

## **FCC Appendix RF Test Data for BT**

**FCC ID** : 2BUMN-DY320

**Company** : DAZONE LLC

**EUT** : SPEAKER

**Model Number** : DY320

**Report No.** : CTA26031900401

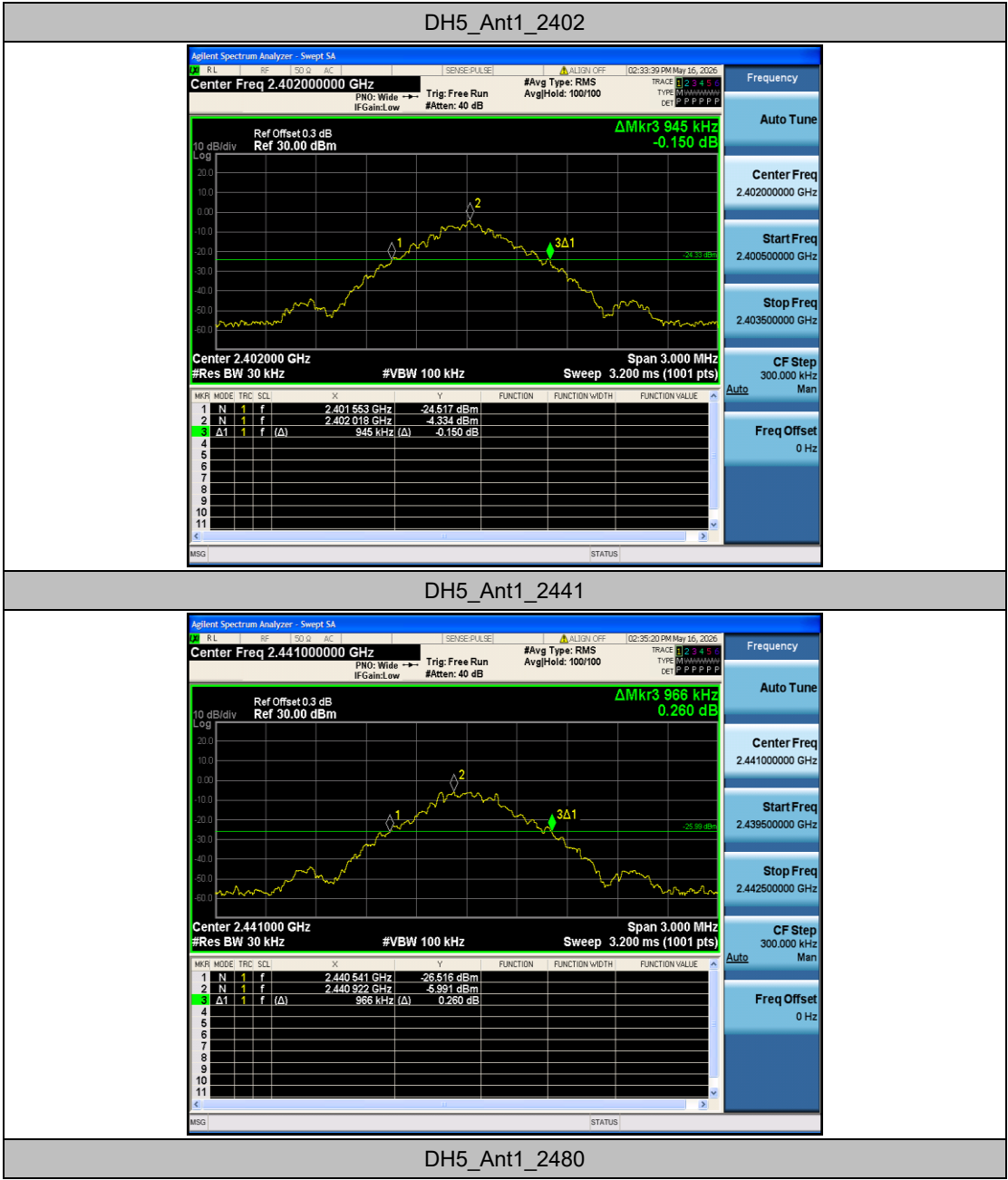
**Reviewed By** : Eric Wang

## Appendix A: 20dB Emission Bandwidth

### Test Result

| TestMode | Antenna | Freq(MHz) | 20dB<br>EBW[MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|-----------|------------------|----------|----------|------------|---------|
| DH5      | Ant1    | 2402      | 0.945            | 2401.553 | 2402.498 | ---        | ---     |
|          |         | 2441      | 0.966            | 2440.541 | 2441.507 | ---        | ---     |
|          |         | 2480      | 0.954            | 2479.547 | 2480.501 | ---        | ---     |
| 2DH5     | Ant1    | 2402      | 1.335            | 2401.340 | 2402.675 | ---        | ---     |
|          |         | 2441      | 1.323            | 2440.346 | 2441.669 | ---        | ---     |
|          |         | 2480      | 1.293            | 2479.376 | 2480.669 | ---        | ---     |
| 3DH5     | Ant1    | 2402      | 1.320            | 2401.355 | 2402.675 | ---        | ---     |
|          |         | 2441      | 1.287            | 2440.367 | 2441.654 | ---        | ---     |
|          |         | 2480      | 1.308            | 2479.355 | 2480.663 | ---        | ---     |

Test Graphs





2DH5\_Ant1\_2402



2DH5\_Ant1\_2441



## 2DH5\_Ant1\_2480



## 3DH5\_Ant1\_2402



## 3DH5\_Ant1\_2441



3DH5\_Ant1\_2480



## Appendix B: Occupied Channel Bandwidth

### Test Result

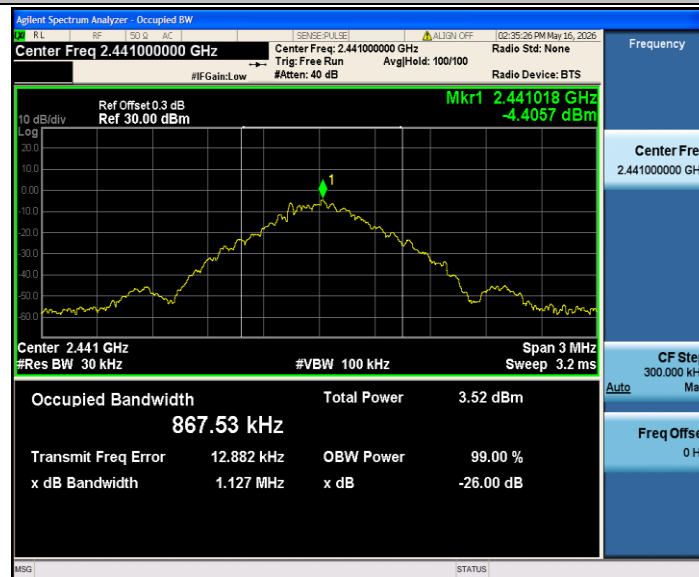
| TestMode | Antenna | Freq(MHz) | OCB [MHz] | FL[MHz]   | FH[MHz]   | Limit[MHz] | Verdict |
|----------|---------|-----------|-----------|-----------|-----------|------------|---------|
| DH5      | Ant1    | 2402      | 0.85991   | 2401.5803 | 2402.4402 | ---        | ---     |
|          |         | 2441      | 0.86753   | 2440.5791 | 2441.4466 | ---        | ---     |
|          |         | 2480      | 0.86628   | 2479.5815 | 2480.4478 | ---        | ---     |
| 2DH5     | Ant1    | 2402      | 1.1796    | 2401.4219 | 2402.6015 | ---        | ---     |
|          |         | 2441      | 1.2038    | 2440.4094 | 2441.6132 | ---        | ---     |
|          |         | 2480      | 1.1863    | 2479.4183 | 2480.6046 | ---        | ---     |
| 3DH5     | Ant1    | 2402      | 1.1921    | 2401.4119 | 2402.6040 | ---        | ---     |
|          |         | 2441      | 1.1796    | 2440.4224 | 2441.6020 | ---        | ---     |
|          |         | 2480      | 1.1967    | 2479.4124 | 2480.6091 | ---        | ---     |

## Test Graphs

DH5\_Ant1\_2402



DH5\_Ant1\_2441



DH5\_Ant1\_2480



2DH5\_Ant1\_2402



2DH5\_Ant1\_2441



### 2DH5\_Ant1\_2480



### 3DH5\_Ant1\_2402



### 3DH5\_Ant1\_2441



3DH5\_Ant1\_2480



## Appendix C: Maximum conducted output power

### Test Result

| Test Mode | Antenna | Freq(MHz) | Conducted Peak Power[dBm] | Conducted Limit[dBm] | Verdict |
|-----------|---------|-----------|---------------------------|----------------------|---------|
| DH5       | Ant1    | 2402      | -2.83                     | ≤20.97               | PASS    |
|           |         | 2441      | -2.92                     | ≤20.97               | PASS    |
|           |         | 2480      | -2.85                     | ≤20.97               | PASS    |
| 2DH5      | Ant1    | 2402      | -6.91                     | ≤20.97               | PASS    |
|           |         | 2441      | -6.72                     | ≤20.97               | PASS    |
|           |         | 2480      | -7.05                     | ≤20.97               | PASS    |
| 3DH5      | Ant1    | 2402      | -6.67                     | ≤20.97               | PASS    |
|           |         | 2441      | -6.72                     | ≤20.97               | PASS    |
|           |         | 2480      | -6.76                     | ≤20.97               | PASS    |

## Appendix D: Carrier frequency separation

### Test Result

| TestMode | Antenna | Freq(MHz) | Result[MHz] | Limit[MHz]   | Verdict |
|----------|---------|-----------|-------------|--------------|---------|
| DH5      | Ant1    | Hop       | 1.006       | $\geq 0.966$ | PASS    |
| 2DH5     | Ant1    | Hop       | 0.982       | $\geq 0.890$ | PASS    |
| 3DH5     | Ant1    | Hop       | 0.954       | $\geq 0.880$ | PASS    |

