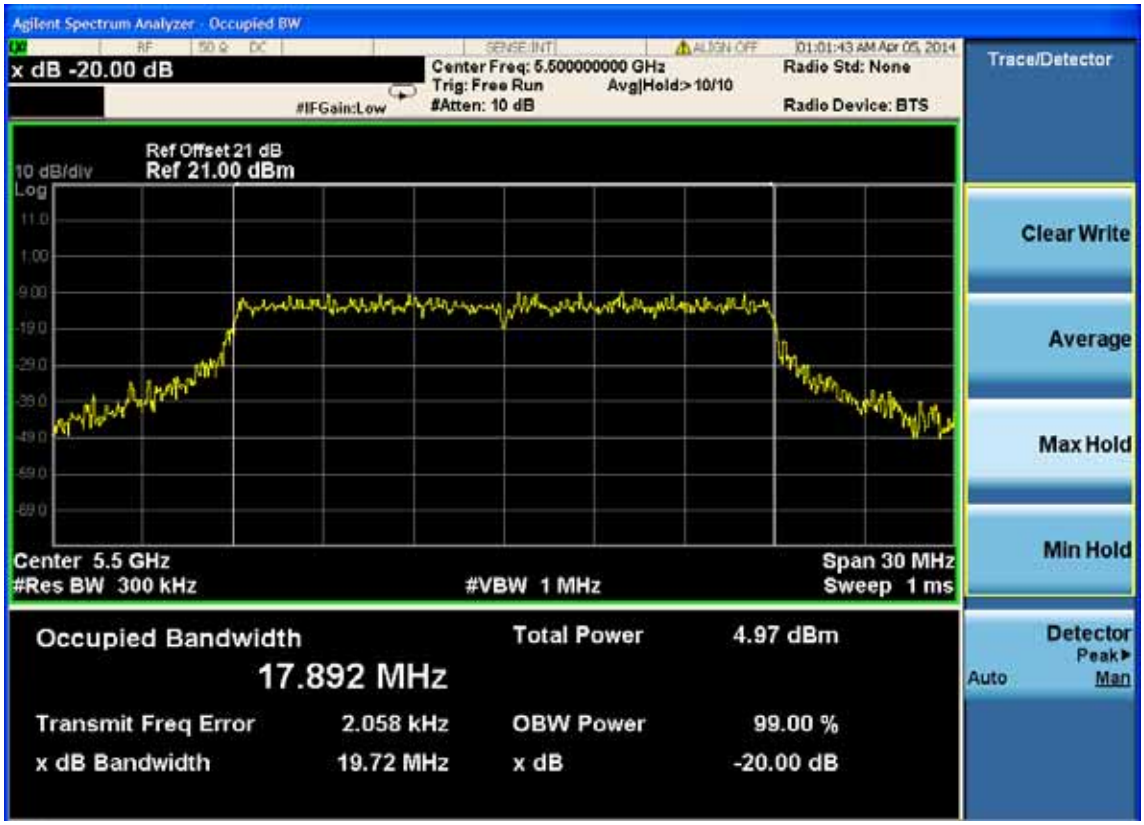
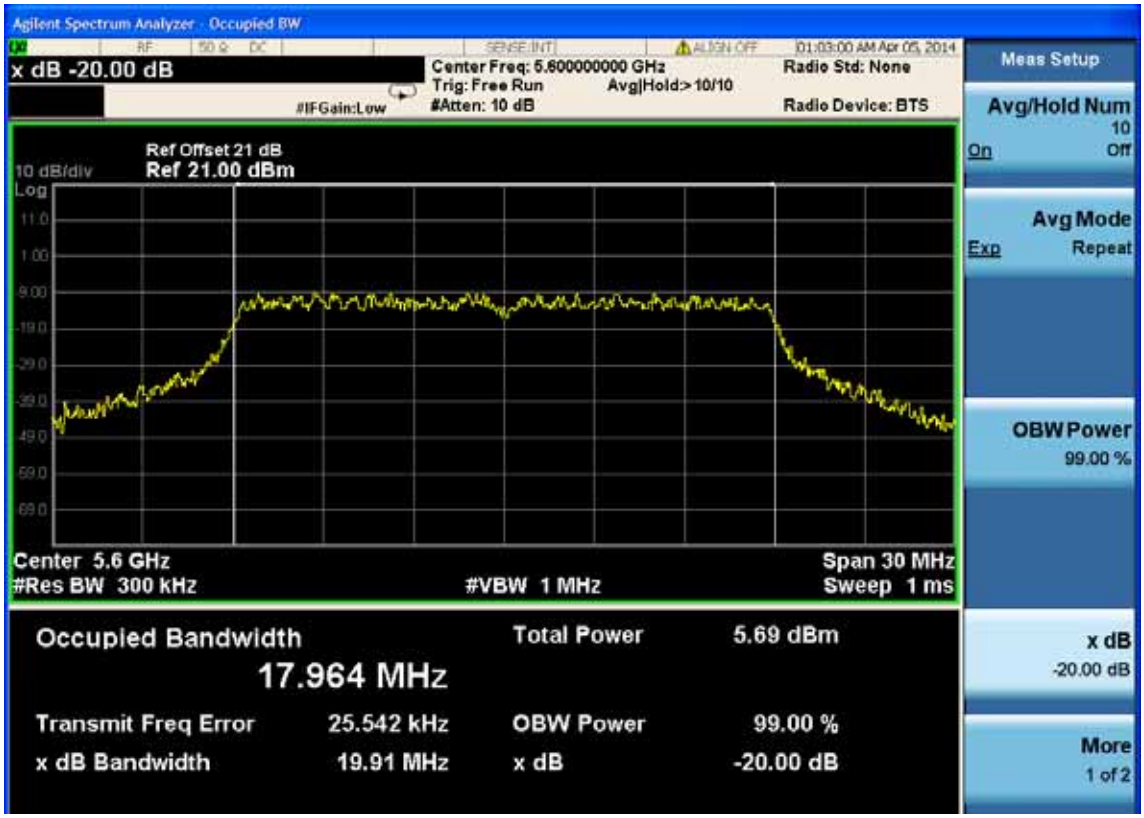
**IEEE802.11nHT20**

