

### 8.31.3. AVERAGE POWER

#### LIMITS

None; for reporting purposes only.

#### RESULTS

| Channel | Frequency<br>(MHz) | Chain 0<br>Power<br>(dBm) | Chain 1<br>Power<br>(dBm) | Total<br>Power<br>(dBm) |
|---------|--------------------|---------------------------|---------------------------|-------------------------|
| Low     | 5510               | 15.96                     | 15.91                     | 18.95                   |
| Mid     | 5590               | 18.45                     | 18.92                     | 21.70                   |
| High    | 5670               | 16.41                     | 16.42                     | 19.43                   |
| 142     | 5710               | 18.47                     | 18.46                     | 21.48                   |

#### 8.31.4. OUTPUT POWER AND PSD

##### LIMITS

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log B$ , where B is the 26-dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1-MHz 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.

IC RSS-247 (6.2.3) (1)

The maximum conducted output power shall not exceed 250 mW or  $11 + 10 \log_{10} B$ , dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or  $17 + 10 \log_{10} B$ , dBm, whichever is less. B is the 99% emission bandwidth in megahertz. 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.

##### DIRECTIONAL ANTENNA GAIN

The TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

| Chain 0<br>Antenna<br>Gain<br>(dBi) | Chain 1<br>Antenna<br>Gain<br>(dBi) | Uncorrelated Chains<br>Directional<br>Gain<br>(dBi) |
|-------------------------------------|-------------------------------------|-----------------------------------------------------|
| -3.40                               | -0.44                               | -1.67                                               |

The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

| Chain 0<br>Antenna<br>Gain<br>(dBi) | Chain 1<br>Antenna<br>Gain<br>(dBi) | Correlated Chains<br>Directional<br>Gain<br>(dBi) |
|-------------------------------------|-------------------------------------|---------------------------------------------------|
| -3.40                               | -0.44                               | 1.22                                              |

## RESULTS

### Bandwidth, Antenna Gain and Limits

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Min<br>99%<br>BW<br>(MHz) | Directional<br>Gain<br>for Power<br>(dBi) | Directional<br>Gain<br>for PSD<br>(dBi) | Power<br>Limit<br>(dBm) | PSD<br>Limit<br>(dBm) |
|---------|--------------------|-----------------------------|---------------------------|-------------------------------------------|-----------------------------------------|-------------------------|-----------------------|
| Low     | 5510               | 40.18                       | 36.491                    | -1.67                                     | 1.22                                    | 24.00                   | 11.00                 |
| Mid     | 5550               | 40.18                       | 36.358                    | -1.67                                     | 1.22                                    | 24.00                   | 11.00                 |
| High    | 5670               | 40.00                       | 36.435                    | -1.67                                     | 1.22                                    | 24.00                   | 11.00                 |

|                    |      |                                                |
|--------------------|------|------------------------------------------------|
| Duty Cycle CF (dB) | 0.00 | Included in Calculations of Corr'd Power & PSD |
|--------------------|------|------------------------------------------------|

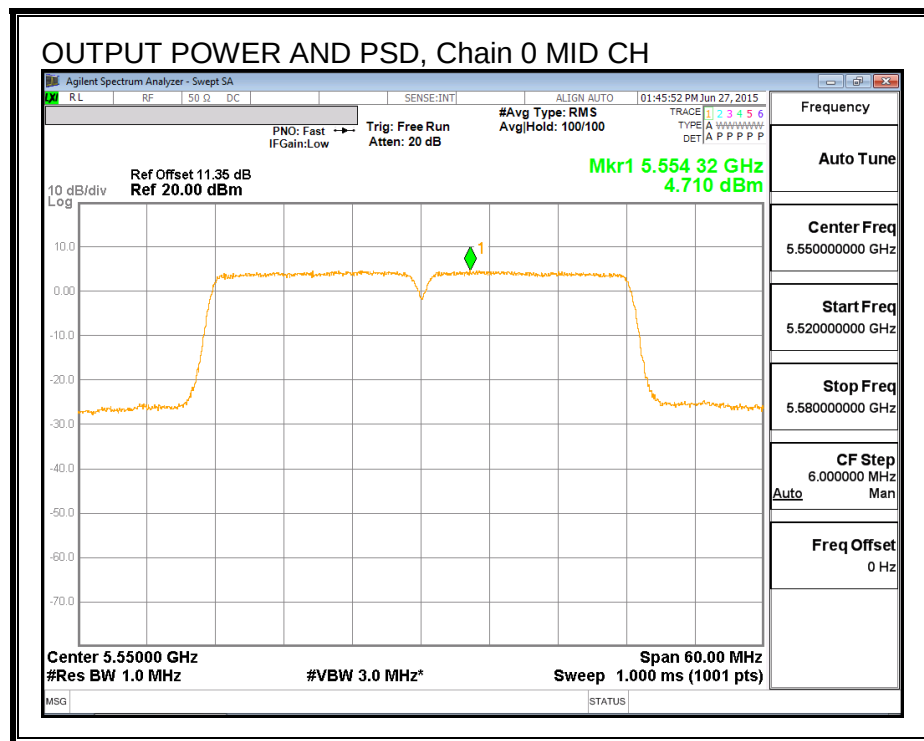
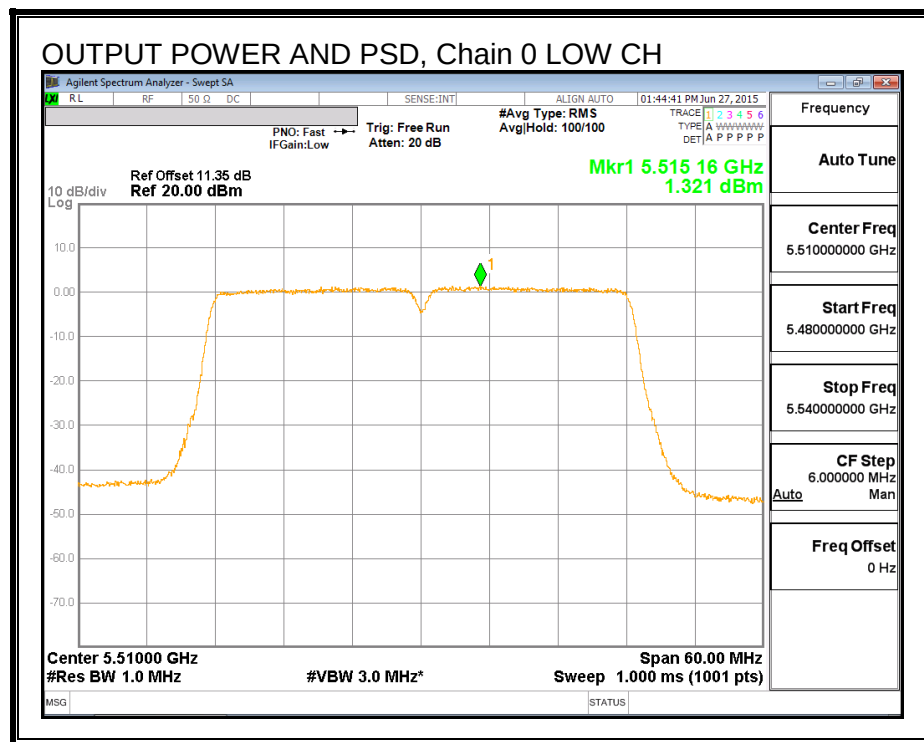
### Output Power Results

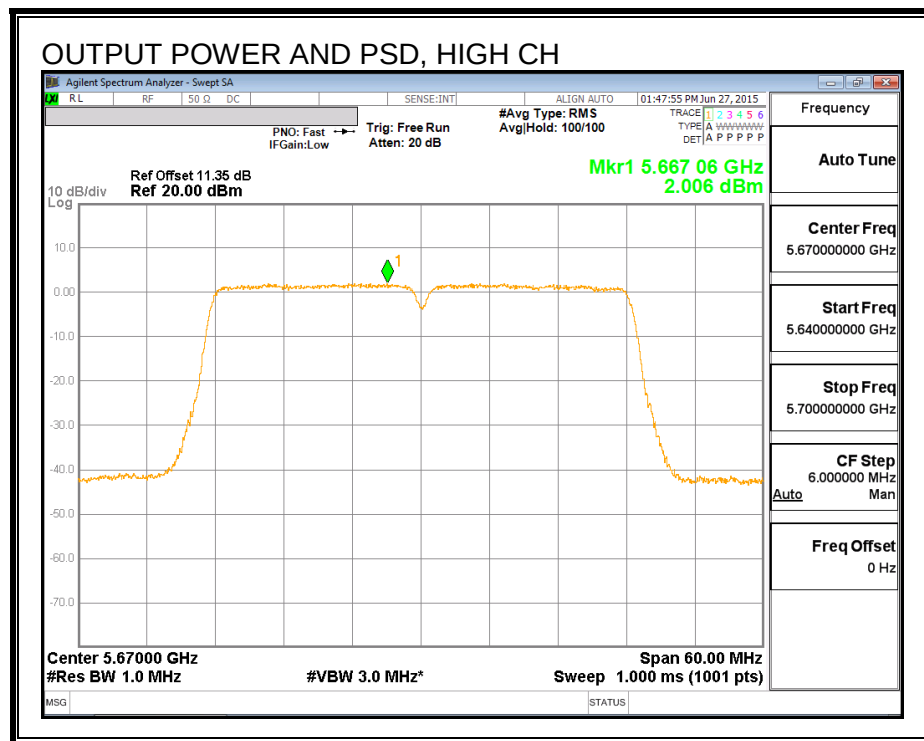
| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>Power<br>(dBm) | Chain 1<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low     | 5510               | 15.96                             | 15.91                             | 18.95                             | 24.00                   | -5.05                   |
| Mid     | 5550               | 18.45                             | 18.92                             | 21.70                             | 24.00                   | -2.30                   |
| High    | 5670               | 16.41                             | 16.42                             | 19.43                             | 24.00                   | -4.57                   |

### PSD Results

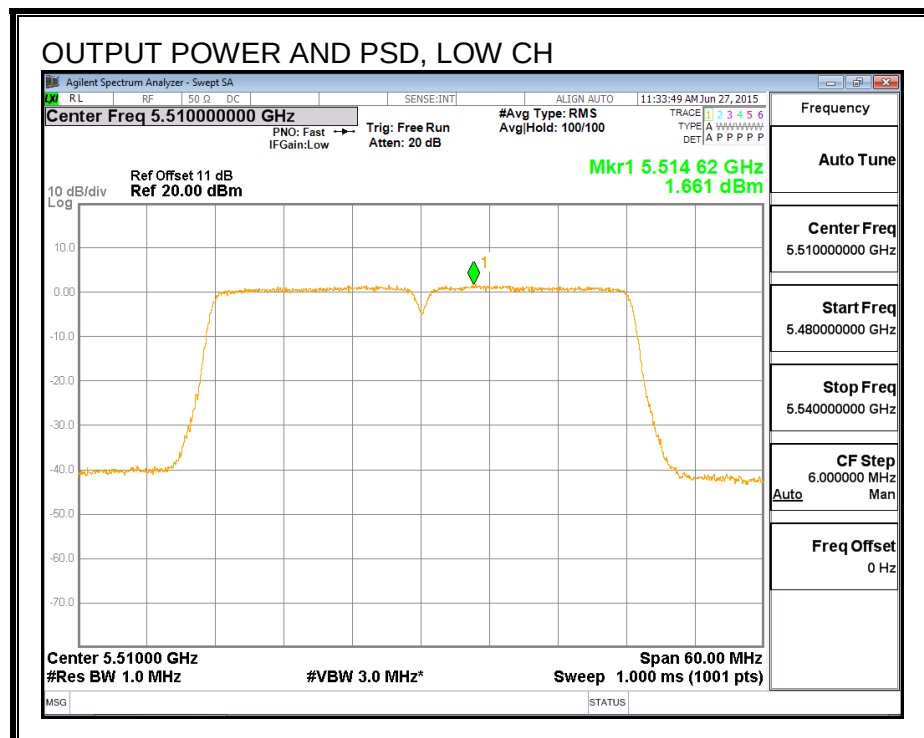
| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm) | Chain 1<br>Meas<br>PSD<br>(dBm) | Total<br>Corr'd<br>PSD<br>(dBm) | PSD<br>Limit<br>(dBm) | PSD<br>Margin<br>(dB) |
|---------|--------------------|---------------------------------|---------------------------------|---------------------------------|-----------------------|-----------------------|
| Low     | 5510               | 1.32                            | 1.66                            | 4.50                            | 11.00                 | -6.50                 |
| Mid     | 5550               | 4.71                            | 4.54                            | 7.64                            | 11.00                 | -3.36                 |
| High    | 5670               | 2.01                            | 2.21                            | 5.12                            | 11.00                 | -5.88                 |

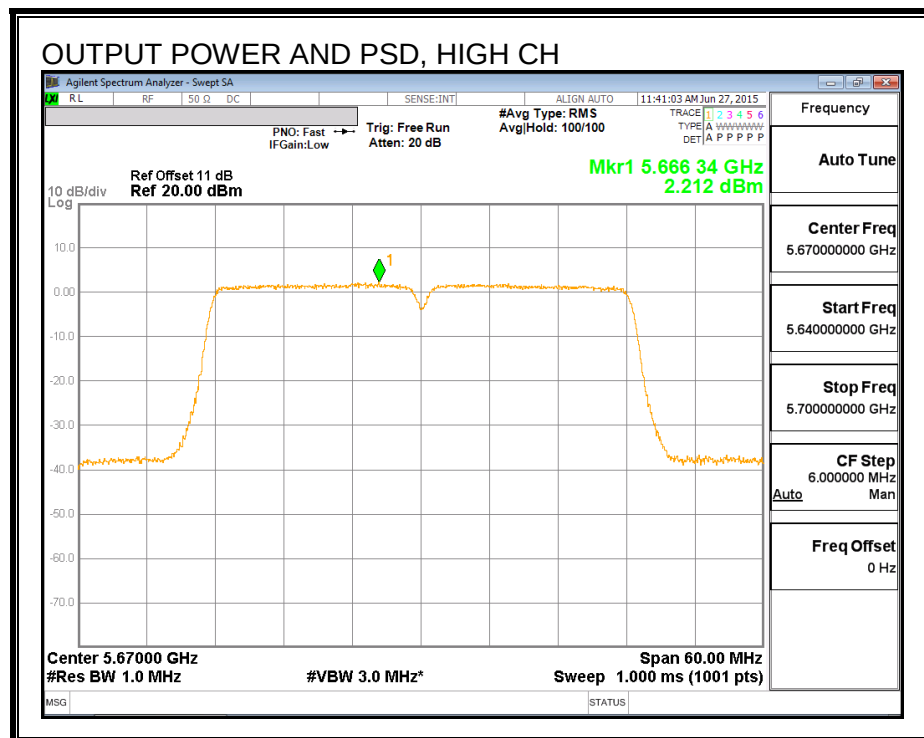
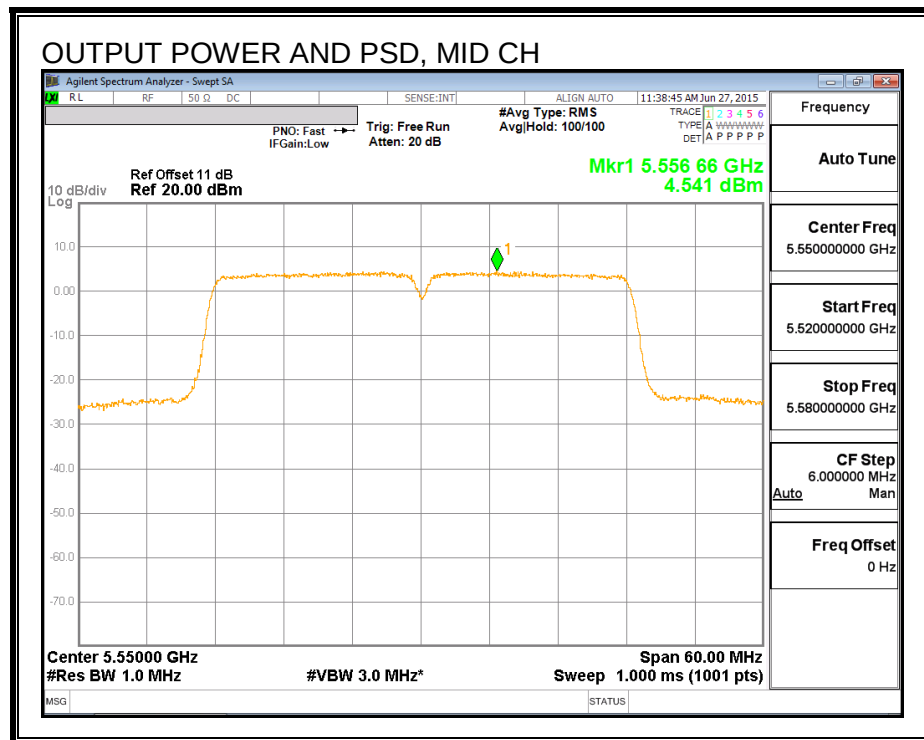
**OUTPUT POWER AND PSD, CHAIN 0**





**OUTPUT POWER AND PSD, CHAIN 1**





### 8.31.5. STRADDLE CHANNEL 142 RESULTS

#### UNII-2C BAND

##### Bandwidth, Antenna Gain, and Limits

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Directional<br>Gain<br>for Power<br>(dBi) | Directional<br>Gain<br>for PSD<br>(dBi) | Power<br>Limit<br>(dBm) | PSD<br>Limit<br>(dBm) |
|---------|--------------------|-----------------------------|-------------------------------------------|-----------------------------------------|-------------------------|-----------------------|
| 142     | 5710               | 34.97                       | -3.40                                     | -0.44                                   | 24.00                   | 11.00                 |

|                    |      |                                                |
|--------------------|------|------------------------------------------------|
| Duty Cycle CF (dB) | 0.00 | Included in Calculations of Corr'd Power & PSD |
|--------------------|------|------------------------------------------------|

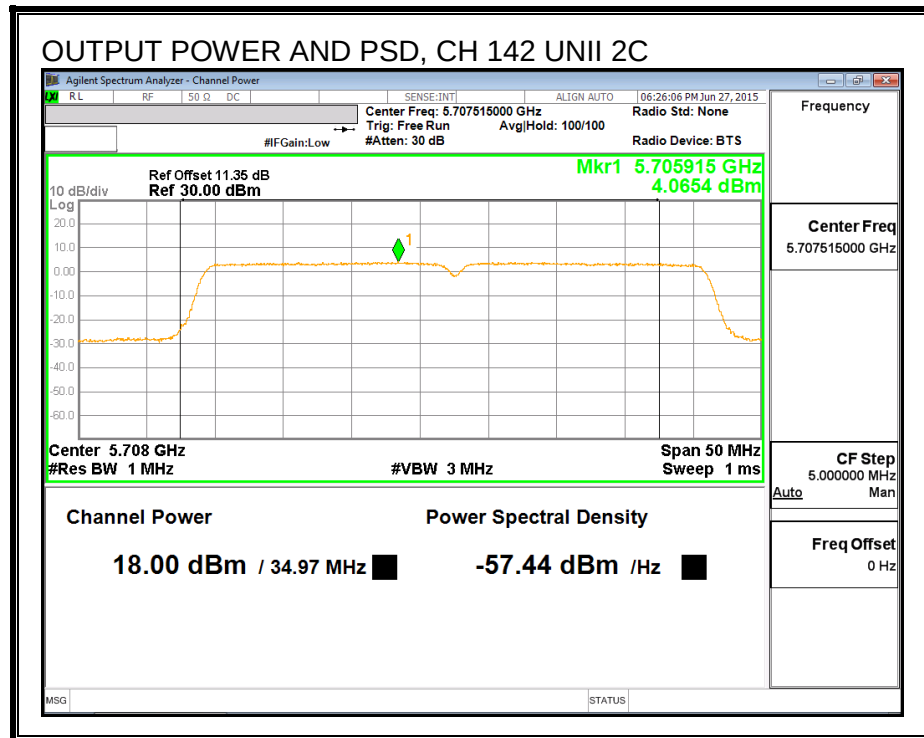
##### Output Power Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>Power<br>(dBm) | Chain 1<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| 142     | 5710               | 18.00                             | 17.94                             | 20.98                             | 24.00                   | -3.02                   |

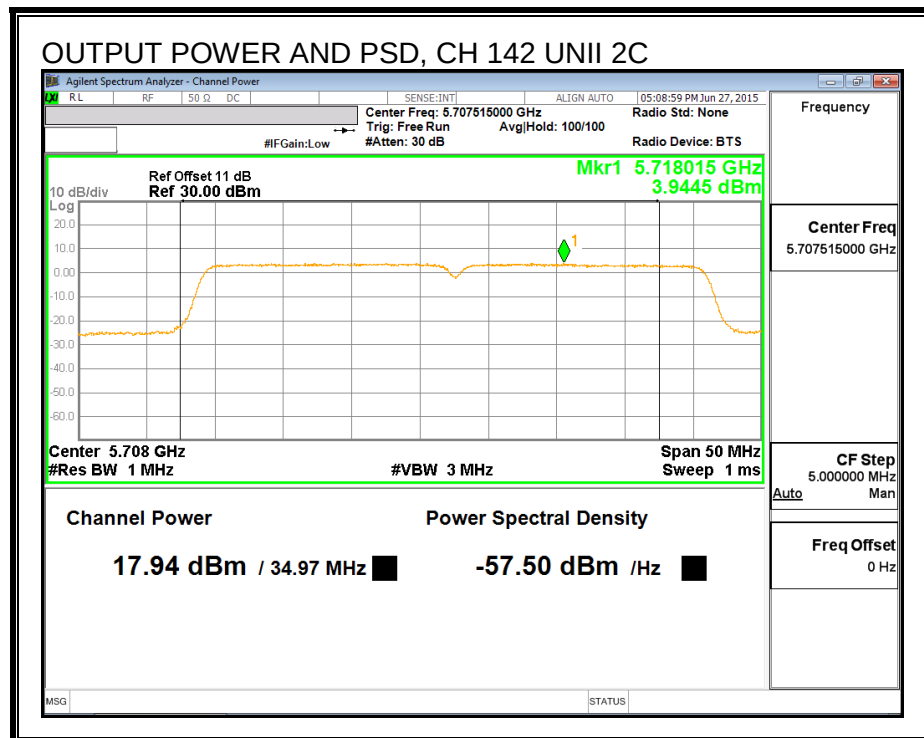
##### PSD Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm) | Chain 1<br>Meas<br>PSD<br>(dBm) | Total<br>Corr'd<br>PSD<br>(dBm) | PSD<br>Limit<br>(dBm) | PSD<br>Margin<br>(dB) |
|---------|--------------------|---------------------------------|---------------------------------|---------------------------------|-----------------------|-----------------------|
| 142     | 5710               | 4.07                            | 3.94                            | 7.02                            | 11.00                 | -3.98                 |

**CHAIN 0**



**CHAIN 1**



**UNII-3 BAND**

**Antenna Gain and Limit**

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Directional<br>Gain<br>For Power<br>(dBi) | Directional<br>Gain<br>For PSD<br>(dBi) | Power<br>Limit<br>(dBm) | PSD<br>Limit<br>(dBm) |
|---------|--------------------|-----------------------------|-------------------------------------------|-----------------------------------------|-------------------------|-----------------------|
| 142     | 5710               | 4.97                        | -3.40                                     | -0.44                                   | 30.00                   | 30.00                 |

|                    |      |                                                |
|--------------------|------|------------------------------------------------|
| Duty Cycle CF (dB) | 0.00 | Included in Calculations of Corr'd Power & PSD |
|--------------------|------|------------------------------------------------|

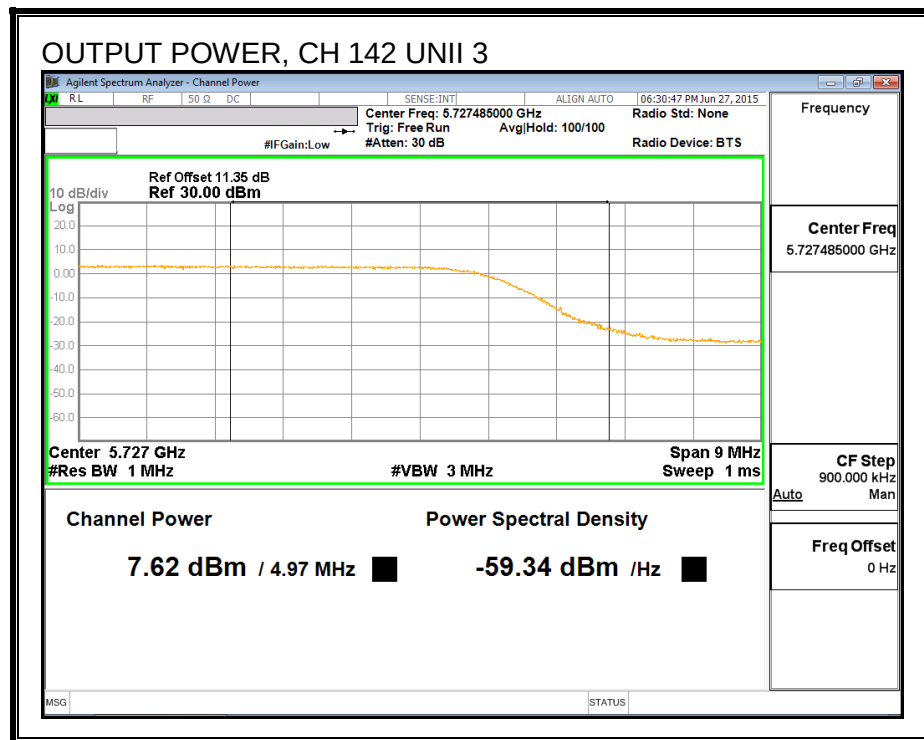
**Output Power Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>Power<br>(dBm) | Chain 1<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| 142     | 5710               | 7.62                              | 7.24                              | 10.44                             | 30.00                   | -19.56                  |

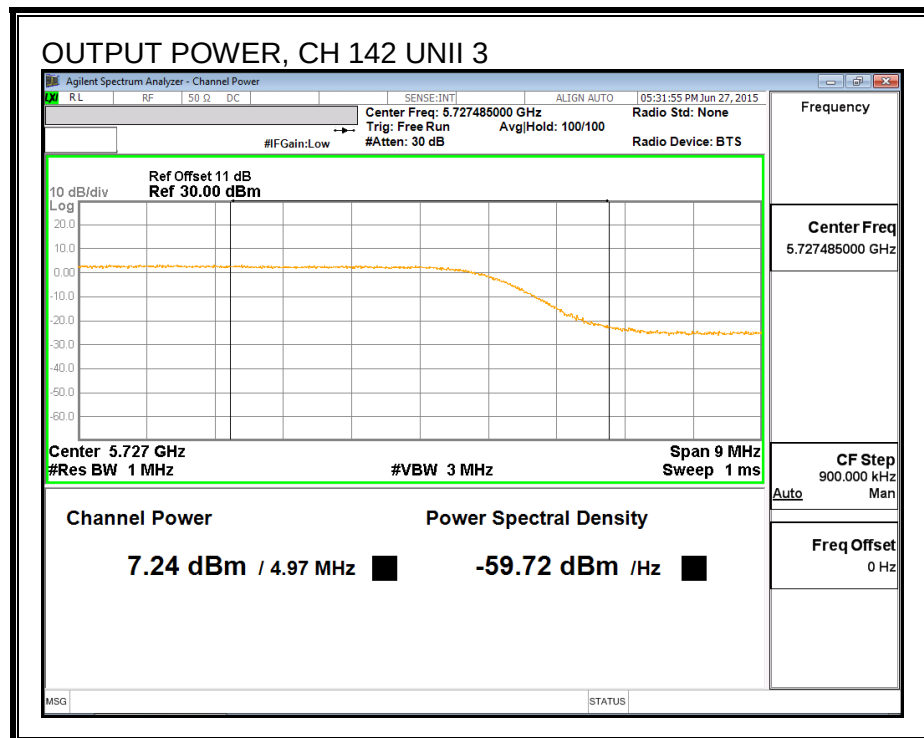
**PSD Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm) | Chain 1<br>Meas<br>PSD<br>(dBm) | Total<br>Corr'd<br>PSD<br>(dBm) | PSD<br>Limit<br>(dBm) | PSD<br>Margin<br>(dB) |
|---------|--------------------|---------------------------------|---------------------------------|---------------------------------|-----------------------|-----------------------|
| 142     | 5710               | 3.36                            | 2.79                            | 6.09                            | 30.00                 | -23.91                |