## Test Graphs

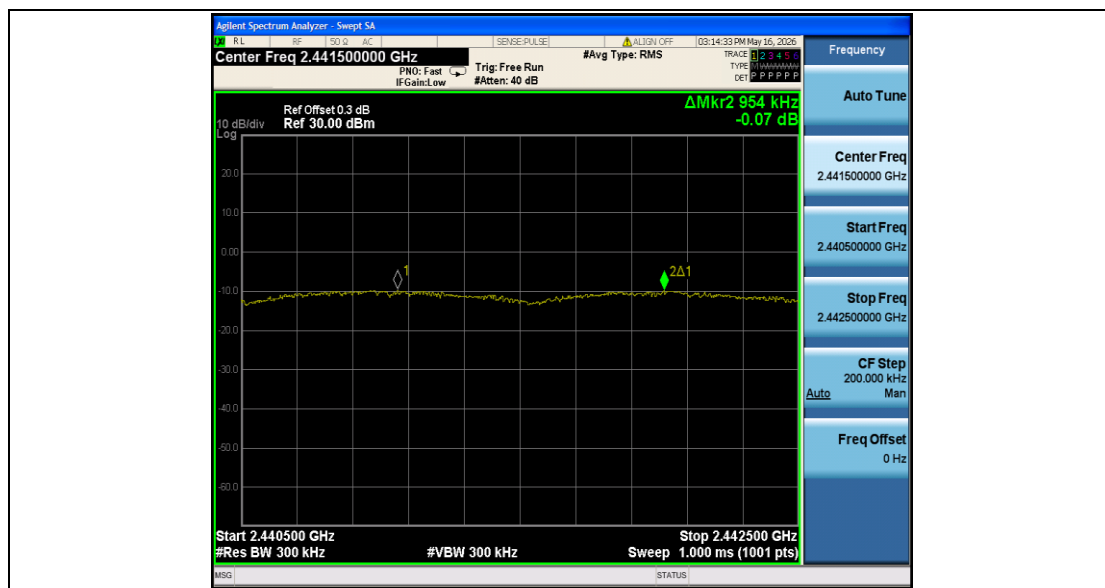
DH5\_Ant1\_Hop



2DH5\_Ant1\_Hop



3DH5\_Ant1\_Hop

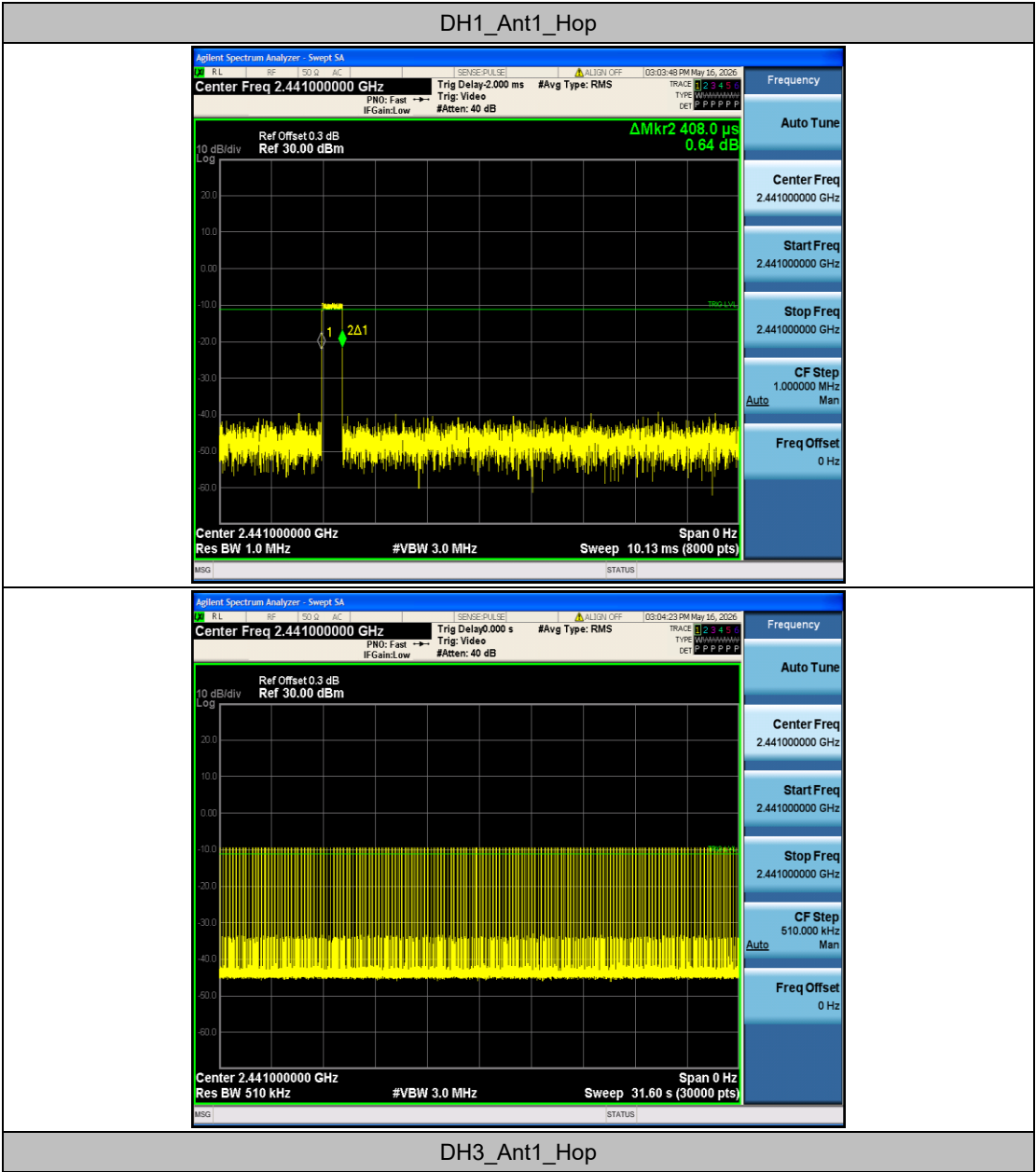


## Appendix E: Time of occupancy

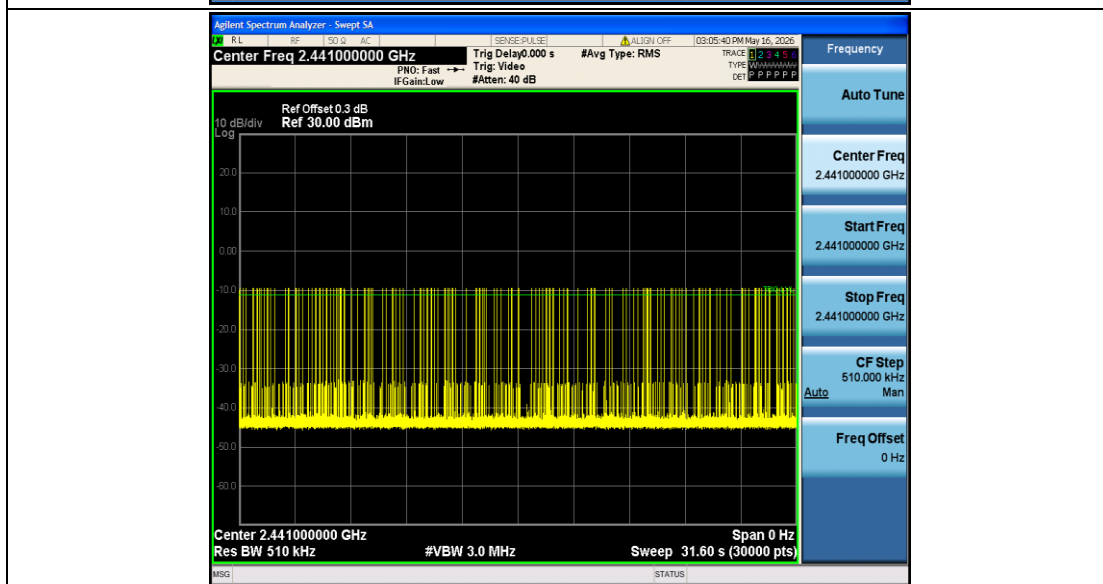
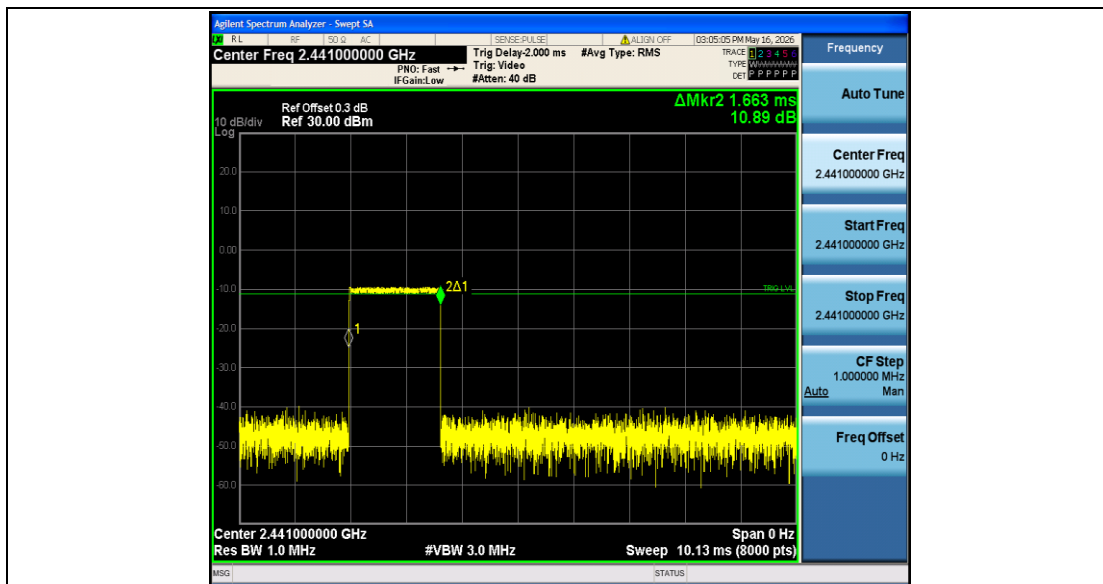
### Test Result

| TestMode | Antenna | Freq(MHz) | BurstWidth<br>[ms] | TotalHops<br>[Num] | Result[s] | Limit[s] | Verdict |
|----------|---------|-----------|--------------------|--------------------|-----------|----------|---------|
| DH1      | Ant1    | Hop       | 0.408              | 318                | 0.13      | ≤0.4     | PASS    |
| DH3      | Ant1    | Hop       | 1.663              | 158                | 0.263     | ≤0.4     | PASS    |
| DH5      | Ant1    | Hop       | 2.912              | 112                | 0.326     | ≤0.4     | PASS    |
| 2DH1     | Ant1    | Hop       | 0.415              | 315                | 0.131     | ≤0.4     | PASS    |
| 2DH3     | Ant1    | Hop       | 1.669              | 154                | 0.257     | ≤0.4     | PASS    |
| 2DH5     | Ant1    | Hop       | 2.916              | 101                | 0.295     | ≤0.4     | PASS    |
| 3DH1     | Ant1    | Hop       | 0.415              | 317                | 0.132     | ≤0.4     | PASS    |
| 3DH3     | Ant1    | Hop       | 1.667              | 162                | 0.27      | ≤0.4     | PASS    |
| 3DH5     | Ant1    | Hop       | 2.917              | 108                | 0.315     | ≤0.4     | PASS    |

