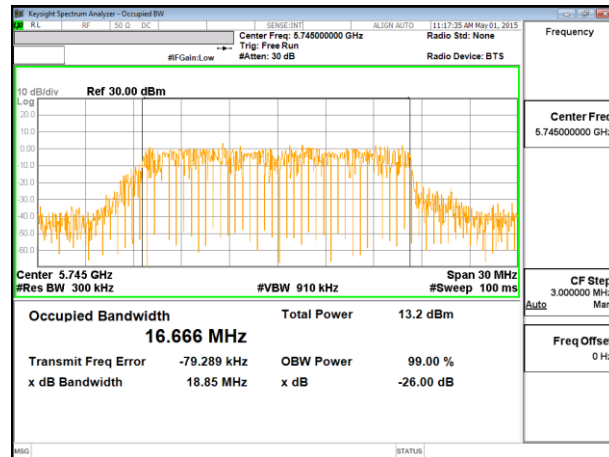
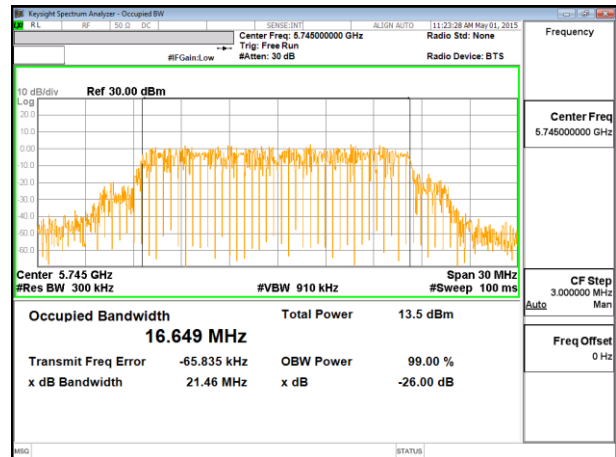


## UNII 5.8 GHz

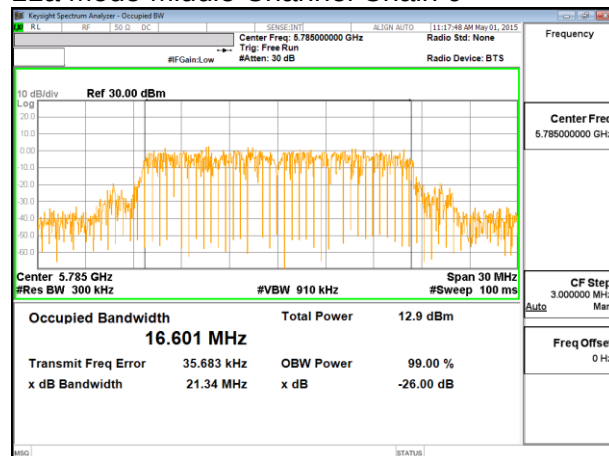
### 11a Mode Low Channel Chain 0



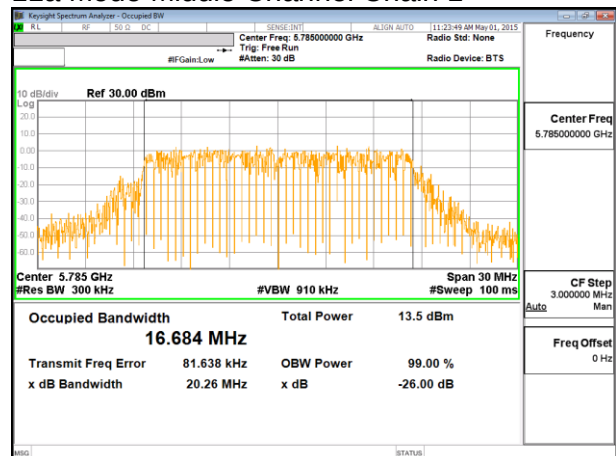
### 11a Mode Low Channel Chain 1



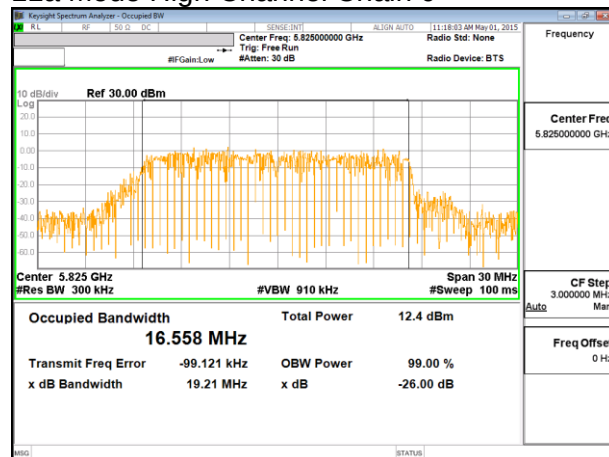
### 11a Mode Middle Channel Chain 0



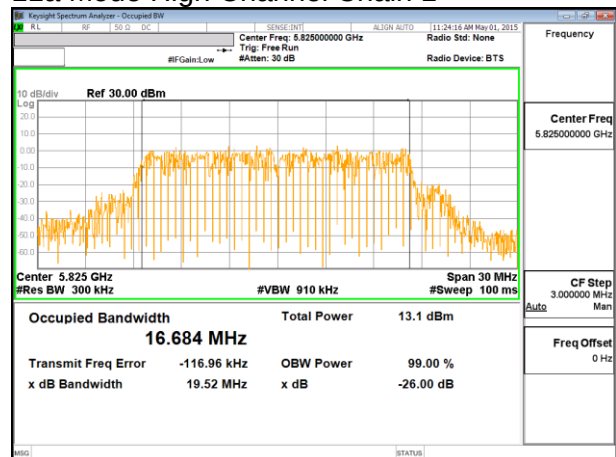
### 11a Mode Middle Channel Chain 1



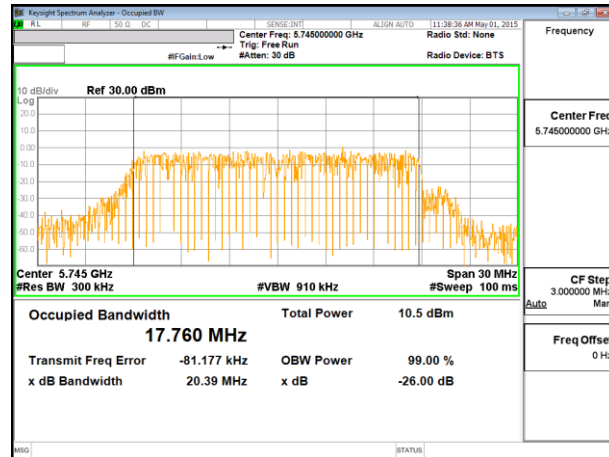
### 11a Mode High Channel Chain 0



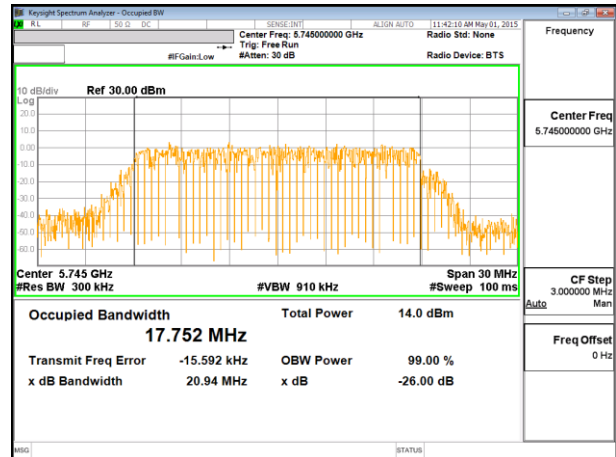
### 11a Mode High Channel Chain 1



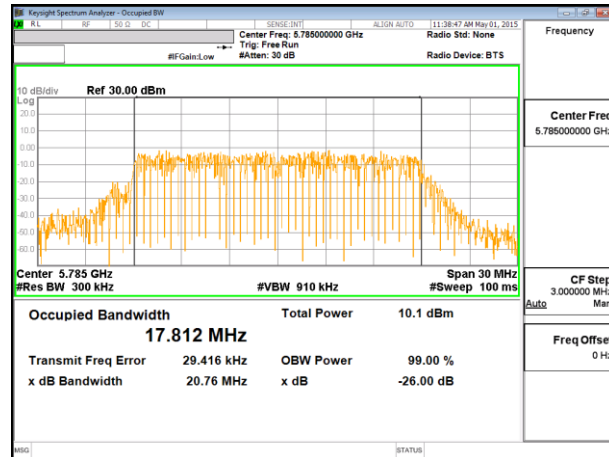
### 11n HT20 Mode Low Channel Chain 0



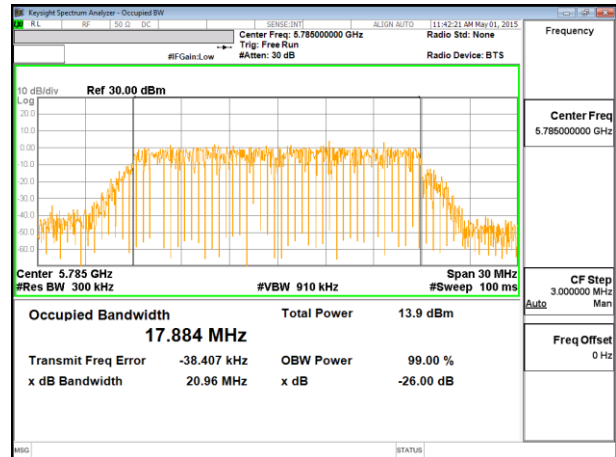
### 11n HT20 Mode Low Channel Chain 1



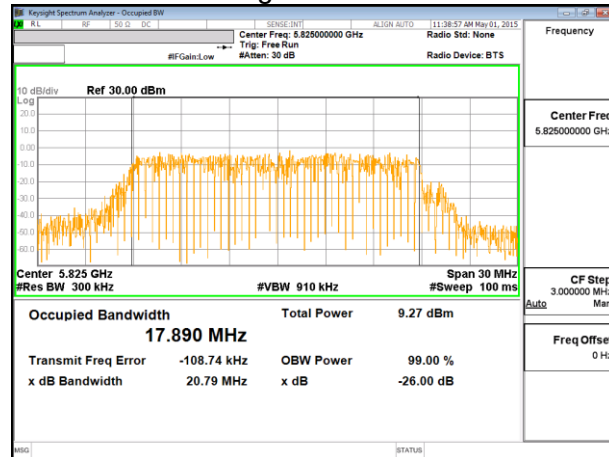
### 11n HT20 Mode Middle Channel Chain 0



