| | |
|---|---|
| **Case No. :** GTS20231023002-1-10 | |
| **Ambient Condition**: 23 ℃, 49 %RH, Atmos100.1Kpa, | |
| **Test Date:** 2023.11.27 | **Test Engineer:** Evan ouyang |

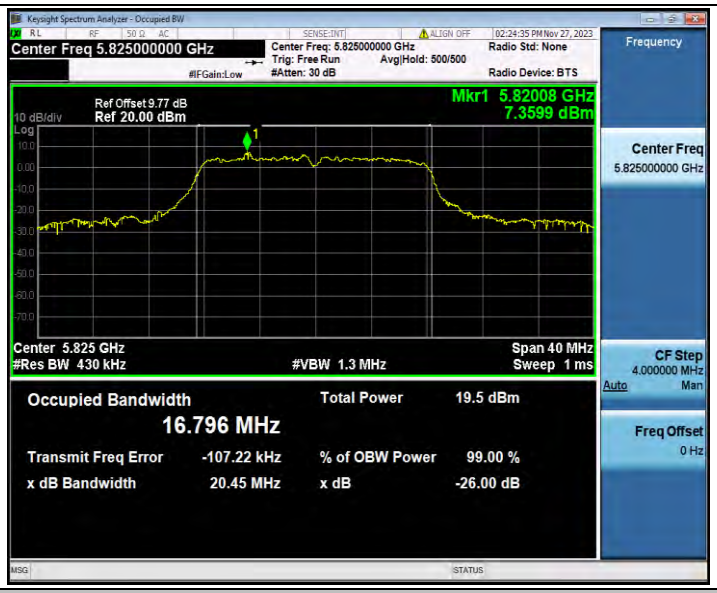
# Appendix D.1: Occupied channel bandwidth

## Test Result

| TestMode | Antenna | Freq(MHz) | OCB [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|---|---|---|
| 11A | Ant1 | 5745 | 17.277 | 5736.232 | 5753.509 | --- | --- |
| | | 5785 | 16.862 | 5776.478 | 5793.340 | --- | --- |
| | | 5825 | 16.796 | 5816.495 | 5833.291 | --- | --- |
| 11N20SISO | Ant1 | 5745 | 18.029 | 5735.968 | 5753.997 | --- | --- |
| | | 5785 | 17.135 | 5776.393 | 5793.528 | --- | --- |
| | | 5825 | 17.031 | 5816.454 | 5833.485 | --- | --- |
| 11AC20SISO | Ant1 | 5745 | 20.587 | 5734.725 | 5755.312 | --- | --- |
| | | 5785 | 17.731 | 5776.1341 | 5793.8651 | --- | --- |
| | | 5825 | 17.711 | 5816.1176 | 5833.8286 | --- | --- |

## Test Graphs

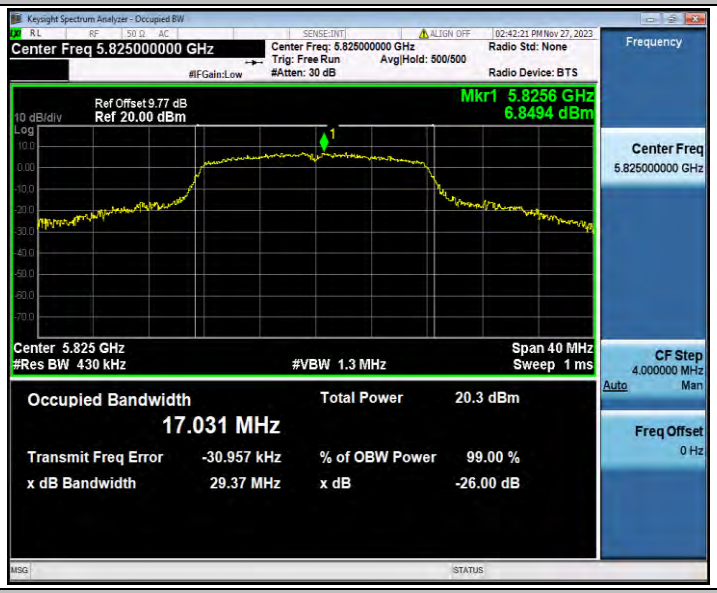
| 11A_Ant1_5745 |
|---|
| |
| 11A_Ant1_5785 |
| |
| 11A_Ant1_5825 |




