

## Appendix C

### RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: Smart Phone

Test Model: Air 1

#### Environmental Conditions

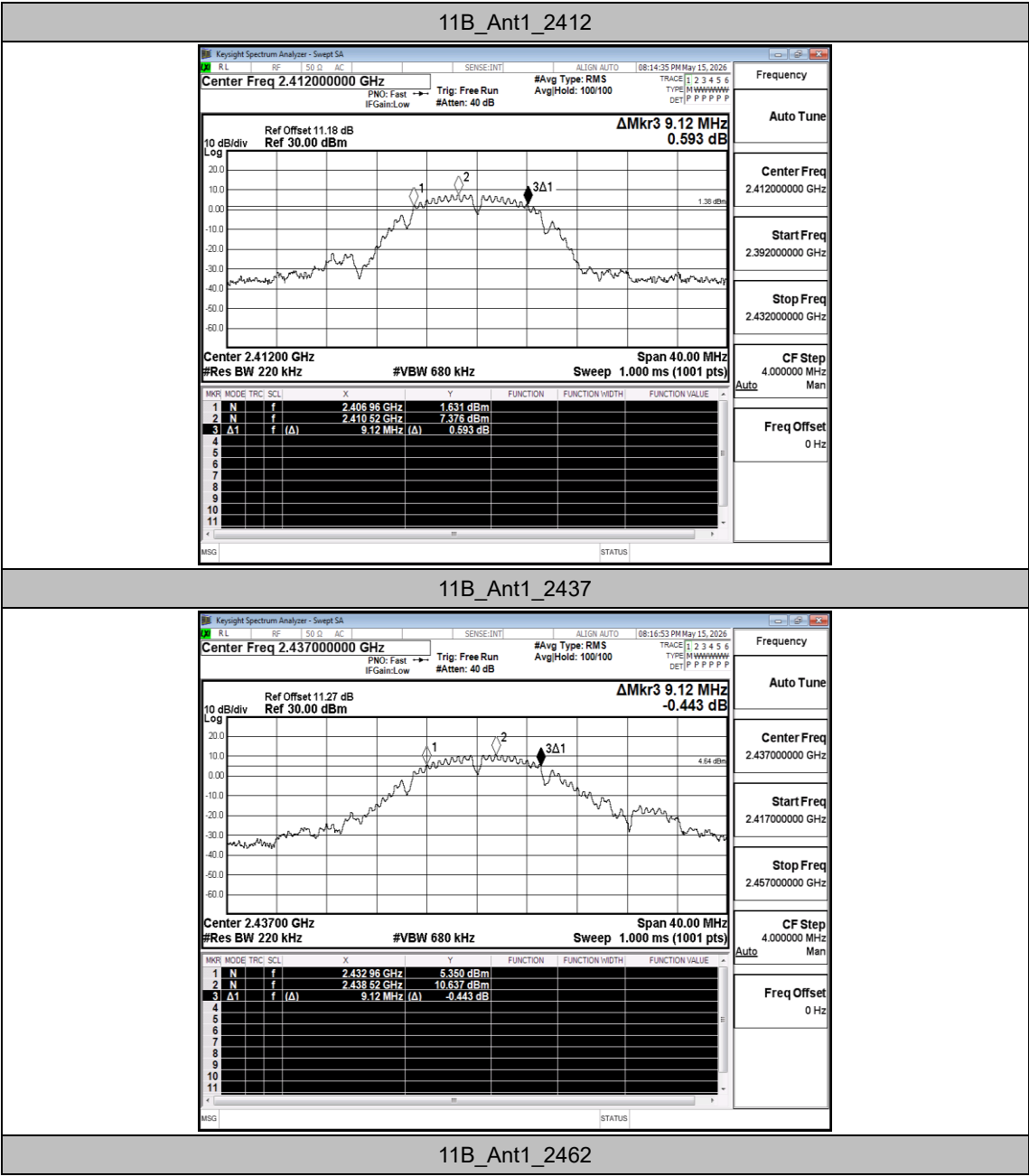
|                    |              |
|--------------------|--------------|
| Temperature:       | 24.6°C       |
| Relative Humidity: | 53.3%        |
| ATM Pressure:      | 100.0 kPa    |
| Test Engineer:     | Zhang hai    |
| Supervised by:     | Fengliu Tang |

