

|                                   |                           |
|-----------------------------------|---------------------------|
| Case No. : GTS20220629010-1-1     |                           |
| Ambient Condition: 25 °C, 45 %RH, |                           |
| Test Date: 2022.8.5               | 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           | 1.047            | 2401.469 | 2402.516 | ---        | ---     |
|          |         | 2441           | 1.053            | 2440.460 | 2441.513 | ---        | ---     |
|          |         | 2480           | 1.032            | 2479.472 | 2480.504 | ---        | ---     |
| 2DH1     | Ant1    | 2402           | 1.350            | 2401.322 | 2402.672 | ---        | ---     |
|          |         | 2441           | 1.356            | 2440.316 | 2441.672 | ---        | ---     |
|          |         | 2480           | 1.326            | 2479.310 | 2480.636 | ---        | ---     |
| 3DH1     | Ant1    | 2402           | 1.296            | 2401.361 | 2402.657 | ---        | ---     |
|          |         | 2441           | 1.323            | 2440.313 | 2441.636 | ---        | ---     |
|          |         | 2480           | 1.275            | 2479.346 | 2480.621 | ---        | ---     |

## 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           | 0.94061   | 2401.519 | 2402.460 | ---        | ---     |
|          |         | 2441           | 2.0841    | 2439.944 | 2442.028 | ---        | ---     |
|          |         | 2480           | 0.92031   | 2479.512 | 2480.432 | ---        | ---     |
| 2DH1     | Ant1    | 2402           | 1.1990    | 2401.382 | 2402.581 | ---        | ---     |
|          |         | 2441           | 1.1987    | 2440.376 | 2441.574 | ---        | ---     |
|          |         | 2480           | 1.1974    | 2479.370 | 2480.568 | ---        | ---     |
| 3DH1     | Ant1    | 2402           | 1.1834    | 2401.413 | 2402.597 | ---        | ---     |
|          |         | 2441           | 1.1797    | 2440.408 | 2441.587 | ---        | ---     |
|          |         | 2480           | 1.1818    | 2479.399 | 2480.581 | ---        | ---     |



## Test Graphs

DH1\_Ant1\_2402



DH1\_Ant1\_2441



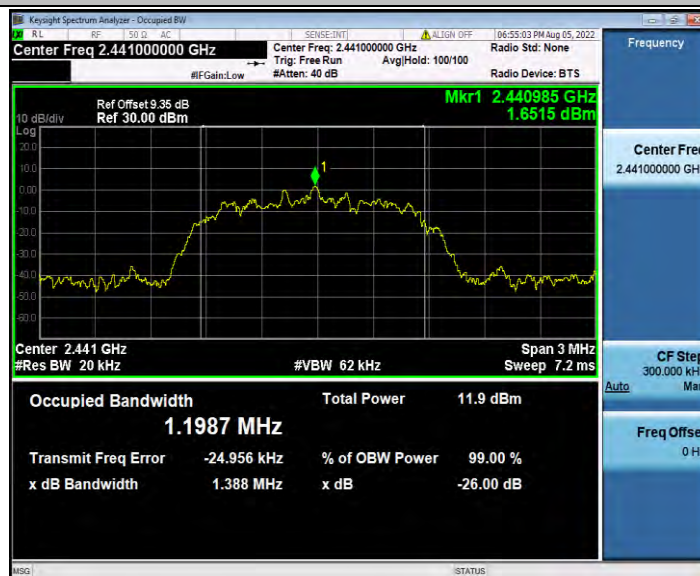
DH1\_Ant1\_2480



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           | 7.36                      | ≤20.97               | PASS    |
|           |         | 2441           | 8.76                      | ≤20.97               | PASS    |
|           |         | 2480           | 7.68                      | ≤20.97               | PASS    |
| 2DH1      | Ant1    | 2402           | 5.81                      | ≤20.97               | PASS    |
|           |         | 2441           | 7.38                      | ≤20.97               | PASS    |
|           |         | 2480           | 6.19                      | ≤20.97               | PASS    |
| 3DH1      | Ant1    | 2402           | 6.14                      | ≤20.97               | PASS    |
|           |         | 2441           | 7.68                      | ≤20.97               | PASS    |
|           |         | 2480           | 6.68                      | ≤20.97               | PASS    |

## Appendix A.4: Carrier frequency separation

### Test Result

| TestMode | Antenna | Frequency[MHz] | Result[MHz] | Limit[MHz]   | Verdict |
|----------|---------|----------------|-------------|--------------|---------|
| DH1      | Ant1    | Hop_2402       | 1.158       | $\geq 0.702$ | PASS    |
|          |         | Hop_2441       | 1.16        | $\geq 0.702$ | PASS    |
|          |         | Hop_2480       | 1.002       | $\geq 0.702$ | PASS    |
| 2DH1     | Ant1    | Hop_2402       | 1.03        | $\geq 0.904$ | PASS    |
|          |         | Hop_2441       | 1.154       | $\geq 0.904$ | PASS    |
|          |         | Hop_2480       | 0.986       | $\geq 0.904$ | PASS    |
| 3DH1     | Ant1    | Hop_2402       | 1.004       | $\geq 0.882$ | PASS    |
|          |         | Hop_2441       | 0.978       | $\geq 0.882$ | PASS    |
|          |         | Hop_2480       | 0.974       | $\geq 0.882$ | PASS    |

