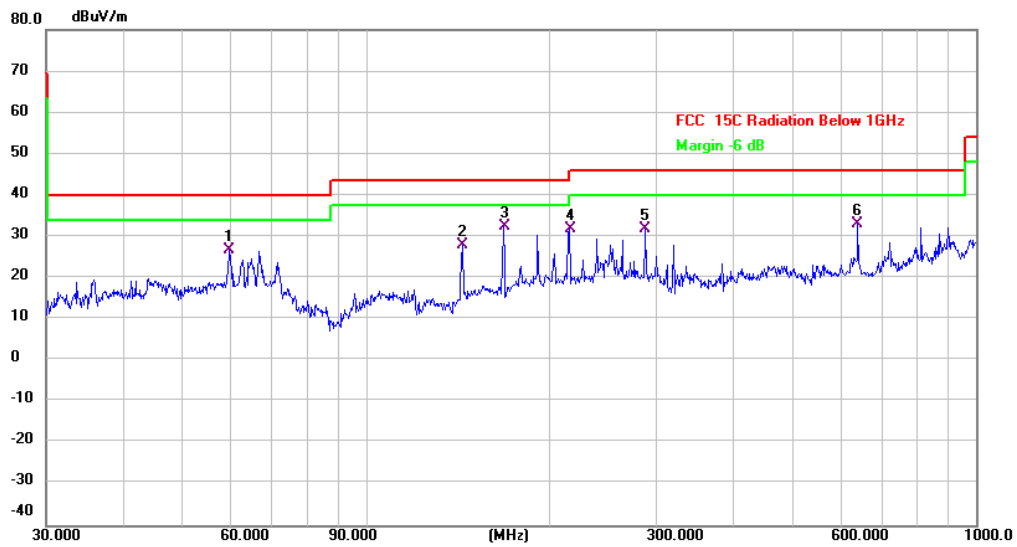


Mode2 / Polarization: Vertical / Band: 2400-2483.5 MHz / CH: H



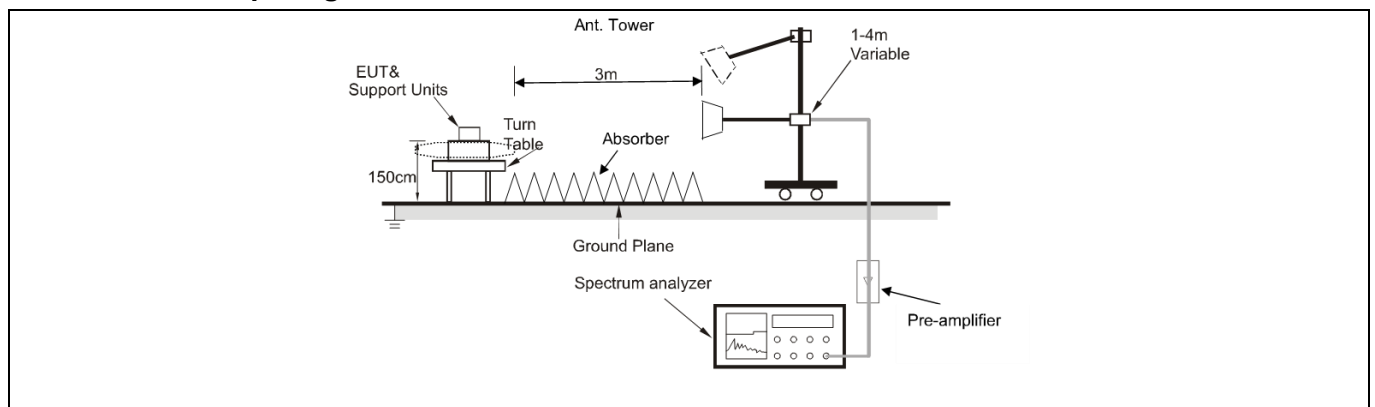
| No. | Mk. | Freq. MHz | Reading Level dBuV | Correct Factor dB | Measure- ment dBuV/m | Limit dBuV/m | Over dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|----------|---------|
| 1 | | 59.8588 | 36.67 | -9.79 | 26.88 | 40.00 | -13.12 | QP | |
| 2 | | 143.8295 | 38.39 | -10.56 | 27.83 | 43.50 | -15.67 | QP | |
| 3 | * | 167.8243 | 43.32 | -11.01 | 32.31 | 43.50 | -11.19 | QP | |
| 4 | | 216.0240 | 40.94 | -8.98 | 31.96 | 46.00 | -14.04 | QP | |
| 5 | | 287.9904 | 37.34 | -5.60 | 31.74 | 46.00 | -14.26 | QP | |
| 6 | | 640.6110 | 33.68 | -0.53 | 33.15 | 46.00 | -12.85 | QP | |

6.10 Radiated emissions (above 1GHz)

| | | | |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------|
| Test Requirement: | 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)(see § 15.205(c)).` | | |
| Test Limit: | Frequency (MHz) | Field strength (microvolts/meter) | Measurement distance (meters) |
| | 0.009-0.490 | 2400/F(kHz) | 300 |
| | 0.490-1.705 | 24000/F(kHz) | 30 |
| | 1.705-30.0 | 30 | 30 |
| | 30-88 | 100 ** | 3 |
| | 88-216 | 150 ** | 3 |
| | 216-960 | 200 ** | 3 |
| | Above 960 | 500 | 3 |
| | ** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241. In the emission table above, the tighter limit applies at the band edges. The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector. | | |
| Test Method: | ANSI C63.10-2013 section 6.6.4 KDB 558074 D01 15.247 Meas Guidance v05r02 | | |
| Procedure: | ANSI C63.10-2013 section 6.6.4 | | |

6.10.1 E.U.T. Operation:

| | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------|---------|
| Operating Environment: | | | |
| Temperature: | 24 °C | Humidity: | 54 % |
| | | Atmospheric Pressure: | 101 kPa |
| Pre test mode: | Mode1, Mode2 | | |
| Final test mode: | All of the listed pre-test mode were tested, only the data of the worst mode (Mode2) is recorded in the report | | |
| Note: Test frequency are from 1GHz to 25GHz, the amplitude of spurious emissions which are attenuated more than 20 dB below the limits are not reported. All modes of operation of the EUT were investigated, and only the worst-case results are reported. | | | |

6.10.2 Test Setup Diagram:


6.10.3 Test Data:

Mode2 / Polarization: Horizontal / Band: 2400-2483.5 MHz / CH: L

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Detector |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | |
| 1 | | 4804.000 | 50.85 | -7.40 | 43.45 | 74.00 | -30.55 | peak |
| 2 | | 4804.000 | 44.55 | -7.40 | 37.15 | 54.00 | -16.85 | AVG |
| 3 | | 7206.000 | 46.81 | 0.96 | 47.77 | 74.00 | -26.23 | peak |
| 4 | | 7206.000 | 40.40 | 0.96 | 41.36 | 54.00 | -12.64 | AVG |
| 5 | | 9608.000 | 50.12 | 2.16 | 52.28 | 74.00 | -21.72 | peak |
| 6 | * | 9608.000 | 44.05 | 2.16 | 46.21 | 54.00 | -7.79 | AVG |

Mode2 / Polarization: Vertical / Band: 2400-2483.5 MHz / CH: L

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Detector |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | |
| 1 | | 4804.000 | 51.17 | -7.40 | 43.77 | 74.00 | -30.23 | peak |
| 2 | | 4804.000 | 44.86 | -7.40 | 37.46 | 54.00 | -16.54 | AVG |
| 3 | | 7206.000 | 48.76 | 0.96 | 49.72 | 74.00 | -24.28 | peak |
| 4 | | 7206.000 | 42.66 | 0.96 | 43.62 | 54.00 | -10.38 | AVG |
| 5 | | 9608.000 | 49.68 | 2.16 | 51.84 | 74.00 | -22.16 | peak |
| 6 | * | 9608.000 | 43.53 | 2.16 | 45.69 | 54.00 | -8.31 | AVG |

Mode2 / Polarization: Horizontal / Band: 2400-2483.5 MHz / CH: M

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Detector |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | |
| 1 | | 4882.000 | 51.03 | -7.44 | 43.59 | 74.00 | -30.41 | peak |
| 2 | | 4882.000 | 44.70 | -7.44 | 37.26 | 54.00 | -16.74 | AVG |
| 3 | | 7323.000 | 46.75 | 0.79 | 47.54 | 74.00 | -26.46 | peak |
| 4 | | 7323.000 | 40.57 | 0.79 | 41.36 | 54.00 | -12.64 | AVG |
| 5 | | 9764.000 | 49.30 | 3.14 | 52.44 | 74.00 | -21.56 | peak |
| 6 | * | 9764.000 | 43.40 | 3.14 | 46.54 | 54.00 | -7.46 | AVG |

Mode2 / Polarization: Vertical / Band: 2400-2483.5 MHz / CH: M

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Detector |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | |
| 1 | | 4882.000 | 50.48 | -7.44 | 43.04 | 74.00 | -30.96 | peak |
| 2 | | 4882.000 | 44.59 | -7.44 | 37.15 | 54.00 | -16.85 | AVG |
| 3 | | 7323.000 | 48.77 | 0.79 | 49.56 | 74.00 | -24.44 | peak |
| 4 | | 7323.000 | 42.46 | 0.79 | 43.25 | 54.00 | -10.75 | AVG |
| 5 | | 9764.000 | 49.34 | 3.14 | 52.48 | 74.00 | -21.52 | peak |
| 6 | * | 9764.000 | 43.51 | 3.14 | 46.65 | 54.00 | -7.35 | AVG |

Mode2 / Polarization: Horizontal / Band: 2400-2483.5 MHz / CH: H

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Detector |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | |
| 1 | | 4960.000 | 51.85 | -7.20 | 44.65 | 74.00 | -29.35 | peak |
| 2 | | 4960.000 | 45.77 | -7.20 | 38.57 | 54.00 | -15.43 | AVG |
| 3 | | 7440.000 | 45.68 | 0.98 | 46.66 | 74.00 | -27.34 | peak |
| 4 | | 7440.000 | 39.38 | 0.98 | 40.36 | 54.00 | -13.64 | AVG |
| 5 | | 9920.000 | 48.76 | 3.02 | 51.78 | 74.00 | -22.22 | peak |
| 6 | * | 9920.000 | 42.67 | 3.02 | 45.69 | 54.00 | -8.31 | AVG |

