# Appendix A: Test results

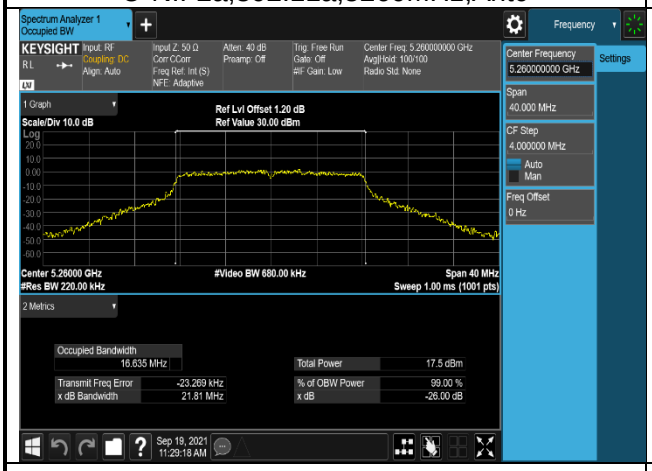
1. Occupied N dB Bandwidth

1.1 Test Data

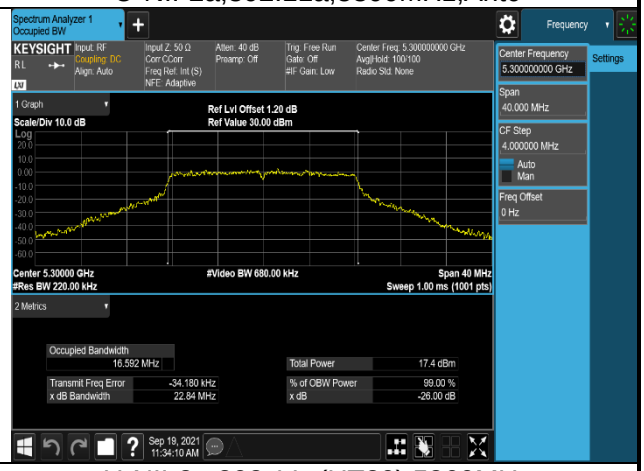
| U-NII-2a Occupied N dB Bandwidth | | | | |
|---|---|---|---|---|
| Mode | Test Frequency (MHz) | Ant | Occupied Bandwidth (MHz) | Result |
| 802.11a | 5260 | Ant0 | 21.81 | Pass |
| 802.11a | 5300 | Ant0 | 22.84 | Pass |
| 802.11a | 5320 | Ant0 | 22.30 | Pass |
| 802.11n (HT20) | 5260 | Ant0 | 22.87 | Pass |
| 802.11n (HT20) | 5300 | Ant0 | 24.24 | Pass |
| 802.11n (HT20) | 5320 | Ant0 | 22.84 | Pass |
| 802.11n (HT40) | 5270 | Ant0 | 41.17 | Pass |
| 802.11n (HT40) | 5310 | Ant0 | 40.82 | Pass |
| 802.11ac (VHT80) | 5290 | Ant0 | 82.96 | Pass |

