

Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Wireless Speaker

Test Model: HY-3326

Environmental Conditions

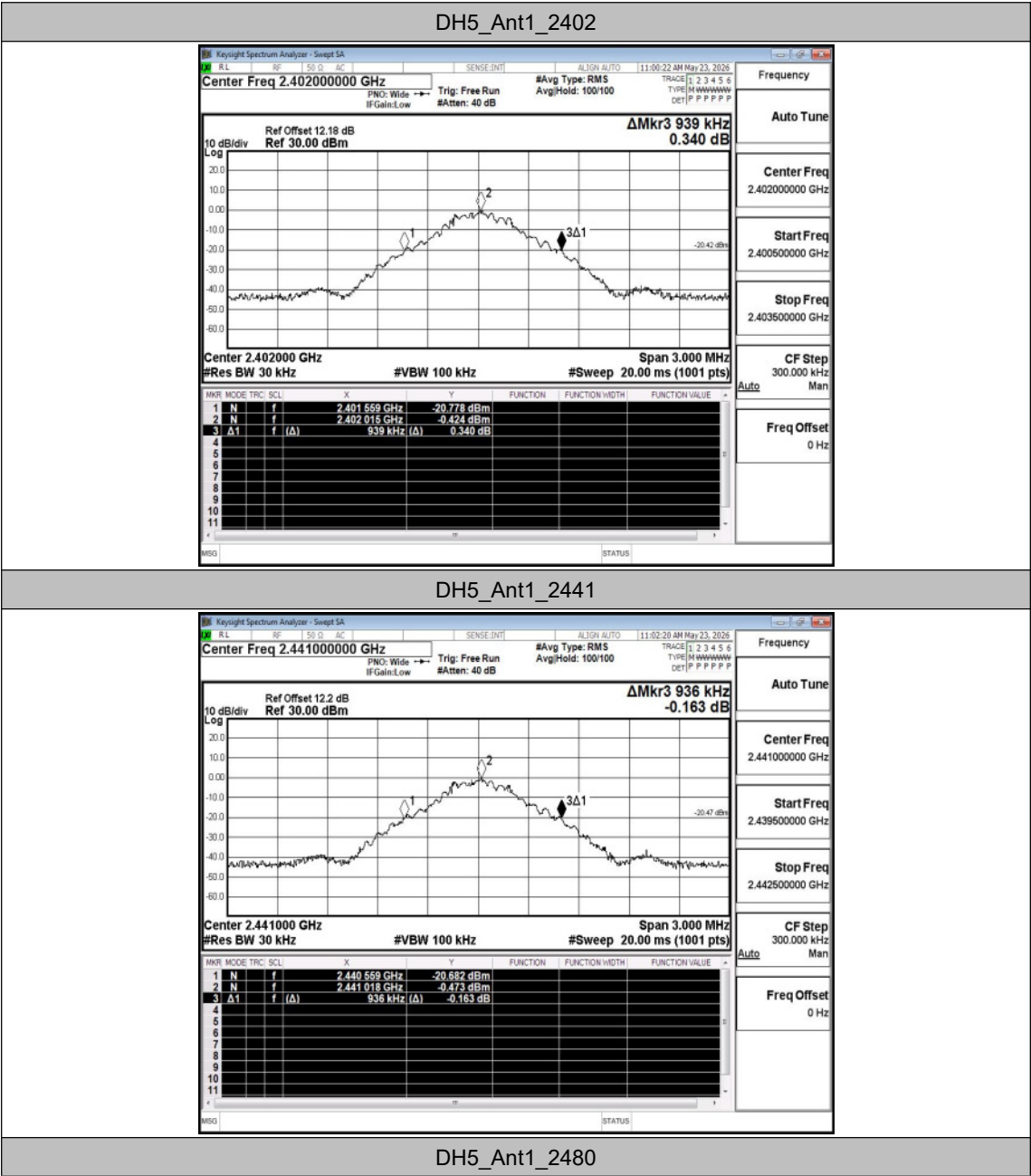
|                    |               |
|--------------------|---------------|
| Temperature:       | 24.6°C        |
| Relative Humidity: | 53.1%         |
| ATM Pressure:      | 100.0 kPa     |
| Test Engineer:     | zhao xing hai |
| Supervised by:     | Fengliu Tang  |

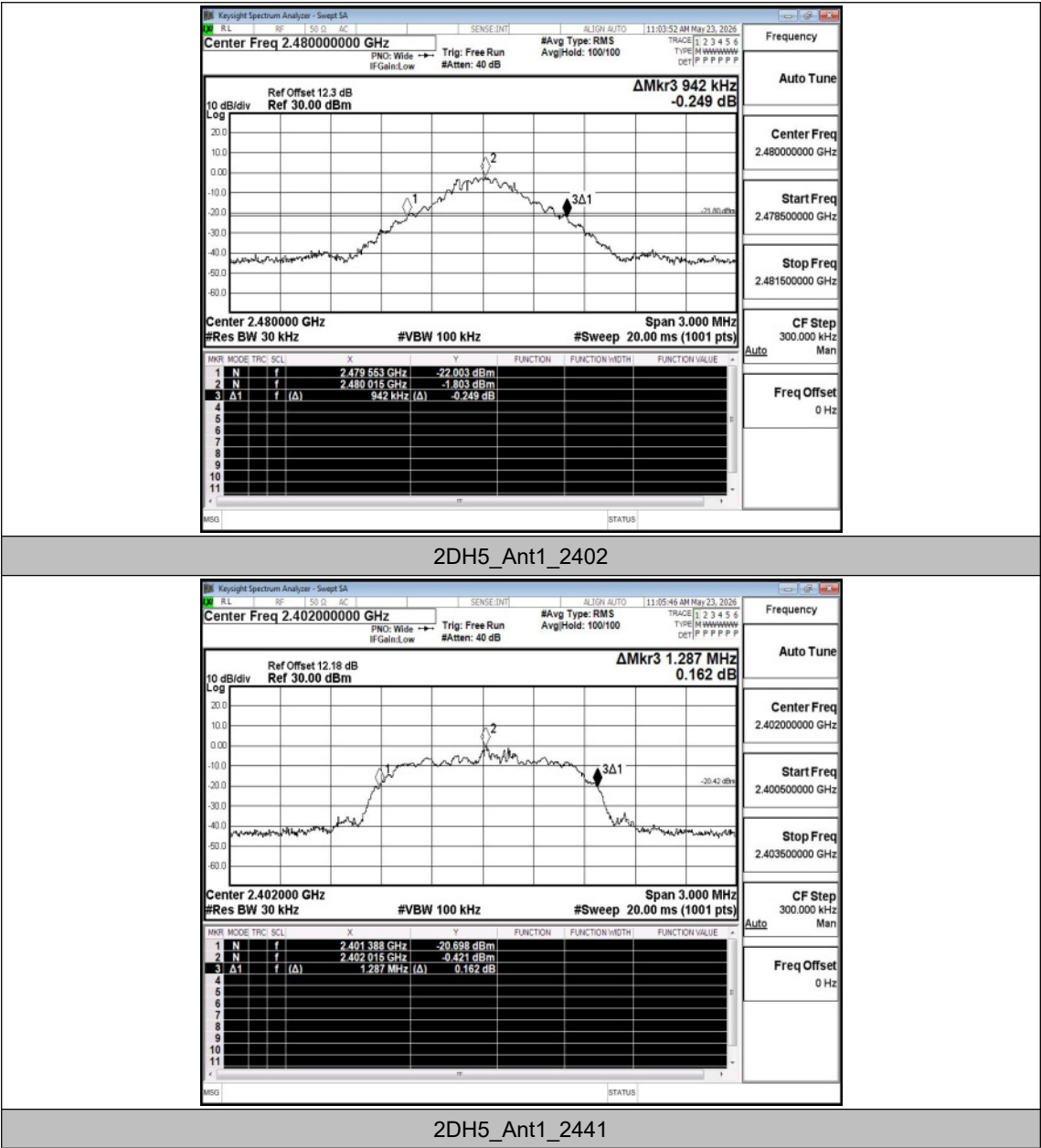
## A.1 20dB Emission Bandwidth

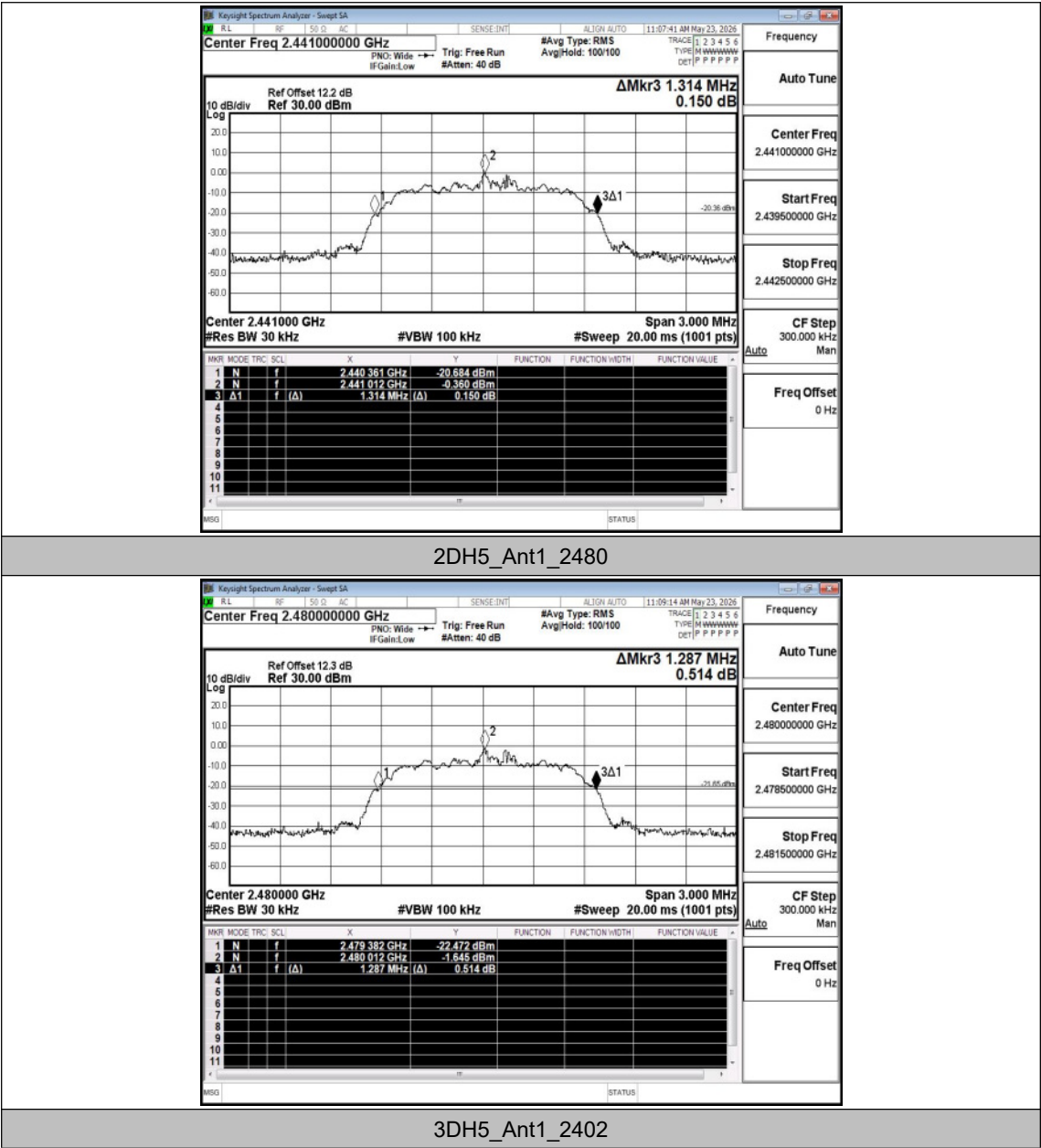
### Test Result

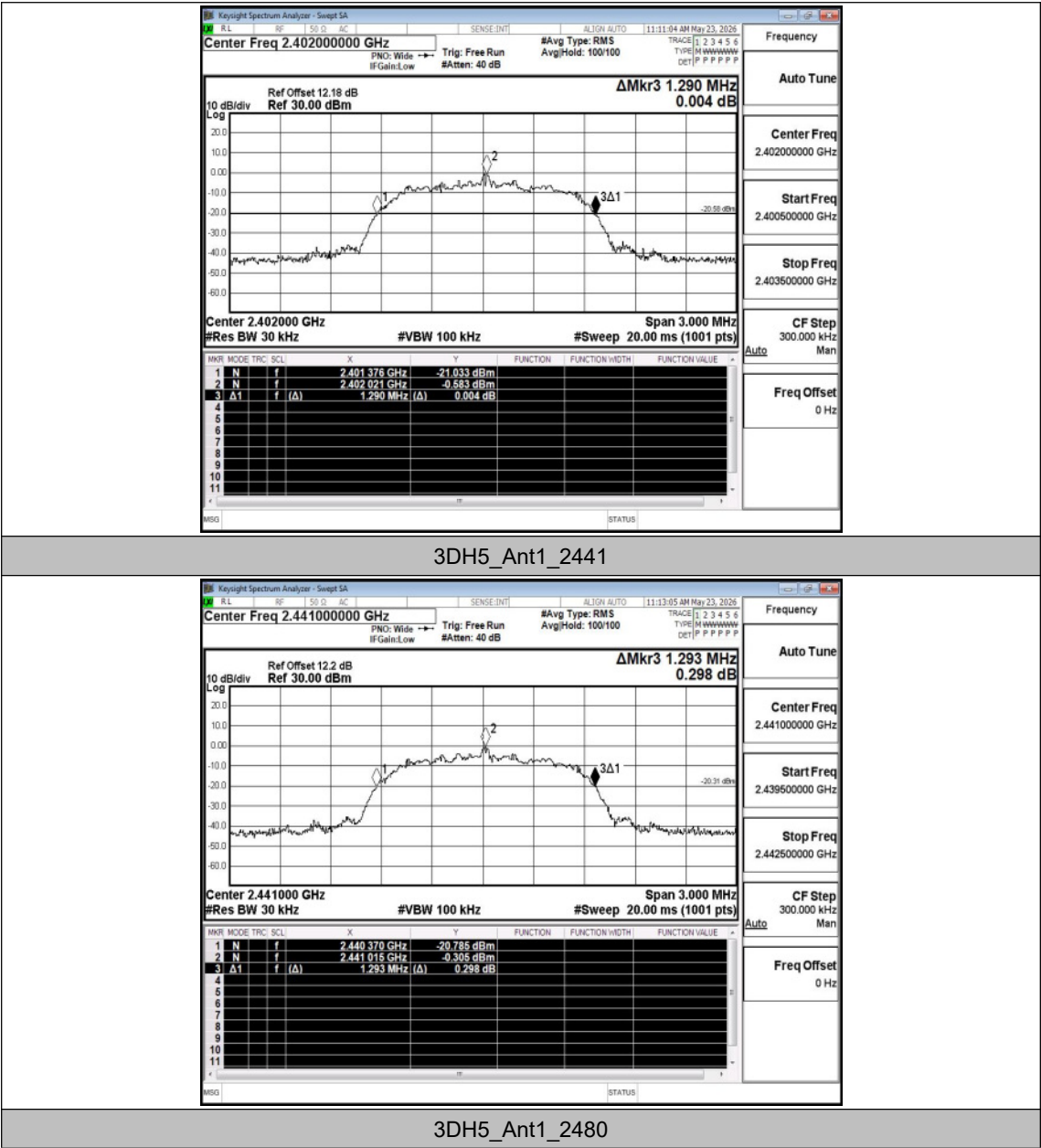
| TestMode | Antenna | Freq(MHz) | 20dB<br>EBW[MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|-----------|------------------|----------|----------|------------|---------|
| DH5      | Ant1    | 2402      | 0.939            | 2401.559 | 2402.498 | ---        | ---     |
|          |         | 2441      | 0.936            | 2440.559 | 2441.495 | ---        | ---     |
|          |         | 2480      | 0.942            | 2479.553 | 2480.495 | ---        | ---     |
| 2DH5     | Ant1    | 2402      | 1.287            | 2401.388 | 2402.675 | ---        | ---     |
|          |         | 2441      | 1.314            | 2440.361 | 2441.675 | ---        | ---     |
|          |         | 2480      | 1.287            | 2479.382 | 2480.669 | ---        | ---     |
| 3DH5     | Ant1    | 2402      | 1.290            | 2401.376 | 2402.666 | ---        | ---     |
|          |         | 2441      | 1.293            | 2440.370 | 2441.663 | ---        | ---     |
|          |         | 2480      | 1.293            | 2479.370 | 2480.663 | ---        | ---     |

