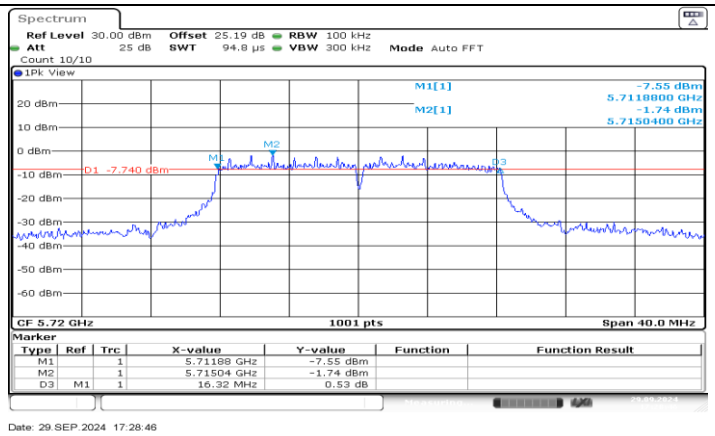
## 11.3. APPENDIX C: MIN EMISSION BANDWIDTH

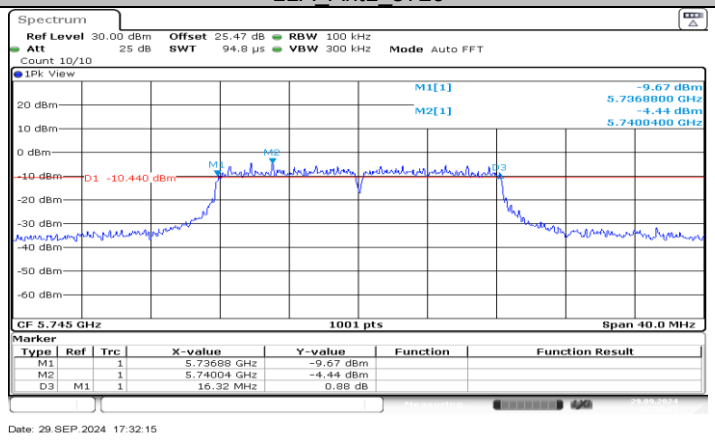
### 11.3.1. Test Result

| Test Mode | Antenna | Frequency[MHz] | 6db EBW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|---|---|---|
| 11A | Ant1 | 5720 | 16.32 | 5711.88 | 5728.20 | ≥0.5 | PASS |
| | | 5720_UNII-3 | 3.2 | 5725 | 5728.20 | ≥0.5 | PASS |
| | | 5745 | 16.32 | 5736.88 | 5753.20 | ≥0.5 | PASS |
| | | 5785 | 16.32 | 5776.88 | 5793.20 | ≥0.5 | PASS |
| | | 5825 | 16.36 | 5816.88 | 5833.24 | ≥0.5 | PASS |
| 11N20SISO | Ant1 | 5720 | 17.04 | 5711.28 | 5728.32 | ≥0.5 | PASS |
| | | 5720_UNII-3 | 3.32 | 5725 | 5728.32 | ≥0.5 | PASS |
| | | 5745 | 17.60 | 5736.24 | 5753.84 | ≥0.5 | PASS |
| | | 5785 | 17.32 | 5776.52 | 5793.84 | ≥0.5 | PASS |
| | | 5825 | 16.80 | 5816.64 | 5833.44 | ≥0.5 | PASS |
| 11N40SISO | Ant1 | 5710 | 35.20 | 5692.48 | 5727.68 | ≥0.5 | PASS |
| | | 5710_UNII-3 | 2.68 | 5725 | 5727.68 | ≥0.5 | PASS |
| | | 5755 | 35.12 | 5737.48 | 5772.60 | ≥0.5 | PASS |
| | | 5795 | 35.12 | 5777.56 | 5812.68 | ≥0.5 | PASS |

