| | |
|---|---|
| **Case No. :** GTS20231012003-1-5 | |
| **Ambient Condition**: 23 ℃, 49 %RH, Atmos100.1Kpa, | |
| **Test Date:** 2023.12.5 | **Test Engineer:** Evan ouyang |

# Appendix D.1: Emission Bandwidth

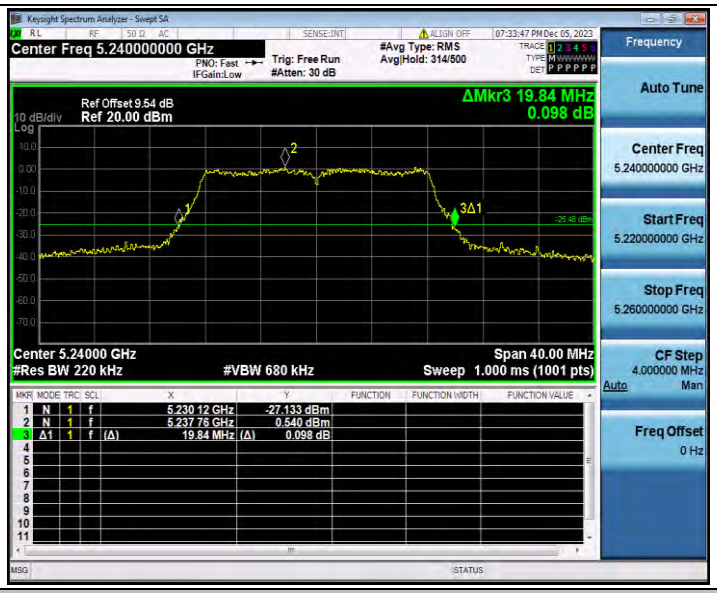
## Test Result

| Test Mode | Antenna | Frequency[MHz] | 26db EBW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|---|---|---|
| 11A | Ant1 | 5180 | 19.840 | 5170.160 | 5190.000 | --- | --- |
| | | 5200 | 19.600 | 5190.240 | 5209.840 | --- | --- |
| | | 5240 | 19.840 | 5230.120 | 5249.960 | --- | --- |
| 11N20SISO | Ant1 | 5180 | 19.960 | 5170.000 | 5189.960 | --- | --- |
| | | 5200 | 20.080 | 5189.880 | 5209.960 | --- | --- |
| | | 5240 | 19.840 | 5230.120 | 5249.960 | --- | --- |
| 11N40SISO | Ant1 | 5190 | 40.240 | 5169.920 | 5210.160 | --- | --- |
| | | 5230 | 40.000 | 5210.000 | 5250.000 | --- | --- |
| 11AC20SISO | Ant1 | 5180 | 19.880 | 5170.080 | 5189.960 | --- | --- |
| | | 5200 | 19.880 | 5189.960 | 5209.840 | --- | --- |
| | | 5240 | 19.920 | 5230.040 | 5249.960 | --- | --- |
| 11AC40SISO | Ant1 | 5190 | 40.320 | 5169.840 | 5210.160 | --- | --- |
| | | 5230 | 40.880 | 5209.360 | 5250.240 | --- | --- |
| 11AC80SISO | Ant1 | 5210 | 81.120 | 5169.680 | 5250.800 | --- | --- |

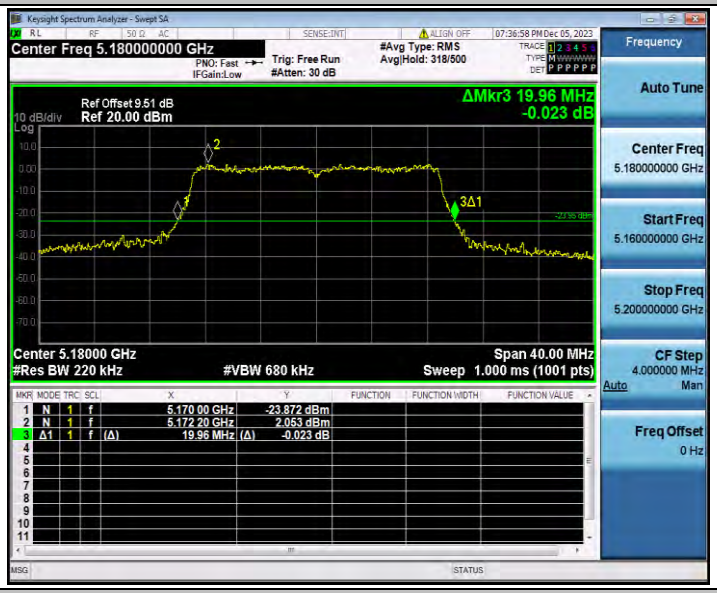
## Test Graphs

11A_Ant1_5180

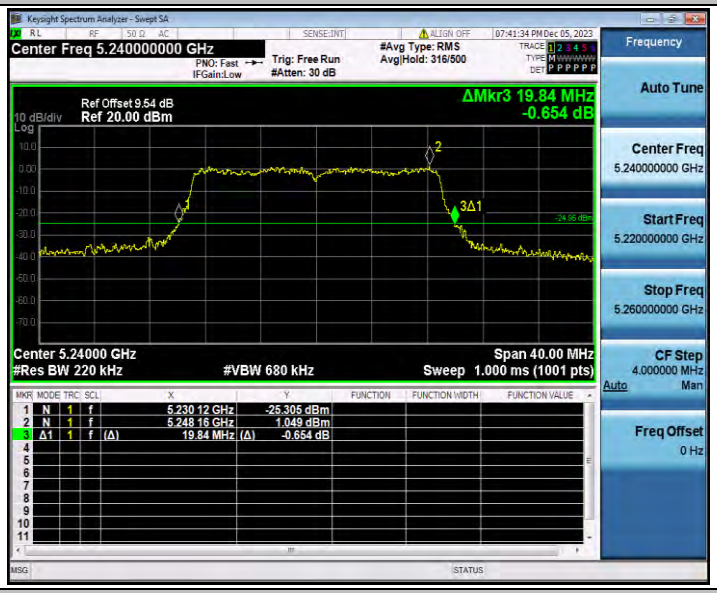
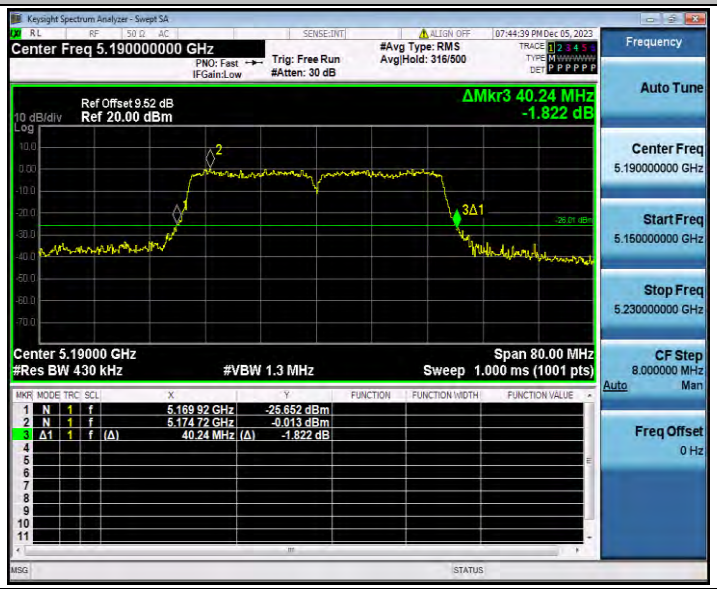
11A_Ant1_5200

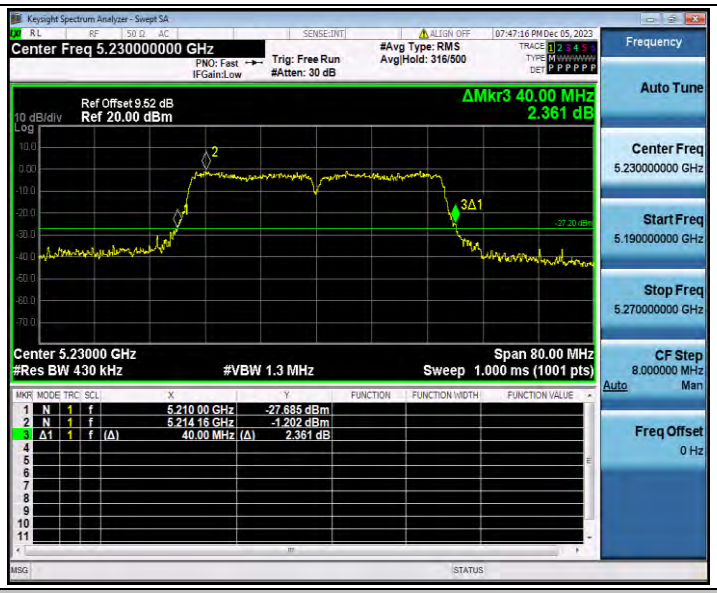



11A_Ant1_5240

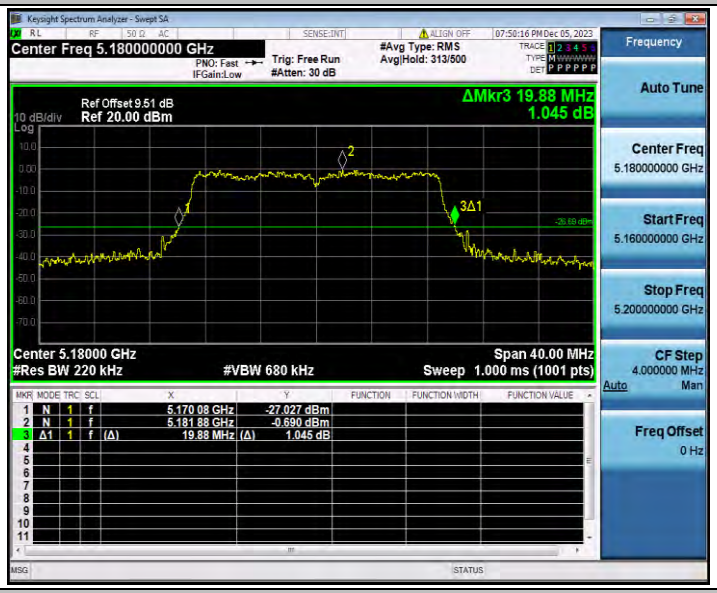



11N20SISO_Ant1_5180

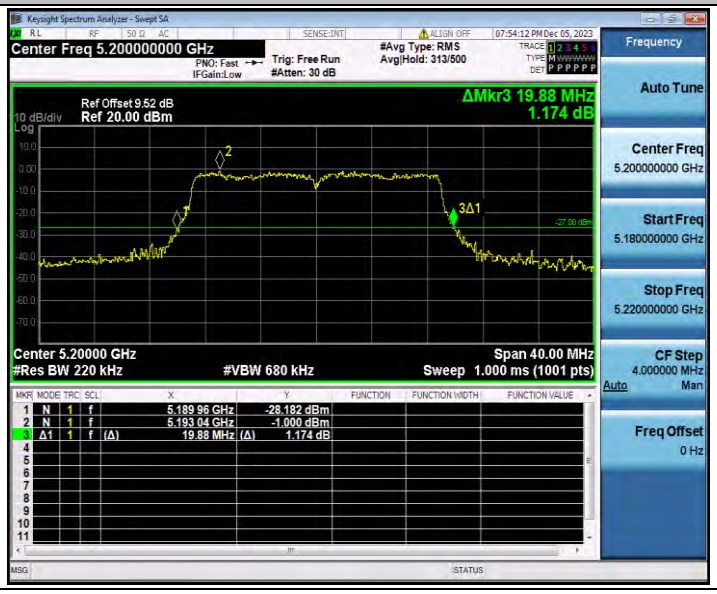
| 11N20SISO_Ant1_5200 |
| --- |
|  |
| 11N20SISO_Ant1_5240 |
|  |
| 11N40SISO_Ant1_5190 |



