

## **FCC Appendix RF Test Data**

**FCC ID** : **2BP8L-SGS-A6**

**Company:** : **Wuhan Simifly Electronics Co.,Ltd.**

**EUT** : **Bluetooth earphone TWS earbuds**

**Model Number** : **SGS-A6**

**Report No.** : **CTA25052600301**

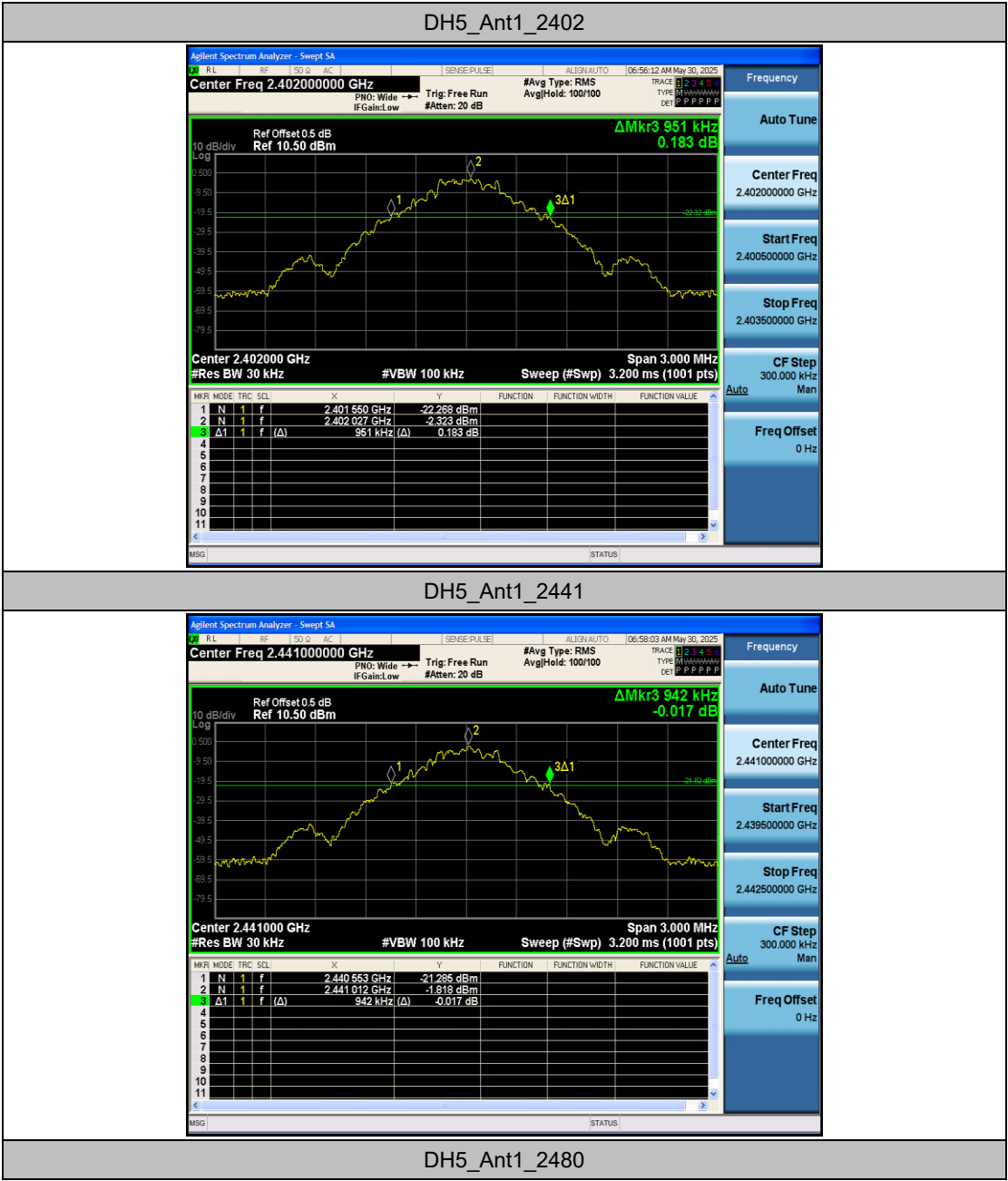
**Reviewed By** : **Eric Wang**

## Appendix A: 20dB Emission Bandwidth

### Test Result

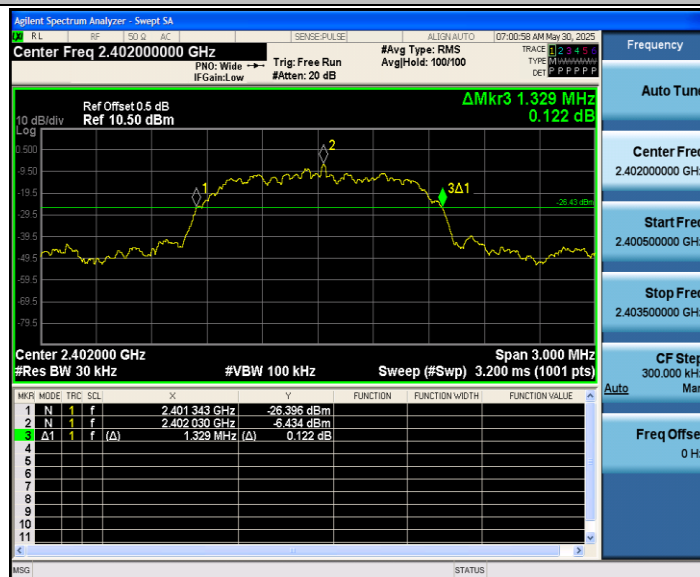
| TestMode | Antenna | Freq(MHz) | 20dB<br>EBW[MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|-----------|------------------|----------|----------|------------|---------|
| DH5      | Ant1    | 2402      | 0.951            | 2401.550 | 2402.501 | ---        | ---     |
|          |         | 2441      | 0.942            | 2440.553 | 2441.495 | ---        | ---     |
|          |         | 2480      | 0.942            | 2479.550 | 2480.492 | ---        | ---     |
| 2DH5     | Ant1    | 2402      | 1.329            | 2401.343 | 2402.672 | ---        | ---     |
|          |         | 2441      | 1.326            | 2440.343 | 2441.669 | ---        | ---     |
|          |         | 2480      | 1.317            | 2479.346 | 2480.663 | ---        | ---     |
| 3DH5     | Ant1    | 2402      | 1.281            | 2401.382 | 2402.663 | ---        | ---     |
|          |         | 2441      | 1.323            | 2440.346 | 2441.669 | ---        | ---     |
|          |         | 2480      | 1.308            | 2479.355 | 2480.663 | ---        | ---     |