## Test Graphs

DH1\_Ant1\_Hop\_2402



DH1\_Ant1\_Hop\_2441



DH1\_Ant1\_Hop\_2480





2DH1\_Ant1\_Hop\_2402



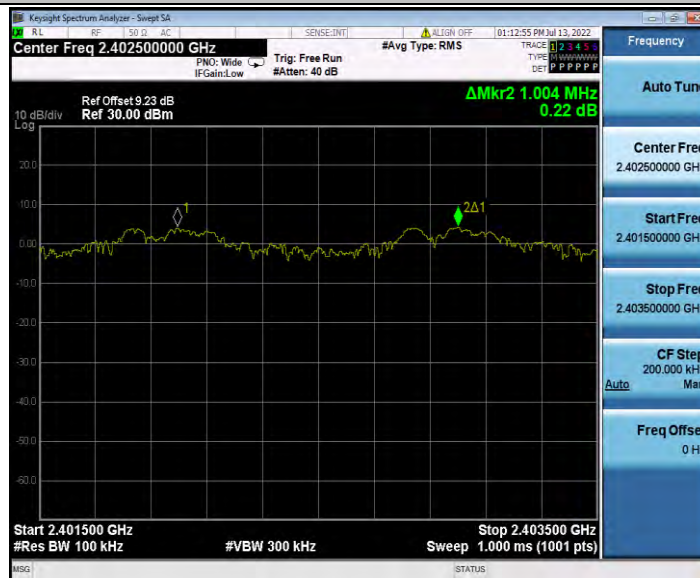
2DH1\_Ant1\_Hop\_2441



### 2DH1\_Ant1\_Hop\_2480



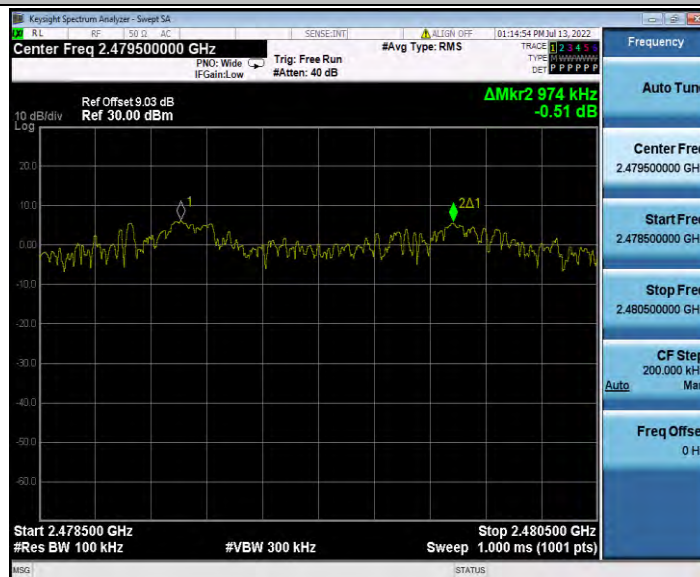
### 3DH1\_Ant1\_Hop\_2402



### 3DH1\_Ant1\_Hop\_2441



3DH1\_Ant1\_Hop\_2480



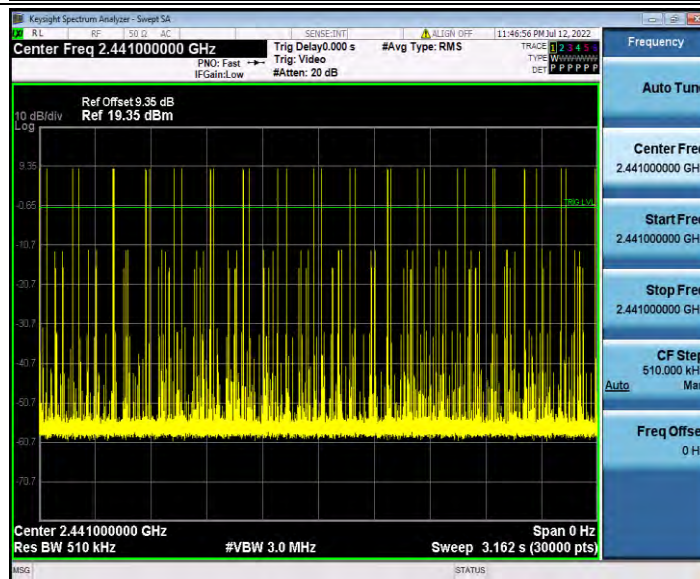
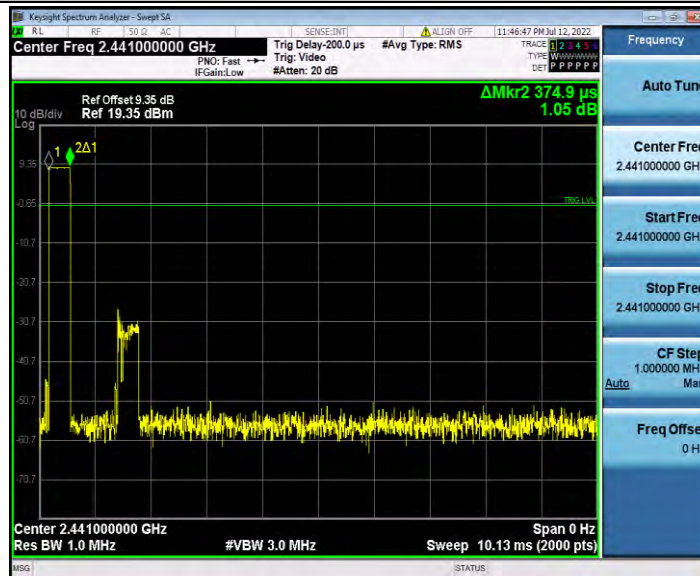
## Appendix A.5: Time of occupancy

### Test Result

| TestMode | Antenna | Frequency[MHz] | BurstWidth<br>[ms] | TotalHops<br>[Num] | Result[s] | Limit[s] | Verdict |
|----------|---------|----------------|--------------------|--------------------|-----------|----------|---------|
| DH1      | Ant1    | Hop            | 0.37               | 330                | 0.124     | ≤0.4     | PASS    |
| DH3      | Ant1    | Hop            | 1.63               | 160                | 0.26      | ≤0.4     | PASS    |
| DH5      | Ant1    | Hop            | 2.88               | 80                 | 0.23      | ≤0.4     | PASS    |
| 2DH1     | Ant1    | Hop            | 0.38               | 320                | 0.122     | ≤0.4     | PASS    |
| 2DH3     | Ant1    | Hop            | 1.63               | 150                | 0.245     | ≤0.4     | PASS    |
| 2DH5     | Ant1    | Hop            | 2.88               | 110                | 0.317     | ≤0.4     | PASS    |
| 3DH1     | Ant1    | Hop            | 0.37               | 360                | 0.134     | ≤0.4     | PASS    |
| 3DH3     | Ant1    | Hop            | 1.63               | 170                | 0.277     | ≤0.4     | PASS    |
| 3DH5     | Ant1    | Hop            | 2.86               | 130                | 0.372     | ≤0.4     | PASS    |

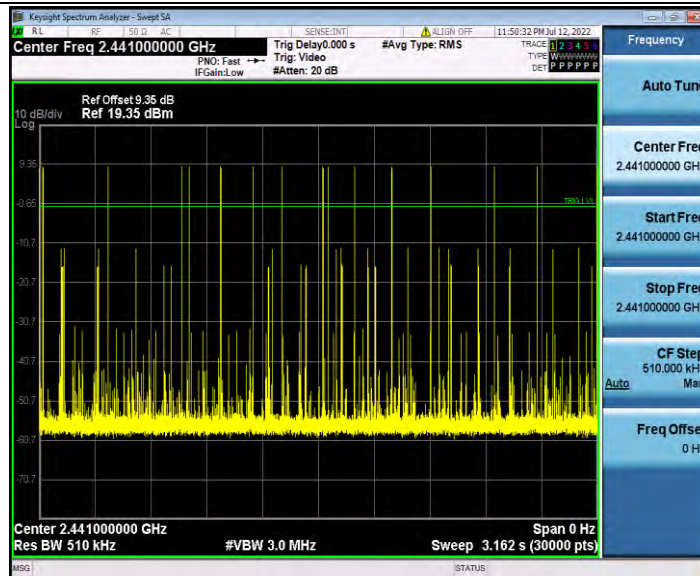
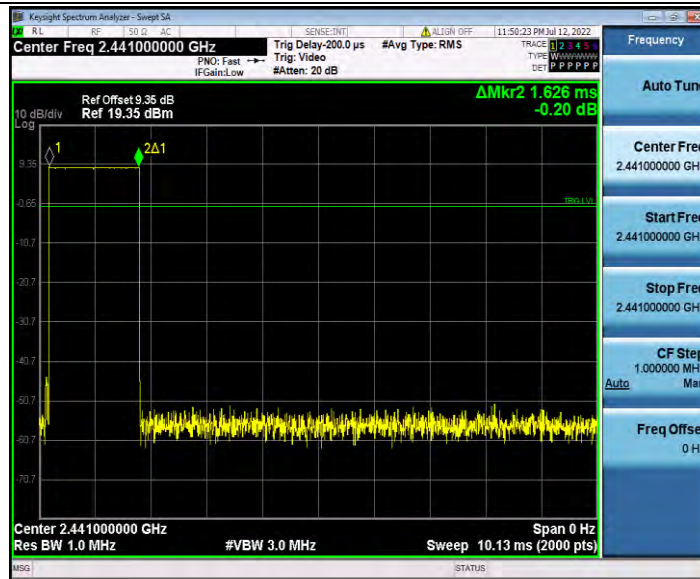
## Test Graphs

