

**802.11n(HT40) UNII 2C Band**



**802.11n(HT40) UNII 3 Band**



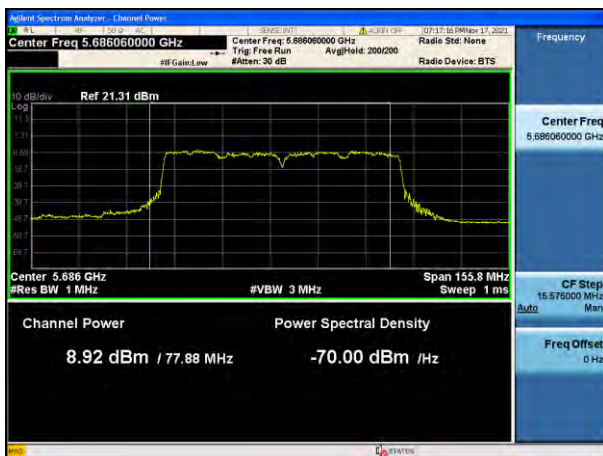
**802.11ac(VHT40) UNII 2C Band**



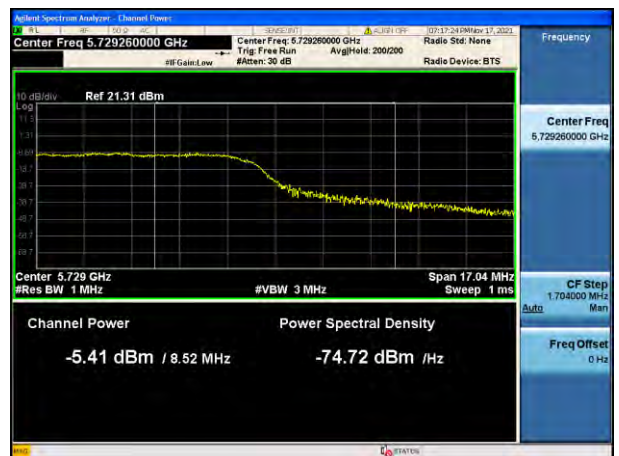
**802.11ac(VHT40) UNII 3 Band**



**802.11ac(VHT80) UNII 2C Band**



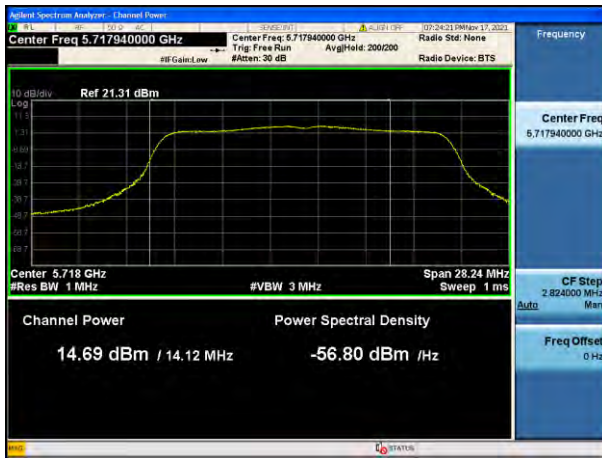
**802.11ac(VHT80) UNII 3 Band**



[Ant.2]

☐ Test Plots

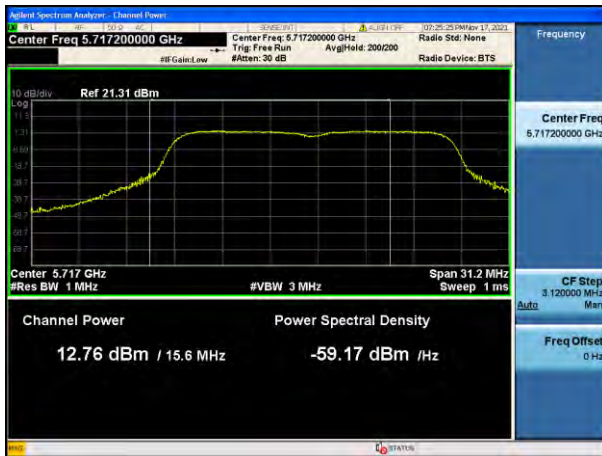
802.11a UNII 2C Band



802.11a UNII 3 Band



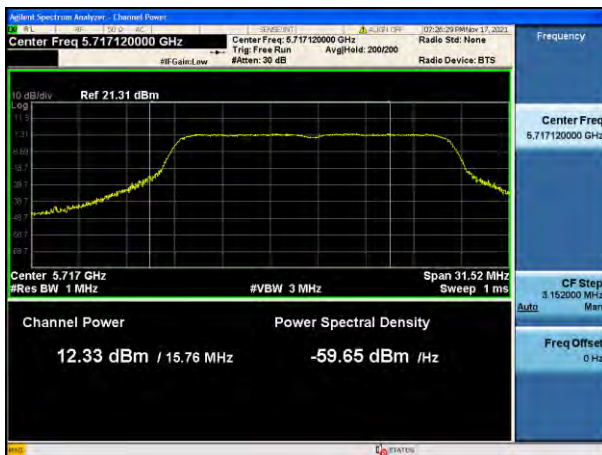
802.11n(HT20) UNII 2C Band



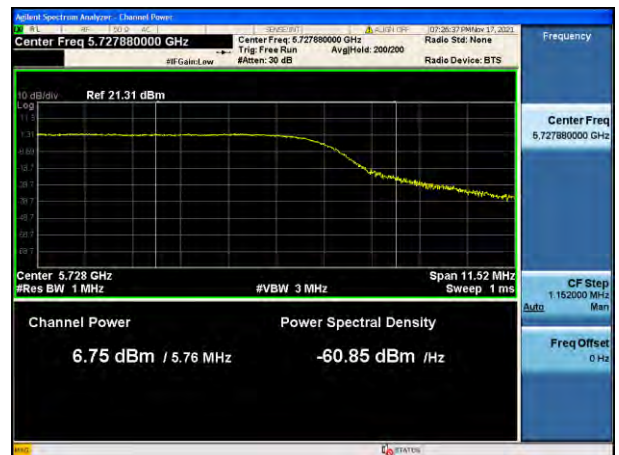
802.11n(HT20) UNII 3 Band



802.11ac(VHT20) UNII 2C Band



802.11ac(VHT20) UNII 3 Band



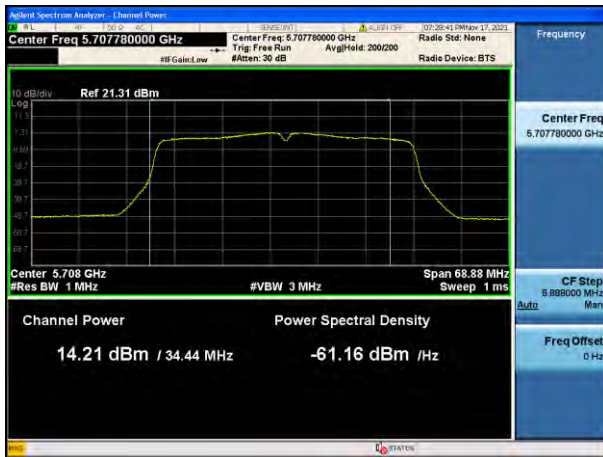
**802.11n(HT40) UNII 2C Band**



**802.11n(HT40) UNII 3 Band**



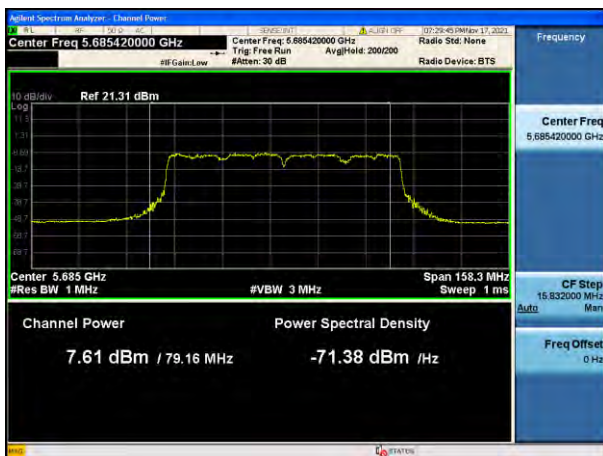
**802.11ac(VHT40) UNII 2C Band**



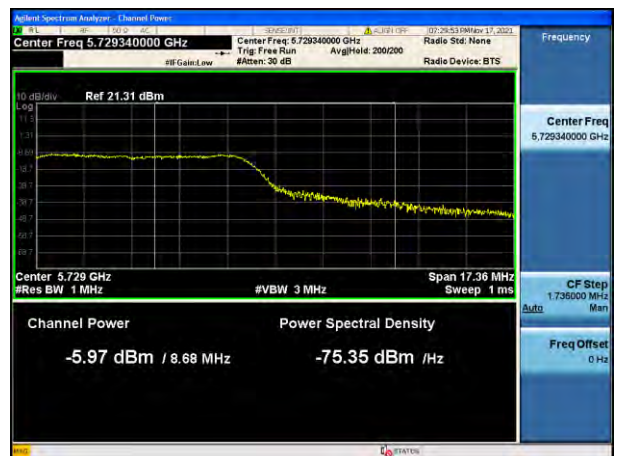
**802.11ac(VHT40) UNII 3 Band**



**802.11ac(VHT80) UNII 2C Band**



**802.11ac(VHT80) UNII 3 Band**



## 10.6.4 Power Spectral Density

[Ant.1]

| Mode            | Frequency [MHz] | Channel | Measured Density [dBm] | Duty Cycle Factor [dB] | Total PSD [dBm] | Limit [dBm]    | Worstcase Datarate |
|-----------------|-----------------|---------|------------------------|------------------------|-----------------|----------------|--------------------|
| 802.11a         | 5720            | 144     | 6.529                  | 0.799                  | 7.328           | 11 dBm/ MHz    | 18 Mbps            |
| 802.11n(HT20)   | (UNII 2C        |         | 3.525                  | 2.242                  | 5.767           |                | MCS5               |
| 802.11ac(VHT20) | Band)           |         | 3.191                  | 2.553                  | 5.744           |                | MCS1               |
| 802.11a         | 5720            | 144     | 0.683                  | 0.799                  | 1.482           | 30 dB/ 500 kHz | 18 Mbps            |
| 802.11n(HT20)   | (UNII 3 Band)   |         | 0.541                  | 2.242                  | 2.782           |                | MCS5               |
| 802.11ac(VHT20) |                 |         | -0.174                 | 2.553                  | 2.379           |                | MCS1               |

| Mode            | Frequency [MHz] | Channel | Measured Density [dBm] | Duty Cycle Factor [dB] | Total PSD [dBm] | Limit [dBm]     | Worstcase Datarate |
|-----------------|-----------------|---------|------------------------|------------------------|-----------------|-----------------|--------------------|
| 802.11n(HT40)   | 5710            | 142     | 2.182                  | 1.114                  | 3.296           | 11 dBm/ MHz     | MCS6               |
| 802.11ac(VHT40) | (UNII 2C Band)  |         | 2.553                  | 1.114                  | 3.666           |                 | MCS1               |
| 802.11n(HT40)   | 5710            | 142     | -4.329                 | 1.114                  | -3.216          | 30 dBm/ 500 kHz | MCS6               |
| 802.11ac(VHT40) | (UNII 3 Band)   |         | -4.731                 | 1.114                  | -3.618          |                 | MCS1               |

| Mode            | Frequency [MHz] | Channel | Measured Density [dBm] | Duty Cycle Factor [dB] | Total PSD [dBm] | Limit [dBm]     | Worstcase Datarate |
|-----------------|-----------------|---------|------------------------|------------------------|-----------------|-----------------|--------------------|
| 802.11ac(VHT80) | 5690            | 138     | -7.479                 | 6.573                  | -0.907          | 11 dBm/ MHz     | MCS5               |
|                 | 5690            | 138     | -13.090                | 6.573                  | -6.518          | 30 dBm/ 500 kHz | MCS5               |

**[Ant.2]**

| Mode            | Frequency [MHz] | Channel | Measured Density [dBm] | Duty Cycle Factor [dB] | Total PSD [dBm] | Limit [dBm]     | Worstcase Datarate |
|-----------------|-----------------|---------|------------------------|------------------------|-----------------|-----------------|--------------------|
| 802.11a         | 5720            | 144     | 5.977                  | 0.799                  | 6.776           | 11 dBm/ MHz     | 18 Mbps            |
| 802.11n(HT20)   | (UNII 2C        |         | 2.656                  | 2.242                  | 4.898           |                 | MCS5               |
| 802.11ac(VHT20) | Band)           |         | 2.056                  | 2.553                  | 4.609           |                 | MCS1               |
| 802.11a         | 5720            | 144     | -0.114                 | 0.799                  | 0.685           | 30 dBm/ 500 kHz | 18 Mbps            |
| 802.11n(HT20)   | (UNII 3 Band)   |         | 0.560                  | 2.242                  | 2.802           |                 | MCS5               |
| 802.11ac(VHT20) |                 |         | -0.726                 | 2.553                  | 1.826           |                 | MCS1               |

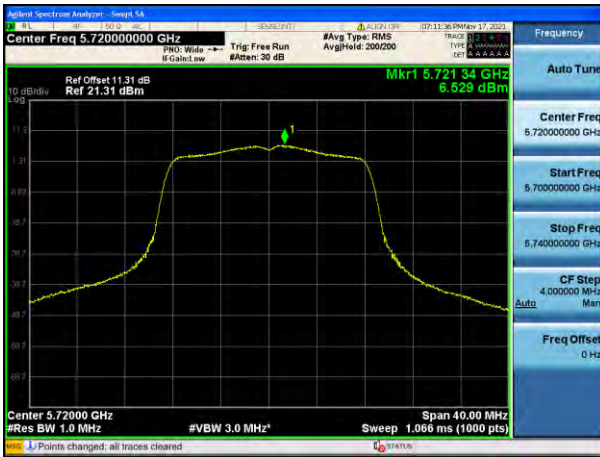
| Mode            | Frequency [MHz] | Channel | Measured Density [dBm] | Duty Cycle Factor [dB] | Total PSD [dBm] | Limit [dBm]     | Worstcase Datarate |
|-----------------|-----------------|---------|------------------------|------------------------|-----------------|-----------------|--------------------|
| 802.11n(HT40)   | 5710            | 142     | 1.544                  | 1.114                  | 2.657           | 11 dBm/ MHz     | MCS6               |
| 802.11ac(VHT40) | (UNII 2C Band)  |         | 1.562                  | 1.114                  | 2.675           |                 | MCS1               |
| 802.11n(HT40)   | 5710            | 142     | -5.020                 | 1.114                  | -3.906          | 30 dBm/ 500 kHz | MCS6               |
| 802.11ac(VHT40) | (UNII 3 Band)   |         | -5.121                 | 1.114                  | -4.007          |                 | MCS1               |

| Mode            | Frequency [MHz] | Channel | Measured Density [dBm] | Duty Cycle Factor [dB] | Total PSD [dBm] | Limit [dBm]     | Worstcase Datarate |
|-----------------|-----------------|---------|------------------------|------------------------|-----------------|-----------------|--------------------|
| 802.11ac(VHT80) | 5690            | 138     | -8.413                 | 6.573                  | -1.840          | 11 dBm/ MHz     | MCS5               |
|                 | 5690            | 138     | -11.993                | 6.573                  | -5.421          | 30 dBm/ 500 kHz | MCS5               |

[Ant.1]

Test Plots

802.11a UNII 2C Band



802.11a UNII 3 Band



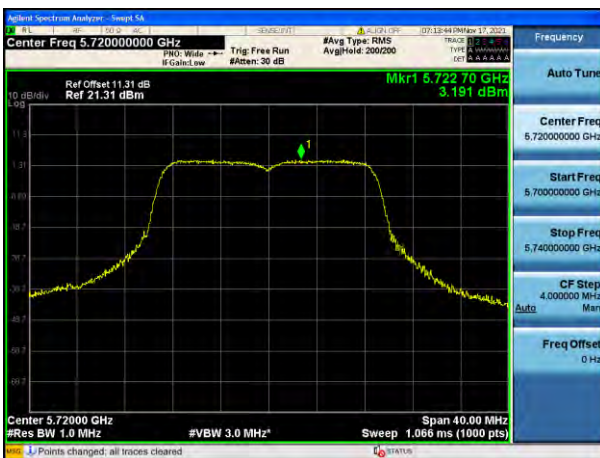
802.11n(HT20) UNII 2C Band



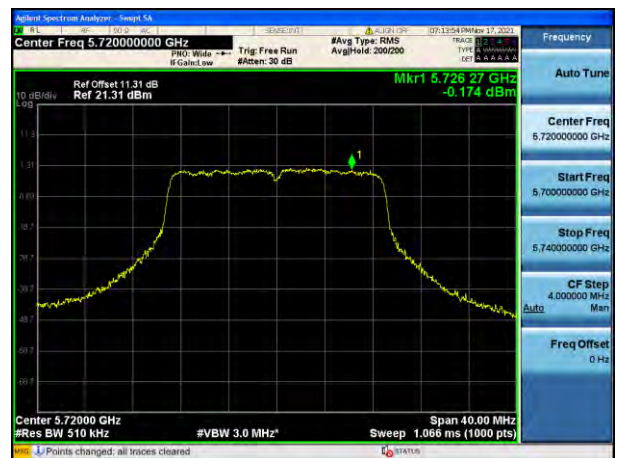
802.11n(HT20) UNII 3 Band



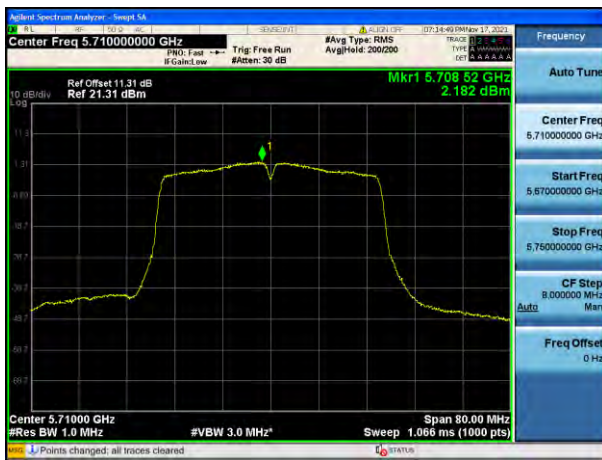
802.11ac(VHT20) UNII 2C Band



802.11ac(VHT20) UNII 3 Band



**802.11n(HT40) UNII 2C Band**



**802.11n(HT40) UNII 3 Band**



**802.11ac(VHT40) UNII 2C Band**



**802.11ac(VHT40) UNII 3 Band**



**802.11ac(VHT80) UNII 2C Band**



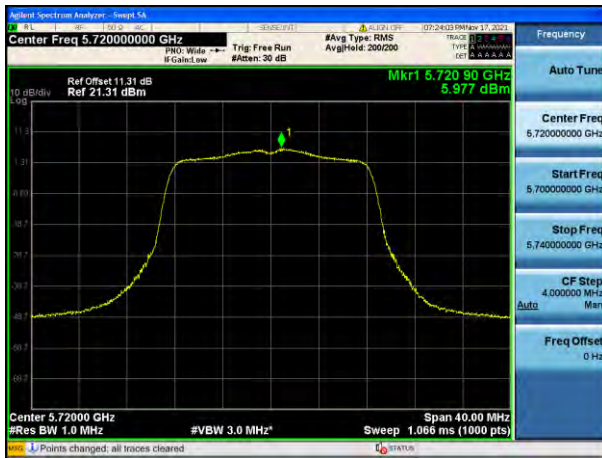
**802.11ac(VHT80) UNII 3 Band**



[Ant.2]