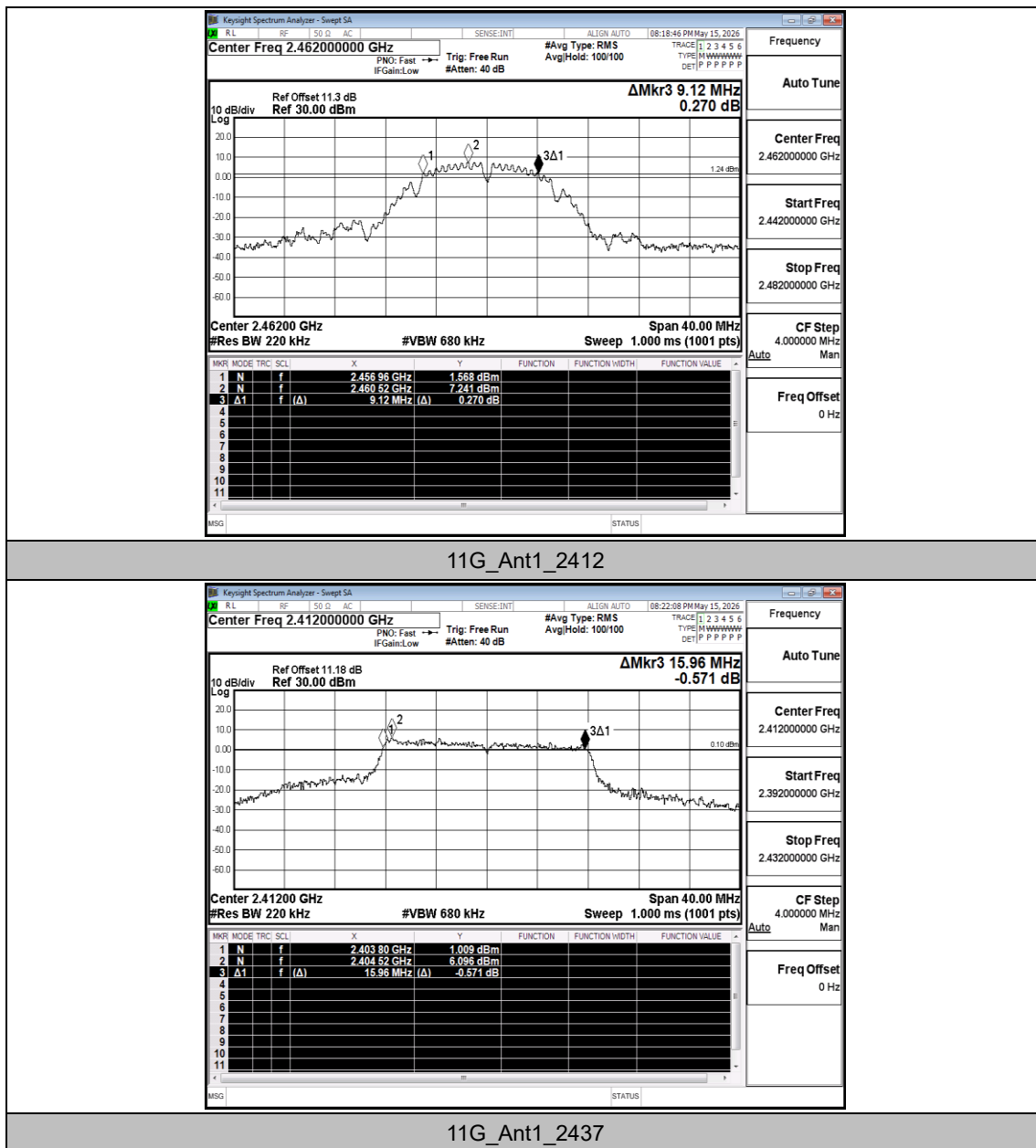
## C.1 6dB Bandwidth

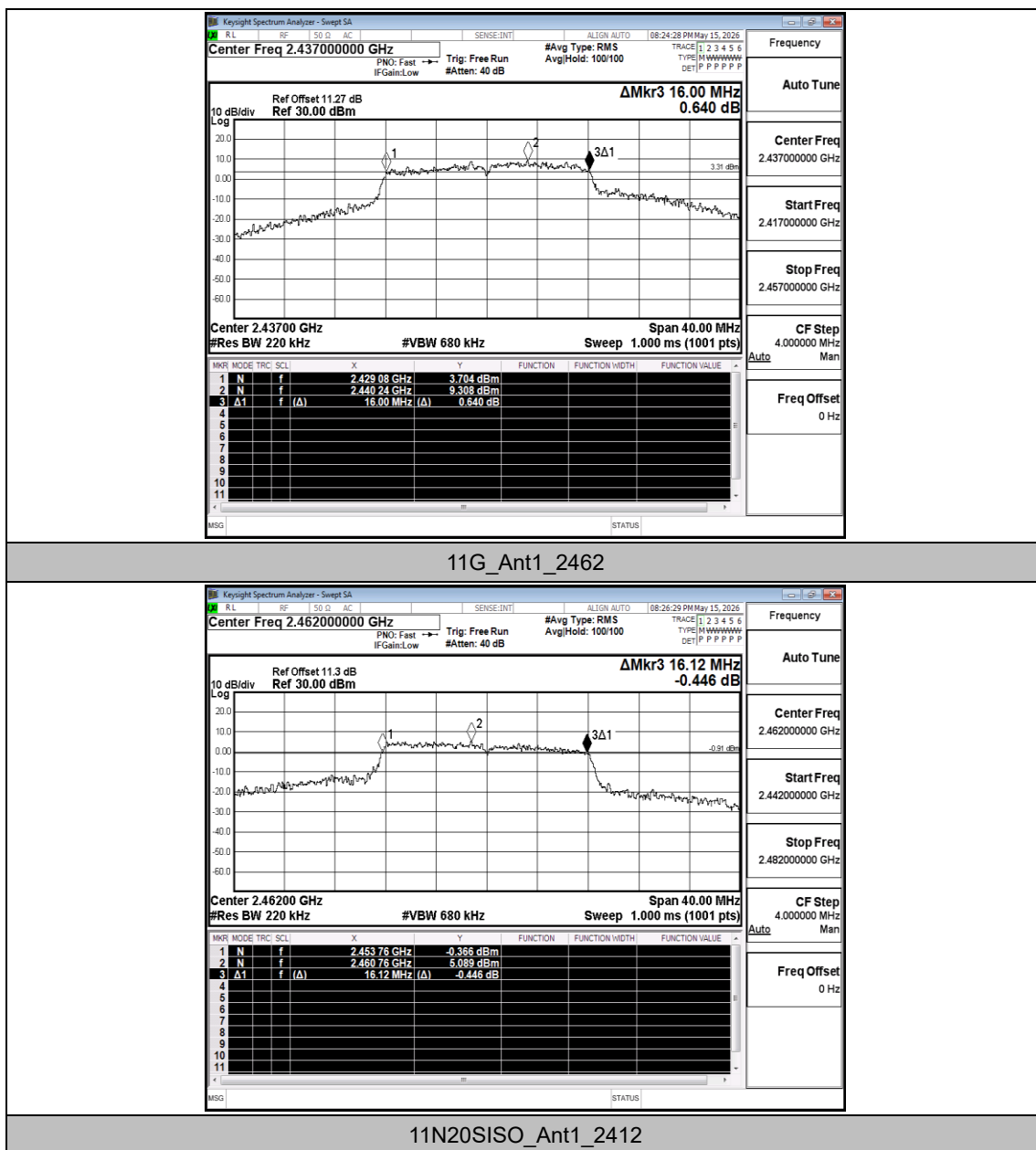
### Test Result

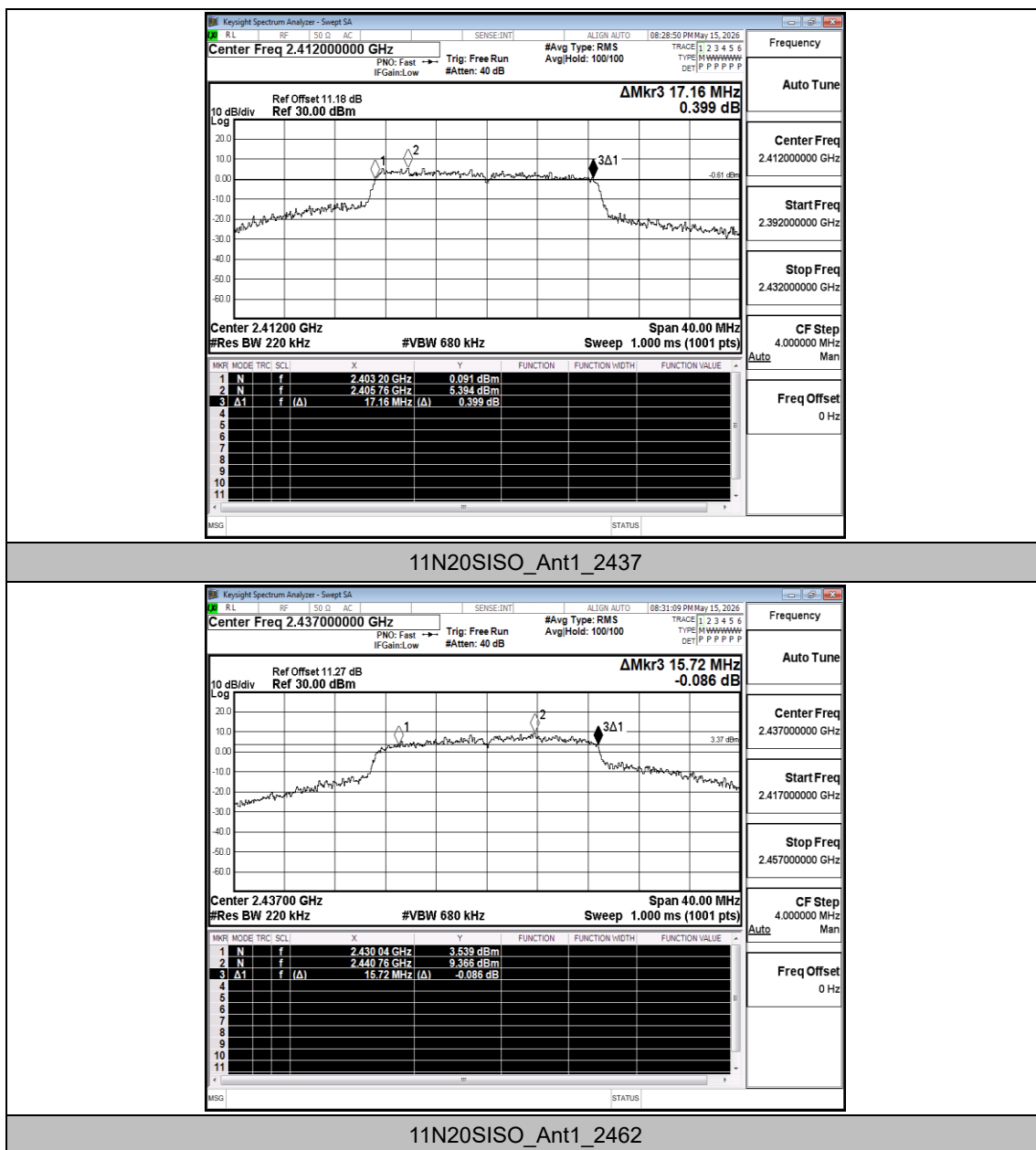
| TestMode      | Antenna | Frequency [MHz] | DTS BW [MHz] | FL[MHz]  | FH[MHz]  | Limit [MHz] | Verdict |
|---------------|---------|-----------------|--------------|----------|----------|-------------|---------|
| 11B           | Ant1    | 2412            | 9.120        | 2406.960 | 2416.080 | 0.5         | PASS    |
|               |         | 2437            | 9.120        | 2432.960 | 2442.080 | 0.5         | PASS    |
|               |         | 2462            | 9.120        | 2456.960 | 2466.080 | 0.5         | PASS    |
| 11G           | Ant1    | 2412            | 15.960       | 2403.800 | 2419.760 | 0.5         | PASS    |
|               |         | 2437            | 16.000       | 2429.080 | 2445.080 | 0.5         | PASS    |
|               |         | 2462            | 16.120       | 2453.760 | 2469.880 | 0.5         | PASS    |
| 11N20SIS<br>O | Ant1    | 2412            | 17.160       | 2403.200 | 2420.360 | 0.5         | PASS    |
|               |         | 2437            | 15.720       | 2430.040 | 2445.760 | 0.5         | PASS    |
|               |         | 2462            | 17.000       | 2453.200 | 2470.200 | 0.5         | PASS    |
| 11N40SIS<br>O | Ant1    | 2422            | 36.480       | 2403.680 | 2440.160 | 0.5         | PASS    |
|               |         | 2437            | 33.200       | 2421.160 | 2454.360 | 0.5         | PASS    |
|               |         | 2452            | 24.800       | 2434.480 | 2459.280 | 0.5         | PASS    |

