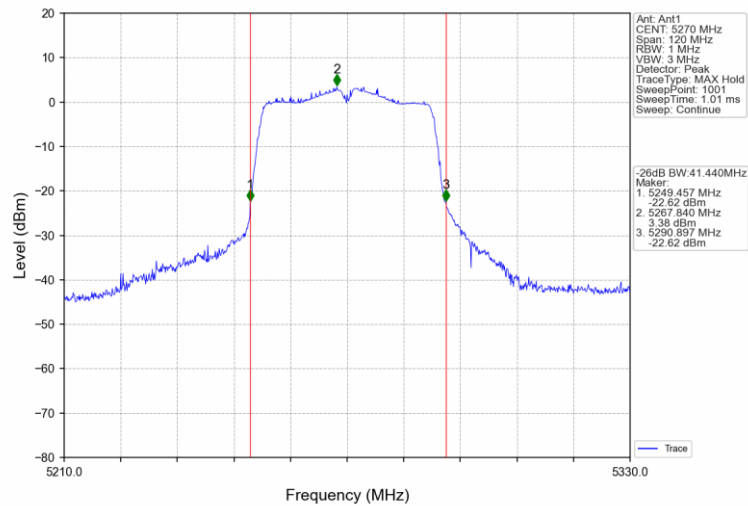
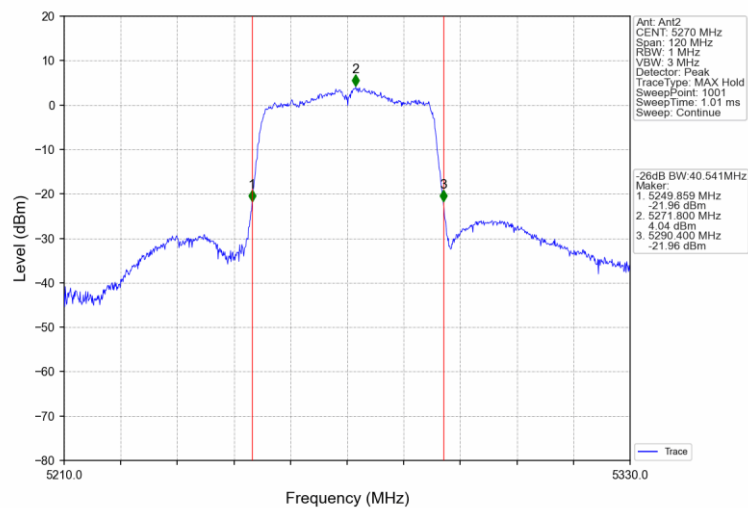
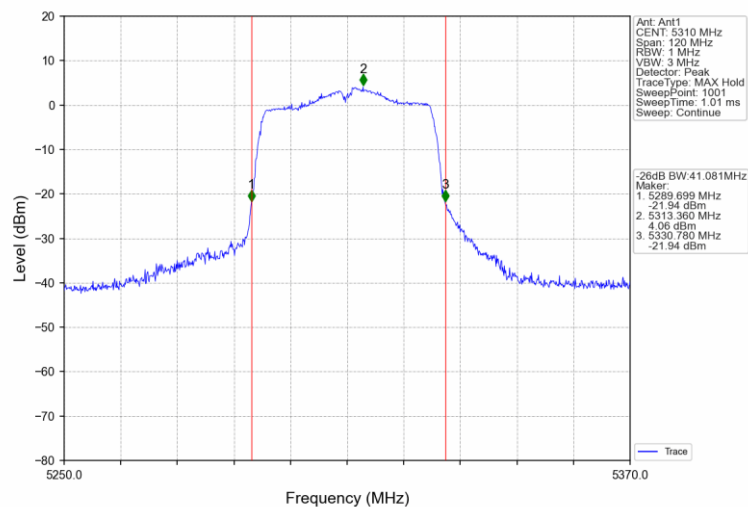




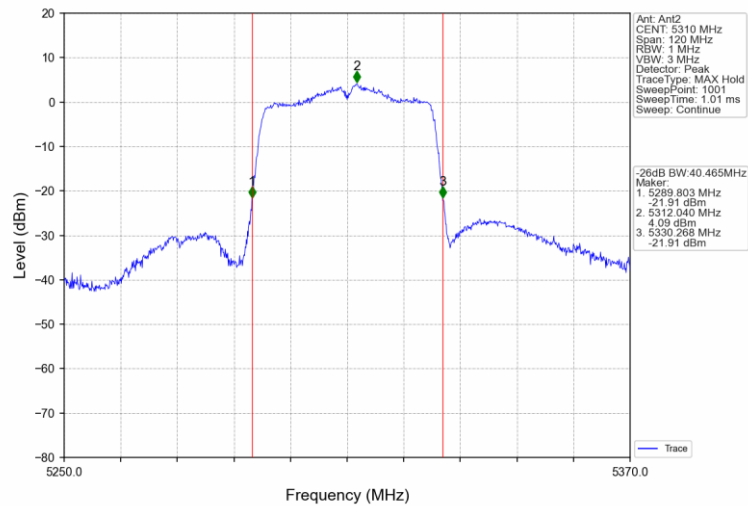
802.11ac(VHT40)\_LCH\_5270MHz\_Ant2\_NTNV



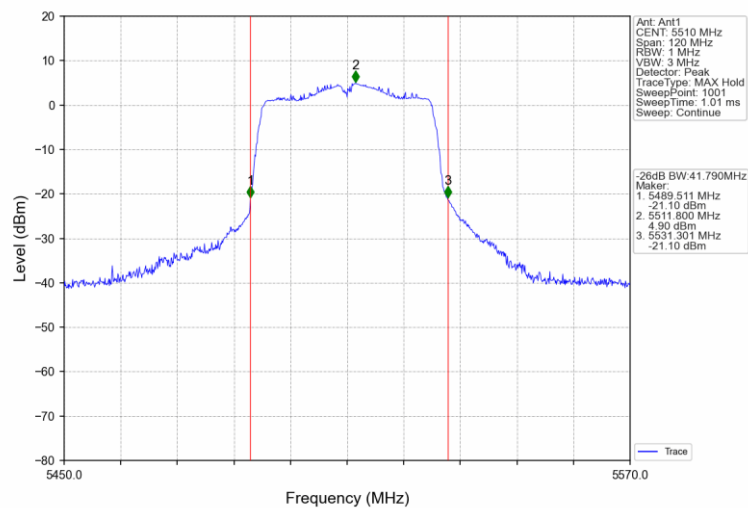
802.11ac(VHT40)\_HCH\_5310MHz\_Ant1\_NTNV



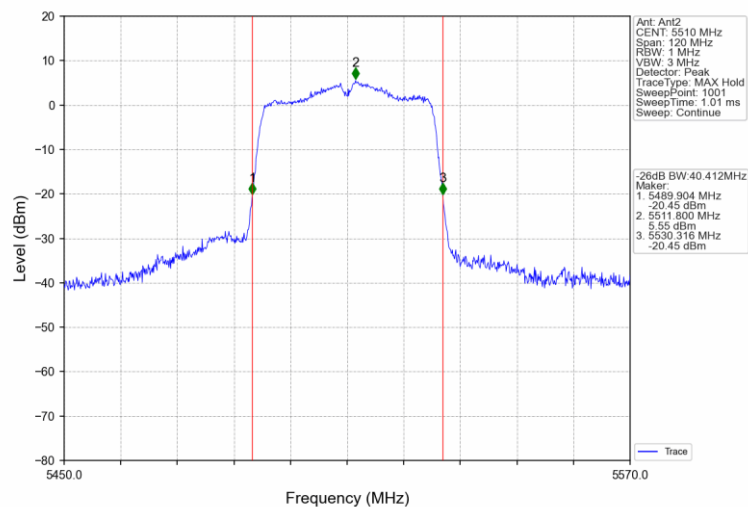
802.11ac(VHT40)\_HCH\_5310MHz\_Ant2\_NTNV



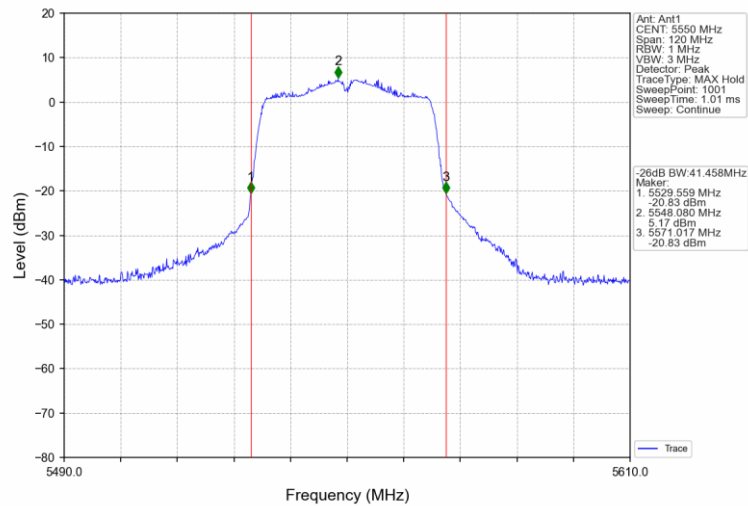
802.11ac(VHT40)\_LCH\_5510MHz\_Ant1\_NTNV



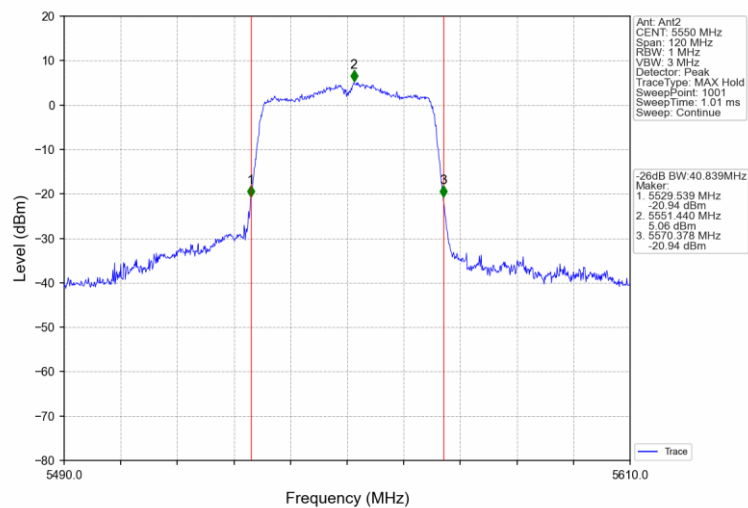
802.11ac(VHT40)\_LCH\_5510MHz\_Ant2\_NTNV



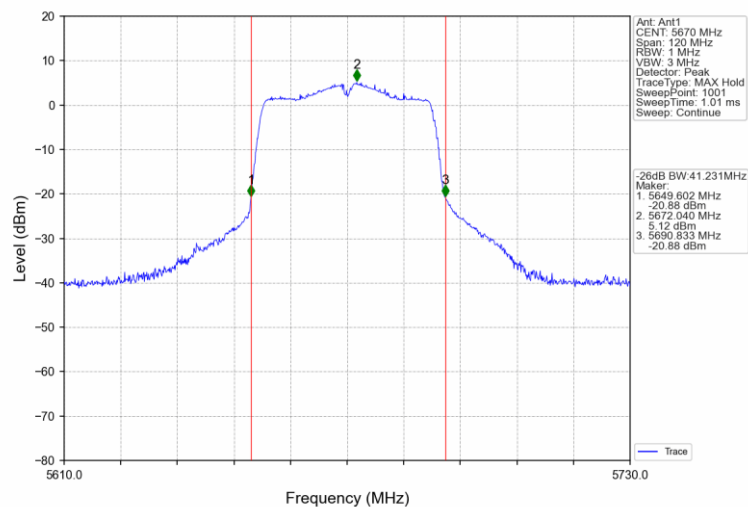
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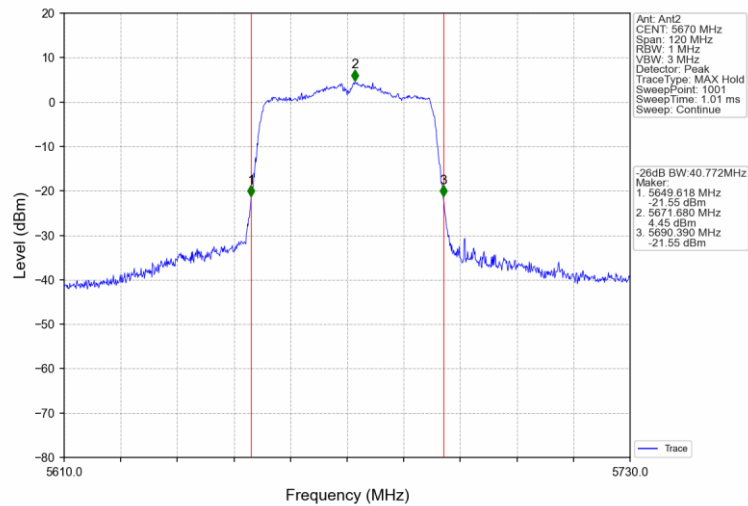
802.11ac(VHT40)\_MCH\_5550MHz\_Ant2\_NTNV



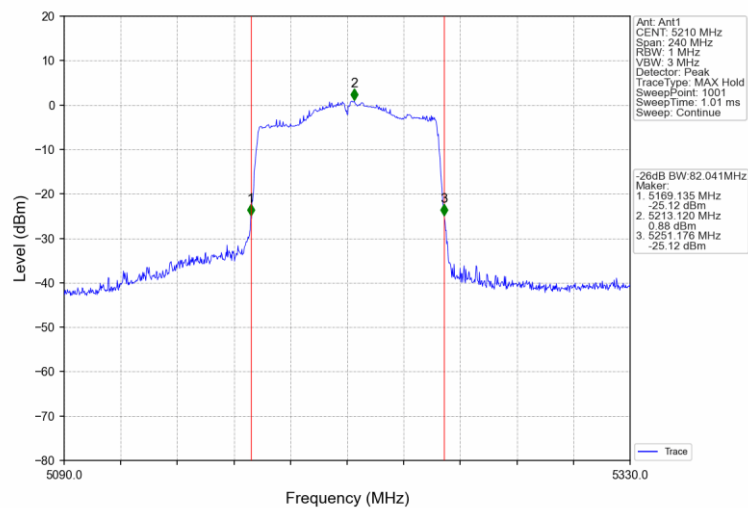
802.11ac(VHT40)\_HCH\_5670MHz\_Ant1\_NTNV



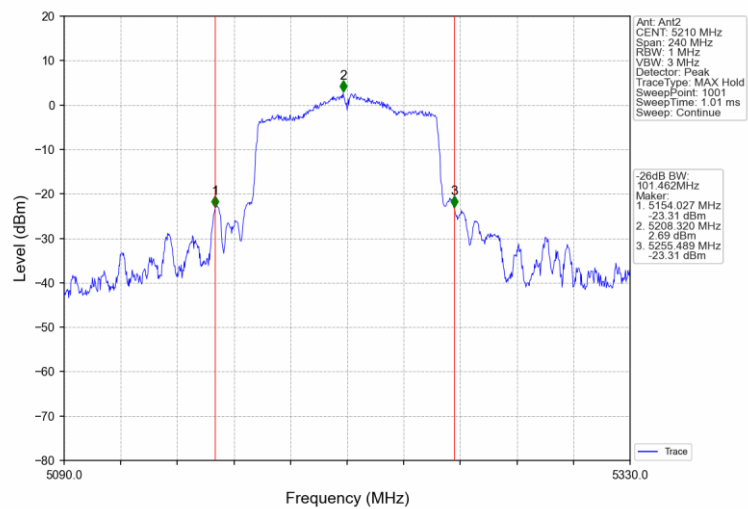
802.11ac(VHT40)\_HCH\_5670MHz\_Ant2\_NTNV



