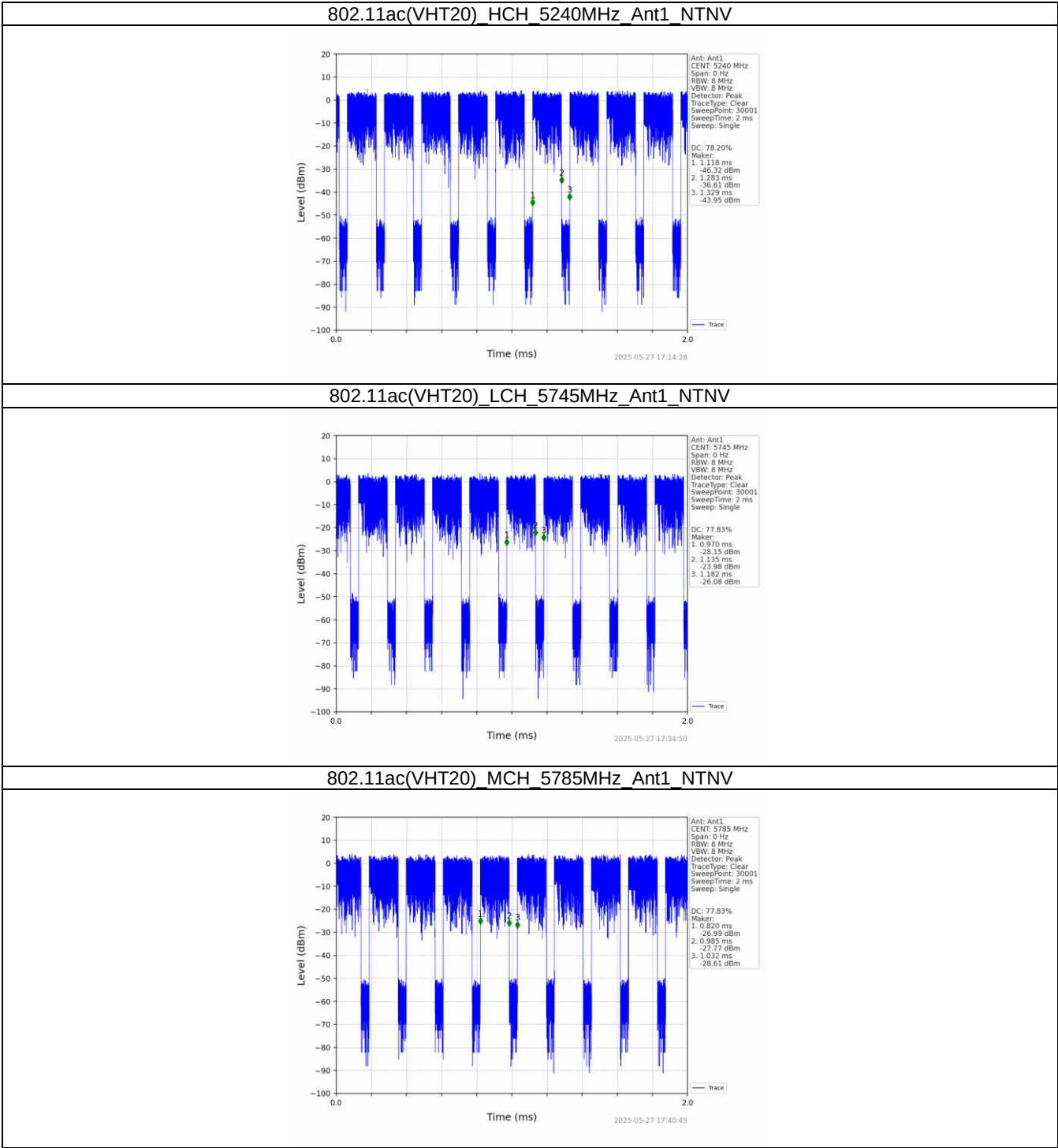
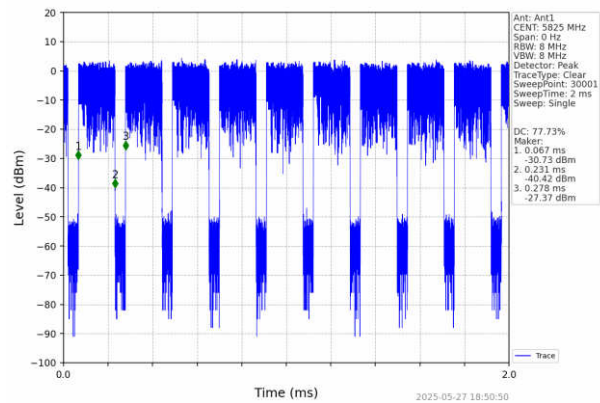
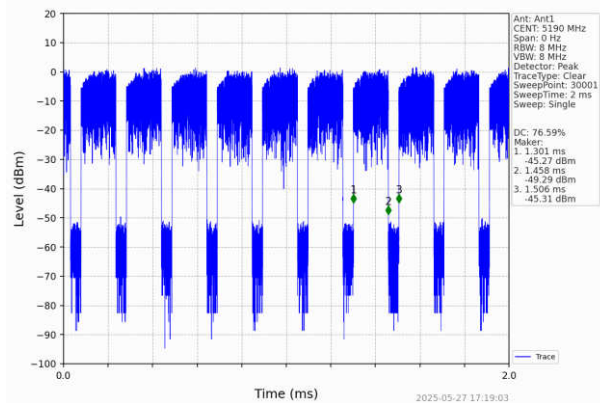