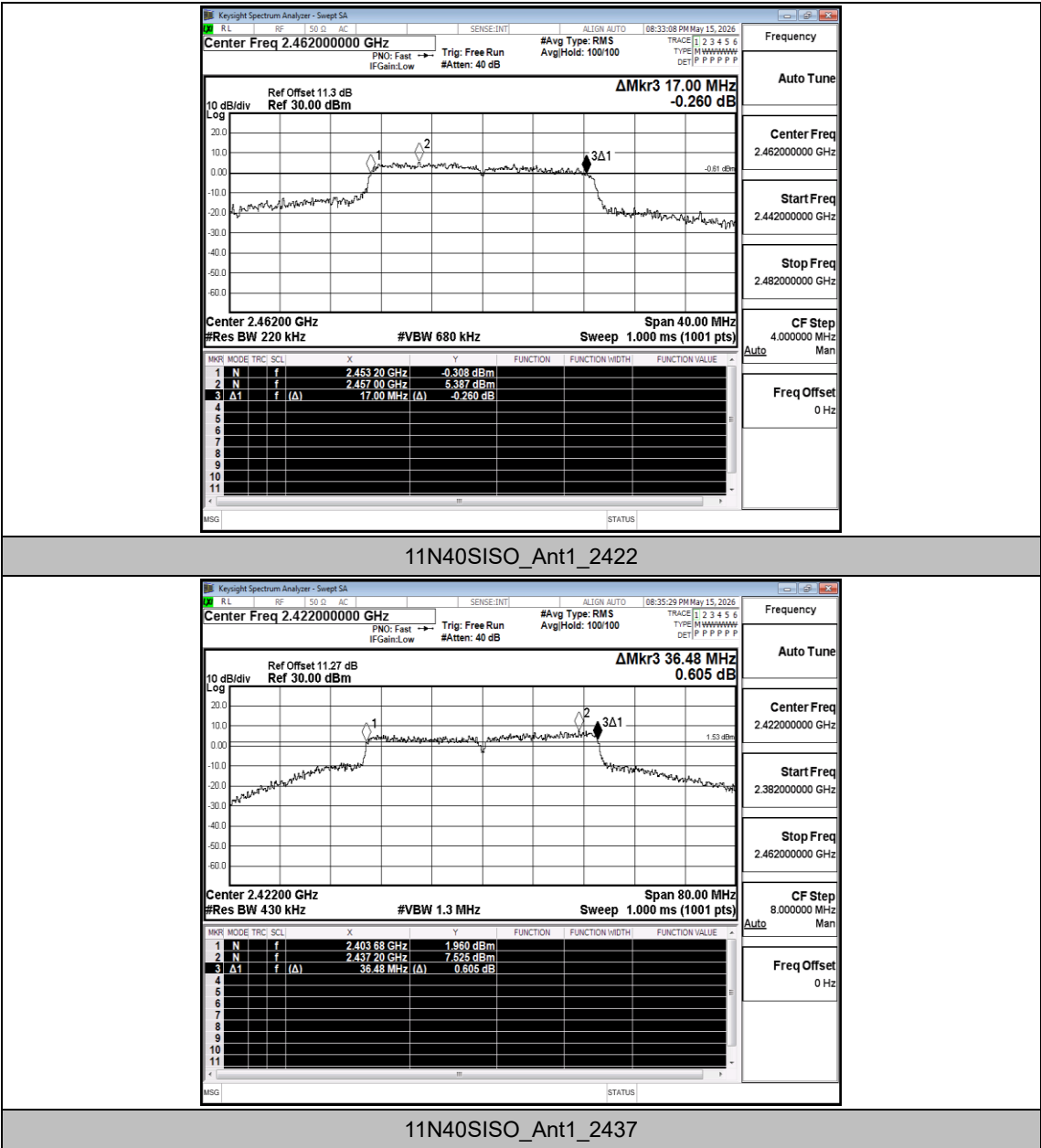
Test Graphs

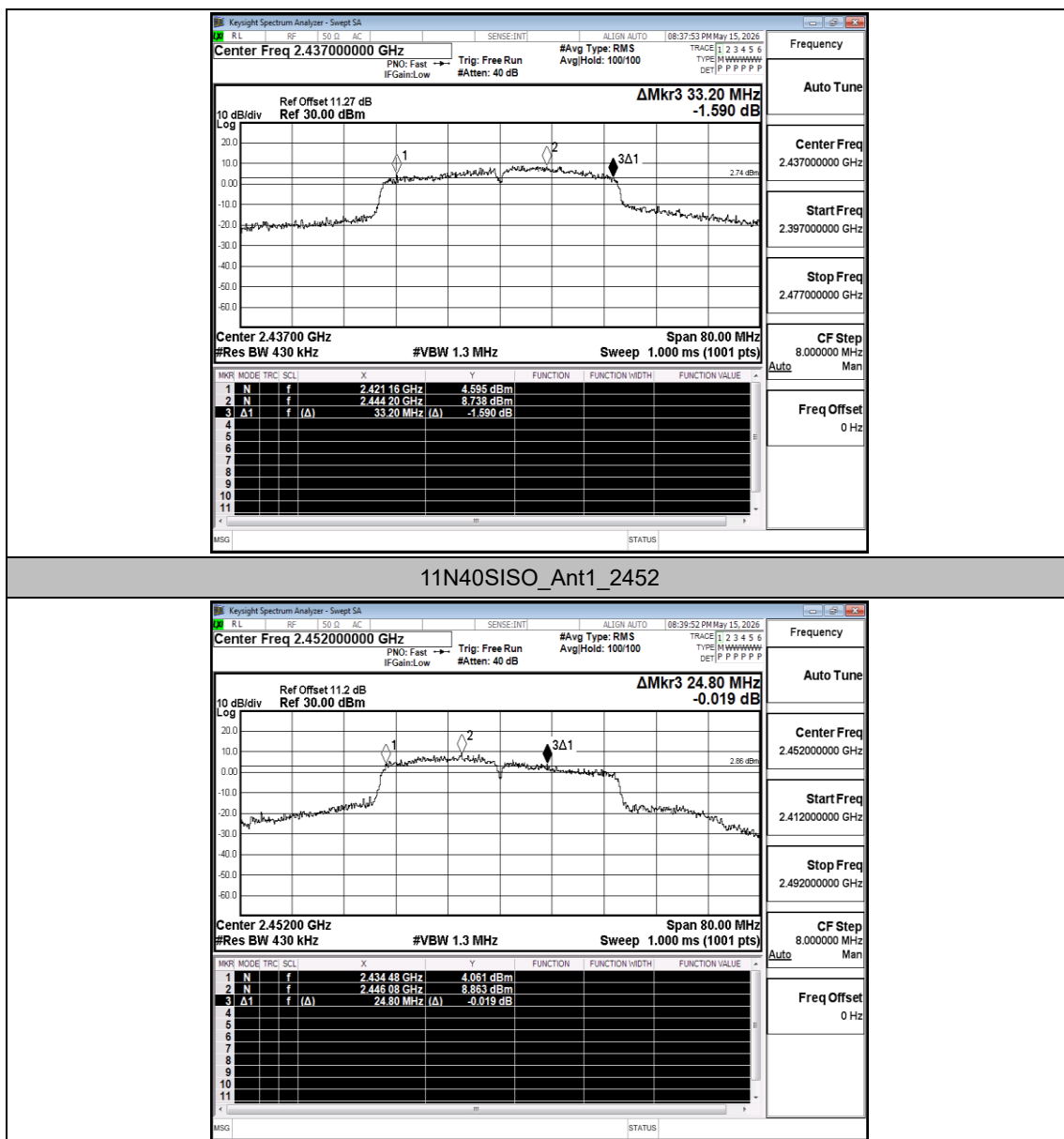












## C.2 Maximum Average conducted output power

### Test Result

| TestMode  | Antenna | Frequency [MHz] | Measured Power | DC Factor [dB] | AV Power [dBm] | Conducted Limit[dBm] | Verdict |
|-----------|---------|-----------------|----------------|----------------|----------------|----------------------|---------|
| 11B       | Ant1    | 2412            | 15.54          | 0.34           | 15.88          | ≤30.00               | PASS    |
|           |         | 2437            | 18.47          | 0.34           | 18.81          | ≤30.00               | PASS    |
|           |         | 2462            | 14.89          | 0.34           | 15.23          | ≤30.00               | PASS    |
| 11G       | Ant1    | 2412            | 14.81          | 0.21           | 15.02          | ≤30.00               | PASS    |
|           |         | 2437            | 17.71          | 0.21           | 17.92          | ≤30.00               | PASS    |
|           |         | 2462            | 14.43          | 0.18           | 14.61          | ≤30.00               | PASS    |
| 11N20SISO | Ant1    | 2412            | 14.95          | 0.22           | 15.17          | ≤30.00               | PASS    |
|           |         | 2437            | 17.81          | 0.22           | 18.03          | ≤30.00               | PASS    |
|           |         | 2462            | 14.61          | 0.22           | 14.83          | ≤30.00               | PASS    |
| 11N40SISO | Ant1    | 2422            | 16.27          | 0.49           | 16.76          | ≤30.00               | PASS    |
|           |         | 2437            | 17.23          | 0.42           | 17.65          | ≤30.00               | PASS    |
|           |         | 2452            | 16.17          | 0.42           | 16.59          | ≤30.00               | PASS    |