1.2 Test Plots

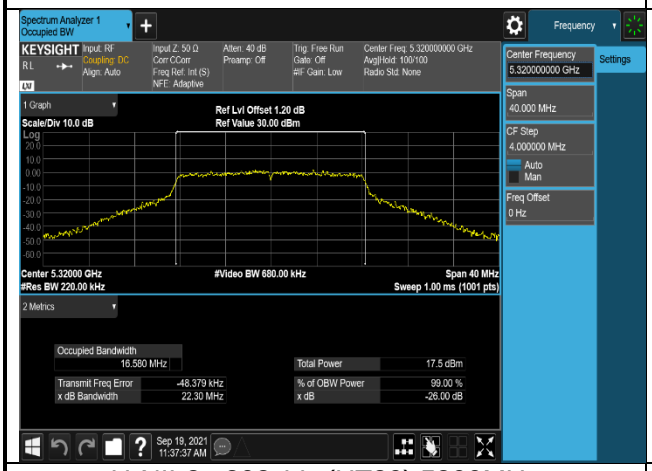
U-NII-2a,802.11a,5260MHz,Ant0



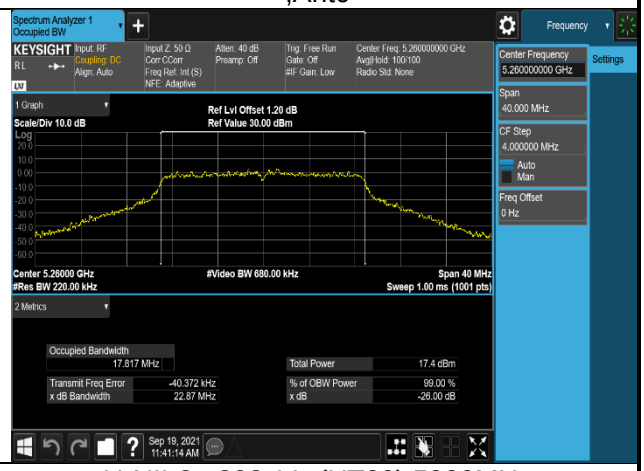

U-NII-2a,802.11a,5300MHz,Ant0




U-NII-2a,802.11a,5320MHz,Ant0

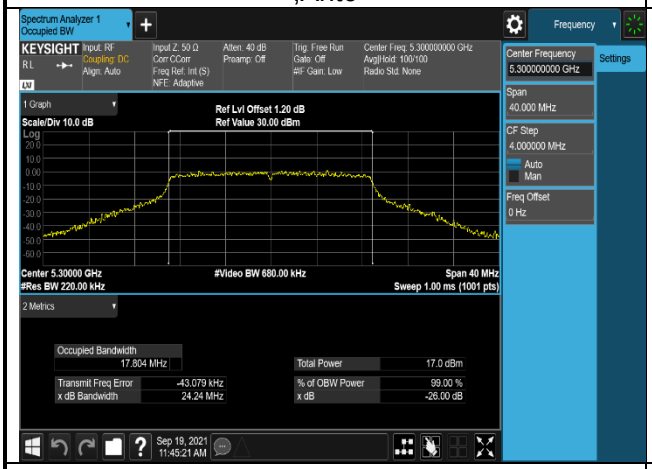


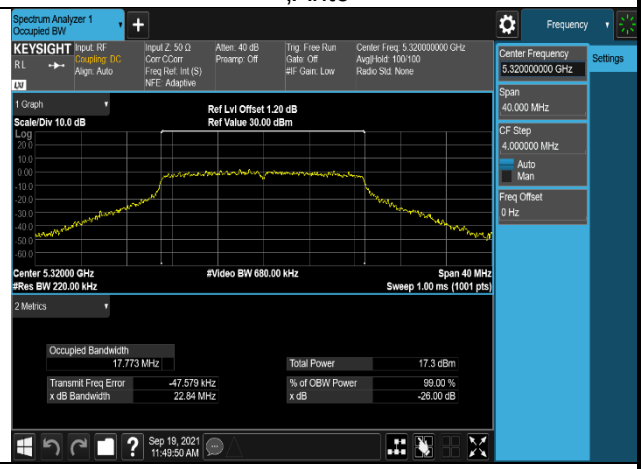

U-NII-2a,802.11n(HT20),5260MHz,Ant0




U-NII-2a,802.11n(HT20),5300MHz,Ant0

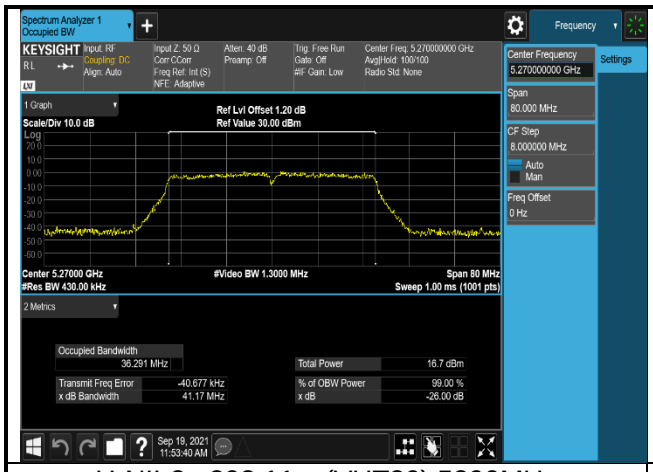
U-NII-2a,802.11n(HT20),5320MHz,Ant0

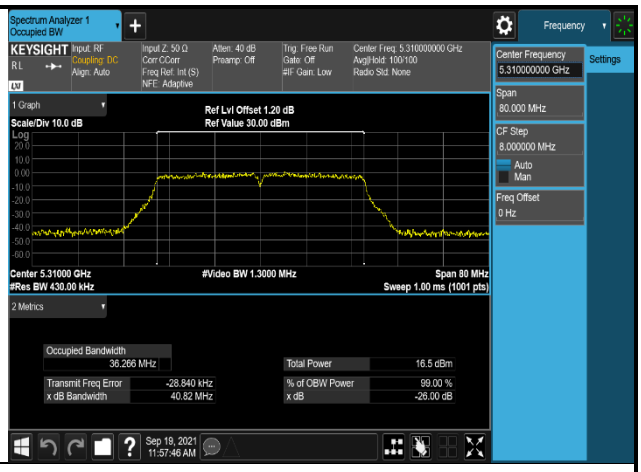


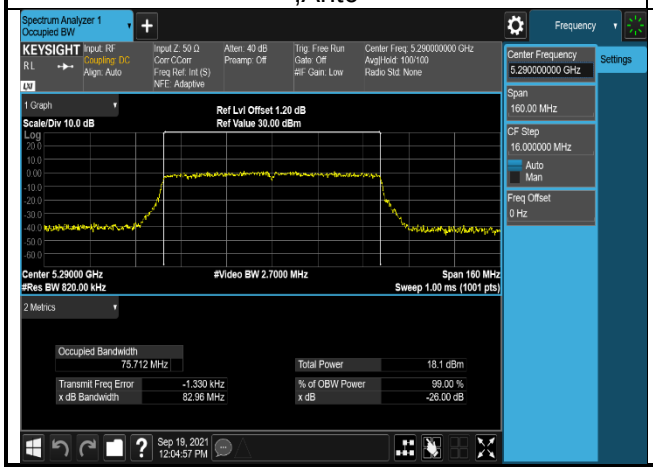

U-NII-2a,802.11n(HT40),5270MHz,Ant0

U-NII-2a,802.11n(HT40),5310MHz,Ant0




U-NII-2a,802.11ac(VHT80),5290MHz ,Ant0



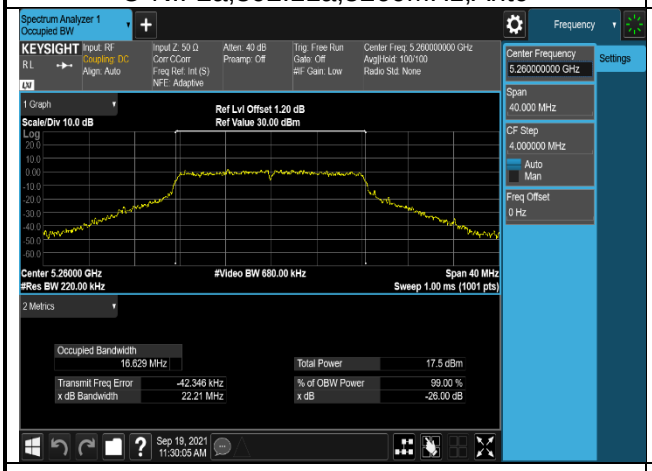