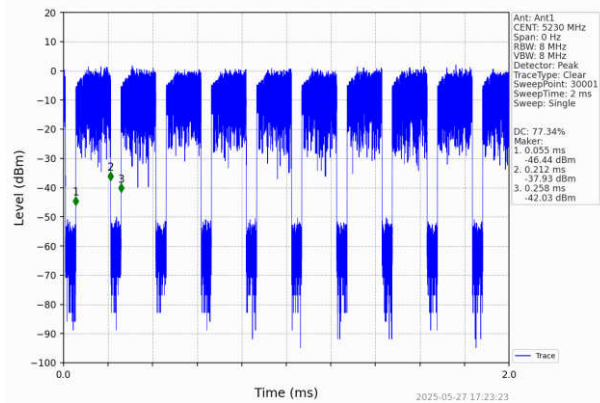
802.11ac(VHT20)\_HCH\_5825MHz\_Ant1\_NTNV

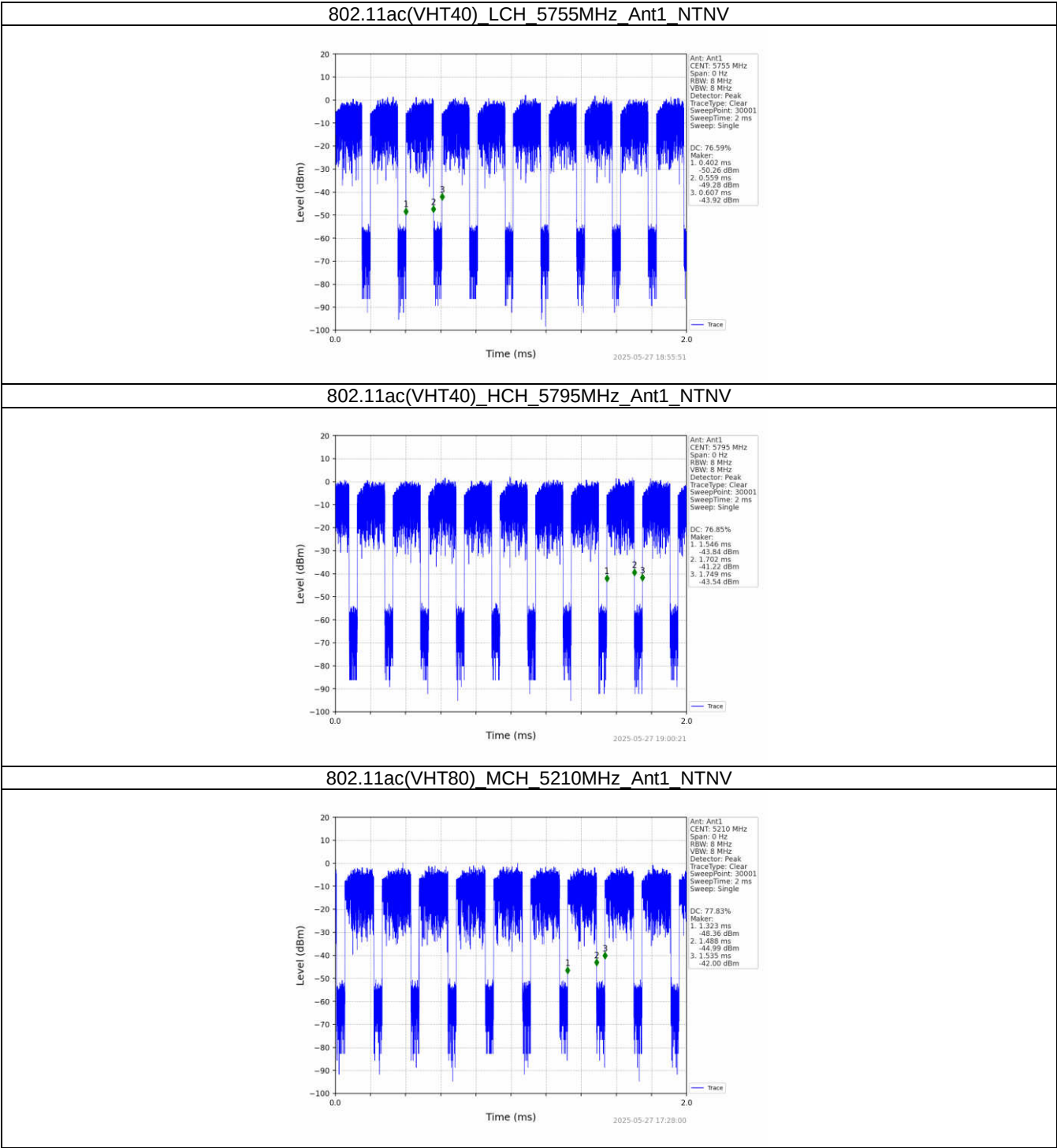


