

|                                   |                           |
|-----------------------------------|---------------------------|
| Case No. : GTS20220905013-1-7     |                           |
| Ambient Condition: 24 °C, 46 %RH, |                           |
| Test Date: 2022.9.21              | 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           | 0.939            | 2401.541 | 2402.480 | ---        | ---     |
|          |         | 2441           | 0.930            | 2440.544 | 2441.474 | ---        | ---     |
|          |         | 2480           | 0.864            | 2479.574 | 2480.438 | ---        | ---     |
| 2DH1     | Ant1    | 2402           | 1.287            | 2401.337 | 2402.624 | ---        | ---     |
|          |         | 2441           | 1.308            | 2440.340 | 2441.648 | ---        | ---     |
|          |         | 2480           | 1.329            | 2479.334 | 2480.663 | ---        | ---     |
| 3DH1     | Ant1    | 2402           | 1.260            | 2401.385 | 2402.645 | ---        | ---     |
|          |         | 2441           | 1.257            | 2440.385 | 2441.642 | ---        | ---     |
|          |         | 2480           | 1.266            | 2479.370 | 2480.636 | ---        | ---     |

## 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           | 0.86939   | 2401.569 | 2402.438 | ---        | ---     |
|          |         | 2441           | 0.85429   | 2440.580 | 2441.435 | ---        | ---     |
|          |         | 2480           | 0.85401   | 2479.583 | 2480.437 | ---        | ---     |
| 2DH1     | Ant1    | 2402           | 1.1848    | 2401.403 | 2402.588 | ---        | ---     |
|          |         | 2441           | 1.1823    | 2440.404 | 2441.587 | ---        | ---     |
|          |         | 2480           | 1.1852    | 2479.404 | 2480.589 | ---        | ---     |
| 3DH1     | Ant1    | 2402           | 1.1688    | 2401.434 | 2402.603 | ---        | ---     |
|          |         | 2441           | 1.1678    | 2440.433 | 2441.601 | ---        | ---     |
|          |         | 2480           | 1.1661    | 2479.434 | 2480.600 | ---        | ---     |

## 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           | 8.94                      | ≤20.97               | PASS    |
|           |         | 2441           | 9.57                      | ≤20.97               | PASS    |
|           |         | 2480           | 9.64                      | ≤20.97               | PASS    |
| 2DH1      | Ant1    | 2402           | 11.39                     | ≤20.97               | PASS    |
|           |         | 2441           | 11.8                      | ≤20.97               | PASS    |
|           |         | 2480           | 12.1                      | ≤20.97               | PASS    |
| 3DH1      | Ant1    | 2402           | 12.04                     | ≤20.97               | PASS    |
|           |         | 2441           | 12.46                     | ≤20.97               | PASS    |
|           |         | 2480           | 12.61                     | ≤20.97               | PASS    |

## Appendix A.4: Carrier frequency separation

### Test Result

| TestMode | Antenna | Frequency[MHz] | Result[MHz] | Limit[MHz]   | Verdict |
|----------|---------|----------------|-------------|--------------|---------|
| DH1      | Ant1    | Hop_2402       | 0.83        | $\geq 0.626$ | PASS    |
|          |         | Hop_2441       | 1.166       | $\geq 0.626$ | PASS    |
|          |         | Hop_2480       | 1.152       | $\geq 0.626$ | PASS    |
| 2DH1     | Ant1    | Hop_2402       | 1.03        | $\geq 0.886$ | PASS    |
|          |         | Hop_2441       | 1.154       | $\geq 0.886$ | PASS    |
|          |         | Hop_2480       | 1.004       | $\geq 0.886$ | PASS    |
| 3DH1     | Ant1    | Hop_2402       | 0.994       | $\geq 0.844$ | PASS    |
|          |         | Hop_2441       | 0.99        | $\geq 0.844$ | PASS    |
|          |         | Hop_2480       | 0.666       | $\geq 0.844$ | FAIL    |

## 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

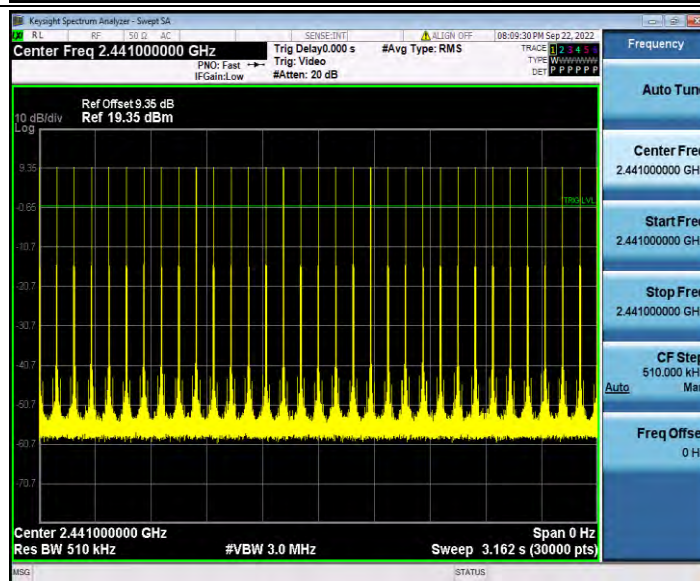
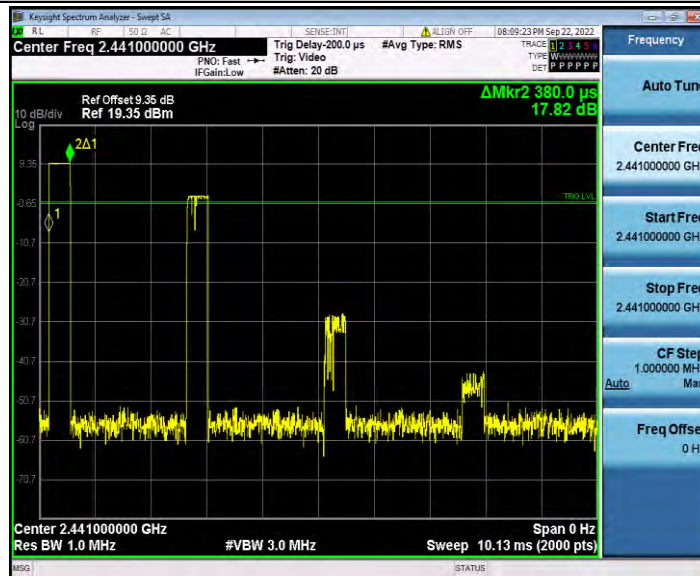


## Appendix A.5: Time of occupancy

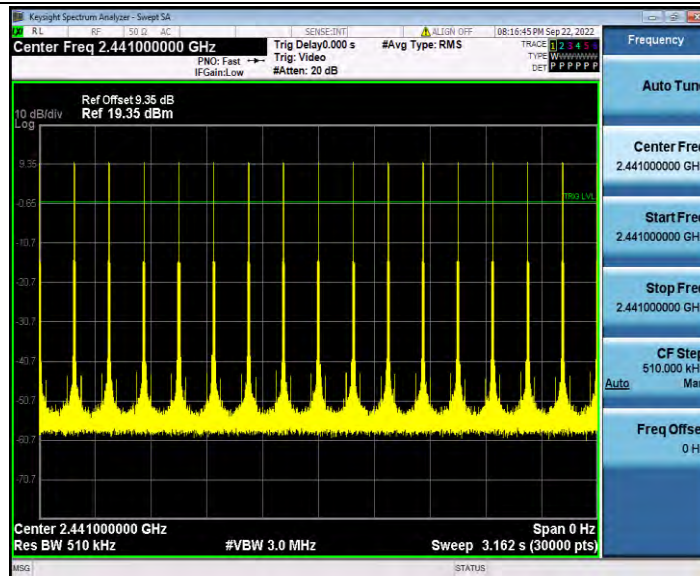
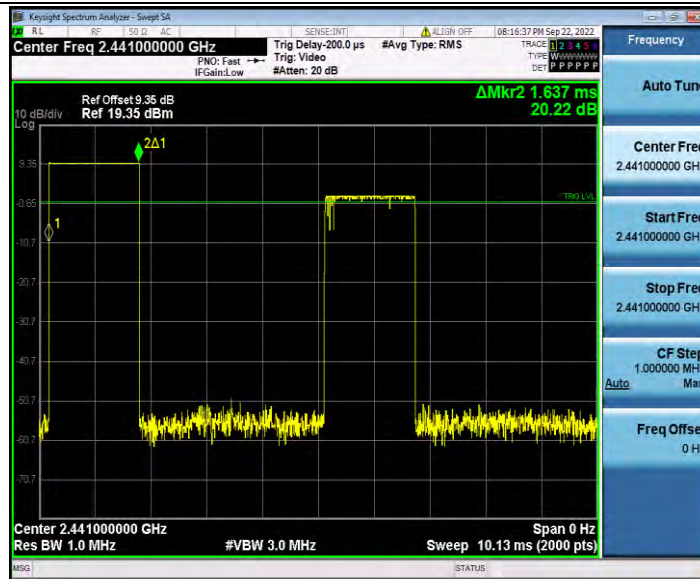
### Test Result

| TestMode | Antenna | Frequency[MHz] | BurstWidth<br>[ms] | TotalHops<br>[Num] | Result[s] | Limit[s] | Verdict |
|----------|---------|----------------|--------------------|--------------------|-----------|----------|---------|
| DH1      | Ant1    | Hop            | 0.38               | 330                | 0.125     | ≤0.4     | PASS    |
| DH3      | Ant1    | Hop            | 1.64               | 170                | 0.278     | ≤0.4     | PASS    |
| DH5      | Ant1    | Hop            | 2.88               | 110                | 0.317     | ≤0.4     | PASS    |
| 2DH1     | Ant1    | Hop            | 0.39               | 330                | 0.127     | ≤0.4     | PASS    |
| 2DH3     | Ant1    | Hop            | 1.64               | 170                | 0.279     | ≤0.4     | PASS    |
| 2DH5     | Ant1    | Hop            | 2.88               | 110                | 0.317     | ≤0.4     | PASS    |
| 3DH1     | Ant1    | Hop            | 0.39               | 330                | 0.127     | ≤0.4     | PASS    |
| 3DH3     | Ant1    | Hop            | 1.64               | 170                | 0.278     | ≤0.4     | PASS    |
| 3DH5     | Ant1    | Hop            | 2.89               | 110                | 0.317     | ≤0.4     | PASS    |