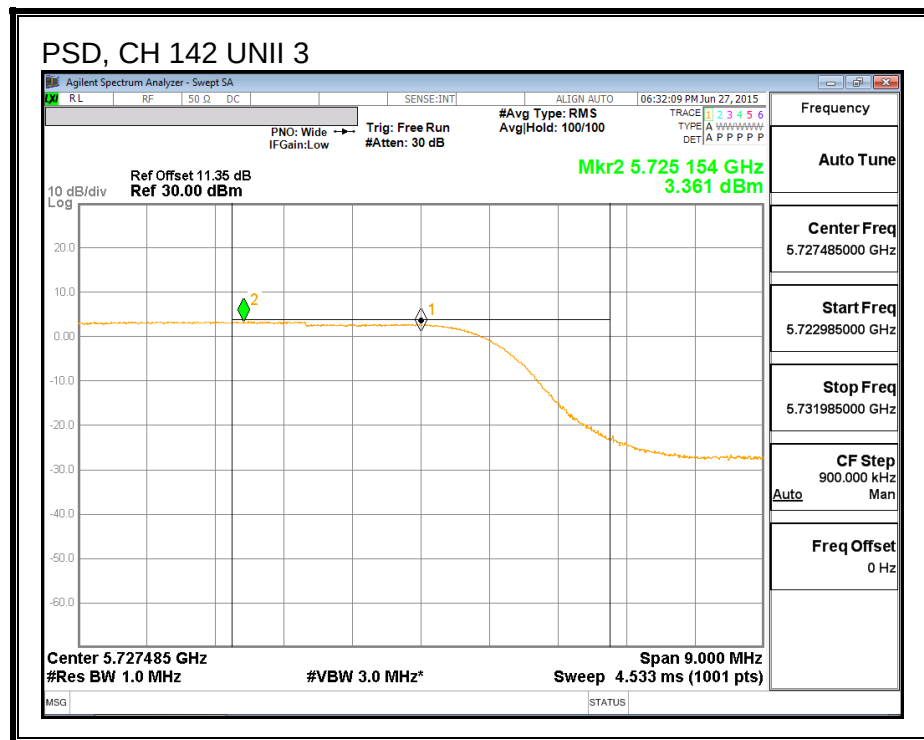
**CHAIN 0**



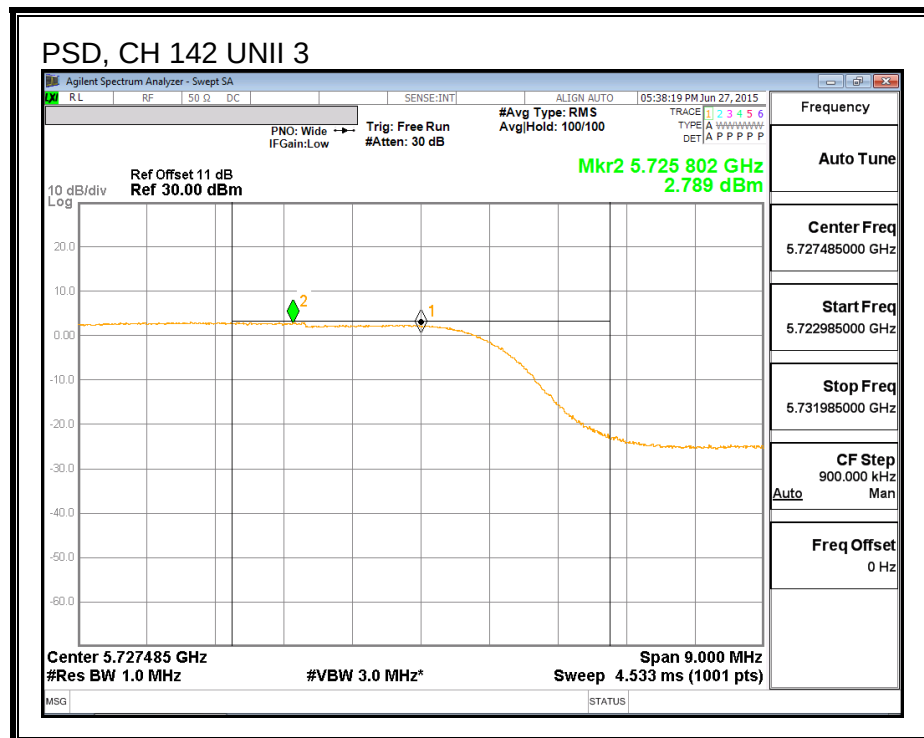
**CHAIN 1**



**CHAIN 0**



**CHAIN 1**



### **8.31.6. 6 dB BBANDWIDTH**

#### **LIMITS**

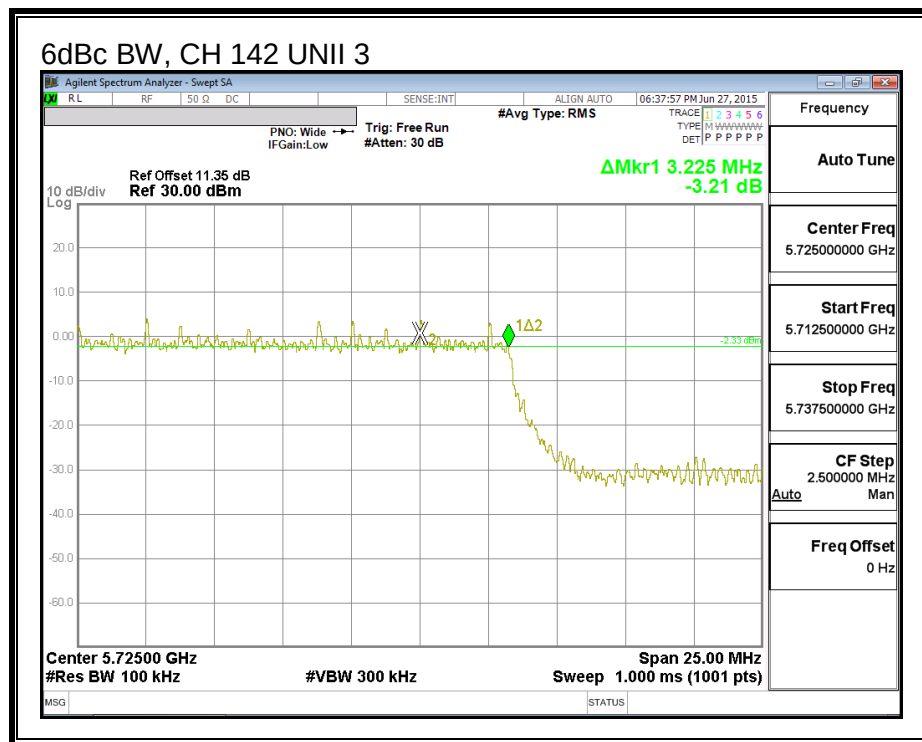
FCC §15.407 (e)

IC RSS-247 (6.2.4) (1)

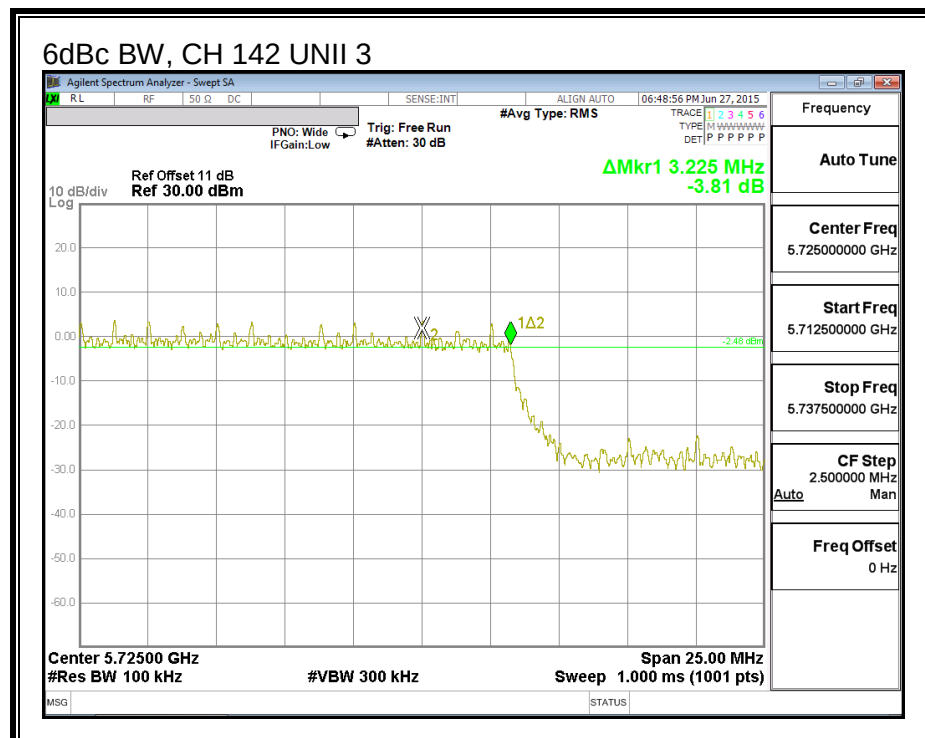
The minimum 6 dB bandwidth shall be at least 500 kHz.

#### **RESULTS**

**CHAIN 0**



**CHAIN 1**



### **8.32. 802.11n HT40 2Tx STBC MODE IN THE 5.6 GHz BAND**

**Note:** Covered by 802.11n HT40 2Tx CDD MODE

### **8.33. 802.11ac HT80 CHAIN 0 MODE IN THE 5.6 GHz BAND**

#### **8.33.1. 26 dB BANDWIDTH**

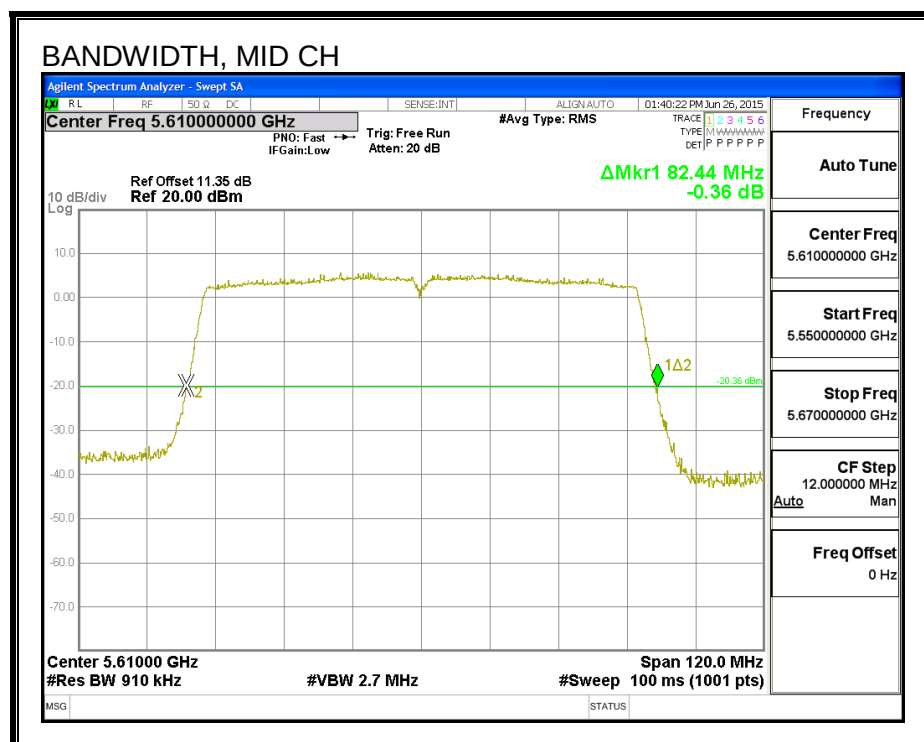
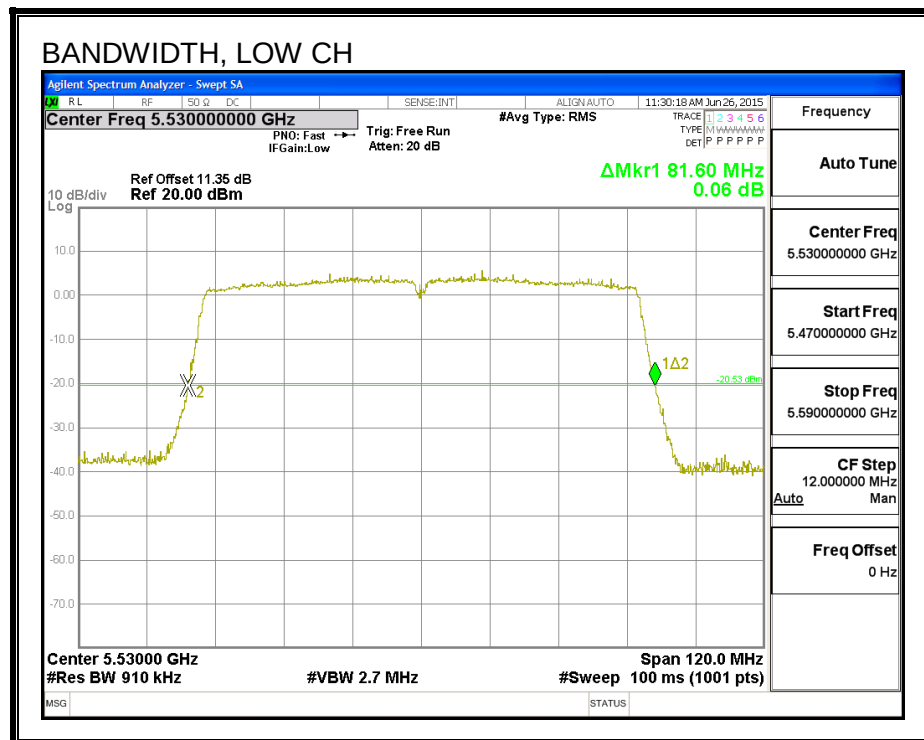
##### **LIMITS**

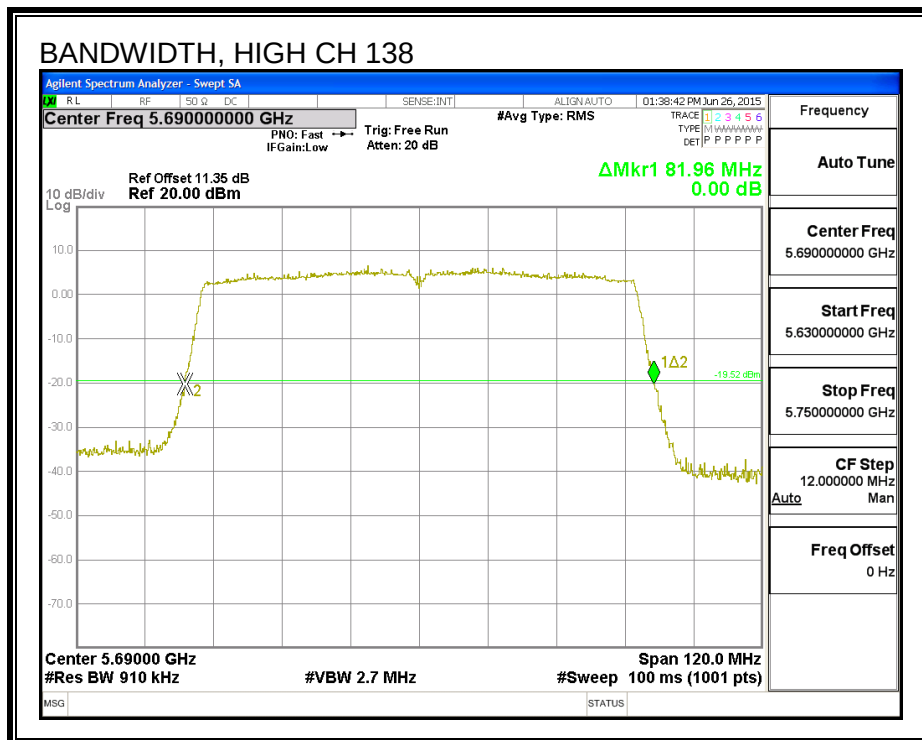
None; for reporting purposes only.

##### **RESULTS**

| Channel | Frequency<br>(MHz) | 26 dB Bandwidth<br>(MHz) |
|---------|--------------------|--------------------------|
| Low     | 5530               | 81.60                    |
| Mid     | 5610               | 82.44                    |
| High    | 5690               | 81.96                    |

**26 dB BANDWIDTH**





### 8.33.2. 99% BANDWIDTH

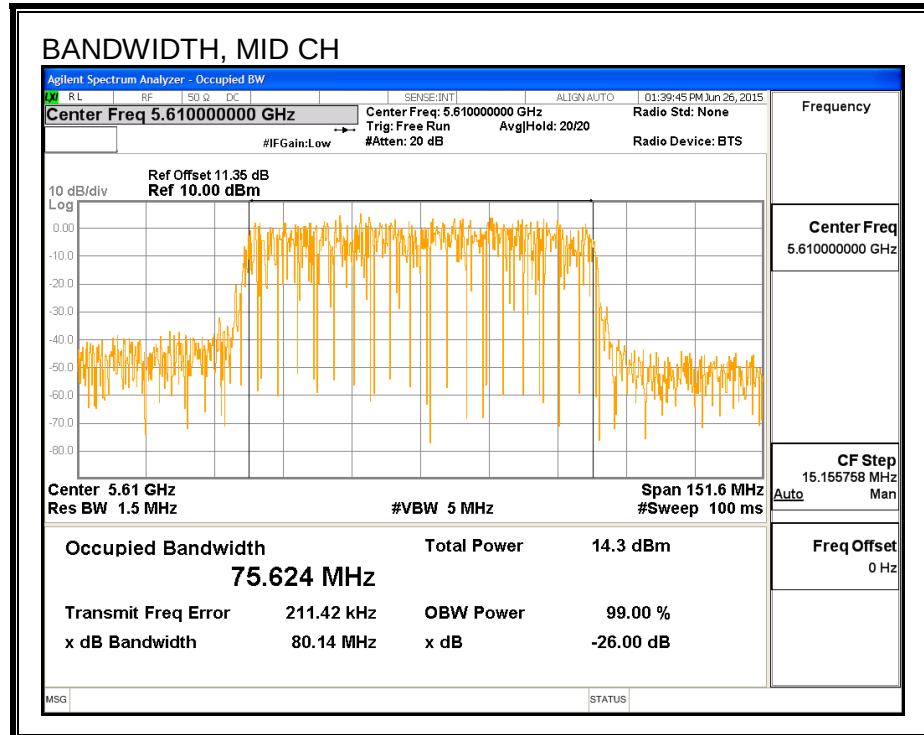
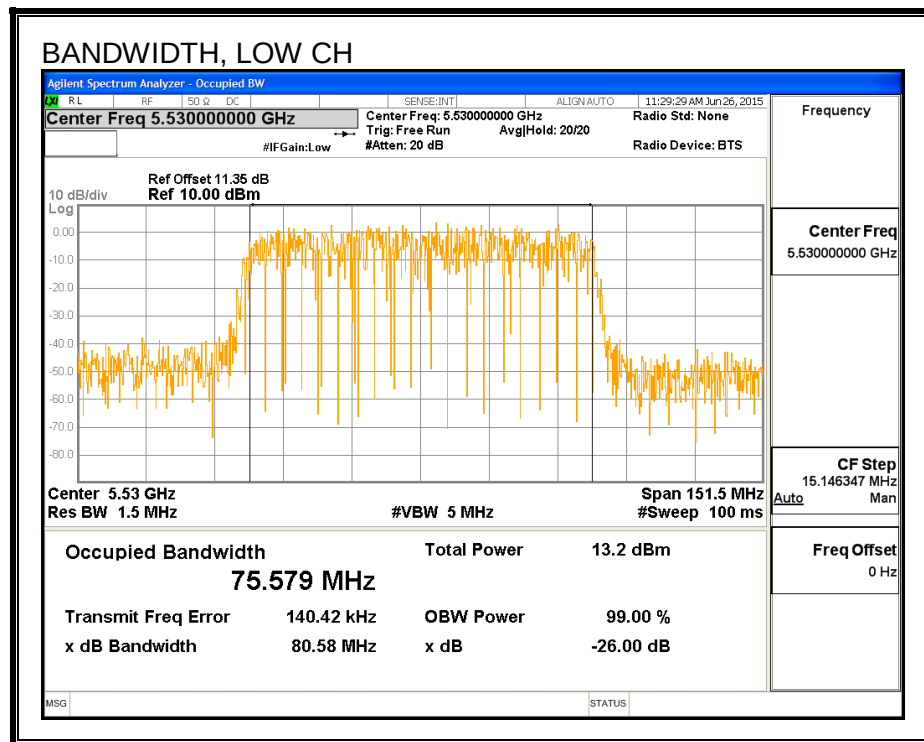
#### LIMITS

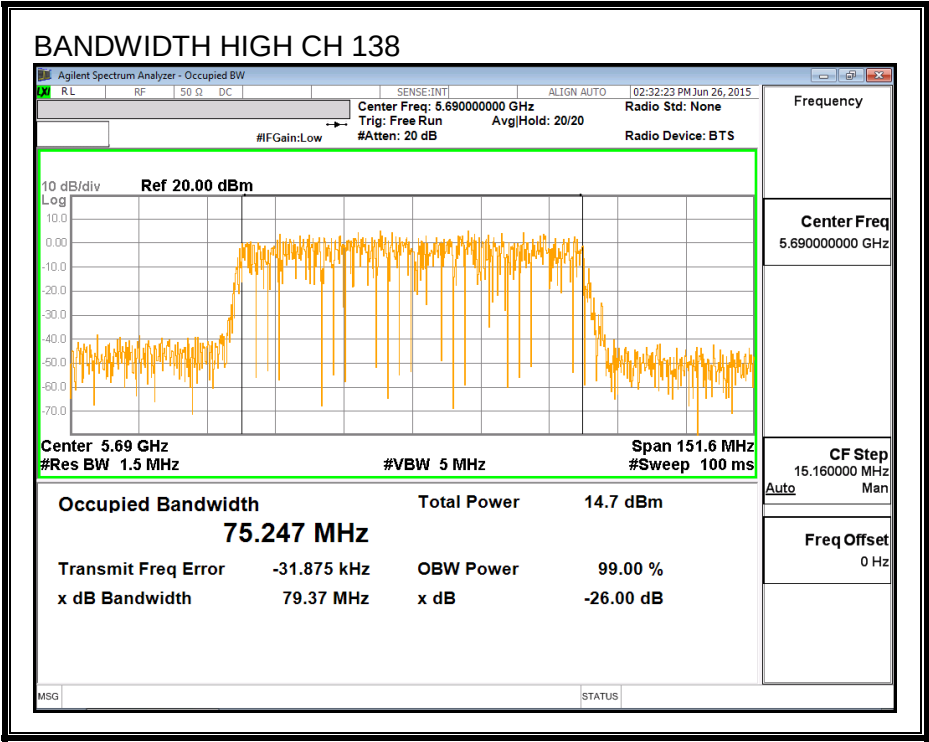
None; for reporting purposes only.

#### RESULTS

| Frequency<br>(MHz) | 99% Bandwidth<br>(MHz) |
|--------------------|------------------------|
| 5530               | 75.579                 |
| 5610               | 75.624                 |
| 5690               | 75.247                 |

**99% BANDWIDTH**





### 8.33.3. AVERAGE POWER

#### LIMITS

None; for reporting purposes only.

#### RESULTS

| Channel | Frequency<br>(MHz) | Power<br>(dBm) |
|---------|--------------------|----------------|
| Low     | 5530               | 13.97          |
| Mid     | 5610               | 16.94          |
| High    | 5690               | 18.33          |

#### **8.33.4. OUTPUT POWER AND PSD**

##### **LIMITS**

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log B$ , where B is the 26-dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1-MHz 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.

IC RSS-247 (6.2.3) (1)

The maximum conducted output power shall not exceed 250 mW or  $11 + 10 \log_{10} B$ , dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or  $17 + 10 \log_{10} B$ , dBm, whichever is less. B is the 99% emission bandwidth in megahertz. 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.

