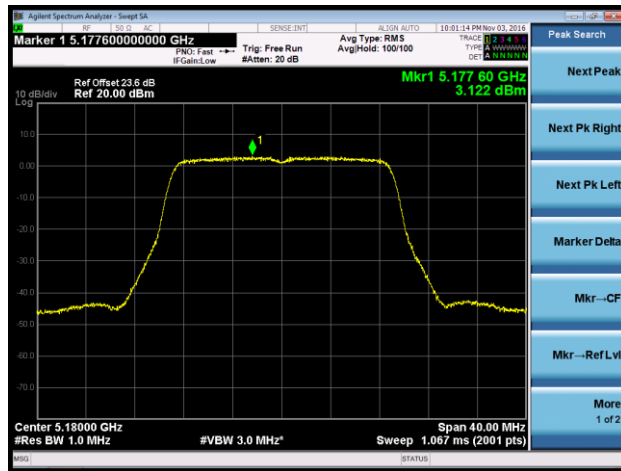
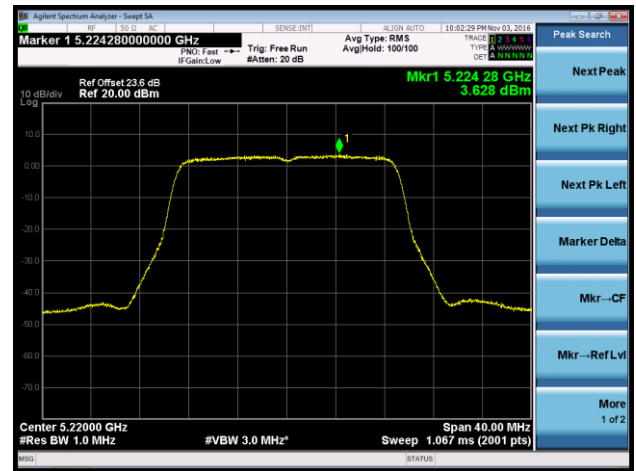


## 802.11n-HT20 Power Spectral Density - Ant 2 / Ant 0 + 1 + 2 + 3

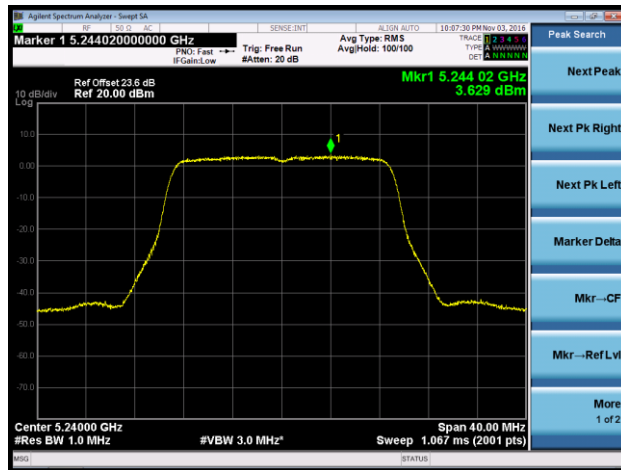
Channel 36 (5180MHz)



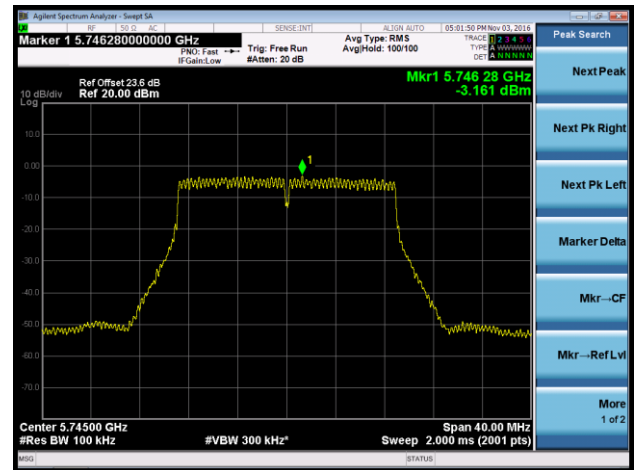
Channel 44 (5220MHz)



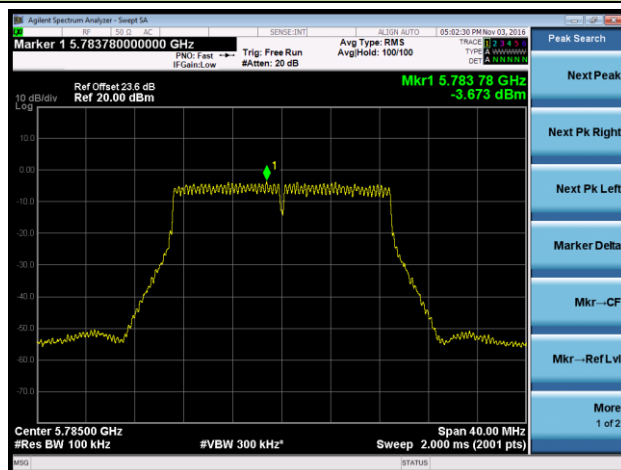
Channel 48 (5240MHz)



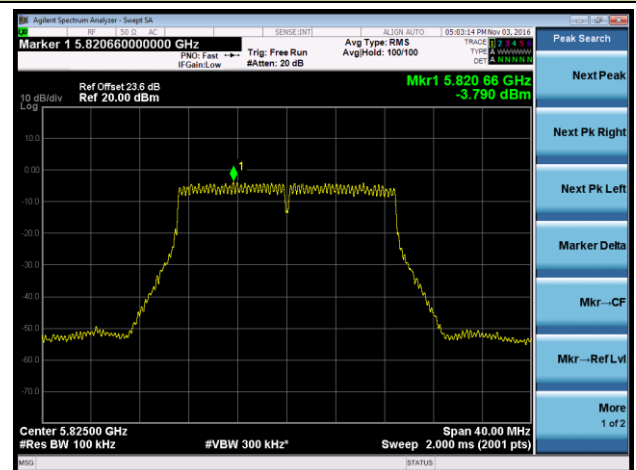
Channel 149 (5745MHz)



Channel 157 (5785MHz)

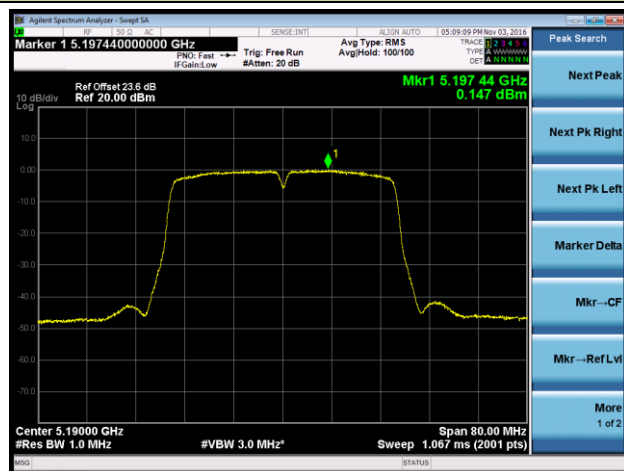


Channel 165 (5825MHz)

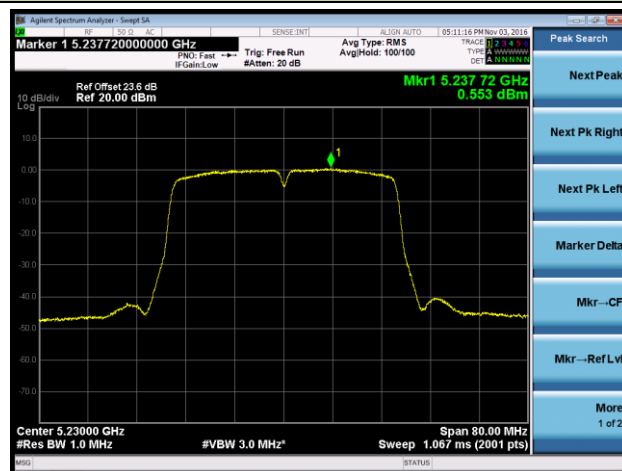


## 802.11n-HT40 Power Spectral Density - Ant 2 / Ant 0 + 1 + 2 + 3

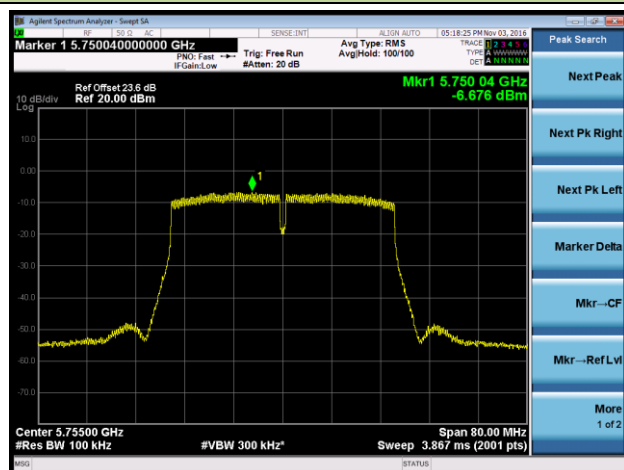
## Channel 38 (5190MHz)



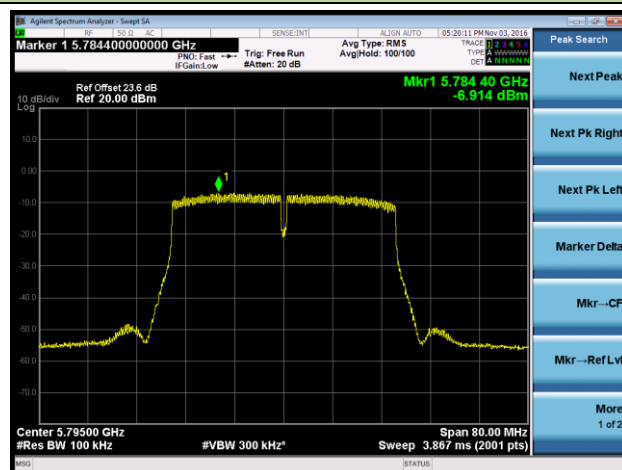
## Channel 46 (5230MHz)