Test Graphs





2DH5\_Ant1\_2402



2DH5\_Ant1\_2441



2DH5\_Ant1\_2480



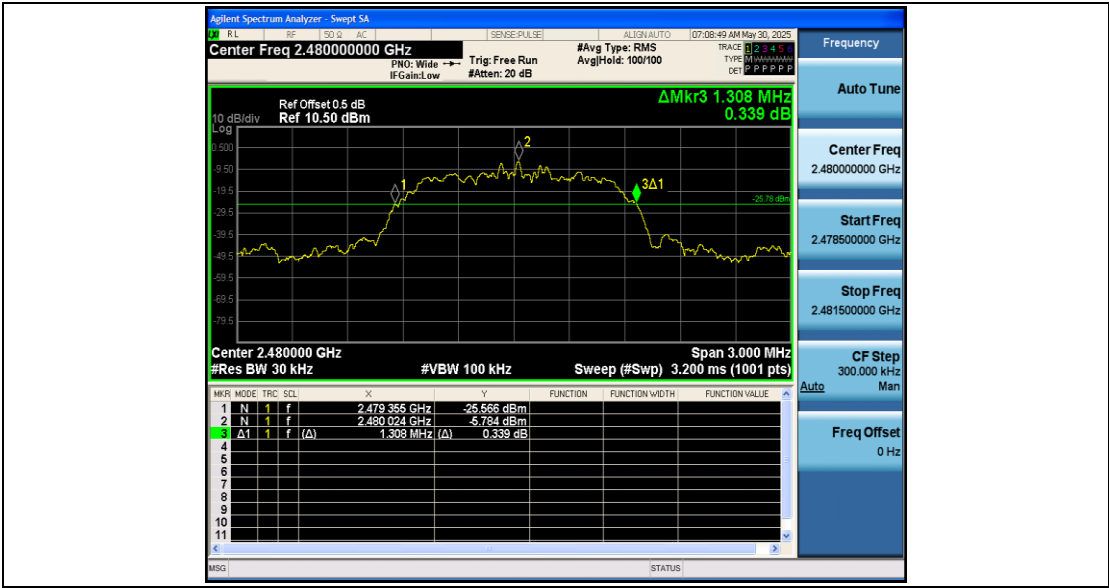
3DH5\_Ant1\_2402



3DH5\_Ant1\_2441



3DH5\_Ant1\_2480

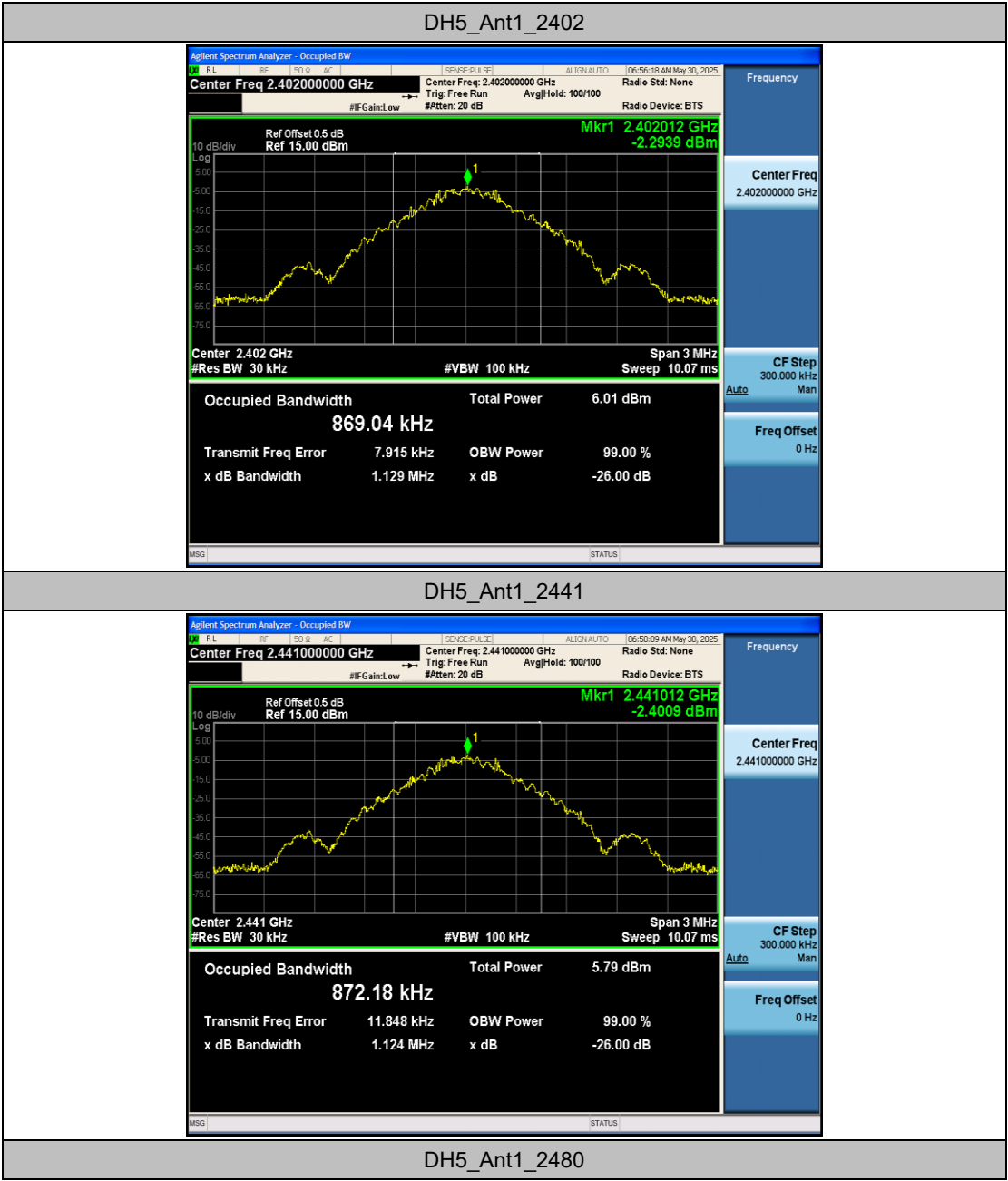


## Appendix B: Occupied Channel Bandwidth

### Test Result

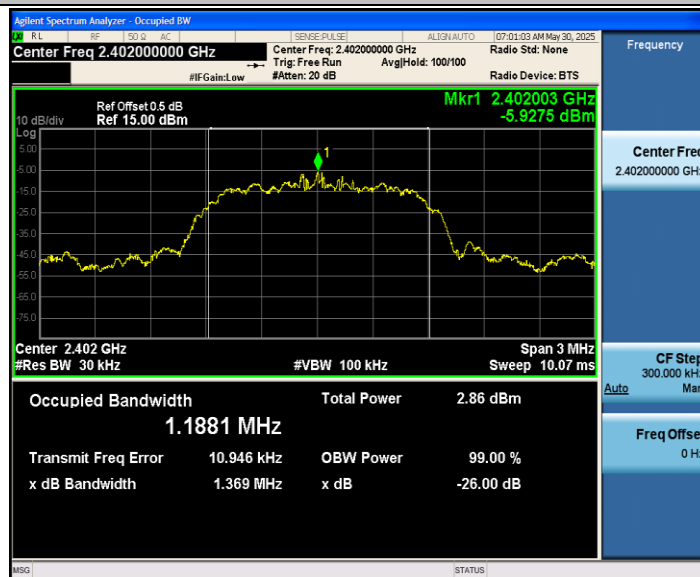
| TestMode | Antenna | Freq(MHz) | OCB [MHz] | FL[MHz]   | FH[MHz]   | Limit[MHz] | Verdict |
|----------|---------|-----------|-----------|-----------|-----------|------------|---------|
| DH5      | Ant1    | 2402      | 0.86904   | 2401.5734 | 2402.4424 | ---        | ---     |
|          |         | 2441      | 0.87218   | 2440.5758 | 2441.4479 | ---        | ---     |
|          |         | 2480      | 0.86316   | 2479.5746 | 2480.4378 | ---        | ---     |
| 2DH5     | Ant1    | 2402      | 1.1881    | 2401.4169 | 2402.6050 | ---        | ---     |
|          |         | 2441      | 1.1906    | 2440.4147 | 2441.6053 | ---        | ---     |
|          |         | 2480      | 1.1870    | 2479.4183 | 2480.6053 | ---        | ---     |
| 3DH5     | Ant1    | 2402      | 1.1879    | 2401.4174 | 2402.6053 | ---        | ---     |
|          |         | 2441      | 1.1879    | 2440.4167 | 2441.6046 | ---        | ---     |
|          |         | 2480      | 1.1827    | 2479.4187 | 2480.6014 | ---        | ---     |

Test Graphs





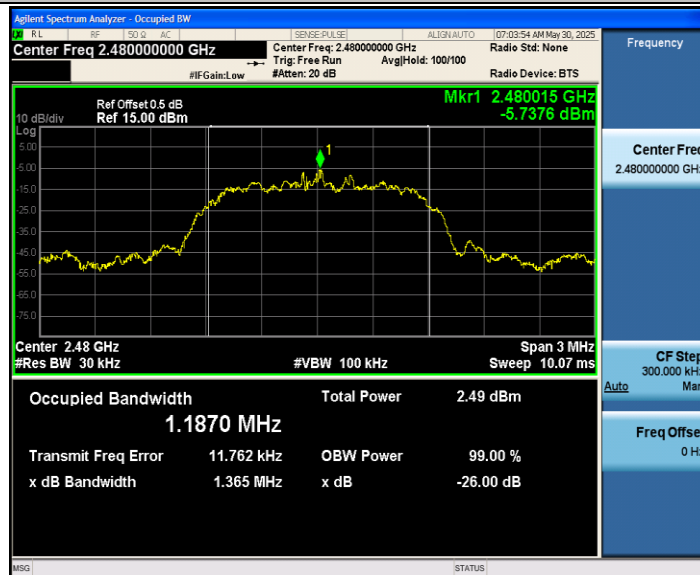
2DH5\_Ant1\_2402



2DH5\_Ant1\_2441



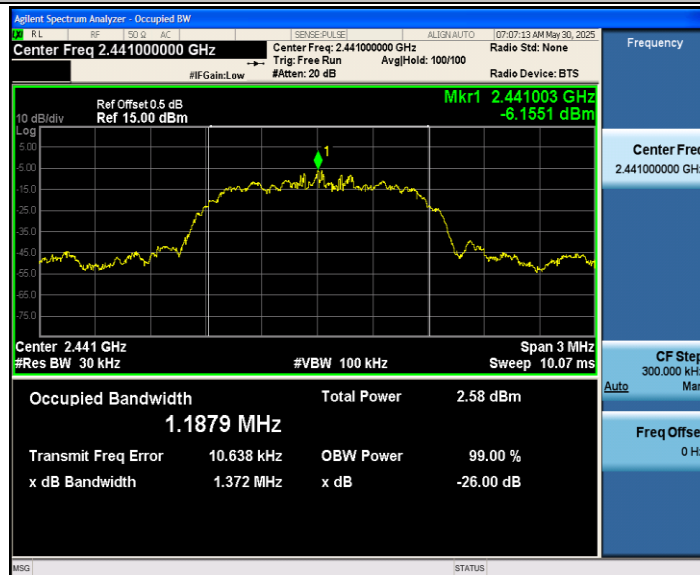
2DH5\_Ant1\_2480



3DH5\_Ant1\_2402



3DH5\_Ant1\_2441



3DH5\_Ant1\_2480



## Appendix C: Maximum conducted output power

### Test Result Peak

Left:

| Test Mode | Antenna | Freq(MHz) | Conducted Peak Power[dBm] | Conducted Limit[dBm] | Verdict |
|-----------|---------|-----------|---------------------------|----------------------|---------|
| DH5       | Ant1    | 2402      | 0.10                      | ≤20.97               | PASS    |
|           |         | 2441      | -0.15                     | ≤20.97               | PASS    |
|           |         | 2480      | -0.25                     | ≤20.97               | PASS    |
| 2DH5      | Ant1    | 2402      | -0.65                     | ≤20.97               | PASS    |
|           |         | 2441      | -0.89                     | ≤20.97               | PASS    |
|           |         | 2480      | -1.03                     | ≤20.97               | PASS    |
| 3DH5      | Ant1    | 2402      | -0.67                     | ≤20.97               | PASS    |
|           |         | 2441      | -0.91                     | ≤20.97               | PASS    |
|           |         | 2480      | -1.00                     | ≤20.97               | PASS    |

Right:

| Test Mode | Antenna | Freq(MHz) | Conducted Peak Power[dBm] | Conducted Limit[dBm] | Verdict |
|-----------|---------|-----------|---------------------------|----------------------|---------|
| DH5       | Ant1    | 2402      | 0.15                      | ≤20.97               | PASS    |
|           |         | 2441      | -0.11                     | ≤20.97               | PASS    |
|           |         | 2480      | -0.22                     | ≤20.97               | PASS    |
| 2DH5      | Ant1    | 2402      | -0.46                     | ≤20.97               | PASS    |
|           |         | 2441      | -0.76                     | ≤20.97               | PASS    |
|           |         | 2480      | -1.35                     | ≤20.97               | PASS    |
| 3DH5      | Ant1    | 2402      | -0.87                     | ≤20.97               | PASS    |
|           |         | 2441      | -0.98                     | ≤20.97               | PASS    |
|           |         | 2480      | -1.25                     | ≤20.97               | PASS    |

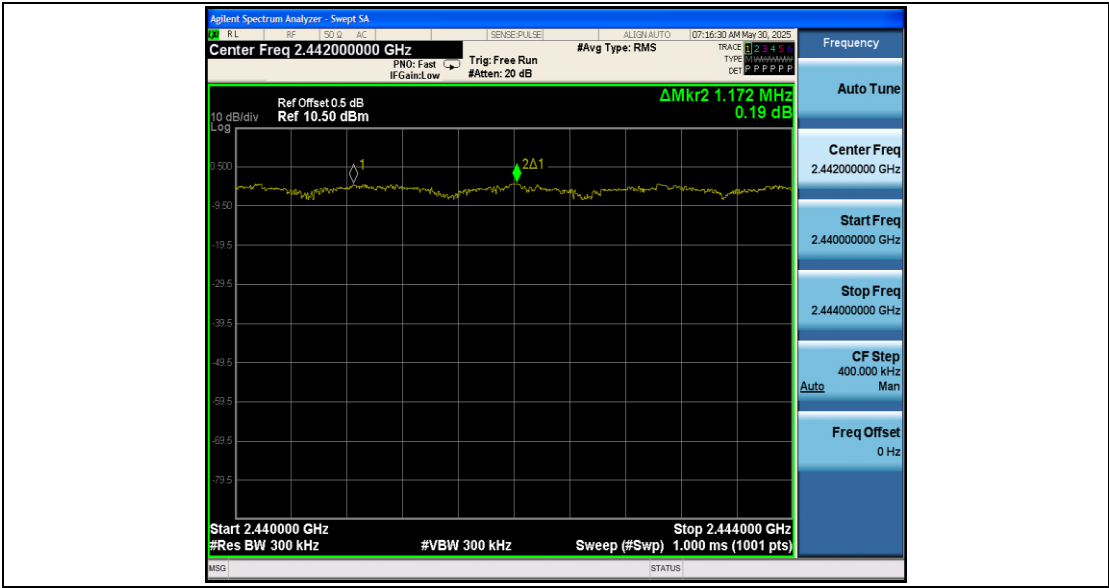
## Appendix D: Carrier frequency separation

