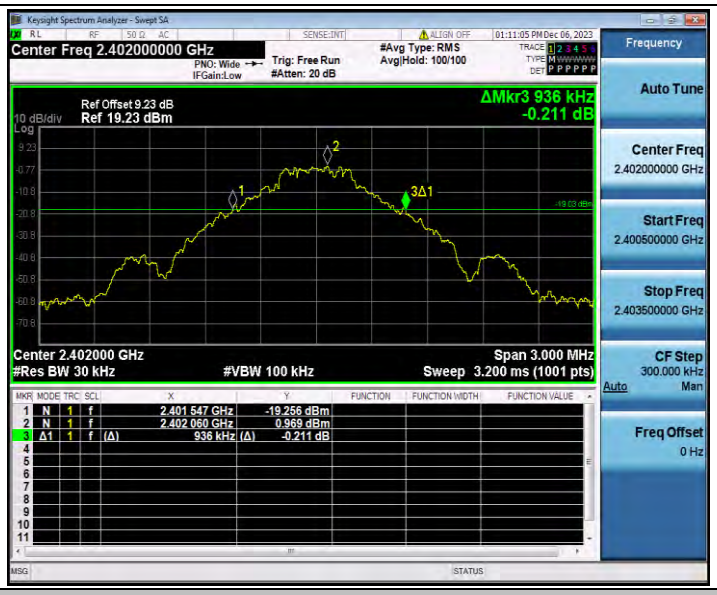
| | |
|---|---|
| **Case No. :** GTS20231012003-1-2 | |
| **Ambient Condition**: 23 ℃, 49 %RH, Atmos100.1Kpa, | |
| **Test Date:** 2023.12.5 | **Test Engineer:** Evan ouyang |

# Appendix A.1: 20dB Emission Bandwidth

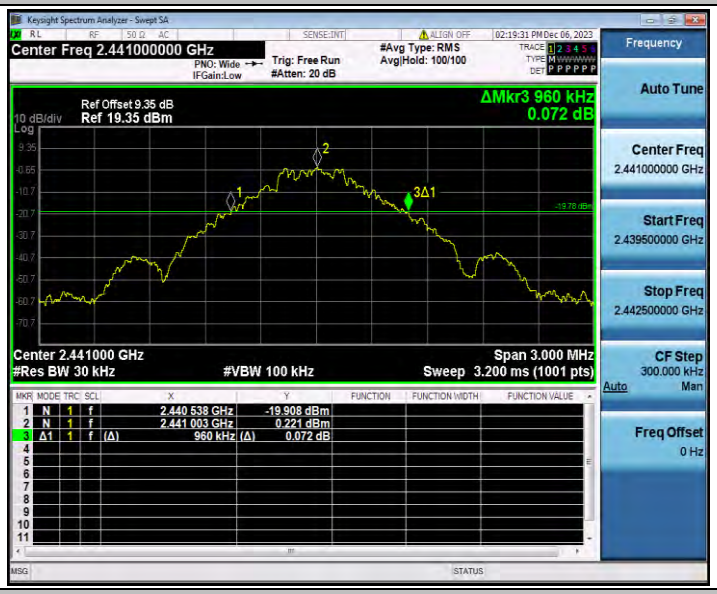
## Test Result

| Test Mode | Antenna | Frequency[MHz] | 20db EBW[MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|---|---|---|
| DH1 | Ant1 | 2402 | 0.936 | 2401.547 | 2402.483 | --- | --- |
| | | 2441 | 0.960 | 2440.538 | 2441.498 | --- | --- |
| | | 2480 | 0.906 | 2479.583 | 2480.489 | --- | --- |
| 2DH1 | Ant1 | 2402 | 1.296 | 2401.349 | 2402.645 | --- | --- |
| | | 2441 | 1.308 | 2440.340 | 2441.648 | --- | --- |
| | | 2480 | 1.281 | 2479.367 | 2480.648 | --- | --- |
| 3DH1 | Ant1 | 2402 | 1.263 | 2401.370 | 2402.633 | --- | --- |
| | | 2441 | 1.263 | 2440.370 | 2441.633 | --- | --- |
| | | 2480 | 1.260 | 2479.370 | 2480.630 | --- | --- |

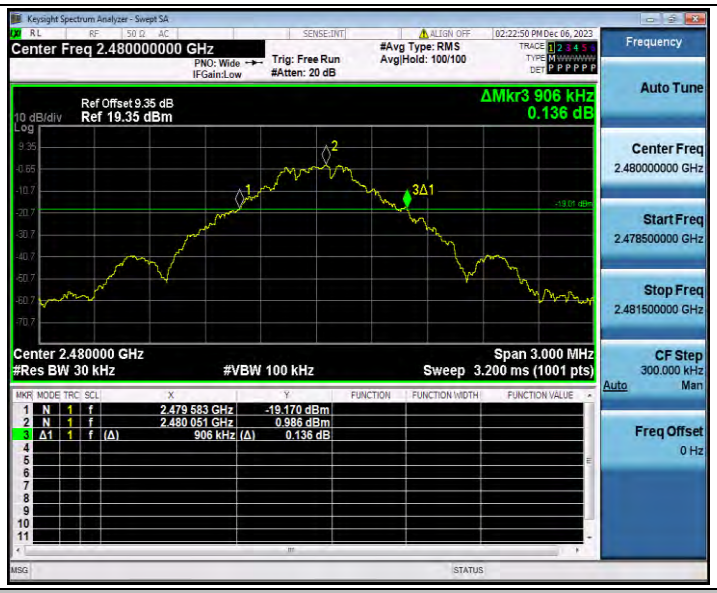
## Test Graphs




DH1_Ant1_2402




DH1_Ant1_2441




DH1_Ant1_2480

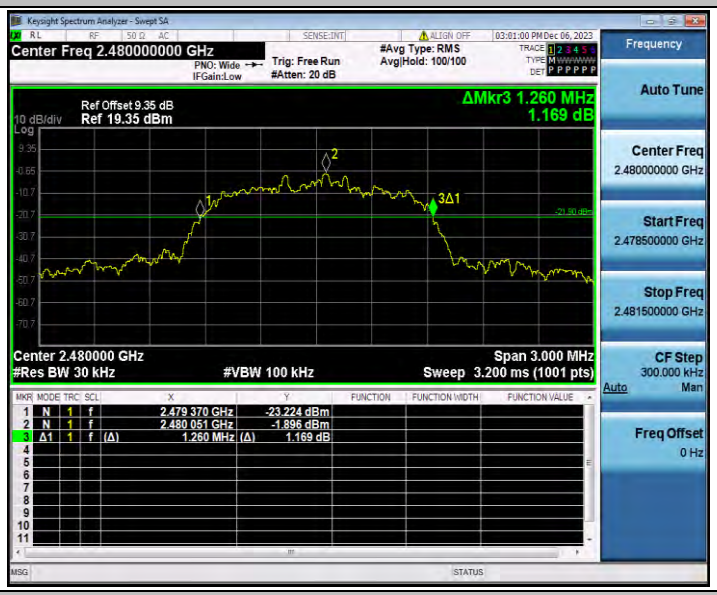
2DH1_Ant1_2402

2DH1_Ant1_2441

2DH1_Ant1_2480

3DH1_Ant1_2402

3DH1_Ant1_2441




3DH1_Ant1_2480

# Appendix A.2: Occupied Channel Bandwidth

## Test Result

| Test Mode | Antenna | Frequency[MHz] | OCB [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|---|---|---|
| DH1 | Ant1 | 2402 | 0.80938 | 2401.601 | 2402.411 | --- | --- |
| | | 2441 | 0.81666 | 2440.596 | 2441.413 | --- | --- |
| | | 2480 | 0.82295 | 2479.588 | 2480.411 | --- | --- |
| 2DH1 | Ant1 | 2402 | 1.1404 | 2401.423 | 2402.563 | --- | --- |
| | | 2441 | 1.1477 | 2440.419 | 2441.567 | --- | --- |
| | | 2480 | 1.1623 | 2479.417 | 2480.579 | --- | --- |
| 3DH1 | Ant1 | 2402 | 1.1508 | 2401.438 | 2402.588 | --- | --- |
| | | 2441 | 1.1516 | 2440.437 | 2441.589 | --- | --- |
| | | 2480 | 1.1473 | 2479.438 | 2480.585 | --- | --- |

## Test Graphs

DH1_Ant1_2402

DH1_Ant1_2441

DH1_Ant1_2480

2DH1_Ant1_2402

2DH1_Ant1_2441

2DH1_Ant1_2480

3DH1_Ant1_2402

3DH1_Ant1_2441

3DH1_Ant1_2480

# Appendix A.3: Maximum conducted output power

## Test Result Peak

| Test Mode | Antenna | Frequency[MHz] | Conducted Peak Powert[dBm] | Conducted Limit[dBm] | Verdict |
|---|---|---|---|---|---|
| DH1 | Ant1 | 2402 | 4.27 | ≤30.00 | PASS |
| | | 2441 | 4.27 | ≤30.00 | PASS |
| | | 2480 | 4.17 | ≤30.00 | PASS |
| 2DH1 | Ant1 | 2402 | 3.5 | ≤20.97 | PASS |
| | | 2441 | 3.53 | ≤20.97 | PASS |
| | | 2480 | 3.57 | ≤20.97 | PASS |
| 3DH1 | Ant1 | 2402 | 3.93 | ≤20.97 | PASS |
| | | 2441 | 3.92 | ≤20.97 | PASS |
| | | 2480 | 3.75 | ≤20.97 | PASS |

# Appendix A.4: Carrier frequency separation

## Test Result

| Test Mode | Antenna | Frequency[MHz] | Result[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|---|
| DH1 | Ant1 | Hop_2402 | 1.326 | ≥0.960 | PASS |
| | | Hop_2441 | 1 | ≥0.960 | PASS |
| | | Hop_2480 | 1.016 | ≥0.960 | PASS |
| 2DH1 | Ant1 | Hop_2402 | 1.214 | ≥0.872 | PASS |
| | | Hop_2441 | 1.19 | ≥0.872 | PASS |
| | | Hop_2480 | 1.01 | ≥0.872 | PASS |
| 3DH1 | Ant1 | Hop_2402 | 0.988 | ≥0.842 | PASS |
| | | Hop_2441 | 1.004 | ≥0.842 | PASS |
| | | Hop_2480 | 0.998 | ≥0.842 | PASS |