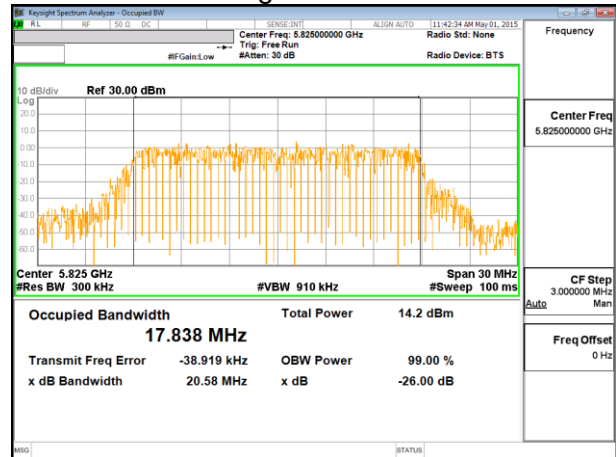
### 11n HT20 Mode Middle Channel Chain 1

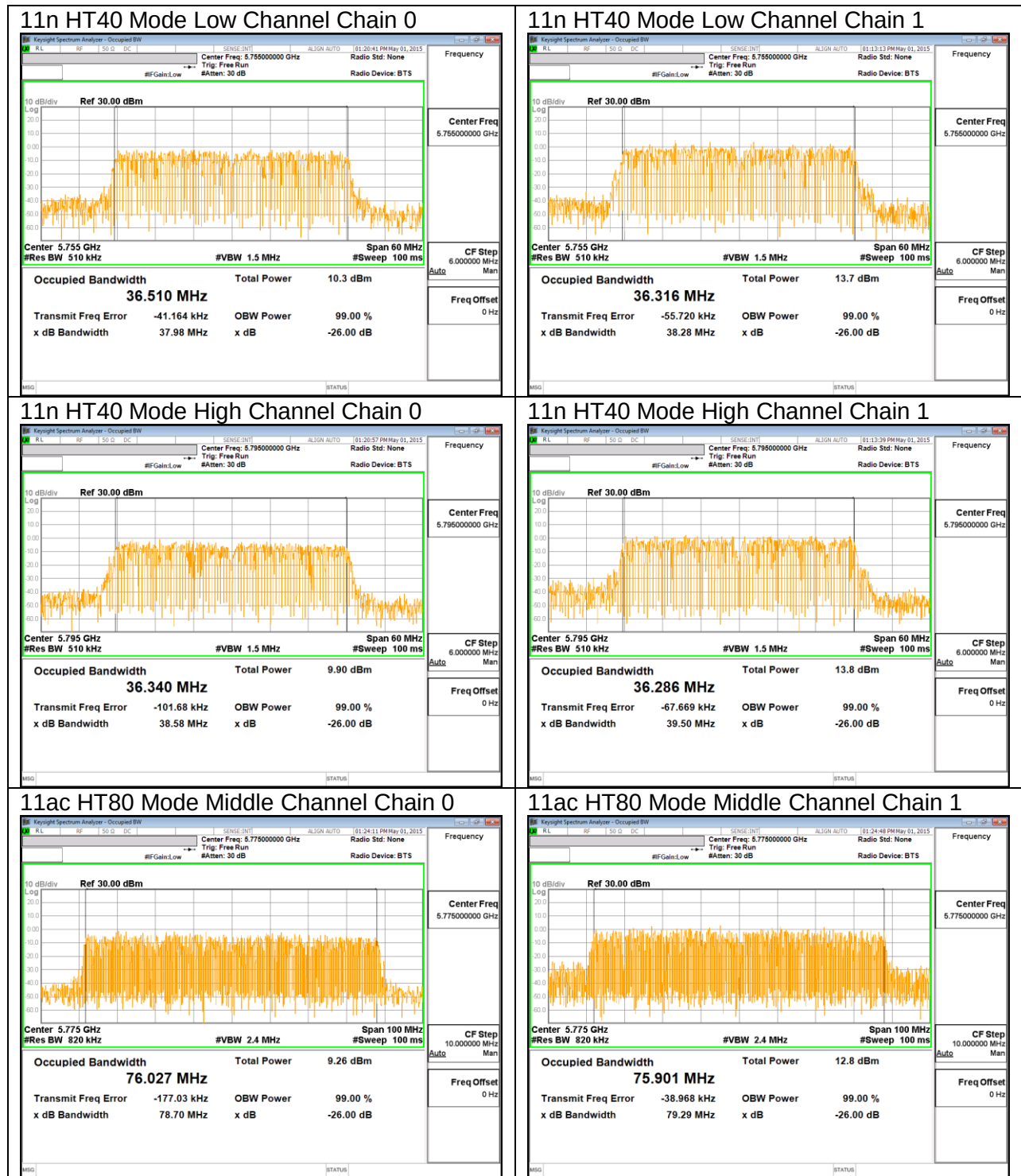


### 11n HT20 Mode High Channel Chain 0



### 11n HT20 Mode High Channel Chain 1





## 10.4. AVERAGE POWER

### LIMITS

None; for reporting purposes only.

### TEST PROCEDURE

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 10.29 dB (including 10 dB pad and 0.29 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

### RESULTS

#### 10.4.1. 802.11a MODE IN THE 5.2 GHz BAND

| Channel | Frequency<br>[MHz] | Average Power<br>[dBm] |         |
|---------|--------------------|------------------------|---------|
|         |                    | Chain 0                | Chain 1 |
| Low     | 5180               | 13.78                  | 13.87   |
| Mid     | 5200               | 13.66                  | 13.87   |
| High    | 5240               | 13.48                  | 13.99   |
| Worst   |                    | 13.99                  |         |

#### 10.4.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

| Channel | Frequency<br>[MHz] | Average Power<br>[dBm] |         |
|---------|--------------------|------------------------|---------|
|         |                    | Chain 0                | Chain 1 |
| Low     | 5180               | 13.53                  | 13.71   |
| Mid     | 5200               | 13.43                  | 13.57   |
| High    | 5240               | 13.28                  | 13.71   |
| Worst   |                    | 13.71                  |         |

#### 10.4.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

| Channel | Frequency<br>[MHz] | Average Power<br>[dBm] |         |
|---------|--------------------|------------------------|---------|
|         |                    | Chain 0                | Chain 1 |
| Low     | 5190               | 13.99                  | 13.36   |
| High    | 5230               | 13.93                  | 13.54   |
| Worst   |                    | 13.99                  |         |

#### 10.4.4. 802.11ac HT80 MODE IN THE 5.2 GHz BAND

| Channel | Frequency<br>[MHz] | Average Power<br>[dBm] |         |
|---------|--------------------|------------------------|---------|
|         |                    | Chain 0                | Chain 1 |
| Middle  | 5210               | 14.41                  | 13.75   |
| Worst   |                    | 14.41                  |         |

#### 10.4.5. 802.11a MODE IN THE 5.3 GHz BAND

| Channel | Frequency<br>[MHz] | Average Power<br>[dBm] |         |
|---------|--------------------|------------------------|---------|
|         |                    | Chain 0                | Chain 1 |
| Low     | 5260               | 13.45                  | 14.03   |
| Mid     | 5300               | 13.26                  | 14.29   |
| High    | 5320               | 13.32                  | 14.33   |
| Worst   |                    | 14.33                  |         |

#### 10.4.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND

| Channel | Frequency<br>[MHz] | Average Power<br>[dBm] |         |
|---------|--------------------|------------------------|---------|
|         |                    | Chain 0                | Chain 1 |
| Low     | 5260               | 14.37                  | 13.98   |
| Mid     | 5300               | 14.20                  | 13.96   |
| High    | 5320               | 14.17                  | 14.10   |
| Worst   |                    | 14.37                  |         |

#### 10.4.7. 802.11n HT40 MODE IN THE 5.3 GHz BAND

| Channel | Frequency<br>[MHz] | Average Power<br>[dBm] |         |
|---------|--------------------|------------------------|---------|
|         |                    | Chain 0                | Chain 1 |
| Low     | 5270               | 14.12                  | 13.67   |
| High    | 5310               | 14.08                  | 13.85   |
| Worst   |                    | 14.12                  |         |

#### 10.4.8. 802.11ac HT80 MODE IN THE 5.3 GHz BAND

| Channel | Frequency<br>[MHz] | Average Power<br>[dBm] |         |
|---------|--------------------|------------------------|---------|
|         |                    | Chain 0                | Chain 1 |
| Middle  | 5290               | 13.74                  | 13.88   |
| Worst   |                    | 13.88                  |         |

#### 10.4.9. 802.11a MODE IN THE 5.5 GHz BAND

| Channel | Frequency<br>[MHz] | Average Power<br>[dBm] |         |
|---------|--------------------|------------------------|---------|
|         |                    | Chain 0                | Chain 1 |
| Low     | 5500               | 13.98                  | 14.06   |
| Mid     | 5580               | 13.70                  | 14.22   |
| High    | 5700               | 13.48                  | 14.37   |
| Worst   |                    | 14.37                  |         |

#### 10.4.10. 802.11n HT20 MODE IN THE 5.5 GHz BAND

| Channel | Frequency<br>[MHz] | Average Power<br>[dBm] |         |
|---------|--------------------|------------------------|---------|
|         |                    | Chain 0                | Chain 1 |
| Low     | 5500               | 14.00                  | 13.93   |
| Mid     | 5580               | 13.76                  | 14.11   |
| High    | 5700               | 13.43                  | 14.26   |
| Worst   |                    | 14.26                  |         |

#### 10.4.11. 802.11n HT40 MODE IN THE 5.5 GHz BAND

| Channel | Frequency<br>[MHz] | Average Power<br>[dBm] |         |
|---------|--------------------|------------------------|---------|
|         |                    | Chain 0                | Chain 1 |
| Low     | 5510               | 14.05                  | 13.55   |
| Mid     | 5550               | 13.74                  | 13.79   |
| High    | 5670               | 13.47                  | 13.81   |
| Worst   |                    | 14.05                  |         |

#### 10.4.12. 802.11ac HT80 MODE IN THE 5.5 GHz BAND

| Channel | Frequency<br>[MHz] | Average Power<br>[dBm] |         |
|---------|--------------------|------------------------|---------|
|         |                    | Chain 0                | Chain 1 |
| Low     | 5530               | 13.47                  | 13.97   |
| High    | 5690               | 13.08                  | 14.15   |
| Worst   |                    | 14.15                  |         |

#### 10.4.13. 802.11a MODE IN THE 5.8 GHz BAND

| Channel | Frequency<br>[MHz] | Average Power<br>[dBm] |         |
|---------|--------------------|------------------------|---------|
|         |                    | Chain 0                | Chain 1 |
| Low     | 5745               | 13.92                  | 13.76   |
| Mid     | 5785               | 13.43                  | 13.65   |
| High    | 5825               | 12.96                  | 13.61   |
| Worst   |                    | 13.92                  |         |

#### 10.4.14. 802.11n HT20 MODE IN THE 5.8 GHz BAND

| Channel | Frequency<br>[MHz] | Average Power<br>[dBm] |         |
|---------|--------------------|------------------------|---------|
|         |                    | Chain 0                | Chain 1 |
| Low     | 5745               | 13.96                  | 14.42   |
| Mid     | 5785               | 13.54                  | 14.33   |
| High    | 5825               | 12.96                  | 14.42   |
| Worst   |                    | 14.42                  |         |

#### 10.4.15. 802.11n HT40 MODE IN THE 5.8 GHz BAND

| Channel | Frequency<br>[MHz] | Average Power<br>[dBm] |         |
|---------|--------------------|------------------------|---------|
|         |                    | Chain 0                | Chain 1 |
| Low     | 5755               | 13.41                  | 14.18   |
| High    | 5795               | 13.05                  | 14.27   |
| Worst   |                    | 14.27                  |         |

#### 10.4.16. 802.11ac HT80 MODE IN THE 5.8 GHz BAND

| Channel | Frequency<br>[MHz] | Average Power<br>[dBm] |         |
|---------|--------------------|------------------------|---------|
|         |                    | Chain 0                | Chain 1 |
| Middle  | 5775               | 13.57                  | 14.37   |
| Worst   |                    | 14.37                  |         |

## 10.5. OUTPUT POWER AND PPSD

### LIMITS

FCC §15.407 (a) (1) (2) (3)

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log B$ , where B is the 26-dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, 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.