DH1\_Ant1\_Hop

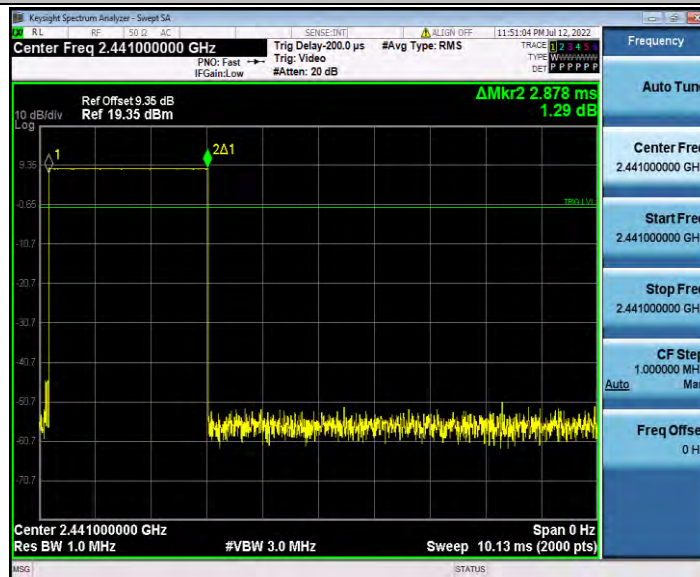


DH3\_Ant1\_Hop

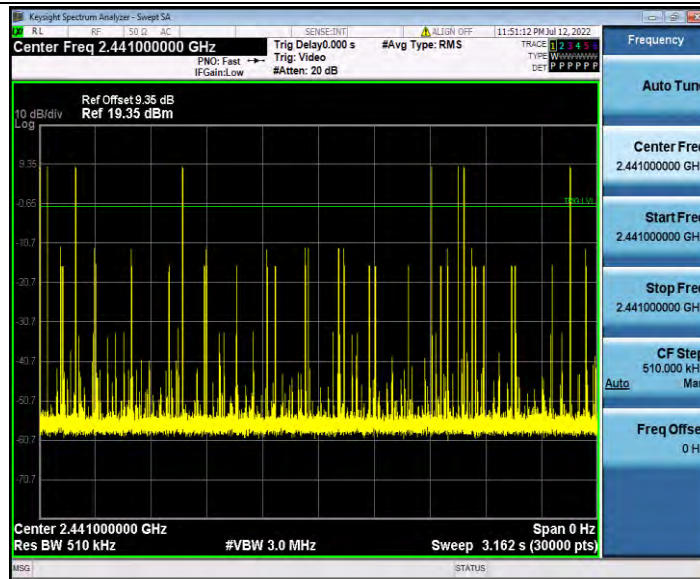




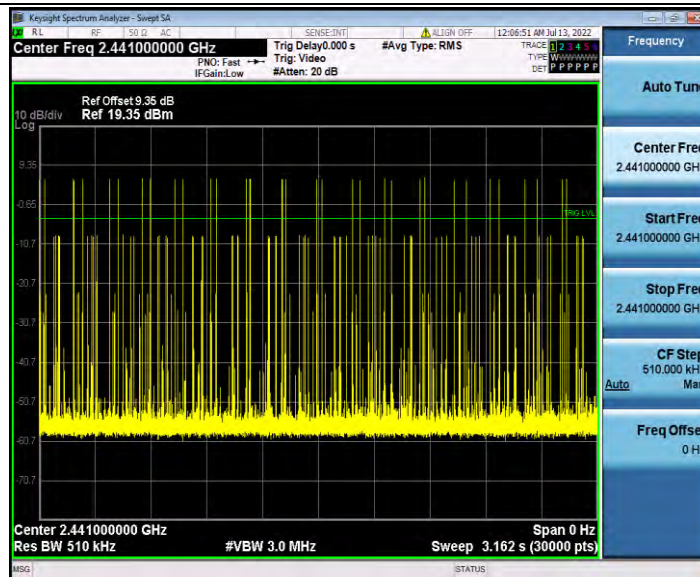
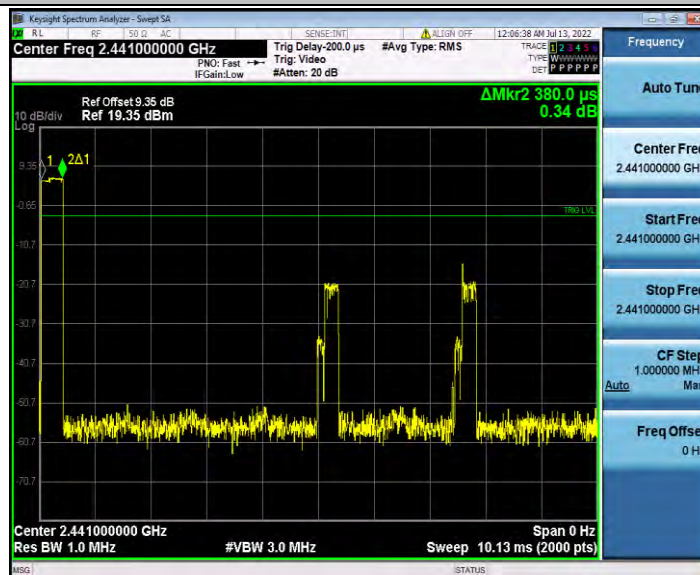
DH5\_Ant1\_Hop



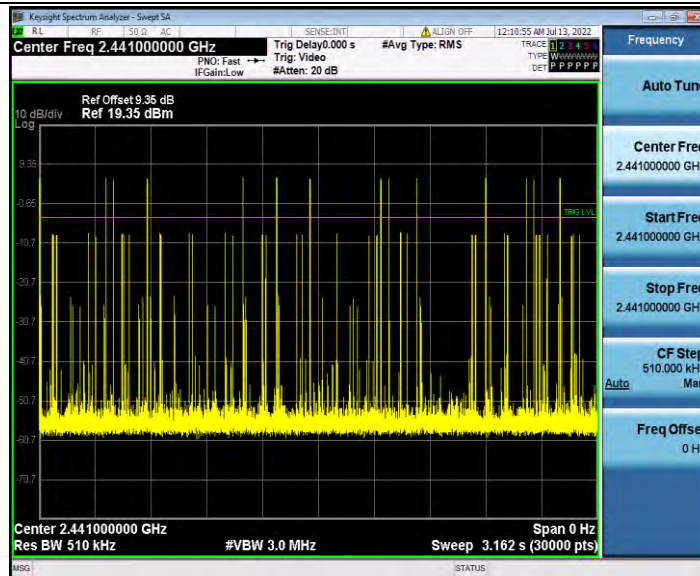
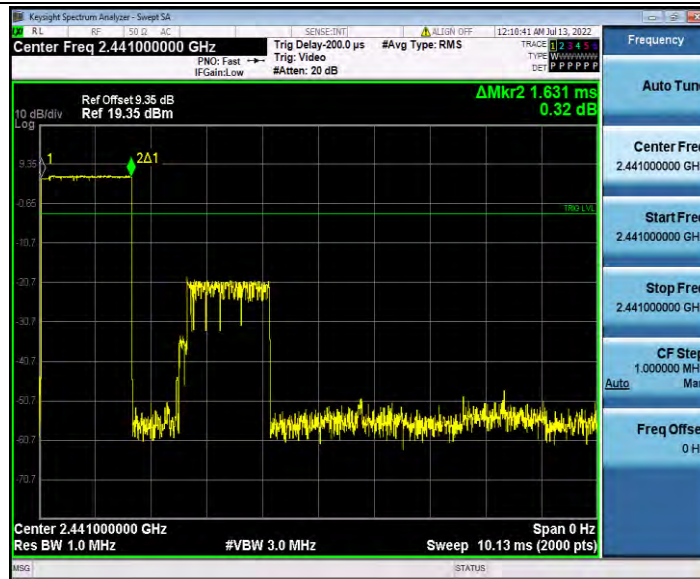




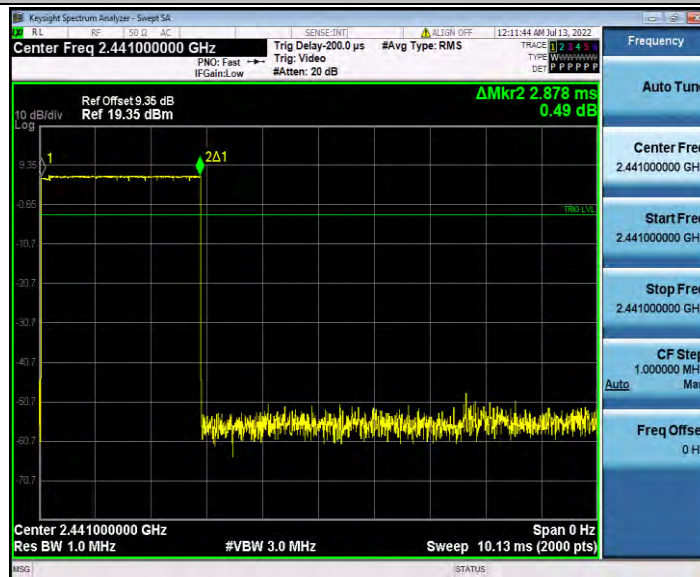
2DH1\_Ant1\_Hop

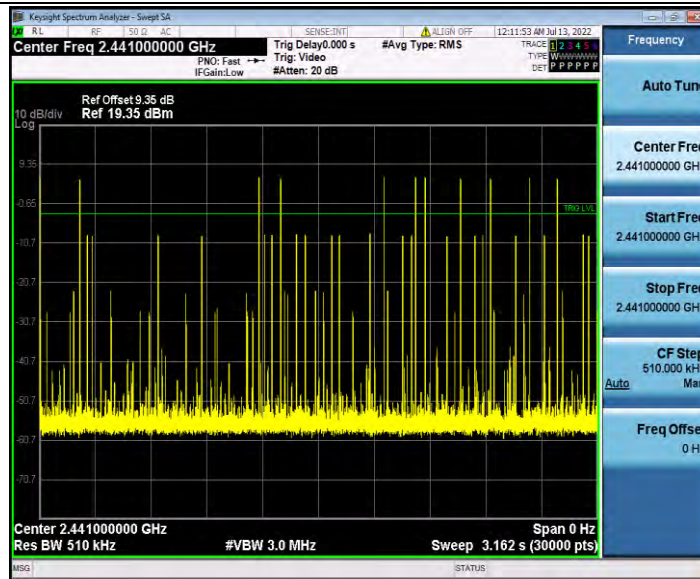


2DH3\_Ant1\_Hop

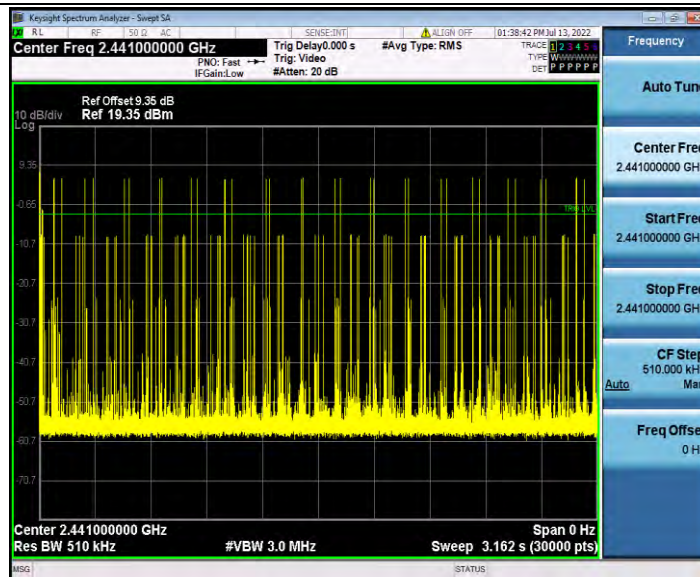
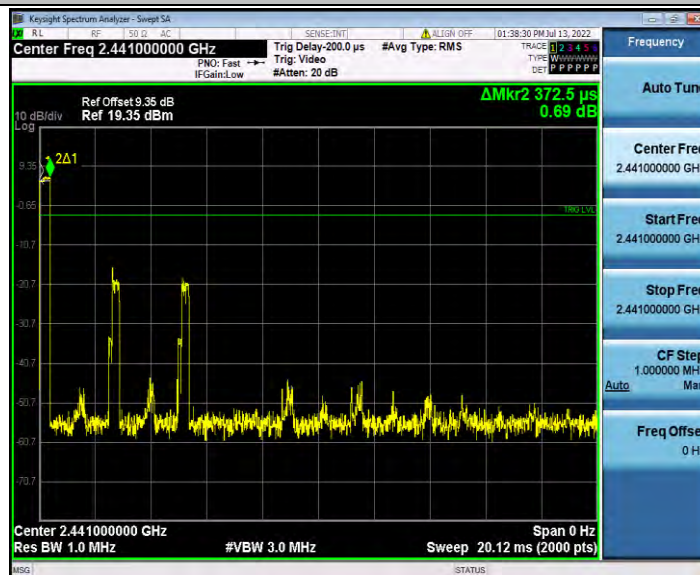


