

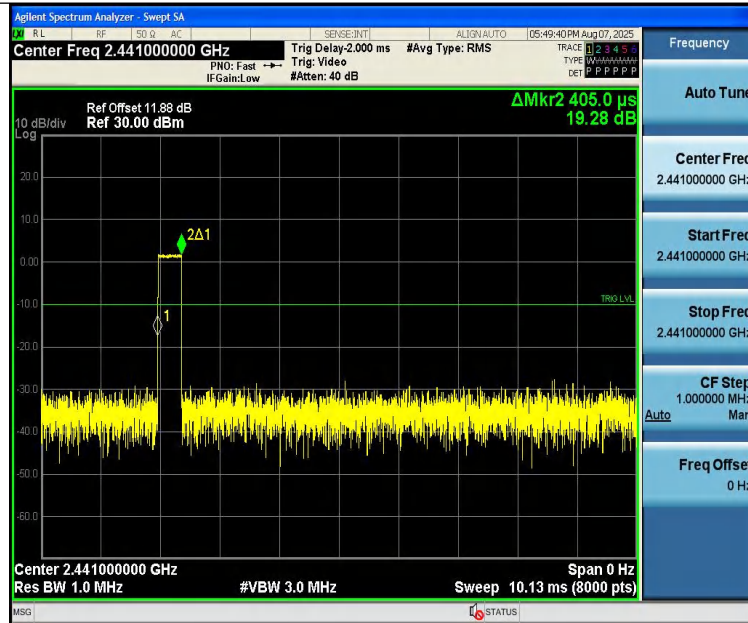
2DH5-Ant1-Hop-PASS



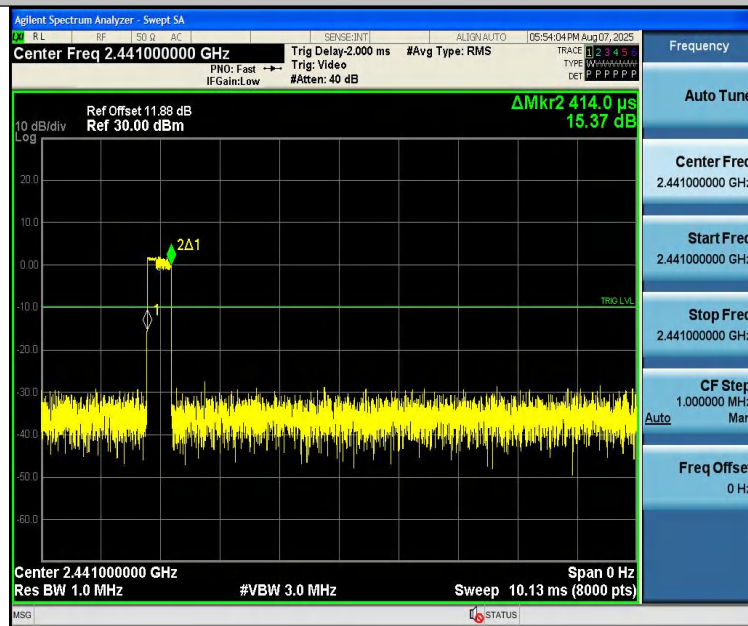
3DH5-Ant1-Hop-PASS



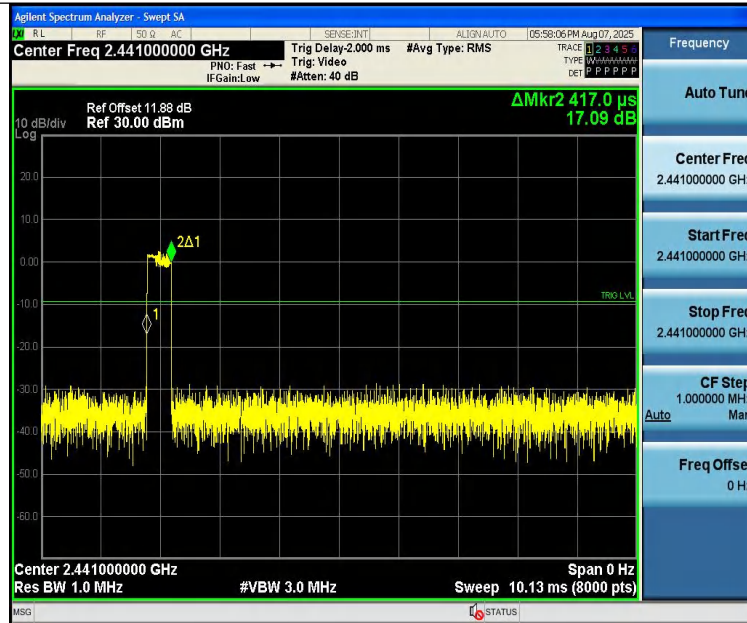
DH1-Ant1-Hop-PASS



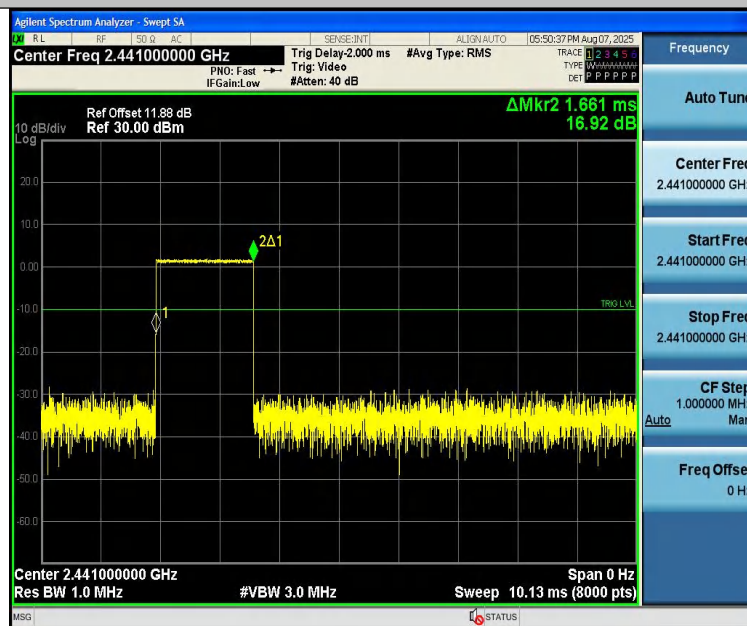
2DH1-Ant1-Hop-PASS



3DH1-Ant1-Hop-PASS



DH3-Ant1-Hop-PASS



2DH3-Ant1-Hop-PASS



3DH3-Ant1-Hop-PASS

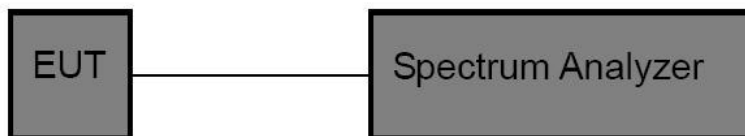


## 13 100kHz Bandwidth of Frequency Band Edge Requirement

### 13.1 Test Standard and Limit

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Standard | FCC Part15 C Section 15.247 (d)                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Test Limit    | in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a). |

### 13.2 Test Setup



### 13.3 Test Procedure

The EUT must have its hopping/Non-hopping function enabled. Using the following spectrum analyzer setting:

1. Set the RBW = 100kHz.
2. Set the VBW = 300kHz.
3. Sweep time = auto couple.
4. Detector function = peak.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.



### 13.4 Test Data

Test Item : Band edge  
Test Voltage : 3.7V  
Test Result : PASS

Test Mode : CH Low ~ CH High  
Temperature : 24.5°C  
Humidity : 55%RH

L:

| TestMode | Antenna | ChName | Frequency[MHz] | RefLevel<br>[dBm] | Result<br>[dBm] | Limit<br>[dBm] | Verdict |
|----------|---------|--------|----------------|-------------------|-----------------|----------------|---------|
| DH5      | Ant1    | Low    | 2402           | 2.79              | -47.2           | ≤-17.21        | PASS    |
| DH5      | Ant1    | High   | 2480           | 1.57              | -46.21          | ≤-18.43        | PASS    |
| DH5      | Ant1    | Low    | Hop_2402       | 2.37              | -46.8           | ≤-17.63        | PASS    |
| DH5      | Ant1    | High   | Hop_2480       | 3.15              | -45.57          | ≤-16.85        | PASS    |
| 2DH5     | Ant1    | Low    | 2402           | -0.58             | -46.68          | ≤-20.58        | PASS    |
| 2DH5     | Ant1    | High   | 2480           | 0.11              | -46.87          | ≤-19.89        | PASS    |
| 2DH5     | Ant1    | Low    | Hop_2402       | 0.67              | -46.95          | ≤-19.33        | PASS    |
| 2DH5     | Ant1    | High   | Hop_2480       | 1.08              | -46.15          | ≤-18.92        | PASS    |
| 3DH5     | Ant1    | Low    | 2402           | 1.43              | -46.59          | ≤-18.57        | PASS    |
| 3DH5     | Ant1    | High   | 2480           | -0.40             | -46.51          | ≤-20.4         | PASS    |
| 3DH5     | Ant1    | Low    | Hop_2402       | -1.40             | -46.86          | ≤-21.4         | PASS    |
| 3DH5     | Ant1    | High   | Hop_2480       | 1.45              | -46.41          | ≤-18.55        | PASS    |