##### **DIRECTIONAL ANTENNA GAIN**

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

## **RESULTS**

### **Bandwidth, Antenna Gain, and Limits**

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Min<br>99%<br>BW<br>(MHz) | Directional<br>Gain<br>(dBi) | Power<br>Limit<br>(dBm) | PSD<br>Limit<br>(dBm) |
|---------|--------------------|-----------------------------|---------------------------|------------------------------|-------------------------|-----------------------|
| Low     | 5530               | 81.60                       | 75.58                     | -3.40                        | 24.00                   | 11.00                 |
| High    | 5610               | 82.44                       | 75.62                     | -3.40                        | 24.00                   | 11.00                 |

|                    |      |                                                |
|--------------------|------|------------------------------------------------|
| Duty Cycle CF (dB) | 0.21 | Included in Calculations of Corr'd Power & PSD |
|--------------------|------|------------------------------------------------|

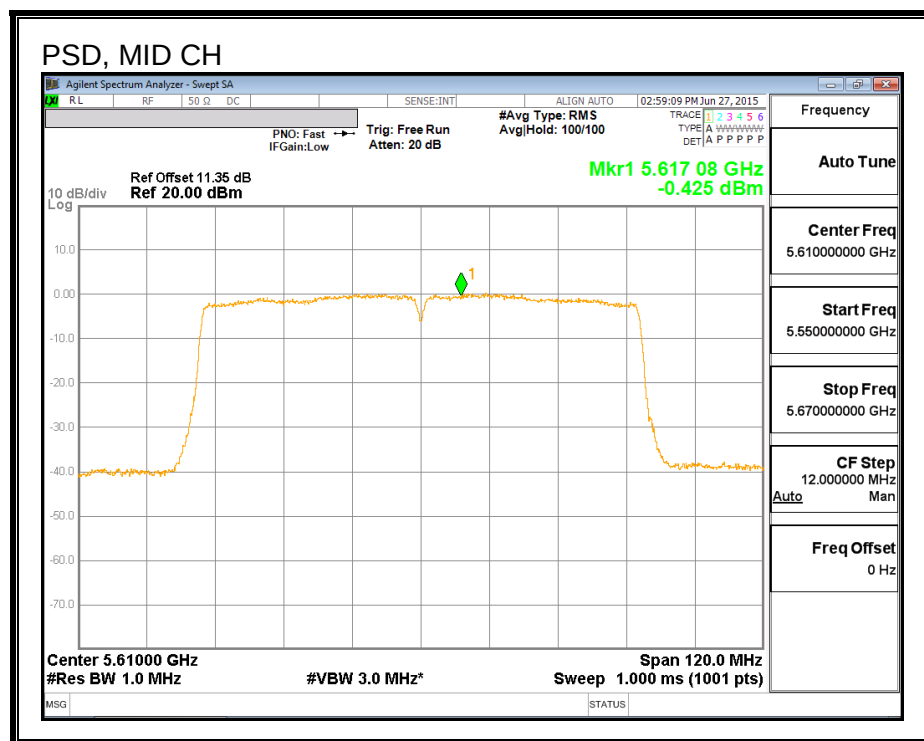
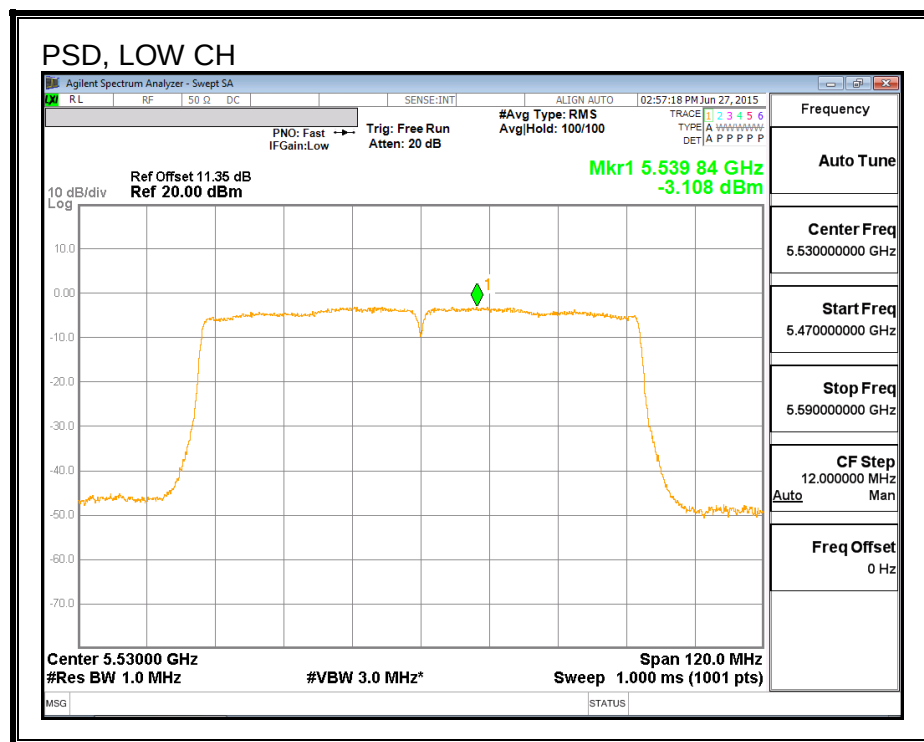
### **Output Power Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low     | 5530               | 13.97                             | 14.18                             | 24.00                   | -9.82                   |
| High    | 5610               | 16.94                             | 17.15                             | 24.00                   | -6.85                   |

### **PSD Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm) | Total<br>Corr'd<br>PSD<br>(dBm) | PSD<br>Limit<br>(dBm) | PSD<br>Margin<br>(dB) |
|---------|--------------------|---------------------------------|---------------------------------|-----------------------|-----------------------|
| Low     | 5530               | -3.11                           | -2.90                           | 11.00                 | -13.90                |
| High    | 5610               | -0.43                           | -0.22                           | 11.00                 | -11.22                |

PSD,



### 8.33.5. STRADDLE CHANNEL 138 RESULTS

#### UNII-2C BAND

##### Bandwidth, Antenna Gain, and Limits

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Directional<br>Gain<br>for Power<br>(dBi) | Directional<br>Gain<br>for PSD<br>(dBi) | Power<br>Limit<br>(dBm) | PSD<br>Limit<br>(dBm) |
|---------|--------------------|-----------------------------|-------------------------------------------|-----------------------------------------|-------------------------|-----------------------|
| 138     | 5690               | 75.81                       | -3.40                                     | -3.40                                   | 24.00                   | 11.00                 |

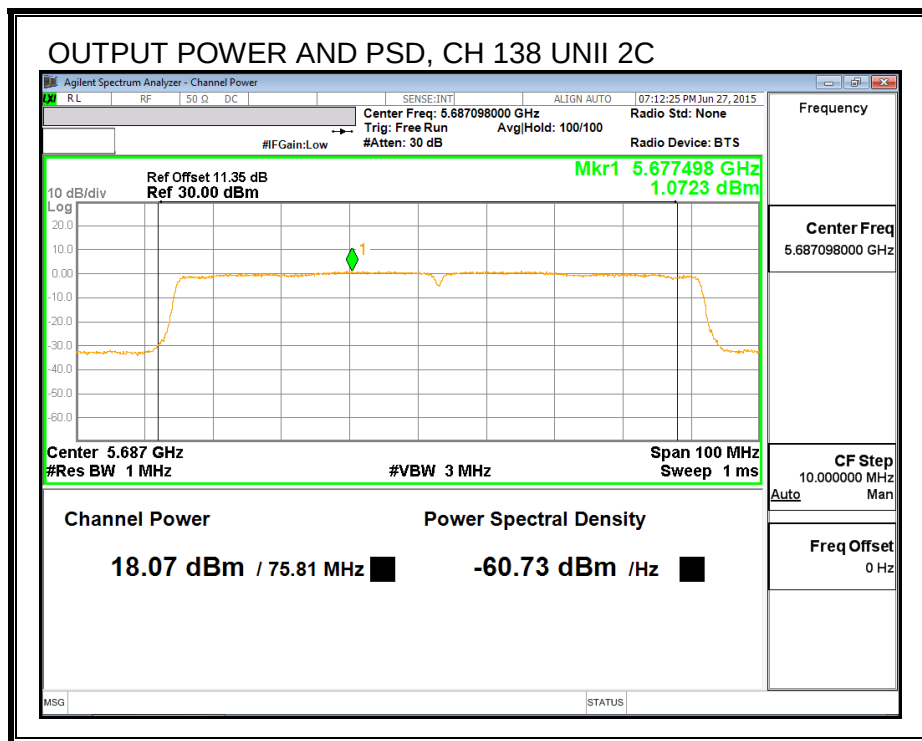
|                    |      |                                                |
|--------------------|------|------------------------------------------------|
| Duty Cycle CF (dB) | 0.21 | Included in Calculations of Corr'd Power & PSD |
|--------------------|------|------------------------------------------------|

##### Output Power Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| 138     | 5690               | 18.07                             | 18.28                             | 24.00                   | -5.72                   |

##### PSD Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm) | Total<br>Corr'd<br>PSD<br>(dBm) | PSD<br>Limit<br>(dBm) | PSD<br>Margin<br>(dB) |
|---------|--------------------|---------------------------------|---------------------------------|-----------------------|-----------------------|
| 138     | 5690               | 1.07                            | 1.28                            | 11.00                 | -9.72                 |



**UNII-3 BAND**

**Antenna Gain and Limit**

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Directional<br>Gain<br>(dBi) | Power<br>Limit<br>(dBm) | PSD<br>Limit<br>(dBm) |
|---------|--------------------|-----------------------------|------------------------------|-------------------------|-----------------------|
| 138     | 5690               | 5.81                        | -3.40                        | 30.00                   | 30.00                 |

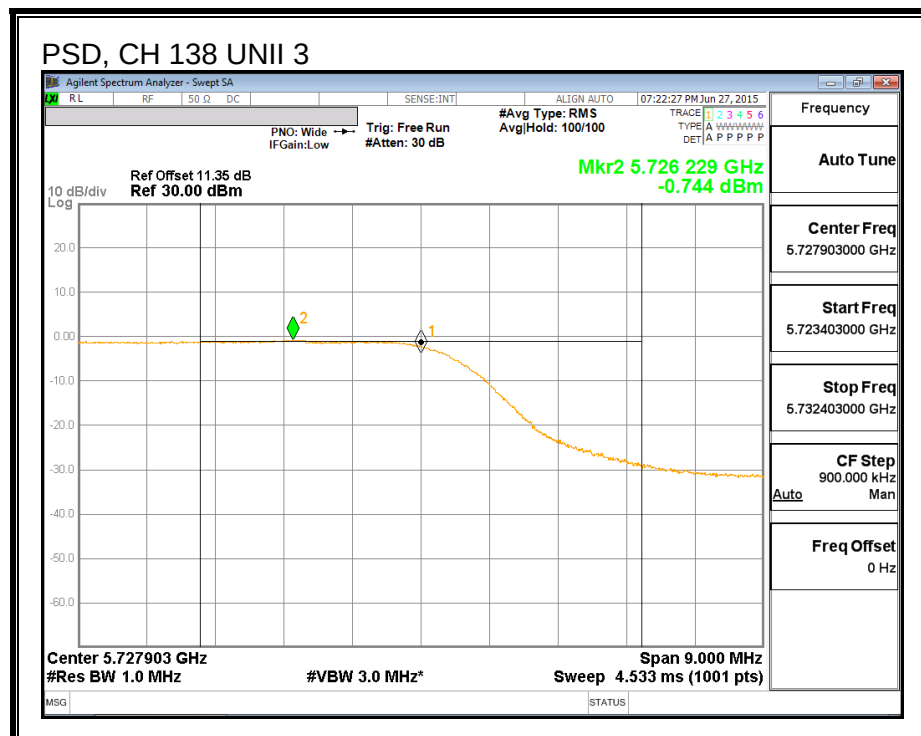
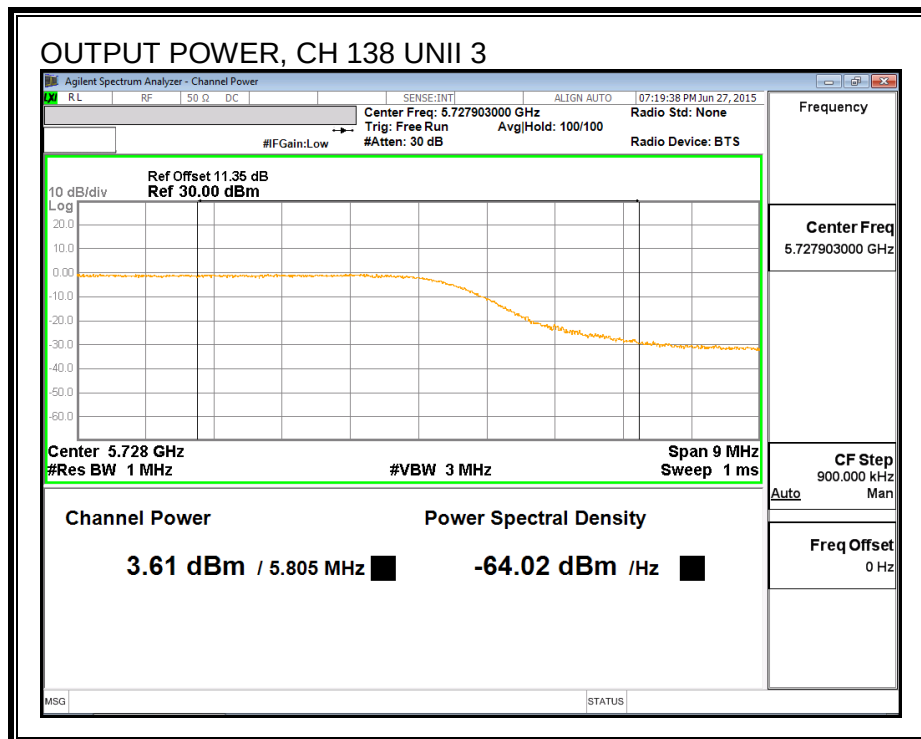
|                    |      |                                                |
|--------------------|------|------------------------------------------------|
| Duty Cycle CF (dB) | 0.21 | Included in Calculations of Corr'd Power & PSD |
|--------------------|------|------------------------------------------------|

**Output Power Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| 138     | 5690               | 3.61                              | 3.82                              | 30.00                   | -26.18                  |

**PSD Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm) | Total<br>Corr'd<br>PSD<br>(dBm) | PSD<br>Limit<br>(dBm) | PSD<br>Margin<br>(dB) |
|---------|--------------------|---------------------------------|---------------------------------|-----------------------|-----------------------|
| 138     | 5690               | -0.74                           | -0.53                           | 30.00                 | -30.53                |



### 8.33.6. 6 dB BANDWIDTH

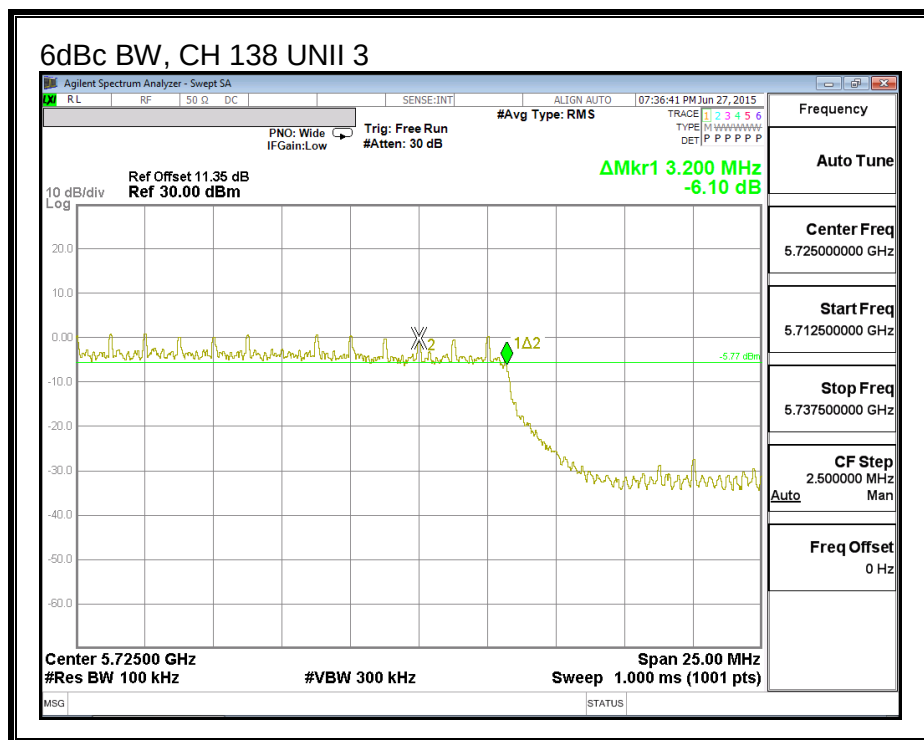
#### LIMITS

FCC §15.407 (e)

IC RSS-247 (6.2.4) (1)

The minimum 6 dB bandwidth shall be at least 500 kHz.

#### RESULTS



## **8.34. 802.11ac HT80 CHAIN 1 MODE IN THE 5.6 GHz BAND**

### **8.34.1. 26 dB BANDWIDTH**

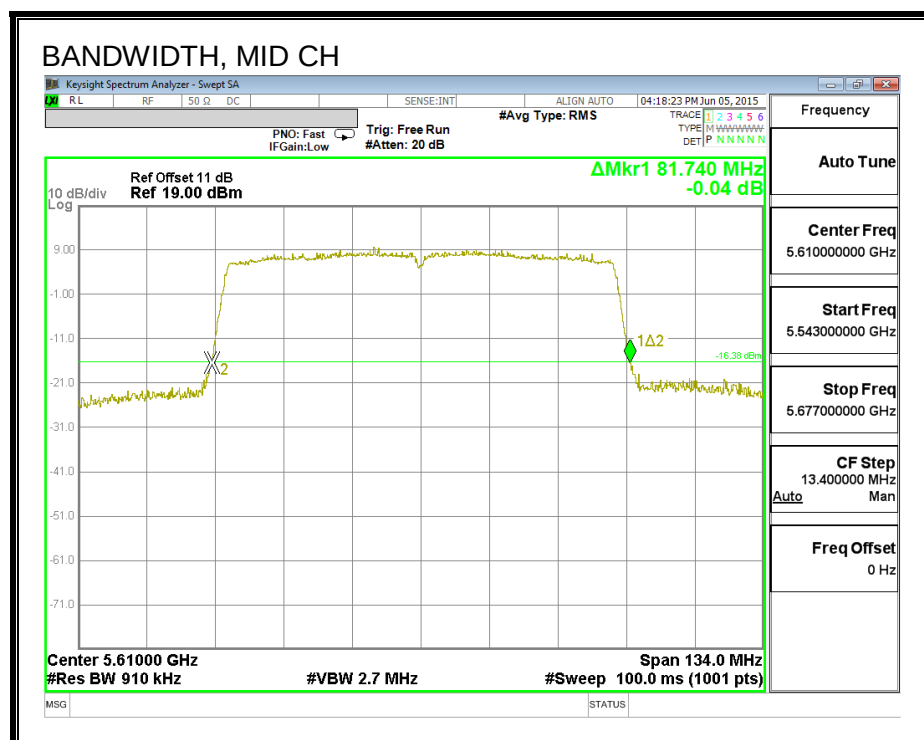
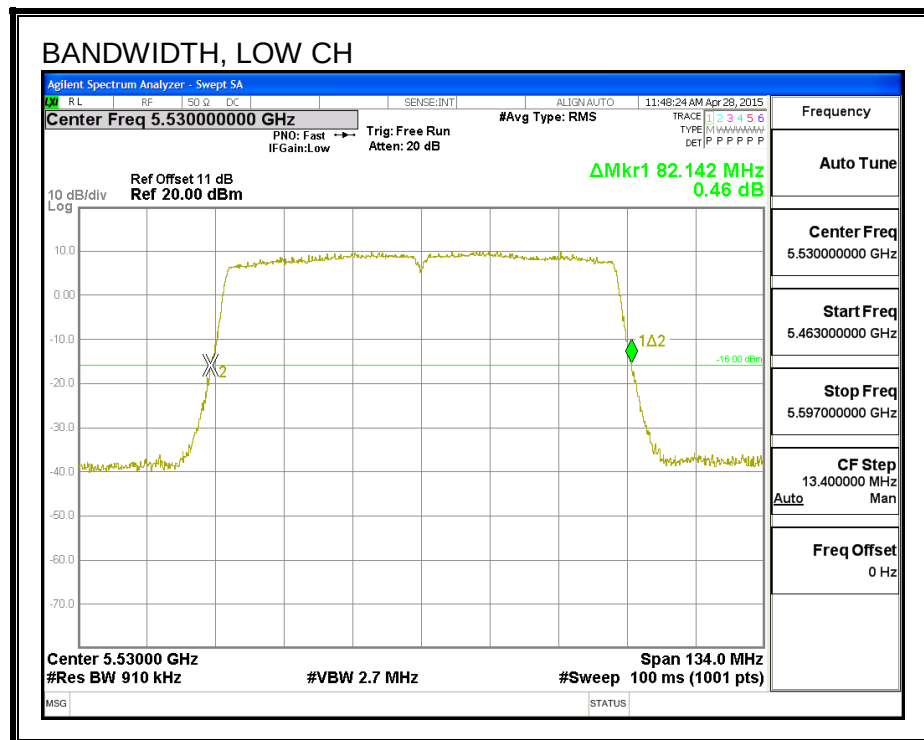
#### **LIMITS**

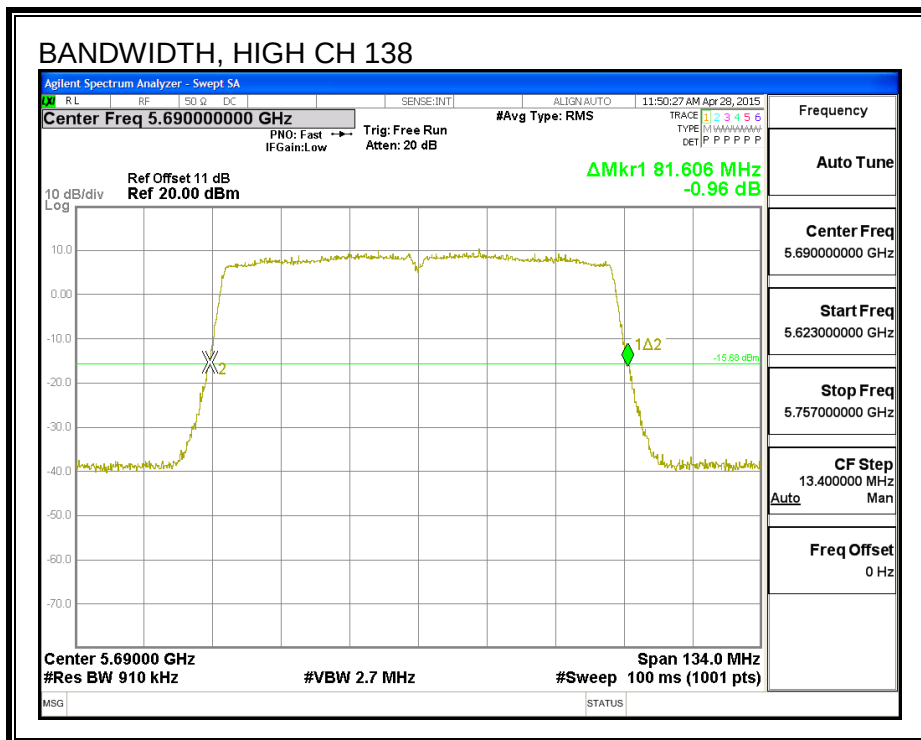
None; for reporting purposes only.

#### **RESULTS**

| Channel | Frequency<br>(MHz) | 26 dB Bandwidth<br>(MHz) |
|---------|--------------------|--------------------------|
| Low     | 5530               | 82.14                    |
| Mid     | 5610               | 81.74                    |
| High    | 5690               | 81.61                    |

## 26 dB BANDWIDTH





### 8.34.2. 99% BANDWIDTH

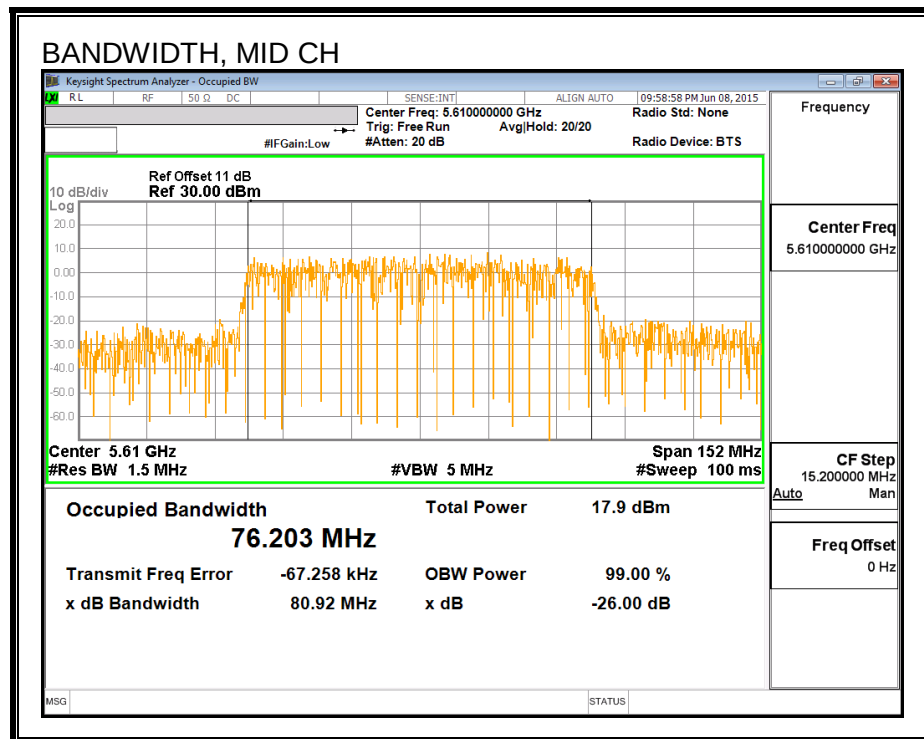
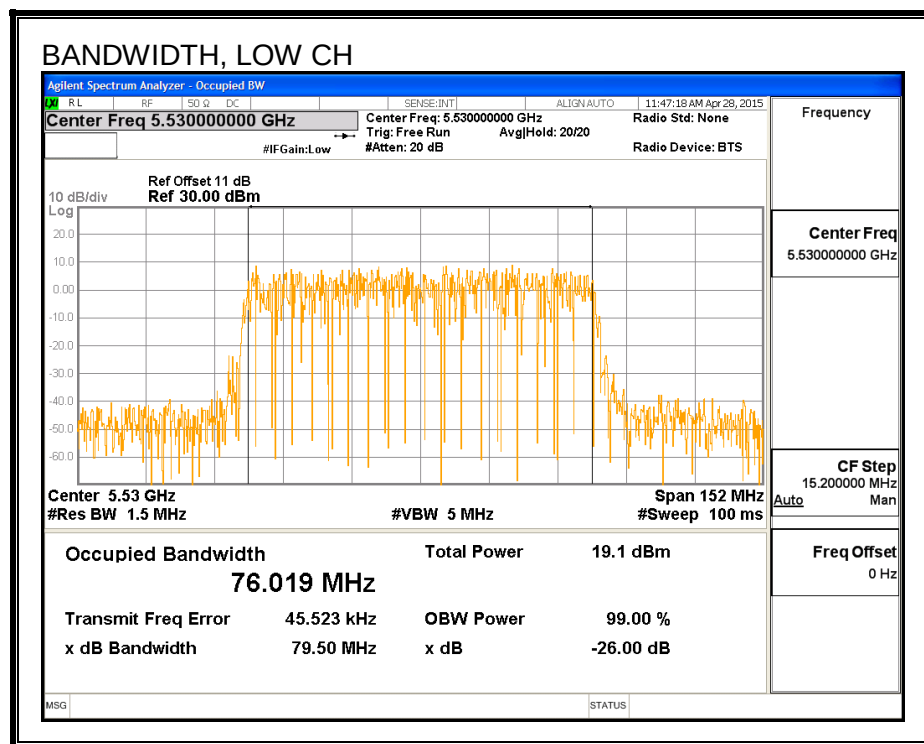
#### LIMITS

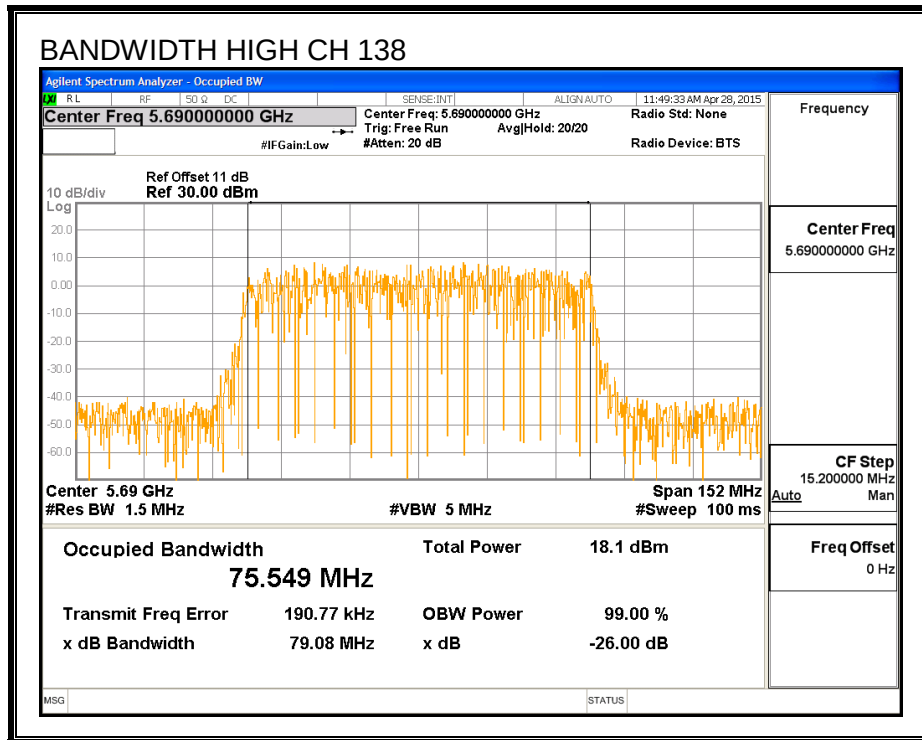
None; for reporting purposes only.

#### RESULTS

| Channel | Frequency<br>(MHz) | 99% Bandwidth<br>(MHz) |
|---------|--------------------|------------------------|
| Low     | 5530               | 76.019                 |
| Mid     | 5610               | 76.203                 |
| High    | 5690               | 75.549                 |

**99% BANDWIDTH**





### 8.34.3. AVERAGE POWER

#### LIMITS

None; for reporting purposes only.

#### RESULTS

| Channel | Frequency<br>(MHz) | Power<br>(dBm) |
|---------|--------------------|----------------|
| Low     | 5530               | 13.94          |
| Mid     | 5610               | 16.76          |
| High    | 5690               | 18.83          |

#### **8.34.4. OUTPUT POWER AND PSD**

##### **LIMITS**

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log B$ , where B is the 26-dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1-MHz 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.

IC RSS-247 (6.2.3) (1)

The maximum conducted output power shall not exceed 250 mW or  $11 + 10 \log_{10} B$ , dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or  $17 + 10 \log_{10} B$ , dBm, whichever is less. B is the 99% emission bandwidth in megahertz. 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.

