

## 802.11n-HT40 (Non-DFS)

Low Channel (5 190 MHz)



High Channel (5 230 MHz)



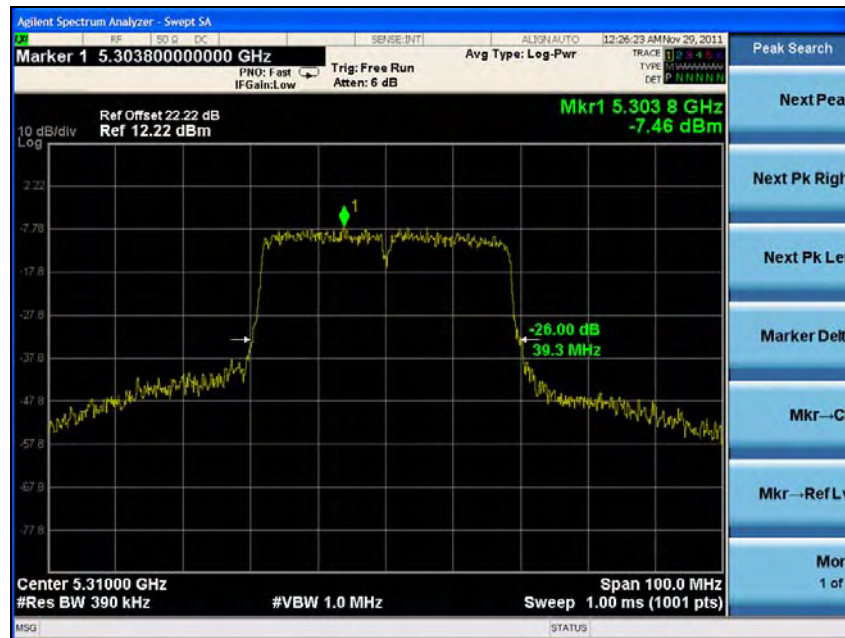
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## 802.11n-HT40 (DFS)

### Low Channel (5 270 MHz)



### High Channel (5 310 MHz)



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## 802.11n-HT40 (DFS)

### Low Channel (5 510 MHz)



### High Channel (5 670 MHz)



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**ANT1**

**802.11a (Non-DFS)**

Low Channel (5 180 MHz)



Middle Channel (5 220 MHz)



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## High Channel (5 240 MHz)



## 802.11a (DFS)

## Low Channel (5 260 MHz)



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Middle Channel (5 300 MHz)



High Channel (5 320 MHz)



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## 802.11a (DFS)

### Low Channel (5 500 MHz)



### Middle Channel (5 600 MHz)



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### High Channel (5 700 MHz)



### 802.11n-HT20 (Non-DFS)

### Low Channel (5 180 MHz)



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Middle Channel (5 220 MHz)



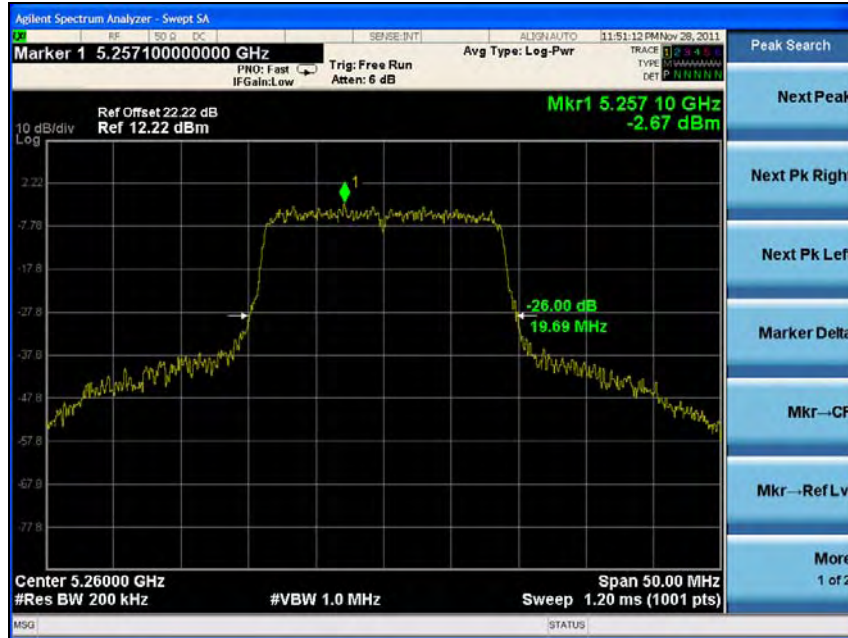
High Channel (5 240 MHz)



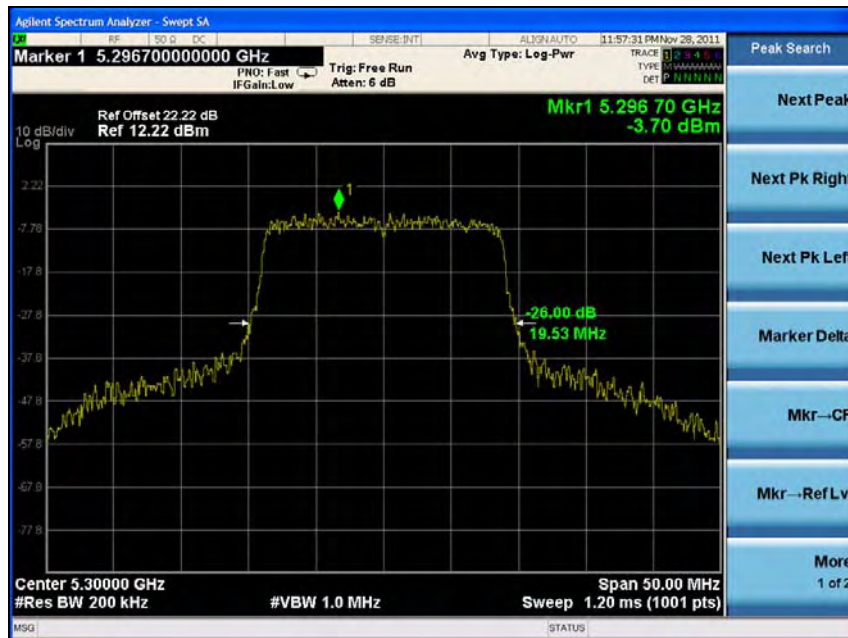
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## 802.11n-HT20 (DFS)

### Low Channel (5 260 MHz)



### Middle Channel (5 300 MHz)



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## High Channel (5 320 MHz)



## 802.11n-HT20 (DFS)

## Low Channel (5 500 MHz)



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Middle Channel (5 600 MHz)



High Channel (5 700 MHz)



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## 802.11n-HT40 (Non-DFS)

### Low Channel (5 190 MHz)



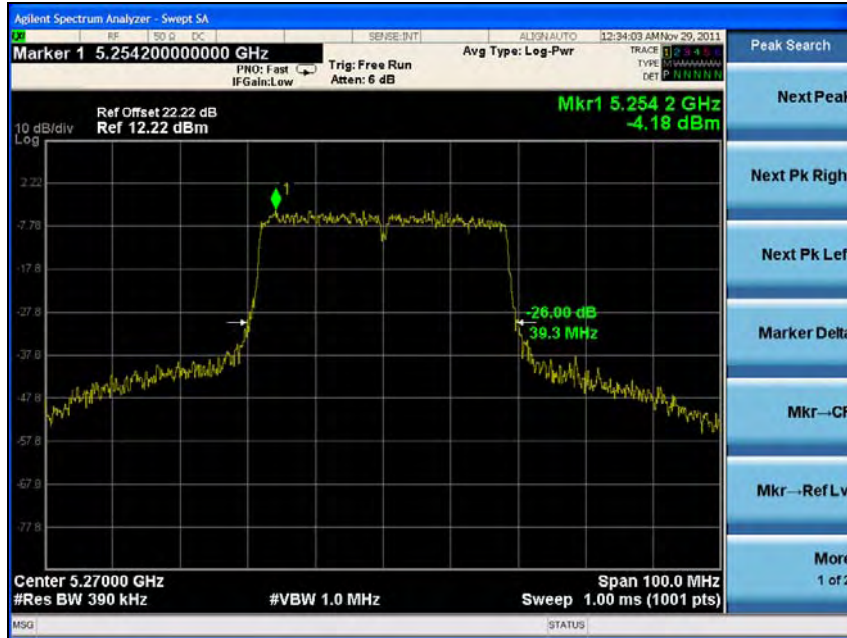
### High Channel (5 230 MHz)



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## 802.11n-HT40 (DFS)

### Low Channel (5 270 MHz)



### High Channel (5 310 MHz)



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## 802.11n-HT40 (DFS)

### Low Channel (5 510 MHz)



### High Channel (5 670 MHz)



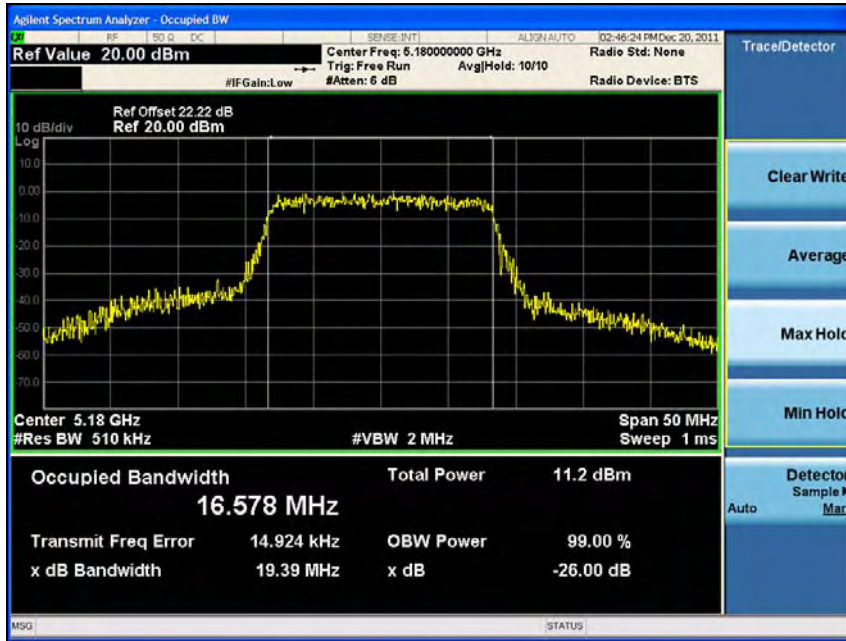
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## 99% Occupied Bandwidth

