

## **FCC Appendix RF Test Data**

**FCC ID** : 2BHX3-TAA07

**Company:** : Shenzhen Trolink Technology Co., Ltd

**EUT** : Car AI Box

**Model Number** : TAA07

**Report No.** : CTA25031800801

**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      | 0.948            | 2401.553 | 2402.501 | ---        | ---     |
|          |         | 2441      | 0.927            | 2440.550 | 2441.477 | ---        | ---     |
|          |         | 2480      | 0.945            | 2479.547 | 2480.492 | ---        | ---     |
| 2DH5     | Ant1    | 2402      | 1.281            | 2401.379 | 2402.660 | ---        | ---     |
|          |         | 2441      | 1.278            | 2440.382 | 2441.660 | ---        | ---     |
|          |         | 2480      | 1.284            | 2479.379 | 2480.663 | ---        | ---     |
| 3DH5     | Ant1    | 2402      | 1.281            | 2401.382 | 2402.663 | ---        | ---     |
|          |         | 2441      | 1.323            | 2440.349 | 2441.672 | ---        | ---     |
|          |         | 2480      | 1.284            | 2479.379 | 2480.663 | ---        | ---     |

## 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

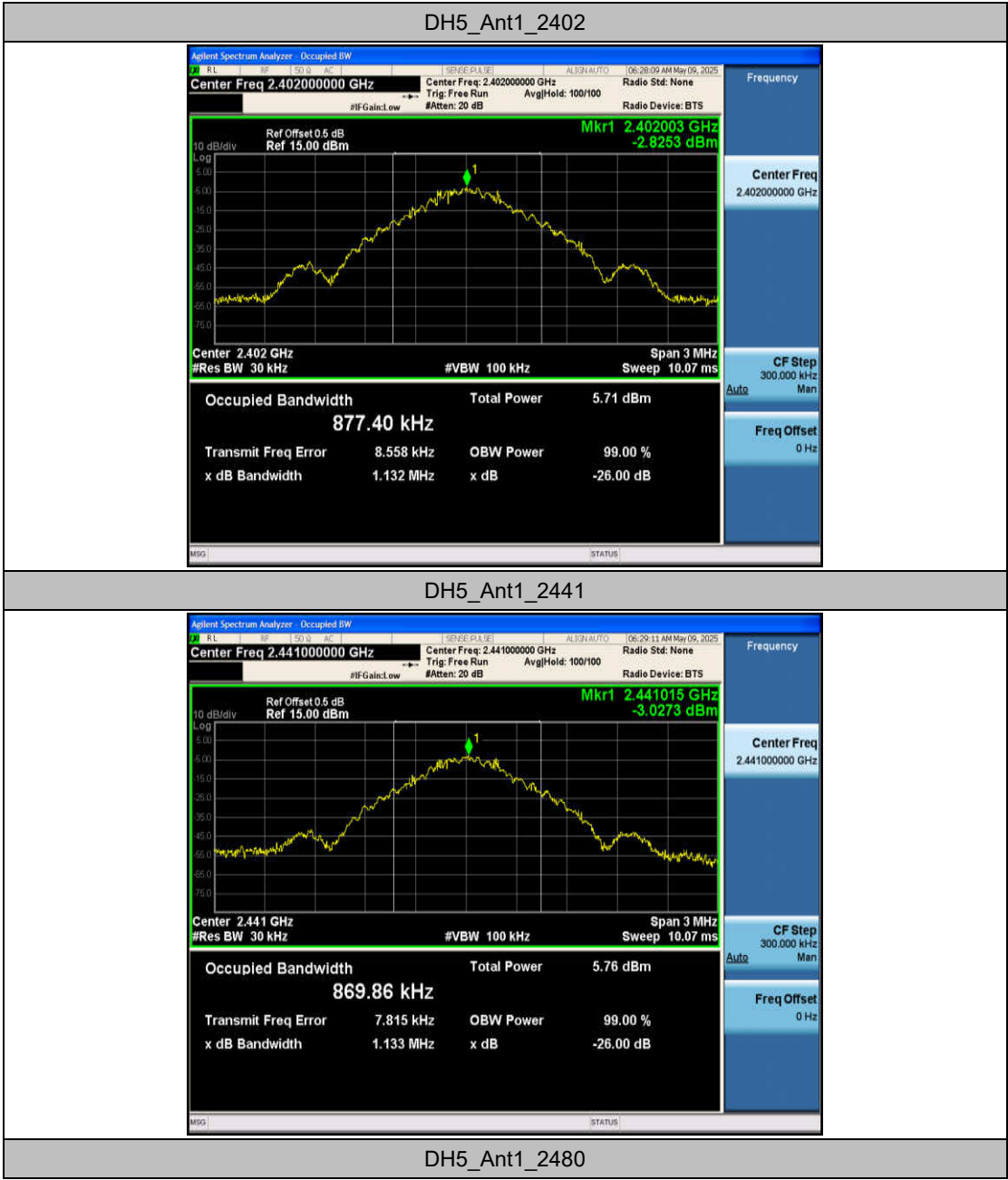


## Appendix B: Occupied Channel Bandwidth

### Test Result

| TestMode | Antenna | Freq(MHz) | OCB [MHz] | FL[MHz]   | FH[MHz]   | Limit[MHz] | Verdict |
|----------|---------|-----------|-----------|-----------|-----------|------------|---------|
| DH5      | Ant1    | 2402      | 0.87740   | 2401.5699 | 2402.4473 | ---        | ---     |
|          |         | 2441      | 0.86986   | 2440.5729 | 2441.4428 | ---        | ---     |
|          |         | 2480      | 0.87887   | 2479.5703 | 2480.4491 | ---        | ---     |
| 2DH5     | Ant1    | 2402      | 1.1874    | 2401.4172 | 2402.6046 | ---        | ---     |
|          |         | 2441      | 1.1863    | 2440.4169 | 2441.6032 | ---        | ---     |
|          |         | 2480      | 1.1963    | 2479.4141 | 2480.6104 | ---        | ---     |
| 3DH5     | Ant1    | 2402      | 1.1857    | 2401.4180 | 2402.6037 | ---        | ---     |
|          |         | 2441      | 1.1885    | 2440.4151 | 2441.6036 | ---        | ---     |
|          |         | 2480      | 1.1950    | 2479.4133 | 2480.6083 | ---        | ---     |

Test Graphs





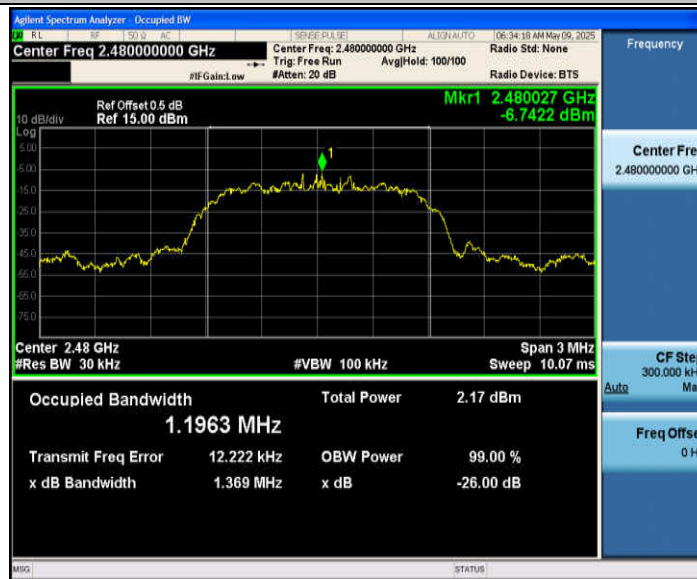
2DH5\_Ant1\_2402



2DH5\_Ant1\_2441



### 2DH5\_Ant1\_2480



### 3DH5\_Ant1\_2402



### 3DH5\_Ant1\_2441



3DH5\_Ant1\_2480



## Appendix C: Maximum conducted output power

### Test Result Peak

| Test Mode | Antenna | Freq(MHz) | Conducted Peak Power[dBm] | Conducted Limit[dBm] | Verdict |
|-----------|---------|-----------|---------------------------|----------------------|---------|
| DH5       | Ant1    | 2402      | -0.01                     | ≤20.97               | PASS    |
|           |         | 2441      | -0.04                     | ≤20.97               | PASS    |
|           |         | 2480      | -0.21                     | ≤20.97               | PASS    |
| 2DH5      | Ant1    | 2402      | -0.83                     | ≤20.97               | PASS    |
|           |         | 2441      | -0.88                     | ≤20.97               | PASS    |
|           |         | 2480      | -1.04                     | ≤20.97               | PASS    |
| 3DH5      | Ant1    | 2402      | -0.80                     | ≤20.97               | PASS    |
|           |         | 2441      | -1.00                     | ≤20.97               | PASS    |
|           |         | 2480      | -1.03                     | ≤20.97               | PASS    |

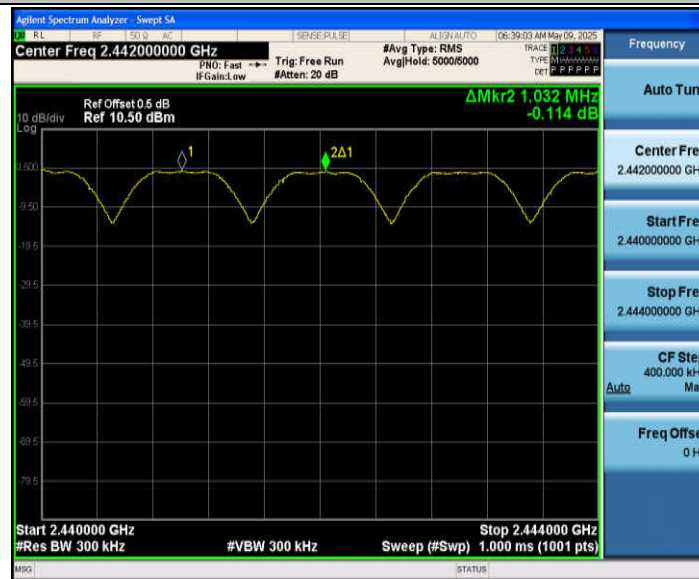
## Appendix D: Carrier frequency separation

### Test Result

| TestMode | Antenna | Freq(MHz) | Result[MHz] | Limit[MHz]   | Verdict |
|----------|---------|-----------|-------------|--------------|---------|
| DH5      | Ant1    | Hop       | 1.032       | $\geq 0.948$ | PASS    |
| 2DH5     | Ant1    | Hop       | 1.064       | $\geq 0.856$ | PASS    |
| 3DH5     | Ant1    | Hop       | 1.316       | $\geq 0.882$ | PASS    |