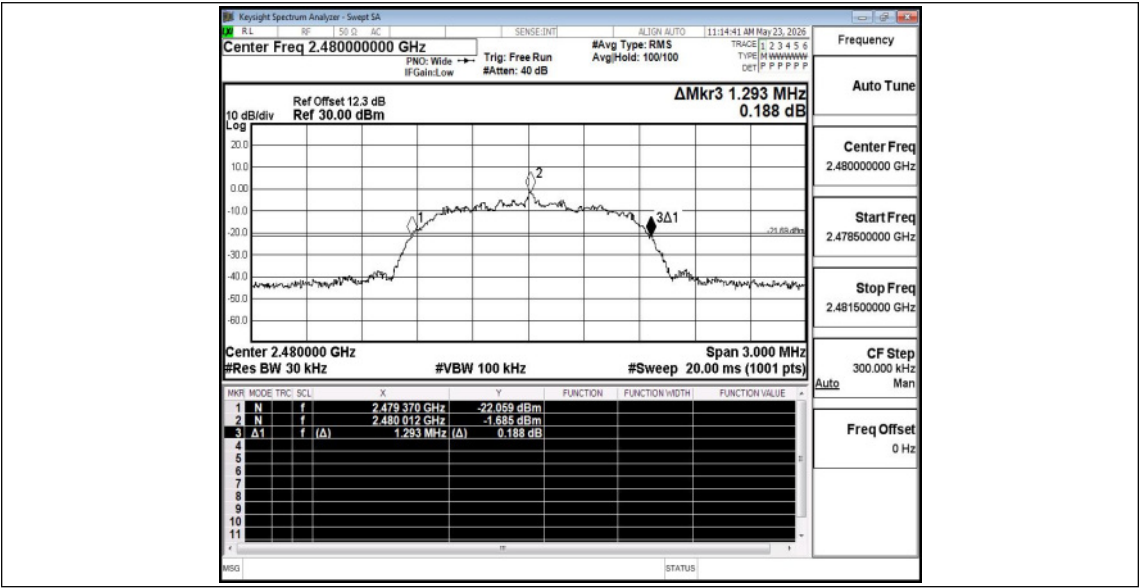
Test Graphs









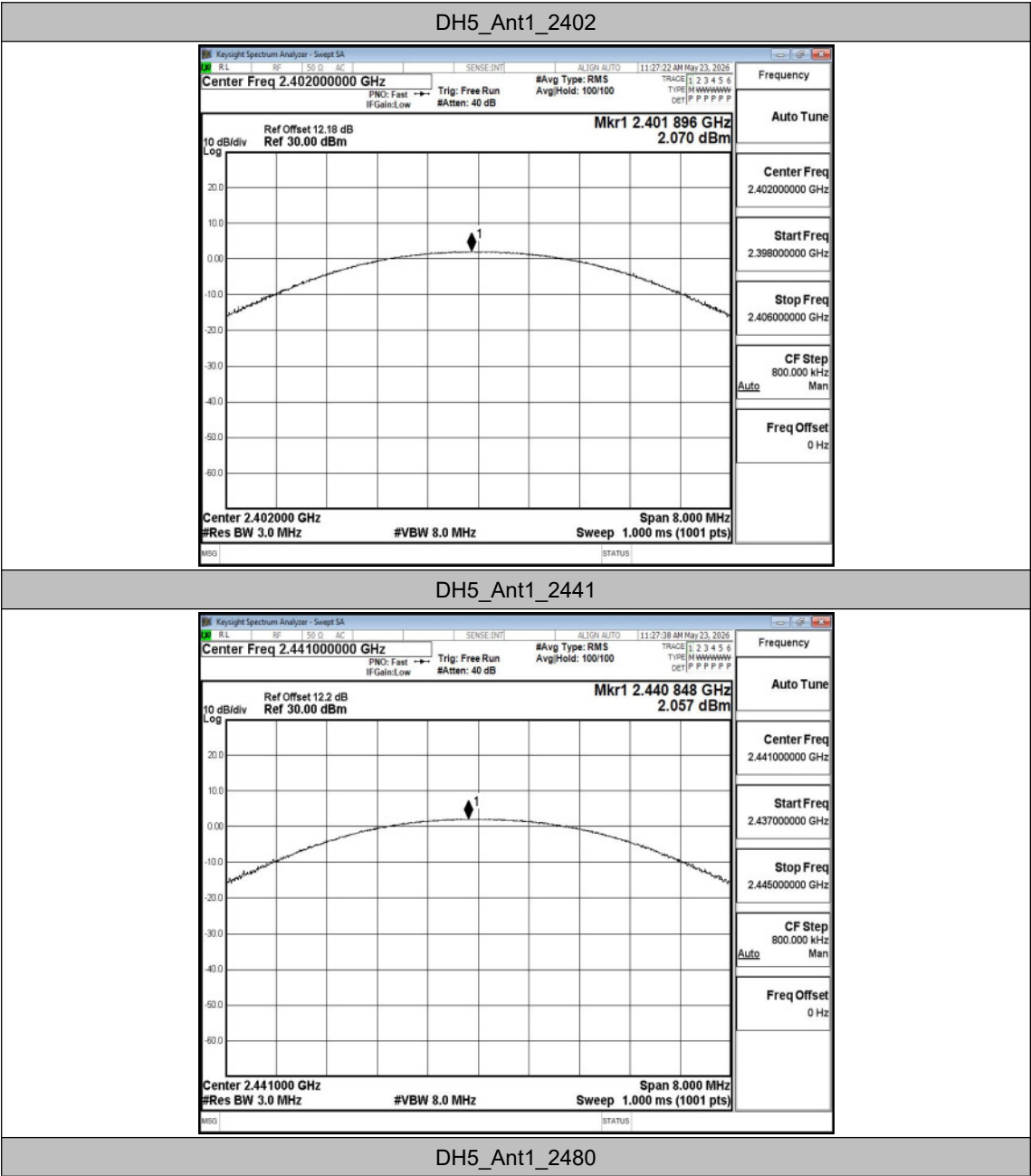


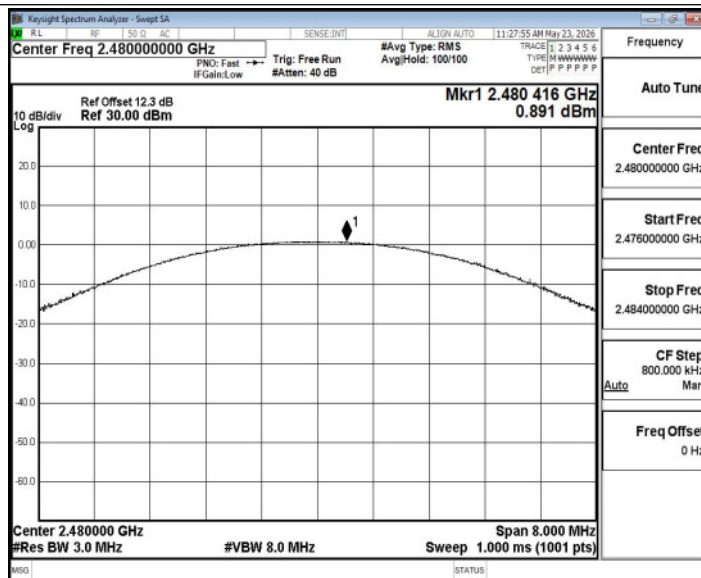
## A.2 Maximum conducted output power

### Test Result Peak

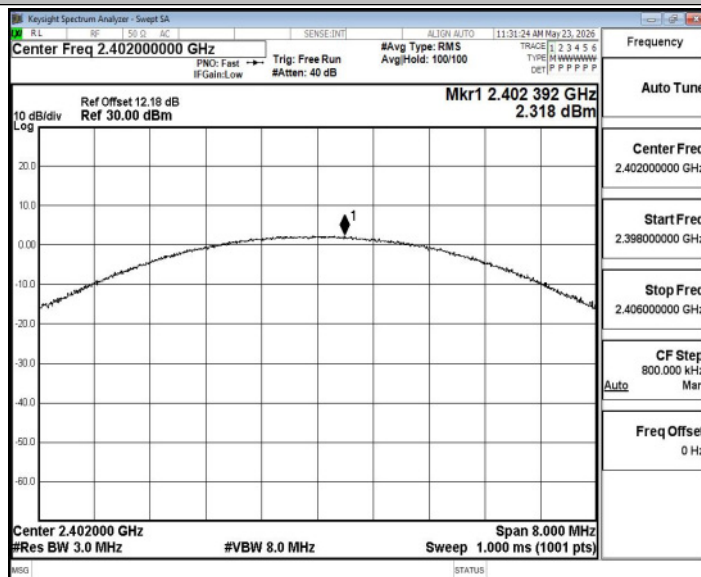
| Test Mode | Antenna | Freq(MHz) | Conducted Peak Power[dBm] | Conducted Limit[dBm] | Verdict |
|-----------|---------|-----------|---------------------------|----------------------|---------|
| DH5       | Ant1    | 2402      | 2.07                      | ≤30                  | PASS    |
|           |         | 2441      | 2.06                      | ≤30                  | PASS    |
|           |         | 2480      | 0.89                      | ≤30                  | PASS    |
| 2DH5      | Ant1    | 2402      | 2.32                      | ≤20.97               | PASS    |
|           |         | 2441      | 2.26                      | ≤20.97               | PASS    |
|           |         | 2480      | 2.61                      | ≤20.97               | PASS    |
| 3DH5      | Ant1    | 2402      | 2.77                      | ≤20.97               | PASS    |
|           |         | 2441      | 2.63                      | ≤20.97               | PASS    |
|           |         | 2480      | 1.46                      | ≤20.97               | PASS    |