## Channel 151 (5755MHz)

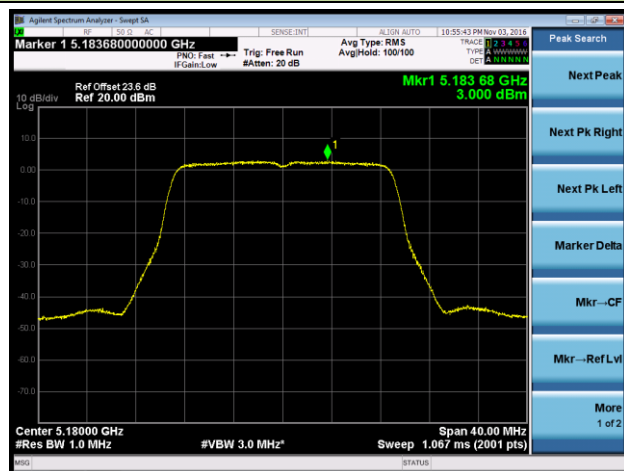


## Channel 159 (5795MHz)

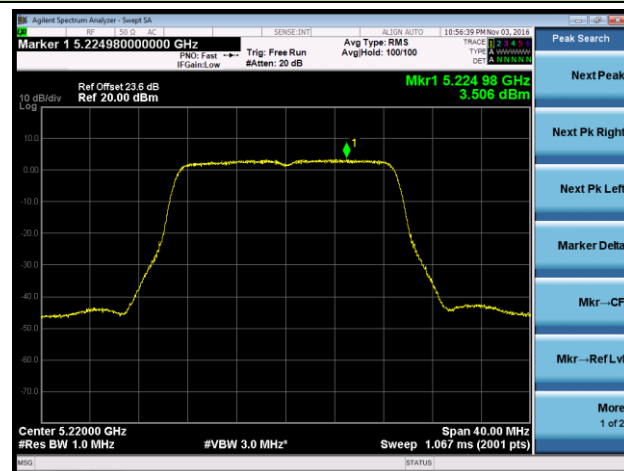


# 802.11ac-VHT20 Power Spectral Density - Ant 2 / Ant 0 + 1 + 2 + 3

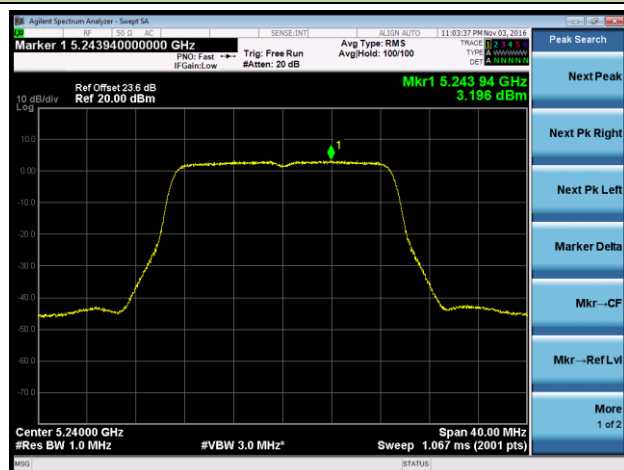
## Channel 36 (5180MHz)



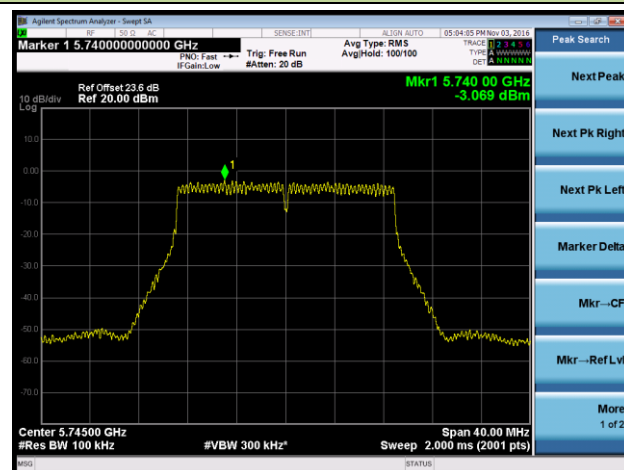
## Channel 44 (5220MHz)



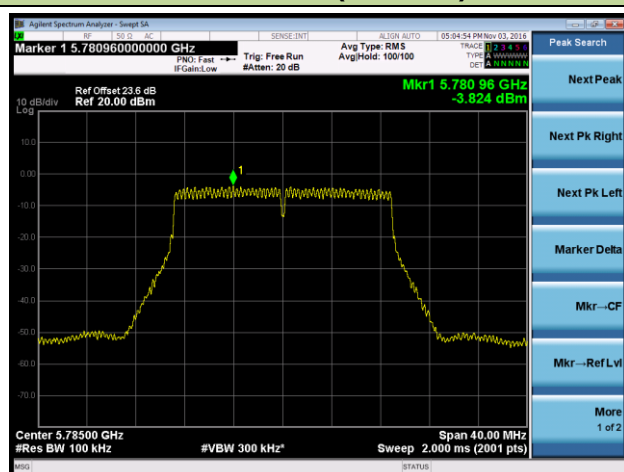
## Channel 48 (5240MHz)



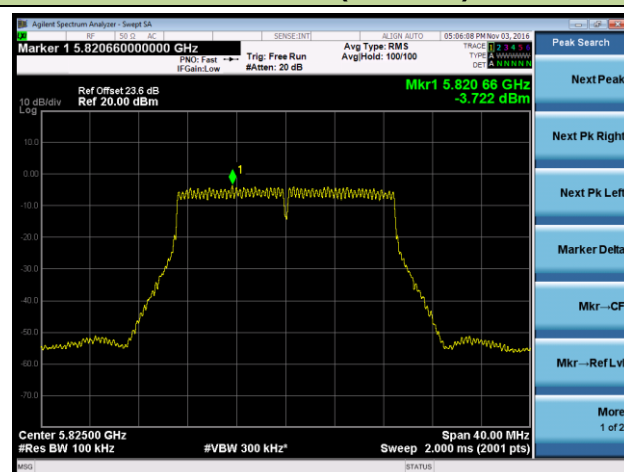
## Channel 149 (5745MHz)



## Channel 157 (5785MHz)

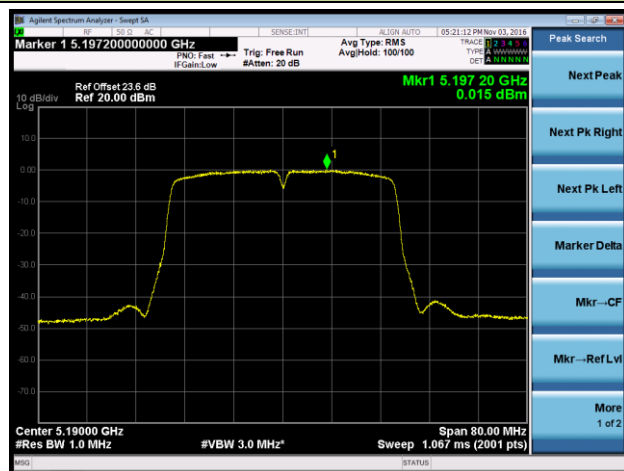


## Channel 165 (5825MHz)

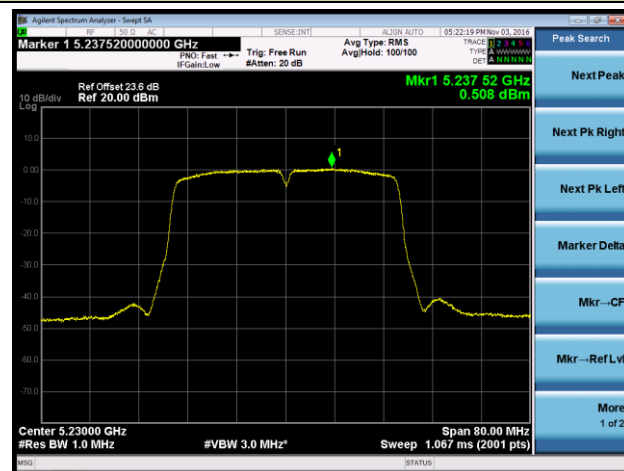


# 802.11ac-VHT40 Power Spectral Density - Ant 2 / Ant 0 + 1 + 2 + 3

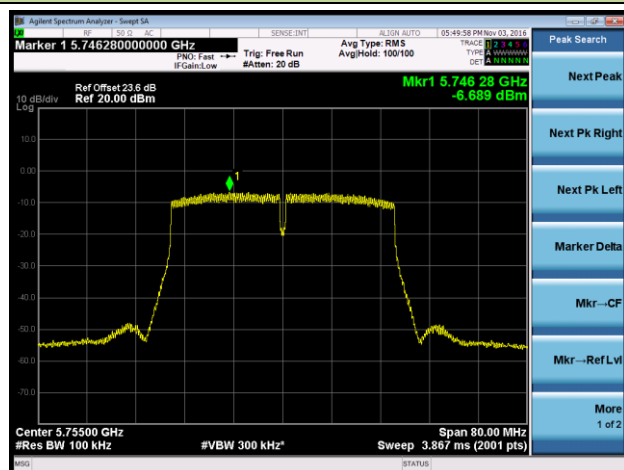
## Channel 38 (5190MHz)



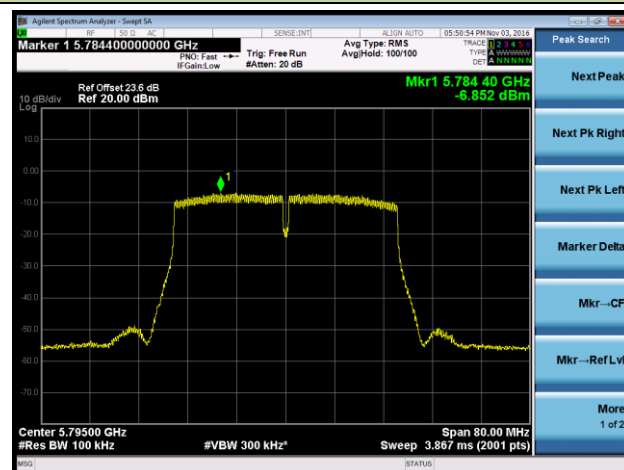
## Channel 46 (5230MHz)