## C.3 Maximum power spectral density

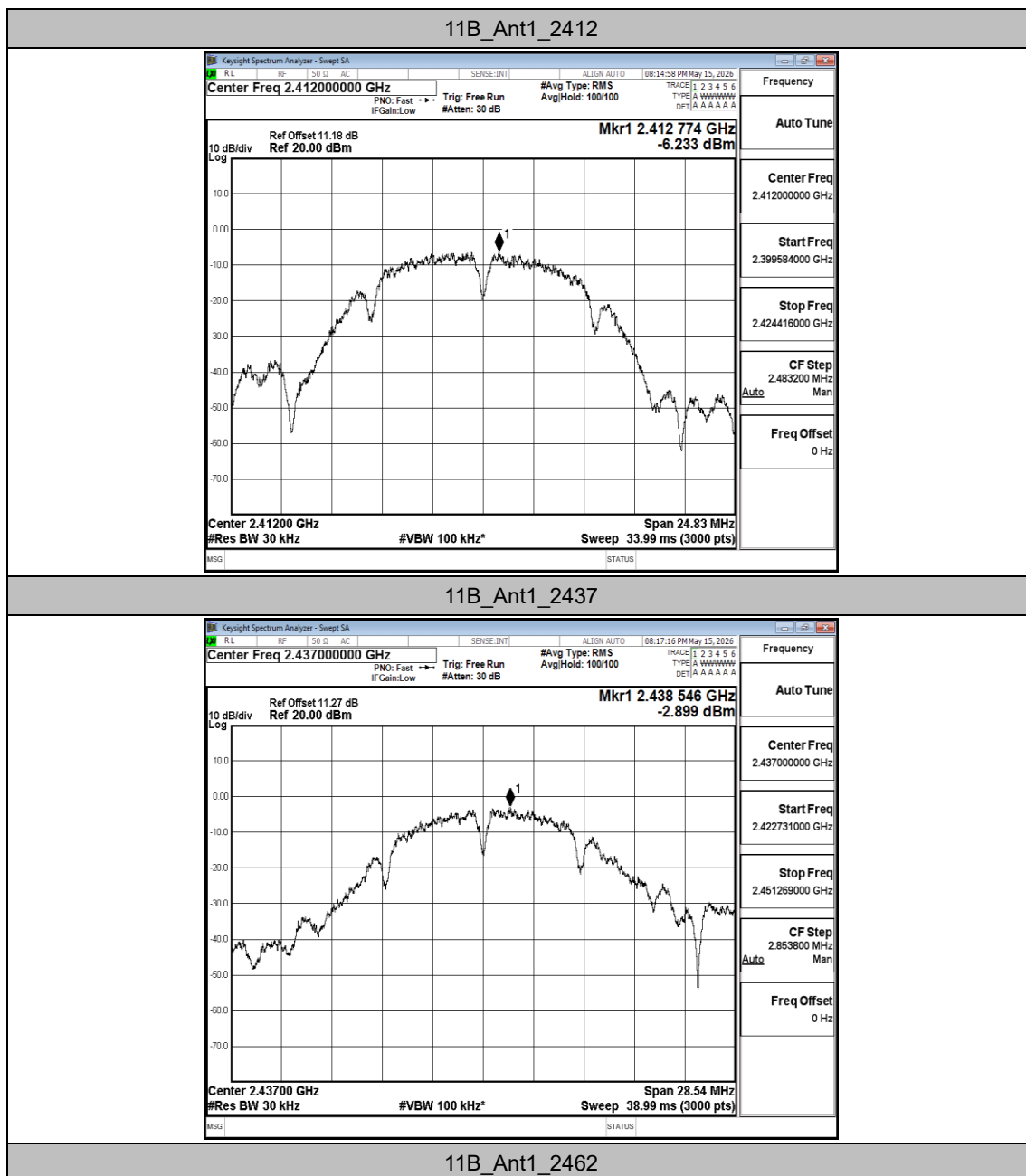
### Test Result

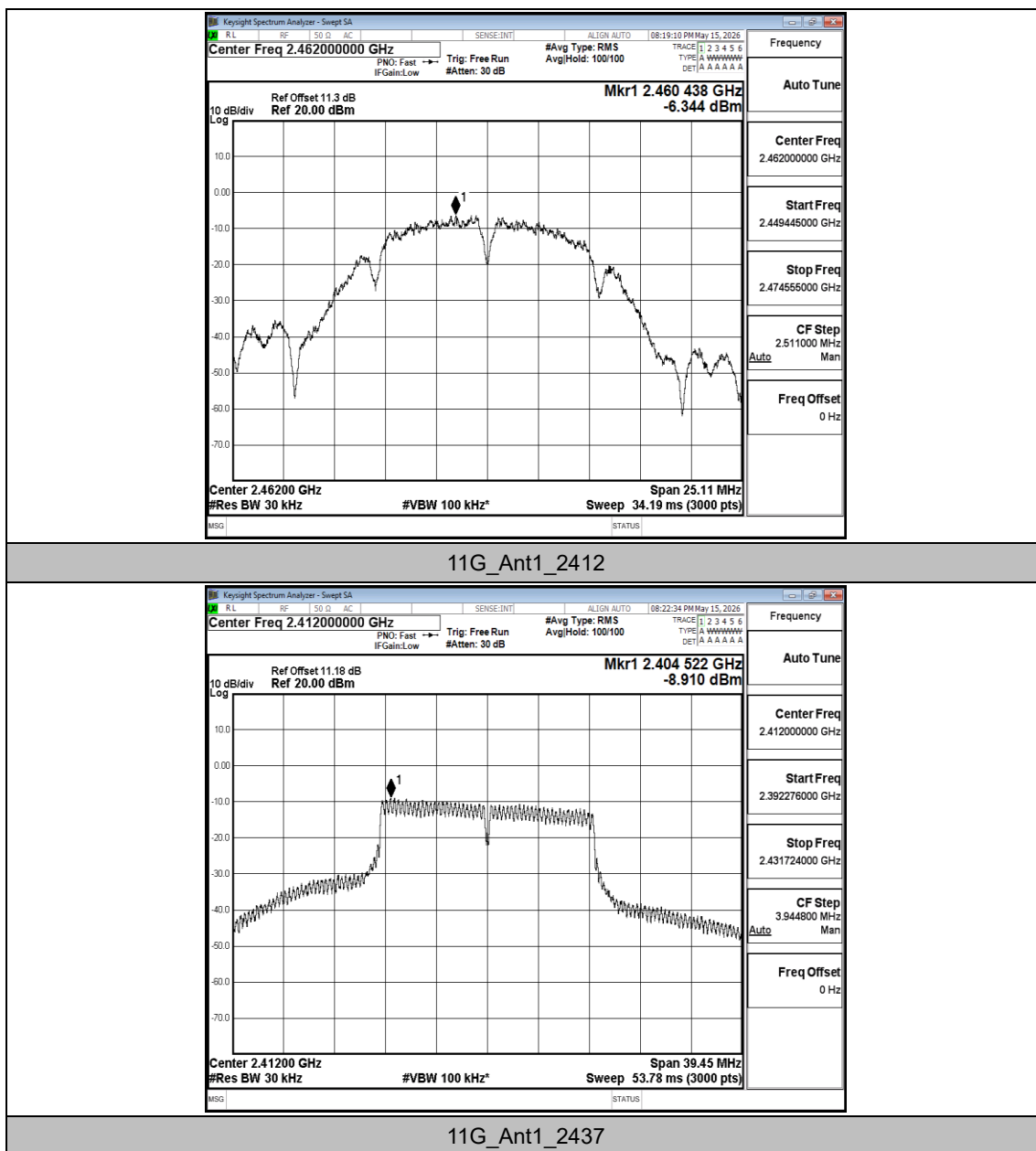
| TestMode  | Antenna | Frequency [MHz] | Measured PSD [dBm/30kHz] | DC Factor [dB] | Result [dBm/30kHz] | Result [dBm/3kHz] | Limit [dBm/3kHz] | Verdict |
|-----------|---------|-----------------|--------------------------|----------------|--------------------|-------------------|------------------|---------|
| 11B       | Ant1    | 2412            | -6.23                    | 0.34           | -5.89              | -15.89            | ≤8.00            | PASS    |
|           |         | 2437            | -2.9                     | 0.34           | -2.56              | -12.56            | ≤8.00            | PASS    |
|           |         | 2462            | -6.34                    | 0.34           | -6.00              | -16.00            | ≤8.00            | PASS    |
| 11G       | Ant1    | 2412            | -8.91                    | 0.21           | -8.70              | -18.70            | ≤8.00            | PASS    |
|           |         | 2437            | -6.24                    | 0.21           | -6.03              | -16.03            | ≤8.00            | PASS    |
|           |         | 2462            | -9.15                    | 0.18           | -8.97              | -18.97            | ≤8.00            | PASS    |
| 11N20SISO | Ant1    | 2412            | -9.91                    | 0.22           | -9.69              | -19.69            | ≤8.00            | PASS    |
|           |         | 2437            | -6.41                    | 0.22           | -6.19              | -16.19            | ≤8.00            | PASS    |
|           |         | 2462            | -9.43                    | 0.22           | -9.21              | -19.21            | ≤8.00            | PASS    |
| 11N40SISO | Ant1    | 2422            | -10.65                   | 0.49           | -10.16             | -20.16            | ≤8.00            | PASS    |
|           |         | 2437            | -8.47                    | 0.42           | -8.05              | -18.05            | ≤8.00            | PASS    |
|           |         | 2452            | -9.85                    | 0.42           | -9.43              | -19.43            | ≤8.00            | PASS    |

