



Appendix A

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: WIFI LED Floodlight

Test Model: BDBS55WF-5

Environmental Conditions

| | |
|--------------------|-----------|
| Temperature: | 23.8° C |
| Relative Humidity: | 52.1% |
| ATM Pressure: | 100.0 kPa |
| Test Engineer: | Jay Luo |
| Supervised by: | Nick Peng |





A.1 DTS Bandwidth

Test Result

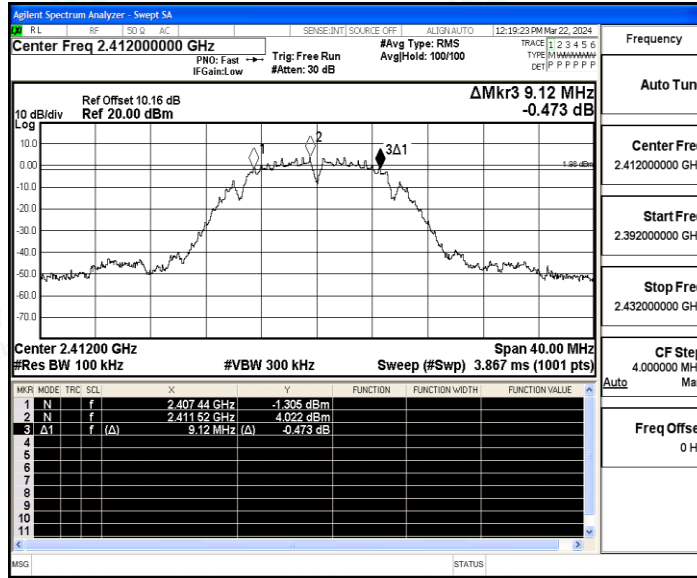
| TestMode | Antenna | Freq(MHz) | DTS BW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|-----------|---------|-----------|--------------|----------|----------|------------|---------|
| 11B | Ant1 | 2412 | 9.120 | 2407.440 | 2416.560 | 0.5 | PASS |
| | | 2437 | 9.560 | 2432.440 | 2442.000 | 0.5 | PASS |
| | | 2462 | 9.080 | 2457.440 | 2466.520 | 0.5 | PASS |
| 11G | Ant1 | 2412 | 16.400 | 2403.800 | 2420.200 | 0.5 | PASS |
| | | 2437 | 16.360 | 2428.800 | 2445.160 | 0.5 | PASS |
| | | 2462 | 16.360 | 2453.800 | 2470.160 | 0.5 | PASS |
| 11N20SISO | Ant1 | 2412 | 17.600 | 2403.200 | 2420.800 | 0.5 | PASS |
| | | 2437 | 17.600 | 2428.200 | 2445.800 | 0.5 | PASS |
| | | 2462 | 17.600 | 2453.200 | 2470.800 | 0.5 | PASS |



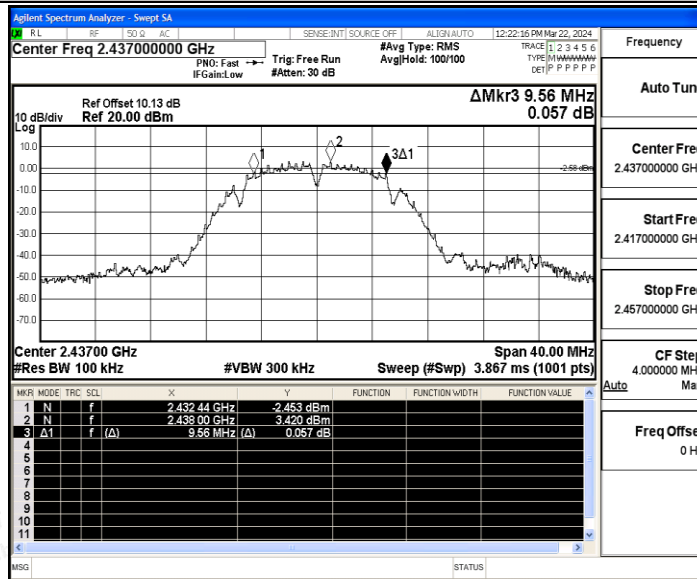


Test Graphs

11B_Ant1_2412

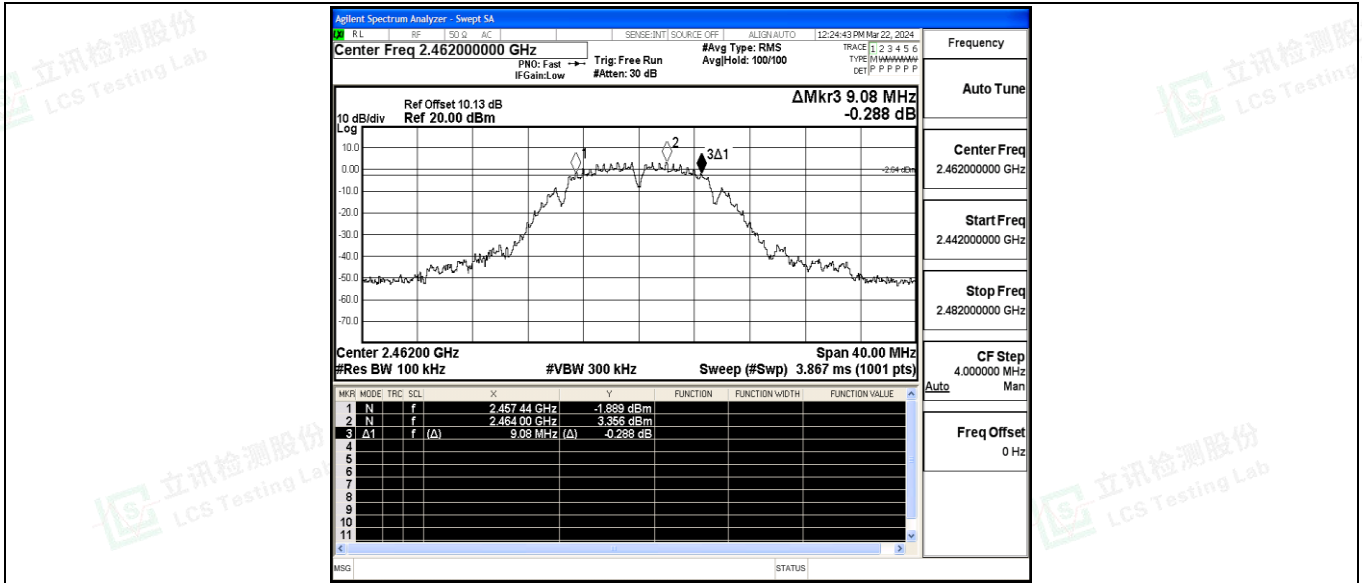


11B_Ant1_2437

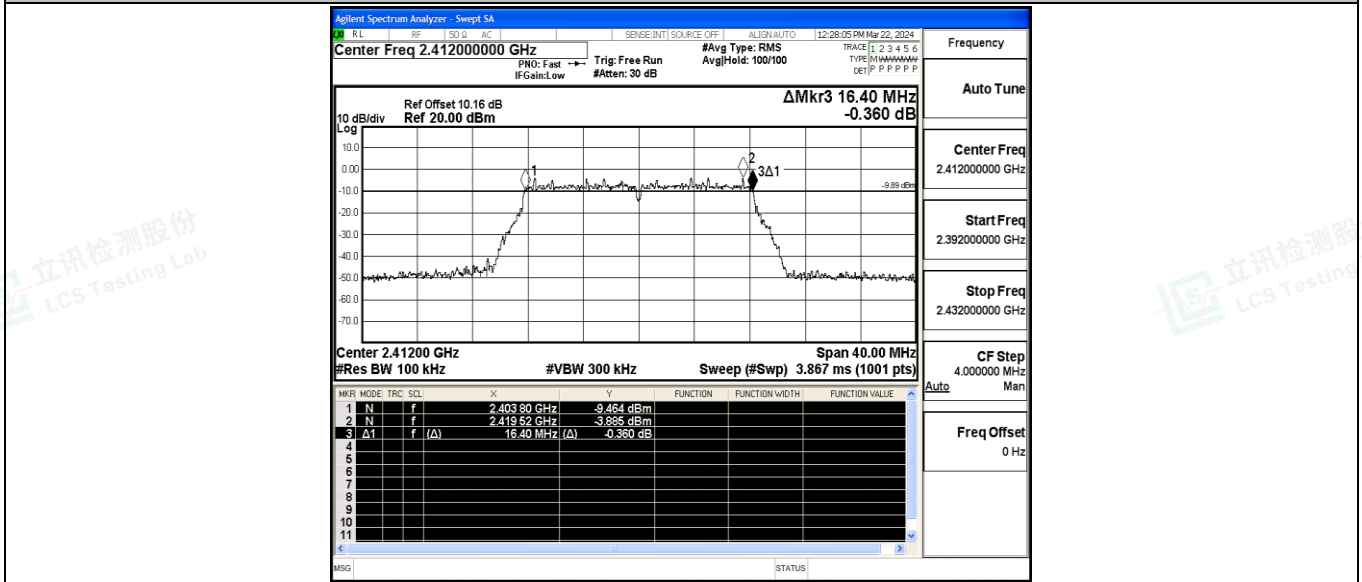


11B_Ant1_2462



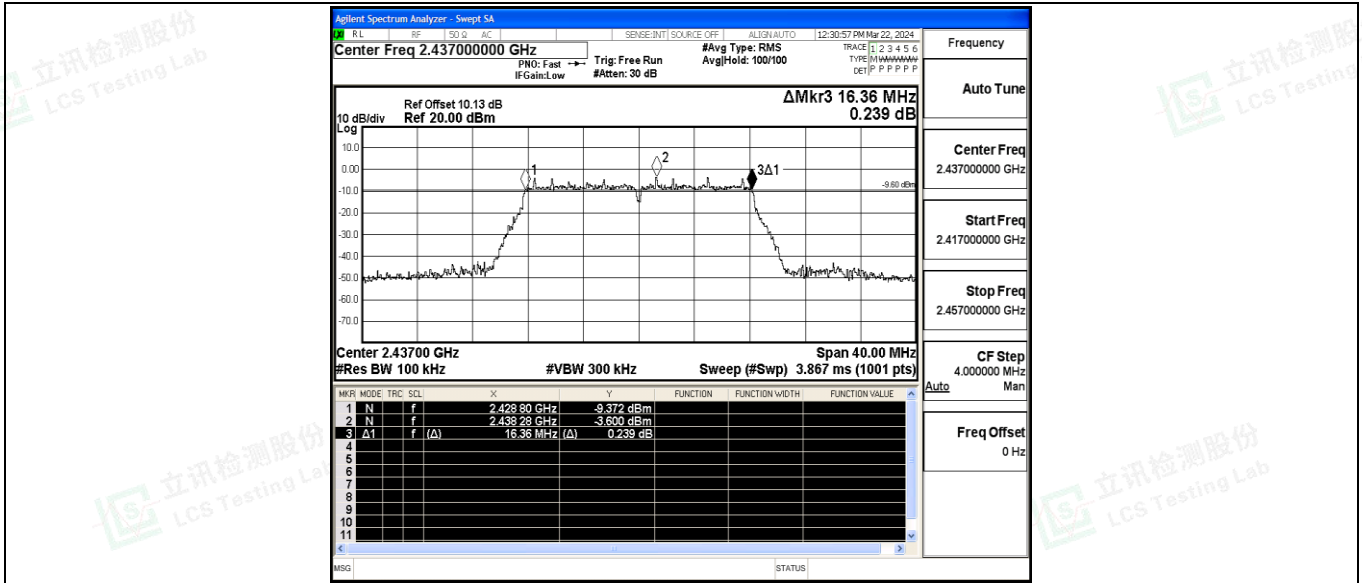


11G_Ant1_2412

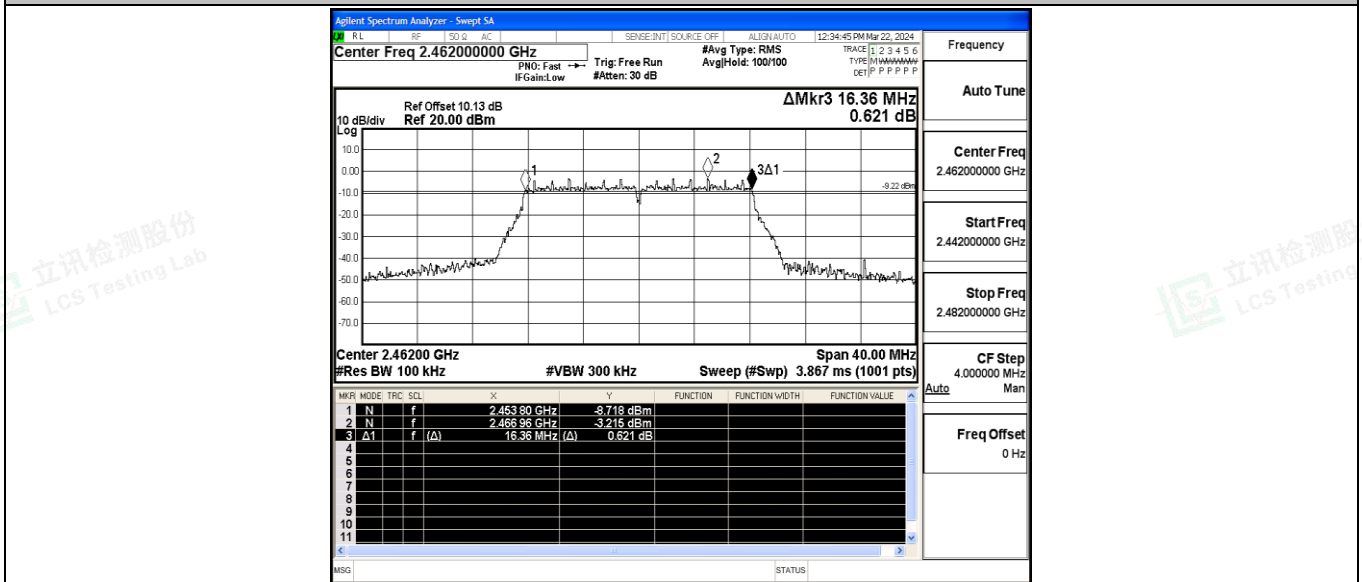


11G_Ant1_2437



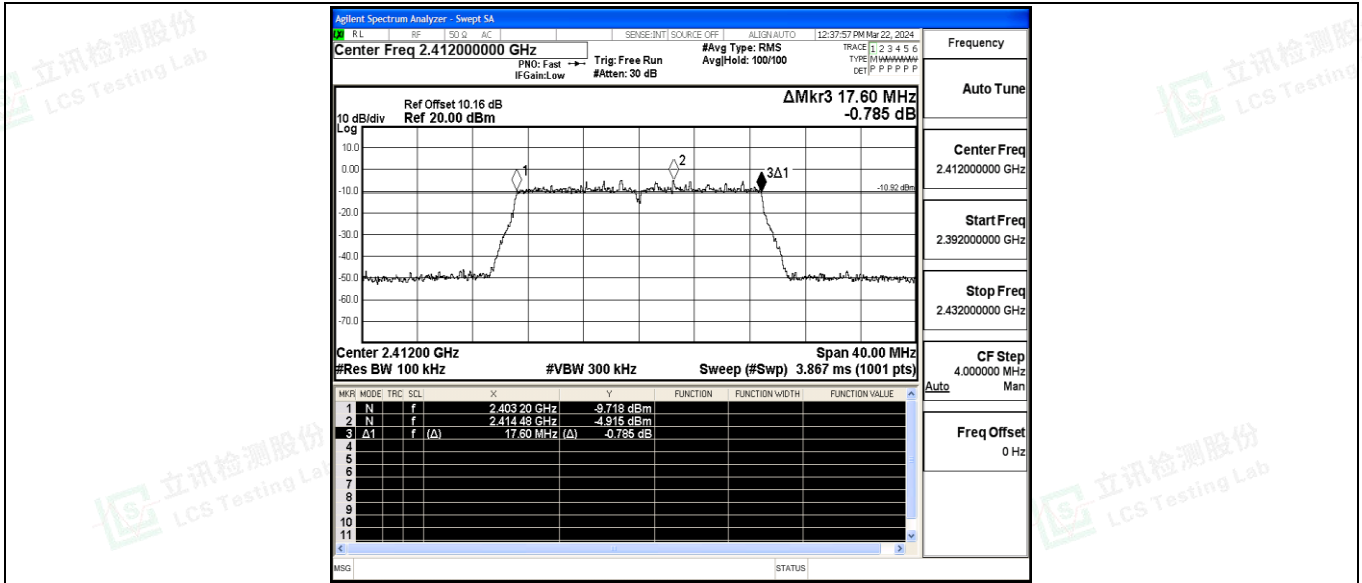


11G_Ant1_2462

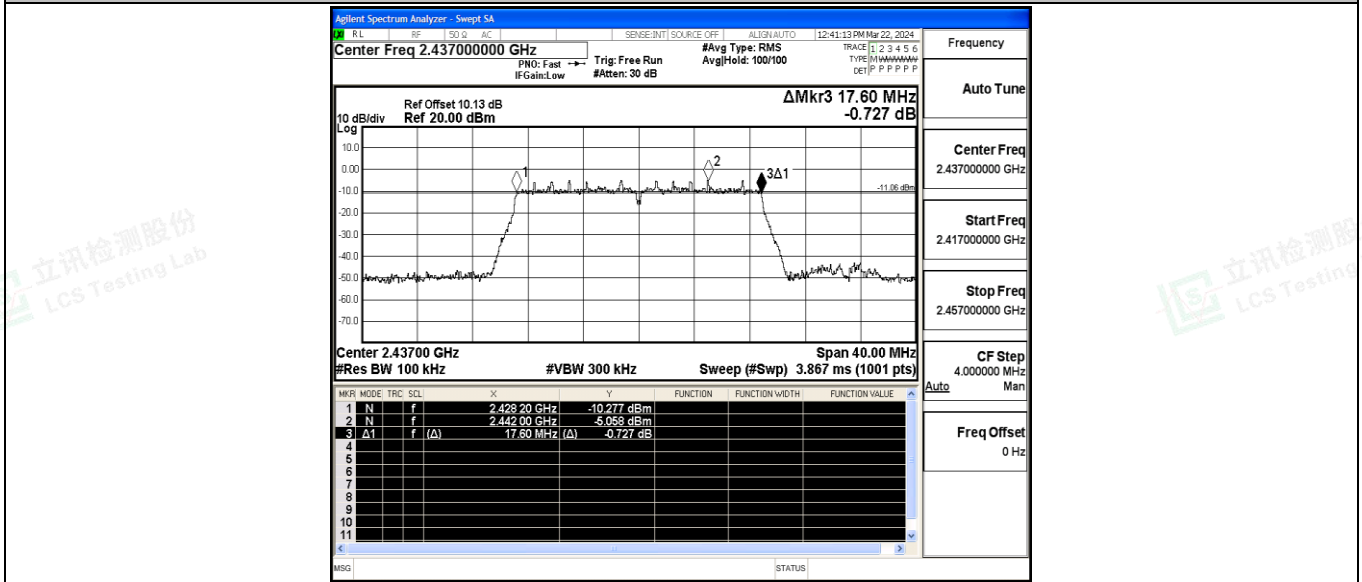


11N20SISO_Ant1_2412



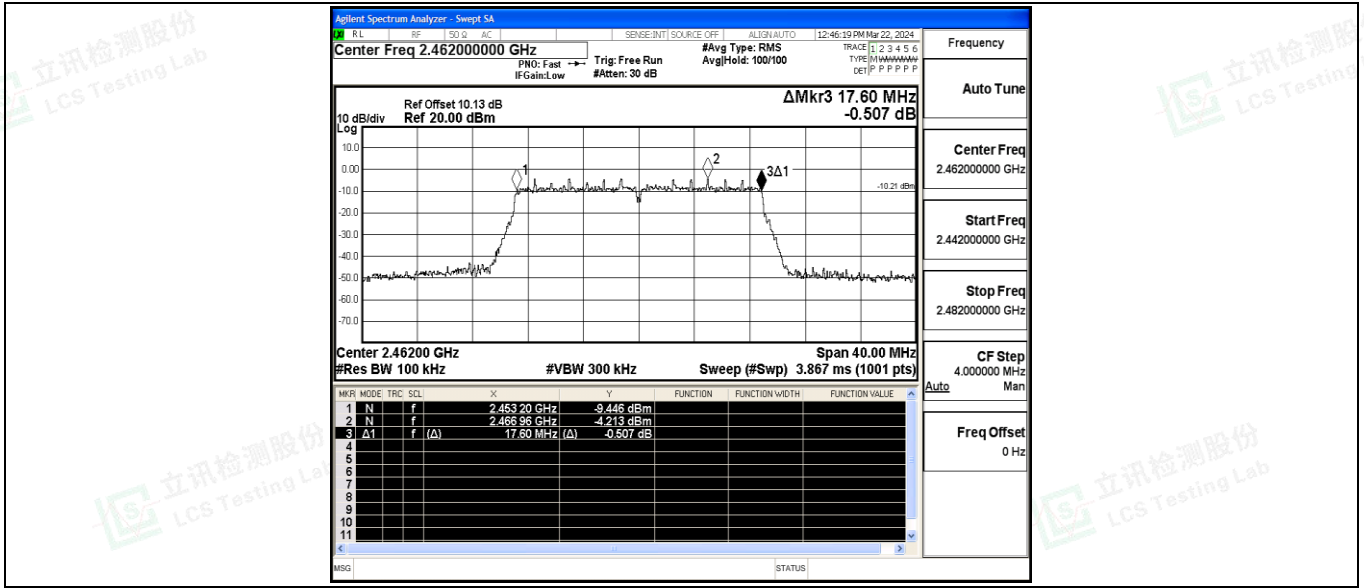


11N20SISO_Ant1_2437



11N20SISO_Ant1_2462







A.2 Maximum conducted output power

Test Result Peak

| TestMode | Antenna | Freq(MHz) | Set Power | Peak Power[dBm] | Conducted Limit[dBm] | Verdict |
|-----------|---------|-----------|-----------|-----------------|----------------------|---------|
| 11B | Ant1 | 2412 | --- | 15.97 | ≤30.00 | PASS |
| | | 2437 | --- | 15.29 | ≤30.00 | PASS |
| | | 2462 | --- | 15.37 | ≤30.00 | PASS |
| 11G | Ant1 | 2412 | --- | 14.15 | ≤30.00 | PASS |
| | | 2437 | --- | 14.83 | ≤30.00 | PASS |
| | | 2462 | --- | 14.46 | ≤30.00 | PASS |
| 11N20SISO | Ant1 | 2412 | --- | 13.24 | ≤30.00 | PASS |
| | | 2437 | --- | 13.41 | ≤30.00 | PASS |
| | | 2462 | --- | 13.77 | ≤30.00 | PASS |





