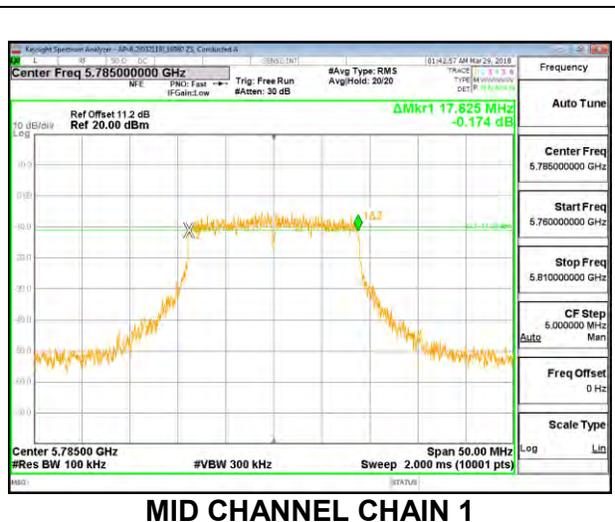
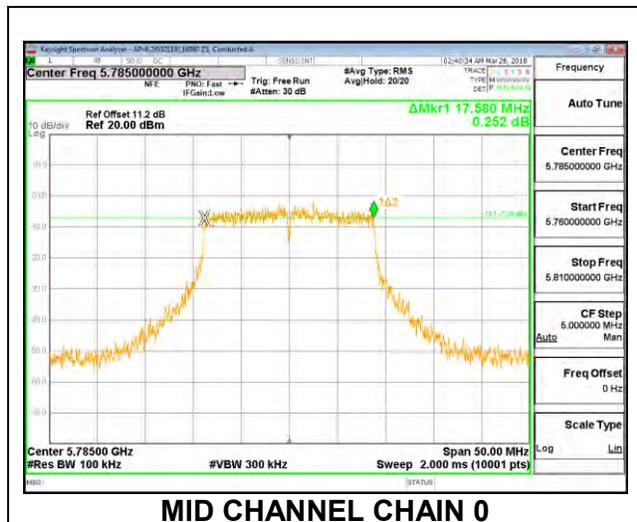
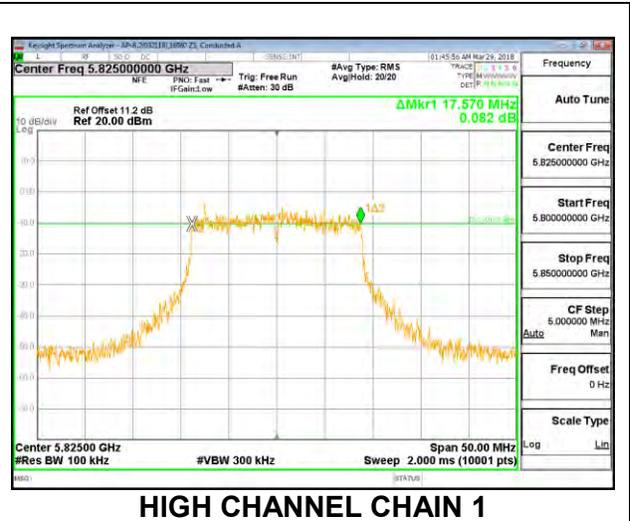
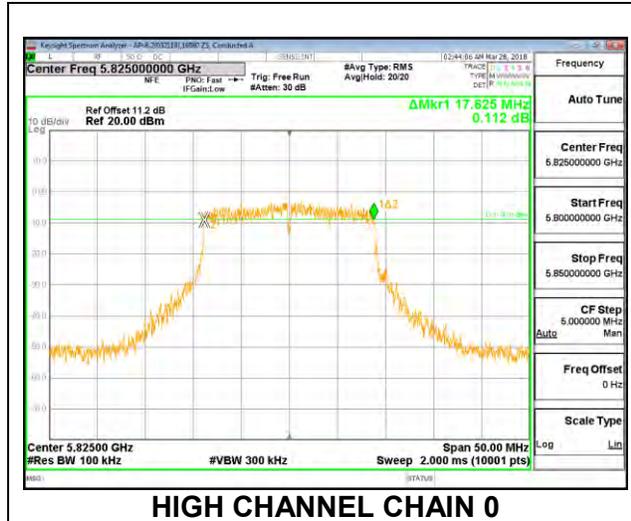


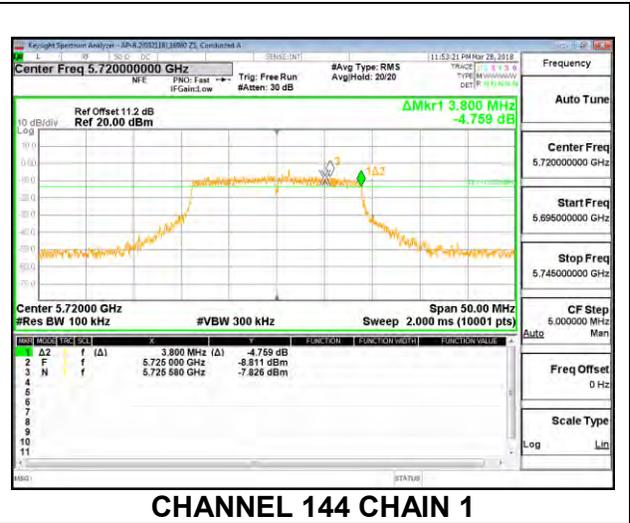
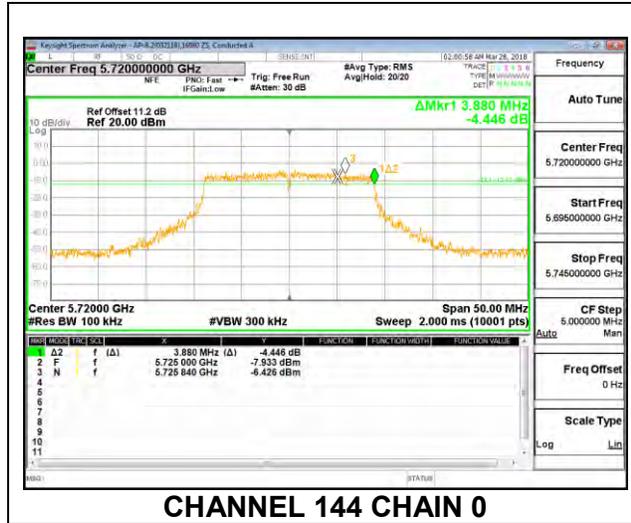
**MID CHANNEL**



### HIGH CHANNEL



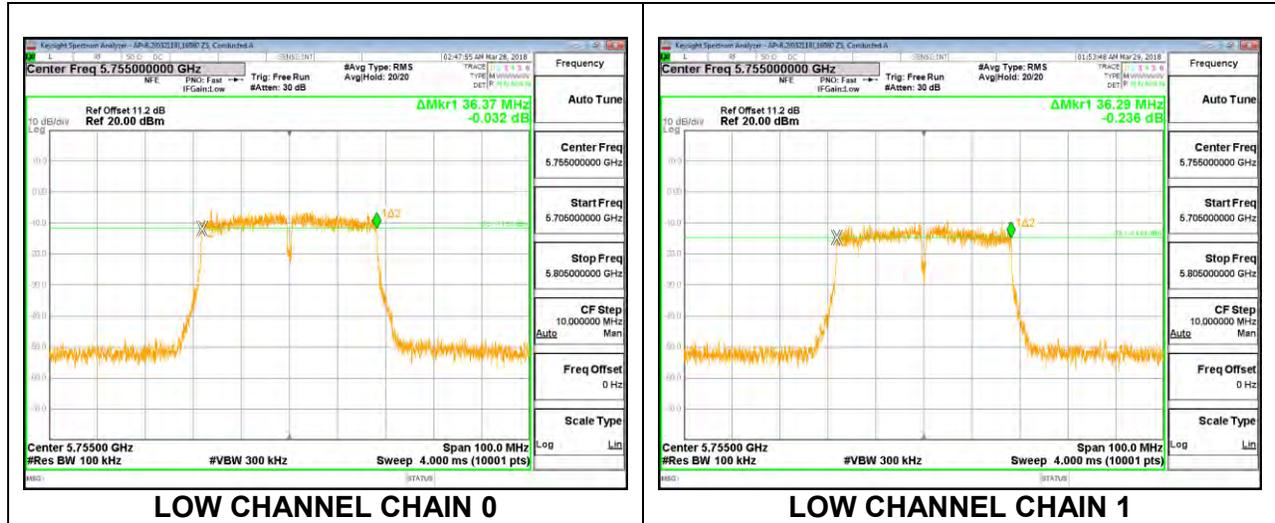
**CHANNEL 144**



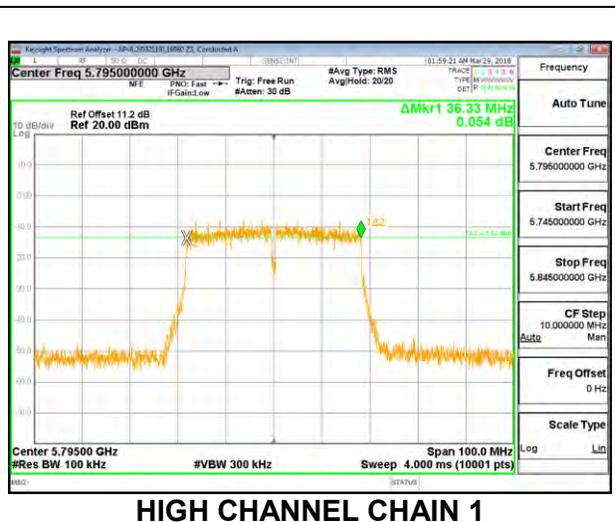
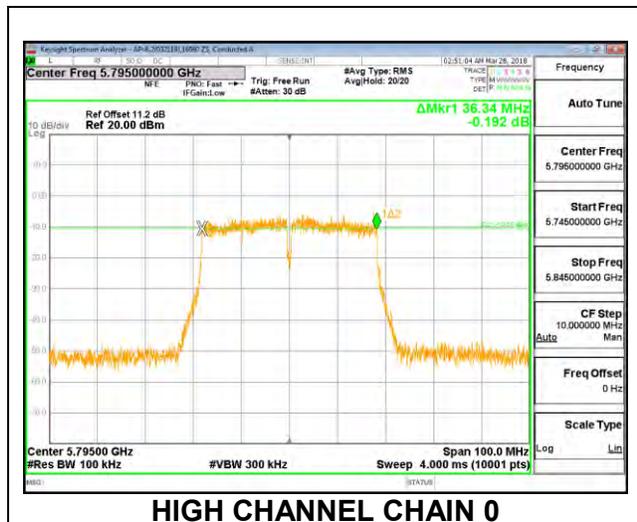
**8.4.3. 802.11n HT40 MODE IN THE 5.8 GHz BAND**

| Channel | Frequency (MHz) | 6 dB BW Chain 0 (MHz) | 6 dB BW Chain 1 (MHz) | Minimum Limit (MHz) |
|---------|-----------------|-----------------------|-----------------------|---------------------|
| Low     | 5755            | 36.370                | 36.290                | 0.5                 |
| High    | 5795            | 36.340                | 36.330                | 0.5                 |
| 142     | 5710            | 3.240                 | 3.170                 | 0.5                 |

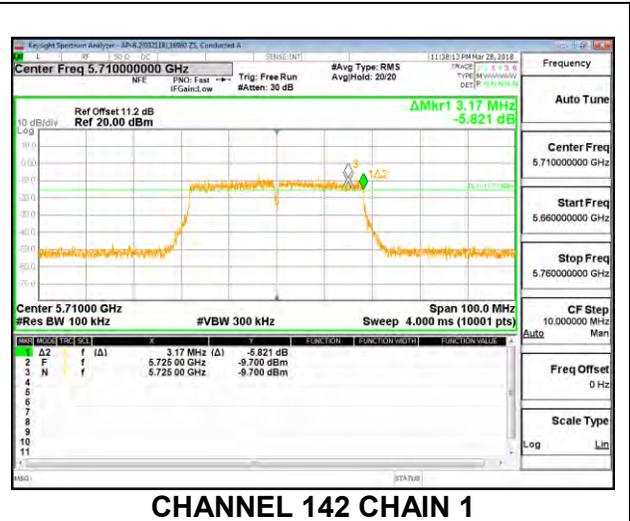
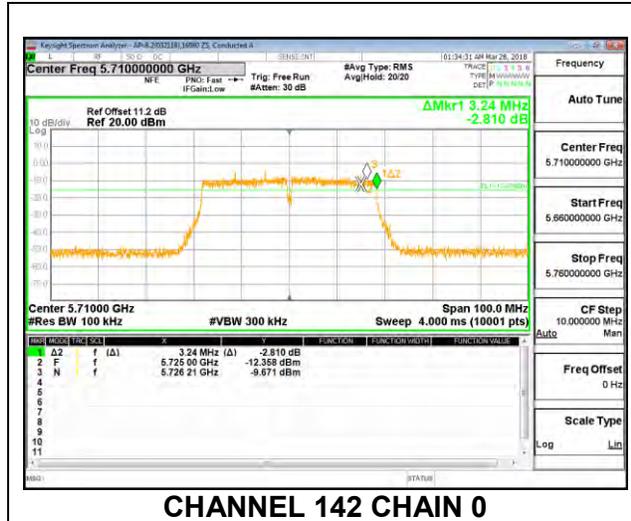
**LOW CHANNEL**



### HIGH CHANNEL



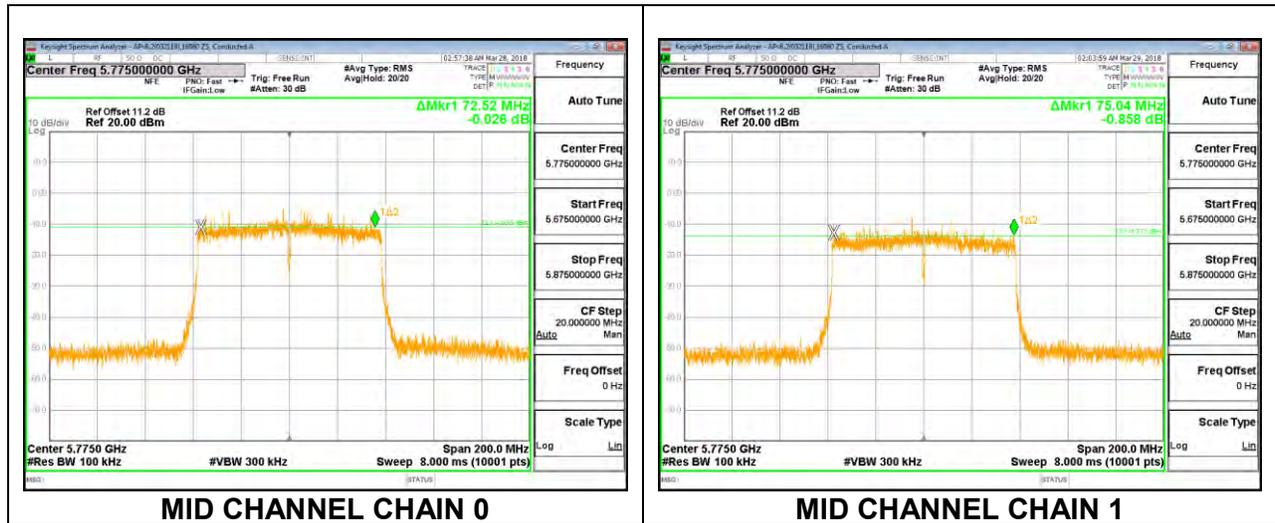
**CHANNEL 142**



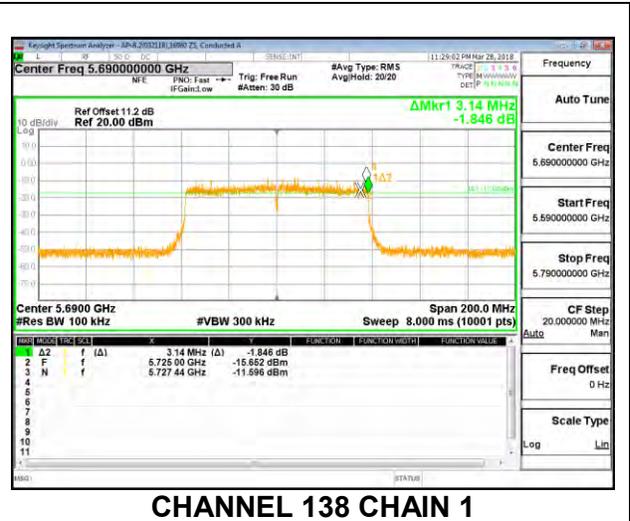
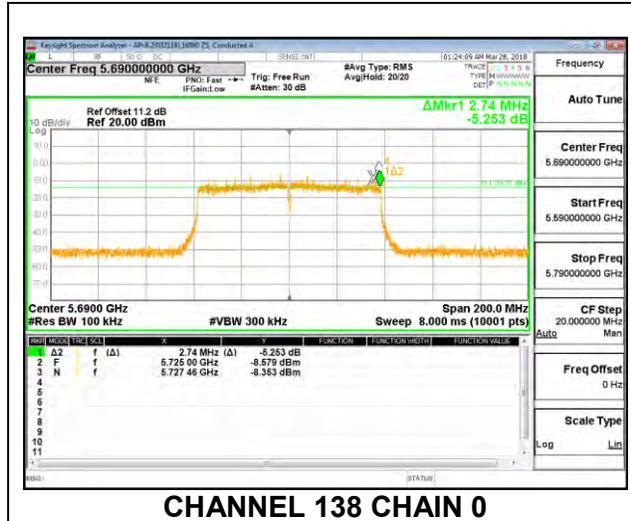
**8.4.4. 802.11ac VHT80 MODE IN THE 5.8 GHz BAND**

| 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) |
|---------|--------------------|-----------------------------|-----------------------------|---------------------------|
| Mid     | 5775               | 72.520                      | 75.040                      | 0.5                       |
| 138     | 5690               | 2.740                       | 3.140                       | 0.5                       |

**MID CHANNEL**



**CHANNEL 138**



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## 8.5. OUTPUT POWER AND PSD

### LIMITS

#### **FCC §15.407**

##### **Band 5.15–5.25 GHz (pick the section that applies to your product)**

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 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.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 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 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. 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.

##### **Bands 5.25-5.35 GHz and 5.47-5.725 GHz**

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.

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**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. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information.

### **Band 5.15-5.25 GHz**

The maximum e.i.r.p. shall not exceed 200 mW or  $10 + 10 \log_{10} B$ , dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

### **Band 5.25-5.35 GHz**

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.

### **Bands 5.47-5.6 GHz and 5.65-5.725 GHz**

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.

### **Band 5.725-5.85 GHz**

The maximum conducted output power shall not exceed 1 W. The 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 power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

### **TEST PROCEDURE**

The measurement method used for output power is KDB 789033 D02 v02r01, Section E.3.b (Method PM-G) and for straddles channels KDB 789033 D02 v02r01, Section E.2.b (Method SA-1) was used. The measurement method used for power spectral density is KDB 789033 D02 v02r01, Section F.

**DIRECTIONAL ANTENNA GAIN**

For 2 TX:

Tx chains are uncorrelated for power and correlated for PSD due to the device supporting CDD in all MIMO modes. The directional gains are as follows:

| <b>Band (GHz)</b> | <b>Chain 0 Antenna Gain (dBi)</b> | <b>Chain 1 Antenna Gain (dBi)</b> | <b>Uncorrelated Chains Directional Gain (dBi)</b> | <b>Correlated Chains Directional Gain (dBi)</b> |
|-------------------|-----------------------------------|-----------------------------------|---|---|
| 5.2               | -3.6                              | -4.9                              | -4.20   | -1.22   |
| 5.3               | -3.6                              | -4.9                              | -4.20   | -1.22   |
| 5.6               | -4.7                              | -6.1                              | -5.34   | -2.36   |
| 5.8               | -3.4                              | -5.8                              | -4.44   | -1.51   |

**RESULTS**

**8.5.1. 802.11a MODE IN THE 5.2 GHz BAND**

**Bandwidth and Antenna Gain**

| Channel | Frequency<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) |
|---------|--------------------|---------------------------|---|---|
| Low     | 5180               | 16.4460                   | -4.20                                     | -1.22                                   |
| Mid     | 5200               | 16.5190                   | -4.20                                     | -1.22                                   |
| High    | 5240               | 16.4670                   | -4.20                                     | -1.22                                   |

**Limits**

| Channel | Frequency<br>(MHz) | FCC<br>Power<br>Limit<br>(dBm) | ISED<br>EIRP<br>Limit<br>(dBm) | Max<br>ISED<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | FCC<br>PSD<br>Limit<br>(dBm/1MHz) | ISED<br>eirp<br>PSD<br>Limit<br>(dBm/1MHz) | PSD<br>Limit<br>(dBm/1MHz) |
|---------|--------------------|--------------------------------|--------------------------------|-------------------------------|-------------------------|-----------------------------------|--|----------------------------|
| Low     | 5180               | 24.00                          | 22.16                          | 26.36                         | 24.00                   | 11.00                             | 10.00                                      | 11.00                      |
| Mid     | 5200               | 24.00                          | 22.18                          | 26.38                         | 24.00                   | 11.00                             | 10.00                                      | 11.00                      |
| High    | 5240               | 24.00                          | 22.17                          | 26.37                         | 24.00                   | 11.00                             | 10.00                                      | 11.00                      |

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

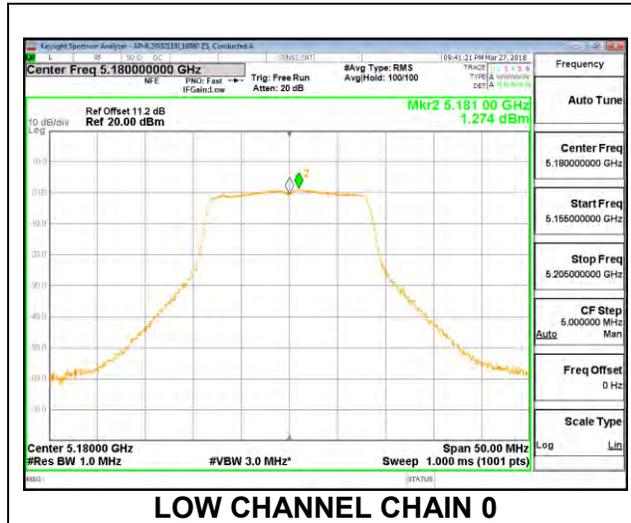
**Output Power Results**

| 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               | 11.07                             | 8.16                              | 12.86                             | 24.00                   | -11.14                  |
| Mid     | 5200               | 11.09                             | 8.63                              | 13.04                             | 24.00                   | -10.96                  |
| High    | 5240               | 11.13                             | 8.31                              | 12.96                             | 24.00                   | -11.04                  |

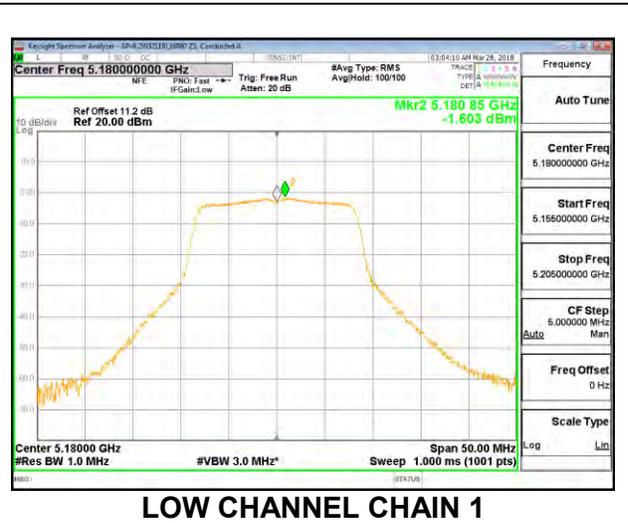
**PSD Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm/1MHz) | Chain 1<br>Meas<br>PSD<br>(dBm/1MHz) | Total<br>Corr'd<br>PSD<br>(dBm/1MHz) | PSD<br>Limit<br>(dBm/1MHz) | PSD<br>Margin<br>(dB) |
|---------|--------------------|--------------------------------------|--------------------------------------|--------------------------------------|----------------------------|-----------------------|
| Low     | 5180               | 1.27                                 | -1.60                                | 3.08                                 | 11.00                      | -7.92                 |
| Mid     | 5200               | 0.51                                 | -1.71                                | 2.55                                 | 11.00                      | -8.45                 |
| High    | 5240               | 0.68                                 | -1.61                                | 2.70                                 | 11.00                      | -8.30                 |

### LOW CHANNEL

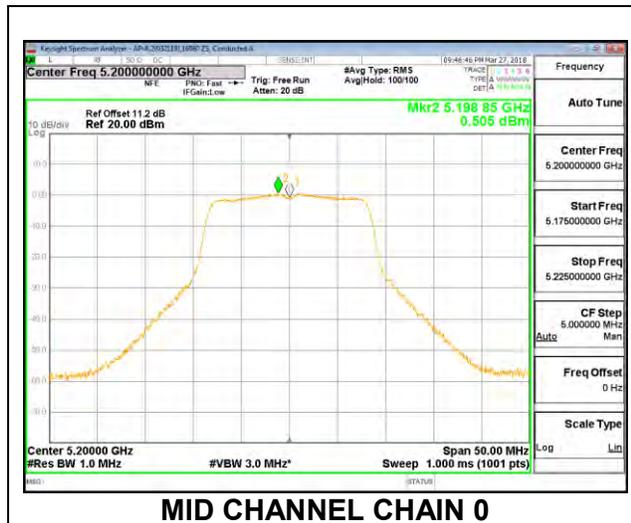


LOW CHANNEL CHAIN 0

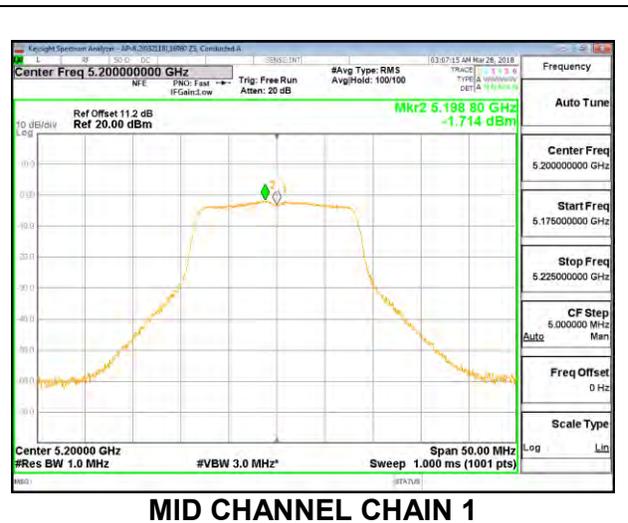


LOW CHANNEL CHAIN 1

### MID CHANNEL



MID CHANNEL CHAIN 0



MID CHANNEL CHAIN 1

### HIGH CHANNEL



**8.5.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND**

**Bandwidth and Antenna Gain**

| Channel | Frequency<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) |
|---------|--------------------|---------------------------|---|---|
| Low     | 5180               | 17.6240                   | -4.20                                     | -1.22                                   |
| Mid     | 5200               | 17.7370                   | -4.20                                     | -1.22                                   |
| High    | 5240               | 17.7360                   | -4.20                                     | -1.22                                   |

**Limits**

| Channel | Frequency<br>(MHz) | FCC<br>Power<br>Limit<br>(dBm) | ISED<br>EIRP<br>Limit<br>(dBm) | Max<br>ISED<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | FCC<br>PSD<br>Limit<br>(dBm/<br>1MHz) | ISED<br>eirp<br>PSD<br>Limit<br>(dBm/<br>1MHz) | PSD<br>Limit<br>(dBm/<br>1MHz) |
|---------|--------------------|--------------------------------|--------------------------------|-------------------------------|-------------------------|---------------------------------------|--|--------------------------------|
| Low     | 5180               | 24.00                          | 22.46                          | 26.66                         | 24.00                   | 11.00                                 | 10.00  | 11.00                          |
| Mid     | 5200               | 24.00                          | 22.49                          | 26.69                         | 24.00                   | 11.00                                 | 10.00  | 11.00                          |
| High    | 5240               | 24.00                          | 22.49                          | 26.69                         | 24.00                   | 11.00                                 | 10.00  | 11.00                          |

|                           |      |   |
|---------------------------|------|---|
| <b>Duty Cycle CF (dB)</b> | 0.10 | <b>Included in Calculations of Corr'd PSD</b> |
|---------------------------|------|---|

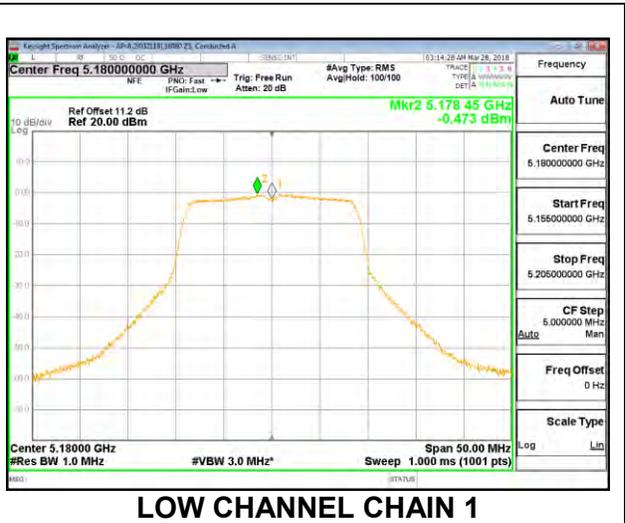
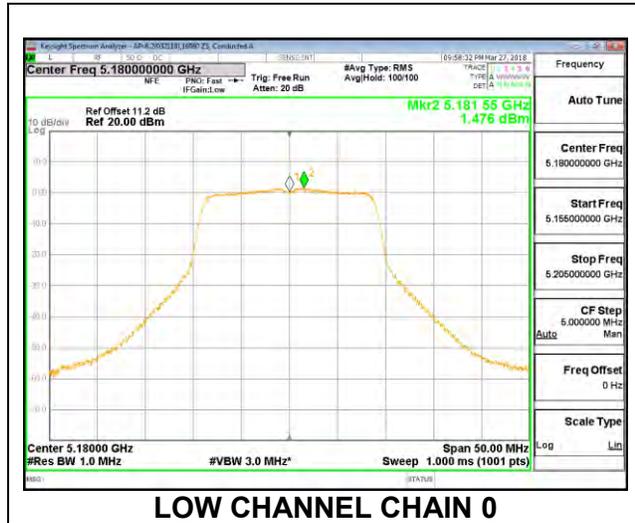
**Output Power Results**

| 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               | 11.77                             | 10.03                             | 14.00                             | 24.00                   | -10.00                  |
| Mid     | 5200               | 11.85                             | 10.04                             | 14.05                             | 24.00                   | -9.95                   |
| High    | 5240               | 11.78                             | 9.92                              | 13.96                             | 24.00                   | -10.04                  |

**PSD Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm/<br>1MHz) | Chain 1<br>Meas<br>PSD<br>(dBm/<br>1MHz) | Total<br>Corr'd<br>PSD<br>(dBm/<br>1MHz) | PSD<br>Limit<br>(dBm/<br>1MHz) | PSD<br>Margin<br>(dB) |
|---------|--------------------|--|--|--|--------------------------------|-----------------------|
| Low     | 5180               | 1.48                                     | -0.47                                    | 3.72                                     | 11.00                          | -7.28                 |
| Mid     | 5200               | 1.52                                     | -0.65                                    | 3.68                                     | 11.00                          | -7.32                 |
| High    | 5240               | 1.20                                     | -0.70                                    | 3.46                                     | 11.00                          | -7.54                 |

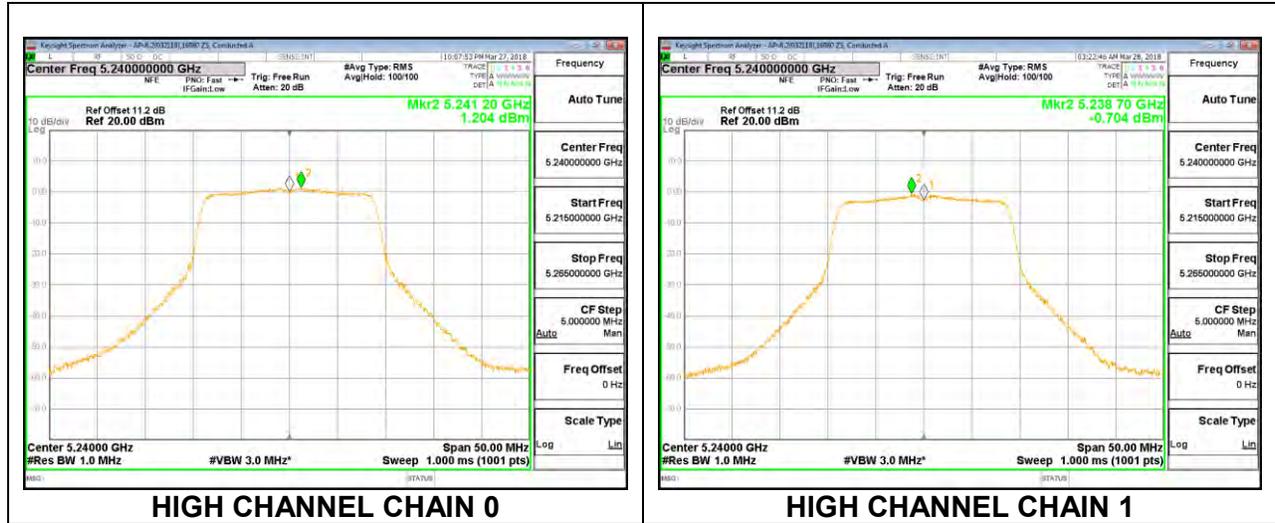
### LOW CHANNEL



### MID CHANNEL



### HIGH CHANNEL



**8.5.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND**

**Bandwidth and Antenna Gain**

| Channel | Frequency<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) |
|---------|--------------------|---------------------------|---|---|
| Low     | 5190               | 36.2870                   | -4.20                                     | -1.22                                   |
| High    | 5230               | 36.1890                   | -4.20                                     | -1.22                                   |

**Limits**

| Channel | Frequency<br>(MHz) | FCC<br>Power<br>Limit<br>(dBm) | ISED<br>EIRP<br>Limit<br>(dBm) | Max<br>ISED<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | FCC<br>PSD<br>Limit<br>(dBm/<br>1MHz) | ISED<br>eirp<br>PSD<br>Limit<br>(dBm/<br>1MHz) | PSD<br>Limit<br>(dBm/<br>1MHz) |
|---------|--------------------|--------------------------------|--------------------------------|-------------------------------|-------------------------|---------------------------------------|--|--------------------------------|
| Low     | 5190               | 24.00                          | 23.00                          | 27.20                         | 24.00                   | 11.00                                 | 10.00  | 11.00                          |
| High    | 5230               | 24.00                          | 23.00                          | 27.20                         | 24.00                   | 11.00                                 | 10.00  | 11.00                          |

|                           |      |   |
|---------------------------|------|---|
| <b>Duty Cycle CF (dB)</b> | 0.32 | <b>Included in Calculations of Corr'd Power &amp; PSD</b> |
|---------------------------|------|---|

