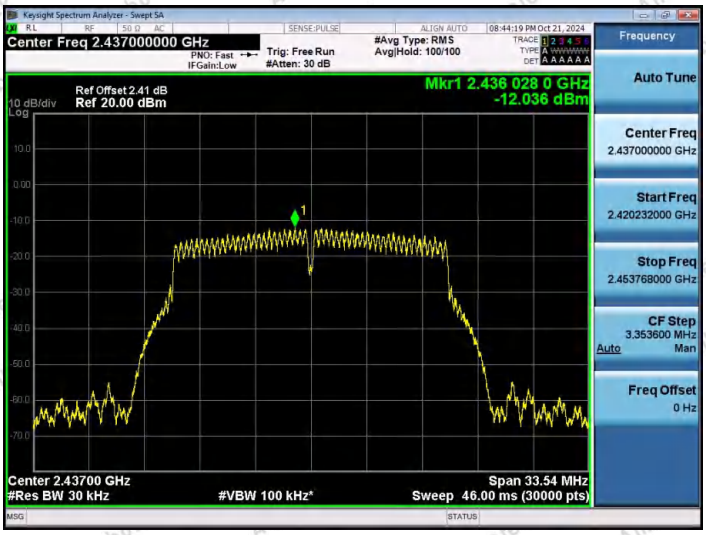
11B-Ant1-2412-PASS

11B-Ant1-2437-PASS

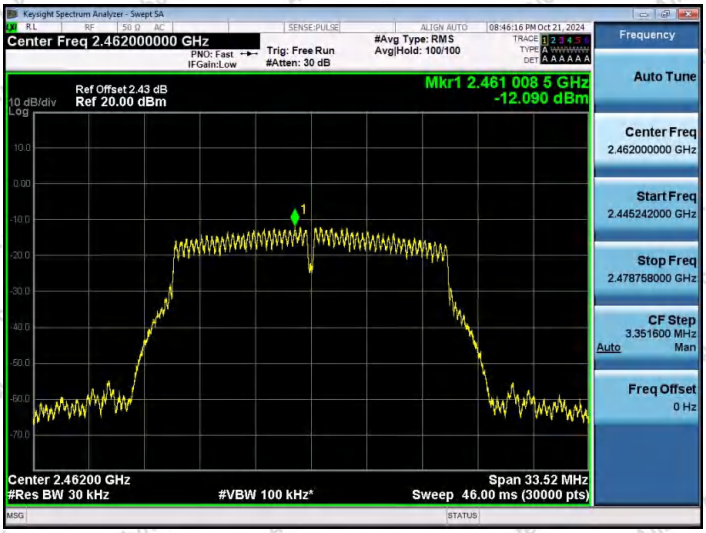
11B-Ant1-2462-PASS




11G-Ant1-2412-PASS

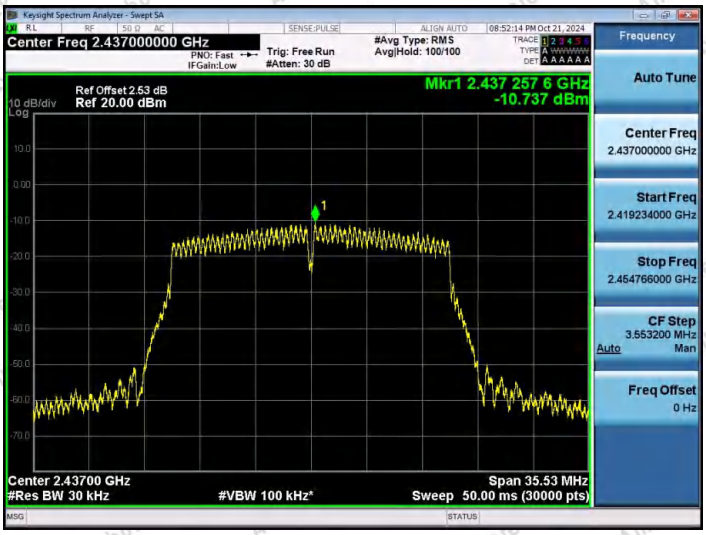



11G-Ant1-2437-PASS

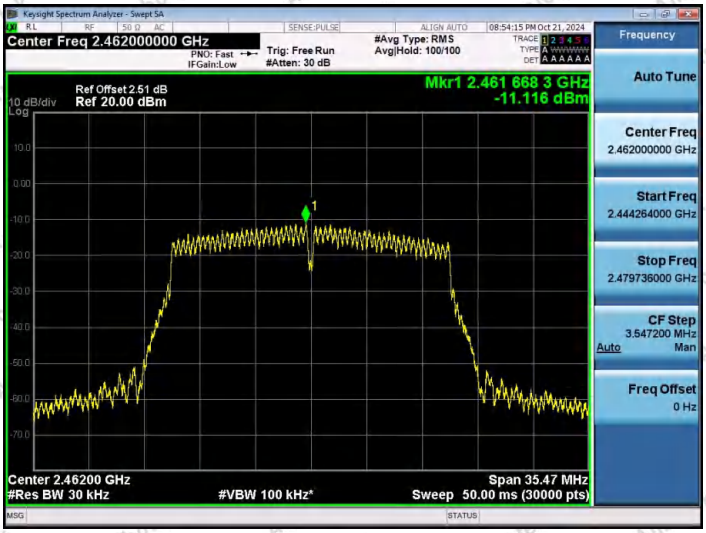



11G-Ant1-2462-PASS

11N20SISO-Ant1-2412-PASS

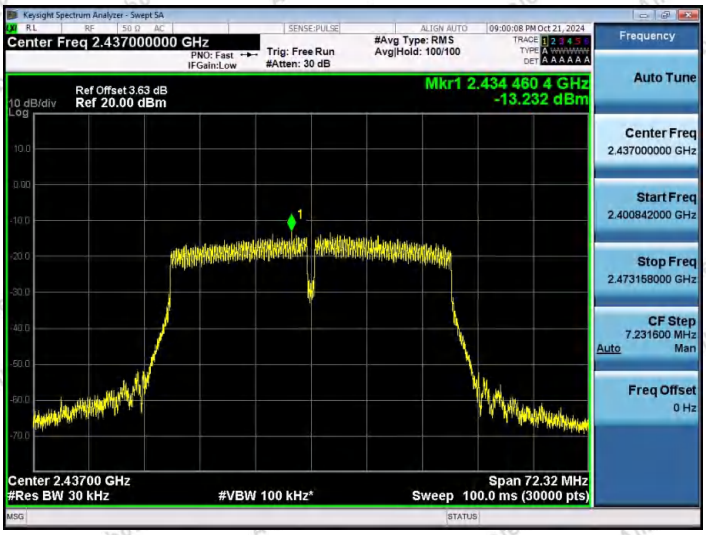



11N20SISO-Ant1-2437-PASS

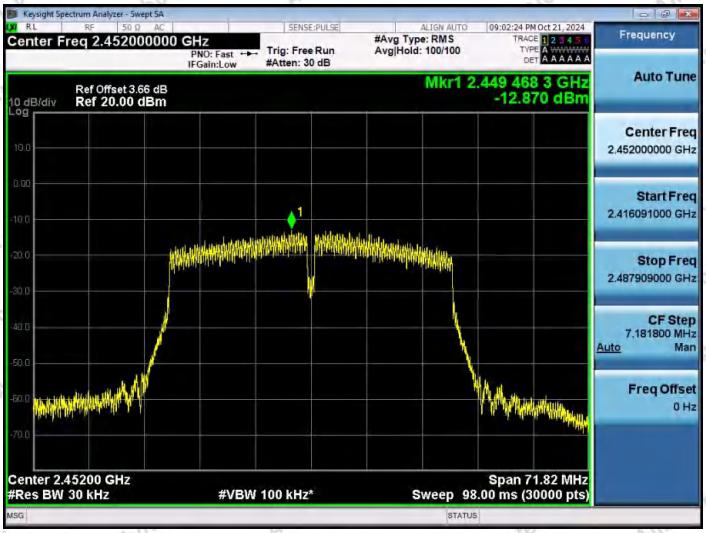



11N20SISO-Ant1-2462-PASS

11N40SISO-Ant1-2422-PASS




11N40SISO-Ant1-2437-PASS



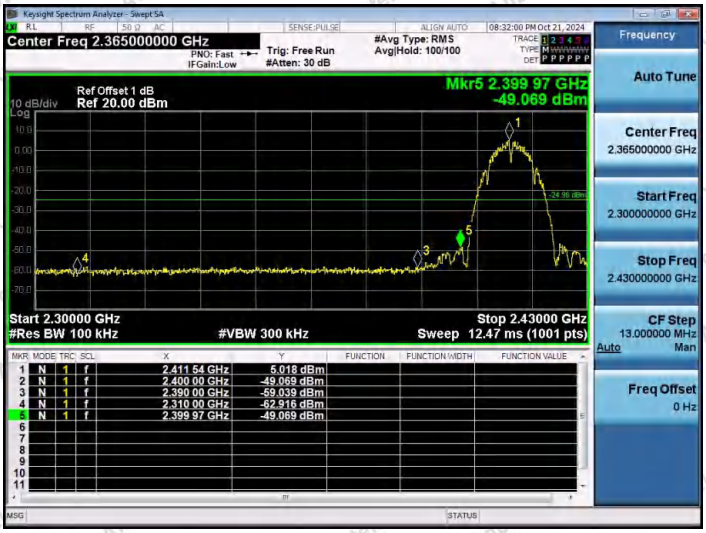

11N40SISO-Ant1-2452-PASS

# Appendix E: Conducted Band edge

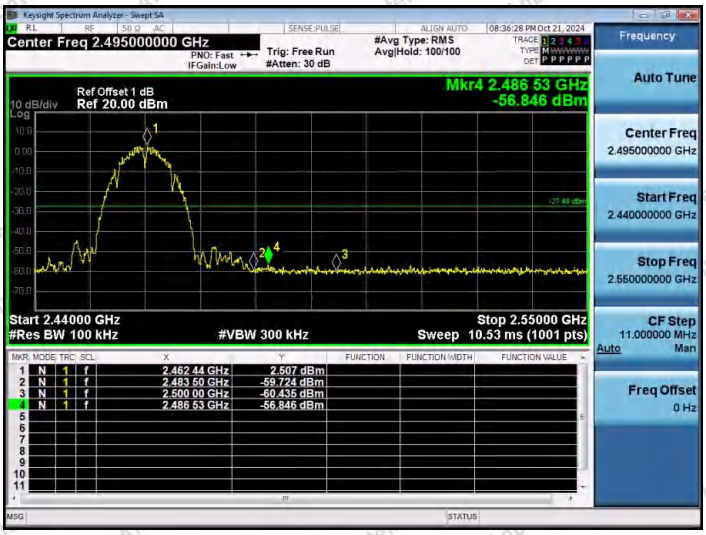
## Test Result

| TestMode | Antenna | ChName | Frequency [MHz] | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|---|---|---|---|---|---|---|---|
| 11B | Ant1 | Low | 2412 | 5.02 | -49.07 | ≤-24.98 | PASS |
| 11B | Ant1 | High | 2462 | 2.51 | -56.85 | ≤-27.49 | PASS |
| 11G | Ant1 | Low | 2412 | 2.49 | -43.32 | ≤-27.51 | PASS |
| 11G | Ant1 | High | 2462 | -0.08 | -49.36 | ≤-30.08 | PASS |
| 11N20SISO | Ant1 | Low | 2412 | 4.19 | -38.64 | ≤-25.81 | PASS |
| 11N20SISO | Ant1 | High | 2462 | 1.28 | -49.53 | ≤-28.72 | PASS |
| 11N40SISO | Ant1 | Low | 2422 | -1.27 | -45.14 | ≤-31.27 | PASS |
| 11N40SISO | Ant1 | High | 2452 | -0.91 | -45.94 | ≤-30.91 | PASS |