A.3 Maximum power spectral density

Test Result

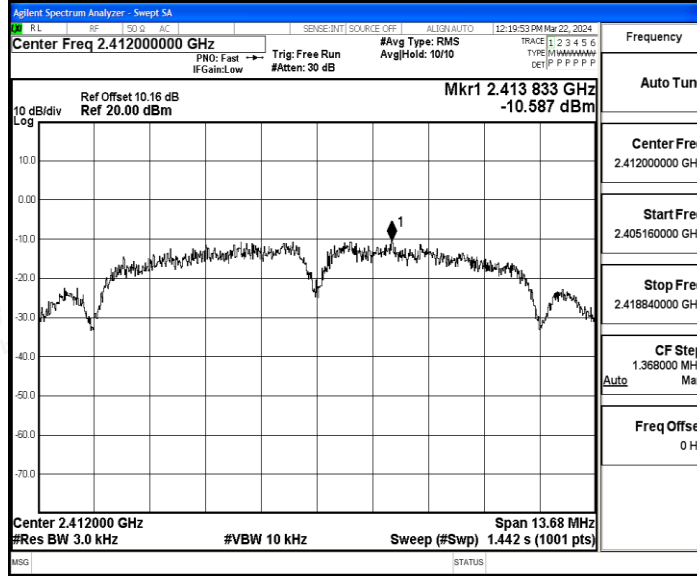
| TestMode | Antenna | Freq(MHz) | Result [dBm/3-100kHz] | Limit [dBm/3kHz] | Limit [dBm/3kHz] | Verdict |
|-----------|---------|-----------|-----------------------|------------------|------------------|---------|
| 11B | Ant1 | 2412 | -10.59 | ≤8.00 | --- | PASS |
| | | 2437 | -11.00 | ≤8.00 | --- | PASS |
| | | 2462 | -6.52 | ≤8.00 | --- | PASS |
| 11G | Ant1 | 2412 | -17.46 | ≤8.00 | --- | PASS |
| | | 2437 | -16.75 | ≤8.00 | --- | PASS |
| | | 2462 | -15.76 | ≤8.00 | --- | PASS |
| 11N20SISO | Ant1 | 2412 | -17.79 | ≤8.00 | --- | PASS |
| | | 2437 | -17.86 | ≤8.00 | --- | PASS |
| | | 2462 | -17.32 | ≤8.00 | --- | PASS |



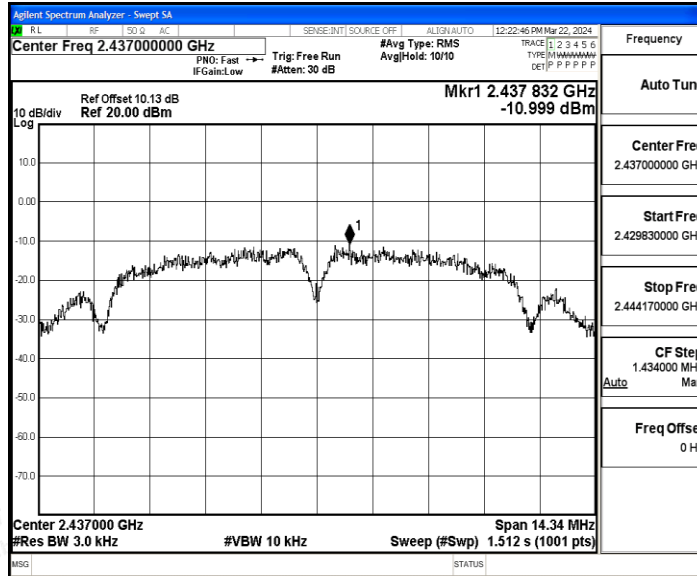


Test Graphs

11B_Ant1_2412

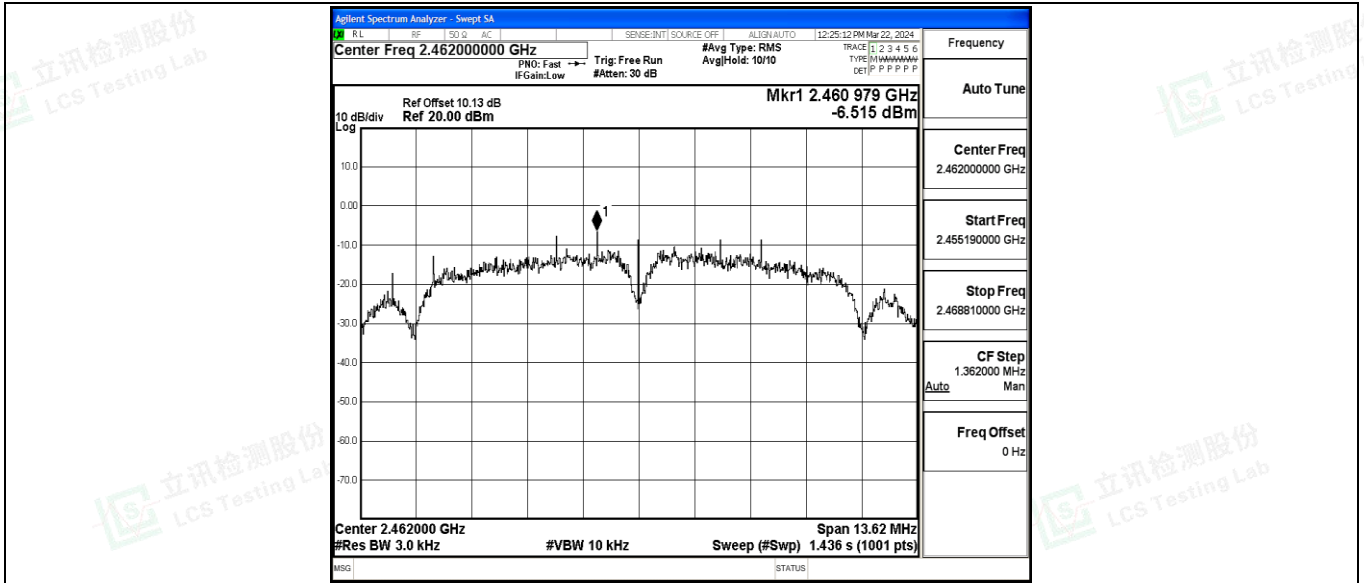


11B_Ant1_2437

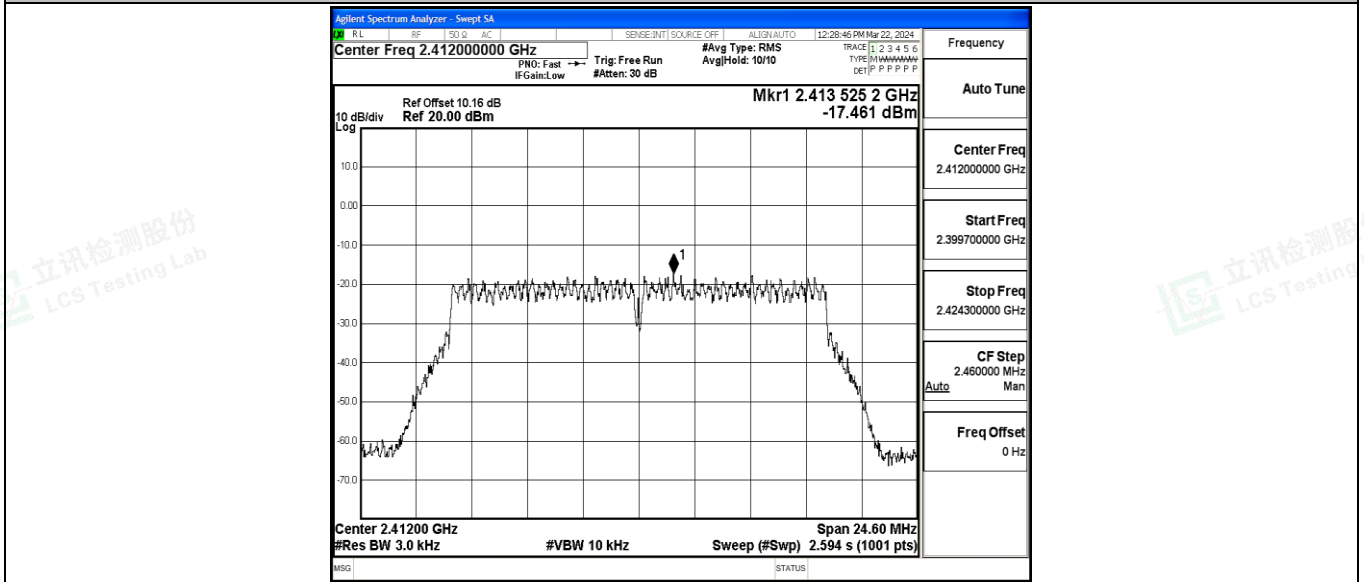


11B_Ant1_2462



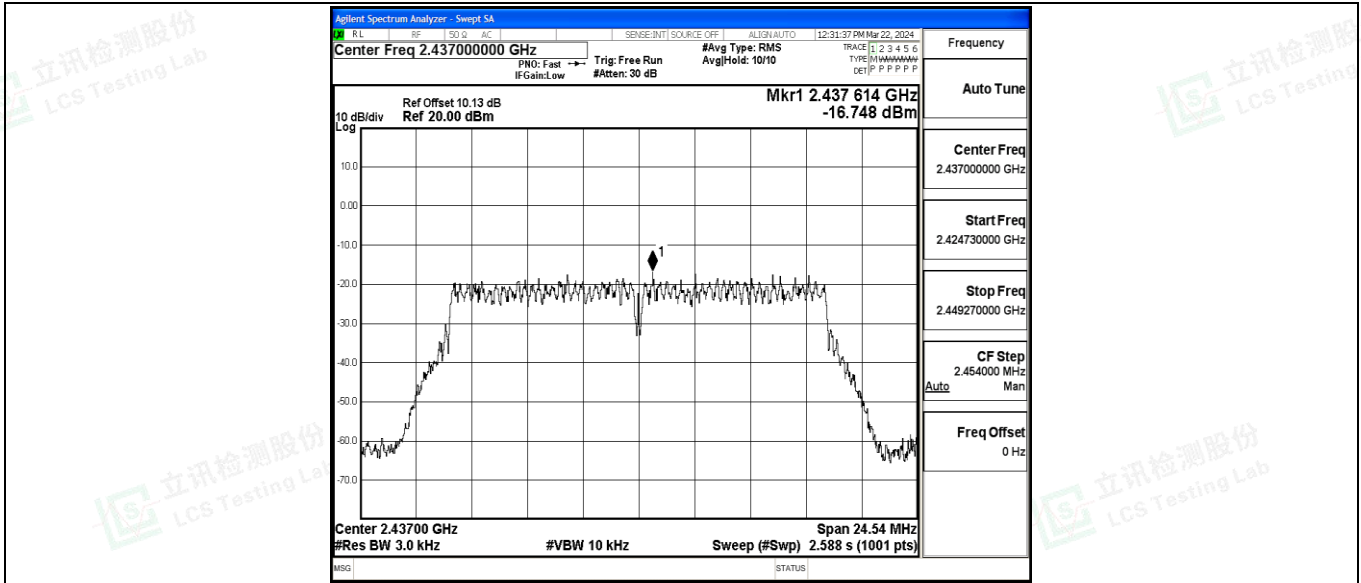


11G_Ant1_2412

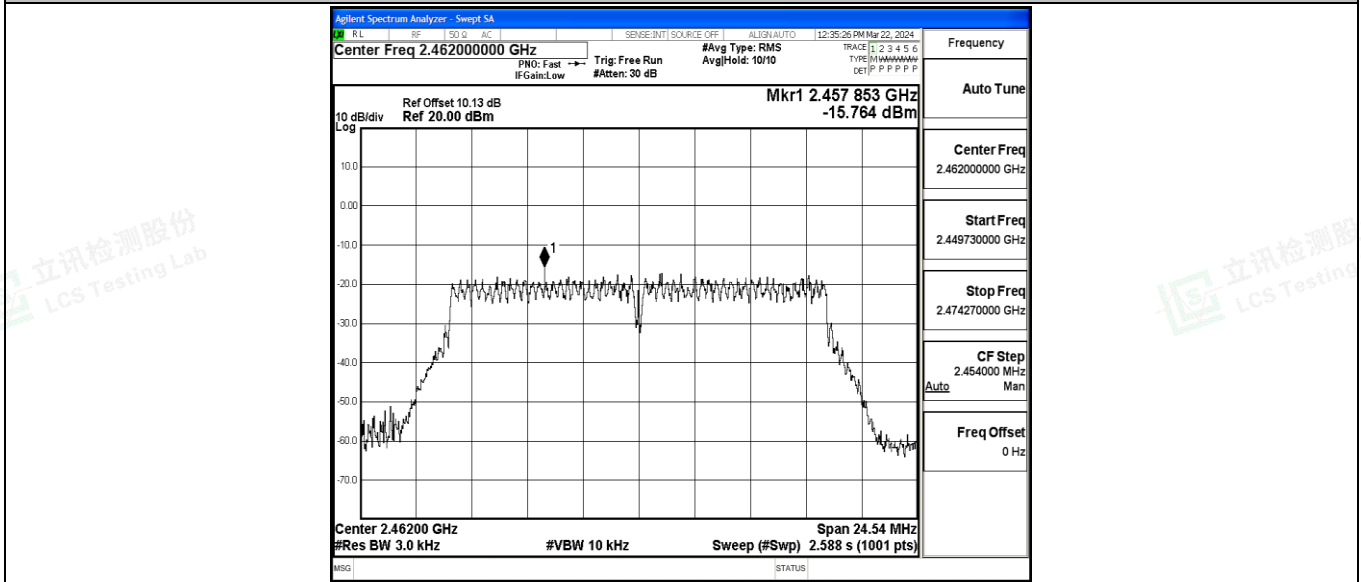


11G_Ant1_2437



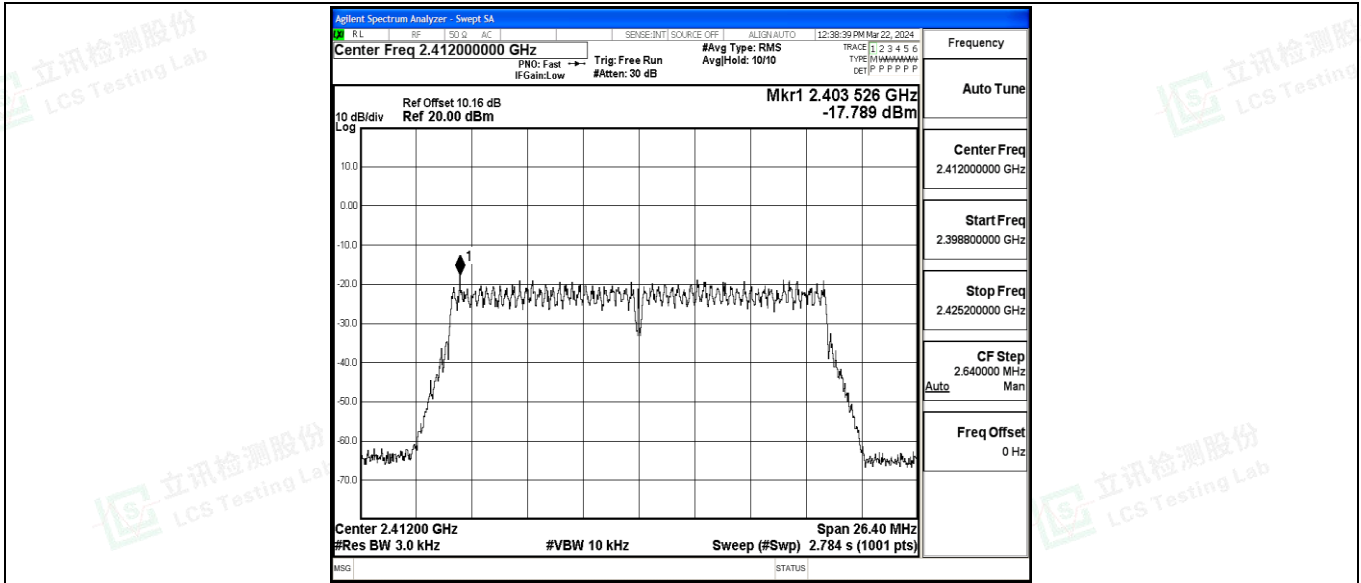


11G_Ant1_2462

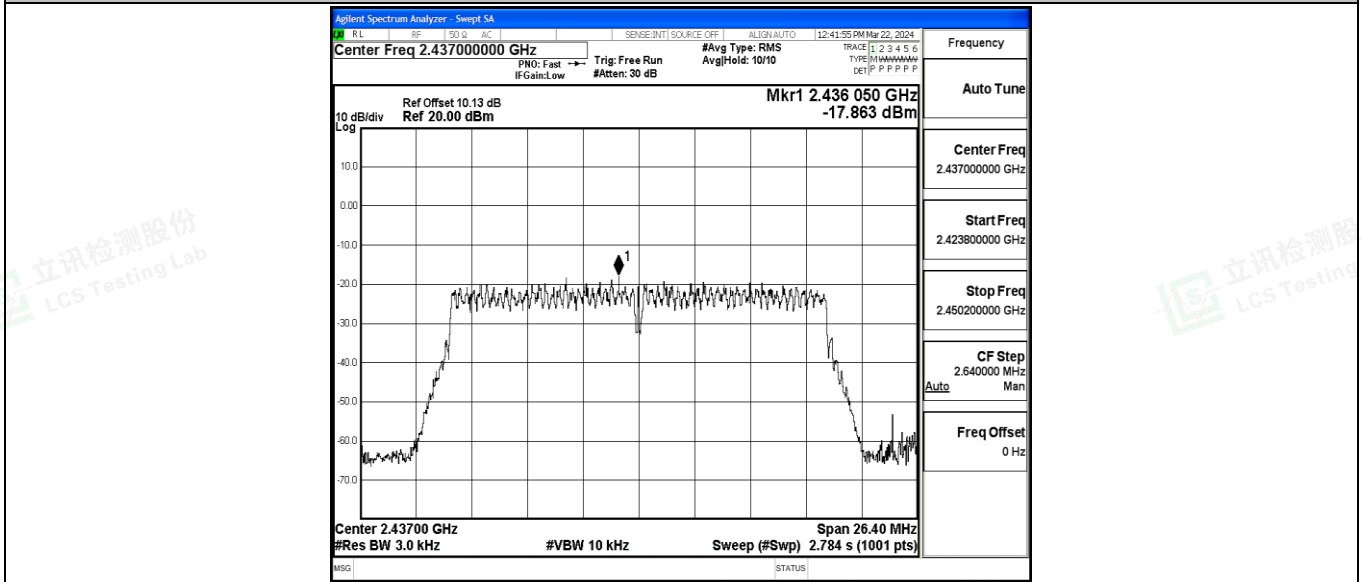


11N20SISO_Ant1_2412



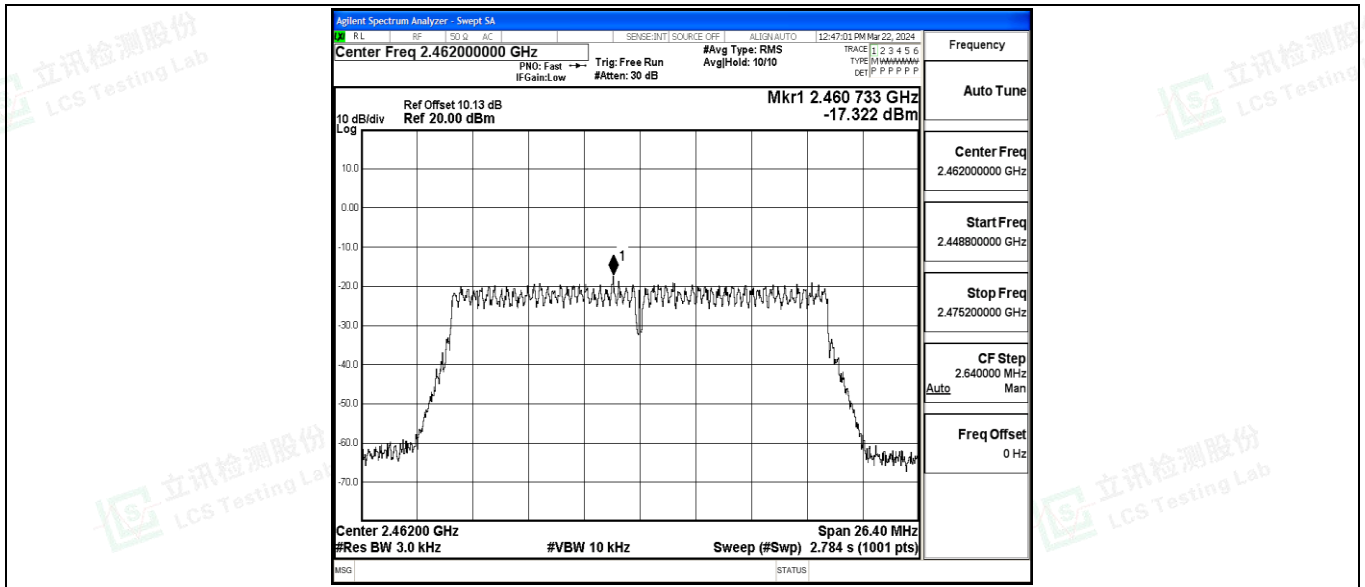


11N20SISO_Ant1_2437



11N20SISO_Ant1_2462







A.4 Band edge measurements

Test Result

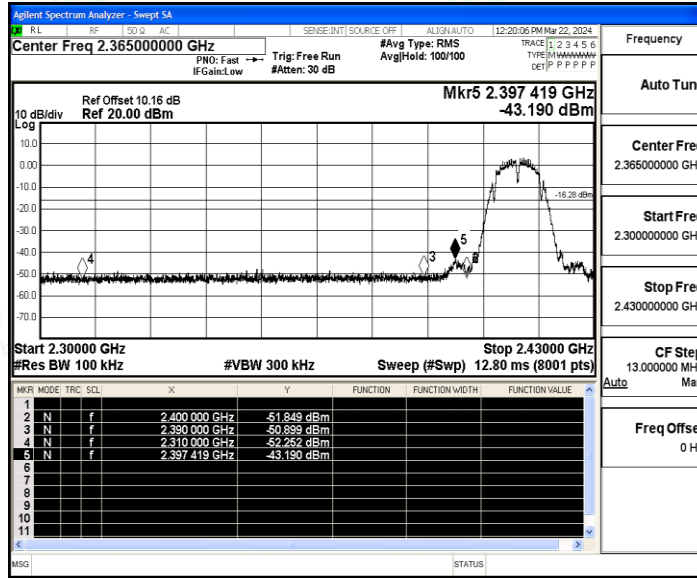
| TestMode | Antenna | ChName | Freq(MHz) | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|--------|-----------|---------------|-------------|------------|---------|
| 11B | Ant1 | Low | 2412 | 3.72 | -43.19 | ≤-16.28 | PASS |
| | | High | 2462 | 3.15 | -47.59 | ≤-16.85 | PASS |
| 11G | Ant1 | Low | 2412 | -4.01 | -43.91 | ≤-24.01 | PASS |
| | | High | 2462 | -3.24 | -47.21 | ≤-23.24 | PASS |
| 11N20SISO | Ant1 | Low | 2412 | -4.26 | -46.74 | ≤-24.26 | PASS |
| | | High | 2462 | -3.95 | -47.35 | ≤-23.95 | PASS |