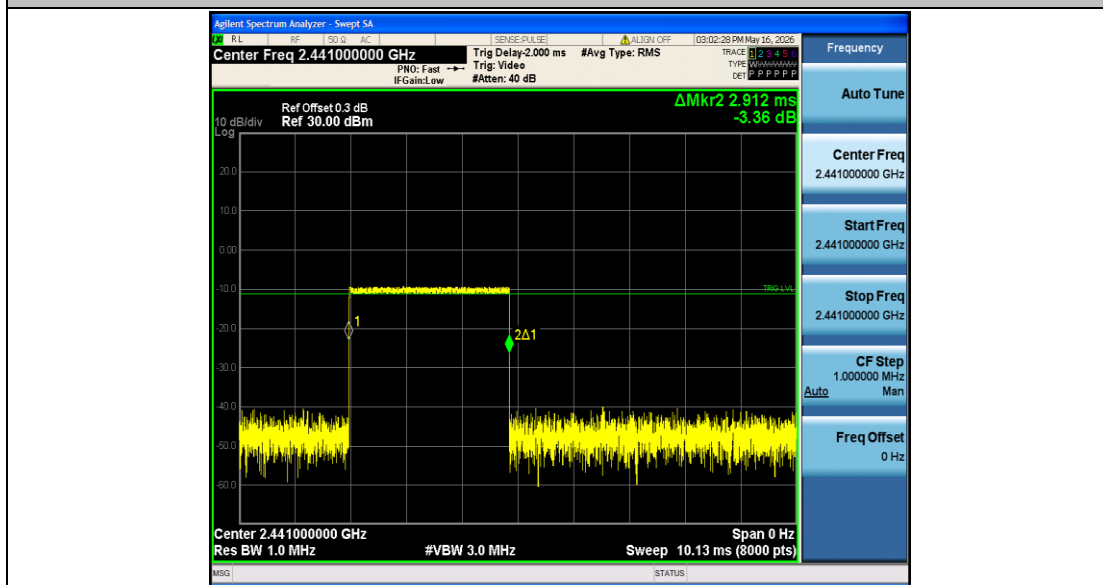
Test Graphs

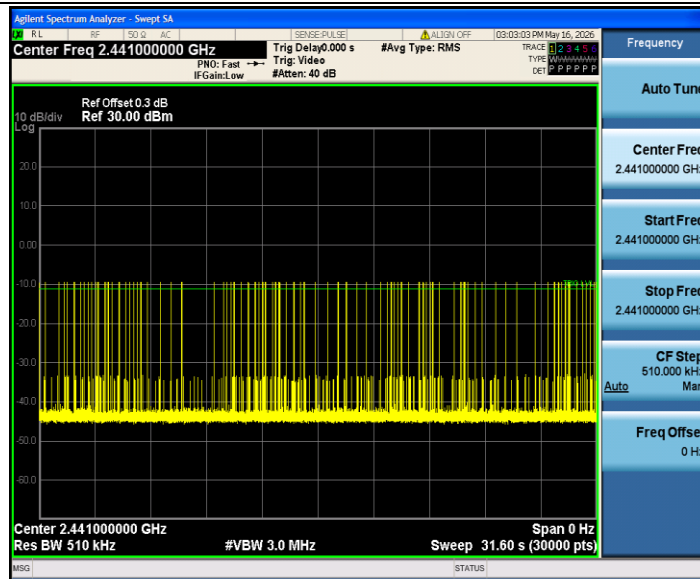


DH3\_Ant1\_Hop

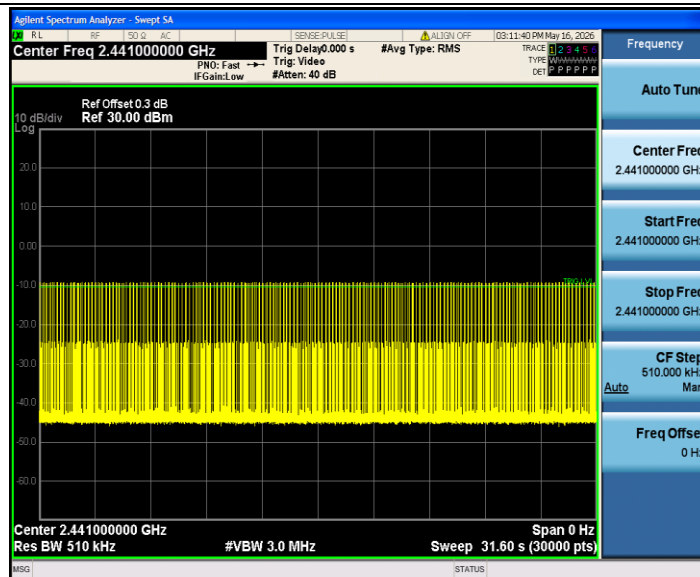
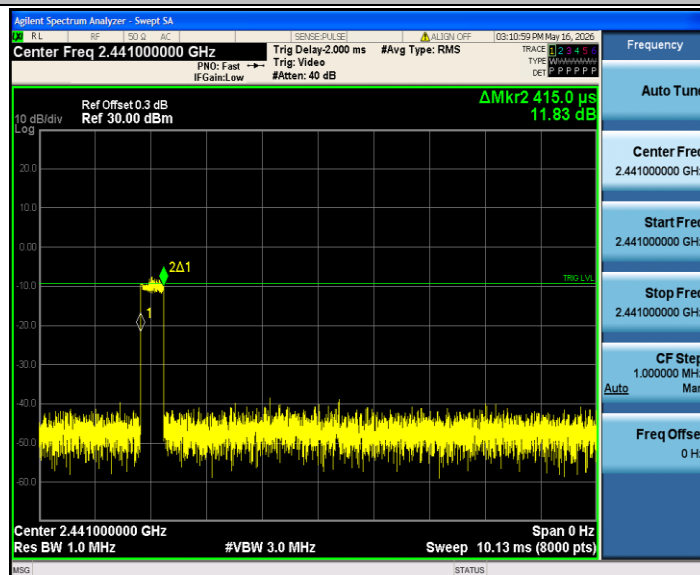


DH5\_Ant1\_Hop

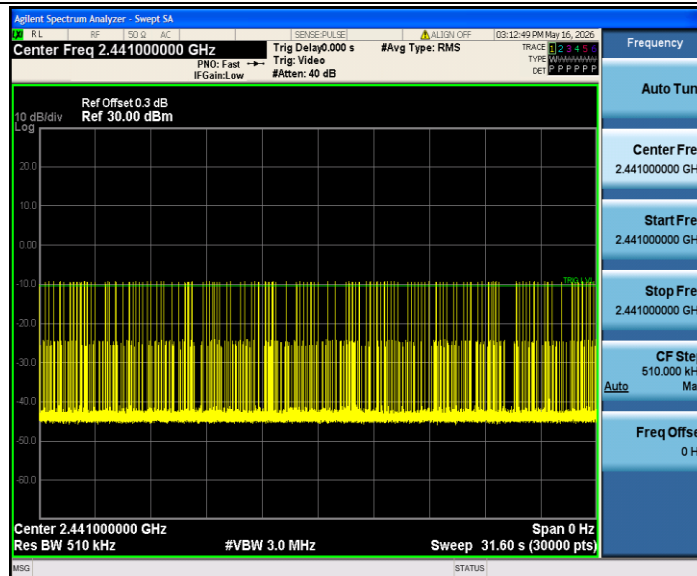
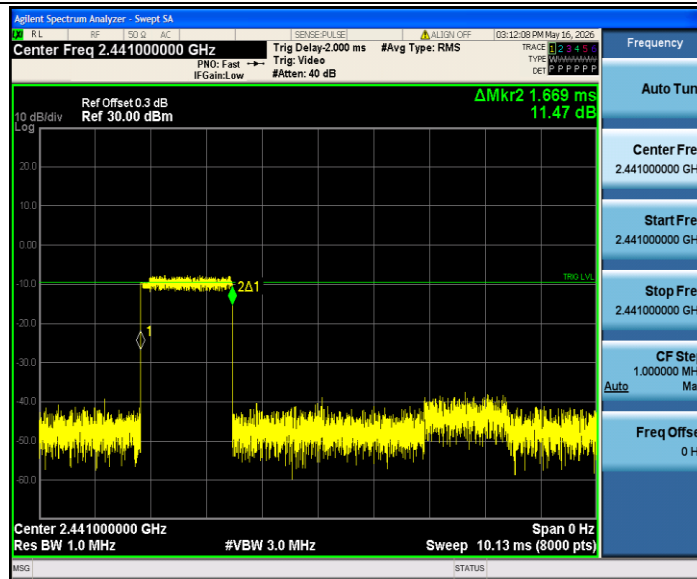