## Channel 151 (5755MHz)

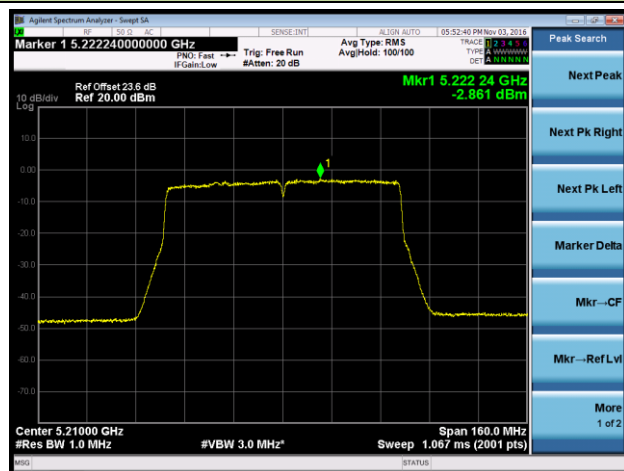


## Channel 159 (5795MHz)

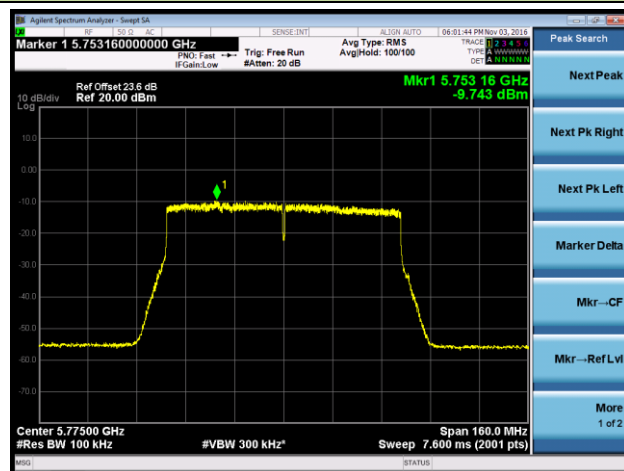


## 802.11ac-VHT80 Power Spectral Density - Ant 2 / Ant 0 + 1 + 2 + 3

## Channel 42 (5210MHz)

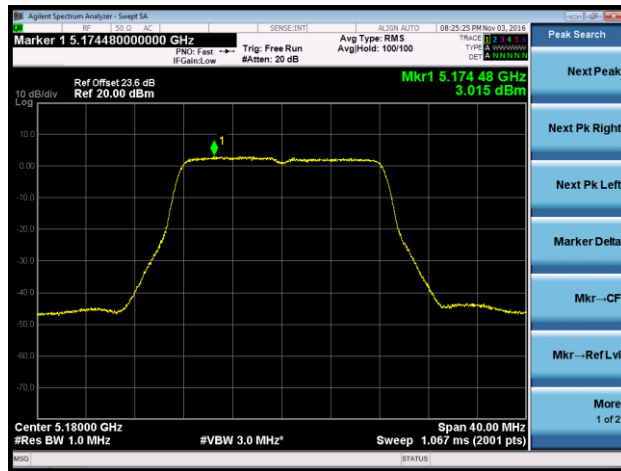


## Channel 155 (5775MHz)

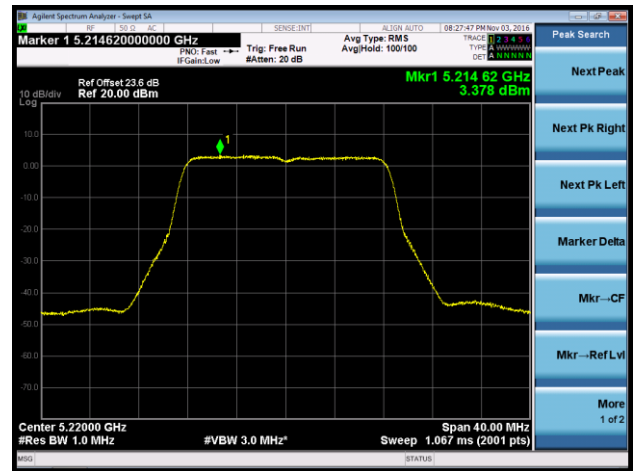


## 802.11a Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3

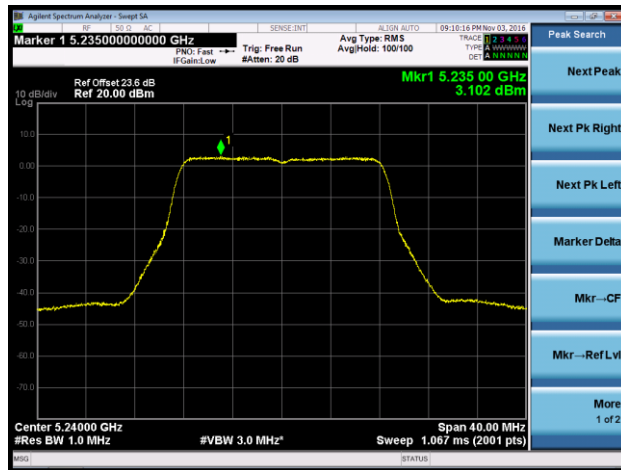
Channel 36 (5180MHz)



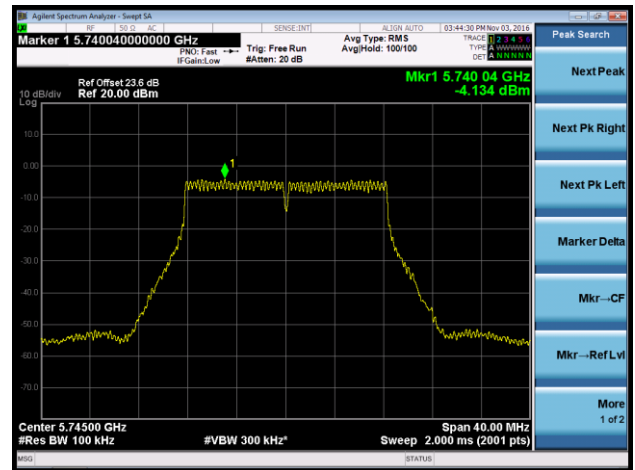
Channel 44 (5220MHz)



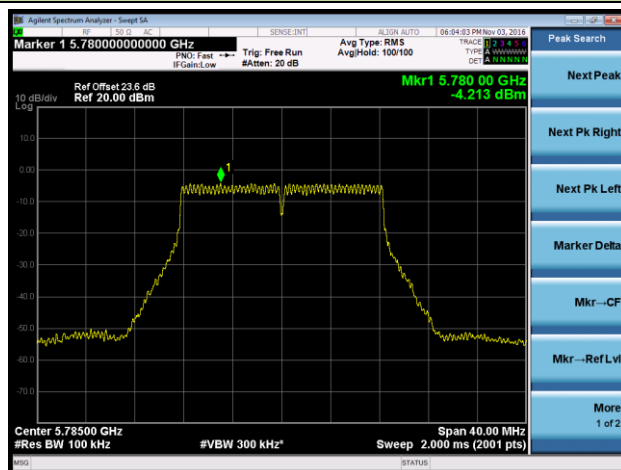
Channel 48 (5240MHz)



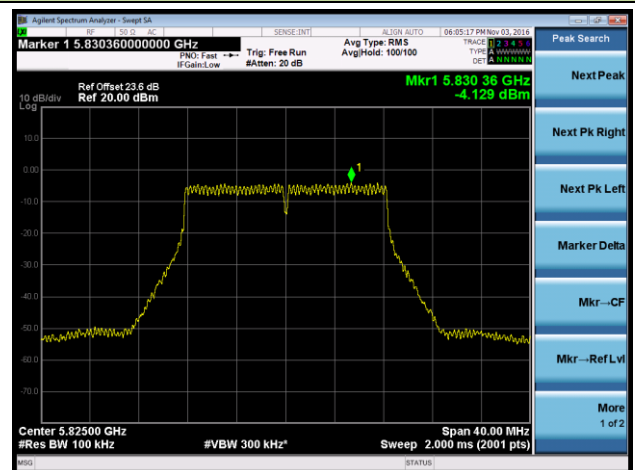
Channel 149 (5745MHz)



Channel 157 (5785MHz)

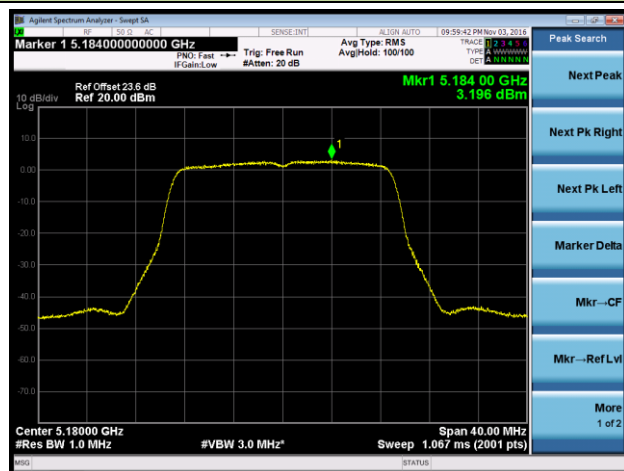


Channel 165 (5825MHz)

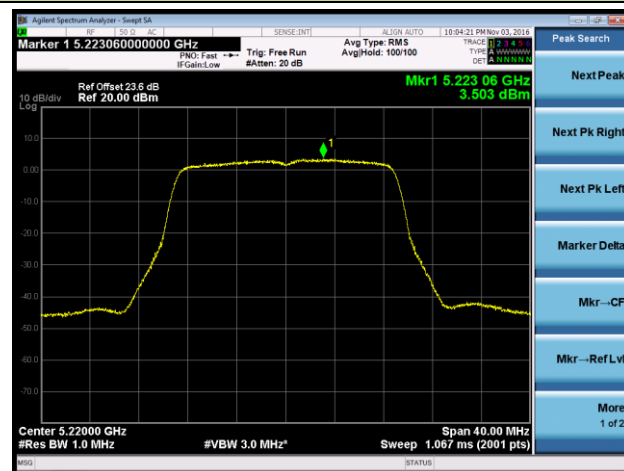


## 802.11n-HT20 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3

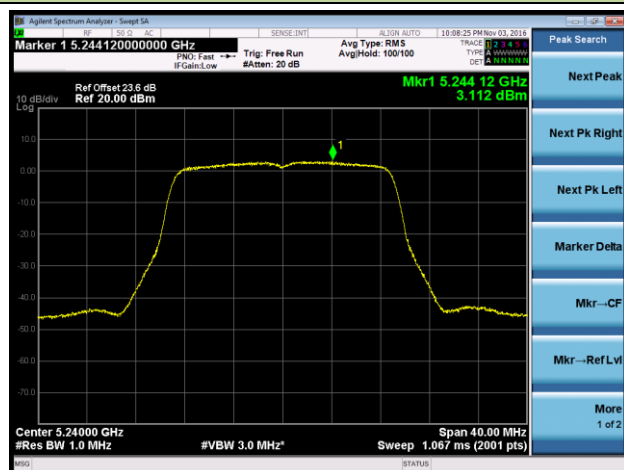
Channel 36 (5180MHz)



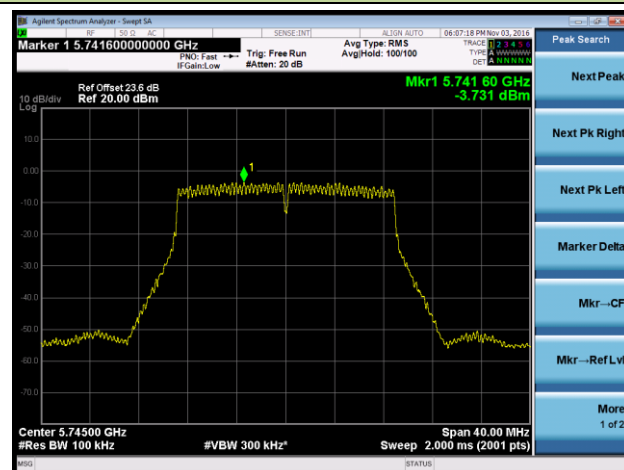
Channel 44 (5220MHz)



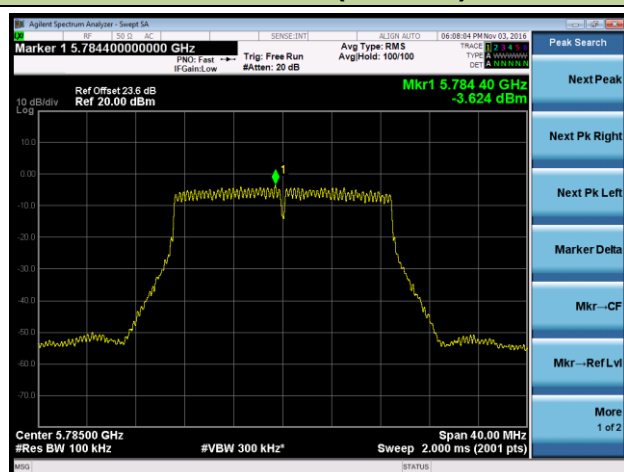
Channel 48 (5240MHz)



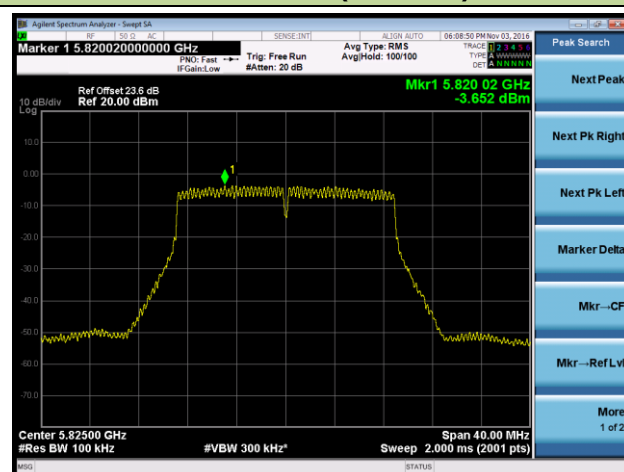
Channel 149 (5745MHz)