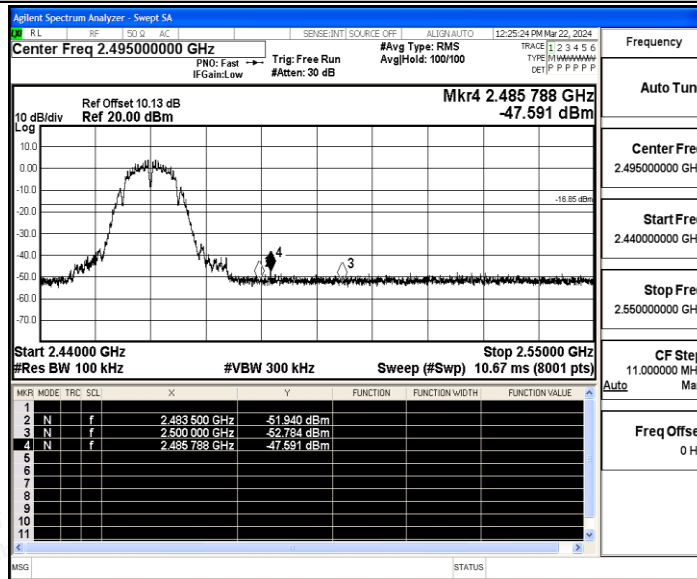


Test Graphs

11B_Ant1_Low_2412

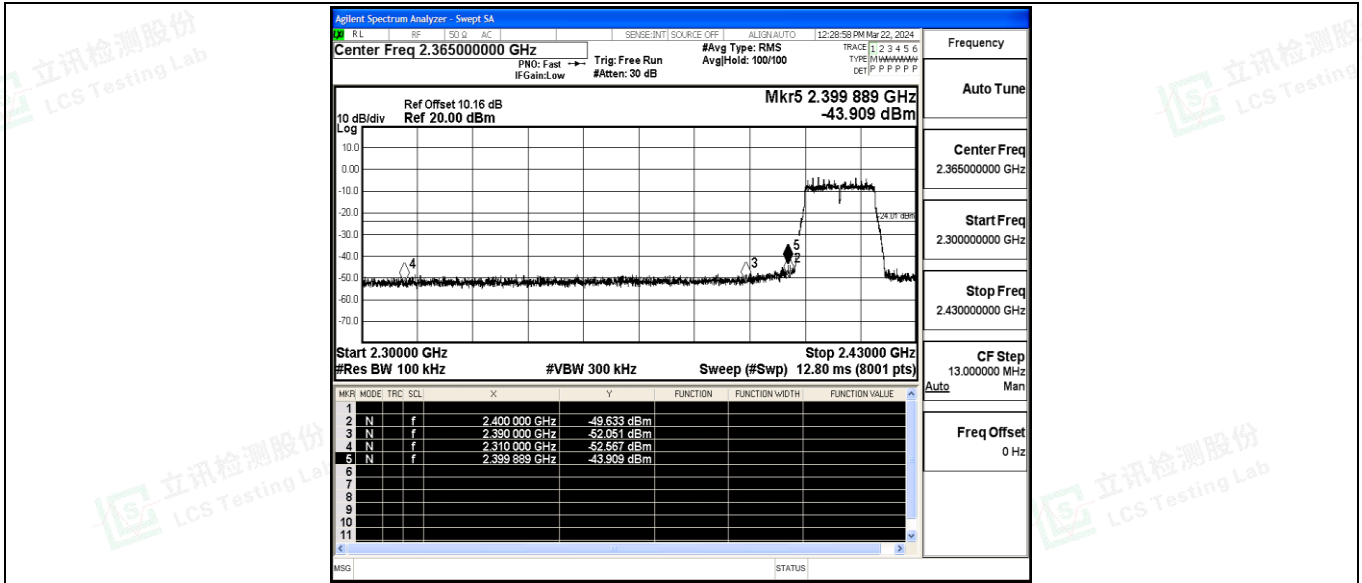


11B_Ant1_High_2462

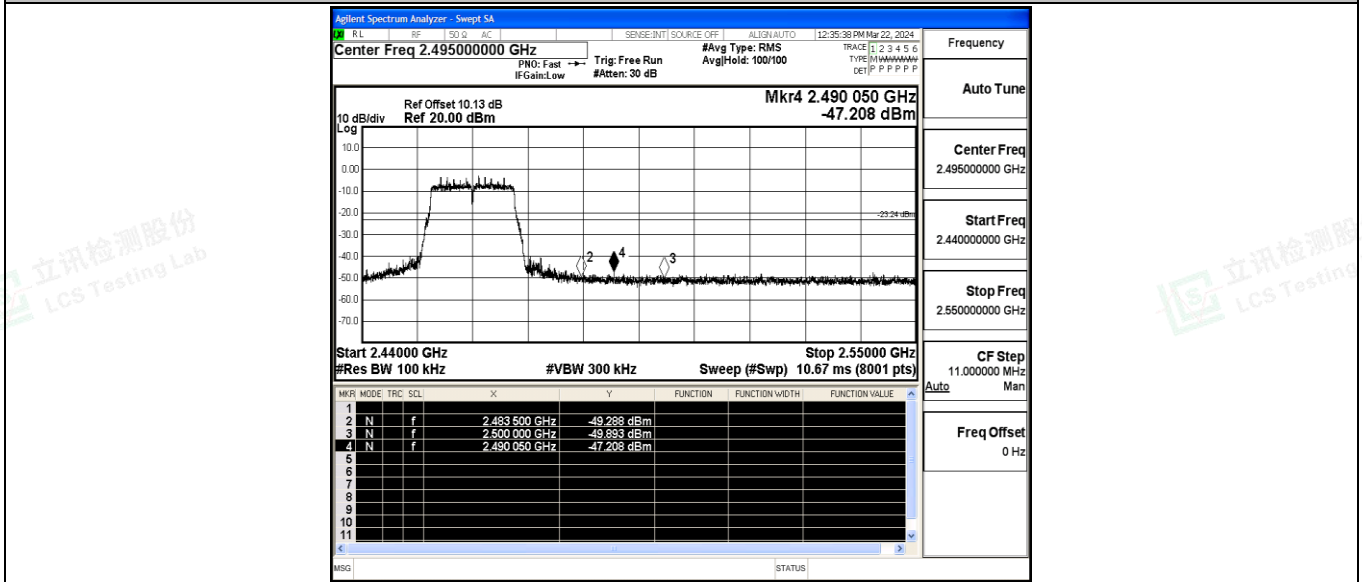


11G_Ant1_Low_2412



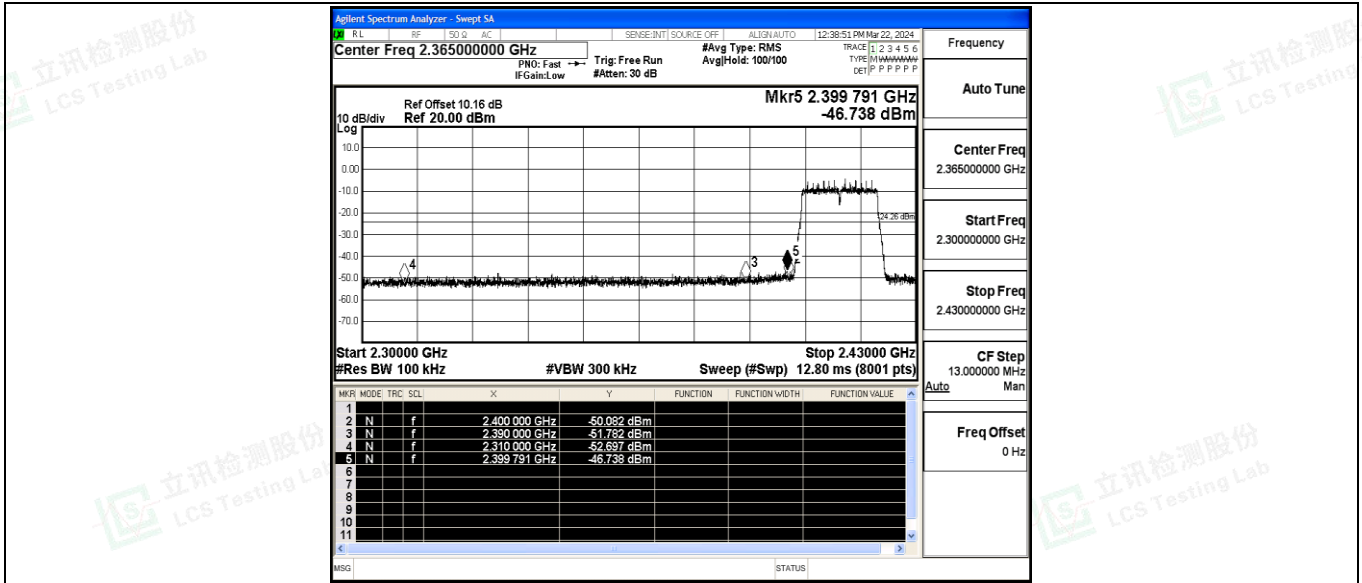


11G_Ant1_High_2462

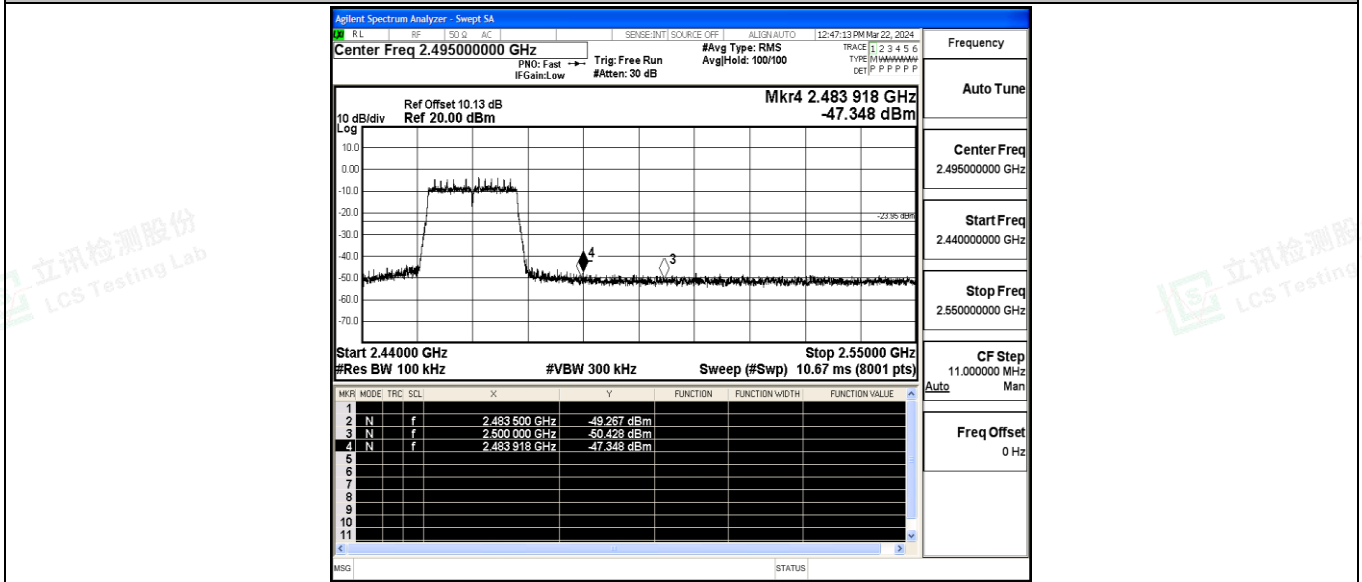


11N20SISO_Ant1_Low_2412





11N20SISO_Ant1_High_2462





A.5 Conducted Spurious Emission

Test Result

| TestMode | Antenna | Freq(MHz) | FreqRange [Mhz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|-----------|---------|-----------|-----------------|----------------|--------------|-------------|---------|
| 11B | Ant1 | 2412 | 30~1000 | 3.72 | -59.6 | ≤-16.28 | PASS |
| | | | 1000~26500 | 3.72 | -47.33 | ≤-16.28 | PASS |
| | | 2437 | 30~1000 | 3.52 | -59.43 | ≤-16.48 | PASS |
| | | | 1000~26500 | 3.52 | -47.1 | ≤-16.48 | PASS |
| | | 2462 | 30~1000 | 3.15 | -59.43 | ≤-16.85 | PASS |
| | | | 1000~26500 | 3.15 | -46.95 | ≤-16.85 | PASS |
| 11G | Ant1 | 2412 | 30~1000 | -4.01 | -58.78 | ≤-24.01 | PASS |
| | | | 1000~26500 | -4.01 | -46.78 | ≤-24.01 | PASS |
| | | 2437 | 30~1000 | -3.87 | -59.04 | ≤-23.87 | PASS |
| | | | 1000~26500 | -3.87 | -47.25 | ≤-23.87 | PASS |
| | | 2462 | 30~1000 | -3.24 | -60.18 | ≤-23.24 | PASS |
| | | | 1000~26500 | -3.24 | -46.2 | ≤-23.24 | PASS |
| 11N20SISO | Ant1 | 2412 | 30~1000 | -4.26 | -59.03 | ≤-24.26 | PASS |
| | | | 1000~26500 | -4.26 | -47.34 | ≤-24.26 | PASS |
| | | 2437 | 30~1000 | -4.86 | -59.14 | ≤-24.86 | PASS |
| | | | 1000~26500 | -4.86 | -46.87 | ≤-24.86 | PASS |
| | | 2462 | 30~1000 | -3.95 | -58.65 | ≤-23.95 | PASS |
| | | | 1000~26500 | -3.95 | -45.21 | ≤-23.95 | PASS |



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

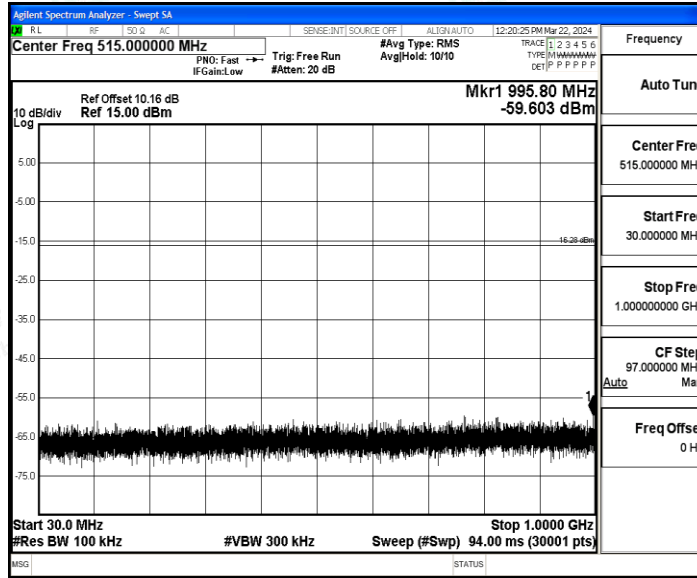
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