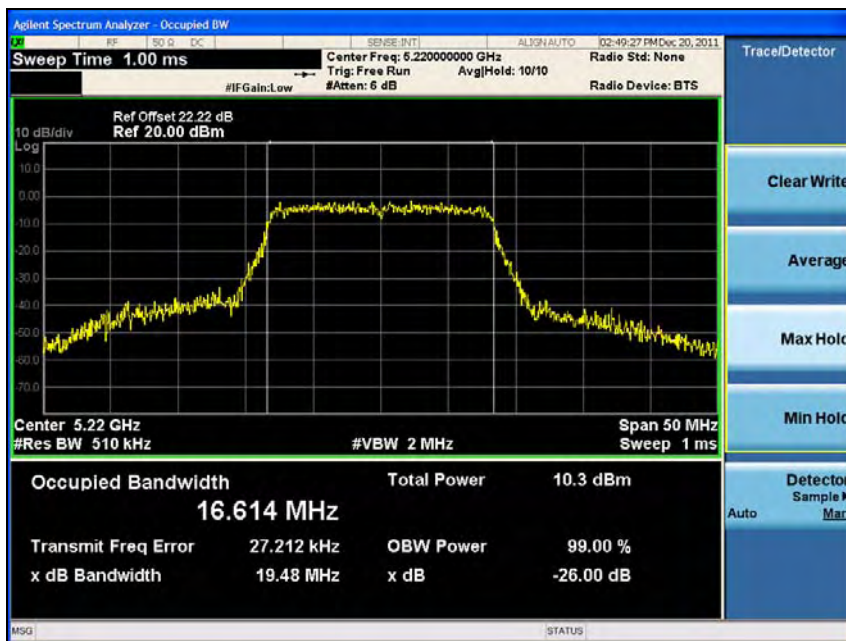
ANT0

802.11a (Non-DFS)

Low Channel (5 180 MHz)



Middle Channel (5 220 MHz)



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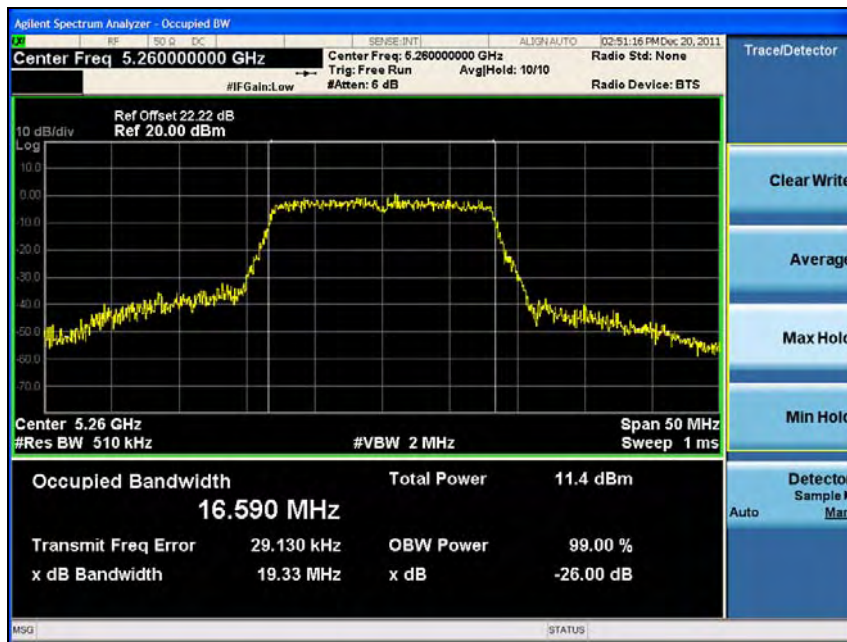


High Channel (5 240 MHz)



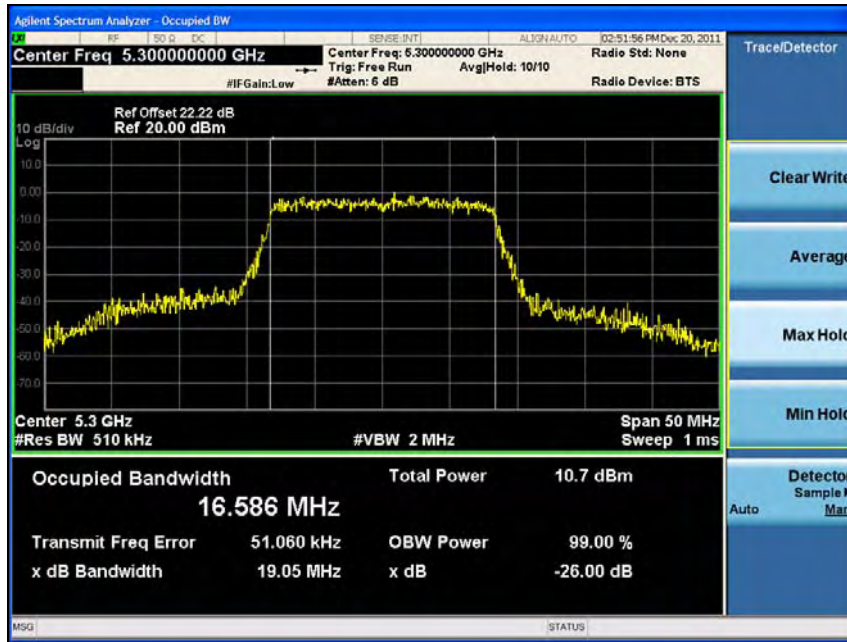
802.11a (DFS)

Low Channel (5 260 MHz)



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Middle Channel (5 300 MHz)



High Channel (5 320 MHz)



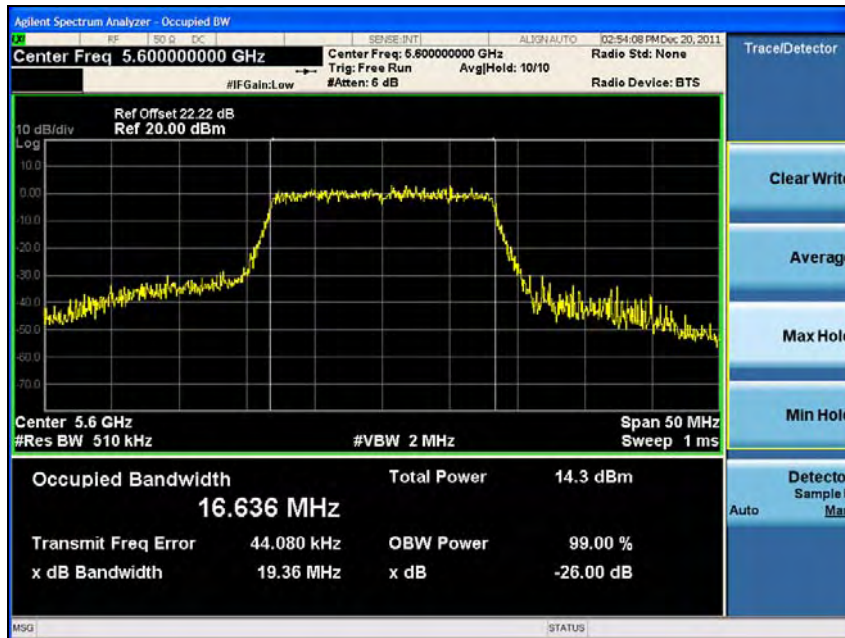
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## 802.11a (DFS)

### Low Channel (5 500 MHz)

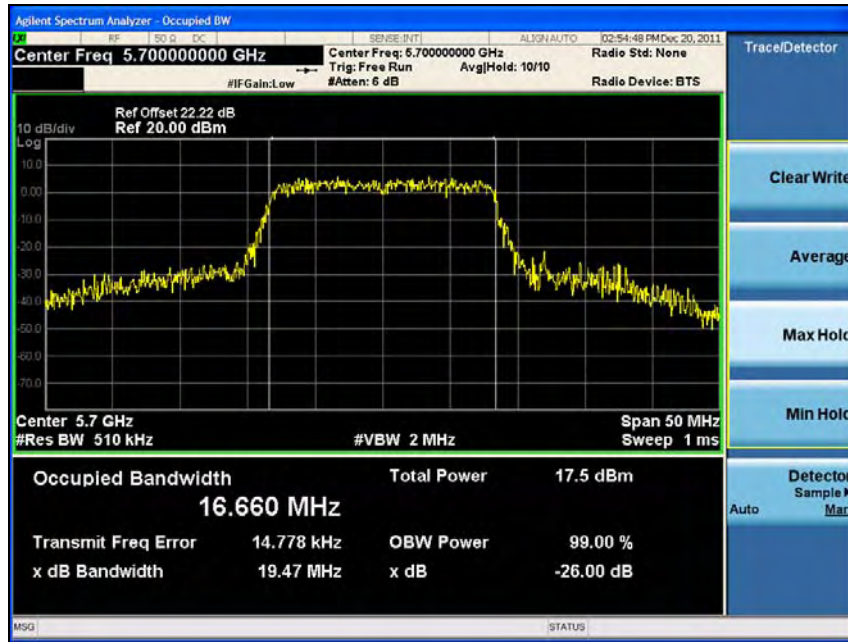


### Middle Channel (5 600 MHz)



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High Channel (5 700 MHz)



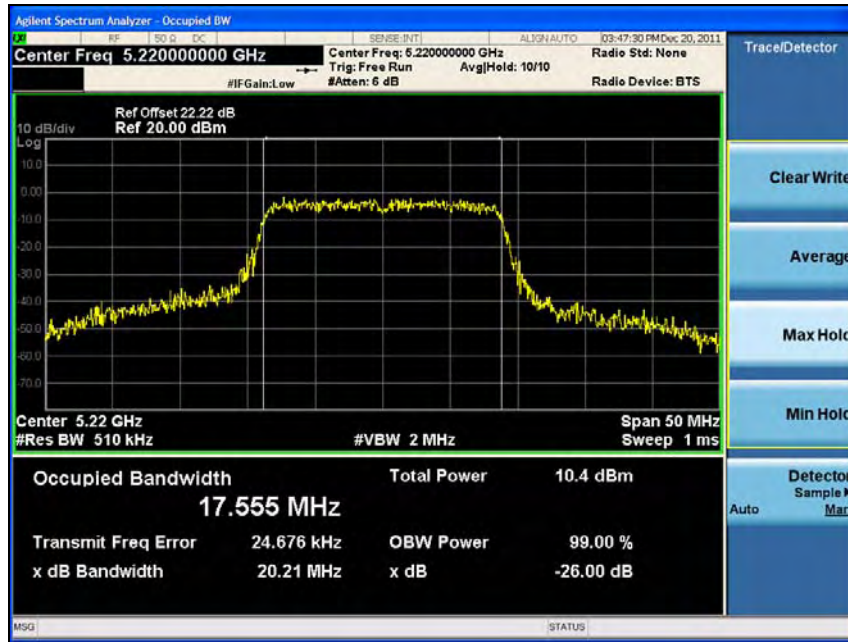
802.11n-HT20 (Non-DFS)

Low Channel (5 180 MHz)



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Middle Channel (5 220 MHz)



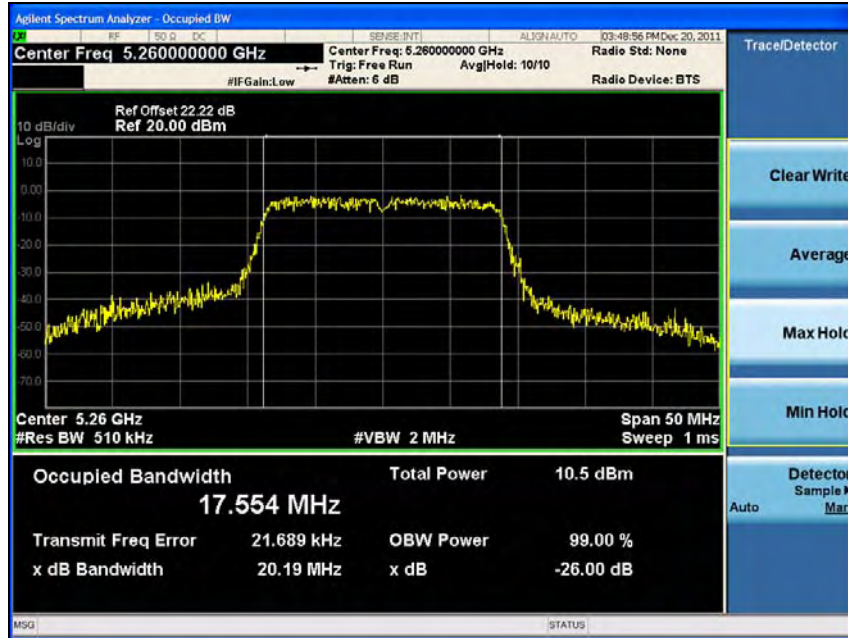
High Channel (5 240 MHz)