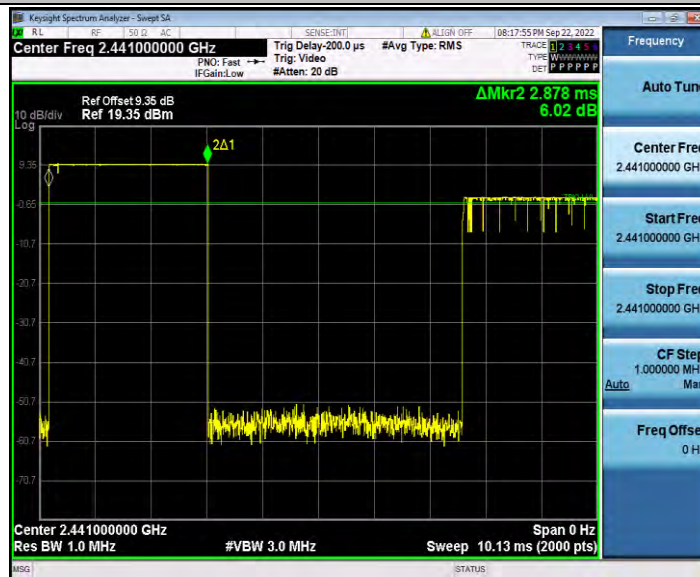
|              |
|--------------|
| DH1_Ant1_Hop |
|--------------|

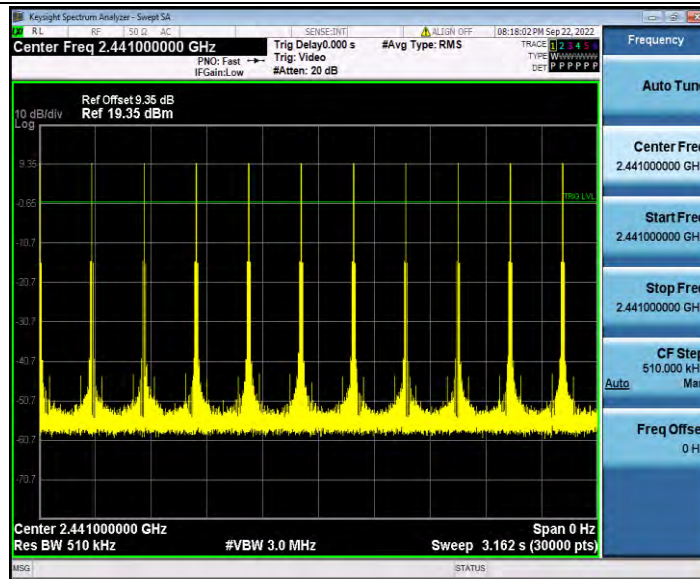


| DH3_Ant1_Hop |     |
|--------------|-----|
| 1            | 1   |
| 2            | 2   |
| 3            | 3   |
| 4            | 4   |
| 5            | 5   |
| 6            | 6   |
| 7            | 7   |
| 8            | 8   |
| 9            | 9   |
| 10           | 10  |
| 11           | 11  |
| 12           | 12  |
| 13           | 13  |
| 14           | 14  |
| 15           | 15  |
| 16           | 16  |
| 17           | 17  |
| 18           | 18  |
| 19           | 19  |
| 20           | 20  |
| 21           | 21  |
| 22           | 22  |
| 23           | 23  |
| 24           | 24  |
| 25           | 25  |
| 26           | 26  |
| 27           | 27  |
| 28           | 28  |
| 29           | 29  |
| 30           | 30  |
| 31           | 31  |
| 32           | 32  |
| 33           | 33  |
| 34           | 34  |
| 35           | 35  |
| 36           | 36  |
| 37           | 37  |
| 38           | 38  |
| 39           | 39  |
| 40           | 40  |
| 41           | 41  |
| 42           | 42  |
| 43           | 43  |
| 44           | 44  |
| 45           | 45  |
| 46           | 46  |
| 47           | 47  |
| 48           | 48  |
| 49           | 49  |
| 50           | 50  |
| 51           | 51  |
| 52           | 52  |
| 53           | 53  |
| 54           | 54  |
| 55           | 55  |
| 56           | 56  |
| 57           | 57  |
| 58           | 58  |
| 59           | 59  |
| 60           | 60  |
| 61           | 61  |
| 62           | 62  |
| 63           | 63  |
| 64           | 64  |
| 65           | 65  |
| 66           | 66  |
| 67           | 67  |
| 68           | 68  |
| 69           | 69  |
| 70           | 70  |
| 71           | 71  |
| 72           | 72  |
| 73           | 73  |
| 74           | 74  |
| 75           | 75  |
| 76           | 76  |
| 77           | 77  |
| 78           | 78  |
| 79           | 79  |
| 80           | 80  |
| 81           | 81  |
| 82           | 82  |
| 83           | 83  |
| 84           | 84  |
| 85           | 85  |
| 86           | 86  |
| 87           | 87  |
| 88           | 88  |
| 89           | 89  |
| 90           | 90  |
| 91           | 91  |
| 92           | 92  |
| 93           | 93  |
| 94           | 94  |
| 95           | 95  |
| 96           | 96  |
| 97           | 97  |
| 98           | 98  |
| 99           | 99  |
| 100          | 100 |

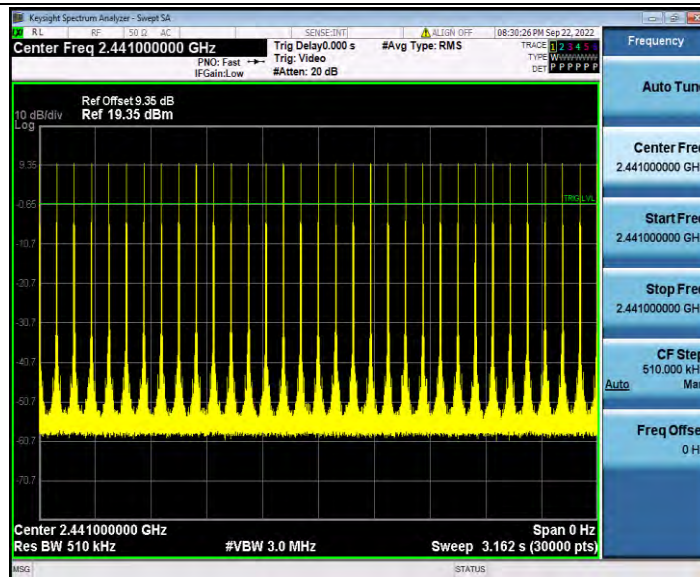
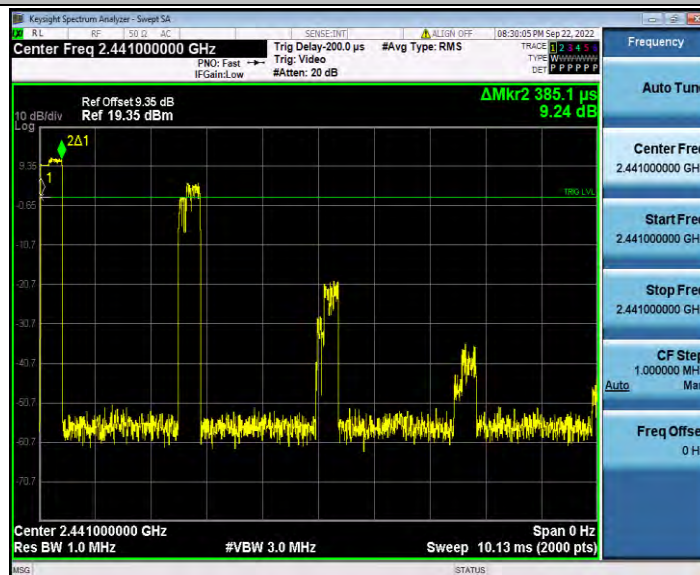