2DH5\_Ant1\_Hop



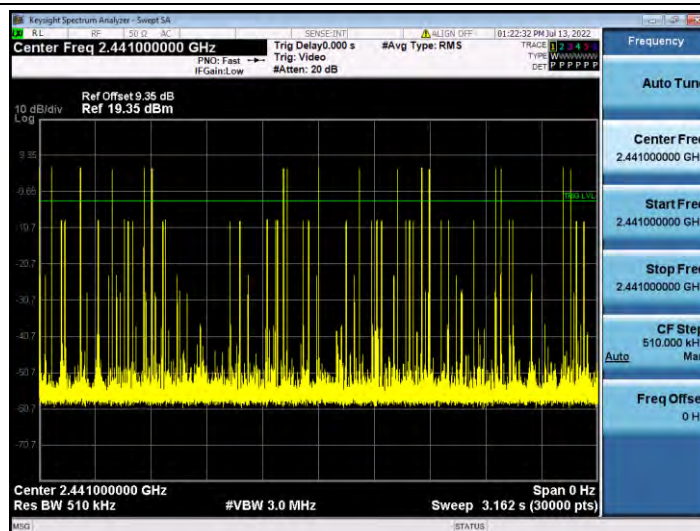
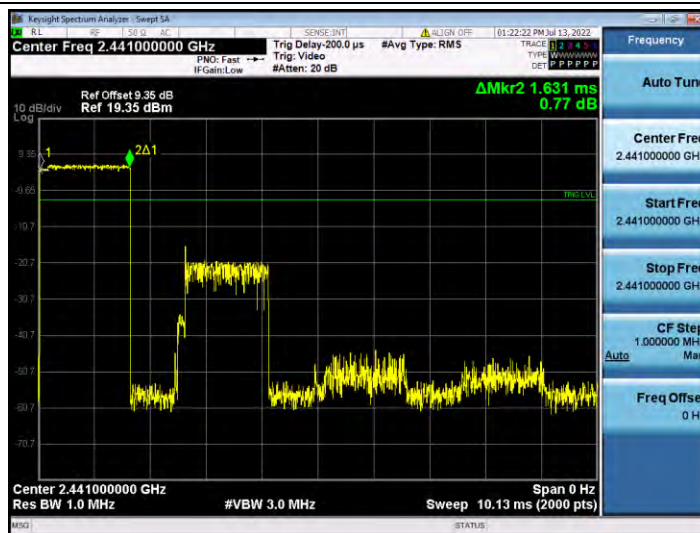