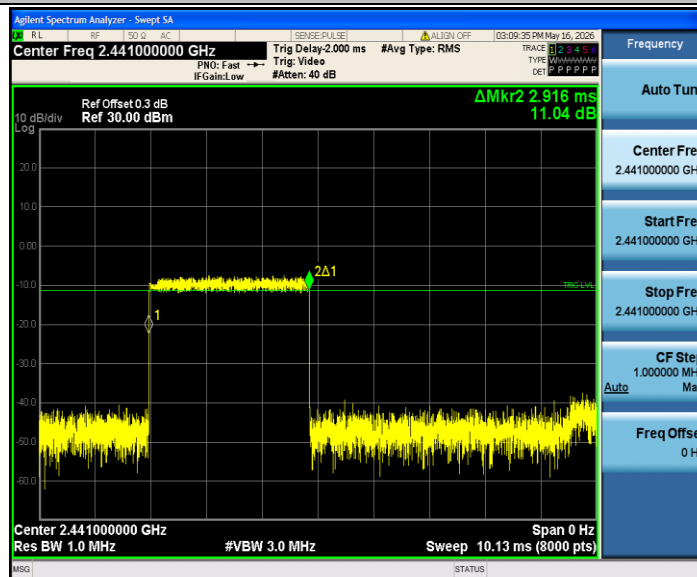
2DH1\_Ant1\_Hop

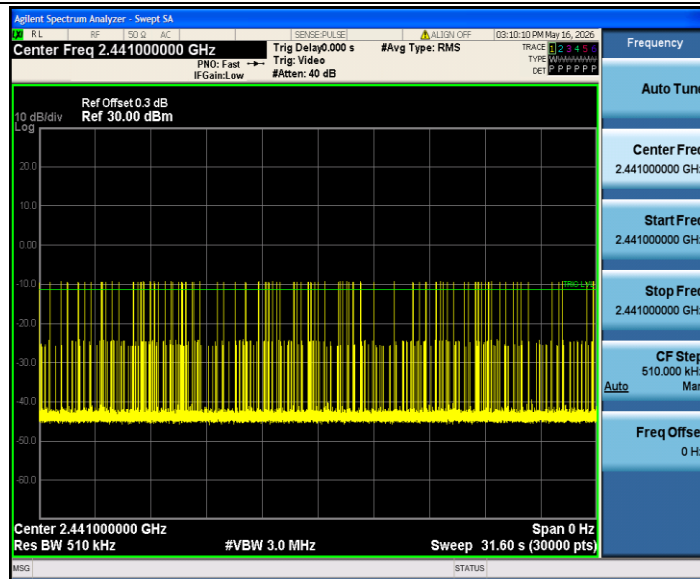


2DH3\_Ant1\_Hop

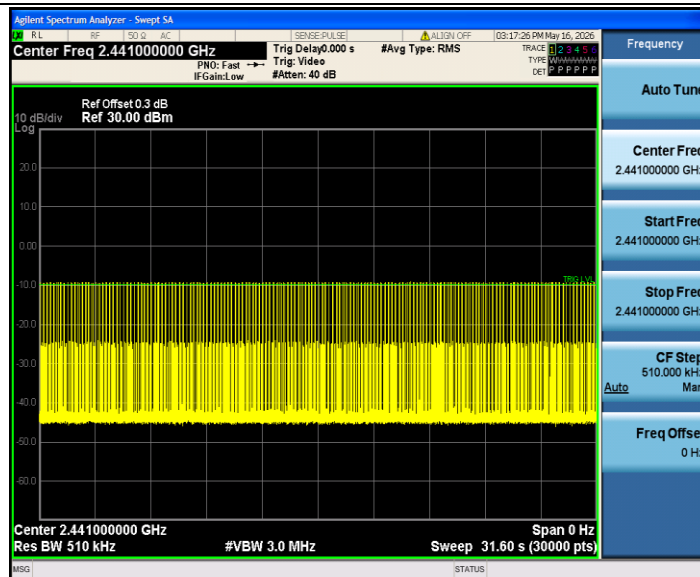
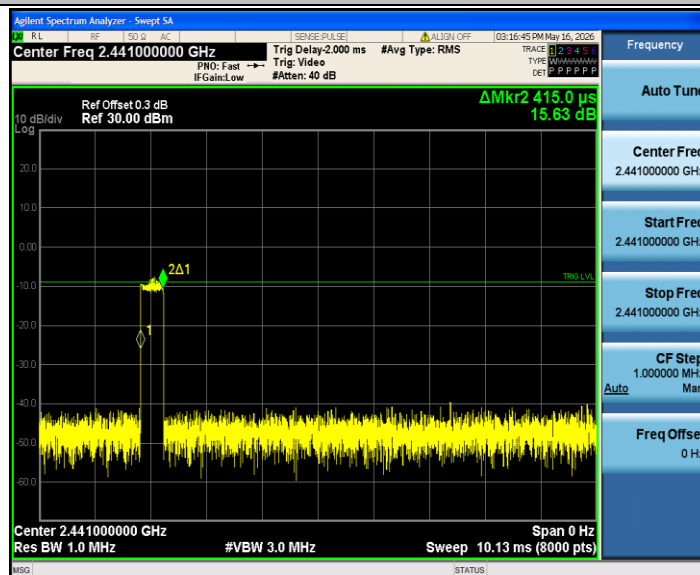


2DH5\_Ant1\_Hop

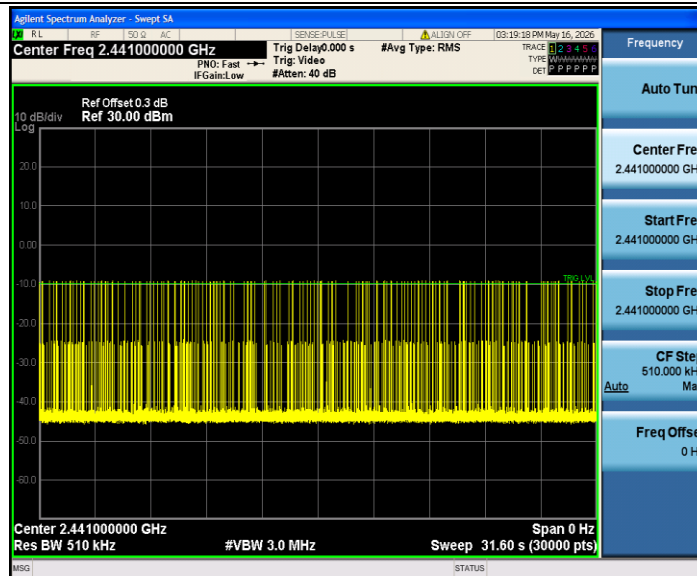
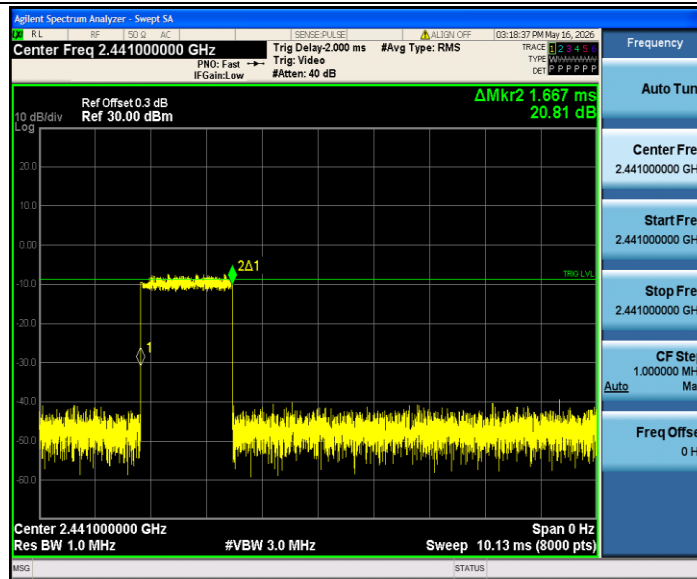