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  $11 \text{ dBm} + 10 \log B$ , where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum 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 maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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.

### DIRECTIONAL ANTENNA GAIN

For Power: The TX chains are uncorrelated and the antenna gain is the same for each chain. The directional gain is equal to the antenna gain.

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

5 GHz

| Frequency Band<br>[MHz] | Chain 0<br>Antenna<br>Gain<br>[dBi] | Chain 1<br>Antenna<br>Gain<br>[dBi] | Uncorrelated<br>Directional<br>Gain<br>[dBi] | Correlated Chains<br>Directional<br>Gain<br>[dBi] |
|-------------------------|-------------------------------------|-------------------------------------|----------------------------------------------|---------------------------------------------------|
| 5150 - 5250             | -3.54                               | -4.07                               | -3.80                                        | -0.79                                             |
| 5250 - 5350             | -3.17                               | -1.95                               | -2.52                                        | 0.47                                              |
| 5470 - 5725             | -1.27                               | -3.69                               | -2.31                                        | 0.61                                              |
| 5725 - 5850             | -2.49                               | -2.45                               | -2.47                                        | 0.54                                              |



## RESULTS

### 10.5.1. 802.11a MODE IN THE 5.2 GHz BAND

#### Bandwidth and Antenna Gain

| 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 PPSD<br>[dBi] |
|---------|--------------------|-----------------------------|---------------------------|-------------------------------------------|------------------------------------------|
| Low     | 5180               | 21.84                       | 16.6530                   | -3.80                                     | -0.79                                    |
| Mid     | 5200               | 21.76                       | 16.7160                   | -3.80                                     | -0.79                                    |
| High    | 5240               | 21.72                       | 16.7670                   | -3.80                                     | -0.79                                    |

#### Limits

| Channel | Frequency<br>[MHz] | FCC<br>Power<br>Limit<br>[dBm] | IC<br>EIRP<br>Limit<br>[dBm] | Max<br>IC<br>Power<br>[dBm] | Power<br>Limit<br>[dBm] | FCC<br>PPSD<br>Limit<br>[dBm] | IC<br>eirp<br>PSD<br>Limit<br>[dBm] | PPSD<br>Limit<br>[dBm] |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Low     | 5180               | 24.00                          | 22.21                        | 27.80                       | 24.00                   | 11.00                         | 10.00                               | 11.79                  |
| Mid     | 5200               | 24.00                          | 22.23                        | 27.80                       | 24.00                   | 11.00                         | 10.00                               | 11.79                  |
| High    | 5240               | 24.00                          | 22.24                        | 27.80                       | 24.00                   | 11.00                         | 10.00                               | 11.79                  |

|                    |      |                                                 |
|--------------------|------|-------------------------------------------------|
| Duty Cycle CF [dB] | 0.31 | Included in Calculations of Corr'd Power & PPSP |
|--------------------|------|-------------------------------------------------|

#### 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     | 5180               | 13.78                             | 13.87                             | 17.15                             | 24.00                   | -6.85                   |
| Mid     | 5200               | 13.66                             | 13.87                             | 17.09                             | 24.00                   | -6.91                   |
| High    | 5240               | 13.48                             | 13.99                             | 17.06                             | 24.00                   | -6.94                   |

#### PPSD Results

| Channel | Frequency<br>[MHz] | Chain 0<br>Meas<br>PPSD<br>[dBm] | Chain 1<br>Meas<br>PPSD<br>[dBm] | Total<br>Corr'd<br>PPSD<br>[dBm] | PPSD<br>Limit<br>[dBm] | PPSD<br>Margin<br>[dB] |
|---------|--------------------|----------------------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5180               | 3.41                             | 2.86                             | 6.46                             | 11.00                  | -4.54                  |
| Mid     | 5200               | 3.58                             | 2.74                             | 6.50                             | 11.00                  | -4.50                  |
| High    | 5240               | 3.30                             | 3.08                             | 6.51                             | 11.00                  | -4.49                  |

## 10.5.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

### Bandwidth and Antenna Gain

| 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 PPSD<br>[dBi] |
|---------|--------------------|-----------------------------|---------------------------|-------------------------------------------|------------------------------------------|
| Low     | 5180               | 21.88                       | 17.8970                   | -3.80                                     | -0.79                                    |
| Mid     | 5200               | 21.88                       | 17.7530                   | -3.80                                     | -0.79                                    |
| High    | 5240               | 21.96                       | 17.8950                   | -3.80                                     | -0.79                                    |

### Limits

| Channel | Frequency<br>[MHz] | FCC<br>Power<br>Limit<br>[dBm] | IC<br>EIRP<br>Limit<br>[dBm] | Max<br>IC<br>Power<br>[dBm] | Power<br>Limit<br>[dBm] | FCC<br>PPSD<br>Limit<br>[dBm] | IC<br>eirp<br>PSD<br>Limit<br>[dBm] | PPSD<br>Limit<br>[dBm] |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Low     | 5180               | 24.00                          | 22.53                        | 27.80                       | 24.00                   | 11.00                         | 10.00                               | 11.79                  |
| Mid     | 5200               | 24.00                          | 22.49                        | 27.80                       | 24.00                   | 11.00                         | 10.00                               | 11.79                  |
| High    | 5240               | 24.00                          | 22.53                        | 27.80                       | 24.00                   | 11.00                         | 10.00                               | 11.79                  |

|                    |      |                                                 |
|--------------------|------|-------------------------------------------------|
| Duty Cycle CF [dB] | 0.33 | Included in Calculations of Corr'd Power & PPSD |
|--------------------|------|-------------------------------------------------|

### 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     | 5180               | 13.53                             | 13.71                             | 16.96                             | 24.00                   | -7.04                   |
| Mid     | 5200               | 13.43                             | 13.57                             | 16.84                             | 24.00                   | -7.16                   |
| High    | 5240               | 13.28                             | 13.71                             | 16.84                             | 24.00                   | -7.16                   |

### PPSD Results

| Channel | Frequency<br>[MHz] | Chain 0<br>Meas<br>PPSD<br>[dBm] | Chain 1<br>Meas<br>PPSD<br>[dBm] | Total<br>Corr'd<br>PPSD<br>[dBm] | PPSD<br>Limit<br>[dBm] | PPSD<br>Margin<br>[dB] |
|---------|--------------------|----------------------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5180               | 3.07                             | 2.37                             | 6.07                             | 11.00                  | -4.93                  |
| Mid     | 5200               | 3.25                             | 2.37                             | 6.17                             | 11.00                  | -4.83                  |
| High    | 5240               | 3.17                             | 2.68                             | 6.27                             | 11.00                  | -4.73                  |

### 10.5.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

#### Bandwidth and Antenna Gain

| 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 PPSD<br>[dBi] |
|---------|--------------------|-----------------------------|---------------------------|-------------------------------------------|------------------------------------------|
| Low     | 5190               | 40.20                       | 36.3180                   | -3.80                                     | -0.79                                    |
| High    | 5230               | 40.20                       | 36.3730                   | -3.80                                     | -0.79                                    |

#### Limits

| Channel | Frequency<br>[MHz] | FCC<br>Power<br>Limit<br>[dBm] | IC<br>EIRP<br>Limit<br>[dBm] | Max<br>IC<br>Power<br>[dBm] | Power<br>Limit<br>[dBm] | FCC<br>PPSD<br>Limit<br>[dBm] | IC<br>eirp<br>PSD<br>Limit<br>[dBm] | PPSD<br>Limit<br>[dBm] |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Low     | 5190               | 24.00                          | 23.00                        | 27.80                       | 24.00                   | 11.00                         | 10.00                               | 11.79                  |
| High    | 5230               | 24.00                          | 23.00                        | 27.80                       | 24.00                   | 11.00                         | 10.00                               | 11.79                  |

|                    |      |                                                 |
|--------------------|------|-------------------------------------------------|
| Duty Cycle CF [dB] | 0.62 | Included in Calculations of Corr'd Power & PPSD |
|--------------------|------|-------------------------------------------------|

#### 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     | 5190               | 13.99                             | 13.36                             | 17.32                             | 24.00                   | -6.68                   |
| High    | 5230               | 13.93                             | 13.54                             | 17.37                             | 24.00                   | -6.63                   |

#### PPSD Results

| Channel | Frequency<br>[MHz] | Chain 0<br>Meas<br>PPSD<br>[dBm] | Chain 1<br>Meas<br>PPSD<br>[dBm] | Total<br>Corr'd<br>PPSD<br>[dBm] | PPSD<br>Limit<br>[dBm] | PPSD<br>Margin<br>[dB] |
|---------|--------------------|----------------------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5190               | 0.00                             | -0.79                            | 3.25                             | 11.00                  | -7.75                  |
| High    | 5230               | -0.53                            | -0.67                            | 3.03                             | 11.00                  | -7.97                  |

#### 10.5.4. 802.11ac HT80 MODE IN THE 5.2 GHz BAND

##### Bandwidth and Antenna Gain

| 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 PPSD<br>[dBi] |
|---------|--------------------|-----------------------------|---------------------------|-------------------------------------------|------------------------------------------|
| Middle  | 5210               | 82.20                       | 76.0780                   | -3.80                                     | -0.79                                    |

##### Limits

| Channel | Frequency<br>[MHz] | FCC<br>Power<br>Limit<br>[dBm] | IC<br>EIRP<br>Limit<br>[dBm] | Max<br>IC<br>Power<br>[dBm] | Power<br>Limit<br>[dBm] | FCC<br>PPSD<br>Limit<br>[dBm] | IC<br>eirp<br>PSD<br>Limit<br>[dBm] | PPSD<br>Limit<br>[dBm] |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Middle  | 5210               | 24.00                          | 23.00                        | 27.80                       | 24.00                   | 11.00                         | 10.00                               | 11.79                  |

|                    |      |                                                 |
|--------------------|------|-------------------------------------------------|
| Duty Cycle CF [dB] | 1.15 | Included in Calculations of Corr'd Power & PPSD |
|--------------------|------|-------------------------------------------------|

##### 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] |
|---------|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Middle  | 5210               | 14.41                             | 13.75                             | 18.25                             | 24.00                   | -5.75                   |