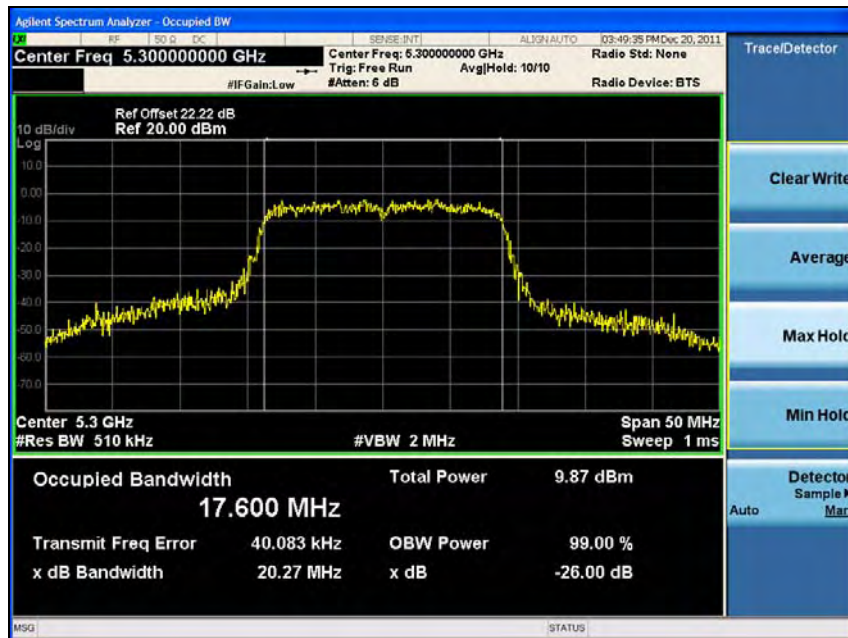
The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report cannot be reproduced, except in full, without prior written permission of the Company.

## 802.11n-HT20 (DFS)

### Low Channel (5 260 MHz)

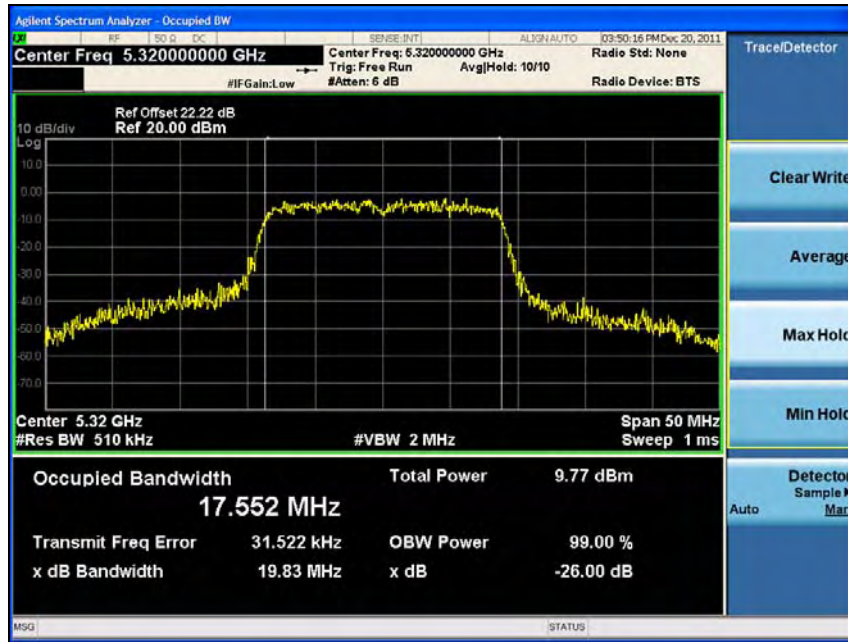


### Middle Channel (5 300 MHz)



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High Channel (5 320 MHz)



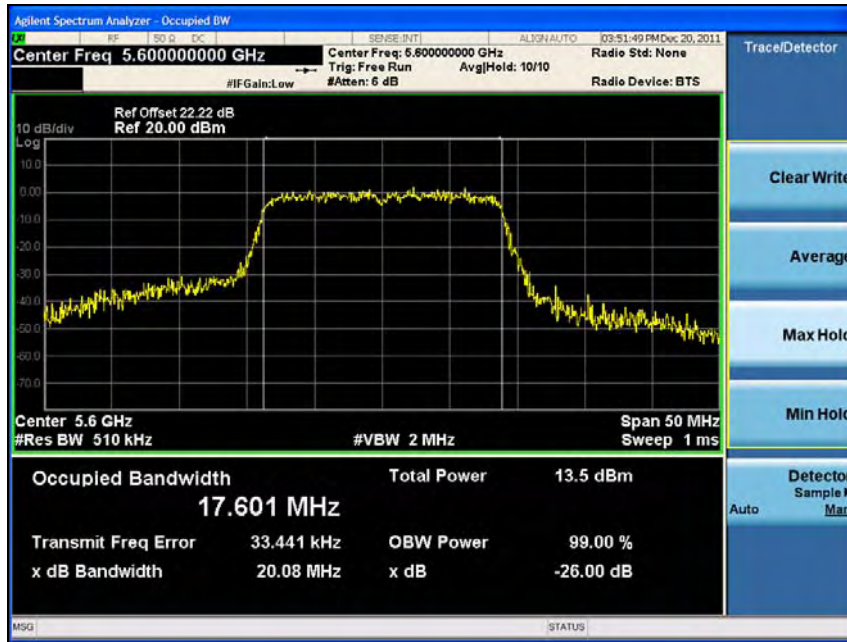
802.11n-HT20 (DFS)

Low Channel (5 500 MHz)

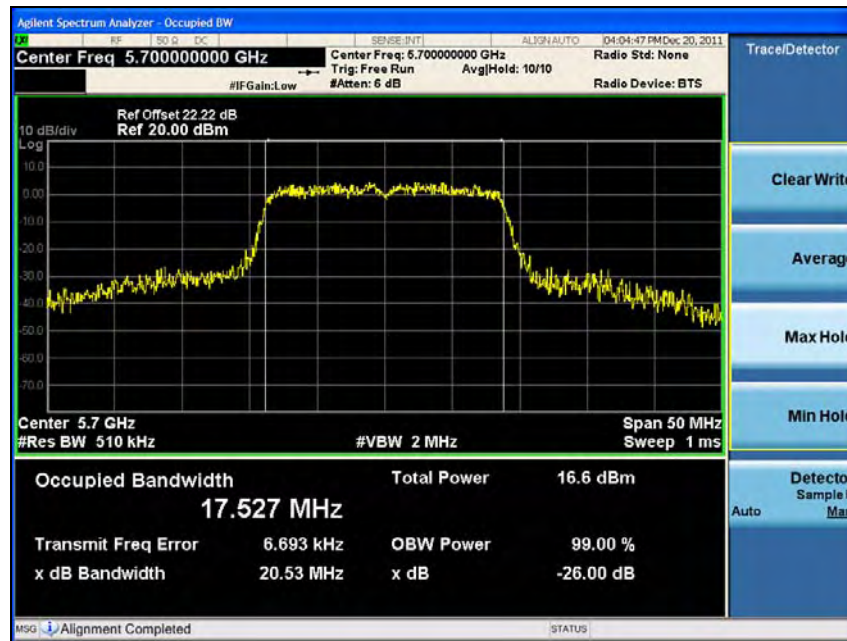


The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report cannot be reproduced, except in full, without prior written permission of the Company.

Middle Channel (5 600 MHz)



High Channel (5 700 MHz)

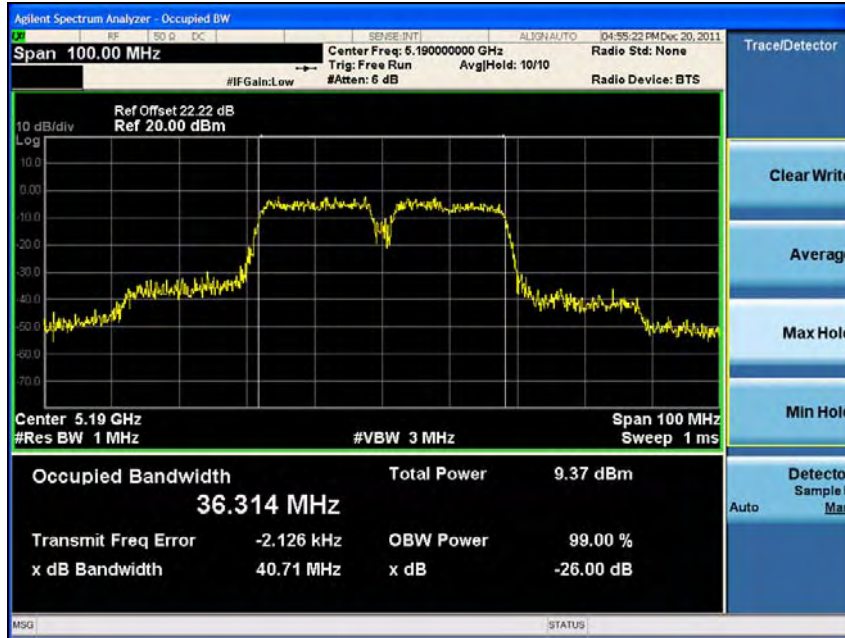


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## 802.11n-HT40 (Non-DFS)

### Low Channel (5 190 MHz)



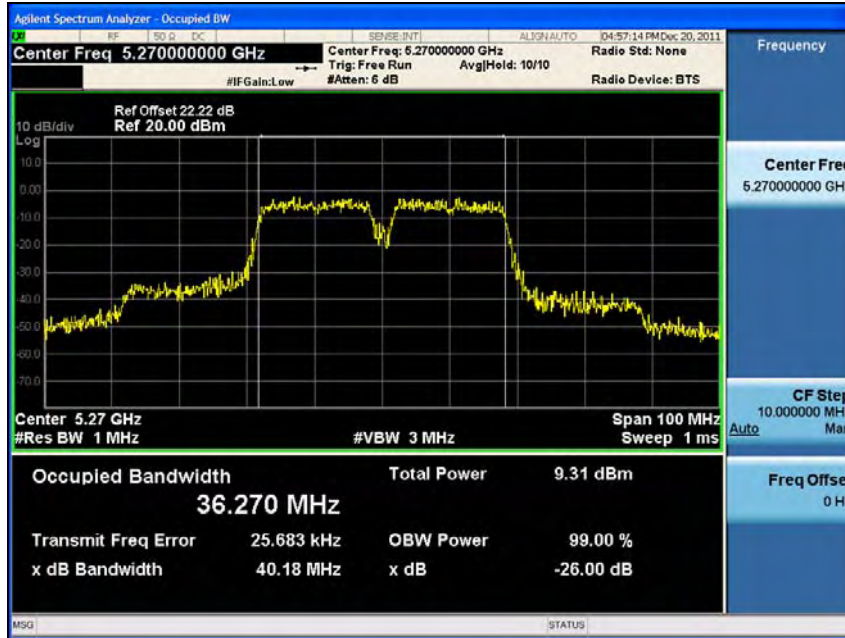
### High Channel (5 230 MHz)