##### **DIRECTIONAL ANTENNA GAIN**

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

## **RESULTS**

### **Bandwidth, Antenna Gain, and Limits**

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Min<br>99%<br>BW<br>(MHz) | Directional<br>Gain<br>(dBi) | Power<br>Limit<br>(dBm) | PSD<br>Limit<br>(dBm) |
|---------|--------------------|-----------------------------|---------------------------|------------------------------|-------------------------|-----------------------|
| Low     | 5530               | 82.14                       | 76.02                     | -0.44                        | 24.00                   | 11.00                 |
| High    | 5610               | 81.74                       | 76.20                     | -0.44                        | 24.00                   | 11.00                 |

|                    |      |                                                |
|--------------------|------|------------------------------------------------|
| Duty Cycle CF (dB) | 0.21 | Included in Calculations of Corr'd Power & PSD |
|--------------------|------|------------------------------------------------|

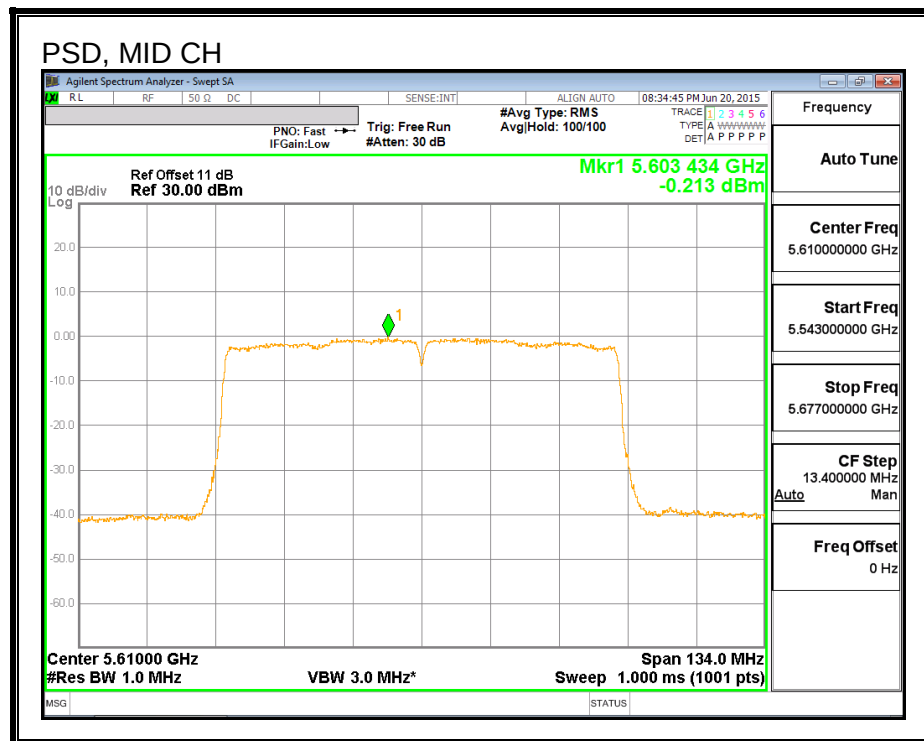
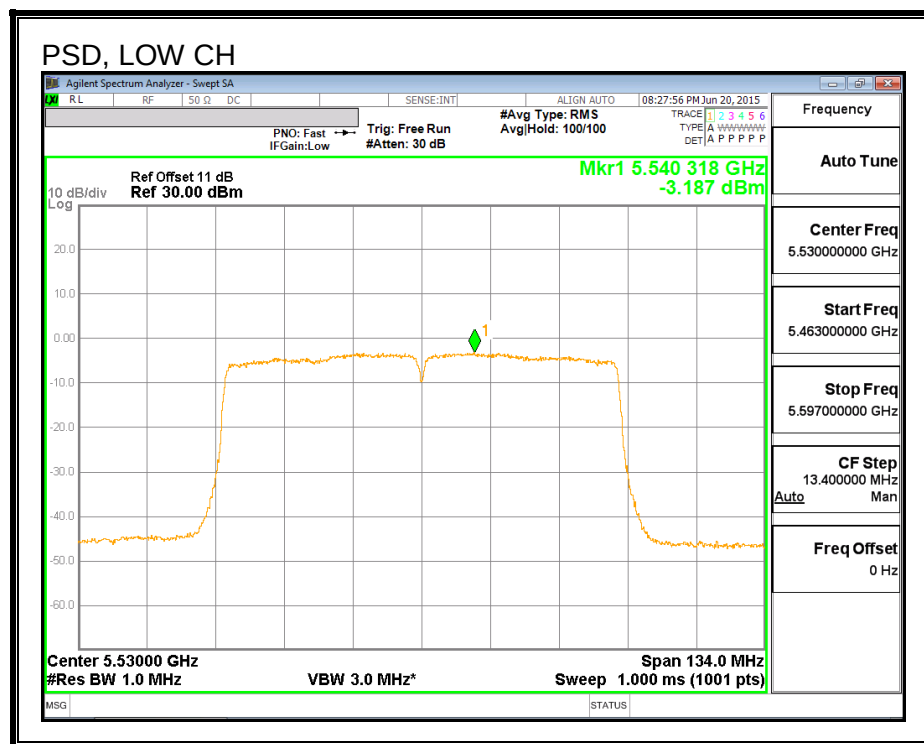
### **Output Power Results**

| Channel | Frequency<br>(MHz) | Chain 1<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low     | 5530               | 13.94                             | 14.15                             | 24.00                   | -9.85                   |
| High    | 5610               | 16.76                             | 16.97                             | 24.00                   | -7.03                   |

### **PSD Results**

| Channel | Frequency<br>(MHz) | Chain 1<br>Meas<br>PSD<br>(dBm) | Total<br>Corr'd<br>PSD<br>(dBm) | PSD<br>Limit<br>(dBm) | PSD<br>Margin<br>(dB) |
|---------|--------------------|---------------------------------|---------------------------------|-----------------------|-----------------------|
| Low     | 5530               | -3.19                           | -2.98                           | 11.00                 | -13.98                |
| High    | 5610               | -0.21                           | 0.00                            | 11.00                 | -11.00                |

PSD,



### 8.34.5. STRADDLE CHANNEL 138 RESULTS

#### UNII-2C BAND

##### Bandwidth, Antenna Gain, and Limits

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Directional<br>Gain<br>for Power<br>(dBi) | Directional<br>Gain<br>for PSD<br>(dBi) | Power<br>Limit<br>(dBm) | PSD<br>Limit<br>(dBm) |
|---------|--------------------|-----------------------------|-------------------------------------------|-----------------------------------------|-------------------------|-----------------------|
| 138     | 5690               | 75.81                       | -0.44                                     | -0.44                                   | 24.00                   | 11.00                 |

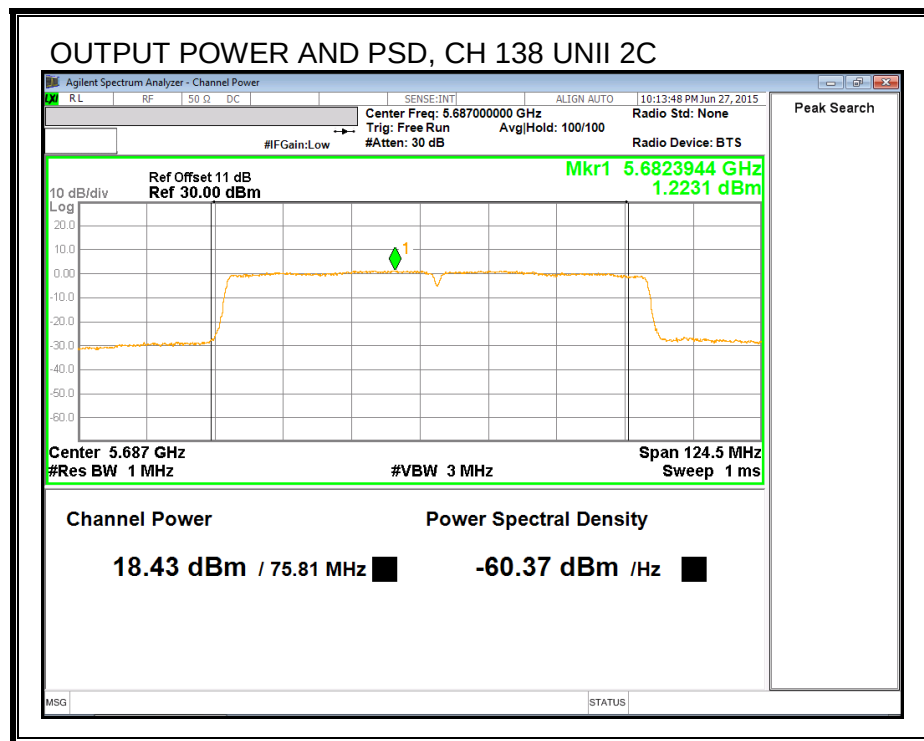
|                    |      |                                                |
|--------------------|------|------------------------------------------------|
| Duty Cycle CF (dB) | 0.21 | Included in Calculations of Corr'd Power & PSD |
|--------------------|------|------------------------------------------------|

##### Output Power Results

| Channel | Frequency<br>(MHz) | Chain 1<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| 138     | 5690               | 18.43                             | 18.64                             | 24.00                   | -5.36                   |

##### PSD Results

| Channel | Frequency<br>(MHz) | Chain 1<br>Meas<br>PSD<br>(dBm) | Total<br>Corr'd<br>PSD<br>(dBm) | PSD<br>Limit<br>(dBm) | PSD<br>Margin<br>(dB) |
|---------|--------------------|---------------------------------|---------------------------------|-----------------------|-----------------------|
| 138     | 5690               | 1.22                            | 1.43                            | 11.00                 | -9.57                 |



**UNII-3 BAND**

**Antenna Gain and Limit**

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Directional<br>Gain<br>(dBi) | Power<br>Limit<br>(dBm) | PSD<br>Limit<br>(dBm) |
|---------|--------------------|-----------------------------|------------------------------|-------------------------|-----------------------|
| 138     | 5690               | 5.81                        | -0.44                        | 30.00                   | 30.00                 |

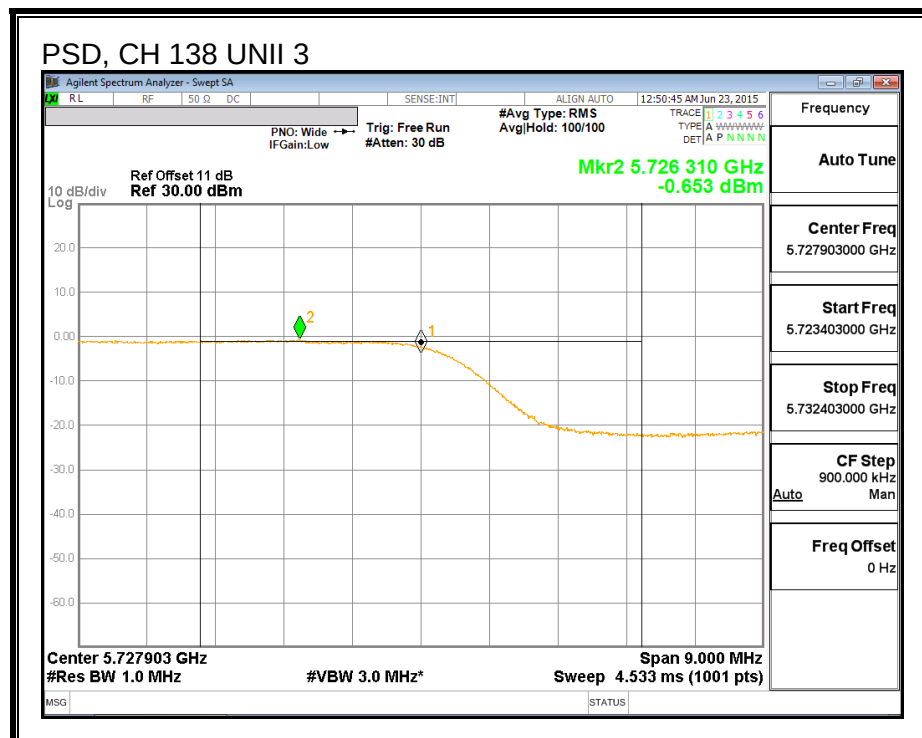
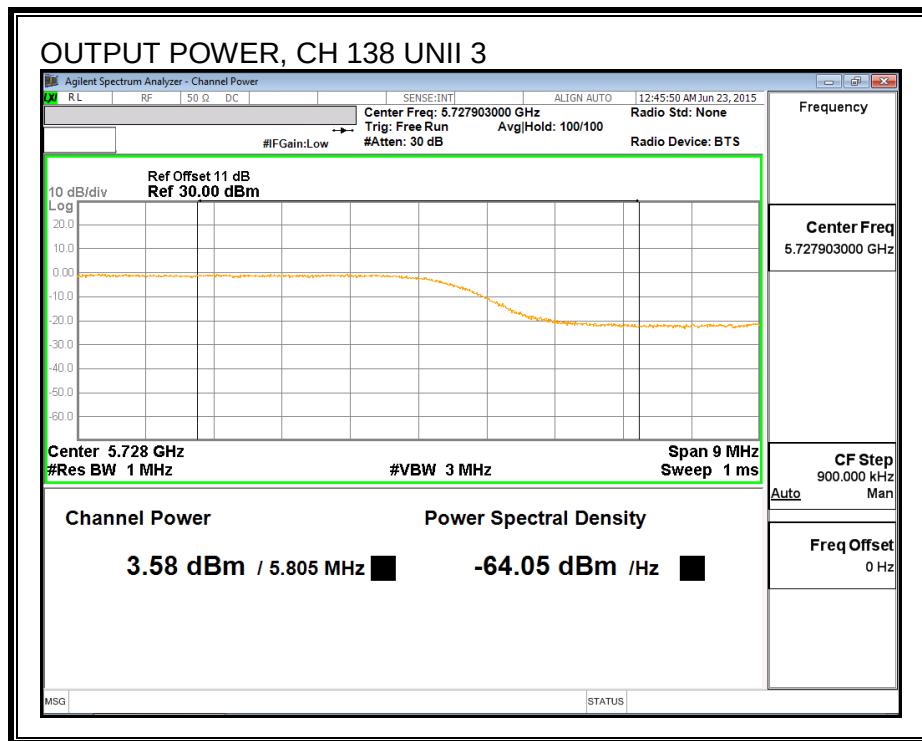
|                    |      |                                                |
|--------------------|------|------------------------------------------------|
| Duty Cycle CF (dB) | 0.21 | Included in Calculations of Corr'd Power & PSD |
|--------------------|------|------------------------------------------------|

**Output Power Results**

| Channel | Frequency<br>(MHz) | Chain 1<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| 138     | 5690               | 3.58                              | 3.79                              | 30.00                   | -26.21                  |

**PSD Results**

| Channel | Frequency<br>(MHz) | Chain 1<br>Meas<br>PSD<br>(dBm) | Total<br>Corr'd<br>PSD<br>(dBm) | PSD<br>Limit<br>(dBm) | PSD<br>Margin<br>(dB) |
|---------|--------------------|---------------------------------|---------------------------------|-----------------------|-----------------------|
| 138     | 5690               | -0.65                           | -0.44                           | 30.00                 | -30.44                |





### **8.35. 802.11ac HT80 2Tx CDD MODE IN THE 5.6 GHz BAND (5610MHz for FCC only)**

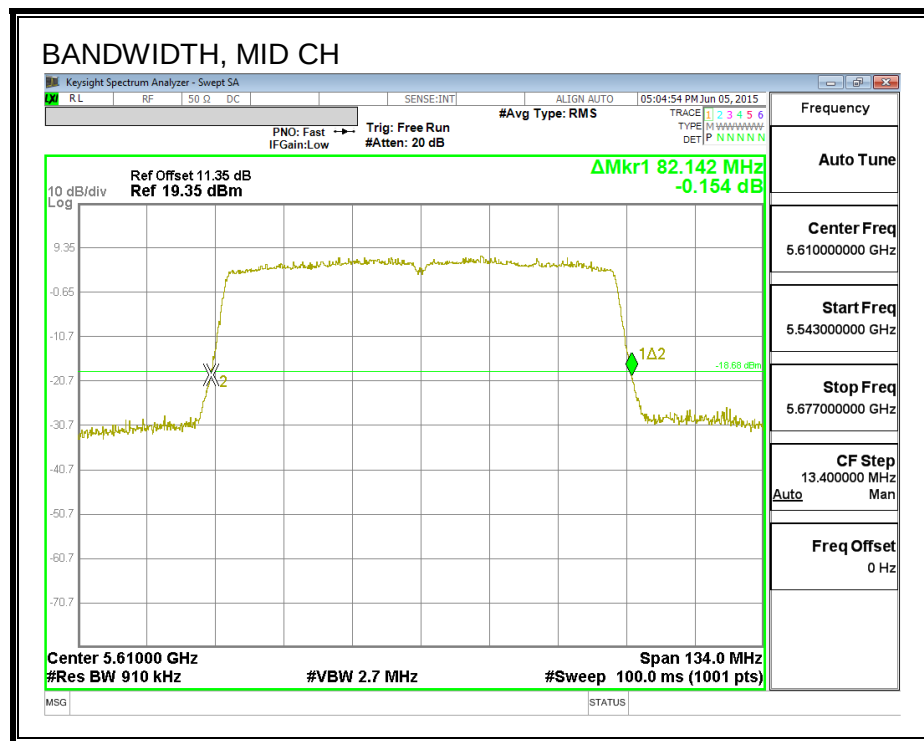
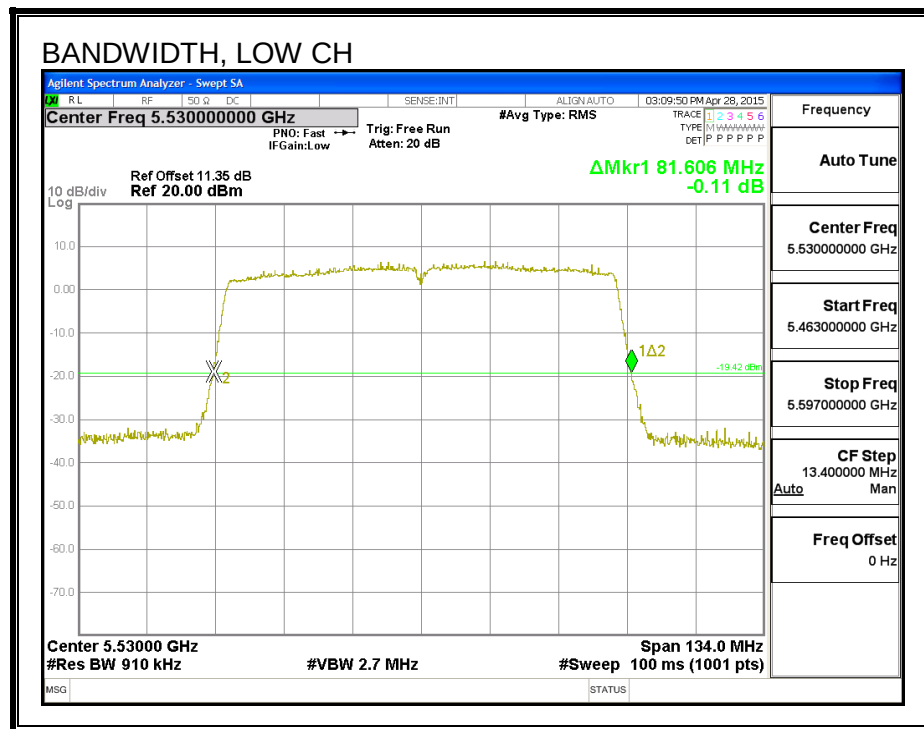
#### **8.35.1. 26 dB BANDWIDTH**

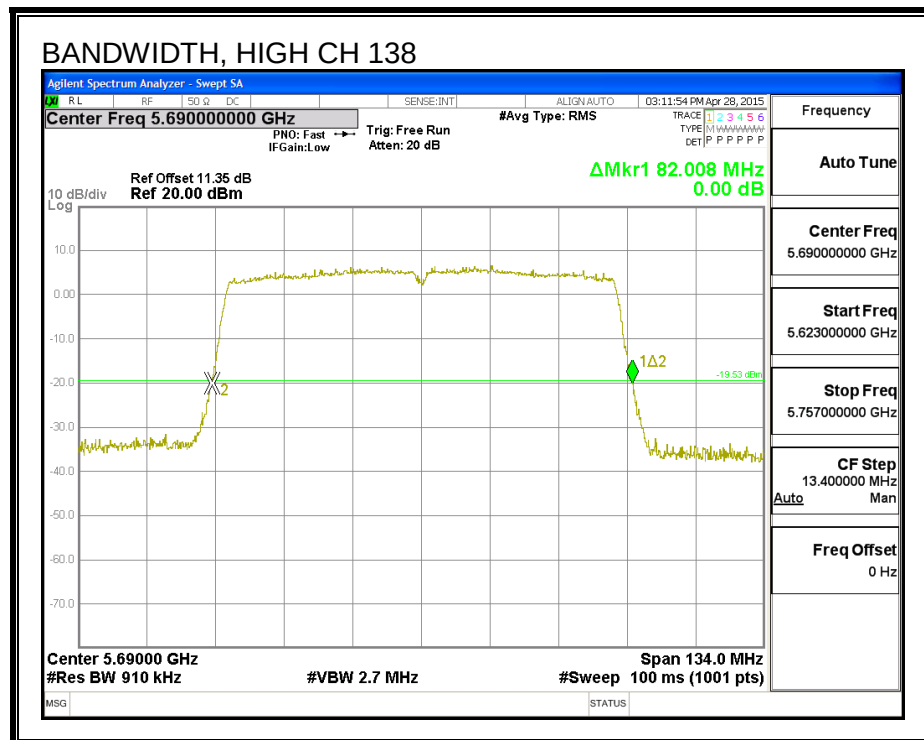
##### **LIMITS**

None; for reporting purposes only.

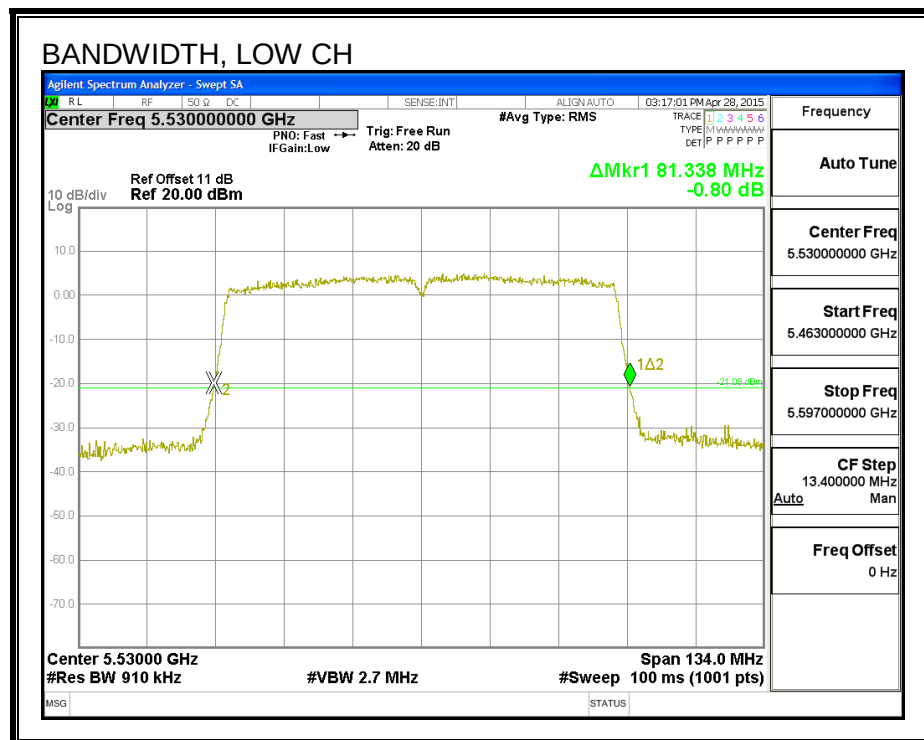
##### **RESULTS**

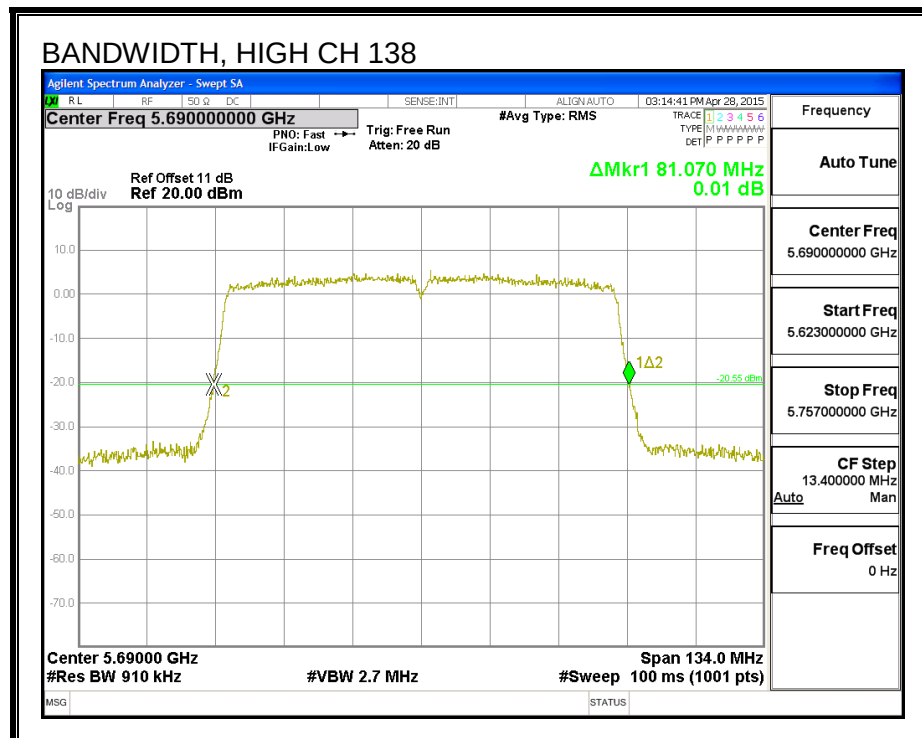
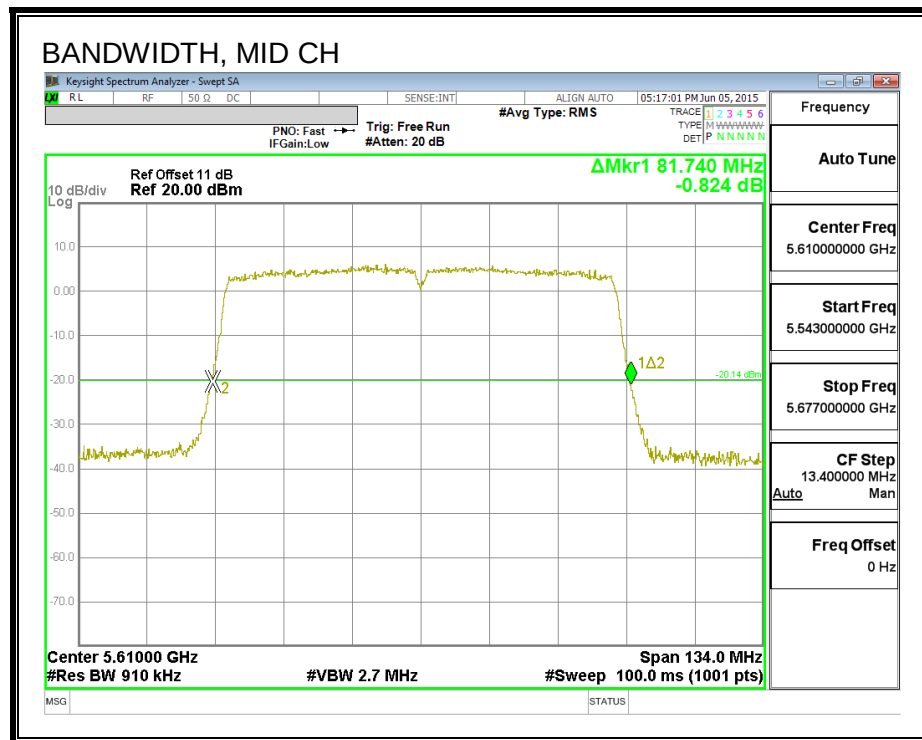
| Channel | Frequency<br>(MHz) | 26 dB BW<br>Chain 0<br>(MHz) | 26 dB BW<br>Chain 1<br>(MHz) |
|---------|--------------------|------------------------------|------------------------------|
| Low     | 5530               | 81.61                        | 81.34                        |
| Mid     | 5610               | 82.14                        | 81.74                        |
| High    | 5690               | 82.01                        | 81.07                        |





