

## APPENDIX A – TEST DATA OF CONDUCTED EMISSION

### Duty Cycle

| Test Mode      | Frequency (MHz) | Duty Cycle (%) | Correction Factor(dB) | Plot  |
|----------------|-----------------|----------------|-----------------------|-------|
| 802.11a        | 5260            | 98.90%         | 0                     | Fig.1 |
| 802.11n HT20   | 5260            | 98.80%         | 0                     | Fig.2 |
| 802.11ac VHT20 | 5260            | 98.88%         | 0                     | Fig.3 |
| 802.11n HT40   | 5270            | 97.70%         | 0.10                  | Fig.4 |
| 802.11ac VHT40 | 5270            | 97.82%         | 0.10                  | Fig.5 |
| 802.11ac VHT80 | 5290            | 95.56%         | 0.20                  | Fig.6 |

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

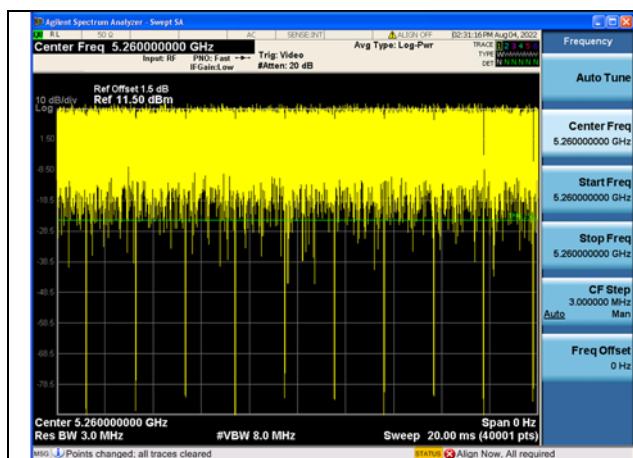


Fig.1

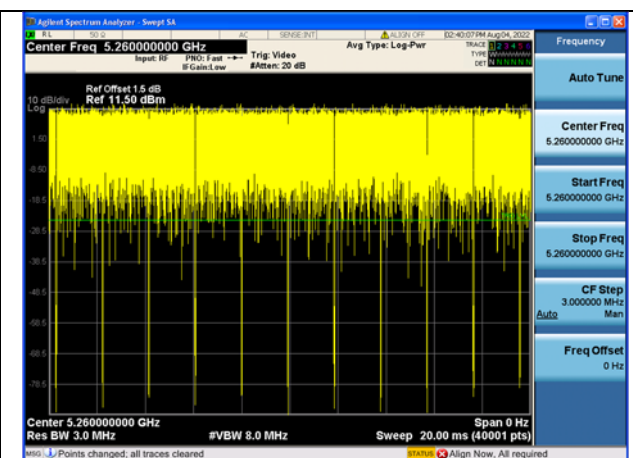


Fig.2

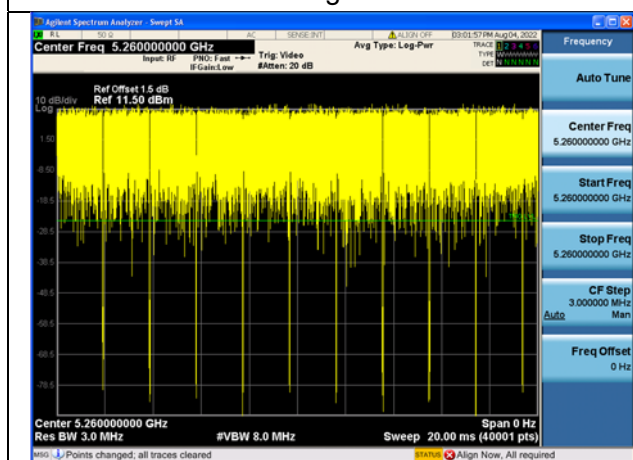


Fig.3

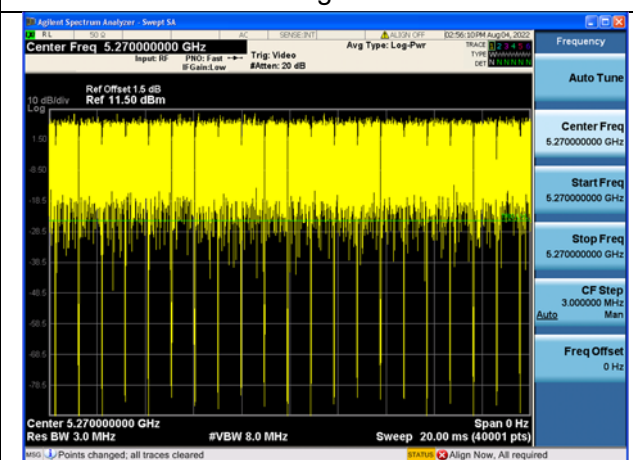


Fig.4

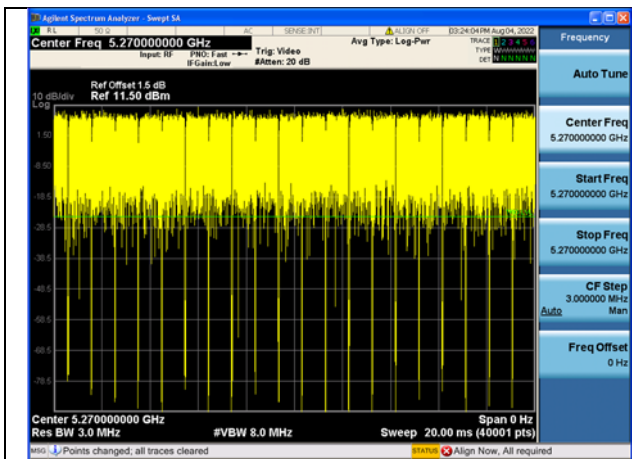


Fig.5

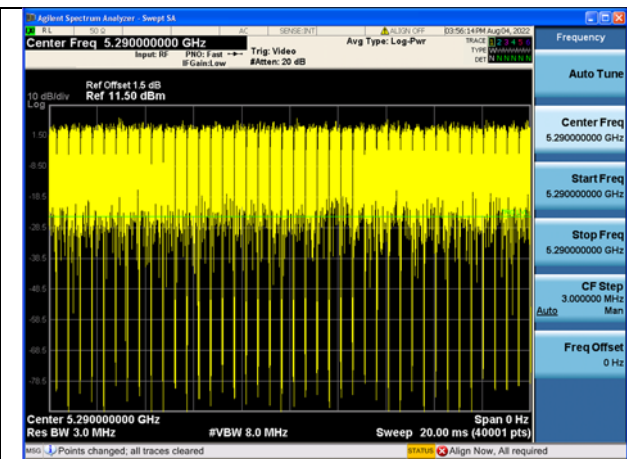


Fig.6

## Output Power

| Mode           | Tones/<br>RUIndex | Freq<br>(MHz) | Antenna | Conducted average<br>power output(dBm) | EIRP<br>(dBm) |
|----------------|-------------------|---------------|---------|----------------------------------------|---------------|
| 802.11a        | NA                | 5260          | Chain0  | 11.17                                  | 9.77          |
| 802.11a        | NA                | 5280          | Chain0  | 11.33                                  | 9.93          |
| 802.11a        | NA                | 5320          | Chain0  | 11.50                                  | 10.10         |
| 802.11n HT20   | NA                | 5260          | Chain0  | 11.02                                  | 9.62          |
| 802.11n HT20   | NA                | 5280          | Chain0  | 11.21                                  | 9.81          |
| 802.11n HT20   | NA                | 5320          | Chain0  | 10.92                                  | 9.52          |
| 802.11ac VHT20 | NA                | 5260          | Chain0  | 11.03                                  | 9.63          |
| 802.11ac VHT20 | NA                | 5280          | Chain0  | 11.20                                  | 9.80          |
| 802.11ac VHT20 | NA                | 5320          | Chain0  | 10.97                                  | 9.57          |
| 802.11n HT40   | NA                | 5270          | Chain0  | 11.26                                  | 9.86          |
| 802.11n HT40   | NA                | 5310          | Chain0  | 11.48                                  | 10.08         |
| 802.11ac VHT40 | NA                | 5270          | Chain0  | 11.27                                  | 9.87          |
| 802.11ac VHT40 | NA                | 5310          | Chain0  | 11.00                                  | 9.60          |
| 802.11ac VHT80 | NA                | 5290          | Chain0  | 11.14                                  | 9.74          |

## Emission Bandwidth

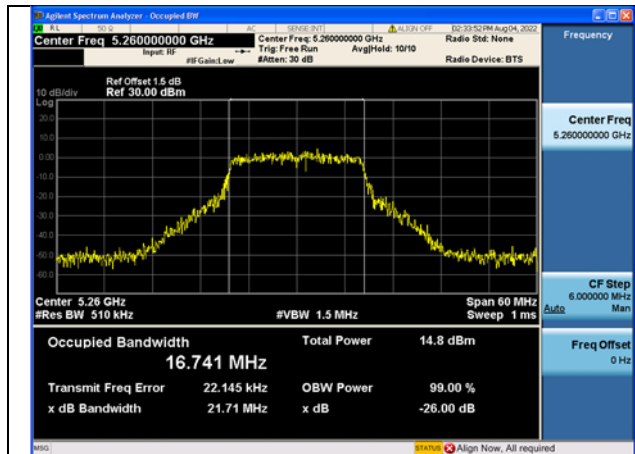
Offset 1.5dB = Attenuator + Temporary antenna connector loss + Cable loss

| Test Mode      | Antenna | 26dB Bandwidth (MHz) |                |                |
|----------------|---------|----------------------|----------------|----------------|
|                |         | Channel No.570       | Channel No.574 | Channel No.582 |
|                |         | 5260MHz              | 5280MHz        | 5320MHz        |
| 802.11a        | Chain0  | 21.71                | 22.05          | 21.01          |
| 802.11n HT20   | Chain0  | 22.86                | 22.28          | 24.23          |
| 802.11ac VHT20 | Chain0  | 23.17                | 23.98          | 22.25          |

