

## 10 6 dB Bandwidth

Test Requirement: FCC CFR47 Part 15 Section 15.407(e)  
 KDB662911 D01 Multiple Transmitter Output v02r01  
 Test Method: KDB789033 D02 General UNII Test Procedures New Rules v01  
 Section C  
 Test Limit:  $\geq 500$  kHz  
 Test Result: PASS

### 10.1 Test Procedure:

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
2. Set the spectrum analyzer: RBW = 100kHz, VBW = 300kHz

### 10.2 Test Result:

| Band                          | Operation mode | 6 dB Bandwidth (MHz) |        |       |
|-------------------------------|----------------|----------------------|--------|-------|
|                               |                | Low                  | Middle | High  |
| <b>ANT0</b><br><b>Band IV</b> | 802.11a        | 16.50                | 16.38  | 16.41 |
|                               | 802.11n(HT20)  | 17.67                | 17.67  | 17.64 |
|                               | 802.11n(HT40)  | 36.42                | /      | 36.44 |
|                               | 802.11ac(HT20) | 17.67                | 17.67  | 17.64 |
|                               | 802.11ac(HT40) | 36.42                | /      | 36.44 |
|                               | 802.11ac(HT80) | 76.32                | /      | /     |
| <b>ANT1</b><br><b>Band IV</b> | 802.11a        | 16.38                | 16.41  | 16.44 |
|                               | 802.11n(HT20)  | 17.58                | 17.04  | 17.31 |
|                               | 802.11n(HT40)  | 35.94                | /      | 36.18 |
|                               | 802.11ac(HT20) | 17.22                | 17.25  | 17.34 |
|                               | 802.11ac(HT40) | 36.48                | /      | 36.42 |
|                               | 802.11ac(HT80) | 76.08                | /      | /     |

Test result plots shown as follows:

ANT0

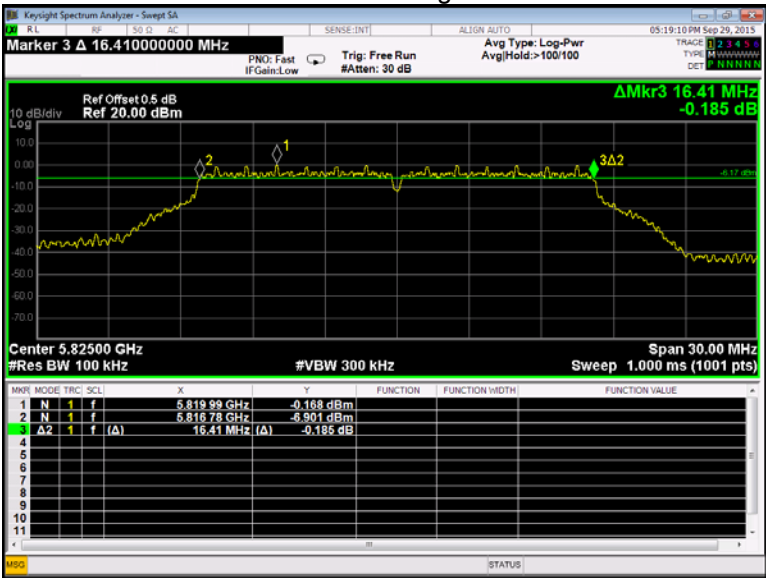
802.11a band IV Low channel



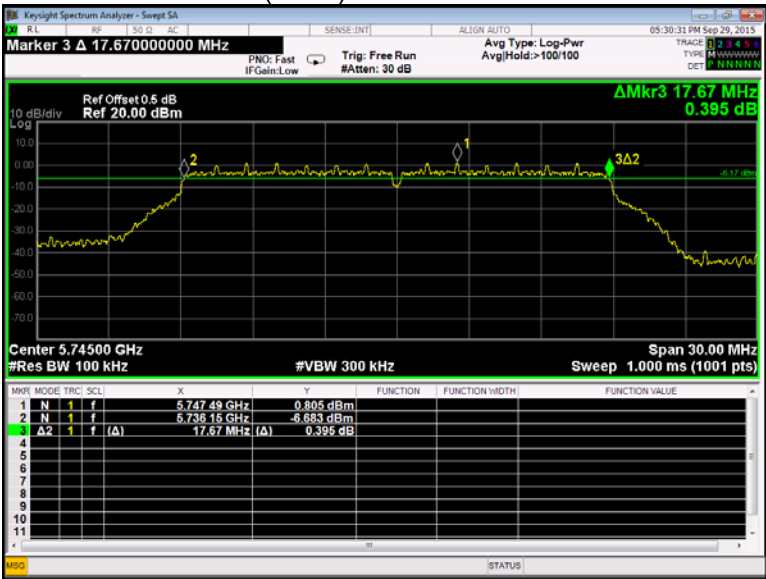
802.11a band IV Middle channel



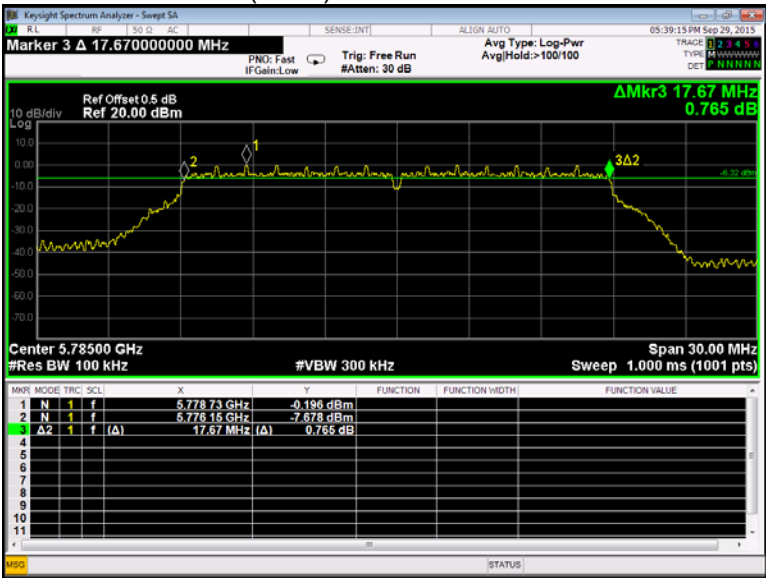
802.11a band IV High channel



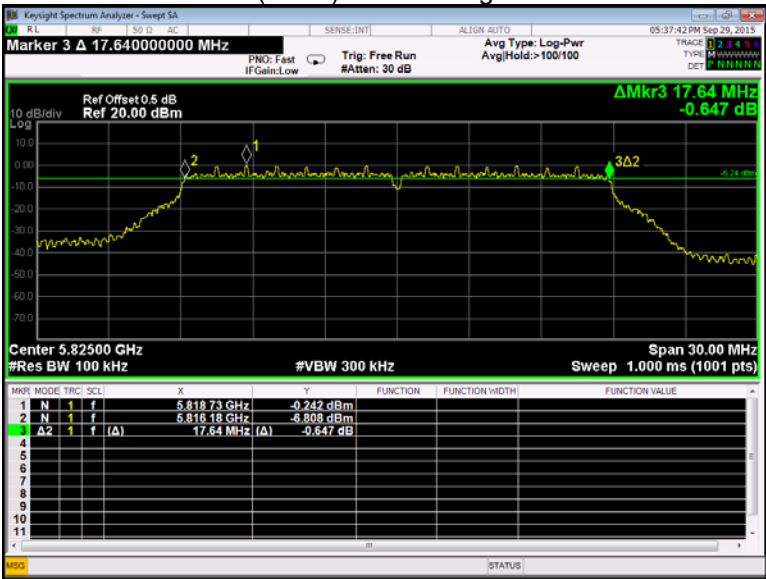
802.11n(HT20) band IV Low channel



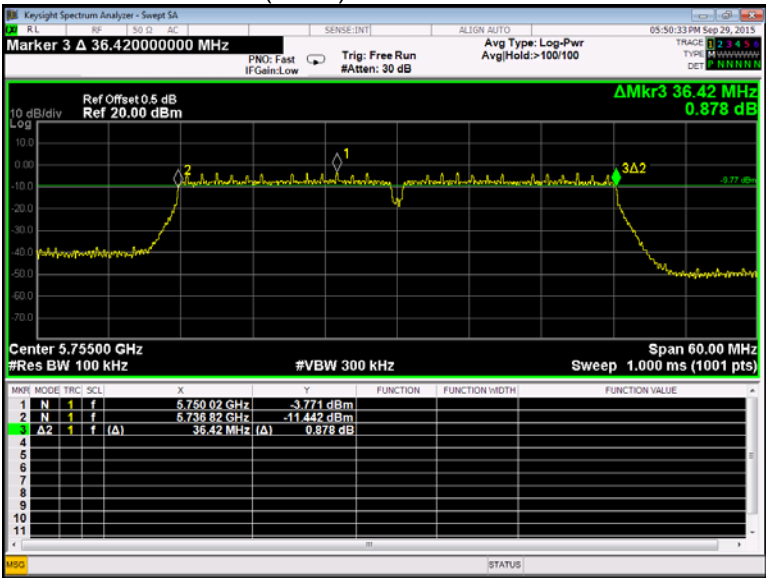
802.11n(HT20) band IV Middle channel



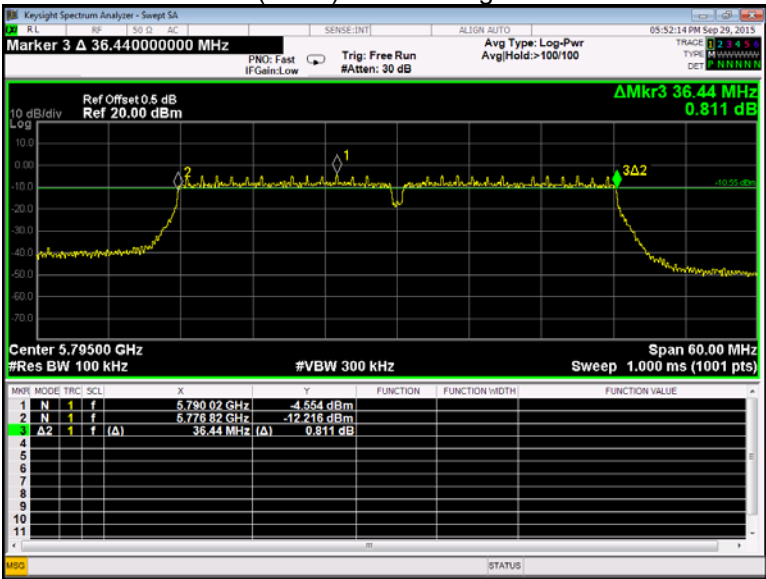
802.11n(HT20) band IV High channel



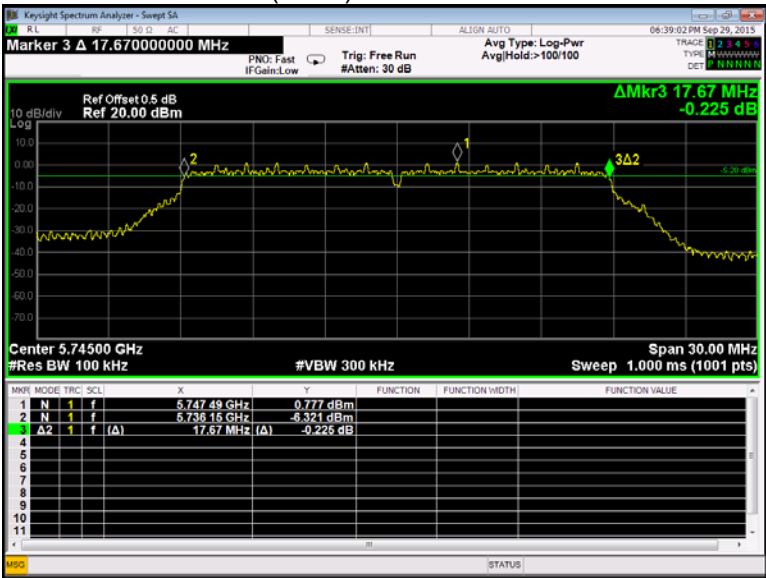
802.11n(HT40) band IV Low channel



802.11n(HT40) band IV High channel



802.11ac(HT20) band IV Low channel



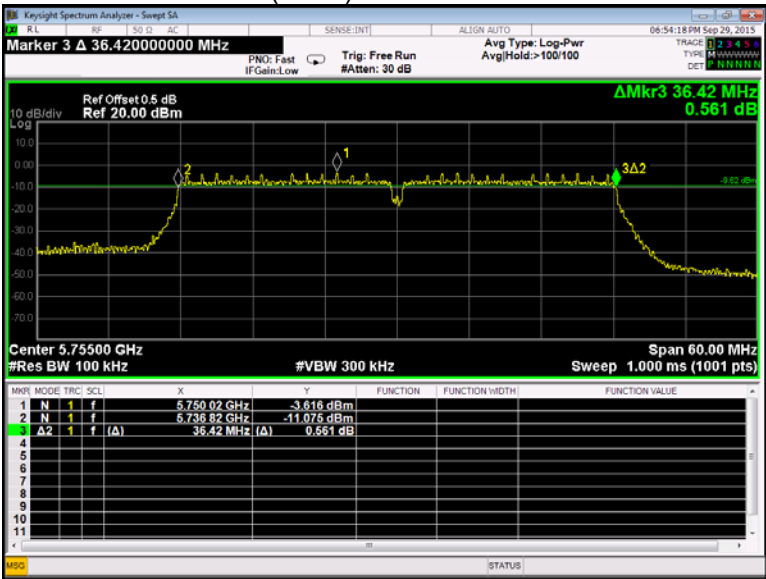
802.11ac(HT20) band IV Middle channel



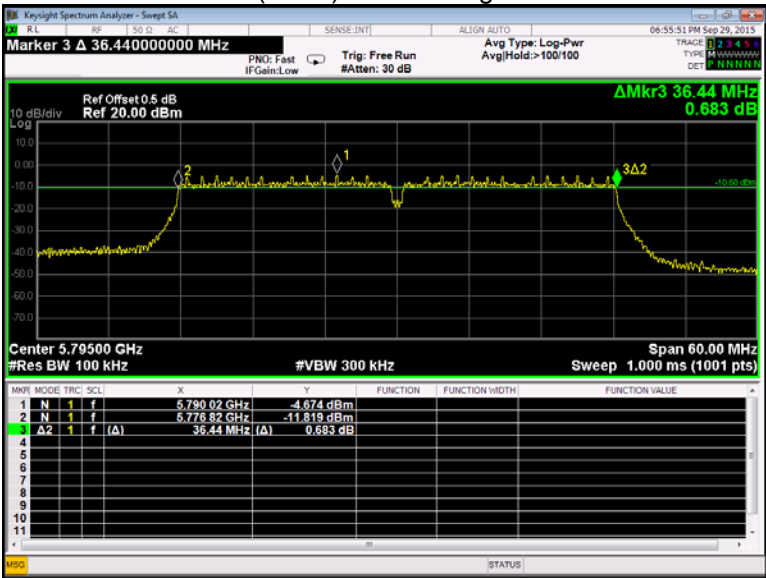
802.11ac(HT20) band IV High channel



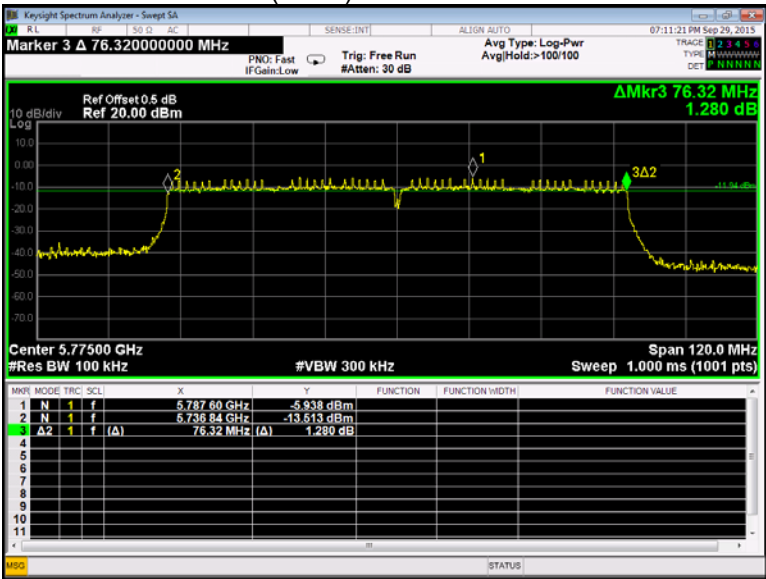
802.11ac(HT40) band IV Low channel



802.11n(HT40) band IV High channel



802.11ac(HT80) band IV Low channel

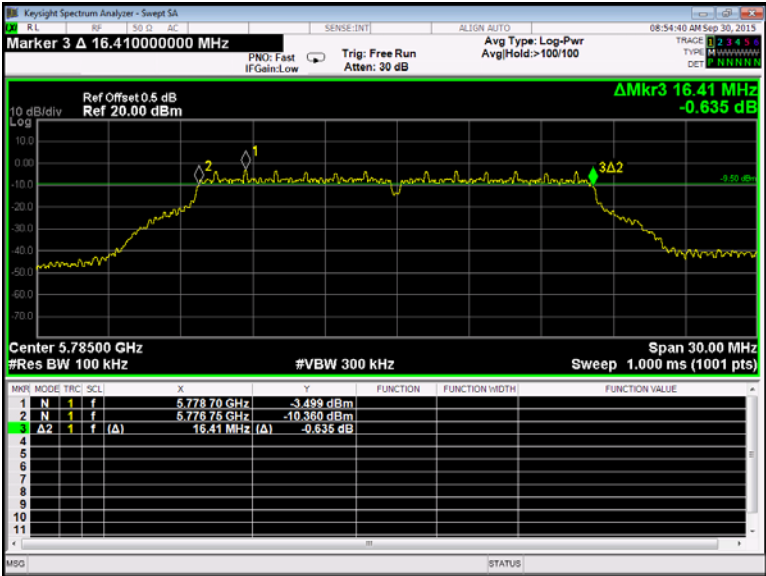


ANT1

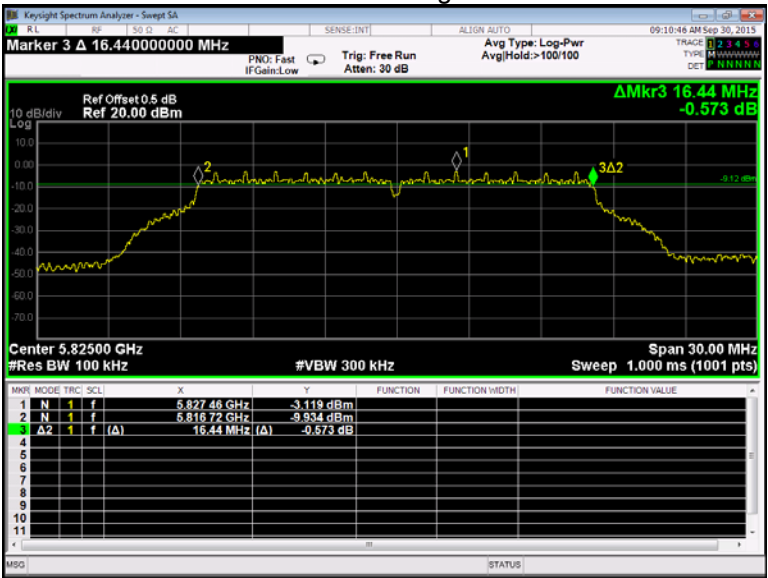
802.11a band IV Low channel



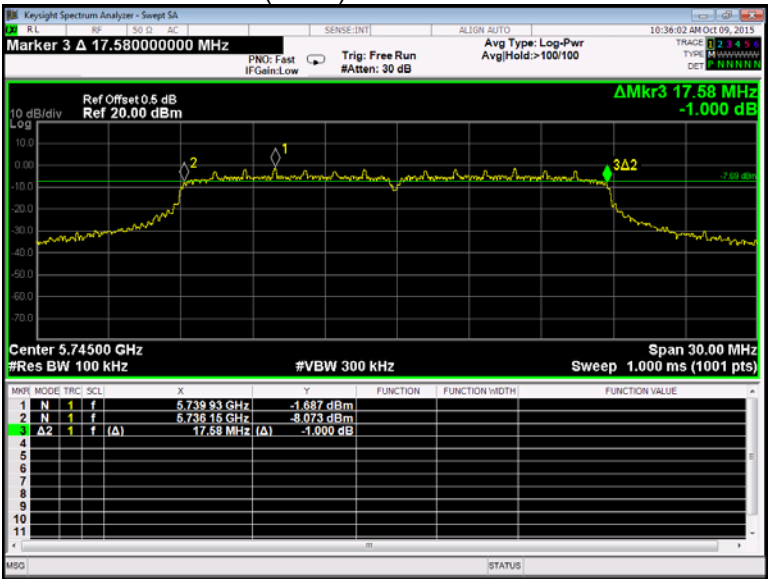
802.11a band IV Middle channel



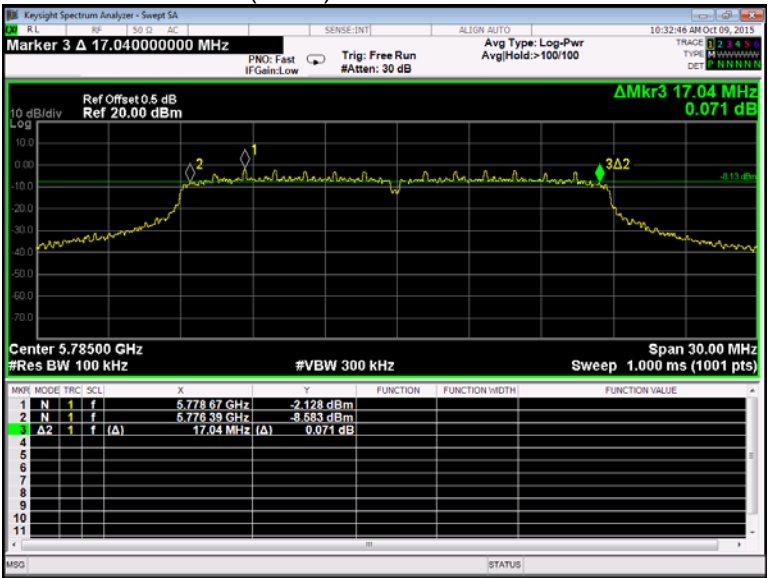
802.11a band IV High channel



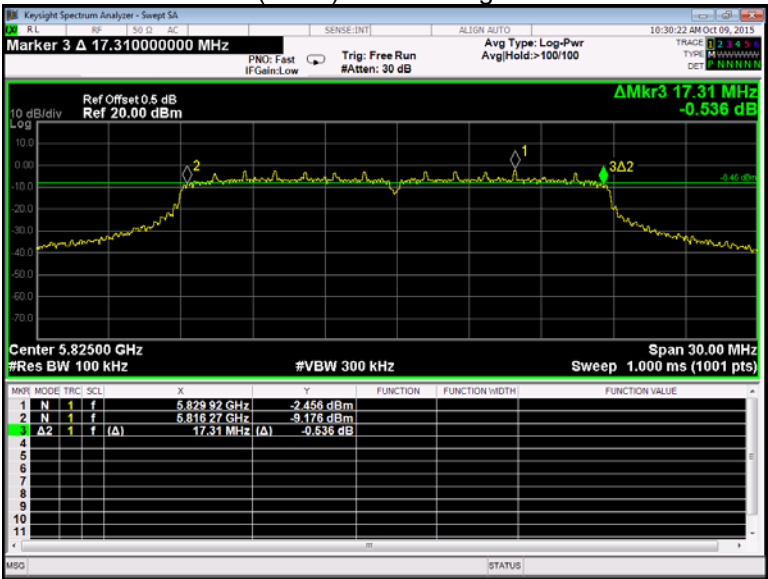
802.11n(HT20) band IV Low channel



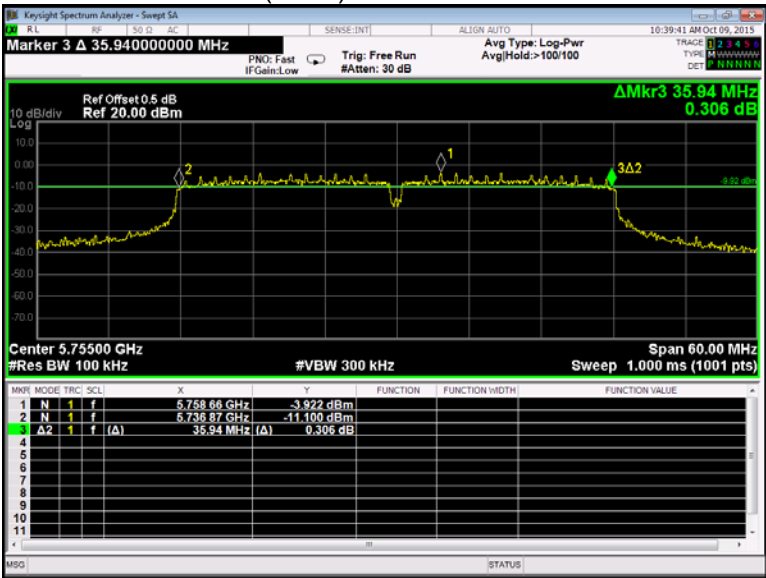
802.11n(HT20) band IV Middle channel



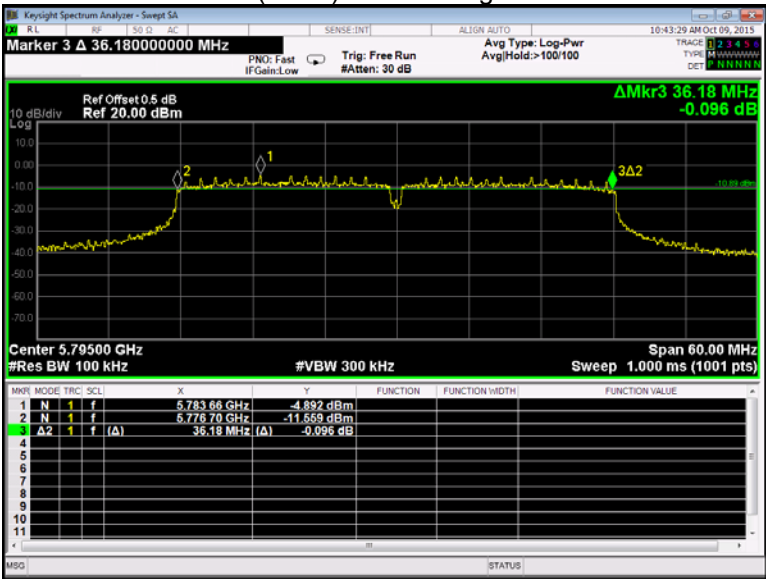
802.11n(HT20) band IV High channel



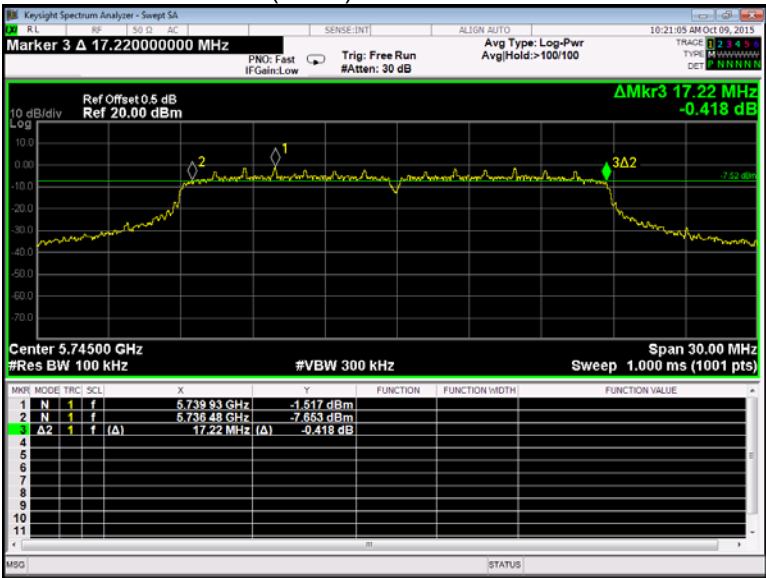
802.11n(HT40) band IV Low channel



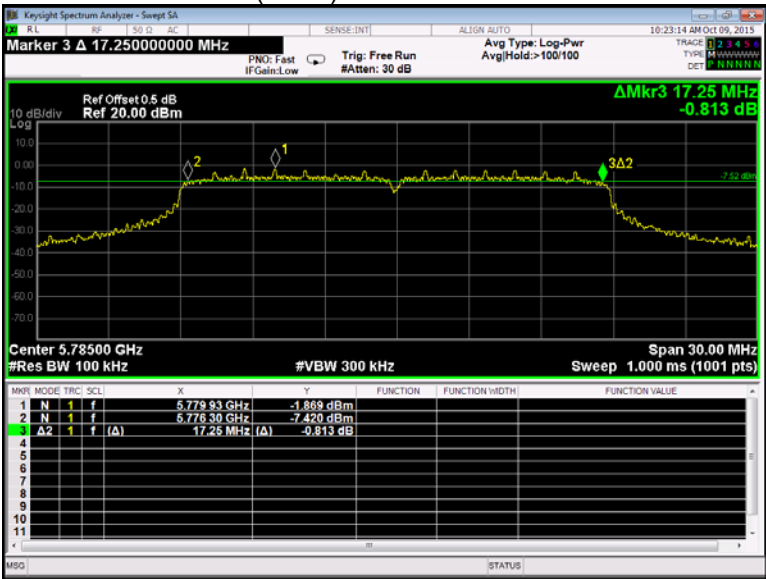
802.11n(HT40) band IV High channel



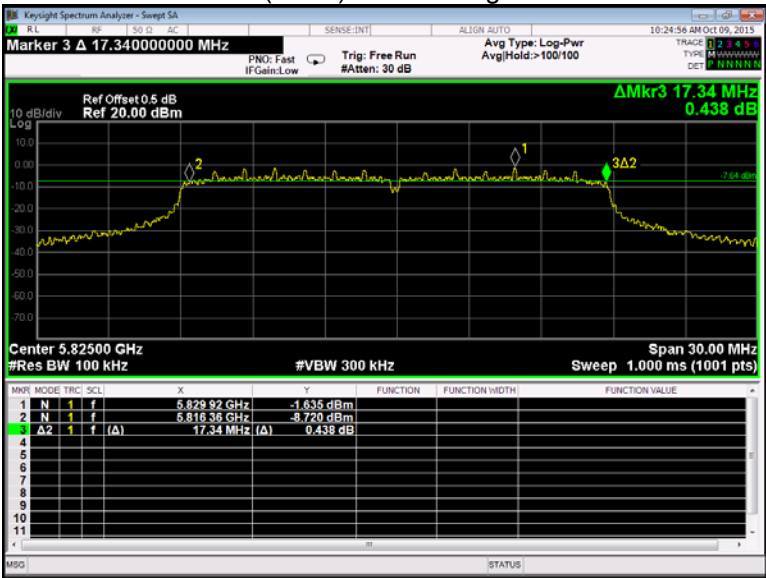
802.11ac(HT20) band IV Low channel



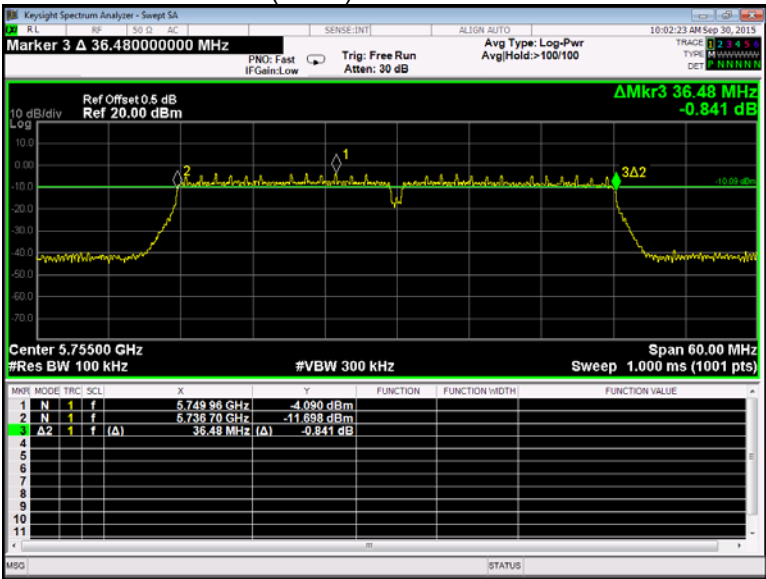
802.11ac(HT20) band IV Middle channel



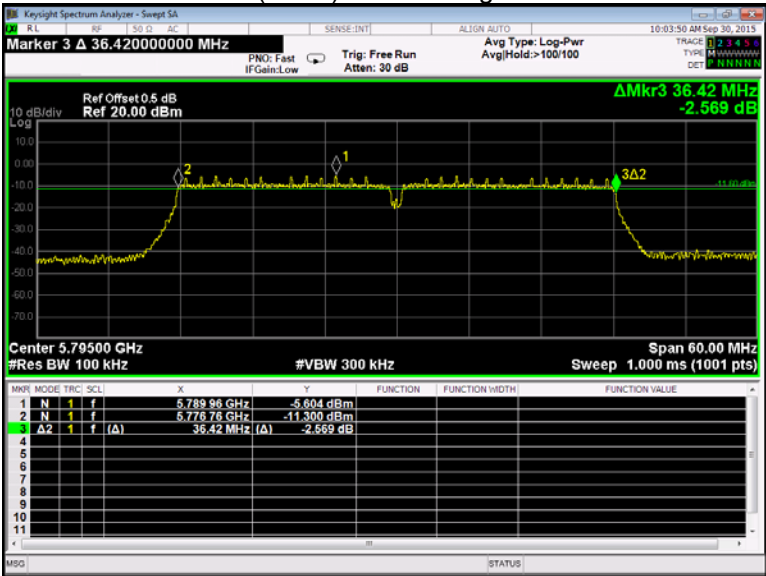
802.11ac(HT20) band IV High channel



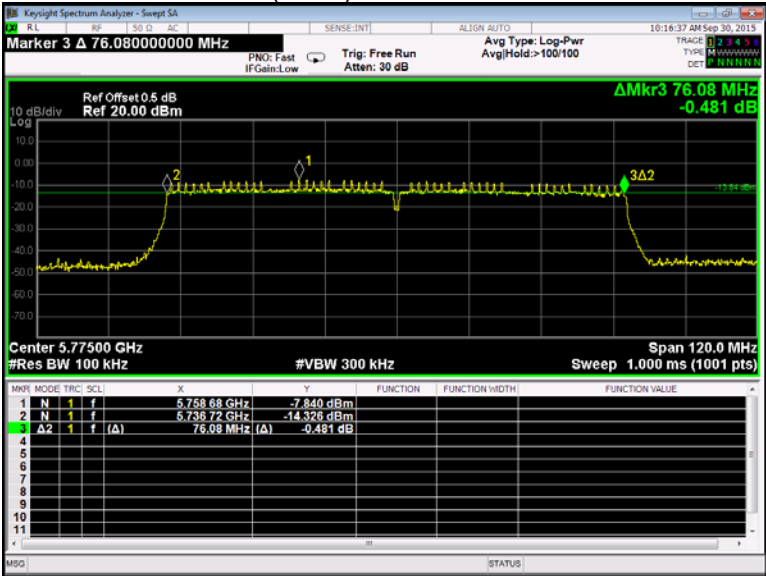
802.11ac(HT40) band IV Low channel



802.11n(HT40) band IV High channel



802.11ac(HT80) band IV Low channel



## 11 26 dB Bandwidth and 99% Occupied Bandwidth

|                   |                                                                                        |
