



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Bazooka Speaker

Test Model: ARBT22

Environmental Conditions

| | |
|--------------------|-----------|
| Temperature: | 23.7° C |
| Relative Humidity: | 52.3% |
| ATM Pressure: | 100.0 kPa |
| Test Engineer: | Mark Chen |
| Supervised by: | Li Huan |



A.1 20dB Emission Bandwidth

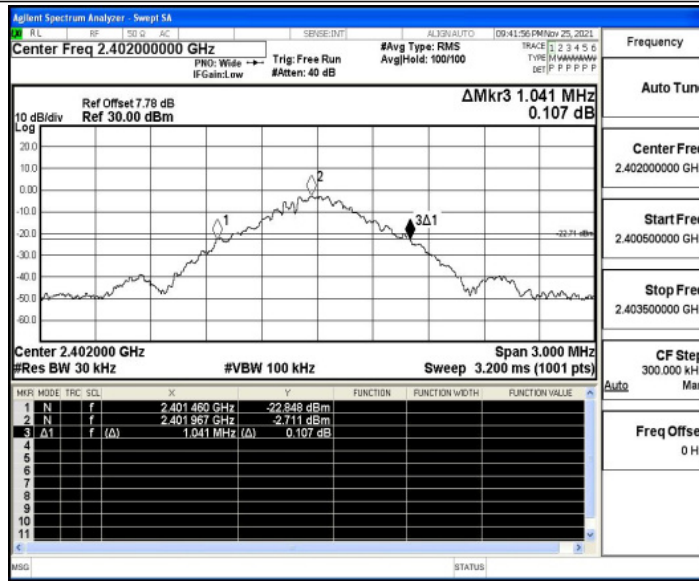
Test Result

| TestMode | Antenna | Channel | 20db EBW[MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|----------|---------|---------|------------------|----------|----------|------------|---------|
| DH5 | Ant1 | 2402 | 1.041 | 2401.460 | 2402.501 | --- | PASS |
| | | 2441 | 1.038 | 2440.463 | 2441.501 | --- | PASS |
| | | 2480 | 1.035 | 2479.463 | 2480.498 | --- | PASS |
| 2DH5 | Ant1 | 2402 | 1.320 | 2401.337 | 2402.657 | --- | PASS |
| | | 2441 | 1.323 | 2440.337 | 2441.660 | --- | PASS |
| | | 2480 | 1.329 | 2479.331 | 2480.660 | --- | PASS |

