

|                                   |                           |
|-----------------------------------|---------------------------|
| Case No. : GTS20221008012-1-2     |                           |
| Ambient Condition: 26 °C, 50 %RH, |                           |
| Test Date: 2022.10.28             | Test Engineer: Jenny zeng |

## Appendix A.1: 20dB Emission Bandwidth

### Test Result

| TestMode | Antenna | Frequency[MHz] | 20db<br>EBW[MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|----------------|------------------|----------|----------|------------|---------|
| DH1      | Ant1    | 2402           | 1.035            | 2401.496 | 2402.531 | ---        | ---     |
|          |         | 2441           | 1.035            | 2440.496 | 2441.531 | ---        | ---     |
|          |         | 2480           | 1.035            | 2479.496 | 2480.531 | ---        | ---     |
| 2DH1     | Ant1    | 2402           | 1.035            | 2401.496 | 2402.531 | ---        | ---     |
|          |         | 2441           | 1.347            | 2440.331 | 2441.678 | ---        | ---     |
|          |         | 2480           | 1.353            | 2479.325 | 2480.678 | ---        | ---     |
| 3DH1     | Ant1    | 2402           | 1.293            | 2401.349 | 2402.642 | ---        | ---     |
|          |         | 2441           | 1.293            | 2440.349 | 2441.642 | ---        | ---     |
|          |         | 2480           | 1.293            | 2479.349 | 2480.642 | ---        | ---     |

## Test Graphs

DH1\_Ant1\_2402



DH1\_Ant1\_2441



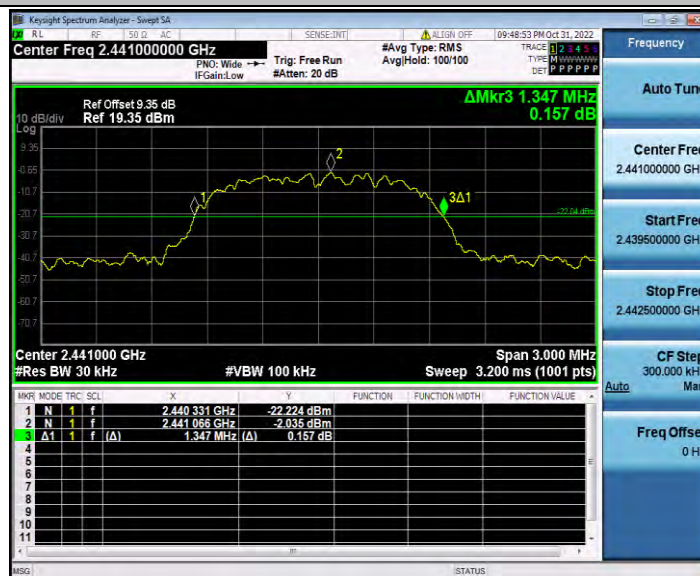
DH1\_Ant1\_2480



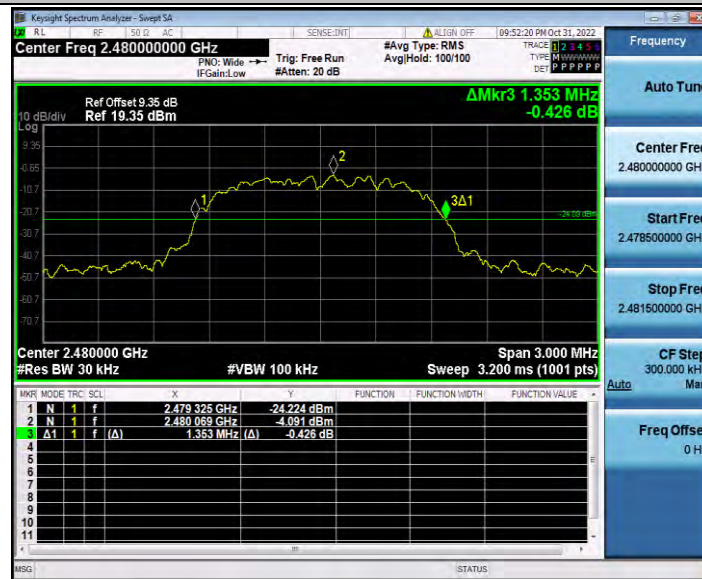
2DH1\_Ant1\_2402



2DH1\_Ant1\_2441



## 2DH1\_Ant1\_2480



## 3DH1\_Ant1\_2402



## 3DH1\_Ant1\_2441



3DH1\_Ant1\_2480



## Appendix A.2: Occupied Channel Bandwidth

### Test Result

| TestMode | Antenna | Frequency[MHz] | OCB [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|----------------|-----------|----------|----------|------------|---------|
| DH1      | Ant1    | 2402           | 0.90989   | 2401.542 | 2402.452 | ---        | ---     |
|          |         | 2441           | 0.91301   | 2440.537 | 2441.450 | ---        | ---     |
|          |         | 2480           | 0.90979   | 2479.539 | 2480.449 | ---        | ---     |
| 2DH1     | Ant1    | 2402           | 0.90817   | 2401.543 | 2402.451 | ---        | ---     |
|          |         | 2441           | 1.1854    | 2440.409 | 2441.595 | ---        | ---     |
|          |         | 2480           | 1.1837    | 2479.409 | 2480.593 | ---        | ---     |
| 3DH1     | Ant1    | 2402           | 1.1675    | 2401.422 | 2402.589 | ---        | ---     |
|          |         | 2441           | 1.1687    | 2440.421 | 2441.590 | ---        | ---     |
|          |         | 2480           | 1.1650    | 2479.423 | 2480.588 | ---        | ---     |

## Test Graphs

DH1\_Ant1\_2402



DH1\_Ant1\_2441



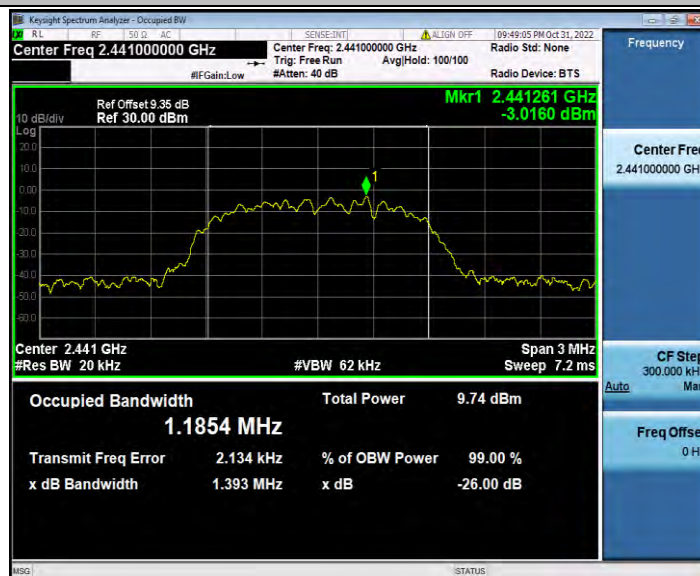
DH1\_Ant1\_2480



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 Power[dBm] | Conducted Limit[dBm] | Verdict |
|-----------|---------|----------------|---------------------------|----------------------|---------|
| DH1       | Ant1    | 2402           | 7.23                      | ≤20.97               | PASS    |
|           |         | 2441           | 7.24                      | ≤20.97               | PASS    |
|           |         | 2480           | 5.68                      | ≤20.97               | PASS    |
| 2DH1      | Ant1    | 2402           | 7.31                      | ≤20.97               | PASS    |
|           |         | 2441           | 7.2                       | ≤20.97               | PASS    |
|           |         | 2480           | 5.65                      | ≤20.97               | PASS    |
| 3DH1      | Ant1    | 2402           | 7.46                      | ≤20.97               | PASS    |
|           |         | 2441           | 7.48                      | ≤20.97               | PASS    |
|           |         | 2480           | 5.96                      | ≤20.97               | PASS    |

## Appendix A.4: Carrier frequency separation

### Test Result

| TestMode | Antenna | Frequency[MHz] | Result[MHz] | Limit[MHz]   | Verdict |
|----------|---------|----------------|-------------|--------------|---------|
| DH1      | Ant1    | Hop_2402       | 0.996       | $\geq 0.690$ | PASS    |
|          |         | Hop_2441       | 0.998       | $\geq 0.690$ | PASS    |
|          |         | Hop_2480       | 1.170       | $\geq 0.690$ | PASS    |
| 2DH1     | Ant1    | Hop_2402       | 1.000       | $\geq 0.902$ | PASS    |
|          |         | Hop_2441       | 1.000       | $\geq 0.902$ | PASS    |
|          |         | Hop_2480       | 1.328       | $\geq 0.902$ | PASS    |
| 3DH1     | Ant1    | Hop_2402       | 1.006       | $\geq 0.862$ | PASS    |
|          |         | Hop_2441       | 0.986       | $\geq 0.862$ | PASS    |
|          |         | Hop_2480       | 0.996       | $\geq 0.862$ | 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