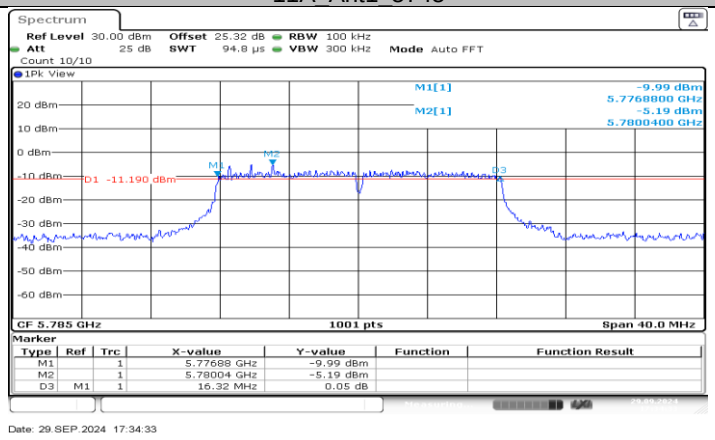
## 11.3.2. Test Graphs



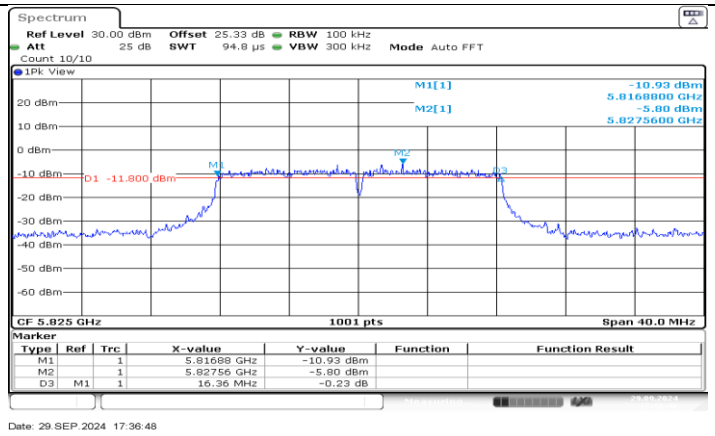

11A_Ant1_5720



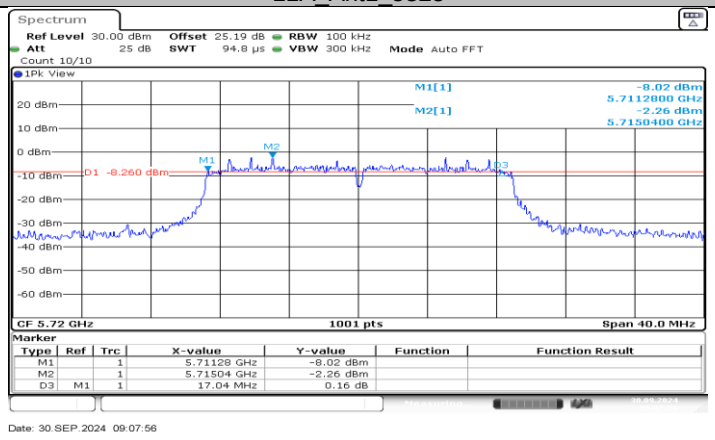

11A_Ant1_5745



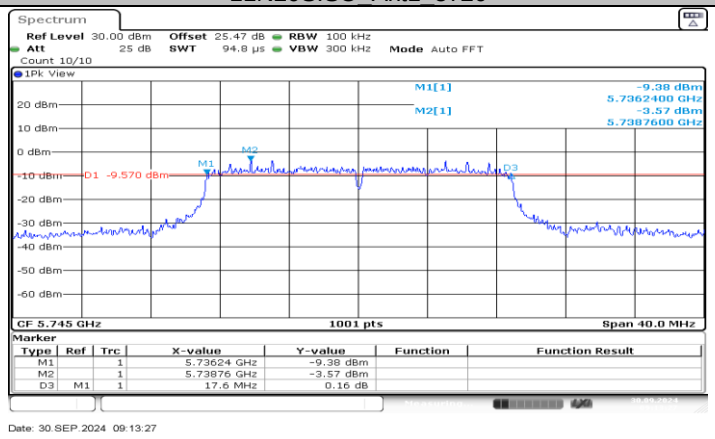

11A_Ant1_5785



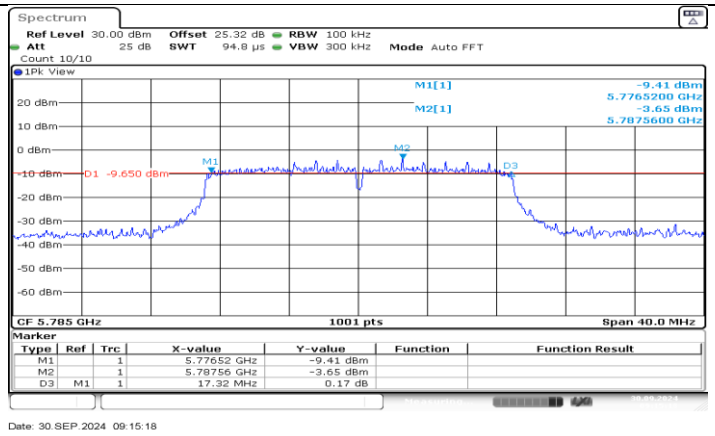

11A_Ant1_5825



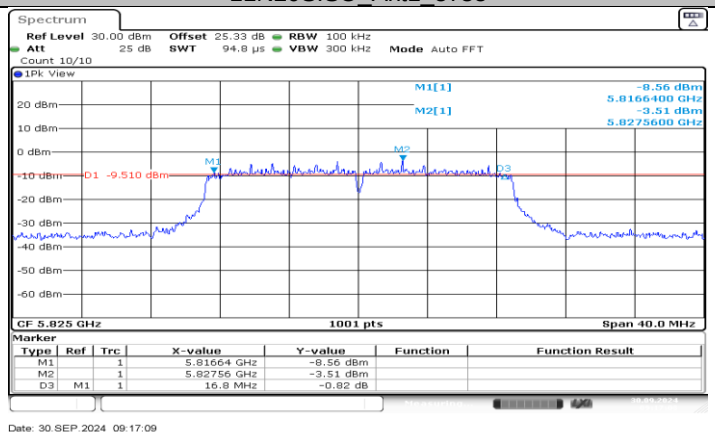

11N20SISO_Ant1_5720



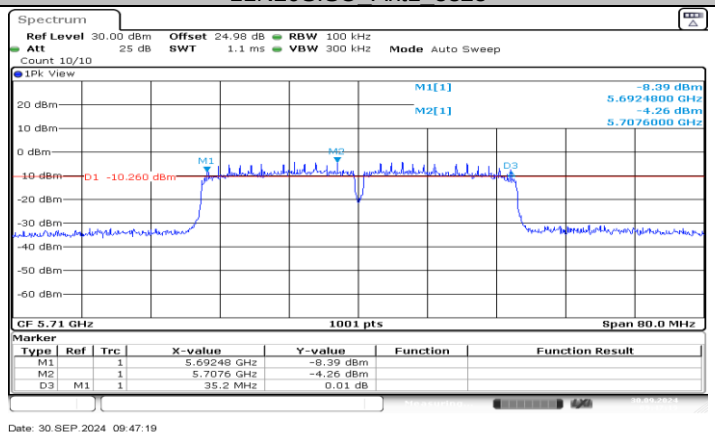

11N20SISO_Ant1_5745



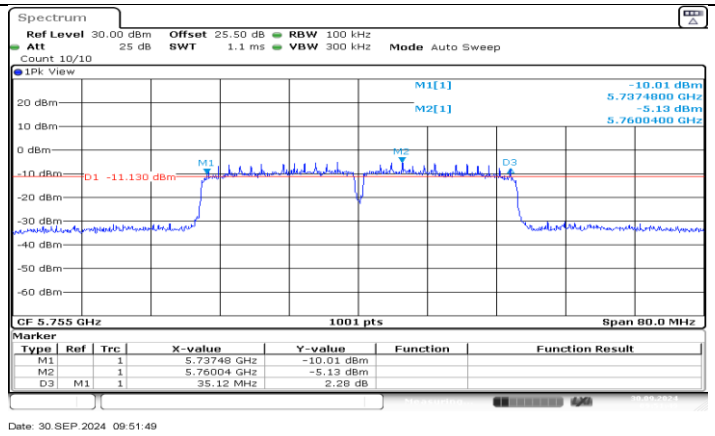

11N20SISO_Ant1_5785



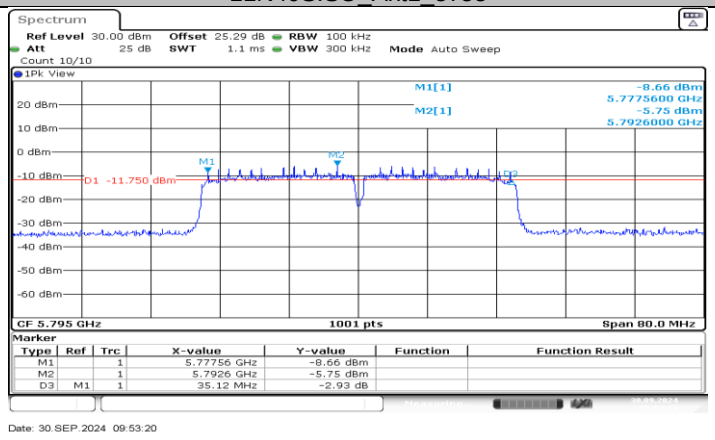

11N20SISO_Ant1_5825




11N40SISO_Ant1_5710




11N40SISO_Ant1_5755




11N40SISO_Ant1_5795

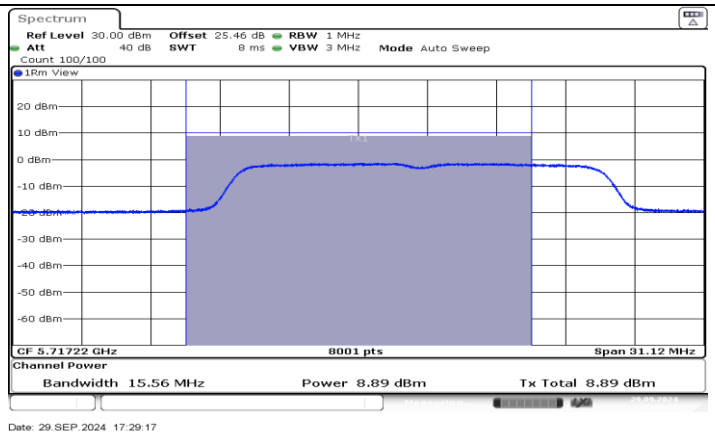
## 11.4. APPENDIX D: MAXIMUM CONDUCTED OUTPUT POWER

### 11.4.1. Test Result

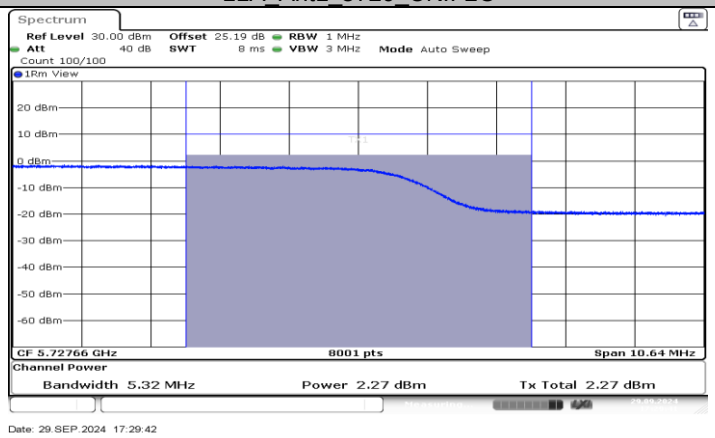
| Test Mode | Antenna | Frequency[MHz] | Power [dBm] | FCC Limit [dBm] | ISED Limit [dBm] | EIRP [dBm] | Limit [dBm] | Verdict |
|---|---|---|---|---|---|---|---|---|
| 11A | Ant1 | 5180 | 8.91 | ≤23.98 | --- | 12.41 | ≤22.40 | PASS |
| | | 5200 | 9.74 | ≤23.98 | --- | 13.24 | ≤22.39 | PASS |
| | | 5240 | 10.20 | ≤23.98 | --- | 13.70 | ≤22.38 | PASS |
| | | 5260 | 9.89 | ≤23.98 | ≤23.44 | 13.39 | ≤29.44 | PASS |
| | | 5280 | 9.92 | ≤23.98 | ≤23.42 | 13.42 | ≤29.42 | PASS |
| | | 5320 | 10.34 | ≤23.98 | ≤23.39 | 13.84 | ≤29.39 | PASS |
| | | 5500 | 9.91 | ≤23.98 | ≤23.40 | 13.41 | ≤29.40 | PASS |
| | | 5580 | 10.22 | ≤23.98 | ≤23.46 | 13.72 | ≤29.46 | PASS |
| | | 5700 | 10.88 | ≤23.98 | ≤23.62 | 14.38 | ≤29.62 | PASS |
| | | 5720_UNII-2C | 8.89 | ≤22.92 | ≤22.36 | 12.39 | ≤28.36 | PASS |
| | | 5720_UNII-3 | 2.27 | ≤30.00 | ≤30.00 | 5.77 | --- | PASS |
| | | 5745 | 7.79 | ≤30.00 | ≤30.00 | 11.29 | --- | PASS |
| | | 5785 | 7.08 | ≤30.00 | ≤30.00 | 10.58 | --- | PASS |
| | | 5825 | 6.69 | ≤30.00 | ≤30.00 | 10.19 | --- | PASS |
| 11N20SISO | Ant1 | 5180 | 11.30 | ≤23.98 | --- | 14.80 | ≤22.64 | PASS |
| | | 5200 | 11.76 | ≤23.98 | --- | 15.26 | ≤22.62 | PASS |
| | | 5240 | 12.24 | ≤23.98 | --- | 15.74 | ≤22.62 | PASS |
| | | 5260 | 10.67 | ≤23.98 | ≤23.62 | 14.17 | ≤29.62 | PASS |
| | | 5280 | 10.63 | ≤23.98 | ≤23.63 | 14.13 | ≤29.63 | PASS |
| | | 5320 | 10.29 | ≤23.98 | ≤23.63 | 13.79 | ≤29.63 | PASS |
| | | 5500 | 8.85 | ≤23.98 | ≤23.63 | 12.35 | ≤29.63 | PASS |
| | | 5580 | 9.67 | ≤23.98 | ≤23.65 | 13.17 | ≤29.65 | PASS |
| | | 5700 | 10.42 | ≤23.98 | ≤23.79 | 13.92 | ≤29.79 | PASS |
| | | 5720_UNII-2C | 8.36 | ≤23.05 | ≤22.47 | 11.86 | ≤28.47 | PASS |
| | | 5720_UNII-3 | 2.18 | ≤30.00 | ≤30.00 | 5.68 | --- | PASS |
| | | 5745 | 8.86 | ≤30.00 | ≤30.00 | 12.36 | --- | PASS |
| | | 5785 | 8.11 | ≤30.00 | ≤30.00 | 11.61 | --- | PASS |
| | | 5825 | 7.97 | ≤30.00 | ≤30.00 | 11.47 | --- | PASS |
| 11N40SISO | Ant1 | 5190 | 10.15 | ≤23.98 | --- | 13.65 | ≤23.00 | PASS |
| | | 5230 | 11.22 | ≤23.98 | --- | 14.72 | ≤23.00 | PASS |
| | | 5270 | 10.98 | ≤23.98 | ≤23.98 | 14.48 | ≤30.00 | PASS |
| | | 5310 | 11.17 | ≤23.98 | ≤23.98 | 14.67 | ≤30.00 | PASS |
| | | 5510 | 9.33 | ≤23.98 | ≤23.98 | 12.83 | ≤30.00 | PASS |
| | | 5550 | 9.09 | ≤23.98 | ≤23.98 | 12.59 | ≤30.00 | PASS |
| | | 5670 | 10.24 | ≤23.98 | ≤23.98 | 13.74 | ≤30.00 | PASS |
| | | 5710_UNII-2C | 9.44 | ≤23.98 | ≤23.98 | 12.94 | ≤30.00 | PASS |
| | | 5710_UNII-3 | -2.54 | ≤30.00 | ≤30.00 | 0.96 | --- | PASS |
| | | 5755 | 9.10 | ≤30.00 | ≤30.00 | 12.60 | --- | PASS |
| | | 5795 | 8.35 | ≤30.00 | ≤30.00 | 11.85 | --- | PASS |

Note: 1. Conducted Power=Meas. Level+ Correction Factor
2. The Duty Cycle Factor (refer to section 7.1) had already compensated to the test data.