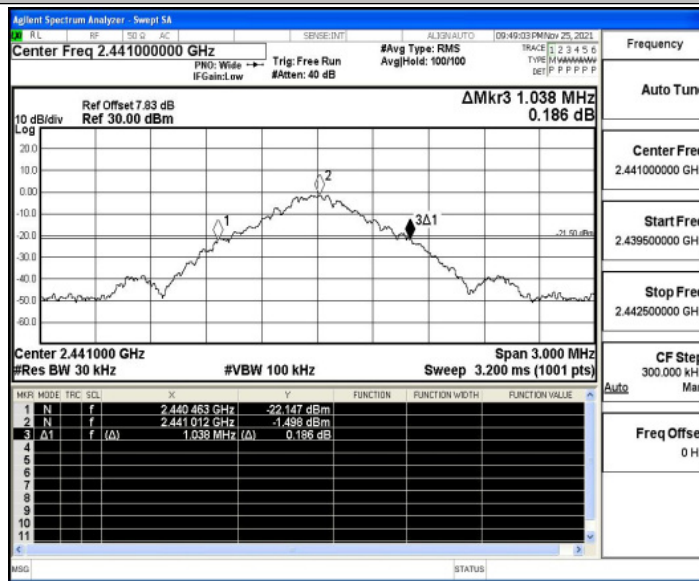


Test Graphs

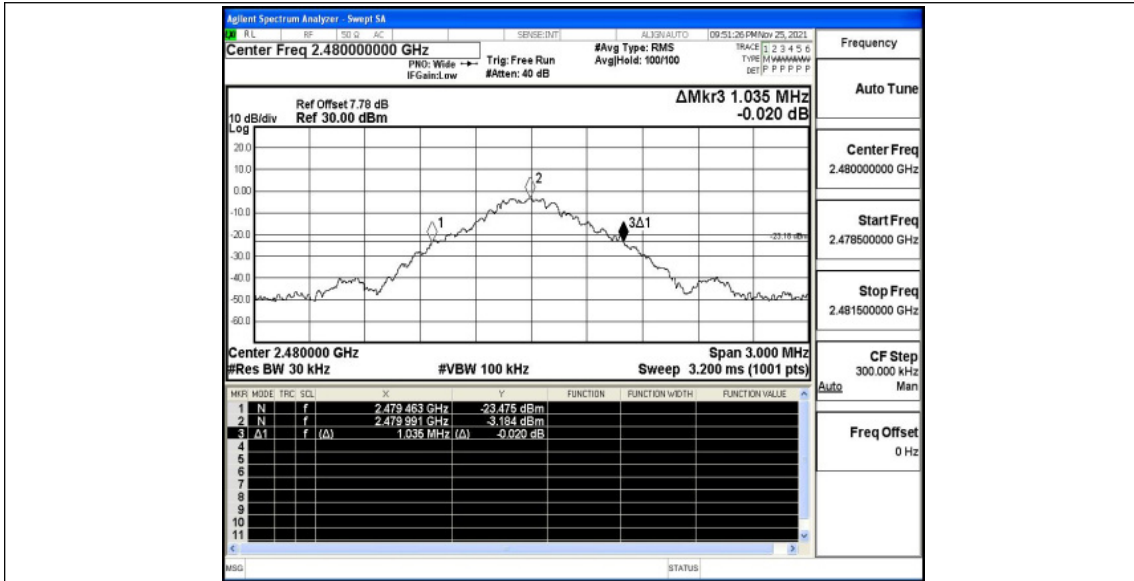
DH5_Ant1_2402



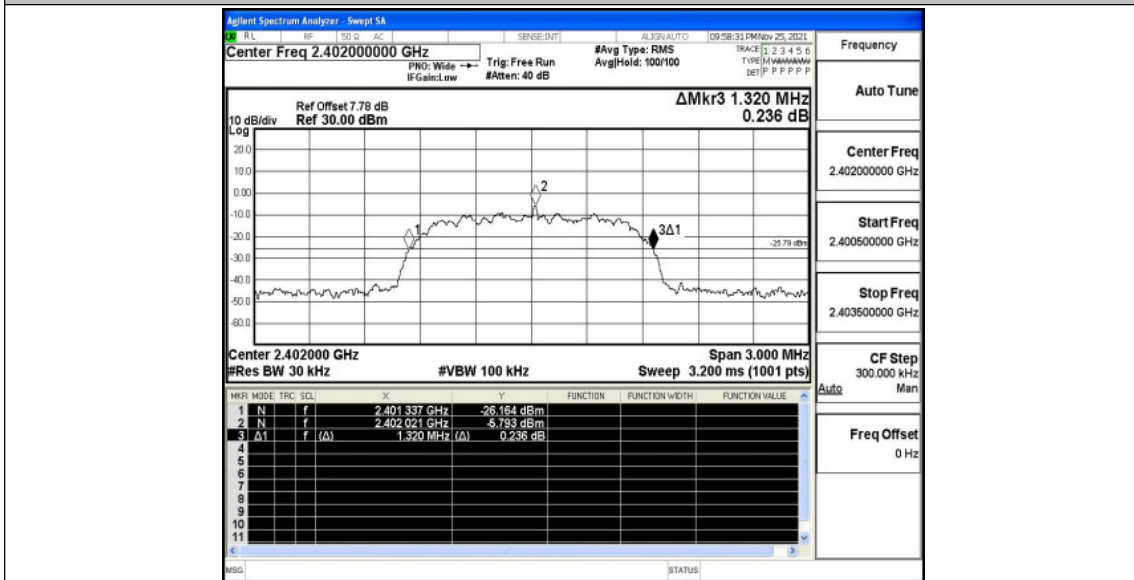
DH5_Ant1_2441



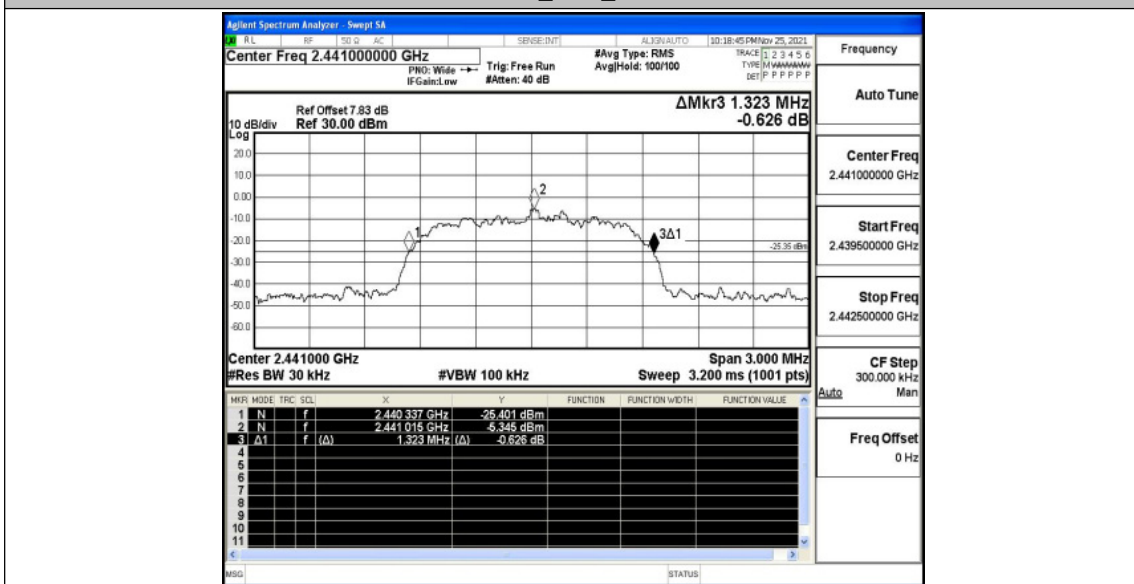
DH5_Ant1_2480



2DH5_Ant1_2402

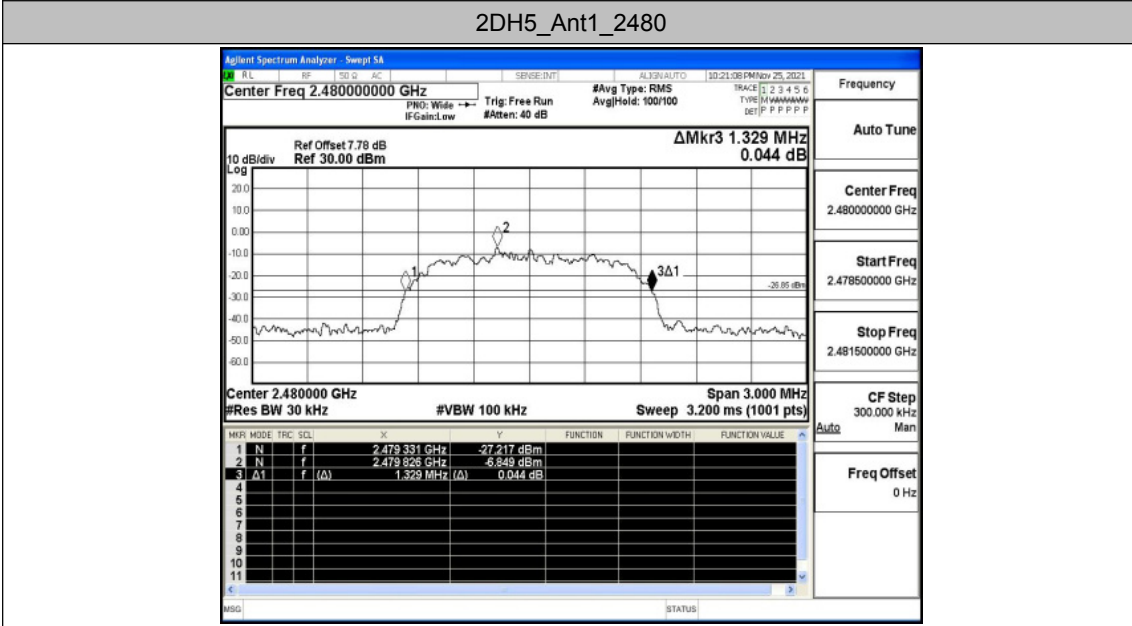


2DH5_Ant1_2441





2DH5_Ant1_2480





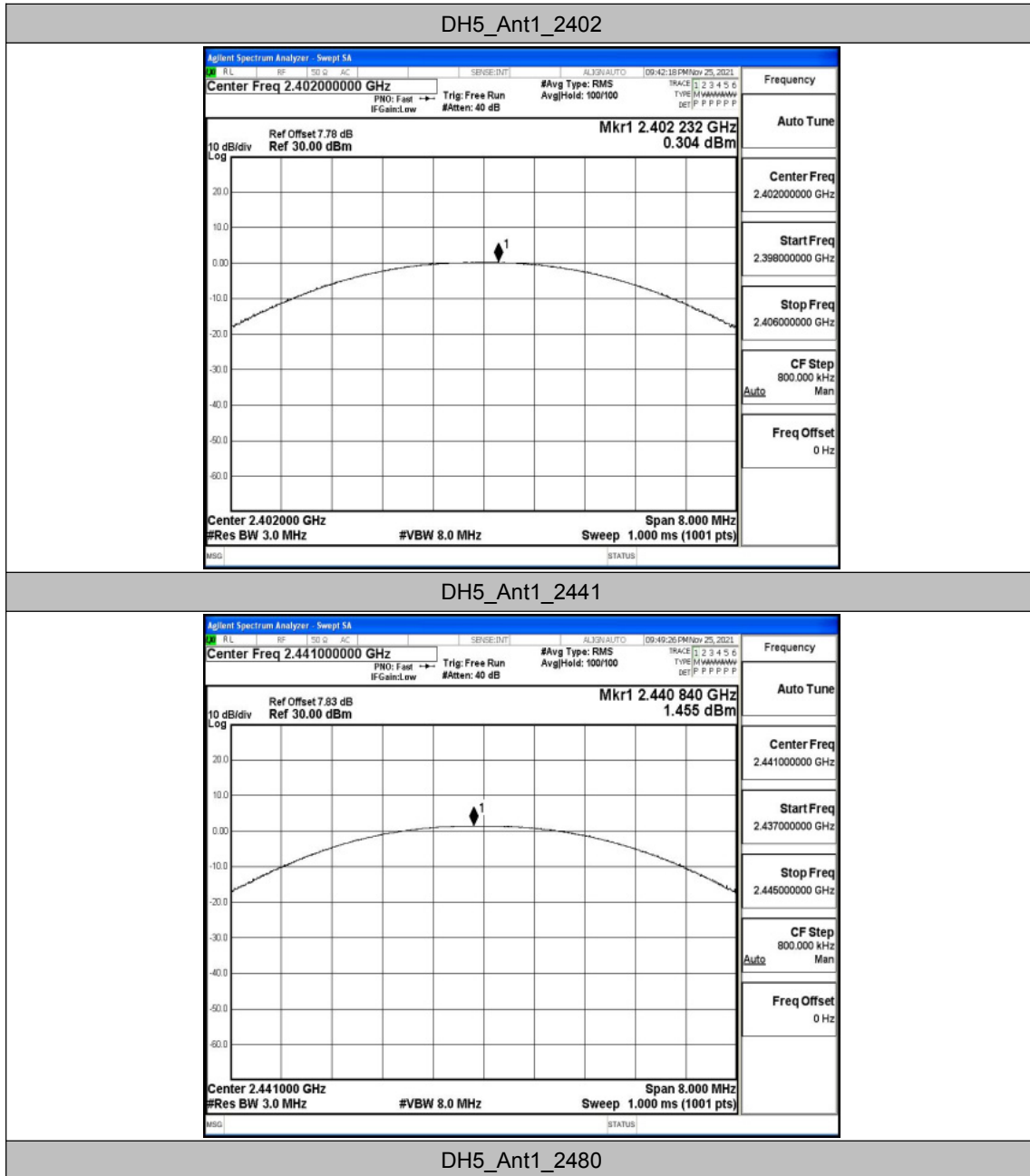
A.2 Maximum Peak conducted output power

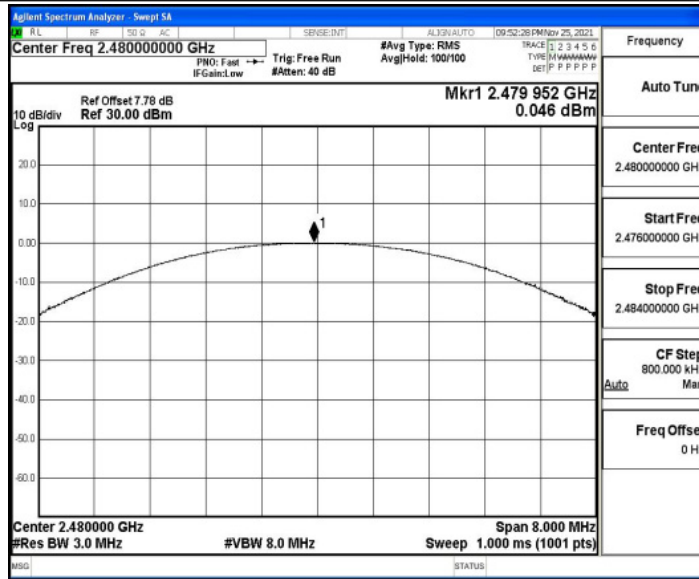
Test Result

| TestMode | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|----------|---------|---------|-------------|------------|---------|
| DH5 | Ant1 | 2402 | 0.3 | ≤20.97 | PASS |
| | | 2441 | 1.46 | ≤20.97 | PASS |
| | | 2480 | 0.05 | ≤20.97 | PASS |
| 2DH5 | Ant1 | 2402 | -0.56 | ≤20.97 | PASS |
| | | 2441 | 0.39 | ≤20.97 | PASS |
| | | 2480 | -0.96 | ≤20.97 | PASS |