## Test Graphs

DH5\_Ant1\_Hop



2DH5\_Ant1\_Hop



3DH5\_Ant1\_Hop

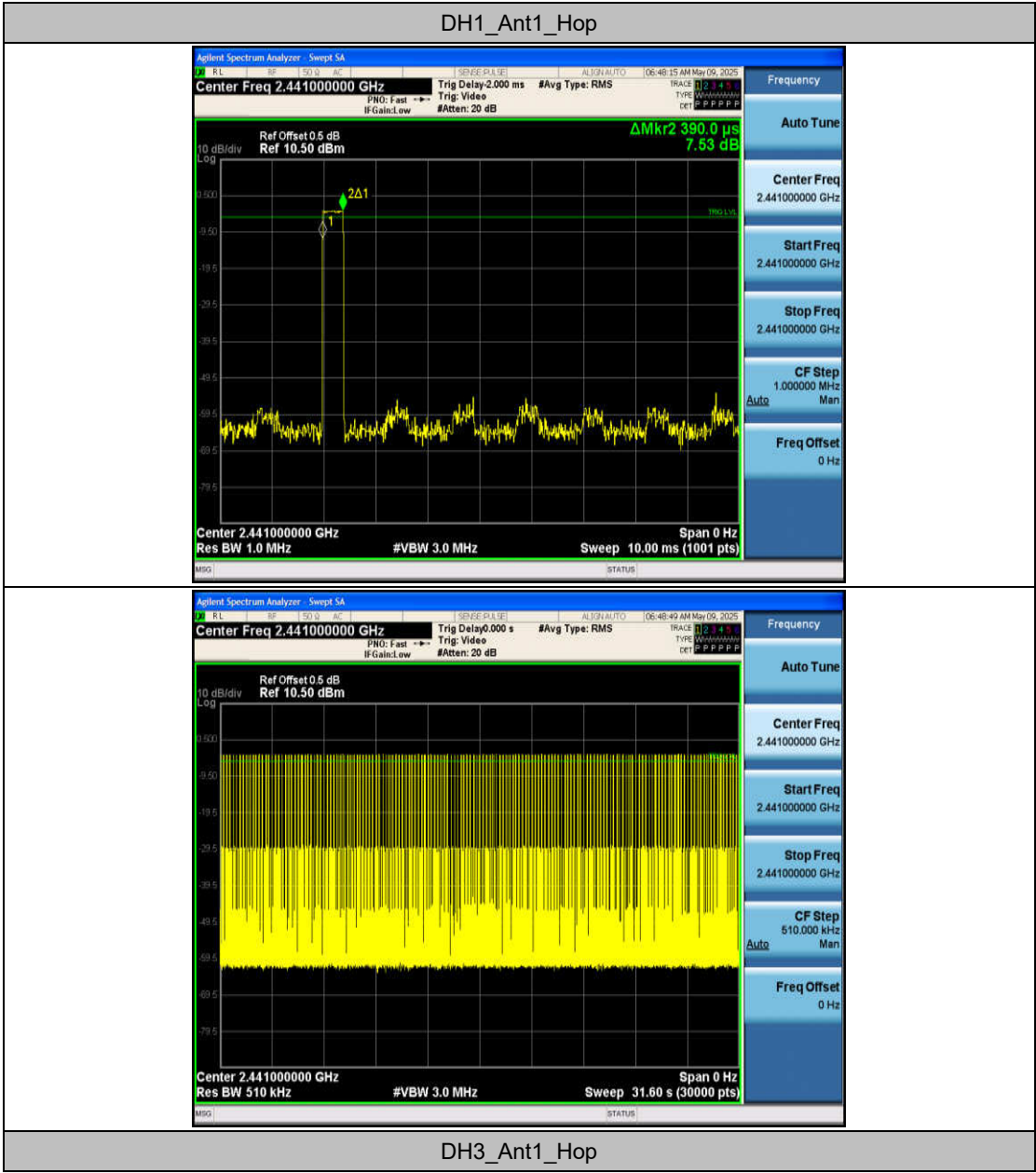


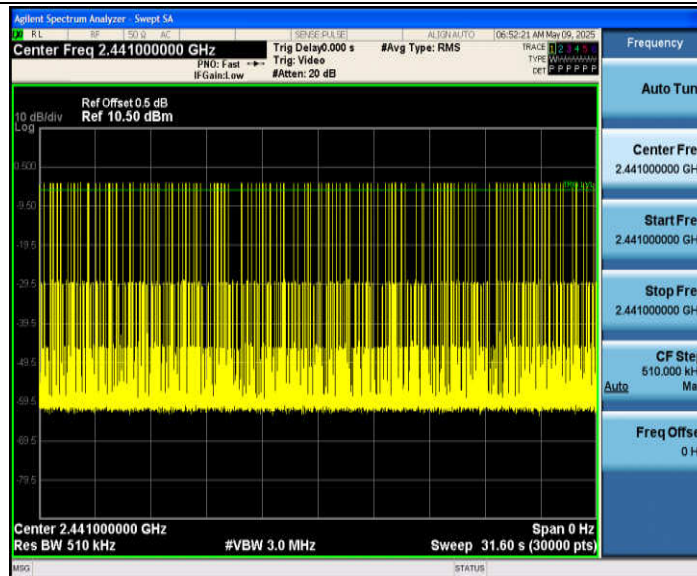
## Appendix E: Time of occupancy

### Test Result

| TestMode | Antenna | Freq(MHz) | BurstWidth<br>[ms] | TotalHops<br>[Num] | Result[s] | Limit[s] | Verdict |
|----------|---------|-----------|--------------------|--------------------|-----------|----------|---------|
| DH1      | Ant1    | Hop       | 0.390              | 315                | 0.123     | ≤0.4     | PASS    |
| DH3      | Ant1    | Hop       | 1.640              | 158                | 0.259     | ≤0.4     | PASS    |
| DH5      | Ant1    | Hop       | 2.890              | 117                | 0.338     | ≤0.4     | PASS    |
| 2DH1     | Ant1    | Hop       | 0.400              | 319                | 0.128     | ≤0.4     | PASS    |
| 2DH3     | Ant1    | Hop       | 1.650              | 159                | 0.262     | ≤0.4     | PASS    |
| 2DH5     | Ant1    | Hop       | 2.900              | 109                | 0.316     | ≤0.4     | PASS    |
| 3DH1     | Ant1    | Hop       | 0.400              | 316                | 0.126     | ≤0.4     | PASS    |
| 3DH3     | Ant1    | Hop       | 1.650              | 144                | 0.238     | ≤0.4     | PASS    |
| 3DH5     | Ant1    | Hop       | 2.900              | 107                | 0.31      | ≤0.4     | PASS    |