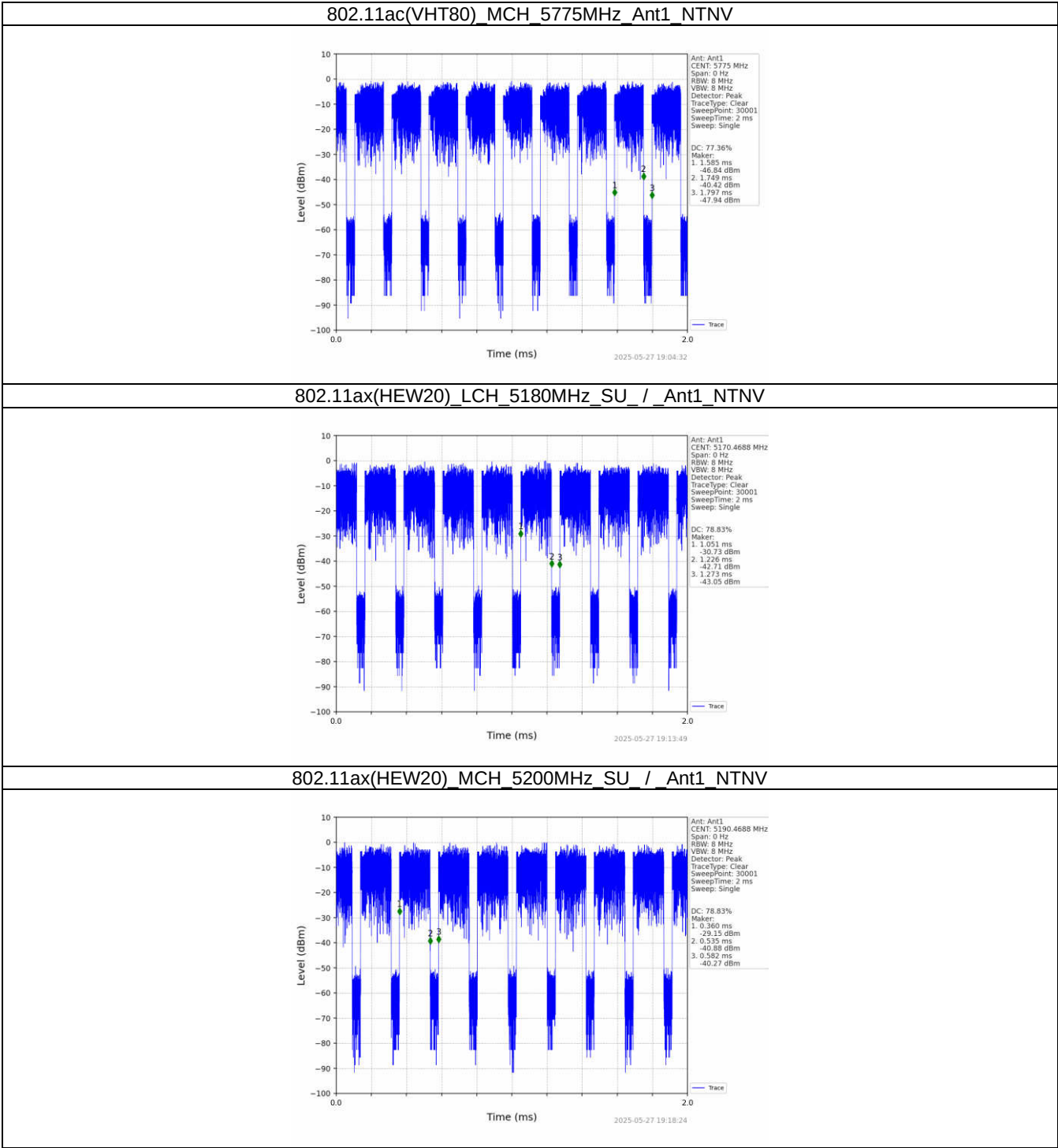
802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV

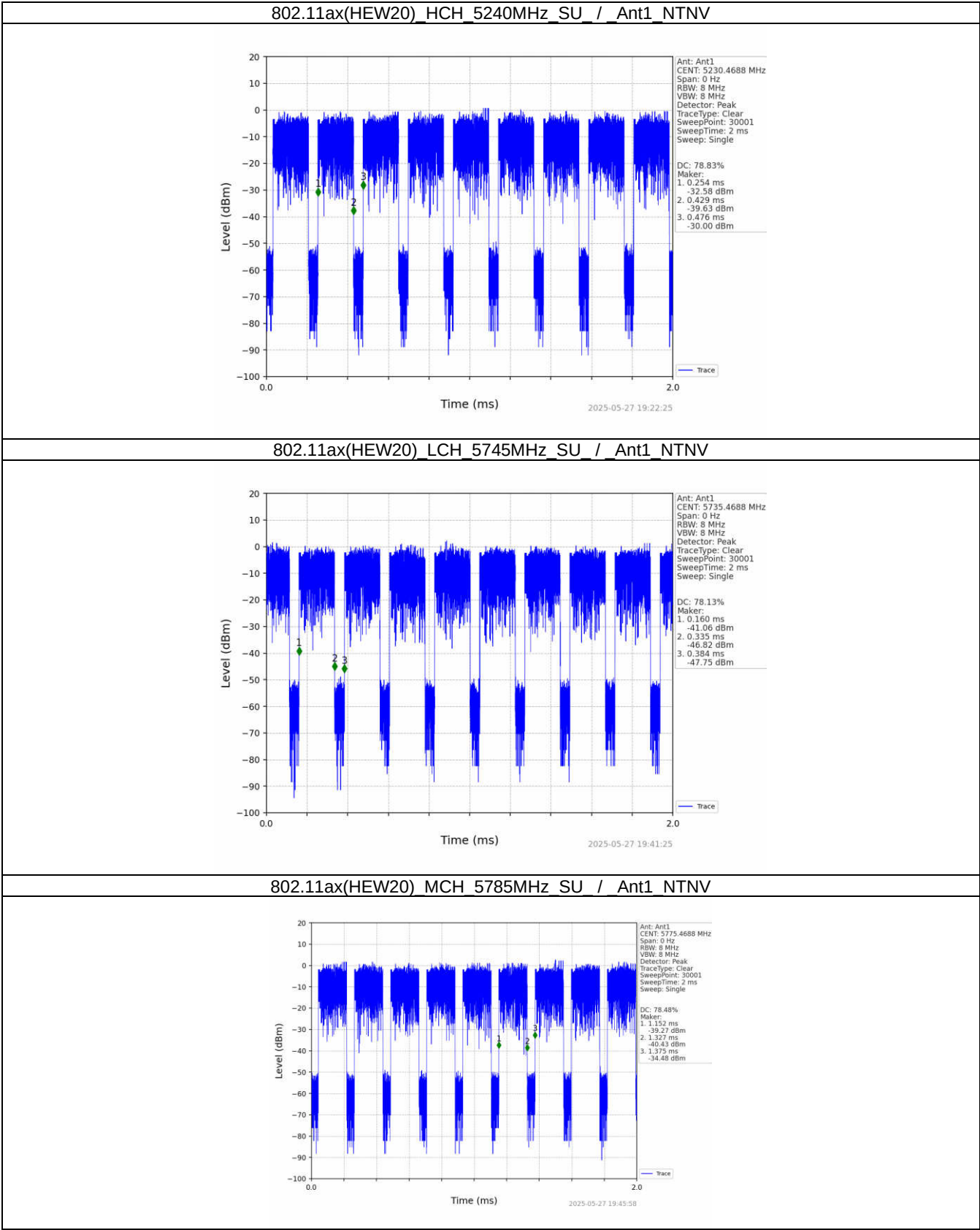


802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV

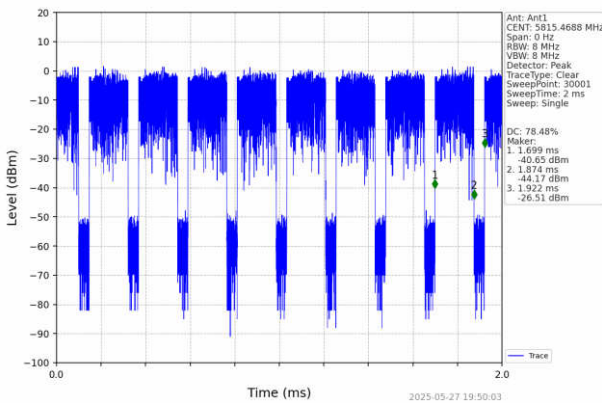




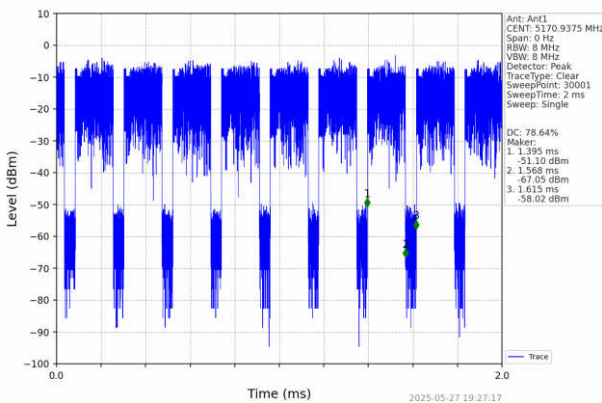




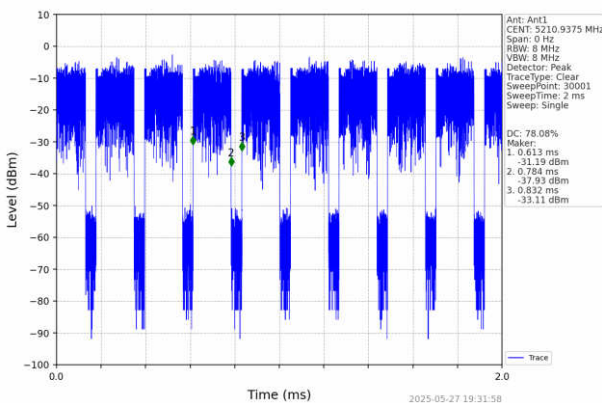