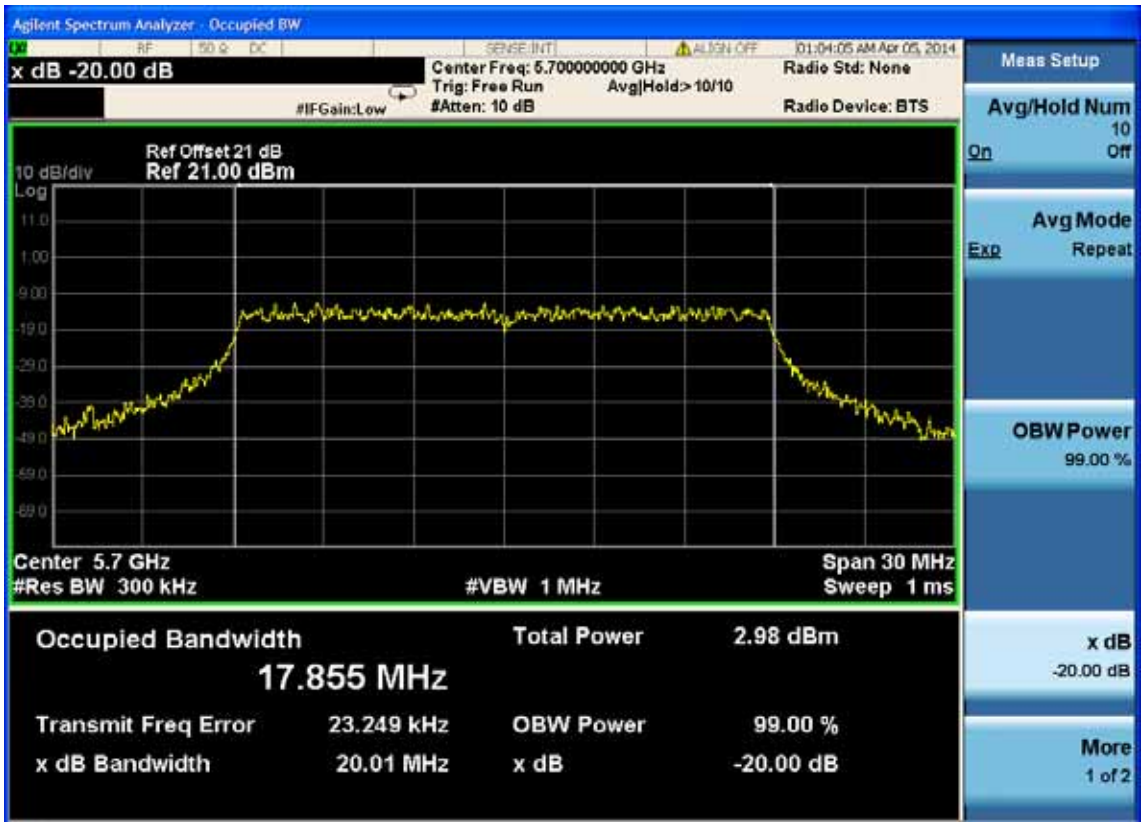
5500MHz




5600MHz

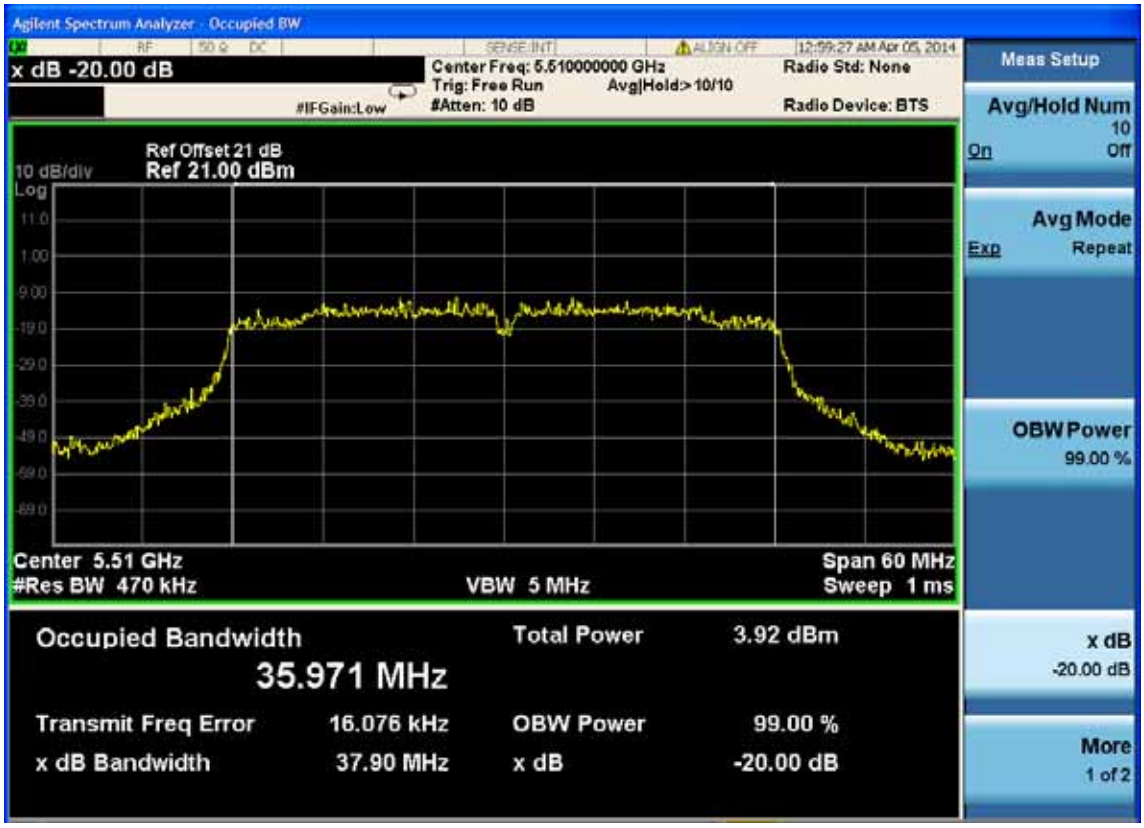


5700MHz

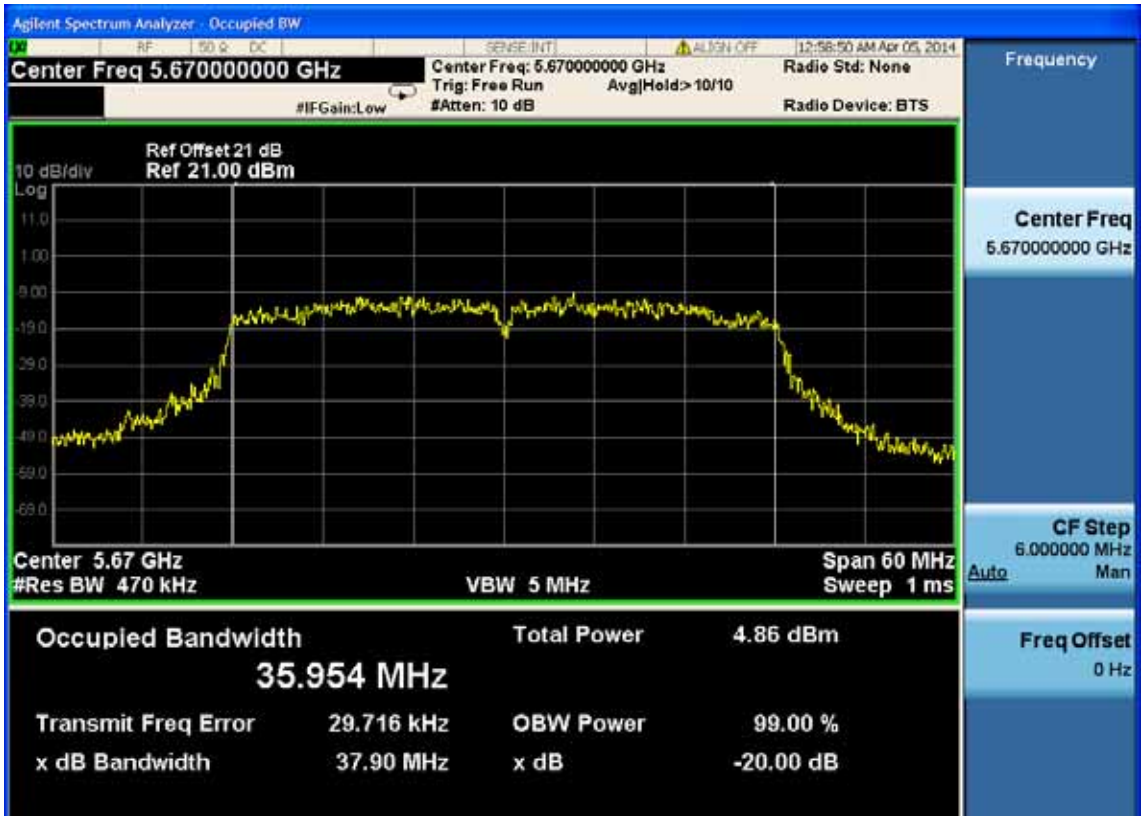



**IEEE802.11nHT40**

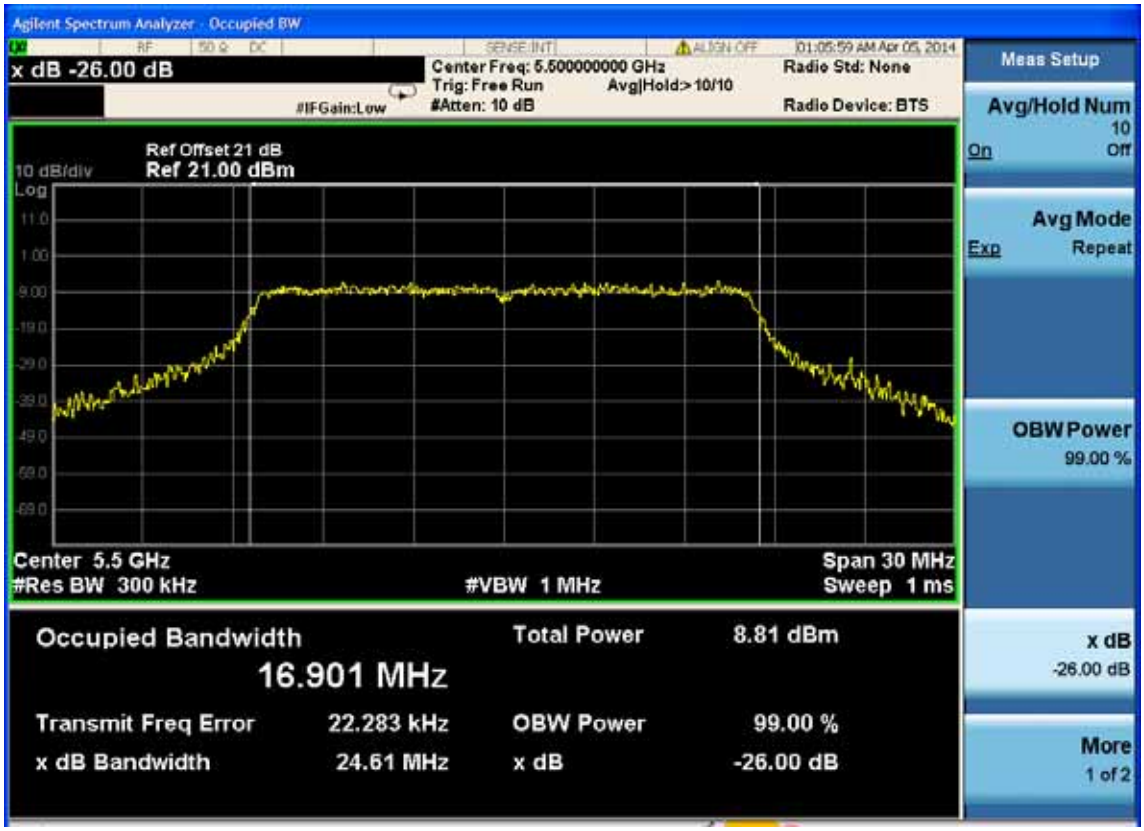
5510MHz



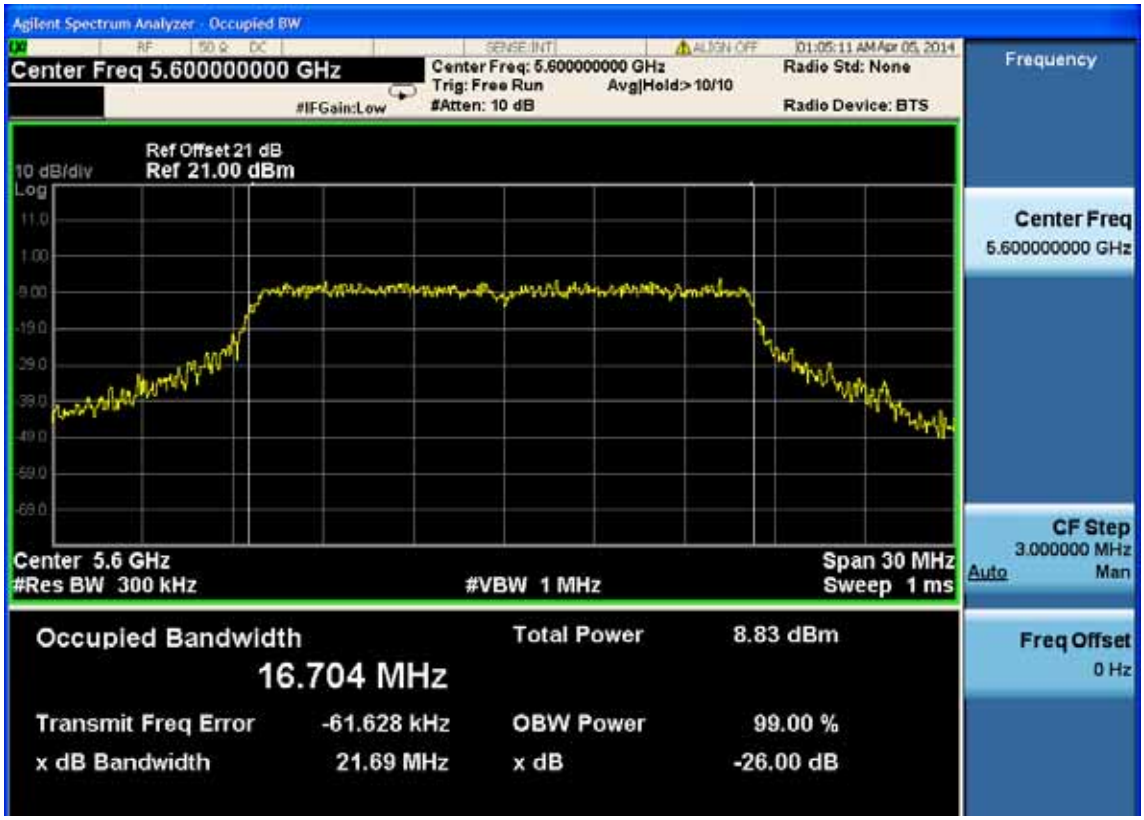
5670MHz



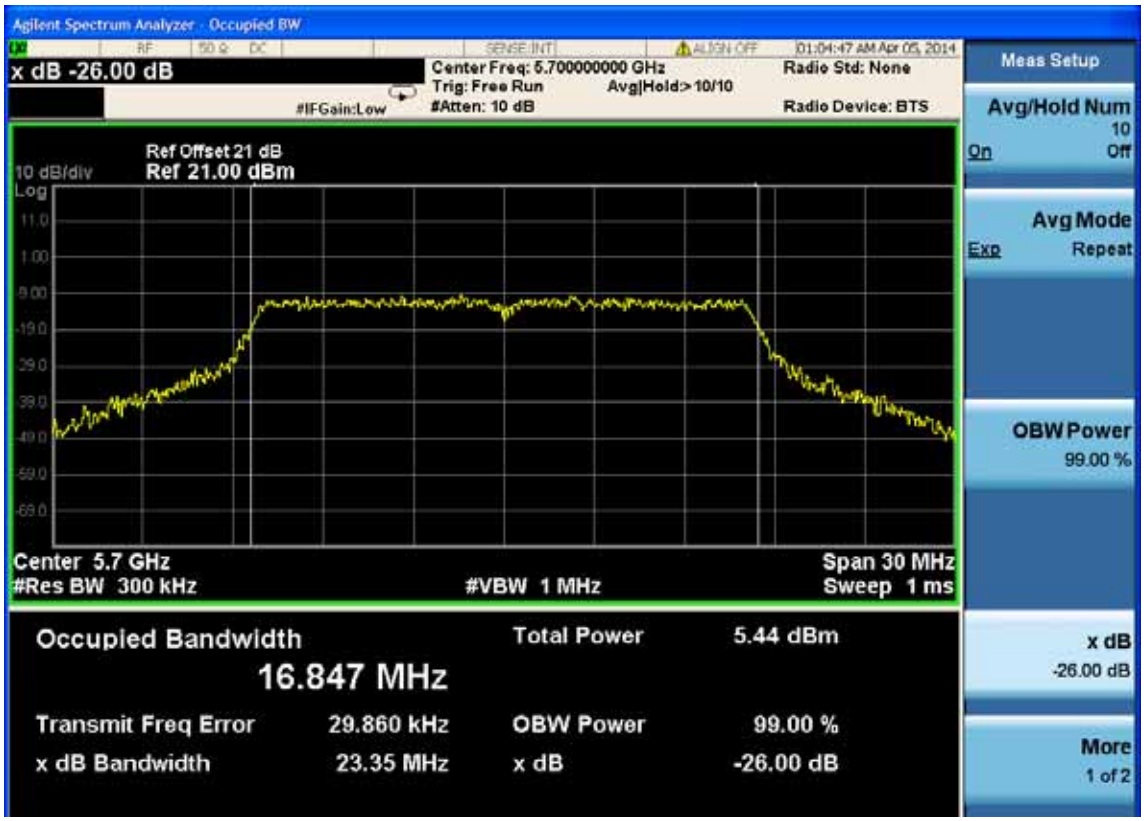

**Band 3: (5470-5725MHz)**
**26dB bandwidth:**
**IEEE802.11a**
5500MHz



5600MHz

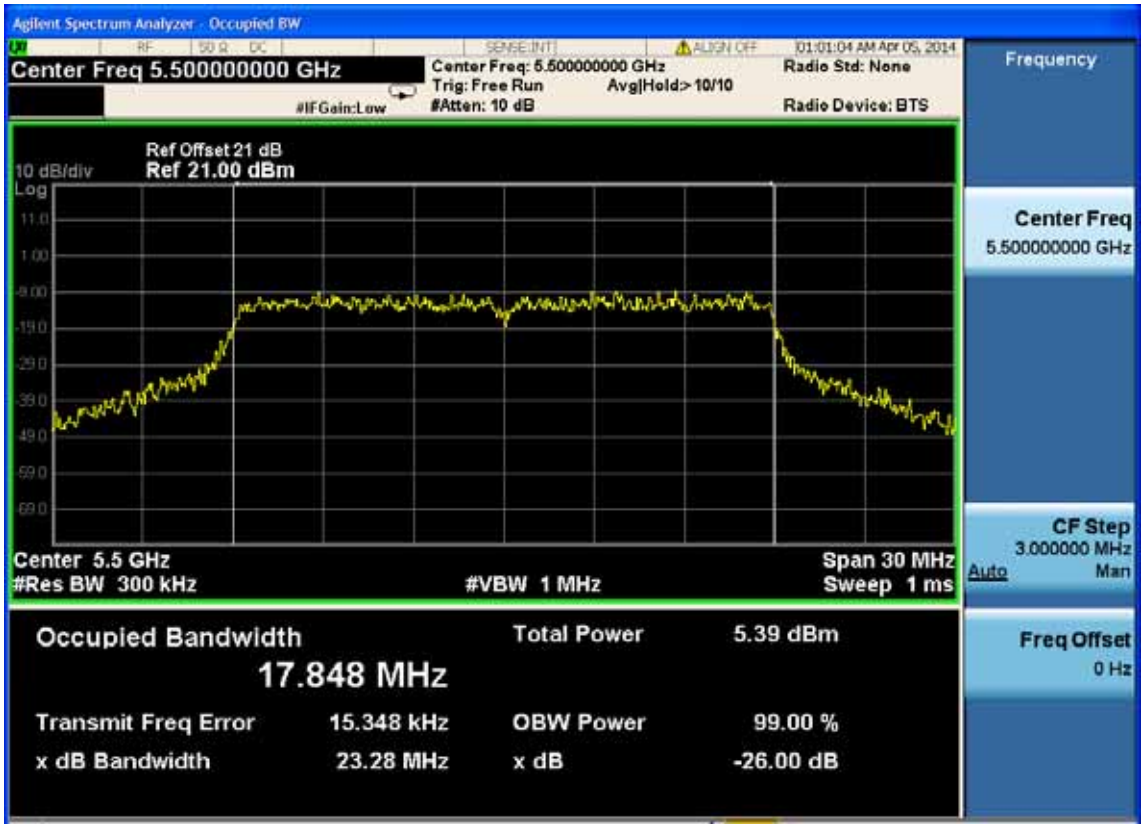



5700MHz

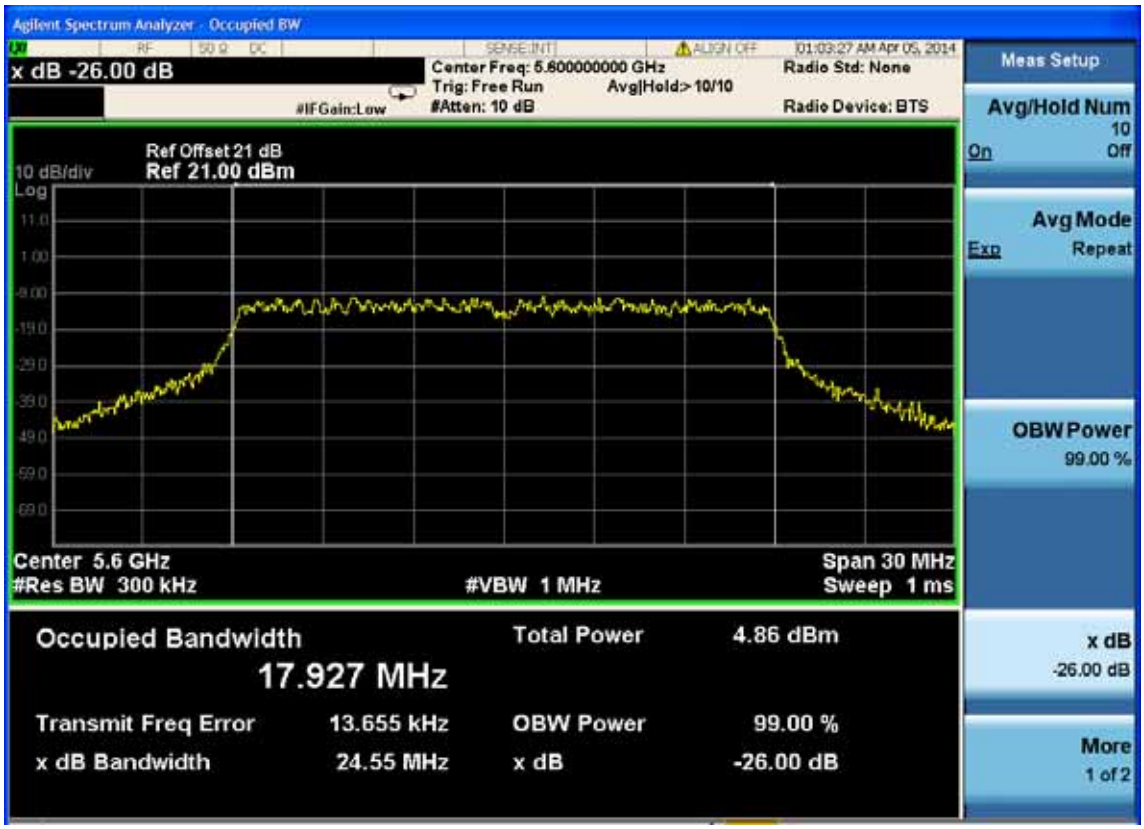


**IEEE802.11ac VHT20**

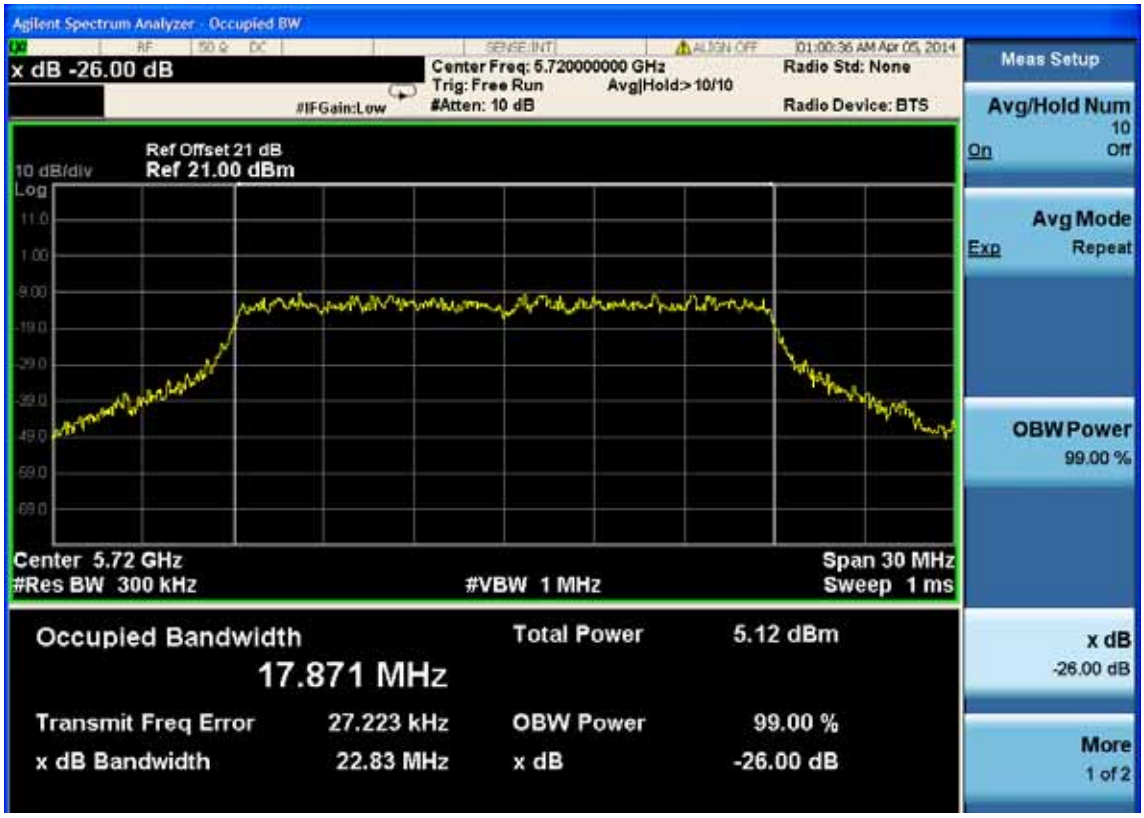
5500MHz




5600MHz



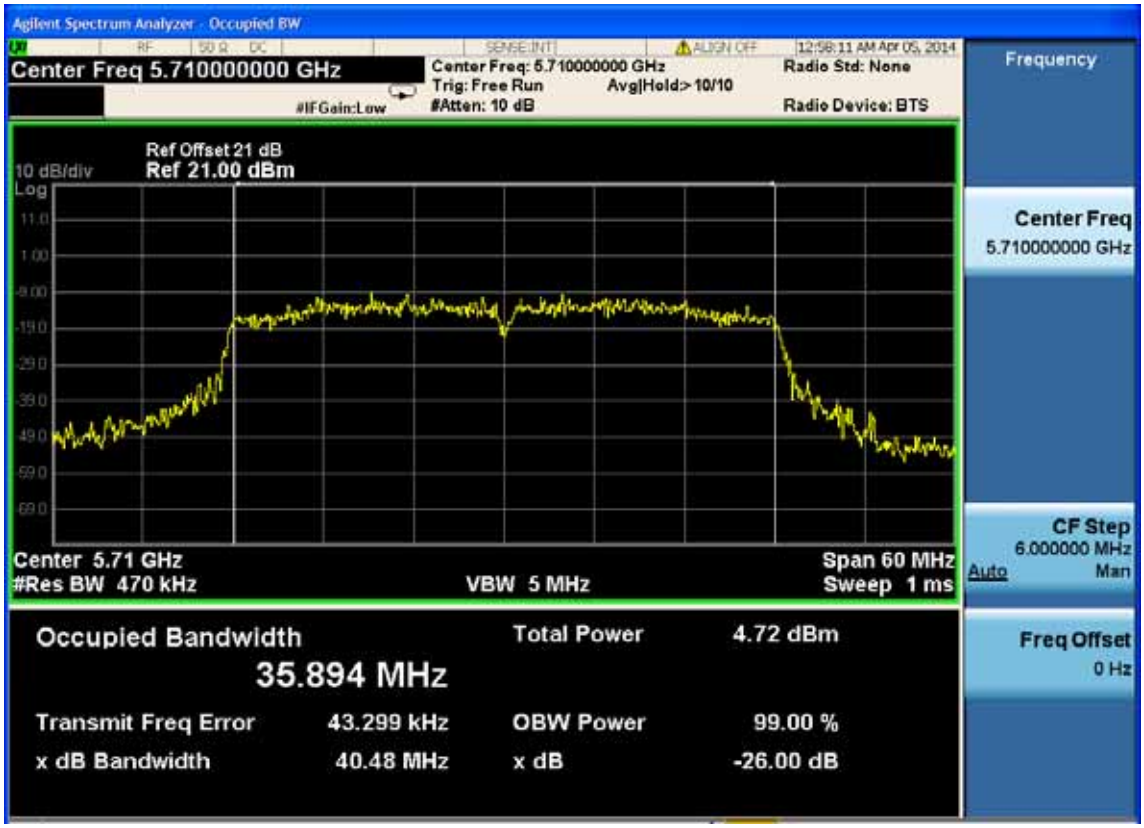
5720MHz




**IEEE802.11ac VHT40**

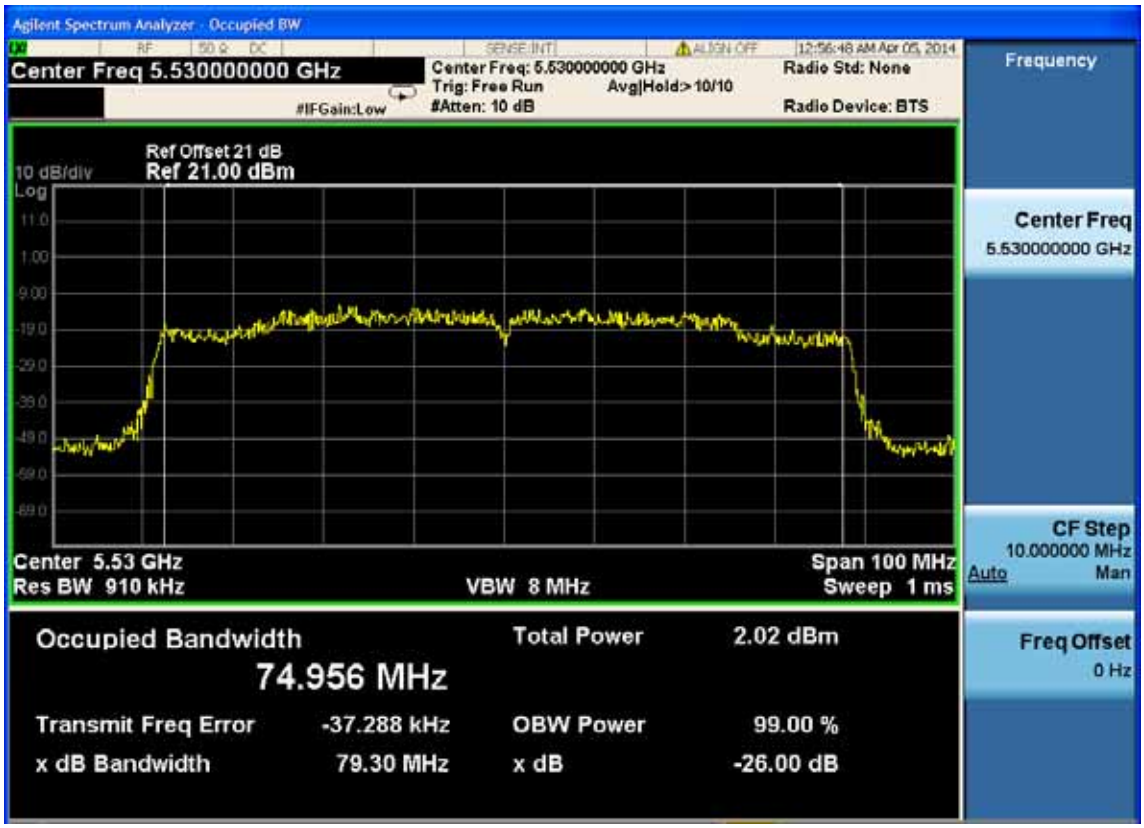
5510MHz

5710MHz

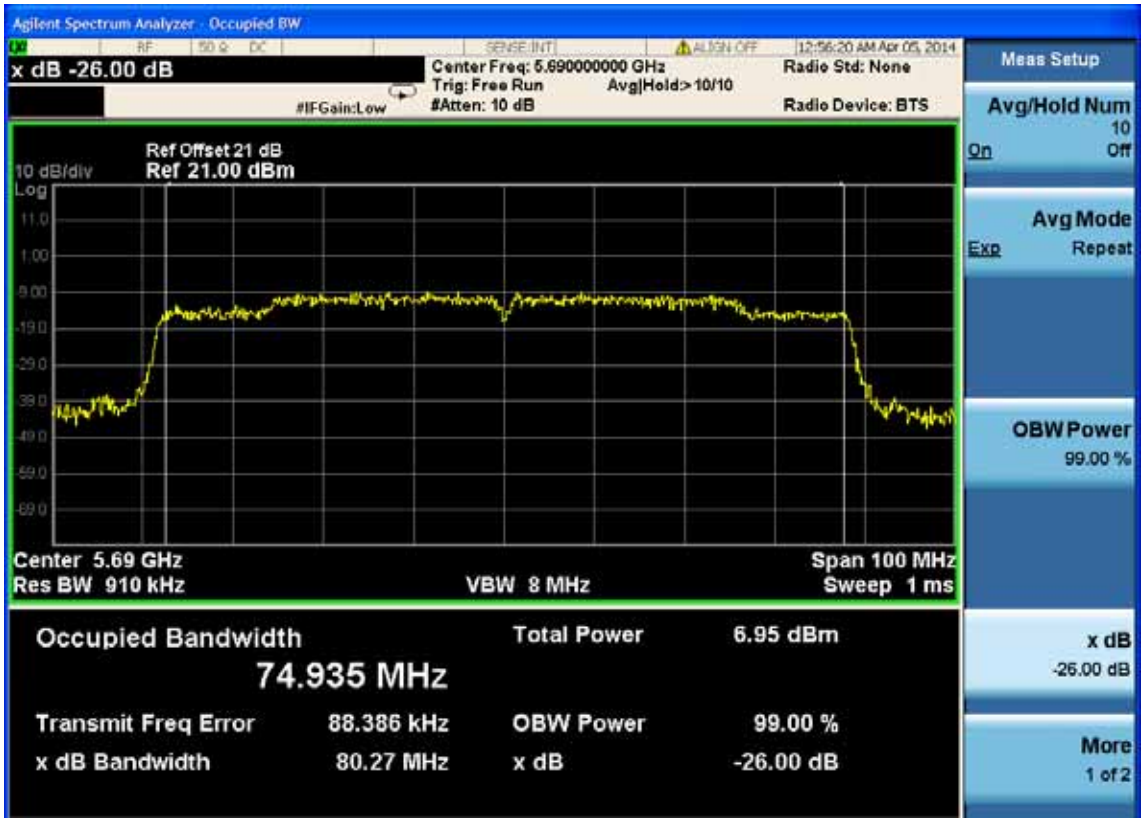



**IEEE802.11ac VHT80**

5530MHz