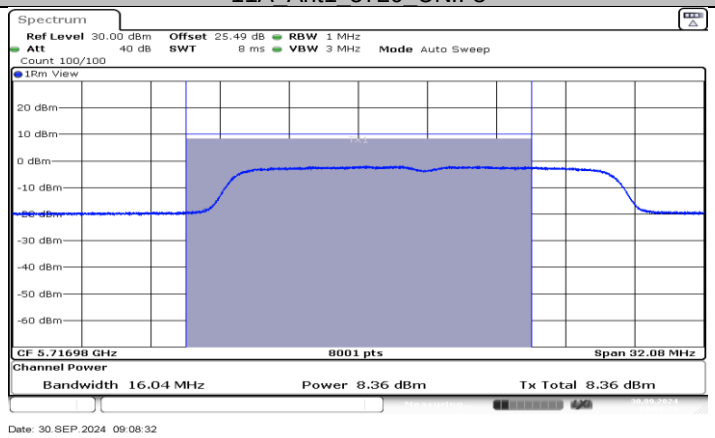
## 11.4.2. Test Graphs



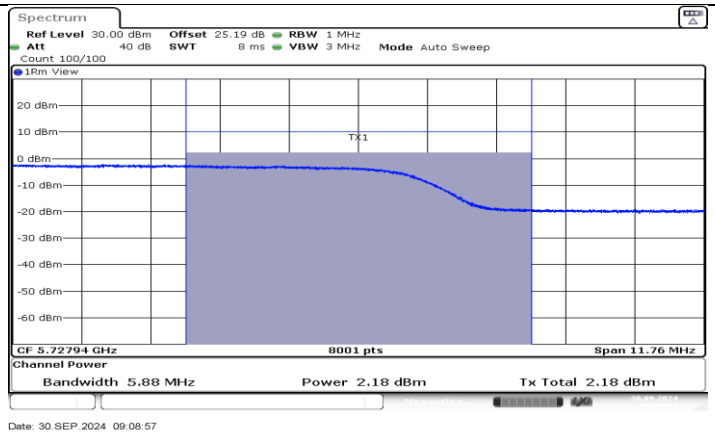

11A_Ant1_5720_UNII-2C



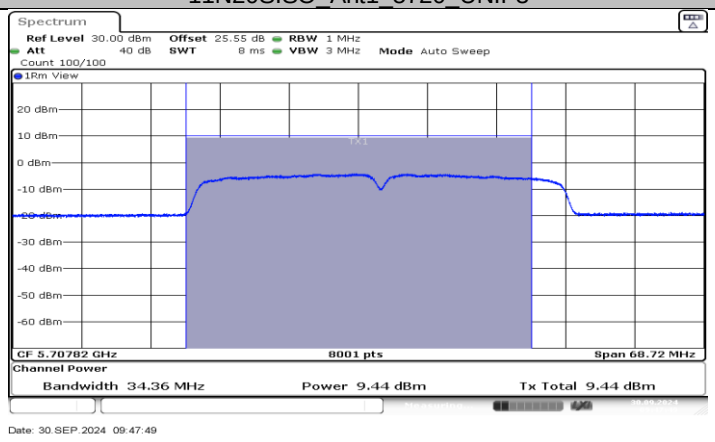

11A_Ant1_5720_UNII-3



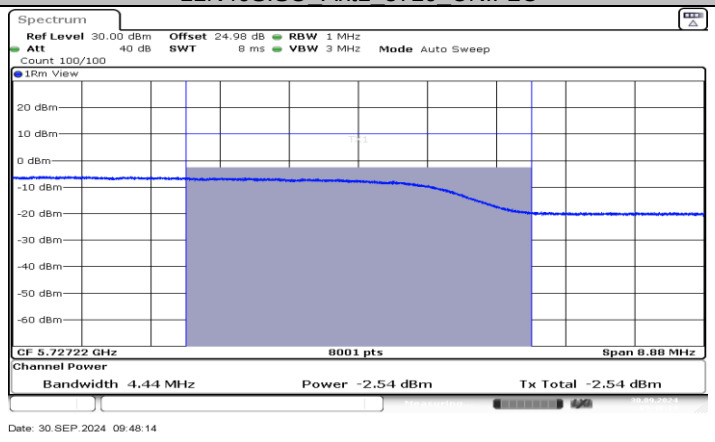

11N20SISO_Ant1_5720_UNII-2C




11N20SISO_Ant1_5720_UNII-3




11N40SISO_Ant1_5710_UNII-2C




11N40SISO_Ant1_5710_UNII-3

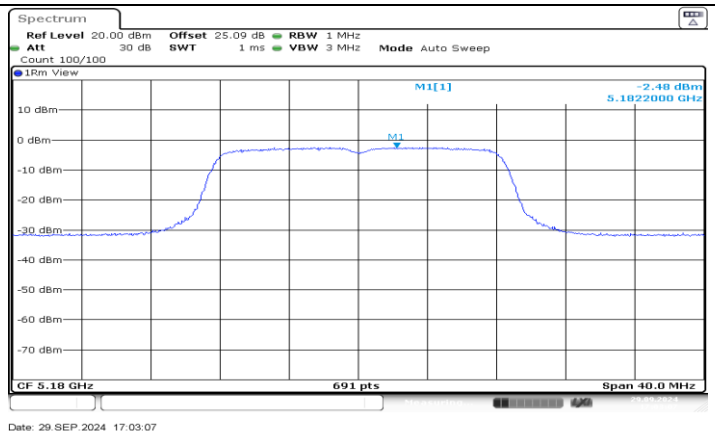
## 11.5. APPENDIX E: MAXIMUM POWER SPECTRAL DENSITY

### 11.5.1. Test Result

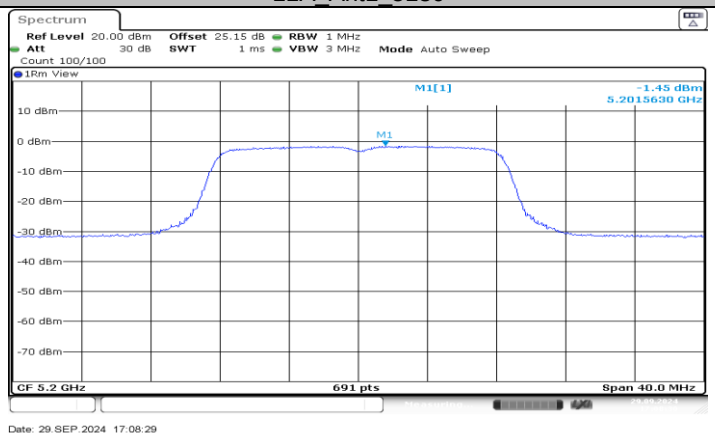
| Test Mode | Antenna | Frequency[MHz] | Power [dBm/MHz] | Limit [dBm/MHz] | EIRP [dBm/MHz] | Limit [dBm/MHz] | Verdict |
|---|---|---|---|---|---|---|---|
| 11A | Ant1 | 5180 | -2.48 | ≤11.00 | 1.02 | ≤10.00 | PASS |
| | | 5200 | -1.45 | ≤11.00 | 2.05 | ≤10.00 | PASS |
| | | 5240 | -1.13 | ≤11.00 | 2.37 | ≤10.00 | PASS |
| | | 5260 | -1.36 | ≤11.00 | 2.14 | --- | PASS |
| | | 5280 | -1.44 | ≤11.00 | 2.06 | --- | PASS |
| | | 5320 | -0.79 | ≤11.00 | 2.71 | --- | PASS |
| | | 5500 | -1.20 | ≤11.00 | 2.30 | --- | PASS |
| | | 5580 | -0.99 | ≤11.00 | 2.51 | --- | PASS |
| | | 5700 | -0.35 | ≤11.00 | 3.15 | --- | PASS |
| | | 5720_UNII-2C | -1.45 | ≤11.00 | 2.05 | --- | PASS |
| | | 5720_UNII-3 | -4.63 | ≤30.00 | -1.13 | --- | PASS |
| | | 5745 | -6.52 | ≤30.00 | -3.02 | --- | PASS |
| | | 5785 | -7.03 | ≤30.00 | -3.53 | --- | PASS |
| | | 5825 | -7.65 | ≤30.00 | -4.15 | --- | PASS |
| 11N20SISO | Ant1 | 5180 | 0.01 | ≤11.00 | 3.51 | ≤10.00 | PASS |
| | | 5200 | 0.15 | ≤11.00 | 3.65 | ≤10.00 | PASS |
| | | 5240 | 0.84 | ≤11.00 | 4.34 | ≤10.00 | PASS |
| | | 5260 | -0.68 | ≤11.00 | 2.82 | --- | PASS |
| | | 5280 | -0.67 | ≤11.00 | 2.83 | --- | PASS |
| | | 5320 | -1.16 | ≤11.00 | 2.34 | --- | PASS |
| | | 5500 | -2.51 | ≤11.00 | 0.99 | --- | PASS |
| | | 5580 | -1.79 | ≤11.00 | 1.71 | --- | PASS |
| | | 5700 | -0.99 | ≤11.00 | 2.51 | --- | PASS |
| | | 5720_UNII-2C | -2.23 | ≤11.00 | 1.27 | --- | PASS |
| | | 5720_UNII-3 | -5.33 | ≤30.00 | -1.83 | --- | PASS |
| | | 5745 | -5.45 | ≤30.00 | -1.95 | --- | PASS |
| | | 5785 | -6.30 | ≤30.00 | -2.80 | --- | PASS |
| | | 5825 | -6.49 | ≤30.00 | -2.99 | --- | PASS |
| 11N40SISO | Ant1 | 5190 | -4.20 | ≤11.00 | -0.70 | ≤10.00 | PASS |
| | | 5230 | -3.03 | ≤11.00 | 0.47 | ≤10.00 | PASS |
| | | 5270 | -3.37 | ≤11.00 | 0.13 | --- | PASS |
| | | 5310 | -3.25 | ≤11.00 | 0.25 | --- | PASS |
| | | 5510 | -5.00 | ≤11.00 | -1.50 | --- | PASS |
| | | 5550 | -5.29 | ≤11.00 | -1.79 | --- | PASS |
| | | 5670 | -4.13 | ≤11.00 | -0.63 | --- | PASS |
| | | 5710_UNII-2C | -4.63 | ≤11.00 | -1.13 | --- | PASS |
| | | 5710_UNII-3 | -9.31 | ≤30.00 | -5.81 | --- | PASS |
| | | 5755 | -8.58 | ≤30.00 | -5.08 | --- | PASS |
| | | 5795 | -9.06 | ≤30.00 | -5.56 | --- | PASS |

