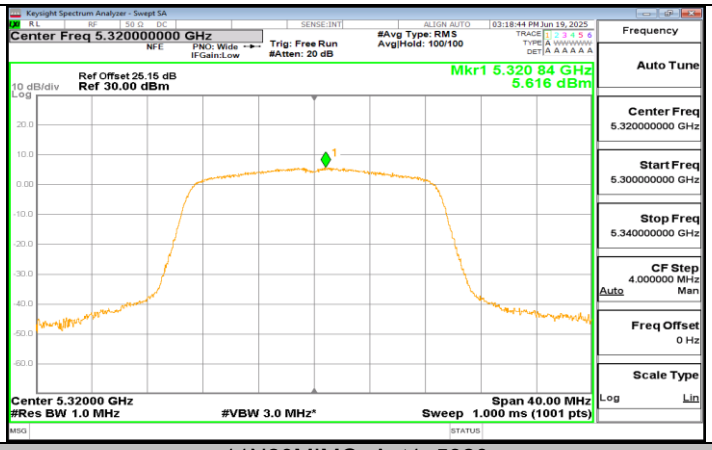
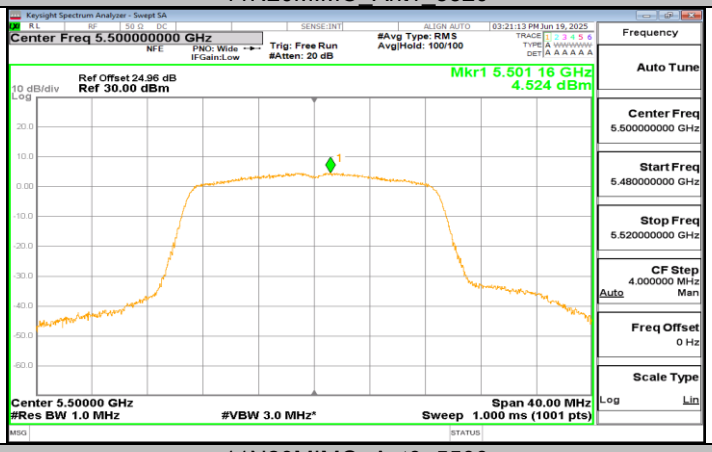
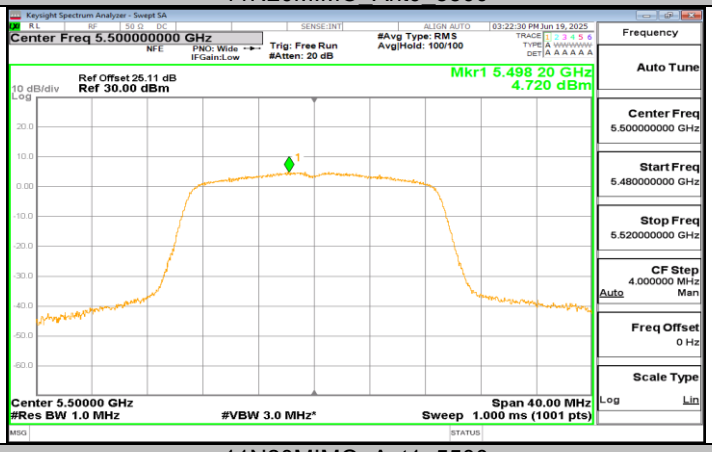