Mode2 / Polarization: Vertical / Band: 2400-2483.5 MHz / CH: H

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Detector |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | |
| 1 | | 4960.000 | 52.37 | -7.20 | 45.17 | 74.00 | -28.83 | peak |
| 2 | | 4960.000 | 46.32 | -7.20 | 39.12 | 54.00 | -14.88 | AVG |
| 3 | | 7440.000 | 48.15 | 0.98 | 49.13 | 74.00 | -24.87 | peak |
| 4 | | 7440.000 | 42.27 | 0.98 | 43.25 | 54.00 | -10.75 | AVG |
| 5 | | 9920.000 | 49.84 | 3.02 | 52.86 | 74.00 | -21.14 | peak |
| 6 | * | 9920.000 | 43.83 | 3.02 | 46.85 | 54.00 | -7.15 | AVG |

Photographs of the test setup

Refer to Appendix - Test Setup Photos

Photographs of the EUT

Refer to Appendix - EUT Photos

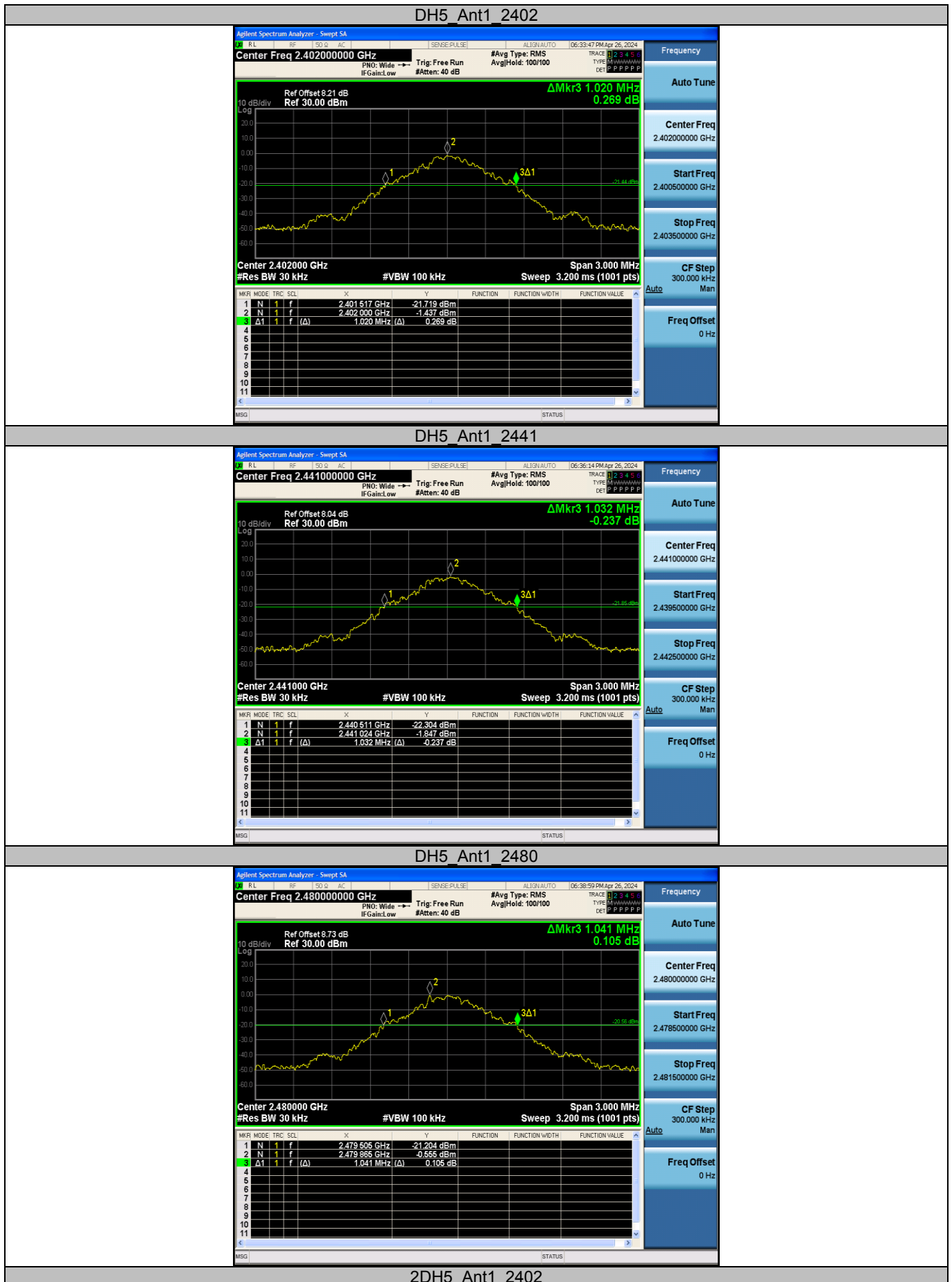
Appendix

Appendix A: 20dB Emission Bandwidth

Test Result

| Test Mode | Antenna | Frequency [MHz] | 20db EBW [MHz] |
|-----------|---------|--------------------|-------------------|
| DH5 | Ant1 | 2402 | 1.020 |
| | | 2441 | 1.032 |
| | | 2480 | 1.041 |
| 2DH5 | Ant1 | 2402 | 1.329 |
| | | 2441 | 1.326 |
| | | 2480 | 1.338 |