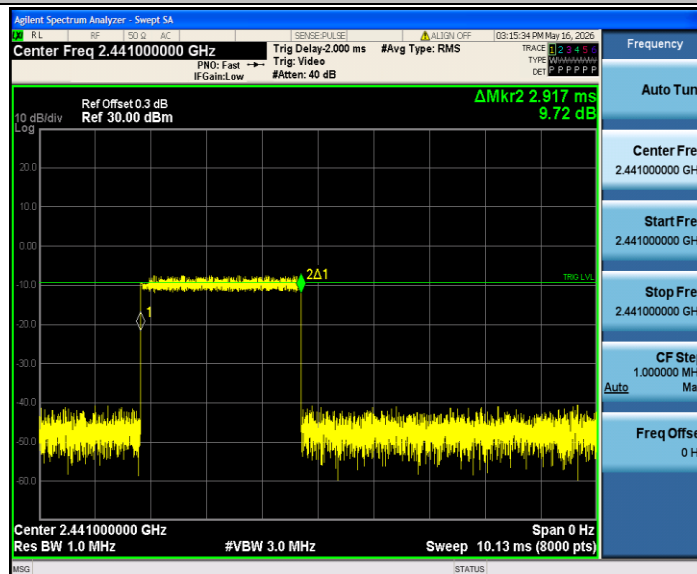
3DH1\_Ant1\_Hop

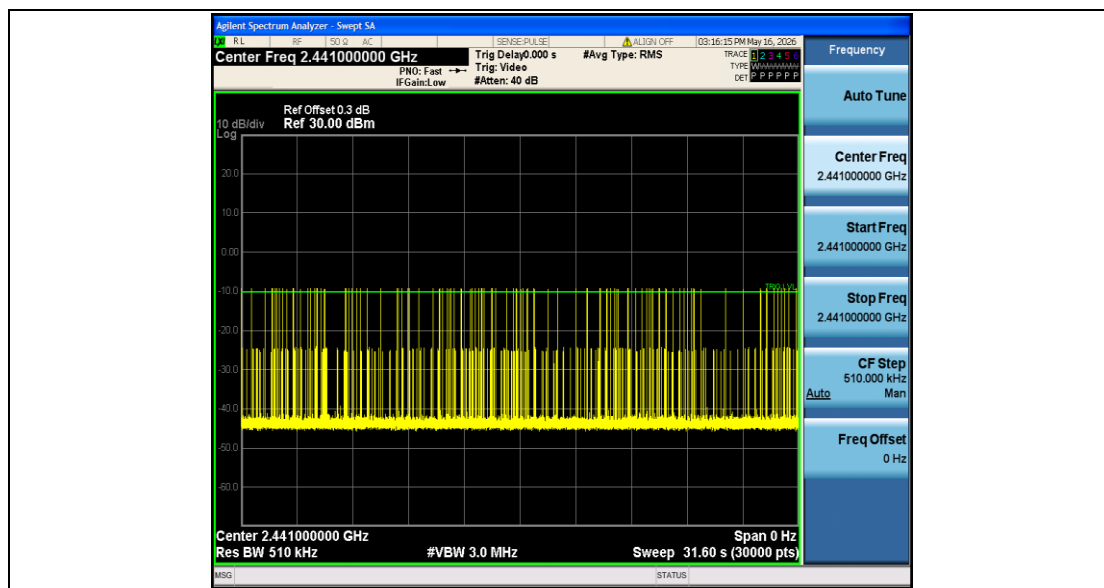


3DH3\_Ant1\_Hop



3DH5\_Ant1\_Hop



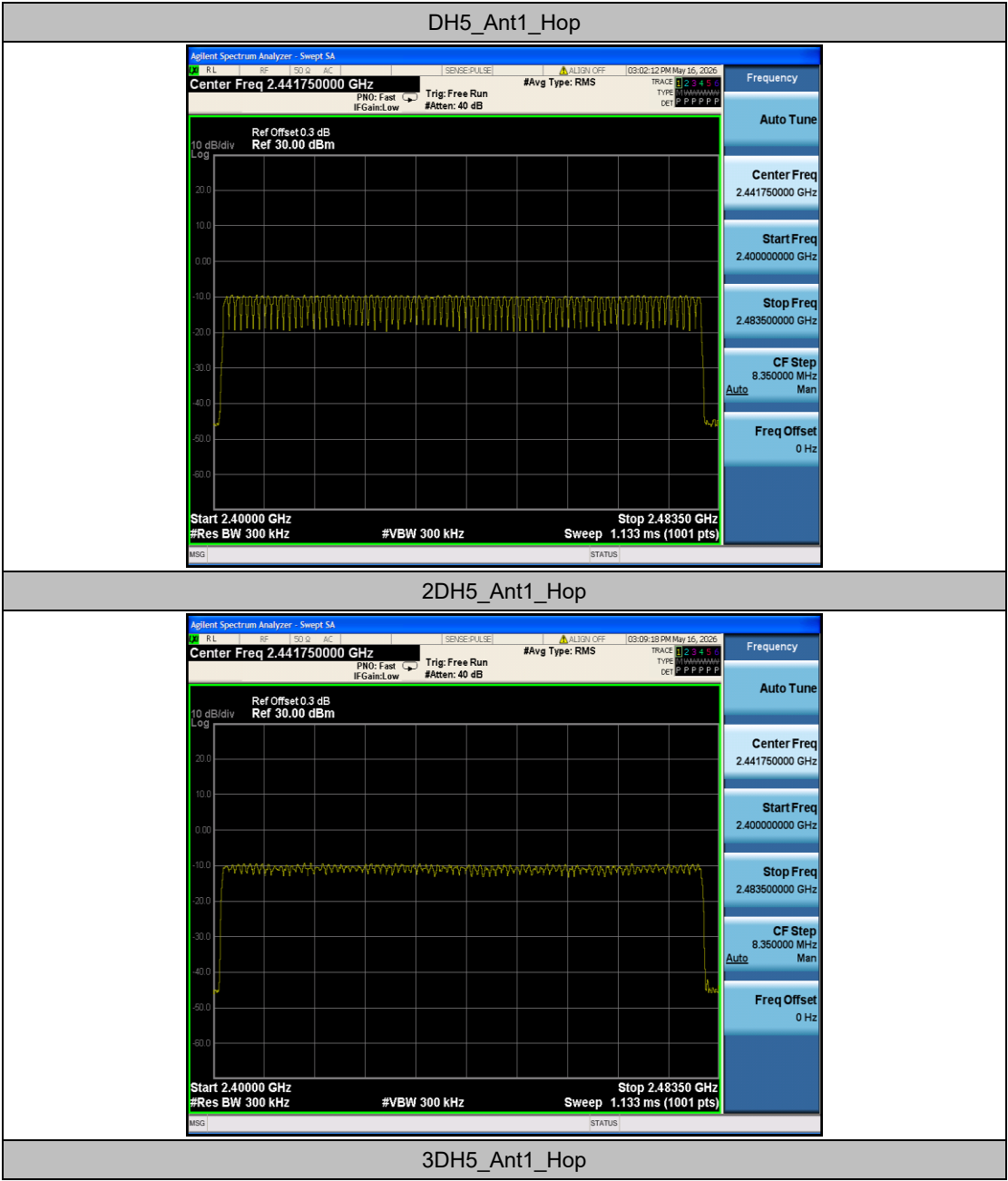


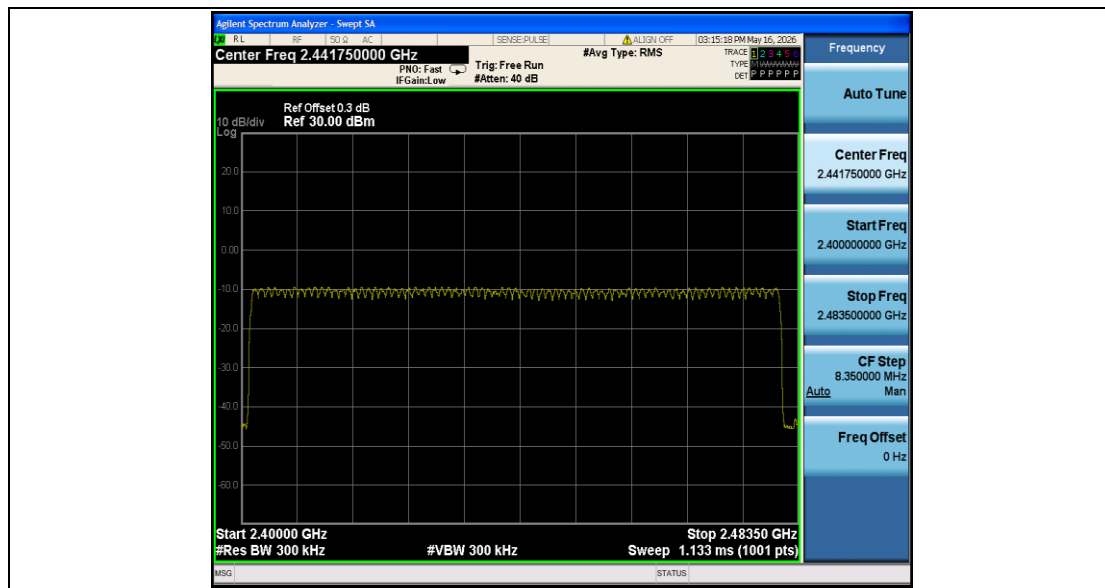
## Appendix F: Number of hopping channels

### Test Result

| TestMode | Antenna | Freq(MHz) | Result[Num] | Limit[Num] | Verdict |
|----------|---------|-----------|-------------|------------|---------|
| DH5      | Ant1    | Hop       | 79          | ≥15        | PASS    |
| 2DH5     | Ant1    | Hop       | 79          | ≥15        | PASS    |
| 3DH5     | Ant1    | Hop       | 79          | ≥15        | PASS    |

