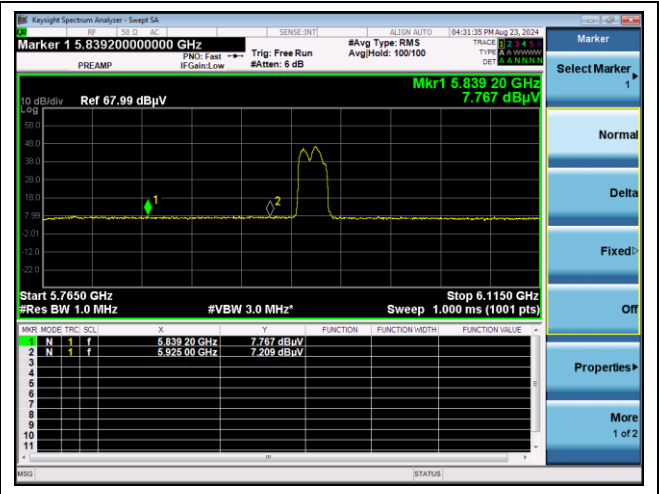
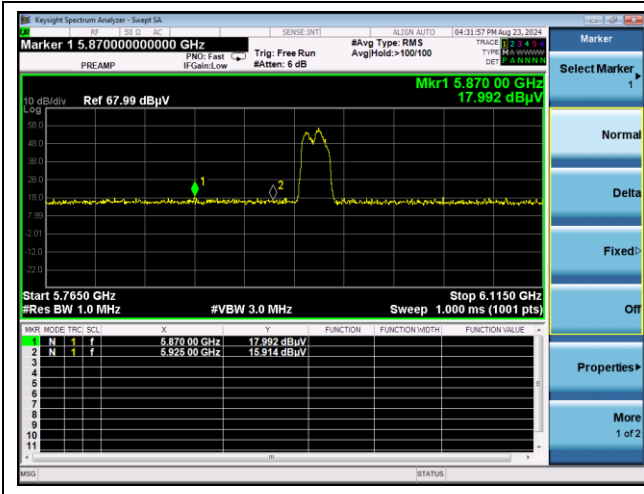


**11ax\_HE20\_SU**

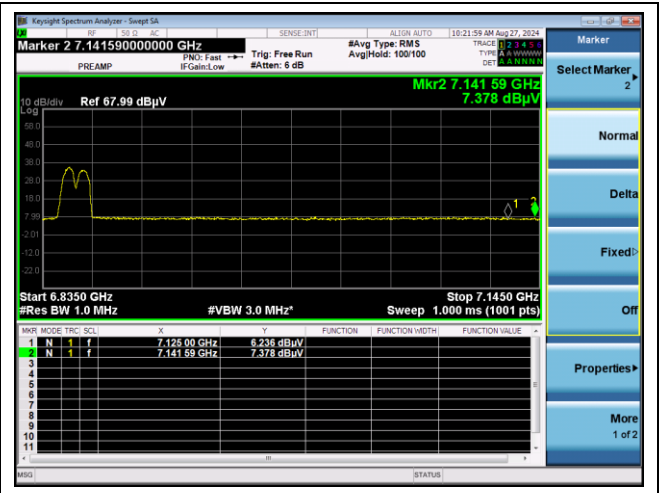
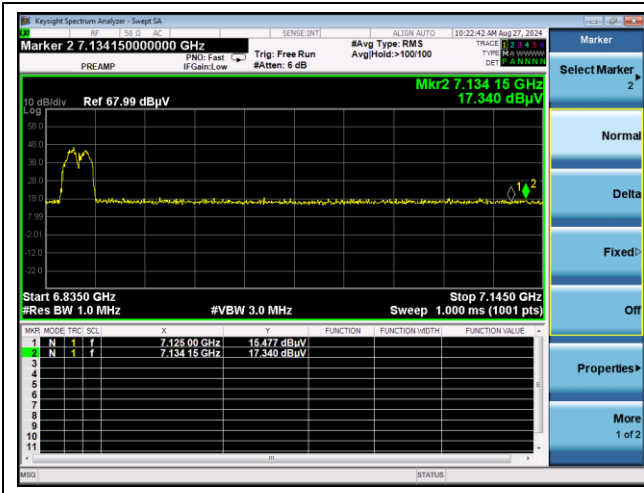
Low channel Band edge (Peak) – Band 5