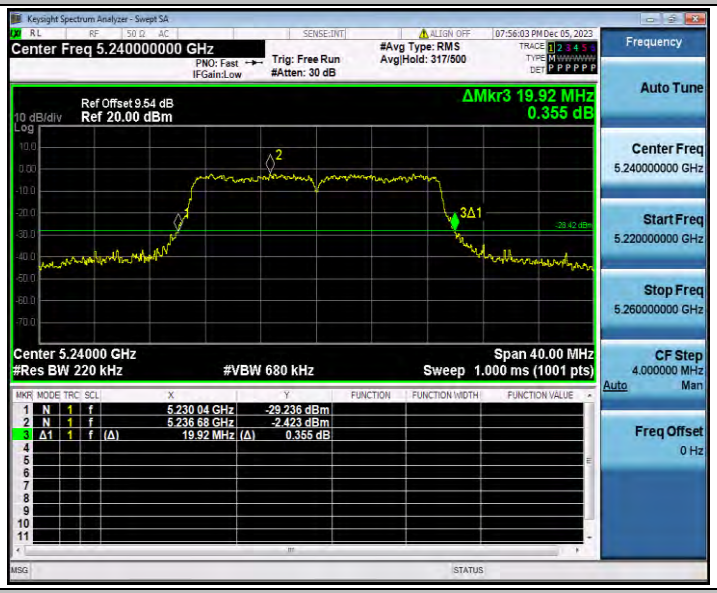

11N40SISO_Ant1_5230



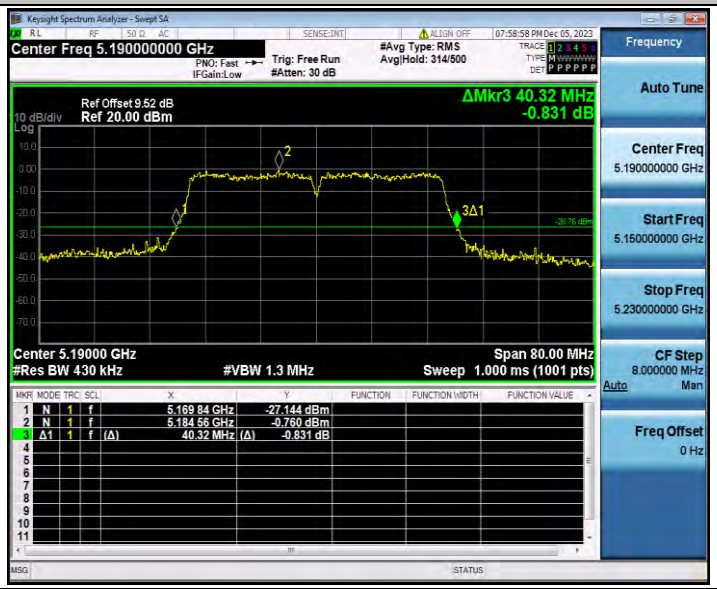

11AC20SISO_Ant1_5180



11AC20SISO_Ant1_5200

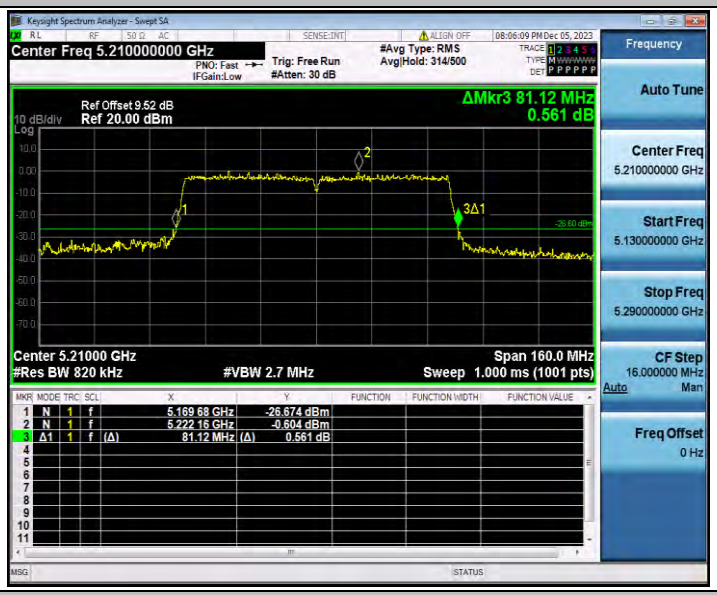



11AC20SISO_Ant1_5240




11AC40SISO_Ant1_5190

11AC40SISO_Ant1_5230



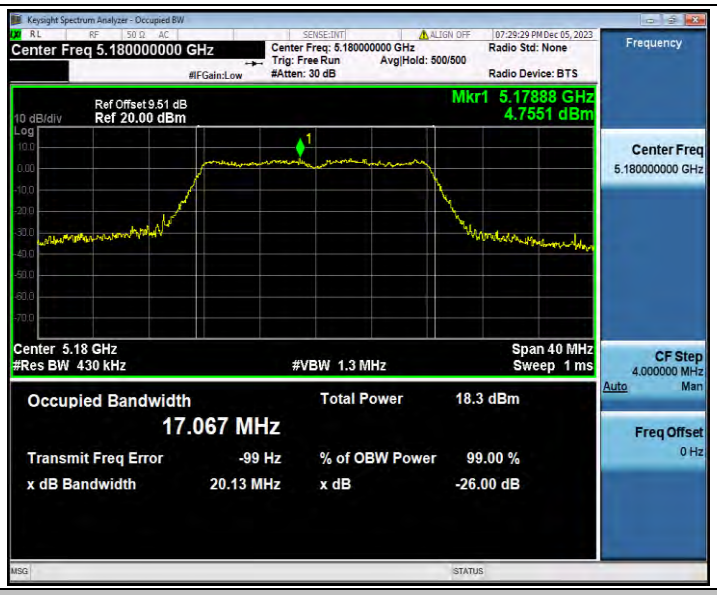

11AC80SISO_Ant1_5210

# 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 | 17.067 | 5171.466 | 5188.533 | --- | --- |
| | | 5200 | 17.035 | 5191.493 | 5208.528 | --- | --- |
| | | 5240 | 17.028 | 5231.487 | 5248.515 | --- | --- |
| 11N20SISO | Ant1 | 5180 | 17.906 | 5171.053 | 5188.959 | --- | --- |
| | | 5200 | 17.839 | 5191.065 | 5208.904 | --- | --- |
| | | 5240 | 17.898 | 5231.041 | 5248.939 | --- | --- |
| 11N40SISO | Ant1 | 5190 | 36.483 | 5171.754 | 5208.237 | --- | --- |
| | | 5230 | 36.446 | 5211.775 | 5248.221 | --- | --- |
| 11AC20SISO | Ant1 | 5180 | 17.887 | 5171.069 | 5188.956 | --- | --- |
| | | 5200 | 17.880 | 5191.080 | 5208.960 | --- | --- |
| | | 5240 | 17.851 | 5231.092 | 5248.943 | --- | --- |
| 11AC40SISO | Ant1 | 5190 | 36.517 | 5171.756 | 5208.273 | --- | --- |
| | | 5230 | 36.546 | 5211.692 | 5248.238 | --- | --- |
| 11AC80SISO | Ant1 | 5210 | 76.443 | 5171.790 | 5248.233 | --- | --- |