Test Graphs



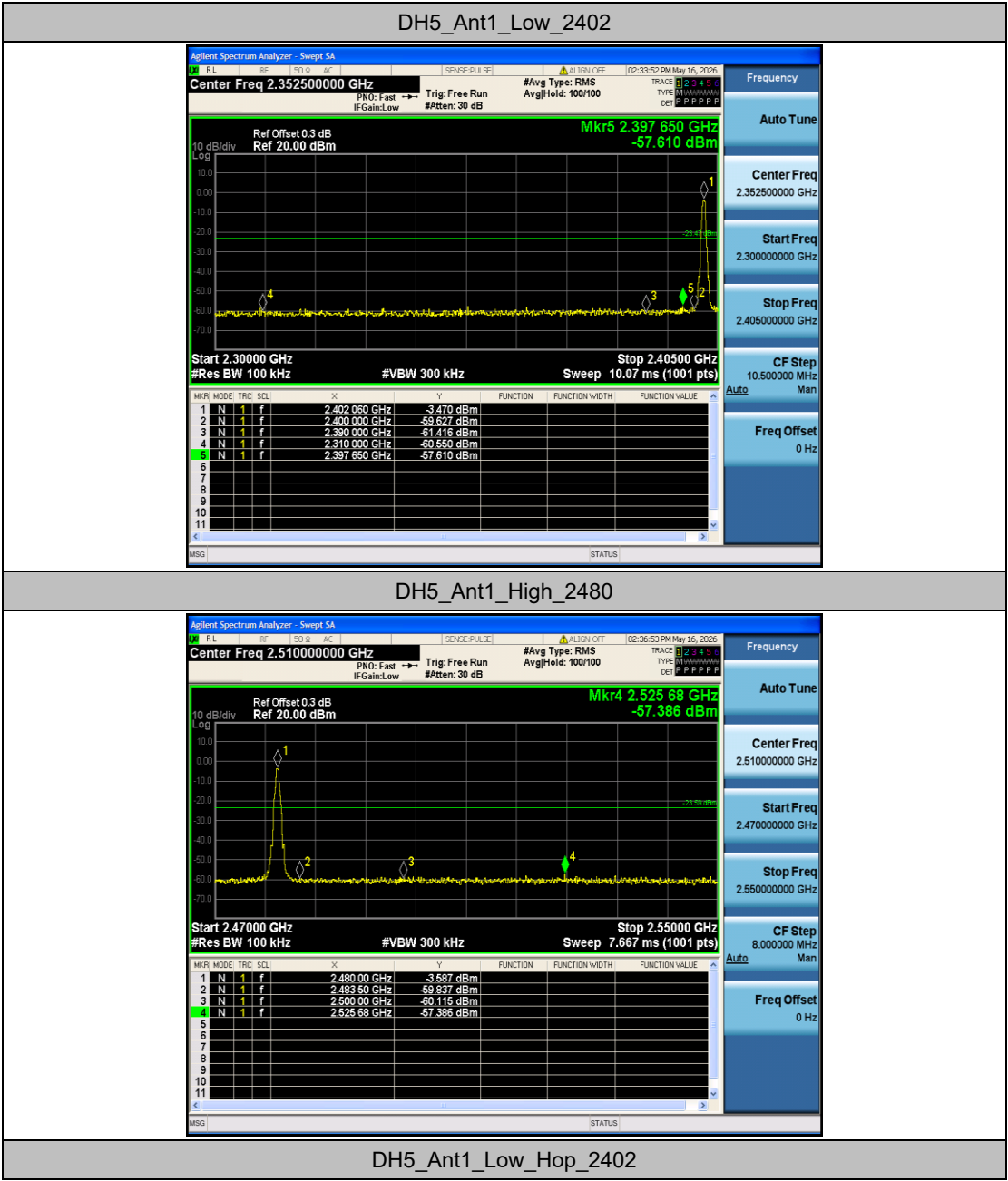


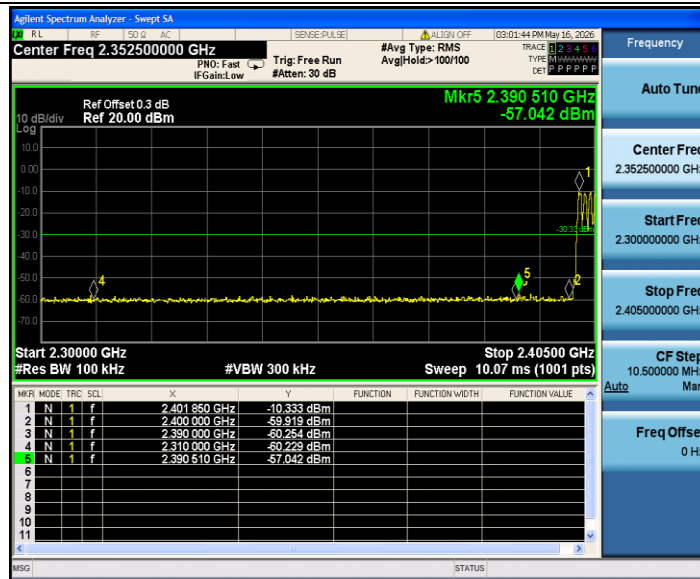
## Appendix H: Band edge measurements

### Test Result

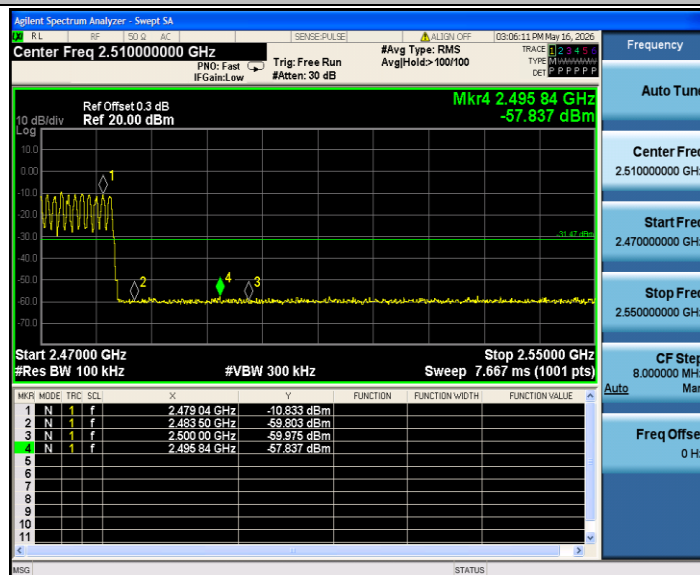
| TestMode | Antenna | ChName | Freq(MHz) | RefLevel<br>[dBm] | Result<br>[dBm] | Limit<br>[dBm] | Verdict |
|----------|---------|--------|-----------|-------------------|-----------------|----------------|---------|
| DH5      | Ant1    | Low    | 2402      | -3.47             | -57.61          | $\leq -23.47$  | PASS    |
|          |         | High   | 2480      | -3.59             | -57.39          | $\leq -23.59$  | PASS    |
|          |         | Low    | Hop_2402  | -10.33            | -57.04          | $\leq -30.33$  | PASS    |
|          |         | High   | Hop_2480  | -11.47            | -57.84          | $\leq -31.47$  | PASS    |
| 2DH5     | Ant1    | Low    | 2402      | -10.90            | -58.27          | $\leq -30.9$   | PASS    |
|          |         | High   | 2480      | -11.51            | -48.64          | $\leq -31.51$  | PASS    |
|          |         | Low    | Hop_2402  | -10.98            | -57.65          | $\leq -30.98$  | PASS    |
|          |         | High   | Hop_2480  | -13.50            | -57.91          | $\leq -33.5$   | PASS    |
| 3DH5     | Ant1    | Low    | 2402      | -12.28            | -57.12          | $\leq -32.28$  | PASS    |
|          |         | High   | 2480      | -10.09            | -57.3           | $\leq -30.09$  | PASS    |
|          |         | Low    | Hop_2402  | -14.42            | -58.58          | $\leq -34.42$  | PASS    |
|          |         | High   | Hop_2480  | -12.15            | -57.71          | $\leq -32.15$  | PASS    |