Test Graphs





2DH5_Ant1_2441



2DH5_Ant1_2480

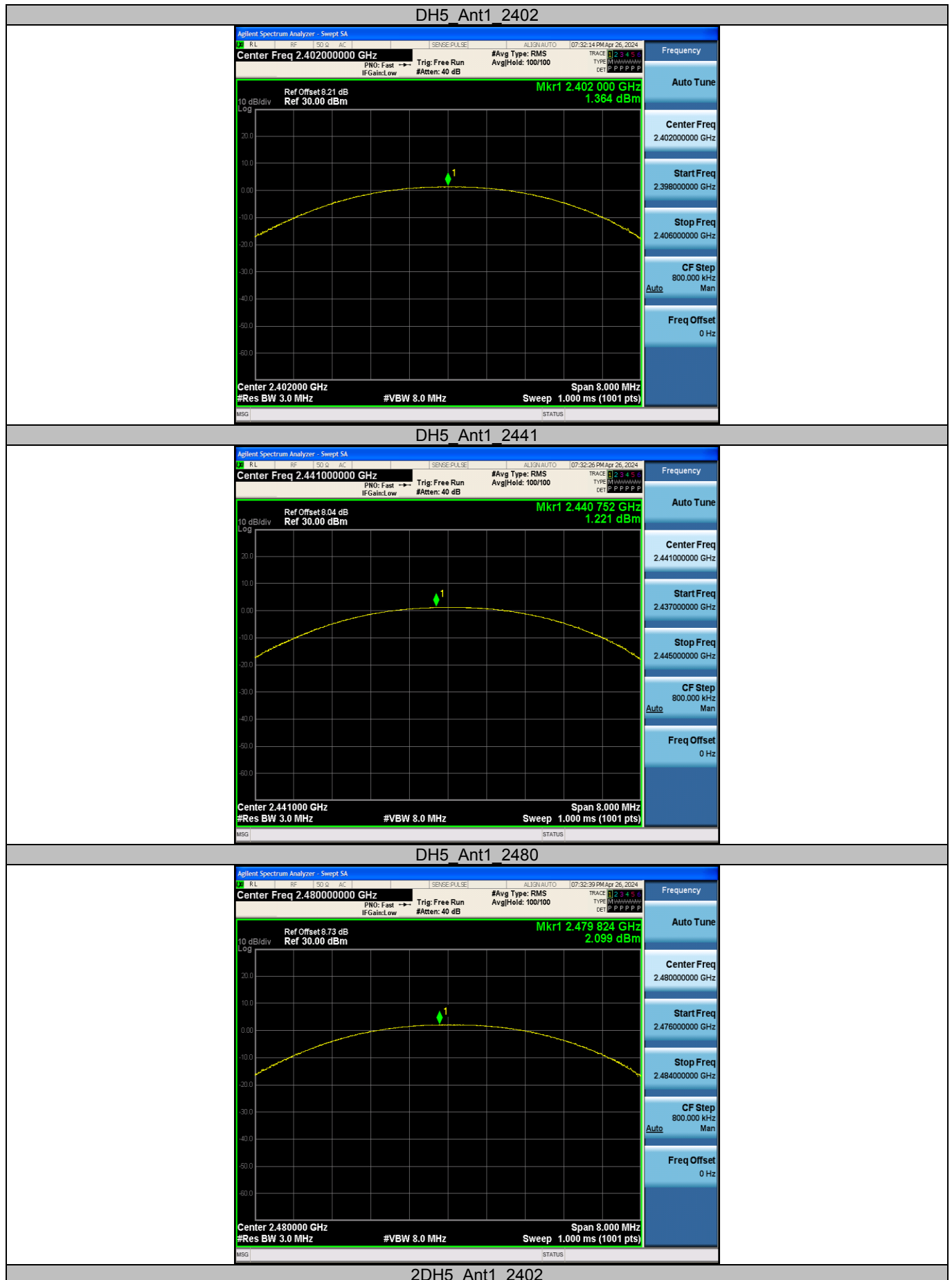


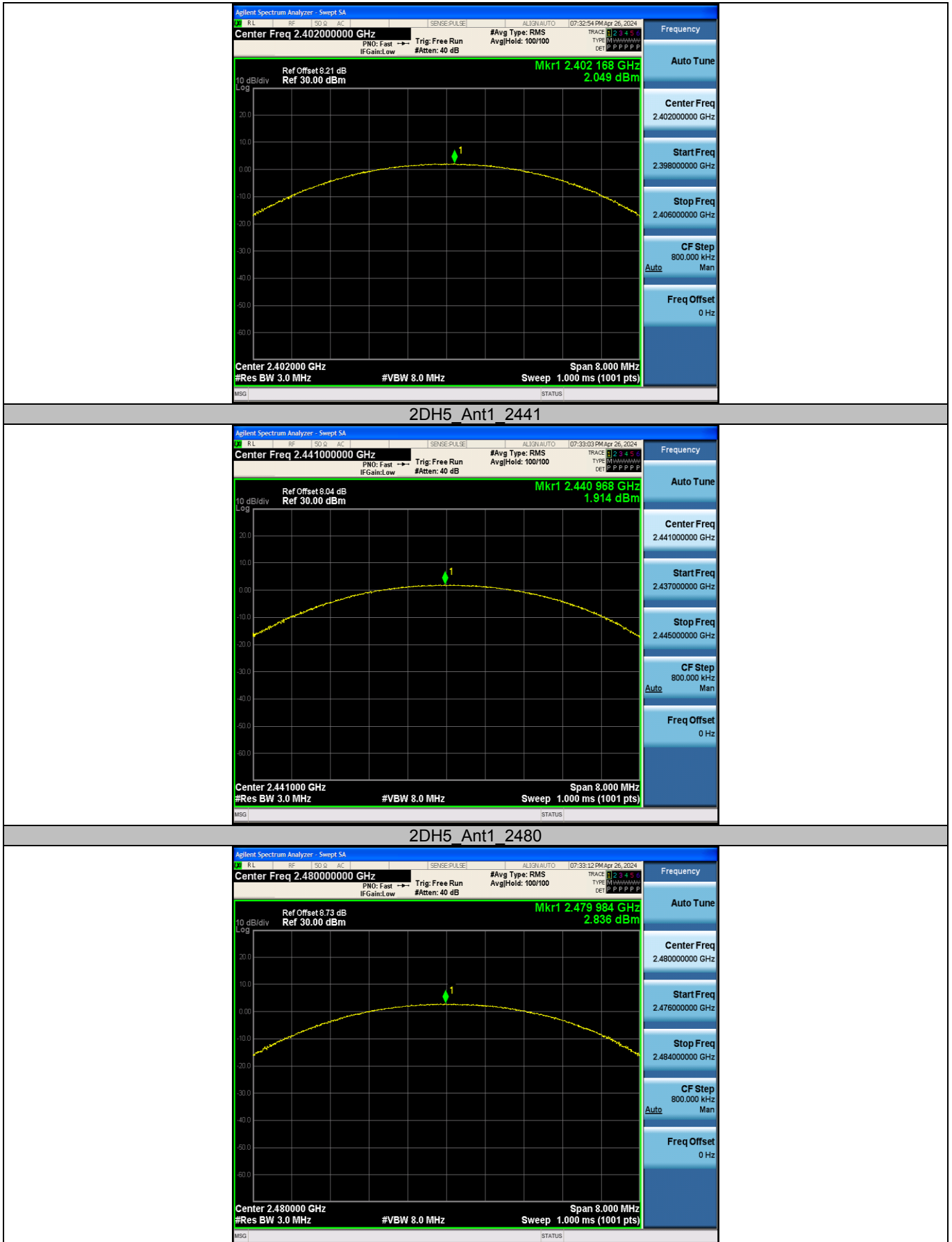
Appendix B: Maximum conducted output power

Test Result Peak

| Test Mode | Antenna | Frequency [MHz] | Conducted Peak Power [dBm] | Limit [dBm] | Verdict |
|-----------|---------|-----------------|----------------------------|-------------|---------|
| DH5 | Ant1 | 2402 | 1.36 | ≤20.97 | PASS |
| | | 2441 | 1.22 | ≤20.97 | PASS |
| | | 2480 | 2.10 | ≤20.97 | PASS |
| 2DH5 | Ant1 | 2402 | 2.05 | ≤20.97 | PASS |
| | | 2441 | 1.91 | ≤20.97 | PASS |
| | | 2480 | 2.84 | ≤20.97 | PASS |

Test Graphs





Appendix C: Carrier frequency separation

Test Result

| Test Mode | Antenna | Frequency [MHz] | Result [MHz] | Limit [MHz] | Verdict |
|-----------|---------|-----------------|--------------|--------------|---------|
| DH5 | Ant1 | Hop | 0.974 | ≥ 0.694 | PASS |
| 2DH5 | Ant1 | Hop | 0.998 | ≥ 0.892 | PASS |

Test Graphs



Appendix D: Time of occupancy

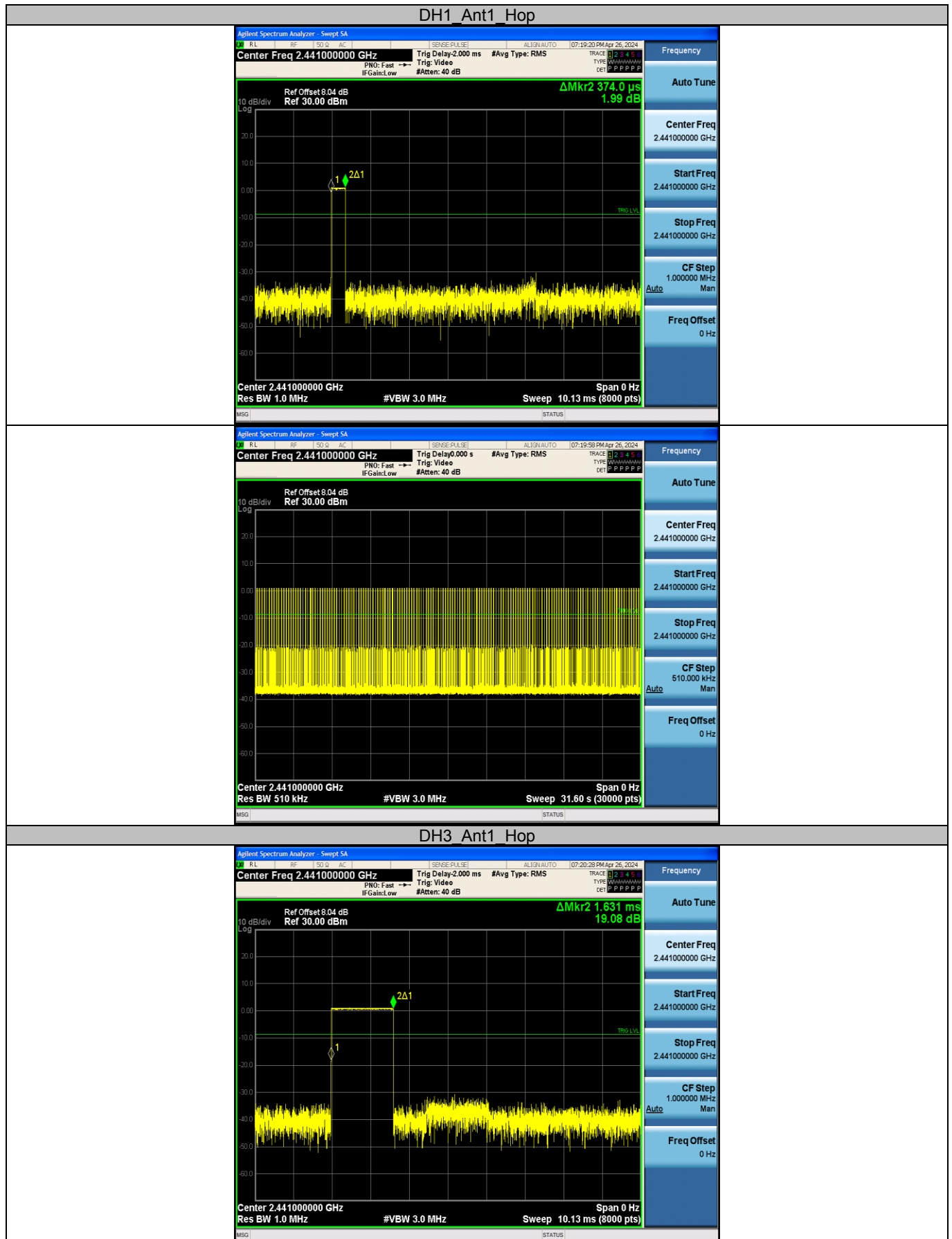
Test Result

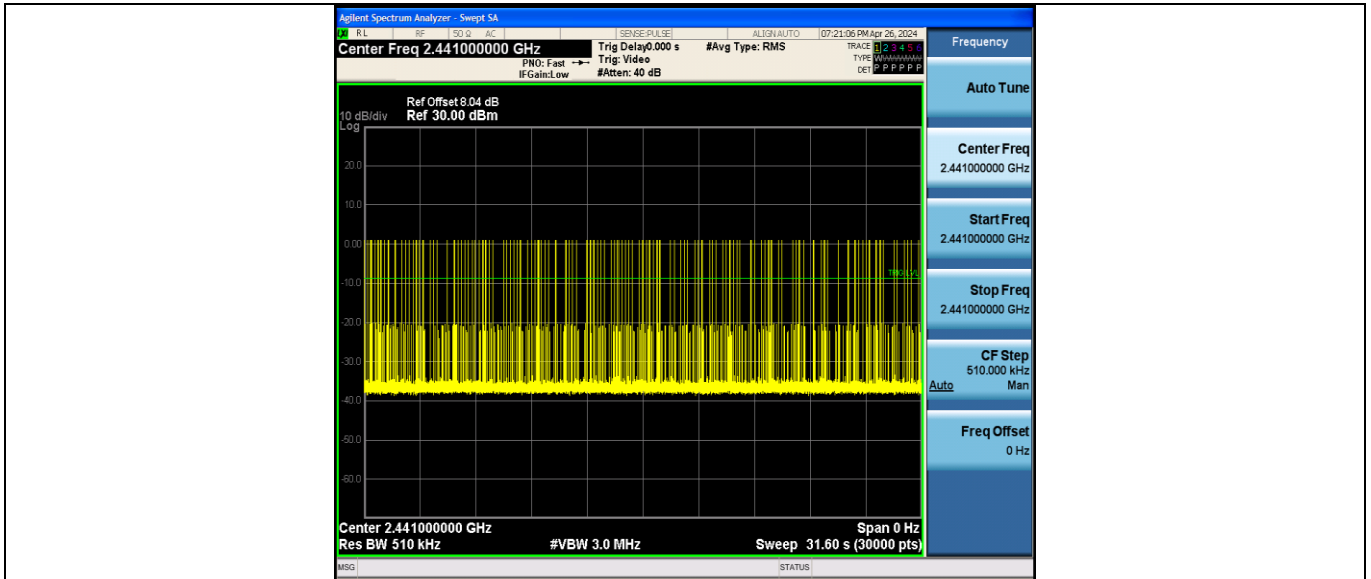
| Test Mode | Antenna | Frequency [MHz] | BurstWidth [ms] | Hops in 31.6s [Num] | Result [s] | Limit [s] | Verdict |
|-----------|---------|-----------------|-----------------|---------------------|------------|-----------|---------|
| DH1 | Ant1 | Hop | 0.374 | 318 | 0.119 | ≤0.4 | PASS |
| DH3 | Ant1 | Hop | 1.631 | 160 | 0.261 | ≤0.4 | PASS |
| DH5 | Ant1 | Hop | 2.879 | 127 | 0.366 | ≤0.4 | PASS |
| 2DH1 | Ant1 | Hop | 0.385 | 317 | 0.122 | ≤0.4 | PASS |
| 2DH3 | Ant1 | Hop | 1.637 | 153 | 0.25 | ≤0.4 | PASS |
| 2DH5 | Ant1 | Hop | 2.884 | 107 | 0.309 | ≤0.4 | PASS |