R:

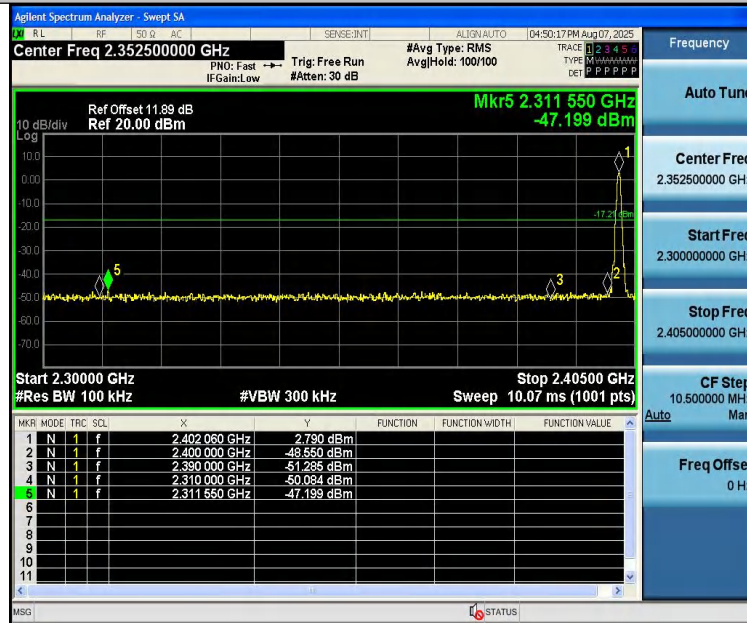
| TestMode | Antenna | ChName | Frequency[MHz] | RefLevel<br>[dBm] | Result<br>[dBm] | Limit<br>[dBm] | Verdict |
|----------|---------|--------|----------------|-------------------|-----------------|----------------|---------|
| DH5      | Ant1    | Low    | 2402           | 3.49              | -46.75          | $\leq -16.51$  | PASS    |
| DH5      | Ant1    | High   | 2480           | 1.47              | -46.68          | $\leq -18.53$  | PASS    |
| DH5      | Ant1    | Low    | Hop_2402       | 2.75              | -46.4           | $\leq -17.25$  | PASS    |
| DH5      | Ant1    | High   | Hop_2480       | 2.00              | -46.02          | $\leq -18$     | PASS    |
| 2DH5     | Ant1    | Low    | 2402           | 1.64              | -47.05          | $\leq -18.36$  | PASS    |
| 2DH5     | Ant1    | High   | 2480           | -0.10             | -46.25          | $\leq -20.1$   | PASS    |
| 2DH5     | Ant1    | Low    | Hop_2402       | 1.05              | -46.56          | $\leq -18.95$  | PASS    |
| 2DH5     | Ant1    | High   | Hop_2480       | 1.90              | -45.73          | $\leq -18.1$   | PASS    |
| 3DH5     | Ant1    | Low    | 2402           | 1.52              | -46.79          | $\leq -18.48$  | PASS    |
| 3DH5     | Ant1    | High   | 2480           | 1.62              | -46.7           | $\leq -18.38$  | PASS    |
| 3DH5     | Ant1    | Low    | Hop_2402       | -1.07             | -46.89          | $\leq -21.07$  | PASS    |
| 3DH5     | Ant1    | High   | Hop_2480       | -0.54             | -46.31          | $\leq -20.54$  | PASS    |



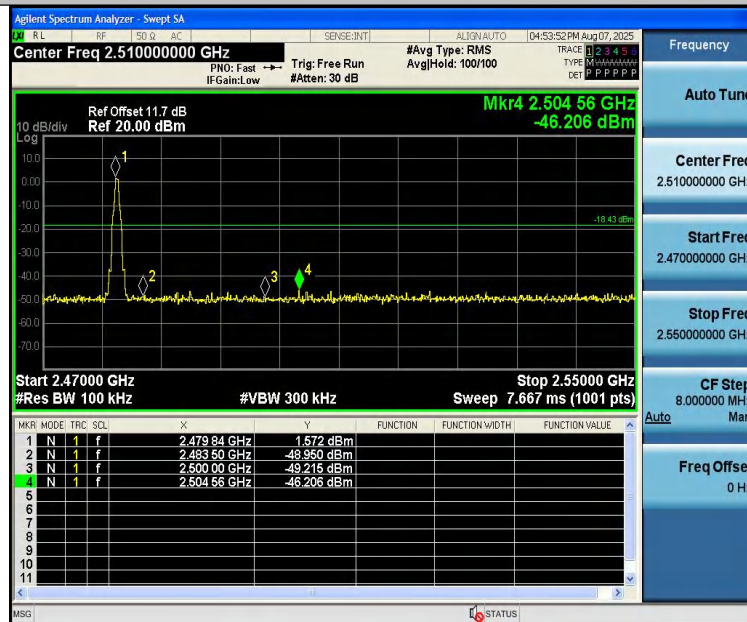
## Test Graphs:

L:

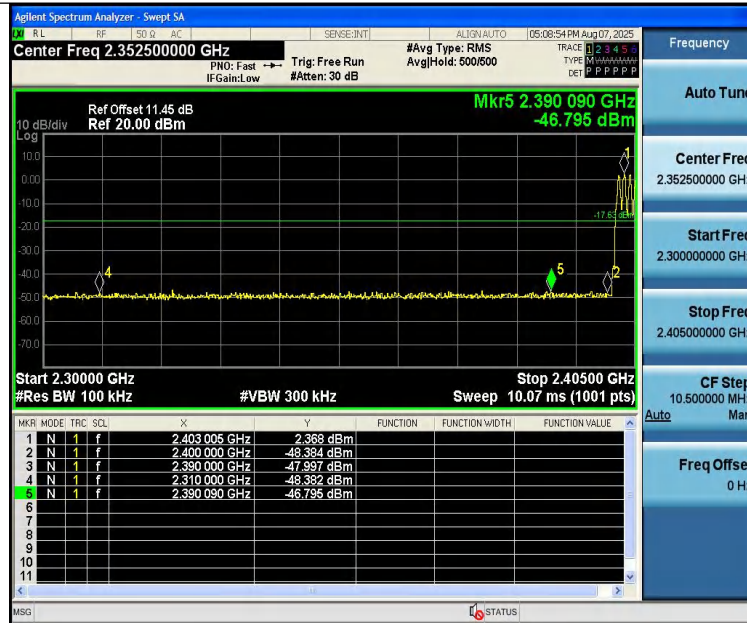
DH5-Ant1-2402-PASS



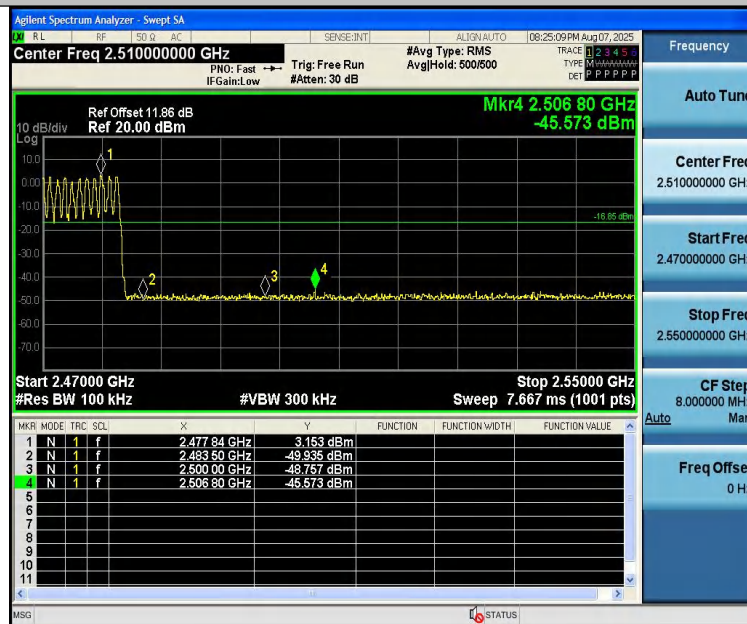
DH5-Ant1-2480-PASS



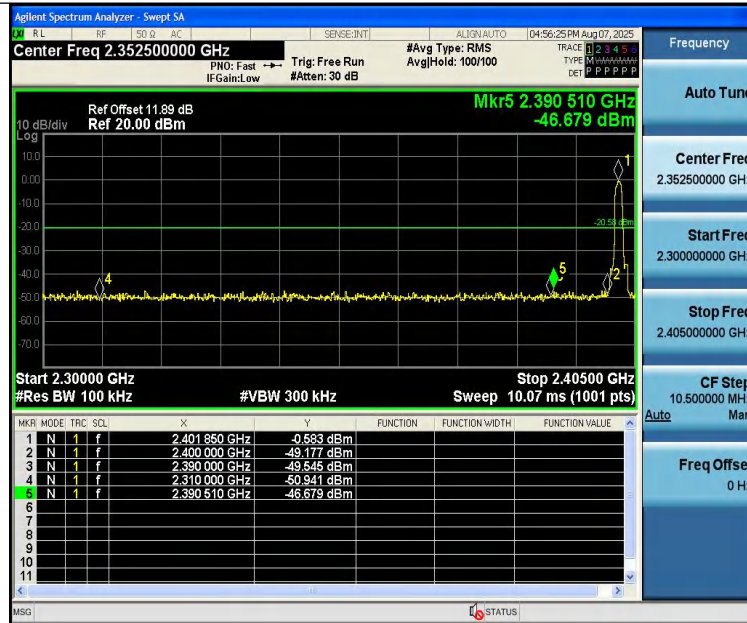
DH5-Ant1-Hop\_2402-PASS



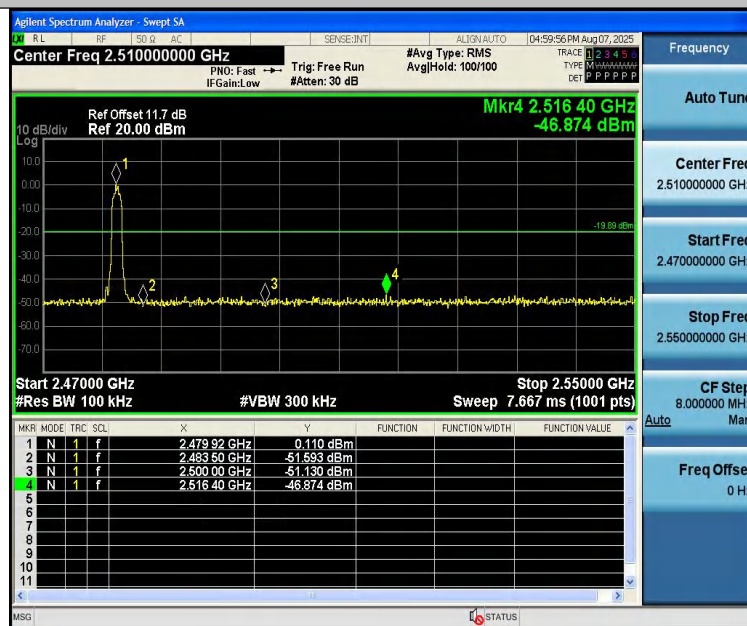
## DH5-Ant1-Hop\_2480-PASS



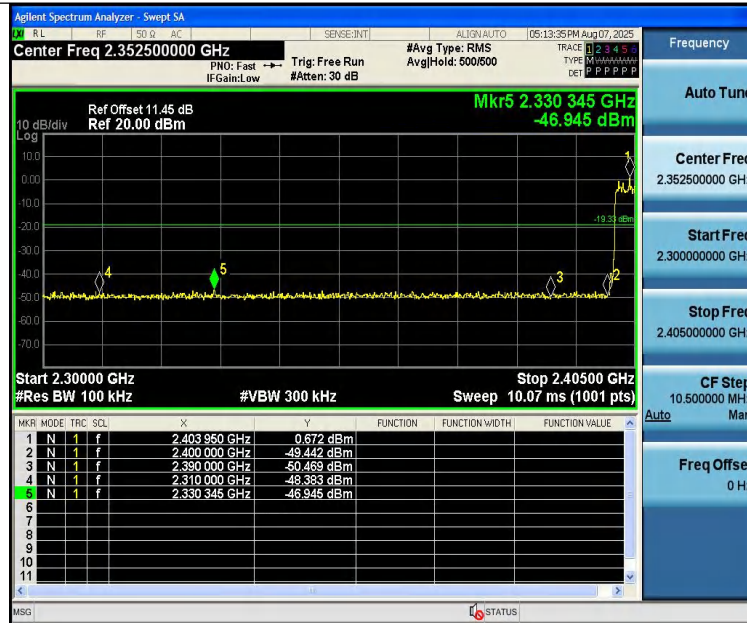
## 2DH5-Ant1-2402-PASS



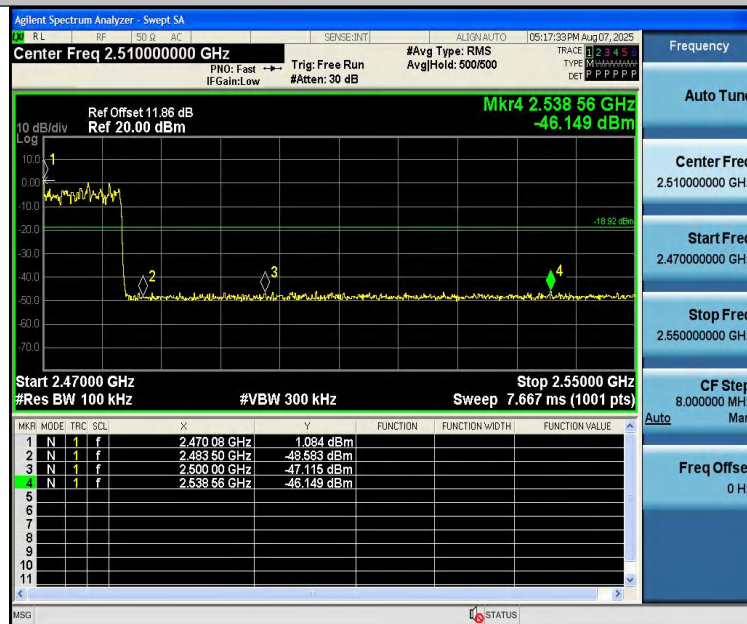
2DH5-Ant1-2480-PASS