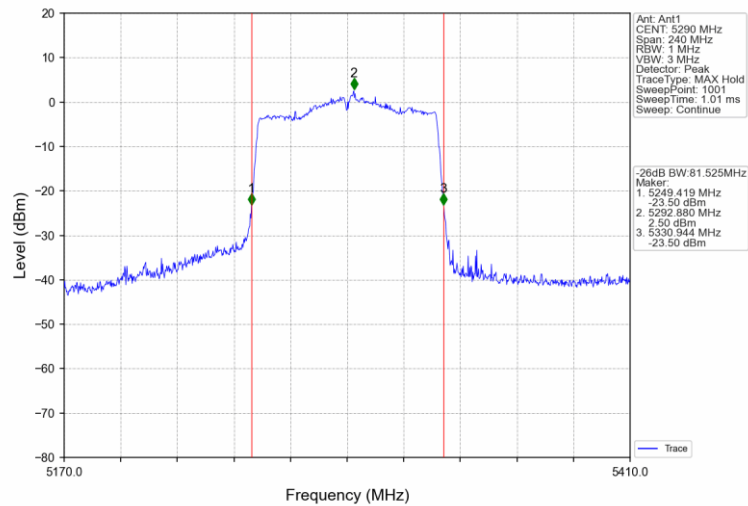
802.11ac(VHT80)\_MCH\_5210MHz\_Ant1\_NTNV



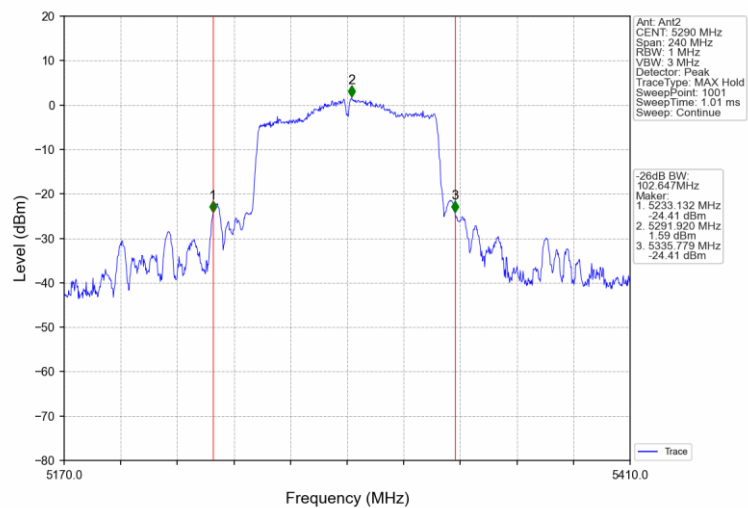
802.11ac(VHT80)\_MCH\_5210MHz\_Ant2\_NTNV



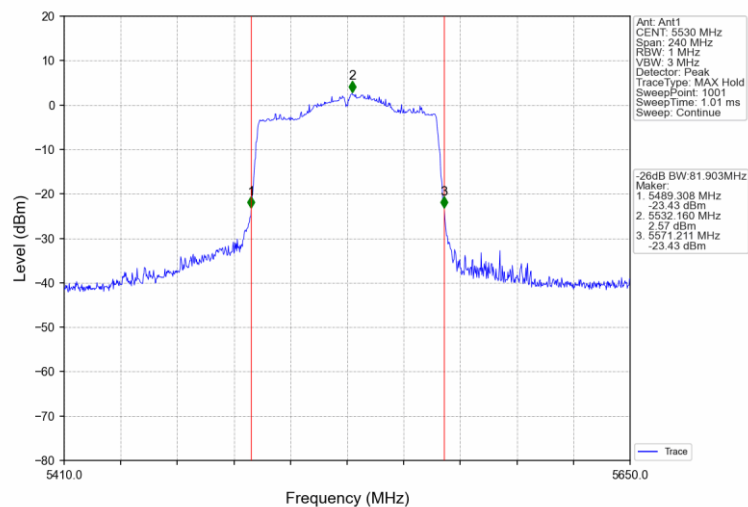
802.11ac(VHT80)\_MCH\_5290MHz\_Ant1\_NTNV



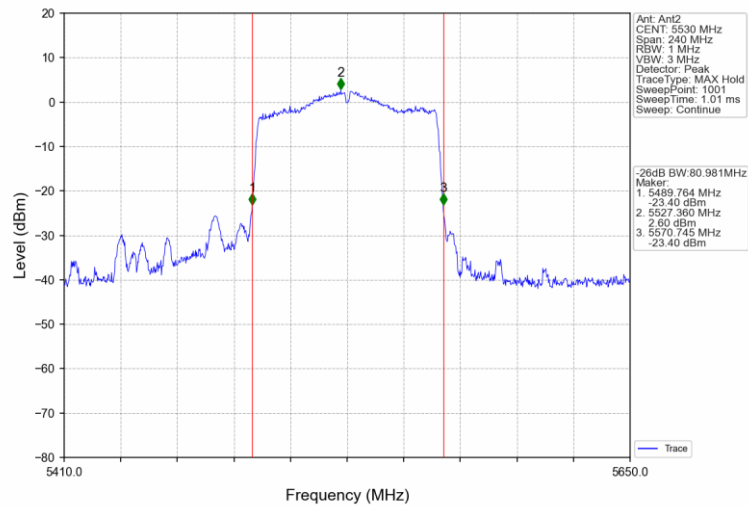
802.11ac(VHT80)\_MCH\_5290MHz\_Ant2\_NTNV



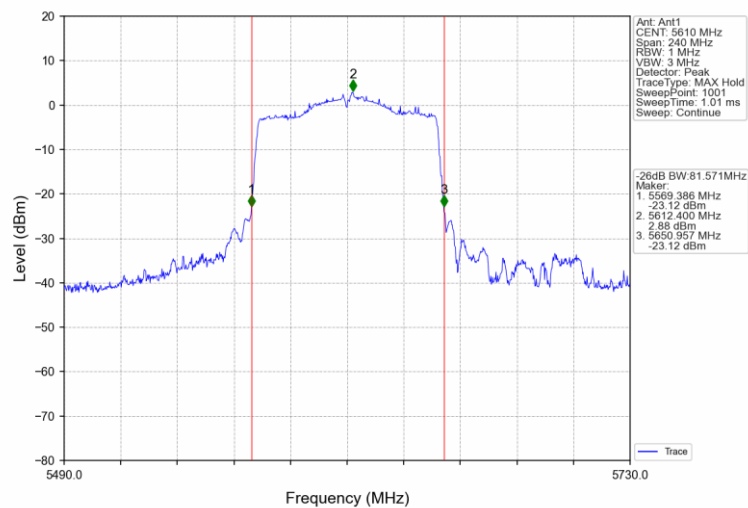
802.11ac(VHT80)\_LCH\_5530MHz\_Ant1\_NTNV



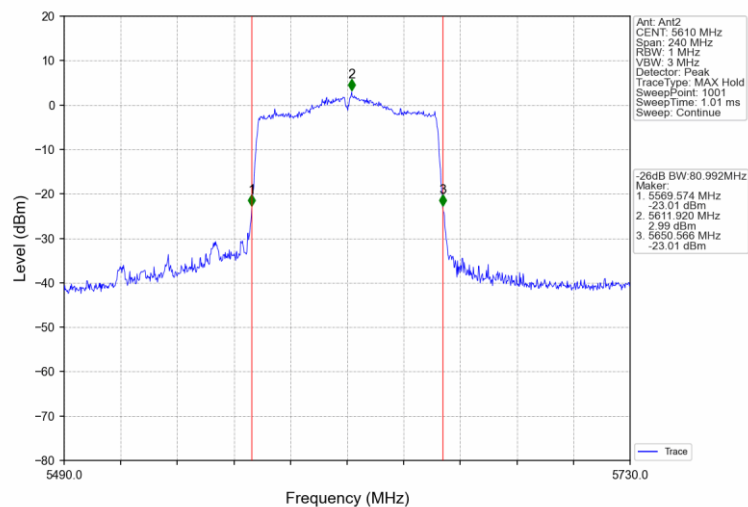
802.11ac(VHT80)\_LCH\_5530MHz\_Ant2\_NTNV



802.11ac(VHT80)\_HCH\_5610MHz\_Ant1\_NTNV



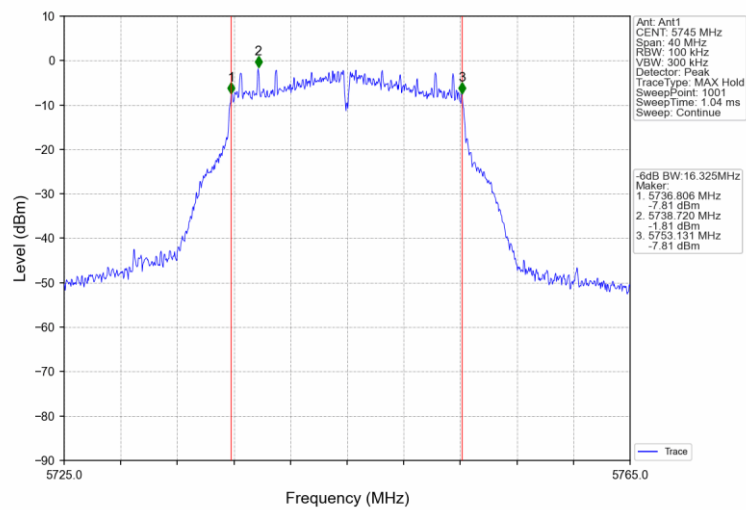
802.11ac(VHT80)\_HCH\_5610MHz\_Ant2\_NTNV



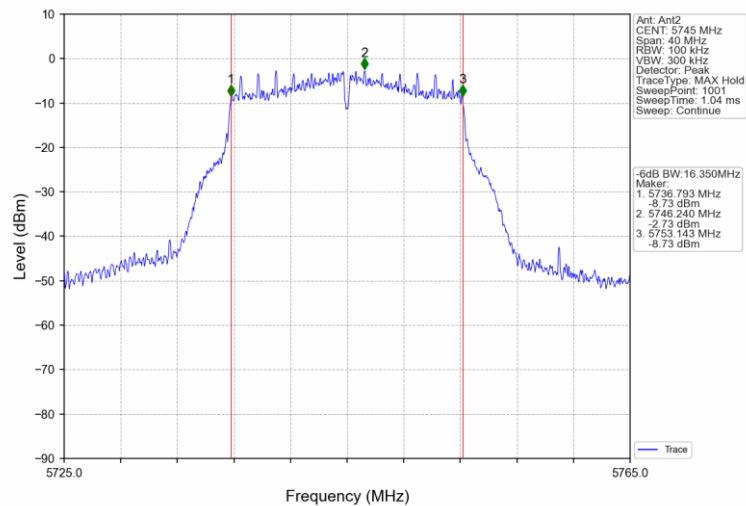
**6dB bandwidth:**

| Mode             | TX Type | Frequency (MHz) | ANT | 6dB Bandwidth (MHz) |            | Verdict |
|------------------|---------|-----------------|-----|---------------------|------------|---------|
|                  |         |                 |     | Result              | Limit      |         |
| 802.11a          | SISO    | 5745            | 1   | 16.325              | $\geq 0.5$ | Pass    |
|                  |         |                 | 2   | 16.350              | $\geq 0.5$ | Pass    |
|                  |         | 5785            | 1   | 16.334              | $\geq 0.5$ | Pass    |
|                  |         |                 | 2   | 16.326              | $\geq 0.5$ | Pass    |
|                  |         | 5825            | 1   | 16.320              | $\geq 0.5$ | Pass    |
|                  |         |                 | 2   | 16.334              | $\geq 0.5$ | Pass    |
| 802.11n (HT20)   | MIMO    | 5745            | 1   | 17.286              | $\geq 0.5$ | Pass    |
|                  |         |                 | 2   | 17.592              | $\geq 0.5$ | Pass    |
|                  |         | 5785            | 1   | 17.344              | $\geq 0.5$ | Pass    |
|                  |         |                 | 2   | 17.590              | $\geq 0.5$ | Pass    |
|                  |         | 5825            | 1   | 17.318              | $\geq 0.5$ | Pass    |
|                  |         |                 | 2   | 17.582              | $\geq 0.5$ | Pass    |
| 802.11n (HT40)   | MIMO    | 5755            | 1   | 36.298              | $\geq 0.5$ | Pass    |
|                  |         |                 | 2   | 36.365              | $\geq 0.5$ | Pass    |
|                  |         | 5795            | 1   | 35.741              | $\geq 0.5$ | Pass    |
|                  |         |                 | 2   | 35.964              | $\geq 0.5$ | Pass    |
| 802.11ac (VHT20) | MIMO    | 5745            | 1   | 17.191              | $\geq 0.5$ | Pass    |
|                  |         |                 | 2   | 17.586              | $\geq 0.5$ | Pass    |
|                  |         | 5785            | 1   | 17.584              | $\geq 0.5$ | Pass    |
|                  |         |                 | 2   | 17.575              | $\geq 0.5$ | Pass    |
|                  |         | 5825            | 1   | 17.139              | $\geq 0.5$ | Pass    |
|                  |         |                 | 2   | 17.591              | $\geq 0.5$ | Pass    |
| 802.11ac (VHT40) | MIMO    | 5755            | 1   | 35.940              | $\geq 0.5$ | Pass    |
|                  |         |                 | 2   | 36.329              | $\geq 0.5$ | Pass    |
|                  |         | 5795            | 1   | 36.045              | $\geq 0.5$ | Pass    |
|                  |         |                 | 2   | 36.316              | $\geq 0.5$ | Pass    |
| 802.11ac (VHT80) | MIMO    | 5775            | 1   | 75.671              | $\geq 0.5$ | Pass    |
|                  |         |                 | 2   | 75.237              | $\geq 0.5$ | Pass    |