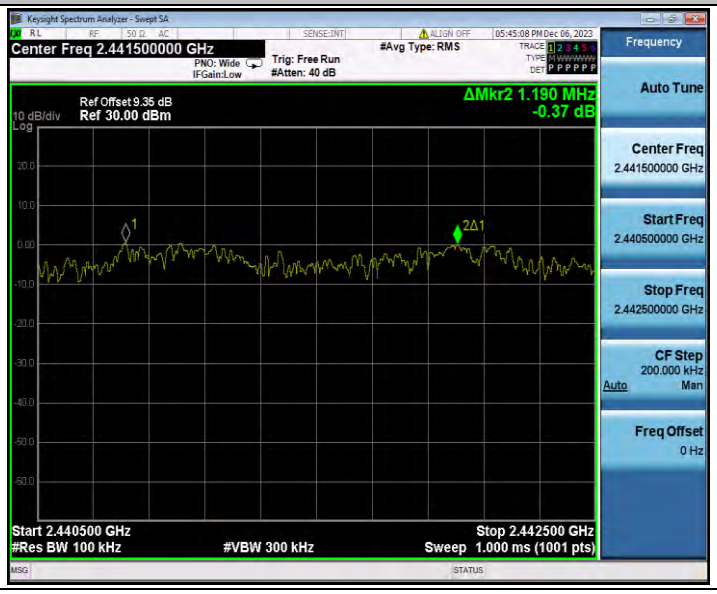
## Test Graphs

DH1_Ant1_Hop_2402

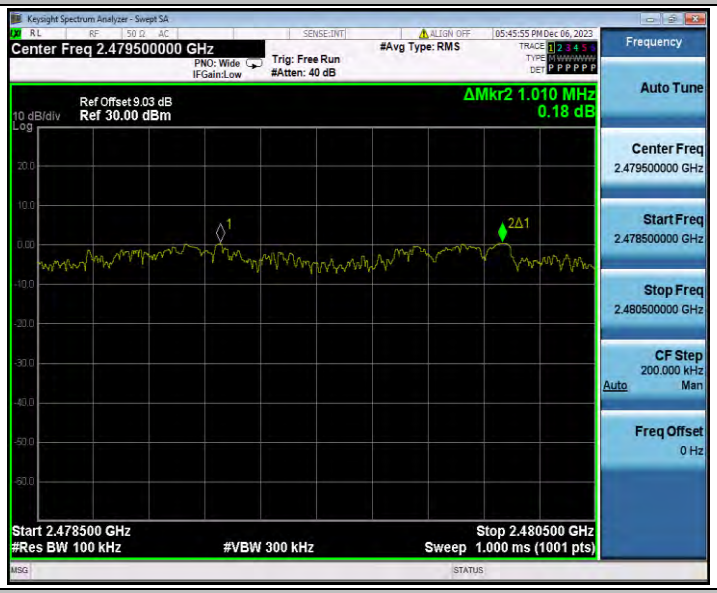
DH1_Ant1_Hop_2441

DH1_Ant1_Hop_2480

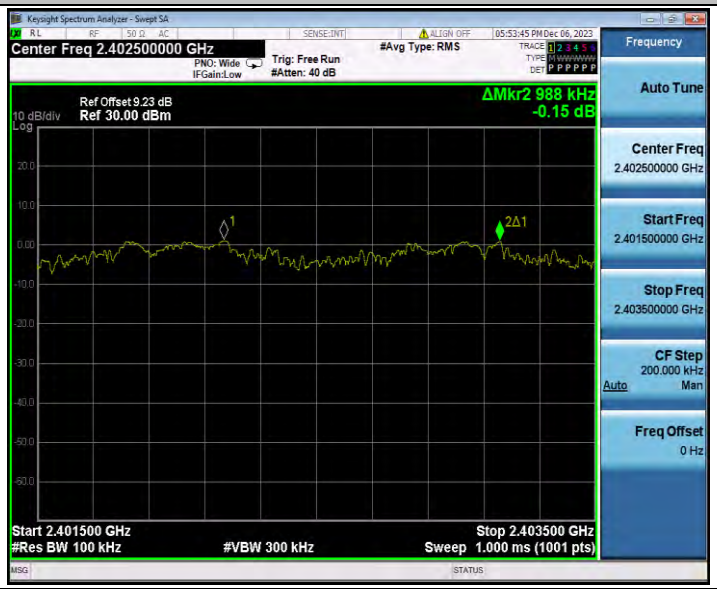
2DH1_Ant1_Hop_2402



2DH1_Ant1_Hop_2441




2DH1_Ant1_Hop_2480




3DH1_Ant1_Hop_2402

3DH1_Ant1_Hop_2441

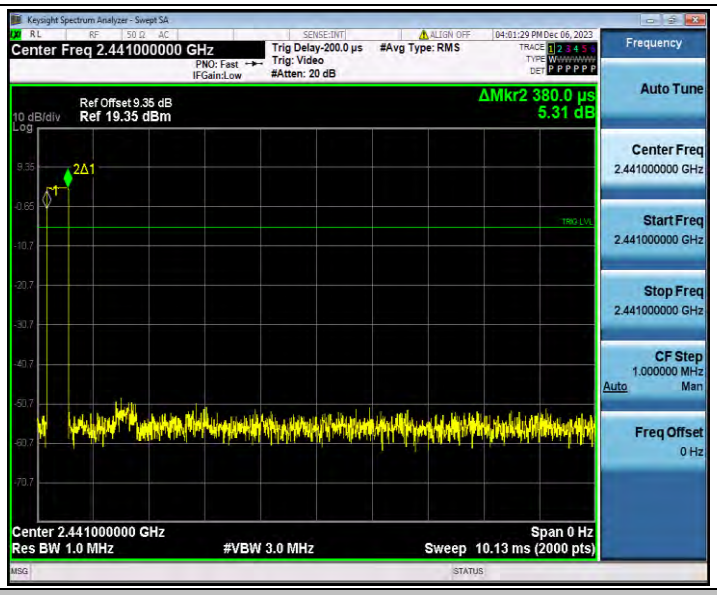
3DH1_Ant1_Hop_2480

# Appendix A.5: Time of occupancy

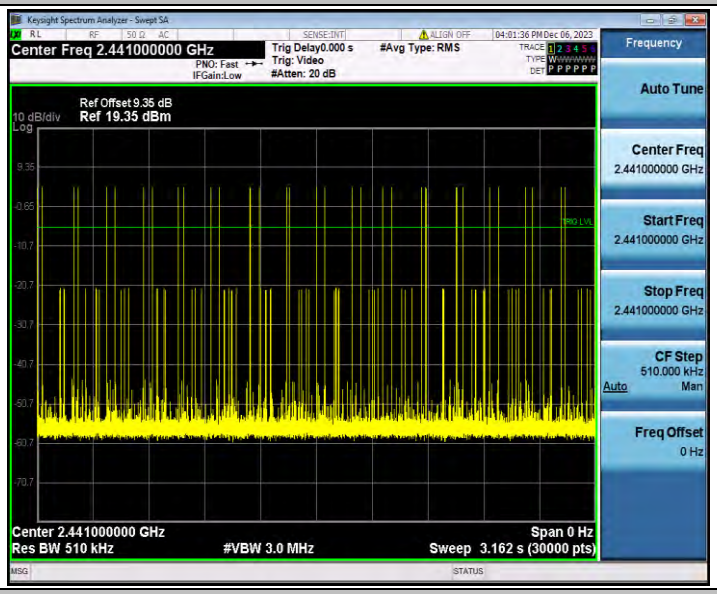
## Test Result

| Test Mode | Antenna | Frequency[MHz] | BurstWidth [ms] | TotalHops [Num] | Result[s] | Limit[s] | Verdict |
|---|---|---|---|---|---|---|---|
| DH1 | Ant1 | Hop | 0.38 | 330 | 0.125 | ≤0.4 | PASS |
| DH3 | Ant1 | Hop | 1.63 | 240 | 0.392 | ≤0.4 | PASS |
| DH5 | Ant1 | Hop | 2.88 | 130 | 0.375 | ≤0.4 | PASS |
| 2DH1 | Ant1 | Hop | 0.38 | 320 | 0.122 | ≤0.4 | PASS |
| 2DH3 | Ant1 | Hop | 1.63 | 170 | 0.277 | ≤0.4 | PASS |
| 2DH5 | Ant1 | Hop | 2.88 | 60 | 0.173 | ≤0.4 | PASS |
| 3DH1 | Ant1 | Hop | 0.37 | 330 | 0.122 | ≤0.4 | PASS |
| 3DH3 | Ant1 | Hop | 1.63 | 170 | 0.277 | ≤0.4 | PASS |
| 3DH5 | Ant1 | Hop | 2.88 | 90 | 0.259 | ≤0.4 | PASS |