## 2. 99% Occupied Bandwidth

### 2.1 Test Data

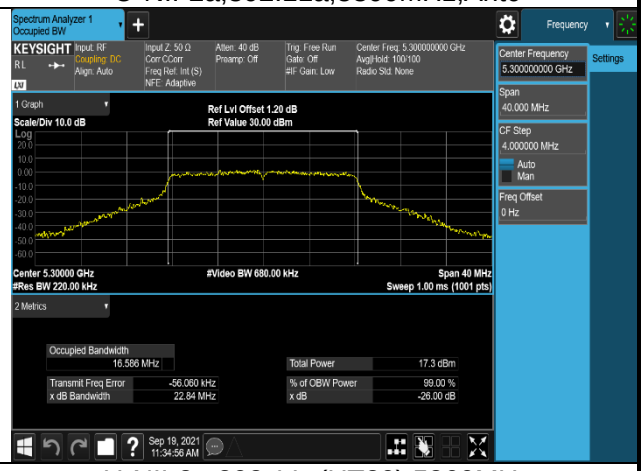
| U-NII-2a 99% Occupied Bandwidth | | | | |
|---|---|---|---|---|
| Mode | Test Frequency (MHz) | Ant | 99% Occupied Bandwidth (MHz) | Result |
| 802.11a | 5260 | Ant0 | 16.629 | Pass |
| 802.11a | 5300 | Ant0 | 16.586 | Pass |
| 802.11a | 5320 | Ant0 | 16.600 | Pass |
| 802.11n (HT20) | 5260 | Ant0 | 17.769 | Pass |
| 802.11n (HT20) | 5300 | Ant0 | 17.799 | Pass |
| 802.11n (HT20) | 5320 | Ant0 | 17.803 | Pass |
| 802.11n (HT40) | 5270 | Ant0 | 36.351 | Pass |
| 802.11n (HT40) | 5310 | Ant0 | 36.316 | Pass |
| 802.11ac (VHT80) | 5290 | Ant0 | 75.662 | Pass |