Channel 157 (5785MHz)

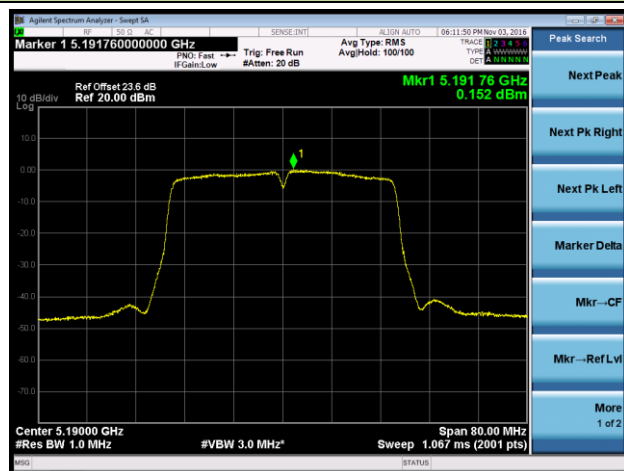


Channel 165 (5825MHz)

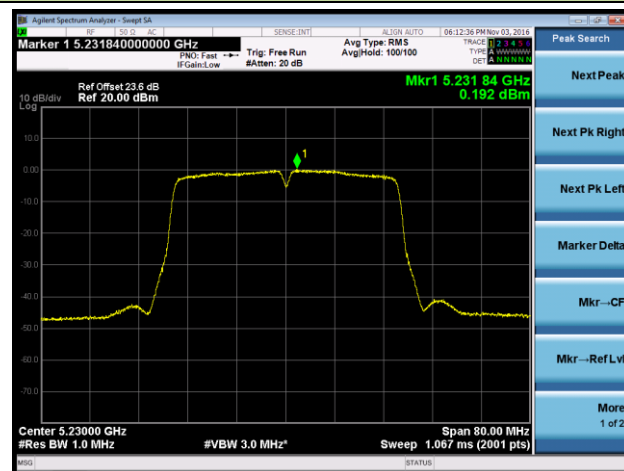


## 802.11n-HT40 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3

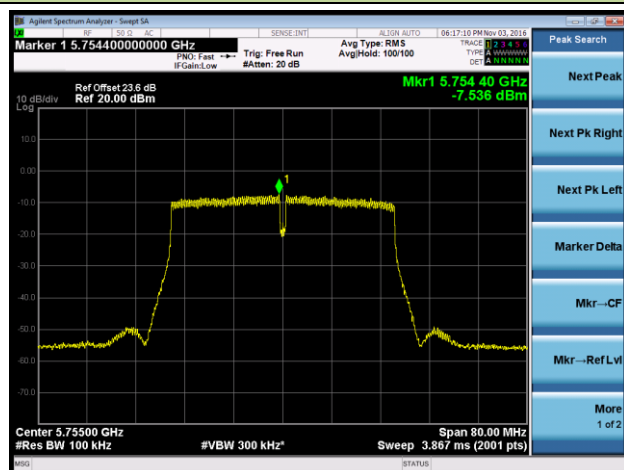
Channel 38 (5190MHz)



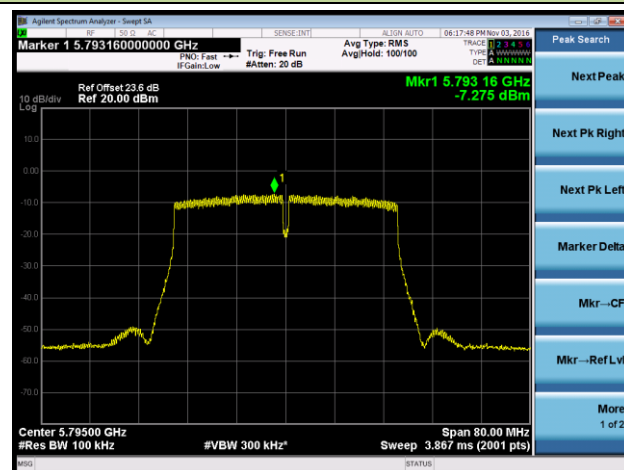
Channel 46 (5230MHz)



Channel 151 (5755MHz)

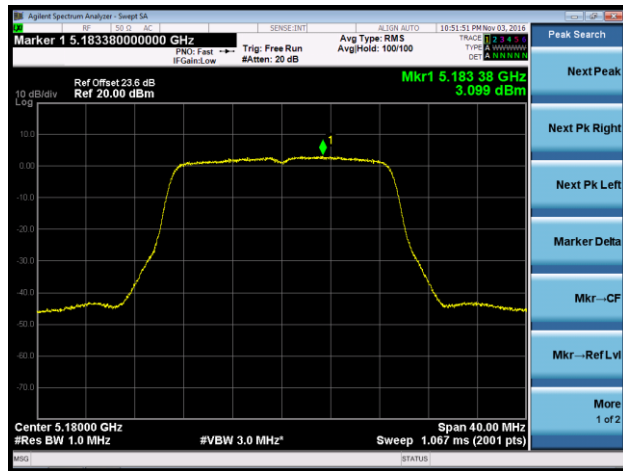


Channel 159 (5795MHz)

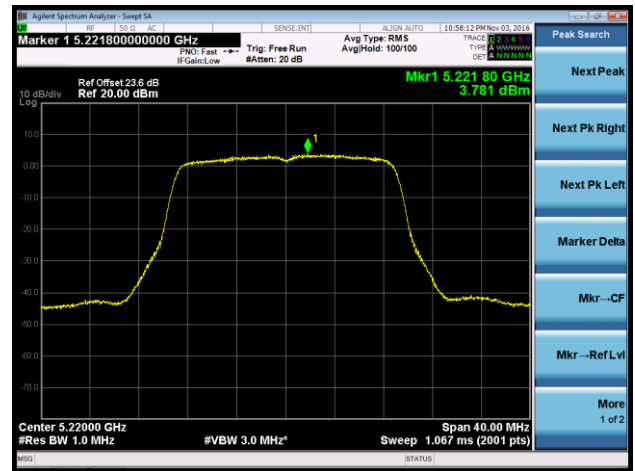


# 802.11ac-VHT20 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3

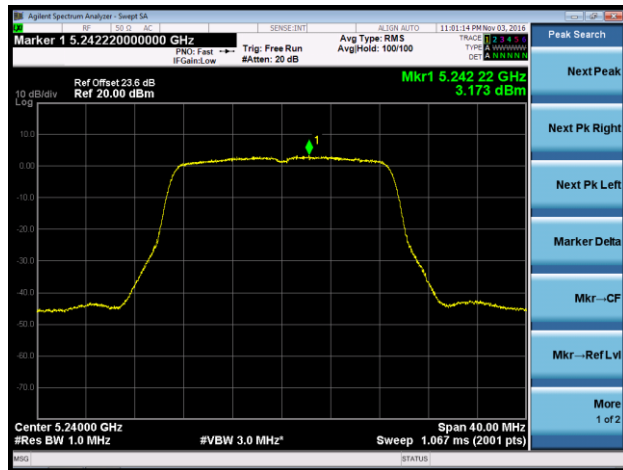
## Channel 36 (5180MHz)



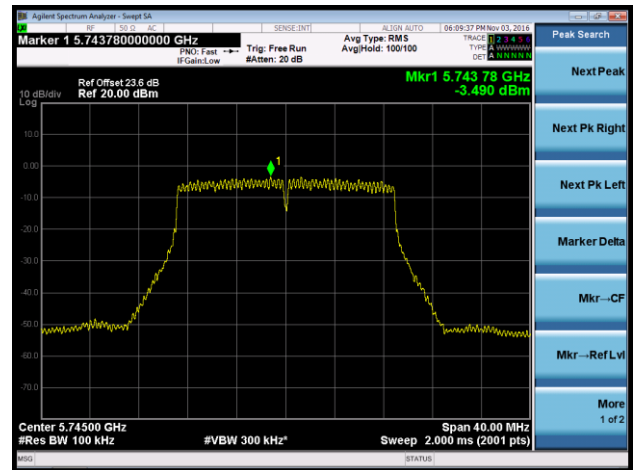
## Channel 44 (5220MHz)



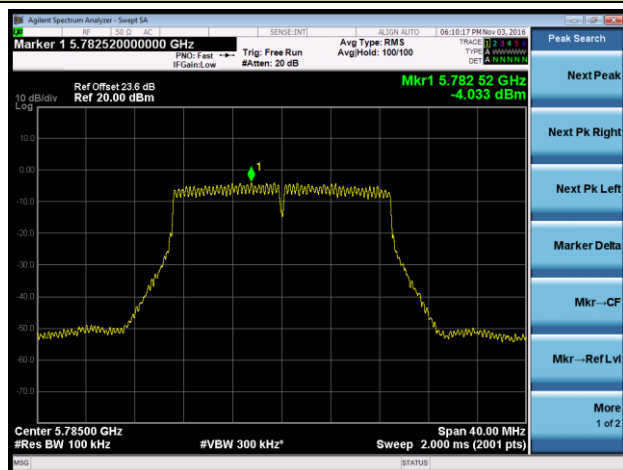
## Channel 48 (5240MHz)



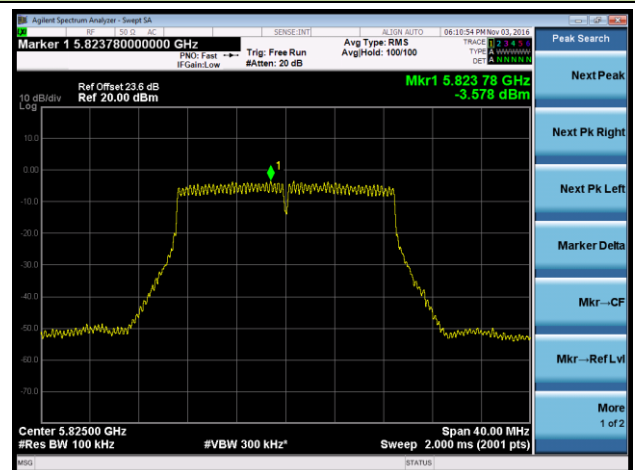
## Channel 149 (5745MHz)