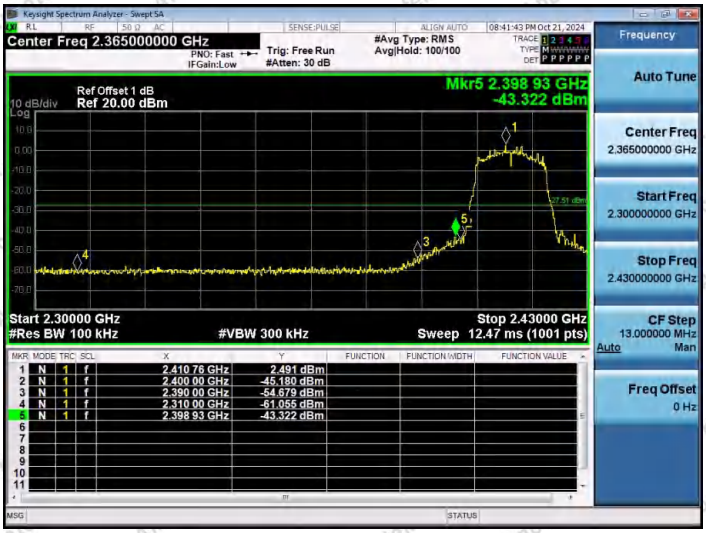
## Test Graphs



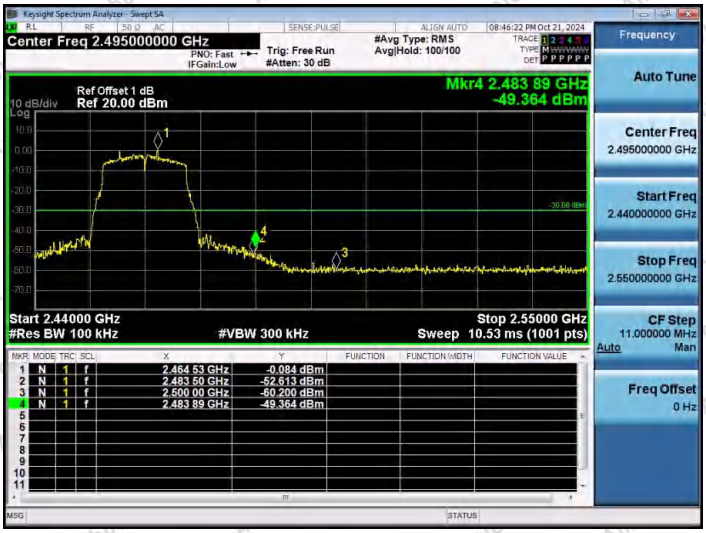

11B-Ant1-2412-PASS



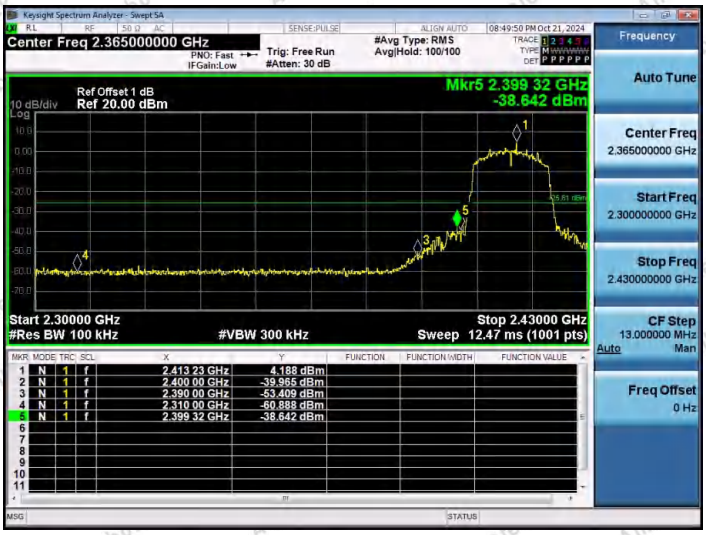

11B-Ant1-2462-PASS



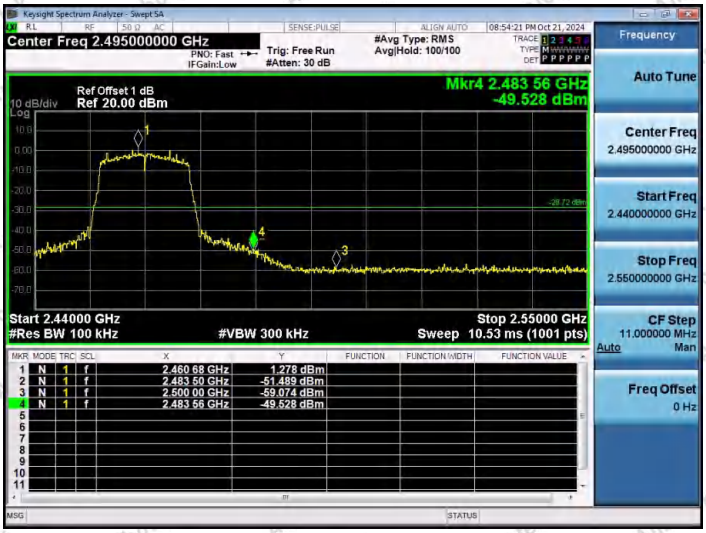

11G-Ant1-2412-PASS



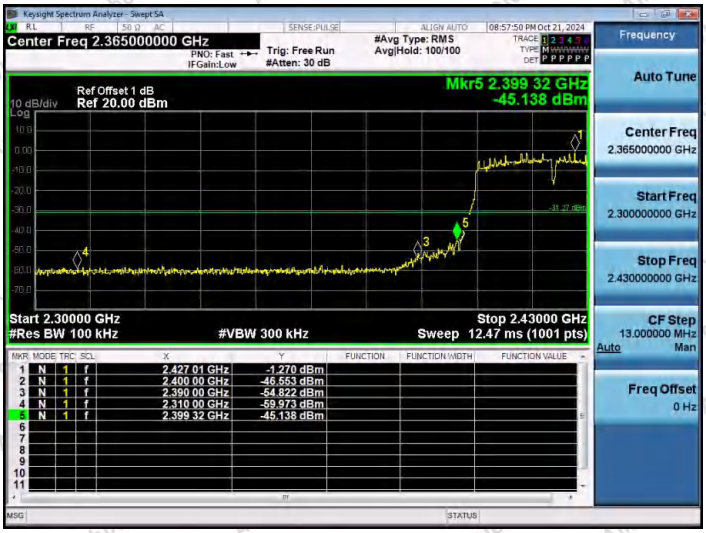

11G-Ant1-2462-PASS




11N20SISO-Ant1-2412-PASS




11N20SISO-Ant1-2462-PASS




11N40SISO-Ant1-2422-PASS

11N40SISO-Ant1-2452-PASS

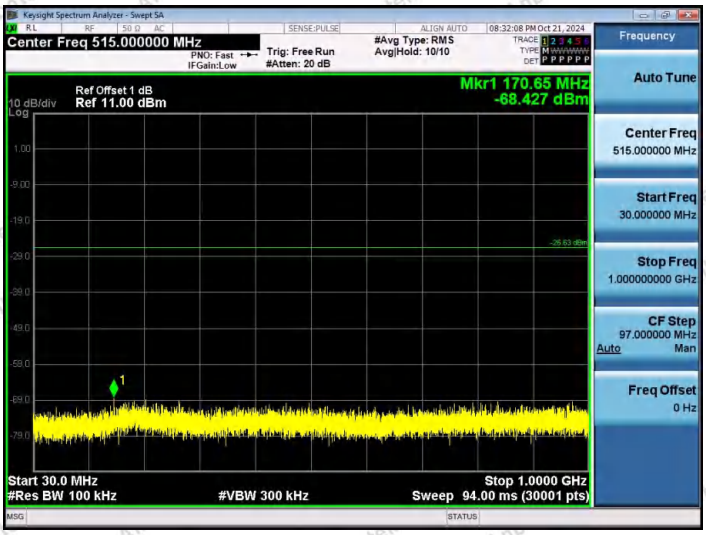
# Appendix F: Conducted Spurious Emission

## Test Result

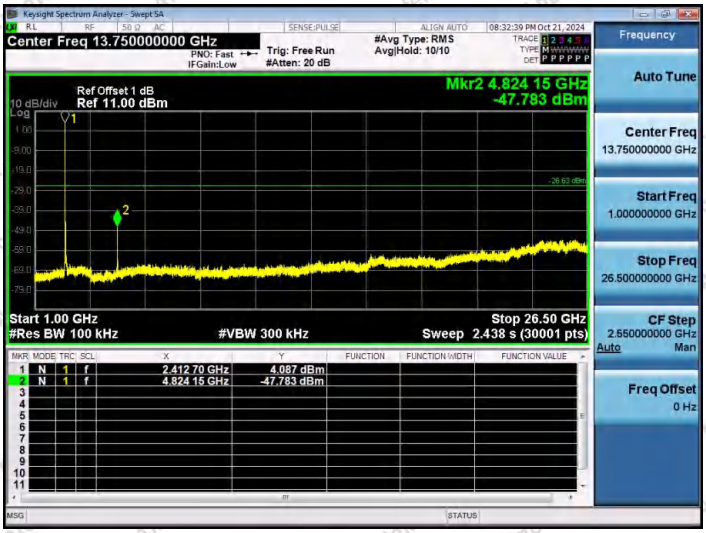
| TestMode | Antenna | Frequency[MHz] | FreqRange [Mhz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|---|---|---|---|---|---|---|---|
| 11B | Ant1 | 2412 | 0~Reference | 3.37 | 3.37 | --- | PASS |
| 11B | Ant1 | 2412 | 30~1000 | 3.37 | -68.43 | ≤-26.63 | PASS |
| 11B | Ant1 | 2412 | 1000~26500 | 3.37 | -47.78 | ≤-26.63 | PASS |
| 11B | Ant1 | 2437 | 0~Reference | 0.61 | 0.61 | --- | PASS |
| 11B | Ant1 | 2437 | 30~1000 | 0.61 | -68.63 | ≤-29.39 | PASS |
| 11B | Ant1 | 2437 | 1000~26500 | 0.61 | -51.46 | ≤-29.39 | PASS |
| 11B | Ant1 | 2462 | 0~Reference | 1.64 | 1.64 | --- | PASS |
| 11B | Ant1 | 2462 | 30~1000 | 1.64 | -68 | ≤-28.36 | PASS |
| 11B | Ant1 | 2462 | 1000~26500 | 1.64 | -49.72 | ≤-28.36 | PASS |
| 11G | Ant1 | 2412 | 0~Reference | 2.69 | 2.69 | --- | PASS |
| 11G | Ant1 | 2412 | 30~1000 | 2.69 | -69.02 | ≤-27.31 | PASS |
| 11G | Ant1 | 2412 | 1000~26500 | 2.69 | -53.79 | ≤-27.31 | PASS |
| 11G | Ant1 | 2437 | 0~Reference | -2.91 | -2.91 | --- | PASS |
| 11G | Ant1 | 2437 | 30~1000 | -2.91 | -69.03 | ≤-32.91 | PASS |