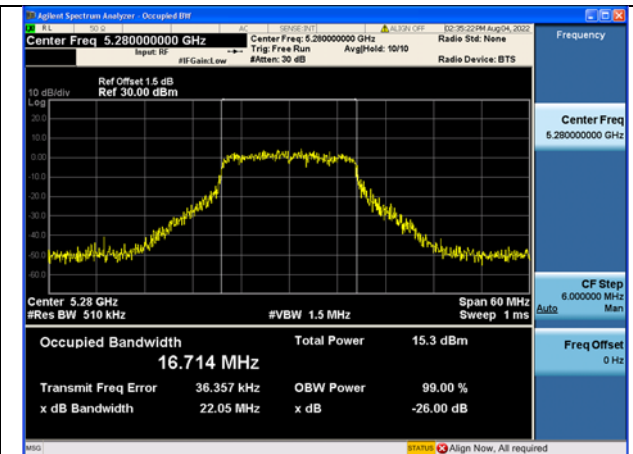
| Test Mode      | Antenna | 26dB Bandwidth (MHz) |     |                |
|----------------|---------|----------------------|-----|----------------|
|                |         | Channel No.572       | --- | Channel No.580 |
|                |         | 5270MHz              | --- | 5310MHz        |
| 802.11n HT40   | Chain0  | 39.60                | --- | 40.19          |
| 802.11ac VHT40 | Chain0  | 41.23                | --- | 40.24          |

| Test Mode      | Antenna | 26dB Bandwidth (MHz) |     |     |
|----------------|---------|----------------------|-----|-----|
|                |         | Channel No.576       | --- | --- |
|                |         | 5290MHz              | --- | --- |
| 802.11ac VHT80 | Chain0  | 82.49                | --- | --- |