## Test Graphs

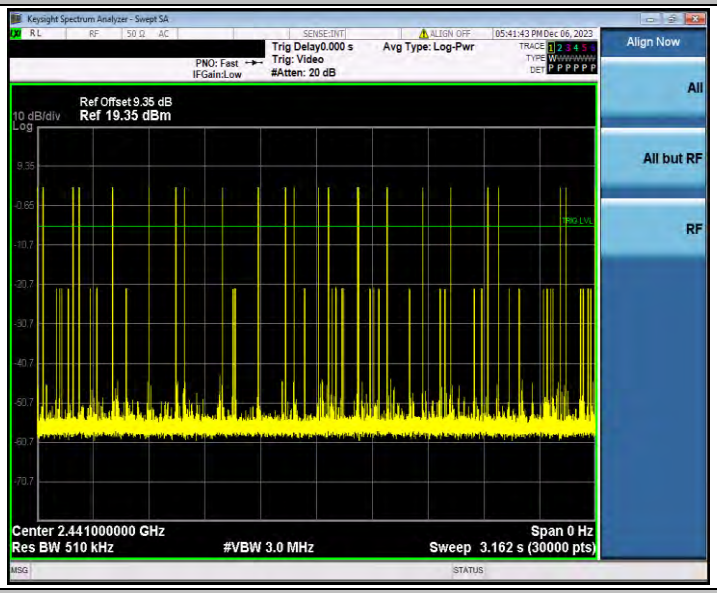



DH1_Ant1_Hop

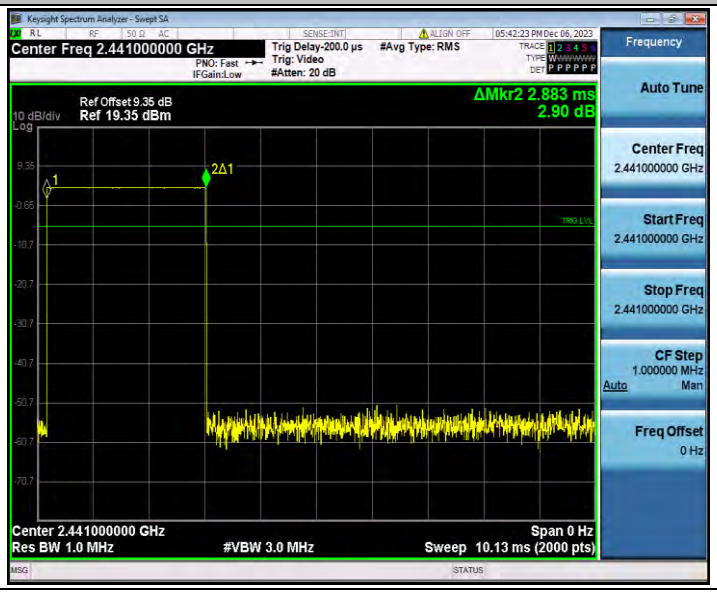



DH1_Ant1_Hop

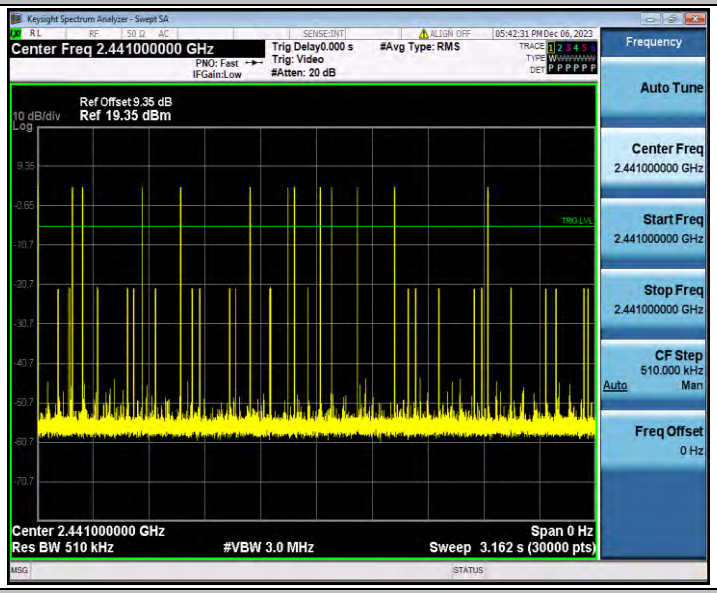
DH3_Ant1_Hop



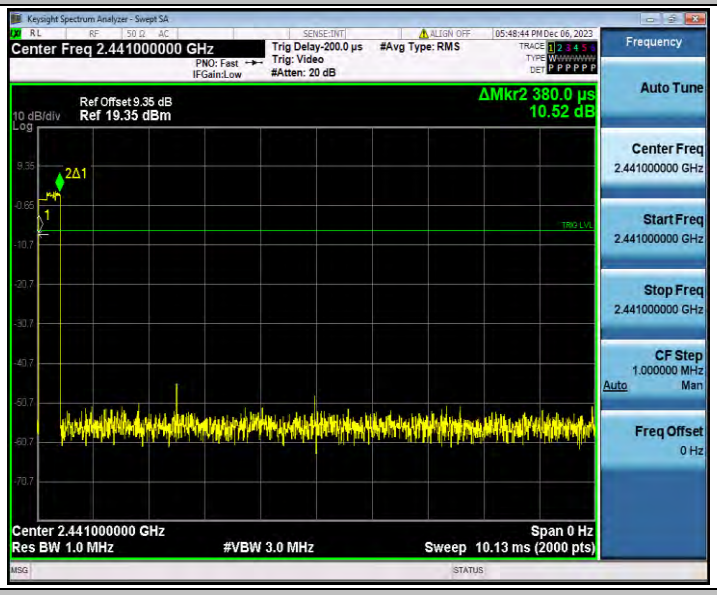

DH3_Ant1_Hop



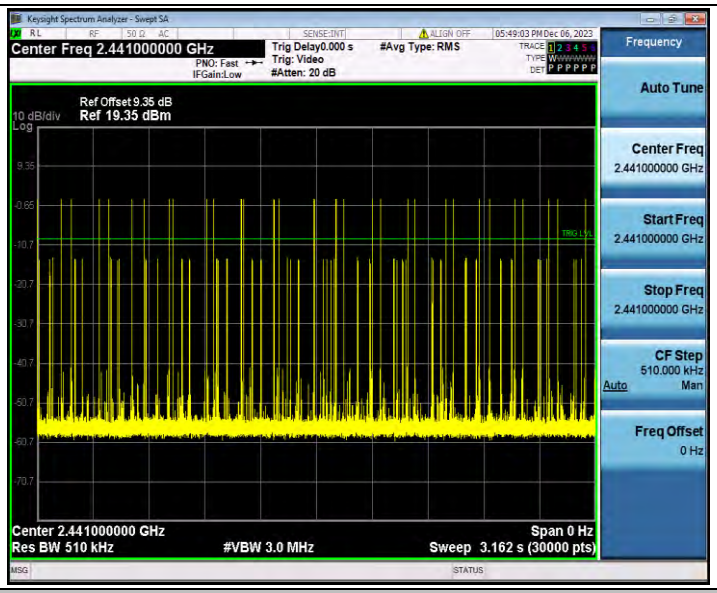
DH5_Ant1_Hop




DH5_Ant1_Hop

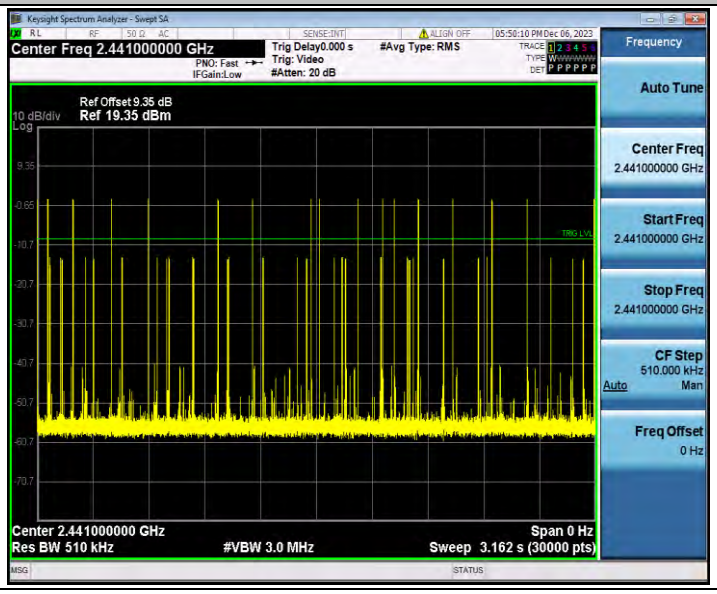



2DH1_Ant1_Hop



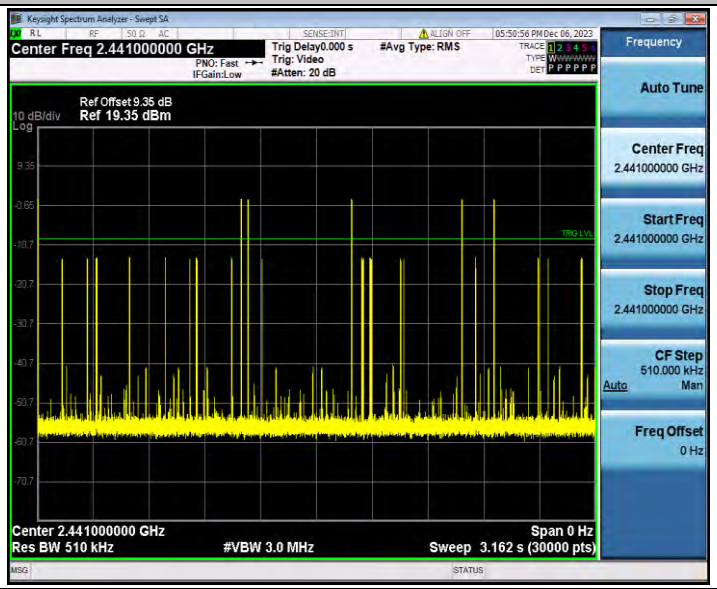

2DH1_Ant1_Hop

2DH3_Ant1_Hop

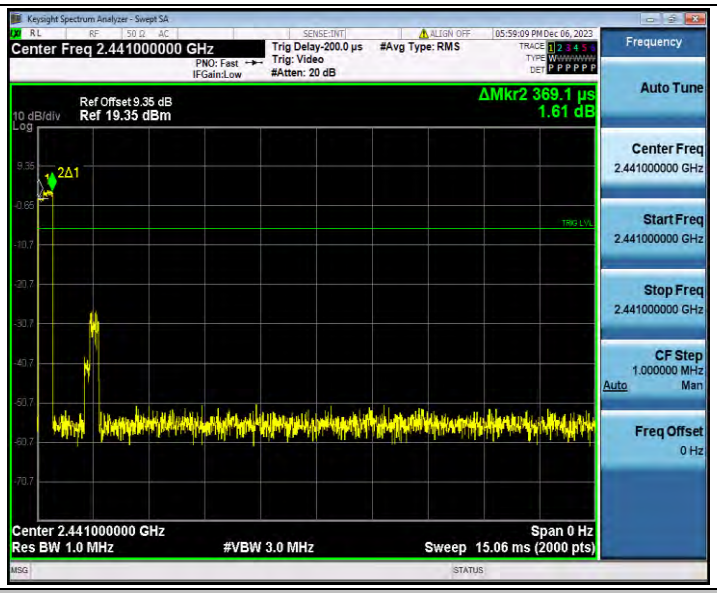


2DH3_Ant1_Hop

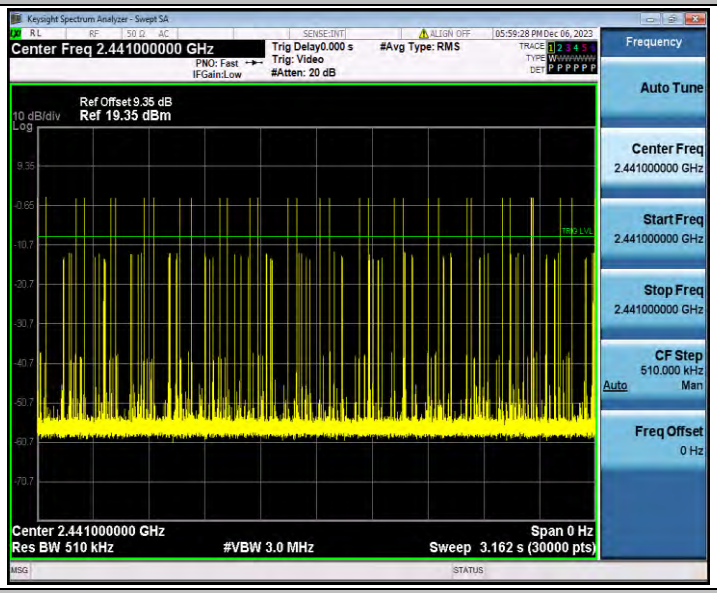
2DH5_Ant1_Hop



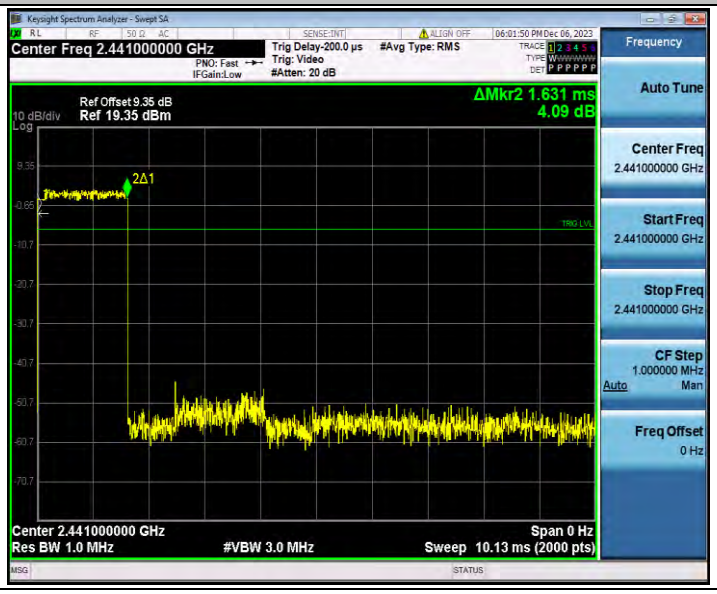