| 11G | Ant1 | 2437 | 1000~26500 | -2.91 | -53.61 | ≤-32.91 | PASS |
| 11G | Ant1 | 2462 | 0~Reference | 0.58 | 0.58 | --- | PASS |
| 11G | Ant1 | 2462 | 30~1000 | 0.58 | -67.68 | ≤-29.42 | PASS |
| 11G | Ant1 | 2462 | 1000~26500 | 0.58 | -53.49 | ≤-29.42 | PASS |
| 11N20SISO | Ant1 | 2412 | 0~Reference | 0.19 | 0.19 | --- | PASS |
| 11N20SISO | Ant1 | 2412 | 30~1000 | 0.19 | -68.7 | ≤-29.81 | PASS |
| 11N20SISO | Ant1 | 2412 | 1000~26500 | 0.19 | -53.34 | ≤-29.81 | PASS |
| 11N20SISO | Ant1 | 2437 | 0~Reference | -0.55 | -0.55 | --- | PASS |
| 11N20SISO | Ant1 | 2437 | 30~1000 | -0.55 | -67.92 | ≤-30.55 | PASS |
| 11N20SISO | Ant1 | 2437 | 1000~26500 | -0.55 | -53.22 | ≤-30.55 | PASS |
| 11N20SISO | Ant1 | 2462 | 0~Reference | 1.00 | 1.00 | --- | PASS |
| 11N20SISO | Ant1 | 2462 | 30~1000 | 1.00 | -68.53 | ≤-29 | PASS |
| 11N20SISO | Ant1 | 2462 | 1000~26500 | 1.00 | -52.79 | ≤-29 | PASS |
| 11N40SISO | Ant1 | 2422 | 0~Reference | -1.98 | -1.98 | --- | PASS |
| 11N40SISO | Ant1 | 2422 | 30~1000 | -1.98 | -68.38 | ≤-31.98 | PASS |
| 11N40SISO | Ant1 | 2422 | 1000~26500 | -1.98 | -53.31 | ≤-31.98 | PASS |
| 11N40SISO | Ant1 | 2437 | 0~Reference | -1.53 | -1.53 | --- | PASS |
| 11N40SISO | Ant1 | 2437 | 30~1000 | -1.53 | -68.35 | ≤-31.53 | PASS |
| 11N40SISO | Ant1 | 2437 | 1000~26500 | -1.53 | -53.63 | ≤-31.53 | PASS |
| 11N40SISO | Ant1 | 2452 | 0~Reference | -1.57 | -1.57 | --- | PASS |
| 11N40SISO | Ant1 | 2452 | 30~1000 | -1.57 | -68.3 | ≤-31.57 | PASS |
| 11N40SISO | Ant1 | 2452 | 1000~26500 | -1.57 | -53.39 | ≤-31.57 | PASS |