##### PPSD Results

| Channel | Frequency<br>[MHz] | Chain 0<br>Meas<br>PPSD<br>[dBm] | Chain 1<br>Meas<br>PPSD<br>[dBm] | Total<br>Corr'd<br>PPSD<br>[dBm] | PPSD<br>Limit<br>[dBm] | PPSD<br>Margin<br>[dB] |
|---------|--------------------|----------------------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Middle  | 5210               | -4.12                            | -4.56                            | -0.17                            | 11.00                  | -11.17                 |

### 10.5.5. 802.11a MODE IN THE 5.3 GHz BAND

#### Bandwidth and Antenna Gain

| 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 PPSD<br>[dBi] |
|---------|--------------------|-----------------------------|---------------------------|-------------------------------------------|------------------------------------------|
| Low     | 5260               | 21.68                       | 16.7010                   | -2.52                                     | 0.47                                     |
| Mid     | 5300               | 21.76                       | 16.6410                   | -2.52                                     | 0.47                                     |
| High    | 5320               | 21.76                       | 16.6870                   | -2.52                                     | 0.47                                     |

#### Limits

| Channel | Frequency<br>[MHz] | FCC<br>Power<br>Limit<br>[dBm] | IC<br>EIRP<br>Limit<br>[dBm] | Max<br>IC<br>Power<br>[dBm] | Power<br>Limit<br>[dBm] | FCC<br>PPSD<br>Limit<br>[dBm] | IC<br>eirp<br>PSD<br>Limit<br>[dBm] | PPSD<br>Limit<br>[dBm] |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Low     | 5260               | 24.00                          | 22.23                        | 26.52                       | 24.00                   | 11.00                         | 11.00                               | 10.53                  |
| Mid     | 5300               | 24.00                          | 22.21                        | 26.52                       | 24.00                   | 11.00                         | 11.00                               | 10.53                  |
| High    | 5320               | 24.00                          | 22.22                        | 26.52                       | 24.00                   | 11.00                         | 11.00                               | 10.53                  |

|                    |      |                                                 |
|--------------------|------|-------------------------------------------------|
| Duty Cycle CF [dB] | 0.31 | Included in Calculations of Corr'd Power & PPSD |
|--------------------|------|-------------------------------------------------|

#### 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     | 5260               | 13.45                             | 14.03                             | 17.07                             | 24.00                   | -6.93                   |
| Mid     | 5300               | 13.26                             | 14.29                             | 17.13                             | 24.00                   | -6.87                   |
| High    | 5320               | 13.32                             | 14.33                             | 17.17                             | 24.00                   | -6.83                   |

#### PPSD Results

| Channel | Frequency<br>[MHz] | Chain 0<br>Meas<br>PPSD<br>[dBm] | Chain 1<br>Meas<br>PPSD<br>[dBm] | Total<br>Corr'd<br>PPSD<br>[dBm] | PPSD<br>Limit<br>[dBm] | PPSD<br>Margin<br>[dB] |
|---------|--------------------|----------------------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5260               | 3.66                             | 3.19                             | 6.75                             | 11.00                  | -4.25                  |
| Mid     | 5300               | 3.22                             | 3.00                             | 6.43                             | 11.00                  | -4.57                  |
| High    | 5320               | 3.09                             | 3.35                             | 6.54                             | 11.00                  | -4.46                  |

### 10.5.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND

#### Bandwidth and Antenna Gain

| 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 PPSD<br>[dBi] |
|---------|--------------------|-----------------------------|---------------------------|-------------------------------------------|------------------------------------------|
| Low     | 5260               | 22.00                       | 17.8740                   | -2.52                                     | 0.47                                     |
| Mid     | 5300               | 21.88                       | 17.8960                   | -2.52                                     | 0.47                                     |
| High    | 5320               | 21.92                       | 17.8770                   | -2.52                                     | 0.47                                     |

#### Limits

| Channel | Frequency<br>[MHz] | FCC<br>Power<br>Limit<br>[dBm] | IC<br>EIRP<br>Limit<br>[dBm] | Max<br>IC<br>Power<br>[dBm] | Power<br>Limit<br>[dBm] | FCC<br>PPSD<br>Limit<br>[dBm] | IC<br>eirp<br>PSD<br>Limit<br>[dBm] | PPSD<br>Limit<br>[dBm] |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Low     | 5260               | 24.00                          | 22.52                        | 26.52                       | 24.00                   | 11.00                         | 11.00                               | 10.53                  |
| Mid     | 5300               | 24.00                          | 22.53                        | 26.52                       | 24.00                   | 11.00                         | 11.00                               | 10.53                  |
| High    | 5320               | 24.00                          | 22.52                        | 26.52                       | 24.00                   | 11.00                         | 11.00                               | 10.53                  |

|                    |      |                                                 |
|--------------------|------|-------------------------------------------------|
| Duty Cycle CF [dB] | 0.33 | Included in Calculations of Corr'd Power & PPSD |
|--------------------|------|-------------------------------------------------|

#### 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     | 5260               | 14.37                             | 13.98                             | 17.52                             | 24.00                   | -6.48                   |
| Mid     | 5300               | 14.20                             | 13.96                             | 17.42                             | 24.00                   | -6.58                   |
| High    | 5320               | 14.17                             | 14.10                             | 17.48                             | 24.00                   | -6.52                   |

#### PPSD Results

| Channel | Frequency<br>[MHz] | Chain 0<br>Meas<br>PPSD<br>[dBm] | Chain 1<br>Meas<br>PPSD<br>[dBm] | Total<br>Corr'd<br>PPSD<br>[dBm] | PPSD<br>Limit<br>[dBm] | PPSD<br>Margin<br>[dB] |
|---------|--------------------|----------------------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5260               | 3.01                             | 2.85                             | 6.27                             | 11.00                  | -4.73                  |
| Mid     | 5300               | 2.84                             | 2.76                             | 6.14                             | 11.00                  | -4.86                  |
| High    | 5320               | 2.66                             | 2.96                             | 6.15                             | 11.00                  | -4.85                  |

### 10.5.7. 802.11n HT40 MODE IN THE 5.3 GHz BAND

#### Bandwidth and Antenna Gain

| 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 PPSD<br>[dBi] |
|---------|--------------------|-----------------------------|---------------------------|-------------------------------------------|------------------------------------------|
| Low     | 5270               | 40.44                       | 36.5050                   | -2.52                                     | 0.47                                     |
| High    | 5310               | 40.32                       | 36.4140                   | -2.52                                     | 0.47                                     |

#### Limits

| Channel | Frequency<br>[MHz] | FCC<br>Power<br>Limit<br>[dBm] | IC<br>EIRP<br>Limit<br>[dBm] | Max<br>IC<br>Power<br>[dBm] | Power<br>Limit<br>[dBm] | FCC<br>PPSD<br>Limit<br>[dBm] | IC<br>eirp<br>PSD<br>Limit<br>[dBm] | PPSD<br>Limit<br>[dBm] |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Low     | 5270               | 24.00                          | 23.00                        | 26.52                       | 24.00                   | 11.00                         | 11.00                               | 10.53                  |
| High    | 5310               | 24.00                          | 23.00                        | 26.52                       | 24.00                   | 11.00                         | 11.00                               | 10.53                  |

|                    |      |                                                 |
|--------------------|------|-------------------------------------------------|
| Duty Cycle CF [dB] | 0.62 | Included in Calculations of Corr'd Power & PPSD |
|--------------------|------|-------------------------------------------------|

#### 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     | 5270               | 14.12                             | 13.67                             | 17.53                             | 24.00                   | -6.47                   |
| High    | 5310               | 14.08                             | 13.85                             | 17.60                             | 24.00                   | -6.40                   |

#### PPSD Results

| Channel | Frequency<br>[MHz] | Chain 0<br>Meas<br>PPSD<br>[dBm] | Chain 1<br>Meas<br>PPSD<br>[dBm] | Total<br>Corr'd<br>PPSD<br>[dBm] | PPSD<br>Limit<br>[dBm] | PPSD<br>Margin<br>[dB] |
|---------|--------------------|----------------------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5270               | -0.26                            | -0.79                            | 3.11                             | 11.00                  | -7.89                  |
| High    | 5310               | -0.53                            | -0.78                            | 2.97                             | 11.00                  | -8.03                  |

### 10.5.8. 802.11ac HT80 MODE IN THE 5.3 GHz BAND

#### Bandwidth and Antenna Gain

| 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 PPSD<br>[dBi] |
|---------|--------------------|-----------------------------|---------------------------|-------------------------------------------|------------------------------------------|
| Middle  | 5290               | 82.10                       | 76.0060                   | -3.80                                     | -0.79                                    |

#### Limits

| Channel | Frequency<br>[MHz] | FCC<br>Power<br>Limit<br>[dBm] | IC<br>EIRP<br>Limit<br>[dBm] | Max<br>IC<br>Power<br>[dBm] | Power<br>Limit<br>[dBm] | FCC<br>PPSD<br>Limit<br>[dBm] | IC<br>eirp<br>PSD<br>Limit<br>[dBm] | PPSD<br>Limit<br>[dBm] |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Middle  | 5290               | 24.00                          | 23.00                        | 27.80                       | 24.00                   | 11.00                         | 11.00                               | 11.79                  |

|                    |      |                                                 |
|--------------------|------|-------------------------------------------------|
| Duty Cycle CF [dB] | 1.15 | Included in Calculations of Corr'd Power & PPSD |
|--------------------|------|-------------------------------------------------|

#### 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] |
|---------|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Middle  | 5290               | 13.74                             | 13.88                             | 17.97                             | 24.00                   | -6.03                   |

#### PPSD Results

| Channel | Frequency<br>[MHz] | Chain 0<br>Meas<br>PPSD<br>[dBm] | Chain 1<br>Meas<br>PPSD<br>[dBm] | Total<br>Corr'd<br>PPSD<br>[dBm] | PPSD<br>Limit<br>[dBm] | PPSD<br>Margin<br>[dB] |
|---------|--------------------|----------------------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Middle  | 5290               | -4.05                            | -4.03                            | 0.12                             | 11.00                  | -10.88                 |



### 10.5.9. 802.11a MODE IN THE 5.5 GHz BAND

#### Bandwidth and Antenna Gain

| 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 PPSD<br>[dBi] |
|---------|--------------------|-----------------------------|---------------------------|-------------------------------------------|------------------------------------------|
| Low     | 5500               | 21.76                       | 16.7010                   | -2.31                                     | 0.61                                     |
| Mid     | 5580               | 21.64                       | 16.6410                   | -2.31                                     | 0.61                                     |
| High    | 5700               | 21.60                       | 16.6870                   | -2.31                                     | 0.61                                     |