2DH5_Ant1_Hop



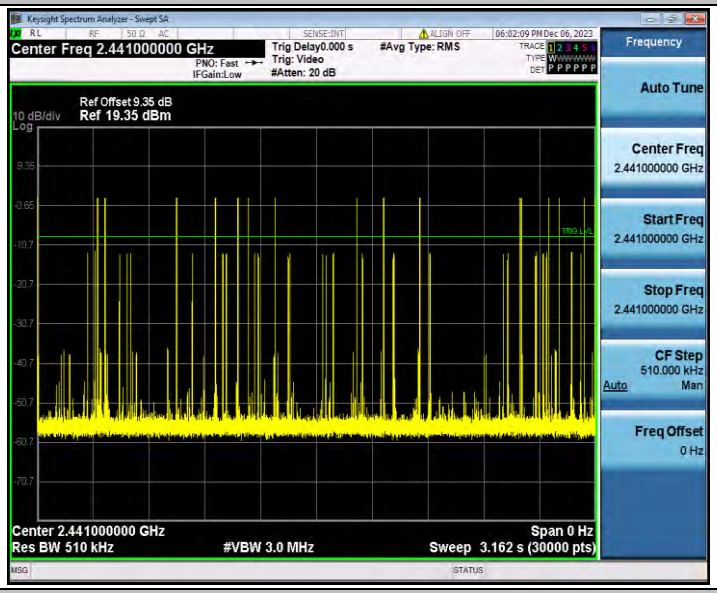

3DH1_Ant1_Hop



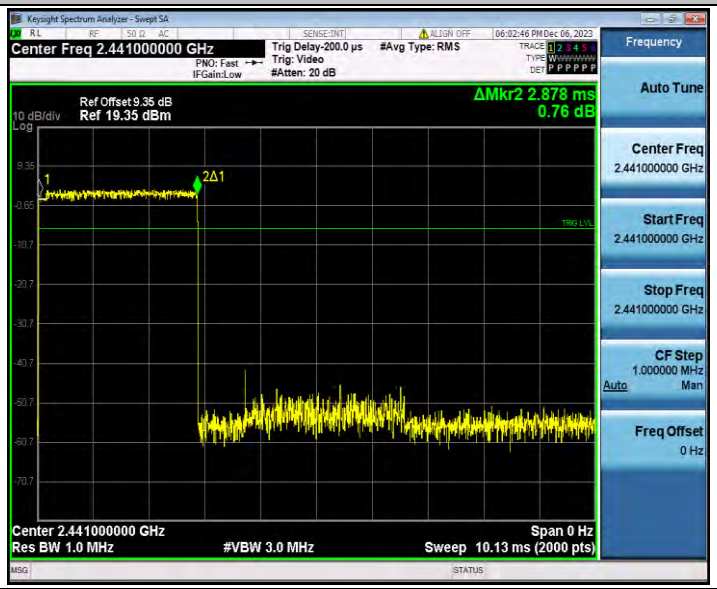

3DH1_Ant1_Hop



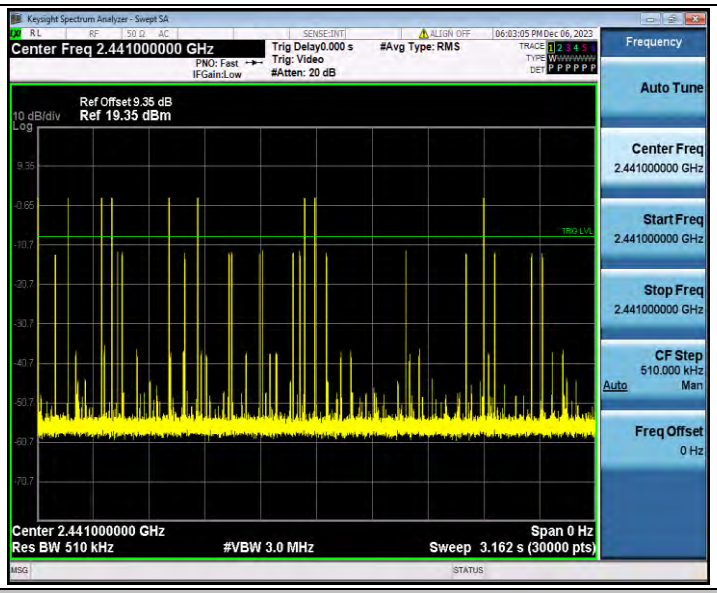
3DH3_Ant1_Hop




3DH3_Ant1_Hop




3DH5_Ant1_Hop



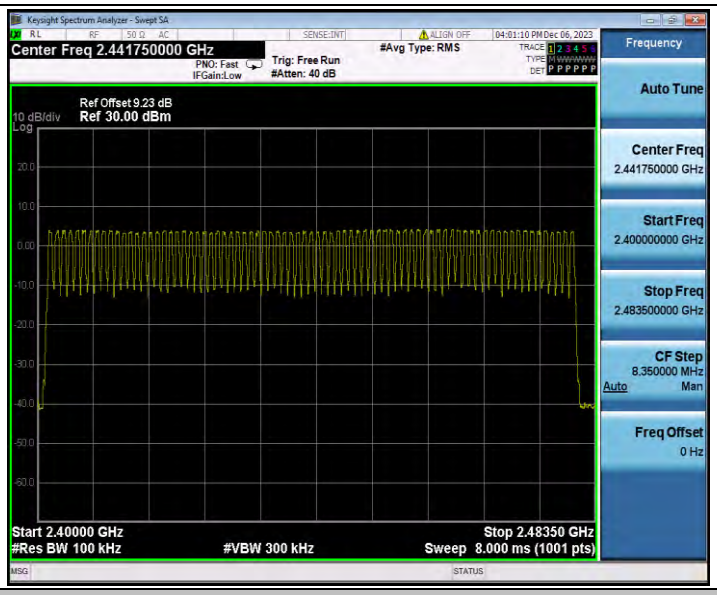

3DH5_Ant1_Hop

# Appendix A.6: Number of hopping channels

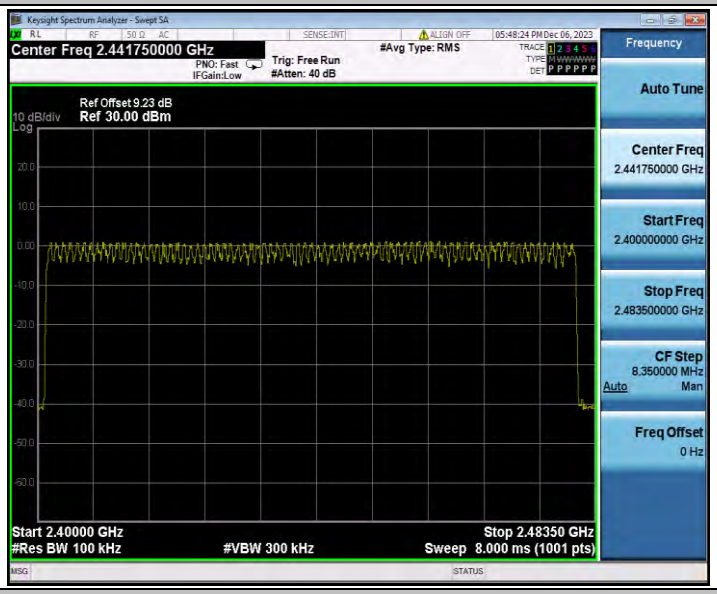
## Test Result

| Test Mode | Antenna | Frequency[MHz] | Result[Num] | Limit[Num] | Verdict |
|---|---|---|---|---|---|
| DH1 | Ant1 | Hop | 79 | ≥15 | PASS |
| 2DH1 | Ant1 | Hop | 79 | ≥15 | PASS |
| 3DH1 | Ant1 | Hop | 79 | ≥15 | PASS |