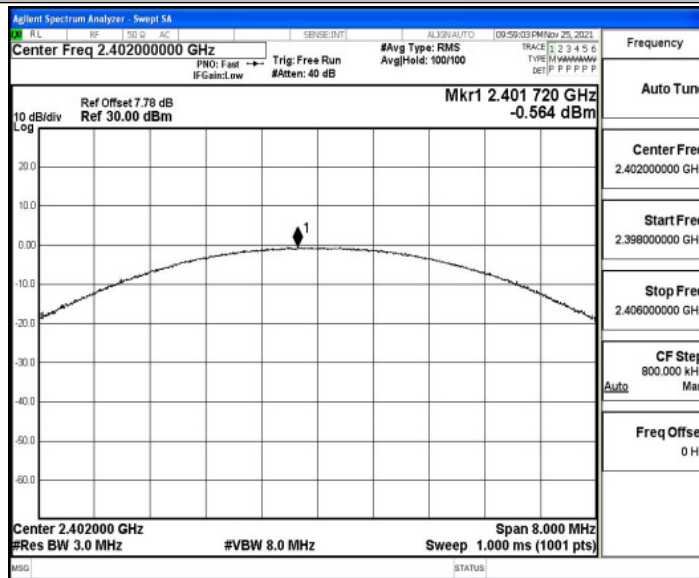


Test Graphs

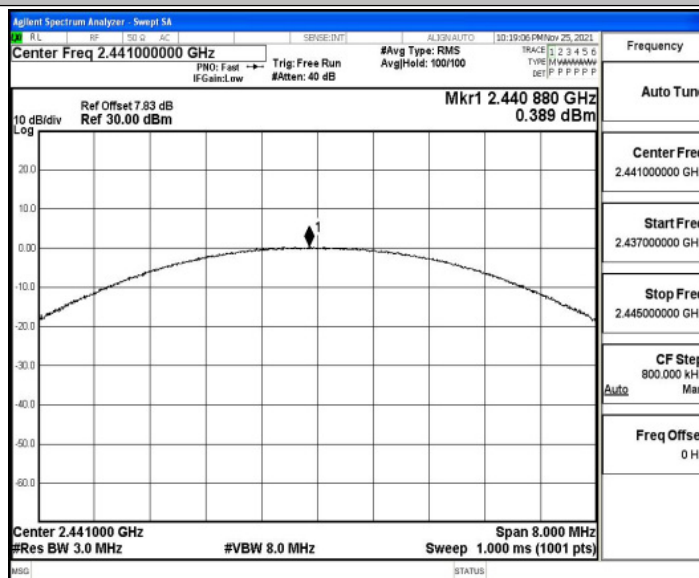




2DH5_Ant1_2402

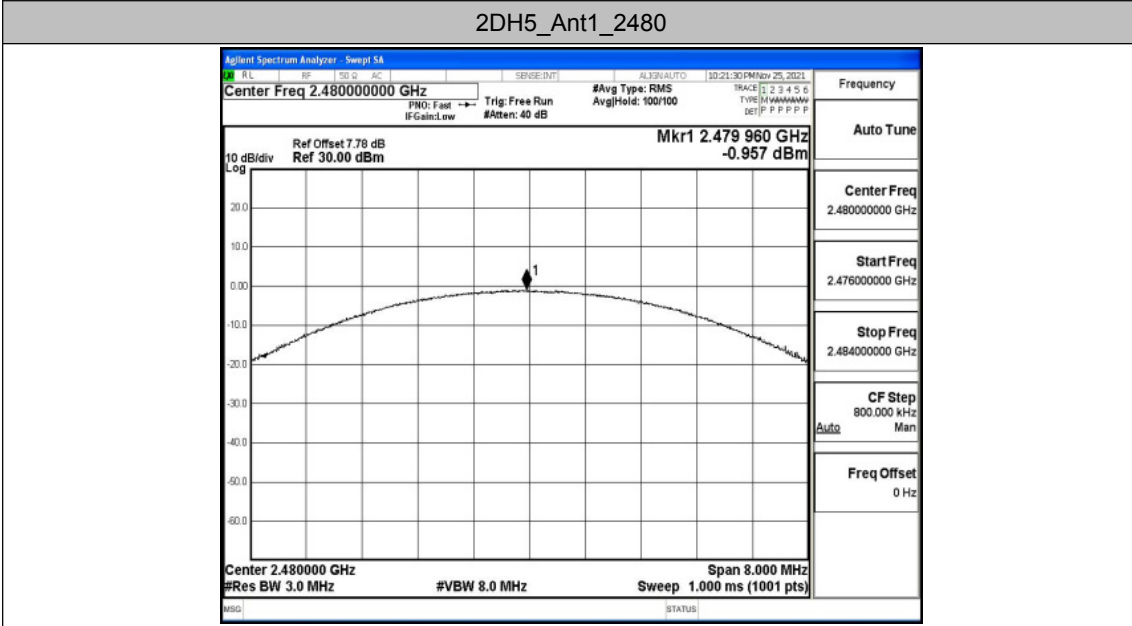


2DH5_Ant1_2441





2DH5_Ant1_2480



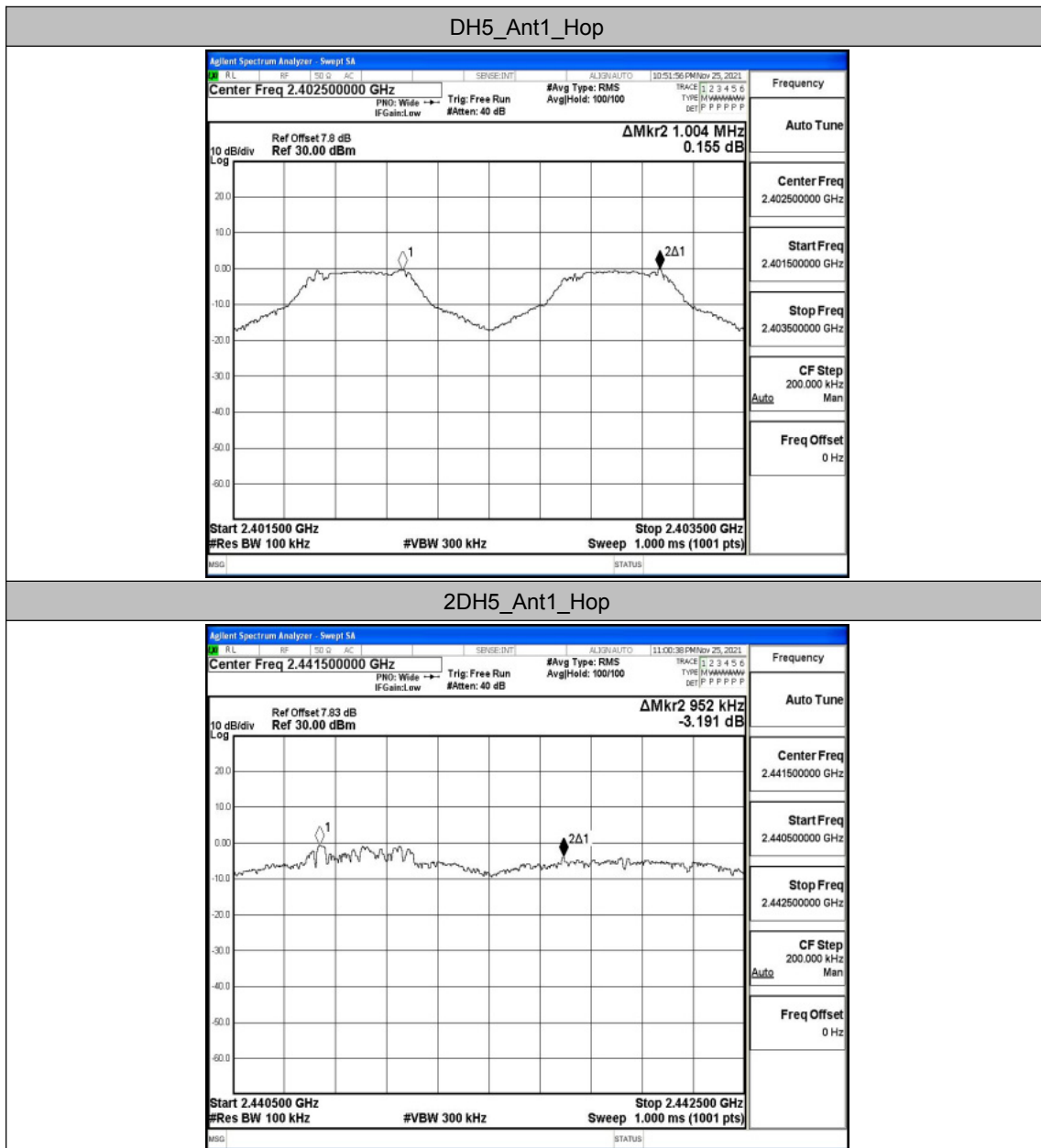


A.3 Carrier frequency separation

Test Result

| TestMode | Antenna | Channel | Result[MHz] | Limit[MHz] | Verdict |
|----------|---------|---------|-------------|------------|---------|
| DH5 | Ant1 | Hop | 1.004 | ≥0.694 | PASS |
| 2DH5 | Ant1 | Hop | 0.952 | ≥0.886 | PASS |

Test Graphs



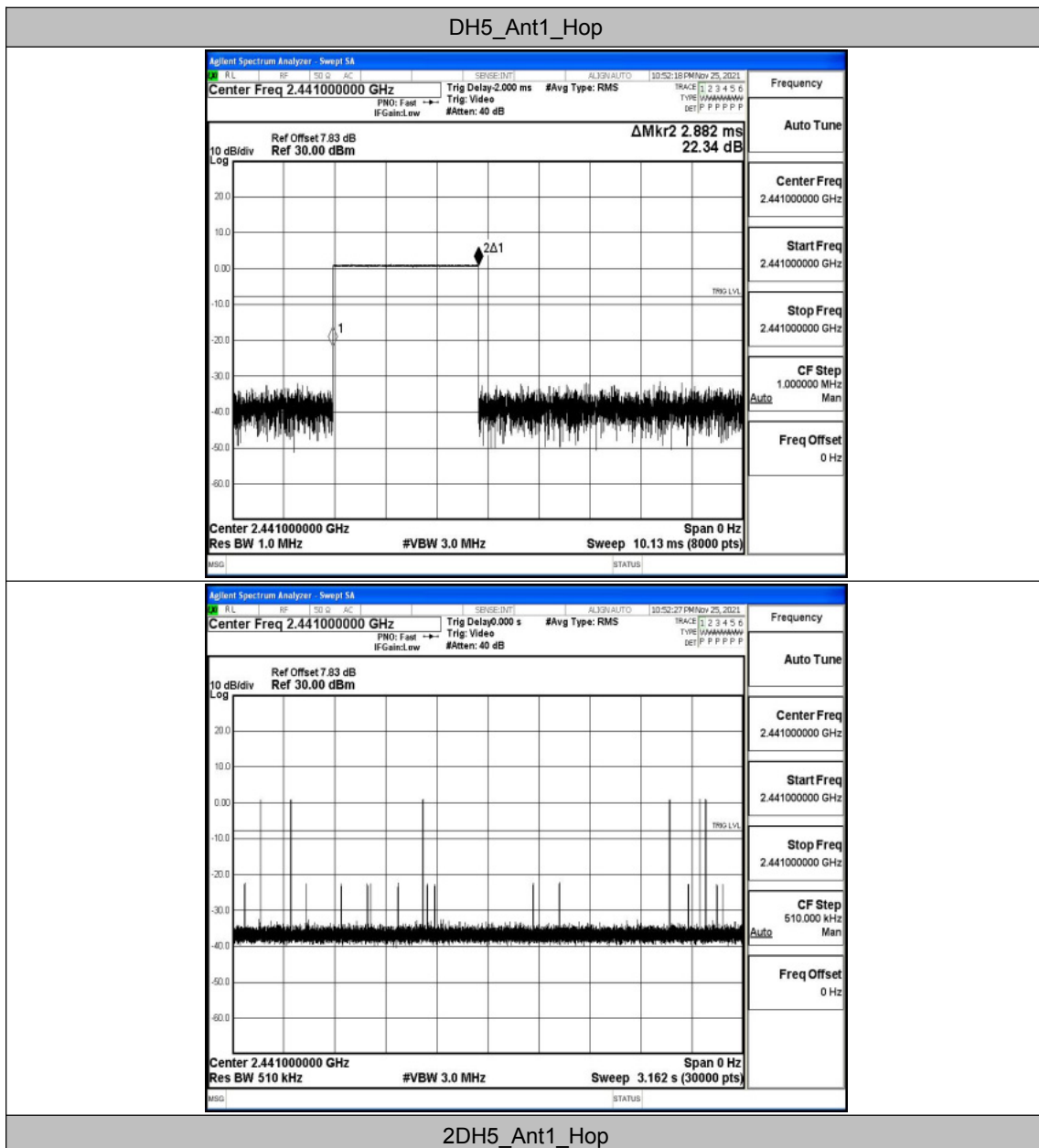


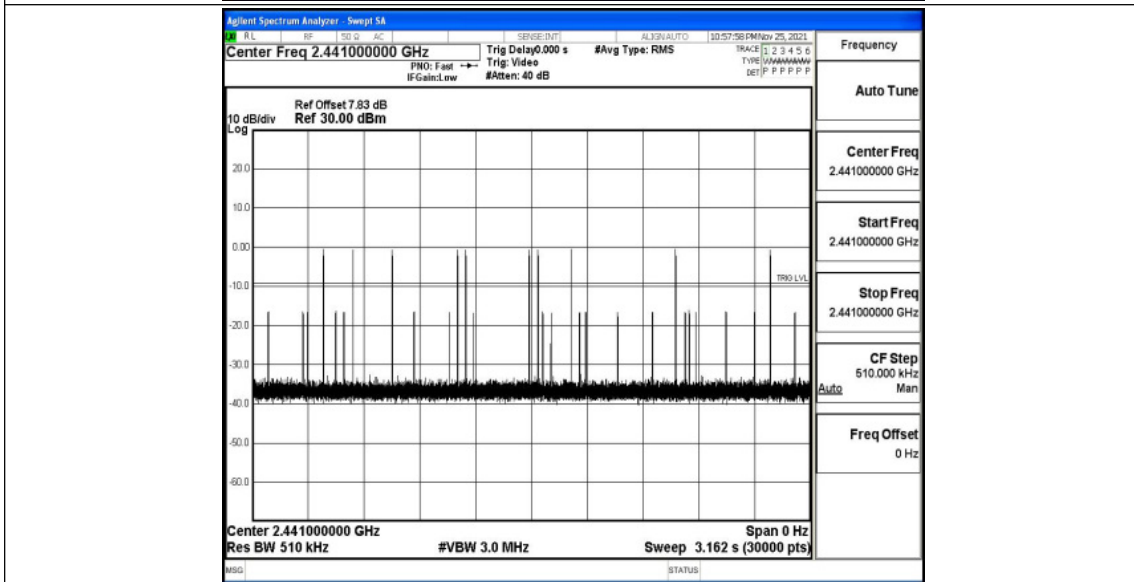
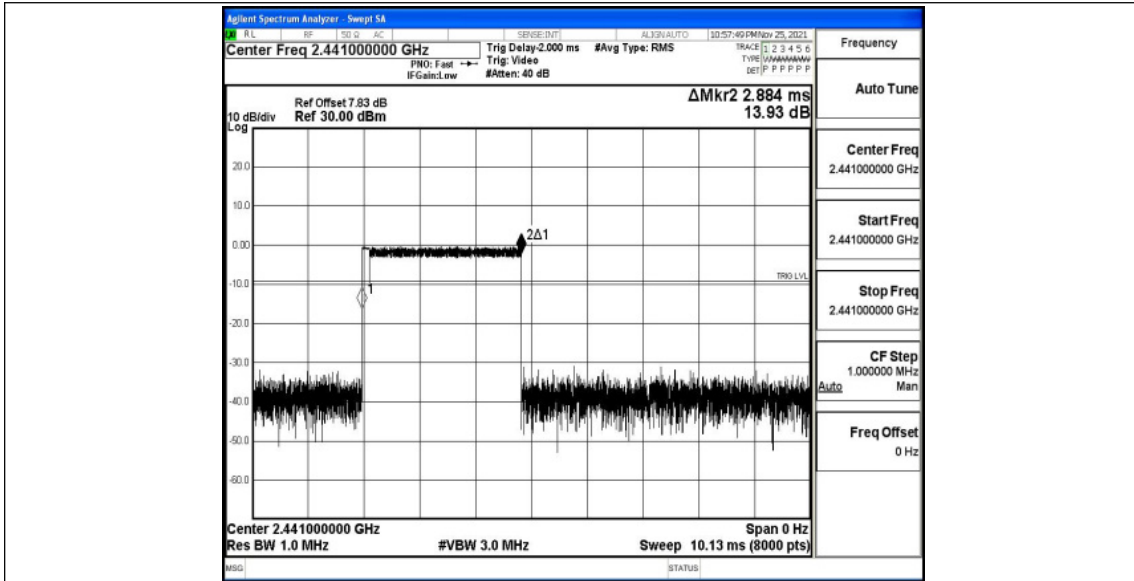
A.4 Time of occupancy

Test Result

| TestMode | Antenna | Channel | BurstWidth [ms] | TotalHops [Num] | Result[s] | Limit[s] | Verdict |
|----------|---------|---------|-----------------|-----------------|-----------|----------|---------|
| DH5 | Ant1 | Hop | 2.88 | 70 | 0.202 | ≤0.4 | PASS |
| 2DH5 | Ant1 | Hop | 2.88 | 110 | 0.317 | ≤0.4 | PASS |