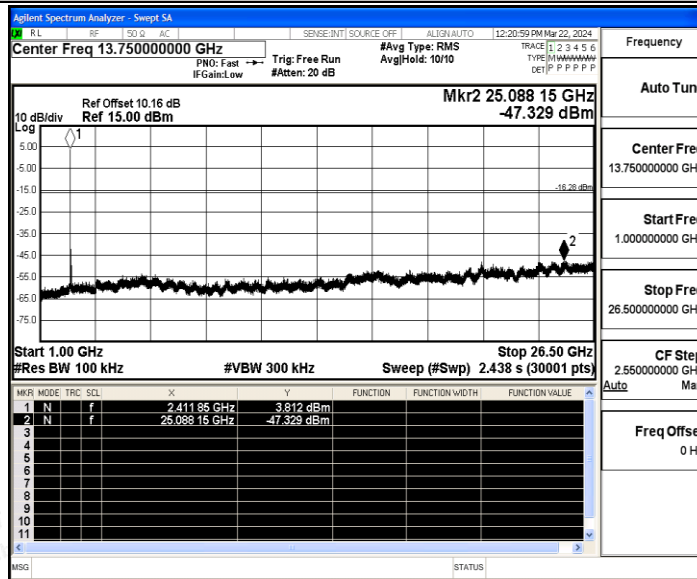


Test Graphs

11B_Ant1_2412_30~1000

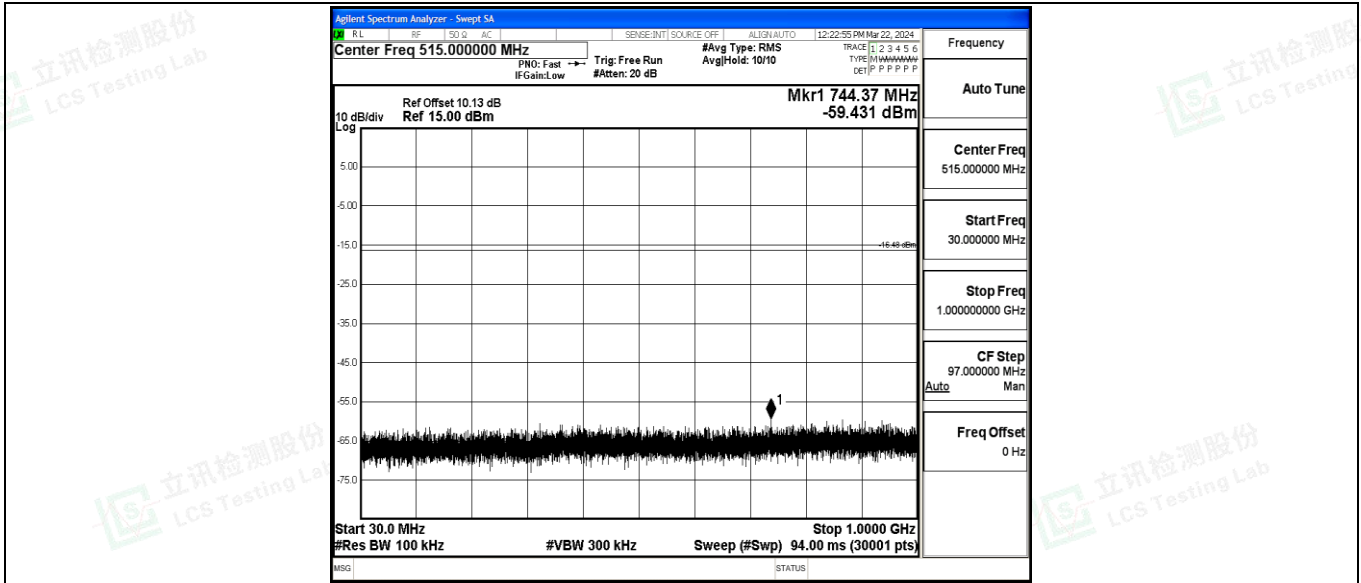


11B_Ant1_2412_1000~26500

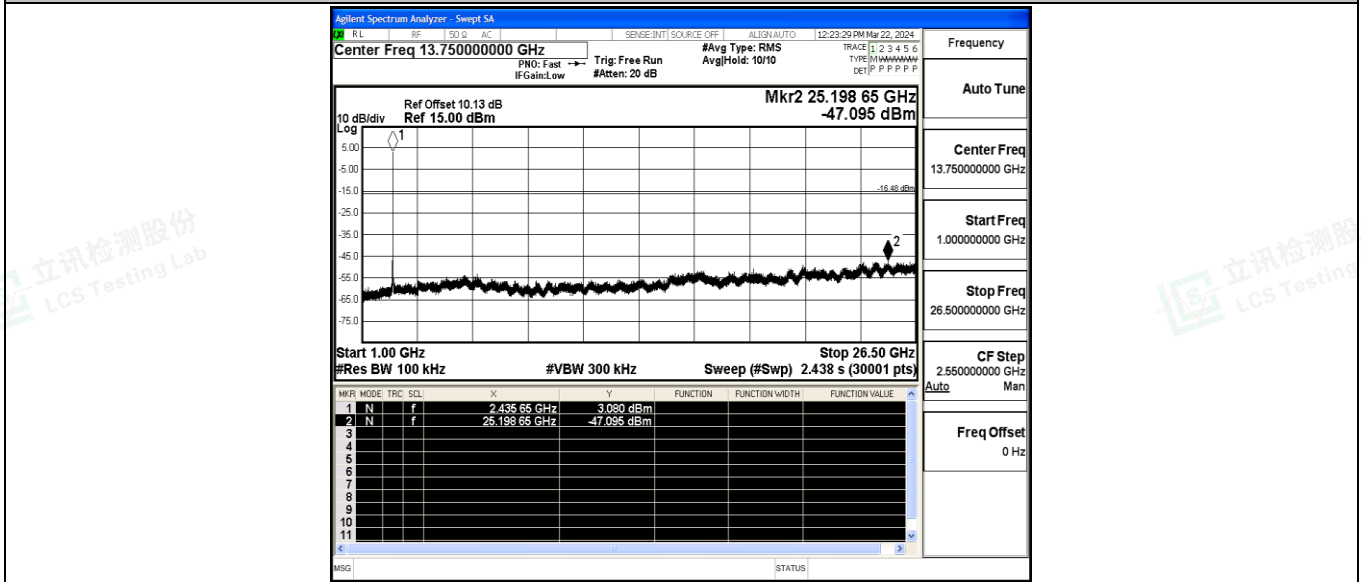


11B_Ant1_2437_30~1000



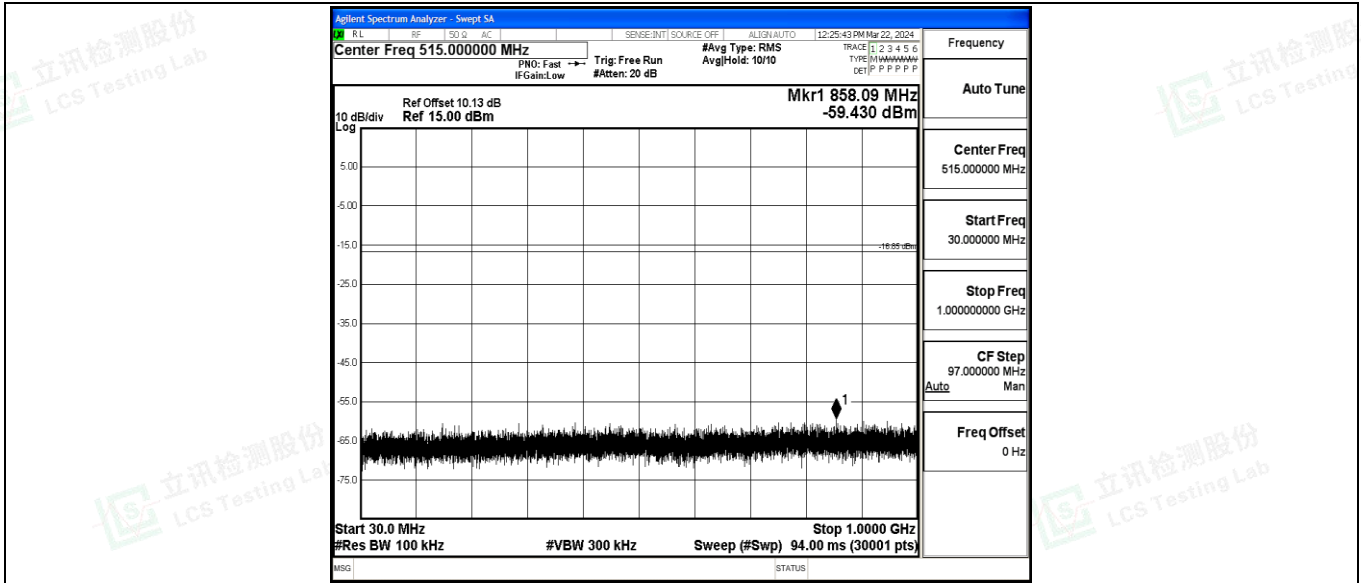


11B_Ant1_2437_1000~26500

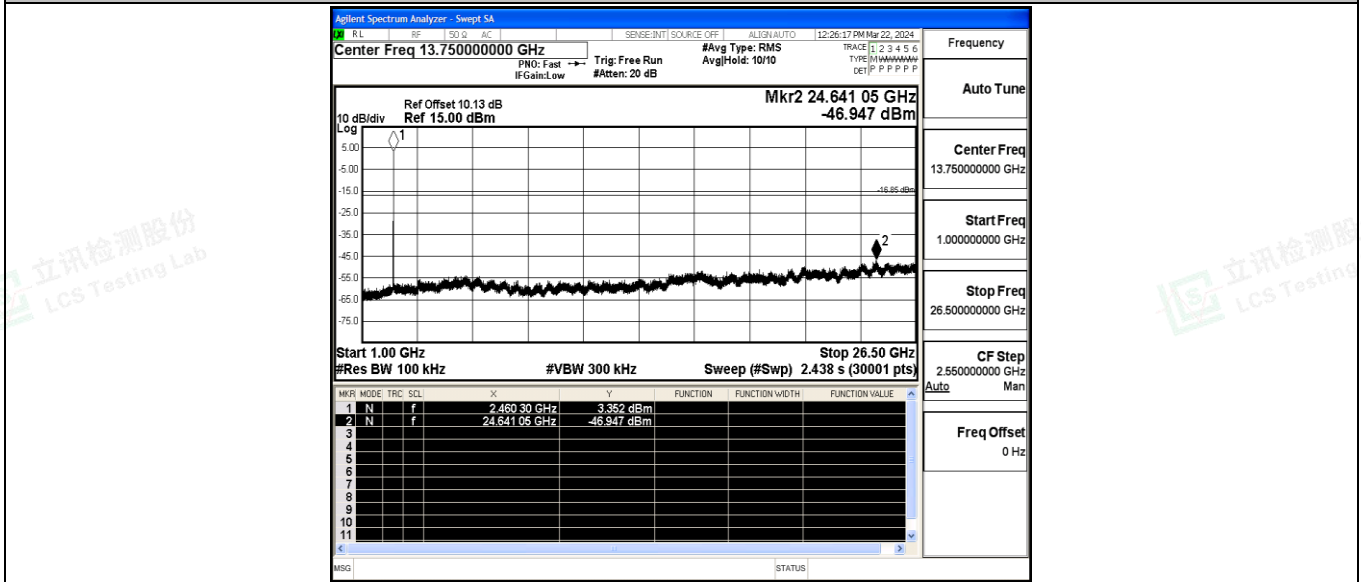


11B_Ant1_2462_30~1000



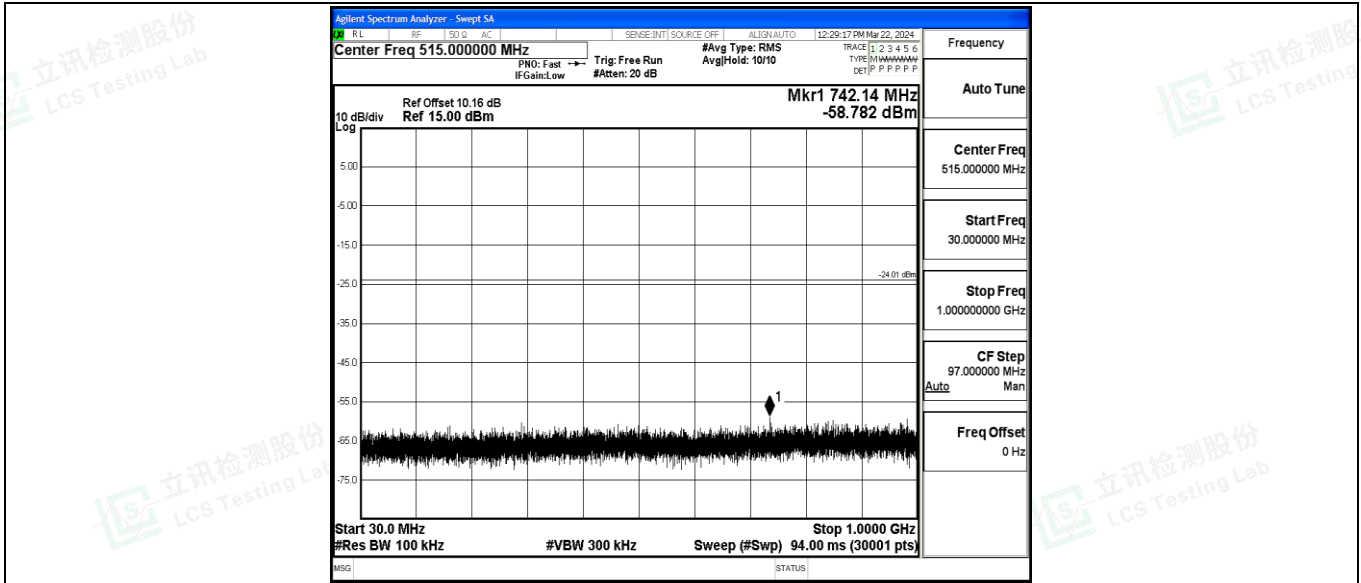


11B_Ant1_2462_1000~26500

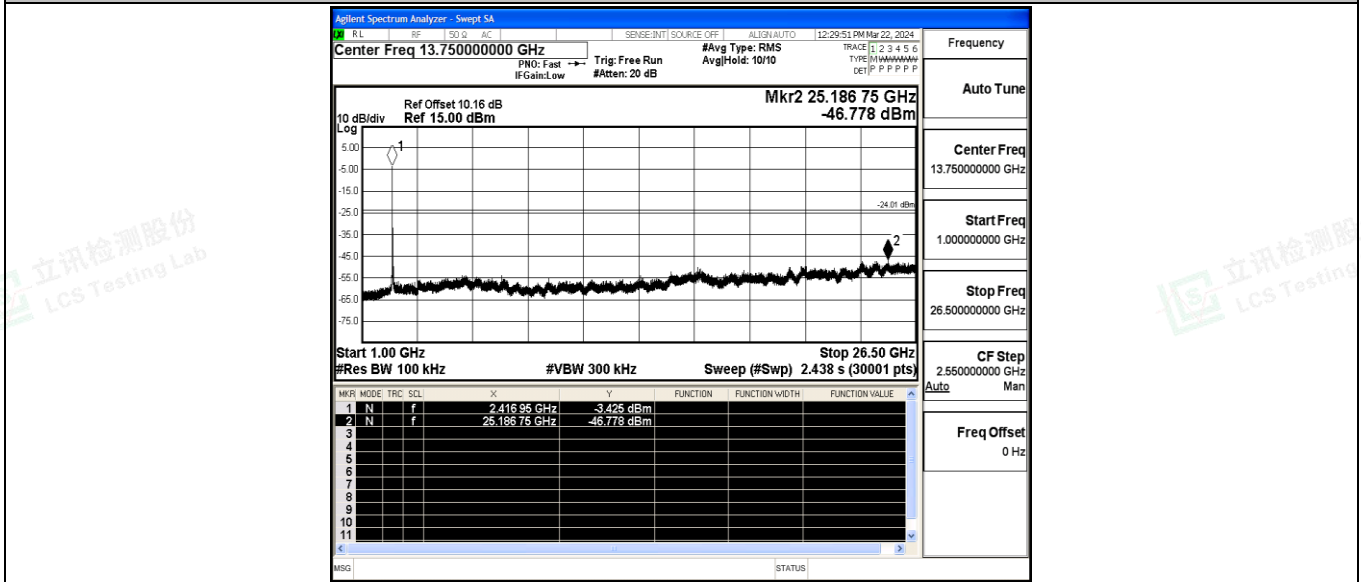


11G_Ant1_2412_30~1000



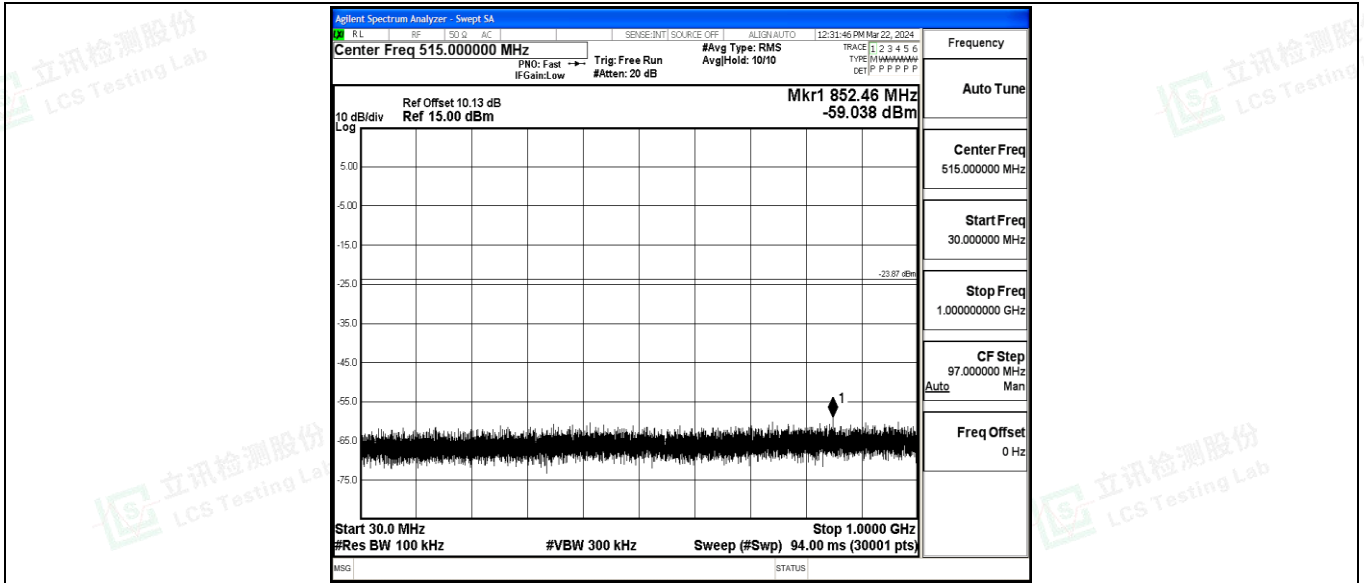


11G_Ant1_2412_1000~26500

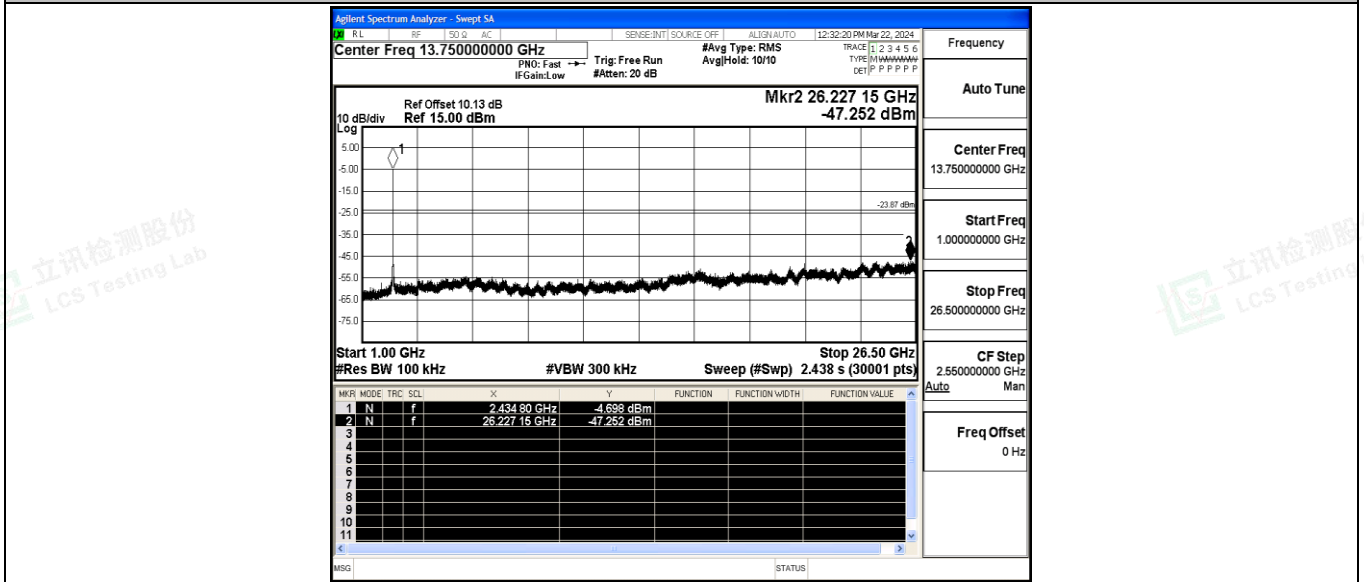


11G_Ant1_2437_30~1000



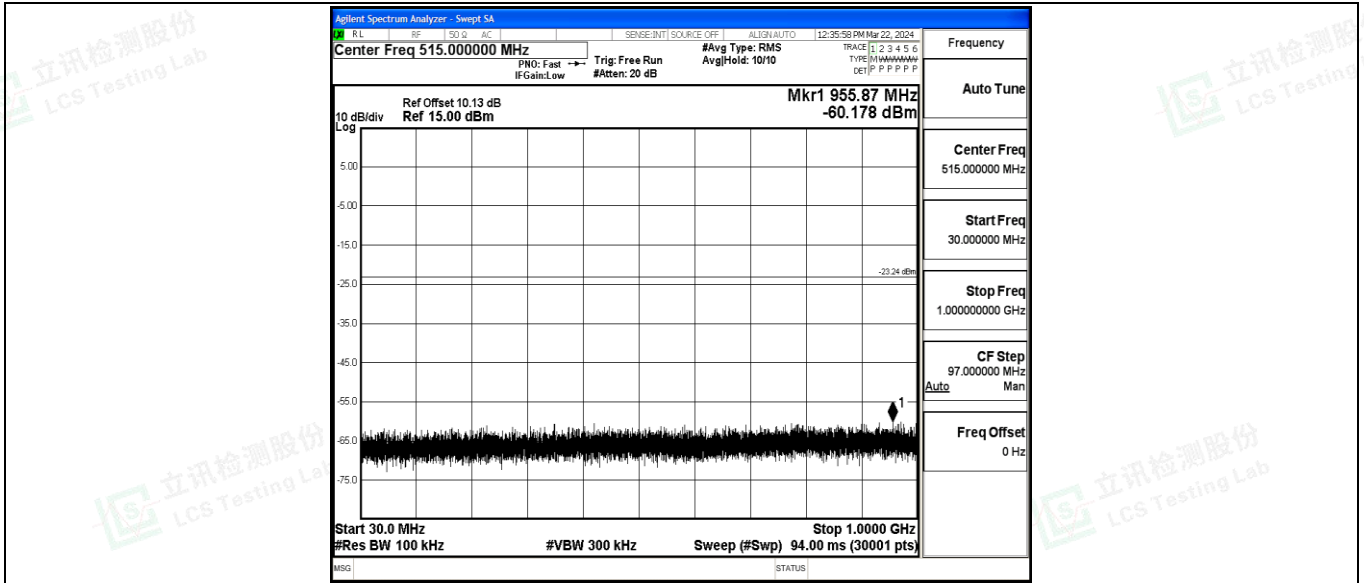


11G_Ant1_2437_1000~26500

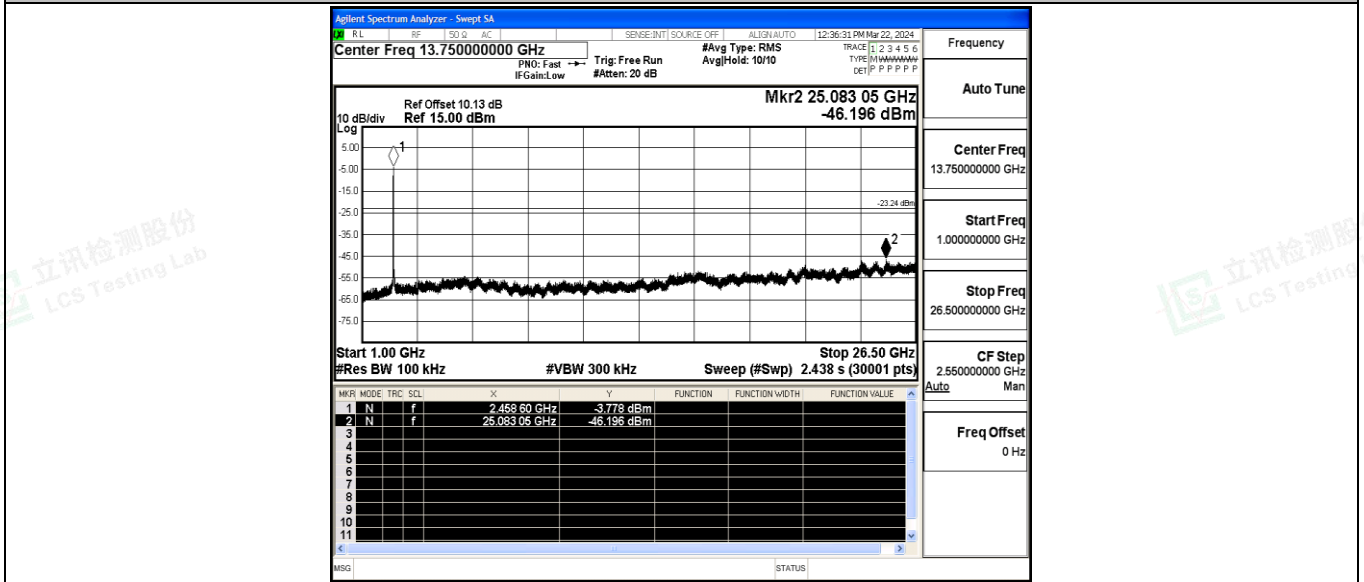


11G_Ant1_2462_30~1000



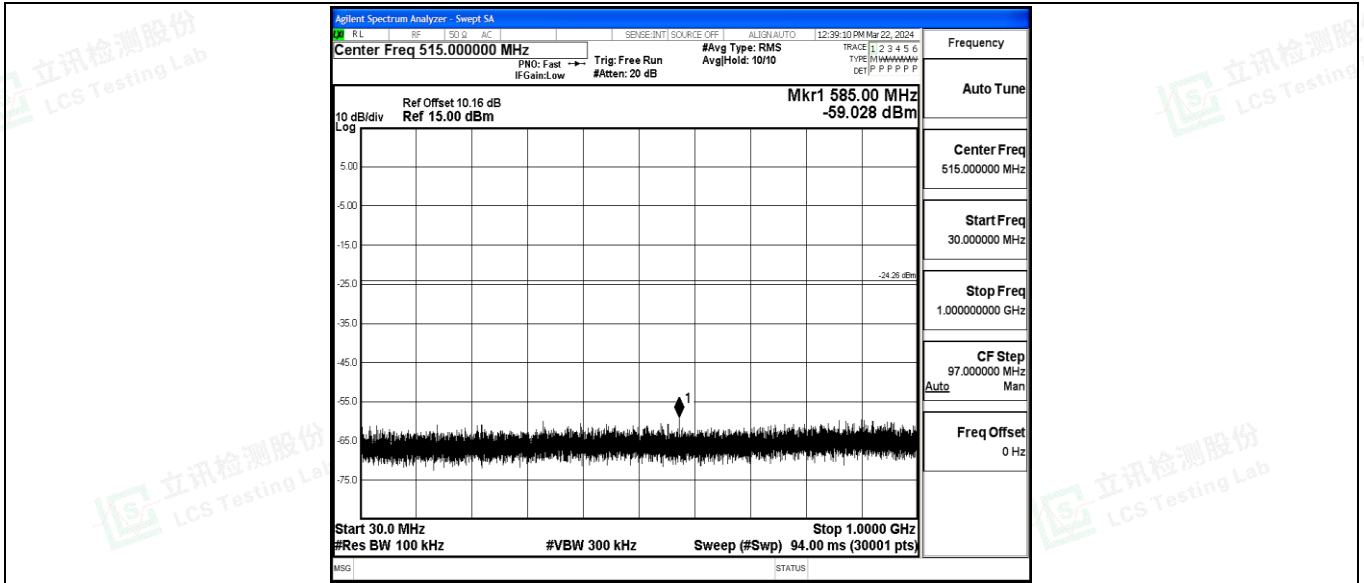


11G_Ant1_2462_1000~26500

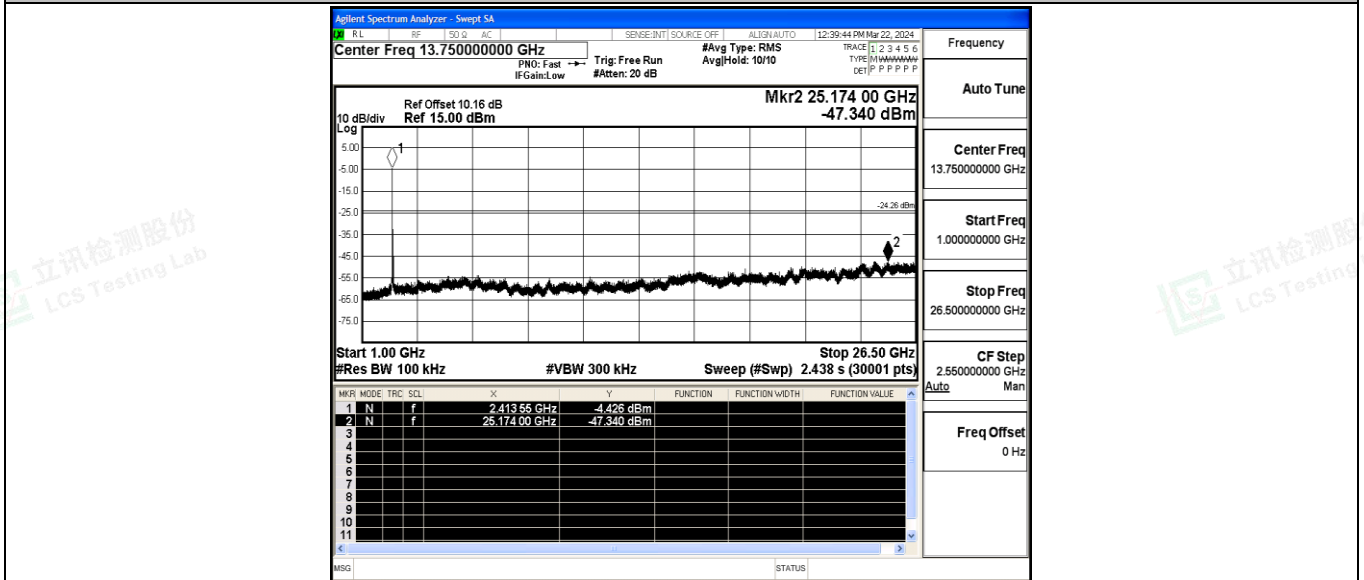