## 26 dB BANDWIDTH, CHAIN 1





### 8.35.2. 99% BANDWIDTH

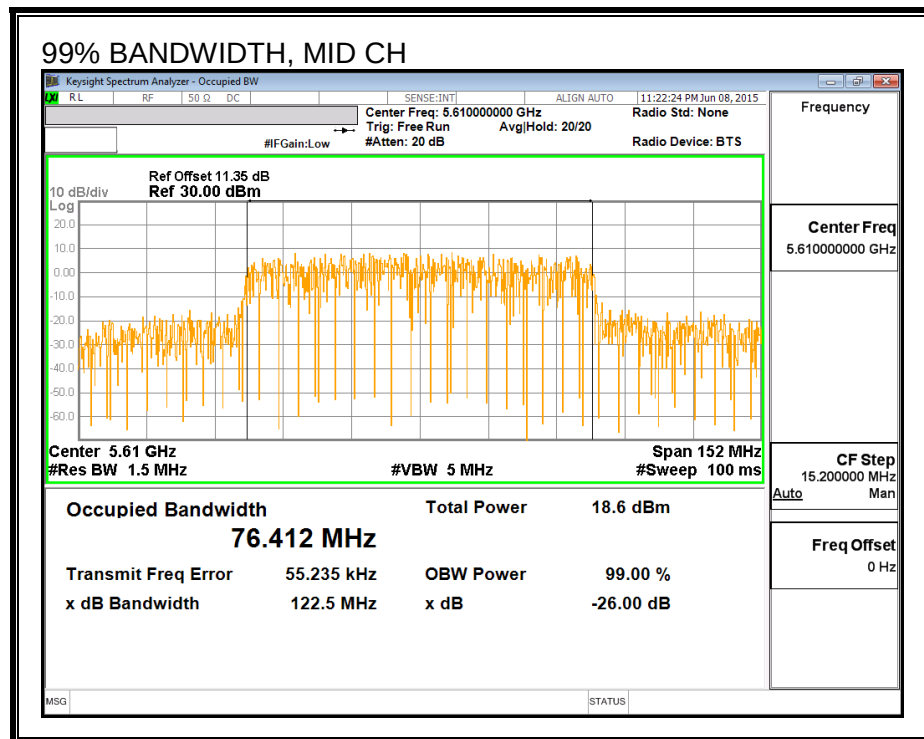
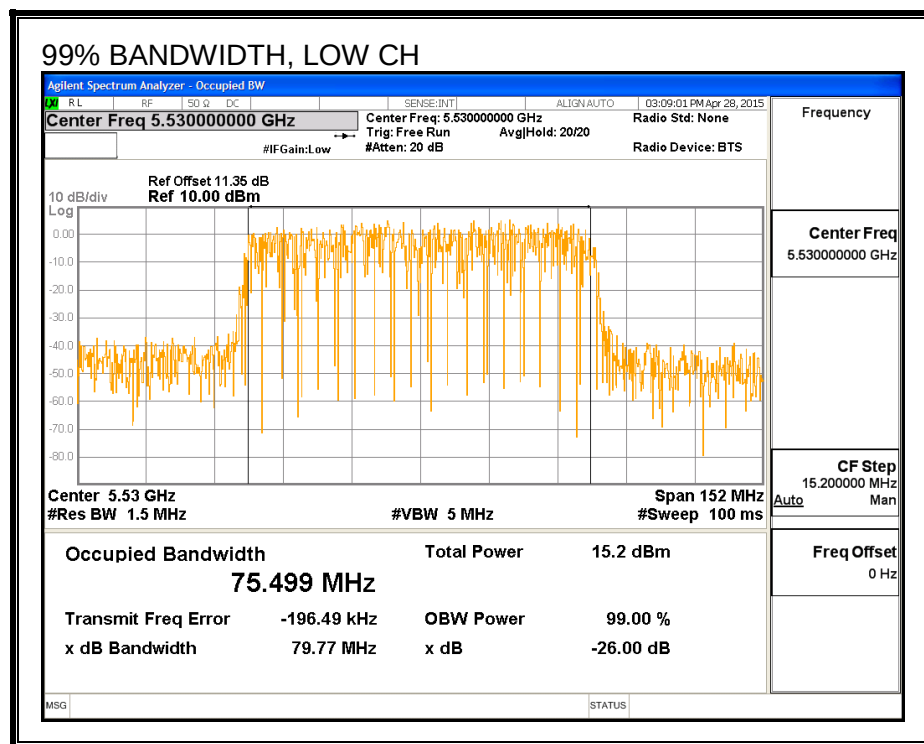
#### LIMITS

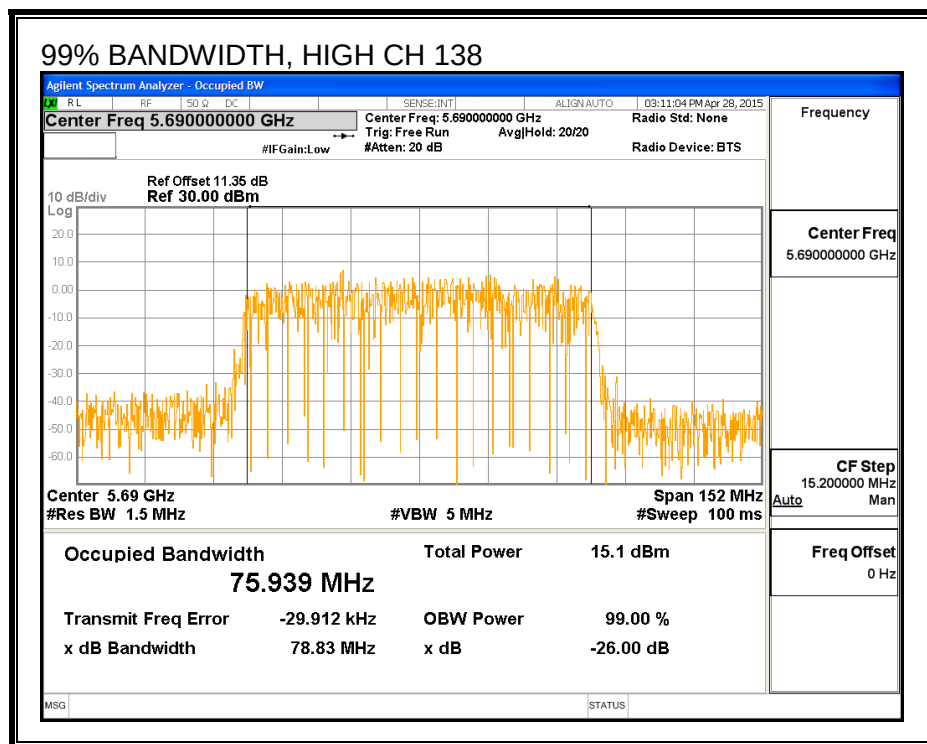
None; for reporting purposes only.

#### RESULTS

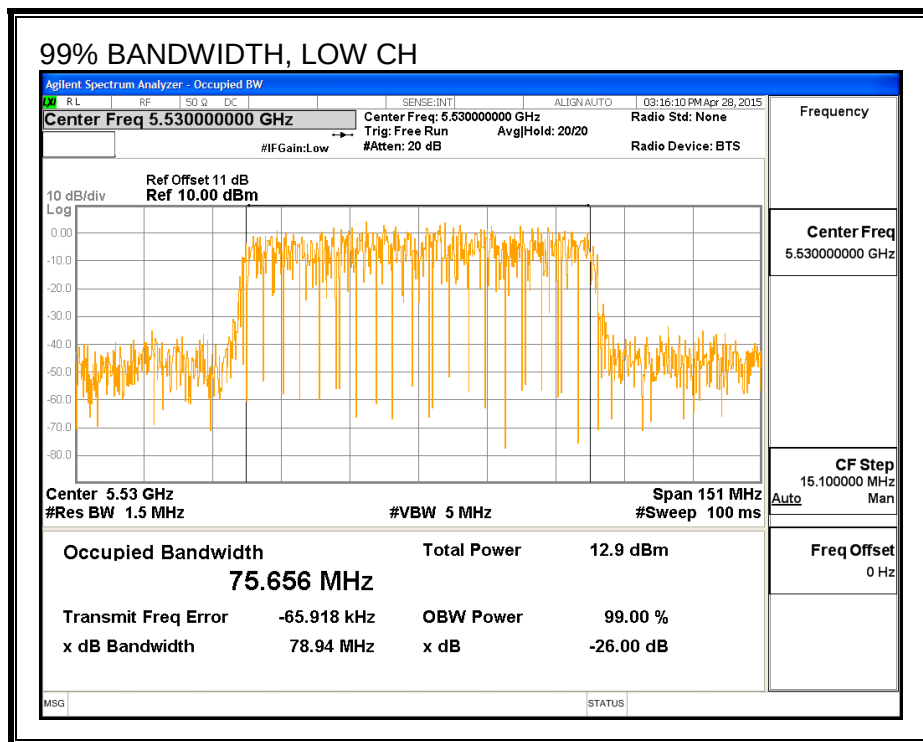
| Channel | Frequency<br>(MHz) | 99% BW<br>Chain 0<br>(MHz) | 99% BW<br>Chain 1<br>(MHz) |
|---------|--------------------|----------------------------|----------------------------|
| Low     | 5530               | 75.499                     | 75.656                     |
| Mid     | 5610               | 76.412                     | 74.614                     |
| High    | 5690               | 75.939                     | 76.049                     |

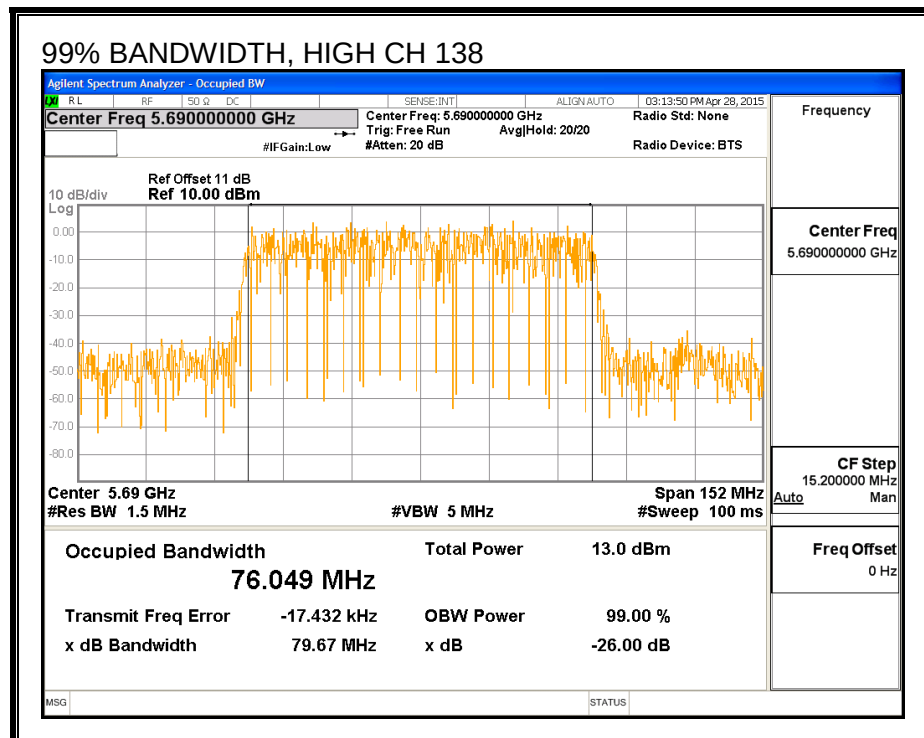
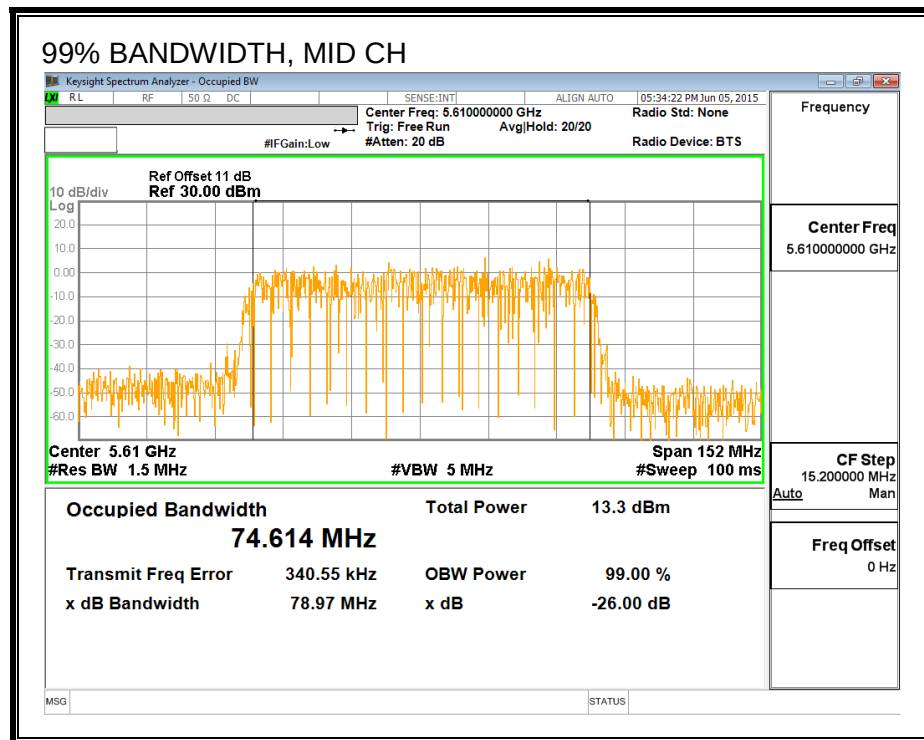
**99% BANDWIDTH, CHAIN 0**





**99% BANDWIDTH, CHAIN 1**





### 8.35.3. AVERAGE POWER

#### LIMITS

None; for reporting purposes only.

#### RESULTS

| Channel | Frequency<br>(MHz) | Chain 0<br>Power<br>(dBm) | Chain 1<br>Power<br>(dBm) | Total<br>Power<br>(dBm) |
|---------|--------------------|---------------------------|---------------------------|-------------------------|
| Low     | 5530               | 13.94                     | 13.96                     | 16.96                   |
| Mid     | 5610               | 15.89                     | 15.92                     | 18.92                   |
| High    | 5690               | 18.16                     | 18.38                     | 21.28                   |

#### 8.35.4. OUTPUT POWER AND PSD

##### LIMITS

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log B$ , where B is the 26-dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1-MHz 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.

IC RSS-247 (6.2.3) (1)

The maximum conducted output power shall not exceed 250 mW or  $11 + 10 \log_{10} B$ , dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or  $17 + 10 \log_{10} B$ , dBm, whichever is less. B is the 99% emission bandwidth in megahertz. 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.

##### DIRECTIONAL ANTENNA GAIN

The TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

| Chain 0<br>Antenna<br>Gain<br>(dBi) | Chain 1<br>Antenna<br>Gain<br>(dBi) | Uncorrelated Chains<br>Directional<br>Gain<br>(dBi) |
|-------------------------------------|-------------------------------------|-----------------------------------------------------|
| -3.40                               | -0.44                               | -1.67                                               |

The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

| Chain 0<br>Antenna<br>Gain<br>(dBi) | Chain 1<br>Antenna<br>Gain<br>(dBi) | Correlated Chains<br>Directional<br>Gain<br>(dBi) |
|-------------------------------------|-------------------------------------|---------------------------------------------------|
| -3.40                               | -0.44                               | 1.22                                              |

## RESULTS

### Bandwidth, Antenna Gain and Limits

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Min<br>99%<br>BW<br>(MHz) | Directional<br>Gain<br>for Power<br>(dBi) | Directional<br>Gain<br>for PSD<br>(dBi) | Power<br>Limit<br>(dBm) | PSD<br>Limit<br>(dBm) |
|---------|--------------------|-----------------------------|---------------------------|-------------------------------------------|-----------------------------------------|-------------------------|-----------------------|
| Low     | 5530               | 81.61                       | 75.66                     | -1.67                                     | 1.22                                    | 24.00                   | 11.00                 |
| High    | 5610               | 82.14                       | 74.61                     | -1.67                                     | 1.22                                    | 24.00                   | 11.00                 |

|                    |      |                                                |
|--------------------|------|------------------------------------------------|
| Duty Cycle CF (dB) | 0.22 | Included in Calculations of Corr'd Power & PSD |
|--------------------|------|------------------------------------------------|

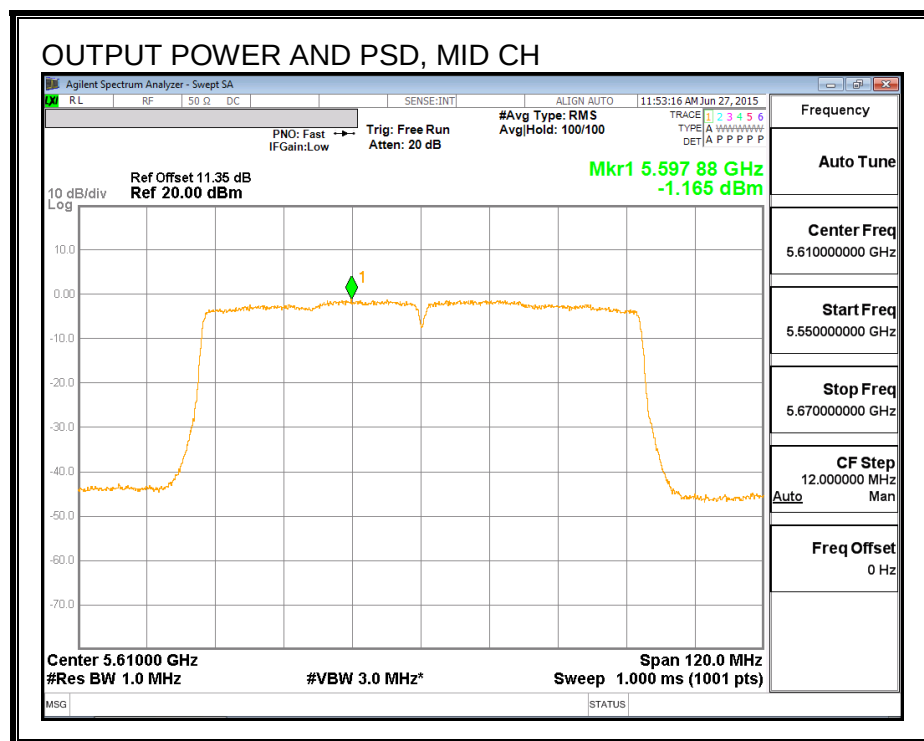
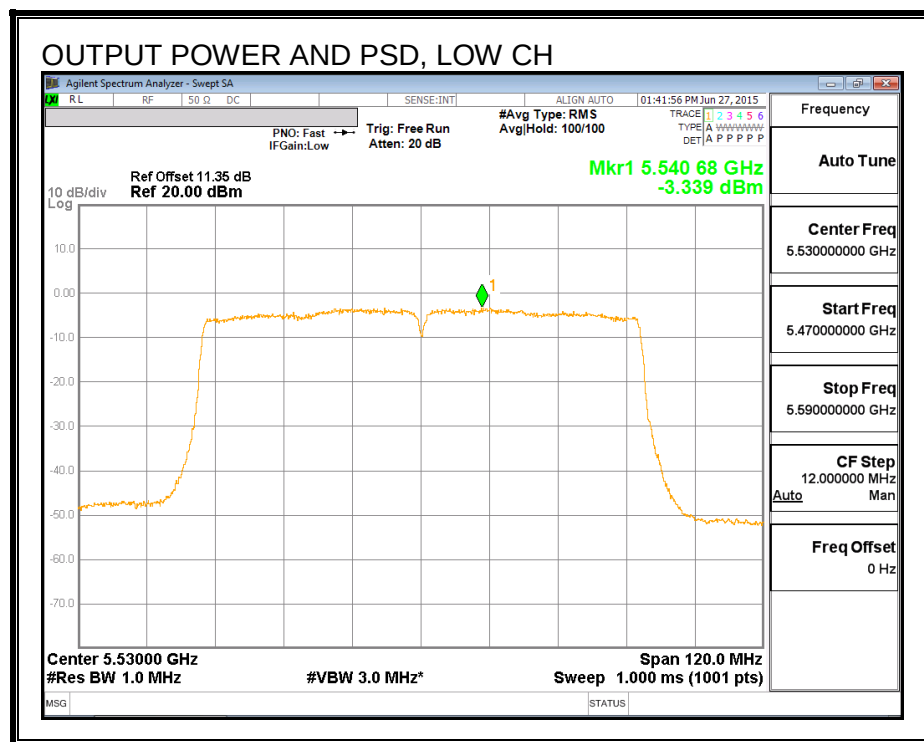
### Output Power Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>Power<br>(dBm) | Chain 1<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low     | 5530               | 13.94                             | 13.96                             | 17.18                             | 24.00                   | -6.82                   |
| High    | 5610               | 15.89                             | 15.92                             | 19.14                             | 24.00                   | -4.86                   |

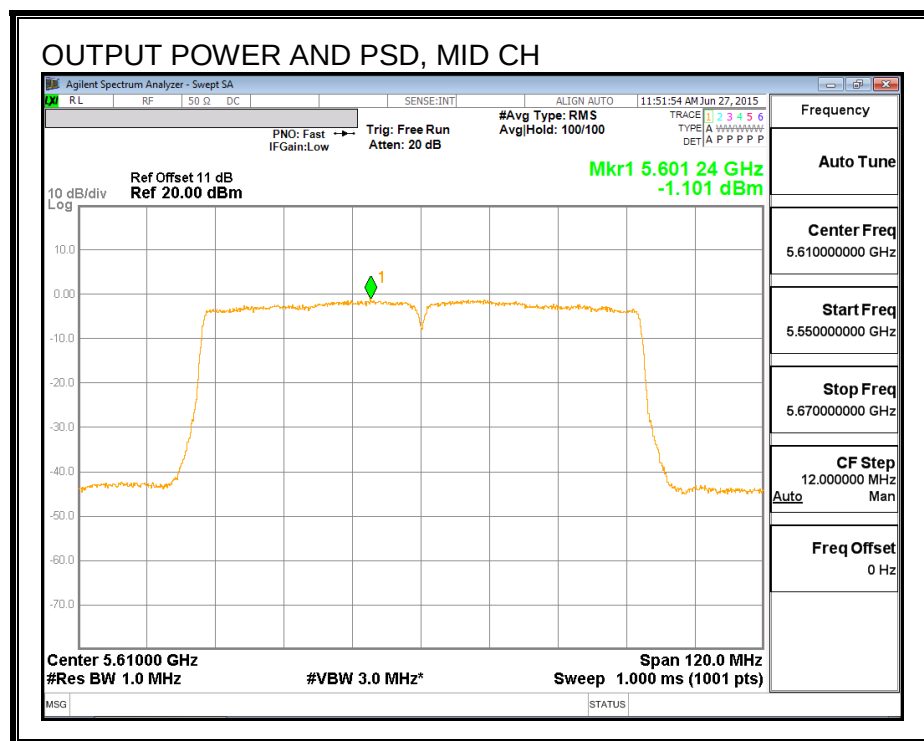
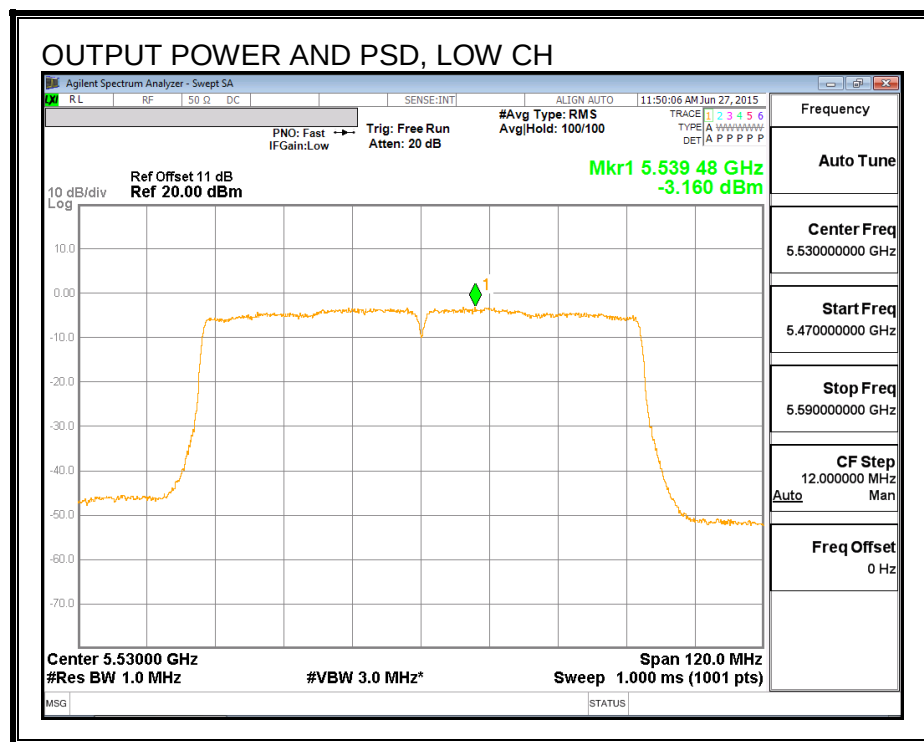
### PSD Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm) | Chain 1<br>Meas<br>PSD<br>(dBm) | Total<br>Corr'd<br>PSD<br>(dBm) | PSD<br>Limit<br>(dBm) | PSD<br>Margin<br>(dB) |
|---------|--------------------|---------------------------------|---------------------------------|---------------------------------|-----------------------|-----------------------|
| Low     | 5530               | -3.34                           | -3.16                           | -0.02                           | 11.00                 | -11.02                |
| High    | 5610               | -1.17                           | -1.10                           | 2.10                            | 11.00                 | -8.90                 |

**OUTPUT POWER AND PSD, CHAIN 0**



**OUTPUT POWER AND PSD, CHAIN 1**



### 8.35.5. STRADDLE CHANNEL 138 RESULTS

#### UNII-2C BAND

##### Bandwidth, Antenna Gain, and Limits

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Directional<br>Gain<br>for Power<br>(dBi) | Directional<br>Gain<br>for PSD<br>(dBi) | Power<br>Limit<br>(dBm) | PSD<br>Limit<br>(dBm) |
|---------|--------------------|-----------------------------|-------------------------------------------|-----------------------------------------|-------------------------|-----------------------|
| 138     | 5690               | 76.01                       | -1.67                                     | 1.22                                    | 24.00                   | 11.00                 |

|                    |      |                                                |
|--------------------|------|------------------------------------------------|
| Duty Cycle CF (dB) | 0.22 | Included in Calculations of Corr'd Power & PSD |
|--------------------|------|------------------------------------------------|

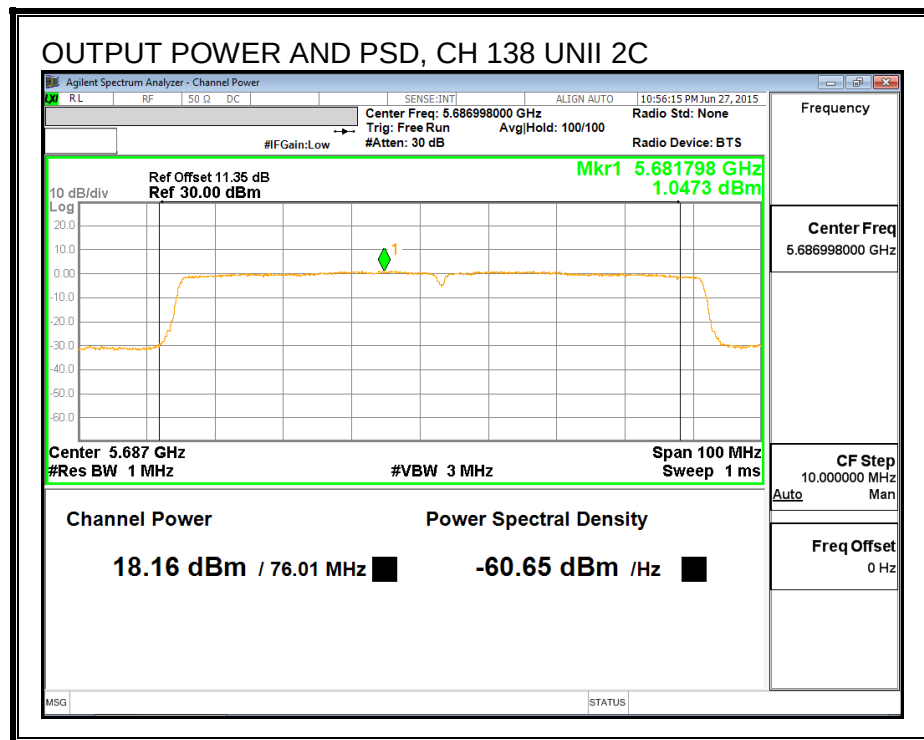
##### Output Power Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>Power<br>(dBm) | Chain 1<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| 138     | 5690               | 18.16                             | 18.38                             | 21.50                             | 24.00                   | -2.50                   |