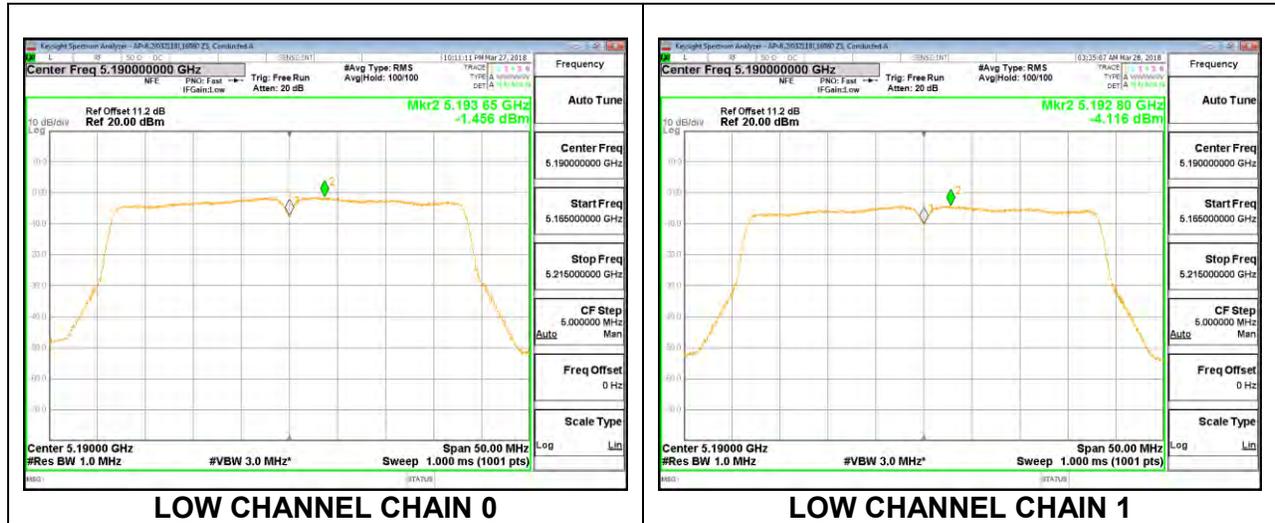
**Output Power Results**

| 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               | 11.72                             | 9.05                              | 13.60                             | 24.00                   | -10.40                  |
| High    | 5230               | 12.02                             | 8.95                              | 13.76                             | 24.00                   | -10.24                  |

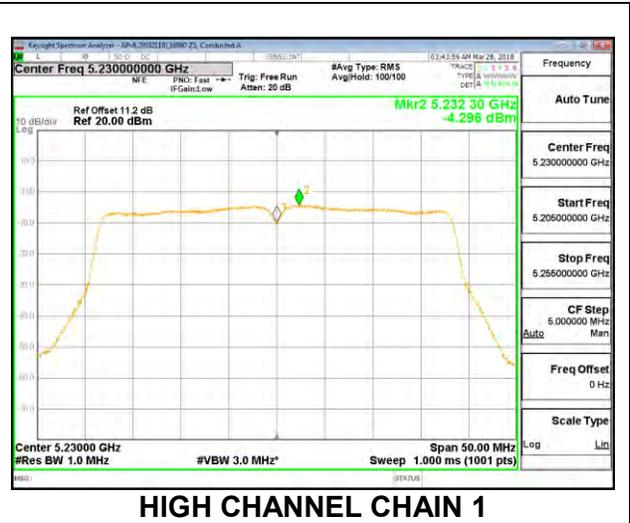
**PSD Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm/<br>1MHz) | Chain 1<br>Meas<br>PSD<br>(dBm/<br>1MHz) | Total<br>Corr'd<br>PSD<br>(dBm/<br>1MHz) | PSD<br>Limit<br>(dBm/<br>1MHz) | PSD<br>Margin<br>(dB) |
|---------|--------------------|--|--|--|--------------------------------|-----------------------|
| Low     | 5190               | -1.46                                    | -4.12                                    | 0.74                                     | 11.00                          | -10.26                |
| High    | 5230               | -2.03                                    | -4.30                                    | 0.31                                     | 11.00                          | -10.69                |

### LOW CHANNEL



### HIGH CHANNEL



**8.5.4. 802.11ac VHT80 MODE IN THE 5.2 GHz BAND**

**Bandwidth and Antenna Gain**

| Channel | Frequency<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) |
|---------|--------------------|---------------------------|---|---|
| Mid     | 5210               | 75.8280                   | -4.20                                     | -1.22                                   |

**Limits**

| Channel | Frequency<br>(MHz) | FCC<br>Power<br>Limit<br>(dBm) | ISED<br>EIRP<br>Limit<br>(dBm) | Max<br>ISED<br>Power<br>(dBm) | Power<br>Limit<br>(dBm) | FCC<br>PSD<br>Limit<br>(dBm/<br>1MHz) | ISED<br>eirp<br>PSD<br>Limit<br>(dBm/<br>1MHz) | PSD<br>Limit<br>(dBm/<br>1MHz) |
|---------|--------------------|--------------------------------|--------------------------------|-------------------------------|-------------------------|---------------------------------------|--|--------------------------------|
| Mid     | 5210               | 24.00                          | 23.00                          | 27.20                         | 24.00                   | 11.00                                 | 10.00  | 11.00                          |

|                           |      |   |
|---------------------------|------|---|
| <b>Duty Cycle CF (dB)</b> | 0.62 | <b>Included in Calculations of Corr'd Power &amp; PSD</b> |
|---------------------------|------|---|

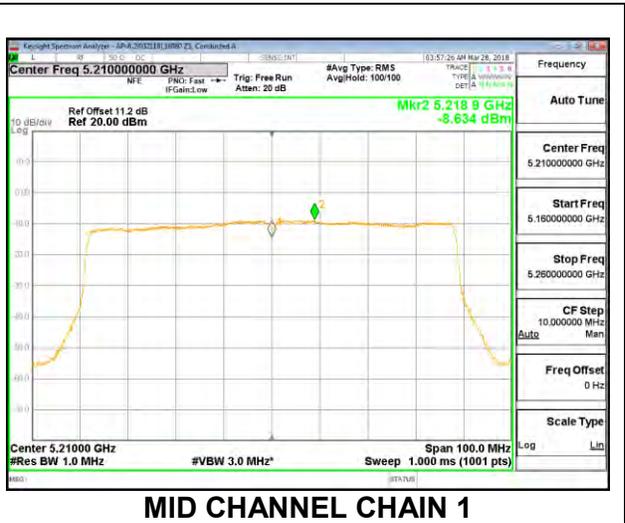
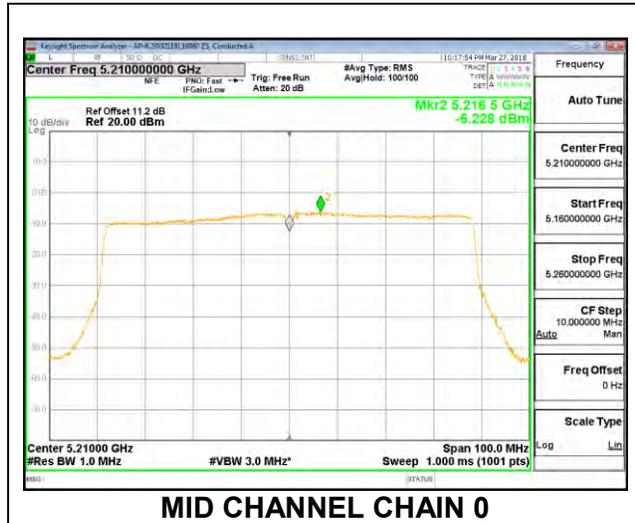
**Output Power Results**

| 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) |
|---------|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Mid     | 5210               | 10.52                             | 8.03                              | 12.46                             | 24.00                   | -11.54                  |

**PSD Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm/<br>1MHz) | Chain 1<br>Meas<br>PSD<br>(dBm/<br>1MHz) | Total<br>Corr'd<br>PSD<br>(dBm/<br>1MHz) | PSD<br>Limit<br>(dBm/<br>1MHz) | PSD<br>Margin<br>(dB) |
|---------|--------------------|--|--|--|--------------------------------|-----------------------|
| Mid     | 5210               | -6.23                                    | -8.63                                    | -3.64                                    | 11.00                          | -14.64                |

### MID CHANNEL



**8.5.5. 802.11a MODE IN THE 5.3 GHz 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/1MHz) |
|---------|--------------------|-----------------------------|---|---|-------------------------|----------------------------|
| Low     | 5260               | 21.00                       | -4.20                                     | -1.22                                   | 24.00                   | 11.00                      |
| Mid     | 5300               | 21.50                       | -4.20                                     | -1.22                                   | 24.00                   | 11.00                      |
| High    | 5320               | 20.90                       | -4.20                                     | -1.22                                   | 24.00                   | 11.00                      |

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

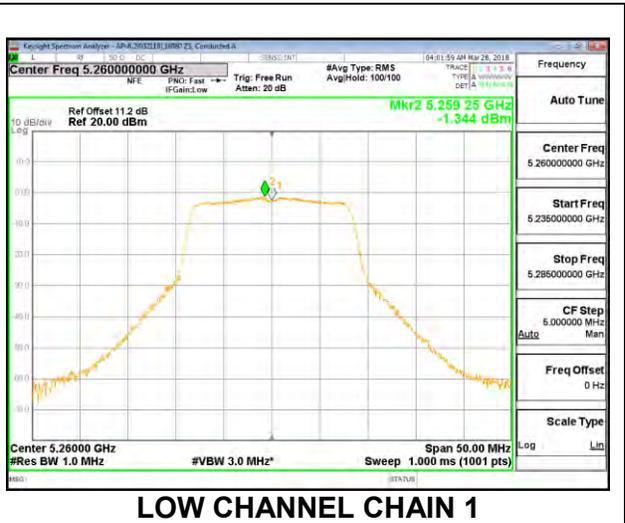
**Output Power Results**

| 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               | 10.88                             | 8.43                              | 12.84                             | 24.00                   | -11.16                  |
| Mid     | 5300               | 10.61                             | 8.56                              | 12.72                             | 24.00                   | -11.28                  |
| High    | 5320               | 11.08                             | 8.57                              | 13.01                             | 24.00                   | -10.99                  |

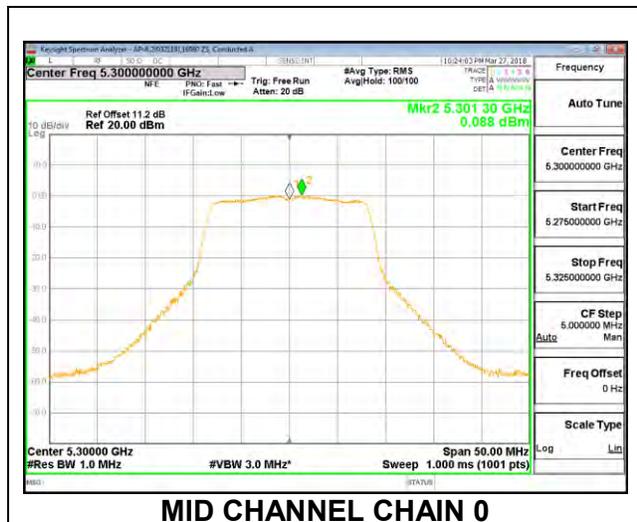
**PSD Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm/1MHz) | Chain 1<br>Meas<br>PSD<br>(dBm/1MHz) | Total<br>Corr'd<br>PSD<br>(dBm/1MHz) | PSD<br>Limit<br>(dBm/1MHz) | PSD<br>Margin<br>(dB) |
|---------|--------------------|--------------------------------------|--------------------------------------|--------------------------------------|----------------------------|-----------------------|
| Low     | 5260               | 0.55                                 | -1.34                                | 2.72                                 | 11.00                      | -8.28                 |
| Mid     | 5300               | 0.09                                 | -1.95                                | 2.20                                 | 11.00                      | -8.80                 |
| High    | 5320               | 0.23                                 | -2.15                                | 2.21                                 | 11.00                      | -8.79                 |

### LOW CHANNEL



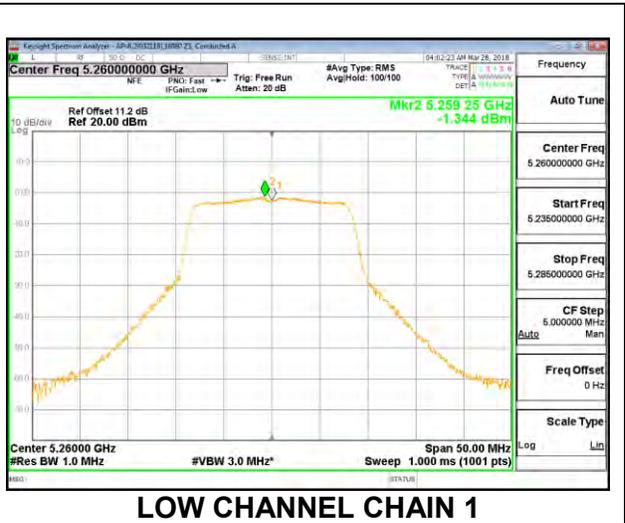
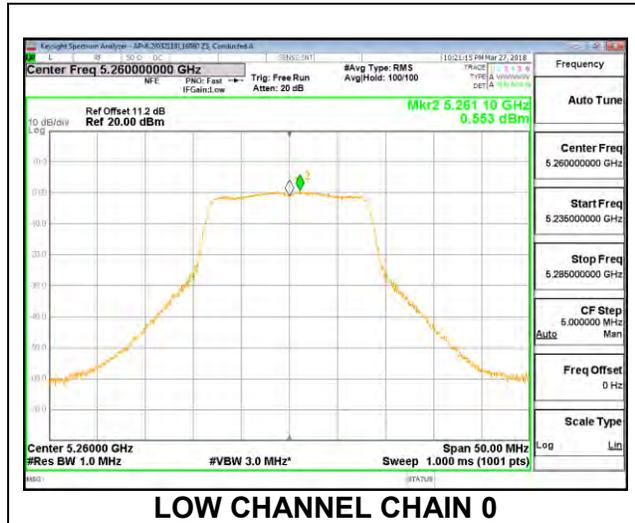
### MID CHANNEL



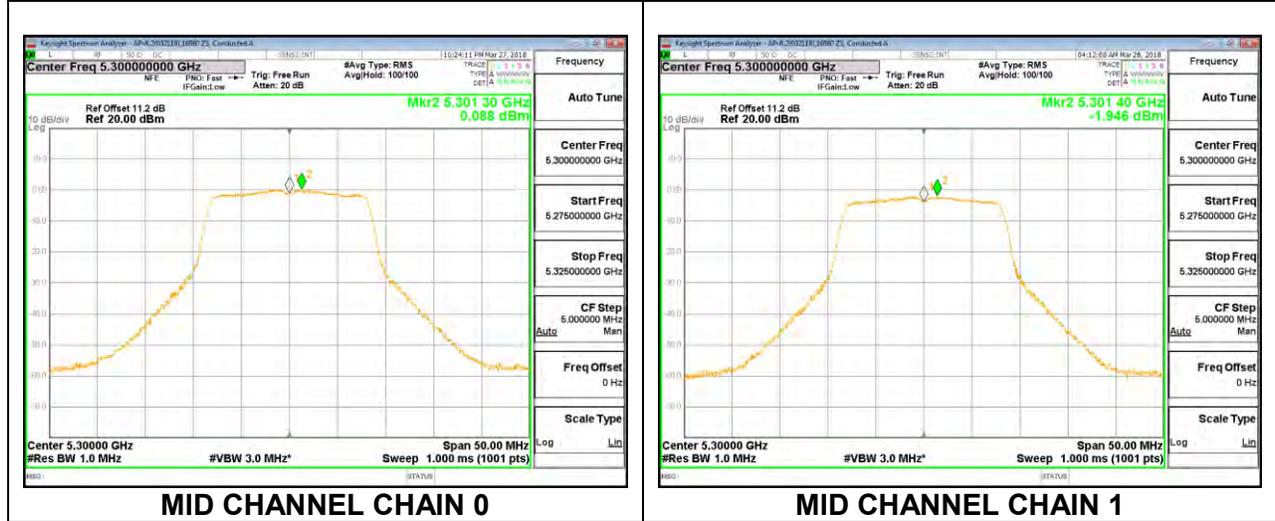
### HIGH CHANNEL



### LOW CHANNEL



### MID CHANNEL



### HIGH CHANNEL



**8.5.6. 802.11n HT20 MODE IN THE 5.3 GHz 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/1MHz) |
|---------|--------------------|-----------------------------|---|---|-------------------------|----------------------------|
| Low     | 5260               | 22.15                       | -4.20                                     | -1.22                                   | 24.00                   | 11.00                      |
| Mid     | 5300               | 22.30                       | -4.20                                     | -1.22                                   | 24.00                   | 11.00                      |
| High    | 5320               | 22.35                       | -4.20                                     | -1.22                                   | 24.00                   | 11.00                      |

|                           |      |   |
|---------------------------|------|---|
| <b>Duty Cycle CF (dB)</b> | 0.10 | <b>Included in Calculations of Corr'd PSD</b> |
|---------------------------|------|---|

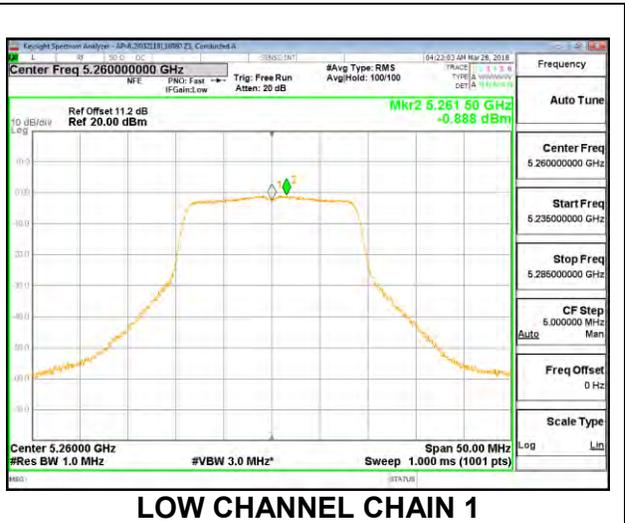
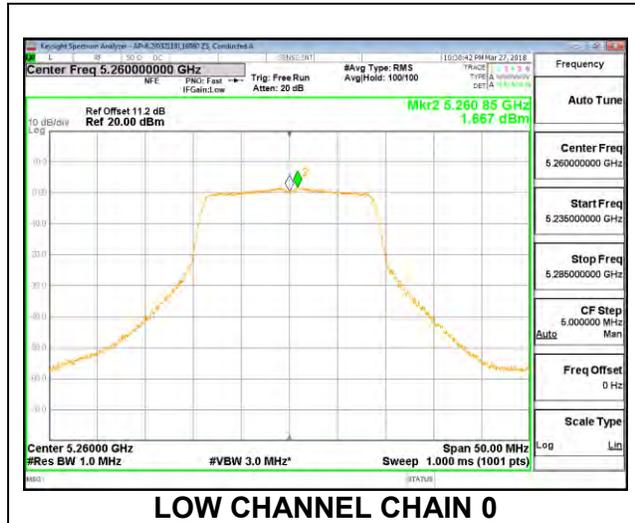
**Output Power Results**

| 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               | 12.07                             | 9.38                              | 13.94                             | 24.00                   | -10.06                  |
| Mid     | 5300               | 12.01                             | 9.49                              | 13.94                             | 24.00                   | -10.06                  |
| High    | 5320               | 11.98                             | 9.60                              | 13.96                             | 24.00                   | -10.04                  |

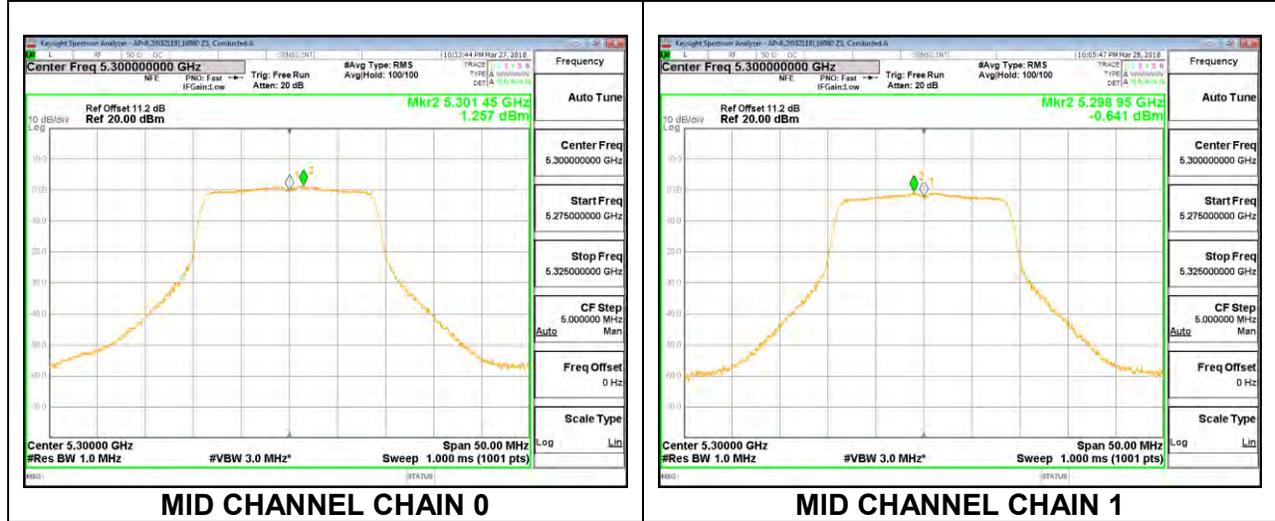
**PSD Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm/1MHz) | Chain 1<br>Meas<br>PSD<br>(dBm/1MHz) | Total<br>Corr'd<br>PSD<br>(dBm/1MHz) | PSD<br>Limit<br>(dBm/1MHz) | PSD<br>Margin<br>(dB) |
|---------|--------------------|--------------------------------------|--------------------------------------|--------------------------------------|----------------------------|-----------------------|
| Low     | 5260               | 1.67                                 | -0.89                                | 3.69                                 | 11.00                      | -7.31                 |
| Mid     | 5300               | 1.26                                 | -0.64                                | 3.52                                 | 11.00                      | -7.48                 |
| High    | 5320               | 1.29                                 | -0.74                                | 3.50                                 | 11.00                      | -7.50                 |

### LOW CHANNEL



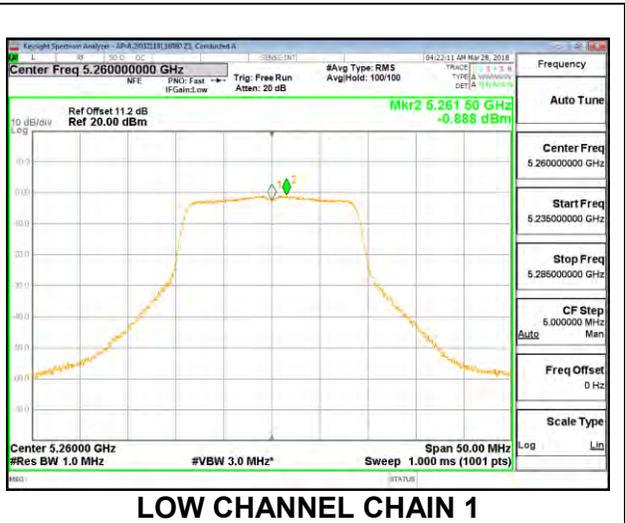
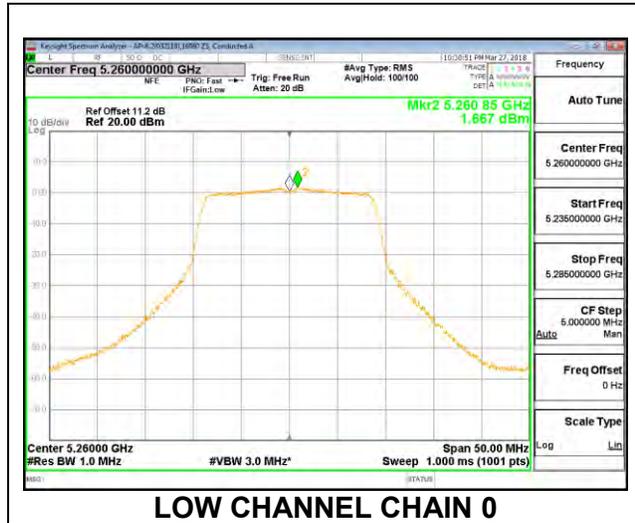
### MID CHANNEL



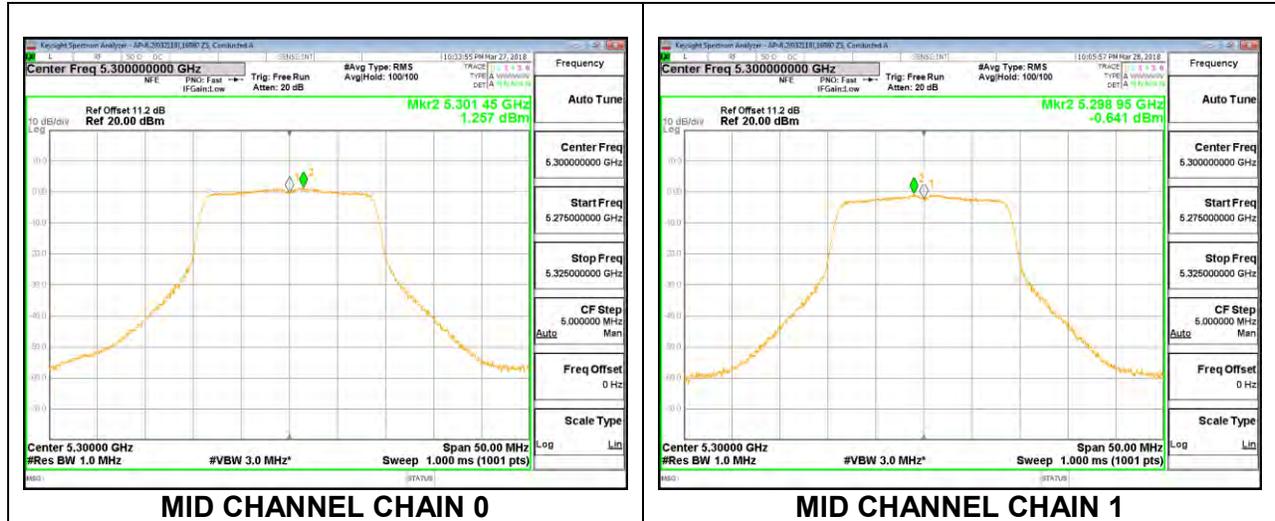
### HIGH CHANNEL



### LOW CHANNEL



### MID CHANNEL



### HIGH CHANNEL



**8.5.7. 802.11n HT40 MODE IN THE 5.3 GHz 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/1MHz) |
|---------|--------------------|-----------------------------|---|---|-------------------------|----------------------------|
| Low     | 5270               | 41.00                       | -4.20                                     | -1.22                                   | 24.00                   | 11.00                      |
| High    | 5310               | 41.00                       | -4.20                                     | -1.22                                   | 24.00                   | 11.00                      |

|                           |      |   |
|---------------------------|------|---|
| <b>Duty Cycle CF (dB)</b> | 0.32 | <b>Included in Calculations of Corr'd PSD</b> |
|---------------------------|------|---|

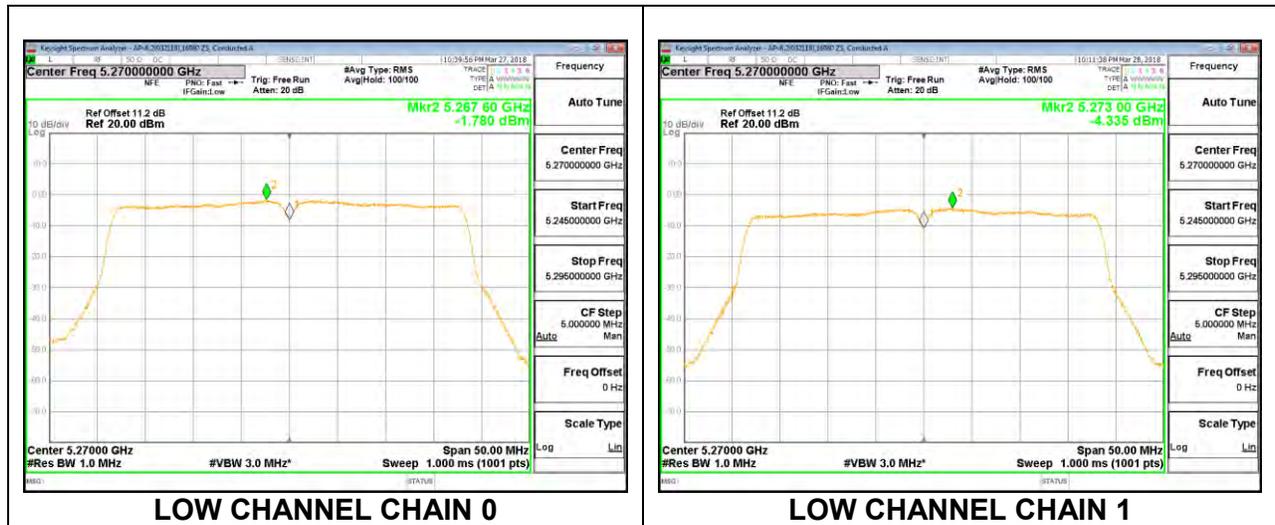
**Output Power Results**

| 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               | 11.86                             | 9.11                              | 13.71                             | 24.00                   | -10.29                  |
| High    | 5310               | 11.96                             | 9.03                              | 13.75                             | 24.00                   | -10.25                  |

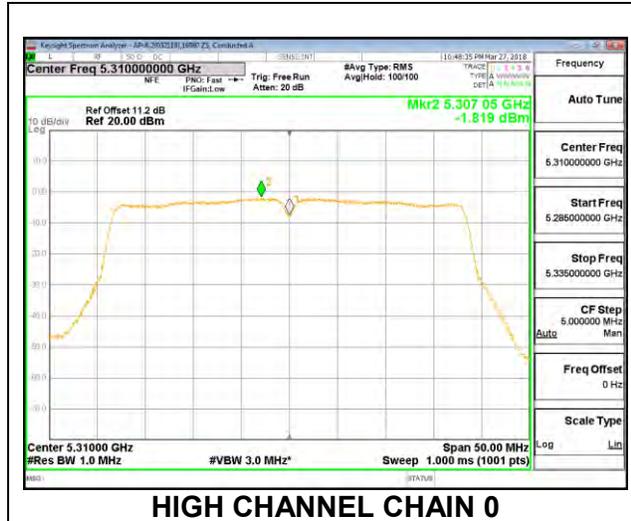
**PSD Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm/1MHz) | Chain 1<br>Meas<br>PSD<br>(dBm/1MHz) | Total<br>Corr'd<br>PSD<br>(dBm/1MHz) | PSD<br>Limit<br>(dBm/1MHz) | PSD<br>Margin<br>(dB) |
|---------|--------------------|--------------------------------------|--------------------------------------|--------------------------------------|----------------------------|-----------------------|
| Low     | 5270               | -1.78                                | -4.34                                | 0.46                                 | 11.00                      | -10.54                |
| High    | 5310               | -1.82                                | -4.30                                | 0.44                                 | 11.00                      | -10.56                |

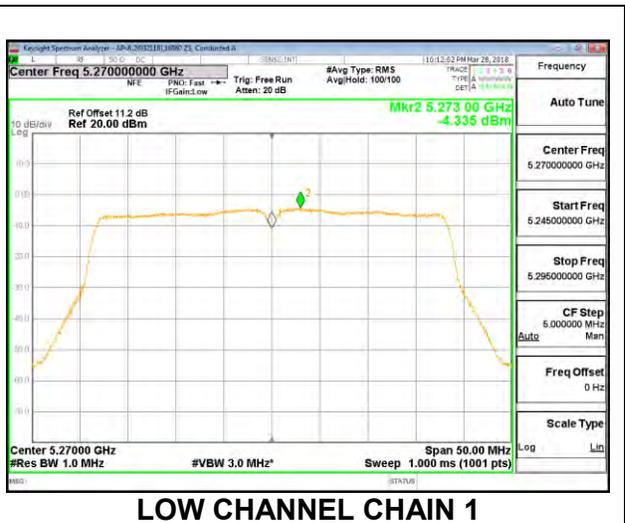
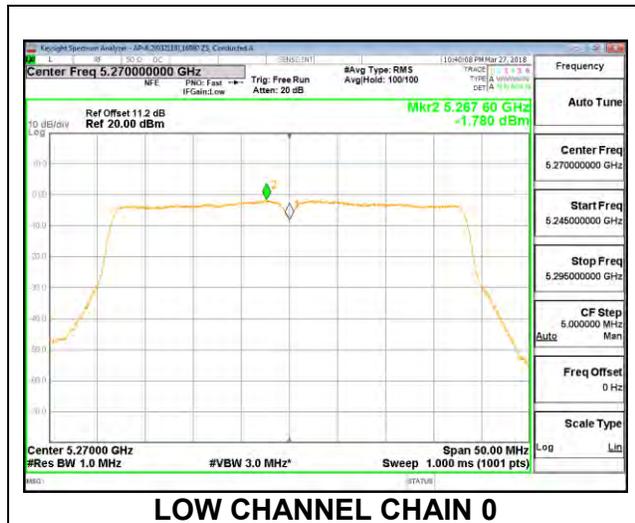
### LOW CHANNEL



### HIGH CHANNEL



### LOW CHANNEL



### HIGH CHANNEL



**8.5.8. 802.11ac VHT80 MODE IN THE 5.3 GHz 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/1MHz) |
|---------|--------------------|-----------------------------|---|---|-------------------------|----------------------------|
| Mid     | 5290               | 83.60                       | -4.20                                     | -1.22                                   | 24.00                   | 11.00                      |

|                           |      |   |
|---------------------------|------|---|
| <b>Duty Cycle CF (dB)</b> | 0.62 | <b>Included in Calculations of Corr'd PSD</b> |
|---------------------------|------|---|

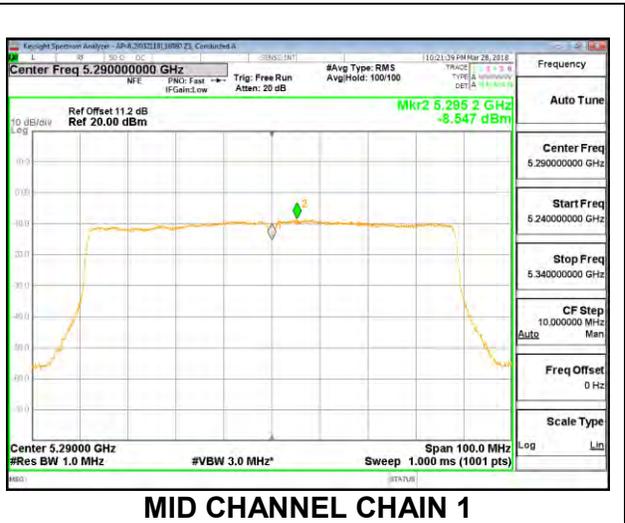
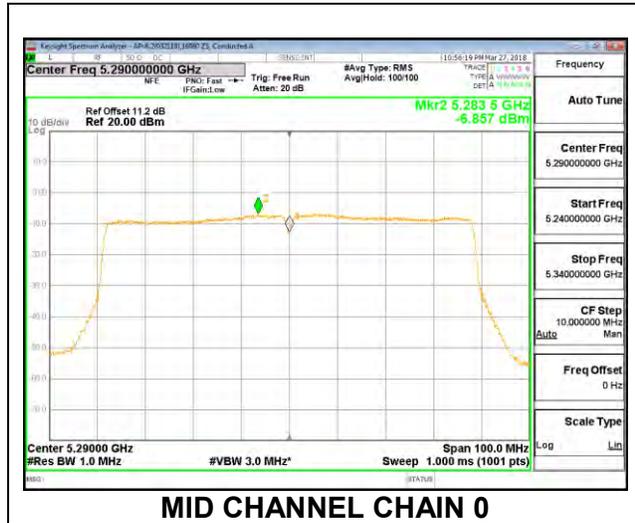
**Output Power Results**

| 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) |
|---------|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Mid     | 5290               | 9.90                              | 7.88                              | 12.02                             | 24.00                   | -11.98                  |