11N20SISO_Ant1_5745

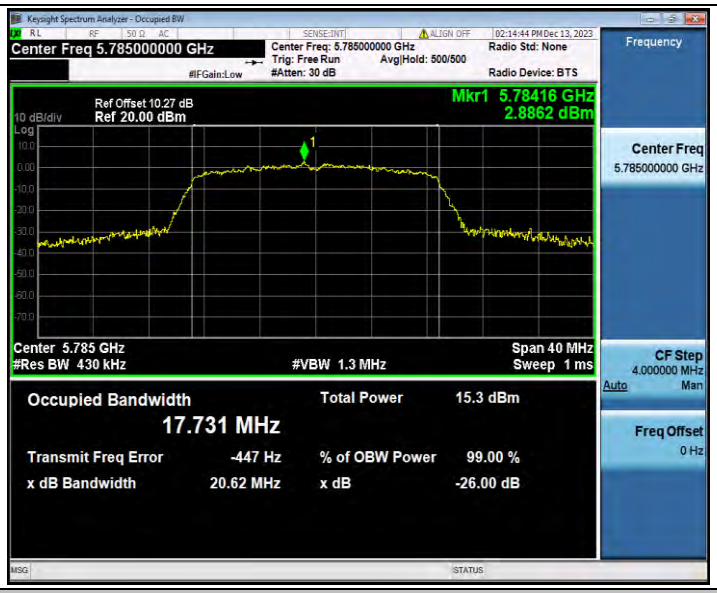
11N20SISO_Ant1_5785

11N20SISO_Ant1_5825

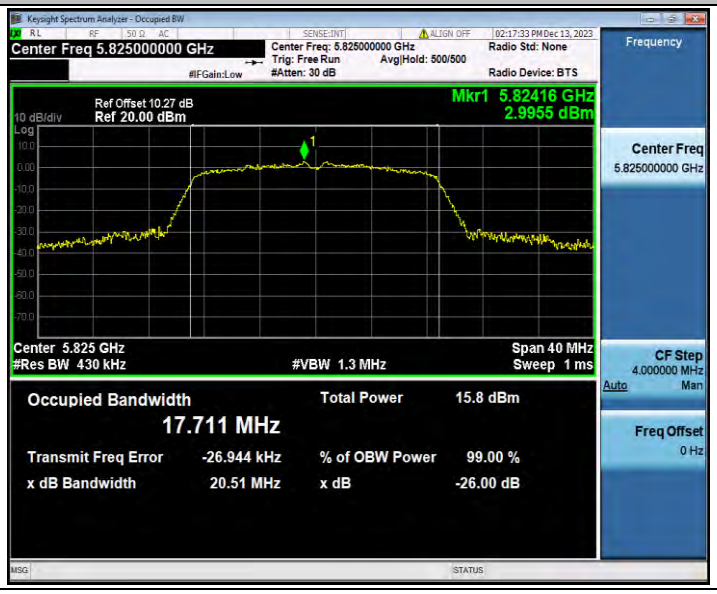



11AC20SISO_Ant1_5745

11AC20SISO_Ant1_5785




11AC20SISO_Ant1_5825

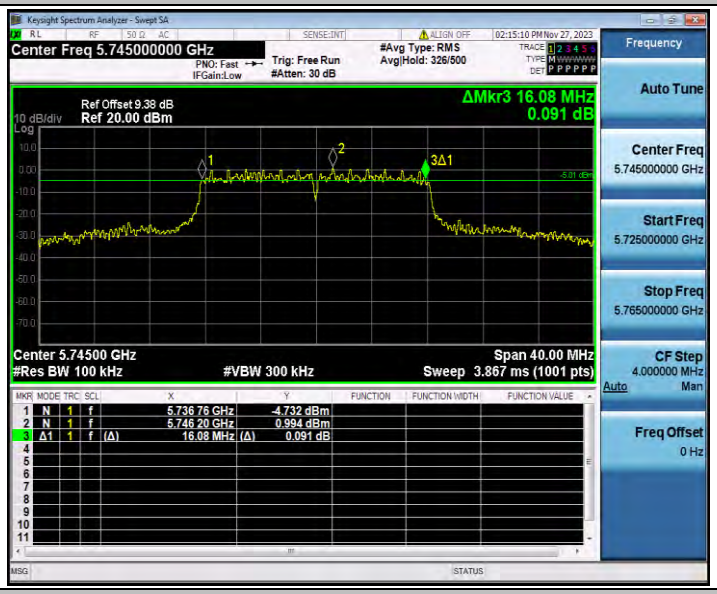


# Appendix D.2: Min emission bandwidth

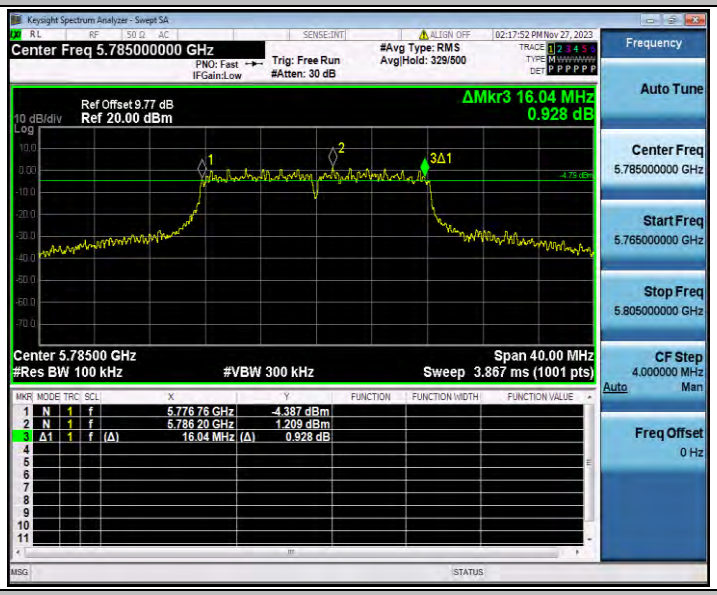
## Test Result B4

| TestMode | Antenna | Freq(MHz) | 6db EBW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|---|---|---|
| 11A | Ant1 | 5745 | 16.080 | 5736.760 | 5752.840 | 0.5 | PASS |
| | | 5785 | 16.040 | 5776.760 | 5792.800 | 0.5 | PASS |
| | | 5825 | 16.320 | 5816.760 | 5833.080 | 0.5 | PASS |
| 11N20SISO | Ant1 | 5745 | 17.600 | 5736.160 | 5753.760 | 0.5 | PASS |
| | | 5785 | 12.840 | 5778.600 | 5791.440 | 0.5 | PASS |
| | | 5825 | 15.080 | 5817.400 | 5832.480 | 0.5 | PASS |
| 11AC20SISO | Ant1 | 5745 | 15.040 | 5737.440 | 5752.480 | 0.5 | PASS |
| | | 5785 | 13.840 | 5778.640 | 5792.480 | 0.5 | PASS |
| | | 5825 | 15.080 | 5817.440 | 5832.520 | 0.5 | PASS |