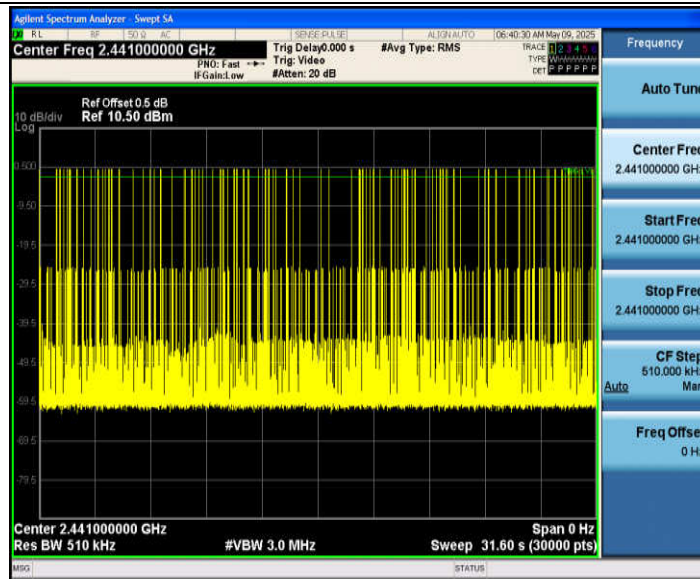
Test Graphs



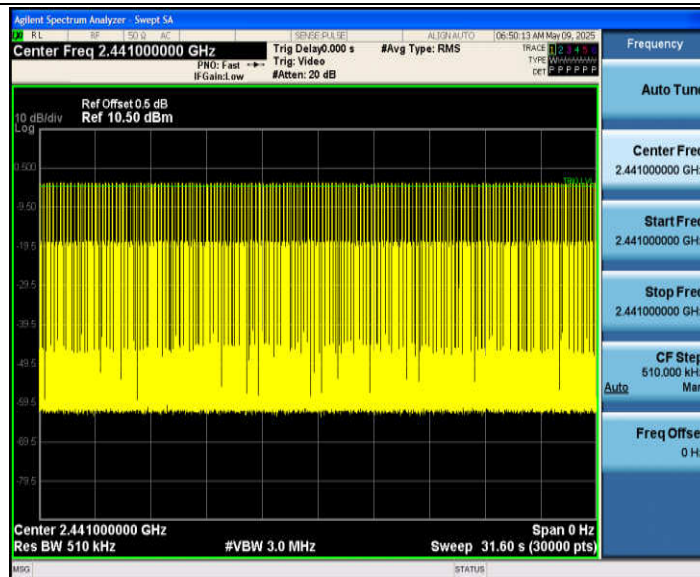


DH5\_Ant1\_Hop

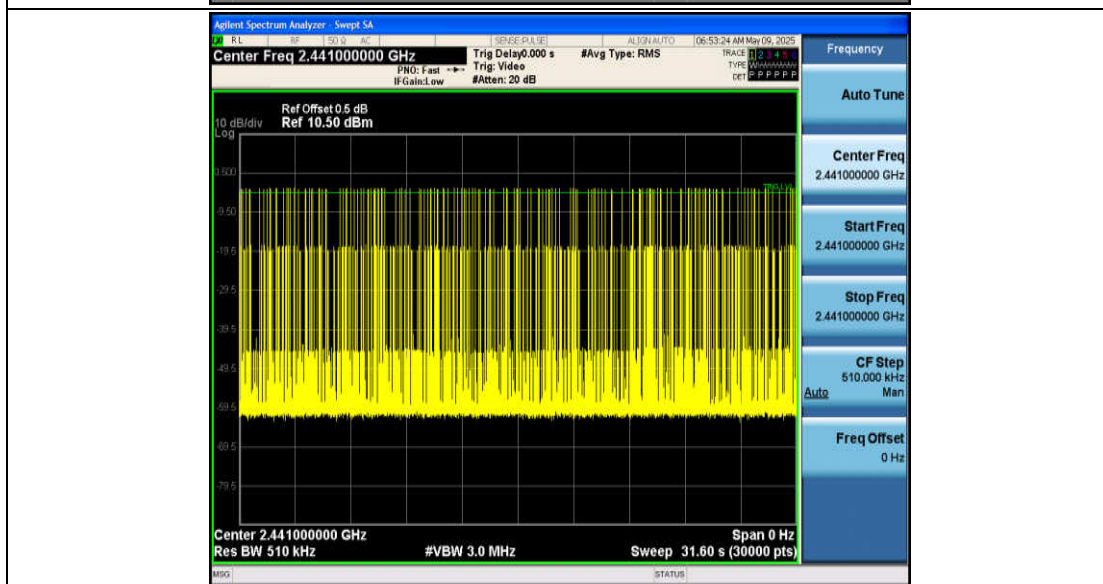




2DH1\_Ant1\_Hop

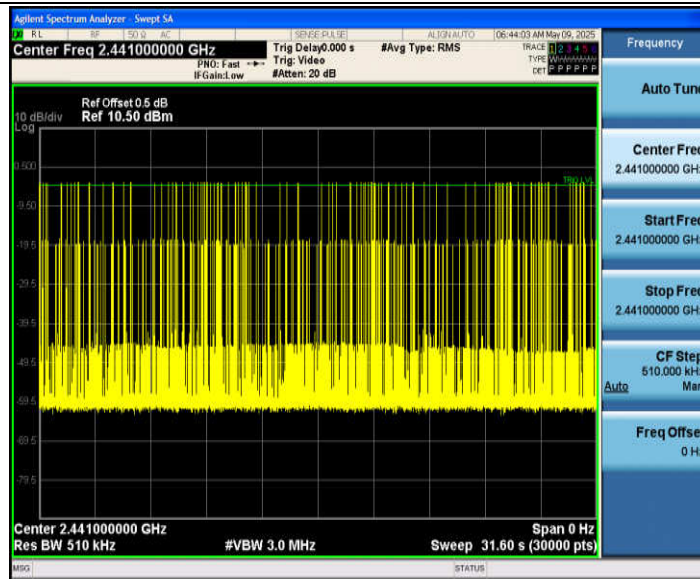


2DH3\_Ant1\_Hop

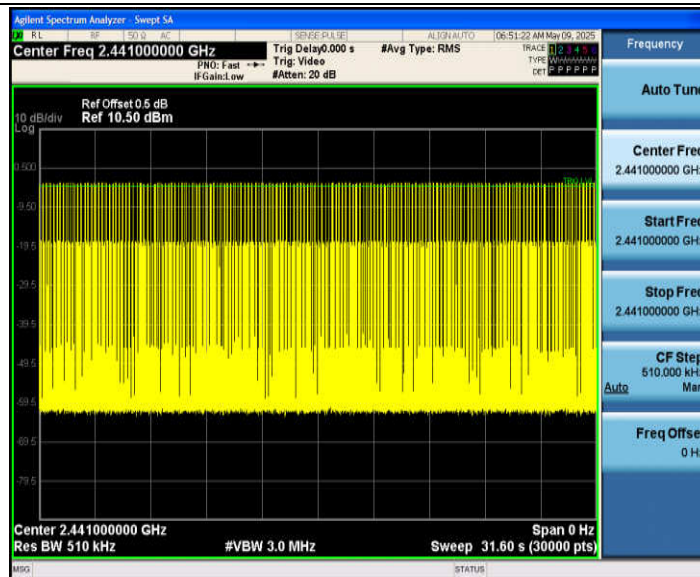


2DH5\_Ant1\_Hop

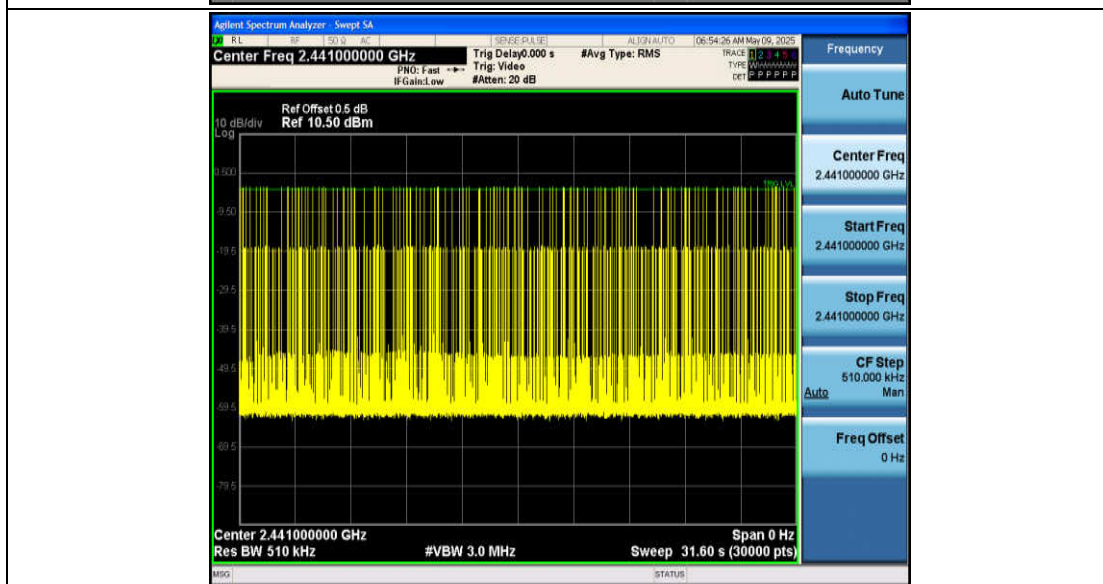




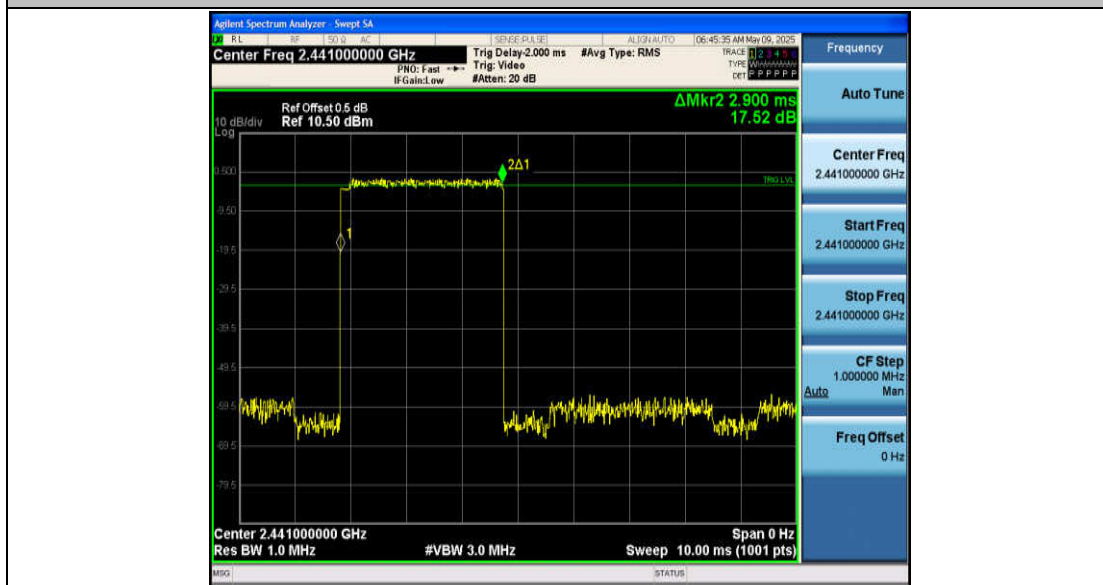
3DH1\_Ant1\_Hop

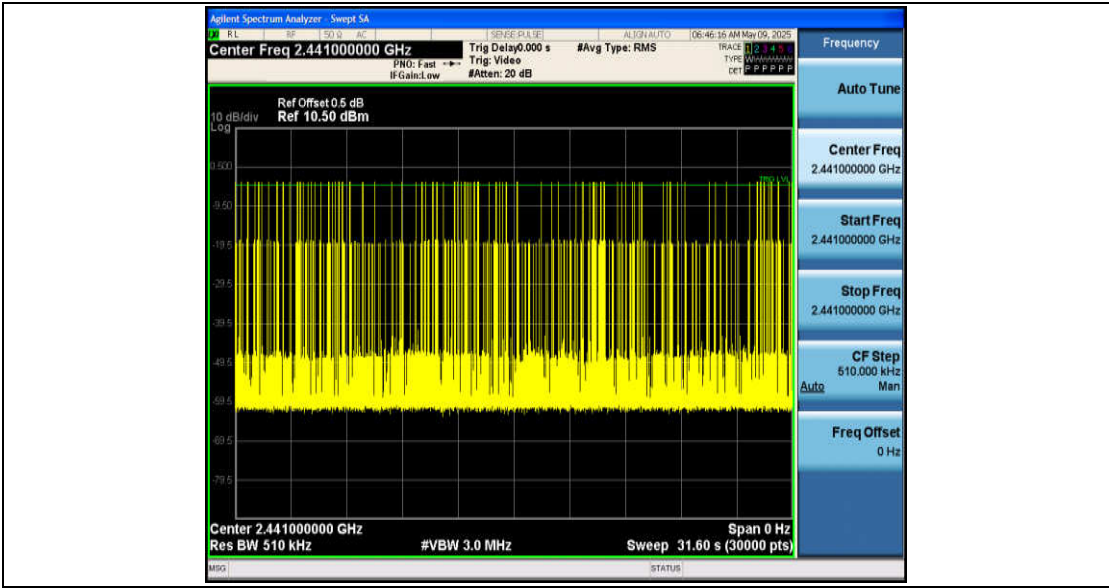


3DH3\_Ant1\_Hop



3DH5\_Ant1\_Hop





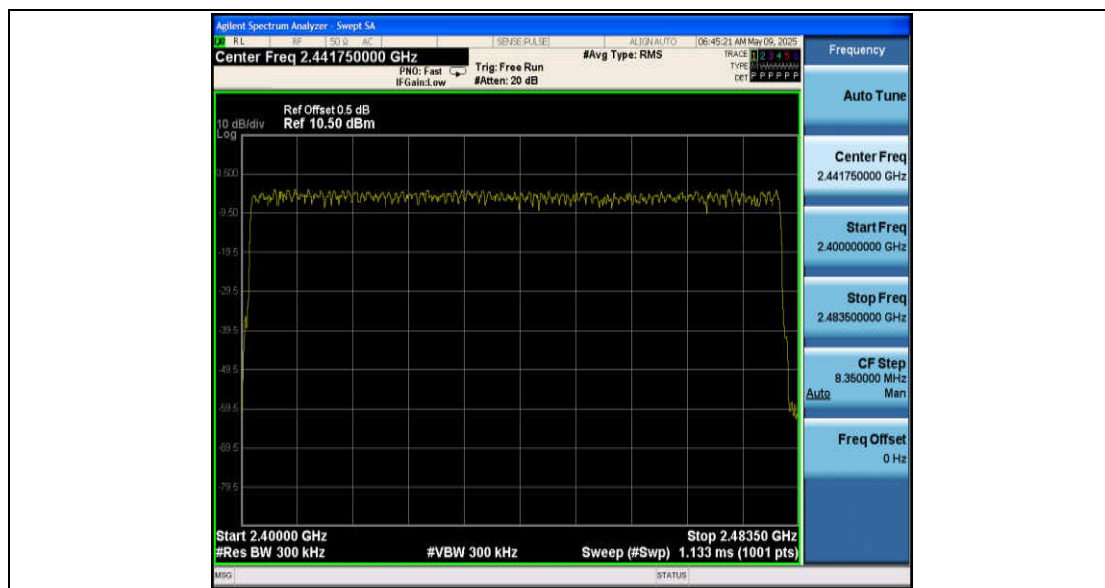
## Appendix F: Number of hopping channels