### Test Result

| TestMode | Antenna | Freq(MHz) | Result[MHz] | Limit[MHz]   | Verdict |
|----------|---------|-----------|-------------|--------------|---------|
| DH5      | Ant1    | Hop       | 1.004       | $\geq 0.951$ | PASS    |
| 2DH5     | Ant1    | Hop       | 0.968       | $\geq 0.886$ | PASS    |
| 3DH5     | Ant1    | Hop       | 1.172       | $\geq 0.882$ | PASS    |

Test Graphs



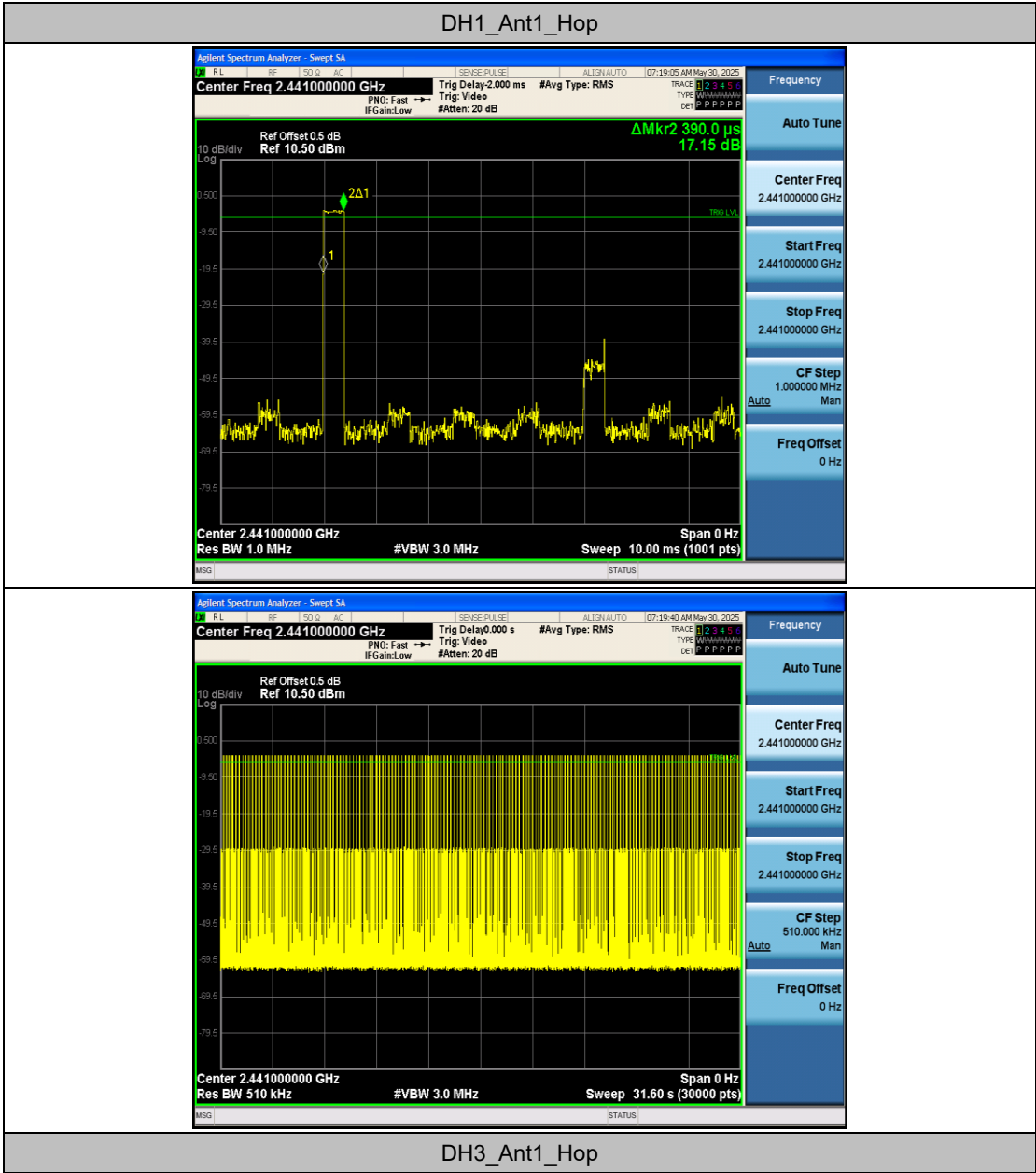


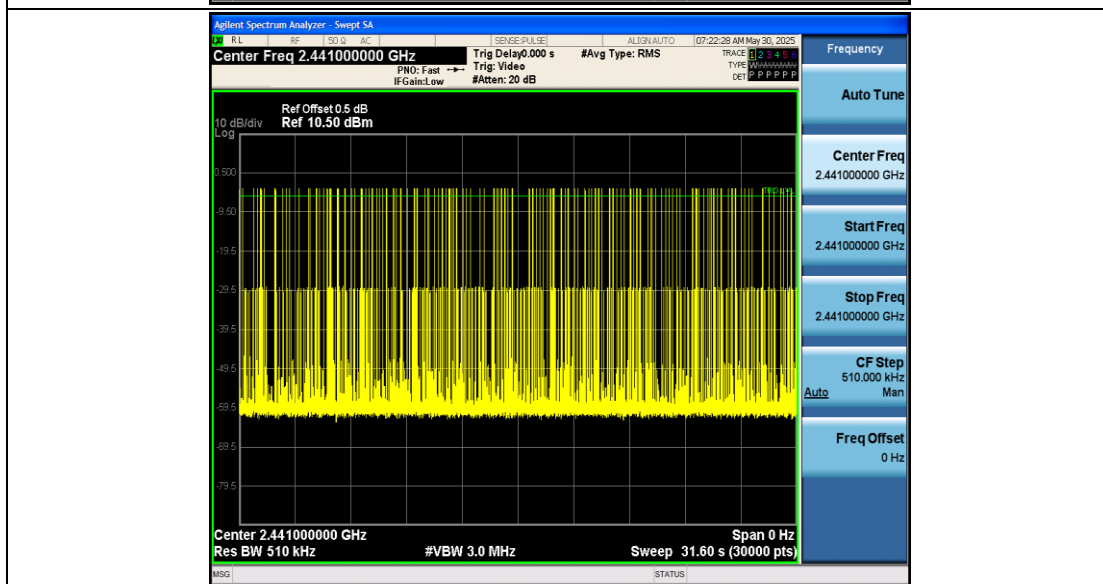
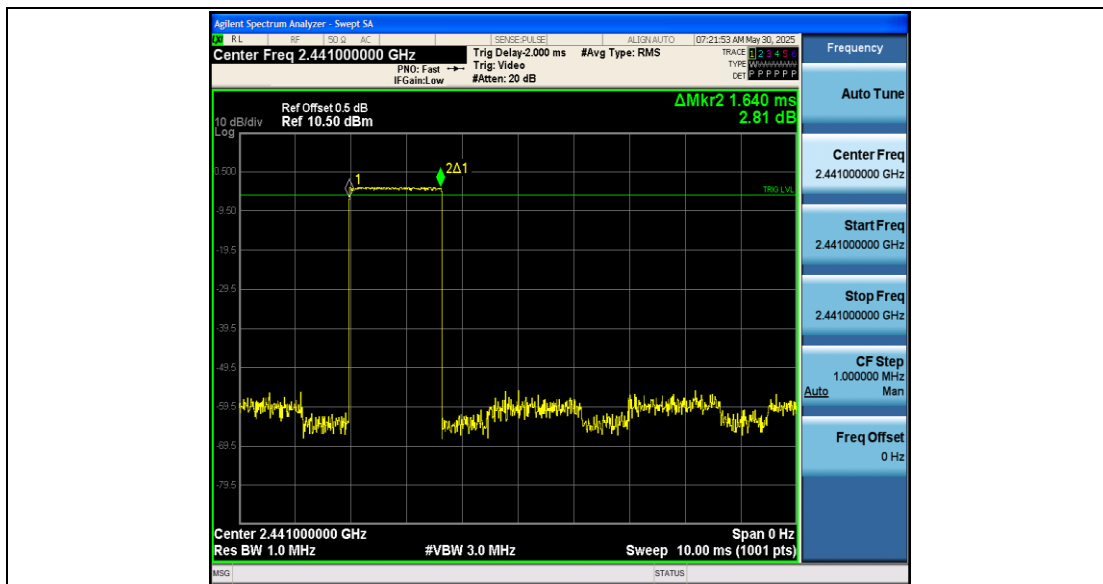
## Appendix E: Time of occupancy

### Test Result

| TestMode | Antenna | Freq(MHz) | BurstWidth<br>[ms] | TotalHops<br>[Num] | Result[s] | Limit[s] | Verdict |
|----------|---------|-----------|--------------------|--------------------|-----------|----------|---------|
| DH1      | Ant1    | Hop       | 0.390              | 315                | 0.123     | ≤0.4     | PASS    |
| DH3      | Ant1    | Hop       | 1.640              | 160                | 0.262     | ≤0.4     | PASS    |
| DH5      | Ant1    | Hop       | 2.890              | 100                | 0.289     | ≤0.4     | PASS    |
| 2DH1     | Ant1    | Hop       | 0.390              | 317                | 0.124     | ≤0.4     | PASS    |
| 2DH3     | Ant1    | Hop       | 1.640              | 155                | 0.254     | ≤0.4     | PASS    |
| 2DH5     | Ant1    | Hop       | 2.900              | 114                | 0.331     | ≤0.4     | PASS    |
| 3DH1     | Ant1    | Hop       | 0.390              | 319                | 0.124     | ≤0.4     | PASS    |
| 3DH3     | Ant1    | Hop       | 1.640              | 151                | 0.248     | ≤0.4     | PASS    |
| 3DH5     | Ant1    | Hop       | 2.890              | 98                 | 0.283     | ≤0.4     | PASS    |