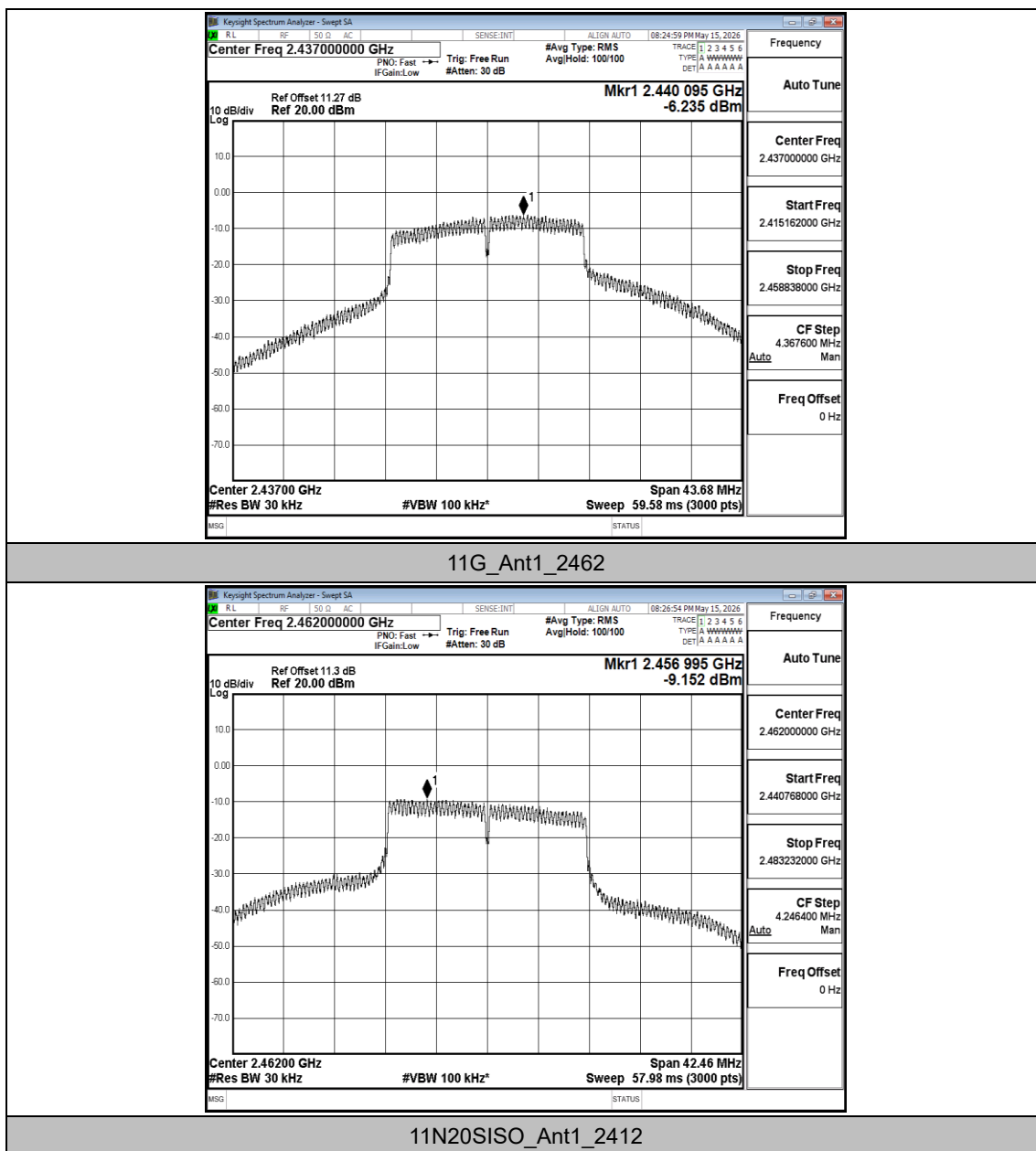
Note: offset=System attenuation +cable loss

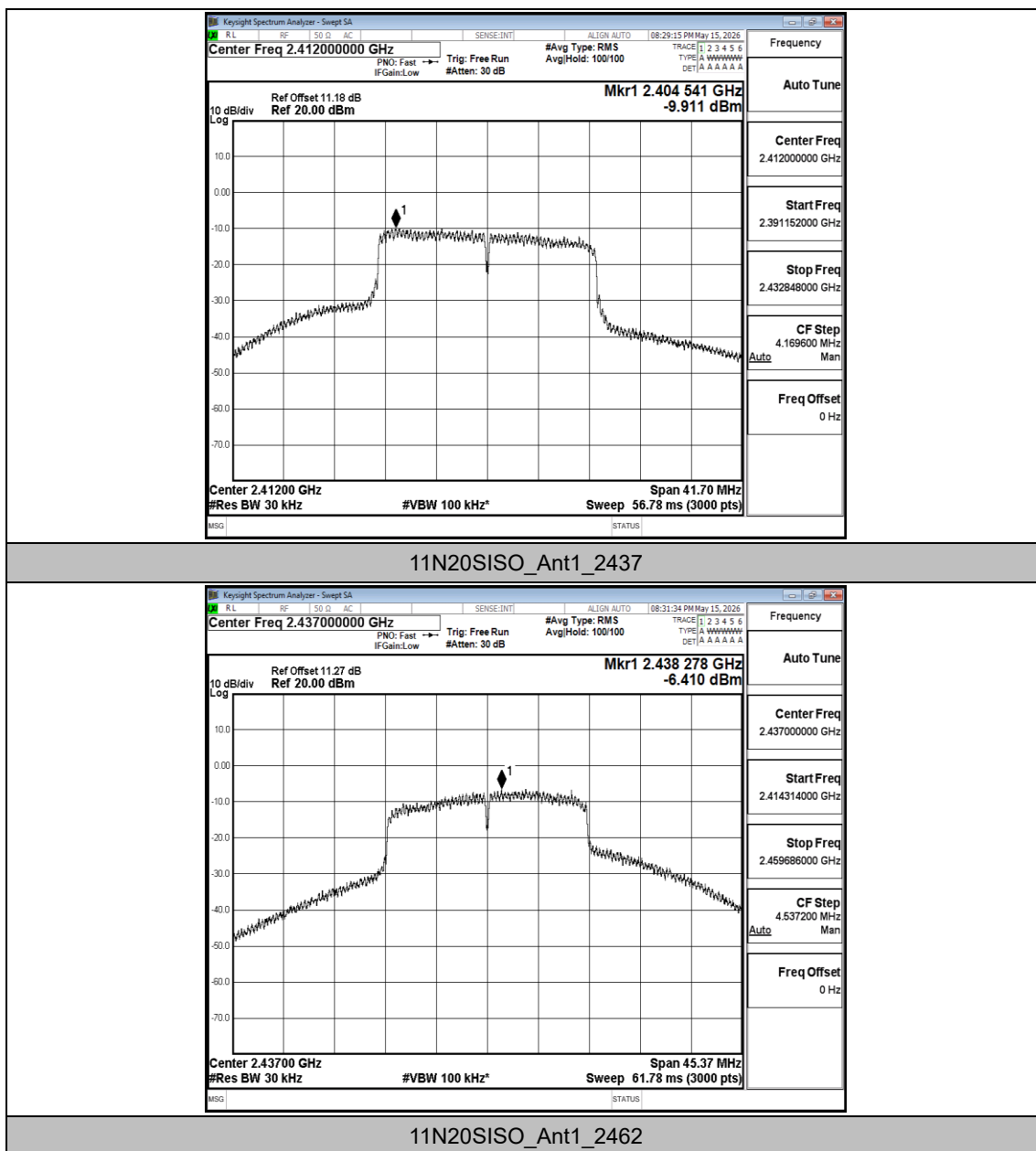
Result[dBm/3kHz]=Result[dBm/30kHz]+10\*Log(3/30)