DH5\_Ant1\_Hop

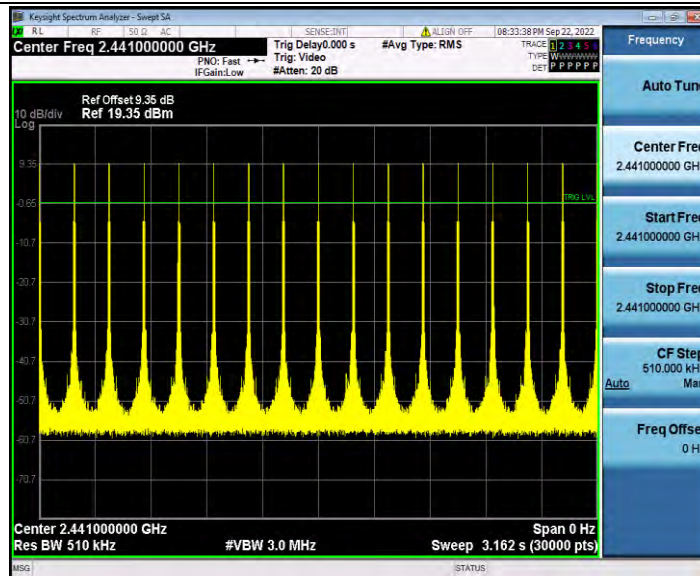
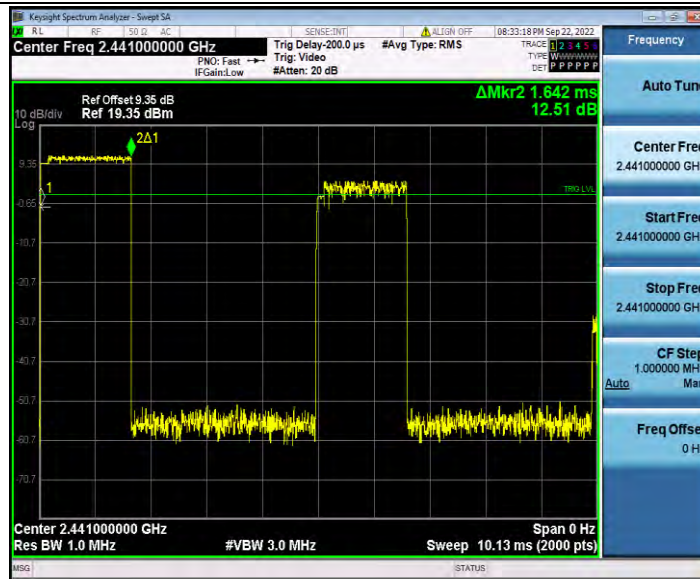




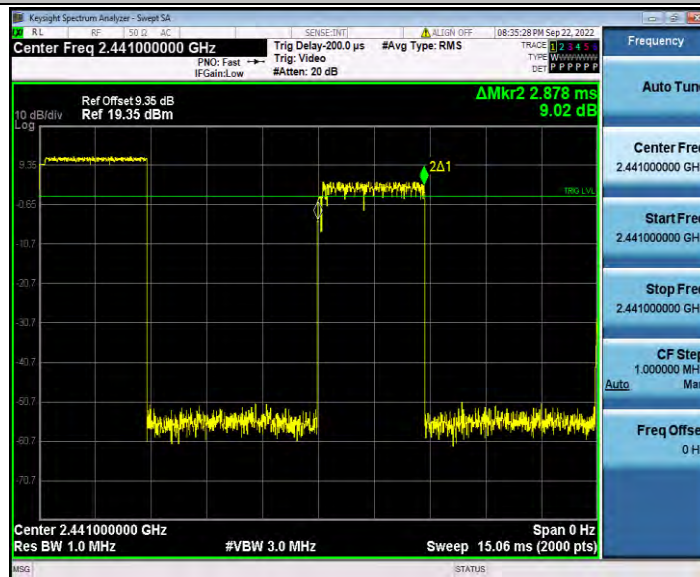
2DH1\_Ant1\_Hop

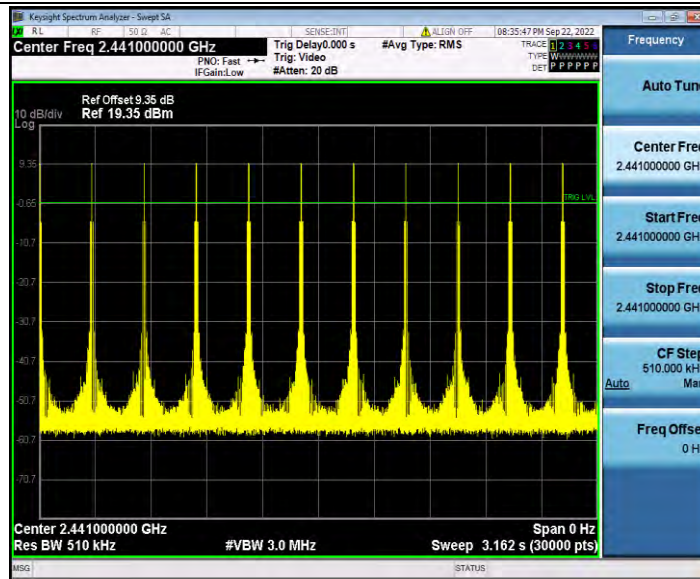


2DH3\_Ant1\_Hop

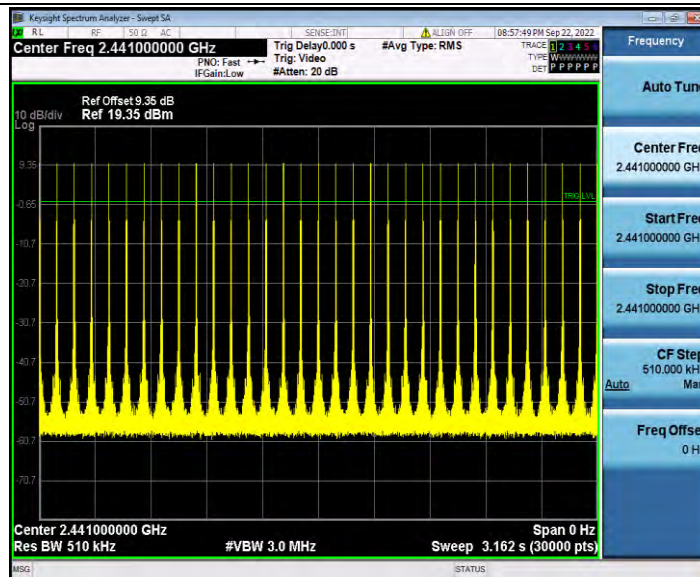
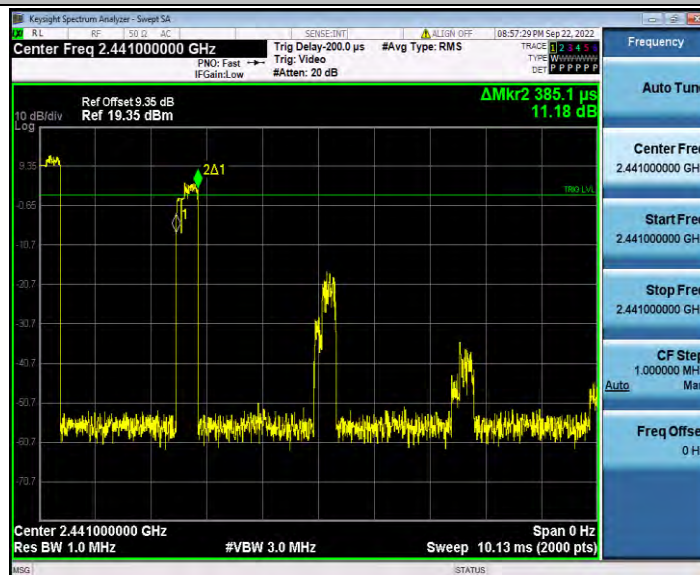


2DH5\_Ant1\_Hop

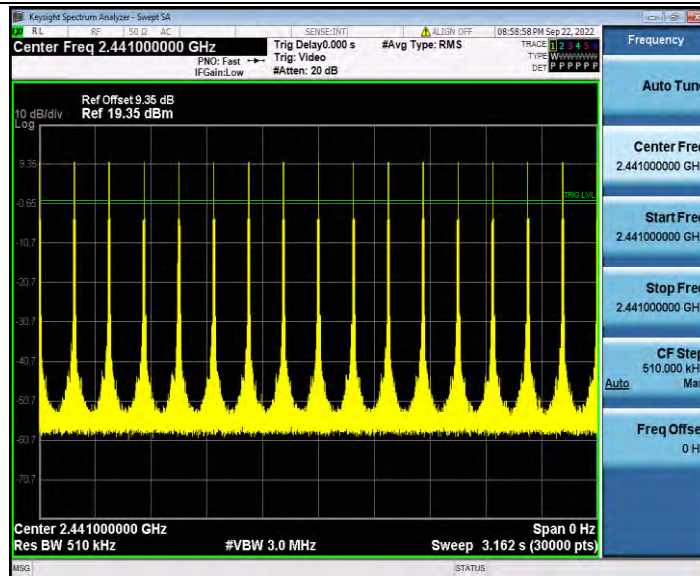
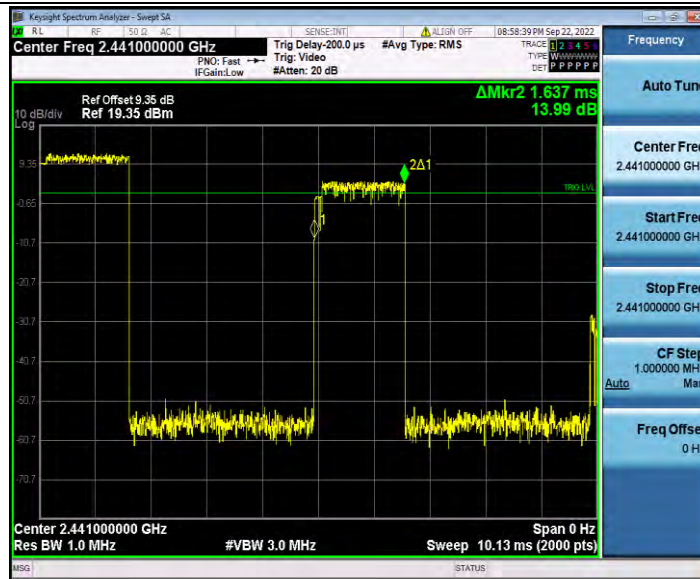




