

## Annex for FCC BT

### Appendix A: 20dB Emission Bandwidth

#### Test Result

| TestMode | Antenna | Channel | 20db EBW[MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|---------|---------------|----------|----------|------------|---------|
| DH5      | Ant1    | 2402    | 0.963         | 2401.538 | 2402.501 | ---        | PASS    |
|          |         | 2441    | 0.960         | 2440.538 | 2441.498 | ---        | PASS    |
|          |         | 2480    | 0.960         | 2479.538 | 2480.498 | ---        | PASS    |
| 2DH5     | Ant1    | 2402    | 1.281         | 2401.373 | 2402.654 | ---        | PASS    |
|          |         | 2441    | 1.281         | 2440.373 | 2441.654 | ---        | PASS    |
|          |         | 2480    | 1.281         | 2479.373 | 2480.654 | ---        | PASS    |
| 3DH5     | Ant1    | 2402    | 1.299         | 2401.355 | 2402.654 | ---        | PASS    |
|          |         | 2441    | 1.299         | 2440.355 | 2441.654 | ---        | PASS    |
|          |         | 2480    | 1.302         | 2479.355 | 2480.657 | ---        | 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 B: Occupied Channel Bandwidth

### Test Result

| TestMode | Antenna | Channel | OCB [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|---------|-----------|----------|----------|------------|---------|
| DH5      | Ant1    | 2402    | 0.85840   | 2401.574 | 2402.433 | ---        | PASS    |
|          |         | 2441    | 0.85861   | 2440.573 | 2441.432 | ---        | PASS    |
|          |         | 2480    | 0.85953   | 2479.572 | 2480.431 | ---        | PASS    |
| 2DH5     | Ant1    | 2402    | 1.1591    | 2401.423 | 2402.582 | ---        | PASS    |
|          |         | 2441    | 1.1593    | 2440.422 | 2441.582 | ---        | PASS    |
|          |         | 2480    | 1.1597    | 2479.422 | 2480.582 | ---        | PASS    |
| 3DH5     | Ant1    | 2402    | 1.1628    | 2401.420 | 2402.583 | ---        | PASS    |
|          |         | 2441    | 1.1636    | 2440.419 | 2441.583 | ---        | PASS    |
|          |         | 2480    | 1.1640    | 2479.419 | 2480.583 | ---        | PASS    |

## Test Graphs

DH5\_Ant1\_2402



DH5\_Ant1\_2441



DH5\_Ant1\_2480



2DH5\_Ant1\_2402



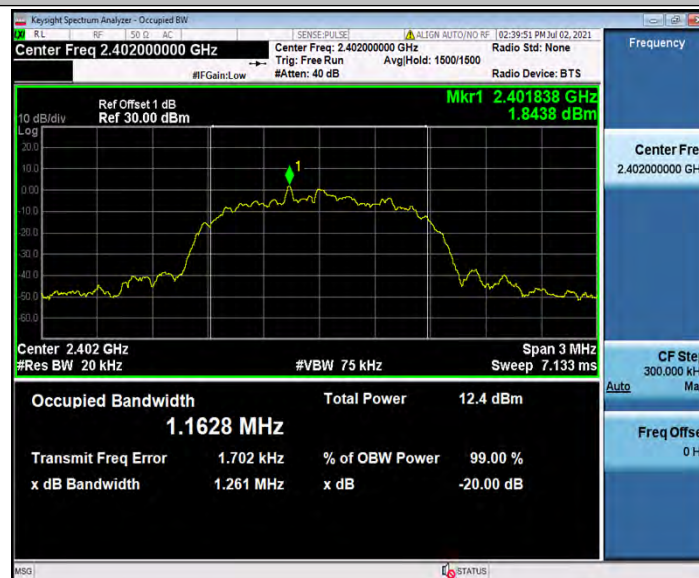
2DH5\_Ant1\_2441



## 2DH5\_Ant1\_2480



## 3DH5\_Ant1\_2402



## 3DH5\_Ant1\_2441



3DH5\_Ant1\_2480



## Appendix C: Maximum conducted output power

### Test Result

| TestMode | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|---------|-------------|------------|---------|
| DH5      | Ant1    | 2402    | 6.21        | <=30       | PASS    |
|          |         | 2441    | 6.37        | <=30       | PASS    |
|          |         | 2480    | 6.32        | <=30       | PASS    |
| 2DH5     | Ant1    | 2402    | 8.37        | <=20.97    | PASS    |
|          |         | 2441    | 8.44        | <=20.97    | PASS    |
|          |         | 2480    | 8.43        | <=20.97    | PASS    |
| 3DH5     | Ant1    | 2402    | 8.91        | <=20.97    | PASS    |
|          |         | 2441    | 9.01        | <=20.97    | PASS    |
|          |         | 2480    | 9.04        | <=20.97    | PASS    |

### EIRP:

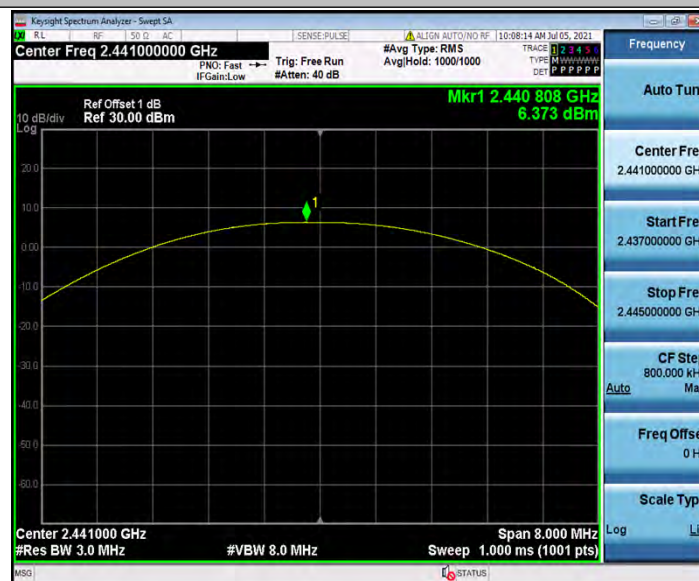
| TestMode | Antenna | Channel | Result[dBm] | Antenna Gain [dBi] | EIRP [dBm] | Limit[dBm] | Verdict |
|----------|---------|---------|-------------|--------------------|------------|------------|---------|
| DH5      | Ant1    | 2402    | 6.21        | 3.57               | 9.78       | <=36       | PASS    |
|          |         | 2441    | 6.37        | 3.57               | 9.94       | <=36       | PASS    |
|          |         | 2480    | 6.32        | 3.57               | 9.89       | <=36       | PASS    |
| 2DH5     | Ant1    | 2402    | 8.37        | 3.57               | 11.94      | <=36       | PASS    |
|          |         | 2441    | 8.44        | 3.57               | 12.01      | <=36       | PASS    |
|          |         | 2480    | 8.43        | 3.57               | 12.00      | <=36       | PASS    |
| 3DH5     | Ant1    | 2402    | 8.91        | 3.57               | 12.48      | <=36       | PASS    |
|          |         | 2441    | 9.01        | 3.57               | 12.58      | <=36       | PASS    |
|          |         | 2480    | 9.04        | 3.57               | 12.61      | <=36       | PASS    |

