

Appendix D

RF Test Data for 5.2GWIFI (Conducted Measurement)

Product Name: Smart Terminal

Test Model: MX15

Environmental Conditions

|                    |              |
|--------------------|--------------|
| Temperature:       | 24.8°C       |
| Relative Humidity: | 53.4%        |
| ATM Pressure:      | 100.0 kPa    |
| Test Engineer:     | Zhang hai    |
| Supervised by:     | Fengliu Tang |

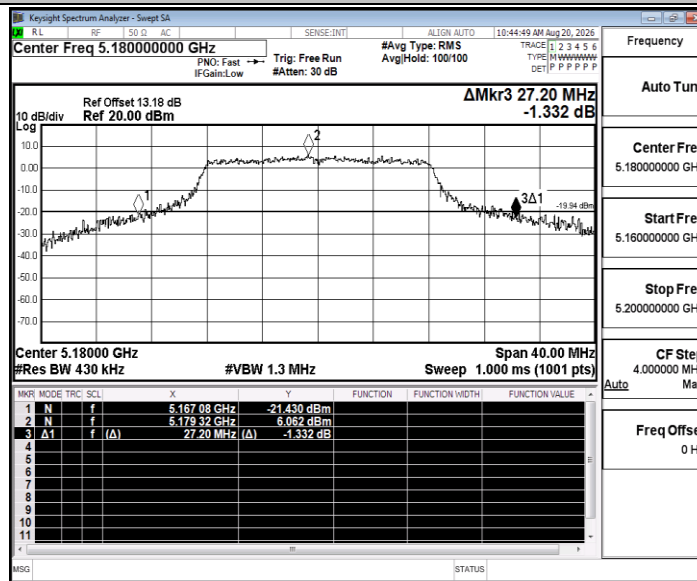
## D.1 Emission Bandwidth

### Test Result

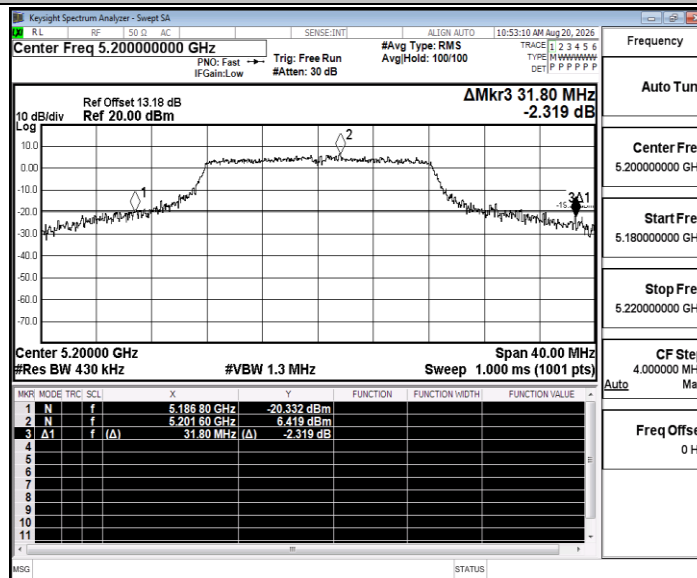
| TestMode   | Antenna | Freq(MHz) | 26db EBW [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|------------|---------|-----------|----------------|----------|----------|------------|---------|
| 11A        | Ant1    | 5180      | 27.200         | 5167.080 | 5194.280 | ---        | ---     |
|            |         | 5200      | 31.800         | 5186.800 | 5218.600 | ---        | ---     |
|            |         | 5240      | 20.280         | 5229.920 | 5250.200 | ---        | ---     |
| 11N20SISO  | Ant1    | 5180      | 30.520         | 5167.040 | 5197.560 | ---        | ---     |
|            |         | 5200      | 31.960         | 5183.680 | 5215.640 | ---        | ---     |
|            |         | 5240      | 23.840         | 5229.320 | 5253.160 | ---        | ---     |
| 11N40SISO  | Ant1    | 5190      | 55.760         | 5167.440 | 5223.200 | ---        | ---     |
|            |         | 5230      | 41.680         | 5208.960 | 5250.640 | ---        | ---     |
| 11AC20SISO | Ant1    | 5180      | 27.920         | 5166.680 | 5194.600 | ---        | ---     |
|            |         | 5200      | 30.160         | 5184.520 | 5214.680 | ---        | ---     |
|            |         | 5240      | 20.800         | 5229.640 | 5250.440 | ---        | ---     |
| 11AC40SISO | Ant1    | 5190      | 59.600         | 5164.880 | 5224.480 | ---        | ---     |
|            |         | 5230      | 41.200         | 5209.280 | 5250.480 | ---        | ---     |
| 11AC80SISO | Ant1    | 5210      | 97.120         | 5166.640 | 5263.760 | ---        | ---     |

## Test Graphs

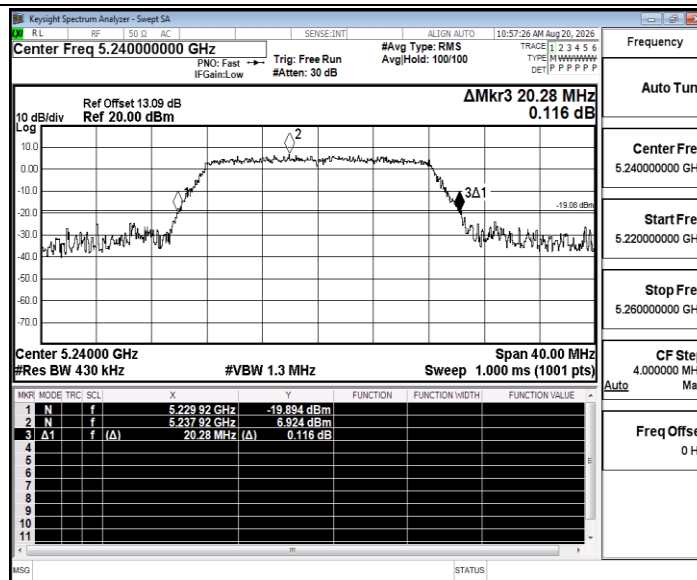
11A\_Ant1\_5180



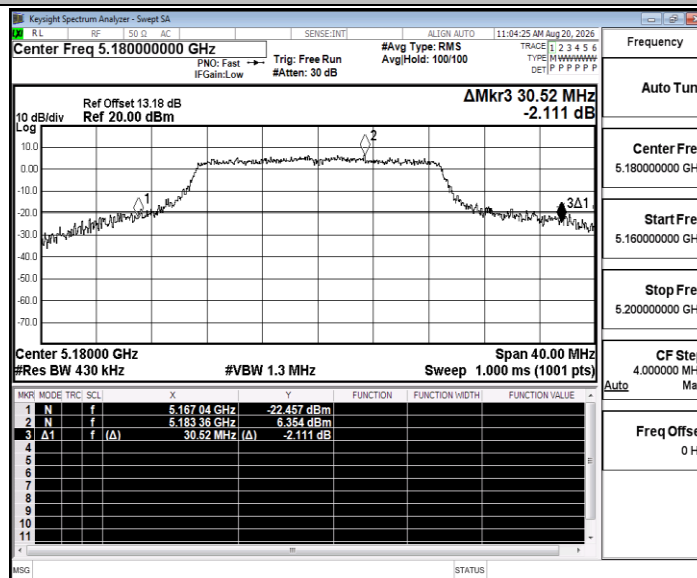
11A\_Ant1\_5200



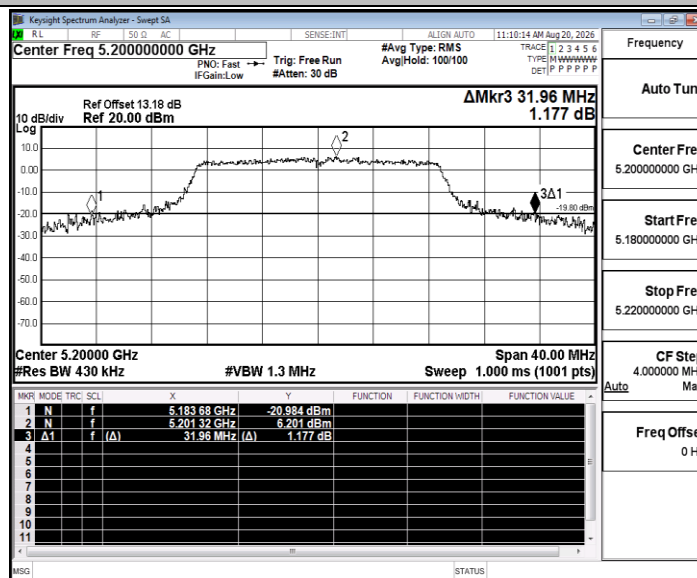
11A\_Ant1\_5240



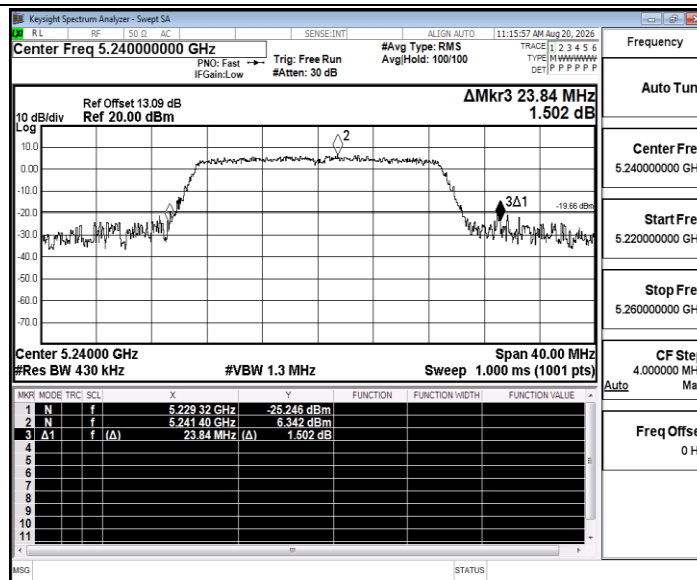
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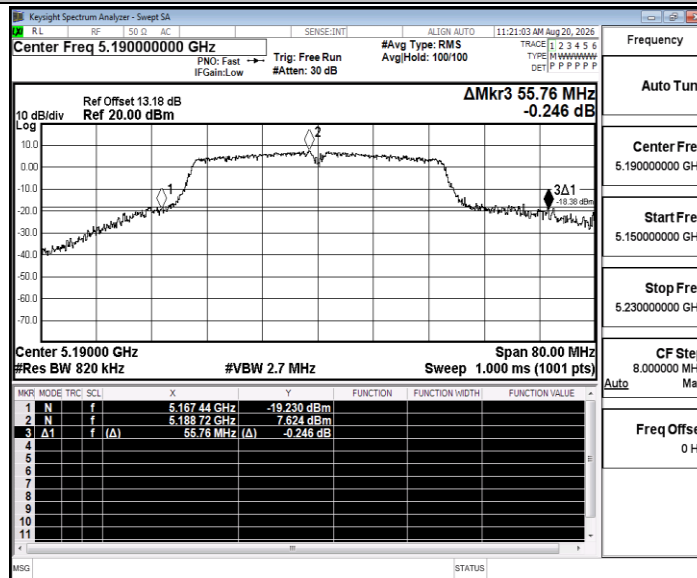
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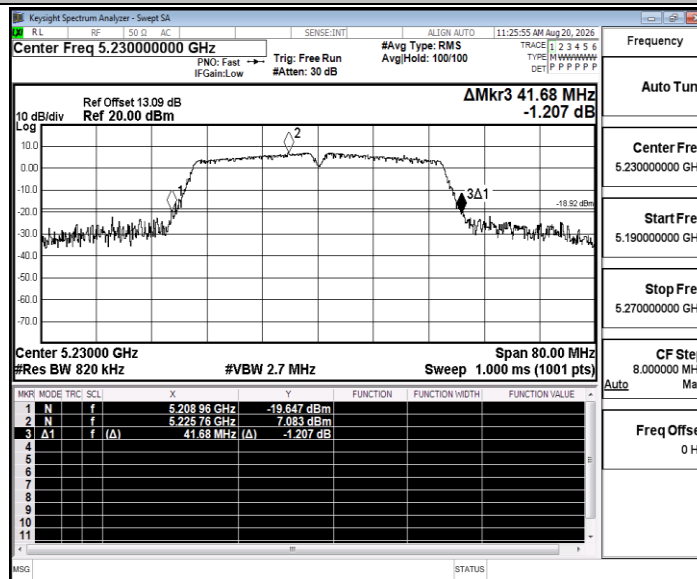
11N20SISO\_Ant1\_5240