Test Graphs

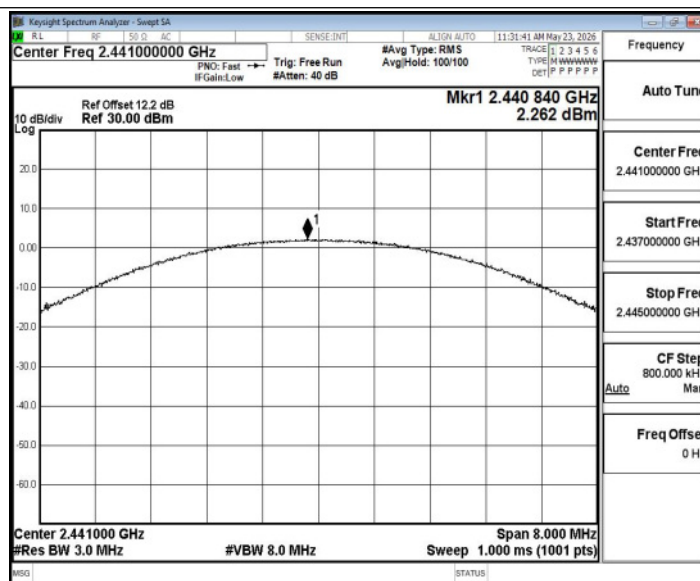




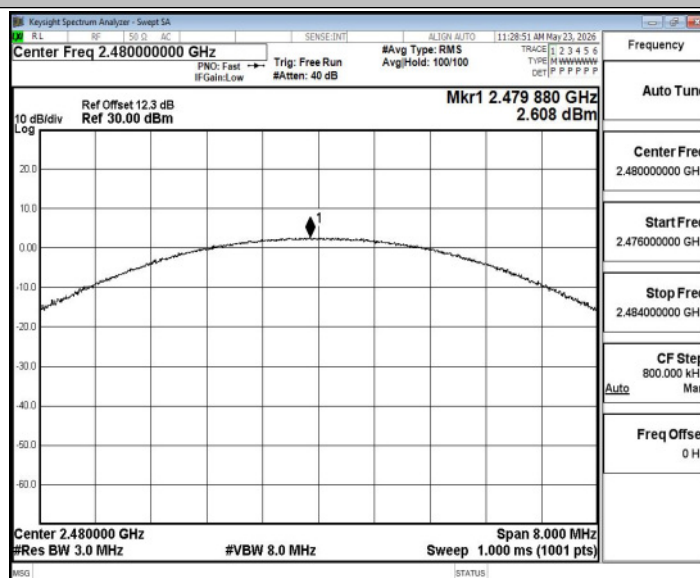
2DH5\_Ant1\_2402



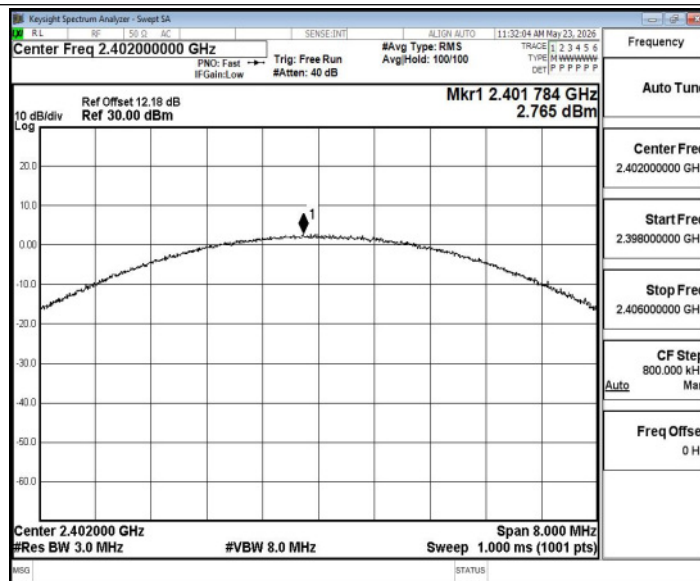
2DH5\_Ant1\_2441



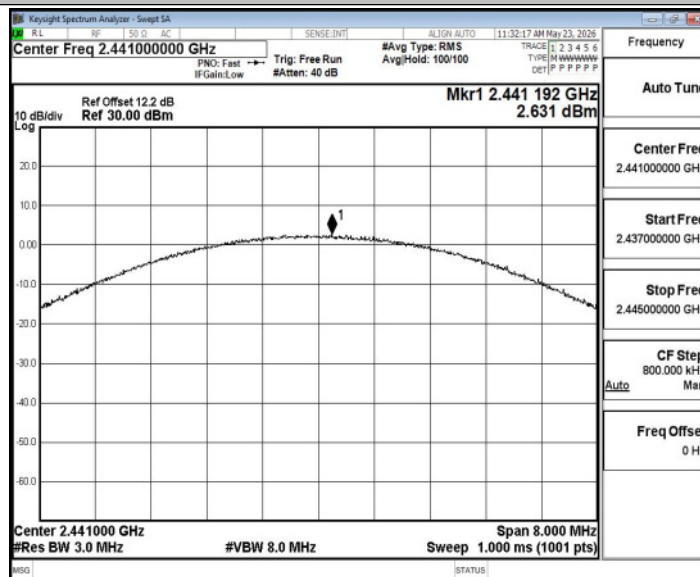
2DH5\_Ant1\_2480



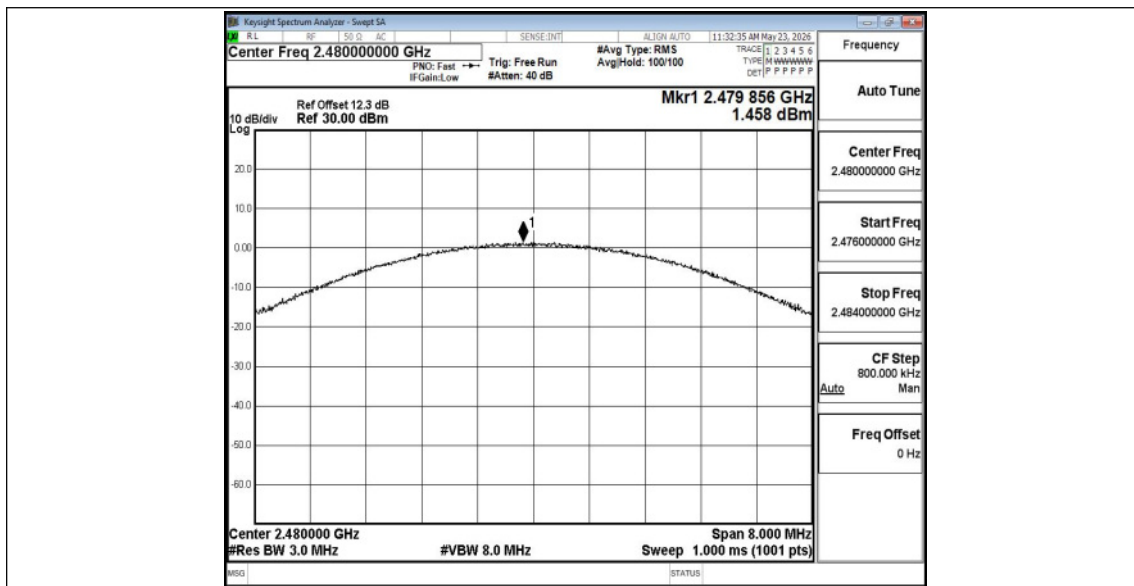
3DH5\_Ant1\_2402



3DH5\_Ant1\_2441



3DH5\_Ant1\_2480



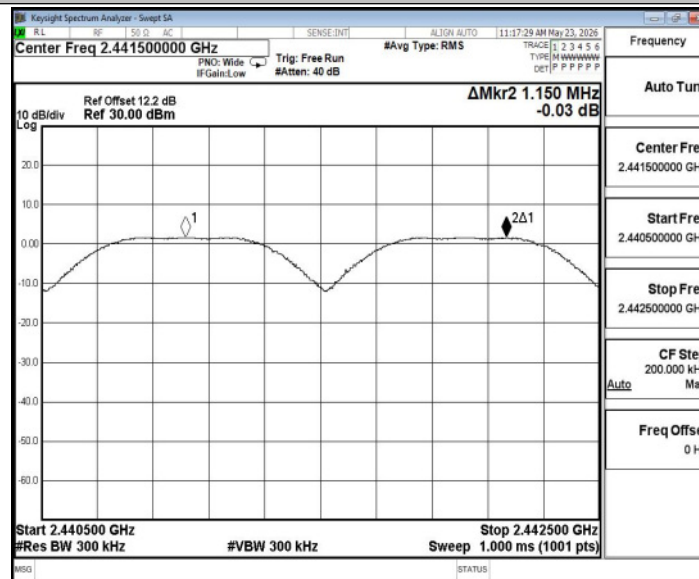
### A.3 Carrier frequency separation

#### Test Result

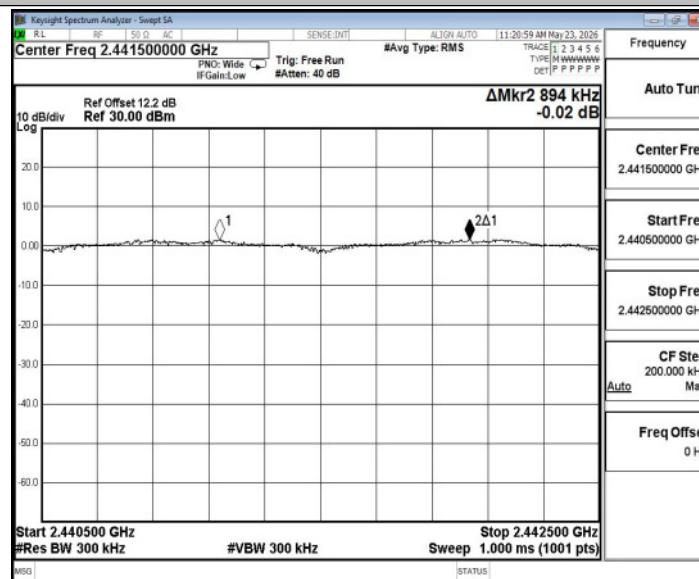
| TestMode | Antenna | Freq(MHz) | Result[MHz] | Limit[MHz]   | Verdict |
|----------|---------|-----------|-------------|--------------|---------|
| DH5      | Ant1    | Hop       | 1.15        | $\geq 0.942$ | PASS    |
| 2DH5     | Ant1    | Hop       | 0.894       | $\geq 0.876$ | PASS    |
| 3DH5     | Ant1    | Hop       | 0.996       | $\geq 0.862$ | PASS    |

