

## APPENDIX A – TEST DATA OF CONDUCTED EMISSION

### Duty Cycle

| Test Mode      | Frequency (MHz) | Duty Cycle (%) | Correction Factor(dB) | Plot  |
|----------------|-----------------|----------------|-----------------------|-------|
| 802.11a        | 5180            | 98.92%         | 0                     | Fig.1 |
| 802.11n HT20   | 5180            | 98.90%         | 0                     | Fig.2 |
| 802.11ac VHT20 | 5180            | 98.90%         | 0                     | Fig.3 |
| 802.11n HT40   | 5190            | 97.70%         | 0.10                  | Fig.4 |
| 802.11ac VHT40 | 5190            | 97.79%         | 0.10                  | Fig.5 |
| 802.11ac VHT80 | 5210            | 95.56%         | 0.20                  | Fig.6 |

Note: Correction Factor=10\*log (1/Duty Cycle)

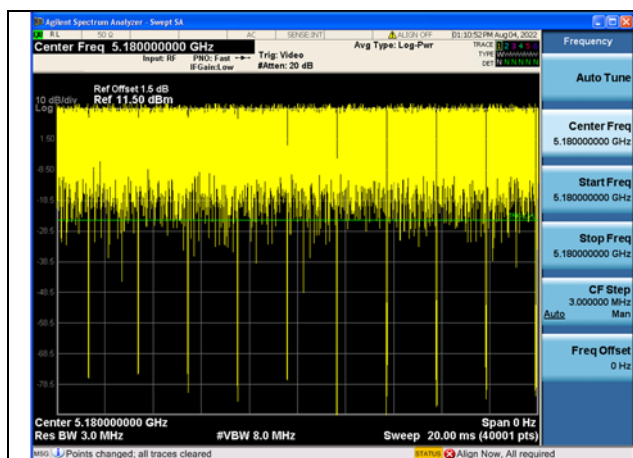


Fig.1

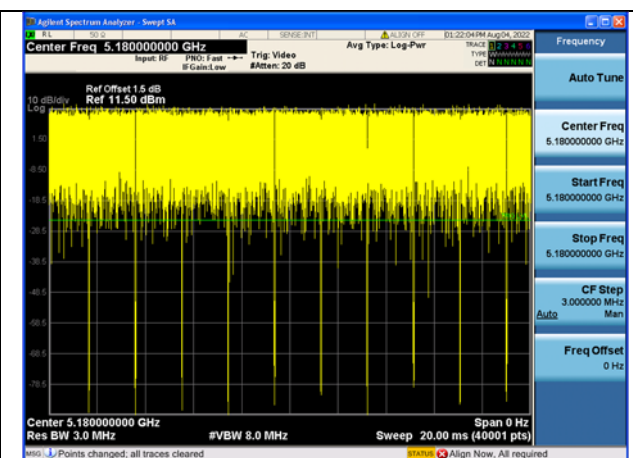


Fig.2

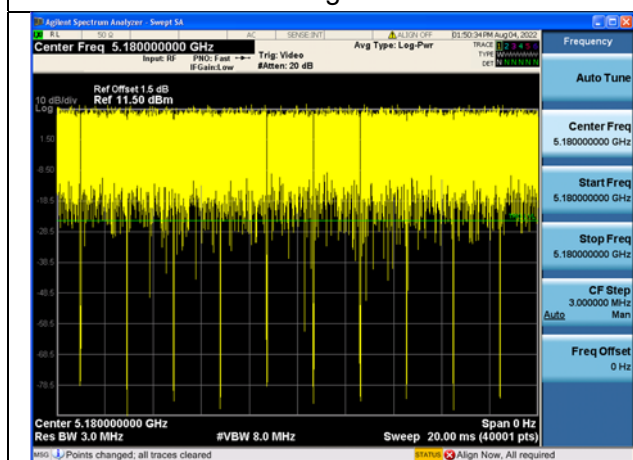


Fig.3

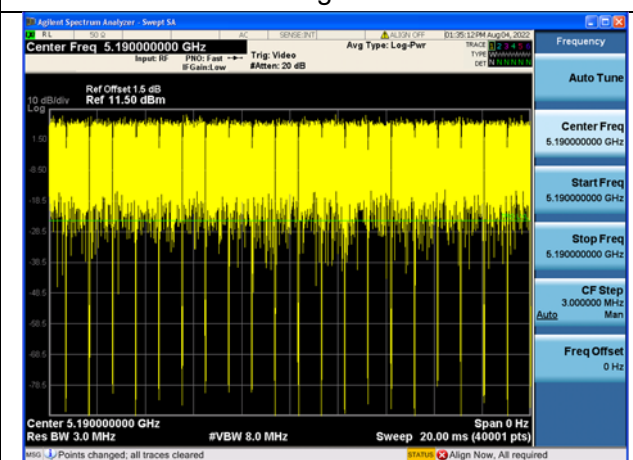


Fig.4

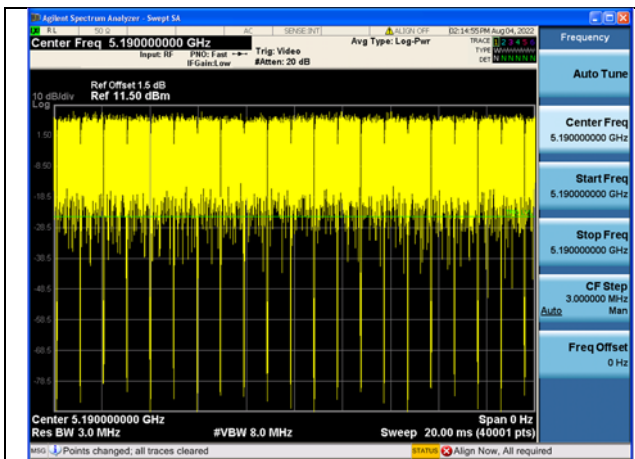


Fig.5

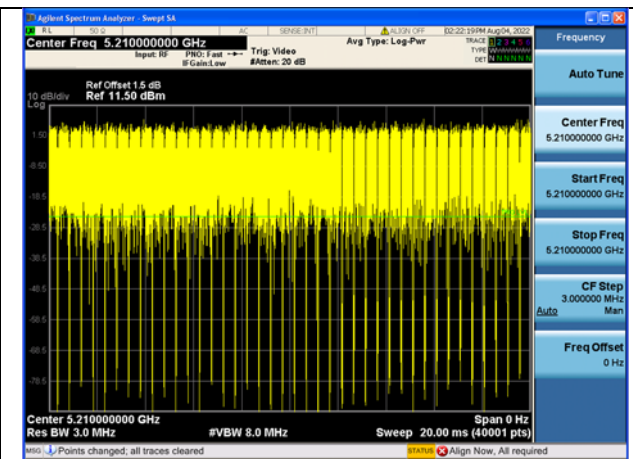


Fig.6

## Output Power

| Mode           | Tones/<br>RUIndex | Freq<br>(MHz) | Antenna | Conducted average<br>power output(dBm) | EIRP<br>(dBm) |
|----------------|-------------------|---------------|---------|----------------------------------------|---------------|
| 802.11a        | NA                | 5180          | Chain0  | 11.49                                  | 9.19          |
| 802.11a        | NA                | 5220          | Chain0  | 11.61                                  | 9.31          |
| 802.11a        | NA                | 5240          | Chain0  | 11.59                                  | 9.29          |
| 802.11n HT20   | NA                | 5180          | Chain0  | 11.33                                  | 9.03          |
| 802.11n HT20   | NA                | 5220          | Chain0  | 11.47                                  | 9.17          |
| 802.11n HT20   | NA                | 5240          | Chain0  | 11.42                                  | 9.12          |
| 802.11ac VHT20 | NA                | 5180          | Chain0  | 10.82                                  | 8.52          |
| 802.11ac VHT20 | NA                | 5220          | Chain0  | 10.88                                  | 8.58          |
| 802.11ac VHT20 | NA                | 5240          | Chain0  | 11.02                                  | 8.72          |
| 802.11n HT40   | NA                | 5190          | Chain0  | 11.30                                  | 9.00          |
| 802.11n HT40   | NA                | 5230          | Chain0  | 11.00                                  | 8.70          |
| 802.11ac VHT40 | NA                | 5190          | Chain0  | 10.86                                  | 8.56          |
| 802.11ac VHT40 | NA                | 5230          | Chain0  | 11.01                                  | 8.71          |
| 802.11ac VHT80 | NA                | 5210          | Chain0  | 10.73                                  | 8.43          |

## Emission Bandwidth

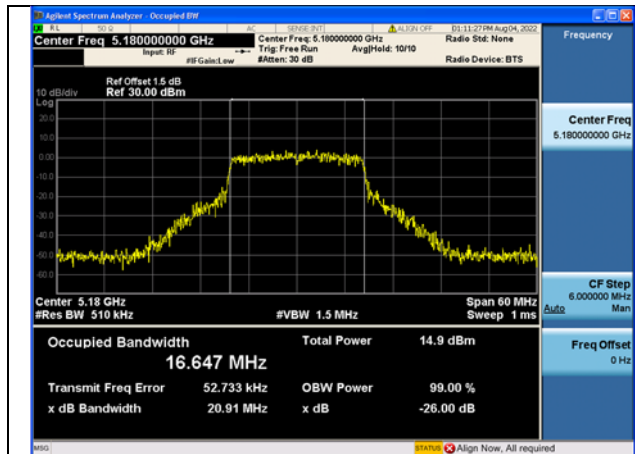
Offset 1.5dB = Attenuator + Temporary antenna connector loss + Cable loss

| Test Mode      | Antenna | 26dB Bandwidth (MHz) |                |                |
|----------------|---------|----------------------|----------------|----------------|
|                |         | Channel No.554       | Channel No.562 | Channel No.566 |
|                |         | 5180MHz              | 5220MHz        | 5240MHz        |
| 802.11a        | Chain0  | 20.91                | 22.75          | 21.90          |
| 802.11n HT20   | Chain0  | 22.15                | 22.87          | 23.79          |
| 802.11ac VHT20 | Chain0  | 23.54                | 23.24          | 23.03          |

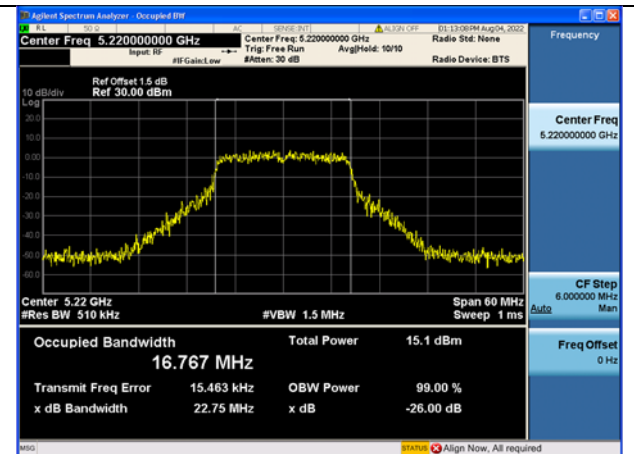
| Test Mode      | Antenna | 26dB Bandwidth (MHz) |     |                |
|----------------|---------|----------------------|-----|----------------|
|                |         | Channel No.556       | --- | Channel No.564 |
|                |         | 5190MHz              | --- | 5230MHz        |
| 802.11n HT40   | Chain0  | 40.90                | --- | 40.25          |
| 802.11ac VHT40 | Chain0  | 41.26                | --- | 40.54          |

| Test Mode      | Antenna | 26dB Bandwidth (MHz) |     |     |
|----------------|---------|----------------------|-----|-----|
|                |         | Channel No.560       | --- | --- |
|                |         | 5210MHz              | --- | --- |
| 802.11ac VHT80 | Chain0  | 84.38                | --- | --- |