## Test Graphs B4

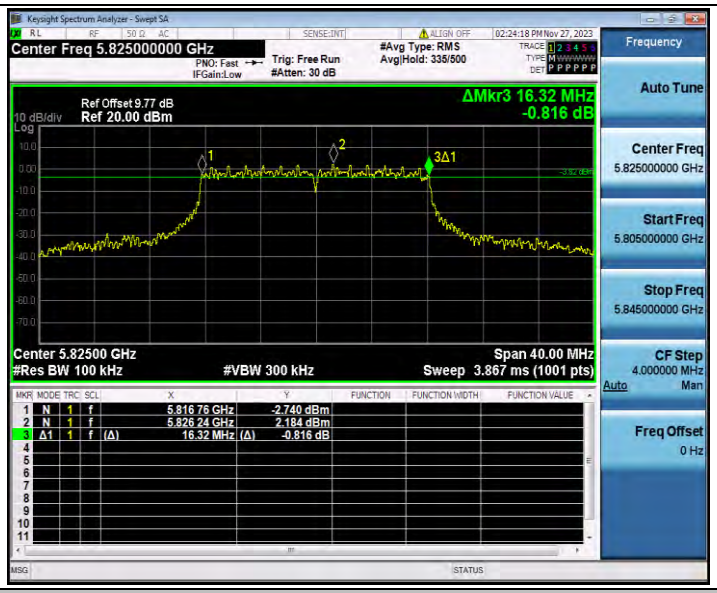
| 11A_Ant1_5745 |
|---|
|  |



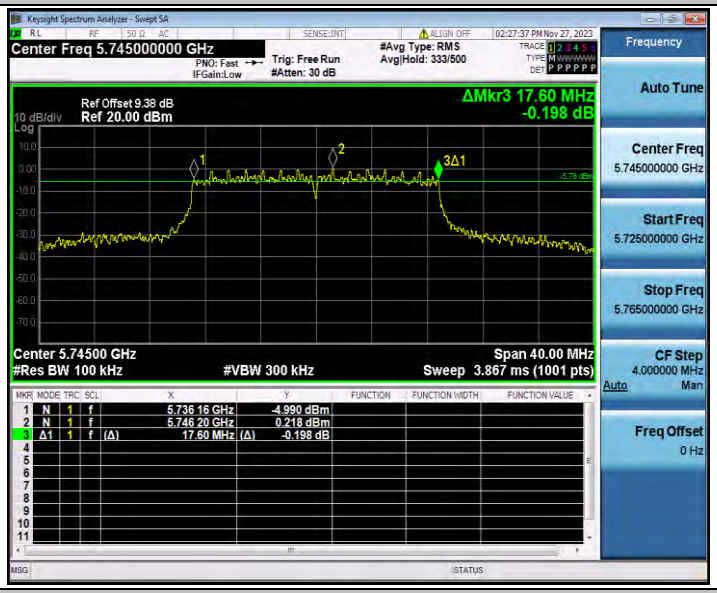
| 11A_Ant1_5785 |
|---|
|  |



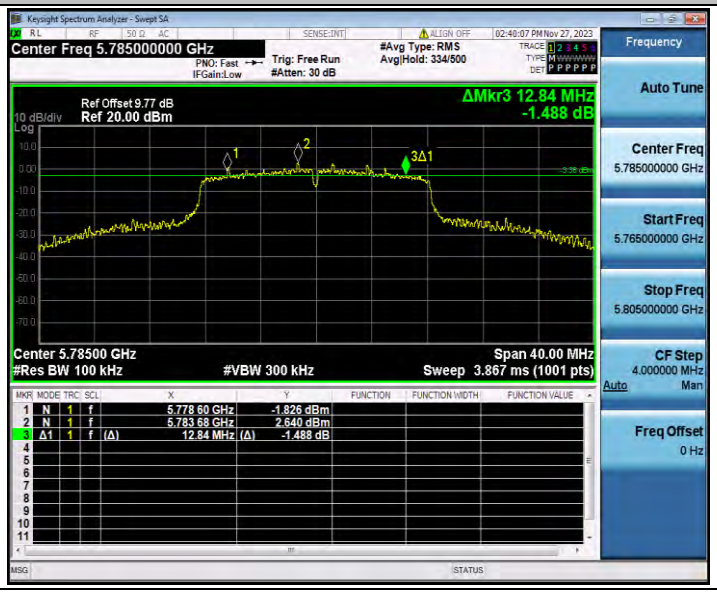
| 11A_Ant1_5825 |
|---|

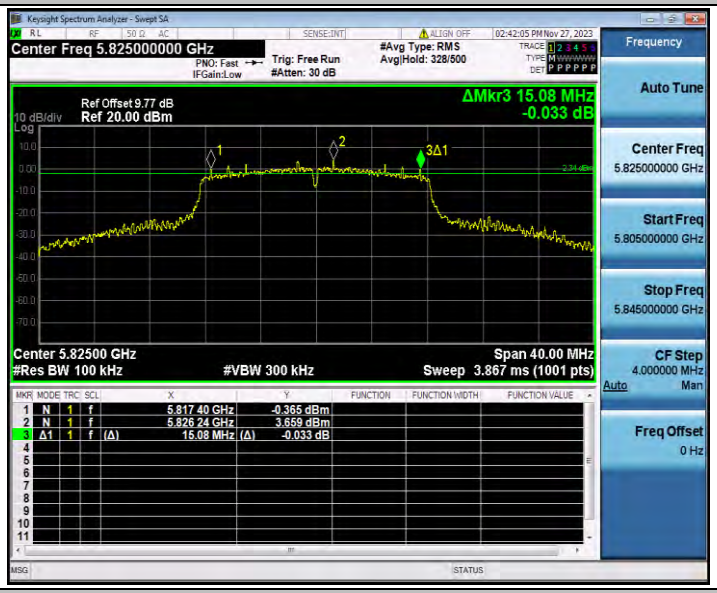



11N20SISO_Ant1_5745

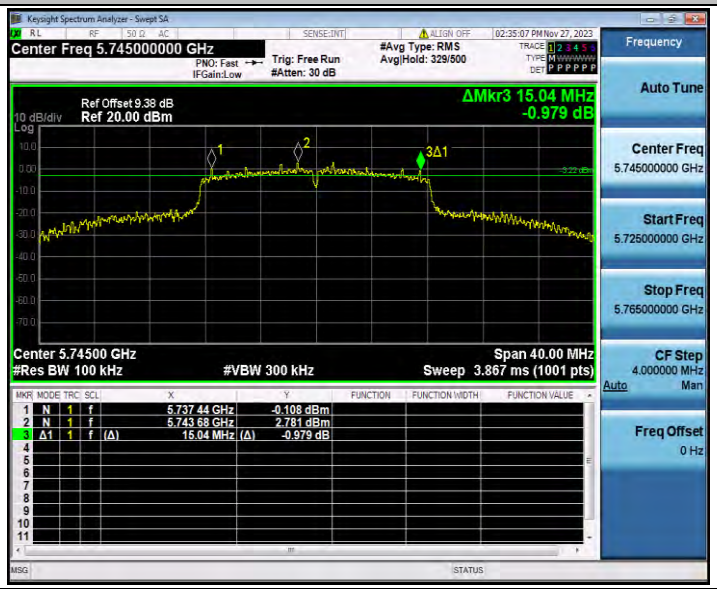



11N20SISO_Ant1_5785



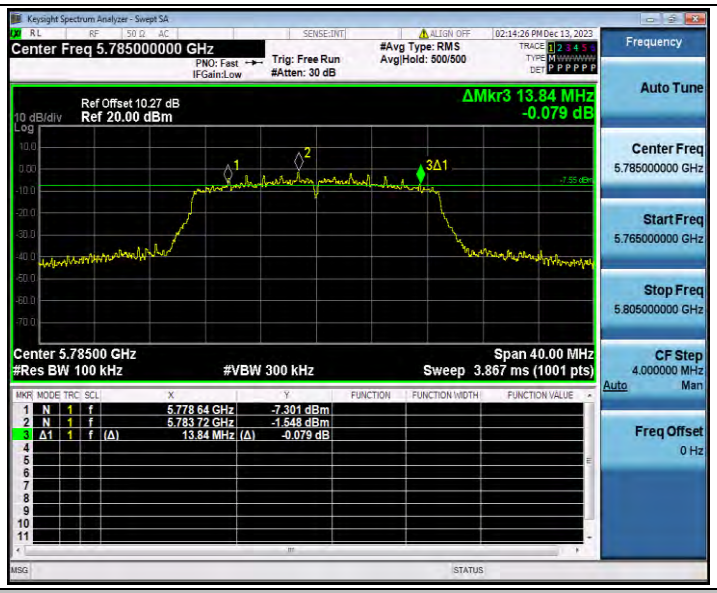
| 11N20SISO_Ant1_5825 |
| --- |
|  |



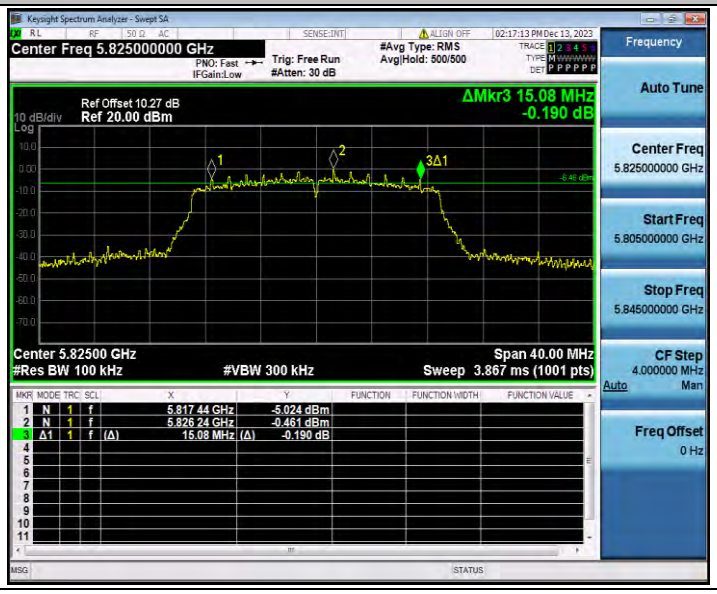
| 11AC20SISO_Ant1_5745 |
| --- |
|  |



| 11AC20SISO_Ant1_5785 |
| --- |




11AC20SISO_Ant1_5825