## Test Graphs

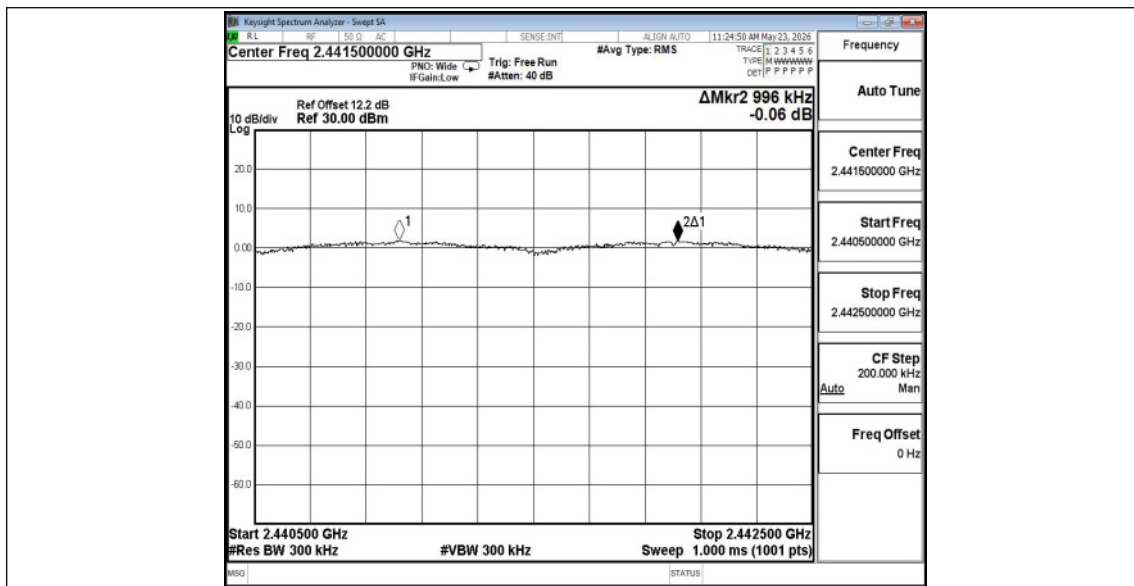
DH5\_Ant1\_Hop



2DH5\_Ant1\_Hop



3DH5\_Ant1\_Hop

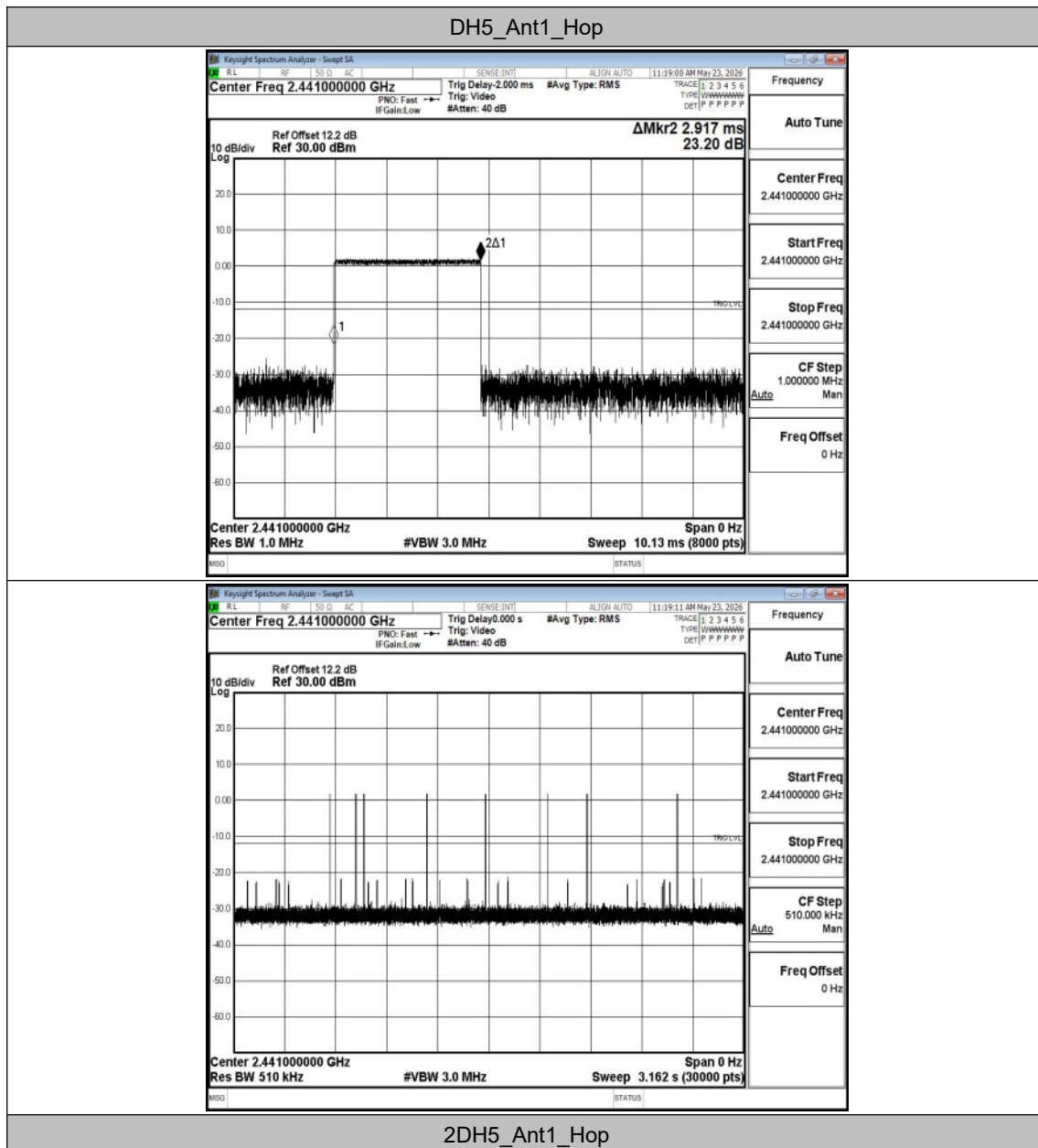


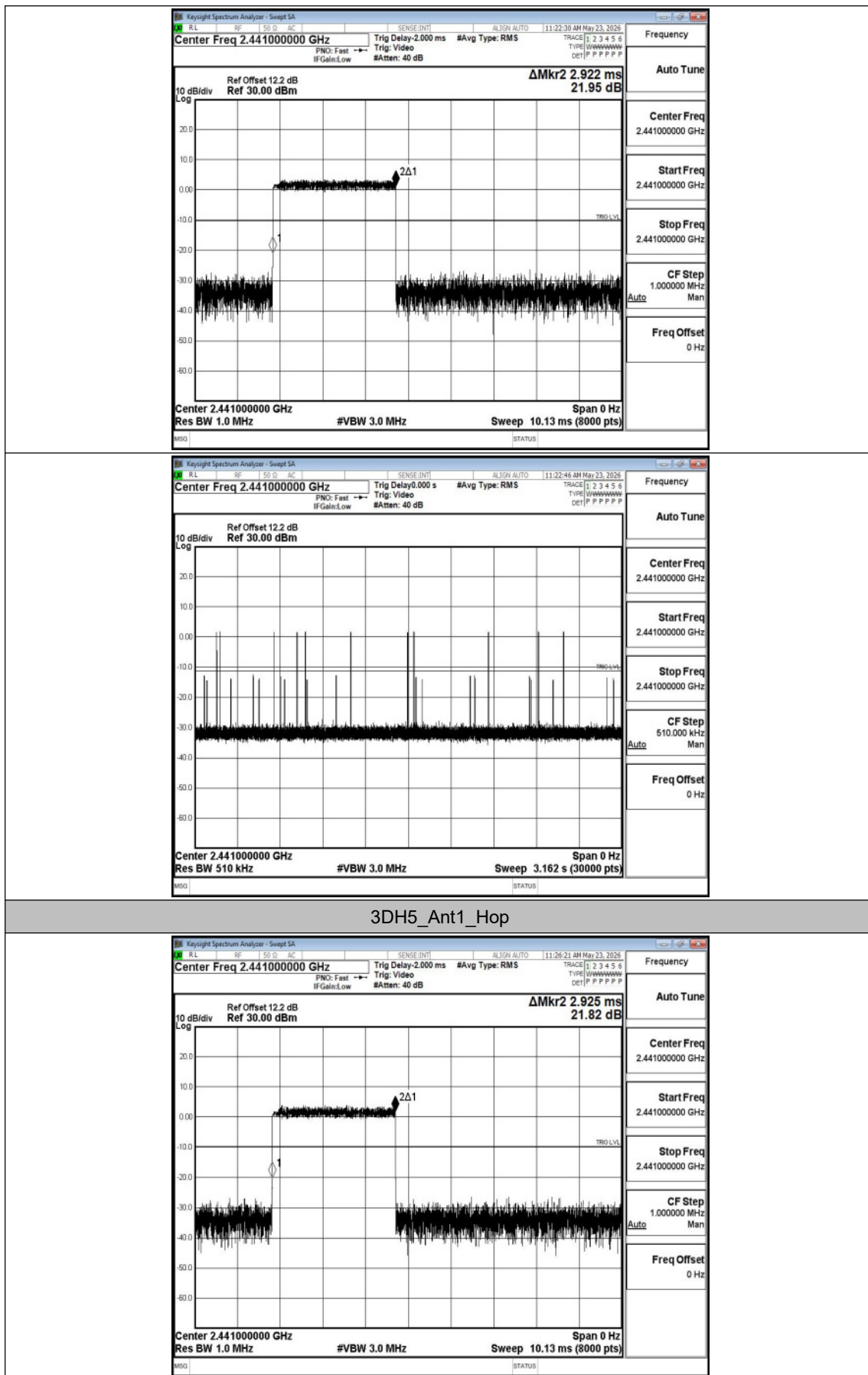
## A.4 Time of occupancy

### Test Result

| TestMode | Antenna | Freq(MHz) | BurstWidth<br>[ms] | TotalHops<br>[Num] | Result[s] | Limit[s] | Verdict |
|----------|---------|-----------|--------------------|--------------------|-----------|----------|---------|
| DH5      | Ant1    | Hop       | 2.917              | 90                 | 0.263     | ≤0.4     | PASS    |
| 2DH5     | Ant1    | Hop       | 2.922              | 120                | 0.351     | ≤0.4     | PASS    |
| 3DH5     | Ant1    | Hop       | 2.925              | 80                 | 0.234     | ≤0.4     | PASS    |

## Test Graphs

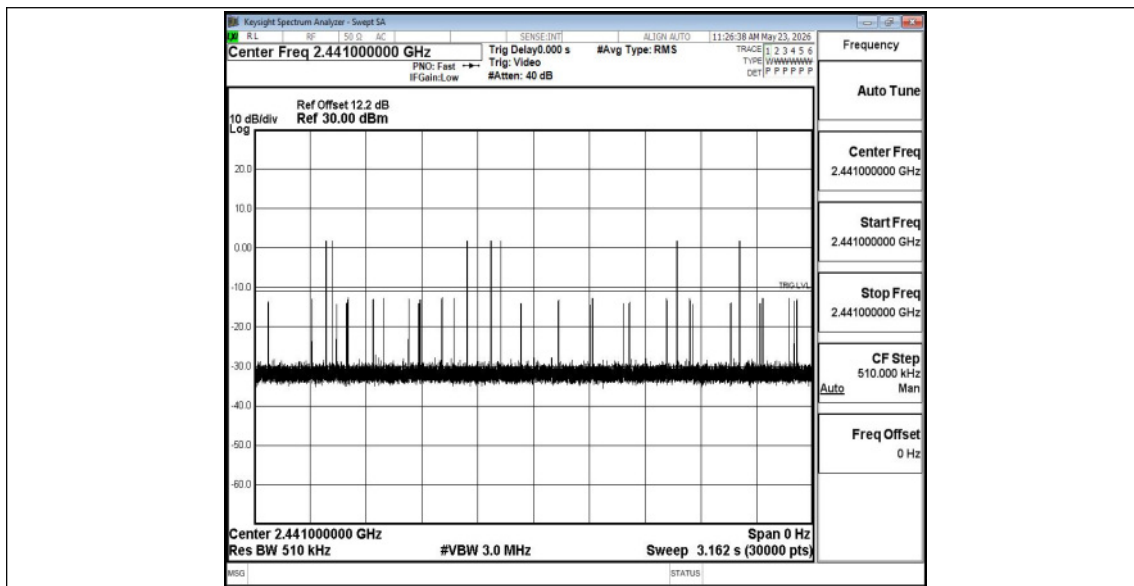




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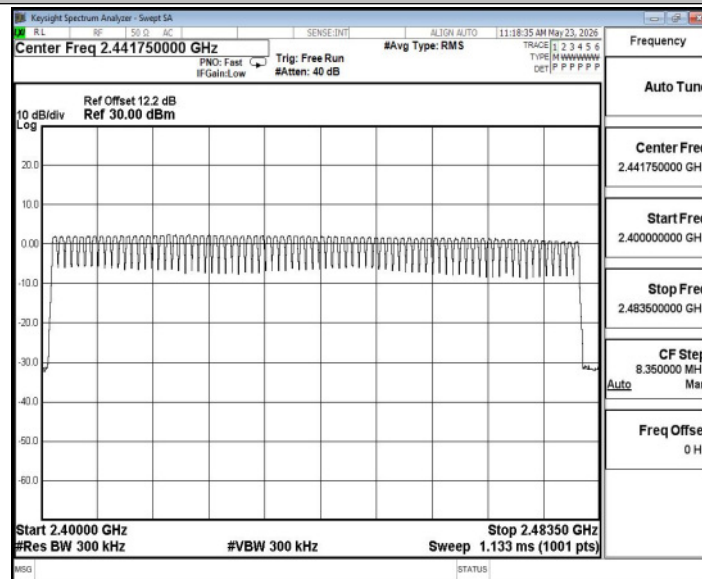
## A.5 Number of hopping channels

### Test Result

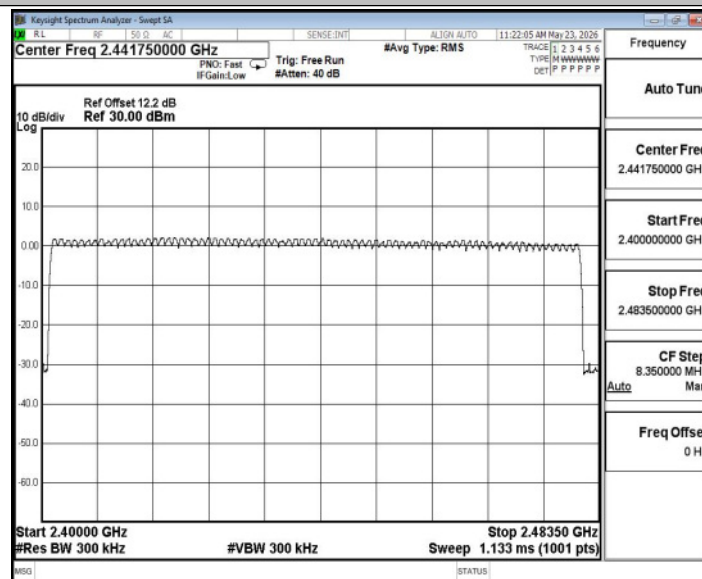
| TestMode | Antenna | Freq(MHz) | Result[Num] | Limit[Num] | Verdict |
|----------|---------|-----------|-------------|------------|---------|
| DH5      | Ant1    | Hop       | 79          | ≥15        | PASS    |
| 2DH5     | Ant1    | Hop       | 79          | ≥15        | PASS    |
| 3DH5     |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

## Test Graphs

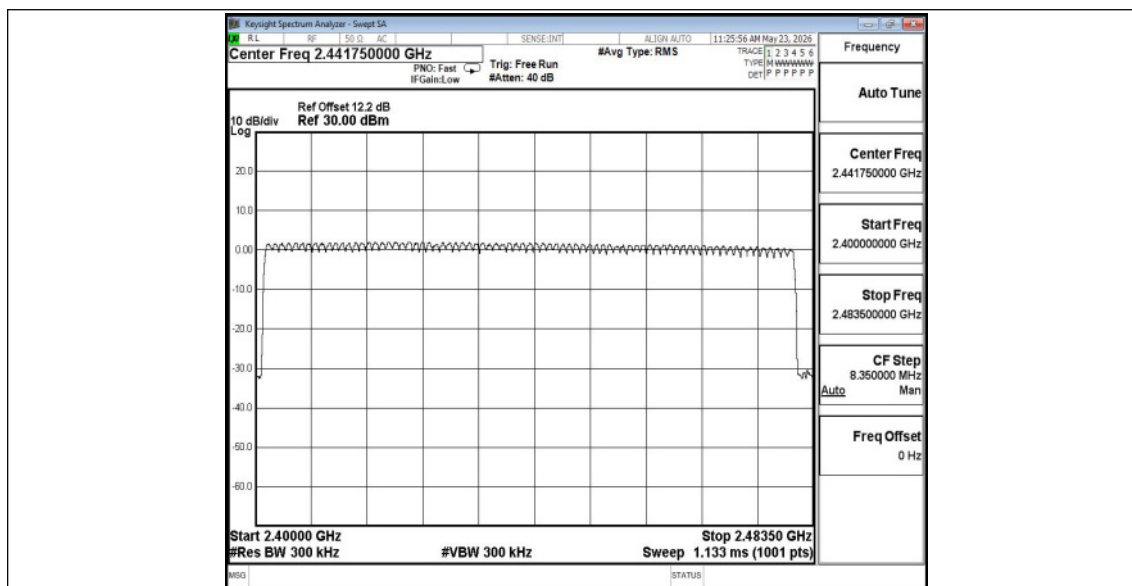
DH5\_Ant1\_Hop



2DH5\_Ant1\_Hop



3DH5\_Ant1\_Hop



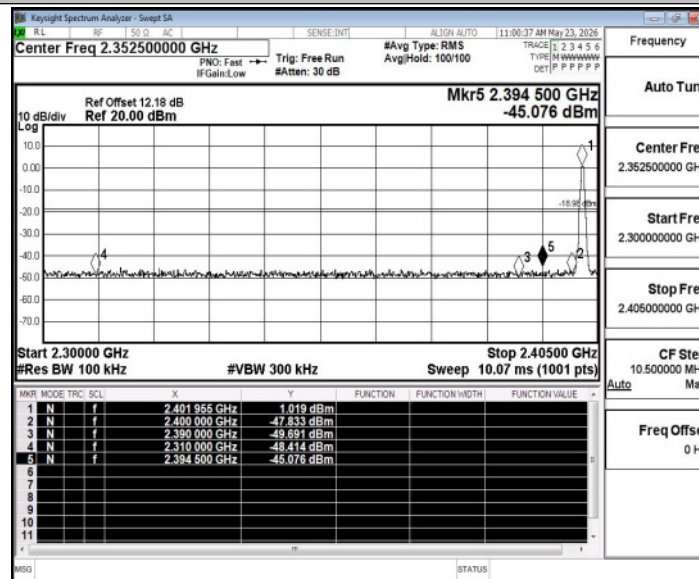
## A.6 Band edge measurements

### Test Result

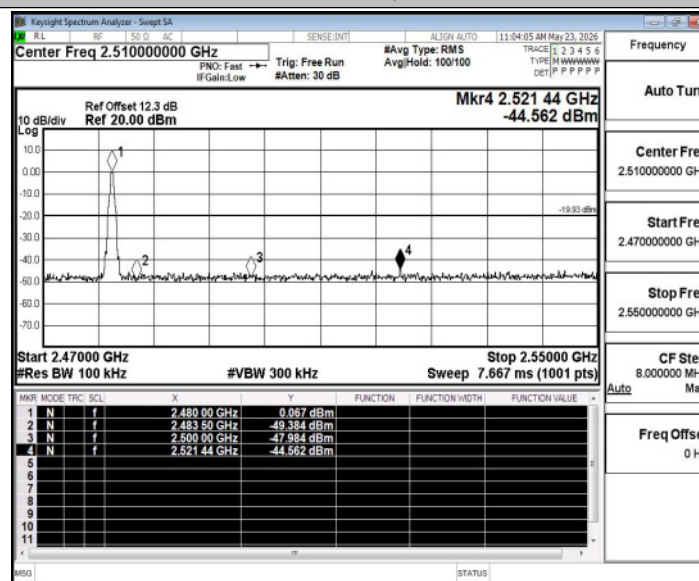
| TestMode | Antenna | ChName | Freq(MHz) | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|----------|---------|--------|-----------|----------------|--------------|-------------|---------|
| DH5      | Ant1    | Low    | 2402      | 1.02           | -45.08       | ≤-18.98     | PASS    |
|          |         | High   | 2480      | 0.07           | -44.56       | ≤-19.93     | PASS    |
|          |         | Low    | Hop_2402  | 0.81           | -45.2        | ≤-19.2      | PASS    |
|          |         | High   | Hop_2480  | -0.41          | -44.95       | ≤-20.41     | PASS    |
| 2DH5     | Ant1    | Low    | 2402      | 0.71           | -45.84       | ≤-19.29     | PASS    |
|          |         | High   | 2480      | -0.34          | -44.7        | ≤-20.34     | PASS    |
|          |         | Low    | Hop_2402  | -2.74          | -45.75       | ≤-22.74     | PASS    |
|          |         | High   | Hop_2480  | -0.50          | -44.22       | ≤-20.5      | PASS    |
| 3DH5     | Ant1    | Low    | 2402      | 0.66           | -44.44       | ≤-19.34     | PASS    |
|          |         | High   | 2480      | 0.39           | -44.03       | ≤-19.61     | PASS    |
|          |         | Low    | Hop_2402  | -2.80          | -45.79       | ≤-22.8      | PASS    |
|          |         | High   | Hop_2480  | -3.21          | -44.55       | ≤-23.21     | PASS    |