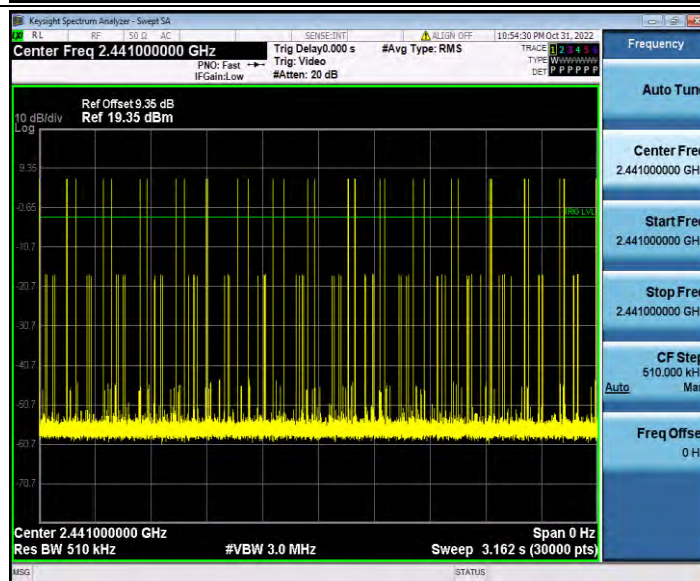
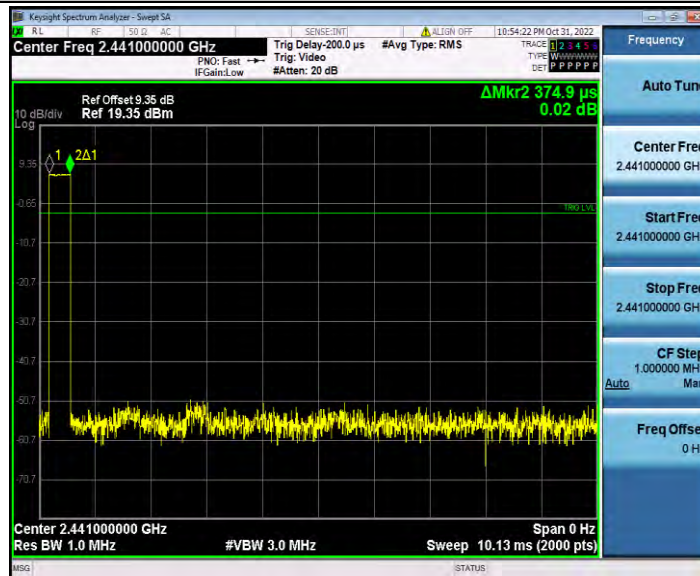
## Appendix A.5: Time of occupancy

### Test Result

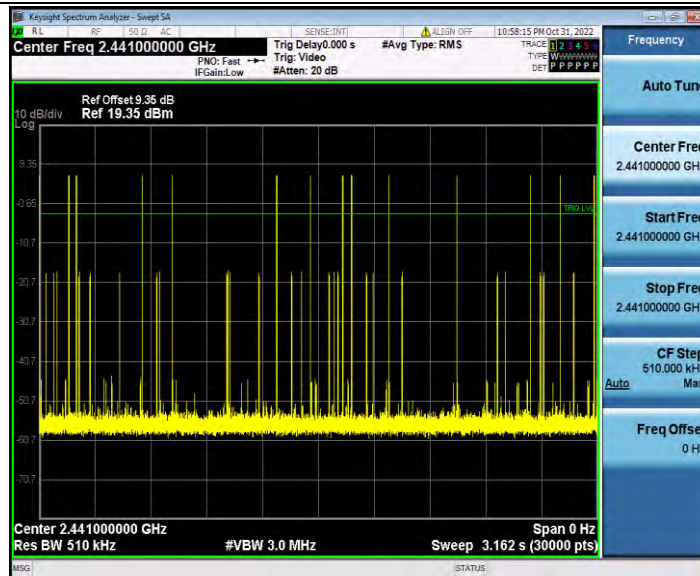
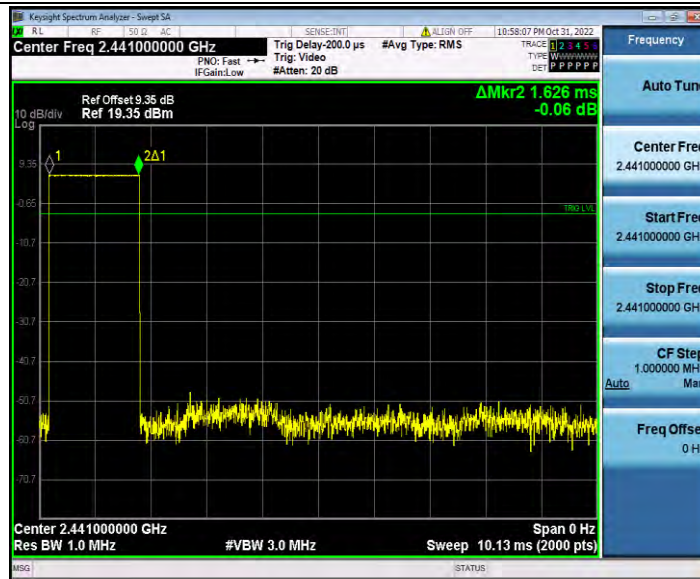
| TestMode | Antenna | Frequency[MHz] | BurstWidth<br>[ms] | TotalHops<br>[Num] | Result[s] | Limit[s] | Verdict |
|----------|---------|----------------|--------------------|--------------------|-----------|----------|---------|
| DH1      | Ant1    | Hop            | 0.37               | 320                | 0.12      | ≤0.4     | PASS    |
| DH3      | Ant1    | Hop            | 1.63               | 140                | 0.228     | ≤0.4     | PASS    |
| DH5      | Ant1    | Hop            | 2.88               | 100                | 0.288     | ≤0.4     | PASS    |
| 2DH1     | Ant1    | Hop            | 0.38               | 320                | 0.122     | ≤0.4     | PASS    |
| 2DH3     | Ant1    | Hop            | 1.64               | 180                | 0.295     | ≤0.4     | PASS    |
| 2DH5     | Ant1    | Hop            | 2.88               | 120                | 0.346     | ≤0.4     | PASS    |
| 3DH1     | Ant1    | Hop            | 0.39               | 330                | 0.127     | ≤0.4     | PASS    |
| 3DH3     | Ant1    | Hop            | 1.64               | 160                | 0.262     | ≤0.4     | PASS    |
| 3DH5     | Ant1    | Hop            | 2.89               | 120                | 0.347     | ≤0.4     | PASS    |

## Test Graphs

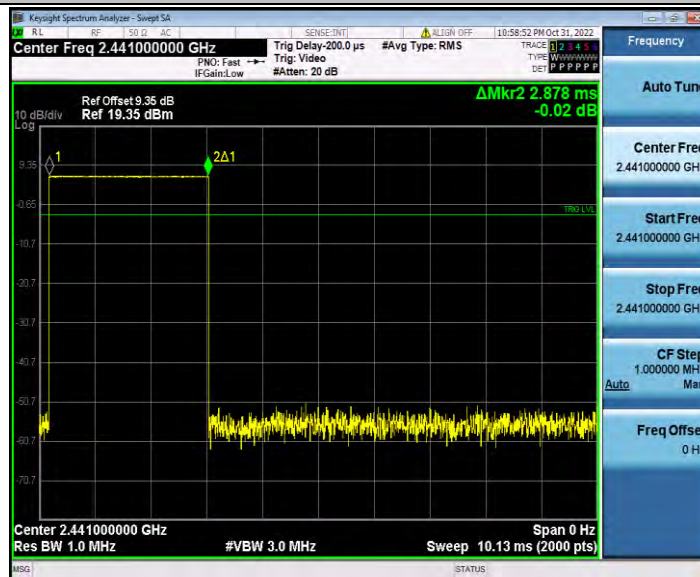
DH1\_Ant1\_Hop

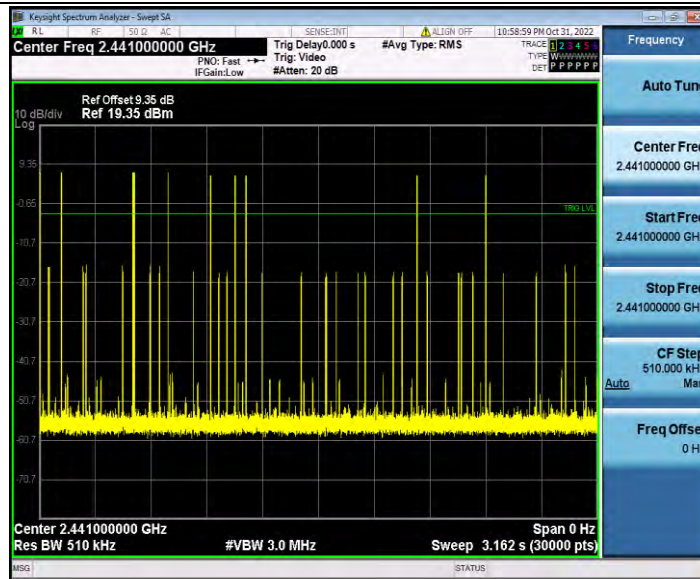


DH3\_Ant1\_Hop

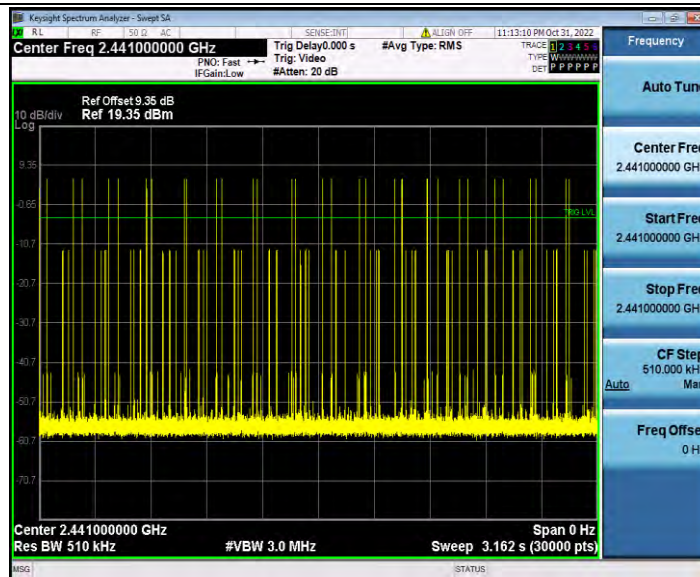
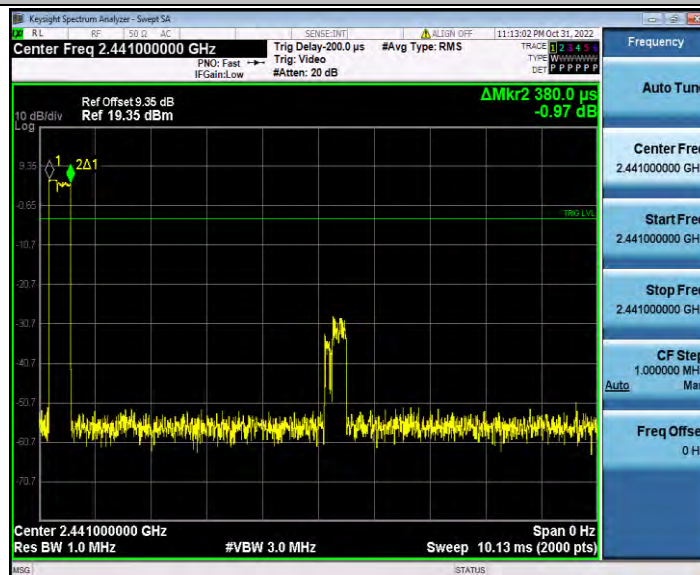