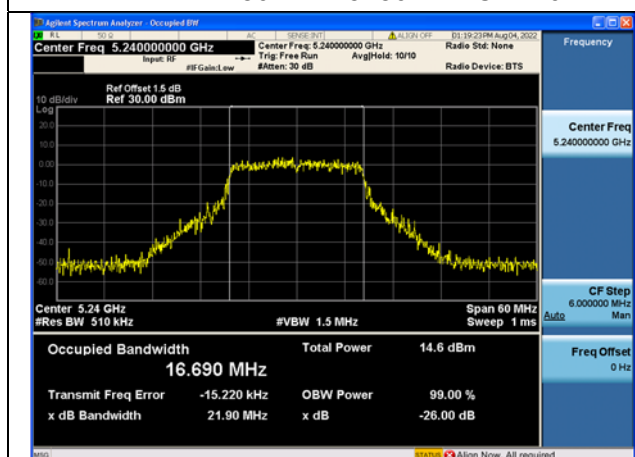
## Test Mode: 802.11a



Test Mode:802.11a 5180MHz Chain0

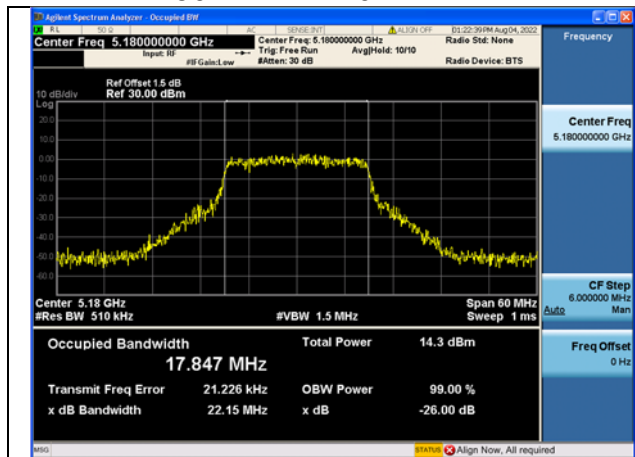


Test Mode:802.11a 5220MHz Chain0

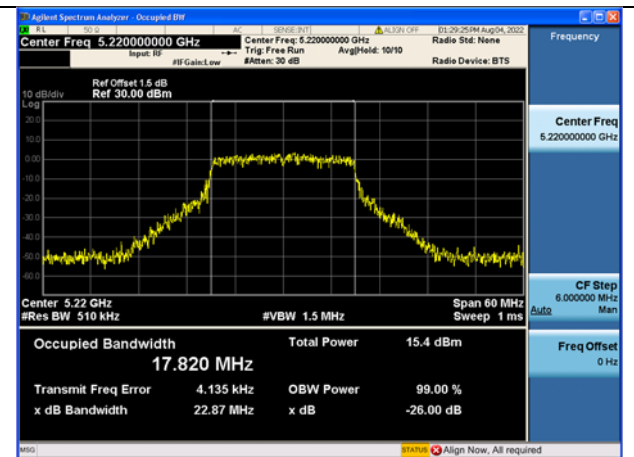


Test Mode:802.11a 5240MHz Chain0

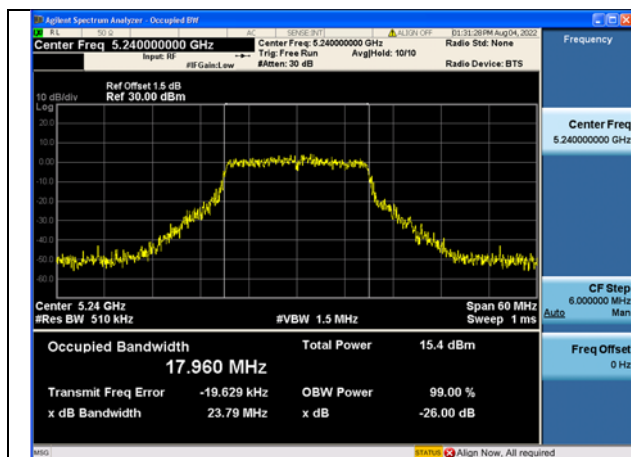
## Test Mode: 802.11n HT20



Test Mode:802.11n HT20 5180MHz Chain0

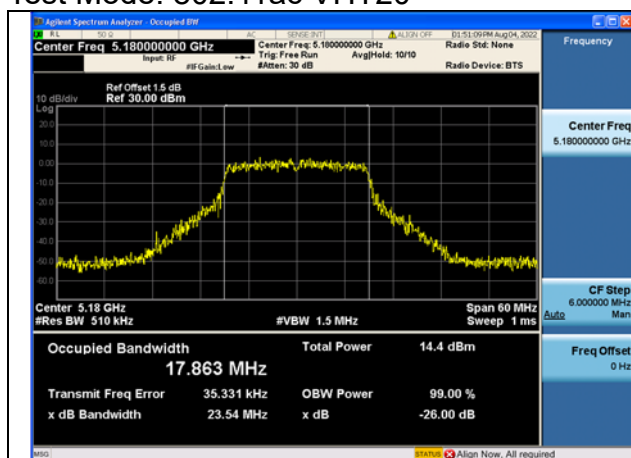


Test Mode:802.11n HT20 5220MHz Chain0

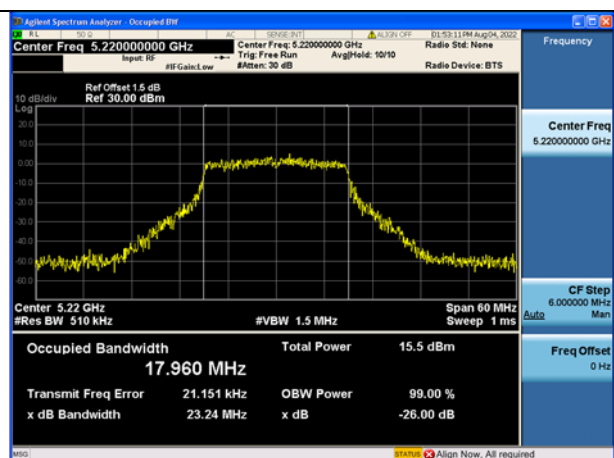


Test Mode:802.11n HT20 5240MHz Chain0

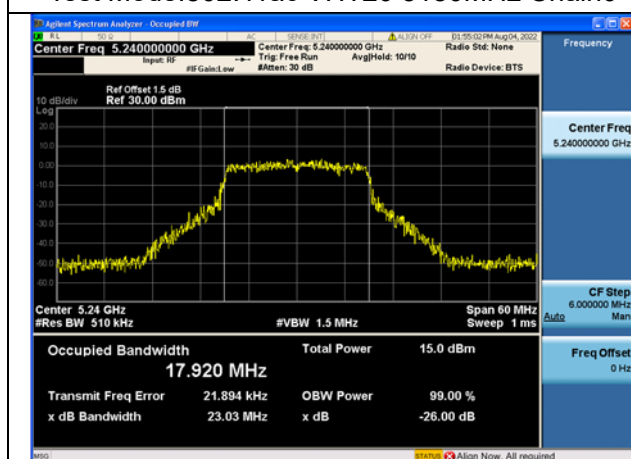
Test Mode: 802.11ac VHT20



Test Mode:802.11ac VHT20 5180MHz Chain0

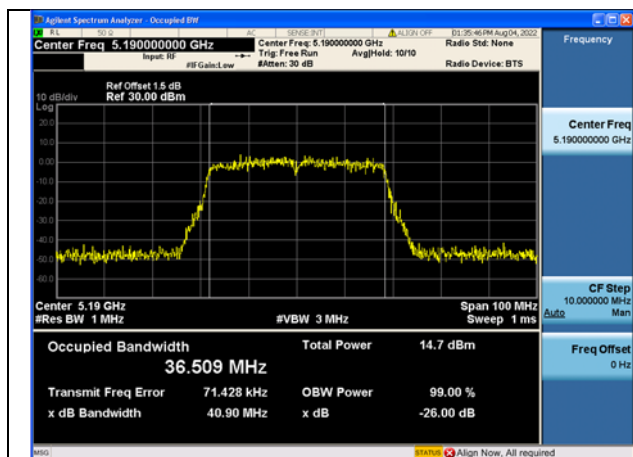


Test Mode:802.11ac VHT20 5220MHz Chain0

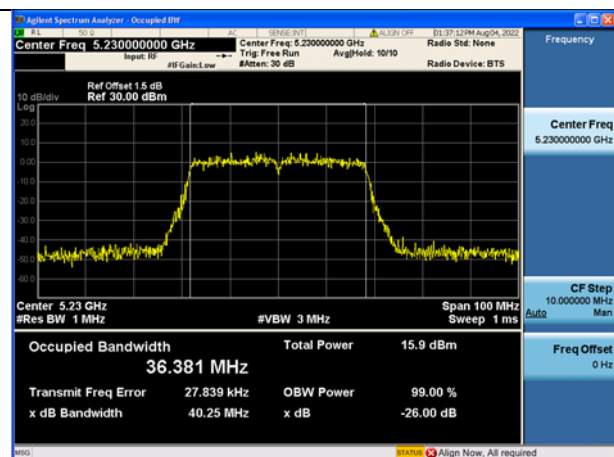


Test Mode:802.11ac VHT20 5240MHz Chain0

Test Mode: 802.11n HT40

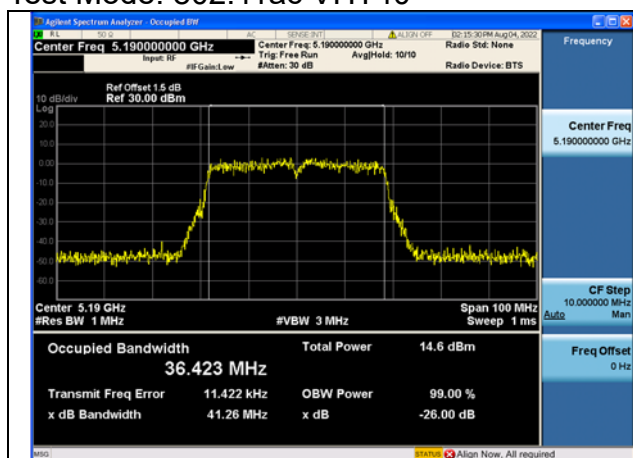


Test Mode:802.11n HT40 5190MHz Chain0

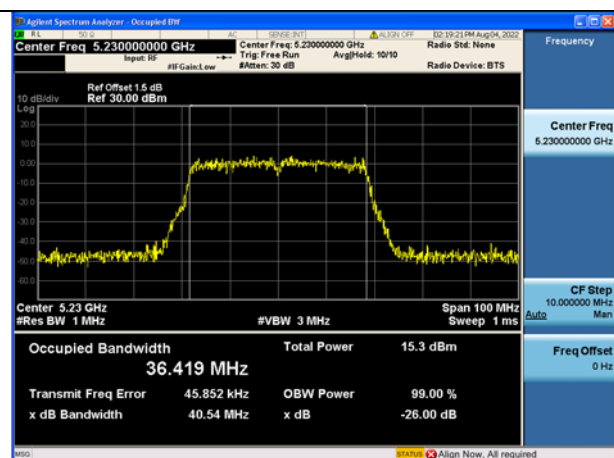


Test Mode:802.11n HT40 5230MHz Chain0

Test Mode: 802.11ac VHT40

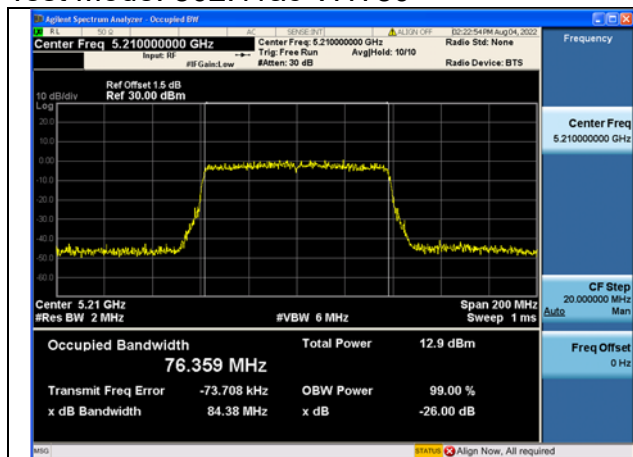


Test Mode:802.11ac VHT40 5190MHz Chain0



Test Mode:802.11ac VHT40 5230MHz Chain0

Test Mode: 802.11ac VHT80



Test Mode:802.11ac VHT80 5210MHz Chain0

## Occupied Bandwidth

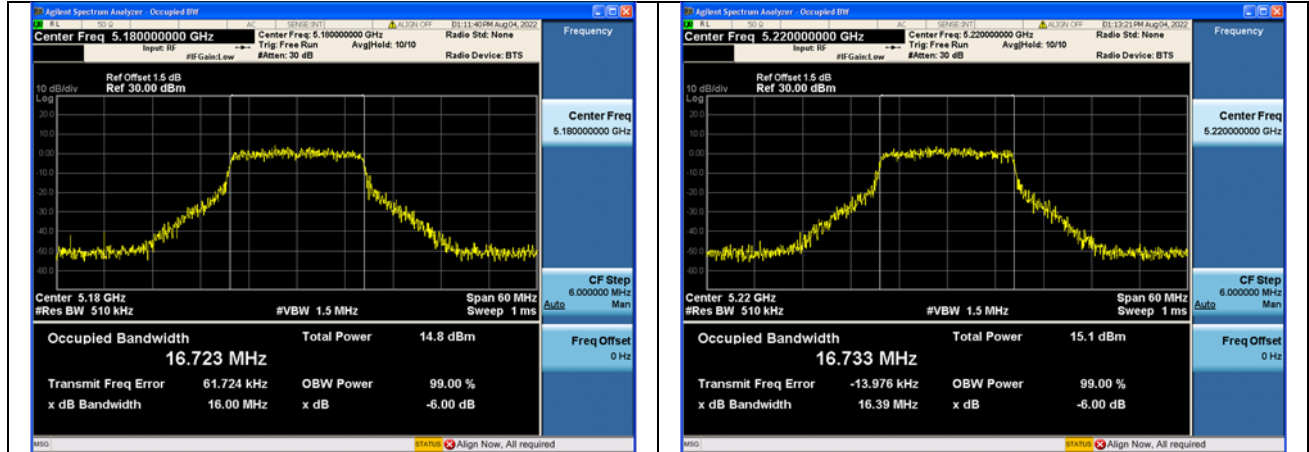
Offset 1.5dB = Attenuator + Temporary antenna connector loss + Cable loss

| Test Mode      | Antenna | Occupied Bandwidth (MHz) |                |                |