## Test Graphs

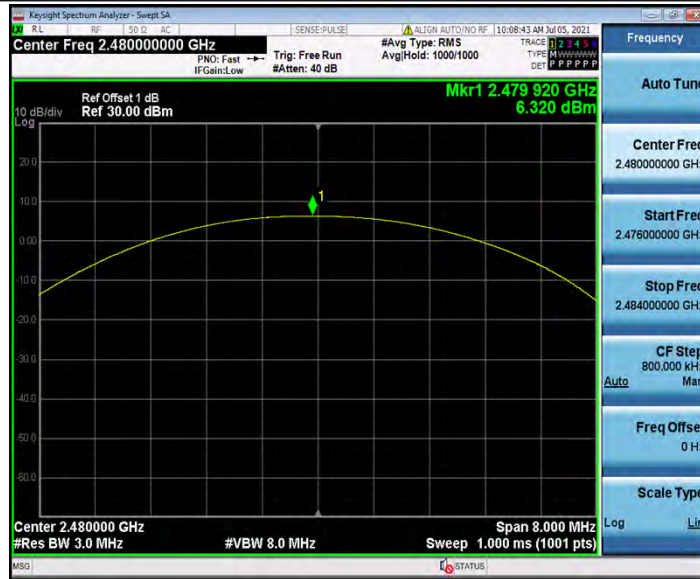
DH5\_Ant1\_2402



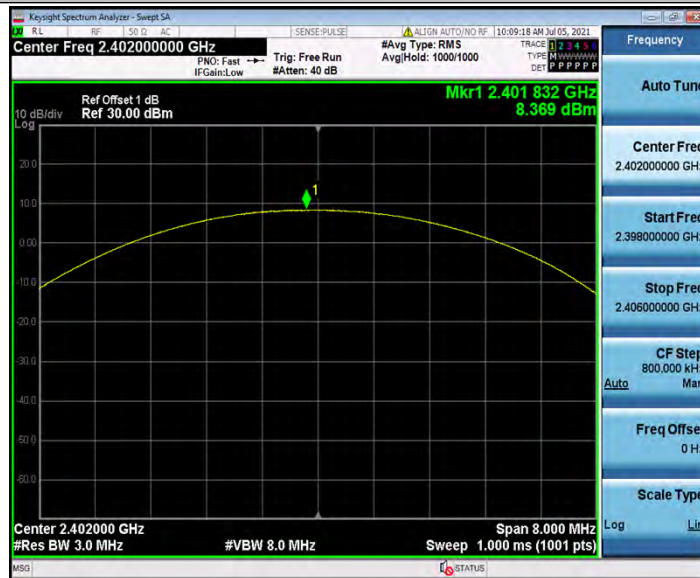
DH5\_Ant1\_2441



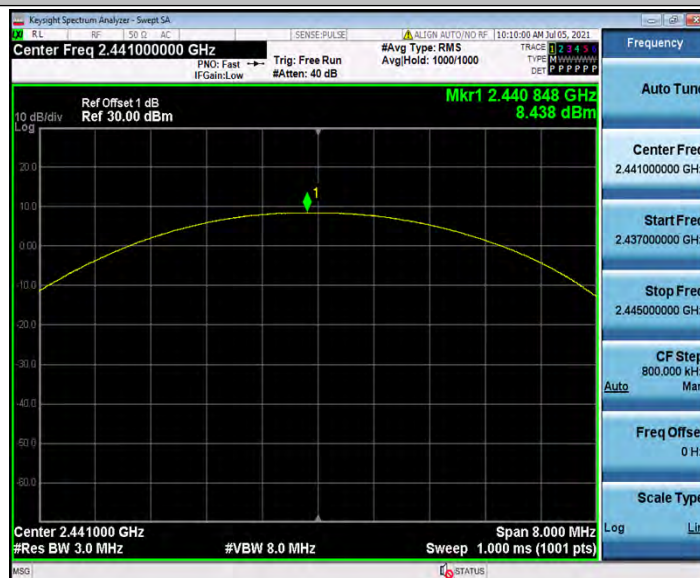
DH5\_Ant1\_2480



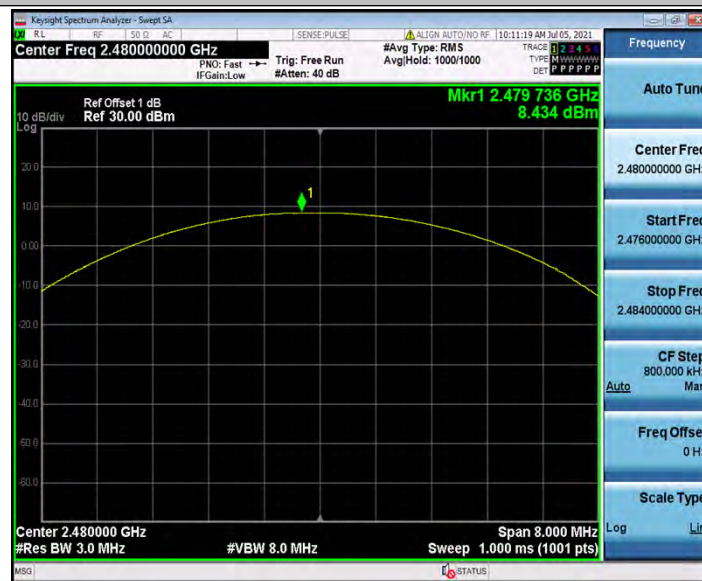
2DH5\_Ant1\_2402



2DH5\_Ant1\_2441



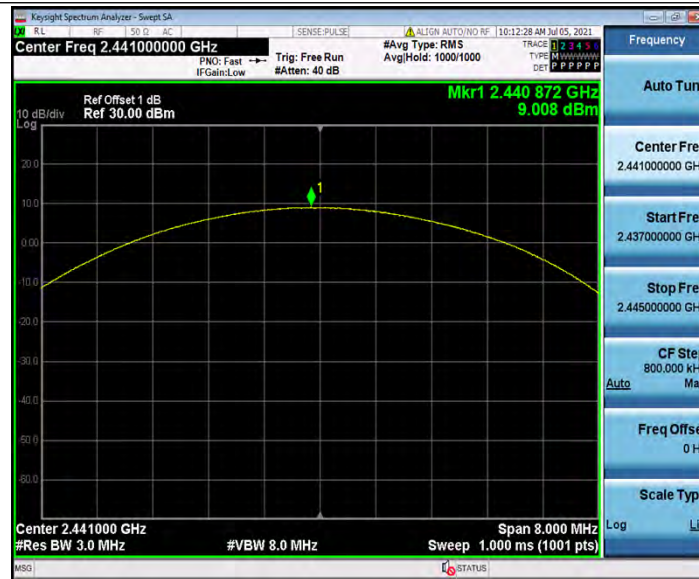
## 2DH5\_Ant1\_2480



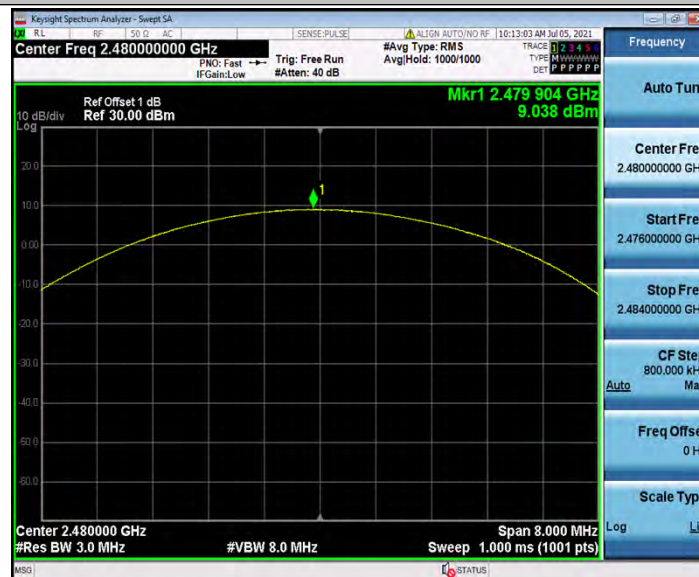
## 3DH5\_Ant1\_2402



## 3DH5\_Ant1\_2441



3DH5\_Ant1\_2480



## Appendix D: Carrier frequency separation

### Test Result

| TestMode | Antenna | Channel | Result[dBm] | Limit[dBm]   | Verdict |
|----------|---------|---------|-------------|--------------|---------|
| DH5      | Ant1    | Hop     | 0.992       | $\geq 0.963$ | PASS    |
| 2DH5     | Ant1    | Hop     | 0.990       | $\geq 0.854$ | PASS    |
| 3DH5     | Ant1    | Hop     | 0.994       | $\geq 0.868$ | PASS    |