Notes:

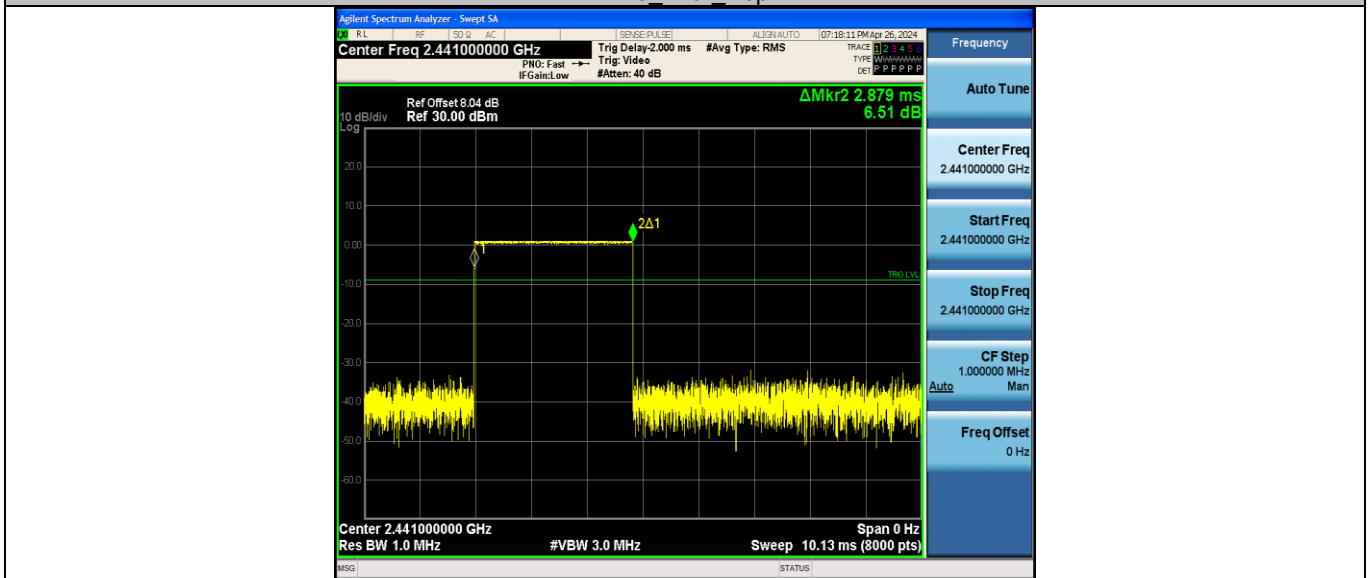
1. Period time = $0.4s * 79 = 31.6s$
2. Result (Time of occupancy) = $BurstWidth[ms] * Hops\ in\ 31.6s\ [Num]$