|----------------|---------|--------------------------|----------------|----------------|
|                |         | Channel No.554           | Channel No.562 | Channel No.566 |
|                |         | 5180MHz                  | 5220MHz        | 5240MHz        |
| 802.11a        | Chain0  | 16.723                   | 16.733         | 16.797         |
| 802.11n HT20   | Chain0  | 17.811                   | 17.896         | 17.900         |
| 802.11ac VHT20 | Chain0  | 17.867                   | 17.935         | 17.834         |

| Test Mode      | Antenna | Occupied Bandwidth (MHz) |     |                |
|----------------|---------|--------------------------|-----|----------------|
|                |         | Channel No.556           | --- | Channel No.564 |
|                |         | 5190MHz                  | --- | 5230MHz        |
| 802.11n HT40   | Chain0  | 36.398                   | --- | 36.433         |
| 802.11ac VHT40 | Chain0  | 36.432                   | --- | 36.390         |

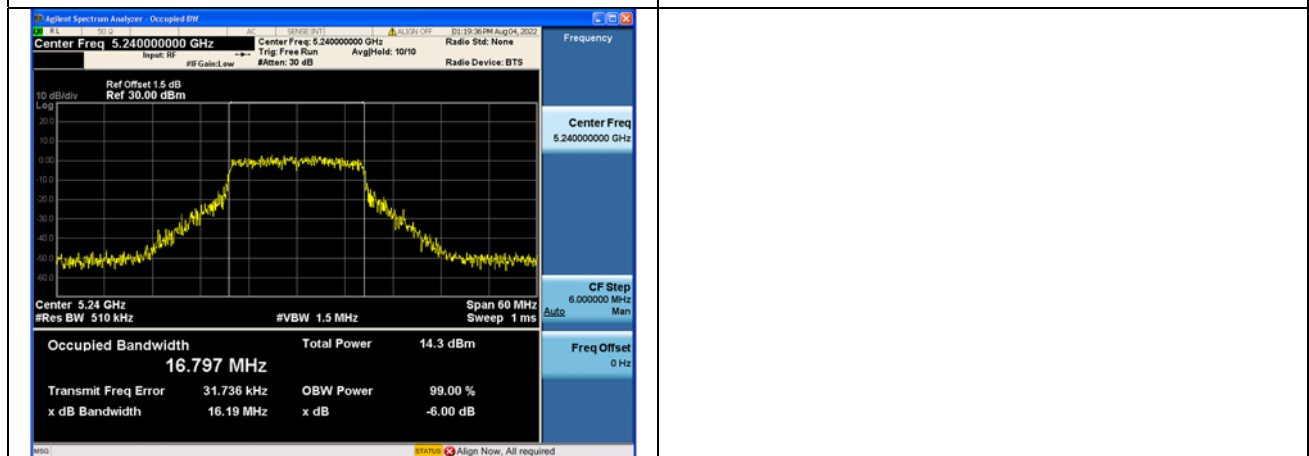
| Test Mode      | Antenna | Occupied Bandwidth (MHz) |     |     |
|----------------|---------|--------------------------|-----|-----|
|                |         | Channel No.560           | --- | --- |
|                |         | 5210MHz                  | --- | --- |
| 802.11ac VHT80 | Chain0  | 76.296                   | --- | --- |

