

## Appendix B

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

**Product Name:** Infrared heater

**Test Model:** US-BR-IR1200

#### Environmental Conditions

|                    |              |
|--------------------|--------------|
| Temperature:       | 23.4°C       |
| Relative Humidity: | 54.3%        |
| ATM Pressure:      | 100.0 kPa    |
| Test Engineer:     | Zhang hai    |
| Supervised by:     | Fengliu Tang |

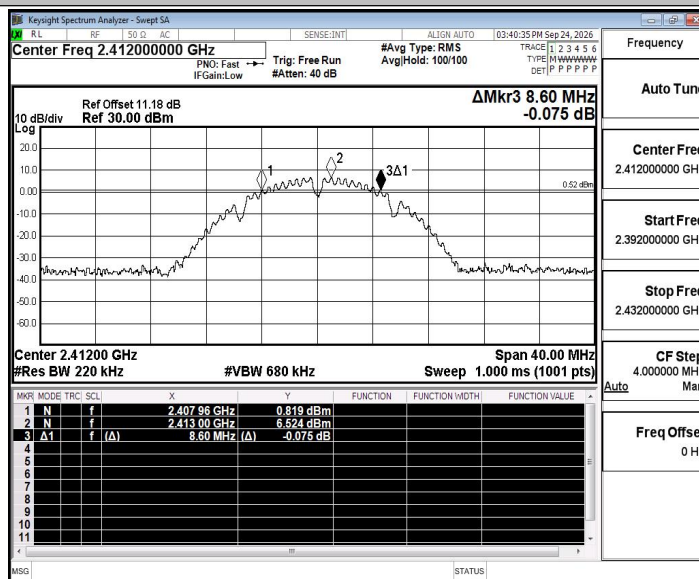
## B.1 6dB Bandwidth

### Test Result

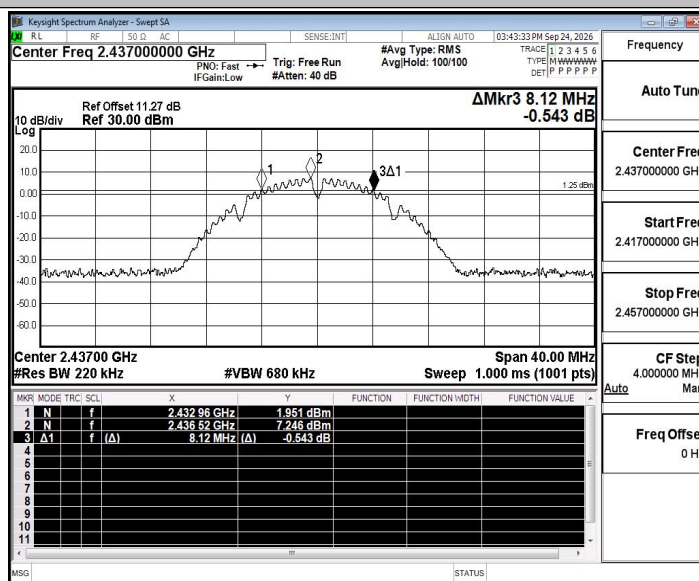
| TestMode  | Antenna | Frequency[MHz] | DTS BW [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|-----------|---------|----------------|--------------|----------|----------|------------|---------|
| 11B       | Ant1    | 2412           | 8.600        | 2407.960 | 2416.560 | 0.5        | PASS    |
|           |         | 2437           | 8.120        | 2432.960 | 2441.080 | 0.5        | PASS    |
|           |         | 2462           | 8.120        | 2457.960 | 2466.080 | 0.5        | PASS    |
| 11G       | Ant1    | 2412           | 16.040       | 2404.040 | 2420.080 | 0.5        | PASS    |
|           |         | 2437           | 15.680       | 2429.080 | 2444.760 | 0.5        | PASS    |
|           |         | 2462           | 16.040       | 2454.040 | 2470.080 | 0.5        | PASS    |
| 11N20SISO | Ant1    | 2412           | 17.320       | 2403.440 | 2420.760 | 0.5        | PASS    |
|           |         | 2437           | 16.960       | 2428.440 | 2445.400 | 0.5        | PASS    |
|           |         | 2462           | 17.280       | 2453.360 | 2470.640 | 0.5        | PASS    |