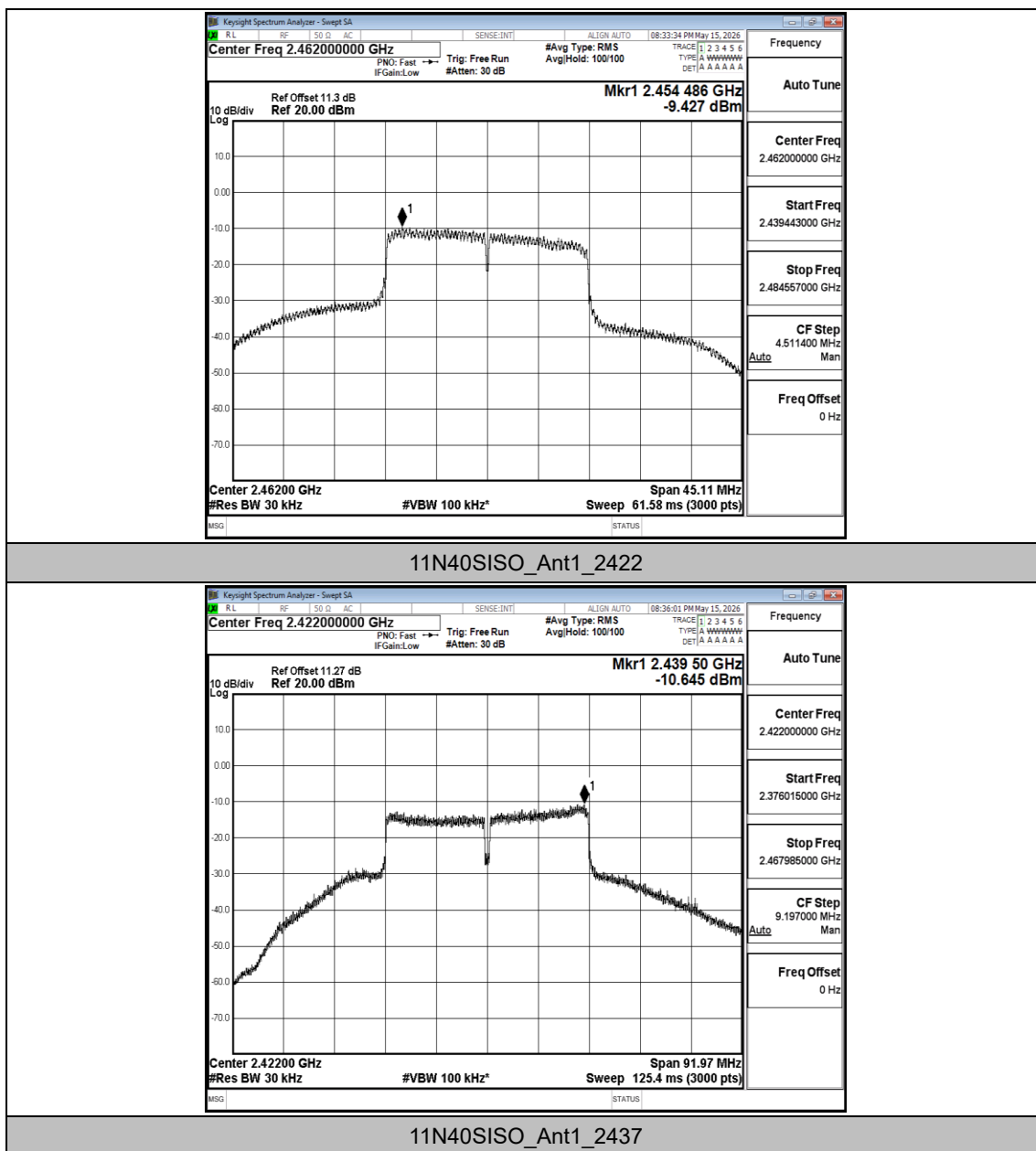
## Test Graphs

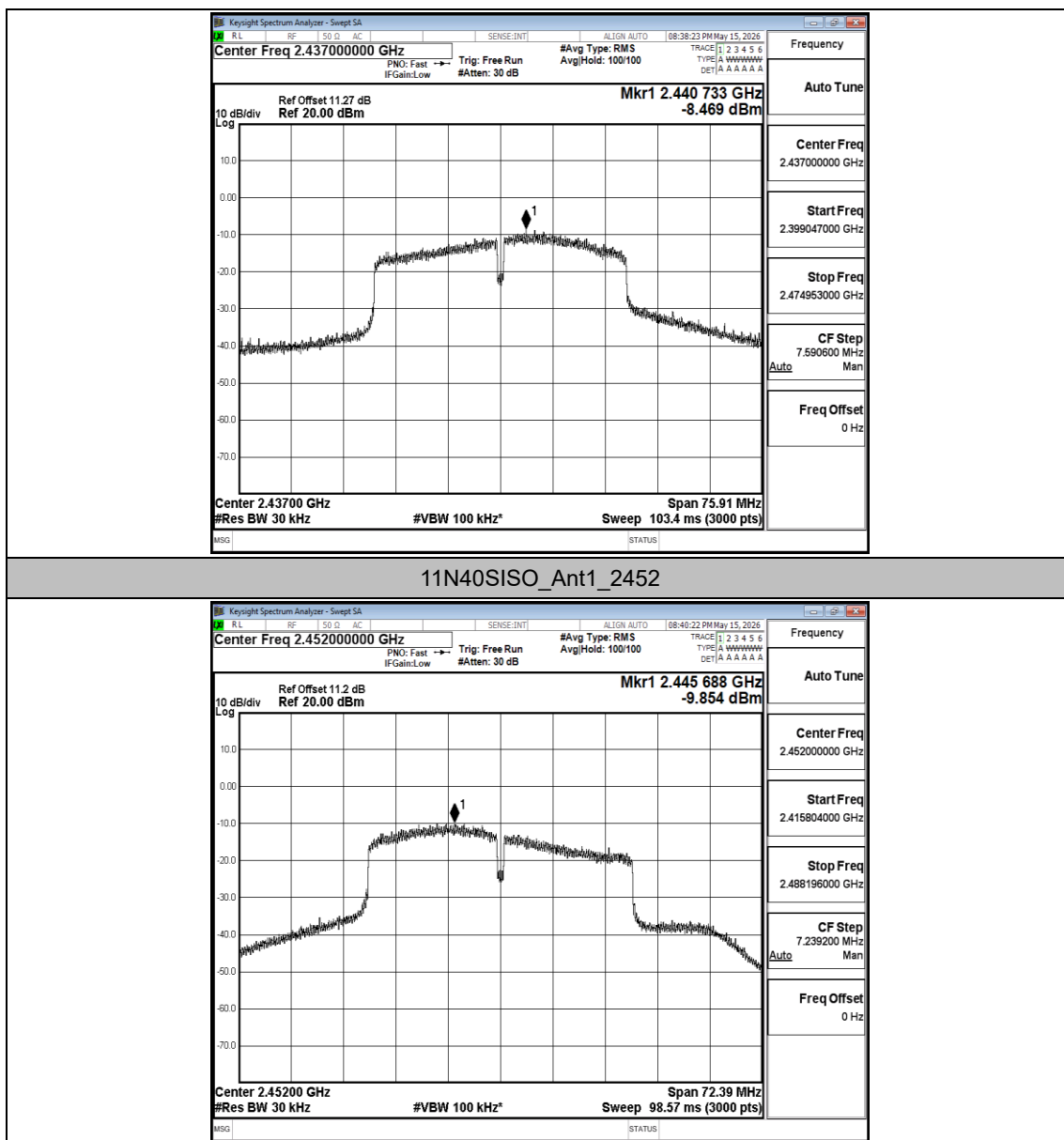










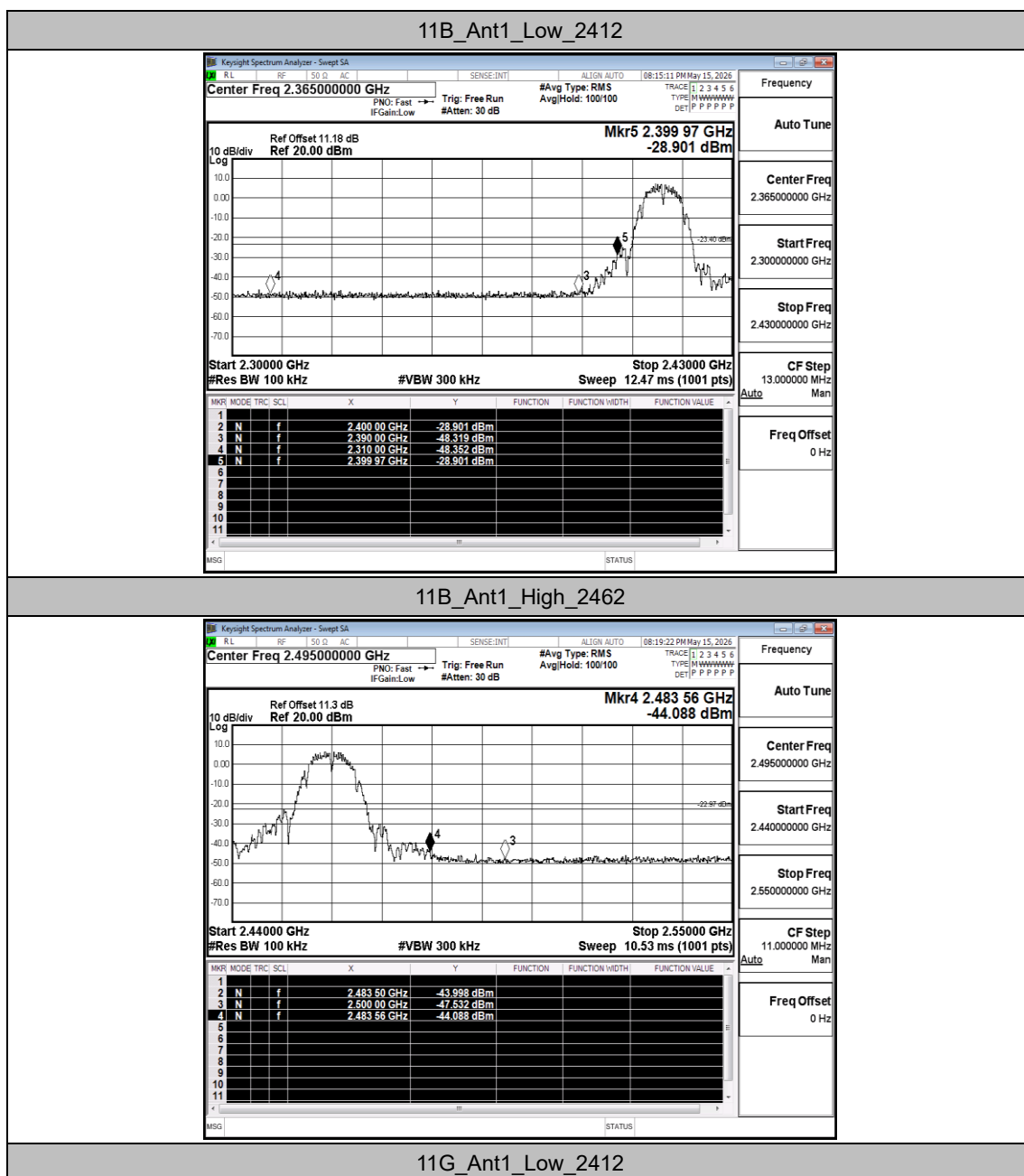


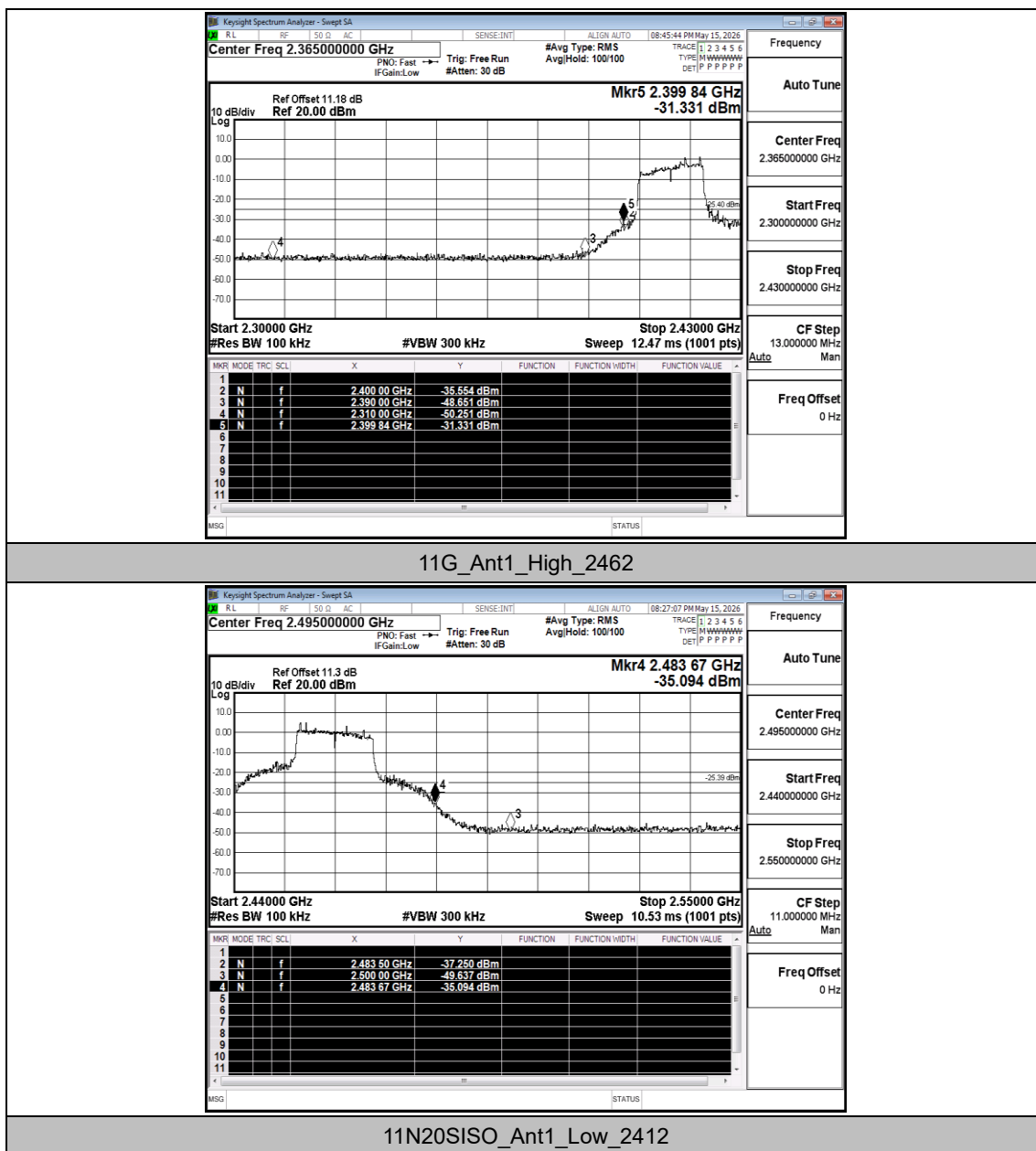
## C.4 Band edge measurements

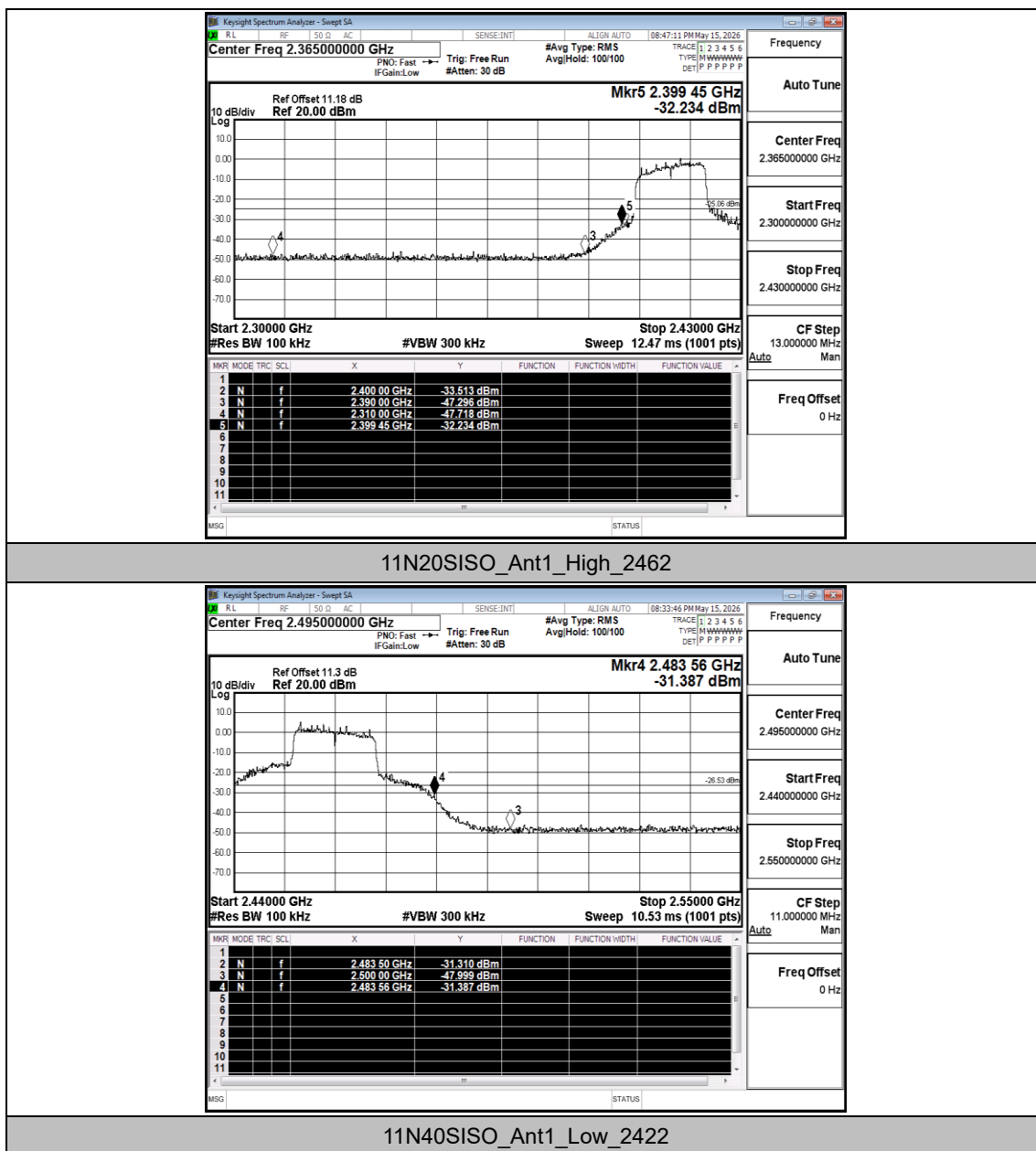
### Test Result

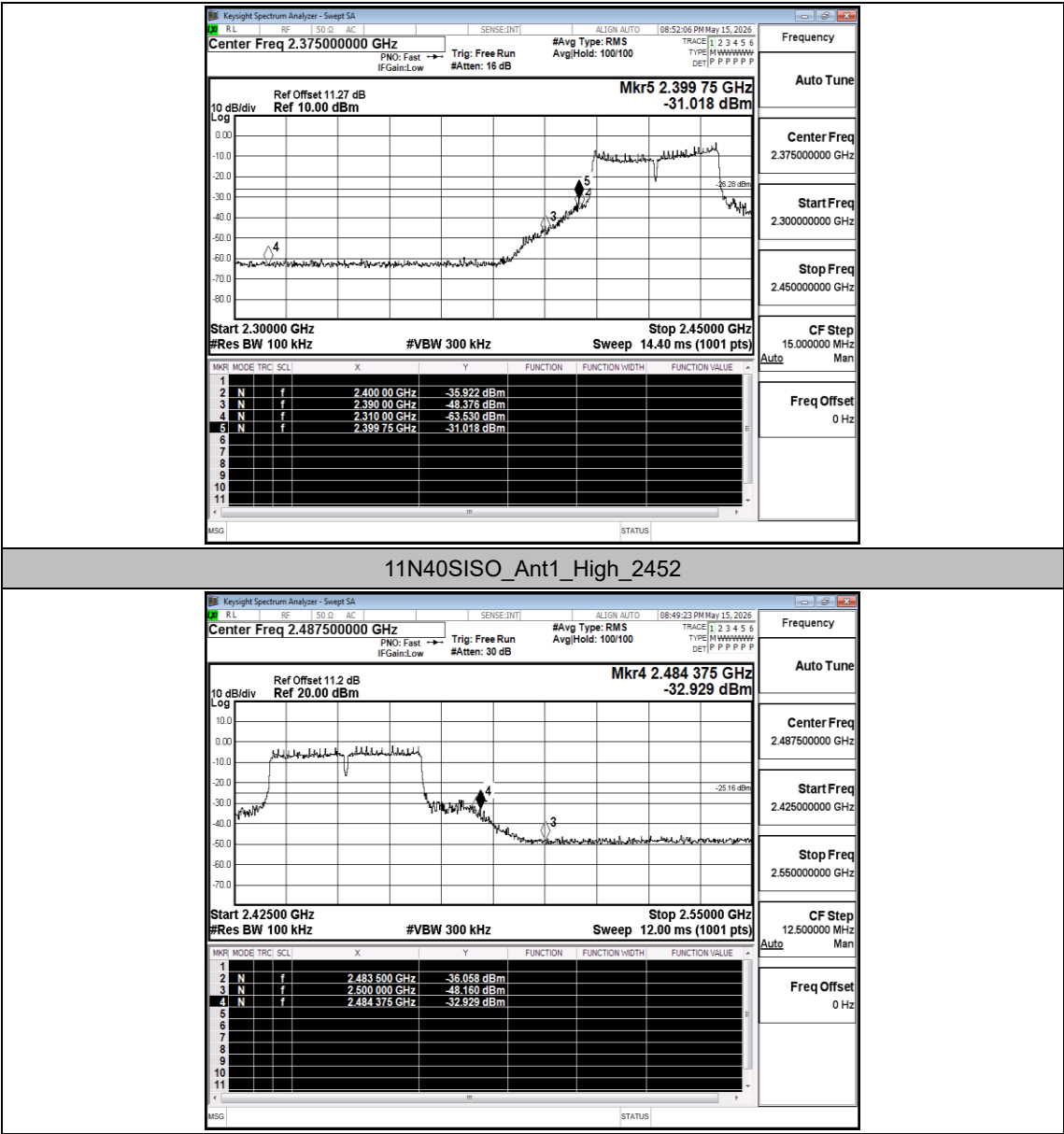
| TestMode  | Antenna | ChName | Frequency [MHz] | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|--------|-----------------|---------------|-------------|------------|---------|
| 11B       | Ant1    | Low    | 2412            | 6.60          | -28.9       | ≤-23.4     | PASS    |
|           |         | High   | 2462            | 7.03          | -44.09      | ≤-22.97    | PASS    |
| 11G       | Ant1    | Low    | 2412            | 4.60          | -31.33      | ≤-25.4     | PASS    |
|           |         | High   | 2462            | 4.61          | -35.09      | ≤-25.39    | PASS    |
| 11N20SISO | Ant1    | Low    | 2412            | 4.94          | -32.23      | ≤-25.06    | PASS    |
|           |         | High   | 2462            | 3.47          | -31.39      | ≤-26.53    | PASS    |
| 11N40SISO | Ant1    | Low    | 2422            | 3.72          | -31.02      | ≤-26.28    | PASS    |
|           |         | High   | 2452            | 4.84          | -32.93      | ≤-25.16    | PASS    |

## Test Graphs









## C.5 Conducted Spurious Emission

### Test Result

| TestMode  | Antenna | Frequency [MHz] | FreqRange [Mhz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|-----------|---------|-----------------|-----------------|----------------|--------------|-------------|---------|
| 11B       | Ant1    | 2412            | Reference       | 5.63           | 5.63         | ---         | PASS    |
|           |         |                 | 30~1000         | 5.63           | -69.1        | ≤-24.37     | PASS    |
|           |         |                 | 1000~26500      | 5.63           | -42.04       | ≤-24.37     | PASS    |