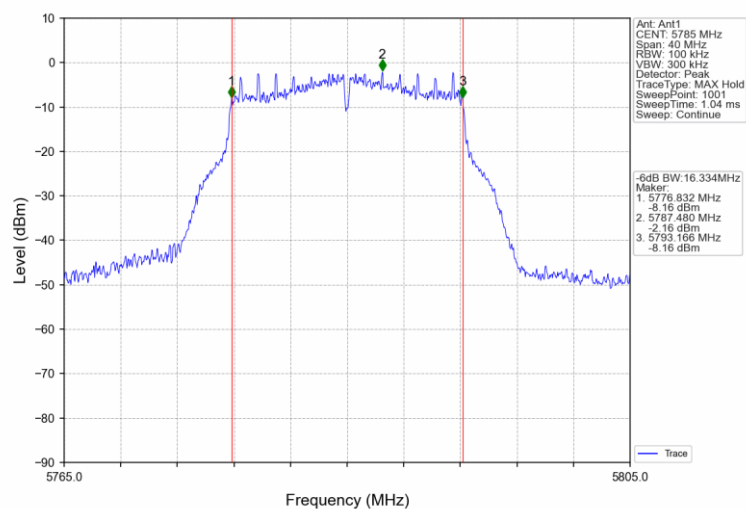
## 802.11a\_LCH\_5745MHz\_Ant1\_NTNV



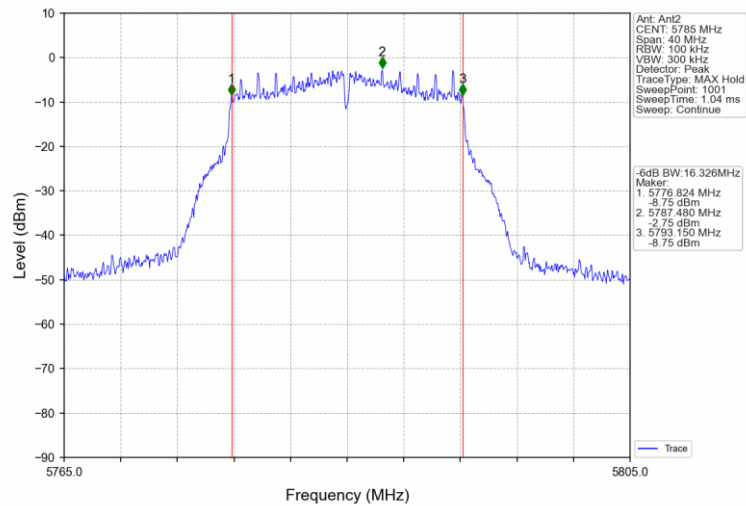
## 802.11a\_LCH\_5745MHz\_Ant2\_NTNV



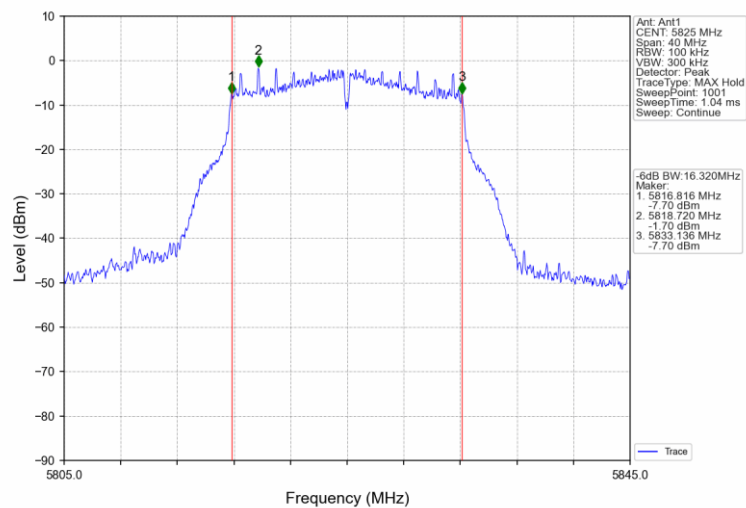
## 802.11a\_MCH\_5785MHz\_Ant1\_NTNV



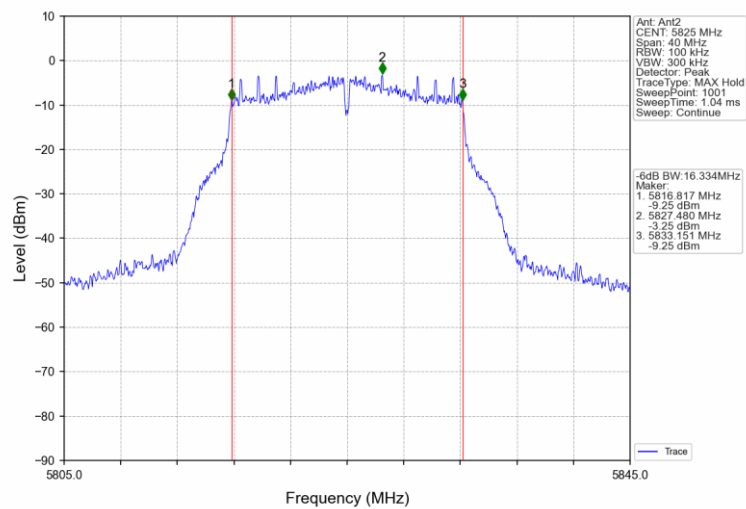
## 802.11a\_MCH\_5785MHz\_Ant2\_NTNV



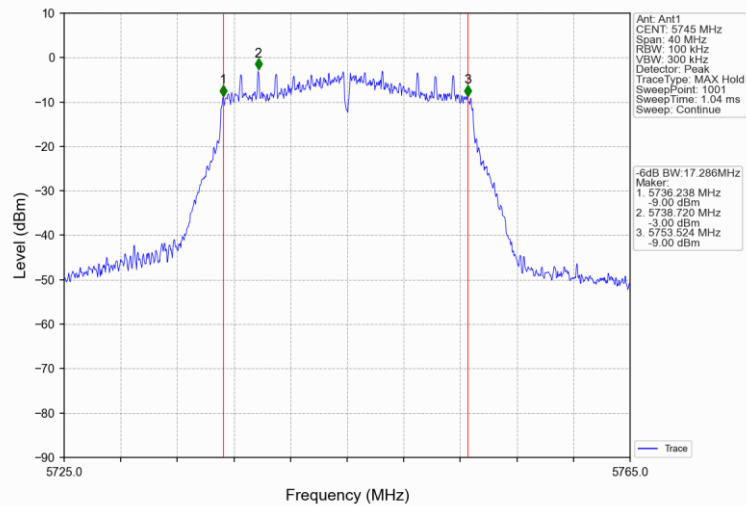
802.11a\_HCH\_5825MHz\_Ant1\_NTNV



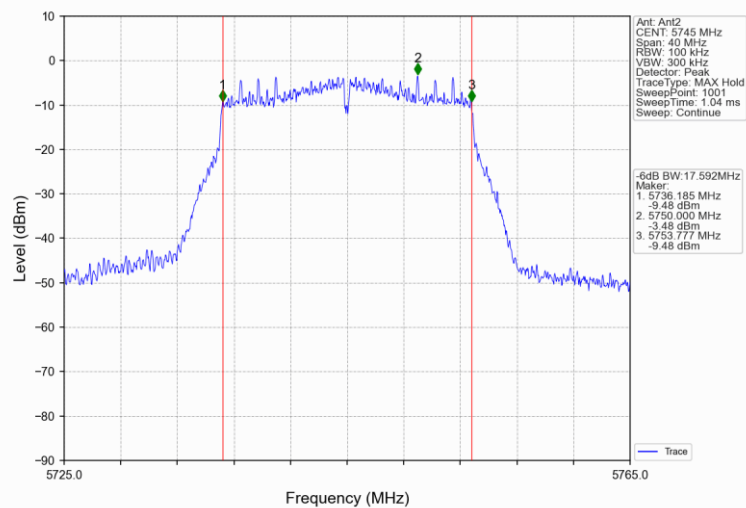
802.11a\_HCH\_5825MHz\_Ant2\_NTNV



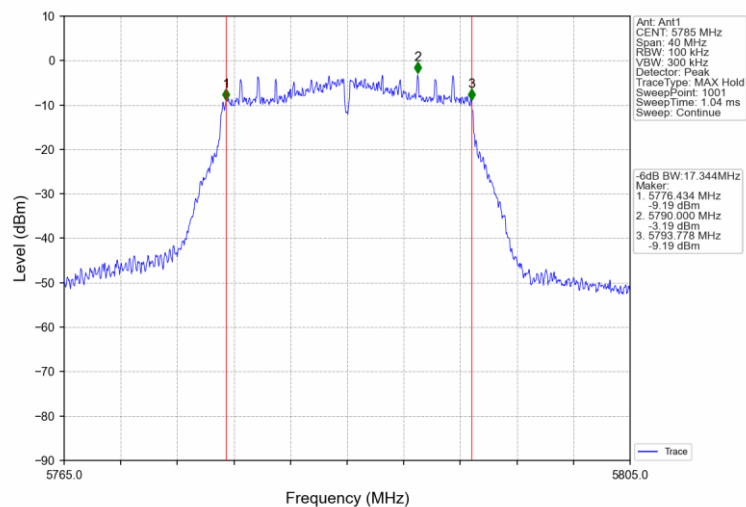
802.11n(HT20)\_LCH\_5745MHz\_Ant1\_NTNV



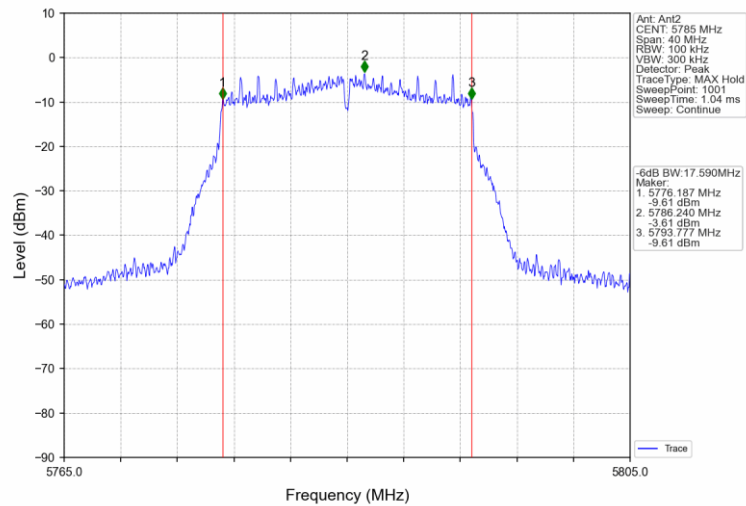
802.11n(HT20)\_LCH\_5745MHz\_Ant2\_NTNV



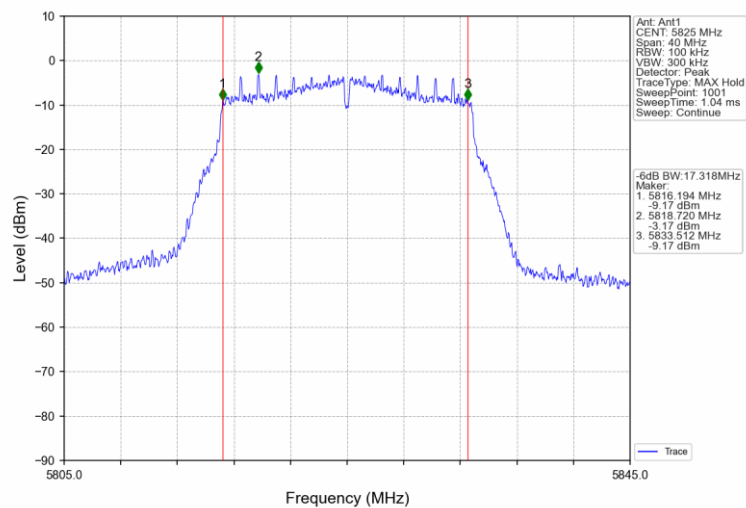
802.11n(HT20)\_MCH\_5785MHz\_Ant1\_NTNV



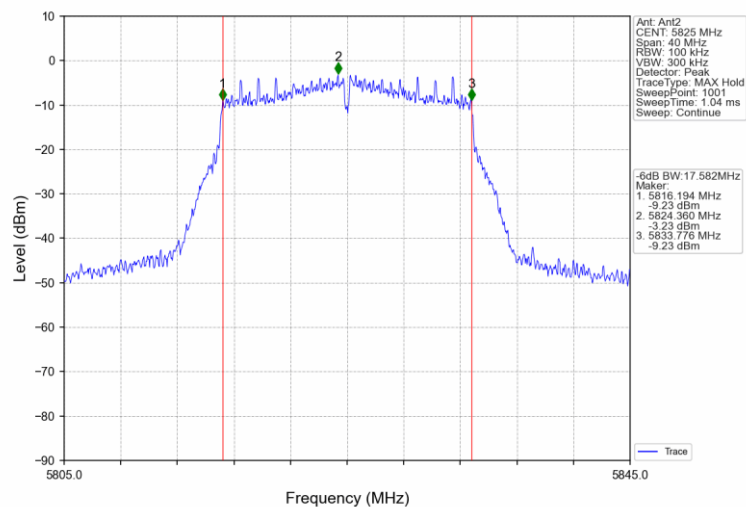
802.11n(HT20)\_MCH\_5785MHz\_Ant2\_NTNV



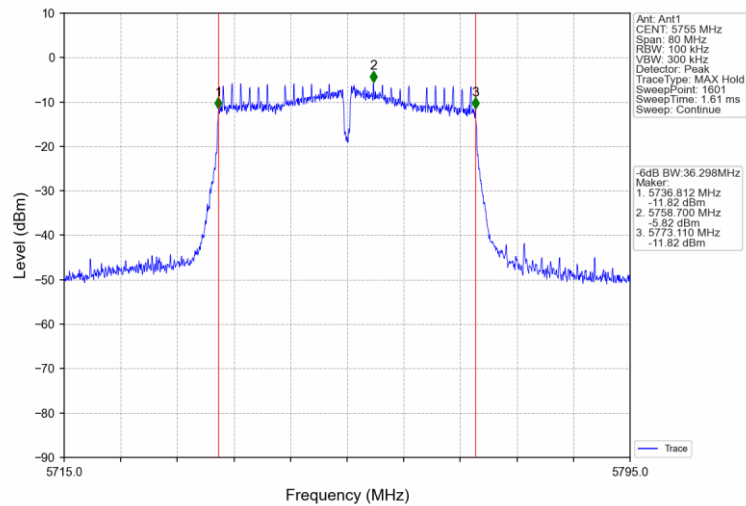
802.11n(HT20)\_HCH\_5825MHz\_Ant1\_NTNV



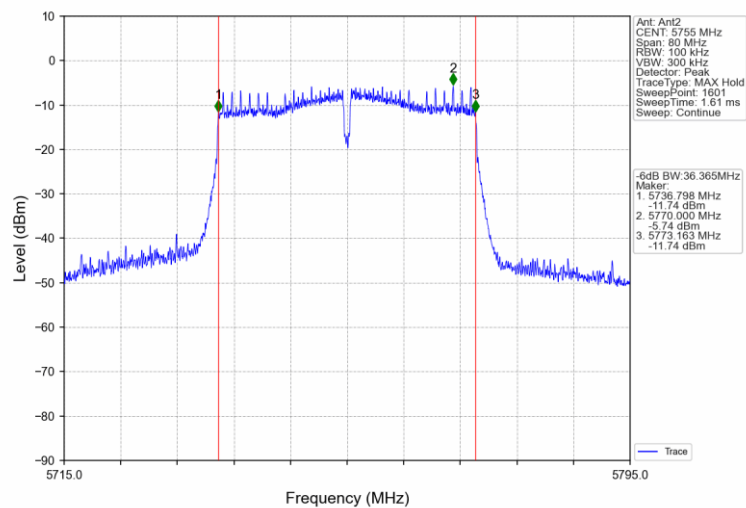
