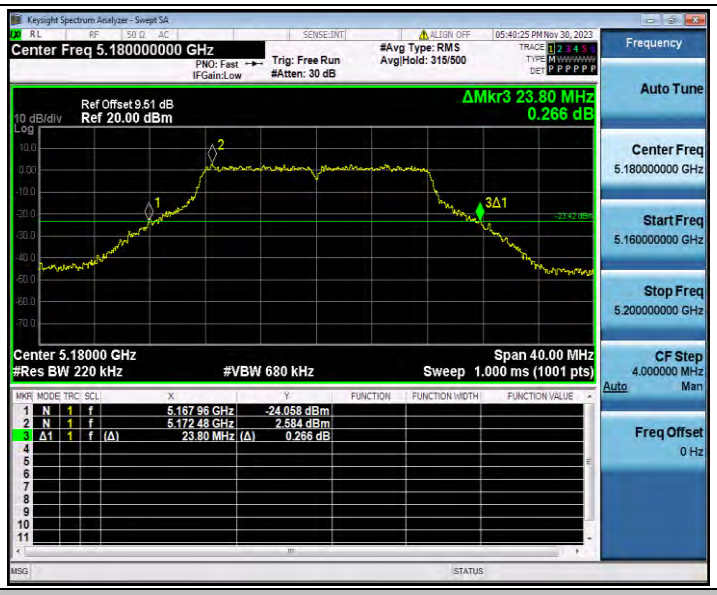
| | |
|---|---|
| **Case No. :** GTS20231017004-1-13 | |
| **Ambient Condition**: 24 ℃, 48 %RH, Atmos100.1Kpa, | |
| **Test Date:** 2023.11.27 | **Test Engineer:** Evan ouyang |

# Appendix D.1: Emission Bandwidth

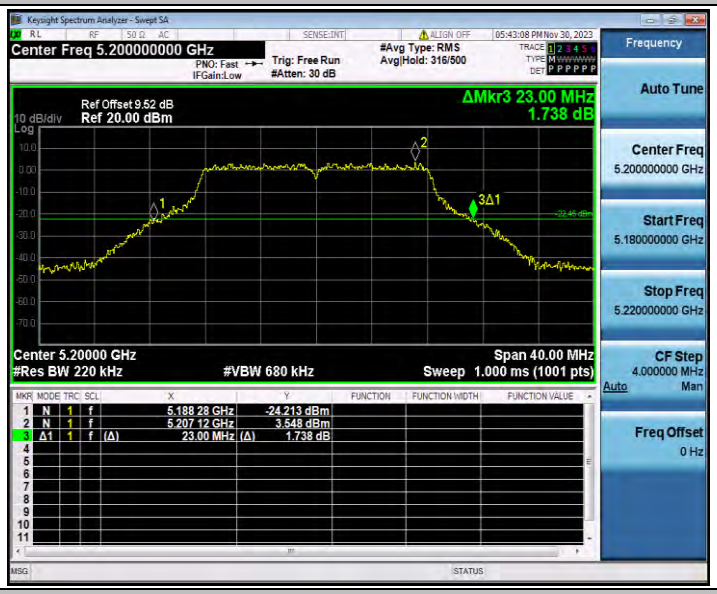
## Test Result

| Test Mode | Antenna | Frequency[MHz] | 26db EBW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|---|---|---|
| 11A | Ant1 | 5180 | 23.800 | 5167.960 | 5191.760 | --- | --- |
| | | 5200 | 23.000 | 5188.280 | 5211.280 | --- | --- |
| | | 5240 | 23.240 | 5228.400 | 5251.640 | --- | --- |
| 11N20SISO | Ant1 | 5180 | 23.880 | 5168.040 | 5191.920 | --- | --- |
| | | 5200 | 23.520 | 5188.000 | 5211.520 | --- | --- |
| | | 5240 | 23.280 | 5228.320 | 5251.600 | --- | --- |
| 11N40SISO | Ant1 | 5190 | 43.440 | 5168.320 | 5211.760 | --- | --- |
| | | 5230 | 43.840 | 5208.240 | 5252.080 | --- | --- |
| 11AC20SISO | Ant1 | 5180 | 23.560 | 5168.120 | 5191.680 | --- | --- |
| | | 5200 | 23.000 | 5188.440 | 5211.440 | --- | --- |
| | | 5240 | 23.440 | 5227.960 | 5251.400 | --- | --- |
| 11AC40SISO | Ant1 | 5190 | 44.160 | 5167.840 | 5212.000 | --- | --- |
| | | 5230 | 44.400 | 5207.760 | 5252.160 | --- | --- |
| 11AC80SISO | Ant1 | 5210 | 82.720 | 5168.880 | 5251.600 | --- | --- |