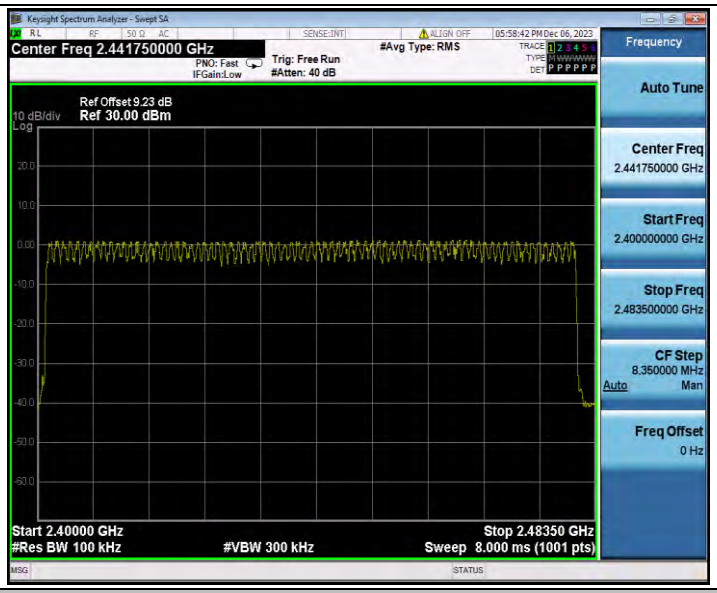
## Test Graphs




DH1_Ant1_Hop




2DH1_Ant1_Hop



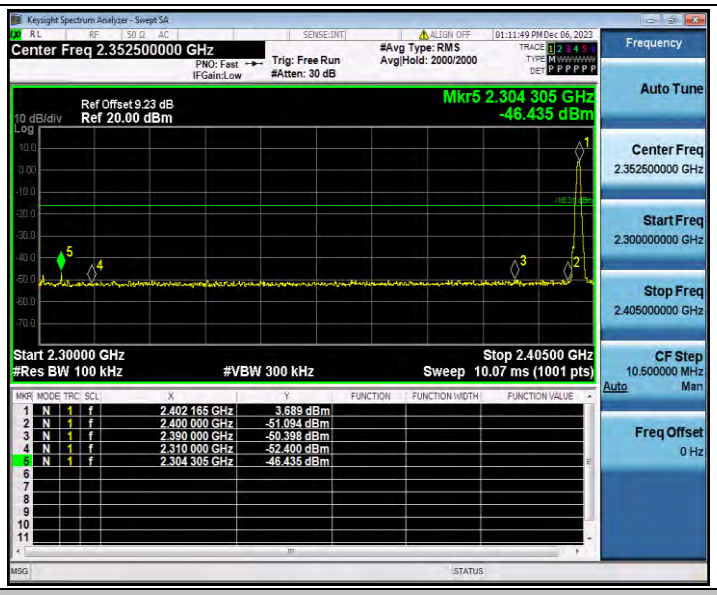

3DH1_Ant1_Hop

# Appendix A.7: Band edge measurements

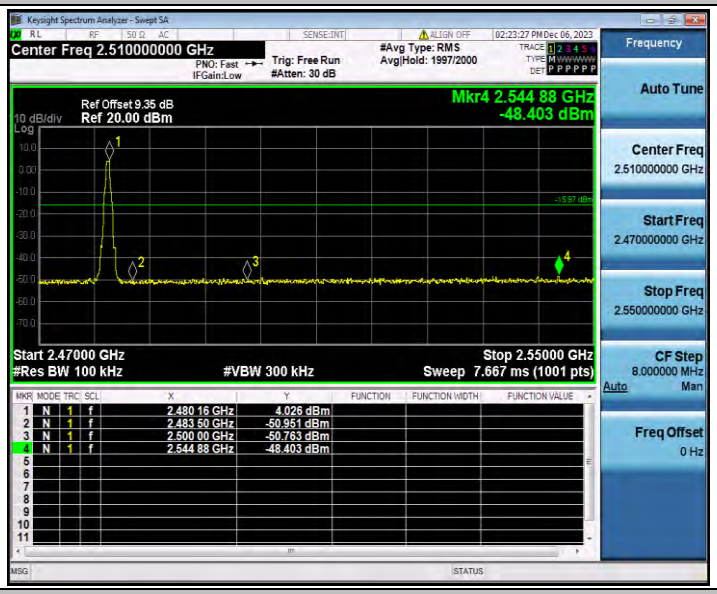
## Test Result

| Test Mode | Antenna | ChName | Frequency[MHz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|---|---|---|---|---|---|---|---|
| DH1 | Ant1 | Low | 2402 | 3.69 | -46.44 | ≤-16.31 | PASS |
| | | High | 2480 | 4.03 | -48.4 | ≤-15.97 | PASS |
| | | Low | Hop_2402 | 3.57 | -46.02 | ≤-16.43 | PASS |
| | | High | Hop_2480 | 3.83 | -48.58 | ≤-16.17 | PASS |
| 2DH1 | Ant1 | Low | 2402 | 0.87 | -48.39 | ≤-19.13 | PASS |
| | | High | 2480 | 0.81 | -48.27 | ≤-19.2 | PASS |
| | | Low | Hop_2402 | 0.84 | -49.5 | ≤-19.16 | PASS |
| | | High | Hop_2480 | 0.95 | -48.36 | ≤-19.05 | PASS |
| 3DH1 | Ant1 | Low | 2402 | 1.00 | -46.8 | ≤-19 | PASS |
| | | High | 2480 | 0.94 | -48.26 | ≤-19.06 | PASS |
| | | Low | Hop_2402 | 0.71 | -49.43 | ≤-19.29 | PASS |
| | | High | Hop_2480 | 0.99 | -48.43 | ≤-19.01 | PASS |