802.11ax(HEW20)\_HCH\_5825MHz\_SU / Ant1\_NTNV



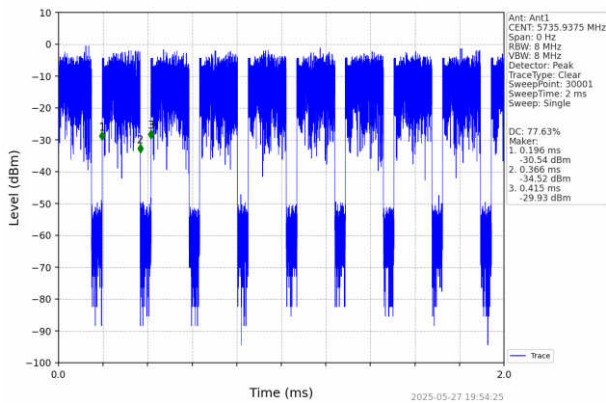
802.11ax(HEW40)\_LCH\_5190MHz\_SU / Ant1\_NTNV



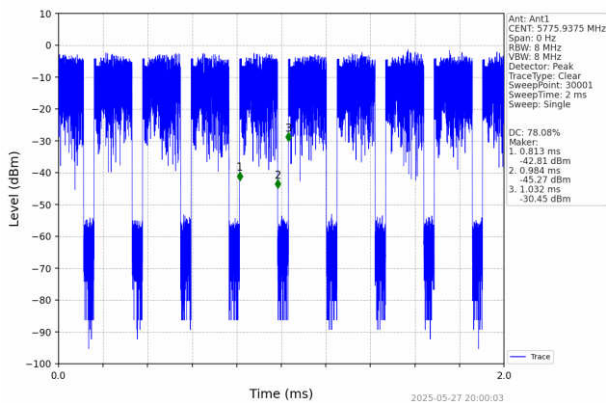
802.11ax(HEW40)\_HCH\_5230MHz\_SU / Ant1\_NTNV