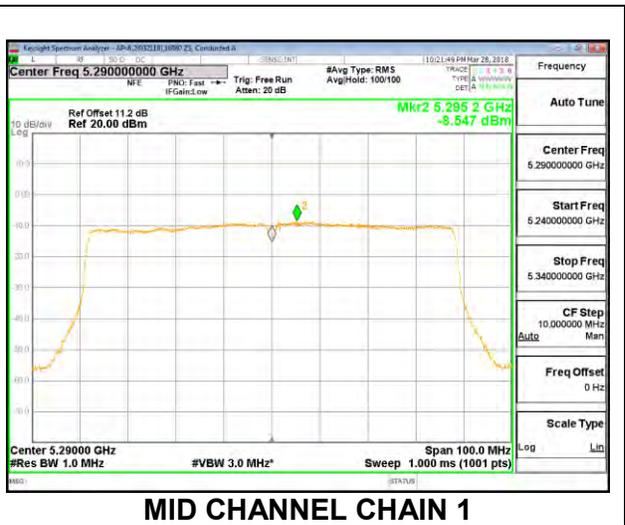
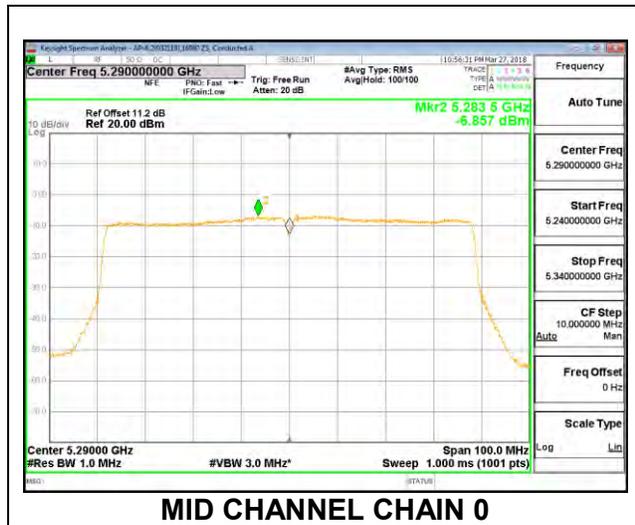
**PSD Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm/1MHz) | Chain 1<br>Meas<br>PSD<br>(dBm/1MHz) | Total<br>Corr'd<br>PSD<br>(dBm/1MHz) | PSD<br>Limit<br>(dBm/1MHz) | PSD<br>Margin<br>(dB) |
|---------|--------------------|--------------------------------------|--------------------------------------|--------------------------------------|----------------------------|-----------------------|
| Mid     | 5290               | -6.86                                | -8.55                                | -3.99                                | 11.00                      | -14.99                |

### MID CHANNEL



### MID CHANNEL



**8.5.9. 802.11a MODE IN THE 5.6 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) | Direction<br>Gain<br>for PSD<br>(dBi) |
|---------|--------------------|-----------------------------|---------------------------|---|---------------------------------------|
| Low     | 5500               | 21.05                       | 16.5270                   | -5.34                                     | -2.36                                 |
| Mid     | 5580               | 20.95                       | 16.4230                   | -5.34                                     | -2.36                                 |
| High    | 5700               | 21.65                       | 16.4640                   | -5.34                                     | -2.36                                 |
| 144     | 5720               | 21.95                       | 16.5530                   | -5.34                                     | -2.36                                 |

**Limits**

| Channel | Frequency<br>(MHz) | FCC<br>Power<br>Limit<br>(dBm) | ISED<br>Power<br>Limit<br>(dBm) | ISED<br>EIRP<br>Limit<br>(dBm) | Power<br>Limit<br>(dBm) | FCC<br>PSD<br>Limit<br>(dBm/1MHz) | ISED<br>PSD<br>Limit<br>(dBm/1MHz) |
|---------|--------------------|--------------------------------|---------------------------------|--------------------------------|-------------------------|-----------------------------------|------------------------------------|
| Low     | 5500               | 24.00                          | 23.18                           | 29.18                          | 23.18                   | 11.00                             | 11.00                              |
| Mid     | 5580               | 24.00                          | 23.15                           | 29.15                          | 23.15                   | 11.00                             | 11.00                              |
| High    | 5700               | 24.00                          | 23.17                           | 29.17                          | 23.17                   | 11.00                             | 11.00                              |
| 144     | 5720               | 24.00                          | 23.19                           | 29.19                          | 23.19                   | 11.00                             | 11.00                              |

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

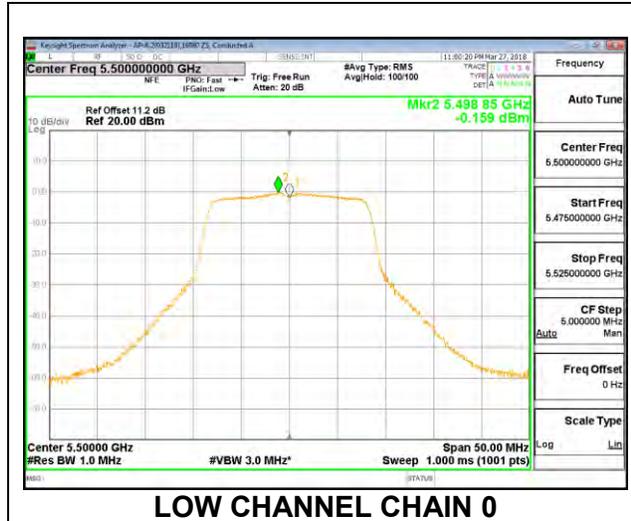
**Output Power Results**

| 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               | 10.01                             | 8.49                              | 12.33                             | 23.18                   | -10.86                  |
| Mid     | 5580               | 9.72                              | 8.10                              | 12.00                             | 23.15                   | -11.16                  |
| High    | 5700               | 9.85                              | 8.19                              | 12.11                             | 23.17                   | -11.06                  |
| 144     | 5720               | 9.82                              | 8.26                              | 12.12                             | 23.19                   | -11.07                  |

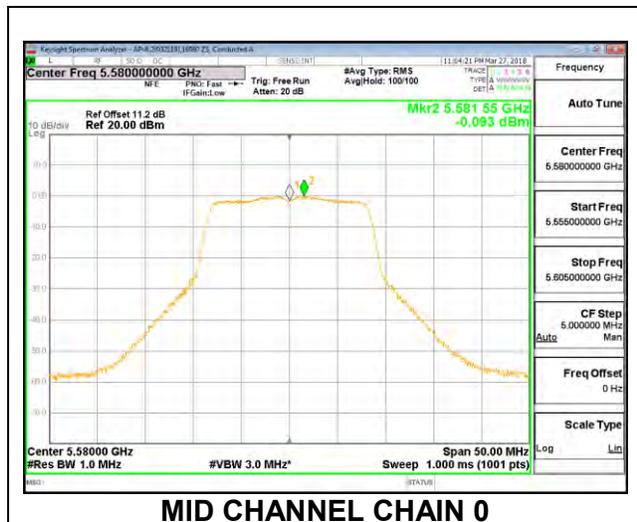
**PSD Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm/<br>1MHz) | Chain 1<br>Meas<br>PSD<br>(dBm/<br>1MHz) | Total<br>Corr'd<br>PSD<br>(dBm/<br>1MHz) | PSD<br>Limit<br>(dBm/<br>1MHz) | PSD<br>Margin<br>(dB) |
|---------|--------------------|--|--|--|--------------------------------|-----------------------|
| Low     | 5500               | -0.159                                   | -1.442                                   | 2.257                                    | 11.00                          | -8.74                 |
| Mid     | 5580               | -9.300                                   | -1.540                                   | -0.867                                   | 11.00                          | -11.87                |
| High    | 5700               | 0.459                                    | -1.087                                   | 2.765                                    | 11.00                          | -8.24                 |
| 144     | 5720               | 0.299                                    | -2.702                                   | 2.063                                    | 11.00                          | -8.94                 |

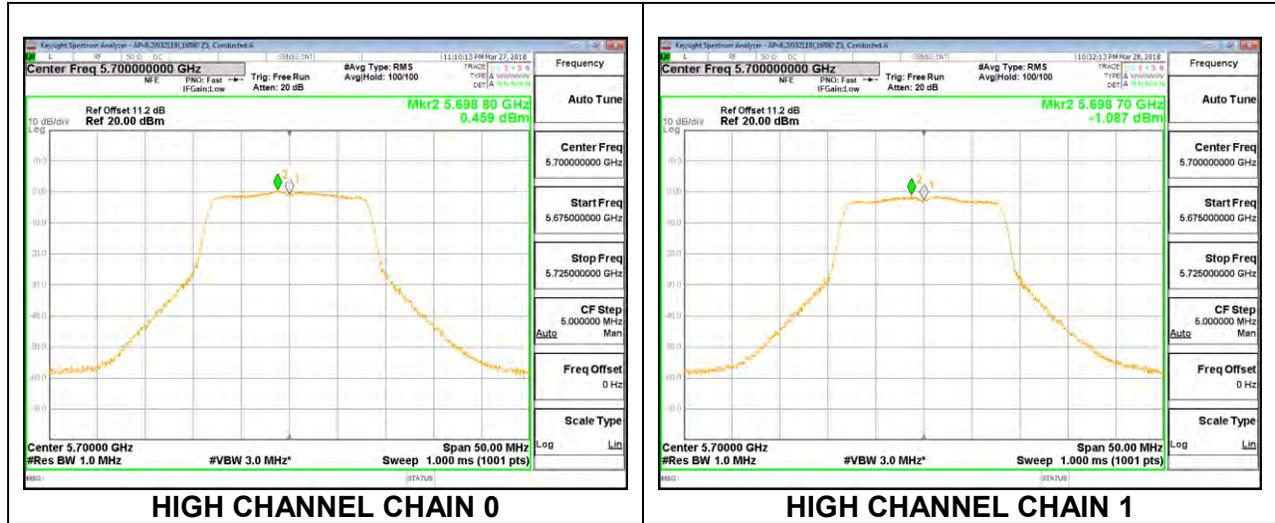
### LOW CHANNEL



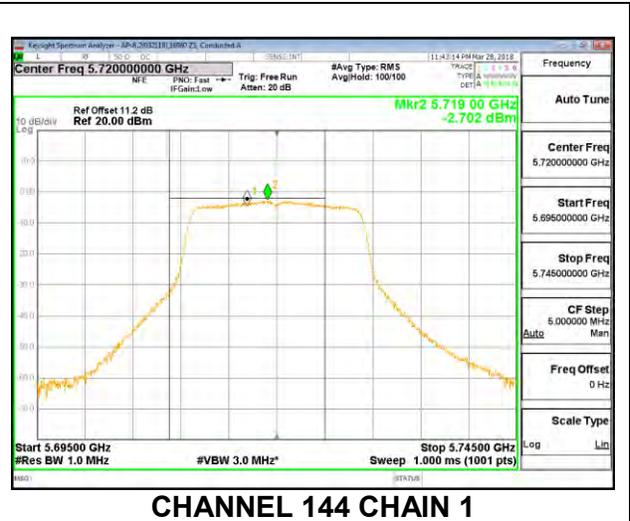
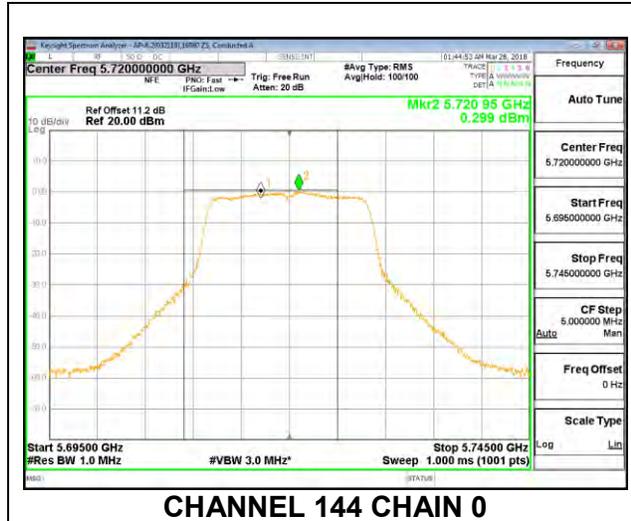
### MID CHANNEL



### HIGH CHANNEL



### CHANNEL 144



**8.5.10. 802.11n HT20 MODE IN THE 5.6 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 PSD<br>(dBi) |
|---------|--------------------|-----------------------------|---------------------------|---|---|
| Low     | 5500               | 21.95                       | 17.6830                   | -5.34                                     | -2.36                                   |
| Mid     | 5580               | 22.45                       | 17.6810                   | -5.34                                     | -2.36                                   |
| High    | 5700               | 22.35                       | 17.6340                   | -5.34                                     | -2.36                                   |
| 144     | 5720               | 22.05                       | 17.6980                   | -5.34                                     | -2.36                                   |

**Limits**

| Channel | Frequency<br>(MHz) | FCC<br>Power<br>Limit<br>(dBm) | ISED<br>Power<br>Limit<br>(dBm) | ISED<br>EIRP<br>Limit<br>(dBm) | Power<br>Limit<br>(dBm) | FCC<br>PSD<br>Limit<br>(dBm/<br>1MHz) | ISED<br>PSD<br>Limit<br>(dBm/<br>1MHz) | PSD<br>Limit<br>(dBm/<br>1MHz) |
|---------|--------------------|--------------------------------|---------------------------------|--------------------------------|-------------------------|---------------------------------------|--|--------------------------------|
| Low     | 5500               | 24.00                          | 23.48                           | 29.48                          | 23.48                   | 11.00                                 | 11.00                                  | 11.00                          |
| Mid     | 5580               | 24.00                          | 23.48                           | 29.48                          | 23.48                   | 11.00                                 | 11.00                                  | 11.00                          |
| High    | 5700               | 24.00                          | 23.46                           | 29.46                          | 23.46                   | 11.00                                 | 11.00                                  | 11.00                          |
| 144     | 5720               | 24.00                          | 23.48                           | 29.48                          | 23.48                   | 11.00                                 | 11.00                                  | 11.00                          |

|                           |      |   |
|---------------------------|------|---|
| <b>Duty Cycle CF (dB)</b> | 0.10 | <b>Included in Calculations of Corr'd Power &amp; PSD</b> |
|---------------------------|------|---|

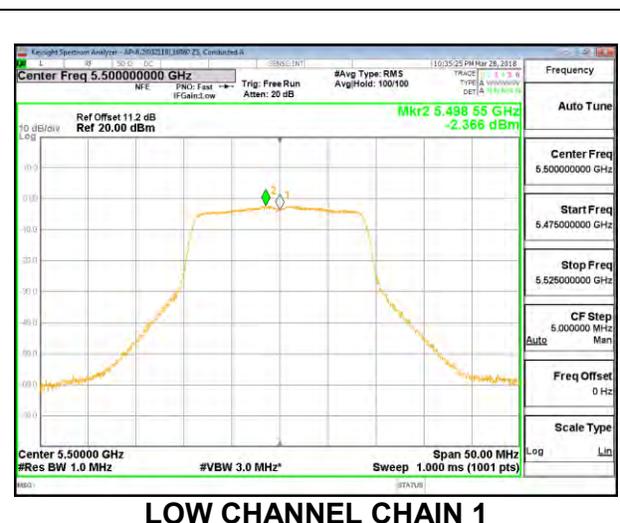
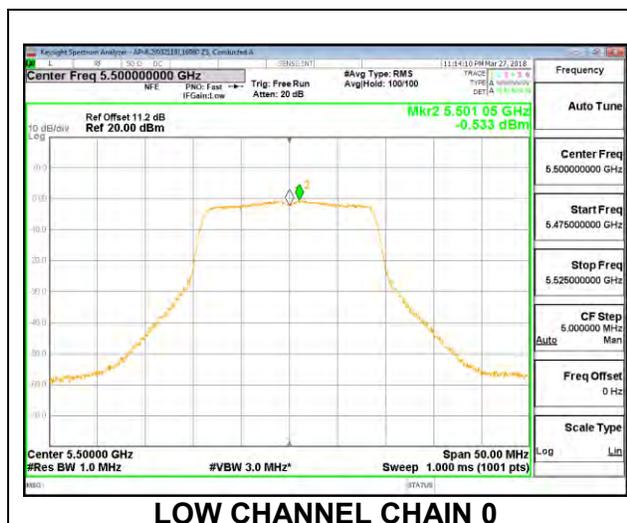
**Output Power Results**

| 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               | 9.52                              | 8.17                              | 11.91                             | 23.48                   | -11.57                  |
| Mid     | 5580               | 9.50                              | 8.12                              | 11.87                             | 23.48                   | -11.60                  |
| High    | 5700               | 9.51                              | 7.86                              | 11.77                             | 23.46                   | -11.69                  |
| 144     | 5720               | 9.50                              | 7.85                              | 11.86                             | 23.48                   | -11.62                  |

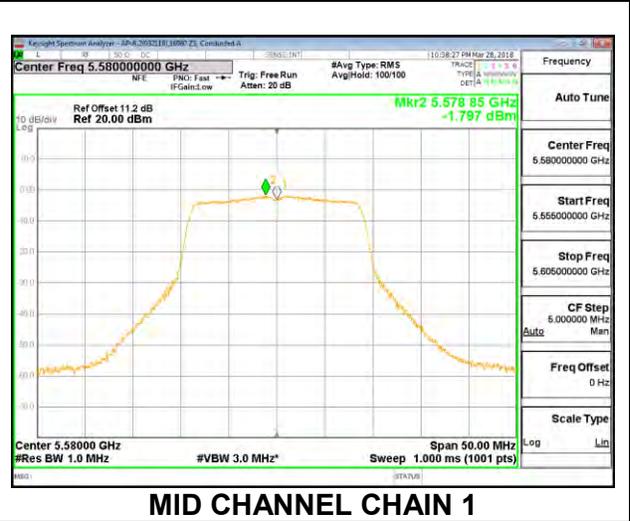
**PSD Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm/<br>1MHz) | Chain 1<br>Meas<br>PSD<br>(dBm/<br>1MHz) | Total<br>Corr'd<br>PSD<br>(dBm/<br>1MHz) | PSD<br>Limit<br>(dBm/<br>1MHz) | PSD<br>Margin<br>(dB) |
|---------|--------------------|--|--|--|--------------------------------|-----------------------|
| Low     | 5500               | -0.533                                   | -2.366                                   | 1.757                                    | 11.00                          | -9.24                 |
| Mid     | 5580               | -0.196                                   | -1.797                                   | 2.187                                    | 11.00                          | -8.81                 |
| High    | 5700               | 0.027                                    | -2.226                                   | 2.155                                    | 11.00                          | -8.84                 |
| 144     | 5720               | -0.247                                   | -2.942                                   | 1.722                                    | 11.00                          | -9.28                 |

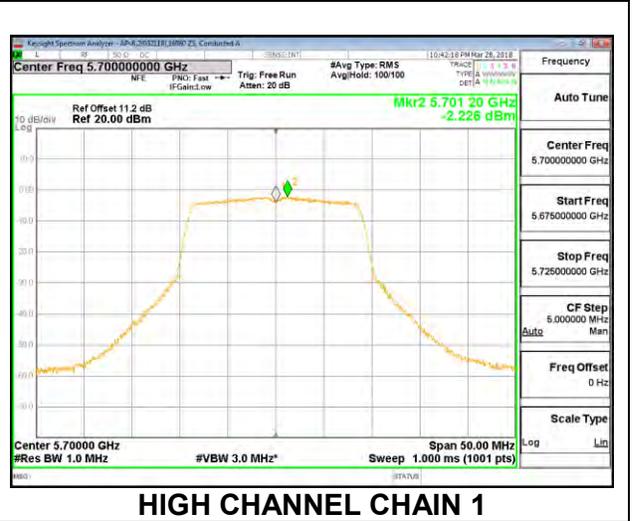
### LOW CHANNEL



### MID CHANNEL



### HIGH CHANNEL



### CHANNEL 144



**8.5.11. 802.11n HT40 MODE IN THE 5.6 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 PSD<br>(dBi) |
|---------|--------------------|-----------------------------|---------------------------|---|---|
| Low     | 5510               | 41.00                       | 36.2970                   | -5.34                                     | -2.36                                   |
| Mid     | 5550               | 41.30                       | 36.2890                   | -5.34                                     | -2.36                                   |
| High    | 5670               | 40.80                       | 36.4780                   | -5.34                                     | -2.36                                   |
| 142     | 5710               | 41.00                       | 36.3390                   | -5.34                                     | -2.36                                   |

**Limits**

| Channel | Frequency<br>(MHz) | FCC<br>Power<br>Limit<br>(dBm) | ISED<br>Power<br>Limit<br>(dBm) | ISED<br>EIRP<br>Limit<br>(dBm) | Power<br>Limit<br>(dBm) | FCC<br>PSD<br>Limit<br>(dBm/<br>1MHz) | ISED<br>PSD<br>Limit<br>(dBm/<br>1MHz) | PSD<br>Limit<br>(dBm/<br>1MHz) |
|---------|--------------------|--------------------------------|---------------------------------|--------------------------------|-------------------------|---------------------------------------|--|--------------------------------|
| Low     | 5510               | 24.00                          | 24.00                           | 30.00                          | 24.00                   | 11.00                                 | 11.00                                  | 11.00                          |
| Mid     | 5550               | 24.00                          | 24.00                           | 30.00                          | 24.00                   | 11.00                                 | 11.00                                  | 11.00                          |
| High    | 5670               | 24.00                          | 24.00                           | 30.00                          | 24.00                   | 11.00                                 | 11.00                                  | 11.00                          |
| 142     | 5710               | 24.00                          | 24.00                           | 30.00                          | 24.00                   | 11.00                                 | 11.00                                  | 11.00                          |

|                           |      |   |
|---------------------------|------|---|
| <b>Duty Cycle CF (dB)</b> | 0.32 | <b>Included in Calculations of Corr'd Power &amp; PSD</b> |
|---------------------------|------|---|

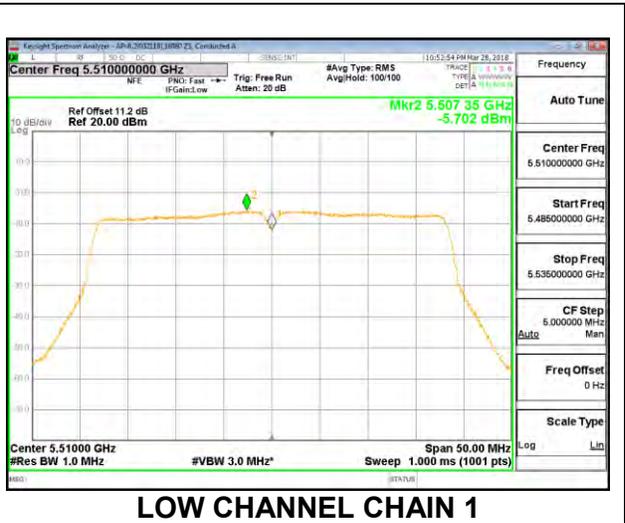
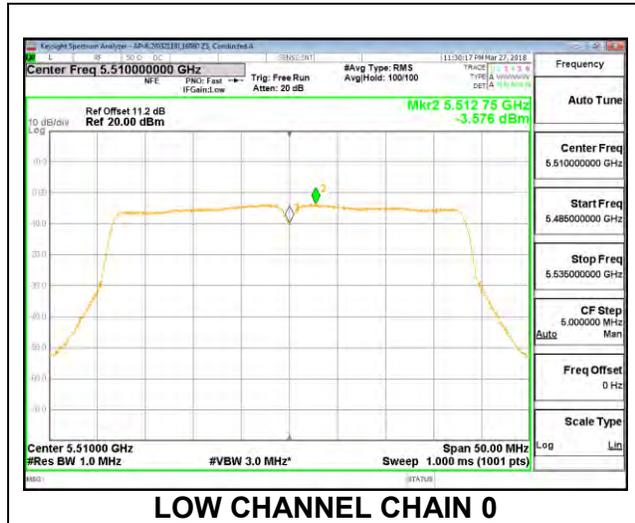
**Output Power Results**

| 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               | 9.79                              | 7.85                              | 11.94                             | 24.00                   | -12.06                  |
| Mid     | 5550               | 9.77                              | 8.00                              | 11.98                             | 24.00                   | -12.02                  |
| High    | 5670               | 9.92                              | 7.90                              | 12.04                             | 24.00                   | -11.96                  |
| 142     | 5710               | 9.69                              | 8.16                              | 12.32                             | 24.00                   | -11.68                  |

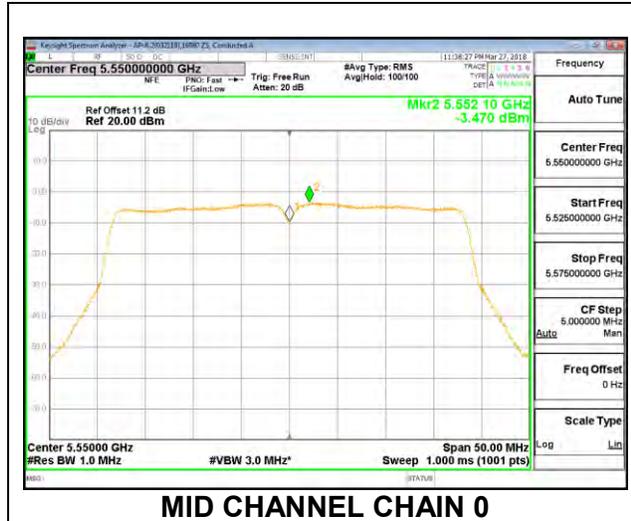
**PSD Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm/<br>1MHz) | Chain 1<br>Meas<br>PSD<br>(dBm/<br>1MHz) | Total<br>Corr'd<br>PSD<br>(dBm/<br>1MHz) | PSD<br>Limit<br>(dBm/<br>1MHz) | PSD<br>Margin<br>(dB) |
|---------|--------------------|--|--|--|--------------------------------|-----------------------|
| Low     | 5510               | -3.58                                    | -5.70                                    | -1.18                                    | 11.00                          | -12.18                |
| Mid     | 5550               | -3.47                                    | -5.39                                    | -0.99                                    | 11.00                          | -11.99                |
| High    | 5670               | -2.95                                    | -5.04                                    | -0.54                                    | 11.00                          | -11.54                |
| 142     | 5710               | -3.41                                    | -5.40                                    | -0.96                                    | 11.00                          | -11.96                |

### LOW CHANNEL



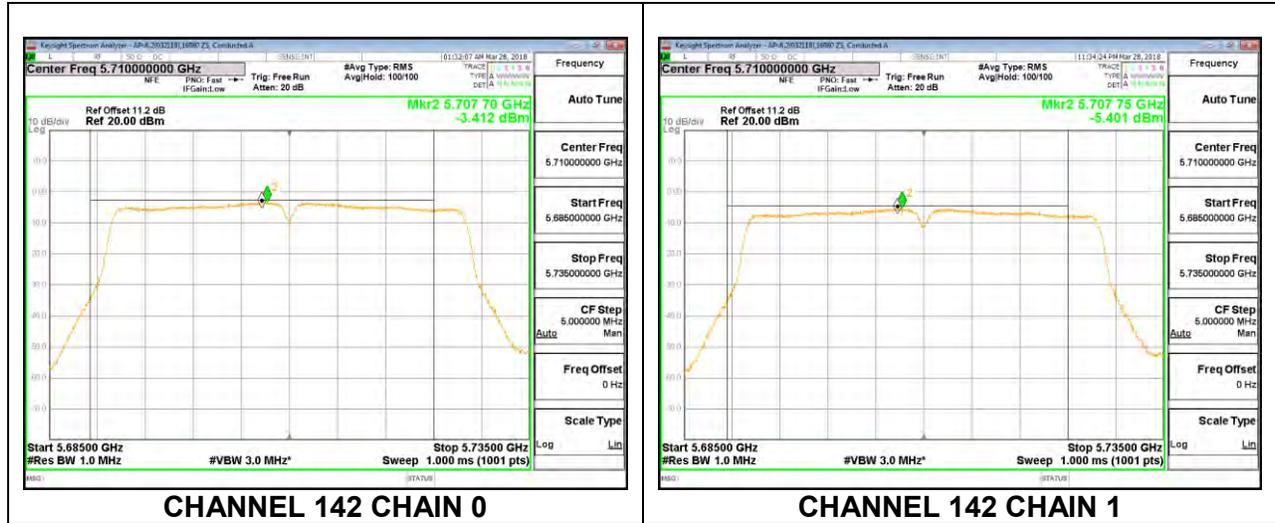
### MID CHANNEL



### HIGH CHANNEL



### CHANNEL 142



**8.5.12. 802.11ac VHT80 MODE IN THE 5.6 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 PSD<br>(dBi) |
|---------|--------------------|-----------------------------|---------------------------|---|---|
| Low     | 5530               | 83.20                       | 76.3040                   | -5.34                                     | -2.36                                   |
| High    | 5610               | 83.40                       | 76.1470                   | -5.34                                     | -2.36                                   |
| 138     | 5690               | 83.40                       | 15.8520                   | -5.34                                     | -2.36                                   |

**Limits**

| Channel | Frequency<br>(MHz) | FCC<br>Power<br>Limit<br>(dBm) | ISED<br>Power<br>Limit<br>(dBm) | ISED<br>EIRP<br>Limit<br>(dBm) | Power<br>Limit<br>(dBm) | FCC<br>PSD<br>Limit<br>(dBm/<br>1MHz) | ISED<br>PSD<br>Limit<br>(dBm/<br>1MHz) | PSD<br>Limit<br>(dBm/<br>1MHz) |
|---------|--------------------|--------------------------------|---------------------------------|--------------------------------|-------------------------|---------------------------------------|--|--------------------------------|
| Low     | 5530               | 24.00                          | 24.00                           | 30.00                          | 24.00                   | 11.00                                 | 11.00                                  | 11.00                          |
| High    | 5610               | 24.00                          | 24.00                           | 30.00                          | 24.00                   | 11.00                                 | 11.00                                  | 11.00                          |
| 138     | 5690               | 24.00                          | 23.00                           | 29.00                          | 23.00                   | 11.00                                 | 11.00                                  | 11.00                          |

|                           |      |   |
|---------------------------|------|---|
| <b>Duty Cycle CF (dB)</b> | 0.62 | <b>Included in Calculations of Corr'd Power &amp; PSD</b> |
|---------------------------|------|---|

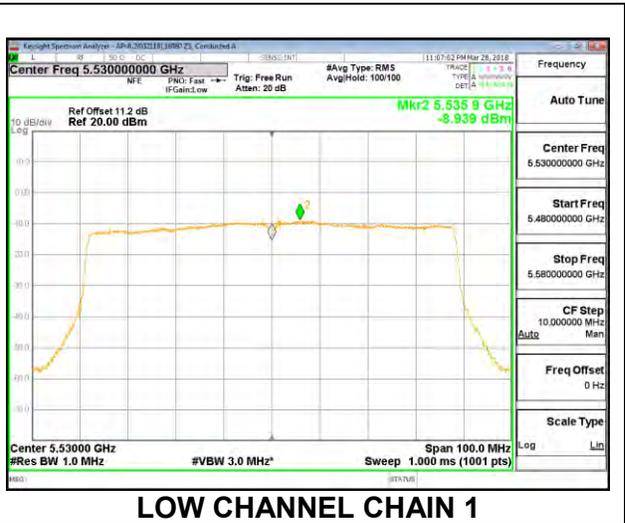
**Output Power Results**

| 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>Margi<br>n<br>(dB) |
|---------|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|-----------------------------|
| Low     | 5530               | 9.37                              | 7.96                              | 11.73                             | 24.00                   | -12.27                      |
| High    | 5610               | 9.07                              | 7.60                              | 11.41                             | 24.00                   | -12.59                      |
| 138     | 5690               | 9.15                              | 7.85                              | 12.18                             | 23.00                   | -10.82                      |

**PSD Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm/<br>1MHz) | Chain 1<br>Meas<br>PSD<br>(dBm/<br>1MHz) | Total<br>Corr'd<br>PSD<br>(dBm/<br>1MHz) | PSD<br>Limit<br>(dBm/<br>1MHz) | PSD<br>Margi<br>n<br>(dB) |
|---------|--------------------|--|--|--|--------------------------------|---------------------------|
| Low     | 5530               | -7.571                                   | -8.939                                   | -4.571                                   | 11.00                          | -15.57                    |
| High    | 5610               | -6.830                                   | -8.192                                   | -3.828                                   | 11.00                          | -14.83                    |
| 138     | 5690               | -6.842                                   | -8.429                                   | -3.933                                   | 11.00                          | -14.93                    |

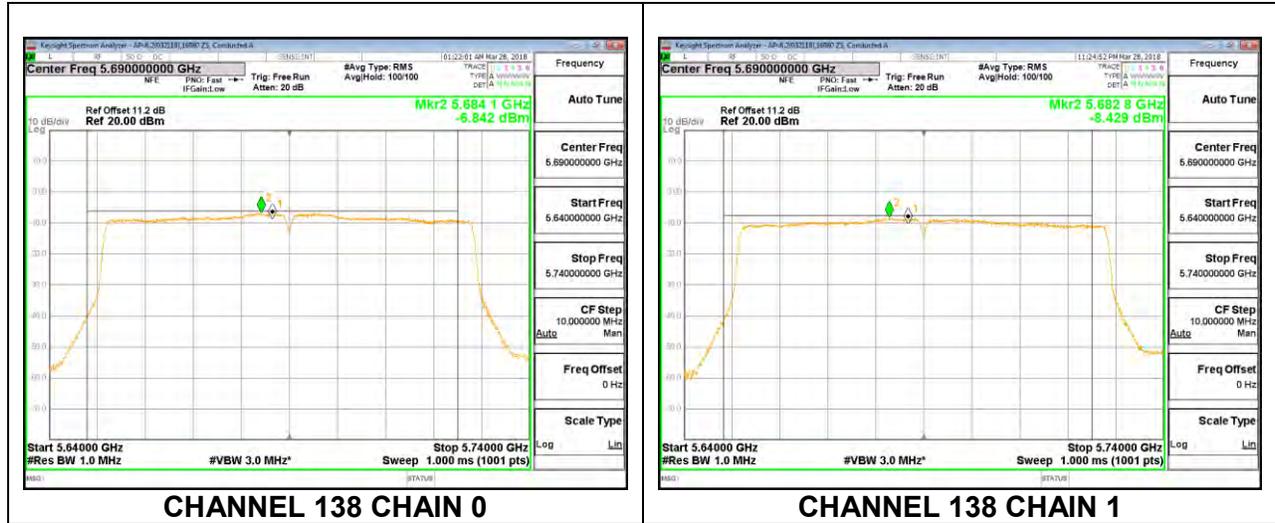
### LOW CHANNEL



### HIGH CHANNEL



### CHANNEL 138



**8.5.13. 802.11a MODE IN THE 5.8 GHz BAND**

**Antenna Gain and Limit**

| Channel | Frequency (MHz) | Directional Gain for Power (dBi) | Directional Gain for PSD (dBm) | FCC/ISED Power Limit (dBm) | FCC/ISED PSD Limit (dBm/1MHz) |
|---------|-----------------|----------------------------------|--------------------------------|----------------------------|-------------------------------|
| Low     | 5745            | -4.44                            | -1.51                          | 30.00                      | 30.00                         |
| Mid     | 5785            | -4.44                            | -1.51                          | 30.00                      | 30.00                         |
| High    | 5825            | -4.44                            | -1.51                          | 30.00                      | 30.00                         |