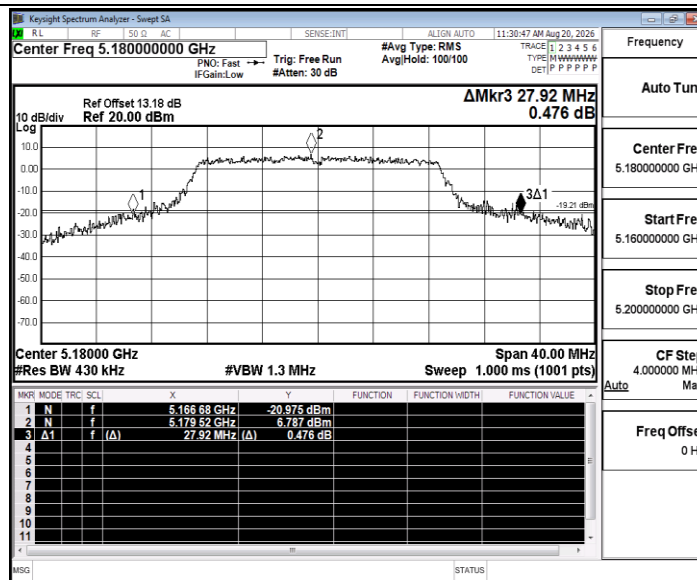
11N40SISO\_Ant1\_5190



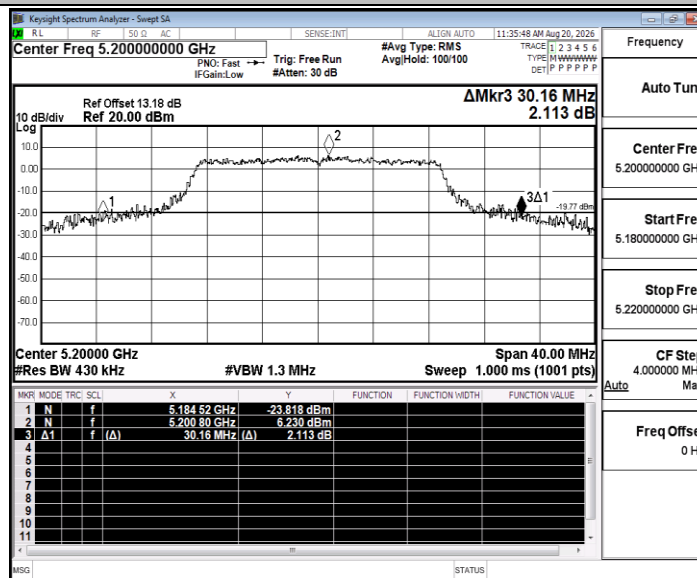
11N40SISO\_Ant1\_5230



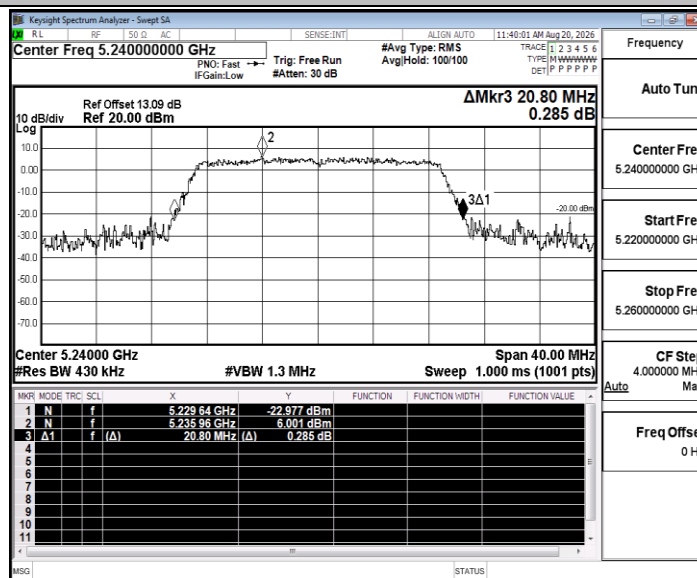
11AC20SISO\_Ant1\_5180



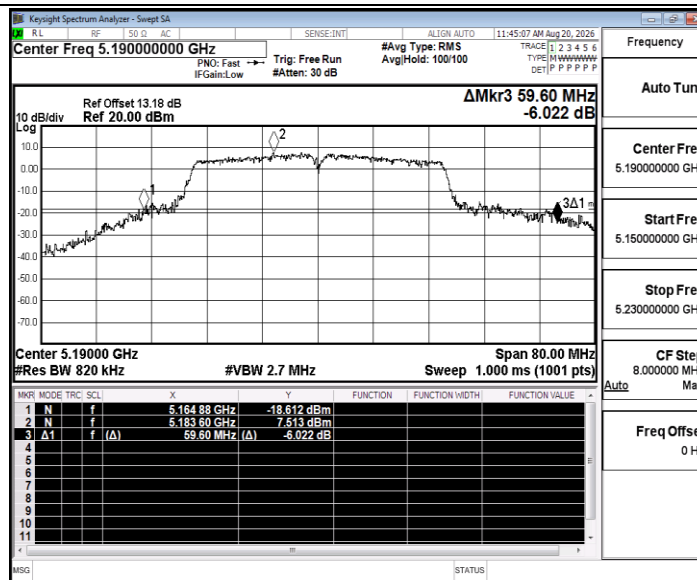
11AC20SISO\_Ant1\_5200



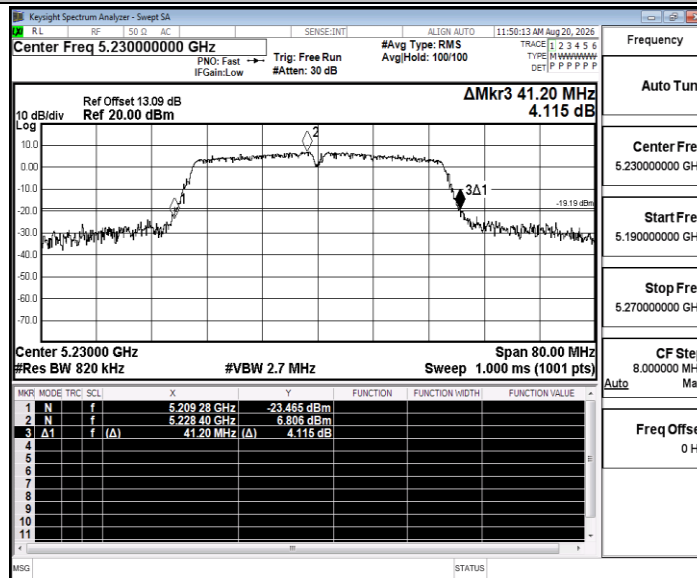
11AC20SISO\_Ant1\_5240



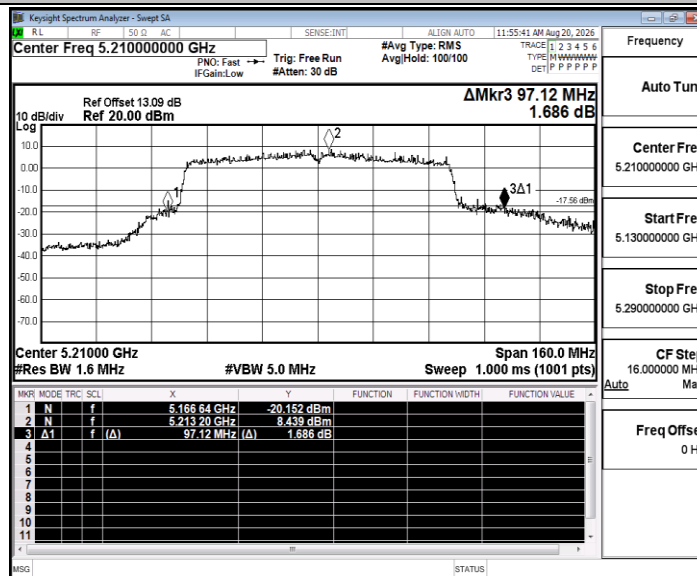
11AC40SISO\_Ant1\_5190



11AC40SISO\_Ant1\_5230



11AC80SISO\_Ant1\_5210



## D.2 Maximum conducted output power

### Test Result Channel Power

| Test Mode  | Antenna | Freq(MHz) | TPC Mode | Measured Power [dBm] | DC Factor [dB] | Result [dBm] | Limit [dBm] | Verdict |
|------------|---------|-----------|----------|----------------------|----------------|--------------|-------------|---------|
| 11A        | Ant1    | 5180      | NA       | 14.43                | 0.61           | 15.04        | ≤23.98      | PASS    |
|            |         | 5200      | NA       | 14.15                | 0.61           | 14.76        | ≤23.98      | PASS    |
|            |         | 5240      | NA       | 14.09                | 0.61           | 14.7         | ≤23.98      | PASS    |
| 11N20SISO  | Ant1    | 5180      | NA       | 14.24                | 0.65           | 14.89        | ≤23.98      | PASS    |
|            |         | 5200      | NA       | 14.58                | 0.65           | 15.23        | ≤23.98      | PASS    |
|            |         | 5240      | NA       | 14.37                | 0.65           | 15.02        | ≤23.98      | PASS    |
| 11N40SISO  | Ant1    | 5190      | NA       | 14.3                 | 1.22           | 15.52        | ≤23.98      | PASS    |
|            |         | 5230      | NA       | 13.99                | 1.22           | 15.21        | ≤23.98      | PASS    |
| 11AC20SISO | Ant1    | 5180      | NA       | 13.88                | 1.58           | 15.46        | ≤23.98      | PASS    |
|            |         | 5200      | NA       | 13.64                | 1.58           | 15.22        | ≤23.98      | PASS    |
|            |         | 5240      | NA       | 13.58                | 1.58           | 15.16        | ≤23.98      | PASS    |
| 11AC40SISO | Ant1    | 5190      | NA       | 12.87                | 2.57           | 15.44        | ≤23.98      | PASS    |
|            |         | 5230      | NA       | 12.61                | 2.57           | 15.18        | ≤23.98      | PASS    |
| 11AC80SISO | Ant1    | 5210      | NA       | 10.95                | 3.8            | 14.75        | ≤23.98      | PASS    |

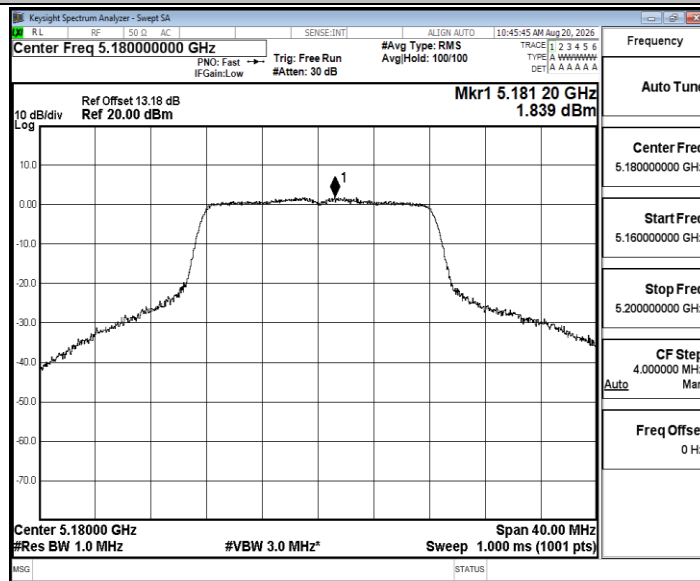
## D.3 Maximum power spectral density

### Test Result

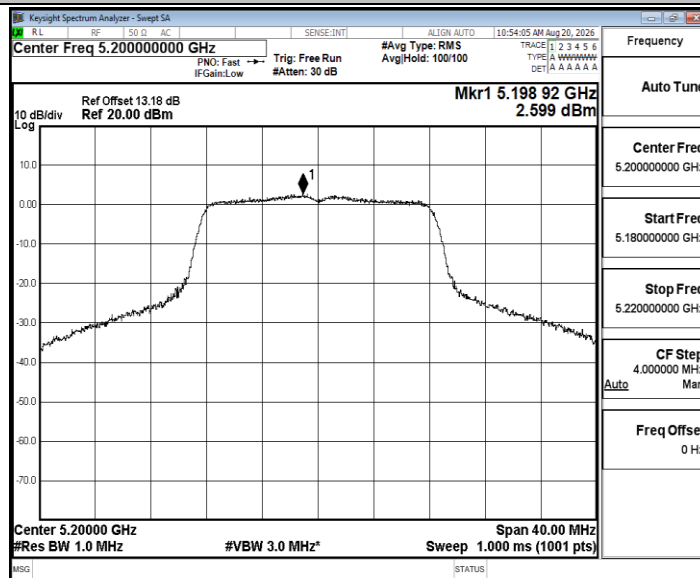
| TestMode   | Antenna | Freq (MHz) | Raw Data [dBm/MHz] | DC Factor | Result [dBm/MHz] | Limit [dBm/MHz] | Verdict |
|------------|---------|------------|--------------------|-----------|------------------|-----------------|---------|
| 11A        | Ant1    | 5180       | 1.84               | 0.61      | 2.45             | ≤11.00          | PASS    |
|            |         | 5200       | 2.6                | 0.61      | 3.21             | ≤11.00          | PASS    |
|            |         | 5240       | 2.66               | 0.61      | 3.27             | ≤11.00          | PASS    |
| 11N20SISO  | Ant1    | 5180       | 2.12               | 0.65      | 2.77             | ≤11.00          | PASS    |
|            |         | 5200       | 2.35               | 0.65      | 3                | ≤11.00          | PASS    |
|            |         | 5240       | 2.77               | 0.65      | 3.42             | ≤11.00          | PASS    |
| 11N40SISO  | Ant1    | 5190       | 0.12               | 1.22      | 1.34             | ≤11.00          | PASS    |
|            |         | 5230       | -0.07              | 1.22      | 1.15             | ≤11.00          | PASS    |
| 11AC20SISO | Ant1    | 5180       | 1.48               | 1.58      | 3.06             | ≤11.00          | PASS    |
|            |         | 5200       | 1.25               | 1.58      | 2.83             | ≤11.00          | PASS    |
|            |         | 5240       | 1.37               | 1.58      | 2.95             | ≤11.00          | PASS    |
| 11AC40SISO | Ant1    | 5190       | -1.92              | 2.57      | 0.65             | ≤11.00          | PASS    |
|            |         | 5230       | -1.64              | 2.57      | 0.93             | ≤11.00          | PASS    |
| 11AC80SISO | Ant1    | 5210       | -5.2               | 3.8       | -1.4             | ≤11.00          | PASS    |