### 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

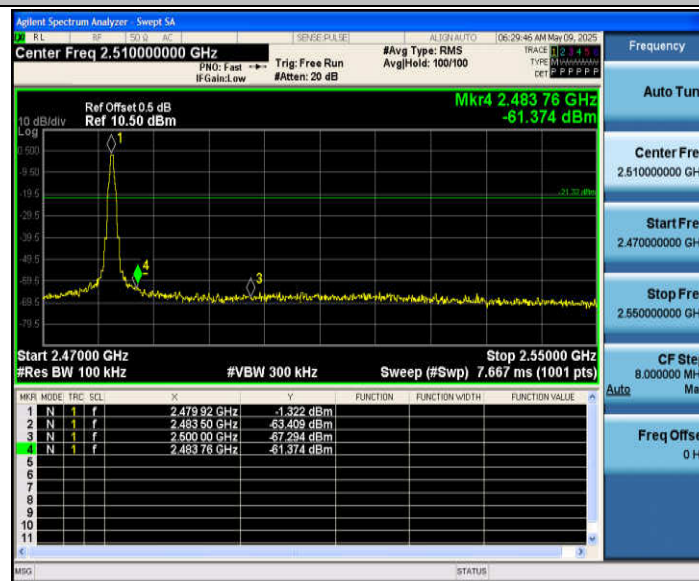
| TestMode | Antenna | ChName | Freq(MHz) | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|----------|---------|--------|-----------|----------------|--------------|-------------|---------|
| DH5      | Ant1    | Low    | 2402      | -0.40          | -51.84       | ≤-20.4      | PASS    |
|          |         | High   | 2480      | -1.32          | -61.37       | ≤-21.32     | PASS    |
|          |         | Low    | Hop_2402  | -0.53          | -60.53       | ≤-20.53     | PASS    |
|          |         | High   | Hop_2480  | -0.67          | -63.68       | ≤-20.67     | PASS    |
| 2DH5     | Ant1    | Low    | 2402      | -4.50          | -55.8        | ≤-24.5      | PASS    |
|          |         | High   | 2480      | -5.50          | -55.04       | ≤-25.5      | PASS    |
|          |         | Low    | Hop_2402  | -6.48          | -64.34       | ≤-26.48     | PASS    |
|          |         | High   | Hop_2480  | -3.63          | -64.47       | ≤-23.63     | PASS    |
| 3DH5     | Ant1    | Low    | 2402      | -5.18          | -59.9        | ≤-25.18     | PASS    |
|          |         | High   | 2480      | -4.95          | -64.78       | ≤-24.95     | PASS    |
|          |         | Low    | Hop_2402  | -5.05          | -63.16       | ≤-25.05     | PASS    |
|          |         | High   | Hop_2480  | -3.79          | -56.86       | ≤-23.79     | PASS    |