802.11n(HT20)\_HCH\_5825MHz\_Ant2\_NTNV



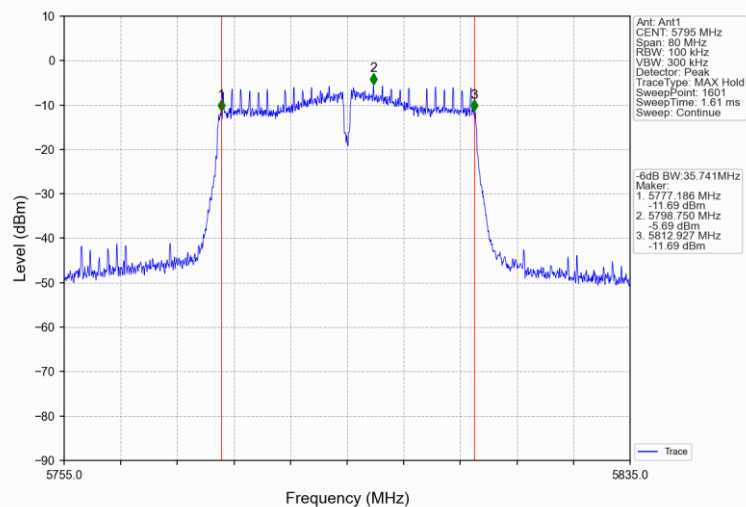
802.11n(HT40)\_LCH\_5755MHz\_Ant1\_NTNV



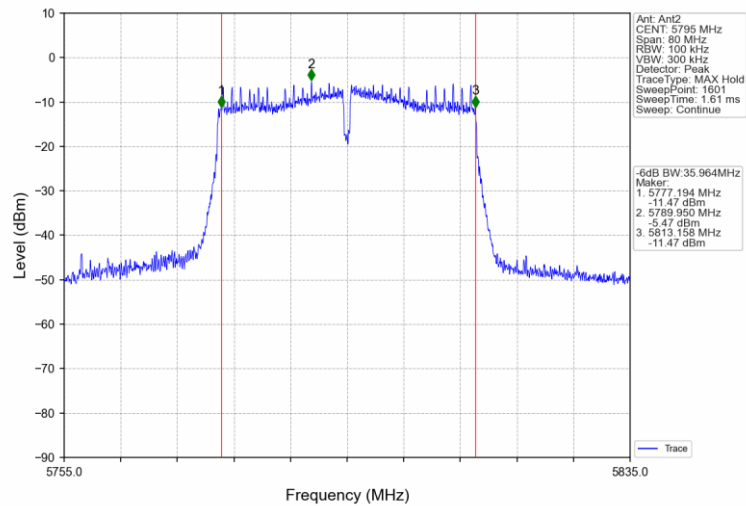
802.11n(HT40)\_LCH\_5755MHz\_Ant2\_NTNV



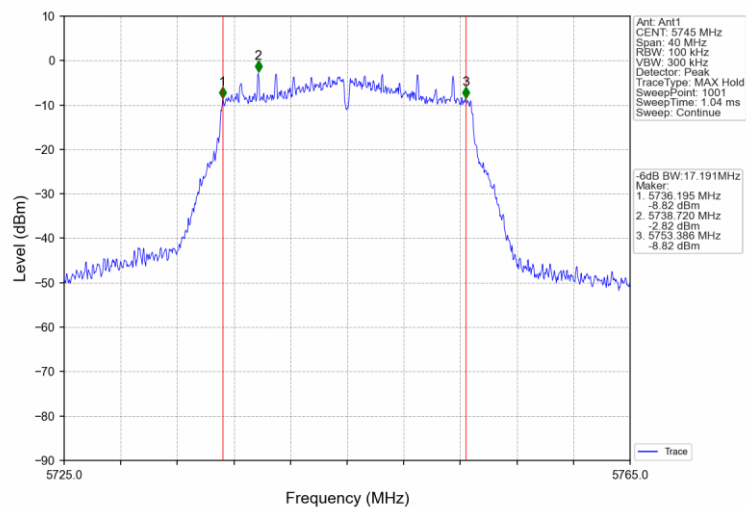
802.11n(HT40)\_HCH\_5795MHz\_Ant1\_NTNV



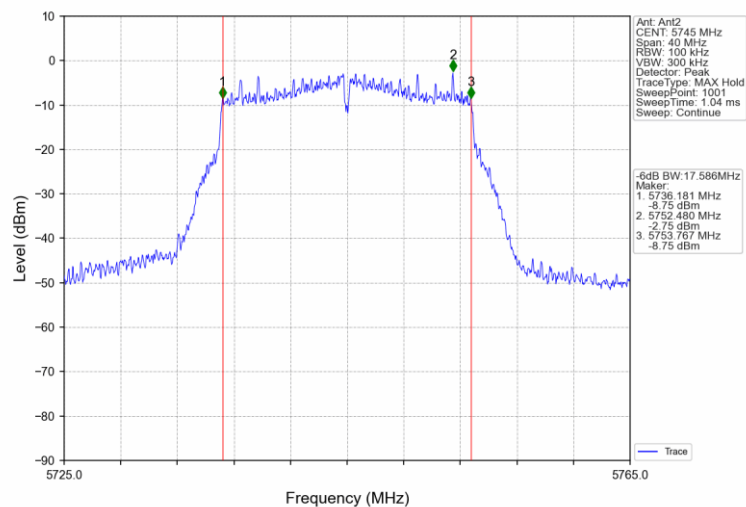
802.11n(HT40)\_HCH\_5795MHz\_Ant2\_NTNV



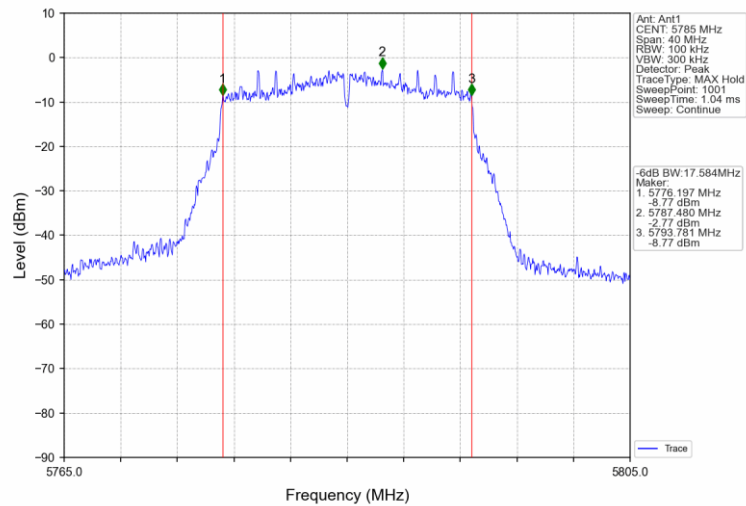
802.11ac(VHT20)\_LCH\_5745MHz\_Ant1\_NTNV



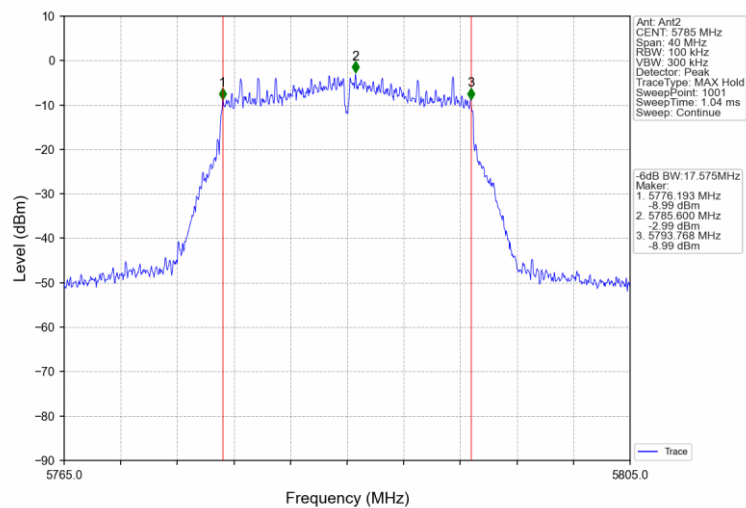
802.11ac(VHT20)\_LCH\_5745MHz\_Ant2\_NTNV



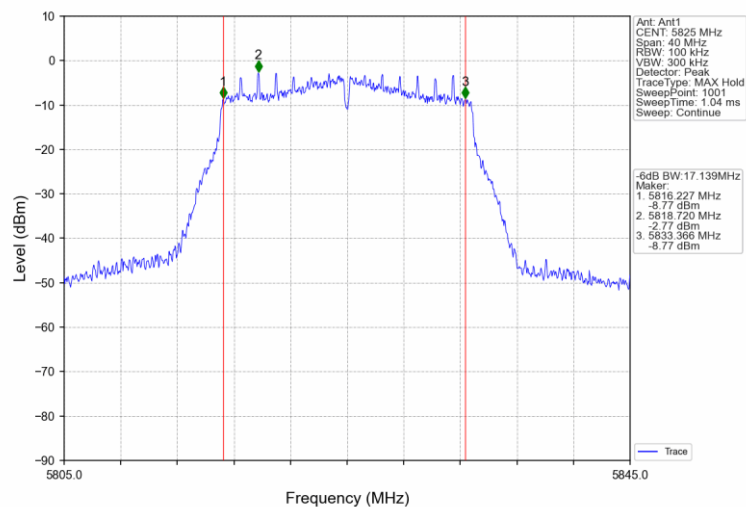
802.11ac(VHT20)\_MCH\_5785MHz\_Ant1\_NTNV



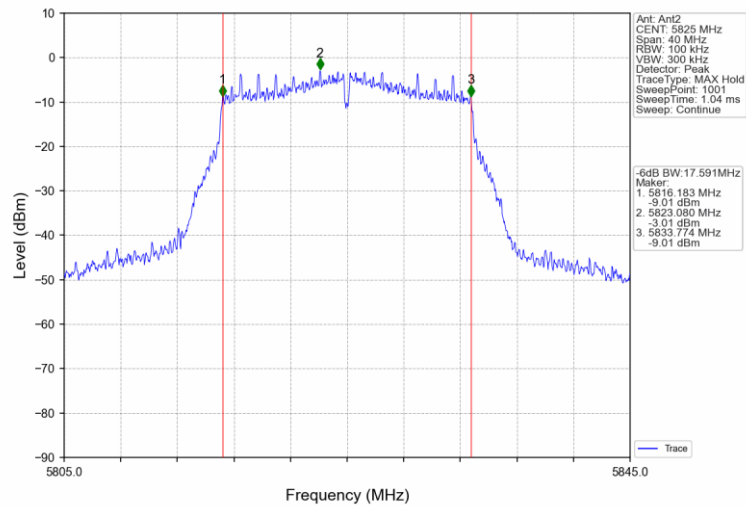
802.11ac(VHT20)\_MCH\_5785MHz\_Ant2\_NTNV



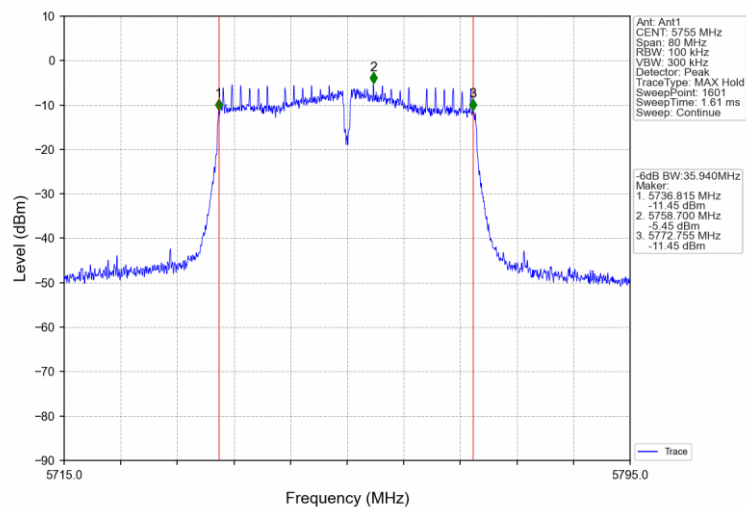
802.11ac(VHT20)\_HCH\_5825MHz\_Ant1\_NTNV



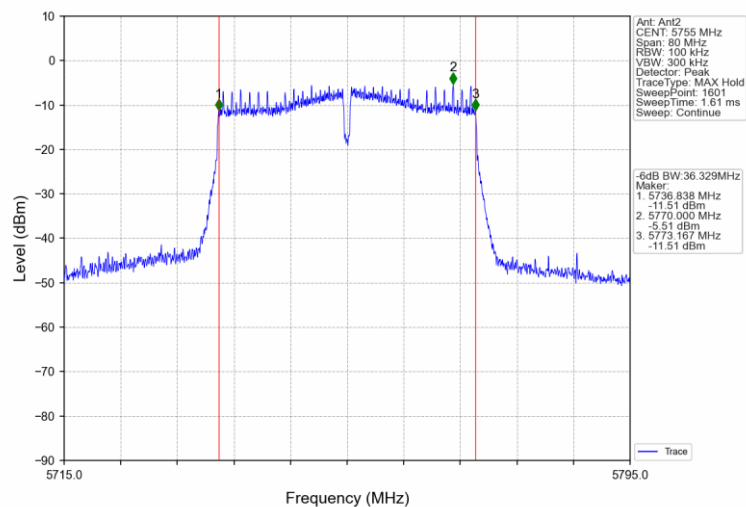
802.11ac(VHT20)\_HCH\_5825MHz\_Ant2\_NTNV



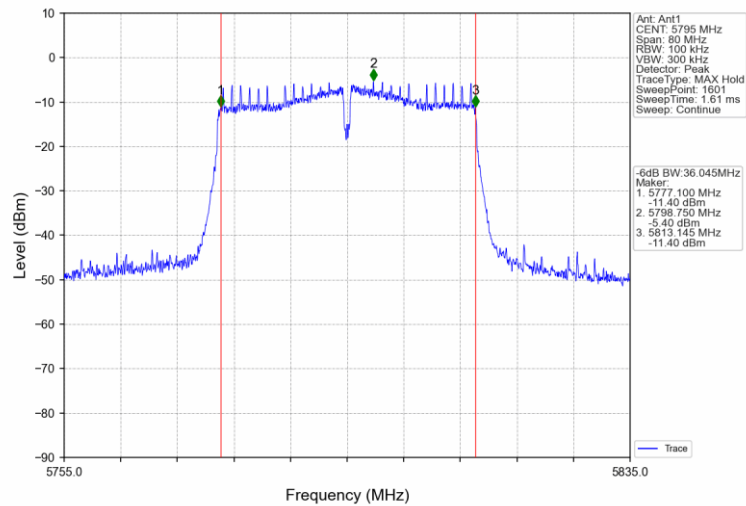
802.11ac(VHT40)\_LCH\_5755MHz\_Ant1\_NTNV