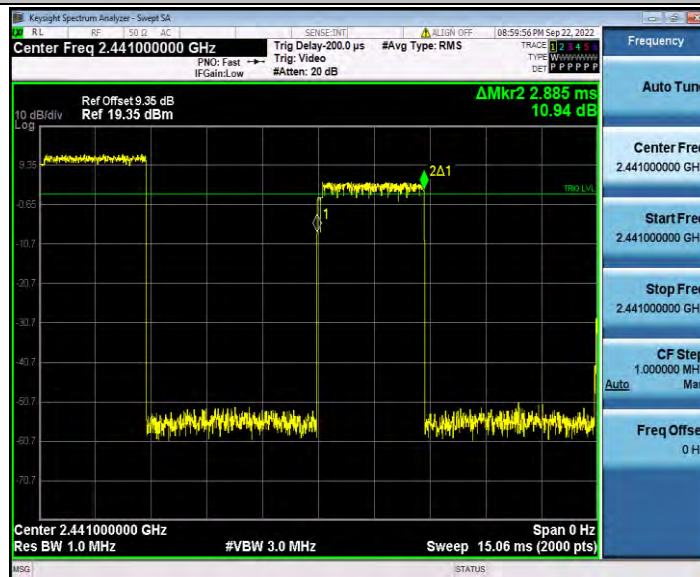
3DH1\_Ant1\_Hop

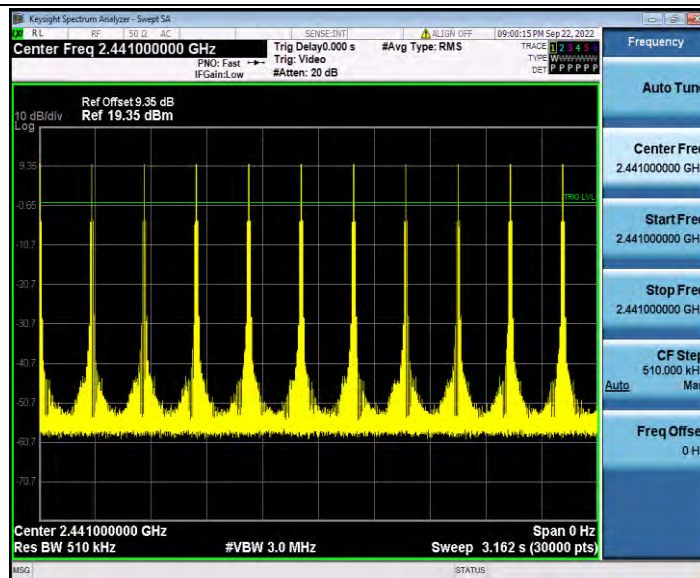


3DH3\_Ant1\_Hop



3DH5\_Ant1\_Hop





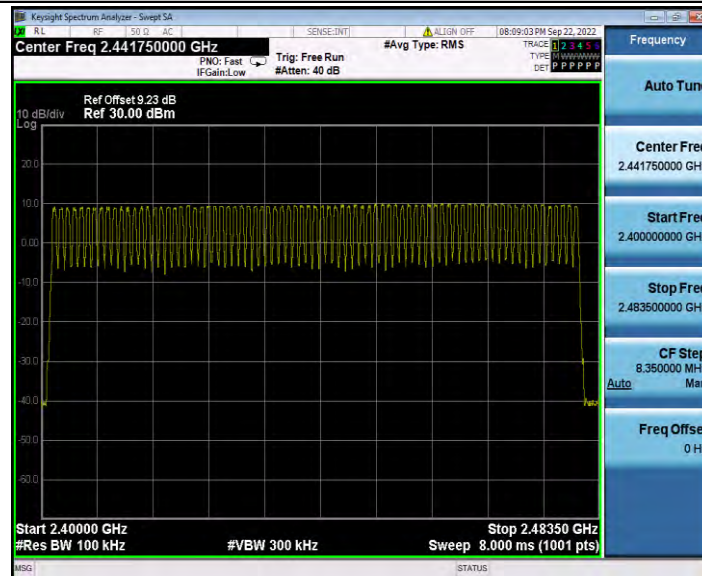
## Appendix A.6: Number of hopping channels

### Test Result

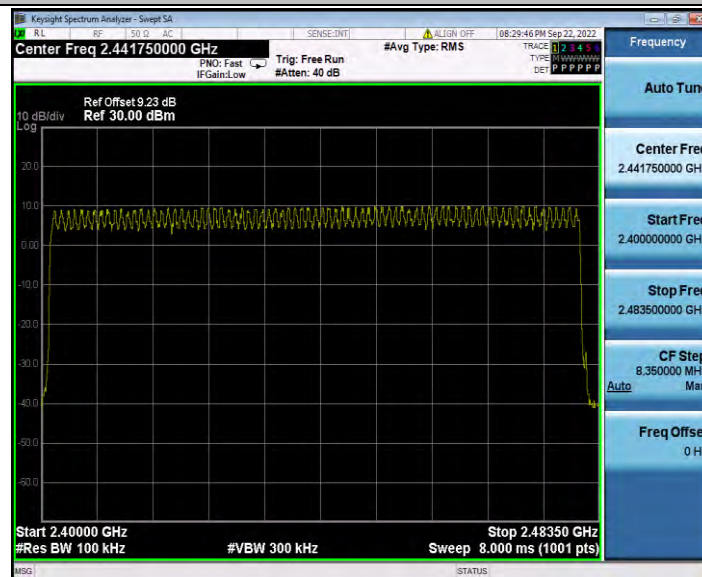
| TestMode | Antenna | Frequency[MHz] | Result[Num] | Limit[Num] | Verdict |
|----------|---------|----------------|-------------|------------|---------|
| DH1      | Ant1    | Hop            | 79          | ≥15        | PASS    |
| 2DH1     | Ant1    | Hop            | 79          | ≥15        | PASS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