## Test Graphs

11B-Ant1-2412-0~Reference-PASS

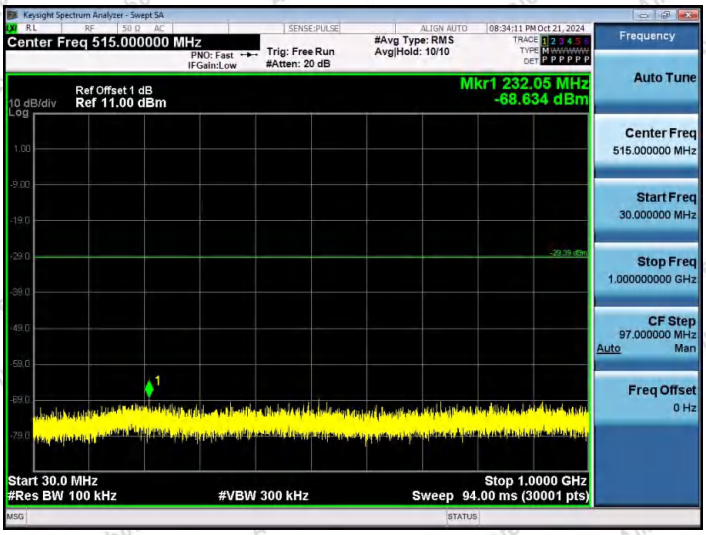



11B-Ant1-2412-30~1000-PASS

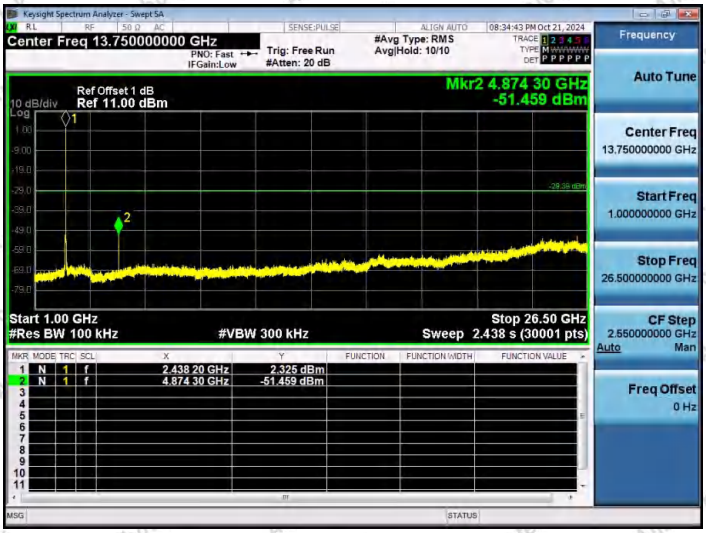



11B-Ant1-2412-1000~26500-PASS

11B-Ant1-2437-0~Reference-PASS

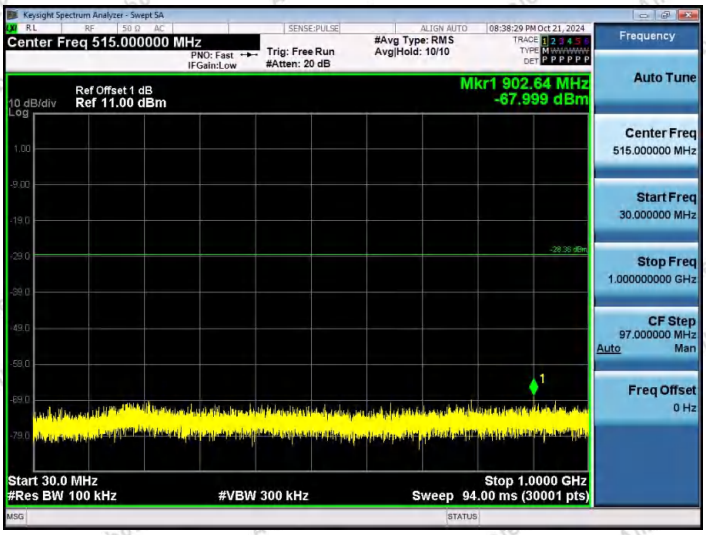



11B-Ant1-2437-30~1000-PASS




11B-Ant1-2437-1000~26500-PASS

11B-Ant1-2462-0~Reference-PASS

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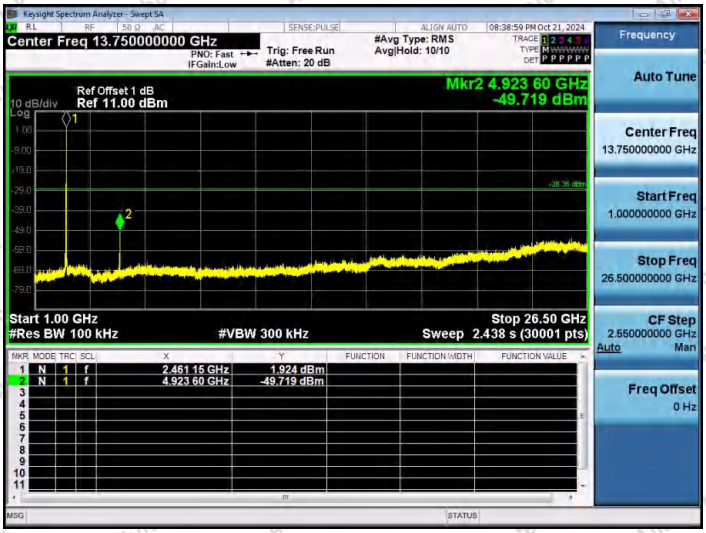
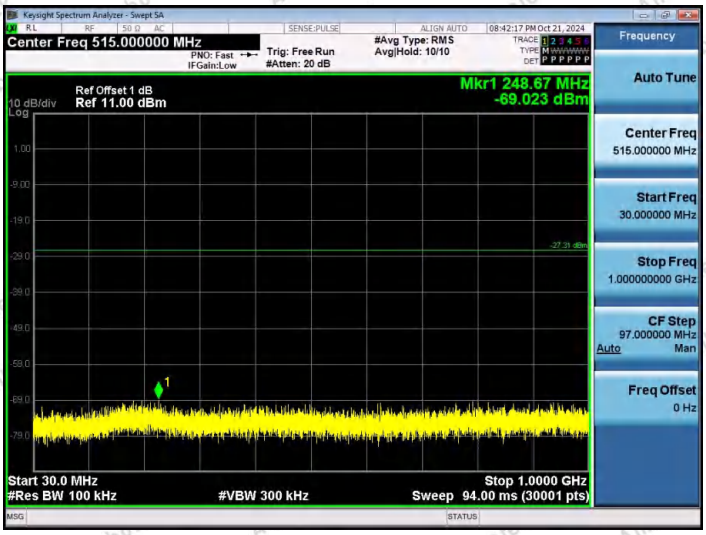



11B-Ant1-2462-1000~26500-PASS

11G-Ant1-2412-0~Reference-PASS

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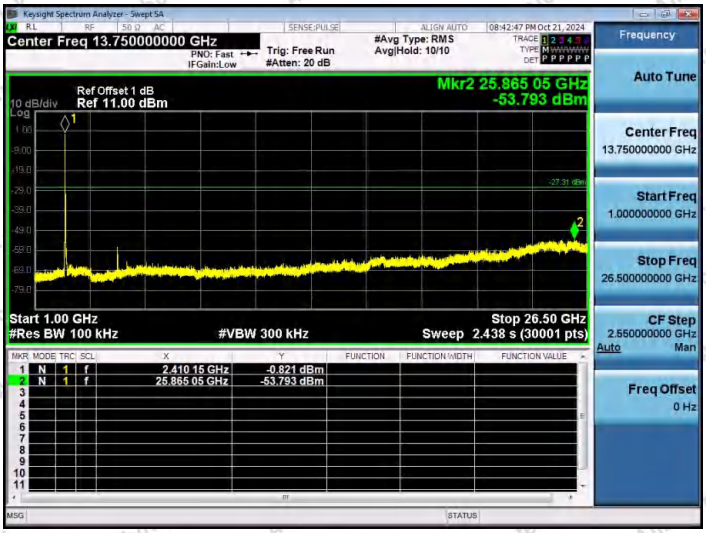
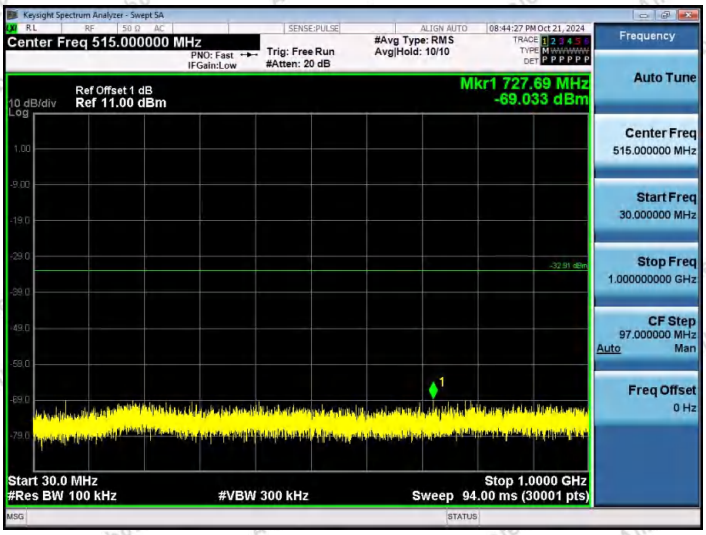
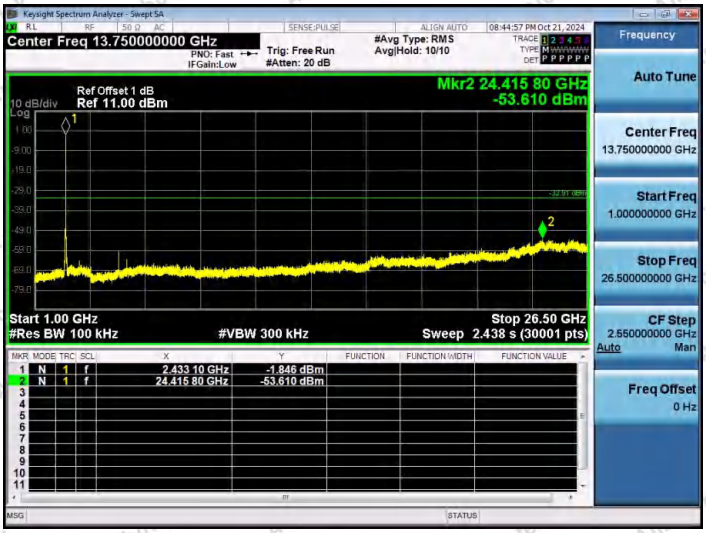