Note：1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.
2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

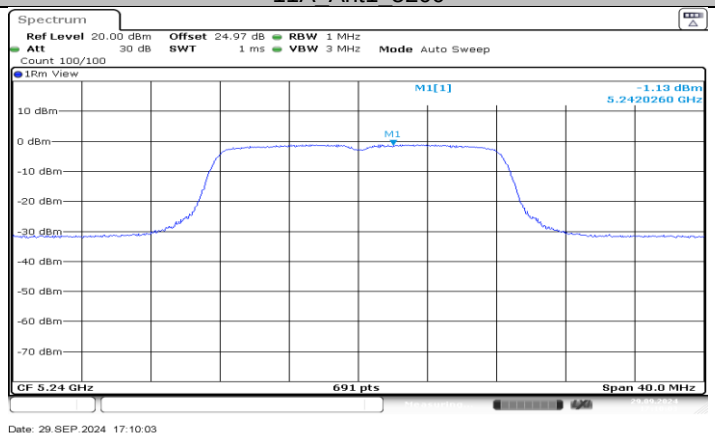
## 11.5.2. Test Graphs



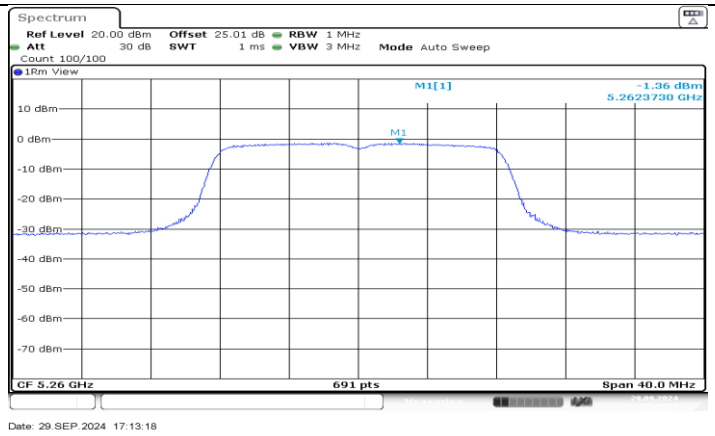

11A_Ant1_5180



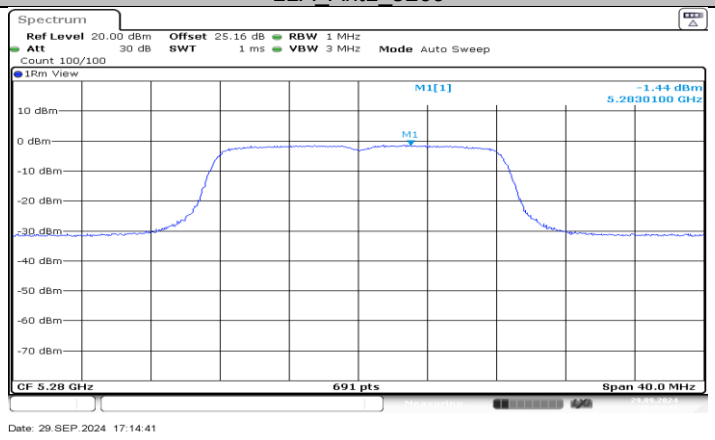

11A_Ant1_5200



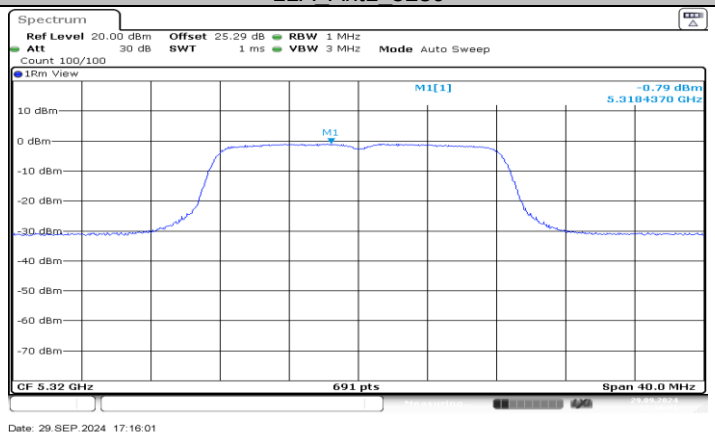

11A_Ant1_5240



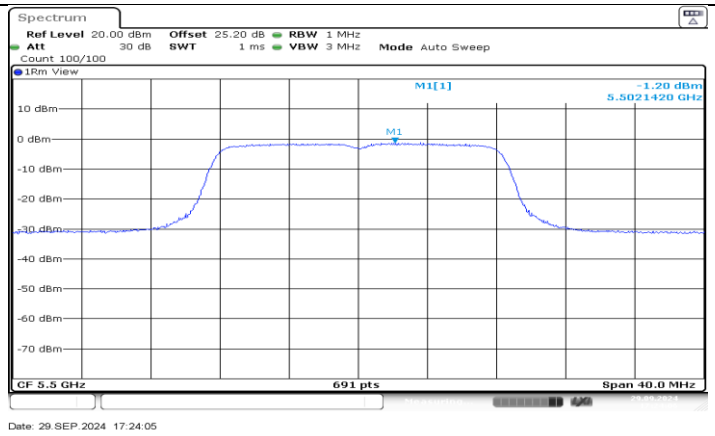

11A_Ant1_5260



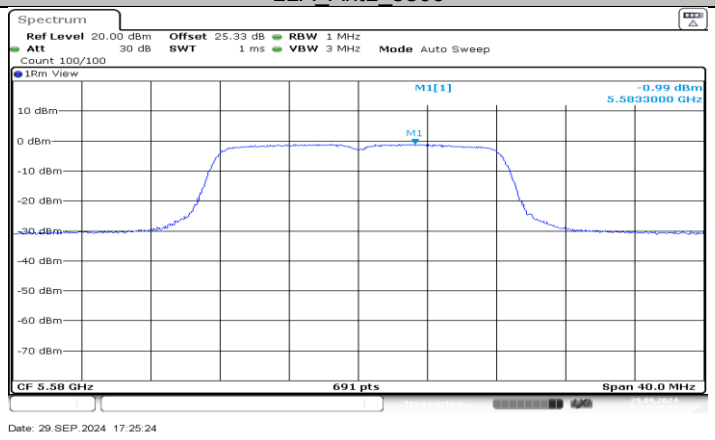

11A_Ant1_5280



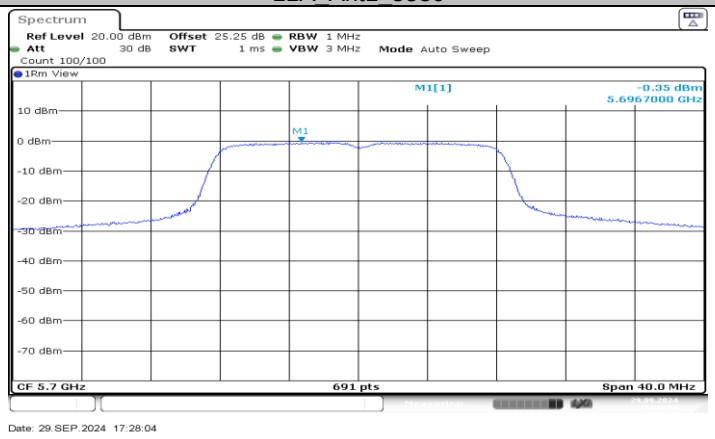

11A_Ant1_5320



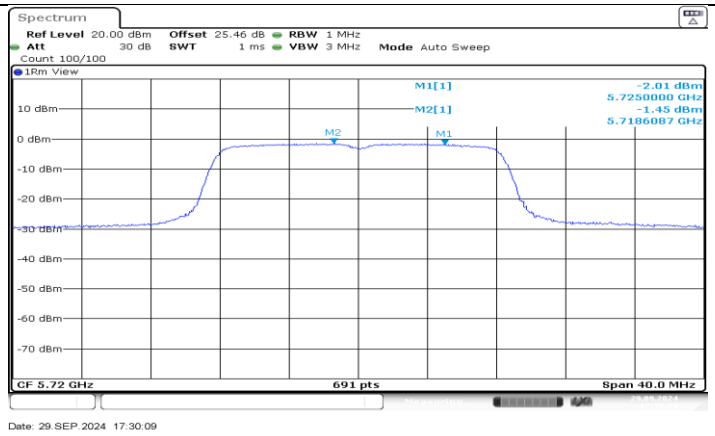

11A_Ant1_5500



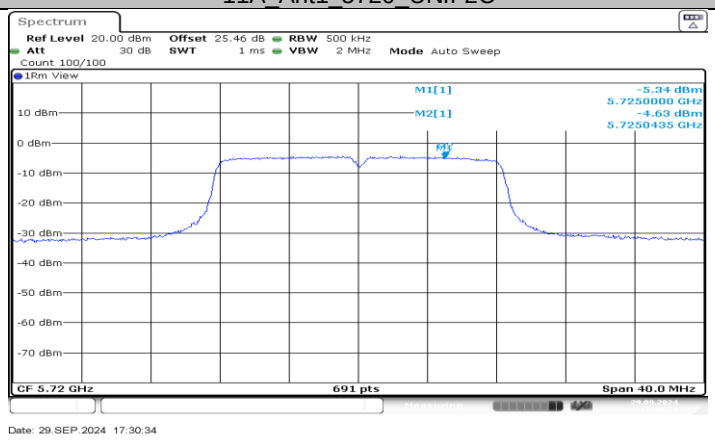

11A_Ant1_5580



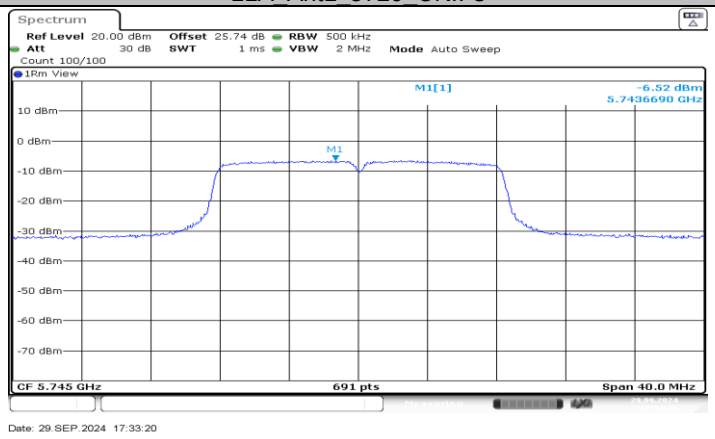

11A_Ant1_5700



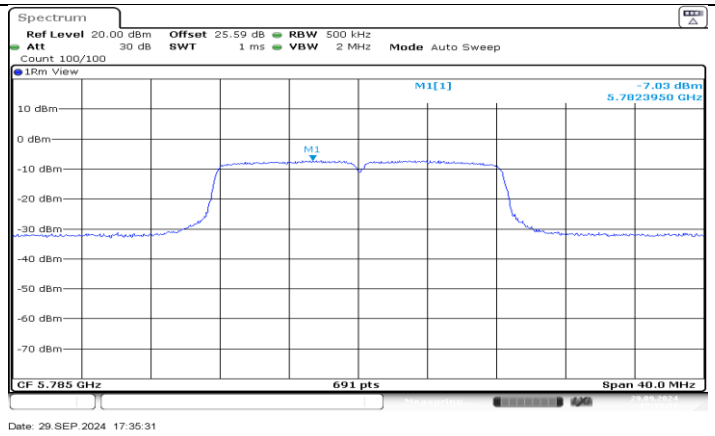

11A_Ant1_5720_UNII-2C



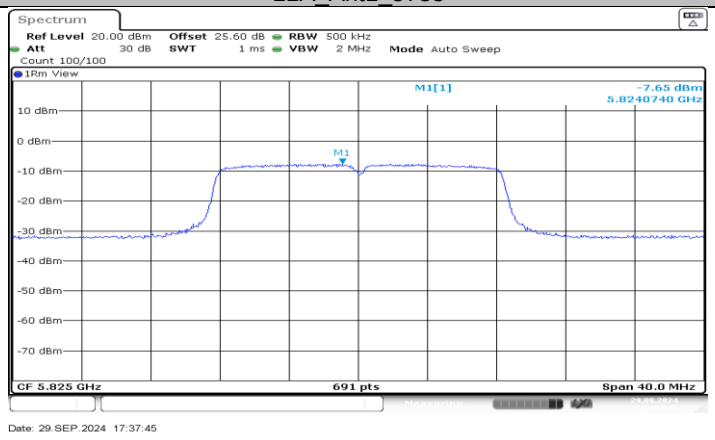

11A_Ant1_5720_UNII-3



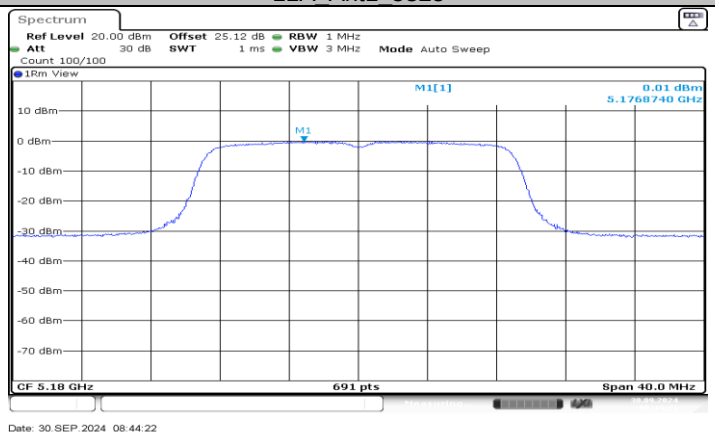

11A_Ant1_5745



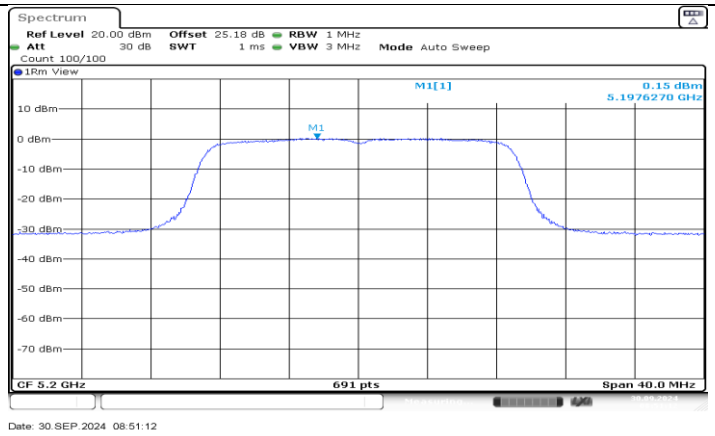

11A_Ant1_5785



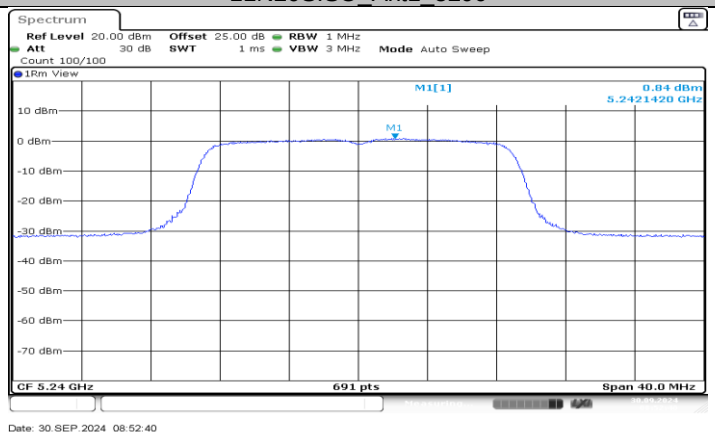

11A_Ant1_5825



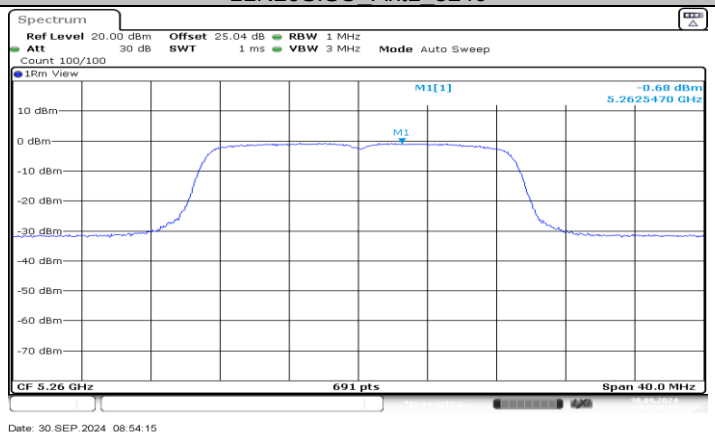

11N20SISO_Ant1_5180



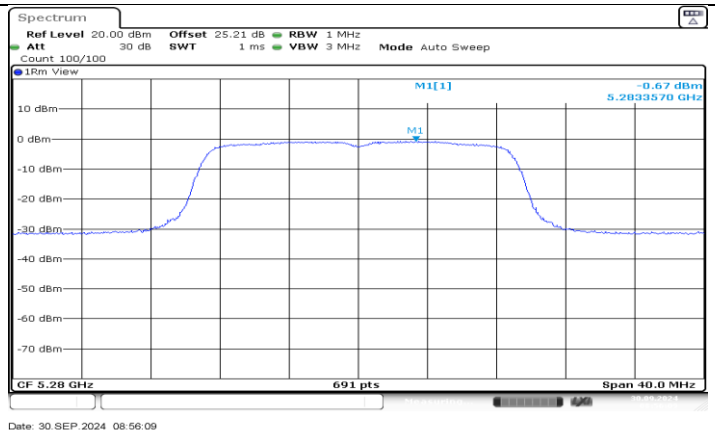

11N20SISO_Ant1_5200



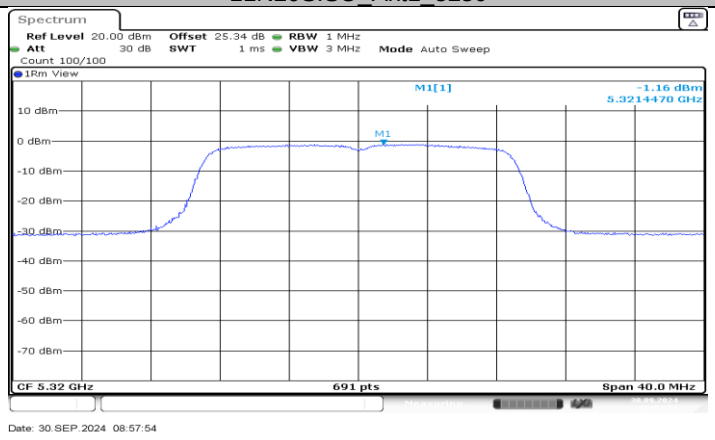

11N20SISO_Ant1_5240



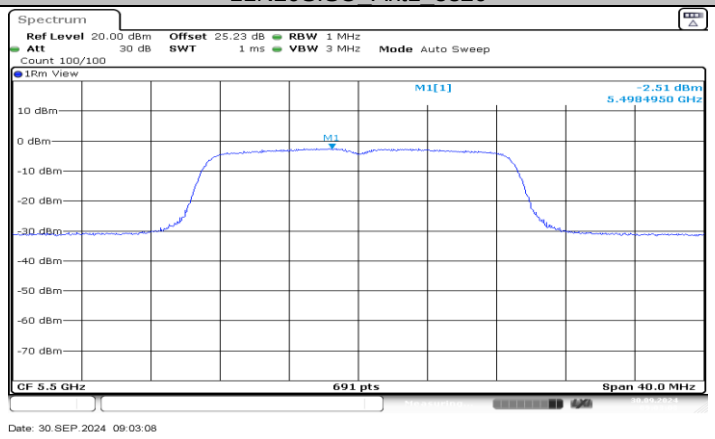

11N20SISO_Ant1_5260