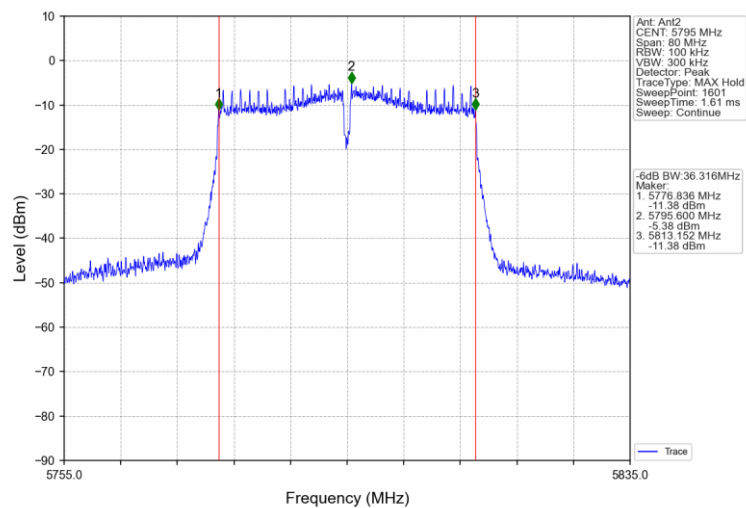
802.11ac(VHT40)\_LCH\_5755MHz\_Ant2\_NTNV



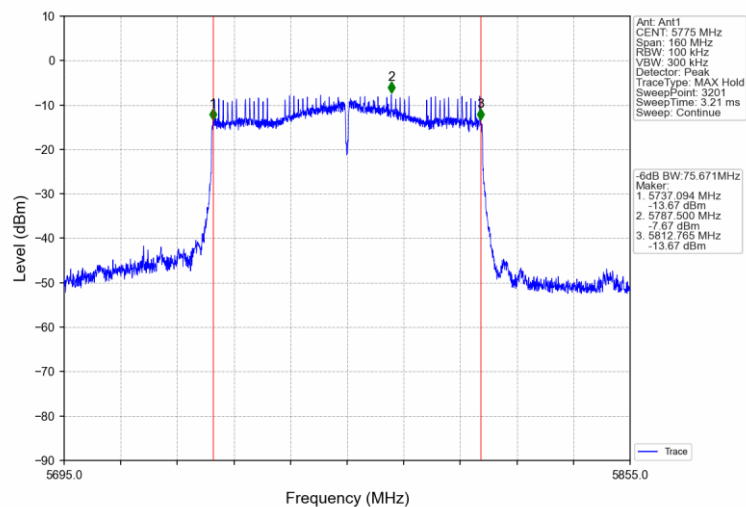
802.11ac(VHT40)\_HCH\_5795MHz\_Ant1\_NTNV



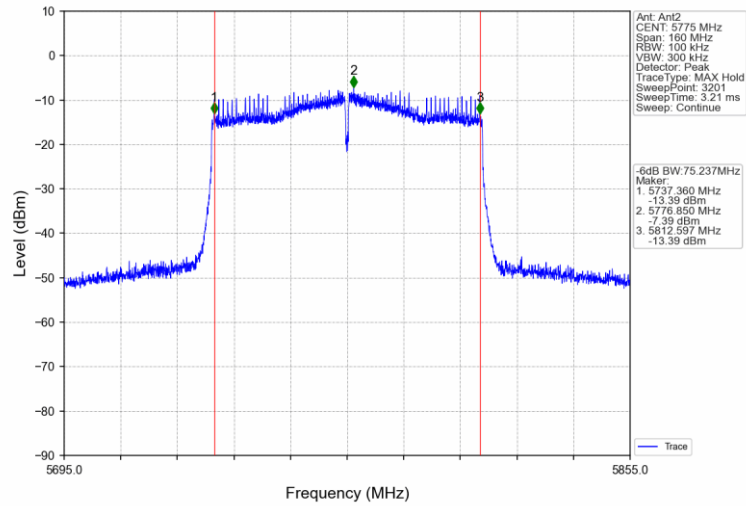
802.11ac(VHT40)\_HCH\_5795MHz\_Ant2\_NTNV



802.11ac(VHT80)\_MCH\_5775MHz\_Ant1\_NTNV



802.11ac(VHT80)\_MCH\_5775MHz\_Ant2\_NTNV



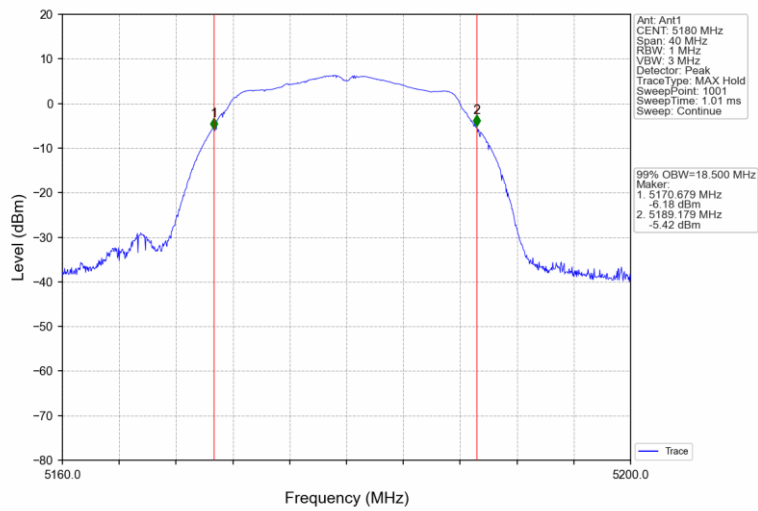
**99% Bandwidth Test Result**

| Mode           | TX Type | Frequency (MHz) | ANT | 99% Occupied Bandwidth (MHz) |       | Verdict |
|----------------|---------|-----------------|-----|------------------------------|-------|---------|
|                |         |                 |     | Result                       | Limit |         |
| 802.11a        | SISO    | 5180            | 1   | 18.500                       | /     | Pass    |
|                |         |                 | 2   | 18.388                       | /     | Pass    |
|                |         | 5200            | 1   | 18.359                       | /     | Pass    |
|                |         |                 | 2   | 18.410                       | /     | Pass    |
|                |         | 5240            | 1   | 18.523                       | /     | Pass    |
|                |         |                 | 2   | 18.484                       | /     | Pass    |
|                |         | 5260            | 1   | 18.366                       | /     | Pass    |
|                |         |                 | 2   | 18.355                       | /     | Pass    |
|                |         | 5300            | 1   | 18.507                       | /     | Pass    |
|                |         |                 | 2   | 18.416                       | /     | Pass    |
|                |         | 5320            | 1   | 18.388                       | /     | Pass    |
|                |         |                 | 2   | 18.503                       | /     | Pass    |
|                |         | 5500            | 1   | 18.482                       | /     | Pass    |
|                |         |                 | 2   | 18.526                       | /     | Pass    |
|                |         | 5580            | 1   | 18.396                       | /     | Pass    |
|                |         |                 | 2   | 18.361                       | /     | Pass    |
|                |         | 5700            | 1   | 18.441                       | /     | Pass    |
|                |         |                 | 2   | 18.497                       | /     | Pass    |
|                |         | 5745            | 1   | 18.413                       | /     | Pass    |
|                |         |                 | 2   | 18.472                       | /     | Pass    |
| 802.11n (HT20) | MIMO    | 5180            | 1   | 19.298                       | /     | Pass    |
|                |         |                 | 2   | 18.832                       | /     | Pass    |
|                |         | 5200            | 1   | 19.089                       | /     | Pass    |
|                |         |                 | 2   | 18.854                       | /     | Pass    |
|                |         | 5240            | 1   | 19.291                       | /     | Pass    |
|                |         |                 | 2   | 18.930                       | /     | Pass    |
|                |         | 5260            | 1   | 19.217                       | /     | Pass    |
|                |         |                 | 2   | 18.854                       | /     | Pass    |
|                |         | 5300            | 1   | 19.381                       | /     | Pass    |
|                |         |                 | 2   | 18.843                       | /     | Pass    |
|                |         | 5320            | 1   | 19.296                       | /     | Pass    |
|                |         |                 | 2   | 18.846                       | /     | Pass    |
|                |         | 5500            | 1   | 19.397                       | /     | Pass    |
|                |         |                 | 2   | 18.823                       | /     | Pass    |
|                |         | 5580            | 1   | 19.316                       | /     | Pass    |
|                |         |                 | 2   | 18.810                       | /     | Pass    |
|                |         | 5700            | 1   | 19.335                       | /     | Pass    |
|                |         |                 | 2   | 18.909                       | /     | Pass    |
|                |         | 5745            | 1   | 19.335                       | /     | Pass    |
|                |         |                 | 2   | 18.908                       | /     | Pass    |
| 802.11n (HT40) | MIMO    | 5190            | 1   | 19.373                       | /     | Pass    |
|                |         |                 | 2   | 18.900                       | /     | Pass    |
|                |         | 5230            | 1   | 19.260                       | /     | Pass    |
|                |         |                 | 2   | 18.835                       | /     | Pass    |
|                |         | 5270            | 1   | 37.695                       | /     | Pass    |
|                |         |                 | 2   | 37.649                       | /     | Pass    |
|                |         | 5310            | 1   | 37.628                       | /     | Pass    |
|                |         |                 | 2   | 37.652                       | /     | Pass    |
|                |         | 5510            | 1   | 37.795                       | /     | Pass    |
|                |         |                 | 2   | 37.767                       | /     | Pass    |
|                |         | 5190            | 1   | 37.574                       | /     | Pass    |
|                |         |                 | 2   | 37.722                       | /     | Pass    |
|                |         | 5230            | 1   | 37.799                       | /     | Pass    |
|                |         |                 | 2   | 37.360                       | /     | Pass    |
|                |         | 5270            | 1   | 37.570                       | /     | Pass    |
|                |         |                 | 2   |                              |       |         |
|                |         | 5310            | 1   |                              |       |         |
|                |         |                 | 2   |                              |       |         |
|                |         | 5510            | 1   |                              |       |         |
|                |         |                 | 2   |                              |       |         |

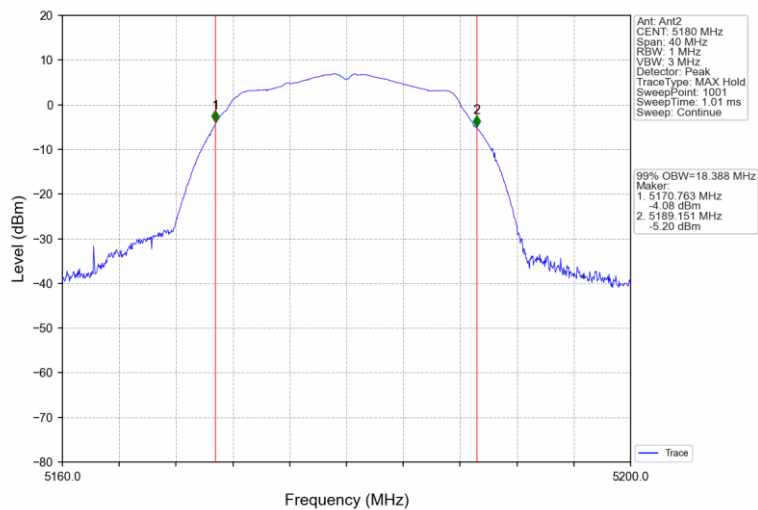
|                     |      |      |   |        |   |      |
|---------------------|------|------|---|--------|---|------|
|                     |      | 5670 | 2 | 37.598 | / | Pass |
|                     |      |      | 1 | 37.734 | / | Pass |
|                     |      |      | 2 | 37.464 | / | Pass |
|                     |      | 5755 | 1 | 37.774 | / | Pass |
|                     |      |      | 2 | 37.480 | / | Pass |
|                     |      | 5795 | 1 | 37.644 | / | Pass |
|                     |      |      | 2 | 37.402 | / | Pass |
| 802.11ac<br>(VHT20) | MIMO | 5180 | 1 | 19.196 | / | Pass |
|                     |      |      | 2 | 18.825 | / | Pass |
|                     |      | 5200 | 1 | 19.125 | / | Pass |
|                     |      |      | 2 | 18.872 | / | Pass |
|                     |      | 5240 | 1 | 19.273 | / | Pass |
|                     |      |      | 2 | 18.910 | / | Pass |
|                     |      | 5260 | 1 | 19.240 | / | Pass |
|                     |      |      | 2 | 18.884 | / | Pass |
|                     |      | 5300 | 1 | 19.427 | / | Pass |
|                     |      |      | 2 | 18.866 | / | Pass |
|                     |      | 5320 | 1 | 19.227 | / | Pass |
|                     |      |      | 2 | 18.891 | / | Pass |
|                     |      | 5500 | 1 | 19.401 | / | Pass |
|                     |      |      | 2 | 18.906 | / | Pass |
|                     |      | 5580 | 1 | 19.353 | / | Pass |
|                     |      |      | 2 | 18.787 | / | Pass |
|                     |      | 5700 | 1 | 19.353 | / | Pass |
|                     |      |      | 2 | 18.855 | / | Pass |
|                     |      | 5745 | 1 | 19.305 | / | Pass |
|                     |      |      | 2 | 18.913 | / | Pass |
|                     |      | 5785 | 1 | 19.307 | / | Pass |
|                     |      |      | 2 | 18.887 | / | Pass |
|                     |      | 5825 | 1 | 19.325 | / | Pass |
|                     |      |      | 2 | 18.897 | / | Pass |
| 802.11ac<br>(VHT40) | MIMO | 5190 | 1 | 37.672 | / | Pass |
|                     |      |      | 2 | 37.724 | / | Pass |
|                     |      | 5230 | 1 | 37.609 | / | Pass |
|                     |      |      | 2 | 37.682 | / | Pass |
|                     |      | 5270 | 1 | 37.737 | / | Pass |
|                     |      |      | 2 | 37.725 | / | Pass |
|                     |      | 5310 | 1 | 37.648 | / | Pass |
|                     |      |      | 2 | 37.686 | / | Pass |
|                     |      | 5510 | 1 | 37.792 | / | Pass |
|                     |      |      | 2 | 37.377 | / | Pass |
|                     |      | 5550 | 1 | 37.588 | / | Pass |
|                     |      |      | 2 | 37.565 | / | Pass |
|                     |      | 5670 | 1 | 37.771 | / | Pass |
|                     |      |      | 2 | 37.454 | / | Pass |
|                     |      | 5755 | 1 | 37.689 | / | Pass |
|                     |      |      | 2 | 37.464 | / | Pass |
|                     |      | 5795 | 1 | 37.600 | / | Pass |
|                     |      |      | 2 | 37.531 | / | Pass |
| 802.11ac<br>(VHT80) | MIMO | 5210 | 1 | 76.121 | / | Pass |
|                     |      |      | 2 | 76.645 | / | Pass |
|                     |      | 5290 | 1 | 76.377 | / | Pass |
|                     |      |      | 2 | 76.554 | / | Pass |
|                     |      | 5530 | 1 | 76.066 | / | Pass |
|                     |      |      | 2 | 75.980 | / | Pass |
|                     |      | 5610 | 1 | 76.230 | / | Pass |
|                     |      |      | 2 | 76.007 | / | Pass |
|                     |      | 5775 | 1 | 76.563 | / | Pass |
|                     |      |      | 2 | 75.857 | / | Pass |