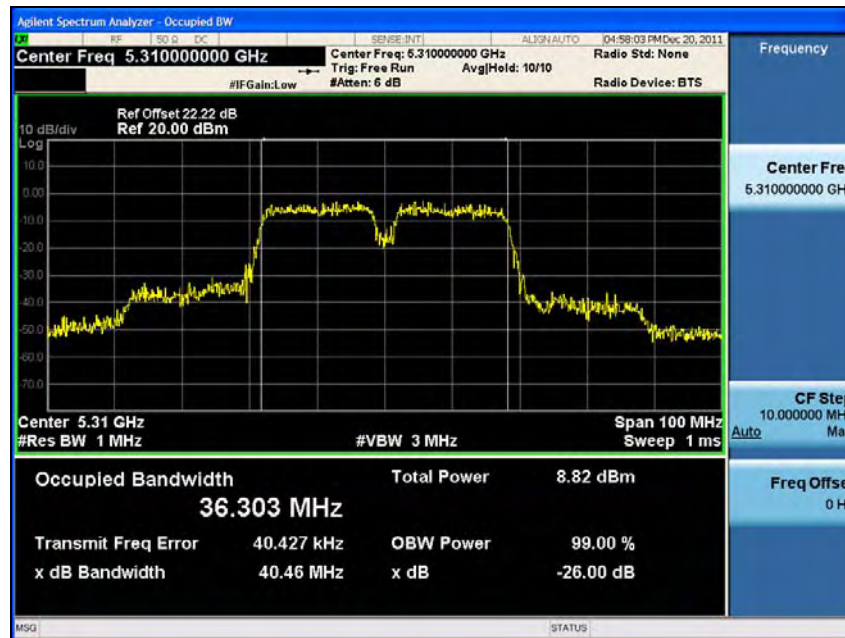
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## 802.11n-HT40 (DFS)

### Low Channel (5 270 MHz)



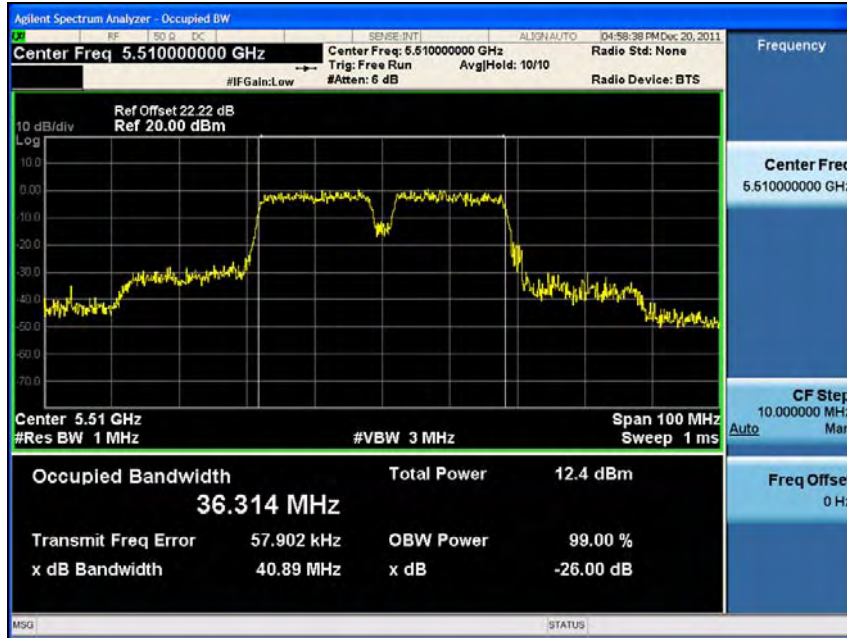
### High Channel (5 310 MHz)



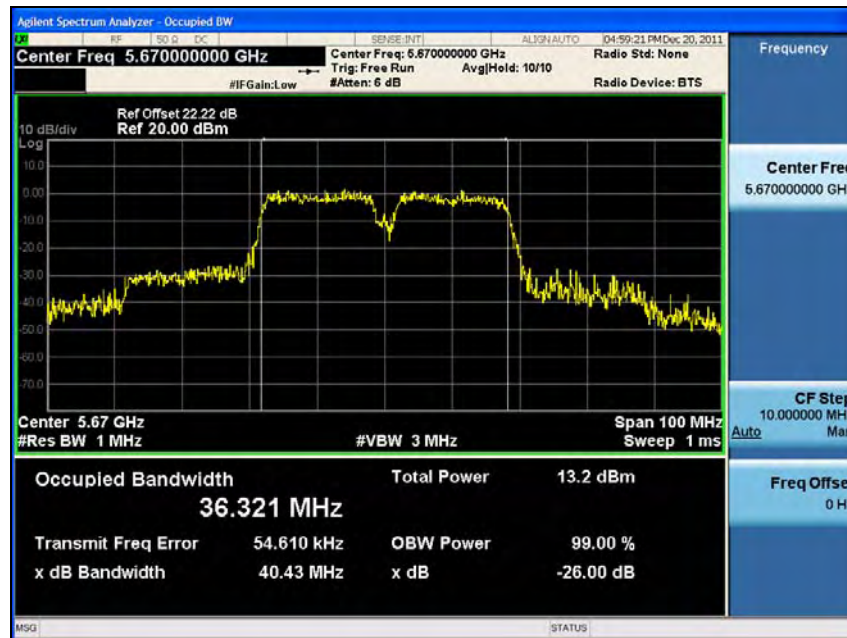
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## 802.11n-HT40 (DFS)

### Low Channel (5 510 MHz)



### High Channel (5 670 MHz)



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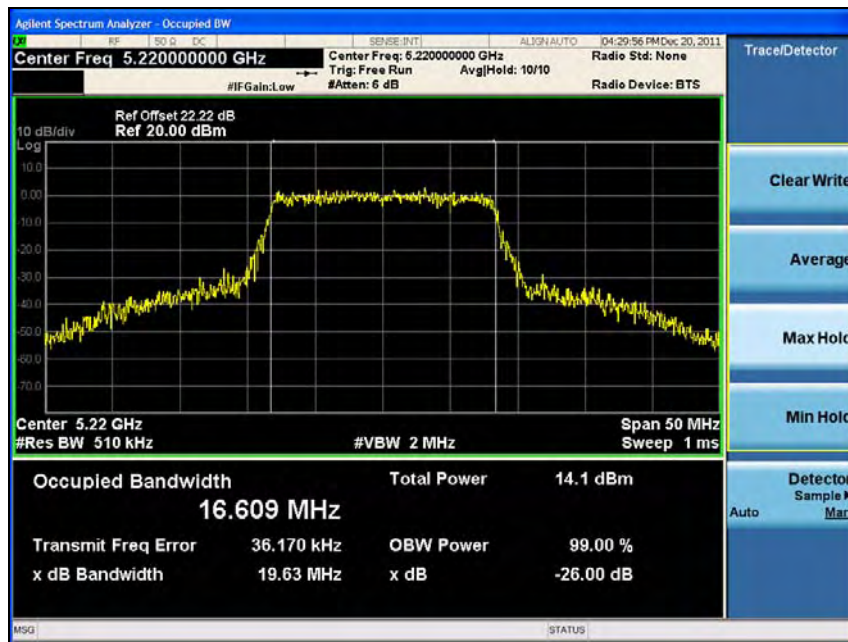
## ANTO

### 802.11a (Non-DFS)

#### Low Channel (5 180 MHz)

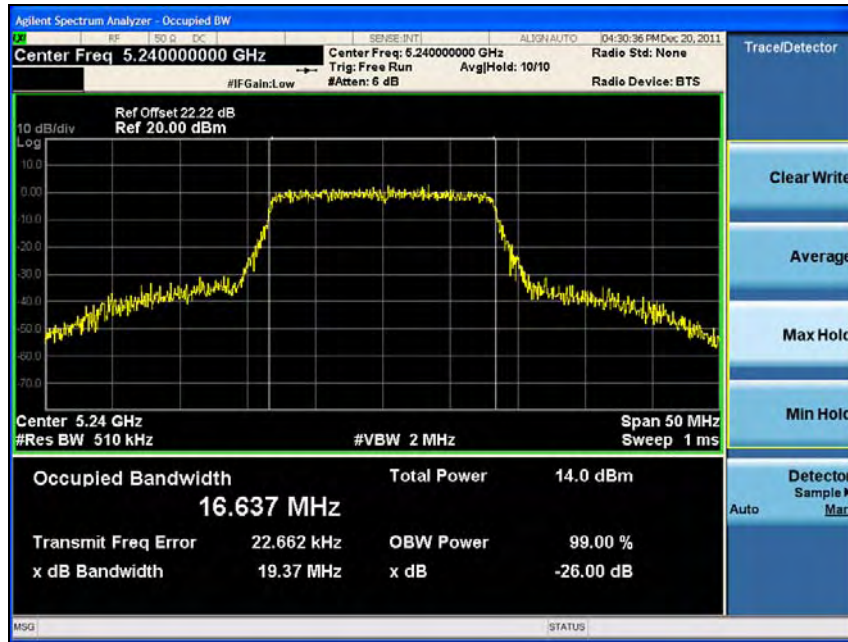


#### Middle Channel (5 220 MHz)



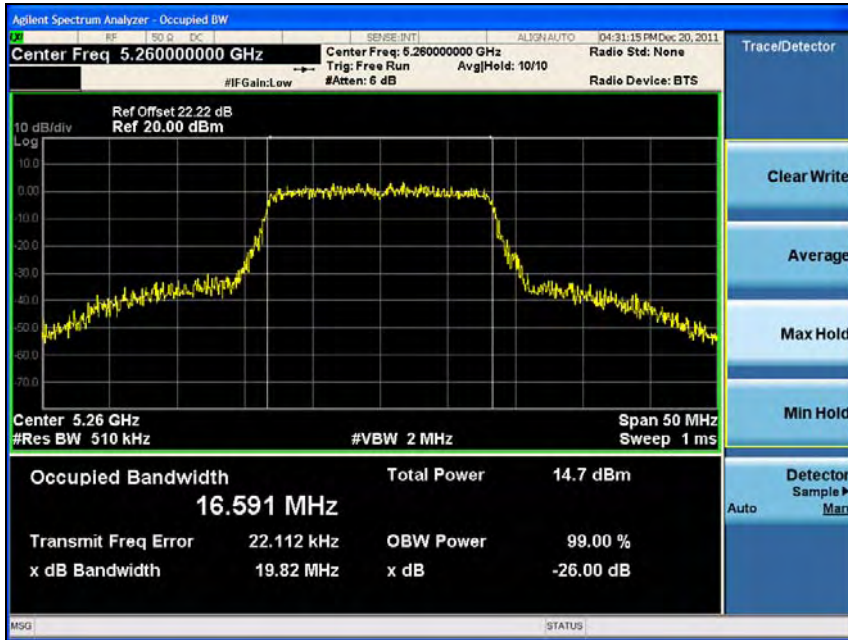
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High Channel (5 240 MHz)