## Test Mode: 802.11a



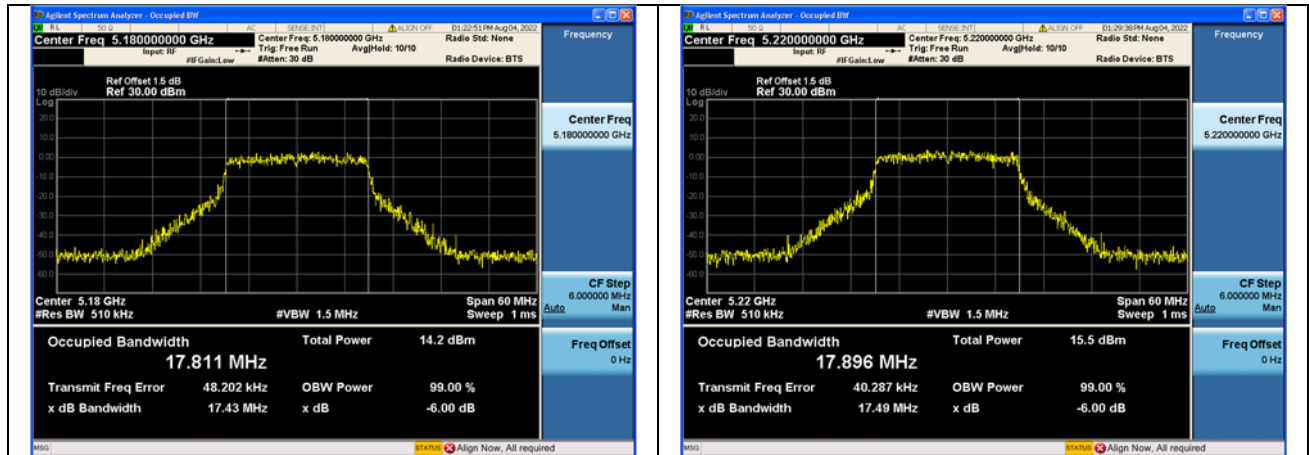
Test Mode:802.11a 5180MHz Chain0

Test Mode:802.11a 5220MHz Chain0



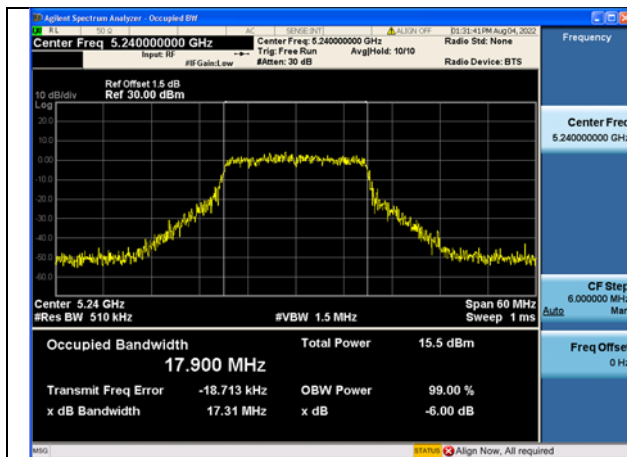
Test Mode:802.11a 5240MHz Chain0

## Test Mode: 802.11n HT20



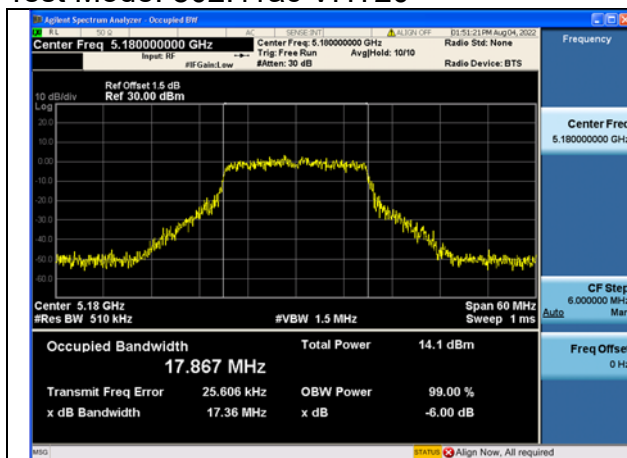
Test Mode:802.11n HT20 5180MHz Chain0

Test Mode:802.11n HT20 5220MHz Chain0

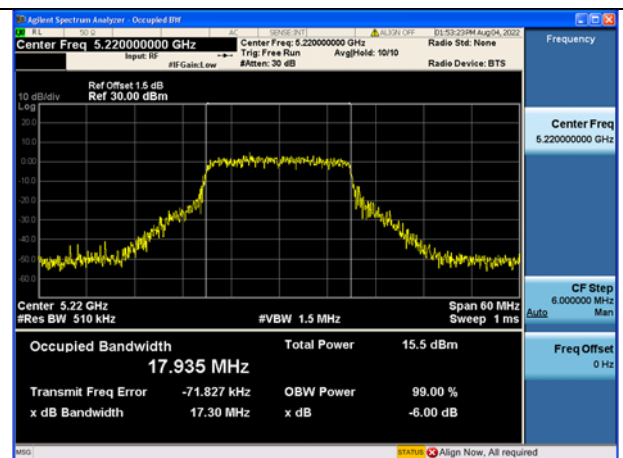


Test Mode:802.11n HT20 5240MHz Chain0

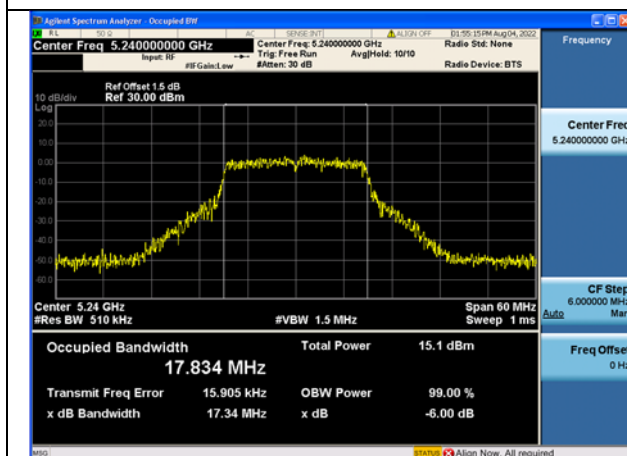
Test Mode: 802.11ac VHT20



Test Mode:802.11ac VHT20 5180MHz Chain0

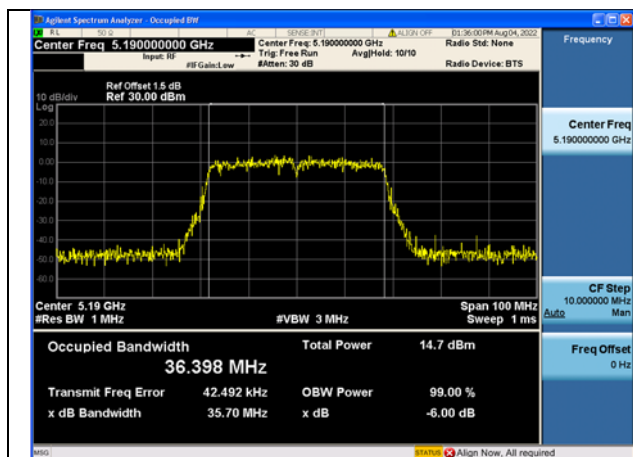


Test Mode:802.11ac VHT20 5220MHz Chain0

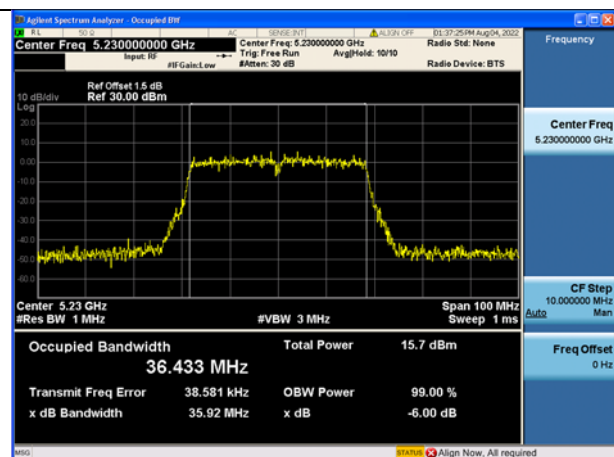


Test Mode:802.11ac VHT20 5240MHz Chain0

Test Mode: 802.11n HT40

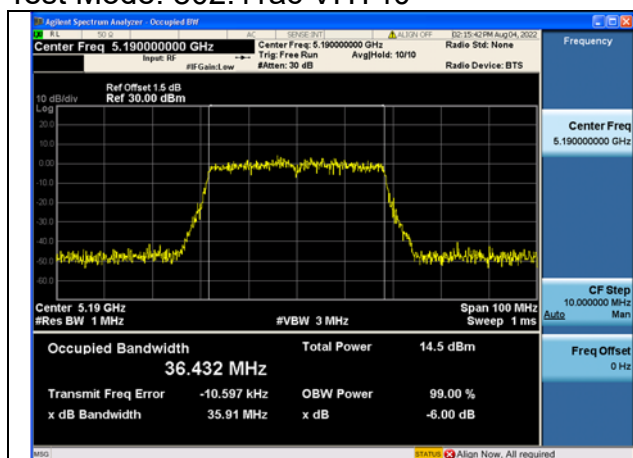


Test Mode:802.11n HT40 5190MHz Chain0

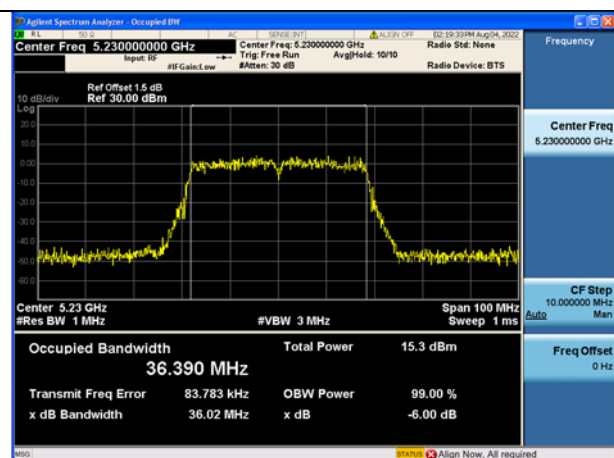


Test Mode:802.11n HT40 5230MHz Chain0

Test Mode: 802.11ac VHT40

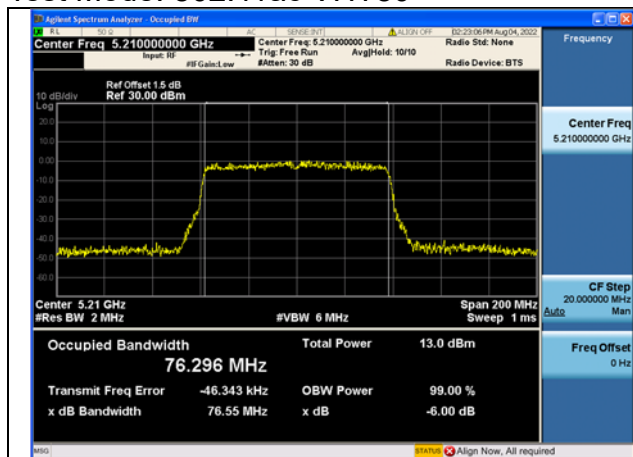


Test Mode:802.11ac VHT40 5190MHz Chain0



Test Mode:802.11ac VHT40 5230MHz Chain0

Test Mode: 802.11ac VHT80



Test Mode:802.11ac VHT80 5210MHz Chain0

## Transmitter Power Spectral Density

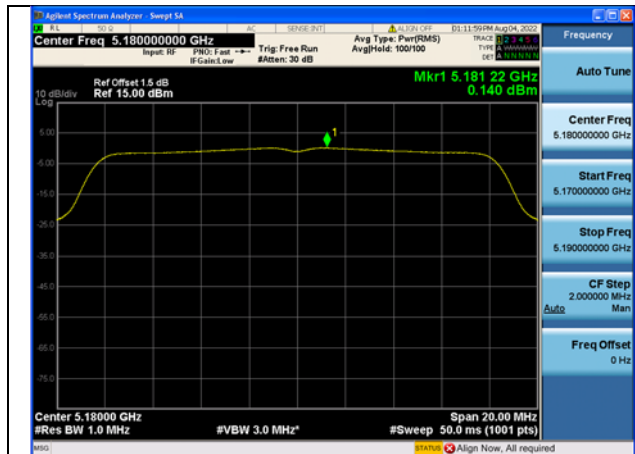
Offset 1.5dB = Attenuator + Temporary antenna connector loss + Cable loss

| Test Mode      | Antenna | 5180MHz               |                         | 5220MHz               |                         | 5240MHz               |                         |
|----------------|---------|-----------------------|-------------------------|-----------------------|-------------------------|-----------------------|-------------------------|
|                |         | Correction Factor(dB) | Power Density (dBm/MHz) | Correction Factor(dB) | Power Density (dBm/MHz) | Correction Factor(dB) | Power Density (dBm/MHz) |
| 802.11a        | Chain0  | 0                     | 0.140                   | 0                     | 0.266                   | 0                     | -0.283                  |
| 802.11n HT20   | Chain0  | 0                     | -0.822                  | 0                     | 0.361                   | 0                     | 0.297                   |
| 802.11ac VHT20 | Chain0  | 0                     | -0.830                  | 0                     | 0.350                   | 0                     | -0.070                  |