11N20SISO_Ant1_2412_30~1000



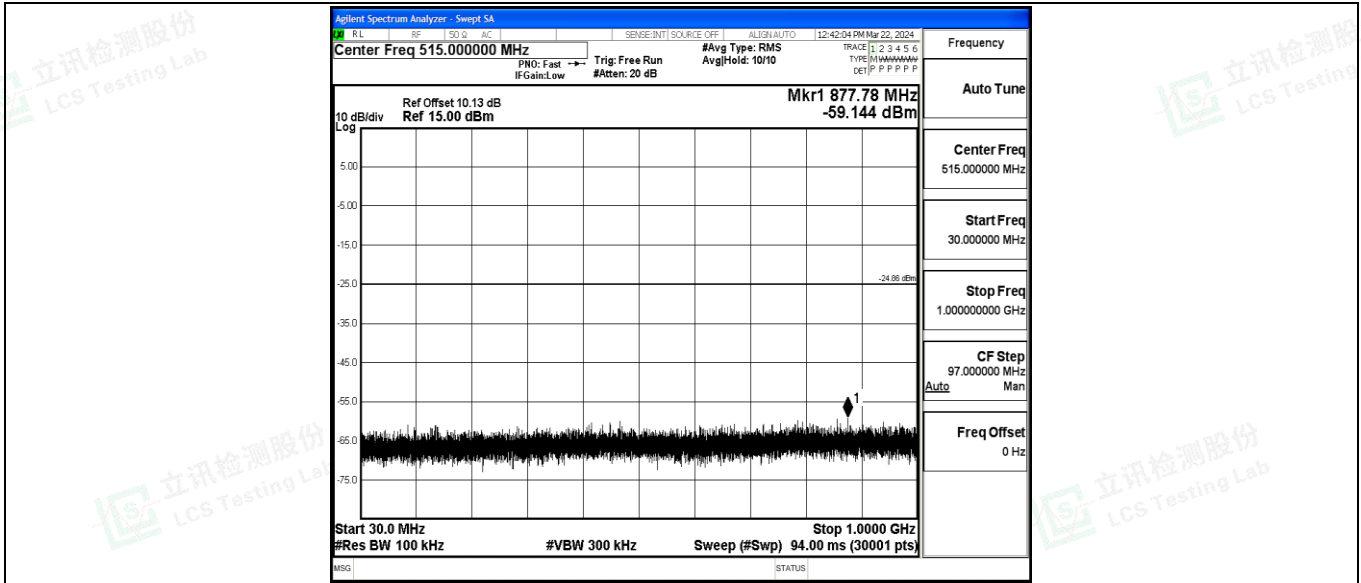


11N20SISO_Ant1_2412_1000~26500

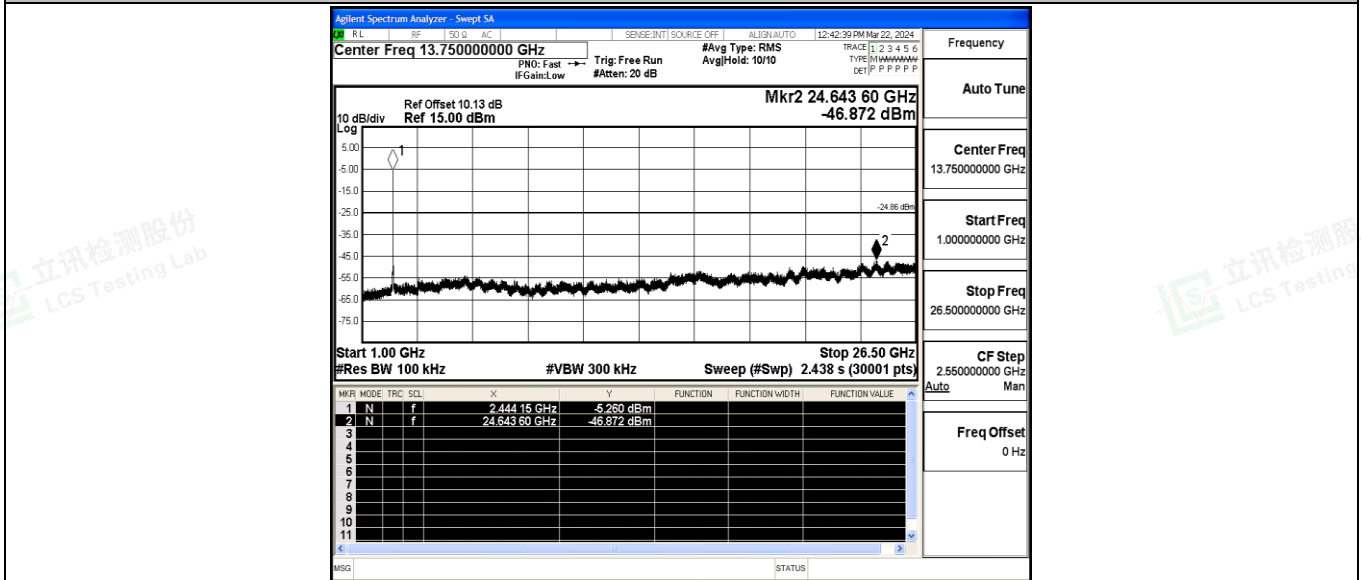


11N20SISO_Ant1_2437_30~1000



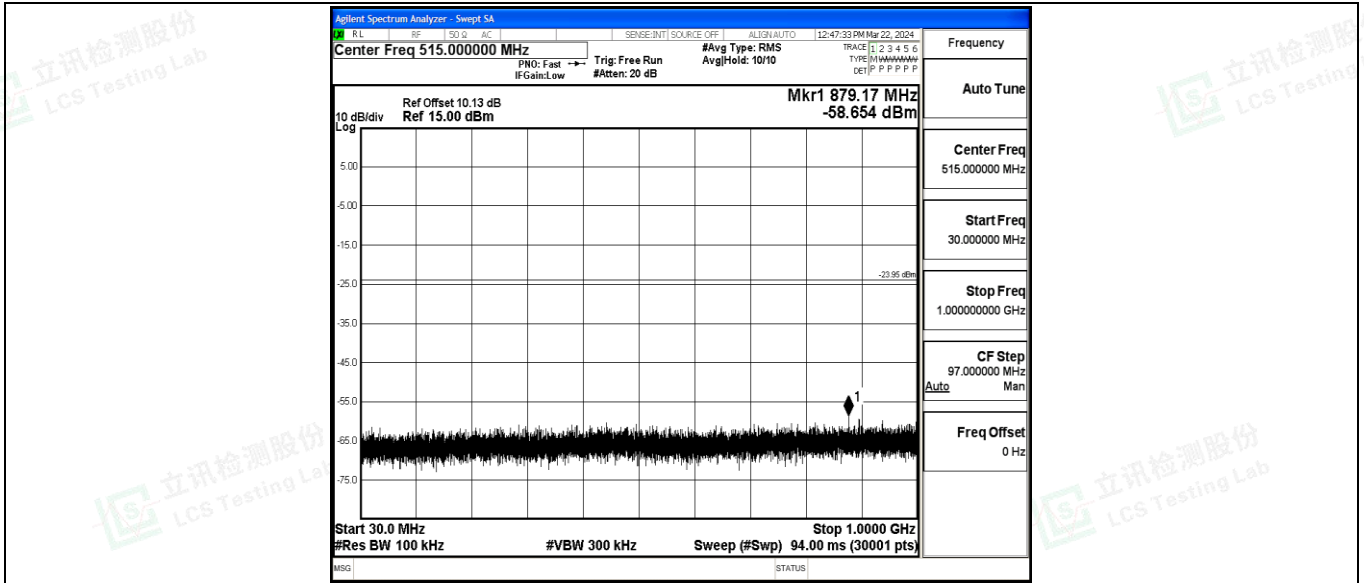


11N20SISO_Ant1_2437_1000~26500

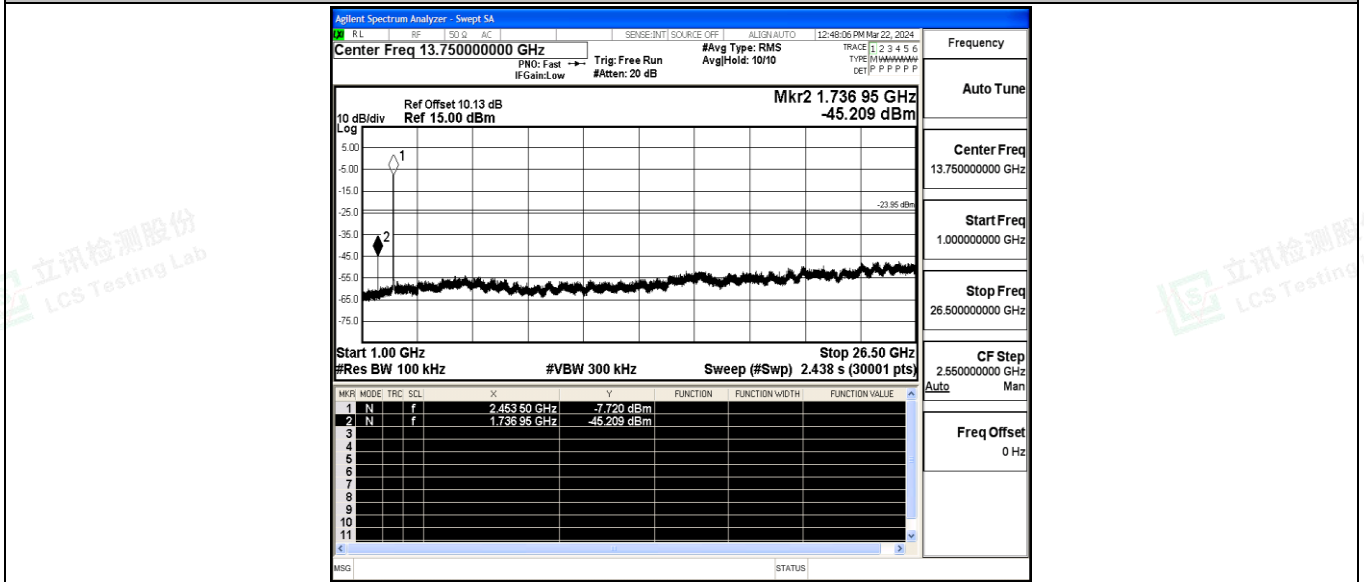


11N20SISO_Ant1_2462_30~1000





11N20SISO_Ant1_2462_1000~26500





Reference level measurement

Test Result

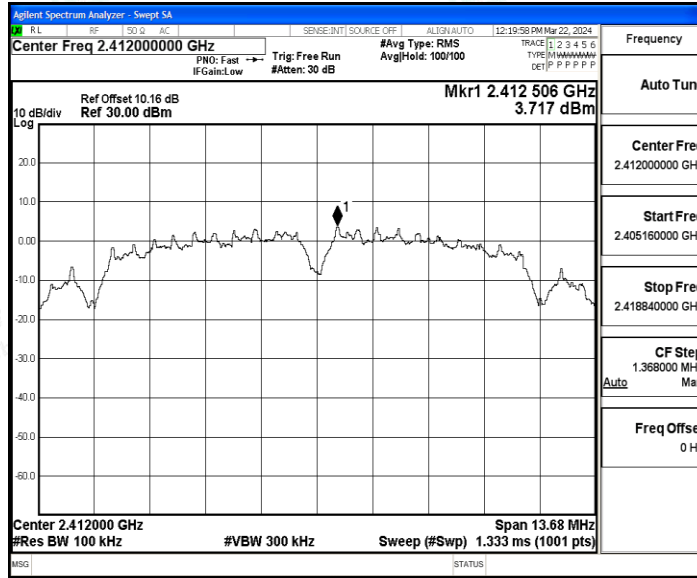
| TestMode | Antenna | Freq(MHz) | Max.Point[MHz] | Result[dBm] |
|-----------|---------|-----------|----------------|-------------|
| 11B | Ant1 | 2412 | 2412.51 | 3.72 |
| | | 2437 | 2436.48 | 3.52 |
| | | 2462 | 2462.98 | 3.15 |
| 11G | Ant1 | 2412 | 2406.96 | -4.01 |
| | | 2437 | 2431.97 | -3.87 |
| | | 2462 | 2466.98 | -3.24 |
| 11N20SISO | Ant1 | 2412 | 2413.27 | -4.26 |
| | | 2437 | 2438.21 | -4.86 |
| | | 2462 | 2466.99 | -3.95 |