|-------------------|----------------------------------------------------------------------------------------|
| Test Requirement: | 47 CFR Part 15C Section 15.407 (a)<br>KDB662911 D01 Multiple Transmitter Output v02r01 |
| Test Method:      | KDB789033 D02 General UNII Test Procedures New Rules v01<br>Section D                  |
| Test Limit:       | No restriction limits                                                                  |
| Test Result:      | PASS                                                                                   |

### 11.1 Test Procedure:

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
2. Set the spectrum analyzer: RBW = 100kHz, VBW = 300kHz

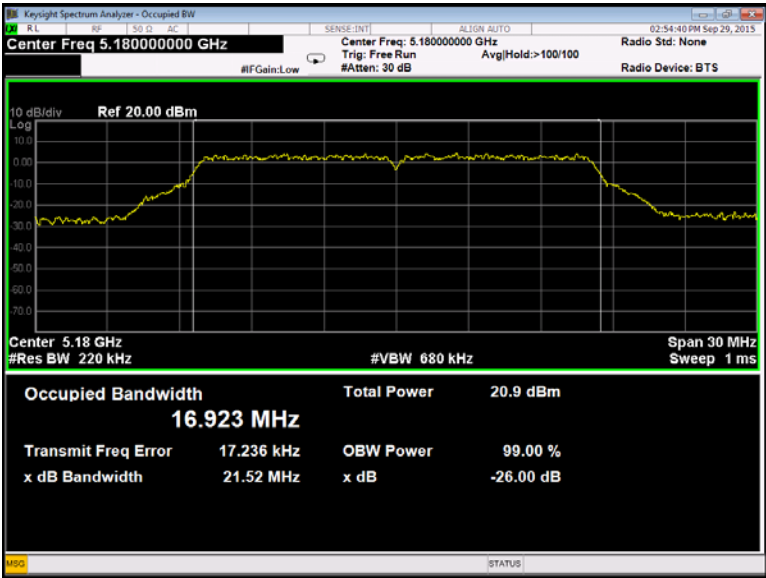
**11.2 Test Result:**

| Band                          | Operation mode | 26 dB Bandwidth (MHz) |        |       | 99% Bandwidth (MHz) |        |       |
|-------------------------------|----------------|-----------------------|--------|-------|---------------------|--------|-------|
|                               |                | Low                   | Middle | High  | Low                 | Middle | High  |
| <b>ANT0</b><br><b>Band I</b>  | 802.11a        | 21.52                 | 21.45  | 21.69 | 16.92               | 16.93  | 16.93 |
|                               | 802.11n(HT20)  | 21.77                 | 21.98  | 21.77 | 18.01               | 17.98  | 17.99 |
|                               | 802.11n(HT40)  | 40.41                 | /      | 40.29 | 35.93               | /      | 35.92 |
|                               | 802.11ac(HT20) | 21.92                 | 21.81  | 21.80 | 17.97               | 17.98  | 17.92 |
|                               | 802.11ac(HT40) | 40.26                 | /      | 40.76 | 36.36               | /      | 36.34 |
|                               | 802.11ac(HT80) | 81.63                 | /      | /     | 75.70               | /      | /     |
| <b>ANT0</b><br><b>Band IV</b> | 802.11a        | 21.72                 | 21.83  | 21.71 | 16.85               | 16.91  | 16.88 |
|                               | 802.11n(HT20)  | 21.77                 | 21.74  | 21.81 | 17.91               | 17.93  | 17.94 |