DH5\_Ant1\_Hop

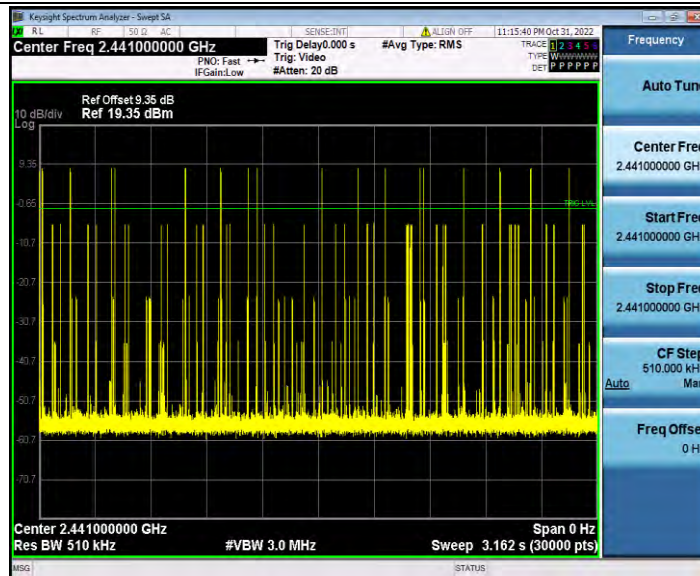
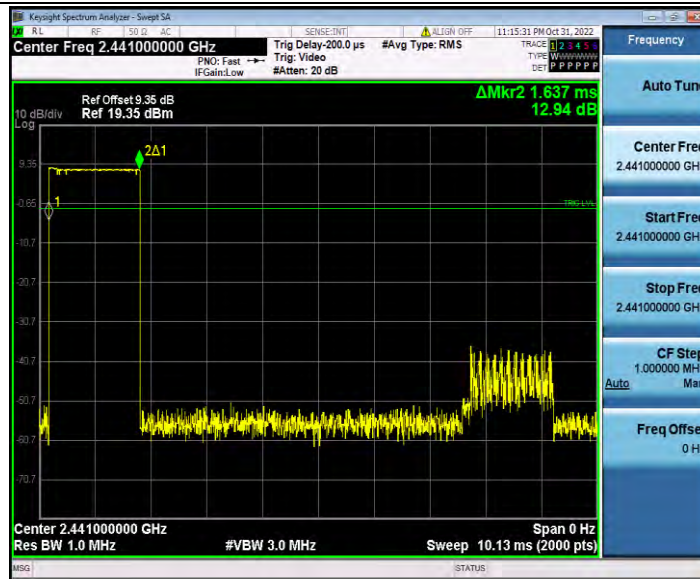




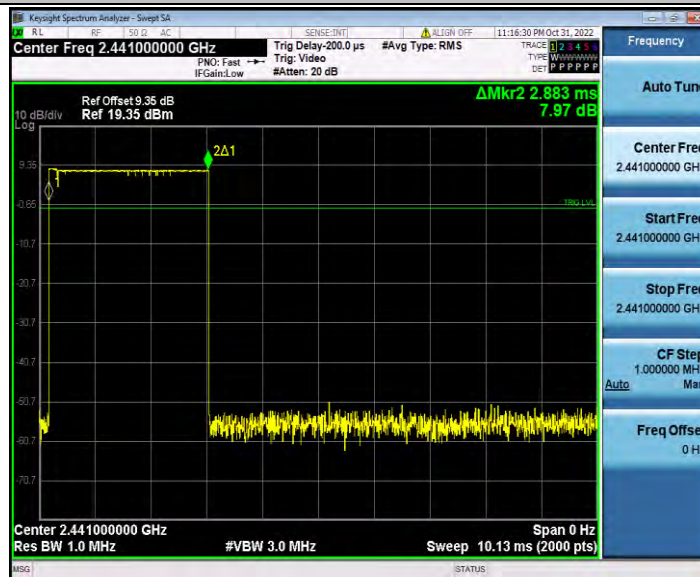
2DH1\_Ant1\_Hop

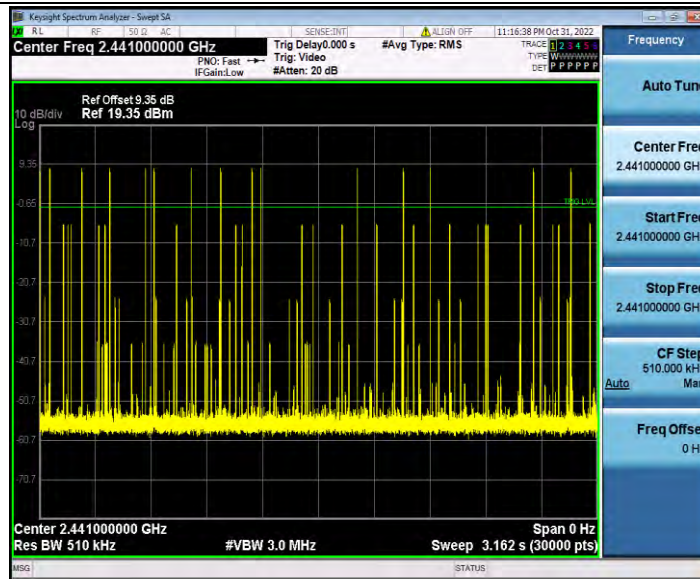


2DH3\_Ant1\_Hop

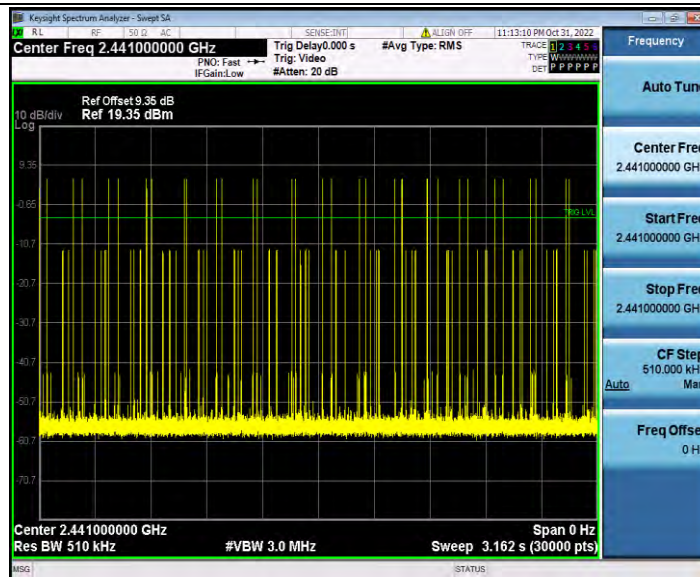
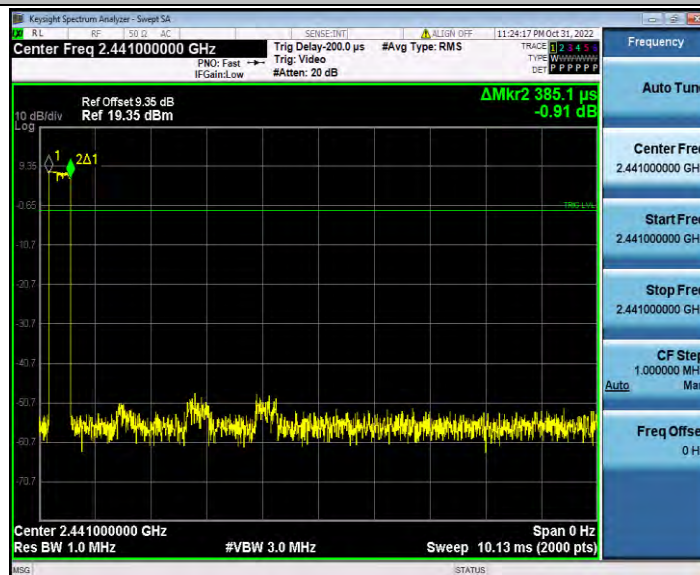