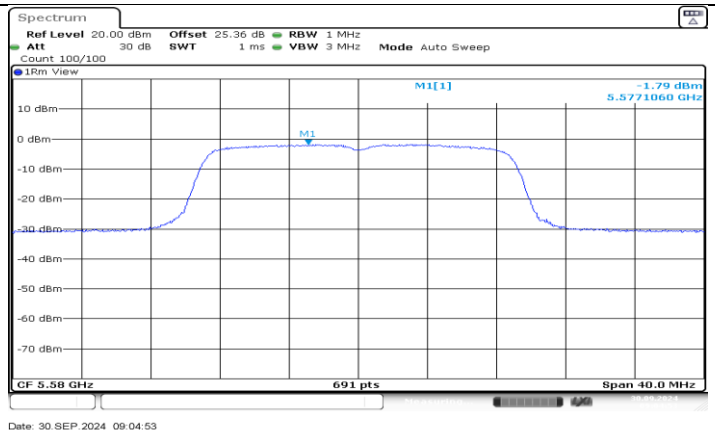

11N20SISO_Ant1_5280



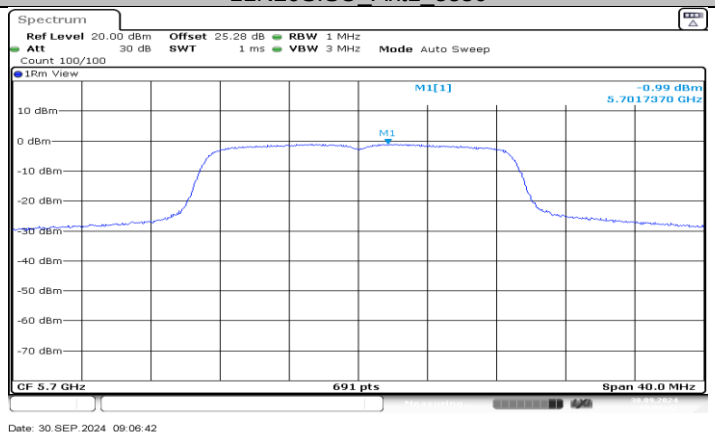

11N20SISO_Ant1_5320



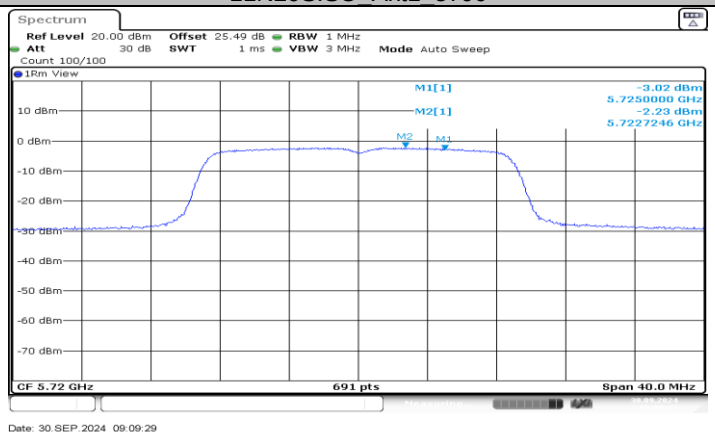

11N20SISO_Ant1_5500



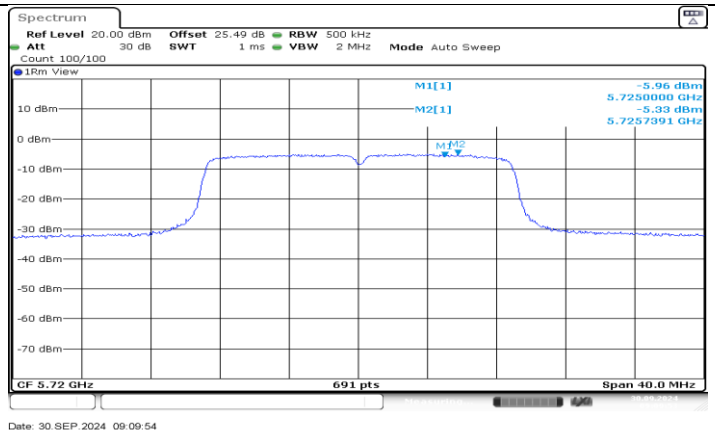

11N20SISO_Ant1_5580



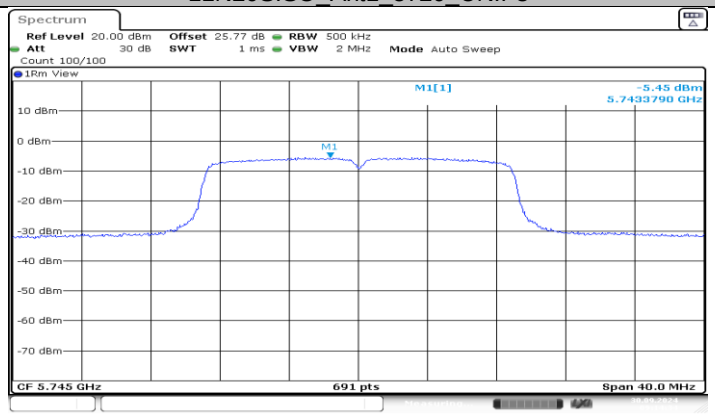

11N20SISO_Ant1_5700



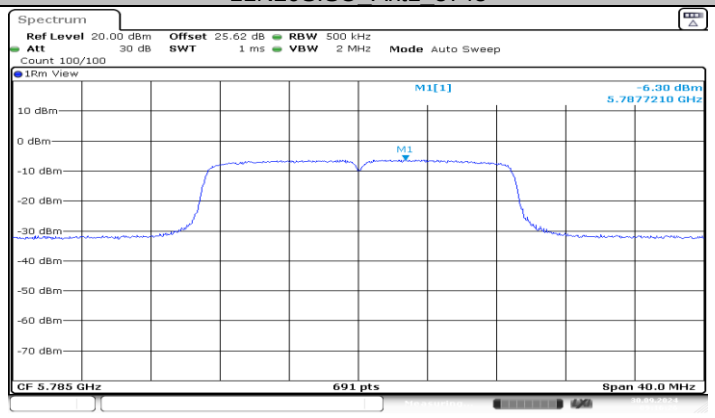

11N20SISO_Ant1_5720_UNII-2C



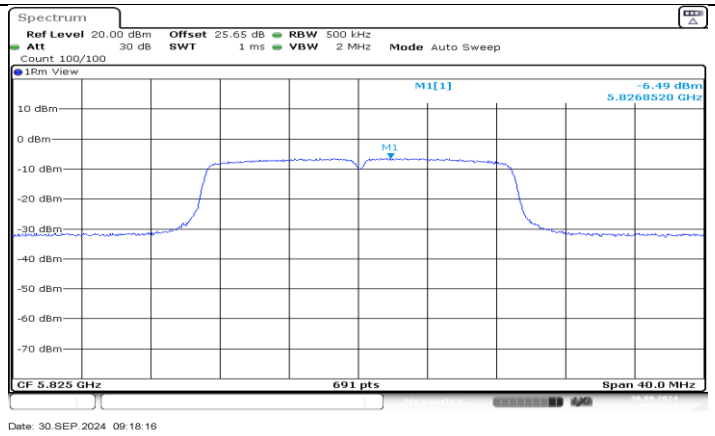

11N20SISO_Ant1_5720_UNII-3



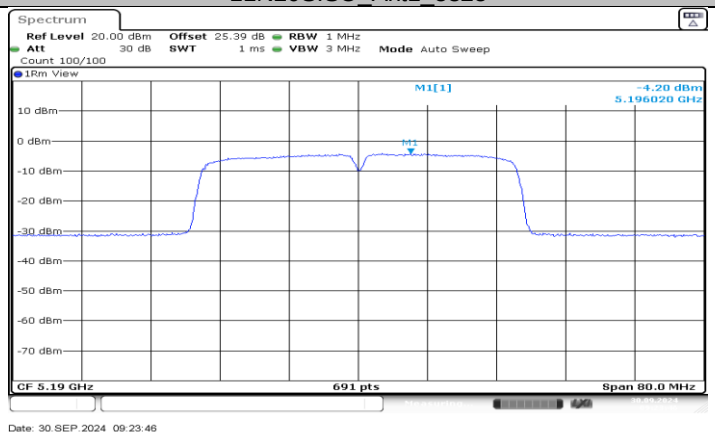

11N20SISO_Ant1_5745



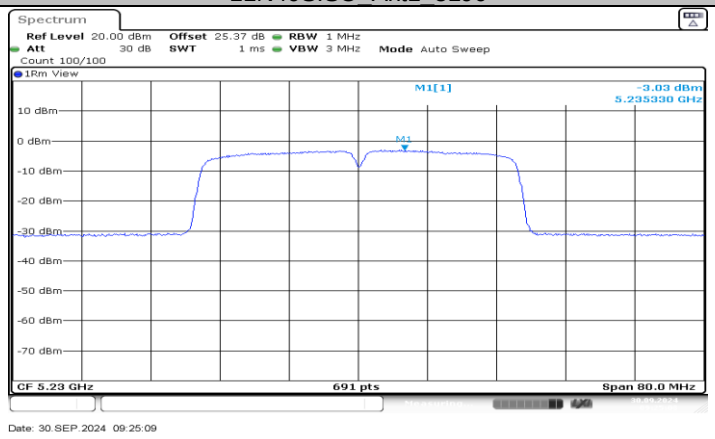

11N20SISO_Ant1_5785



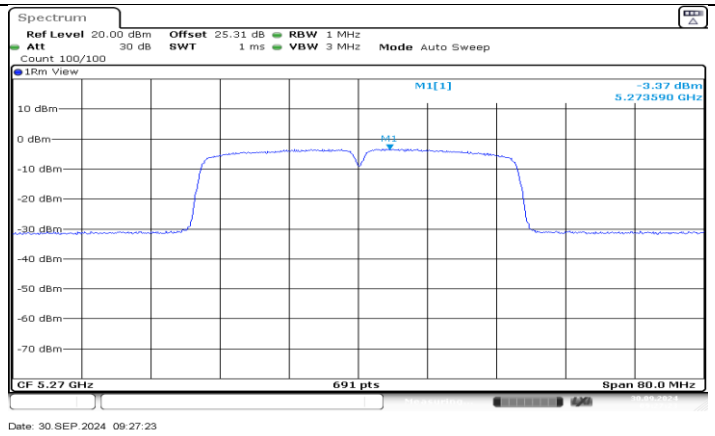

11N20SISO_Ant1_5825



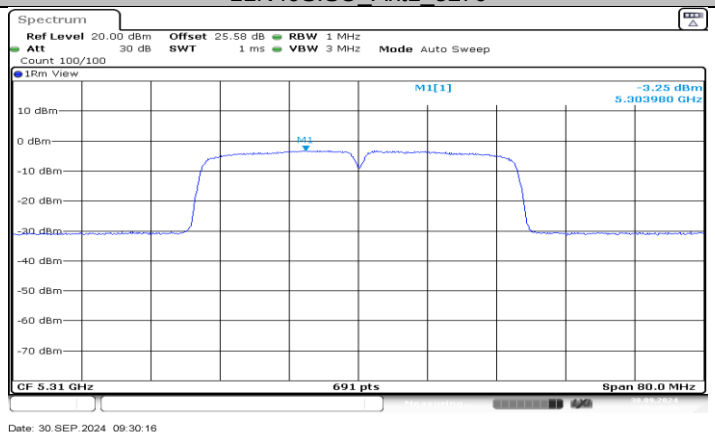

11N40SISO_Ant1_5190



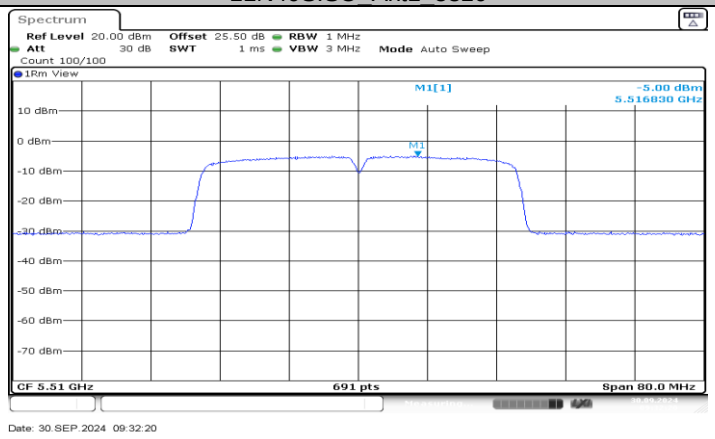

11N40SISO_Ant1_5230



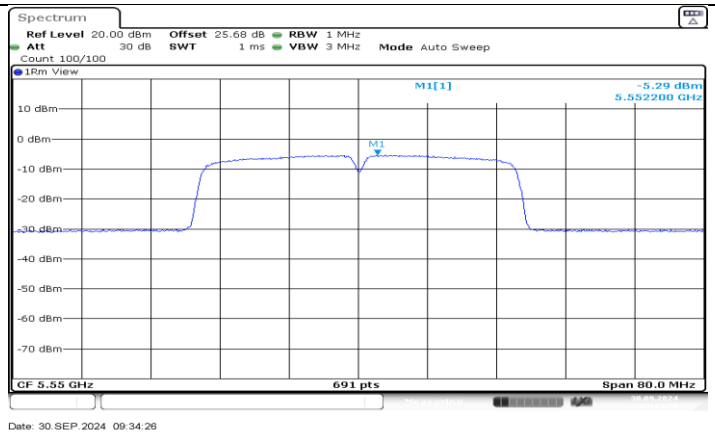

11N40SISO_Ant1_5270



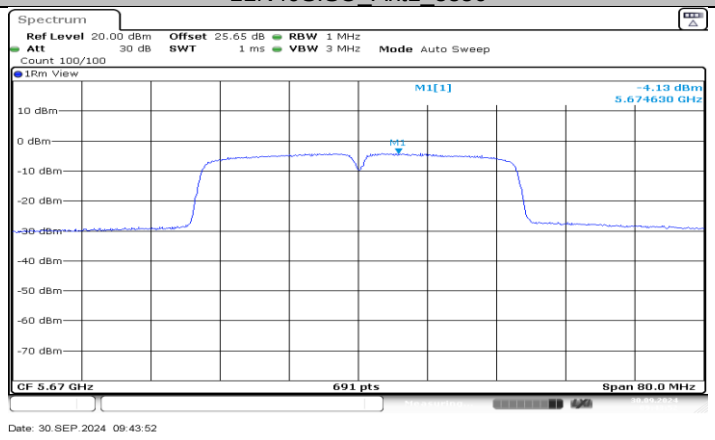

11N40SISO_Ant1_5310



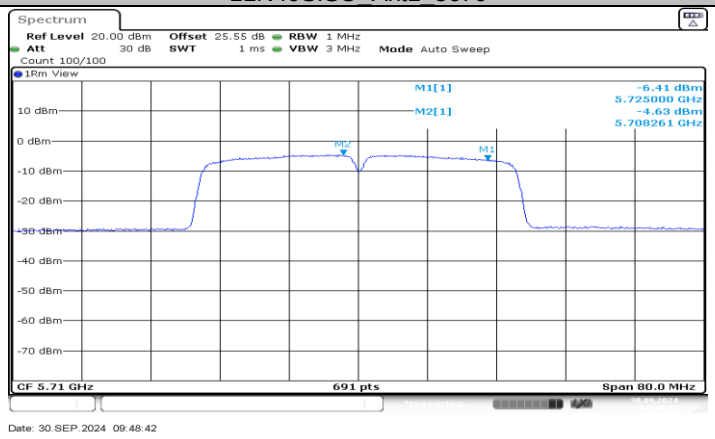

11N40SISO_Ant1_5510



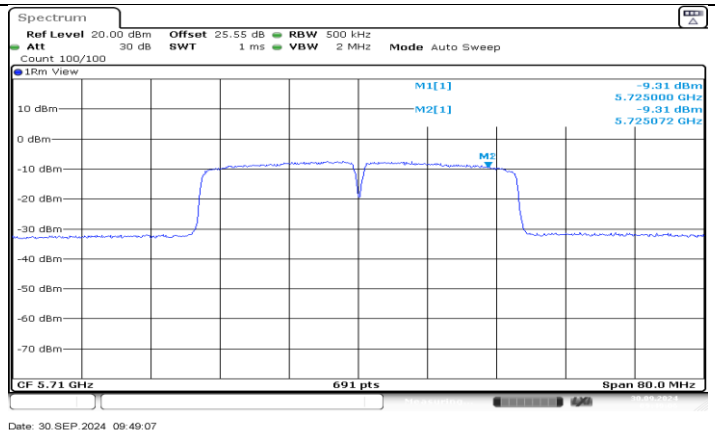

11N40SISO_Ant1_5550



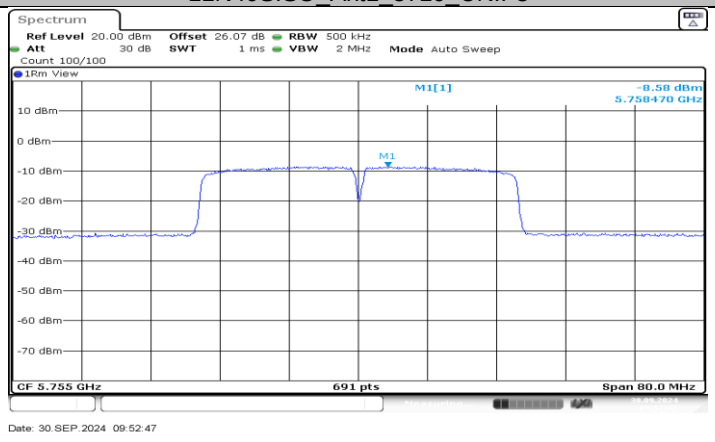

11N40SISO_Ant1_5670



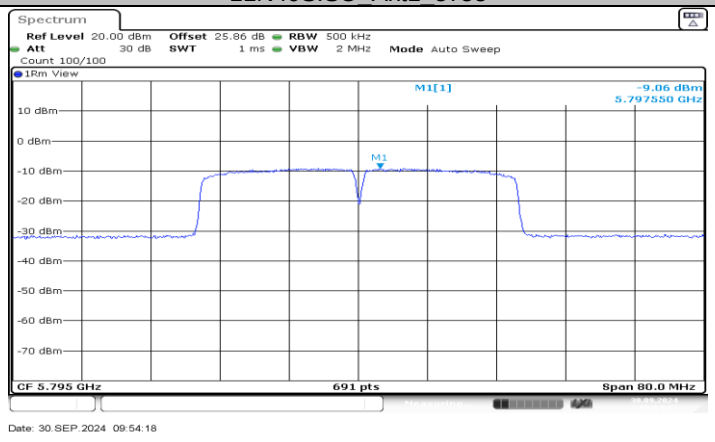

11N40SISO_Ant1_5710_UNII-2C




11N40SISO_Ant1_5710_UNII-3




11N40SISO_Ant1_5755




11N40SISO_Ant1_5795