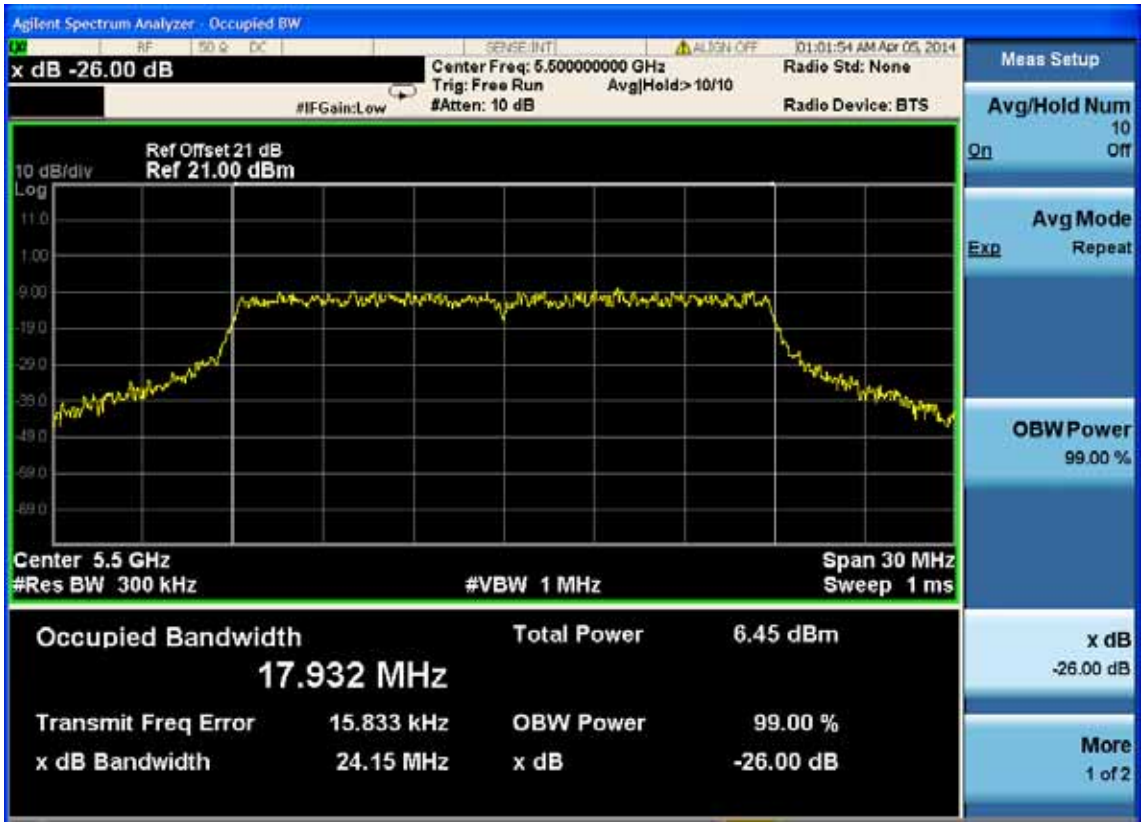


5690MHz

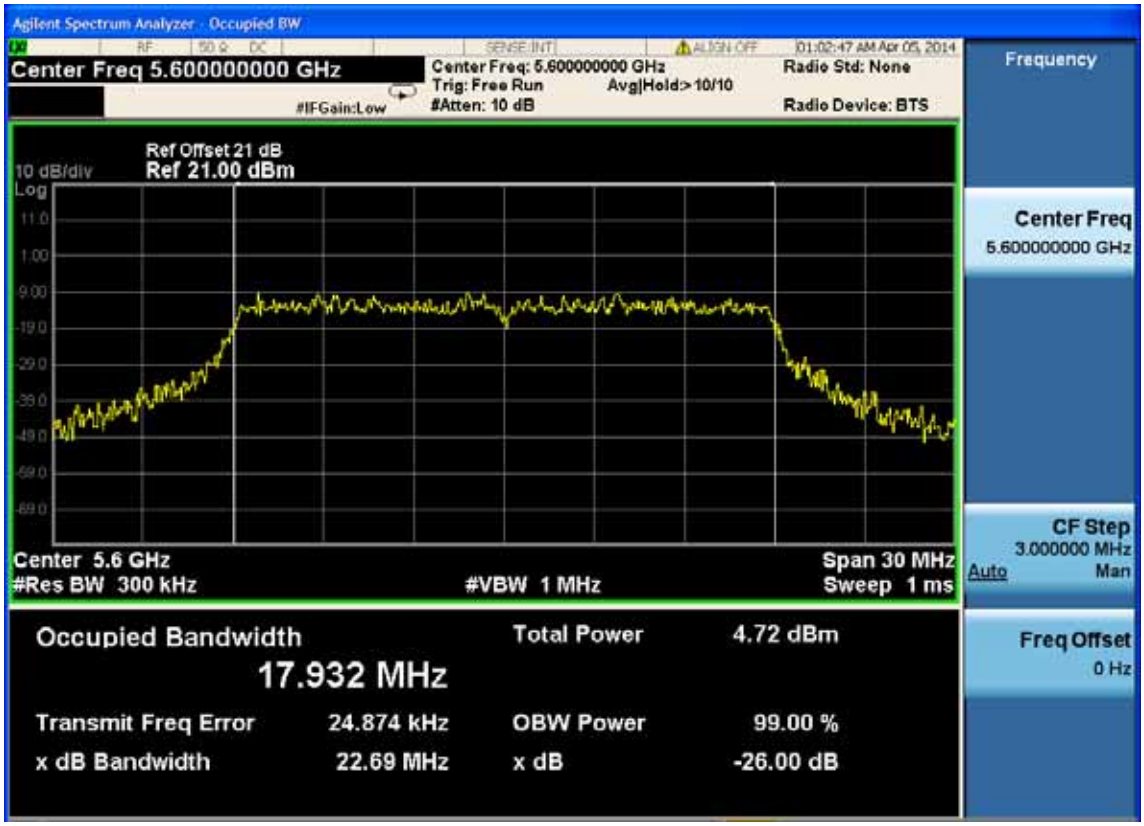



**IEEE802.11nHT20**

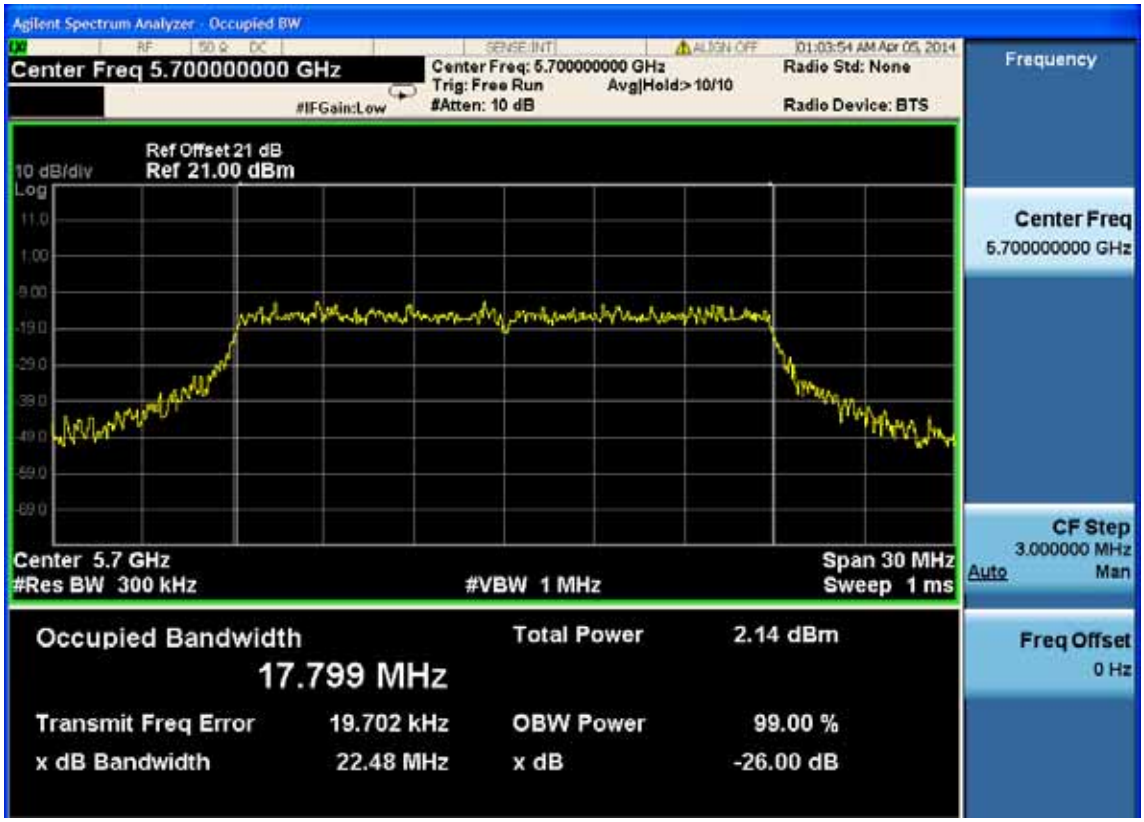
5500MHz



5600MHz

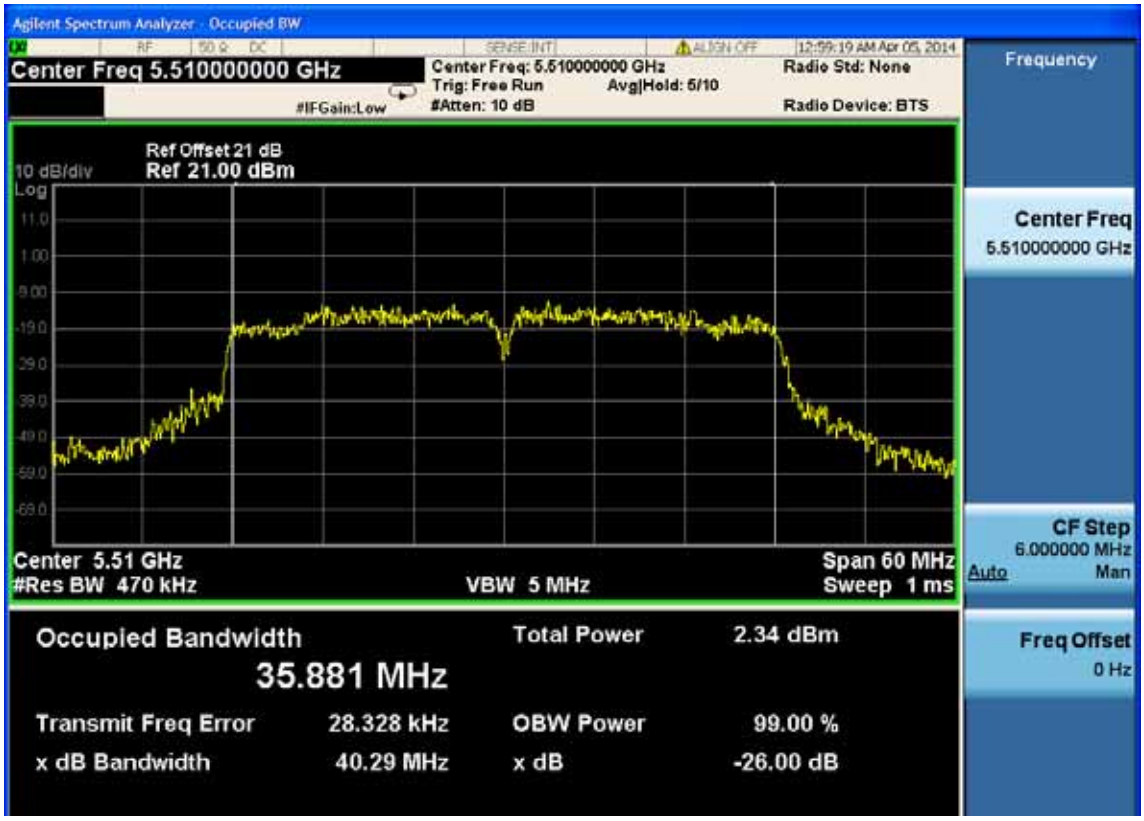



5700MHz



**IEEE802.11nHT40**

5510MHz




5670MHz

# 7. OUTPUT POWER TEST

## 7.1. Test Equipment

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|---|---|---|---|---|---|---|
| 1. | Spectrum | Agilent | E4446A | US44300459 | April 28,14 | 1 Year |
| 2. | Spectrum | Agilent | N9030A | MY51380221 | Oct.31, 13 | 1Year |
| 3. | Power meter | Anritsu | ML2487A | 6K00002472 | April 28,14 | 1Year |
| 4. | Power sensor | Anritsu | MA2491A | 0033005 | April 28,14 | 1Year |
| 5. | Attenuator (20dB) | Agilent | 8491B | MY39262165 | April 28,14 | 1 Year |
| 6 | RF Cable | Hubersuhner | SUCOFLEX102 | 28620/2 | April 28,14 | 1 Year |

## 7.2. Limit

For the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10log B, For the 5250-5350MHz and 5.47-5.725GHz the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250Mw or 11dBm+10 log B. where B is the 26-dB emission bandwidth in MHz, If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

## 7.3. Test Procedure

1. Connected the EUT's antenna port to measure device by 26dB attenuator.

2. For IEEE 802.11a and IEEE802.11n HT20 and 802.11ac VHT20 mode, use a PK power meter which's bandwidth is 20MHz and above 26dB bandwidth of signal to measure out each test modes' PK output power.

3. For IEEE802.11n HT40 and 802.11ac VHT40 & 80 mode, because the signal's bandwidth is about 40MHz and above 20MHz bandwidth of power sensor ML2491A.