#### Limits

| Channel | Frequency<br>[MHz] | FCC<br>Power<br>Limit<br>[dBm] | IC<br>EIRP<br>Limit<br>[dBm] | Max<br>IC<br>Power<br>[dBm] | Power<br>Limit<br>[dBm] | FCC<br>PPSD<br>Limit<br>[dBm] | IC<br>eirp<br>PSD<br>Limit<br>[dBm] | PPSD<br>Limit<br>[dBm] |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Low     | 5500               | 24.00                          | 22.23                        | 26.31                       | 24.00                   | 11.00                         | 11.00                               | 10.39                  |
| Mid     | 5580               | 24.00                          | 22.21                        | 26.31                       | 24.00                   | 11.00                         | 11.00                               | 10.39                  |
| High    | 5700               | 24.00                          | 22.22                        | 26.31                       | 24.00                   | 11.00                         | 11.00                               | 10.39                  |

|                    |      |                                                 |
|--------------------|------|-------------------------------------------------|
| Duty Cycle CF [dB] | 0.31 | Included in Calculations of Corr'd Power & PPSD |
|--------------------|------|-------------------------------------------------|

#### 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     | 5500               | 13.98                             | 14.06                             | 17.34                             | 24.00                   | -6.66                   |
| Mid     | 5580               | 13.70                             | 14.22                             | 17.29                             | 24.00                   | -6.71                   |
| High    | 5700               | 13.48                             | 14.37                             | 17.27                             | 24.00                   | -6.73                   |

#### PPSD Results

| Channel | Frequency<br>[MHz] | Chain 0<br>Meas<br>PPSD<br>[dBm] | Chain 1<br>Meas<br>PPSD<br>[dBm] | Total<br>Corr'd<br>PPSD<br>[dBm] | PPSD<br>Limit<br>[dBm] | PPSD<br>Margin<br>[dB] |
|---------|--------------------|----------------------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5500               | 3.56                             | 3.18                             | 6.69                             | 11.00                  | -4.31                  |
| Mid     | 5580               | 2.83                             | 3.12                             | 6.30                             | 11.00                  | -4.70                  |
| High    | 5700               | 2.35                             | 3.75                             | 6.42                             | 11.00                  | -4.58                  |

### 10.5.10. 802.11n HT20 MODE IN THE 5.5 GHz BAND

#### Bandwidth and Antenna Gain

| 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 PPSD<br>[dBi] |
|---------|--------------------|-----------------------------|---------------------------|-------------------------------------------|------------------------------------------|
| Low     | 5500               | 22.00                       | 16.7100                   | -2.31                                     | 0.61                                     |
| Mid     | 5580               | 22.04                       | 16.6800                   | -2.31                                     | 0.61                                     |
| High    | 5700               | 21.96                       | 16.7500                   | -2.31                                     | 0.61                                     |

#### Limits

| Channel | Frequency<br>[MHz] | FCC<br>Power<br>Limit<br>[dBm] | IC<br>EIRP<br>Limit<br>[dBm] | Max<br>IC<br>Power<br>[dBm] | Power<br>Limit<br>[dBm] | FCC<br>PPSD<br>Limit<br>[dBm] | IC<br>eirp<br>PSD<br>Limit<br>[dBm] | PPSD<br>Limit<br>[dBm] |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Low     | 5500               | 24.00                          | 22.23                        | 26.31                       | 24.00                   | 11.00                         | 11.00                               | 10.39                  |
| Mid     | 5580               | 24.00                          | 22.22                        | 26.31                       | 24.00                   | 11.00                         | 11.00                               | 10.39                  |
| High    | 5700               | 24.00                          | 22.24                        | 26.31                       | 24.00                   | 11.00                         | 11.00                               | 10.39                  |

|                    |      |                                                 |
|--------------------|------|-------------------------------------------------|
| Duty Cycle CF [dB] | 0.33 | Included in Calculations of Corr'd Power & PPSD |
|--------------------|------|-------------------------------------------------|

#### 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     | 5500               | 14.00                             | 13.93                             | 17.31                             | 24.00                   | -6.69                   |
| Mid     | 5580               | 13.76                             | 14.11                             | 17.28                             | 24.00                   | -6.72                   |
| High    | 5700               | 13.43                             | 14.26                             | 17.21                             | 24.00                   | -6.79                   |

#### PPSD Results

| Channel | Frequency<br>[MHz] | Chain 0<br>Meas<br>PPSD<br>[dBm] | Chain 1<br>Meas<br>PPSD<br>[dBm] | Total<br>Corr'd<br>PPSD<br>[dBm] | PPSD<br>Limit<br>[dBm] | PPSD<br>Margin<br>[dB] |
|---------|--------------------|----------------------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5500               | 1.60                             | 2.95                             | 5.66                             | 11.00                  | -5.34                  |
| Mid     | 5580               | 1.00                             | 2.75                             | 5.30                             | 11.00                  | -5.70                  |
| High    | 5700               | 0.32                             | 3.44                             | 5.50                             | 11.00                  | -5.50                  |

### 10.5.11. 802.11n HT40 MODE IN THE 5.5 GHz BAND

#### Bandwidth and Antenna Gain

| 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 PPSD<br>[dBi] |
|---------|--------------------|-----------------------------|---------------------------|-------------------------------------------|------------------------------------------|
| Low     | 5510               | 40.44                       | 36.3890                   | -2.31                                     | 0.61                                     |
| Mid     | 5550               | 40.44                       | 36.4410                   | -2.31                                     | 0.61                                     |
| High    | 5670               | 40.50                       | 36.3870                   | -2.31                                     | 0.61                                     |

#### Limits

| Channel | Frequency<br>[MHz] | FCC<br>Power<br>Limit<br>[dBm] | IC<br>EIRP<br>Limit<br>[dBm] | Max<br>IC<br>Power<br>[dBm] | Power<br>Limit<br>[dBm] | FCC<br>PPSD<br>Limit<br>[dBm] | IC<br>eirp<br>PSD<br>Limit<br>[dBm] | PPSD<br>Limit<br>[dBm] |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Low     | 5510               | 24.00                          | 23.00                        | 26.31                       | 24.00                   | 11.00                         | 11.00                               | 10.39                  |
| Mid     | 5550               | 24.00                          | 23.00                        | 26.31                       | 24.00                   | 11.00                         | 11.00                               | 10.39                  |
| High    | 5670               | 24.00                          | 23.00                        | 26.31                       | 24.00                   | 11.00                         | 11.00                               | 10.39                  |

|                    |      |                                                 |
|--------------------|------|-------------------------------------------------|
| Duty Cycle CF [dB] | 0.62 | Included in Calculations of Corr'd Power & PPSD |
|--------------------|------|-------------------------------------------------|

#### 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               | 14.05                             | 13.55                             | 17.44                             | 24.00                   | -6.56                   |
| Mid     | 5550               | 13.74                             | 13.79                             | 17.40                             | 24.00                   | -6.60                   |
| High    | 5670               | 13.47                             | 13.81                             | 17.27                             | 24.00                   | -6.73                   |

#### PPSD Results

| Channel | Frequency<br>[MHz] | Chain 0<br>Meas<br>PPSD<br>[dBm] | Chain 1<br>Meas<br>PPSD<br>[dBm] | Total<br>Corr'd<br>PPSD<br>[dBm] | PPSD<br>Limit<br>[dBm] | PPSD<br>Margin<br>[dB] |
|---------|--------------------|----------------------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5510               | -2.26                            | -1.42                            | 1.81                             | 11.00                  | -9.19                  |
| Mid     | 5550               | -2.55                            | -0.54                            | 2.20                             | 11.00                  | -8.80                  |
| High    | 5670               | -2.79                            | -0.02                            | 2.45                             | 11.00                  | -8.55                  |

## 10.5.12. 802.11ac HT80 MODE IN THE 5.5 GHz BAND

### Bandwidth and Antenna Gain

| 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 PPSP<br>[dBi] |
|---------|--------------------|-----------------------------|---------------------------|-------------------------------------------|------------------------------------------|
| Low     | 5530               | 82.20                       | 76.0080                   | -2.31                                     | 0.61                                     |
| High    | 5690               | 82.00                       | 76.0870                   | -2.31                                     | 0.61                                     |

### Limits

| Channel | Frequency<br>[MHz] | FCC<br>Power<br>Limit<br>[dBm] | IC<br>EIRP<br>Limit<br>[dBm] | Max<br>IC<br>Power<br>[dBm] | Power<br>Limit<br>[dBm] | FCC<br>PPSP<br>Limit<br>[dBm] | IC<br>eirp<br>PSD<br>Limit<br>[dBm] | PPSP<br>Limit<br>[dBm] |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Low     | 5530               | 24.00                          | 23.00                        | 26.31                       | 24.00                   | 11.00                         | 11.00                               | 10.39                  |
| High    | 5690               | 24.00                          | 23.00                        | 26.31                       | 24.00                   | 11.00                         | 11.00                               | 10.39                  |

|                    |      |                                                 |
|--------------------|------|-------------------------------------------------|
| Duty Cycle CF [dB] | 1.15 | Included in Calculations of Corr'd Power & PPSP |
|--------------------|------|-------------------------------------------------|

### 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               | 13.47                             | 13.97                             | 17.89                             | 24.00                   | -6.11                   |
| High    | 5690               | 13.08                             | 14.15                             | 17.81                             | 24.00                   | -6.19                   |

### PPSP Results

| Channel | Frequency<br>[MHz] | Chain 0<br>Meas<br>PPSP<br>[dBm] | Chain 1<br>Meas<br>PPSP<br>[dBm] | Total<br>Corr'd<br>PPSP<br>[dBm] | PPSP<br>Limit<br>[dBm] | PPSP<br>Margin<br>[dB] |
|---------|--------------------|----------------------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5530               | -5.46                            | -4.07                            | -0.55                            | 11.00                  | -11.55                 |
| High    | 5690               | -5.85                            | -3.63                            | -0.44                            | 11.00                  | -11.44                 |

### 10.5.13. 802.11a MODE IN THE 5.8 GHz BAND

#### Bandwidth and Antenna Gain

| 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 PPSD<br>[dBi] |
|---------|--------------------|-----------------------------|---------------------------|-------------------------------------------|------------------------------------------|
| Low     | 5745               | 21.64                       | 16.6660                   | -2.47                                     | 0.54                                     |
| Mid     | 5785               | 21.64                       | 16.6840                   | -2.47                                     | 0.54                                     |
| High    | 5825               | 21.68                       | 16.6840                   | -2.47                                     | 0.54                                     |

#### Limits

| Channel | Frequency<br>[MHz] | FCC<br>Power<br>Limit<br>[dBm] | IC<br>EIRP<br>Limit<br>[dBm] | Max<br>IC<br>Power<br>[dBm] | Power<br>Limit<br>[dBm] | FCC<br>PPSD<br>Limit<br>[dBm] | IC<br>eirp<br>PSD<br>Limit<br>[dBm] | PPSD<br>Limit<br>[dBm] |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Low     | 5745               | 24.00                          | 22.22                        | 26.47                       | 24.00                   | 11.00                         | 11.00                               | 10.46                  |
| Mid     | 5785               | 24.00                          | 22.22                        | 26.47                       | 24.00                   | 11.00                         | 11.00                               | 10.46                  |
| High    | 5825               | 24.00                          | 22.22                        | 26.47                       | 24.00                   | 11.00                         | 11.00                               | 10.46                  |

|                    |      |                                                 |
|--------------------|------|-------------------------------------------------|
| Duty Cycle CF [dB] | 0.31 | Included in Calculations of Corr'd Power & PPSD |
|--------------------|------|-------------------------------------------------|