Test Graphs





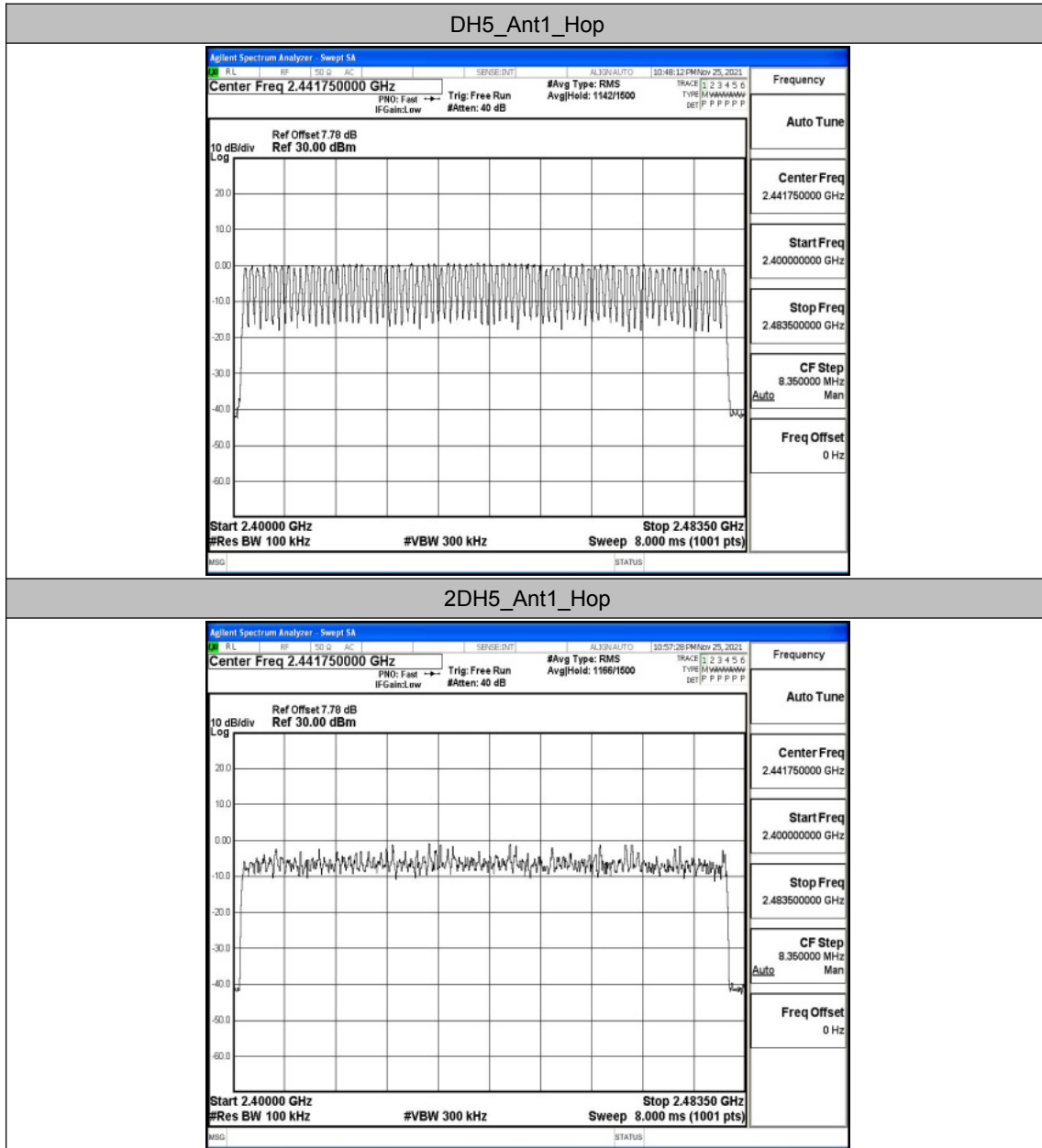


A.5 Number of hopping channels

Test Result

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

Test Graphs





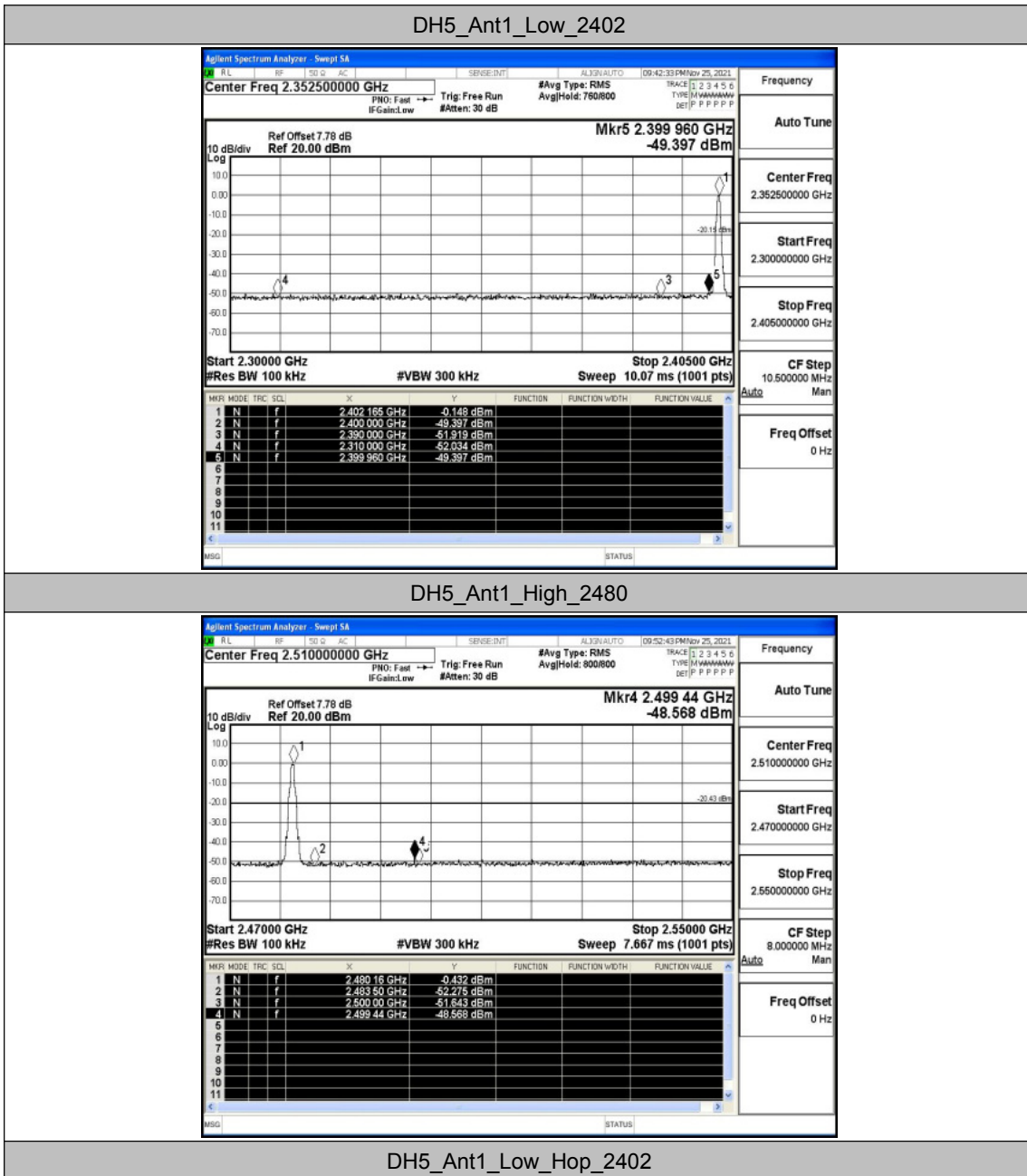
A.6 Band edge measurements

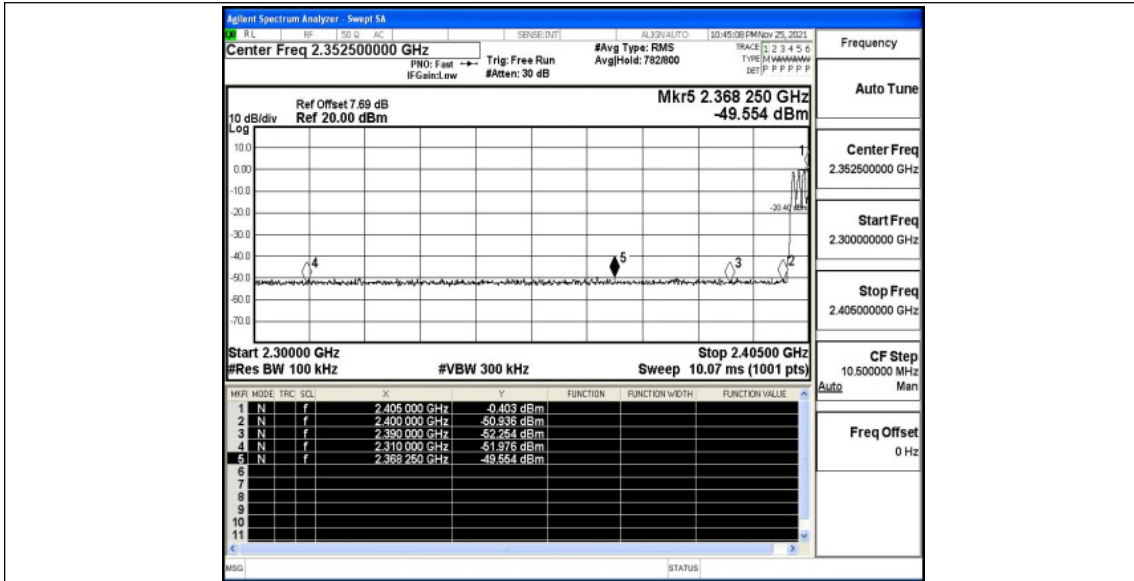
Test Result

| TestMode | Antenna | ChName | Channel | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|----------|---------|--------|----------|----------------|--------------|-------------|---------|
| DH5 | Ant1 | Low | 2402 | -0.15 | -49.4 | ≤-20.15 | PASS |
| | | High | 2480 | -0.43 | -48.57 | ≤-20.43 | PASS |
| | | Low | Hop_2402 | -0.40 | -49.55 | ≤-20.4 | PASS |
| | | High | Hop_2480 | -0.49 | -48.13 | ≤-20.49 | PASS |
| 2DH5 | Ant1 | Low | 2402 | -1.86 | -49.19 | ≤-21.86 | PASS |
| | | High | 2480 | -2.11 | -48.93 | ≤-22.11 | PASS |
| | | Low | Hop_2402 | -5.83 | -49.62 | ≤-25.83 | PASS |
| | | High | Hop_2480 | -1.73 | -47.44 | ≤-21.73 | PASS |