## Test Graphs

DH5\_Ant1\_Hop



2DH5\_Ant1\_Hop



3DH5\_Ant1\_Hop



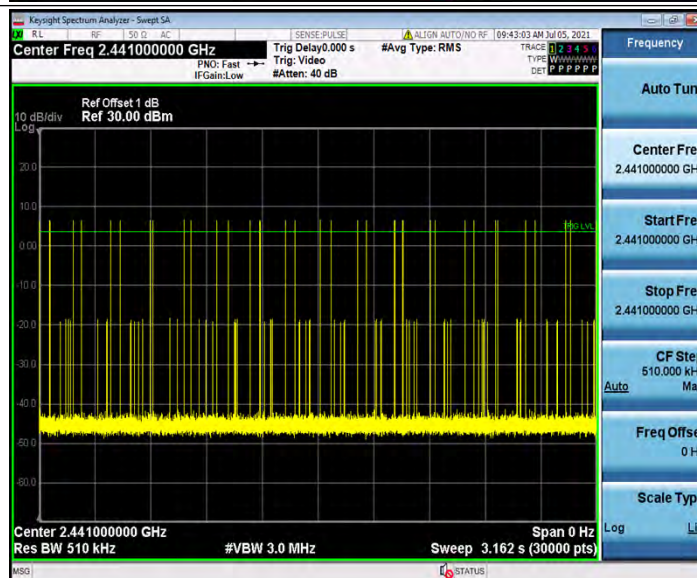
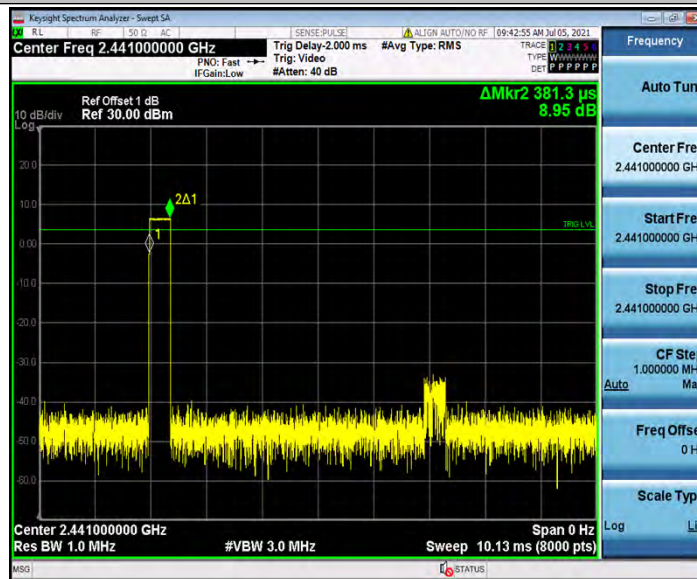
## Appendix E: Time of occupancy

### Test Result

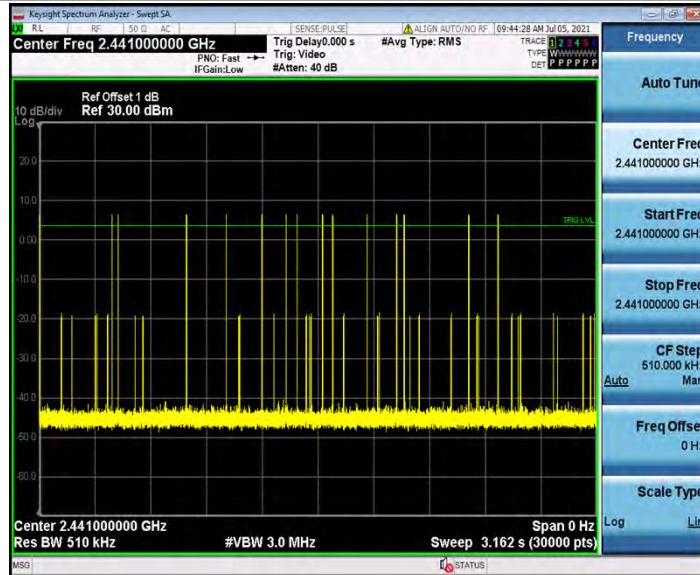
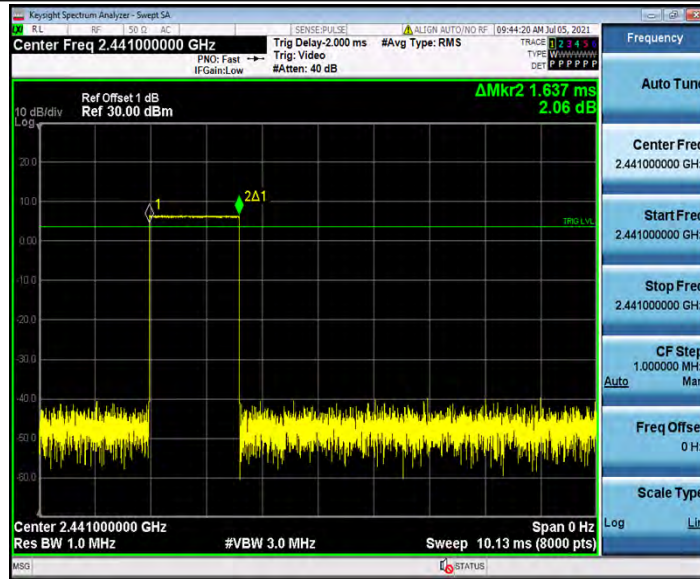
| TestMode | Antenna | Channel | BurstWidth<br>[ms] | TotalHops<br>[Num] | Result[s] | Limit[s] | Verdict |
|----------|---------|---------|--------------------|--------------------|-----------|----------|---------|
| DH1      | Ant1    | Hop     | 0.38               | 330                | 0.126     | <=0.4    | PASS    |
| DH3      | Ant1    | Hop     | 1.64               | 150                | 0.245     | <=0.4    | PASS    |
| DH5      | Ant1    | Hop     | 2.89               | 130                | 0.375     | <=0.4    | PASS    |
| 2DH1     | Ant1    | Hop     | 0.39               | 320                | 0.125     | <=0.4    | PASS    |
| 2DH3     | Ant1    | Hop     | 1.64               | 150                | 0.246     | <=0.4    | PASS    |
| 2DH5     | Ant1    | Hop     | 2.89               | 90                 | 0.26      | <=0.4    | PASS    |
| 3DH1     | Ant1    | Hop     | 0.39               | 320                | 0.125     | <=0.4    | PASS    |
| 3DH3     | Ant1    | Hop     | 1.64               | 140                | 0.23      | <=0.4    | PASS    |
| 3DH5     | Ant1    | Hop     | 2.89               | 70                 | 0.202     | <=0.4    | PASS    |