## Test Graphs




11A_Ant1_5180

11A_Ant1_5200

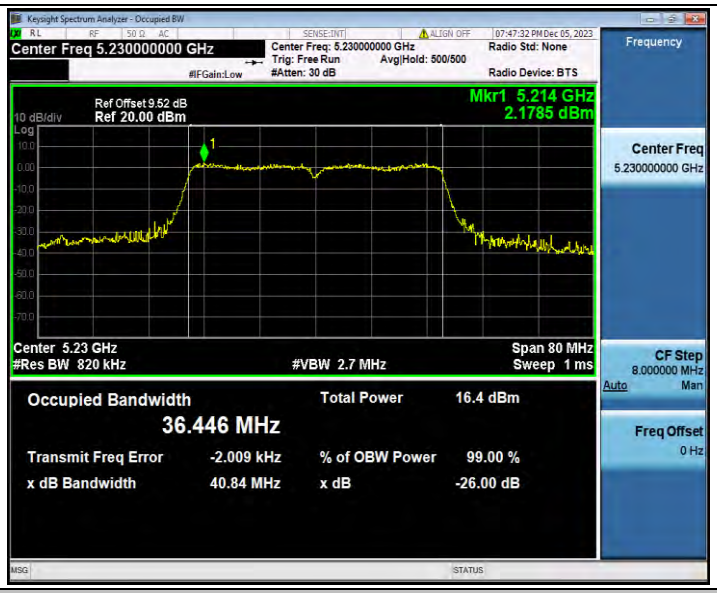
11A_Ant1_5240

11N20SISO_Ant1_5180

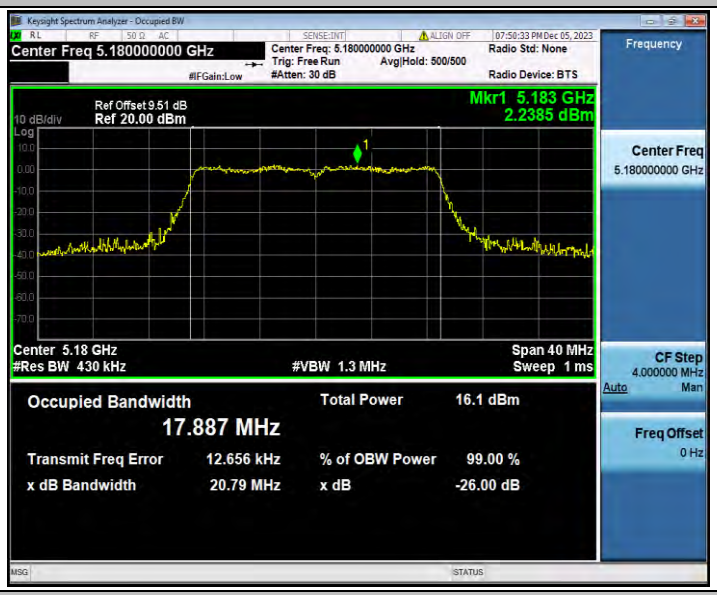
11N20SISO_Ant1_5200

11N20SISO_Ant1_5240

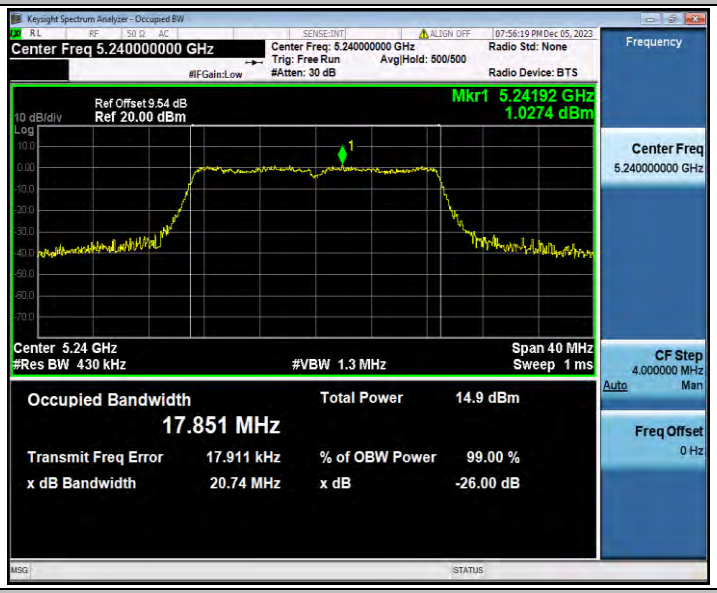
11N40SISO_Ant1_5190




11N40SISO_Ant1_5230




11AC20SISO_Ant1_5180

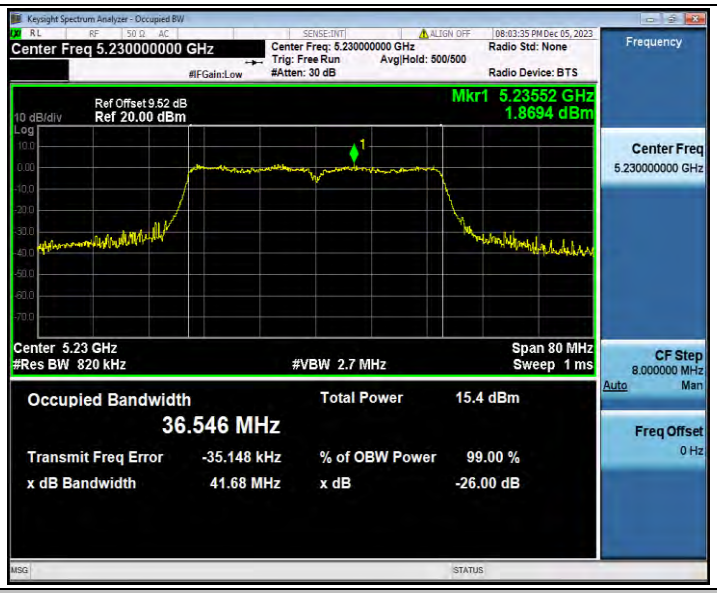
| 11AC20SISO_Ant1_5200 |
| --- |
|  |



| 11AC20SISO_Ant1_5240 |
| --- |
| |



| 11AC40SISO_Ant1_5190 |
| --- |




11AC40SISO_Ant1_5230

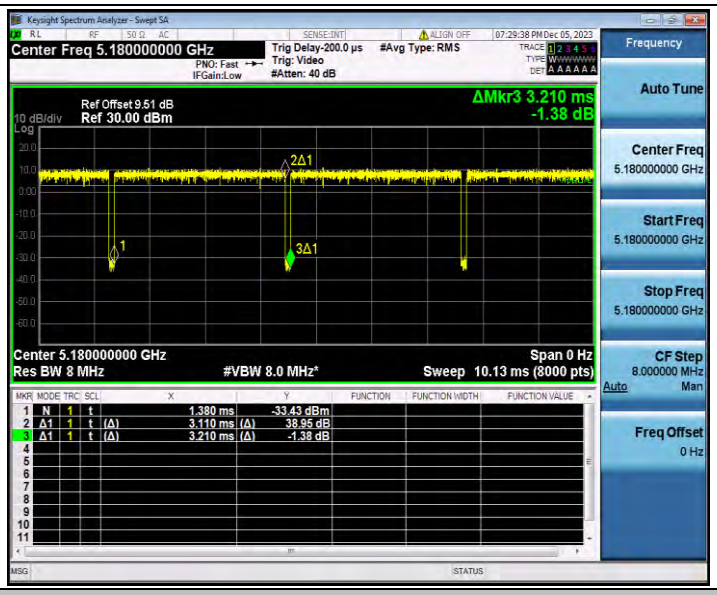
11AC80SISO_Ant1_5210

# Appendix D.3: Duty Cycle

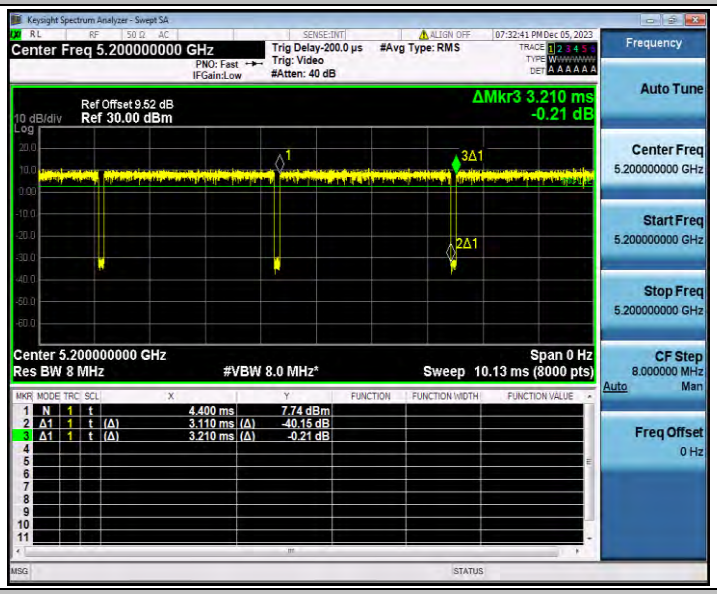
## Test Result

| Test Mode | Antenna | Frequency[MHz] | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] |
|---|---|---|---|---|---|
| 11A | Ant1 | 5180 | 3.11 | 3.21 | 96.88 |
| | | 5200 | 3.11 | 3.21 | 96.88 |
| | | 5240 | 3.11 | 3.21 | 96.88 |
| 11N20SISO | Ant1 | 5180 | 0.51 | 0.62 | 82.26 |
| | | 5200 | 0.51 | 0.61 | 83.61 |
| | | 5240 | 0.51 | 0.61 | 83.61 |
| 11N40SISO | Ant1 | 5190 | 0.26 | 0.37 | 70.27 |
| | | 5230 | 0.26 | 0.37 | 70.27 |
| 11AC20SISO | Ant1 | 5180 | 0.43 | 0.54 | 79.63 |
| | | 5200 | 0.43 | 0.54 | 79.63 |
| | | 5240 | 0.43 | 0.54 | 79.63 |
| 11AC40SISO | Ant1 | 5190 | 0.21 | 0.31 | 67.74 |
| | | 5230 | 0.21 | 0.31 | 67.74 |
| 11AC80SISO | Ant1 | 5210 | 0.12 | 0.23 | 52.17 |