## 99% Bandwidth test Graphs

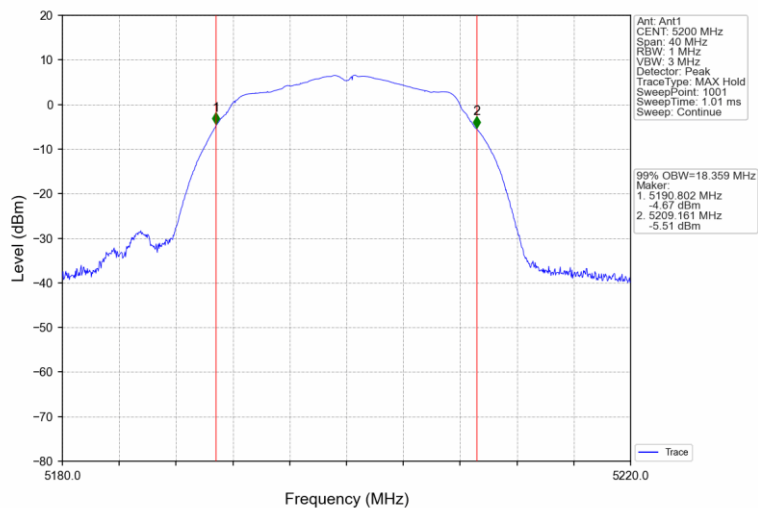
802.11a\_LCH\_5180MHz\_Ant1\_NTNV



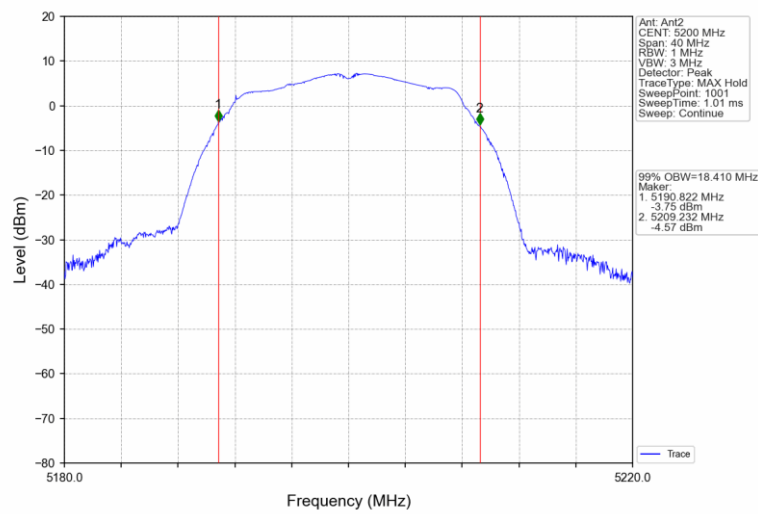
802.11a\_LCH\_5180MHz\_Ant2\_NTNV



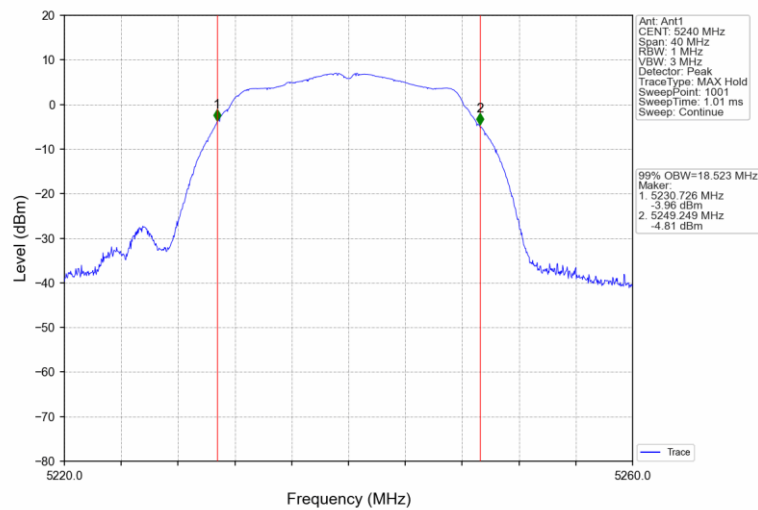
802.11a\_MCH\_5200MHz\_Ant1\_NTNV



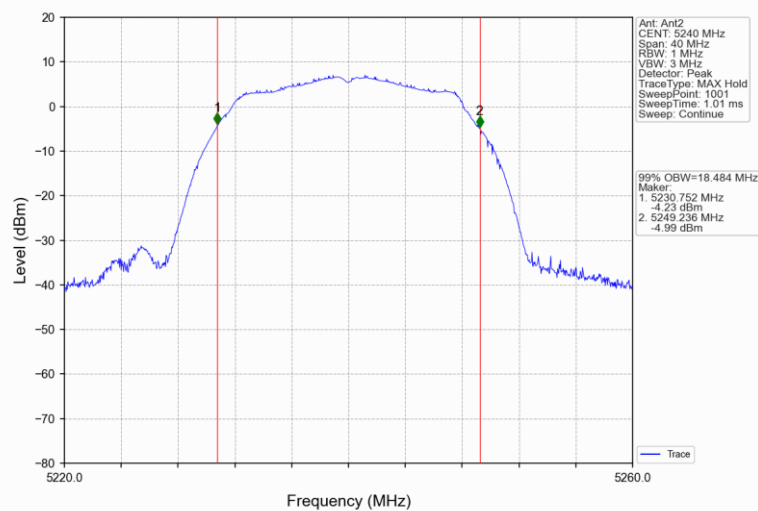
## 802.11a\_MCH\_5200MHz\_Ant2\_NTNV



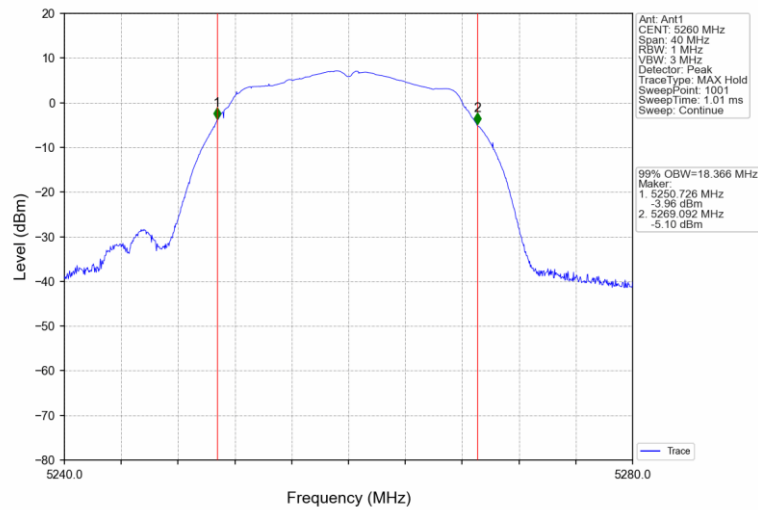
## 802.11a\_HCH\_5240MHz\_Ant1\_NTNV



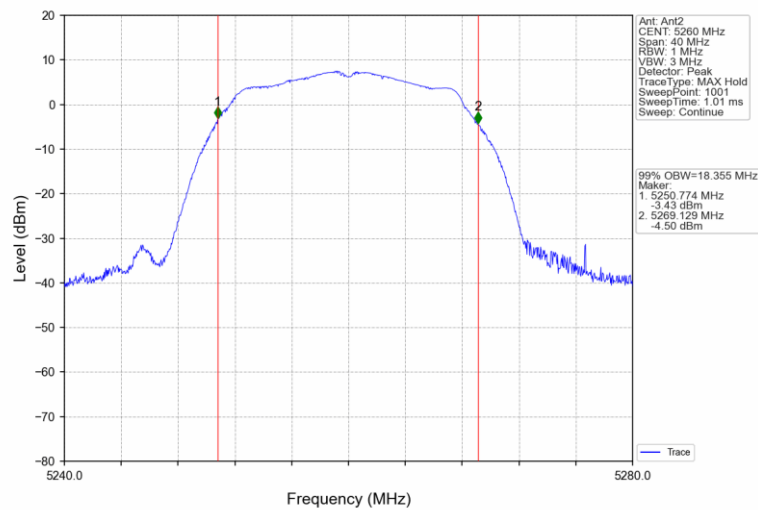
## 802.11a\_HCH\_5240MHz\_Ant2\_NTNV



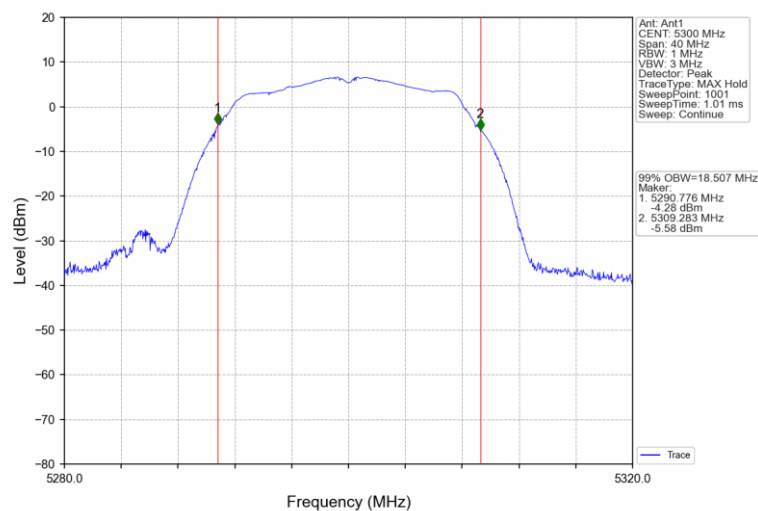
## 802.11a\_LCH\_5260MHz\_Ant1\_NTNV



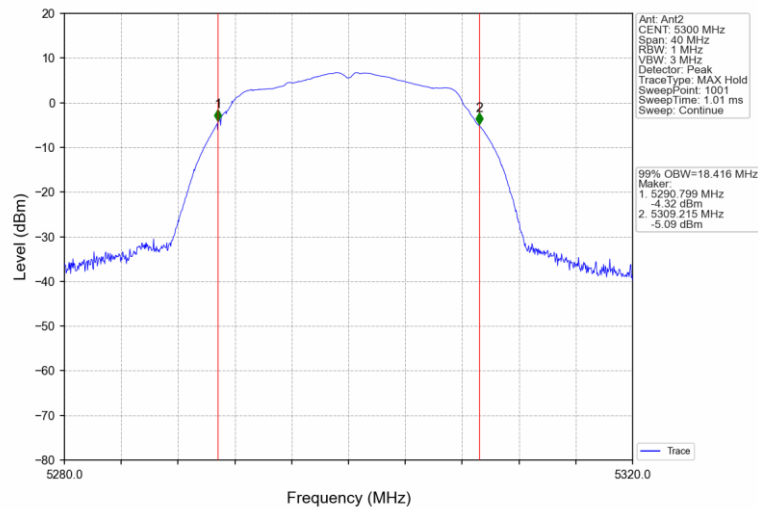
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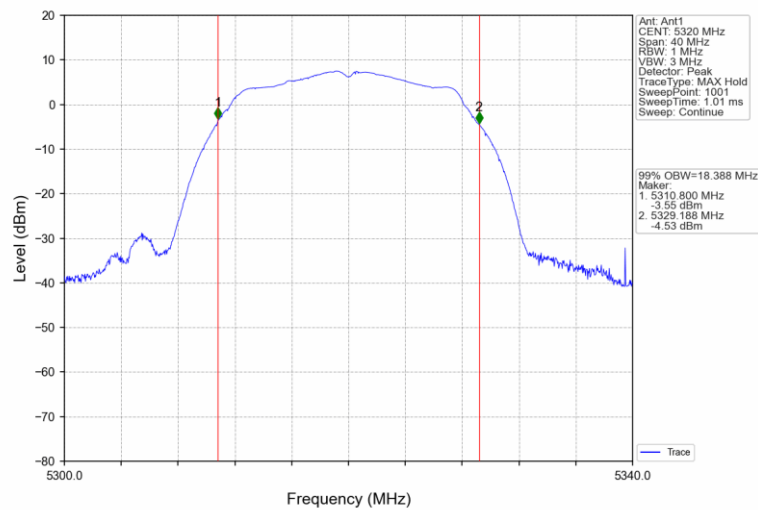
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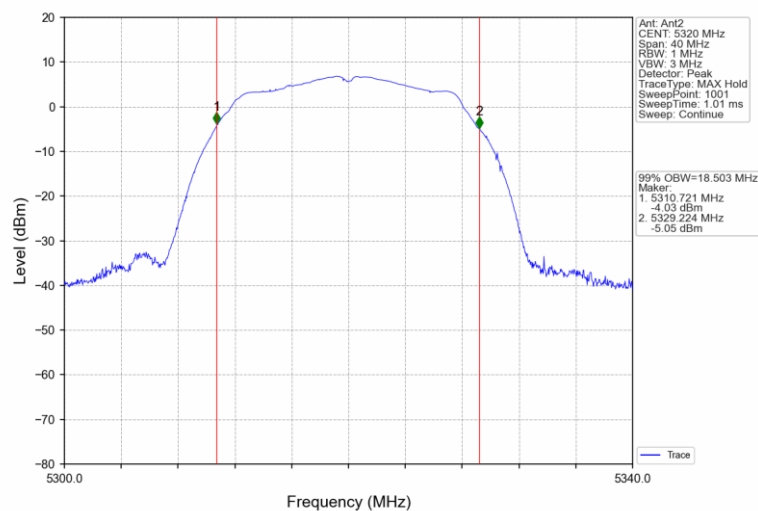
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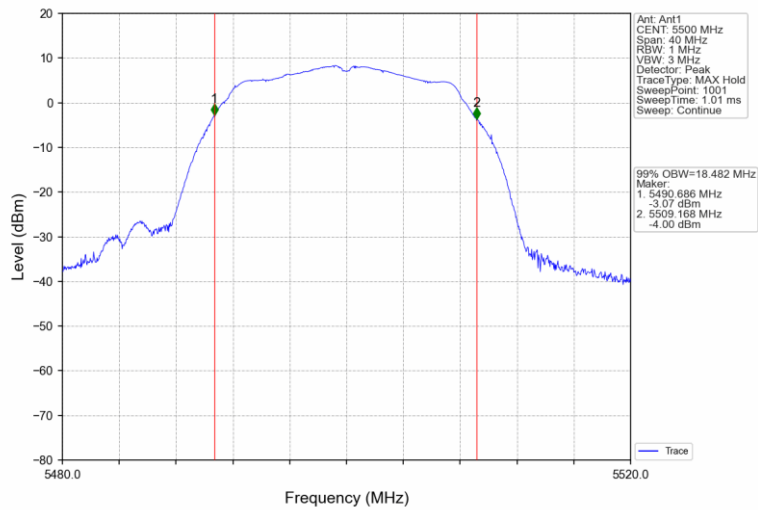
802.11a\_HCH\_5320MHz\_Ant1\_NTNV