## Test Graphs

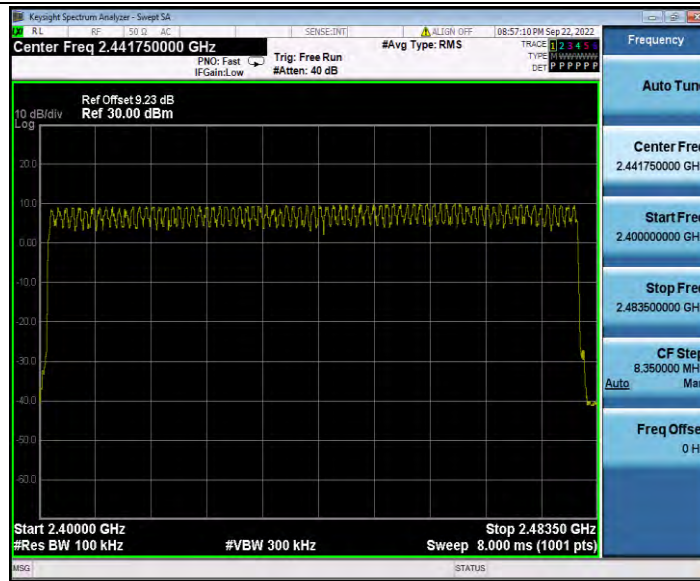
DH1\_Ant1\_Hop



2DH1\_Ant1\_Hop



3DH1\_Ant1\_Hop



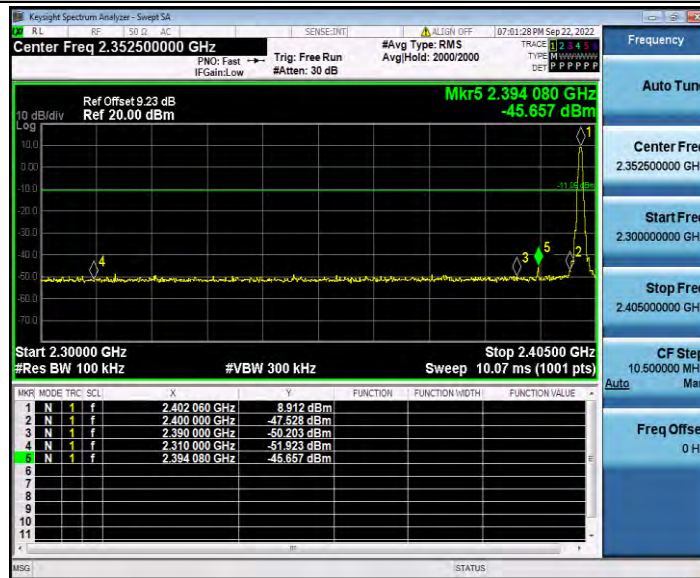
## Appendix A.7: Band edge measurements

### Test Result

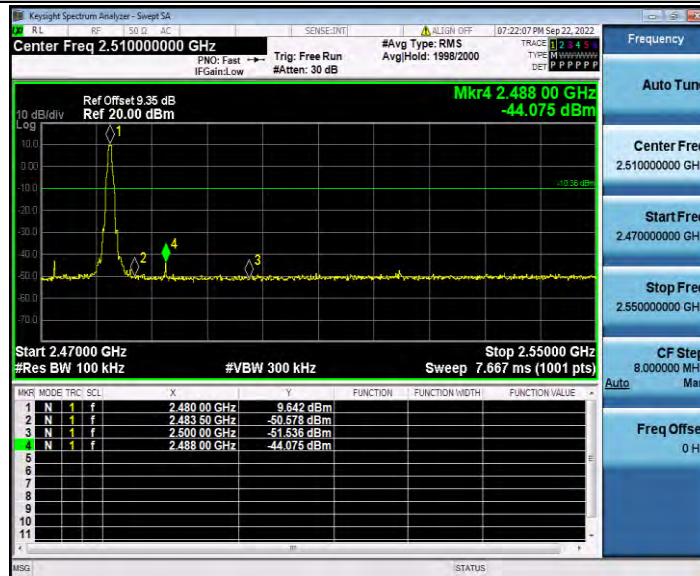
| TestMode | Antenna | ChName | Frequency[MHz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|----------|---------|--------|----------------|----------------|--------------|-------------|---------|
| DH1      | Ant1    | Low    | 2402           | 8.91           | -45.66       | ≤-11.09     | PASS    |
|          |         | High   | 2480           | 9.64           | -44.08       | ≤-10.36     | PASS    |
|          |         | Low    | Hop_2402       | 8.92           | -49.52       | ≤-11.08     | PASS    |
|          |         | High   | Hop_2480       | 9.95           | -48.18       | ≤-10.05     | PASS    |
| 2DH1     | Ant1    | Low    | 2402           | 8.92           | -43.52       | ≤-11.08     | PASS    |
|          |         | High   | 2480           | 9.92           | -43.8        | ≤-10.08     | PASS    |
|          |         | Low    | Hop_2402       | 8.53           | -48.83       | ≤-11.47     | PASS    |
|          |         | High   | Hop_2480       | 9.96           | -48.73       | ≤-10.04     | PASS    |
| 3DH1     | Ant1    | Low    | 2402           | 8.92           | -41.04       | ≤-11.08     | PASS    |
|          |         | High   | 2480           | 9.79           | -45.54       | ≤-10.21     | PASS    |
|          |         | Low    | Hop_2402       | 8.77           | -49.21       | ≤-11.23     | PASS    |
|          |         | High   | Hop_2480       | 9.86           | -48.77       | ≤-10.14     | PASS    |