Souse the test method described in KBD789033 clause E.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

## 7.4.Test Results

**Band 1: (5150-5250MHz):**

| EUT: AC600 Wireless Dual Band USB Adapter | | |
|---|---|---|
| M/N: T2U | | |
| Test date: 2014-05-22 | Pressure: 101.2±1.0 kpa | Humidity: 52.3±3.0% |
| Tested by: Kevin_Hu | Test site: RF site | Temperature:22.1±0.6 ℃ |

| Cable loss: 1 dB | | Attenuator loss: 20 dB | |
|---|---|---|---|
| Test Mode | Frequency (MHz) | RF Output Power (dBm) | Limit (dBm) |
| 11a | 5180 | 14.65 | 17 |
| | 5200 | 14.53 | 17 |
| | 5240 | 14.46 | 17 |
| 11n HT20 | 5180 | 14.38 | 17 |
| | 5200 | 14.21 | 17 |
| | 5240 | 14.3 | 17 |
| 11n HT40 | 5190 | 14.08 | 17 |
| | 5230 | 14.32 | 17 |
| 11ac VHT20 | 5180 | 14.11 | 17 |
| | 5200 | 14.27 | 17 |
| | 5240 | 14.16 | 17 |
| 11ac VHT40 | 5190 | 13.86 | 17 |
| | 5230 | 14.21 | 17 |
| 11ac VHT80 | 5210 | 13.94 | 17 |
| Conclusion: PASS | | | |

**Band 2: (5250-5350MHz):**

| EUT: AC600 Wireless Dual Band USB Adapter | | |
|---|---|---|
| M/N: T2U | | |
| Test date: 2014-05-22 | Pressure: 101.2±1.0 kpa | Humidity: 52.3±3.0% |
| Tested by: Kevin_Hu | Test site: RF site | Temperature:22.1±0.6 ℃ |

| Cable loss: 1 dB | | Attenuator loss: 20 dB | |
|---|---|---|---|
| Test Mode | Frequency (MHz) | RF Output Power (dBm) | Limit (dBm) |
| 11a | 5260 | 22.95 | 24 |
| | 5300 | 23.11 | 24 |
| | 5320 | 22.45 | 24 |
| 11n HT20 | 5260 | 23.18 | 24 |
| | 5300 | 23.13 | 24 |
| | 5320 | 21.62 | 24 |
| 11n HT40 | 5270 | 22.98 | 24 |
| | 5310 | 21.34 | 24 |
| 11ac VHT20 | 5260 | 23.03 | 24 |
| | 5300 | 23.08 | 24 |
| | 5320 | 21.56 | 24 |
| 11ac VHT40 | 5270 | 23.05 | 24 |
| | 5310 | 21.67 | 24 |
| 11ac VHT80 | 5290 | 20.58 | 24 |
| Conclusion: PASS | | | |

**Band 3: (5470-5725MHz):**

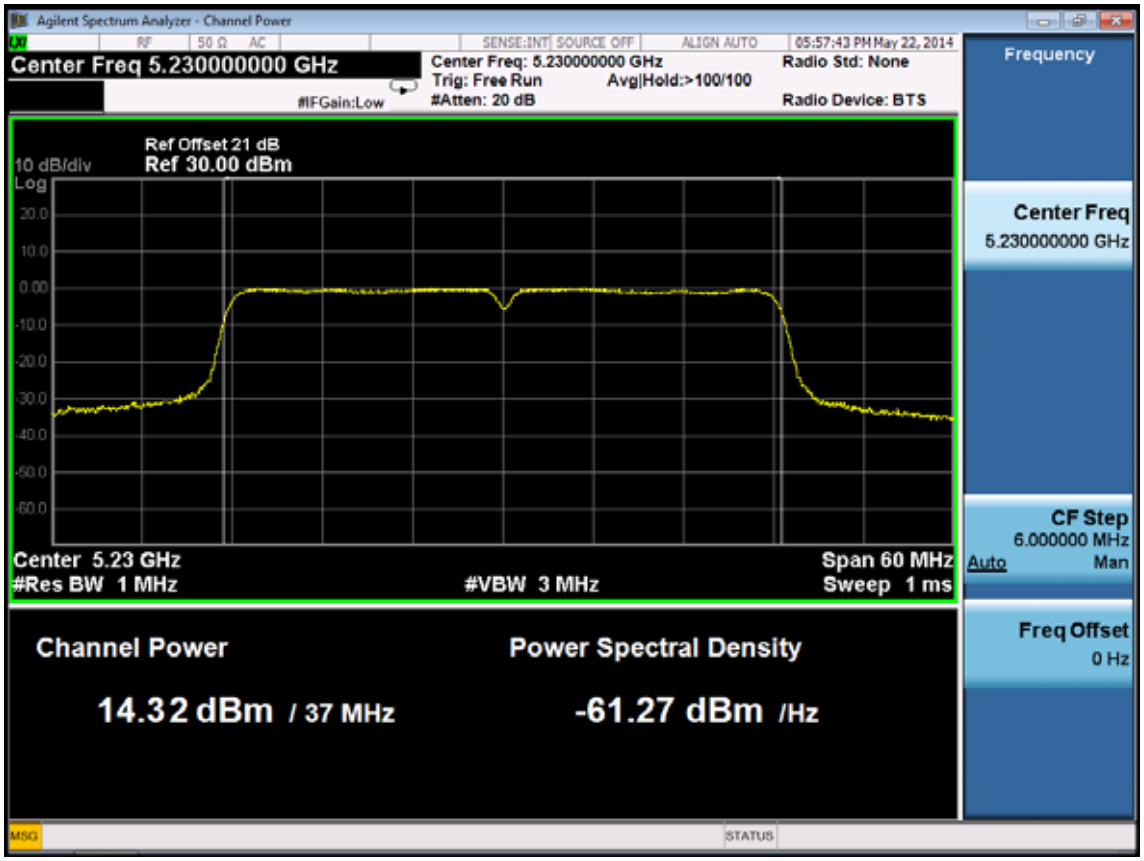
| EUT: AC600 Wireless Dual Band USB Adapter | | |
|---|---|---|
| M/N: T2U | | |
| Test date: 2014-05-22 | Pressure: 101.2±1.0 kpa | Humidity: 52.3±3.0% |
| Tested by: Kevin_Hu | Test site: RF site | Temperature:22.1±0.6 ℃ |

| Cable loss: 1 dB | | Attenuator loss: 20 dB | |
|---|---|---|---|
| Test Mode | Frequency (MHz) | RF Output Power (dBm) | Limit (dBm) |
| 11a | 5500 | 22.66 | 24 |
| | 5600 | 23.18 | 24 |
| | 5700 | 22.94 | 24 |
| 11n HT20 | 5500 | 21.51 | 24 |
| | 5600 | 23.23 | 24 |
| | 5700 | 22.75 | 24 |
| 11n HT40 | 5510 | 20.15 | 24 |
| | 5670 | 22.58 | 24 |
| 11ac VHT20 | 5500 | 21.46 | 24 |
| | 5600 | 23.03 | 24 |
| | 5720 | 23.25 | 24 |
| 11ac VHT40 | 5510 | 20.12 | 24 |
| | 5710 | 23.19 | 24 |
| 11ac VHT80 | 5530 | 20.8 | 24 |
| | 5690 | 23.48 | 24 |
| Conclusion: PASS | | | |

**Band 1: (5150-5250 MHz):**
**IEEE 802.11ac VHT40**

**IEEE 802.11ac VHT40**

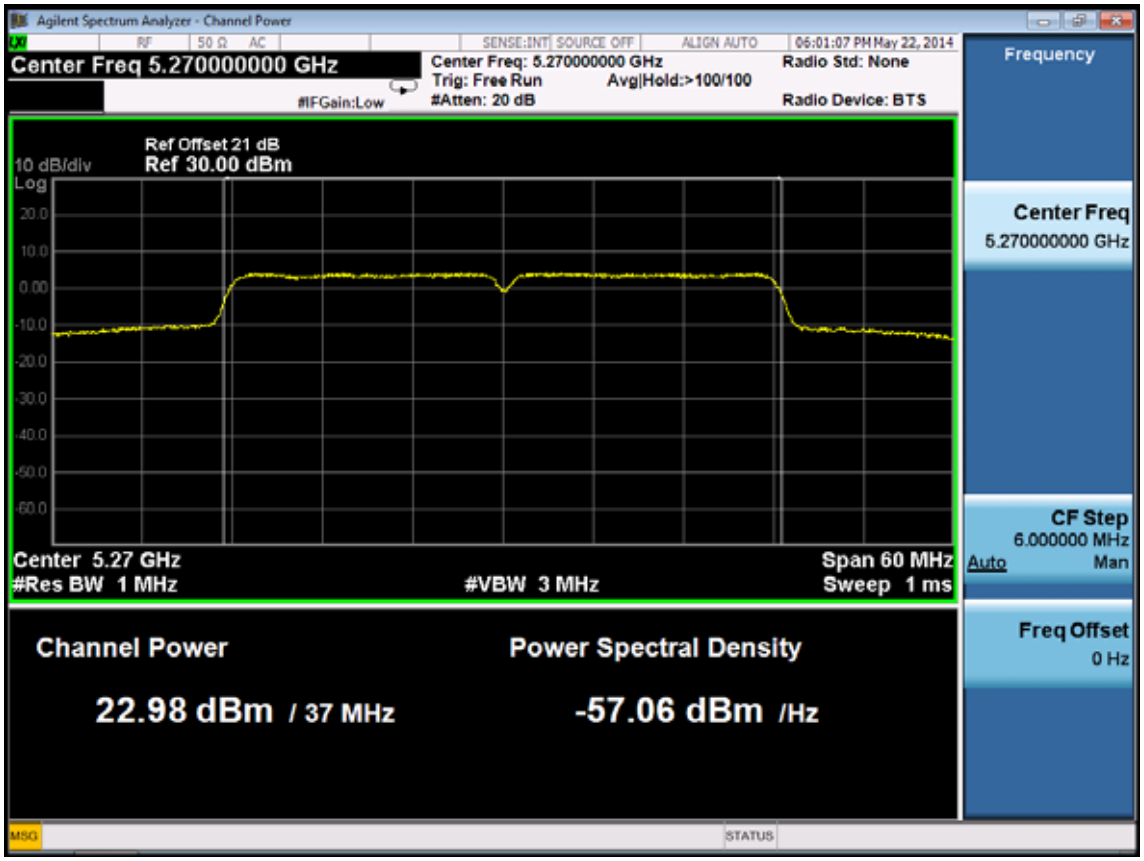
**IEEE 802.11n HT40**




**Band 2: (5250-5350MHz)**
**IEEE 802.11ac VHT40**

**IEEE 802.11ac VHT80**

**IEEE 802.11n HT40**



**Band 3: (5470-5725MHz):**
**IEEE 802.11ac VHT40**

**IEEE 802.11ac VHT80**

**IEEE 802.11n HT40**

# 8. POWER SPECTRAL DENSITY TEST

## 8.1. Test Equipment

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|---|---|---|---|---|---|---|
| 1. | PXA Signal Analyzer | Agilent | N9030A | MY51380221 | Oct.31, 13 | 1 Year |
| 2. | Amp | HP | 8449B | 3008A08495 | May.08, 13 | 1 Year |
| 3. | Antenna | EMCO | 3115 | 9607-4877 | Aug.28, 13 | 1Year |
| 4. | HF Cable | Hubersuhne | Sucoflex104 | - | May.08, 13 | 1 Year |

## 8.2. Limit

For the band 5.15-5.25 GHz, the peak power spectral density shall not exceed 4 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. 5250-5350MHz, 5470-5725MHz shall not exceed 11dBm in any 1-MHz band.

## 8.3. Test Procedure

The transmitter output was connected to a spectrum analyzer. Power density was measured by spectrum analyzer with 1MHz RBW and 3MHz VBW, Detector: RMS Mode.

## 8.4.Test Results

**Band 1: (5150-5250MHz):**

| | | |
|---|---|---|
| EUT: AC600 Wireless Dual Band USB Adapter | | |
| M/N: T2U | | |
| Test date: 2014-05-17 | Pressure: 101.1±1.0 kpa | Humidity: 52.2±3.0% |
| Tested by: Kevin_Hu | Test site: RF Site | Temperature：22.7±0.6 ℃ |

| Cable loss: 1 dB | | Attenuator loss: 20 dB | |
|---|---|---|---|
| Test Mode | Frequency（MHz） | (dBm/MHz) | Limit（dBm/MHz） |
| 11a | 5180 | 3.552 | 4 |
| | 5200 | 3.414 | 4 |
| | 5240 | 3.367 | 4 |
| 11n HT20 | 5180 | 3.292 | 4 |
| | 5200 | 3.490 | 4 |
| | 5240 | 3.567 | 4 |
| 11n HT40 | 5190 | 0.081 | 4 |
| | 5230 | 0.235 | 4 |
| 11ac VHT20 | 5180 | 3.369 | 4 |
| | 5200 | 3.406 | 4 |
| | 5240 | 3.528 | 4 |
| 11ac VHT40 | 5190 | -0.569 | 4 |
| | 5230 | -0.105 | 4 |
| 11ac VHT80 | 5210 | -3.338 | 4 |
| Conclusion: PASS | | | |

**Band 2: (5250-5350MHz):**

| | | |
|---|---|---|
| EUT: AC600 Wireless Dual Band USB Adapter | | |
| M/N: T2U | | |
| Test date: 2014-05-17 | Pressure: 101.1±1.0 kpa | Humidity: 52.2±3.0% |
| Tested by: Kevin_Hu | Test site: RF Site | Temperature：22.7±0.6 ℃ |

| Cable loss: 1 dB | | Attenuator loss: 20 dB | |
|---|---|---|---|
| Test Mode | Frequency（MHz） | (dBm/MHz) | Limit（dBm/MHz） |
| 11a | 5260 | 0.123 | 11 |
| | 5300 | 1.216 | 11 |
| | 5320 | -0.927 | 11 |
| 11n HT20 | 5260 | -2.906 | 11 |
| | 5300 | -1.113 | 11 |
| | 5320 | -4.133 | 11 |
| 11n HT40 | 5270 | -7.140 | 11 |
| | 5310 | -5.728 | 11 |
| 11ac VHT20 | 5260 | -2.692 | 11 |
| | 5300 | -1.702 | 11 |
| | 5320 | -2.704 | 11 |
| 11ac VHT40 | 5270 | -5.722 | 11 |
| | 5310 | -4.619 | 11 |
| 11ac VHT80 | 5290 | -7.120 | 11 |
| Conclusion: PASS | | | |