3DH1\_Ant1\_Hop

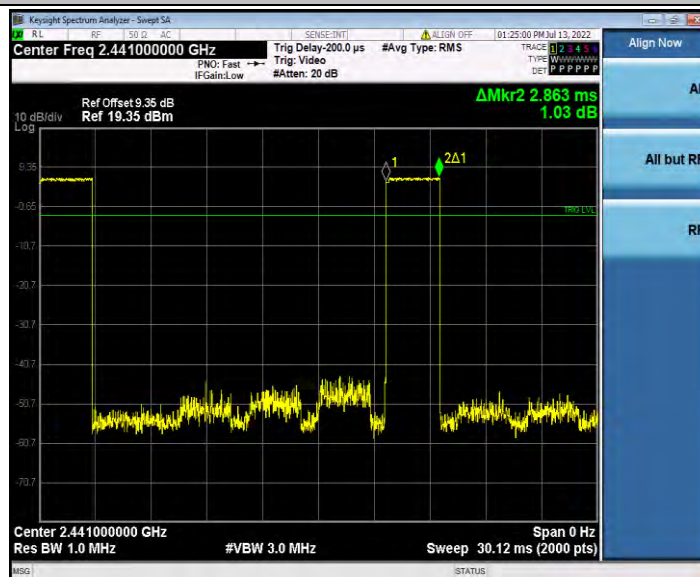


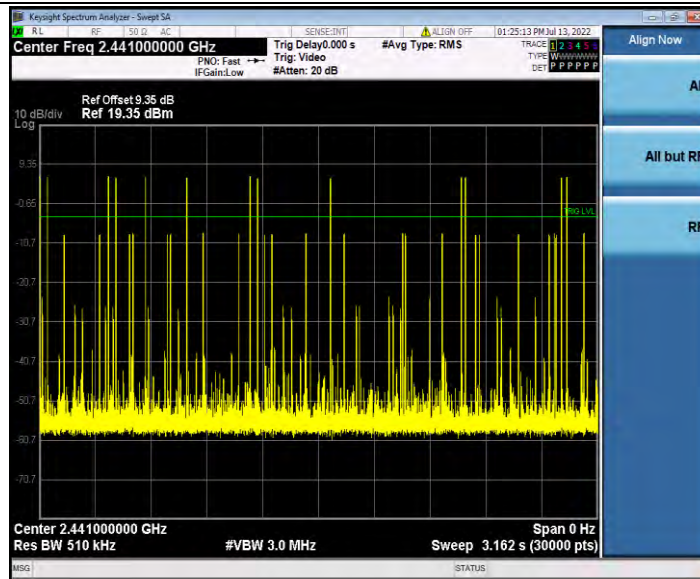
3DH3\_Ant1\_Hop





3DH5\_Ant1\_Hop





## Appendix A.6: Number of hopping channels

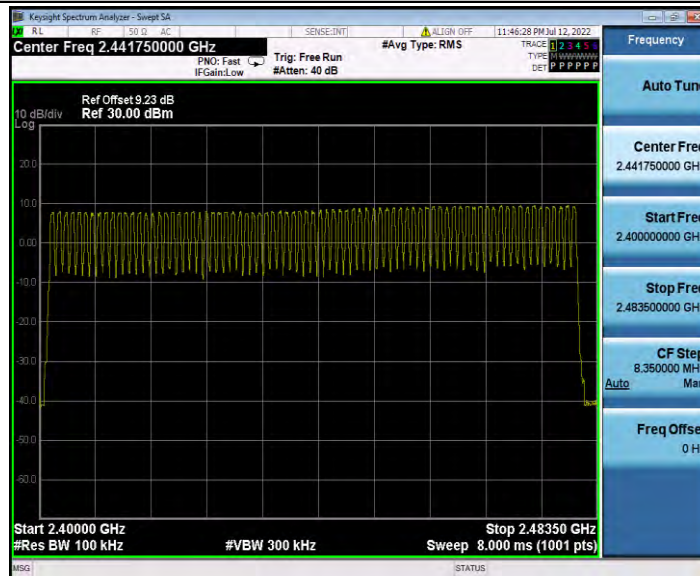
### Test Result

| 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    |

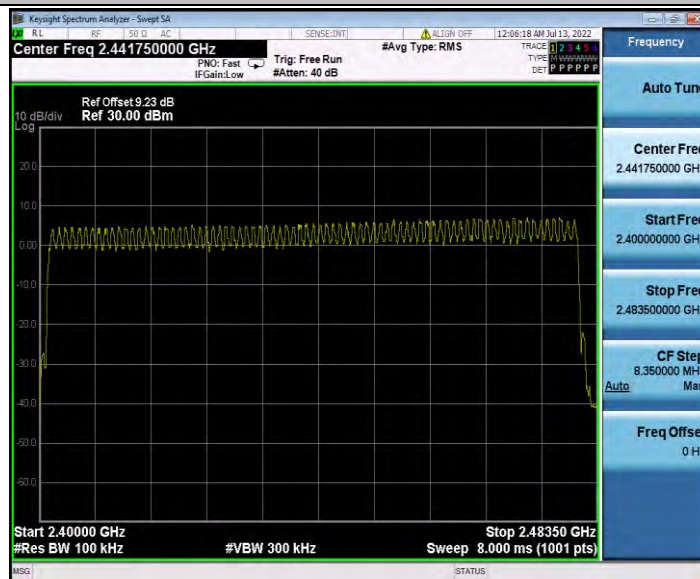


## Test Graphs

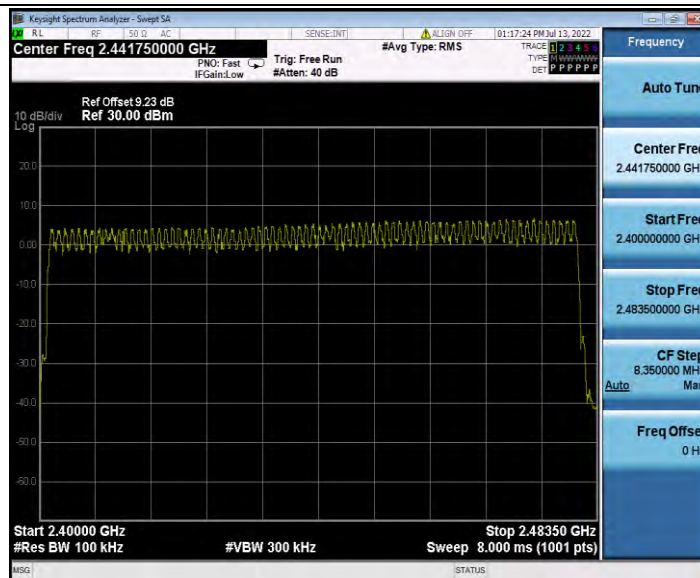
DH1\_Ant1\_Hop



2DH1\_Ant1\_Hop



3DH1\_Ant1\_Hop



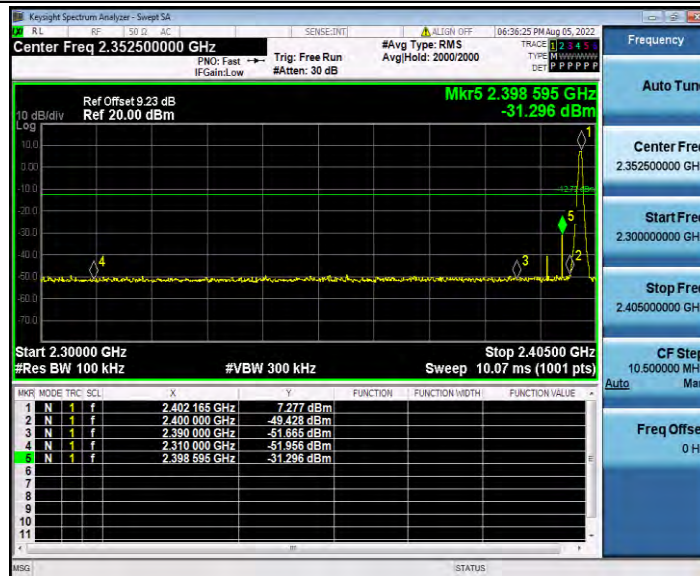
## Appendix A.7: Band edge measurements

### Test Result

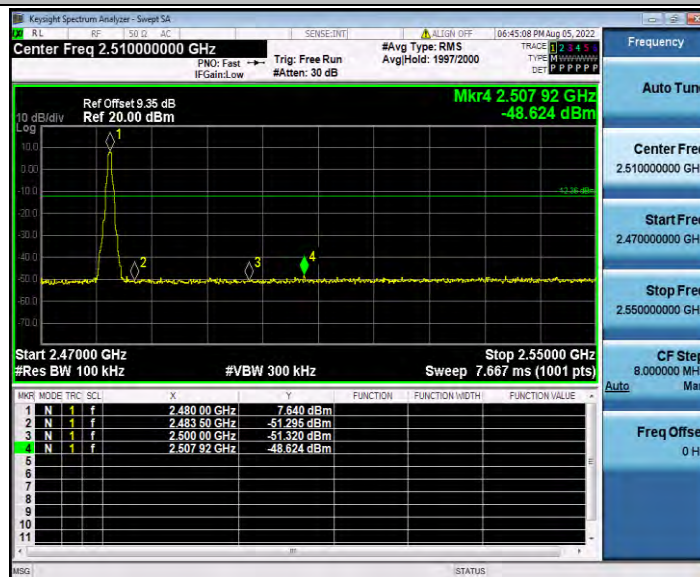
| TestMode | Antenna | ChName | Frequency[MHz] | RefLevel<br>[dBm] | Result<br>[dBm] | Limit<br>[dBm] | Verdict |
|----------|---------|--------|----------------|-------------------|-----------------|----------------|---------|
| DH1      | Ant1    | Low    | 2402           | 7.28              | -31.3           | ≤-12.72        | PASS    |
|          |         | High   | 2480           | 7.64              | -48.62          | ≤-12.36        | PASS    |
|          |         | Low    | Hop_2402       | 7.31              | -49.64          | ≤-12.69        | PASS    |
|          |         | High   | Hop_2480       | 9.48              | -48.14          | ≤-10.52        | PASS    |
| 2DH1     | Ant1    | Low    | 2402           | 3.72              | -49.47          | ≤-16.28        | PASS    |
|          |         | High   | 2480           | 3.86              | -48.43          | ≤-16.14        | PASS    |
|          |         | Low    | Hop_2402       | 4.55              | -49.49          | ≤-15.45        | PASS    |
|          |         | High   | Hop_2480       | 6.85              | -48.45          | ≤-13.15        | PASS    |
| 3DH1     | Ant1    | Low    | 2402           | 3.78              | -48.16          | ≤-16.22        | PASS    |
|          |         | High   | 2480           | 3.90              | -48.22          | ≤-16.1         | PASS    |
|          |         | Low    | Hop_2402       | 4.41              | -48.61          | ≤-15.59        | PASS    |
|          |         | High   | Hop_2480       | 6.93              | -48.26          | ≤-13.07        | PASS    |

