



## Appendix A

### RF Test Data for BT (Conducted Measurement)

**Product Name: MA-1 MINI SPEAKER**

**Test Model: MA-1**

#### Environmental Conditions

|                    |           |
|--------------------|-----------|
| Temperature:       | 23.5° C   |
| Relative Humidity: | 52.2%     |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Wunder Wu |
| Supervised by:     | Li huan   |

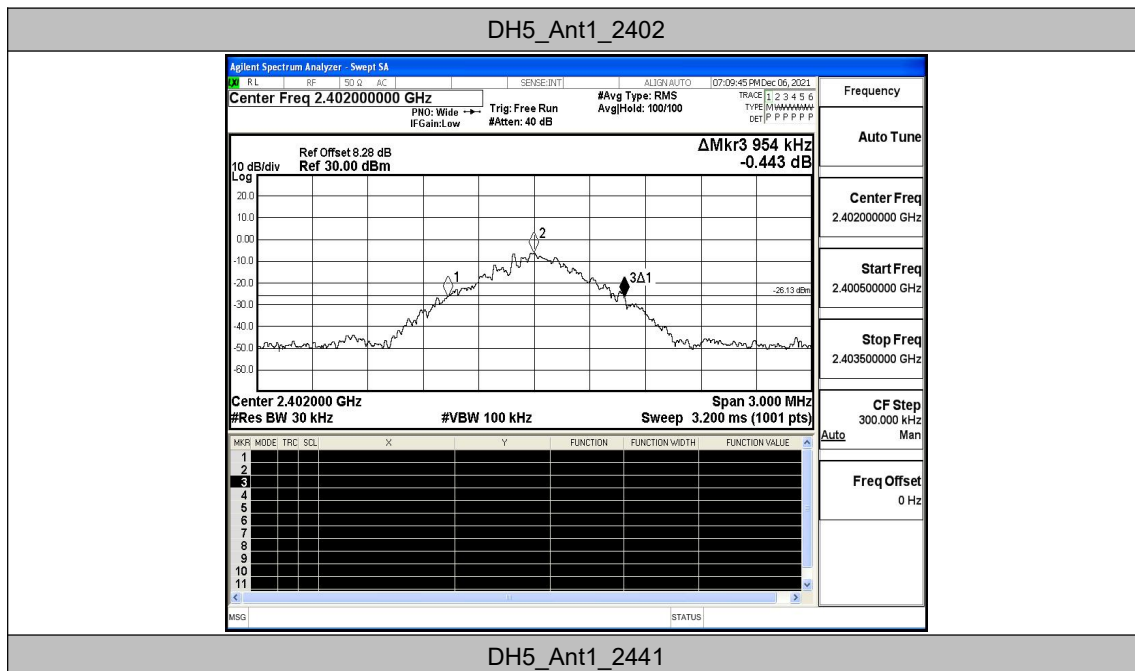


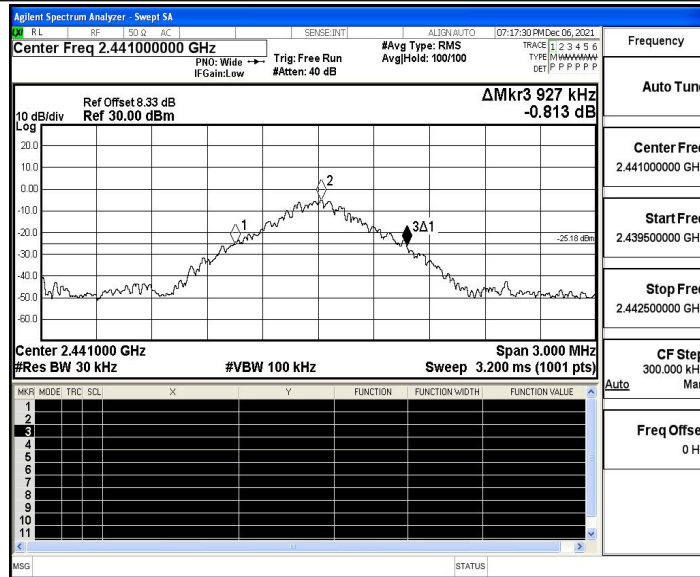
## A.1 20dB Emission Bandwidth

### Test Result

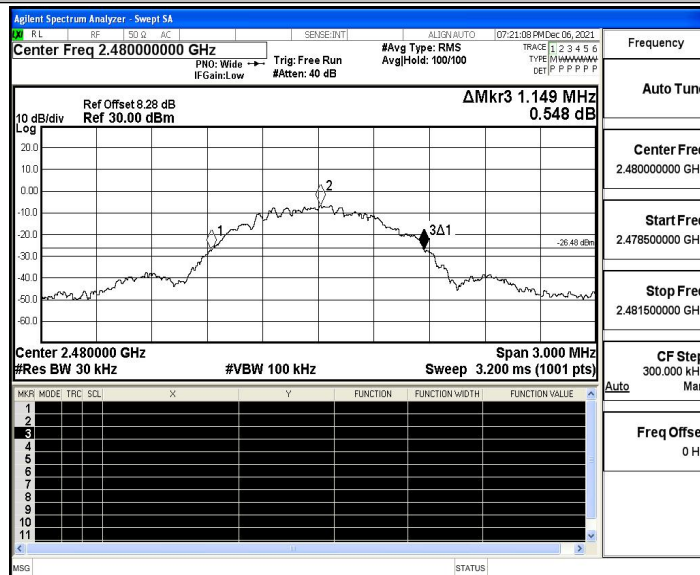
| TestMode | Antenna | Channel | 20db<br>EBW[MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|----------|---------|---------|------------------|----------|----------|------------|---------|
| DH5      | Ant1    | 2402    | 0.954            | 2401.532 | 2402.486 | ---        | PASS    |
|          |         | 2441    | 0.927            | 2440.550 | 2441.477 | ---        | PASS    |
|          |         | 2480    | 1.149            | 2479.421 | 2480.570 | ---        | PASS    |
| 2DH5     | Ant1    | 2402    | 1.386            | 2401.304 | 2402.690 | ---        | PASS    |
|          |         | 2441    | 1.389            | 2440.304 | 2441.693 | ---        | PASS    |
|          |         | 2480    | 1.386            | 2479.307 | 2480.693 | ---        | PASS    |