2DH5\_Ant1\_Hop

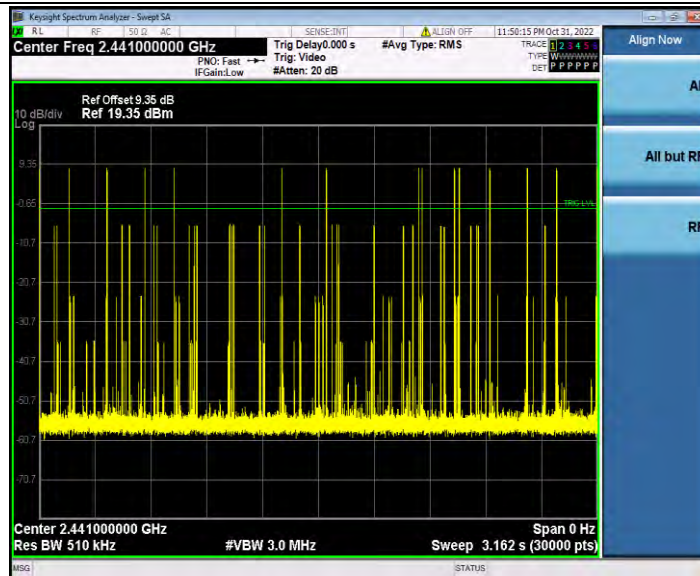
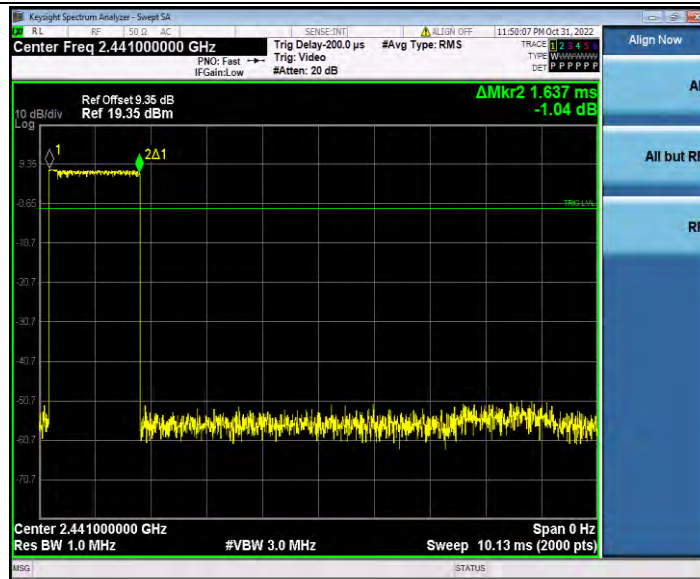




3DH1\_Ant1\_Hop

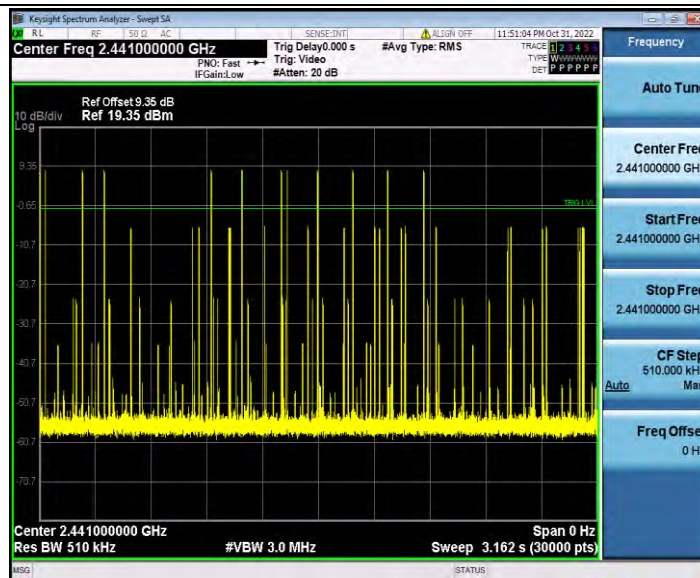


3DH3\_Ant1\_Hop



3DH5\_Ant1\_Hop





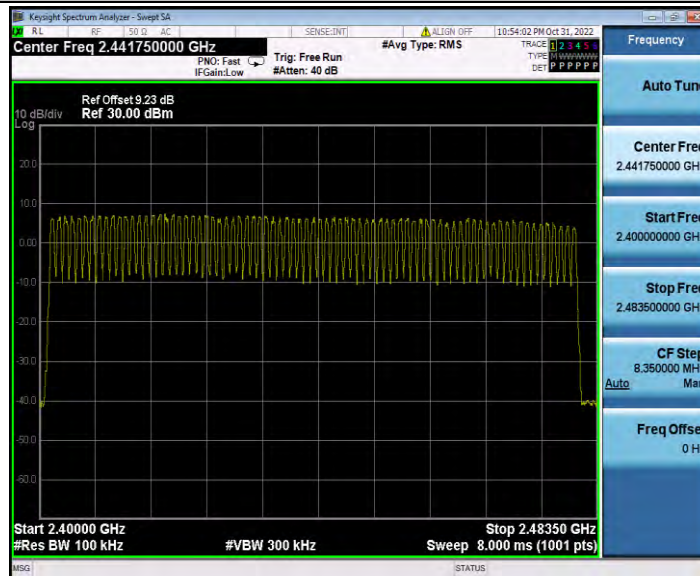
**Appendix A.6: Number of hopping channels**

**Test Result**

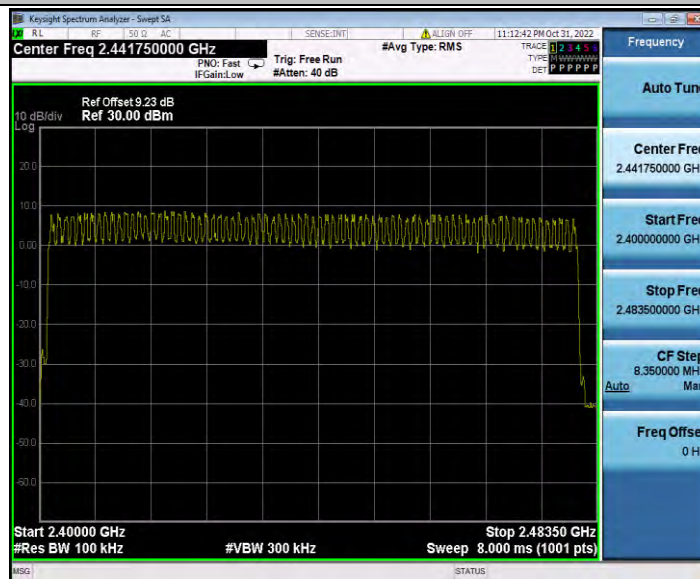
| TestMode | Antenna | Frequency[MHz] | Result[Num] | Limit[Num] | Verdict |
|----------|---------|----------------|-------------|------------|---------|
| DH1      | Ant1    | Hop            | 79          | ≥15        | PASS    |
| 2DH1     | Ant1    | Hop            | 79          | ≥15        | PASS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