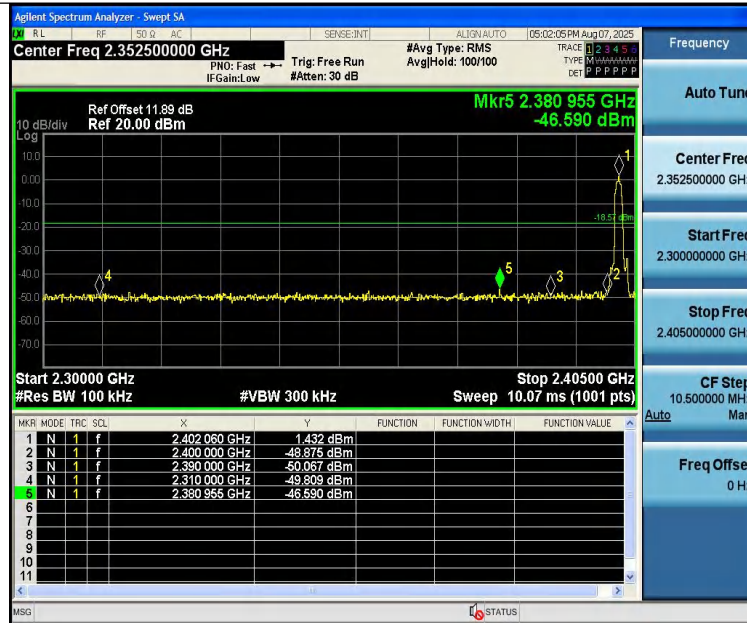
2DH5-Ant1-Hop\_2402-PASS



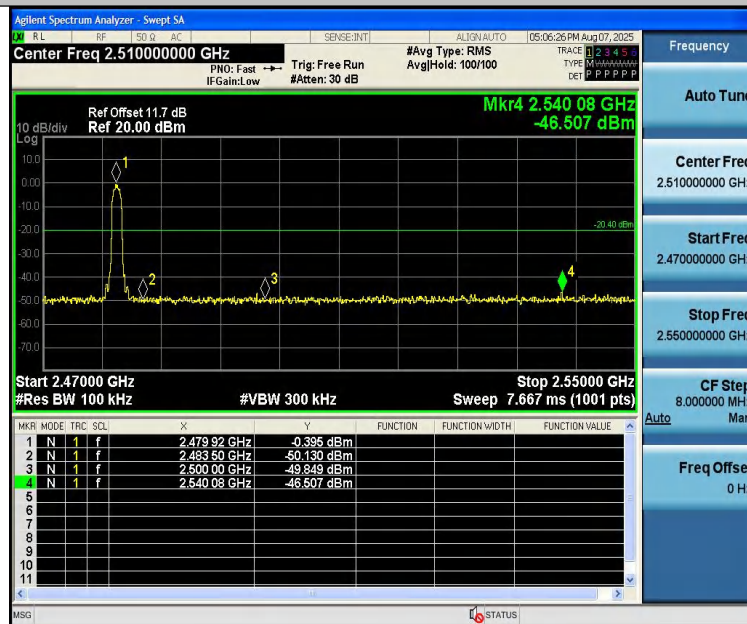
## 2DH5-Ant1-Hop\_2480-PASS



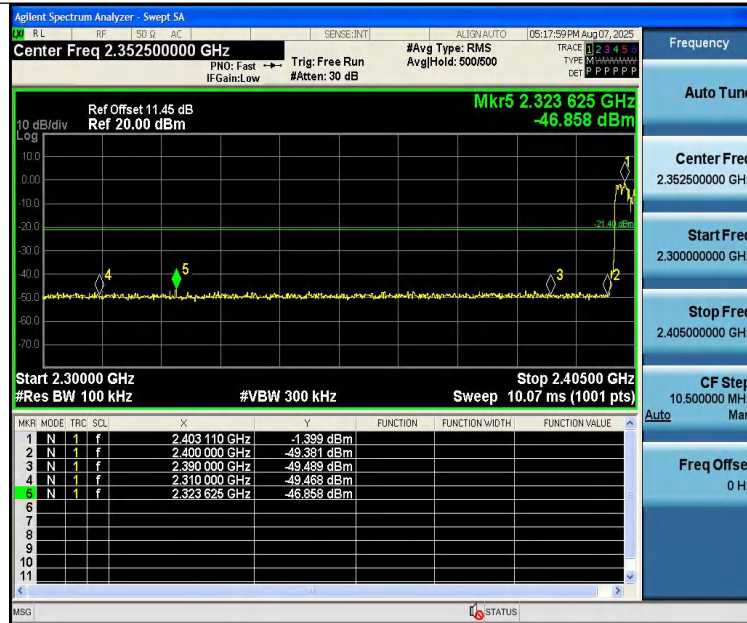
## 3DH5-Ant1-2402-PASS



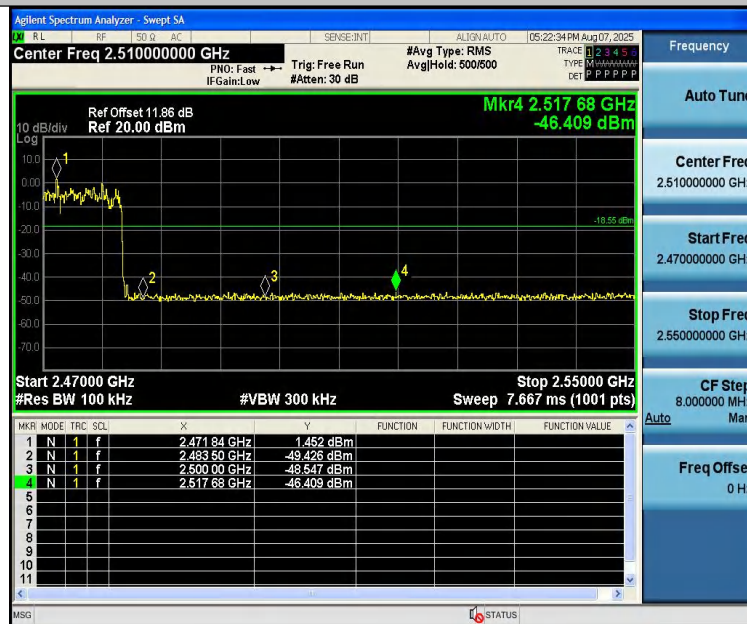
3DH5-Ant1-2480-PASS



3DH5-Ant1-Hop\_2402-PASS



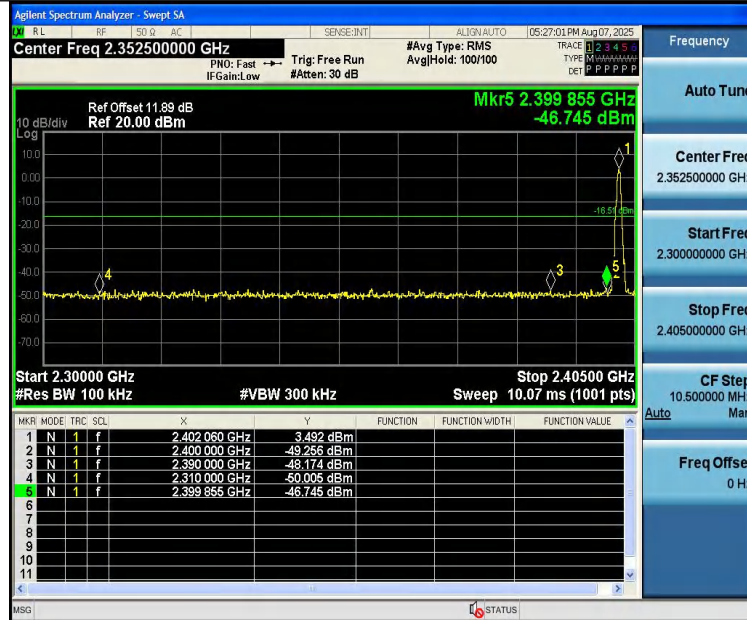
## 3DH5-Ant1-Hop\_2480-PASS



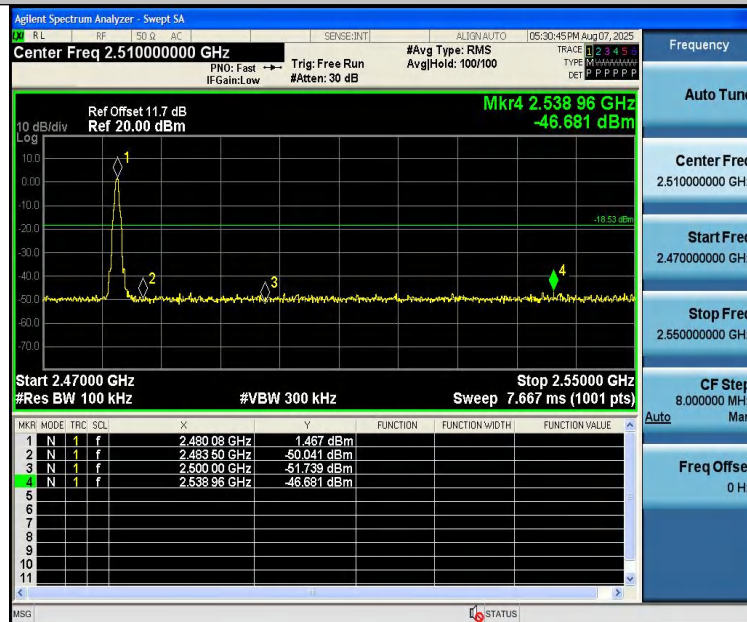


R:

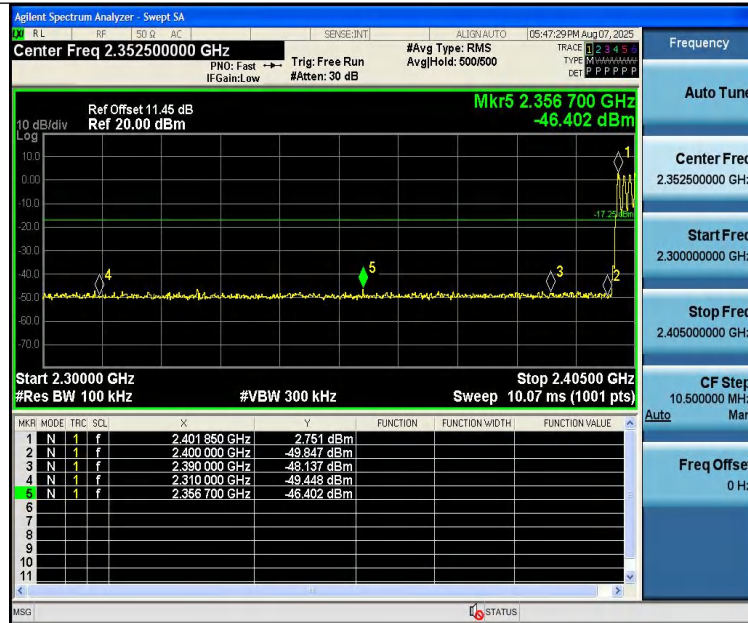
## DH5-Ant1-2402-PASS



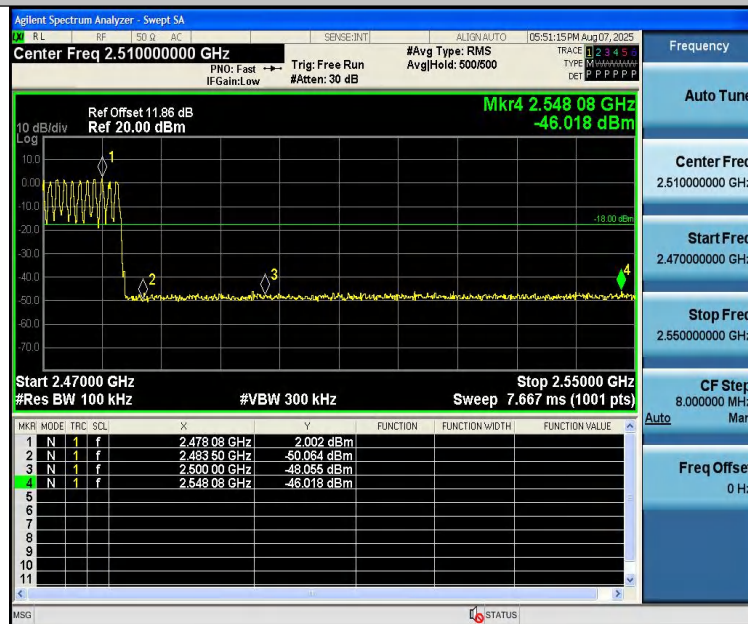
## DH5-Ant1-2480-PASS



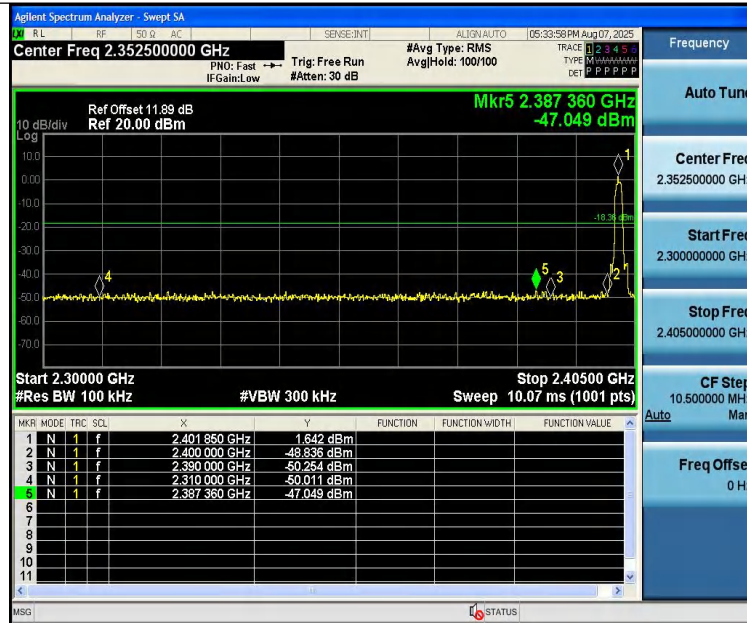
## DH5-Ant1-Hop\_2402-PASS



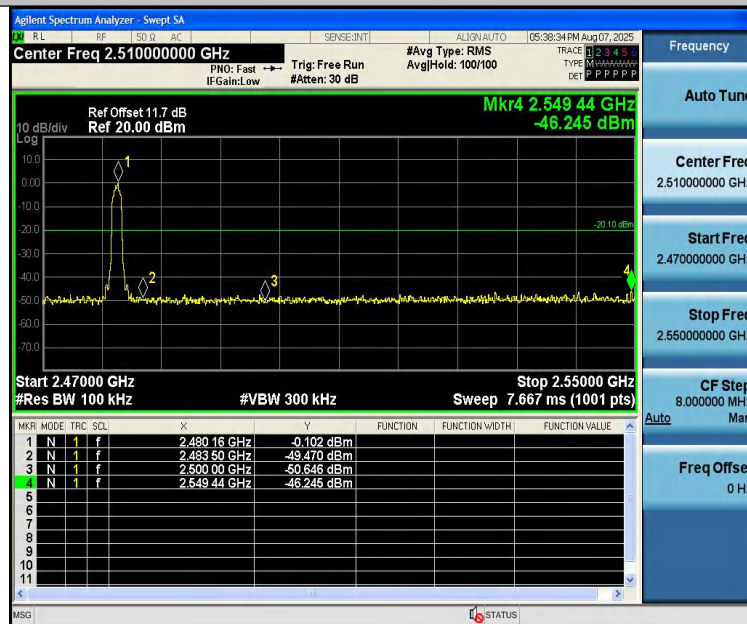
DH5-Ant1-Hop\_2480-PASS



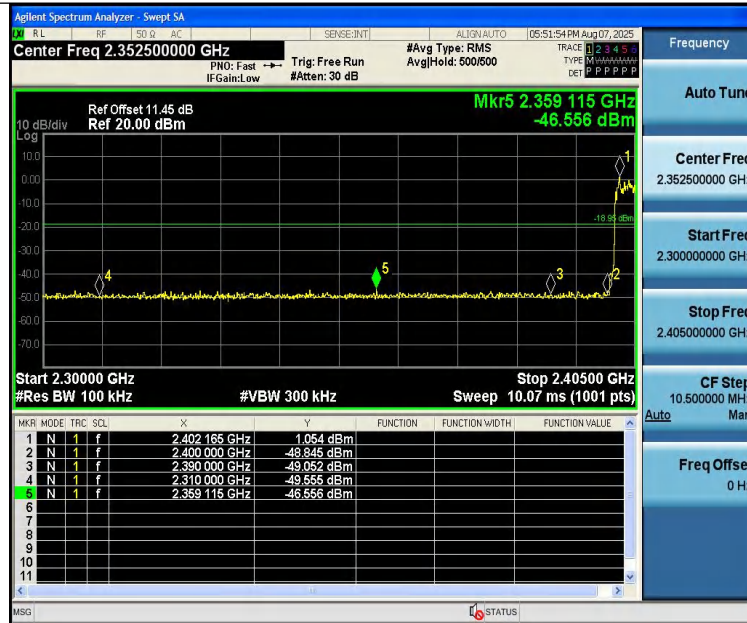
2DH5-Ant1-2402-PASS



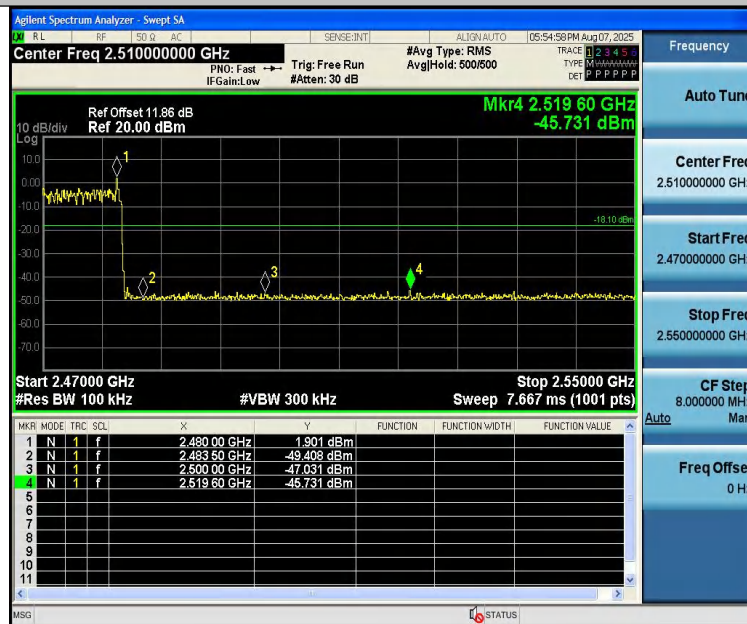
2DH5-Ant1-2480-PASS



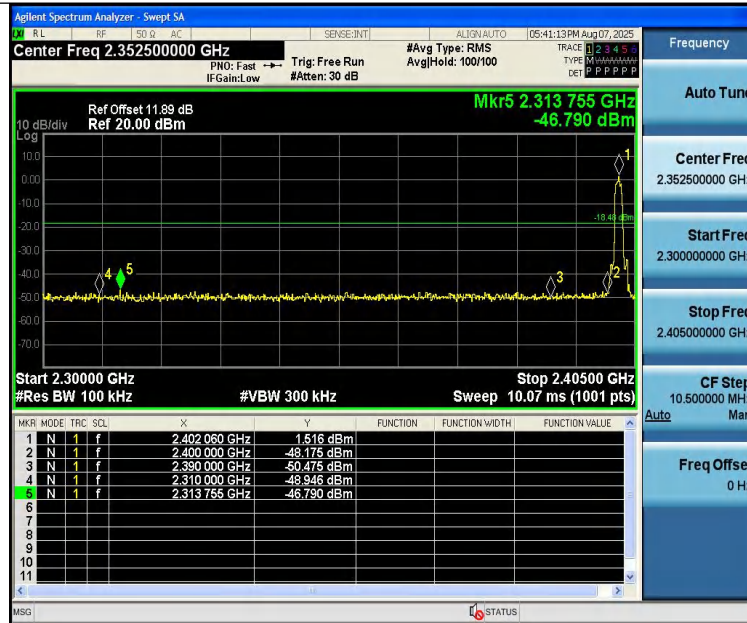
2DH5-Ant1-Hop\_2402-PASS



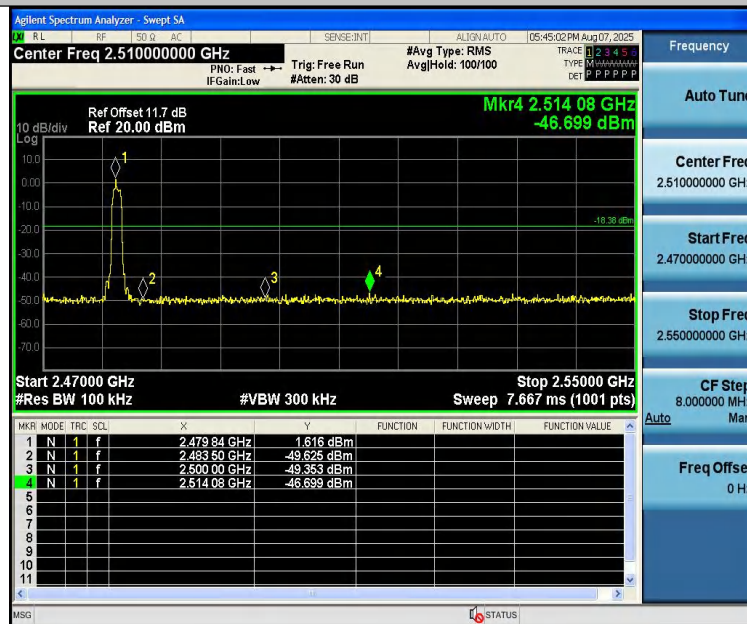
## 2DH5-Ant1-Hop\_2480-PASS



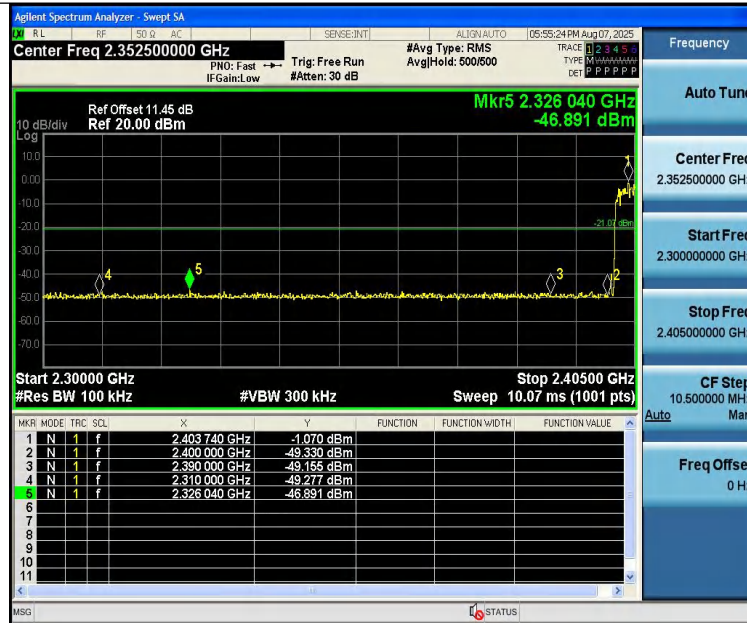
## 3DH5-Ant1-2402-PASS



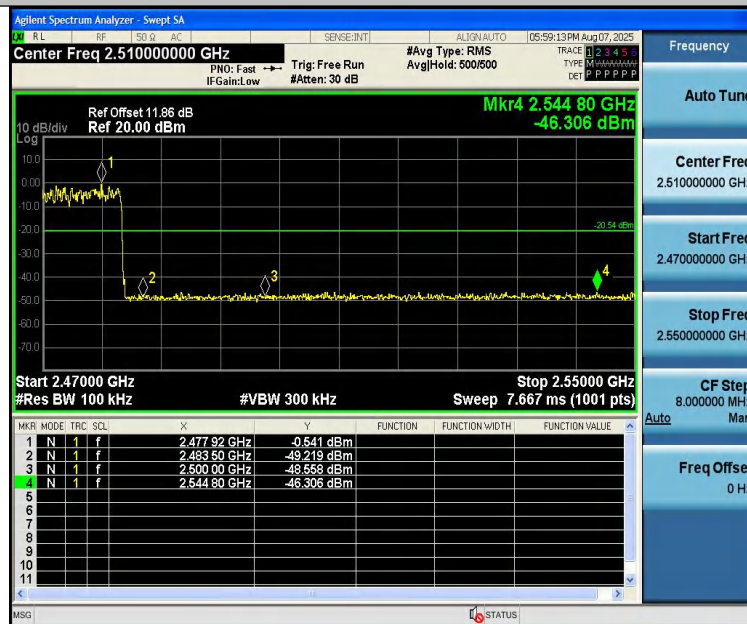
3DH5-Ant1-2480-PASS



3DH5-Ant1-Hop\_2402-PASS



## 3DH5-Ant1-Hop\_2480-PASS





## Conducted Emission Method

## Test Result

L:

| TestMode | Antenna | Frequency[MHz] | FreqRange [MHz] | RefLevel [dBm] | Result [dBm] | Limit [dBm]   | Verdict |
|----------|---------|----------------|-----------------|----------------|--------------|---------------|---------|
| DH5      | Ant1    | 2402           | 0~Reference     | 2.74           | 2.74         | ---           | PASS    |
| DH5      | Ant1    | 2402           | 30~1000         | 2.74           | -56.79       | $\leq -17.26$ | PASS    |
| DH5      | Ant1    | 2402           | 1000~26500      | 2.74           | -22.1        | $\leq -17.26$ | PASS    |
| DH5      | Ant1    | 2441           | 0~Reference     | 1.22           | 1.22         | ---           | PASS    |
| DH5      | Ant1    | 2441           | 30~1000         | 1.22           | -57.71       | $\leq -18.78$ | PASS    |
| DH5      | Ant1    | 2441           | 1000~26500      | 1.22           | -24.22       | $\leq -18.78$ | PASS    |
| DH5      | Ant1    | 2480           | 0~Reference     | 1.60           | 1.60         | ---           | PASS    |
| DH5      | Ant1    | 2480           | 30~1000         | 1.60           | -58.14       | $\leq -18.4$  | PASS    |
| DH5      | Ant1    | 2480           | 1000~26500      | 1.60           | -26.73       | $\leq -18.4$  | PASS    |
| 2DH5     | Ant1    | 2402           | 0~Reference     | 3.33           | 3.33         | ---           | PASS    |
| 2DH5     | Ant1    | 2402           | 30~1000         | 3.33           | -57.15       | $\leq -16.67$ | PASS    |
| 2DH5     | Ant1    | 2402           | 1000~26500      | 3.33           | -26.01       | $\leq -16.67$ | PASS    |
| 2DH5     | Ant1    | 2441           | 0~Reference     | 1.17           | 1.17         | ---           | PASS    |
| 2DH5     | Ant1    | 2441           | 30~1000         | 1.17           | -57.63       | $\leq -18.83$ | PASS    |
| 2DH5     | Ant1    | 2441           | 1000~26500      | 1.17           | -31.36       | $\leq -18.83$ | PASS    |
| 2DH5     | Ant1    | 2480           | 0~Reference     | 1.27           | 1.27         | ---           | PASS    |
| 2DH5     | Ant1    | 2480           | 30~1000         | 1.27           | -57.18       | $\leq -18.73$ | PASS    |
| 2DH5     | Ant1    | 2480           | 1000~26500      | 1.27           | -25.29       | $\leq -18.73$ | PASS    |
| 3DH5     | Ant1    | 2402           | 0~Reference     | -0.46          | -0.46        | ---           | PASS    |
| 3DH5     | Ant1    | 2402           | 30~1000         | -0.46          | -57.92       | $\leq -20.46$ | PASS    |
| 3DH5     | Ant1    | 2402           | 1000~26500      | -0.46          | -26.84       | $\leq -20.46$ | PASS    |
| 3DH5     | Ant1    | 2441           | 0~Reference     | 1.35           | 1.35         | ---           | PASS    |
| 3DH5     | Ant1    | 2441           | 30~1000         | 1.35           | -57.51       | $\leq -18.65$ | PASS    |
| 3DH5     | Ant1    | 2441           | 1000~26500      | 1.35           | -29.94       | $\leq -18.65$ | PASS    |