Low channel Band edge (Average) - Band 5



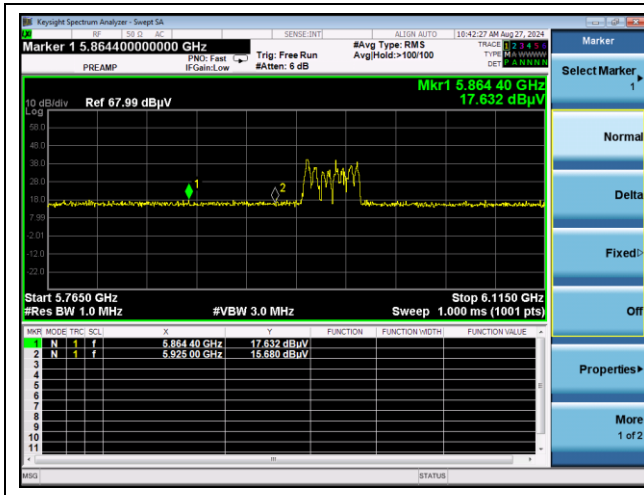
High channel Band edge (Peak) - Band 7

High channel Band edge (Average) - Band 7

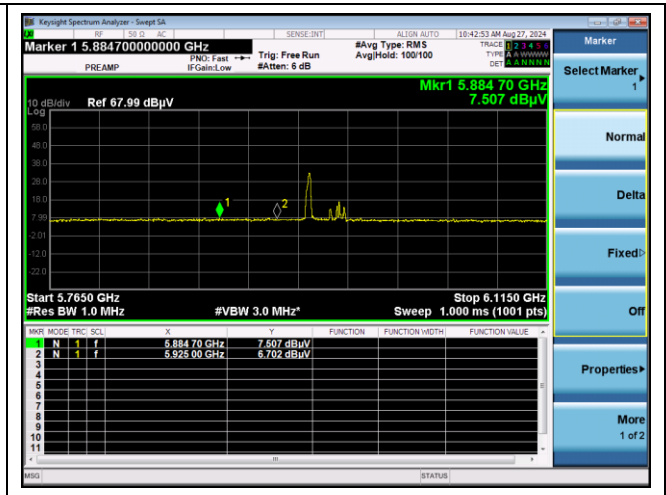


**11ax\_HE40\_26T**

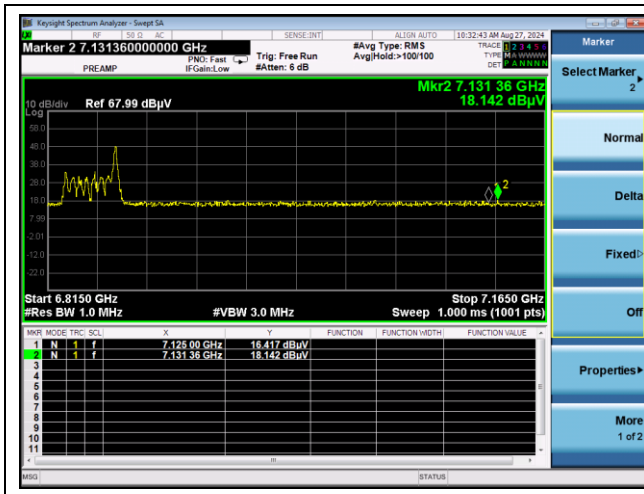
Low channel Band edge (Peak) – Band 5



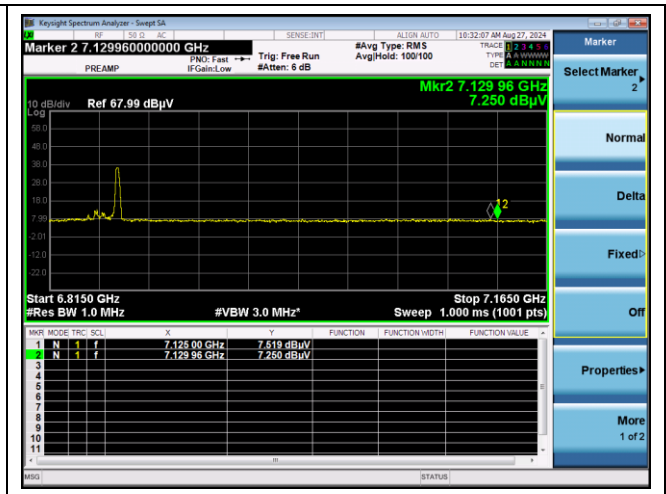
Low channel Band edge (Average) - Band 5



High channel Band edge (Peak) - Band 7

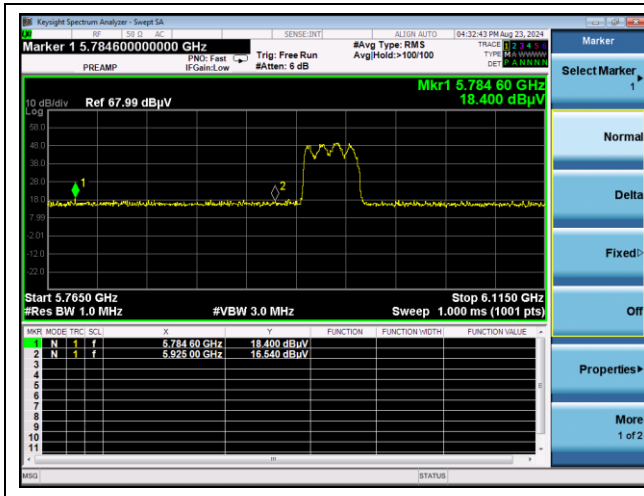


High channel Band edge (Average) - Band 7

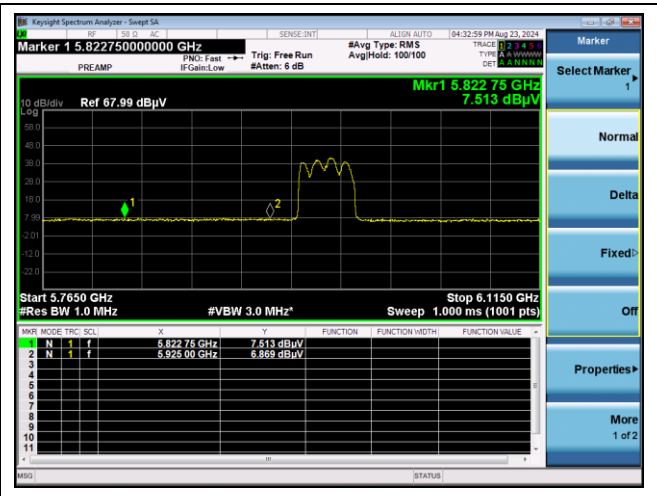


**11ax\_HE40\_SU**

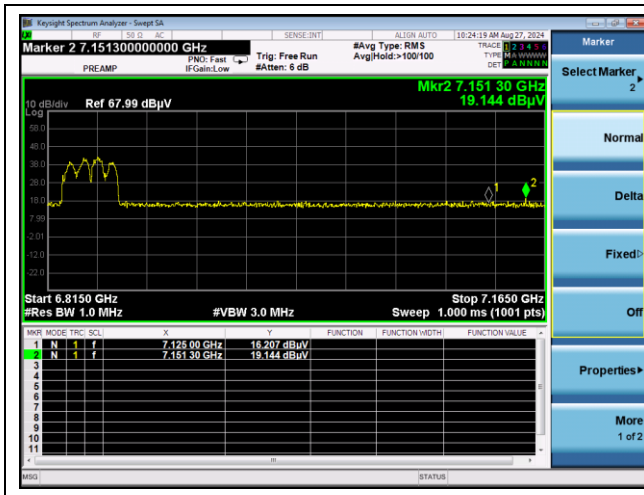
Low channel Band edge (Peak) – Band 5



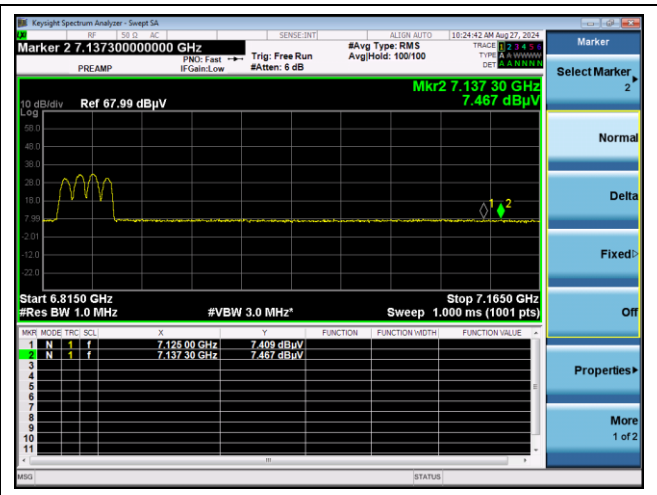
Low channel Band edge (Average) - Band 5