11G-Ant1-2412-1000~26500-PASS

11G-Ant1-2437-0~Reference-PASS

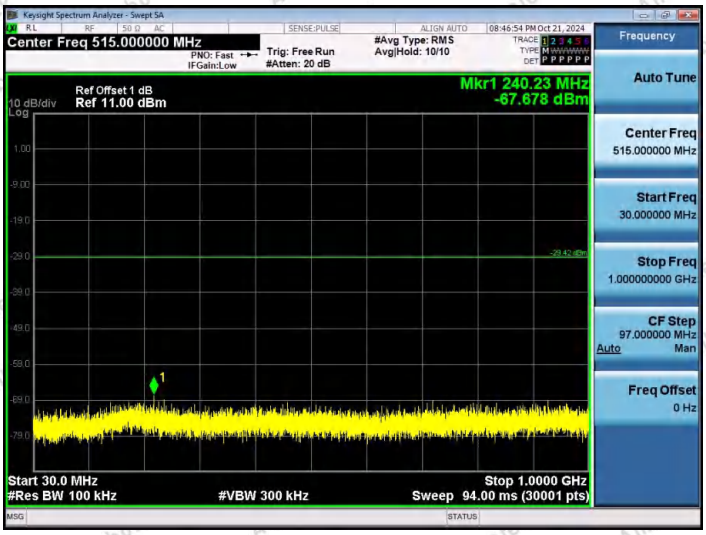



11G-Ant1-2437-30~1000-PASS




11G-Ant1-2437-1000~26500-PASS

11G-Ant1-2462-0~Reference-PASS

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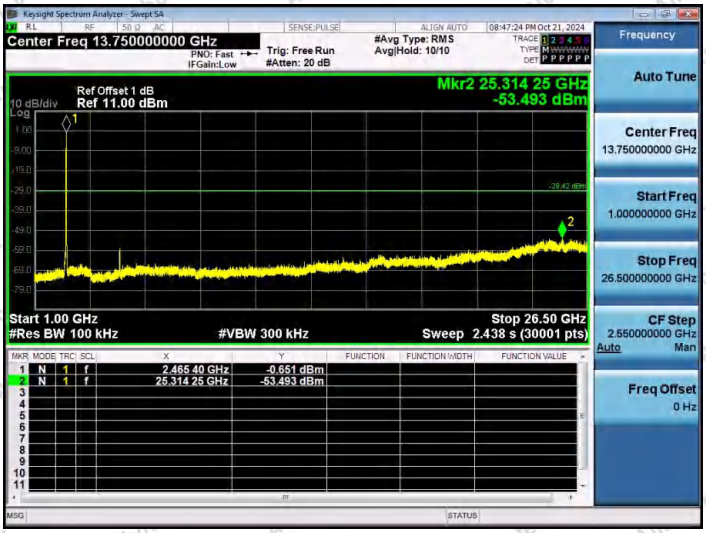
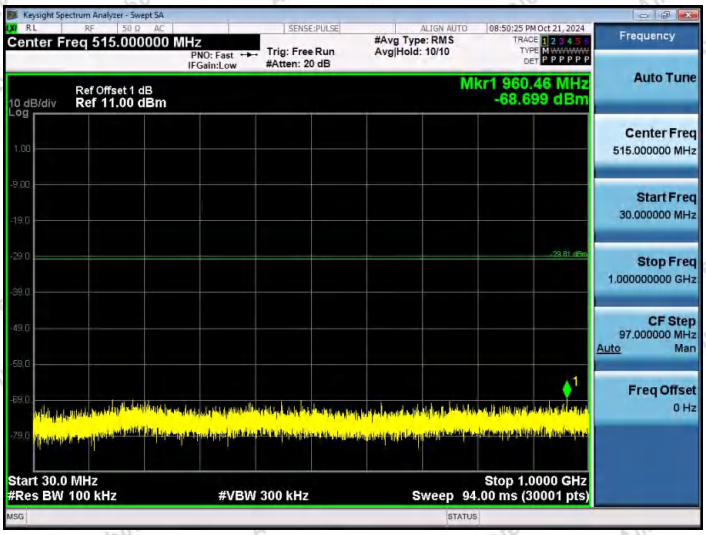



11G-Ant1-2462-1000~26500-PASS

11N20SISO-Ant1-2412-0~Reference-PASS

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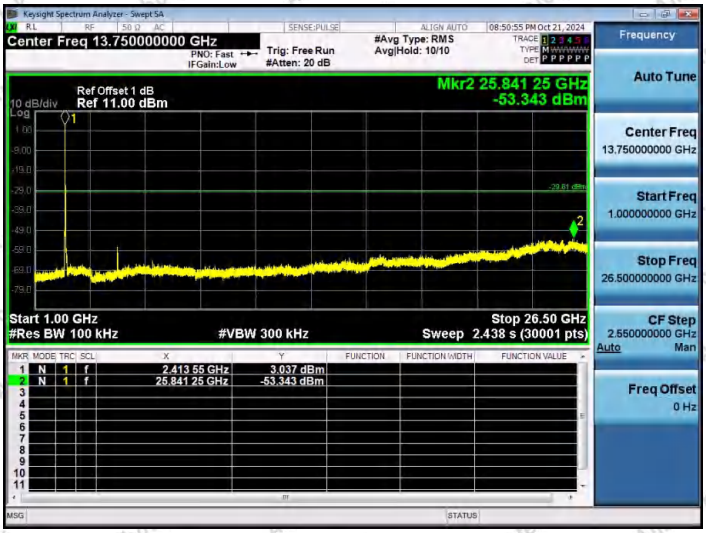


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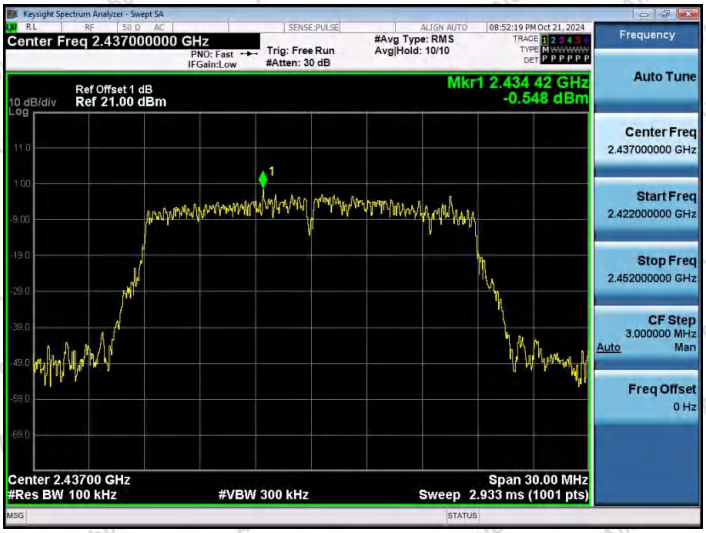


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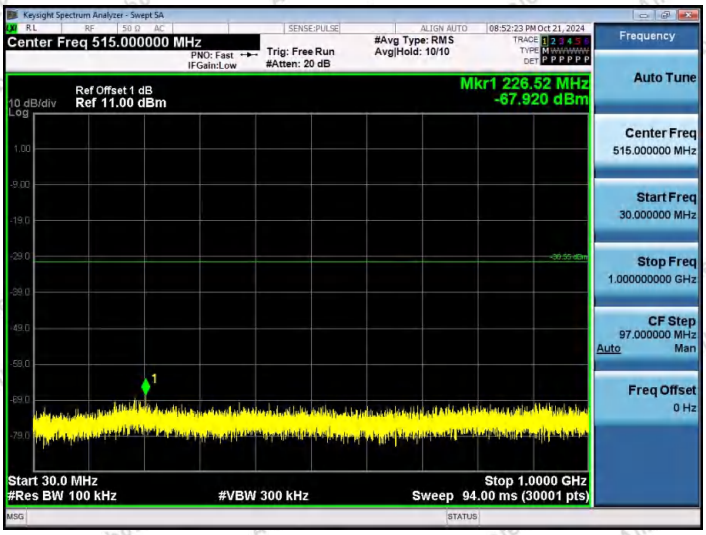


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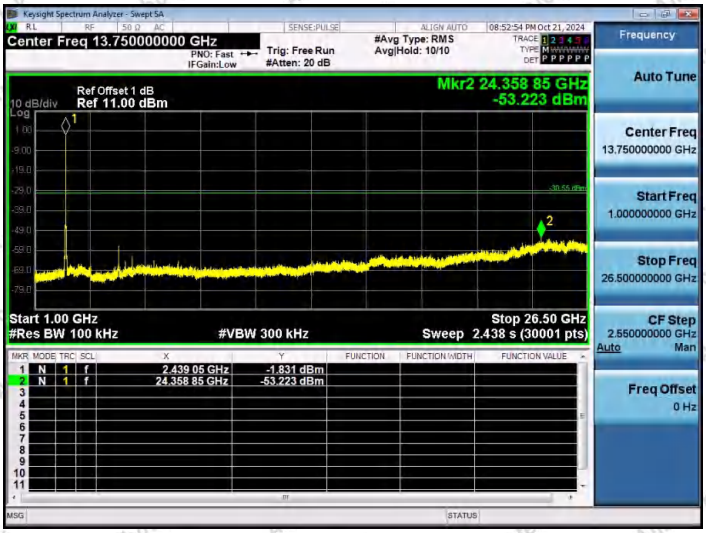