## Test Graphs

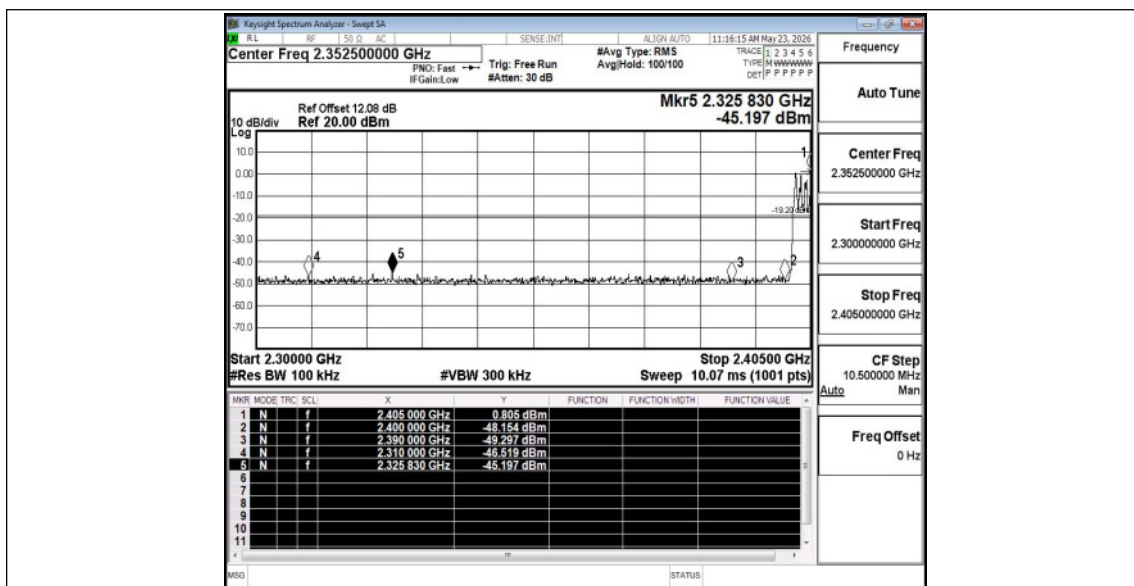
DH5\_Ant1\_Low\_2402



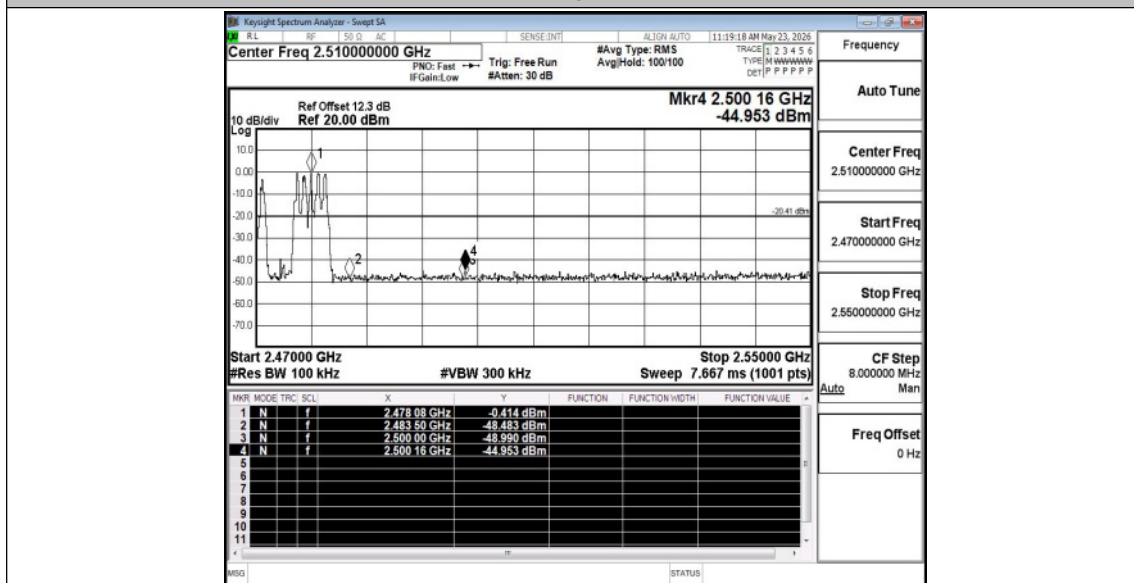
DH5\_Ant1\_High\_2480



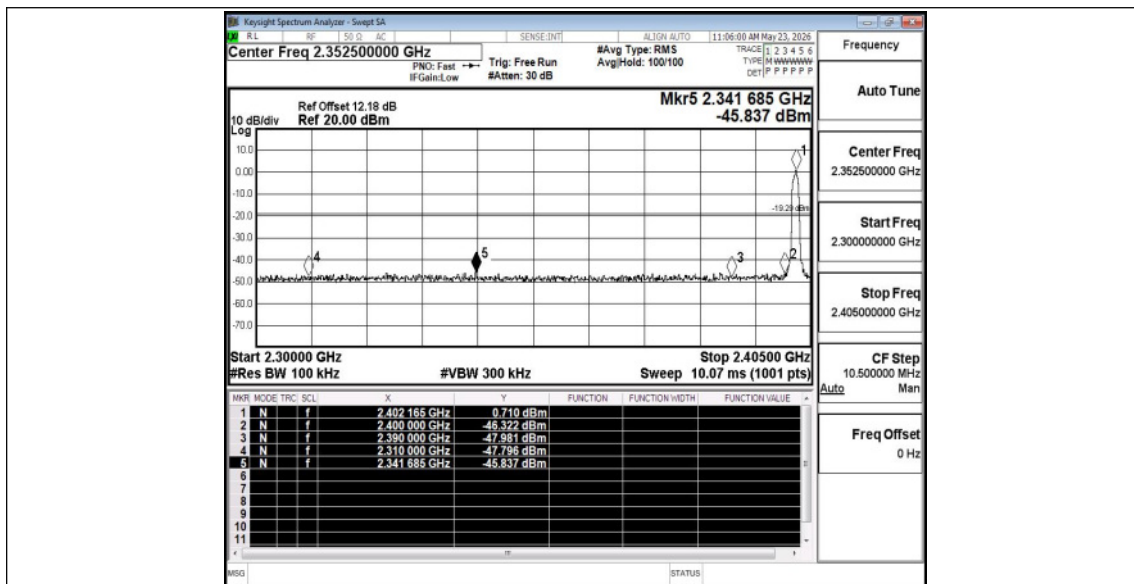
DH5\_Ant1\_Low\_Hop\_2402



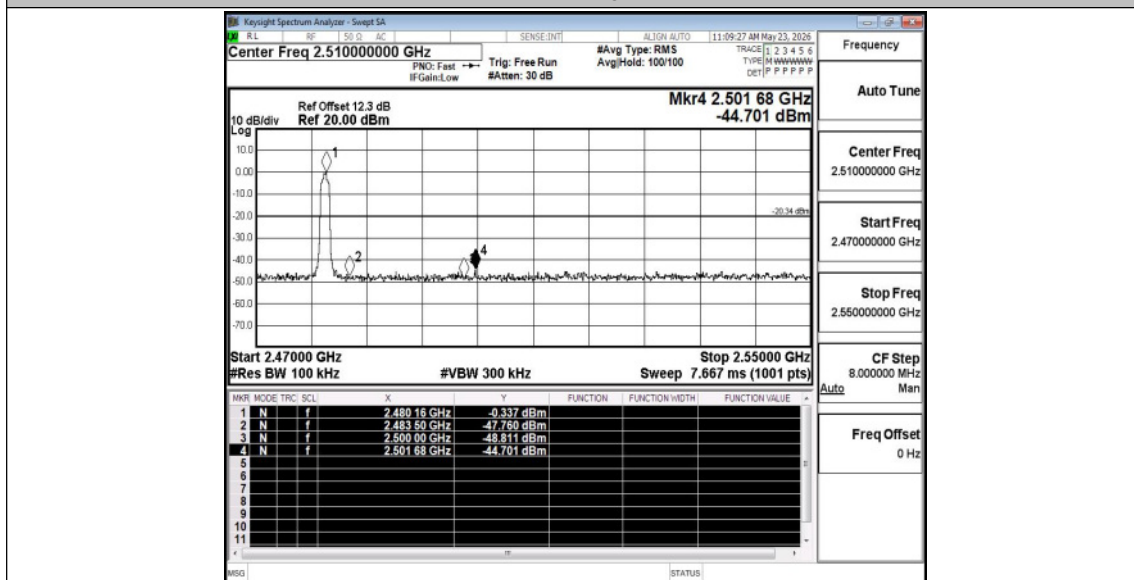
DH5\_Ant1\_High\_Hop\_2480



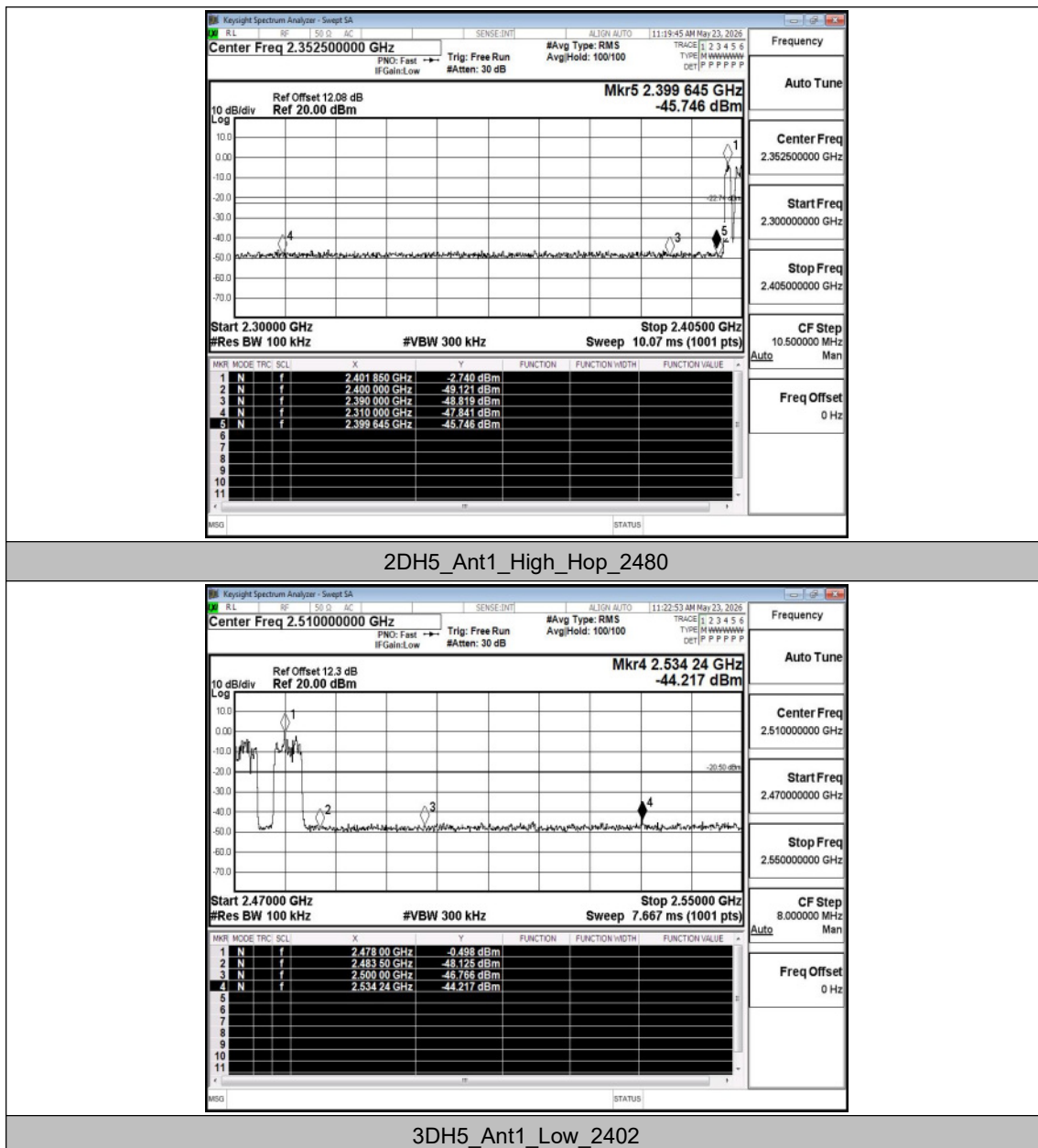
2DH5\_Ant1\_Low\_2402

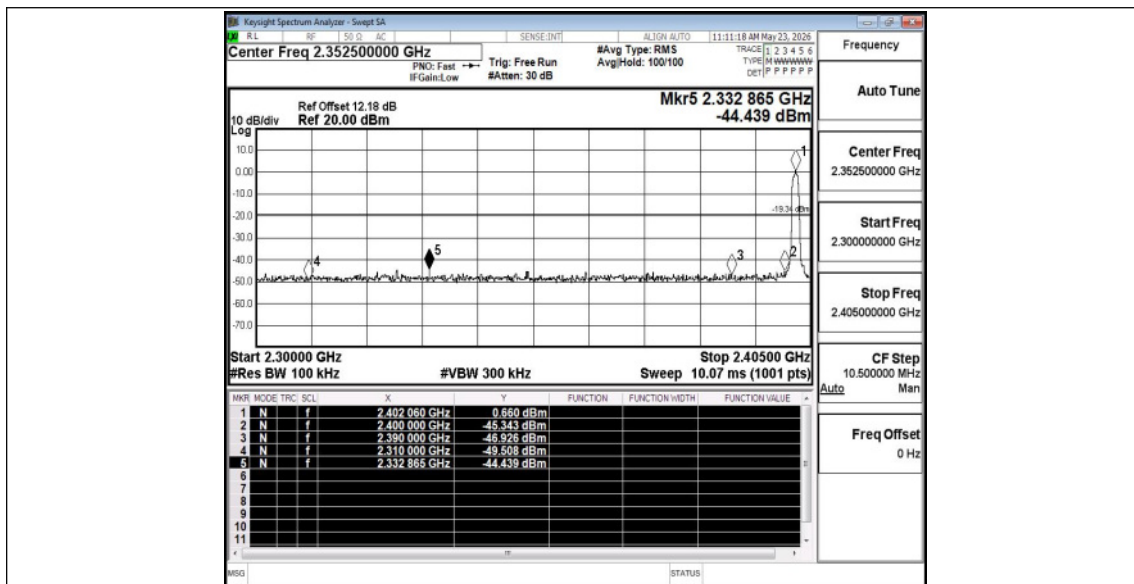


2DH5\_Ant1\_High\_2480

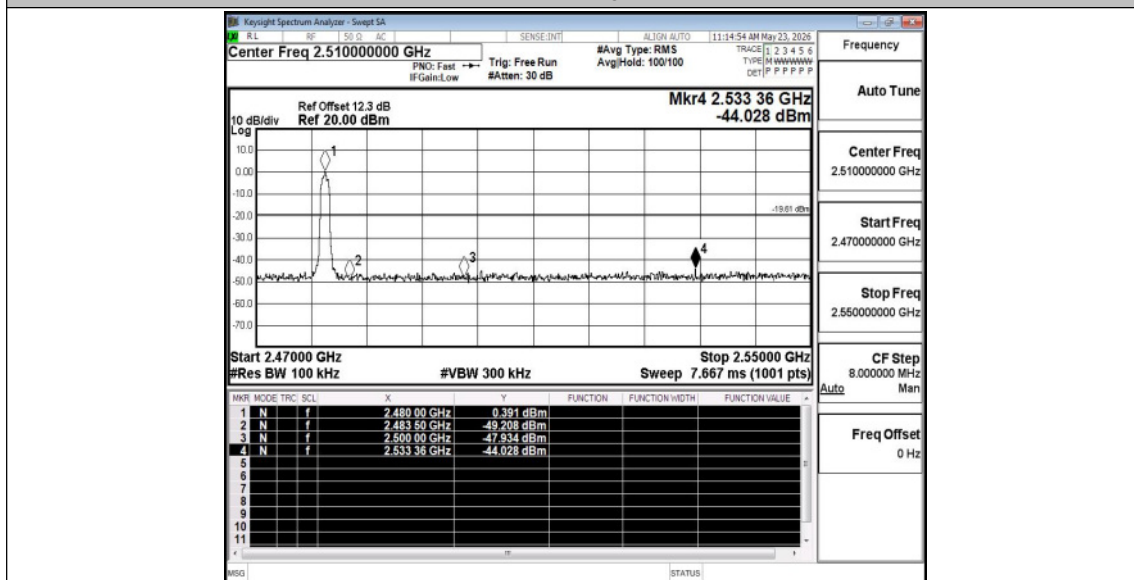


2DH5\_Ant1\_Low\_Hop\_2402

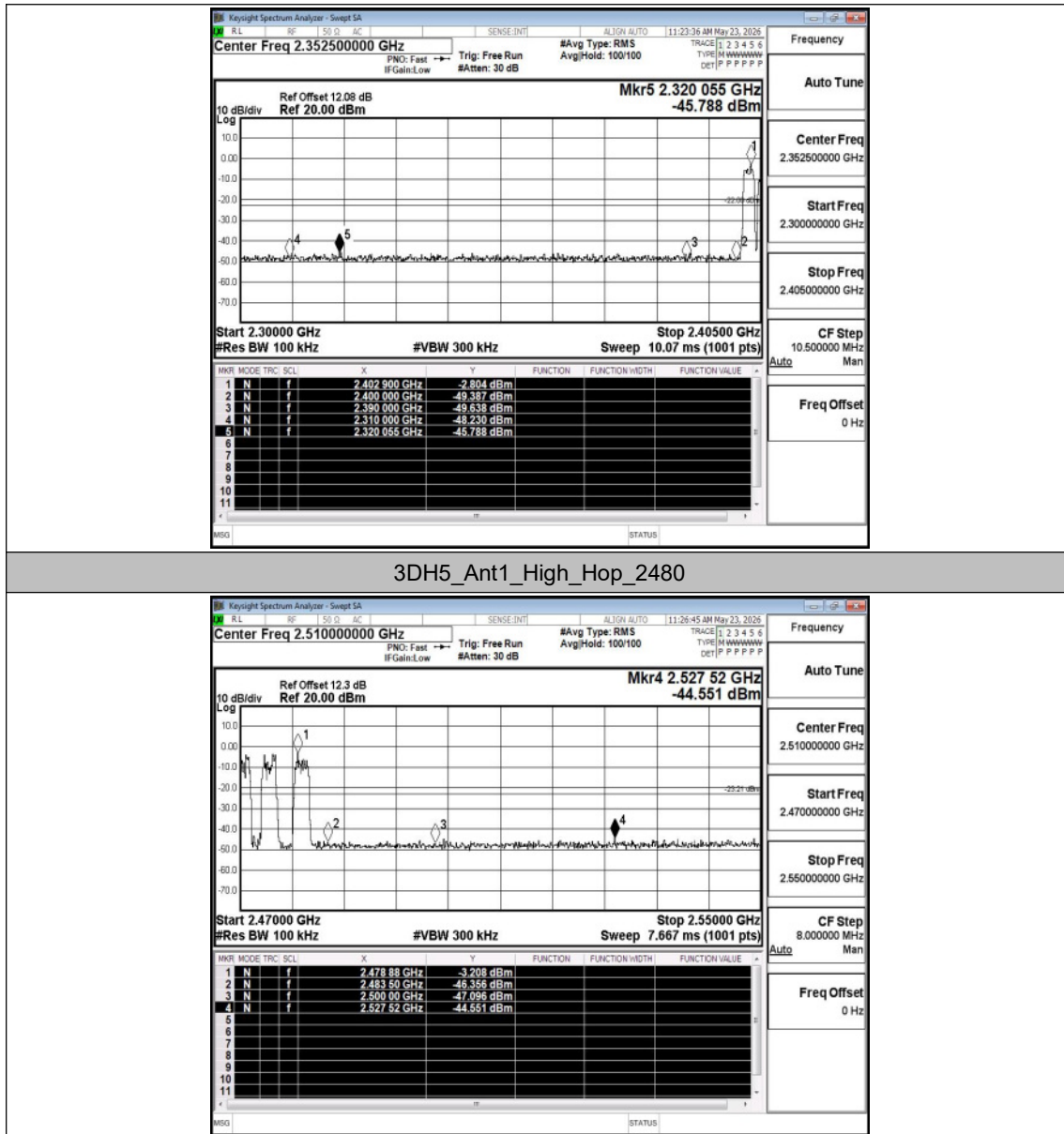




3DH5\_Ant1\_High\_2480



3DH5\_Ant1\_Low\_Hop\_2402

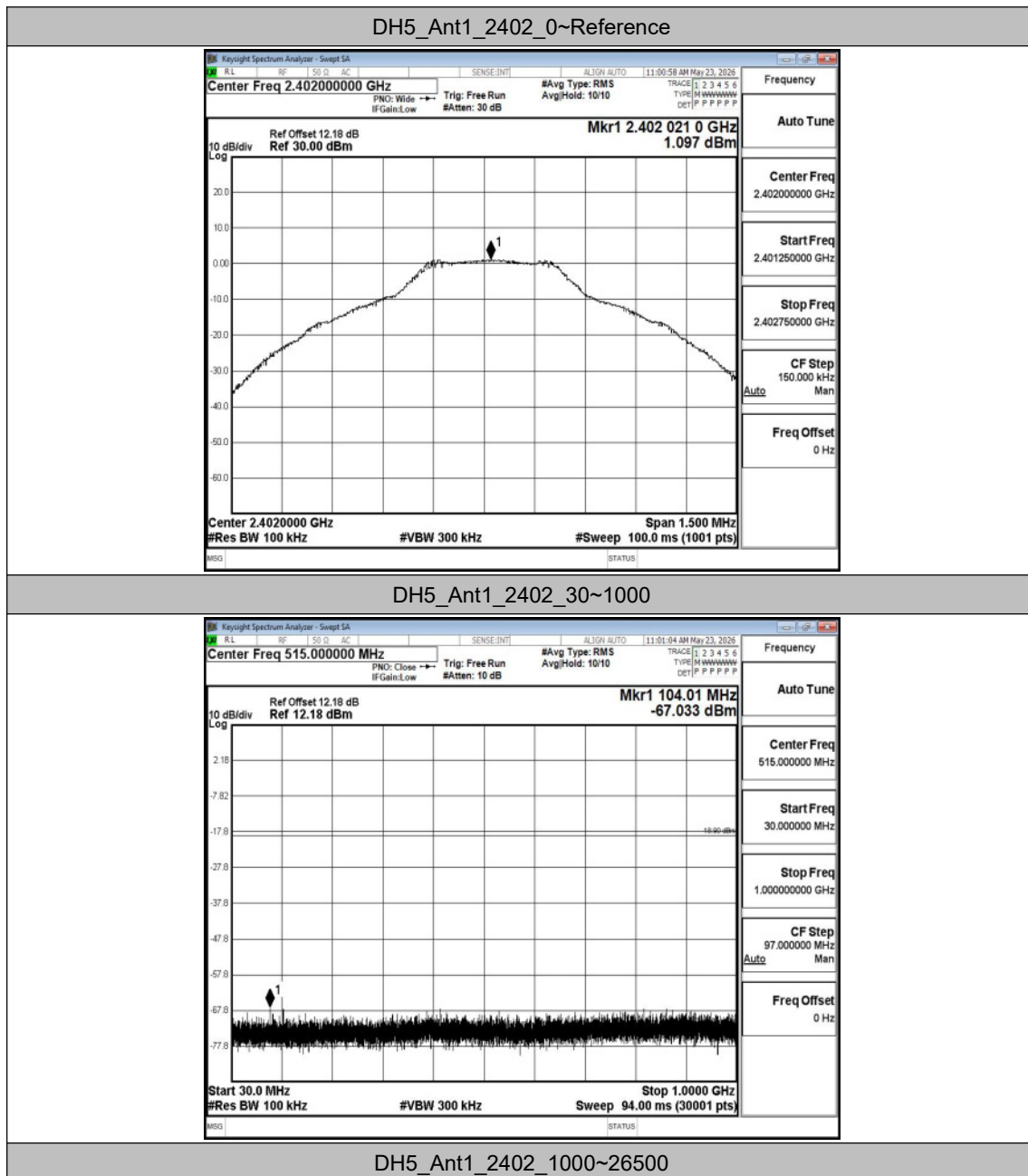


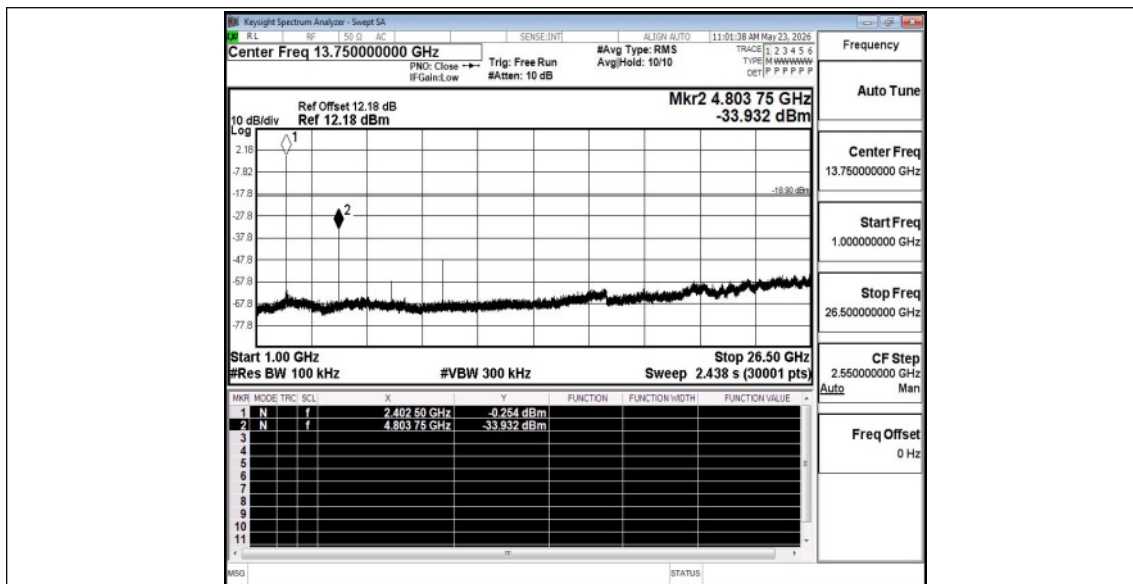
## A.7 Conducted Spurious Emission

### Test Result

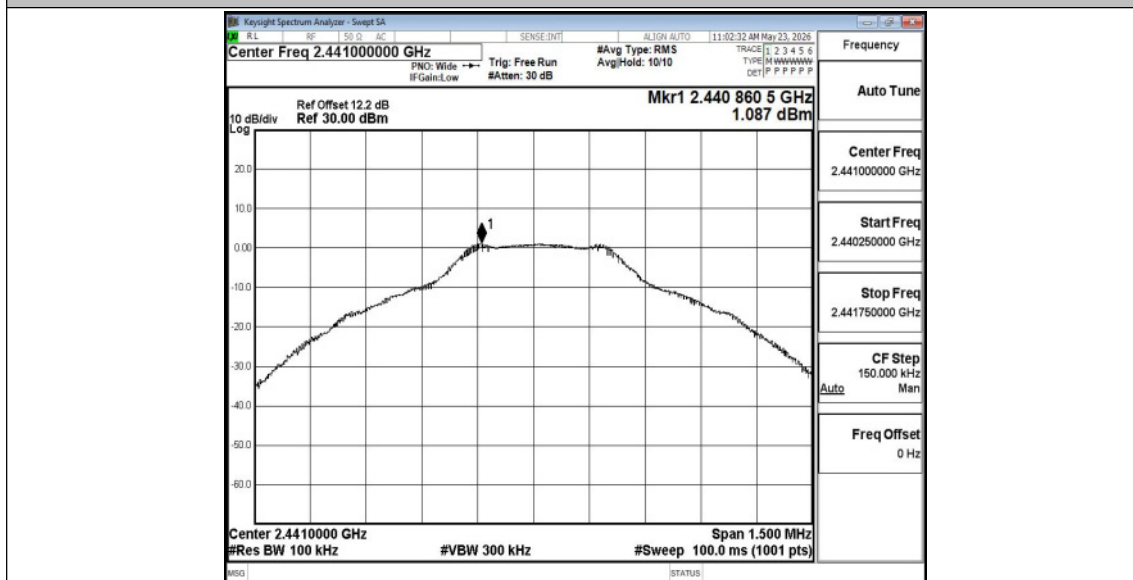
| TestMode | Antenna | Freq(MHz) | FreqRange [MHz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|----------|---------|-----------|-----------------|----------------|--------------|-------------|---------|
| DH5      | Ant1    | 2402      | Reference       | 1.10           | 1.10         | ---         | PASS    |
|          |         |           | 30~1000         | 1.10           | -67.03       | ≤-18.9      | PASS    |
|          |         |           | 1000~26500      | 1.10           | -33.93       | ≤-18.9      | PASS    |
|          |         | 2441      | Reference       | 1.09           | 1.09         | ---         | PASS    |
|          |         |           | 30~1000         | 1.09           | -67.07       | ≤-18.91     | PASS    |
|          |         |           | 1000~26500      | 1.09           | -33.11       | ≤-18.91     | PASS    |
|          |         | 2480      | Reference       | -0.16          | -0.16        | ---         | PASS    |
|          |         |           | 30~1000         | -0.16          | -67.17       | ≤-20.16     | PASS    |
|          |         |           | 1000~26500      | -0.16          | -34.11       | ≤-20.16     | PASS    |