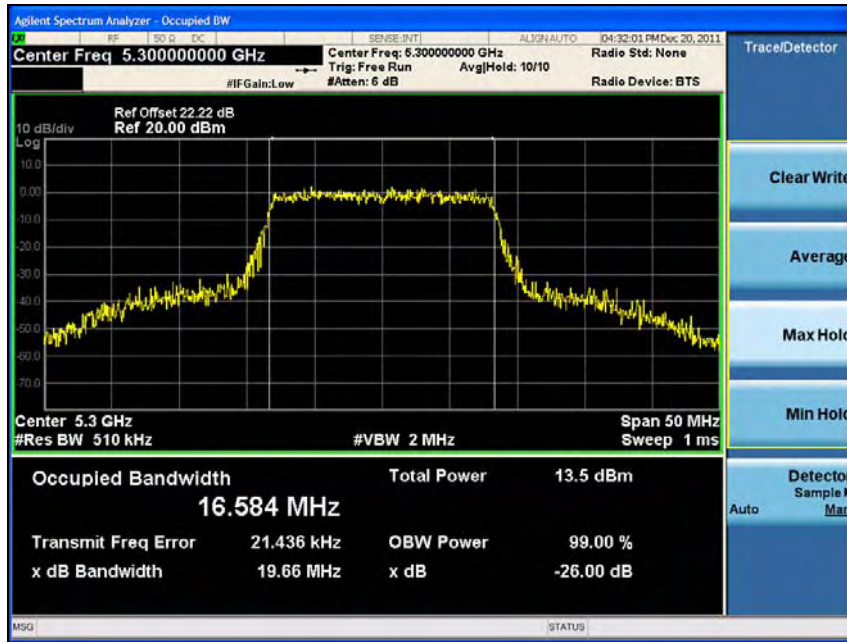
802.11a (DFS)

Low Channel (5 260 MHz)



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Middle Channel (5 300 MHz)



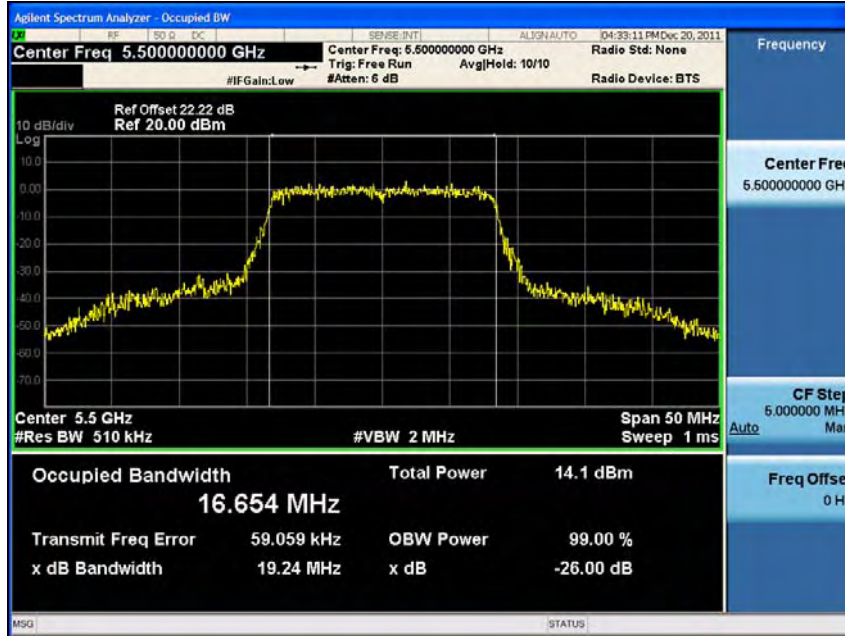
High Channel (5 320 MHz)



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## 802.11a (DFS)

### Low Channel (5 500 MHz)



### Middle Channel (5 600 MHz)



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High Channel (5 700 MHz)



802.11n-HT20 (Non-DFS)

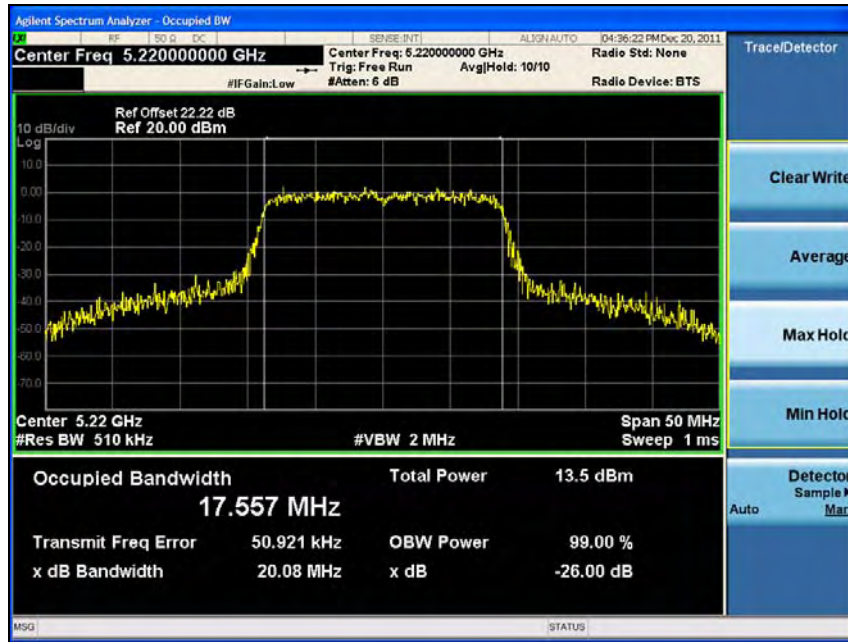
Low Channel (5 180 MHz)



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Middle Channel (5 220 MHz)



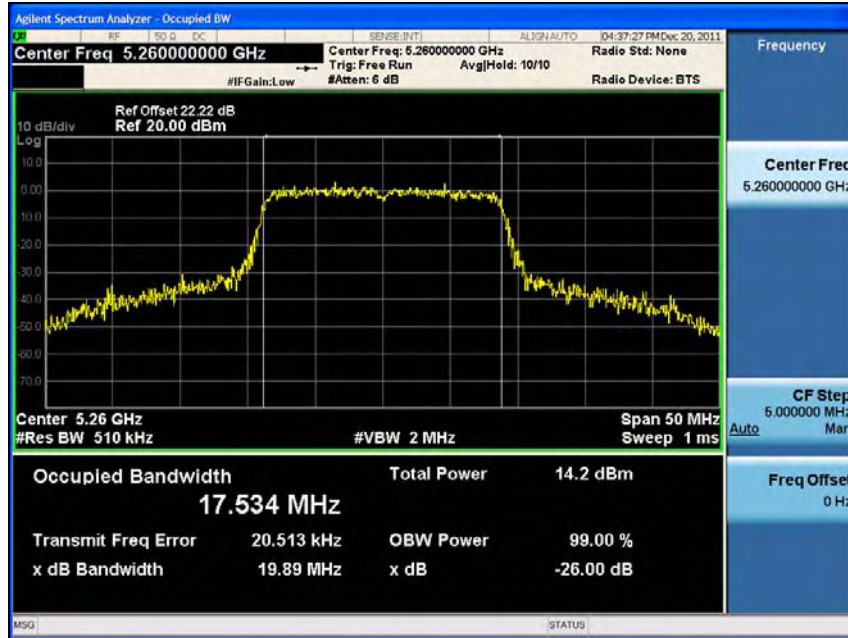
High Channel (5 240 MHz)



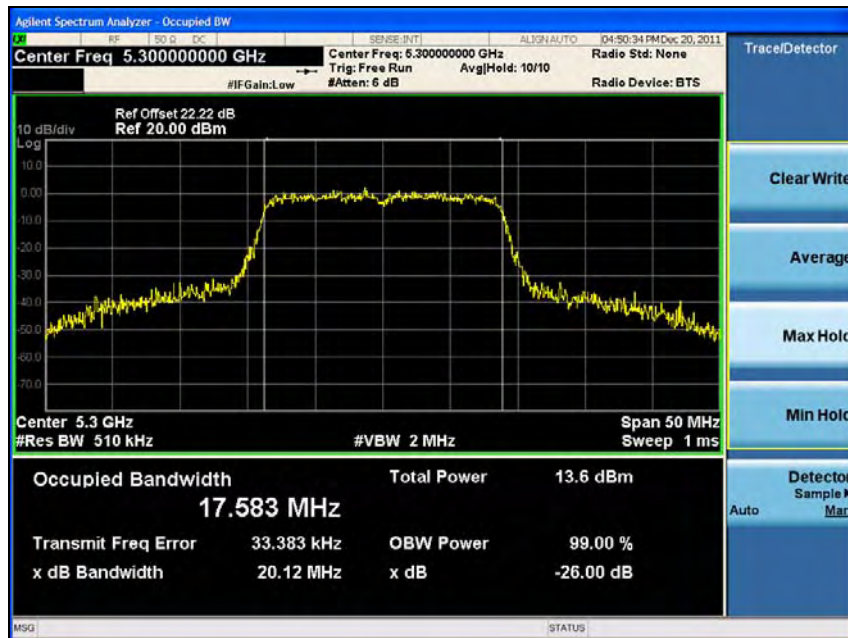
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## 802.11n-HT20 (DFS)

### Low Channel (5 260 MHz)



### Middle Channel (5 300 MHz)



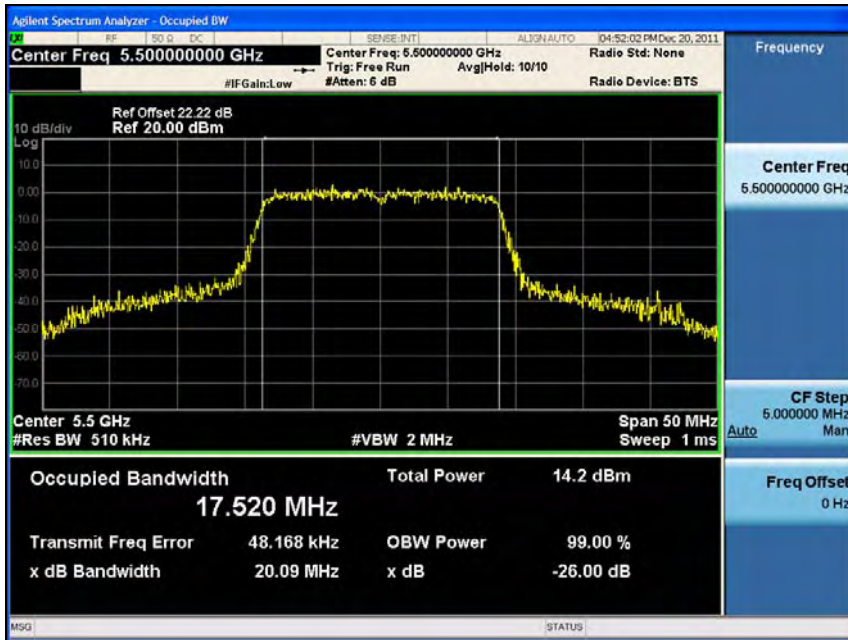
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### High Channel (5 320 MHz)