## Test Graphs

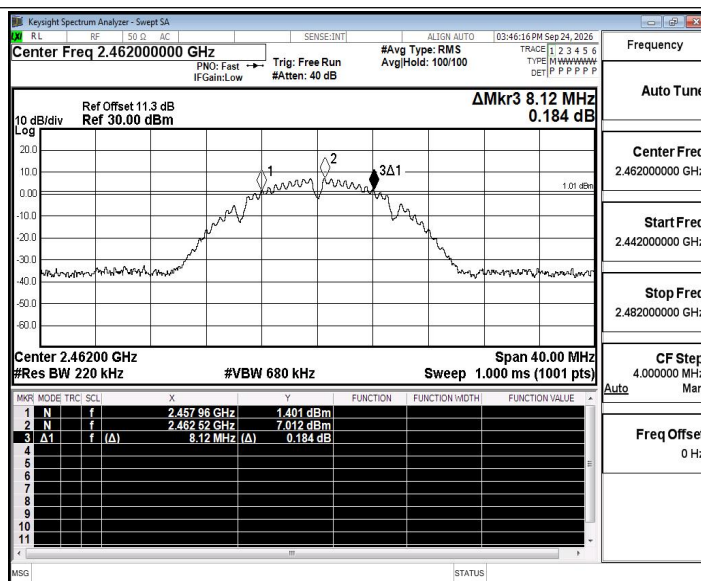
11B\_Ant1\_2412



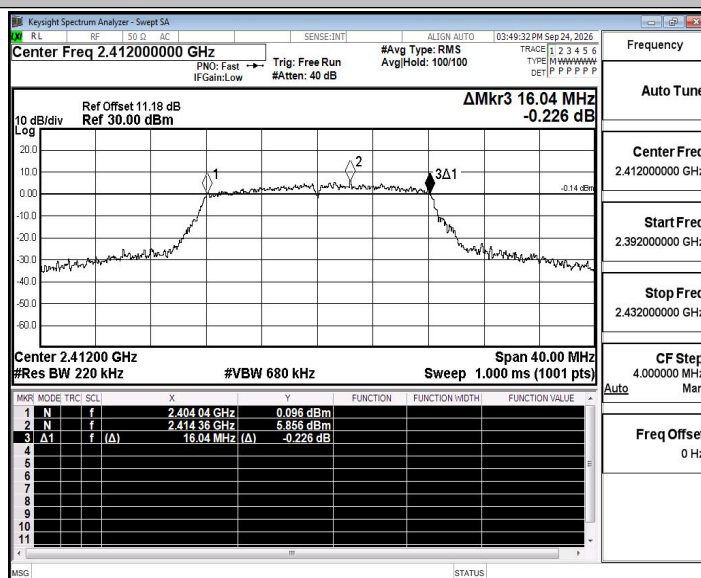
11B\_Ant1\_2437



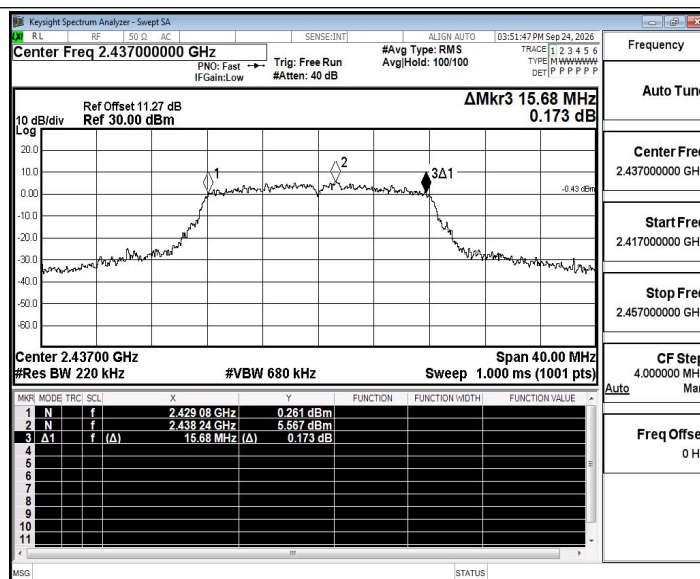
11B\_Ant1\_2462



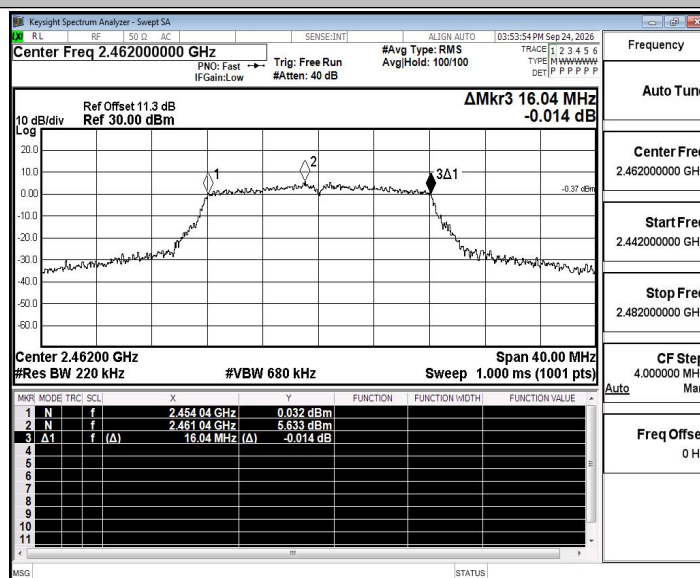
11G\_Ant1\_2412



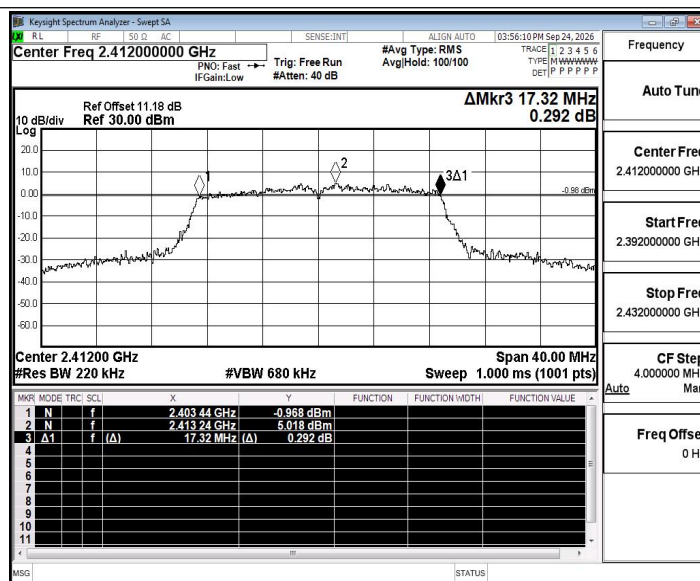
11G\_Ant1\_2437



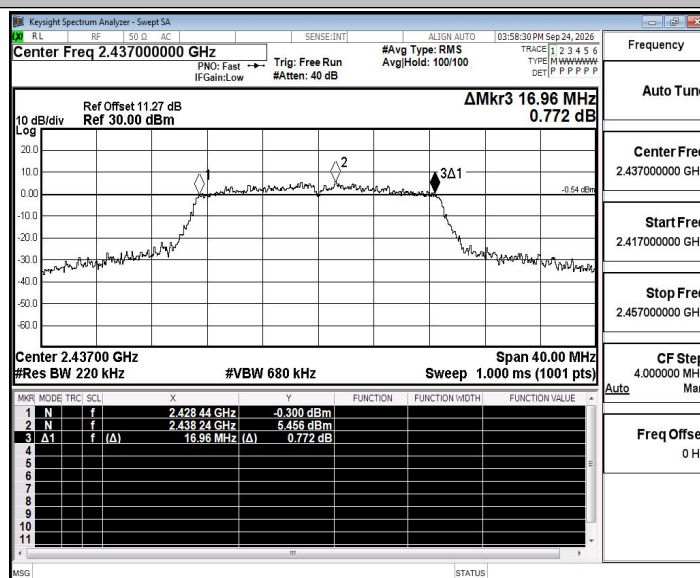
11G\_Ant1\_2462



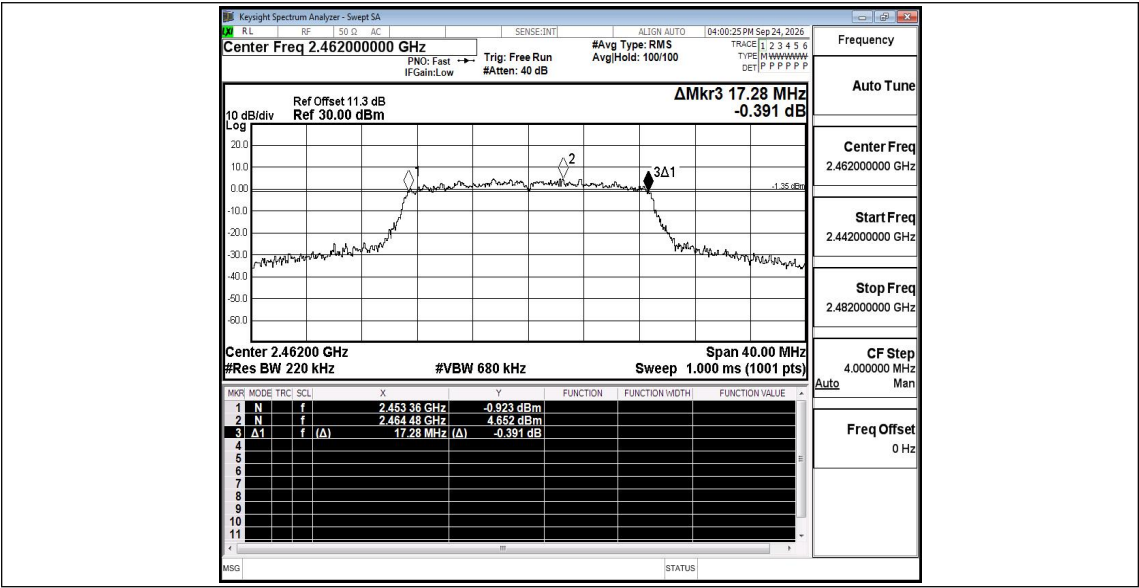
11N20SISO\_Ant1\_2412



11N20SISO\_Ant1\_2437



11N20SISO\_Ant1\_2462



## B.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            | 13.99          | 0.02           | 14.01          | ≤30.00               | PASS    |
|           |         | 2437            | 14.08          | 0.02           | 14.10          | ≤30.00               | PASS    |
|           |         | 2462            | 14.39          | 0.03           | 14.42          | ≤30.00               | PASS    |
| 11G       | Ant1    | 2412            | 14.88          | 0.12           | 15.00          | ≤30.00               | PASS    |
|           |         | 2437            | 14.35          | 0.15           | 14.50          | ≤30.00               | PASS    |
|           |         | 2462            | 14.24          | 0.12           | 14.36          | ≤30.00               | PASS    |
| 11N20SISO | Ant1    | 2412            | 14.28          | 0.13           | 14.41          | ≤30.00               | PASS    |
|           |         | 2437            | 14.15          | 0.13           | 14.28          | ≤30.00               | PASS    |
|           |         | 2462            | 14.29          | 0.17           | 14.46          | ≤30.00               | PASS    |