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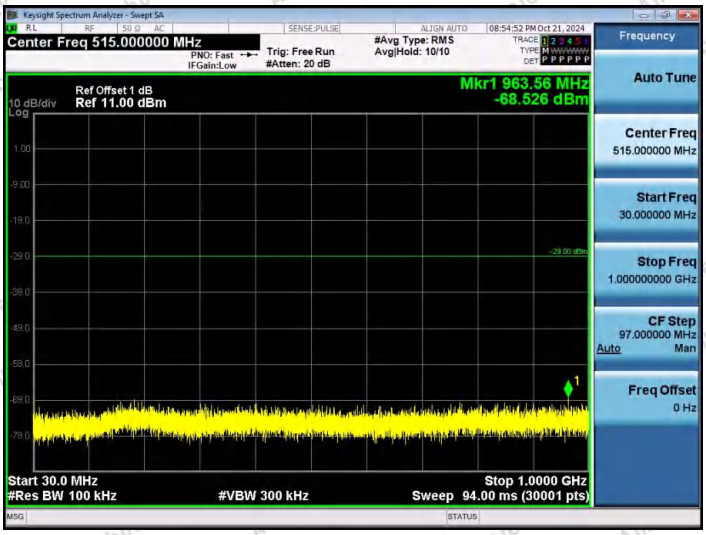


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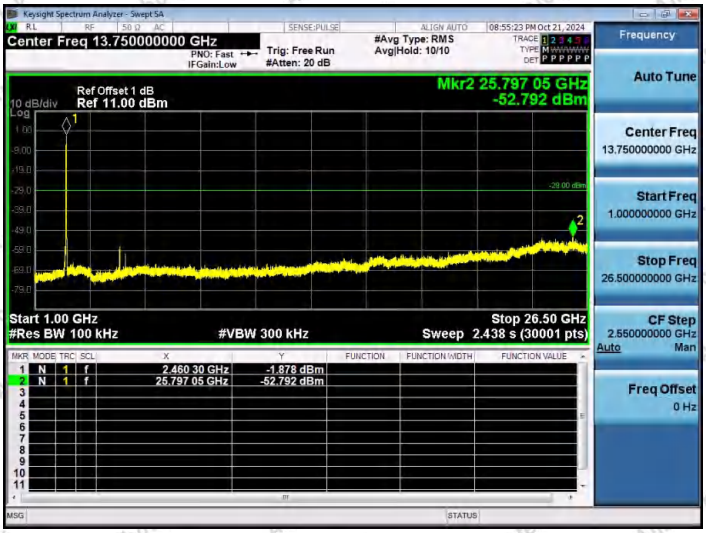
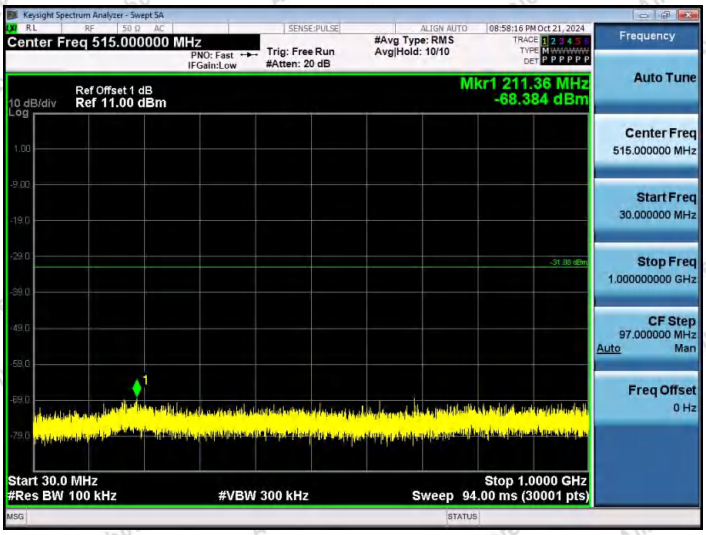
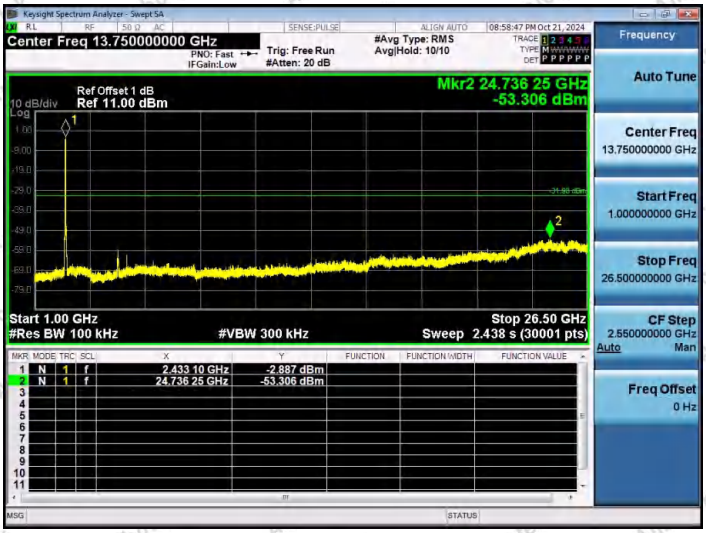