Test Plots

802.11a UNII 2C Band



802.11a UNII 3 Band



802.11n(HT20) UNII 2C Band



802.11n(HT20) UNII 3 Band



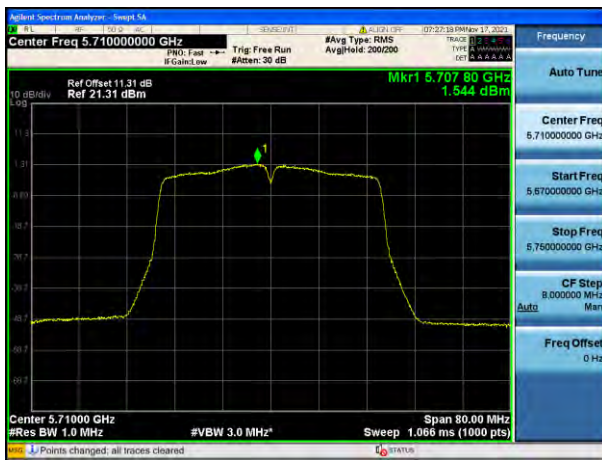
802.11ac(VHT20) UNII 2C Band



802.11ac(VHT20) UNII 3 Band



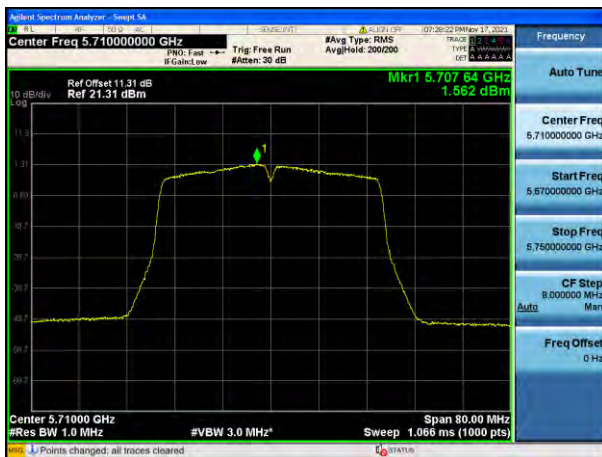
**802.11n(HT40) UNII 2C Band**



**802.11n(HT40) UNII 3 Band**



**802.11ac(VHT40) UNII 2C Band**



**802.11ac(VHT40) UNII 3 Band**



**802.11ac(VHT80) UNII 2C Band**



**802.11ac(VHT80) UNII 3 Band**



**10.7 RADIATED SPURIOUS EMISSIONS****Frequency Range : 9 kHz – 30 MHz**

| Frequency               | Measured Value | CL+AF+DF-AG | POL   | Total    | Limit    | Margin |
|-------------------------|----------------|-------------|-------|----------|----------|--------|
| [MHz]                   | [dBμV]         | [dB/m]      | [H/V] | [dBμV/m] | [dBμV/m] | [dB]   |
| No Critical peaks found |                |             |       |          |          |        |

**Note:**

1. The Measured Value of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
2. Distance extrapolation factor =  $40\log(\text{specific distance} / \text{test distance})$  (dB)
3. Limit line = specific Limits (dBμV) + Distance extrapolation factor

**Frequency Range : Below 1 GHz**

| Frequency               | Measured Value | A.F+C.L | POL   | Total    | Limit    | Margin |
|-------------------------|----------------|---------|-------|----------|----------|--------|
| [MHz]                   | [dBμV]         | [dB/m]  | [H/V] | [dBμV/m] | [dBμV/m] | [dB]   |
| No Critical peaks found |                |         |       |          |          |        |

**Note:**

1. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Quasi peak detector mode

**[Ant.1&Ant.2\_MIMO(CDD)]**
**Frequency Range : Above 1 GHz**

|                     |          |
|---------------------|----------|
| Band :              | UNII 1   |
| Operation Mode:     | 802.11 a |
| Transfer Rate:      | 6 Mbps   |
| Operating Frequency | 5180 MHz |
| Channel No.         | 36 Ch    |

| Frequency<br>[MHz] | Measured<br>Value<br>[dBμV] | CL+AF+DF-AG<br>[dB/m] | POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------------------|-----------------------|--------------|-------------------|-------------------|----------------|---------------------|
| 10360              | 53.23                       | 0.24                  | V            | 53.47             | 68.20             | 14.73          | PK                  |
| 15540              | 50.57                       | 2.16                  | V            | 52.73             | 73.98             | 21.25          | PK                  |
| 15540              | 37.66                       | 2.16                  | V            | 39.82             | 53.98             | 14.16          | AV                  |
| 10360              | 53.61                       | 0.24                  | H            | 53.85             | 68.20             | 14.35          | PK                  |
| 15540              | 50.94                       | 2.16                  | H            | 53.10             | 73.98             | 20.88          | PK                  |
| 15540              | 37.76                       | 2.16                  | H            | 39.92             | 53.98             | 14.06          | AV                  |

|                     |          |
|---------------------|----------|
| Band :              | UNII 1   |
| Operation Mode:     | 802.11 a |
| Transfer Rate:      | 6 Mbps   |
| Operating Frequency | 5200 MHz |
| Channel No.         | 40 Ch    |

| Frequency<br>[MHz] | Measured<br>Value<br>[dBμV] | CL+AF+DF-AG<br>[dB/m] | POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------------------|-----------------------|--------------|-------------------|-------------------|----------------|---------------------|
| 10400              | 52.72                       | 0.74                  | V            | 53.46             | 68.20             | 14.74          | PK                  |
| 15600              | 50.35                       | 1.81                  | V            | 52.16             | 73.98             | 21.82          | PK                  |
| 15600              | 37.39                       | 1.81                  | V            | 39.20             | 53.98             | 14.78          | AV                  |
| 10400              | 52.89                       | 0.74                  | H            | 53.63             | 68.20             | 14.57          | PK                  |
| 15600              | 50.37                       | 1.81                  | H            | 52.18             | 73.98             | 21.80          | PK                  |
| 15600              | 37.40                       | 1.81                  | H            | 39.21             | 53.98             | 14.77          | AV                  |

|                     |          |
|---------------------|----------|
| Band :              | UNII 1   |
| Operation Mode:     | 802.11 a |
| Transfer Rate:      | 6 Mbps   |
| Operating Frequency | 5240 MHz |
| Channel No.         | 48 Ch    |

| Frequency<br>[MHz] | Measured<br>Value<br>[dBμV] | CL+AF+DF-AG<br>[dB/m] | POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------------------|-----------------------|--------------|-------------------|-------------------|----------------|---------------------|
| 10480              | 53.35                       | -0.25                 | V            | 53.10             | 68.20             | 15.10          | PK                  |
| 15720              | 51.04                       | 1.16                  | V            | 52.20             | 73.98             | 21.78          | PK                  |
| 15720              | 37.41                       | 1.16                  | V            | 38.57             | 53.98             | 15.41          | AV                  |
| 10480              | 52.97                       | -0.25                 | H            | 52.72             | 68.20             | 15.48          | PK                  |
| 15720              | 50.45                       | 1.16                  | H            | 51.61             | 73.98             | 22.37          | PK                  |
| 15720              | 37.36                       | 1.16                  | H            | 38.52             | 53.98             | 15.46          | AV                  |

|                     |          |
|---------------------|----------|
| Band :              | UNII 2A  |
| Operation Mode:     | 802.11 a |
| Transfer Rate:      | 6 Mbps   |
| Operating Frequency | 5260 MHz |
| Channel No.         | 52 Ch    |

| Frequency<br>[MHz] | Measured<br>Value<br>[dBμV] | CL+AF+DF-AG<br>[dB/m] | POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------------------|-----------------------|--------------|-------------------|-------------------|----------------|---------------------|
| 10520              | 53.12                       | -0.20                 | V            | 52.92             | 68.20             | 15.28          | PK                  |
| 15780              | 50.68                       | 1.20                  | V            | 51.88             | 73.98             | 22.10          | PK                  |
| 15780              | 37.51                       | 1.20                  | V            | 38.71             | 53.98             | 15.27          | AV                  |
| 10520              | 52.87                       | -0.20                 | H            | 52.67             | 68.20             | 15.53          | PK                  |
| 15780              | 51.50                       | 1.20                  | H            | 52.70             | 73.98             | 21.28          | PK                  |
| 15780              | 37.46                       | 1.20                  | H            | 38.66             | 53.98             | 15.32          | AV                  |

|                     |          |
|---------------------|----------|
| Band :              | UNII 2A  |
| Operation Mode:     | 802.11 a |
| Transfer Rate:      | 6 Mbps   |
| Operating Frequency | 5300 MHz |
| Channel No.         | 60 Ch    |

| Frequency<br>[MHz] | Measured<br>Value<br>[dBμV] | CL+AF+DF-AG<br>[dB/m] | POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------------------|-----------------------|--------------|-------------------|-------------------|----------------|---------------------|
| 10600              | 54.03                       | 0.10                  | V            | 54.13             | 73.98             | 19.85          | PK                  |
| 10600              | 41.27                       | 0.10                  | V            | 41.37             | 53.98             | 12.61          | AV                  |
| 15900              | 51.43                       | 1.04                  | V            | 52.47             | 73.98             | 21.51          | PK                  |
| 15900              | 38.25                       | 1.04                  | V            | 39.29             | 53.98             | 14.69          | AV                  |
| 10600              | 52.84                       | 0.10                  | H            | 52.94             | 73.98             | 21.04          | PK                  |
| 10600              | 40.04                       | 0.10                  | H            | 40.14             | 53.98             | 13.84          | AV                  |
| 15900              | 50.85                       | 1.04                  | H            | 51.89             | 73.98             | 22.09          | PK                  |
| 15900              | 38.23                       | 1.04                  | H            | 39.27             | 53.98             | 14.71          | AV                  |

|                     |          |
|---------------------|----------|
| Band :              | UNII 2A  |
| Operation Mode:     | 802.11 a |
| Transfer Rate:      | 6 Mbps   |
| Operating Frequency | 5320 MHz |
| Channel No.         | 64 Ch    |

| Frequency<br>[MHz] | Measured<br>Value<br>[dBμV] | CL+AF+DF-AG<br>[dB/m] | POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------------------|-----------------------|--------------|-------------------|-------------------|----------------|---------------------|
| 10640              | 56.57                       | 0.35                  | V            | 56.92             | 73.98             | 17.06          | PK                  |
| 10640              | 42.91                       | 0.35                  | V            | 43.26             | 53.98             | 10.72          | AV                  |
| 15960              | 51.06                       | 1.12                  | V            | 52.18             | 73.98             | 21.80          | PK                  |
| 15960              | 38.06                       | 1.12                  | V            | 39.18             | 53.98             | 14.80          | AV                  |
| 10640              | 52.67                       | 0.35                  | H            | 53.02             | 73.98             | 20.96          | PK                  |
| 10640              | 40.28                       | 0.35                  | H            | 40.63             | 53.98             | 13.35          | AV                  |
| 15960              | 52.75                       | 1.12                  | H            | 53.87             | 73.98             | 20.11          | PK                  |
| 15960              | 38.20                       | 1.12                  | H            | 39.32             | 53.98             | 14.66          | AV                  |

|                     |          |
|---------------------|----------|
| Band :              | UNII 2C  |
| Operation Mode:     | 802.11 a |
| Transfer Rate:      | 6 Mbps   |
| Operating Frequency | 5500 MHz |
| Channel No.         | 100 Ch   |

| Frequency<br>[MHz] | Measured<br>Value<br>[dBμV] | CL+AF+DF-AG<br>[dB/m] | POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------------------|-----------------------|--------------|-------------------|-------------------|----------------|---------------------|
| 11000              | 52.83                       | 0.40                  | V            | 53.23             | 73.98             | 20.75          | PK                  |
| 11000              | 40.25                       | 0.40                  | V            | 40.65             | 53.98             | 13.33          | AV                  |
| 16500              | 50.82                       | 1.16                  | V            | 51.98             | 68.20             | 16.22          | PK                  |
| 11000              | 52.73                       | 0.40                  | H            | 53.13             | 73.98             | 20.85          | PK                  |
| 11000              | 39.57                       | 0.40                  | H            | 39.97             | 53.98             | 14.01          | AV                  |
| 16500              | 50.86                       | 1.16                  | H            | 52.02             | 68.20             | 16.18          | PK                  |

|                     |          |
|---------------------|----------|
| Band :              | UNII 2C  |
| Operation Mode:     | 802.11 a |
| Transfer Rate:      | 6 Mbps   |
| Operating Frequency | 5600 MHz |
| Channel No.         | 120 Ch   |

| Frequency<br>[MHz] | Measured<br>Value<br>[dBμV] | CL+AF+DF-AG<br>[dB/m] | POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------------------|-----------------------|--------------|-------------------|-------------------|----------------|---------------------|
| 11200              | 52.94                       | -0.40                 | V            | 52.54             | 73.98             | 21.44          | PK                  |
| 11200              | 39.82                       | -0.40                 | V            | 39.42             | 53.98             | 14.56          | AV                  |
| 16800              | 51.49                       | 0.65                  | V            | 52.14             | 68.20             | 16.06          | PK                  |
| 11200              | 52.29                       | -0.40                 | H            | 51.89             | 73.98             | 22.09          | PK                  |
| 11200              | 39.12                       | -0.40                 | H            | 38.72             | 53.98             | 15.26          | AV                  |
| 16800              | 50.86                       | 0.65                  | H            | 51.51             | 68.20             | 16.69          | PK                  |

|                     |          |
|---------------------|----------|
| Band :              | UNII 2C  |
| Operation Mode:     | 802.11 a |
| Transfer Rate:      | 6 Mbps   |
| Operating Frequency | 5720 MHz |
| Channel No.         | 144 Ch   |

| Frequency<br>[MHz] | Measured<br>Value<br>[dBμV] | CL+AF+DF-AG<br>[dB/m] | POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------------------|-----------------------|--------------|-------------------|-------------------|----------------|---------------------|
| 11440              | 52.95                       | 0.14                  | V            | 53.09             | 73.98             | 20.89          | PK                  |
| 11440              | 39.80                       | 0.14                  | V            | 39.94             | 53.98             | 14.04          | AV                  |
| 17160              | 50.74                       | 1.35                  | V            | 52.09             | 68.20             | 16.11          | PK                  |
| 11440              | 52.29                       | 0.14                  | H            | 52.43             | 73.98             | 21.55          | PK                  |
| 11440              | 39.71                       | 0.14                  | H            | 39.85             | 53.98             | 14.13          | AV                  |
| 17160              | 51.45                       | 1.35                  | H            | 52.80             | 68.20             | 15.40          | PK                  |

|                     |          |
|---------------------|----------|
| Band :              | UNII 3   |
| Operation Mode:     | 802.11 a |
| Transfer Rate:      | 6 Mbps   |
| Operating Frequency | 5745MHz  |
| Channel No.         | 149 Ch   |

| Frequency<br>[MHz] | Measured<br>Value<br>[dBμV] | CL+AF+DF-AG<br>[dB/m] | POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------------------|-----------------------|--------------|-------------------|-------------------|----------------|---------------------|
| 11490              | 53.65                       | -0.14                 | V            | 53.51             | 73.98             | 20.47          | PK                  |
| 11490              | 41.02                       | -0.14                 | V            | 40.88             | 53.98             | 13.10          | AV                  |
| 17235              | 51.69                       | 1.61                  | V            | 53.30             | 68.20             | 14.90          | PK                  |
| 11490              | 52.65                       | -0.14                 | H            | 52.51             | 73.98             | 21.47          | PK                  |
| 11490              | 39.78                       | -0.14                 | H            | 39.64             | 53.98             | 14.34          | AV                  |
| 17235              | 51.46                       | 1.61                  | H            | 53.07             | 68.20             | 15.13          | PK                  |

|                     |          |
|---------------------|----------|
| Band :              | UNII 3   |
| Operation Mode:     | 802.11 a |
| Transfer Rate:      | 6 Mbps   |
| Operating Frequency | 5785 MHz |
| Channel No.         | 157 Ch   |

| Frequency<br>[MHz] | Measured<br>Value<br>[dBμV] | CL+AF+DF-AG<br>[dB/m] | POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------------------|-----------------------|--------------|-------------------|-------------------|----------------|---------------------|
| 11570              | 53.52                       | 0.07                  | V            | 53.59             | 73.98             | 20.39          | PK                  |
| 11570              | 40.25                       | 0.07                  | V            | 40.32             | 53.98             | 13.66          | AV                  |
| 17355              | 51.06                       | 1.69                  | V            | 52.75             | 68.20             | 15.45          | PK                  |
| 11570              | 52.90                       | 0.07                  | H            | 52.97             | 73.98             | 21.01          | PK                  |
| 11570              | 40.04                       | 0.07                  | H            | 40.11             | 53.98             | 13.87          | AV                  |
| 17355              | 52.18                       | 1.69                  | H            | 53.87             | 68.20             | 14.33          | PK                  |

|                     |          |
|---------------------|----------|
| Band :              | UNII 3   |
| Operation Mode:     | 802.11 a |
| Transfer Rate:      | 6 Mbps   |
| Operating Frequency | 5825 MHz |
| Channel No.         | 165 Ch   |

| Frequency<br>[MHz] | Measured<br>Value<br>[dBμV] | CL+AF+DF-AG<br>[dB/m] | POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------------------|-----------------------|--------------|-------------------|-------------------|----------------|---------------------|
| 11650              | 53.95                       | -0.70                 | V            | 53.25             | 73.98             | 20.73          | PK                  |
| 11650              | 41.32                       | -0.70                 | V            | 40.62             | 53.98             | 13.36          | AV                  |
| 17475              | 50.78                       | 2.65                  | V            | 53.43             | 68.20             | 14.77          | PK                  |
| 11650              | 53.45                       | -0.70                 | H            | 52.75             | 73.98             | 21.23          | PK                  |
| 11650              | 40.69                       | -0.70                 | H            | 39.99             | 53.98             | 13.99          | AV                  |
| 17475              | 50.54                       | 2.65                  | H            | 53.19             | 68.20             | 15.01          | PK                  |

|                     |          |
|---------------------|----------|
| Band :              | UNII 4   |
| Operation Mode:     | 802.11 a |
| Transfer Rate:      | 6 Mbps   |
| Operating Frequency | 5845 MHz |
| Channel No.         | 169 Ch   |

| Frequency<br>[MHz] | Measured<br>Value<br>[dBμV] | AF+CL-AG+DF<br>[dB/m] | ANT.<br>POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------------------|-----------------------|----------------------|-------------------|-------------------|----------------|---------------------|
| 11690              | 54.01                       | -0.42                 | V                    | 53.59             | 73.98             | 20.39          | PK                  |
| 11690              | 40.88                       | -0.42                 | V                    | 40.46             | 53.98             | 13.52          | AV                  |
| 17535              | 50.11                       | 3.80                  | V                    | 53.91             | 68.20             | 14.29          | PK                  |
| 11690              | 54.39                       | -0.42                 | H                    | 53.97             | 73.98             | 20.01          | PK                  |
| 11690              | 41.16                       | -0.42                 | H                    | 40.74             | 53.98             | 13.24          | AV                  |
| 17535              | 50.29                       | 3.80                  | H                    | 54.09             | 68.20             | 14.11          | PK                  |

|                     |          |
|---------------------|----------|
| Band :              | UNII 4   |
| Operation Mode:     | 802.11 a |
| Transfer Rate:      | 6 Mbps   |
| Operating Frequency | 5865 MHz |
| Channel No.         | 173 Ch   |

| Frequency<br>[MHz] | Measured<br>Value<br>[dBμV] | AF+CL-AG+DF<br>[dB/m] | ANT.<br>POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------------------|-----------------------|----------------------|-------------------|-------------------|----------------|---------------------|
| 11730              | 53.62                       | -0.32                 | V                    | 53.30             | 73.98             | 20.68          | PK                  |
| 11730              | 40.89                       | -0.32                 | V                    | 40.57             | 53.98             | 13.41          | AV                  |
| 17595              | 50.32                       | 4.01                  | V                    | 54.33             | 68.20             | 13.87          | PK                  |
| 11730              | 53.88                       | -0.32                 | H                    | 53.56             | 73.98             | 20.42          | PK                  |
| 11730              | 41.15                       | -0.32                 | H                    | 40.83             | 53.98             | 13.15          | AV                  |
| 17595              | 50.52                       | 4.01                  | H                    | 54.53             | 68.20             | 13.67          | PK                  |