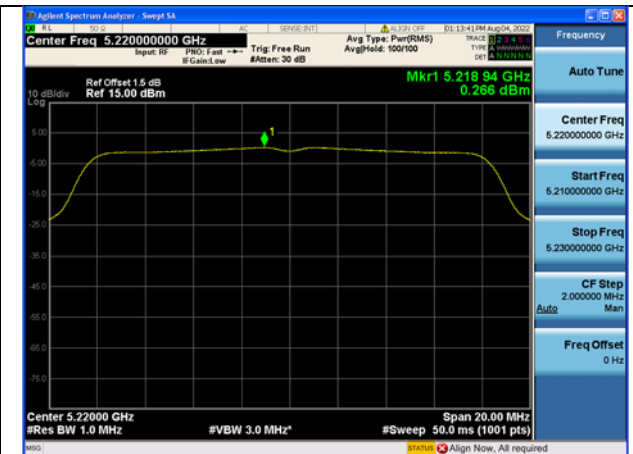
| Test Mode      | Antenna | 5190MHz               |                         | ---                   |                         | 5230MHz               |                         |
|----------------|---------|-----------------------|-------------------------|-----------------------|-------------------------|-----------------------|-------------------------|
|                |         | Correction Factor(dB) | Power Density (dBm/MHz) | Correction Factor(dB) | Power Density (dBm/MHz) | Correction Factor(dB) | Power Density (dBm/MHz) |
| 802.11n HT40   | Chain0  | 0.10                  | -3.686                  | ---                   | ---                     | 0.10                  | -2.495                  |
| 802.11ac VHT40 | Chain0  | 0.10                  | -3.663                  | ---                   | ---                     | 0.10                  | -2.999                  |

| Test Mode      | Antenna | 5210MHz               |                         | ---                   |                         | ---                   |                         |
|----------------|---------|-----------------------|-------------------------|-----------------------|-------------------------|-----------------------|-------------------------|
|                |         | Correction Factor(dB) | Power Density (dBm/MHz) | Correction Factor(dB) | Power Density (dBm/MHz) | Correction Factor(dB) | Power Density (dBm/MHz) |
| 802.11ac VHT80 | Chain0  | 0.20                  | -7.059                  | ---                   | ---                     | ---                   | ---                     |