Test Graphs

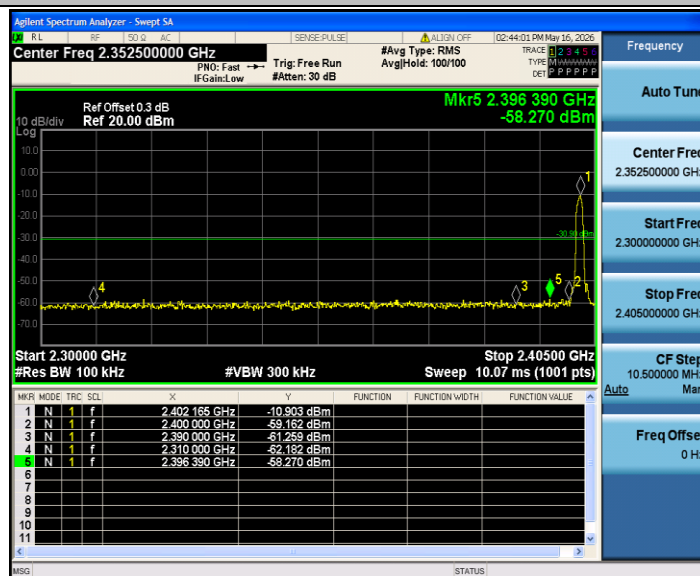




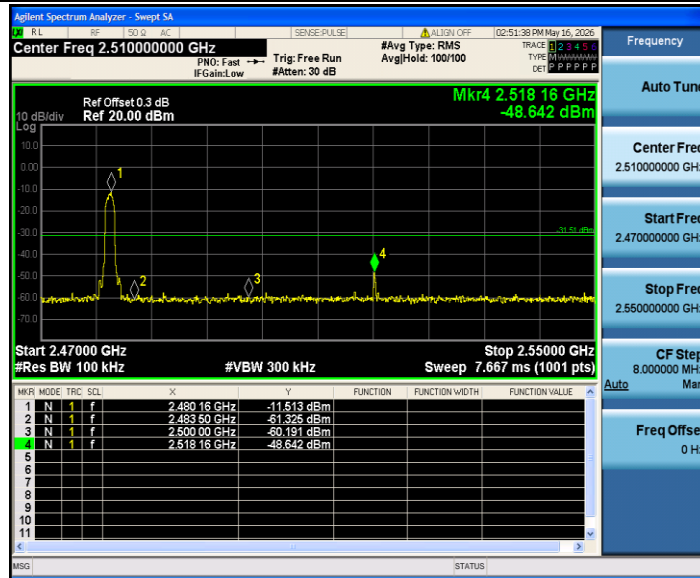
DH5\_Ant1\_High\_Hop\_2480



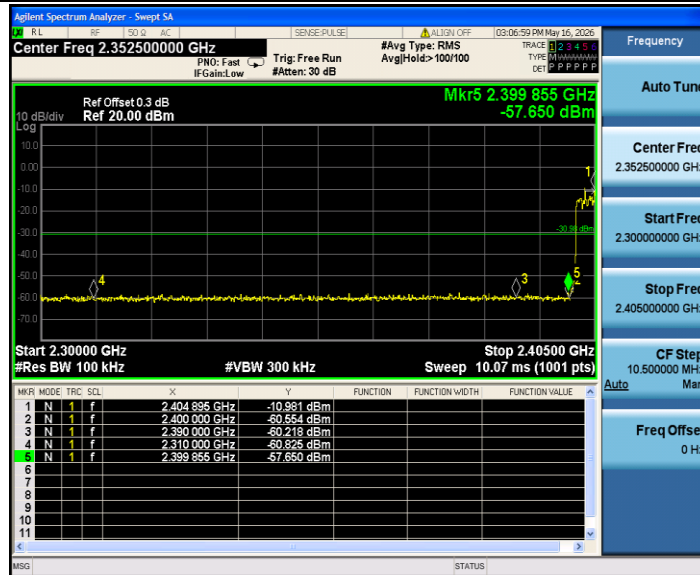
2DH5\_Ant1\_Low\_2402



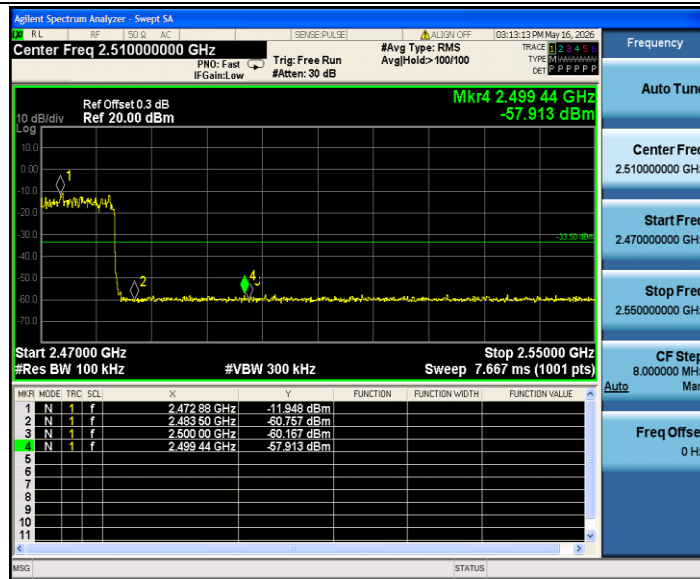
# 2DH5\_Ant1\_High\_2480



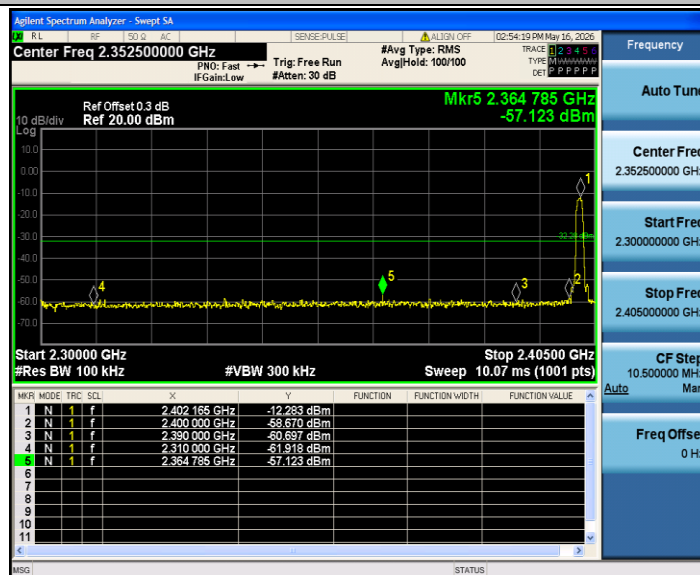
# 2DH5\_Ant1\_Low\_Hop\_2402



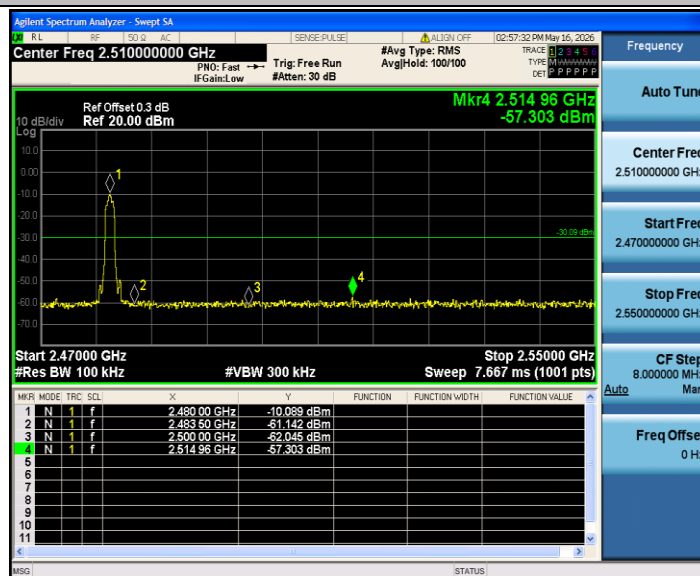
# 2DH5\_Ant1\_High\_Hop\_2480



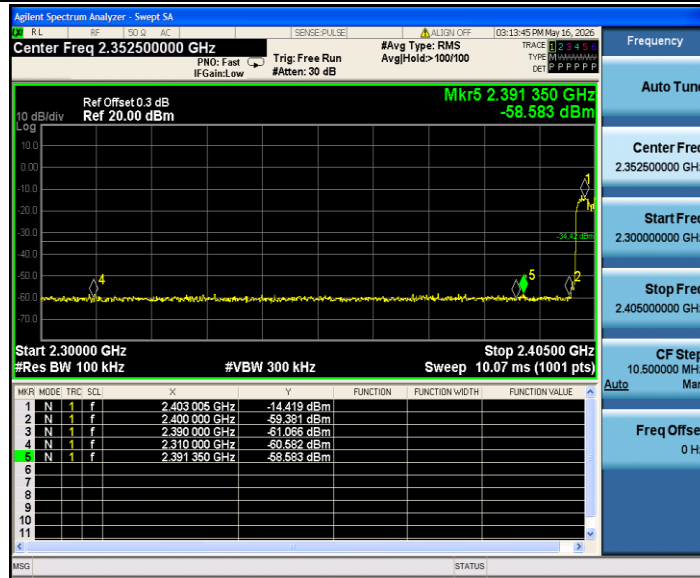
3DH5\_Ant1\_Low\_2402



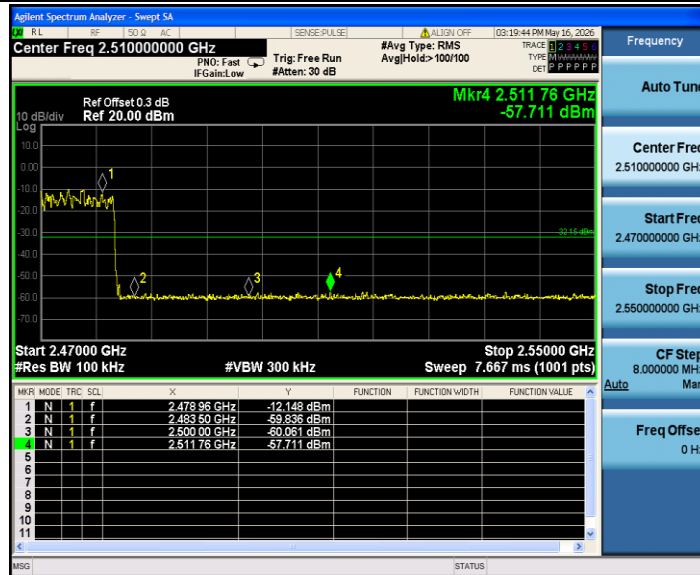
3DH5\_Ant1\_High\_2480



### 3DH5\_Ant1\_Low\_Hop\_2402



### 3DH5\_Ant1\_High\_Hop\_2480



## Appendix I: Conducted Spurious Emission

### Test Result

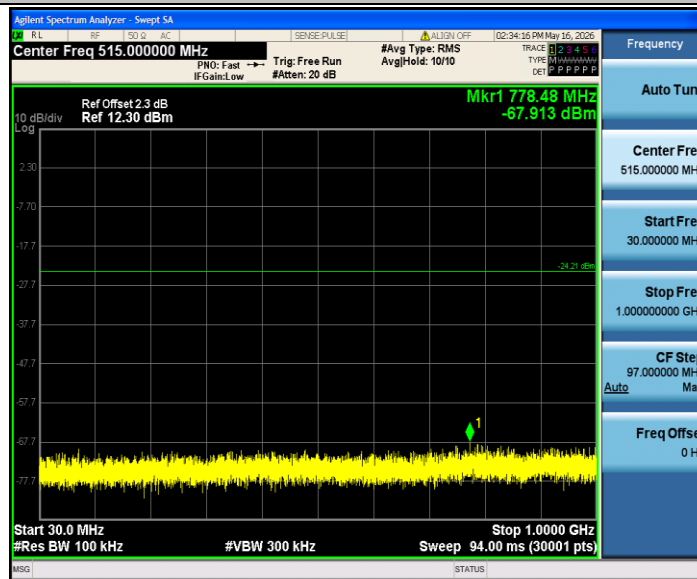
| TestMode | Antenna | Freq(MHz) | FreqRange [MHz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|----------|---------|-----------|-----------------|----------------|--------------|-------------|---------|
| DH5      | Ant1    | 2402      | Reference       | -4.21          | -4.21        | ---         | PASS    |
|          |         |           | 30~1000         | -4.21          | -67.91       | ≤-24.21     | PASS    |
|          |         |           | 1000~26500      | -4.21          | -46.26       | ≤-24.21     | PASS    |
|          |         | 2441      | Reference       | -3.70          | -3.70        | ---         | PASS    |
|          |         |           | 30~1000         | -3.70          | -67.67       | ≤-23.7      | PASS    |
|          |         |           | 1000~26500      | -3.70          | -45.31       | ≤-23.7      | PASS    |
|          |         | 2480      | Reference       | -4.22          | -4.22        | ---         | PASS    |
|          |         |           | 30~1000         | -4.22          | -68.35       | ≤-24.22     | PASS    |
|          |         |           | 1000~26500      | -4.22          | -45.92       | ≤-24.22     | PASS    |
| 2DH5     | Ant1    | 2402      | Reference       | -12.39         | -12.39       | ---         | PASS    |
|          |         |           | 30~1000         | -12.39         | -58.79       | ≤-32.39     | PASS    |
|          |         |           | 1000~26500      | -12.39         | -56.25       | ≤-32.39     | PASS    |
|          |         | 2441      | Reference       | -12.54         | -12.54       | ---         | PASS    |
|          |         |           | 30~1000         | -12.54         | -68.67       | ≤-32.54     | PASS    |
|          |         |           | 1000~26500      | -12.54         | -55.37       | ≤-32.54     | PASS    |
|          |         | 2480      | Reference       | -11.87         | -11.87       | ---         | PASS    |
|          |         |           | 30~1000         | -11.87         | -68.49       | ≤-31.87     | PASS    |
|          |         |           | 1000~26500      | -11.87         | -55.25       | ≤-31.87     | PASS    |
| 3DH5     | Ant1    | 2402      | Reference       | -12.78         | -12.78       | ---         | PASS    |
|          |         |           | 30~1000         | -12.78         | -67.6        | ≤-32.78     | PASS    |
|          |         |           | 1000~26500      | -12.78         | -48.23       | ≤-32.78     | PASS    |
|          |         | 2441      | Reference       | -10.82         | -10.82       | ---         | PASS    |
|          |         |           | 30~1000         | -10.82         | -68.5        | ≤-30.82     | PASS    |
|          |         |           | 1000~26500      | -10.82         | -49.15       | ≤-30.82     | PASS    |
|          |         | 2480      | Reference       | -10.93         | -10.93       | ---         | PASS    |
|          |         |           | 30~1000         | -10.93         | -68.26       | ≤-30.93     | PASS    |
|          |         |           | 1000~26500      | -10.93         | -55.83       | ≤-30.93     | PASS    |