11N20SISO-Ant1-2462-1000~26500-PASS

11N40SISO-Ant1-2422-0~Reference-PASS

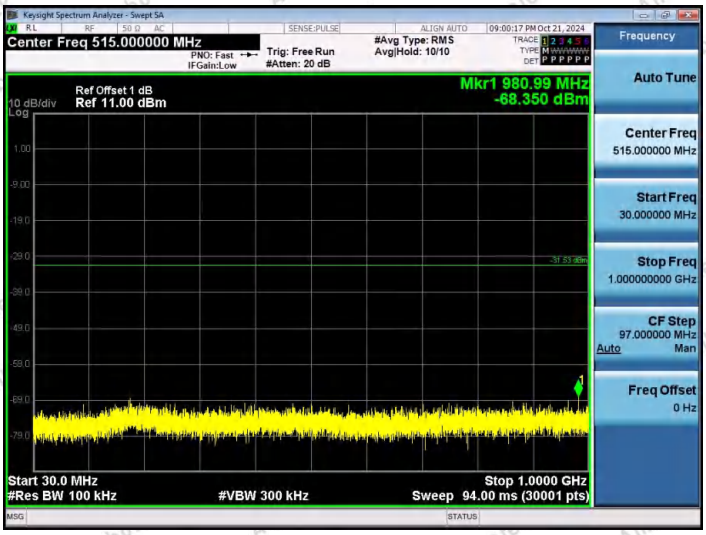



11N40SISO-Ant1-2422-30~1000-PASS

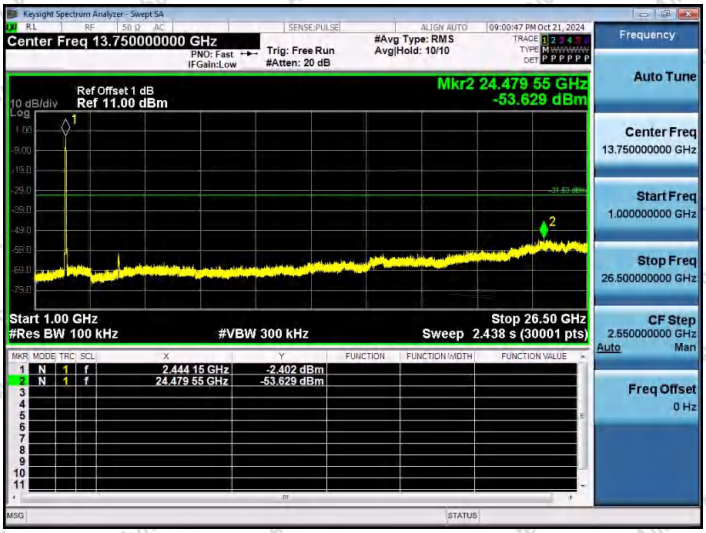



11N40SISO-Ant1-2422-1000~26500-PASS

11N40SISO-Ant1-2437-0~Reference-PASS

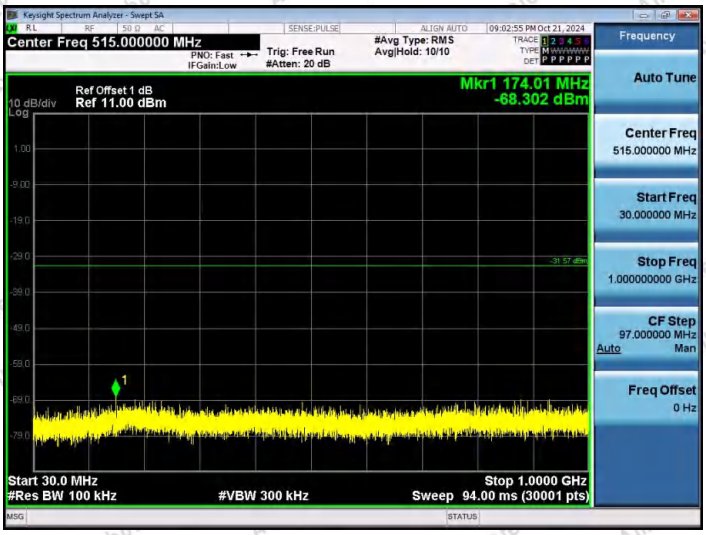



11N40SISO-Ant1-2437-30~1000-PASS

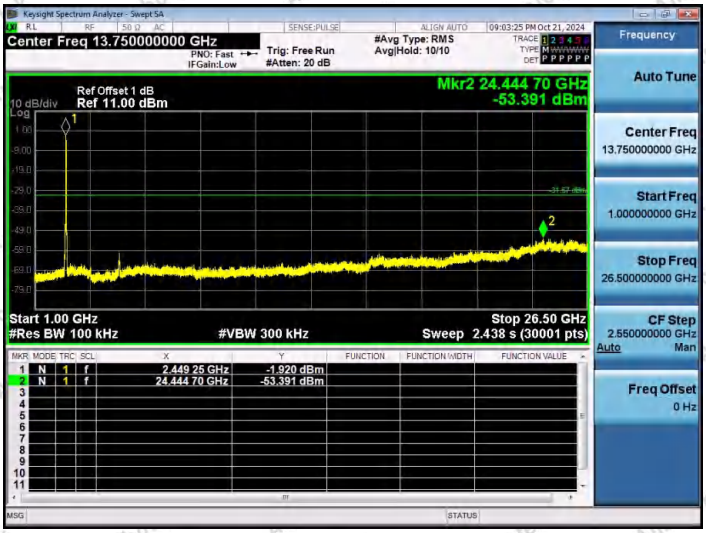



11N40SISO-Ant1-2437-1000~26500-PASS

11N40SISO-Ant1-2452-0~Reference-PASS




11N40SISO-Ant1-2452-30~1000-PASS



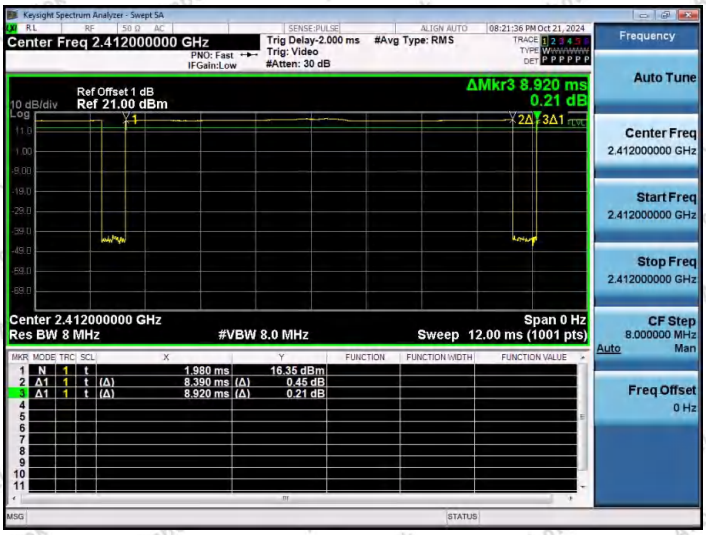

11N40SISO-Ant1-2452-1000~26500-PASS

# Appendix G: Duty Cycle

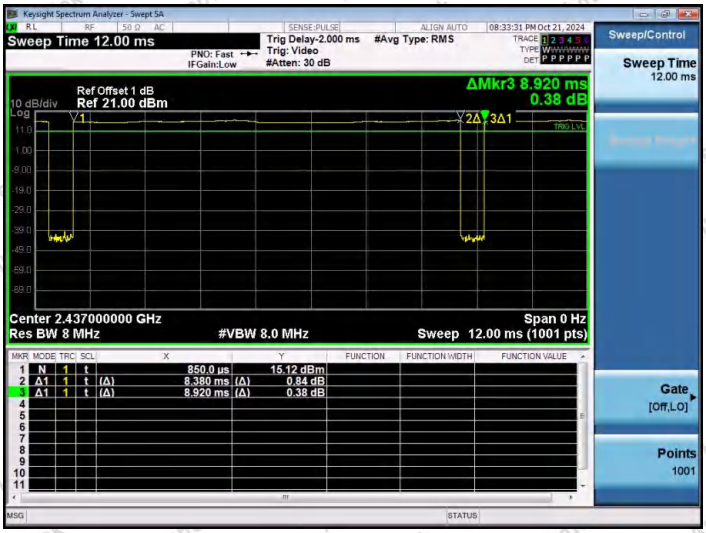
## Test Result

| TestMode | Antenna | Frequency [MHz] | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] | Factor |
|---|---|---|---|---|---|---|
| 11B | Ant1 | 2412 | 8.39 | 8.92 | 94.06 | 0.27 |
| 11B | Ant1 | 2437 | 8.38 | 8.92 | 93.95 | 0.27 |
| 11B | Ant1 | 2462 | 8.38 | 8.94 | 93.74 | 0.28 |
| 11G | Ant1 | 2412 | 1.39 | 1.93 | 72.02 | 1.43 |
| 11G | Ant1 | 2437 | 1.12 | 1.55 | 72.26 | 1.41 |
| 11G | Ant1 | 2462 | 1.39 | 1.93 | 72.02 | 1.43 |
| 11N20SISO | Ant1 | 2412 | 1.30 | 1.84 | 70.65 | 1.51 |
| 11N20SISO | Ant1 | 2437 | 1.30 | 1.85 | 70.27 | 1.53 |
| 11N20SISO | Ant1 | 2462 | 1.30 | 1.84 | 70.65 | 1.51 |
| 11N40SISO | Ant1 | 2422 | 0.64 | 1.21 | 52.89 | 2.77 |
| 11N40SISO | Ant1 | 2437 | 0.65 | 1.19 | 54.62 | 2.63 |
| 11N40SISO | Ant1 | 2452 | 0.64 | 1.18 | 54.24 | 2.66 |