## Test Graphs

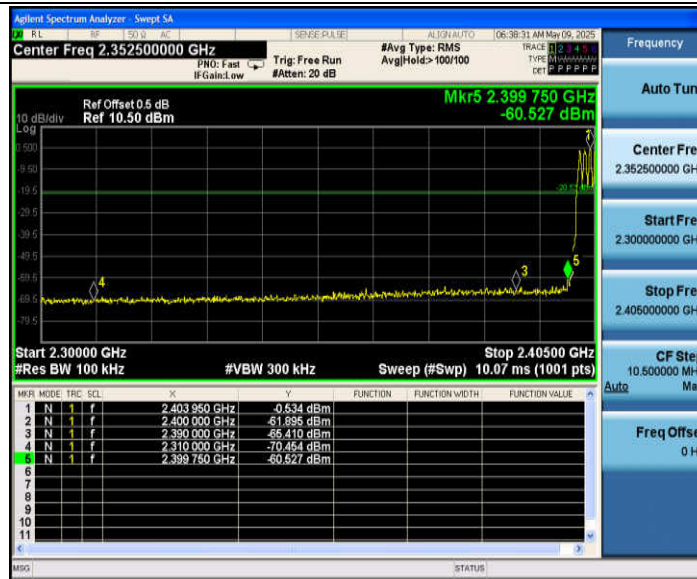
DH5\_Ant1\_Low\_2402



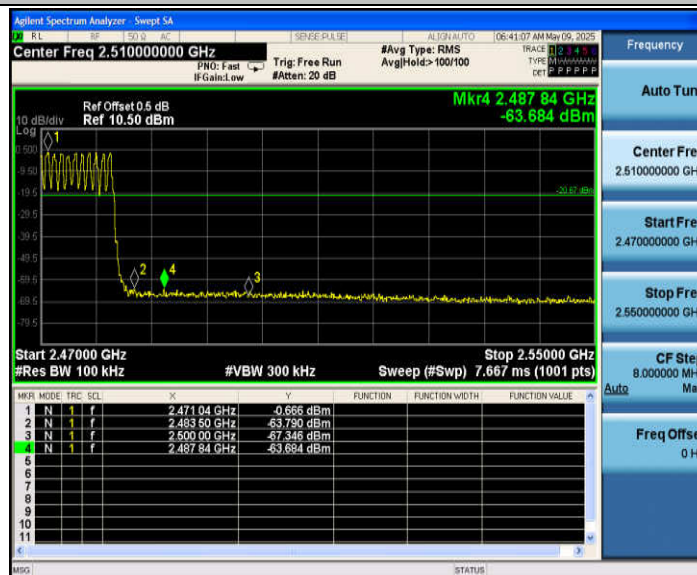
DH5\_Ant1\_High\_2480



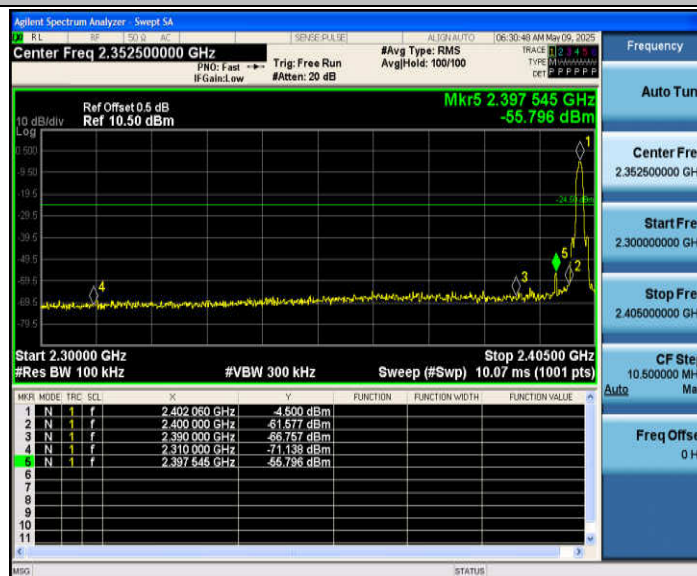
DH5\_Ant1\_Low\_Hop\_2402



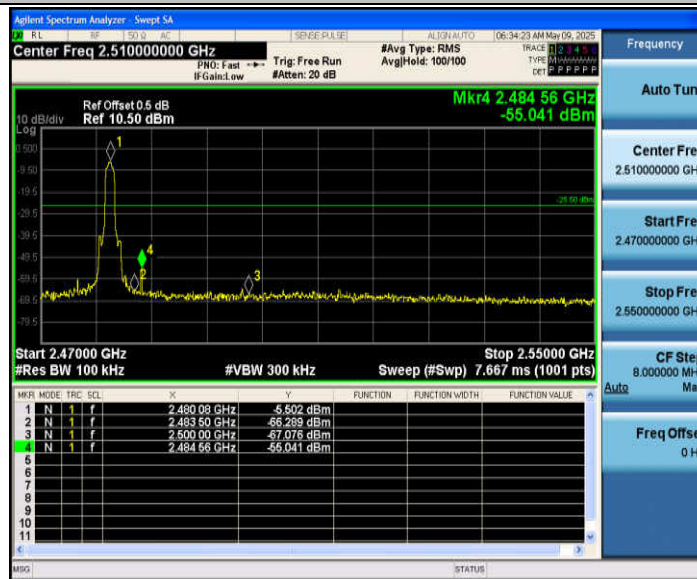
DH5\_Ant1\_High\_Hop\_2480



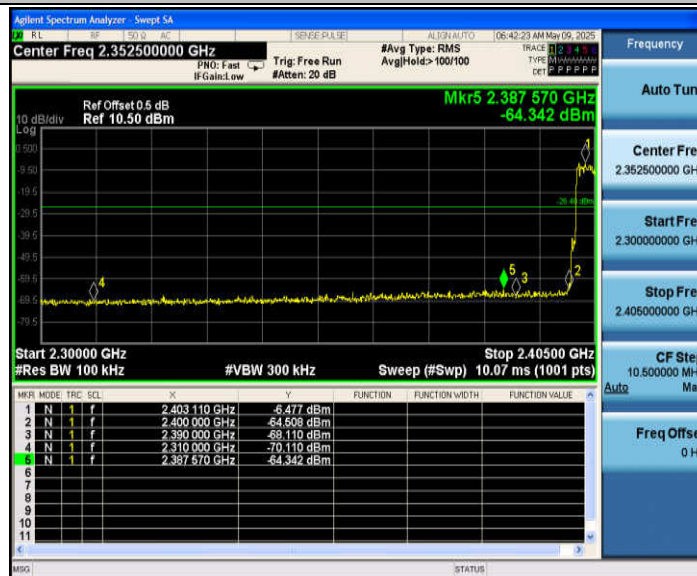
2DH5\_Ant1\_Low\_2402



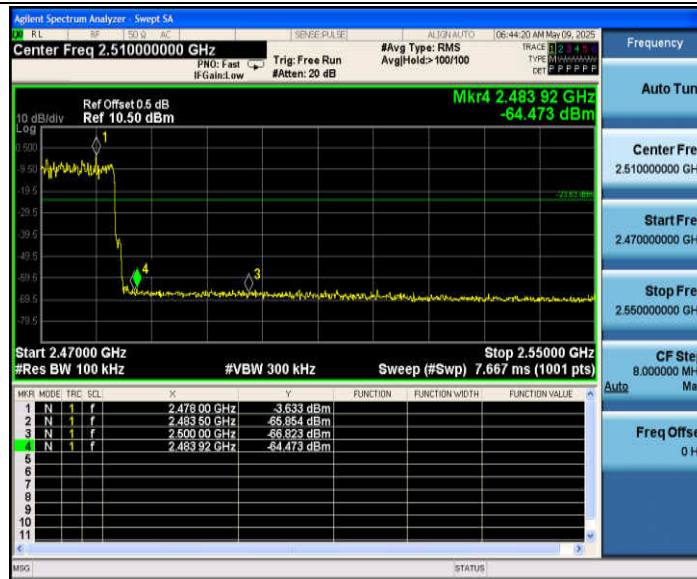
# 2DH5\_Ant1\_High\_2480



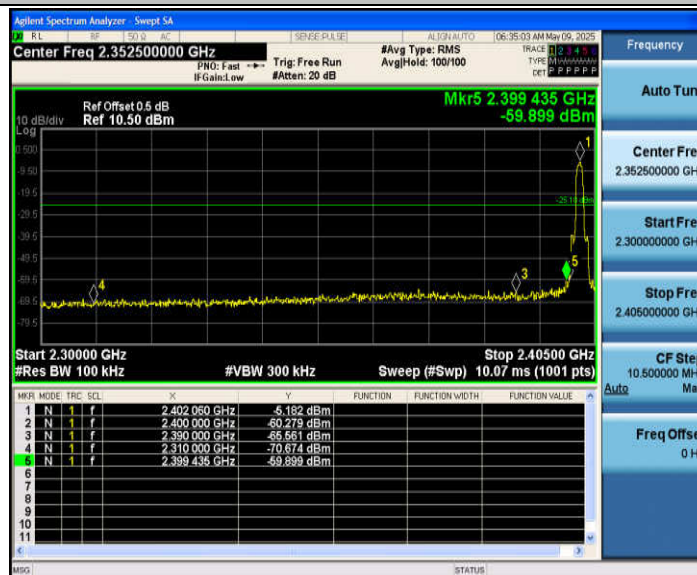
# 2DH5\_Ant1\_Low\_Hop\_2402



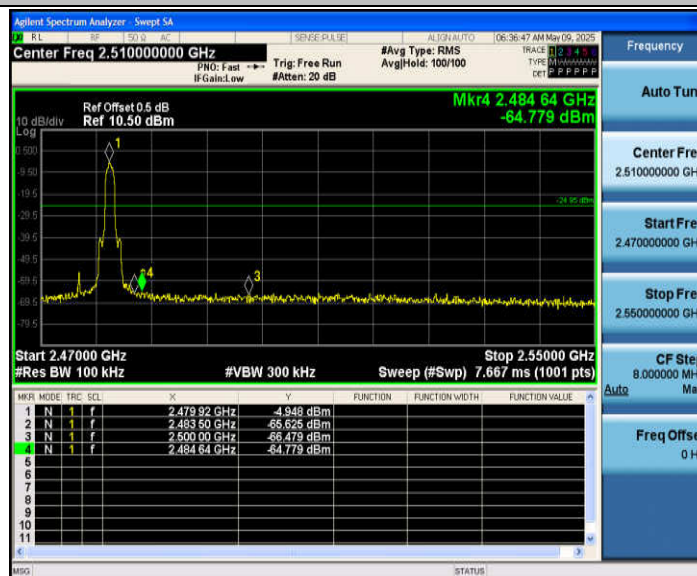
# 2DH5\_Ant1\_High\_Hop\_2480



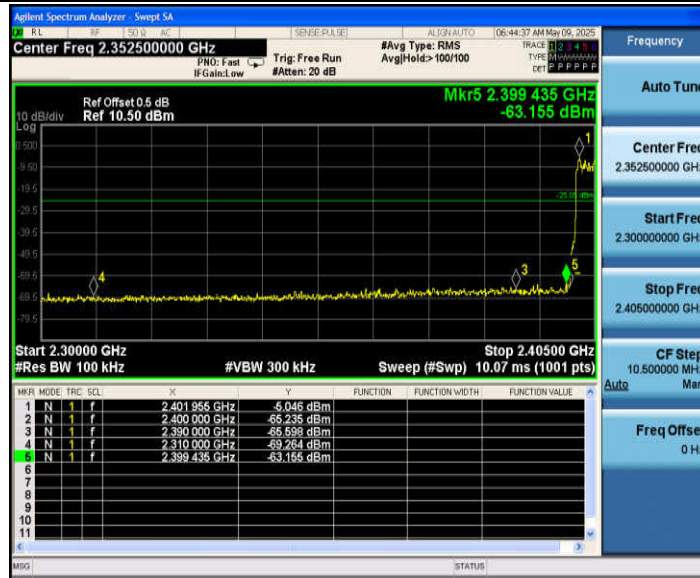
3DH5\_Ant1\_Low\_2402



3DH5\_Ant1\_High\_2480



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



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

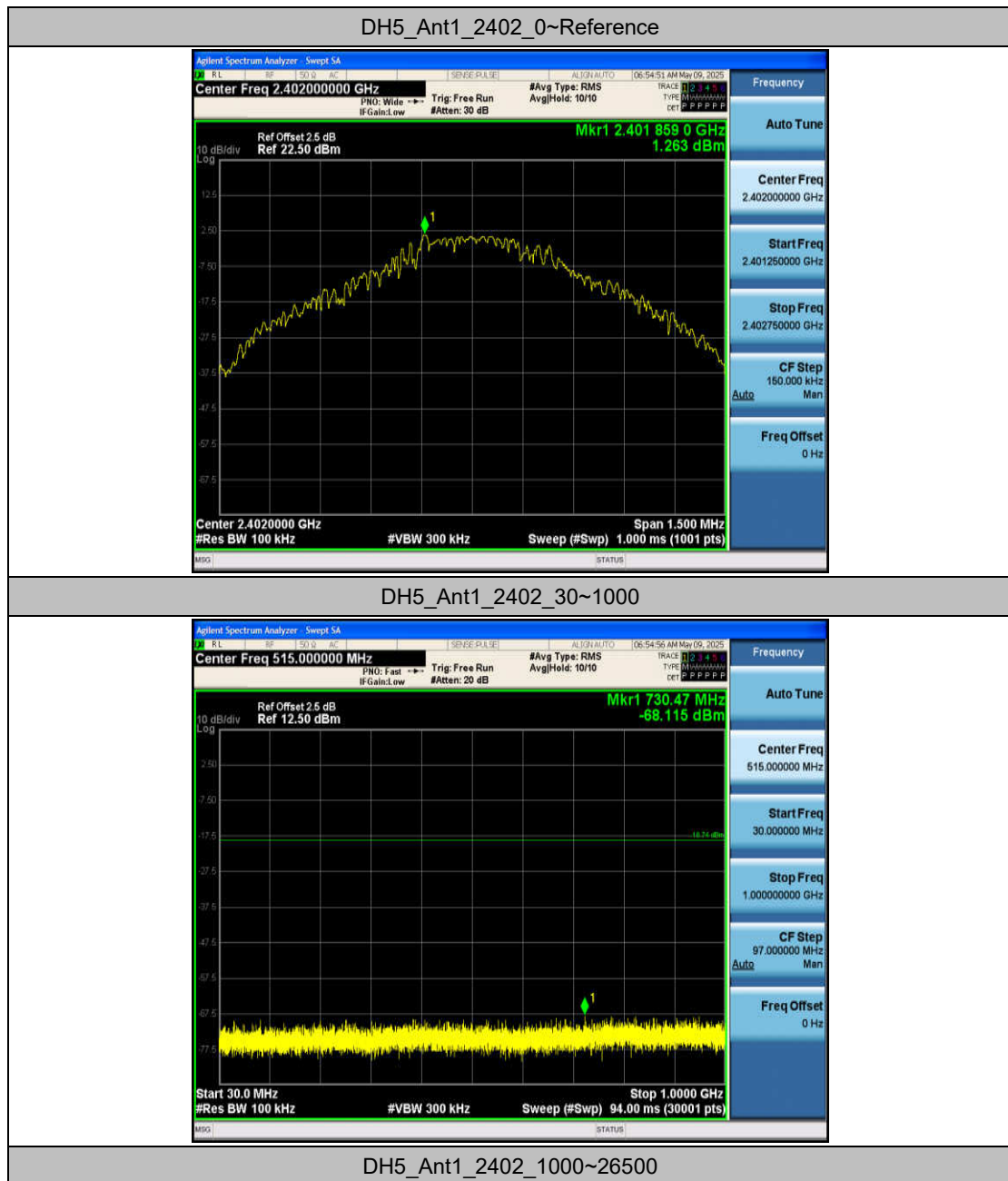


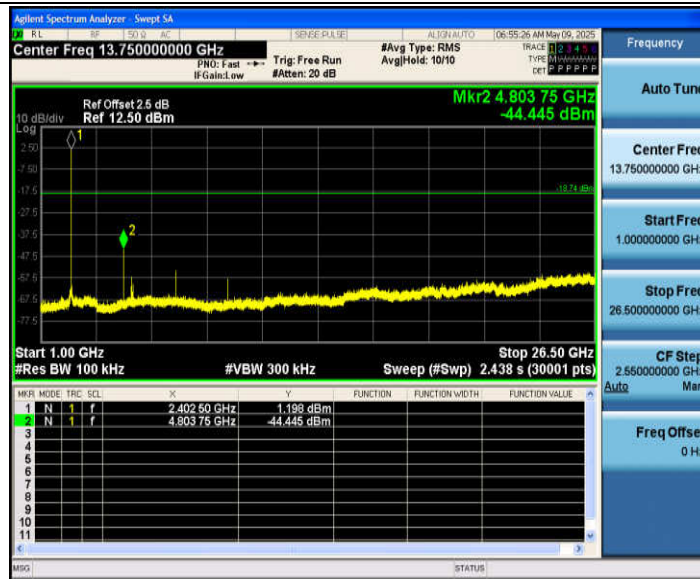
## Appendix H: Conducted Spurious Emission