|                               | 802.11n(HT40)  | 40.01                 | /      | 40.30 | 36.31               | /      | 36.33 |
|                               | 802.11ac(HT20) | 21.83                 | 21.78  | 21.88 | 17.92               | 17.93  | 17.95 |
|                               | 802.11ac(HT40) | 40.16                 | /      | 40.50 | 36.33               | /      | 36.33 |
|                               | 802.11ac(HT80) | 81.86                 | /      | /     | 75.90               | /      | /     |
| <b>ANT1</b><br><b>Band I</b>  | 802.11a        | 21.41                 | 21.49  | 21.53 | 16.84               | 16.86  | 16.86 |
|                               | 802.11n(HT20)  | 21.76                 | 21.84  | 21.71 | 17.97               | 17.95  | 17.96 |
|                               | 802.11n(HT40)  | 40.10                 | /      | 40.13 | 36.34               | /      | 36.36 |
|                               | 802.11ac(HT20) | 21.95                 | 21.74  | 21.64 | 17.97               | 17.97  | 17.94 |
|                               | 802.11ac(HT40) | 40.10                 | /      | 39.98 | 36.32               | /      | 36.37 |
|                               | 802.11ac(HT80) | 82.02                 | /      | /     | 75.71               | /      | /     |
| <b>ANT1</b><br><b>Band IV</b> | 802.11a        | 21.53                 | 21.61  | 21.54 | 16.81               | 16.91  | 16.86 |
|                               | 802.11n(HT20)  | 21.70                 | 21.70  | 21.79 | 17.98               | 17.98  | 17.97 |
|                               | 802.11n(HT40)  | 40.07                 | /      | 40.64 | 36.35               | /      | 36.43 |
|                               | 802.11ac(HT20) | 21.84                 | 21.74  | 21.98 | 17.95               | 17.99  | 17.97 |
|                               | 802.11ac(HT40) | 40.28                 | /      | 40.21 | 36.34               | /      | 36.41 |
|                               | 802.11ac(HT80) | 82.16                 | /      | /     | 75.85               | /      | /     |