**Band 3: (5470-5725MHz):**

| | | |
|---|---|---|
| EUT: AC600 Wireless Dual Band USB Adapter | | |
| M/N: T2U | | |
| Test date: 2014-05-17 | Pressure: 101.1±1.0 kpa | Humidity: 52.2±3.0% |
| Tested by: Kevin_Hu | Test site: RF Site | Temperature：22.7±0.6 ℃ |

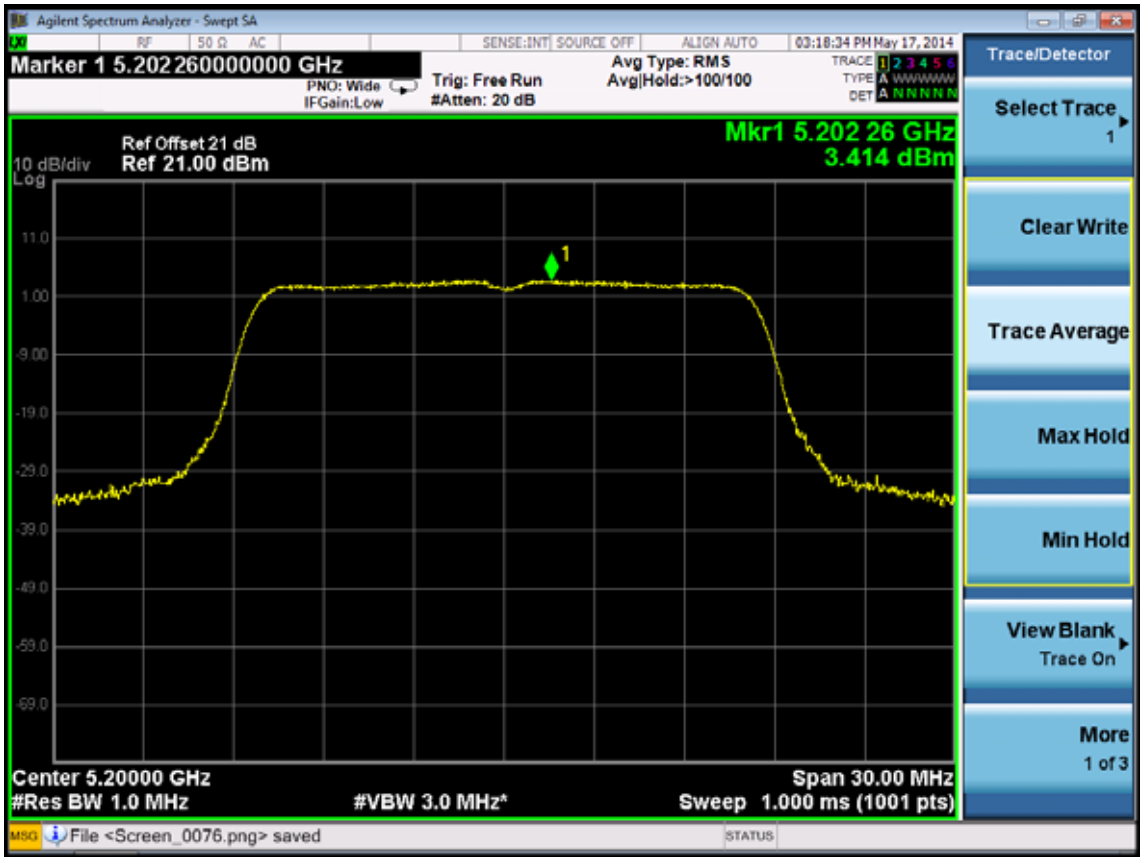
| Cable loss: 1 dB | | Attenuator loss: 20 dB | |
|---|---|---|---|
| Test Mode | Frequency（MHz） | (dBm/MHz) | Limit（dBm/MHz） |
| 11a | 5500 | -1.163 | 11 |
| | 5600 | 0.371 | 11 |
| | 5700 | -2.644 | 11 |
| 11n HT20 | 5500 | -1.979 | 11 |
| | 5600 | -1.373 | 11 |
| | 5700 | -5.139 | 11 |
| 11n HT40 | 5510 | -6.375 | 11 |
| | 5670 | -8.532 | 11 |
| 11ac VHT20 | 5500 | -1.300 | 11 |
| | 5600 | -3.477 | 11 |
| | 5720 | -2.765 | 11 |
| 11ac VHT40 | 5510 | -6.873 | 11 |
| | 5710 | -7.151 | 11 |
| 11ac VHT80 | 5530 | -6.064 | 11 |
| | 5690 | -8.063 | 11 |
| Conclusion: PASS | | | |