## Test Graphs

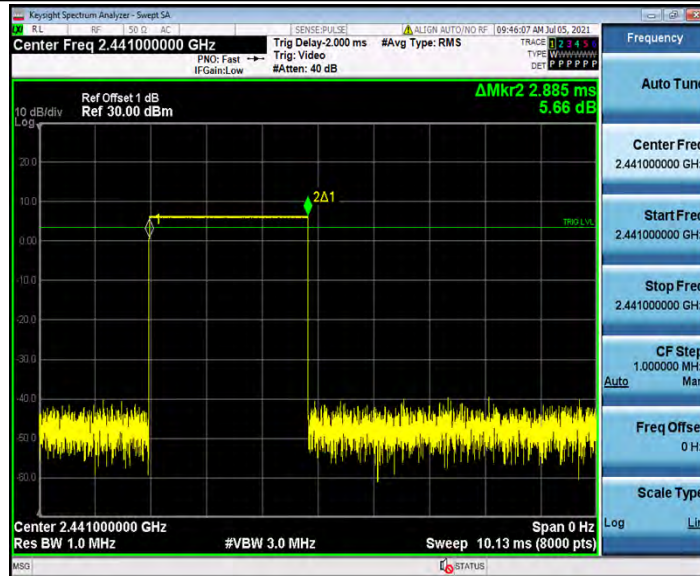
DH1\_Ant1\_Hop

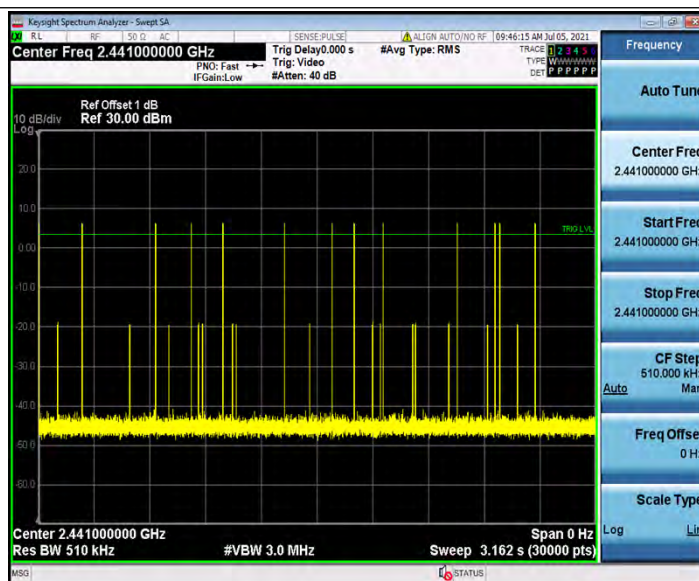


DH3\_Ant1\_Hop

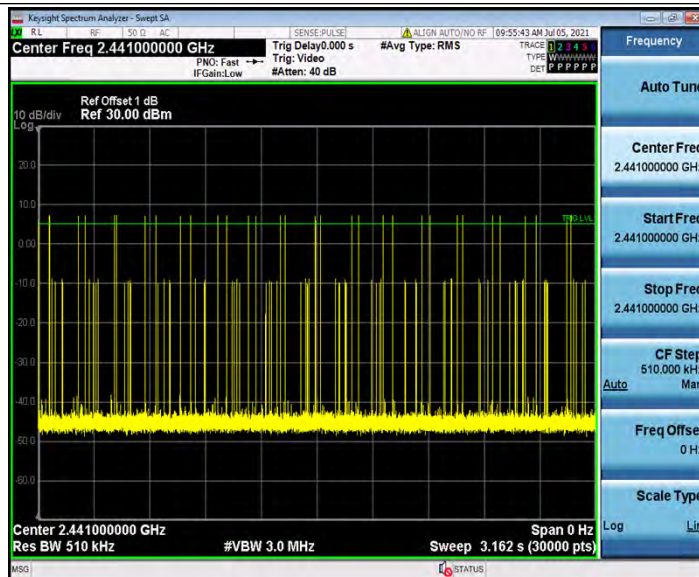
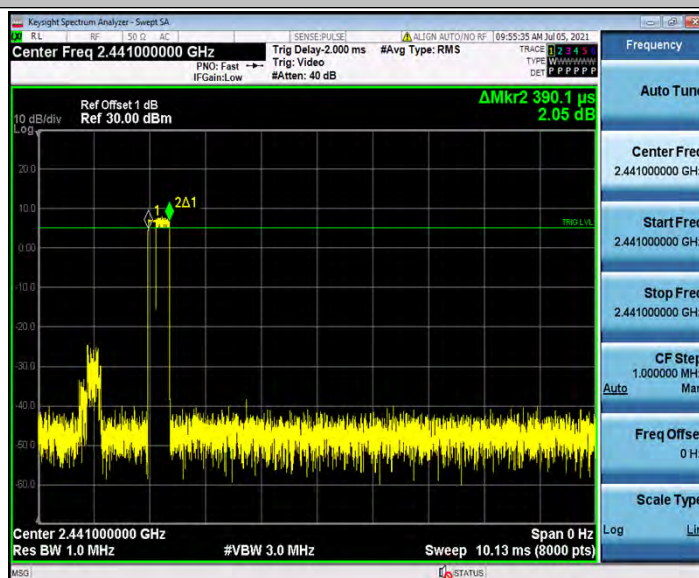


DH5\_Ant1\_Hop

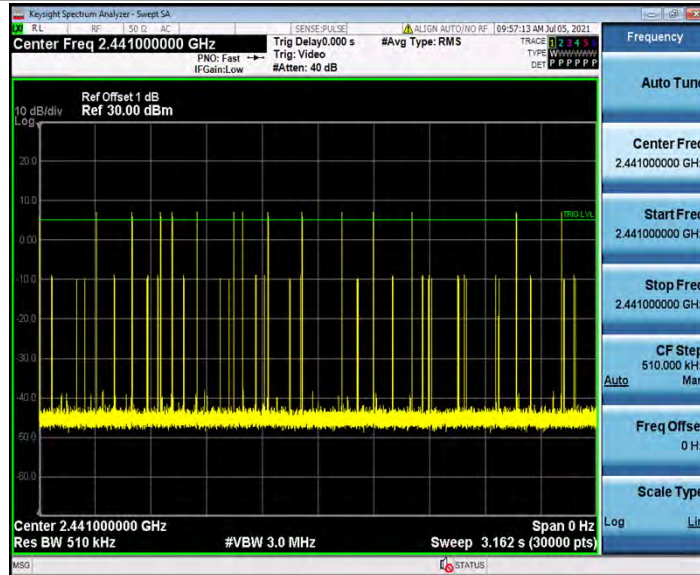
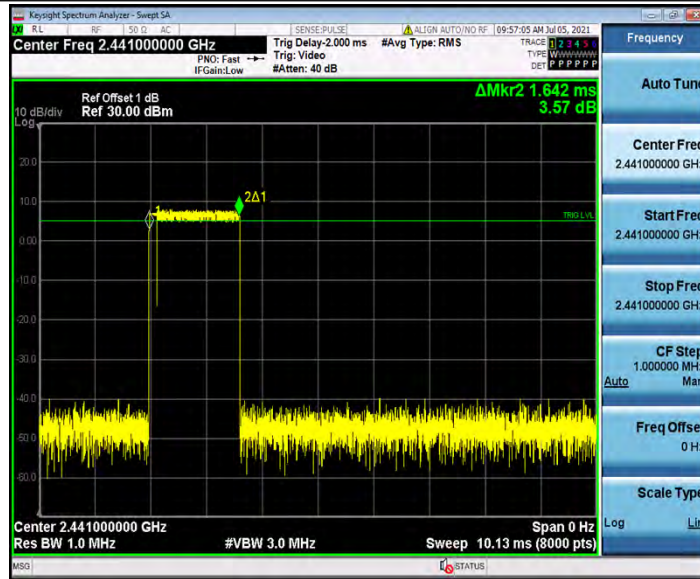