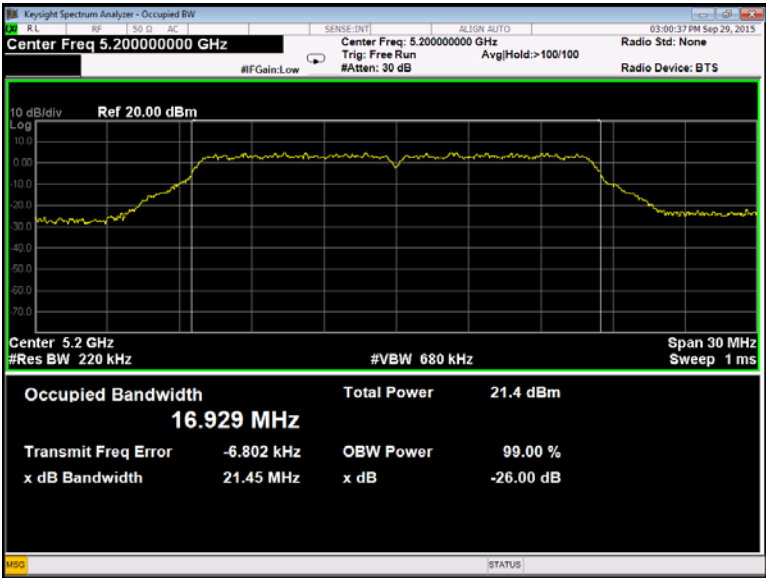
Test result plots shown as follows:

ANT0

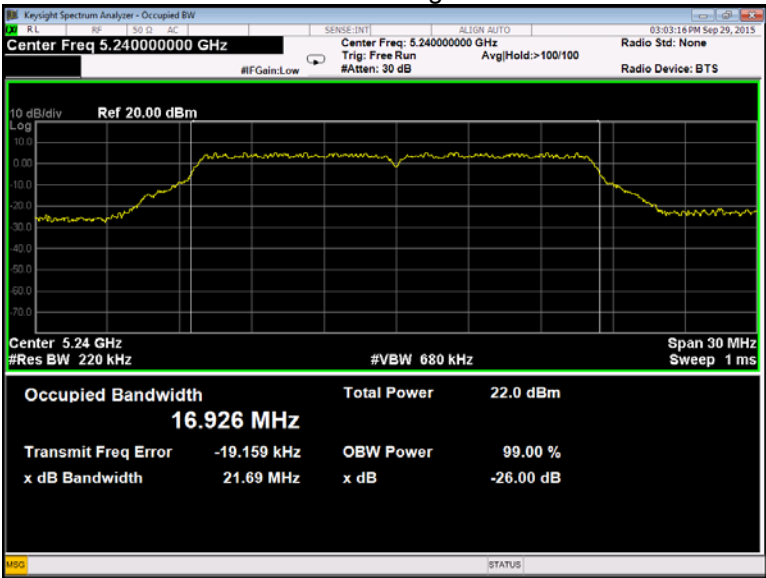
802.11a band I Low channel



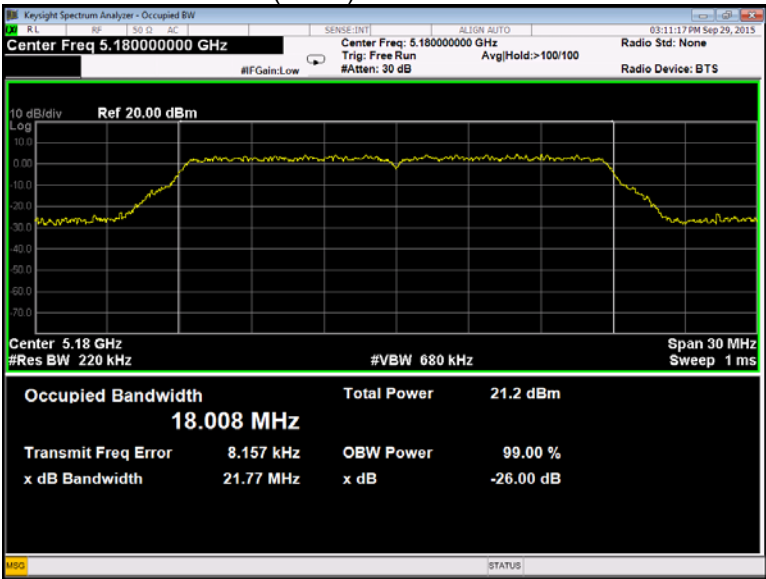
802.11a band I Middle channel



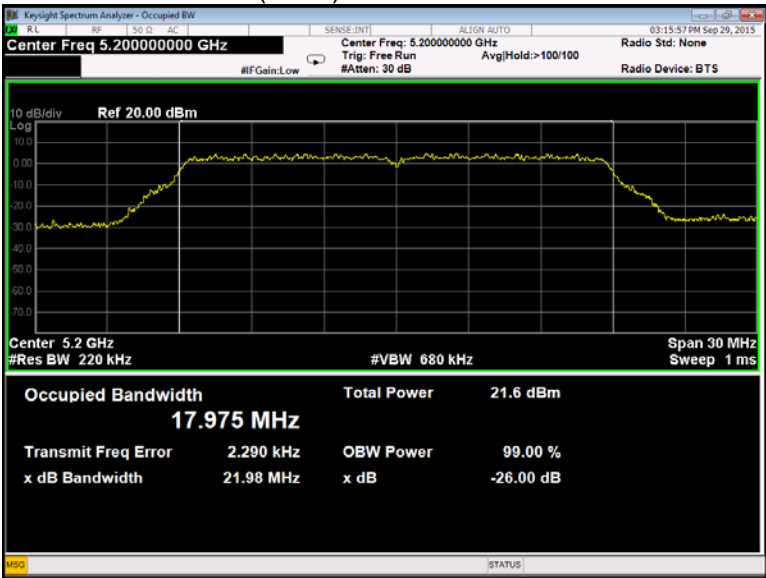
802.11a band I High channel



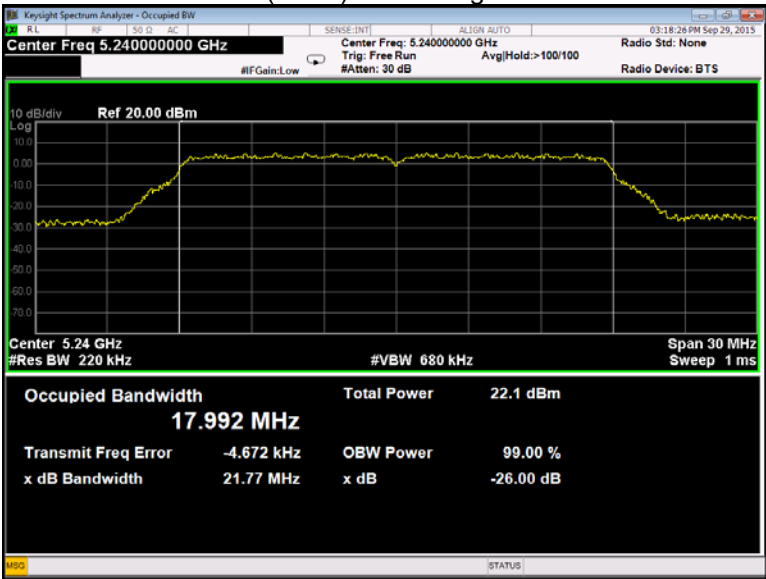
802.11n(HT20) band I Low channel



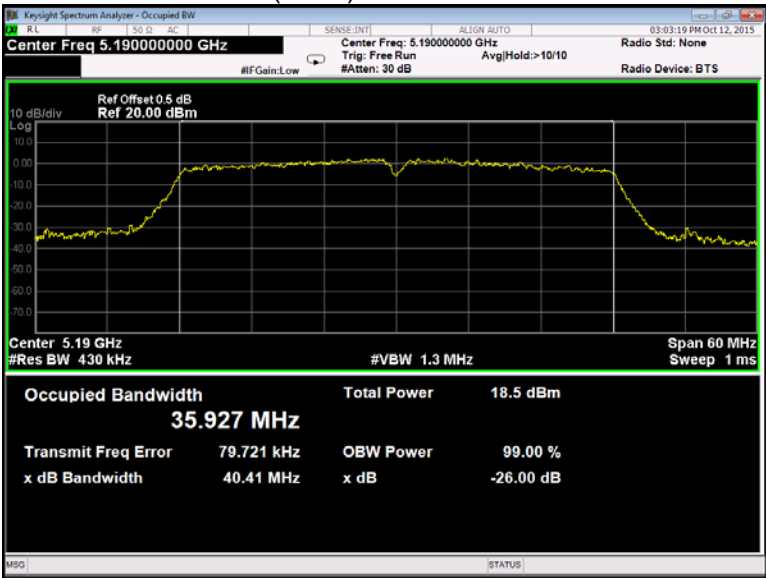
802.11n(HT20) band I Middle channel



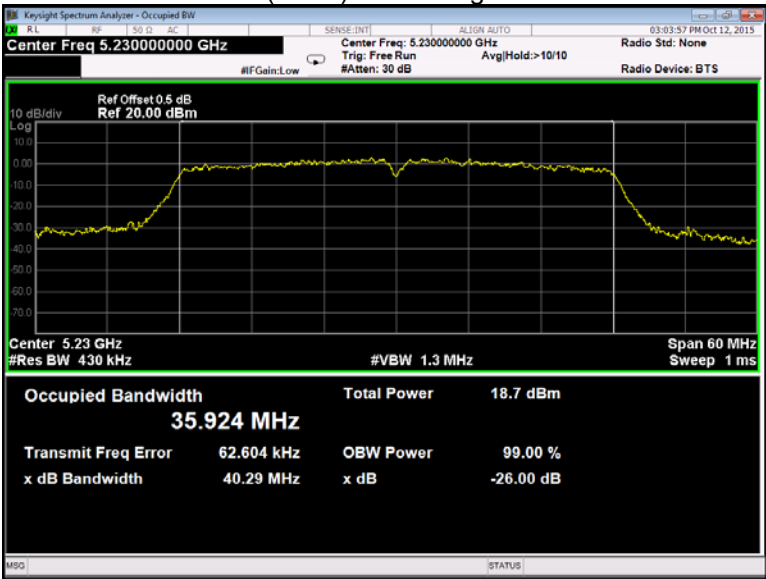
802.11n(HT20) band I High channel



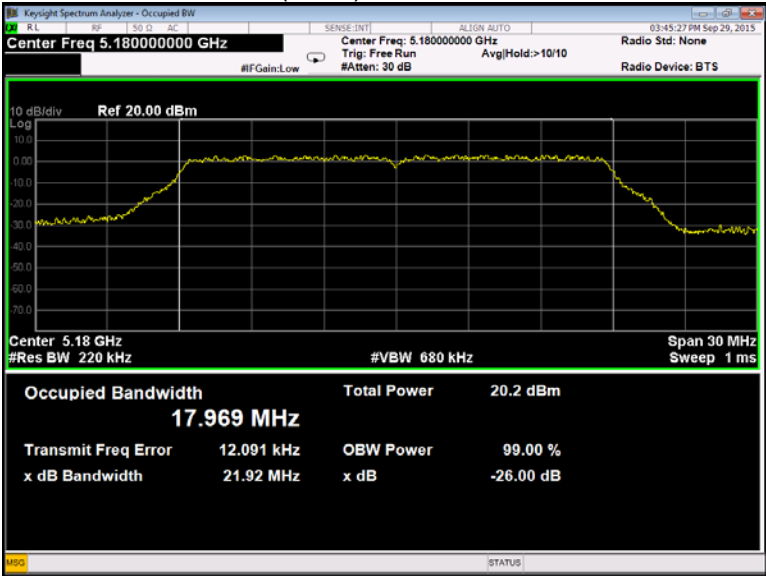
802.11n(HT40) band I Low channel



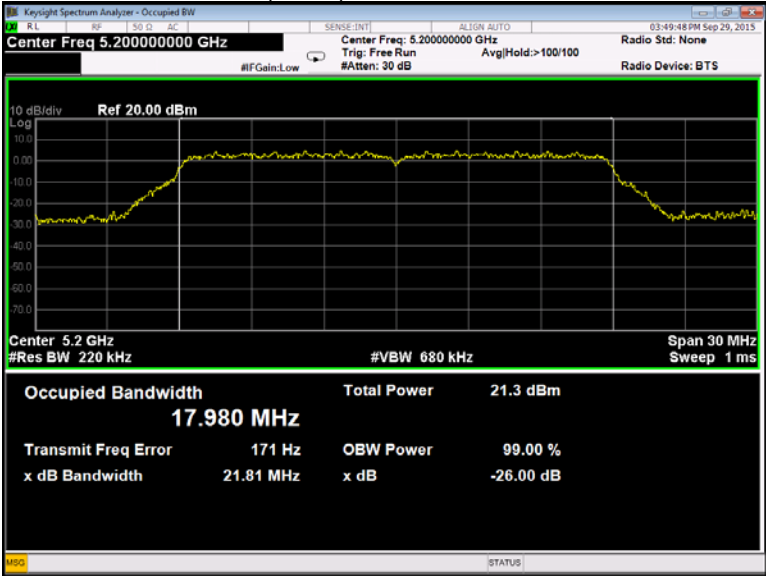
802.11n(HT40) band I High channel



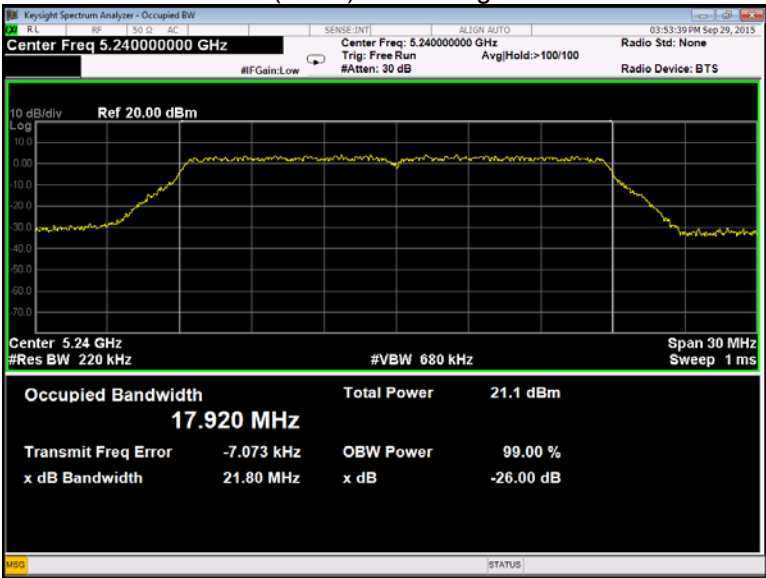
802.11ac(HT20) band I Low channel



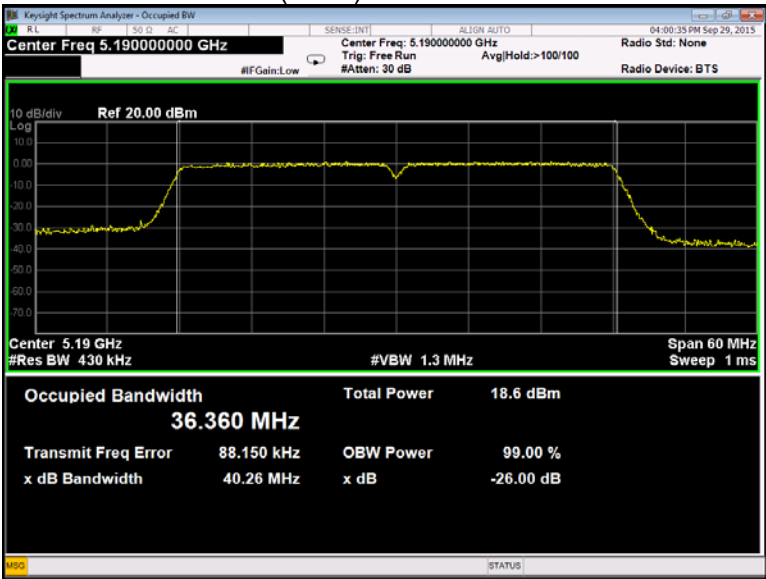