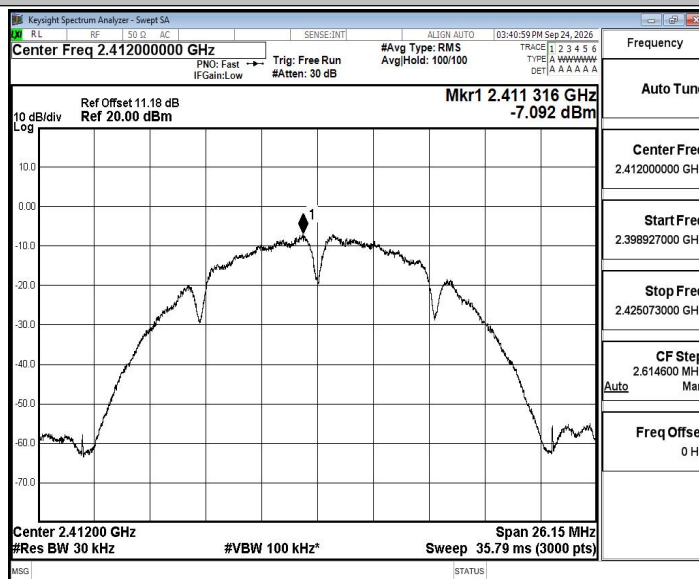
## B.3 Maximum power spectral density

### Test Result

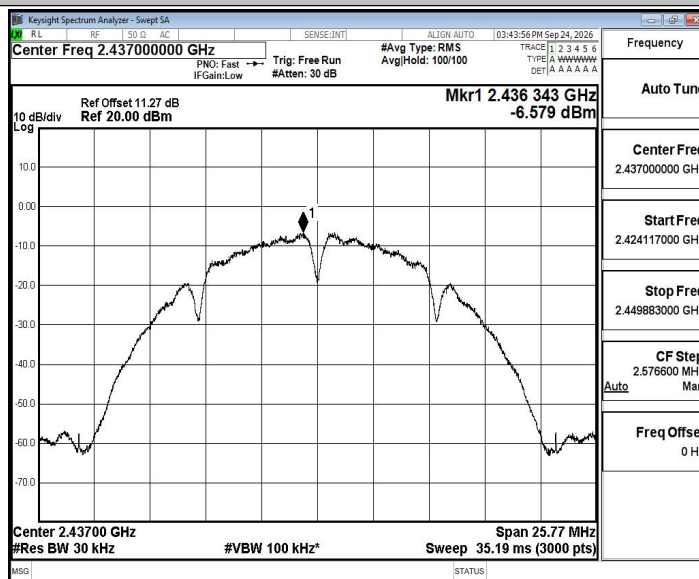
| TestMode  | Antenna | Frequency[MHz] | Measured<br>PSD<br>[dBm/30kHz] | DC<br>Factor<br>[dB] | Result<br>[dBm/30kHz] | Result<br>[dBm/3kHz] | Limit<br>[dBm/3kHz] | Verdict |
|-----------|---------|----------------|--------------------------------|----------------------|-----------------------|----------------------|---------------------|---------|
| 11B       | Ant1    | 2412           | -7.09                          | 0.02                 | -7.07                 | -17.07               | ≤8.00               | PASS    |
|           |         | 2437           | -6.58                          | 0.02                 | -6.56                 | -16.56               | ≤8.00               | PASS    |
|           |         | 2462           | -6.35                          | 0.03                 | -6.32                 | -16.32               | ≤8.00               | PASS    |
| 11G       | Ant1    | 2412           | -9.34                          | 0.12                 | -9.22                 | -19.22               | ≤8.00               | PASS    |
|           |         | 2437           | -9.03                          | 0.15                 | -8.88                 | -18.88               | ≤8.00               | PASS    |
|           |         | 2462           | -9.35                          | 0.12                 | -9.23                 | -19.23               | ≤8.00               | PASS    |
| 11N20SISO | Ant1    | 2412           | -9.7                           | 0.13                 | -9.57                 | -19.57               | ≤8.00               | PASS    |
|           |         | 2437           | -9.14                          | 0.13                 | -9.01                 | -19.01               | ≤8.00               | PASS    |
|           |         | 2462           | -9.8                           | 0.17                 | -9.63                 | -19.63               | ≤8.00               | PASS    |