High channel Band edge (Peak) - Band 7

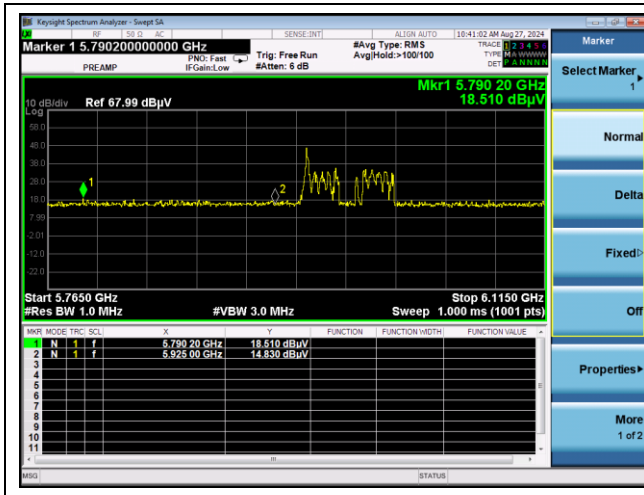


High channel Band edge (Average) - Band 7

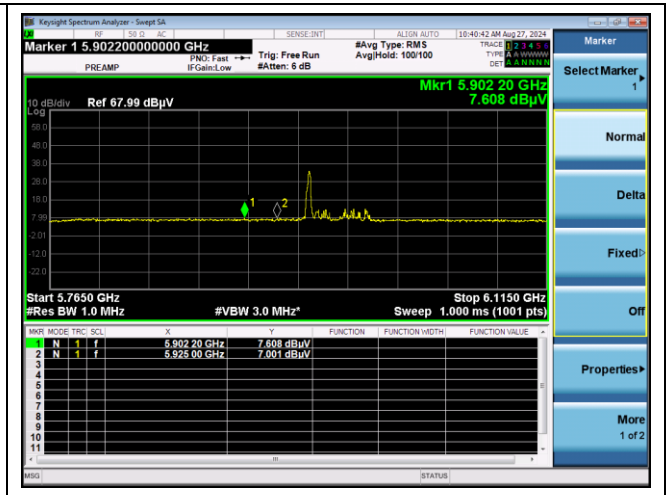


**11ax\_HE80\_26T**

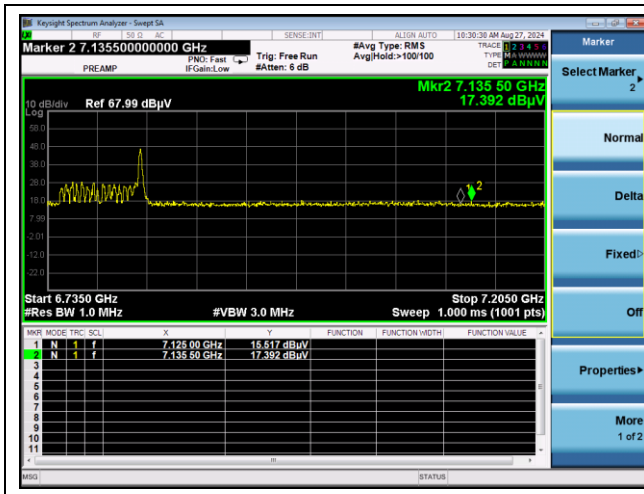
Low channel Band edge (Peak) – Band 5



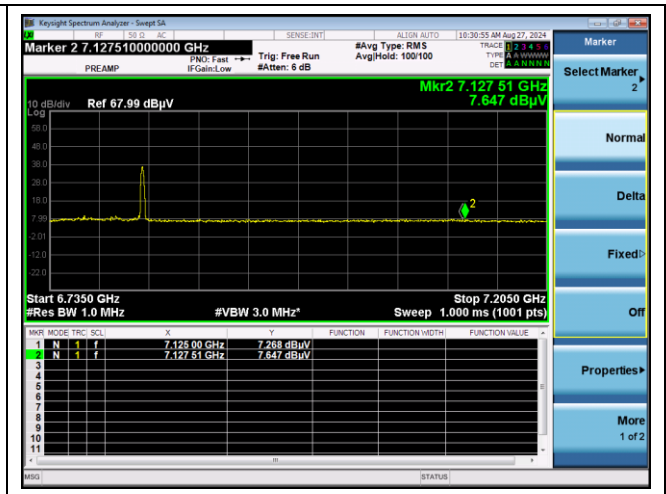
Low channel Band edge (Average) - Band 5



High channel Band edge (Peak) - Band 7

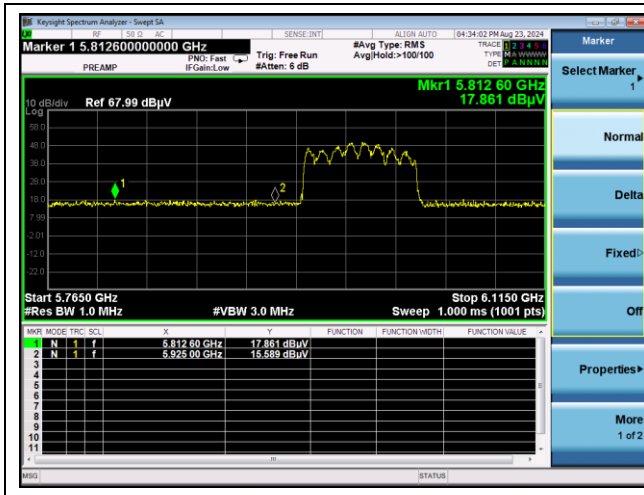


High channel Band edge (Average) - Band 7

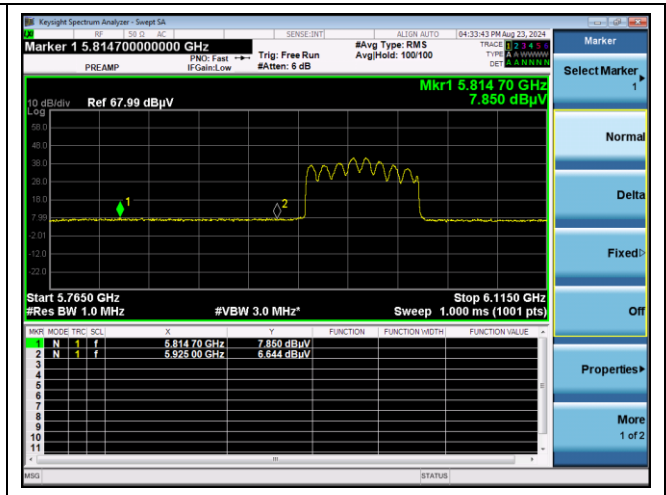


**11ax\_HE80\_SU**

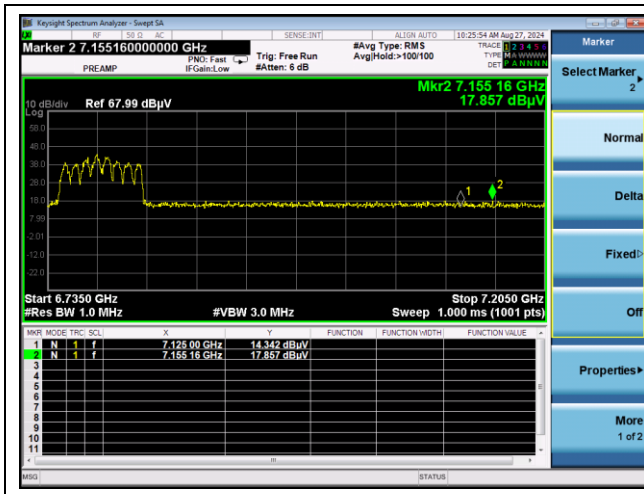
Low channel Band edge (Peak) – Band 5



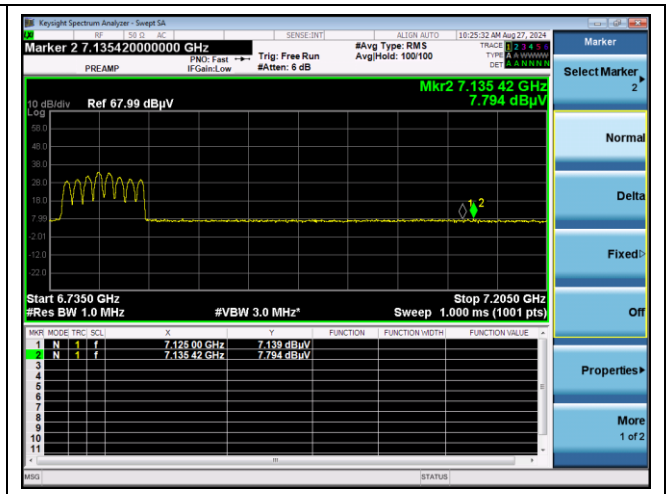
Low channel Band edge (Average) - Band 5