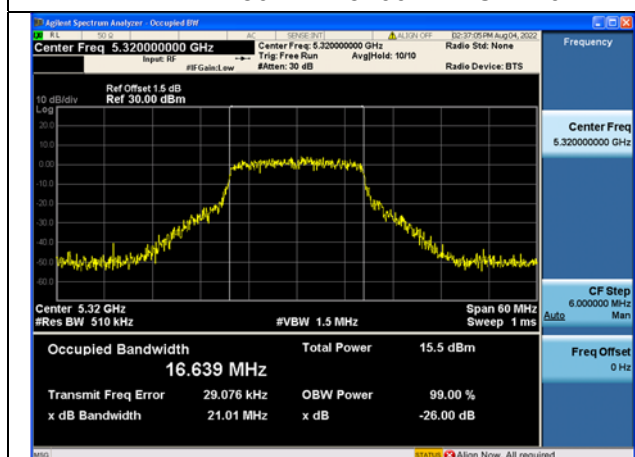
## Test Mode: 802.11a



Test Mode:802.11a 5260MHz Chain0

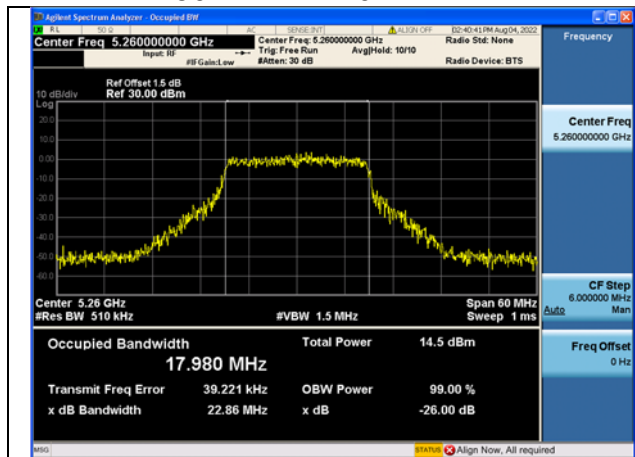


Test Mode:802.11a 5280MHz Chain0

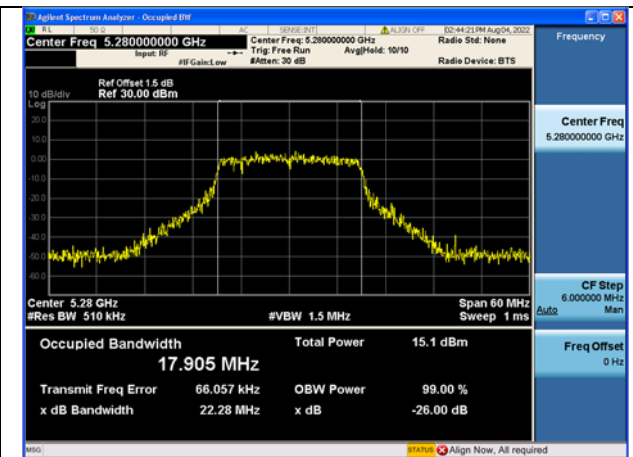


Test Mode:802.11a 5320MHz Chain0

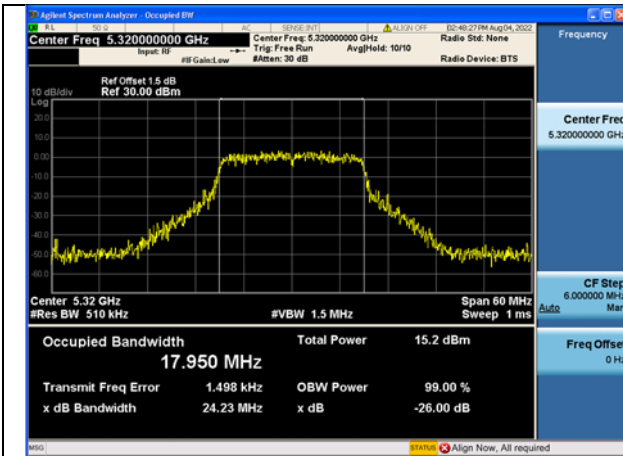
## Test Mode: 802.11n HT20



Test Mode:802.11n HT20 5260MHz Chain0

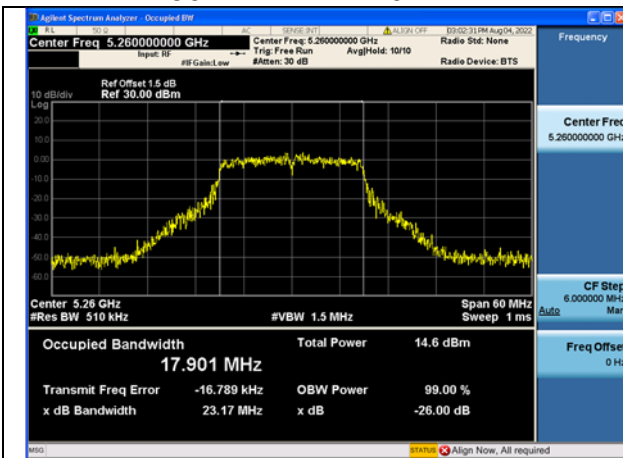


Test Mode:802.11n HT20 5280MHz Chain0

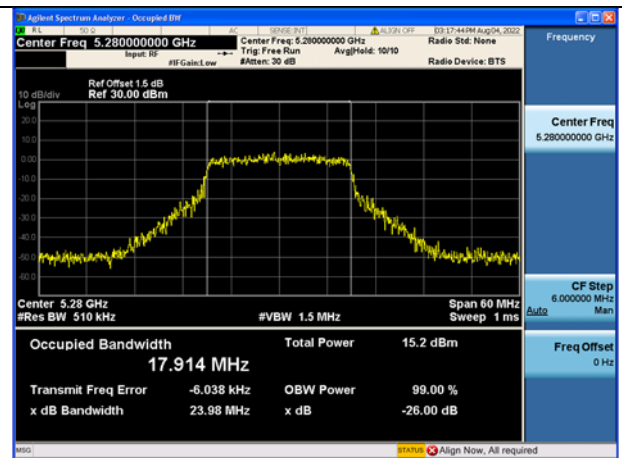


Test Mode:802.11n HT20 5320MHz Chain0

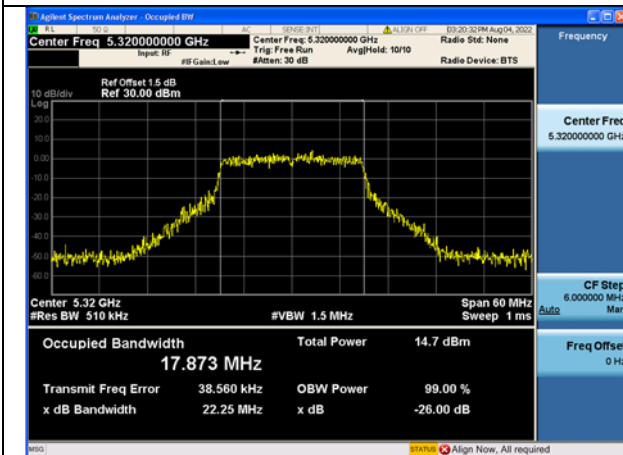
Test Mode: 802.11ac VHT20



Test Mode:802.11ac VHT20 5260MHz Chain0

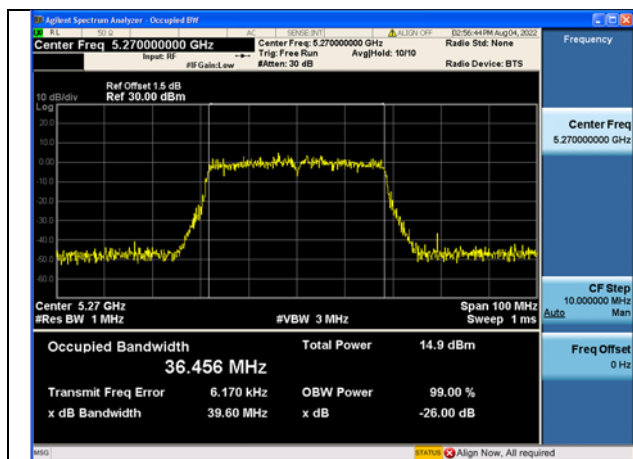


Test Mode:802.11ac VHT20 5280MHz Chain0

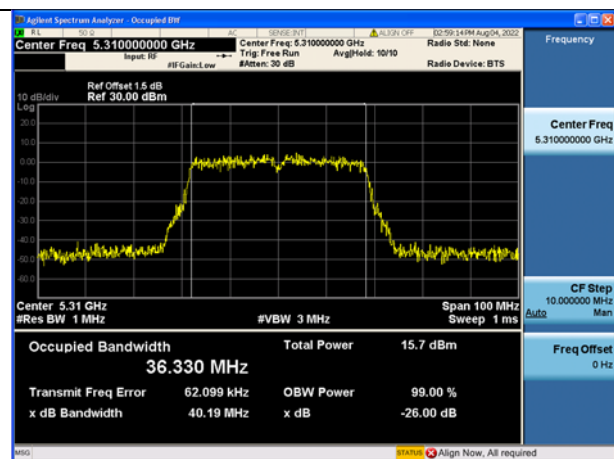


Test Mode:802.11ac VHT20 5320MHz Chain0

Test Mode: 802.11n HT40

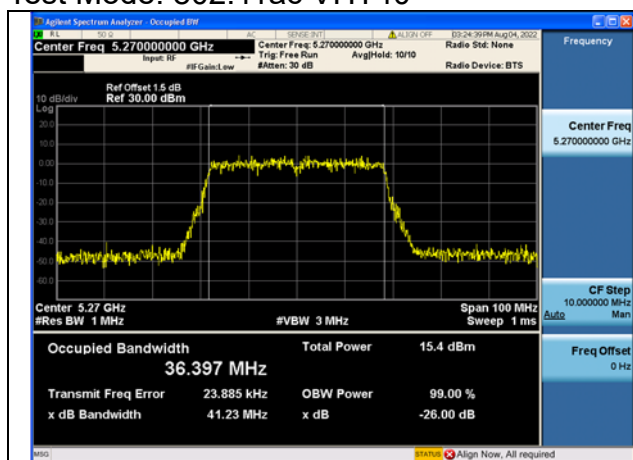


Test Mode:802.11n HT40 5270MHz Chain0

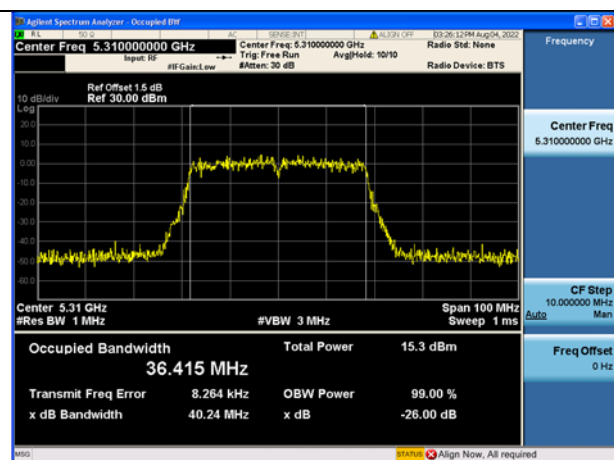


Test Mode:802.11n HT40 5310MHz Chain0

Test Mode: 802.11ac VHT40

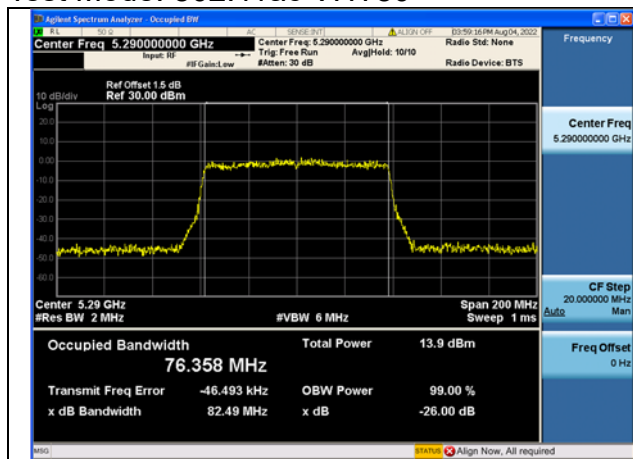


Test Mode:802.11ac VHT40 5270MHz Chain0



Test Mode:802.11ac VHT40 5310MHz Chain0

Test Mode: 802.11ac VHT80



Test Mode:802.11ac VHT80 5290MHz Chain0

## Occupied Bandwidth

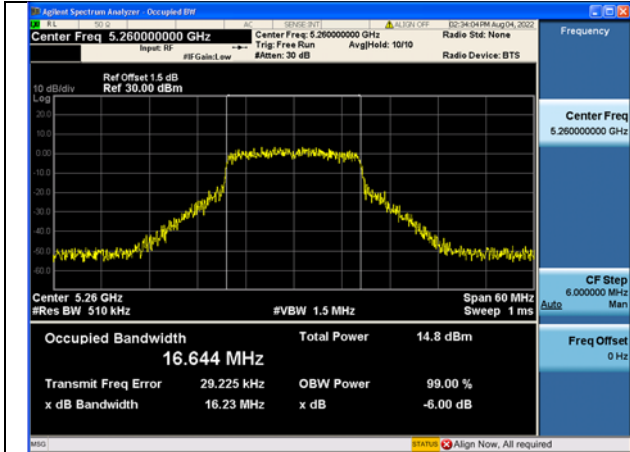
Offset 1.5dB = Attenuator + Temporary antenna connector loss + Cable loss

| Test Mode      | Antenna | Occupied Bandwidth (MHz) |                |                |