#### 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     | 5745               | 13.92                             | 13.76                             | 17.16                             | 24.00                   | -6.84                   |
| Mid     | 5785               | 13.43                             | 13.65                             | 16.86                             | 24.00                   | -7.14                   |
| High    | 5825               | 12.96                             | 13.61                             | 16.62                             | 24.00                   | -7.38                   |

#### PPSD Results

| Channel | Frequency<br>[MHz] | Chain 0<br>Meas<br>PPSD<br>[dBm] | Chain 1<br>Meas<br>PPSD<br>[dBm] | Total<br>Corr'd<br>PPSD<br>[dBm] | PPSD<br>Limit<br>[dBm] | PPSD<br>Margin<br>[dB] |
|---------|--------------------|----------------------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5745               | 2.33                             | 2.91                             | 5.95                             | 11.00                  | -5.05                  |
| Mid     | 5785               | 1.71                             | 3.22                             | 5.85                             | 11.00                  | -5.15                  |
| High    | 5825               | 1.07                             | 2.95                             | 5.43                             | 11.00                  | -5.57                  |

### 10.5.14. 802.11n HT20 MODE IN THE 5.8 GHz BAND

#### Bandwidth and Antenna Gain

| 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 PPSD<br>[dBi] |
|---------|--------------------|-----------------------------|---------------------------|-------------------------------------------|------------------------------------------|
| Low     | 5745               | 21.80                       | 17.7600                   | -2.47                                     | 0.54                                     |
| Mid     | 5785               | 21.88                       | 17.8840                   | -2.47                                     | 0.54                                     |
| High    | 5825               | 21.84                       | 17.8900                   | -2.47                                     | 0.54                                     |

#### Limits

| Channel | Frequency<br>[MHz] | FCC<br>Power<br>Limit<br>[dBm] | IC<br>EIRP<br>Limit<br>[dBm] | Max<br>IC<br>Power<br>[dBm] | Power<br>Limit<br>[dBm] | FCC<br>PPSD<br>Limit<br>[dBm] | IC<br>eirp<br>PSD<br>Limit<br>[dBm] | PPSD<br>Limit<br>[dBm] |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Low     | 5745               | 24.00                          | 22.49                        | 26.47                       | 24.00                   | 11.00                         | 11.00                               | 10.46                  |
| Mid     | 5785               | 24.00                          | 22.52                        | 26.47                       | 24.00                   | 11.00                         | 11.00                               | 10.46                  |
| High    | 5825               | 24.00                          | 22.53                        | 26.47                       | 24.00                   | 11.00                         | 11.00                               | 10.46                  |

|                    |      |                                                 |
|--------------------|------|-------------------------------------------------|
| Duty Cycle CF [dB] | 0.33 | Included in Calculations of Corr'd Power & PPSD |
|--------------------|------|-------------------------------------------------|

#### 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     | 5745               | 13.96                             | 14.42                             | 17.54                             | 24.00                   | -6.46                   |
| Mid     | 5785               | 13.54                             | 14.33                             | 17.29                             | 24.00                   | -6.71                   |
| High    | 5825               | 12.96                             | 14.42                             | 17.09                             | 24.00                   | -6.91                   |

#### PPSD Results

| Channel | Frequency<br>[MHz] | Chain 0<br>Meas<br>PPSD<br>[dBm] | Chain 1<br>Meas<br>PPSD<br>[dBm] | Total<br>Corr'd<br>PPSD<br>[dBm] | PPSD<br>Limit<br>[dBm] | PPSD<br>Margin<br>[dB] |
|---------|--------------------|----------------------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5745               | 0.33                             | 3.98                             | 5.87                             | 11.00                  | -5.13                  |
| Mid     | 5785               | -0.40                            | 3.30                             | 5.17                             | 11.00                  | -5.83                  |
| High    | 5825               | -0.99                            | 3.23                             | 4.95                             | 11.00                  | -6.05                  |

### 10.5.15. 802.11n HT40 MODE IN THE 5.8 GHz BAND

#### Bandwidth and Antenna Gain

| 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 PPSD<br>[dBi] |
|---------|--------------------|-----------------------------|---------------------------|-------------------------------------------|------------------------------------------|
| Low     | 5755               | 40.20                       | 36.5100                   | -2.47                                     | 0.54                                     |
| High    | 5795               | 40.26                       | 36.3400                   | -2.47                                     | 0.54                                     |

#### Limits

| Channel | Frequency<br>[MHz] | FCC<br>Power<br>Limit<br>[dBm] | IC<br>EIRP<br>Limit<br>[dBm] | Max<br>IC<br>Power<br>[dBm] | Power<br>Limit<br>[dBm] | FCC<br>PPSD<br>Limit<br>[dBm] | IC<br>eirp<br>PSD<br>Limit<br>[dBm] | PPSD<br>Limit<br>[dBm] |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Low     | 5755               | 24.00                          | 23.00                        | 26.47                       | 24.00                   | 11.00                         | 11.00                               | 10.46                  |
| High    | 5795               | 24.00                          | 23.00                        | 26.47                       | 24.00                   | 11.00                         | 11.00                               | 10.46                  |

|                    |      |                                                 |
|--------------------|------|-------------------------------------------------|
| Duty Cycle CF [dB] | 0.62 | Included in Calculations of Corr'd Power & PPSD |
|--------------------|------|-------------------------------------------------|

#### 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     | 5755               | 13.41                             | 14.18                             | 17.44                             | 24.00                   | -6.56                   |
| High    | 5795               | 13.05                             | 14.27                             | 17.33                             | 24.00                   | -6.67                   |

#### PPSD Results

| Channel | Frequency<br>[MHz] | Chain 0<br>Meas<br>PPSD<br>[dBm] | Chain 1<br>Meas<br>PPSD<br>[dBm] | Total<br>Corr'd<br>PPSD<br>[dBm] | PPSD<br>Limit<br>[dBm] | PPSD<br>Margin<br>[dB] |
|---------|--------------------|----------------------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Low     | 5755               | -2.71                            | 0.38                             | 2.74                             | 11.00                  | -8.26                  |
| High    | 5795               | -3.44                            | 0.06                             | 2.29                             | 11.00                  | -8.71                  |

### 10.5.16. 802.11ac HT80 MODE IN THE 5.8 GHz BAND

#### Bandwidth and Antenna Gain

| 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 PPSD<br>[dBi] |
|---------|--------------------|-----------------------------|---------------------------|-------------------------------------------|------------------------------------------|
| Middle  | 5775               | 82.40                       | 76.0270                   | -2.47                                     | 0.54                                     |

#### Limits

| Channel | Frequency<br>[MHz] | FCC<br>Power<br>Limit<br>[dBm] | IC<br>EIRP<br>Limit<br>[dBm] | Max<br>IC<br>Power<br>[dBm] | Power<br>Limit<br>[dBm] | FCC<br>PPSD<br>Limit<br>[dBm] | IC<br>eirp<br>PSD<br>Limit<br>[dBm] | PPSD<br>Limit<br>[dBm] |
|---------|--------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------------|------------------------|
| Middle  | 5775               | 24.00                          | 23.00                        | 26.47                       | 24.00                   | 11.00                         | 11.00                               | 10.46                  |

|                    |      |                                                 |
|--------------------|------|-------------------------------------------------|
| Duty Cycle CF [dB] | 1.15 | Included in Calculations of Corr'd Power & PPSD |
|--------------------|------|-------------------------------------------------|

#### 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] |
|---------|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Middle  | 5775               | 13.57                             | 13.37                             | 17.63                             | 24.00                   | -6.37                   |

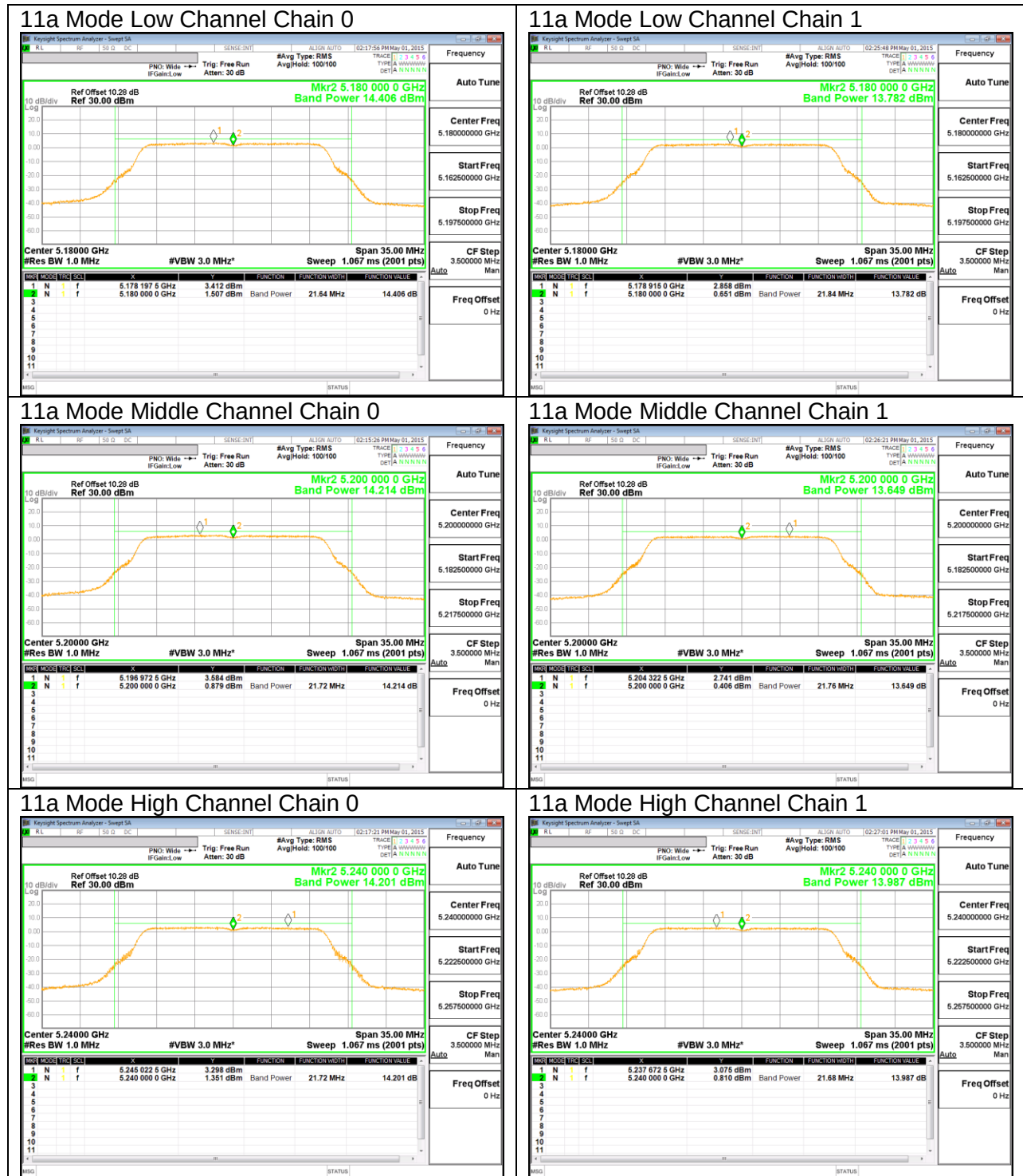
#### PPSD Results

| Channel | Frequency<br>[MHz] | Chain 0<br>Meas<br>PPSD<br>[dBm] | Chain 1<br>Meas<br>PPSD<br>[dBm] | Total<br>Corr'd<br>PPSD<br>[dBm] | PPSD<br>Limit<br>[dBm] | PPSD<br>Margin<br>[dB] |
|---------|--------------------|----------------------------------|----------------------------------|----------------------------------|------------------------|------------------------|
| Middle  | 5775               | -6.68                            | -3.19                            | -0.43                            | 11.00                  | -11.43                 |