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

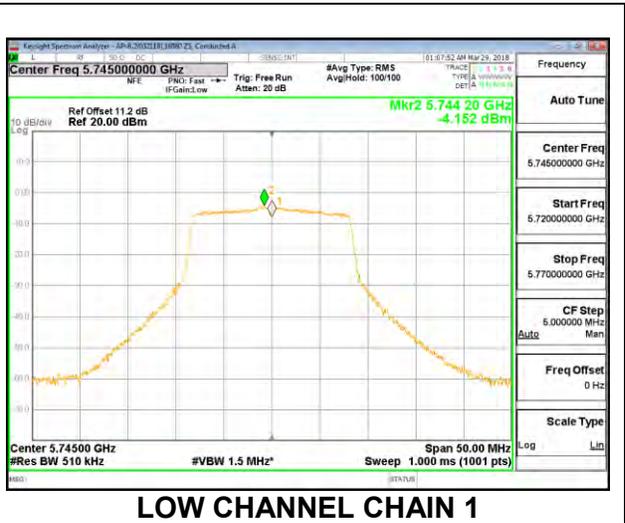
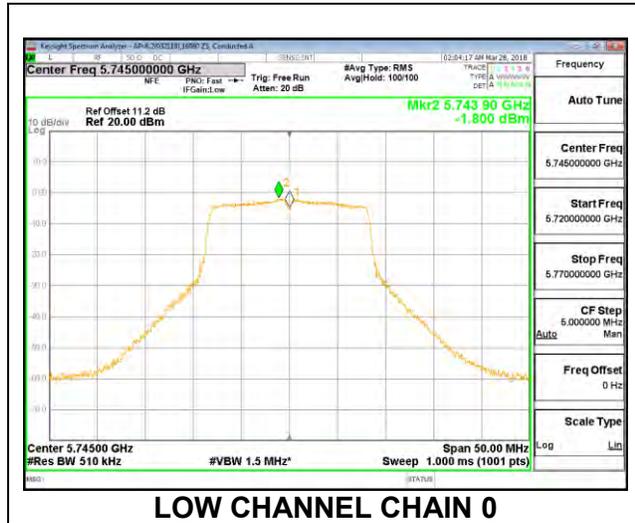
**Output Power Results**

| Channel | Frequency (MHz) | Chain 0 Meas Power (dBm) | Chain 1 Meas Power (dBm) | Total Corr'd Power (dBm) | Power Limit (dBm) | Power Margin (dB) |
|---------|-----------------|--------------------------|--------------------------|--------------------------|-------------------|-------------------|
| Low     | 5745            | 11.43                    | 8.72                     | 13.29                    | 30.00             | -16.71            |
| Mid     | 5785            | 11.36                    | 8.40                     | 13.14                    | 30.00             | -16.86            |
| High    | 5825            | 10.76                    | 8.58                     | 12.82                    | 30.00             | -17.18            |

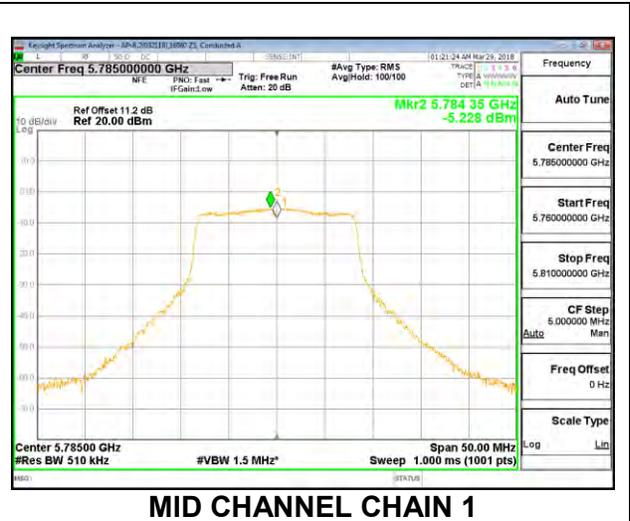
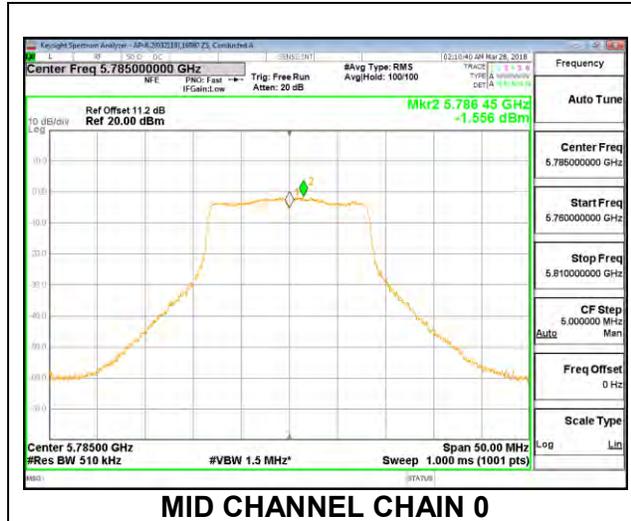
**PSD Results**

| Channel | Frequency (MHz) | Chain 0 Meas PSD (dBm/1MHz) | Chain 1 Meas PSD (dBm/1MHz) | Total Corr'd PSD (dBm/1MHz) | PSD Limit (dBm/1MHz) | PSD Margin (dB) |
|---------|-----------------|-----------------------------|-----------------------------|-----------------------------|----------------------|-----------------|
| Low     | 5745            | -1.800                      | -4.152                      | 0.192                       | 30.00                | -29.81          |
| Mid     | 5785            | -1.556                      | -5.228                      | -0.005                      | 30.00                | -30.00          |
| High    | 5825            | -1.763                      | -4.749                      | 0.006                       | 30.00                | -29.99          |

### LOW CHANNEL



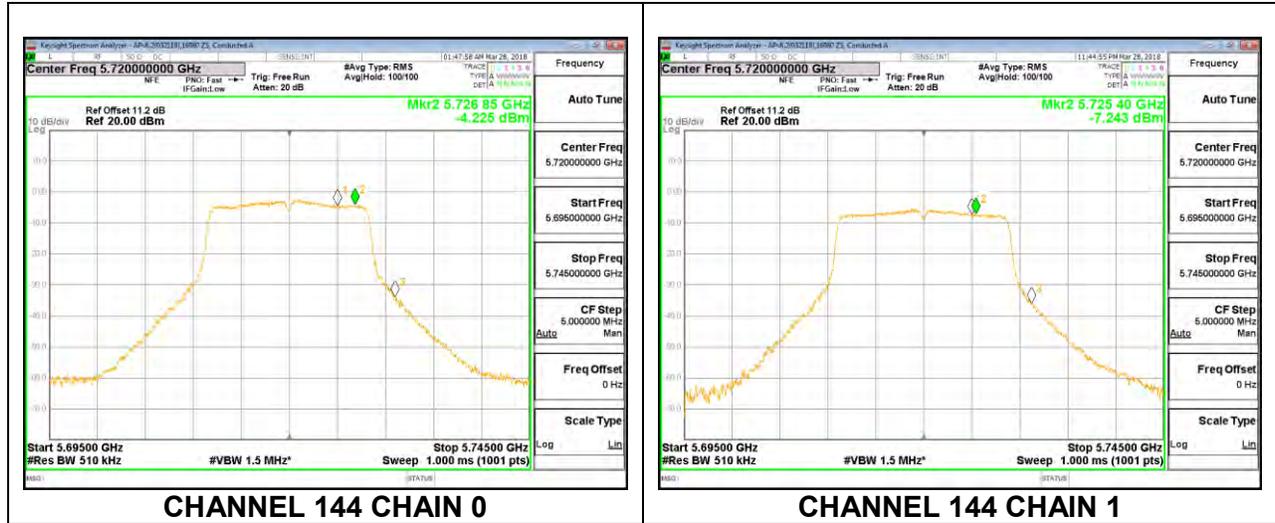
### MID CHANNEL



### HIGH CHANNEL



### CHANNEL 144



**8.5.14. 802.11n HT20 MODE IN THE 5.8 GHZ BAND**

**Antenna Gain and Limit**

| Channel | Frequency<br>(MHz) | Directional<br>Gain<br>for Power<br>(dBi) | Directional<br>Gain<br>for PSD<br>(dBm) | FCC/ISED<br>Power<br>Limit<br>(dBm) | FCC/ISED<br>PSD<br>Limit<br>(dBm/<br>1MHz) |
|---------|--------------------|---|---|-------------------------------------|--|
| Low     | 5745               | -4.44                                     | -1.51                                   | 30.00                               | 30.00                                      |
| Mid     | 5785               | -4.44                                     | -1.51                                   | 30.00                               | 30.00                                      |
| High    | 5825               | -4.44                                     | -1.51                                   | 30.00                               | 30.00                                      |

|                           |      |   |
|---------------------------|------|---|
| <b>Duty Cycle CF (dB)</b> | 0.10 | <b>Included in Calculations of Corr'd Power &amp; PSD</b> |
|---------------------------|------|---|

**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               | 11.41                             | 8.69                              | 13.27                             | 30.00                   | -16.73                  |
| Mid     | 5785               | 12.17                             | 9.17                              | 13.93                             | 30.00                   | -16.07                  |
| High    | 5825               | 12.13                             | 8.67                              | 13.75                             | 30.00                   | -16.25                  |

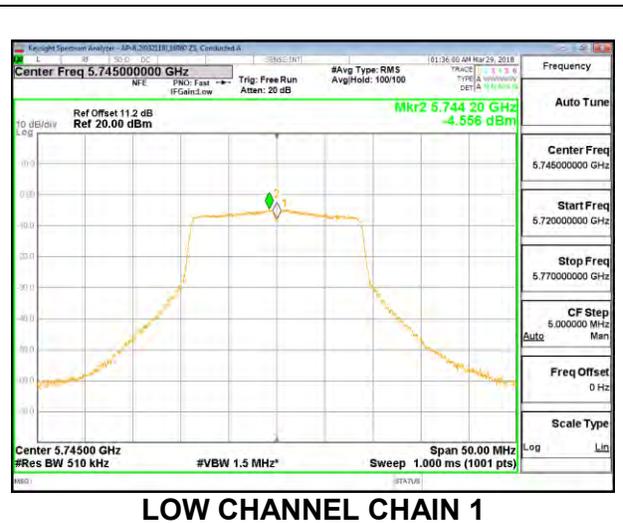
**PSD Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm/<br>1MHz) | Chain 1<br>Meas<br>PSD<br>(dBm/<br>1MHz) | Total<br>Corr'd<br>PSD<br>(dBm/<br>1MHz) | PSD<br>Limit<br>(dBm/<br>1MHz) | PSD<br>Margin<br>(dB) |
|---------|--------------------|--|--|--|--------------------------------|-----------------------|
| Low     | 5745               | -1.864                                   | -4.556                                   | 0.106                                    | 30.00                          | -29.89                |
| Mid     | 5785               | -2.008                                   | -4.809                                   | -0.076                                   | 30.00                          | -30.08                |
| High    | 5825               | -2.162                                   | -5.092                                   | -0.274                                   | 30.00                          | -30.27                |

### LOW CHANNEL

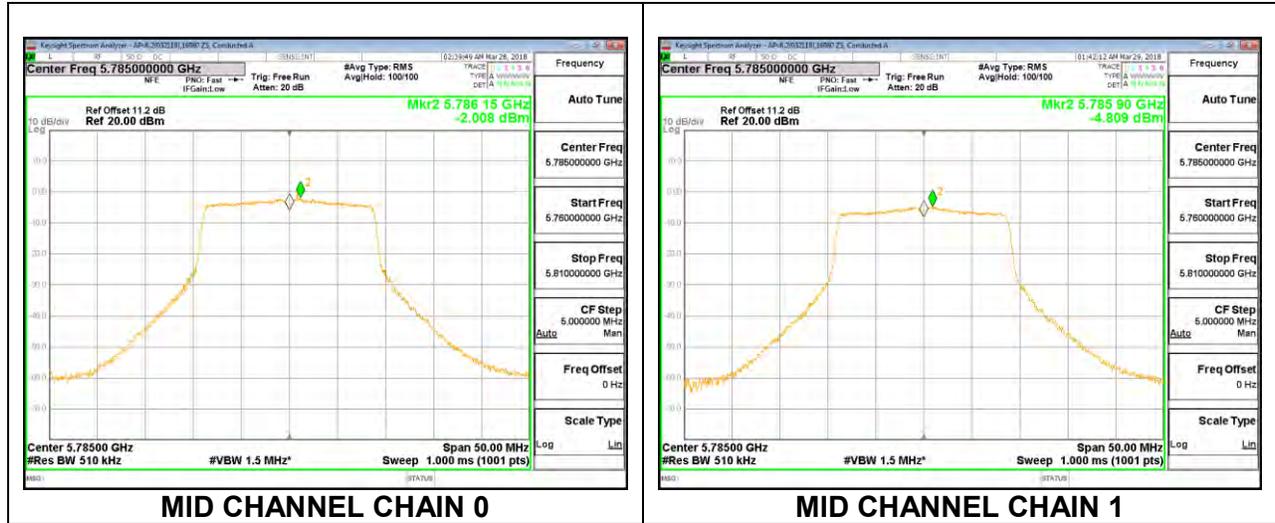


LOW CHANNEL CHAIN 0

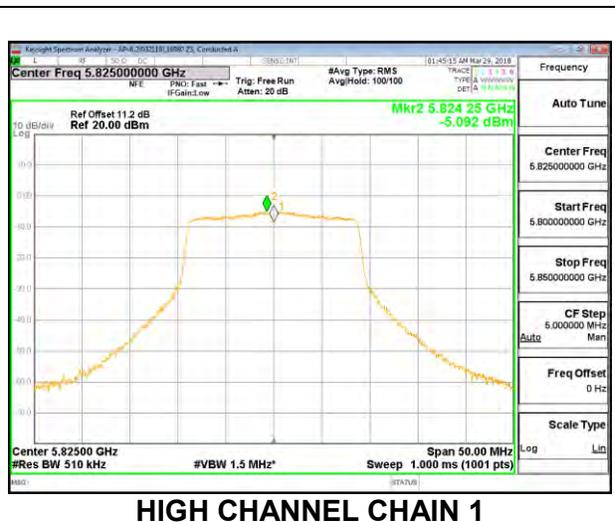


LOW CHANNEL CHAIN 1

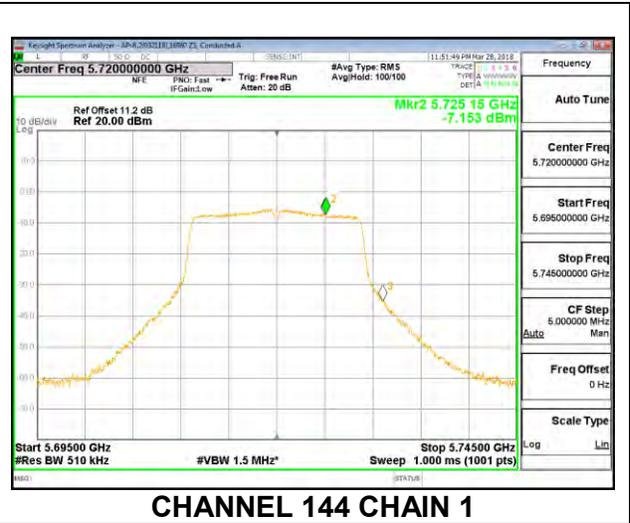
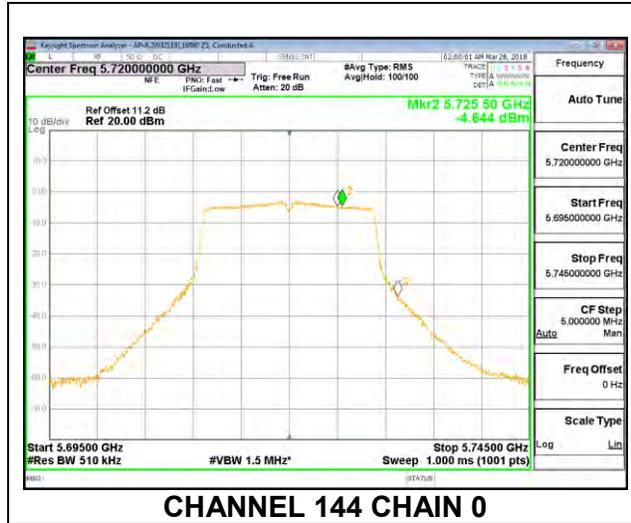
### MID CHANNEL



### HIGH CHANNEL



### CHANNEL 144



**8.5.15. 802.11n HT40 MODE IN THE 5.8 GHz BAND**

**Antenna Gain and Limit**

| Channel | Frequency<br>(MHz) | Directional<br>Gain<br>for Power<br>(dBi) | Directional<br>Gain<br>for PSD<br>(dBm) | FCC/ISED<br>Power<br>Limit<br>(dBm) | FCC/ISED<br>PSD<br>Limit<br>(dBm/<br>1MHz) |
|---------|--------------------|---|---|-------------------------------------|--|
| Low     | 5755               | -4.44                                     | -1.51                                   | 30.00                               | 30.00                                      |
| High    | 5795               | -4.44                                     | -1.51                                   | 30.00                               | 30.00                                      |

|                           |      |   |
|---------------------------|------|---|
| <b>Duty Cycle CF (dB)</b> | 0.32 | <b>Included in Calculations of Corr'd Power</b> |
|---------------------------|------|---|

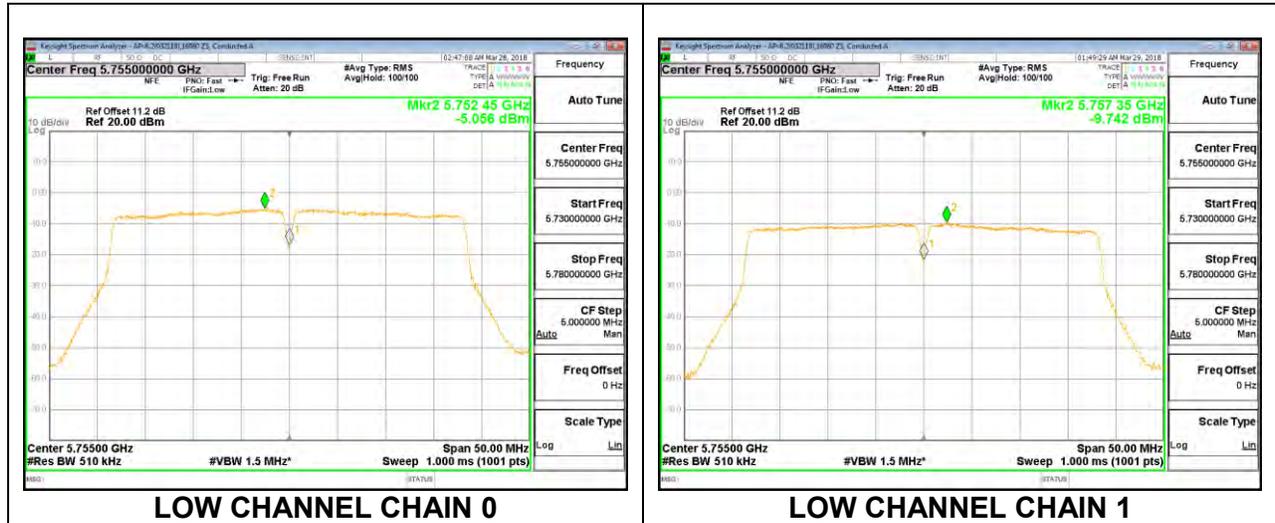
**Output Power Results**

| 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               | 10.91                             | 8.28                              | 12.80                             | 30.00                   | -17.20                  |
| High    | 5795               | 11.08                             | 8.24                              | 12.90                             | 30.00                   | -17.10                  |

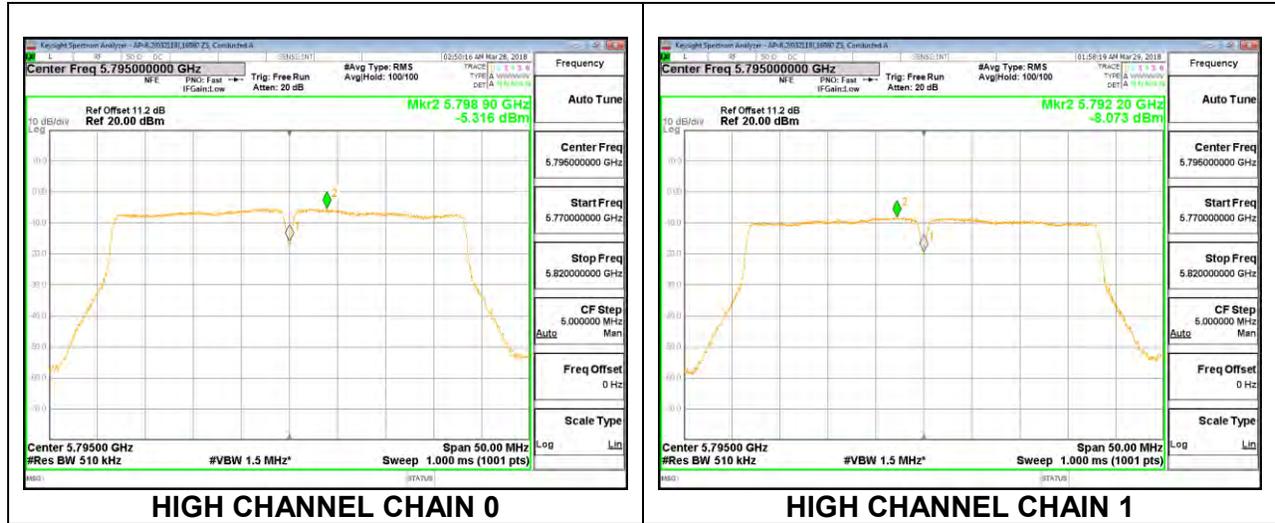
**PSD Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm/<br>1MHz) | Chain 1<br>Meas<br>PSD<br>(dBm/<br>1MHz) | Total<br>Corr'd<br>PSD<br>(dBm/<br>1MHz) | PSD<br>Limit<br>(dBm/<br>1MHz) | PSD<br>Margin<br>(dB) |
|---------|--------------------|--|--|--|--------------------------------|-----------------------|
| Low     | 5755               | -5.056                                   | -9.742                                   | -3.465                                   | 30.00                          | -33.47                |
| High    | 5795               | -5.316                                   | -8.073                                   | -3.149                                   | 30.00                          | -33.15                |

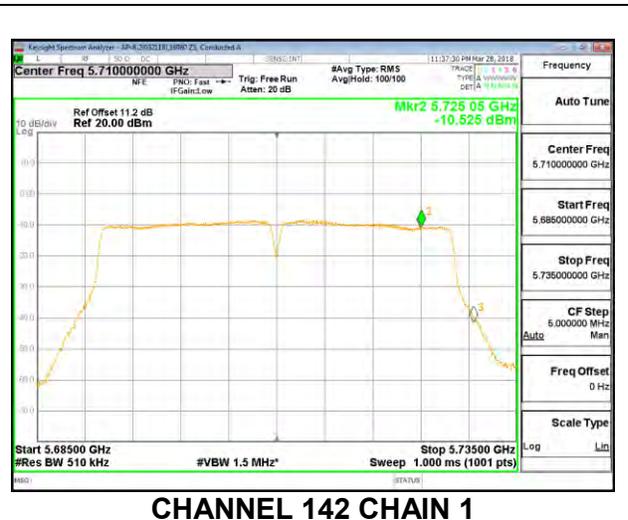
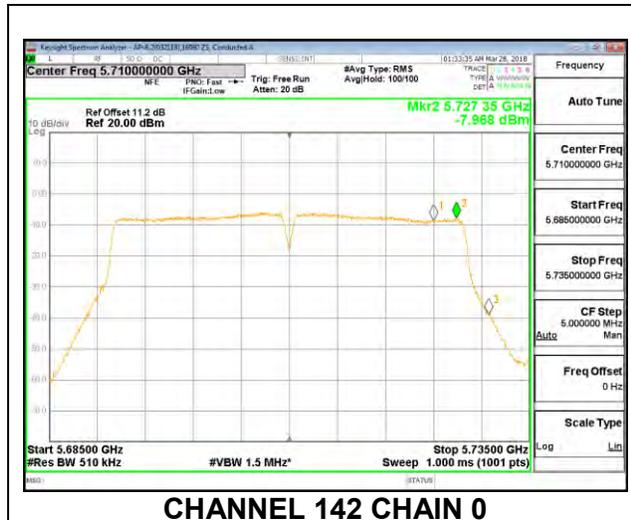
### LOW CHANNEL



### HIGH CHANNEL



### CHANNEL 142



**8.5.16. 802.11ac VHT80 MODE IN THE 5.8 GHz BAND**

**Antenna Gain and Limit**

| Channel | Frequency<br>(MHz) | Directional<br>Gain<br>for Power<br>(dBi) | Directional<br>Gain<br>for PSD<br>(dBm) | FCC/ISED<br>Power<br>Limit<br>(dBm) | FCC/ISED<br>PSD<br>Limit<br>(dBm/<br>1MHz) |
|---------|--------------------|---|---|-------------------------------------|--|
| Mid     | 5755               | -4.44                                     | 1.51                                    | 30.00                               | 30.00                                      |

|                           |      |   |
|---------------------------|------|---|
| <b>Duty Cycle CF (dB)</b> | 0.62 | <b>Included in Calculations of Corr'd Power</b> |
|---------------------------|------|---|

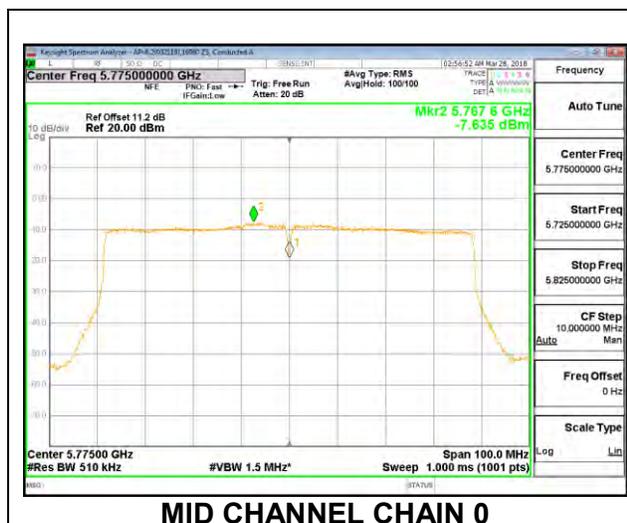
**Output Power Results**

| 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) |
|---------|--------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|-------------------------|
| Mid     | 5755               | 11.42                             | 8.16                              | 13.10                             | 30.00                   | -16.90                  |

**PSD Results**

| Channel | Frequency<br>(MHz) | Chain 0<br>Meas<br>PSD<br>(dBm/<br>1MHz) | Chain 1<br>Meas<br>PSD<br>(dBm/<br>1MHz) | Total<br>Corr'd<br>PSD<br>(dBm/<br>1MHz) | PSD<br>Limit<br>(dBm/<br>1MHz) | PSD<br>Margin<br>(dB) |
|---------|--------------------|--|--|--|--------------------------------|-----------------------|
| Mid     | 5775               | -7.635                                   | -11.533                                  | -5.530                                   | 30.00                          | -35.53                |

### MID CHANNEL



### CHANNEL 138



## 9. RADIATED TEST RESULTS

### LIMITS

FCC §15.205 and §15.209

| Frequency Range (MHz) | Field Strength Limit (uV/m) at 3 m | Field Strength Limit (dBuV/m) at 3 m |
|-----------------------|------------------------------------|--------------------------------------|
| 0.009-0.490           | 2400/F(kHz) @ 300 m                | -                                    |
| 0.490-1.705           | 24000/F(kHz) @ 30 m                | -                                    |
| 1.705 - 30            | 30 @ 30m                           | -                                    |
| 30 - 88               | 100                                | 40                                   |
| 88 - 216              | 150                                | 43.5                                 |
| 216 - 960             | 200                                | 46                                   |
| Above 960             | 500                                | 54                                   |

### TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For pre-scans above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 KHz for peak measurements.

For final measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and as applicable for average measurements.

The spectrum from 30 MHz to 1GHz and 18GHz to 40 GHz is investigated with the transmitter set to transmit at the channel with highest output power as worst-case scenario. 1GHz to 18GHz was set to the lowest, middle, and highest channels in the 5 GHz bands.

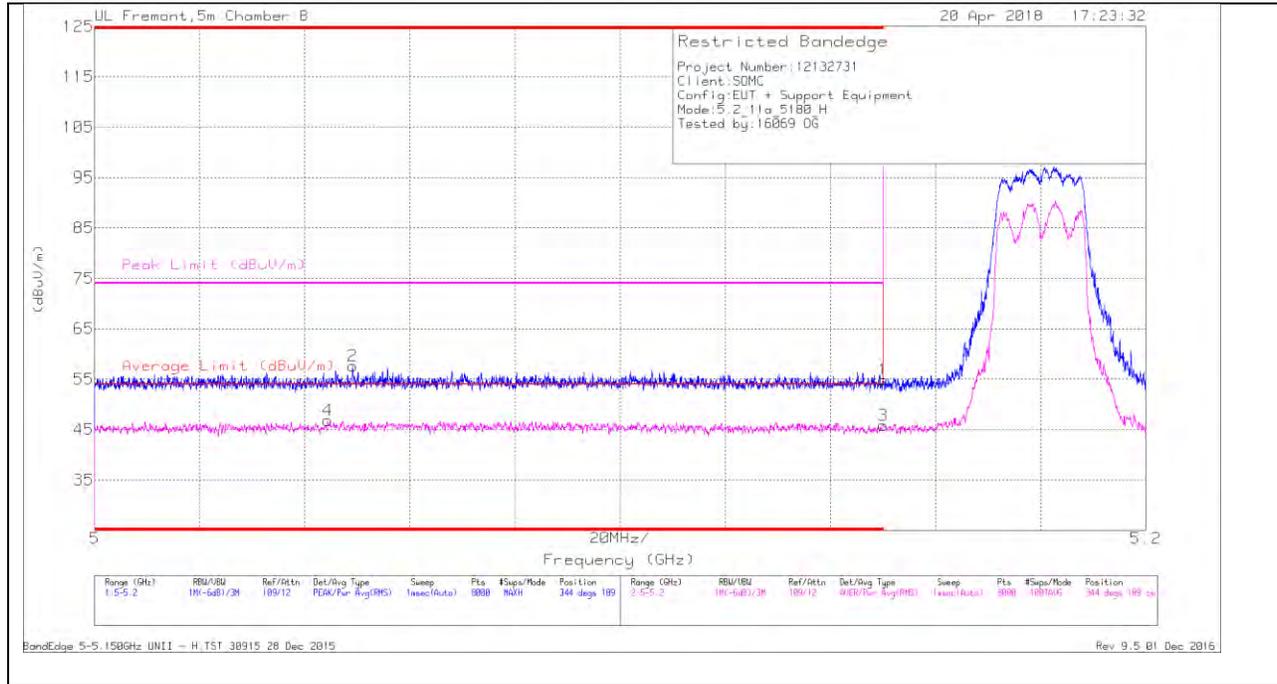
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

## 9.1. TRANSMITTER ABOVE 1 GHz

### 9.1.1. TX ABOVE 1 GHz 802.11a MODE IN THE 5.2 GHz BAND

#### BANDEDGE (LOW CHANNEL)

#### HORIZONTAL RESULT



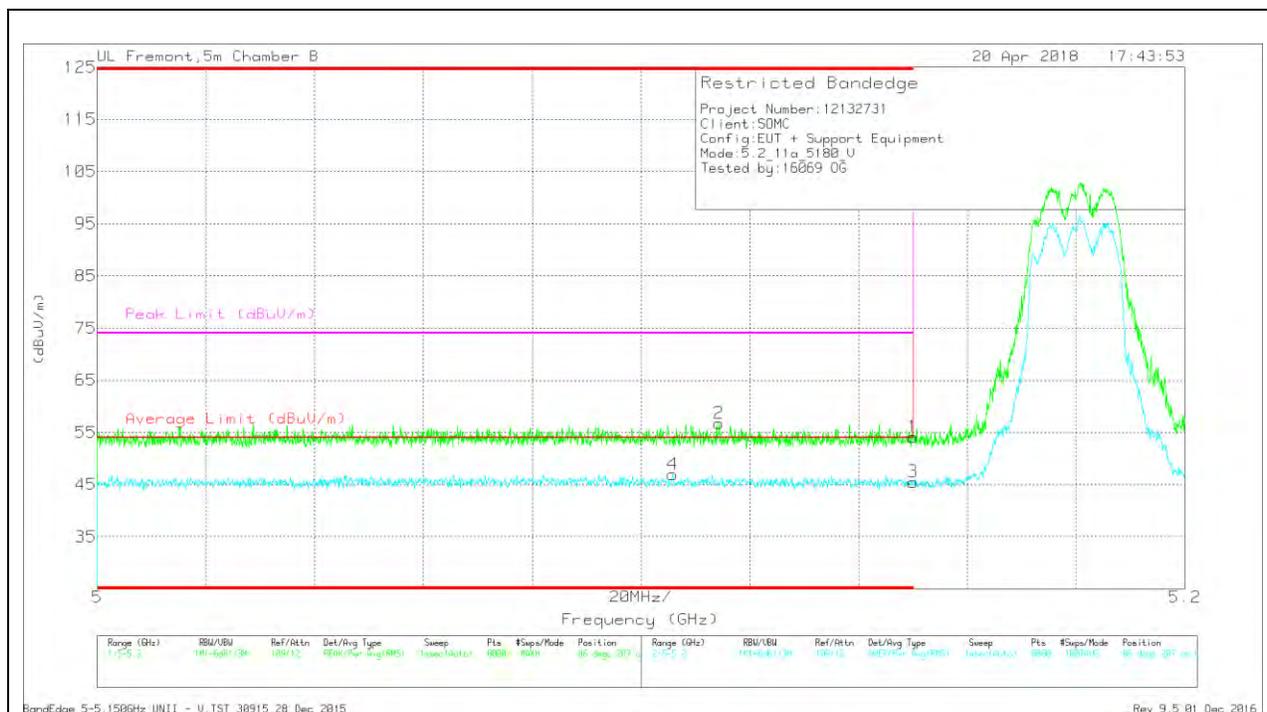
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T863 (dB/m) | Amp/Ch/Flt/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|---------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | * 5.15          | 39.02                | Pk  | 34.4           | -18.5               | 0            | 54.92                      | -                      | -           | 74                  | -19.08         | 344            | 189         | H        |
| 2      | * 5.049         | 41.34                | Pk  | 34.4           | -18.1               | 0            | 57.64                      | -                      | -           | 74                  | -16.36         | 344            | 189         | H        |
| 3      | * 5.15          | 29.91                | RMS | 34.4           | -18.5               | 0            | 45.81                      | 54                     | -8.19       | -                   | -              | 344            | 189         | H        |
| 4      | * 5.044         | 30.48                | RMS | 34.4           | -18.1               | 0            | 46.78                      | 54                     | -7.22       | -                   | -              | 344            | 189         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

### VERTICAL RESULT

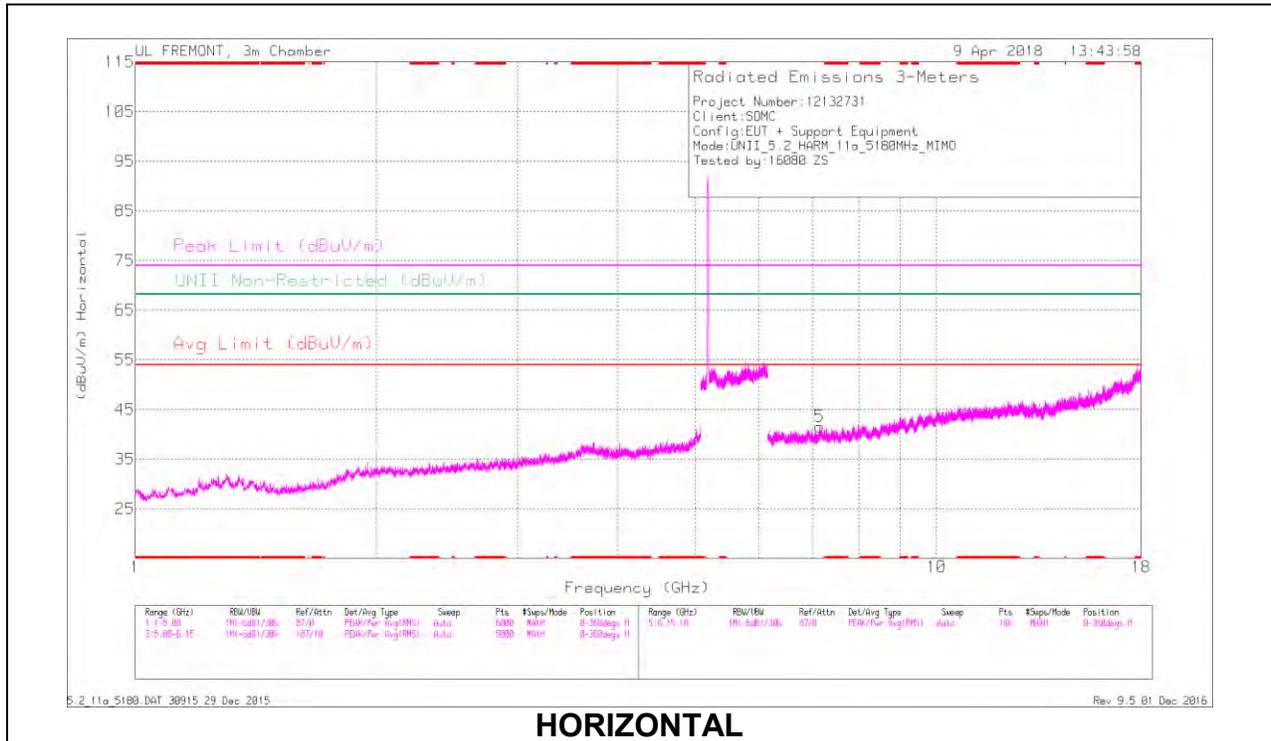


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T863 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 4      | * 5.106         | 31.09                | RMS | 34.3           | -18.4                | 0            | 46.99                      | 54                     | -7.01       | -                   | -              | 86             | 207         | V        |
| 2      | * 5.114         | 40.52                | Pk  | 34.4           | -18.2                | 0            | 56.72                      | -                      | -           | 74                  | -17.28         | 86             | 207         | V        |
| 1      | * 5.15          | 38.24                | Pk  | 34.4           | -18.5                | 0            | 54.14                      | -                      | -           | 74                  | -19.86         | 86             | 207         | V        |
| 3      | * 5.15          | 29.61                | RMS | 34.4           | -18.5                | 0            | 45.51                      | 54                     | -8.49       | -                   | -              | 86             | 207         | V        |