## Test Graphs

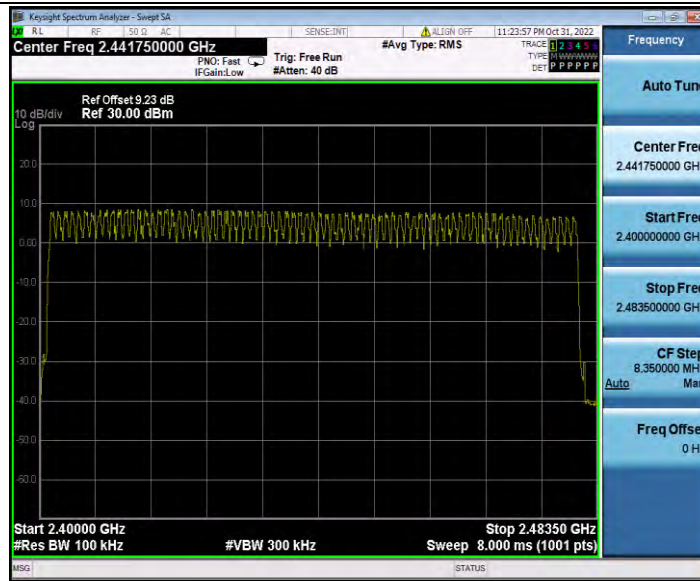
DH1\_Ant1\_Hop



2DH1\_Ant1\_Hop



3DH1\_Ant1\_Hop



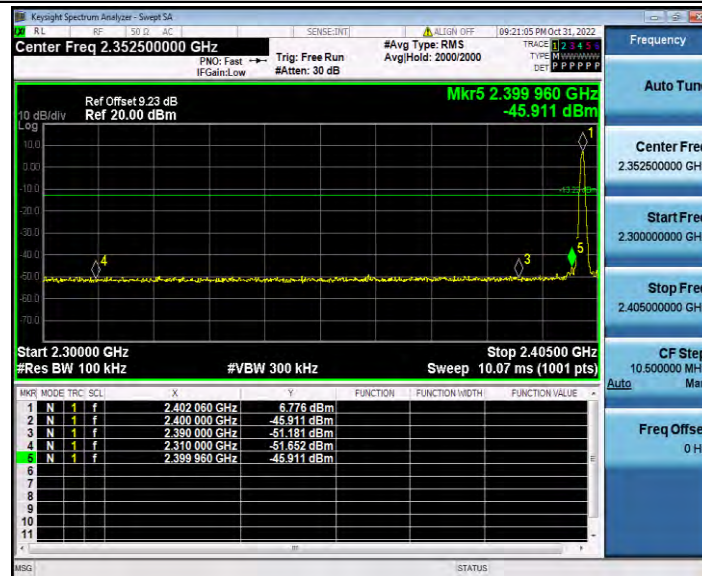
## Appendix A.7: Band edge measurements

### Test Result

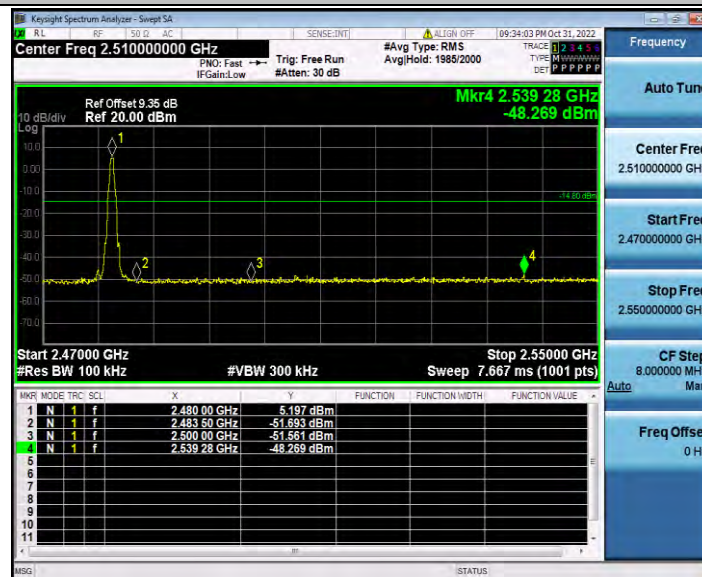
| TestMode | Antenna | ChName | Frequency[MHz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|----------|---------|--------|----------------|----------------|--------------|-------------|---------|
| DH1      | Ant1    | Low    | 2402           | 6.78           | -45.91       | ≤-13.22     | PASS    |
|          |         | High   | 2480           | 5.20           | -48.27       | ≤-14.8      | PASS    |
|          |         | Low    | Hop_2402       | 3.60           | -49.26       | ≤-16.4      | PASS    |
|          |         | High   | Hop_2480       | 5.21           | -48.92       | ≤-14.79     | PASS    |
| 2DH1     | Ant1    | Low    | 2402           | 6.82           | -47.11       | ≤-13.18     | PASS    |
|          |         | High   | 2480           | 0.96           | -48.21       | ≤-19.04     | PASS    |
|          |         | Low    | Hop_2402       | 7.83           | -48.81       | ≤-12.18     | PASS    |
|          |         | High   | Hop_2480       | 7.52           | -48.33       | ≤-12.48     | PASS    |
| 3DH1     | Ant1    | Low    | 2402           | 3.15           | -41.58       | ≤-16.85     | PASS    |
|          |         | High   | 2480           | 1.37           | -48.47       | ≤-18.64     | PASS    |
|          |         | Low    | Hop_2402       | 7.99           | -48.71       | ≤-12.02     | PASS    |
|          |         | High   | Hop_2480       | 7.92           | -48.51       | ≤-12.08     | PASS    |