## Test Graphs

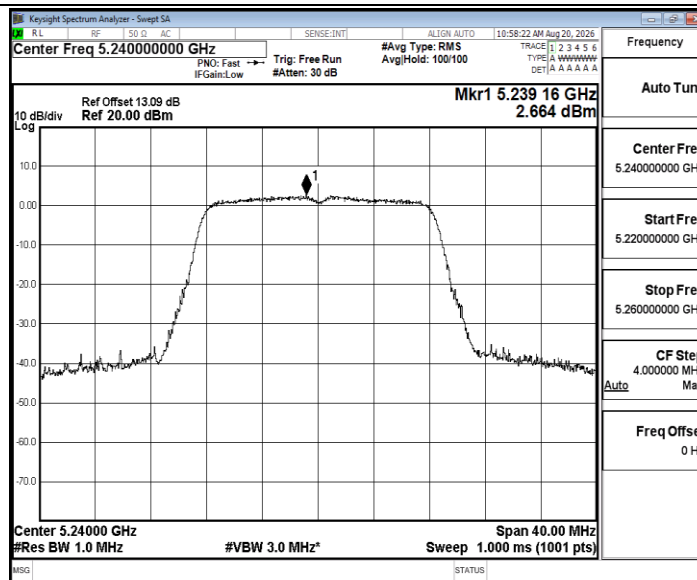
11A\_Ant1\_5180



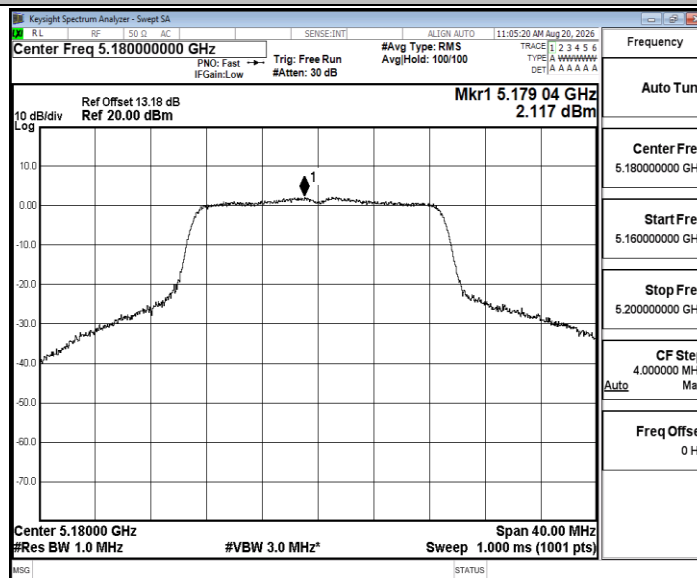
11A\_Ant1\_5200



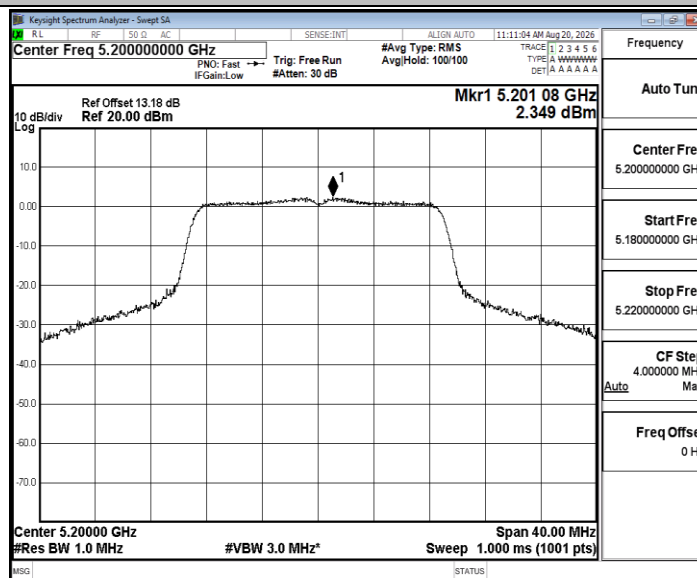
11A\_Ant1\_5240



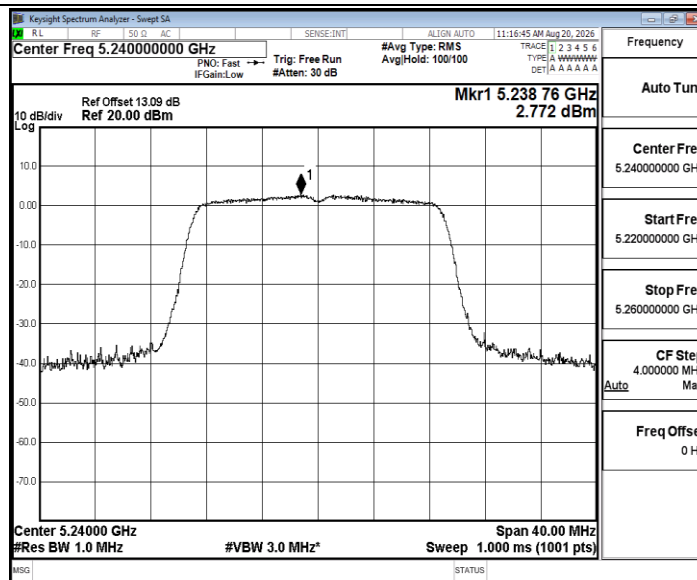
11N20SISO\_Ant1\_5180



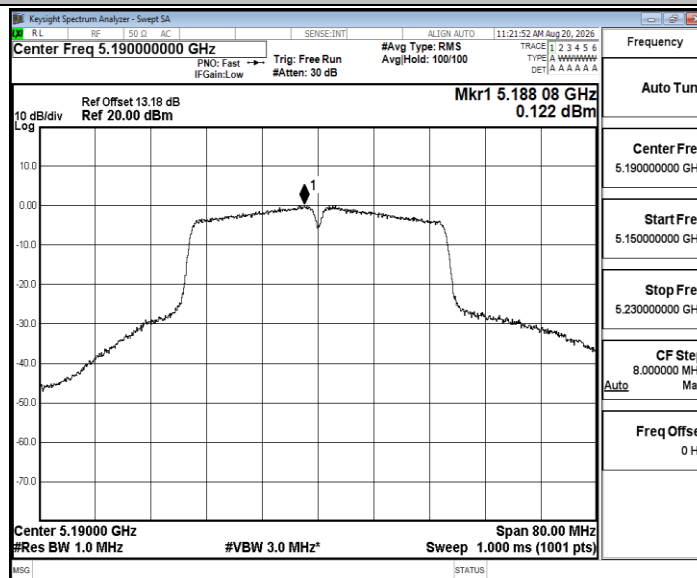
11N20SISO\_Ant1\_5200



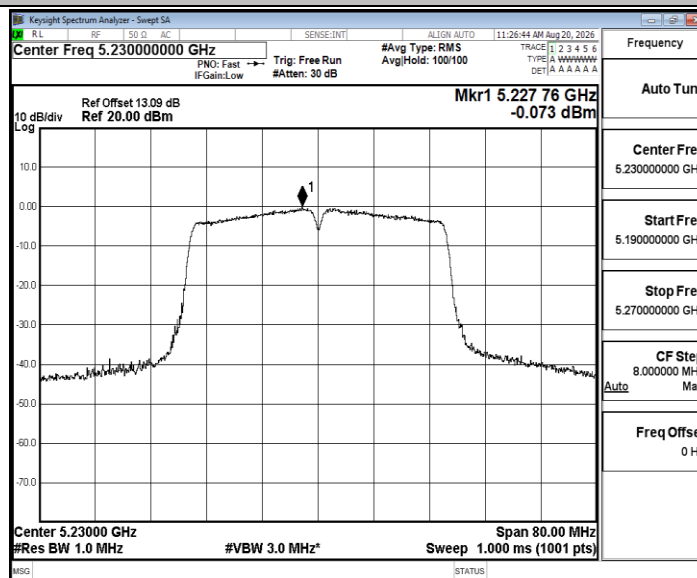
11N20SISO\_Ant1\_5240



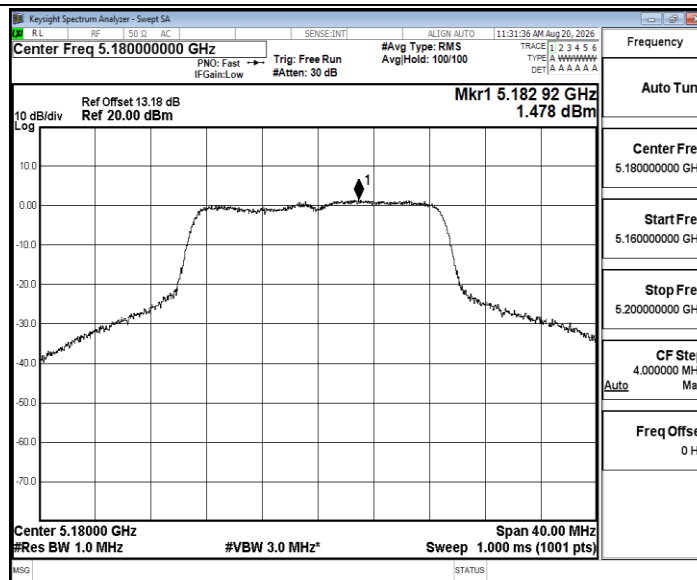
11N40SISO\_Ant1\_5190



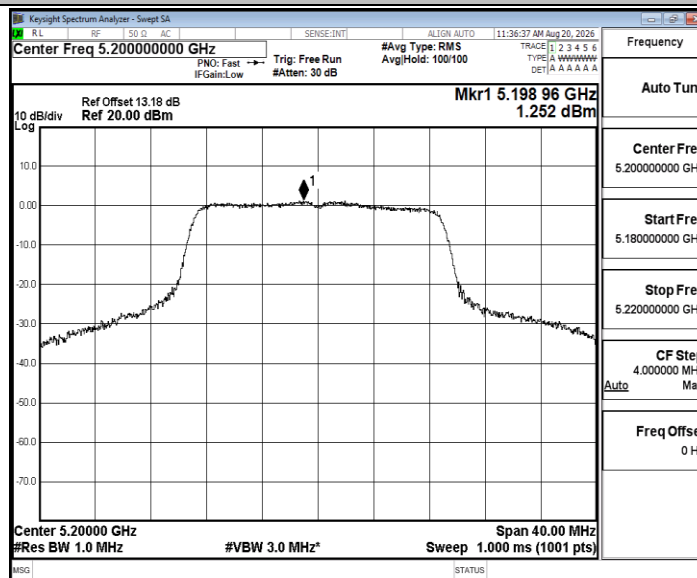
11N40SISO\_Ant1\_5230



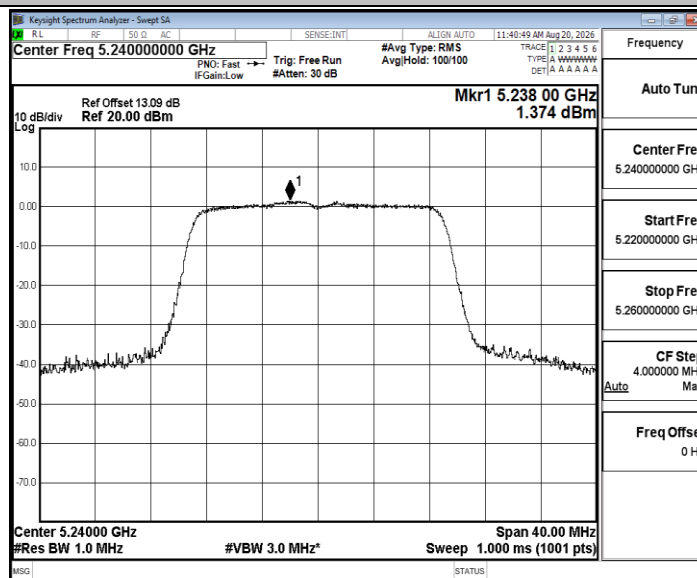
11AC20SISO\_Ant1\_5180



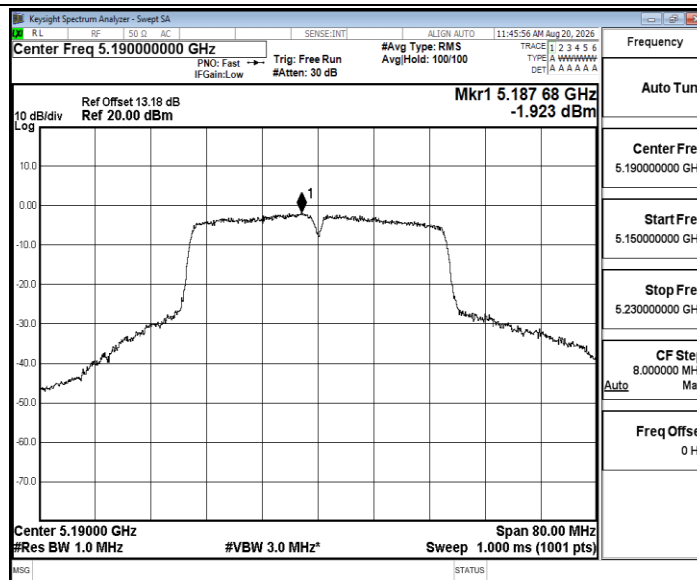
11AC20SISO\_Ant1\_5200



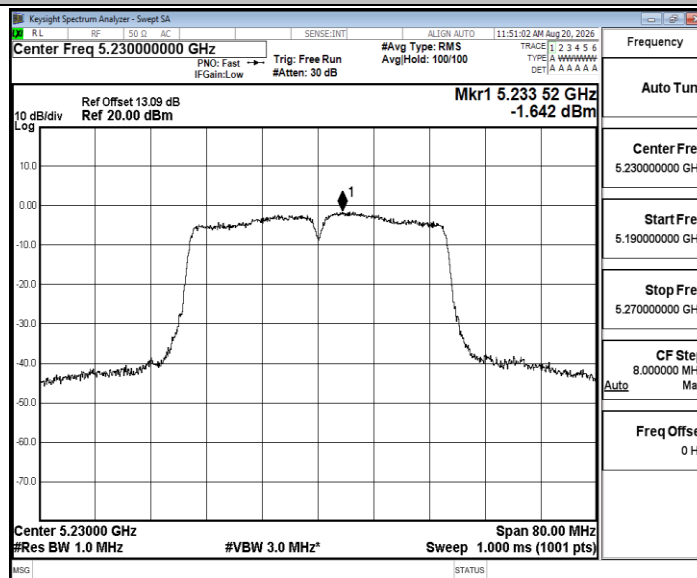
11AC20SISO\_Ant1\_5240



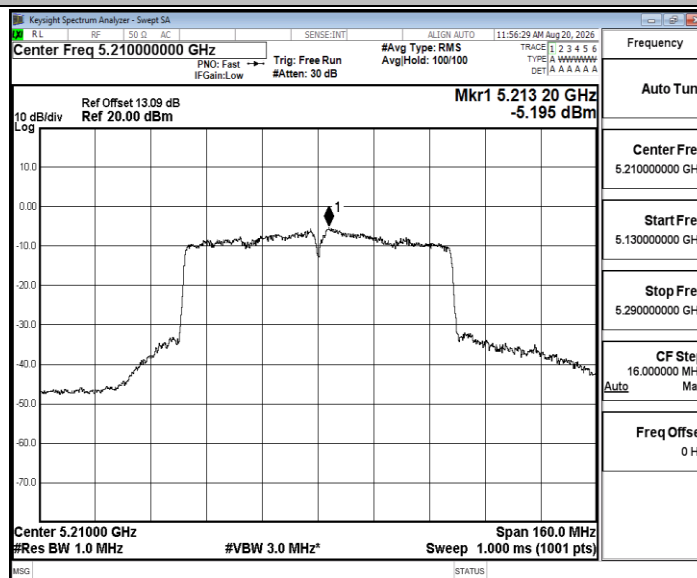
11AC40SISO\_Ant1\_5190



11AC40SISO\_Ant1\_5230



11AC80SISO\_Ant1\_5210



## D.4 Emissions in Restricted Bands

### Test Result

| Test Mode         | Antenna | Channel Name | Freq (MHz) | Detector | Freq [MHz] | Result [dBm] | Limit [dBm] | Gain [dBi] | DC Factor [dB] | Result [dBuV/m] | Limit [dBuV/m] | Verdict |
|-------------------|---------|--------------|------------|----------|------------|--------------|-------------|------------|----------------|-----------------|----------------|---------|
| 11A               | Ant1    | Low          | 5180       | AV       | 4500.000   | -62.19       | ≤-43.81     | 2.47       | 0.61           | 36.12           | ≤54            | PASS    |
|                   |         |              |            | AV       | 5149.600   | -57.13       | ≤-43.81     | 2.47       | 0.61           | 41.18           | ≤54            | PASS    |
|                   |         |              |            | AV       | 5150.000   | -57.75       | ≤-43.81     | 2.47       | 0.61           | 40.56           | ≤54            | PASS    |
|                   |         |              |            | Peak     | 4500.000   | -53.65       | ≤-29.00     | 2.47       | 0              | 44.05           | ≤68.2          | PASS    |
|                   |         |              |            | Peak     | 5104.100   | -47.22       | ≤-29.00     | 2.47       | 0              | 50.48           | ≤68.2          | PASS    |
|                   |         |              |            | Peak     | 5150.000   | -48.8        | ≤-29.00     | 2.47       | 0              | 48.90           | ≤68.2          | PASS    |
|                   |         | High         | 5240       | AV       | 5350.000   | -59.93       | ≤-43.81     | 2.47       | 0.61           | 38.38           | ≤54            | PASS    |
|                   |         |              |            | AV       | 5354.400   | -59.53       | ≤-43.81     | 2.47       | 0.61           | 38.78           | ≤54            | PASS    |
|                   |         |              |            | AV       | 5460.000   | -60.61       | ≤-43.81     | 2.47       | 0.61           | 37.70           | ≤54            | PASS    |
|                   |         |              |            | Peak     | 5350.000   | -52.15       | ≤-29.00     | 2.47       | 0              | 45.55           | ≤68.2          | PASS    |
|                   |         |              |            | Peak     | 5375.040   | -49.57       | ≤-29.00     | 2.47       | 0              | 48.13           | ≤68.2          | PASS    |
|                   |         |              |            | Peak     | 5460.000   | -51.72       | ≤-29.00     | 2.47       | 0              | 45.98           | ≤68.2          | PASS    |
| 11N2<br>OSIS<br>O | Ant1    | Low          | 5180       | AV       | 4500.000   | -58.03       | ≤-43.85     | 2.47       | 0.65           | 40.32           | ≤54            | PASS    |
|                   |         |              |            | AV       | 5140.500   | -54.06       | ≤-43.85     | 2.47       | 0.65           | 44.29           | ≤54            | PASS    |
|                   |         |              |            | AV       | 5150.000   | -54.73       | ≤-43.85     | 2.47       | 0.65           | 43.62           | ≤54            | PASS    |
|                   |         |              |            | Peak     | 4500.000   | -49.36       | ≤-29.00     | 2.47       | 0              | 48.34           | ≤68.2          | PASS    |
|                   |         |              |            | Peak     | 5143.300   | -43.85       | ≤-29.00     | 2.47       | 0              | 53.85           | ≤68.2          | PASS    |
|                   |         |              |            | Peak     | 5150.000   | -47.34       | ≤-29.00     | 2.47       | 0              | 50.36           | ≤68.2          | PASS    |
|                   |         | High         | 5240       | AV       | 5350.000   | -56.11       | ≤-43.85     | 2.47       | 0.65           | 42.24           | ≤54            | PASS    |
|                   |         |              |            | AV       | 5371.920   | -56.01       | ≤-43.85     | 2.47       | 0.65           | 42.34           | ≤54            | PASS    |
|                   |         |              |            | AV       | 5460.000   | -57.38       | ≤-43.85     | 2.47       | 0.65           | 40.97           | ≤54            | PASS    |
|                   |         |              |            | Peak     | 5350.000   | -47.4        | ≤-29.00     | 2.47       | 0              | 50.30           | ≤68.2          | PASS    |
|                   |         |              |            | Peak     | 5384.880   | -45.44       | ≤-29.00     | 2.47       | 0              | 52.26           | ≤68.2          | PASS    |
|                   |         |              |            | Peak     | 5460.000   | -49.57       | ≤-29.00     | 2.47       | 0              | 48.13           | ≤68.2          | PASS    |
| 11N4<br>OSIS<br>O | Ant1    | Low          | 5190       | AV       | 4500.000   | -58.08       | ≤-44.42     | 2.47       | 1.22           | 40.84           | ≤54            | PASS    |
|                   |         |              |            | AV       | 5148.900   | -52.38       | ≤-44.42     | 2.47       | 1.22           | 46.54           | ≤54            | PASS    |
|                   |         |              |            | AV       | 5150.000   | -51.12       | ≤-44.42     | 2.47       | 1.22           | 47.80           | ≤54            | PASS    |