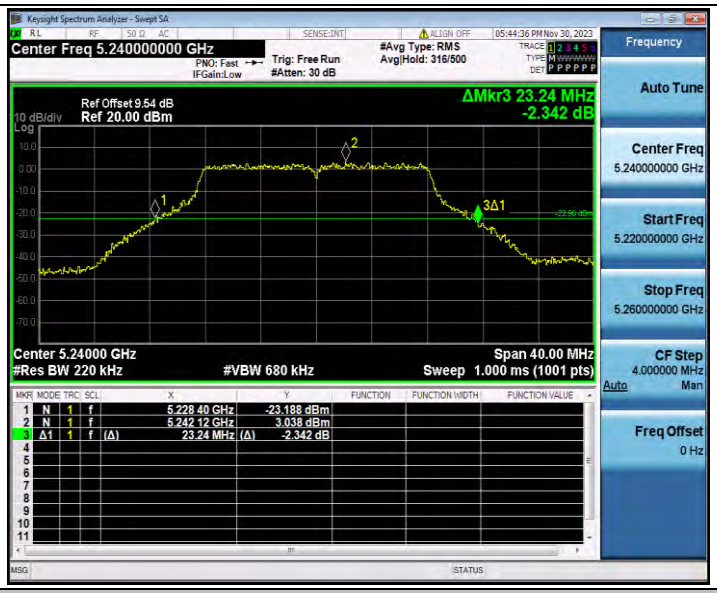
## Test Graphs



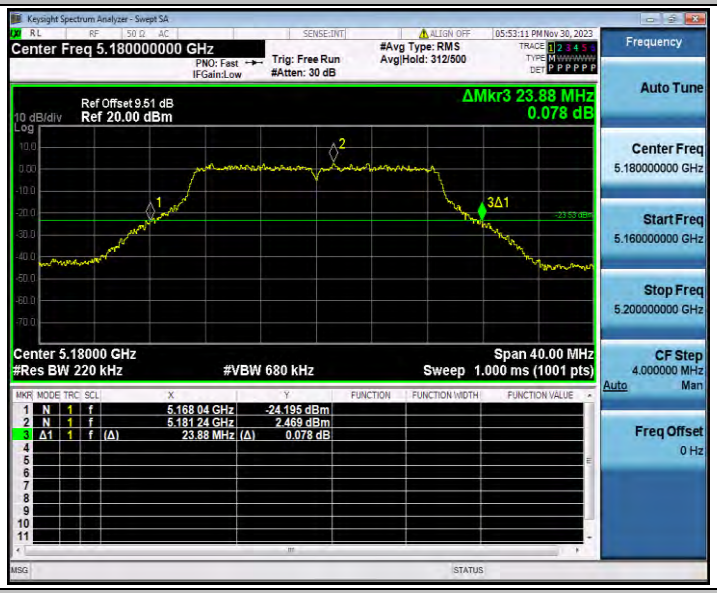

11A_Ant1_5180



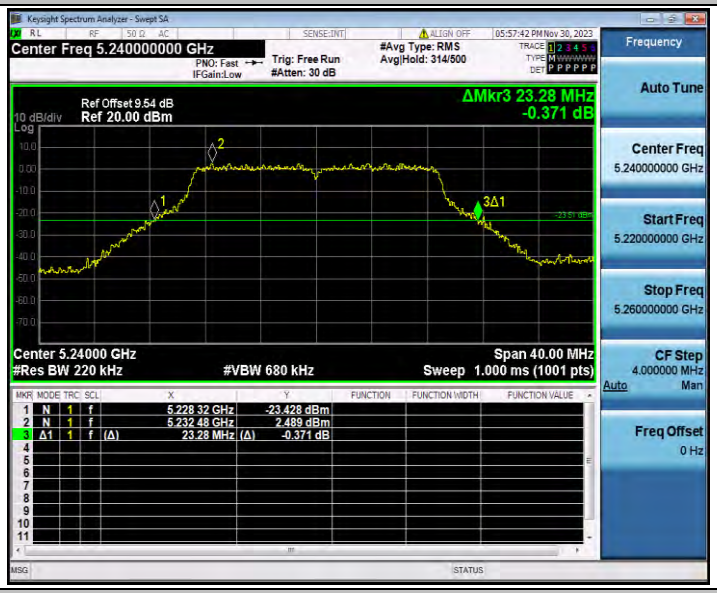

11A_Ant1_5200



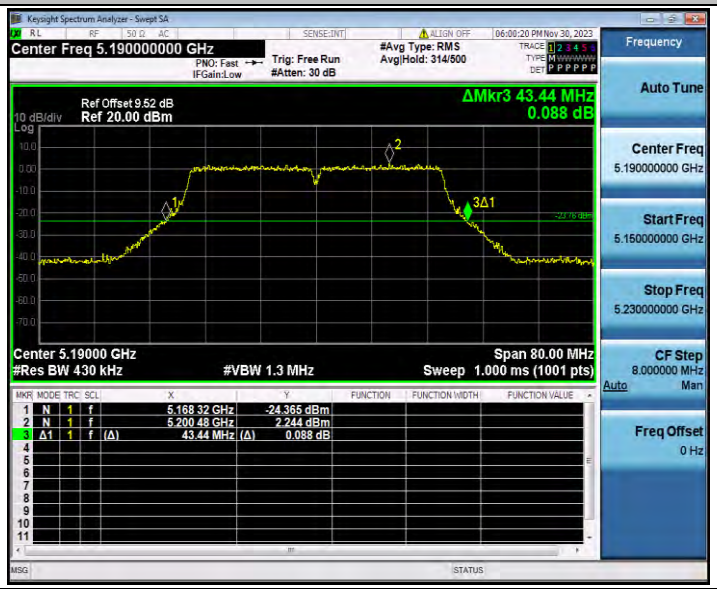

11A_Ant1_5240




11N20SISO_Ant1_5180

| 11N20SISO_Ant1_5200 |
| --- |
|  |

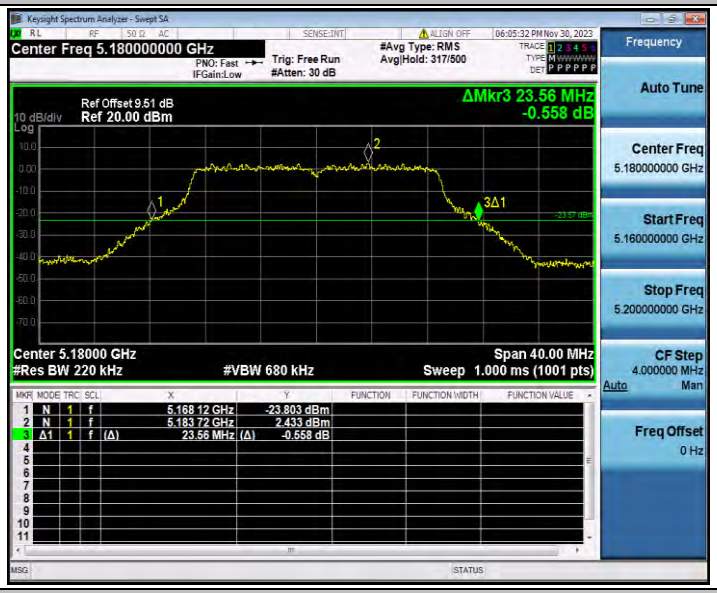


| 11N20SISO_Ant1_5240 |
| --- |
|  |

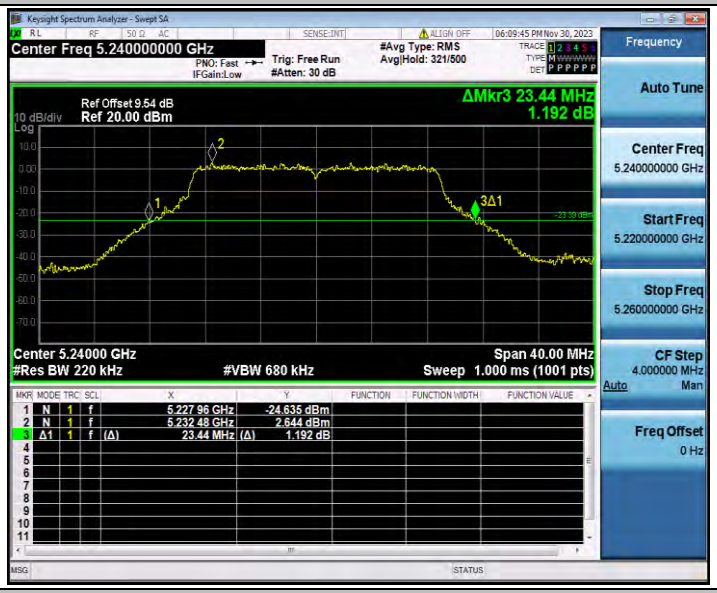
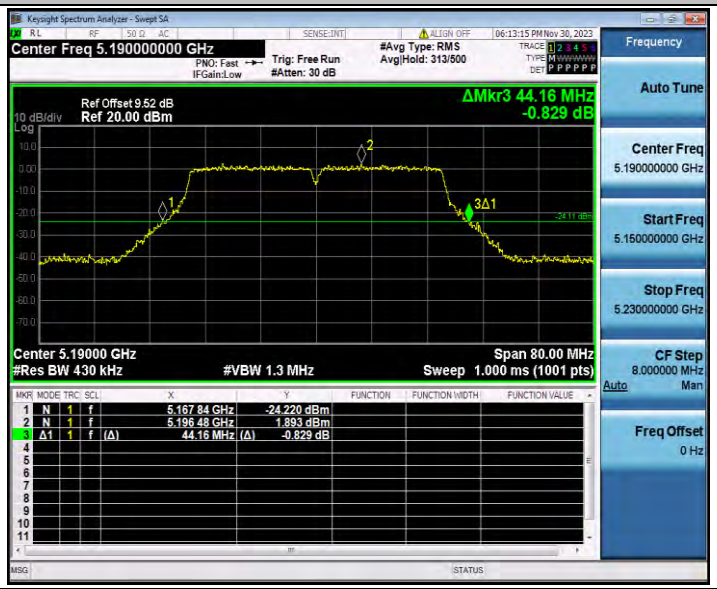


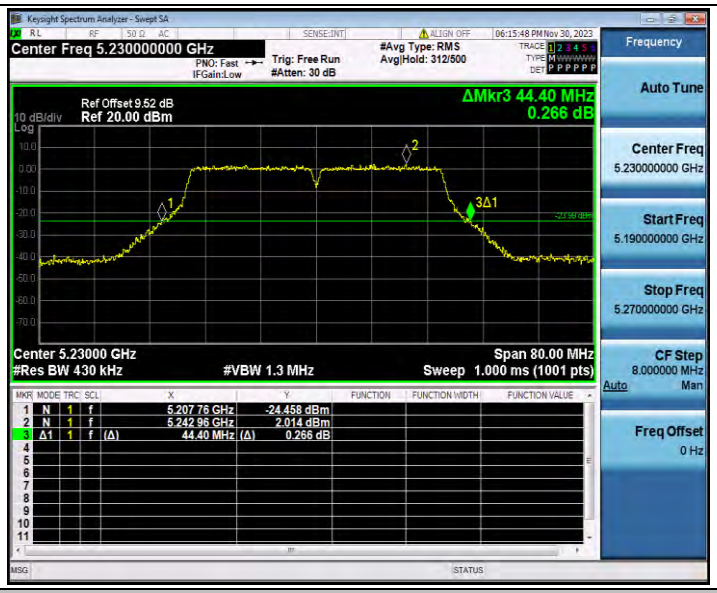
| 11N40SISO_Ant1_5190 |
| --- |

11N40SISO_Ant1_5230

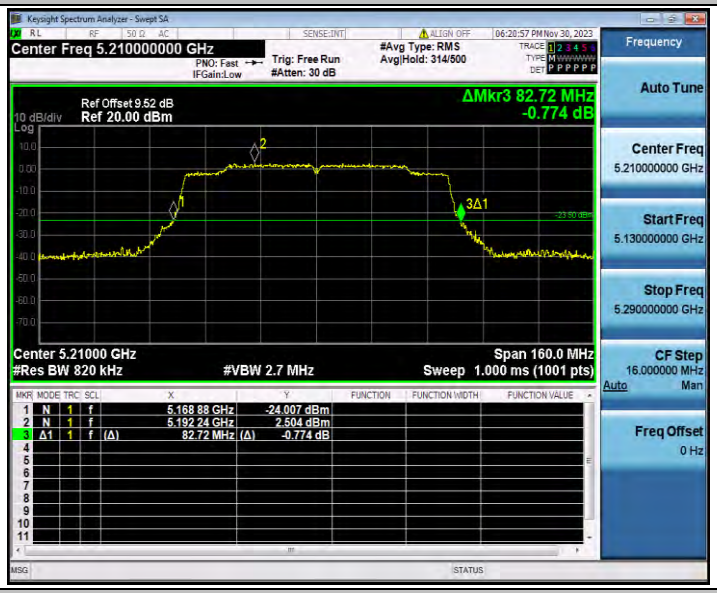



11AC20SISO_Ant1_5180

| 11AC20SISO_Ant1_5200 |
| --- |
|  |
| 11AC20SISO_Ant1_5240 |
|  |
| 11AC40SISO_Ant1_5190 |




11AC40SISO_Ant1_5230




11AC80SISO_Ant1_5210

# Appendix D.2: Occupied channel bandwidth

## Test Result

| Test Mode | Antenna | Frequency[MHz] | OCB [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|---|---|---|
| 11A | Ant1 | 5180 | 17.296 | 5171.341 | 5188.637 | --- | --- |
| | | 5200 | 17.269 | 5191.333 | 5208.602 | --- | --- |
| | | 5240 | 17.226 | 5231.346 | 5248.572 | --- | --- |
| 11N20SISO | Ant1 | 5180 | 18.343 | 5170.802 | 5189.145 | --- | --- |
| | | 5200 | 18.319 | 5190.814 | 5209.133 | --- | --- |
| | | 5240 | 18.319 | 5230.835 | 5249.154 | --- | --- |
| 11N40SISO | Ant1 | 5190 | 36.810 | 5171.599 | 5208.409 | --- | --- |
| | | 5230 | 36.749 | 5211.600 | 5248.349 | --- | --- |
| 11AC20SISO | Ant1 | 5180 | 18.326 | 5170.802 | 5189.128 | --- | --- |
| | | 5200 | 18.277 | 5190.843 | 5209.120 | --- | --- |
| | | 5240 | 18.342 | 5230.790 | 5249.132 | --- | --- |
| 11AC40SISO | Ant1 | 5190 | 36.724 | 5171.630 | 5208.354 | --- | --- |
| | | 5230 | 36.883 | 5211.531 | 5248.414 | --- | --- |
| 11AC80SISO | Ant1 | 5210 | 75.226 | 5172.423 | 5247.649 | --- | --- |