## Test Graphs

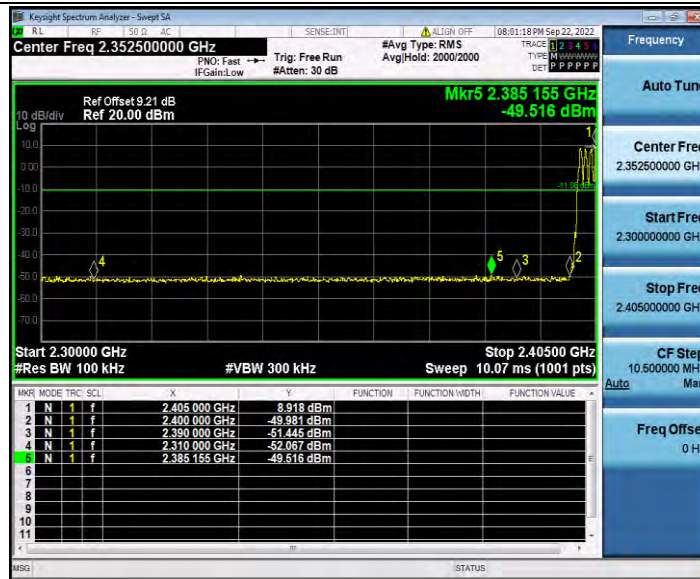
DH1\_Ant1\_Low\_2402



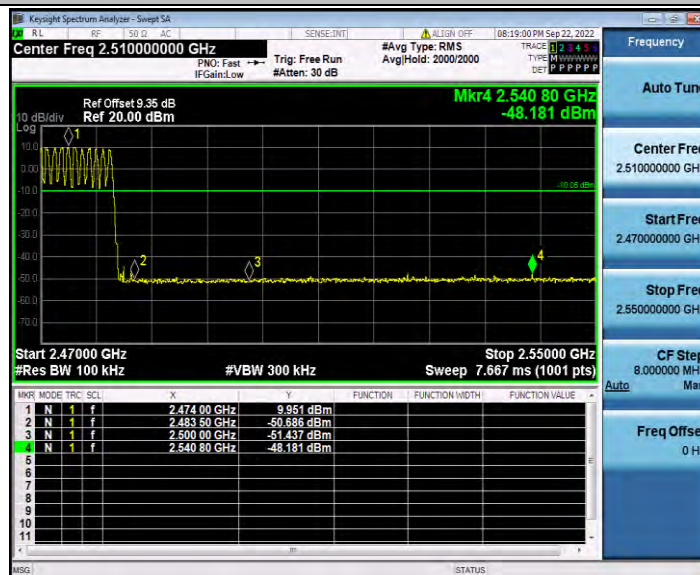
DH1\_Ant1\_High\_2480



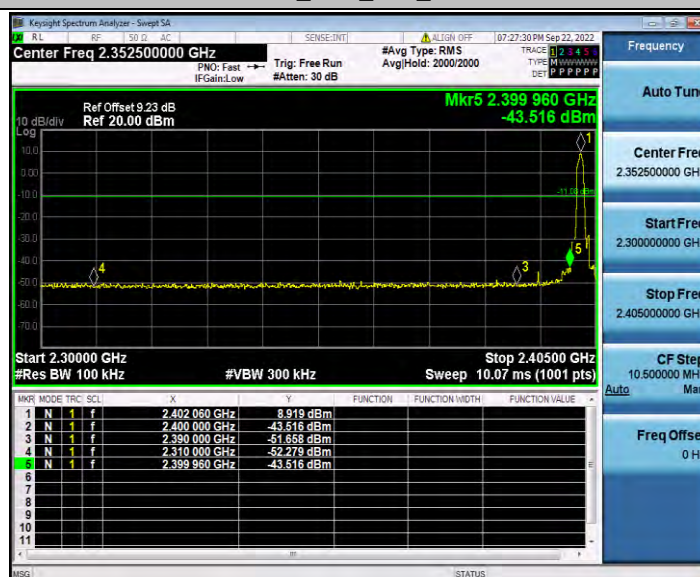
DH1\_Ant1\_Low\_Hop\_2402



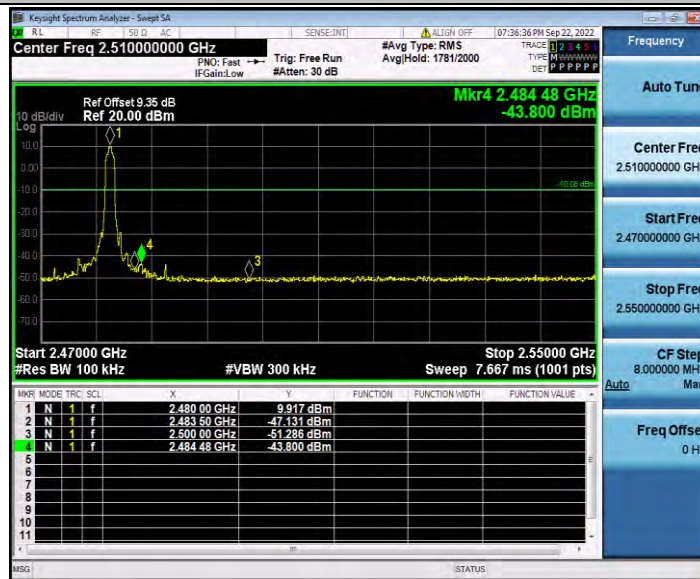
DH1\_Ant1\_High\_Hop\_2480



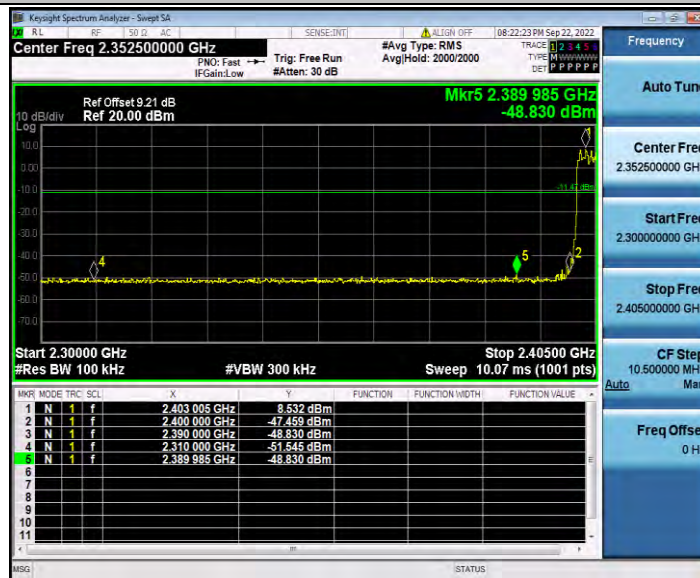
2DH1\_Ant1\_Low\_2402



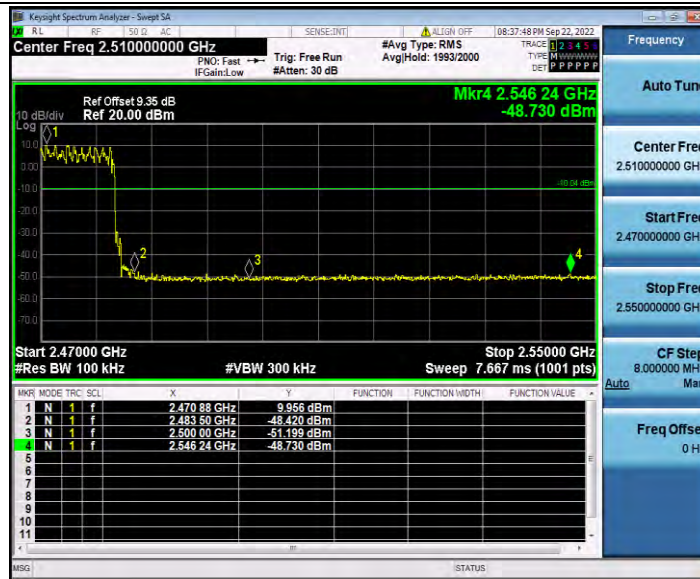
## 2DH1\_Ant1\_High\_2480



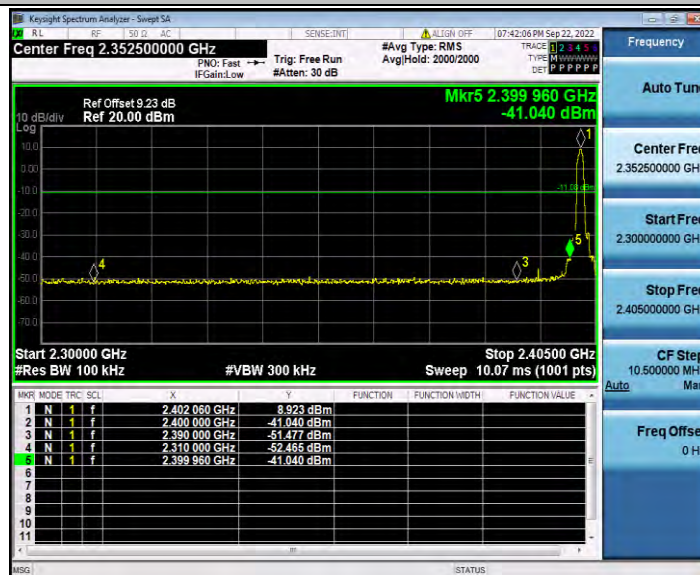
## 2DH1\_Ant1\_Low\_Hop\_2402



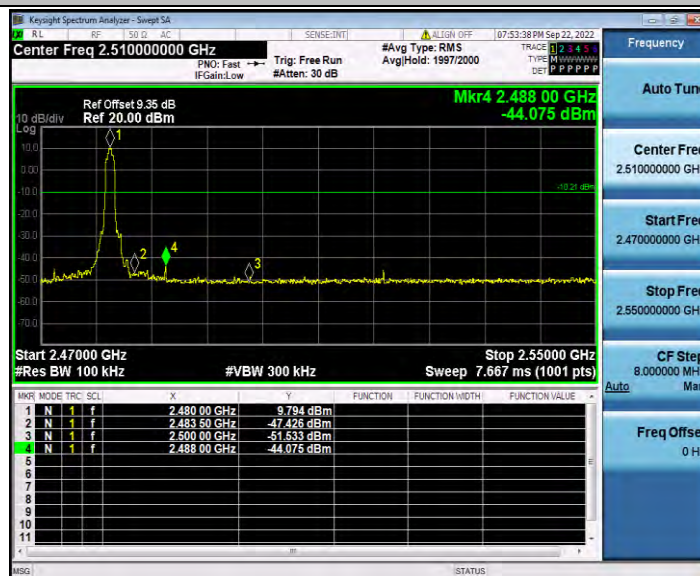
## 2DH1\_Ant1\_High\_Hop\_2480



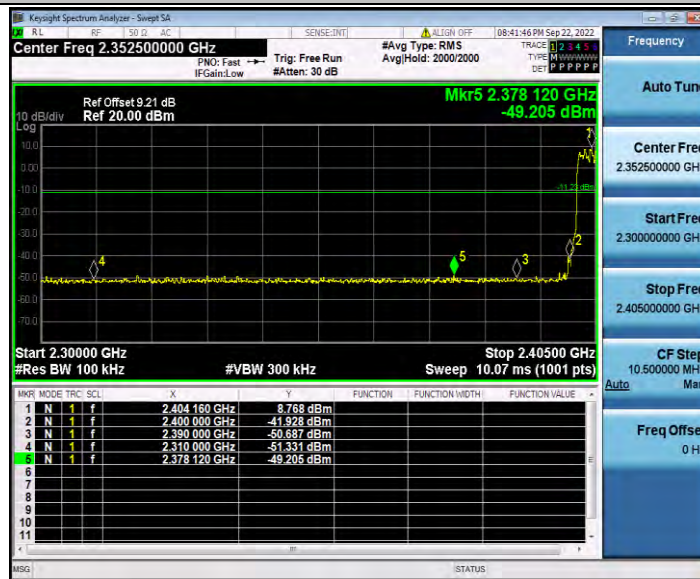
3DH1\_Ant1\_Low\_2402



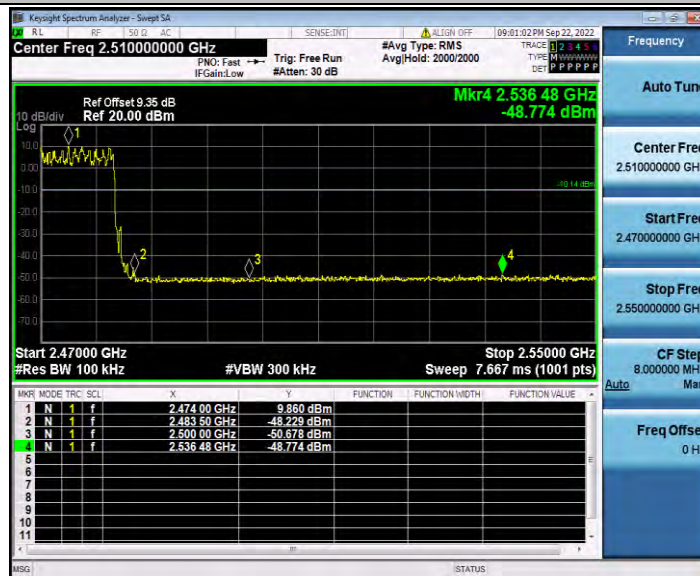
3DH1\_Ant1\_High\_2480



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



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



## Appendix A.8: Conducted Spurious Emission

### Test Result

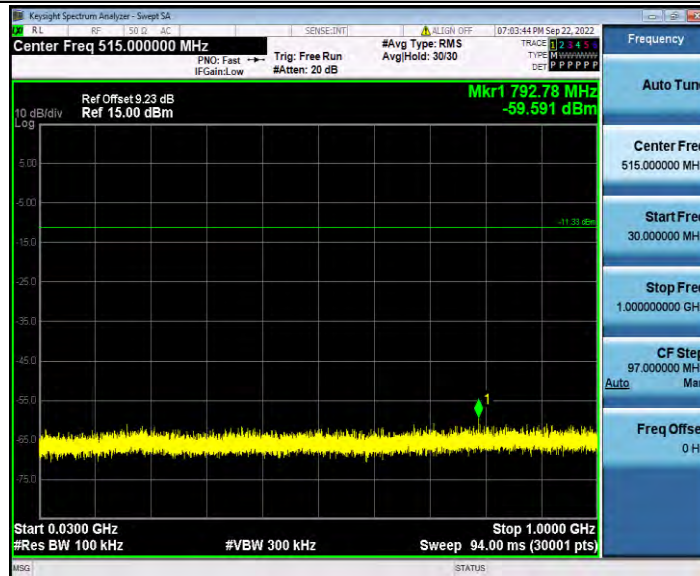
| TestMode | Antenna | Frequency[MHz] | FreqRange<br>[MHz] | RefLevel<br>[dBm] | Result<br>[dBm] | Limit<br>[dBm] | Verdict |
|----------|---------|----------------|--------------------|-------------------|-----------------|----------------|---------|
| DH1      | Ant1    | 2402           | Reference          | 8.67              | 8.67            | ---            | PASS    |
|          |         |                | 30~1000            | 8.67              | -59.59          | ≤-11.33        | PASS    |
|          |         |                | 1000~26500         | 8.67              | -44.15          | ≤-11.33        | PASS    |
|          |         | 2441           | Reference          | 9.44              | 9.44            | ---            | PASS    |
|          |         |                | 30~1000            | 9.44              | -60.42          | ≤-10.56        | PASS    |
|          |         |                | 1000~26500         | 9.44              | -45.51          | ≤-10.56        | PASS    |
|          |         | 2480           | Reference          | 8.77              | 8.77            | ---            | PASS    |
|          |         |                | 30~1000            | 8.77              | -59.73          | ≤-11.23        | PASS    |
|          |         |                | 1000~26500         | 8.77              | -44.89          | ≤-11.23        | PASS    |
| 2DH1     | Ant1    | 2402           | Reference          | 8.57              | 8.57            | ---            | PASS    |
|          |         |                | 30~1000            | 8.57              | -60.07          | ≤-11.43        | PASS    |
|          |         |                | 1000~26500         | 8.57              | -47.29          | ≤-11.43        | PASS    |
|          |         | 2441           | Reference          | 9.30              | 9.30            | ---            | PASS    |
|          |         |                | 30~1000            | 9.30              | -59.77          | ≤-10.7         | PASS    |
|          |         |                | 1000~26500         | 9.30              | -42.84          | ≤-10.7         | PASS    |
|          |         | 2480           | Reference          | 9.65              | 9.65            | ---            | PASS    |
|          |         |                | 30~1000            | 9.65              | -60.7           | ≤-10.35        | PASS    |
|          |         |                | 1000~26500         | 9.65              | -47.13          | ≤-10.35        | PASS    |
| 3DH1     | Ant1    | 2402           | Reference          | 8.67              | 8.67            | ---            | PASS    |
|          |         |                | 30~1000            | 8.67              | -60.34          | ≤-11.33        | PASS    |
|          |         |                | 1000~26500         | 8.67              | -43.39          | ≤-11.33        | PASS    |
|          |         | 2441           | Reference          | 9.43              | 9.43            | ---            | PASS    |
|          |         |                | 30~1000            | 9.43              | -60.8           | ≤-10.57        | PASS    |
|          |         |                | 1000~26500         | 9.43              | -43.43          | ≤-10.57        | PASS    |
|          |         | 2480           | Reference          | 9.53              | 9.53            | ---            | PASS    |
|          |         |                | 30~1000            | 9.53              | -60.01          | ≤-10.47        | PASS    |
|          |         |                | 1000~26500         | 9.53              | -45.37          | ≤-10.47        | PASS    |