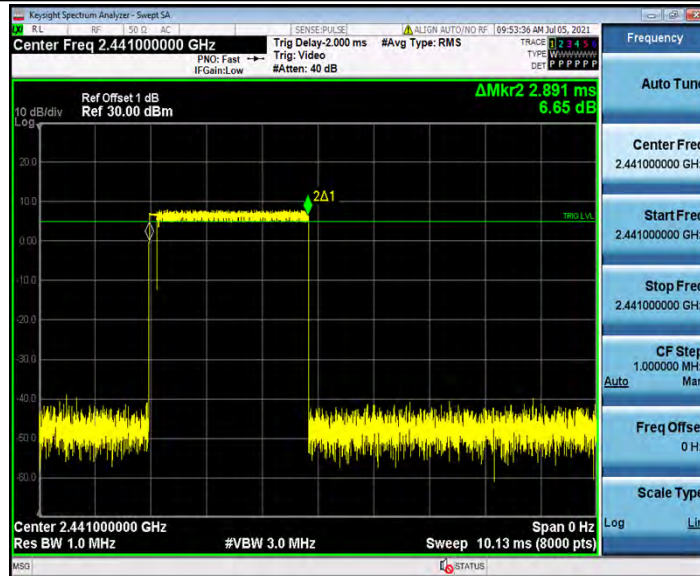
2DH1\_Ant1\_Hop

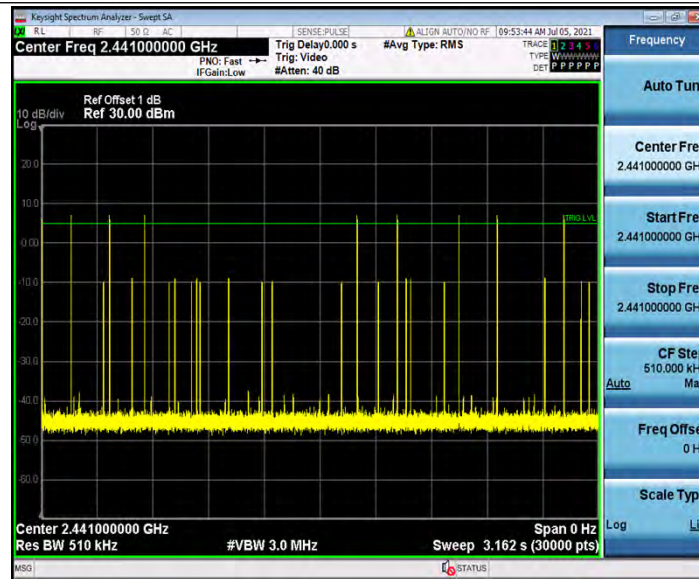


2DH3\_Ant1\_Hop

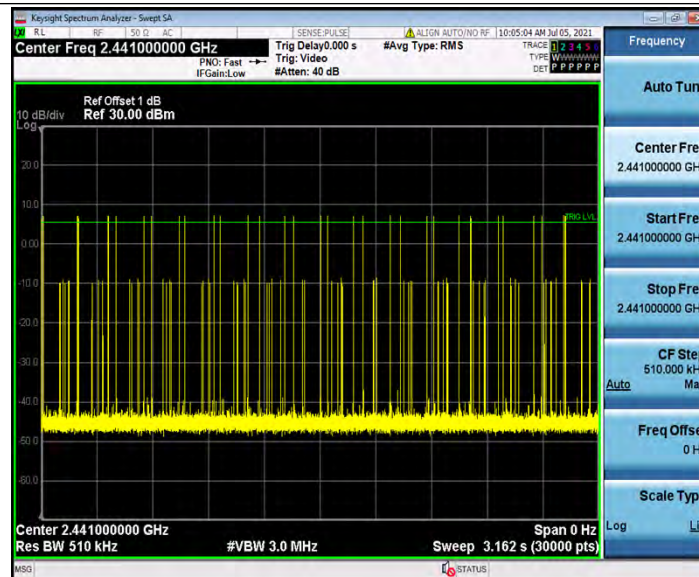
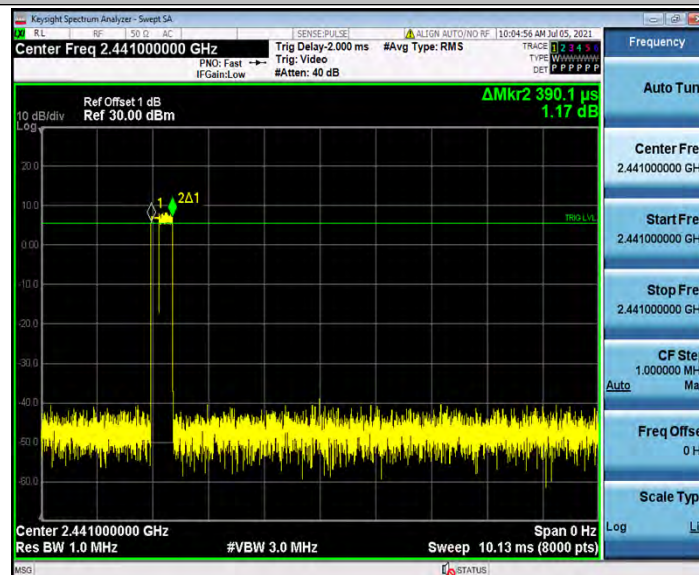


## 2DH5\_Ant1\_Hop

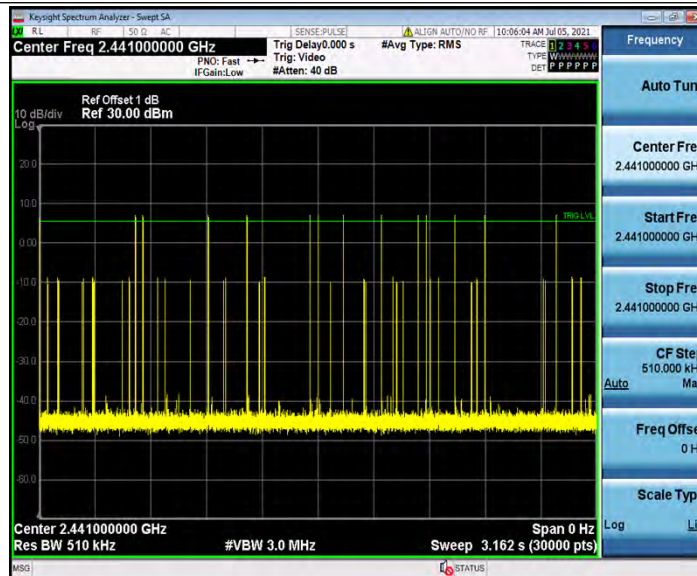
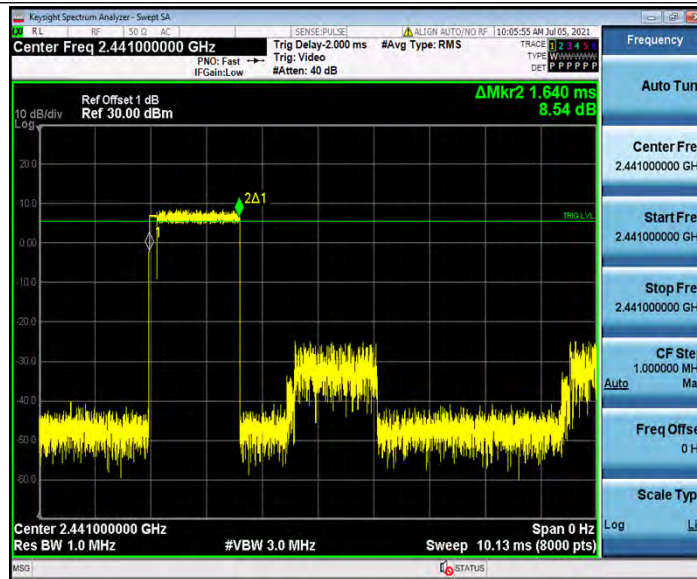




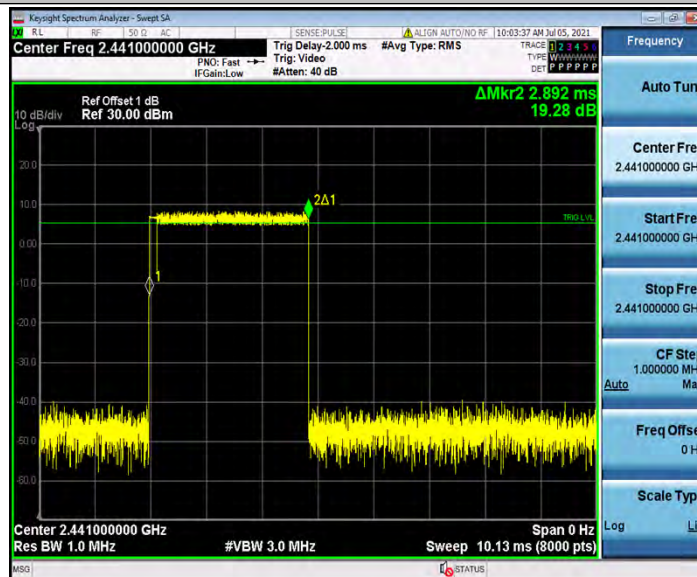
3DH1\_Ant1\_Hop

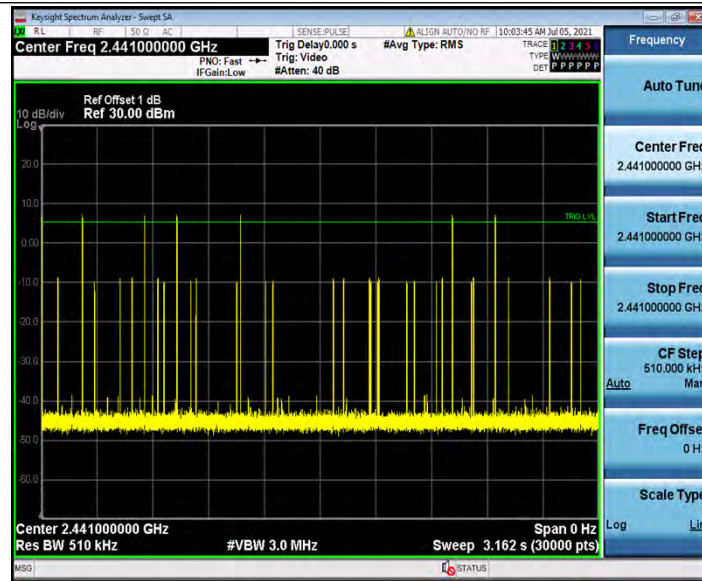


3DH3\_Ant1\_Hop



## 3DH5\_Ant1\_Hop





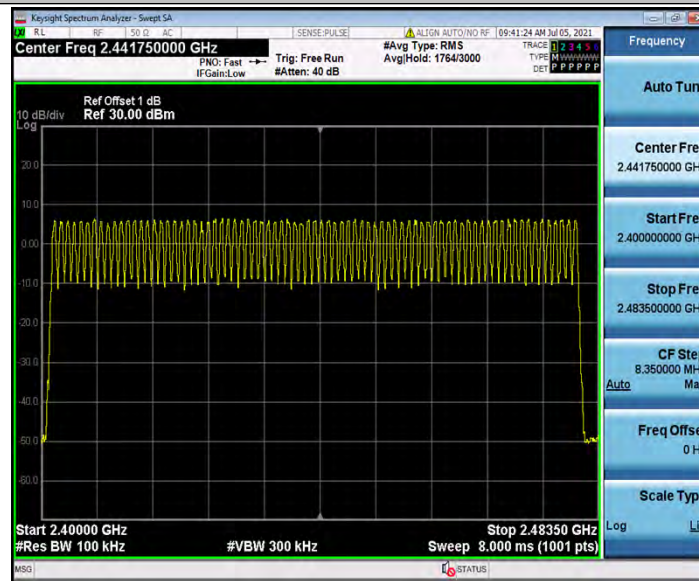
## Appendix F: Number of hopping channels