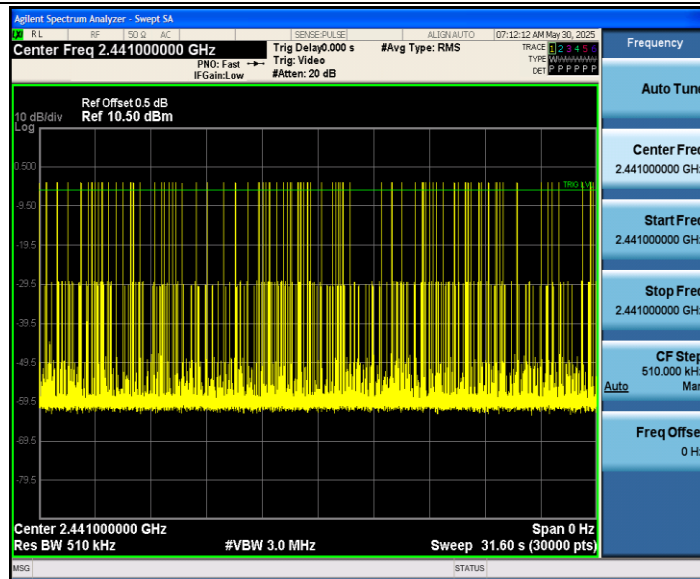
Test Graphs



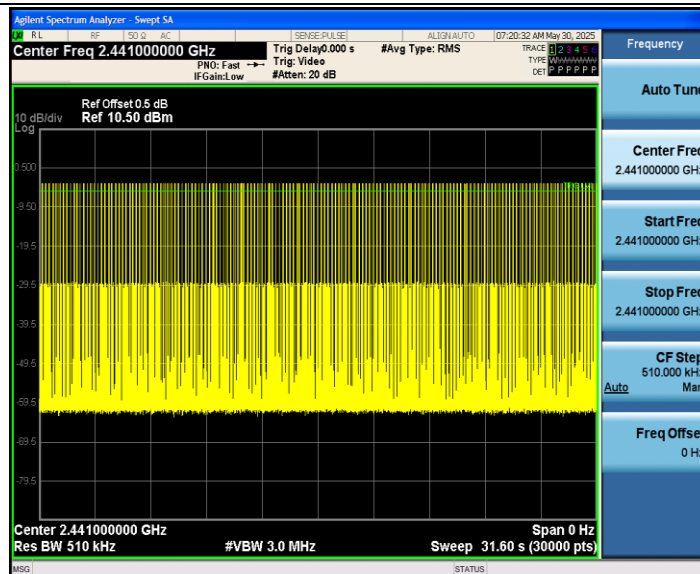
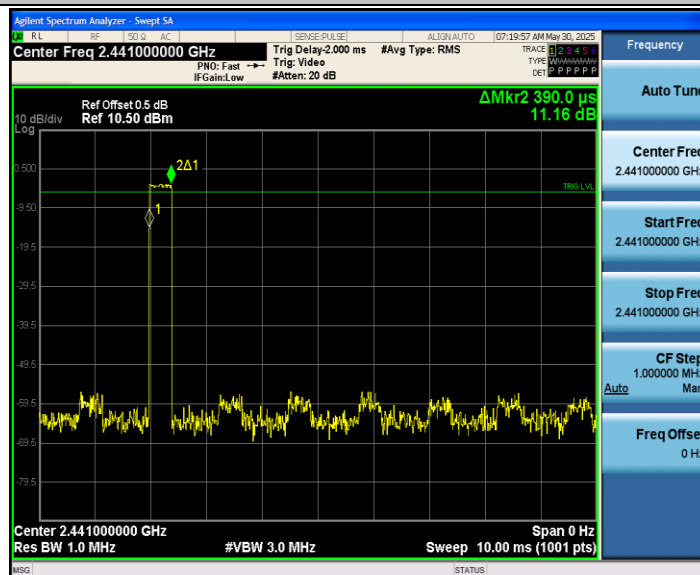


DH5\_Ant1\_Hop

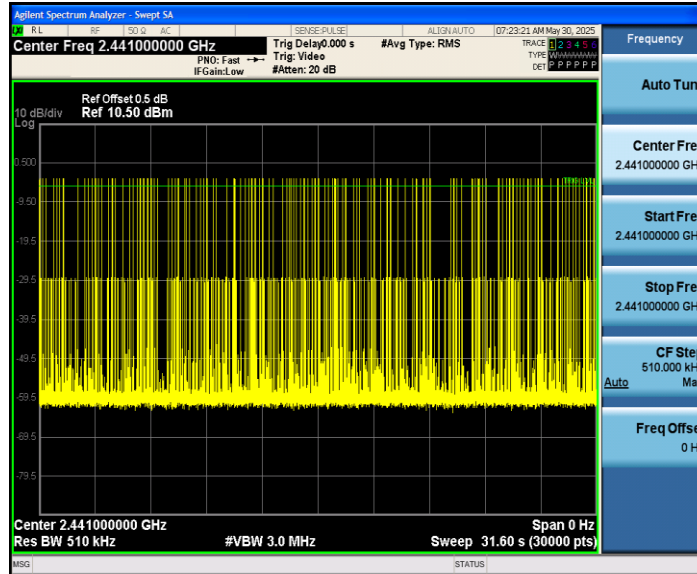
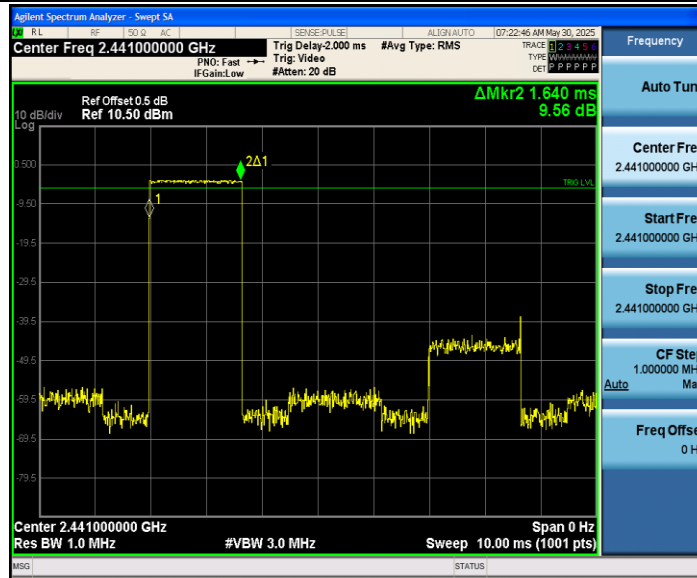




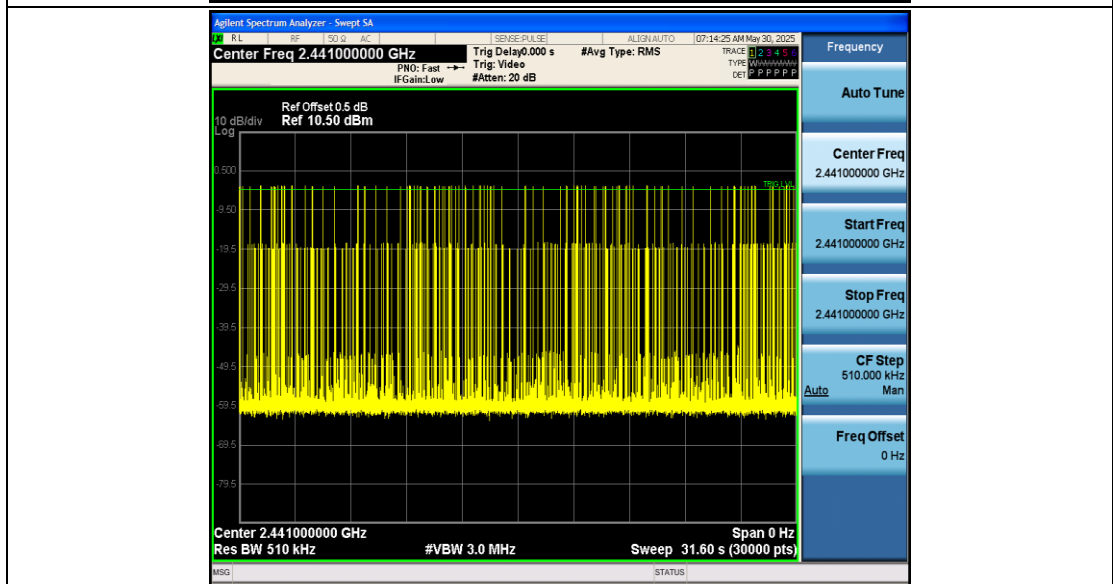
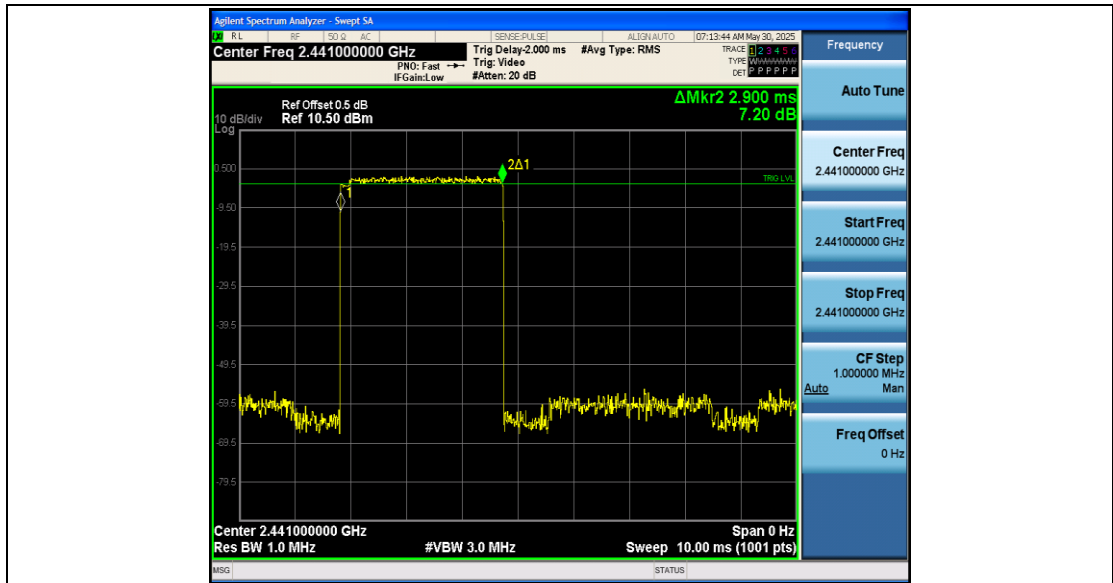
## 2DH1\_Ant1\_Hop