## Test Graphs

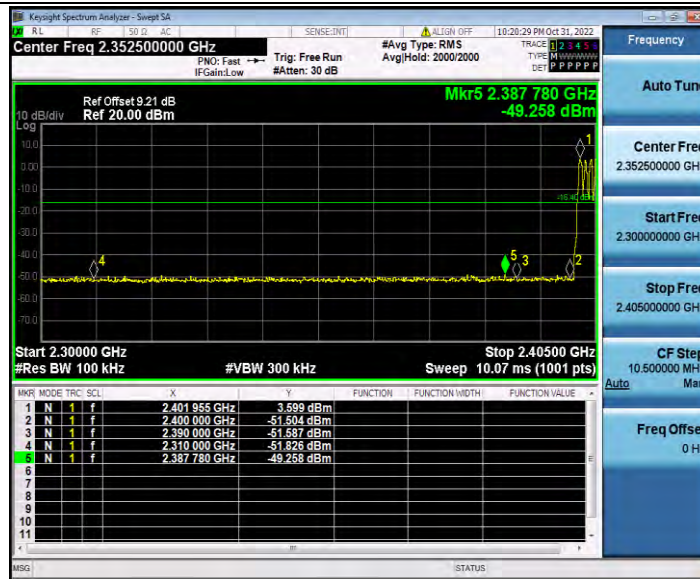
DH1\_Ant1\_Low\_2402



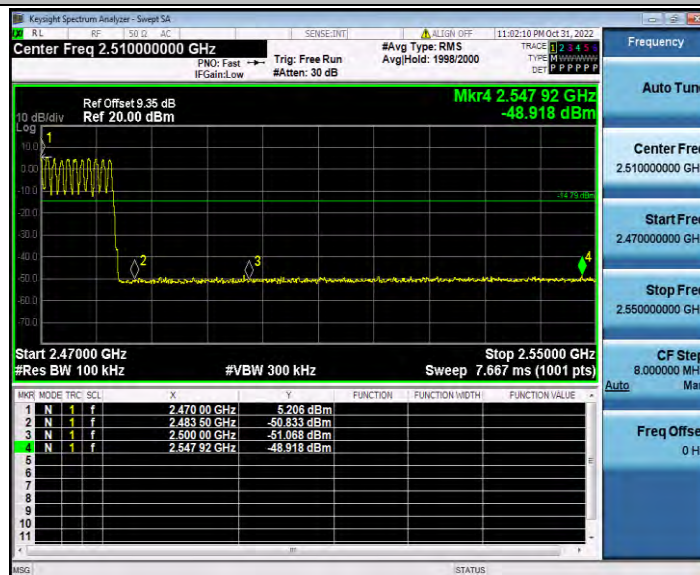
DH1\_Ant1\_High\_2480



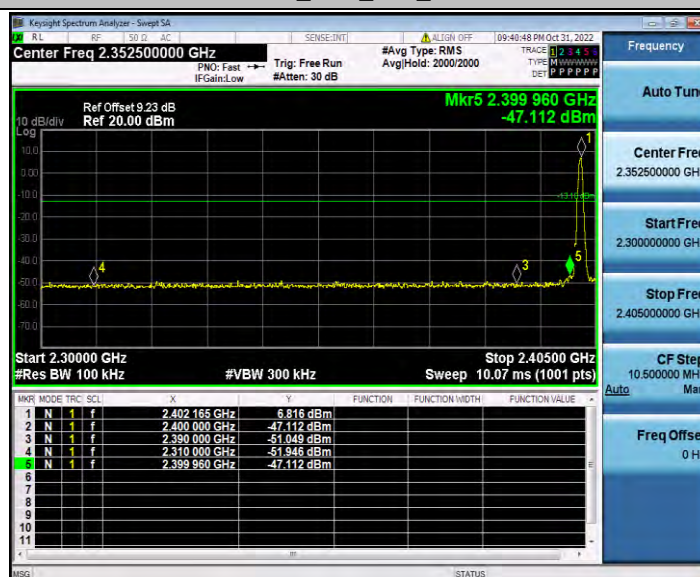
DH1\_Ant1\_Low\_Hop\_2402



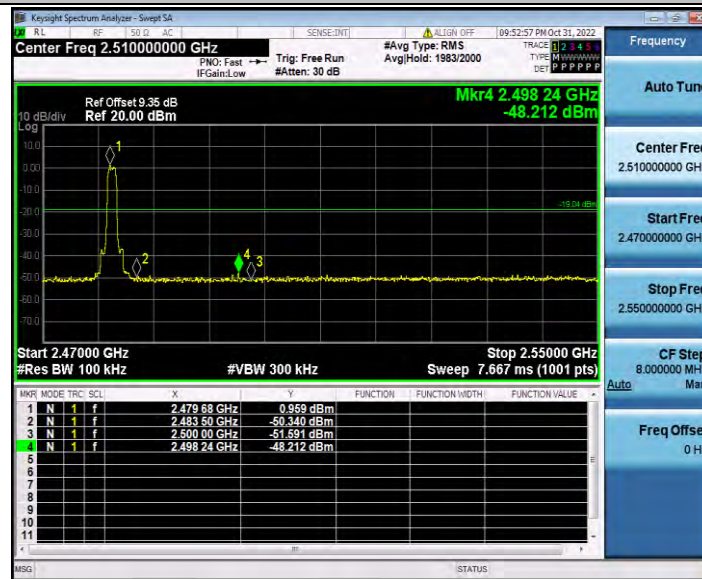
DH1\_Ant1\_High\_Hop\_2480



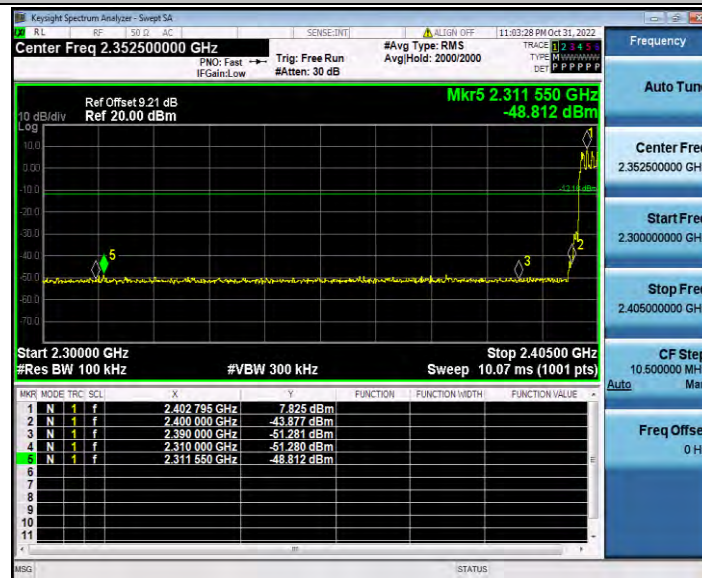
2DH1\_Ant1\_Low\_2402



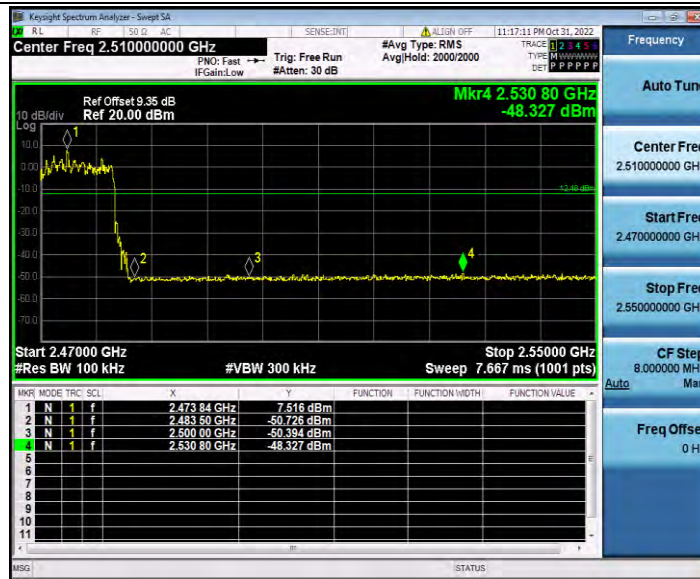
## 2DH1\_Ant1\_High\_2480



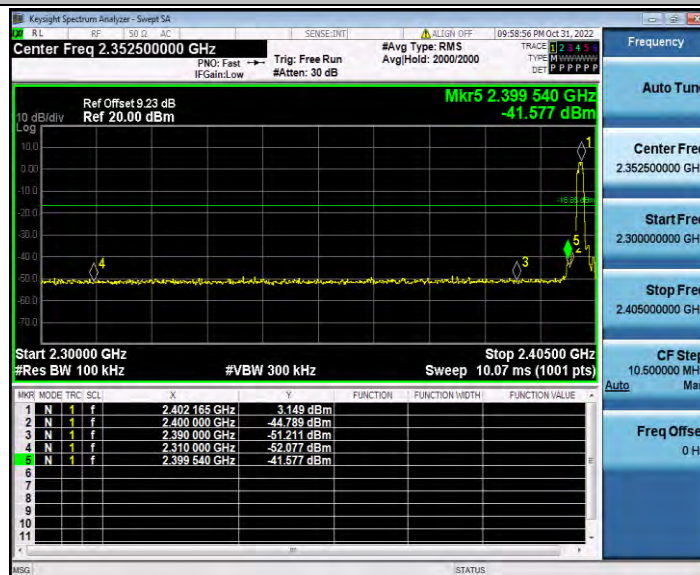
## 2DH1\_Ant1\_Low\_Hop\_2402



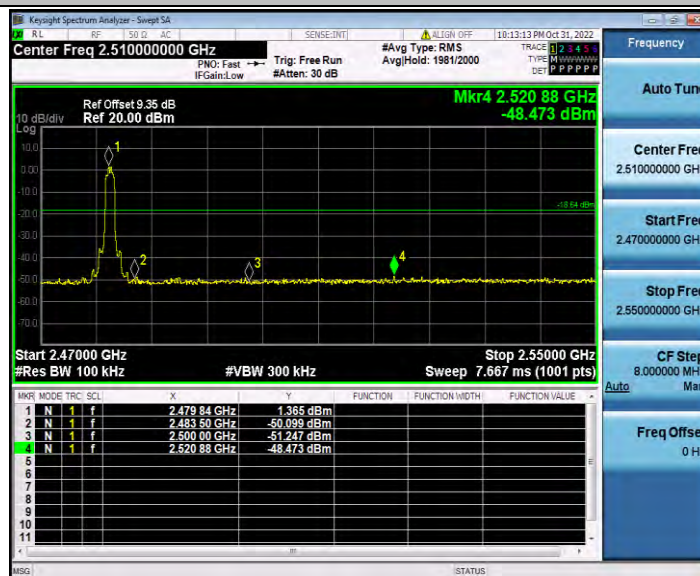
## 2DH1\_Ant1\_High\_Hop\_2480



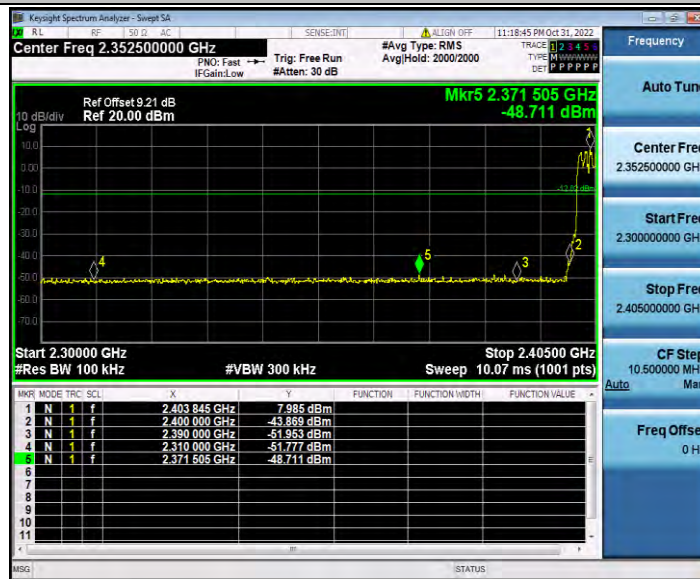
3DH1\_Ant1\_Low\_2402



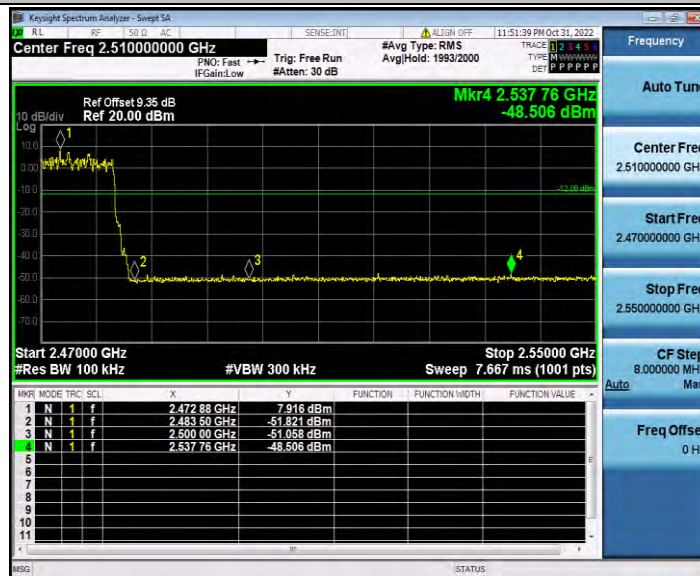
3DH1\_Ant1\_High\_2480



### 3DH1\_Ant1\_Low\_Hop\_2402



### 3DH1\_Ant1\_High\_Hop\_2480



## Appendix A.8: Conducted Spurious Emission

### Test Result

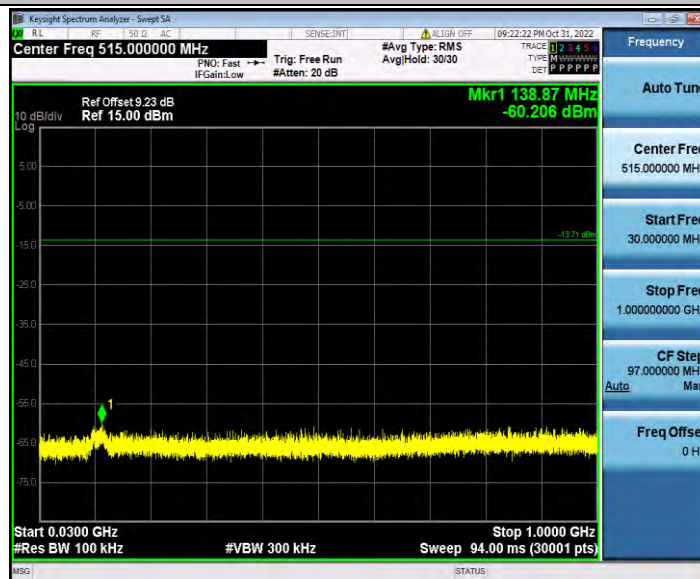
| TestMode | Antenna | Frequency[MHz] | FreqRange [MHz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|----------|---------|----------------|-----------------|----------------|--------------|-------------|---------|
| DH1      | Ant1    | 2402           | Reference       | 6.29           | 6.29         | ---         | PASS    |
|          |         |                | 30~1000         | 6.29           | -60.21       | ≤-13.71     | PASS    |
|          |         |                | 1000~26500      | 6.29           | -47.54       | ≤-13.71     | PASS    |
|          |         | 2441           | Reference       | 6.26           | 6.26         | ---         | PASS    |
|          |         |                | 30~1000         | 6.26           | -59.13       | ≤-13.74     | PASS    |
|          |         |                | 1000~26500      | 6.26           | -47.55       | ≤-13.74     | PASS    |
|          |         | 2480           | Reference       | 4.69           | 4.69         | ---         | PASS    |
|          |         |                | 30~1000         | 4.69           | -59.45       | ≤-15.31     | PASS    |
|          |         |                | 1000~26500      | 4.69           | -47.3        | ≤-15.31     | PASS    |
| 2DH1     | Ant1    | 2402           | Reference       | 6.36           | 6.36         | ---         | PASS    |
|          |         |                | 30~1000         | 6.36           | -57.72       | ≤-13.64     | PASS    |
|          |         |                | 1000~26500      | 6.36           | -46.93       | ≤-13.64     | PASS    |
|          |         | 2441           | Reference       | 2.58           | 2.58         | ---         | PASS    |
|          |         |                | 30~1000         | 2.58           | -58.56       | ≤-17.42     | PASS    |
|          |         |                | 1000~26500      | 2.58           | -40.7        | ≤-17.42     | PASS    |
|          |         | 2480           | Reference       | 0.64           | 0.64         | ---         | PASS    |
|          |         |                | 30~1000         | 0.64           | -57.63       | ≤-19.36     | PASS    |
|          |         |                | 1000~26500      | 0.64           | -47.68       | ≤-19.36     | PASS    |
| 3DH1     | Ant1    | 2402           | Reference       | 2.48           | 2.48         | ---         | PASS    |
|          |         |                | 30~1000         | 2.48           | -58.09       | ≤-17.52     | PASS    |
|          |         |                | 1000~26500      | 2.48           | -47.54       | ≤-17.52     | PASS    |
|          |         | 2441           | Reference       | 2.64           | 2.64         | ---         | PASS    |
|          |         |                | 30~1000         | 2.64           | -57.41       | ≤-17.36     | PASS    |
|          |         |                | 1000~26500      | 2.64           | -47.32       | ≤-17.36     | PASS    |
|          |         | 2480           | Reference       | 0.82           | 0.82         | ---         | PASS    |
|          |         |                | 30~1000         | 0.82           | -57.12       | ≤-19.18     | PASS    |
|          |         |                | 1000~26500      | 0.82           | -47.17       | ≤-19.18     | PASS    |