High channel Band edge (Peak) - Band 7

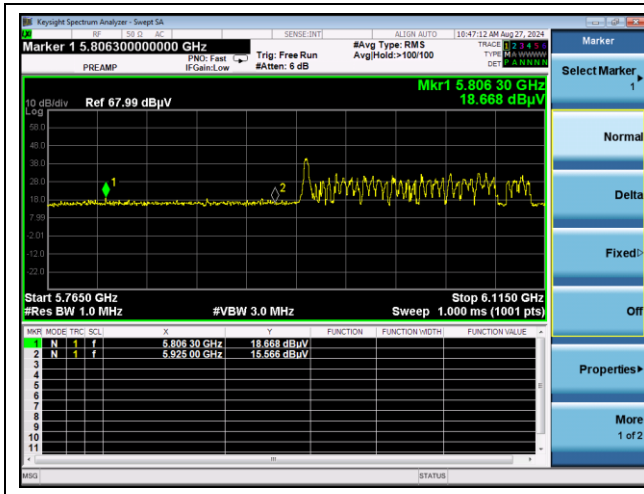


High channel Band edge (Average) - Band 7

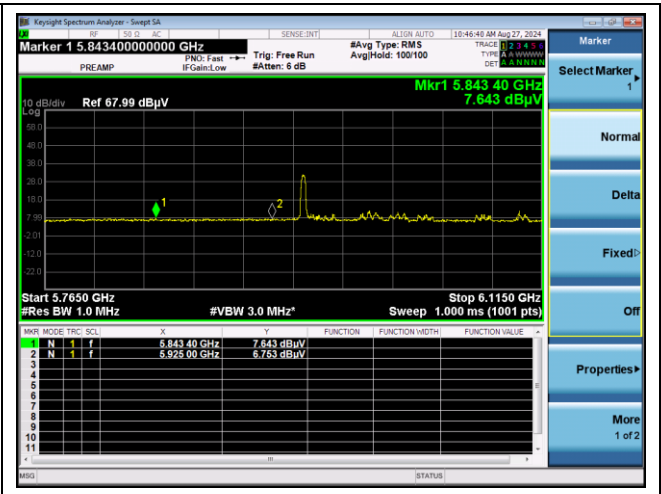


**11ax\_HE80L\_26T**

Low channel Band edge (Peak) – Band 5

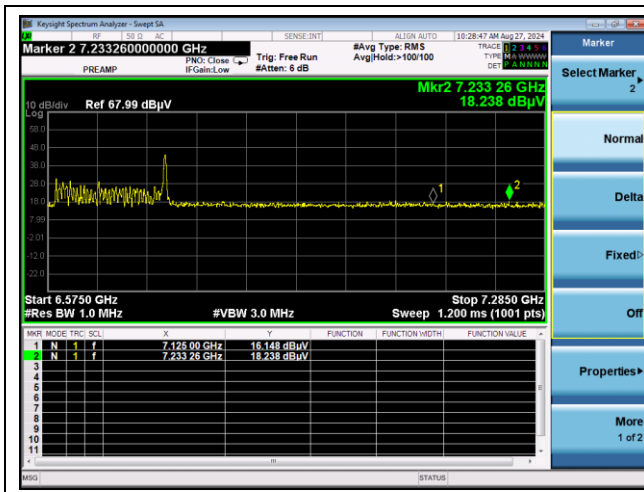


Low channel Band edge (Average) - Band 5

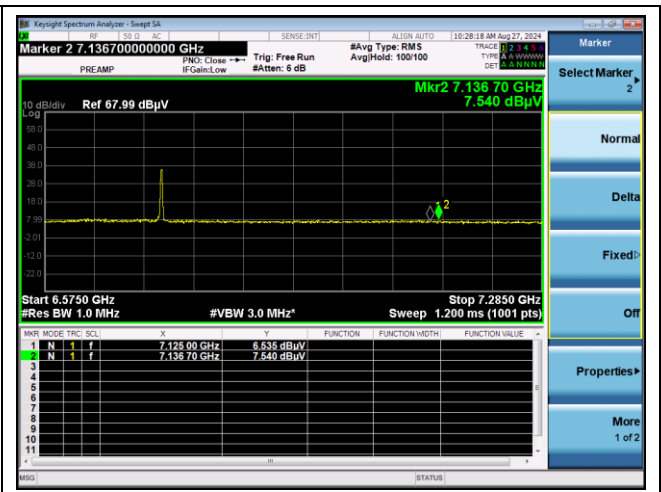


**11ax\_HE80U\_26T**

High channel Band edge (Peak) - Band 7

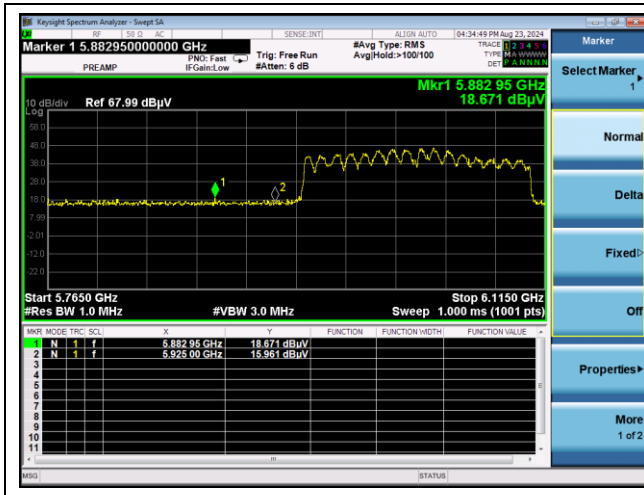


High channel Band edge (Average) - Band 7

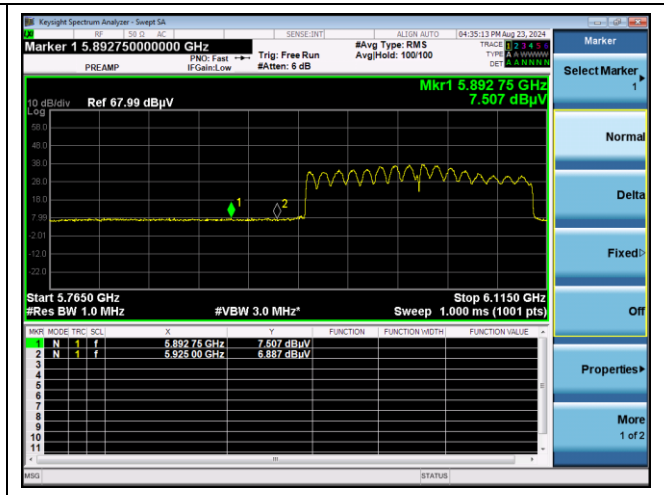


**11ax\_HE160\_SU**

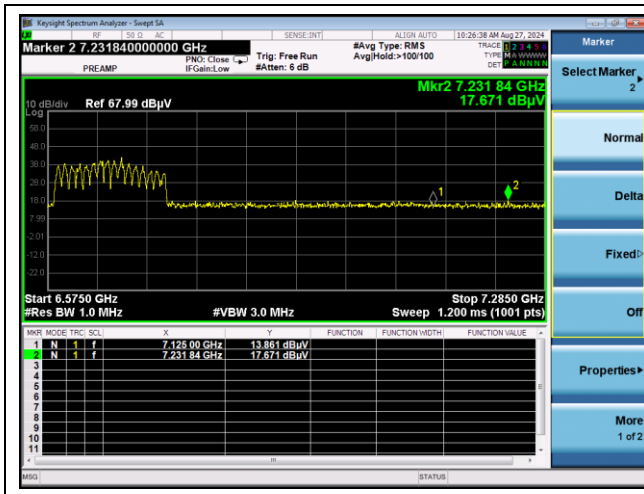
Low channel Band edge (Peak) – Band 5



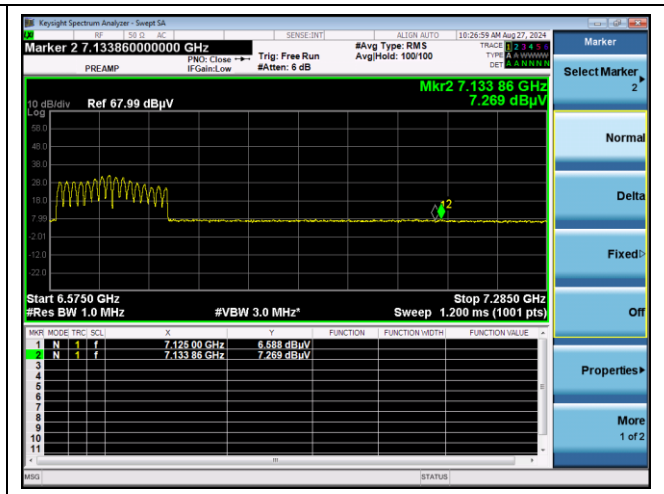
Low channel Band edge (Average) - Band 5



High channel Band edge (Peak) - Band 7

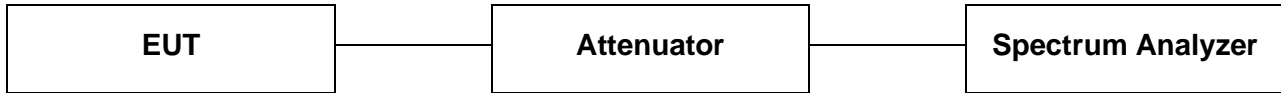


High channel Band edge (Average) - Band 7



## 3. 26 dB Bandwidth & 99 % Bandwidth

### 3.1. Test Setup



### 3.2. Limit

According to §15.407(a)(11), the maximum transmitter channel bandwidth for U-NII devices in the 5.925-7.125 GHz band is 320 megahertz.

### 3.3. Test Procedure

#### 3.3.1. 26 dB Bandwidth

1. This measurement settings are specified in section II.C.1 of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set RBW = approximately 1 % of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1 %.

#### 3.3.2. 99 % Bandwidth

1. This measurement settings are specified in section II.D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set center frequency to the nominal EUT channel center frequency.
3. Set span = 1.5 times to 5.0 times the OBW.
4. Set RBW = 1 % to 5 % of the OBW.
5. Set VBW  $\geq 3 \times$  RBW.
6. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
7. Use the 99 % power bandwidth function of the instrument (if available).
8. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99 % occupied bandwidth is the difference between these two frequencies.



### 3.4. Test Result

Ambient temperature : (23 ± 1) °C  
 Relative humidity : 47 % R.H.

**Test mode: 11a**

| Band    | Frequency (MHz) | Ch. | 26 dB Bandwidth (MHz) |        | 99 % Bandwidth (MHz) |        |
|---------|-----------------|-----|-----------------------|--------|----------------------|--------|
|         |                 |     | Port 1                | Port 2 | Port 1               | Port 2 |
| U-NII 5 | 5 955           | 1   | 19.900                | 19.101 | 16.209               | 16.059 |
|         | 6 175           | 49  | 19.820                | 19.341 | 16.309               | 16.334 |
|         | 6 415           | 93  | 20.060                | 20.500 | 16.508               | 16.334 |
| U-NII 7 | 6 535           | 117 | 20.180                | 19.660 | 16.434               | 16.334 |
|         | 6 695           | 149 | 20.540                | 19.860 | 16.409               | 16.359 |
|         | 6 855           | 181 | 20.589                | 19.101 | 16.434               | 16.334 |

**Test mode: 11ax\_HE20**

| Band    | Freq. (MHz) | Ch. | Tones | 26 dB Bandwidth (MHz) |        |        |        |        |        |
|---------|-------------|-----|-------|-----------------------|--------|--------|--------|--------|--------|
|         |             |     |       | Ru Index              |        |        |        |        |        |