## Test Graphs

11A_Ant1_5180

11A_Ant1_5200

11A_Ant1_5240

11N20SISO_Ant1_5180

11N20SISO_Ant1_5200

11N20SISO_Ant1_5240

11N40SISO_Ant1_5190

11N40SISO_Ant1_5230

11AC20SISO_Ant1_5180

11AC20SISO_Ant1_5200

11AC20SISO_Ant1_5240

11AC40SISO_Ant1_5190

11AC40SISO_Ant1_5230

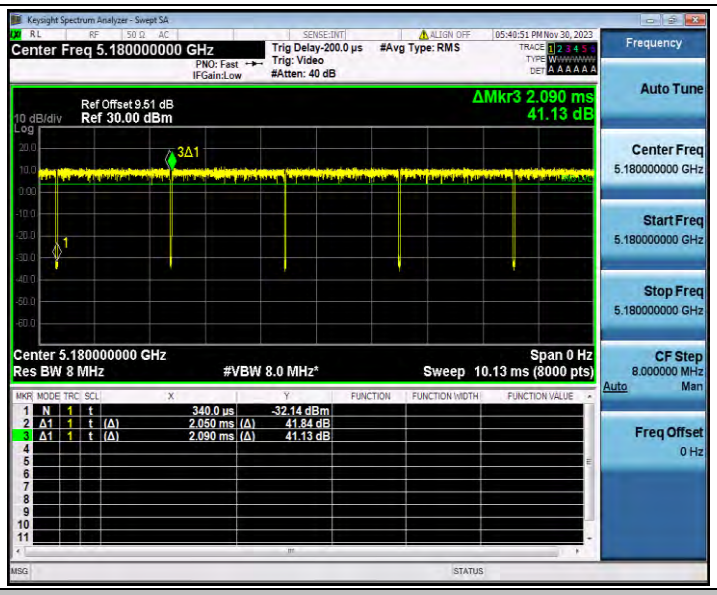
11AC80SISO_Ant1_5210

# Appendix D.3: Duty Cycle

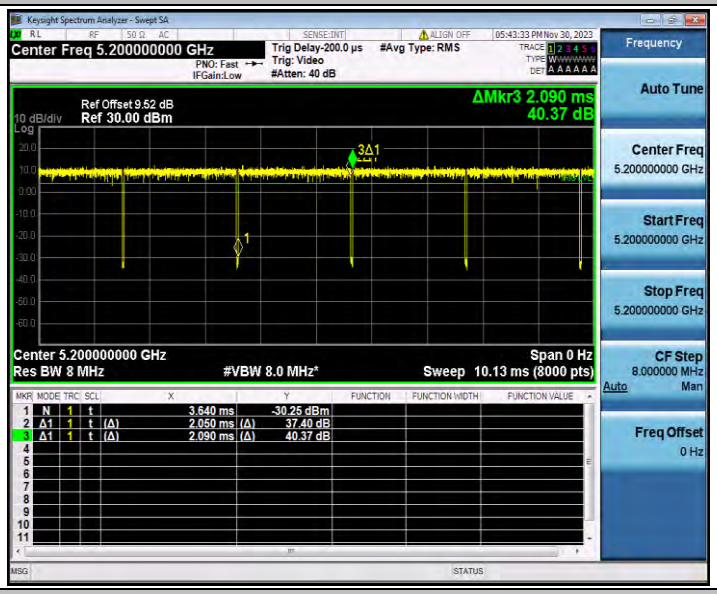
## Test Result

| Test Mode | Antenna | Frequency[MHz] | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] |
|---|---|---|---|---|---|
| 11A | Ant1 | 5180 | 2.05 | 2.09 | 98.09 |
| | | 5200 | 2.05 | 2.09 | 98.09 |
| | | 5240 | 2.04 | 2.08 | 98.08 |
| 11N20SISO | Ant1 | 5180 | 1.91 | 1.95 | 97.95 |
| | | 5200 | 1.91 | 1.95 | 97.95 |
| | | 5240 | 1.91 | 1.94 | 98.45 |
| 11N40SISO | Ant1 | 5190 | 0.94 | 0.97 | 96.91 |
| | | 5230 | 0.94 | 0.98 | 95.92 |
| 11AC20SISO | Ant1 | 5180 | 1.92 | 1.96 | 97.96 |
| | | 5200 | 1.91 | 1.96 | 97.45 |
| | | 5240 | 1.92 | 1.96 | 97.96 |
| 11AC40SISO | Ant1 | 5190 | 0.95 | 0.98 | 96.94 |
| | | 5230 | 0.94 | 0.98 | 95.92 |
| 11AC80SISO | Ant1 | 5210 | 0.46 | 0.50 | 92.00 |

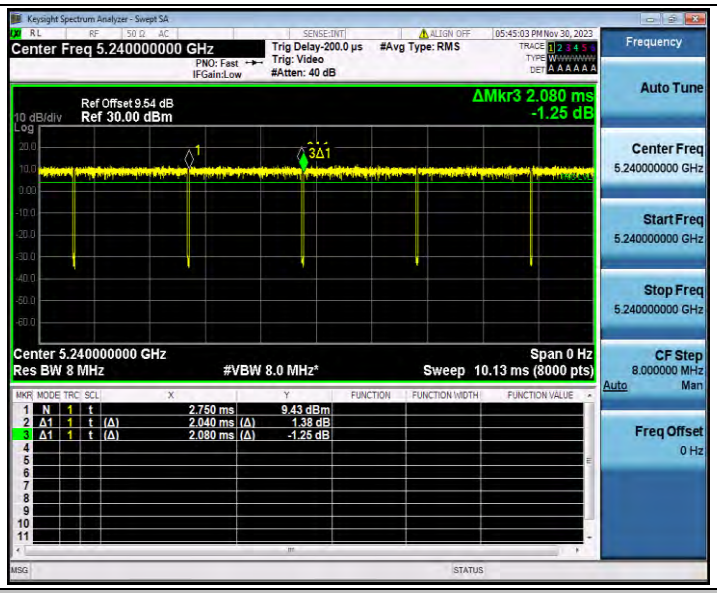
## Test Graphs



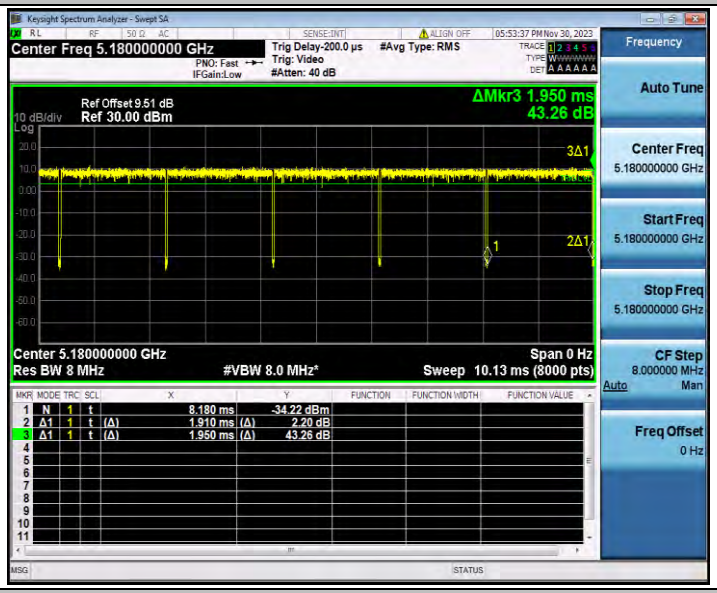

11A_Ant1_5180



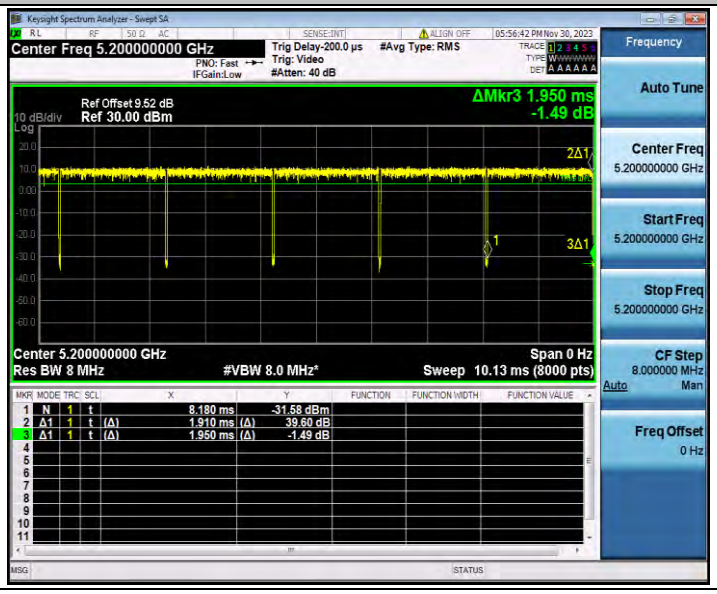

11A_Ant1_5200

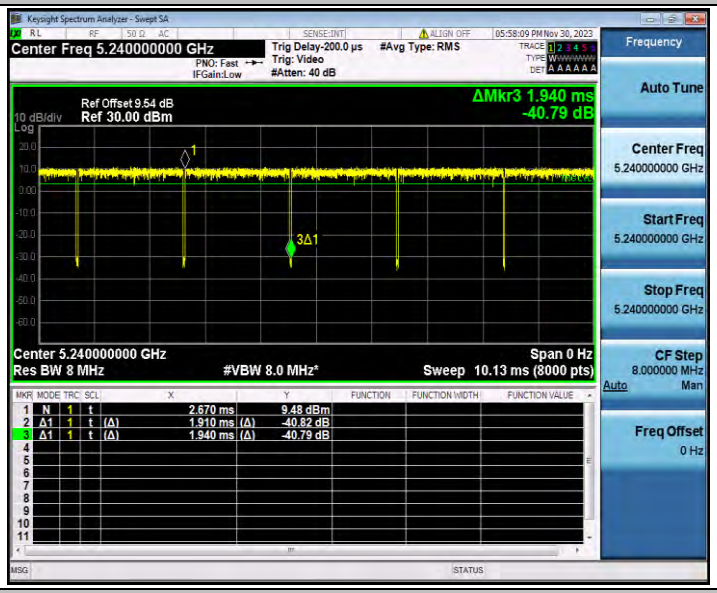
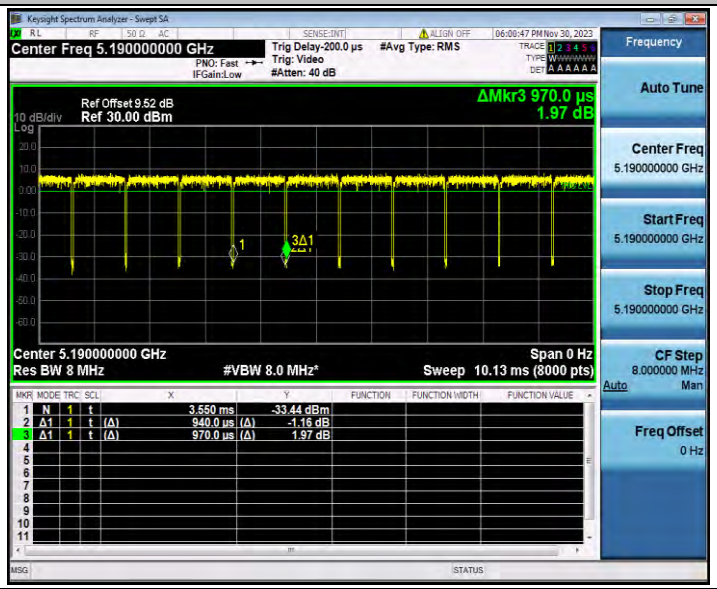