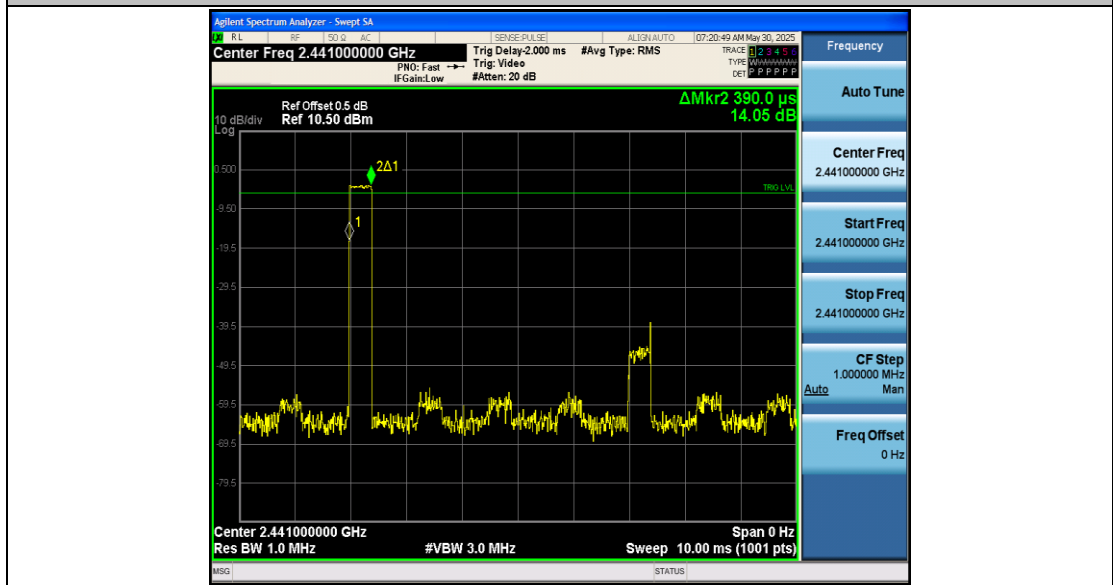
## 2DH3\_Ant1\_Hop

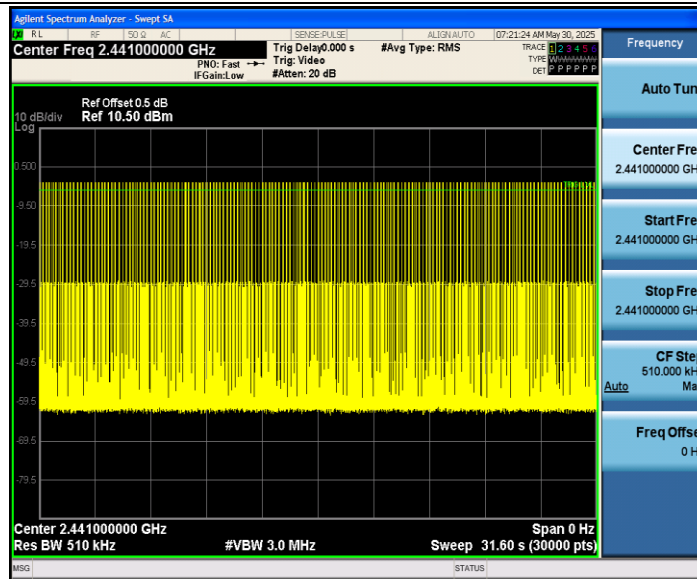


## 2DH5\_Ant1\_Hop

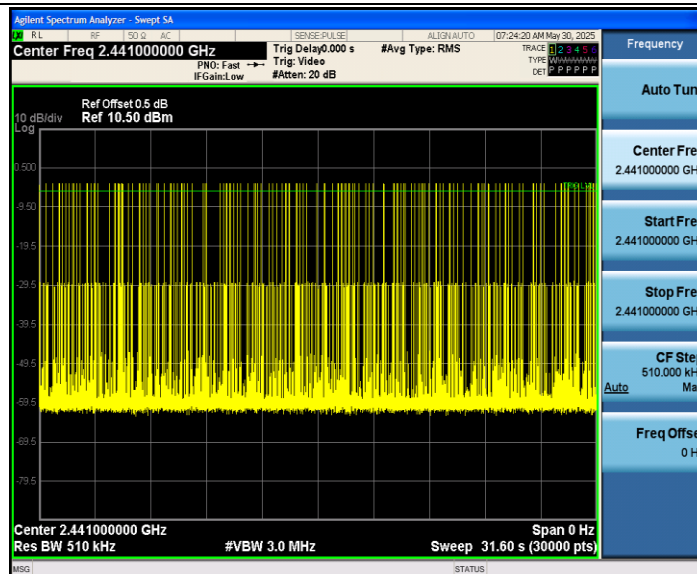
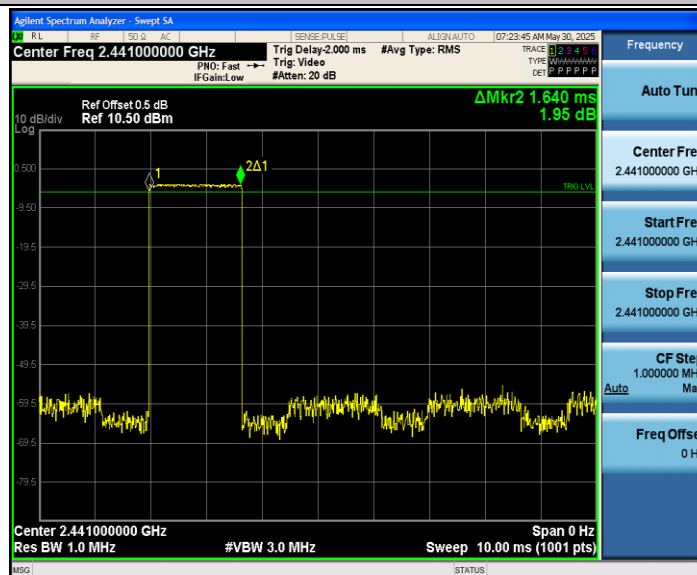