### Test Graphs

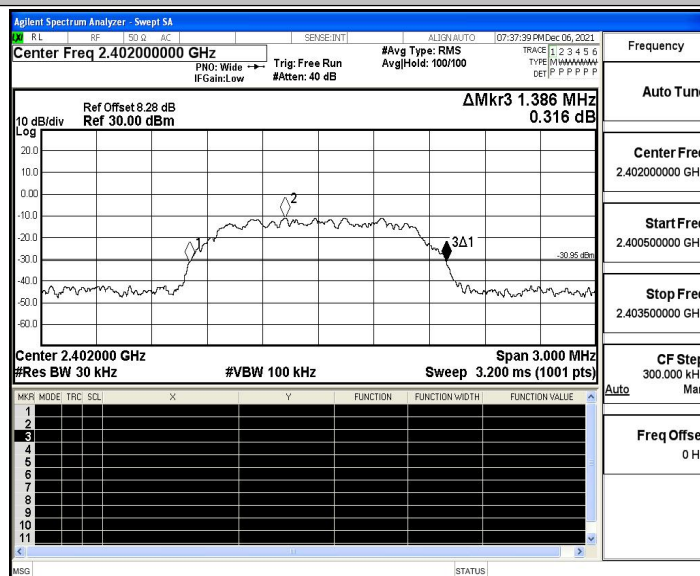




DH5\_Ant1\_2480

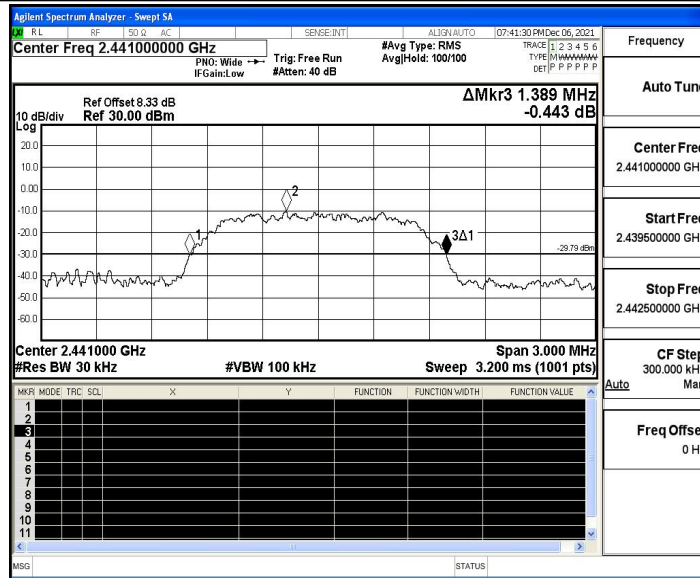


2DH5\_Ant1\_2402

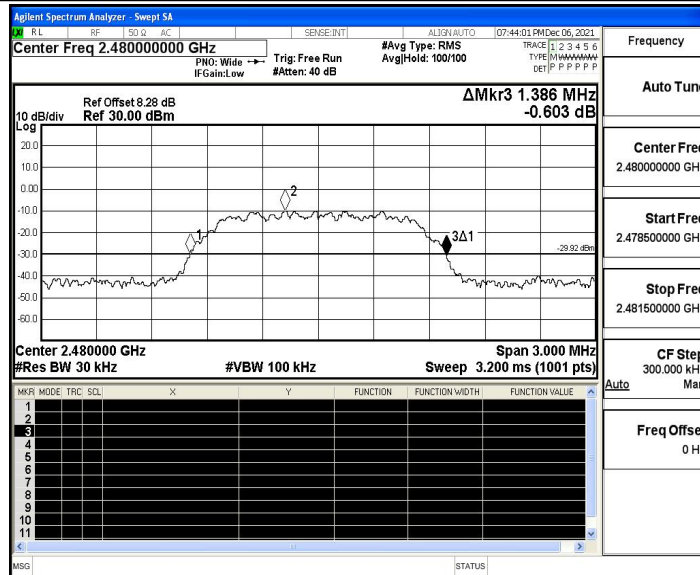




### 2DH5\_Ant1\_2441



### 2DH5\_Ant1\_2480



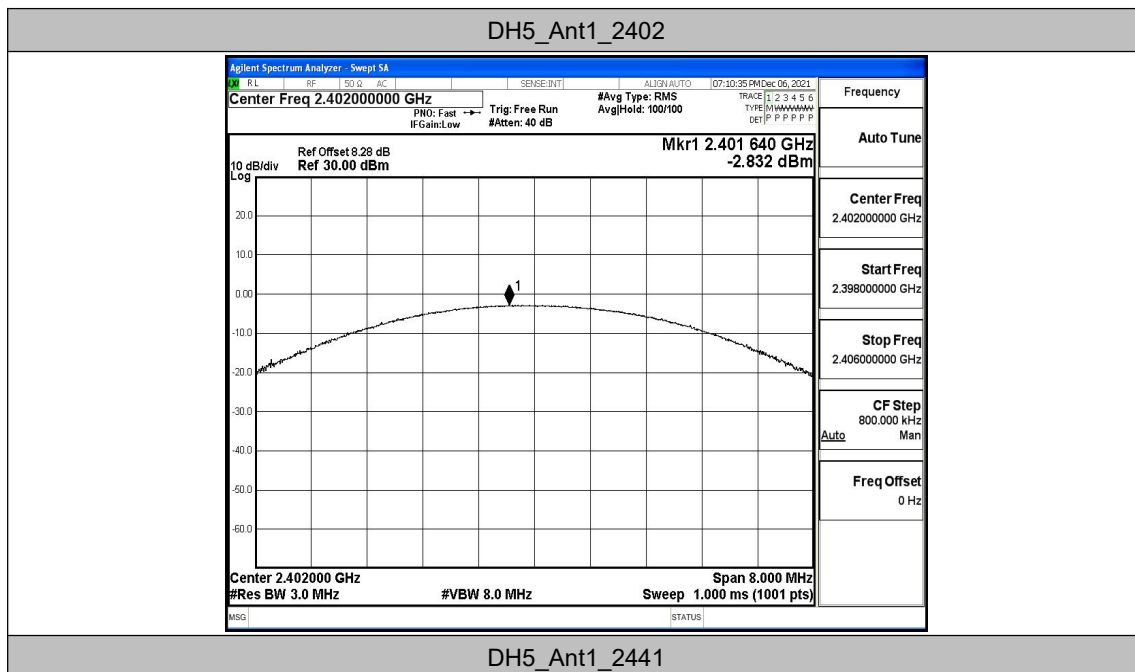


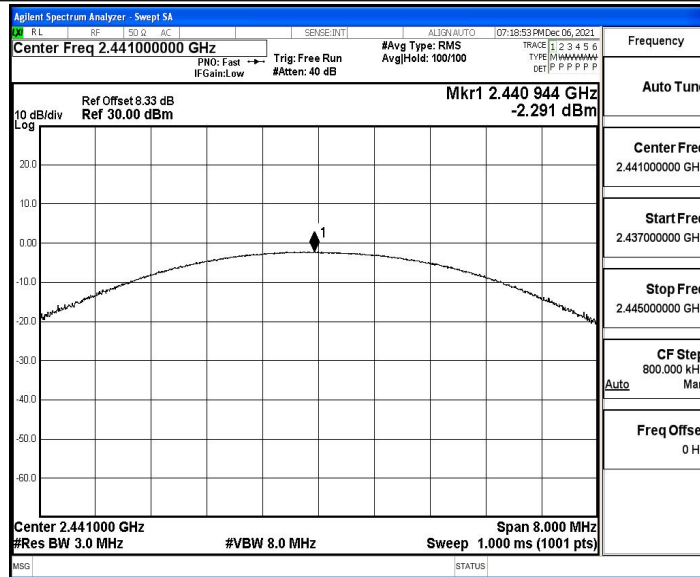
## A.2 Maximum conducted output power

### Test Result

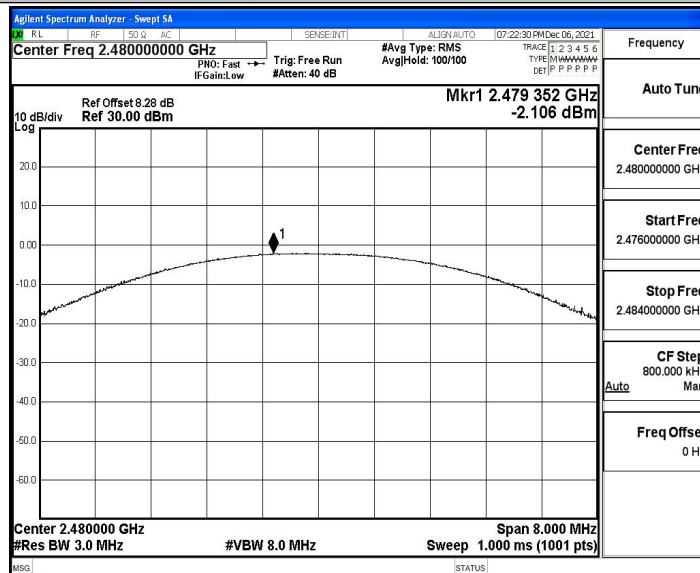
| TestMode | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|---------|-------------|------------|---------|
| DH5      | Ant1    | 2402    | -2.83       | ≤20.97     | PASS    |
|          |         | 2441    | -2.29       | ≤20.97     | PASS    |
|          |         | 2480    | -2.11       | ≤20.97     | PASS    |
| 2DH5     | Ant1    | 2402    | -2.24       | ≤20.97     | PASS    |
|          |         | 2441    | -1.98       | ≤20.97     | PASS    |
|          |         | 2480    | -1.3        | ≤20.97     | PASS    |