## Test Graphs

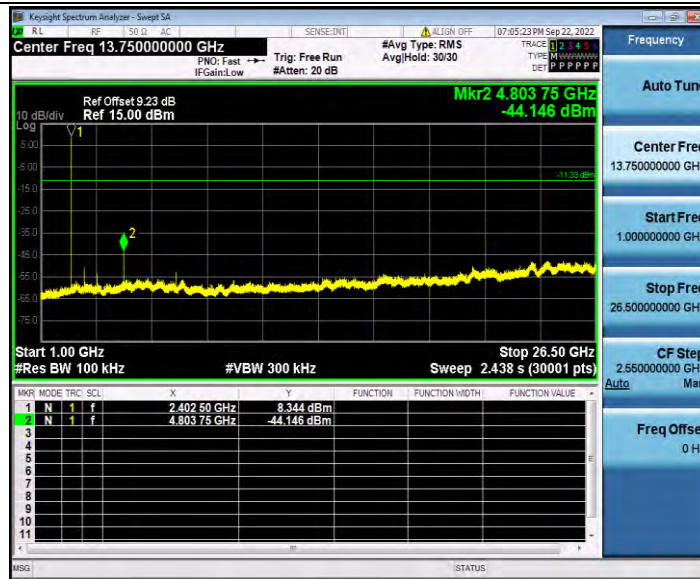
DH1\_Ant1\_2402\_0~Reference



DH1\_Ant1\_2402\_30~1000



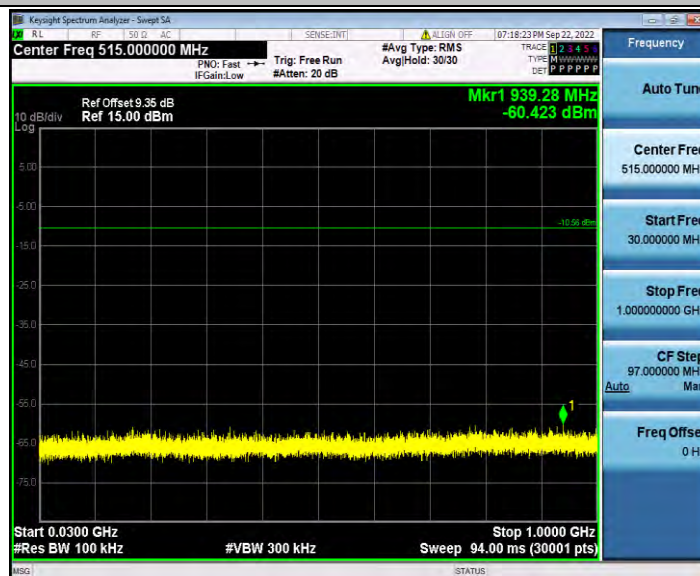
DH1\_Ant1\_2402\_1000~26500



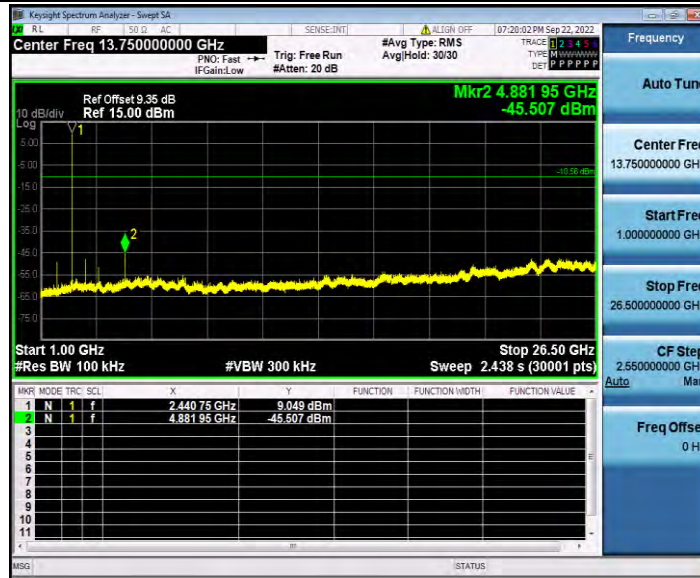
DH1\_Ant1\_2441\_0~Reference



DH1\_Ant1\_2441\_30~1000



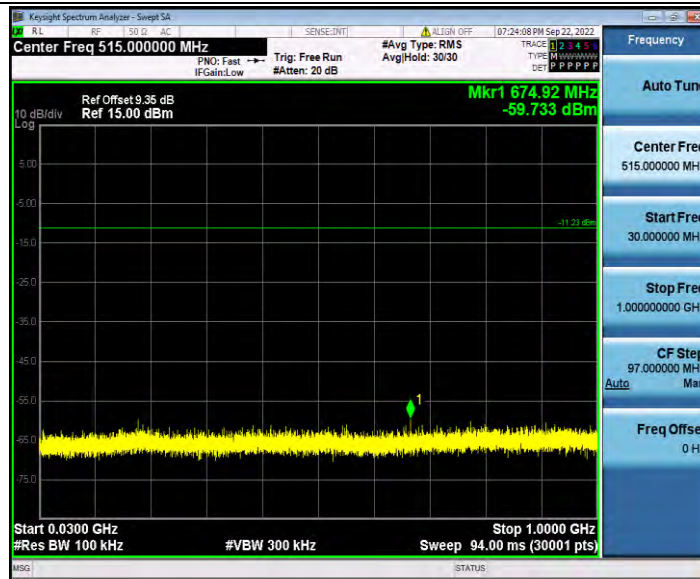
# DH1\_Ant1\_2441\_1000~26500



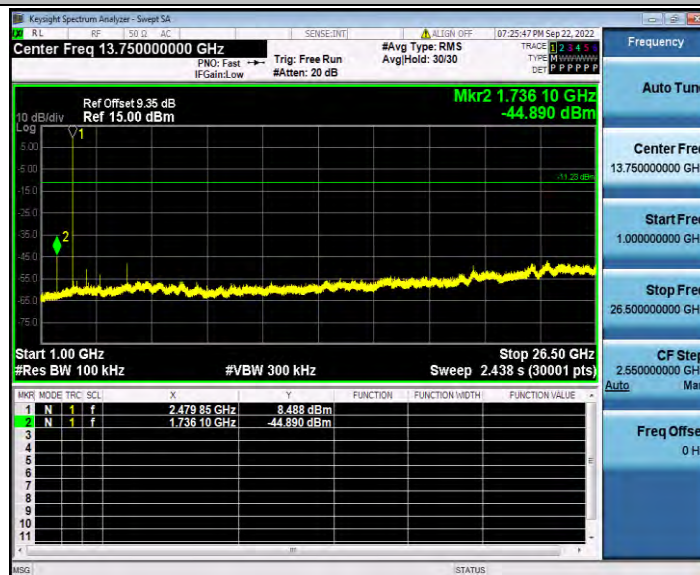
# DH1\_Ant1\_2480\_0~Reference



# DH1\_Ant1\_2480\_30~1000



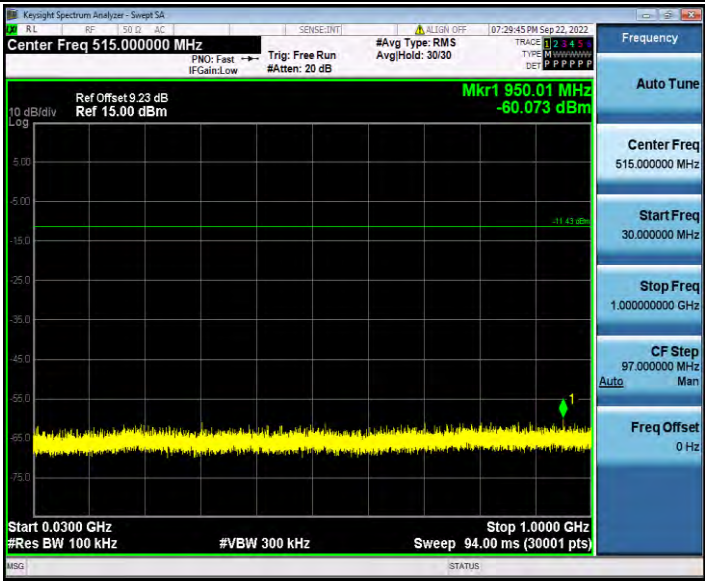
DH1\_Ant1\_2480\_1000~26500



2DH1\_Ant1\_2402\_0~Reference



2DH1\_Ant1\_2402\_30~1000



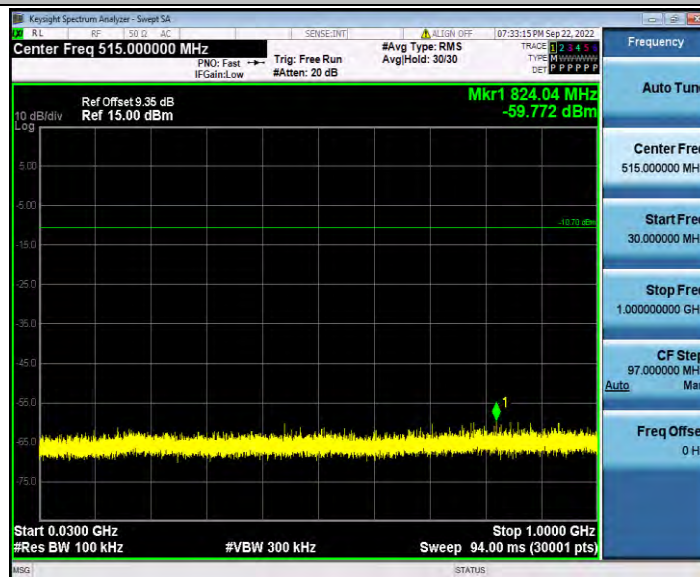
2DH1\_Ant1\_2402\_1000~26500



2DH1\_Ant1\_2441\_0~Reference



2DH1\_Ant1\_2441\_30~1000