|----------------|---------|--------------------------|----------------|----------------|
|                |         | Channel No.570           | Channel No.574 | Channel No.582 |
|                |         | 5260MHz                  | 5280MHz        | 5320MHz        |
| 802.11a        | Chain0  | 16.644                   | 16.802         | 16.815         |
| 802.11n HT20   | Chain0  | 17.808                   | 17.915         | 17.900         |
| 802.11ac VHT20 | Chain0  | 17.929                   | 17.867         | 17.833         |

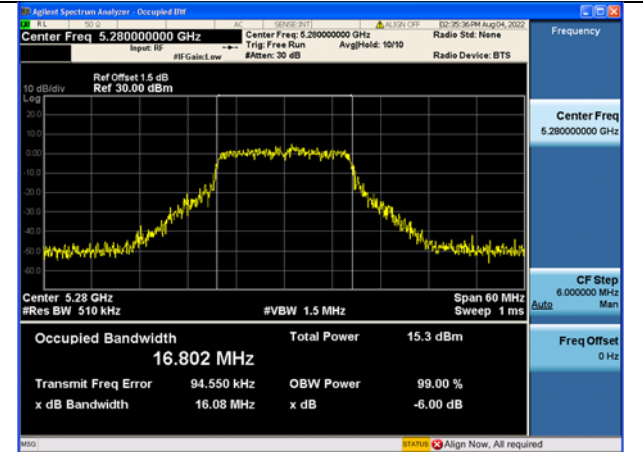
| Test Mode      | Antenna | Occupied Bandwidth (MHz) |     |                |
|----------------|---------|--------------------------|-----|----------------|
|                |         | Channel No.572           | --- | Channel No.580 |
|                |         | 5270MHz                  | --- | 5310MHz        |
| 802.11n HT40   | Chain0  | 36.384                   | --- | 36.504         |
| 802.11ac VHT40 | Chain0  | 36.401                   | --- | 36.523         |

| Test Mode      | Antenna | Occupied Bandwidth (MHz) |     |     |
|----------------|---------|--------------------------|-----|-----|
|                |         | Channel No.576           | --- | --- |
|                |         | 5290MHz                  | --- | --- |
| 802.11ac VHT80 | Chain0  | 76.398                   | --- | --- |