|           |         | 2437            | Reference       | 8.44           | 8.44         | ---         | PASS    |
|           |         |                 | 30~1000         | 8.44           | -68.85       | ≤-21.56     | PASS    |
|           |         |                 | 1000~26500      | 8.44           | -36.83       | ≤-21.56     | PASS    |
|           |         | 2462            | Reference       | 5.83           | 5.83         | ---         | PASS    |
|           |         |                 | 30~1000         | 5.83           | -69.18       | ≤-24.17     | PASS    |
|           |         |                 | 1000~26500      | 5.83           | -41.6        | ≤-24.17     | PASS    |
| 11G       | Ant1    | 2412            | Reference       | 3.09           | 3.09         | ---         | PASS    |
|           |         |                 | 30~1000         | 3.09           | -69.58       | ≤-26.91     | PASS    |
|           |         |                 | 1000~26500      | 3.09           | -44.63       | ≤-26.91     | PASS    |
|           |         | 2437            | Reference       | 7.41           | 7.41         | ---         | PASS    |
|           |         |                 | 30~1000         | 7.41           | -68.27       | ≤-22.59     | PASS    |
|           |         |                 | 1000~26500      | 7.41           | -44.65       | ≤-22.59     | PASS    |
|           |         | 2462            | Reference       | 4.64           | 4.64         | ---         | PASS    |
|           |         |                 | 30~1000         | 4.64           | -69.66       | ≤-25.36     | PASS    |
|           |         |                 | 1000~26500      | 4.64           | -45.07       | ≤-25.36     | PASS    |
| 11N20SISO | Ant1    | 2412            | Reference       | 2.42           | 2.42         | ---         | PASS    |