|                   |         |              |            | Peak     | 4500.000   | -50.33       | ≤-29.00     | 2.47       | 0              | 47.37           | ≤68.2          | PASS    |
|                   |         |              |            | Peak     | 5149.600   | -42.03       | ≤-29.00     | 2.47       | 0              | 55.67           | ≤68.2          | PASS    |
|                   |         |              |            | Peak     | 5150.000   | -41.59       | ≤-29.00     | 2.47       | 0              | 56.11           | ≤68.2          | PASS    |
|                   |         | High         | 5230       | AV       | 5350.000   | -56.48       | ≤-44.42     | 2.47       | 1.22           | 42.44           | ≤54            | PASS    |
|                   |         |              |            | AV       | 5352.880   | -56.19       | ≤-44.42     | 2.47       | 1.22           | 42.73           | ≤54            | PASS    |
|                   |         |              |            | AV       | 5460.000   | -57.41       | ≤-44.42     | 2.47       | 1.22           | 41.51           | ≤54            | PASS    |
|                   |         |              |            | Peak     | 5350.000   | -45.95       | ≤-29.00     | 2.47       | 0              | 51.75           | ≤68.2          | PASS    |
|                   |         |              |            | Peak     | 5350.020   | -45.95       | ≤-29.00     | 2.47       | 0              | 51.75           | ≤68.2          | PASS    |
|                   |         |              |            | Peak     | 5460.000   | -47.9        | ≤-29.00     | 2.47       | 0              | 49.80           | ≤68.2          | PASS    |
| 11AC              | Ant1    | Low          | 5180       | AV       | 4500.000   | -57.48       | ≤-44.78     | 2.47       | 1.58           | 41.80           | ≤54            | PASS    |

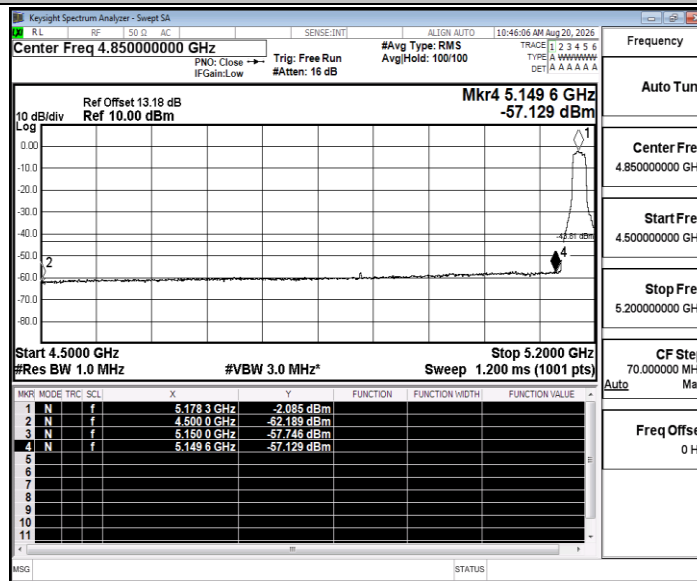
|                    |      |      |      |      |          |        |         |      |      |       |       |      |
|--------------------|------|------|------|------|----------|--------|---------|------|------|-------|-------|------|
| 20SI<br>SO         |      |      |      | AV   | 5144.000 | -53.78 | ≤-44.78 | 2.47 | 1.58 | 45.50 | ≤54   | PASS |
|                    |      |      |      | AV   | 5150.000 | -54.59 | ≤-44.78 | 2.47 | 1.58 | 44.69 | ≤54   | PASS |
|                    |      |      |      | Peak | 4500.000 | -48.12 | ≤-29.00 | 2.47 | 0    | 49.58 | ≤68.2 | PASS |
|                    |      |      |      | Peak | 5140.500 | -43.11 | ≤-29.00 | 2.47 | 0    | 54.59 | ≤68.2 | PASS |
|                    |      |      |      | Peak | 5150.000 | -45.47 | ≤-29.00 | 2.47 | 0    | 52.23 | ≤68.2 | PASS |
|                    |      | High | 5240 | AV   | 5350.000 | -57.07 | ≤-44.78 | 2.47 | 1.58 | 42.21 | ≤54   | PASS |
|                    |      |      |      | AV   | 5353.680 | -56.1  | ≤-44.78 | 2.47 | 1.58 | 43.18 | ≤54   | PASS |
|                    |      |      |      | AV   | 5460.000 | -57.73 | ≤-44.78 | 2.47 | 1.58 | 41.55 | ≤54   | PASS |
|                    |      |      |      | Peak | 5350.000 | -46.62 | ≤-29.00 | 2.47 | 0    | 51.08 | ≤68.2 | PASS |
|                    |      |      |      | Peak | 5350.320 | -46.35 | ≤-29.00 | 2.47 | 0    | 51.35 | ≤68.2 | PASS |
|                    |      |      |      | Peak | 5460.000 | -49.2  | ≤-29.00 | 2.47 | 0    | 48.50 | ≤68.2 | PASS |
| 11AC<br>40SI<br>SO | Ant1 | Low  | 5190 | AV   | 4500.000 | -57.82 | ≤-45.77 | 2.47 | 2.57 | 42.45 | ≤54   | PASS |
|                    |      |      |      | AV   | 5149.600 | -52.16 | ≤-45.77 | 2.47 | 2.57 | 48.11 | ≤54   | PASS |
|                    |      |      |      | AV   | 5150.000 | -52.13 | ≤-45.77 | 2.47 | 2.57 | 48.14 | ≤54   | PASS |
|                    |      |      |      | Peak | 4500.000 | -50.68 | ≤-29.00 | 2.47 | 0    | 47.02 | ≤68.2 | PASS |
|                    |      |      |      | Peak | 5147.500 | -42.53 | ≤-29.00 | 2.47 | 0    | 55.17 | ≤68.2 | PASS |
|                    |      |      |      | Peak | 5150.000 | -42.2  | ≤-29.00 | 2.47 | 0    | 55.50 | ≤68.2 | PASS |
|                    |      | High | 5230 | AV   | 5350.000 | -56.55 | ≤-45.77 | 2.47 | 2.57 | 43.72 | ≤54   | PASS |
|                    |      |      |      | AV   | 5352.100 | -56.34 | ≤-45.77 | 2.47 | 2.57 | 43.93 | ≤54   | PASS |
|                    |      |      |      | AV   | 5460.000 | -58.1  | ≤-45.77 | 2.47 | 2.57 | 42.17 | ≤54   | PASS |
|                    |      |      |      | Peak | 5350.000 | -47.98 | ≤-29.00 | 2.47 | 0    | 49.72 | ≤68.2 | PASS |
|                    |      |      |      | Peak | 5381.480 | -45.66 | ≤-29.00 | 2.47 | 0    | 52.04 | ≤68.2 | PASS |
|                    |      |      |      | Peak | 5460.000 | -48.86 | ≤-29.00 | 2.47 | 0    | 48.84 | ≤68.2 | PASS |
| 11AC<br>80SI<br>SO | Ant1 | Low  | 5210 | AV   | 4500.000 | -58.72 | ≤-47.00 | 2.47 | 3.8  | 42.78 | ≤54   | PASS |
|                    |      |      |      | AV   | 5141.250 | -51.74 | ≤-47.00 | 2.47 | 3.8  | 49.76 | ≤54   | PASS |
|                    |      |      |      | AV   | 5150.000 | -51.92 | ≤-47.00 | 2.47 | 3.8  | 49.58 | ≤54   | PASS |
|                    |      |      |      | Peak | 4500.000 | -50.86 | ≤-29.00 | 2.47 | 0    | 46.84 | ≤68.2 | PASS |
|                    |      |      |      | Peak | 5149.500 | -40.07 | ≤-29.00 | 2.47 | 0    | 57.63 | ≤68.2 | PASS |
|                    |      |      |      | Peak | 5150.000 | -40.11 | ≤-29.00 | 2.47 | 0    | 57.59 | ≤68.2 | PASS |
|                    |      | High | 5210 | AV   | 5350.000 | -56.76 | ≤-47.00 | 2.47 | 3.8  | 44.74 | ≤54   | PASS |
|                    |      |      |      | AV   | 5358.920 | -56.56 | ≤-47.00 | 2.47 | 3.8  | 44.94 | ≤54   | PASS |
|                    |      |      |      | AV   | 5460.000 | -57.81 | ≤-47.00 | 2.47 | 3.8  | 43.69 | ≤54   | PASS |
|                    |      |      |      | Peak | 5350.000 | -49.21 | ≤-29.00 | 2.47 | 0    | 48.49 | ≤68.2 | PASS |
|                    |      |      |      | Peak | 5370.680 | -45.48 | ≤-29.00 | 2.47 | 0    | 52.22 | ≤68.2 | PASS |
|                    |      |      |      | Peak | 5460.000 | -50.04 | ≤-29.00 | 2.47 | 0    | 47.66 | ≤68.2 | PASS |

Note:

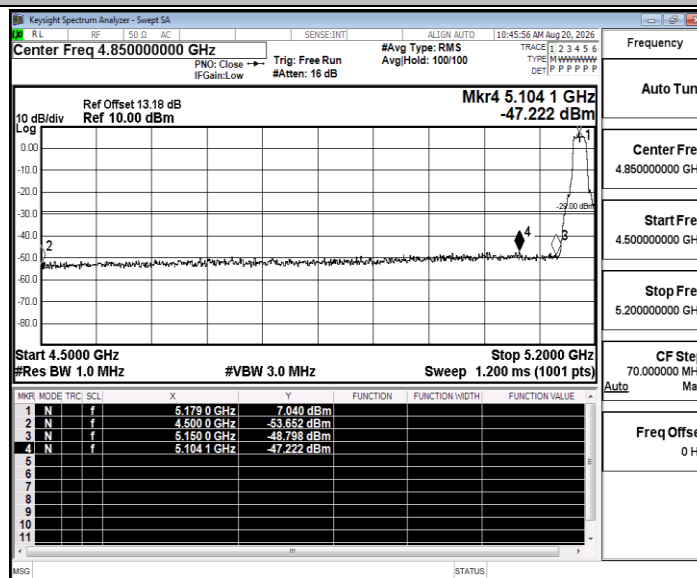
1. The Antenna Gain is compensated in the graph.