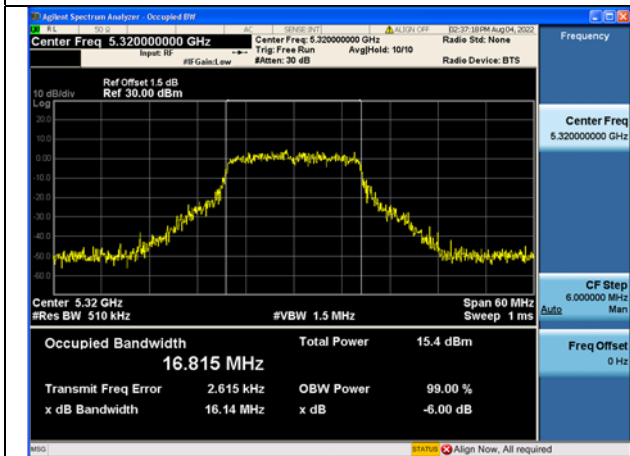
## Test Mode: 802.11a



Test Mode:802.11a 5260MHz Chain0

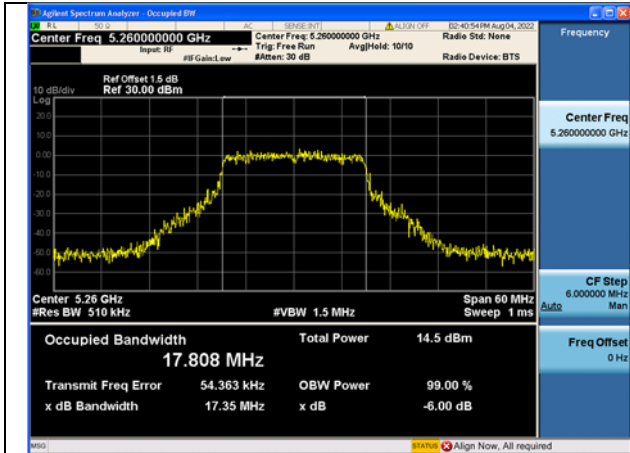


Test Mode:802.11a 5280MHz Chain0

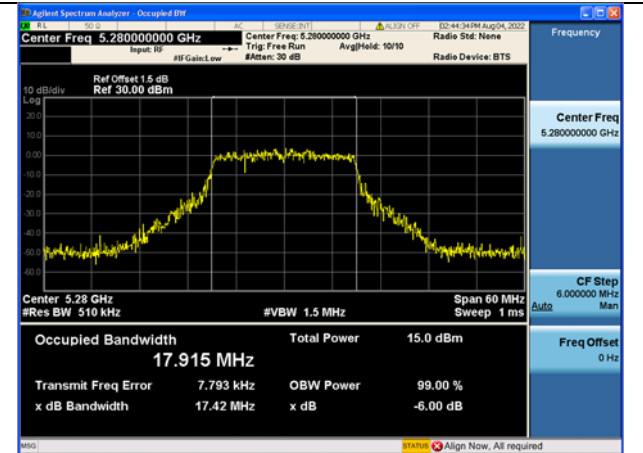


Test Mode:802.11a 5320MHz Chain0

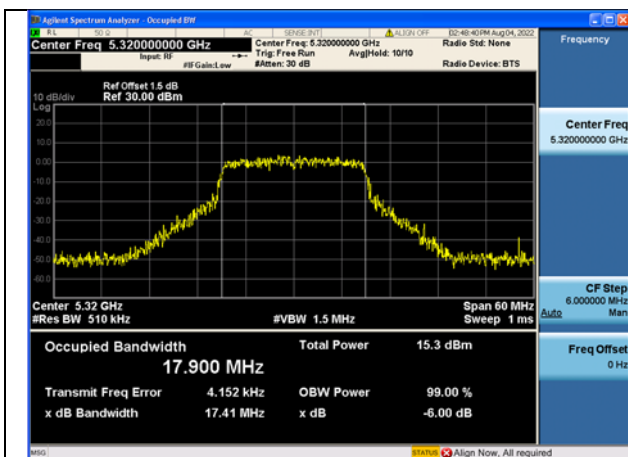
## Test Mode: 802.11n HT20



Test Mode:802.11n HT20 5260MHz Chain0

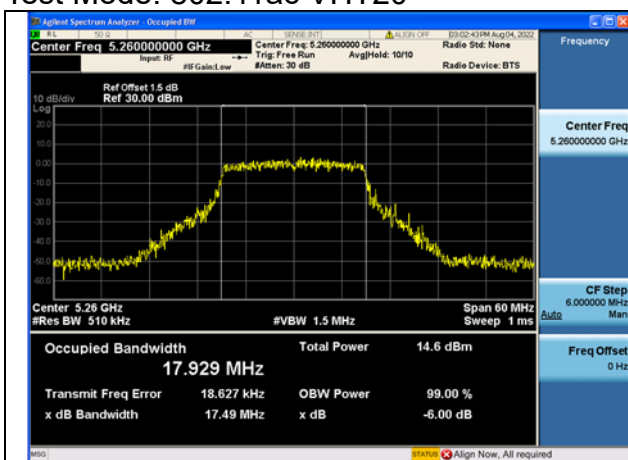


Test Mode:802.11n HT20 5280MHz Chain0

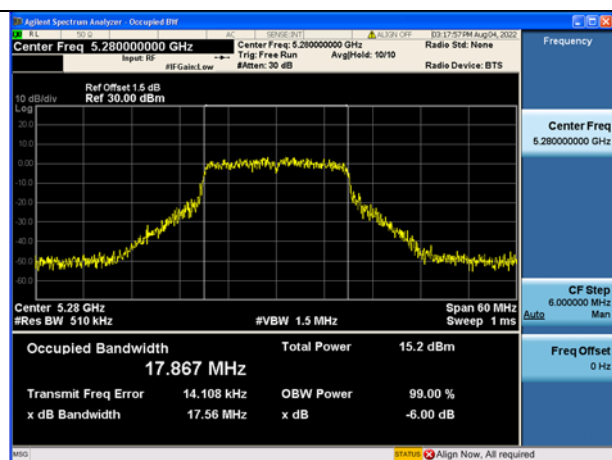


Test Mode:802.11n HT20 5320MHz Chain0

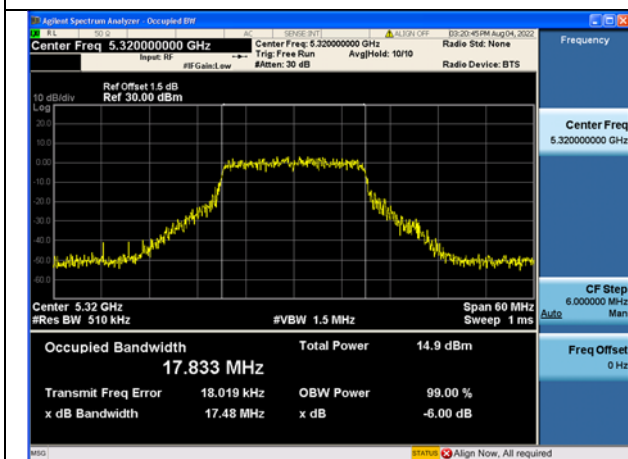
Test Mode: 802.11ac VHT20



Test Mode:802.11ac VHT20 5260MHz Chain0

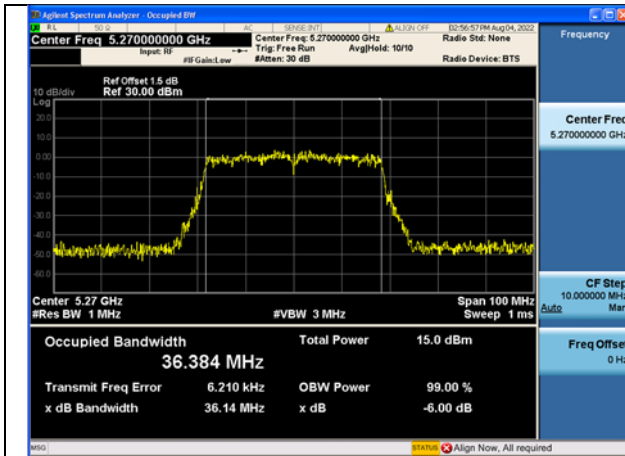


Test Mode:802.11ac VHT20 5280MHz Chain0

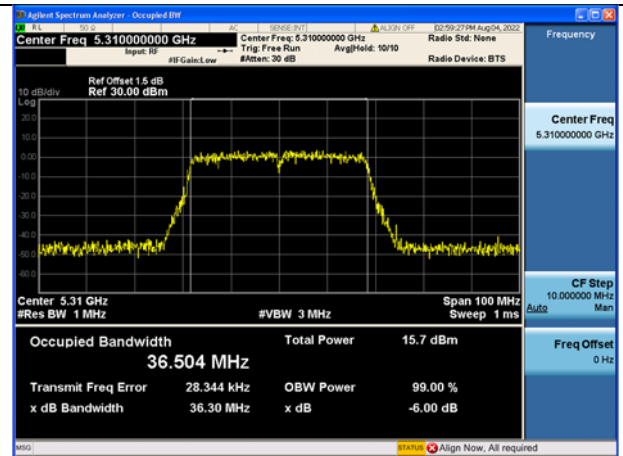


Test Mode:802.11ac VHT20 5320MHz Chain0

Test Mode: 802.11n HT40

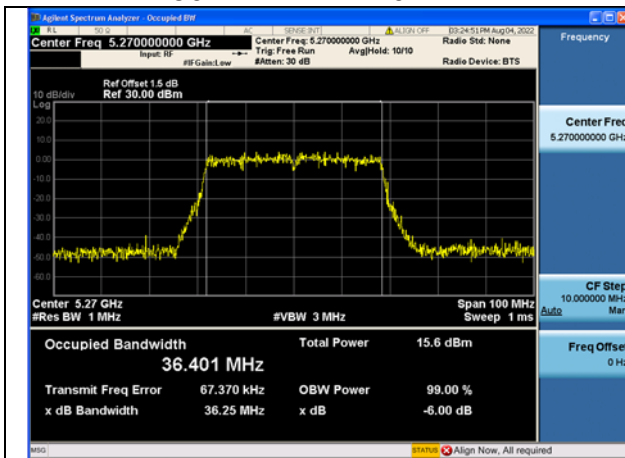


Test Mode:802.11n HT40 5270MHz Chain0

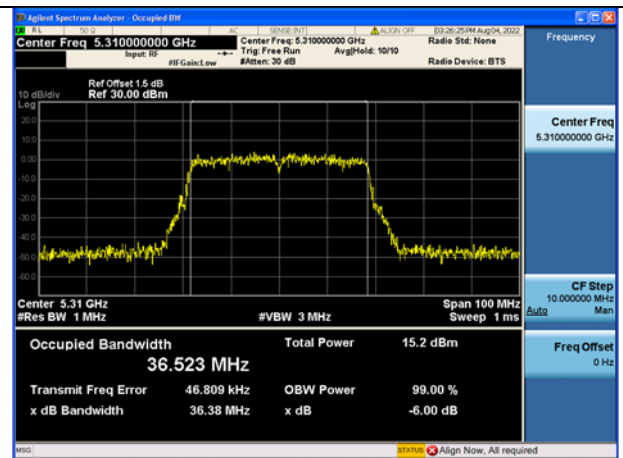


Test Mode:802.11n HT40 5310MHz Chain0

Test Mode: 802.11ac VHT40

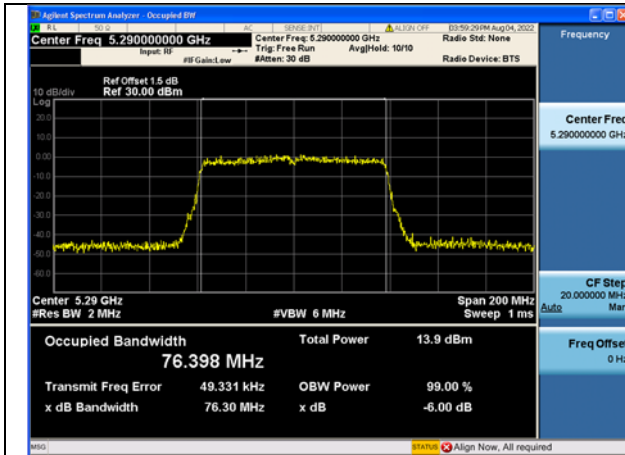


Test Mode:802.11ac VHT40 5270MHz Chain0



Test Mode:802.11ac VHT40 5310MHz Chain0

Test Mode: 802.11ac VHT80



Test Mode:802.11ac VHT80 5290MHz Chain0

## Transmitter Power Spectral Density

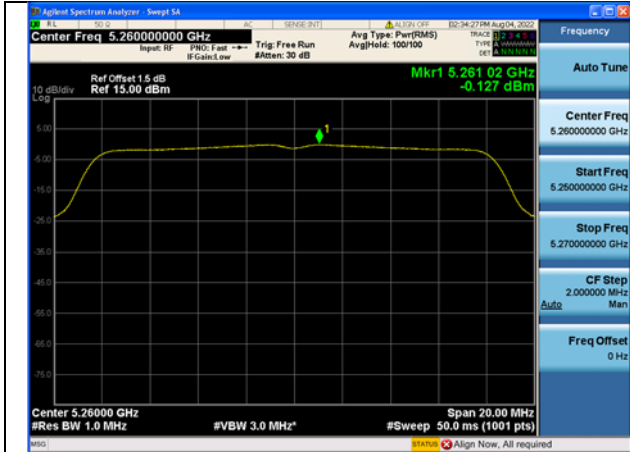
Offset 1.5dB = Attenuator + Temporary antenna connector loss + Cable loss

| Test Mode      | Antenna | 5260MHz               |                         | 5280MHz               |                         | 5320MHz               |                         |
|----------------|---------|-----------------------|-------------------------|-----------------------|-------------------------|-----------------------|-------------------------|
|                |         | 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                     | -0.127                  | 0                     | 0.467                   | 0                     | 0.672                   |
| 802.11n HT20   | Chain0  | 0                     | -0.114                  | 0                     | 0.106                   | 0                     | -0.174                  |
| 802.11ac VHT20 | Chain0  | 0                     | -0.080                  | 0                     | 0.051                   | 0                     | -0.122                  |

| Test Mode      | Antenna | 5270MHz               |                         | ---                   |                         | 5310MHz               |                         |
|----------------|---------|-----------------------|-------------------------|-----------------------|-------------------------|-----------------------|-------------------------|
|                |         | 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                  | -2.778                  | ---                   | ---                     | 0.10                  | -2.569                  |
| 802.11ac VHT40 | Chain0  | 0.10                  | -2.777                  | ---                   | ---                     | 0.10                  | -3.016                  |

| Test Mode      | Antenna | 5290MHz               |                         | ---                   |                         | ---                   |                         |
|----------------|---------|-----------------------|-------------------------|-----------------------|-------------------------|-----------------------|-------------------------|
|                |         | 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                  | -5.994                  | ---                   | ---                     | ---                   | ---                     |