## Test Graphs

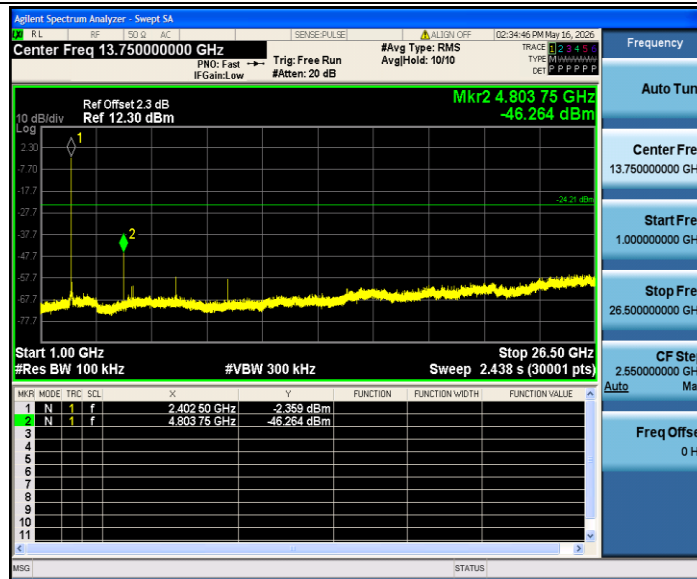
DH5\_Ant1\_2402\_0~Reference



DH5\_Ant1\_2402\_30~1000



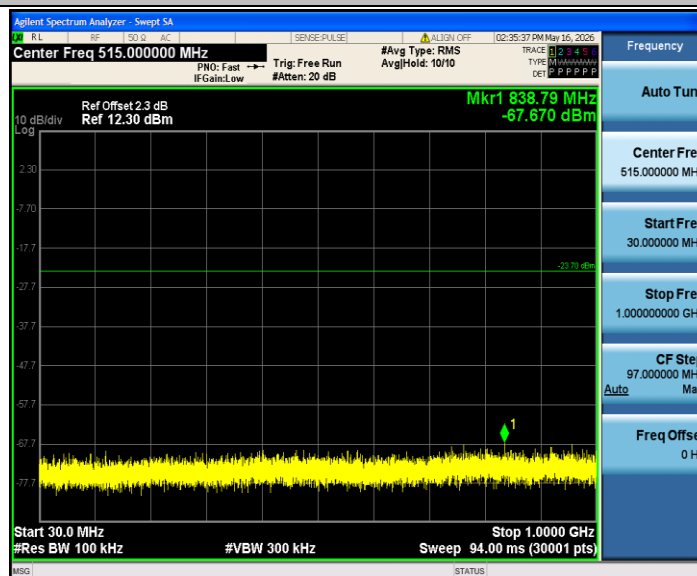
DH5\_Ant1\_2402\_1000~26500



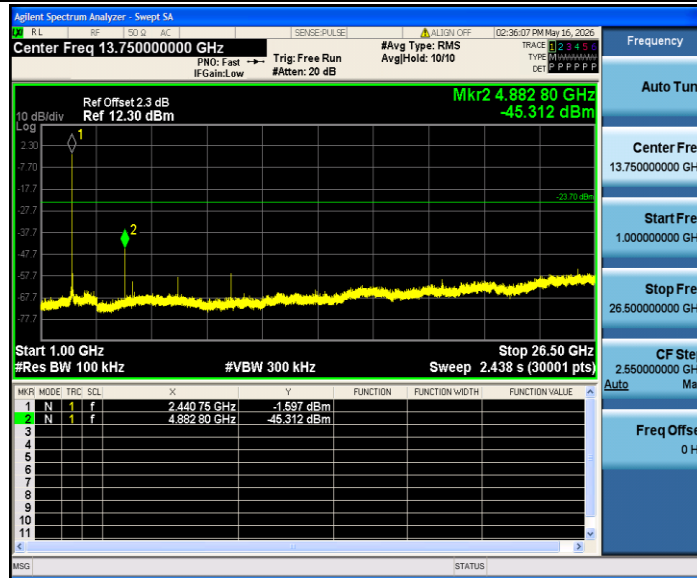
DH5\_Ant1\_2441\_0~Reference



DH5\_Ant1\_2441\_30~1000



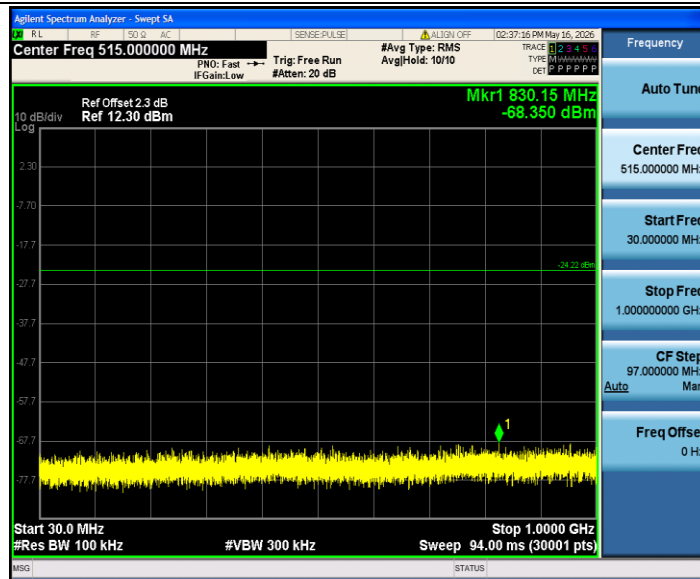
# DH5\_Ant1\_2441\_1000~26500



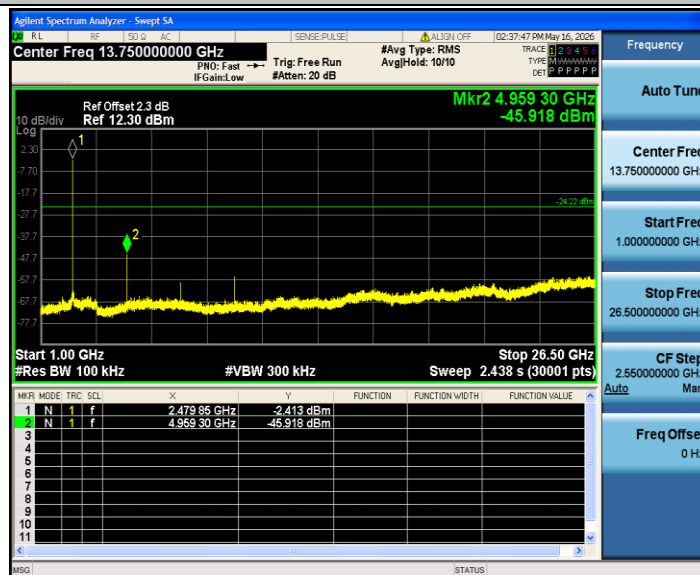
# DH5\_Ant1\_2480\_0~Reference



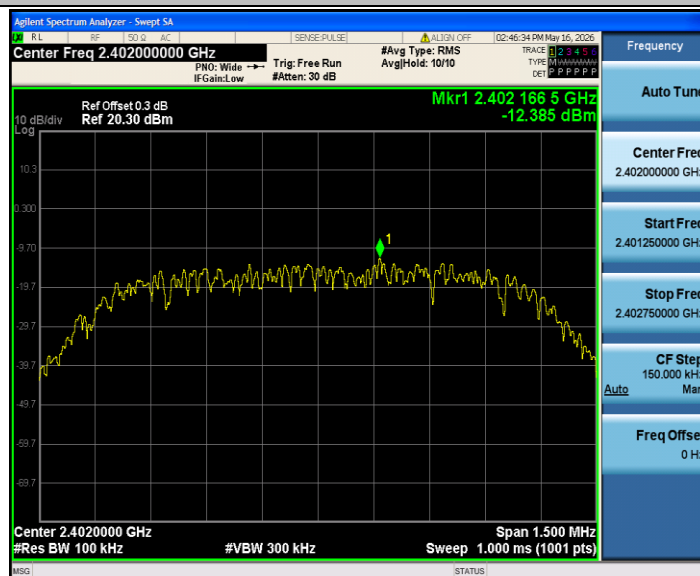
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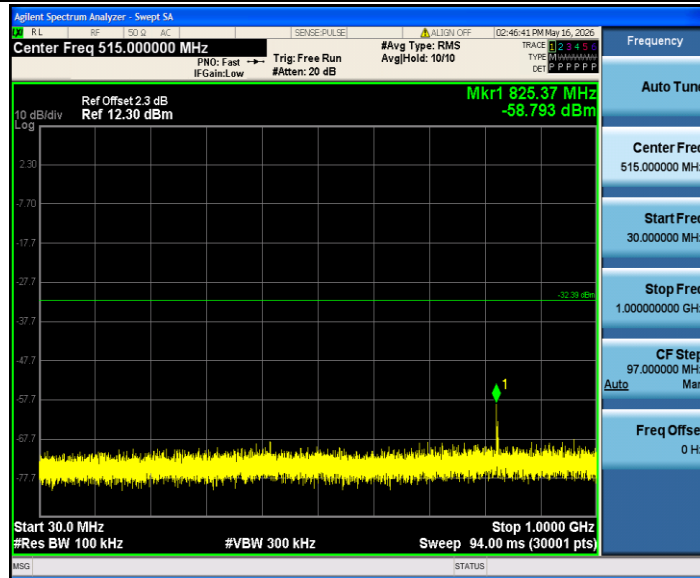
DH5\_Ant1\_2480\_1000~26500



2DH5\_Ant1\_2402\_0~Reference



# 2DH5\_Ant1\_2402\_30~1000



# 2DH5\_Ant1\_2402\_1000~26500



# 2DH5\_Ant1\_2441\_0~Reference