### 2.2 Test Plots

U-NII-2a,802.11a,5260MHz,Ant0

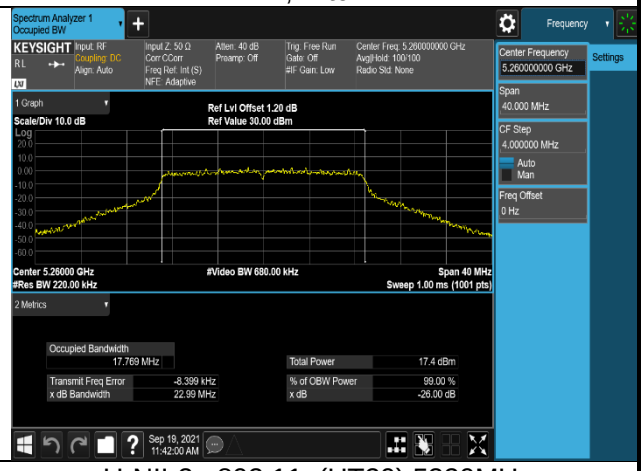



U-NII-2a,802.11a,5300MHz,Ant0

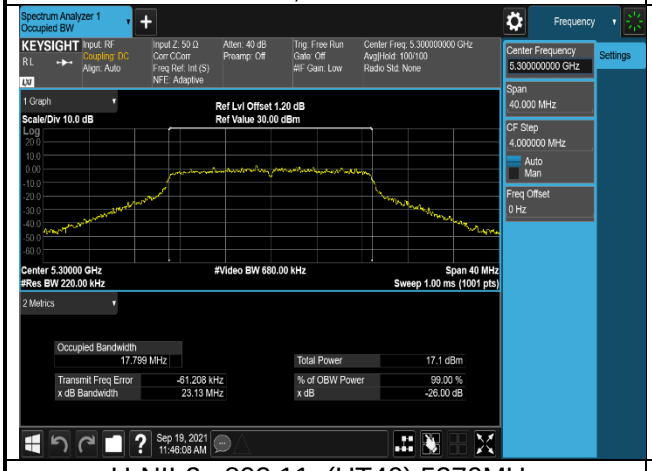



U-NII-2a,802.11a,5320MHz,Ant0


U-NII-2a,802.11n(HT20),5260MHz,Ant0



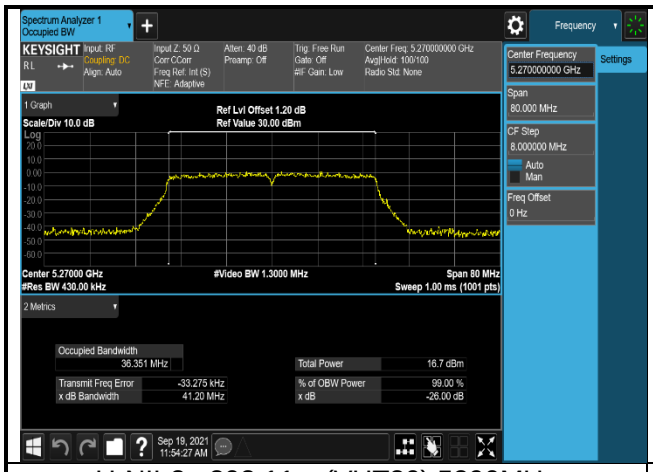

U-NII-2a,802.11n(HT20),5300MHz,Ant0

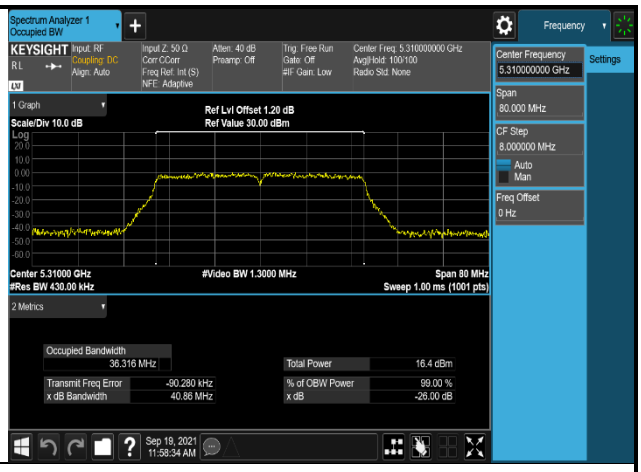



U-NII-2a,802.11n(HT20),5320MHz,Ant0

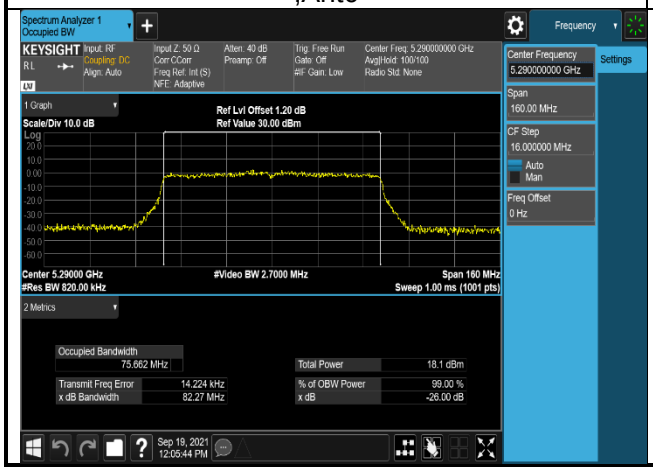

U-NII-2a,802.11n(HT40),5270MHz,Ant0

U-NII-2a,802.11n(HT40),5310MHz,Ant0




U-NII-2a,802.11ac(VHT80),5290MHz
,Ant0



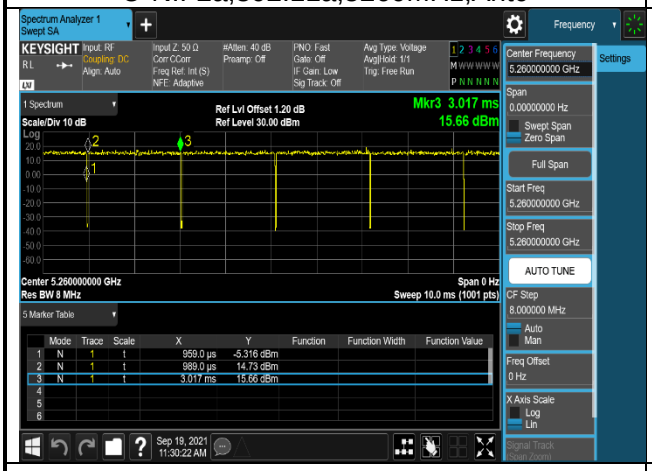
# 3. Duty Cycle

## 3.1 Test Data

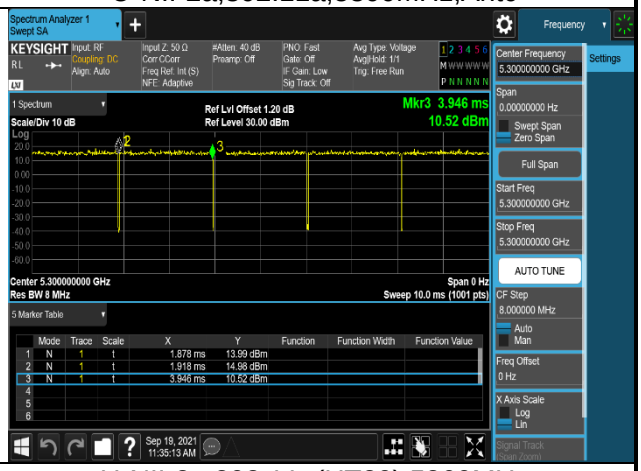
| U-NII-2a Duty Cycle | | | | |
|---|---|---|---|---|
| Mode | Test Frequency (MHz) | Ant | Duty Cycle (%) | Duty Cycle Factor (dB) |
| 802.11a | 5260 | Ant0 | 98.54 | 0.00 |
| 802.11a | 5300 | Ant0 | 98.07 | 0.00 |
| 802.11a | 5320 | Ant0 | 98.07 | 0.00 |
| 802.11n (HT20) | 5260 | Ant0 | 98.28 | 0.00 |
| 802.11n (HT20) | 5300 | Ant0 | 97.70 | 0.10 |
| 802.11n (HT20) | 5320 | Ant0 | 97.70 | 0.10 |
| 802.11n (HT40) | 5270 | Ant0 | 96.55 | 0.15 |
| 802.11n (HT40) | 5310 | Ant0 | 95.45 | 0.20 |
| 802.11ac (VHT80) | 5290 | Ant0 | 92.22 | 0.35 |