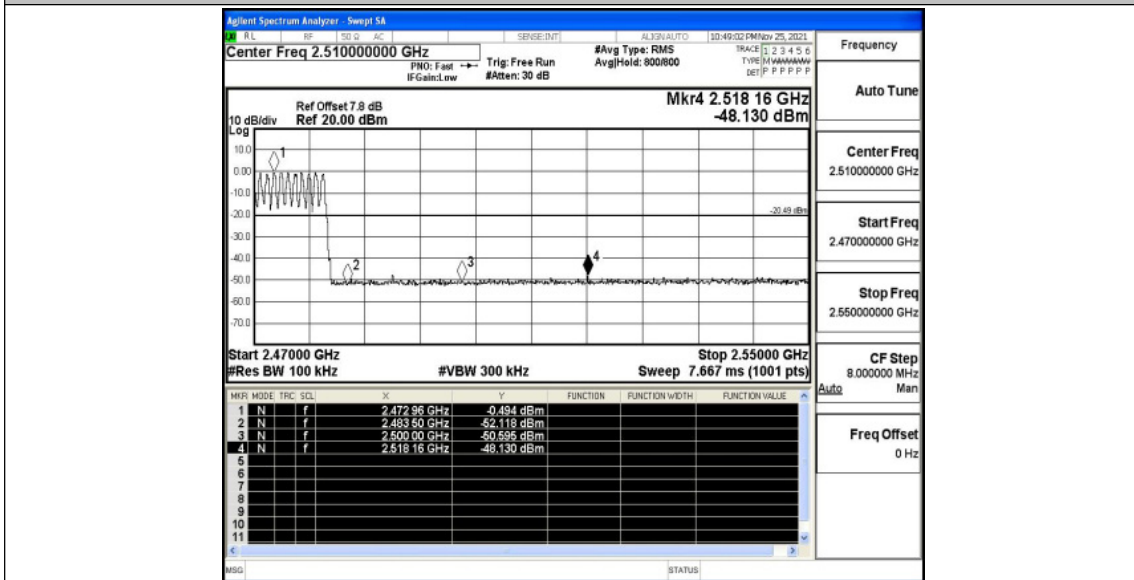


Test Graphs

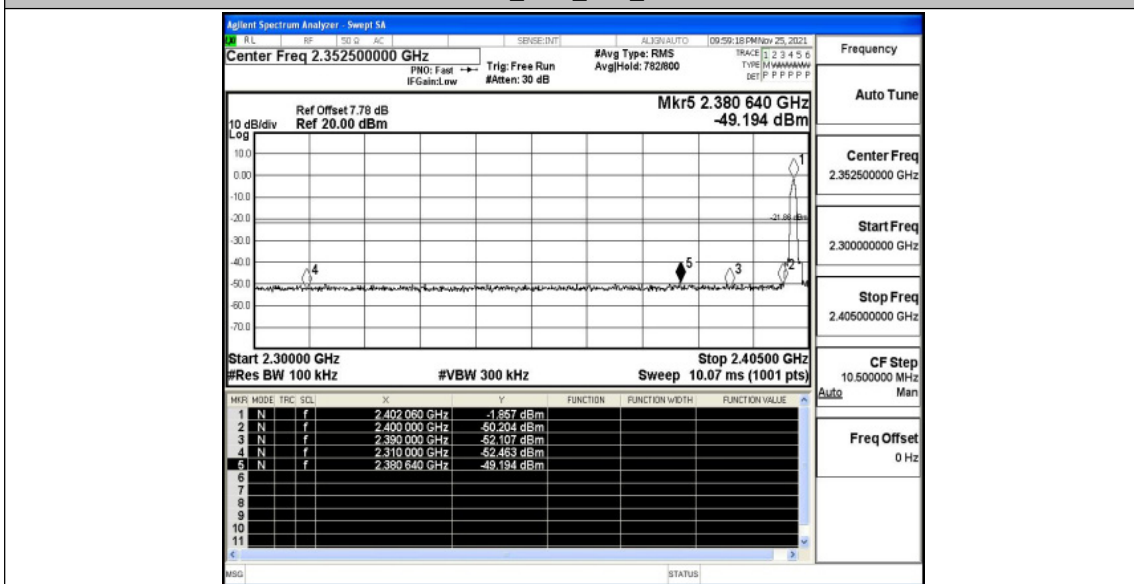




DH5_Ant1_High_Hop_2480

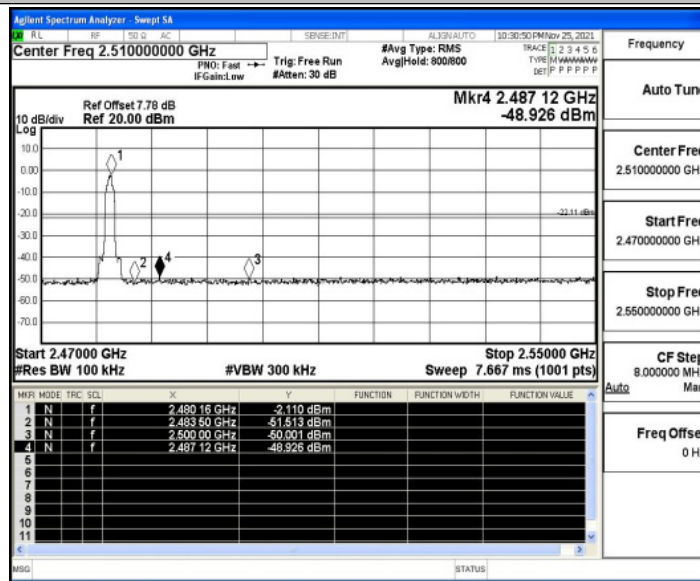


2DH5_Ant1_Low_2402

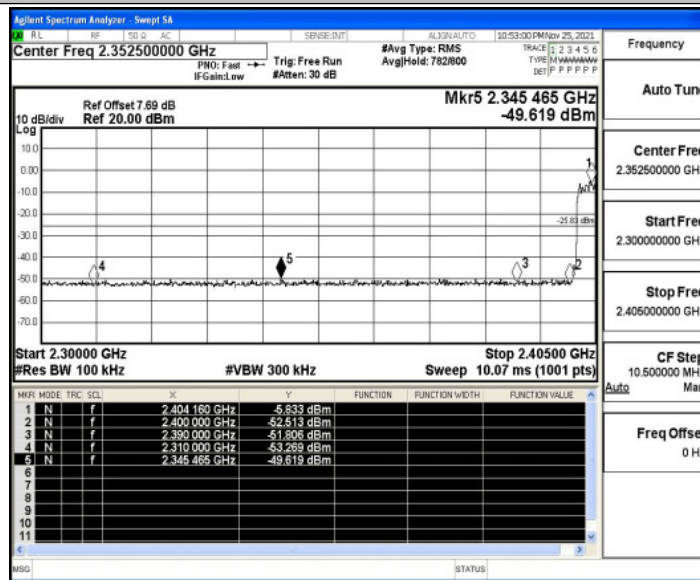




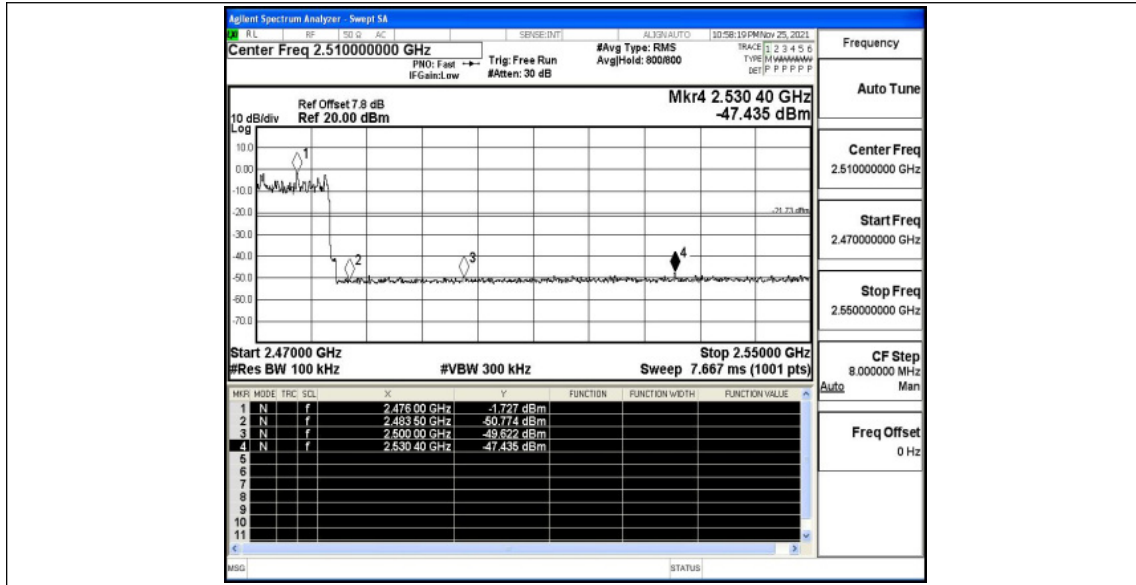
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480





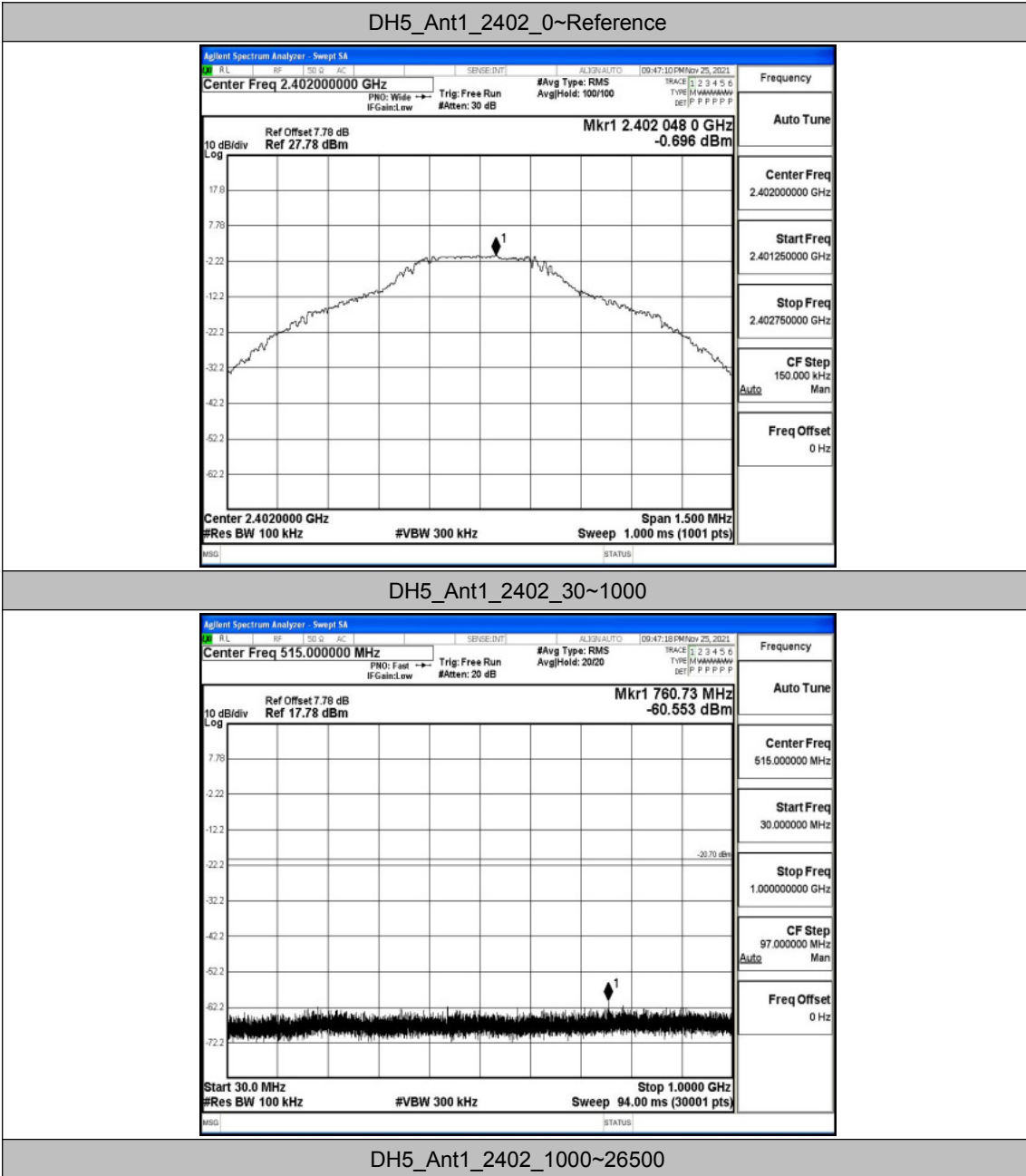
A.7 Conducted Spurious Emission

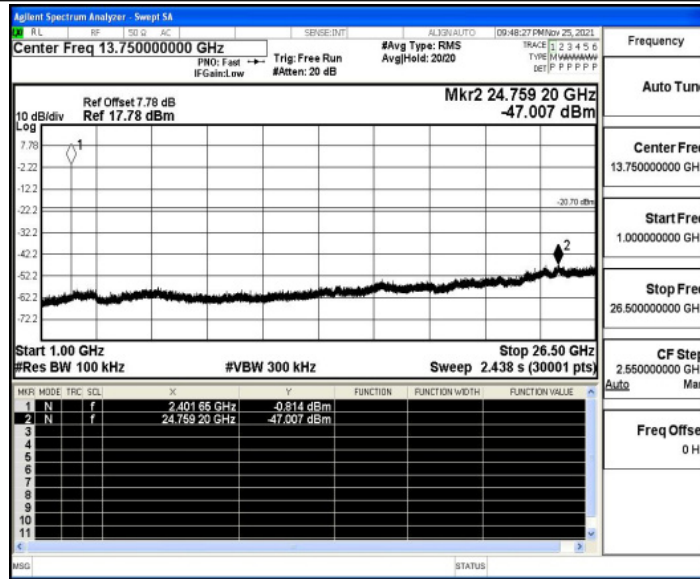
Test Result

| TestMode | Antenna | Channel | FreqRange [MHz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|----------|---------|---------|-----------------|----------------|--------------|-------------|---------|
| DH5 | Ant1 | 2402 | Reference | -0.70 | -0.70 | --- | PASS |
| | | | 30~1000 | -0.70 | -60.55 | ≤-20.7 | PASS |
| | | | 1000~26500 | -0.70 | -47.01 | ≤-20.7 | PASS |
| | | 2441 | Reference | 0.81 | 0.81 | --- | PASS |
| | | | 30~1000 | 0.81 | -61.01 | ≤-19.19 | PASS |
| | | | 1000~26500 | 0.81 | -47.14 | ≤-19.19 | PASS |
| | | 2480 | Reference | -0.56 | -0.56 | --- | PASS |
| | | | 30~1000 | -0.56 | -62.02 | ≤-20.56 | PASS |
| | | | 1000~26500 | -0.56 | -47.05 | ≤-20.56 | PASS |
| 2DH5 | Ant1 | 2402 | Reference | -1.64 | -1.64 | --- | PASS |
| | | | 30~1000 | -1.64 | -61.51 | ≤-21.64 | PASS |
| | | | 1000~26500 | -1.64 | -47.57 | ≤-21.64 | PASS |
| | | 2441 | Reference | -1.82 | -1.82 | --- | PASS |
| | | | 30~1000 | -1.82 | -61.53 | ≤-21.82 | PASS |
| | | | 1000~26500 | -1.82 | -46.66 | ≤-21.82 | PASS |
| | | 2480 | Reference | -2.78 | -2.78 | --- | PASS |
| | | | 30~1000 | -2.78 | -60.64 | ≤-22.78 | PASS |
| | | | 1000~26500 | -2.78 | -47.17 | ≤-22.78 | PASS |