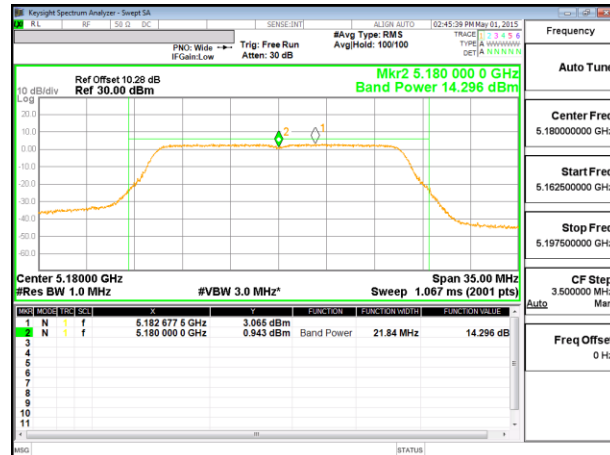


# 10.5.17. OUTPUT POWER AND PPSD PLOTS

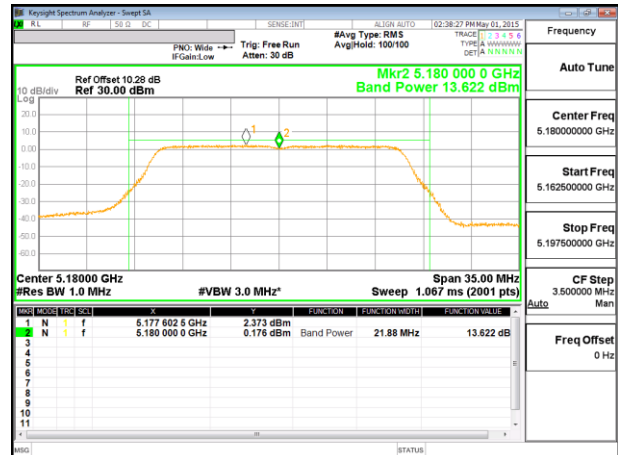
## UNII 5.2 GHz



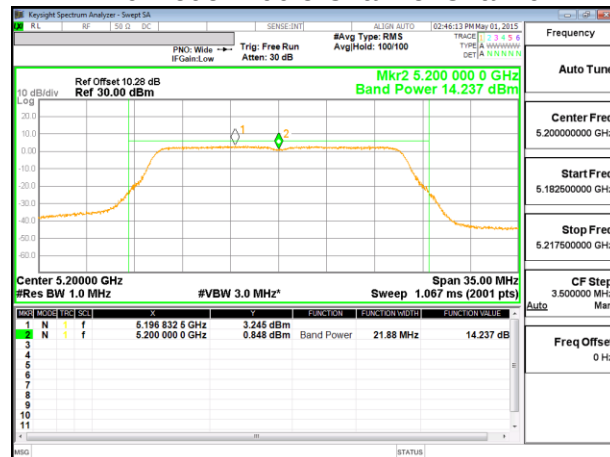
### 11n HT20 Mode Low Channel Chain 0



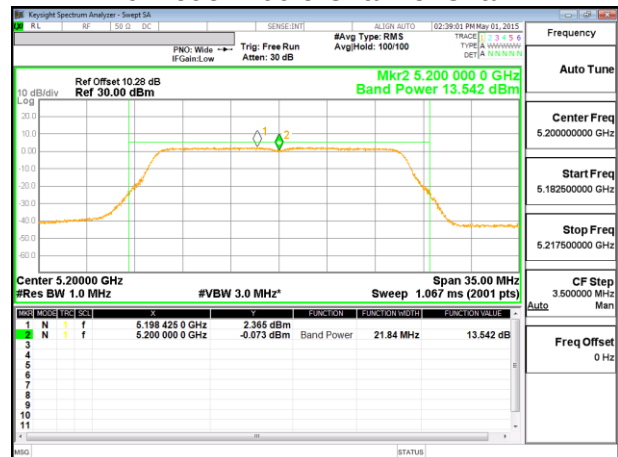
### 11n HT20 Mode Low Channel Chain 1



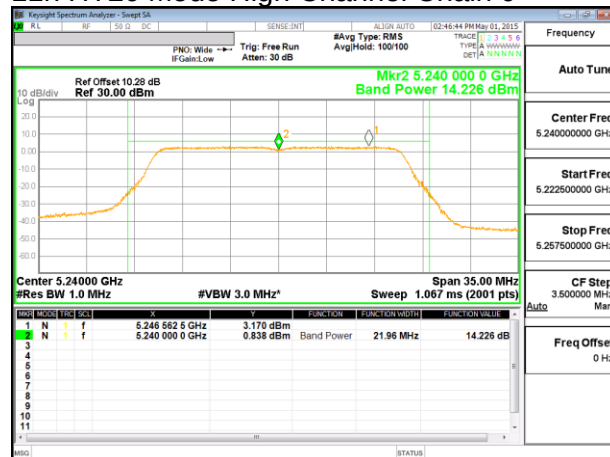
### 11n HT20 Mode Middle Channel Chain 0



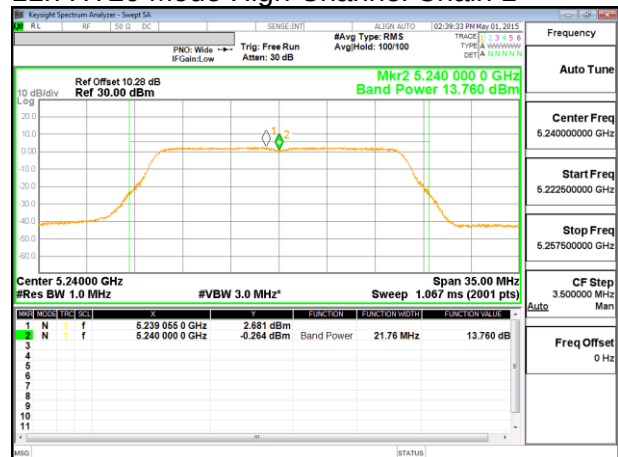
### 11n HT20 Mode Middle Channel Chain 1