## Test Graphs

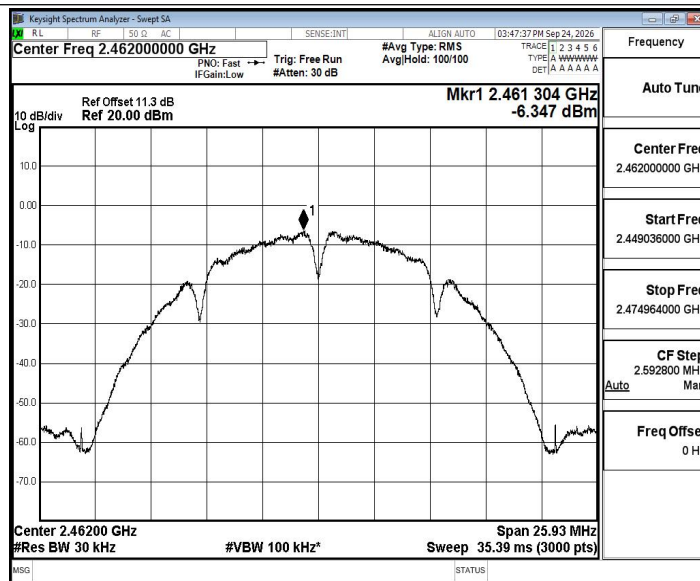
11B\_Ant1\_2412



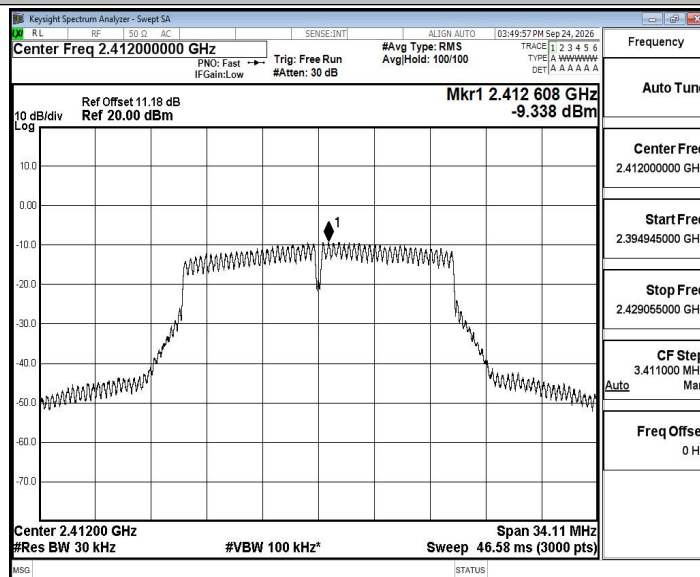
11B\_Ant1\_2437



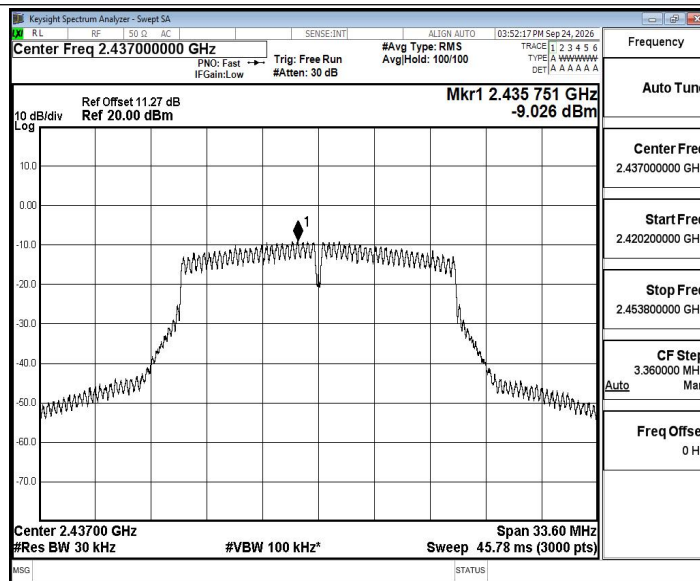
11B\_Ant1\_2462



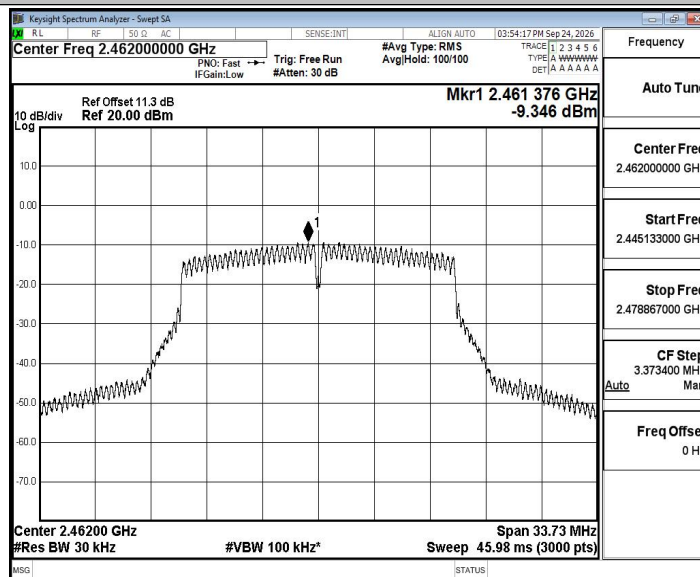
11G\_Ant1\_2412



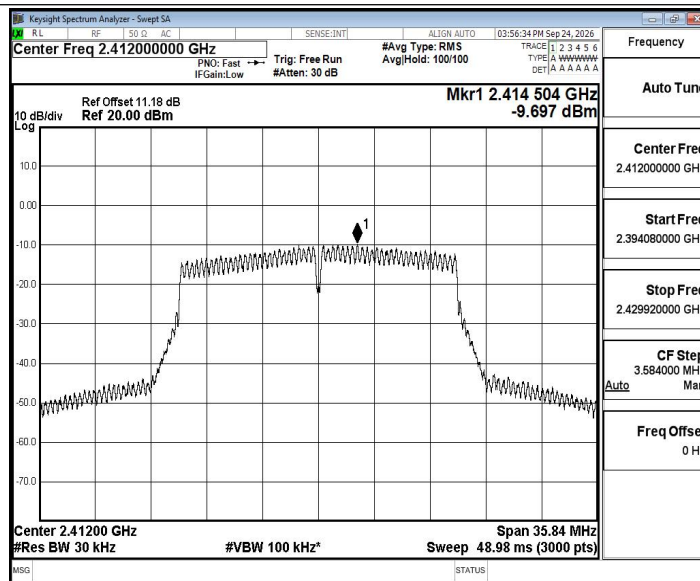
11G\_Ant1\_2437



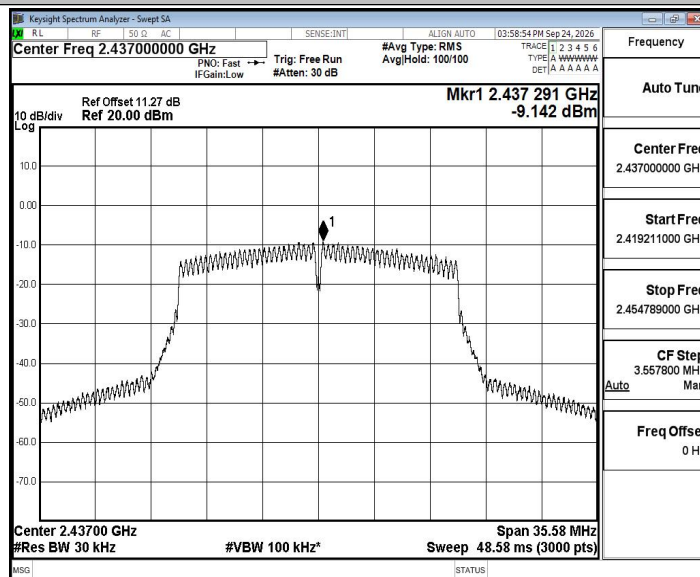
11G\_Ant1\_2462



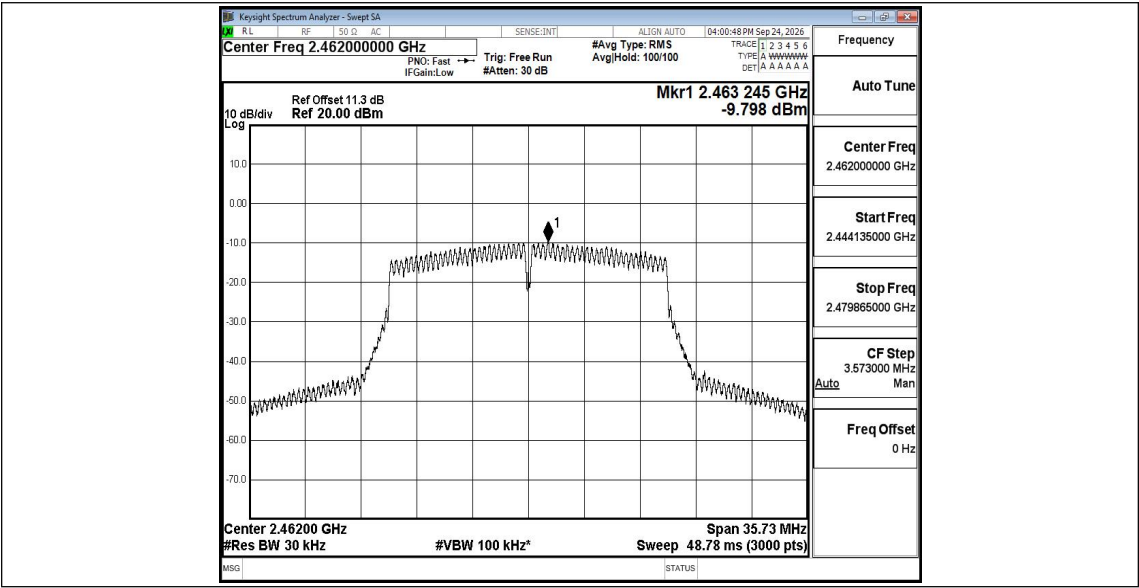
11N20SISO\_Ant1\_2412



11N20SISO\_Ant1\_2437



11N20SISO\_Ant1\_2462