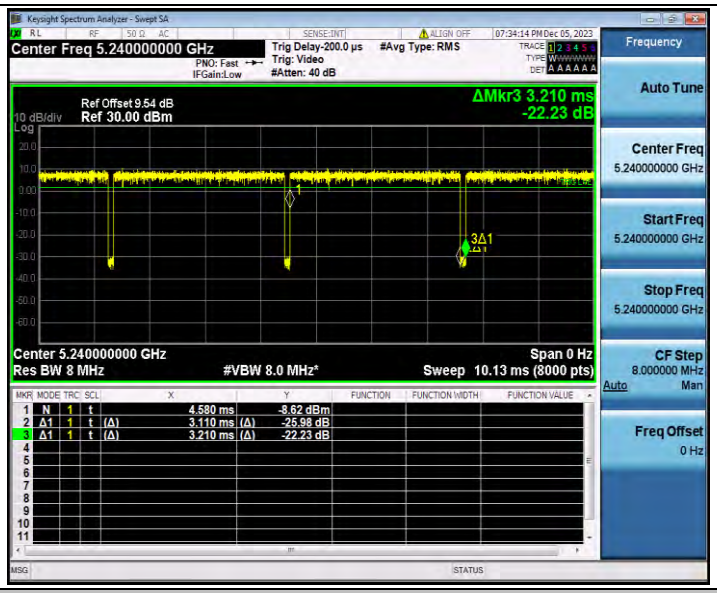
## Test Graphs



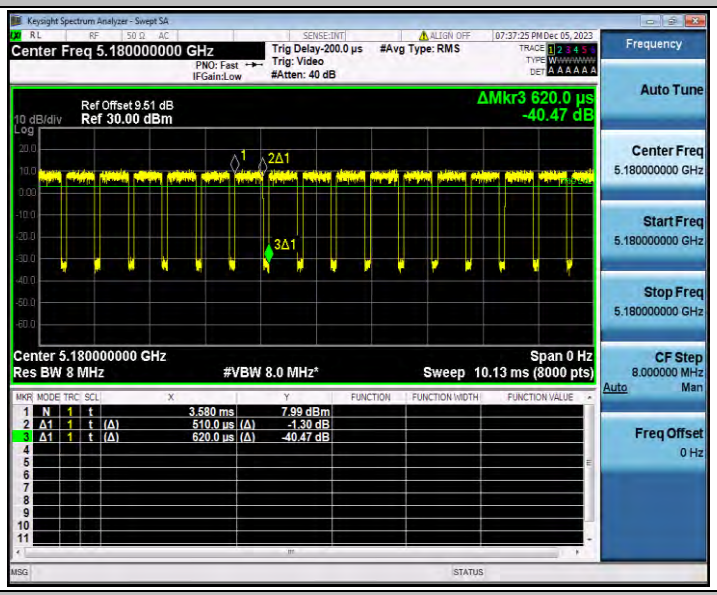

11A_Ant1_5180



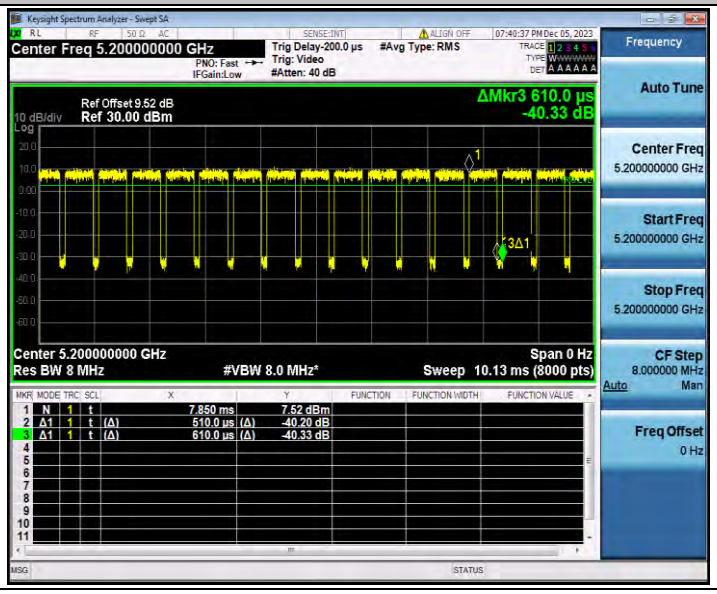

11A_Ant1_5200

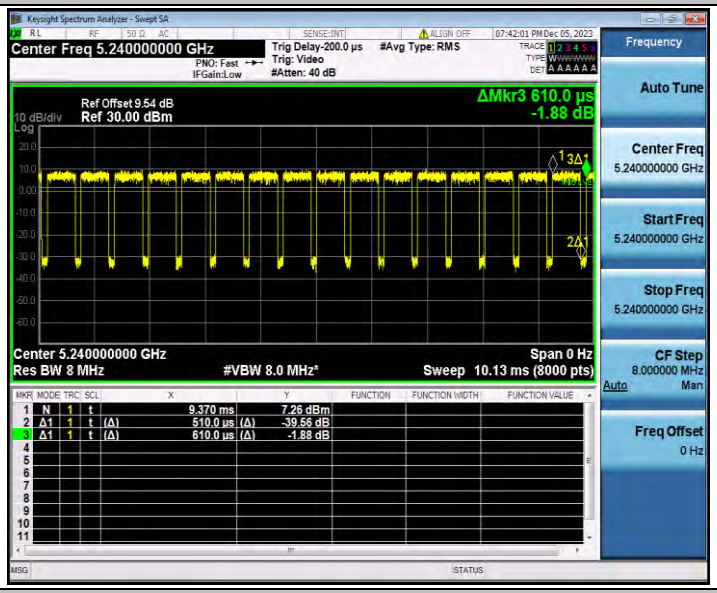
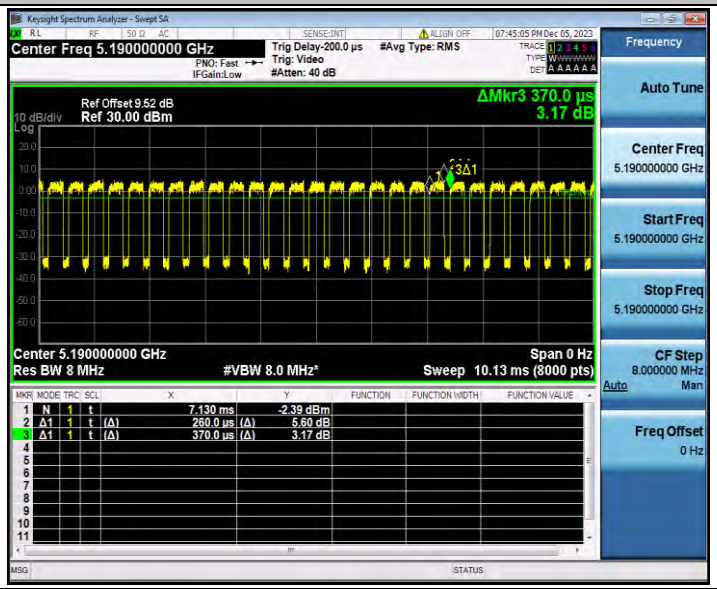


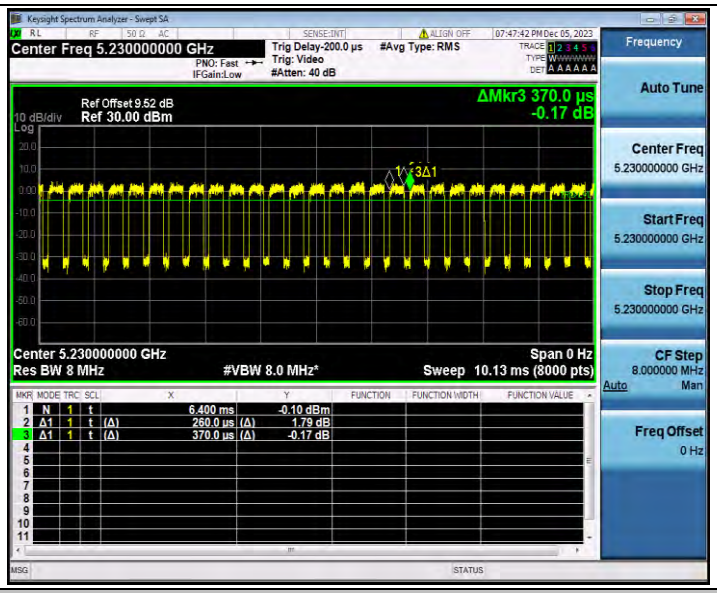

11A_Ant1_5240



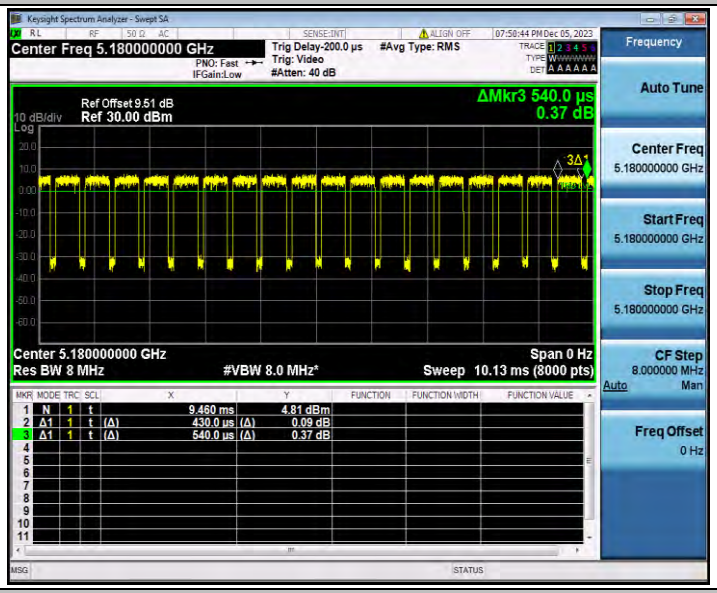

11N20SISO_Ant1_5180



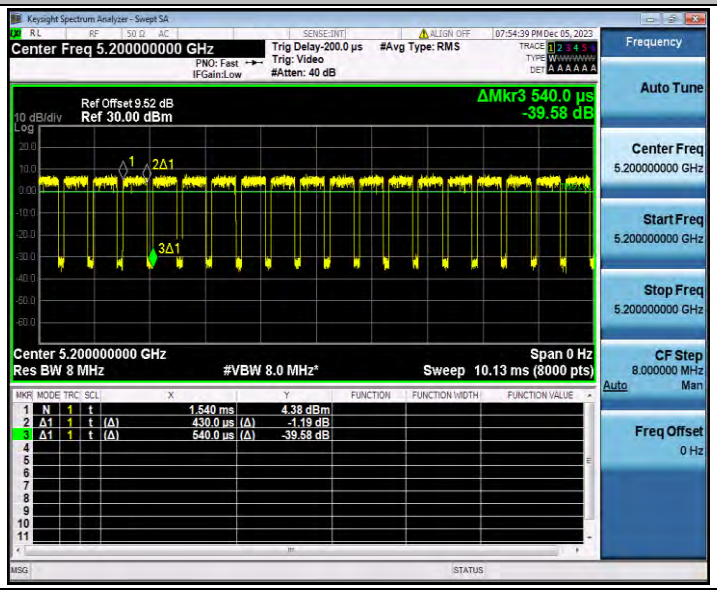
| 11N20SISO_Ant1_5200 |
| --- |
|  |
| 11N20SISO_Ant1_5240 |
|  |
| 11N40SISO_Ant1_5190 |



