

## Appendix Test Data for BT(BDR/EDR) (Conducted Measurement)

Product Name: TRUE WIRELESS EARBUDS

Trade Mark: N/A

Test Model: RT62

FCC ID: 2ATOY-RT62

### Environmental Conditions

|                    |           |
|--------------------|-----------|
| Temperature:       | 25.5°C    |
| Relative Humidity: | 55%       |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Anna Hu   |
| Supervised by:     | Hugo Chen |
| NOTE               | N/A       |

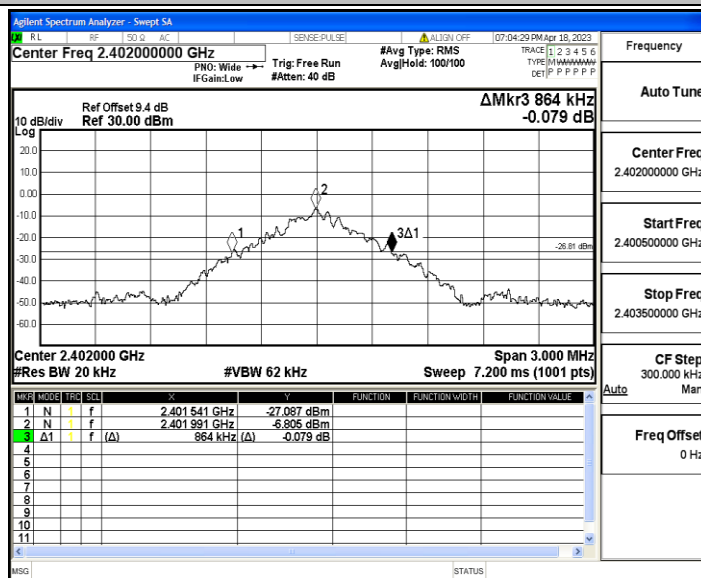
## Appendix A: 20dB Emission Bandwidth

### Test Result

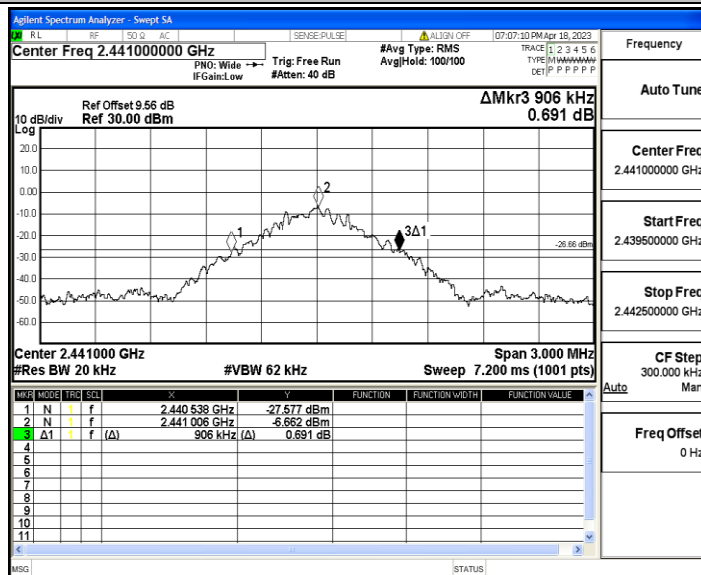
| TestMode | Antenna | Channel | 20db<br>EBW[MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|---------|------------------|----------|----------|------------|---------|
| DH5      | Ant1    | 2402    | 0.864            | 2401.541 | 2402.405 | ---        | ---     |
|          |         | 2441    | 0.906            | 2440.538 | 2441.444 | ---        | ---     |
|          |         | 2480    | 0.885            | 2479.544 | 2480.429 | ---        | ---     |
| 2DH5     | Ant1    | 2402    | 1.233            | 2401.376 | 2402.609 | ---        | ---     |
|          |         | 2441    | 1.284            | 2440.367 | 2441.651 | ---        | ---     |
|          |         | 2480    | 1.314            | 2479.340 | 2480.654 | ---        | ---     |
| 3DH5     | Ant1    | 2402    | 1.287            | 2401.349 | 2402.636 | ---        | ---     |
|          |         | 2441    | 1.260            | 2440.355 | 2441.615 | ---        | ---     |
|          |         | 2480    | 1.245            | 2479.367 | 2480.612 | ---        | ---     |

## Test Graphs

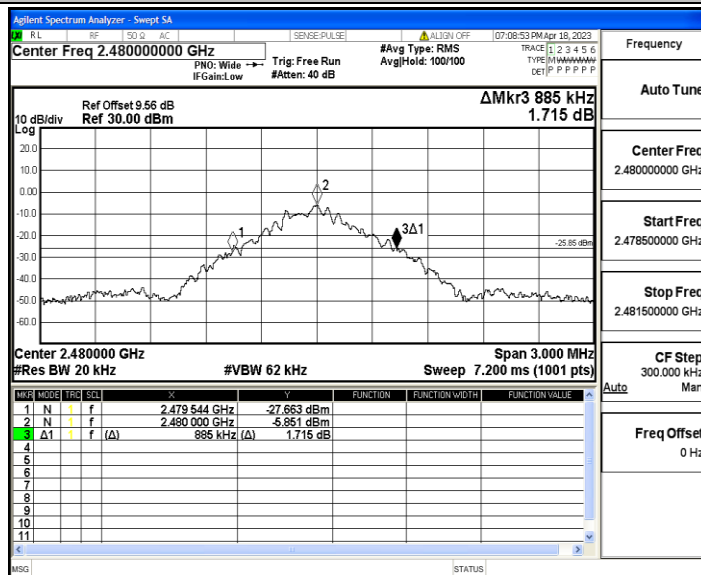
DH5\_Ant1\_2402



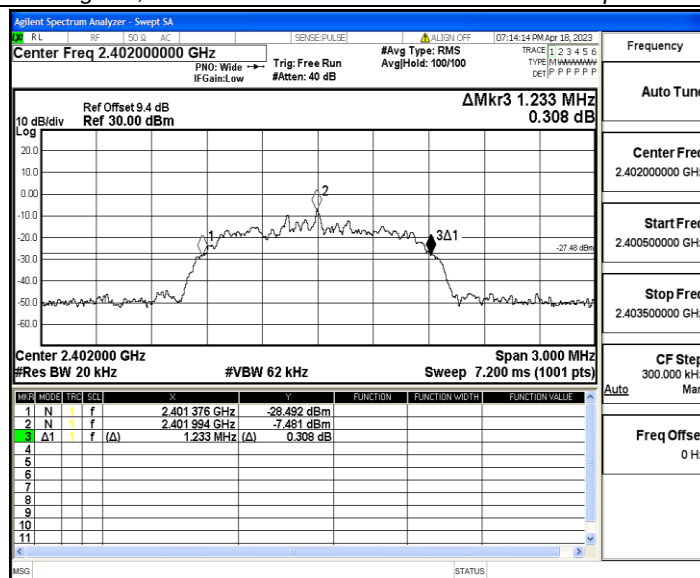
DH5\_Ant1\_2441



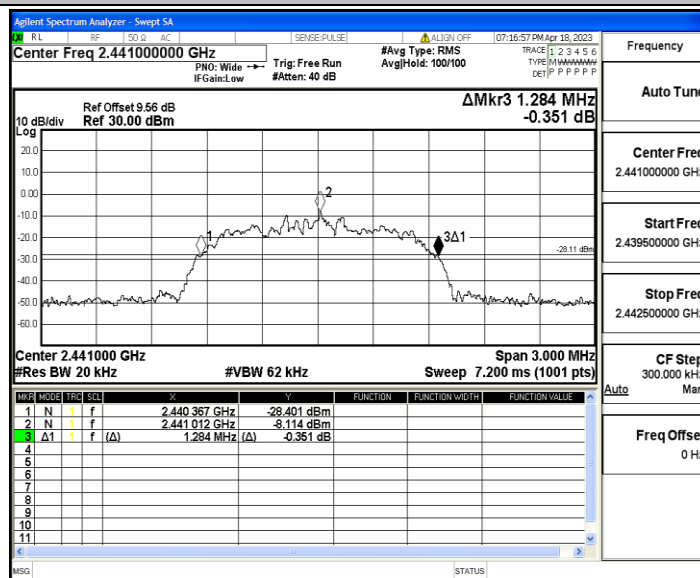
DH5\_Ant1\_2480



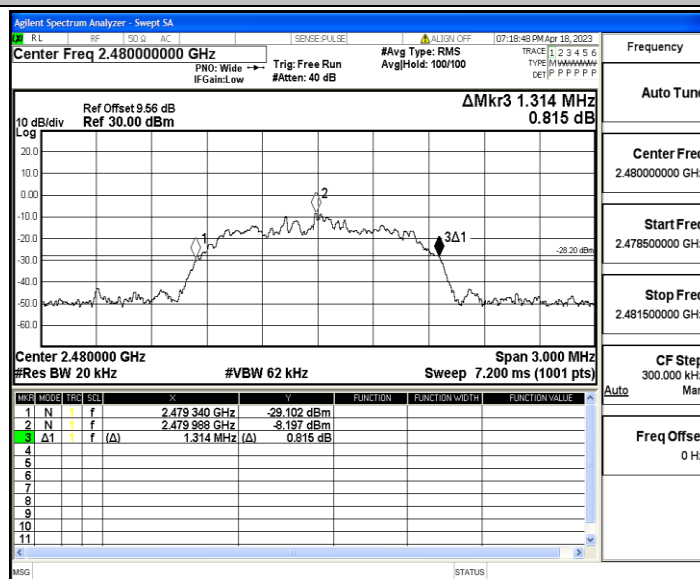
2DH5\_Ant1\_2402



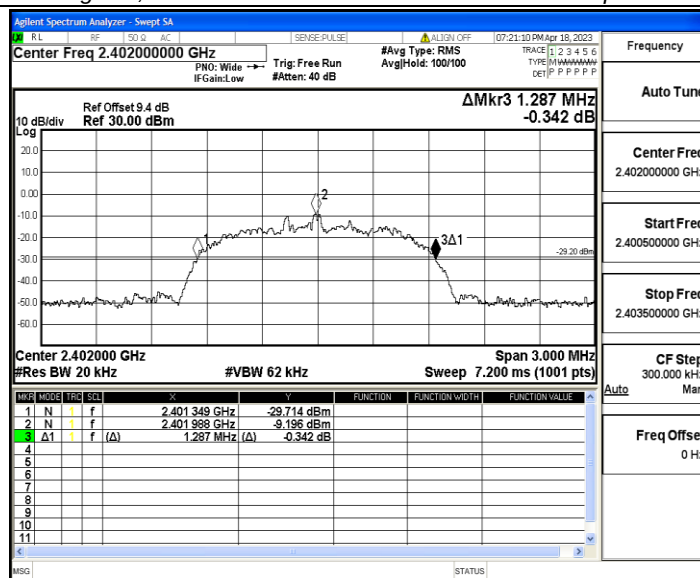
2DH5\_Ant1\_2441



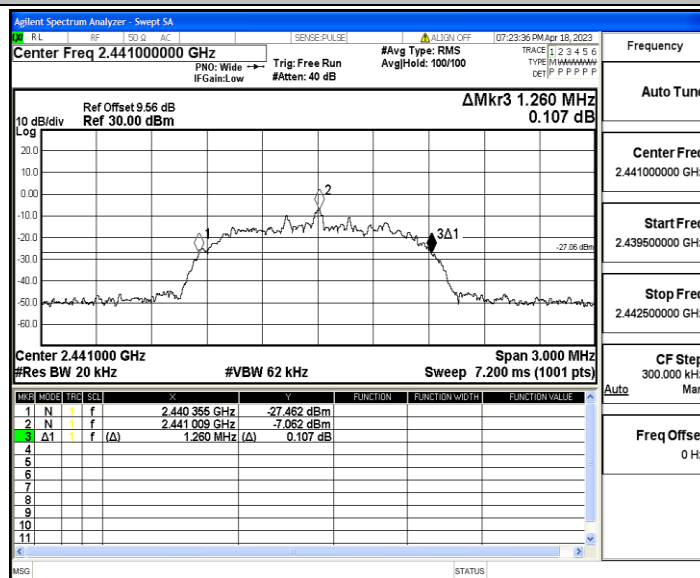
2DH5\_Ant1\_2480



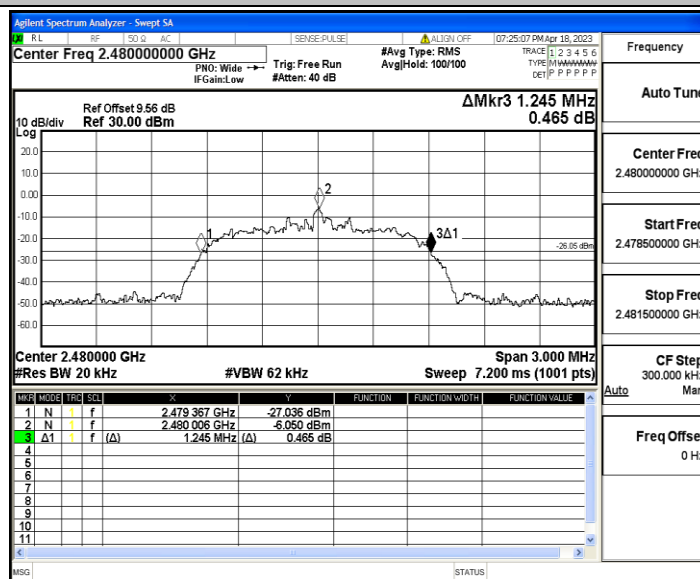
3DH5\_Ant1\_2402



## 3DH5\_Ant1\_2441



## 3DH5\_Ant1\_2480



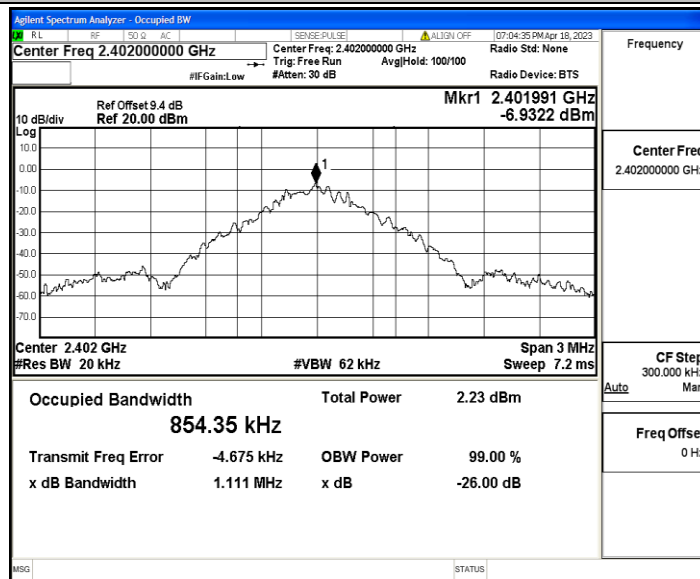
## Appendix B: Occupied Channel Bandwidth