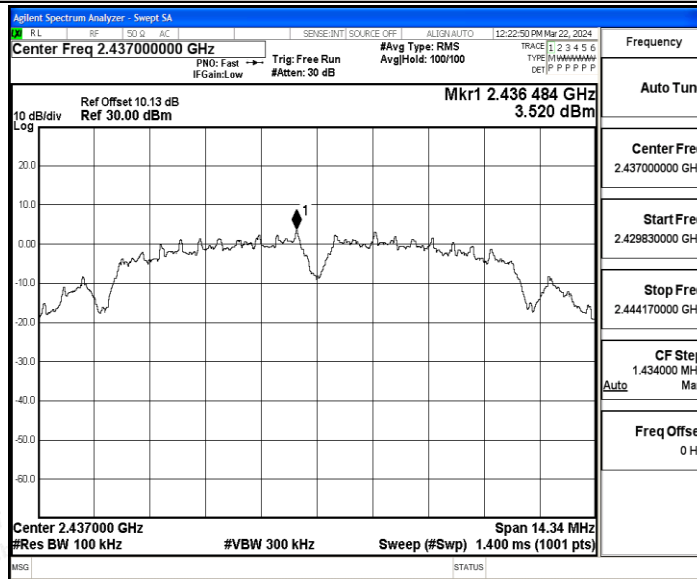


Test Graphs

11B_Ant1_2412

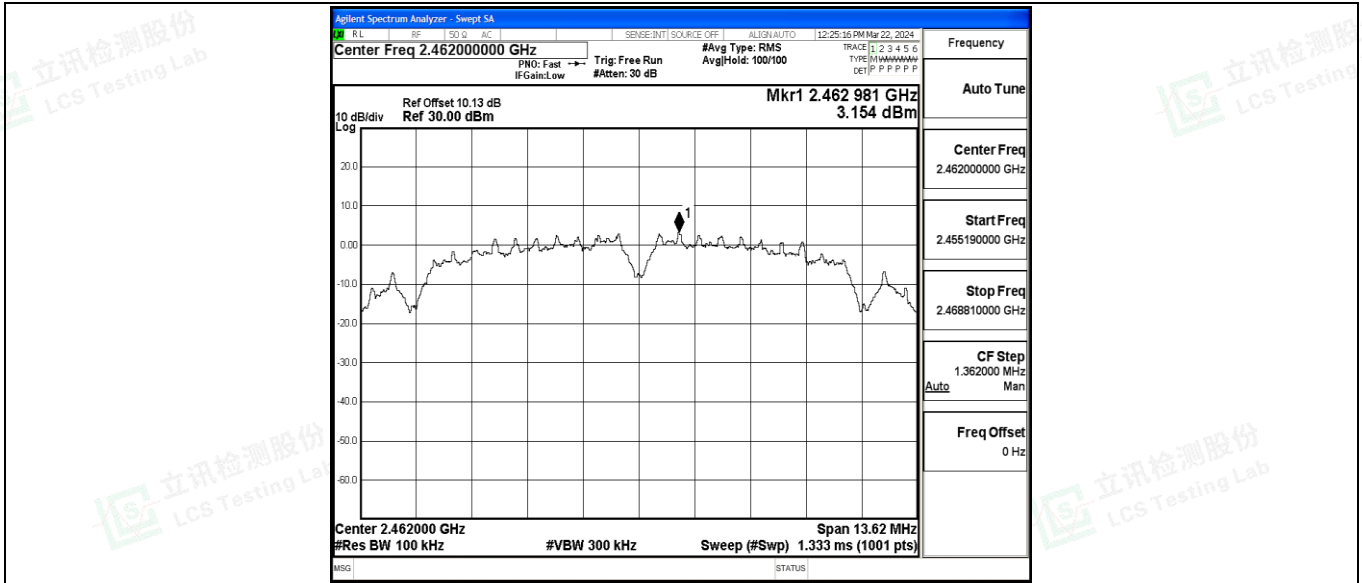


11B_Ant1_2437

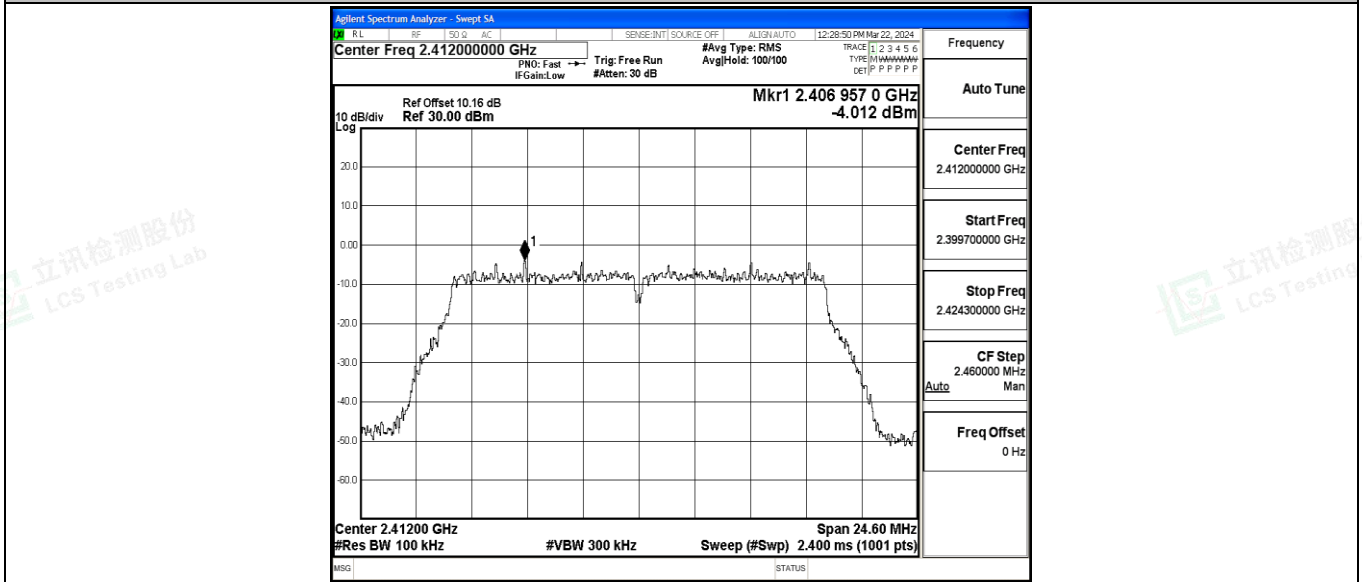


11B_Ant1_2462



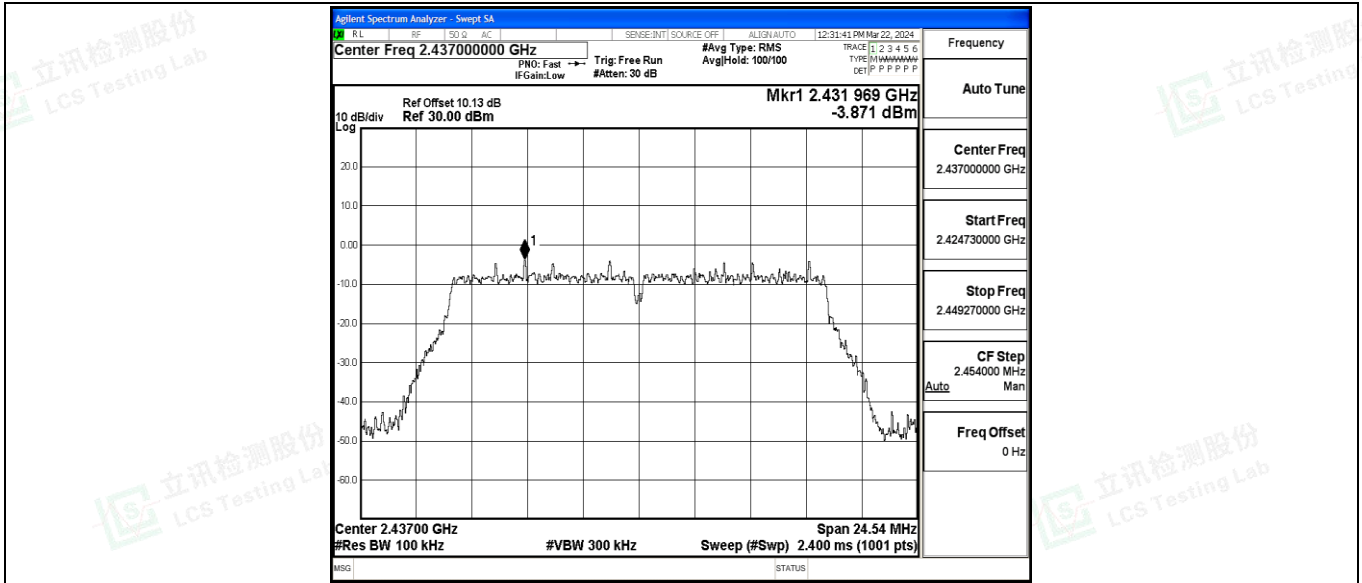


11G_Ant1_2412

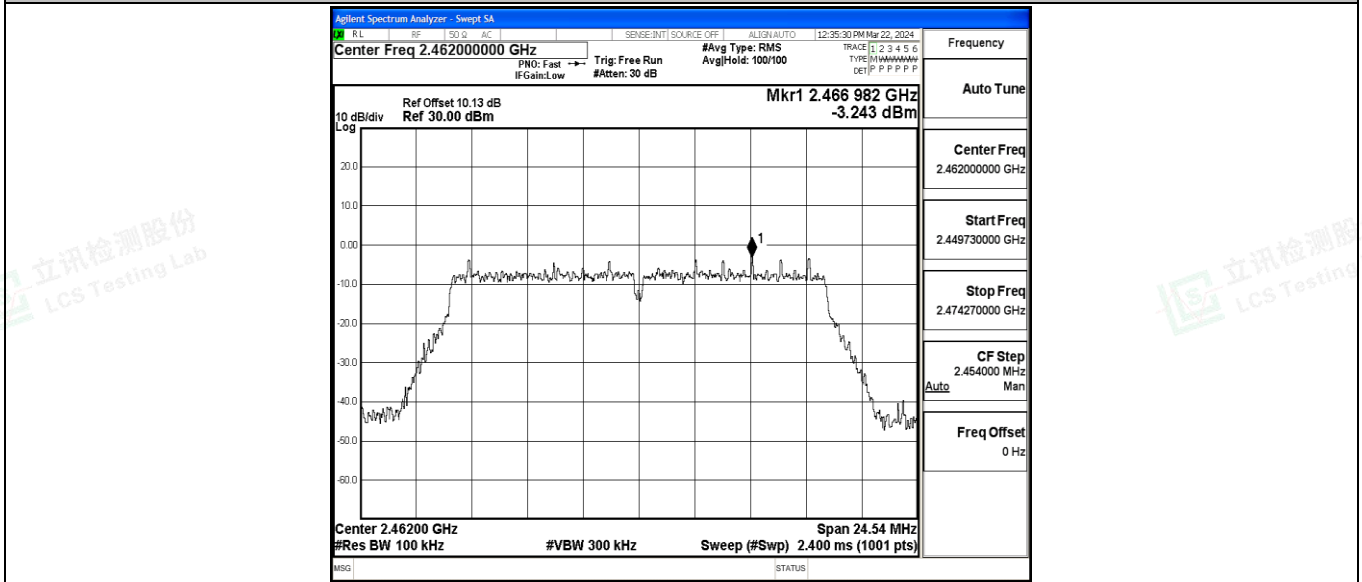


11G_Ant1_2437



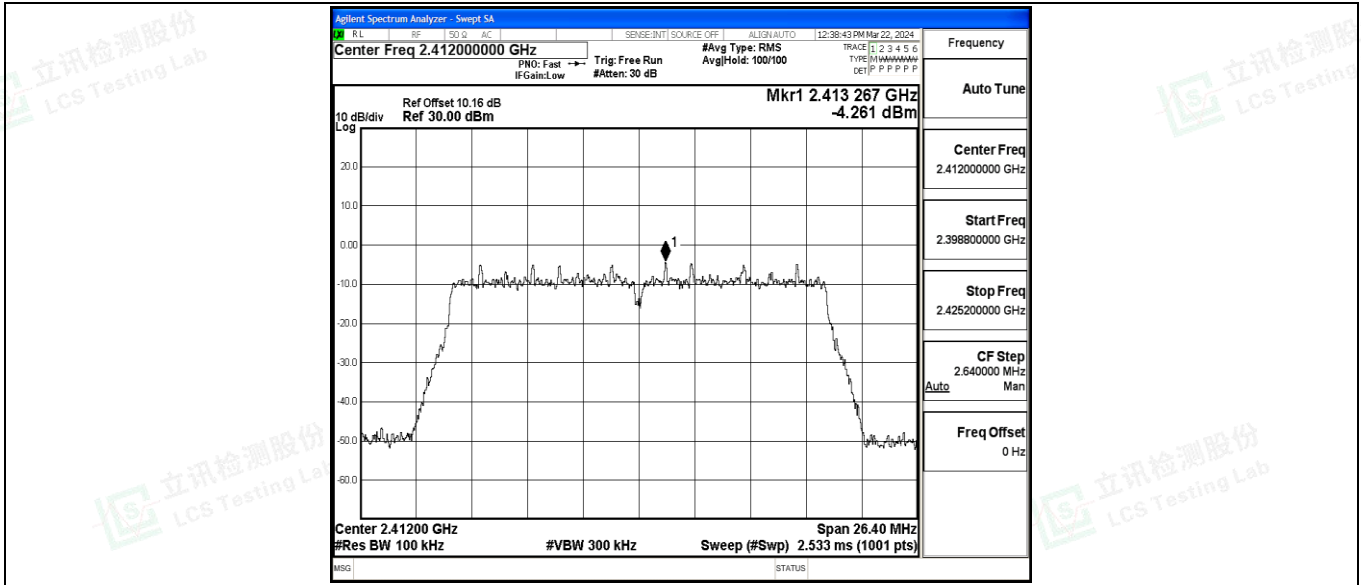


11G_Ant1_2462

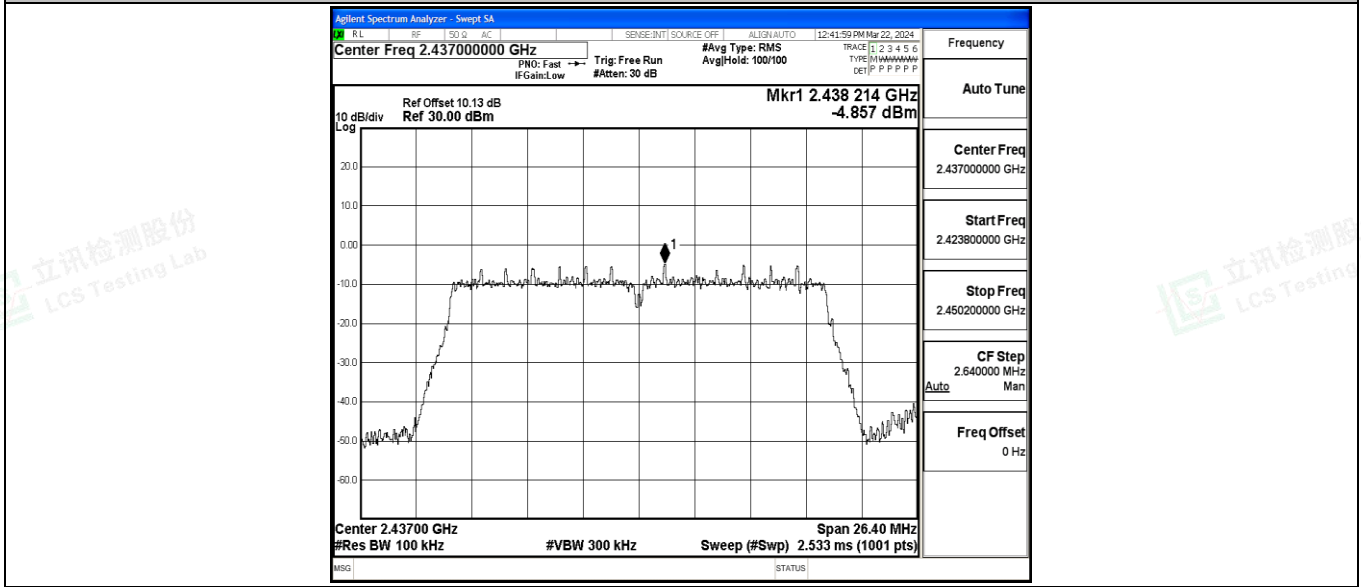


11N20SISO_Ant1_2412



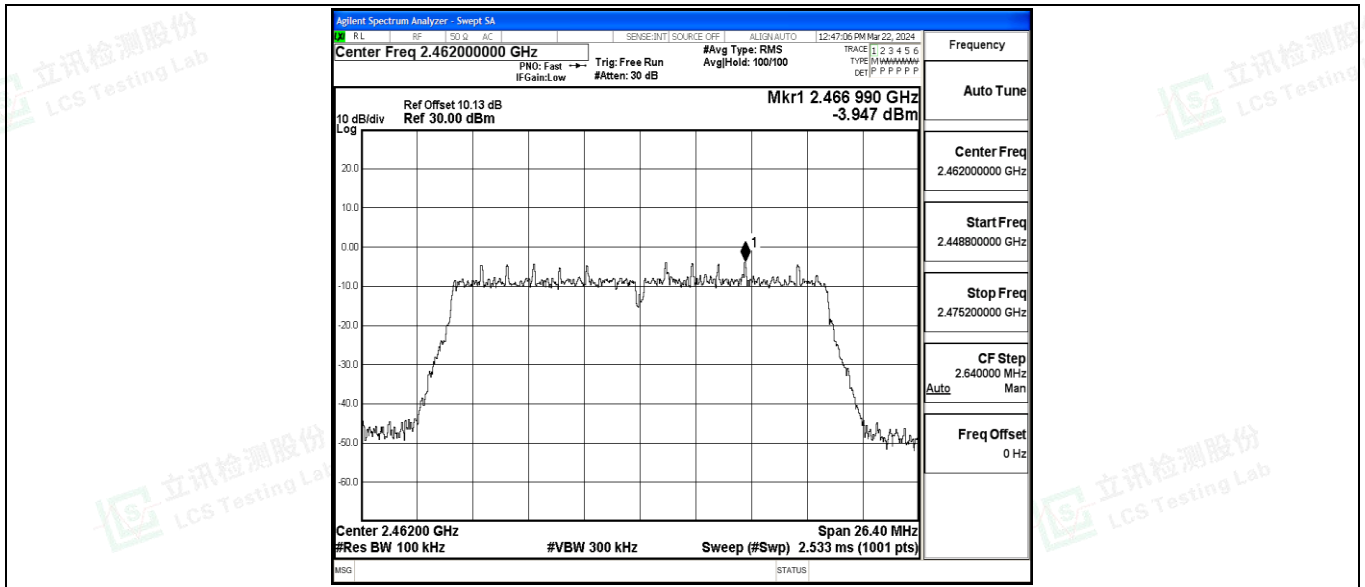


11N20SISO_Ant1_2437



11N20SISO_Ant1_2462







A.6 Duty Cycle

Test Result

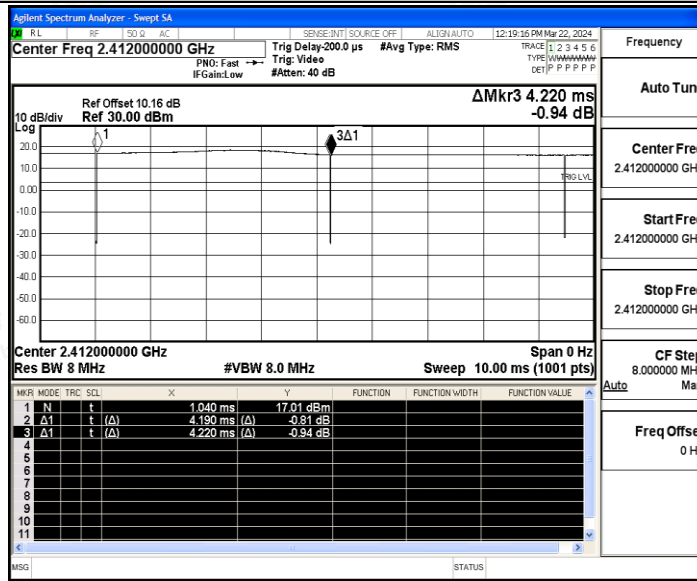
| TestMode | Antenna | Freq(MHz) | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] | Factor | 1/T Factor[kHz] | Verdict |
|-----------|---------|-----------|----------------------------|--------------------------|----------------|--------|-----------------|---------|
| 11B | Ant1 | 2412 | 4.19 | 4.22 | 99.29 | 0.03 | 0.24 | --- |
| | | 2437 | 4.19 | 4.22 | 99.29 | 0.03 | 0.24 | --- |
| | | 2462 | 4.19 | 4.22 | 99.29 | 0.03 | 0.24 | --- |
| 11G | Ant1 | 2412 | 0.69 | 0.73 | 94.52 | 0.24 | 1.45 | --- |
| | | 2437 | 0.69 | 0.73 | 94.52 | 0.24 | 1.45 | --- |
| | | 2462 | 0.69 | 0.73 | 94.52 | 0.24 | 1.45 | --- |
| 11N20SISO | Ant1 | 2412 | 0.65 | 0.69 | 94.20 | 0.26 | 1.54 | --- |
| | | 2437 | 0.66 | 0.70 | 94.29 | 0.26 | 1.52 | --- |
| | | 2462 | 0.66 | 0.70 | 94.29 | 0.26 | 1.52 | --- |