Test Graphs

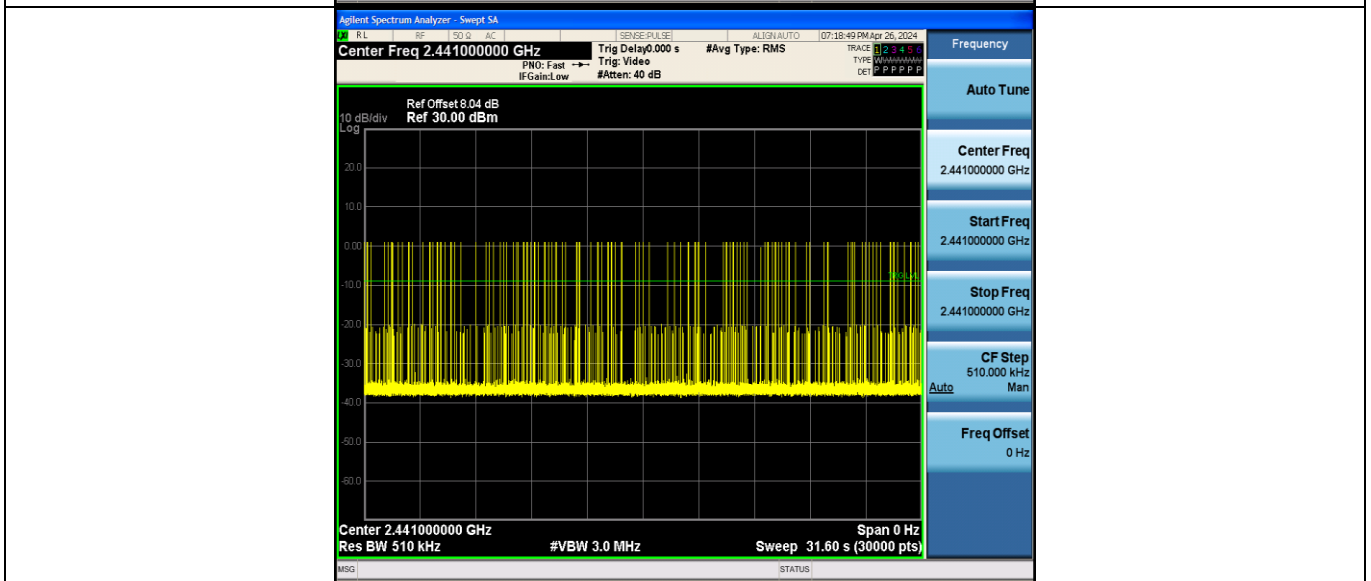


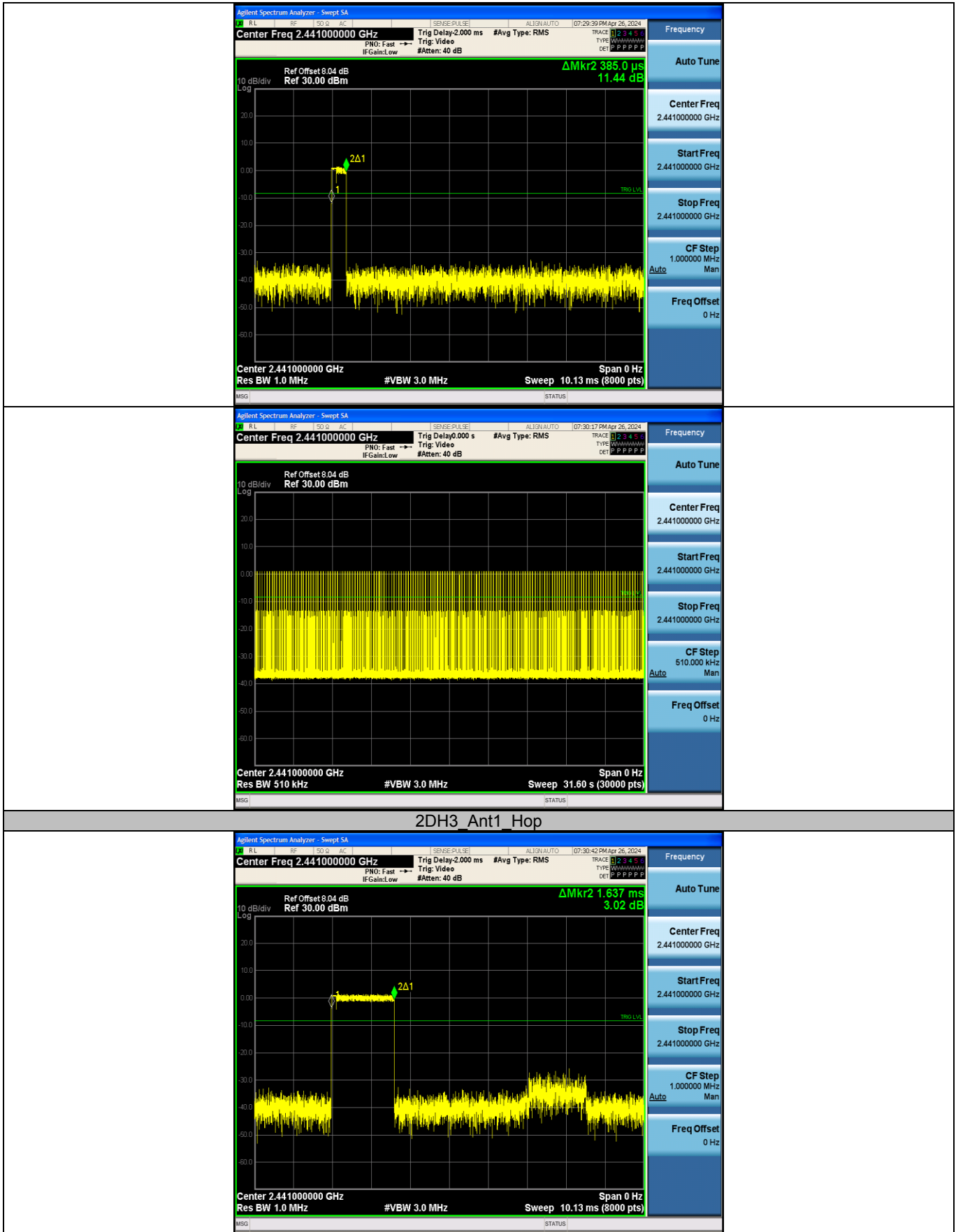


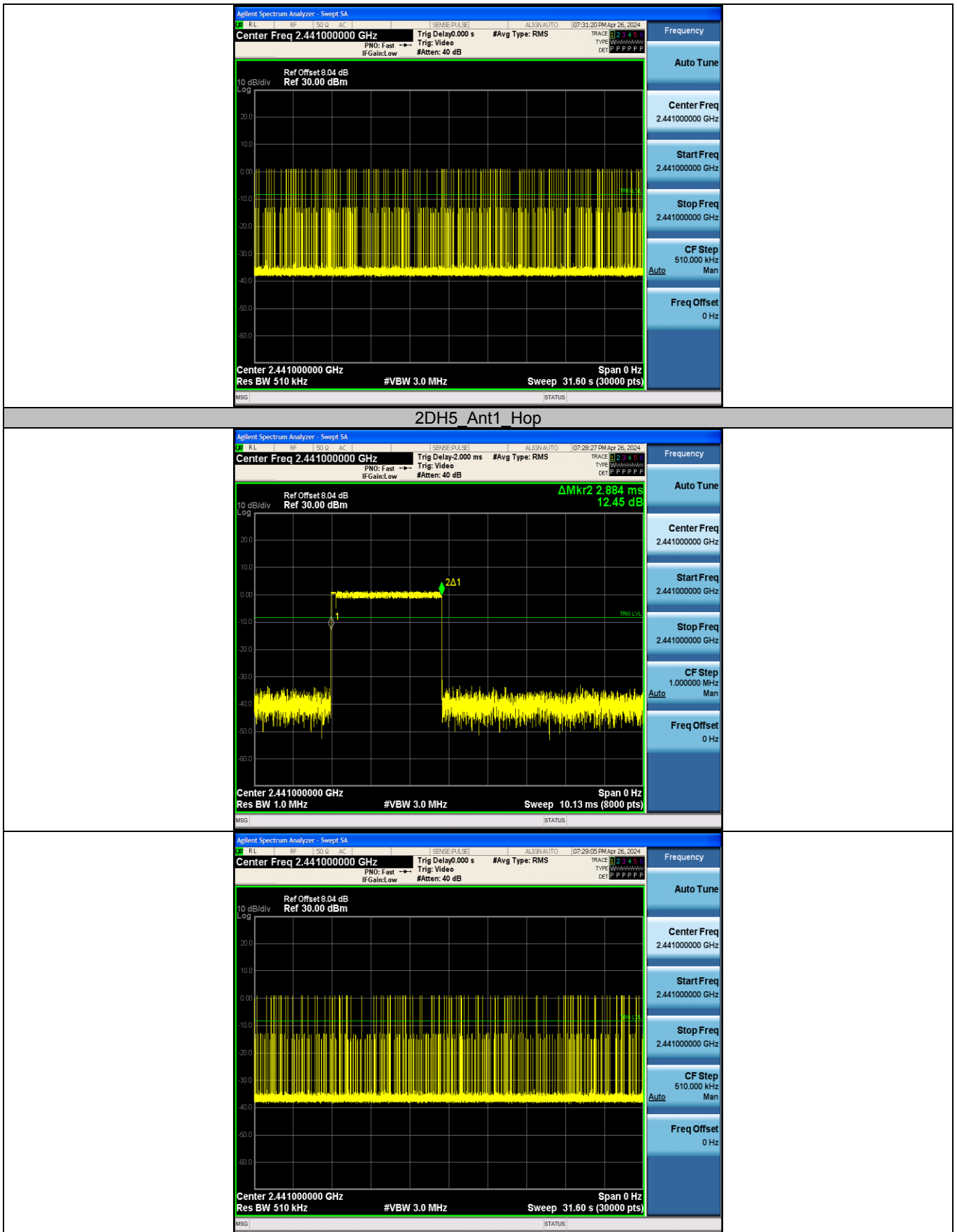
DH5_Ant1_Hop



2DH1_Ant1_Hop







Appendix E: Number of hopping channels

Test Result

| Test Mode | Antenna | Frequency [MHz] | Result [Num] | Limit [Num] | Verdict |