**Band 1: (5150-5250MHz):**

**IEEE802.11a**

5180MHz

5200MHz



5240MHz

**IEEE802.11ac VHT20**

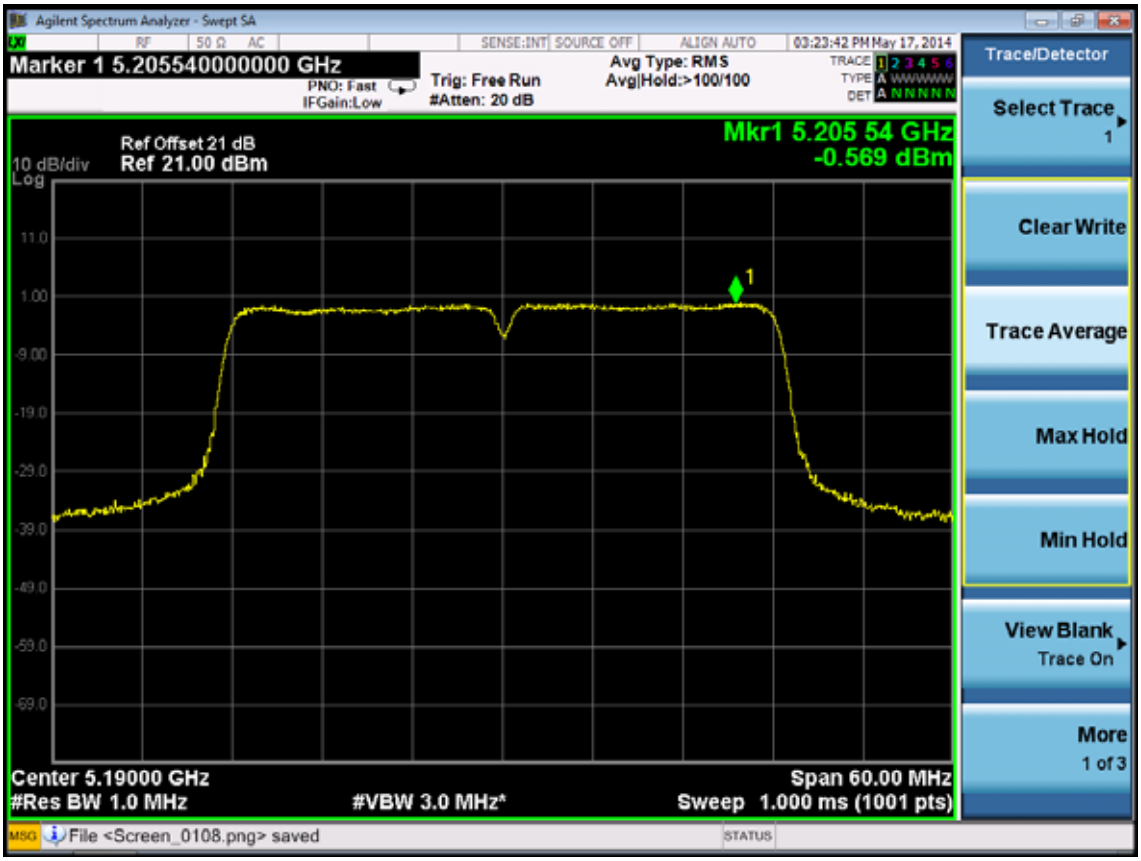
5180MHz

5200MHz

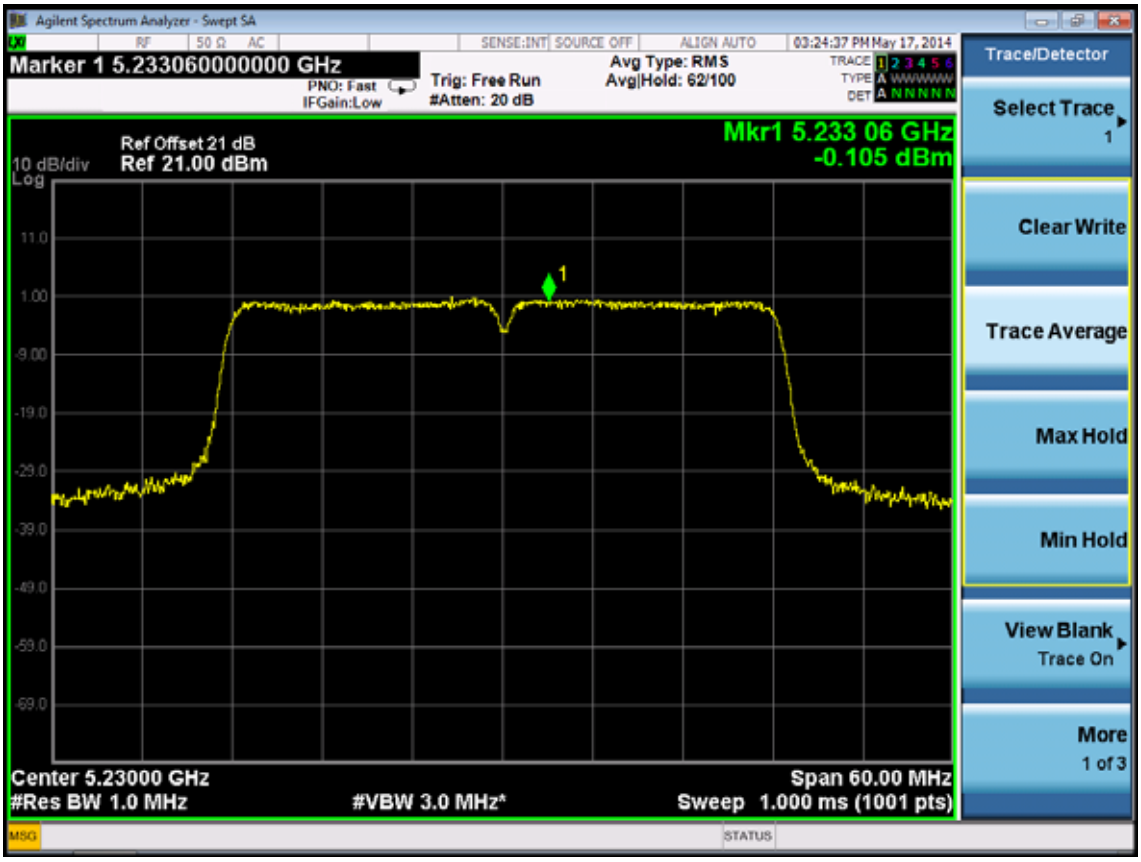
5240MHz

**IEEE802.11ac VHT40**

5190MHz




5230MHz

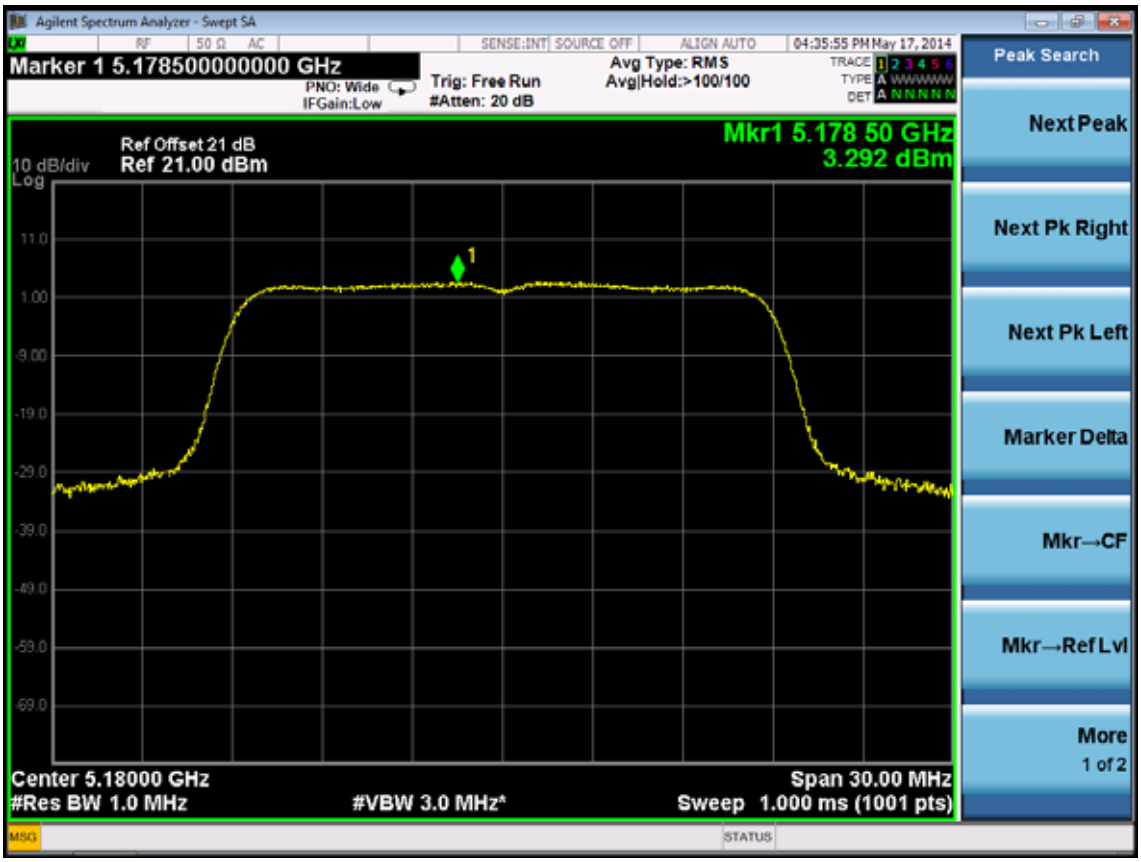


**IEEE802.11ac VHT80**

5210MHz

**IEEE802.11nHT20**

5180MHz

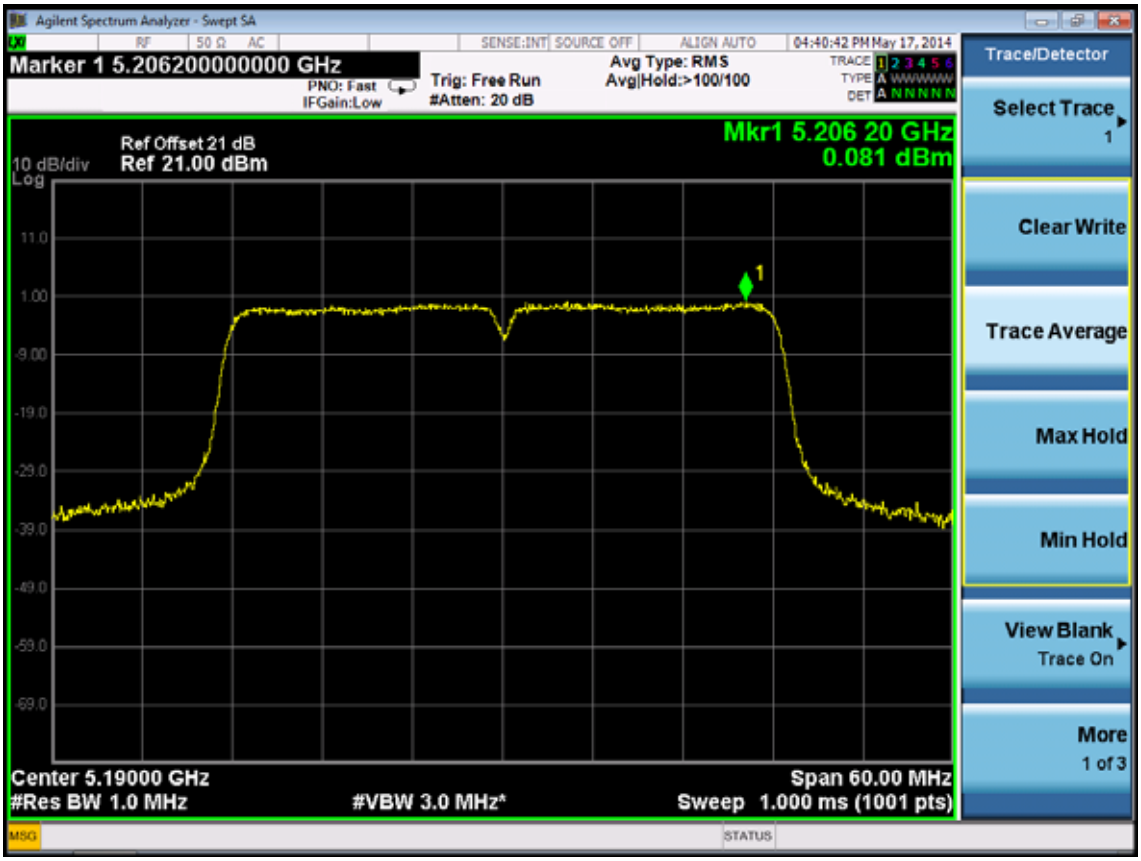


5200MHz

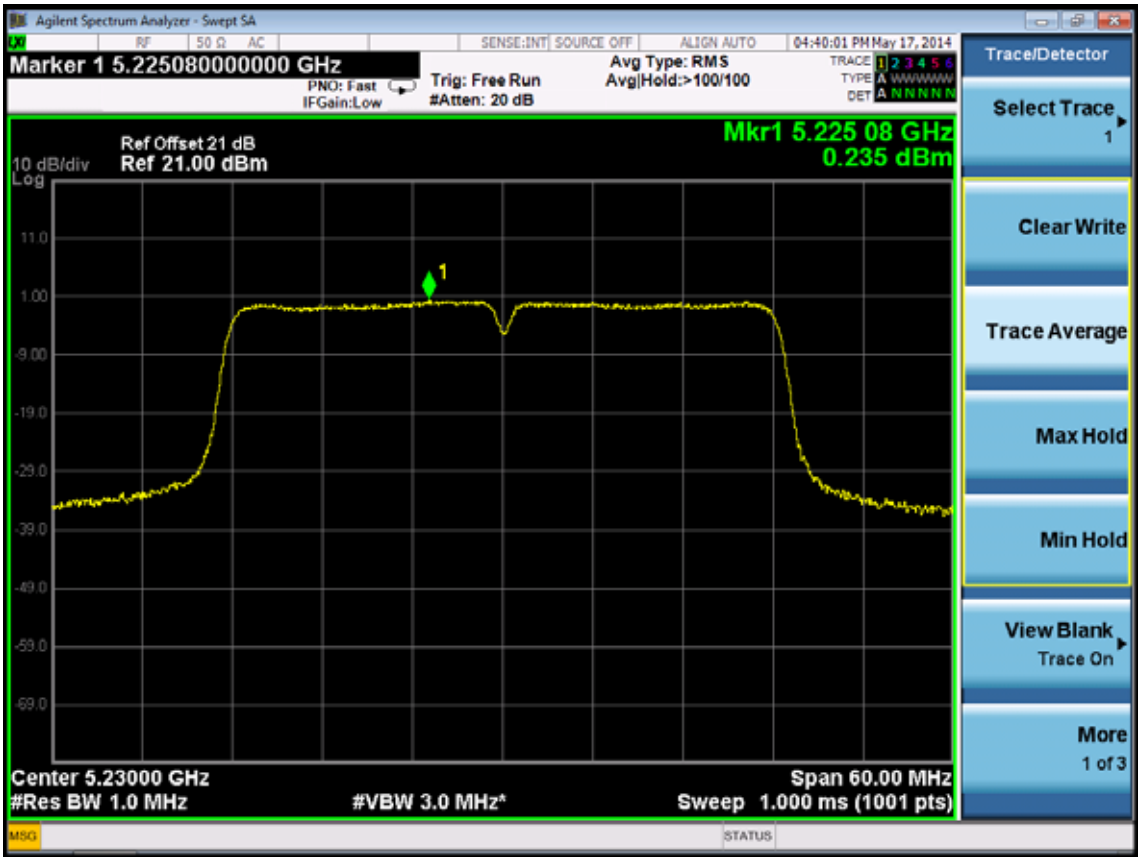
5240MHz

**IEEE802.11nHT40**

5190MHz



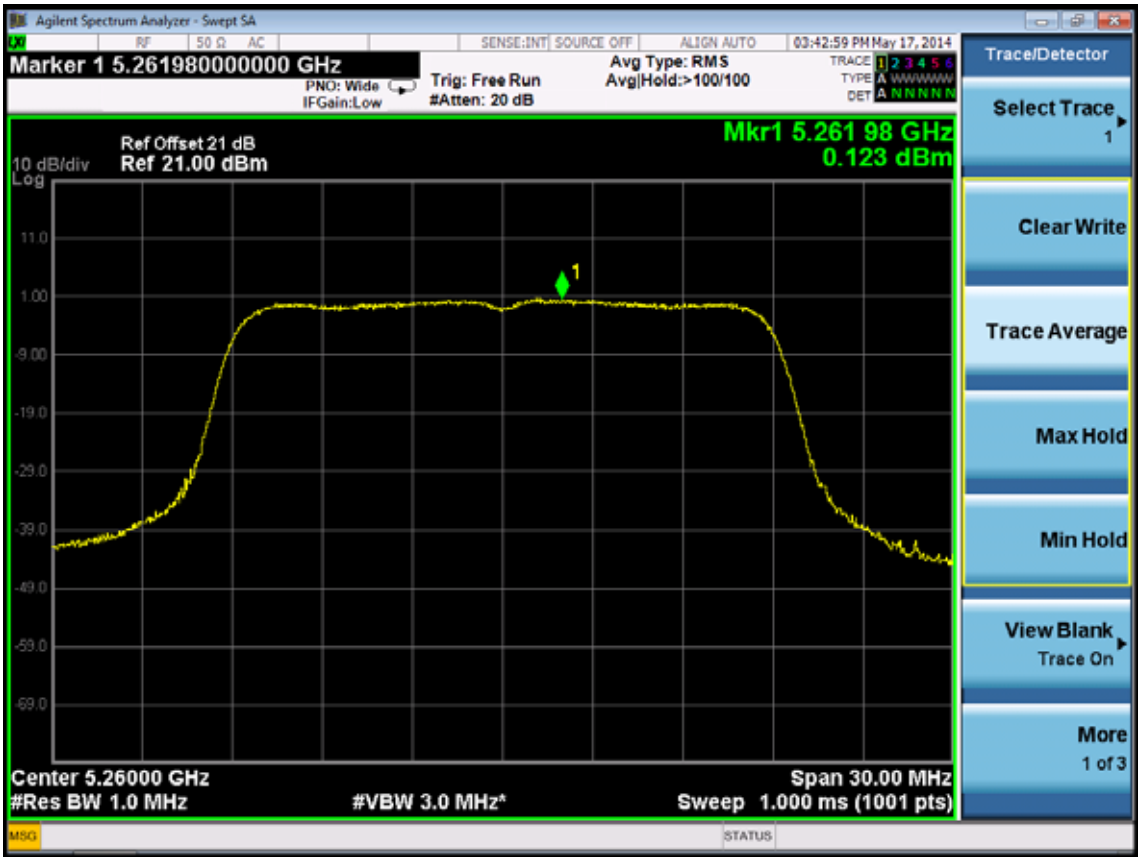

5230MHz