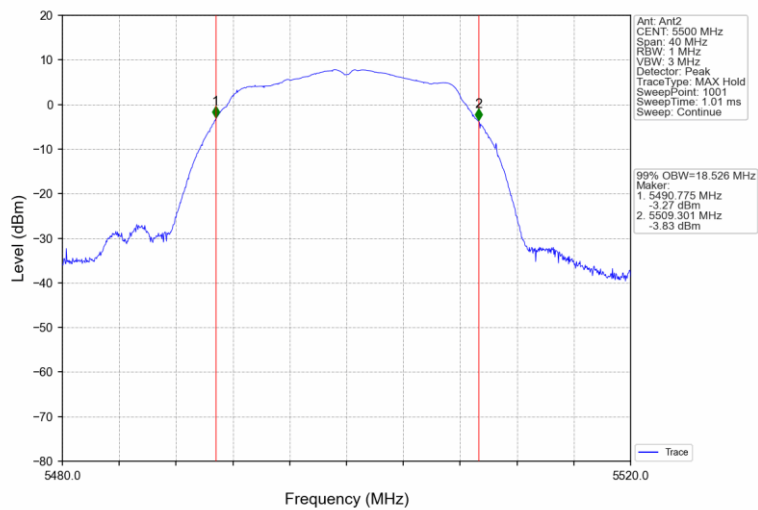
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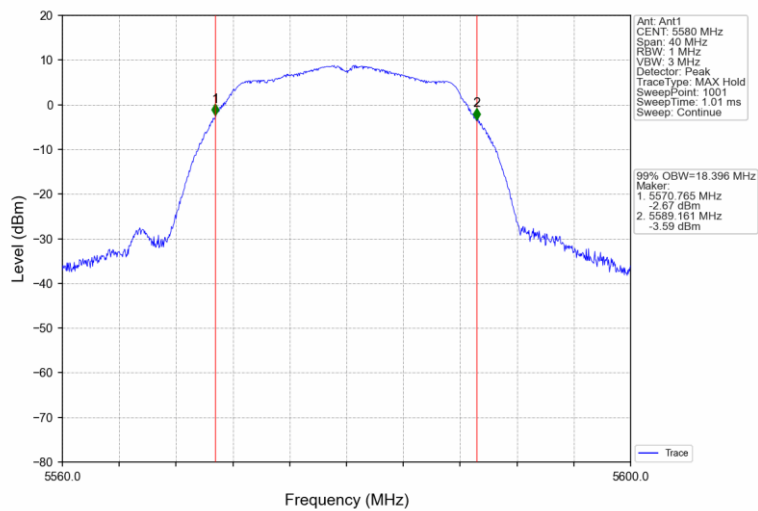
802.11a\_LCH\_5500MHz\_Ant1\_NTNV



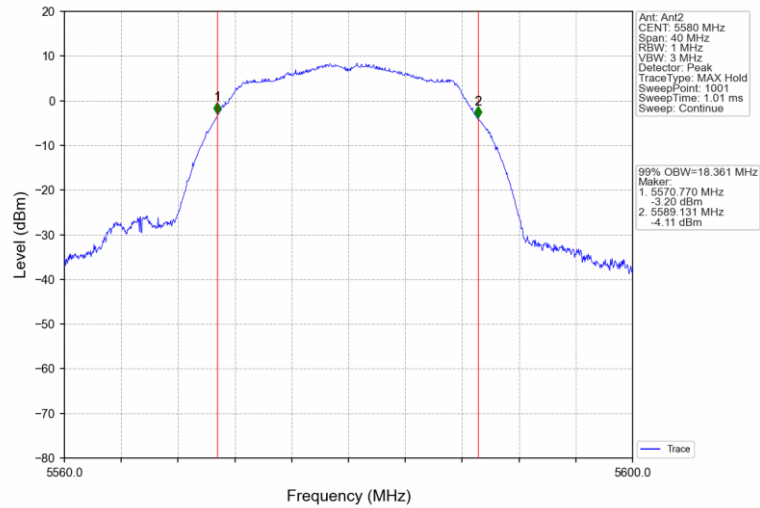
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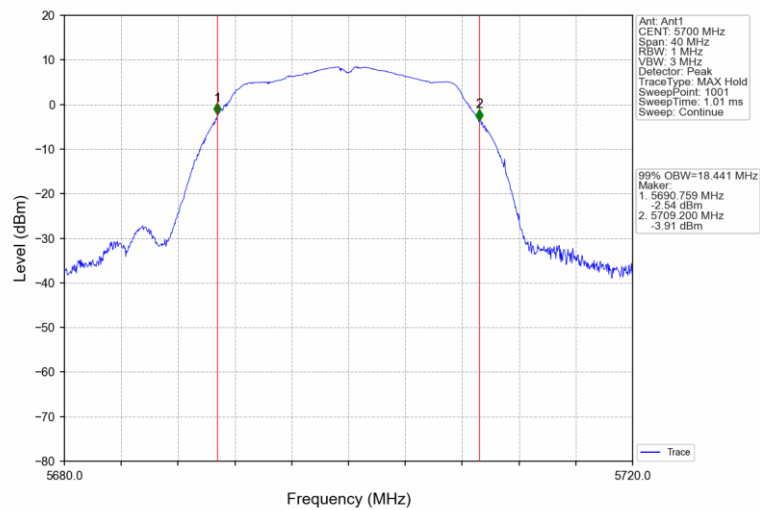
802.11a\_MCH\_5580MHz\_Ant1\_NTNV



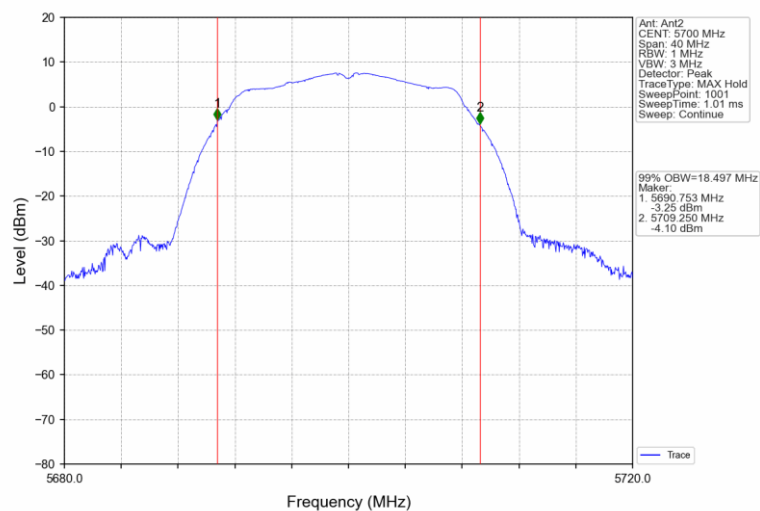
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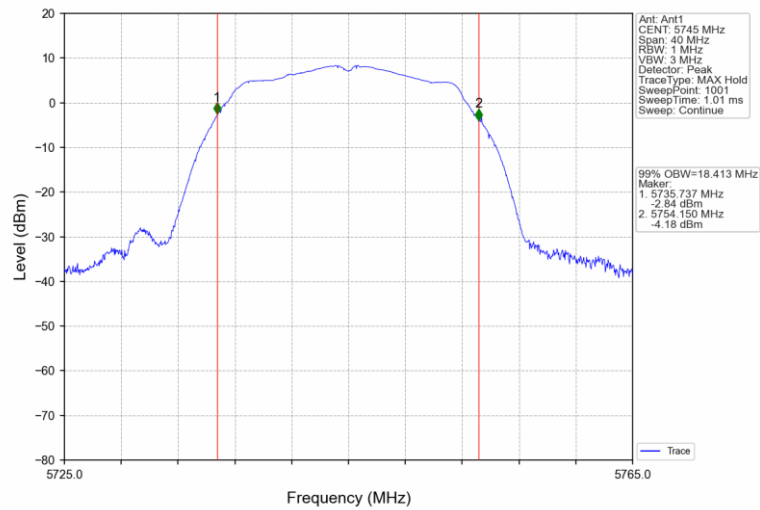
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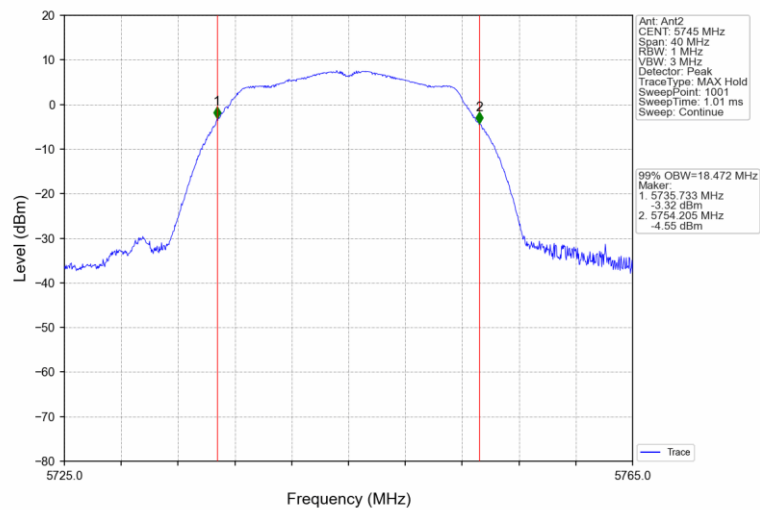
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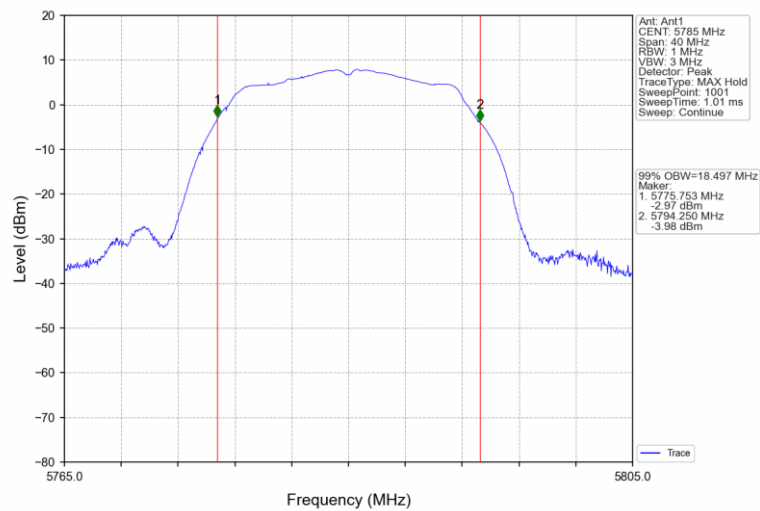
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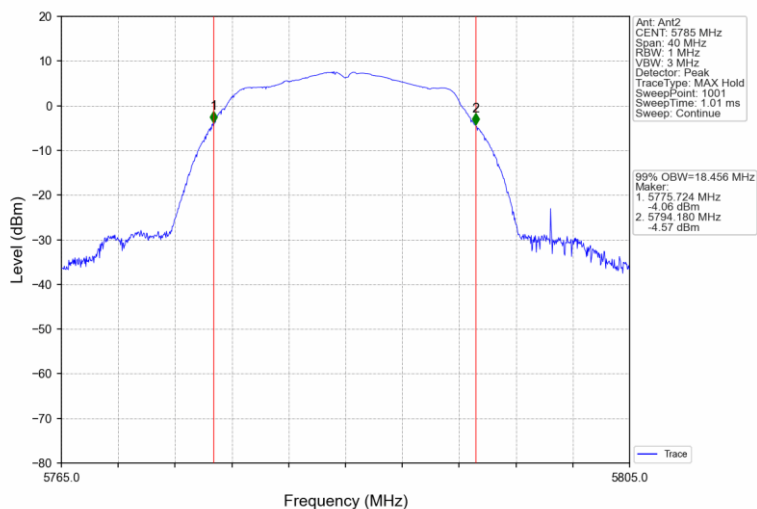
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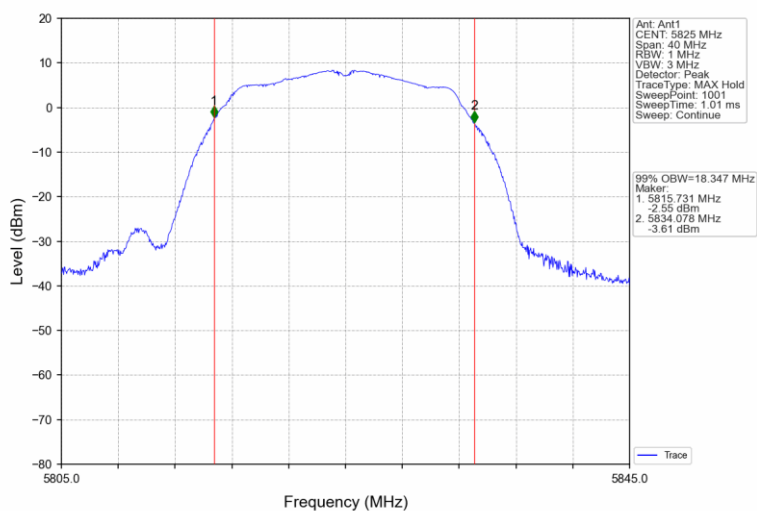
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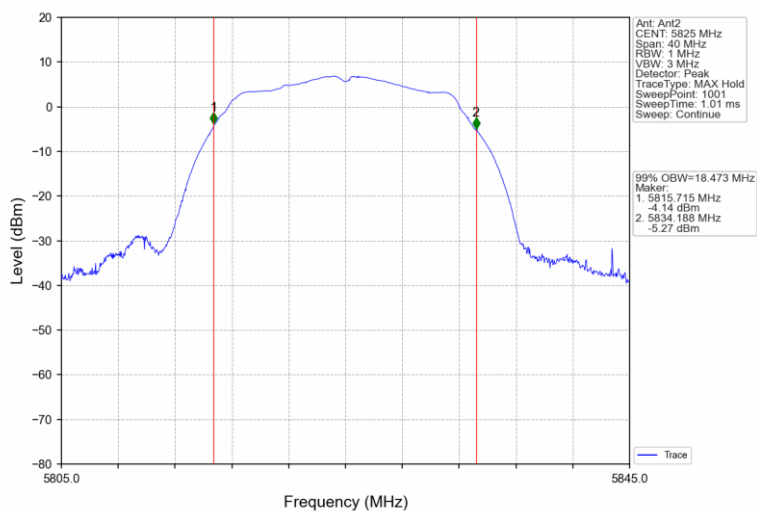
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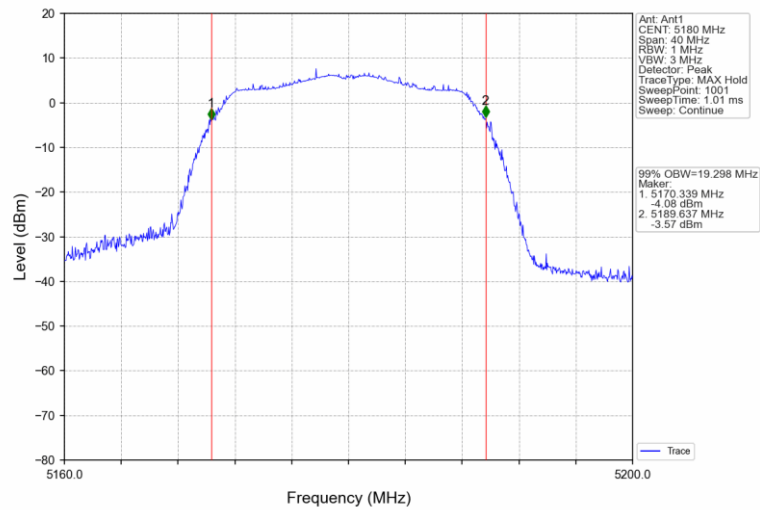
802.11a\_HCH\_5825MHz\_Ant1\_NTNV