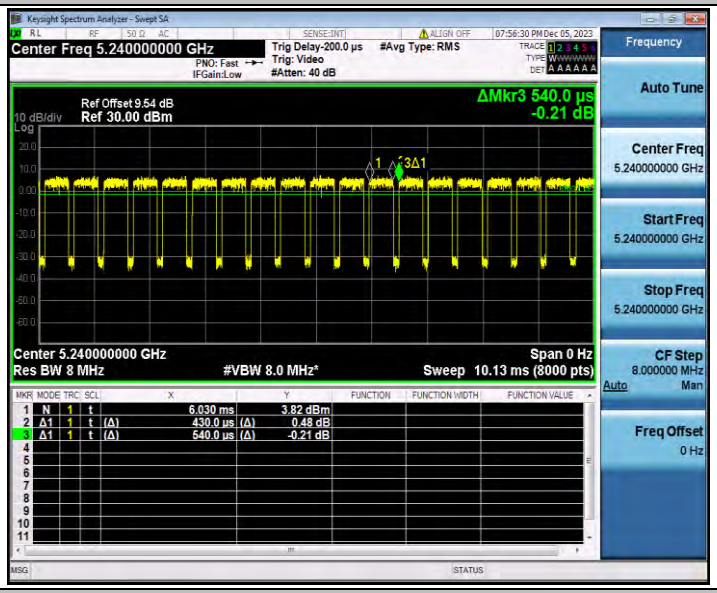

11N40SISO_Ant1_5230



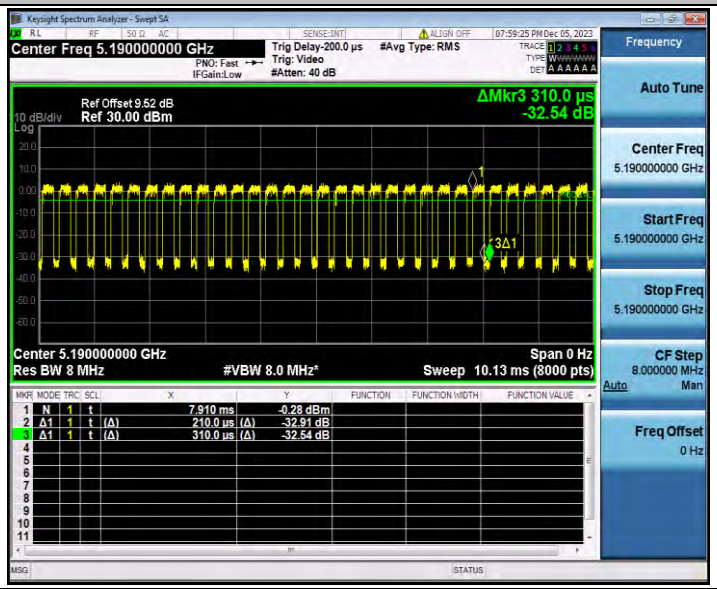

11AC20SISO_Ant1_5180



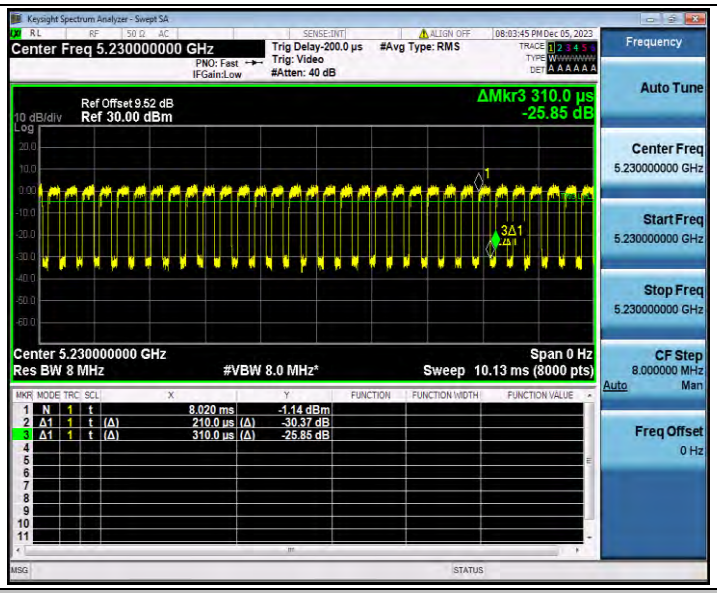
11AC20SISO_Ant1_5200



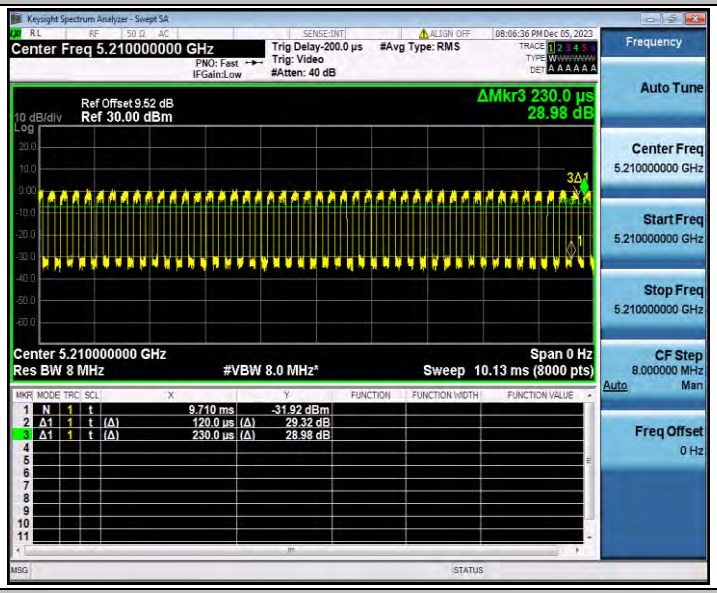

11AC20SISO_Ant1_5240




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 | 11.56 | 96.88 | 0.14 | 11.70 | ≤23.98 | PASS |
| | | 5200 | 11.28 | 96.88 | 0.14 | 11.42 | ≤23.98 | PASS |
| | | 5240 | 10.31 | 96.88 | 0.14 | 10.45 | ≤23.98 | PASS |
| 11N20SISO | Ant1 | 5180 | 11.04 | 82.26 | 0.85 | 11.89 | ≤23.98 | PASS |
| | | 5200 | 10.73 | 83.61 | 0.78 | 11.51 | ≤23.98 | PASS |
| | | 5240 | 9.81 | 83.61 | 0.78 | 10.59 | ≤23.98 | PASS |
| 11N40SISO | Ant1 | 5190 | 8.19 | 70.27 | 1.53 | 9.72 | ≤23.98 | PASS |
| | | 5230 | 8.07 | 70.27 | 1.53 | 9.60 | ≤23.98 | PASS |
| 11AC20SISO | Ant1 | 5180 | 8.88 | 79.63 | 0.99 | 9.87 | ≤23.98 | PASS |
| | | 5200 | 8.58 | 79.63 | 0.99 | 9.57 | ≤23.98 | PASS |
| | | 5240 | 8.64 | 79.63 | 0.99 | 9.63 | ≤23.98 | PASS |
| 11AC40SISO | Ant1 | 5190 | 8.97 | 67.74 | 1.69 | 9.66 | ≤23.98 | PASS |
| | | 5230 | 7.86 | 67.74 | 1.69 | 9.55 | ≤23.98 | PASS |
| 11AC80SISO | Ant1 | 5210 | 6.18 | 52.17 | 2.83 | 9.01 | ≤23.98 | PASS |

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

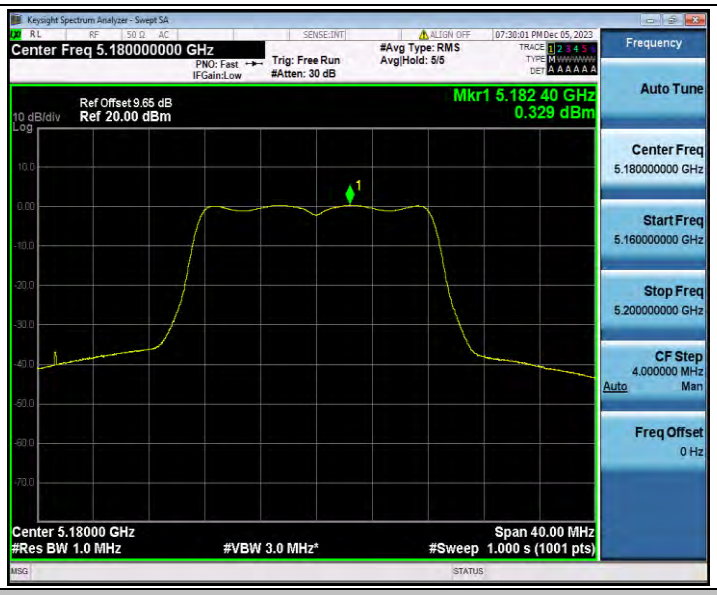
# Appendix D.5: Maximum power spectral density

## Test Result

| Test Mode | Antenna | Frequency[MHz] | Result [dBm/MHz] | Limit[dBm/MHz] | Verdict |
|---|---|---|---|---|---|
| 11A | Ant1 | 5180 | 0.33 | ≤11.00 | PASS |
| | | 5200 | 0.06 | ≤11.00 | PASS |
| | | 5240 | -0.75 | ≤11.00 | PASS |
| 11N20SISO | Ant1 | 5180 | 0.43 | ≤11.00 | PASS |
| | | 5200 | 0.09 | ≤11.00 | PASS |
| | | 5240 | -0.75 | ≤11.00 | PASS |
| 11N40SISO | Ant1 | 5190 | -4.3 | ≤11.00 | PASS |
| | | 5230 | -5.18 | ≤11.00 | PASS |
| 11AC20SISO | Ant1 | 5180 | -2.62 | ≤11.00 | PASS |
| | | 5200 | -2.88 | ≤11.00 | PASS |
| | | 5240 | -3.71 | ≤11.00 | PASS |
| 11AC40SISO | Ant1 | 5190 | -5.41 | ≤11.00 | PASS |
| | | 5230 | -6.45 | ≤11.00 | PASS |
| 11AC80SISO | Ant1 | 5210 | -8.33 | ≤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