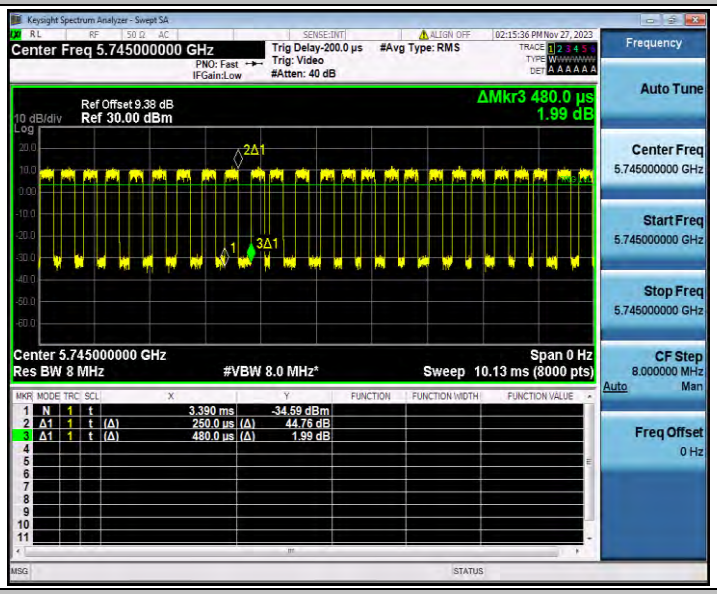
# Appendix D.3: Duty Cycle

## Test Result

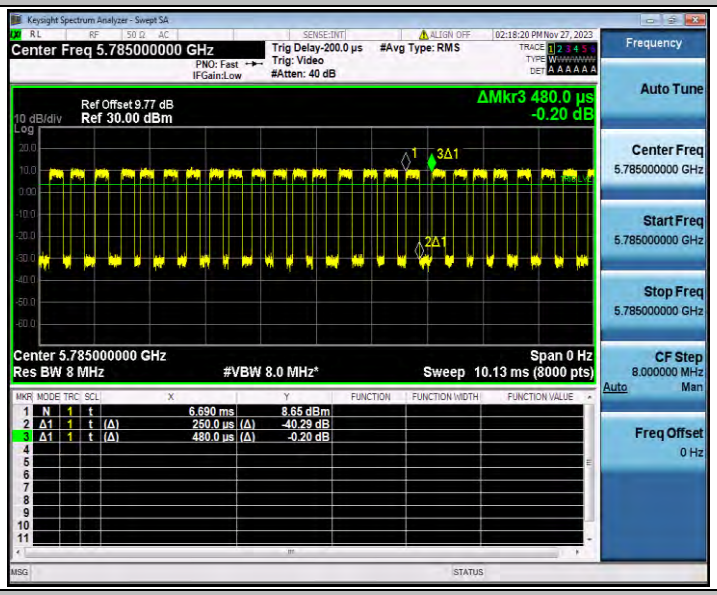
| Test Mode | Antenna | Frequency[MHz] | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] |
|---|---|---|---|---|---|
| 11A | Ant1 | 5745 | 0.25 | 0.48 | 52.08 |
| | | 5785 | 0.25 | 0.48 | 52.08 |
| | | 5825 | 0.25 | 0.48 | 52.08 |
| 11N20SISO | Ant1 | 5745 | 0.23 | 0.46 | 50.00 |
| | | 5785 | 2.07 | 2.56 | 80.86 |
| | | 5825 | 2.06 | 2.47 | 83.40 |
| 11AC20SISO | Ant1 | 5745 | 2.06 | 2.48 | 83.06 |
| | | 5785 | 1.31 | 1.35 | 97.04 |
| | | 5825 | 1.31 | 1.35 | 97.04 |