## Test Graphs

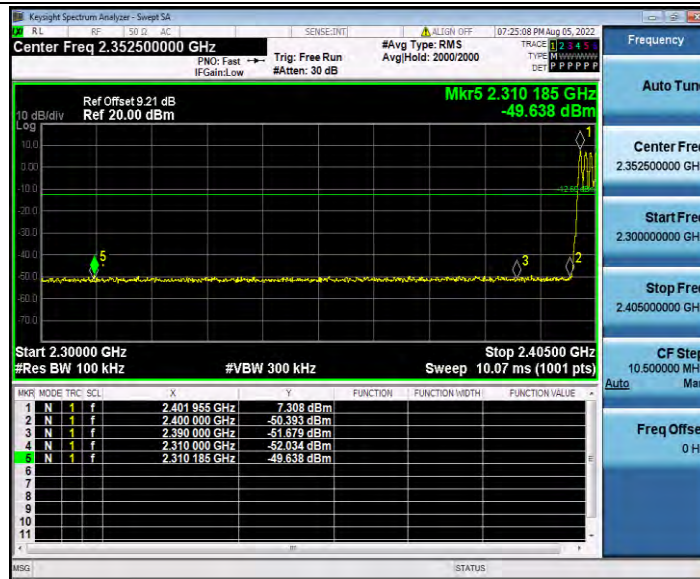
DH1\_Ant1\_Low\_2402



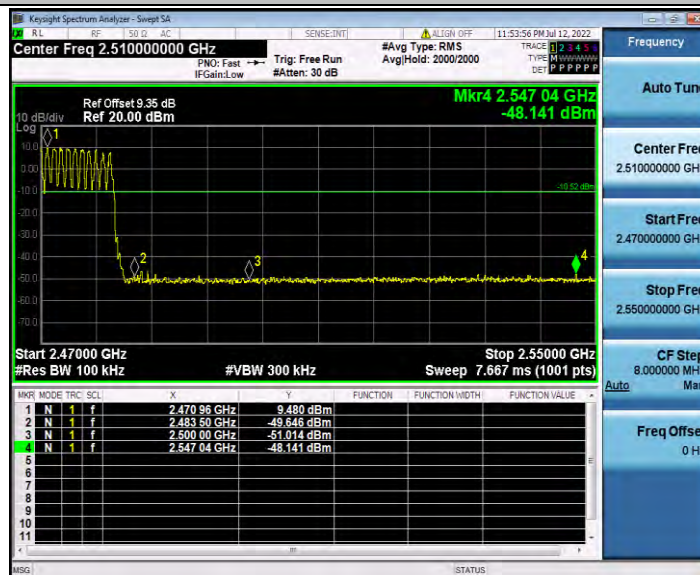
DH1\_Ant1\_High\_2480



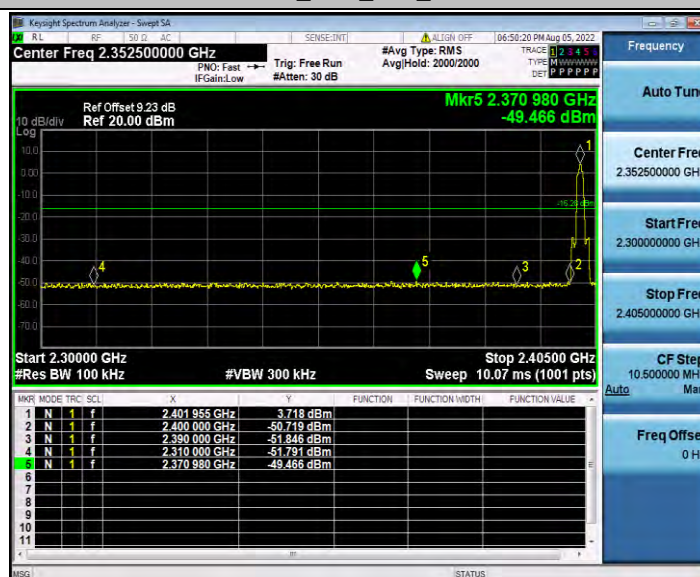
DH1\_Ant1\_Low\_Hop\_2402



DH1\_Ant1\_High\_Hop\_2480

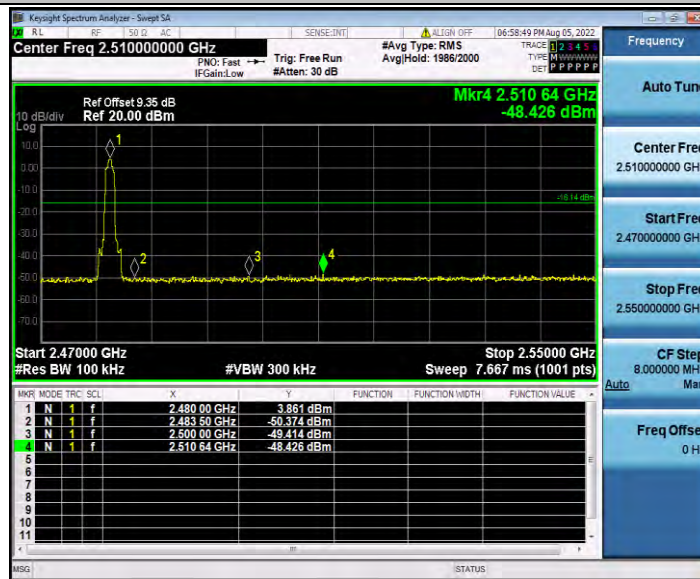


2DH1\_Ant1\_Low\_2402

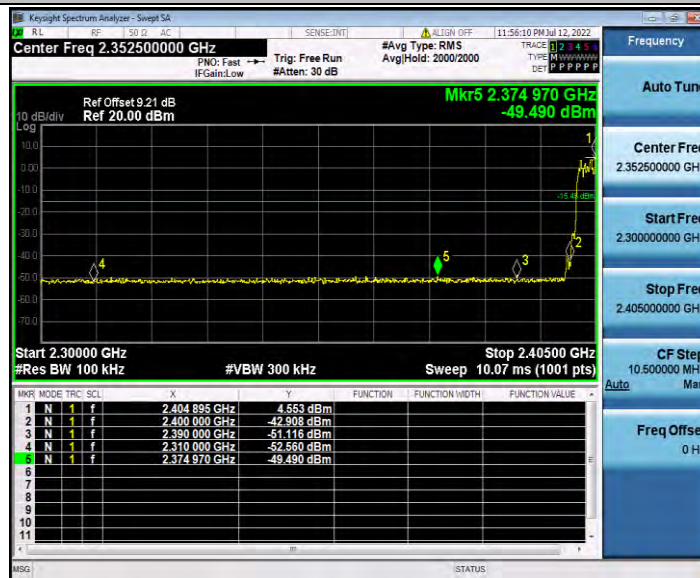




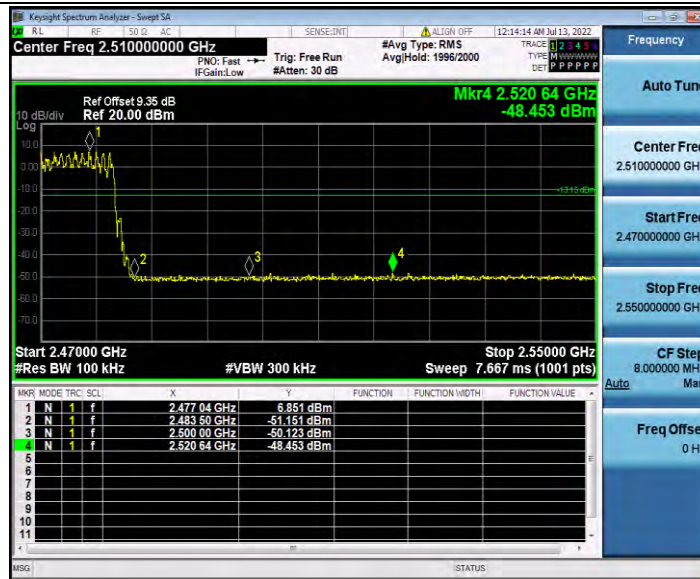
## 2DH1\_Ant1\_High\_2480



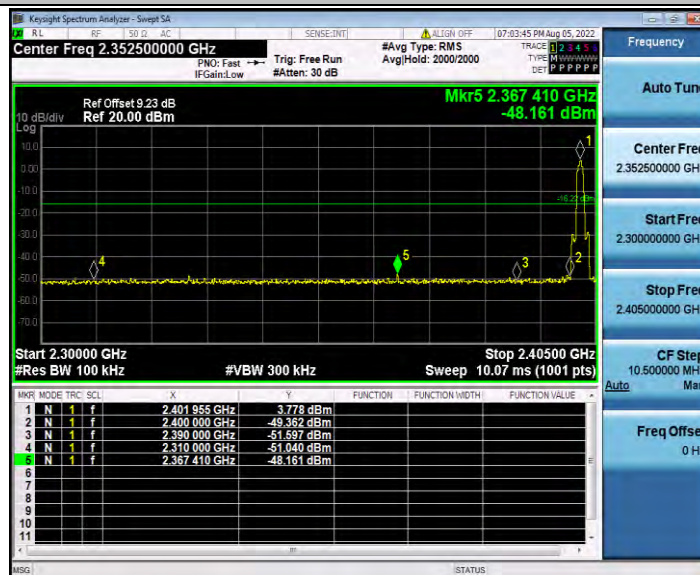
## 2DH1\_Ant1\_Low\_Hop\_2402



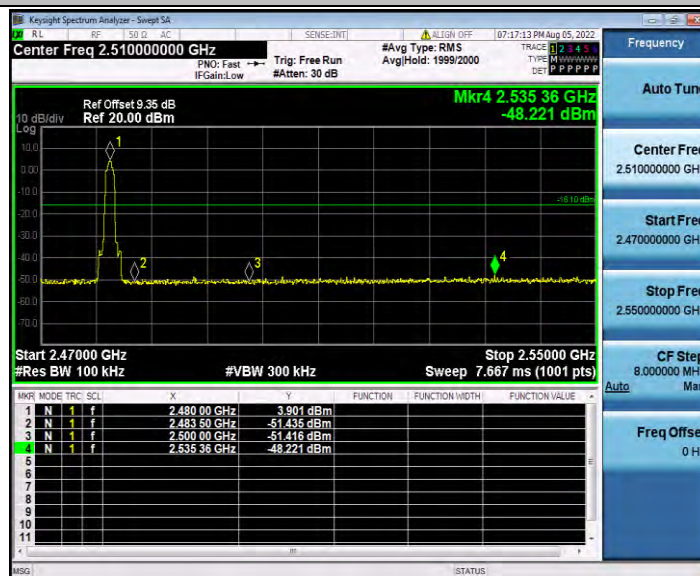
## 2DH1\_Ant1\_High\_Hop\_2480



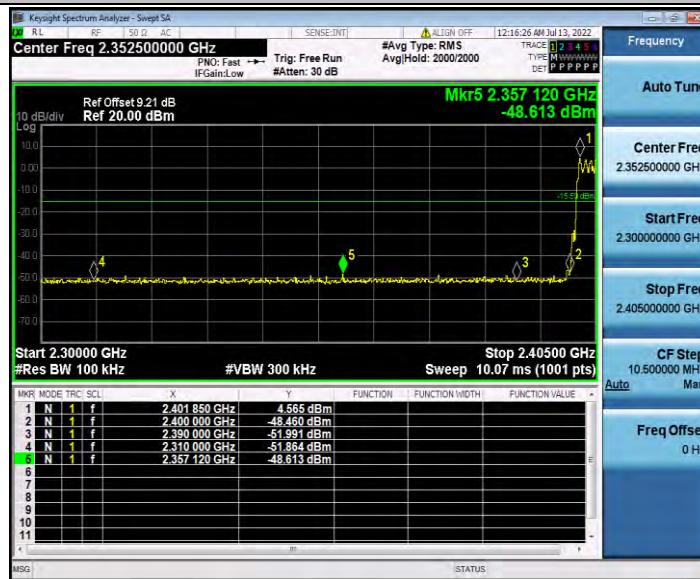
3DH1\_Ant1\_Low\_2402



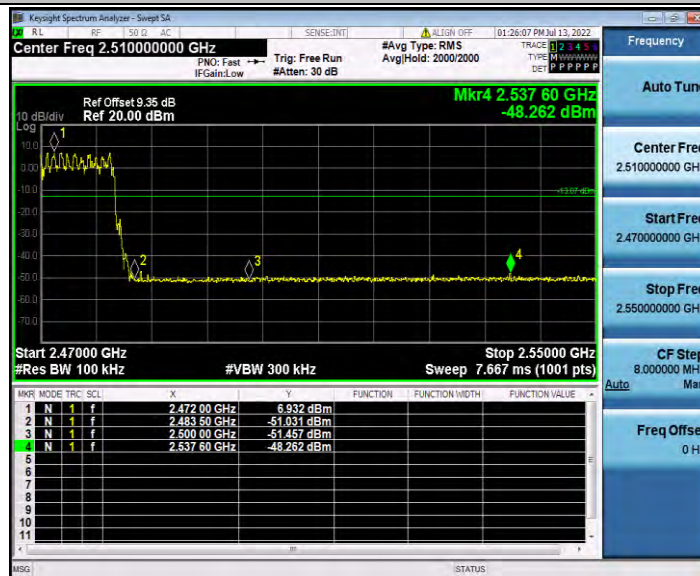
3DH1\_Ant1\_High\_2480



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



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



## Appendix A.8: Conducted Spurious Emission

### Test Result

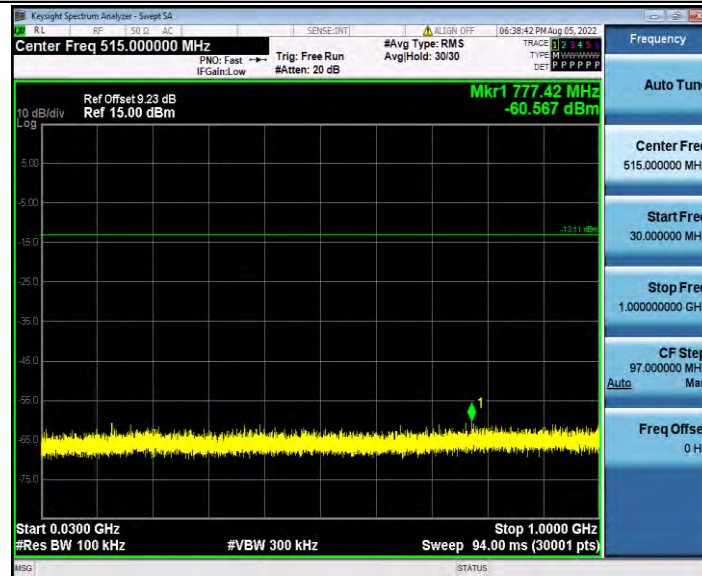
| TestMode | Antenna | Frequency[MHz] | FreqRange [MHz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|----------|---------|----------------|-----------------|----------------|--------------|-------------|---------|
| DH1      | Ant1    | 2402           | Reference       | 6.89           | 6.89         | ---         | PASS    |
|          |         |                | 30~1000         | 6.89           | -60.57       | ≤-13.11     | PASS    |
|          |         |                | 1000~26500      | 6.89           | -47.2        | ≤-13.11     | PASS    |
|          |         | 2441           | Reference       | 8.32           | 8.32         | ---         | PASS    |
|          |         |                | 30~1000         | 8.32           | -59.74       | ≤-11.68     | PASS    |
|          |         |                | 1000~26500      | 8.32           | -46.68       | ≤-11.68     | PASS    |
|          |         | 2480           | Reference       | 7.31           | 7.31         | ---         | PASS    |
|          |         |                | 30~1000         | 7.31           | -60.32       | ≤-12.69     | PASS    |