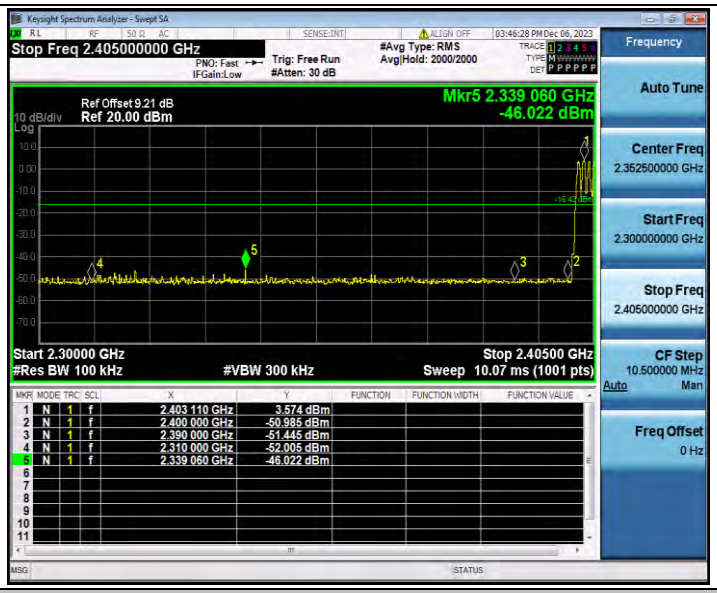
## Test Graphs



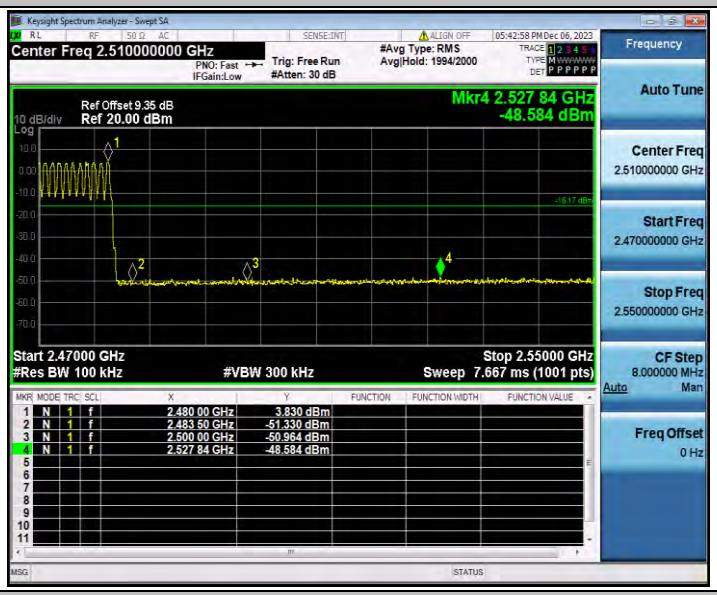

DH1_Ant1_Low_2402



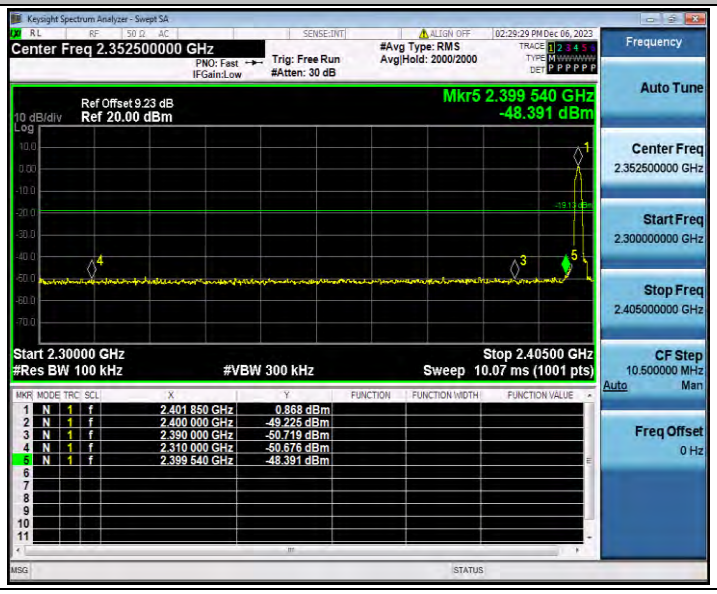

DH1_Ant1_High_2480



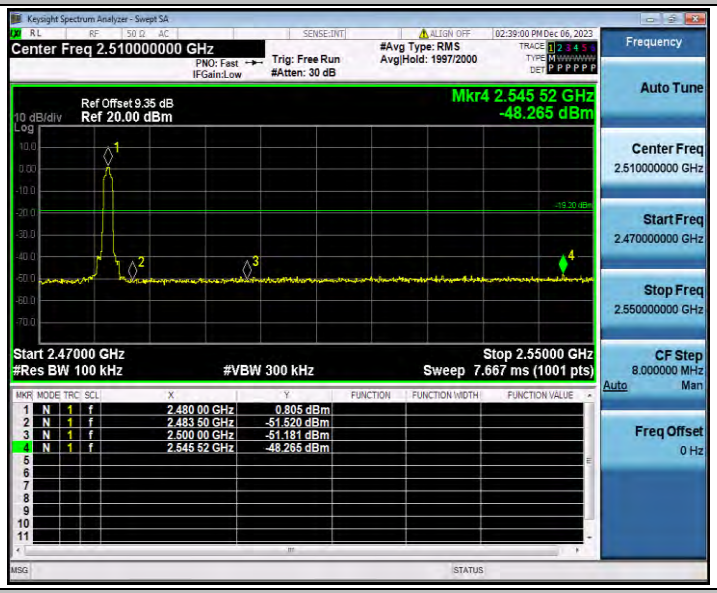

DH1_Ant1_Low_Hop_2402



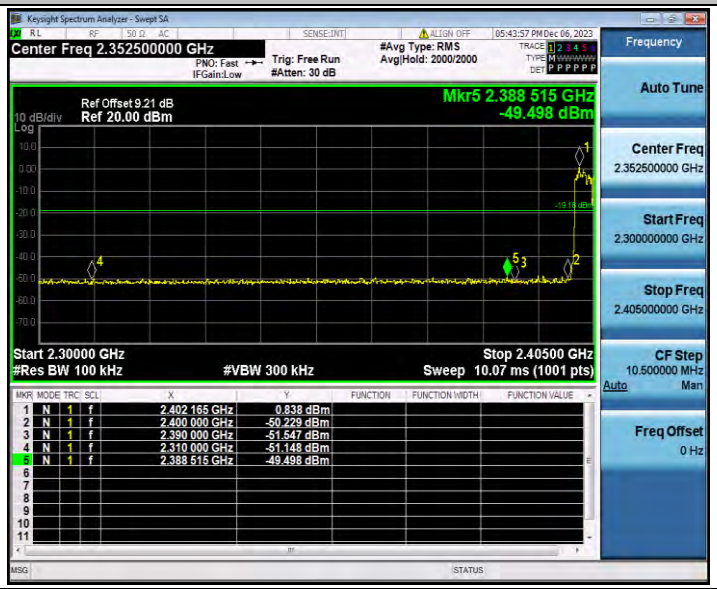

DH1_Ant1_High_Hop_2480



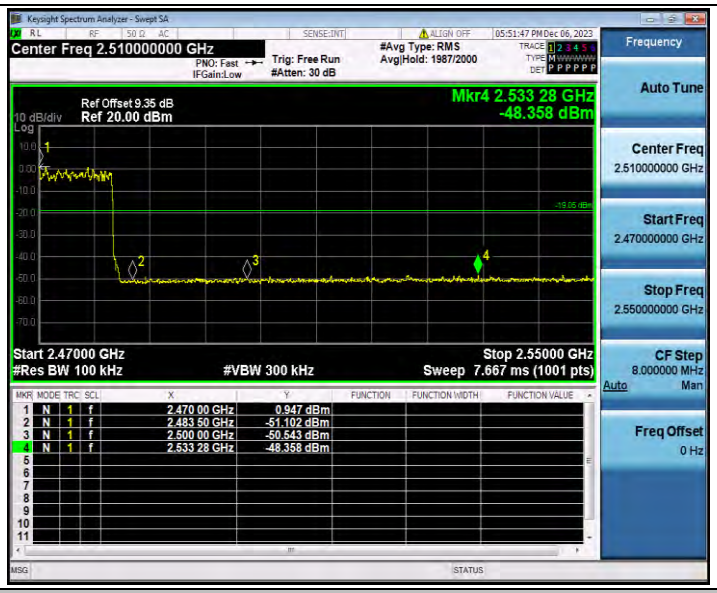
2DH1_Ant1_Low_2402



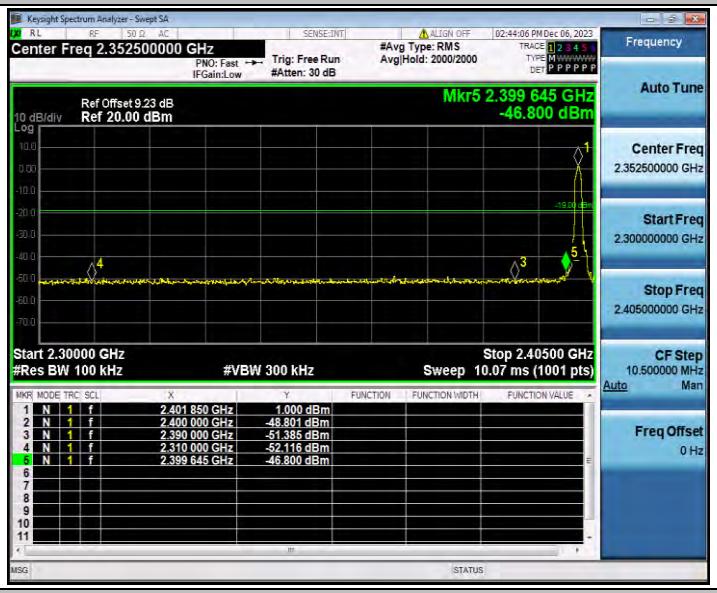

2DH1_Ant1_High_2480



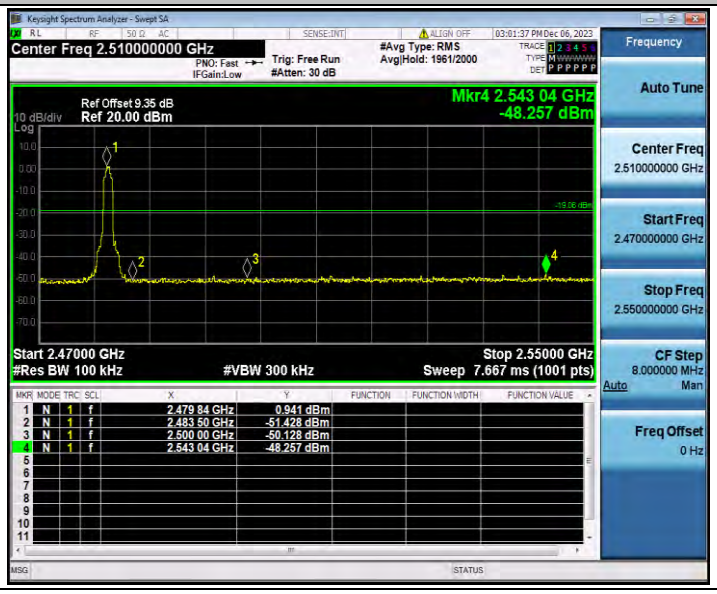

2DH1_Ant1_Low_Hop_2402



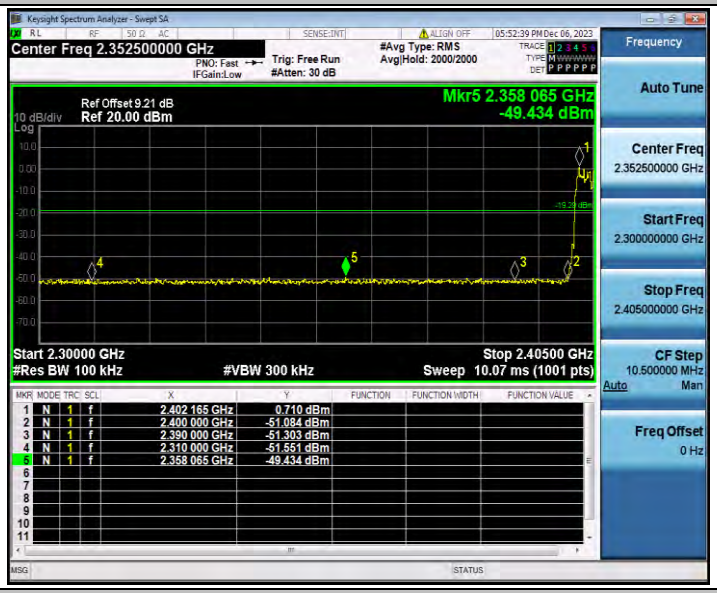

2DH1_Ant1_High_Hop_2480



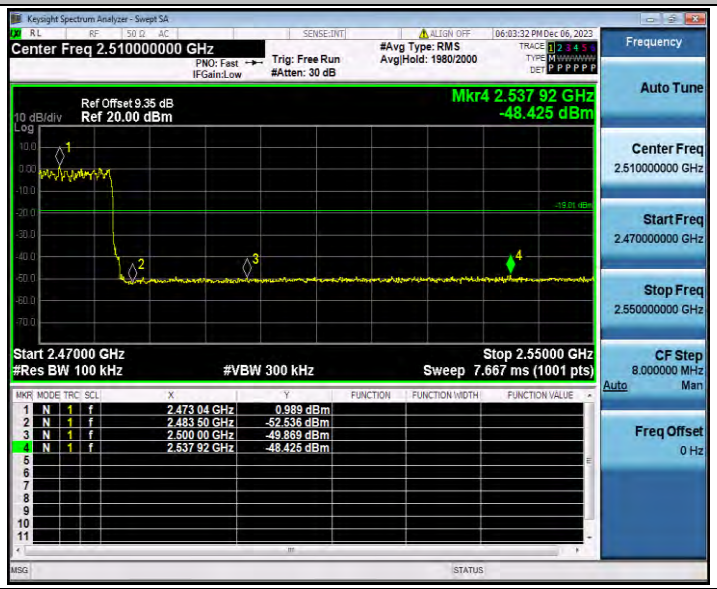

3DH1_Ant1_Low_2402



3DH1_Ant1_High_2480




3DH1_Ant1_Low_Hop_2402



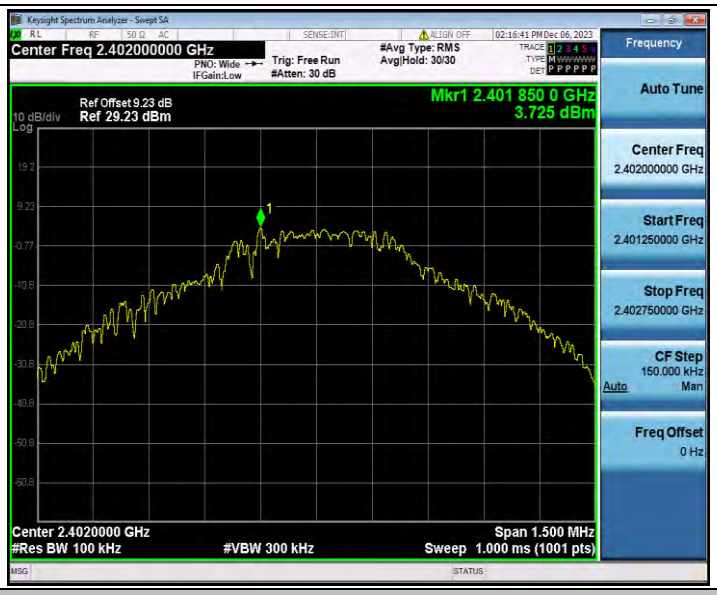

3DH1_Ant1_High_Hop_2480

# Appendix A.8: Conducted Spurious Emission

## Test Result

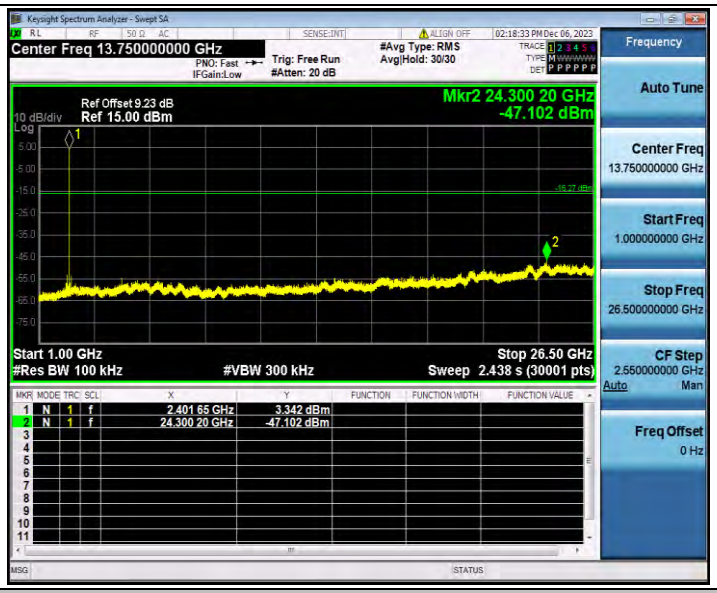
| Test Mode | Antenna | Frequency[MHz] | FreqRange [MHz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|---|---|---|---|---|---|---|---|
| DH1 | Ant1 | 2402 | Reference | 3.73 | 3.73 | --- | PASS |
| | | | 30~1000 | 3.73 | -59.98 | ≤-16.27 | PASS |
| | | | 1000~26500 | 3.73 | -47.1 | ≤-16.27 | PASS |
| | | 2441 | Reference | 3.62 | 3.62 | --- | PASS |
| | | | 30~1000 | 3.62 | -53.06 | ≤-16.38 | PASS |
| | | | 1000~26500 | 3.62 | -47.11 | ≤-16.38 | PASS |
| | | 2480 | Reference | 3.73 | 3.73 | --- | PASS |
| | | | 30~1000 | 3.73 | -60.24 | ≤-16.27 | PASS |