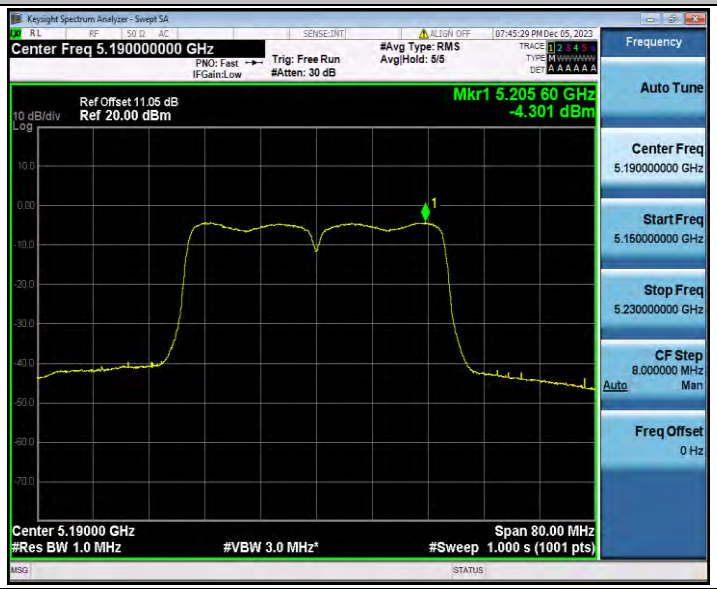
11A_Ant1_5200

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

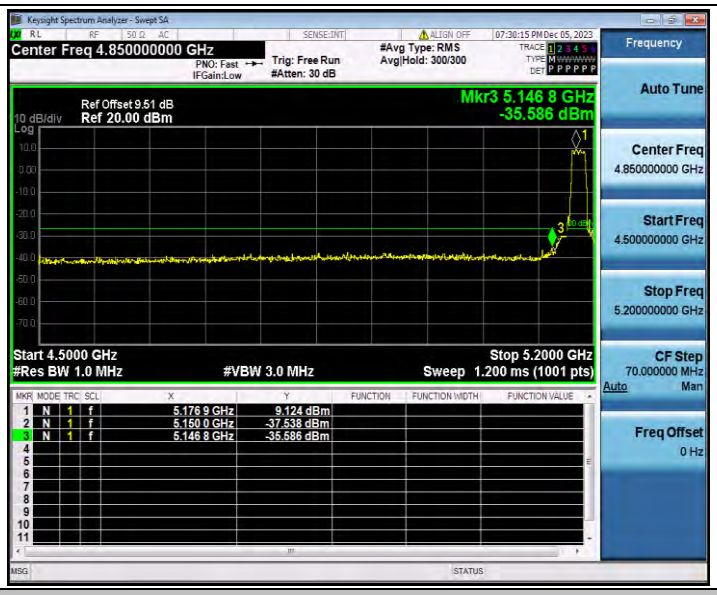
11AC80SISO_Ant1_5210

# Appendix D.6: Band edge measurements

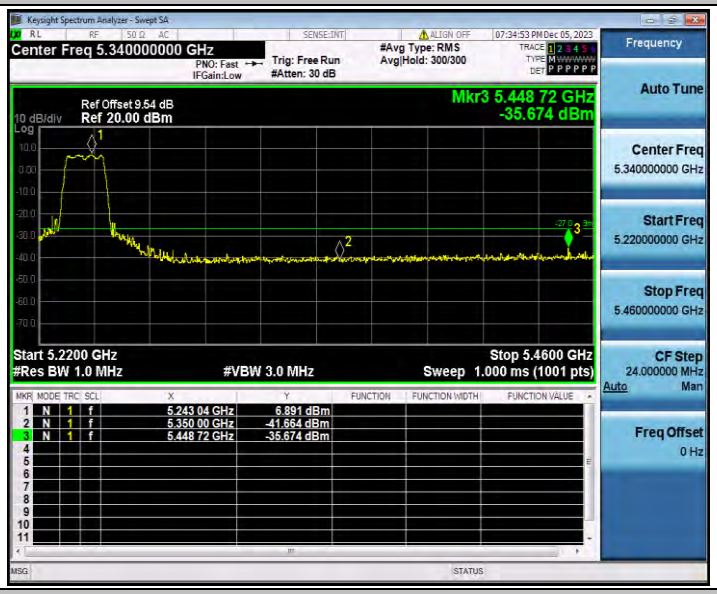
## Test Result B1

| Test Mode | Antenna | ChName | Frequency[MHz] | Result[dBm] | Limit[dBm] | Verdict |
|---|---|---|---|---|---|---|
| 11A | Ant1 | Low | 5180 | -35.59 | ≤-27 | PASS |
| | | High | 5240 | -35.67 | ≤-27 | PASS |
| 11N20SISO | Ant1 | Low | 5180 | -33.29 | ≤-27 | PASS |
| | | High | 5240 | -37.77 | ≤-27 | PASS |
| 11N40SISO | Ant1 | Low | 5190 | -31.45 | ≤-27 | PASS |
| | | High | 5230 | -37.52 | ≤-27 | PASS |
| 11AC20SISO | Ant1 | Low | 5180 | -36.4 | ≤-27 | PASS |
| | | High | 5240 | -37.04 | ≤-27 | PASS |
| 11AC40SISO | Ant1 | Low | 5190 | -33.98 | ≤-27 | PASS |
| | | High | 5230 | -38.13 | ≤-27 | PASS |
| 11AC80SISO | Ant1 | Low | 5210 | -30.43 | ≤-27 | PASS |
| | | High | 5210 | -37.3 | ≤-27 | PASS |