## 11.6. APPENDIX I: FREQUENCY STABILITY

### 11.6.1. Test Result

| Frequency Error vs. Voltage | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 802.11a:5825MHz | | | | | | | | | |
| Temp. | Volt. | 0 Minute | | 2 Minute | | 5 Minute | | 10 Minute | |
| | | Freq.Error (MHz) | Tolerance (ppm) | Freq.Error (MHz) | Tolerance (ppm) | Freq.Error (MHz) | Tolerance (ppm) | Freq.Error (MHz) | Tolerance (ppm) |
| TN | VL | 5825.0019 | 0.32 | 5825.0163 | 2.80 | 5824.9928 | -1.24 | 5825.0011 | 0.19 |
| TN | VN | 5824.9800 | -3.43 | 5825.0215 | 3.68 | 5824.9851 | -2.57 | 5825.0096 | 1.64 |
| TN | VH | 5825.0071 | 1.22 | 5825.0013 | 0.23 | 5825.0222 | 3.81 | 5825.0032 | 0.54 |
| Frequency Error vs. Temperature | | | | | | | | | |
| 802.11a:5825MHz | | | | | | | | | |
| Temp. | Volt. | 0 Minute | | 2 Minute | | 5 Minute | | 10 Minute | |
| | | Freq.Error (MHz) | Tolerance (ppm) | Freq.Error (MHz) | Tolerance (ppm) | Freq.Error (MHz) | Tolerance (ppm) | Freq.Error (MHz) | Tolerance (ppm) |
| 60 | VN | 5824.9875 | -2.14 | 5825.0187 | 3.20 | 5824.9758 | -4.16 | 5824.9751 | -4.28 |
| 50 | VN | 5825.0144 | 2.47 | 5824.9864 | -2.33 | 5825.0101 | 1.73 | 5824.9942 | -1.00 |
| 40 | VN | 5825.0199 | 3.42 | 5825.0024 | 0.41 | 5824.9894 | -1.82 | 5824.9825 | -3.00 |
| 30 | VN | 5825.0189 | 3.24 | 5825.0223 | 3.83 | 5825.0204 | 3.50 | 5824.9856 | -2.48 |