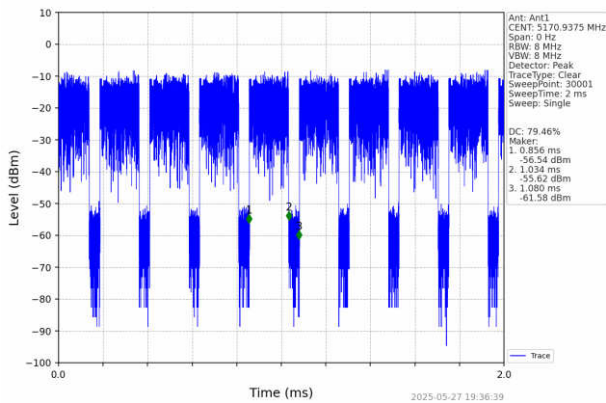
802.11ax(HEW40)\_LCH\_5755MHz\_SU / Ant1\_NTNV



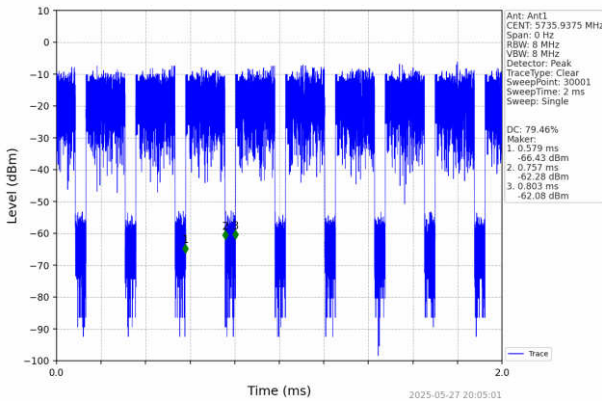
802.11ax(HEW40)\_HCH\_5795MHz\_SU / Ant1\_NTNV



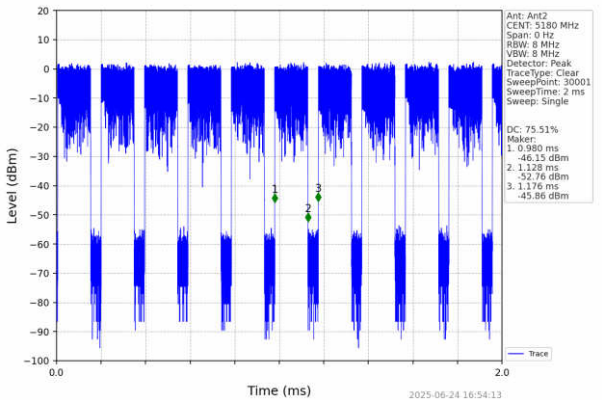
802.11ax(HEW80)\_MCH\_5210MHz\_SU / Ant1\_NTNV



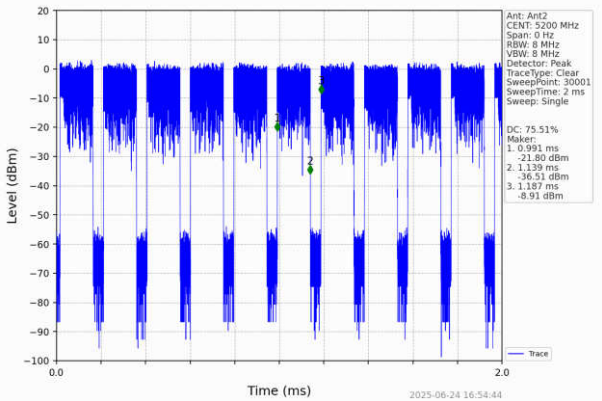
802.11ax(HEW80) MCH\_5775MHz\_SU / Ant1 NTN