|          |         |                | 1000~26500      | 7.31           | -47.51       | ≤-12.69     | PASS    |
| 2DH1     | Ant1    | 2402           | Reference       | 3.33           | 3.33         | ---         | PASS    |
|          |         |                | 30~1000         | 3.33           | -60.64       | ≤-16.67     | PASS    |
|          |         |                | 1000~26500      | 3.33           | -47.7        | ≤-16.67     | PASS    |
|          |         | 2441           | Reference       | 4.49           | 4.49         | ---         | PASS    |
|          |         |                | 30~1000         | 4.49           | -60.47       | ≤-15.51     | PASS    |
|          |         |                | 1000~26500      | 4.49           | -47.23       | ≤-15.51     | PASS    |
|          |         | 2480           | Reference       | 3.02           | 3.02         | ---         | PASS    |
|          |         |                | 30~1000         | 3.02           | -60.13       | ≤-16.98     | PASS    |
|          |         |                | 1000~26500      | 3.02           | -46.81       | ≤-16.98     | PASS    |
| 3DH1     | Ant1    | 2402           | Reference       | 2.85           | 2.85         | ---         | PASS    |
|          |         |                | 30~1000         | 2.85           | -60.1        | ≤-17.15     | PASS    |
|          |         |                | 1000~26500      | 2.85           | -47.25       | ≤-17.15     | PASS    |
|          |         | 2441           | Reference       | 4.42           | 4.42         | ---         | PASS    |
|          |         |                | 30~1000         | 4.42           | -60.6        | ≤-15.58     | PASS    |
|          |         |                | 1000~26500      | 4.42           | -47.52       | ≤-15.58     | PASS    |
|          |         | 2480           | Reference       | 3.04           | 3.04         | ---         | PASS    |
|          |         |                | 30~1000         | 3.04           | -59.5        | ≤-16.96     | PASS    |
|          |         |                | 1000~26500      | 3.04           | -47.15       | ≤-16.96     | PASS    |