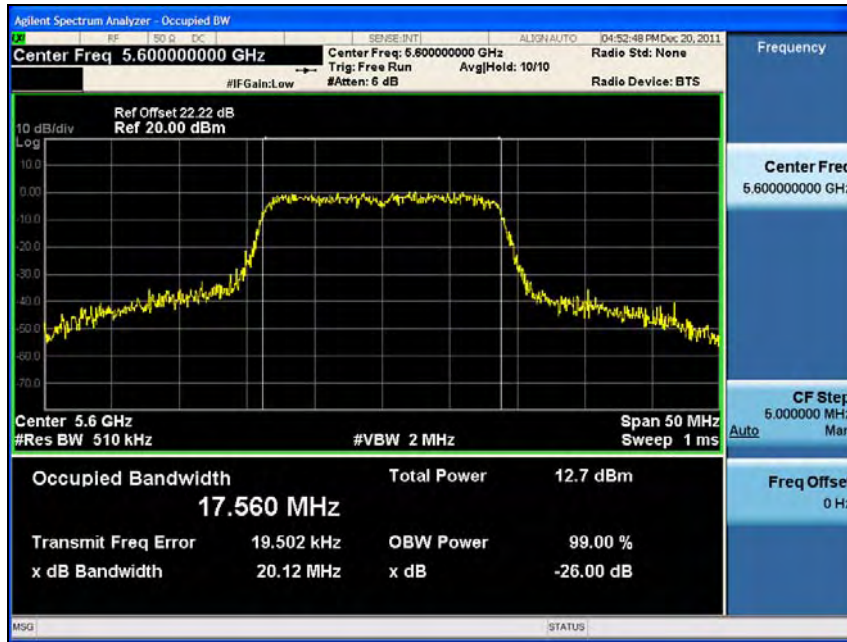
### 802.11n-HT20 (DFS)

### Low Channel (5 500 MHz)



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Middle Channel (5 600 MHz)



High Channel (5 700 MHz)



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## 802.11n-HT40 (Non-DFS)

### Low Channel (5 190 MHz)



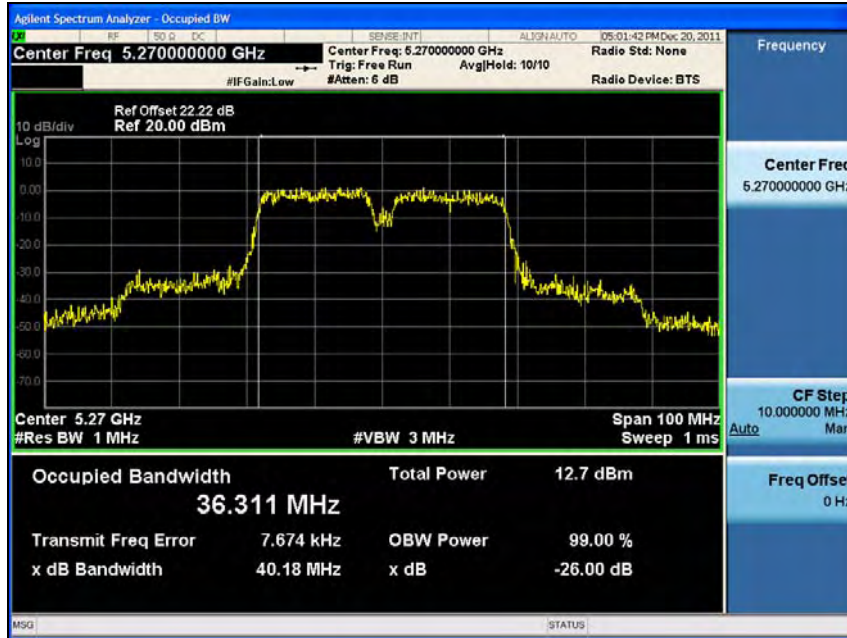
### High Channel (5 230 MHz)



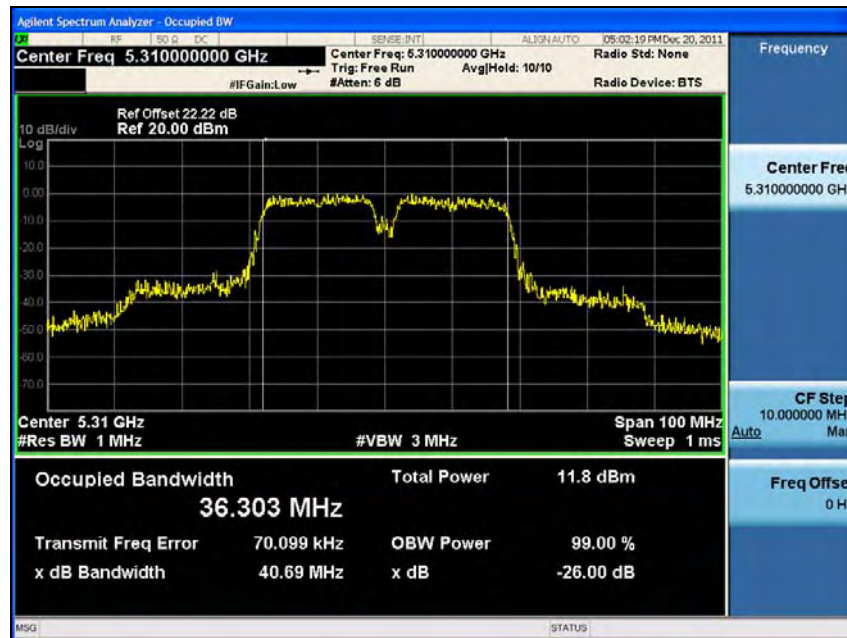
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## 802.11n-HT40 (DFS)

### Low Channel (5 270 MHz)



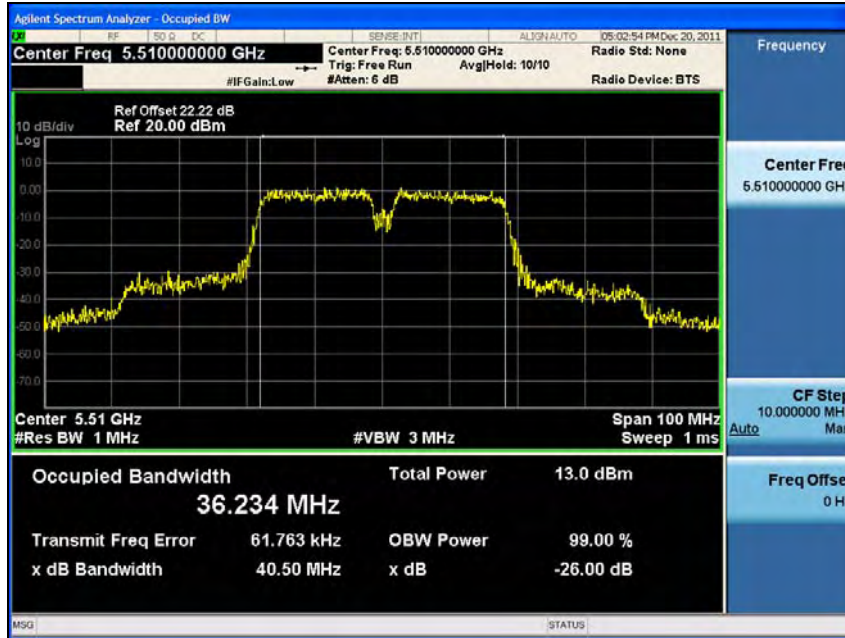
### High Channel (5 310 MHz)



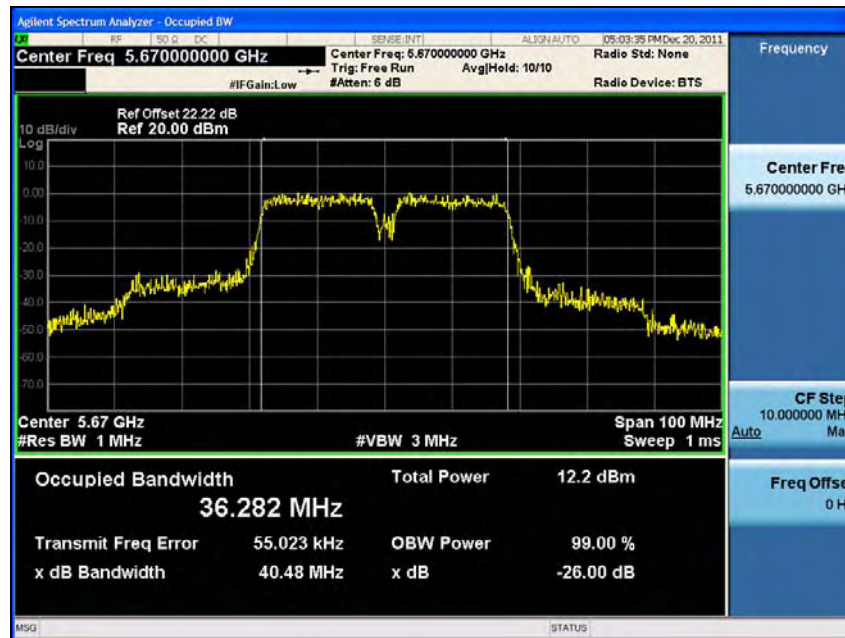
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## 802.11n-HT40 (DFS)

### Low Channel (5 510 MHz)



### High Channel (5 670 MHz)



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## 5. Output power

### 5.1. Test setup



### 5.2. Limit

#### 5.2.1. FCC 15.407

##### (a)(1)

For the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 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, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

##### (a)(2)

For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### 5.2.2. IC RSS-210

##### A9.2(1) Band 5150-5250 MHz

The maximum e.i.r.p.. shall not exceed 200 mW or 10 + 10 log<sub>10</sub> B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

##### A9.2(2) Band 5250-5350 MHz

The maximum conducted output power shall not exceed 250 mW or 11 + 10 log<sub>10</sub> B, dBm, whichever power is less. The maximum e.i.r.p.. shall not exceed 1.0 W or 17 + 10 log<sub>10</sub> B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. Note that devices with a maximum e.i.r.p.. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p.. of 1 W.

##### A9.2(3) Band 5600-5650 MHz

The maximum conducted output power shall not exceed 250 mW or 11 + 10 log<sub>10</sub> B, dBm, whichever power is less. The maximum e.i.r.p.. shall not exceed 1.0 W or 17 + 10 log<sub>10</sub> B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. Note that devices with a maximum e.i.r.p.. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p.. of 1 W.

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### 5.3. Test procedure

1. Place the EUT on the table and set it in the transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set span to encompass the entire emission bandwidth of the signal.
4. Set RBW=1 MHz, VBW  $\geq$  3 MHz, Number of points in sweep  $\geq$  2 span / RBW, Sweep time = auto, Detector = RMS.
5. If transmit duty cycle < 98 percent, use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle  $\geq$  98 percent, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run".
6. Trace average at least 100 traces in power averaging (i.e., RMS) mode.
7. Compute power by integrating the spectrum across the 26 dB EBW of the signal using the spectrum analyzer's band power measurement function with band limits set equal to the EBW band edges. If the spectrum analyzer does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the 26 dB EBW of the spectrum.

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## 5.4. Test result

Ambient temperature : (24 ± 2) °C  
 Relative humidity : 49 % R.H.