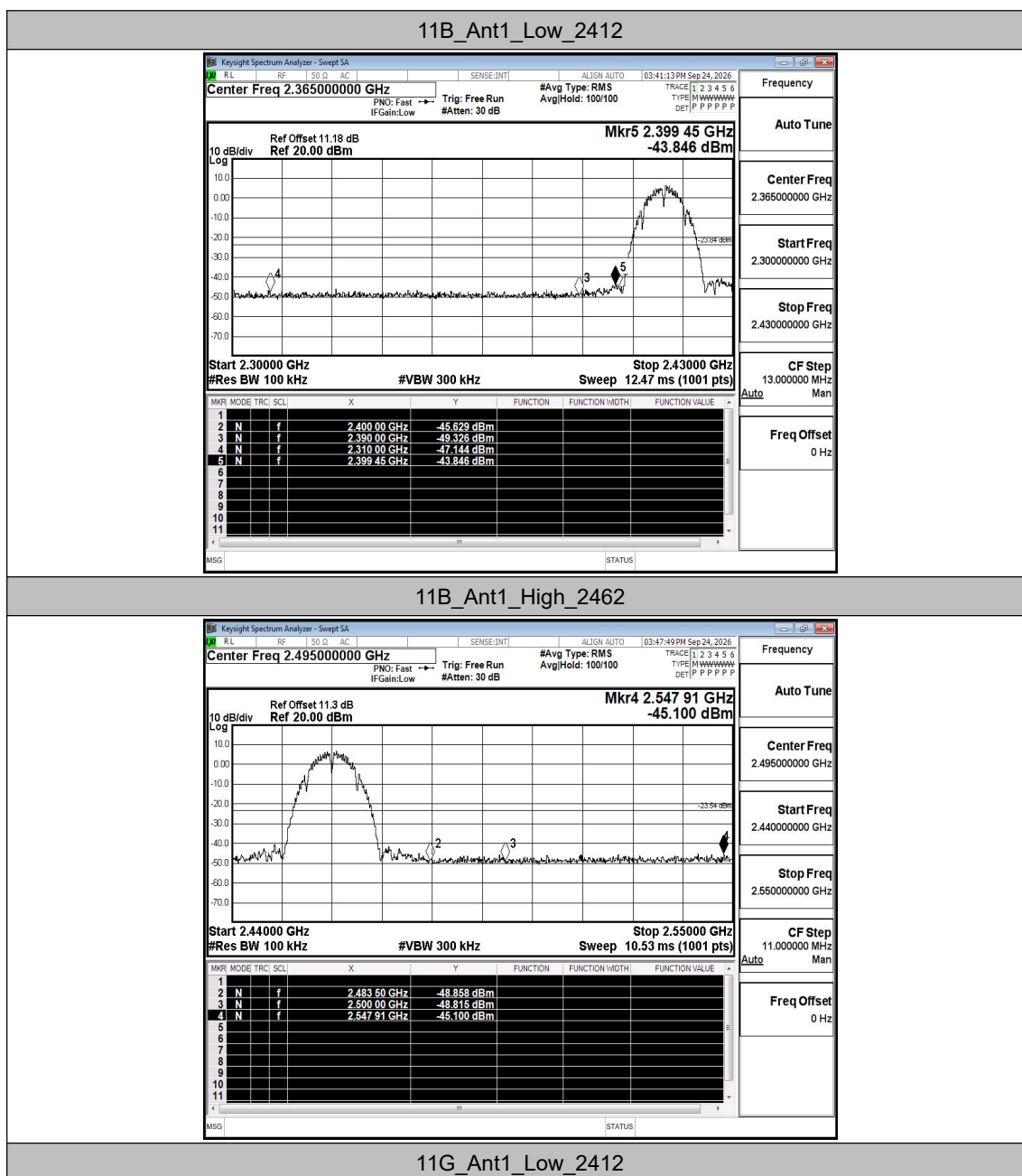


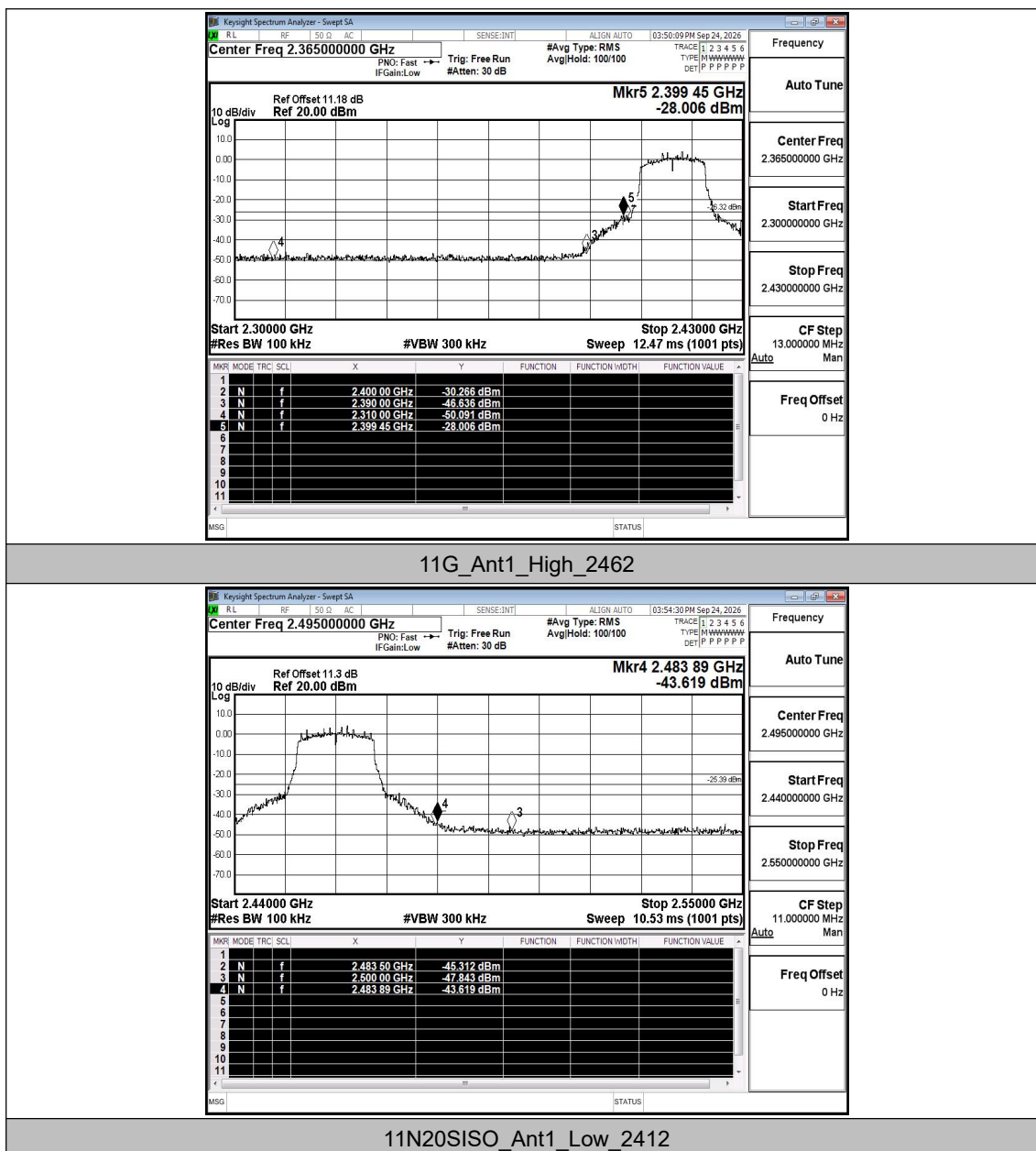
## B.4 Band edge measurements

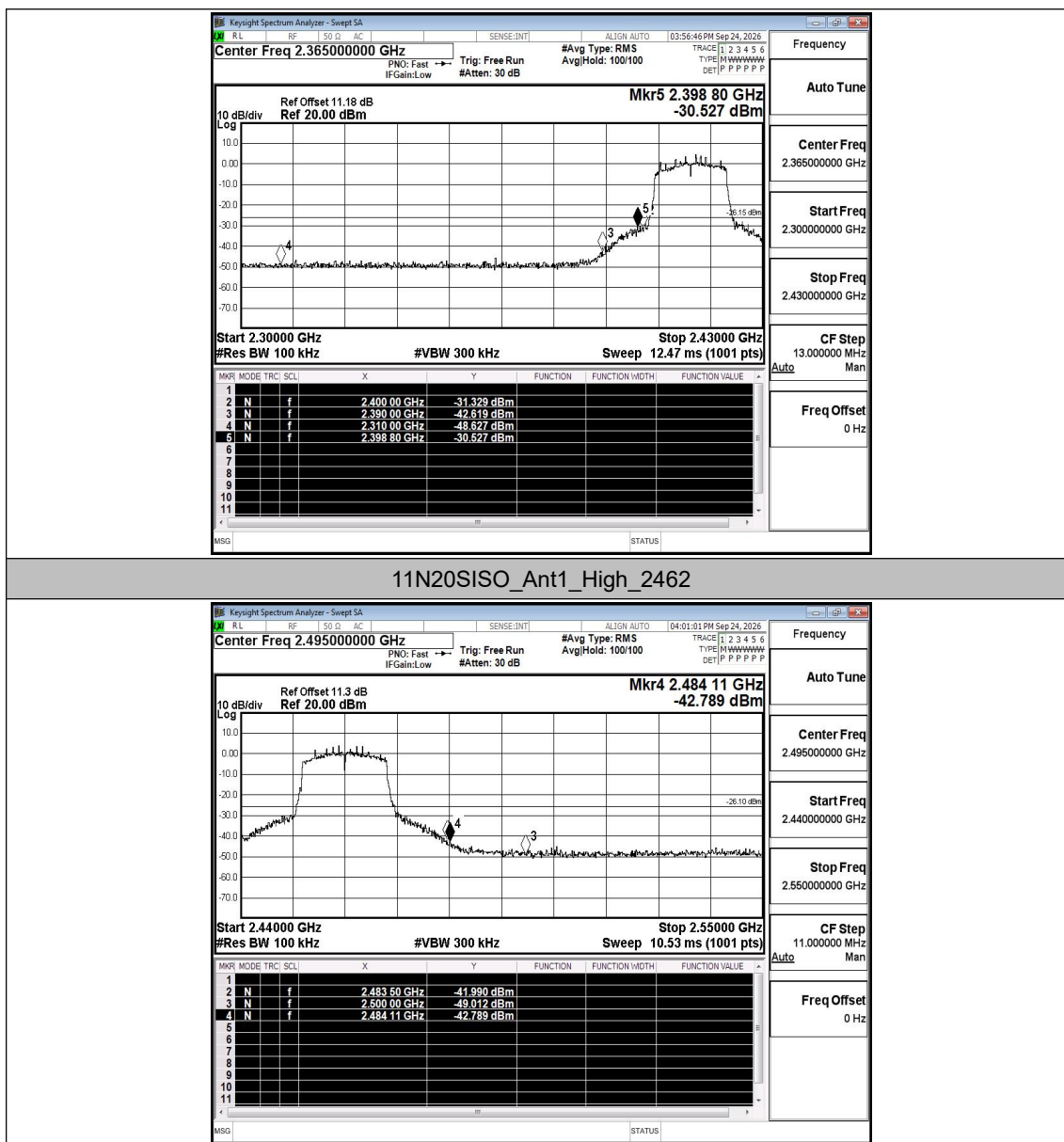
### Test Result

| TestMode  | Antenna | ChName | Frequency[MHz] | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|--------|----------------|---------------|-------------|------------|---------|
| 11B       | Ant1    | Low    | 2412           | 6.16          | -43.85      | ≤-23.84    | PASS    |
|           |         | High   | 2462           | 6.46          | -45.1       | ≤-23.54    | PASS    |
| 11G       | Ant1    | Low    | 2412           | 3.68          | -28.01      | ≤-26.32    | PASS    |
|           |         | High   | 2462           | 4.61          | -43.62      | ≤-25.39    | PASS    |
| 11N20SISO | Ant1    | Low    | 2412           | 3.85          | -30.53      | ≤-26.15    | PASS    |
|           |         | High   | 2462           | 3.90          | -42.79      | ≤-26.1     | PASS    |