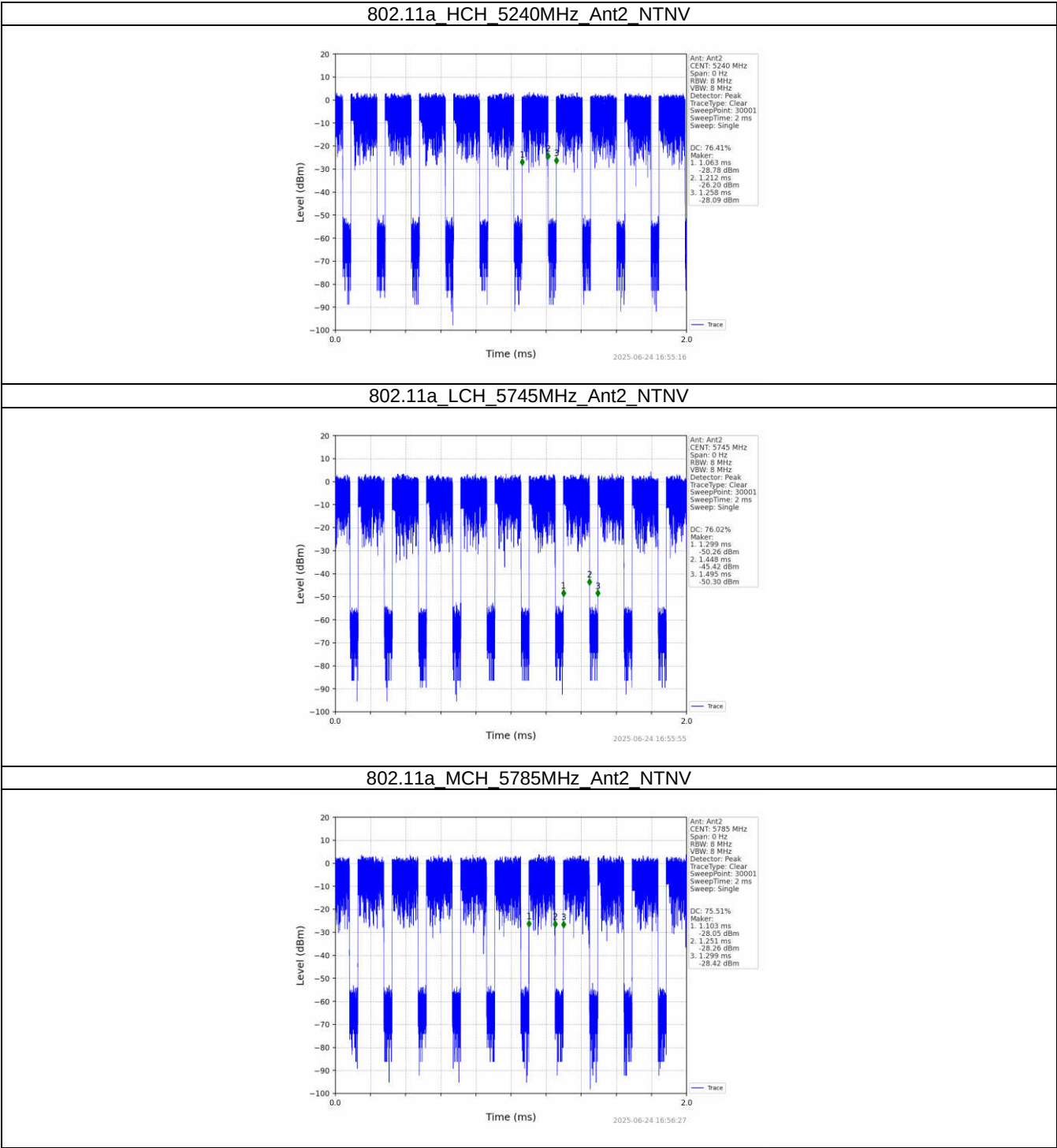


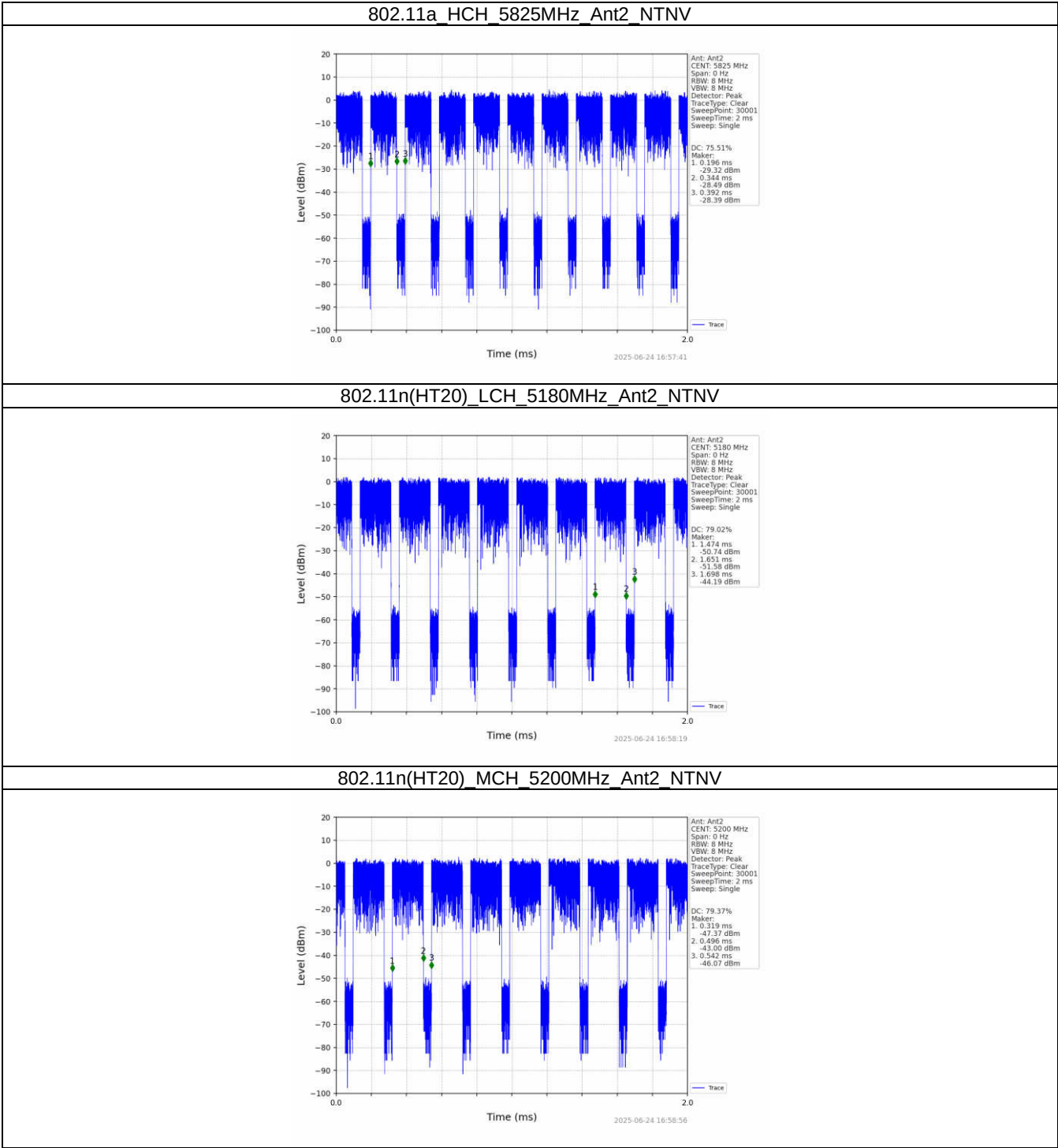
802.11a\_LCH\_5180MHz\_Ant2 NTN