|         |             |     |       | Low                   |        | Middle |        | High   |        |
|         |             |     |       | Port 1                | Port 2 | Port 1 | Port 2 | Port 1 | Port 2 |
| U-NII 5 | 5 955       | 1   | 26    | 21.219                | 21.459 | 19.221 | 18.861 | 20.979 | 20.659 |
|         | 6 175       | 45  |       | 20.579                | 21.099 | 18.741 | 18.661 | 21.179 | 20.659 |
|         | 6 415       | 93  |       | 21.499                | 21.459 | 19.541 | 18.701 | 21.219 | 20.859 |
| U-NII 7 | 6 535       | 117 |       | 20.939                | 20.979 | 19.660 | 18.661 | 21.658 | 20.939 |
|         | 6 695       | 149 |       | 21.099                | 20.779 | 19.341 | 18.701 | 21.578 | 20.779 |
|         | 6 855       | 181 |       | 20.939                | 21.099 | 19.181 | 18.701 | 21.419 | 20.739 |
| U-NII 5 | 5 955       | 1   | SU    | -                     | -      | 19.980 | 21.059 | -      | -      |
|         | 6 175       | 45  |       | -                     | -      | 21.419 | 21.139 | -      | -      |
|         | 6 415       | 93  |       | -                     | -      | 21.339 | 21.379 | -      | -      |
| U-NII 7 | 6 535       | 117 |       | -                     | -      | 21.499 | 21.339 | -      | -      |
|         | 6 695       | 149 |       | -                     | -      | 21.379 | 21.139 | -      | -      |
|         | 6 855       | 181 |       | -                     | -      | 21.459 | 21.099 | -      | -      |

| Band    | Freq. (MHz) | Ch. | Tones | 99 % Bandwidth (MHz) |        |        |        |        |        |
|---------|-------------|-----|-------|----------------------|--------|--------|--------|--------|--------|
|         |             |     |       | Ru Index             |        |        |        |        |        |
|         |             |     |       | Low                  |        | Middle |        | High   |        |
|         |             |     |       | Port 1               | Port 2 | Port 1 | Port 2 | Port 1 | Port 2 |
| U-NII 5 | 5 955       | 1   | 26    | 19.006               | 18.956 | 17.607 | 16.958 | 19.031 | 18.107 |
|         | 6 175       | 45  |       | 18.606               | 18.681 | 17.308 | 17.158 | 19.056 | 18.457 |
|         | 6 415       | 93  |       | 18.906               | 18.631 | 18.007 | 17.183 | 19.306 | 18.681 |
| U-NII 7 | 6 535       | 117 |       | 18.806               | 18.681 | 17.582 | 17.133 | 19.081 | 18.531 |
|         | 6 695       | 149 |       | 18.806               | 18.656 | 17.483 | 17.133 | 19.131 | 18.681 |
|         | 6 855       | 181 |       | 18.906               | 18.681 | 17.483 | 17.158 | 19.306 | 18.731 |
| U-NII 5 | 5 955       | 1   | SU    | -                    | -      | 18.731 | 18.556 | -      | -      |
|         | 6 175       | 45  |       | -                    | -      | 18.881 | 18.856 | -      | -      |
|         | 6 415       | 93  |       | -                    | -      | 18.756 | 18.856 | -      | -      |
| U-NII 7 | 6 535       | 117 |       | -                    | -      | 18.806 | 18.856 | -      | -      |
|         | 6 695       | 149 |       | -                    | -      | 18.831 | 18.856 | -      | -      |
|         | 6 855       | 181 |       | -                    | -      | 18.881 | 18.831 | -      | -      |