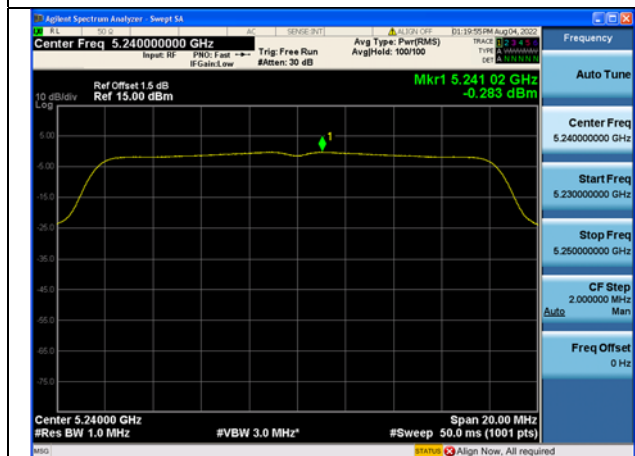
## Test Mode: 802.11a



Test Mode:802.11a 5180MHz Chain0

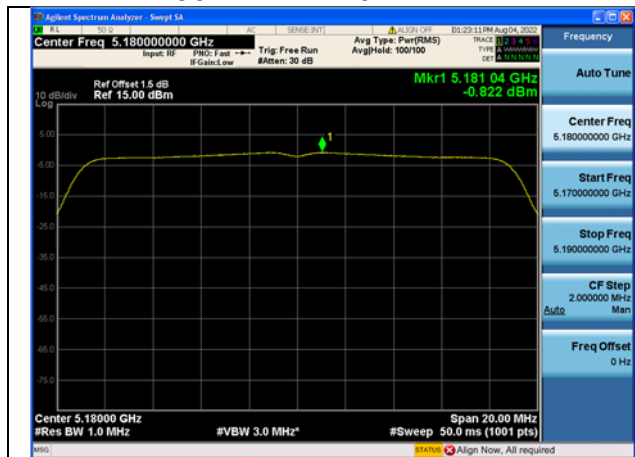


Test Mode:802.11a 5220MHz Chain0

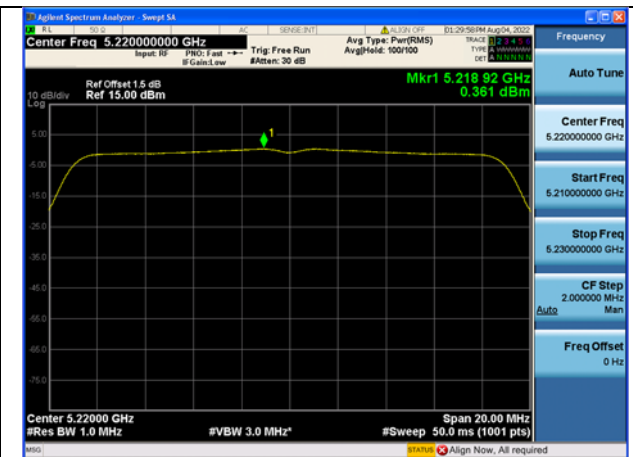


Test Mode:802.11a 5240MHz Chain0

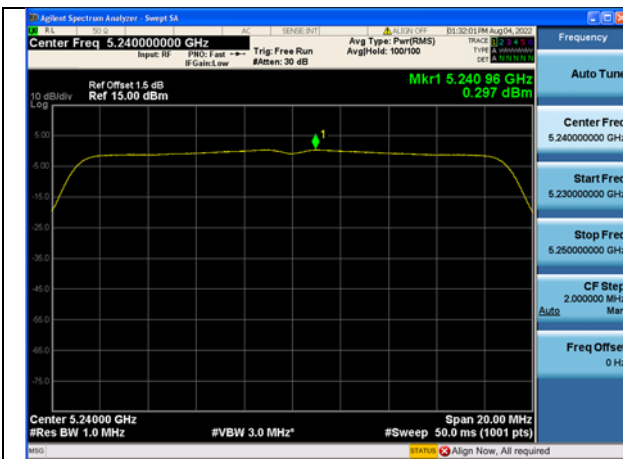
## Test Mode: 802.11n HT20



Test Mode:802.11n HT20 5180MHz Chain0

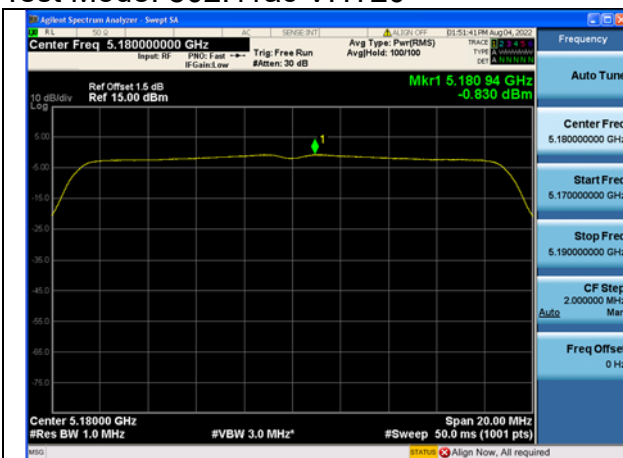


Test Mode:802.11n HT20 5220MHz Chain0

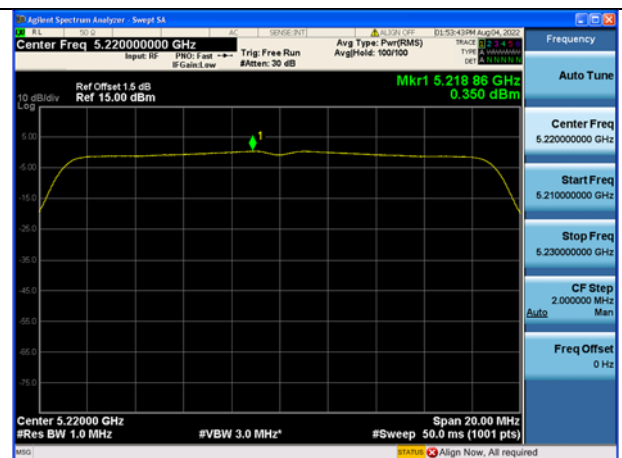


Test Mode:802.11n HT20 5240MHz Chain0

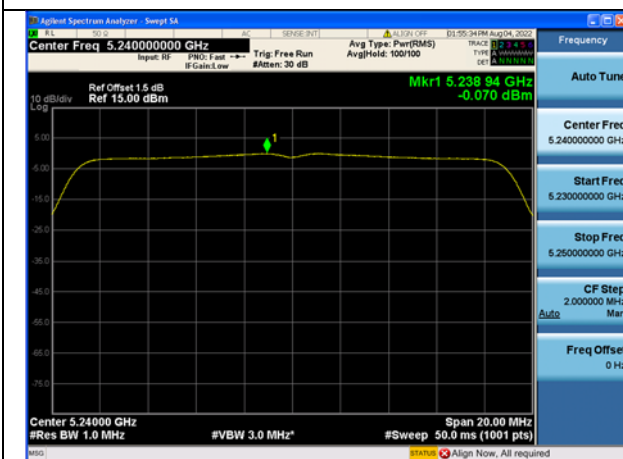
Test Mode: 802.11ac VHT20