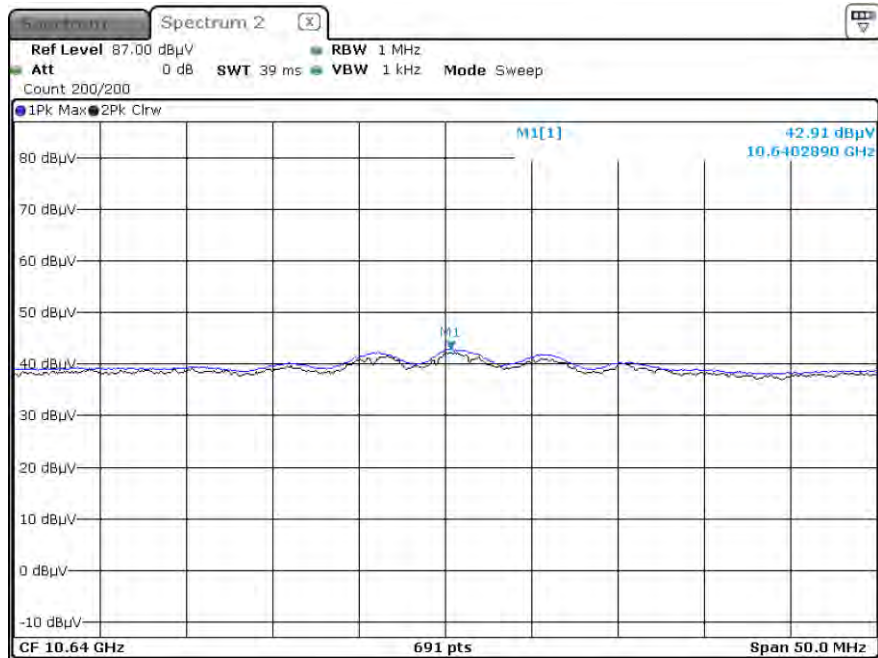
|                     |          |
|---------------------|----------|
| Band :              | UNII 4   |
| Operation Mode:     | 802.11 a |
| Transfer Rate:      | 6 Mbps   |
| Operating Frequency | 5885 MHz |
| Channel No.         | 177 Ch   |

| Frequency<br>[MHz] | Measured<br>Value<br>[dBμV] | AF+CL-AG+DF<br>[dB/m] | ANT.<br>POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|-----------------------------|-----------------------|----------------------|-------------------|-------------------|----------------|---------------------|
| 11770              | 55.01                       | -0.19                 | V                    | 54.82             | 73.98             | 19.16          | PK                  |
| 11770              | 41.32                       | -0.19                 | V                    | 41.13             | 53.98             | 12.85          | AV                  |
| 17655              | 50.04                       | 4.24                  | V                    | 54.28             | 68.20             | 13.92          | PK                  |
| 11770              | 55.30                       | -0.19                 | H                    | 55.11             | 73.98             | 18.87          | PK                  |
| 11770              | 41.55                       | -0.19                 | H                    | 41.36             | 53.98             | 12.62          | AV                  |
| 17655              | 50.11                       | 4.24                  | H                    | 54.35             | 68.20             | 13.85          | PK                  |

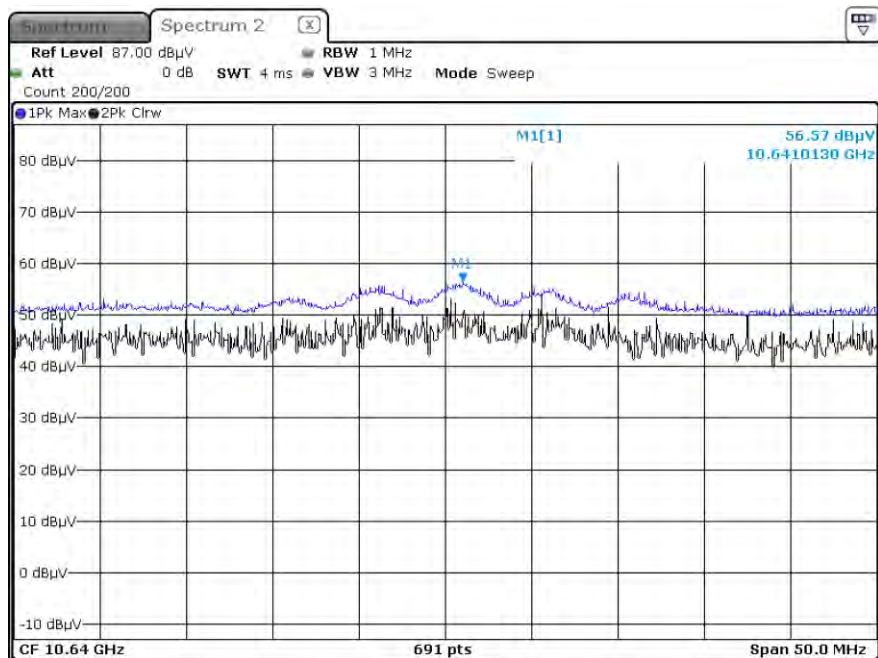
▣ Test Plots

[Ant.1&Ant.2\_MIMO(CDD)]

Average Result (802.11a, Ch.64 2nd Harmonic, Y-V)



Peak Result (802.11a, Ch.64 2nd Harmonic, Y-V)



**Note:**

Only the worst case plots for Radiated Spurious Emissions.

## 10.8 RADIATED RESTRICTED BAND EDGE

### [Ant.1&Ant.2\_MIMO(CDD)]

|                     |          |
|---------------------|----------|
| Band :              | UNII 1   |
| Operation Mode:     | 802.11 a |
| Transfer Rate:      | 6 Mbps   |
| Operating Frequency | 5180 MHz |
| Channel No.         | 36 Ch    |

| Frequency<br>[MHz] | Measured Value<br>[dBμV] | A.F+C.L-<br>A.G+ATT+D.F<br>[dB/m] | ANT. POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|--------------------------|-----------------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5150               | 46.49                    | 13.63                             | H                 | 60.12             | 73.98             | 13.86          | PK                  |
| 5150               | 33.68                    | 13.63                             | H                 | 47.31             | 53.98             | 6.67           | AV                  |
| 5150               | 44.35                    | 13.63                             | V                 | 57.98             | 73.98             | 16.00          | PK                  |
| 5150               | 31.58                    | 13.63                             | V                 | 45.21             | 53.98             | 8.77           | AV                  |

|                     |          |
|---------------------|----------|
| Band :              | UNII 2A  |
| Operation Mode:     | 802.11 a |
| Transfer Rate:      | 6 Mbps   |
| Operating Frequency | 5320 MHz |
| Channel No.         | 64 Ch    |

| Frequency<br>[MHz] | Measured Value<br>[dBμV] | A.F+C.L-<br>A.G+ATT+D.F<br>[dB/m] | ANT. POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|--------------------------|-----------------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5350               | 49.35                    | 14.13                             | H                 | 63.48             | 73.98             | 10.50          | PK                  |
| 5350               | 34.13                    | 14.13                             | H                 | 48.26             | 53.98             | 5.72           | AV                  |
| 5350               | 47.12                    | 14.13                             | V                 | 61.25             | 73.98             | 12.73          | PK                  |
| 5350               | 32.48                    | 14.13                             | V                 | 46.61             | 53.98             | 7.37           | AV                  |

|                     |          |
|---------------------|----------|
| Band :              | UNII 2C  |
| Operation Mode:     | 802.11 a |
| Transfer Rate:      | 6 Mbps   |
| Operating Frequency | 5500 MHz |
| Channel No.         | 100 Ch   |

| Frequency<br>[MHz] | Measured Value<br>[dBμV] | A.F+C.L-<br>A.G+ATT+D.F<br>[dB/m] | ANT. POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|--------------------------|-----------------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5460               | 45.28                    | 14.77                             | H                 | 60.05             | 73.98             | 13.93          | PK                  |
| 5460               | 32.54                    | 14.77                             | H                 | 47.31             | 53.98             | 6.67           | AV                  |
| 5470               | 49.22                    | 15.12                             | H                 | 64.34             | 68.20             | 3.86           | PK                  |
| 5460               | 43.12                    | 14.77                             | V                 | 57.89             | 73.98             | 16.09          | PK                  |
| 5460               | 30.45                    | 14.77                             | V                 | 45.22             | 53.98             | 8.76           | AV                  |
| 5470               | 47.05                    | 15.12                             | V                 | 62.17             | 68.20             | 6.03           | PK                  |

|                     |               |
|---------------------|---------------|
| Band :              | UNII 1        |
| Operation Mode:     | 802.11 n_HT20 |
| Transfer MCS Index: | 0             |
| Operating Frequency | 5180 MHz      |
| Channel No.         | 36 Ch         |

| Frequency<br>[MHz] | Measured Value<br>[dBμV] | A.F+C.L-<br>A.G+ATT+D.F<br>[dB/m] | ANT. POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|--------------------------|-----------------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5150               | 47.26                    | 13.63                             | H                 | 60.89             | 73.98             | 13.09          | PK                  |
| 5150               | 34.28                    | 13.63                             | H                 | 47.91             | 53.98             | 6.07           | AV                  |
| 5150               | 45.19                    | 13.63                             | V                 | 58.82             | 73.98             | 15.16          | PK                  |
| 5150               | 32.12                    | 13.63                             | V                 | 45.75             | 53.98             | 8.23           | AV                  |

|                     |               |
|---------------------|---------------|
| Band :              | UNII 2A       |
| Operation Mode:     | 802.11 n_HT20 |
| Transfer MCS Index: | 0             |
| Operating Frequency | 5320 MHz      |
| Channel No.         | 64 Ch         |

| Frequency<br>[MHz] | Measured Value<br>[dBμV] | A.F+C.L-<br>A.G+ATT+D.F<br>[dB/m] | ANT. POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|--------------------------|-----------------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5350               | 49.28                    | 14.13                             | H                 | 63.41             | 73.98             | 10.57          | PK                  |
| 5350               | 34.13                    | 14.13                             | H                 | 48.26             | 53.98             | 5.72           | AV                  |
| 5350               | 47.12                    | 14.13                             | V                 | 61.25             | 73.98             | 12.73          | PK                  |
| 5350               | 32.22                    | 14.13                             | V                 | 46.35             | 53.98             | 7.63           | AV                  |

|                     |               |
|---------------------|---------------|
| Band :              | UNII 2C       |
| Operation Mode:     | 802.11 n_HT20 |
| Transfer MCS Index: | 0             |
| Operating Frequency | 5500 MHz      |
| Channel No.         | 100 Ch        |

| Frequency<br>[MHz] | Measured Value<br>[dBμV] | A.F+C.L-<br>A.G+ATT+D.F<br>[dB/m] | ANT. POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|--------------------------|-----------------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5460               | 45.21                    | 14.77                             | H                 | 59.98             | 73.98             | 14.00          | PK                  |
| 5460               | 32.28                    | 14.77                             | H                 | 47.05             | 53.98             | 6.93           | AV                  |
| 5470               | 49.63                    | 15.12                             | H                 | 64.75             | 68.20             | 3.45           | PK                  |
| 5460               | 43.66                    | 14.77                             | V                 | 58.43             | 73.98             | 15.55          | PK                  |
| 5460               | 30.48                    | 14.77                             | V                 | 45.25             | 53.98             | 8.73           | AV                  |
| 5470               | 47.61                    | 15.12                             | V                 | 62.73             | 68.20             | 5.47           | PK                  |

|                     |                 |
|---------------------|-----------------|
| Band :              | UNII 1          |
| Operation Mode:     | 802.11 ac_VHT20 |
| Transfer MCS Index: | 0               |
| Operating Frequency | 5180 MHz        |
| Channel No.         | 36 Ch           |

| Frequency<br>[MHz] | Measured Value<br>[dBμV] | A.F+C.L-<br>A.G+ATT+D.F<br>[dB/m] | ANT. POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|--------------------------|-----------------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5150               | 45.59                    | 13.63                             | H                 | 59.22             | 73.98             | 14.76          | PK                  |
| 5150               | 33.84                    | 13.63                             | H                 | 47.47             | 53.98             | 6.51           | AV                  |
| 5150               | 43.41                    | 13.63                             | V                 | 57.04             | 73.98             | 16.94          | PK                  |
| 5150               | 31.78                    | 13.63                             | V                 | 45.41             | 53.98             | 8.57           | AV                  |

|                     |                 |
|---------------------|-----------------|
| Band :              | UNII 2A         |
| Operation Mode:     | 802.11 ac_VHT20 |
| Transfer MCS Index: | 0               |
| Operating Frequency | 5320 MHz        |
| Channel No.         | 64 Ch           |

| Frequency<br>[MHz] | Measured Value<br>[dBμV] | A.F+C.L-<br>A.G+ATT+D.F<br>[dB/m] | ANT. POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|--------------------------|-----------------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5350               | 49.12                    | 14.13                             | H                 | 63.25             | 73.98             | 10.73          | PK                  |
| 5350               | 34.13                    | 14.13                             | H                 | 48.26             | 53.98             | 5.72           | AV                  |
| 5350               | 47.22                    | 14.13                             | V                 | 61.35             | 73.98             | 12.63          | PK                  |
| 5350               | 32.19                    | 14.13                             | V                 | 46.32             | 53.98             | 7.66           | AV                  |

|                     |                 |
|---------------------|-----------------|
| Band :              | UNII 2C         |
| Operation Mode:     | 802.11 ac_VHT20 |
| Transfer MCS Index: | 0               |
| Operating Frequency | 5500 MHz        |
| Channel No.         | 100 Ch          |

| Frequency<br>[MHz] | Measured Value<br>[dBμV] | A.F+C.L-<br>A.G+ATT+D.F<br>[dB/m] | ANT. POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|--------------------------|-----------------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5460               | 45.15                    | 14.77                             | H                 | 59.92             | 73.98             | 14.06          | PK                  |
| 5460               | 32.33                    | 14.77                             | H                 | 47.10             | 53.98             | 6.88           | AV                  |
| 5470               | 48.89                    | 15.12                             | H                 | 64.01             | 68.20             | 4.19           | PK                  |
| 5460               | 43.19                    | 14.77                             | V                 | 57.96             | 73.98             | 16.02          | PK                  |
| 5460               | 30.12                    | 14.77                             | V                 | 44.89             | 53.98             | 9.09           | AV                  |
| 5470               | 46.78                    | 15.12                             | V                 | 61.9              | 68.20             | 6.30           | PK                  |

|                     |               |
|---------------------|---------------|
| Band :              | UNII 1        |
| Operation Mode:     | 802.11 n_HT40 |
| Transfer MCS Index: | 0             |
| Operating Frequency | 5190 MHz      |
| Channel No.         | 38 Ch         |

| Frequency<br>[MHz] | Measured Value<br>[dBμV] | A.F+C.L-<br>A.G+ATT+D.F<br>[dB/m] | ANT. POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|--------------------------|-----------------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5150               | 52.38                    | 13.63                             | H                 | 66.01             | 73.98             | 7.97           | PK                  |
| 5150               | 37.91                    | 13.63                             | H                 | 51.54             | 53.98             | 2.44           | AV                  |
| 5150               | 51.12                    | 13.63                             | V                 | 64.75             | 73.98             | 9.23           | PK                  |
| 5150               | 35.12                    | 13.63                             | V                 | 48.75             | 53.98             | 5.23           | AV                  |

|                     |               |
|---------------------|---------------|
| Band :              | UNII 2A       |
| Operation Mode:     | 802.11 n_HT40 |
| Transfer MCS Index: | 0             |
| Operating Frequency | 5310 MHz      |
| Channel No.         | 62 Ch         |

| Frequency<br>[MHz] | Measured Value<br>[dBμV] | A.F+C.L-<br>A.G+ATT+D.F<br>[dB/m] | ANT. POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|--------------------------|-----------------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5350               | 49.92                    | 14.13                             | H                 | 64.05             | 73.98             | 9.93           | PK                  |
| 5350               | 36.08                    | 14.13                             | H                 | 50.21             | 53.98             | 3.77           | AV                  |
| 5350               | 47.62                    | 14.13                             | V                 | 61.75             | 73.98             | 12.23          | PK                  |
| 5350               | 34.78                    | 14.13                             | V                 | 48.91             | 53.98             | 5.07           | AV                  |

|                     |               |
|---------------------|---------------|
| Band :              | UNII 2C       |
| Operation Mode:     | 802.11 n_HT40 |
| Transfer MCS Index: | 0             |
| Operating Frequency | 5510 MHz      |
| Channel No.         | 102 Ch        |

| Frequency<br>[MHz] | Measured Value<br>[dBμV] | A.F+C.L-<br>A.G+ATT+D.F<br>[dB/m] | ANT. POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|--------------------------|-----------------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5460               | 44.91                    | 14.77                             | H                 | 59.68             | 73.98             | 14.30          | PK                  |
| 5460               | 32.78                    | 14.77                             | H                 | 47.55             | 53.98             | 6.43           | AV                  |
| 5470               | 46.78                    | 15.12                             | H                 | 61.9              | 68.20             | 6.30           | PK                  |
| 5460               | 42.19                    | 14.77                             | V                 | 56.96             | 73.98             | 17.02          | PK                  |
| 5460               | 30.12                    | 14.77                             | V                 | 44.89             | 53.98             | 9.09           | AV                  |
| 5470               | 44.69                    | 15.12                             | V                 | 59.81             | 68.20             | 8.39           | PK                  |

|                     |                 |
|---------------------|-----------------|
| Band :              | UNII 1          |
| Operation Mode:     | 802.11 ac_VHT40 |
| Transfer MCS Index: | 0               |
| Operating Frequency | 5190 MHz        |
| Channel No.         | 38 Ch           |

| Frequency<br>[MHz] | Measured Value<br>[dBμV] | A.F+C.L-<br>A.G+ATT+D.F<br>[dB/m] | ANT. POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|--------------------------|-----------------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5150               | 51.22                    | 13.63                             | H                 | 64.85             | 73.98             | 9.13           | PK                  |
| 5150               | 37.33                    | 13.63                             | H                 | 50.96             | 53.98             | 3.02           | AV                  |
| 5150               | 47.78                    | 13.63                             | V                 | 61.41             | 73.98             | 12.57          | PK                  |
| 5150               | 35.24                    | 13.63                             | V                 | 48.87             | 53.98             | 5.11           | AV                  |