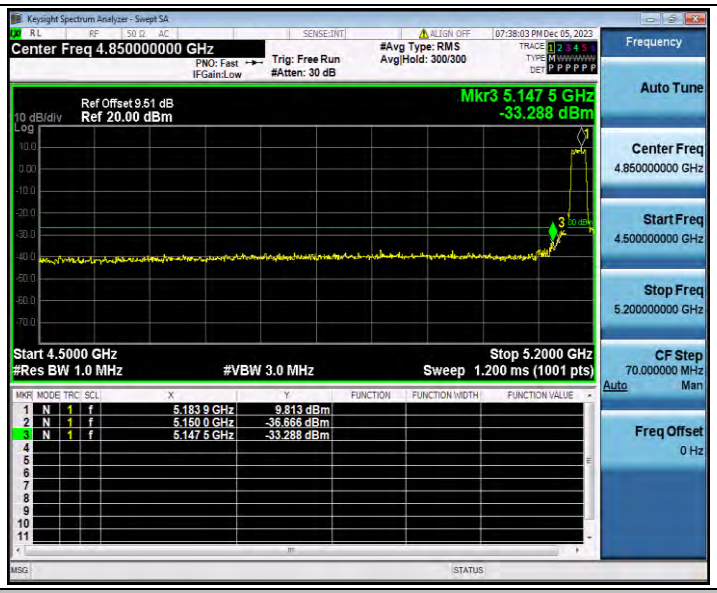
## Test Graphs B1



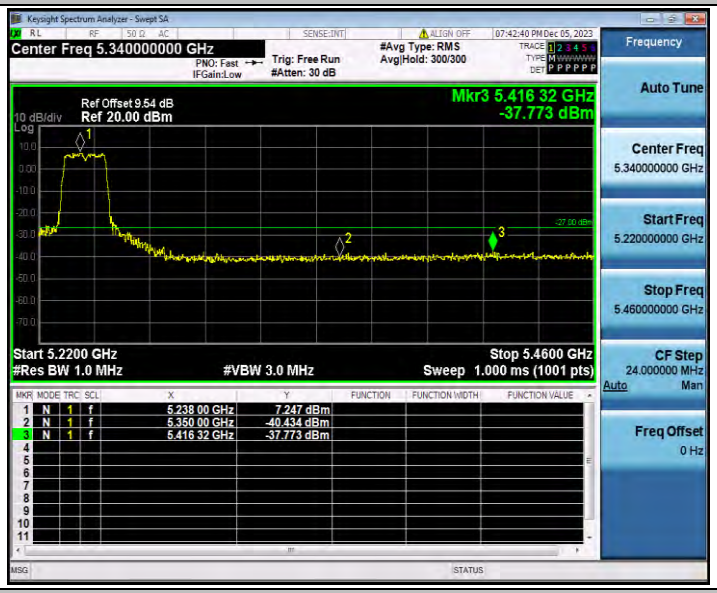

11A_Ant1_Low_5180



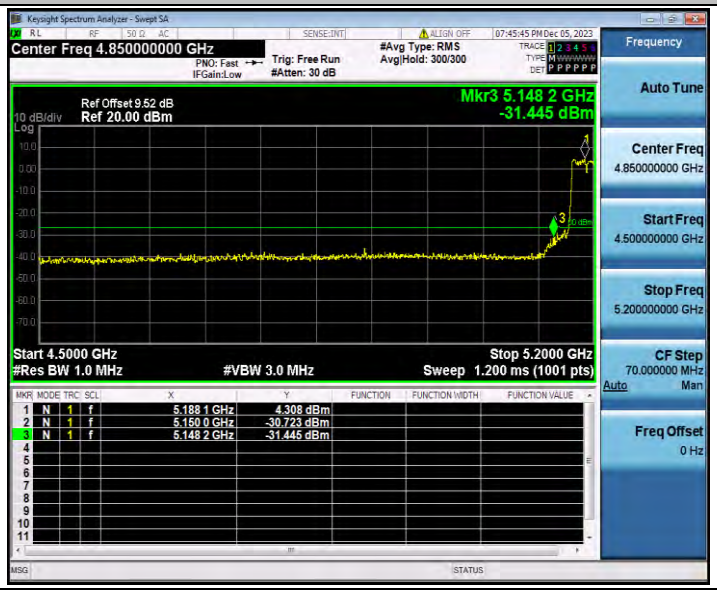

11A_Ant1_High_5240




11N20SISO_Ant1_Low_5180

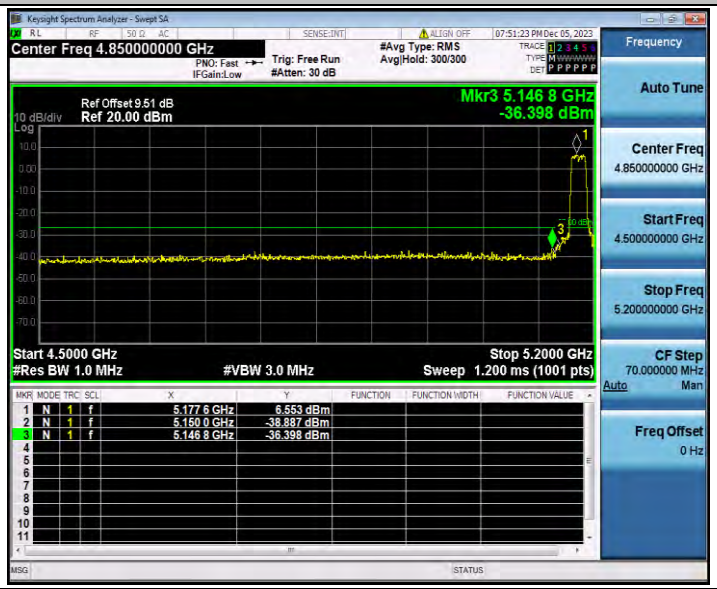



11N20SISO_Ant1_High_5240

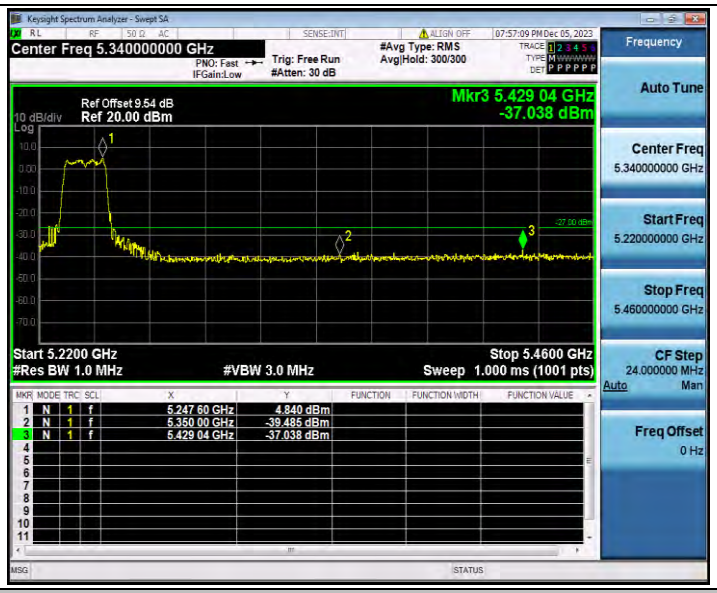


11N40SISO_Ant1_Low_5190

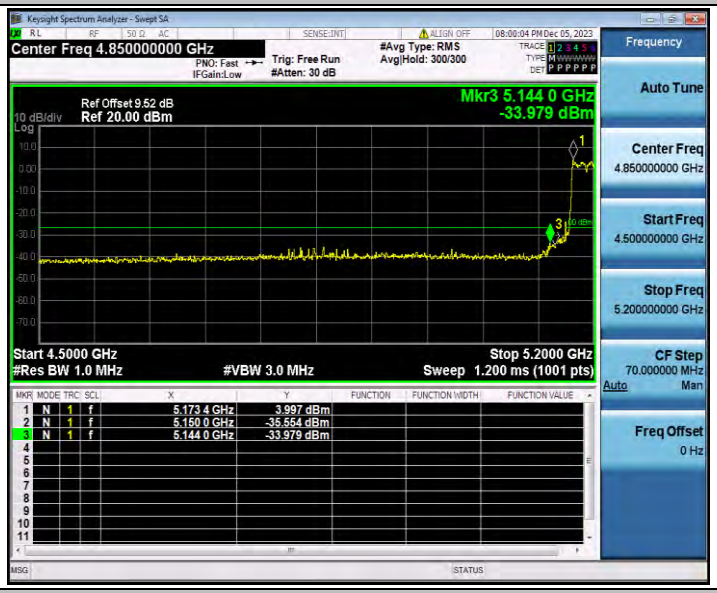
11N40SISO_Ant1_High_5230



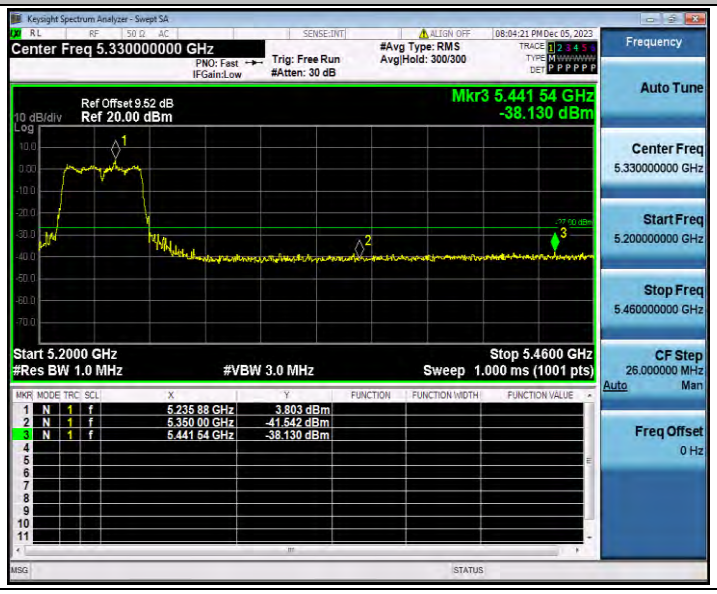

11AC20SISO_Ant1_Low_5180



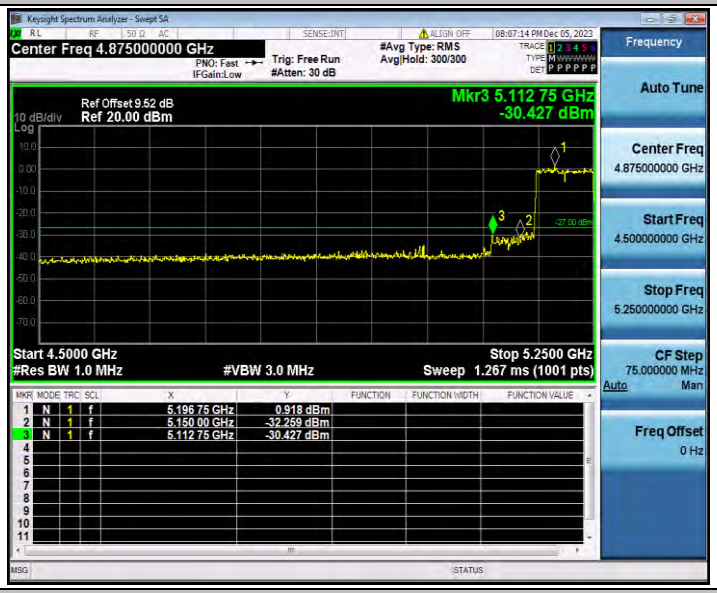

11AC20SISO_Ant1_High_5240



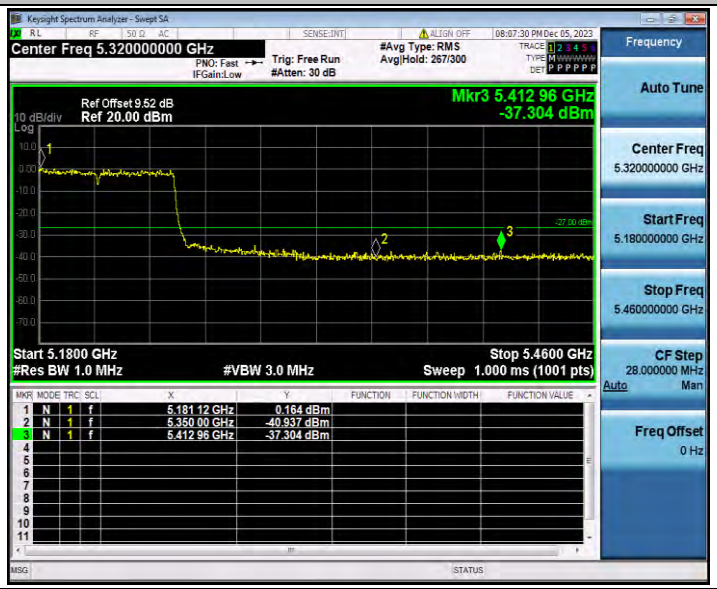

11AC40SISO_Ant1_Low_5190



11AC40SISO_Ant1_High_5230




11AC80SISO_Ant1_Low_5210



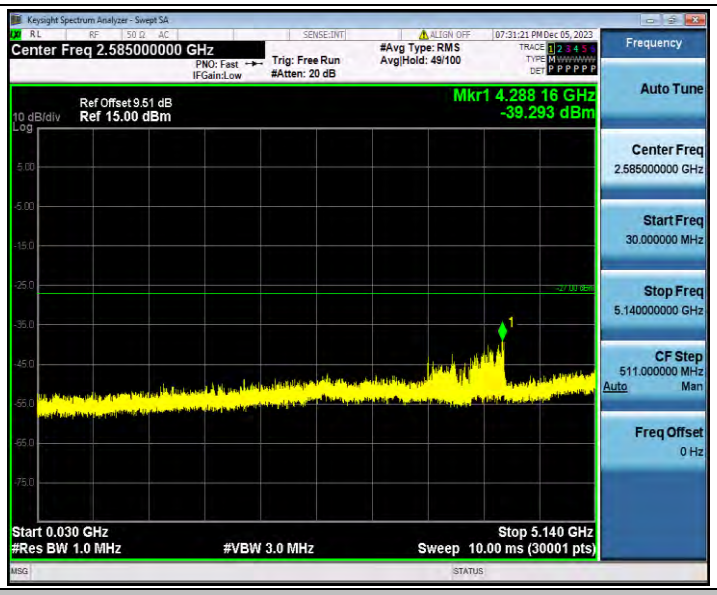

11AC80SISO_Ant1_High_5210

# 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 | 4288.16 | -39.29 | ≤-27 | PASS |
| | | | 5360~40000 | 25233.45 | -38.31 | ≤-27 | PASS |
| | | 5200 | 30~5140 | 4894.21 | -47.17 | ≤-27 | PASS |
| | | | 5360~40000 | 23593.86 | -37.89 | ≤-27 | PASS |
| | | 5240 | 30~5140 | 5108.15 | -46.03 | ≤-27 | PASS |
| | | | 5360~40000 | 25083.42 | -38.27 | ≤-27 | PASS |
| 11N20SISO | Ant1 | 5180 | 30~5140 | 5135.4 | -37.82 | ≤-27 | PASS |
| | | | 5360~40000 | 26488.57 | -37.97 | ≤-27 | PASS |
| | | 5200 | 30~5140 | 4284.59 | -36.6 | ≤-27 | PASS |
| | | | 5360~40000 | 26647.99 | -37.96 | ≤-27 | PASS |
| | | 5240 | 30~5140 | 5042.23 | -46.15 | ≤-27 | PASS |
| | | | 5360~40000 | 5935.62 | -37.61 | ≤-27 | PASS |
| 11N40SISO | Ant1 | 5190 | 30~5140 | 5139.49 | -40.06 | ≤-27 | PASS |
| | | | 5360~40000 | 23541.21 | -37.42 | ≤-27 | PASS |
| | | 5230 | 30~5140 | 4688.45 | -46.38 | ≤-27 | PASS |
| | | | 5360~40000 | 25575.37 | -37.94 | ≤-27 | PASS |
| 11AC20SISO | Ant1 | 5180 | 30~5140 | 4857.59 | -45.98 | ≤-27 | PASS |
| | | | 5360~40000 | 24274.8 | -37.88 | ≤-27 | PASS |
| | | 5200 | 30~5140 | 4972.9 | -47.16 | ≤-27 | PASS |
| | | | 5360~40000 | 24194.73 | -38.16 | ≤-27 | PASS |
| | | 5240 | 30~5140 | 4938.33 | -47.09 | ≤-27 | PASS |
| | | | 5360~40000 | 24230.8 | -37.55 | ≤-27 | PASS |
| 11AC40SISO | Ant1 | 5190 | 30~5140 | 4354.25 | -37.75 | ≤-27 | PASS |
| | | | 5360~40000 | 26567.2 | -37.79 | ≤-27 | PASS |
| | | 5230 | 30~5140 | 4270.28 | -38.7 | ≤-27 | PASS |
| | | | 5360~40000 | 25169.98 | -37.21 | ≤-27 | PASS |
| 11AC80SISO | Ant1 | 5210 | 30~5140 | 5119.56 | -32.64 | ≤-27 | PASS |
| | | | 5360~40000 | 5753.13 | -36.25 | ≤-27 | PASS |