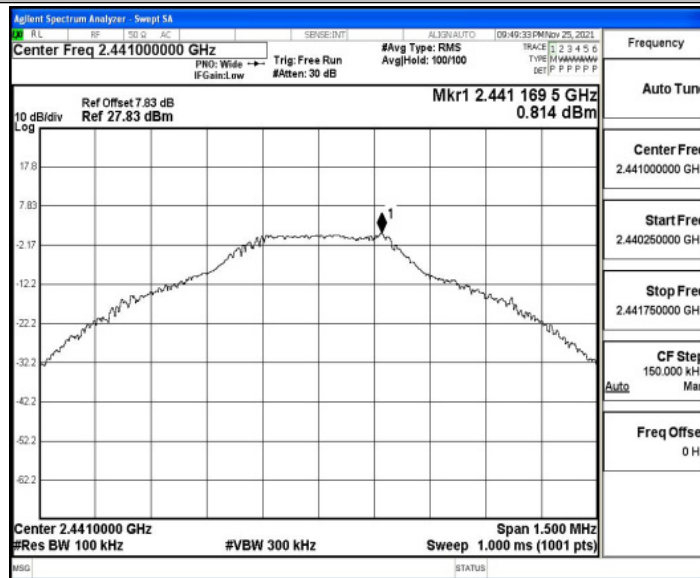


Test Graphs

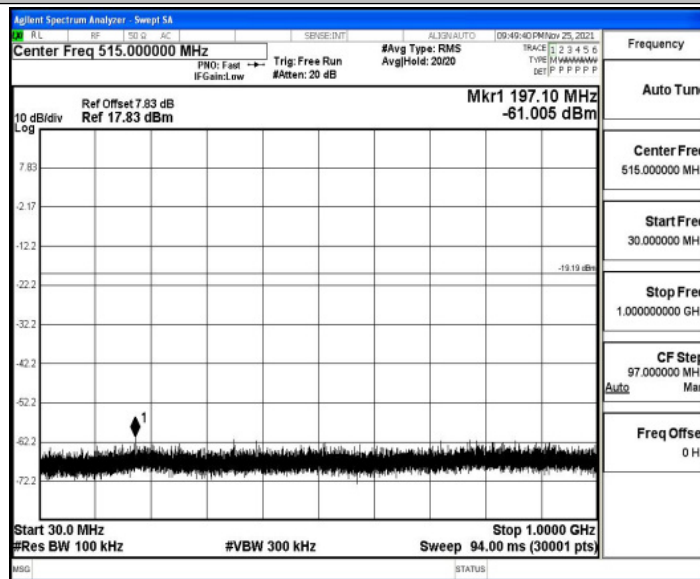




DH5_Ant1_2441_0~Reference

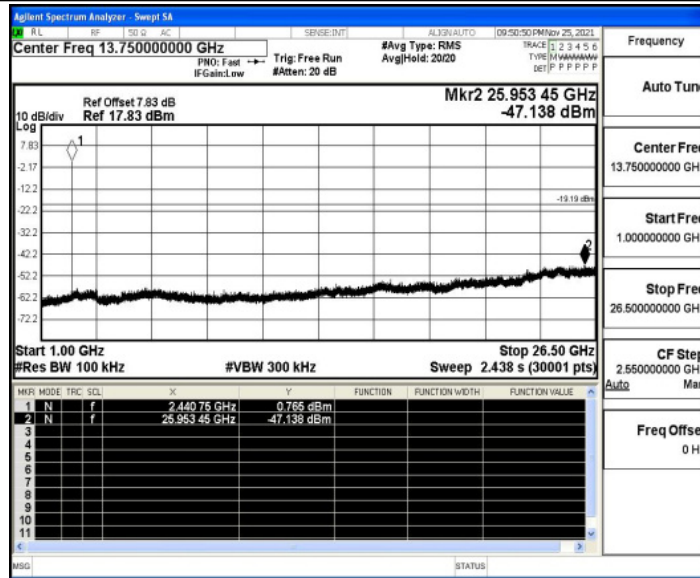


DH5_Ant1_2441_30~1000

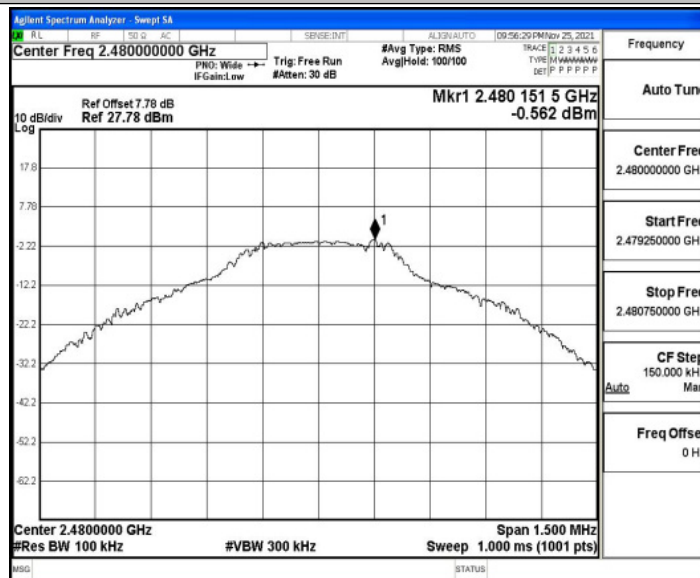




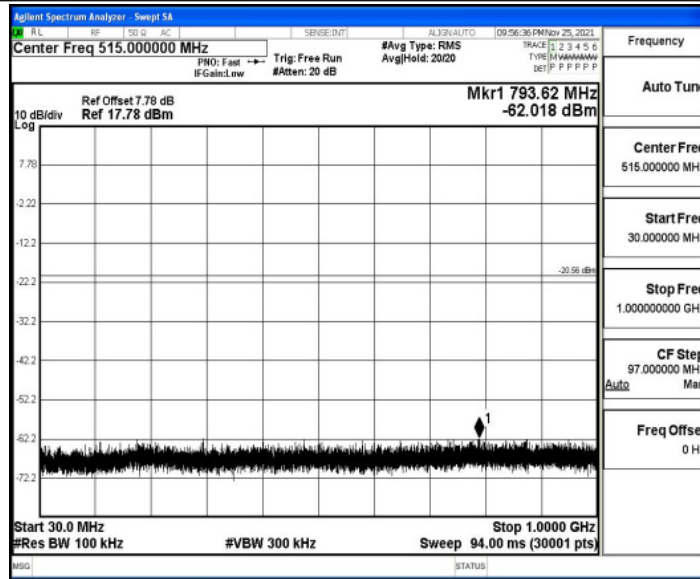
DH5_Ant1_2441_1000~26500



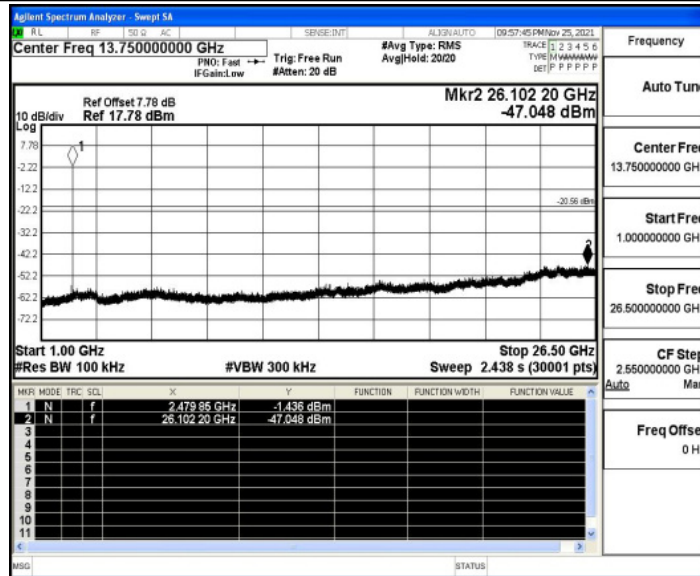
DH5_Ant1_2480_0~Reference



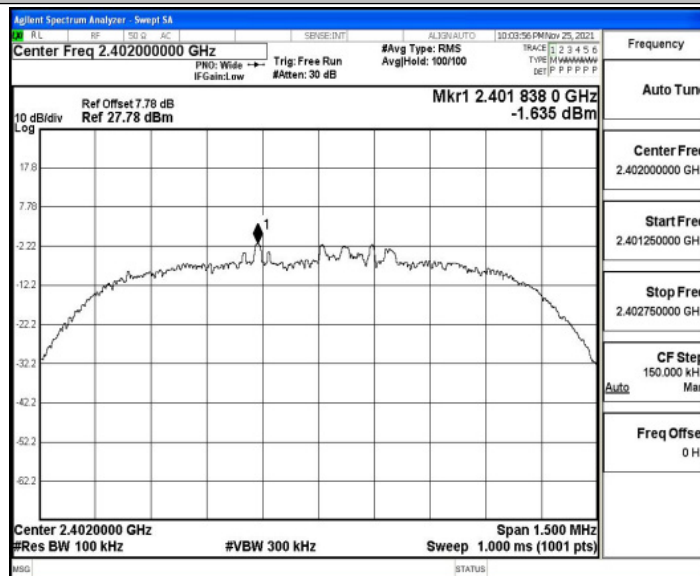
DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500