## Test Graphs

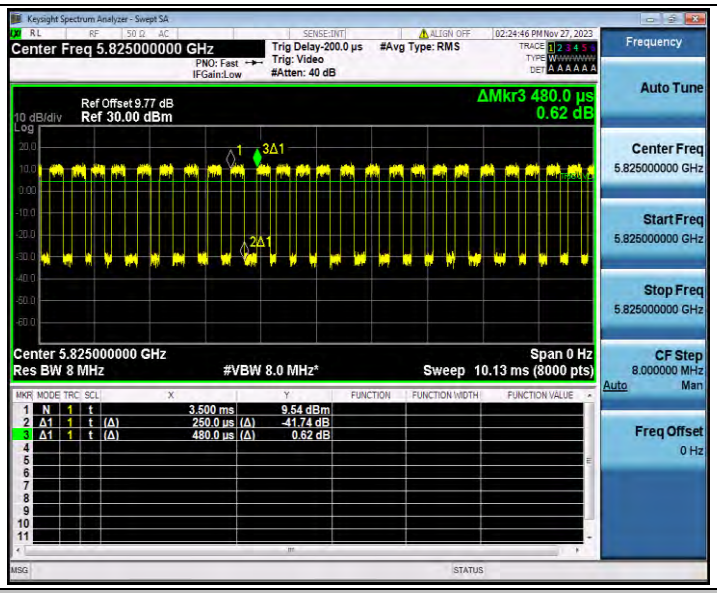
11A_Ant1_5745



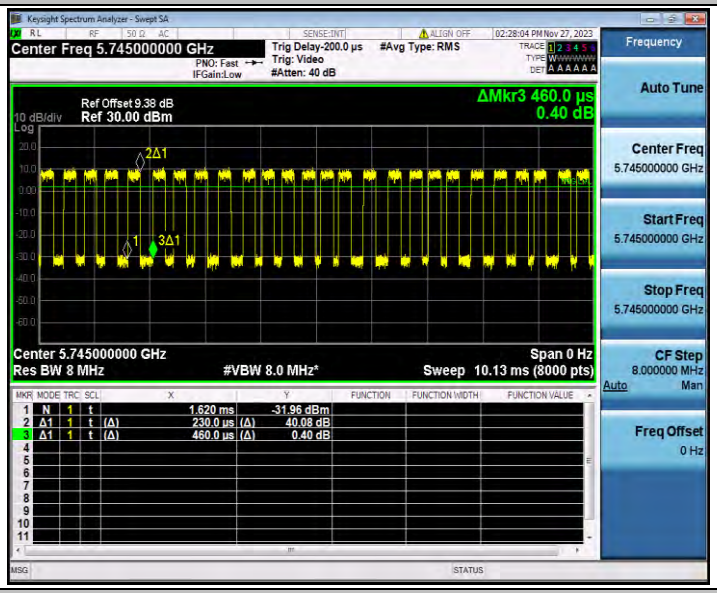

11A_Ant1_5785



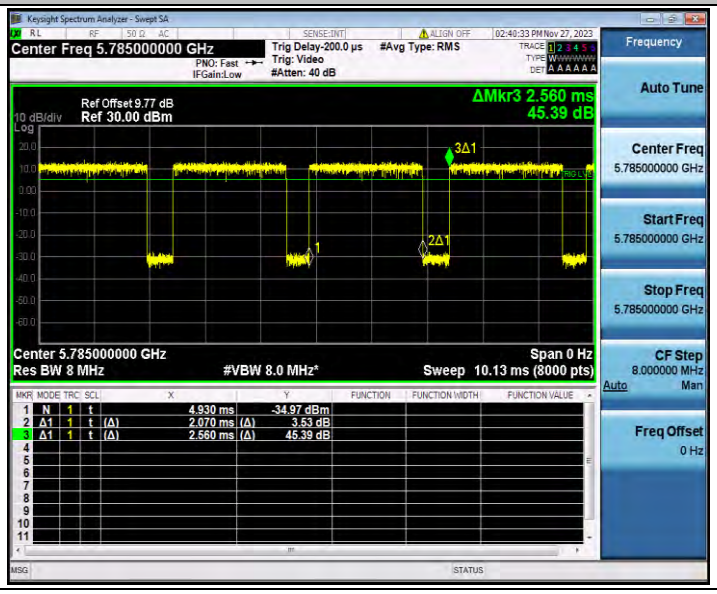

11A_Ant1_5825

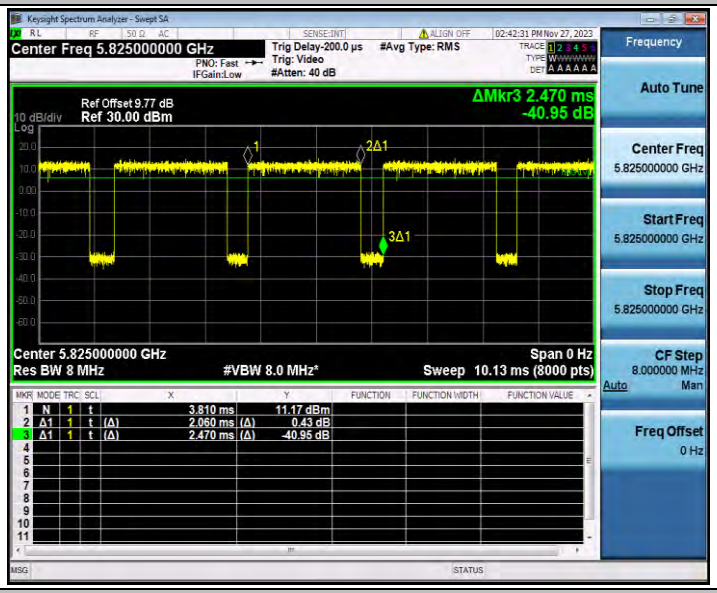



11N20SISO_Ant1_5745

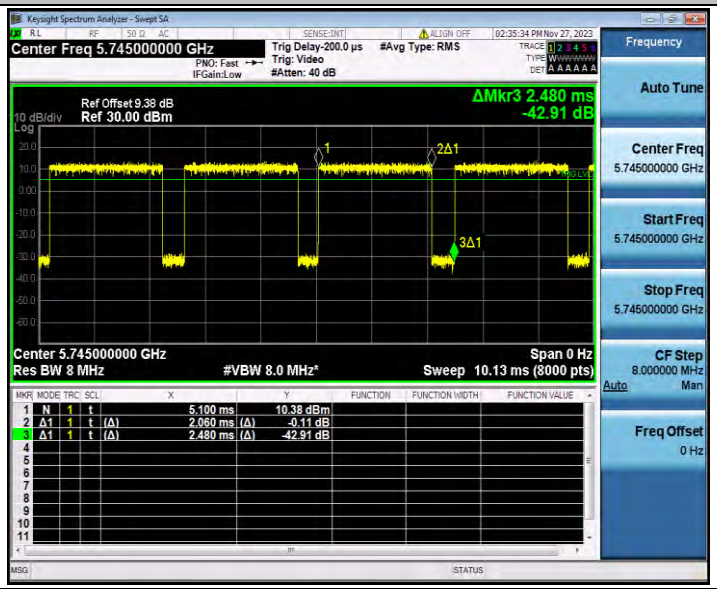



11N20SISO_Ant1_5785



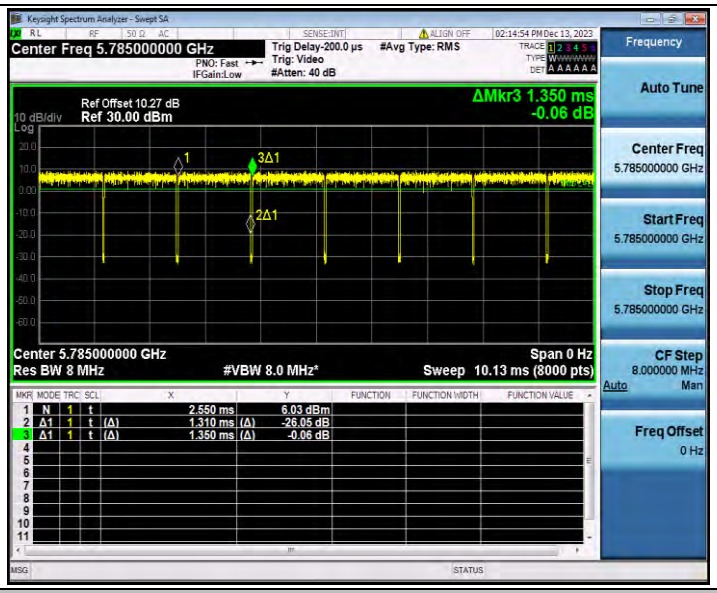
| 11N20SISO_Ant1_5825 |
| --- |
|  |



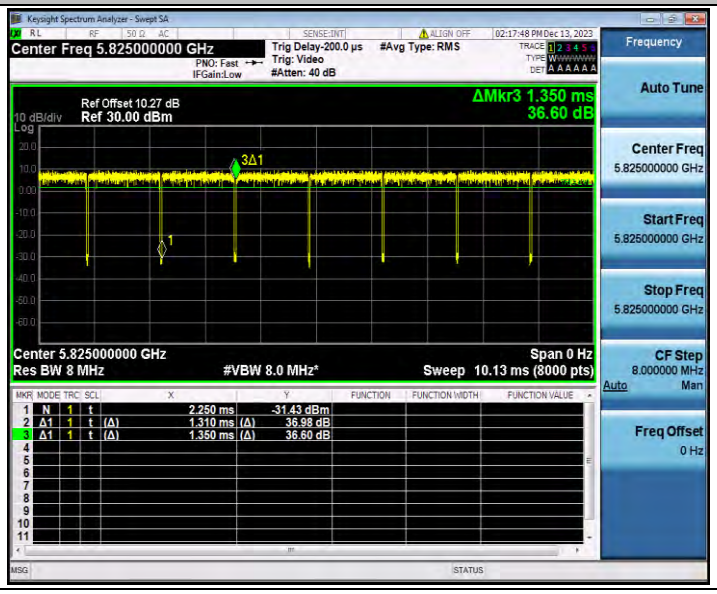
| 11AC20SISO_Ant1_5745 |
| --- |
|  |



| 11AC20SISO_Ant1_5785 |
| --- |




11AC20SISO_Ant1_5825



# Appendix D.4: Maximum conducted output power

## Test Result Channel Power

| Test Mode | Antenna | Frequency[MHz] | Channel Powert [dBm] | Duty Cycle [%] | DC Factor [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|---|---|---|---|---|---|---|---|---|
| 11A | Ant1 | 5745 | 9.35 | 52.08 | 2.83 | 12.18 | ≤30.00 | PASS |
| | | 5785 | 9.54 | 52.08 | 2.83 | 12.37 | ≤30.00 | PASS |
| | | 5825 | 10.36 | 52.08 | 2.83 | 13.19 | ≤30.00 | PASS |
| 11N20SISO | Ant1 | 5745 | 8.32 | 50.00 | 3.01 | 11.33 | ≤30.00 | PASS |
| | | 5785 | 12.17 | 80.86 | 0.92 | 13.09 | ≤30.00 | PASS |
| | | 5825 | 12.94 | 83.40 | 0.79 | 13.73 | ≤30.00 | PASS |
| 11AC20SISO | Ant1 | 5745 | 12.04 | 83.06 | 0.81 | 12.85 | ≤30.00 | PASS |
| | | 5785 | 12.64 | 97.04 | 0.13 | 12.77 | ≤30.00 | PASS |
| | | 5825 | 11.9 | 97.04 | 0.13 | 12.03 | ≤30.00 | PASS |

Note：The Duty Cycle Factor is compensated in the graph.

# Appendix D.5: Maximum power spectral density

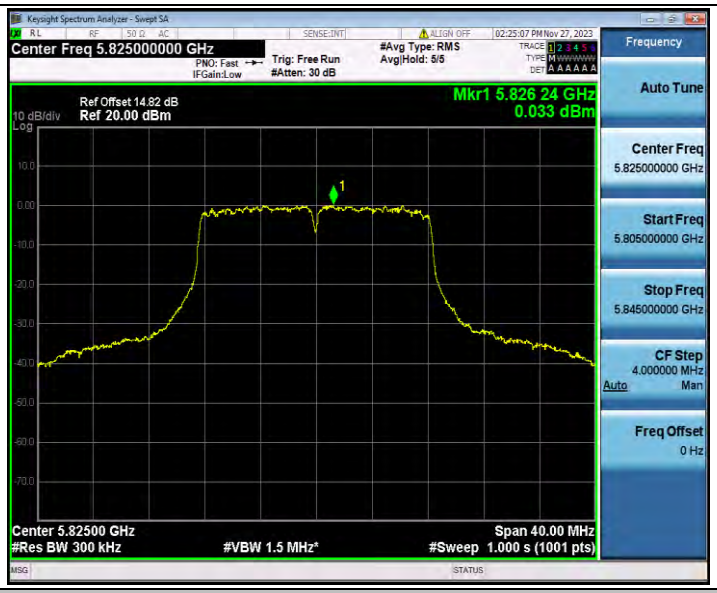
## Test Result

| TestMode | Antenna | Freq(MHz) | Result [dBm/MHz] | Limit[dBm/MHz] | Verdict |
|---|---|---|---|---|---|
| 11A | Ant1 | 5745 | -0.67 | ≤30.00 | PASS |
| | | 5785 | -0.45 | ≤30.00 | PASS |
| | | 5825 | 0.03 | ≤30.00 | PASS |
| 11N20SISO | Ant1 | 5745 | -1.58 | ≤30.00 | PASS |
| | | 5785 | 1.07 | ≤30.00 | PASS |