### Test Result

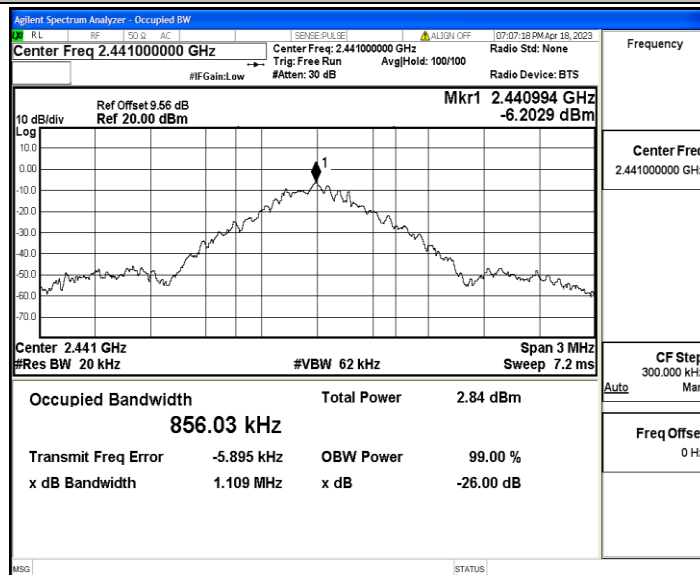
| TestMode | Antenna | Channel | OCB [MHz] | FL[MHz]   | FH[MHz]   | Limit[MHz] | Verdict |
|----------|---------|---------|-----------|-----------|-----------|------------|---------|
| DH5      | Ant1    | 2402    | 0.85435   | 2401.5682 | 2402.4225 | ---        | ---     |
|          |         | 2441    | 0.85603   | 2440.5661 | 2441.4221 | ---        | ---     |
|          |         | 2480    | 0.85772   | 2479.5659 | 2480.4237 | ---        | ---     |
| 2DH5     | Ant1    | 2402    | 1.1678    | 2401.4126 | 2402.5804 | ---        | ---     |
|          |         | 2441    | 1.1724    | 2440.4098 | 2441.5822 | ---        | ---     |
|          |         | 2480    | 1.1606    | 2479.4161 | 2480.5767 | ---        | ---     |
| 3DH5     | Ant1    | 2402    | 1.1811    | 2401.4003 | 2402.5814 | ---        | ---     |
|          |         | 2441    | 1.1808    | 2440.4038 | 2441.5846 | ---        | ---     |
|          |         | 2480    | 1.1780    | 2479.4054 | 2480.5834 | ---        | ---     |

## Test Graphs

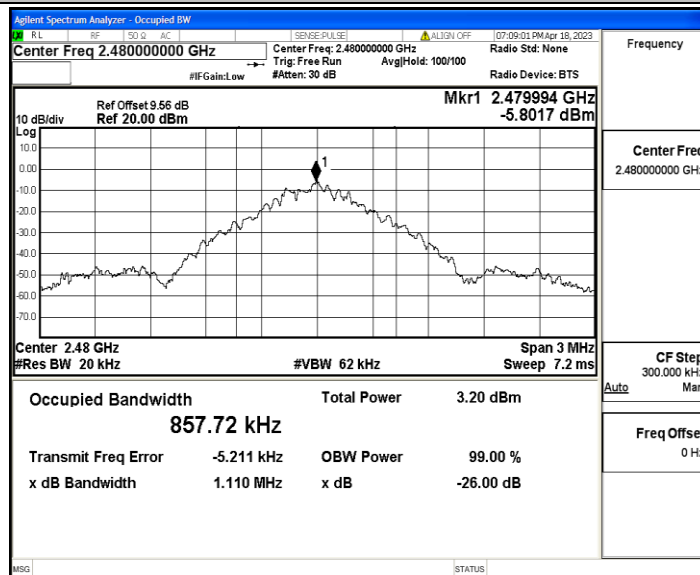
DH5\_Ant1\_2402



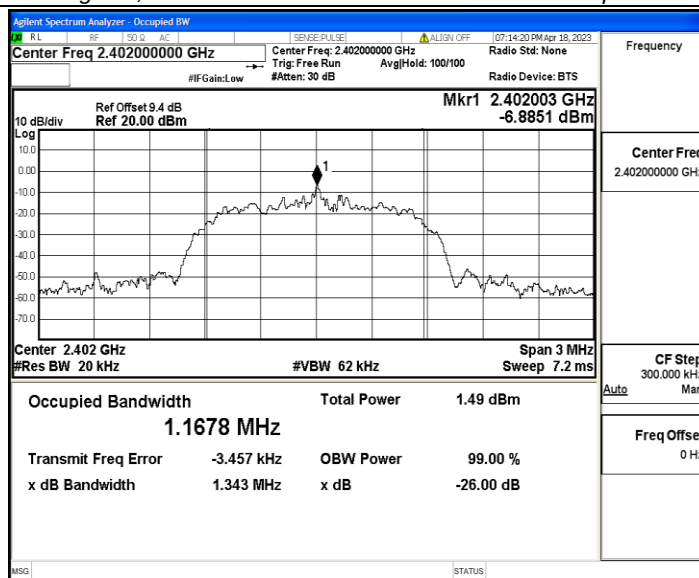
DH5\_Ant1\_2441



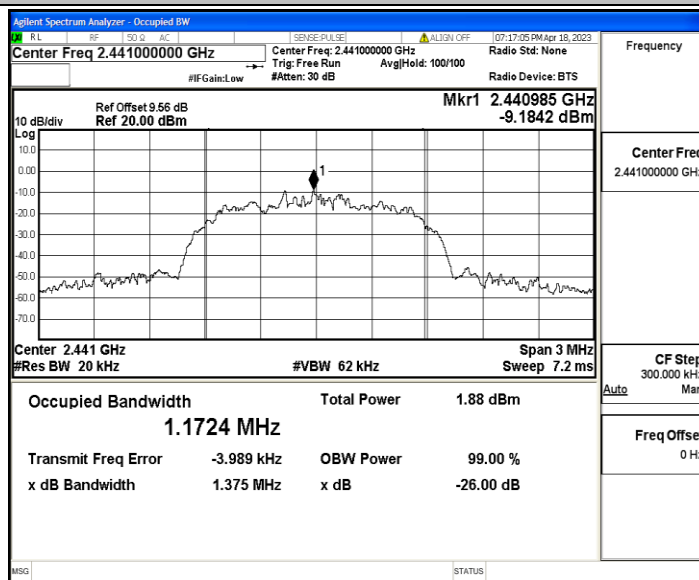
DH5\_Ant1\_2480



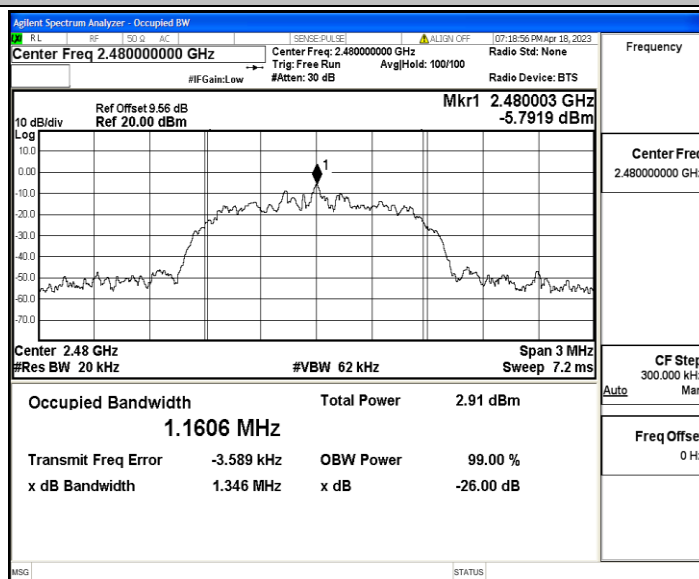
2DH5\_Ant1\_2402



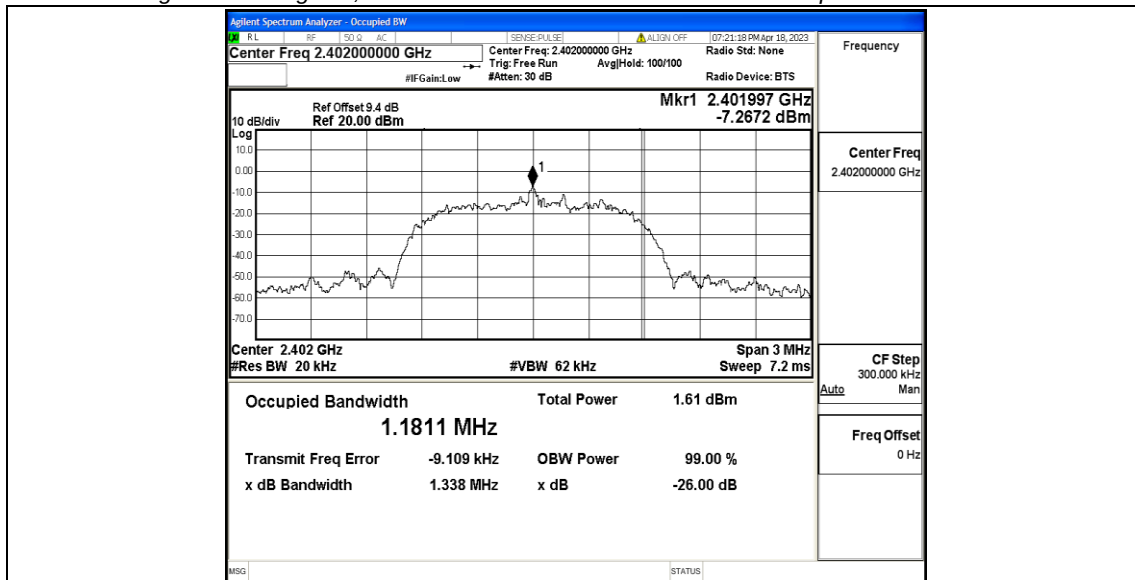
2DH5\_Ant1\_2441



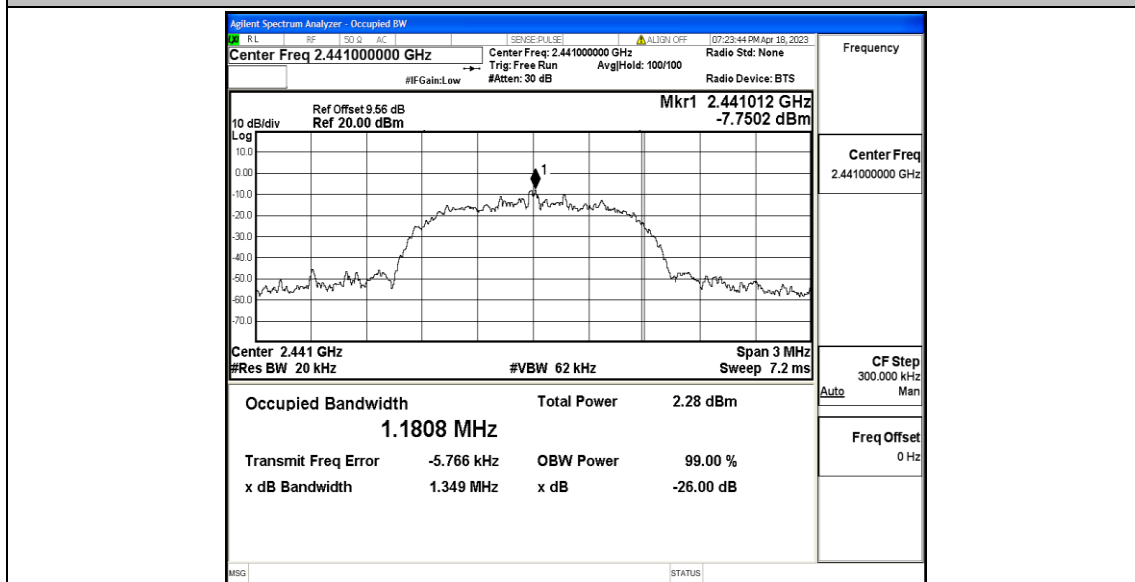
2DH5\_Ant1\_2480



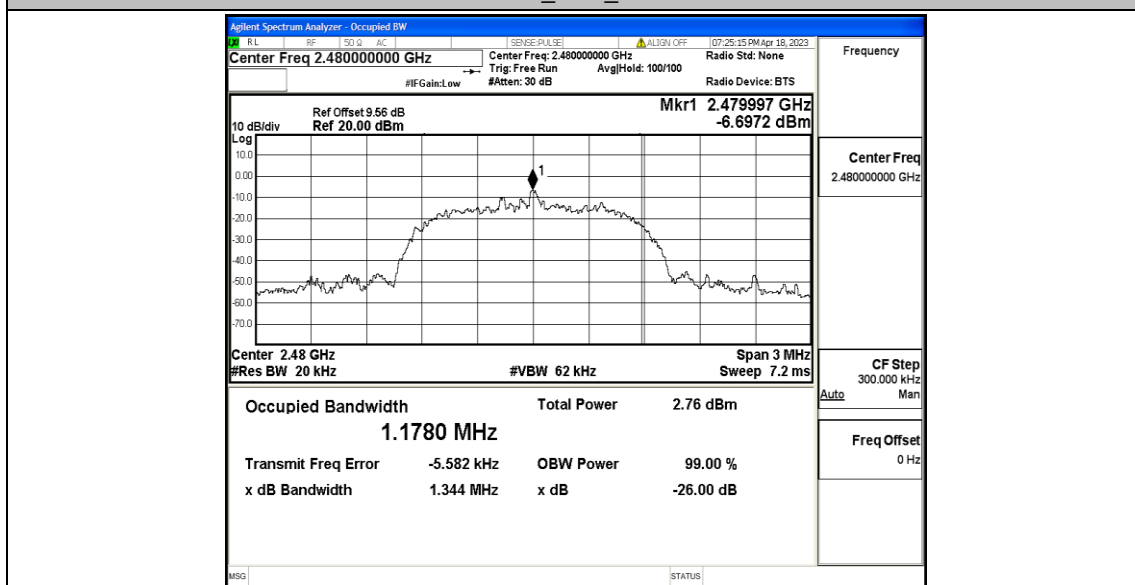
3DH5\_Ant1\_2402



## 3DH5\_Ant1\_2441



## 3DH5\_Ant1\_2480



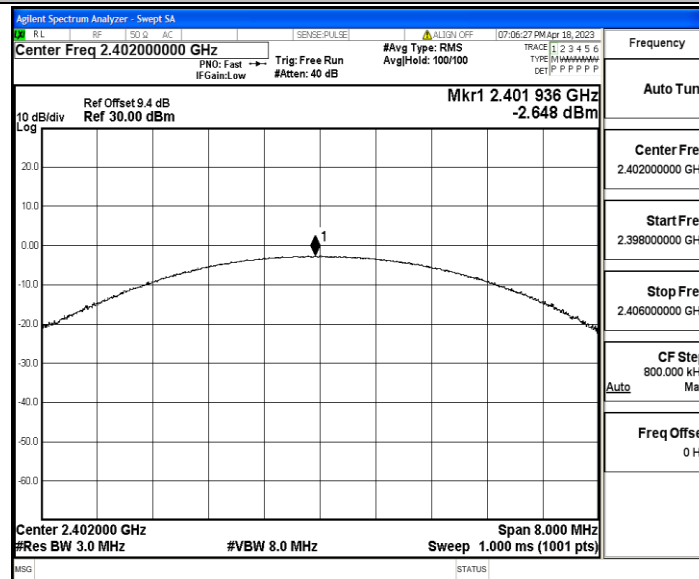
## Appendix C: Maximum Peak conducted output power