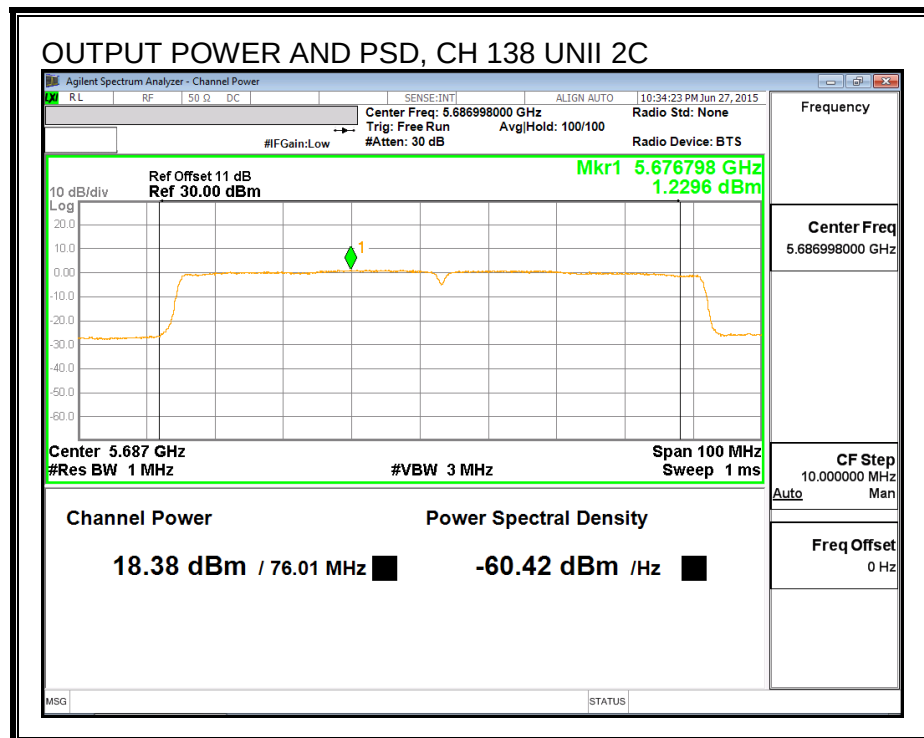
##### PSD Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm) | Chain 1<br>Meas<br>PSD<br>(dBm) | Total<br>Corr'd<br>PSD<br>(dBm) | PSD<br>Limit<br>(dBm) | PSD<br>Margin<br>(dB) |
|---------|--------------------|---------------------------------|---------------------------------|---------------------------------|-----------------------|-----------------------|
| 138     | 5690               | 1.05                            | 1.23                            | 4.37                            | 11.00                 | -6.63                 |

**CHAIN 0**



**CHAIN 1**



**UNII-3 BAND**

**Antenna Gain and Limit**

| Channel | Frequency<br>(MHz) | Min<br>26 dB<br>BW<br>(MHz) | Directional<br>Gain<br>(dBi) | Directional<br>Gain<br>(dBi) | Power<br>Limit<br>(dBm) | PSD<br>Limit<br>(dBm) |
|---------|--------------------|-----------------------------|------------------------------|------------------------------|-------------------------|-----------------------|
| 138     | 5690               | 6.01                        | -1.67                        | 1.22                         | 30.00                   | 30.00                 |

|                    |      |                                                |
|--------------------|------|------------------------------------------------|
| Duty Cycle CF (dB) | 0.22 | Included in Calculations of Corr'd Power & PSD |
|--------------------|------|------------------------------------------------|

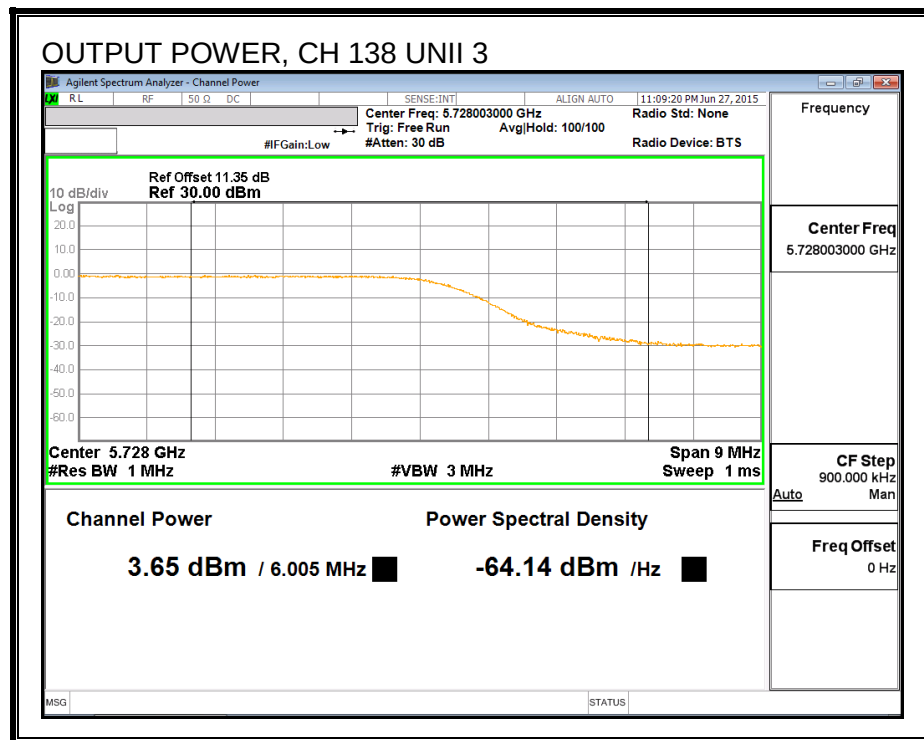
**Output Power Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>Power<br>(dBm) | Chain 1<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| 138     | 5690               | 3.65                              | 3.55                              | 6.83                              | 30.00                   | -23.17                  |

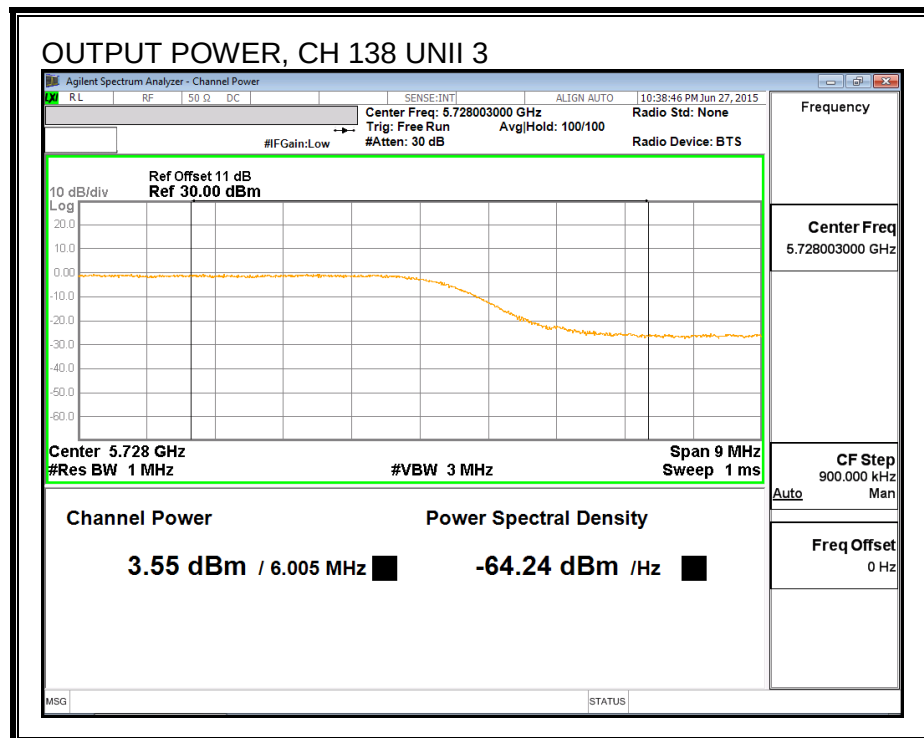
**PSD Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm) | Chain 1<br>Meas<br>PSD<br>(dBm) | Total<br>Corr'd<br>PSD<br>(dBm) | PSD<br>Limit<br>(dBm) | PSD<br>Margin<br>(dB) |
|---------|--------------------|---------------------------------|---------------------------------|---------------------------------|-----------------------|-----------------------|
| 138     | 5690               | -0.84                           | -0.95                           | 2.34                            | 30.00                 | -27.66                |

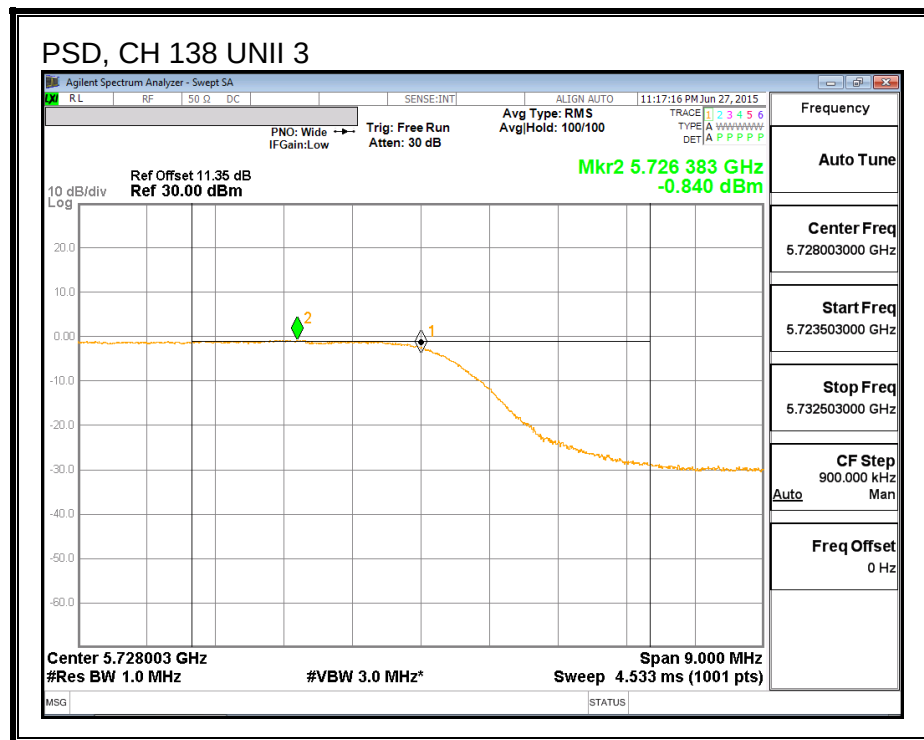
**CHAIN 0**



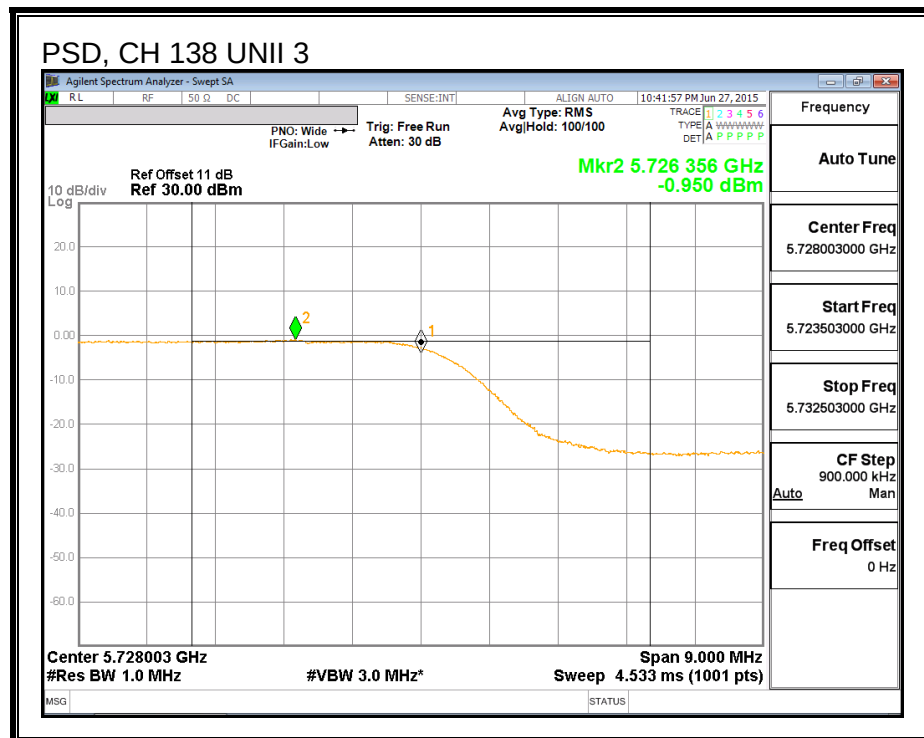
**CHAIN 1**



**CHAIN 0**



**CHAIN 1**



### **8.35.6. 6 dB BANDWIDTH**

#### **LIMITS**

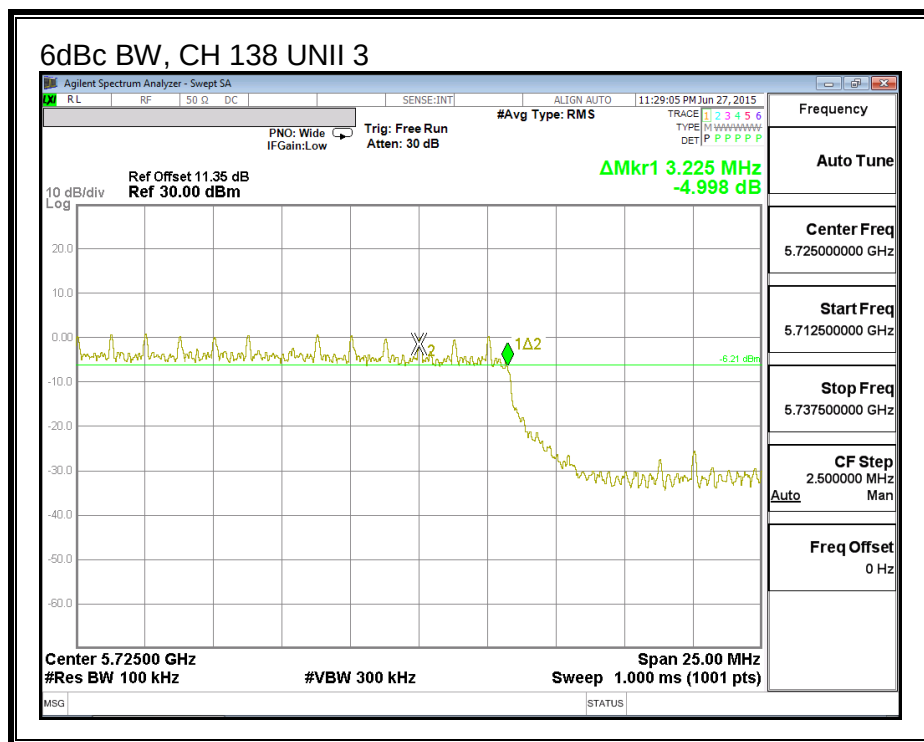
FCC §15.407 (e)

IC RSS-247 (6.2.4) (1)

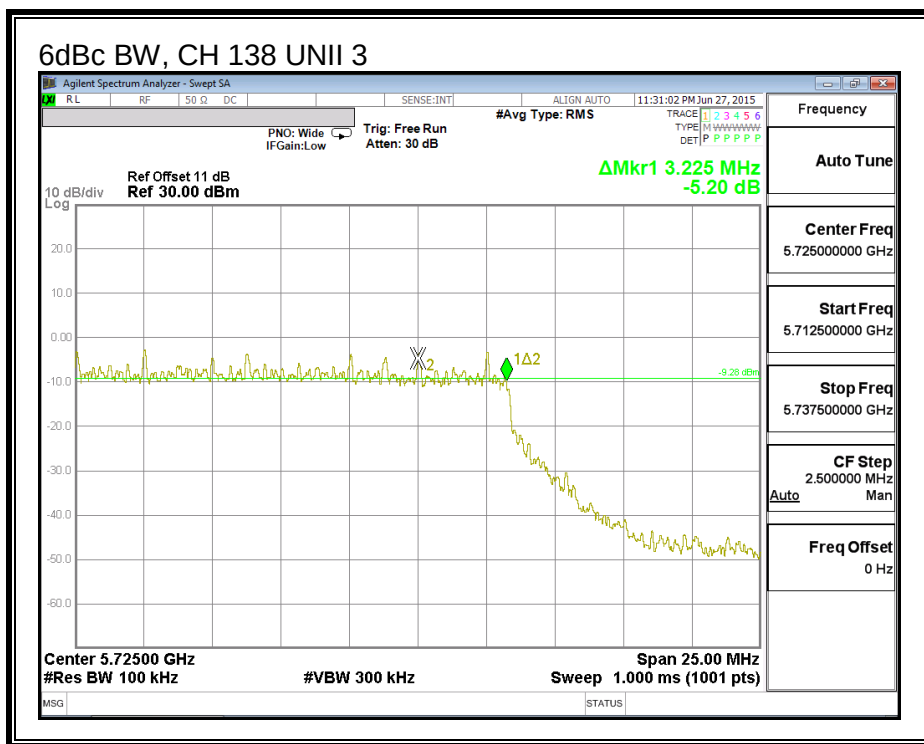
The minimum 6 dB bandwidth shall be at least 500 kHz.

#### **RESULTS**

**CHAIN 0**



**CHAIN 1**



**8.36. 802.11ac HT80 2Tx STBC MODE IN THE 5.6 GHz BAND (5610MHz  
for FCC only)**

**Note:** Covered by 802.11n HT80 2Tx CDD MODE

## **8.37. 802.11n HT20 CHAIN 0 MODE IN THE 5.8 GHz BAND**

### **8.37.1. 6 dB BANDWIDTH**

#### **LIMITS**

FCC §15.407 (e)

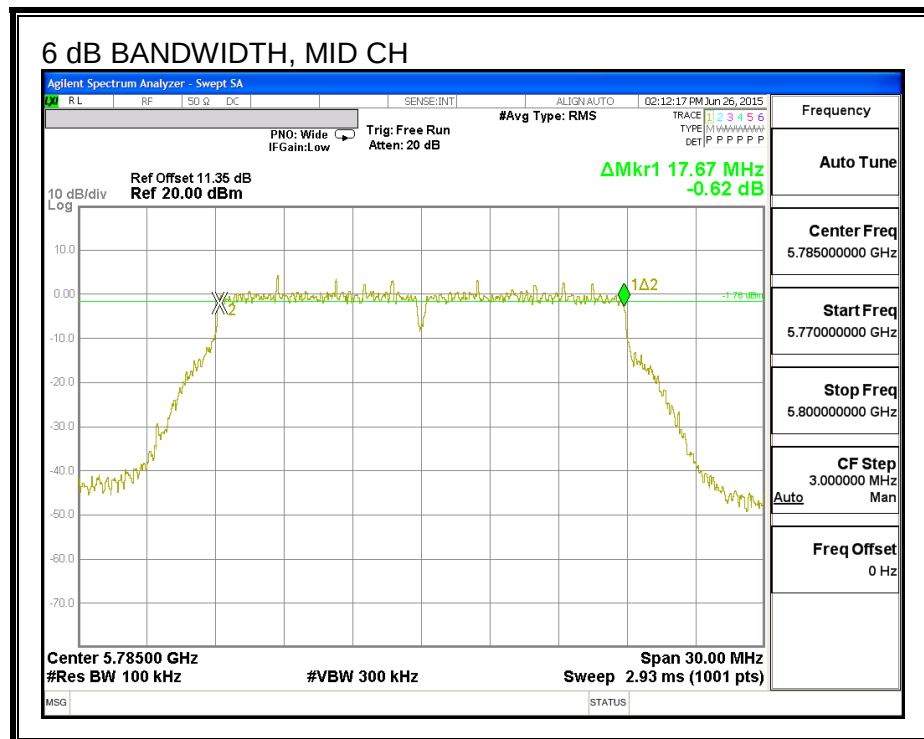
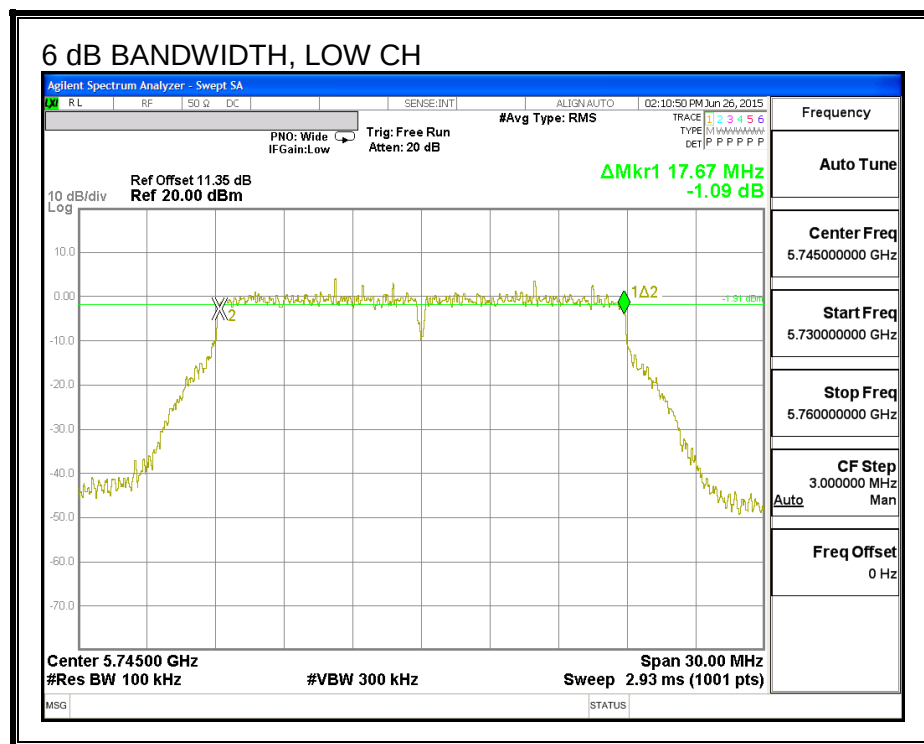
IC RSS-247 (6.2.4) (1)

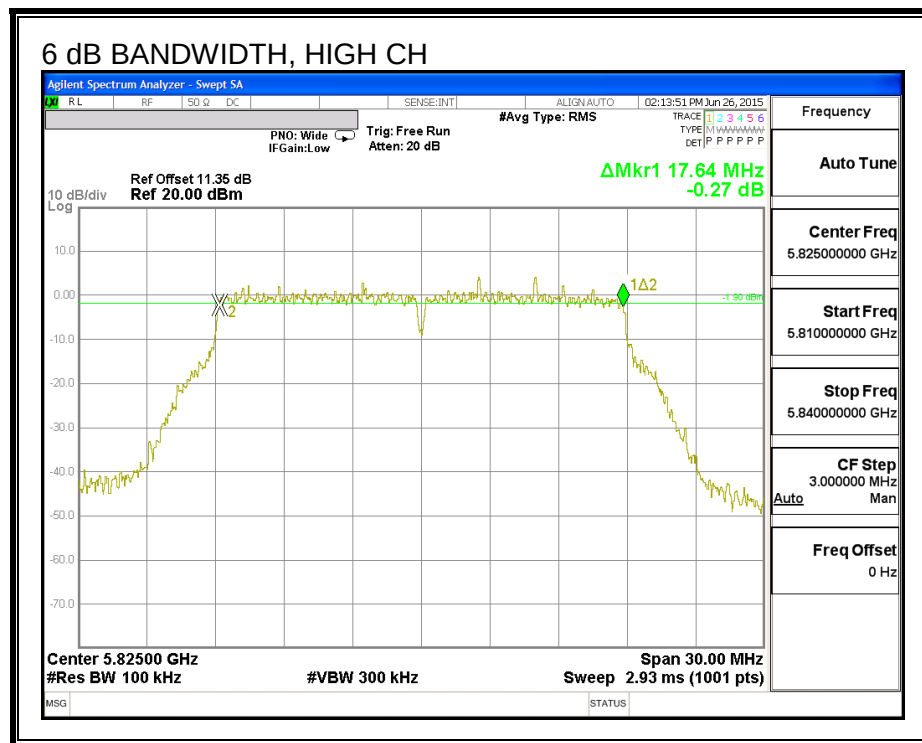
The minimum 6 dB bandwidth shall be at least 500 kHz.