| | | 5825 | 1.43 | ≤30.00 | PASS |
| 11AC20SISO | Ant1 | 5745 | 0.59 | ≤30.00 | PASS |
| | | 5785 | -4.37 | ≤30.00 | PASS |
| | | 5825 | -4.01 | ≤30.00 | 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.

## Test Graphs

| 11A_Ant1_5745 |
|---|
| |
| 11A_Ant1_5785 |
| |
| 11A_Ant1_5825 |




11N20SISO_Ant1_5745

11N20SISO_Ant1_5785

| 11N20SISO_Ant1_5825 |
| --- |
| |



| 11AC20SISO_Ant1_5745 |
| --- |
| |



| 11AC20SISO_Ant1_5785 |
| --- |

11AC20SISO_Ant1_5825

# Appendix D.6: Band edge measurements

## Test Result B4

| TestMode | Antenna | ChName | Freq(MHz) | FreqRange [MHz] | Result [dBm] | Limit [dBm] | Verdict |
|---|---|---|---|---|---|---|---|
| 11A | Ant1 | Low | 5745 | 5650~5700 | -37.91 | ≤9.89 | PASS |
| | | | | 5700~5720 | -28.03 | ≤15.56 | PASS |
| | | | | 5720~5725 | -15.91 | ≤26.83 | PASS |
| | | | | 5760~5650 | -40.79 | ≤-27 | PASS |
| | | High | 5825 | 5850~5855 | -34.24 | ≤25.34 | PASS |
| | | | | 5855~5875 | -34.44 | ≤10.29 | PASS |
| | | | | 5875~5925 | -37.86 | ≤-3.18 | PASS |
| | | | | 5925~5935 | -39.29 | ≤-27 | PASS |
| 11N20SISO | Ant1 | Low | 5745 | 5650~5700 | -39.33 | ≤3.08 | PASS |
| | | | | 5700~5720 | -29.45 | ≤15.53 | PASS |
| | | | | 5720~5725 | -21.62 | ≤26.83 | PASS |
| | | | | 5760~5650 | -39.93 | ≤-27 | PASS |
| | | High | 5825 | 5850~5855 | -25.11 | ≤21.03 | PASS |
| | | | | 5855~5875 | -30.99 | ≤10.14 | PASS |
| | | | | 5875~5925 | -38.15 | ≤-10.57 | PASS |
| | | | | 5925~5935 | -37.85 | ≤-27 | PASS |
| 11AC20SISO | Ant1 | Low | 5745 | 5650~5700 | -37.33 | ≤8.79 | PASS |
| | | | | 5700~5720 | -24.27 | ≤15.47 | PASS |
| | | | | 5720~5725 | -20.02 | ≤26.83 | PASS |
| | | | | 5760~5650 | -40.5 | ≤-27 | PASS |
| | | High | 5825 | 5850~5855 | -35.48 | ≤17.95 | PASS |
| | | | | 5855~5875 | -37.59 | ≤15.09 | PASS |
| | | | | 5875~5925 | -36.82 | ≤6.31 | PASS |
| | | | | 5925~5935 | -38.13 | ≤-27 | PASS |