| 3DH5     | Ant1    | 2480           | 0~Reference     | 1.62           | 1.62         | ---           | PASS    |
| 3DH5     | Ant1    | 2480           | 30~1000         | 1.62           | -57.75       | $\leq -18.38$ | PASS    |
| 3DH5     | Ant1    | 2480           | 1000~26500      | 1.62           | -25.53       | $\leq -18.38$ | PASS    |



R:

| TestMode | Antenna | Frequency[MHz] | FreqRange [MHz] | RefLevel [dBm] | Result [dBm] | Limit [dBm]   | Verdict |
|----------|---------|----------------|-----------------|----------------|--------------|---------------|---------|
| DH5      | Ant1    | 2402           | 0~Reference     | 2.76           | 2.76         | ---           | PASS    |
| DH5      | Ant1    | 2402           | 30~1000         | 2.76           | -55.96       | $\leq -17.24$ | PASS    |
| DH5      | Ant1    | 2402           | 1000~26500      | 2.76           | -23.96       | $\leq -17.24$ | PASS    |
| DH5      | Ant1    | 2441           | 0~Reference     | 1.37           | 1.37         | ---           | PASS    |
| DH5      | Ant1    | 2441           | 30~1000         | 1.37           | -56.86       | $\leq -18.63$ | PASS    |
| DH5      | Ant1    | 2441           | 1000~26500      | 1.37           | -27.18       | $\leq -18.63$ | PASS    |
| DH5      | Ant1    | 2480           | 0~Reference     | 1.71           | 1.71         | ---           | PASS    |
| DH5      | Ant1    | 2480           | 30~1000         | 1.71           | -57.76       | $\leq -18.29$ | PASS    |
| DH5      | Ant1    | 2480           | 1000~26500      | 1.71           | -26.76       | $\leq -18.29$ | PASS    |
| 2DH5     | Ant1    | 2402           | 0~Reference     | 1.51           | 1.51         | ---           | PASS    |
| 2DH5     | Ant1    | 2402           | 30~1000         | 1.51           | -57.55       | $\leq -18.49$ | PASS    |
| 2DH5     | Ant1    | 2402           | 1000~26500      | 1.51           | -21.49       | $\leq -18.49$ | PASS    |
| 2DH5     | Ant1    | 2441           | 0~Reference     | 1.49           | 1.49         | ---           | PASS    |
| 2DH5     | Ant1    | 2441           | 30~1000         | 1.49           | -56.66       | $\leq -18.51$ | PASS    |
| 2DH5     | Ant1    | 2441           | 1000~26500      | 1.49           | -29.98       | $\leq -18.51$ | PASS    |
| 2DH5     | Ant1    | 2480           | 0~Reference     | -1.36          | -1.36        | ---           | PASS    |
| 2DH5     | Ant1    | 2480           | 30~1000         | -1.36          | -56.99       | $\leq -21.36$ | PASS    |
| 2DH5     | Ant1    | 2480           | 1000~26500      | -1.36          | -32.1        | $\leq -21.36$ | PASS    |
| 3DH5     | Ant1    | 2402           | 0~Reference     | 3.38           | 3.38         | ---           | PASS    |
| 3DH5     | Ant1    | 2402           | 30~1000         | 3.38           | -57.13       | $\leq -16.62$ | PASS    |
| 3DH5     | Ant1    | 2402           | 1000~26500      | 3.38           | -25.85       | $\leq -16.62$ | PASS    |
| 3DH5     | Ant1    | 2441           | 0~Reference     | -0.57          | -0.57        | ---           | PASS    |
| 3DH5     | Ant1    | 2441           | 30~1000         | -0.57          | -57.65       | $\leq -20.57$ | PASS    |
| 3DH5     | Ant1    | 2441           | 1000~26500      | -0.57          | -23.97       | $\leq -20.57$ | PASS    |
| 3DH5     | Ant1    | 2480           | 0~Reference     | -1.93          | -1.93        | ---           | PASS    |
| 3DH5     | Ant1    | 2480           | 30~1000         | -1.93          | -57.66       | $\leq -21.93$ | PASS    |
| 3DH5     | Ant1    | 2480           | 1000~26500      | -1.93          | -29.89       | $\leq -21.93$ | PASS    |