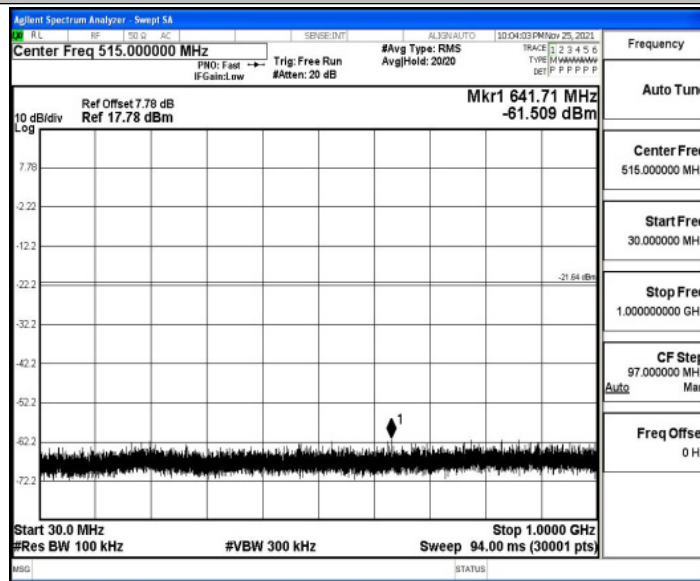


2DH5_Ant1_2402_0~Reference

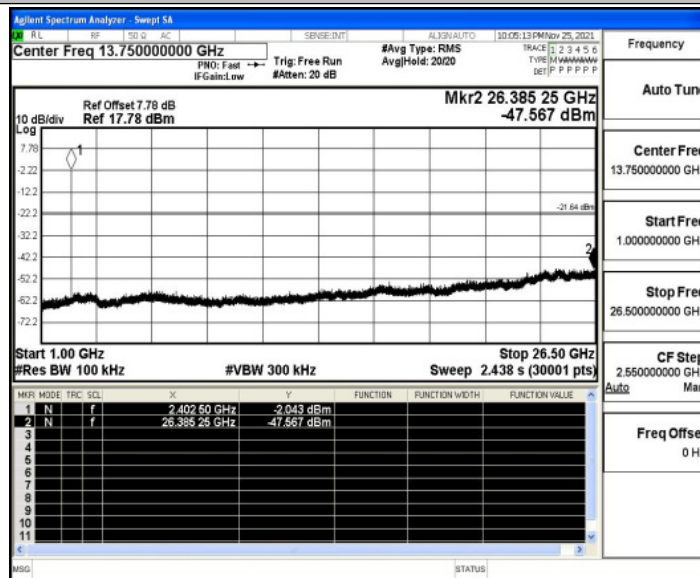




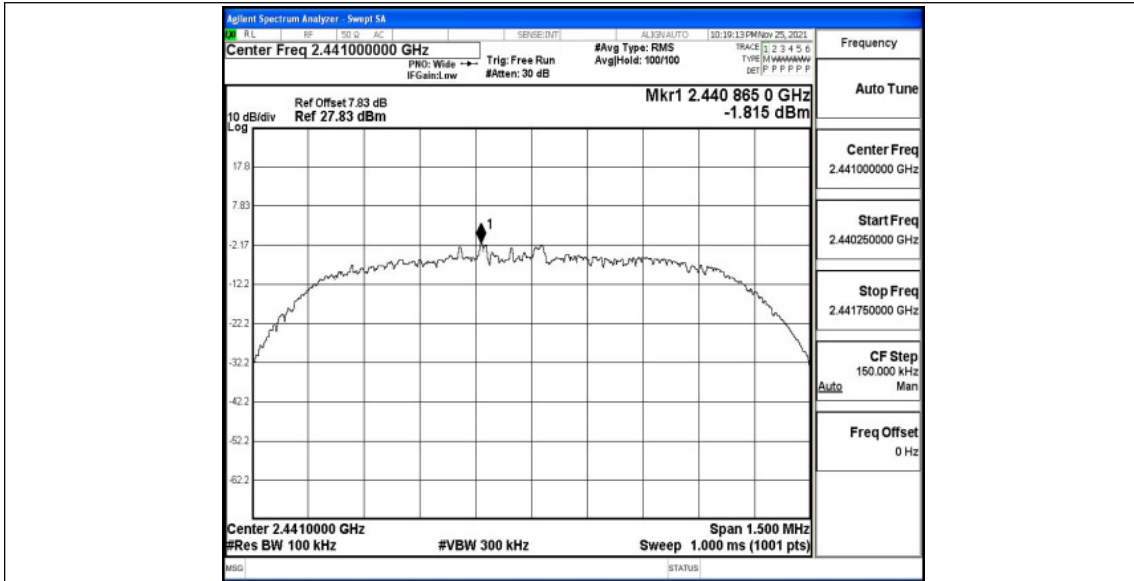
2DH5_Ant1_2402_30~1000



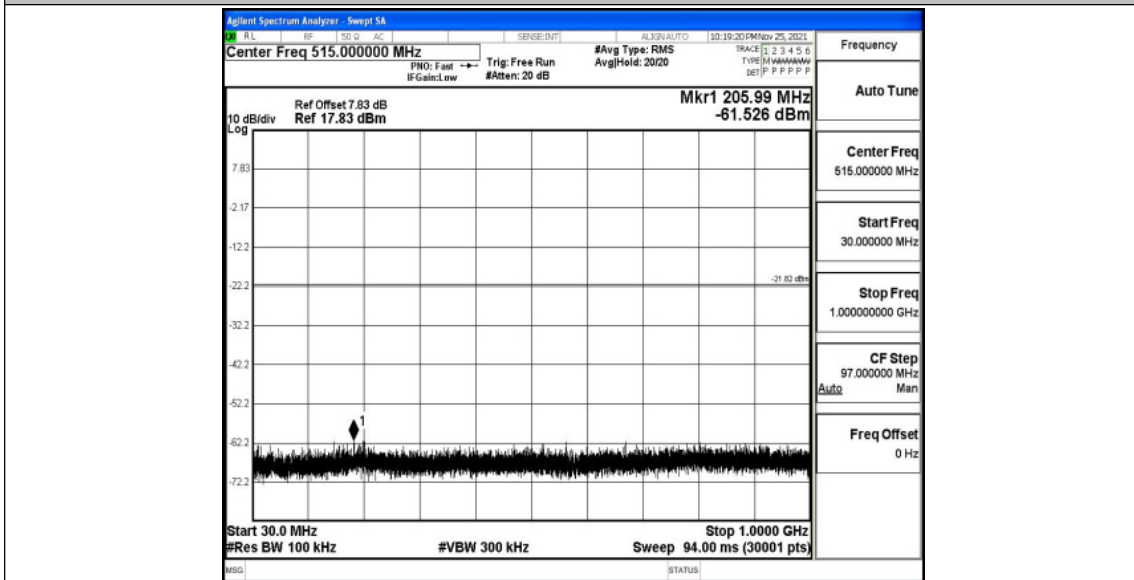
2DH5_Ant1_2402_1000~26500



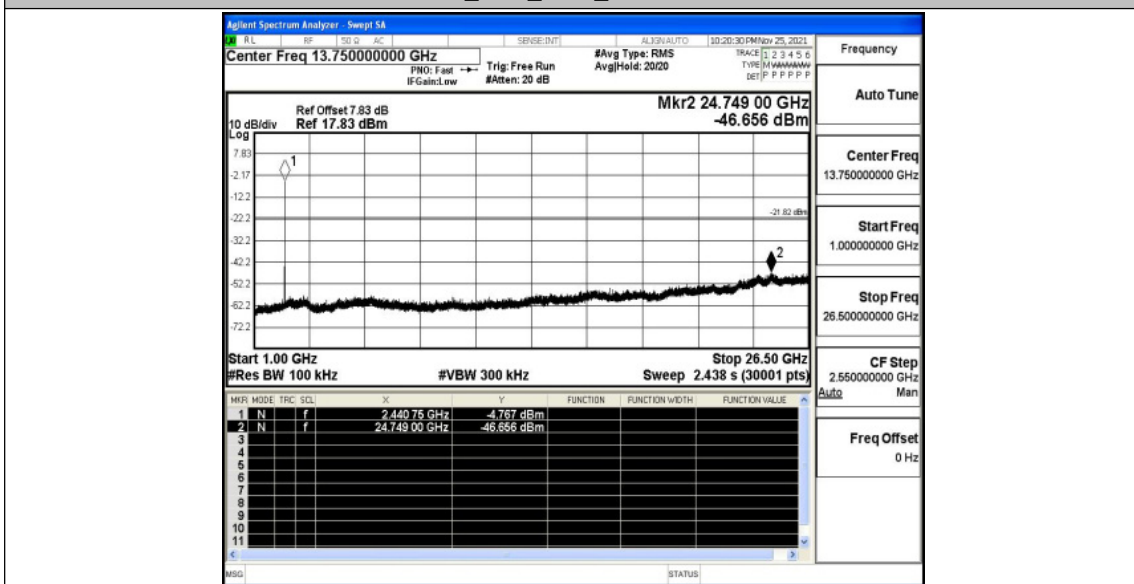
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000

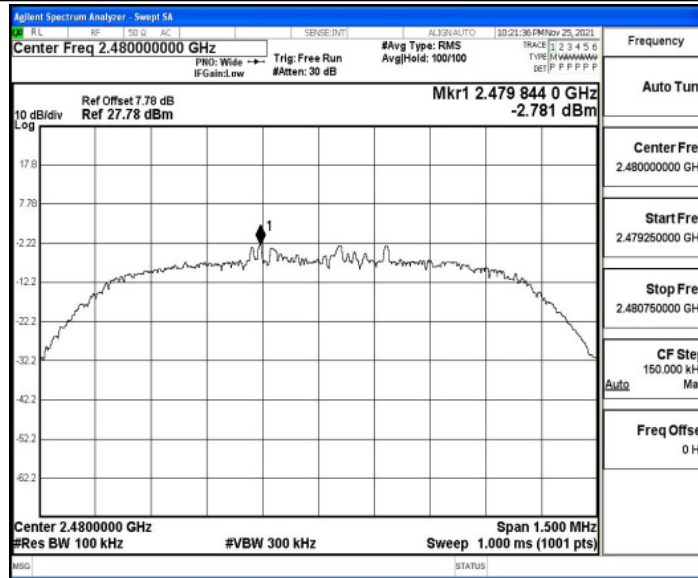


2DH5_Ant1_2441_1000~26500

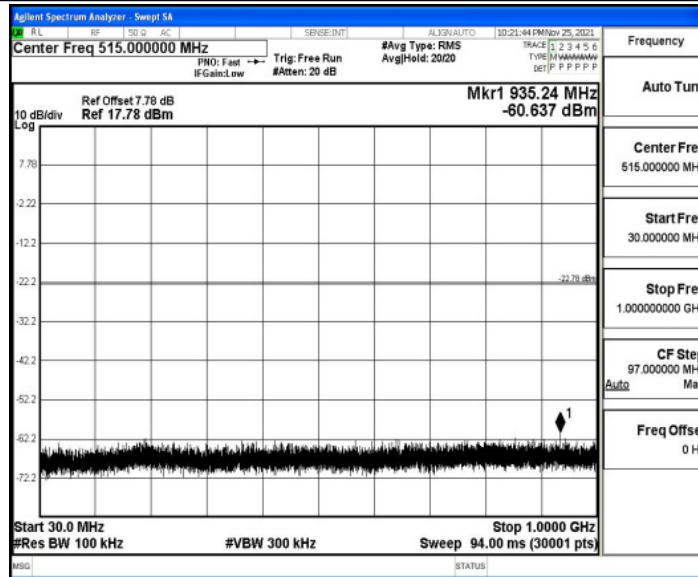




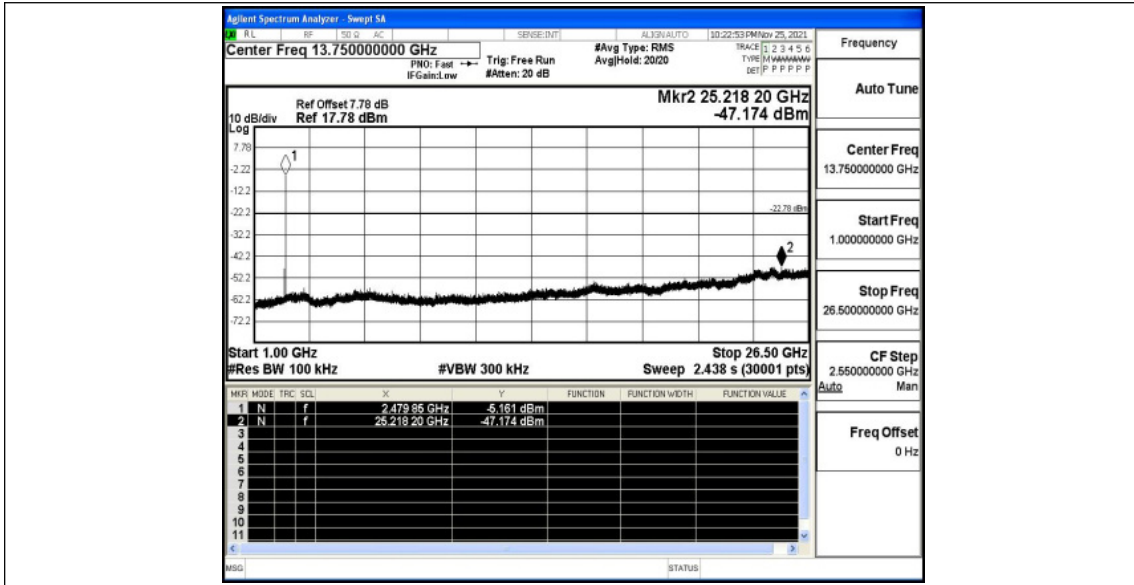
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500





A.8 Emissions in Restricted Bands

Test Result

| TestMode | Antenna | ChName | Channel | Detector | Freq. [MHz] | Result [dBm] | Limit [dBm] | Result [dBuV/m] | Limit [dBuV/m] | Verdict |
|----------|---------|--------|---------|----------|-------------|--------------|-------------|-----------------|----------------|---------|
| DH5 | Ant1 | Low | 2402 | AV | 2310.000 | -49 | ≤-41.20 | 46.20 | ≤54 | PASS |
| | | | | AV | 2389.985 | -48.48 | ≤-41.20 | 46.72 | ≤54 | PASS |
| | | | | AV | 2390.000 | -48.48 | ≤-41.20 | 46.72 | ≤54 | PASS |
| | | | | Peak | 2310.000 | -40.74 | ≤-21.20 | 54.46 | ≤74 | PASS |
| | | | | Peak | 2387.780 | -38.14 | ≤-21.20 | 57.06 | ≤74 | PASS |
| | | | | Peak | 2390.000 | -40.33 | ≤-21.20 | 54.87 | ≤74 | PASS |
| | | High | 2480 | AV | 2483.500 | -47.96 | ≤-41.20 | 47.24 | ≤54 | PASS |
| | | | | AV | 2494.000 | -47.93 | ≤-41.20 | 47.27 | ≤54 | PASS |
| | | | | AV | 2500.000 | -47.99 | ≤-41.20 | 47.21 | ≤54 | PASS |
| | | | | Peak | 2483.500 | -41.21 | ≤-21.20 | 53.99 | ≤74 | PASS |
| | | | | Peak | 2498.160 | -37.53 | ≤-21.20 | 57.67 | ≤74 | PASS |
| | | | | Peak | 2500.000 | -39.65 | ≤-21.20 | 55.55 | ≤74 | PASS |
| 2DH5 | Ant1 | Low | 2402 | AV | 2310.000 | -49.01 | ≤-41.20 | 46.19 | ≤54 | PASS |
| | | | | AV | 2389.565 | -48.48 | ≤-41.20 | 46.72 | ≤54 | PASS |
| | | | | AV | 2390.000 | -48.62 | ≤-41.20 | 46.58 | ≤54 | PASS |
| | | | | Peak | 2310.000 | -39.75 | ≤-21.20 | 55.45 | ≤74 | PASS |
| | | | | Peak | 2386.205 | -37.54 | ≤-21.20 | 57.66 | ≤74 | PASS |
| | | | | Peak | 2390.000 | -40.25 | ≤-21.20 | 54.95 | ≤74 | PASS |
| | | High | 2480 | AV | 2483.500 | -48.04 | ≤-41.20 | 47.16 | ≤54 | PASS |
| | | | | AV | 2499.440 | -47.96 | ≤-41.20 | 47.24 | ≤54 | PASS |
| | | | | AV | 2500.000 | -48.02 | ≤-41.20 | 47.18 | ≤54 | PASS |
| | | | | Peak | 2483.500 | -39.21 | ≤-21.20 | 55.99 | ≤74 | PASS |
| | | | | Peak | 2495.040 | -37.28 | ≤-21.20 | 57.92 | ≤74 | PASS |
| | | | | Peak | 2500.000 | -38.72 | ≤-21.20 | 56.48 | ≤74 | PASS |