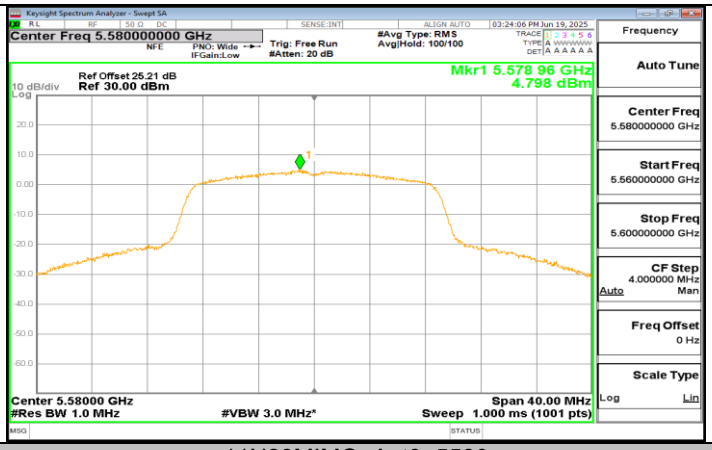

11N20MIMO_Ant1_5320



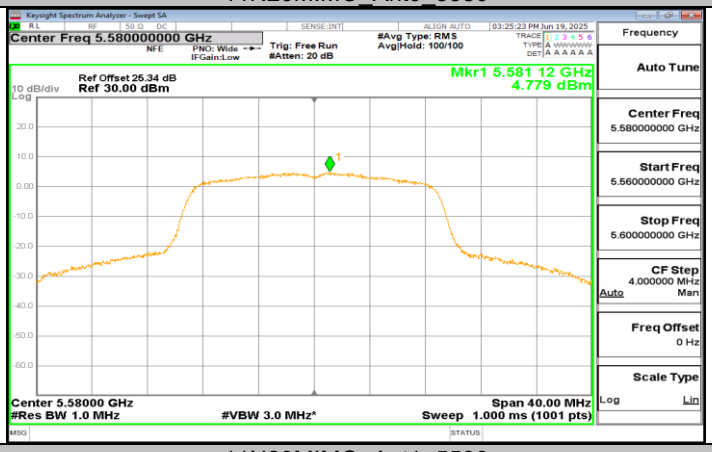

11N20MIMO_Ant0_5500



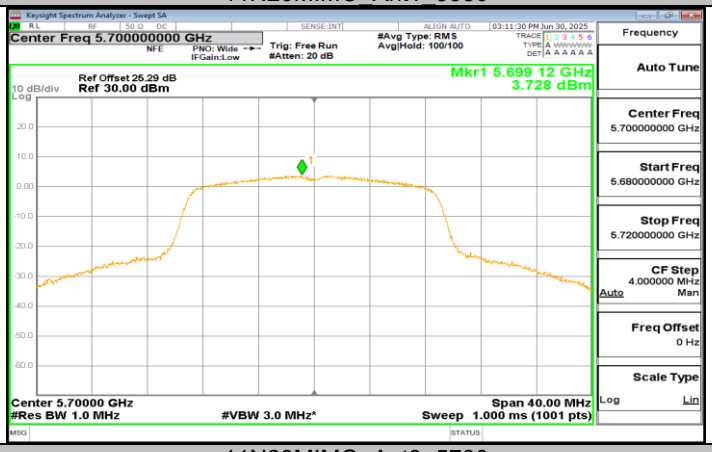

11N20MIMO_Ant1_5500



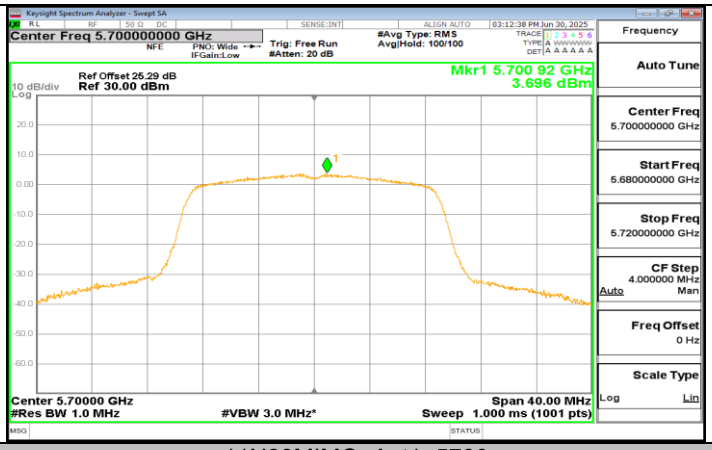

11N20MIMO_Ant0_5580



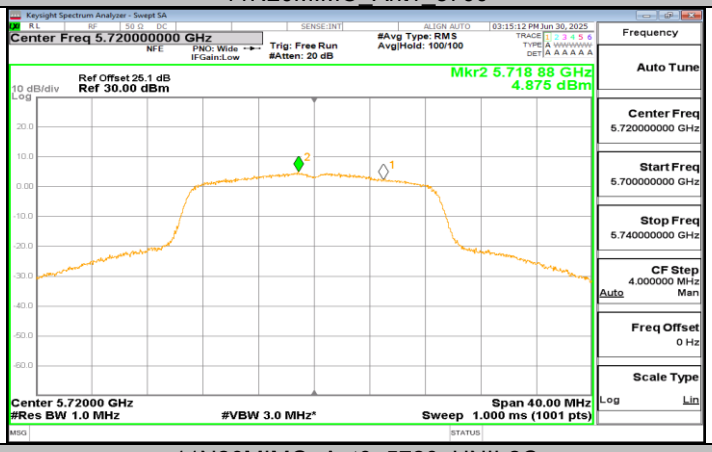

11N20MIMO_Ant1_5580



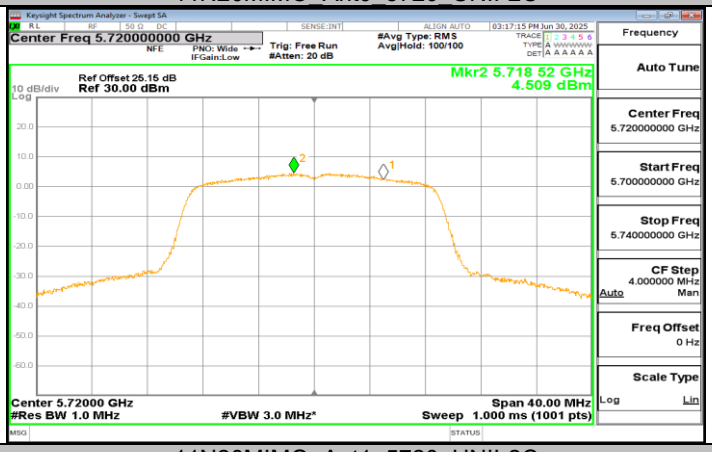

11N20MIMO_Ant0_5700



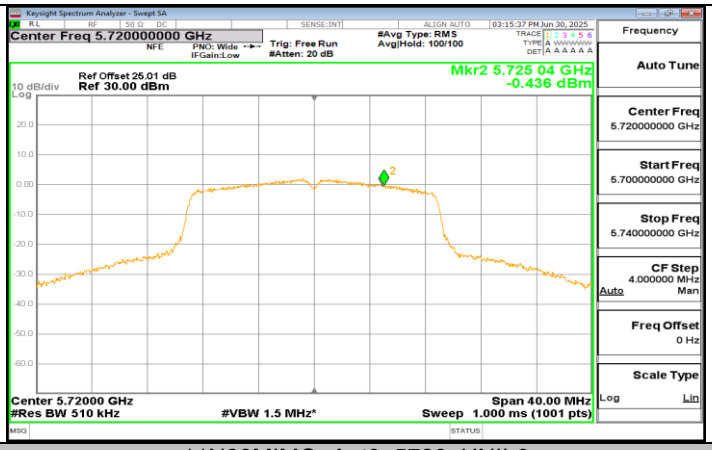

11N20MIMO_Ant1_5700



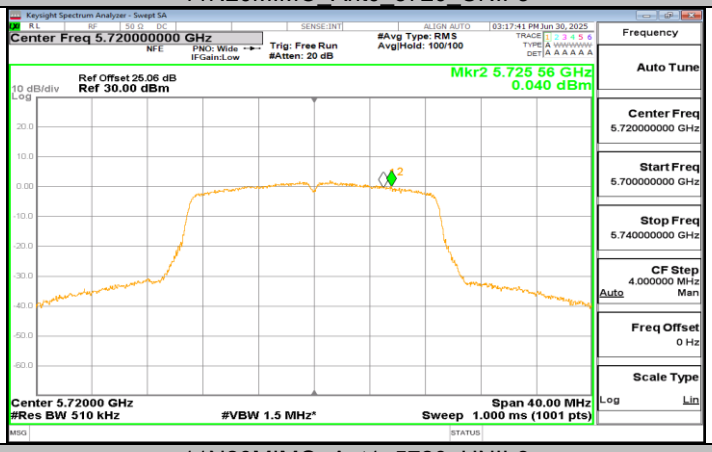

11N20MIMO_Ant0_5720_UNII-2C




11N20MIMO_Ant1_5720_UNII-2C

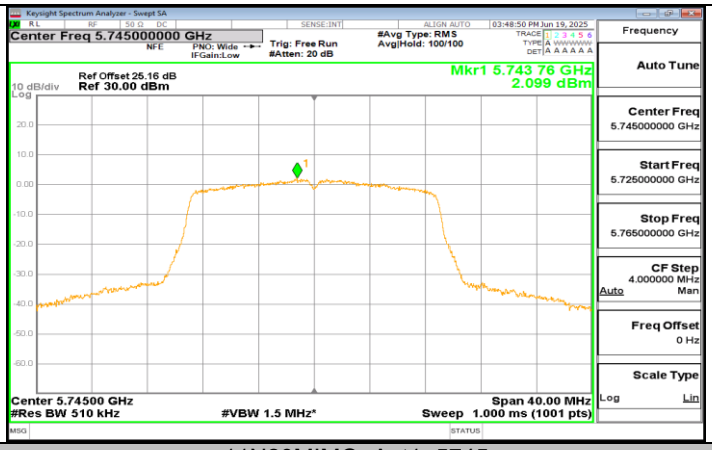



11N20MIMO_Ant0_5720_UNII-3

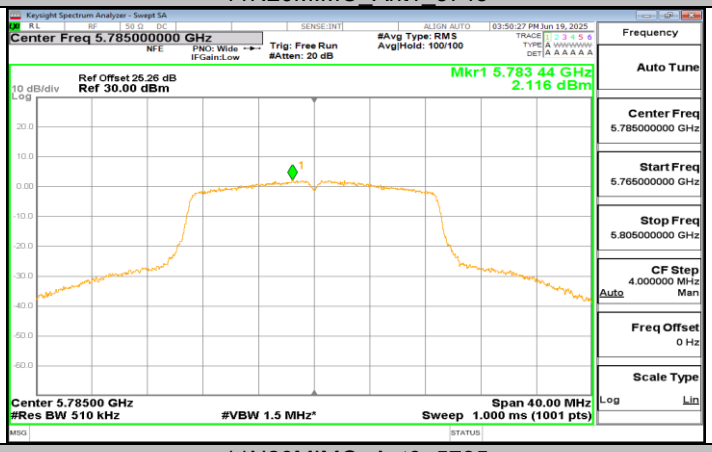



11N20MIMO_Ant1_5720_UNII-3


11N20MIMO_Ant0_5745

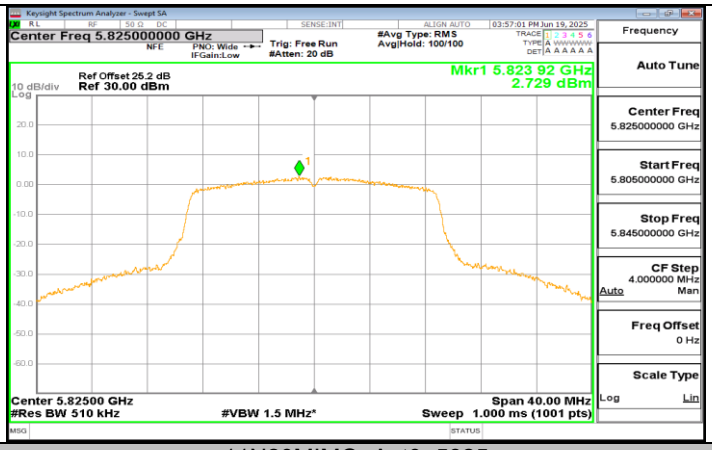



11N20MIMO_Ant1_5745