#### **RESULTS**

| Channel | Frequency<br>(MHz) | 6 dB Bandwidth<br>(MHz) | Minimum Limit<br>(MHz) |
|---------|--------------------|-------------------------|------------------------|
| Low     | 5745               | 17.67                   | 0.5                    |
| Mid     | 5785               | 17.67                   | 0.5                    |
| High    | 5825               | 17.64                   | 0.5                    |

## 6 dB BANDWIDTH





### 8.37.2. 26 dB BANDWIDTH

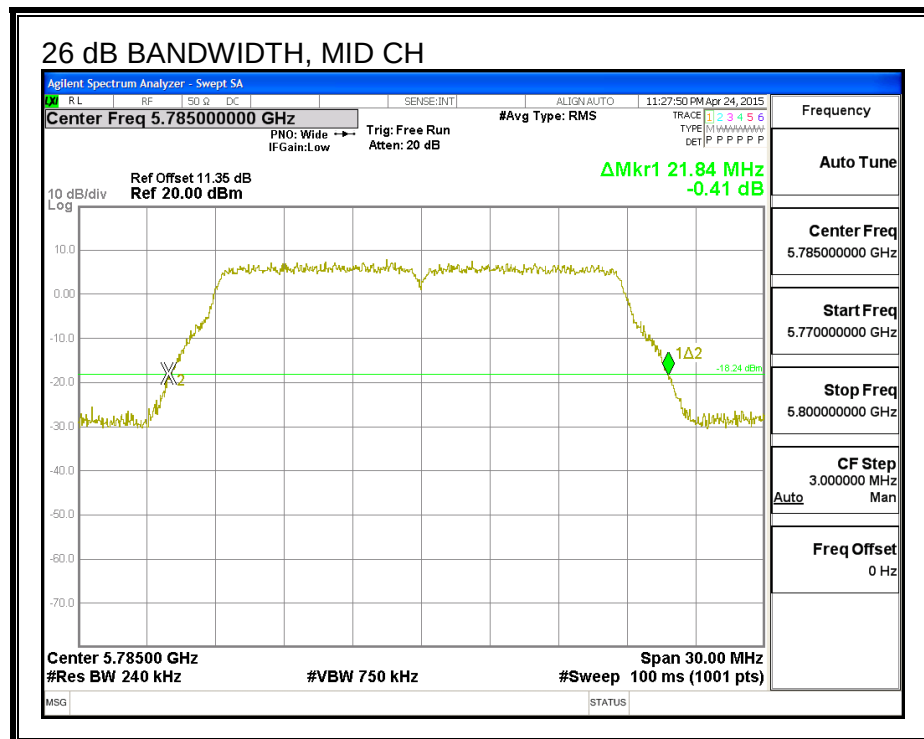
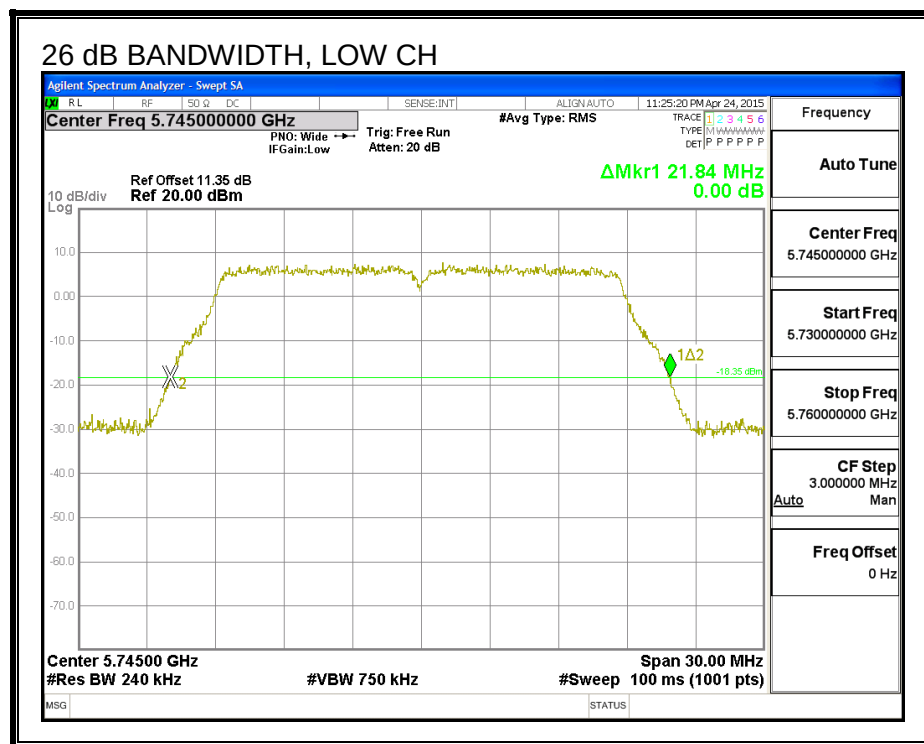
#### LIMITS

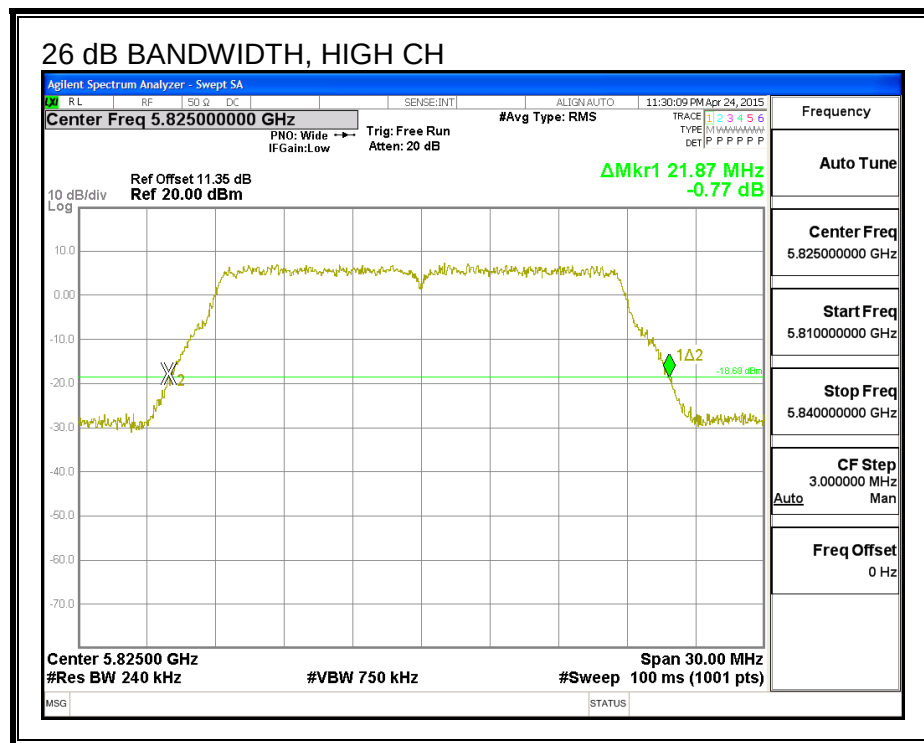
None, for reporting purposes only

#### RESULTS

| Channel | Frequency<br>(MHz) | 26 dB Bandwidth<br>(MHz) |
|---------|--------------------|--------------------------|
| Low     | 5745               | 21.84                    |
| Mid     | 5785               | 21.84                    |
| High    | 5825               | 21.87                    |

## 26 dB BANDWIDTH





### 8.37.3. 99% BANDWIDTH

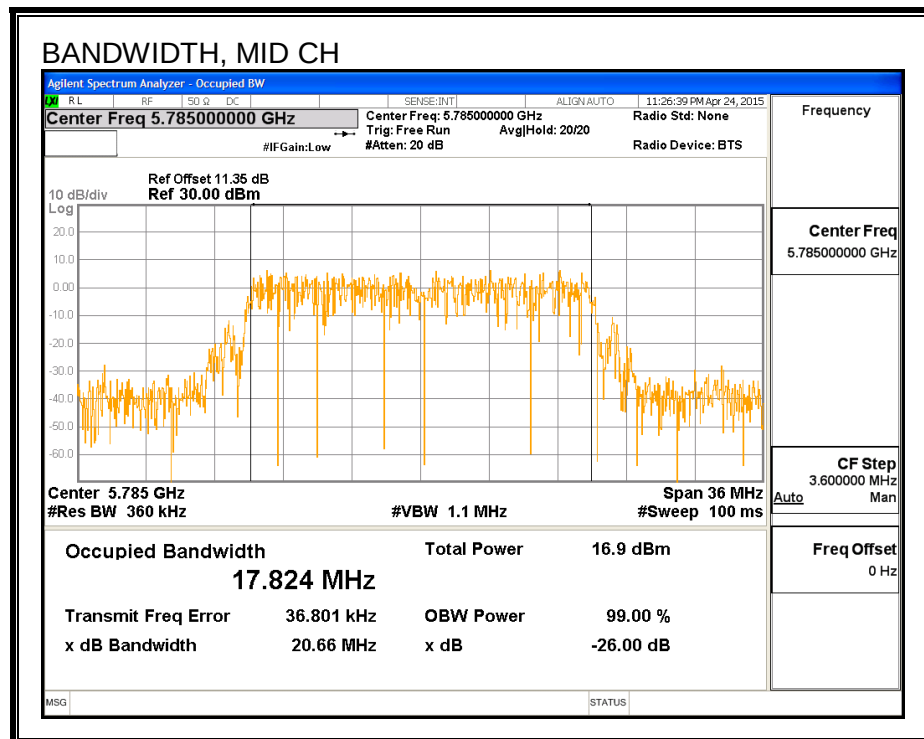
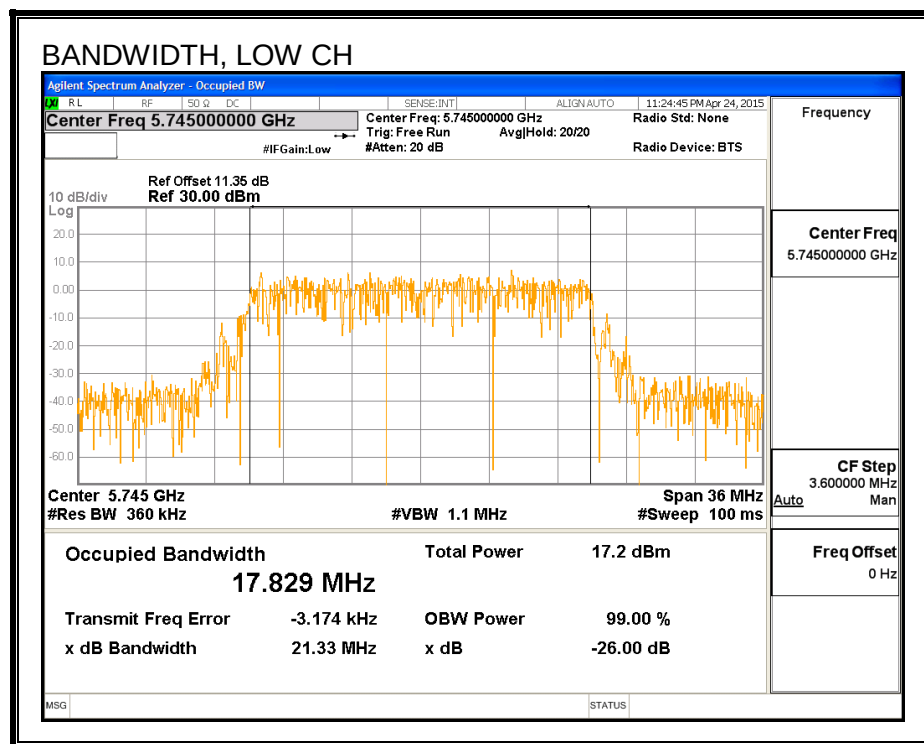
#### LIMITS

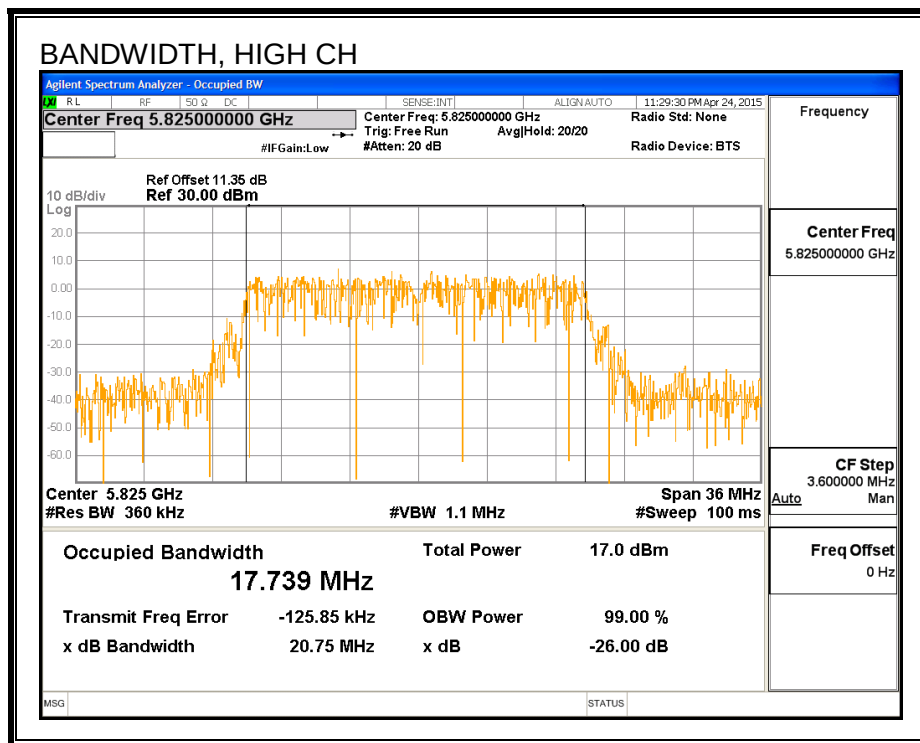
None; for reporting purposes only.

#### RESULTS

| Frequency<br>(MHz) | 99% Bandwidth<br>(MHz) |
|--------------------|------------------------|
| 5745               | 17.829                 |
| 5785               | 17.824                 |
| 5825               | 17.739                 |

**99% BANDWIDTH**





#### **8.37.4. AVERAGE POWER**

##### **LIMITS**

None; for reporting purposes only.

##### **RESULTS**

| Channel | Frequency<br>(MHz) | Power<br>(dBm) |
|---------|--------------------|----------------|
| Low     | 5745               | 15.89          |
| Mid     | 5785               | 18.96          |
| High    | 5825               | 16.95          |

### **8.37.5. OUTPUT POWER**

#### **LIMITS**

FCC §15.407 (a) (3)

IC RSS-247 (6.2.4) (1)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### **DIRECTIONAL ANTENNA GAIN**

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

## **RESULTS**

### **Antenna Gain and Limit**

| Channel | Frequency<br>(MHz) | Directional<br>Gain<br>for Power<br>(dBi) | Power<br>Limit<br>(dBm) |
|---------|--------------------|-------------------------------------------|-------------------------|
| Low     | 5745               | -4.33                                     | 30.00                   |
| Mid     | 5785               | -4.33                                     | 30.00                   |
| High    | 5825               | -4.33                                     | 30.00                   |

|                           |      |                                                 |
|---------------------------|------|-------------------------------------------------|
| <b>Duty Cycle CF (dB)</b> | 0.00 | <b>Included in Calculations of Corr'd Power</b> |
|---------------------------|------|-------------------------------------------------|

### **Output Power Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low     | 5745               | 15.89                             | 15.89                             | 30.00                   | -14.11                  |
| Mid     | 5785               | 18.96                             | 18.96                             | 30.00                   | -11.04                  |
| High    | 5825               | 16.95                             | 16.95                             | 30.00                   | -13.05                  |

### 8.37.6. PSD

#### LIMITS

FCC §15.407 (a) (3)

IC RSS-247 (6.2.4) (1)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

#### RESULTS

##### Antenna Gain and Limits

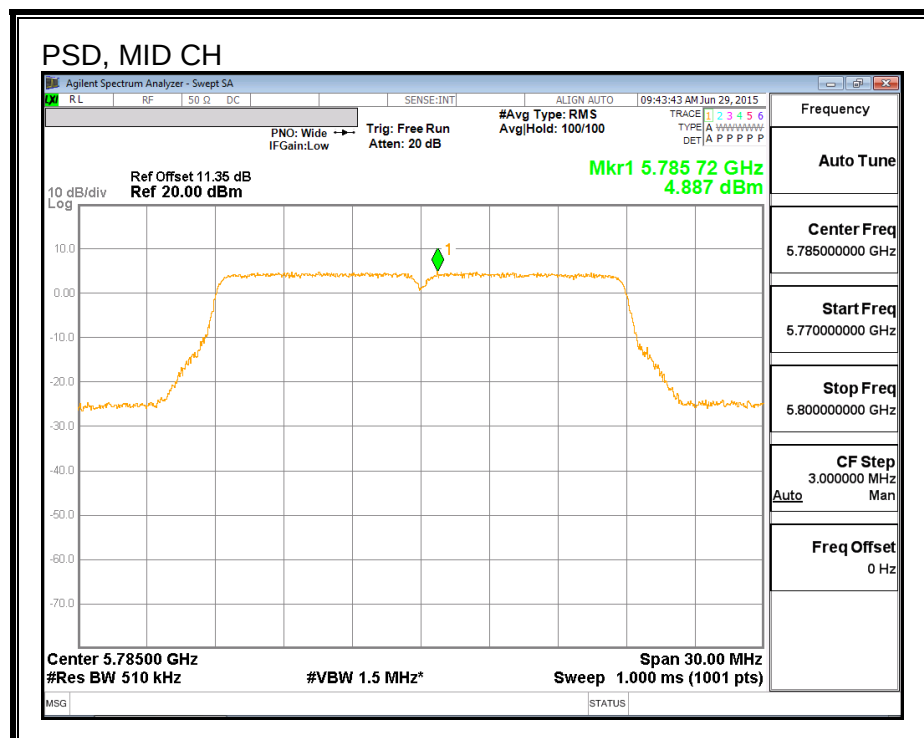
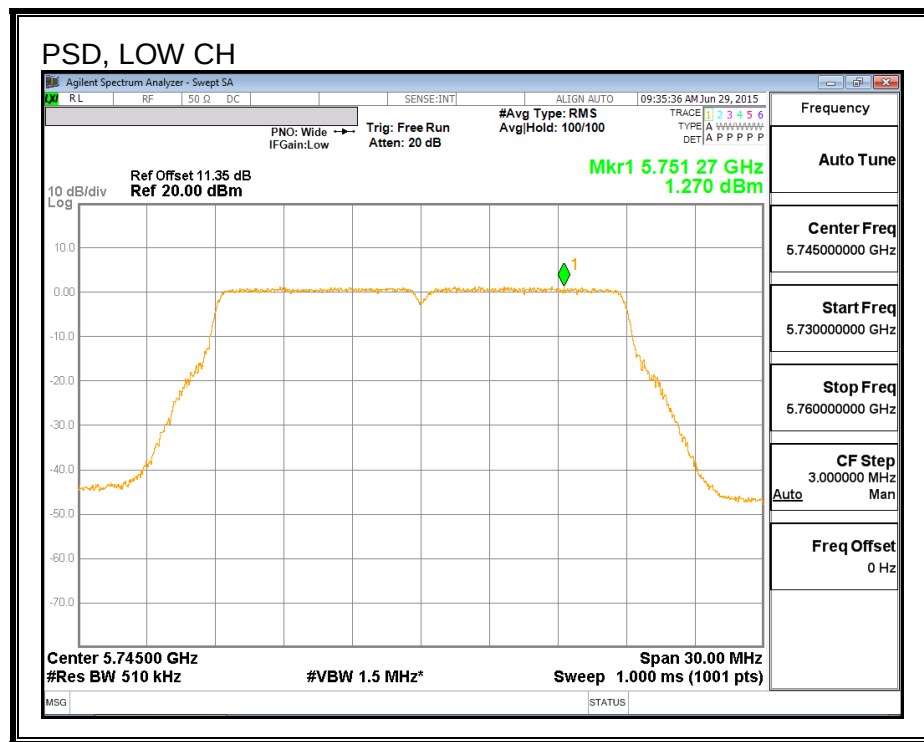
| Channel | Frequency<br>(MHz) | Directional<br>Gain<br>(dBi) | PSD<br>Limit<br>(dBm) |
|---------|--------------------|------------------------------|-----------------------|
| Low     | 5745               | -4.33                        | 30.00                 |
| Mid     | 5785               | -4.33                        | 30.00                 |
| High    | 5825               | -4.33                        | 30.00                 |

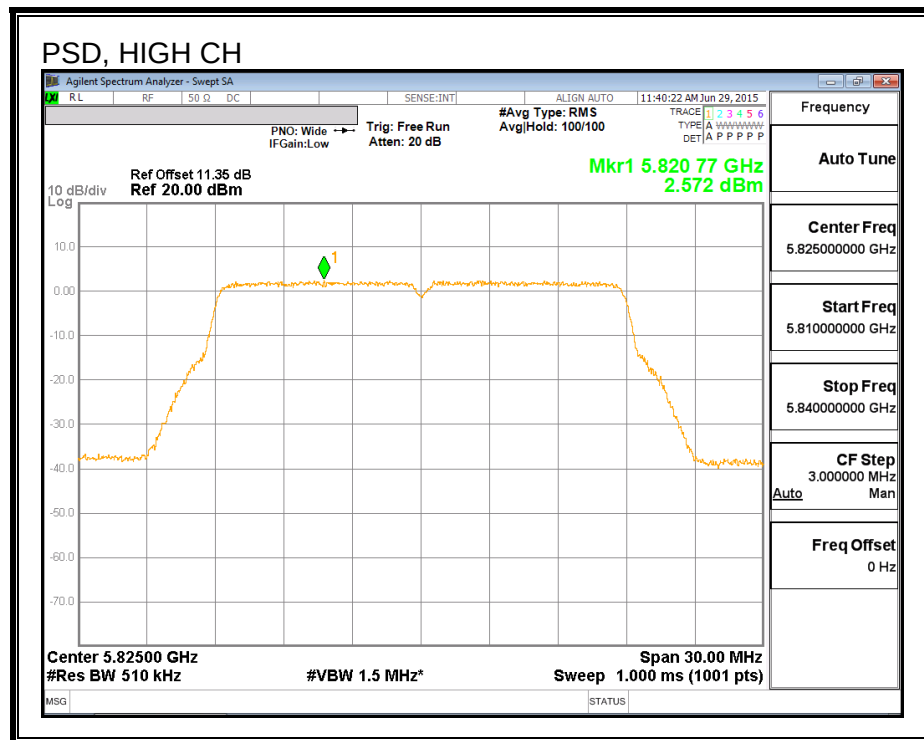
|                    |      |                                        |
|--------------------|------|----------------------------------------|
| Duty Cycle CF (dB) | 0.00 | Included in Calculations of Corr'd PSD |
|--------------------|------|----------------------------------------|

##### PSD Results

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm) | Total<br>Corr'd<br>PSD<br>(dBm) | PSD<br>Limit<br>(dBm) | PSD<br>Margin<br>(dB) |
|---------|--------------------|---------------------------------|---------------------------------|-----------------------|-----------------------|
| Low     | 5745               | 1.27                            | 1.27                            | 30.00                 | -28.73                |
| Mid     | 5785               | 4.89                            | 4.89                            | 30.00                 | -25.11                |
| High    | 5825               | 2.57                            | 2.57                            | 30.00                 | -27.43                |

PSD,





## **8.38. 802.11n HT20 CHAIN 1 MODE IN THE 5.8 GHz BAND**

### **8.38.1. 6 dB BANDWIDTH**

#### **LIMITS**

FCC §15.407 (e)

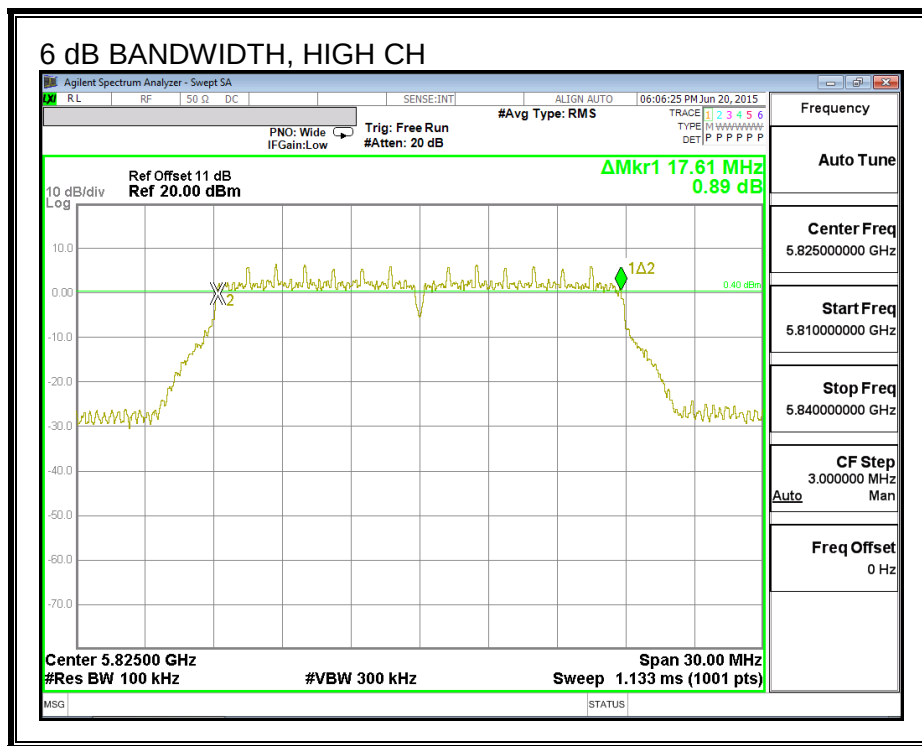
IC RSS-247 (6.2.4) (1)

The minimum 6 dB bandwidth shall be at least 500 kHz.

#### **RESULTS**

| Channel | Frequency<br>(MHz) | 6 dB Bandwidth<br>(MHz) | Minimum Limit<br>(MHz) |
|---------|--------------------|-------------------------|------------------------|
| Low     | 5745               | 17.64                   | 0.5                    |
| Mid     | 5785               | 17.61                   | 0.5                    |
| High    | 5825               | 17.61                   | 0.5                    |





### 8.38.2. 26 dB BANDWIDTH

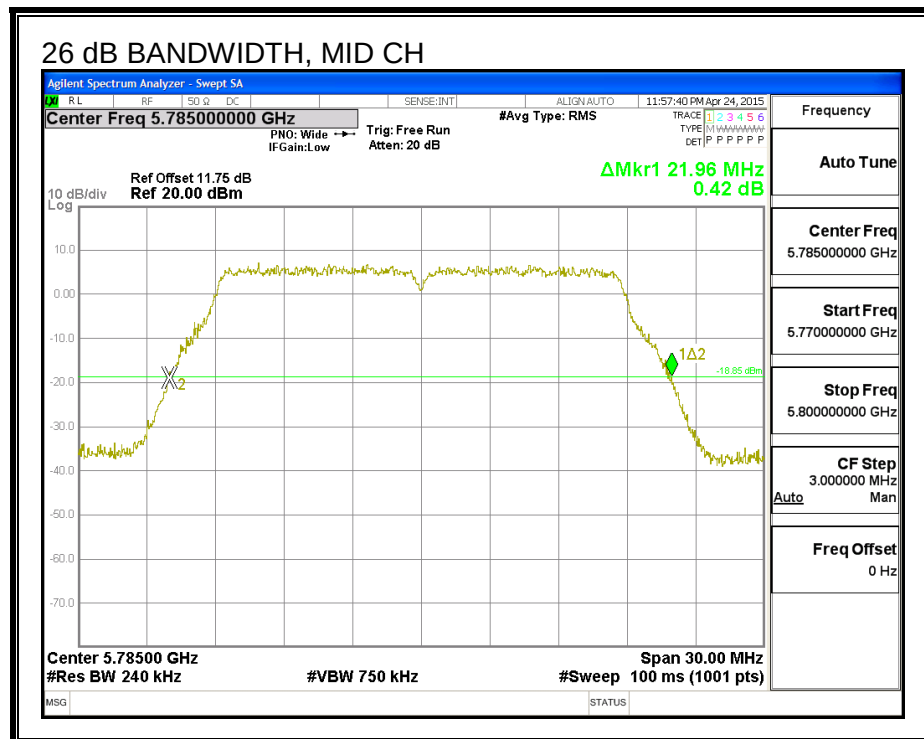
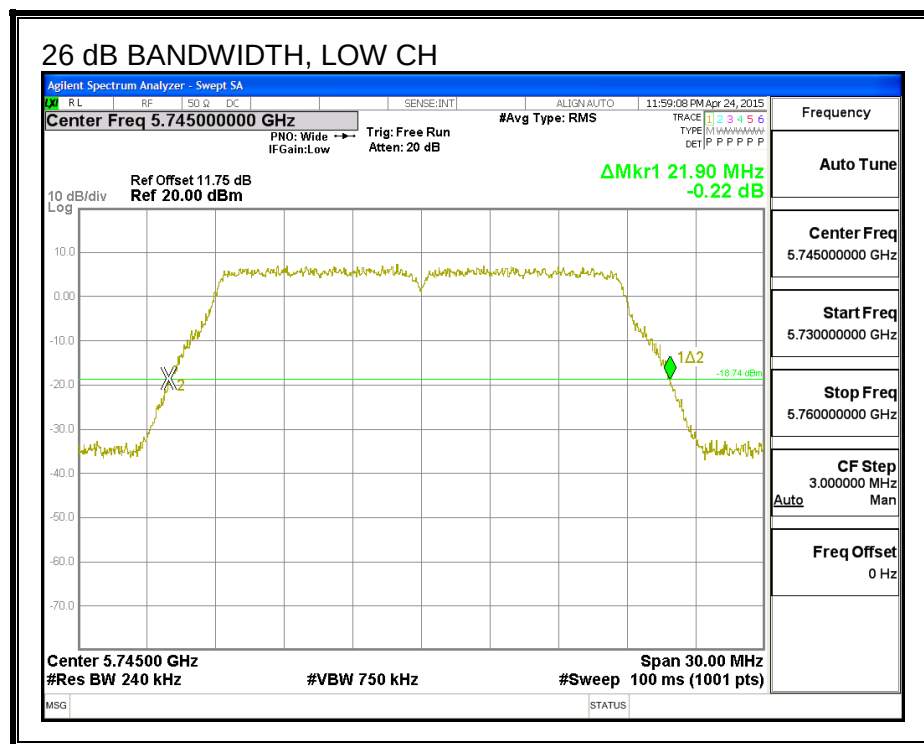
#### LIMITS