## Channel 157 (5785MHz)

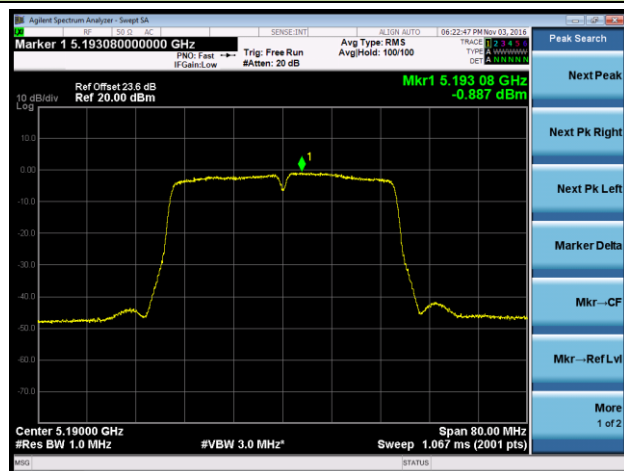


## Channel 165 (5825MHz)

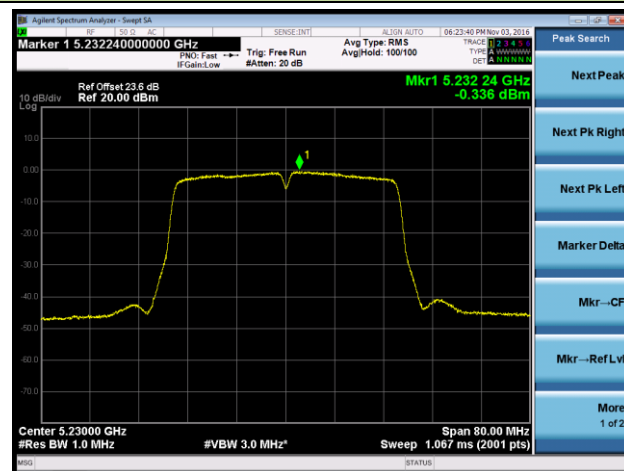


# 802.11ac-VHT40 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3

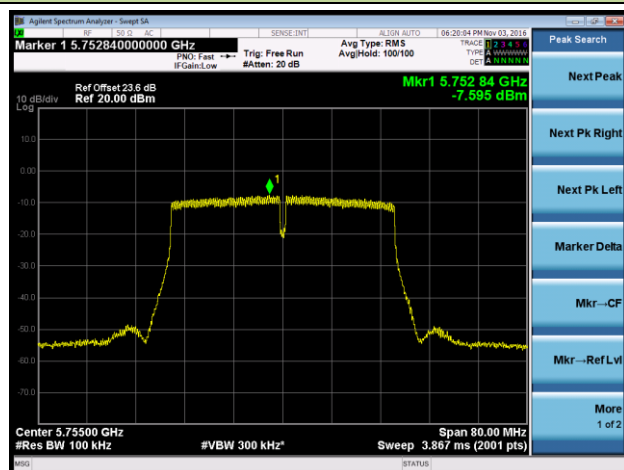
## Channel 38 (5190MHz)



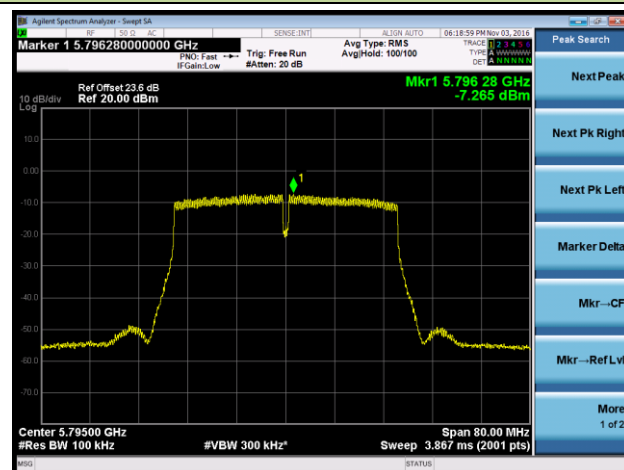
## Channel 46 (5230MHz)



## Channel 151 (5755MHz)

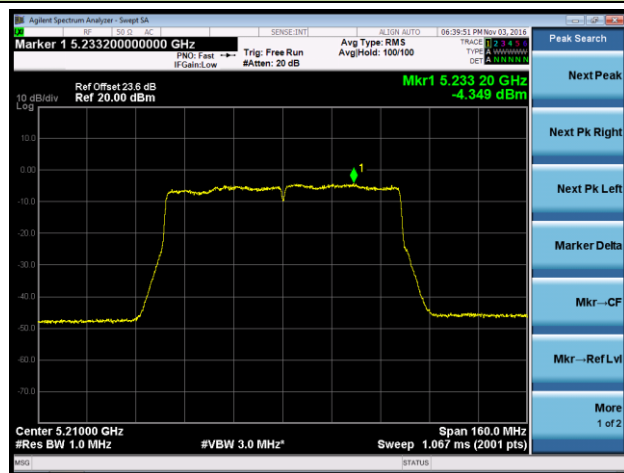


## Channel 159 (5795MHz)

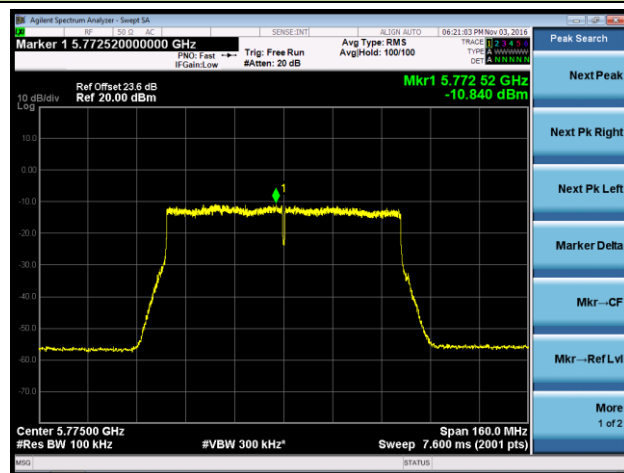


## 802.11ac-VHT80 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3

## Channel 42 (5210MHz)

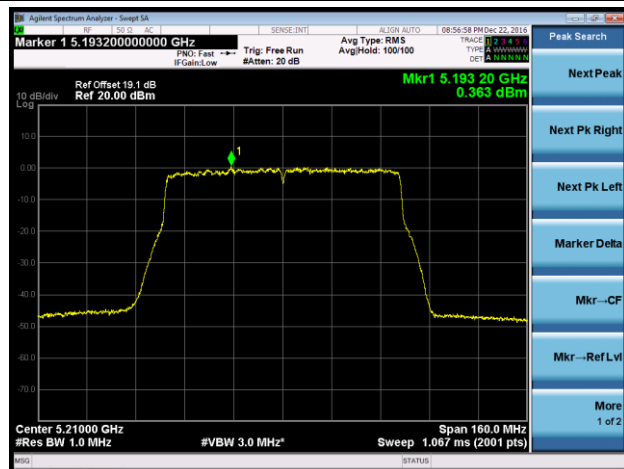


## Channel 155 (5775MHz)



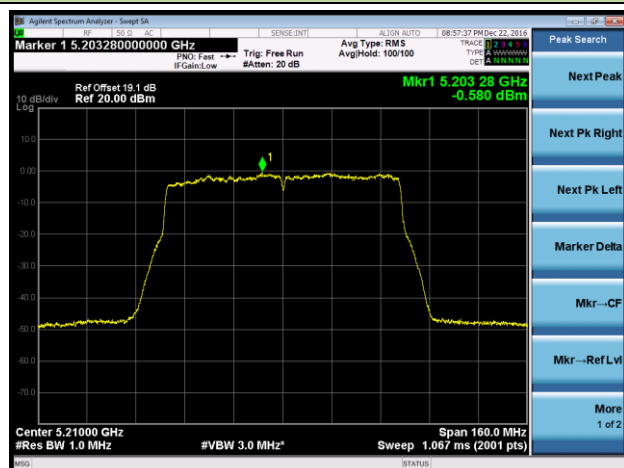
# 802.11ac-VHT 80 + 80 Power Spectral Density - Ant 0 / Ant 0 + 1 + 2 + 3

## Channel 42 (5210MHz)



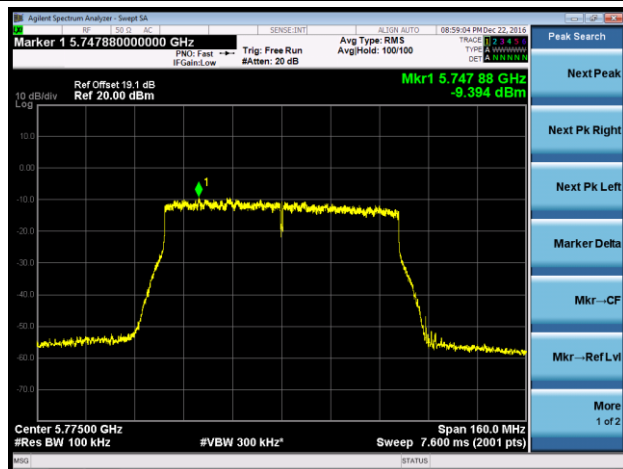
# 802.11ac-VHT 80 + 80 Power Spectral Density - Ant 1 / Ant 0 + 1 + 2 + 3

## Channel 42 (5210MHz)



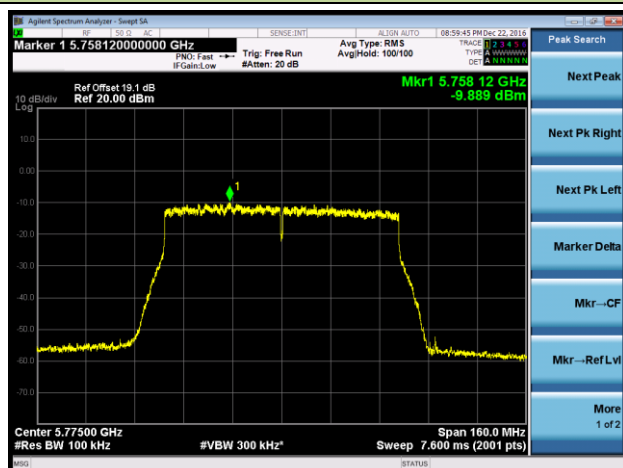
# 802.11ac-VHT 80 + 80 Power Spectral Density - Ant 2 / Ant 0 + 1 + 2 + 3

## Channel 155 (5775MHz)



# 802.11ac-VHT 80 + 80 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3

## Channel 155 (5775MHz)



### Power Spectral Density Measurement Limit of Galtronics Directional Antenna

| Frequency Band<br>(MHz) | Per Chain Max Antenna Gain<br>(dBi) |       |       |       | CDD & Beam<br>Forming<br>Directional<br>Gain (dBi) | Limit of SISO<br>(dBm/MHz)    |       |       |       | Limit of MIMO<br>(dBm/MHz)    |
|-------------------------|-------------------------------------|-------|-------|-------|----------------------------------------------------|-------------------------------|-------|-------|-------|-------------------------------|
|                         | Ant 0                               | Ant 1 | Ant 2 | Ant 3 |                                                    | Ant 0                         | Ant 1 | Ant 2 | Ant 3 | Ant 0+1+2+3                   |
| 5150 ~ 5250             | 8.39                                | 8.16  | 8.39  | 8.16  | 14.30                                              | 14.61                         | 14.84 | 14.61 | 14.84 | 8.70                          |
| Frequency Band<br>(MHz) | Per Chain Max Antenna Gain<br>(dBi) |       |       |       | CDD & Beam<br>Forming<br>Directional<br>Gain (dBi) | Limit of SISO<br>(dBm/500kHz) |       |       |       | Limit of MIMO<br>(dBm/500kHz) |
|                         | Ant 0                               | Ant 1 | Ant 2 | Ant 3 |                                                    | Ant 0                         | Ant 1 | Ant 2 | Ant 3 | Ant 0+1+2+3                   |
| 5725 ~ 5850             | 8.92                                | 8.82  | 8.92  | 8.82  | 14.89                                              | 27.08                         | 27.18 | 27.08 | 27.18 | 21.11                         |

|               |                                 |                   |                        |
|---------------|---------------------------------|-------------------|------------------------|
| Product       | US WI-FI AP 4X4 OD ext. antenna | Temperature       | 25°C                   |
| Test Engineer | Johnson Liao                    | Relative Humidity | 50 ~ 58%               |
| Test Site     | SR2                             | Test Date         | 2016/12/20             |
| Test Item     | Power Spectral Density          | Antenna Model No. | Galtronics Directional |