Test Mode:802.11ac VHT20 5180MHz Chain0

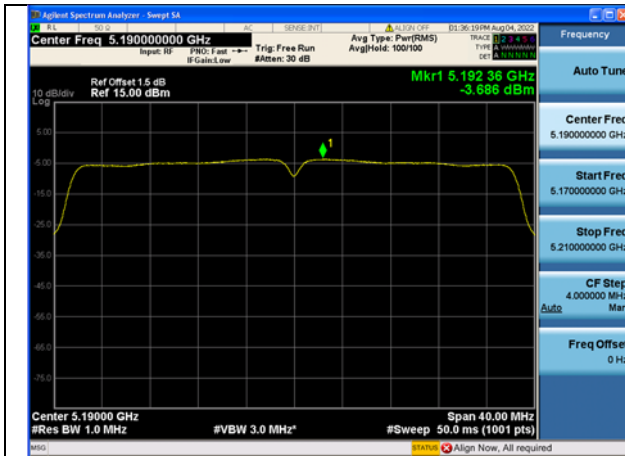


Test Mode:802.11ac VHT20 5220MHz Chain0

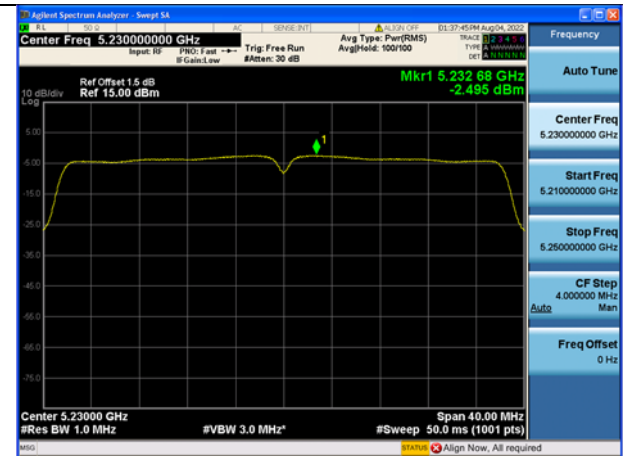


Test Mode:802.11ac VHT20 5240MHz Chain0

Test Mode: 802.11n HT40

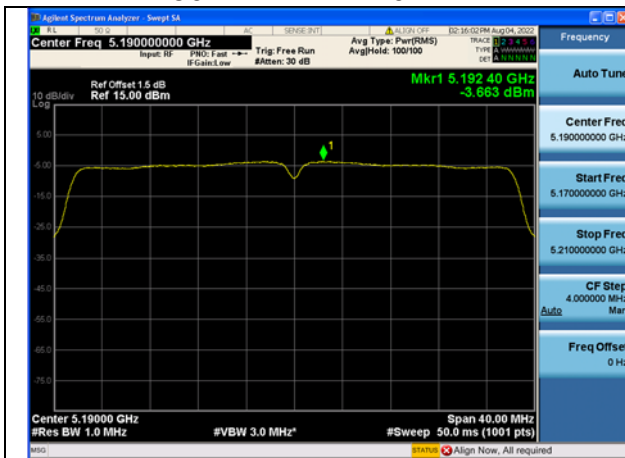


Test Mode:802.11n HT40 5190MHz Chain0

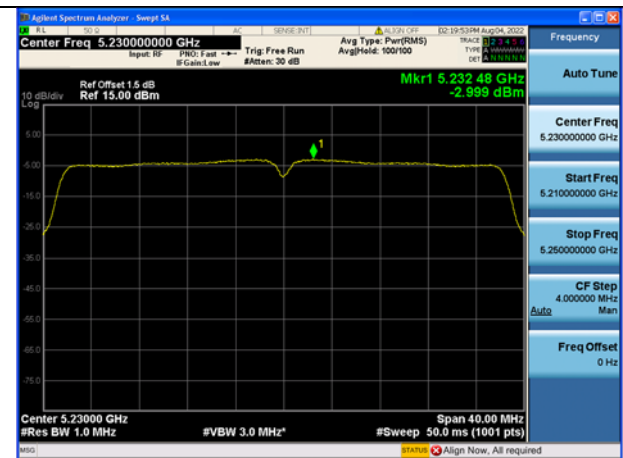


Test Mode:802.11n HT40 5230MHz Chain0

Test Mode: 802.11ac VHT40

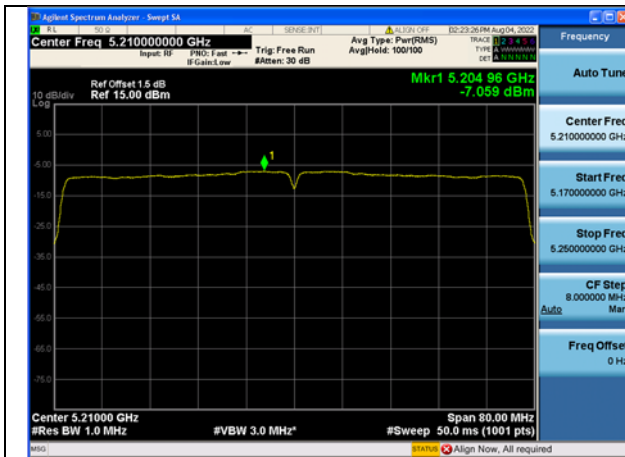


Test Mode:802.11ac VHT40 5190MHz Chain0



Test Mode:802.11ac VHT40 5230MHz Chain0

Test Mode: 802.11ac VHT80



Test Mode:802.11ac VHT80 5210MHz Chain0