### Test Result

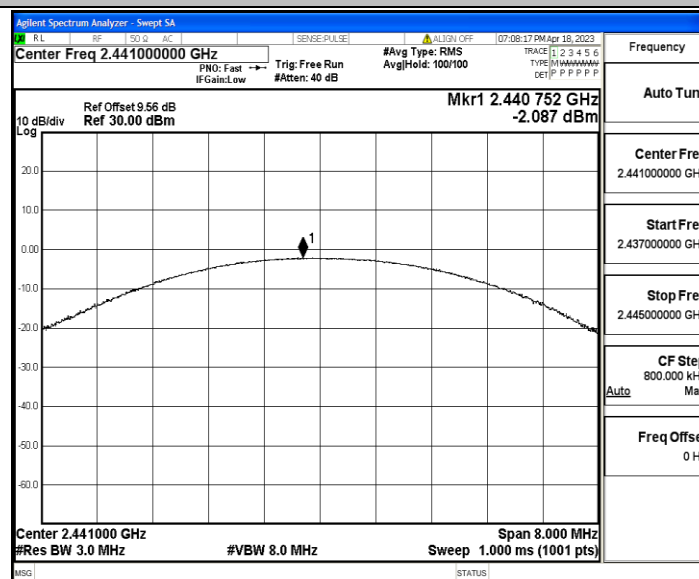
| TestMode | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|---------|-------------|------------|---------|
| DH5      | Ant1    | 2402    | -2.65       | ≤30        | PASS    |
|          |         | 2441    | -2.09       | ≤30        | PASS    |
|          |         | 2480    | -1.86       | ≤30        | PASS    |
| 2DH5     | Ant1    | 2402    | -2.41       | ≤20.97     | PASS    |
|          |         | 2441    | -1.88       | ≤20.97     | PASS    |
|          |         | 2480    | -1.45       | ≤20.97     | PASS    |
| 3DH5     | Ant1    | 2402    | -2.24       | ≤20.97     | PASS    |
|          |         | 2441    | -1.54       | ≤20.97     | PASS    |
|          |         | 2480    | -1.2        | ≤20.97     | PASS    |

## Test Graphs

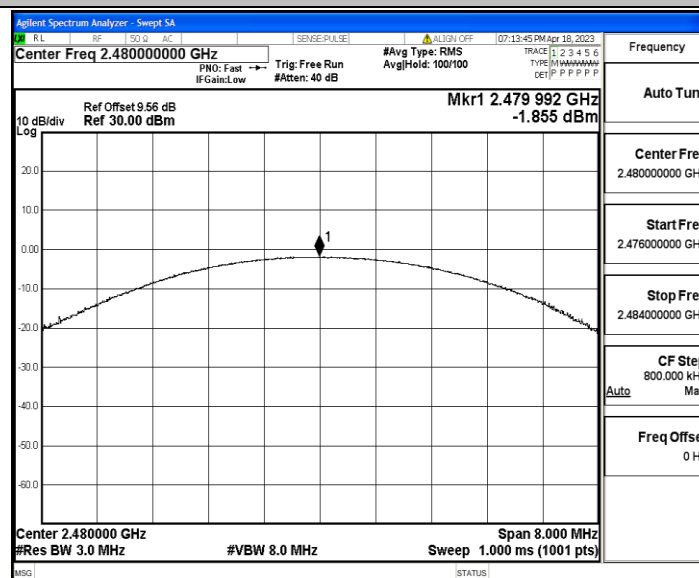
DH5\_Ant1\_2402



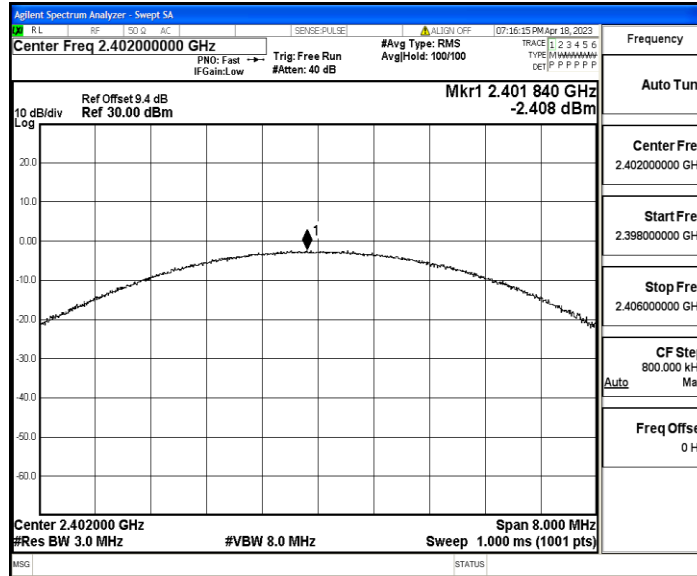
DH5\_Ant1\_2441



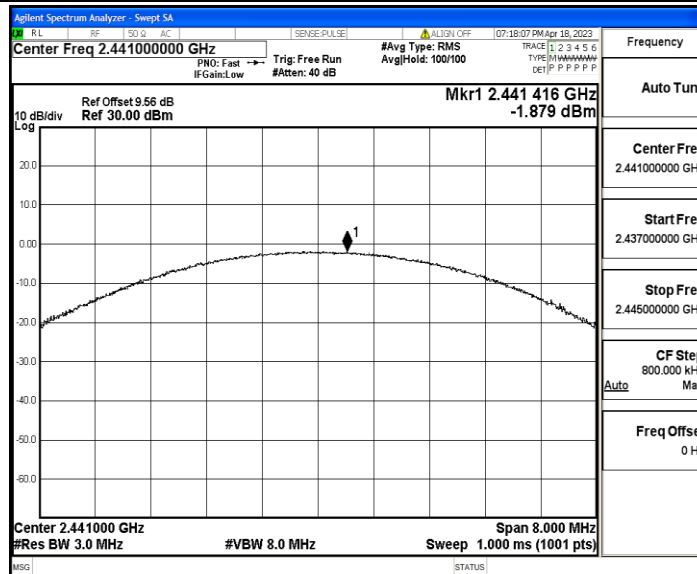
DH5\_Ant1\_2480



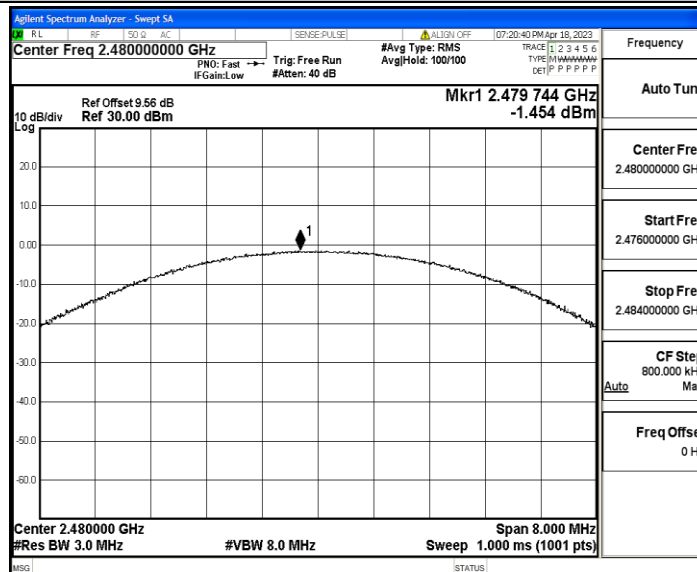
## 2DH5\_Ant1\_2402



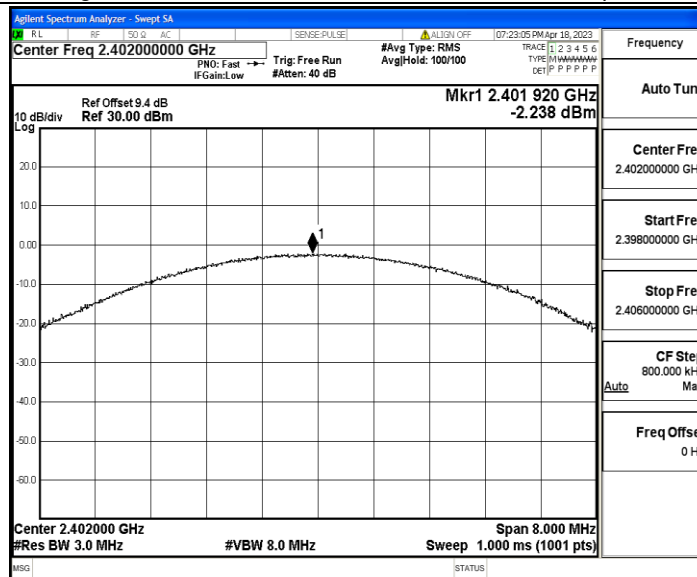
## 2DH5\_Ant1\_2441



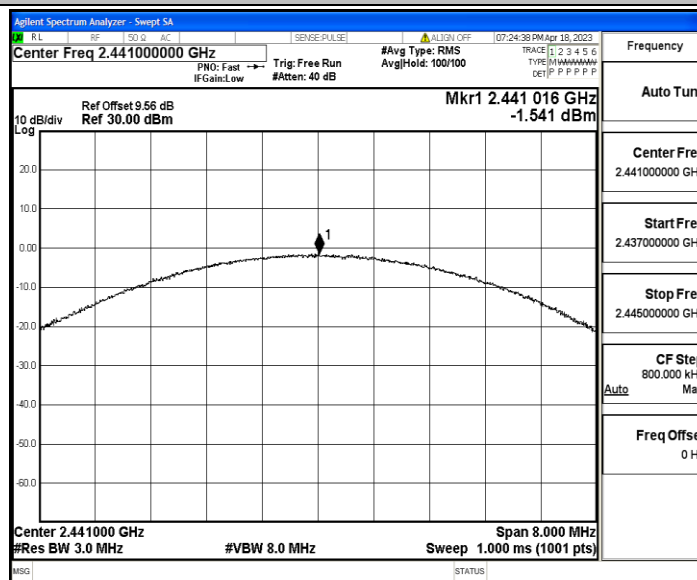
## 2DH5\_Ant1\_2480



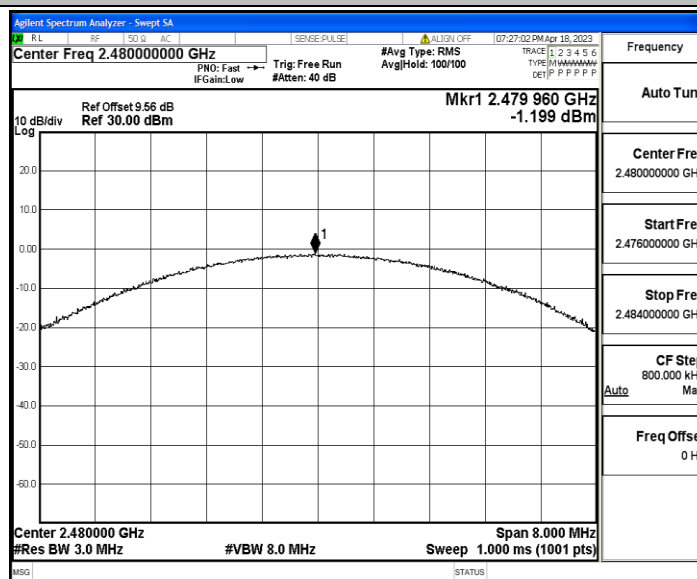
## 3DH5\_Ant1\_2402



3DH5\_Ant1\_2441



3DH5\_Ant1\_2480



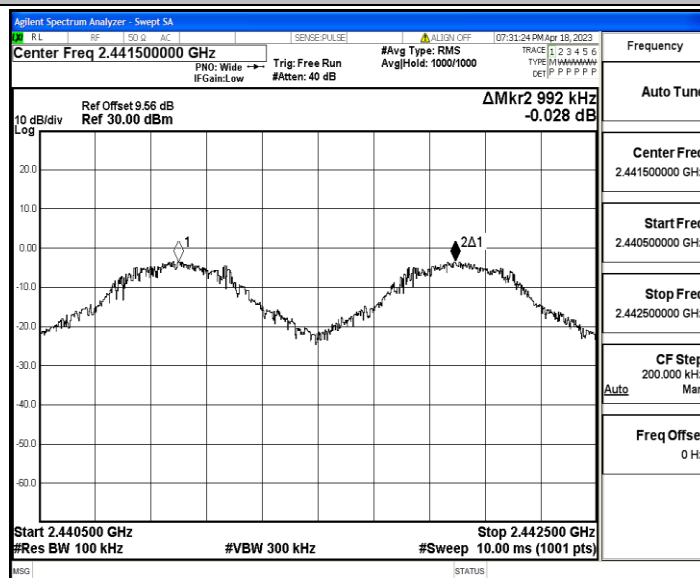
## Appendix D: Carrier frequency separation

### Test Result

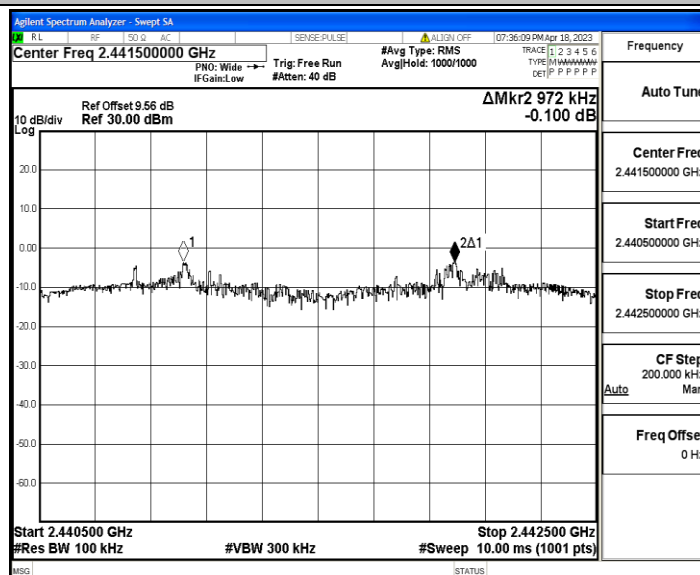
| TestMode | Antenna | Channel | Result[MHz] | Limit[MHz]   | Verdict |
|----------|---------|---------|-------------|--------------|---------|
| DH5      | Ant1    | Hop     | 0.992       | $\geq 0.906$ | PASS    |
| 2DH5     | Ant1    | Hop     | 0.972       | $\geq 0.876$ | PASS    |
| 3DH5     | Ant1    | Hop     | 1.002       | $\geq 0.858$ | PASS    |