| Test Mode  | Data Rate (Mbps) | Channel No. | Freq. (MHz) | PSD (dBm/MHz) | Duty Cycle (%) | Total PSD (dBm/MHz) | PSD Limit (dBm/MHz) | Result |
|------------|------------------|-------------|-------------|---------------|----------------|---------------------|---------------------|--------|
| Ant 0      |                  |             |             |               |                |                     |                     |        |
| 11a        | 6                | 36          | 5180        | 10.28         | 97.18          | 10.40               | ≤ 14.61             | Pass   |
| 11a        | 6                | 44          | 5220        | 10.24         | 97.18          | 10.36               | ≤ 14.61             | Pass   |
| 11a        | 6                | 48          | 5240        | 9.77          | 97.18          | 9.89                | ≤ 14.61             | Pass   |
| 11n-HT20   | 6.5              | 36          | 5180        | 9.71          | 98.81          | 9.76                | ≤ 14.61             | Pass   |
| 11n-HT20   | 6.5              | 44          | 5220        | 9.64          | 98.81          | 9.69                | ≤ 14.61             | Pass   |
| 11n-HT20   | 6.5              | 48          | 5240        | 9.94          | 98.81          | 9.99                | ≤ 14.61             | Pass   |
| 11n-HT40   | 13.5             | 38          | 5190        | 7.13          | 97.55          | 7.24                | ≤ 14.61             | Pass   |
| 11n-HT40   | 13.5             | 46          | 5230        | 7.21          | 97.55          | 7.32                | ≤ 14.61             | Pass   |
| 11ac-VHT20 | 6.5              | 36          | 5180        | 9.51          | 98.82          | 9.56                | ≤ 14.61             | Pass   |
| 11ac-VHT20 | 6.5              | 44          | 5220        | 9.78          | 98.82          | 9.83                | ≤ 14.61             | Pass   |
| 11ac-VHT20 | 6.5              | 48          | 5240        | 9.94          | 98.82          | 9.99                | ≤ 14.61             | Pass   |
| 11ac-VHT40 | 13.5             | 38          | 5190        | 6.94          | 97.40          | 7.05                | ≤ 14.61             | Pass   |
| 11ac-VHT40 | 13.5             | 46          | 5230        | 7.78          | 97.40          | 7.89                | ≤ 14.61             | Pass   |
| 11ac-VHT80 | 29.3             | 42          | 5210        | 3.88          | 94.30          | 4.13                | ≤ 14.61             | Pass   |

Note: Total PSD (dBm/MHz) = Ant PSD (dBm/MHz) + 10\*log(1/duty cycle)

| Test Mode  | Data Rate<br>(Mbps) | Channel<br>No. | Freq.<br>(MHz) | PSD (dBm/<br>MHz) | Duty Cycle<br>(%) | Total PSD<br>(dBm/<br>MHz) | PSD Limit<br>(dBm/<br>MHz) | Result |
|------------|---------------------|----------------|----------------|-------------------|-------------------|----------------------------|----------------------------|--------|
| Ant 1      |                     |                |                |                   |                   |                            |                            |        |
| 11a        | 6                   | 36             | 5180           | 11.36             | 97.18             | 11.48                      | ≤ 14.84                    | Pass   |
| 11a        | 6                   | 44             | 5220           | 10.94             | 97.18             | 11.06                      | ≤ 14.84                    | Pass   |
| 11a        | 6                   | 48             | 5240           | 11.46             | 97.18             | 11.58                      | ≤ 14.84                    | Pass   |
| 11n-HT20   | 6.5                 | 36             | 5180           | 9.87              | 98.81             | 9.92                       | ≤ 14.84                    | Pass   |
| 11n-HT20   | 6.5                 | 44             | 5220           | 9.81              | 98.81             | 9.86                       | ≤ 14.84                    | Pass   |
| 11n-HT20   | 6.5                 | 48             | 5240           | 9.84              | 98.81             | 9.89                       | ≤ 14.84                    | Pass   |
| 11n-HT40   | 13.5                | 38             | 5190           | 8.20              | 97.55             | 8.31                       | ≤ 14.84                    | Pass   |
| 11n-HT40   | 13.5                | 46             | 5230           | 8.15              | 97.55             | 8.26                       | ≤ 14.84                    | Pass   |
| 11ac-VHT20 | 6.5                 | 36             | 5180           | 10.90             | 98.82             | 10.95                      | ≤ 14.84                    | Pass   |
| 11ac-VHT20 | 6.5                 | 44             | 5220           | 11.07             | 98.82             | 11.12                      | ≤ 14.84                    | Pass   |
| 11ac-VHT20 | 6.5                 | 48             | 5240           | 9.75              | 98.82             | 9.80                       | ≤ 14.84                    | Pass   |
| 11ac-VHT40 | 13.5                | 38             | 5190           | 7.62              | 97.40             | 7.73                       | ≤ 14.84                    | Pass   |
| 11ac-VHT40 | 13.5                | 46             | 5230           | 8.21              | 97.40             | 8.32                       | ≤ 14.84                    | Pass   |
| 11ac-VHT80 | 29.3                | 42             | 5210           | 5.20              | 94.30             | 5.45                       | ≤ 14.84                    | Pass   |

Note: Total PSD (dBm/MHz) = Ant PSD (dBm/MHz) + 10\*log(1/duty cycle)

| Test Mode  | Data Rate (Mbps) | Channel No. | Freq. (MHz) | PSD (dBm/MHz) | Duty Cycle (%) | Total PSD (dBm/MHz) | PSD Limit (dBm/MHz) | Result |
|------------|------------------|-------------|-------------|---------------|----------------|---------------------|---------------------|--------|
| Ant 2      |                  |             |             |               |                |                     |                     |        |
| 11a        | 6                | 36          | 5180        | 9.80          | 97.18          | 9.92                | ≤ 14.61             | Pass   |
| 11a        | 6                | 44          | 5220        | 10.32         | 97.18          | 10.44               | ≤ 14.61             | Pass   |
| 11a        | 6                | 48          | 5240        | 10.26         | 97.18          | 10.38               | ≤ 14.61             | Pass   |
| 11n-HT20   | 6.5              | 36          | 5180        | 11.37         | 98.81          | 11.42               | ≤ 14.61             | Pass   |
| 11n-HT20   | 6.5              | 44          | 5220        | 11.32         | 98.81          | 11.37               | ≤ 14.61             | Pass   |
| 11n-HT20   | 6.5              | 48          | 5240        | 11.67         | 98.81          | 11.72               | ≤ 14.61             | Pass   |
| 11n-HT40   | 13.5             | 38          | 5190        | 7.21          | 97.55          | 7.32                | ≤ 14.61             | Pass   |
| 11n-HT40   | 13.5             | 46          | 5230        | 7.17          | 97.55          | 7.28                | ≤ 14.61             | Pass   |
| 11ac-VHT20 | 6.5              | 36          | 5180        | 10.63         | 98.82          | 10.68               | ≤ 14.61             | Pass   |
| 11ac-VHT20 | 6.5              | 44          | 5220        | 10.42         | 98.82          | 10.47               | ≤ 14.61             | Pass   |
| 11ac-VHT20 | 6.5              | 48          | 5240        | 10.57         | 98.82          | 10.62               | ≤ 14.61             | Pass   |
| 11ac-VHT40 | 13.5             | 38          | 5190        | 7.51          | 97.40          | 7.62                | ≤ 14.61             | Pass   |
| 11ac-VHT40 | 13.5             | 46          | 5230        | 7.51          | 97.40          | 7.62                | ≤ 14.61             | Pass   |
| 11ac-VHT80 | 29.3             | 42          | 5210        | 4.33          | 94.30          | 4.58                | ≤ 14.61             | Pass   |
| Ant 3      |                  |             |             |               |                |                     |                     |        |
| 11a        | 6                | 36          | 5180        | 11.25         | 97.18          | 11.37               | ≤ 14.84             | Pass   |
| 11a        | 6                | 44          | 5220        | 11.82         | 97.18          | 11.94               | ≤ 14.84             | Pass   |
| 11a        | 6                | 48          | 5240        | 11.94         | 97.18          | 12.06               | ≤ 14.84             | Pass   |
| 11n-HT20   | 6.5              | 36          | 5180        | 9.81          | 98.81          | 9.86                | ≤ 14.84             | Pass   |
| 11n-HT20   | 6.5              | 44          | 5220        | 10.26         | 98.81          | 10.31               | ≤ 14.84             | Pass   |
| 11n-HT20   | 6.5              | 48          | 5240        | 10.38         | 98.81          | 10.43               | ≤ 14.84             | Pass   |
| 11n-HT40   | 13.5             | 38          | 5190        | 8.16          | 97.55          | 8.27                | ≤ 14.84             | Pass   |
| 11n-HT40   | 13.5             | 46          | 5230        | 8.64          | 97.55          | 8.75                | ≤ 14.84             | Pass   |
| 11ac-VHT20 | 6.5              | 36          | 5180        | 10.84         | 98.82          | 10.89               | ≤ 14.84             | Pass   |
| 11ac-VHT20 | 6.5              | 44          | 5220        | 11.65         | 98.82          | 11.70               | ≤ 14.84             | Pass   |
| 11ac-VHT20 | 6.5              | 48          | 5240        | 9.99          | 98.82          | 10.04               | ≤ 14.84             | Pass   |
| 11ac-VHT40 | 13.5             | 38          | 5190        | 8.33          | 97.40          | 8.44                | ≤ 14.84             | Pass   |
| 11ac-VHT40 | 13.5             | 46          | 5230        | 8.78          | 97.40          | 8.89                | ≤ 14.84             | Pass   |
| 11ac-VHT80 | 29.3             | 42          | 5210        | 5.08          | 94.30          | 5.33                | ≤ 14.84             | Pass   |

Note: Total PSD (dBm/MHz) = Ant PSD (dBm/MHz) + 10\*log(1/duty cycle)

| Test Mode         | Data Rate<br>(Mbps) | Channel<br>No. | Freq.<br>(MHz) | Ant 0<br>PSD<br>(dBm/<br>MHz) | Ant 1<br>PSD<br>(dBm/<br>MHz) | Ant 2<br>PSD<br>(dBm/<br>MHz) | Ant 3<br>PSD<br>(dBm/<br>MHz) | Duty<br>Cycle (%) | Total PSD<br>(dBm/<br>MHz) | PSD<br>Limit<br>(dBm/<br>MHz) | Result |
|-------------------|---------------------|----------------|----------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------|----------------------------|-------------------------------|--------|
| Ant 0 + 1 + 2 + 3 |                     |                |                |                               |                               |                               |                               |                   |                            |                               |        |
| 11a               | 6                   | 36             | 5180           | 2.42                          | 1.84                          | 1.97                          | 2.13                          | 97.18             | 8.24                       | ≤ 8.70                        | Pass   |
| 11a               | 6                   | 44             | 5220           | 2.26                          | 1.79                          | 1.93                          | 2.13                          | 97.18             | 8.17                       | ≤ 8.70                        | Pass   |
| 11a               | 6                   | 48             | 5240           | 2.41                          | 2.23                          | 1.84                          | 2.20                          | 97.18             | 8.32                       | ≤ 8.70                        | Pass   |
| 11n-HT20          | 13                  | 36             | 5180           | 2.31                          | 2.46                          | 2.16                          | 2.05                          | 98.81             | 8.32                       | ≤ 8.70                        | Pass   |
| 11n-HT20          | 13                  | 44             | 5220           | 2.70                          | 2.14                          | 2.09                          | 2.40                          | 98.81             | 8.41                       | ≤ 8.70                        | Pass   |
| 11n-HT20          | 13                  | 48             | 5240           | 2.62                          | 2.58                          | 1.51                          | 1.75                          | 98.81             | 8.21                       | ≤ 8.70                        | Pass   |
| 11n-HT40          | 27                  | 38             | 5190           | 1.06                          | 0.88                          | 0.54                          | 0.91                          | 97.55             | 6.98                       | ≤ 8.70                        | Pass   |
| 11n-HT40          | 27                  | 46             | 5230           | 1.36                          | 0.99                          | 0.83                          | 1.08                          | 97.55             | 7.20                       | ≤ 8.70                        | Pass   |
| 11ac-VHT20        | 13                  | 36             | 5180           | 2.48                          | 2.18                          | 1.66                          | 2.09                          | 98.82             | 8.18                       | ≤ 8.70                        | Pass   |
| 11ac-VHT20        | 13                  | 44             | 5220           | 2.61                          | 2.36                          | 2.27                          | 2.29                          | 98.82             | 8.45                       | ≤ 8.70                        | Pass   |
| 11ac-VHT20        | 13                  | 48             | 5240           | 2.42                          | 2.46                          | 2.03                          | 1.95                          | 98.82             | 8.29                       | ≤ 8.70                        | Pass   |
| 11ac-VHT40        | 27                  | 38             | 5190           | 1.37                          | 0.82                          | 0.47                          | 0.69                          | 97.40             | 6.98                       | ≤ 8.70                        | Pass   |
| 11ac-VHT40        | 27                  | 46             | 5230           | 1.46                          | 0.85                          | 0.73                          | 0.73                          | 97.40             | 7.09                       | ≤ 8.70                        | Pass   |
| 11ac-VHT80        | 58.6                | 42             | 5210           | -2.24                         | -2.63                         | -2.26                         | -2.78                         | 94.30             | 3.81                       | ≤ 8.70                        | Pass   |