3DH1\_Ant1\_Hop

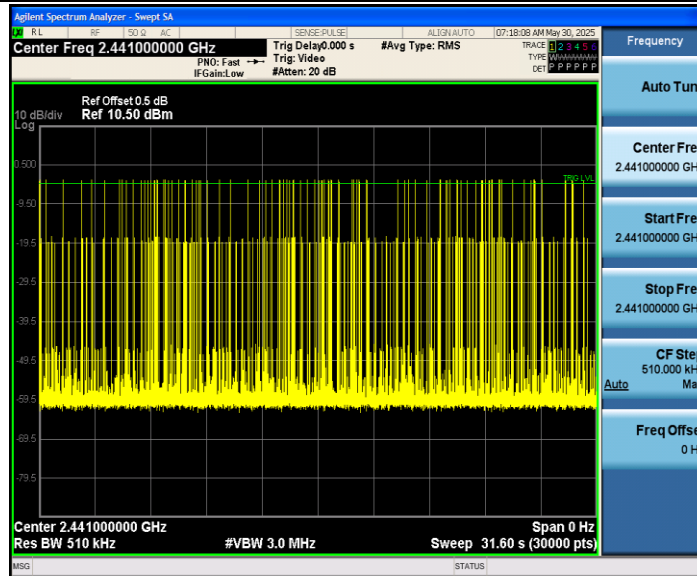




### 3DH3\_Ant1\_Hop



# 3DH5\_Ant1\_Hop

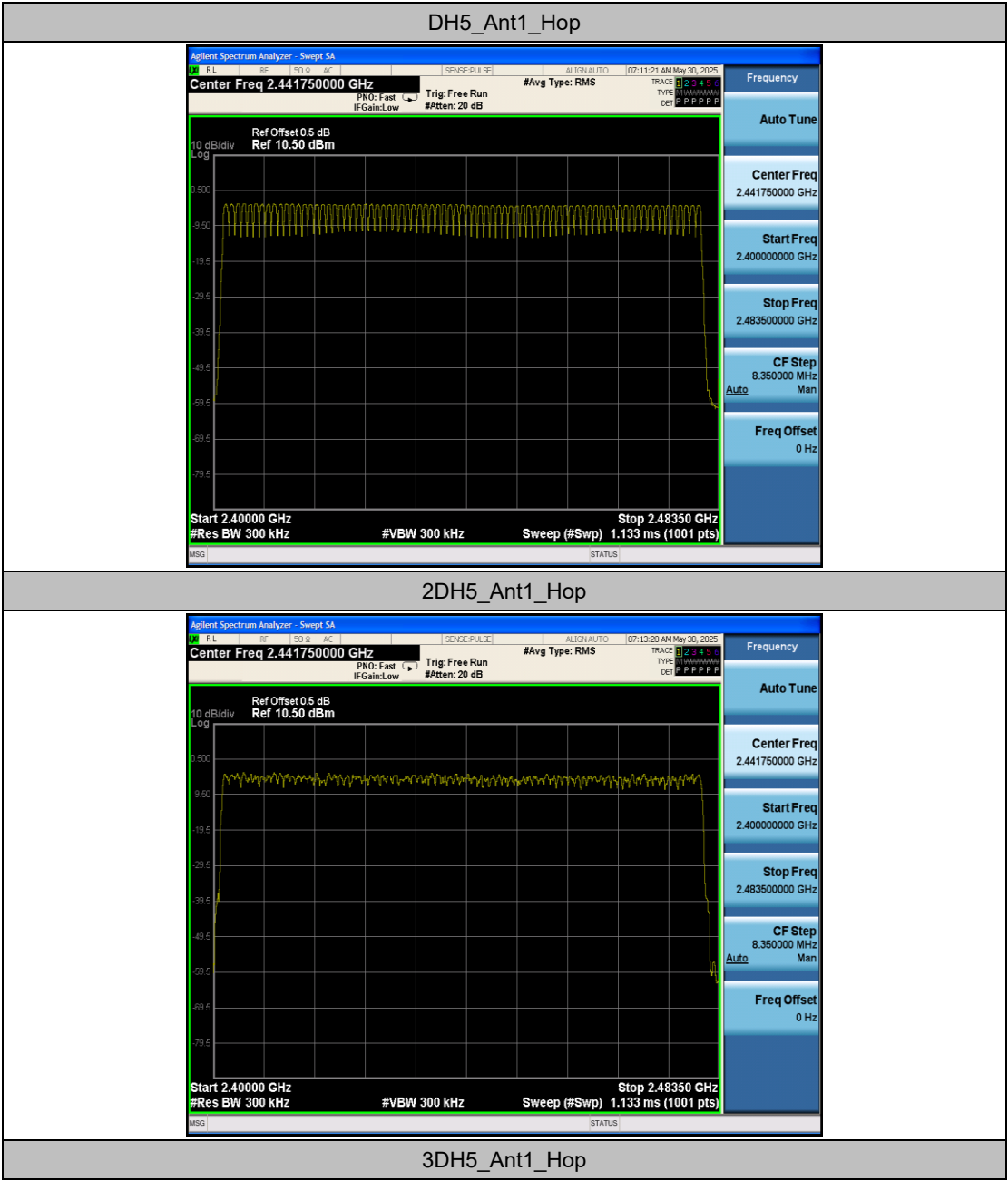


## Appendix F: Number of hopping channels

### 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



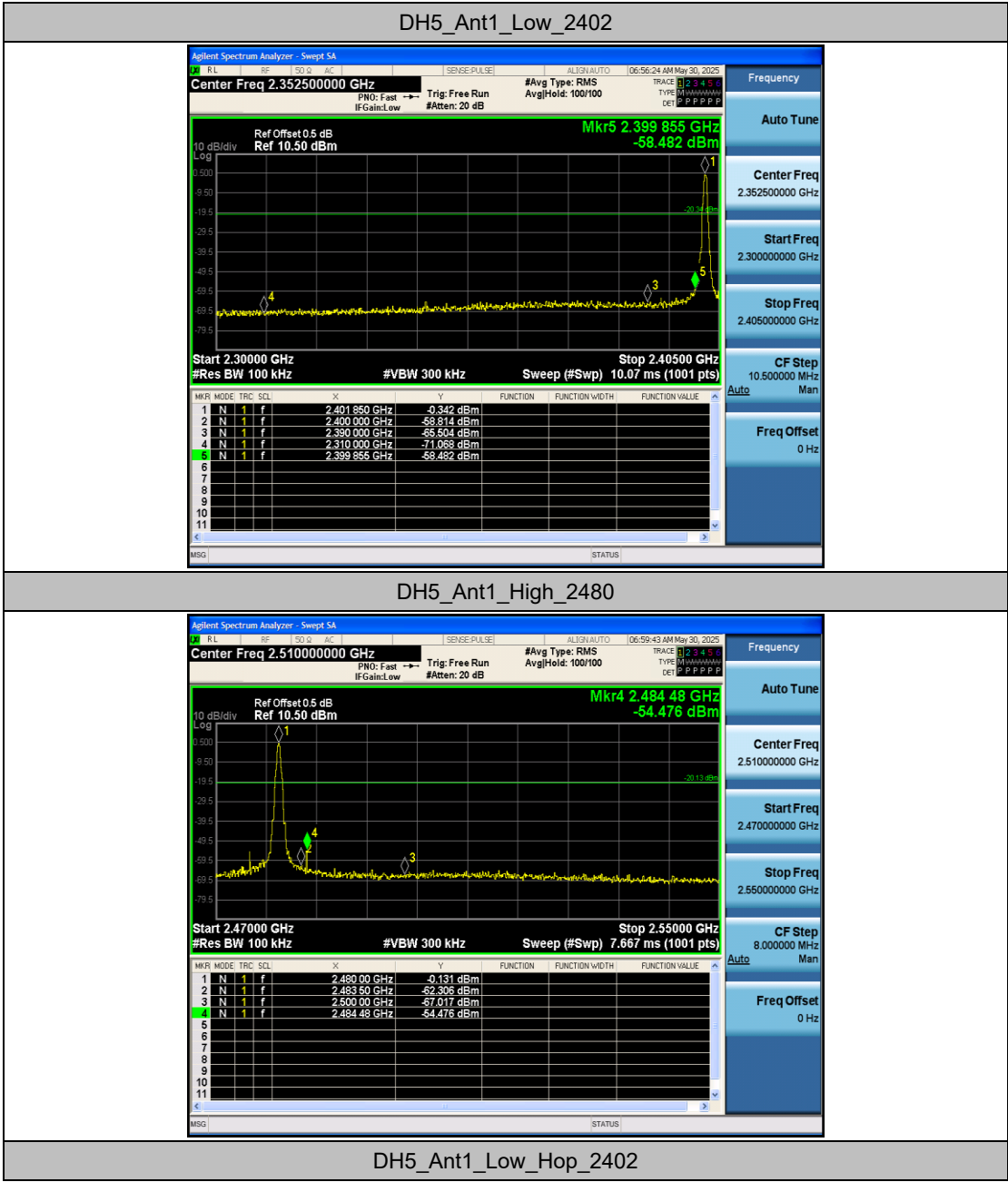


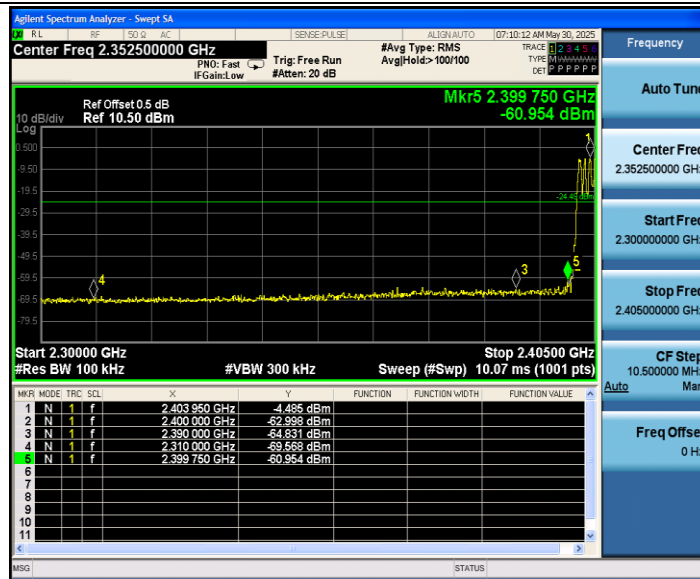
## Appendix G: Band edge measurements

### Test Result

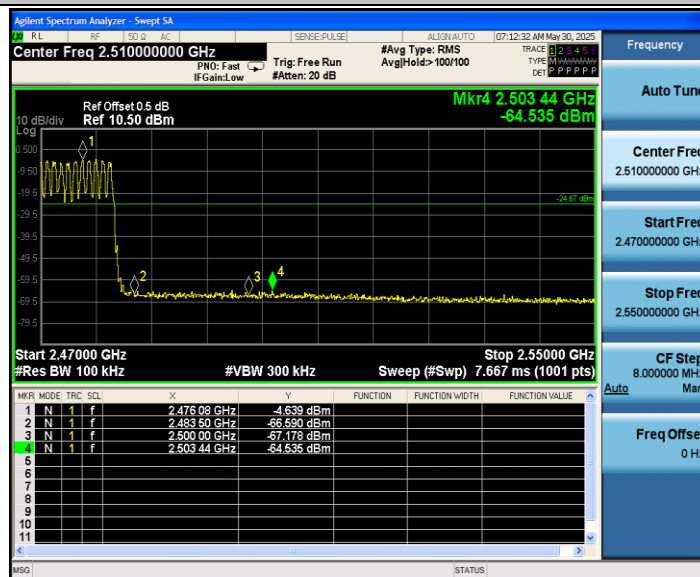
| TestMode | Antenna | ChName | Freq(MHz) | RefLevel [dBm] | Result [dBm] | Limit [dBm]   | Verdict |
|----------|---------|--------|-----------|----------------|--------------|---------------|---------|
| DH5      | Ant1    | Low    | 2402      | -0.34          | -58.48       | $\leq -20.34$ | PASS    |
|          |         | High   | 2480      | -0.13          | -54.48       | $\leq -20.13$ | PASS    |
|          |         | Low    | Hop_2402  | -4.49          | -60.95       | $\leq -24.49$ | PASS    |
|          |         | High   | Hop_2480  | -4.67          | -64.54       | $\leq -24.67$ | PASS    |
| 2DH5     | Ant1    | Low    | 2402      | -3.29          | -60.72       | $\leq -23.29$ | PASS    |
|          |         | High   | 2480      | -3.81          | -63.85       | $\leq -23.81$ | PASS    |
|          |         | Low    | Hop_2402  | -5.61          | -62.77       | $\leq -25.61$ | PASS    |
|          |         | High   | Hop_2480  | -5.01          | -63.72       | $\leq -25.01$ | PASS    |
| 3DH5     | Ant1    | Low    | 2402      | -5.66          | -61.15       | $\leq -25.66$ | PASS    |
|          |         | High   | 2480      | -4.38          | -64.47       | $\leq -24.38$ | PASS    |
|          |         | Low    | Hop_2402  | -4.95          | -58.49       | $\leq -24.95$ | PASS    |
|          |         | High   | Hop_2480  | -4.95          | -64.43       | $\leq -24.95$ | PASS    |