802.11ac(HT20) band I Middle channel



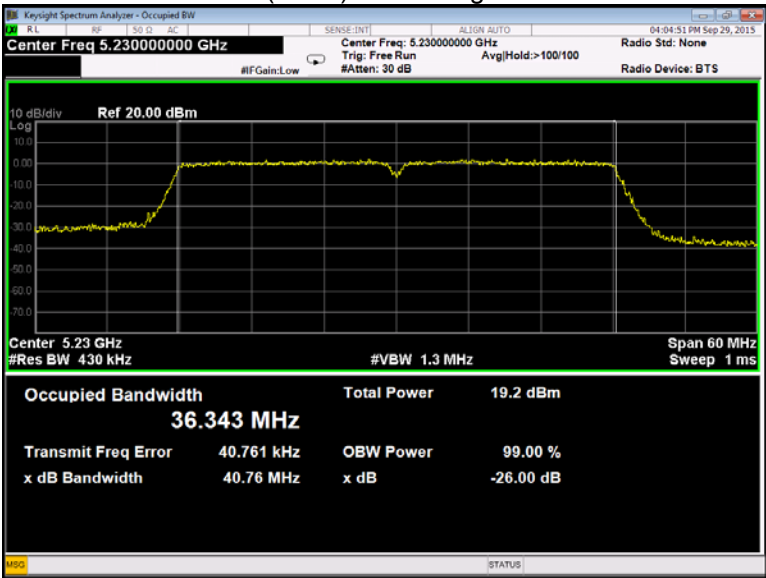
802.11ac(HT20) band I High channel



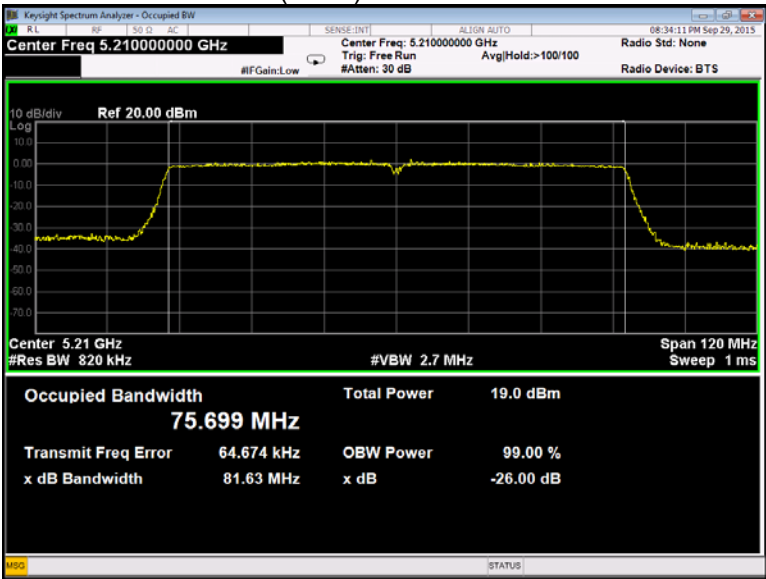
802.11ac(HT40) band I Low channel



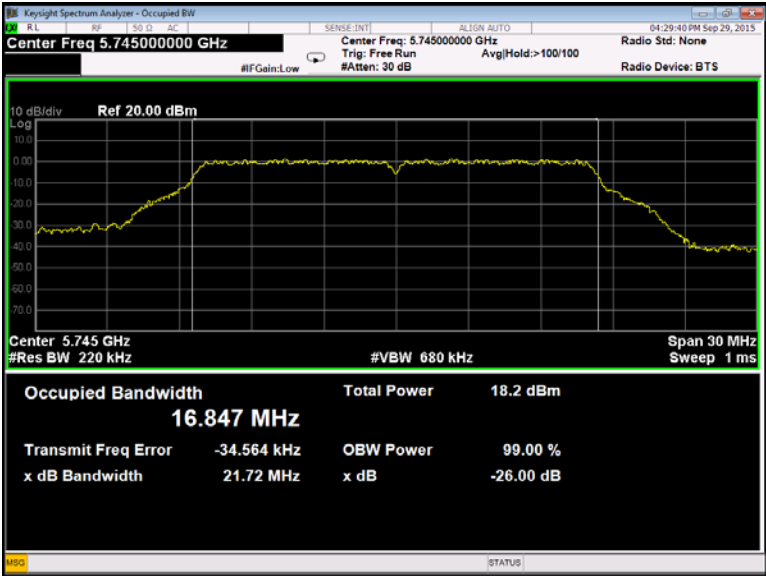
802.11n(HT40) band I High channel



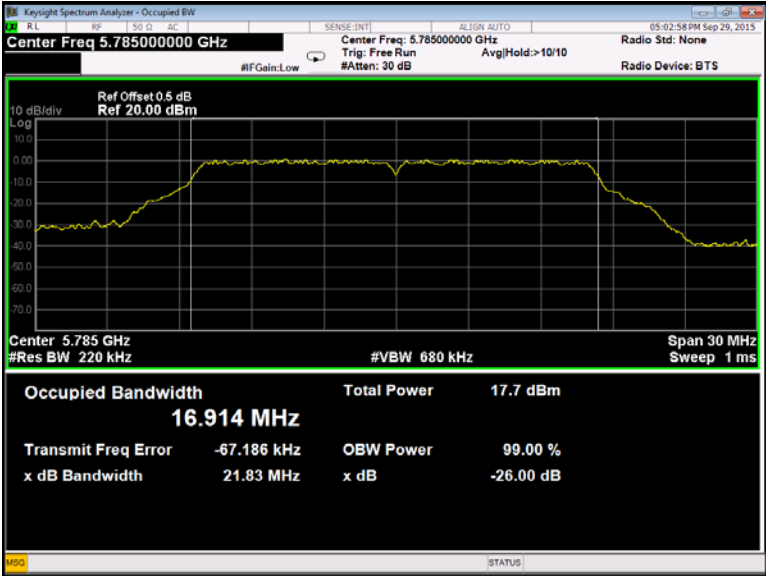
802.11ac(HT80) band I Low channel



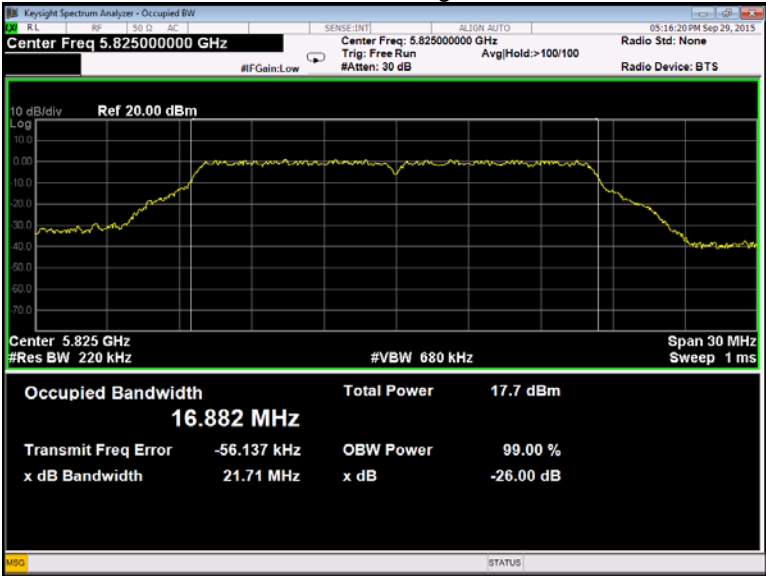
802.11a band IV Low channel



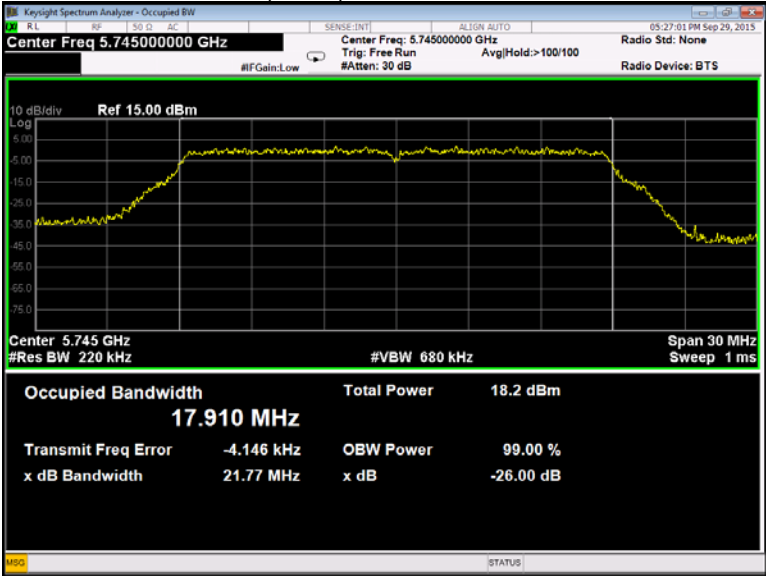
802.11a band IV Middle channel



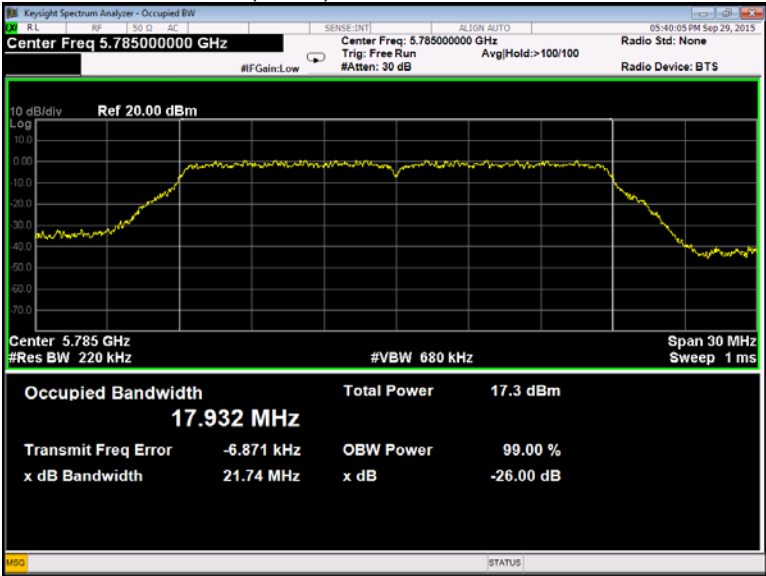
802.11a band IV High channel



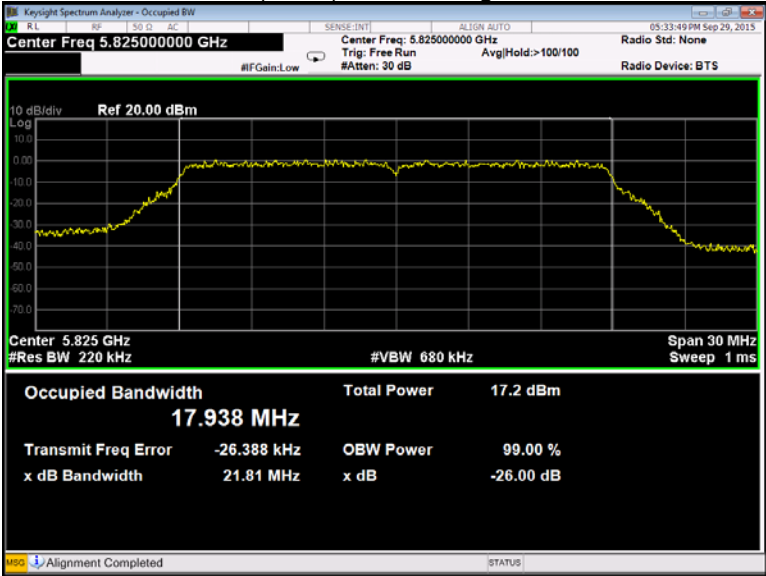
802.11n(HT20) band IV Low channel



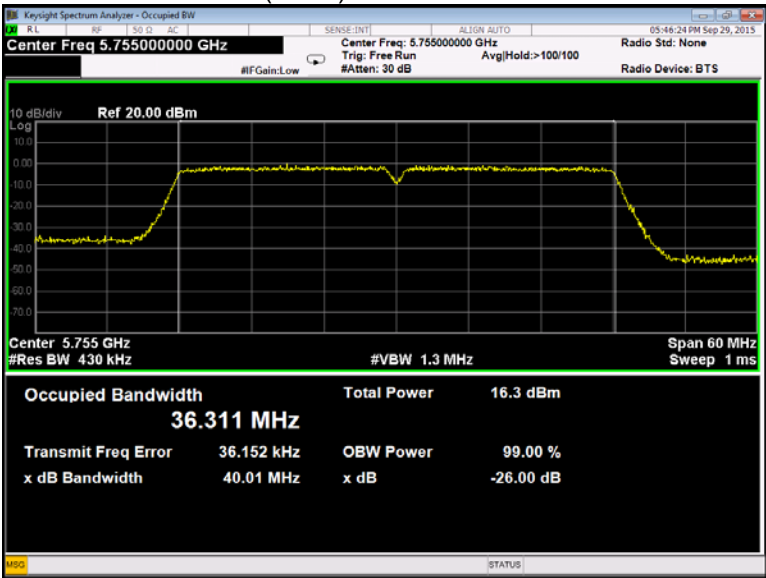
802.11n(HT20) band IV Middle channel