### Test Result

| TestMode | Antenna | Freq(MHz) | FreqRange [MHz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|----------|---------|-----------|-----------------|----------------|--------------|-------------|---------|
| DH5      | Ant1    | 2402      | Reference       | 1.26           | 1.26         | ---         | PASS    |
|          |         |           | 30~1000         | 1.26           | -68.12       | ≤-18.74     | PASS    |
|          |         |           | 1000~26500      | 1.26           | -44.45       | ≤-18.74     | PASS    |
|          |         | 2441      | Reference       | 0.75           | 0.75         | ---         | PASS    |
|          |         |           | 30~1000         | 0.75           | -67.88       | ≤-19.25     | PASS    |
|          |         |           | 1000~26500      | 0.75           | -43.63       | ≤-19.25     | PASS    |
|          |         | 2480      | Reference       | 0.68           | 0.68         | ---         | PASS    |
|          |         |           | 30~1000         | 0.68           | -67.96       | ≤-19.32     | PASS    |
|          |         |           | 1000~26500      | 0.68           | -44.02       | ≤-19.32     | PASS    |
| 2DH5     | Ant1    | 2402      | Reference       | -0.35          | -0.35        | ---         | PASS    |
|          |         |           | 30~1000         | -0.35          | -67.45       | ≤-20.35     | PASS    |
|          |         |           | 1000~26500      | -0.35          | -45.3        | ≤-20.35     | PASS    |
|          |         | 2441      | Reference       | 0.43           | 0.43         | ---         | PASS    |
|          |         |           | 30~1000         | 0.43           | -67.66       | ≤-19.57     | PASS    |
|          |         |           | 1000~26500      | 0.43           | -42.29       | ≤-19.57     | PASS    |
|          |         | 2480      | Reference       | 1.77           | 1.77         | ---         | PASS    |
|          |         |           | 30~1000         | 1.77           | -67.93       | ≤-18.23     | PASS    |
|          |         |           | 1000~26500      | 1.77           | -44.79       | ≤-18.23     | PASS    |
| 3DH5     | Ant1    | 2402      | Reference       | -4.47          | -4.47        | ---         | PASS    |
|          |         |           | 30~1000         | -4.47          | -68.16       | ≤-24.47     | PASS    |
|          |         |           | 1000~26500      | -4.47          | -49.78       | ≤-24.47     | PASS    |
|          |         | 2441      | Reference       | -4.23          | -4.23        | ---         | PASS    |
|          |         |           | 30~1000         | -4.23          | -67.77       | ≤-24.23     | PASS    |
|          |         |           | 1000~26500      | -4.23          | -44.5        | ≤-24.23     | PASS    |
|          |         | 2480      | Reference       | -3.89          | -3.89        | ---         | PASS    |
|          |         |           | 30~1000         | -3.89          | -68.18       | ≤-23.89     | PASS    |
|          |         |           | 1000~26500      | -3.89          | -50.48       | ≤-23.89     | PASS    |