| 2DH5     | Ant1    | 2402      | Reference       | 0.98           | 0.98         | ---         | PASS    |
|          |         |           | 30~1000         | 0.98           | -65.74       | ≤-19.02     | PASS    |
|          |         |           | 1000~26500      | 0.98           | -33.29       | ≤-19.02     | PASS    |
|          |         | 2441      | Reference       | 0.94           | 0.94         | ---         | PASS    |
|          |         |           | 30~1000         | 0.94           | -65.9        | ≤-19.06     | PASS    |
|          |         |           | 1000~26500      | 0.94           | -35.81       | ≤-19.06     | PASS    |
|          |         | 2480      | Reference       | -0.30          | -0.30        | ---         | PASS    |
|          |         |           | 30~1000         | -0.30          | -66.51       | ≤-20.3      | PASS    |
|          |         |           | 1000~26500      | -0.30          | -35.13       | ≤-20.3      | PASS    |
| 3DH5     | Ant1    | 2402      | Reference       | 1.66           | 1.66         | ---         | PASS    |
|          |         |           | 30~1000         | 1.66           | -67.28       | ≤-18.34     | PASS    |
|          |         |           | 1000~26500      | 1.66           | -34.79       | ≤-18.34     | PASS    |
|          |         | 2441      | Reference       | 1.65           | 1.65         | ---         | PASS    |
|          |         |           | 30~1000         | 1.65           | -67.05       | ≤-18.35     | PASS    |
|          |         |           | 1000~26500      | 1.65           | -33.69       | ≤-18.35     | PASS    |
|          |         | 2480      | Reference       | 0.40           | 0.40         | ---         | PASS    |
|          |         |           | 30~1000         | 0.40           | -67.15       | ≤-19.6      | PASS    |
|          |         |           | 1000~26500      | 0.40           | -35.1        | ≤-19.6      | PASS    |