### Test Result

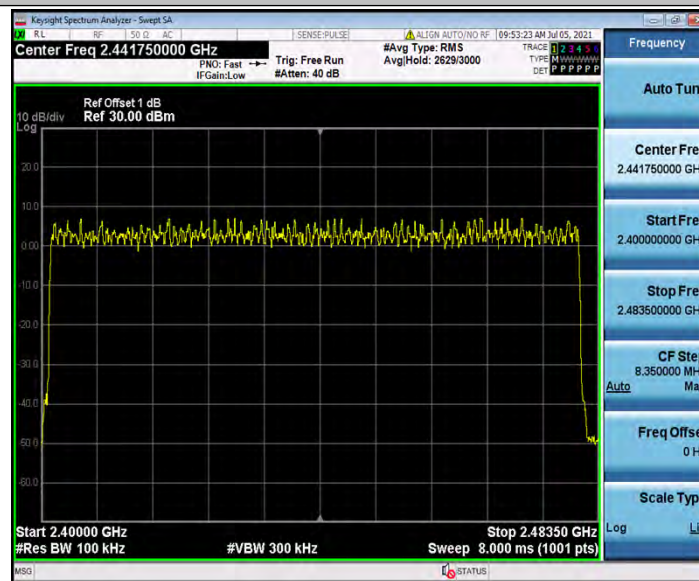
| TestMode | Antenna | Channel | Result[Num] | Limit[Num] | Verdict |
|----------|---------|---------|-------------|------------|---------|
| DH5      | Ant1    | Hop     | 79          | $\geq 15$  | PASS    |
| 2DH5     | Ant1    | Hop     | 79          | $\geq 15$  | PASS    |
| 3DH5     | Ant1    | Hop     | 79          | $\geq 15$  | PASS    |

## Test Graphs

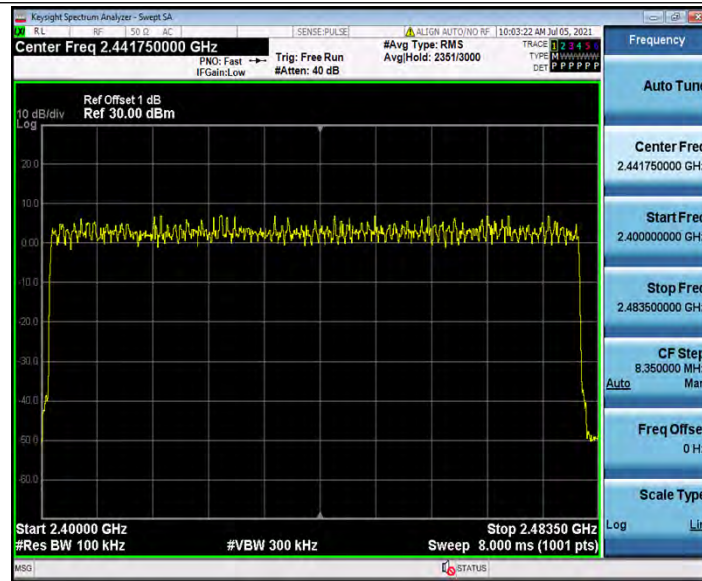
DH5\_Ant1\_Hop



2DH5\_Ant1\_Hop



3DH5\_Ant1\_Hop



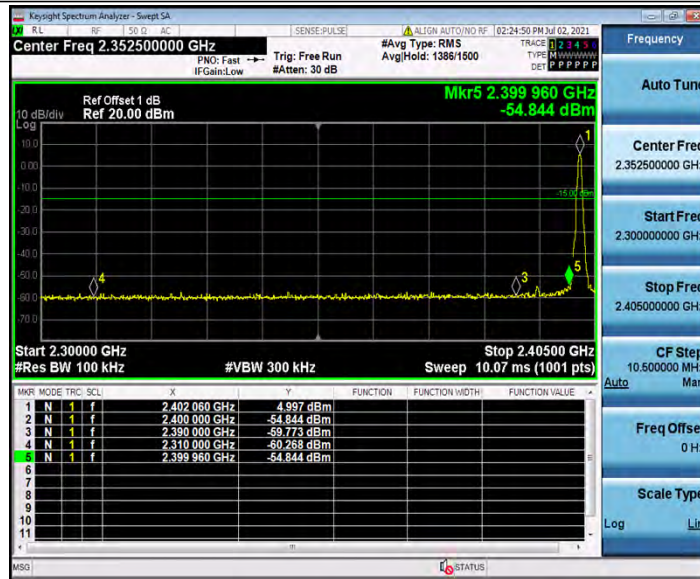
## Appendix G: Band edge measurements

### Test Result

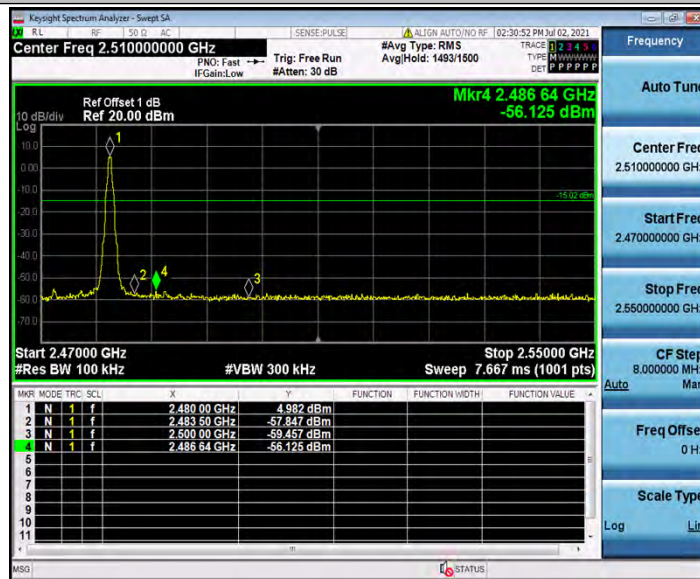
| TestMode | Antenna | ChName | Channel  | RefLevel<br>[dBm] | Result<br>[dBm] | Limit<br>[dBm] | Verdict |
|----------|---------|--------|----------|-------------------|-----------------|----------------|---------|
| DH5      | Ant1    | Low    | 2402     | 5.00              | -54.84          | <=-15          | PASS    |
|          |         | High   | 2480     | 4.98              | -56.13          | <=-15.02       | PASS    |
|          |         | Low    | Hop_2402 | 6.08              | -57.46          | <=-13.92       | PASS    |
|          |         | High   | Hop_2480 | 6.38              | -56.8           | <=-13.62       | PASS    |
| 2DH5     | Ant1    | Low    | 2402     | 5.49              | -53.47          | <=-14.51       | PASS    |
|          |         | High   | 2480     | 5.51              | -57.05          | <=-14.49       | PASS    |
|          |         | Low    | Hop_2402 | 6.20              | -56.78          | <=-13.8        | PASS    |
|          |         | High   | Hop_2480 | 7.04              | -57.34          | <=-12.96       | PASS    |
| 3DH5     | Ant1    | Low    | 2402     | 5.47              | -53.62          | <=-14.53       | PASS    |
|          |         | High   | 2480     | 5.59              | -49.55          | <=-14.41       | PASS    |
|          |         | Low    | Hop_2402 | 4.98              | -57.06          | <=-15.02       | PASS    |
|          |         | High   | Hop_2480 | 4.89              | -56.94          | <=-15.11       | PASS    |