|-----------|---------|-----------------|--------------|-------------|---------|
| DH5 | Ant1 | Hop | 79 | ≥15 | PASS |
| 2DH5 | Ant1 | Hop | 79 | ≥15 | PASS |

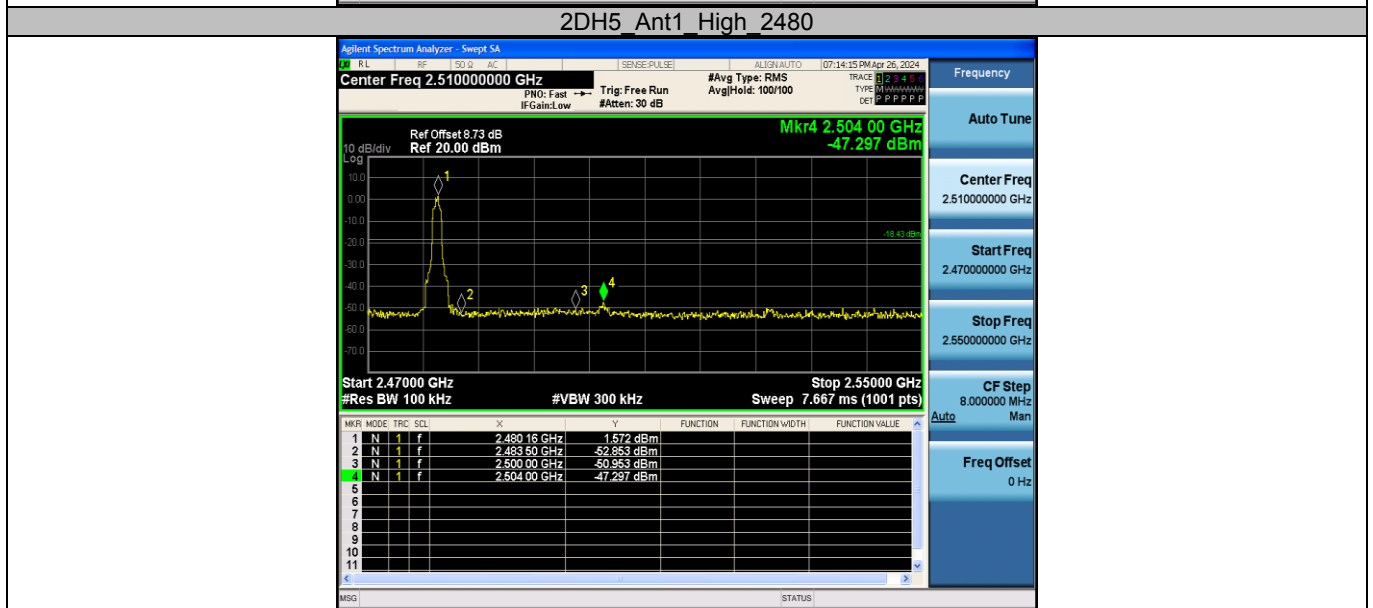
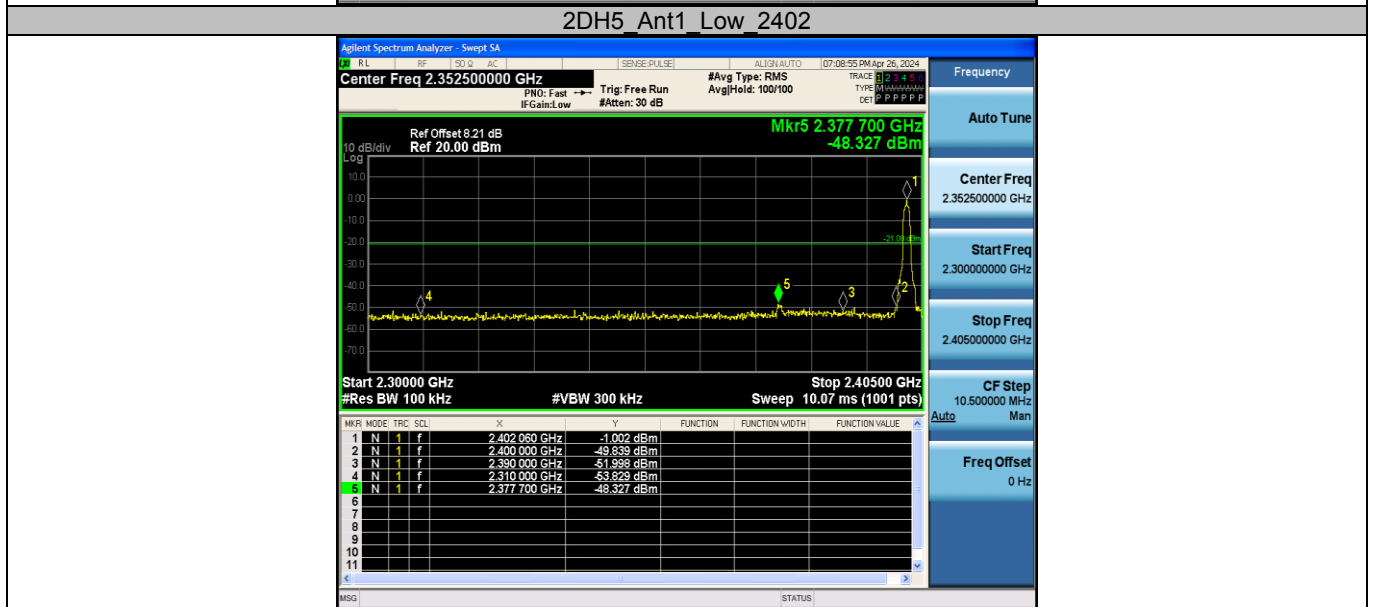
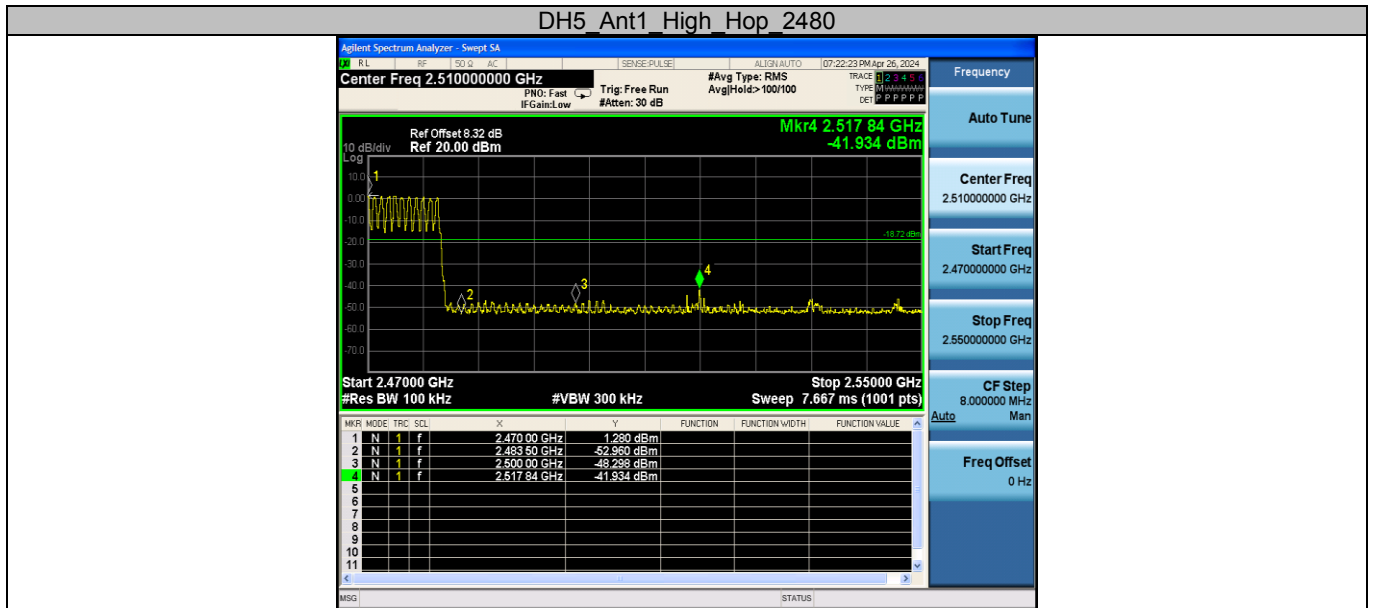
Test Graphs