|                     |                 |
|---------------------|-----------------|
| Band :              | UNII 2A         |
| Operation Mode:     | 802.11 ac_VHT40 |
| Transfer MCS Index: | 0               |
| Operating Frequency | 5310 MHz        |
| Channel No.         | 62 Ch           |

| Frequency<br>[MHz] | Measured Value<br>[dBμV] | A.F+C.L-<br>A.G+ATT+D.F<br>[dB/m] | ANT. POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|--------------------------|-----------------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5350               | 47.91                    | 14.13                             | H                 | 62.04             | 73.98             | 11.94          | PK                  |
| 5350               | 35.73                    | 14.13                             | H                 | 49.86             | 53.98             | 4.12           | AV                  |
| 5350               | 45.89                    | 14.13                             | V                 | 60.02             | 73.98             | 13.96          | PK                  |
| 5350               | 33.69                    | 14.13                             | V                 | 47.82             | 53.98             | 6.16           | AV                  |

|                     |                 |
|---------------------|-----------------|
| Band :              | UNII 2C         |
| Operation Mode:     | 802.11 ac_VHT40 |
| Transfer MCS Index: | 0               |
| Operating Frequency | 5510 MHz        |
| Channel No.         | 102 Ch          |

| Frequency<br>[MHz] | Measured Value<br>[dBμV] | A.F+C.L-<br>A.G+ATT+D.F<br>[dB/m] | ANT. POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|--------------------------|-----------------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5460               | 45.35                    | 14.77                             | H                 | 60.12             | 73.98             | 13.86          | PK                  |
| 5460               | 33.02                    | 14.77                             | H                 | 47.79             | 53.98             | 6.19           | AV                  |
| 5470               | 49.90                    | 15.12                             | H                 | 65.02             | 68.20             | 3.18           | PK                  |
| 5460               | 43.22                    | 14.77                             | V                 | 57.99             | 73.98             | 15.99          | PK                  |
| 5460               | 31.12                    | 14.77                             | V                 | 45.89             | 53.98             | 8.09           | AV                  |
| 5470               | 47.71                    | 15.12                             | V                 | 62.83             | 68.20             | 5.37           | PK                  |

|                     |                 |
|---------------------|-----------------|
| Band :              | UNII 1          |
| Operation Mode:     | 802.11 ac_VHT80 |
| Transfer MCS Index: | 0               |
| Operating Frequency | 5210 MHz        |
| Channel No.         | 42 Ch           |

| Frequency<br>[MHz] | Measured Value<br>[dBμV] | A.F+C.L-<br>A.G+ATT+D.F<br>[dB/m] | ANT. POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|--------------------------|-----------------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5150               | 49.17                    | 13.63                             | H                 | 62.80             | 73.98             | 11.18          | PK                  |
| 5150               | 36.97                    | 13.63                             | H                 | 50.6              | 53.98             | 3.38           | AV                  |
| 5150               | 47.29                    | 13.63                             | V                 | 60.92             | 73.98             | 13.06          | PK                  |
| 5150               | 34.89                    | 13.63                             | V                 | 48.52             | 53.98             | 5.46           | AV                  |

|                     |                 |
|---------------------|-----------------|
| Band :              | UNII 2A         |
| Operation Mode:     | 802.11 ac_VHT80 |
| Transfer MCS Index: | 0               |
| Operating Frequency | 5290 MHz        |
| Channel No.         | 58 Ch           |

| Frequency<br>[MHz] | Measured Value<br>[dBμV] | A.F+C.L-<br>A.G+ATT+D.F<br>[dB/m] | ANT. POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|--------------------------|-----------------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5350               | 46.56                    | 14.13                             | H                 | 60.69             | 73.98             | 13.29          | PK                  |
| 5350               | 35.51                    | 14.13                             | H                 | 49.64             | 53.98             | 4.34           | AV                  |
| 5350               | 44.44                    | 14.13                             | V                 | 58.57             | 73.98             | 15.41          | PK                  |
| 5350               | 33.48                    | 14.13                             | V                 | 47.61             | 53.98             | 6.37           | AV                  |

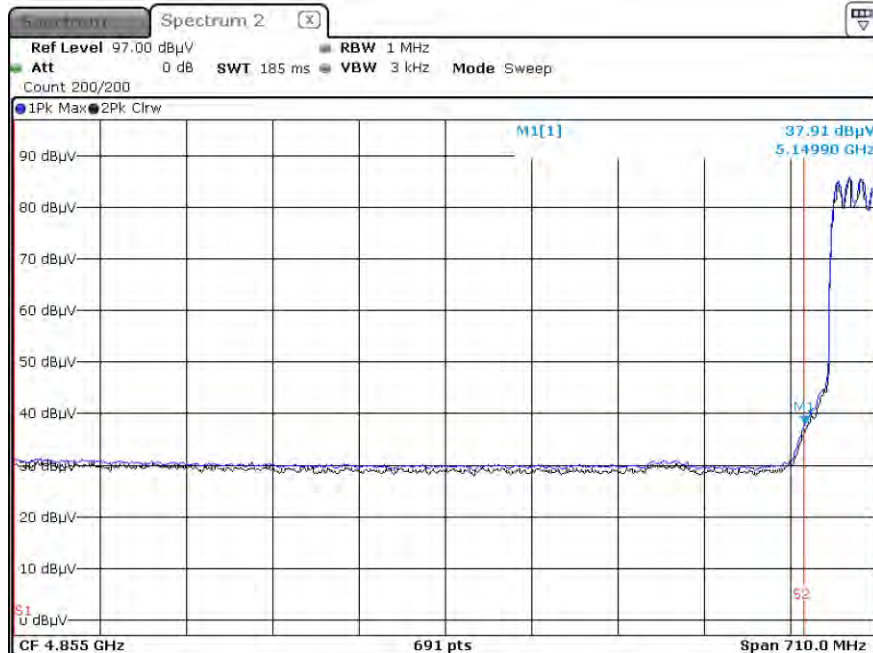
|                     |                 |
|---------------------|-----------------|
| Band :              | UNII 2C         |
| Operation Mode:     | 802.11 ac_VHT80 |
| Transfer MCS Index: | 0               |
| Operating Frequency | 5530 MHz        |
| Channel No.         | 106 Ch          |

| Frequency<br>[MHz] | Measured Value<br>[dBμV] | A.F+C.L-<br>A.G+ATT+D.F<br>[dB/m] | ANT. POL<br>[H/V] | Total<br>[dBμV/m] | Limit<br>[dBμV/m] | Margin<br>[dB] | Measurement<br>Type |
|--------------------|--------------------------|-----------------------------------|-------------------|-------------------|-------------------|----------------|---------------------|
| 5460               | 47.91                    | 14.77                             | H                 | 62.68             | 73.98             | 11.30          | PK                  |
| 5460               | 36.49                    | 14.77                             | H                 | 51.26             | 53.98             | 2.72           | AV                  |
| 5470               | 50.22                    | 15.12                             | H                 | 65.34             | 68.20             | 2.86           | PK                  |
| 5460               | 45.89                    | 14.77                             | V                 | 60.66             | 73.98             | 13.32          | PK                  |
| 5460               | 34.32                    | 14.77                             | V                 | 49.09             | 53.98             | 4.89           | AV                  |
| 5470               | 48.99                    | 15.12                             | V                 | 64.11             | 68.20             | 4.09           | PK                  |

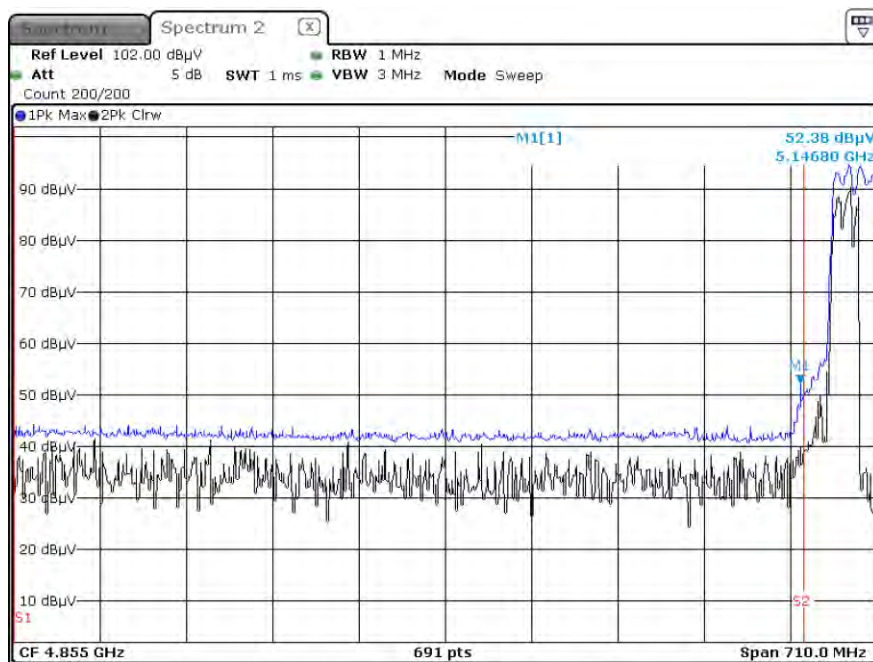
[Ant.1&Ant.2\_MIMO(CDD)]

▣ Test Plots(UNII 1, 2A, 2C)

Average Result (802.11 n\_HT40\_ MCS0, Ch.38, Z-H)



Peak Result (802.11 n\_HT40\_ MCS0, Ch.38, Z-H)

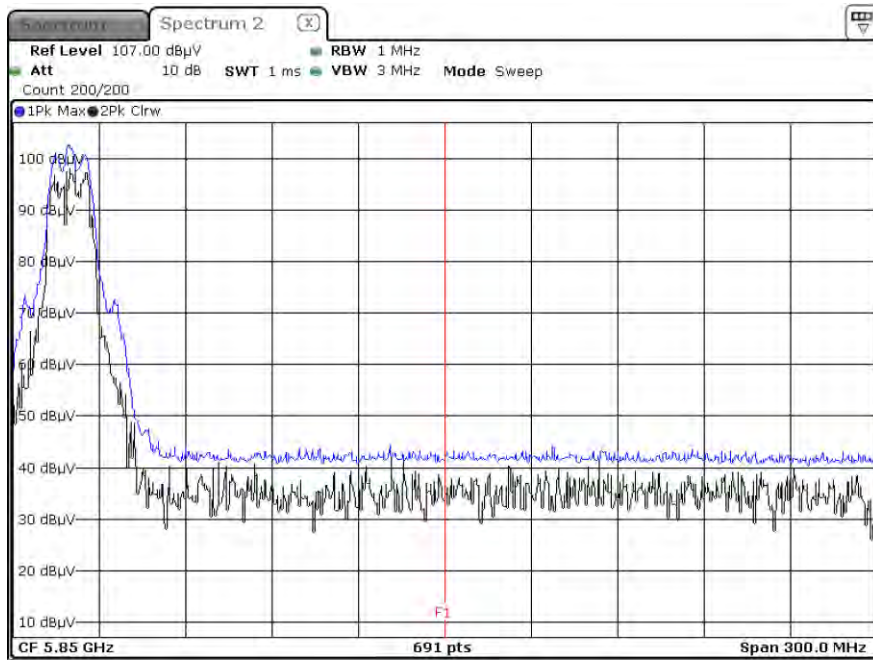


**Note:**

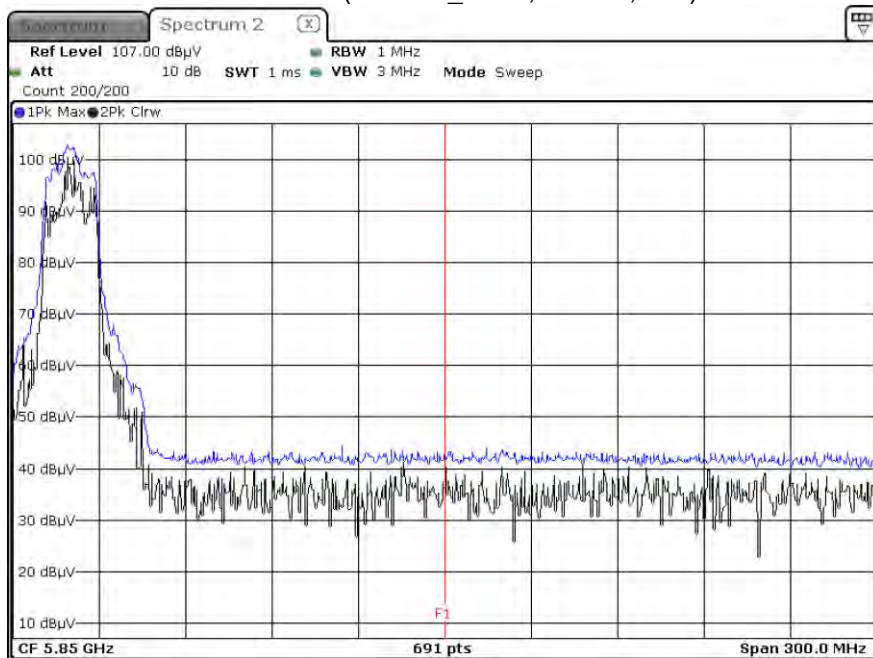
Only the worst case plots for Radiated Restricted Band Edge.

▣ Test Plots(Straddle Channel)

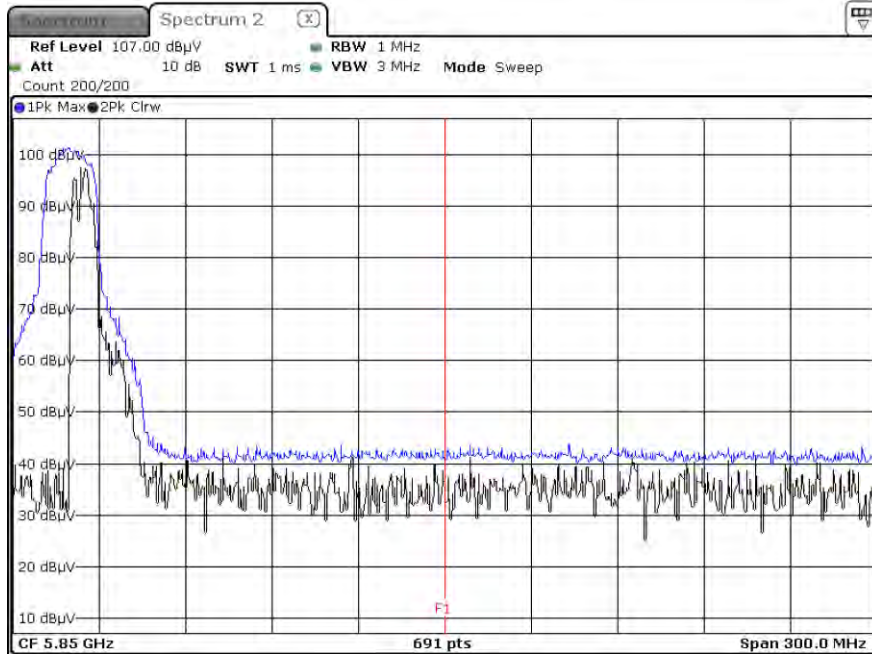
Peak Result (802.11a, Ch.144, Z-H)



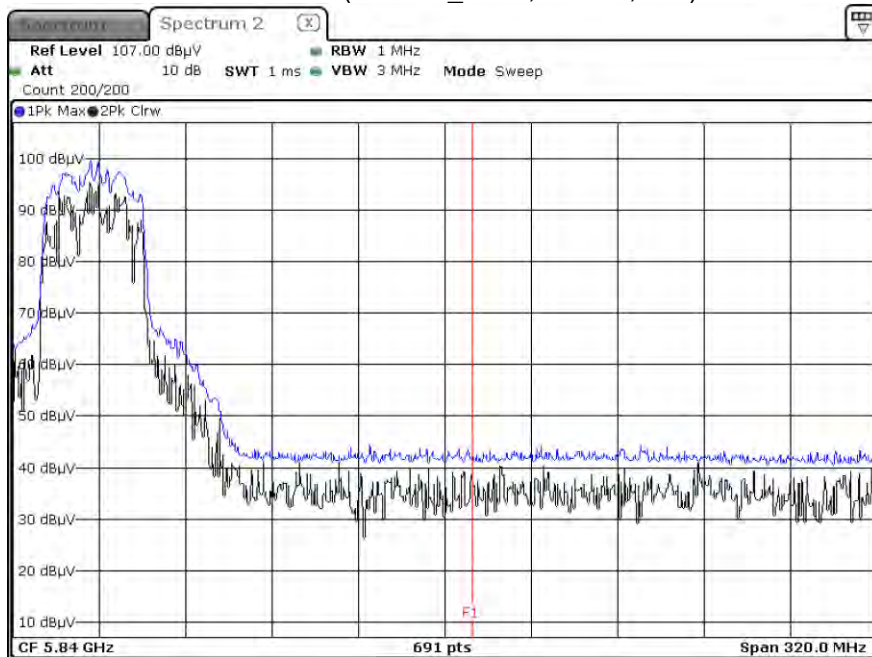
Peak Result (802.11n\_HT20, Ch.144, Z-H)



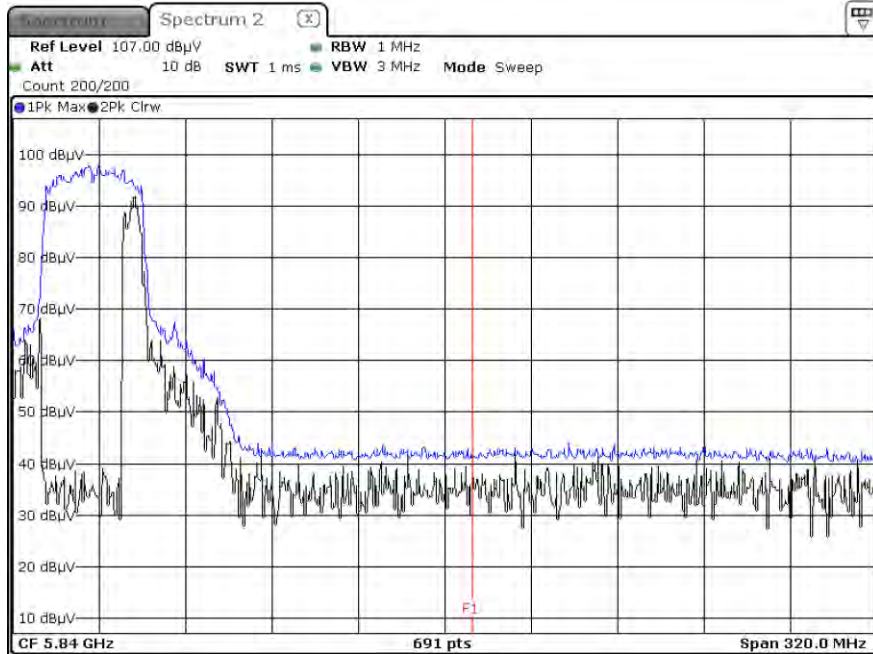
Peak Result (802.11ac\_VHT20, Ch.144, Z-H)