### FCC Limit

#### ANT0

Mode : 11a

| Frequency (MHz) | Fixed Limit (dB m) | 26 dB BW (MHz) | 4+10LogB (dB m)  | Antenna gain (dB i) | Limit (dB) |
|-----------------|--------------------|----------------|------------------|---------------------|------------|
| 5 180           | 17                 | 18.82          | 16.75            | 0.56                | 16.75      |
| 5 220           | 17                 | 18.58          | 16.69            | 0.56                | 16.69      |
| 5 240           | 17                 | 18.84          | 16.75            | 0.56                | 16.75      |
| Frequency (MHz) | Fixed Limit (dB m) | 26 dB BW (MHz) | 11+10LogB (dB m) | Antenna gain (dB i) | Limit (dB) |
| 5 260           | 24                 | 19.01          | 23.79            | 1.47                | 23.79      |
| 5 300           | 24                 | 18.61          | 23.70            | 1.47                | 23.70      |
| 5 320           | 24                 | 18.76          | 23.73            | 1.47                | 23.73      |
| 5 500           | 24                 | 18.67          | 23.71            | 1.47                | 23.71      |
| 5 600           | 24                 | 18.51          | 23.67            | 1.47                | 23.67      |
| 5 700           | 24                 | 18.90          | 23.76            | 1.47                | 23.76      |

Mode : 11n\_HT20

| Frequency (MHz) | Fixed Limit (dB m) | 26 dB BW (MHz) | 4+10LogB (dB m)  | Antenna gain (dB i) | Limit (dB) |
|-----------------|--------------------|----------------|------------------|---------------------|------------|
| 5 180           | 17                 | 19.64          | 16.93            | 0.56                | 16.93      |
| 5 220           | 17                 | 19.51          | 16.90            | 0.56                | 16.90      |
| 5 240           | 17                 | 19.69          | 16.94            | 0.56                | 16.94      |
| Frequency (MHz) | Fixed Limit (dB m) | 26 dB BW (MHz) | 11+10LogB (dB m) | Antenna gain (dB i) | Limit (dB) |
| 5 260           | 24                 | 19.47          | 23.89            | 1.47                | 23.89      |
| 5 300           | 24                 | 19.55          | 23.91            | 1.47                | 23.91      |
| 5 320           | 24                 | 19.51          | 23.90            | 1.47                | 23.90      |
| 5 500           | 24                 | 19.65          | 23.93            | 1.47                | 23.93      |
| 5 600           | 24                 | 19.73          | 23.95            | 1.47                | 23.95      |
| 5 700           | 24                 | 19.67          | 23.94            | 1.47                | 23.94      |

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Mode : 11n\_HT40

| Frequency (MHz) | Fixed Limit (dB m) | 26 dB BW (MHz) | 4+10LogB (dB m)  | Antenna gain (dB i) | Limit (dB) |
|-----------------|--------------------|----------------|------------------|---------------------|------------|
| 5 190           | 17                 | 39.9           | 20.01            | 0.56                | 17         |
| 5 230           | 17                 | 39.5           | 19.99            | 0.56                | 17         |
| Frequency (MHz) | Fixed Limit (dB m) | 26 dB BW (MHz) | 11+10LogB (dB m) | Antenna gain (dB i) | Limit (dB) |
| 5 270           | 24                 | 39.2           | 26.93            | 1.47                | 24         |
| 5 310           | 24                 | 39.3           | 26.94            | 1.47                | 24         |
| 5 510           | 24                 | 39.2           | 26.93            | 1.47                | 24         |
| 5 670           | 24                 | 39.4           | 26.95            | 1.47                | 24         |

**ANT1**

Mode : 11a

| Frequency (MHz) | Fixed Limit (dB m) | 26 dB BW (MHz) | 4+10LogB (dB m)  | Antenna gain (dB i) | Limit (dB) |
|-----------------|--------------------|----------------|------------------|---------------------|------------|
| 5 180           | 17                 | 18.22          | 16.61            | 2.13                | 16.61      |
| 5 220           | 17                 | 18.71          | 16.72            | 2.13                | 16.72      |
| 5 240           | 17                 | 18.66          | 16.71            | 2.13                | 16.71      |
| Frequency (MHz) | Fixed Limit (dB m) | 26 dB BW (MHz) | 11+10LogB (dB m) | Antenna gain (dB i) | Limit (dB) |
| 5 260           | 24                 | 18.65          | 23.71            | 2.37                | 23.71      |
| 5 300           | 24                 | 18.91          | 23.77            | 2.37                | 23.77      |
| 5 320           | 24                 | 18.83          | 23.75            | 2.37                | 23.75      |
| 5 500           | 24                 | 18.92          | 23.77            | 2.37                | 23.77      |
| 5 600           | 24                 | 18.76          | 23.73            | 2.37                | 23.73      |
| 5 700           | 24                 | 18.45          | 23.66            | 2.37                | 23.66      |

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Mode : 11n\_HT20

| Frequency (MHz) | Fixed Limit (dB m) | 26 dB BW (MHz) | 4+10LogB (dB m)  | Antenna gain (dB i) | Limit (dB) |
|-----------------|--------------------|----------------|------------------|---------------------|------------|
| 5 180           | 17                 | 19.65          | 16.93            | 2.13                | 16.93      |
| 5 220           | 17                 | 19.49          | 16.90            | 2.13                | 16.90      |
| 5 240           | 17                 | 19.60          | 16.92            | 2.13                | 16.92      |
| Frequency (MHz) | Fixed Limit (dB m) | 26 dB BW (MHz) | 11+10LogB (dB m) | Antenna gain (dB i) | Limit (dB) |
| 5 260           | 24                 | 19.69          | 23.94            | 2.37                | 23.94      |
| 5 300           | 24                 | 19.53          | 23.91            | 2.37                | 23.91      |
| 5 320           | 24                 | 19.58          | 23.92            | 2.37                | 23.92      |
| 5 500           | 24                 | 19.55          | 23.91            | 2.37                | 23.91      |
| 5 600           | 24                 | 19.49          | 23.90            | 2.37                | 23.90      |
| 5 700           | 24                 | 19.58          | 23.92            | 2.37                | 23.92      |

Mode : 11n\_HT40

| Frequency (MHz) | Fixed Limit (dB m) | 26 dB BW (MHz) | 4+10LogB (dB m)  | Antenna gain (dB i) | Limit (dB) |
|-----------------|--------------------|----------------|------------------|---------------------|------------|
| 5 190           | 17                 | 39.7           | 19.99            | 2.13                | 17         |
| 5 230           | 17                 | 39.2           | 19.93            | 2.13                | 17         |
| Frequency (MHz) | Fixed Limit (dB m) | 26 dB BW (MHz) | 11+10LogB (dB m) | Antenna gain (dB i) | Limit (dB) |
| 5 270           | 24                 | 39.3           | 26.94            | 2.37                | 24         |
| 5 310           | 24                 | 39.5           | 26.97            | 2.37                | 24         |
| 5 510           | 24                 | 39.5           | 26.97            | 2.37                | 24         |
| 5 670           | 24                 | 39.2           | 26.93            | 2.37                | 24         |

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## IC Limit

### ANT0

Mode : 11a

| Frequency (MHz) | Fixed Limit (dB m e.i.r.p.) | 99 % BW (MHz) | 10+10LogB (dB m) | Antenna gain (dB i) | Limit (dB m e.i.r.p.) |
|-----------------|-----------------------------|---------------|------------------|---------------------|-----------------------|
| 5 180           | 23                          | 16.58         | 22.20            | 0.56                | 22.20                 |
| 5 220           | 23                          | 16.61         | 22.20            | 0.56                | 22.20                 |
| 5 240           | 23                          | 16.54         | 22.19            | 0.56                | 22.19                 |
| Frequency (MHz) | Fixed Limit (dB m)          | 99 % BW (MHz) | 11+10LogB (dB m) | Antenna gain (dB i) | Limit (dB)            |
| 5 260           | 24                          | 16.59         | 23.20            | 1.47                | 23.20                 |
| 5 300           | 24                          | 16.59         | 23.20            | 1.47                | 23.20                 |
| 5 320           | 24                          | 16.62         | 23.21            | 1.47                | 23.21                 |
| 5 500           | 24                          | 16.60         | 23.20            | 1.47                | 23.20                 |
| 5 600           | 24                          | 16.64         | 23.21            | 1.47                | 23.21                 |
| 5 700           | 24                          | 16.66         | 23.22            | 1.47                | 23.22                 |

Mode : 11n\_HT20

| Frequency (MHz) | Fixed Limit (dB m e.i.r.p.) | 99 % BW (MHz) | 10+10LogB (dB m) | Antenna gain (dB i) | Limit (dB m e.i.r.p.) |
|-----------------|-----------------------------|---------------|------------------|---------------------|-----------------------|
| 5 180           | 23                          | 17.52         | 22.44            | 0.56                | 22.44                 |
| 5 220           | 23                          | 17.56         | 22.45            | 0.56                | 22.45                 |
| 5 240           | 23                          | 17.54         | 22.44            | 0.56                | 22.44                 |
| Frequency (MHz) | Fixed Limit (dB m)          | 99 % BW (MHz) | 11+10LogB (dB m) | Antenna gain (dB i) | Limit (dB)            |
| 5 260           | 24                          | 17.55         | 23.44            | 1.47                | 23.44                 |
| 5 300           | 24                          | 17.60         | 23.46            | 1.47                | 23.46                 |
| 5 320           | 24                          | 17.55         | 23.44            | 1.47                | 23.44                 |
| 5 500           | 24                          | 17.57         | 23.45            | 1.47                | 23.45                 |
| 5 600           | 24                          | 17.60         | 23.46            | 1.47                | 23.46                 |
| 5 700           | 24                          | 17.53         | 23.44            | 1.47                | 23.44                 |

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Mode : 11n\_HT40

| Frequency (MHz) | Fixed Limit (dB m e.i.r.p.) | 99 % BW (MHz) | 10+10LogB (dB m e.i.r.p.) | Antenna gain (dB i) | Limit (dB m e.i.r.p.) |
|-----------------|-----------------------------|---------------|---------------------------|---------------------|-----------------------|
| 5 190           | 23                          | 36.3          | 25.6                      | 0.56                | 23                    |
| 5 230           | 23                          | 36.4          | 25.6                      | 0.56                | 23                    |
| Frequency (MHz) | Fixed Limit (dB m)          | 99 % BW (MHz) | 11+10LogB (dB m)          | Antenna gain (dB i) | Limit (dB)            |
| 5 270           | 24                          | 36.3          | 26.6                      | 1.47                | 24                    |
| 5 310           | 24                          | 36.3          | 26.6                      | 1.47                | 24                    |
| 5 510           | 24                          | 36.3          | 26.6                      | 1.47                | 24                    |
| 5 670           | 24                          | 36.3          | 26.6                      | 1.47                | 24                    |

**ANT1**

Mode : 11a

| Frequency (MHz) | Fixed Limit (dB m e.i.r.p.) | 99 % BW (MHz) | 10+10LogB (dB m e.i.r.p.) | Antenna gain (dB i) | Limit (dB m e.i.r.p.) |
|-----------------|-----------------------------|---------------|---------------------------|---------------------|-----------------------|
| 5 180           | 23                          | 16.62         | 22.21                     | 2.13                | 22.21                 |
| 5 220           | 23                          | 16.61         | 22.20                     | 2.13                | 22.20                 |
| 5 240           | 23                          | 16.64         | 22.21                     | 2.13                | 22.21                 |
| Frequency (MHz) | Fixed Limit (dB m)          | 99 % BW (MHz) | 11+10LogB (dB m)          | Antenna gain (dB i) | Limit (dB)            |
| 5 260           | 24                          | 16.59         | 23.20                     | 2.37                | 23.20                 |
| 5 300           | 24                          | 16.58         | 23.20                     | 2.37                | 23.20                 |
| 5 320           | 24                          | 16.66         | 23.22                     | 2.37                | 23.22                 |
| 5 500           | 24                          | 16.65         | 23.21                     | 2.37                | 23.21                 |
| 5 600           | 24                          | 16.57         | 23.19                     | 2.37                | 23.19                 |
| 5 700           | 24                          | 16.59         | 23.20                     | 2.37                | 23.20                 |