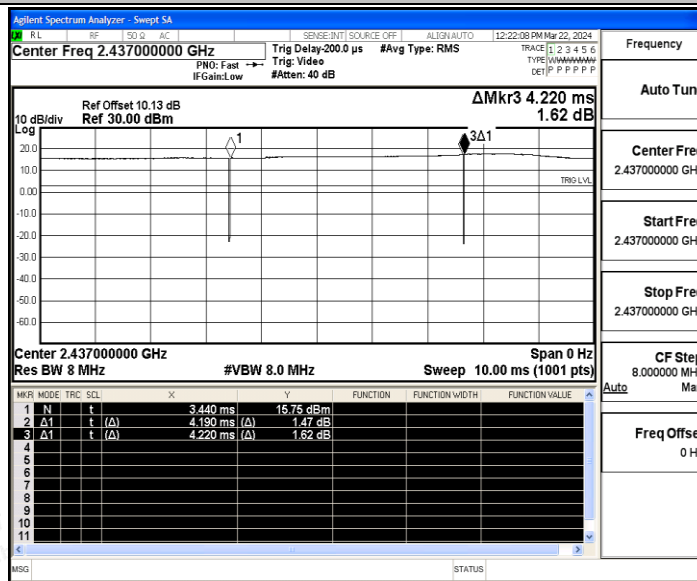


Test Graphs

11B_Ant1_2412

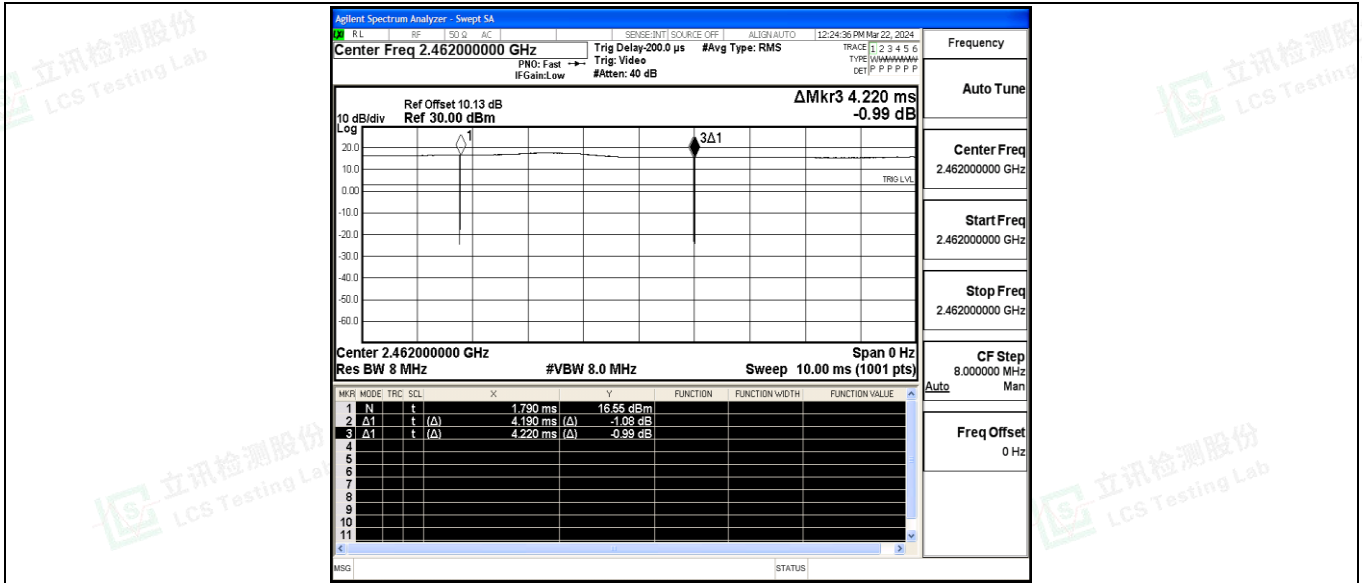


11B_Ant1_2437

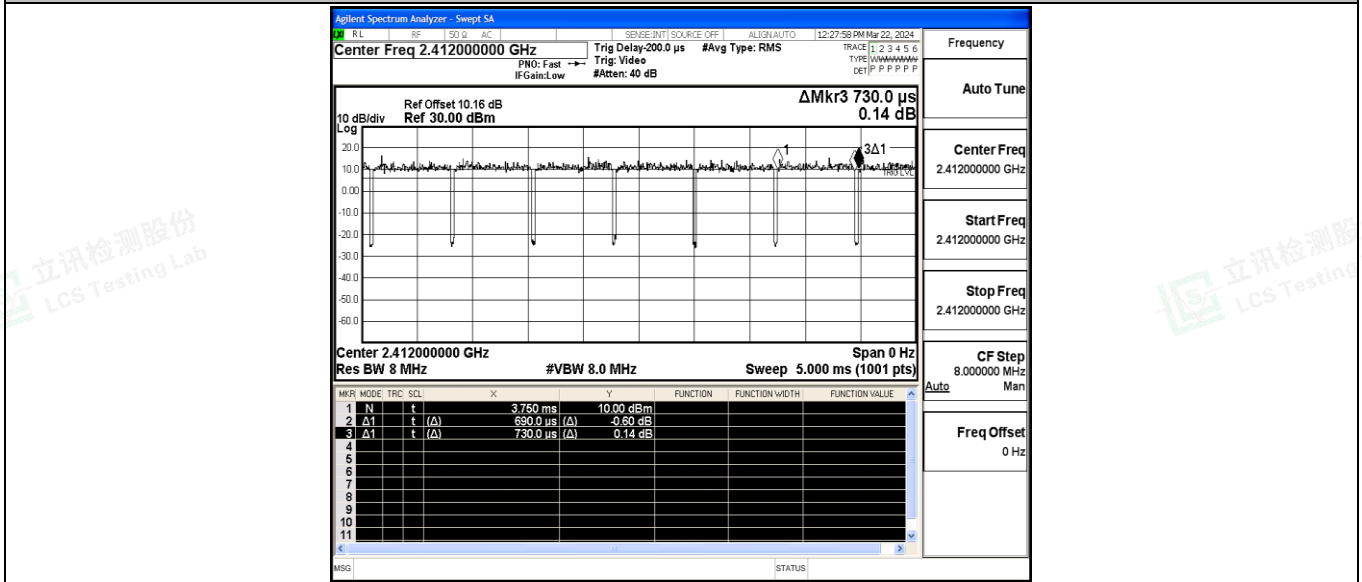


11B_Ant1_2462



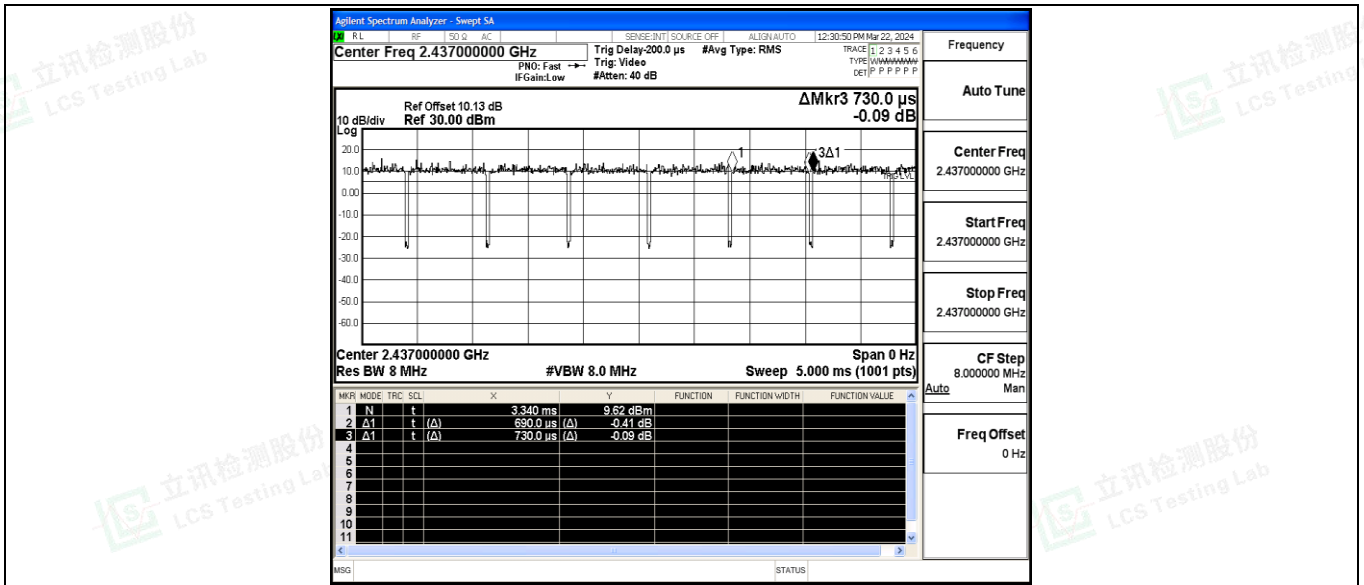


11G_Ant1_2412

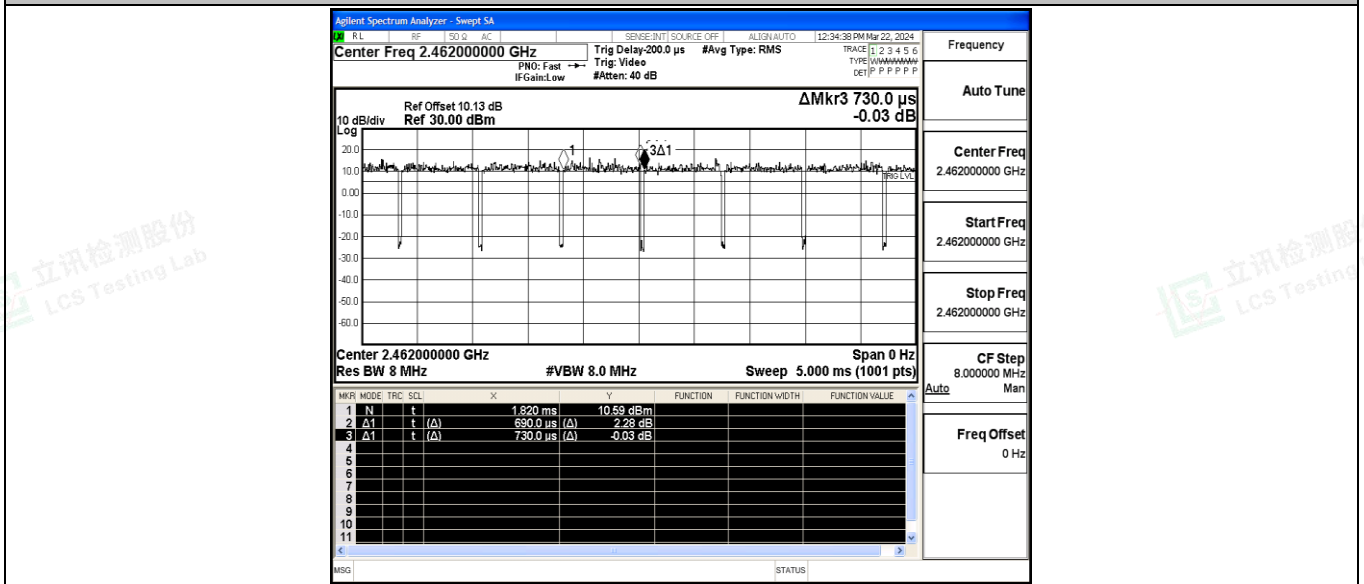


11G_Ant1_2437



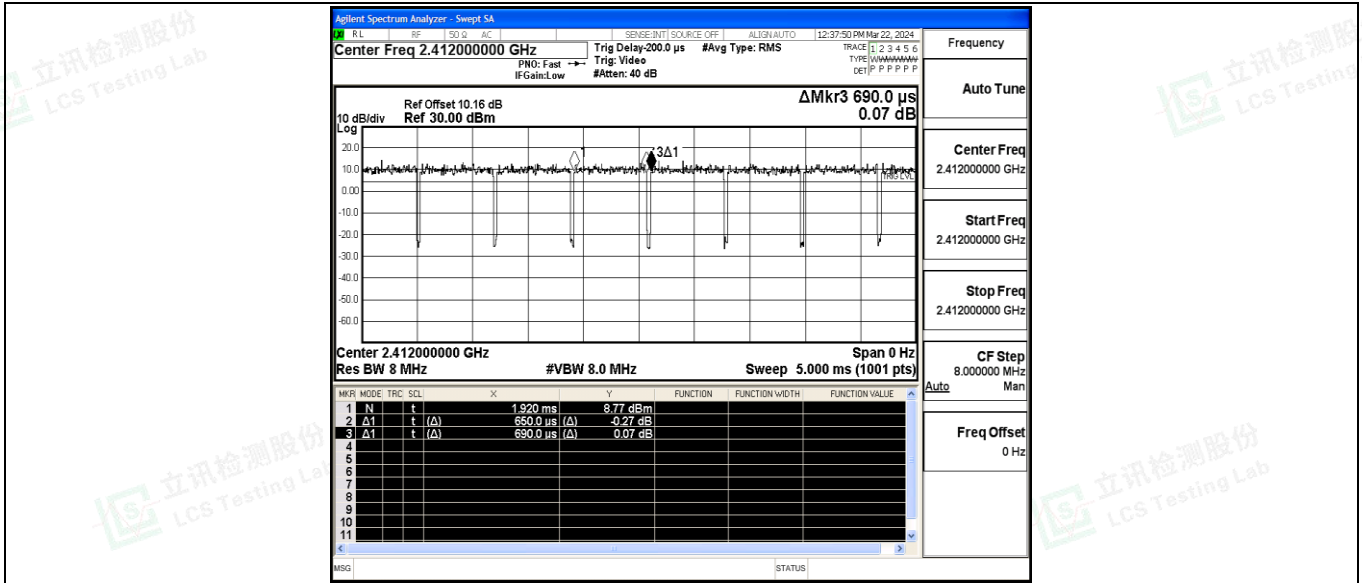


11G_Ant1_2462

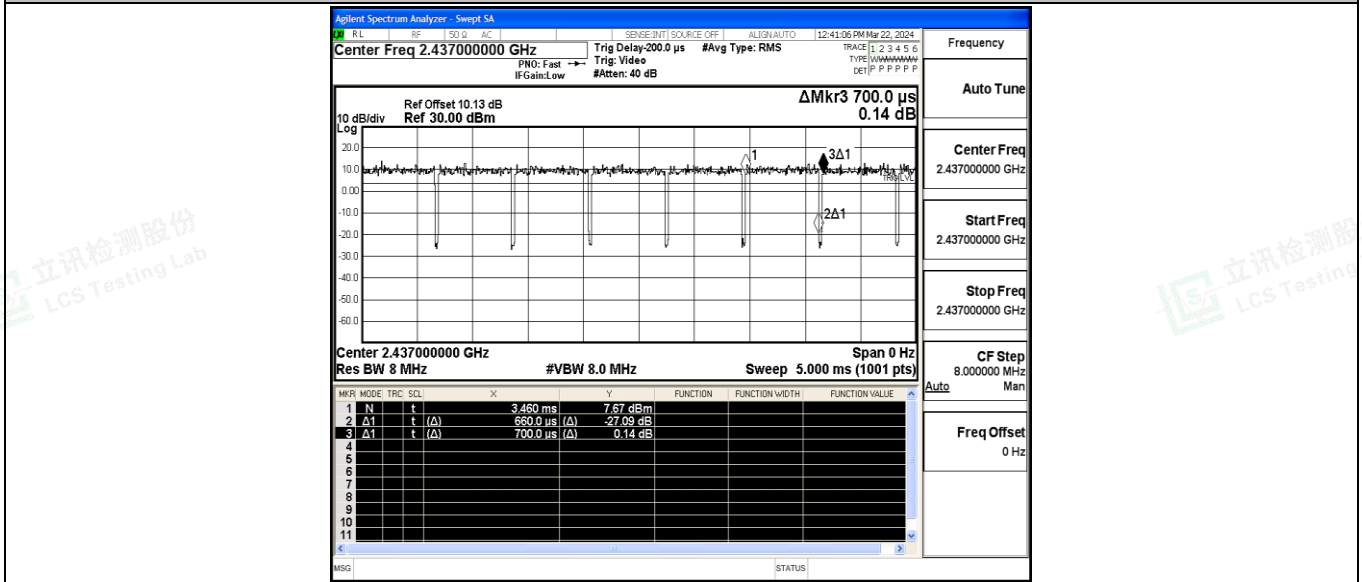


11N20SISO_Ant1_2412



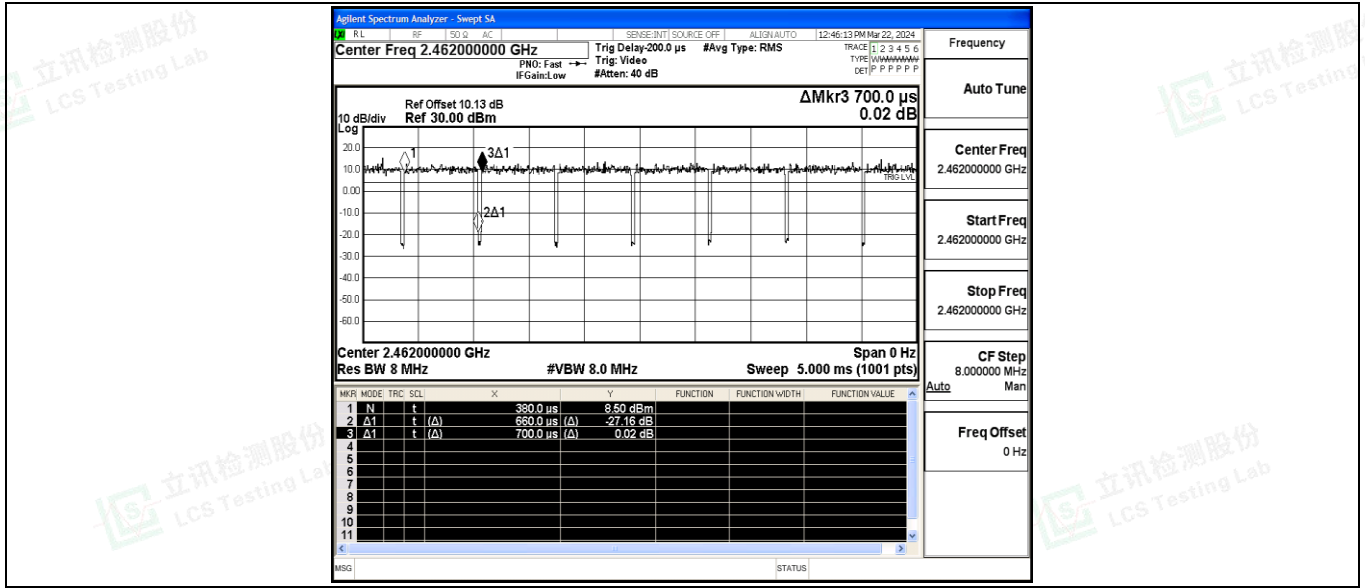


11N20SISO_Ant1_2437



11N20SISO_Ant1_2462







A.7 Emissions in Restricted Bands

Test Result

| TestMode | Antenna | ChName | Freq(MHz) | Detector | Freq [MHz] | Result [dBm] | Limit [dBm] | Result [dBuV/m] | Limit [dBuV/m] | Verdict |
|-----------|---------|--------|-----------|----------|------------|--------------|-------------|-----------------|----------------|---------|
| 11B | Ant1 | Low | 2412 | AV | 2310.000 | -48.81 | ≤-41.20 | 46.39 | ≤54 | PASS |
| | | | | AV | 2339.000 | -46.88 | ≤-41.20 | 48.32 | ≤54 | PASS |
| | | | | AV | 2390.000 | -47.69 | ≤-41.20 | 47.51 | ≤54 | PASS |
| | | | | Peak | 2310.000 | -40.16 | ≤-21.20 | 55.04 | ≤74 | PASS |
| | | | | Peak | 2323.530 | -36.72 | ≤-21.20 | 58.48 | ≤74 | PASS |
| | | | | Peak | 2390.000 | -39.69 | ≤-21.20 | 55.51 | ≤74 | PASS |
| | | High | 2462 | AV | 2483.500 | -47.69 | ≤-41.20 | 47.51 | ≤54 | PASS |
| | | | | AV | 2486.640 | -46.57 | ≤-41.20 | 48.63 | ≤54 | PASS |
| | | | | AV | 2500.000 | -47.3 | ≤-41.20 | 47.90 | ≤54 | PASS |
| | | | | Peak | 2483.500 | -38.07 | ≤-21.20 | 57.13 | ≤74 | PASS |
| | | | | Peak | 2497.750 | -36.56 | ≤-21.20 | 58.64 | ≤74 | PASS |
| | | | | Peak | 2500.000 | -40.07 | ≤-21.20 | 55.13 | ≤74 | PASS |
| 11G | Ant1 | Low | 2412 | AV | 2310.000 | -47.92 | ≤-41.20 | 47.28 | ≤54 | PASS |
| | | | | AV | 2389.180 | -46.06 | ≤-41.20 | 49.14 | ≤54 | PASS |
| | | | | AV | 2390.000 | -46.63 | ≤-41.20 | 48.57 | ≤54 | PASS |
| | | | | Peak | 2310.000 | -40.31 | ≤-21.20 | 54.89 | ≤74 | PASS |
| | | | | Peak | 2375.660 | -35.22 | ≤-21.20 | 59.98 | ≤74 | PASS |
| | | | | Peak | 2390.000 | -38.75 | ≤-21.20 | 56.45 | ≤74 | PASS |
| | | High | 2462 | AV | 2483.500 | -45.75 | ≤-41.20 | 49.45 | ≤54 | PASS |
| | | | | AV | 2484.550 | -45.31 | ≤-41.20 | 49.89 | ≤54 | PASS |
| | | | | AV | 2500.000 | -47.07 | ≤-41.20 | 48.13 | ≤54 | PASS |
| | | | | Peak | 2483.500 | -37.78 | ≤-21.20 | 57.42 | ≤74 | PASS |
| | | | | Peak | 2483.780 | -35.39 | ≤-21.20 | 59.81 | ≤74 | PASS |
| | | | | Peak | 2500.000 | -36.3 | ≤-21.20 | 58.90 | ≤74 | PASS |
| 11N20SISO | Ant1 | Low | 2412 | AV | 2310.000 | -47.82 | ≤-41.20 | 47.38 | ≤54 | PASS |
| | | | | AV | 2389.960 | -46.24 | ≤-41.20 | 48.96 | ≤54 | PASS |
| | | | | AV | 2390.000 | -46.24 | ≤-41.20 | 48.96 | ≤54 | PASS |
| | | | | Peak | 2310.000 | -40.43 | ≤-21.20 | 54.77 | ≤74 | PASS |
| | | | | Peak | 2313.650 | -36.48 | ≤-21.20 | 58.72 | ≤74 | PASS |
| | | | | Peak | 2390.000 | -38.42 | ≤-21.20 | 56.78 | ≤74 | PASS |
| | | High | 2462 | AV | 2483.500 | -46.29 | ≤-41.20 | 48.91 | ≤54 | PASS |
| | | | | AV | 2483.780 | -45.84 | ≤-41.20 | 49.36 | ≤54 | PASS |
| | | | | AV | 2500.000 | -47.19 | ≤-41.20 | 48.01 | ≤54 | PASS |
| | | | | Peak | 2483.500 | -38.52 | ≤-21.20 | 56.68 | ≤74 | PASS |
| | | | | Peak | 2493.570 | -36.2 | ≤-21.20 | 59.00 | ≤74 | PASS |
| | | | | Peak | 2500.000 | -38.32 | ≤-21.20 | 56.88 | ≤74 | PASS |



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



Note:

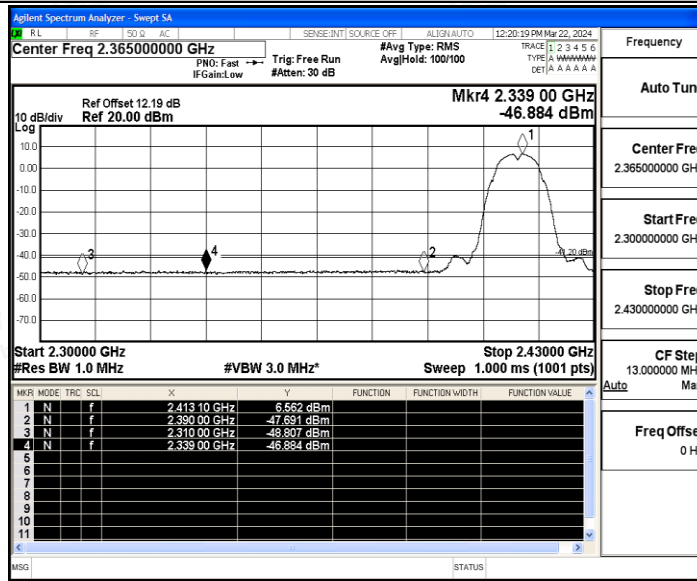
1. The Antenna Gain is compensated in the graph. The Correction Factor is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