## Test Graphs

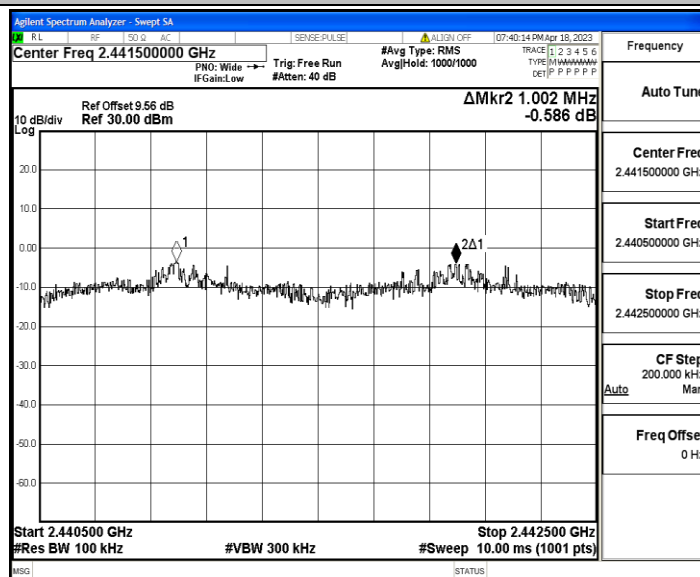
DH5\_Ant1\_Hop



2DH5\_Ant1\_Hop



3DH5\_Ant1\_Hop

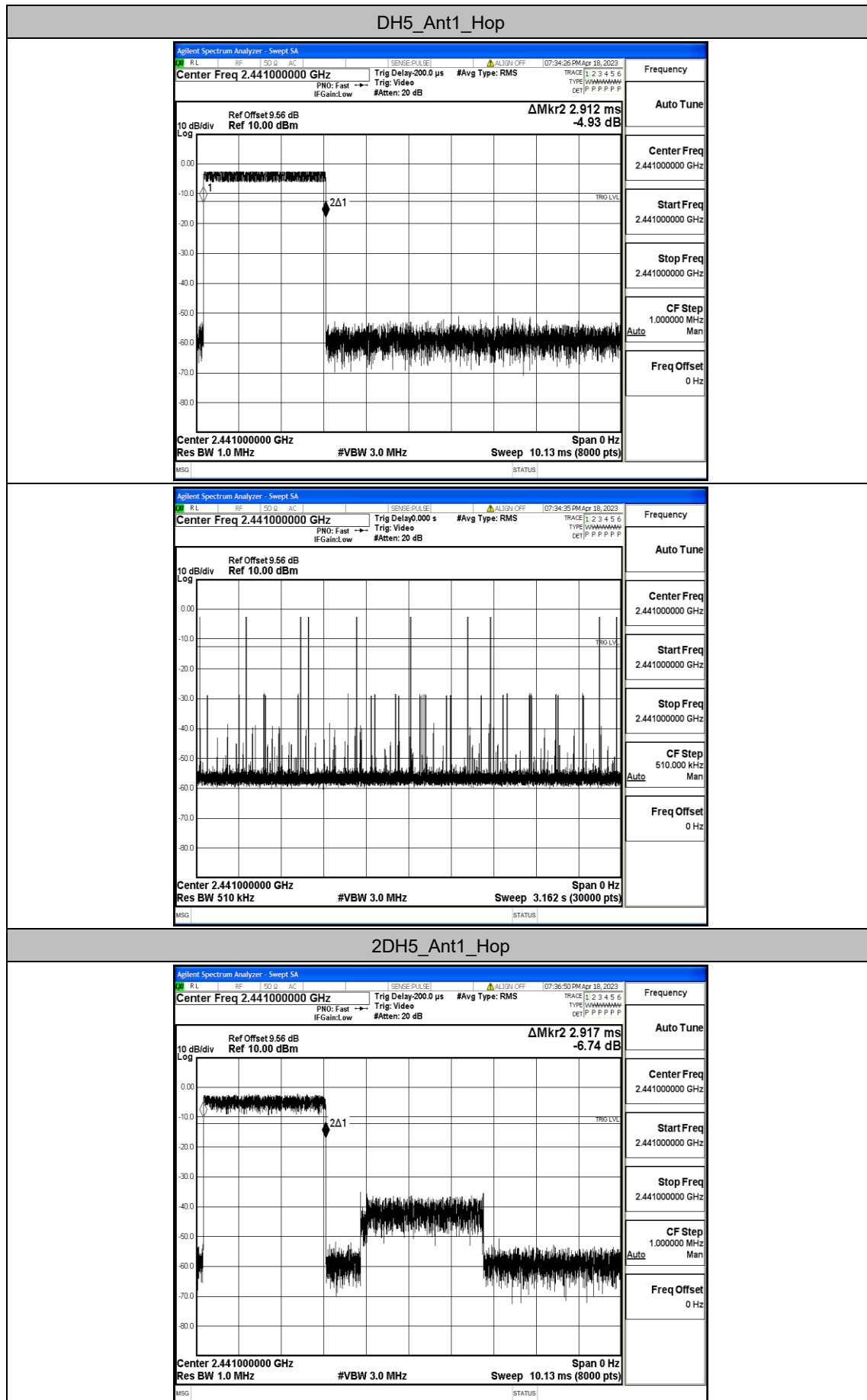


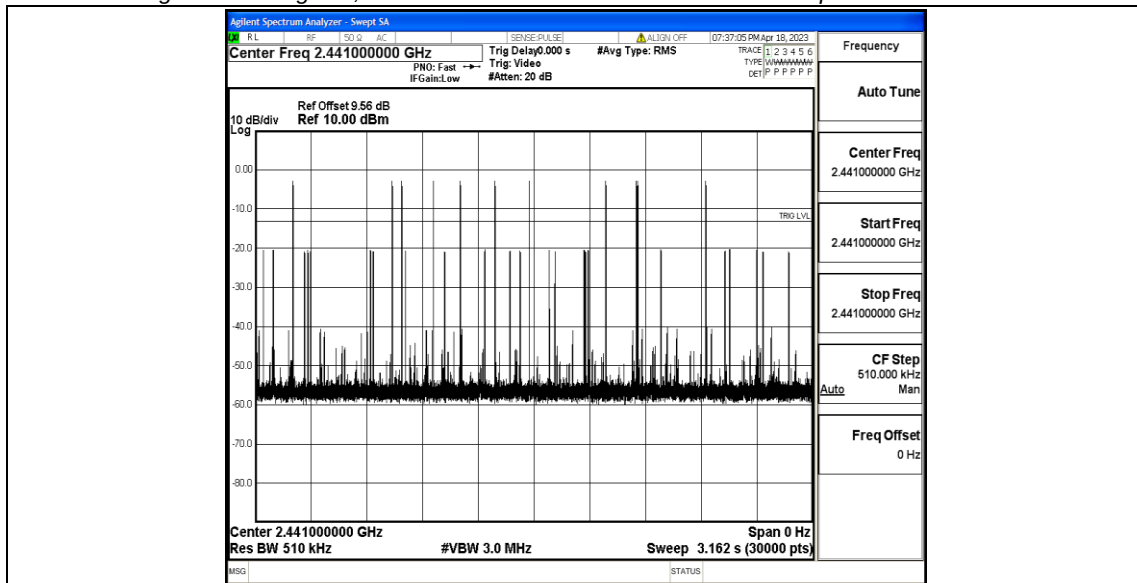
## Appendix E: Time of occupancy

### Test Result

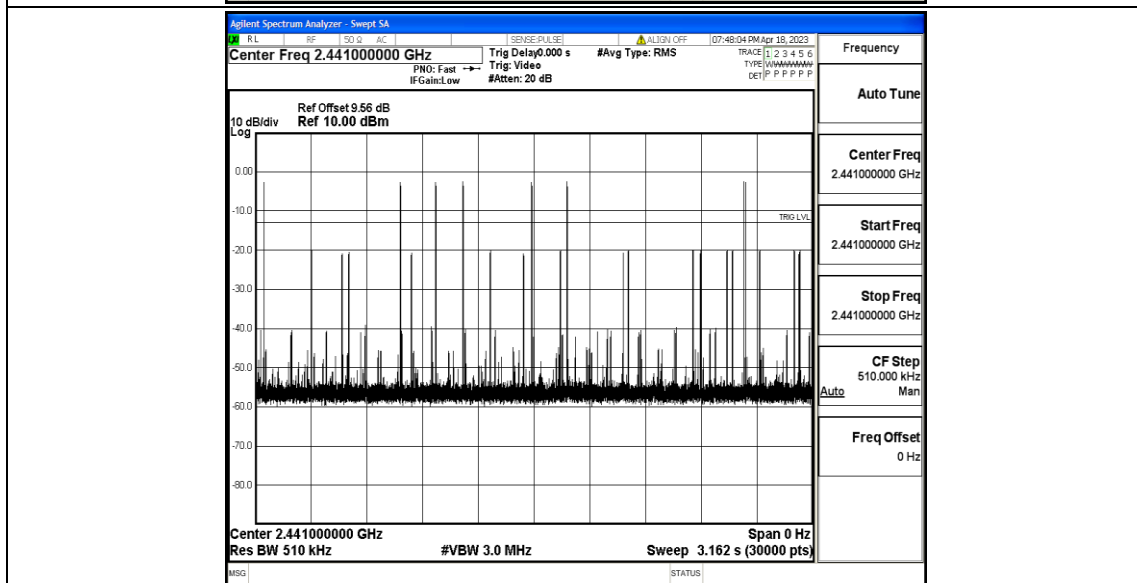
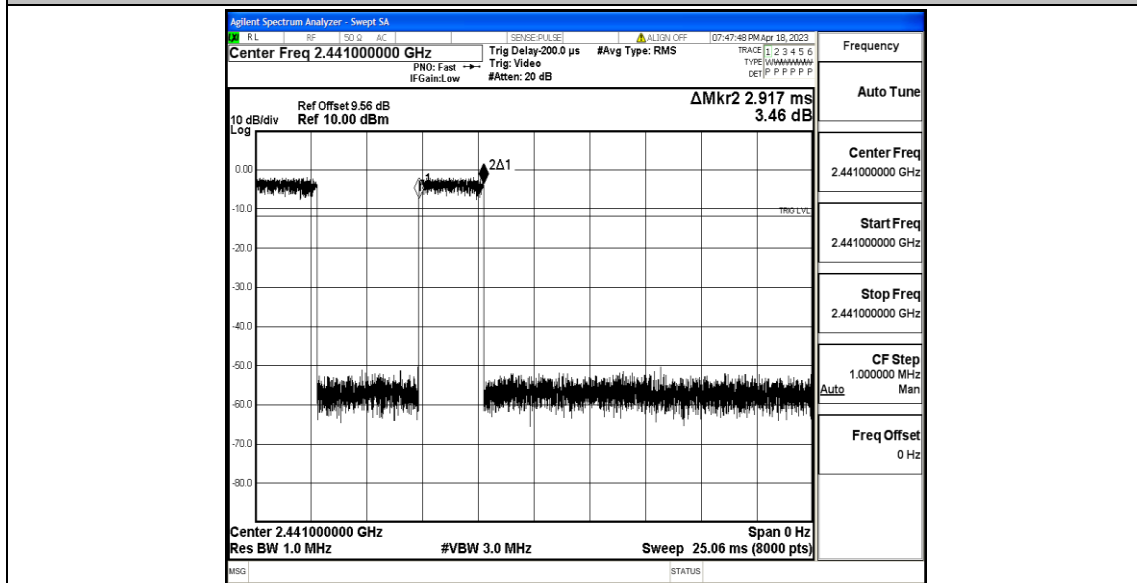
| TestMode | Antenna | Channel | BurstWidth<br>[ms] | TotalHops<br>[Num] | Result[s] | Limit[s] | Verdict |
|----------|---------|---------|--------------------|--------------------|-----------|----------|---------|
| DH5      | Ant1    | Hop     | 2.912              | 110                | 0.32      | ≤0.4     | PASS    |
| 2DH5     | Ant1    | Hop     | 2.917              | 120                | 0.35      | ≤0.4     | PASS    |
| 3DH5     | Ant1    | Hop     | 2.917              | 90                 | 0.263     | ≤0.4     | PASS    |

## Test Graphs





## 3DH5\_Ant1\_Hop

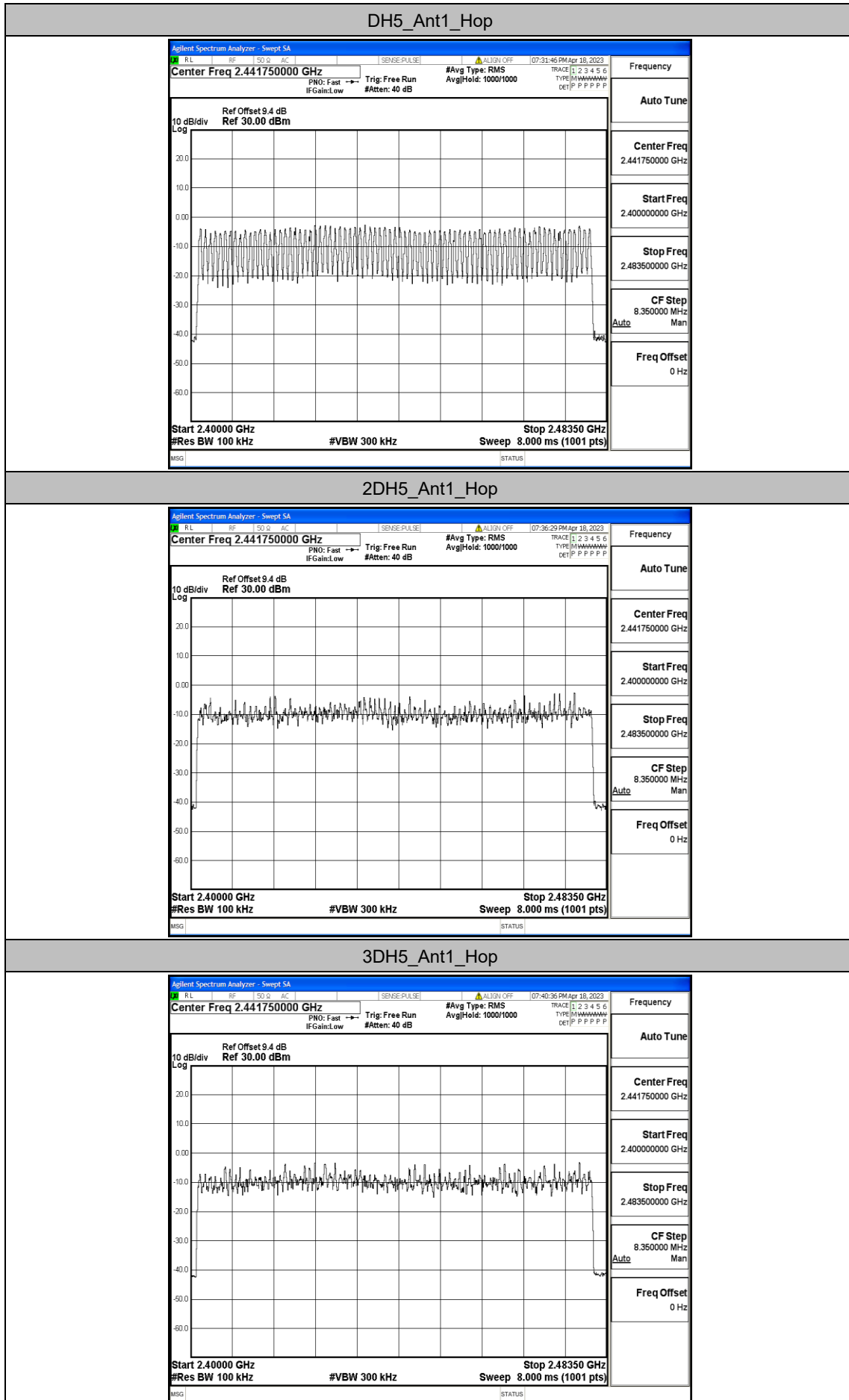


## Appendix F: Number of hopping channels

### Test Result

| TestMode | Antenna | Channel | 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