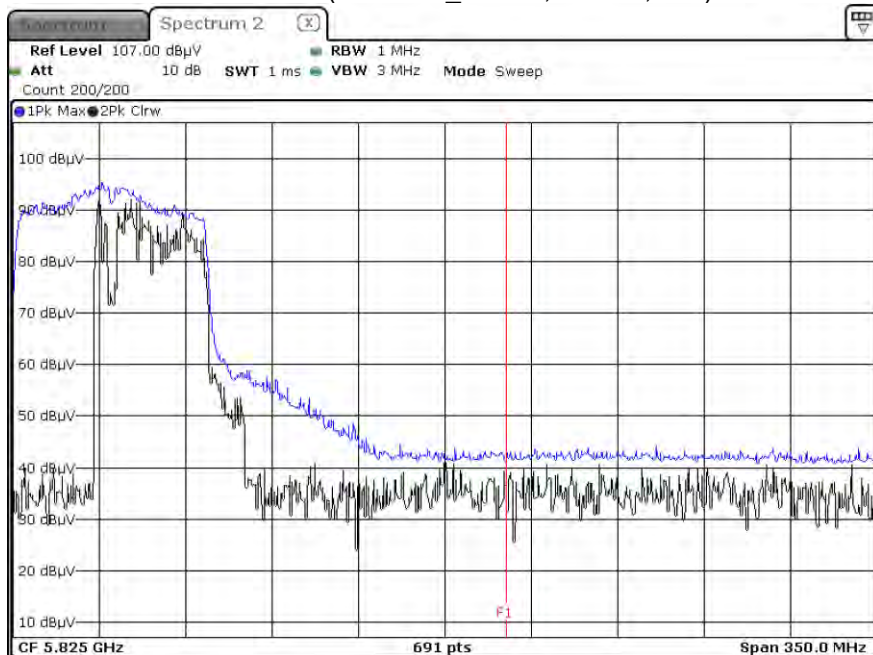
Peak Result (802.11n\_HT40, Ch.142, Z-H)



Peak Result (802.11ac\_VHT40, Ch.142, Z-H)



Peak Result (802.11ac\_VHT80, Ch.138, Z-H)

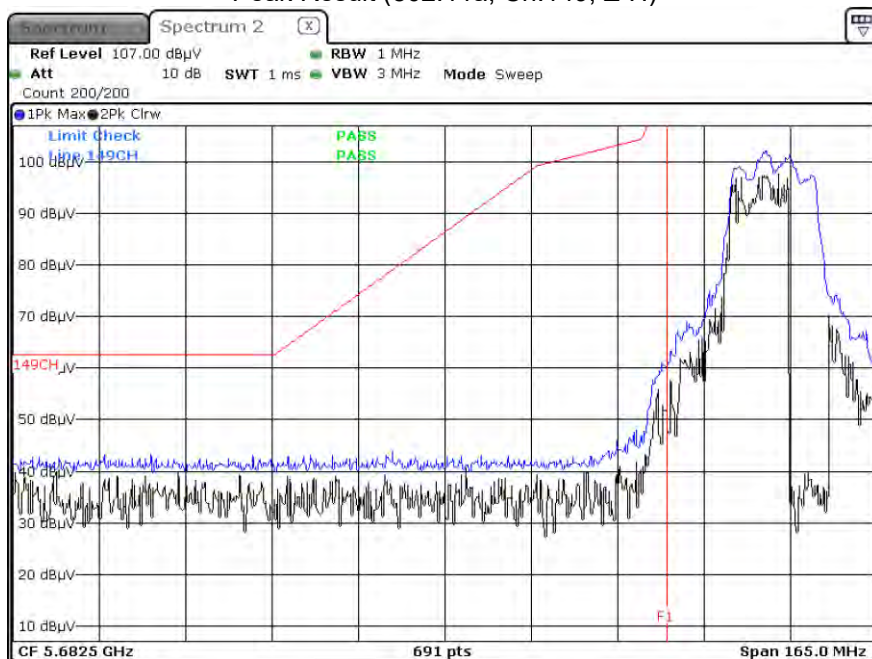


**Note :**

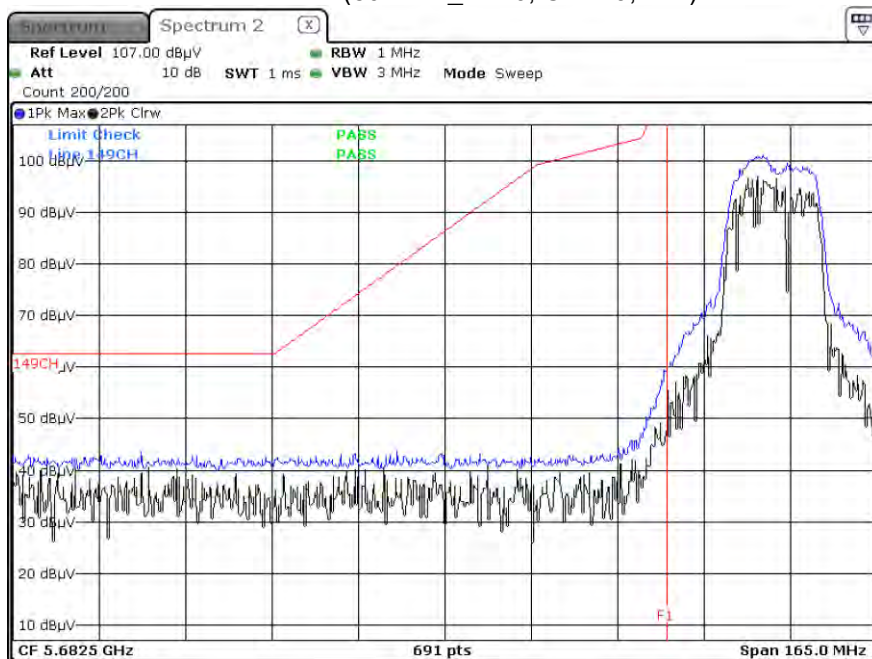
1. Only the worst case plots for Radiated Restricted Band Edge.
2. Red line : 5850 MHz
3. Ambient Noise (Because of ambient noise, We attached only the worst plot without a data table)

▣ Test Plots(UNII 3)

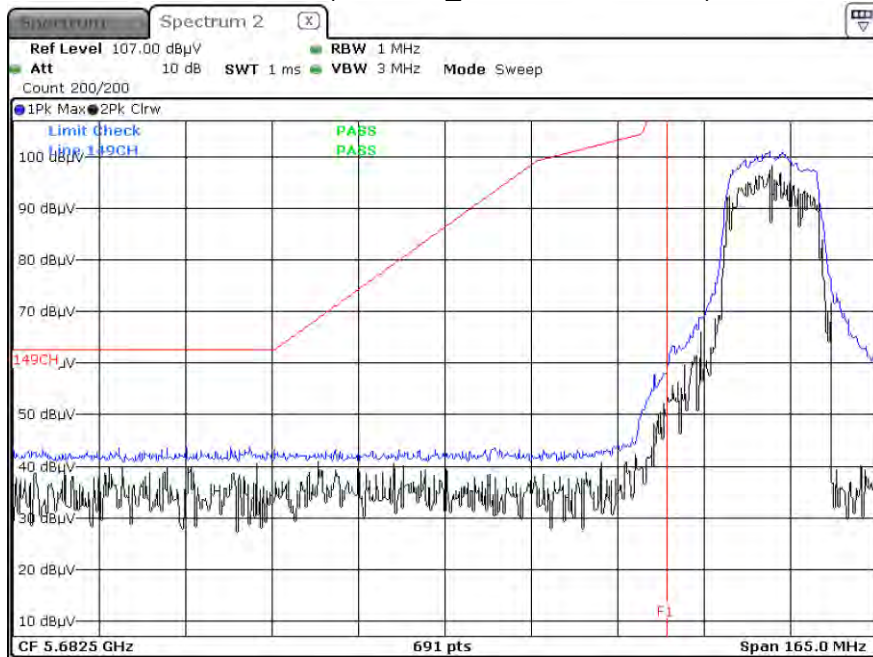
Peak Result (802.11a, Ch.149, Z-H)



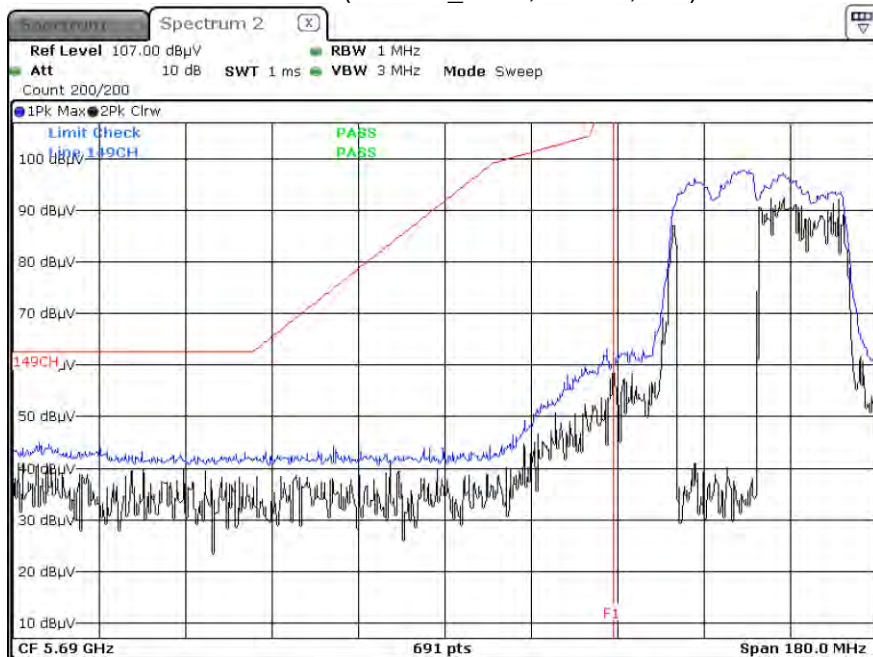
Peak Result (802.11n\_HT20, Ch.149, Z-H)



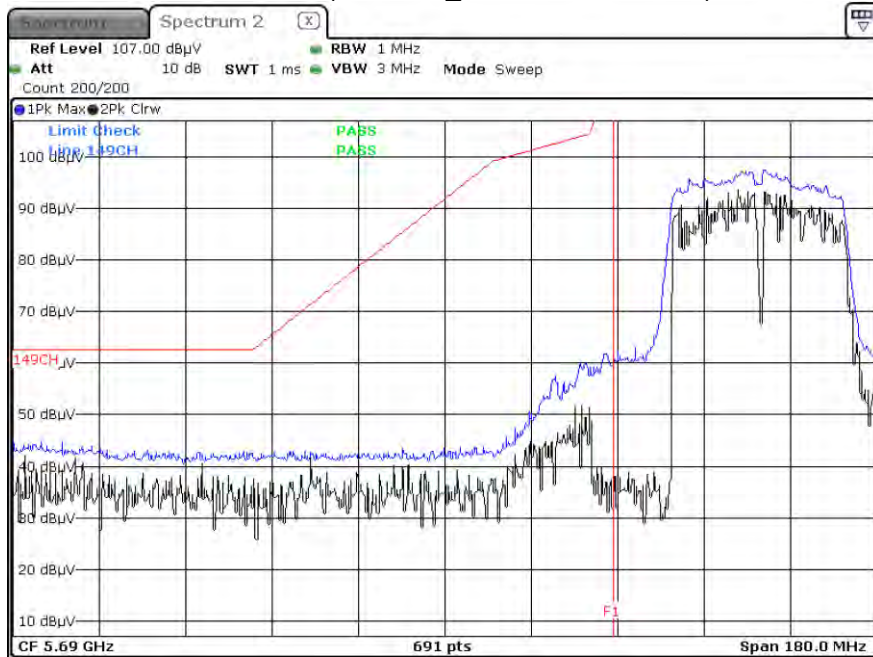
Peak Result (802.11ac\_VHT20, Ch.149, Z-H)



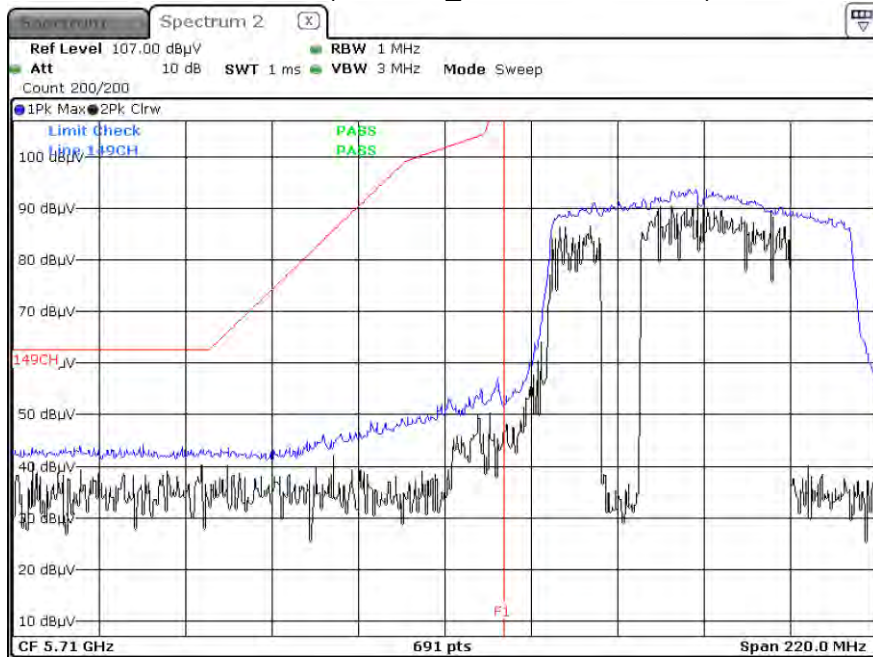
Peak Result (802.11n\_HT40, Ch.151, Z-H)



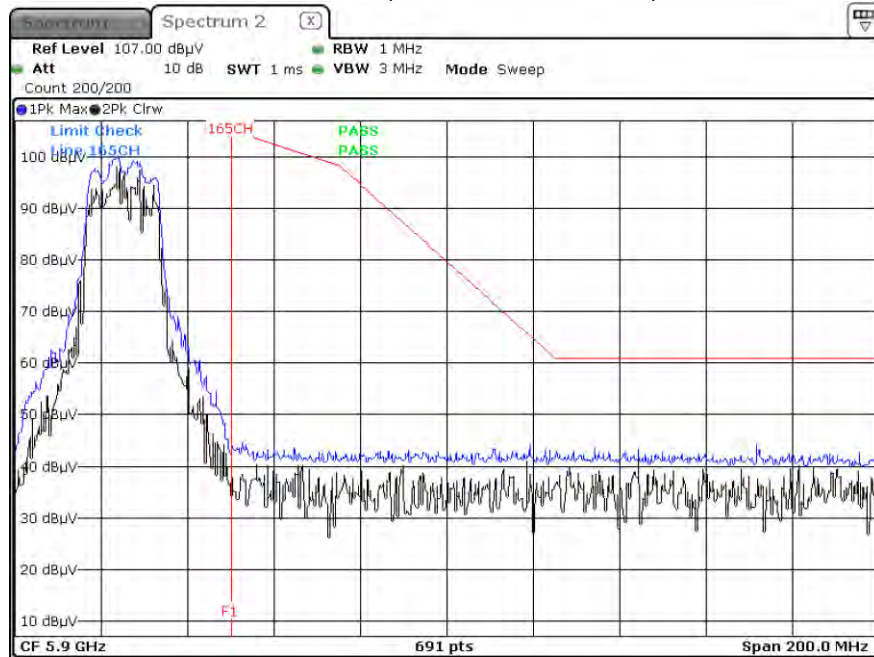
Peak Result (802.11ac\_VHT40, Ch.151, Z-H)



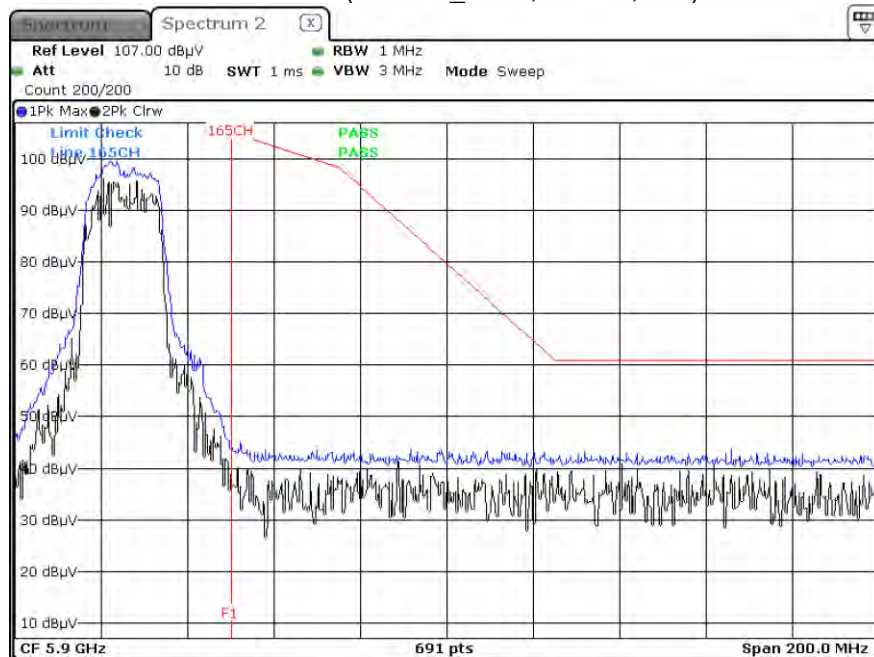
Peak Result (802.11ac\_VHT80, Ch.155, Z-H)

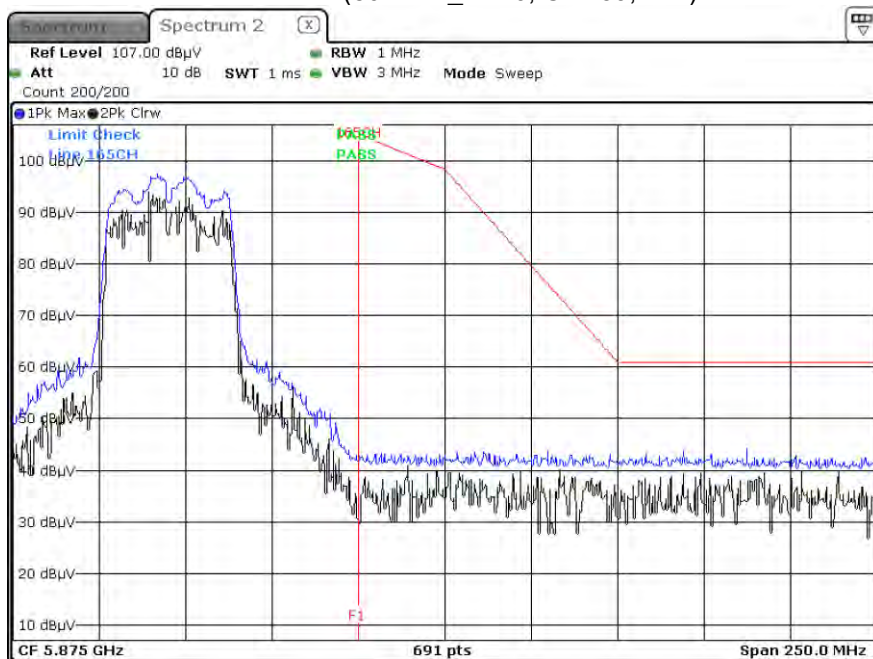
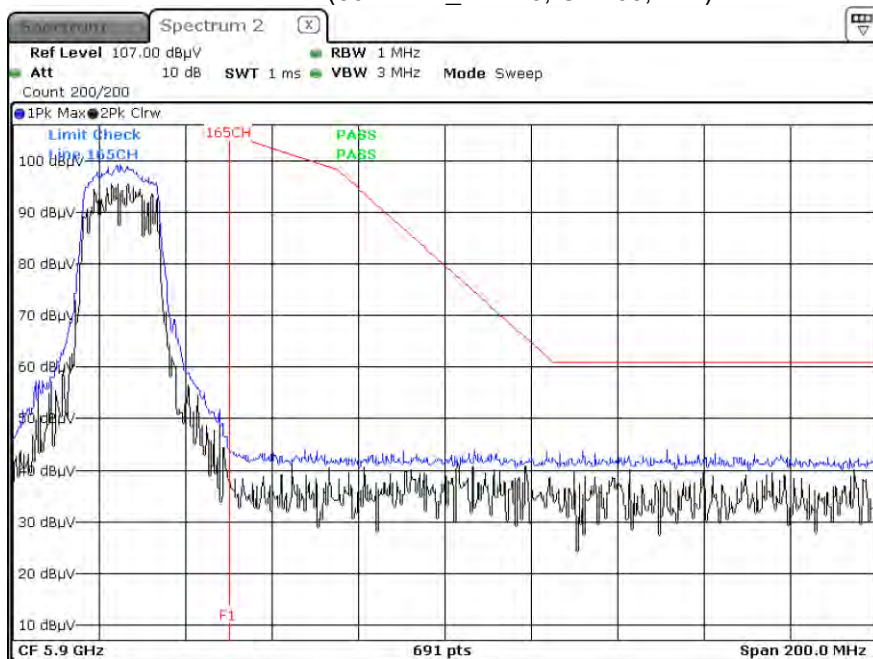