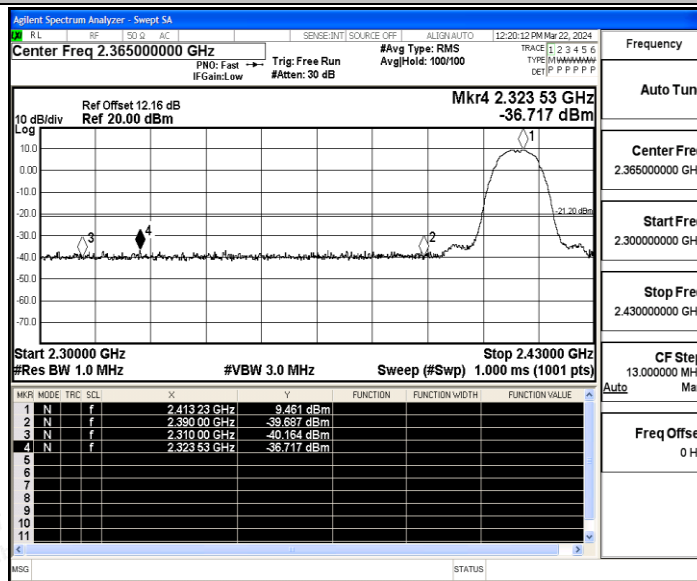


Test Graphs

11B_Ant1_Low_2412_AV

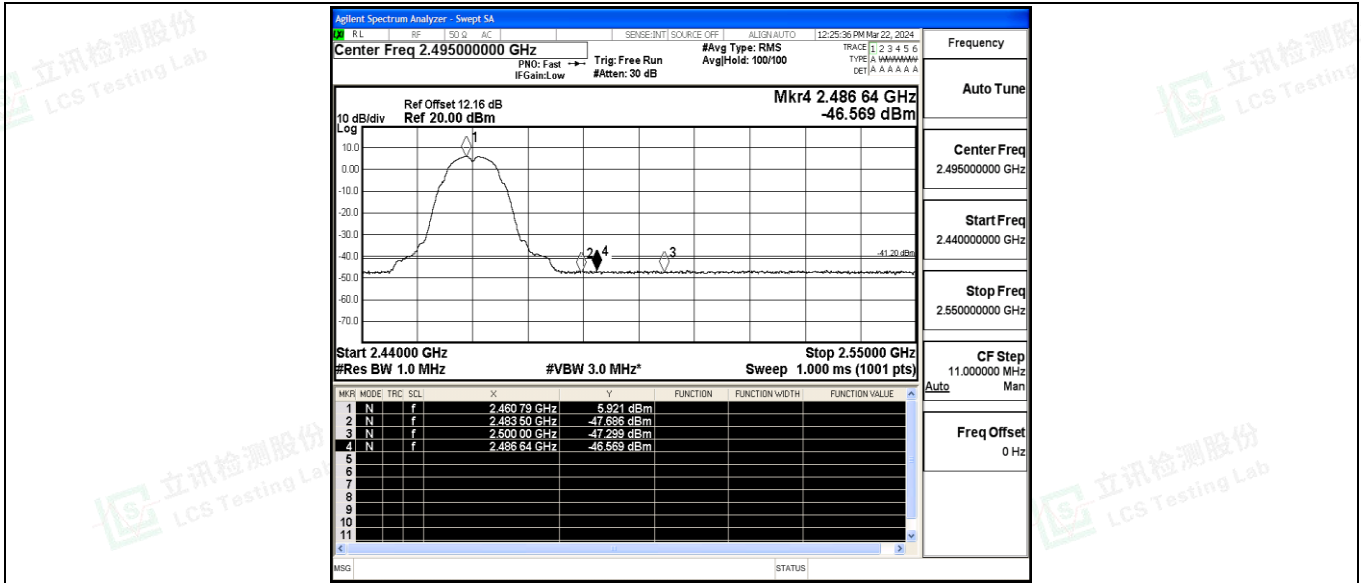


11B_Ant1_Low_2412_Peak

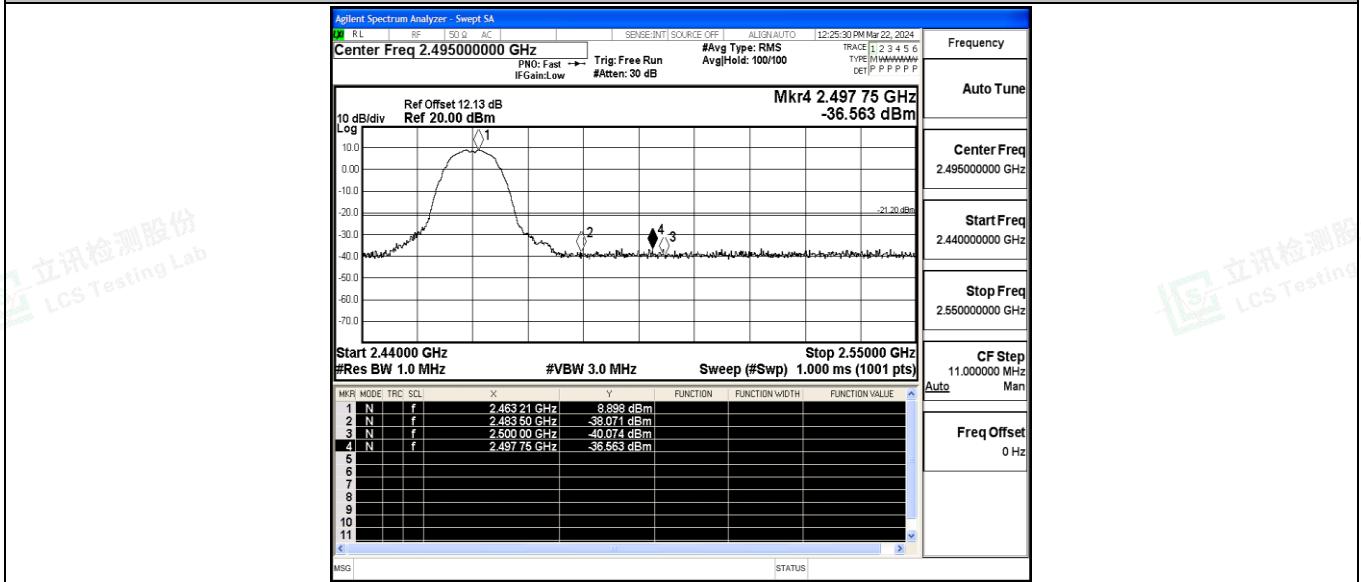


11B_Ant1_High_2462_AV



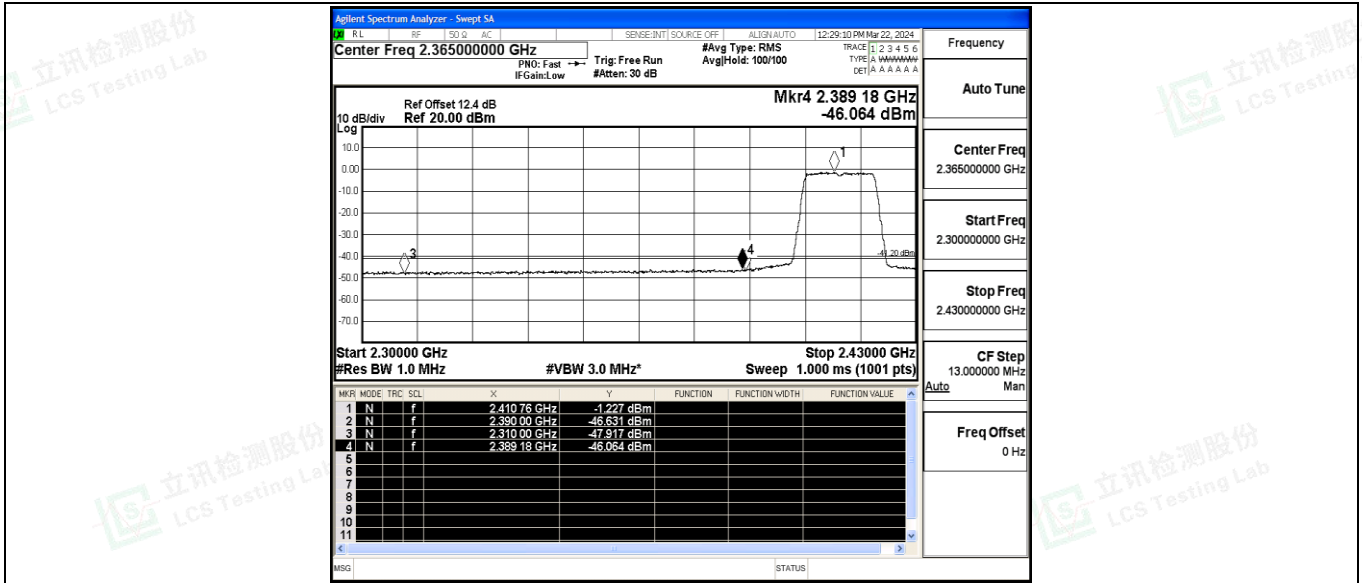


11B_Ant1_High_2462_Peak

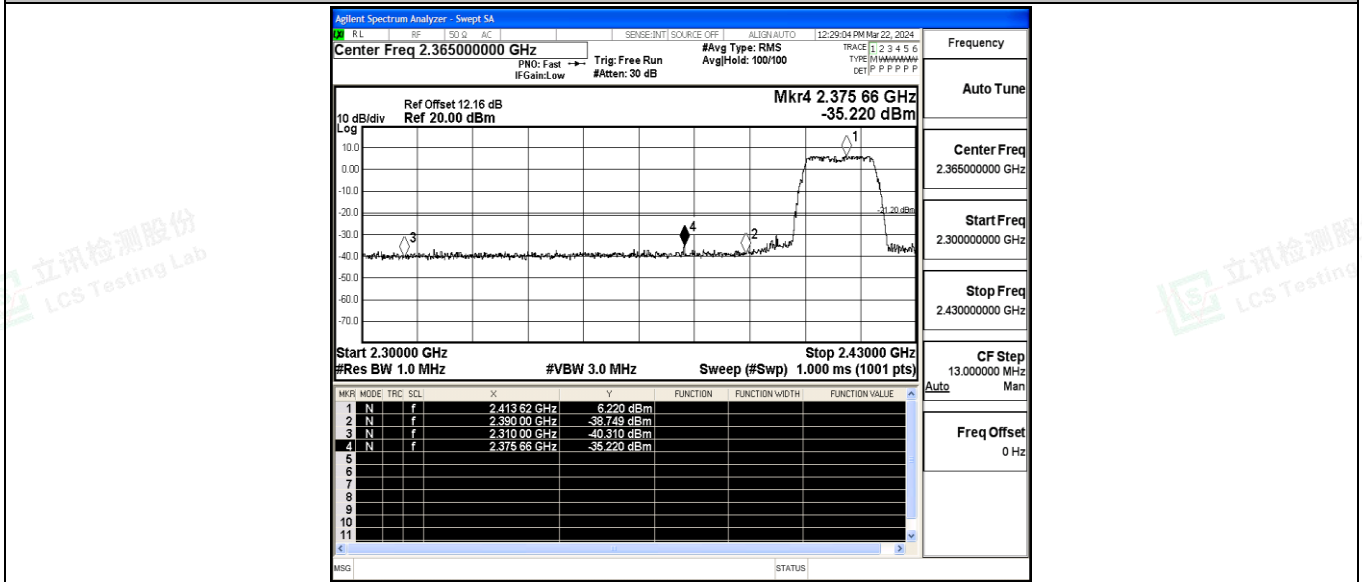


11G_Ant1_Low_2412_AV



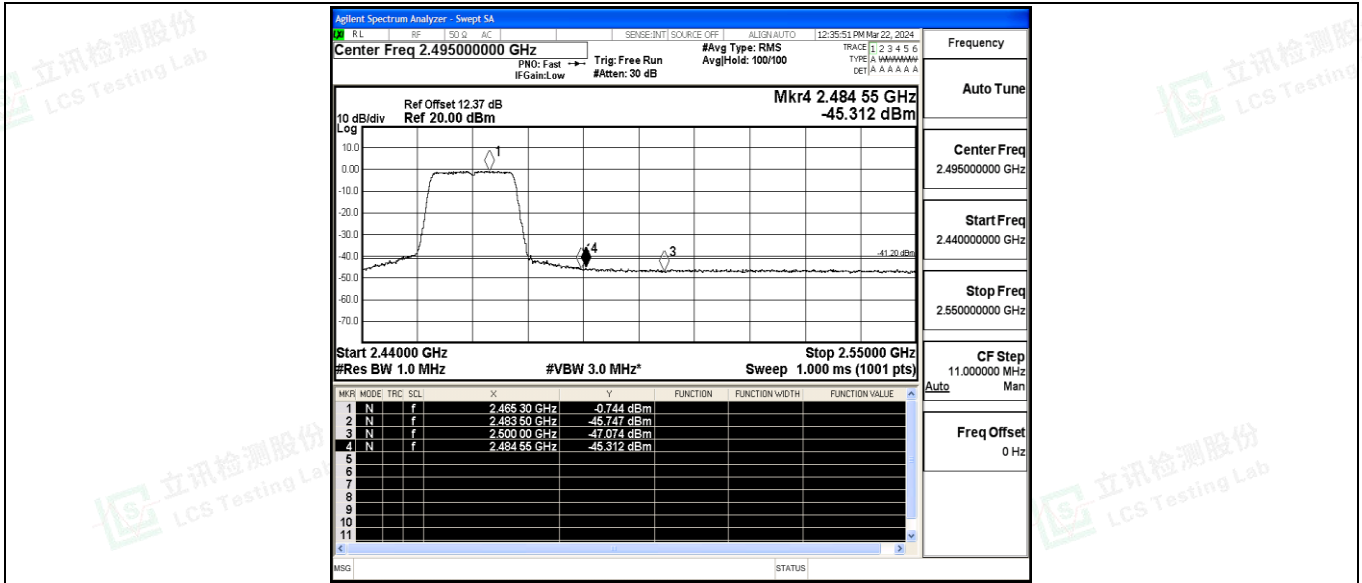


11G_Ant1_Low_2412_Peak

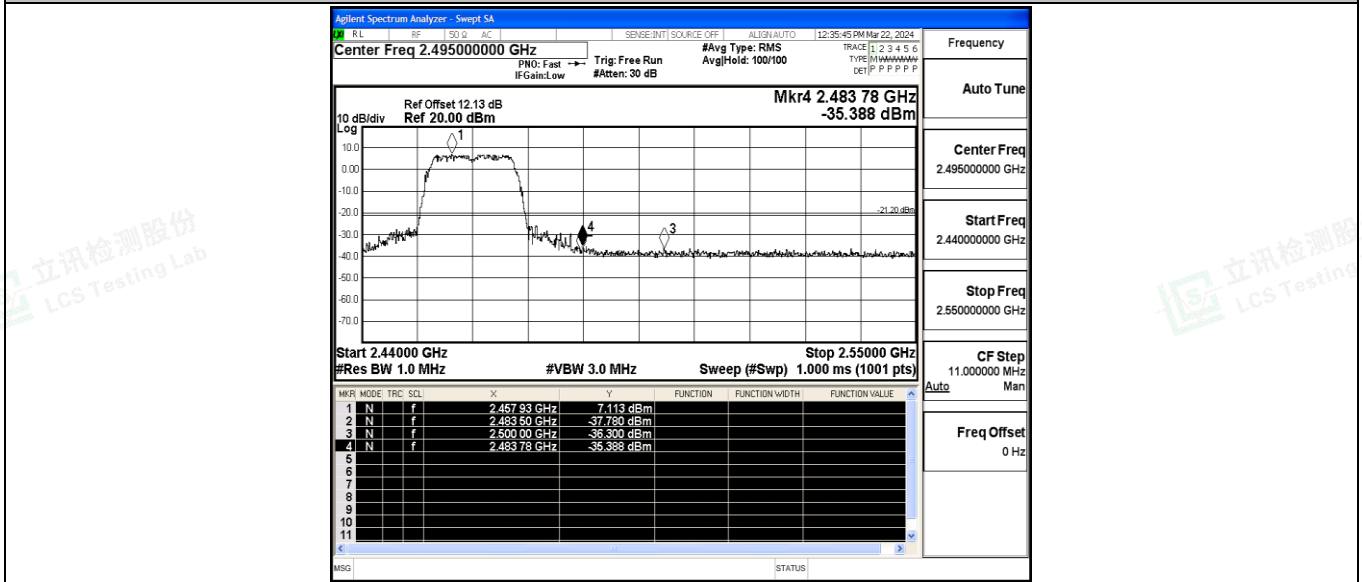


11G_Ant1_High_2462_AV



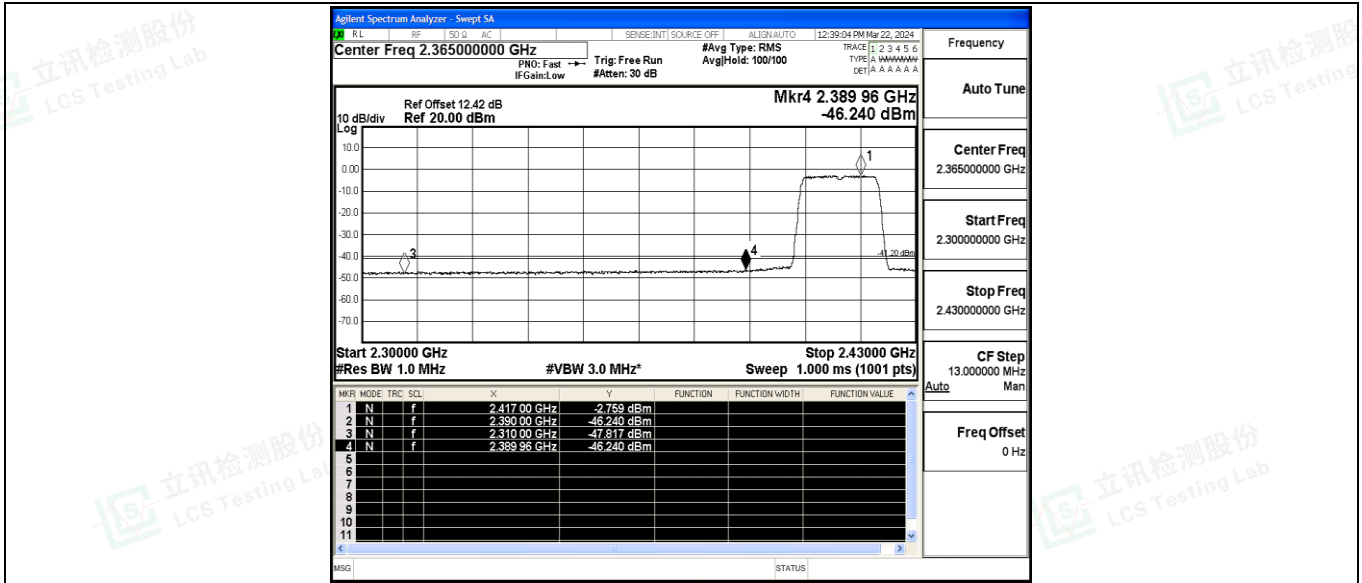


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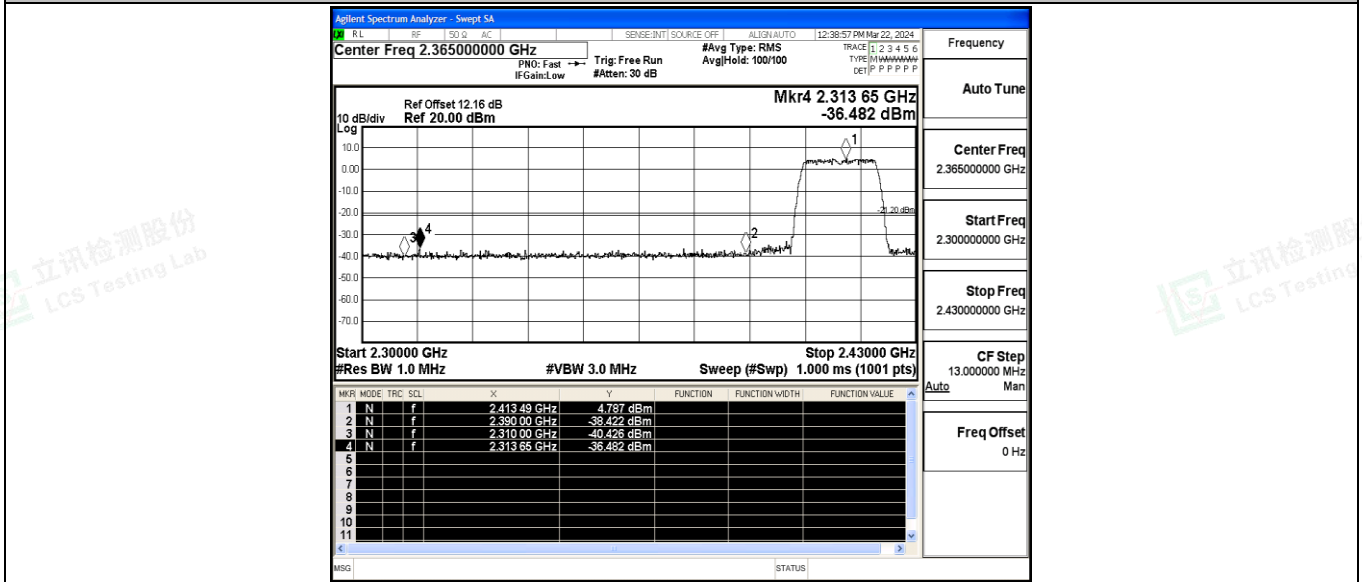


11N20SISO_Ant1_Low_2412_AV



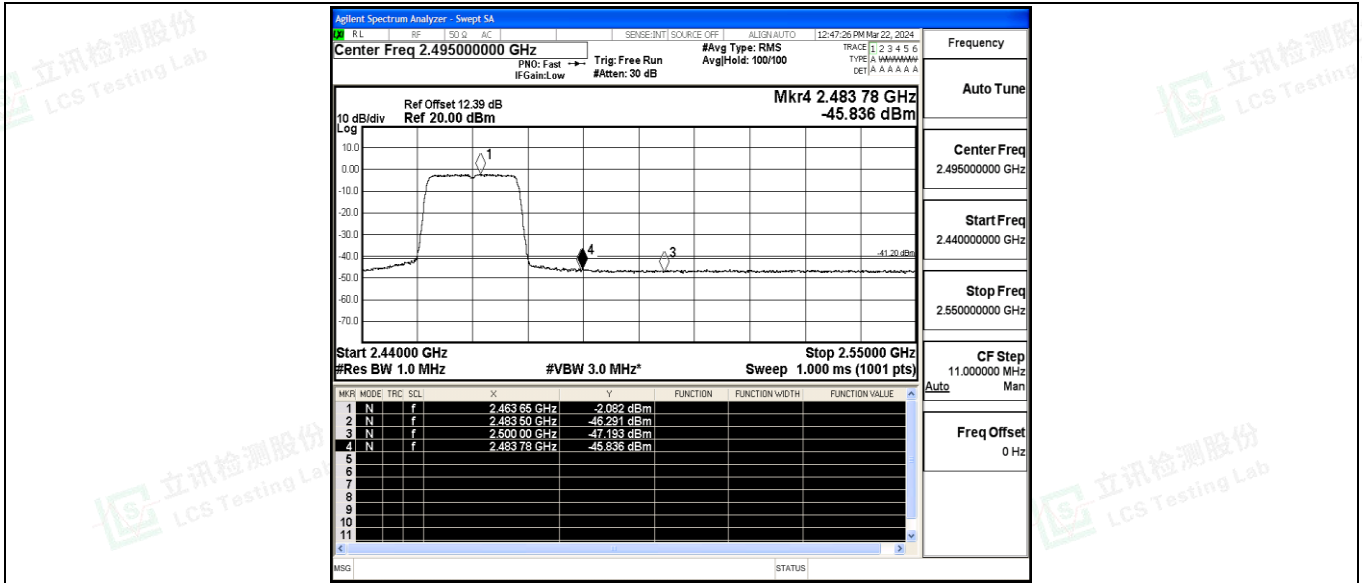


11N20SISO_Ant1_Low_2412_Peak



11N20SISO_Ant1_High_2462_AV





11N20SISO_Ant1_High_2462_Peak