## Test Graphs

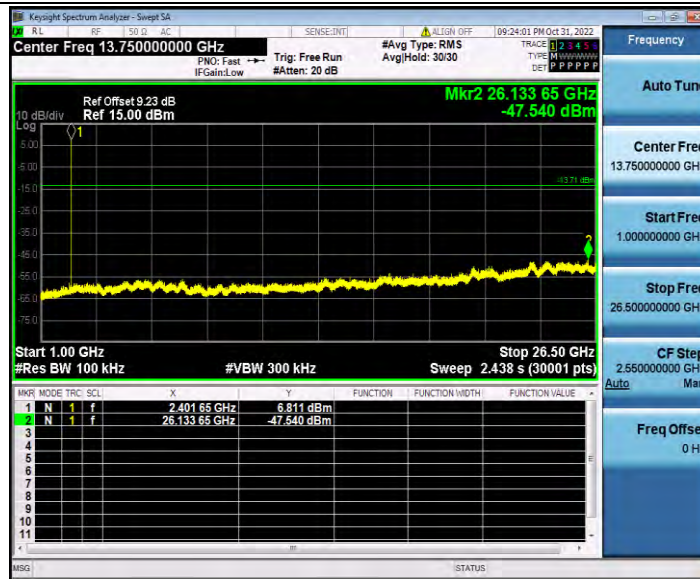
DH1\_Ant1\_2402\_0~Reference



DH1\_Ant1\_2402\_30~1000



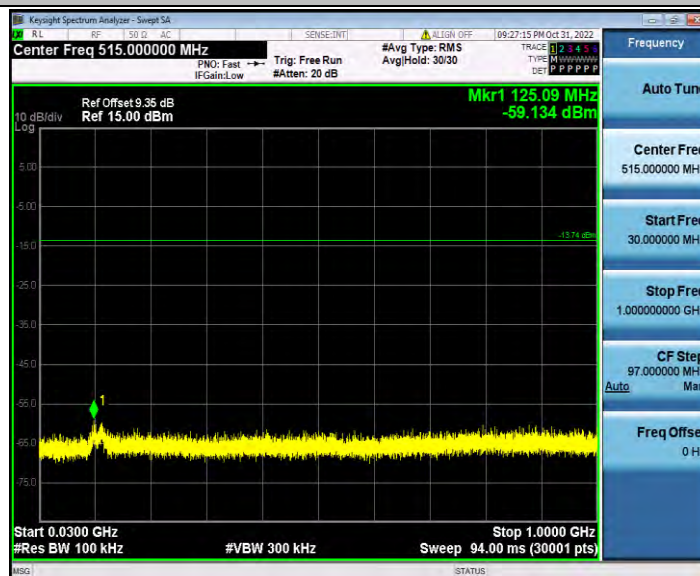
DH1\_Ant1\_2402\_1000~26500



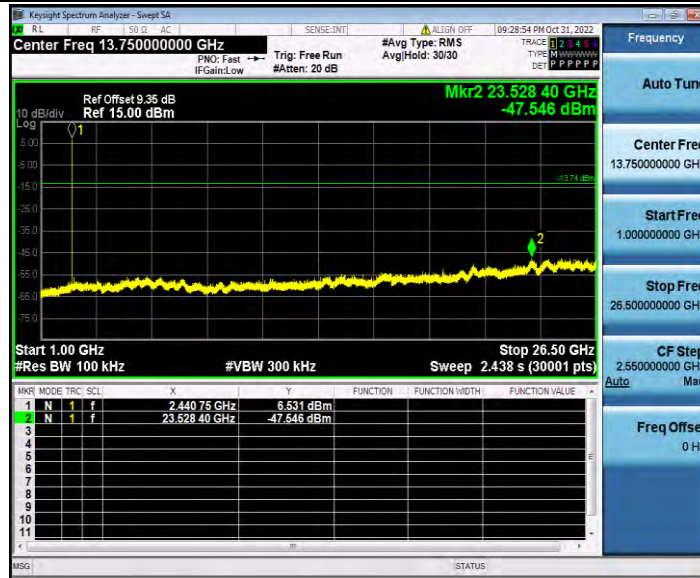
DH1\_Ant1\_2441\_0~Reference



DH1\_Ant1\_2441\_30~1000



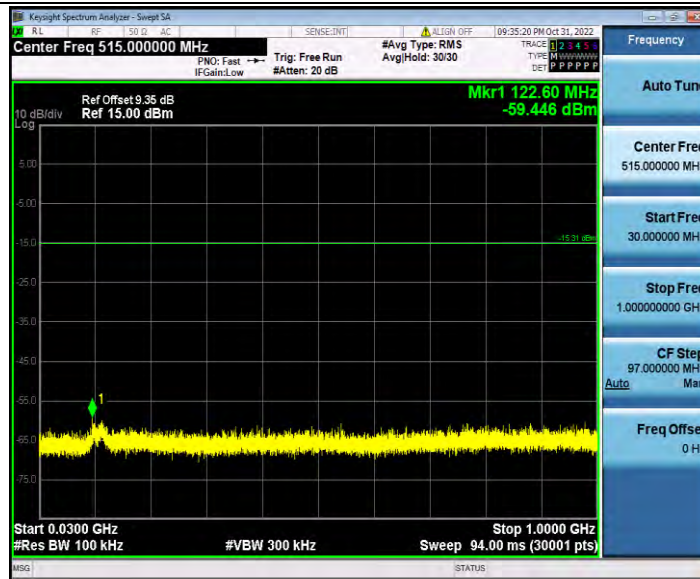
# DH1\_Ant1\_2441\_1000~26500



# DH1\_Ant1\_2480\_0~Reference



# DH1\_Ant1\_2480\_30~1000



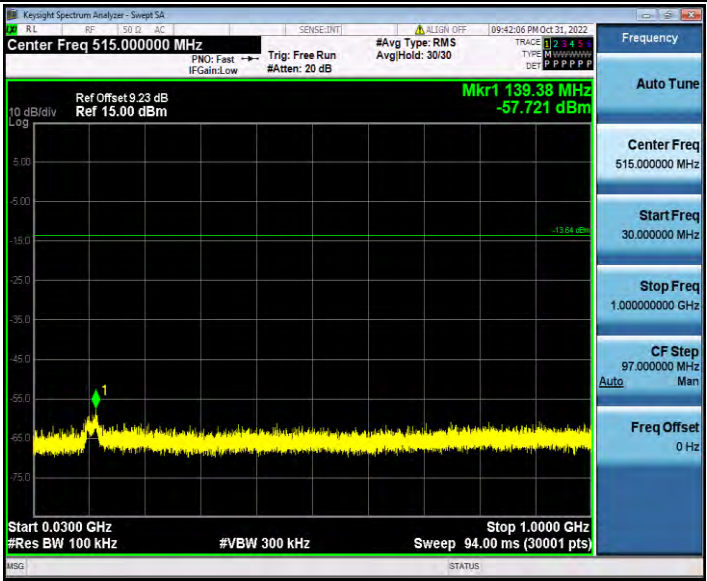
DH1\_Ant1\_2480\_1000~26500



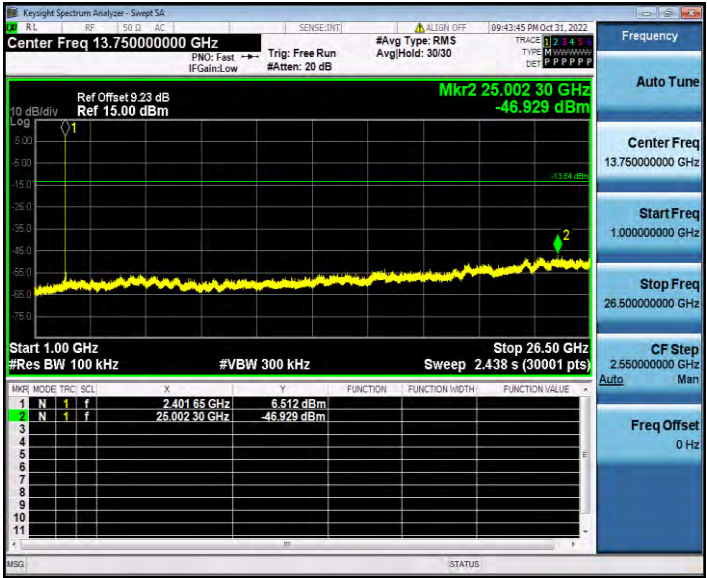
2DH1\_Ant1\_2402\_0~Reference



2DH1\_Ant1\_2402\_30~1000



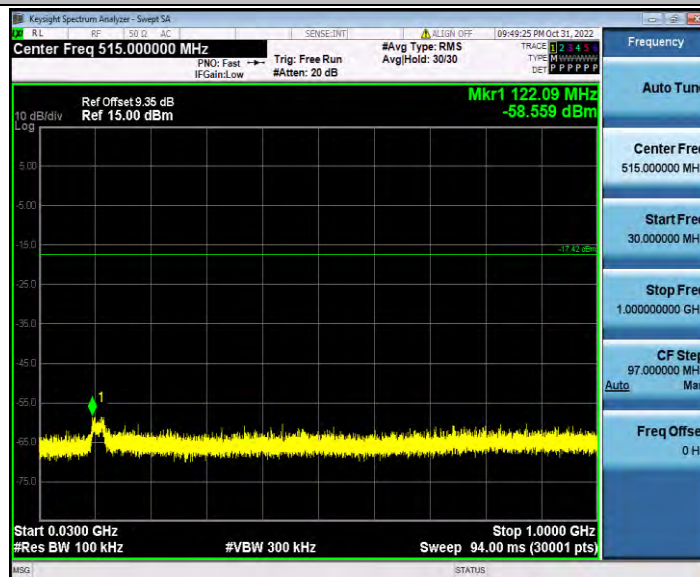
2DH1\_Ant1\_2402\_1000~26500



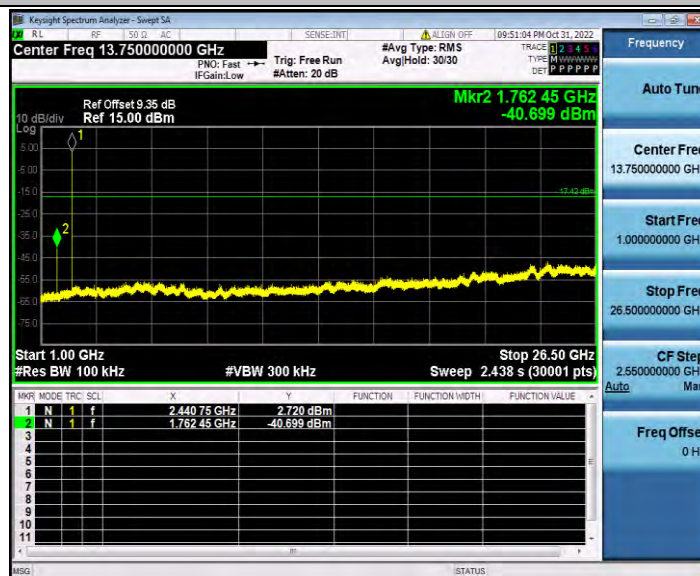