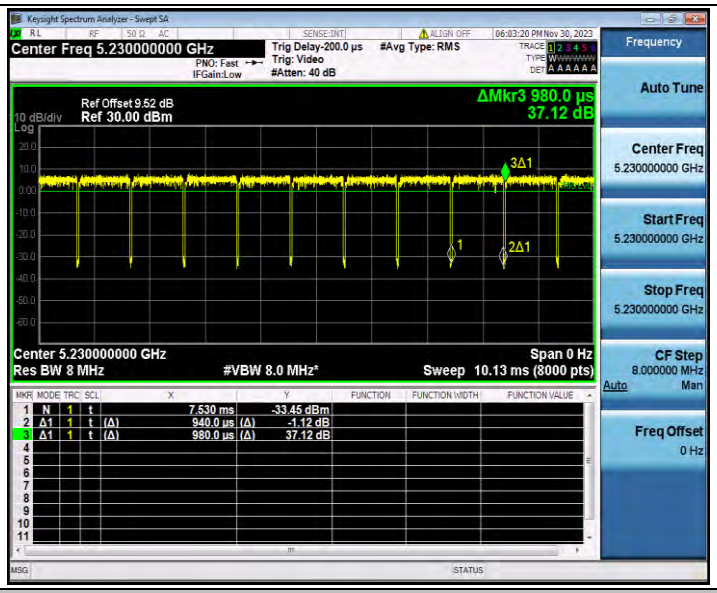

11A_Ant1_5240



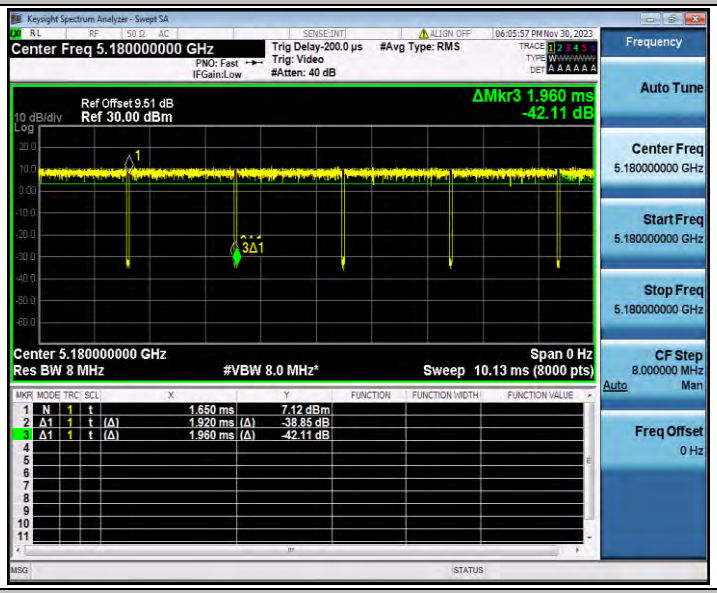

11N20SISO_Ant1_5180



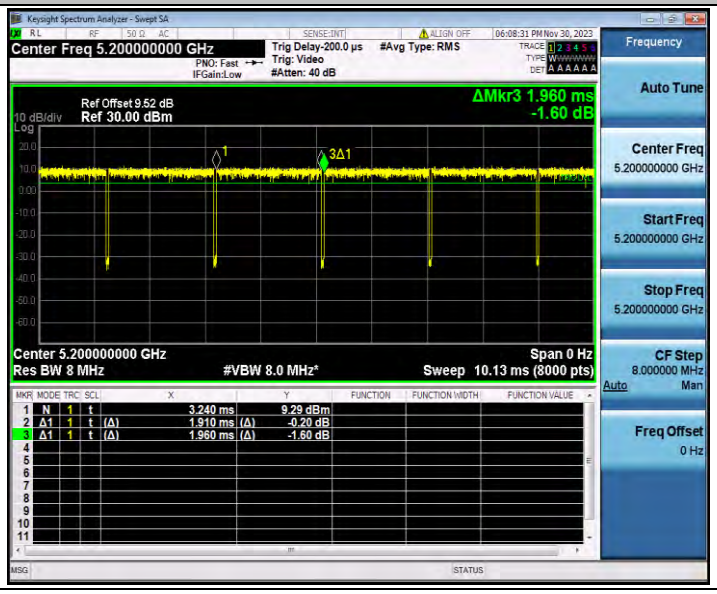
| 11N20SISO_Ant1_5200 |
| --- |
|  |
| 11N20SISO_Ant1_5240 |
|  |
| 11N40SISO_Ant1_5190 |

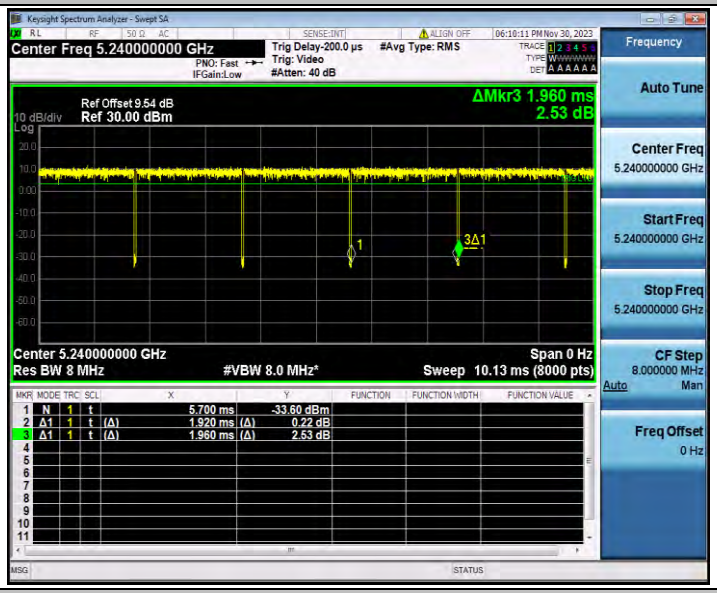
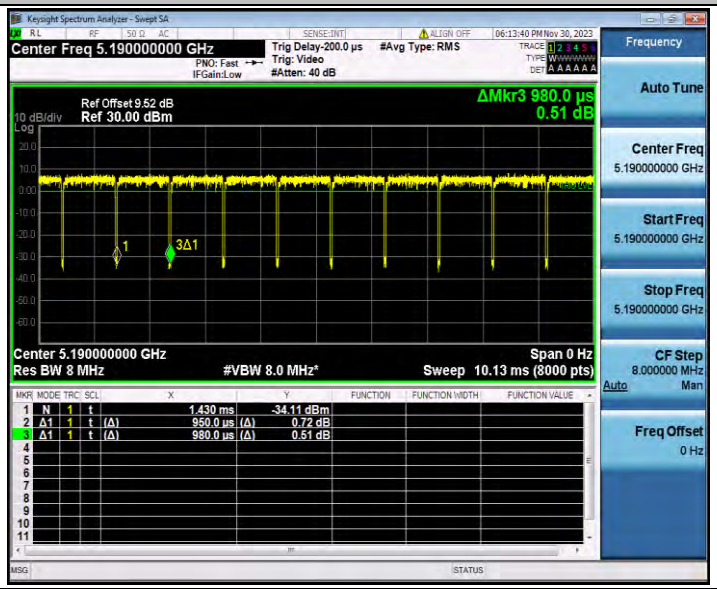


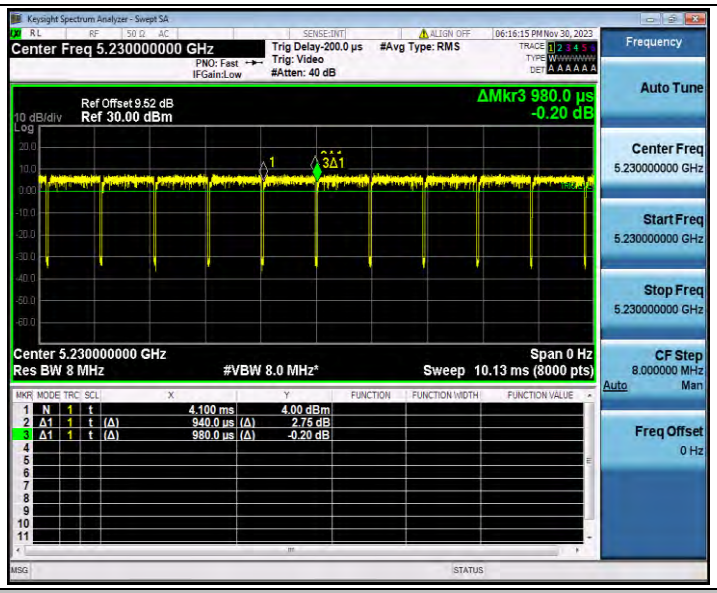

11N40SISO_Ant1_5230



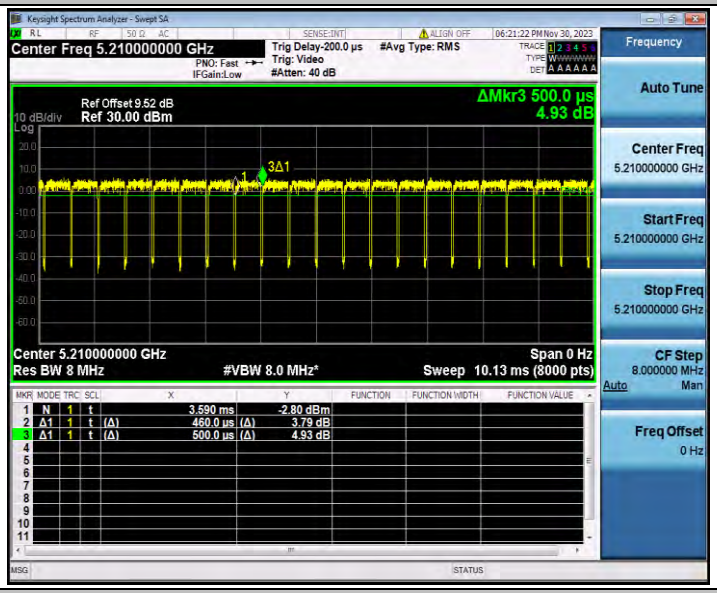

11AC20SISO_Ant1_5180



| 11AC20SISO_Ant1_5200 |
| --- |
|  |
| 11AC20SISO_Ant1_5240 |
|  |
| 11AC40SISO_Ant1_5190 |




11AC40SISO_Ant1_5230




11AC80SISO_Ant1_5210

# Appendix D.4: Maximum conducted output power

## Test Result Channel Power

| Test Mode | Antenna | Frequency[MHz] | Channel Powert [dBm] | Duty Cycle [%] | DC Factor [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|---|---|---|---|---|---|---|---|---|
| 11A | Ant1 | 5180 | 12.51 | 98.09 | 0.08 | 12.59 | ≤23.98 | PASS |
| | | 5200 | 12.91 | 98.09 | 0.08 | 12.99 | ≤23.98 | PASS |
| | | 5240 | 12.76 | 98.08 | 0.08 | 12.84 | ≤23.98 | PASS |
| 11N20SISO | Ant1 | 5180 | 12.26 | 97.95 | 0.09 | 12.35 | ≤23.98 | PASS |
| | | 5200 | 12.52 | 97.95 | 0.09 | 12.61 | ≤23.98 | PASS |
| | | 5240 | 12.31 | 98.45 | 0.07 | 12.38 | ≤23.98 | PASS |
| 11N40SISO | Ant1 | 5190 | 12.29 | 96.91 | 0.14 | 12.43 | ≤23.98 | PASS |
| | | 5230 | 12.31 | 95.92 | 0.18 | 12.49 | ≤23.98 | PASS |
| 11AC20SISO | Ant1 | 5180 | 12.26 | 97.96 | 0.09 | 12.35 | ≤23.98 | PASS |
| | | 5200 | 12.53 | 97.45 | 0.11 | 12.64 | ≤23.98 | PASS |
| | | 5240 | 12.34 | 97.96 | 0.09 | 12.43 | ≤23.98 | PASS |
| 11AC40SISO | Ant1 | 5190 | 12.30 | 96.94 | 0.13 | 12.43 | ≤23.98 | PASS |
| | | 5230 | 12.36 | 95.92 | 0.18 | 12.54 | ≤23.98 | PASS |
| 11AC80SISO | Ant1 | 5210 | 12.21 | 92.00 | 0.36 | 12.57 | ≤23.98 | PASS |

Note：The Duty Cycle Factor is compensated in the graph.