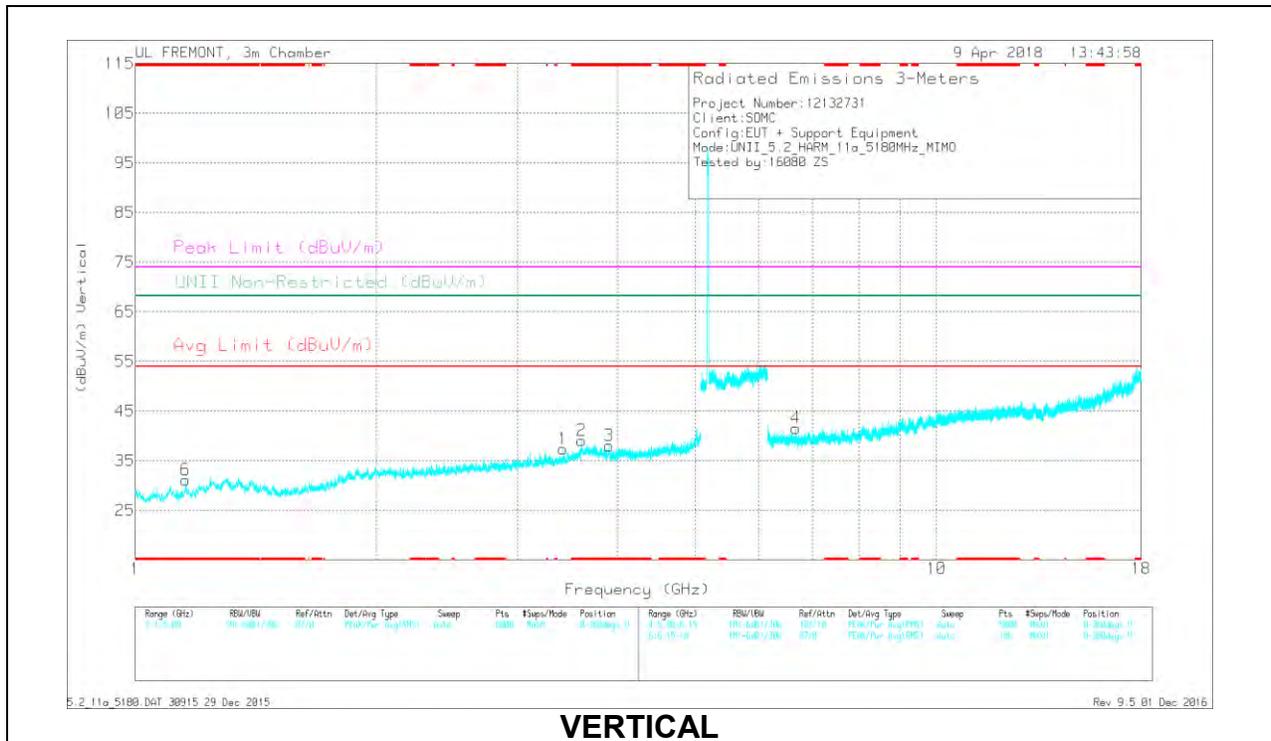
\* - indicates frequency in CFR47 Pt 15 Restricted Band  
 Pk - Peak detector  
 RMS - RMS detection

## HARMONICS AND SPURIOUS EMISSIONS

### LOW CHANNEL RESULTS



**HORIZONTAL**



**VERTICAL**

**RADIATED EMISSIONS**

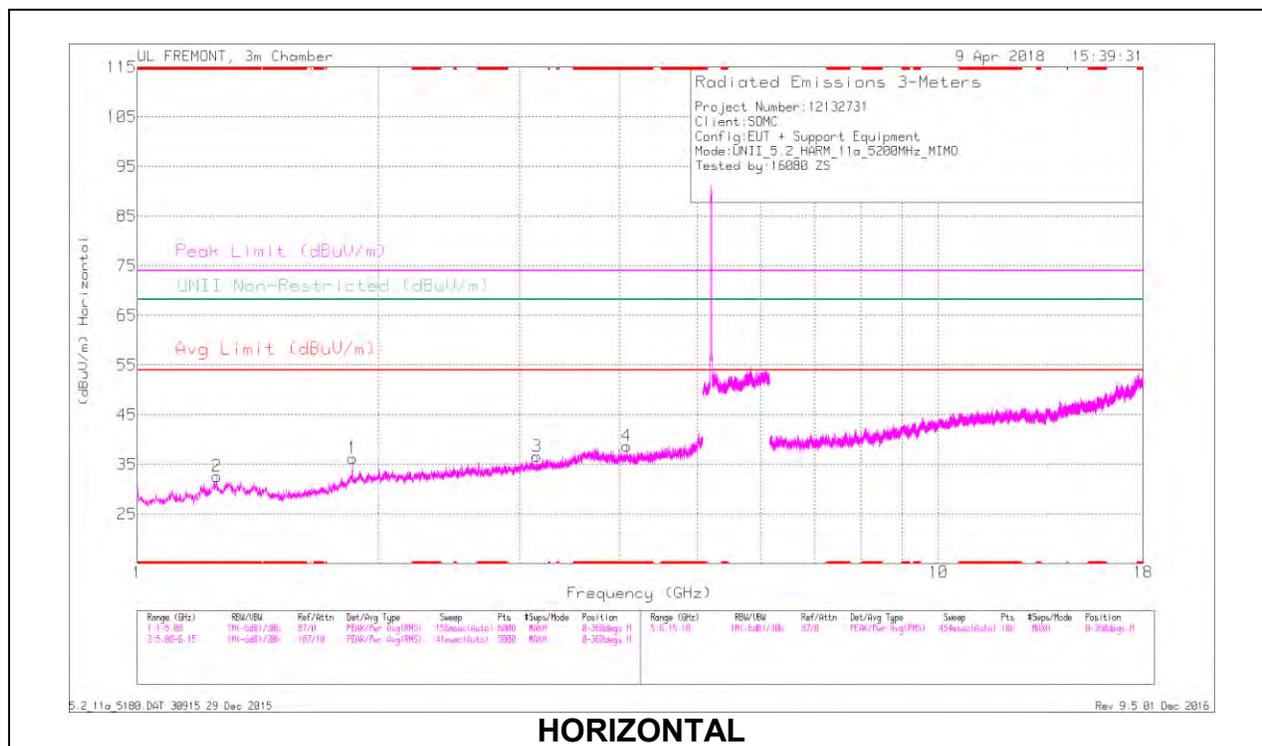
| Marker | Frequenc<br>y (GHz) | Meter<br>Reading<br>(dBuV) | Det  | AF T120 (dBm) | Amp/Cbl/Filtr/Pad<br>(dB) | Correcte<br>d<br>Reading<br>(dBuV/m) | Avg Limit (dBuV/m) | Margin<br>(dB) | Peak Limit (dBuV/m) | PK<br>Margin<br>(dB) | UNII Non-Restricted<br>(dBuV/m) | PK<br>Margin<br>(dB) | Azimuth<br>(Degs) | Height<br>(cm) | Polarity |
|--------|---------------------|----------------------------|------|---------------|---------------------------|--------------------------------------|--------------------|----------------|---------------------|----------------------|---------------------------------|----------------------|-------------------|----------------|----------|
| 2      | * 3.605             | 39.19                      | PK-U | 34.7          | -29.4                     | 44.49                                | -                  | -              | 74                  | -29.51               | -                               | -                    | 301               | 390            | V        |
|        | * 3.604             | 27.78                      | ADR  | 34.7          | -29.5                     | 32.98                                | 54                 | -21.02         | -                   | -                    | -                               | -                    | 301               | 390            | V        |
| 3      | * 3.901             | 38.25                      | PK-U | 33.5          | -27.7                     | 44.05                                | -                  | -              | 74                  | -29.95               | -                               | -                    | 301               | 219            | V        |
|        | * 3.902             | 26.99                      | ADR  | 33.5          | -27.6                     | 32.89                                | 54                 | -21.11         | -                   | -                    | -                               | -                    | 301               | 219            | V        |
| 6      | * 1.157             | 40.34                      | PK-U | 28            | -31.8                     | 36.54                                | -                  | -              | 74                  | -37.46               | -                               | -                    | 286               | 292            | V        |
|        | * 1.155             | 28.53                      | ADR  | 27.9          | -31.8                     | 24.63                                | 54                 | -29.37         | -                   | -                    | -                               | -                    | 286               | 292            | V        |
| 1      | 3.422               | 37.7                       | PK-U | 33.8          | -28.5                     | 43                                   | -                  | -              | -                   | -                    | 68.2                            | -25.2                | 351               | 265            | V        |
| 4      | 6.671               | 36.41                      | PK-U | 35.7          | -25                       | 47.11                                | -                  | -              | -                   | -                    | 68.2                            | -21.09               | 360               | 239            | V        |
| 5      | 7.151               | 36.18                      | PK-U | 35.7          | -25.2                     | 46.68                                | -                  | -              | -                   | -                    | 68.2                            | -21.52               | 12                | 118            | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

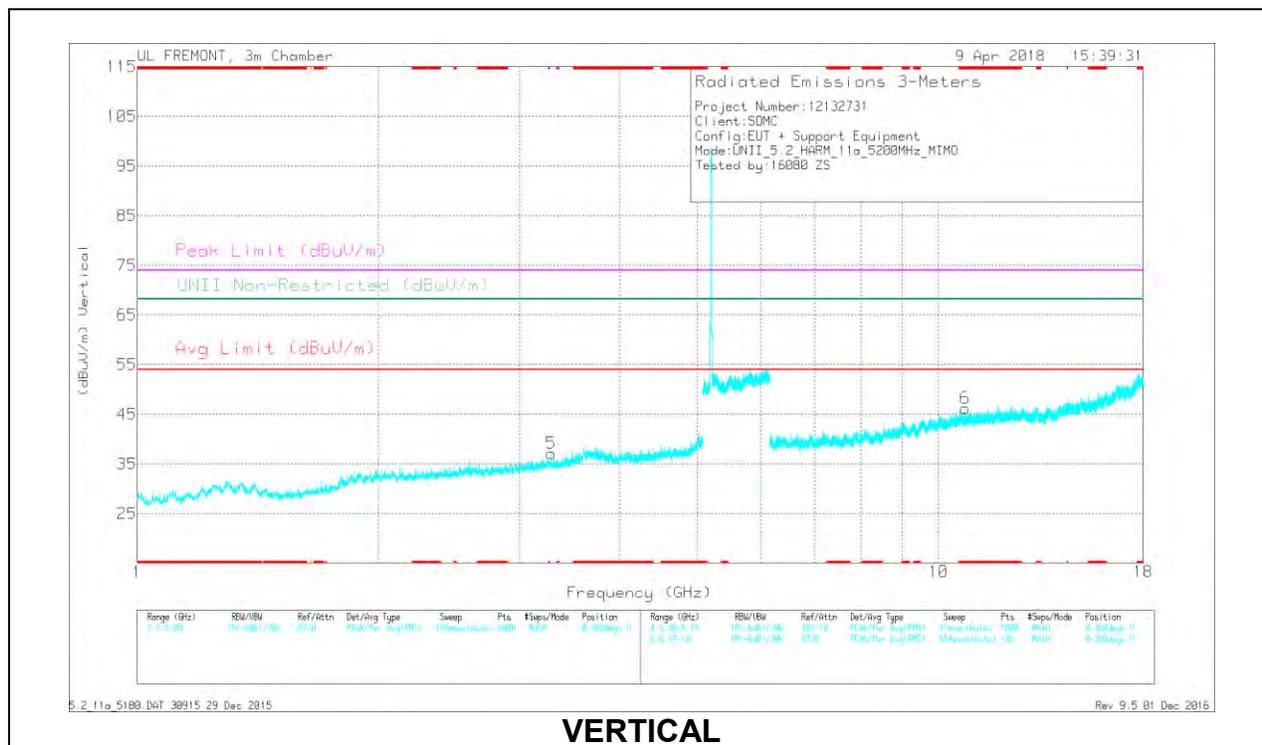
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### MID CHANNEL RESULTS



**HORIZONTAL**



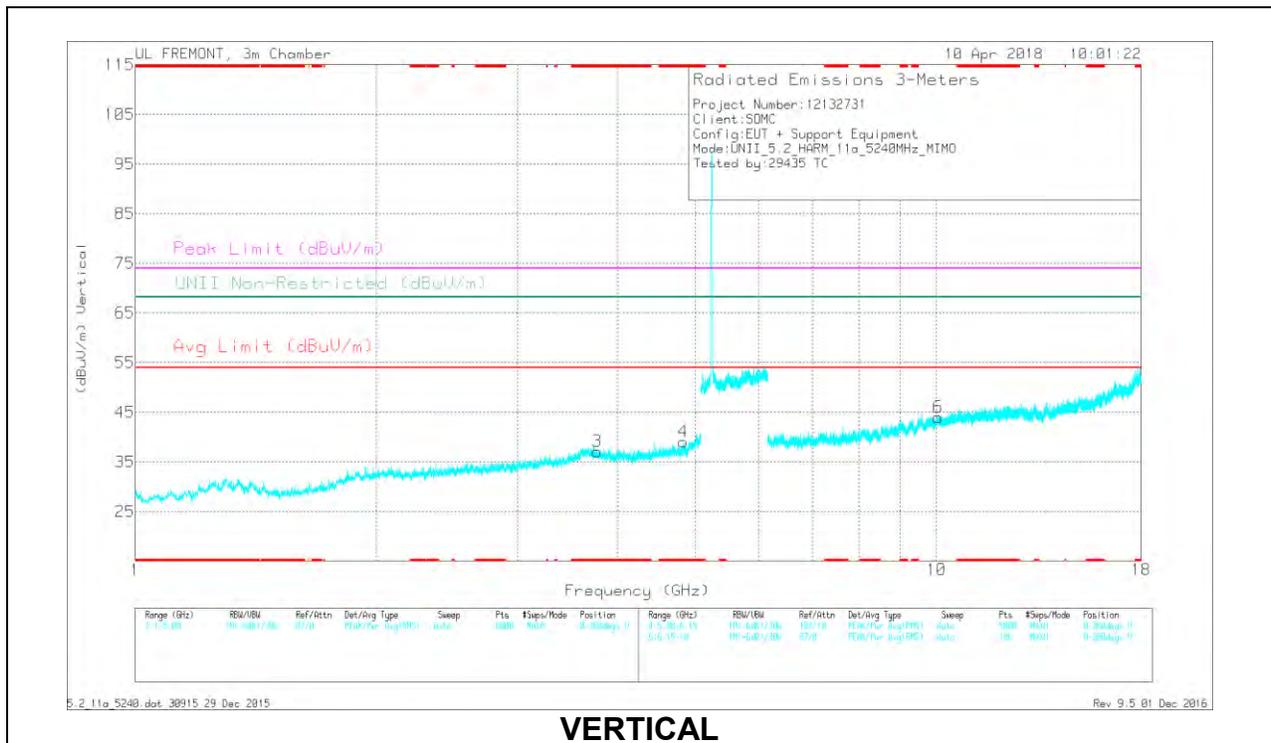
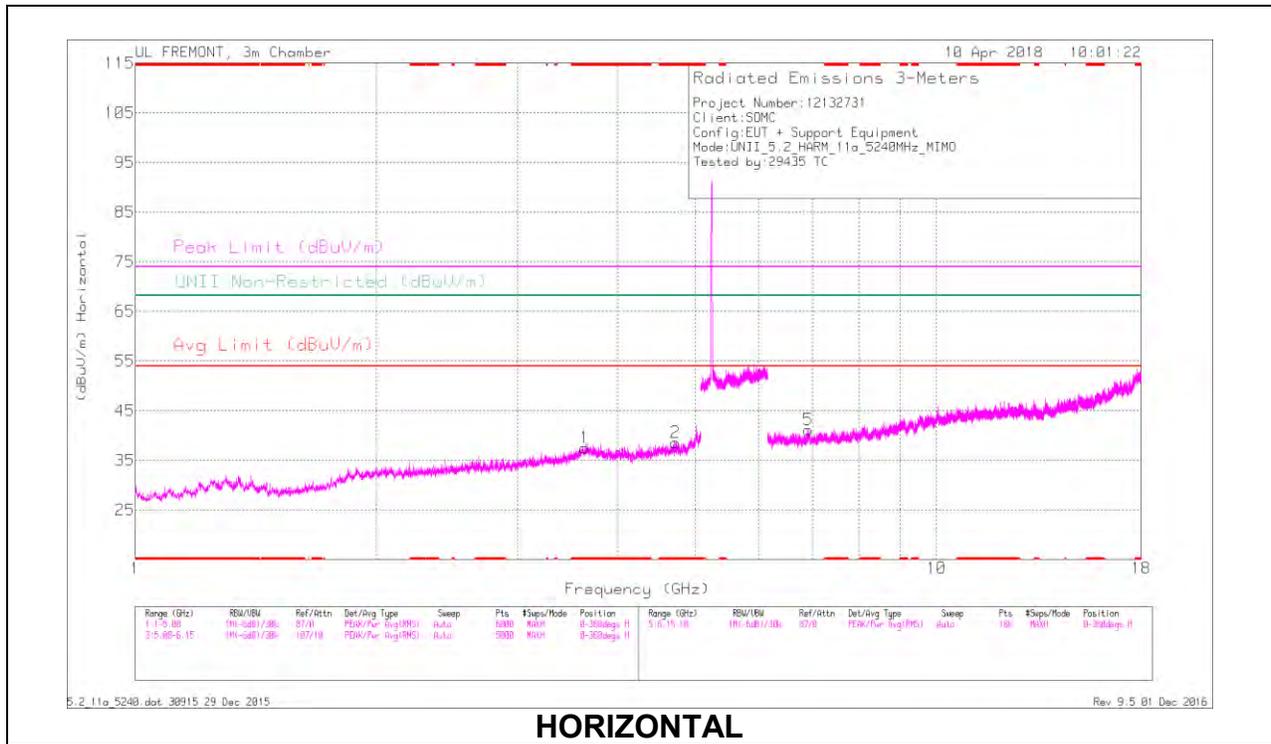
**VERTICAL**

**RADIATED EMISSIONS**

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T120 (dB/m) | Amp/Cb/Filt/Pad (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|----------------|----------------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 2      | * 1.258         | 39.69                | PK-U | 29.9           | -31.8                | 37.79                      | -                  | -           | 74                  | -36.21         | -                            | -              | 173            | 271         | H        |
|        | * 1.254         | 28.18                | ADR  | 29.9           | -31.9                | 26.18                      | 54                 | -27.82      | -                   | -              | -                            | -              | 173            | 271         | H        |
| 4      | * 4.08          | 39.19                | PK-U | 33.5           | -27.9                | 44.79                      | -                  | -           | 74                  | -29.21         | -                            | -              | 96             | 272         | H        |
|        | * 4.078         | 27.19                | ADR  | 33.5           | -28                  | 32.69                      | 54                 | -21.31      | -                   | -              | -                            | -              | 96             | 272         | H        |
| 6      | * 10.793        | 34.2                 | PK-U | 37.9           | -20.8                | 51.3                       | -                  | -           | 74                  | -22.7          | -                            | -              | 139            | 117         | V        |
|        | * 10.793        | 22.37                | ADR  | 37.9           | -20.8                | 39.47                      | 54                 | -14.53      | -                   | -              | -                            | -              | 139            | 117         | V        |
| 1      | 1.855           | 38.82                | PK-U | 31             | -30.2                | 39.42                      | -                  | -           | -                   | -              | 68.2                         | -28.78         | 78             | 188         | H        |
| 3      | 3.153           | 38.82                | PK-U | 33.2           | -29.7                | 42.02                      | -                  | -           | -                   | -              | 68.2                         | -26.18         | 135            | 186         | H        |
| 5      | 3.288           | 38.24                | PK-U | 33.4           | -28.6                | 43.04                      | -                  | -           | -                   | -              | 68.2                         | -25.16         | 313            | 392         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band  
 PK-U - U-NII: Maximum Peak  
 ADR - U-NII AD primary method, RMS average

### HIGH CHANNEL RESULTS



**RADIATED EMISSIONS**

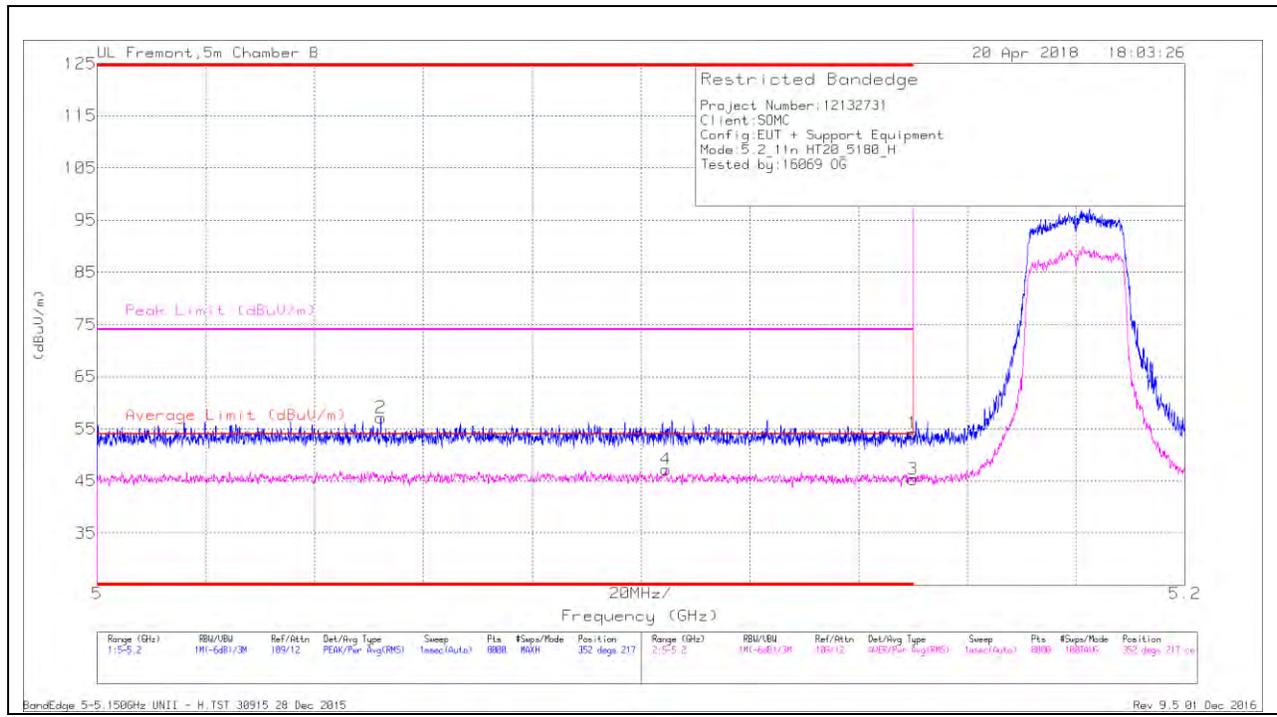
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF 1120 (dBm) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNI Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|---------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|-----------------------------|----------------|----------------|-------------|----------|
| 1      | * 3.637         | 38.93                | PK-U | 34.6          | -29.2                | 0            | 44.33                      | -                  | -           | 74                  | -29.67         | -                           | -              | 214            | 233         | H        |
|        | * 3.637         | 27.2                 | ADR  | 34.6          | -29.2                | 0            | 32.6                       | 54                 | -21.4       | -                   | -              | -                           | -              | 214            | 233         | H        |
| 2      | * 4.724         | 38.57                | PK-U | 34            | -28.4                | 0            | 44.17                      | -                  | -           | 74                  | -29.83         | -                           | -              | 50             | 394         | H        |
|        | * 4.727         | 27.17                | ADR  | 34            | -28.5                | 0            | 32.67                      | 54                 | -21.33      | -                   | -              | -                           | -              | 50             | 394         | H        |
| 3      | * 3.767         | 39.48                | PK-U | 33.8          | -29.1                | 0            | 44.18                      | -                  | -           | 74                  | -29.82         | -                           | -              | 147            | 269         | V        |
|        | * 3.767         | 27.61                | ADR  | 33.8          | -29.1                | 0            | 32.31                      | 54                 | -21.69      | -                   | -              | -                           | -              | 147            | 269         | V        |
| 4      | * 4.83          | 38.24                | PK-U | 34.1          | -27.1                | 0            | 45.24                      | -                  | -           | 74                  | -28.76         | -                           | -              | 64             | 110         | V        |
|        | * 4.83          | 26.89                | ADR  | 34.1          | -27.1                | 0            | 33.89                      | 54                 | -20.11      | -                   | -              | -                           | -              | 64             | 110         | V        |
| 5      | 6.918           | 35.8                 | PK-U | 35.7          | -24.2                | 0            | 47.3                       | -                  | -           | -                   | -              | 68.2                        | -20.9          | 165            | 105         | H        |
| 6      | 10.041          | 34.68                | PK-U | 37.3          | -20.3                | 0            | 51.68                      | -                  | -           | -                   | -              | 68.2                        | -16.52         | 197            | 154         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band  
 PK-U - U-NII: Maximum Peak  
 ADR - U-NII AD primary method, RMS average

**9.1.2. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.2 GHz BAND**

**BANDEDGE (LOW CHANNEL)**

**HORIZONTAL RESULT**



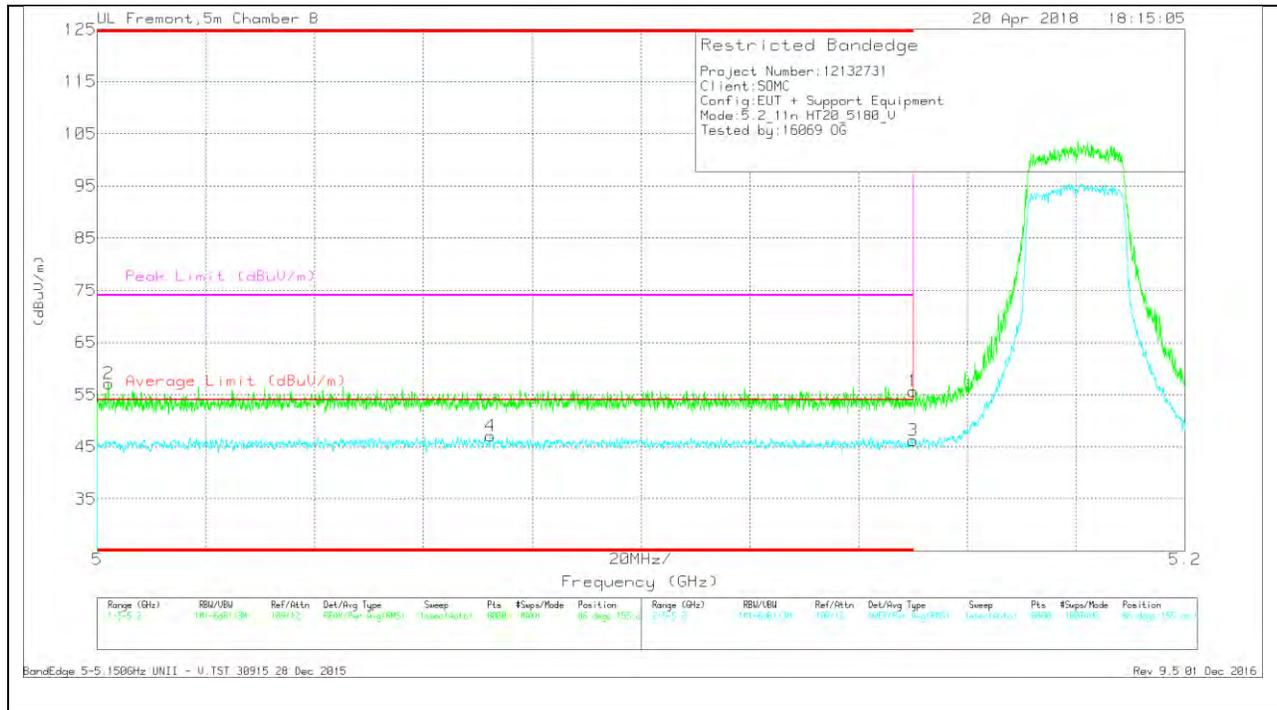
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T863 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 2      | * 5.052         | 40.84                | Pk  | 34.4           | -18.1                  | 0            | 57.14                      | -                      | -           | 74                  | -16.86         | 352            | 217         | H        |
| 4      | * 5.105         | 31                   | RMS | 34.3           | -18.2                  | .1           | 47.2                       | 54                     | -6.8        | -                   | -              | 352            | 217         | H        |
| 1      | * 5.15          | 38.28                | Pk  | 34.4           | -18.5                  | 0            | 54.18                      | -                      | -           | 74                  | -19.82         | 352            | 217         | H        |
| 3      | * 5.15          | 29.36                | RMS | 34.4           | -18.5                  | .1           | 45.36                      | 54                     | -8.64       | -                   | -              | 352            | 217         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

### VERTICAL RESULT

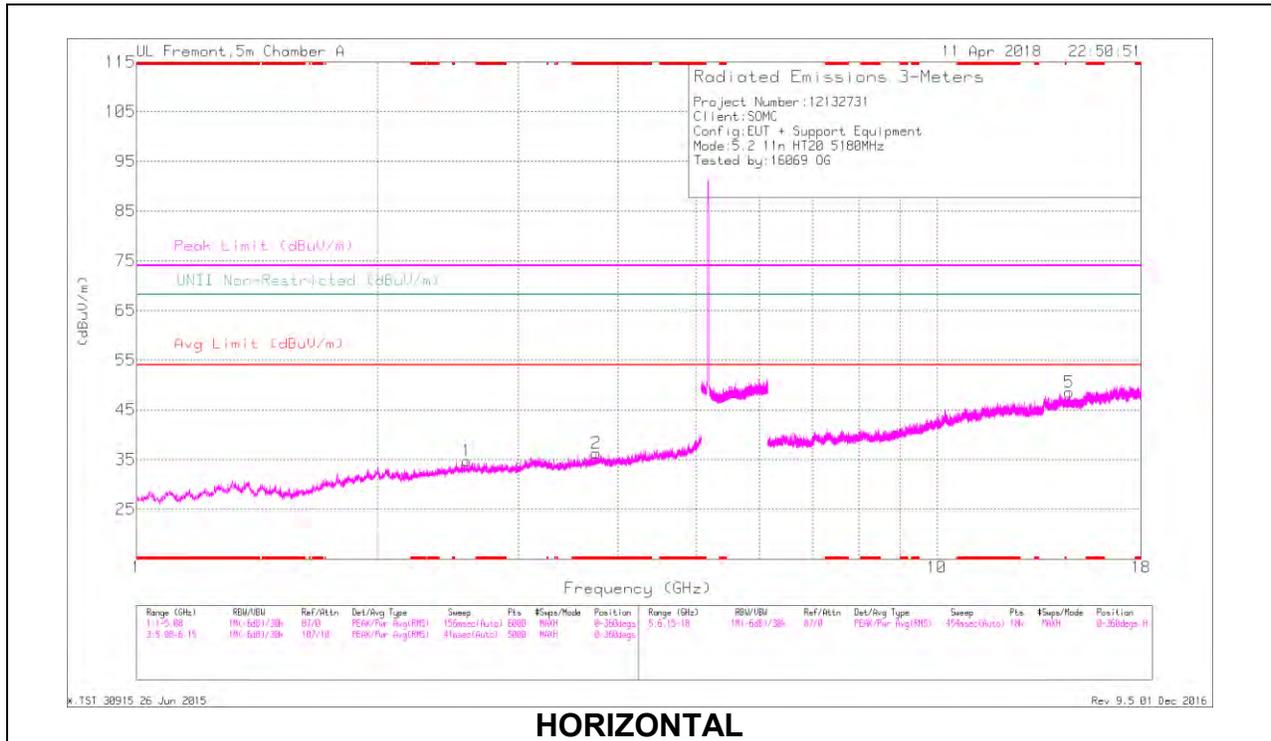


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T863 (dB/m) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|----------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 2      | * 5.002         | 40.95                | Pk  | 34.4           | -18.2                | 0            | 57.15                      | -                      | -           | 74                  | -16.85         | 86             | 155         | V        |
| 4      | * 5.072         | 30.8                 | RMS | 34.3           | -18.1                | .1           | 47.1                       | 54                     | -6.9        | -                   | -              | 86             | 155         | V        |
| 1      | * 5.15          | 39.78                | Pk  | 34.4           | -18.5                | 0            | 55.68                      | -                      | -           | 74                  | -18.32         | 86             | 155         | V        |
| 3      | * 5.15          | 30.15                | RMS | 34.4           | -18.5                | .1           | 46.15                      | 54                     | -7.85       | -                   | -              | 86             | 155         | V        |

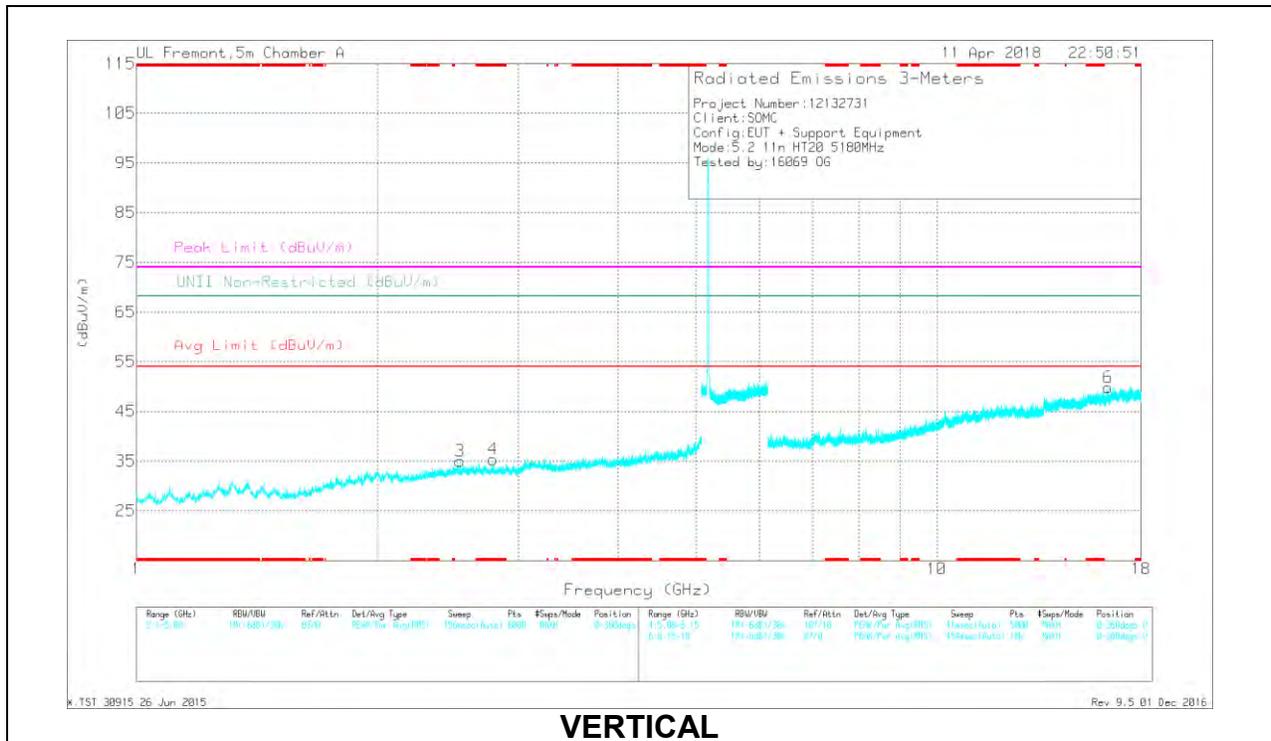
\* - indicates frequency in CFR47 Pt 15 Restricted Band  
 Pk - Peak detector  
 RMS - RMS detection

**HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL RESULTS**



**HORIZONTAL**



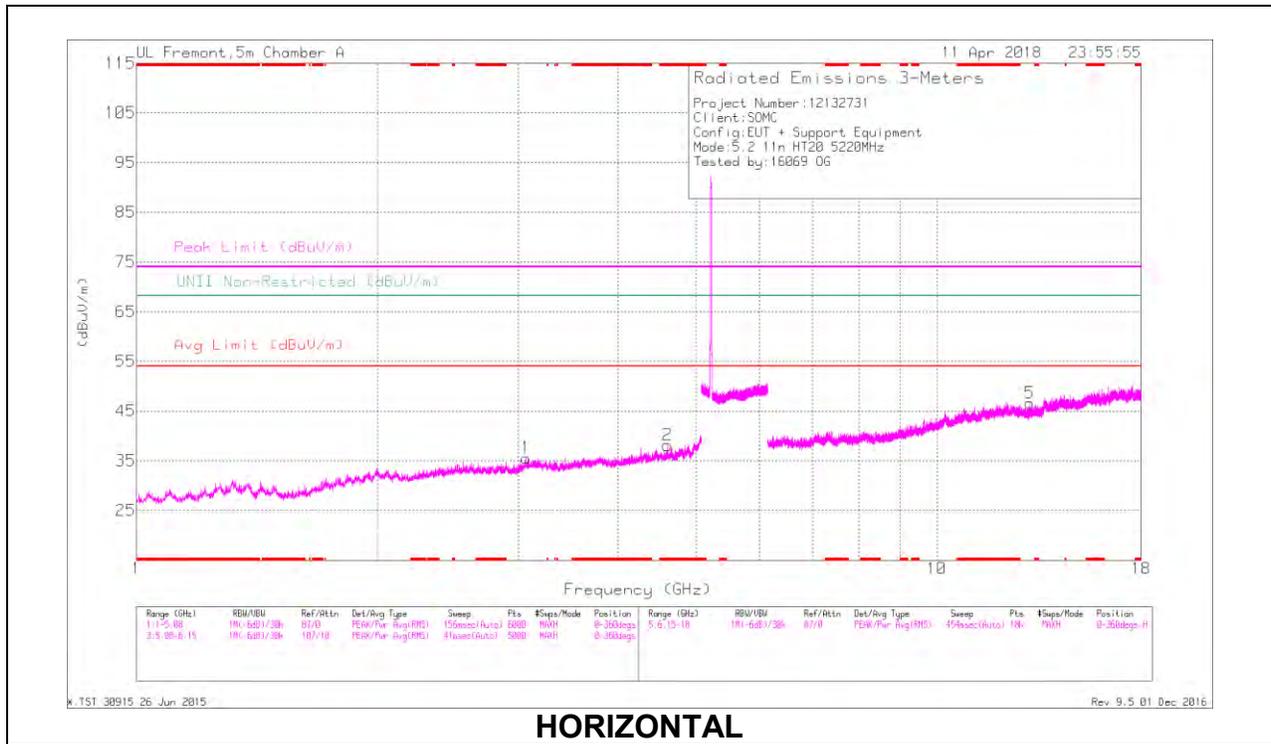
**VERTICAL**

**RADIATED EMISSIONS**

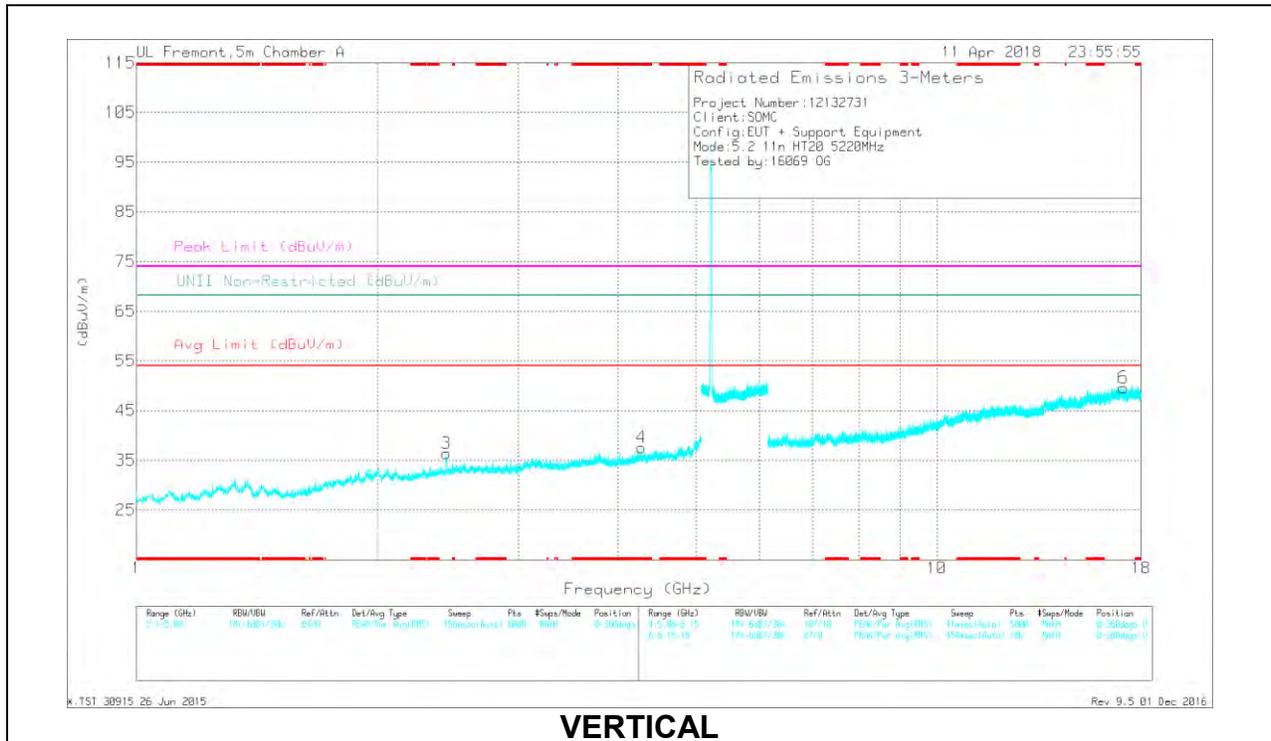
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF 1862 (dBm) | Amp/Cb/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|---------------|-----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 2      | * 3.754         | 37.56                | PK-U | 33.2          | -28.5                 | 0            | 42.26                      | -                  | -           | 74                  | -31.74         | -                            | -              | 258            | 254         | H        |
| 2      | * 3.756         | 25.58                | ADR  | 33.2          | -28.5                 | -.1          | 30.38                      | 54                 | -23.62      | -                   | -              | -                            | -              | 258            | 254         | H        |
| 4      | * 2.788         | 38.42                | PK-U | 32.2          | -29.9                 | 0            | 40.72                      | -                  | -           | 74                  | -33.28         | -                            | -              | 35             | 191         | V        |
| 4      | * 2.788         | 26.21                | ADR  | 32.2          | -29.9                 | -.1          | 28.61                      | 54                 | -25.39      | -                   | -              | -                            | -              | 35             | 191         | V        |
| 3      | 2.535           | 38.33                | PK-U | 32.4          | -30.2                 | 0            | 40.53                      | -                  | -           | -                   | -              | 68.2                         | -27.67         | 50             | 253         | V        |
| 1      | 2.567           | 37.78                | PK-U | 32.4          | -30.2                 | 0            | 39.98                      | -                  | -           | -                   | -              | 68.2                         | -28.22         | 66             | 230         | H        |
| 5      | 14.629          | 32.49                | PK-U | 39.8          | -19.1                 | 0            | 53.19                      | -                  | -           | -                   | -              | 68.2                         | -15.01         | 187            | 132         | H        |
| 6      | 16.367          | 32.7                 | PK-U | 40.9          | -17.8                 | 0            | 55.8                       | -                  | -           | -                   | -              | 68.2                         | -12.4          | 354            | 227         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band  
 PK-U - U-NII: Maximum Peak  
 ADR - U-NII AD primary method, RMS average

### MID CHANNEL RESULTS



**HORIZONTAL**



**VERTICAL**

**RADIATED EMISSIONS**

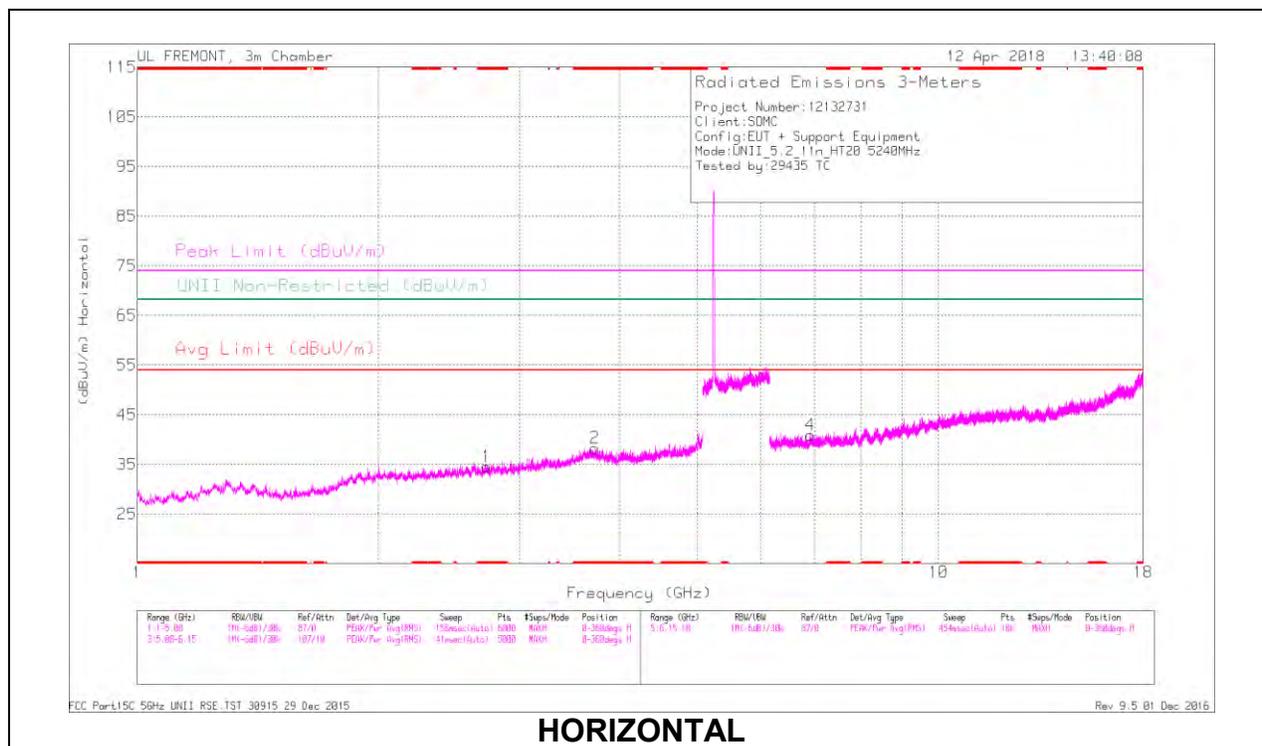
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF 1862 (dBm) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|---------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 2      | * 4.606         | 36.74                | PK-U | 34.1          | -27.2                  | 0            | 43.64                      | -                  | -           | 74                  | -30.36         | -                            | -              | 179            | 146         | H        |
| 2      | * 4.609         | 24.81                | ADR  | 34.1          | -27.2                  | -.1          | 31.81                      | 54                 | -22.19      | -                   | -              | -                            | -              | 179            | 146         | H        |
| 4      | * 4.277         | 36.59                | PK-U | 33.5          | -27.4                  | 0            | 42.69                      | -                  | -           | 74                  | -31.31         | -                            | -              | 351            | 137         | V        |
| 4      | * 4.277         | 24.67                | ADR  | 33.5          | -27.3                  | -.1          | 30.97                      | 54                 | -23.03      | -                   | -              | -                            | -              | 351            | 137         | V        |
| 3      | 2.438           | 43.46                | PK-U | 32.1          | -30.8                  | 0            | 44.76                      | -                  | -           | -                   | -              | 68.2                         | -23.44         | 354            | 193         | V        |
| 1      | 3.065           | 37.81                | PK-U | 32.8          | -29.4                  | 0            | 41.21                      | -                  | -           | -                   | -              | 68.2                         | -26.99         | 170            | 211         | H        |
| 5      | 13.062          | 32.35                | PK-U | 39.3          | -19.2                  | 0            | 52.45                      | -                  | -           | -                   | -              | 68.2                         | -15.75         | 87             | 256         | H        |
| 6      | 17.109          | 33.18                | PK-U | 41.3          | -19.2                  | 0            | 55.28                      | -                  | -           | -                   | -              | 68.2                         | -12.92         | 118            | 236         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

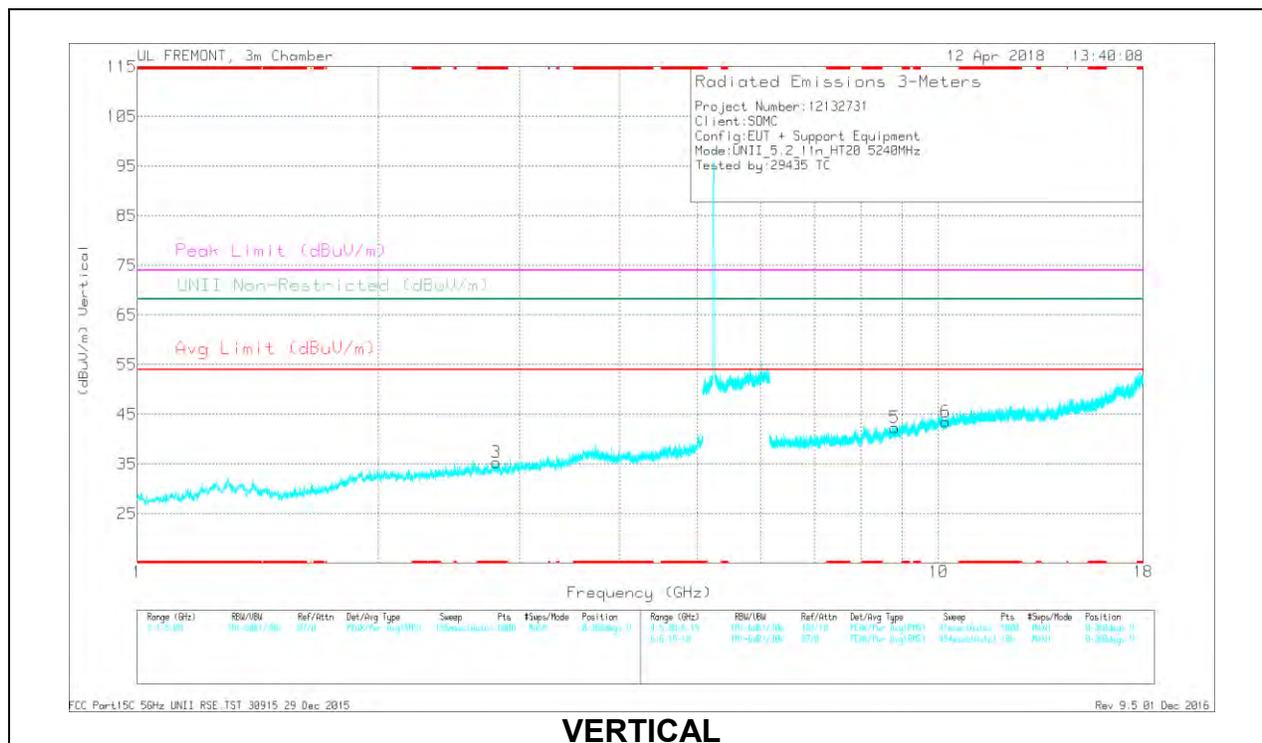
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### HIGH CHANNEL RESULTS



**HORIZONTAL**



**VERTICAL**

**RADIATED EMISSIONS**

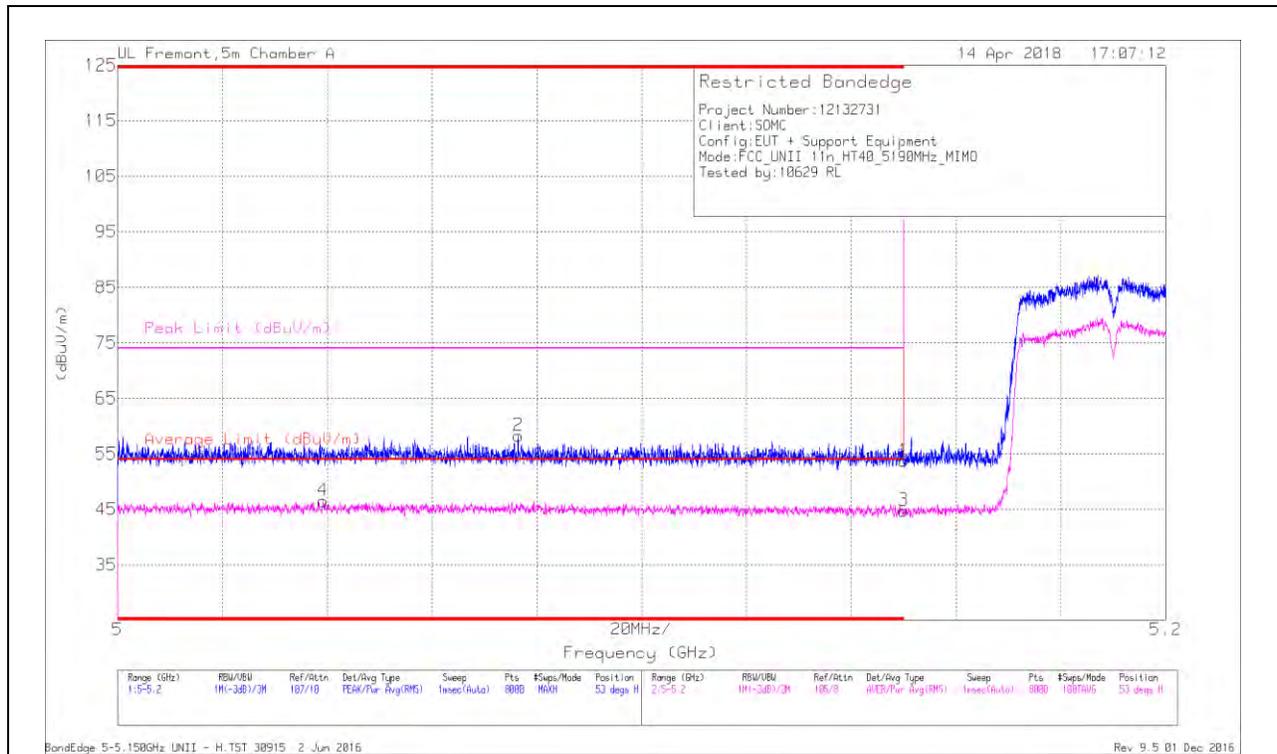
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF 1120 (dBm) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNI Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|---------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|-----------------------------|----------------|----------------|-------------|----------|
| 1      | * 2.729         | 39.16                | PK-U | 32.5          | -29.8                | 0            | 41.96                      | -                  | -           | 74                  | -32.14         | -                           | -              | 107            | 314         | H        |
|        | * 2.729         | 26.91                | ADR  | 32.5          | -29.9                | -.1          | 29.61                      | 54                 | -24.39      | -                   | -              | -                           | -              | 107            | 314         | H        |
| 2      | * 3.726         | 38.06                | PK-U | 34            | -27.4                | 0            | 44.66                      | -                  | -           | 74                  | -29.34         | -                           | -              | 42             | 321         | H        |
|        | * 3.727         | 26.59                | ADR  | 34            | -27.1                | -.1          | 33.99                      | 54                 | -20.41      | -                   | -              | -                           | -              | 42             | 321         | H        |
| 3      | * 2.809         | 38.04                | PK-U | 32.7          | -29.7                | 0            | 41.04                      | -                  | -           | 74                  | -32.96         | -                           | -              | 294            | 400         | V        |
|        | * 2.809         | 26.35                | ADR  | 32.7          | -29.7                | -.1          | 29.45                      | 54                 | -24.55      | -                   | -              | -                           | -              | 294            | 400         | V        |
| 4      | 8.915           | 33.63                | PK-U | 35.7          | -24.2                | 0            | 47.13                      | -                  | -           | -                   | -              | 68.2                        | -21.07         | 317            | 255         | H        |
| 5      | 8.818           | 34.18                | PK-U | 36            | -21.8                | 0            | 48.38                      | -                  | -           | -                   | -              | 68.2                        | -19.82         | 291            | 293         | V        |
| 6      | 10.206          | 33.88                | PK-U | 37.4          | -21.2                | 0            | 50.08                      | -                  | -           | -                   | -              | 68.2                        | -18.12         | 317            | 231         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band  
 PK-U - U-NII: Maximum Peak  
 ADR - U-NII AD primary method, RMS average

**9.1.3. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 5.2 GHz BAND**

**BANDEDGE (LOW CHANNEL)**

**HORIZONTAL RESULT**



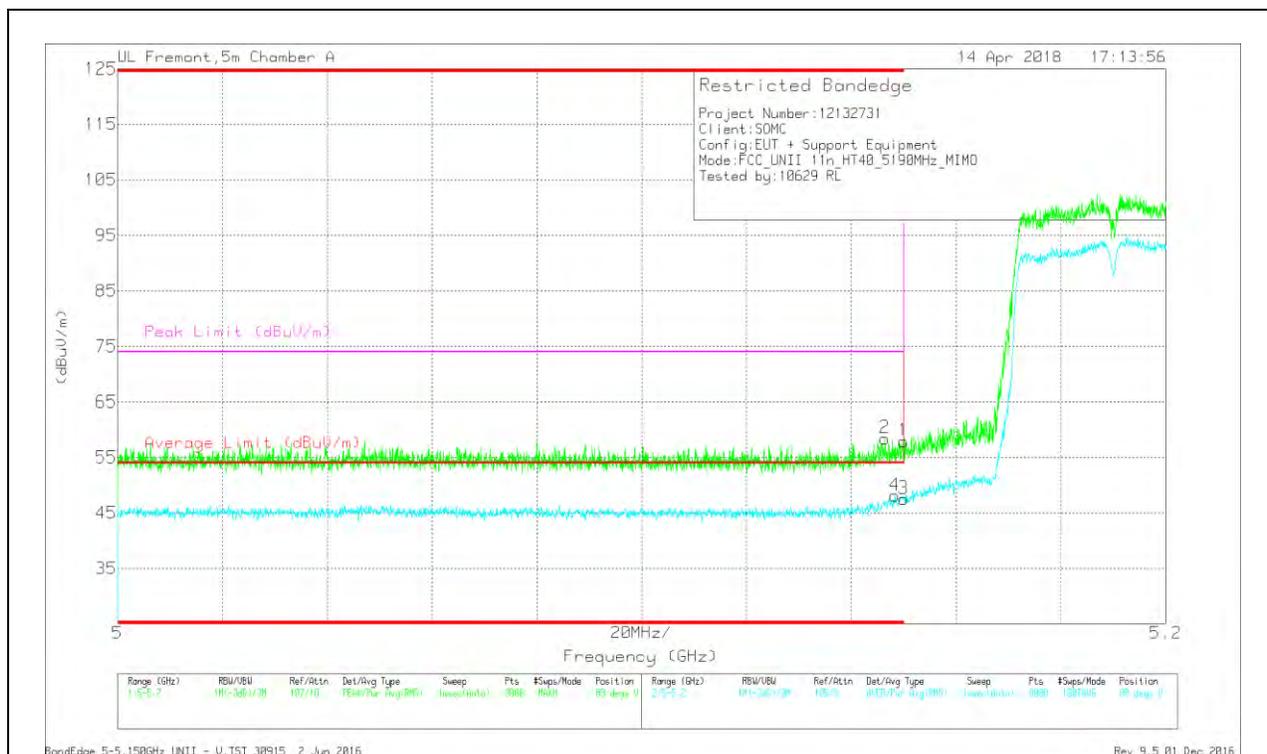
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dBm) | Amp/Cb/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|---------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 4      | * 5.039         | 29.88                | RMS | 34.3          | -18                 | .32          | 46.5                       | 54                     | -7.5        | -                   | -              | 53             | 152         | H        |
| 2      | * 5.076         | 41.77                | Pk  | 34.4          | -17.9               | 0            | 58.27                      | -                      | -           | 74                  | -15.73         | 53             | 152         | H        |
| 1      | * 5.15          | 37.44                | Pk  | 34.4          | -18.1               | 0            | 53.74                      | -                      | -           | 74                  | -20.26         | 53             | 152         | H        |
| 3      | * 5.15          | 28.13                | RMS | 34.4          | -18.1               | .32          | 44.75                      | 54                     | -9.25       | -                   | -              | 53             | 152         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

RMS - RMS detection

### VERTICAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/Cou/Filtz/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 2      | * 5.146         | 42.05                | Pk  | 34.4           | -18                    | 0            | 58.45                      | -                      | -           | 74                  | -15.55         | 88             | 190         | V        |
| 4      | * 5.148         | 31.52                | RMS | 34.4           | -18.1                  | 32           | 48.14                      | 54                     | -5.86       | -                   | -              | 88             | 190         | V        |
| 1      | * 5.15          | 41.66                | Pk  | 34.4           | -18.1                  | 0            | 57.96                      | -                      | -           | 74                  | -16.04         | 88             | 190         | V        |
| 3      | * 5.15          | 30.91                | RMS | 34.4           | -18.1                  | 32           | 47.53                      | 54                     | -6.47       | -                   | -              | 88             | 190         | V        |

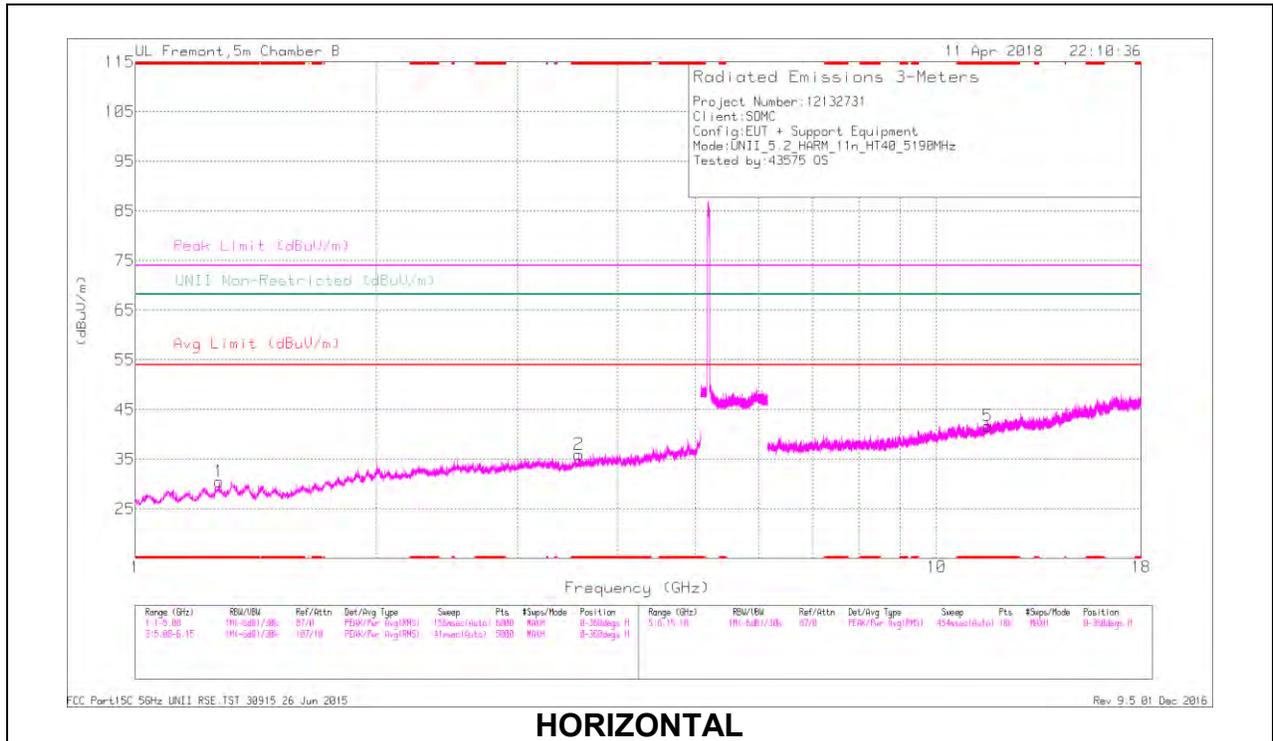
\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

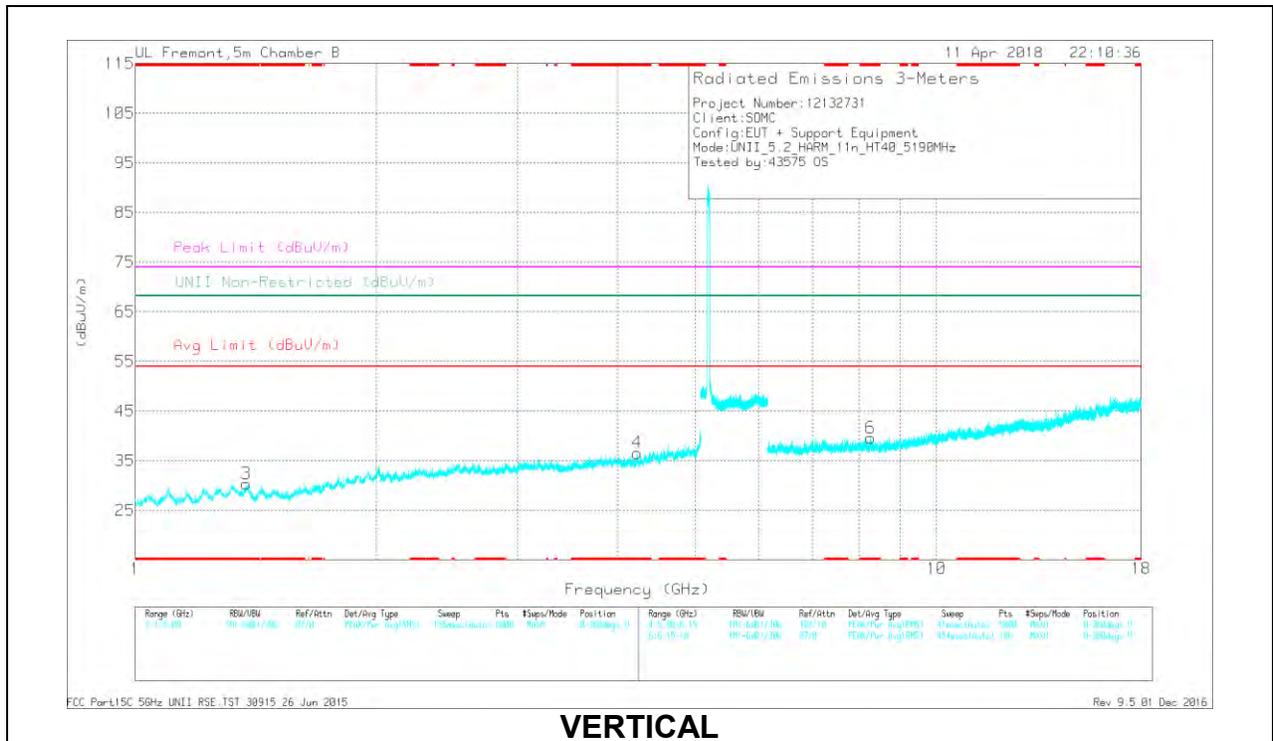
RMS - RMS detection

**HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL RESULTS**



**HORIZONTAL**



**VERTICAL**

**RADIATED EMISSIONS**

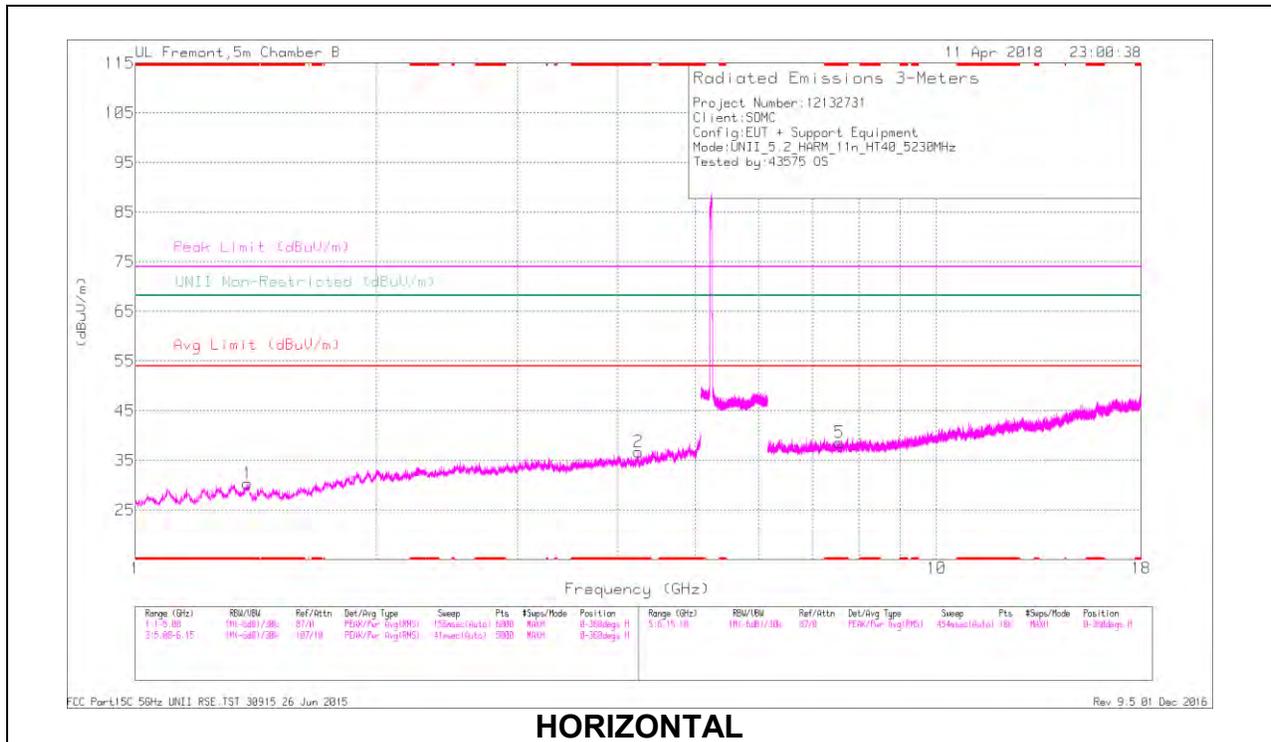
| Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T863 (dB/m) | Amp/Chk/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.271         | 42.87                | PK-U | 28.8           | -35                  | 0            | 36.67                      | -                  | -           | 74                  | -37.33         | -                            | -              | 222            | 120         | H        |
| * 1.271         | 30.42                | ADR  | 28.8           | -35                  | .32          | 24.54                      | 54                 | -29.46      | -                   | -              | -                            | -              | 222            | 120         | H        |
| * 3.576         | 40.22                | PK-U | 33.1           | -31.8                | 0            | 41.52                      | -                  | -           | 74                  | -32.48         | -                            | -              | 156            | 145         | H        |
| * 3.579         | 28.08                | ADR  | 33.1           | -31.9                | .32          | 29.6                       | 54                 | -24.4       | -                   | -              | -                            | -              | 156            | 145         | H        |
| * 1.374         | 42.07                | PK-U | 28.5           | -33.8                | 0            | 36.77                      | -                  | -           | 74                  | -37.23         | -                            | -              | 296            | 221         | V        |
| * 1.377         | 30.08                | ADR  | 28.5           | -33.8                | .32          | 25.1                       | 54                 | -28.9       | -                   | -              | -                            | -              | 296            | 221         | V        |
| * 4.229         | 39.44                | PK-U | 33.4           | -30.7                | 0            | 42.14                      | -                  | -           | 74                  | -31.86         | -                            | -              | 328            | 156         | V        |
| * 4.23          | 28.07                | ADR  | 33.4           | -30.7                | .32          | 31.09                      | 54                 | -22.91      | -                   | -              | -                            | -              | 328            | 156         | V        |
| * 11.59         | 33.77                | PK-U | 38.2           | -23.7                | 0            | 48.27                      | -                  | -           | 74                  | -25.73         | -                            | -              | 115            | 167         | H        |
| * 11.589        | 22.01                | ADR  | 38.2           | -23.7                | .32          | 36.83                      | 54                 | -17.17      | -                   | -              | -                            | -              | 115            | 167         | H        |
| * 8.274         | 36.27                | PK-U | 36.1           | -26.8                | 0            | 45.57                      | -                  | -           | 74                  | -28.43         | -                            | -              | 89             | 115         | V        |
| * 8.272         | 24.42                | ADR  | 36.1           | -26.7                | .32          | 34.14                      | 54                 | -19.86      | -                   | -              | -                            | -              | 89             | 115         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