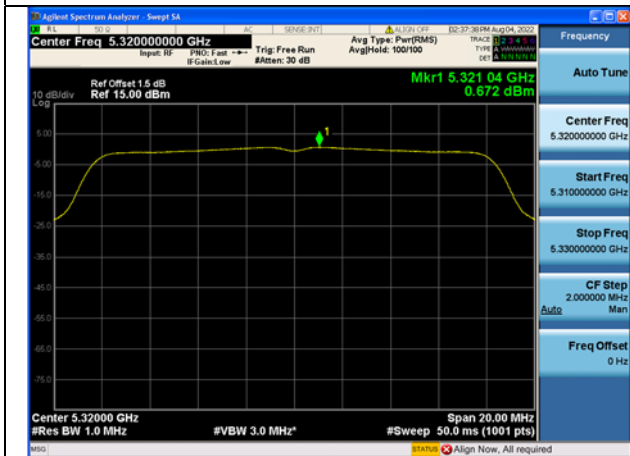
## Test Mode: 802.11a



Test Mode:802.11a 5260MHz Chain0

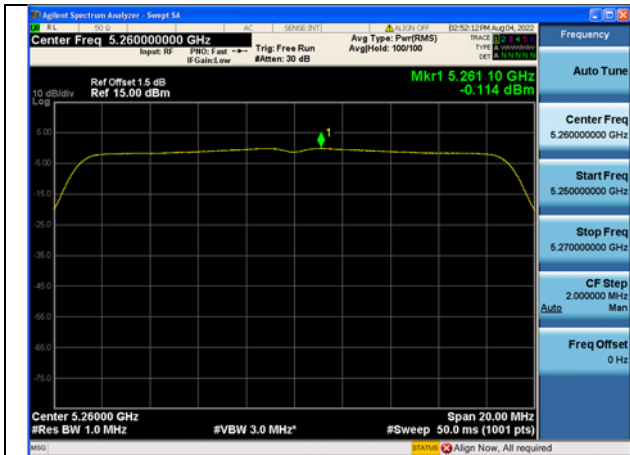


Test Mode:802.11a 5280MHz Chain0



Test Mode:802.11a 5320MHz Chain0

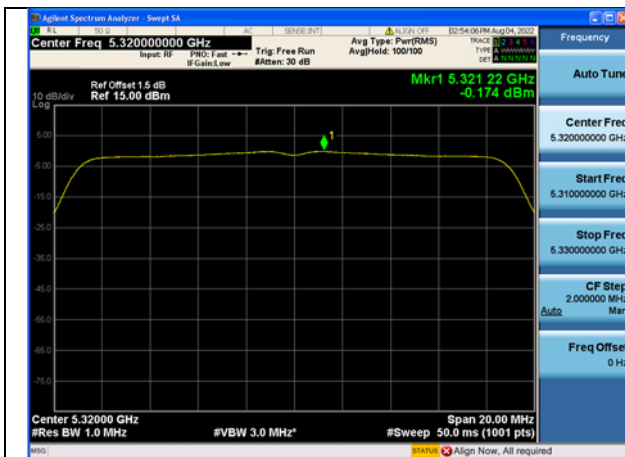
## Test Mode: 802.11n HT20



Test Mode:802.11n HT20 5260MHz Chain0

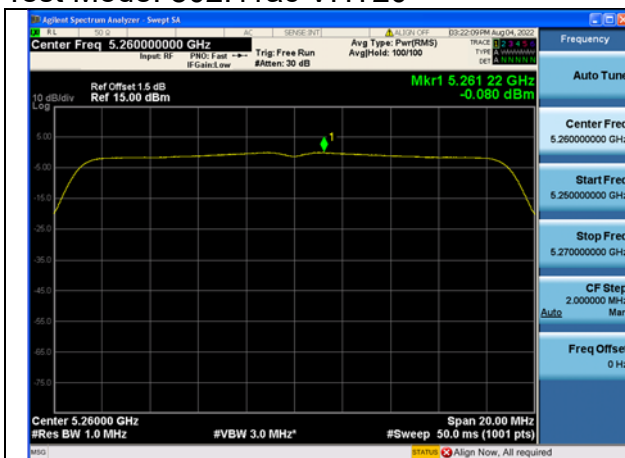


Test Mode:802.11n HT20 5280MHz Chain0

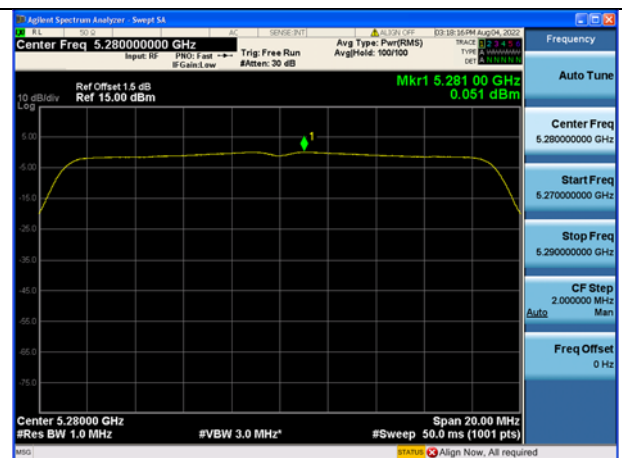


Test Mode:802.11n HT20 5320MHz Chain0

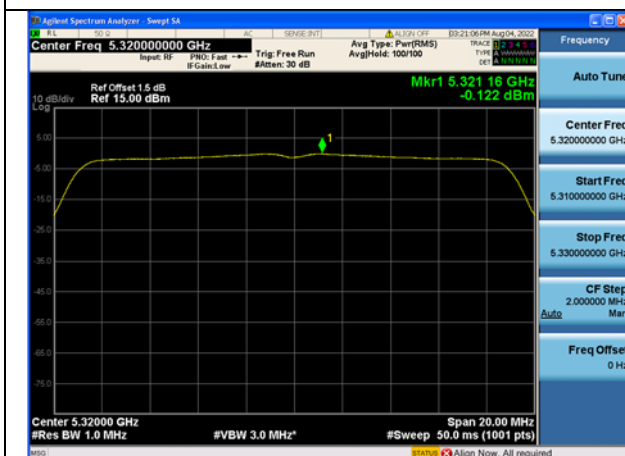
Test Mode: 802.11ac VHT20



Test Mode:802.11ac VHT20 5260MHz Chain0

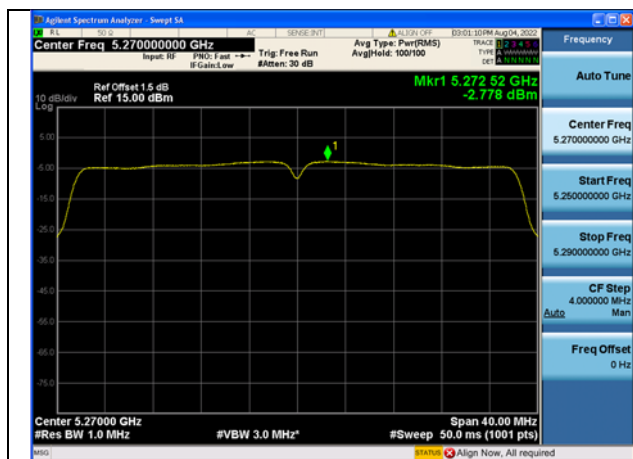


Test Mode:802.11ac VHT20 5280MHz Chain0

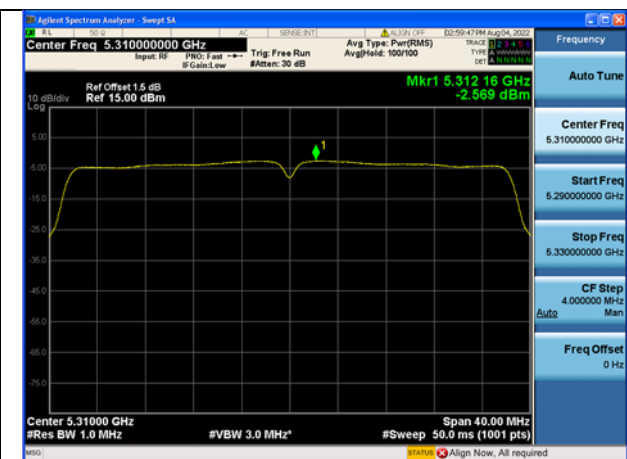


Test Mode:802.11ac VHT20 5320MHz Chain0

Test Mode: 802.11n HT40

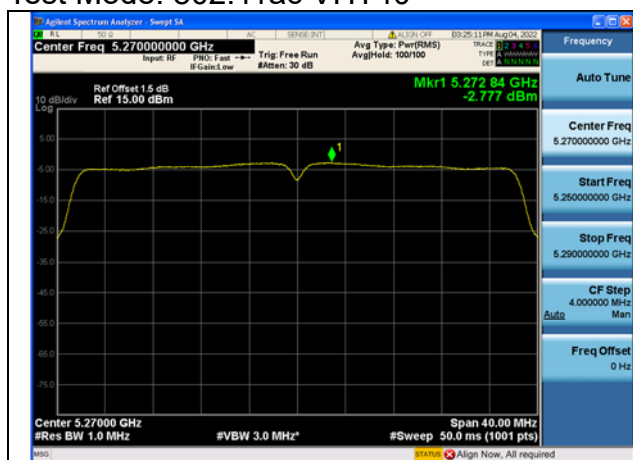


Test Mode:802.11n HT40 5270MHz Chain0

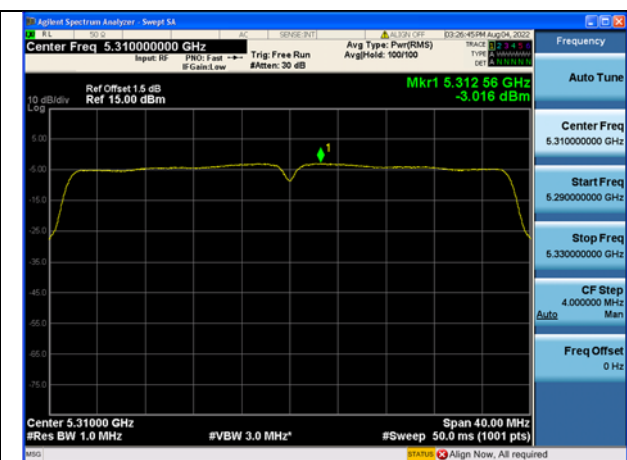