|           |         |                 | 30~1000         | 2.42           | -69.07       | ≤-27.58     | PASS    |
|           |         |                 | 1000~26500      | 2.42           | -44.84       | ≤-27.58     | PASS    |
|           |         | 2437            | Reference       | 6.36           | 6.36         | ---         | PASS    |
|           |         |                 | 30~1000         | 6.36           | -69.8        | ≤-23.64     | PASS    |
|           |         |                 | 1000~26500      | 6.36           | -44.68       | ≤-23.64     | PASS    |
|           |         | 2462            | Reference       | 2.30           | 2.30         | ---         | PASS    |
|           |         |                 | 30~1000         | 2.30           | -69.42       | ≤-27.7      | PASS    |
|           |         |                 | 1000~26500      | 2.30           | -44.84       | ≤-27.7      | PASS    |
| 11N40SISO | Ant1    | 2422            | Reference       | 3.12           | 3.12         | ---         | PASS    |
|           |         |                 | 30~1000         | 3.12           | -69.42       | ≤-26.88     | PASS    |
|           |         |                 | 1000~26500      | 3.12           | -44.04       | ≤-26.88     | PASS    |
|           |         | 2437            | Reference       | 4.56           | 4.56         | ---         | PASS    |
|           |         |                 | 30~1000         | 4.56           | -69.17       | ≤-25.44     | PASS    |
|           |         |                 | 1000~26500      | 4.56           | -44.73       | ≤-25.44     | PASS    |
|           |         | 2452            | Reference       | 3.74           | 3.74         | ---         | PASS    |
|           |         |                 | 30~1000         | 3.74           | -68.69       | ≤-26.26     | PASS    |
|           |         |                 | 1000~26500      | 3.74           | -44.6        | ≤-26.26     | PASS    |

Test Graphs