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2DH1\_Ant1\_2441\_30~1000



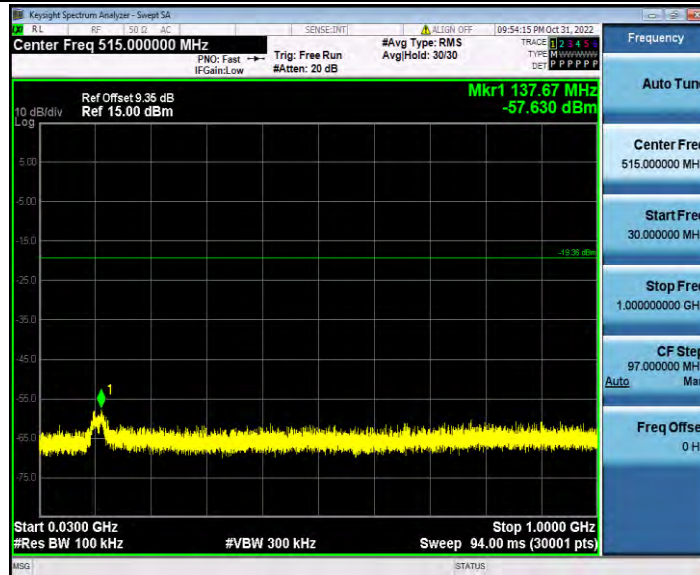
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## 2DH1\_Ant1\_2480\_0~Reference



## 2DH1\_Ant1\_2480\_30~1000



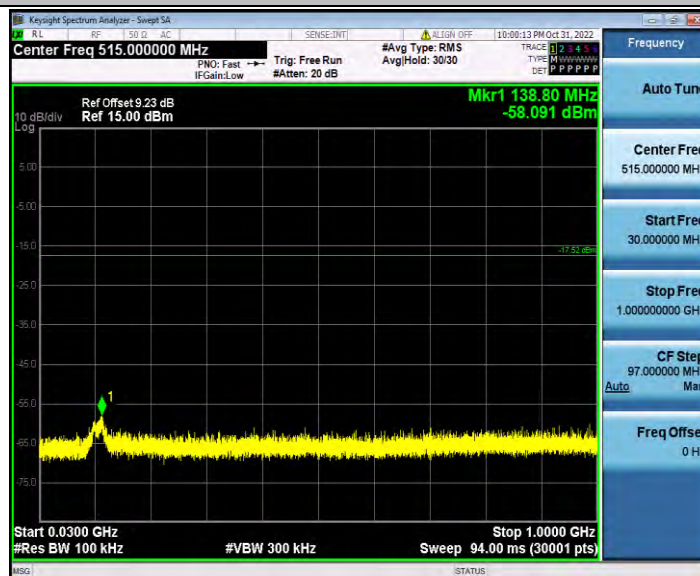
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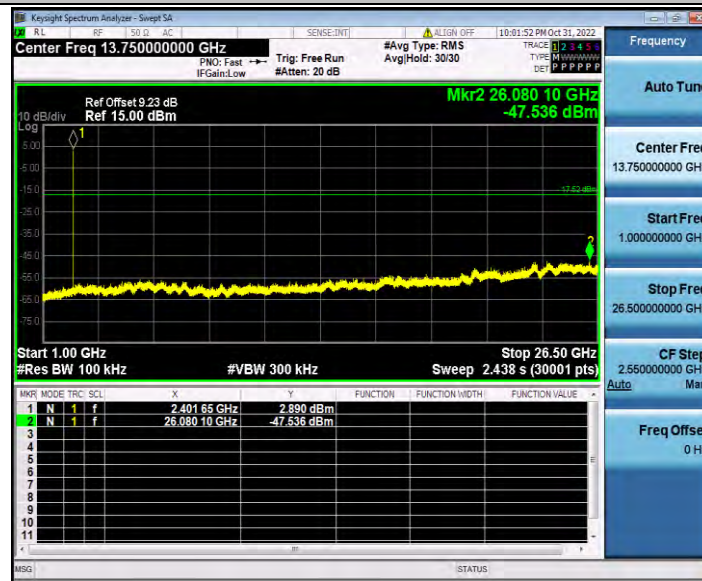
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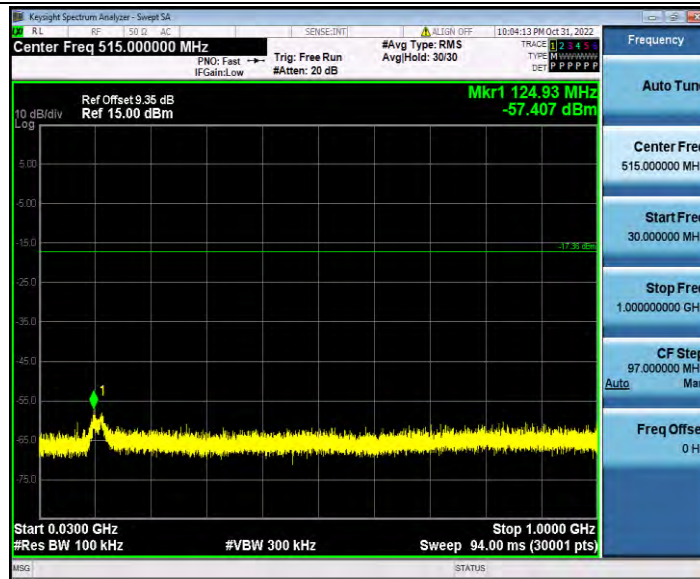
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### 3DH1\_Ant1\_2441\_0~Reference



### 3DH1\_Ant1\_2441\_30~1000



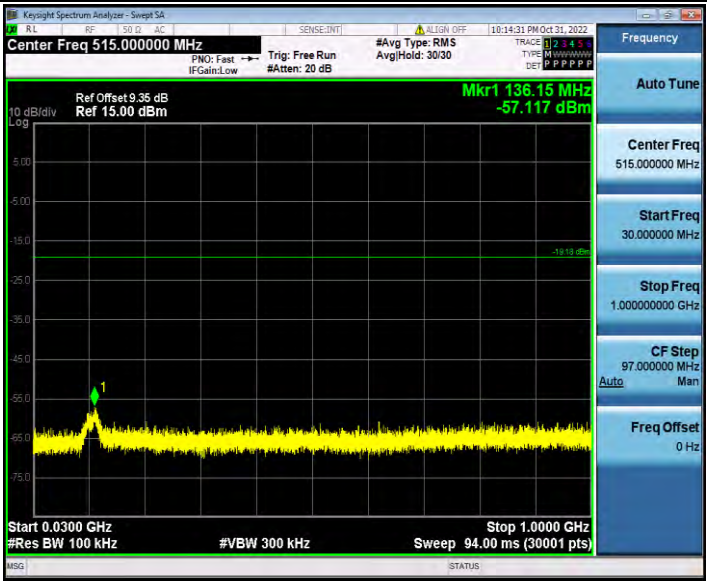
3DH1\_Ant1\_2441\_1000~26500



3DH1\_Ant1\_2480\_0~Reference



3DH1\_Ant1\_2480\_30~1000



3DH1\_Ant1\_2480\_1000~26500