### Test Graphs

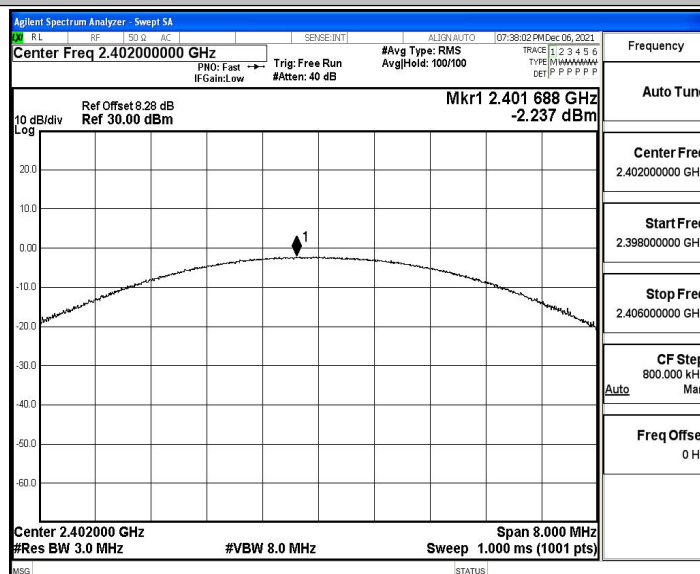




DH5\_Ant1\_2480

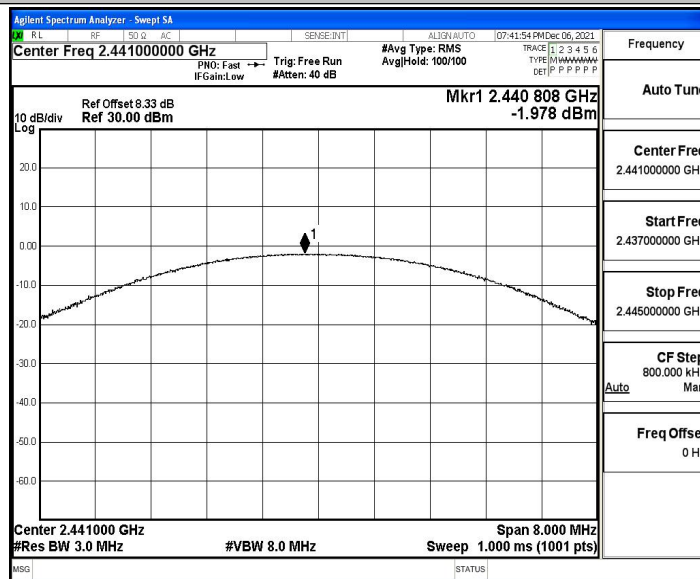


2DH5\_Ant1\_2402

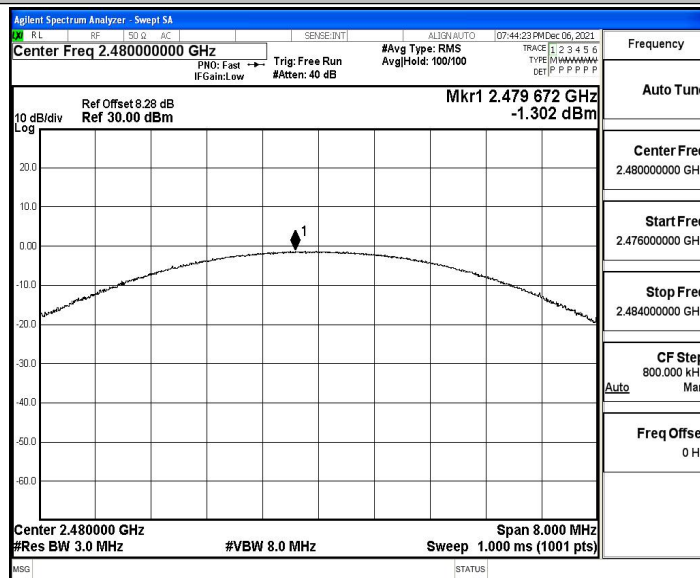




### 2DH5\_Ant1\_2441



### 2DH5\_Ant1\_2480

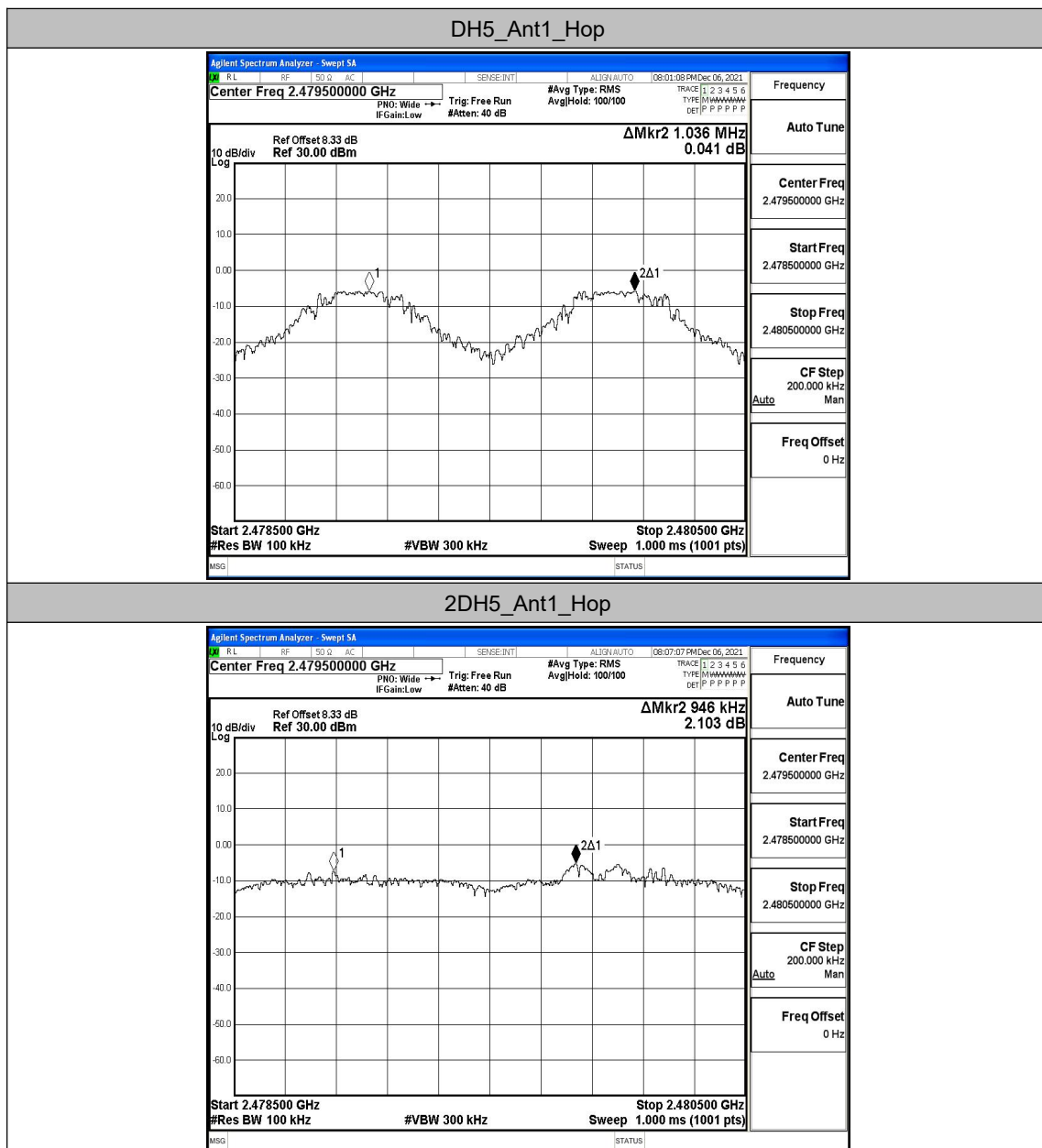




## Test Result

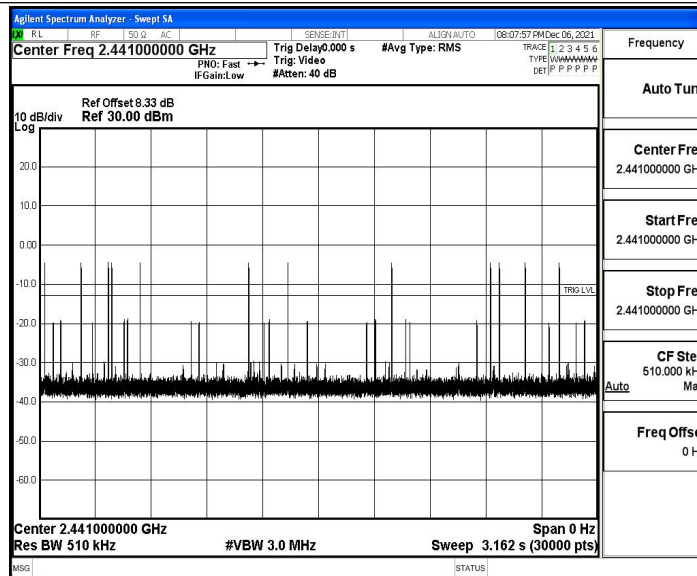