## Test Graphs

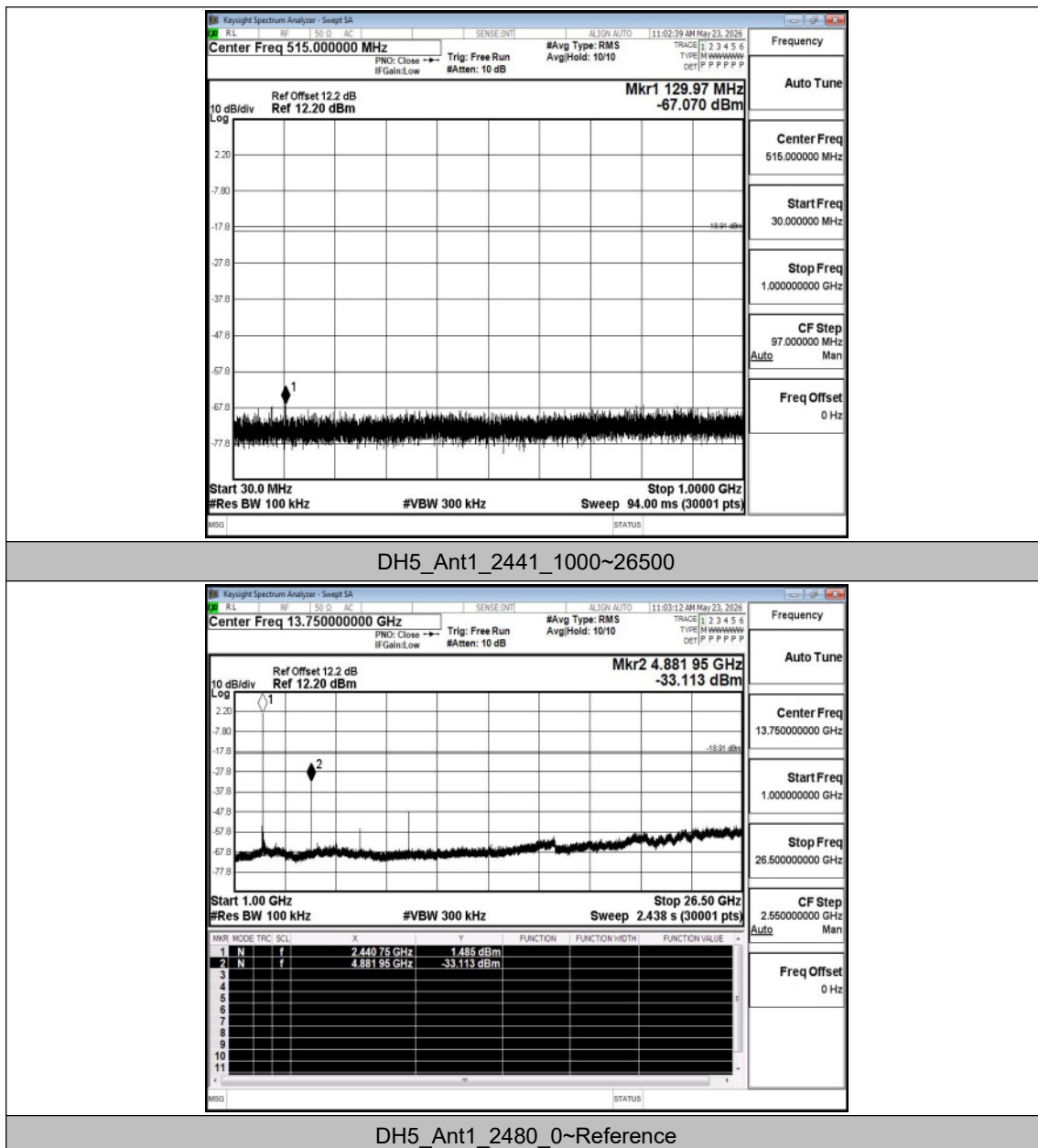


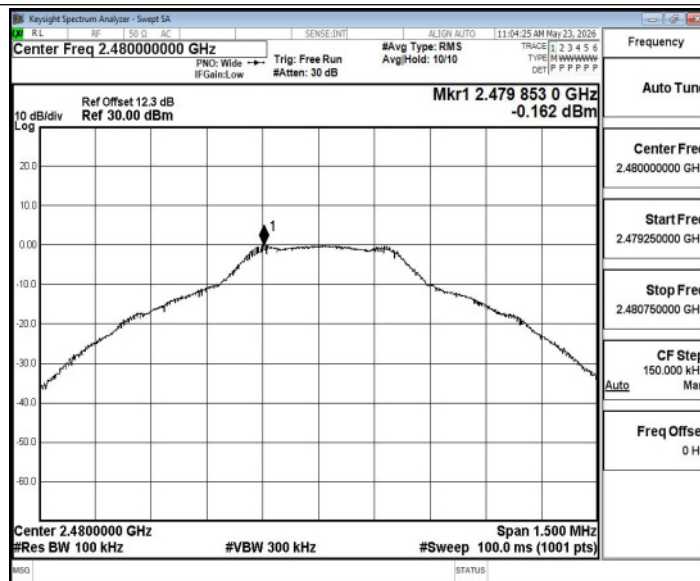


DH5\_Ant1\_2441\_0~Reference

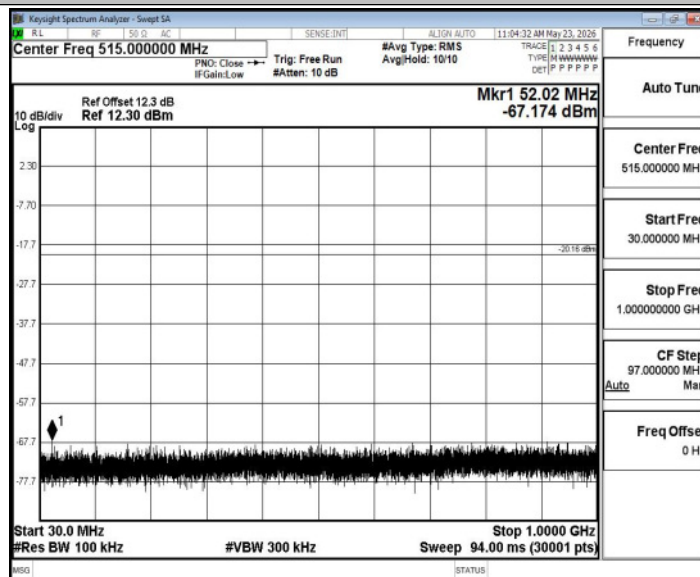


DH5\_Ant1\_2441\_30~1000

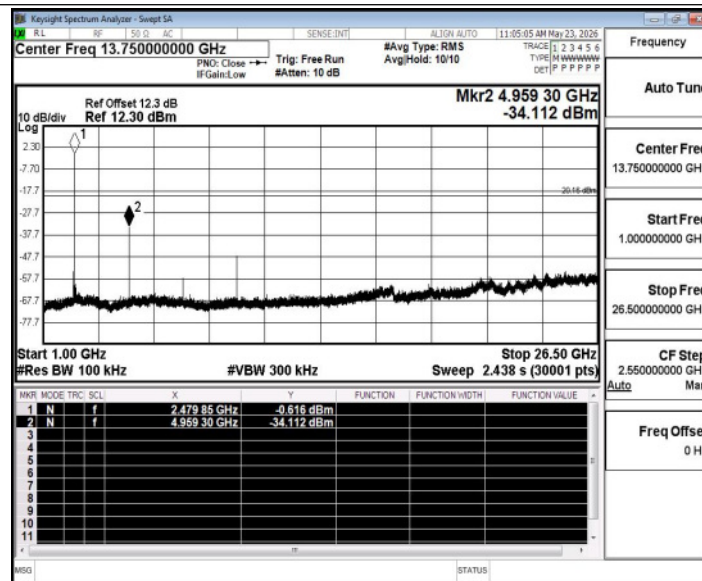




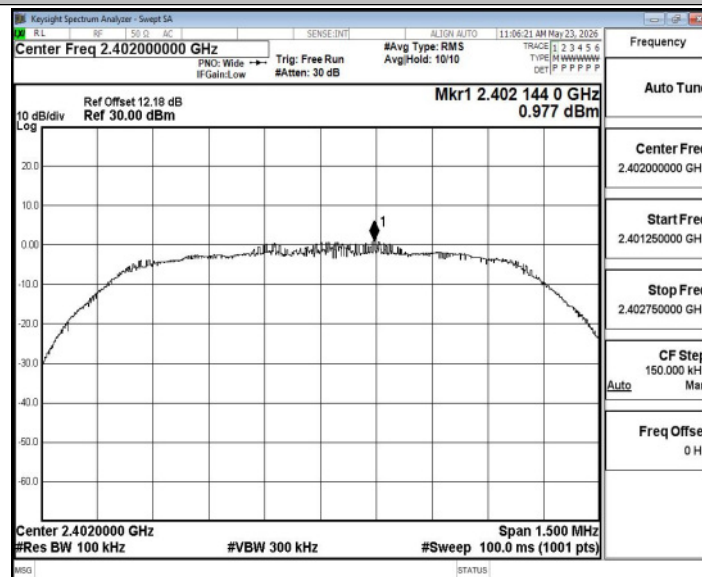
DH5\_Ant1\_2480\_30~1000



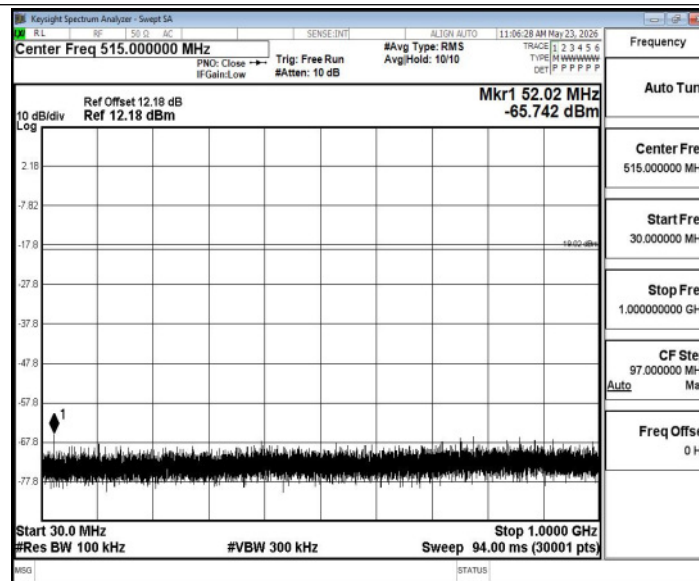
DH5\_Ant1\_2480\_1000~26500



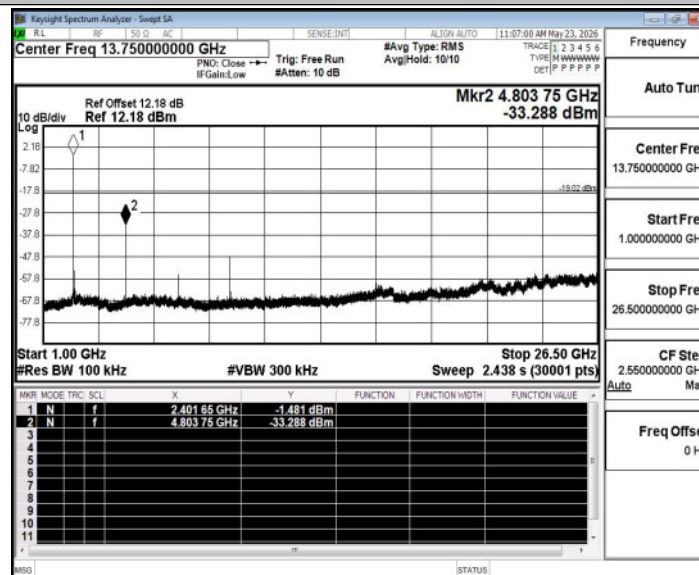
2DH5\_Ant1\_2402\_0~Reference



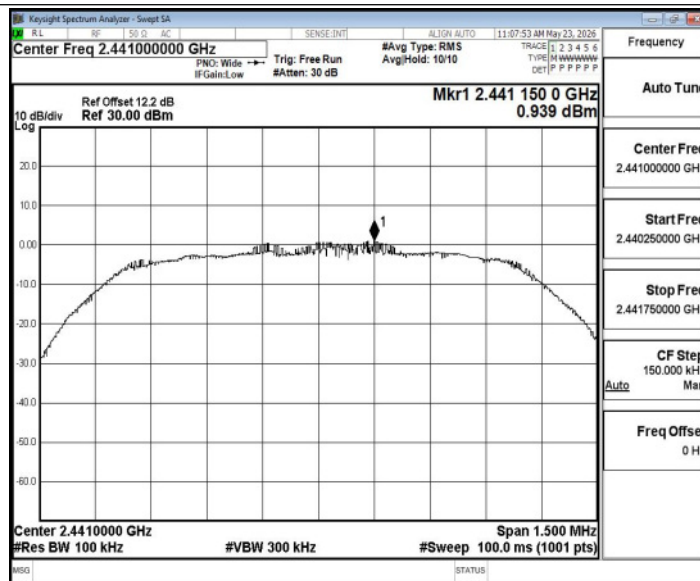
2DH5\_Ant1\_2402\_30~1000



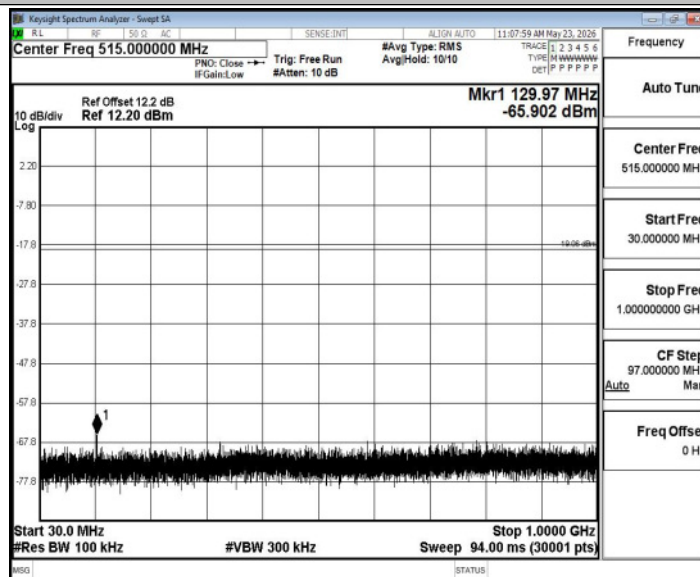