## 3.2 Test Plots

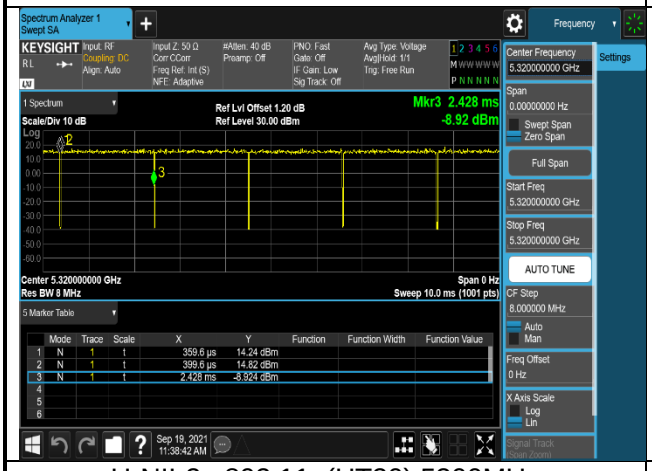
U-NII-2a,802.11a,5260MHz,Ant0



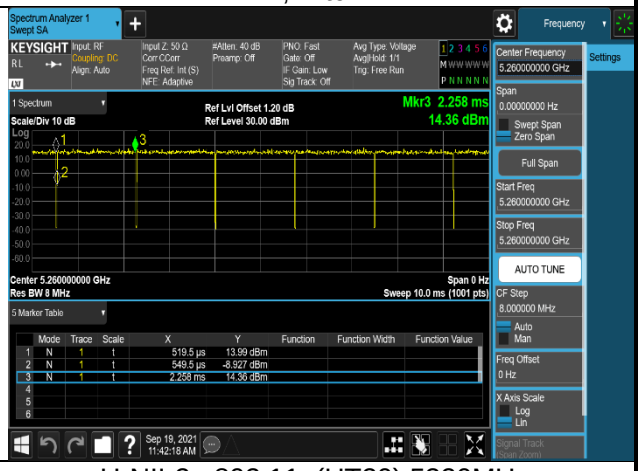

U-NII-2a,802.11a,5300MHz,Ant0



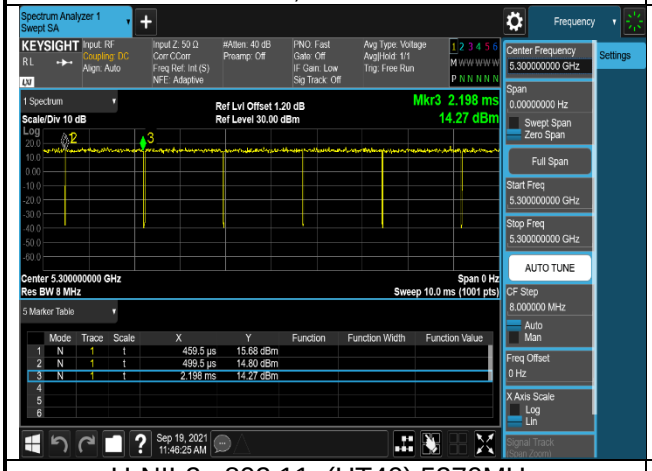

U-NII-2a,802.11a,5320MHz,Ant0



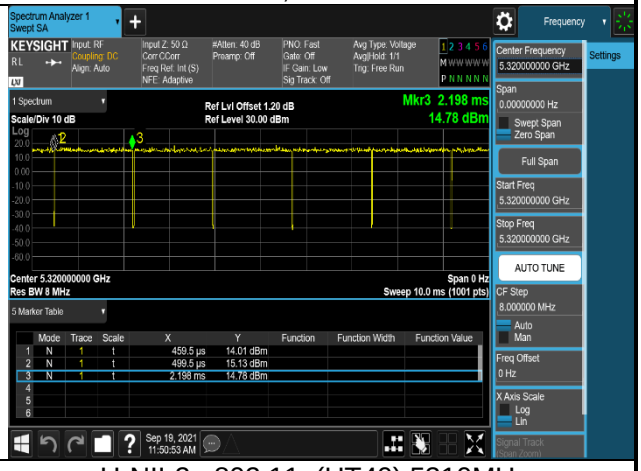

U-NII-2a,802.11n(HT20),5260MHz,Ant0




U-NII-2a,802.11n(HT20),5300MHz,Ant0

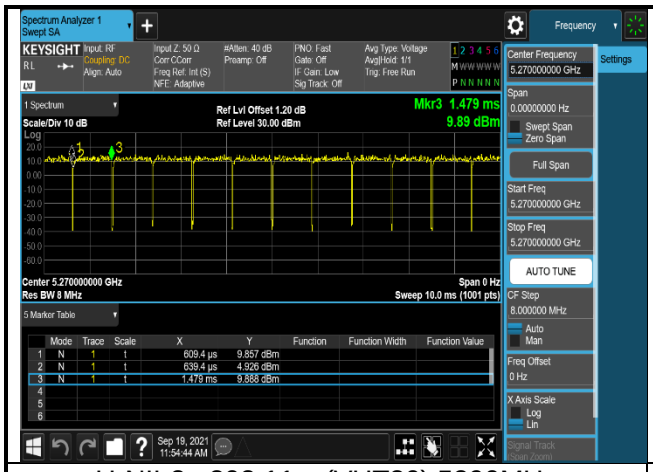


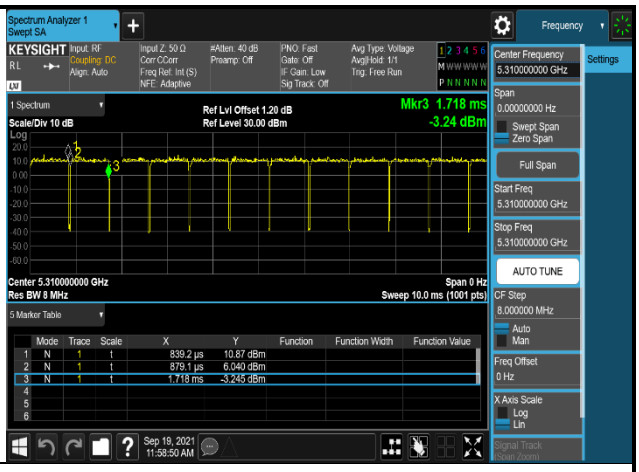

U-NII-2a,802.11n(HT20),5320MHz,Ant0



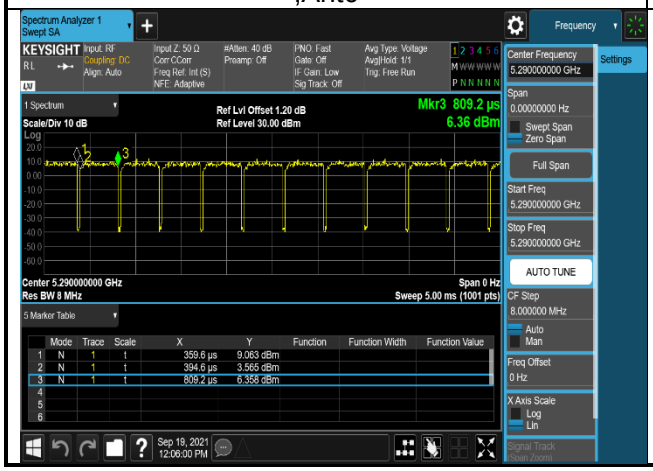

U-NII-2a,802.11n(HT40),5270MHz,Ant0

U-NII-2a,802.11n(HT40),5310MHz,Ant0




U-NII-2a,802.11ac(VHT80),5290MHz ,Ant0



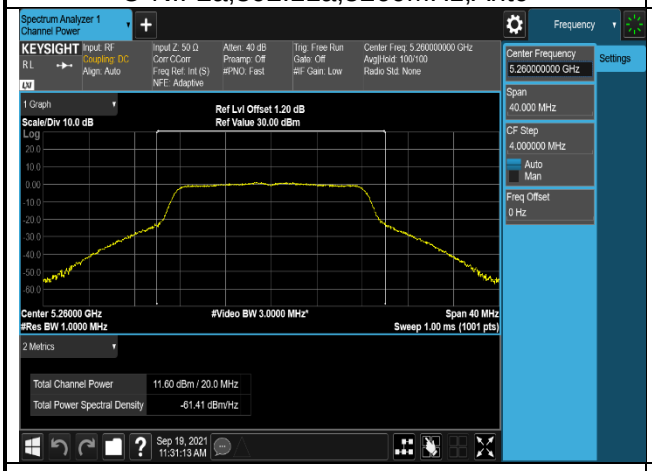
# 4. AVGSA Output Power

## 4.1 Test Data

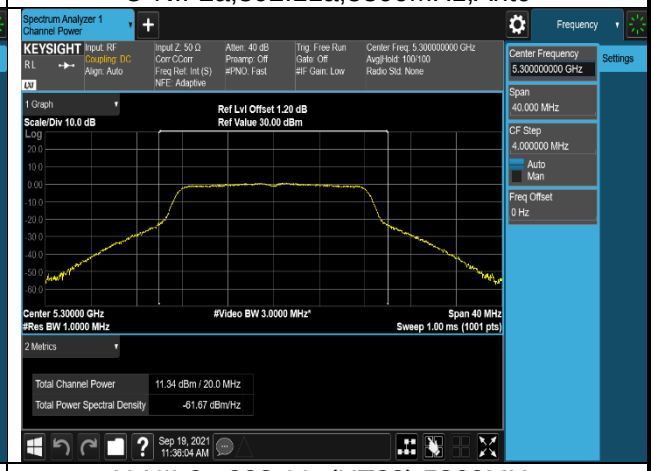