## Test Graphs

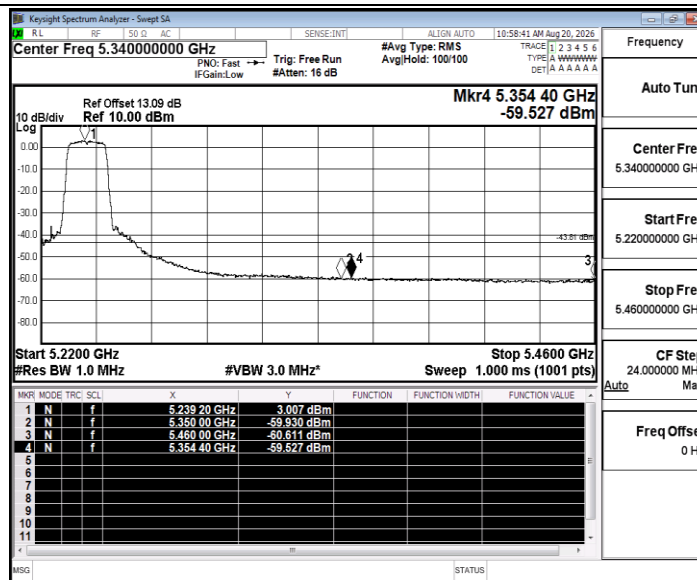
11A\_Ant1\_Low\_5180\_AV



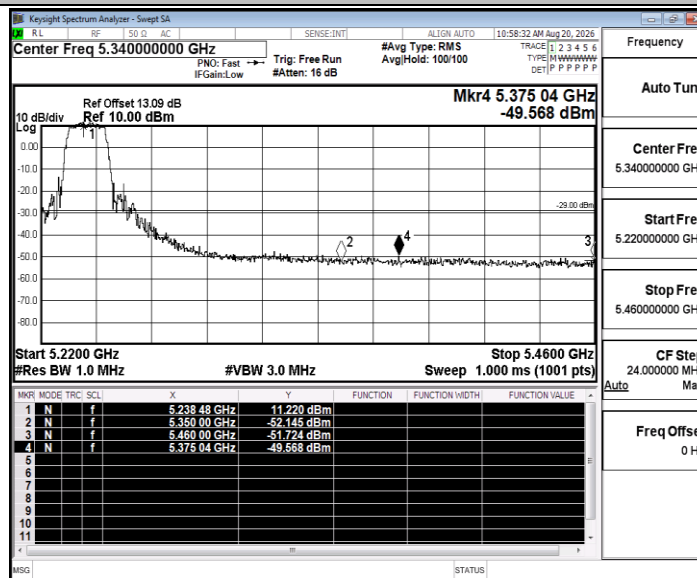
11A\_Ant1\_Low\_5180\_Peak



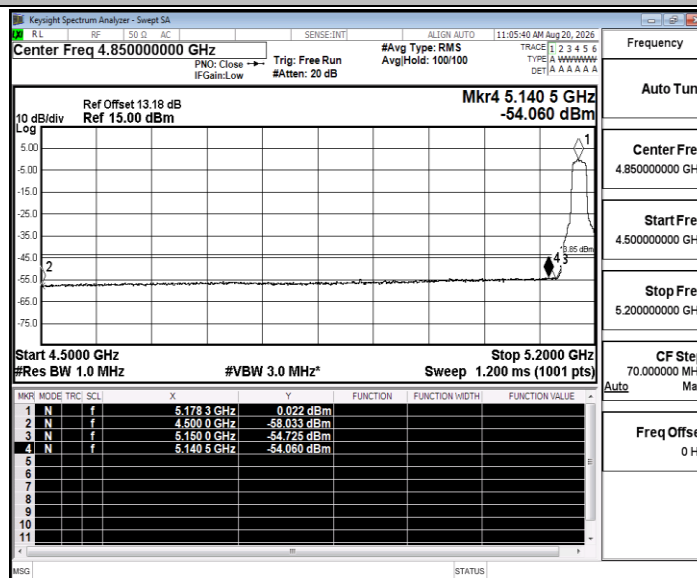
11A\_Ant1\_High\_5240\_AV



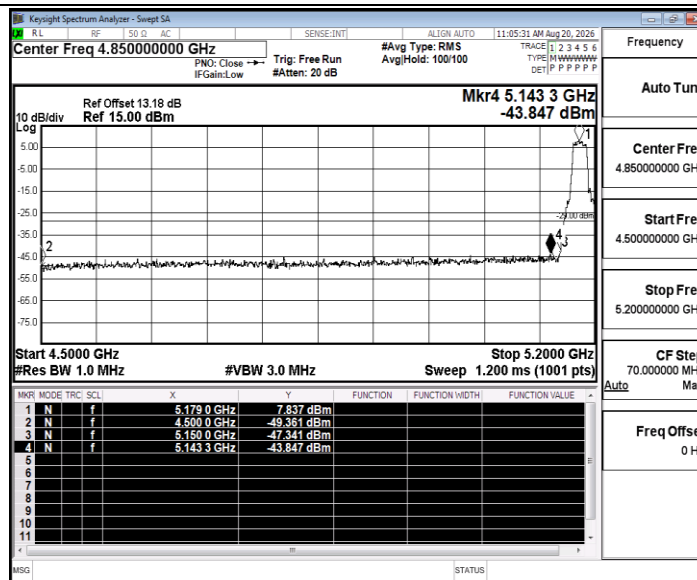
11A\_Ant1\_High\_5240\_Peak



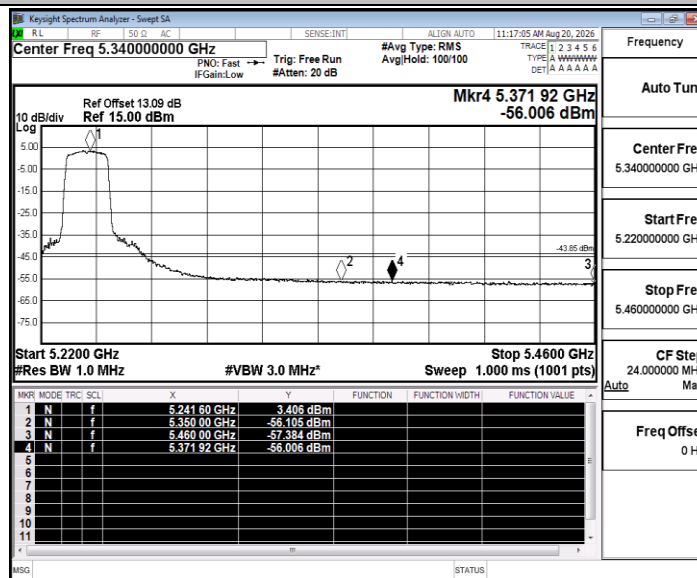
11N20SISO\_Ant1\_Low\_5180\_AV



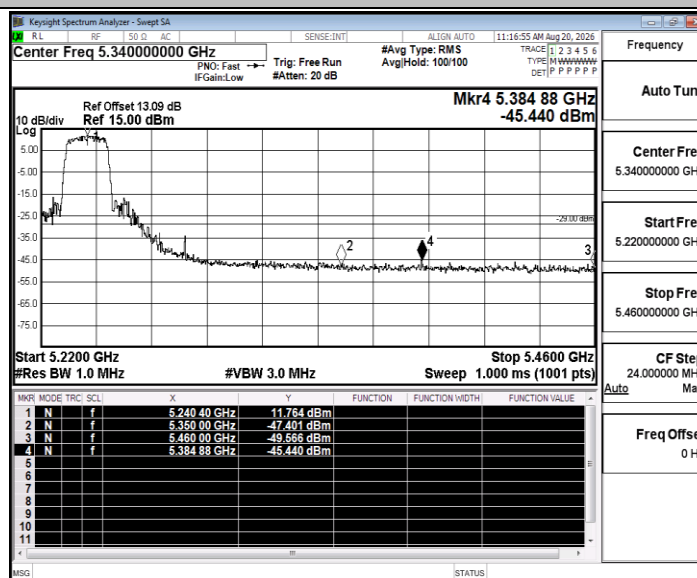
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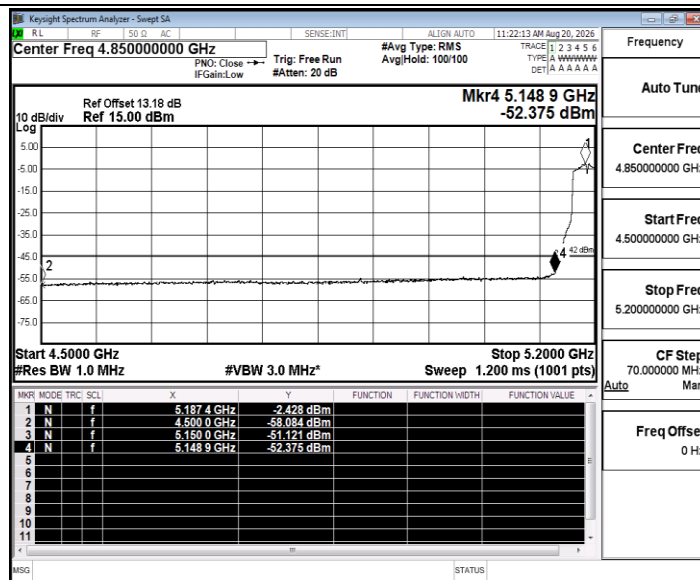
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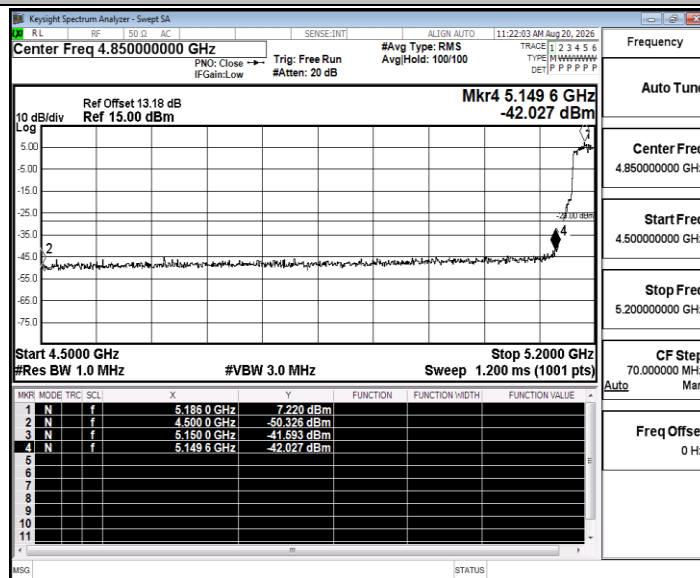
11N20SISO\_Ant1\_High\_5240\_Peak