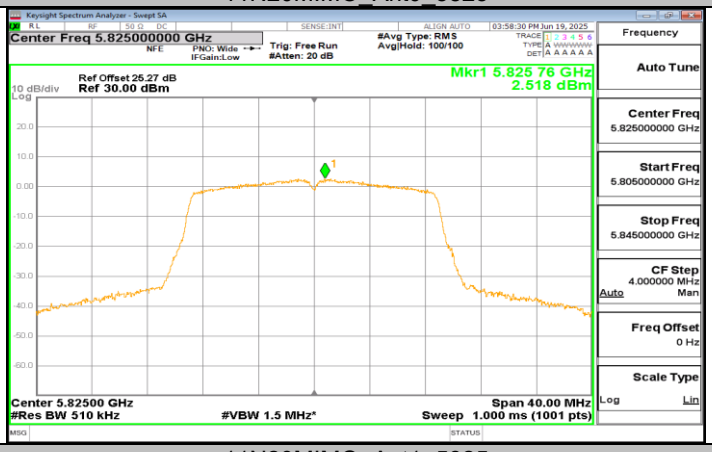



11N20MIMO_Ant0_5785

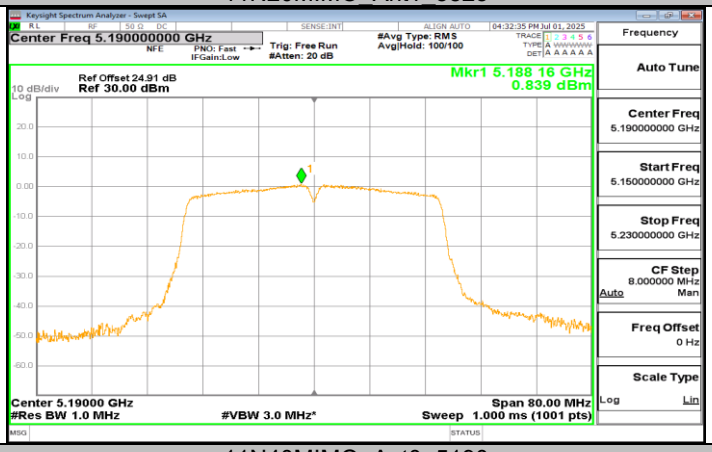

11N20MIMO_Ant1_5785



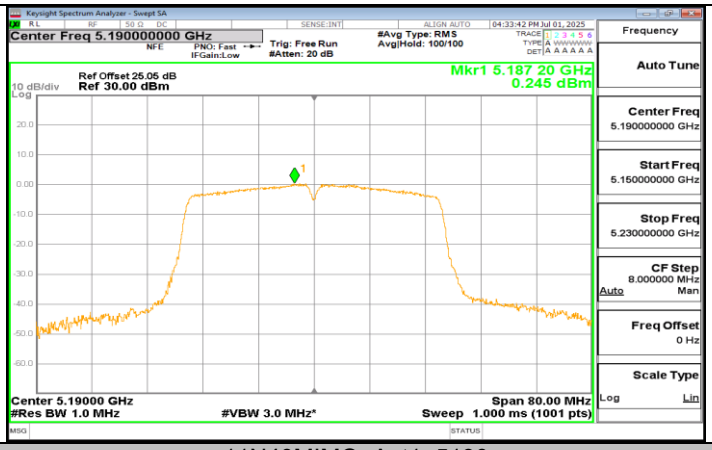

11N20MIMO_Ant0_5825



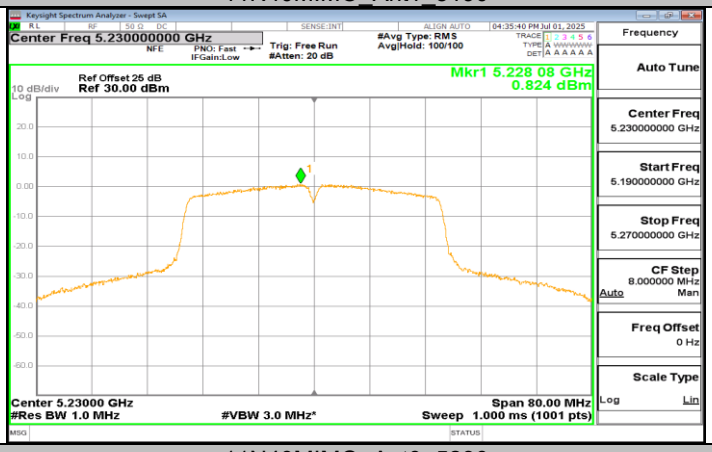

11N20MIMO_Ant1_5825



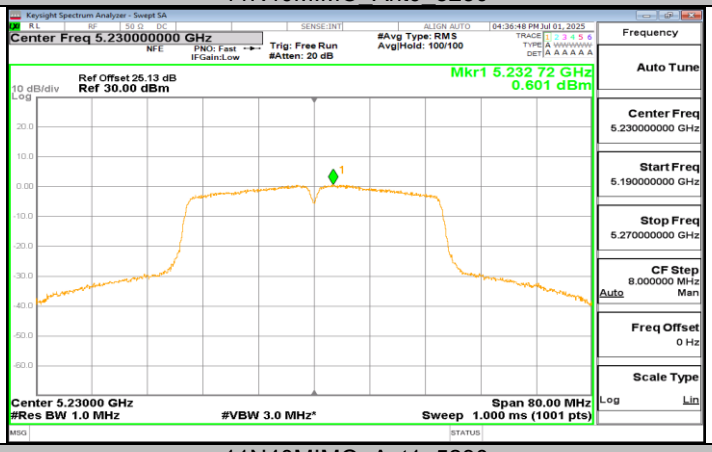

11N40MIMO_Ant0_5190



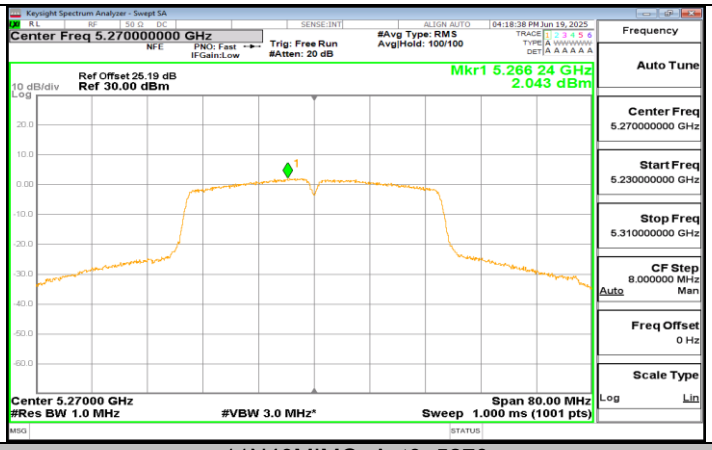

11N40MIMO_Ant1_5190



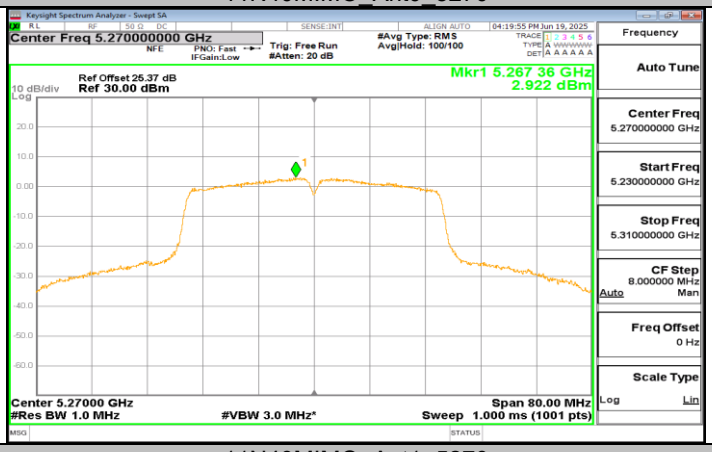

11N40MIMO_Ant0_5230




11N40MIMO_Ant1_5230

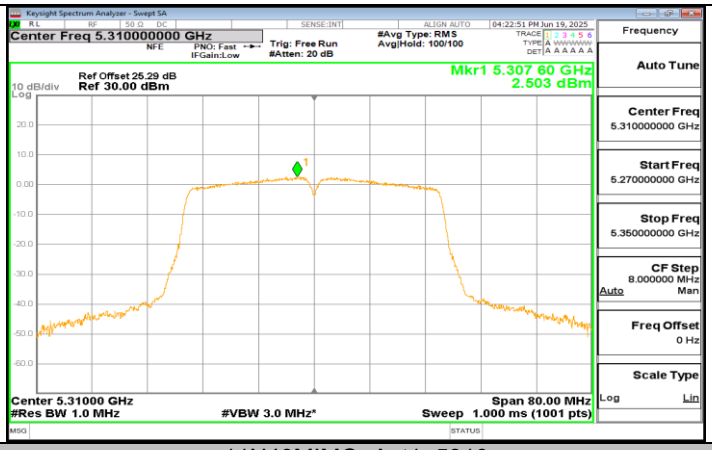



11N40MIMO_Ant0_5270

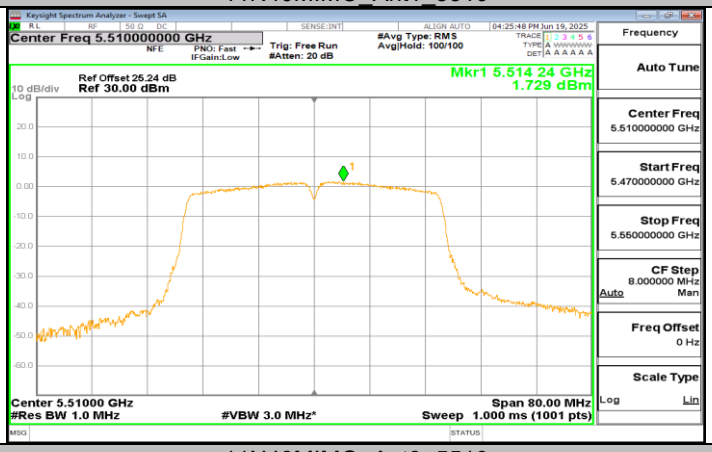



11N40MIMO_Ant1_5270

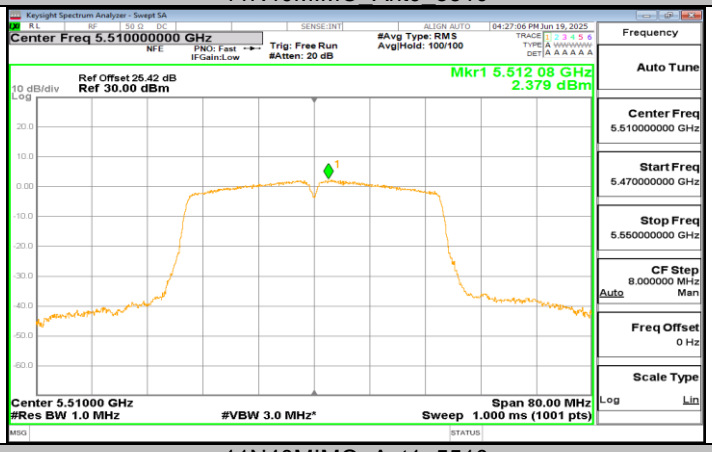

11N40MIMO_Ant0_5310




11N40MIMO_Ant1_5310

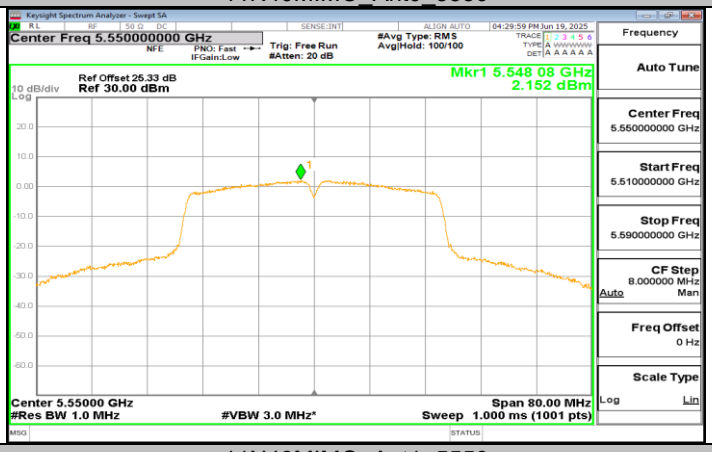



11N40MIMO_Ant0_5510