# Appendix D.5: Maximum power spectral density

## Test Result

| Test Mode | Antenna | Frequency[MHz] | Result [dBm/MHz] | Limit[dBm/MHz] | Verdict |
|---|---|---|---|---|---|
| 11A | Ant1 | 5180 | 0.67 | ≤11.00 | PASS |
| | | 5200 | 1.11 | ≤11.00 | PASS |
| | | 5240 | 0.72 | ≤11.00 | PASS |
| 11N20SISO | Ant1 | 5180 | 0.18 | ≤11.00 | PASS |
| | | 5200 | 0.48 | ≤11.00 | PASS |
| | | 5240 | 0.32 | ≤11.00 | PASS |
| 11N40SISO | Ant1 | 5190 | -2.54 | ≤11.00 | PASS |
| | | 5230 | -2.51 | ≤11.00 | PASS |
| 11AC20SISO | Ant1 | 5180 | 0.18 | ≤11.00 | PASS |
| | | 5200 | 0.5 | ≤11.00 | PASS |
| | | 5240 | 0.35 | ≤11.00 | PASS |
| 11AC40SISO | Ant1 | 5190 | -2.57 | ≤11.00 | PASS |
| | | 5230 | -2.54 | ≤11.00 | PASS |
| 11AC80SISO | Ant1 | 5210 | -4.73 | ≤11.00 | PASS |

Note：1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

## Test Graphs

11A_Ant1_5180

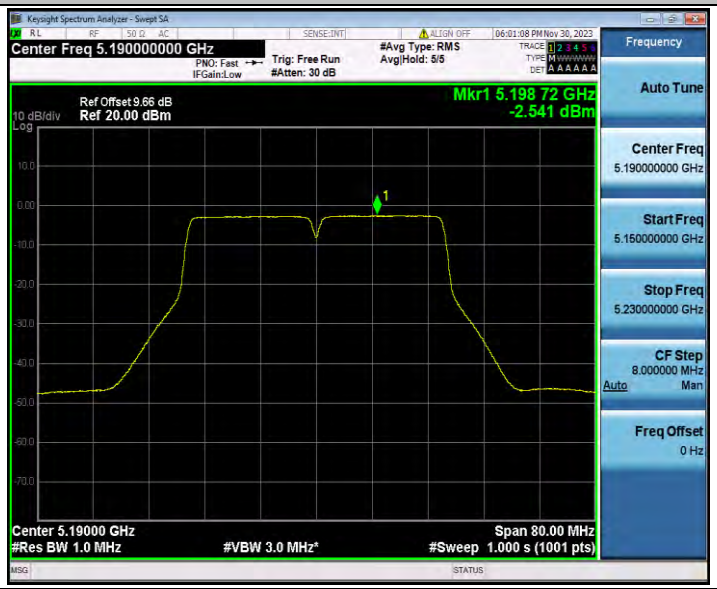
11A_Ant1_5200

11A_Ant1_5240

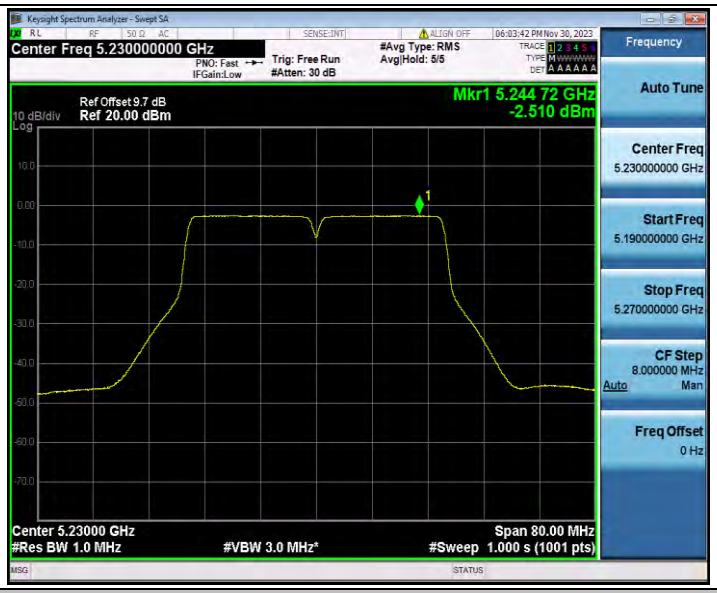
11N20SISO_Ant1_5180

11N20SISO_Ant1_5200

11N20SISO_Ant1_5240

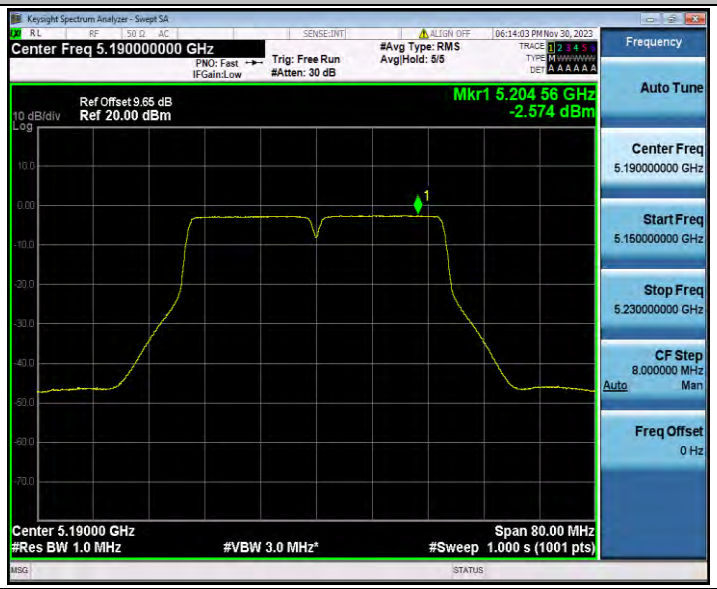


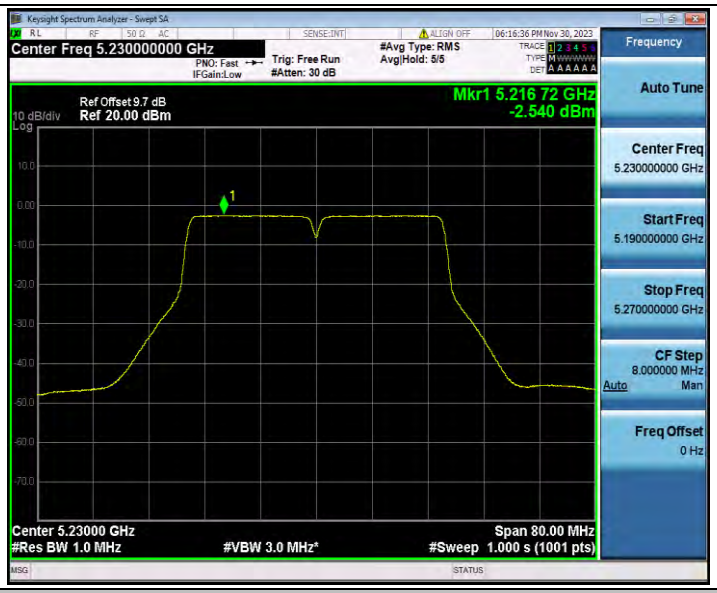

11N40SISO_Ant1_5190



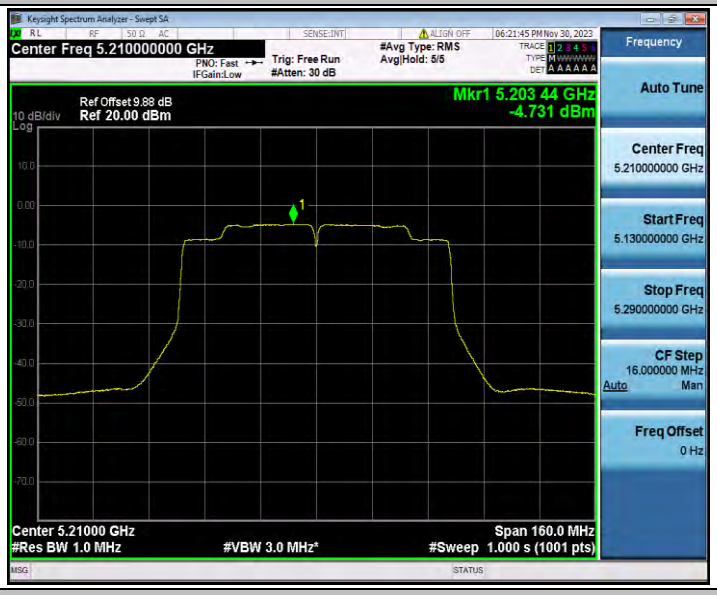

11N40SISO_Ant1_5230

11AC20SISO_Ant1_5180

| 11AC20SISO_Ant1_5200 |
| --- |
| |
| 11AC20SISO_Ant1_5240 |
|  |
| 11AC40SISO_Ant1_5190 |