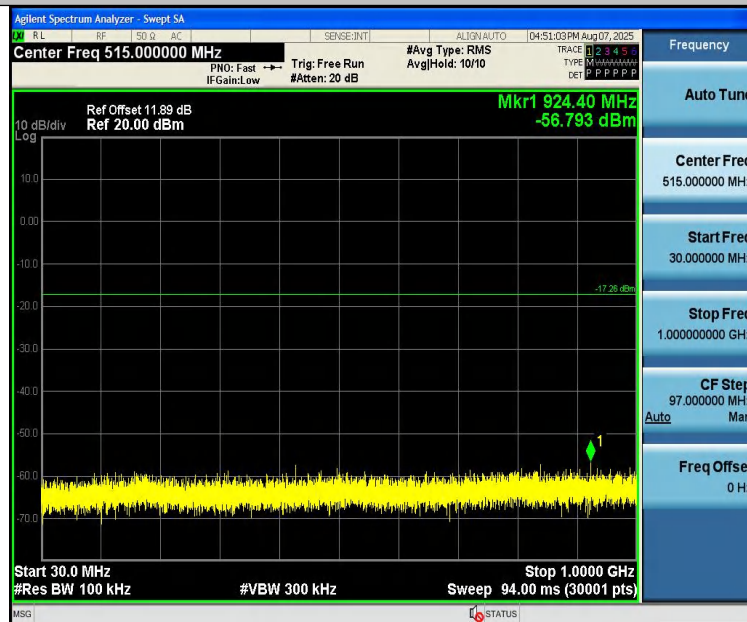
Test Graphs:

L:

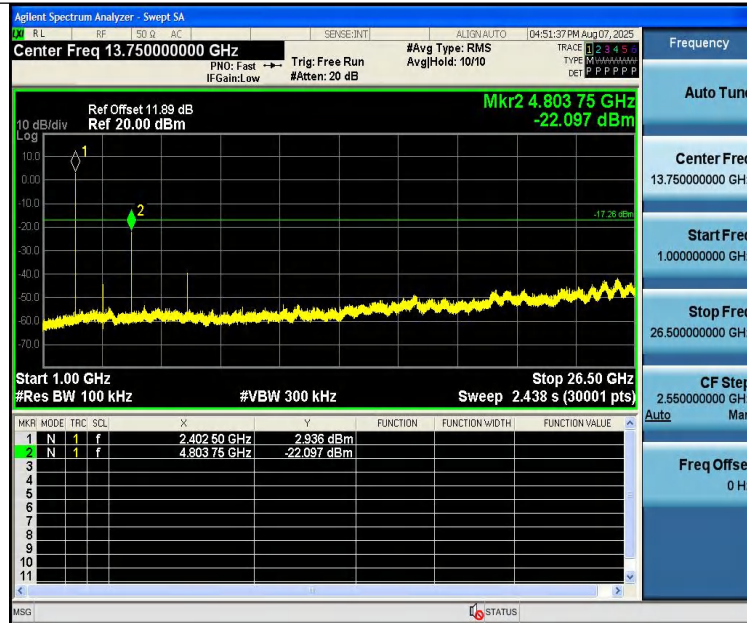
DH5-Ant1-2402-0~Reference-PASS



DH5-Ant1-2402-30~1000-PASS



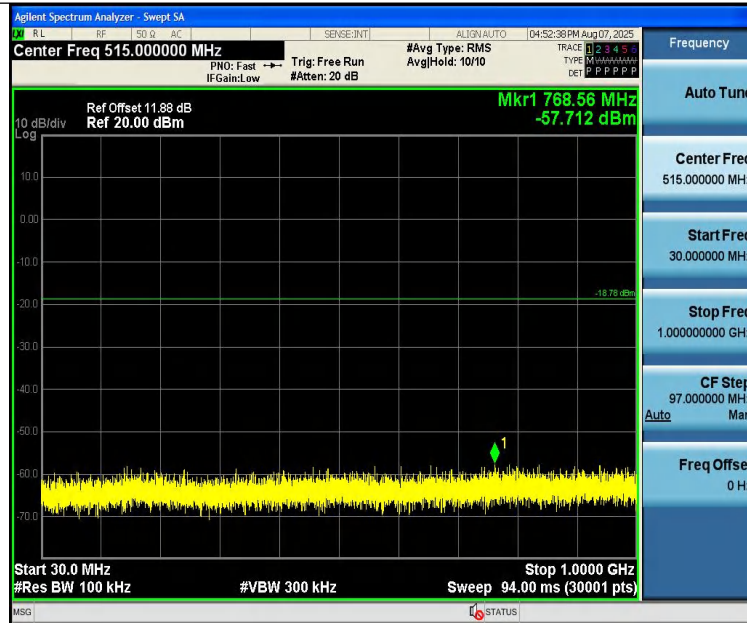
DH5-Ant1-2402-1000~26500-PASS



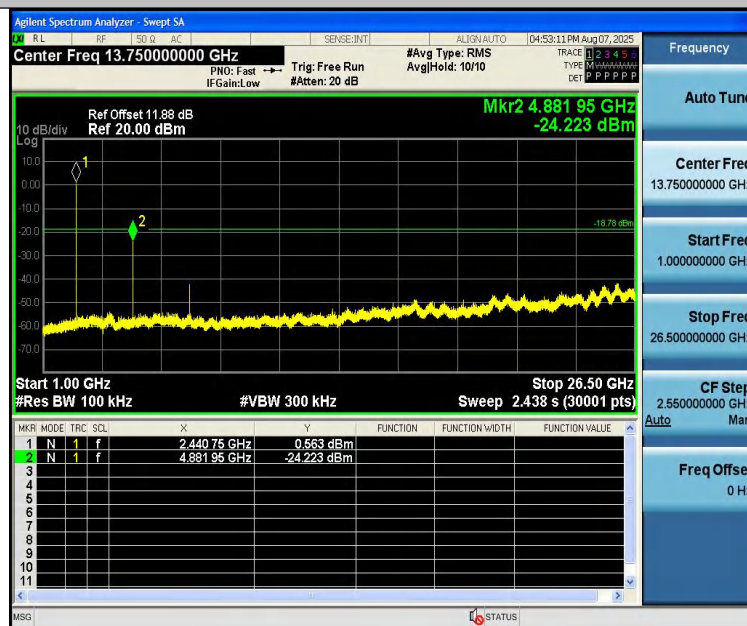
DH5-Ant1-2441-0~Reference-PASS



DH5-Ant1-2441-30~1000-PASS



DH5-Ant1-2441-1000~26500-PASS



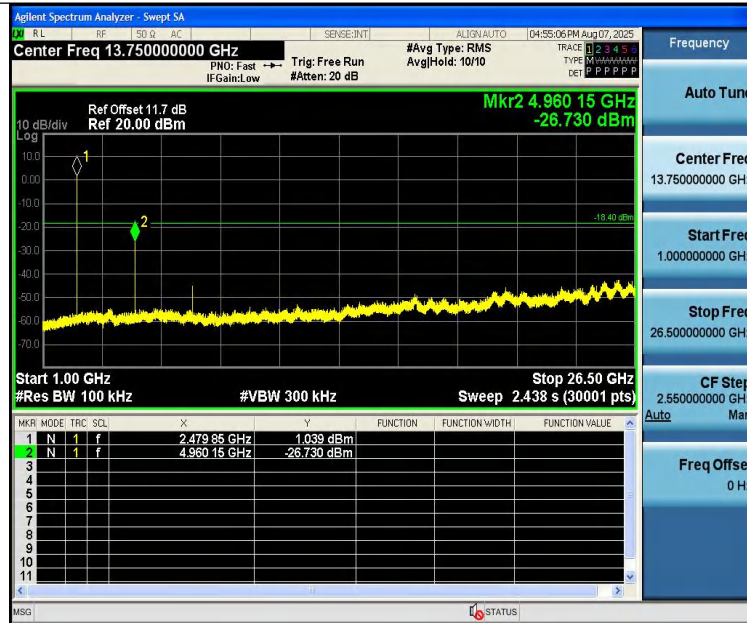
DH5-Ant1-2480-0~Reference-PASS



DH5-Ant1-2480-30~1000-PASS



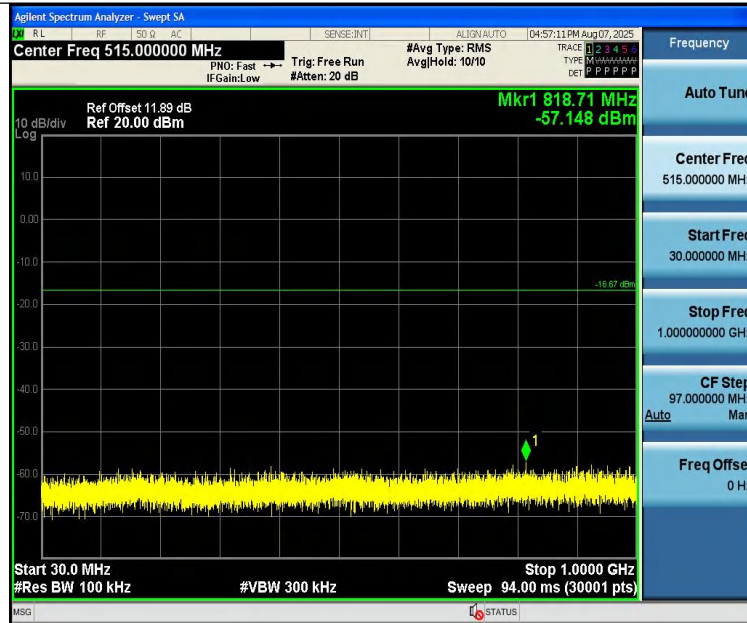
DH5-Ant1-2480-1000~26500-PASS



2DH5-Ant1-2402-0~Reference-PASS



2DH5-Ant1-2402-30~1000-PASS



2DH5-Ant1-2402-1000~26500-PASS



2DH5-Ant1-2441-0~Reference-PASS



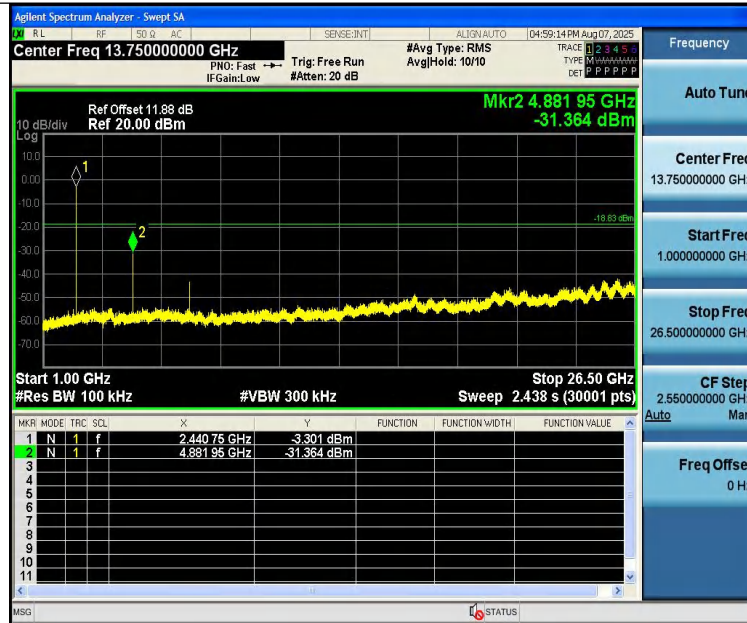
Report No.: PTC25072505202E-FC01



2DH5-Ant1-2441-30~1000-PASS



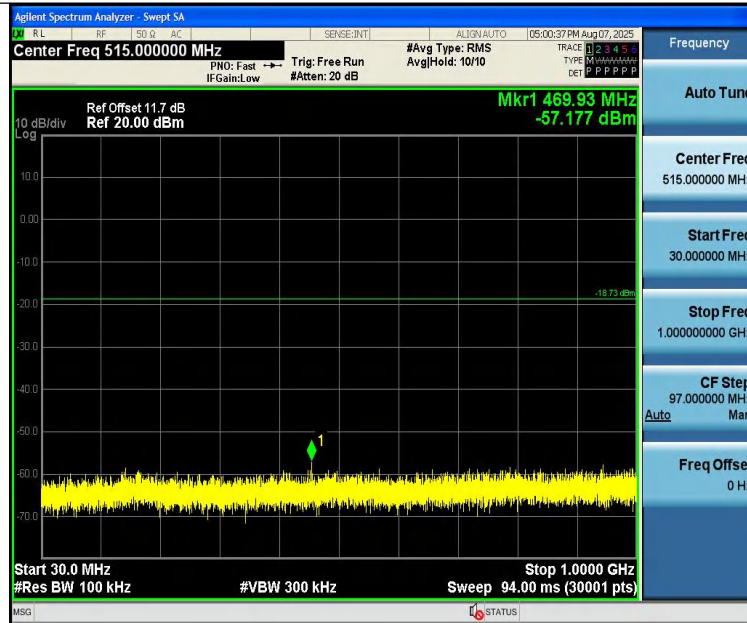
2DH5-Ant1-2441-1000~26500-PASS



2DH5-Ant1-2480-0~Reference-PASS



2DH5-Ant1-2480-30~1000-PASS



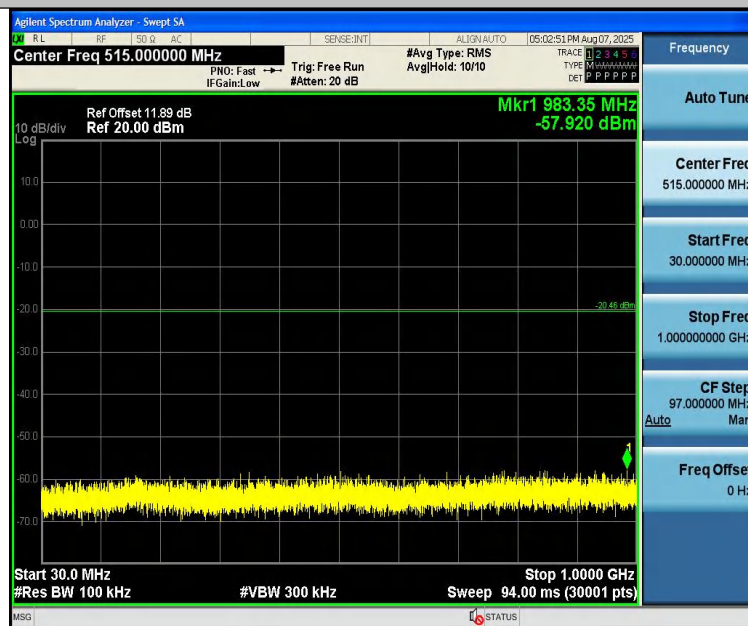
2DH5-Ant1-2480-1000~26500-PASS



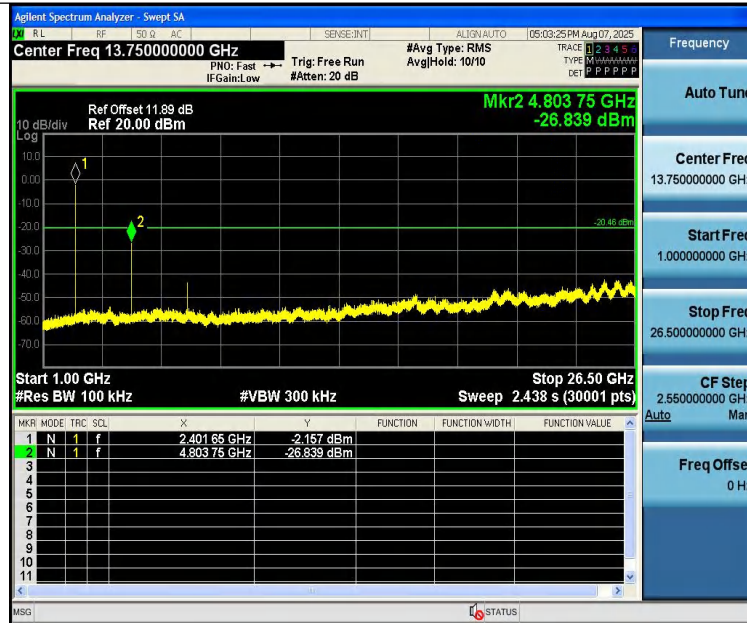
3DH5-Ant1-2402-0~Reference-PASS



3DH5-Ant1-2402-30~1000-PASS



3DH5-Ant1-2402-1000~26500-PASS



3DH5-Ant1-2441-0~Reference-PASS



3DH5-Ant1-2441-30~1000-PASS