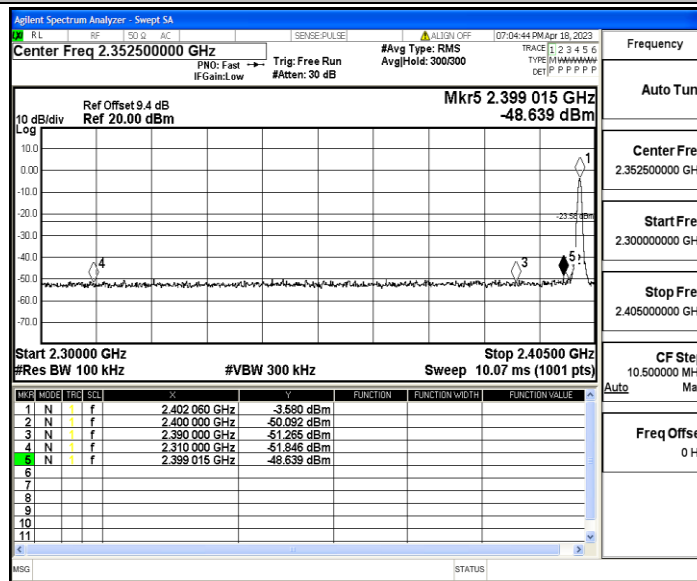
## Appendix G: Band edge measurements

### Test Result

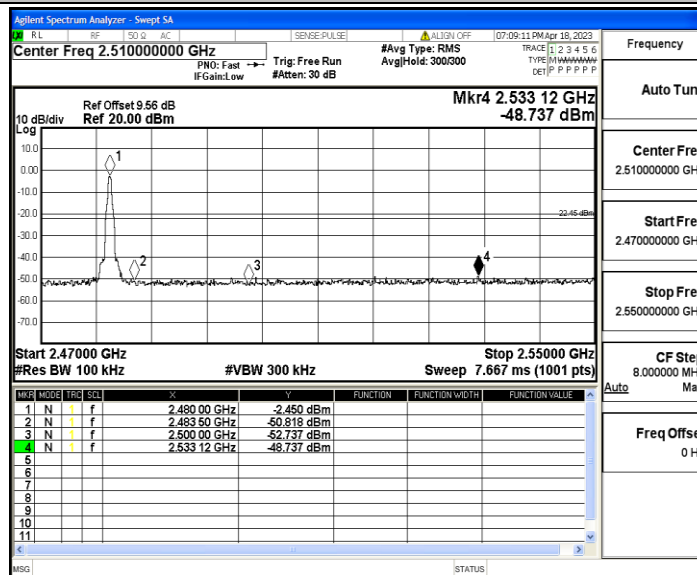
| TestMode | Antenna | ChName | Channel  | RefLevel<br>[dBm] | Result<br>[dBm] | Limit<br>[dBm] | Verdict |
|----------|---------|--------|----------|-------------------|-----------------|----------------|---------|
| DH5      | Ant1    | Low    | 2402     | -3.58             | -48.64          | $\leq -23.58$  | PASS    |
|          |         | High   | 2480     | -2.45             | -48.74          | $\leq -22.45$  | PASS    |
|          |         | Low    | Hop_2402 | -5.61             | -49.91          | $\leq -25.61$  | PASS    |
|          |         | High   | Hop_2480 | -3.69             | -49.34          | $\leq -23.69$  | PASS    |
| 2DH5     | Ant1    | Low    | 2402     | -4.86             | -50.01          | $\leq -24.86$  | PASS    |
|          |         | High   | 2480     | -2.77             | -48.52          | $\leq -22.77$  | PASS    |
|          |         | Low    | Hop_2402 | -8.76             | -50.17          | $\leq -28.76$  | PASS    |
|          |         | High   | Hop_2480 | -5.20             | -48.45          | $\leq -25.2$   | PASS    |
| 3DH5     | Ant1    | Low    | 2402     | -3.53             | -49.65          | $\leq -23.53$  | PASS    |
|          |         | High   | 2480     | -3.32             | -49.65          | $\leq -23.32$  | PASS    |
|          |         | Low    | Hop_2402 | -9.05             | -49.96          | $\leq -29.05$  | PASS    |
|          |         | High   | Hop_2480 | -3.34             | -48.9           | $\leq -23.34$  | PASS    |