11AC40SISO_Ant1_5230



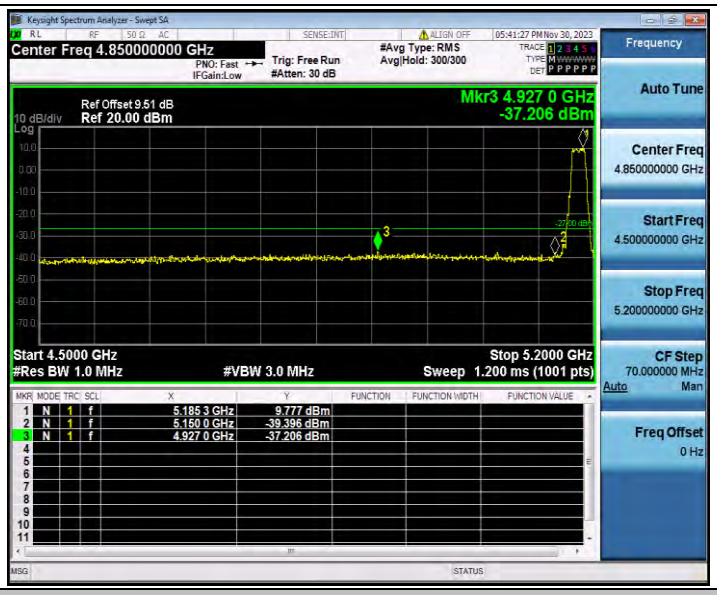

11AC80SISO_Ant1_5210

# Appendix D.6: Band edge measurements

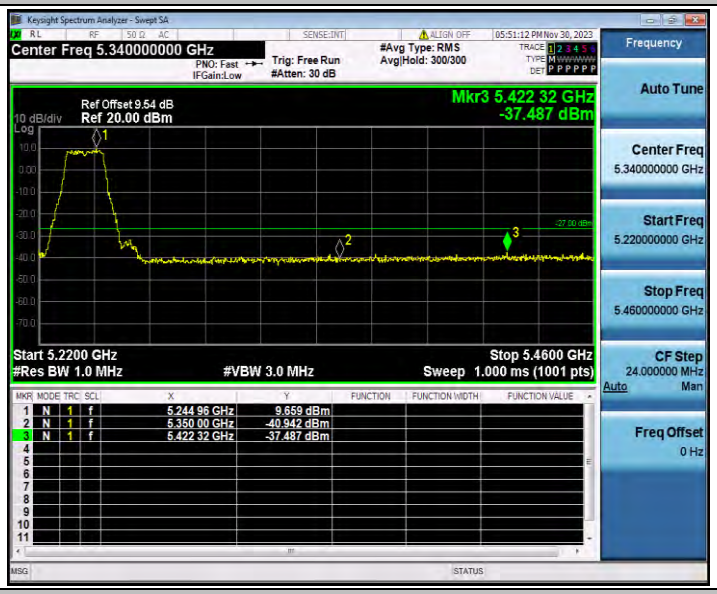
## Test Result B1

| Test Mode | Antenna | ChName | Frequency[MHz] | Result[dBm] | Limit[dBm] | Verdict |
|---|---|---|---|---|---|---|
| 11A | Ant1 | Low | 5180 | -37.21 | ≤-27 | PASS |
| | | High | 5240 | -37.49 | ≤-27 | PASS |
| 11N20SISO | Ant1 | Low | 5180 | -37.6 | ≤-27 | PASS |
| | | High | 5240 | -37.36 | ≤-27 | PASS |
| 11N40SISO | Ant1 | Low | 5190 | -37.36 | ≤-27 | PASS |
| | | High | 5230 | -37.54 | ≤-27 | PASS |
| 11AC20SISO | Ant1 | Low | 5180 | -37.57 | ≤-27 | PASS |
| | | High | 5240 | -37.46 | ≤-27 | PASS |
| 11AC40SISO | Ant1 | Low | 5190 | -37.03 | ≤-27 | PASS |
| | | High | 5230 | -38.11 | ≤-27 | PASS |
| 11AC80SISO | Ant1 | Low | 5210 | -35.33 | ≤-27 | PASS |
| | | High | 5210 | -37.68 | ≤-27 | PASS |