Test Mode:802.11n HT40 5310MHz Chain0

Test Mode: 802.11ac VHT40



Test Mode:802.11ac VHT40 5270MHz Chain0



Test Mode:802.11ac VHT40 5310MHz Chain0

Test Mode: 802.11ac VHT80



Test Mode:802.11ac VHT80 5290MHz Chain0

## Dynamic Frequency Selection

### DESCRIPTION OF Master Device

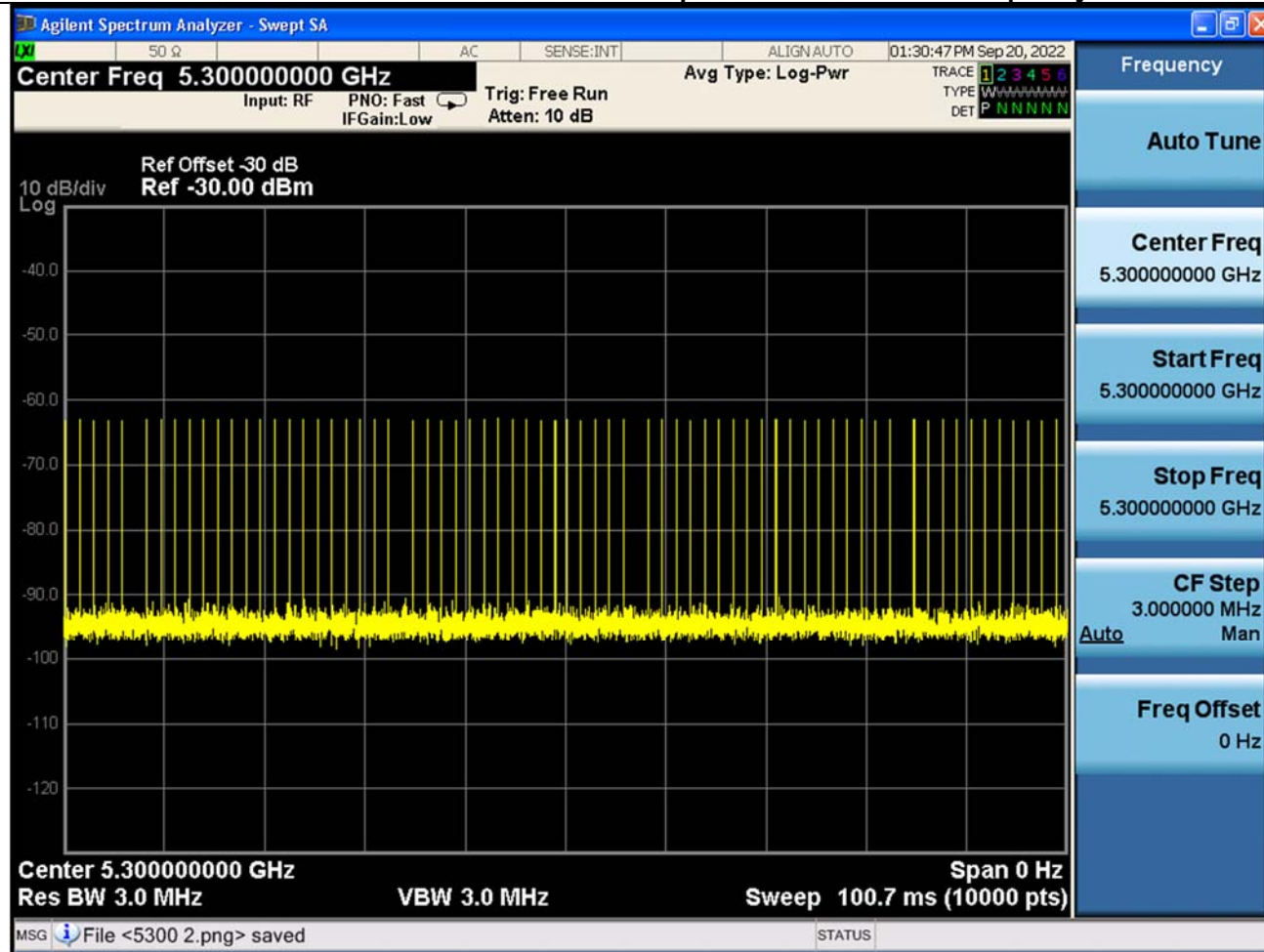
The Master Device is a SKSpruce Technologies Co., Ltd., Indoor Access Point, FCC ID: 2AHKT-WIA3300-20. The rated output power of the Master unit is > 23dBm (EIRP).

Therefore the required interference threshold level is -60 dBm.

### Radar Waveform Calibration Result

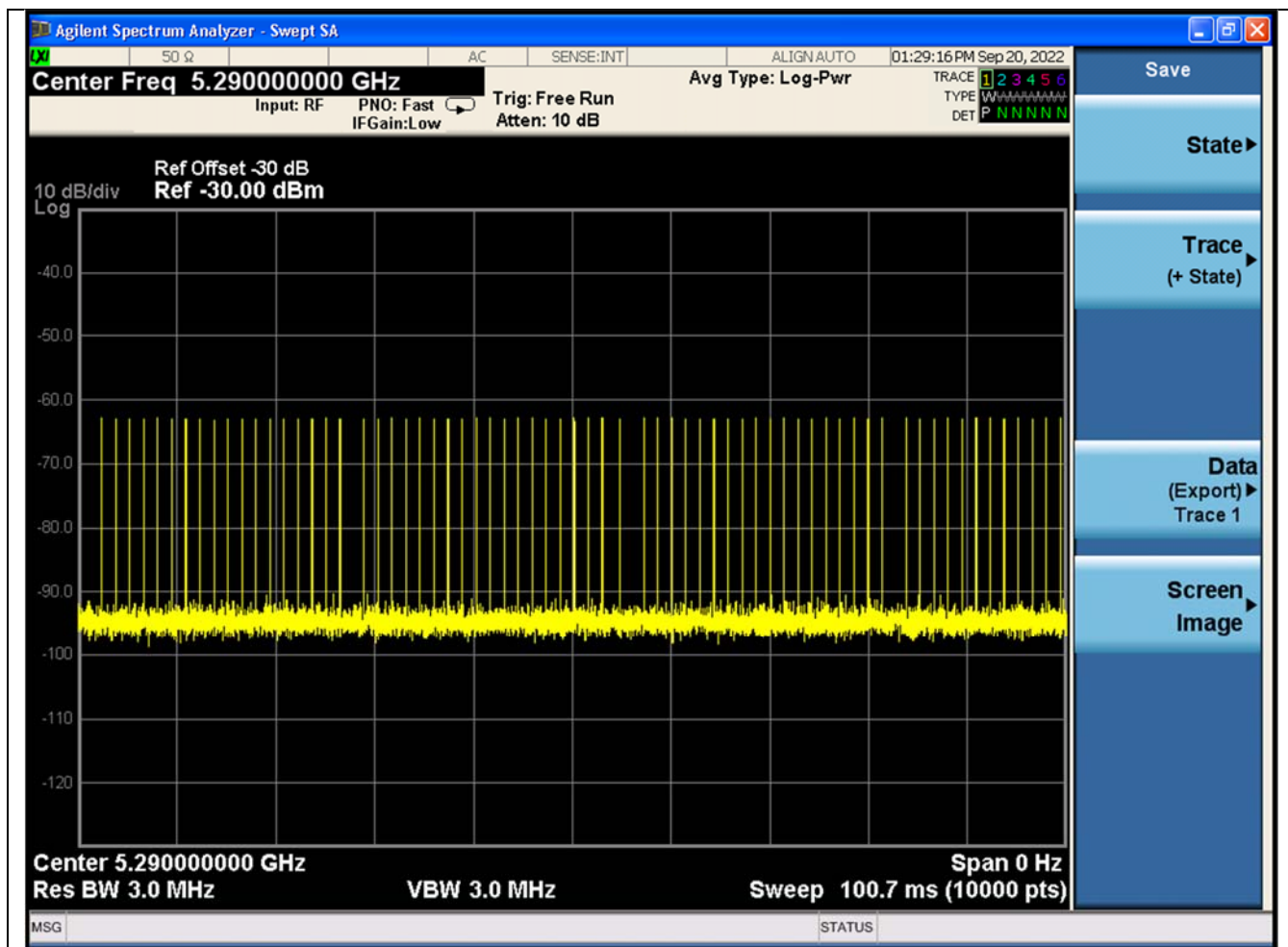
<20MHz / 5300 MHz> Radar Type 0

Radar / DFS detection threshold level and the burst of pulses on the Channel frequency

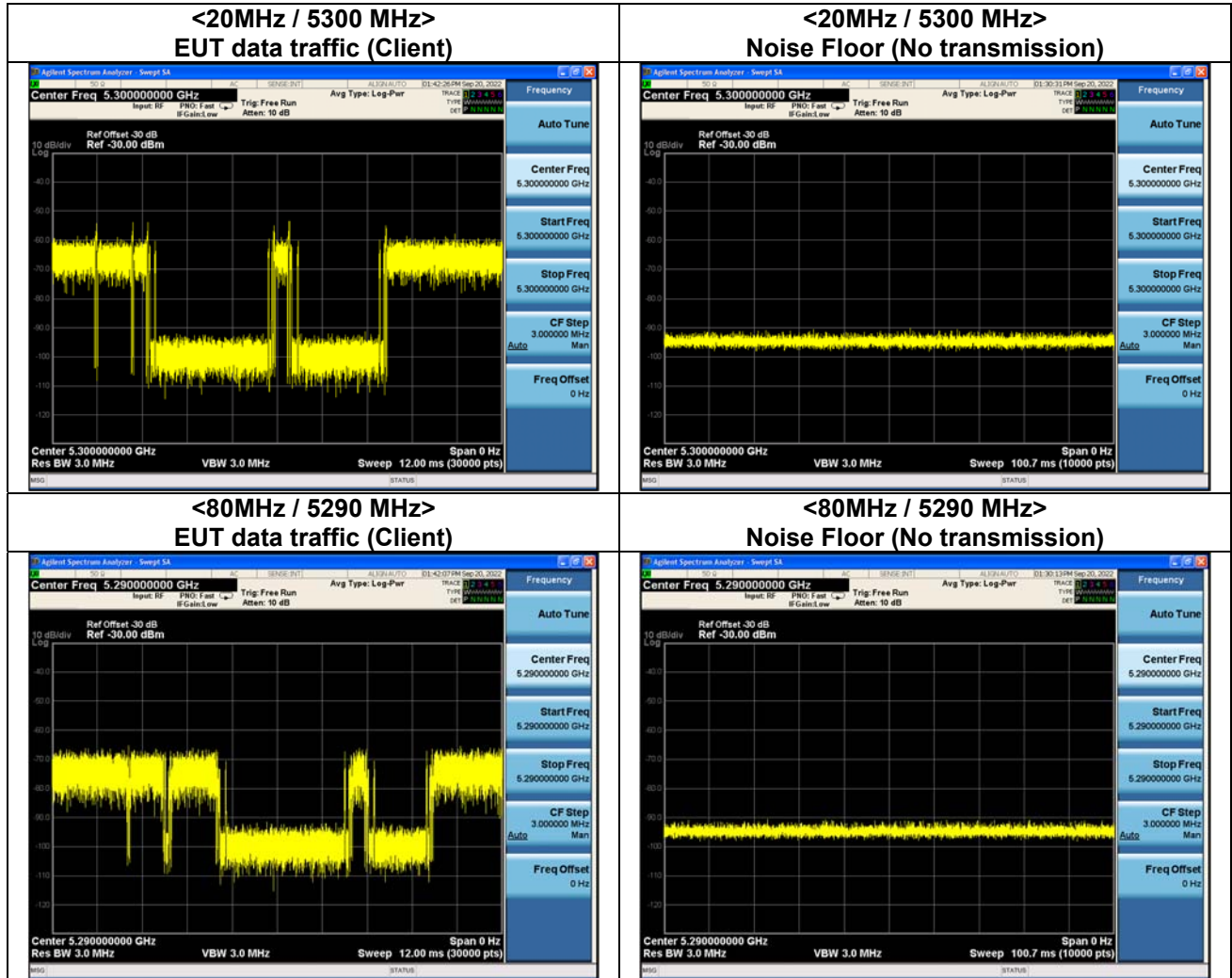


<80MHz / 5290 MHz> Radar Type 0

Radar / DFS detection threshold level and the burst of pulses on the Channel frequency