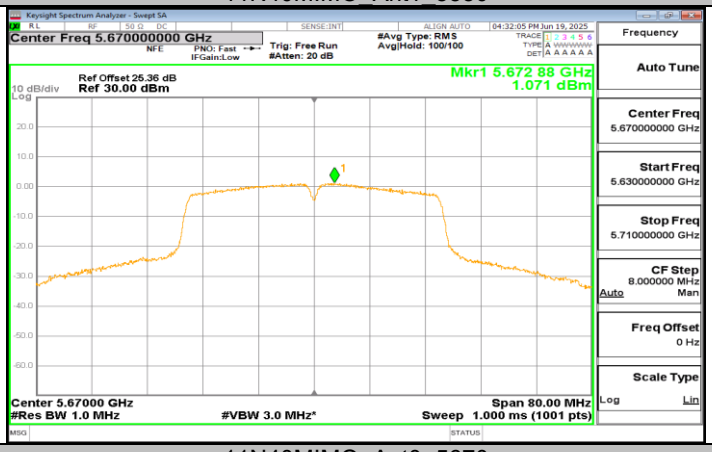



11N40MIMO_Ant1_5510

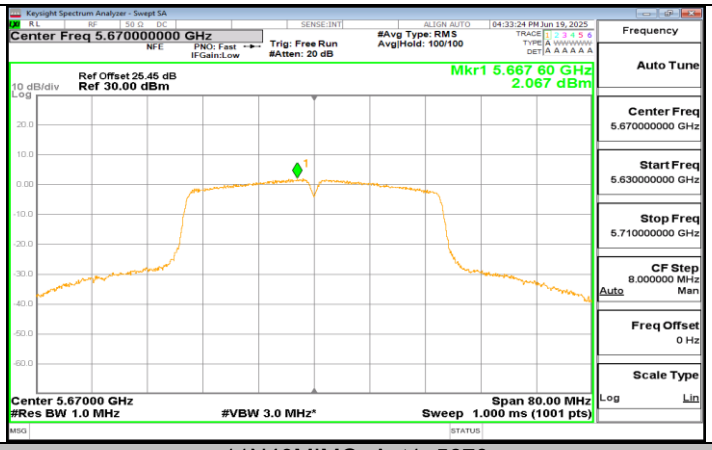

11N40MIMO_Ant0_5550



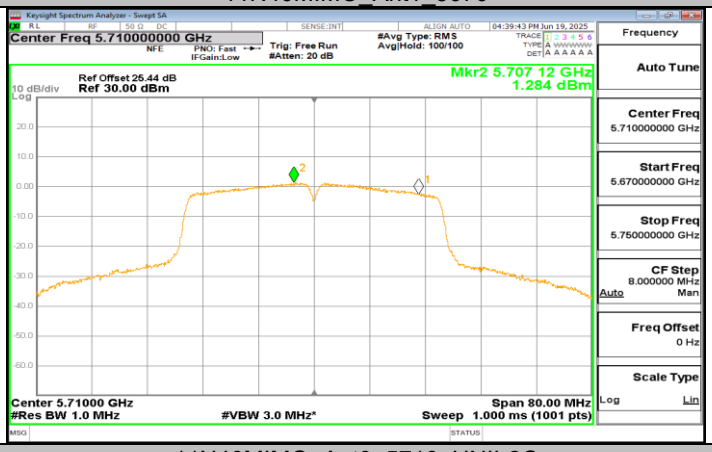

11N40MIMO_Ant1_5550



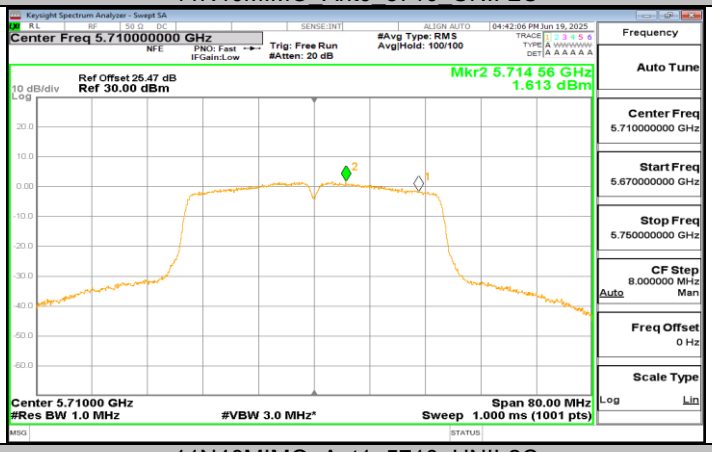

11N40MIMO_Ant0_5670



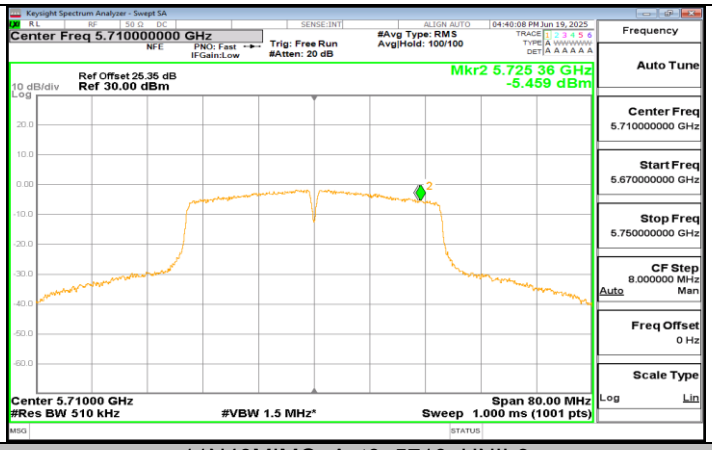

11N40MIMO_Ant1_5670



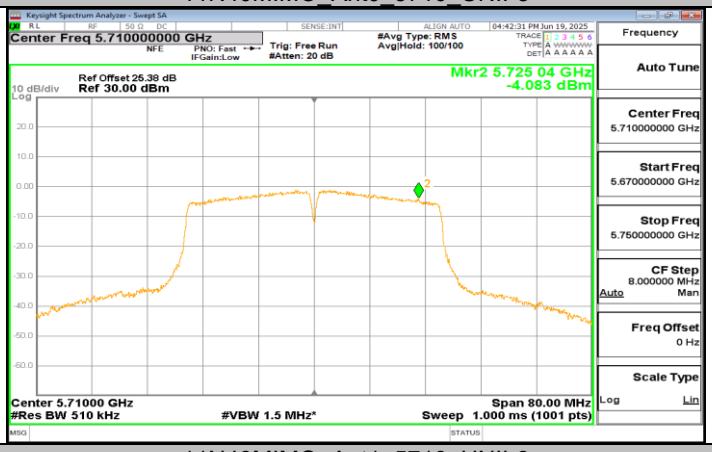

11N40MIMO_Ant0_5710_UNII-2C



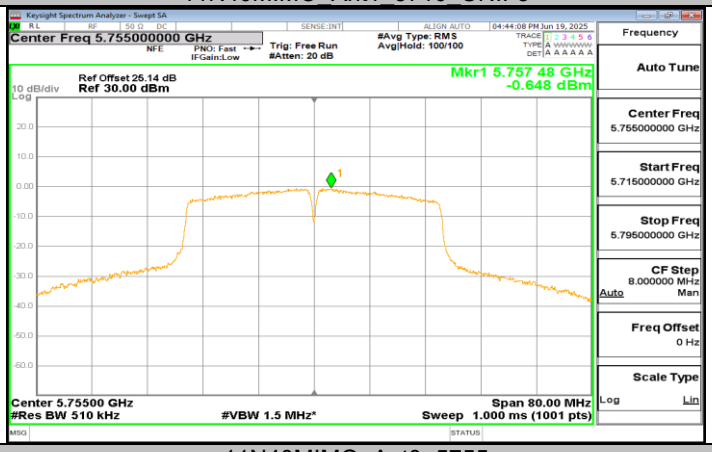

11N40MIMO_Ant1_5710_UNII-2C



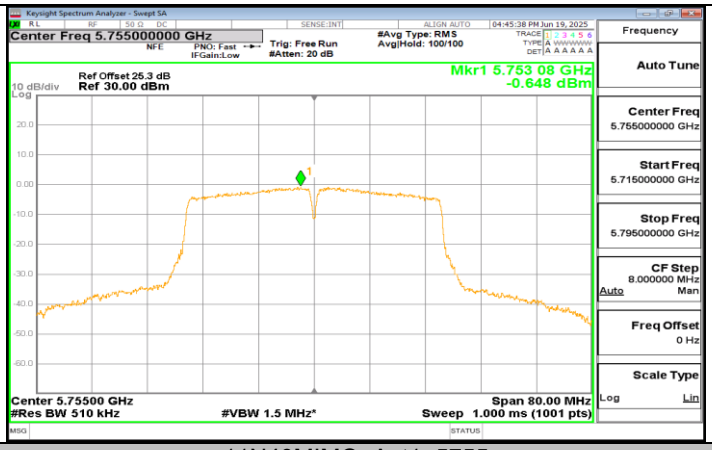

11N40MIMO_Ant0_5710_UNII-3



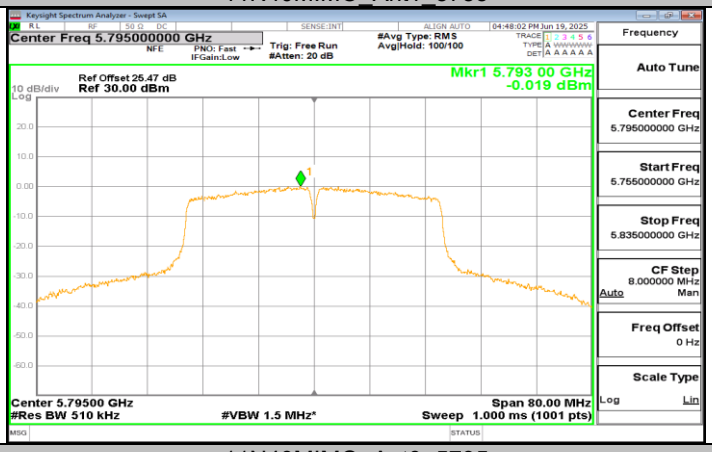

11N40MIMO_Ant1_5710_UNII-3



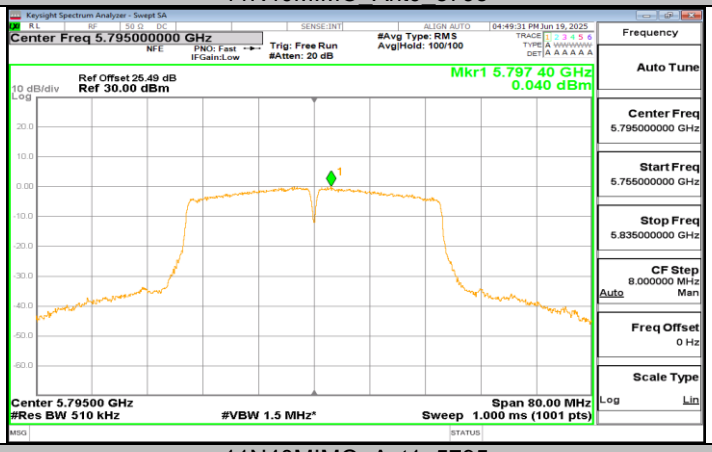

11N40MIMO_Ant0_5755



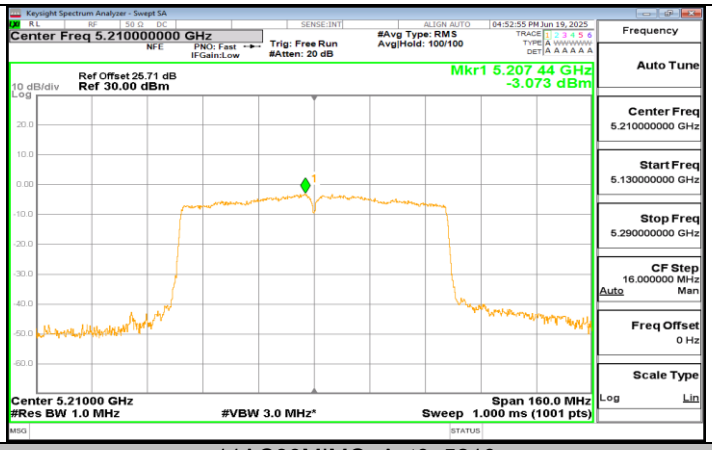

11N40MIMO_Ant1_5755



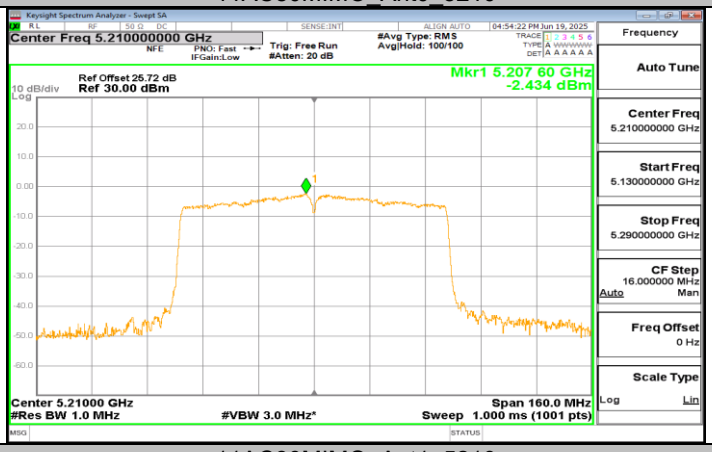