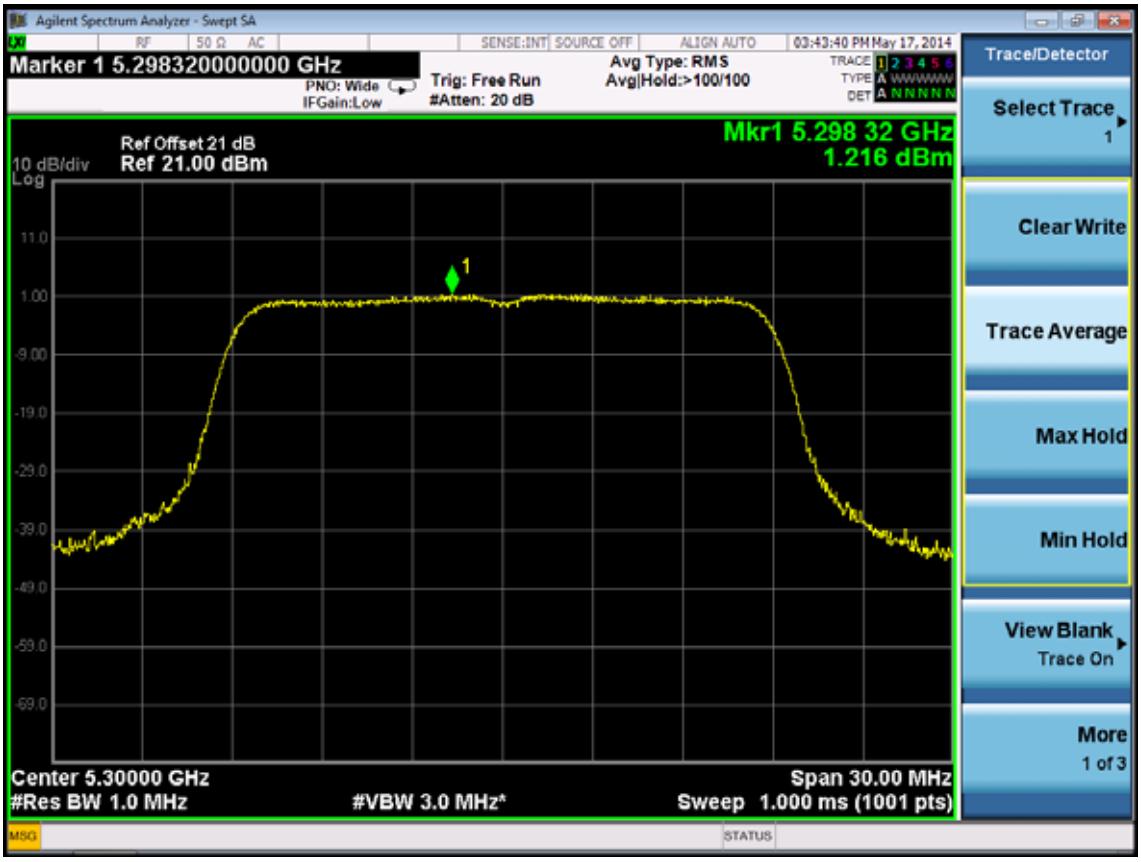
**Band 2: (5250-5350MHz):**

**IEEE802.11a**

5260MHz




5300MHz



5320MHz

**IEEE802.11ac VHT20**

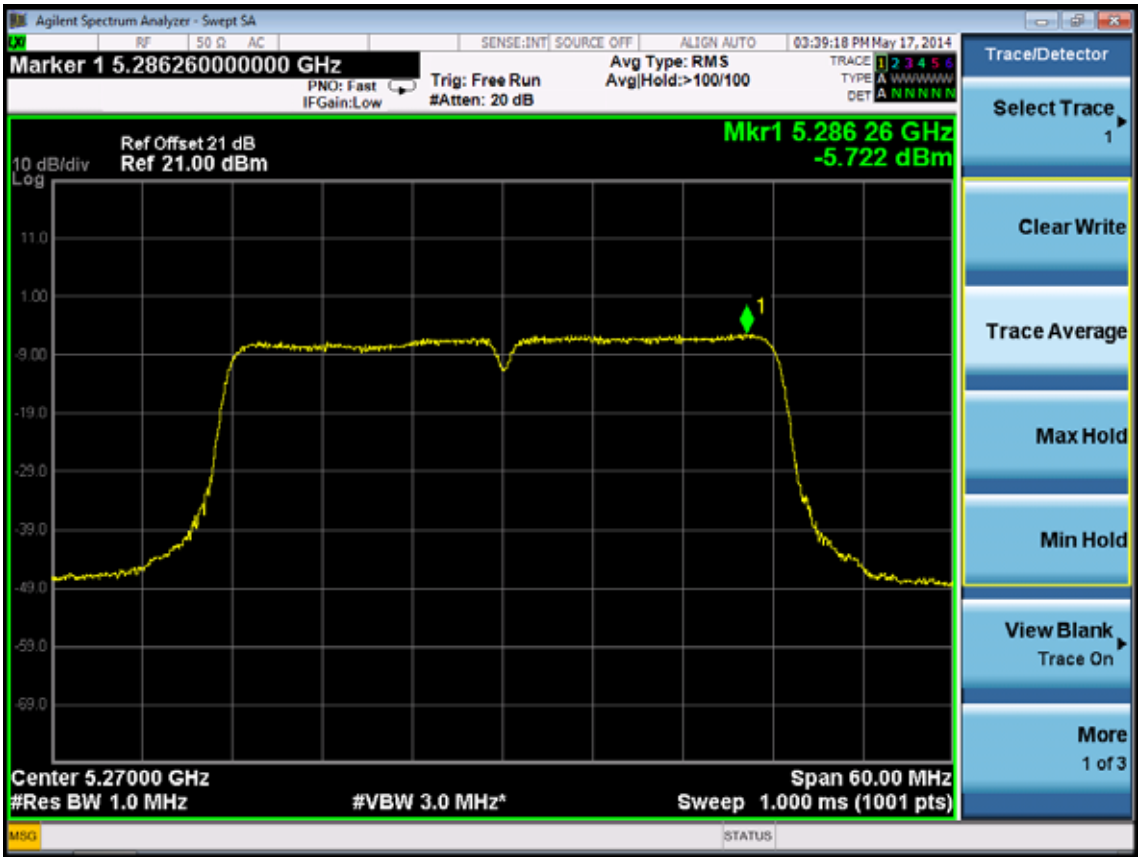
5260MHz

5300MHz

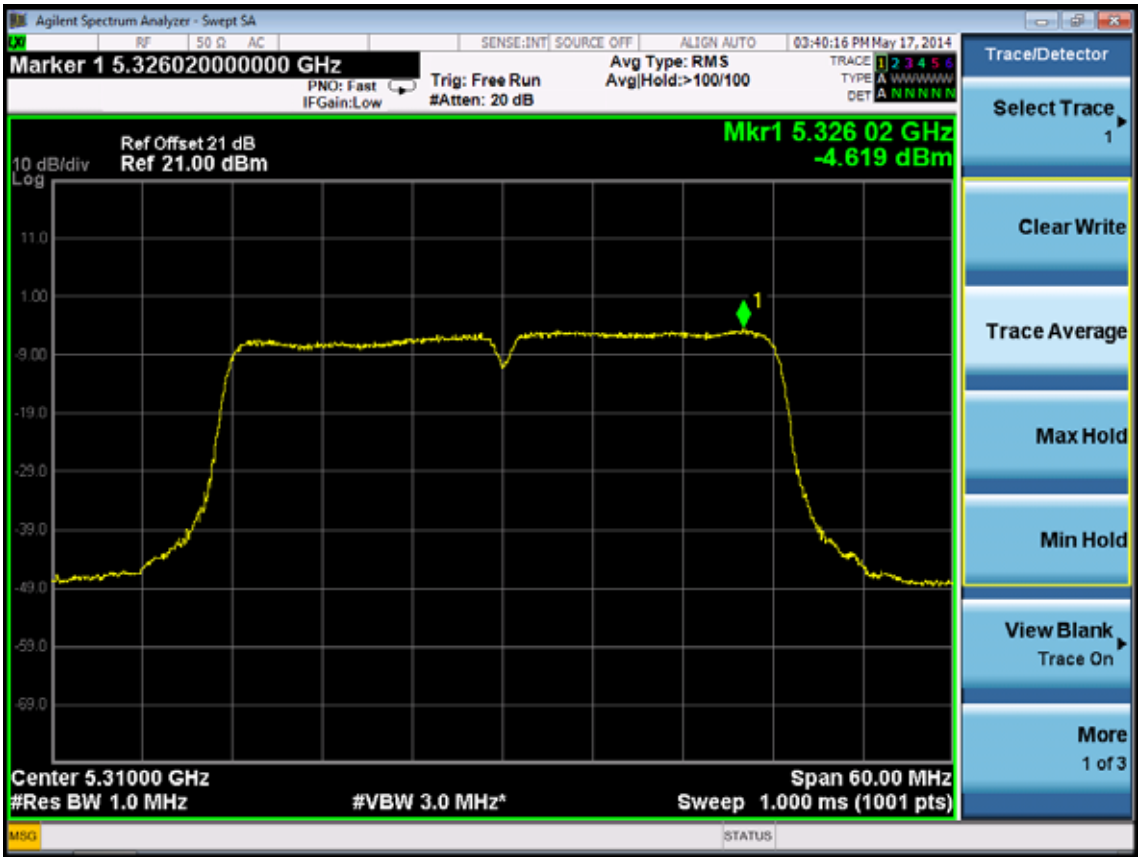
5320MHz

**IEEE802.11ac VHT40**

5270MHz




5310MHz

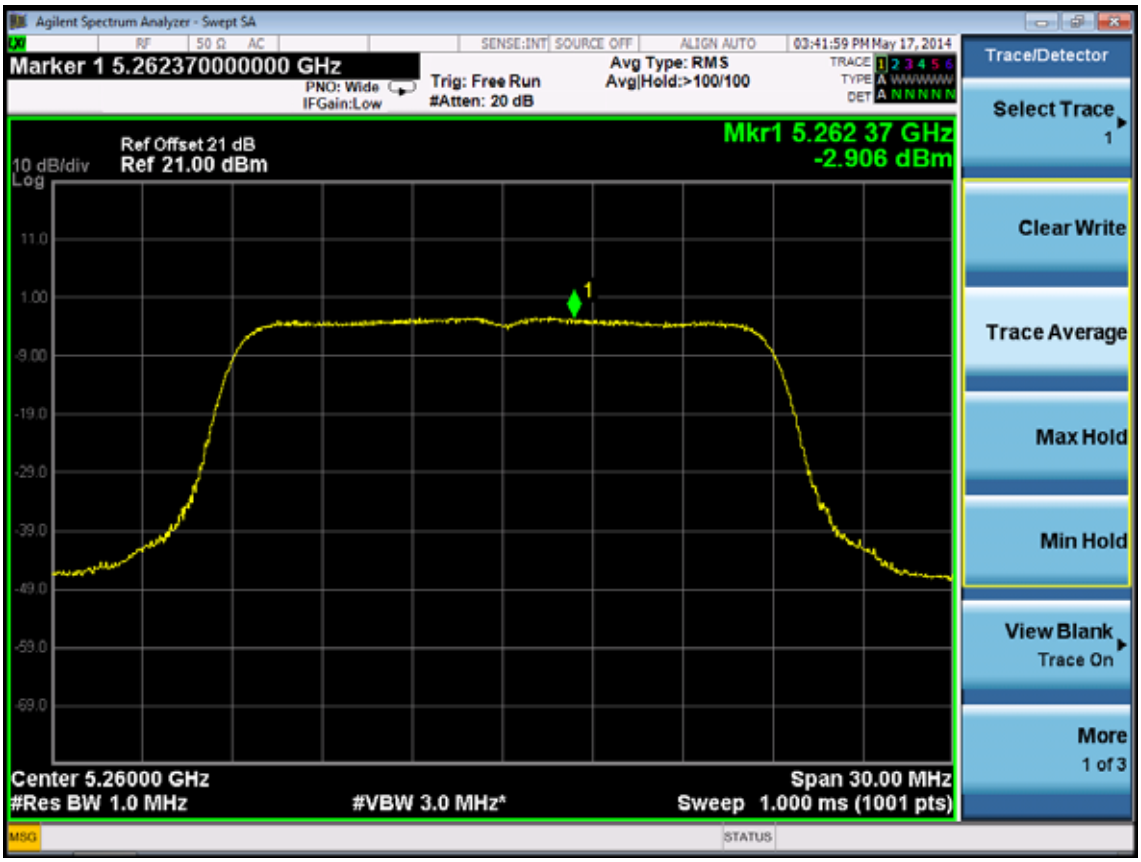


**IEEE802.11ac VHT80**

5290MHz

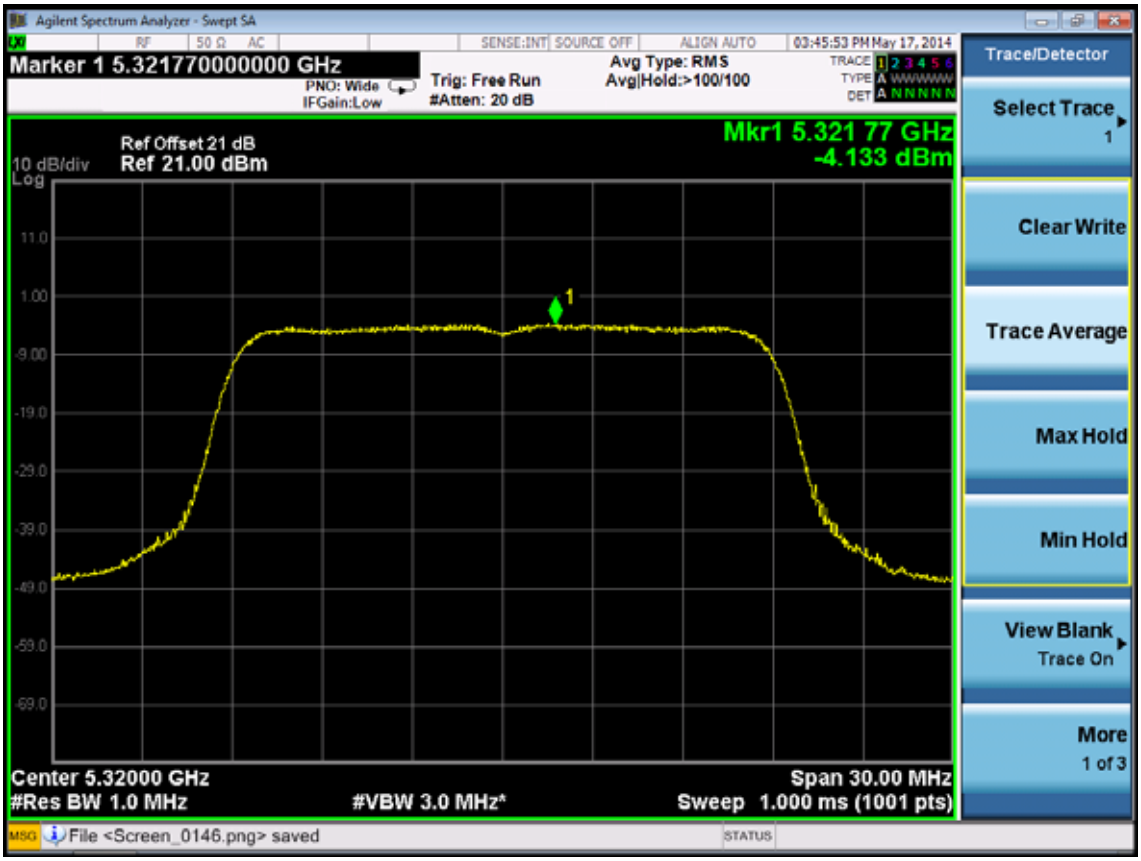
**IEEE802.11nHT20**

5260MHz



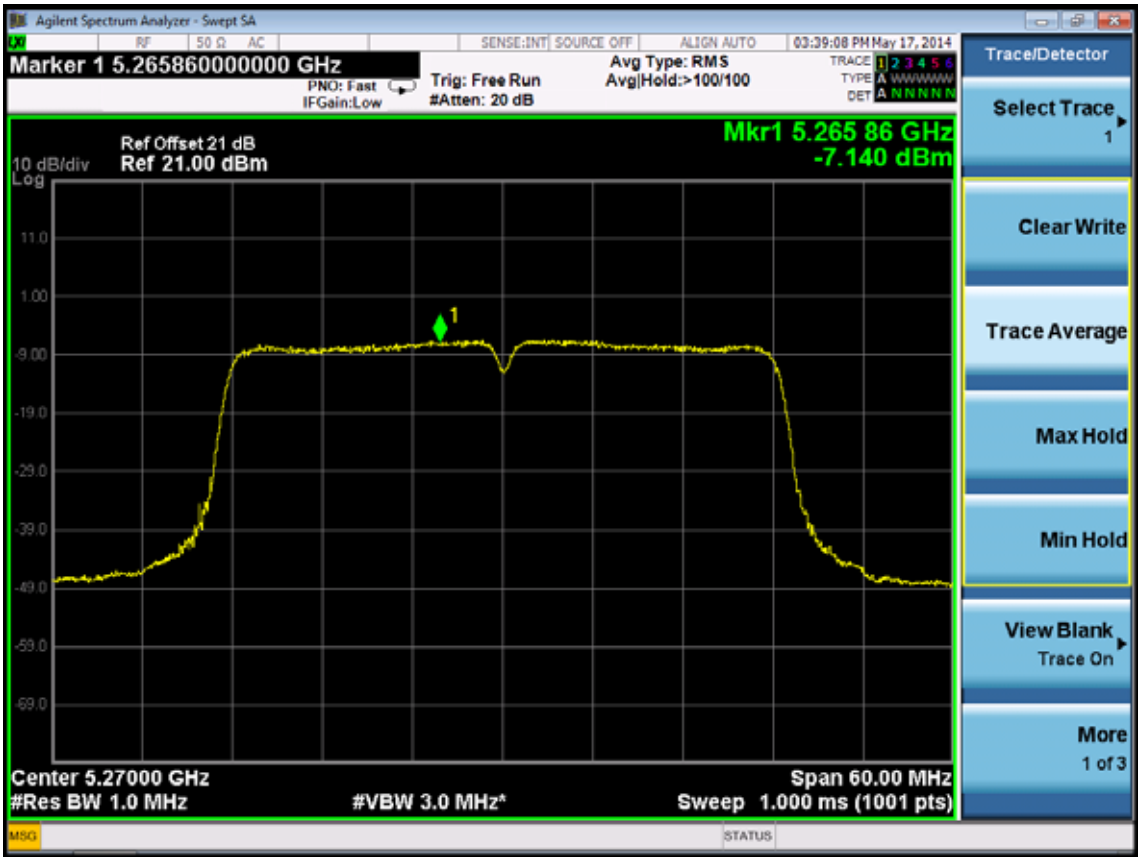
5300MHz

5320MHz



**IEEE802.11nHT40**

5270MHz




5310MHz