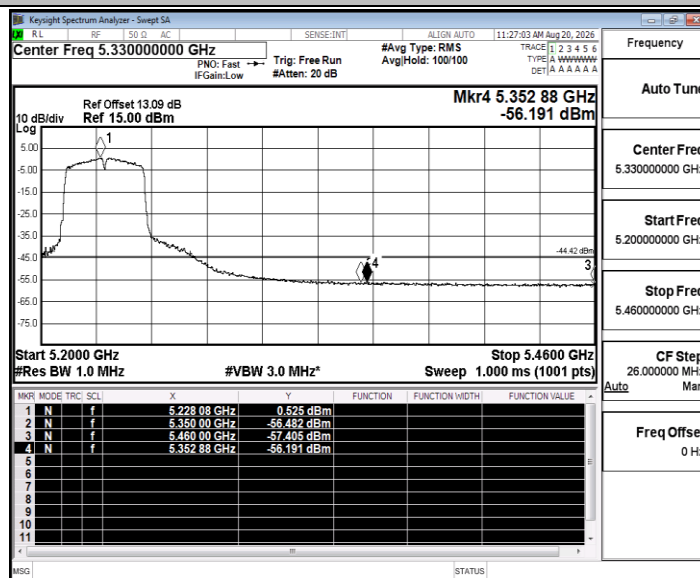
11N40SISO\_Ant1\_Low\_5190\_AV



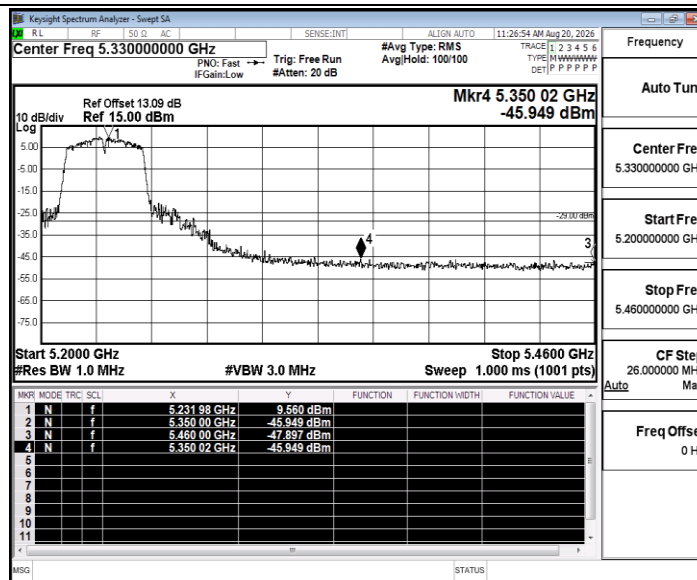
11N40SISO\_Ant1\_Low\_5190\_Peak



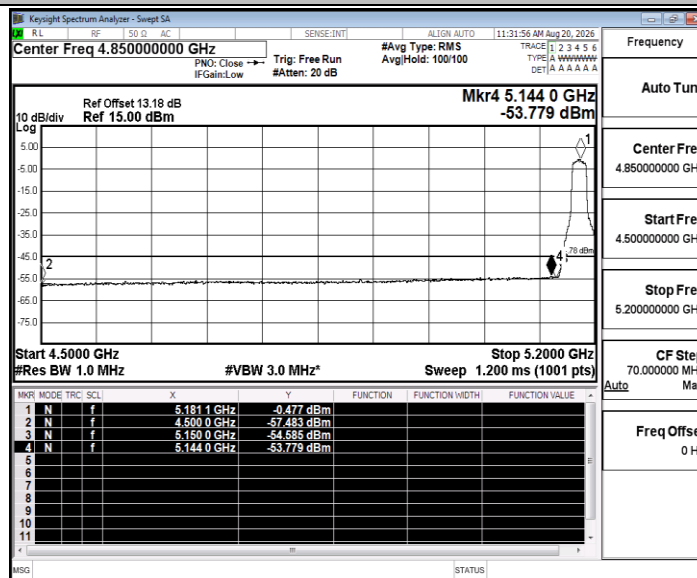
11N40SISO\_Ant1\_High\_5230\_AV



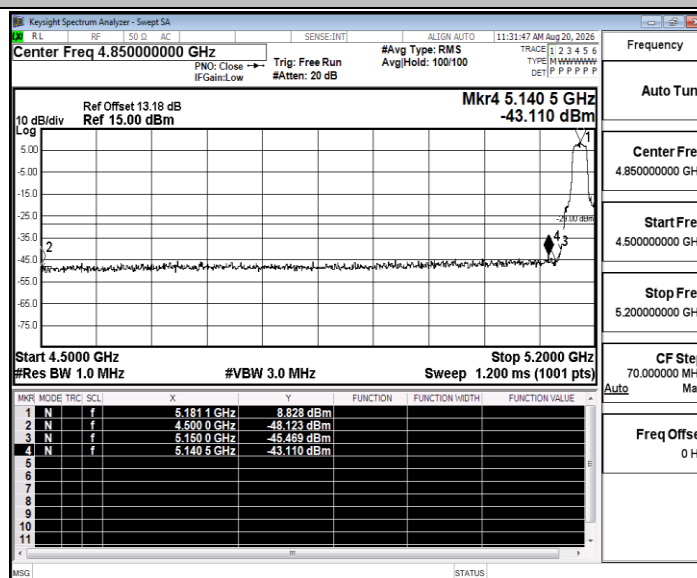
11N40SISO\_Ant1\_High\_5230\_Peak



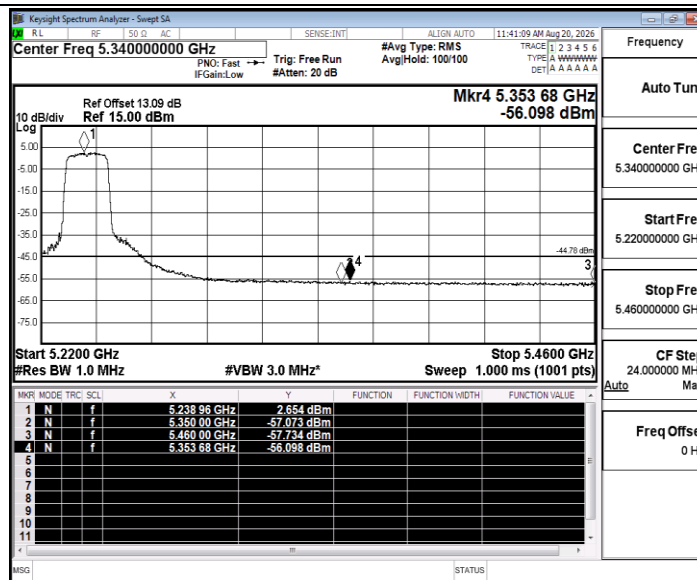
11AC20SISO\_Ant1\_Low\_5180\_AV



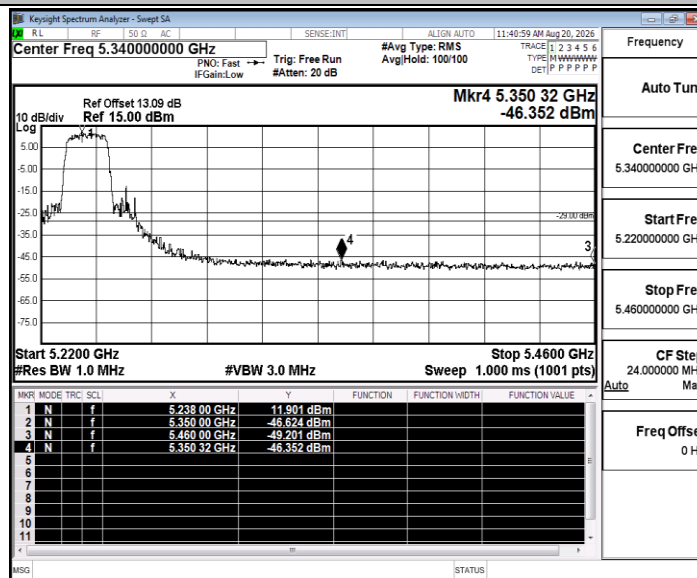
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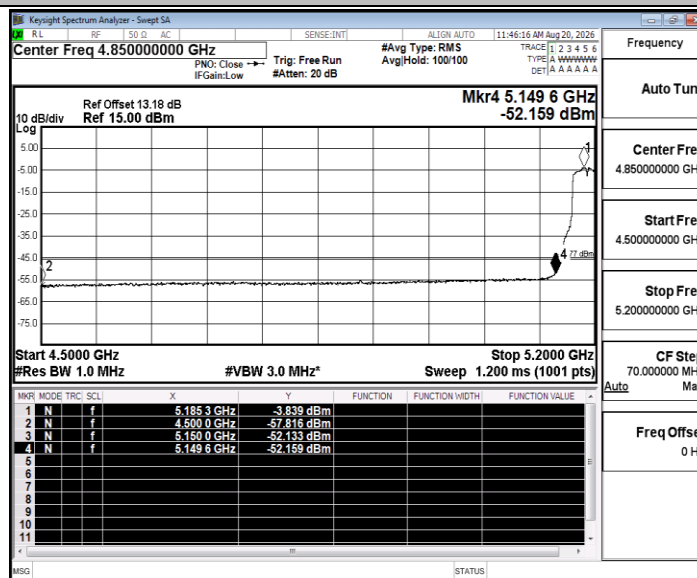
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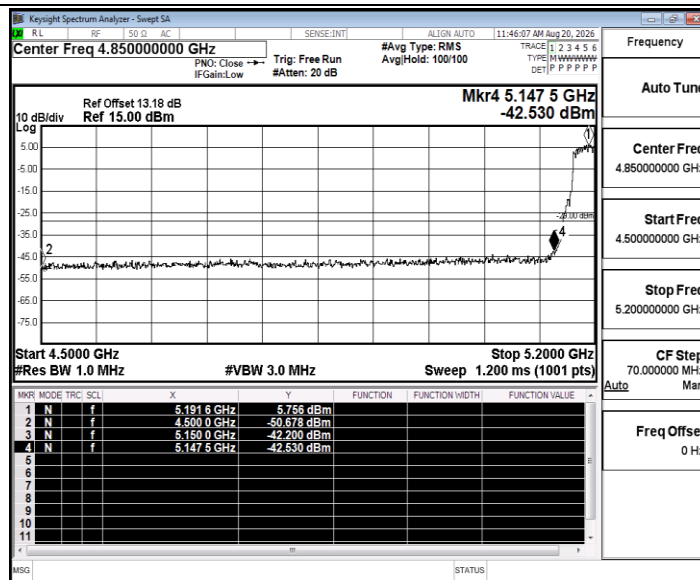
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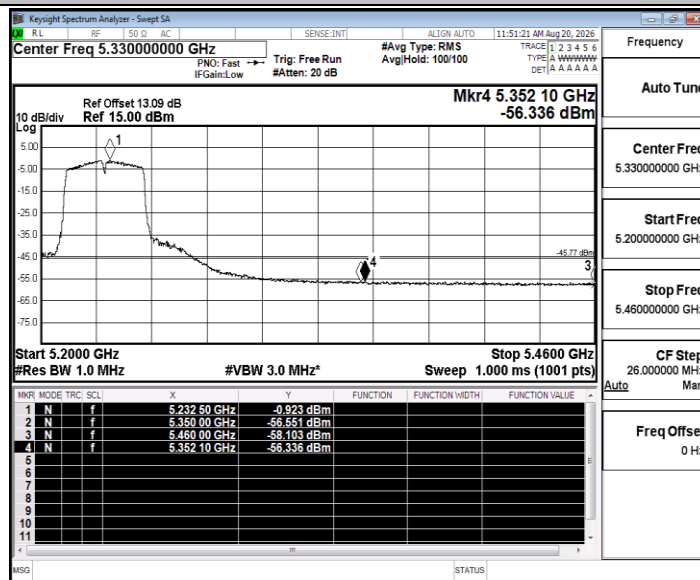
11AC40SISO\_Ant1\_Low\_5190\_AV



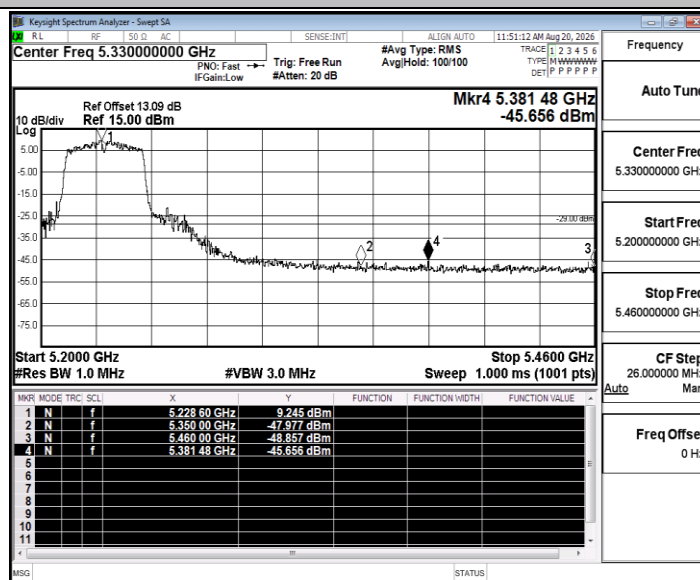
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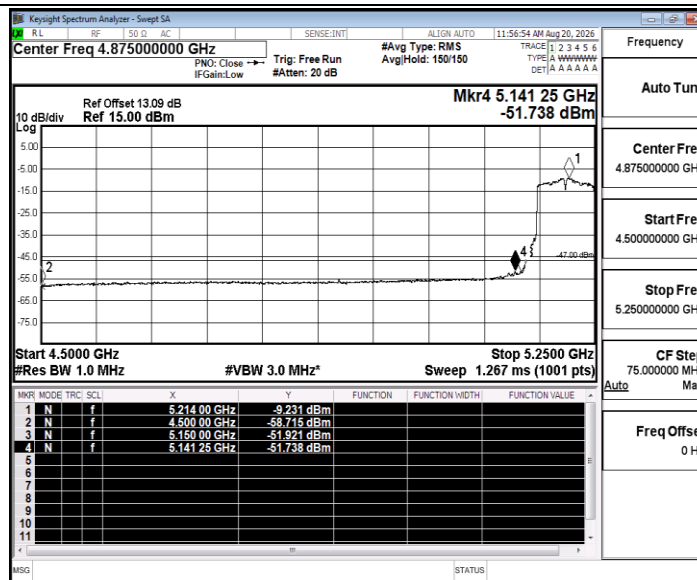
11AC40SISO\_Ant1\_High\_5230\_AV