11N40MIMO_Ant0_5795



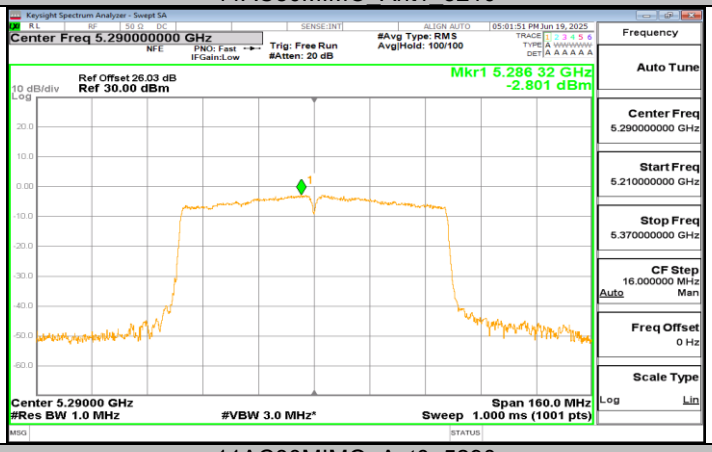

11N40MIMO_Ant1_5795



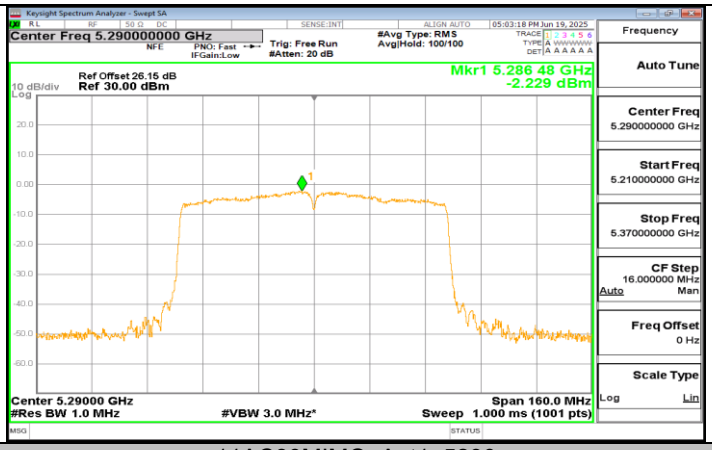

11AC80MIMO_Ant0_5210



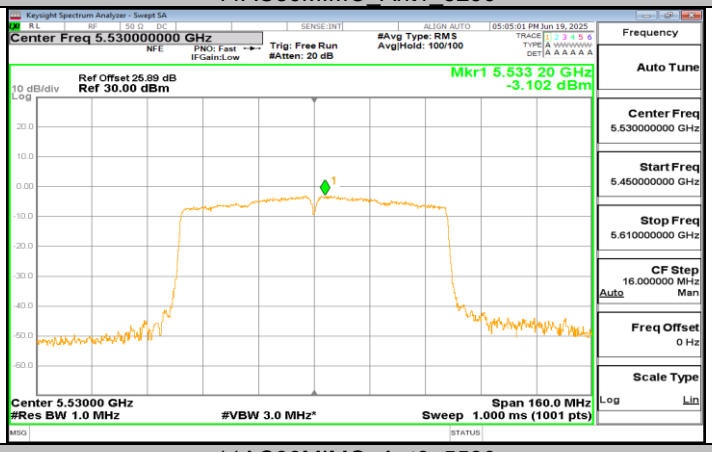

11AC80MIMO_Ant1_5210



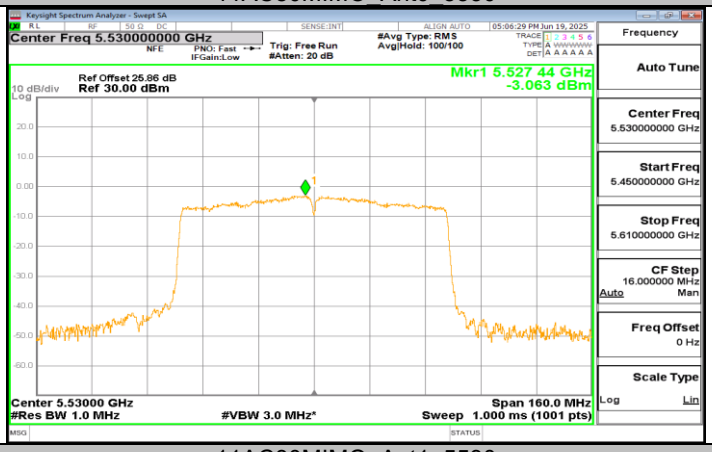

11AC80MIMO_Ant0_5290



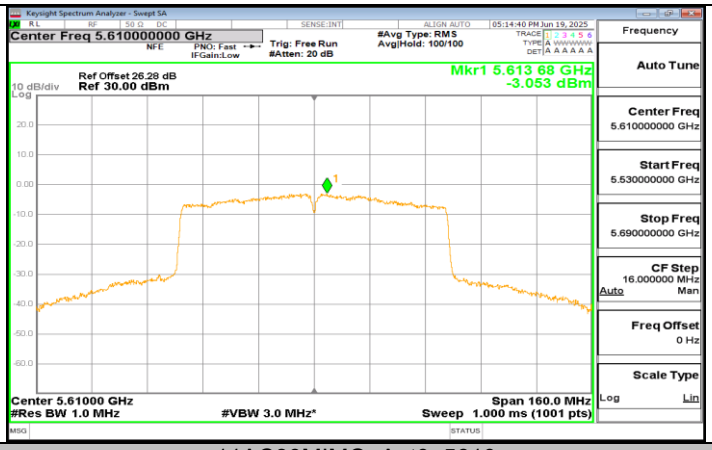

11AC80MIMO_Ant1_5290



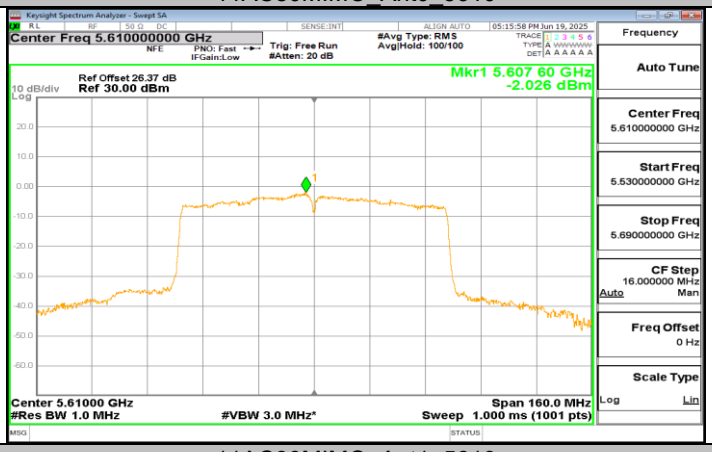

11AC80MIMO_Ant0_5530



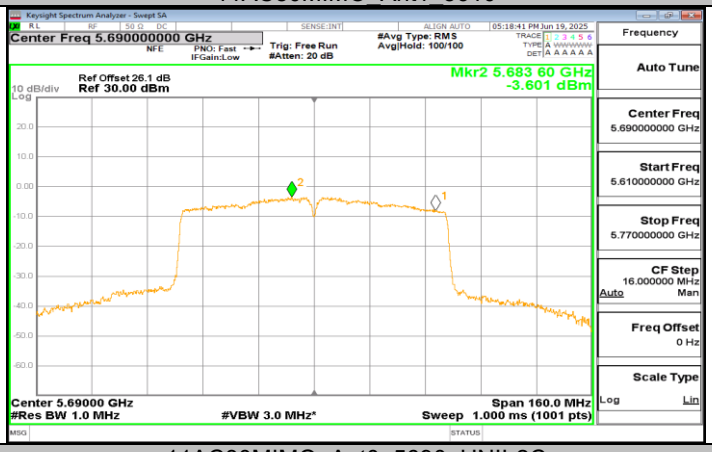

11AC80MIMO_Ant1_5530



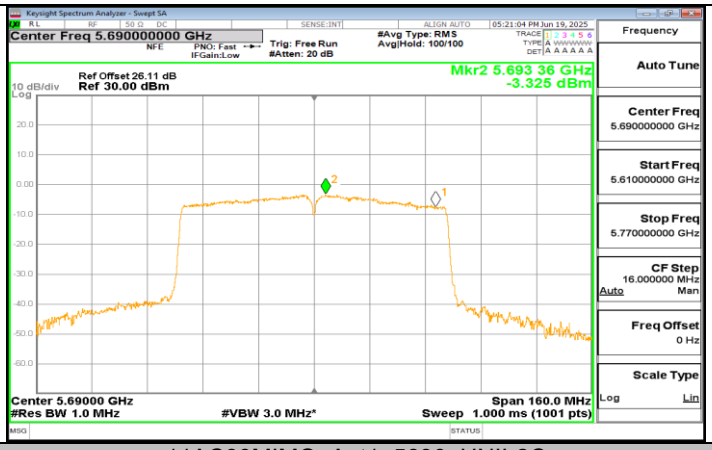

11AC80MIMO_Ant0_5610



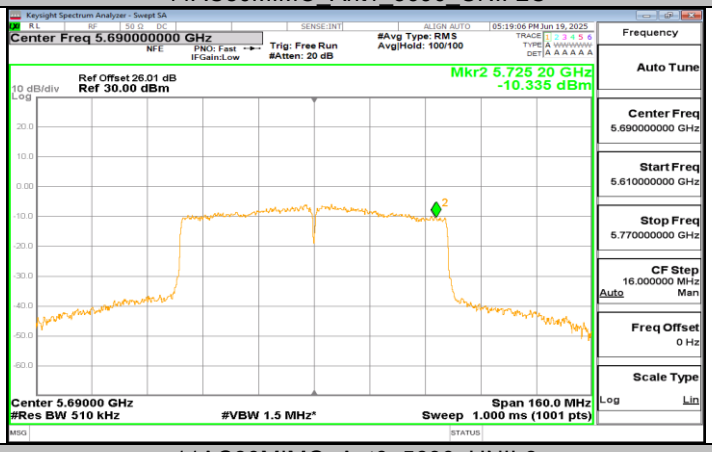

11AC80MIMO_Ant1_5610



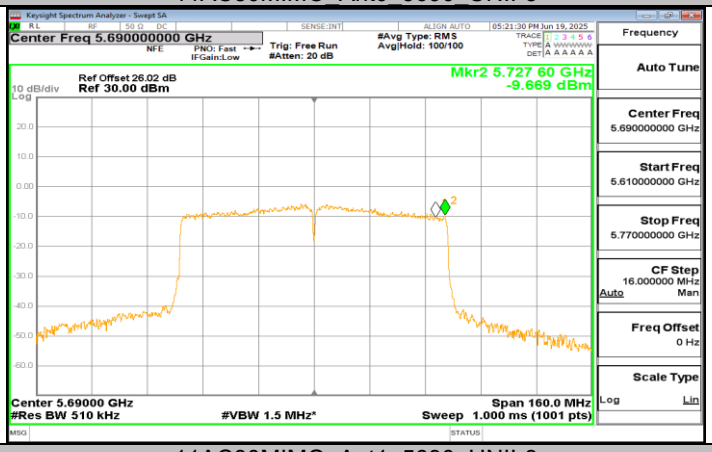

11AC80MIMO_Ant0_5690_UNII-2C



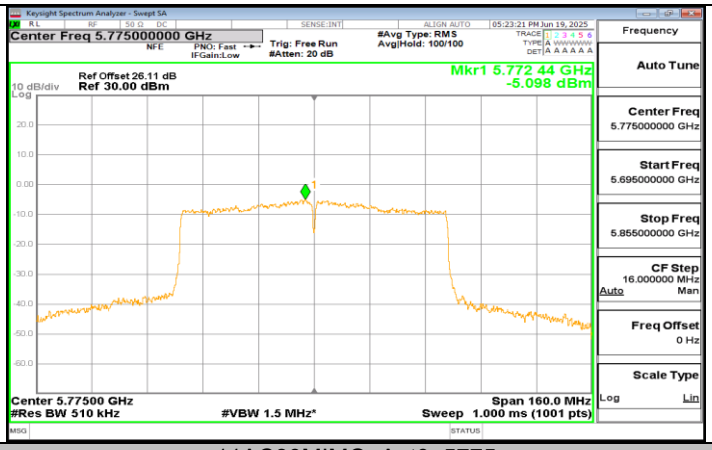

11AC80MIMO_Ant1_5690_UNII-2C



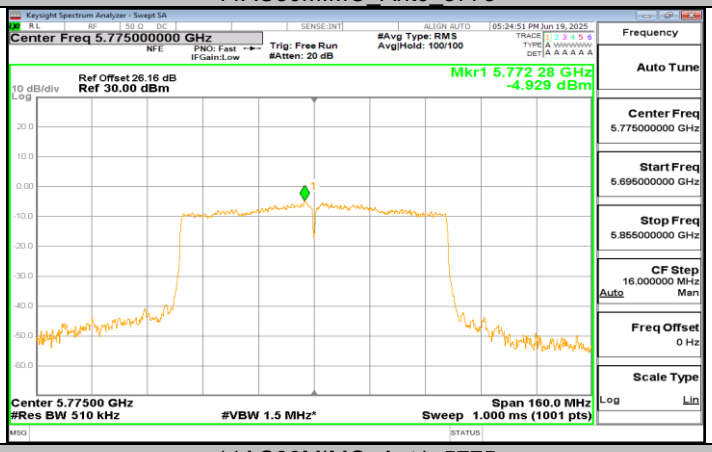