| 20 | VN | 5824.9919 | -1.39 | 5825.0203 | 3.49 | 5825.0002 | 0.03 | 5824.9946 | -0.93 |
| 10 | VN | 5824.9870 | -2.24 | 5825.0174 | 2.98 | 5825.0172 | 2.96 | 5825.0118 | 2.03 |
| 0 | VN | 5824.9965 | -0.60 | 5824.9819 | -3.10 | 5825.0041 | 0.71 | 5825.0192 | 3.30 |
| -10 | VN | 5824.9899 | -1.73 | 5824.9777 | -3.83 | 5824.9925 | -1.29 | 5825.0171 | 2.93 |
| -20 | VN | 5824.9894 | -1.81 | 5824.9783 | -3.73 | 5825.0038 | 0.65 | 5824.9868 | -2.27 |
| -25 | VN | 5824.9987 | -0.22 | 5825.0172 | 2.96 | 5825.0214 | 3.67 | 5824.9905 | -1.63 |

Note:
1. All antennas, test modes and test channels have been tested, only the worst data record in the report.
2. For the detail Test Conditions, please refer to section 7.5 TEST ENVIRONMENT.

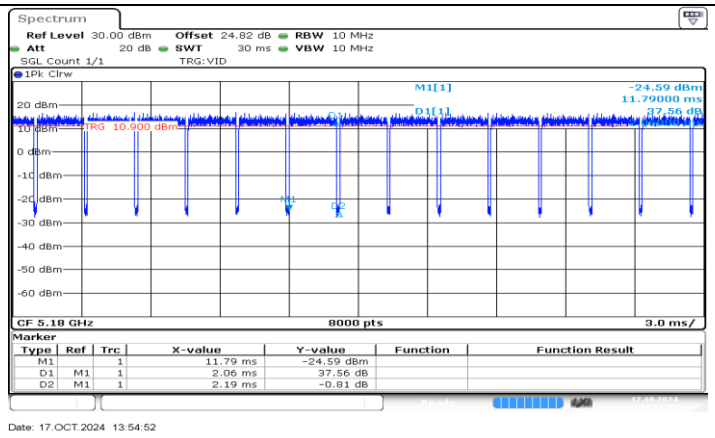
## 11.7. APPENDIX J: DUTY CYCLE

### 11.7.1. Test Result

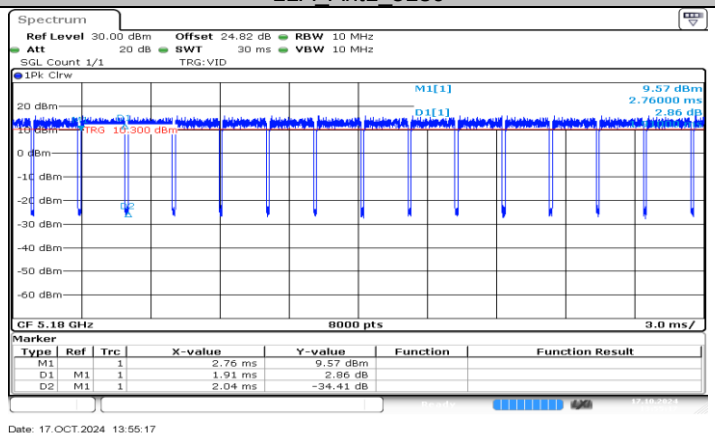
| Test Mode | On Time (msec) | Period (msec) | Duty Cycle x (Linear) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) | 1/T Minimum VBW (kHz) | Final setting For VBW (kHz) |
|---|---|---|---|---|---|---|---|
| 11A | 2.06 | 2.19 | 0.9406 | 94.06 | 0.27 | 0.49 | 1 |
| 11N20SISO | 1.91 | 2.04 | 0.9363 | 93.63 | 0.29 | 0.52 | 1 |
| 11N40SISO | 0.94 | 1.07 | 0.8785 | 87.85 | 0.56 | 1.06 | 2 |