Note: Total PSD (dBm/MHz) =  $10 \cdot \log\{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\} + 10 \cdot \log(1/\text{duty cycle})$

| Test Mode         | Data Rate<br>(Mbps) | Channel<br>No. | Freq.<br>(MHz) | Ant 0<br>PSD<br>(dBm/<br>MHz) | Ant 1<br>PSD<br>(dBm/<br>MHz) | Ant 2<br>PSD<br>(dBm/<br>MHz) | Ant 3<br>PSD<br>(dBm/<br>MHz) | Duty<br>Cycle (%) | Total PSD<br>(dBm/<br>MHz) | PSD<br>Limit<br>(dBm/<br>MHz) | Result |
|-------------------|---------------------|----------------|----------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------|----------------------------|-------------------------------|--------|
| Ant 0 + 1 + 2 + 3 |                     |                |                |                               |                               |                               |                               |                   |                            |                               |        |
| 11ac-VHT80+80     | 58.6                | 42             | 5210           | -0.07                         | -0.36                         | --                            | --                            | 94.30             | 3.05                       | ≤ 11.71                       | Pass   |

Note: Total PSD (dBm/MHz) =  $10 \cdot \log\{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\} + 10 \cdot \log(1/\text{duty cycle})$

| Test Mode  | Data Rate (Mbps) | Channel No. | Freq. (MHz) | PSD (dBm/100kHz) | Duty Cycle (%) | Constant Factor | Total PSD (dBm/500kHz) | Limit (dBm/500kHz) | Result |
|------------|------------------|-------------|-------------|------------------|----------------|-----------------|------------------------|--------------------|--------|
| Ant 0      |                  |             |             |                  |                |                 |                        |                    |        |
| 11a        | 6                | 149         | 5745        | 3.66             | 97.18          | 6.99            | 10.77                  | ≤ 27.08            | Pass   |
| 11a        | 6                | 157         | 5785        | 3.40             | 97.18          | 6.99            | 10.52                  | ≤ 27.08            | Pass   |
| 11a        | 6                | 165         | 5825        | 3.22             | 97.18          | 6.99            | 10.34                  | ≤ 27.08            | Pass   |
| 11n-HT20   | 6.5              | 149         | 5745        | 2.91             | 98.81          | 6.99            | 9.95                   | ≤ 27.08            | Pass   |
| 11n-HT20   | 6.5              | 157         | 5785        | 3.04             | 98.81          | 6.99            | 10.08                  | ≤ 27.08            | Pass   |
| 11n-HT20   | 6.5              | 165         | 5825        | 2.89             | 98.81          | 6.99            | 9.93                   | ≤ 27.08            | Pass   |
| 11n-HT40   | 13.5             | 151         | 5755        | -0.01            | 97.55          | 6.99            | 7.09                   | ≤ 27.08            | Pass   |
| 11n-HT40   | 13.5             | 159         | 5795        | 0.31             | 97.55          | 6.99            | 7.41                   | ≤ 27.08            | Pass   |
| 11ac-VHT20 | 6.5              | 149         | 5745        | 2.78             | 98.82          | 6.99            | 9.82                   | ≤ 27.08            | Pass   |
| 11ac-VHT20 | 6.5              | 157         | 5785        | 2.92             | 98.82          | 6.99            | 9.96                   | ≤ 27.08            | Pass   |
| 11ac-VHT20 | 6.5              | 165         | 5825        | 3.16             | 98.82          | 6.99            | 10.20                  | ≤ 27.08            | Pass   |
| 11ac-VHT40 | 13.5             | 151         | 5755        | 0.43             | 97.40          | 6.99            | 7.53                   | ≤ 27.08            | Pass   |
| 11ac-VHT40 | 13.5             | 159         | 5795        | 0.19             | 97.40          | 6.99            | 7.30                   | ≤ 27.08            | Pass   |
| 11ac-VHT80 | 29.3             | 155         | 5775        | -3.27            | 94.30          | 6.99            | 3.98                   | ≤ 27.08            | Pass   |
| Ant 1      |                  |             |             |                  |                |                 |                        |                    |        |
| 11a        | 6                | 149         | 5745        | 3.16             | 97.18          | 6.99            | 10.28                  | ≤ 27.18            | Pass   |
| 11a        | 6                | 157         | 5785        | 3.23             | 97.18          | 6.99            | 10.34                  | ≤ 27.18            | Pass   |
| 11a        | 6                | 165         | 5825        | 2.75             | 97.18          | 6.99            | 9.86                   | ≤ 27.18            | Pass   |
| 11n-HT20   | 6.5              | 149         | 5745        | 2.29             | 98.81          | 6.99            | 9.34                   | ≤ 27.18            | Pass   |
| 11n-HT20   | 6.5              | 157         | 5785        | 2.51             | 98.81          | 6.99            | 9.55                   | ≤ 27.18            | Pass   |
| 11n-HT20   | 6.5              | 165         | 5825        | 2.17             | 98.81          | 6.99            | 9.22                   | ≤ 27.18            | Pass   |
| 11n-HT40   | 13.5             | 151         | 5755        | -0.24            | 97.55          | 6.99            | 6.86                   | ≤ 27.18            | Pass   |
| 11n-HT40   | 13.5             | 159         | 5795        | -0.35            | 97.55          | 6.99            | 6.75                   | ≤ 27.18            | Pass   |
| 11ac-VHT20 | 6.5              | 149         | 5745        | 3.06             | 98.82          | 6.99            | 10.10                  | ≤ 27.18            | Pass   |
| 11ac-VHT20 | 6.5              | 157         | 5785        | 2.38             | 98.82          | 6.99            | 9.42                   | ≤ 27.18            | Pass   |
| 11ac-VHT20 | 6.5              | 165         | 5825        | 2.67             | 98.82          | 6.99            | 9.71                   | ≤ 27.18            | Pass   |
| 11ac-VHT40 | 13.5             | 151         | 5755        | -0.64            | 97.40          | 6.99            | 6.47                   | ≤ 27.18            | Pass   |
| 11ac-VHT40 | 13.5             | 159         | 5795        | -0.39            | 97.40          | 6.99            | 6.72                   | ≤ 27.18            | Pass   |
| 11ac-VHT80 | 29.3             | 155         | 5775        | -3.83            | 94.30          | 6.99            | 3.42                   | ≤ 27.18            | Pass   |

Note: Total PSD (dBm/500kHz) = Ant PSD (dBm/100kHz) + 10\*log(1/duty cycle) + Constant Factor.

| Test Mode  | Data Rate (Mbps) | Channel No. | Freq. (MHz) | PSD (dBm/100kHz) | Duty Cycle (%) | Constant Factor | Total PSD (dBm/500kHz) | Limit (dBm/500kHz) | Result |
|------------|------------------|-------------|-------------|------------------|----------------|-----------------|------------------------|--------------------|--------|
| Ant 2      |                  |             |             |                  |                |                 |                        |                    |        |
| 11a        | 6                | 149         | 5745        | 3.22             | 97.18          | 6.99            | 10.34                  | ≤ 27.08            | Pass   |
| 11a        | 6                | 157         | 5785        | 2.85             | 97.18          | 6.99            | 9.97                   | ≤ 27.08            | Pass   |
| 11a        | 6                | 165         | 5825        | 2.04             | 97.18          | 6.99            | 9.16                   | ≤ 27.08            | Pass   |
| 11n-HT20   | 6.5              | 149         | 5745        | 2.64             | 98.81          | 6.99            | 9.69                   | ≤ 27.08            | Pass   |
| 11n-HT20   | 6.5              | 157         | 5785        | 2.61             | 98.81          | 6.99            | 9.65                   | ≤ 27.08            | Pass   |
| 11n-HT20   | 6.5              | 165         | 5825        | 2.12             | 98.81          | 6.99            | 9.16                   | ≤ 27.08            | Pass   |
| 11n-HT40   | 13.5             | 151         | 5755        | 0.34             | 97.55          | 6.99            | 7.44                   | ≤ 27.08            | Pass   |
| 11n-HT40   | 13.5             | 159         | 5795        | -0.29            | 97.55          | 6.99            | 6.81                   | ≤ 27.08            | Pass   |
| 11ac-VHT20 | 6.5              | 149         | 5745        | 3.02             | 98.82          | 6.99            | 10.06                  | ≤ 27.08            | Pass   |
| 11ac-VHT20 | 6.5              | 157         | 5785        | 2.62             | 98.82          | 6.99            | 9.66                   | ≤ 27.08            | Pass   |
| 11ac-VHT20 | 6.5              | 165         | 5825        | 2.10             | 98.82          | 6.99            | 9.14                   | ≤ 27.08            | Pass   |
| 11ac-VHT40 | 13.5             | 151         | 5755        | 0.13             | 97.40          | 6.99            | 7.24                   | ≤ 27.08            | Pass   |
| 11ac-VHT40 | 13.5             | 159         | 5795        | -0.46            | 97.40          | 6.99            | 6.65                   | ≤ 27.08            | Pass   |
| 11ac-VHT80 | 29.3             | 155         | 5775        | -3.23            | 94.30          | 6.99            | 4.02                   | ≤ 27.08            | Pass   |
| Ant 3      |                  |             |             |                  |                |                 |                        |                    |        |
| 11a        | 6                | 149         | 5745        | 3.09             | 97.18          | 6.99            | 10.20                  | ≤ 27.18            | Pass   |
| 11a        | 6                | 157         | 5785        | 2.65             | 97.18          | 6.99            | 9.77                   | ≤ 27.18            | Pass   |
| 11a        | 6                | 165         | 5825        | 2.72             | 97.18          | 6.99            | 9.84                   | ≤ 27.18            | Pass   |
| 11n-HT20   | 6.5              | 149         | 5745        | 2.92             | 98.81          | 6.99            | 9.96                   | ≤ 27.18            | Pass   |
| 11n-HT20   | 6.5              | 157         | 5785        | 3.01             | 98.81          | 6.99            | 10.05                  | ≤ 27.18            | Pass   |
| 11n-HT20   | 6.5              | 165         | 5825        | 1.90             | 98.81          | 6.99            | 8.94                   | ≤ 27.18            | Pass   |
| 11n-HT40   | 13.5             | 151         | 5755        | -0.25            | 97.55          | 6.99            | 6.85                   | ≤ 27.18            | Pass   |
| 11n-HT40   | 13.5             | 159         | 5795        | -0.66            | 97.55          | 6.99            | 6.44                   | ≤ 27.18            | Pass   |
| 11ac-VHT20 | 6.5              | 149         | 5745        | 2.87             | 98.82          | 6.99            | 9.91                   | ≤ 27.18            | Pass   |
| 11ac-VHT20 | 6.5              | 157         | 5785        | 2.71             | 98.82          | 6.99            | 9.75                   | ≤ 27.18            | Pass   |
| 11ac-VHT20 | 6.5              | 165         | 5825        | 2.21             | 98.82          | 6.99            | 9.25                   | ≤ 27.18            | Pass   |
| 11ac-VHT40 | 13.5             | 151         | 5755        | -0.53            | 97.40          | 6.99            | 6.57                   | ≤ 27.18            | Pass   |
| 11ac-VHT40 | 13.5             | 159         | 5795        | -0.83            | 97.40          | 6.99            | 6.28                   | ≤ 27.18            | Pass   |
| 11ac-VHT80 | 29.3             | 155         | 5775        | -4.12            | 94.30          | 6.99            | 3.13                   | ≤ 27.18            | Pass   |