Peak Result (802.11a, Ch.165, Z-H)

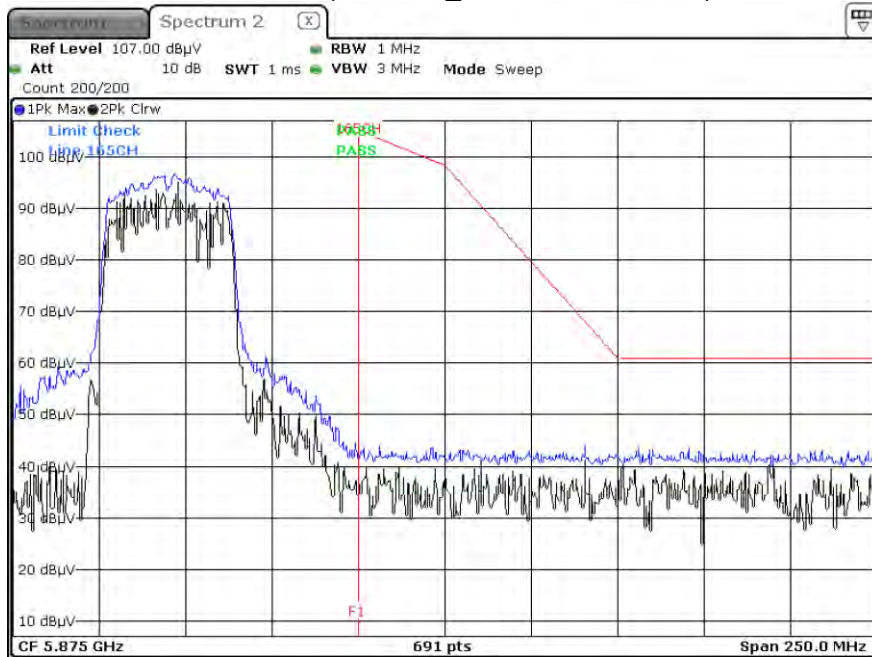


Peak Result (802.11n\_HT20, Ch.165, Z-H)

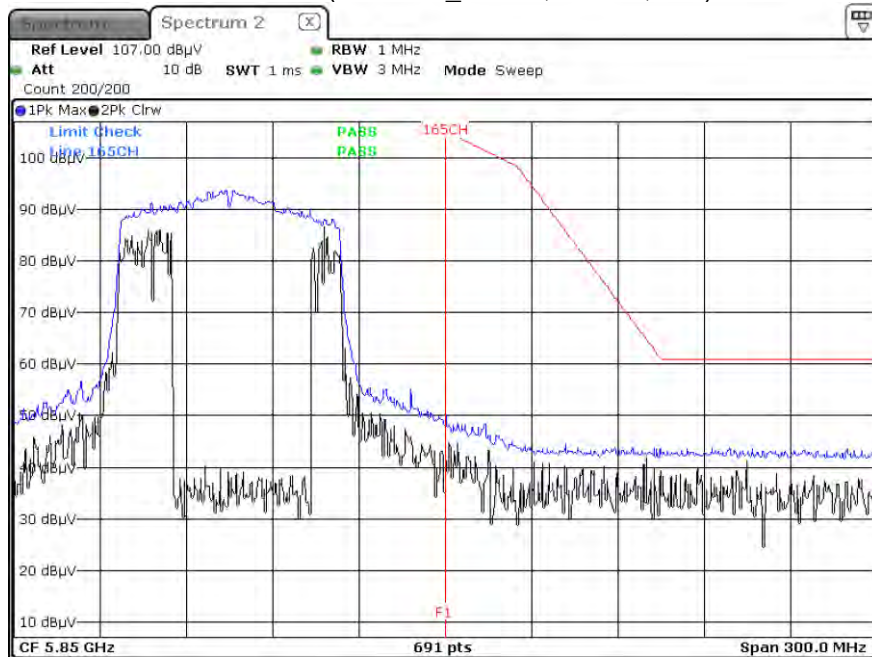




Peak Result (802.11ac\_VHT40, Ch.159, Z-H)



Peak Result (802.11ac\_VHT80, Ch.155, Z-H)



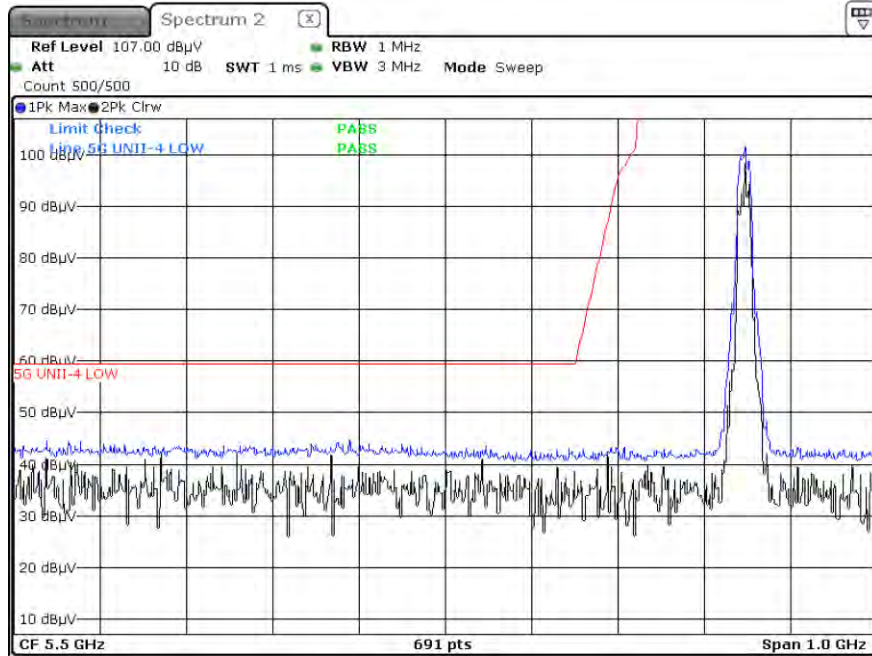
**Note :**

1. Only the worst case plots for U-NII-3 Out of Band e.i.r.p Emission.
2. U-NII-3 Low & High Band Edge RedLine is Final Test Limit about factor value compensation.

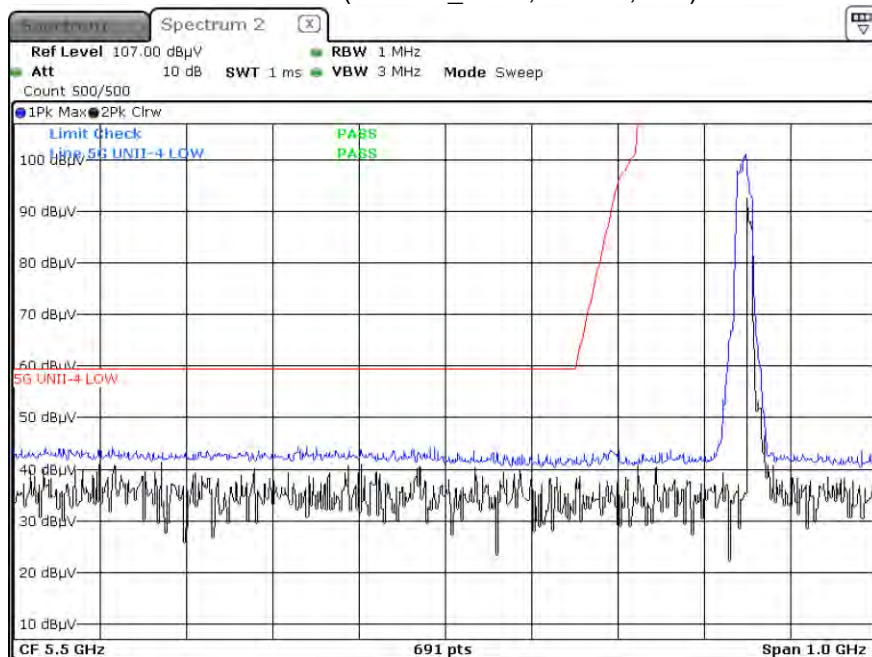
▣ Test Plots(UNII 4) – O.O.B.E

Low

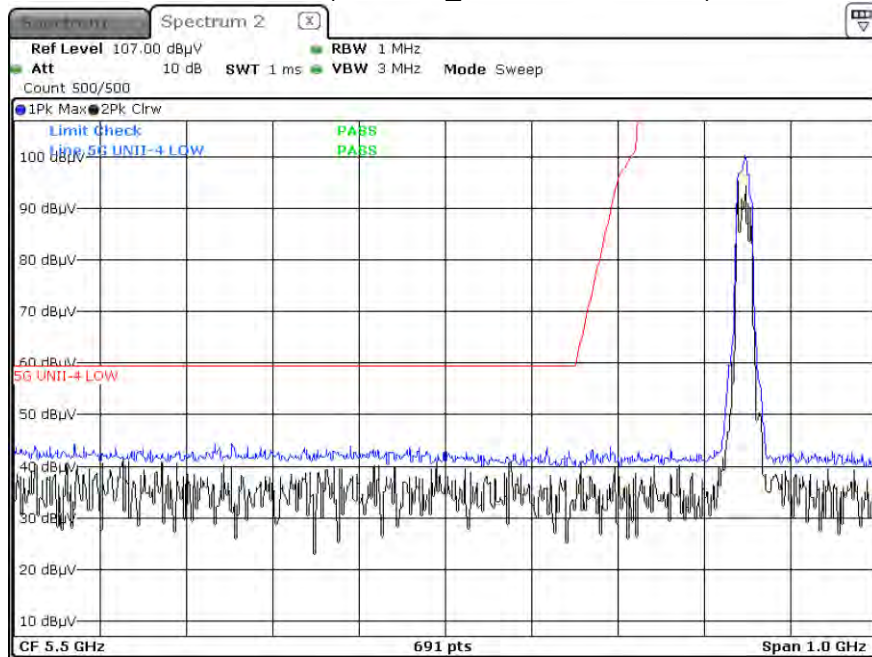
Peak Result (802.11a, Ch.169, Z-H)



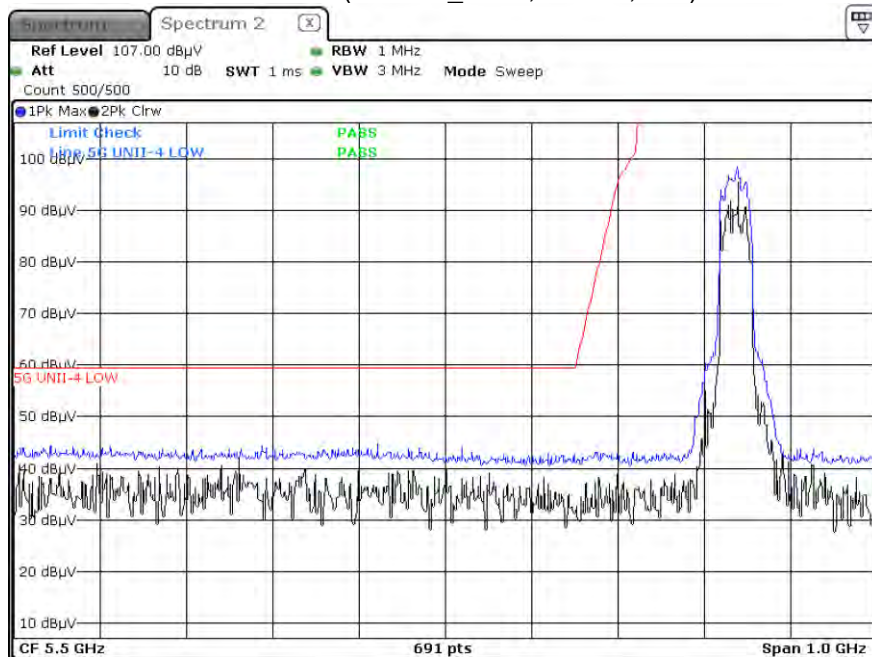
Peak Result (802.11n\_HT20, Ch.169, Z-H)



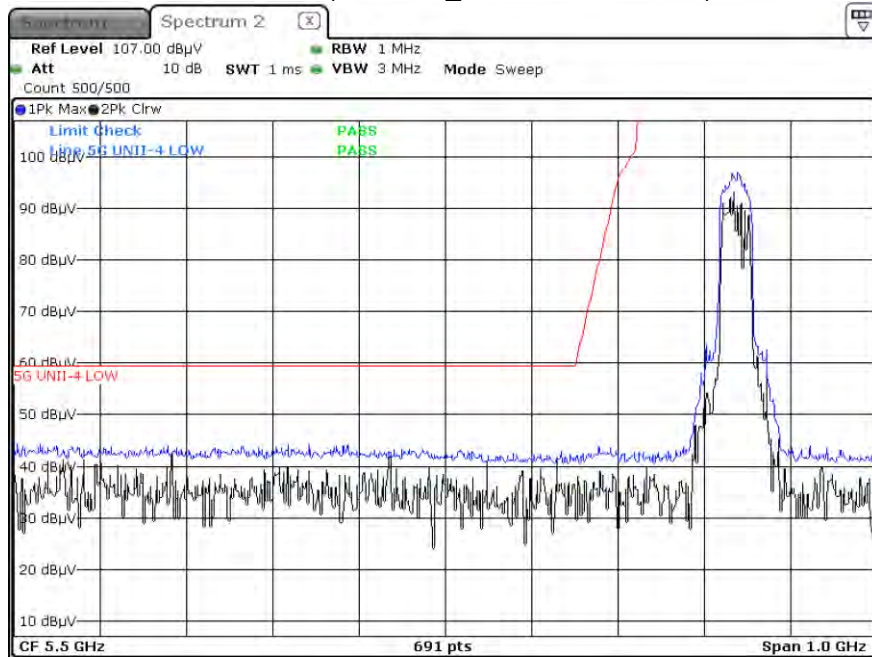
Peak Result (802.11ac\_VHT20, Ch.169, Z-H)



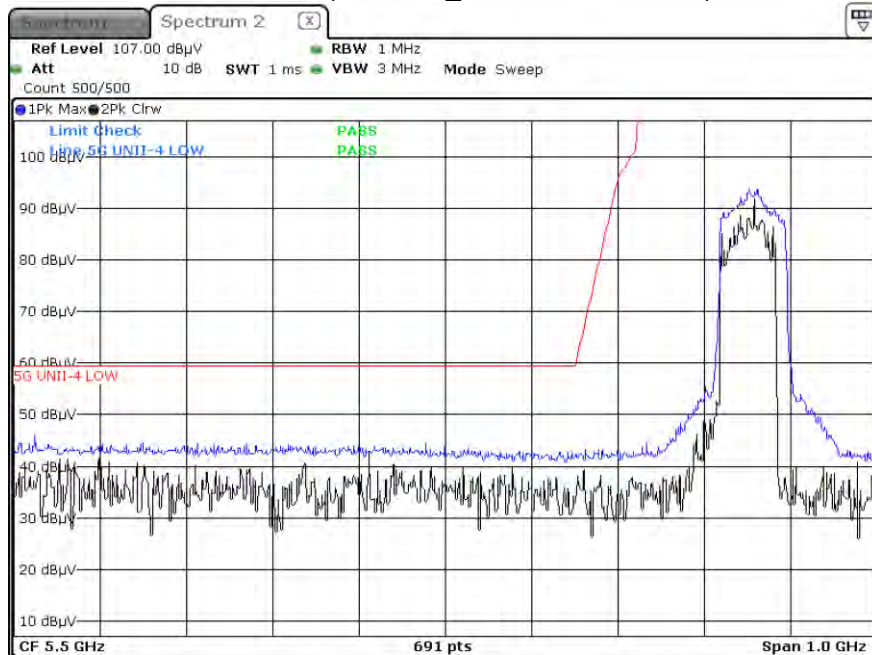
Peak Result (802.11n\_HT40, Ch.167, Z-H)



Peak Result (802.11ac\_VHT40, Ch.167, Z-H)

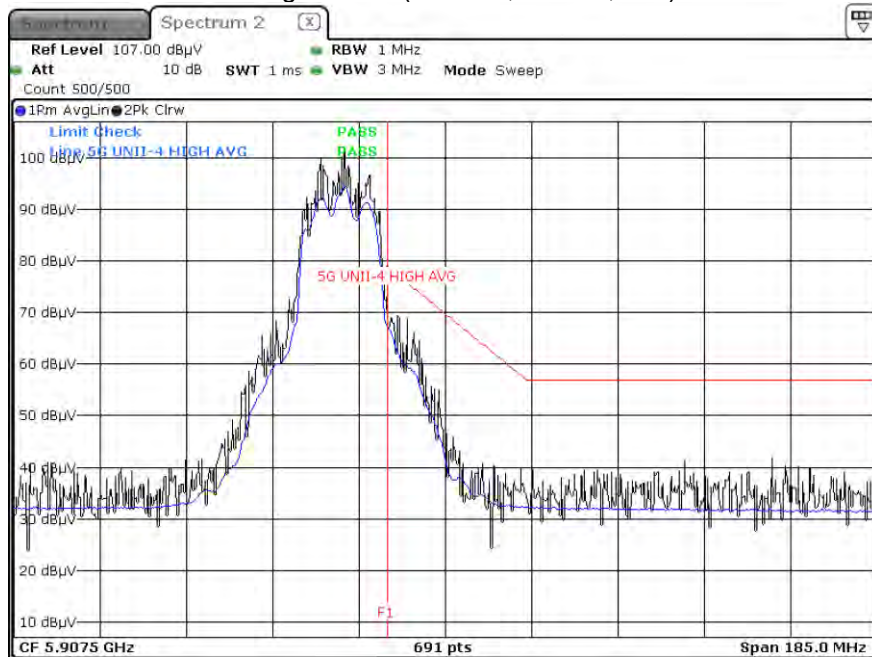


Peak Result (802.11ac\_VHT80, Ch.171, Z-H)