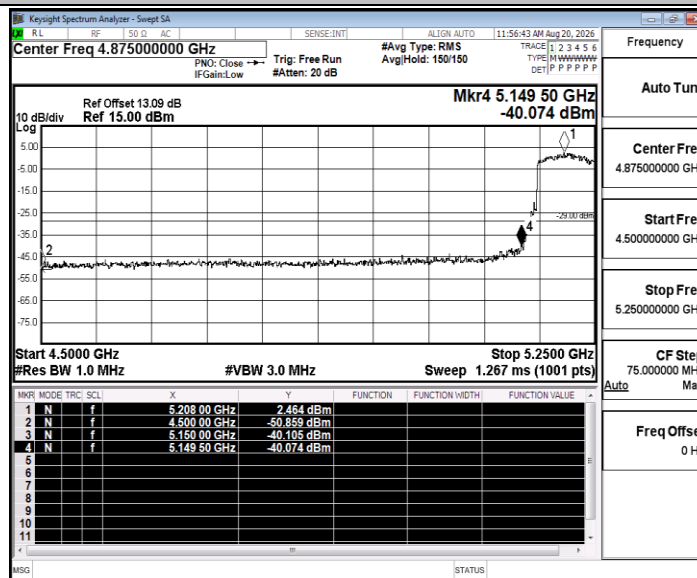
11AC40SISO\_Ant1\_High\_5230\_Peak



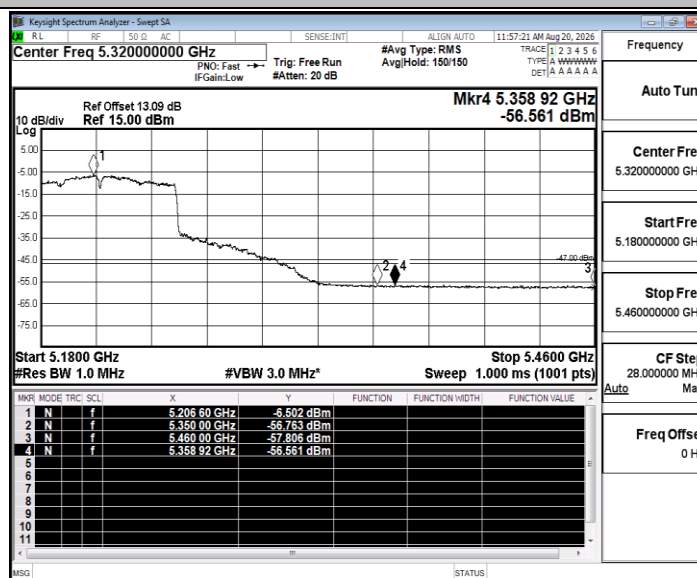
11AC80SISO\_Ant1\_Low\_5210\_AV



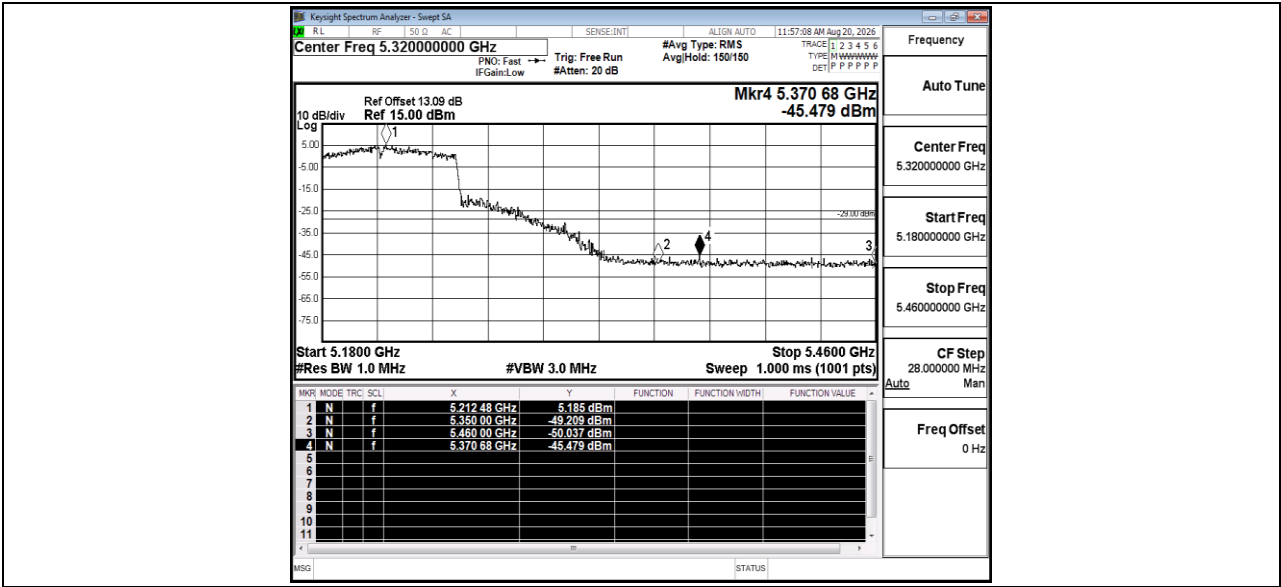
11AC80SISO\_Ant1\_Low\_5210\_Peak



11AC80SISO\_Ant1\_High\_5210\_AV



11AC80SISO\_Ant1\_High\_5210\_Peak



## D.5 Frequency Stability

### Test Result

| Voltage    |         |           |               |                  |                |                 |             |         |
|------------|---------|-----------|---------------|------------------|----------------|-----------------|-------------|---------|
| TestMode   | Antenna | Freq(MHz) | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| 11A        | Ant1    | 5180      | NV            | NT               | 60000.00       | 11.583012       | 20          | PASS    |
|            |         |           | LV            | NT               | 40000.00       | 7.722008        | 20          | PASS    |
|            |         |           | HV            | NT               | 60000.00       | 11.583012       | 20          | PASS    |
|            |         | 5200      | NV            | NT               | 40000.00       | 7.692308        | 20          | PASS    |
|            |         |           | LV            | NT               | 20000.00       | 3.846154        | 20          | PASS    |
|            |         |           | HV            | NT               | 40000.00       | 7.692308        | 20          | PASS    |
|            |         | 5240      | NV            | NT               | 60000.00       | 11.450382       | 20          | PASS    |
|            |         |           | LV            | NT               | 60000.00       | 11.450382       | 20          | PASS    |
|            |         |           | HV            | NT               | 60000.00       | 11.450382       | 20          | PASS    |
| 11N20SISO  | Ant1    | 5180      | NV            | NT               | 40000.00       | 7.722008        | 20          | PASS    |
|            |         |           | LV            | NT               | 40000.00       | 7.722008        | 20          | PASS    |
|            |         |           | HV            | NT               | 40000.00       | 7.722008        | 20          | PASS    |
|            |         | 5200      | NV            | NT               | 40000.00       | 7.692308        | 20          | PASS    |
|            |         |           | LV            | NT               | 20000.00       | 3.846154        | 20          | PASS    |
|            |         |           | HV            | NT               | 40000.00       | 7.692308        | 20          | PASS    |
|            |         | 5240      | NV            | NT               | 40000.00       | 7.633588        | 20          | PASS    |
|            |         |           | LV            | NT               | 40000.00       | 7.633588        | 20          | PASS    |
|            |         |           | HV            | NT               | 60000.00       | 11.450382       | 20          | PASS    |
| 11N40SISO  | Ant1    | 5190      | NV            | NT               | 40000.00       | 7.707129        | 20          | PASS    |
|            |         |           | LV            | NT               | 40000.00       | 7.707129        | 20          | PASS    |
|            |         |           | HV            | NT               | 40000.00       | 7.707129        | 20          | PASS    |
|            |         | 5230      | NV            | NT               | 40000.00       | 7.648184        | 20          | PASS    |
|            |         |           | LV            | NT               | 40000.00       | 7.648184        | 20          | PASS    |
|            |         |           | HV            | NT               | 40000.00       | 7.648184        | 20          | PASS    |
| 11AC20SISO | Ant1    | 5180      | NV            | NT               | 40000.00       | 7.722008        | 20          | PASS    |
|            |         |           | LV            | NT               | 40000.00       | 7.722008        | 20          | PASS    |
|            |         |           | HV            | NT               | 40000.00       | 7.722008        | 20          | PASS    |
|            |         | 5200      | NV            | NT               | 40000.00       | 7.692308        | 20          | PASS    |
|            |         |           | LV            | NT               | 40000.00       | 7.692308        | 20          | PASS    |
|            |         |           | HV            | NT               | 40000.00       | 7.692308        | 20          | PASS    |
|            |         | 5240      | NV            | NT               | 40000.00       | 7.633588        | 20          | PASS    |
|            |         |           | LV            | NT               | 40000.00       | 7.633588        | 20          | PASS    |
|            |         |           | HV            | NT               | 40000.00       | 7.633588        | 20          | PASS    |
| 11AC40SISO | Ant1    | 5190      | NV            | NT               | 0.00           | 0.000000        | 20          | PASS    |
|            |         |           | LV            | NT               | 40000.00       | 7.707129        | 20          | PASS    |
|            |         |           | HV            | NT               | 0.00           | 0.000000        | 20          | PASS    |
|            |         | 5230      | NV            | NT               | 40000.00       | 7.648184        | 20          | PASS    |

|                |      |      |    |    |          |           |    |      |
|----------------|------|------|----|----|----------|-----------|----|------|
| 11AC80SIS<br>O | Ant1 | 5210 | LV | NT | 0.00     | 0.000000  | 20 | PASS |
|                |      |      | HV | NT | 40000.00 | 7.648184  | 20 | PASS |
|                |      |      | NV | NT | 80000.00 | 15.355086 | 20 | PASS |
|                |      |      | LV | NT | 80000.00 | 15.355086 | 20 | PASS |
|                |      |      | HV | NT | 80000.00 | 15.355086 | 20 | PASS |
|                |      |      |    |    |          |           |    |      |

| Temperature   |         |           |               |                  |                |                 |             |         |
|---------------|---------|-----------|---------------|------------------|----------------|-----------------|-------------|---------|
| TestMode      | Antenna | Freq(MHz) | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| 11A           | Ant1    | 5180      | NV            | -30              | 20000.00       | 3.861004        | 20          | PASS    |
|               |         |           | NV            | -20              | 60000.00       | 11.583012       | 20          | PASS    |
|               |         |           | NV            | -10              | 60000.00       | 11.583012       | 20          | PASS    |
|               |         |           | NV            | 0                | 60000.00       | 11.583012       | 20          | PASS    |
|               |         |           | NV            | 10               | 60000.00       | 11.583012       | 20          | PASS    |
|               |         |           | NV            | 20               | 60000.00       | 11.583012       | 20          | PASS    |
|               |         |           | NV            | 30               | 60000.00       | 11.583012       | 20          | PASS    |
|               |         |           | NV            | 40               | 60000.00       | 11.583012       | 20          | PASS    |
|               |         |           | NV            | 50               | 60000.00       | 11.583012       | 20          | PASS    |
|               |         | 5200      | NV            | -30              | 60000.00       | 11.538462       | 20          | PASS    |
|               |         |           | NV            | -20              | 40000.00       | 7.692308        | 20          | PASS    |
|               |         |           | NV            | -10              | 40000.00       | 7.692308        | 20          | PASS    |
|               |         |           | NV            | 0                | 40000.00       | 7.692308        | 20          | PASS    |
|               |         |           | NV            | 10               | 60000.00       | 11.538462       | 20          | PASS    |
|               |         |           | NV            | 20               | 60000.00       | 11.538462       | 20          | PASS    |
|               |         |           | NV            | 30               | 40000.00       | 7.692308        | 20          | PASS    |
|               |         |           | NV            | 40               | 60000.00       | 11.538462       | 20          | PASS    |
|               |         |           | NV            | 50               | 60000.00       | 11.538462       | 20          | PASS    |
|               |         | 5240      | NV            | -30              | 60000.00       | 11.450382       | 20          | PASS    |
|               |         |           | NV            | -20              | 40000.00       | 7.633588        | 20          | PASS    |
|               |         |           | NV            | -10              | 60000.00       | 11.450382       | 20          | PASS    |
|               |         |           | NV            | 0                | 60000.00       | 11.450382       | 20          | PASS    |
|               |         |           | NV            | 10               | 60000.00       | 11.450382       | 20          | PASS    |
|               |         |           | NV            | 20               | 60000.00       | 11.450382       | 20          | PASS    |
|               |         |           | NV            | 30               | 60000.00       | 11.450382       | 20          | PASS    |
|               |         |           | NV            | 40               | 40000.00       | 7.633588        | 20          | PASS    |
|               |         |           | NV            | 50               | 60000.00       | 11.450382       | 20          | PASS    |
| 11N20SIS<br>O | Ant1    | 5180      | NV            | -30              | 40000.00       | 7.722008        | 20          | PASS    |
|               |         |           | NV            | -20              | 40000.00       | 7.722008        | 20          | PASS    |
|               |         |           | NV            | -10              | 60000.00       | 11.583012       | 20          | PASS    |
|               |         |           | NV            | 0                | 40000.00       | 7.722008        | 20          | PASS    |
|               |         |           | NV            | 10               | 40000.00       | 7.722008        | 20          | PASS    |
|               |         |           | NV            | 20               | 40000.00       | 7.722008        | 20          | PASS    |
|               |         |           | NV            | 30               | 40000.00       | 7.722008        | 20          | PASS    |
|               |         |           | NV            | 40               | 40000.00       | 7.722008        | 20          | PASS    |

|                |      |      |    |     |          |           |    |      |
|----------------|------|------|----|-----|----------|-----------|----|------|
|                |      |      | NV | 50  | 40000.00 | 7.722008  | 20 | PASS |
|                |      |      | NV | -30 | 40000.00 | 7.692308  | 20 | PASS |
|                |      |      | NV | -20 | 40000.00 | 7.692308  | 20 | PASS |
|                |      |      | NV | -10 | 60000.00 | 11.538462 | 20 | PASS |
|                |      |      | NV | 0   | 40000.00 | 7.692308  | 20 | PASS |
|                |      |      | NV | 10  | 40000.00 | 7.692308  | 20 | PASS |
|                |      |      | NV | 20  | 40000.00 | 7.692308  | 20 | PASS |
|                |      |      | NV | 30  | 40000.00 | 7.692308  | 20 | PASS |
|                |      |      | NV | 40  | 60000.00 | 11.538462 | 20 | PASS |
|                |      |      | NV | 50  | 40000.00 | 7.692308  | 20 | PASS |
|                |      |      | NV | -30 | 40000.00 | 7.633588  | 20 | PASS |
|                |      |      | NV | -20 | 40000.00 | 7.633588  | 20 | PASS |
|                |      |      | NV | -10 | 60000.00 | 11.450382 | 20 | PASS |
|                |      |      | NV | 0   | 60000.00 | 11.450382 | 20 | PASS |
|                |      |      | NV | 10  | 40000.00 | 7.633588  | 20 | PASS |
|                |      |      | NV | 20  | 40000.00 | 7.633588  | 20 | PASS |
|                |      |      | NV | 30  | 40000.00 | 7.633588  | 20 | PASS |
|                |      |      | NV | 40  | 40000.00 | 7.633588  | 20 | PASS |
|                |      |      | NV | 50  | 40000.00 | 7.633588  | 20 | PASS |
| 11N40SIS<br>O  | Ant1 | 5190 | NV | -30 | 40000.00 | 7.707129  | 20 | PASS |
|                |      |      | NV | -20 | 0.00     | 0.000000  | 20 | PASS |
|                |      |      | NV | -10 | 80000.00 | 15.414258 | 20 | PASS |
|                |      |      | NV | 0   | 40000.00 | 7.707129  | 20 | PASS |
|                |      |      | NV | 10  | 40000.00 | 7.707129  | 20 | PASS |
|                |      |      | NV | 20  | 40000.00 | 7.707129  | 20 | PASS |
|                |      |      | NV | 30  | 80000.00 | 15.414258 | 20 | PASS |
|                |      |      | NV | 40  | 80000.00 | 15.414258 | 20 | PASS |
|                |      |      | NV | 50  | 80000.00 | 15.414258 | 20 | PASS |
|                |      | 5230 | NV | -30 | 40000.00 | 7.648184  | 20 | PASS |
|                |      |      | NV | -20 | 80000.00 | 15.296367 | 20 | PASS |
|                |      |      | NV | -10 | 40000.00 | 7.648184  | 20 | PASS |
|                |      |      | NV | 0   | 80000.00 | 15.296367 | 20 | PASS |
|                |      |      | NV | 10  | 40000.00 | 7.648184  | 20 | PASS |
|                |      |      | NV | 20  | 0.00     | 0.000000  | 20 | PASS |
|                |      |      | NV | 30  | 40000.00 | 7.648184  | 20 | PASS |
|                |      |      | NV | 40  | 40000.00 | 7.648184  | 20 | PASS |
|                |      |      | NV | 50  | 40000.00 | 7.648184  | 20 | PASS |
| 11AC20SIS<br>O | Ant1 | 5180 | NV | -30 | 40000.00 | 7.722008  | 20 | PASS |
|                |      |      | NV | -20 | 40000.00 | 7.722008  | 20 | PASS |
|                |      |      | NV | -10 | 40000.00 | 7.722008  | 20 | PASS |
|                |      |      | NV | 0   | 40000.00 | 7.722008  | 20 | PASS |
|                |      |      | NV | 10  | 40000.00 | 7.722008  | 20 | PASS |
|                |      |      | NV | 20  | 40000.00 | 7.722008  | 20 | PASS |
|                |      |      | NV | 30  | 40000.00 | 7.722008  | 20 | PASS |