| | | | 1000~26500 | 3.73 | -47.35 | ≤-16.27 | PASS |
| 2DH1 | Ant1 | 2402 | Reference | 0.64 | 0.64 | --- | PASS |
| | | | 30~1000 | 0.64 | -60.14 | ≤-19.36 | PASS |
| | | | 1000~26500 | 0.64 | -47.73 | ≤-19.36 | PASS |
| | | 2441 | Reference | 0.59 | 0.59 | --- | PASS |
| | | | 30~1000 | 0.59 | -59.69 | ≤-19.41 | PASS |
| | | | 1000~26500 | 0.59 | -46.73 | ≤-19.41 | PASS |
| | | 2480 | Reference | 0.47 | 0.47 | --- | PASS |
| | | | 30~1000 | 0.47 | -59.57 | ≤-19.53 | PASS |
| | | | 1000~26500 | 0.47 | -47.58 | ≤-19.53 | PASS |
| 3DH1 | Ant1 | 2402 | Reference | 0.76 | 0.76 | --- | PASS |
| | | | 30~1000 | 0.76 | -60.16 | ≤-19.24 | PASS |
| | | | 1000~26500 | 0.76 | -47.57 | ≤-19.24 | PASS |
| | | 2441 | Reference | 0.54 | 0.54 | --- | PASS |
| | | | 30~1000 | 0.54 | -60.65 | ≤-19.46 | PASS |
| | | | 1000~26500 | 0.54 | -47.89 | ≤-19.46 | PASS |
| | | 2480 | Reference | 0.70 | 0.70 | --- | PASS |
| | | | 30~1000 | 0.70 | -60.07 | ≤-19.3 | PASS |
| | | | 1000~26500 | 0.70 | -47.03 | ≤-19.3 | PASS |

## Test Graphs




DH1_Ant1_2402_0~Reference

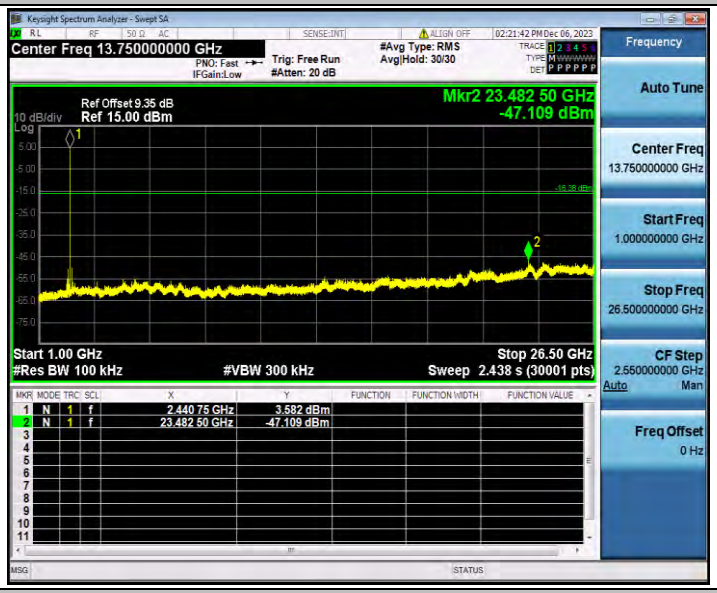
DH1_Ant1_2402_30~1000




DH1_Ant1_2402_1000~26500

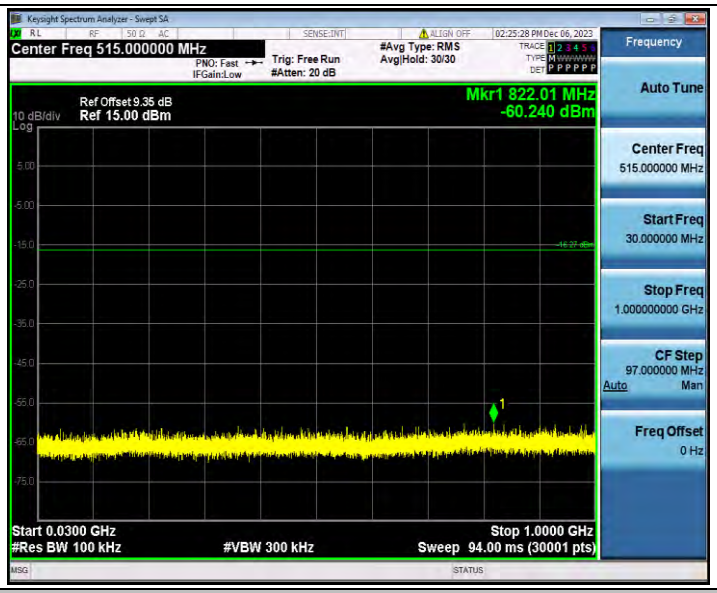
DH1_Ant1_2441_0~Reference

DH1_Ant1_2441_30~1000




DH1_Ant1_2441_1000~26500

DH1_Ant1_2480_0~Reference

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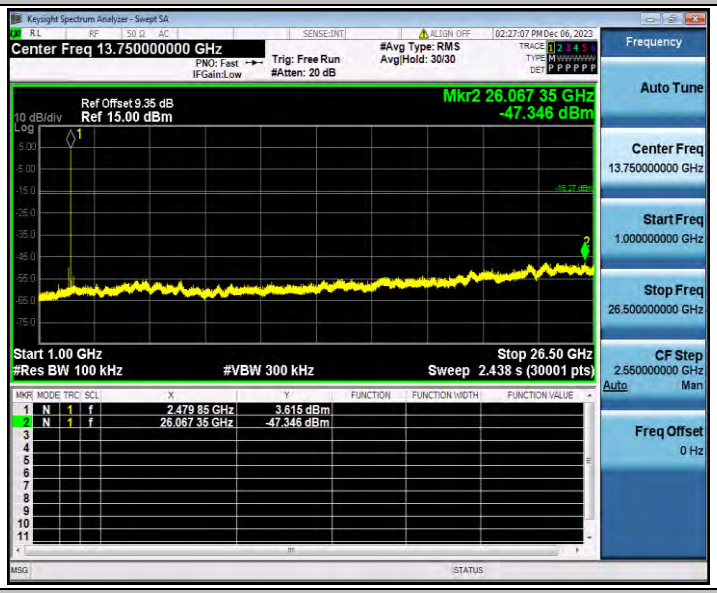
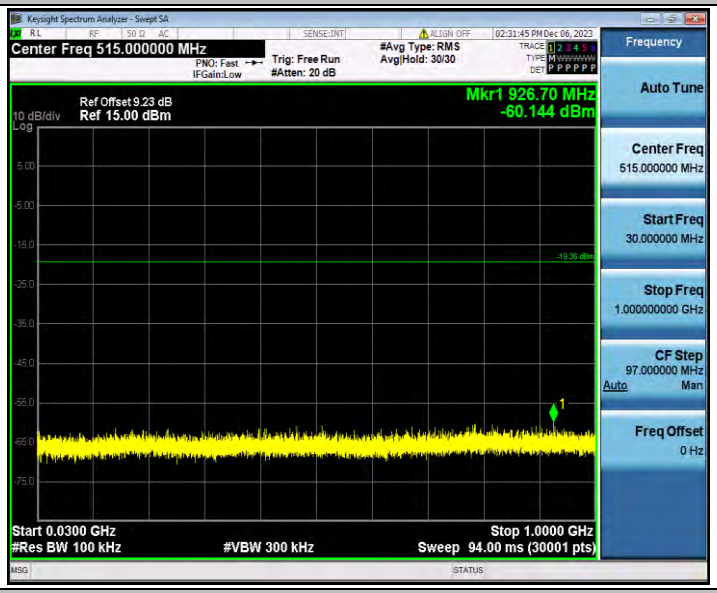