Note: Total PSD (dBm/500kHz) = Ant 2 PSD (dBm/100kHz) + 10\*log(1/duty cycle) + Constant Factor.

| Test Mode         | Data Rate (Mbps) | Channel No. | Freq. (MHz) | Ant 0 PSD (dBm/100kHz) | Ant 1 PSD (dBm/100kHz) | Ant 2 PSD (dBm/100kHz) | Ant 3 PSD (dBm/100kHz) | Duty Cycle (%) | Constant Factor | Total PSD (dBm/500kHz) | Limit (dBm/500kHz) | Result |
|-------------------|------------------|-------------|-------------|------------------------|------------------------|------------------------|------------------------|----------------|-----------------|------------------------|--------------------|--------|
| Ant 0 + 1 + 2 + 3 |                  |             |             |                        |                        |                        |                        |                |                 |                        |                    |        |
| 11a               | 6                | 149         | 5745        | -4.03                  | -3.94                  | -3.98                  | -4.08                  | 97.18          | 6.99            | 9.13                   | ≤ 21.11            | Pass   |
| 11a               | 6                | 157         | 5785        | -3.37                  | -3.83                  | -3.43                  | -4.22                  | 97.18          | 6.99            | 9.43                   | ≤ 21.11            | Pass   |
| 11a               | 6                | 165         | 5825        | -2.66                  | -3.67                  | -3.90                  | -3.99                  | 97.18          | 6.99            | 9.62                   | ≤ 21.11            | Pass   |
| 11n-HT20          | 13               | 149         | 5745        | -4.36                  | -4.66                  | -4.68                  | -4.66                  | 98.81          | 6.99            | 8.48                   | ≤ 21.11            | Pass   |
| 11n-HT20          | 13               | 157         | 5785        | -3.52                  | -4.14                  | -4.00                  | -4.09                  | 98.81          | 6.99            | 9.13                   | ≤ 21.11            | Pass   |
| 11n-HT20          | 13               | 165         | 5825        | -3.34                  | -4.17                  | -4.16                  | -3.96                  | 98.81          | 6.99            | 9.17                   | ≤ 21.11            | Pass   |
| 11n-HT40          | 27               | 151         | 5755        | -6.67                  | -6.82                  | -6.64                  | -7.11                  | 97.55          | 6.99            | 6.31                   | ≤ 21.11            | Pass   |
| 11n-HT40          | 27               | 159         | 5795        | -6.24                  | -5.82                  | -6.35                  | -7.09                  | 97.55          | 6.99            | 6.77                   | ≤ 21.11            | Pass   |
| 11ac-VHT20        | 13               | 149         | 5745        | -3.86                  | -4.16                  | -3.87                  | -4.07                  | 98.82          | 6.99            | 9.07                   | ≤ 21.11            | Pass   |
| 11ac-VHT20        | 13               | 157         | 5785        | -3.84                  | -4.20                  | -4.09                  | -4.31                  | 98.82          | 6.99            | 8.96                   | ≤ 21.11            | Pass   |
| 11ac-VHT20        | 13               | 165         | 5825        | -3.11                  | -3.69                  | -4.17                  | -3.74                  | 98.82          | 6.99            | 9.40                   | ≤ 21.11            | Pass   |
| 11ac-VHT40        | 27               | 151         | 5755        | -6.73                  | -7.08                  | -6.79                  | -6.92                  | 97.40          | 6.99            | 6.25                   | ≤ 21.11            | Pass   |
| 11ac-VHT40        | 27               | 159         | 5795        | -6.76                  | -7.24                  | -7.06                  | -7.34                  | 97.40          | 6.99            | 6.03                   | ≤ 21.11            | Pass   |
| 11ac-VHT80        | 58.6             | 155         | 5775        | -10.01                 | -10.68                 | -10.66                 | -9.98                  | 94.30          | 6.99            | 2.94                   | ≤ 21.11            | Pass   |

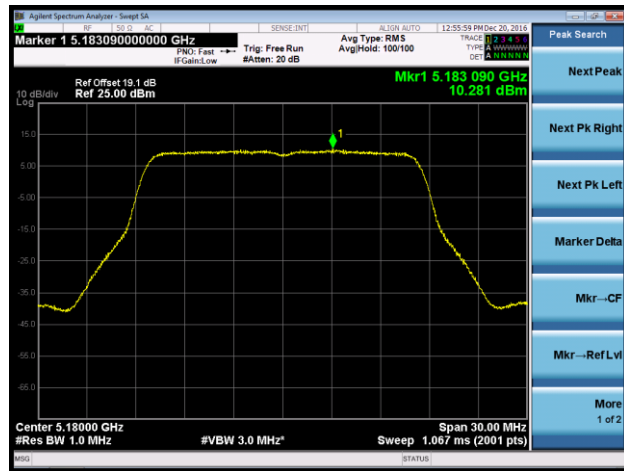
Note: Total PSD (dBm/500kHz) =  $10 \cdot \log\{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\} + 10 \cdot \log(1/\text{duty cycle}) + \text{Constant Factor}.$

| Test Mode         | Data Rate (Mbps) | Channel No. | Freq. (MHz) | Ant 0 PSD (dBm/100kHz) | Ant 1 PSD (dBm/100kHz) | Ant 2 PSD (dBm/100kHz) | Ant 3 PSD (dBm/100kHz) | Duty Cycle (%) | Constant Factor | Total PSD (dBm/500kHz) | Limit (dBm/500kHz) | Result |
|-------------------|------------------|-------------|-------------|------------------------|------------------------|------------------------|------------------------|----------------|-----------------|------------------------|--------------------|--------|
| Ant 0 + 1 + 2 + 3 |                  |             |             |                        |                        |                        |                        |                |                 |                        |                    |        |
| 11ac-VHT80+80     | 58.6             | 155         | 5775        | --                     | --                     | -10.27                 | -10.90                 | 94.30          | 6.99            | -0.32                  | ≤ 24.12            | Pass   |

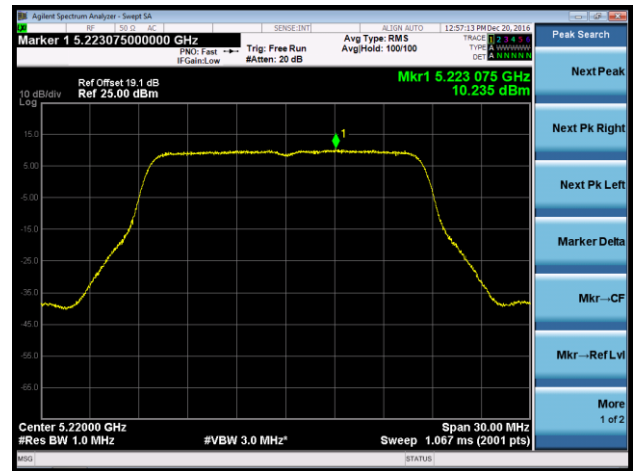
Note: Total PSD (dBm/MHz) =  $10 \cdot \log\{10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\} + 10 \cdot \log(1/\text{duty cycle}) + \text{Constant Factor}$

# 802.11a Power Spectral Density - Ant 0

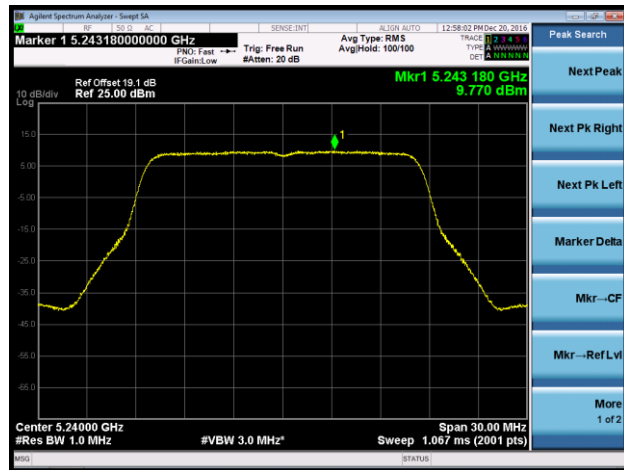
Channel 36 (5180MHz)



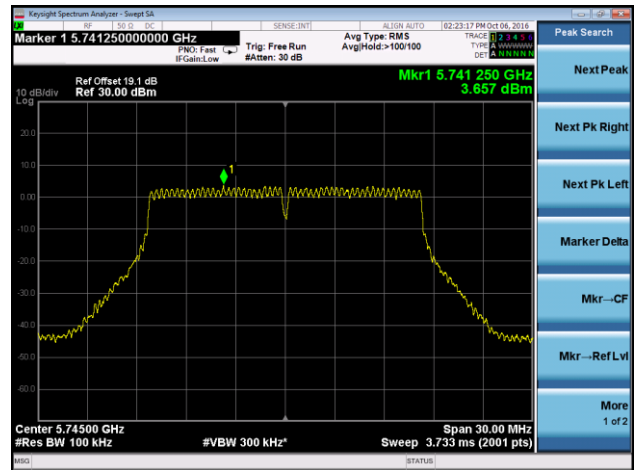
Channel 44 (5220MHz)



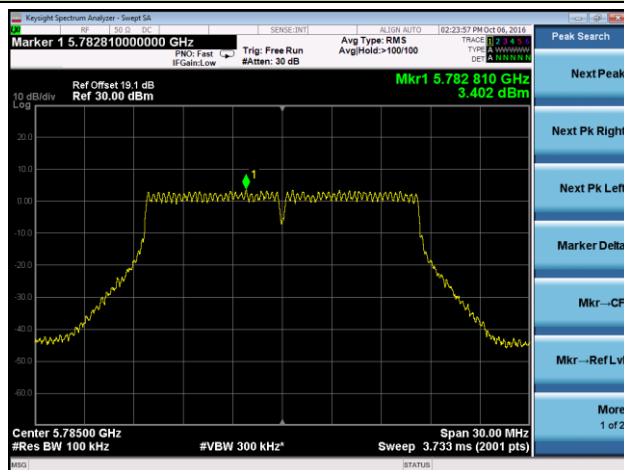
Channel 48 (5240MHz)



Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)