Test Graphs

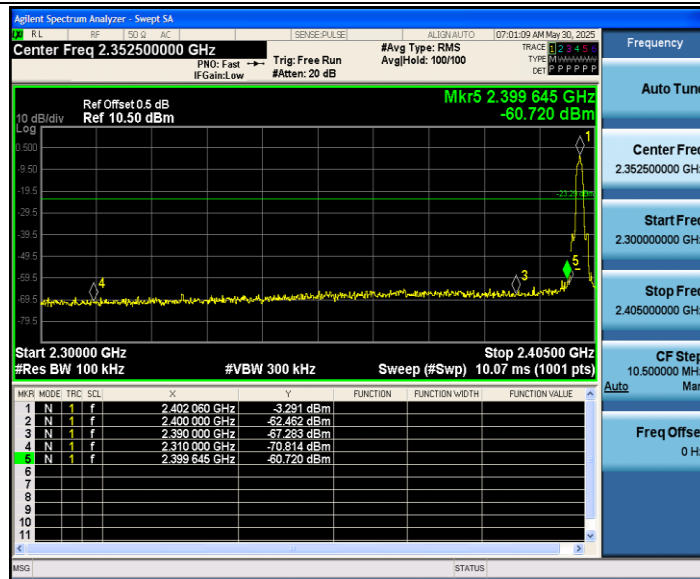




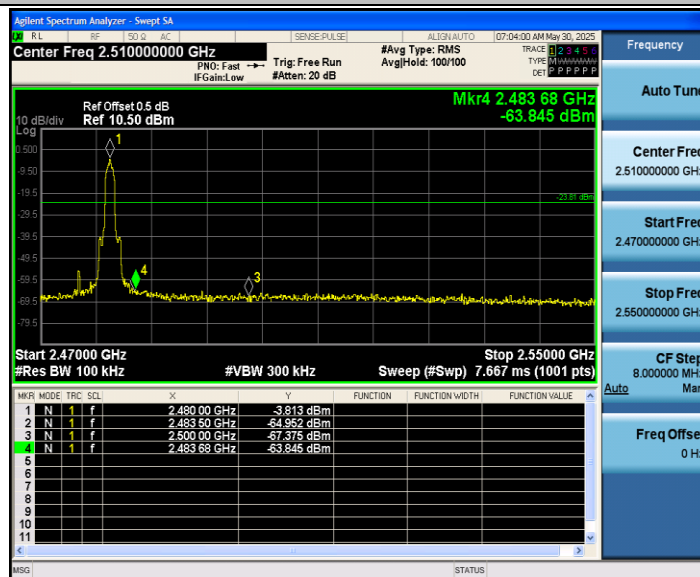
DH5\_Ant1\_High\_Hop\_2480



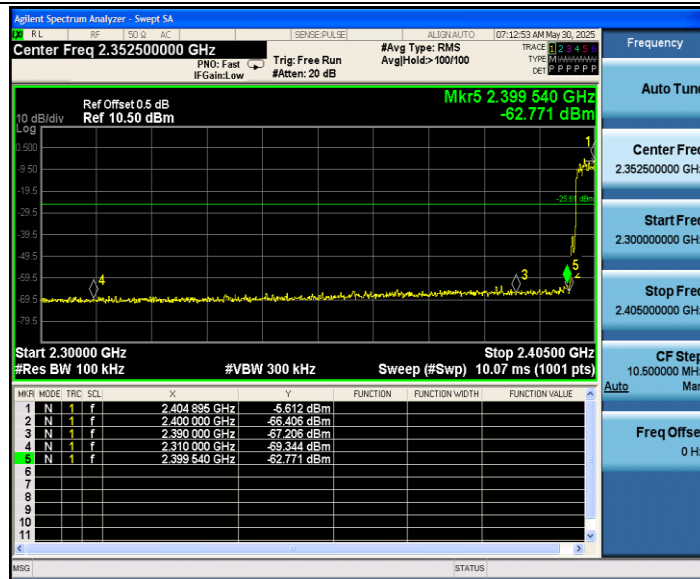
2DH5\_Ant1\_Low\_2402



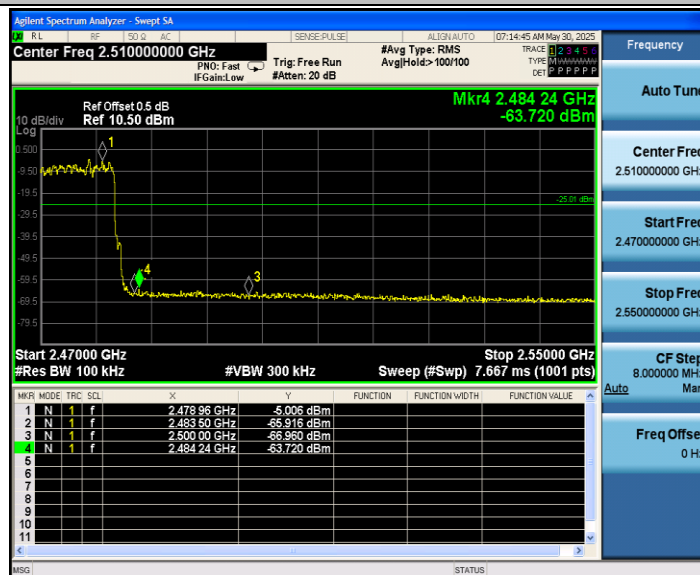
2DH5\_Ant1\_High\_2480



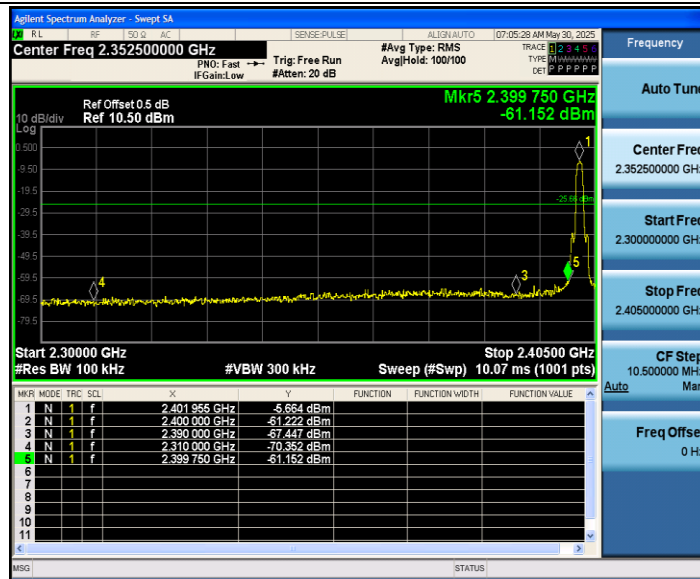
2DH5\_Ant1\_Low\_Hop\_2402



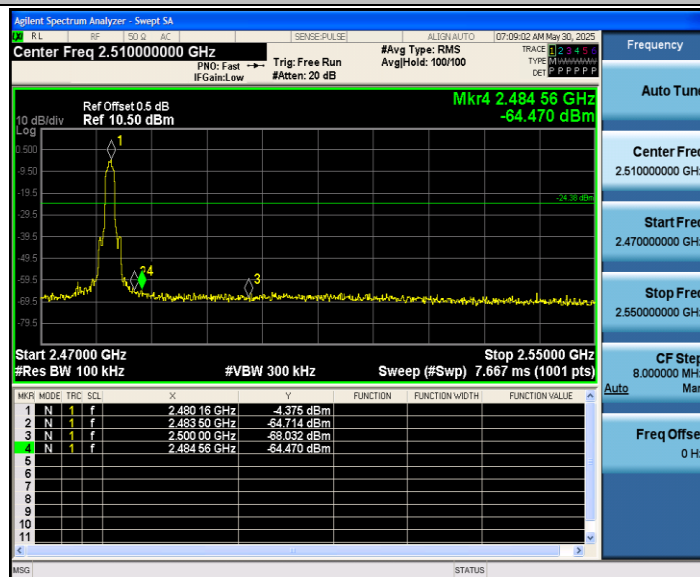
2DH5\_Ant1\_High\_Hop\_2480



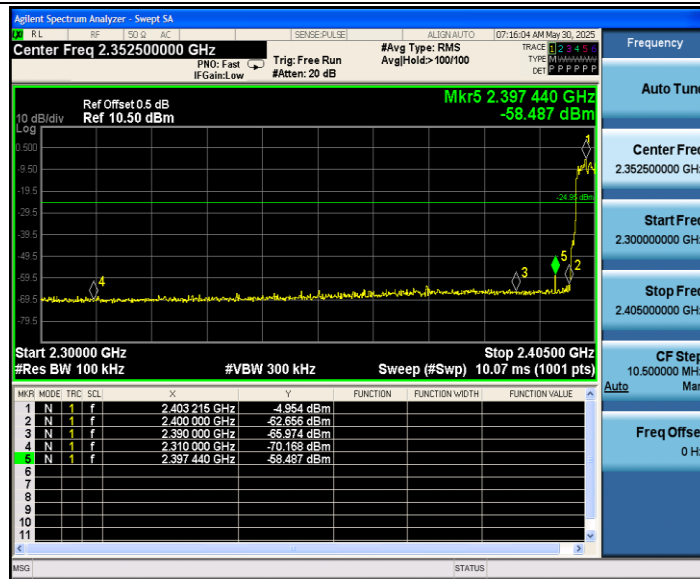
3DH5\_Ant1\_Low\_2402



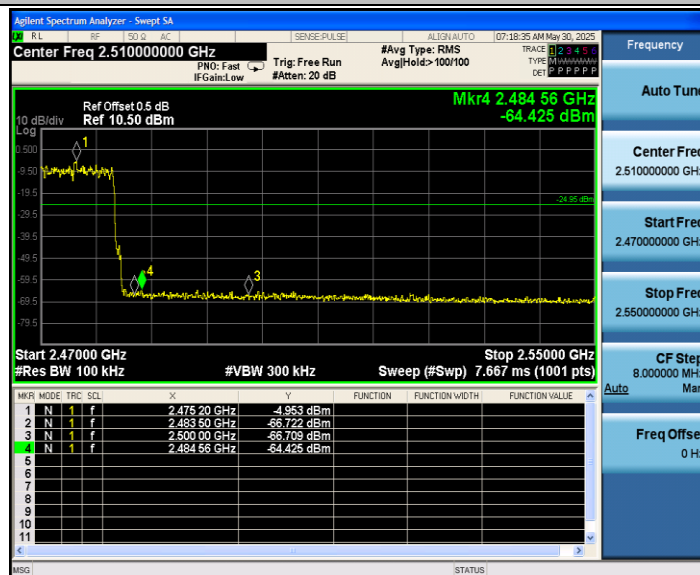
3DH5\_Ant1\_High\_2480



3DH5\_Ant1\_Low\_Hop\_2402



3DH5\_Ant1\_High\_Hop\_2480

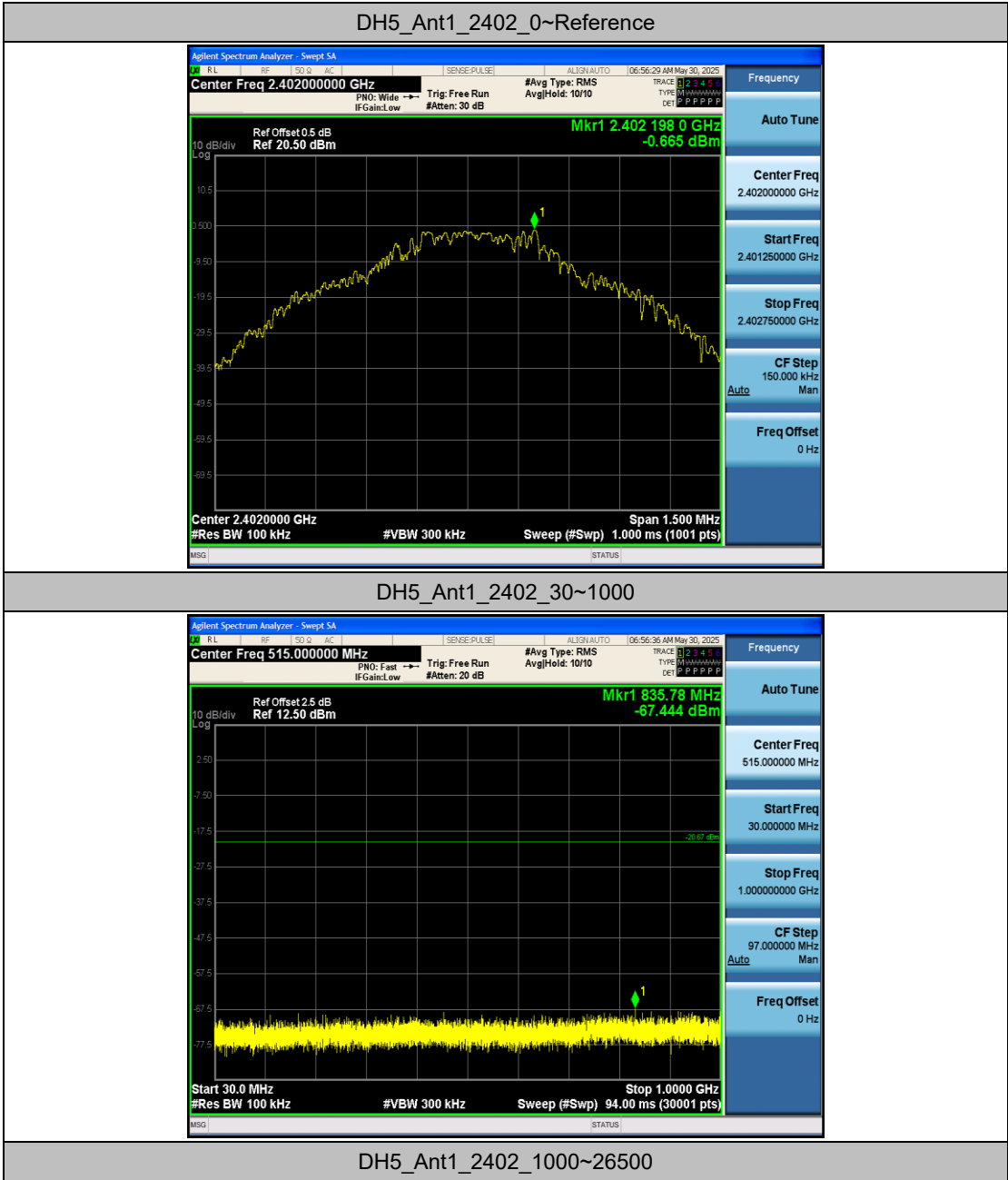


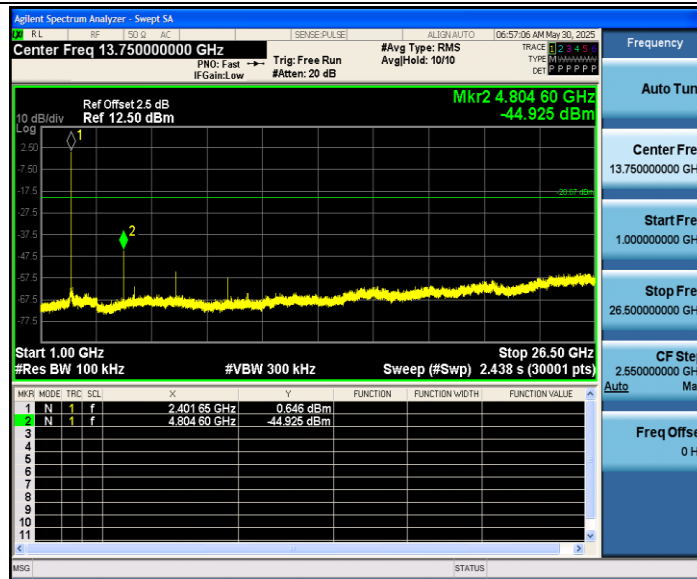
## Appendix H: Conducted Spurious Emission

### Test Result

| TestMode | Antenna | Freq(MHz) | FreqRange [MHz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|----------|---------|-----------|-----------------|----------------|--------------|-------------|---------|
| DH5      | Ant1    | 2402      | Reference       | -0.67          | -0.67        | ---         | PASS    |
|          |         |           | 30~1000         | -0.67          | -67.44       | ≤-20.67     | PASS    |
|          |         |           | 1000~26500      | -0.67          | -44.93       | ≤-20.67     | PASS    |
|          |         | 2441      | Reference       | -1.37          | -1.37        | ---         | PASS    |
|          |         |           | 30~1000         | -1.37          | -68.13       | ≤-21.37     | PASS    |
|          |         |           | 1000~26500      | -1.37          | -44.1        | ≤-21.37     | PASS    |
|          |         | 2480      | Reference       | -1.03          | -1.03        | ---         | PASS    |
|          |         |           | 30~1000         | -1.03          | -67.03       | ≤-21.03     | PASS    |
|          |         |           | 1000~26500      | -1.03          | -43.86       | ≤-21.03     | PASS    |
| 2DH5     | Ant1    | 2402      | Reference       | -3.69          | -3.69        | ---         | PASS    |
|          |         |           | 30~1000         | -3.69          | -67.69       | ≤-23.69     | PASS    |