| U-NII-2a AVGSA Output Power | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mode | Test Frequency (MHz) | Ant | Duty Cycle Factor (dB) | Max Power (dBm) | Limit (dBm) | EIRP (dBm) | Result |
| 802.11a | 5260 | Ant0 | 0.00 | 11.60 | 24 | 13.60 | Pass |
| 802.11a | 5300 | Ant0 | 0.00 | 11.34 | 24 | 13.34 | Pass |
| 802.11a | 5320 | Ant0 | 0.00 | 11.48 | 24 | 13.48 | Pass |
| 802.11n (HT20) | 5260 | Ant0 | 0.00 | 11.27 | 24 | 13.27 | Pass |
| 802.11n (HT20) | 5300 | Ant0 | 0.10 | 11.19 | 24 | 13.19 | Pass |
| 802.11n (HT20) | 5320 | Ant0 | 0.10 | 11.42 | 24 | 13.42 | Pass |
| 802.11n (HT40) | 5270 | Ant0 | 0.15 | 10.23 | 24 | 12.23 | Pass |
| 802.11n (HT40) | 5310 | Ant0 | 0.20 | 10.04 | 24 | 12.04 | Pass |
| 802.11ac (VHT80) | 5290 | Ant0 | 0.35 | 10.75 | 24 | 12.75 | Pass |