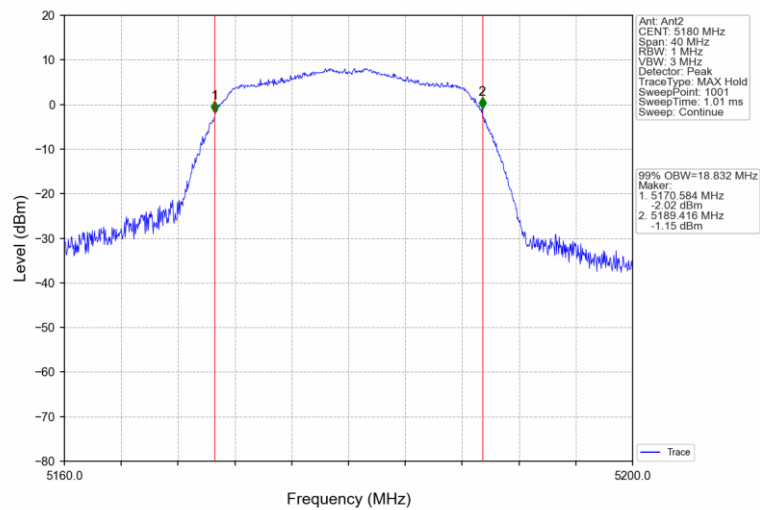
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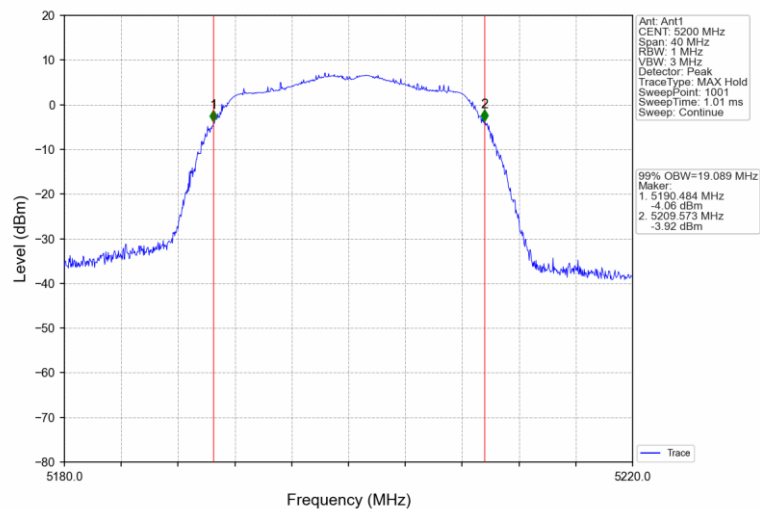
802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV



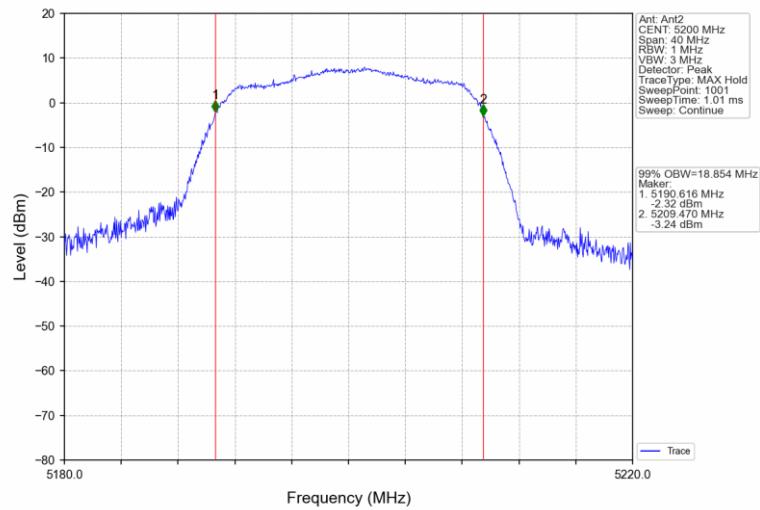
802.11n(HT20)\_LCH\_5180MHz\_Ant2\_NTNV



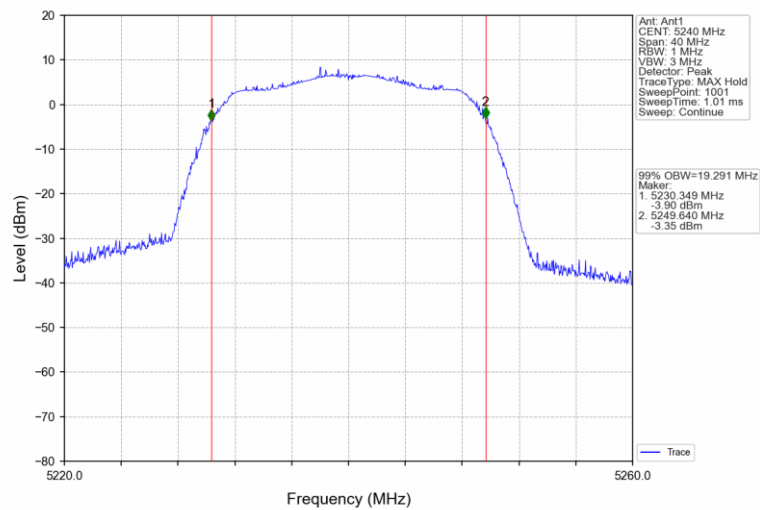
802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



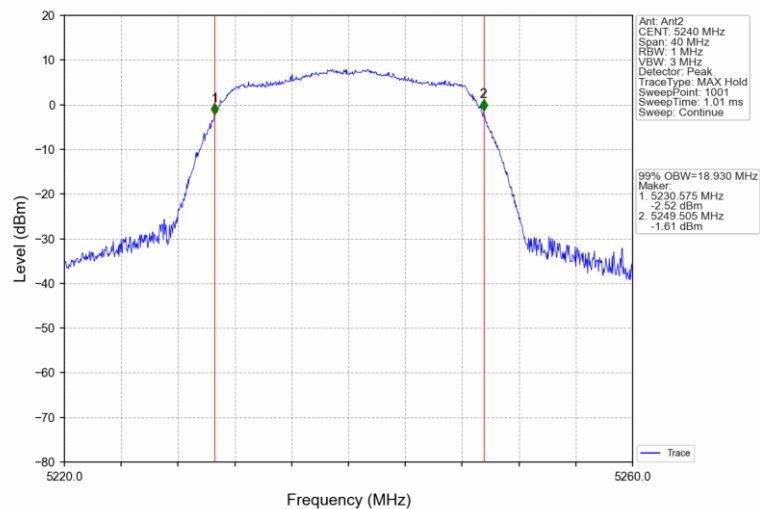
802.11n(HT20)\_MCH\_5200MHz\_Ant2\_NTNV



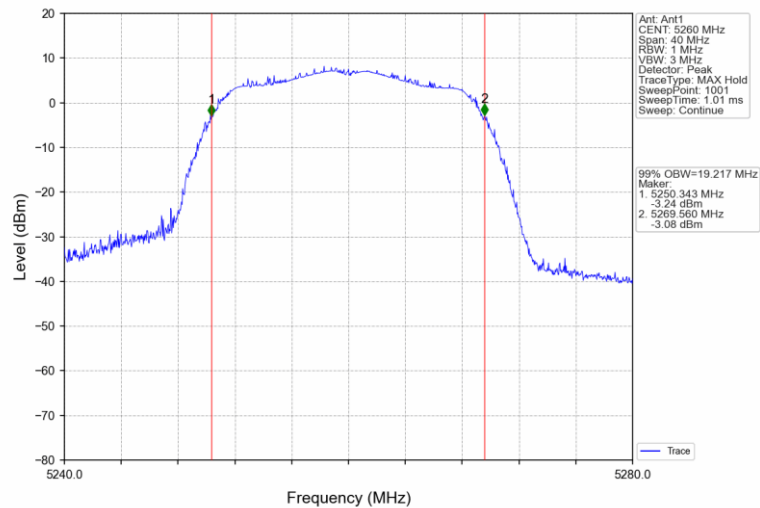
802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



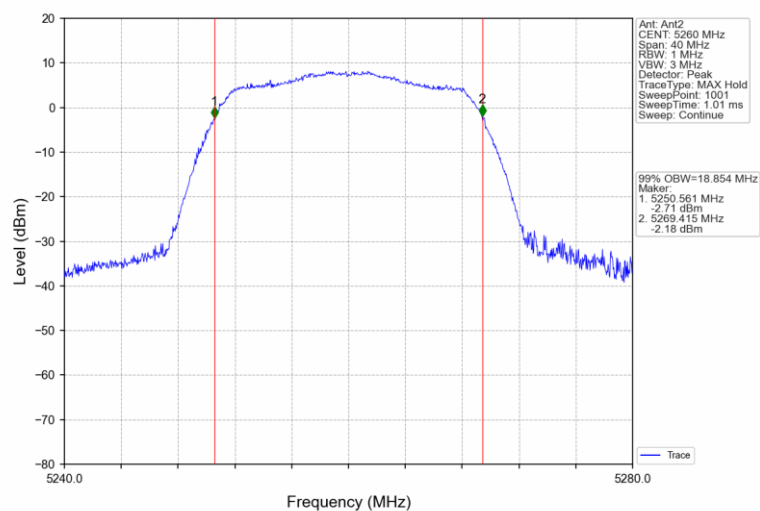
802.11n(HT20)\_HCH\_5240MHz\_Ant2\_NTNV



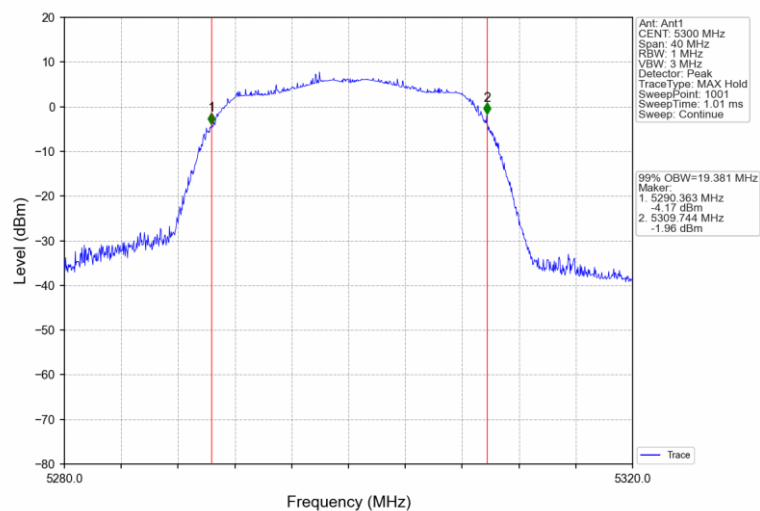
802.11n(HT20)\_LCH\_5260MHz\_Ant1\_NTNV



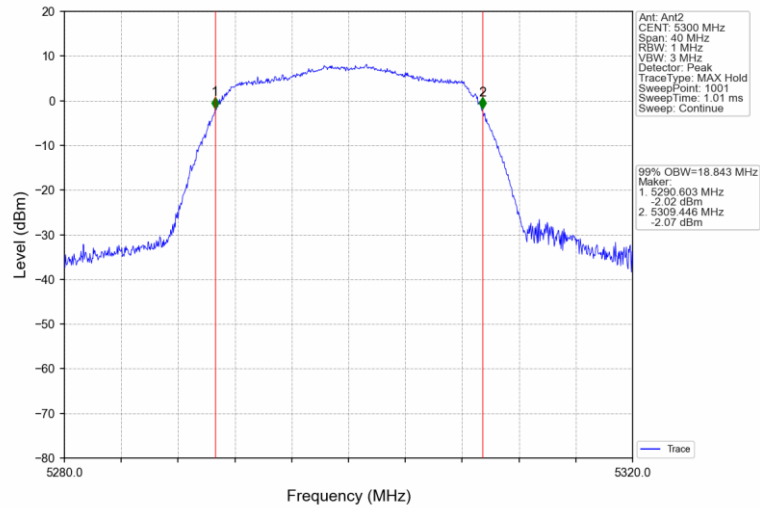
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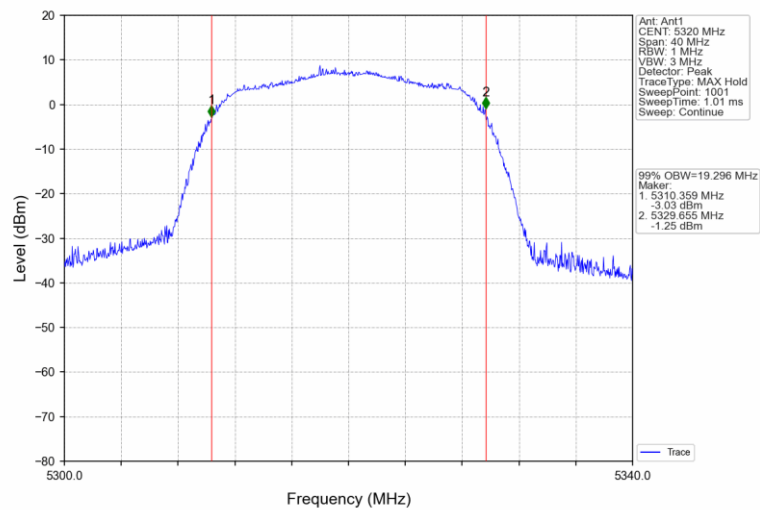
802.11n(HT20)\_MCH\_5300MHz\_Ant1\_NTNV



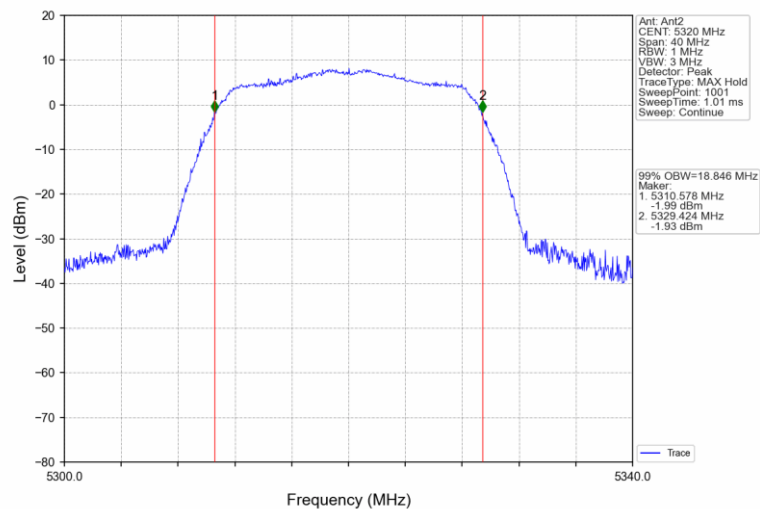
802.11n(HT20)\_MCH\_5300MHz\_Ant2\_NTNV



802.11n(HT20)\_HCH\_5320MHz\_Ant1\_NTNV



802.11n(HT20)\_HCH\_5320MHz\_Ant2\_NTNV



802.11n(HT20)\_LCH\_5500MHz\_Ant1\_NTNV