## Test Graphs

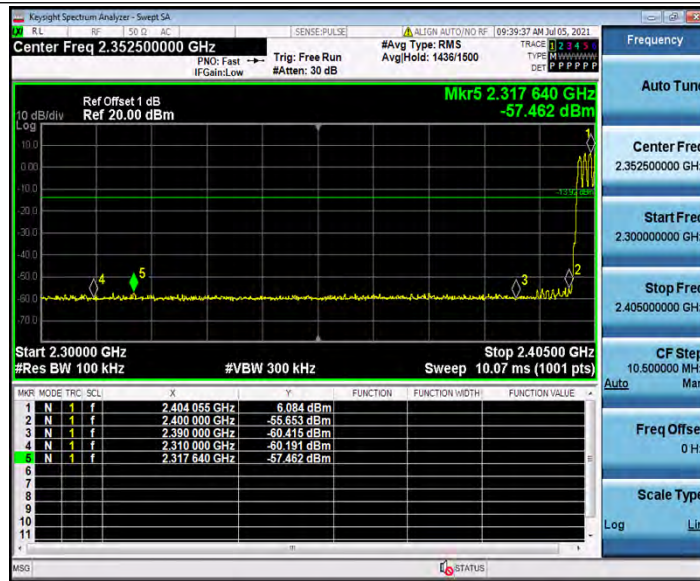
DH5\_Ant1\_Low\_2402



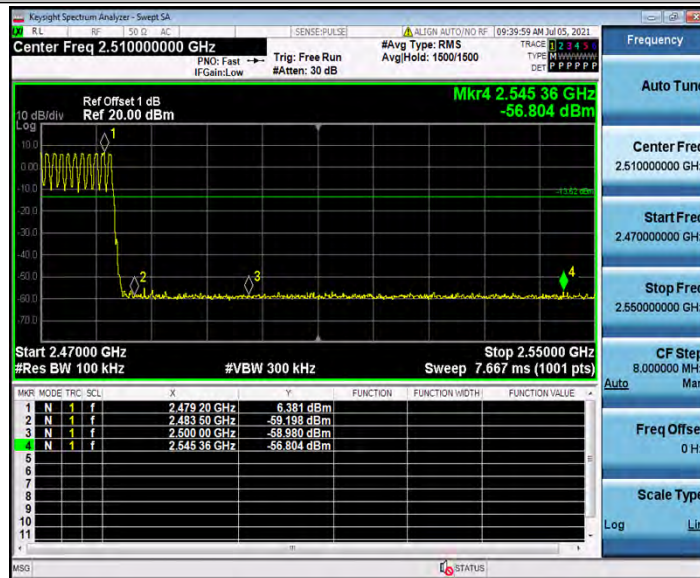
DH5\_Ant1\_High\_2480



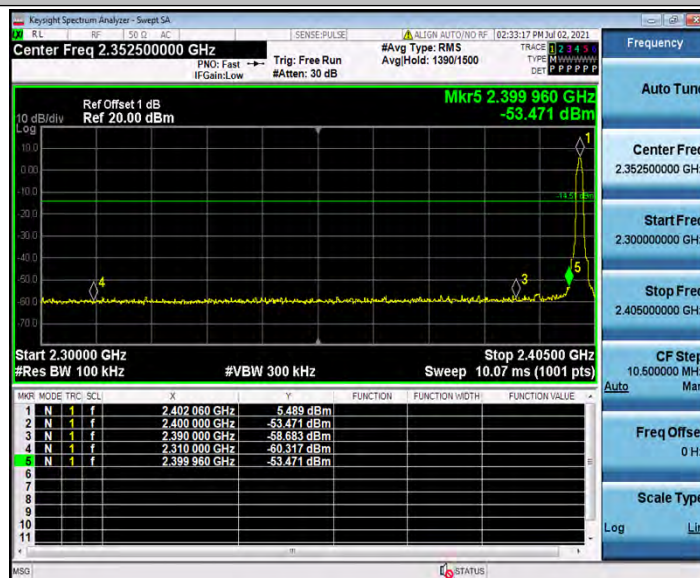
DH5\_Ant1\_Low\_Hop\_2402



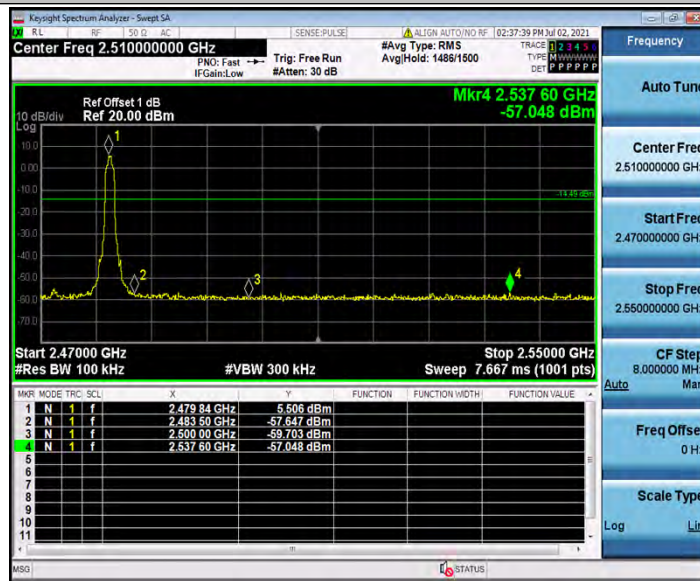
DH5\_Ant1\_High\_Hop\_2480



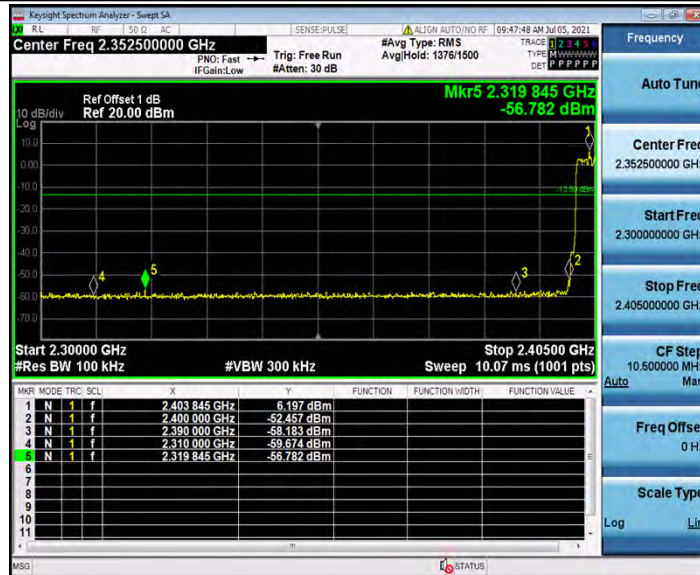
2DH5\_Ant1\_Low\_2402



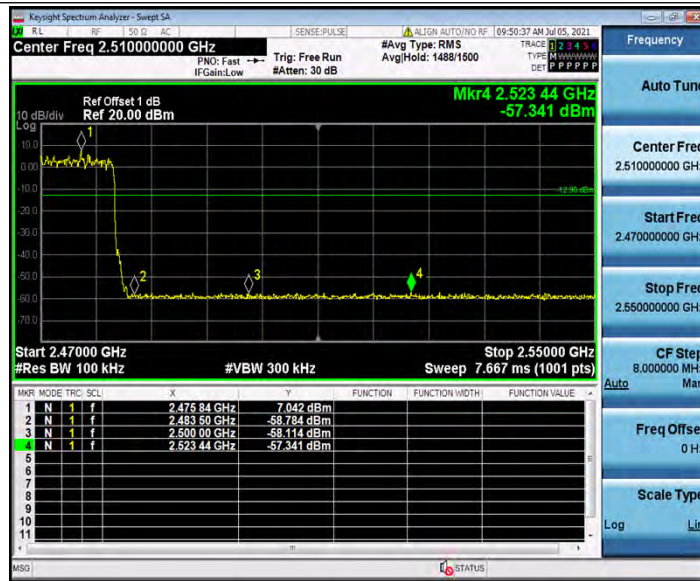
## 2DH5\_Ant1\_High\_2480



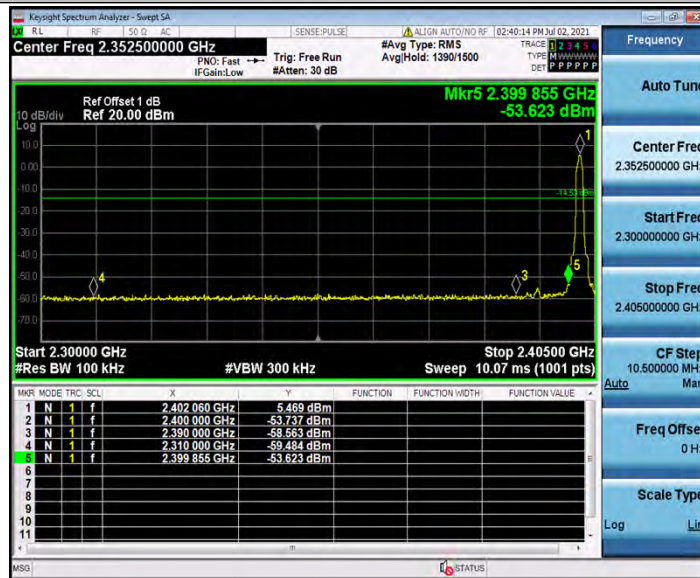
## 2DH5\_Ant1\_Low\_Hop\_2402



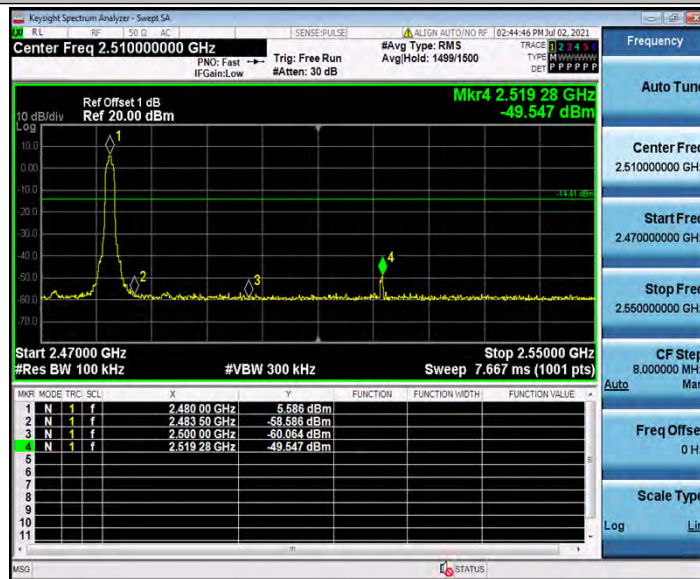
## 2DH5\_Ant1\_High\_Hop\_2480



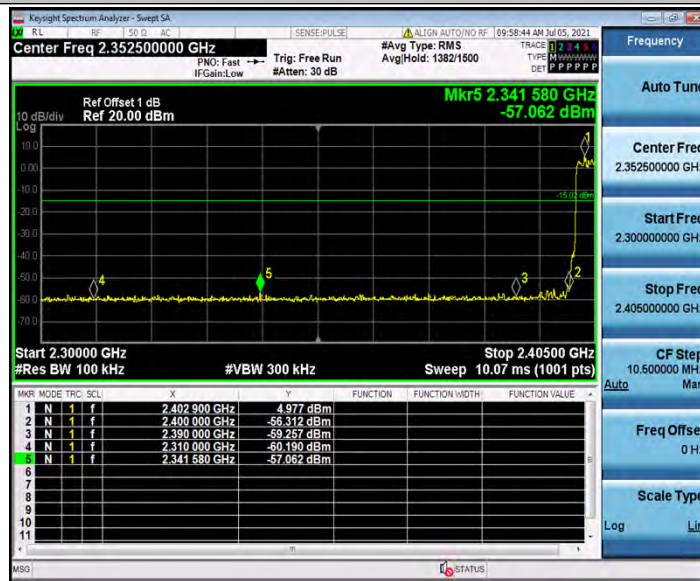
3DH5\_Ant1\_Low\_2402



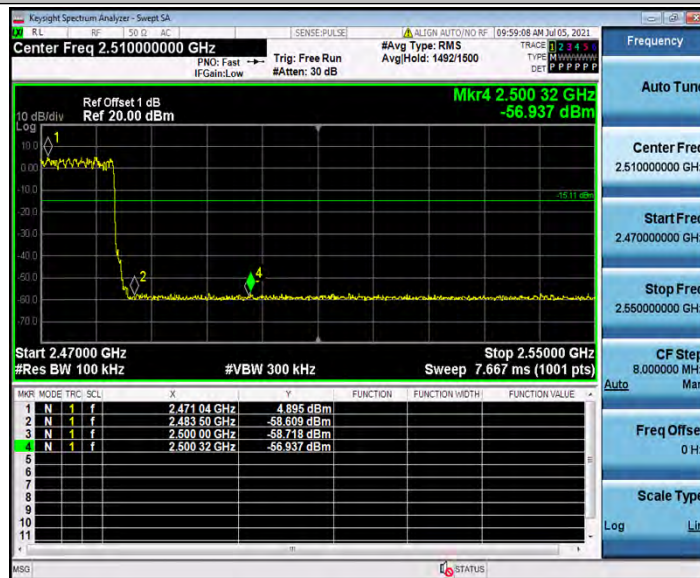
3DH5\_Ant1\_High\_2480



## 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          | 5.74              | 5.74            | ---            | PASS    |
|          |         |         | 30~3000            | 5.74              | -46.57          | <=-14.26       | PASS    |
|          |         |         | 3000~26500         | 5.74              | -36.83          | <=-14.26       | PASS    |
|          |         | 2441    | Reference          | 6.11              | 6.11            | ---            | PASS    |
|          |         |         | 30~3000            | 6.11              | -47.07          | <=-13.89       | PASS    |
|          |         |         | 3000~26500         | 6.11              | -35.97          | <=-13.89       | PASS    |
|          |         | 2480    | Reference          | 6.43              | 6.43            | ---            | PASS    |
|          |         |         | 30~3000            | 6.43              | -47.6           | <=-13.58       | PASS    |
|          |         |         | 3000~26500         | 6.43              | -36.34          | <=-13.58       | PASS    |
| 2DH5     | Ant1    | 2402    | Reference          | 6.31              | 6.31            | ---            | PASS    |
|          |         |         | 30~3000            | 6.31              | -47.34          | <=-13.7        | PASS    |
|          |         |         | 3000~26500         | 6.31              | -36.94          | <=-13.7        | PASS    |
|          |         | 2441    | Reference          | 6.32              | 6.32            | ---            | PASS    |
|          |         |         | 30~3000            | 6.32              | -47.34          | <=-13.68       | PASS    |