## Test Graphs





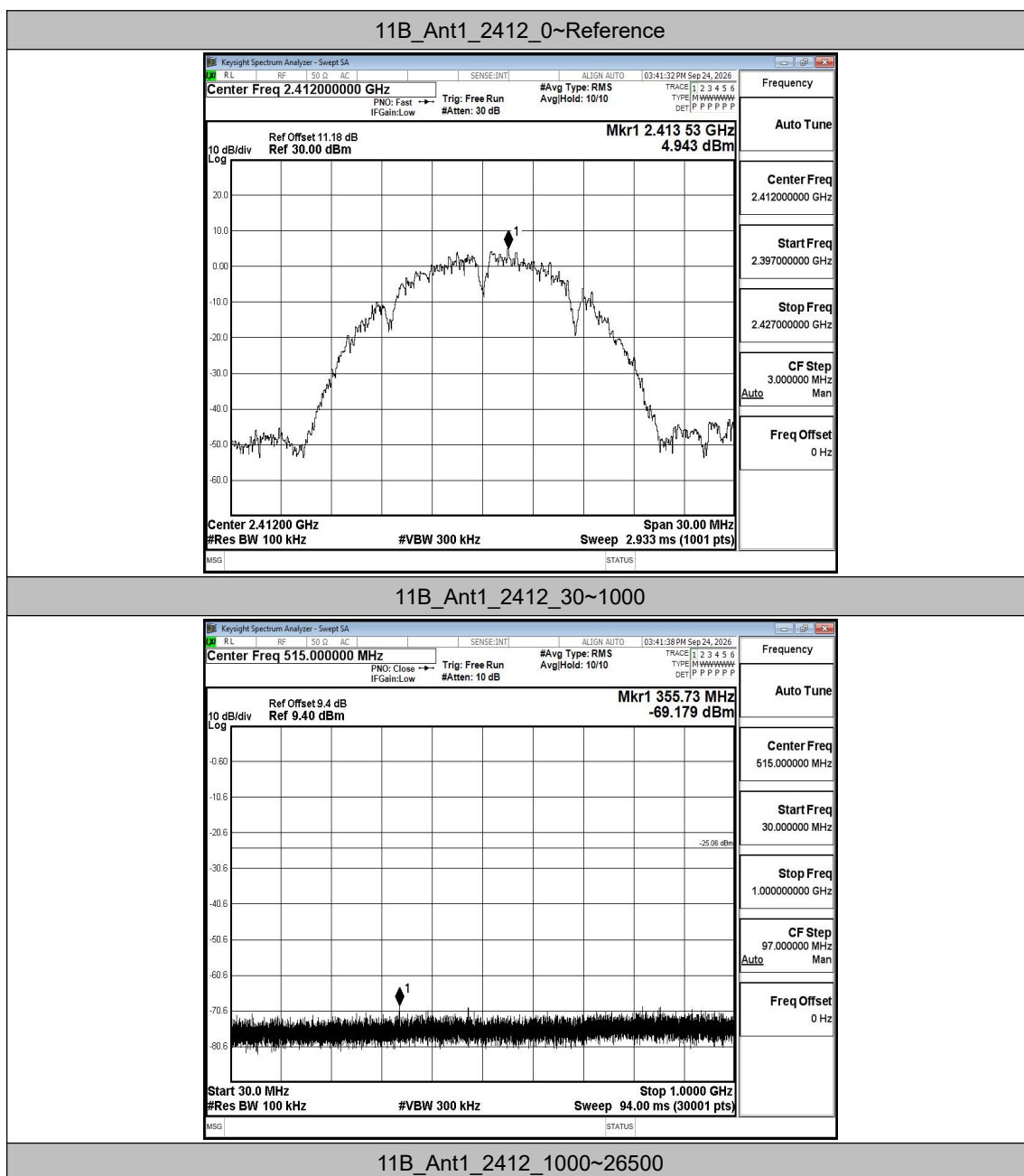


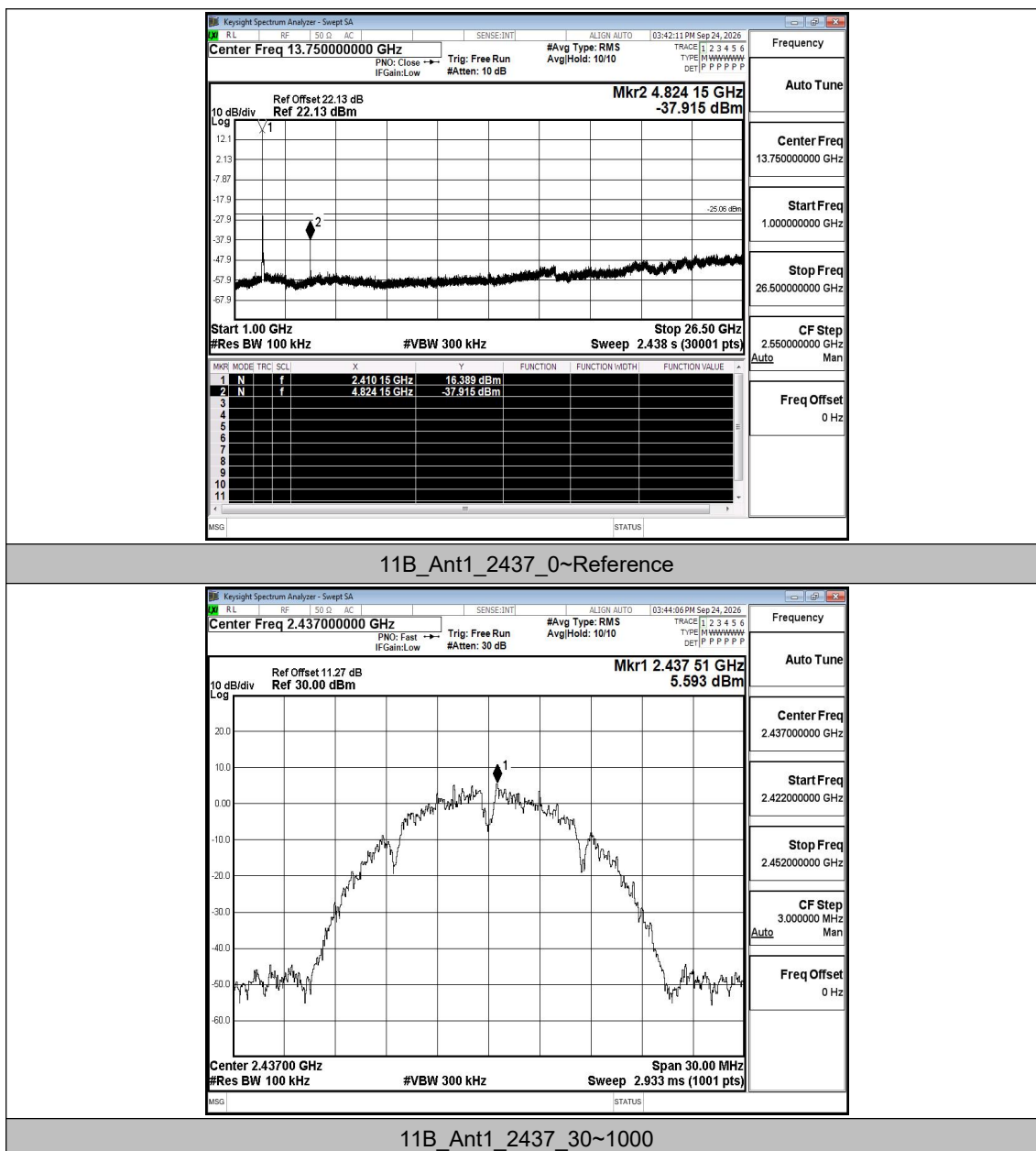
## B.5 Conducted Spurious Emission

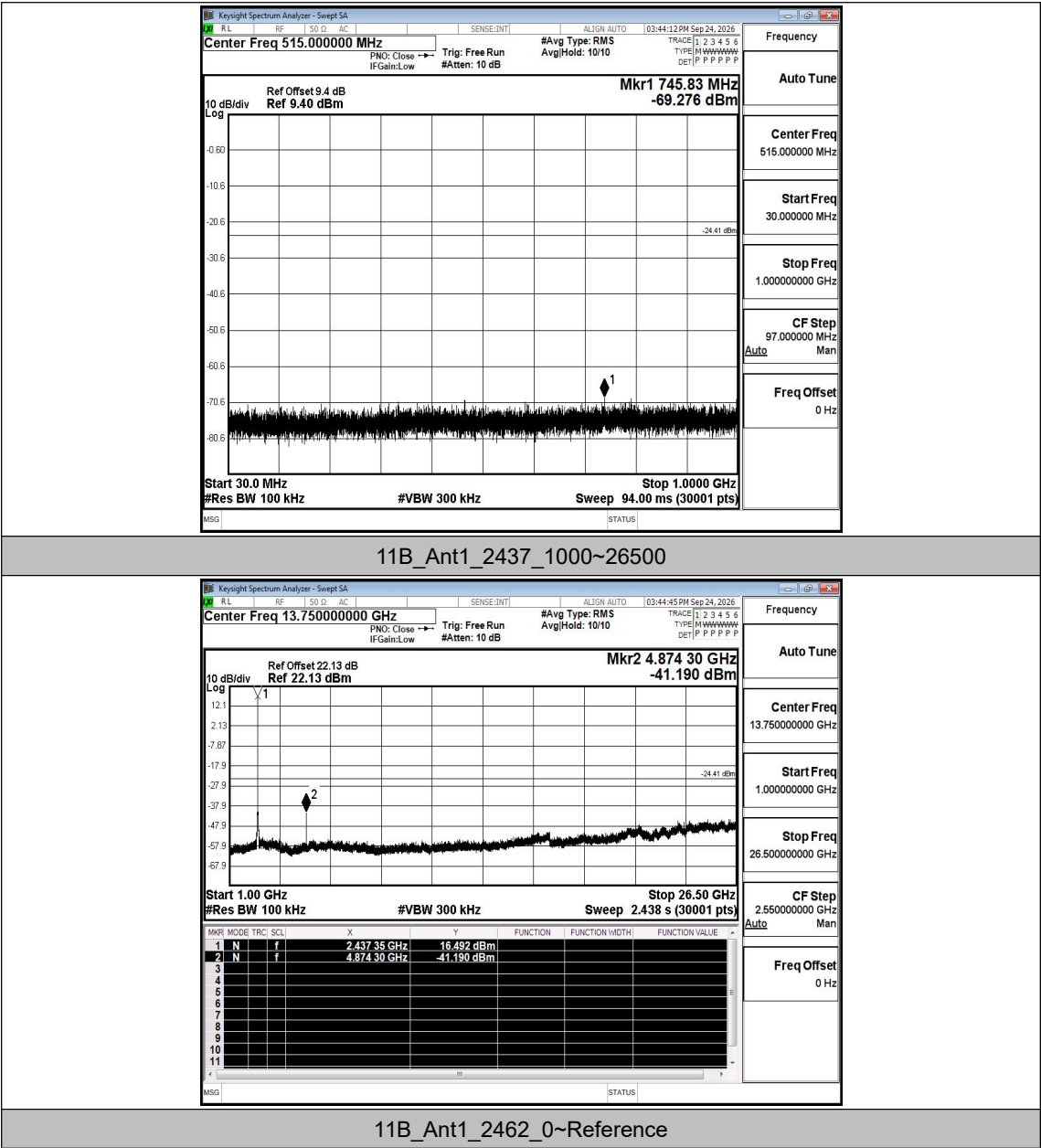
### Test Result

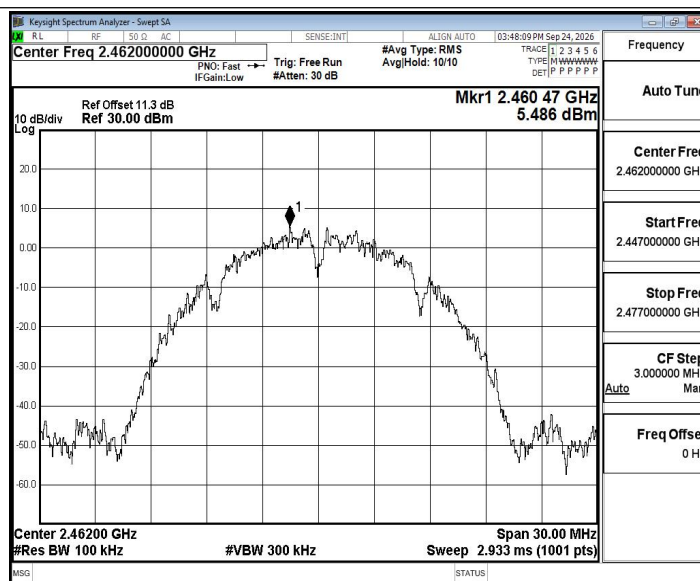
| TestMode  | Antenna | Frequency[MHz] | FreqRange [Mhz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|-----------|---------|----------------|-----------------|----------------|--------------|-------------|---------|
| 11B       | Ant1    | 2412           | Reference       | 4.94           | 4.94         | ---         | PASS    |
|           |         |                | 30~1000         | 4.94           | -69.18       | ≤-25.06     | PASS    |
|           |         |                | 1000~26500      | 4.94           | -37.92       | ≤-25.06     | PASS    |
|           |         | 2437           | Reference       | 5.59           | 5.59         | ---         | PASS    |
|           |         |                | 30~1000         | 5.59           | -69.28       | ≤-24.41     | PASS    |
|           |         |                | 1000~26500      | 5.59           | -41.19       | ≤-24.41     | PASS    |
|           |         | 2462           | Reference       | 5.49           | 5.49         | ---         | PASS    |
|           |         |                | 30~1000         | 5.49           | -69.54       | ≤-24.51     | PASS    |
|           |         |                | 1000~26500      | 5.49           | -41.36       | ≤-24.51     | PASS    |
| 11G       | Ant1    | 2412           | Reference       | 0.84           | 0.84         | ---         | PASS    |
|           |         |                | 30~1000         | 0.84           | -68.31       | ≤-29.16     | PASS    |
|           |         |                | 1000~26500      | 0.84           | -44.14       | ≤-29.16     | PASS    |