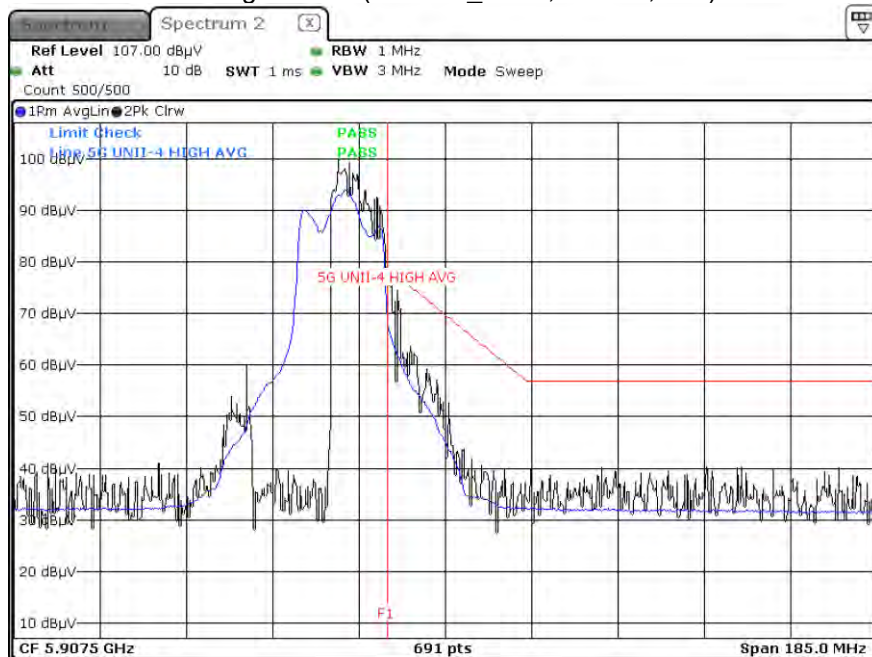


## High\_AVG

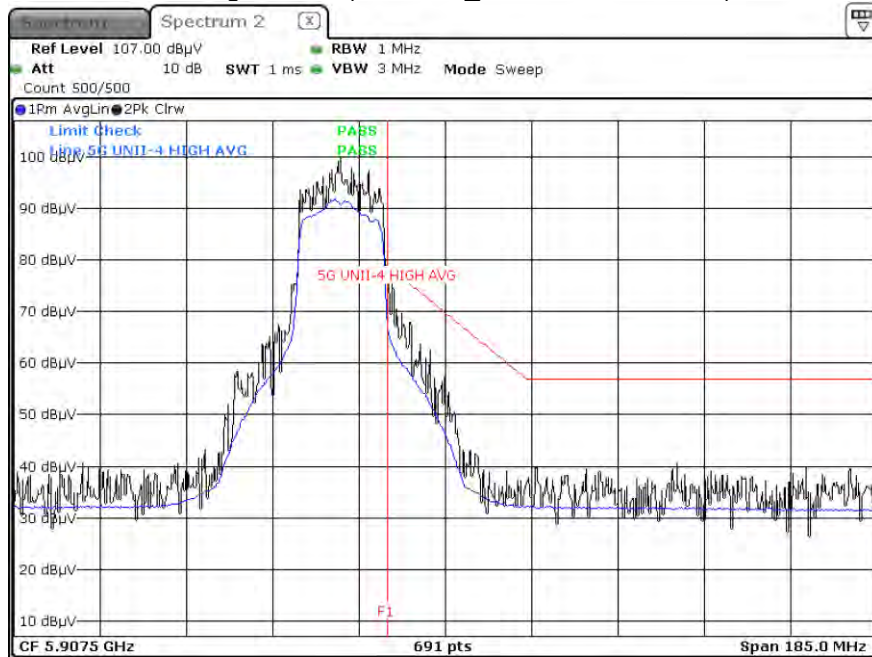
Average Result (802.11a, Ch.169, Z-H)



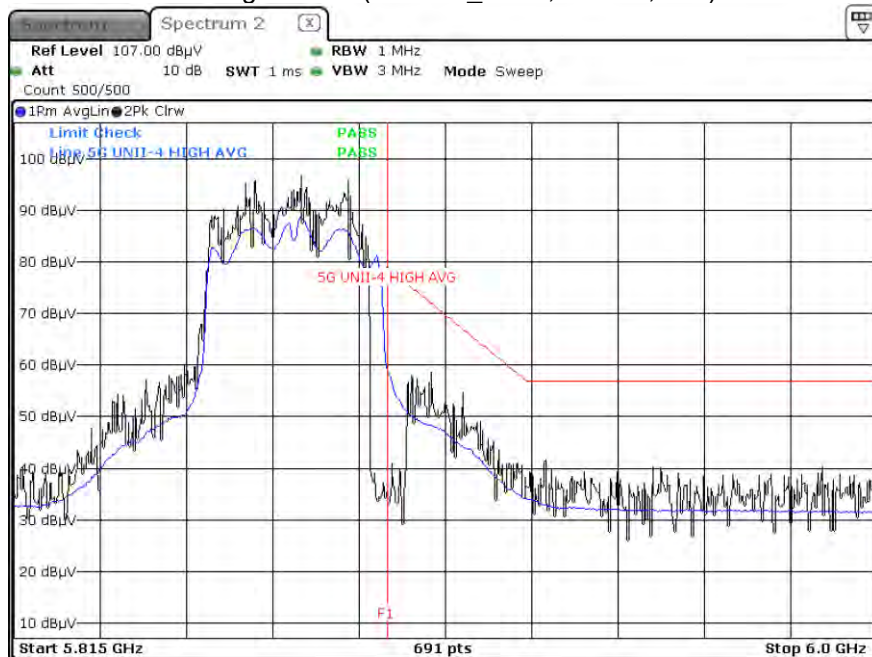
Average Result (802.11n\_HT20, Ch.169, Z-H)



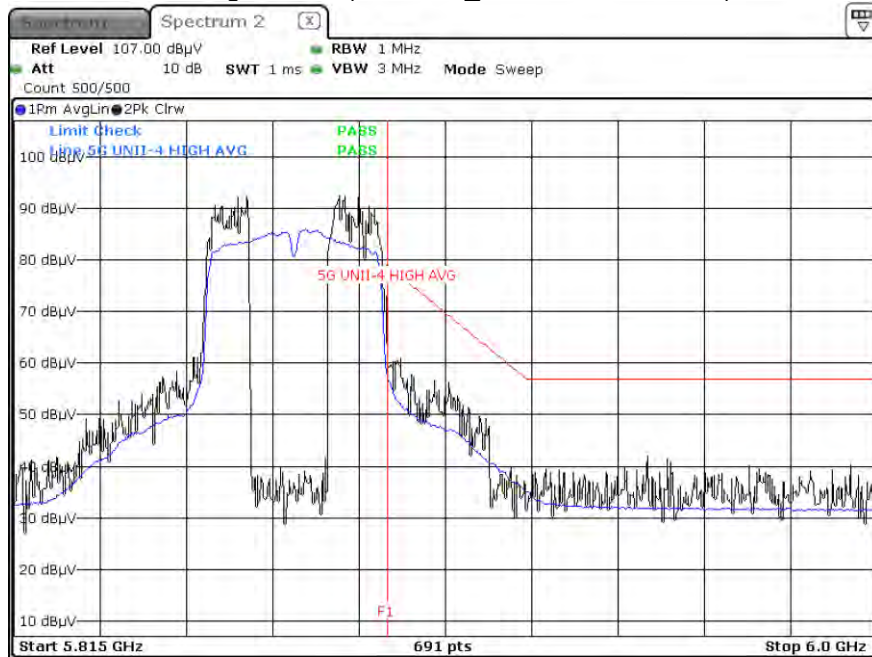
Average Result (802.11ac\_VHT20, Ch.169, Z-H)



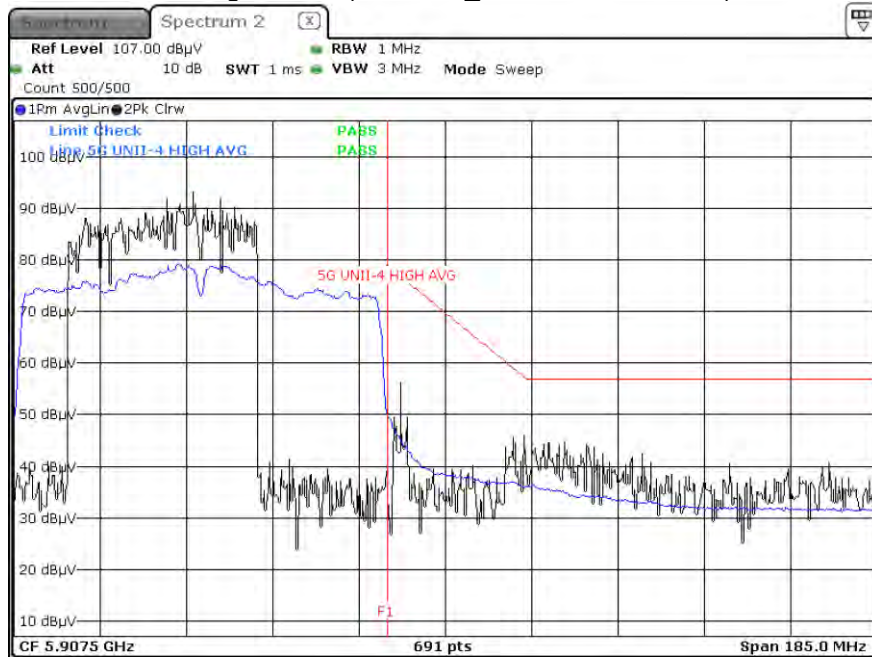
Average Result (802.11n\_HT40, Ch.167, Z-H)



Average Result (802.11ac\_VHT40, Ch.167, Z-H)

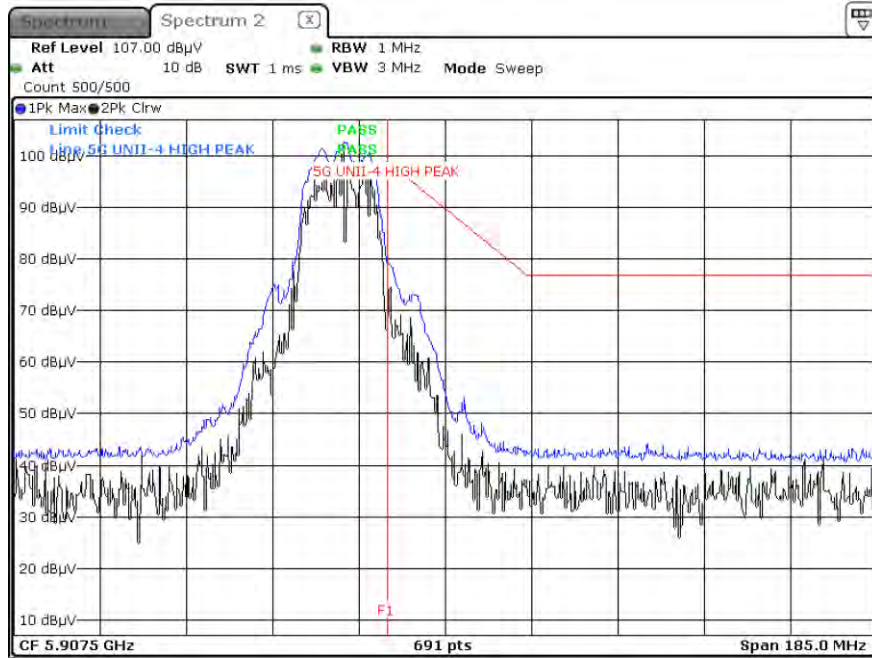


Average Result (802.11ac\_VHT80, Ch.171, Z-H)

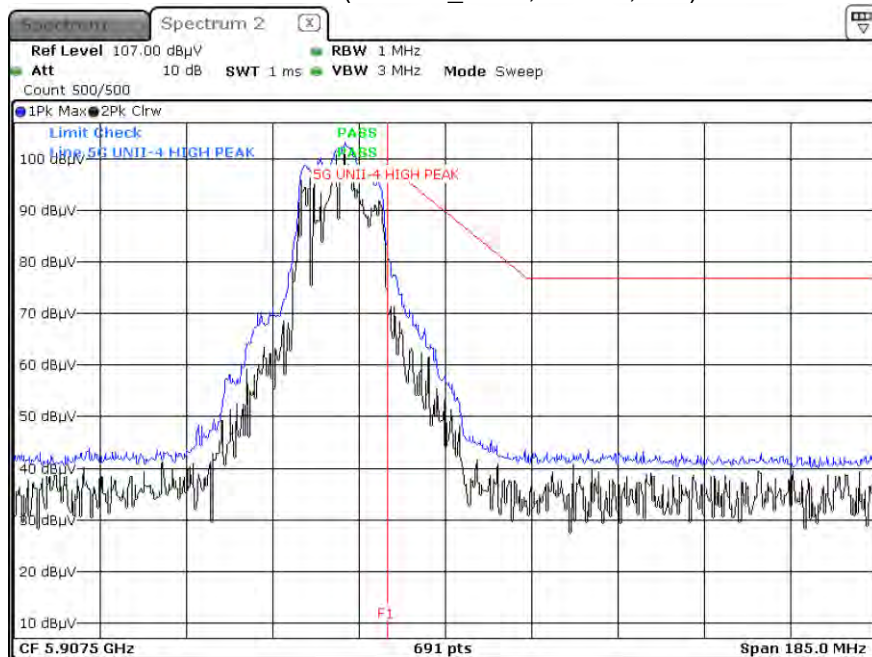


## High\_PEAK

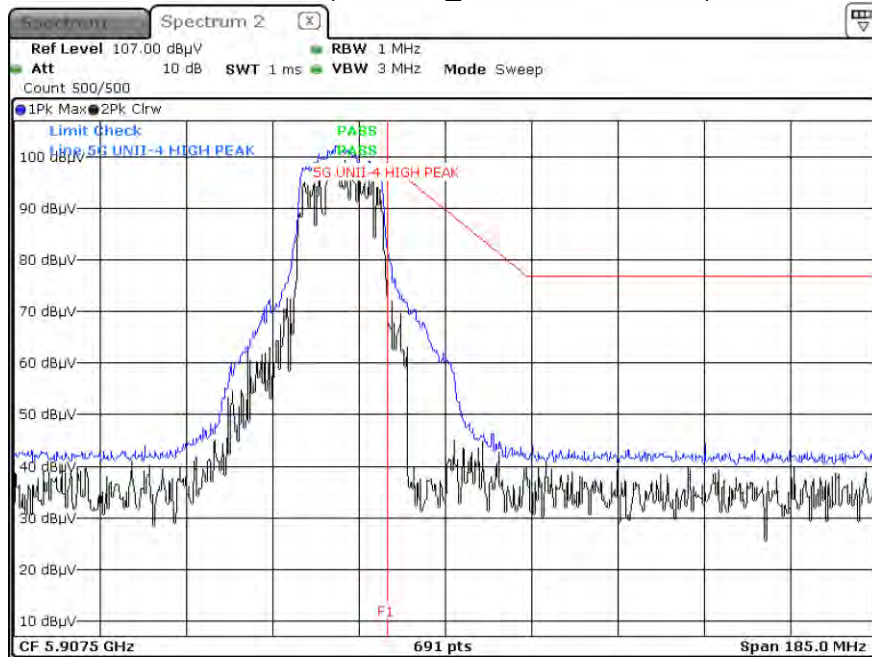
Peak Result (802.11a, Ch.169, Z-H)



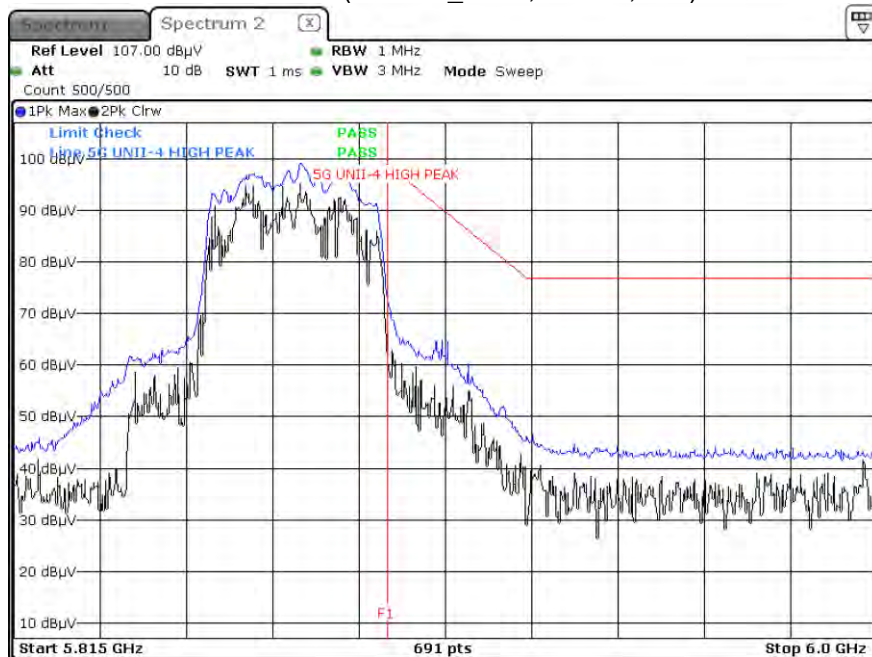
Peak Result (802.11n\_HT20, Ch.169, Z-H)



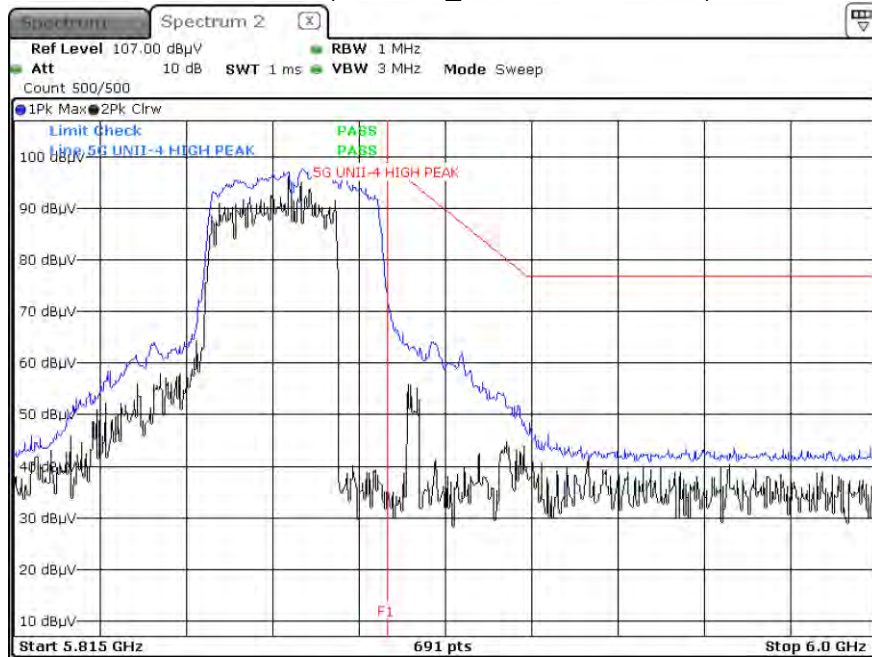
Peak Result (802.11ac\_VHT20, Ch.169, Z-H)



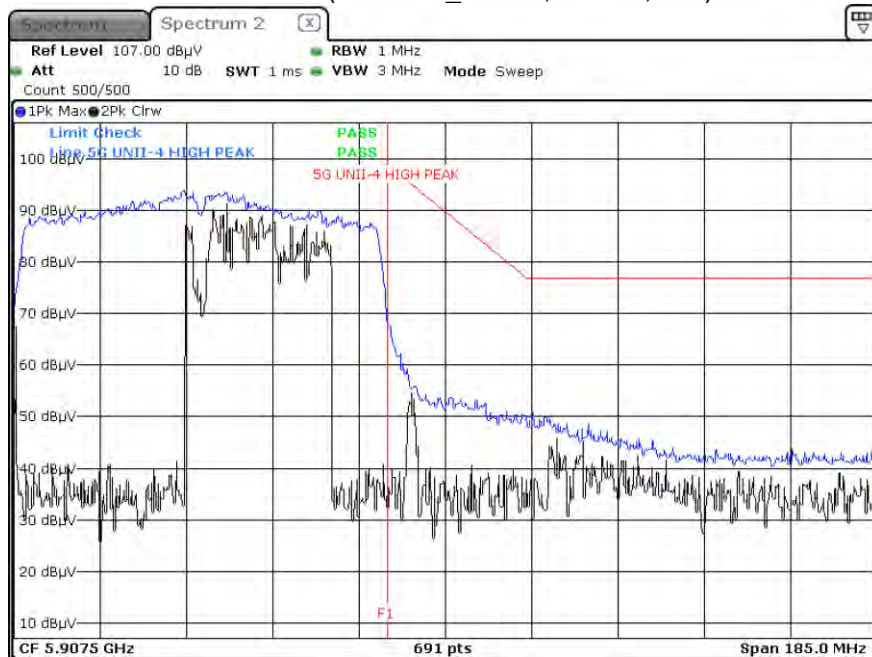
Peak Result (802.11n\_HT40, Ch.167, Z-H)



Peak Result (802.11ac\_VHT40, Ch.167, Z-H)



Peak Result (802.11ac\_VHT80, Ch.171, Z-H)



**Note :**

1. Only the worst case plots for U-NII-4 O.O.B.E
2. U-NII-4 Low & High O.O.B.E RedLine is Final Test Limit about factor value compensation.