DH1_Ant1_2480_1000~26500

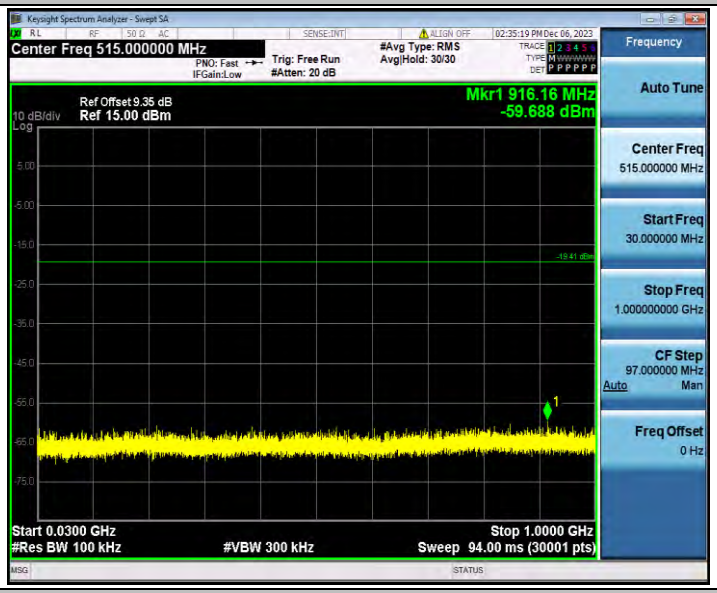
2DH1_Ant1_2402_0~Reference



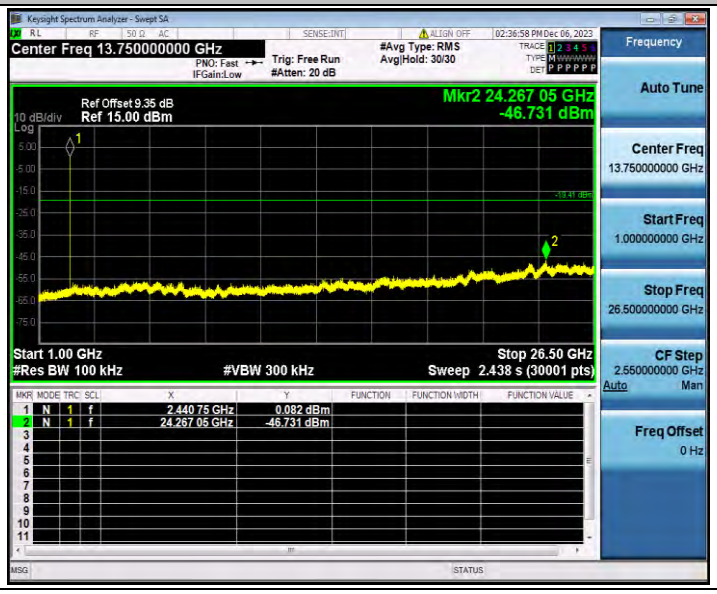

2DH1_Ant1_2402_30~1000

2DH1_Ant1_2402_1000~26500

2DH1_Ant1_2441_0~Reference

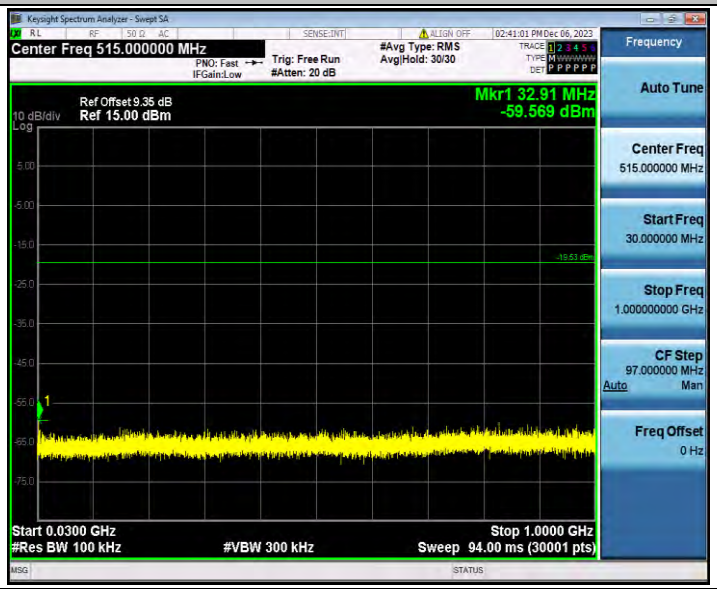



2DH1_Ant1_2441_30~1000



2DH1_Ant1_2441_1000~26500

2DH1_Ant1_2480_0~Reference

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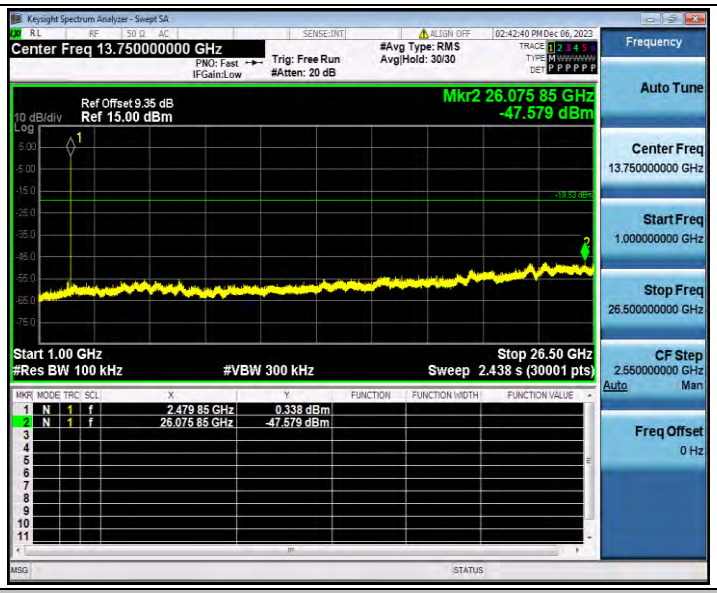
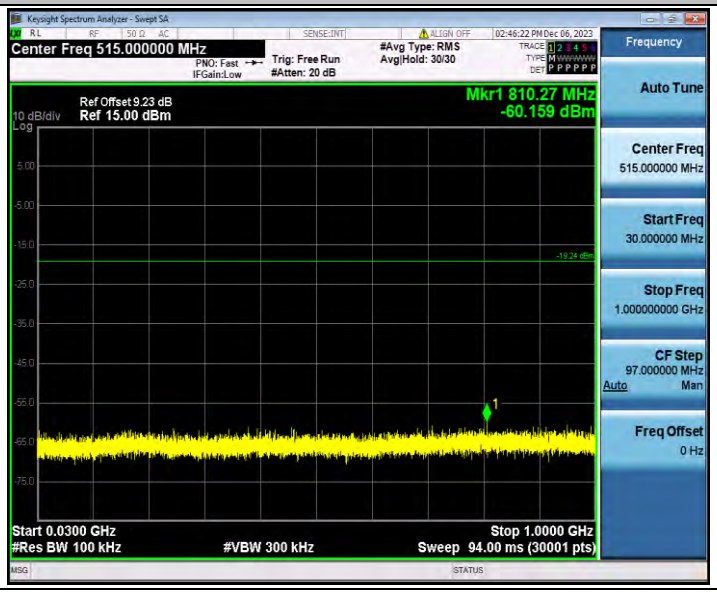
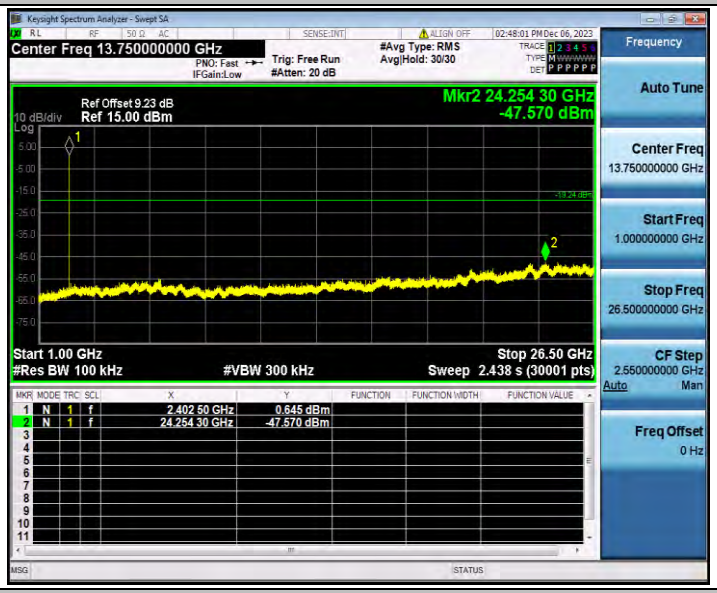



2DH1_Ant1_2480_1000~26500

3DH1_Ant1_2402_0~Reference

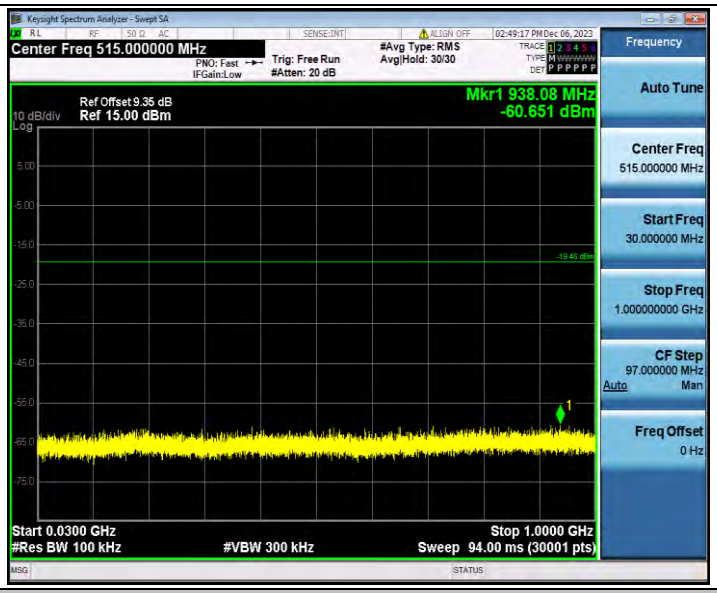


3DH1_Ant1_2402_30~1000

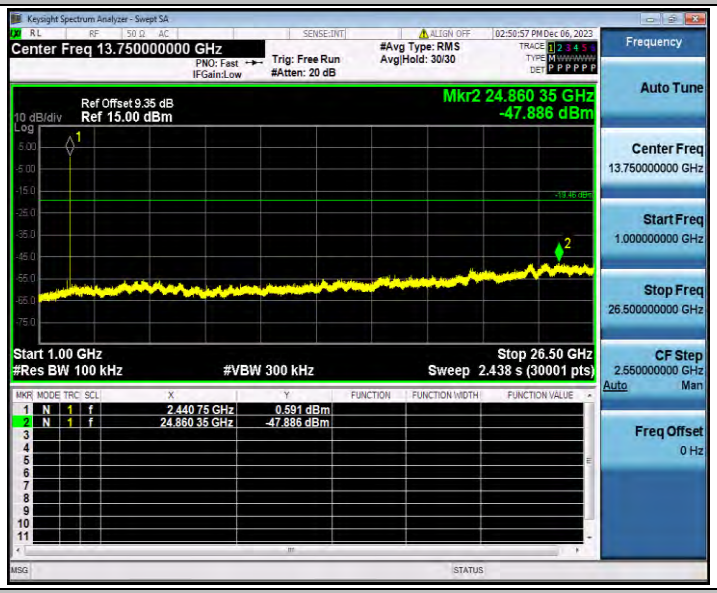



3DH1_Ant1_2402_1000~26500

3DH1_Ant1_2441_0~Reference

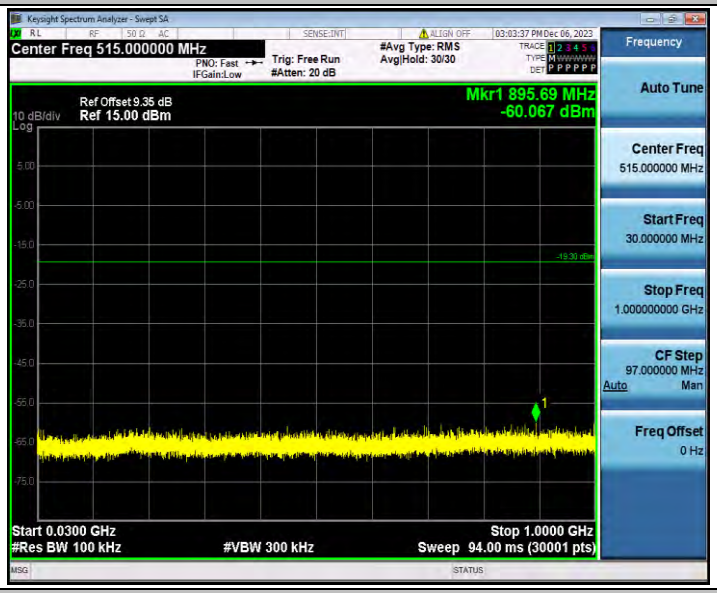



3DH1_Ant1_2441_30~1000




3DH1_Ant1_2441_1000~26500

3DH1_Ant1_2480_0~Reference




3DH1_Ant1_2480_30~1000

3DH1_Ant1_2480_1000~26500