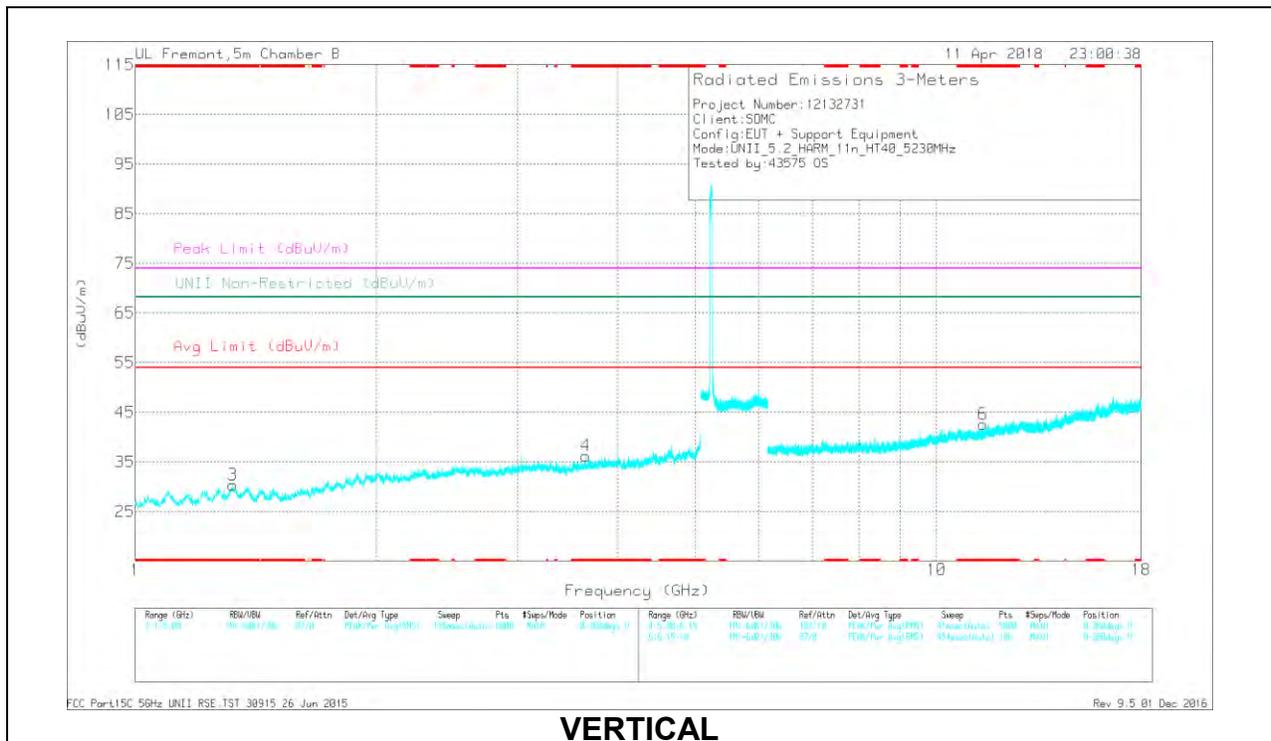
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

### HIGH CHANNEL RESULTS



**HORIZONTAL**



**VERTICAL**

**RADIATED EMISSIONS**

| Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T863 (dB/m) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|-----------------|----------------------|------|----------------|------------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| * 1.379         | 41.99                | PK-U | 28.5           | -33.8                  | 0            | 36.69                      | -                  | -           | 74                  | -37.31         | -                            | -              | 119            | 275         | H        |
| * 1.379         | 30.22                | ADR  | 28.5           | -33.8                  | .32          | 25.24                      | 54                 | -28.76      | -                   | -              | -                            | -              | 119            | 275         | H        |
| * 4.244         | 39.93                | PK-U | 33.5           | -31.3                  | 0            | 42.13                      | -                  | -           | 74                  | -31.87         | -                            | -              | 2              | 278         | H        |
| * 4.243         | 28.21                | ADR  | 33.5           | -31.3                  | .32          | 30.73                      | 54                 | -23.27      | -                   | -              | -                            | -              | 2              | 278         | H        |
| * 1.323         | 43.08                | PK-U | 28.9           | -34.3                  | 0            | 37.68                      | -                  | -           | 74                  | -36.32         | -                            | -              | 58             | 148         | V        |
| * 1.323         | 30.23                | ADR  | 28.9           | -34.3                  | .32          | 25.15                      | 54                 | -28.85      | -                   | -              | -                            | -              | 58             | 148         | V        |
| * 3.646         | 40.23                | PK-U | 33.2           | -31.9                  | 0            | 41.53                      | -                  | -           | 74                  | -32.47         | -                            | -              | 280            | 255         | V        |
| * 3.646         | 28.51                | ADR  | 33.2           | -31.9                  | .32          | 30.13                      | 54                 | -23.87      | -                   | -              | -                            | -              | 280            | 255         | V        |
| * 7.567         | 36.45                | PK-U | 36             | -28.1                  | 0            | 44.35                      | -                  | -           | 74                  | -29.65         | -                            | -              | 330            | 173         | H        |
| * 7.567         | 24.99                | ADR  | 36             | -28.1                  | .32          | 33.21                      | 54                 | -20.79      | -                   | -              | -                            | -              | 330            | 173         | H        |
| * 11.428        | 34.13                | PK-U | 38             | -24.6                  | 0            | 47.53                      | -                  | -           | 74                  | -26.47         | -                            | -              | 225            | 271         | V        |
| * 11.429        | 22.38                | ADR  | 38             | -24.6                  | .32          | 36.1                       | 54                 | -17.9       | -                   | -              | -                            | -              | 225            | 271         | V        |

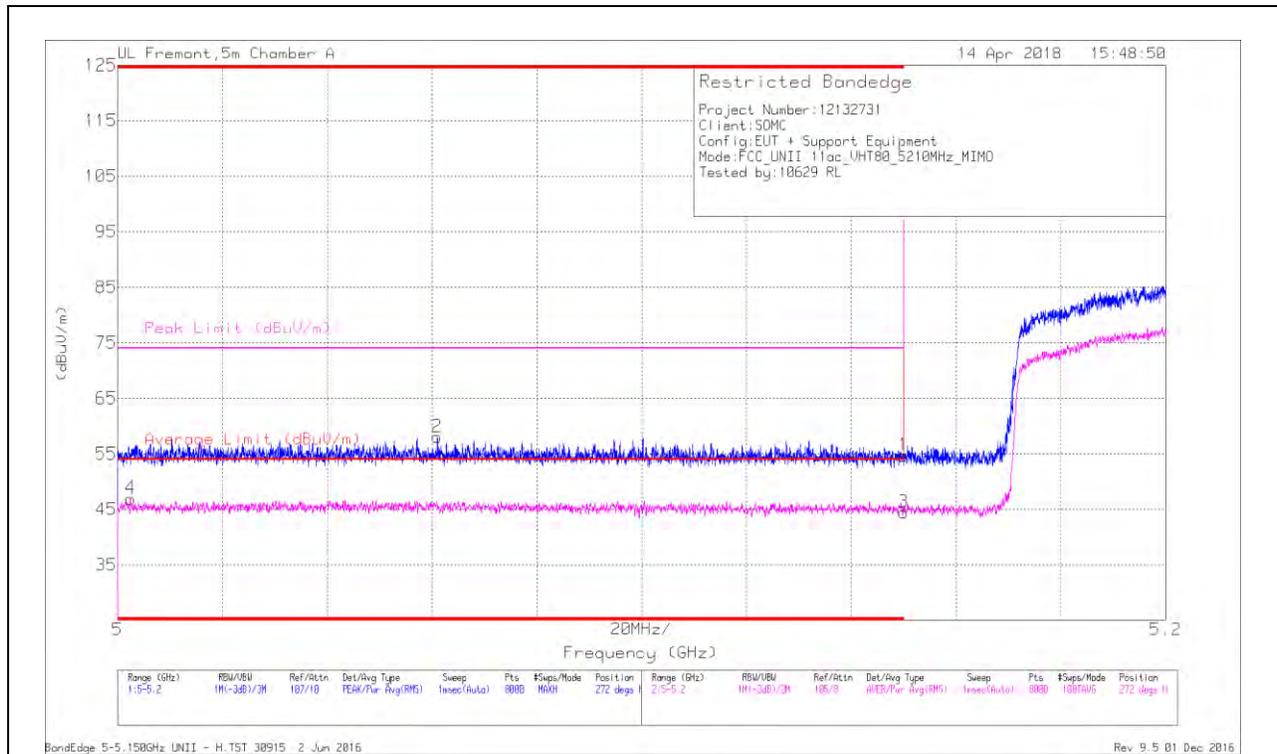
\* - indicates frequency in CFR47 Pt 15 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

**9.1.4. TX ABOVE 1 GHz 802.11ac VHT80 MODE IN THE 5.2 GHz BAND**

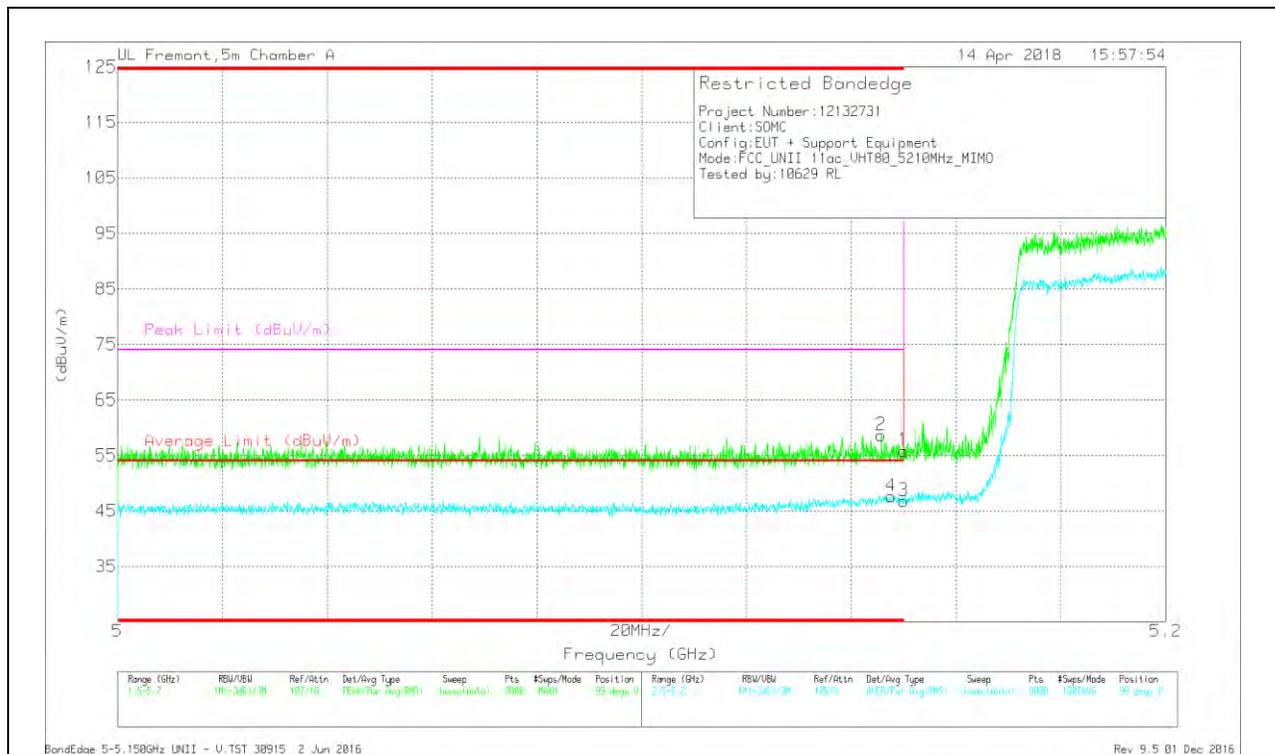
**BANDEDGE (MID CHANNEL)  
 HORIZONTAL RESULT**



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dBm) | Amp/Cb/Filt/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|----------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 4      | * 5.002         | 29.92                | RMS | 34.3          | -17.9                | .62          | 46.94                      | 54                     | -7.06       | -                   | -              | 272            | 267         | H        |
| 2      | * 5.061         | 41.51                | Pk  | 34.4          | -17.9                | 0            | 58.01                      | -                      | -           | 74                  | -15.99         | 272            | 267         | H        |
| 1      | * 5.15          | 38.38                | Pk  | 34.4          | -18.1                | 0            | 54.68                      | -                      | -           | 74                  | -19.32         | 272            | 267         | H        |
| 3      | * 5.15          | 27.55                | RMS | 34.4          | -18.1                | .62          | 44.47                      | 54                     | -9.53       | -                   | -              | 272            | 267         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band  
 Pk - Peak detector  
 RMS - RMS detection

### VERTICAL RESULT



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T862 (dB/m) | Amp/CoilFilt/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 2      | * 5.146         | 42.25                | Pk  | 34.4           | -18                   | 0            | 58.65                      | -                      | -           | 74                  | -15.35         | 99             | 192         | V        |
| 4      | * 5.148         | 30.73                | RMS | 34.4           | -18.1                 | 62           | 47.65                      | 54                     | -6.35       | -                   | -              | 99             | 192         | V        |
| 1      | * 5.15          | 39.58                | Pk  | 34.4           | -18.1                 | 0            | 55.88                      | -                      | -           | 74                  | -18.12         | 99             | 192         | V        |
| 3      | * 5.15          | 29.88                | RMS | 34.4           | -18.1                 | 62           | 46.8                       | 54                     | -7.2        | -                   | -              | 99             | 192         | V        |

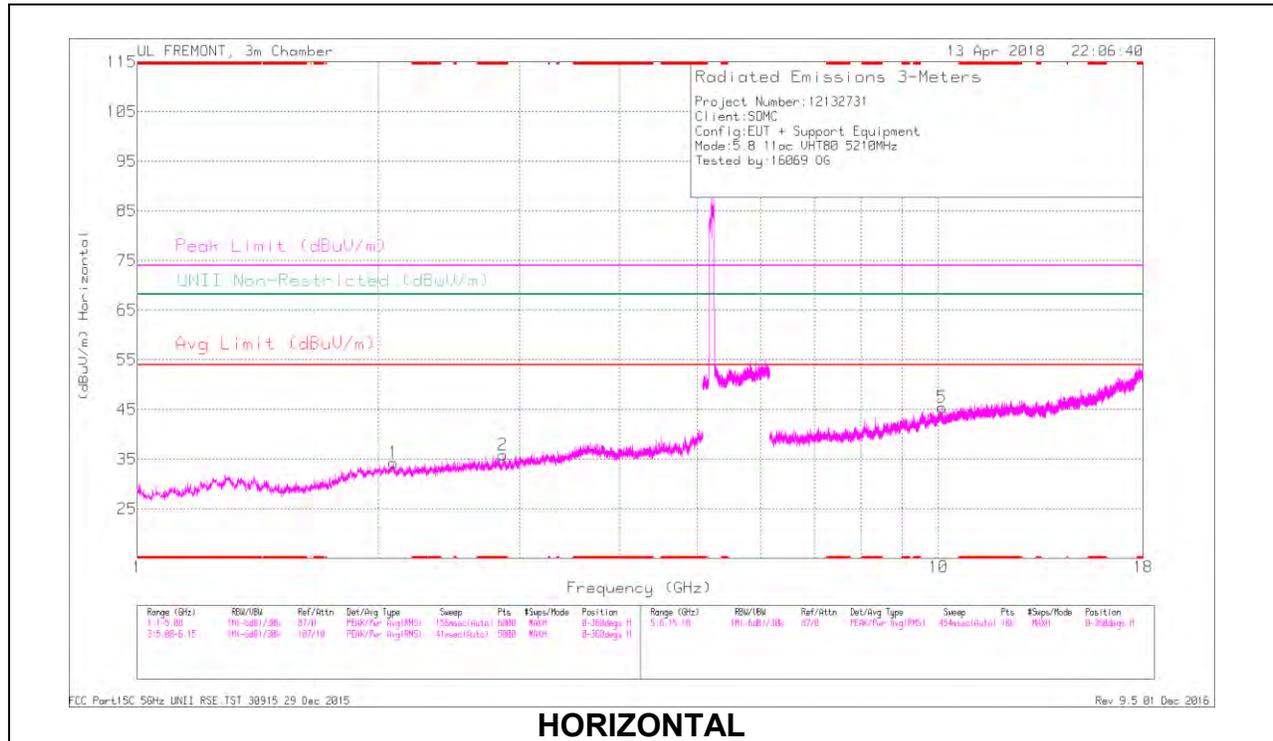
\* - indicates frequency in CFR47 Pt 15 Restricted Band

Pk - Peak detector

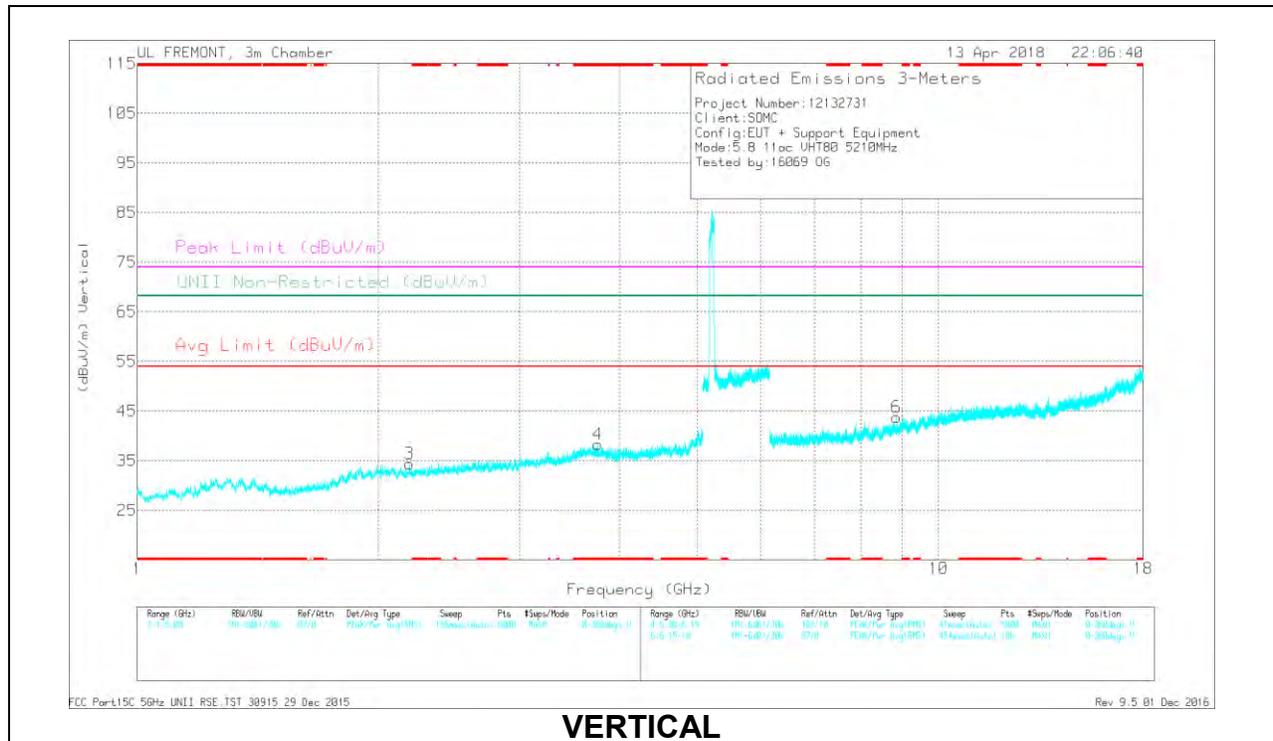
RMS - RMS detection

**HARMONICS AND SPURIOUS EMISSIONS**

**MID CHANNEL RESULTS**



**HORIZONTAL**



**VERTICAL**

**RADIATED EMISSIONS**

| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF 1120 (dBm) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNI Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|---------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|-----------------------------|----------------|----------------|-------------|----------|
| 2      | * 2.857         | 38.41                | PK-U | 32.7          | -29.8                | 0            | 41.31                      | -                  | -           | 74                  | -32.69         | -                           | -              | 266            | 113         | H        |
| 2      | * 2.859         | 26.53                | ADR  | 32.7          | -29.9                | .62          | 29.95                      | 54                 | -24.05      | -                   | -              | -                           | -              | 266            | 113         | H        |
| 4      | * 3.754         | 38.83                | PK-U | 33.9          | -28.2                | 0            | 44.53                      | -                  | -           | 74                  | -29.47         | -                           | -              | 118            | 339         | V        |
| 4      | * 3.755         | 27.24                | ADR  | 33.9          | -28.1                | .62          | 33.66                      | 54                 | -20.34      | -                   | -              | -                           | -              | 118            | 339         | V        |
| 1      | 2.088           | 38.96                | PK-U | 31.7          | -30                  | 0            | 40.66                      | -                  | -           | -                   | -              | 68.2                        | -27.54         | 245            | 268         | H        |
| 3      | 2.185           | 39.54                | PK-U | 31.5          | -30.1                | 0            | 40.94                      | -                  | -           | -                   | -              | 68.2                        | -27.26         | 106            | 305         | V        |
| 6      | 8.961           | 34.44                | PK-U | 36.1          | -22.3                | 0            | 48.24                      | -                  | -           | -                   | -              | 68.2                        | -19.96         | 37             | 163         | V        |
| 5      | 10.102          | 34.28                | PK-U | 37.4          | -21.3                | 0            | 50.38                      | -                  | -           | -                   | -              | 68.2                        | -17.82         | 100            | 366         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band

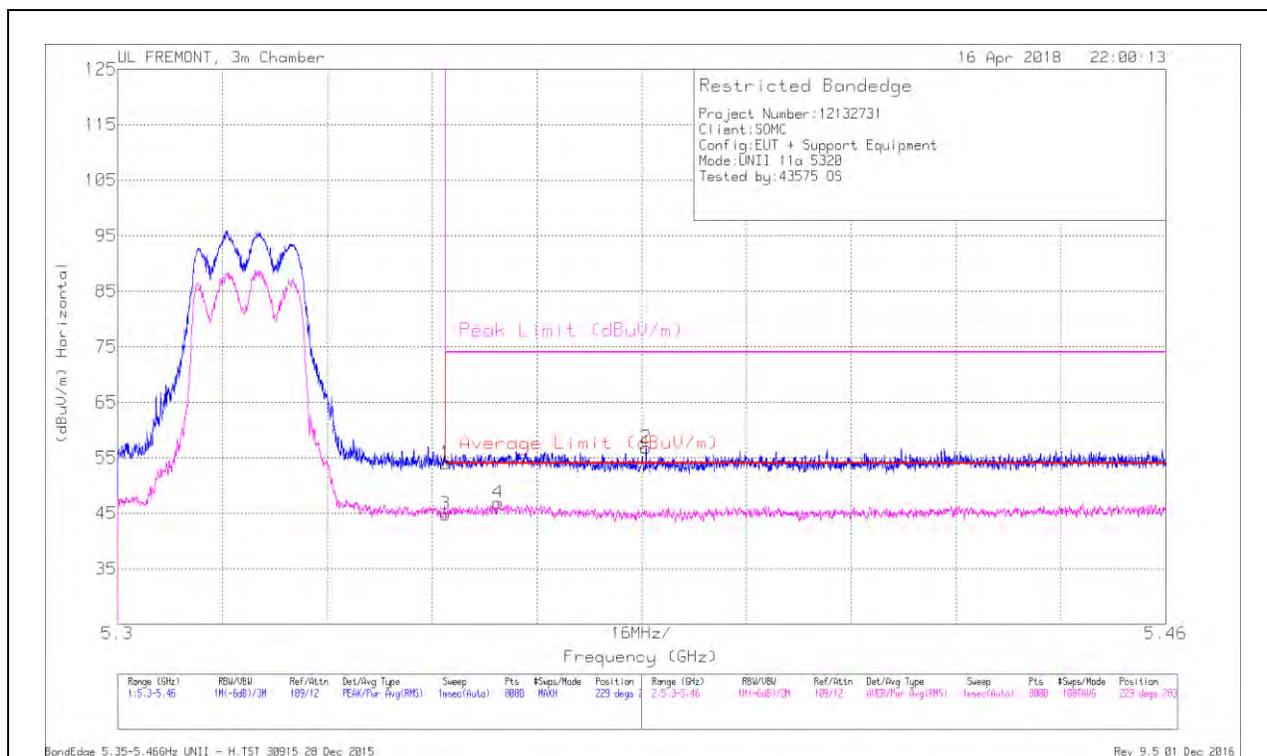
PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

**9.1.5. TX ABOVE 1 GHz 802.11a MODE IN THE 5.3 GHz BAND**

**BANDEDGE (HIGH CHANNEL)**

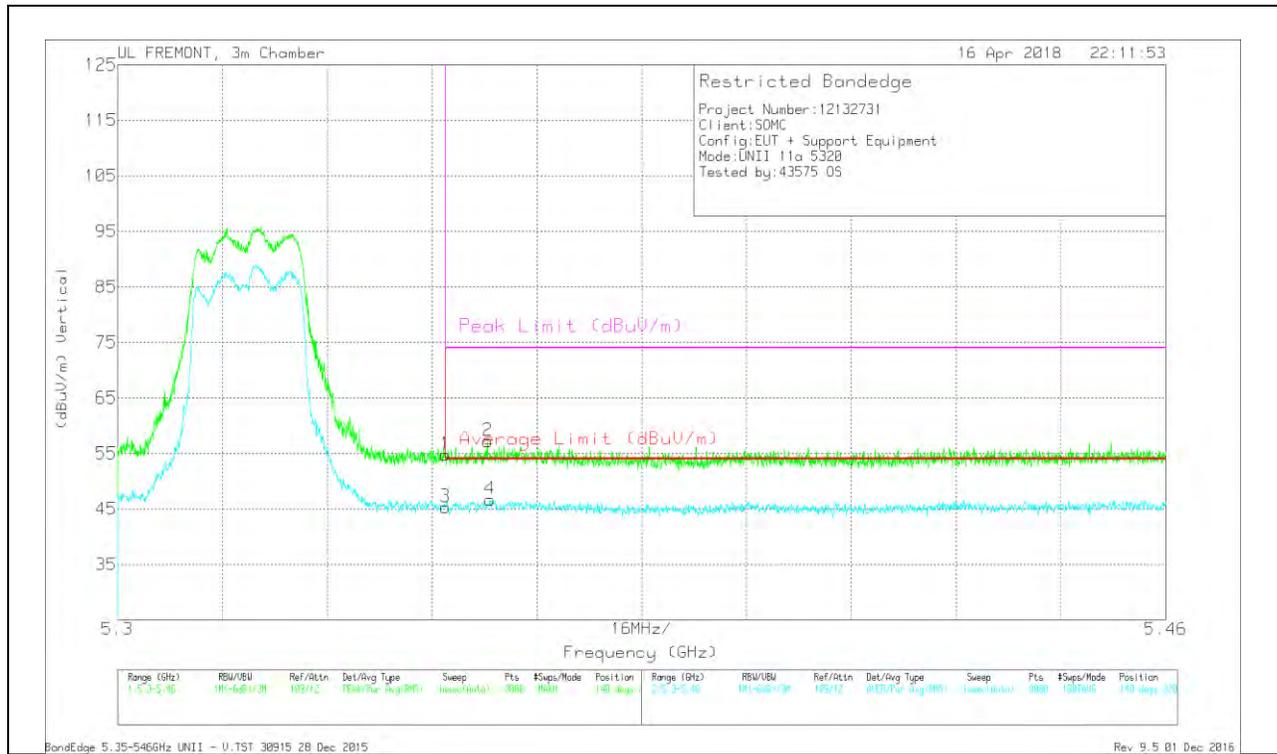
**HORIZONTAL RESULT**



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T120 (dBm) | Amp/Cbl/Filtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|------------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | 5.35            | 38.01                | Pk  | 34.7          | -18.7                  | 0            | 54.01                      | -                      | -           | 74                  | -19.99         | 229            | 283         | H        |
| 3      | 5.35            | 28.84                | RMS | 34.7          | -18.7                  | 0            | 44.84                      | 54                     | -9.16       | -                   | -              | 229            | 283         | H        |
| 4      | 5.358           | 30.39                | RMS | 34.7          | -18.2                  | 0            | 46.89                      | 54                     | -7.11       | -                   | -              | 229            | 283         | H        |
| 2      | 5.381           | 40.99                | Pk  | 34.8          | -19                    | 0            | 56.79                      | -                      | -           | 74                  | -17.21         | 229            | 283         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band  
 Pk - Peak detector  
 RMS - RMS detection

### VERTICAL RESULT

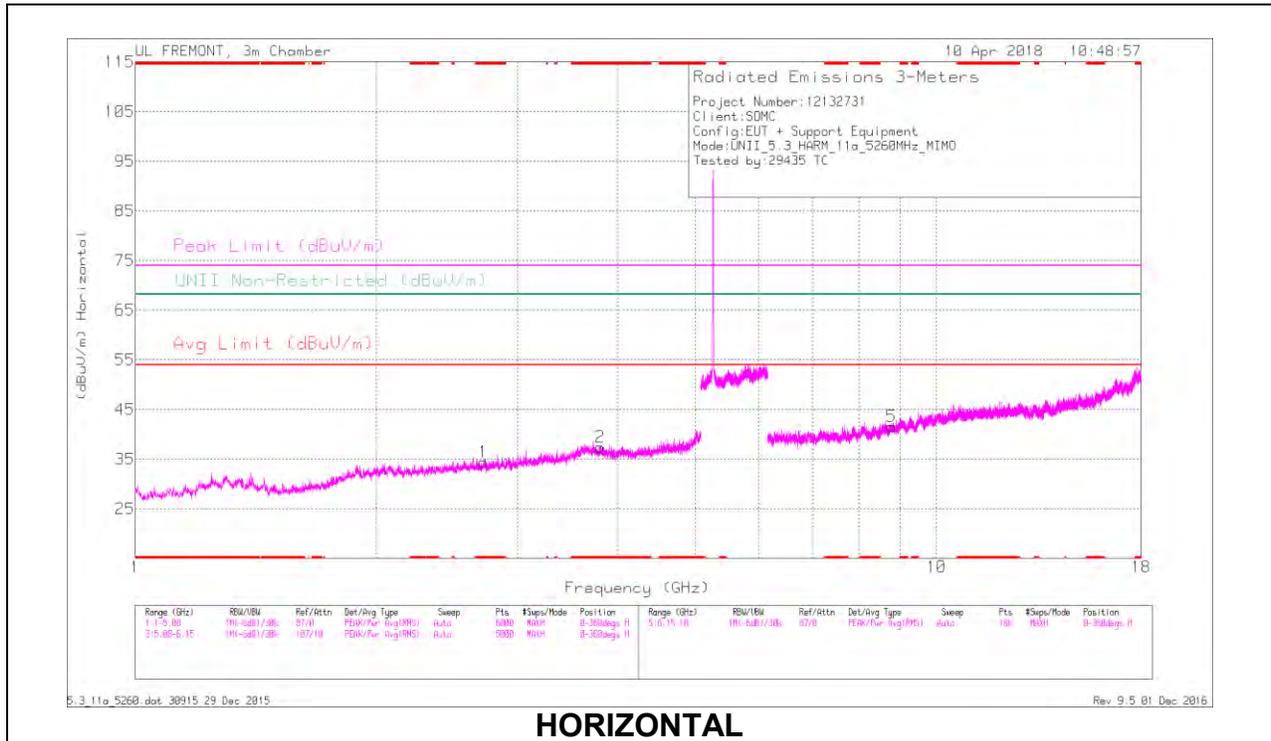


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T120 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | 5.35            | 38.79                | Pk  | 34.7           | -18.7                 | 0            | 54.79                      | -                      | -           | 74                  | -19.21         | 140            | 320         | V        |
| 3      | 5.35            | 29.35                | RMS | 34.7           | -18.7                 | 0            | 45.35                      | 54                     | -8.65       | -                   | -              | 140            | 320         | V        |
| 2      | 5.356           | 40.95                | Pk  | 34.7           | -18.4                 | 0            | 57.25                      | -                      | -           | 74                  | -16.75         | 140            | 320         | V        |
| 4      | 5.357           | 30.32                | RMS | 34.7           | -18.3                 | 0            | 46.72                      | 54                     | -7.28       | -                   | -              | 140            | 320         | V        |