## Test Graphs

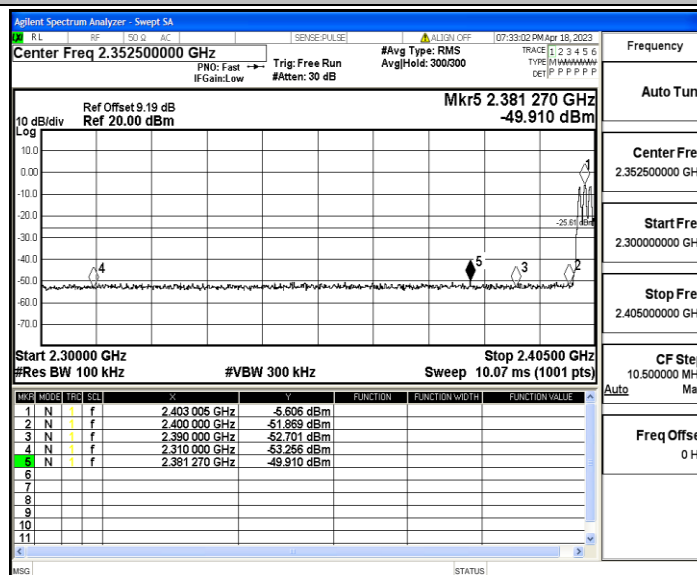
DH5\_Ant1\_Low\_2402



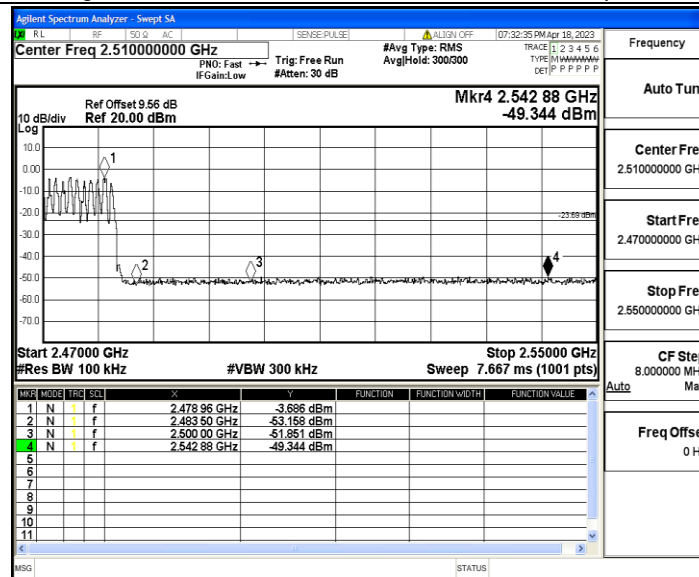
DH5\_Ant1\_High\_2480



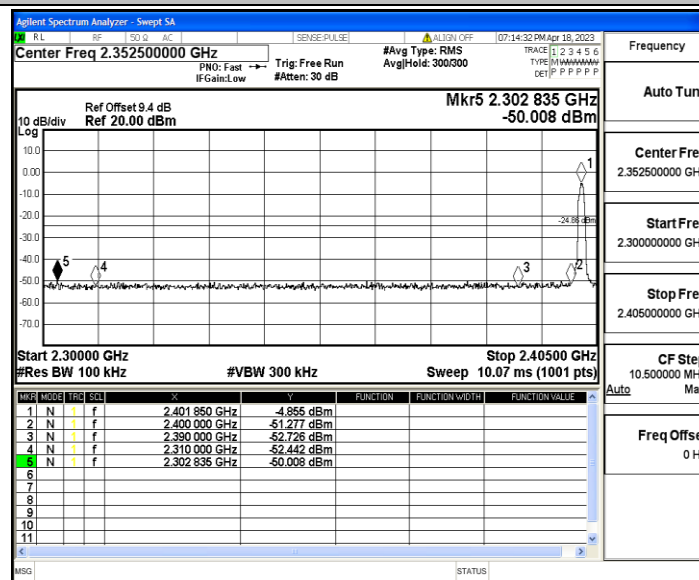
DH5\_Ant1\_Low\_Hop\_2402



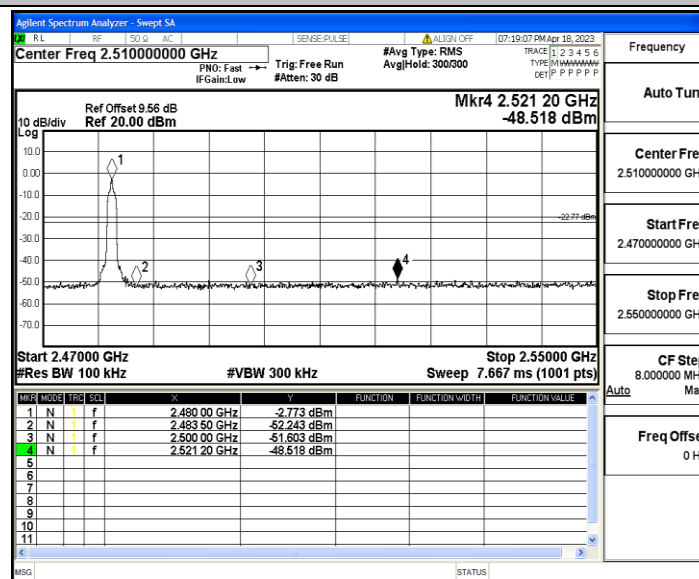
DH5\_Ant1\_High\_Hop\_2480



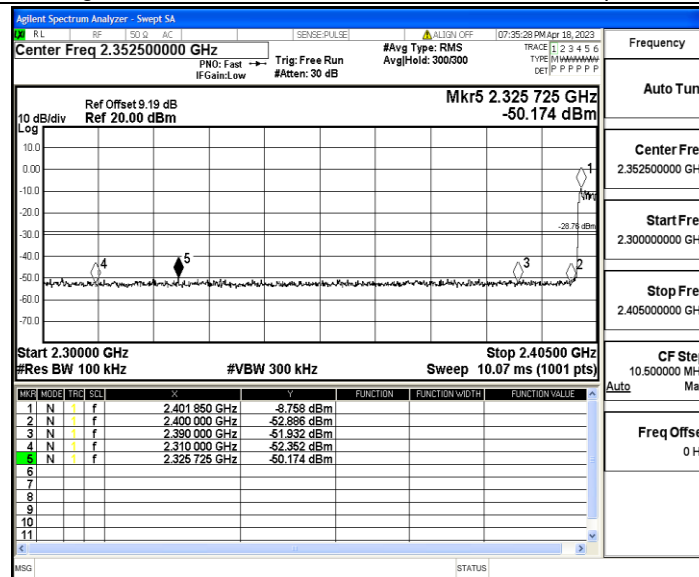
## 2DH5\_Ant1\_Low\_2402



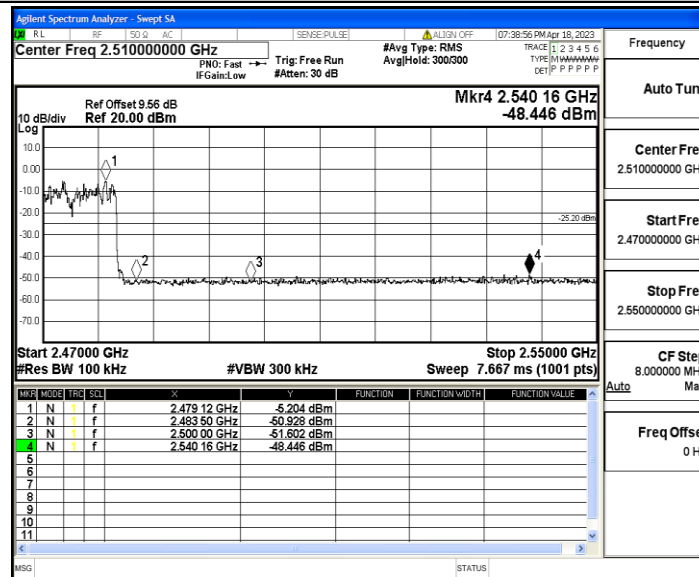
## 2DH5\_Ant1\_High\_2480



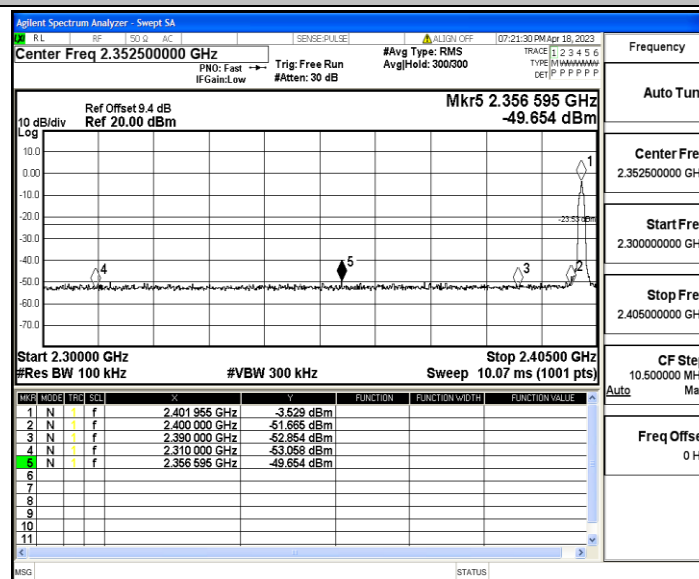
## 2DH5\_Ant1\_Low\_Hop\_2402



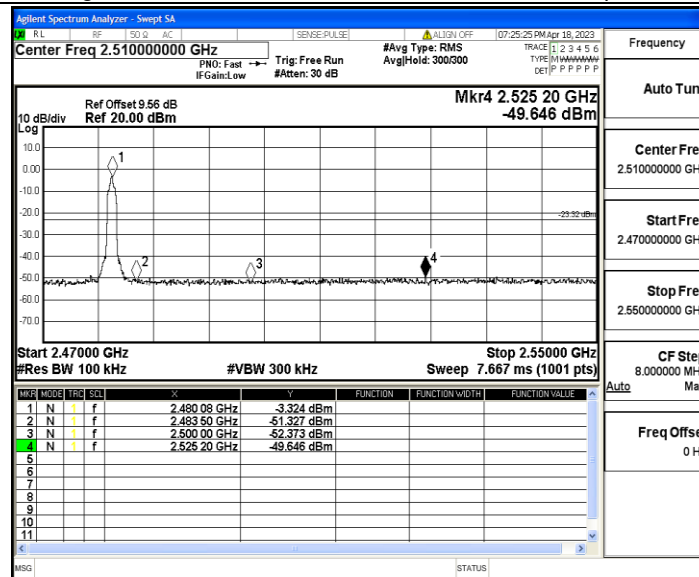
2DH5\_Ant1\_High\_Hop\_2480



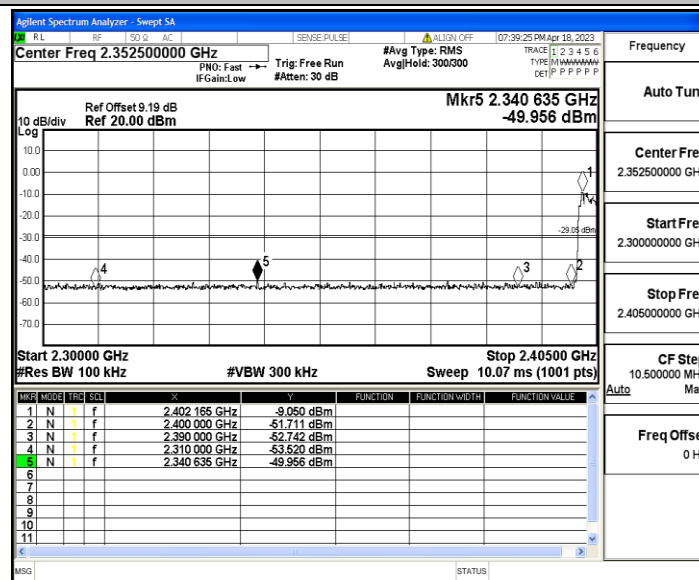
3DH5\_Ant1\_Low\_2402



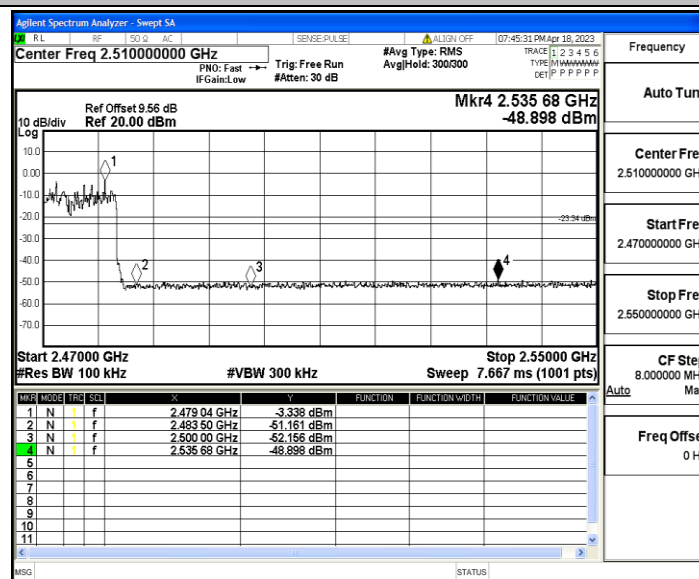
3DH5\_Ant1\_High\_2480



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



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



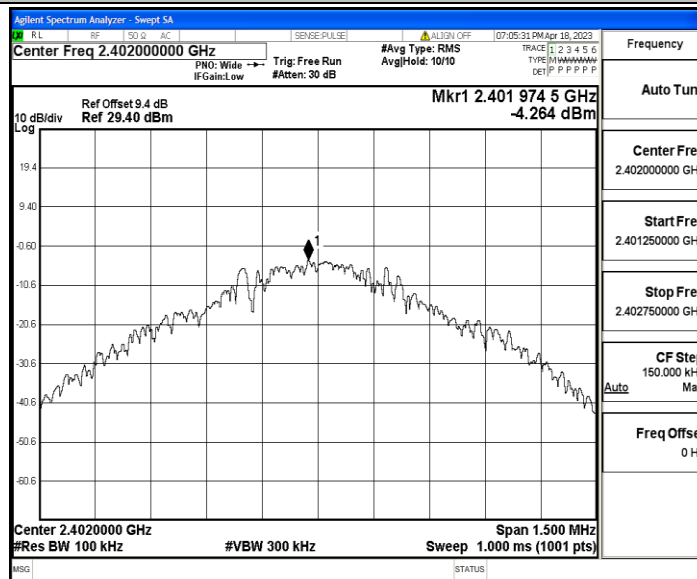
## Appendix H: Conducted Spurious Emission

### Test Result

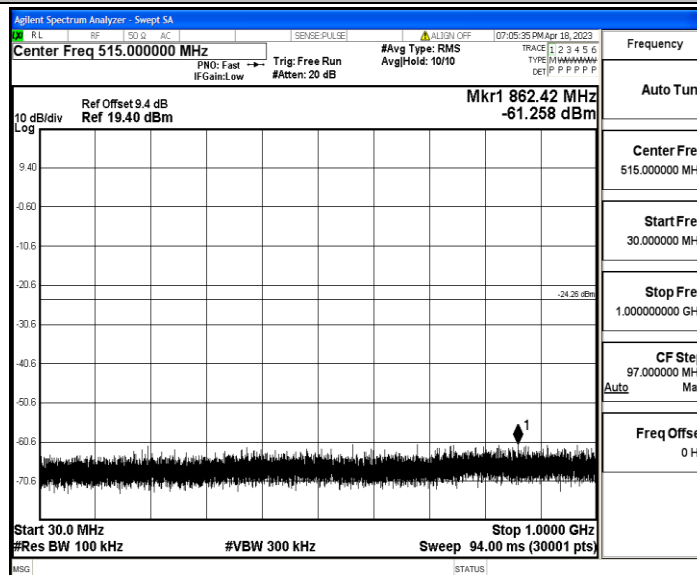
| TestMode | Antenna | Channel | FreqRange<br>[MHz] | RefLevel<br>[dBm] | Result<br>[dBm] | Limit<br>[dBm] | Verdict |
|----------|---------|---------|--------------------|-------------------|-----------------|----------------|---------|
| DH5      | Ant1    | 2402    | Reference          | -4.26             | -4.26           | ---            | PASS    |
|          |         |         | 30~1000            | -4.26             | -61.26          | ≤-24.26        | PASS    |
|          |         |         | 1000~26500         | -4.26             | -38.12          | ≤-24.26        | PASS    |
|          |         | 2441    | Reference          | -4.10             | -4.10           | ---            | PASS    |
|          |         |         | 30~1000            | -4.10             | -60.78          | ≤-24.1         | PASS    |
|          |         |         | 1000~26500         | -4.10             | -38.76          | ≤-24.1         | PASS    |
|          |         | 2480    | Reference          | -3.54             | -3.54           | ---            | PASS    |
|          |         |         | 30~1000            | -3.54             | -60.41          | ≤-23.54        | PASS    |
|          |         |         | 1000~26500         | -3.54             | -39.73          | ≤-23.54        | PASS    |
| 2DH5     | Ant1    | 2402    | Reference          | -6.18             | -6.18           | ---            | PASS    |
|          |         |         | 30~1000            | -6.18             | -61.33          | ≤-26.18        | PASS    |
|          |         |         | 1000~26500         | -6.18             | -38.17          | ≤-26.18        | PASS    |
|          |         | 2441    | Reference          | -5.79             | -5.79           | ---            | PASS    |
|          |         |         | 30~1000            | -5.79             | -60.85          | ≤-25.79        | PASS    |
|          |         |         | 1000~26500         | -5.79             | -43.42          | ≤-25.79        | PASS    |
|          |         | 2480    | Reference          | -5.98             | -5.98           | ---            | PASS    |
|          |         |         | 30~1000            | -5.98             | -60.78          | ≤-25.98        | PASS    |
|          |         |         | 1000~26500         | -5.98             | -43.61          | ≤-25.98        | PASS    |
| 3DH5     | Ant1    | 2402    | Reference          | -7.96             | -7.96           | ---            | PASS    |
|          |         |         | 30~1000            | -7.96             | -60.7           | ≤-27.96        | PASS    |
|          |         |         | 1000~26500         | -7.96             | -36.45          | ≤-27.96        | PASS    |
|          |         | 2441    | Reference          | -7.08             | -7.08           | ---            | PASS    |
|          |         |         | 30~1000            | -7.08             | -60.46          | ≤-27.08        | PASS    |
|          |         |         | 1000~26500         | -7.08             | -37.31          | ≤-27.08        | PASS    |
|          |         | 2480    | Reference          | -6.29             | -6.29           | ---            | PASS    |
|          |         |         | 30~1000            | -6.29             | -59.44          | ≤-26.29        | PASS    |
|          |         |         | 1000~26500         | -6.29             | -42.32          | ≤-26.29        | PASS    |

## Test Graphs

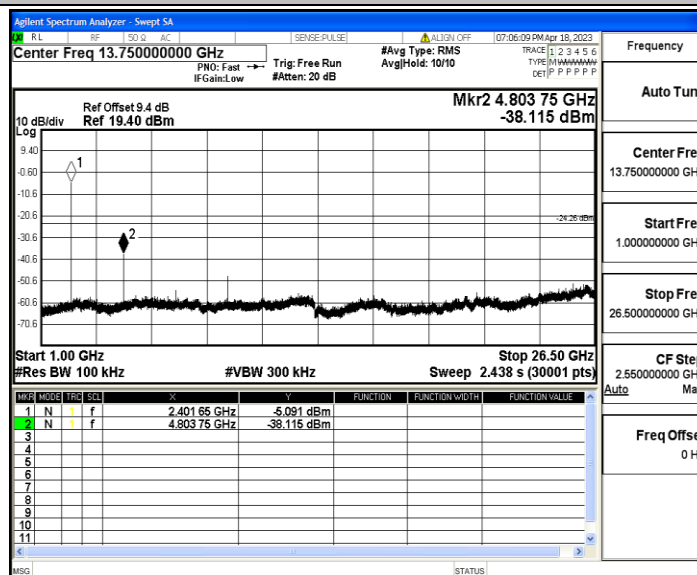
DH5\_Ant1\_2402\_0~Reference



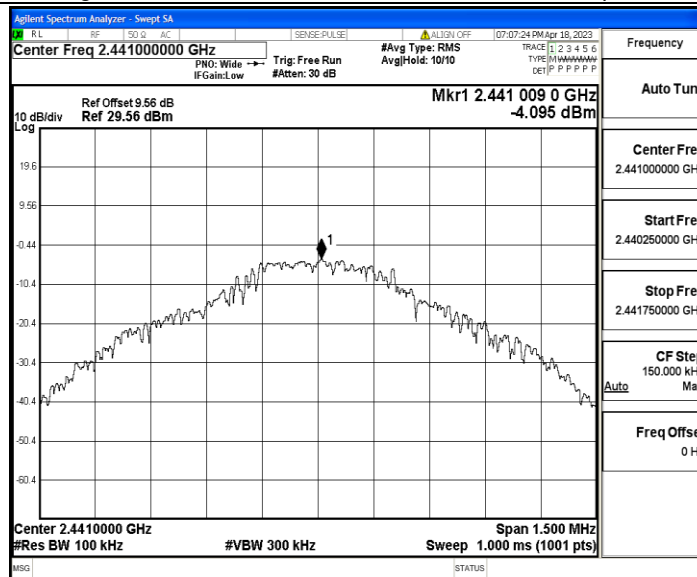
DH5\_Ant1\_2402\_30~1000



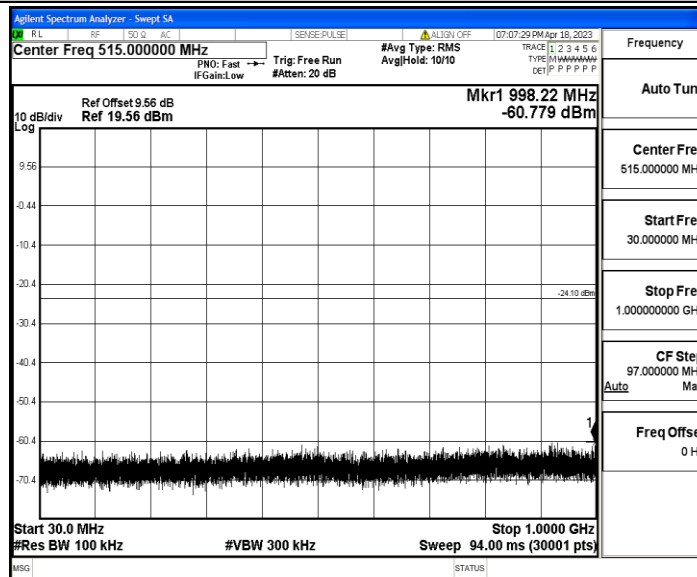
DH5\_Ant1\_2402\_1000~26500



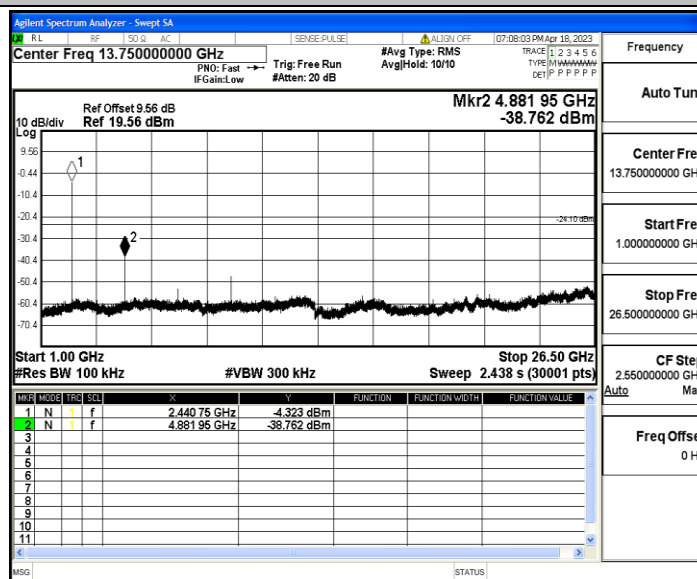
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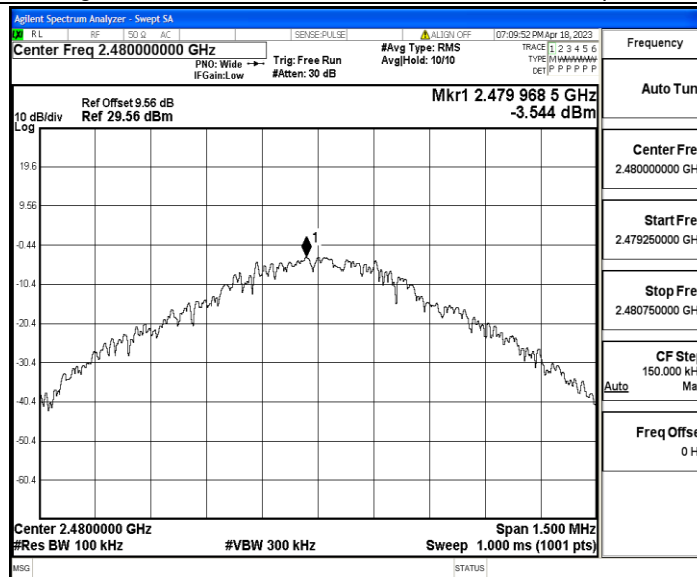
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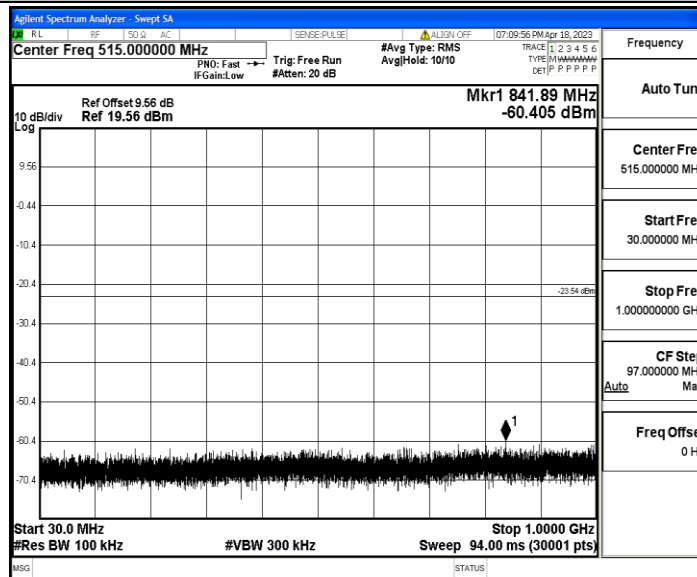
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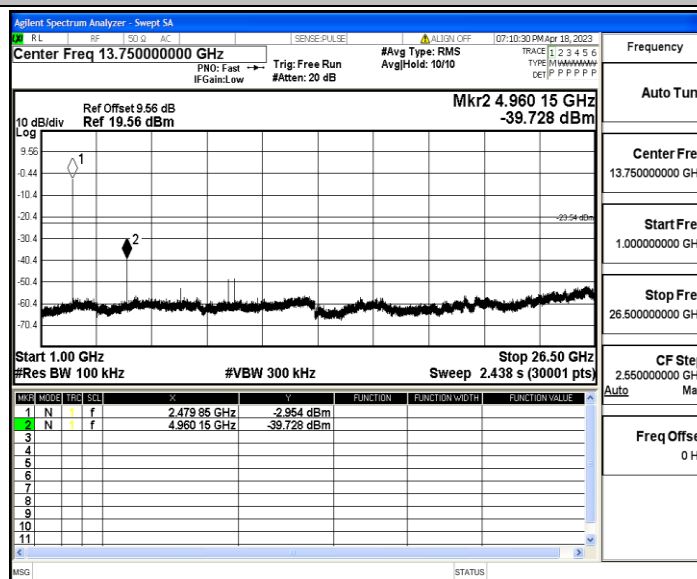
DH5\_Ant1\_2480\_0~Reference