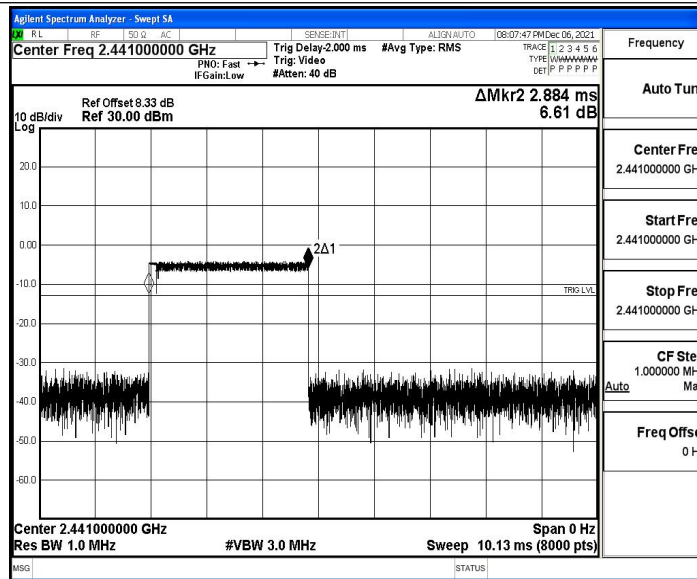
| TestMode | Antenna | Channel | Result[MHz] | Limit[MHz] | Verdict |
|----------|---------|---------|-------------|------------|---------|
| DH5      | Ant1    | Hop     | 1.036       | ≥0.766     | PASS    |
| 2DH5     | Ant1    | Hop     | 0.946       | ≥0.926     | PASS    |