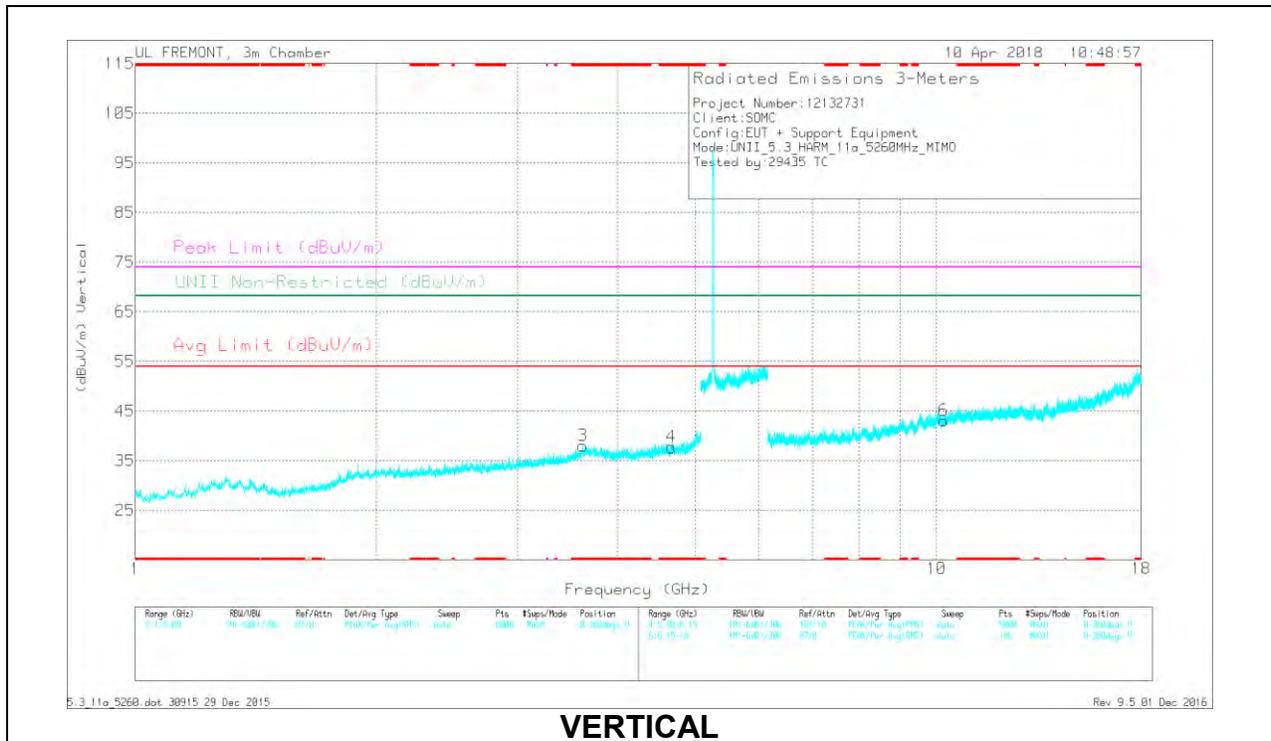
\* - indicates frequency in CFR47 Pt 15 Restricted Band  
 Pk - Peak detector  
 RMS - RMS detection

**HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL RESULTS**



**HORIZONTAL**



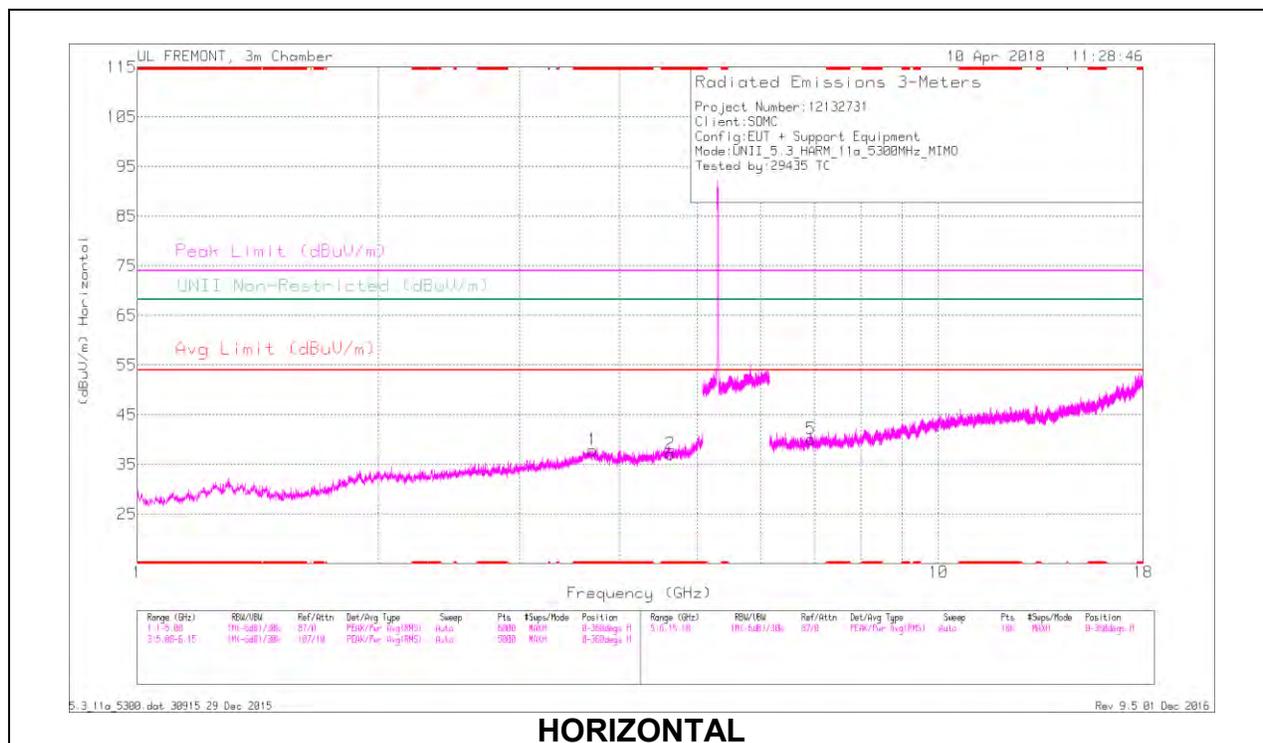
**VERTICAL**

**RADIATED EMISSIONS**

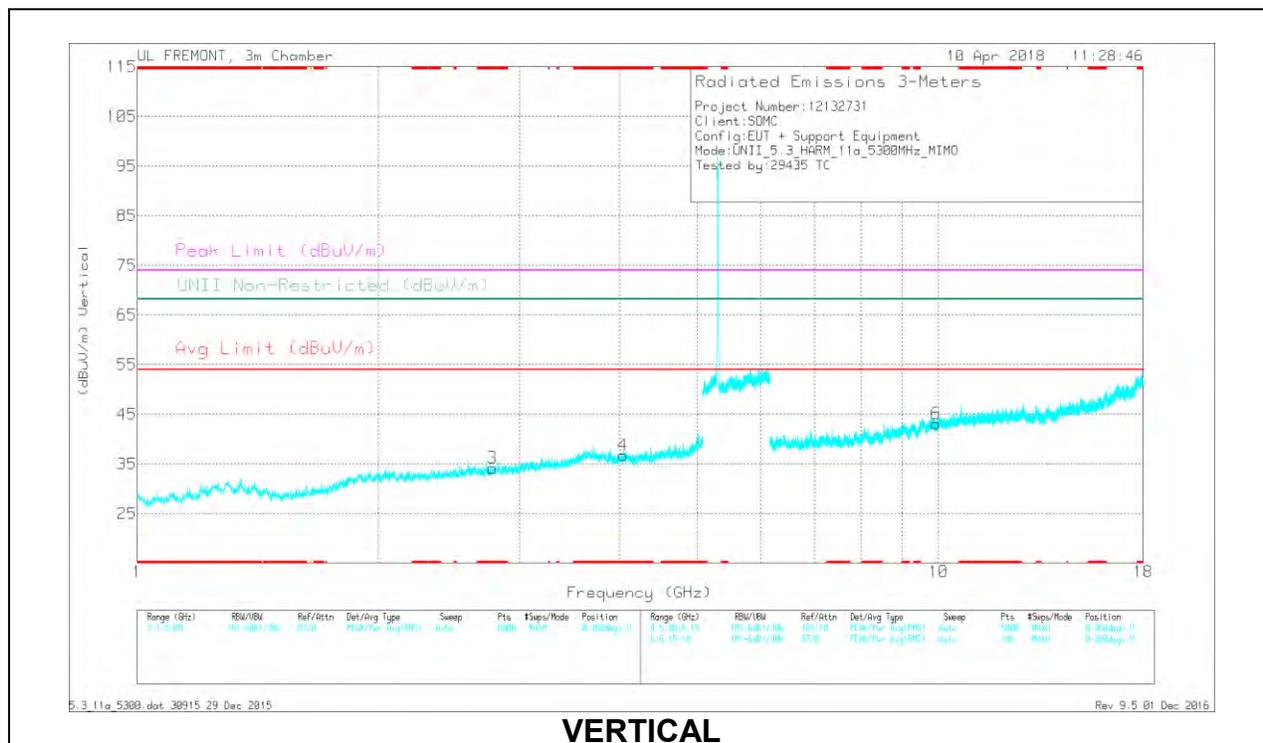
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF 1120 (dBm) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNI Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|---------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|-----------------------------|----------------|----------------|-------------|----------|
| 1      | * 2.717         | 38.24                | PK-U | 32.5          | -29.3                | 0            | 41.44                      | -                  | -           | 74                  | -32.56         | -                           | -              | 319            | 235         | H        |
|        | * 2.718         | 26.36                | ADR  | 32.5          | -29.2                | 0            | 29.66                      | 54                 | -24.34      | -                   | -              | -                           | -              | 319            | 235         | H        |
| 2      | * 3.801         | 38.55                | PK-U | 33.7          | -28.2                | 0            | 44.05                      | -                  | -           | 74                  | -29.95         | -                           | -              | 102            | 144         | H        |
|        | * 3.8           | 27.16                | ADR  | 33.7          | -28.3                | 0            | 32.96                      | 54                 | -21.44      | -                   | -              | -                           | -              | 102            | 144         | H        |
| 3      | * 3.619         | 39.12                | PK-U | 34.6          | -28.7                | 0            | 45.02                      | -                  | -           | 74                  | -28.98         | -                           | -              | 14             | 400         | V        |
|        | * 3.619         | 27.29                | ADR  | 34.6          | -28.7                | 0            | 33.19                      | 54                 | -20.81      | -                   | -              | -                           | -              | 14             | 400         | V        |
| 4      | * 4.668         | 37.77                | PK-U | 34.1          | -27.6                | 0            | 44.27                      | -                  | -           | 74                  | -29.73         | -                           | -              | 328            | 268         | V        |
|        | * 4.669         | 26.62                | ADR  | 34.1          | -27.5                | 0            | 33.22                      | 54                 | -20.78      | -                   | -              | -                           | -              | 328            | 268         | V        |
| 5      | 8.787           | 34.47                | PK-U | 36            | -21.7                | 0            | 48.77                      | -                  | -           | -                   | -              | 68.2                        | -19.43         | 171            | 164         | H        |
| 6      | 10.201          | 34.64                | PK-U | 37.4          | -21.2                | 0            | 50.84                      | -                  | -           | -                   | -              | 68.2                        | -17.36         | 140            | 163         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band  
 PK-U - U-NII: Maximum Peak  
 ADR - U-NII AD primary method, RMS average

### MID CHANNEL RESULTS



**HORIZONTAL**



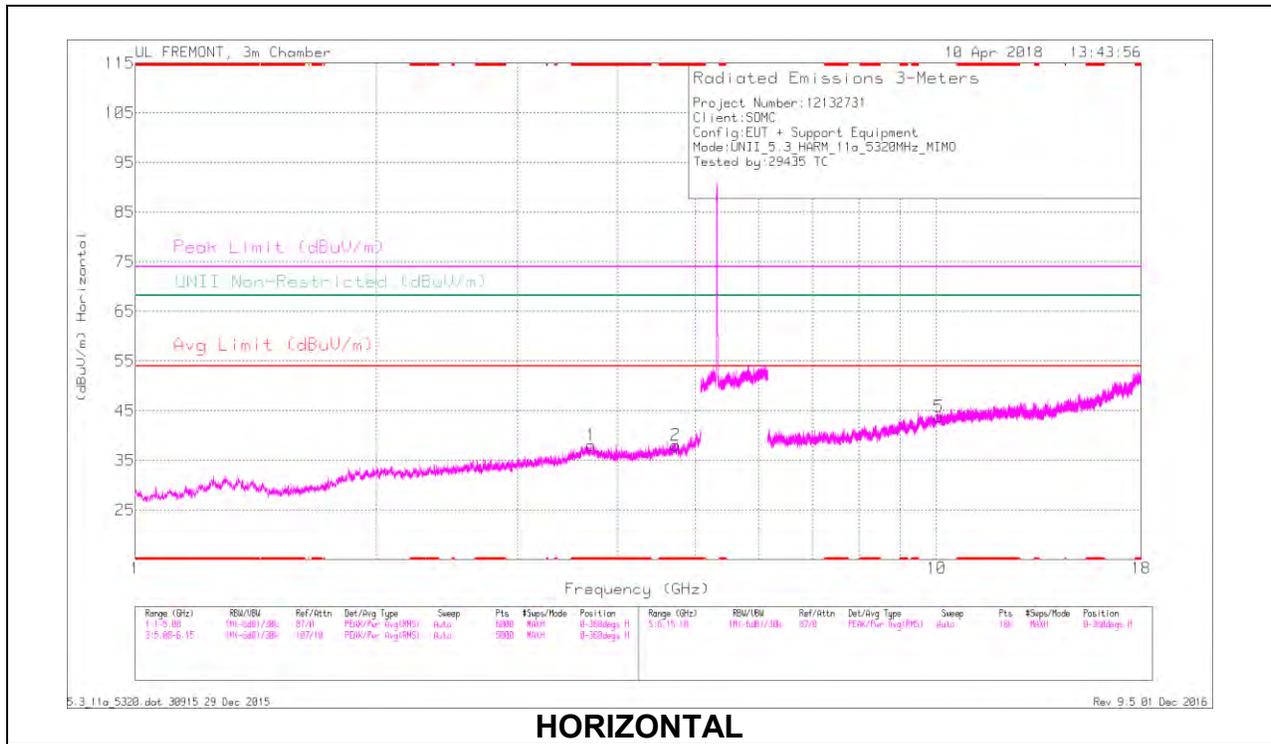
**VERTICAL**

**RADIATED EMISSIONS**

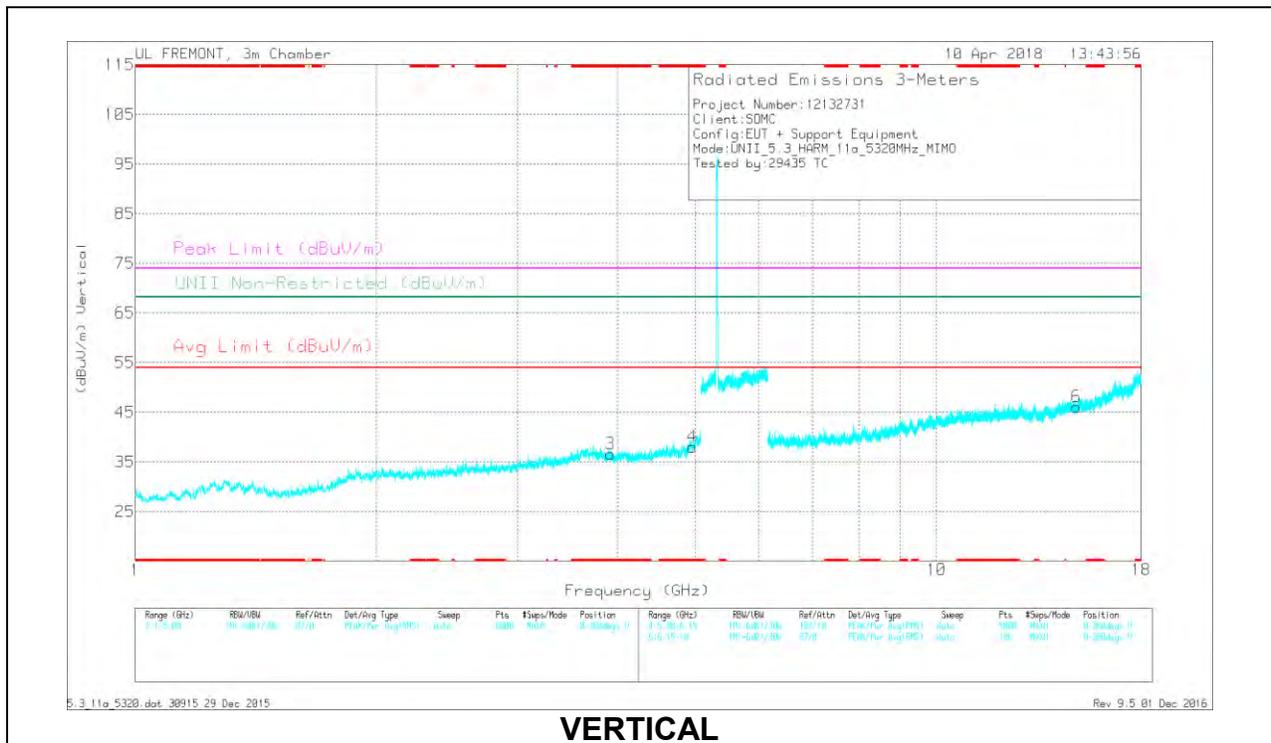
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF T120 (dB/m) | Amp/CalFtr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNII Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|----------------|---------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|------------------------------|----------------|----------------|-------------|----------|
| 1      | * 3.702         | 38.4                 | PK-U | 34.1           | -27.7               | 0            | 44.8                       | -                  | -           | 74                  | -29.2          | -                            | -              | 124            | 367         | H        |
|        | * 3.702         | 26.77                | ADR  | 34.1           | -27.8               | 0            | 33.07                      | 54                 | -20.93      | -                   | -              | -                            | -              | 124            | 367         | H        |
| 2      | * 4.625         | 37.05                | PK-U | 34.1           | -27                 | 0            | 44.15                      | -                  | -           | 74                  | -29.85         | -                            | -              | 14             | 388         | H        |
|        | * 4.621         | 25.95                | ADR  | 34.1           | -27.2               | 0            | 32.85                      | 54                 | -21.15      | -                   | -              | -                            | -              | 14             | 388         | H        |
| 3      | * 2.78          | 38.52                | PK-U | 32.6           | -29.7               | 0            | 41.42                      | -                  | -           | 74                  | -32.58         | -                            | -              | 71             | 330         | V        |
|        | * 2.778         | 26.73                | ADR  | 32.6           | -29.6               | 0            | 29.73                      | 54                 | -24.27      | -                   | -              | -                            | -              | 71             | 330         | V        |
| 4      | * 4.038         | 38.49                | PK-U | 33.5           | -28.3               | 0            | 43.88                      | -                  | -           | 74                  | -30.32         | -                            | -              | 325            | 395         | V        |
|        | * 4.04          | 27.32                | ADR  | 33.5           | -28.4               | 0            | 32.42                      | 54                 | -21.58      | -                   | -              | -                            | -              | 325            | 395         | V        |
| 5      | 6.927           | 36.46                | PK-U | 35.7           | -25.3               | 0            | 46.86                      | -                  | -           | -                   | -              | 68.2                         | -21.34         | 166            | 179         | H        |
| 6      | 9.923           | 33.56                | PK-U | 37.3           | -21.3               | 0            | 49.56                      | -                  | -           | -                   | -              | 68.2                         | -18.64         | 189            | 197         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band  
 PK-U - U-NII: Maximum Peak  
 ADR - U-NII AD primary method, RMS average

### HIGH CHANNEL RESULTS



**HORIZONTAL**



**VERTICAL**

**RADIATED EMISSIONS**

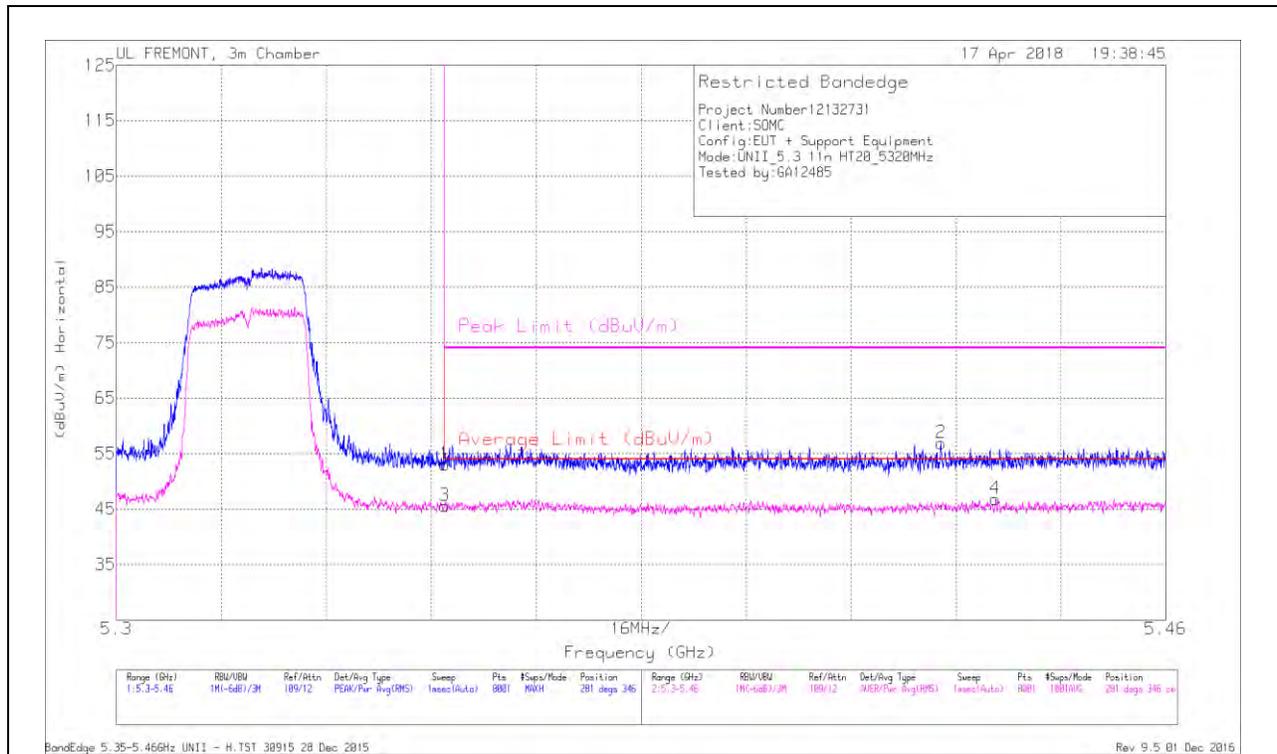
| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det  | AF 1120 (dBm) | Amp/Cbl/Ftr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Avg Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | UNI Non-Restricted (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|------|---------------|----------------------|--------------|----------------------------|--------------------|-------------|---------------------|----------------|-----------------------------|----------------|----------------|-------------|----------|
| 1      | * 3.703         | 38.71                | PK-U | 34.1          | -27.8                | 0            | 45.91                      | -                  | -           | 74                  | -28.99         | -                           | -              | 198            | 114         | H        |
|        | * 3.702         | 26.54                | ADR  | 34.1          | -27.7                | 0            | 32.94                      | 54                 | -21.06      | -                   | -              | -                           | -              | 198            | 114         | H        |
| 2      | * 4.721         | 38.13                | PK-U | 34            | -28.2                | 0            | 43.93                      | -                  | -           | 74                  | -30.07         | -                           | -              | 25             | 111         | H        |
|        | * 4.723         | 26.93                | ADR  | 34            | -28.3                | 0            | 32.63                      | 54                 | -21.37      | -                   | -              | -                           | -              | 25             | 111         | H        |
| 3      | * 3.915         | 38.17                | PK-U | 33.5          | -28.3                | 0            | 43.37                      | -                  | -           | 74                  | -30.63         | -                           | -              | 263            | 259         | V        |
|        | * 3.914         | 26.46                | ADR  | 33.5          | -28.3                | 0            | 31.68                      | 54                 | -22.34      | -                   | -              | -                           | -              | 263            | 259         | V        |
| 4      | * 4.956         | 37.86                | PK-U | 34.1          | -27.2                | 0            | 44.76                      | -                  | -           | 74                  | -29.24         | -                           | -              | 17             | 396         | V        |
|        | * 4.955         | 26.31                | ADR  | 34.1          | -27.1                | 0            | 33.31                      | 54                 | -20.69      | -                   | -              | -                           | -              | 17             | 396         | V        |
| 5      | 10.064          | 34.04                | PK-U | 37.3          | -21.2                | 0            | 50.14                      | -                  | -           | -                   | -              | 68.2                        | -18.06         | 201            | 167         | H        |
| 6      | 14.945          | 34.93                | PK-U | 40            | -21.9                | 0            | 53.03                      | -                  | -           | -                   | -              | 68.2                        | -15.17         | 232            | 125         | V        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band  
 PK-U - U-NII: Maximum Peak  
 ADR - U-NII AD primary method, RMS average

**9.1.6. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 5.3 GHz BAND**

**BANDEDGE (HIGH CHANNEL)**

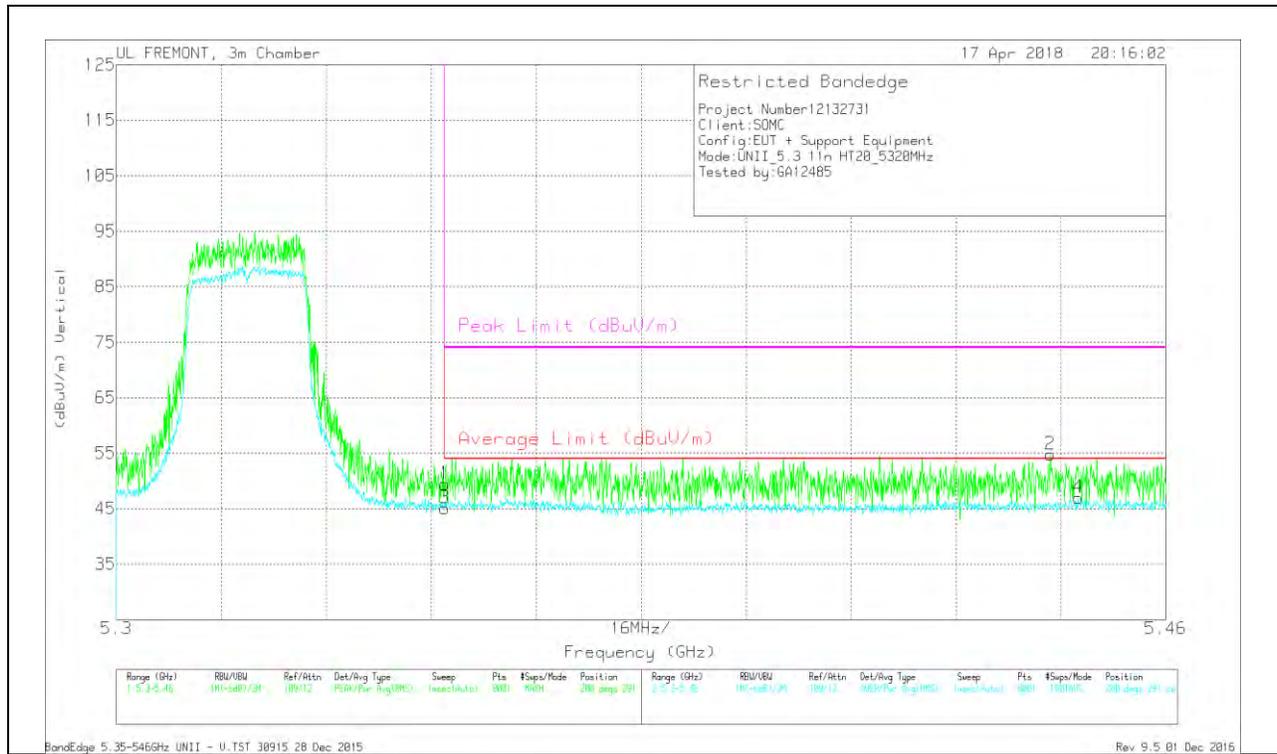
**HORIZONTAL RESULT**



| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T120 (dBm) | Amp/Cbl/Fitr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuVm) | Average Limit (dBuVm) | Margin (dB) | Peak Limit (dBuVm) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|---------------|-----------------------|--------------|---------------------------|-----------------------|-------------|--------------------|----------------|----------------|-------------|----------|
| 1      | 5.35            | 37.04                | Pk  | 34.7          | -18.7                 | 0            | 53.04                     | -                     | -           | 74                 | -20.96         | 281            | 346         | H        |
| 3      | 5.35            | 29.48                | RMS | 34.7          | -18.7                 | .1           | 45.58                     | 54                    | -8.42       | -                  | -              | 281            | 346         | H        |
| 2      | 5.426           | 41.18                | Pk  | 34.7          | -19                   | 0            | 56.88                     | -                     | -           | 74                 | -17.12         | 281            | 346         | H        |
| 4      | 5.434           | 31.34                | RMS | 34.7          | -19.3                 | .1           | 46.84                     | 54                    | -7.16       | -                  | -              | 281            | 346         | H        |

\* - indicates frequency in CFR47 Pt 15 Restricted Band  
 Pk - Peak detector  
 RMS - RMS detection

### VERTICAL RESULT

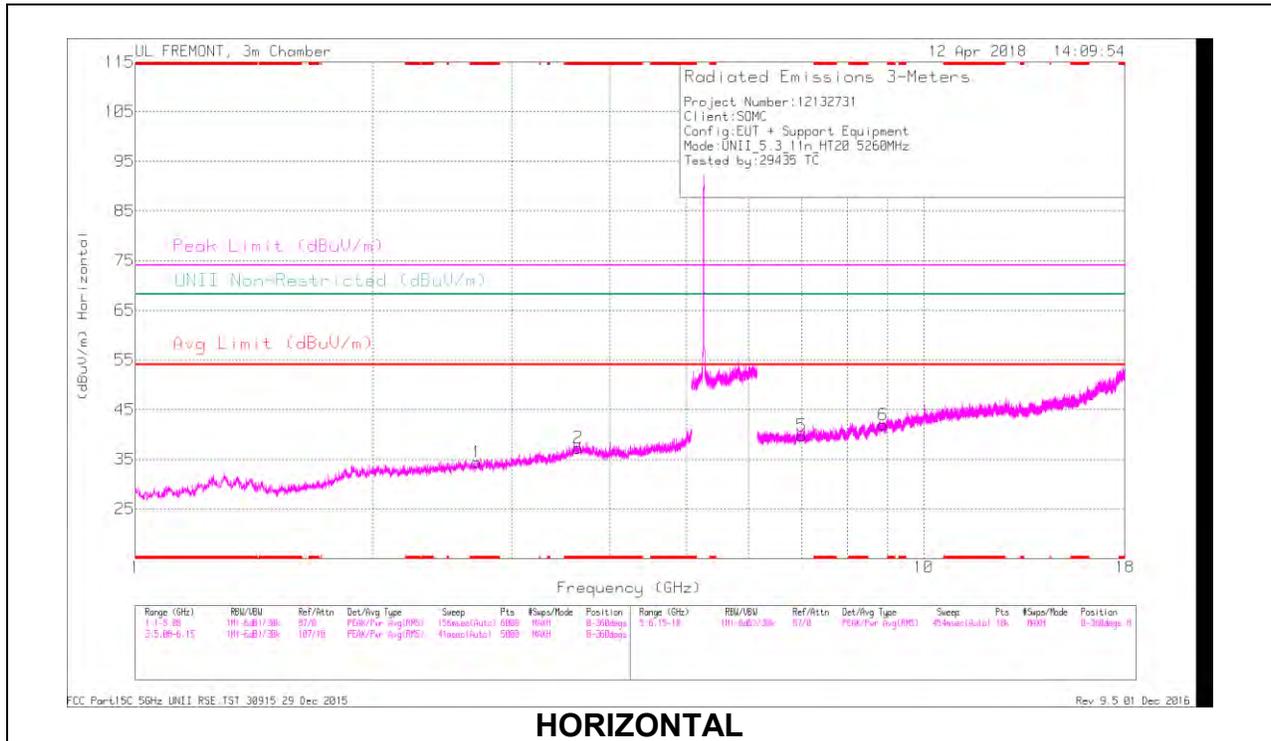


| Marker | Frequency (GHz) | Meter Reading (dBuV) | Det | AF T120 (dB/m) | Amp/Cbl/Fitr/Pad (dB) | DC Corr (dB) | Corrected Reading (dBuV/m) | Average Limit (dBuV/m) | Margin (dB) | Peak Limit (dBuV/m) | PK Margin (dB) | Azimuth (Degs) | Height (cm) | Polarity |
|--------|-----------------|----------------------|-----|----------------|-----------------------|--------------|----------------------------|------------------------|-------------|---------------------|----------------|----------------|-------------|----------|
| 1      | 5.35            | 33.47                | Pk  | 34.7           | -18.7                 | 0            | 49.47                      | -                      | -           | 74                  | -24.53         | 200            | 291         | V        |
| 3      | 5.35            | 29.02                | RMS | 34.7           | -18.7                 | .1           | 45.12                      | 54                     | -8.88       | -                   | -              | 200            | 291         | V        |
| 2      | 5.442           | 39.5                 | Pk  | 34.7           | -19.4                 | 0            | 54.8                       | -                      | -           | 74                  | -19.2          | 200            | 291         | V        |
| 4      | 5.447           | 31.39                | RMS | 34.7           | -19.3                 | .1           | 46.89                      | 54                     | -7.11       | -                   | -              | 200            | 291         | V        |

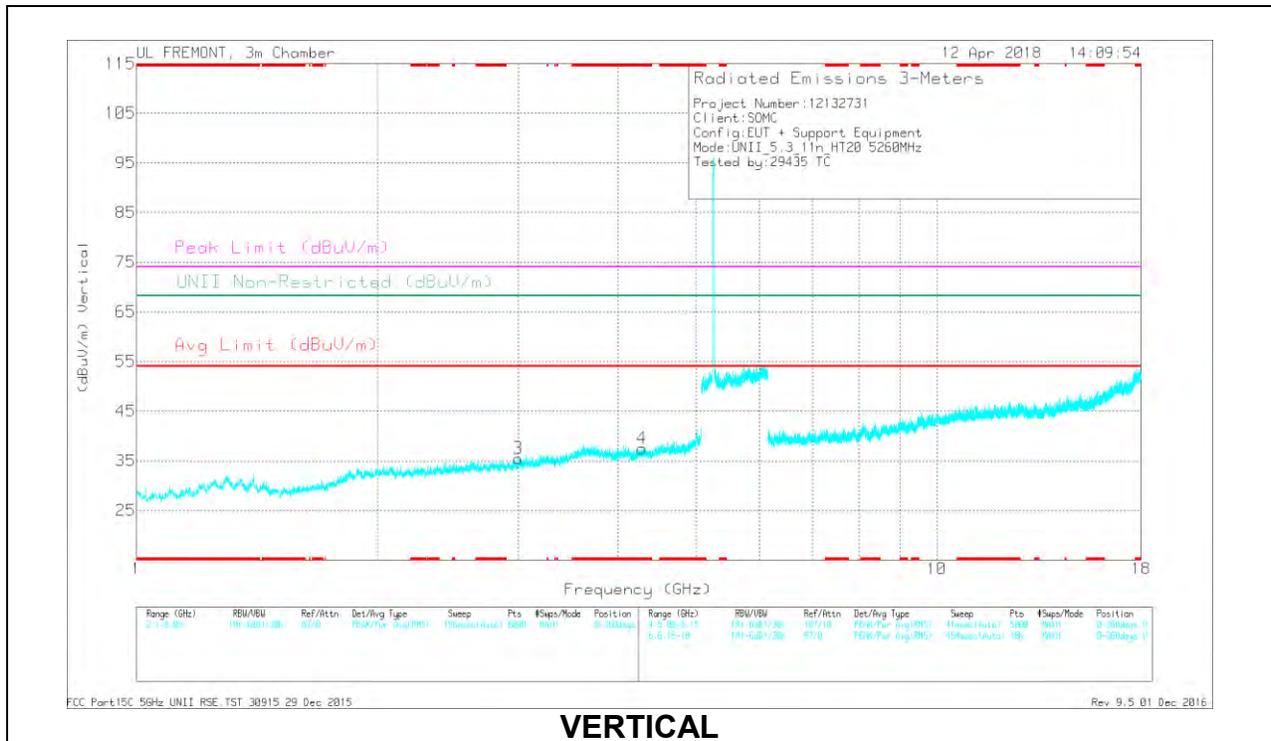
\* - indicates frequency in CFR47 Pt 15 Restricted Band  
 Pk - Peak detector  
 RMS - RMS detection

**HARMONICS AND SPURIOUS EMISSIONS**

**LOW CHANNEL RESULTS**



**HORIZONTAL**



**VERTICAL**