|           |         | 2437           | Reference       | 4.82           | 4.82         | ---         | PASS    |
|           |         |                | 30~1000         | 4.82           | -69.33       | ≤-25.18     | PASS    |
|           |         |                | 1000~26500      | 4.82           | -44.22       | ≤-25.18     | PASS    |
|           |         | 2462           | Reference       | 0.94           | 0.94         | ---         | PASS    |
|           |         |                | 30~1000         | 0.94           | -70.05       | ≤-29.06     | PASS    |
|           |         |                | 1000~26500      | 0.94           | -44.57       | ≤-29.06     | PASS    |
| 11N20SISO | Ant1    | 2412           | Reference       | 1.85           | 1.85         | ---         | PASS    |
|           |         |                | 30~1000         | 1.85           | -69.43       | ≤-28.15     | PASS    |
|           |         |                | 1000~26500      | 1.85           | -44.6        | ≤-28.15     | PASS    |
|           |         | 2437           | Reference       | 2.29           | 2.29         | ---         | PASS    |
|           |         |                | 30~1000         | 2.29           | -69.1        | ≤-27.71     | PASS    |
|           |         |                | 1000~26500      | 2.29           | -44.84       | ≤-27.71     | PASS    |
|           |         | 2462           | Reference       | 1.72           | 1.72         | ---         | PASS    |
|           |         |                | 30~1000         | 1.72           | -68.75       | ≤-28.28     | PASS    |
|           |         |                | 1000~26500      | 1.72           | -44.17       | ≤-28.28     | PASS    |

## Test Graphs

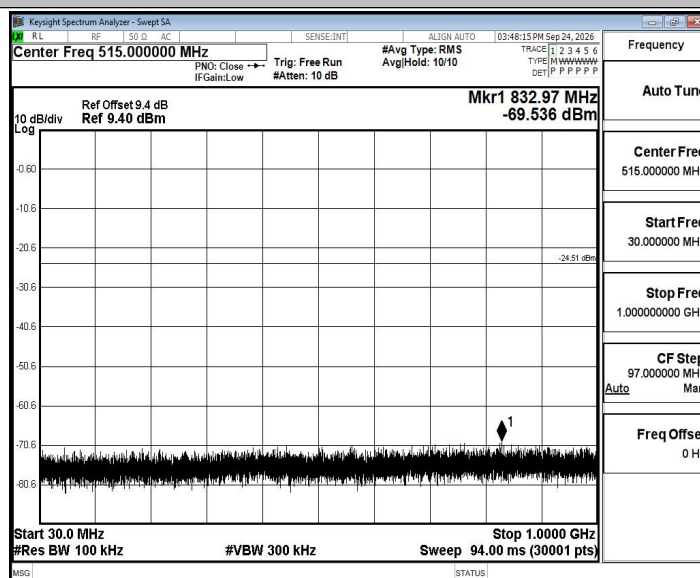








11B\_Ant1\_2462\_30~1000



11B\_Ant1\_2462\_1000~26500