**Test mode: 11ax\_HE40**

| Band    | Freq. (MHz) | Ch. | Tones | 26 dB Bandwidth (MHz) |        |        |        |        |        |
|---------|-------------|-----|-------|-----------------------|--------|--------|--------|--------|--------|
|         |             |     |       | Ru Index              |        |        |        |        |        |
|         |             |     |       | Low                   |        | Middle |        | High   |        |
|         |             |     |       | Port 1                | Port 2 | Port 1 | Port 2 | Port 1 | Port 2 |
| U-NII 5 | 5 965       | 33  | 26    | 40.999                | 43.397 | 38.202 | 38.362 | 40.679 | 39.481 |
|         | 6 205       | 51  |       | 40.679                | 40.919 | 38.042 | 38.362 | 41.718 | 40.999 |
|         | 6 405       | 91  |       | 42.677                | 41.319 | 38.362 | 38.442 | 41.239 | 41.079 |
| U-NII 7 | 6 565       | 123 |       | 40.839                | 40.759 | 38.522 | 38.362 | 41.159 | 40.679 |
|         | 6 685       | 147 |       | 42.278                | 40.759 | 38.442 | 38.442 | 40.999 | 40.759 |
|         | 6 845       | 179 |       | 40.679                | 41.638 | 38.202 | 38.362 | 41.159 | 41.079 |
| U-NII 5 | 5 965       | 33  | SU    | -                     | -      | 40.599 | 40.679 | -      | -      |
|         | 6 205       | 51  |       | -                     | -      | 40.440 | 40.599 | -      | -      |
|         | 6 405       | 91  |       | -                     | -      | 40.599 | 40.679 | -      | -      |
| U-NII 7 | 6 565       | 123 |       | -                     | -      | 40.839 | 40.520 | -      | -      |
|         | 6 685       | 147 |       | -                     | -      | 40.759 | 40.440 | -      | -      |
|         | 6 845       | 179 |       | -                     | -      | 40.839 | 40.679 | -      | -      |

| Band    | Freq. (MHz) | Ch. | Tones | 99 % Bandwidth (MHz) |        |        |        |        |        |
|---------|-------------|-----|-------|----------------------|--------|--------|--------|--------|--------|
|         |             |     |       | Ru Index             |        |        |        |        |        |
|         |             |     |       | Low                  |        | Middle |        | High   |        |
|         |             |     |       | Port 1               | Port 2 | Port 1 | Port 2 | Port 1 | Port 2 |
| U-NII 5 | 5 965       | 33  | 26    | 38.921               | 38.442 | 36.484 | 34.885 | 38.282 | 35.285 |
|         | 6 205       | 51  |       | 38.801               | 38.561 | 36.563 | 36.484 | 39.920 | 38.082 |
|         | 6 405       | 91  |       | 38.601               | 38.202 | 36.883 | 36.324 | 38.921 | 38.402 |
| U-NII 7 | 6 565       | 123 |       | 38.681               | 38.362 | 36.763 | 36.484 | 38.841 | 38.042 |
|         | 6 685       | 147 |       | 38.641               | 38.362 | 36.683 | 36.324 | 38.961 | 38.202 |
|         | 6 845       | 179 |       | 38.721               | 38.442 | 36.843 | 36.523 | 39.241 | 38.322 |
| U-NII 5 | 5 965       | 33  | SU    | -                    | -      | 37.403 | 36.643 | -      | -      |
|         | 6 205       | 51  |       | -                    | -      | 37.562 | 37.522 | -      | -      |
|         | 6 405       | 91  |       | -                    | -      | 37.443 | 37.522 | -      | -      |
| U-NII 7 | 6 565       | 123 |       | -                    | -      | 37.522 | 37.602 | -      | -      |
|         | 6 685       | 147 |       | -                    | -      | 37.562 | 37.602 | -      | -      |
|         | 6 845       | 179 |       | -                    | -      | 37.602 | 37.562 | -      | -      |

**Test mode: 11ax\_HE80**

| Band    | Freq. (MHz) | Ch. | Tones | 26 dB Bandwidth (MHz) |        |        |        |        |        |
|---------|-------------|-----|-------|-----------------------|--------|--------|--------|--------|--------|
|         |             |     |       | Ru Index              |        |        |        |        |        |
|         |             |     |       | Low                   |        | Middle |        | High   |        |
|         |             |     |       | Port 1                | Port 2 | Port 1 | Port 2 | Port 1 | Port 2 |
| U-NII 5 | 5 985       | 7   | 26    | 83.117                | 83.756 | 78.641 | 79.600 | 80.400 | 80.240 |
|         | 6 145       | 39  |       | 82.957                | 83.916 | 78.482 | 78.482 | 83.596 | 81.039 |
|         | 6 385       | 87  |       | 82.797                | 82.478 | 79.281 | 78.480 | 82.158 | 82.797 |
| U-NII 7 | 6 625       | 135 |       | 82.637                | 83.117 | 79.281 | 78.961 | 82.318 | 82.318 |
|         | 6 705       | 151 |       | 82.797                | 82.797 | 79.441 | 78.641 | 82.318 | 81.199 |
|         | 6 785       | 167 |       | 82.318                | 82.797 | 78.641 | 78.641 | 83.756 | 82.478 |
| U-NII 5 | 5 985       | 7   | SU    | -                     | -      | 81.678 | 80.400 | -      | -      |
|         | 6 145       | 39  |       | -                     | -      | 81.998 | 83.277 | -      | -      |
|         | 6 385       | 87  |       | -                     | -      | 81.998 | 81.518 | -      | -      |
| U-NII 7 | 6 625       | 135 |       | -                     | -      | 82.158 | 81.518 | -      | -      |
|         | 6 705       | 151 |       | -                     | -      | 81.838 | 81.998 | -      | -      |
|         | 6 785       | 167 |       | -                     | -      | 82.318 | 81.680 | -      | -      |

| Band    | Freq. (MHz) | Ch. | Tones | 99 % Bandwidth (MHz) |        |        |        |        |        |
|---------|-------------|-----|-------|----------------------|--------|--------|--------|--------|--------|
|         |             |     |       | Ru Index             |        |        |        |        |        |
|         |             |     |       | Low                  |        | Middle |        | High   |        |
|         |             |     |       | Port 1               | Port 2 | Port 1 | Port 2 | Port 1 | Port 2 |
| U-NII 5 | 5 985       | 7   | 26    | 80.480               | 78.641 | 75.045 | 68.891 | 77.922 | 74.565 |
|         | 6 145       | 39  |       | 79.760               | 79.600 | 75.764 | 75.365 | 80.719 | 78.482 |
|         | 6 385       | 87  |       | 80.559               | 78.721 | 79.041 | 74.885 | 82.318 | 78.961 |
| U-NII 7 | 6 625       | 135 |       | 80.799               | 79.361 | 77.123 | 75.365 | 80.320 | 78.721 |
|         | 6 705       | 151 |       | 80.480               | 79.520 | 76.723 | 75.365 | 80.719 | 78.801 |
|         | 6 785       | 167 |       | 80.240               | 79.680 | 76.803 | 75.524 | 81.279 | 79.041 |
| U-NII 5 | 5 985       | 7   | SU    | -                    | -      | 76.084 | 72.967 | -      | -      |
|         | 6 145       | 39  |       | -                    | -      | 76.723 | 76.883 | -      | -      |
|         | 6 385       | 87  |       | -                    | -      | 76.563 | 76.563 | -      | -      |
| U-NII 7 | 6 625       | 135 |       | -                    | -      | 76.643 | 76.803 | -      | -      |
|         | 6 705       | 151 |       | -                    | -      | 76.723 | 76.803 | -      | -      |
|         | 6 785       | 167 |       | -                    | -      | 76.803 | 76.803 | -      | -      |