## Data Traffic and Noise Floor Plots

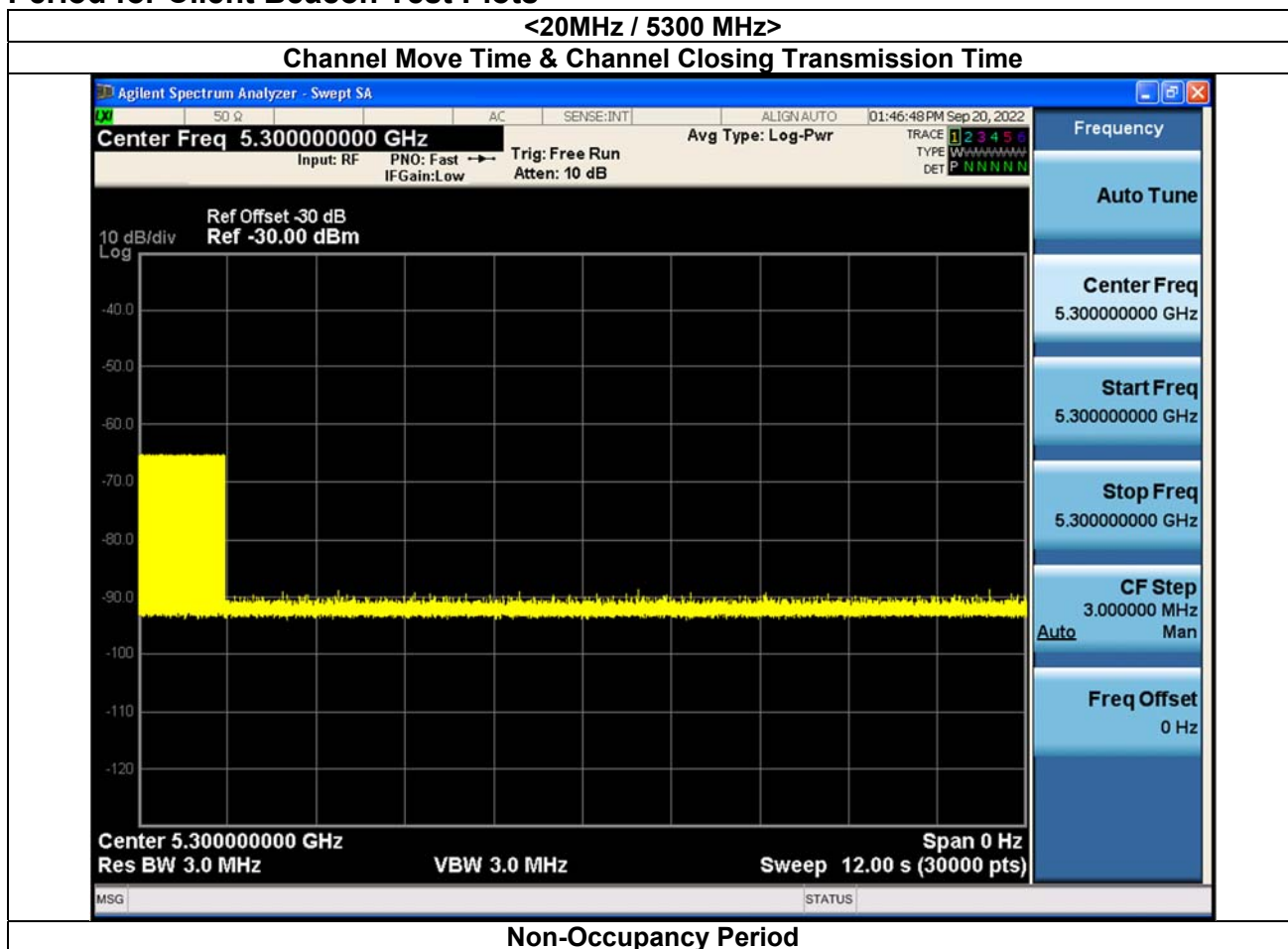


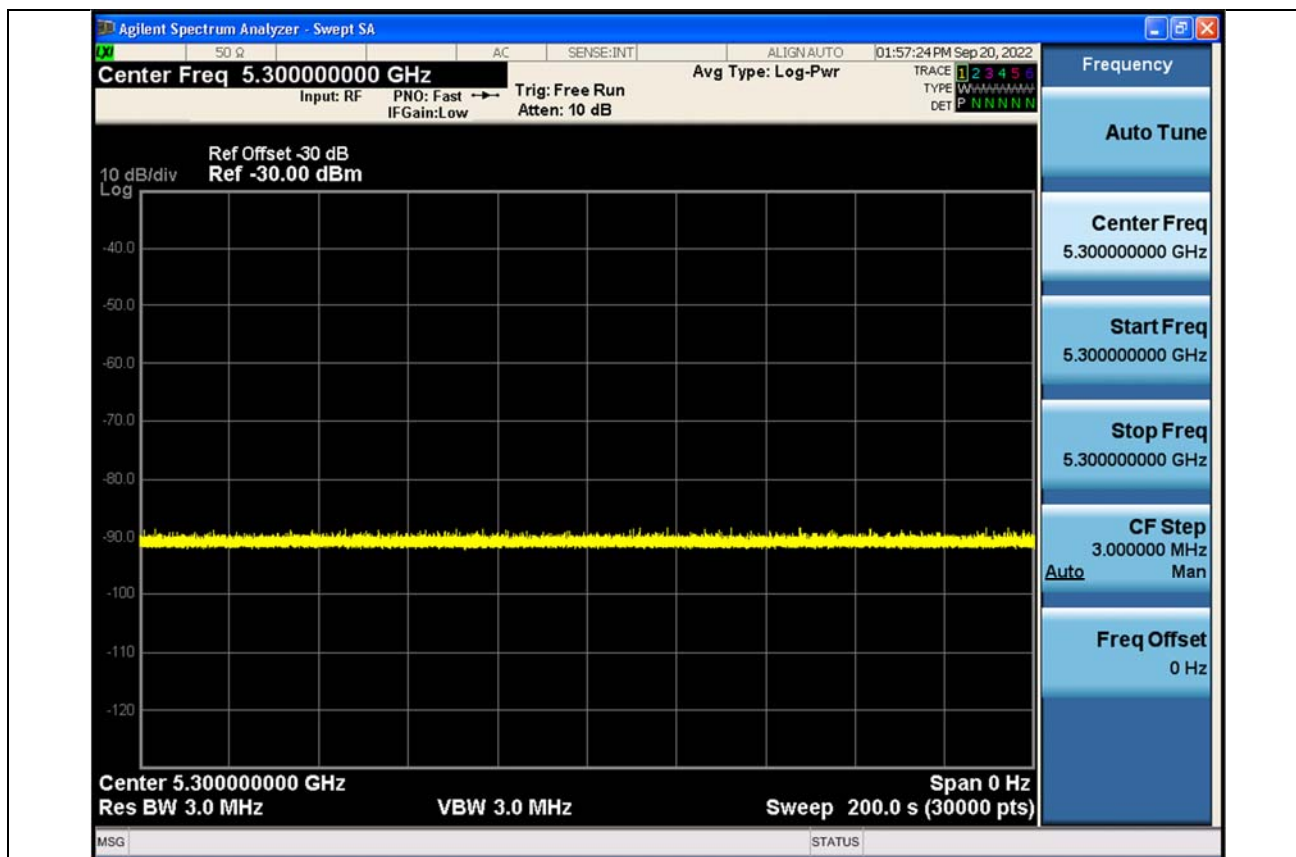
### Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period for Client Beacon Test

| Frequency | Test Item                         | Test Result | Limit    | Pass/Fail |
|-----------|-----------------------------------|-------------|----------|-----------|
| 5300MHz   | Channel Move Time                 | < 10s*      | < 10s    | Pass      |
|           | Channel Closing Transmission Time | 200ms       | < 260ms  | Pass      |
|           | Non-Occupancy Period              | ≥ 30        | ≥ 30 min | Pass      |
| 5290MHz   | Channel Move Time                 | < 10s*      | < 10s    | Pass      |
|           | Channel Closing Transmission Time | 200ms       | < 260ms  | Pass      |
|           | Non-Occupancy Period              | ≥ 30        | ≥ 30 min | Pass      |

Note\*: We notice clearly that "Channel Move Time" is less than 10s from the figure.  
The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 seconds period. The aggregate duration of control signals will not count quiet periods in between transmissions.

### Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period for Client Beacon Test Plots





<80MHz / 5290MHz>

Channel Move Time & Channel Closing Transmission Time