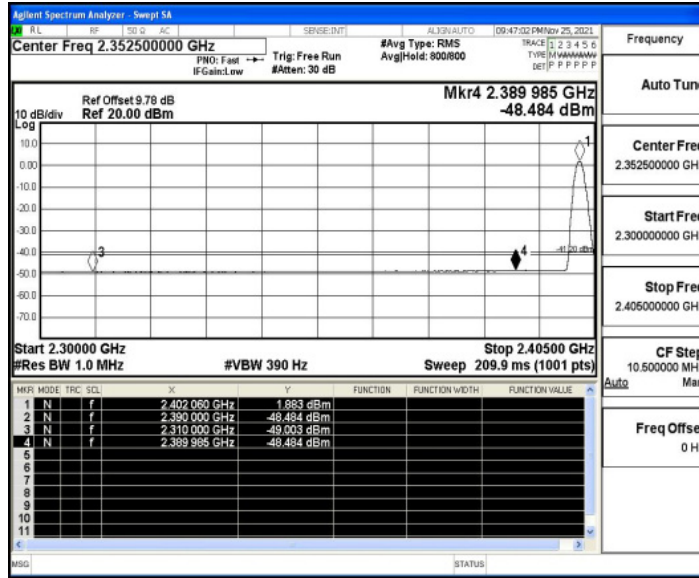
Note:

1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

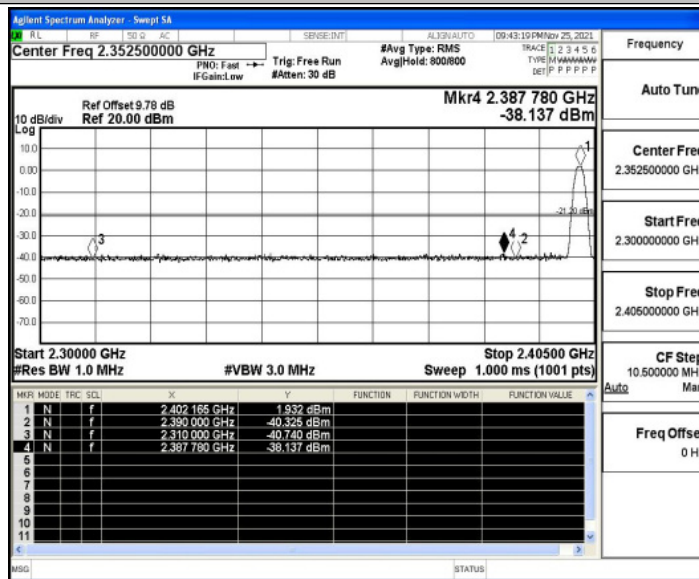


Test Graphs

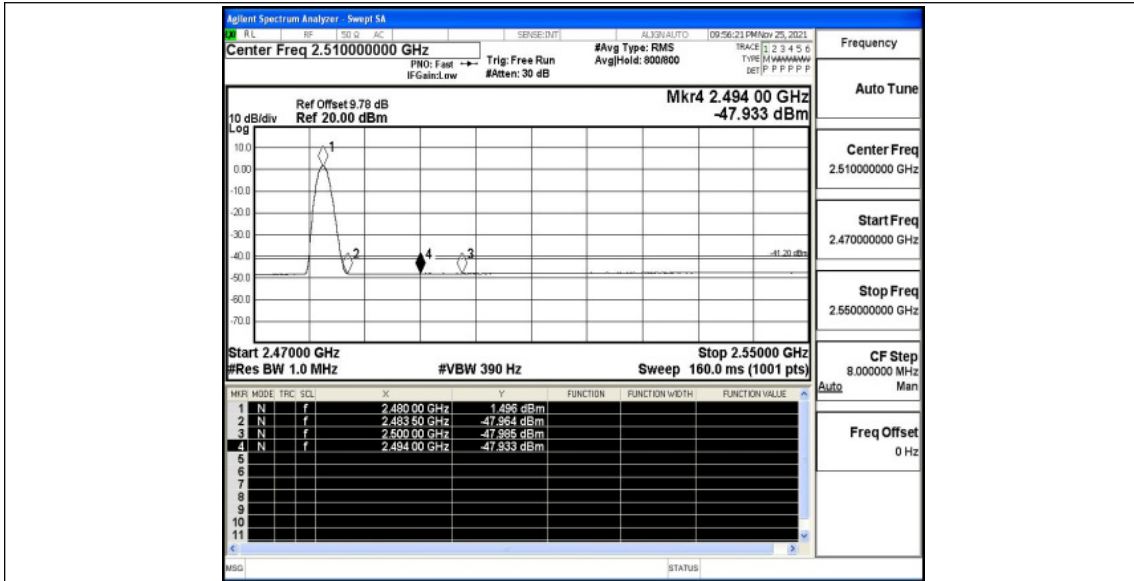
DH5_Ant1_Low_2402_AV



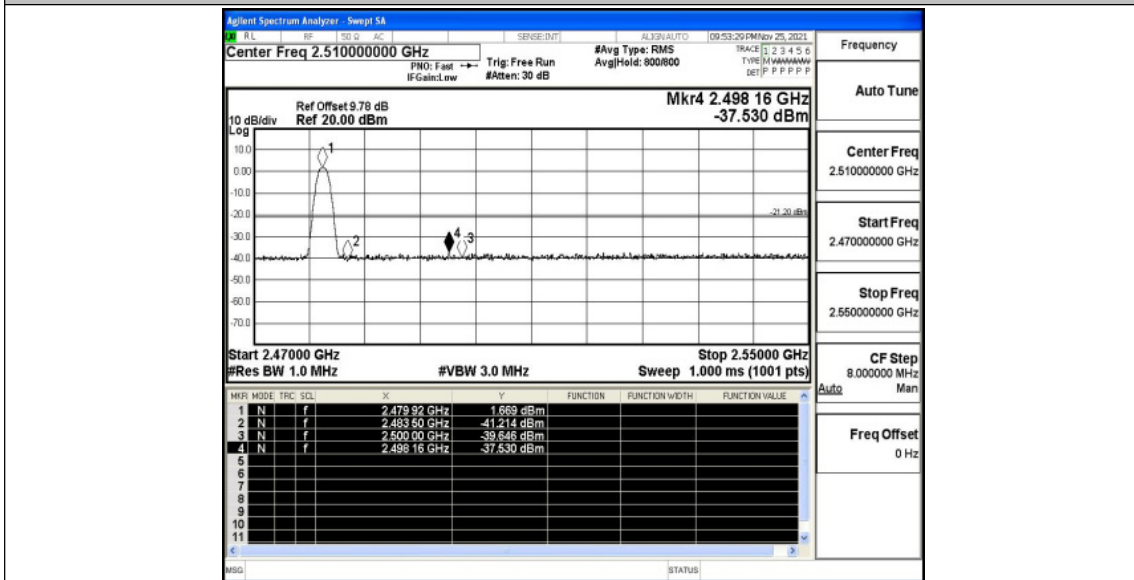
DH5_Ant1_Low_2402_Peak



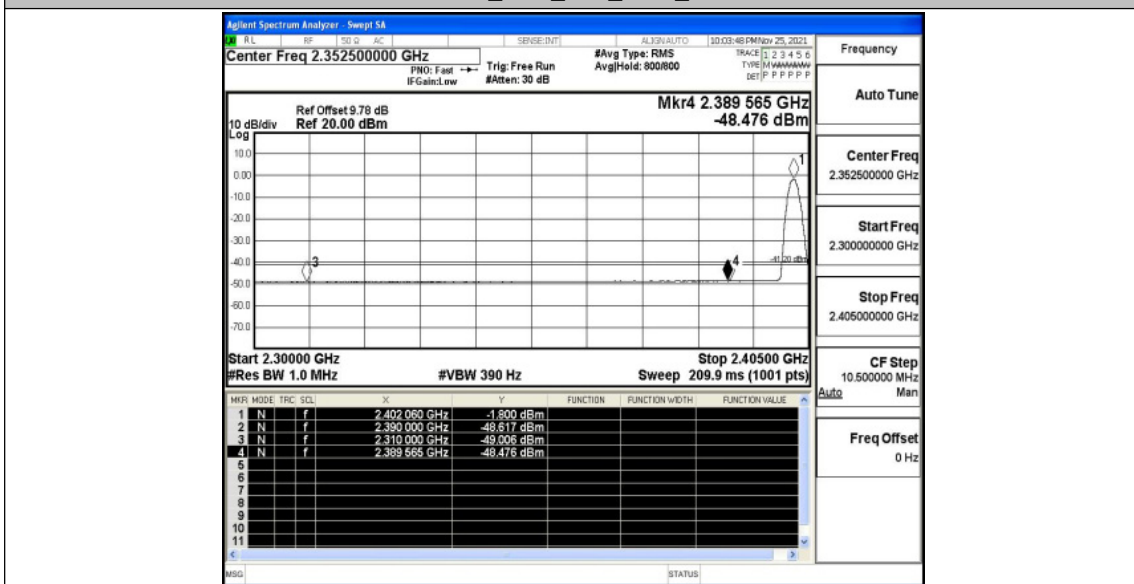
DH5_Ant1_High_2480_AV



DH5_Ant1_High_2480_Peak

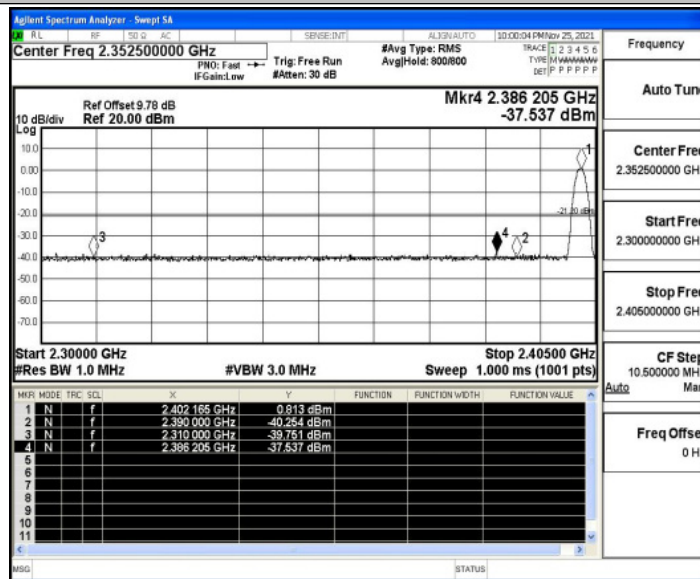


2DH5_Ant1_Low_2402_AV

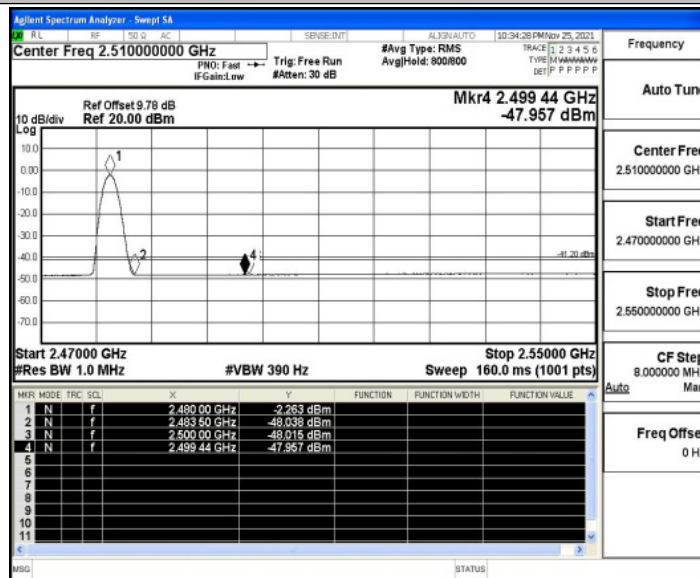




2DH5_Ant1_Low_2402_Peak



2DH5_Ant1_High_2480_AV



2DH5_Ant1_High_2480_Peak