**Test mode: 11ax\_HE80L**

| Band    | Freq. (MHz) | Ch. | Tones | 26 dB Bandwidth (MHz) |         |         |         |         |         |
|---------|-------------|-----|-------|-----------------------|---------|---------|---------|---------|---------|
|         |             |     |       | Ru Index              |         |         |         |         |         |
|         |             |     |       | Low                   |         | Middle  |         | High    |         |
|         |             |     |       | Port 1                | Port 2  | Port 1  | Port 2  | Port 1  | Port 2  |
| U-NII 5 | 6 025       | 15  | 26    | 164.955               | 165.754 | 157.123 | 146.414 | 157.283 | 147.053 |
|         | 6 185       | 47  |       | 165.435               | 165.115 | 157.922 | 159.680 | 157.920 | 157.762 |
|         | 6 345       | 79  |       | 163.996               | 162.398 | 158.881 | 155.844 | 158.721 | 155.524 |
| U-NII 7 | 6 665       | 143 |       | 163.996               | 164.156 | 158.561 | 158.721 | 158.402 | 157.123 |

| Band    | Freq. (MHz) | Ch. | Tones | 99 % Bandwidth (MHz) |         |         |         |         |         |
|---------|-------------|-----|-------|----------------------|---------|---------|---------|---------|---------|
|         |             |     |       | Ru Index             |         |         |         |         |         |
|         |             |     |       | Low                  |         | Middle  |         | High    |         |
|         |             |     |       | Port 1               | Port 2  | Port 1  | Port 2  | Port 1  | Port 2  |
| U-NII 5 | 6 025       | 15  | 26    | 162.238              | 160.320 | 156.963 | 141.938 | 154.565 | 145.295 |
|         | 6 185       | 47  |       | 160.160              | 161.439 | 152.328 | 153.926 | 154.406 | 152.008 |
|         | 6 345       | 79  |       | 159.361              | 158.881 | 155.684 | 151.688 | 156.004 | 151.528 |
| U-NII 7 | 6 665       | 143 |       | 160.320              | 160.639 | 153.926 | 153.287 | 154.246 | 152.967 |

**Test mode: 11ax\_HE80U**

| Band    | Freq. (MHz) | Ch. | Tones | 26 dB Bandwidth (MHz) |         |         |         |         |         |
|---------|-------------|-----|-------|-----------------------|---------|---------|---------|---------|---------|
|         |             |     |       | Ru Index              |         |         |         |         |         |
|         |             |     |       | Low                   |         | Middle  |         | High    |         |
|         |             |     |       | Port 1                | Port 2  | Port 1  | Port 2  | Port 1  | Port 2  |
| U-NII 5 | 6 025       | 15  | 26    | 156.004               | 157.283 | 157.443 | 157.283 | 162.557 | 153.127 |
|         | 6 185       | 47  |       | 157.443               | 158.881 | 158.561 | 158.721 | 164.635 | 164.316 |
|         | 6 345       | 79  |       | 158.721               | 158.721 | 159.840 | 158.402 | 165.754 | 164.476 |
| U-NII 7 | 6 665       | 143 |       | 157.762               | 158.242 | 159.680 | 159.041 | 165.435 | 163.996 |

| Band    | Freq. (MHz) | Ch. | Tones | 99 % Bandwidth (MHz) |         |         |         |         |         |
|---------|-------------|-----|-------|----------------------|---------|---------|---------|---------|---------|
|         |             |     |       | Ru Index             |         |         |         |         |         |
|         |             |     |       | Low                  |         | Middle  |         | High    |         |
|         |             |     |       | Port 1               | Port 2  | Port 1  | Port 2  | Port 1  | Port 2  |
| U-NII 5 | 6 025       | 15  | 26    | 151.209              | 147.532 | 153.447 | 148.012 | 162.078 | 152.008 |
|         | 6 185       | 47  |       | 151.848              | 153.926 | 153.926 | 152.807 | 161.758 | 159.201 |
|         | 6 345       | 79  |       | 153.926              | 152.807 | 155.844 | 153.127 | 162.238 | 161.758 |
| U-NII 7 | 6 665       | 143 |       | 153.606              | 154.565 | 154.565 | 154.406 | 162.078 | 161.439 |