2DH5\_Ant1\_2402\_1000~26500



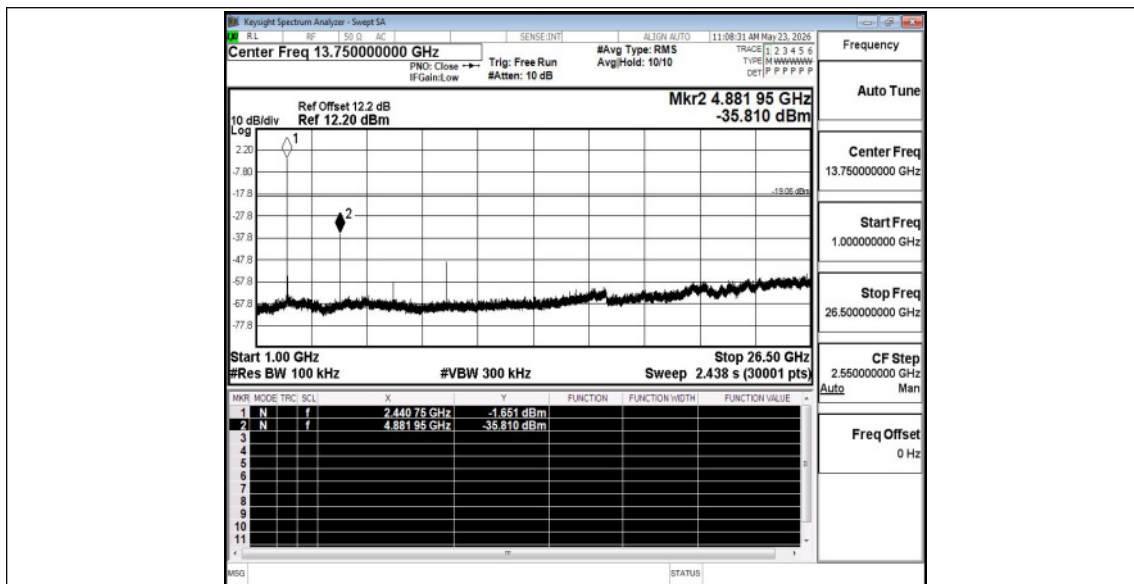
2DH5\_Ant1\_2441\_0~Reference



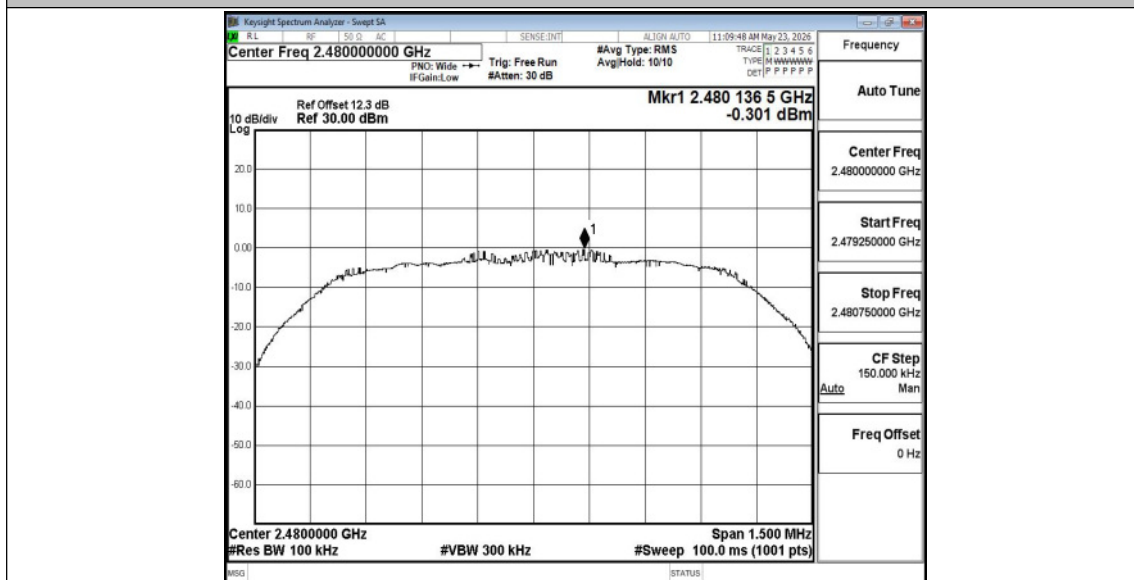
2DH5\_Ant1\_2441\_30~1000



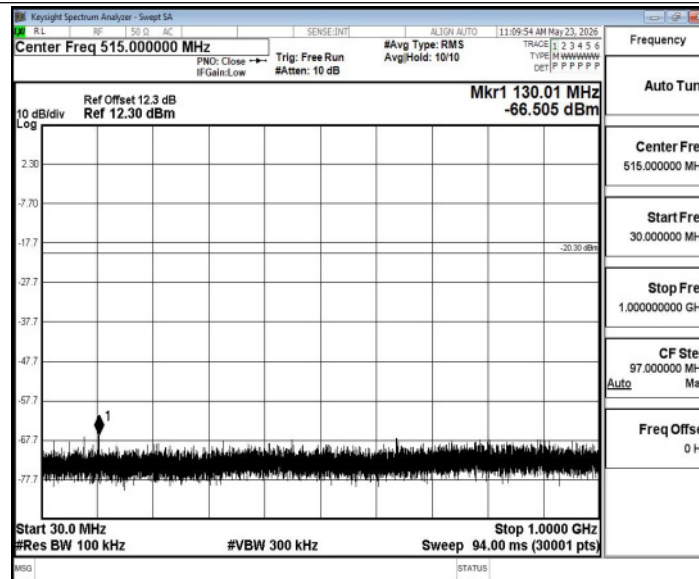
2DH5\_Ant1\_2441\_1000~26500



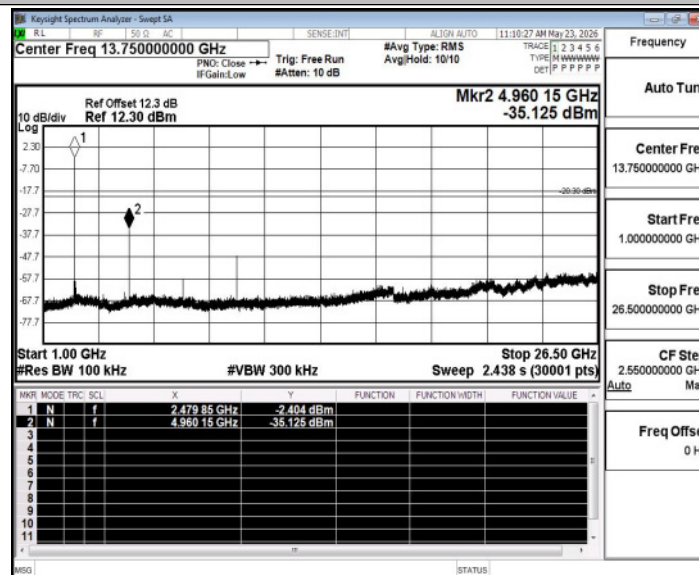
2DH5\_Ant1\_2480\_0~Reference



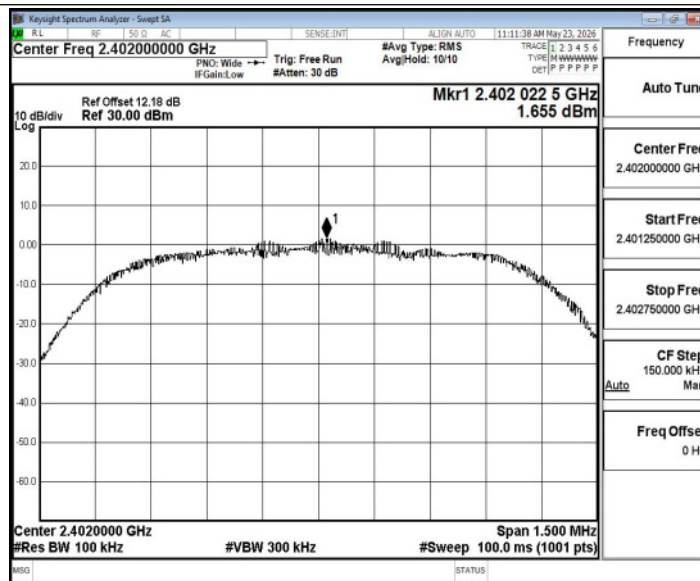
2DH5\_Ant1\_2480\_30~1000



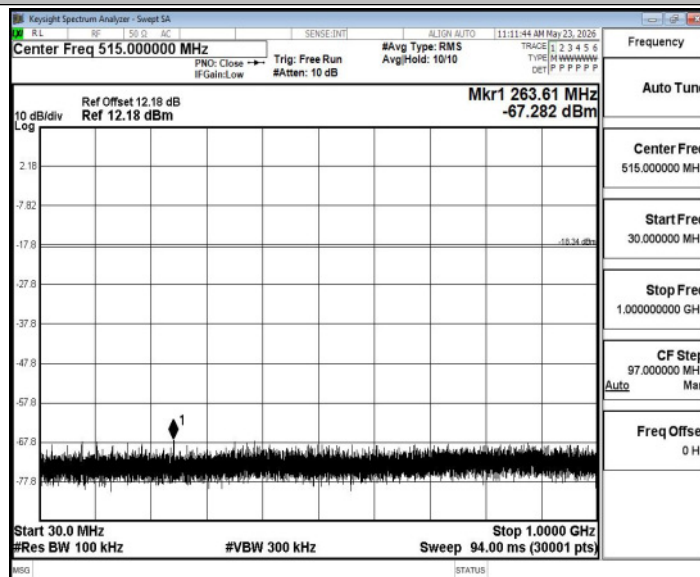
2DH5\_Ant1\_2480\_1000~26500



3DH5\_Ant1\_2402\_0~Reference



3DH5\_Ant1\_2402\_30~1000



3DH5\_Ant1\_2402\_1000~26500