## Test Graphs

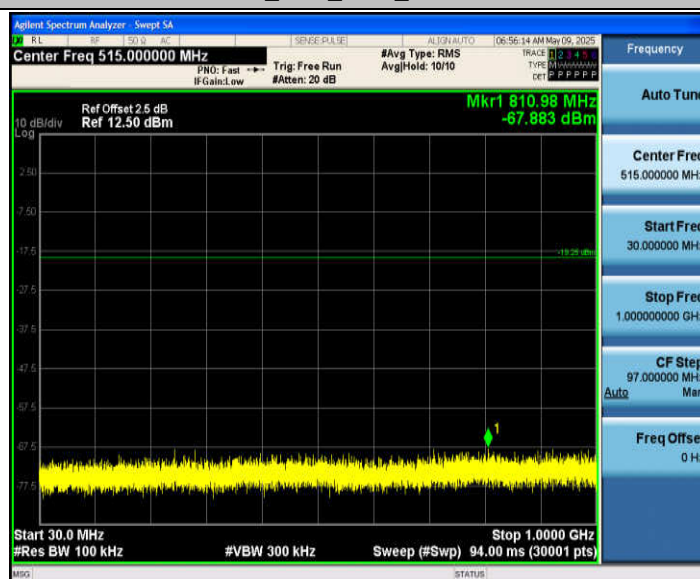




DH5\_Ant1\_2441\_0~Reference



DH5\_Ant1\_2441\_30~1000



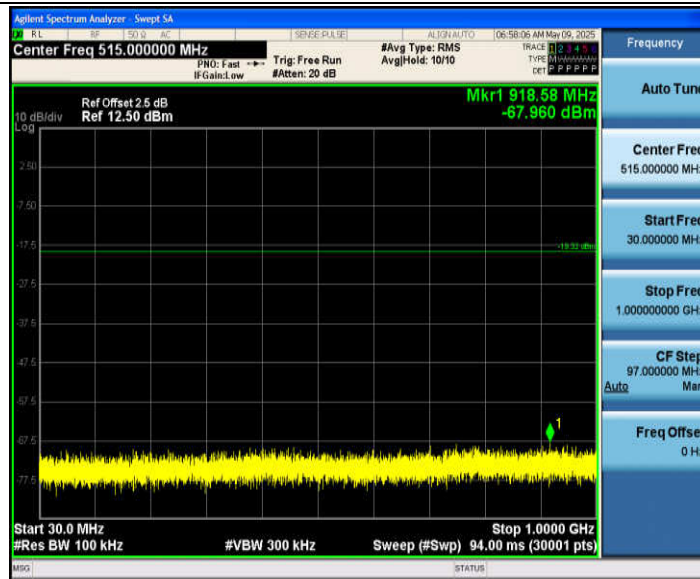
# DH5\_Ant1\_2441\_1000~26500



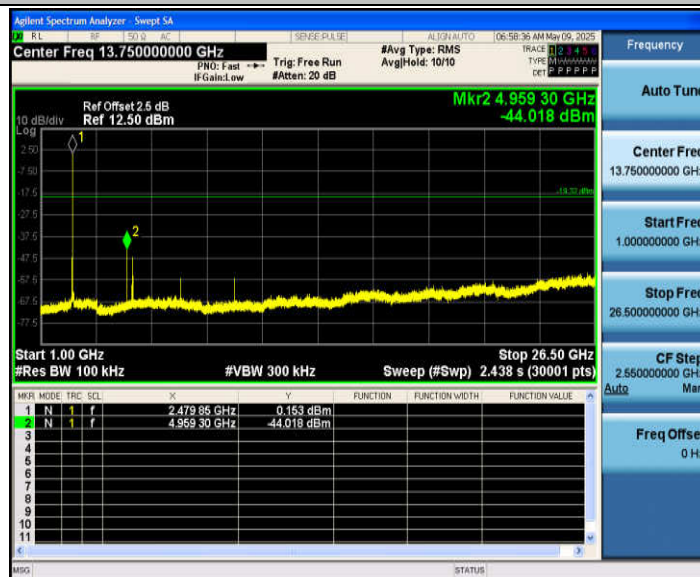
# DH5\_Ant1\_2480\_0~Reference



# DH5\_Ant1\_2480\_30~1000



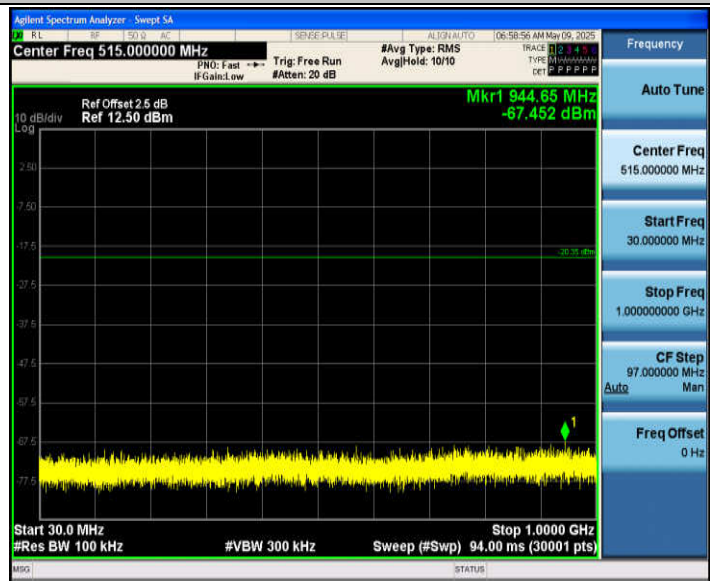
DH5\_Ant1\_2480\_1000~26500



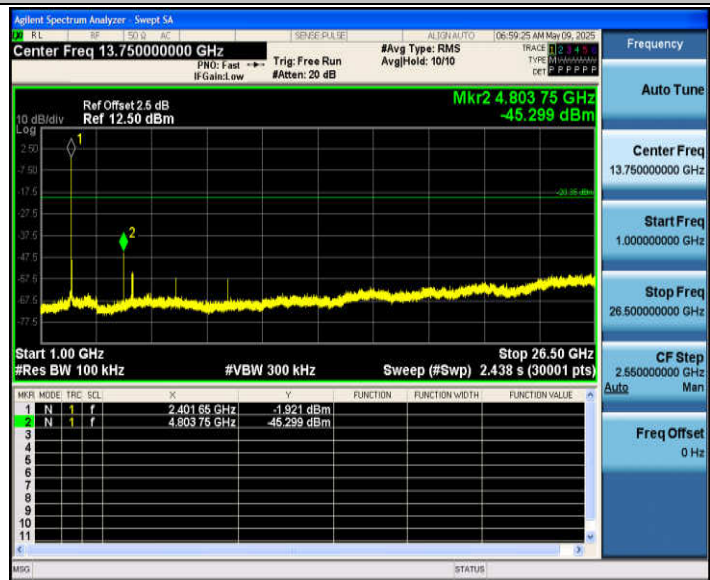
2DH5\_Ant1\_2402\_0~Reference



2DH5\_Ant1\_2402\_30~1000



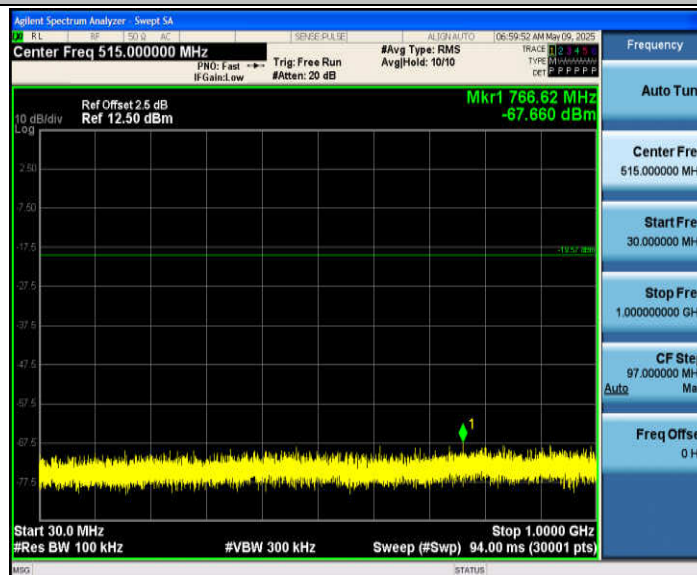
2DH5\_Ant1\_2402\_1000~26500



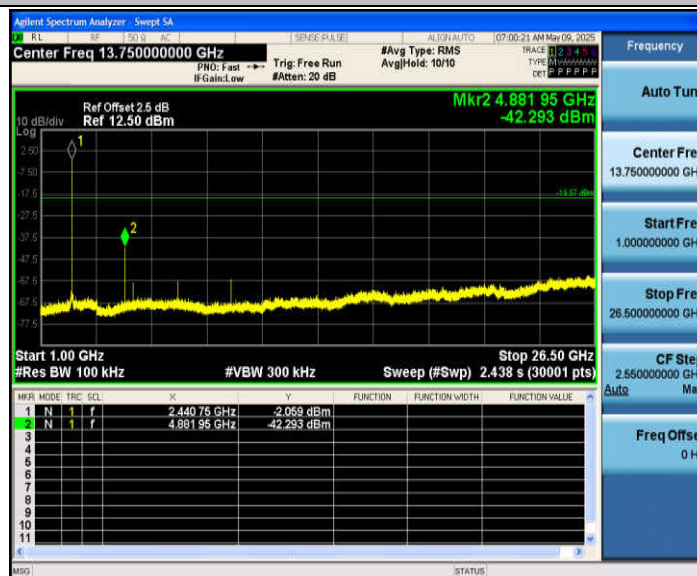
2DH5\_Ant1\_2441\_0~Reference



2DH5\_Ant1\_2441\_30~1000



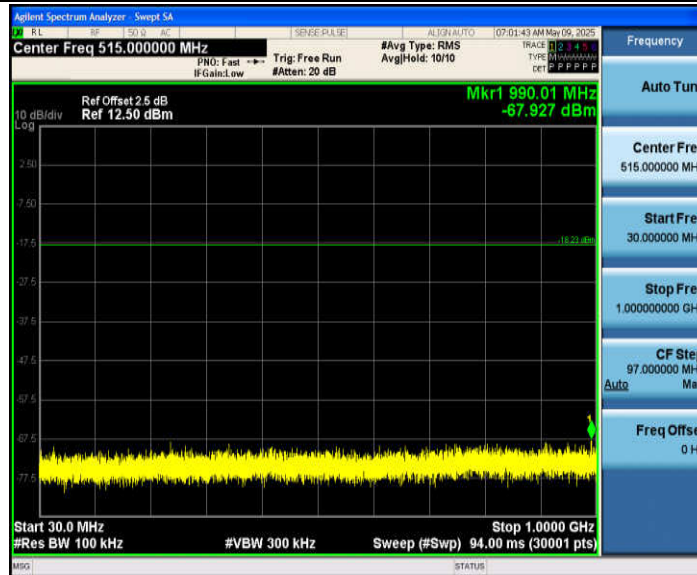
2DH5\_Ant1\_2441\_1000~26500



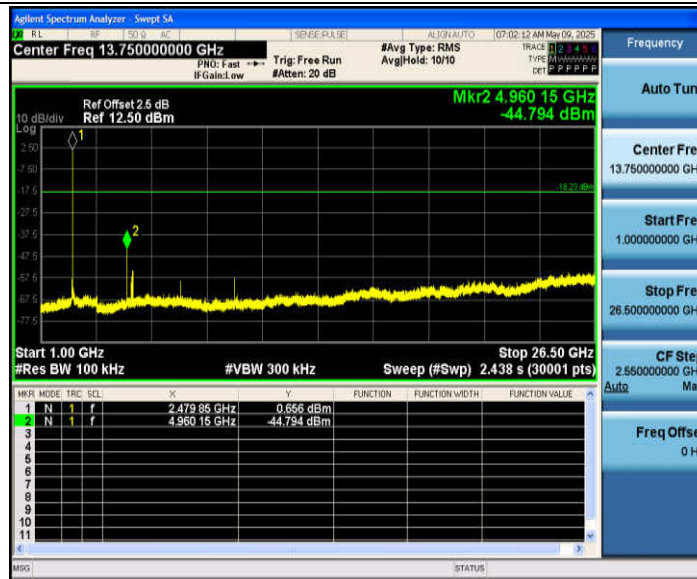
# 2DH5\_Ant1\_2480\_0~Reference



# 2DH5\_Ant1\_2480\_30~1000



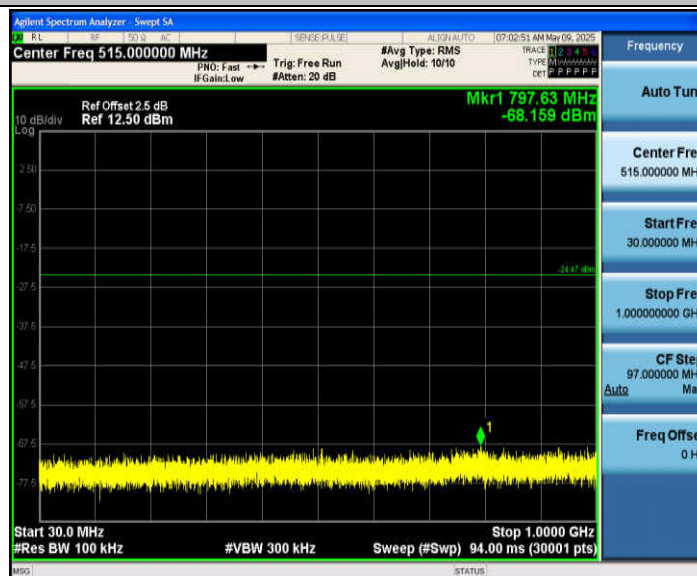
# 2DH5\_Ant1\_2480\_1000~26500



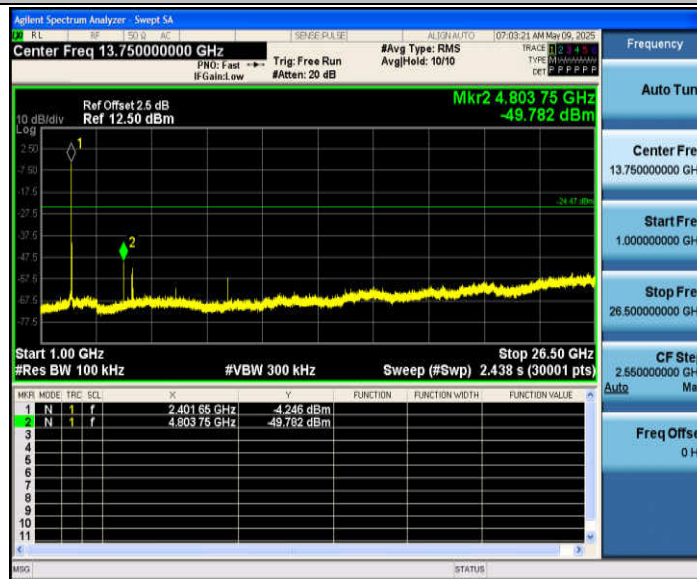
3DH5\_Ant1\_2402\_0~Reference



3DH5\_Ant1\_2402\_30~1000



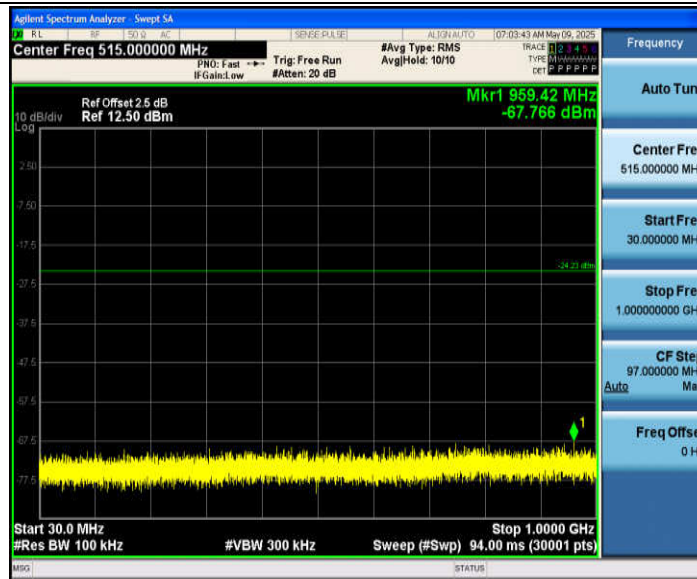
### 3DH5\_Ant1\_2402\_1000~26500



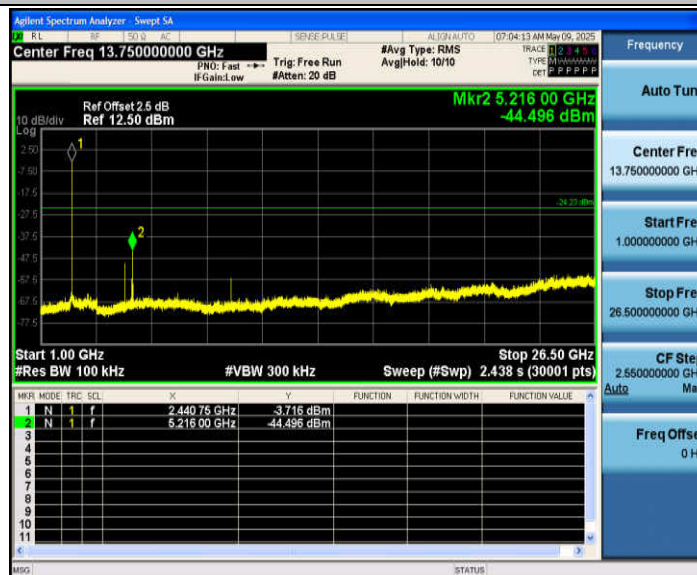
### 3DH5\_Ant1\_2441\_0~Reference



### 3DH5\_Ant1\_2441\_30~1000



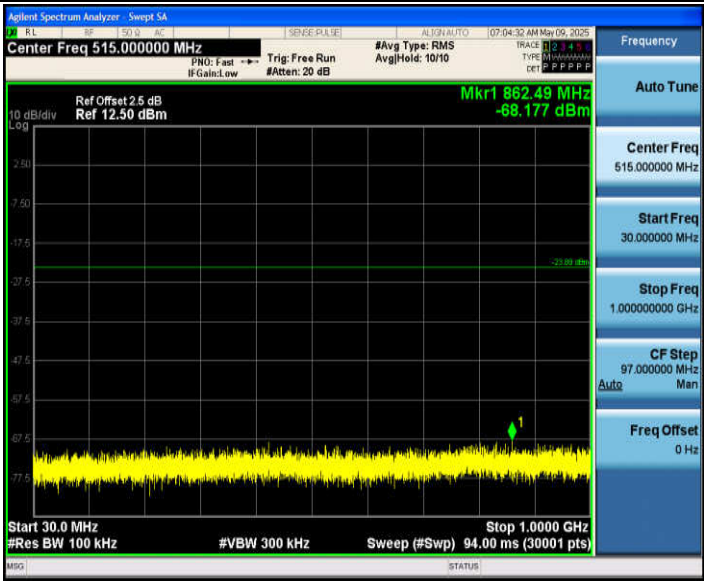
3DH5\_Ant1\_2441\_1000~26500



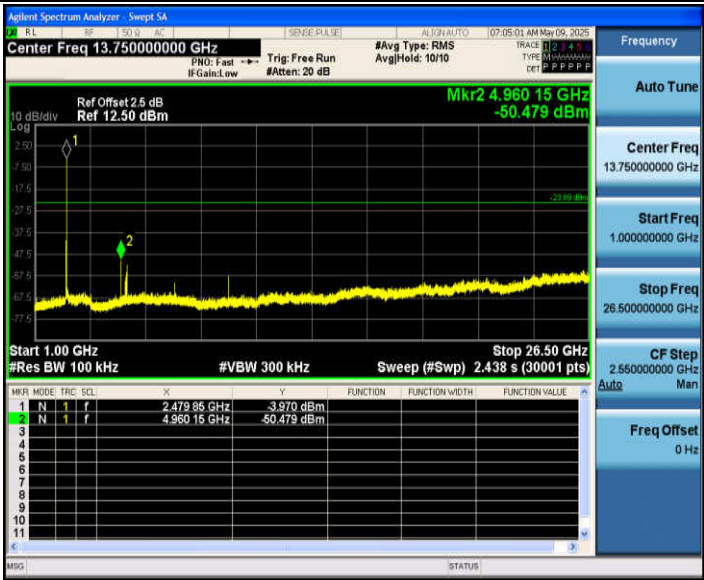
3DH5\_Ant1\_2480\_0~Reference



3DH5\_Ant1\_2480\_30~1000



3DH5\_Ant1\_2480\_1000~26500

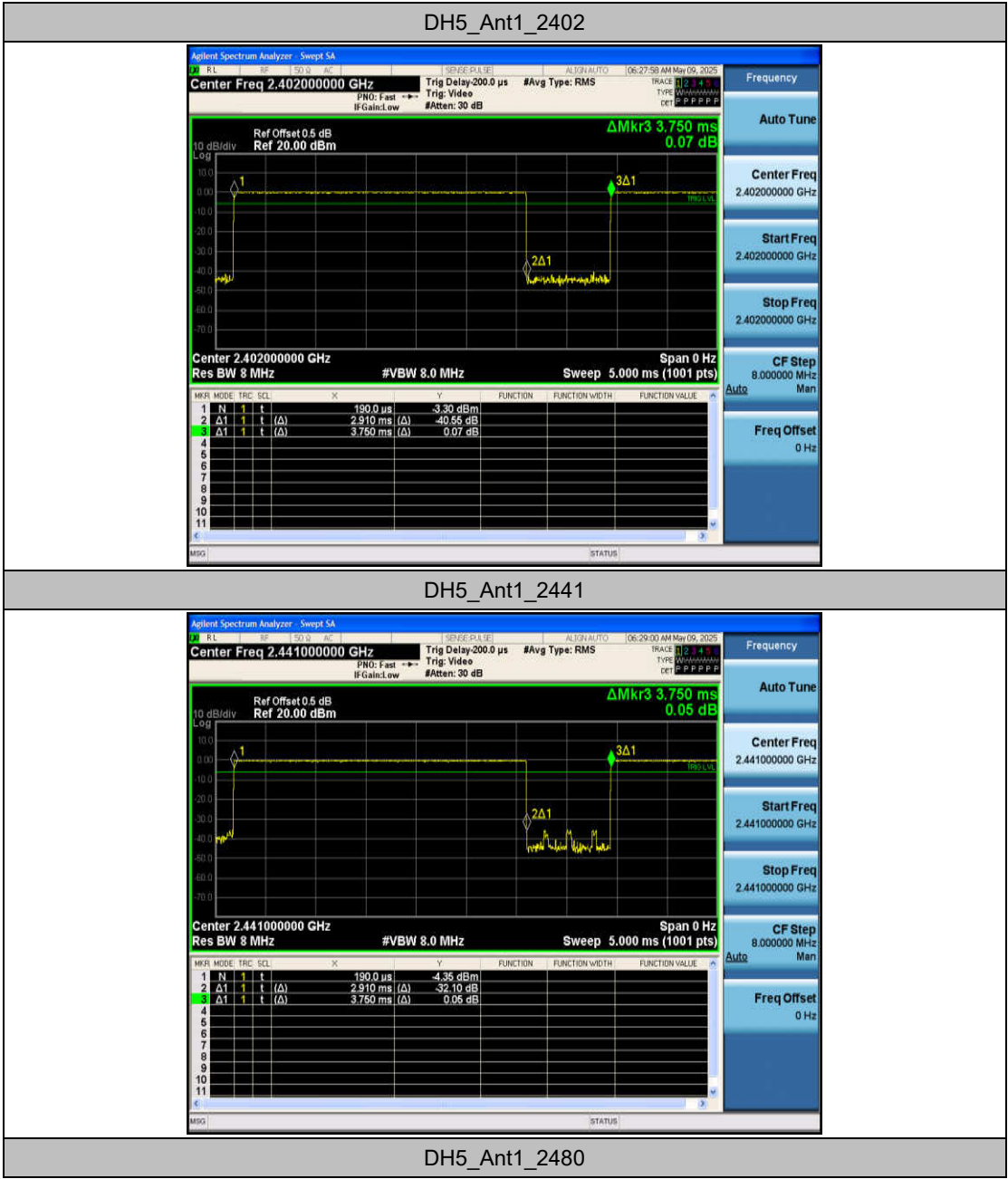