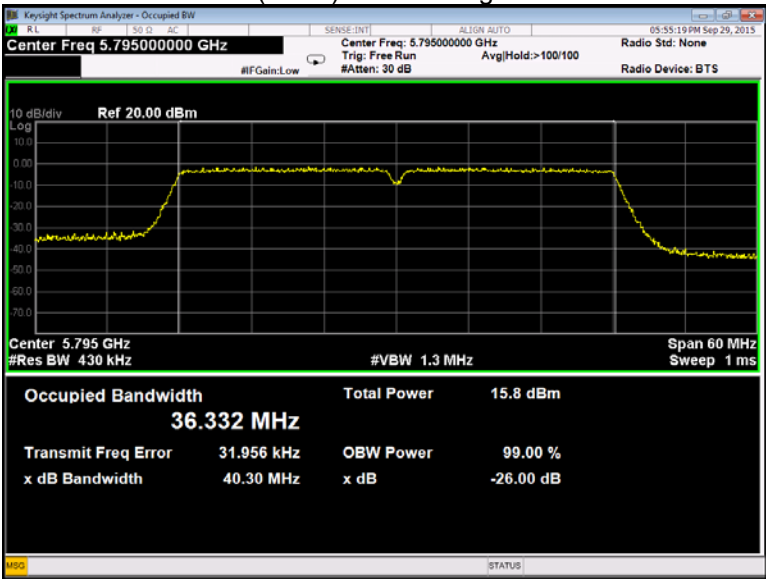
802.11n(HT20) band IV High channel



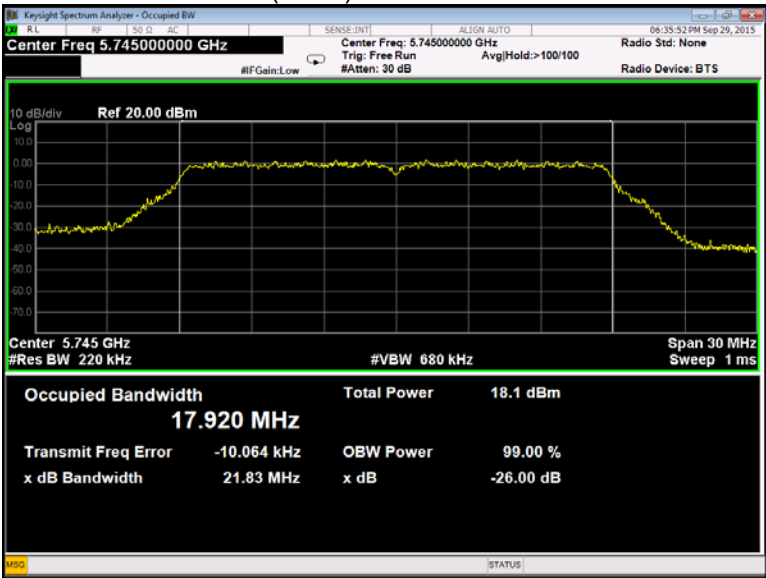
802.11n(HT40) band IV Low channel



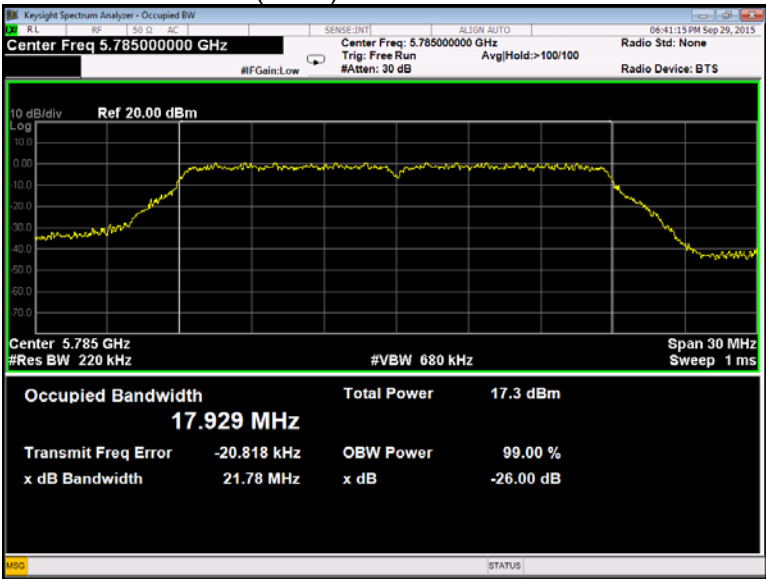
802.11n(HT40) band IV High channel



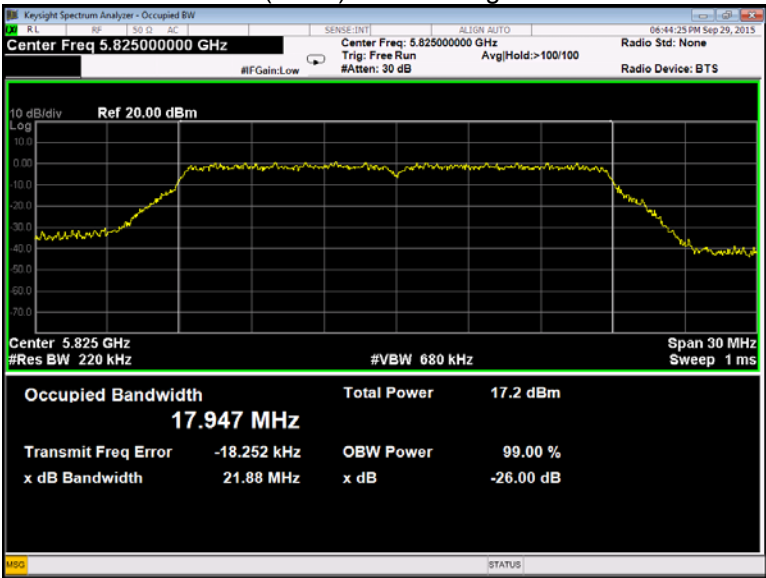
802.11ac(HT20) band IV Low channel



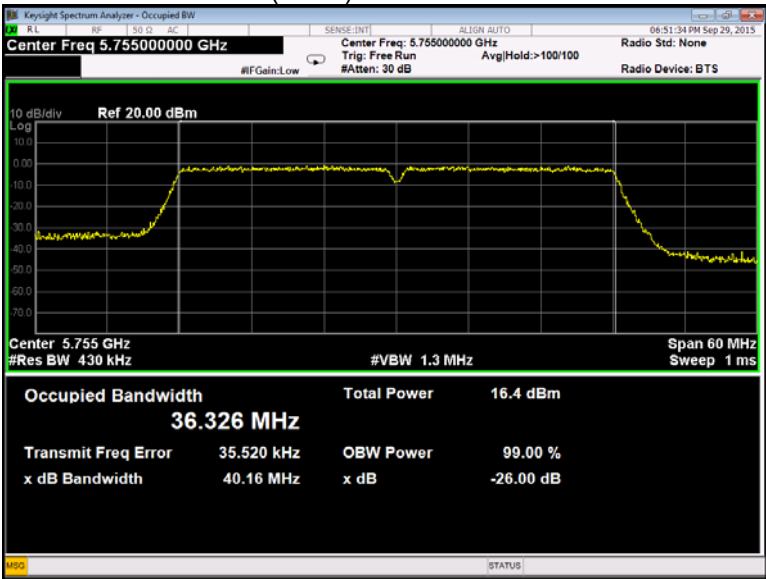
802.11ac(HT20) band IV Middle channel



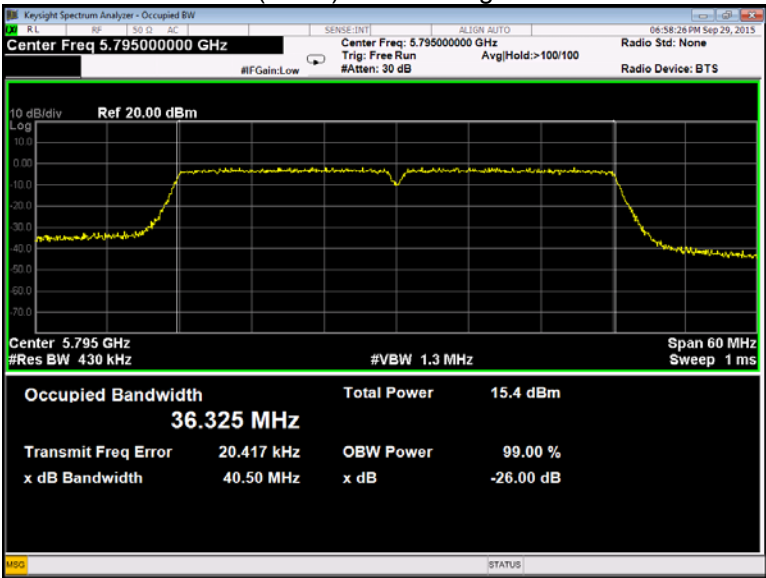
802.11ac(HT20) band IV High channel



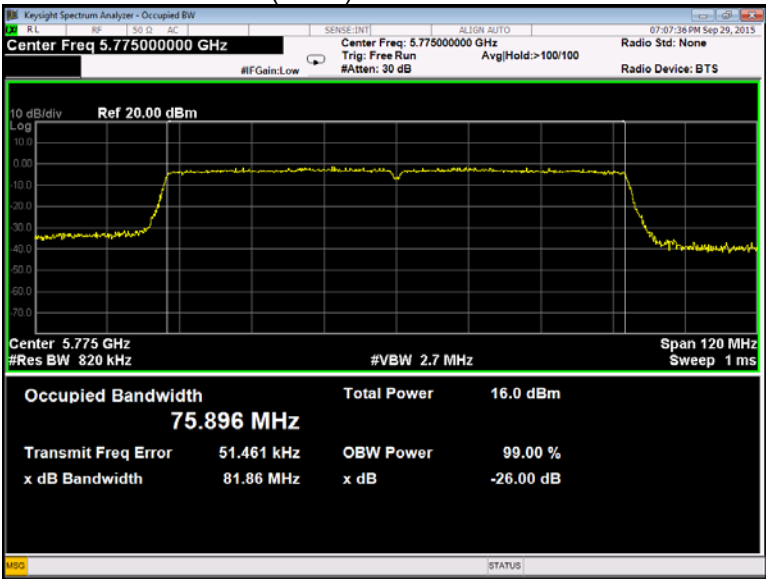
802.11ac(HT40) band IV Low channel



802.11n(HT40) band IV High channel

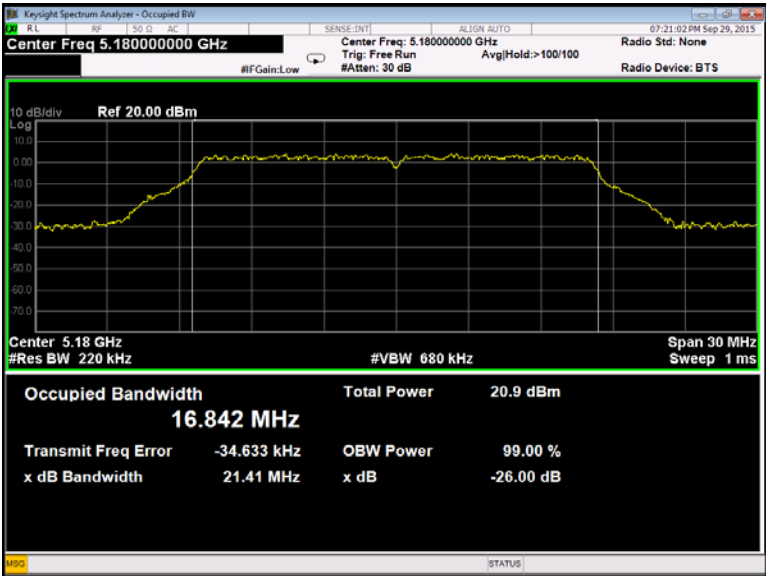


802.11ac(HT80) band IV Low channel



ANT1

802.11a band I Low channel



802.11a band I Middle channel