## Test Graphs B4

11A_Ant1_Low_5745

11A_Ant1_High_5825

11N20SISO_Ant1_Low_5745

11N20SISO_Ant1_High_5825

11AC20SISO_Ant1_Low_5745

| 11AC20SISO_Ant1_High_5825 |
| --- |
| |

# Appendix D.7: Conducted Spurious Emission

## Test Result

| TestMode | Antenna | Freq(MHz) | FreqRange [MHz] | Max. Fre [MHz] | Max. Level [dBm] | Limit [dBm] | Verdict |
|---|---|---|---|---|---|---|---|
| 11A | Ant1 | 5745 | 30~5650 | 5416.77 | -40.58 | ≤-27 | PASS |
| | | | 5925~40000 | 23691.23 | -32.45 | ≤-27 | PASS |
| | | 5785 | 30~5650 | 3057.68 | -40.6 | ≤-27 | PASS |
| | | | 5925~40000 | 26478.75 | -31.88 | ≤-27 | PASS |
| | | 5825 | 30~5650 | 5420.89 | -40.65 | ≤-27 | PASS |
| | | | 5925~40000 | 25065.32 | -32.35 | ≤-27 | PASS |
| 11N20SISO | Ant1 | 5745 | 30~5650 | 5482.71 | -40.89 | ≤-27 | PASS |
| | | | 5925~40000 | 26942.4 | -32.53 | ≤-27 | PASS |
| | | 5785 | 30~5650 | 5446.18 | -39.99 | ≤-27 | PASS |
| | | | 5925~40000 | 23519.11 | -31.65 | ≤-27 | PASS |
| | | 5825 | 30~5650 | 5419.77 | -40.53 | ≤-27 | PASS |
| | | | 5925~40000 | 26062.87 | -30.85 | ≤-27 | PASS |
| 11AC20SISO | Ant1 | 5745 | 30~5650 | 5456.86 | -40.14 | ≤-27 | PASS |
| | | | 5925~40000 | 24870.02 | -32.34 | ≤-27 | PASS |
| | | 5785 | 30~5650 | 5452.36 | -39.31 | ≤-27 | PASS |
| | | | 5925~40000 | 24940.27 | -31.19 | ≤-27 | PASS |
| | | 5825 | 30~5650 | 4989.46 | -39.72 | ≤-27 | PASS |
| | | | 5925~40000 | 26046.71 | -31.18 | ≤-27 | PASS |

## Test Graphs

11A_Ant1_5745_30~5650

11A_Ant1_5745_5925~40000

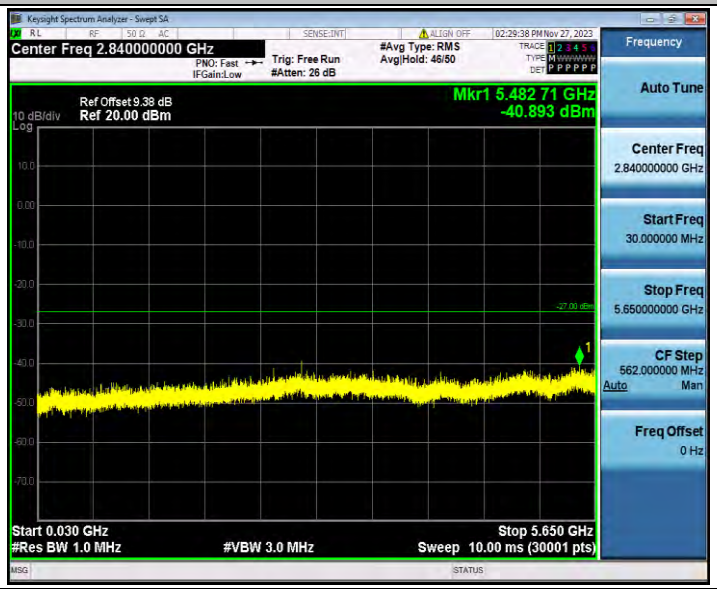
11A_Ant1_5785_30~5650

11A_Ant1_5785_5925~40000

11A_Ant1_5825_30~5650

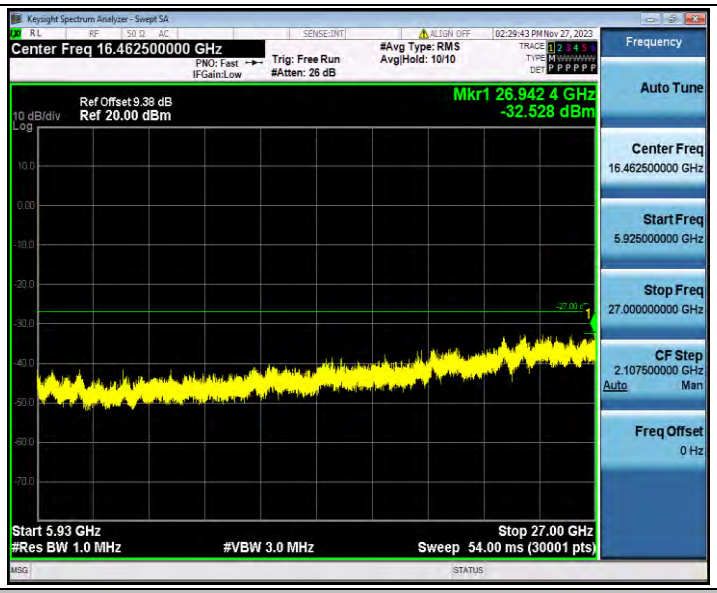
| 11A_Ant1_5825_5925~40000 |
| --- |
| |