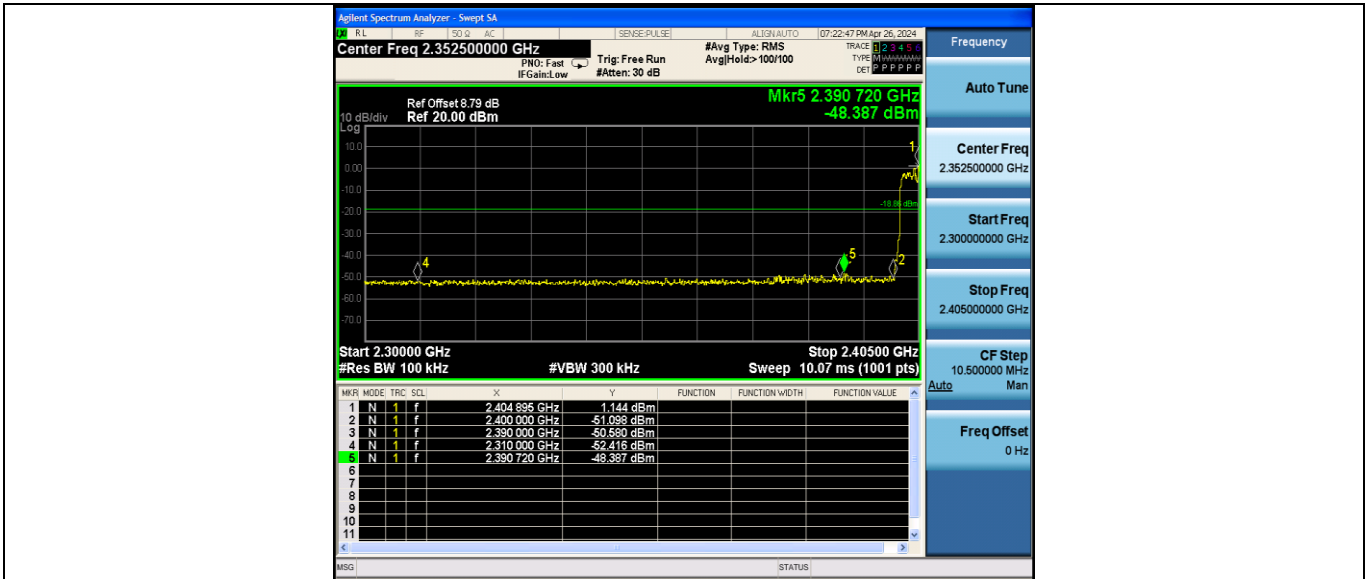
Appendix F: Band edge measurements

Test Graphs

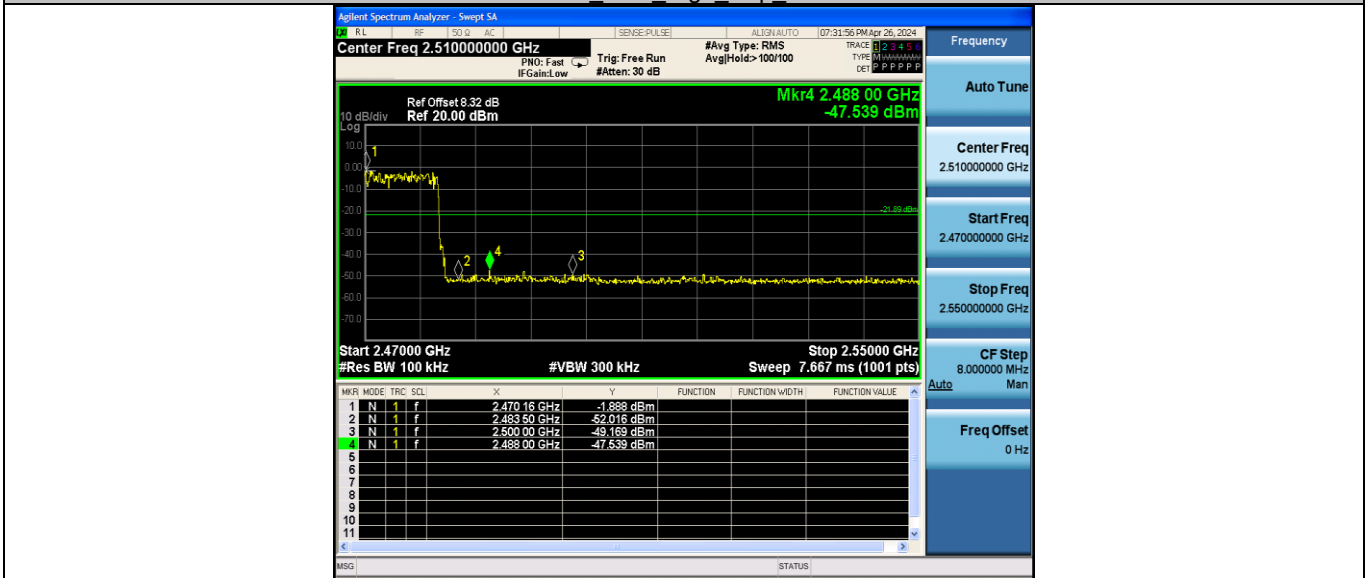




2DH5_Ant1_Low_Hop_2402



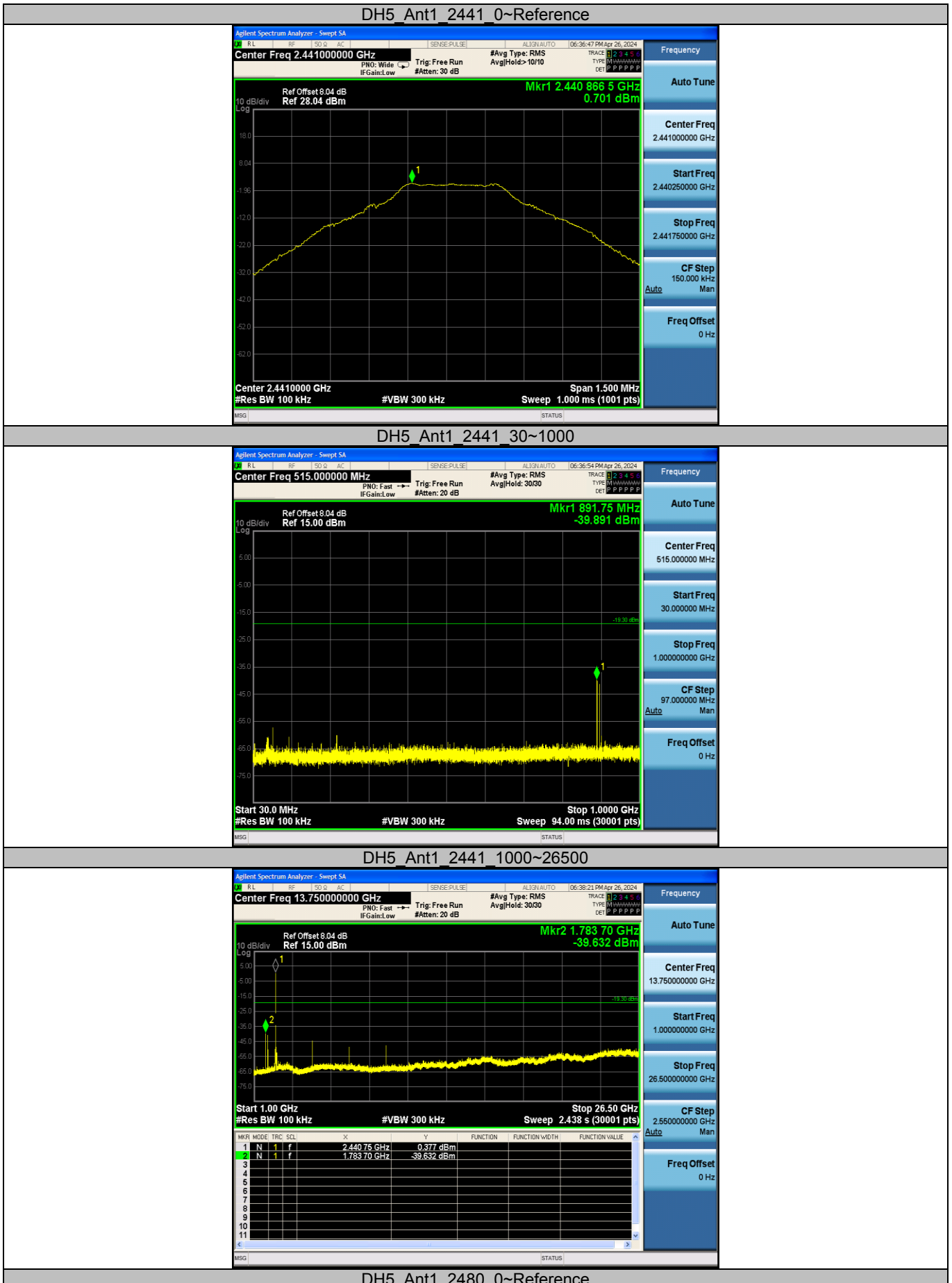
2DH5 Ant1 High Hop 2480



Appendix G: Conducted Spurious Emission

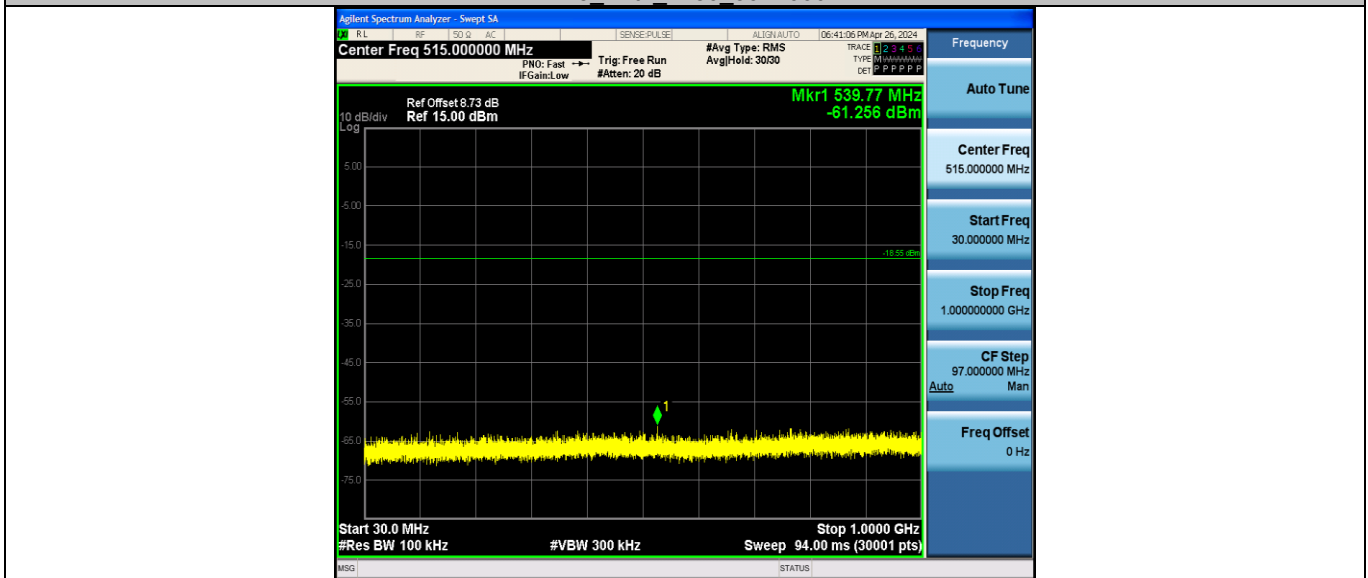
Test Graphs



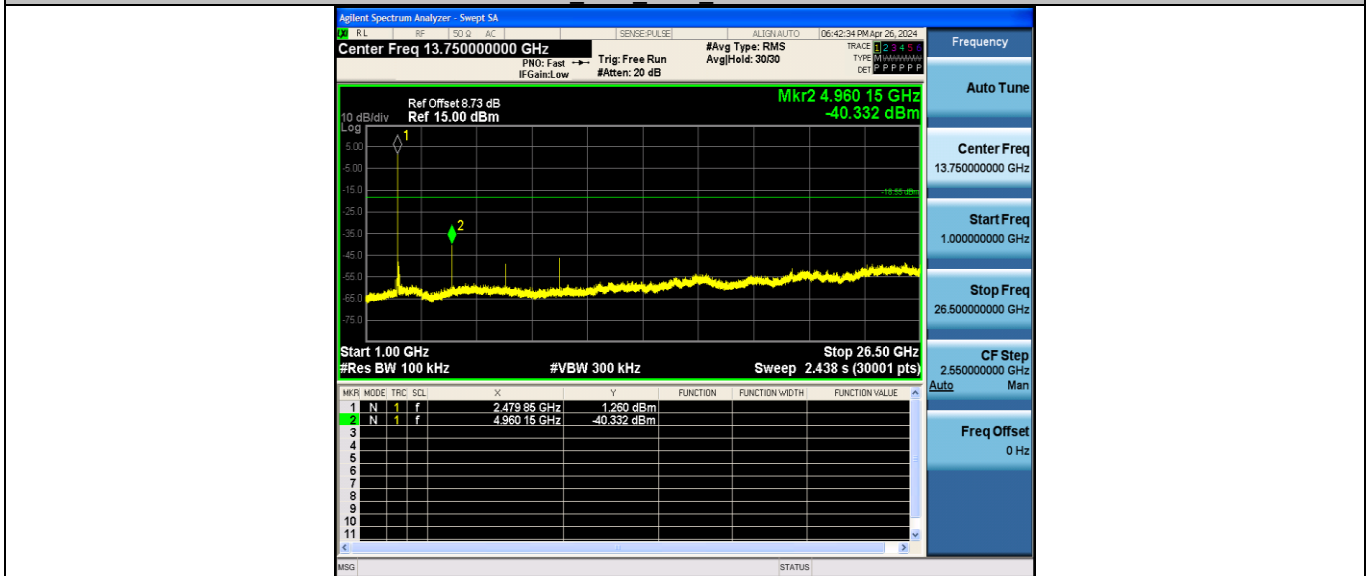




DH5_Ant1_2480_30~1000



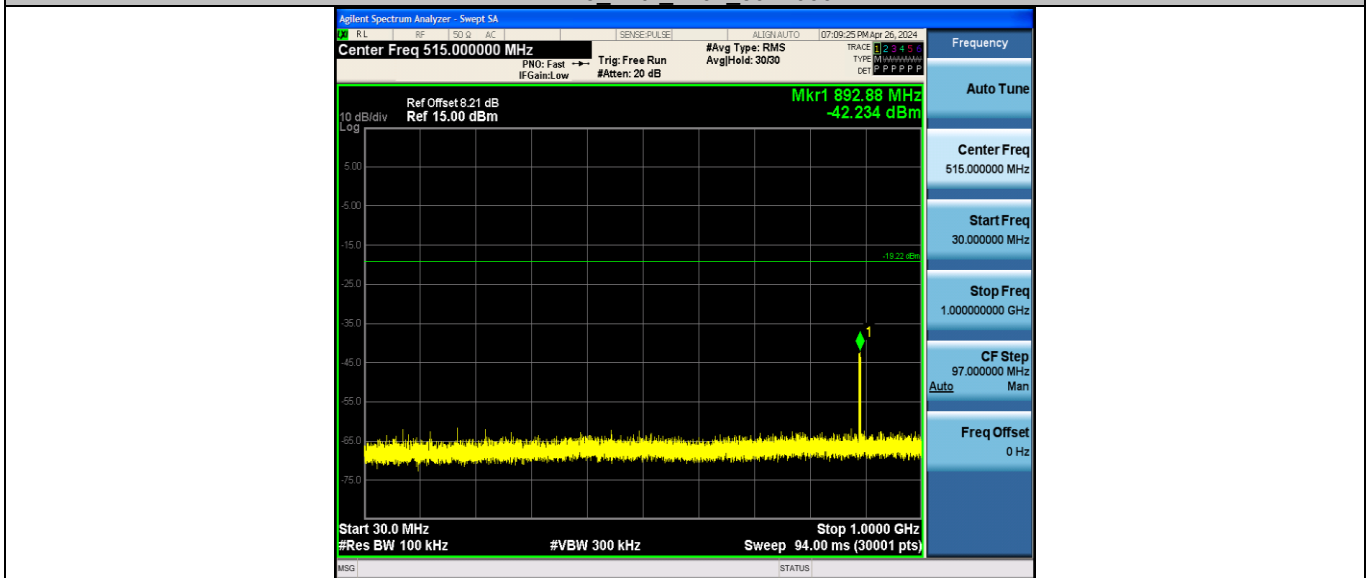