|                |      |      |    |     |          |           |    |      |
|----------------|------|------|----|-----|----------|-----------|----|------|
|                |      |      | NV | 40  | 40000.00 | 7.722008  | 20 | PASS |
|                |      |      | NV | 50  | 40000.00 | 7.722008  | 20 | PASS |
|                |      | 5200 | NV | -30 | 40000.00 | 7.692308  | 20 | PASS |
|                |      |      | NV | -20 | 40000.00 | 7.692308  | 20 | PASS |
|                |      |      | NV | -10 | 40000.00 | 7.692308  | 20 | PASS |
|                |      |      | NV | 0   | 40000.00 | 7.692308  | 20 | PASS |
|                |      |      | NV | 10  | 40000.00 | 7.692308  | 20 | PASS |
|                |      |      | NV | 20  | 40000.00 | 7.692308  | 20 | PASS |
|                |      |      | NV | 30  | 40000.00 | 7.692308  | 20 | PASS |
|                |      |      | NV | 40  | 40000.00 | 7.692308  | 20 | PASS |
|                |      |      | NV | 50  | 40000.00 | 7.692308  | 20 | PASS |
|                |      | 5240 | NV | -30 | 40000.00 | 7.633588  | 20 | PASS |
|                |      |      | NV | -20 | 40000.00 | 7.633588  | 20 | PASS |
|                |      |      | NV | -10 | 40000.00 | 7.633588  | 20 | PASS |
|                |      |      | NV | 0   | 40000.00 | 7.633588  | 20 | PASS |
|                |      |      | NV | 10  | 40000.00 | 7.633588  | 20 | PASS |
|                |      |      | NV | 20  | 40000.00 | 7.633588  | 20 | PASS |
|                |      |      | NV | 30  | 40000.00 | 7.633588  | 20 | PASS |
|                |      |      | NV | 40  | 40000.00 | 7.633588  | 20 | PASS |
|                |      |      | NV | 50  | 40000.00 | 7.633588  | 20 | PASS |
| 11AC40SIS<br>O | Ant1 | 5190 | NV | -30 | 0.00     | 0.000000  | 20 | PASS |
|                |      |      | NV | -20 | 40000.00 | 7.707129  | 20 | PASS |
|                |      |      | NV | -10 | 0.00     | 0.000000  | 20 | PASS |
|                |      |      | NV | 0   | 40000.00 | 7.707129  | 20 | PASS |
|                |      |      | NV | 10  | 0.00     | 0.000000  | 20 | PASS |
|                |      |      | NV | 20  | 80000.00 | 15.414258 | 20 | PASS |
|                |      |      | NV | 30  | 40000.00 | 7.707129  | 20 | PASS |
|                |      |      | NV | 40  | 40000.00 | 7.707129  | 20 | PASS |
|                |      |      | NV | 50  | 40000.00 | 7.707129  | 20 | PASS |
|                |      | 5230 | NV | -30 | 40000.00 | 7.648184  | 20 | PASS |
|                |      |      | NV | -20 | 40000.00 | 7.648184  | 20 | PASS |
|                |      |      | NV | -10 | 40000.00 | 7.648184  | 20 | PASS |
|                |      |      | NV | 0   | 40000.00 | 7.648184  | 20 | PASS |
|                |      |      | NV | 10  | 40000.00 | 7.648184  | 20 | PASS |
|                |      |      | NV | 20  | 40000.00 | 7.648184  | 20 | PASS |
|                |      |      | NV | 30  | 0.00     | 0.000000  | 20 | PASS |
|                |      |      | NV | 40  | 40000.00 | 7.648184  | 20 | PASS |
|                |      |      | NV | 50  | 80000.00 | 15.296367 | 20 | PASS |
| 11AC80SIS<br>O | Ant1 | 5210 | NV | -30 | 0.00     | 0.000000  | 20 | PASS |
|                |      |      | NV | -20 | 80000.00 | 15.355086 | 20 | PASS |
|                |      |      | NV | -10 | 80000.00 | 15.355086 | 20 | PASS |
|                |      |      | NV | 0   | 80000.00 | 15.355086 | 20 | PASS |
|                |      |      | NV | 10  | 0.00     | 0.000000  | 20 | PASS |
|                |      |      | NV | 20  | 80000.00 | 15.355086 | 20 | PASS |

|  |  |  |    |    |          |           |    |      |
|--|--|--|----|----|----------|-----------|----|------|
|  |  |  | NV | 30 | 0.00     | 0.000000  | 20 | PASS |
|  |  |  | NV | 40 | 80000.00 | 15.355086 | 20 | PASS |
|  |  |  | NV | 50 | 80000.00 | 15.355086 | 20 | PASS |

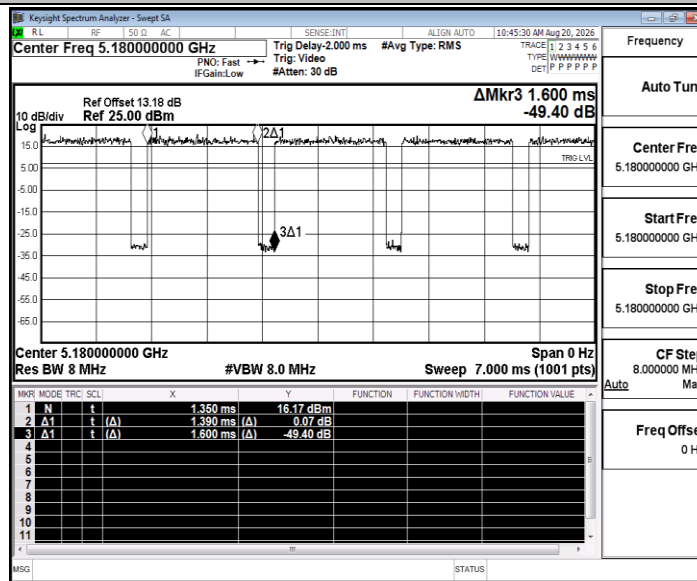
## D.6 Duty Cycle

### Test Result

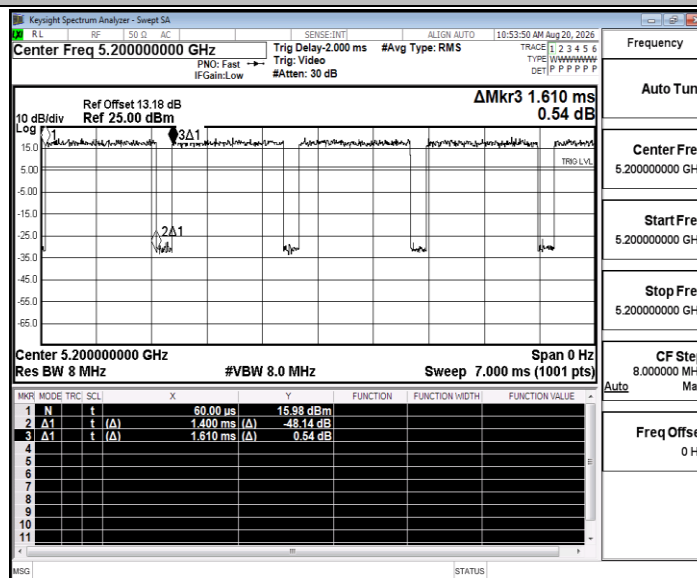
| TestMode   | Antenna | Freq(MHz) | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] | DC Factor | Limit | Verdict |
|------------|---------|-----------|----------------------------|--------------------------|----------------|-----------|-------|---------|
| 11A        | Ant1    | 5180      | 1.39                       | 1.60                     | 86.88          | 0.61      | ---   | ---     |
|            |         | 5200      | 1.40                       | 1.61                     | 86.96          | 0.61      | ---   | ---     |
|            |         | 5240      | 1.39                       | 1.60                     | 86.88          | 0.61      | ---   | ---     |
| 11N20SISO  | Ant1    | 5180      | 1.30                       | 1.51                     | 86.09          | 0.65      | ---   | ---     |
|            |         | 5200      | 1.30                       | 1.51                     | 86.09          | 0.65      | ---   | ---     |
|            |         | 5240      | 1.31                       | 1.52                     | 86.18          | 0.65      | ---   | ---     |
| 11N40SISO  | Ant1    | 5190      | 0.65                       | 0.86                     | 75.58          | 1.22      | ---   | ---     |
|            |         | 5230      | 0.65                       | 0.86                     | 75.58          | 1.22      | ---   | ---     |
| 11AC20SISO | Ant1    | 5180      | 0.48                       | 0.69                     | 69.57          | 1.58      | ---   | ---     |
|            |         | 5200      | 0.48                       | 0.69                     | 69.57          | 1.58      | ---   | ---     |
|            |         | 5240      | 0.48                       | 0.69                     | 69.57          | 1.58      | ---   | ---     |
| 11AC40SISO | Ant1    | 5190      | 0.26                       | 0.47                     | 55.32          | 2.57      | ---   | ---     |
|            |         | 5230      | 0.26                       | 0.47                     | 55.32          | 2.57      | ---   | ---     |
| 11AC80SISO | Ant1    | 5210      | 0.15                       | 0.36                     | 41.67          | 3.80      | ---   | ---     |

## Test Graphs

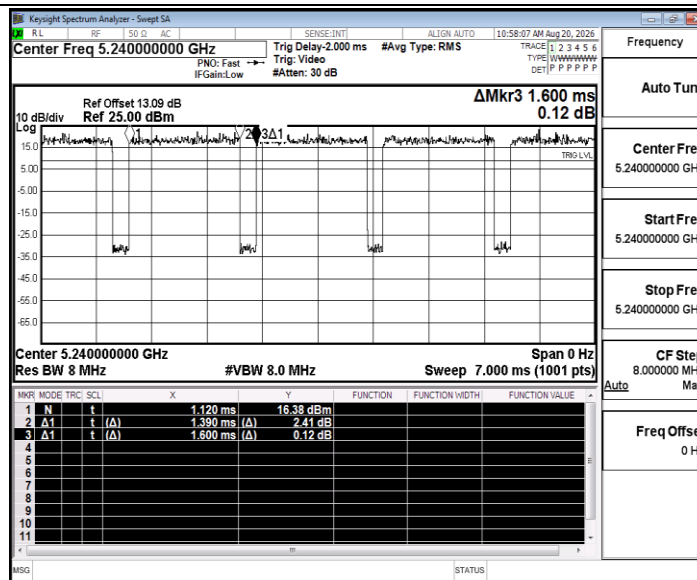
11A\_Ant1\_5180



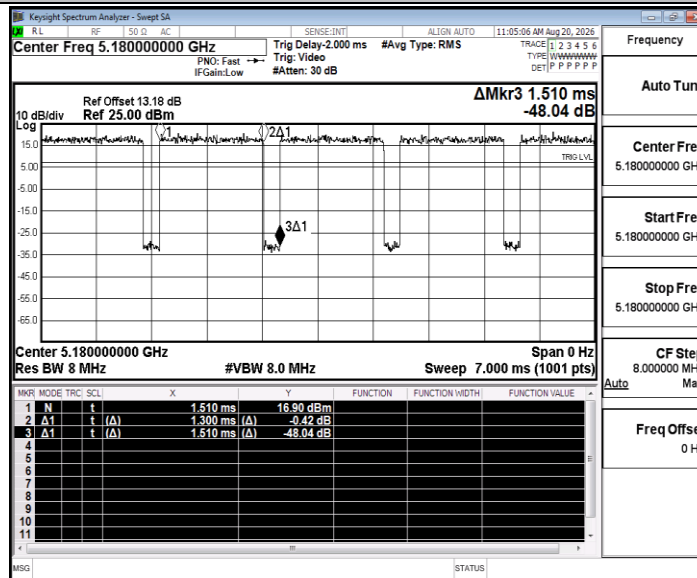
11A\_Ant1\_5200



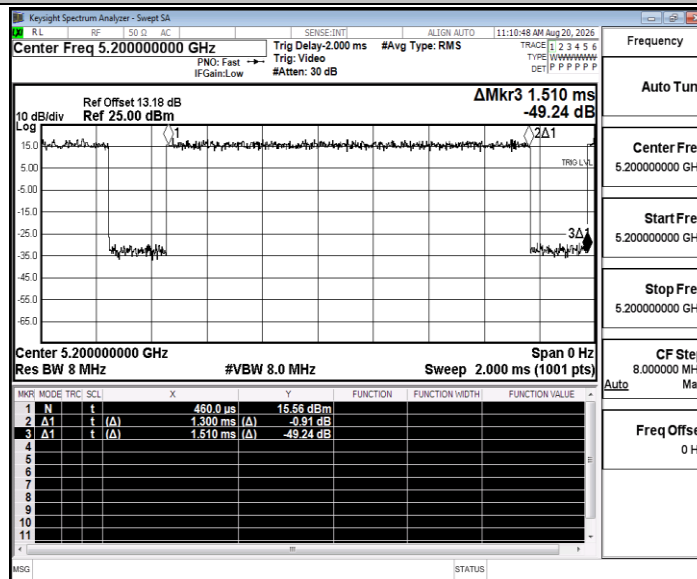
11A\_Ant1\_5240



11N20SISO\_Ant1\_5180



11N20SISO\_Ant1\_5200



11N20SISO\_Ant1\_5240