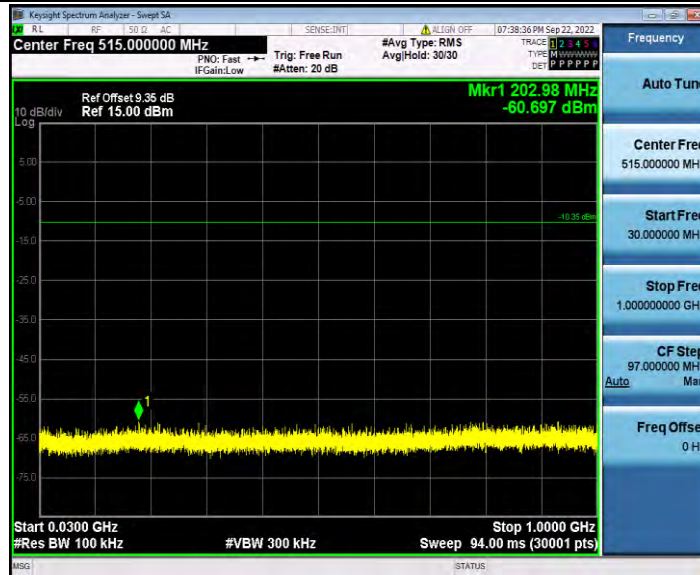
2DH1\_Ant1\_2441\_1000~26500



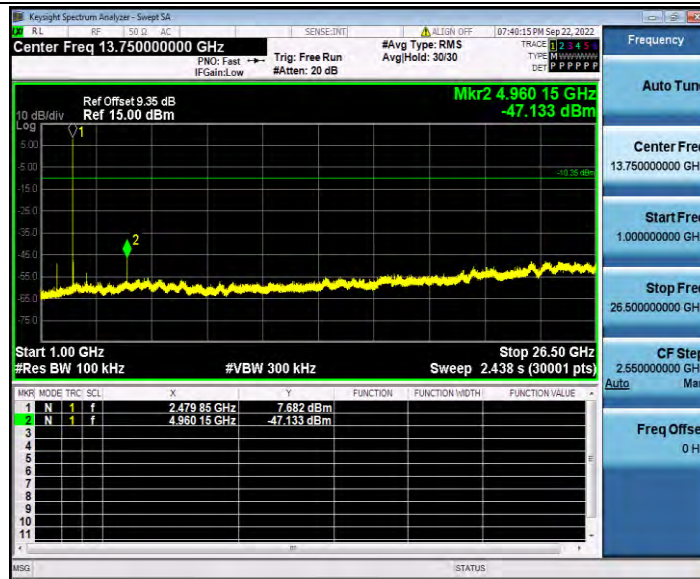
## 2DH1\_Ant1\_2480\_0~Reference



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



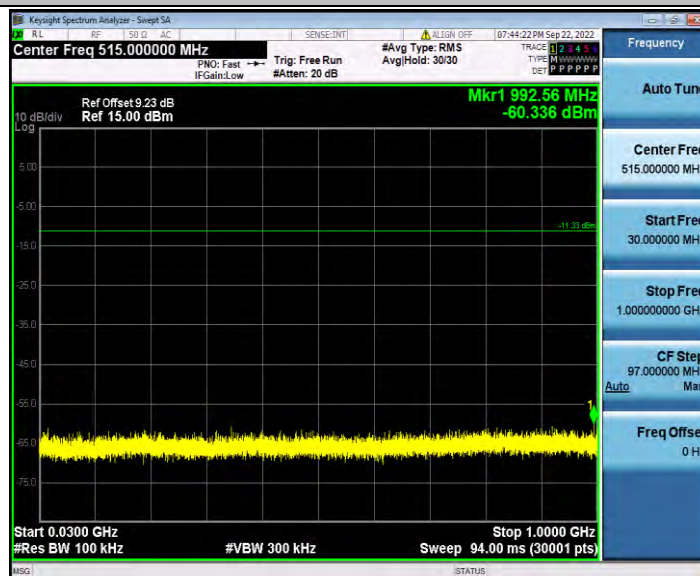
## 2DH1\_Ant1\_2480\_1000~26500



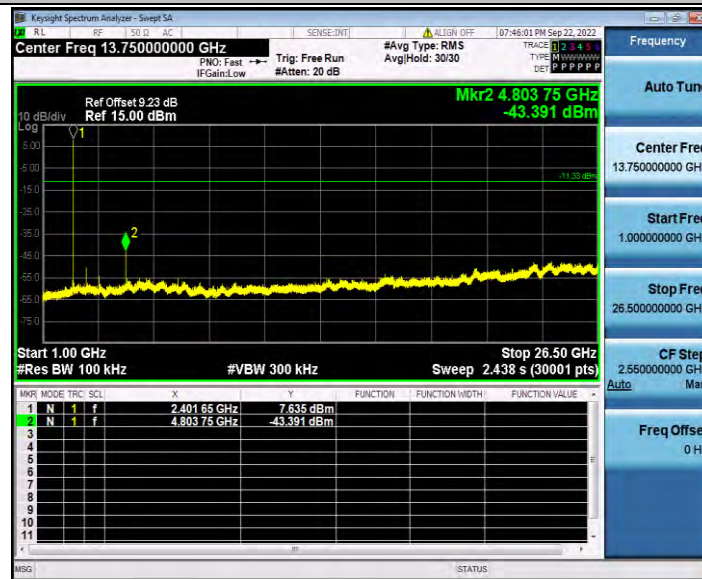
3DH1\_Ant1\_2402\_0~Reference



3DH1\_Ant1\_2402\_30~1000



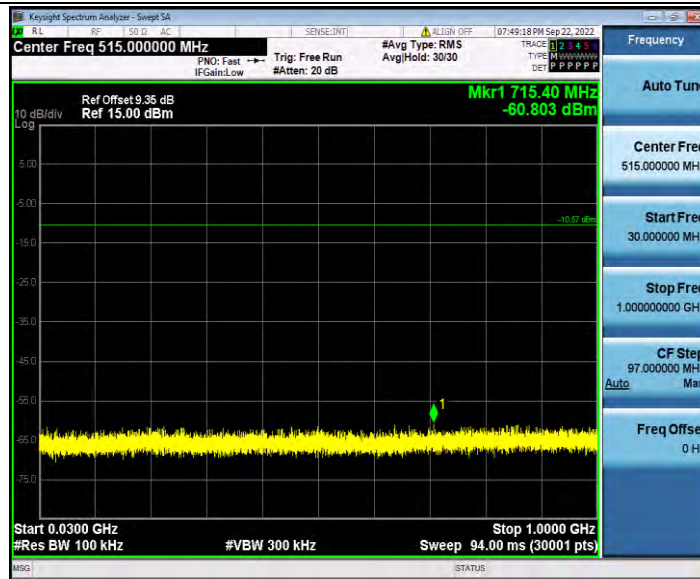
### 3DH1\_Ant1\_2402\_1000~26500



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



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



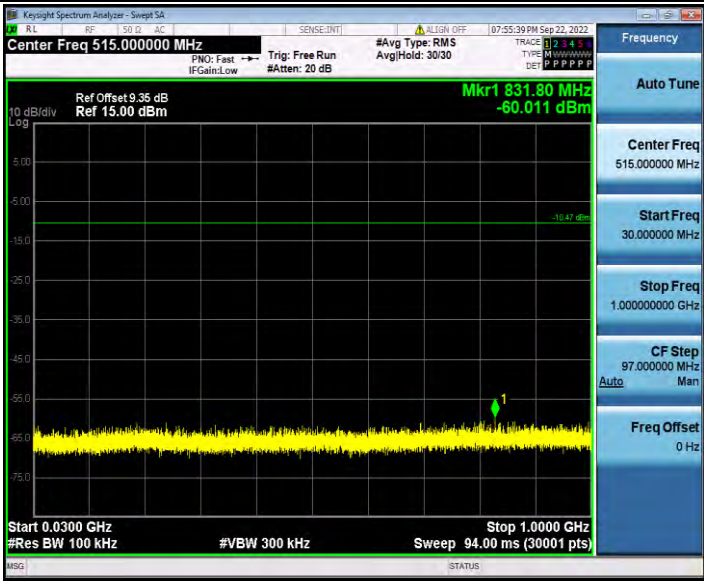
3DH1\_Ant1\_2441\_1000~26500



3DH1\_Ant1\_2480\_0~Reference



3DH1\_Ant1\_2480\_30~1000



3DH1\_Ant1\_2480\_1000~26500