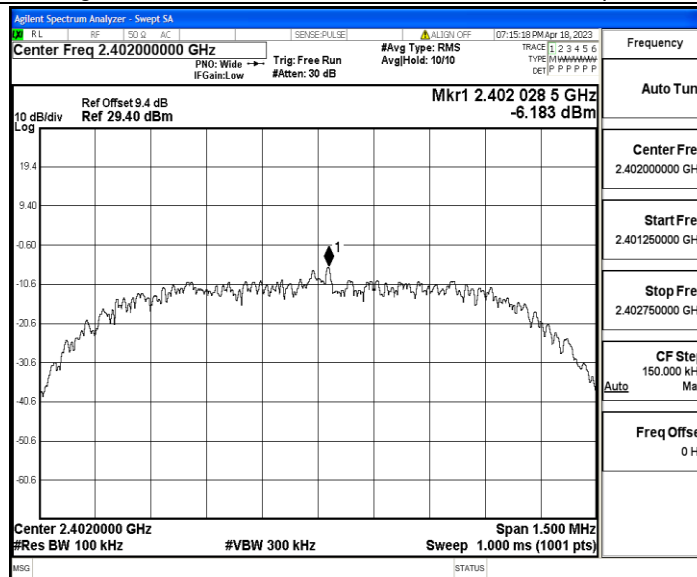
DH5\_Ant1\_2480\_30~1000



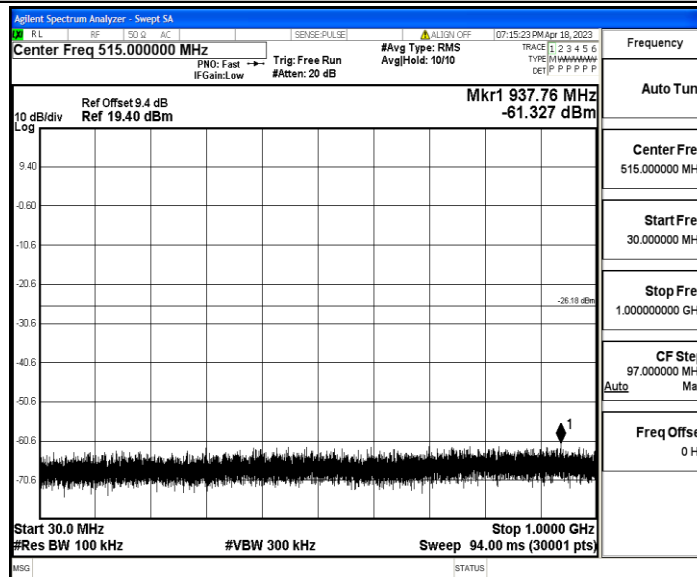
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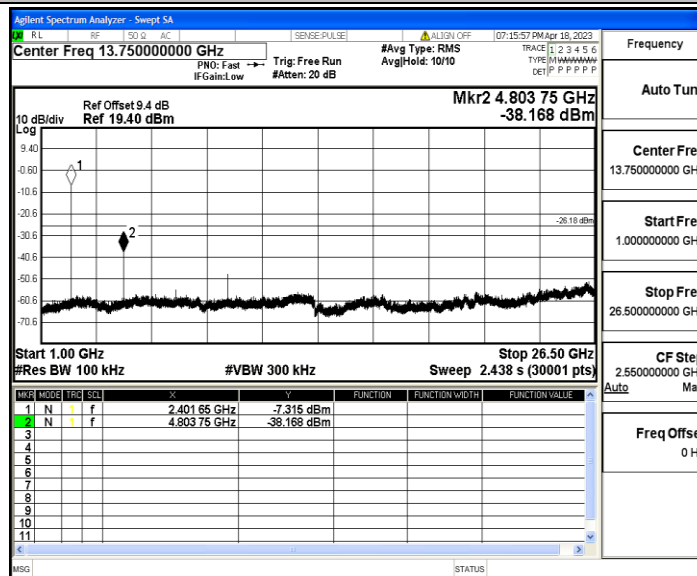
2DH5\_Ant1\_2402\_0~Reference



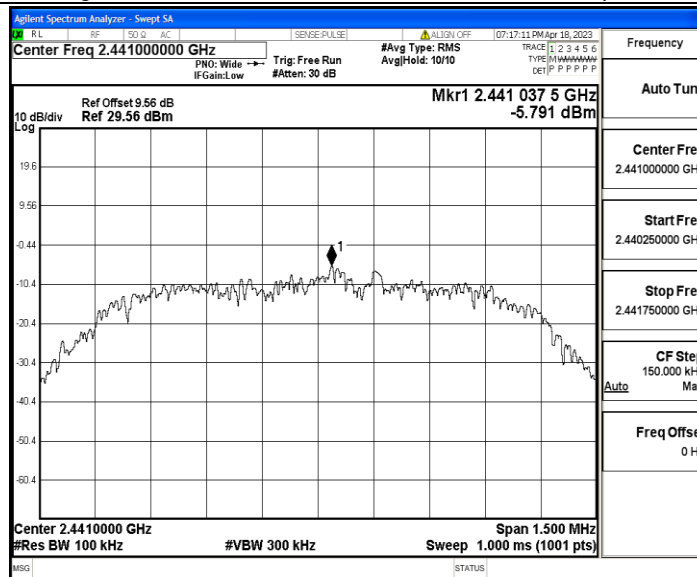
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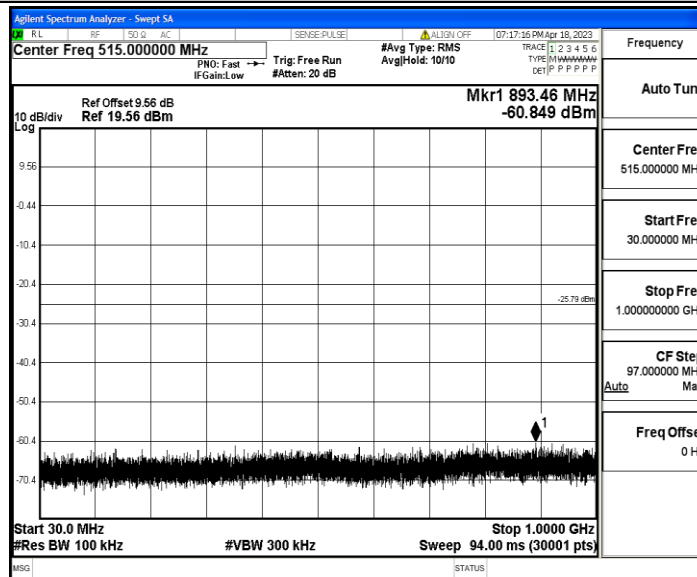
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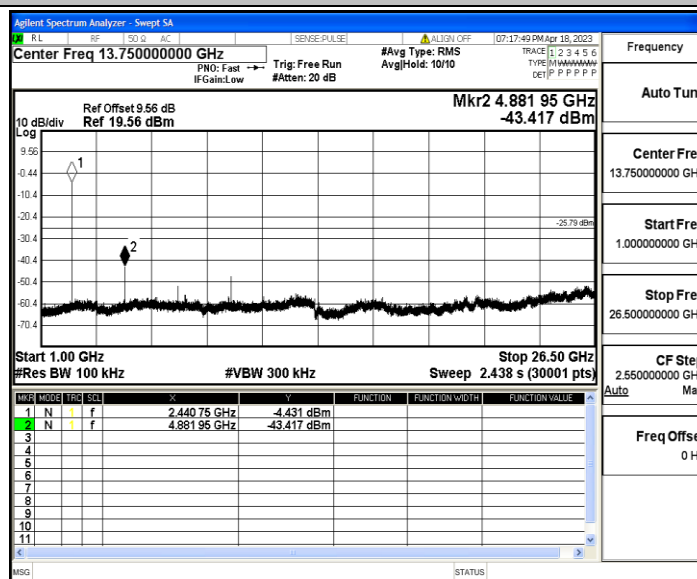
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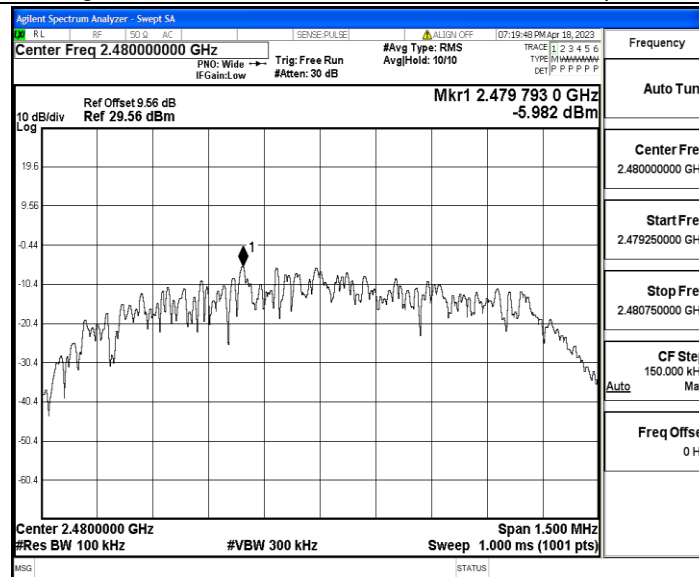
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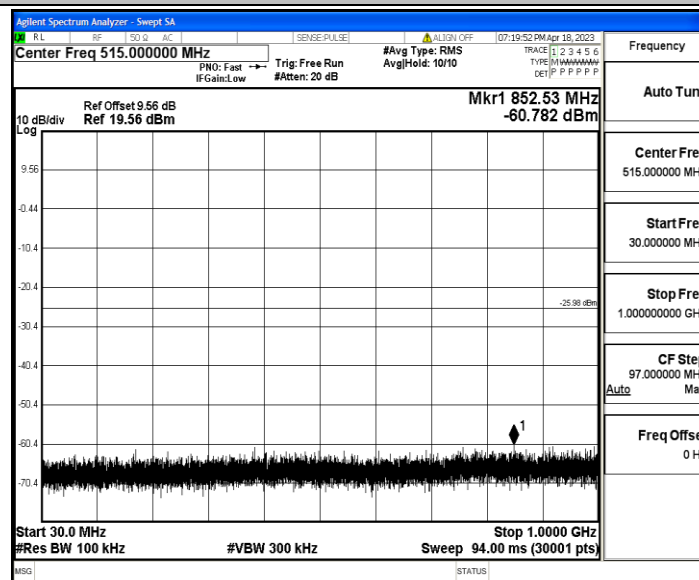
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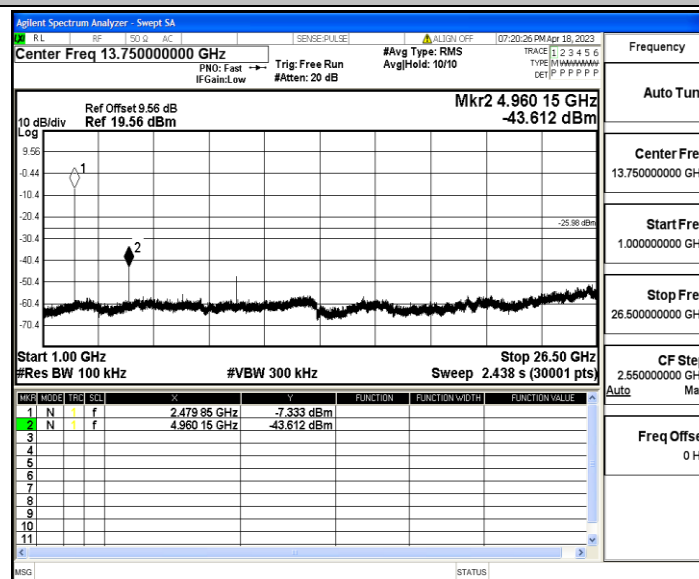
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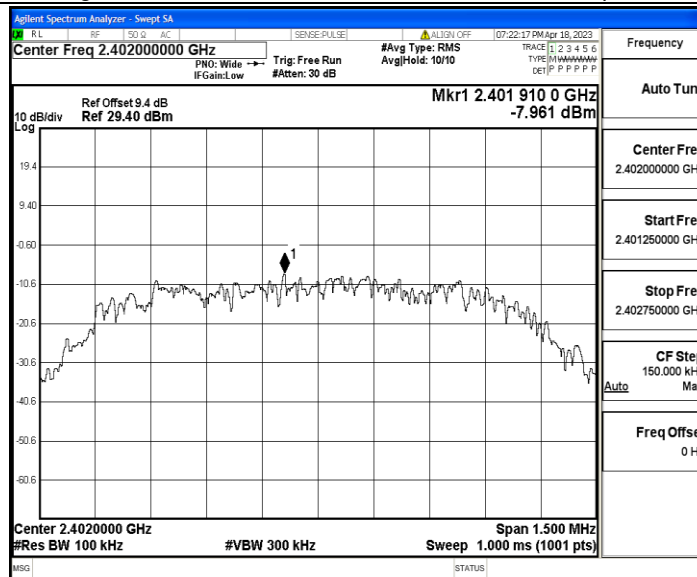
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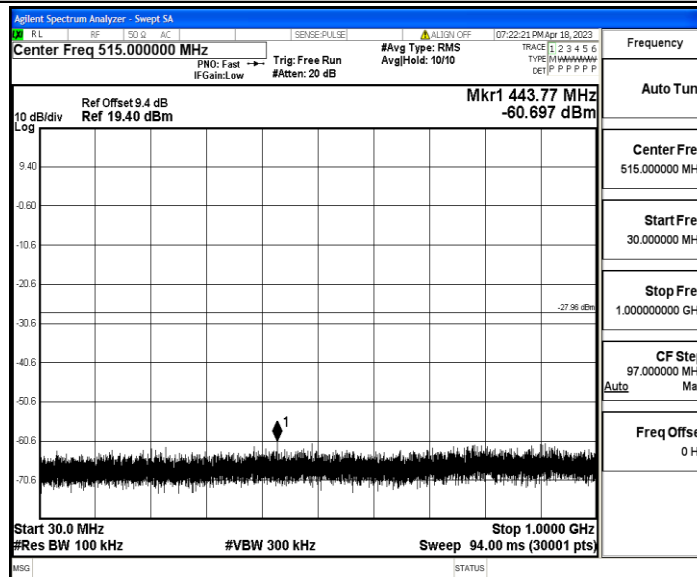
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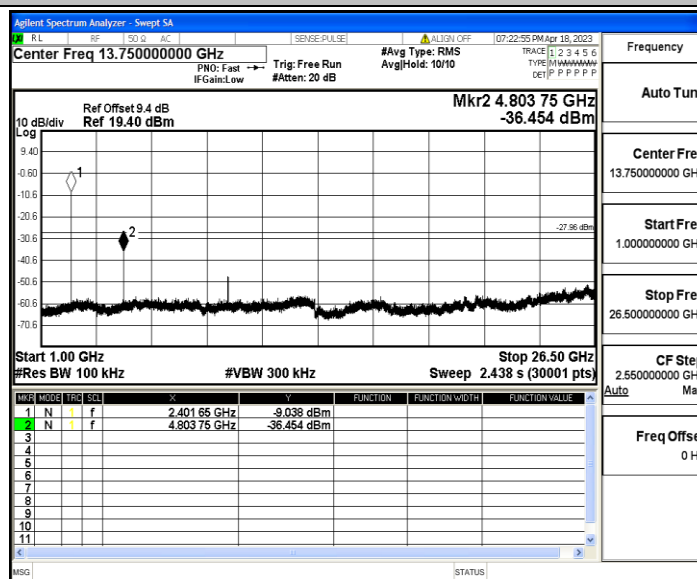
3DH5\_Ant1\_2402\_0~Reference