**Test mode: 11ax\_HE160**

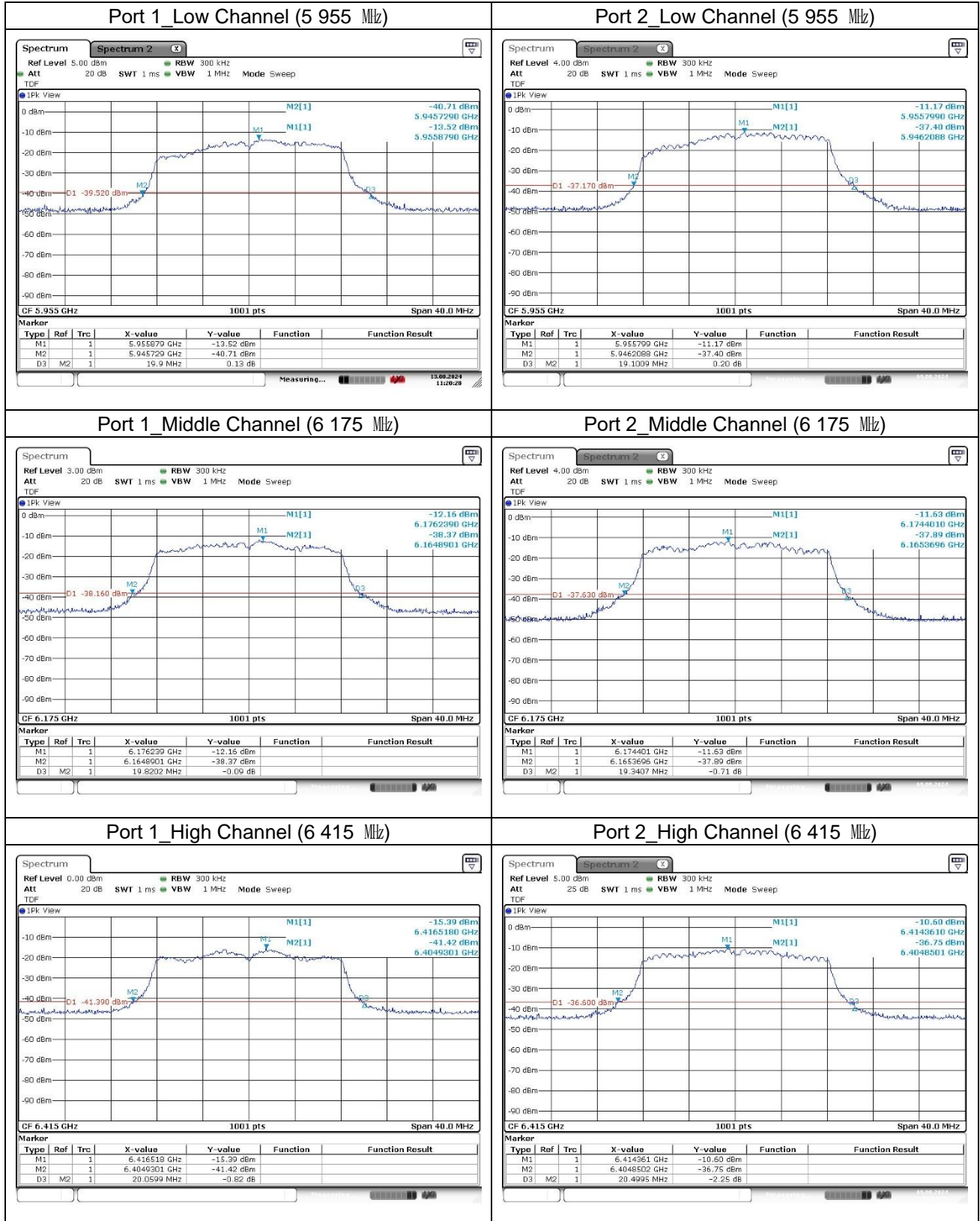
| Band    | Freq. (MHz) | Ch. | Tones | 26 dB Bandwidth (MHz) |        |         |         |        |        |
|---------|-------------|-----|-------|-----------------------|--------|---------|---------|--------|--------|
|         |             |     |       | Ru Index              |        |         |         |        |        |
|         |             |     |       | Low                   |        | Middle  |         | High   |        |
|         |             |     |       | Port 1                | Port 2 | Port 1  | Port 2  | Port 1 | Port 2 |
| U-NII 5 | 6 025       | 15  | SU    | -                     | -      | 164.156 | 163.037 | -      | -      |
|         | 6 185       | 47  |       | -                     | -      | 165.275 | 164.795 | -      | -      |
|         | 6 345       | 79  |       | -                     | -      | 165.115 | 164.955 | -      | -      |
| U-NII 7 | 6 665       | 143 |       | -                     | -      | 165.275 | 164.476 | -      | -      |

| Band    | Freq. (MHz) | Ch. | Tones | 99 % Bandwidth (MHz) |        |         |         |        |        |
|---------|-------------|-----|-------|----------------------|--------|---------|---------|--------|--------|
|         |             |     |       | Ru Index             |        |         |         |        |        |
|         |             |     |       | Low                  |        | Middle  |         | High   |        |
|         |             |     |       | Port 1               | Port 2 | Port 1  | Port 2  | Port 1 | Port 2 |
| U-NII 5 | 6 025       | 15  | SU    | -                    | -      | 152.647 | 148.332 | -      | -      |
|         | 6 185       | 47  |       | -                    | -      | 155.365 | 155.684 | -      | -      |
|         | 6 345       | 79  |       | -                    | -      | 155.365 | 154.885 | -      | -      |
| U-NII 7 | 6 665       | 143 |       | -                    | -      | 155.365 | 155.524 | -      | -      |

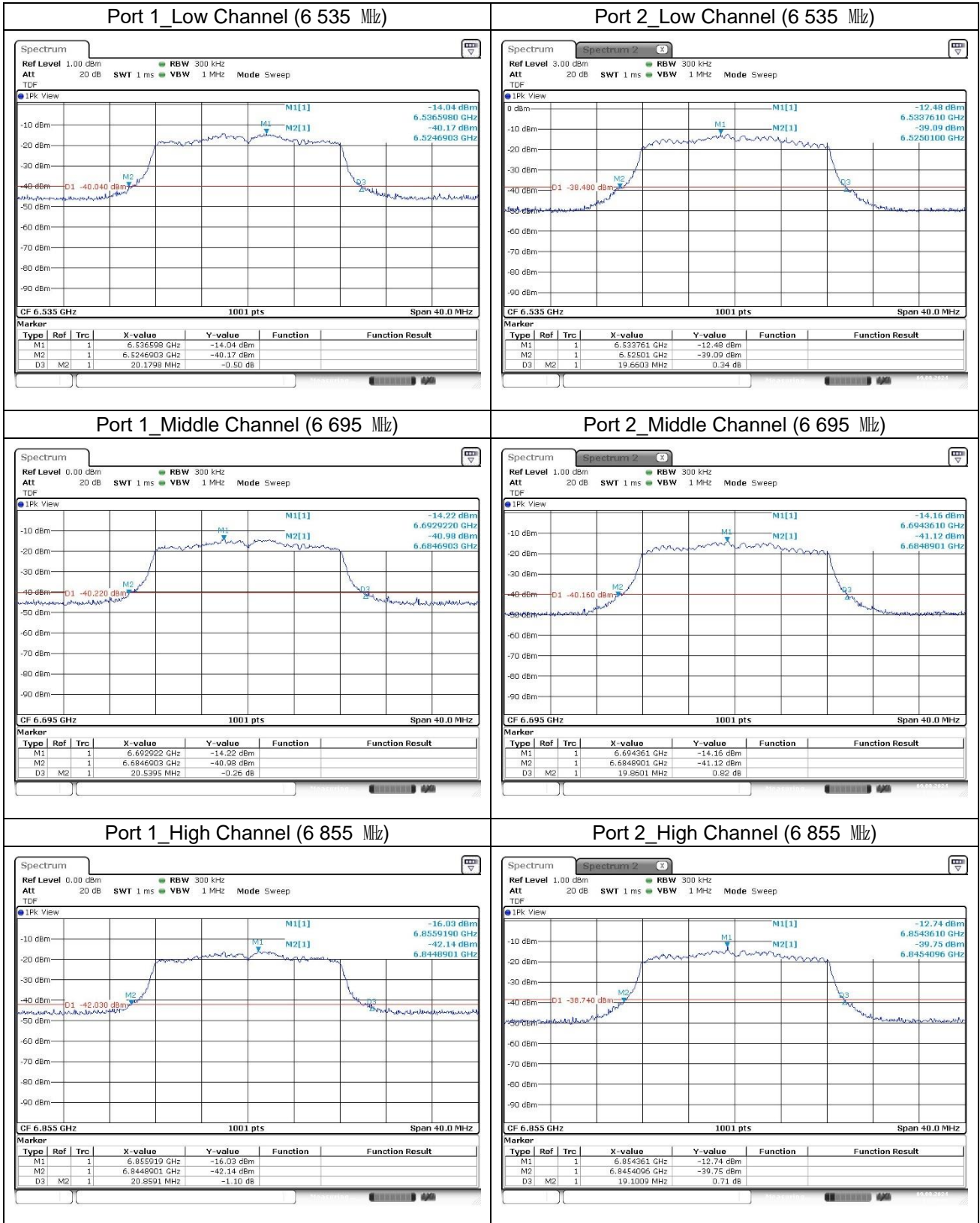
**- Test plots**

**26 dB Bandwidth**

**11a (Band 5)**



**11a (Band 7)**





**11ax\_HE20\_26T (Band 5)**