## 10.9 POWERLINE CONDUCTED EMISSIONS

### Conducted Emissions (Line 1)

Test

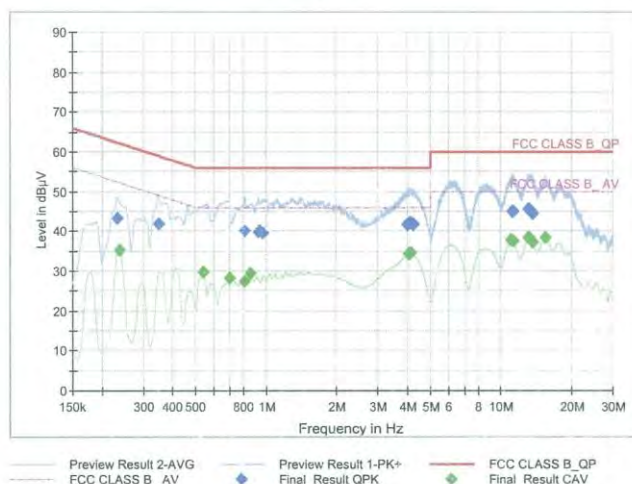
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## Test Report

### Common Information

EUT : SM-X808U  
Manufacturer : SAMSUNG  
Test Site: SHIELD ROOM  
Operating Conditions : 5G WLAN L1  
Operator Name:  
Comment:

Full Spectrum



### Final Result QPK

| Frequency (MHz) | QuasiPeak (dBμV) | Limit (dBμV) | Margin (dB) | Bandwidth (kHz) | Line | Filter | Corr. (dB) |
|-----------------|------------------|--------------|-------------|-----------------|------|--------|------------|
| 0.2333          | 43.31            | 62.33        | 19.02       | 9.000           | L1   | OFF    | 9.6        |
| 0.3480          | 41.90            | 59.01        | 17.11       | 9.000           | L1   | OFF    | 9.6        |
| 0.8150          | 40.00            | 56.00        | 16.00       | 9.000           | L1   | OFF    | 9.7        |
| 0.9298          | 39.76            | 56.00        | 16.24       | 9.000           | L1   | OFF    | 9.7        |
| 0.9343          | 39.96            | 56.00        | 16.04       | 9.000           | L1   | OFF    | 9.7        |
| 0.9748          | 39.64            | 56.00        | 16.36       | 9.000           | L1   | OFF    | 9.7        |
| 4.0055          | 41.75            | 56.00        | 14.25       | 9.000           | L1   | OFF    | 9.8        |
| 4.0145          | 41.58            | 56.00        | 14.42       | 9.000           | L1   | OFF    | 9.8        |
| 4.0978          | 42.10            | 56.00        | 13.90       | 9.000           | L1   | OFF    | 9.8        |
| 4.1315          | 42.02            | 56.00        | 13.98       | 9.000           | L1   | OFF    | 9.8        |
| 4.2170          | 41.83            | 56.00        | 14.17       | 9.000           | L1   | OFF    | 9.8        |
| 4.2553          | 41.64            | 56.00        | 14.36       | 9.000           | L1   | OFF    | 9.8        |
| 11.0953         | 44.95            | 60.00        | 15.05       | 9.000           | L1   | OFF    | 10.1       |
| 11.2168         | 44.86            | 60.00        | 15.14       | 9.000           | L1   | OFF    | 10.1       |
| 13.1000         | 45.50            | 60.00        | 14.50       | 9.000           | L1   | OFF    | 10.2       |
| 13.1900         | 45.47            | 60.00        | 14.53       | 9.000           | L1   | OFF    | 10.2       |
| 13.4015         | 45.30            | 60.00        | 14.70       | 9.000           | L1   | OFF    | 10.2       |
| 13.6625         | 44.37            | 60.00        | 15.63       | 9.000           | L1   | OFF    | 10.2       |

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Test

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**Final Result\_CAV**

| Frequency<br>(MHz) | CAverage<br>(dBμV) | Limit<br>(dBμV) | Margin<br>(dB) | Bandwidth<br>(kHz) | Line | Filter | Corr.<br>(dB) |
|--------------------|--------------------|-----------------|----------------|--------------------|------|--------|---------------|
| 0.2378             | 35.15              | 52.17           | 17.02          | 9.000              | L1   | OFF    | 9.6           |
| 0.5383             | 29.63              | 46.00           | 16.37          | 9.000              | L1   | OFF    | 9.7           |
| 0.7003             | 28.26              | 46.00           | 17.74          | 9.000              | L1   | OFF    | 9.7           |
| 0.8150             | 27.54              | 46.00           | 18.46          | 9.000              | L1   | OFF    | 9.7           |
| 0.8578             | 29.31              | 46.00           | 16.69          | 9.000              | L1   | OFF    | 9.7           |
| 4.0303             | 34.38              | 46.00           | 11.62          | 9.000              | L1   | OFF    | 9.8           |
| 4.0775             | 34.58              | 46.00           | 11.42          | 9.000              | L1   | OFF    | 9.8           |
| 4.1045             | 34.59              | 46.00           | 11.41          | 9.000              | L1   | OFF    | 9.8           |
| 4.1090             | 34.47              | 46.00           | 11.53          | 9.000              | L1   | OFF    | 9.8           |
| 4.1315             | 34.48              | 46.00           | 11.52          | 9.000              | L1   | OFF    | 9.8           |
| 4.1428             | 34.49              | 46.00           | 11.51          | 9.000              | L1   | OFF    | 9.8           |
| 11.0120            | 37.74              | 50.00           | 12.26          | 9.000              | L1   | OFF    | 10.1          |
| 11.2280            | 37.61              | 50.00           | 12.39          | 9.000              | L1   | OFF    | 10.1          |
| 13.0123            | 38.23              | 50.00           | 11.77          | 9.000              | L1   | OFF    | 10.2          |
| 13.2418            | 38.37              | 50.00           | 11.63          | 9.000              | L1   | OFF    | 10.2          |
| 13.2598            | 38.41              | 50.00           | 11.59          | 9.000              | L1   | OFF    | 10.2          |
| 13.6603            | 37.14              | 50.00           | 12.86          | 9.000              | L1   | OFF    | 10.2          |
| 15.5323            | 38.46              | 50.00           | 11.54          | 9.000              | L1   | OFF    | 10.2          |

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## Conducted Emissions (Line 2)

Test

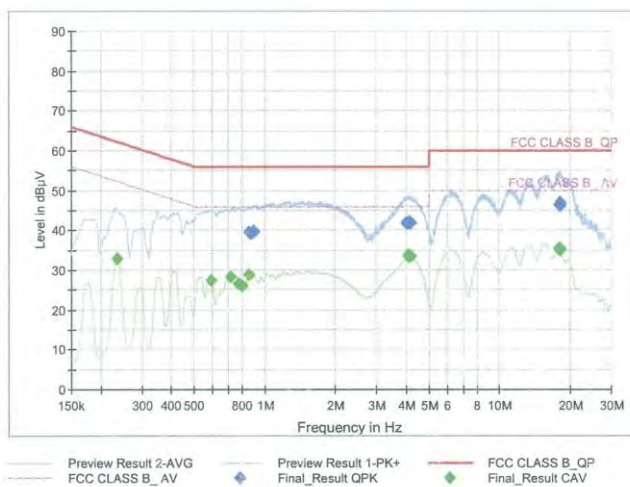
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## Test Report

### Common Information

EUT : SM-X808U  
Manufacturer : SAMSUNG  
Test Site: SHIELD ROOM  
Operating Conditions : 5G WLAN N  
Operator Name:  
Comment:

Full Spectrum



### Final Result QPK

| Frequency (MHz) | QuasiPeak (dBμV) | Limit (dBμV) | Margin (dB) | Bandwidth (kHz) | Line | Filter | Corr. (dB) |
|-----------------|------------------|--------------|-------------|-----------------|------|--------|------------|
| 0.8578          | 39.59            | 56.00        | 16.41       | 9.000           | N    | OFF    | 9.7        |
| 0.8713          | 39.17            | 56.00        | 16.83       | 9.000           | N    | OFF    | 9.7        |
| 0.8803          | 39.23            | 56.00        | 16.77       | 9.000           | N    | OFF    | 9.7        |
| 0.8893          | 39.40            | 56.00        | 16.60       | 9.000           | N    | OFF    | 9.7        |
| 0.8938          | 39.65            | 56.00        | 16.35       | 9.000           | N    | OFF    | 9.7        |
| 0.8983          | 39.83            | 56.00        | 16.17       | 9.000           | N    | OFF    | 9.7        |
| 3.9988          | 41.86            | 56.00        | 14.14       | 9.000           | N    | OFF    | 9.8        |
| 4.0460          | 41.86            | 56.00        | 14.14       | 9.000           | N    | OFF    | 9.8        |
| 4.1495          | 42.05            | 56.00        | 13.95       | 9.000           | N    | OFF    | 9.8        |
| 4.1563          | 41.84            | 56.00        | 14.16       | 9.000           | N    | OFF    | 9.8        |
| 4.1675          | 41.94            | 56.00        | 14.06       | 9.000           | N    | OFF    | 9.8        |
| 4.1945          | 41.81            | 56.00        | 14.19       | 9.000           | N    | OFF    | 9.8        |
| 17.8790         | 46.57            | 60.00        | 13.43       | 9.000           | N    | OFF    | 10.4       |
| 17.9870         | 46.63            | 60.00        | 13.37       | 9.000           | N    | OFF    | 10.4       |
| 18.0208         | 46.96            | 60.00        | 13.04       | 9.000           | N    | OFF    | 10.4       |
| 18.0455         | 46.81            | 60.00        | 13.19       | 9.000           | N    | OFF    | 10.4       |
| 18.1018         | 46.57            | 60.00        | 13.43       | 9.000           | N    | OFF    | 10.4       |
| 18.1603         | 46.26            | 60.00        | 13.74       | 9.000           | N    | OFF    | 10.4       |

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Test

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**Final Result\_CAV**

| Frequency<br>(MHz) | CAverage<br>(dBμV) | Limit<br>(dBμV) | Margin<br>(dB) | Bandwidth<br>(kHz) | Line | Filter | Corr.<br>(dB) |
|--------------------|--------------------|-----------------|----------------|--------------------|------|--------|---------------|
| 0.2355             | 32.84              | 52.25           | 19.41          | 9.000              | N    | OFF    | 9.6           |
| 0.5923             | 27.31              | 46.00           | 18.69          | 9.000              | N    | OFF    | 9.6           |
| 0.7183             | 28.21              | 46.00           | 17.79          | 9.000              | N    | OFF    | 9.7           |
| 0.7768             | 26.49              | 46.00           | 19.51          | 9.000              | N    | OFF    | 9.7           |
| 0.7993             | 26.08              | 46.00           | 19.92          | 9.000              | N    | OFF    | 9.7           |
| 0.8533             | 28.85              | 46.00           | 17.15          | 9.000              | N    | OFF    | 9.7           |
| 4.0978             | 33.63              | 46.00           | 12.37          | 9.000              | N    | OFF    | 9.8           |
| 4.1113             | 33.59              | 46.00           | 12.41          | 9.000              | N    | OFF    | 9.8           |
| 4.1203             | 33.68              | 46.00           | 12.32          | 9.000              | N    | OFF    | 9.8           |
| 4.1383             | 33.63              | 46.00           | 12.37          | 9.000              | N    | OFF    | 9.8           |
| 4.1653             | 33.64              | 46.00           | 12.36          | 9.000              | N    | OFF    | 9.8           |
| 4.1945             | 33.56              | 46.00           | 12.44          | 9.000              | N    | OFF    | 9.8           |
| 17.8723            | 35.48              | 50.00           | 14.52          | 9.000              | N    | OFF    | 10.4          |
| 17.9218            | 35.42              | 50.00           | 14.58          | 9.000              | N    | OFF    | 10.4          |
| 17.9308            | 35.49              | 50.00           | 14.51          | 9.000              | N    | OFF    | 10.4          |
| 17.9915            | 35.38              | 50.00           | 14.62          | 9.000              | N    | OFF    | 10.4          |
| 18.0725            | 35.17              | 50.00           | 14.83          | 9.000              | N    | OFF    | 10.4          |
| 18.1603            | 34.80              | 50.00           | 15.20          | 9.000              | N    | OFF    | 10.4          |

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## 11. LIST OF TEST EQUIPMENT

### Conducted Test

| Equipment                                    | Model   | Manufacturer    | Serial No. | Due to Calibration | Calibration Interval |
|----------------------------------------------|---------|-----------------|------------|--------------------|----------------------|
| LISN                                         | ENV216  | Rohde & Schwarz | 102245     | 08/23/2022         | Annual               |
| EMI Test Receiver                            | ESR     | Rohde & Schwarz | 101910     | 06/17/2022         | Annual               |
| Temperature Chamber                          | SU-642  | ESPACE          | 0093008124 | 03/15/2022         | Annual               |
| Signal Analyzer                              | N9030A  | Agilent         | MY49431210 | 01/11/2022         | Annual               |
| Power Measurement Set                        | OSP 120 | Rohde & Schwarz | 101231     | 07/02/2022         | Annual               |
| Power Meter                                  | N1911A  | Agilent         | MY45100523 | 04/08/2022         | Annual               |
| Power Sensor                                 | N1921A  | Keysight        | MY57820067 | 04/08/2022         | Annual               |
| Directional Coupler                          | 87300B  | Agilent         | 3116A03621 | 11/02/2022         | Annual               |
| Power Splitter                               | 11667B  | Hewlett Packard | 05001      | 05/20/2022         | Annual               |
| DC Power Supply                              | E3632A  | Hewlett Packard | MY50360067 | 02/16/2022         | Annual               |
| Attenuator(10 dB)                            | 8493C   | Hewlett Packard | 07560      | 06/18/2022         | Annual               |
| Software                                     | EMC32   | Rohde & Schwarz | N/A        | N/A                | N/A                  |
| FCC WLAN&BT&BLE Conducted Test Software v3.0 | N/A     | HCT CO., LTD.   | N/A        | N/A                | N/A                  |

### Note:

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.

### **Radiated Test**

| Equipment                     | Model                              | Manufacturer           | Serial No.  | Due to Calibration | Calibration Interval |
|-------------------------------|------------------------------------|------------------------|-------------|--------------------|----------------------|
| Controller(Antenna mast)      | CO3000                             | Innco system           | CO3000-4p   | N/A                | N/A                  |
| Antenna Position Tower        | MA4640/800-XP-EP                   | Innco system           | N/A         | N/A                | N/A                  |
| Controller                    | EM1000                             | Audix                  | 060520      | N/A                | N/A                  |
| Turn Table                    | N/A                                | Audix                  | N/A         | N/A                | N/A                  |
| Bluetooth Tester              | TC-3000B                           | TESCOM                 | 3000B670110 | 12/18/2021         | Annual               |
| Loop Antenna                  | FMZB 1513                          | Rohde & Schwarz        | 1513-333    | 03/19/2022         | Biennial             |
| Hybrid Antenna                | VULB 9168                          | Schwarzbeck            | 760         | 02/22/2023         | Biennial             |
| Horn Antenna                  | BBHA 9120D                         | Schwarzbeck            | 02299       | 05/19/2022         | Biennial             |
| Horn Antenna(15 GHz ~ 40 GHz) | BBHA9170                           | Schwarzbeck            | BBHA9170541 | 11/29/2021         | Biennial             |
| Spectrum Analyzer             | FSV40-N                            | Rohde & Schwarz        | 102168      | 07/05/2022         | Annual               |
| Signal Analyzer               | N9030A                             | Agilent                | MY49431210  | 01/11/2022         | Annual               |
| Band Reject Filter            | WRCJV12-4900-5100-5900-6100-50SS   | Wainwright Instruments | 5           | 06/24/2022         | Annual               |
| Band Reject Filter            | WRCJV12-4900-5100-5900-6100-50SS   | Wainwright Instruments | 6           | 06/24/2022         | Annual               |
| Band Reject Filter            | WRCJV2400/2483.5-2370/2520-60/12SS | Wainwright Instruments | 2           | 01/06/2022         | Annual               |
| Band Reject Filter            | WRCJV5100/5850-40/50-8EEK          | Wainwright Instruments | 1           | 02/08/2022         | Annual               |
| High Pass Filter              | WHK3.0/18G-10EF                    | Wainwright Instruments | 8           | 02/03/2022         | Annual               |
| High Pass Filter              | WHKX8-6090-7000-18000-40SS         | Wainwright Instruments | 25          | 02/03/2022         | Annual               |
| Attenuator (3 dB)             | 18B-03                             | Api tech.              | 1           | 02/03/2022         | Annual               |
| Attenuator(10 dB)             | 8493C-10                           | Agilent                | 08285       | 02/03/2022         | Annual               |
| Power Amplifier               | CBLU1183540                        | CERNEX                 | 22964       | 02/03/2022         | Annual               |
| Power Amplifier               | CBL06185030                        | CERNEX                 | 22965       | 02/03/2022         | Annual               |
| Power Amplifier               | CBL18265035                        | CERNEX                 | 22966       | 12/04/2021         | Annual               |
| Power Amplifier               | CBL26405040                        | CERNEX                 | 25956       | 03/23/2022         | Annual               |

### **Note:**

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.
3. Especially, all antenna for measurement is calibrated in accordance with the requirements of C63.5(Version : 2017).

## 12. ANNEX A\_ TEST SETUP PHOTO

Please refer to test setup photo file no. as follows;

| No. | Description         |
|-----|---------------------|
| 1   | HCT-RF-2111-FC031-P |