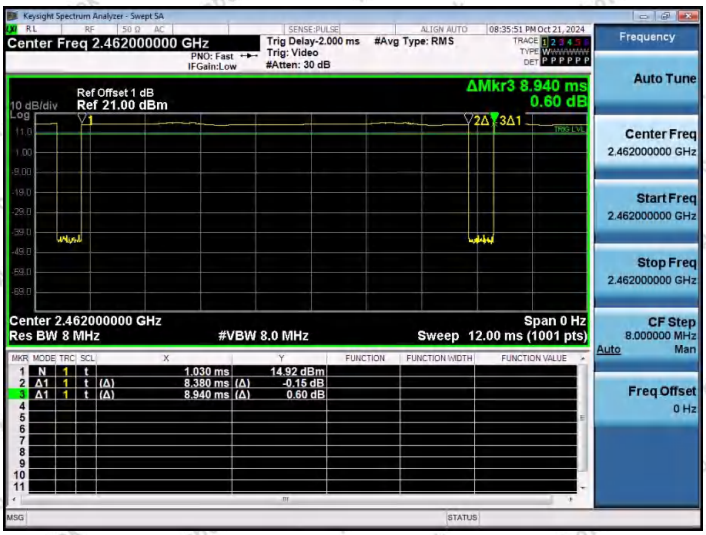
## Test Graphs



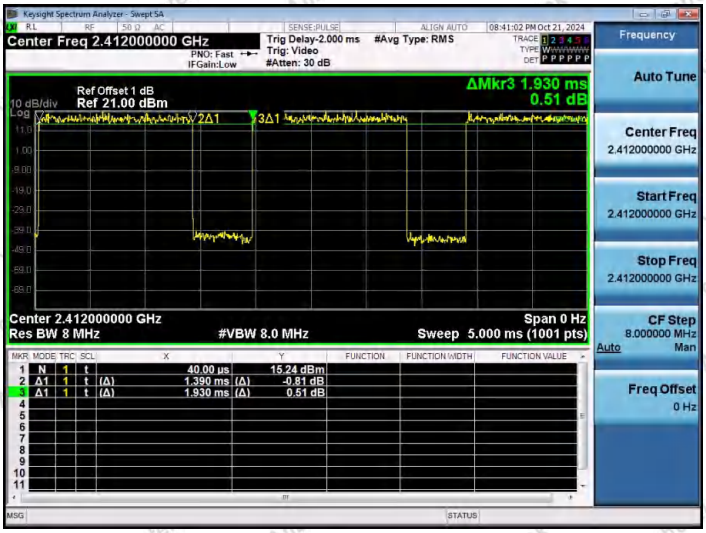

NTNV-11B-Ant1-2412



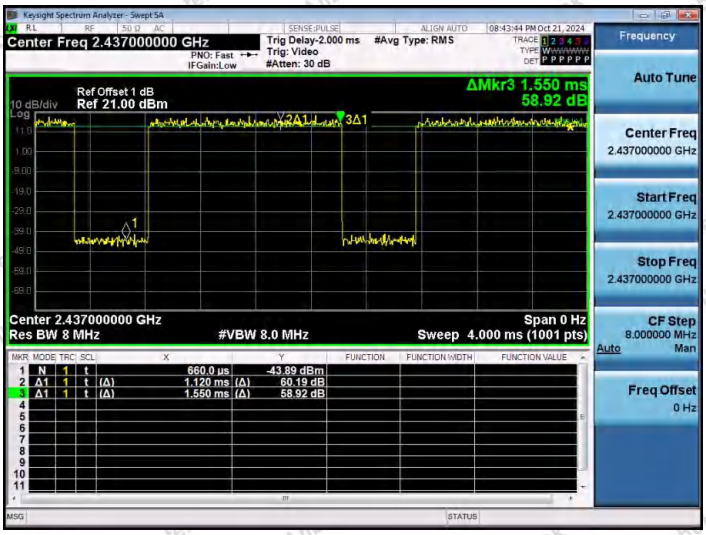

NTNV-11B-Ant1-2437



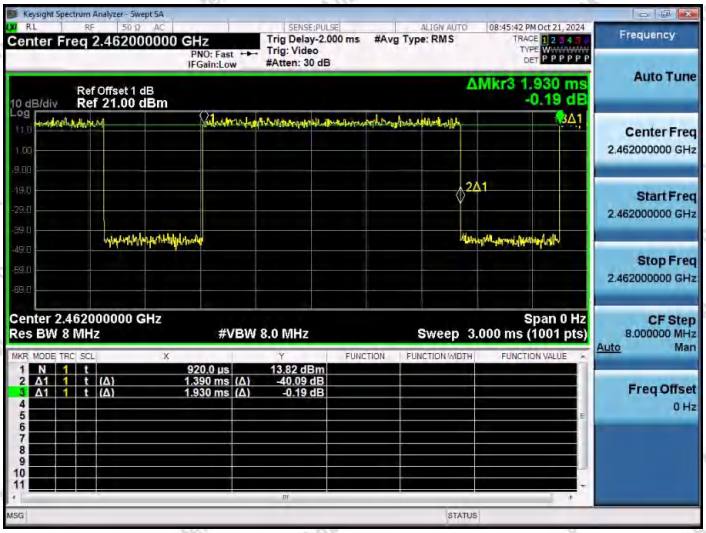
NTNV-11B-Ant1-2462



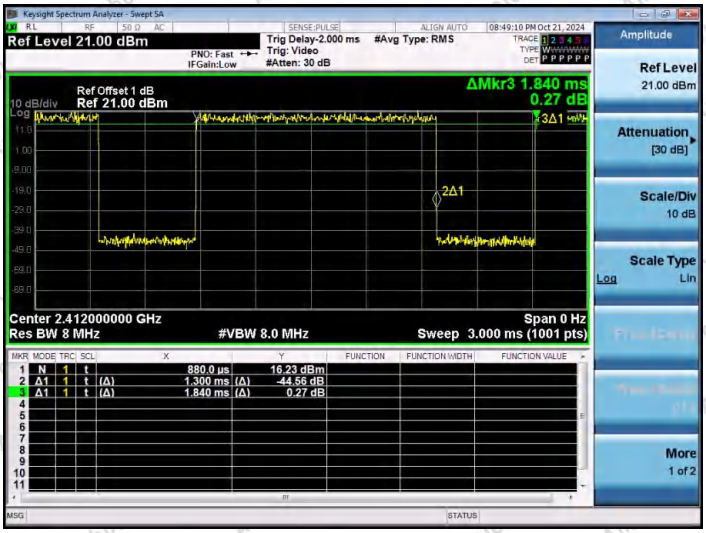

NTNV-11G-Ant1-2412



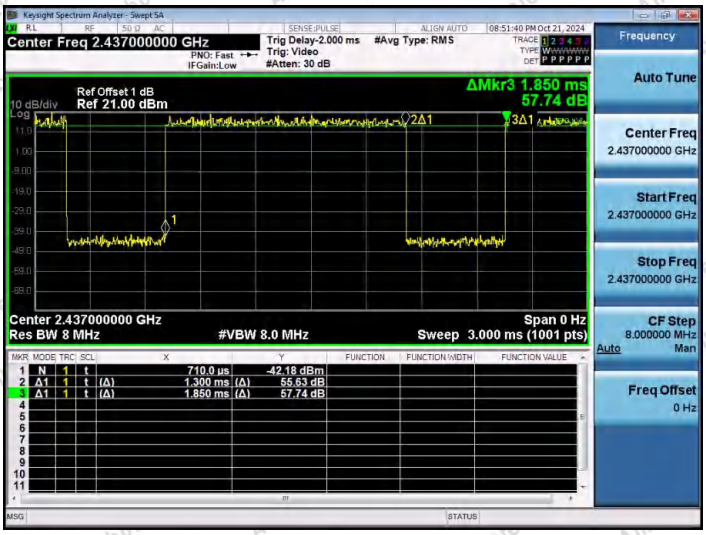

NTNV-11G-Ant1-2437



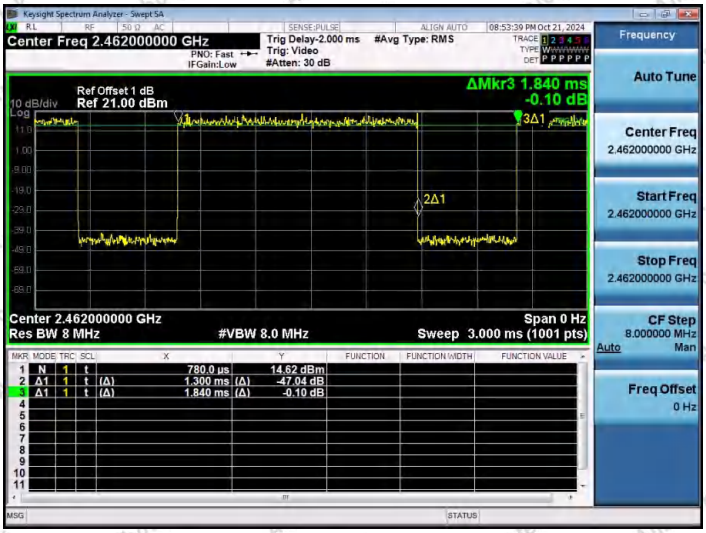

NTNV-11G-Ant1-2462



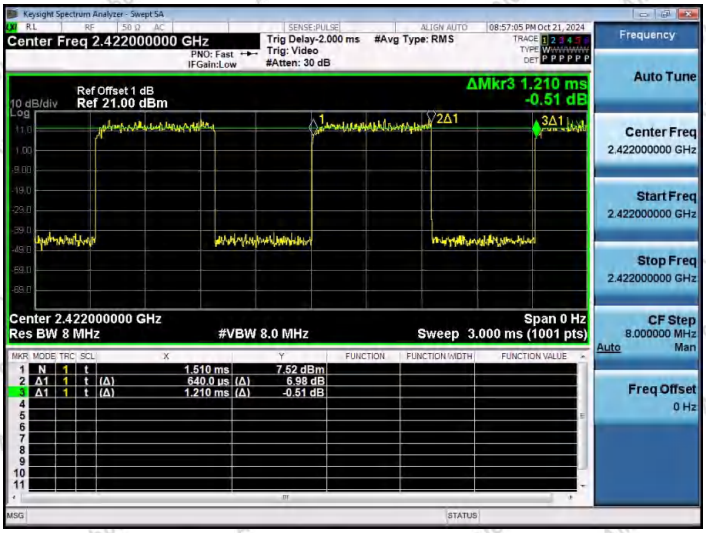

NTNV-11N20SISO-Ant1-2412



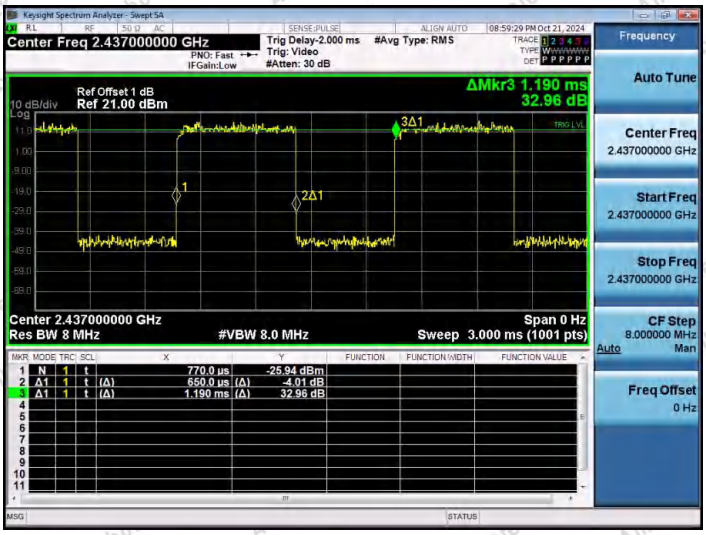

NTNV-11N20SISO-Ant1-2437



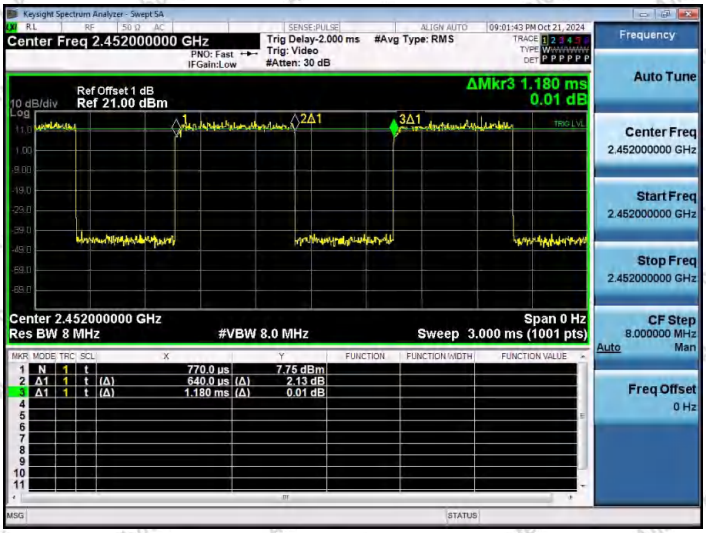

NTNV-11N20SISO-Ant1-2462




NTNV-11N40SISO-Ant1-2422




NTNV-11N40SISO-Ant1-2437




NTNV-11N40SISO-Ant1-2452

---End---