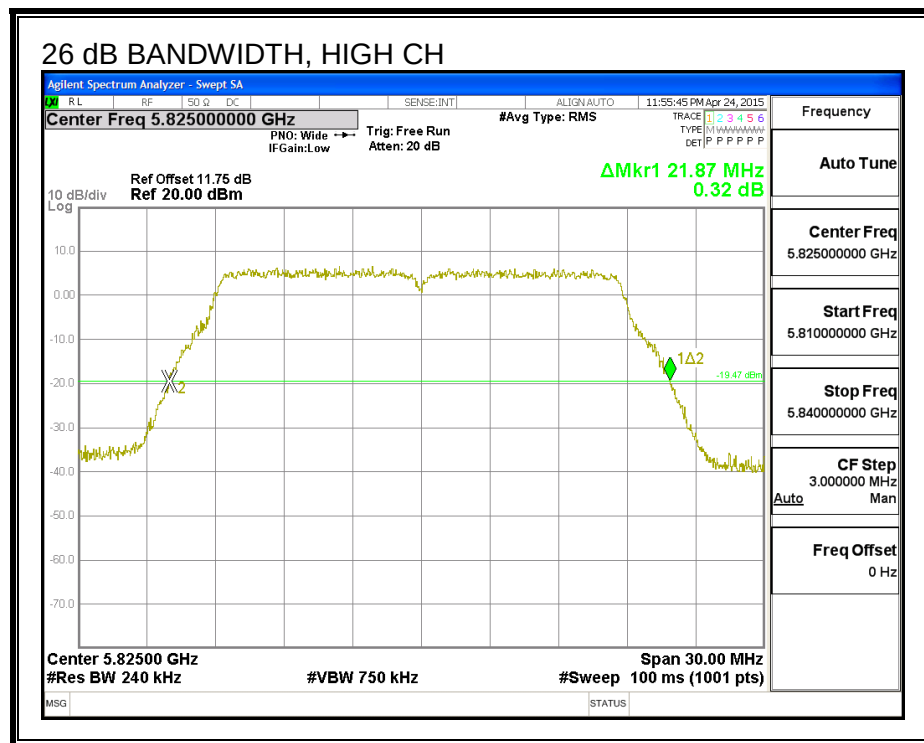
None, for reporting purposes only

#### RESULTS

| Channel | Frequency<br>(MHz) | 26 dB Bandwidth<br>(MHz) |
|---------|--------------------|--------------------------|
| Low     | 5745               | 21.90                    |
| Mid     | 5785               | 21.96                    |
| High    | 5825               | 21.87                    |

## 26 dB BANDWIDTH





### 8.38.3. 99% BANDWIDTH

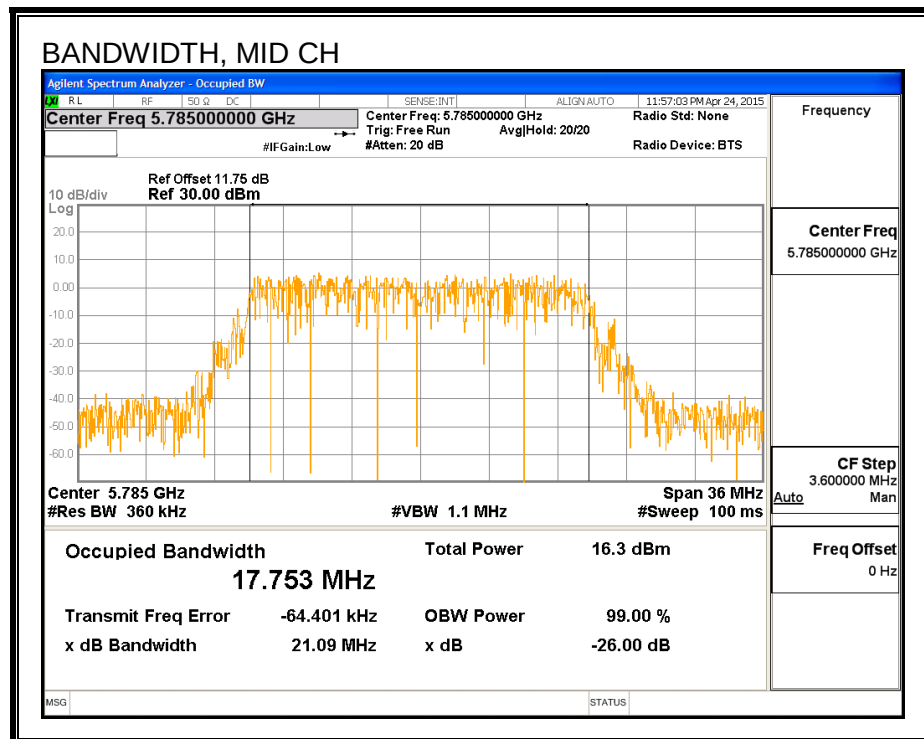
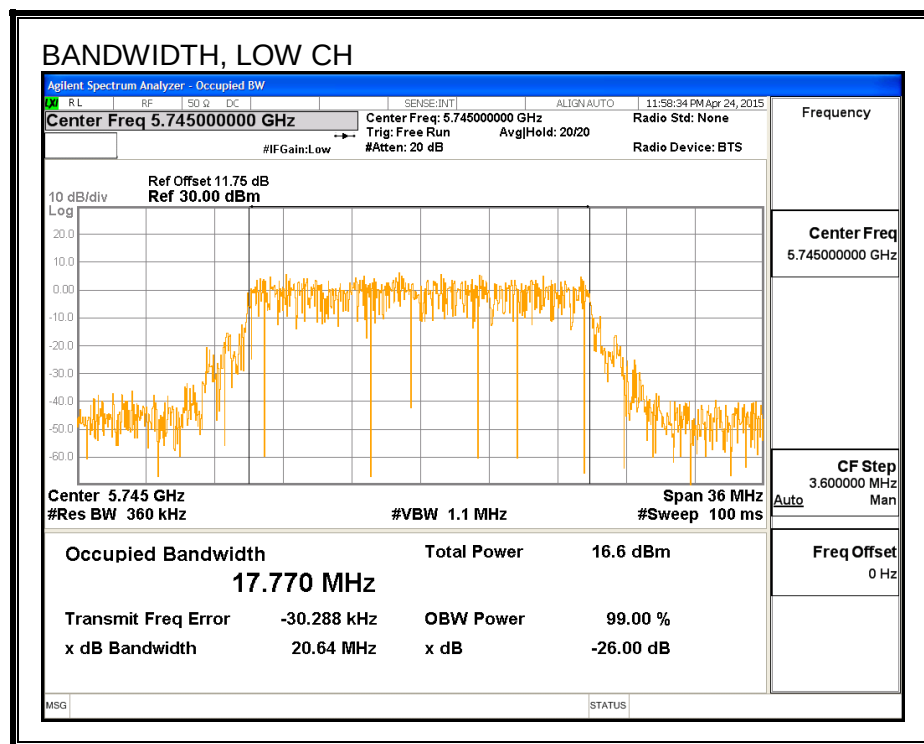
#### LIMITS

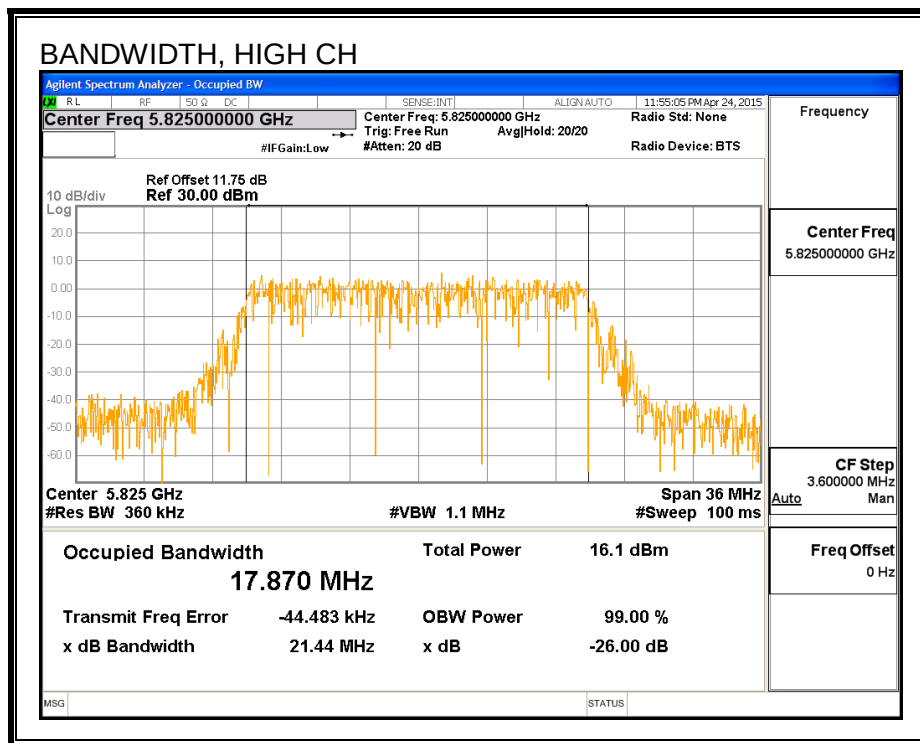
None; for reporting purposes only.

#### RESULTS

| Channel | Frequency<br>(MHz) | 99% Bandwidth<br>(MHz) |
|---------|--------------------|------------------------|
| Low     | 5745               | 17.770                 |
| Mid     | 5785               | 17.753                 |
| High    | 5825               | 17.870                 |

**99% BANDWIDTH**





#### **8.38.4. AVERAGE POWER**

##### **LIMITS**

None; for reporting purposes only.

##### **RESULTS**

| Channel | Frequency<br>(MHz) | Power<br>(dBm) |
|---------|--------------------|----------------|
| Low     | 5745               | 15.97          |
| Mid     | 5785               | 19.46          |
| High    | 5825               | 16.99          |

### **8.38.5. OUTPUT POWER**

#### **LIMITS**

FCC §15.407 (a) (3)

IC RSS-247 (6.2.4) (1)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### **DIRECTIONAL ANTENNA GAIN**

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

## **RESULTS**

### **Antenna Gain and Limit**

| Channel | Frequency<br>(MHz) | Directional<br>Gain<br>for Power<br>(dBi) | Power<br>Limit<br>(dBm) |
|---------|--------------------|-------------------------------------------|-------------------------|
| Low     | 5745               | -1.00                                     | 30.00                   |
| Mid     | 5785               | -1.00                                     | 30.00                   |
| High    | 5825               | -1.00                                     | 30.00                   |

|                           |      |                                                 |
|---------------------------|------|-------------------------------------------------|
| <b>Duty Cycle CF (dB)</b> | 0.00 | <b>Included in Calculations of Corr'd Power</b> |
|---------------------------|------|-------------------------------------------------|

### **Output Power Results**

| Channel | Frequency<br>(MHz) | Chain 1<br>Meas<br>Power<br>(dBm) | Total<br>Corr'd<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | Power<br>Margin<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Low     | 5745               | 15.97                             | 15.97                             | 30.00                   | -14.03                  |
| Mid     | 5785               | 19.46                             | 19.46                             | 30.00                   | -10.54                  |
| High    | 5825               | 16.99                             | 16.99                             | 30.00                   | -13.01                  |

### 8.38.6. PSD

#### LIMITS

FCC §15.407 (a) (3)

IC RSS-247 (6.2.4) (1)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

#### RESULTS

##### Antenna Gain and Limits

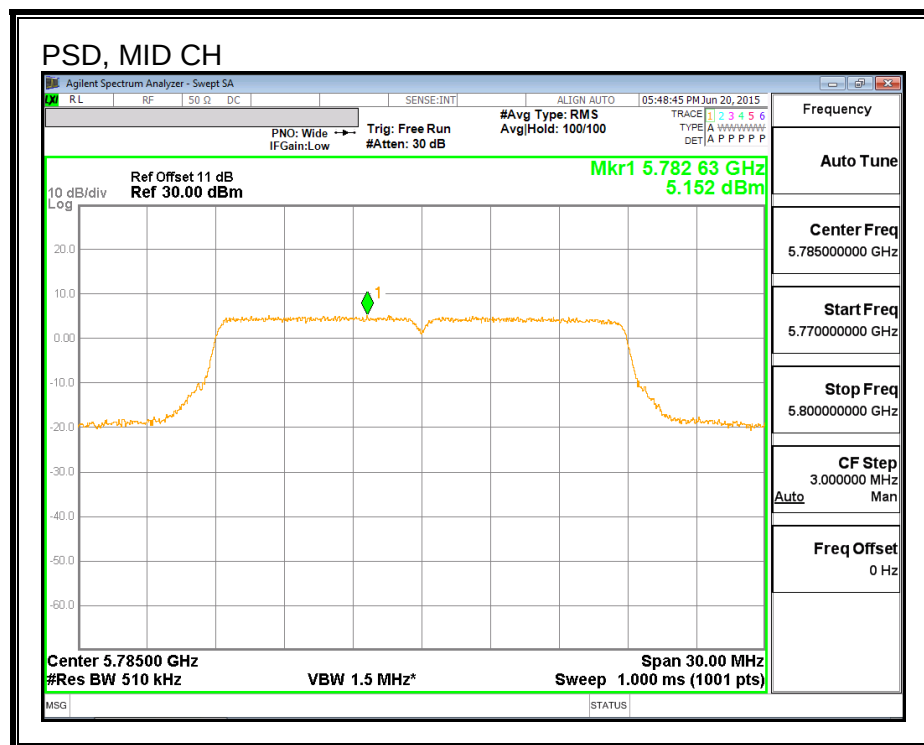
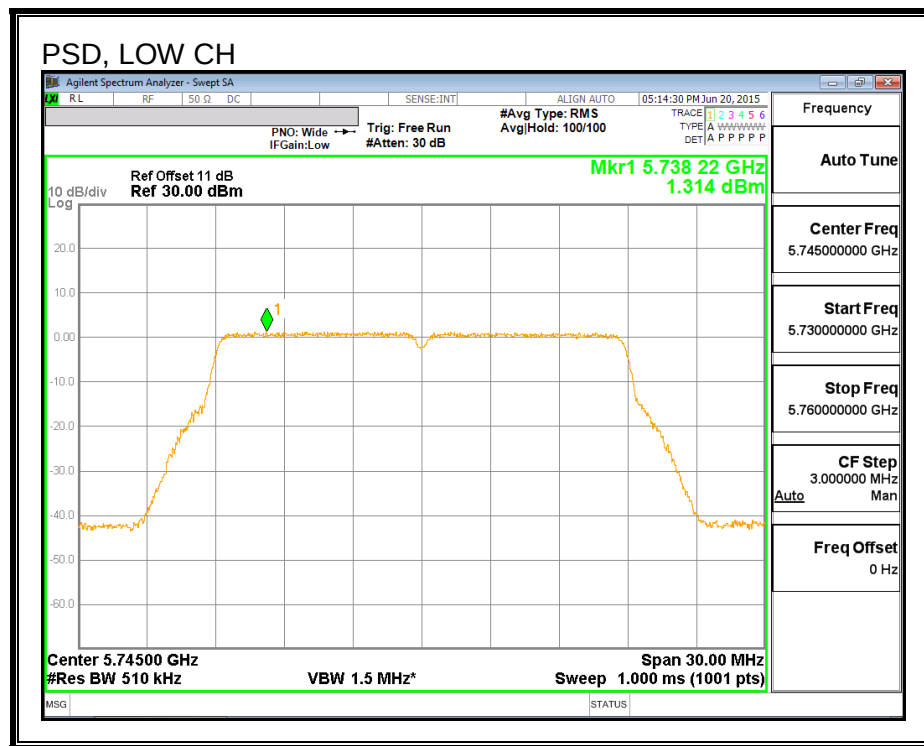
| Channel | Frequency<br>(MHz) | Directional<br>Gain<br>(dBi) | PSD<br>Limit<br>(dBm) |
|---------|--------------------|------------------------------|-----------------------|
| Low     | 5745               | -1.00                        | 30.00                 |
| Mid     | 5785               | -1.00                        | 30.00                 |
| High    | 5825               | -1.00                        | 30.00                 |

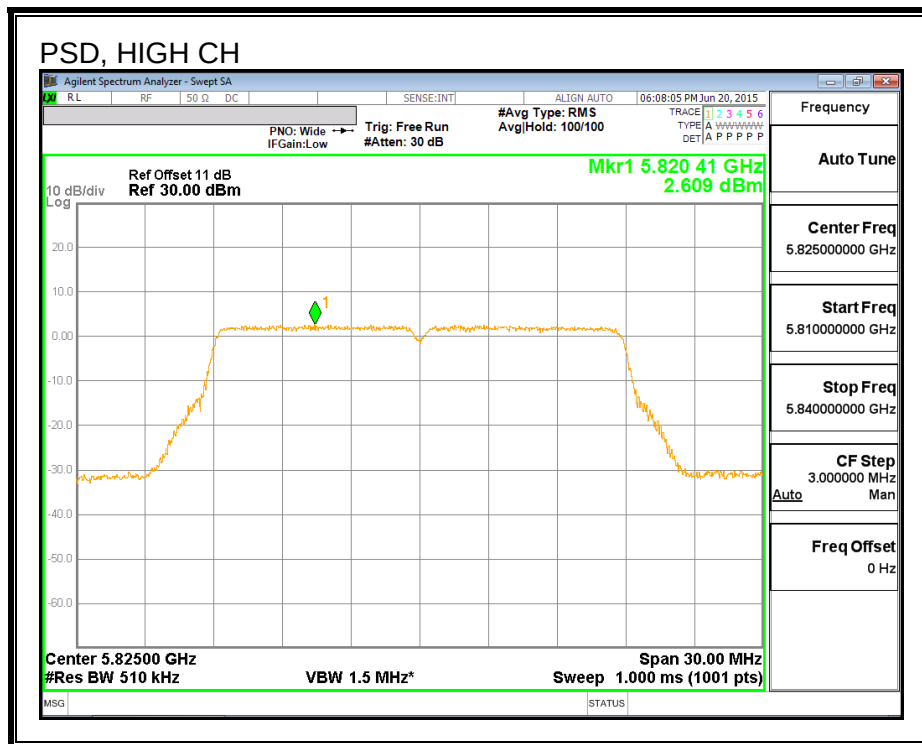
|                    |      |                                        |
|--------------------|------|----------------------------------------|
| Duty Cycle CF (dB) | 0.00 | Included in Calculations of Corr'd PSD |
|--------------------|------|----------------------------------------|

##### PSD Results

| Channel | Frequency<br>(MHz) | Chain 1<br>Meas<br>PSD<br>(dBm) | Total<br>Corr'd<br>PSD<br>(dBm) | PSD<br>Limit<br>(dBm) | PSD<br>Margin<br>(dB) |
|---------|--------------------|---------------------------------|---------------------------------|-----------------------|-----------------------|
| Low     | 5745               | 1.31                            | 1.31                            | 30.00                 | -28.69                |
| Mid     | 5785               | 5.15                            | 5.15                            | 30.00                 | -24.85                |
| High    | 5825               | 2.61                            | 2.61                            | 30.00                 | -27.39                |

PSD,





## **8.39. 802.11n HT20 2Tx CDD MODE IN THE 5.8 GHz BAND**

### **8.39.1. 6 dB BANDWIDTH**

#### **LIMITS**

FCC §15.407 (e)

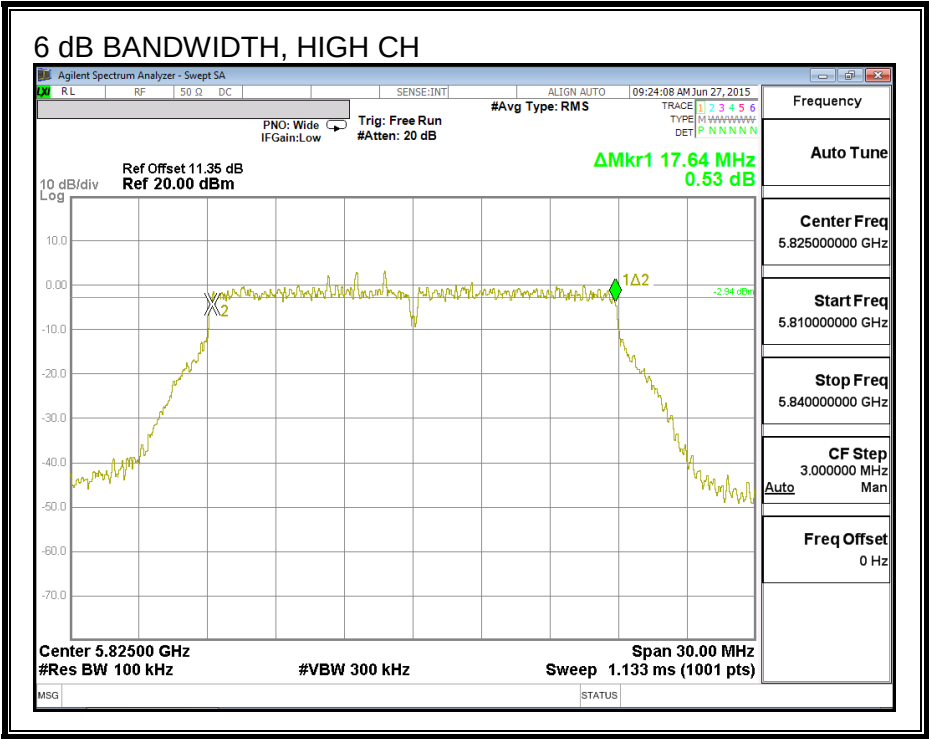
IC RSS-247 (6.2.4) (1)

The minimum 6 dB bandwidth shall be at least 500 kHz.

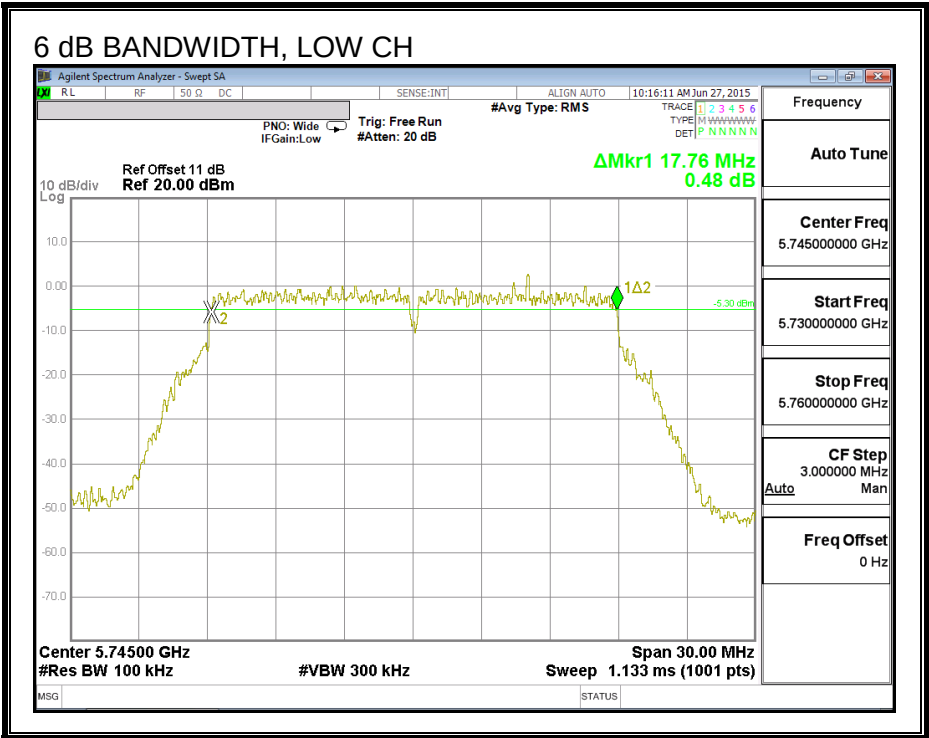
#### **RESULTS**

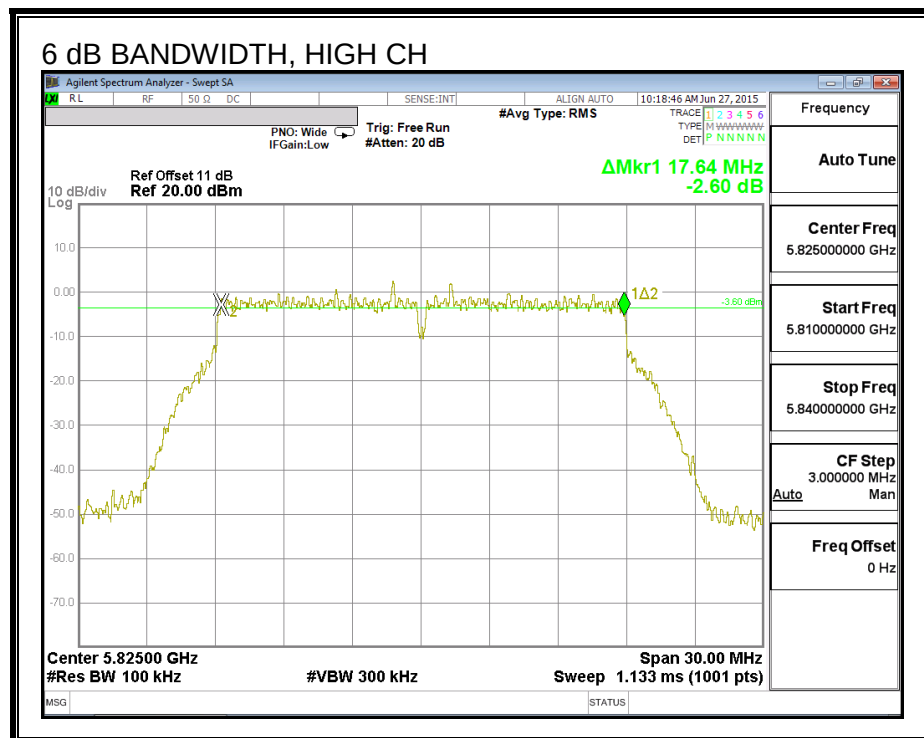
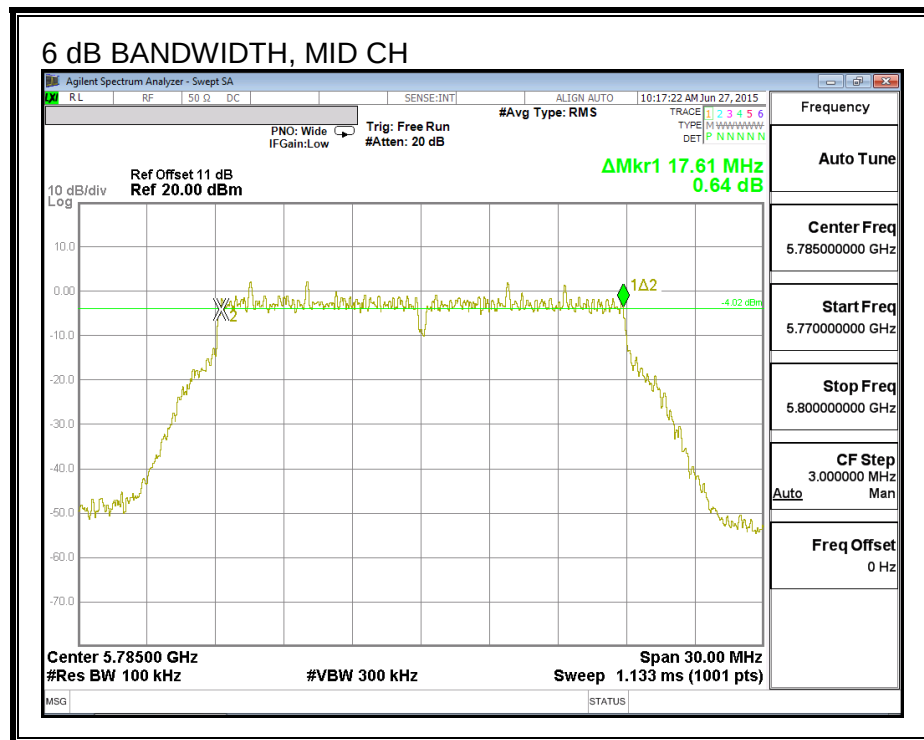
| Channel | Frequency<br>(MHz) | 6 dB BW<br>Chain 0<br>(MHz) | 6 dB BW<br>Chain 1<br>(MHz) | Minimum<br>Limit<br>(MHz) |
|---------|--------------------|-----------------------------|-----------------------------|---------------------------|
| Low     | 5745               | 17.61                       | 17.76                       | 0.5                       |
| Mid     | 5785               | 17.61                       | 17.61                       | 0.5                       |
| High    | 5825               | 17.64                       | 17.64                       | 0.5                       |





6 dB BANDWIDTH, CHAIN 1





### 8.39.2. 26 dB BANDWIDTH

#### LIMITS

None, for reporting purposes only.

#### RESULTS

| Channel | Frequency<br>(MHz) | 26 dB BW<br>Chain 0<br>(MHz) | 26 dB BW<br>Chain 1<br>(MHz) |
|---------|--------------------|------------------------------|------------------------------|
| Low     | 5745               | 21.87                        | 21.75                        |
| Mid     | 5785               | 22.08                        | 21.84                        |
| High    | 5825               | 21.96                        | 21.81                        |