## Appendix I: Duty Cycle

### Test Result

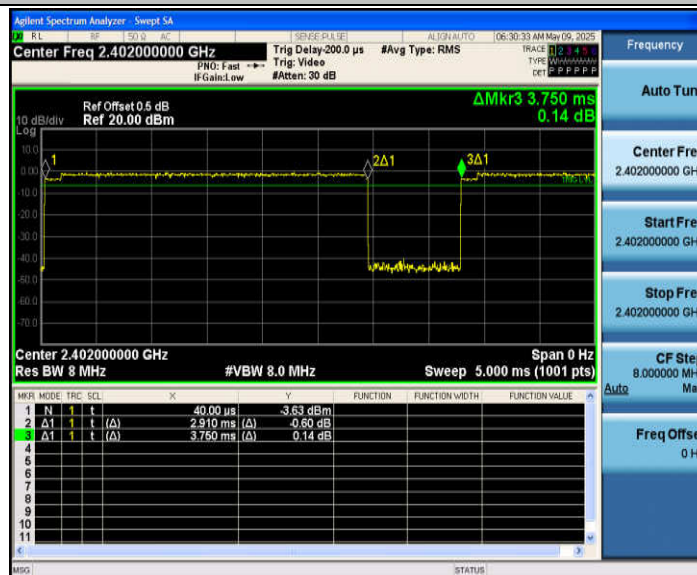
| TestMode | Antenna | Freq(MHz) | ON Time<br>[ms] | Period<br>[ms] | DC<br>[%] | xFactor | Limit | Verdict |
|----------|---------|-----------|-----------------|----------------|-----------|---------|-------|---------|
| DH5      | Ant1    | 2402      | 2.91            | 3.75           | 77.60     | 1.10    | ---   | ---     |
|          |         | 2441      | 2.91            | 3.75           | 77.60     | 1.10    | ---   | ---     |
|          |         | 2480      | 2.92            | 3.75           | 77.87     | 1.09    | ---   | ---     |
| 2DH5     | Ant1    | 2402      | 2.91            | 3.75           | 77.60     | 1.10    | ---   | ---     |
|          |         | 2441      | 2.92            | 3.75           | 77.87     | 1.09    | ---   | ---     |
|          |         | 2480      | 2.92            | 3.75           | 77.87     | 1.09    | ---   | ---     |
| 3DH5     | Ant1    | 2402      | 2.92            | 3.75           | 77.87     | 1.09    | ---   | ---     |
|          |         | 2441      | 2.92            | 3.75           | 77.87     | 1.09    | ---   | ---     |
|          |         | 2480      | 2.91            | 3.75           | 77.60     | 1.10    | ---   | ---     |

Test Graphs

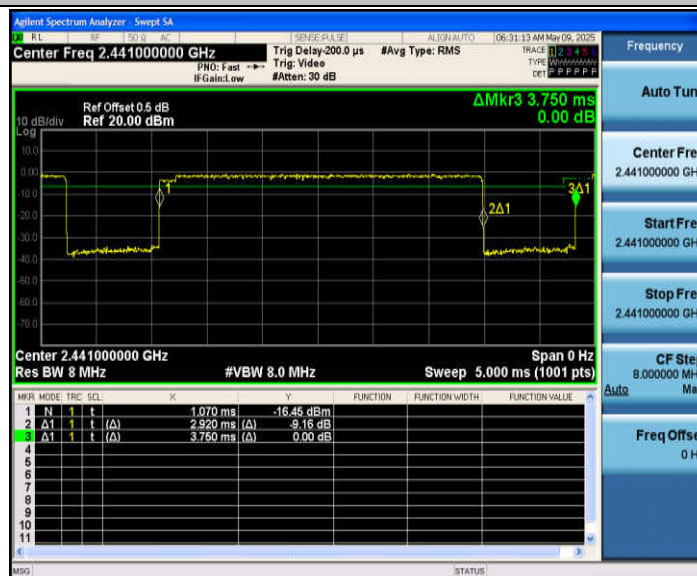




2DH5\_Ant1\_2402



2DH5\_Ant1\_2441



## 2DH5\_Ant1\_2480



## 3DH5\_Ant1\_2402



## 3DH5\_Ant1\_2441



3DH5\_Ant1\_2480