11AC80MIMO_Ant0_5690_UNII-3




11AC80MIMO_Ant1_5690_UNII-3




11AC80MIMO_Ant0_5775




11AC80MIMO_Ant1_5775

## 11.6. APPENDIX F: FREQUENCY STABILITY

### 11.6.1. Test Result

| Frequency Error vs. Voltage | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 802.11a:5200MHz | | | | | | | | | |
| 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 | 5199.9804 | -3.78 | 5199.9789 | -4.05 | 5199.9977 | -0.44 | 5199.9772 | -4.38 |
| TN | VN | 5200.0215 | 4.14 | 5200.0109 | 2.10 | 5199.9983 | -0.32 | 5199.9777 | -4.29 |
| TN | VH | 5200.0031 | 0.60 | 5199.9909 | -1.75 | 5199.9945 | -1.06 | 5200.0140 | 2.70 |
| Frequency Error vs. Temperature | | | | | | | | | |
| 802.11a:5200MHz | | | | | | | | | |
| 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) |
| 70 | VN | 5199.9768 | -4.46 | 5200.0224 | 4.30 | 5199.9755 | -4.71 | 5199.9948 | -1.00 |
| 60 | VN | 5199.9841 | -3.06 | 5199.9842 | -3.04 | 5200.0139 | 2.67 | 5200.0173 | 3.33 |
| 50 | VN | 5200.0104 | 2.01 | 5199.9952 | -0.93 | 5199.9995 | -0.09 | 5199.9816 | -3.53 |
| 40 | VN | 5199.9968 | -0.62 | 5200.0182 | 3.49 | 5199.9910 | -1.74 | 5200.0227 | 4.37 |
| 30 | VN | 5199.9933 | -1.30 | 5199.9892 | -2.07 | 5199.9833 | -3.21 | 5200.0113 | 2.18 |
| 20 | VN | 5200.0237 | 4.55 | 5200.0150 | 2.89 | 5199.9837 | -3.13 | 5199.9952 | -0.93 |
| 10 | VN | 5200.0099 | 1.90 | 5200.0075 | 1.45 | 5200.0230 | 4.43 | 5200.0052 | 1.00 |
| 0 | VN | 5200.0165 | 3.17 | 5200.0149 | 2.87 | 5199.9757 | -4.67 | 5199.9994 | -0.12 |

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.