## Test Graphs









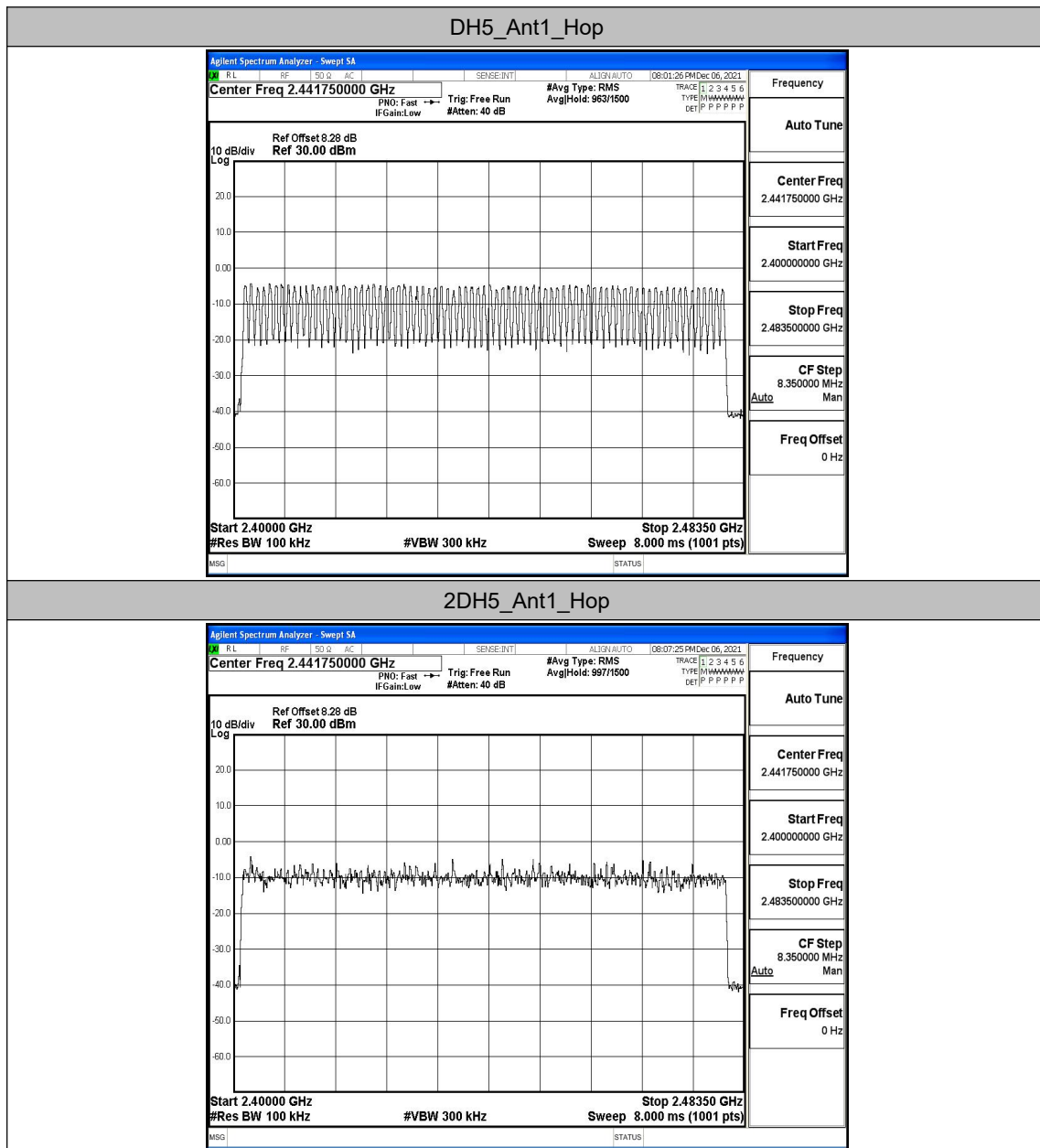


## A.5 Number of hopping channels

### Test Result

| TestMode | Antenna | Channel | Result[Num] | Limit[Num] | Verdict |
|----------|---------|---------|-------------|------------|---------|
| DH5      | Ant1    | Hop     | 79          | ≥15        | PASS    |
| 2DH5     | Ant1    | Hop     | 79          | ≥15        | PASS    |