## Test Graphs

DH1\_Ant1\_2402\_0~Reference



DH1\_Ant1\_2402\_30~1000



DH1\_Ant1\_2402\_1000~26500

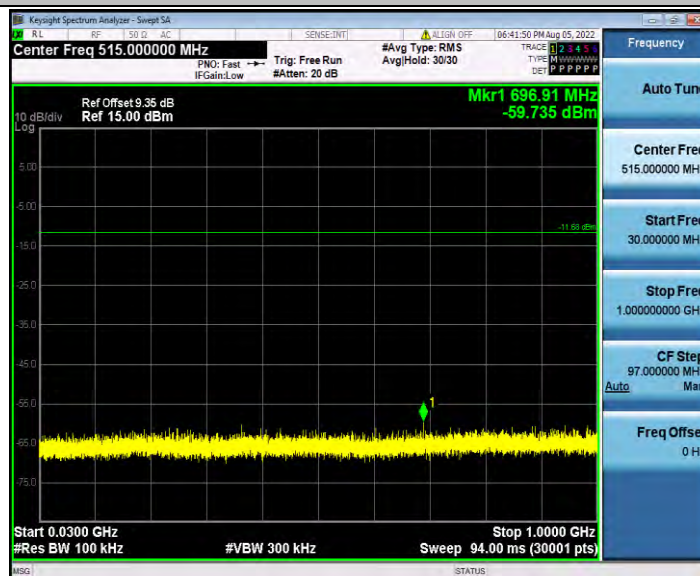




DH1\_Ant1\_2441\_0~Reference



DH1\_Ant1\_2441\_30~1000



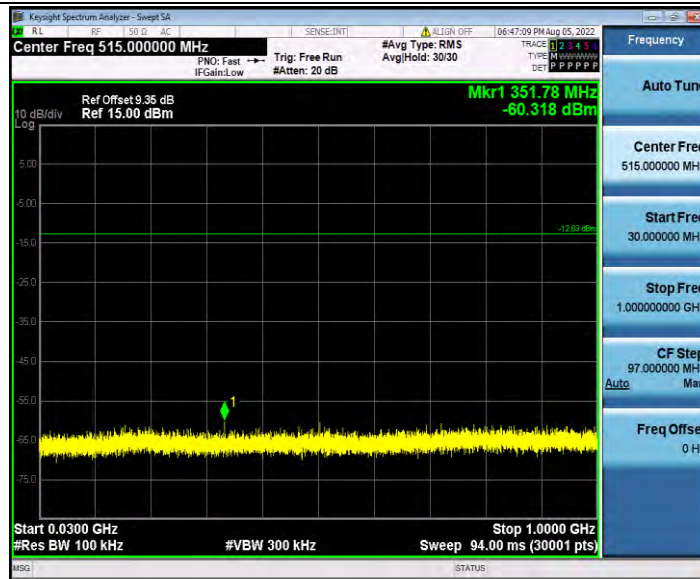
# DH1\_Ant1\_2441\_1000~26500



# DH1\_Ant1\_2480\_0~Reference



# DH1\_Ant1\_2480\_30~1000



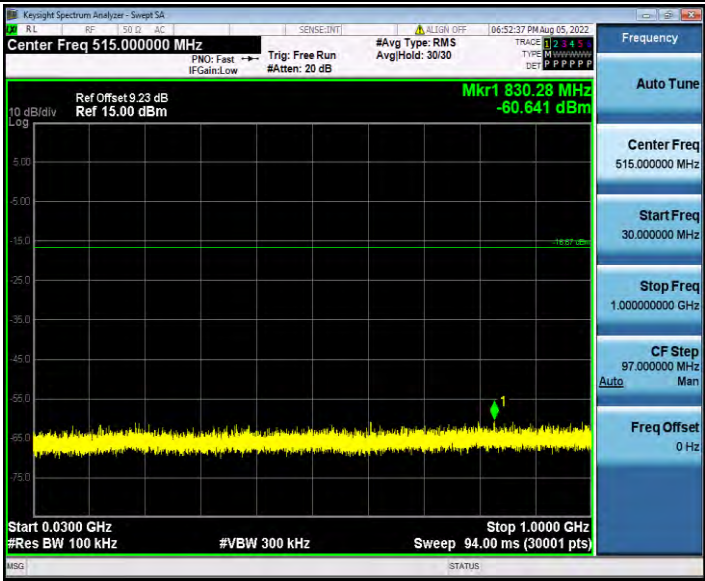
DH1\_Ant1\_2480\_1000~26500



2DH1\_Ant1\_2402\_0~Reference



2DH1\_Ant1\_2402\_30~1000



2DH1\_Ant1\_2402\_1000~26500

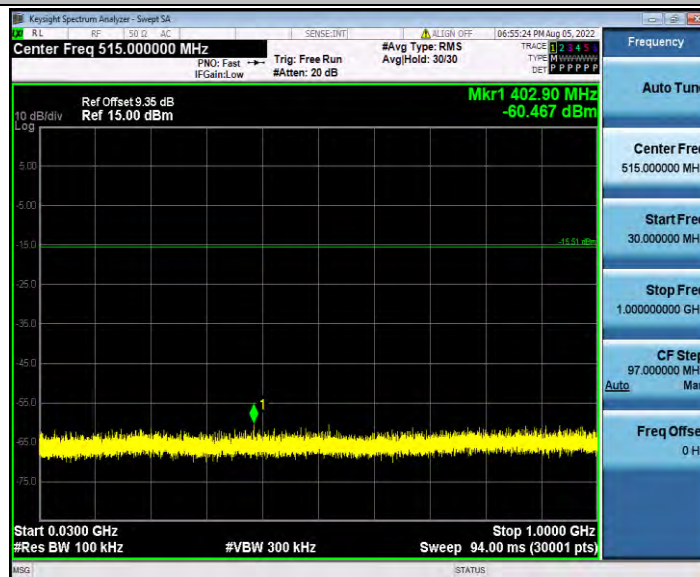


2DH1\_Ant1\_2441\_0~Reference





2DH1\_Ant1\_2441\_30~1000



2DH1\_Ant1\_2441\_1000~26500

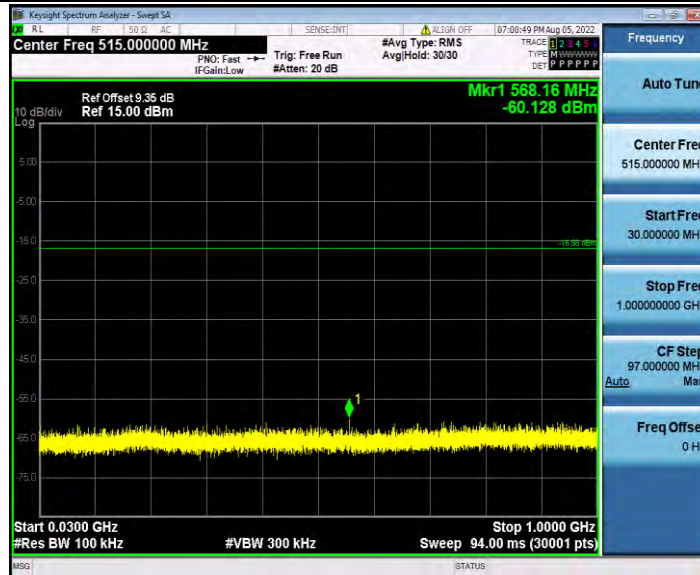




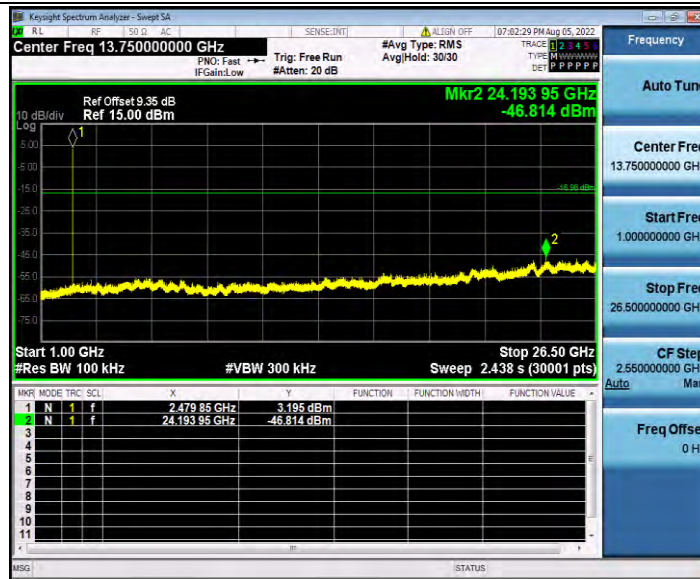
## 2DH1\_Ant1\_2480\_0~Reference



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



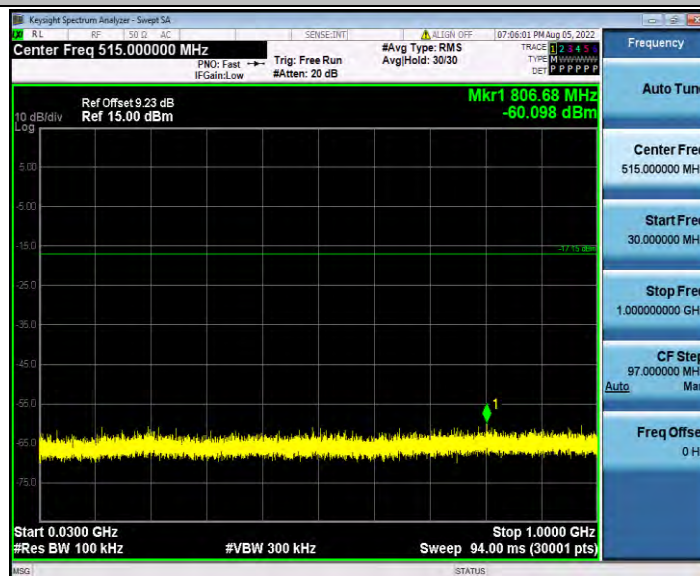
## 2DH1\_Ant1\_2480\_1000~26500



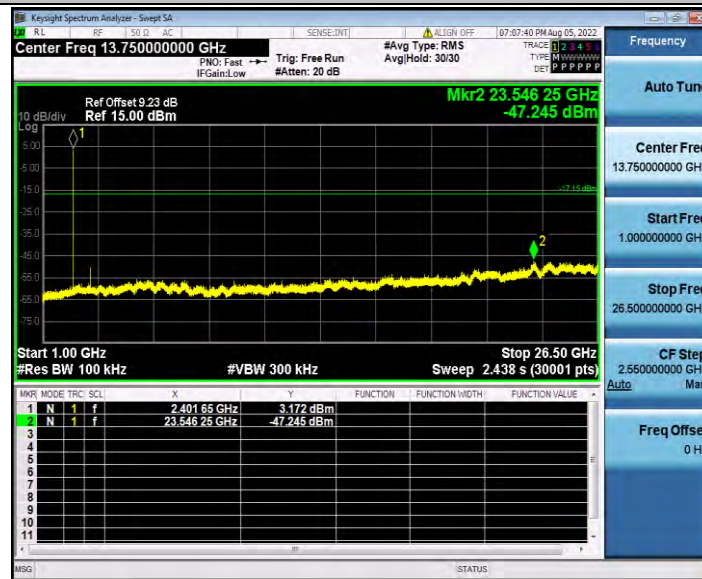
3DH1\_Ant1\_2402\_0~Reference



3DH1\_Ant1\_2402\_30~1000



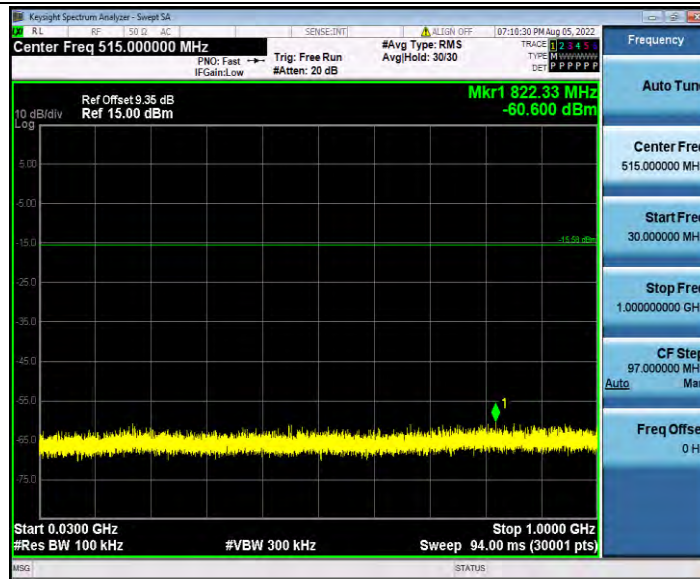
### 3DH1\_Ant1\_2402\_1000~26500



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



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



3DH1\_Ant1\_2441\_1000~26500

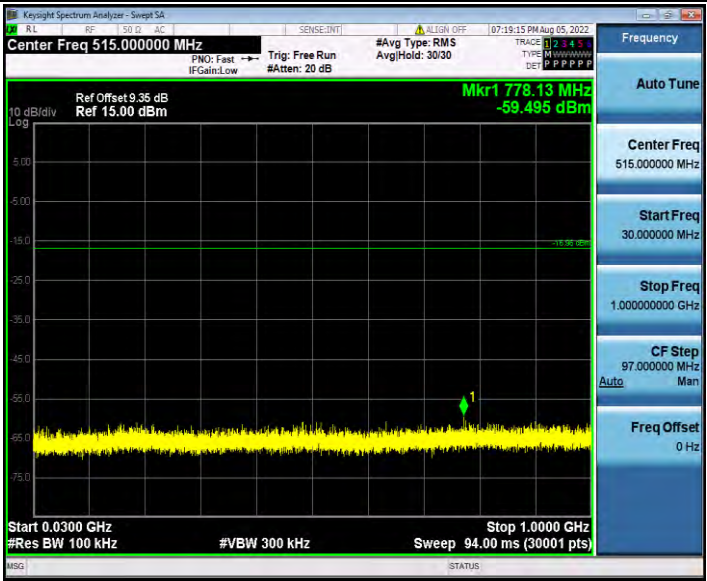


3DH1\_Ant1\_2480\_0~Reference





3DH1\_Ant1\_2480\_30~1000



3DH1\_Ant1\_2480\_1000~26500