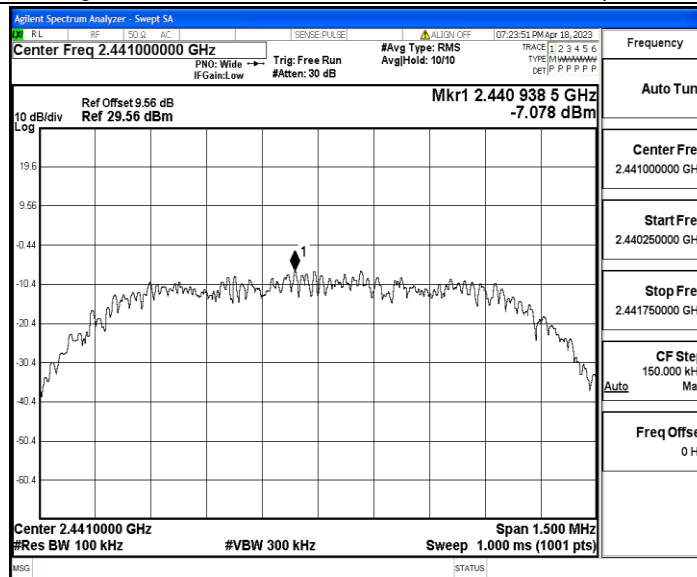
3DH5\_Ant1\_2402\_30~1000



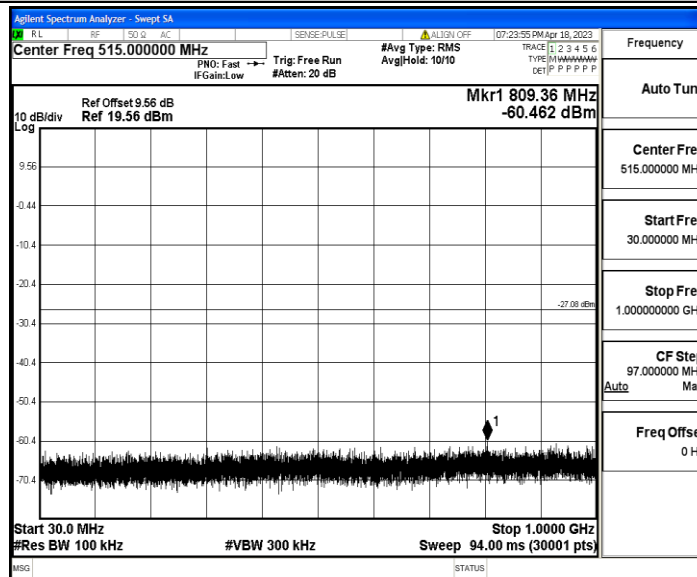
3DH5\_Ant1\_2402\_1000~26500



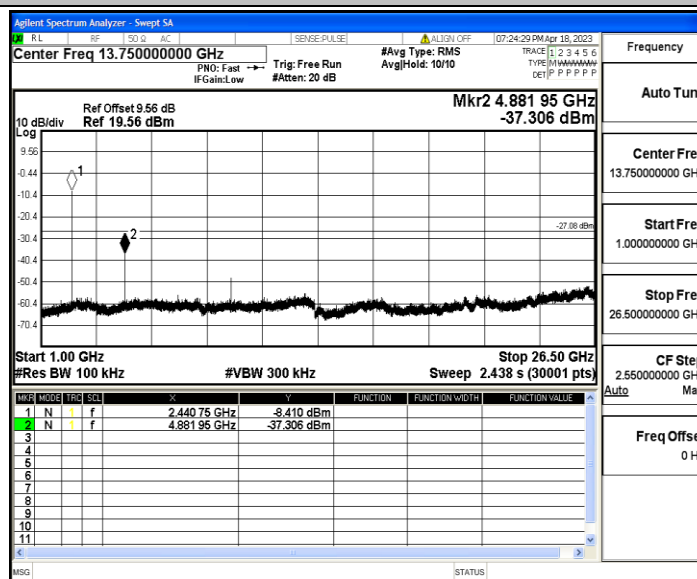
3DH5\_Ant1\_2441\_0~Reference



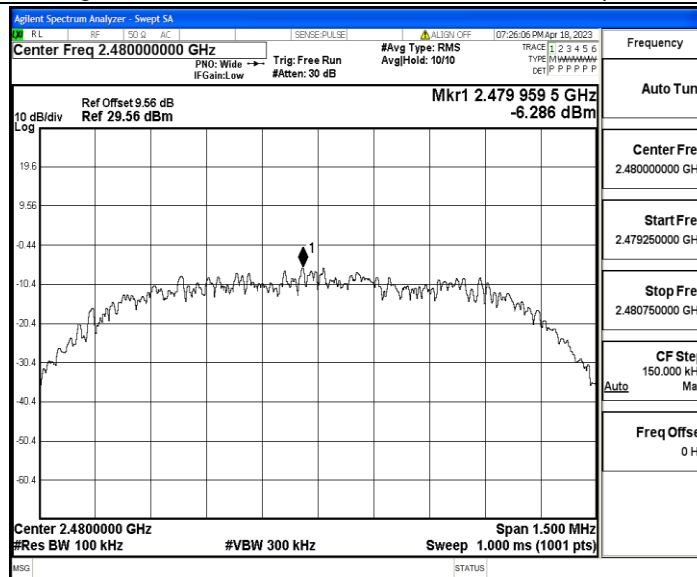
3DH5\_Ant1\_2441\_30~1000



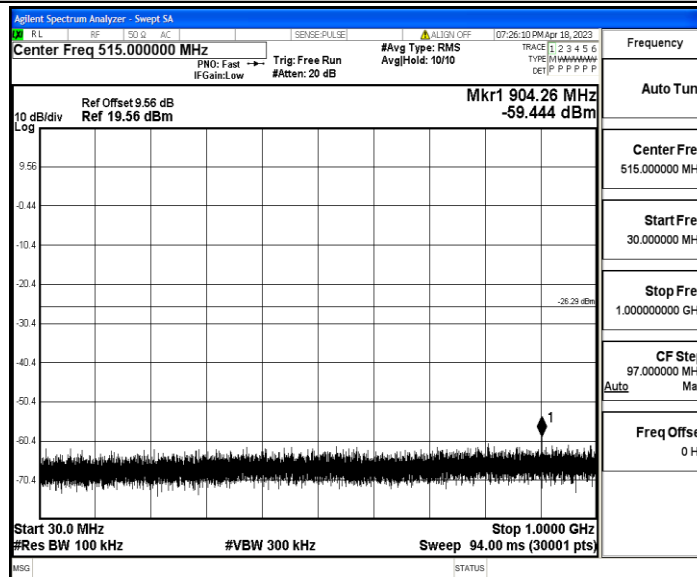
3DH5\_Ant1\_2441\_1000~26500



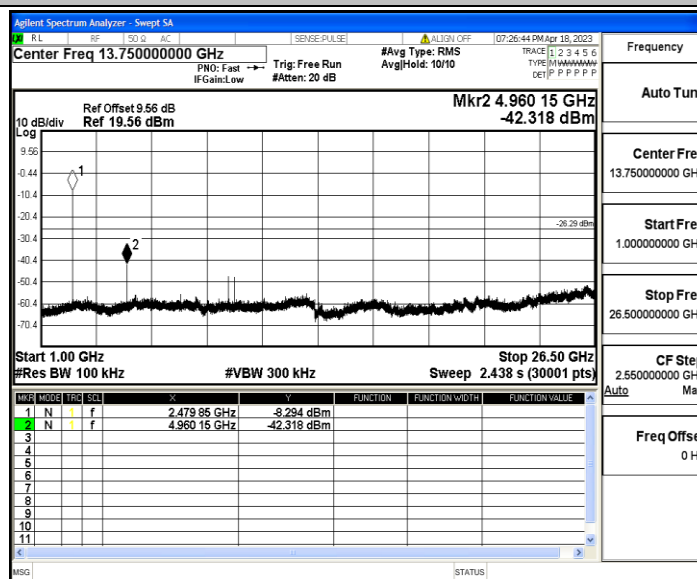
3DH5\_Ant1\_2480\_0~Reference



3DH5\_Ant1\_2480\_30~1000



3DH5\_Ant1\_2480\_1000~26500



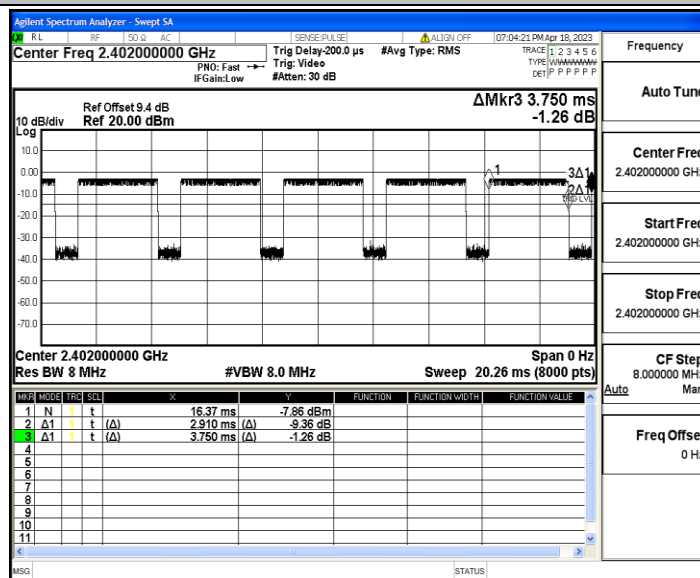
## Appendix I: Duty Cycle

### Test Result

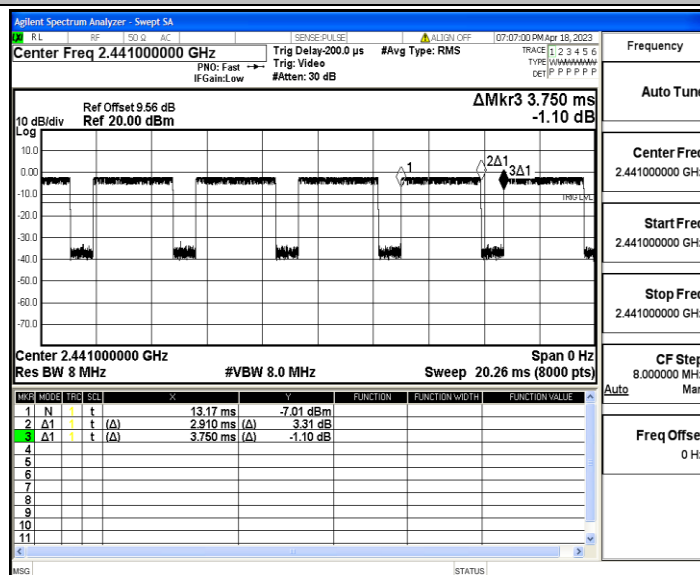
| TestMode | Antenna | Channel | Transmission<br>Duration [ms] | Transmission<br>Period [ms] | Duty Cycle [%] | 1/T[kHz] |
|----------|---------|---------|-------------------------------|-----------------------------|----------------|----------|
| DH5      | Ant1    | 2402    | 2.91                          | 3.75                        | 77.60          | 0.34     |
|          |         | 2441    | 2.91                          | 3.75                        | 77.60          | 0.34     |
|          |         | 2480    | 2.91                          | 3.75                        | 77.60          | 0.34     |
| 2DH5     | Ant1    | 2402    | 2.92                          | 3.75                        | 77.87          | 0.34     |
|          |         | 2441    | 2.91                          | 3.75                        | 77.60          | 0.34     |
|          |         | 2480    | 2.92                          | 3.75                        | 77.87          | 0.34     |
| 3DH5     | Ant1    | 2402    | 2.92                          | 3.75                        | 77.87          | 0.34     |
|          |         | 2441    | 2.92                          | 3.75                        | 77.87          | 0.34     |
|          |         | 2480    | 2.92                          | 3.75                        | 77.87          | 0.34     |

## Test Graphs

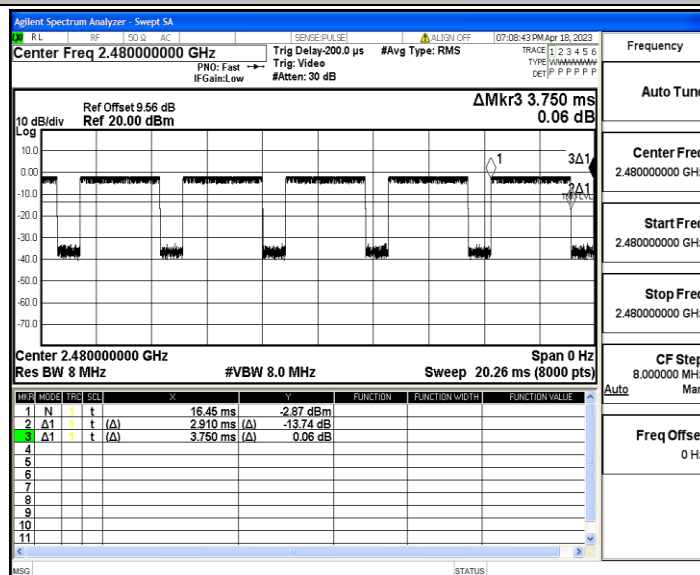
DH5\_Ant1\_2402



DH5\_Ant1\_2441



DH5\_Ant1\_2480



2DH5\_Ant1\_2402