DH5_Ant1_2480_1000~26500



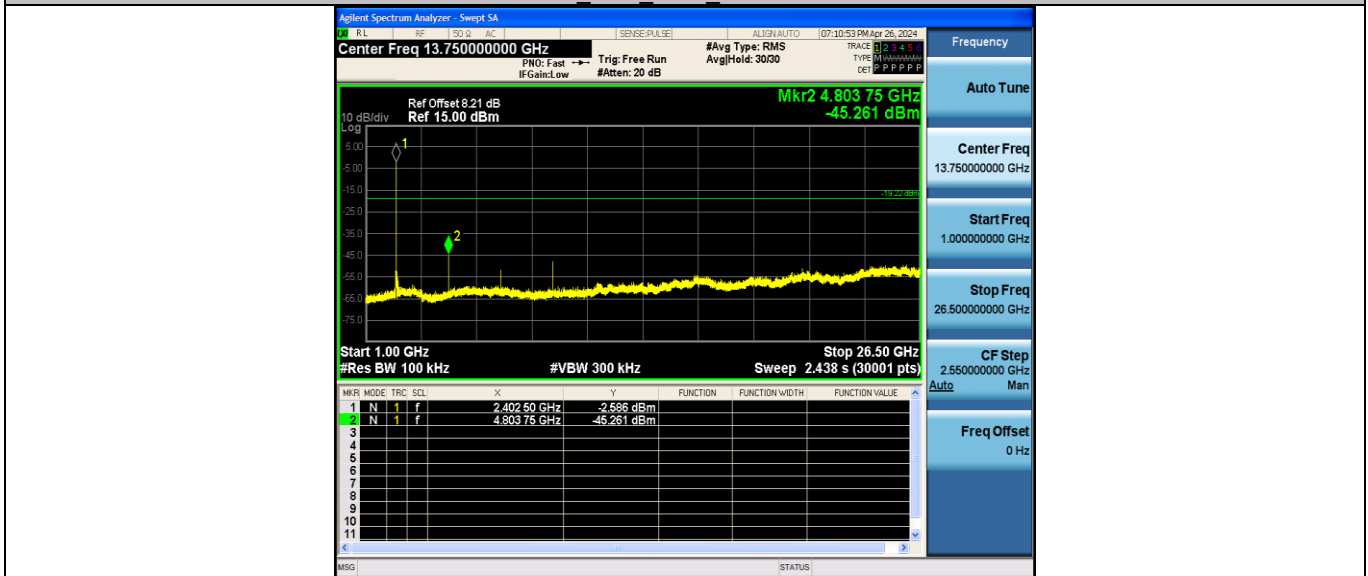
2DH5_Ant1_2402_0~Reference



2DH5 Ant1 2402 30~1000



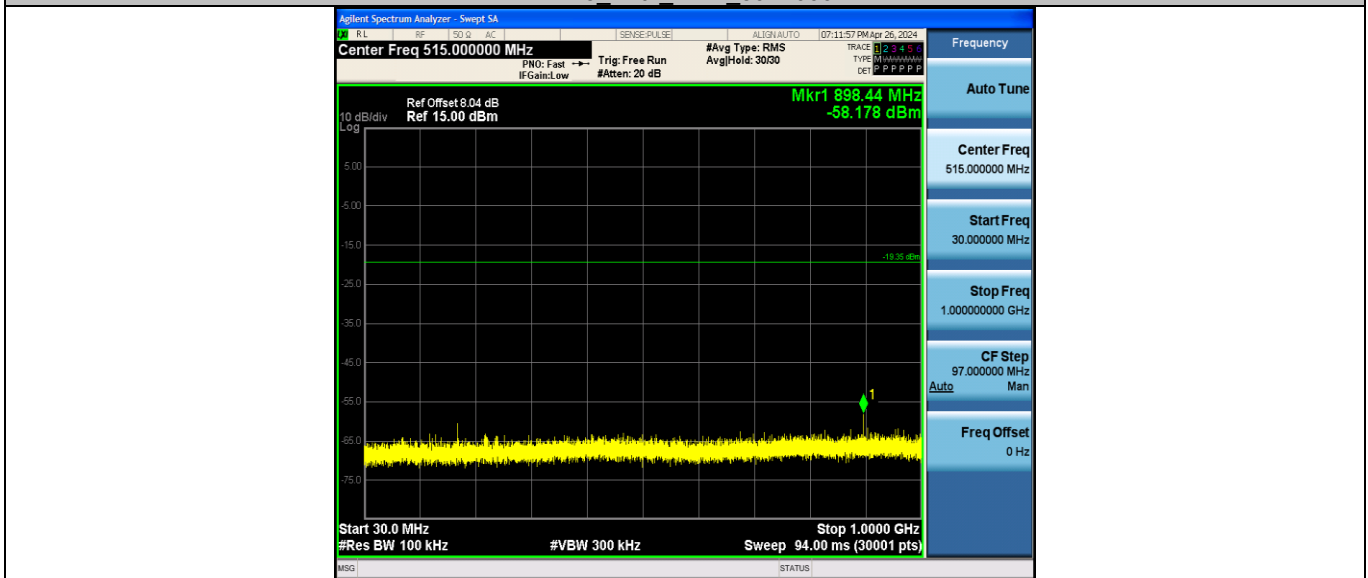
2DH5 Ant1 2402 1000~26500



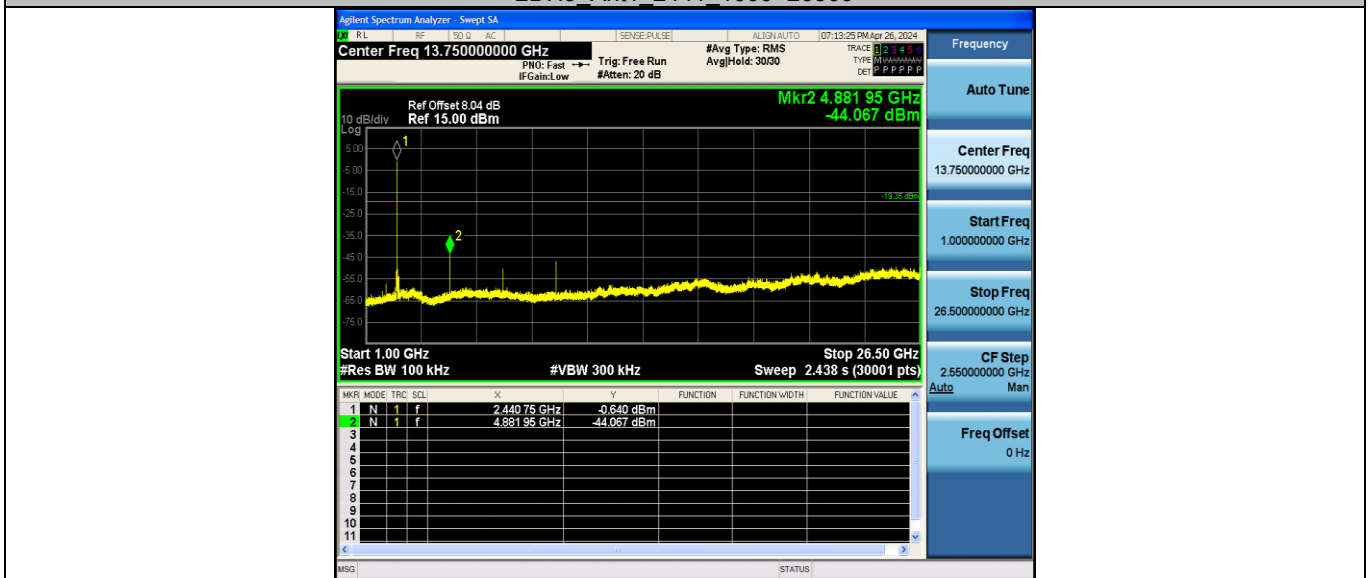
2DH5 Ant1 2441 0~Reference



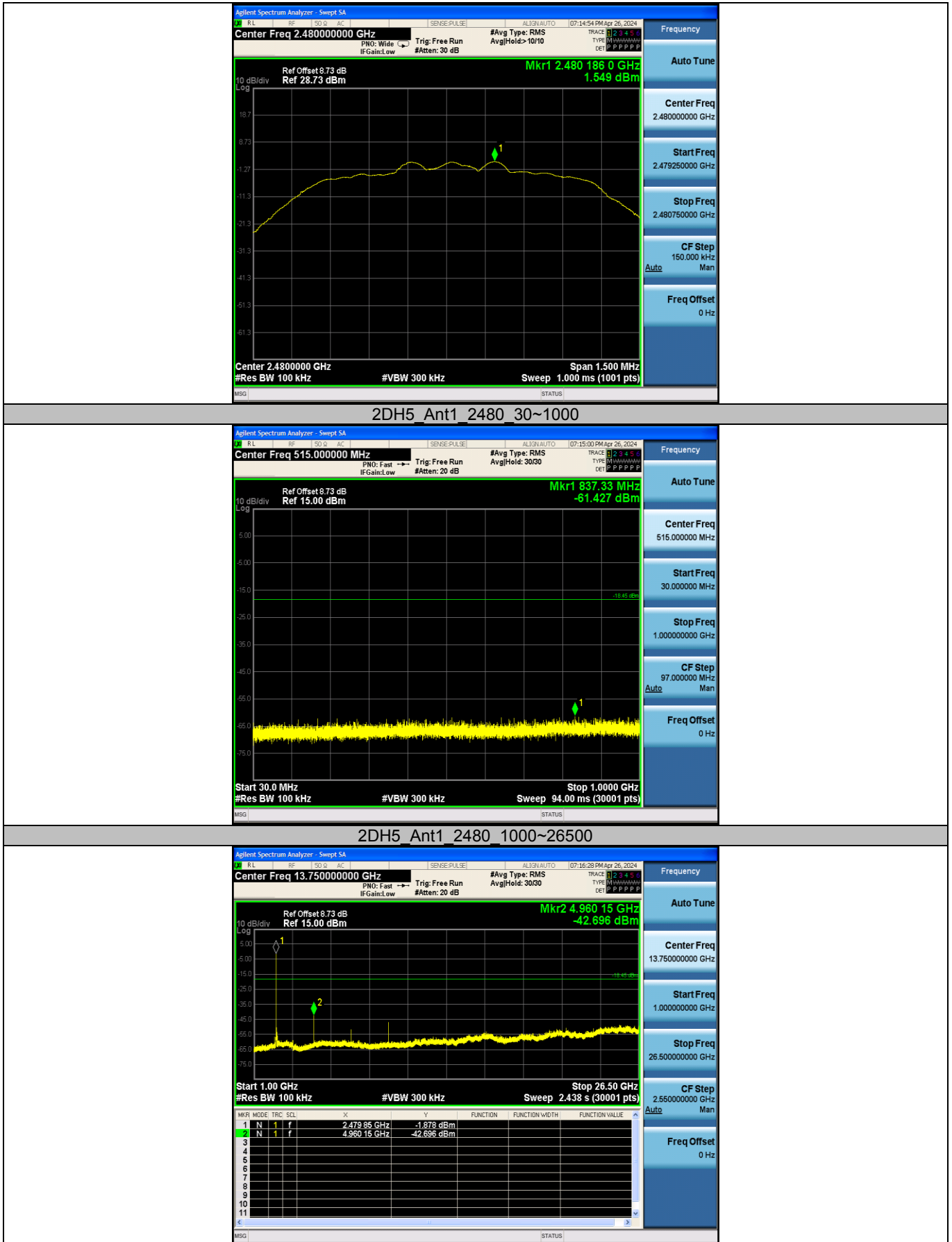
2DH5 Ant1 2441 30~1000



2DH5 Ant1 2441 1000~26500



2DH5 Ant1 2480 0~Reference



----End of Report----