Note:
Duty Cycle Correction Factor=10log (1/x).
Where: x is Duty Cycle (Linear)
Where: T is On Time
If that calculated VBW is not available on the analyzer then the next higher value should be used.

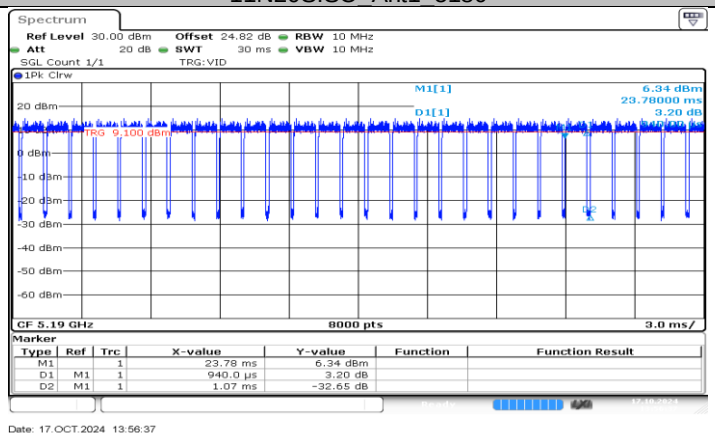
## 11.7.2. Test Graphs




11A_Ant1_5180




11N20SISO_Ant1_5180

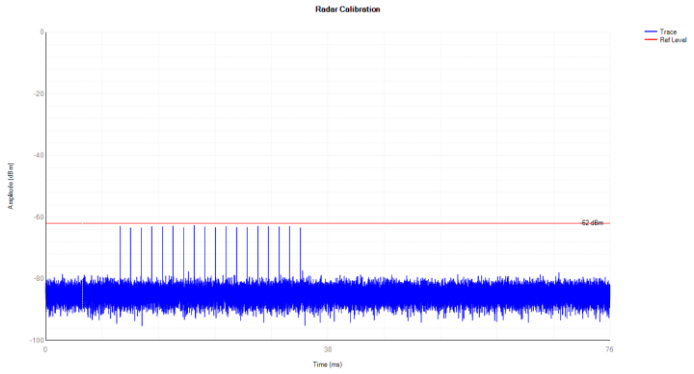



11N40SISO_Ant1_5190

## 11.8. CALIBRATION

| Mode | Frequency (MHz) | Type | Result | Verdict |
|---|---|---|---|---|
| 11n40 | 5510 | DFS_FCC_T0 | See test Graph | Pass |

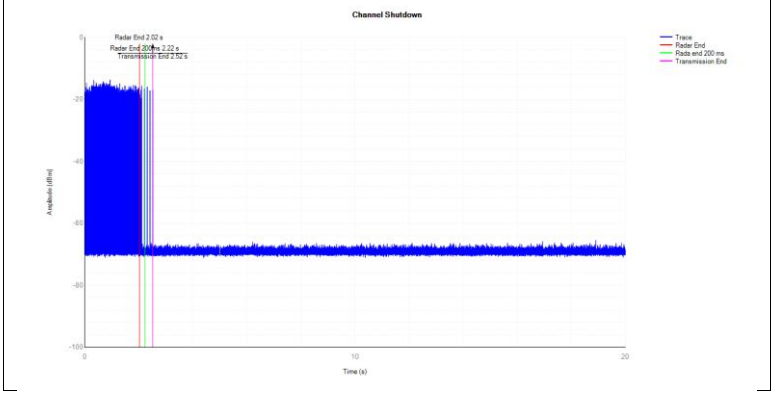
| Test Graphs |
| --- |
| 5510MHz DFS_FCC_T0 |



## 11.9. SHUTDOWN TIME

| Mode | Frequency (MHz) | Channel Move Time (s) | Limit Channel Move Time (s) | Close Transmission Time (s) | Limit Close Transmission Time (s) | Close Transmission Time after 200ms(s) | Limit Close Transmission Time after 200ms (s) | Verdict |
|---|---|---|---|---|---|---|---|---|
| 11n40 | 5510 | 0.492 | 10 | 0.019 | 0.26 | 0.003 | 0.06 | Pass |

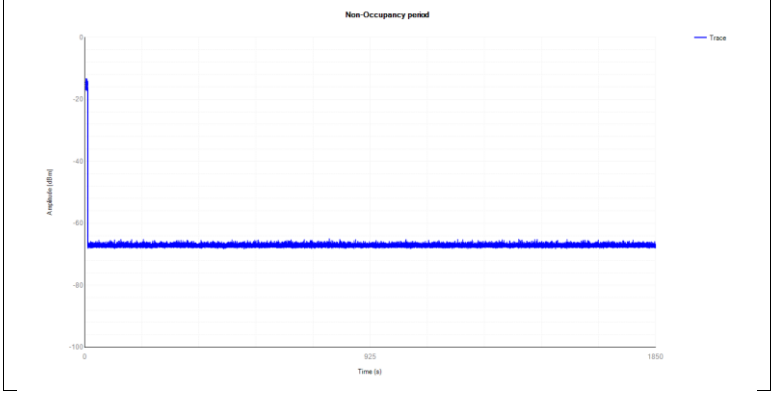
| Test Graphs |
| --- |
| 11n40 5510MHz Shutdown |



## 11.10. NON-OCCUPANCY

| Mode | Frequency (MHz) | Result | Verdict |
|---|---|---|---|
| 11n40 | 5510 | See test Graph | Pass |

| Test Graphs |
| --- |
| 11n40 5510MHz Non-Occupancy |




**END OF REPORT**