### Test Graphs



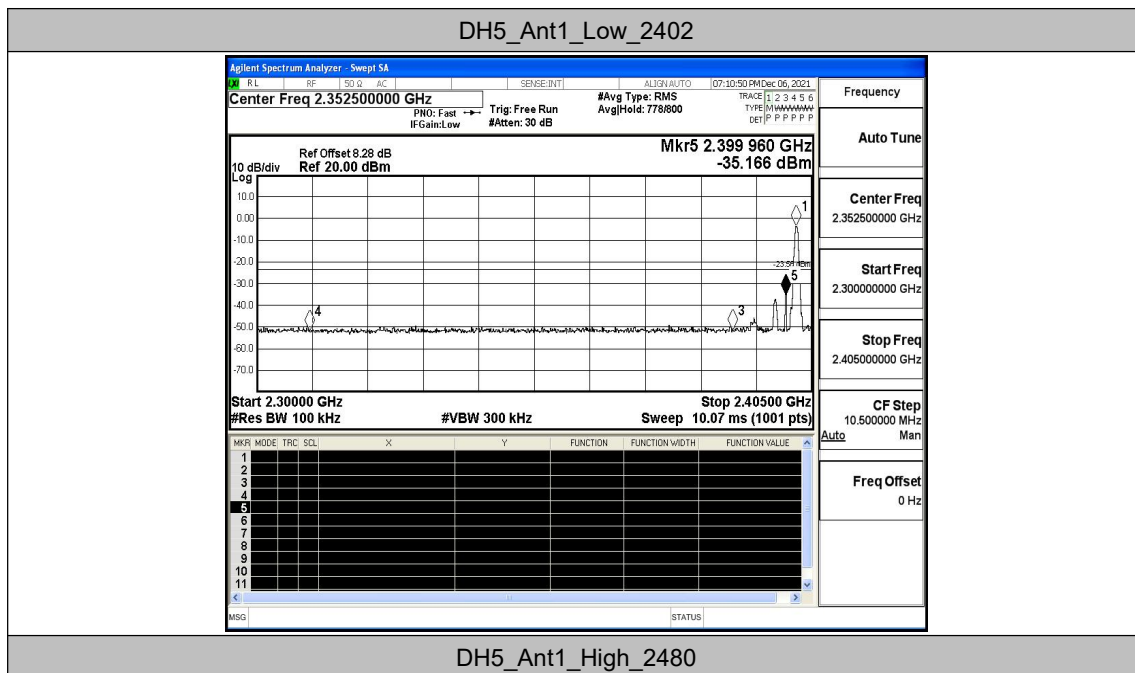


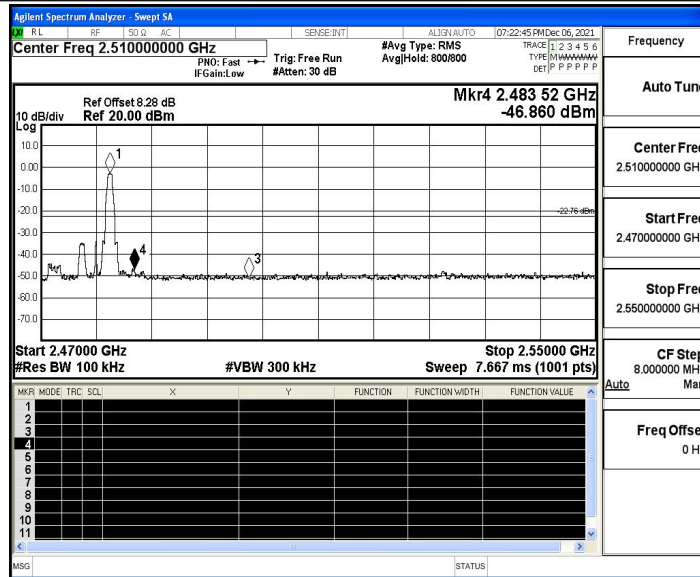
## A.6 Band edge measurements

### Test Result

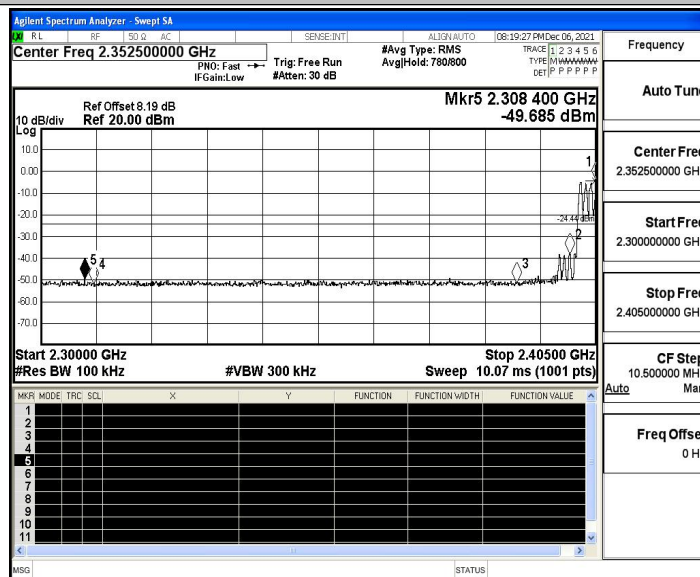
| TestMode | Antenna | ChName | Channel  | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|----------|---------|--------|----------|----------------|--------------|-------------|---------|
| DH5      | Ant1    | Low    | 2402     | -3.56          | -35.17       | ≤-23.56     | PASS    |
|          |         | High   | 2480     | -2.76          | -46.86       | ≤-22.76     | PASS    |
|          |         | Low    | Hop_2402 | -4.44          | -49.69       | ≤-24.44     | PASS    |
|          |         | High   | Hop_2480 | -5.17          | -47.08       | ≤-25.17     | PASS    |
| 2DH5     | Ant1    | Low    | 2402     | -6.81          | -36.53       | ≤-26.81     | PASS    |
|          |         | High   | 2480     | -5.90          | -49.02       | ≤-25.9      | PASS    |
|          |         | Low    | Hop_2402 | -7.09          | -49.54       | ≤-27.09     | PASS    |
|          |         | High   | Hop_2480 | -7.77          | -47.46       | ≤-27.77     | PASS    |