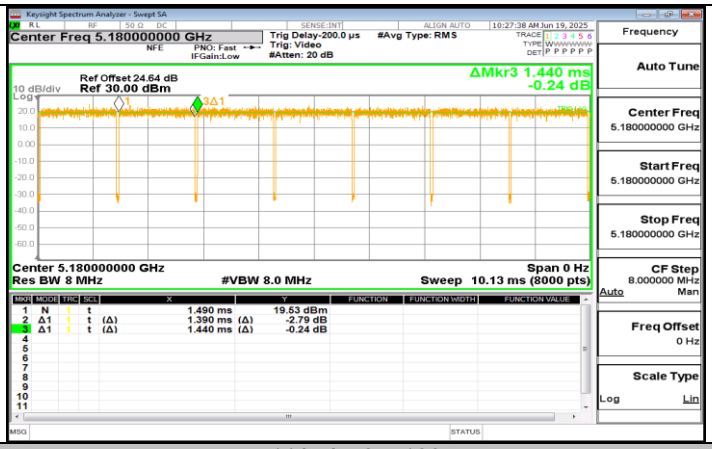
## 11.7. APPENDIX G: DUTY CYCLE

### 11.7.1. Test Result

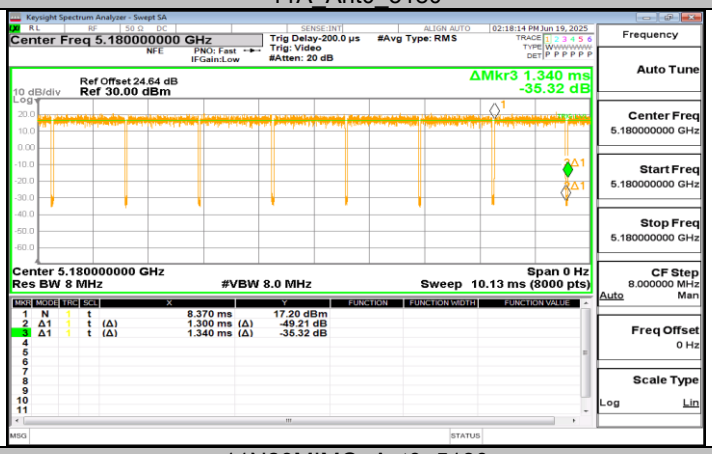
| Test Mode | On Time (msec) | Period (msec) | Duty Cycle x (Linear) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) | 1/T Minimum VBW (kHz) | Final setting For VBW (kHz) |
|---|---|---|---|---|---|---|---|
| 11A | 1.39 | 1.44 | 0.9653 | 96.53 | 0.15 | 0.72 | 1 |
| 11N20MIMO | 1.3 | 1.35 | 0.9701 | 97.01 | 0.13 | 0.77 | 1 |
| 11N40MIMO | 0.64 | 0.69 | 0.9420 | 94.20 | 0.26 | 1.54 | 2 |
| 11AC80MIMO | 0.33 | 0.37 | 0.7826 | 78.26 | 1.06 | 5.56 | 6 |

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.

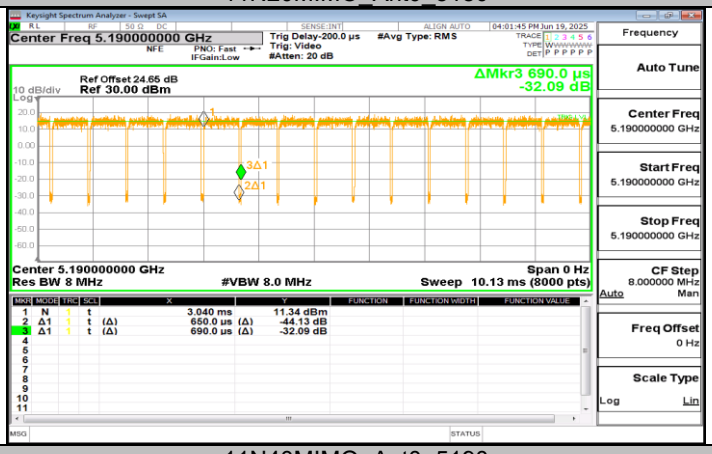
## 11.7.2. Test Graphs



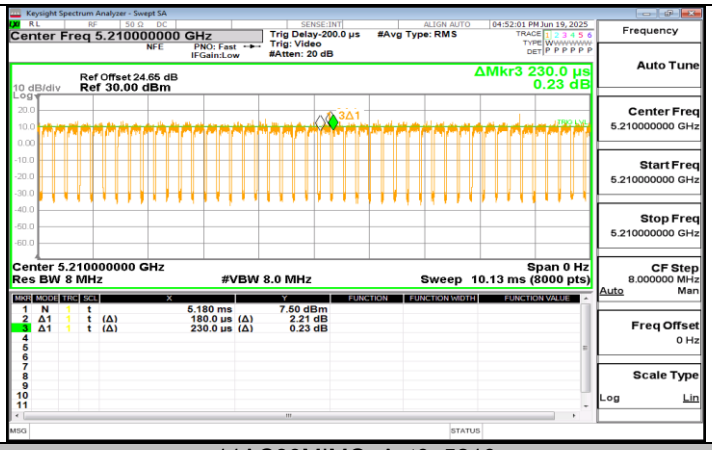

11A_Ant0_5180




11N20MIMO_Ant0_5180




11N40MIMO_Ant0_5190



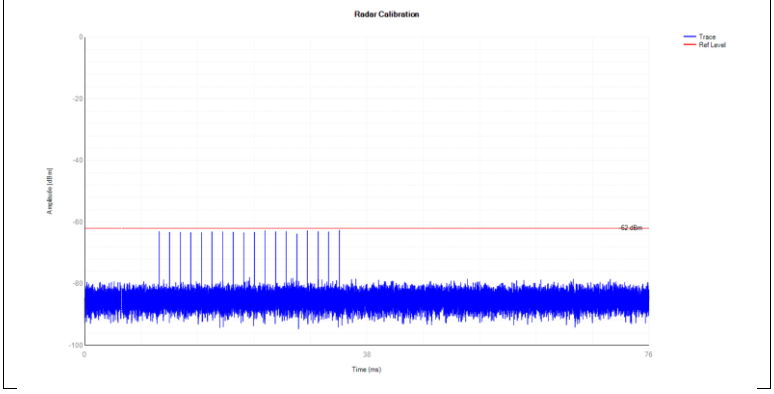

11AC80MIMO_Ant0_5210

# 11.8. APPENDIX H: DFS

## 11.8.1. Calibration

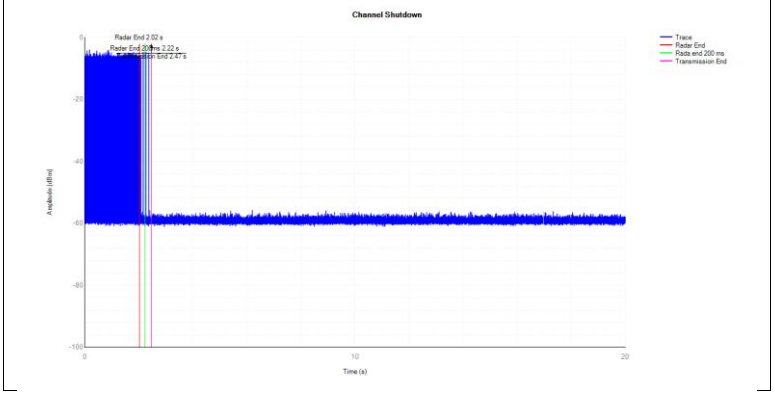
| Mode | Frequency (MHz) | Type | Result | Verdict |
|---|---|---|---|---|
| ac80 | 5290 | DFS_FCC_T0 | See test Graph | Pass |

| Test Graphs |
| --- |
| 5290MHz DFS_FCC_T0 |



### 11.8.2. Shutdown Time

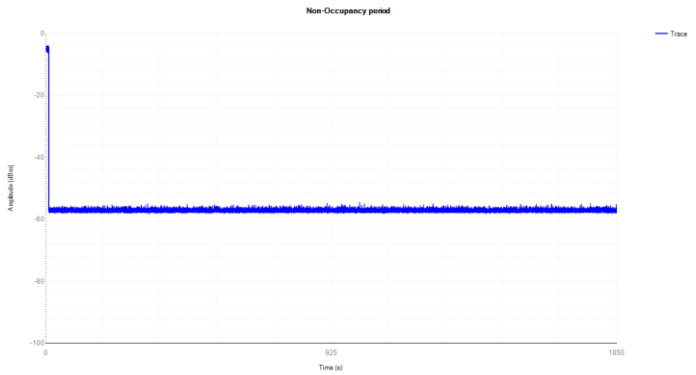
| Mode | Frequency (MHz) | Channel Move Time (s) | Limit Channel Move Time (s) | Close Transmission Time (s) | Limit Close Transmission Time (s) | Close Transmission Time after 200ms(s) | Limit Close Transmission Time after 200ms (s) | Verdict |
|---|---|---|---|---|---|---|---|---|
| ac80 | 5290 | 0.444 | 10 | 0.018 | 0.26 | 0.004 | 0.06 | Pass |

| Test Graphs |
| --- |
| ac80 5290MHz Shutdown |
|  |

### 11.8.3. Non-Occupancy

| Mode | Frequency (MHz) | Result | Verdict |
|---|---|---|---|
| ac80 | 5290 | See test Graph | Pass |

| Test Graphs |
| --- |
| ac80 5290MHz Non-Occupancy |




**END OF REPORT**