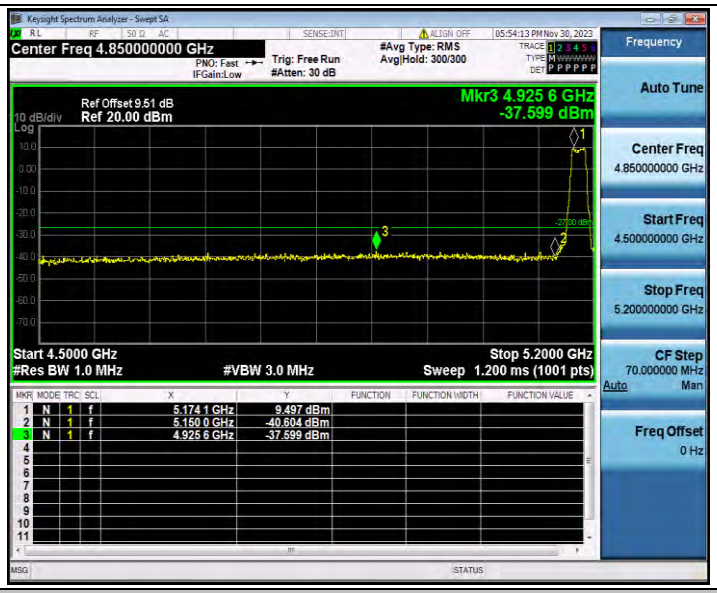
## Test Graphs B1



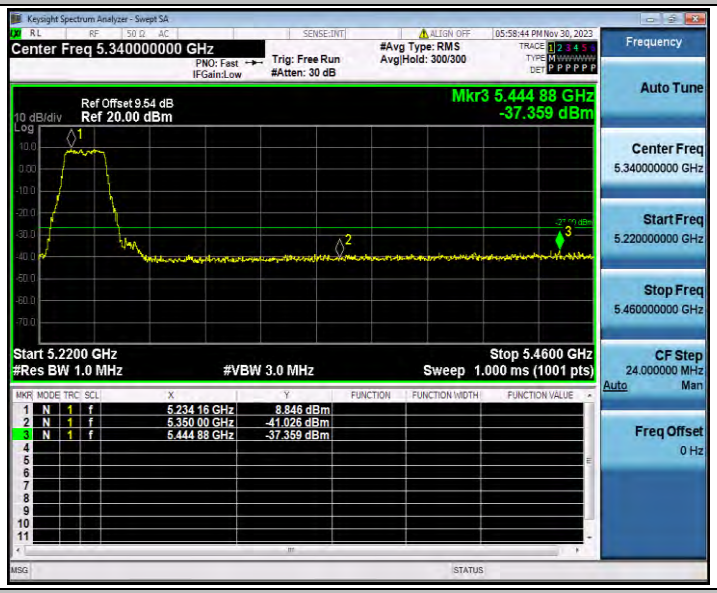

11A_Ant1_Low_5180



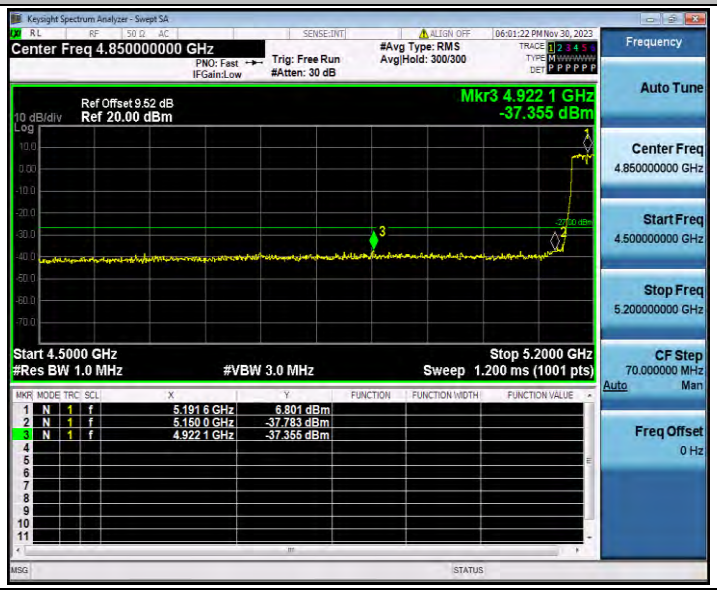

11A_Ant1_High_5240



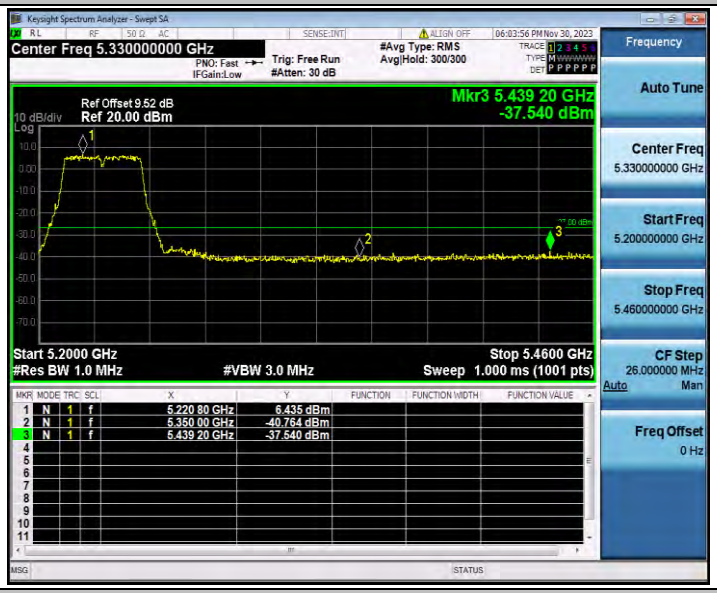

11N20SISO_Ant1_Low_5180



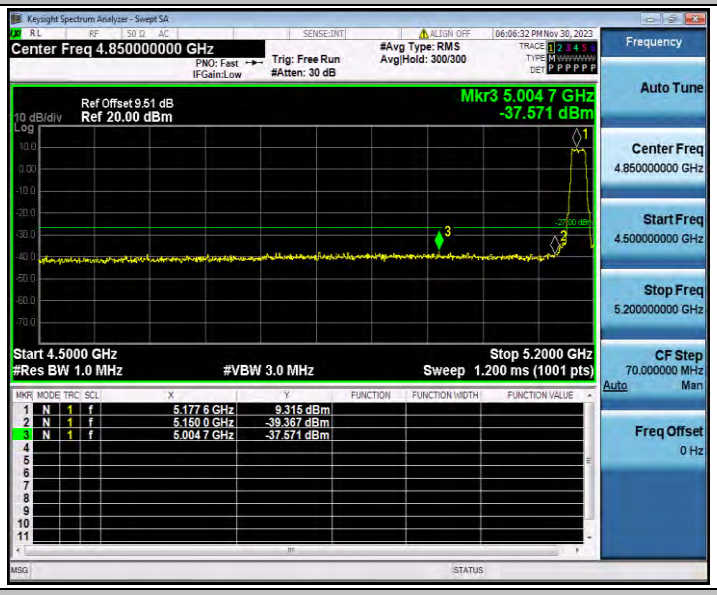

11N20SISO_Ant1_High_5240



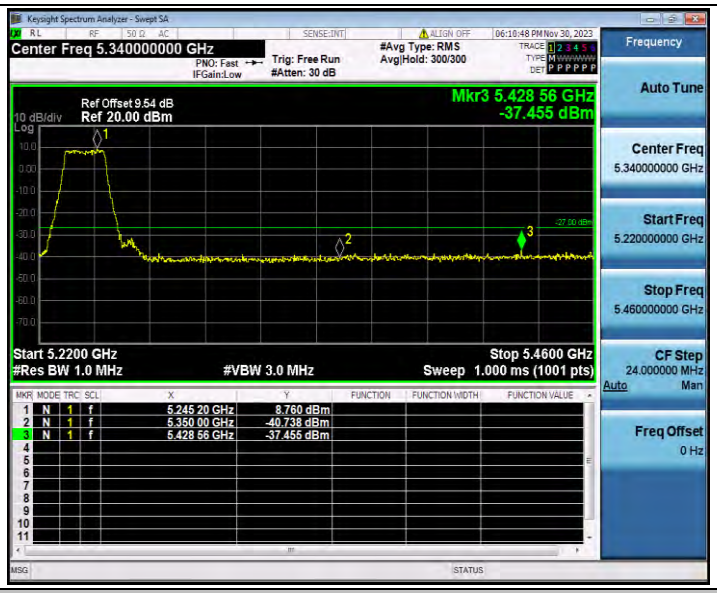
11N40SISO_Ant1_Low_5190



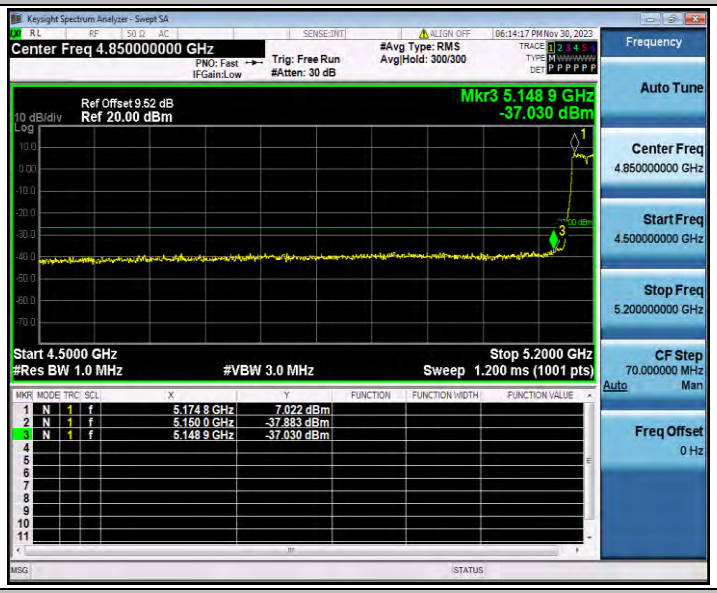

11N40SISO_Ant1_High_5230



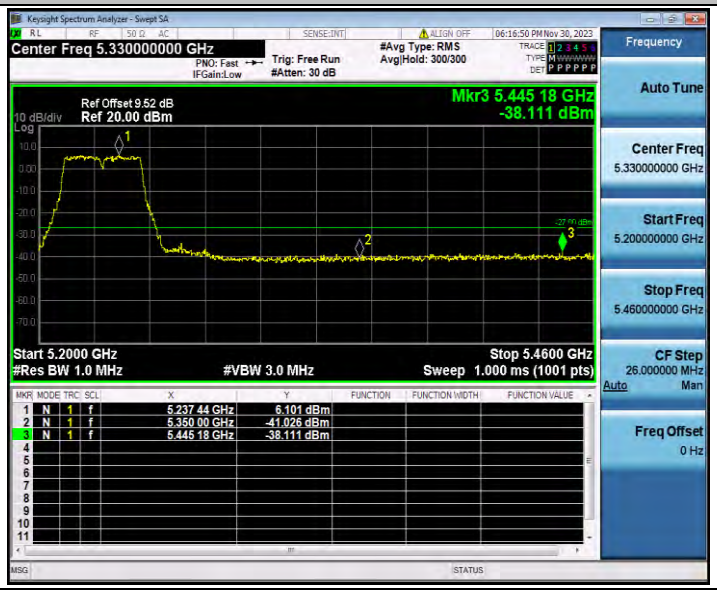

11AC20SISO_Ant1_Low_5180



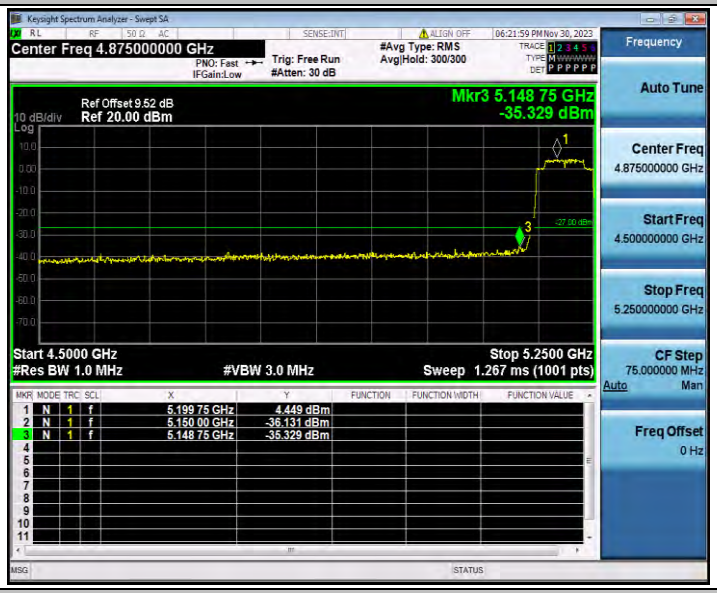

11AC20SISO_Ant1_High_5240



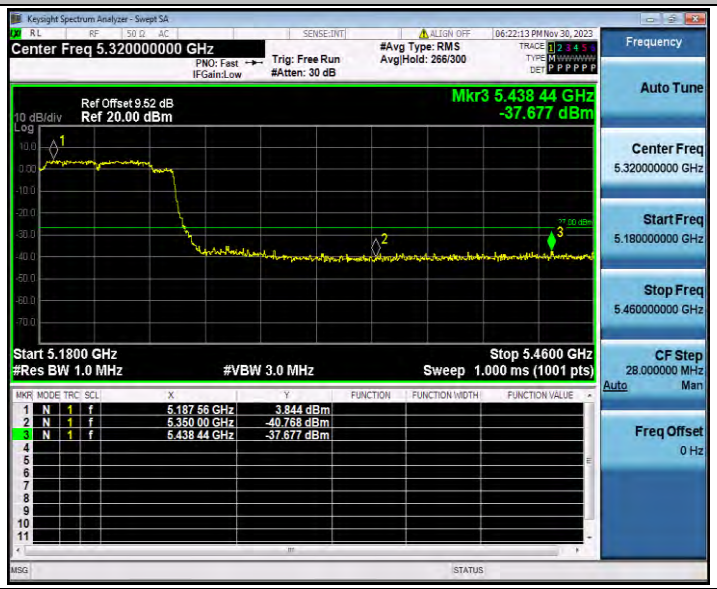

11AC40SISO_Ant1_Low_5190



11AC40SISO_Ant1_High_5230




11AC80SISO_Ant1_Low_5210



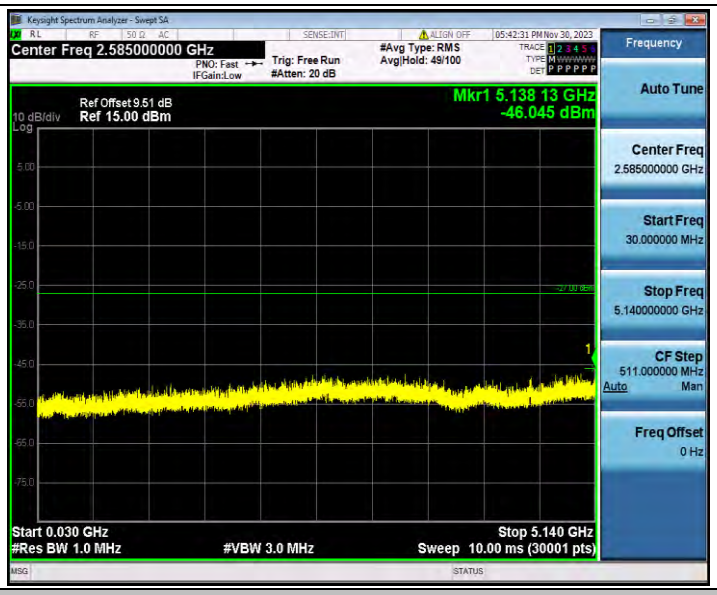

11AC80SISO_Ant1_High_5210

# Appendix D.7: Conducted Spurious Emission

## Test Result

| Test Mode | Antenna | Frequency[MHz] | FreqRange [MHz] | Max. Fre [MHz] | Max. Level [dBm] | Limit [dBm] | Verdict |
|---|---|---|---|---|---|---|---|
| 11A | Ant1 | 5180 | 30~5140 | 5138.13 | -46.05 | ≤-27 | PASS |
| | | | 5360~40000 | 23526.78 | -37.47 | ≤-27 | PASS |
| | | 5200 | 30~5140 | 2678 | -47.48 | ≤-27 | PASS |
| | | | 5360~40000 | 24031.71 | -37.87 | ≤-27 | PASS |
| | | 5240 | 30~5140 | 2702.53 | -47.16 | ≤-27 | PASS |
| | | | 5360~40000 | 26653.76 | -37.6 | ≤-27 | PASS |
| 11N20SISO | Ant1 | 5180 | 30~5140 | 5139.15 | -47.09 | ≤-27 | PASS |
| | | | 5360~40000 | 26784.32 | -37.86 | ≤-27 | PASS |
| | | 5200 | 30~5140 | 4964.05 | -45.62 | ≤-27 | PASS |
| | | | 5360~40000 | 24344.05 | -37.9 | ≤-27 | PASS |
| | | 5240 | 30~5140 | 4602.26 | -46.64 | ≤-27 | PASS |
| | | | 5360~40000 | 24236.57 | -38.25 | ≤-27 | PASS |
| 11N40SISO | Ant1 | 5190 | 30~5140 | 5136.93 | -43.5 | ≤-27 | PASS |
| | | | 5360~40000 | 26088.23 | -38.29 | ≤-27 | PASS |
| | | 5230 | 30~5140 | 4944.8 | -46.31 | ≤-27 | PASS |
| | | | 5360~40000 | 26507.33 | -36.7 | ≤-27 | PASS |
| 11AC20SISO | Ant1 | 5180 | 30~5140 | 5135.4 | -44.8 | ≤-27 | PASS |
| | | | 5360~40000 | 24763.15 | -37.91 | ≤-27 | PASS |
| | | 5200 | 30~5140 | 5044.78 | -47.47 | ≤-27 | PASS |
| | | | 5360~40000 | 26655.2 | -38.31 | ≤-27 | PASS |
| | | 5240 | 30~5140 | 2589.43 | -46.87 | ≤-27 | PASS |
| | | | 5360~40000 | 24977.38 | -37.59 | ≤-27 | PASS |
| 11AC40SISO | Ant1 | 5190 | 30~5140 | 5139.32 | -41.64 | ≤-27 | PASS |
| | | | 5360~40000 | 25073.32 | -37.42 | ≤-27 | PASS |
| | | 5230 | 30~5140 | 2638.66 | -47.26 | ≤-27 | PASS |
| | | | 5360~40000 | 24134.14 | -38.01 | ≤-27 | PASS |
| 11AC80SISO | Ant1 | 5210 | 30~5140 | 5139.32 | -40.89 | ≤-27 | PASS |
| | | | 5360~40000 | 23515.96 | -38.13 | ≤-27 | PASS |