## Test Graphs




11A_Ant1_5180_30~5140

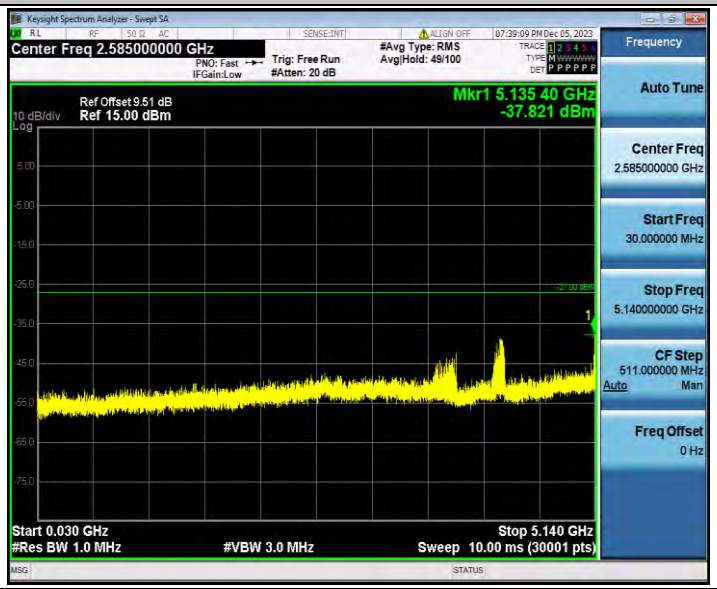
11A_Ant1_5180_5360~40000

11A_Ant1_5200_30~5140

11A_Ant1_5200_5360~40000

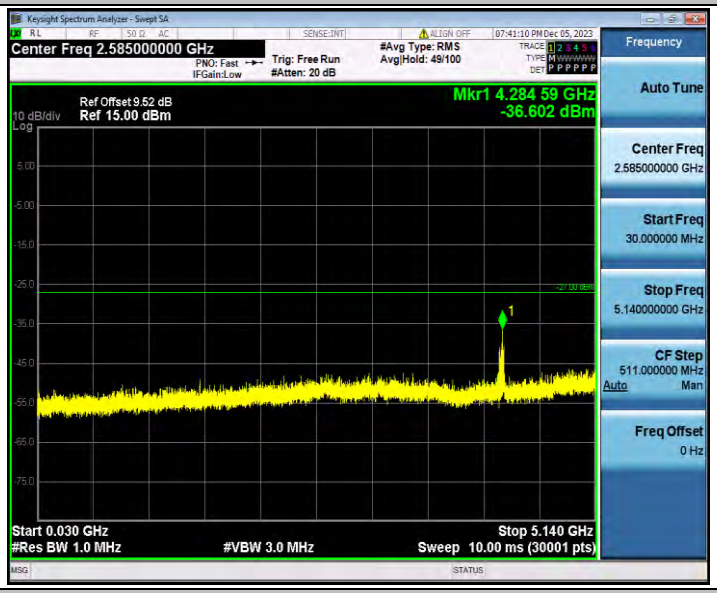
11A_Ant1_5240_30~5140

11A_Ant1_5240_5360~40000




11N20SISO_Ant1_5180_30~5140

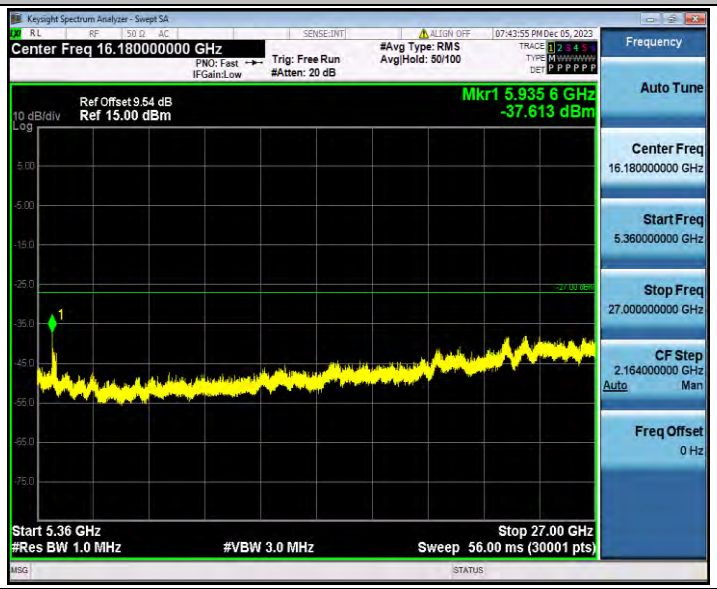
11N20SISO_Ant1_5180_5360~40000




11N20SISO_Ant1_5200_30~5140

11N20SISO_Ant1_5200_5360~40000

11N20SISO_Ant1_5240_30~5140



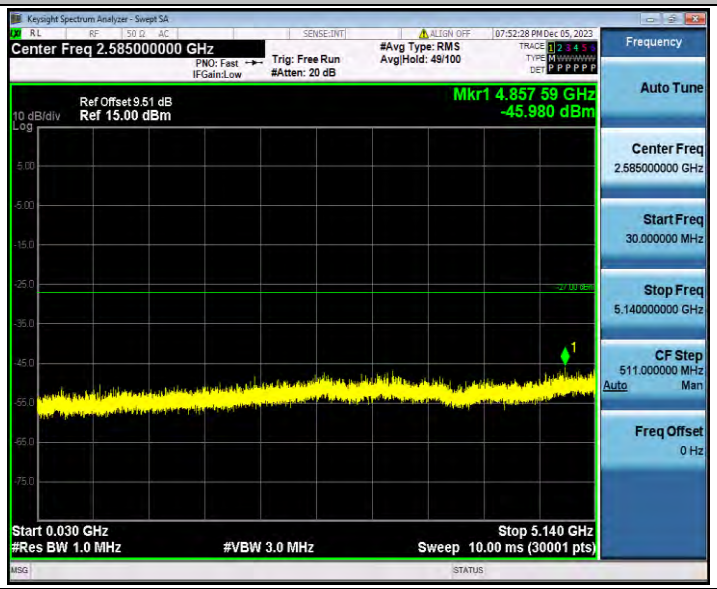

11N20SISO_Ant1_5240_5360~40000

11N40SISO_Ant1_5190_30~5140

11N40SISO_Ant1_5190_5360~40000

11N40SISO_Ant1_5230_30~5140

11N40SISO_Ant1_5230_5360~40000



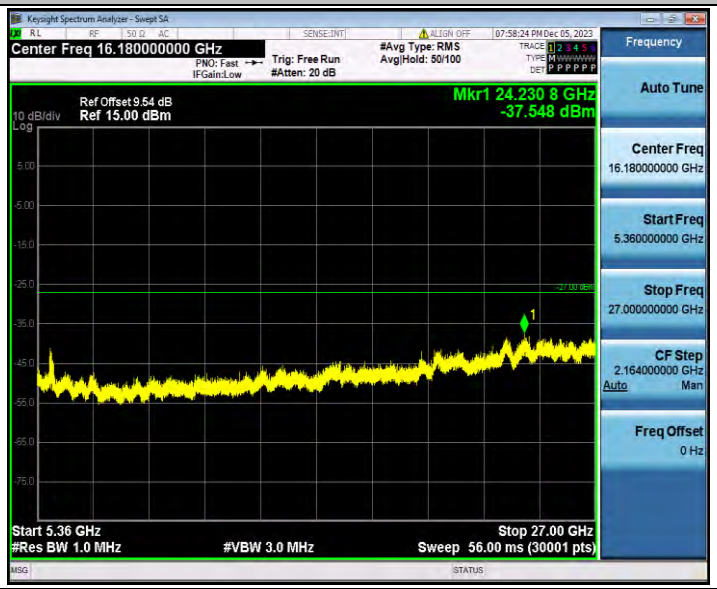

11AC20SISO_Ant1_5180_30~5140

11AC20SISO_Ant1_5180_5360~40000

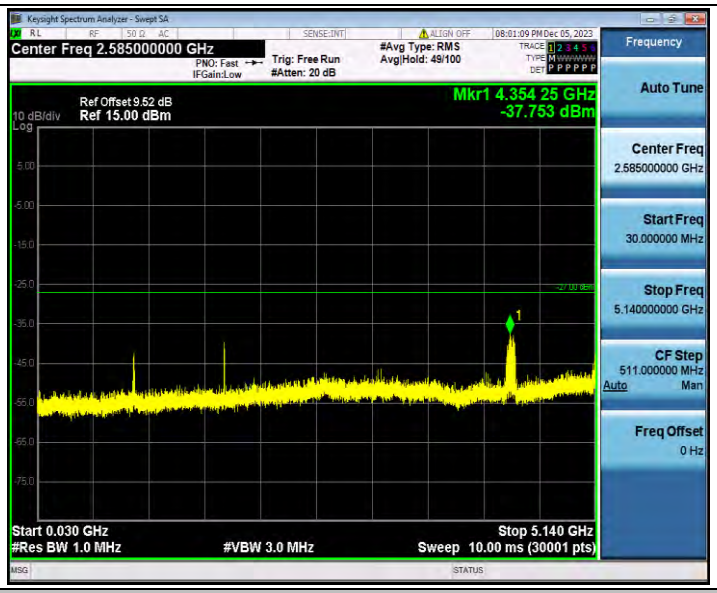
11AC20SISO_Ant1_5200_30~5140

11AC20SISO_Ant1_5200_5360~40000

11AC20SISO_Ant1_5240_30~5140




11AC20SISO_Ant1_5240_5360~40000

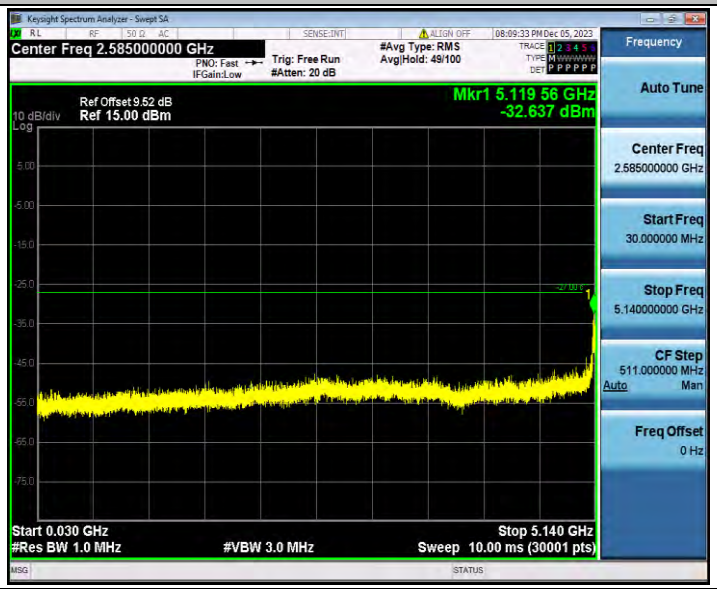



11AC40SISO_Ant1_5190_30~5140

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