### Test Graphs

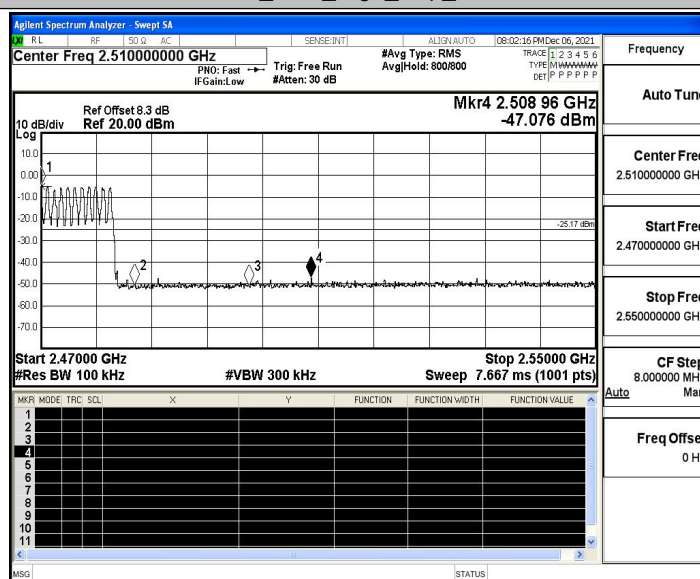




DH5\_Ant1\_Low\_Hop\_2402

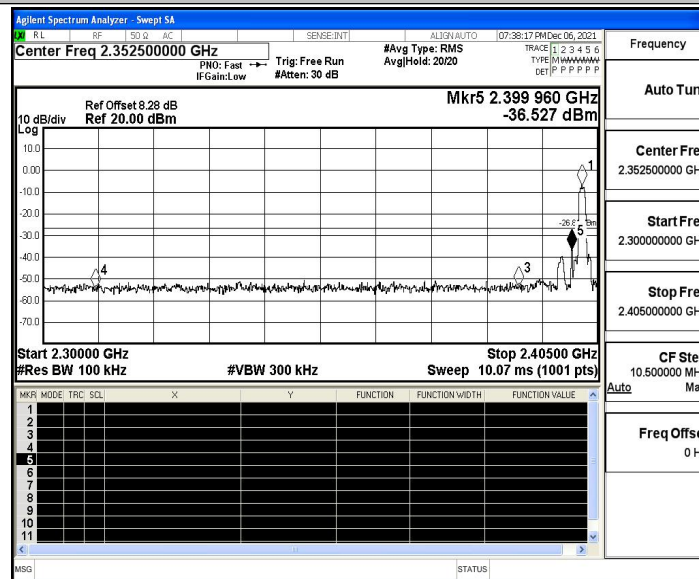


DH5\_Ant1\_High\_Hop\_2480

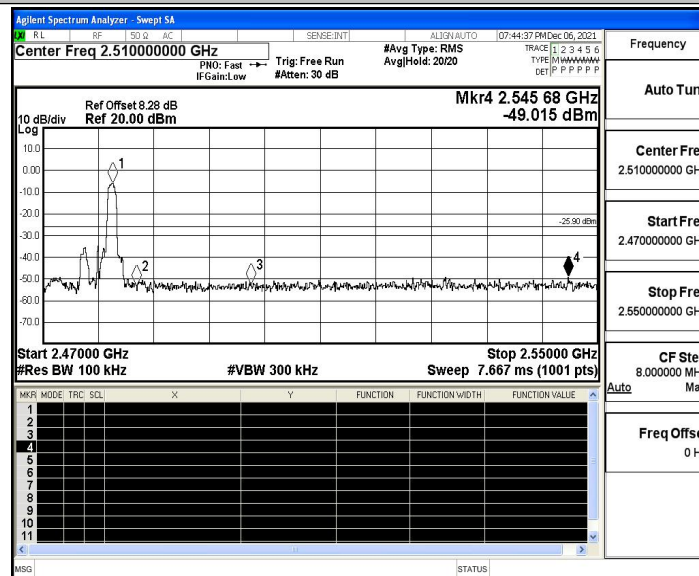




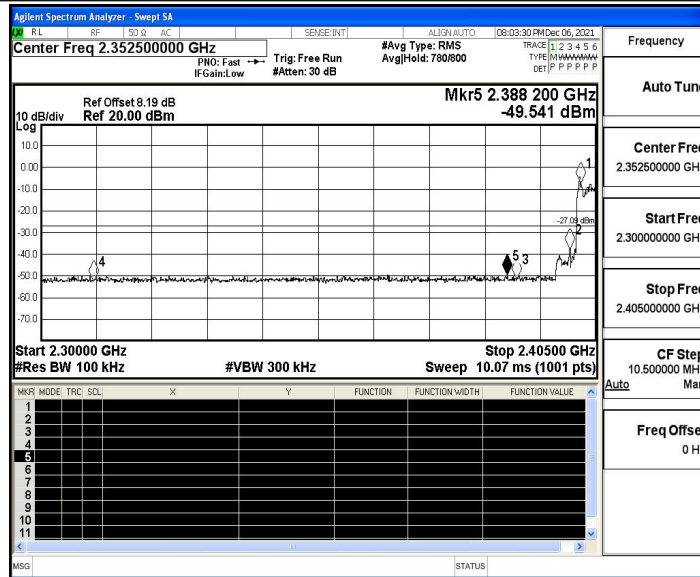
### 2DH5\_Ant1\_Low\_2402



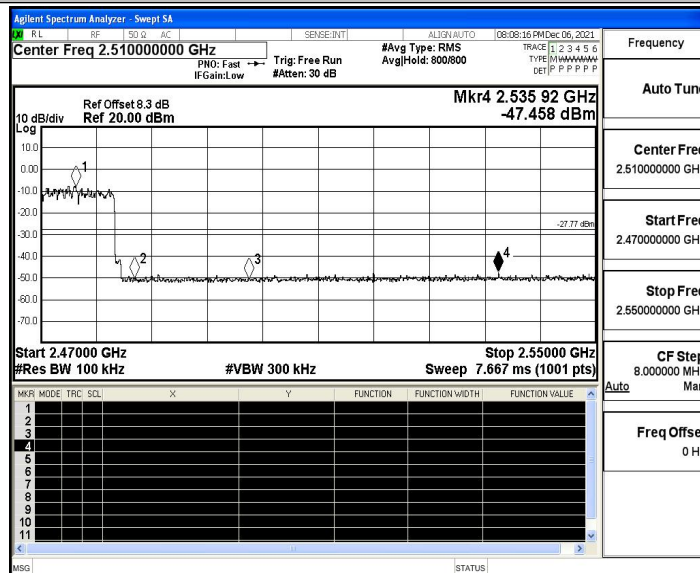
### 2DH5\_Ant1\_High\_2480



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



2DH5\_Ant1\_High\_Hop\_2480





## A.7 Conducted Spurious Emission

### Test Result

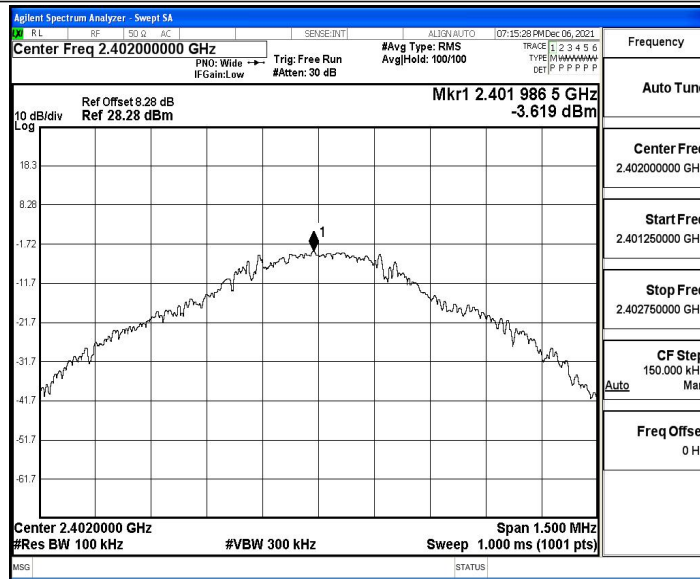
| TestMode | Antenna | Channel | FreqRange<br>[MHz] | RefLevel<br>[dBm] | Result<br>[dBm] | Limit<br>[dBm] | Verdict |
|----------|---------|---------|--------------------|-------------------|-----------------|----------------|---------|
| DH5      | Ant1    | 2402    | Reference          | -3.62             | -3.62           | ---            | PASS    |
|          |         |         | 30~1000            | -3.62             | -61.51          | ≤-23.62        | PASS    |
|          |         |         | 1000~26500         | -3.62             | -45.42          | ≤-23.62        | PASS    |
|          |         | 2441    | Reference          | -3.06             | -3.06           | ---            | PASS    |
|          |         |         | 30~1000            | -3.06             | -60.55          | ≤-23.06        | PASS    |
|          |         |         | 1000~26500         | -3.06             | -44.31          | ≤-23.06        | PASS    |
|          |         | 2480    | Reference          | -3.17             | -3.17           | ---            | PASS    |
|          |         |         | 30~1000            | -3.17             | -60.83          | ≤-23.17        | PASS    |
|          |         |         | 1000~26500         | -3.17             | -43.55          | ≤-23.17        | PASS    |
| 2DH5     | Ant1    | 2402    | Reference          | -4.64             | -4.64           | ---            | PASS    |
|          |         |         | 30~1000            | -4.64             | -60.63          | ≤-24.64        | PASS    |
|          |         |         | 1000~26500         | -4.64             | -46.61          | ≤-24.64        | PASS    |
|          |         | 2441    | Reference          | -3.22             | -3.22           | ---            | PASS    |
|          |         |         | 30~1000            | -3.22             | -60.15          | ≤-23.22        | PASS    |
|          |         |         | 1000~26500         | -3.22             | -44.71          | ≤-23.22        | PASS    |
|          |         | 2480    | Reference          | -2.63             | -2.63           | ---            | PASS    |
|          |         |         | 30~1000            | -2.63             | -60.45          | ≤-22.63        | PASS    |
|          |         |         | 1000~26500         | -2.63             | -42.81          | ≤-22.63        | PASS    |