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Mode : 11n\_HT20

| Frequency (MHz) | Fixed Limit (dB m e.i.r.p.) | 99 % BW (MHz) | 10+10LogB (dB m e.i.r.p.) | Antenna gain (dB i) | Limit (dB m e.i.r.p.) |
|-----------------|-----------------------------|---------------|---------------------------|---------------------|-----------------------|
| 5 180           | 23                          | 17.58         | 22.45                     | 2.13                | 22.45                 |
| 5 220           | 23                          | 17.56         | 22.45                     | 2.13                | 22.45                 |
| 5 240           | 23                          | 17.51         | 22.43                     | 2.13                | 22.43                 |
| Frequency (MHz) | Fixed Limit (dB m)          | 99 % BW (MHz) | 11+10LogB (dB m)          | Antenna gain (dB i) | Limit (dB m)          |
| 5 260           | 24                          | 17.53         | 23.44                     | 2.37                | 23.44                 |
| 5 300           | 24                          | 17.58         | 23.45                     | 2.37                | 23.45                 |
| 5 320           | 24                          | 17.59         | 23.45                     | 2.37                | 23.45                 |
| 5 500           | 24                          | 17.52         | 23.44                     | 2.37                | 23.44                 |
| 5 600           | 24                          | 17.56         | 23.45                     | 2.37                | 23.45                 |
| 5 700           | 24                          | 17.58         | 23.45                     | 2.37                | 23.45                 |

Mode : 11n\_HT40

| Frequency (MHz) | Fixed Limit (dB m e.i.r.p.) | 99 % BW (MHz) | 10+10LogB (dB m e.i.r.p.) | Antenna gain (dB i) | Limit (dB m e.i.r.p.) |
|-----------------|-----------------------------|---------------|---------------------------|---------------------|-----------------------|
| 5 190           | 23                          | 36.4          | 25.6                      | 2.13                | 23                    |
| 5 230           | 23                          | 36.2          | 25.6                      | 2.13                | 23                    |
| Frequency (MHz) | Fixed Limit (dB m)          | 99 % BW (MHz) | 11+10LogB (dB m)          | Antenna gain (dB i) | Limit (dB)            |
| 5 270           | 24                          | 36.3          | 25.6                      | 2.37                | 24                    |
| 5 310           | 24                          | 36.3          | 25.6                      | 2.37                | 24                    |
| 5 510           | 24                          | 36.2          | 25.6                      | 2.37                | 24                    |
| 5 670           | 24                          | 36.3          | 25.6                      | 2.37                | 24                    |

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## Result

| Operation Mode   | Antenna                | Channel | Channel Frequency (MHz) | Result     |                    | Limit      |                    |
|------------------|------------------------|---------|-------------------------|------------|--------------------|------------|--------------------|
|                  |                        |         |                         | FCC (dB m) | IC (dB m e.i.r.p.) | FCC (dB m) | IC (dB m e.i.r.p.) |
| Non DFS 11a      | ANT0                   | Low     | 5 180                   | 5.98       | 6.54               | 16.75      | 22.20              |
|                  |                        | Middle  | 5 220                   | 4.30       | 4.86               | 16.69      | 22.20              |
|                  |                        | High    | 5 240                   | 4.35       | 4.91               | 16.75      | 22.19              |
|                  | ANT1                   | Low     | 5 180                   | 9.11       | 11.24              | 16.61      | 22.21              |
|                  |                        | Middle  | 5 220                   | 8.18       | 10.31              | 16.72      | 22.20              |
|                  |                        | High    | 5 240                   | 7.83       | 9.96               | 16.71      | 22.21              |
| Non DFS 11n_HT20 | ANT0                   | Low     | 5 180                   | 6.36       | 6.92               | 16.93      | 22.44              |
|                  |                        | Middle  | 5 220                   | 4.78       | 5.34               | 16.90      | 22.45              |
|                  |                        | High    | 5 240                   | 4.75       | 5.31               | 16.94      | 22.44              |
|                  | ANT1                   | Low     | 5 180                   | 9.75       | 11.88              | 16.93      | 22.45              |
|                  |                        | Middle  | 5 220                   | 8.51       | 10.64              | 16.90      | 22.45              |
|                  |                        | High    | 5 240                   | 7.87       | 10.00              | 16.92      | 22.43              |
|                  | ANT0+ANT1 (Calculated) | Low     | 5 180                   | 11.39      | 15.78              | 16.93      | 22.45              |
|                  |                        | Middle  | 5 220                   | 10.04      | 14.43              | 16.90      | 22.45              |
|                  |                        | High    | 5 240                   | 9.59       | 13.98              | 16.94      | 22.43              |
| Non DFS 11n_HT40 | ANT0                   | Low     | 5 190                   | 4.00       | 4.56               | 17         | 23                 |
|                  |                        | High    | 5 230                   | 3.12       | 3.68               | 17         | 23                 |
|                  | ANT1                   | Low     | 5 190                   | 7.74       | 9.87               | 17         | 23                 |
|                  |                        | High    | 5 230                   | 6.79       | 8.92               | 17         | 23                 |
|                  | ANT0+ANT1 (Calculated) | Low     | 5 190                   | 9.27       | 13.66              | 17         | 23                 |
|                  |                        | High    | 5 230                   | 8.34       | 12.73              | 17         | 23                 |

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| Operation Mode   | Antenna                | Channel    | Channel Frequency (MHz) | Result (dB m) | Limit      |           |
|------------------|------------------------|------------|-------------------------|---------------|------------|-----------|
|                  |                        |            |                         |               | FCC (dB m) | IC (dB m) |
| DFS 11a          | ANT0                   | Lower Band | 5 260                   | 5.08          | 23.79      | 23.20     |
|                  |                        |            | 5 300                   | 4.70          | 23.70      | 23.20     |
|                  |                        |            | 5 320                   | 4.59          | 23.73      | 23.21     |
|                  |                        | Upper Band | 5 500                   | 8.35          | 23.71      | 23.20     |
|                  |                        |            | 5 600                   | 8.35          | 23.67      | 23.21     |
|                  |                        |            | 5 700                   | 12.15         | 23.76      | 23.22     |
|                  | ANT1                   | Lower Band | 5 260                   | 8.58          | 23.71      | 23.20     |
|                  |                        |            | 5 300                   | 7.48          | 23.77      | 23.20     |
|                  |                        |            | 5 320                   | 7.08          | 23.75      | 23.22     |
|                  |                        | Upper Band | 5 500                   | 8.59          | 23.77      | 23.21     |
|                  |                        |            | 5 600                   | 7.74          | 23.73      | 23.19     |
|                  |                        |            | 5 700                   | 12.72         | 23.66      | 23.20     |
| Non DFS 11n_HT20 | ANT0                   | Lower Band | 5 260                   | 5.15          | 23.89      | 23.44     |
|                  |                        |            | 5 300                   | 4.82          | 23.91      | 23.46     |
|                  |                        |            | 5 320                   | 4.78          | 23.90      | 23.44     |
|                  |                        | Upper Band | 5 500                   | 8.70          | 23.93      | 23.45     |
|                  |                        |            | 5 600                   | 8.45          | 23.95      | 23.46     |
|                  |                        |            | 5 700                   | 12.04         | 23.94      | 23.44     |
|                  | ANT1                   | Lower Band | 5 260                   | 8.70          | 23.94      | 23.44     |
|                  |                        |            | 5 300                   | 7.68          | 23.91      | 23.45     |
|                  |                        |            | 5 320                   | 7.10          | 23.92      | 23.45     |
|                  |                        | Upper Band | 5 500                   | 8.57          | 23.91      | 23.44     |
|                  |                        |            | 5 600                   | 7.52          | 23.90      | 23.45     |
|                  |                        |            | 5 700                   | 12.11         | 23.92      | 23.45     |
|                  | ANT0+ANT1 (Calculated) | Lower Band | 5 260                   | 10.29         | 23.94      | 23.44     |
|                  |                        |            | 5 300                   | 9.49          | 23.91      | 23.46     |
|                  |                        |            | 5 320                   | 9.10          | 23.92      | 23.45     |
|                  |                        | Upper Band | 5 500                   | 11.65         | 23.93      | 23.45     |
|                  |                        |            | 5 600                   | 11.02         | 23.95      | 23.46     |
|                  |                        |            | 5 700                   | 15.09         | 23.94      | 23.45     |

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| Operation Mode      | Antenna                   | Channel    | Channel Frequency (MHz) | Result (dB m) | Limit      |           |
|---------------------|---------------------------|------------|-------------------------|---------------|------------|-----------|
|                     |                           |            |                         |               | FCC (dB m) | IC (dB m) |
| Non DFS<br>11n_HT40 | ANT0                      | Lower Band | 5 270                   | 3.84          | 24         | 24        |
|                     |                           |            | 5 310                   | 3.88          | 24         | 24        |
|                     |                           | Upper Band | 5 510                   | 7.09          | 24         | 24        |
|                     |                           |            | 5 670                   | 8.28          | 24         | 24        |
|                     | ANT1                      | Lower Band | 5 270                   | 7.09          | 24         | 24        |
|                     |                           |            | 5 310                   | 6.06          | 24         | 24        |
|                     |                           | Upper Band | 5 510                   | 7.28          | 24         | 24        |
|                     |                           |            | 5 670                   | 7.16          | 24         | 24        |
|                     | ANT0+ANT1<br>(Calculated) | Lower Band | 5 270                   | 8.77          | 24         | 24        |
|                     |                           |            | 5 310                   | 8.12          | 24         | 24        |
|                     |                           | Upper Band | 5 510                   | 10.20         | 24         | 24        |
|                     |                           |            | 5 670                   | 10.77         | 24         | 24        |

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## ANT0

### 802.11a (Non-DFS)

#### Low Channel (5 180 MHz)



#### Middle Channel (5 220 MHz)



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## High Channel (5 240 MHz)



## 802.11a (DFS)

## Low Channel (5 260 MHz)



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### Middle Channel (5 300 MHz)



### High Channel (5 320 MHz)



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## 802.11a (DFS)

### Low Channel (5 500 MHz)



### Middle Channel (5 600 MHz)



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High Channel (5 700 MHz)



802.11n-HT20 (Non-DFS)

Low Channel (5 180 MHz)



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Middle Channel (5 220 MHz)



High Channel (5 240 MHz)



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## 802.11-HT20 (DFS)

### Low Channel (5 260 MHz)



### Middle Channel (5 300 MHz)



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High Channel (5 320 MHz)



802.11-HT20 (DFS)

Low Channel (5 500 MHz)



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Middle Channel (5 600 MHz)



High Channel (5 700 MHz)



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## 802.11n-HT40 (Non-DFS)

### Low Channel (5 190 MHz)



### High Channel (5 230 MHz)



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