|          |         |           | 1000~26500      | -3.69          | -41.14       | ≤-23.69     | PASS    |
|          |         | 2441      | Reference       | -5.84          | -5.84        | ---         | PASS    |
|          |         |           | 30~1000         | -5.84          | -68.01       | ≤-25.84     | PASS    |
|          |         |           | 1000~26500      | -5.84          | -43.96       | ≤-25.84     | PASS    |
|          |         | 2480      | Reference       | -5.92          | -5.92        | ---         | PASS    |
|          |         |           | 30~1000         | -5.92          | -66.64       | ≤-25.92     | PASS    |
|          |         |           | 1000~26500      | -5.92          | -39.58       | ≤-25.92     | PASS    |
| 3DH5     | Ant1    | 2402      | Reference       | -6.98          | -6.98        | ---         | PASS    |
|          |         |           | 30~1000         | -6.98          | -67.65       | ≤-26.98     | PASS    |
|          |         |           | 1000~26500      | -6.98          | -45.69       | ≤-26.98     | PASS    |
|          |         | 2441      | Reference       | -3.74          | -3.74        | ---         | PASS    |
|          |         |           | 30~1000         | -3.74          | -67.9        | ≤-23.74     | PASS    |
|          |         |           | 1000~26500      | -3.74          | -46.34       | ≤-23.74     | PASS    |
|          |         | 2480      | Reference       | -4.60          | -4.60        | ---         | PASS    |
|          |         |           | 30~1000         | -4.60          | -67.59       | ≤-24.6      | PASS    |
|          |         |           | 1000~26500      | -4.60          | -49.5        | ≤-24.6      | PASS    |

Test Graphs

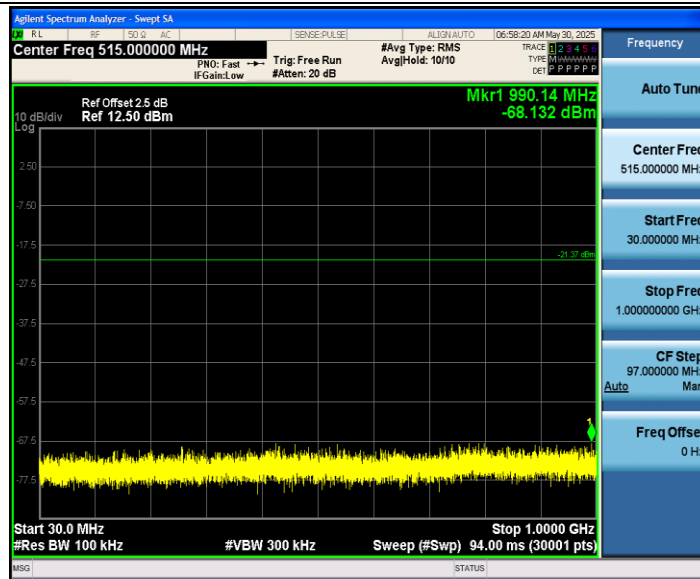




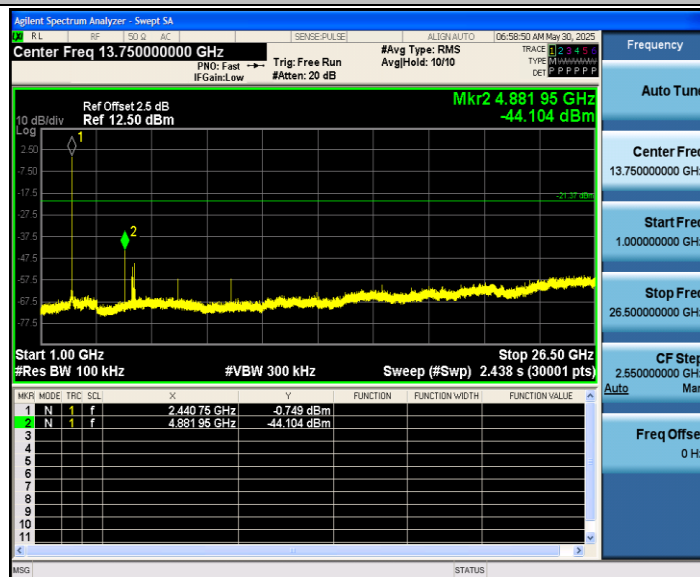
DH5\_Ant1\_2441\_0~Reference



DH5\_Ant1\_2441\_30~1000



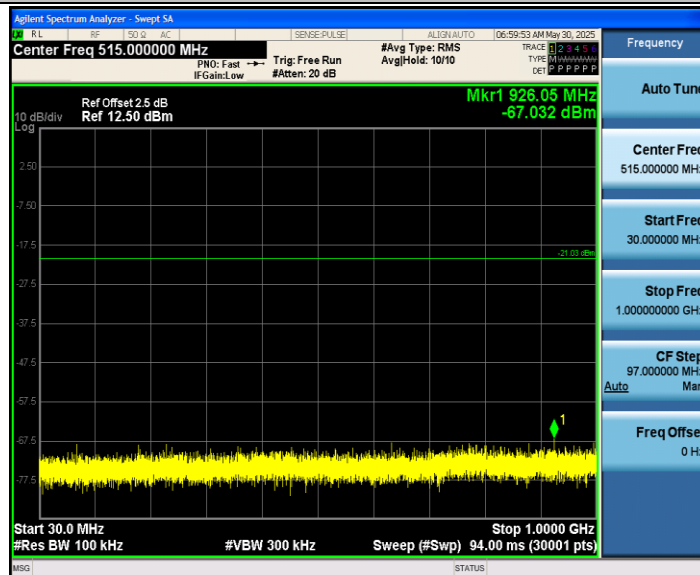
DH5\_Ant1\_2441\_1000~26500



DH5\_Ant1\_2480\_0~Reference



DH5\_Ant1\_2480\_30~1000



DH5\_Ant1\_2480\_1000~26500