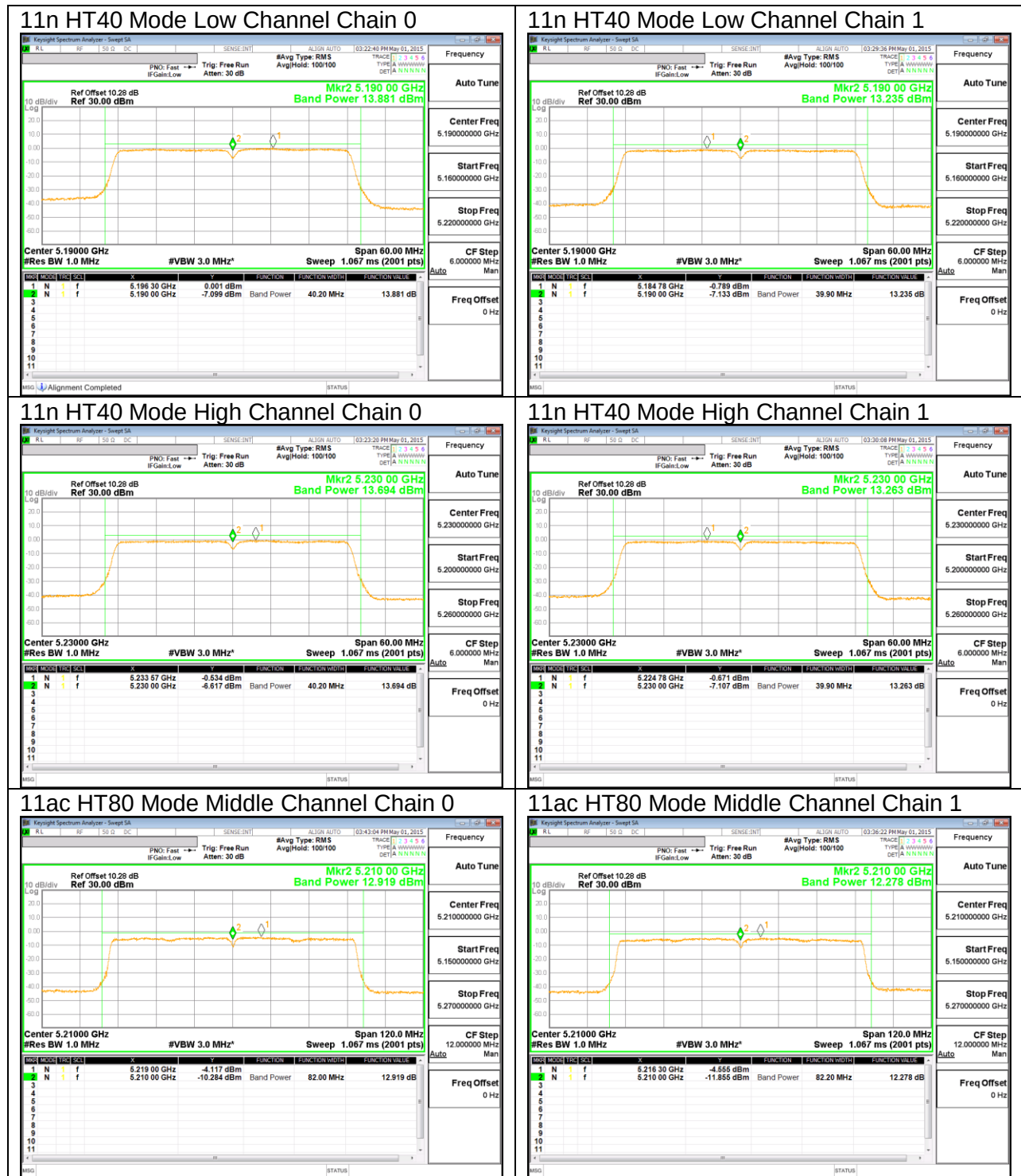


### 11n HT20 Mode High Channel Chain 0



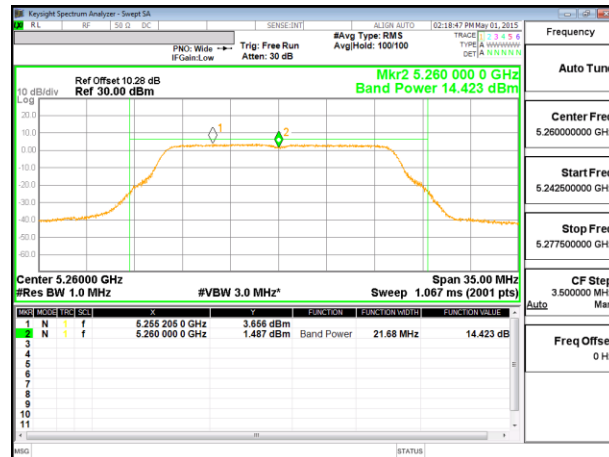
### 11n HT20 Mode High Channel Chain 1



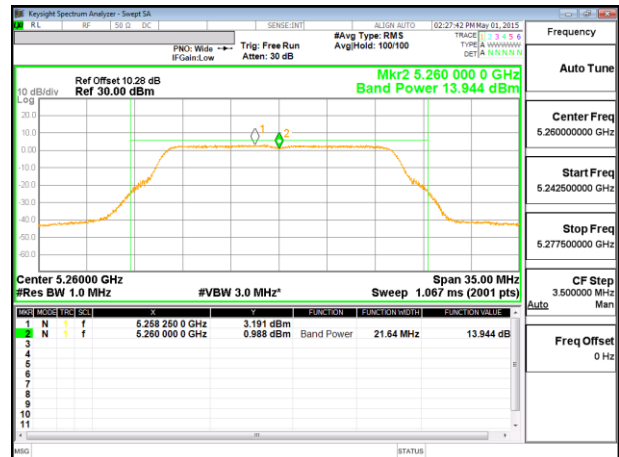


## UNII 5.3 GHz

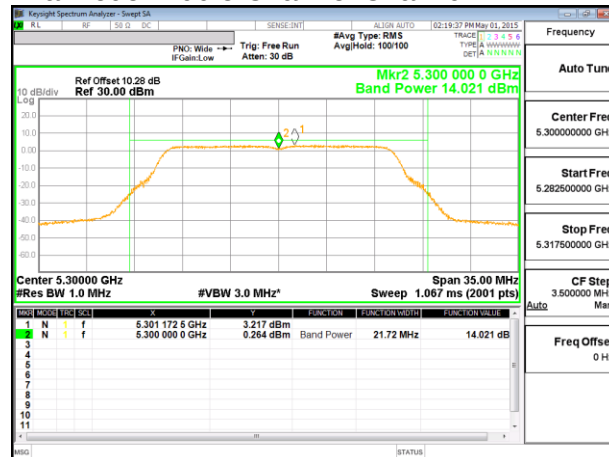
### 11a Mode Low Channel Chain 0



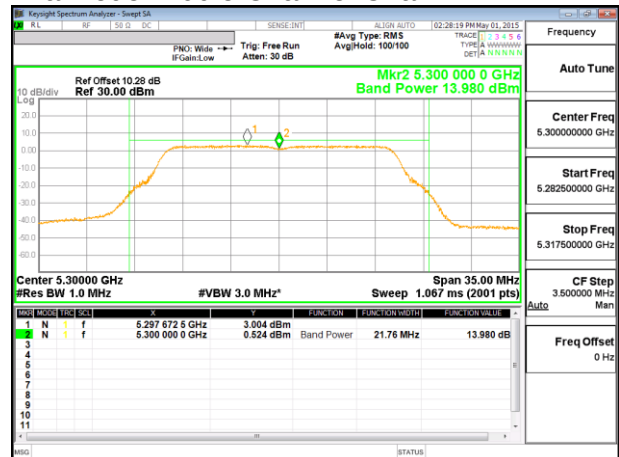
### 11a Mode Low Channel Chain 1



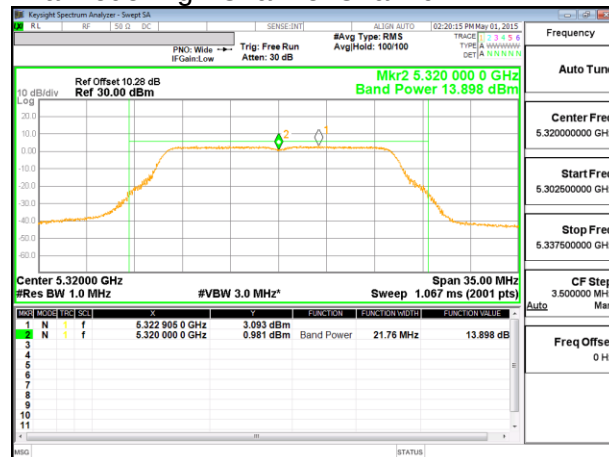
### 11a Mode Middle Channel Chain 0



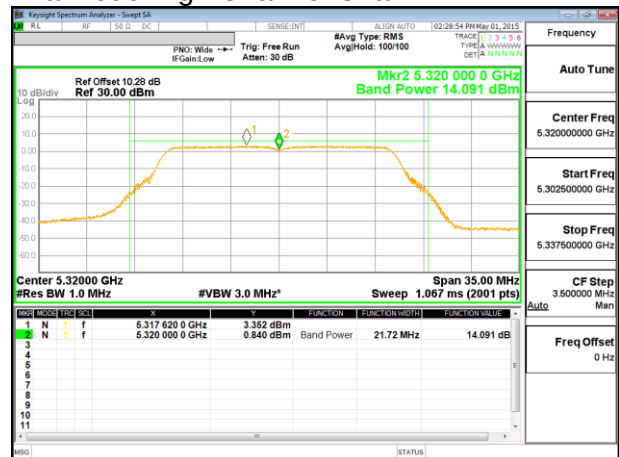
### 11a Mode Middle Channel Chain 1



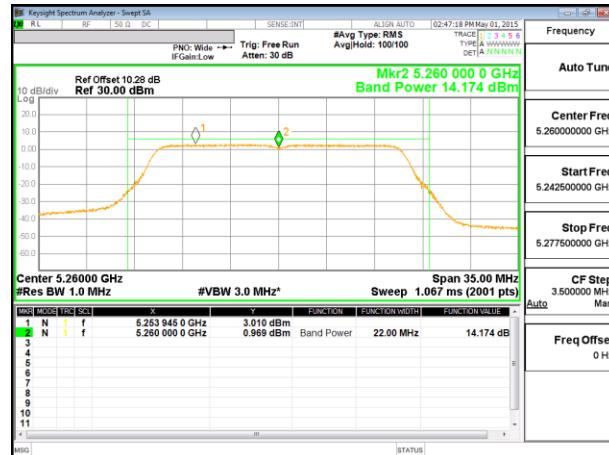
### 11a Mode High Channel Chain 0



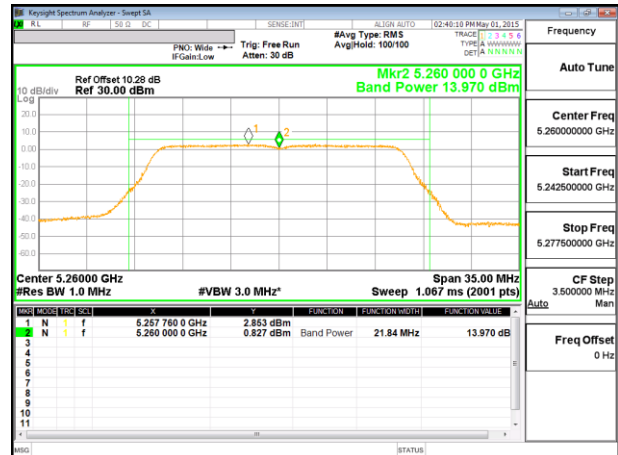
### 11a Mode High Channel Chain 1



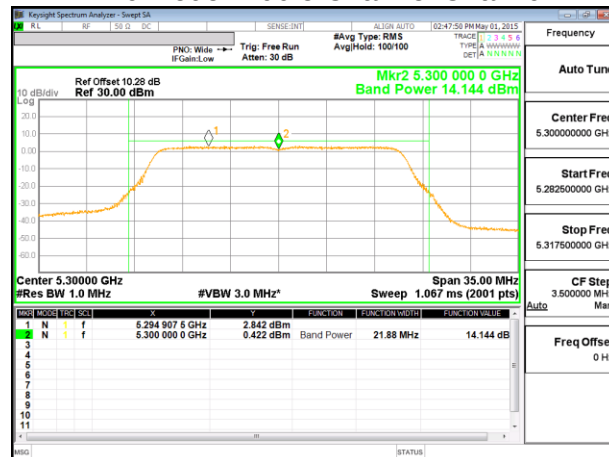
### 11n HT20 Mode Low Channel Chain 0



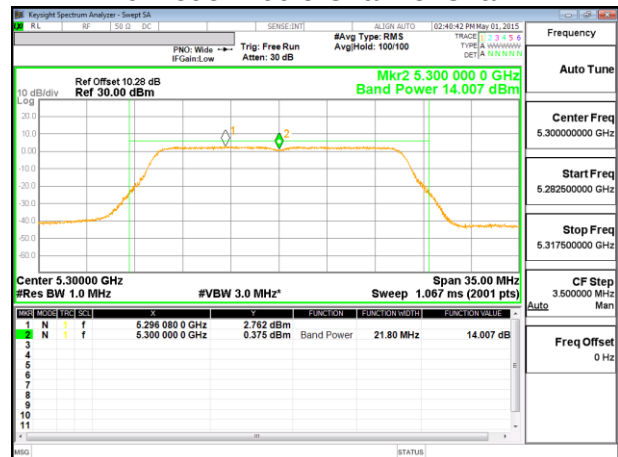
### 11n HT20 Mode Low Channel Chain 1



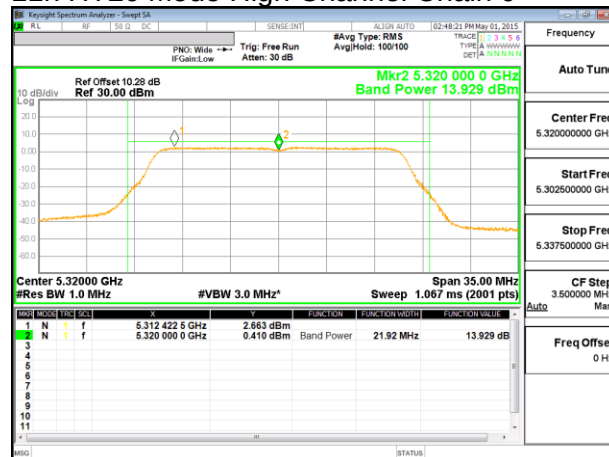
### 11n HT20 Mode Middle Channel Chain 0



### 11n HT20 Mode Middle Channel Chain 1



### 11n HT20 Mode High Channel Chain 0



### 11n HT20 Mode High Channel Chain 1