## 4.2 Test Plots

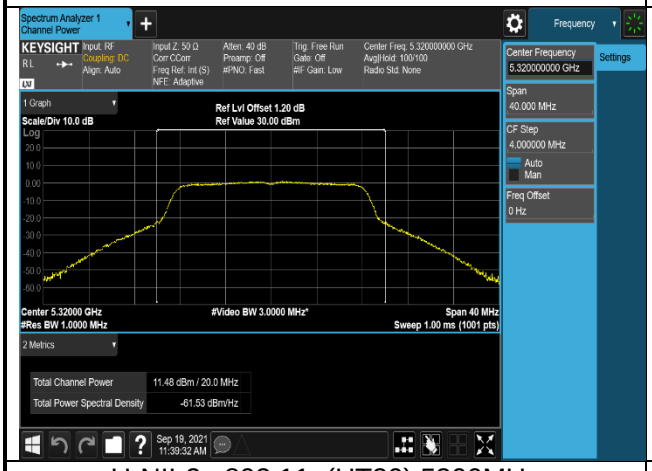
U-NII-2a,802.11a,5260MHz,Ant0



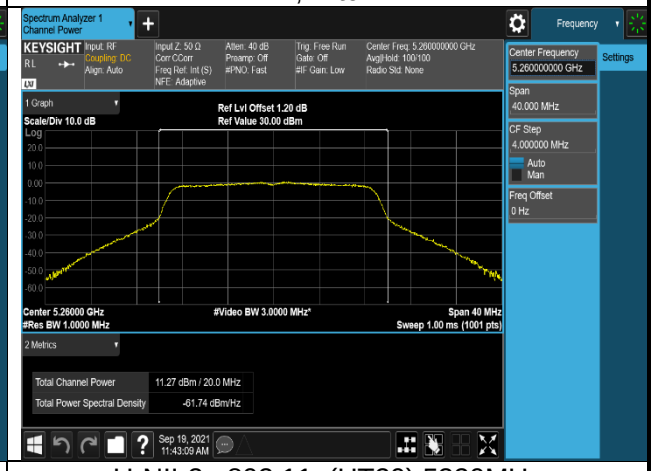

U-NII-2a,802.11a,5300MHz,Ant0



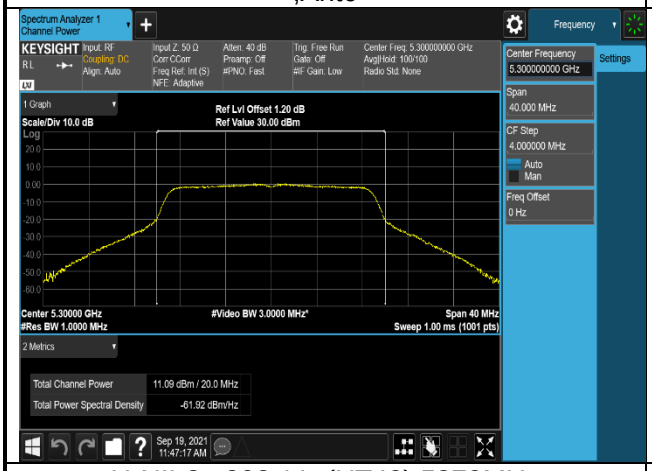

U-NII-2a,802.11a,5320MHz,Ant0



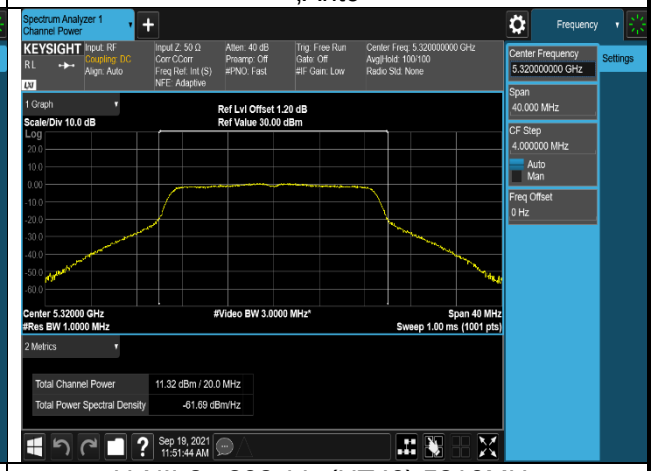

U-NII-2a,802.11n(HT20),5260MHz
,Ant0




U-NII-2a,802.11n(HT20),5300MHz
,Ant0

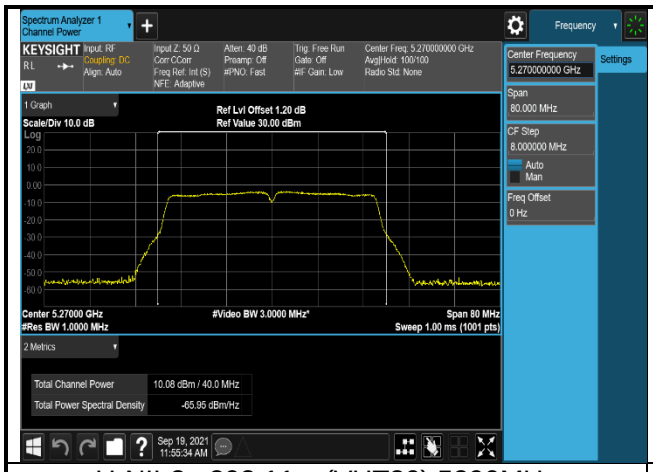


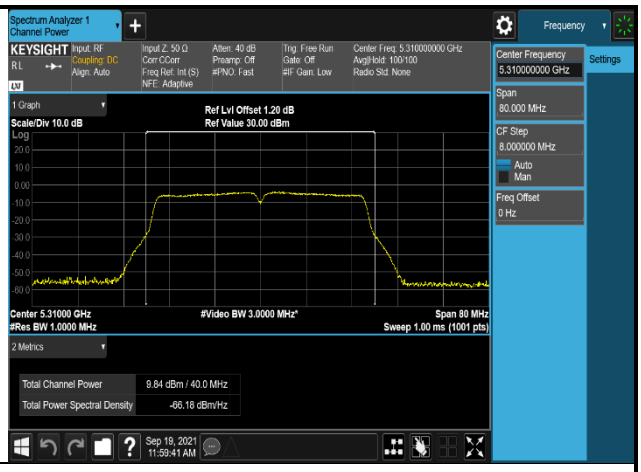

U-NII-2a,802.11n(HT20),5320MHz
,Ant0



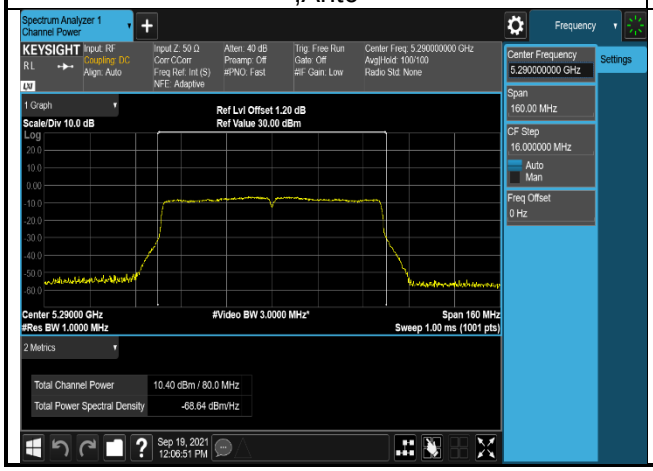

U-NII-2a,802.11n(HT40),5270MHz
,Ant0

U-NII-2a,802.11n(HT40),5310MHz
,Ant0




U-NII-2a,802.11ac(VHT80),5290MHz
,Ant0



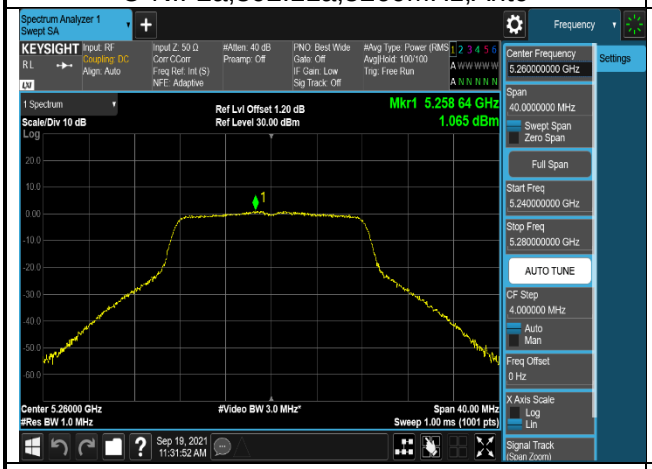
# 5. AVGSA Power Spectral Density

## 5.1 Test Data

| U-NII-2a AVGSA Power Spectral Density | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mode | Test Frequency (MHz) | Ant | Duty Cycle Factor (dB) | PSD (dBm) | RBW (kHz) | Limit (dBm) | Result |
| 802.11a | 5260 | Ant0 | 0.00 | 1.065 | 1000 | 11 | Pass |
| 802.11a | 5300 | Ant0 | 0.00 | -1.487 | 1000 | 11 | Pass |
| 802.11a | 5320 | Ant0 | 0.00 | -1.323 | 1000 | 11 | Pass |
| 802.11n (HT20) | 5260 | Ant0 | 0.00 | 0.612 | 1000 | 11 | Pass |
| 802.11n (HT20) | 5300 | Ant0 | 0.10 | -1.780 | 1000 | 11 | Pass |
| 802.11n (HT20) | 5320 | Ant0 | 0.10 | -1.421 | 1000 | 11 | Pass |
| 802.11n (HT40) | 5270 | Ant0 | 0.15 | -3.510 | 1000 | 11 | Pass |
| 802.11n (HT40) | 5310 | Ant0 | 0.20 | -3.782 | 1000 | 11 | Pass |
| 802.11ac (VHT80) | 5290 | Ant0 | 0.35 | -6.125 | 1000 | 11 | Pass |