## Test Graphs




11A_Ant1_5180_30~5140

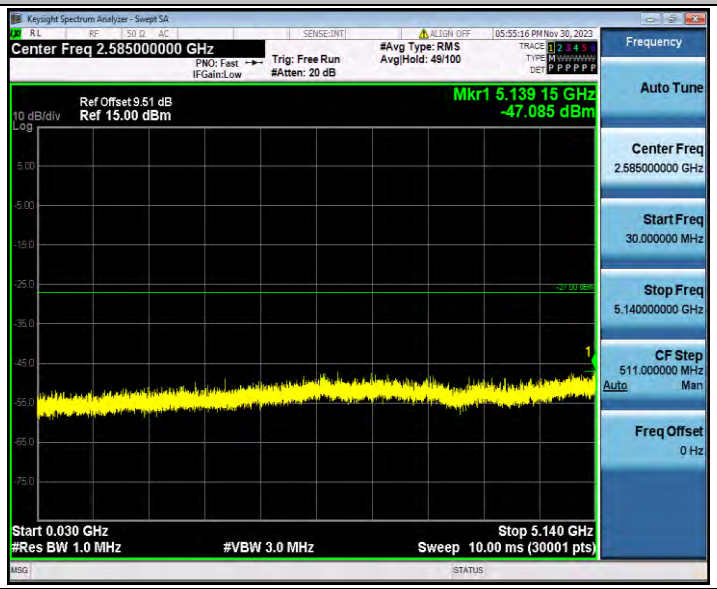
11A_Ant1_5180_5360~40000

11A_Ant1_5200_30~5140

11A_Ant1_5200_5360~40000

11A_Ant1_5240_30~5140

11A_Ant1_5240_5360~40000



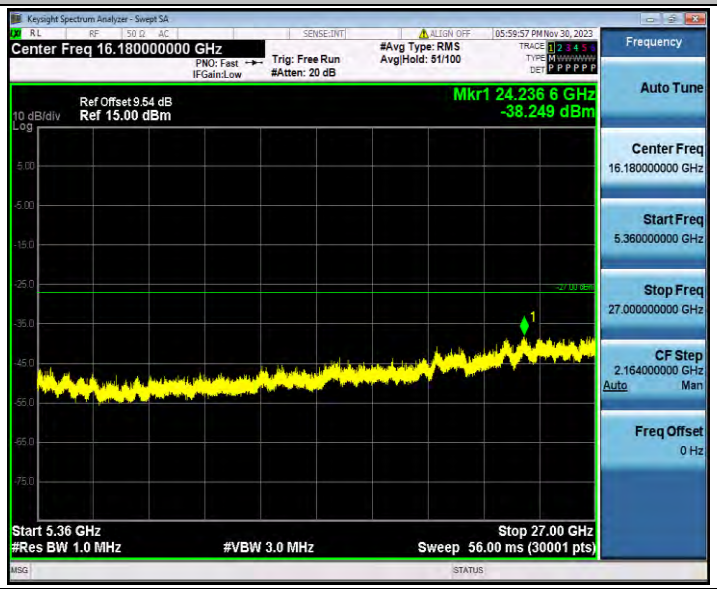

11N20SISO_Ant1_5180_30~5140

11N20SISO_Ant1_5180_5360~40000

11N20SISO_Ant1_5200_30~5140

11N20SISO_Ant1_5200_5360~40000

11N20SISO_Ant1_5240_30~5140



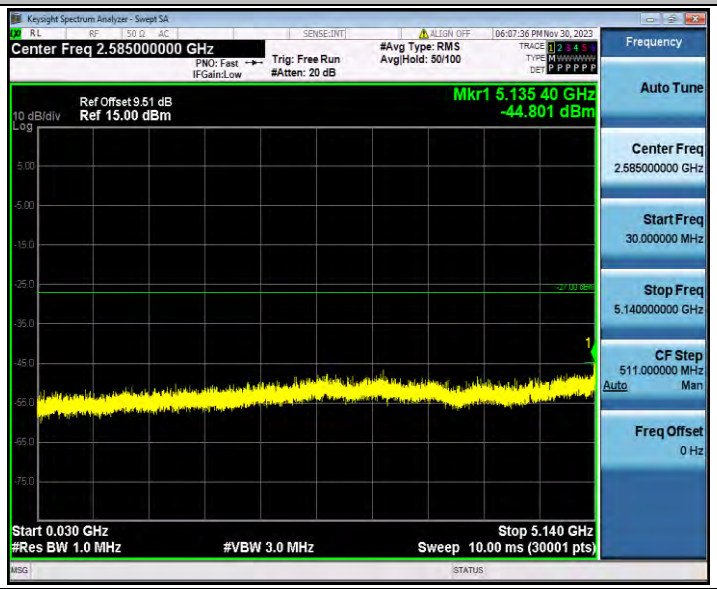

11N20SISO_Ant1_5240_5360~40000

11N40SISO_Ant1_5190_30~5140

11N40SISO_Ant1_5190_5360~40000

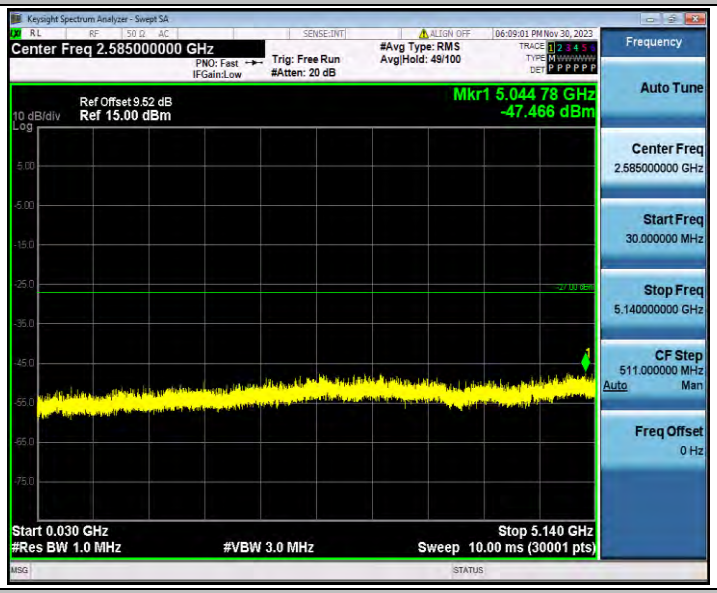
11N40SISO_Ant1_5230_30~5140

11N40SISO_Ant1_5230_5360~40000




11AC20SISO_Ant1_5180_30~5140

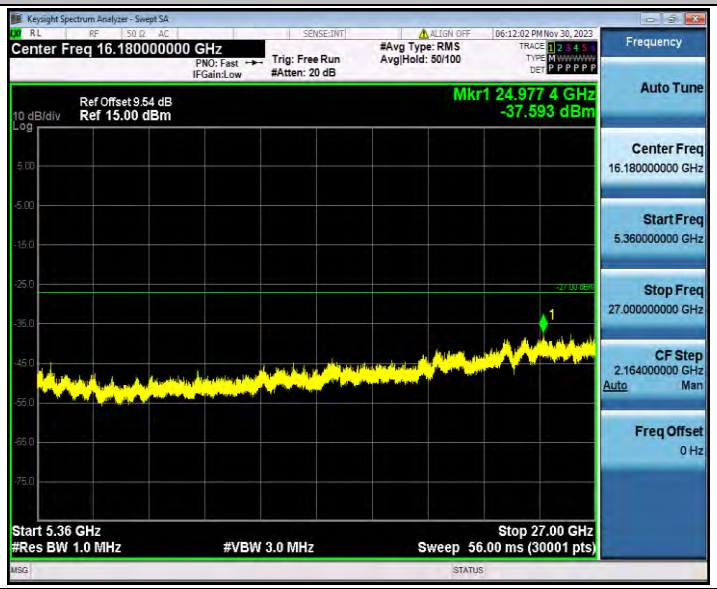
11AC20SISO_Ant1_5180_5360~40000




11AC20SISO_Ant1_5200_30~5140

11AC20SISO_Ant1_5200_5360~40000

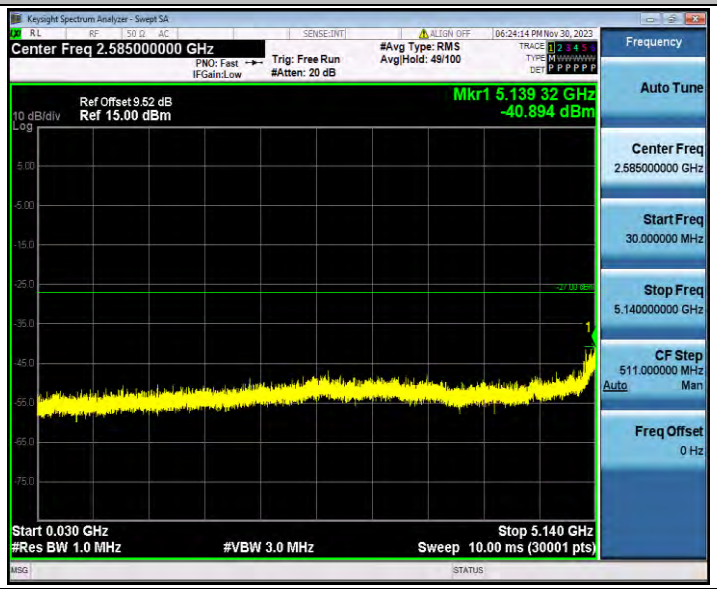
11AC20SISO_Ant1_5240_30~5140




11AC20SISO_Ant1_5240_5360~40000

11AC40SISO_Ant1_5190_30~5140

11AC40SISO_Ant1_5190_5360~40000

| 11AC40SISO_Ant1_5230_30~5140 |
| --- |
| |
| 11AC40SISO_Ant1_5230_5360~40000 |
|  |
| 11AC80SISO_Ant1_5210_30~5140 |

11AC80SISO_Ant1_5210_5360~40000