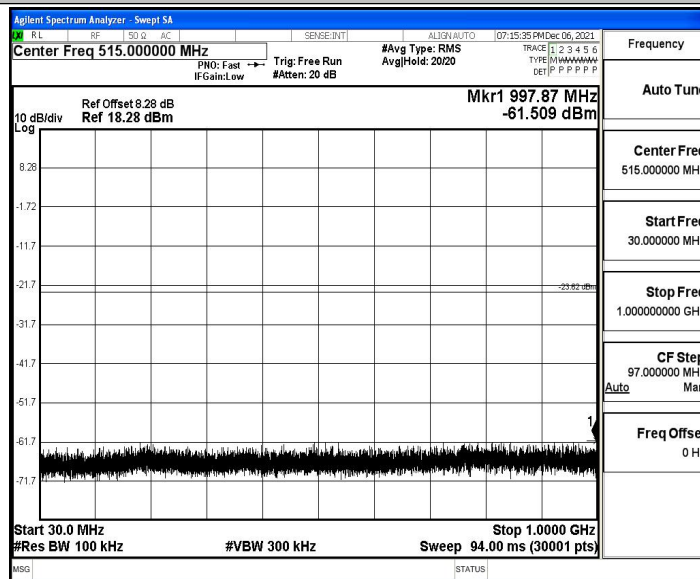


## Test Graphs

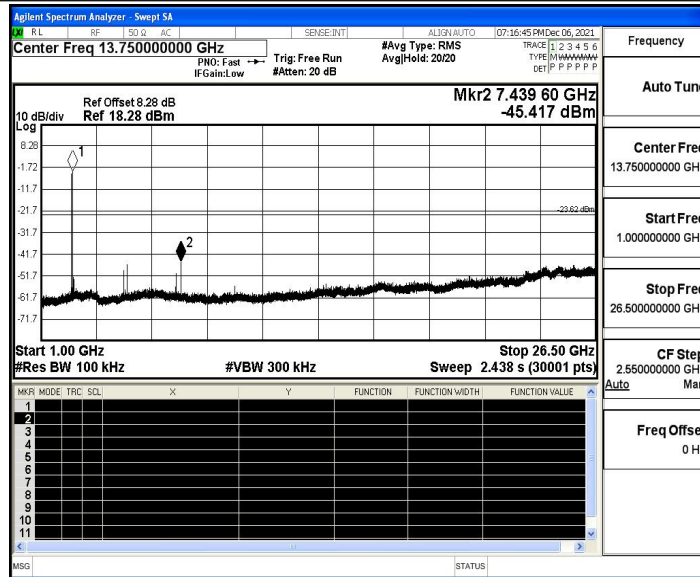
DH5\_Ant1\_2402\_0~Reference



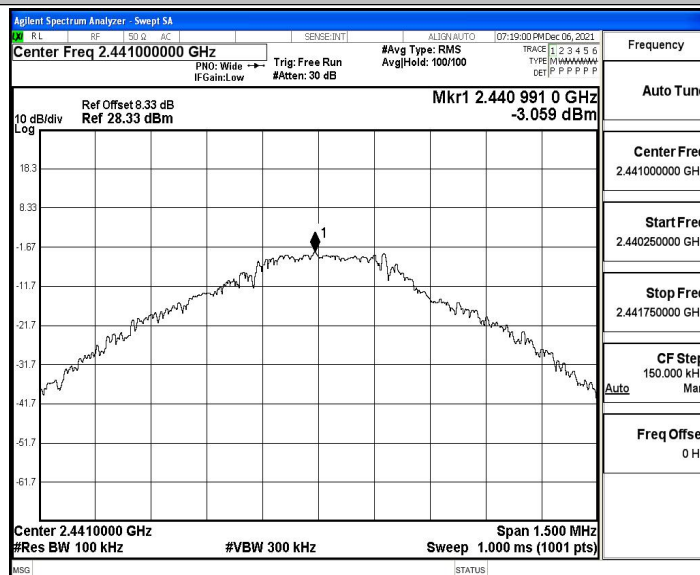
DH5\_Ant1\_2402\_30~1000



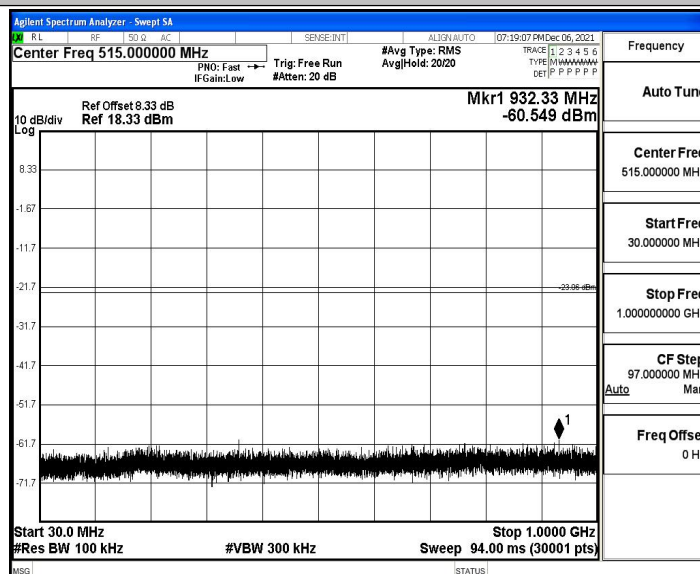
DH5\_Ant1\_2402\_1000~26500



DH5\_Ant1\_2441\_0~Reference

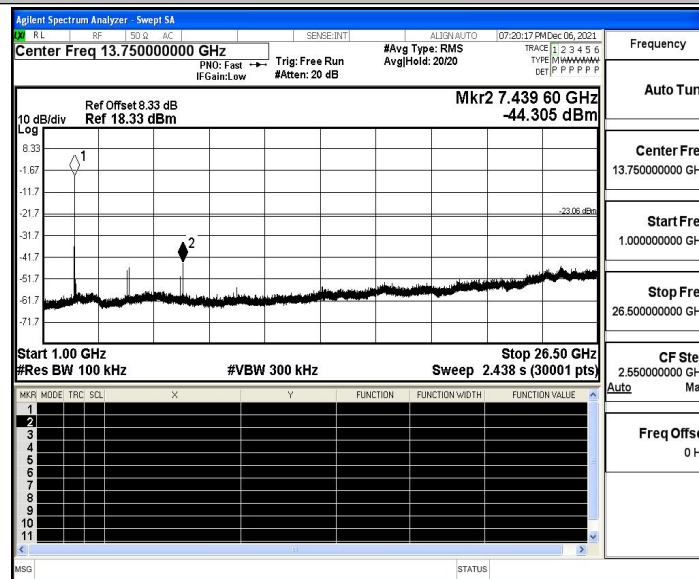


DH5\_Ant1\_2441\_30~1000

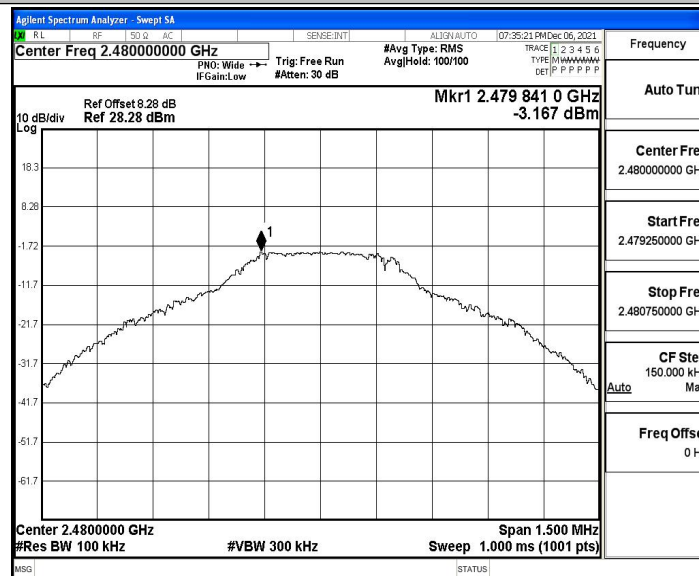




DH5\_Ant1\_2441\_1000~26500



DH5\_Ant1\_2480\_0~Reference



DH5\_Ant1\_2480\_30~1000