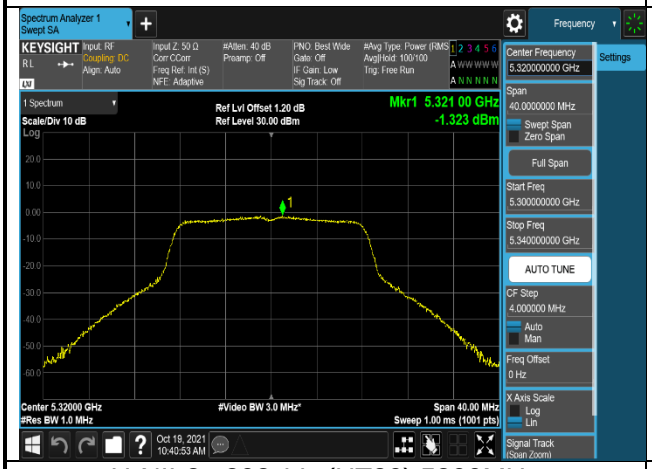
## 5.2 Test Plots

U-NII-2a,802.11a,5260MHz,Ant0

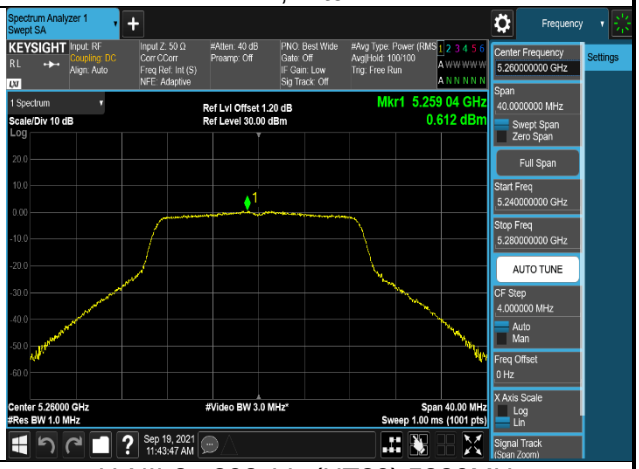



U-NII-2a,802.11a,5300MHz,Ant0

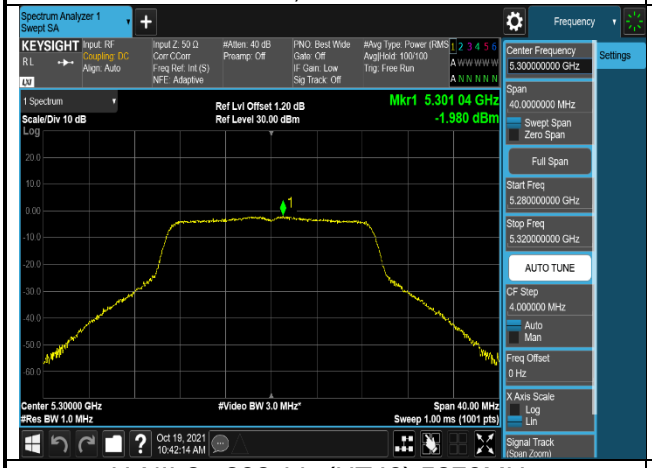

U-NII-2a,802.11a,5320MHz,Ant0



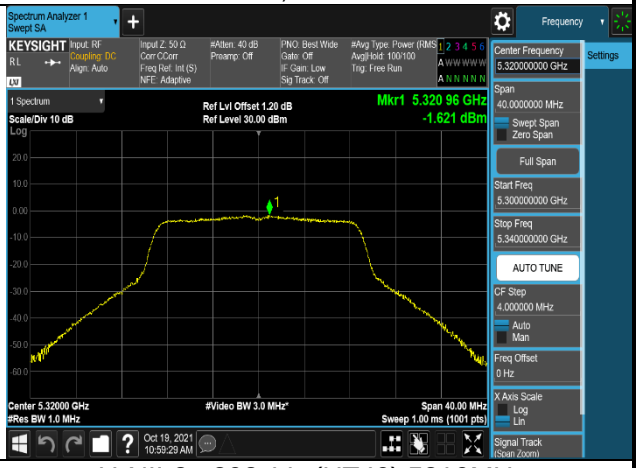

U-NII-2a,802.11n(HT20),5260MHz,Ant0




U-NII-2a,802.11n(HT20),5300MHz,Ant0

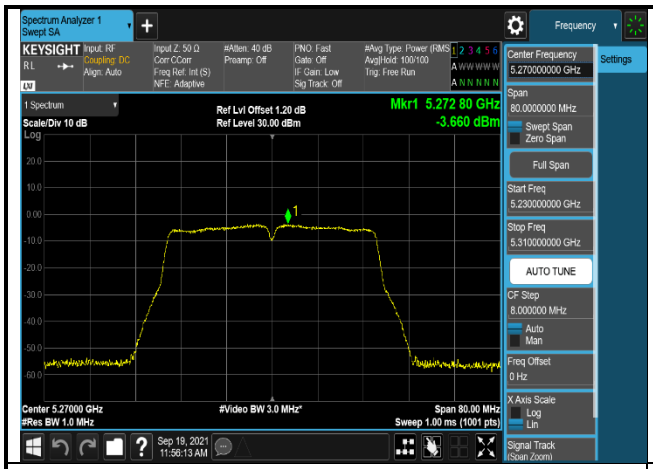


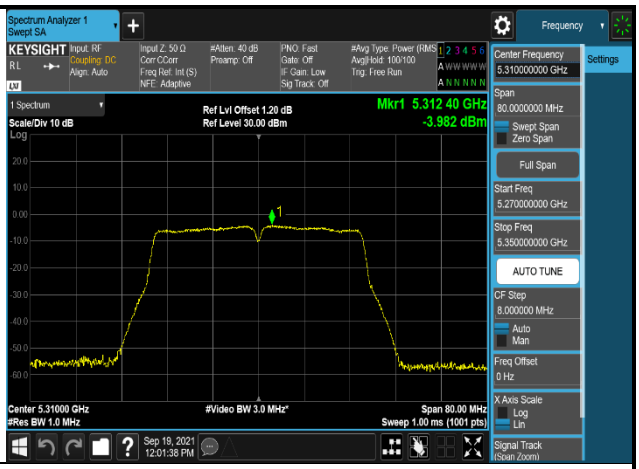

U-NII-2a,802.11n(HT20),5320MHz,Ant0




U-NII-2a,802.11n(HT40),5270MHz,Ant0

U-NII-2a,802.11n(HT40),5310MHz,Ant0




U-NII-2a,802.11ac(VHT80),5290MHz ,Ant0