|          |         |         | 3000~26500         | 6.32              | -36.24          | <=-13.68       | PASS    |
|          |         | 2480    | Reference          | 6.63              | 6.63            | ---            | PASS    |
|          |         |         | 30~3000            | 6.63              | -47.1           | <=-13.37       | PASS    |
|          |         |         | 3000~26500         | 6.63              | -37.54          | <=-13.37       | PASS    |
| 3DH5     | Ant1    | 2402    | Reference          | 6.34              | 6.34            | ---            | PASS    |
|          |         |         | 30~3000            | 6.34              | -47.5           | <=-13.66       | PASS    |
|          |         |         | 3000~26500         | 6.34              | -36.45          | <=-13.66       | PASS    |
|          |         | 2441    | Reference          | 6.06              | 6.06            | ---            | PASS    |
|          |         |         | 30~3000            | 6.06              | -47.61          | <=-13.94       | PASS    |
|          |         |         | 3000~26500         | 6.06              | -37.06          | <=-13.94       | PASS    |
|          |         | 2480    | Reference          | 6.78              | 6.78            | ---            | PASS    |
|          |         |         | 30~3000            | 6.78              | -47.36          | <=-13.22       | PASS    |
|          |         |         | 3000~26500         | 6.78              | -36.83          | <=-13.22       | PASS    |

## Test Graphs

DH5\_Ant1\_2402\_0-Reference



DH5\_Ant1\_2402\_30~3000



DH5\_Ant1\_2402\_3000~26500



DH5\_Ant1\_2441\_0-Reference



DH5\_Ant1\_2441\_30~3000



## DH5\_Ant1\_2441\_3000~26500



## DH5\_Ant1\_2480\_0~Reference



## DH5\_Ant1\_2480\_30~3000



DH5\_Ant1\_2480\_3000~26500



2DH5\_Ant1\_2402\_0~Reference



## 2DH5\_Ant1\_2402\_30~3000



## 2DH5\_Ant1\_2402\_3000~26500



## 2DH5\_Ant1\_2441\_0~Reference



2DH5\_Ant1\_2441\_30~3000



2DH5\_Ant1\_2441\_3000~26500



## 2DH5\_Ant1\_2480\_0~Reference



## 2DH5\_Ant1\_2480\_30~3000



## 2DH5\_Ant1\_2480\_3000~26500



3DH5\_Ant1\_2402\_0~Reference



3DH5\_Ant1\_2402\_30~3000



## 3DH5\_Ant1\_2402\_3000~26500



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



## 3DH5\_Ant1\_2441\_30~3000



3DH5\_Ant1\_2441\_3000~26500



3DH5\_Ant1\_2480\_0~Reference



## 3DH5\_Ant1\_2480\_30~3000



## 3DH5\_Ant1\_2480\_3000~26500



\*\*\*\*\* End \*\*\*\*\*