| 11N20SISO_Ant1_5745_30~5650 |
| --- |
|  |



| 11N20SISO_Ant1_5745_5925~40000 |
| --- |

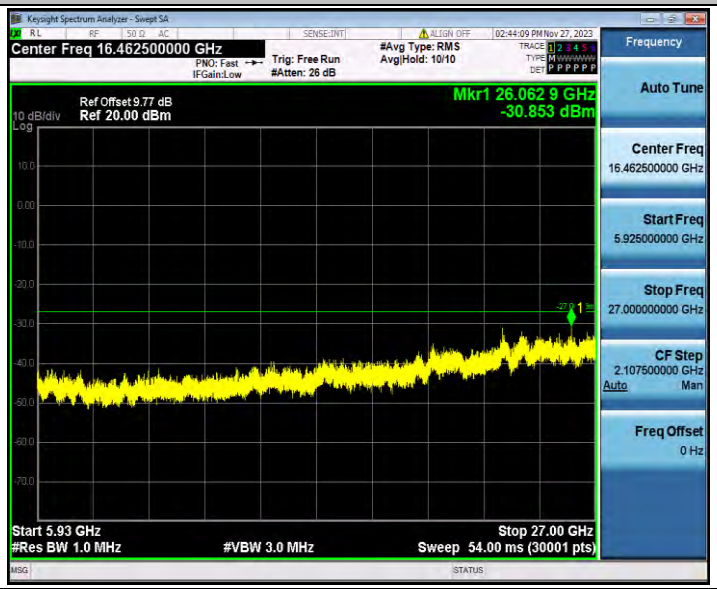



11N20SISO_Ant1_5785_30~5650

11N20SISO_Ant1_5785_5925~40000

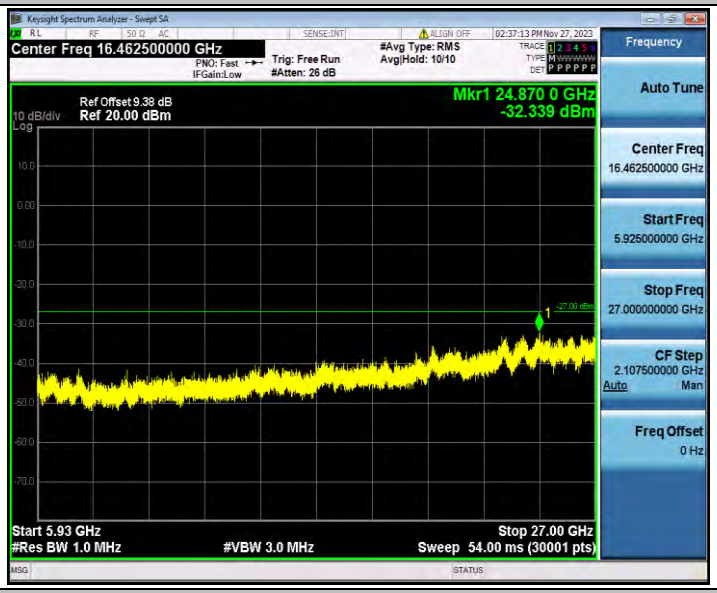
11N20SISO_Ant1_5825_30~5650

11N20SISO_Ant1_5825_5925~40000




11AC20SISO_Ant1_5745_30~5650

11AC20SISO_Ant1_5745_5925~40000

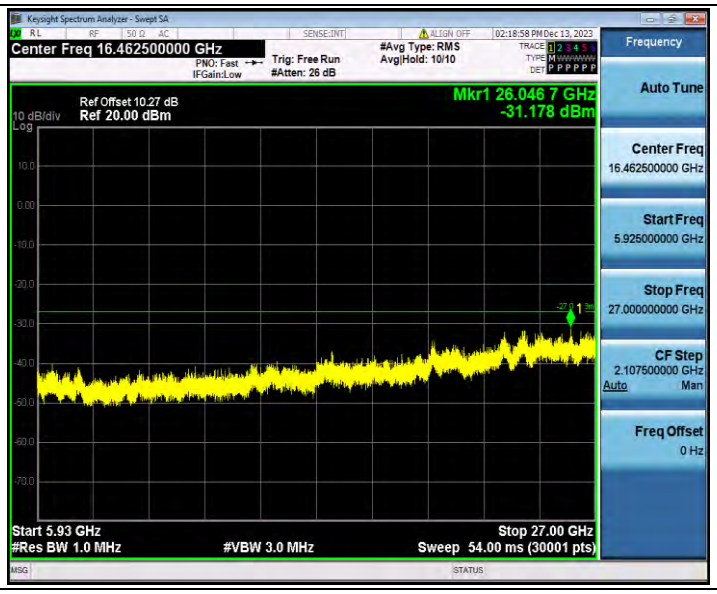



11AC20SISO_Ant1_5785_30~5650

11AC20SISO_Ant1_5785_5925~40000

11AC20SISO_Ant1_5825_30~5650

11AC20SISO_Ant1_5825_5925~40000


Keysight Spectrum Analyzer - Swept SA
Center Freq 16.462500000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 26 dB
#Avg Type: RMS
Avg|Hold: 10/10
02:18:58 PM Dec 13, 2023
Ref Offset 10.27 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 26.046 7 GHz
-31.178 dBm
Start 5.93 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 27.00 GHz
Sweep 54.00 ms (30001 pts)
Frequency
Auto Tune
Center Freq
16.462500000 GHz
Start Freq
5.925000000 GHz
Stop Freq
27.000000000 GHz
CF Step
2.107500000 GHz
Auto
Man
Freq Offset
0 Hz

# Appendix D.8: Emissions in Restricted Bands

## Test Result

| TestMode | Antenna | ChName | Freq(MHz) | Detector | Freq [MHz] | Result [dBm] | Limit [dBm] | Result [dBuV/m] | Limit [dBuV/m] | Verdict |
|---|---|---|---|---|---|---|---|---|---|---|
| 11A | Ant1 | Low | 5745 | Peak | 5650.000 | -41.228 | ≤-27.00 | --- | --- | PASS |
| | | | | Peak | 5700.000 | -38.77 | ≤10.00 | --- | --- | PASS |
| | | | | Peak | 5720.000 | -28.15 | ≤15.60 | --- | --- | PASS |
| | | | | Peak | 5725.000 | -16.66 | ≤27.00 | - -- | - -- | PASS |
| | | High | 5825 | Peak | 5850.000 | -34.154 | ≤15.60 | --- | --- | PASS |
| | | | | Peak | 5855.000 | -37.89 | ≤27.00 | --- | --- | PASS |
| | | | | Peak | 5875.000 | -40.31 | ≤15.60 | --- | --- | PASS |
| | | | | Peak | 5925.000 | -39.09 | ≤10.00 | - -- | - -- | PASS |
| 11N20SISO | Ant1 | Low | 5745 | Peak | 5650.000 | -40.378 | ≤-27.00 | --- | --- | PASS |
| | | | | Peak | 5700.000 | -40.43 | ≤10.00 | --- | --- | PASS |
| | | | | Peak | 5720.000 | -27.87 | ≤15.60 | --- | --- | PASS |
| | | | | Peak | 5725.000 | -20.33 | ≤27.00 | - -- | - -- | PASS |
| | | High | 5825 | Peak | 5850.000 | -29.047 | ≤15.60 | --- | --- | PASS |
| | | | | Peak | 5855.000 | -34.21 | ≤27.00 | --- | --- | PASS |
| | | | | Peak | 5875.000 | -38.88 | ≤15.60 | --- | --- | PASS |
| | | | | Peak | 5925.000 | -39.44 | ≤10.00 | - -- | - -- | PASS |
| 11AC20SISO | Ant1 | Low | 5745 | Peak | 5650.000 | -39.821 | ≤-27.00 | --- | --- | PASS |
| | | | | Peak | 5700.000 | -39.92 | ≤10.00 | --- | --- | PASS |
| | | | | Peak | 5720.000 | -26.73 | ≤15.60 | --- | --- | PASS |
| | | | | Peak | 5725.000 | -19.65 | ≤27.00 | - -- | - -- | PASS |
| | | High | 5825 | Peak | 5850.000 | -35.549 | ≤15.60 | --- | --- | PASS |
| | | | | Peak | 5855.000 | -38.17 | ≤27.00 | --- | --- | PASS |
| | | | | Peak | 5875.000 | -37.77 | ≤15.60 | --- | --- | PASS |
| | | | | Peak | 5925.000 | -39.3 | ≤10.00 | - -- | - -- | PASS |

Note：

1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. For transmitters operating in 5150-5350 GHz band and 5470-5725 GHz band: The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

## Test Graphs

11A_Ant1_Low_5745_Peak

11A_Ant1_High_5825_Peak

11N20SISO_Ant1_Low_5745_Peak

11N20SISO_Ant1_High_5825_Peak

11AC20SISO_Ant1_Low_5745_Peak

| 11AC20SISO_Ant1_High_5825_Peak |
| --- |
| |