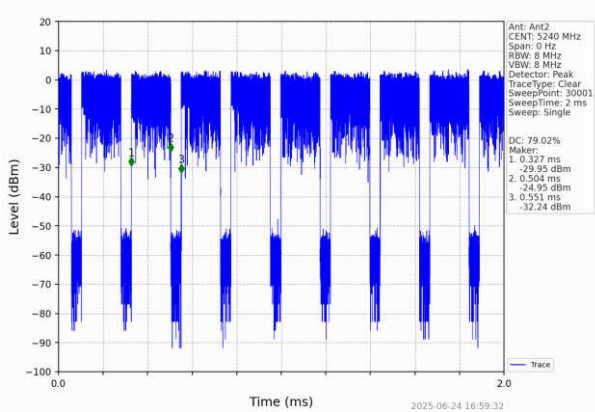
802.11a MCH\_5200MHz\_Ant2 NTN



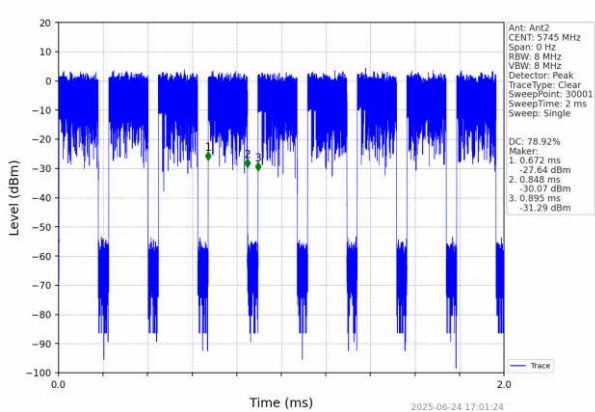




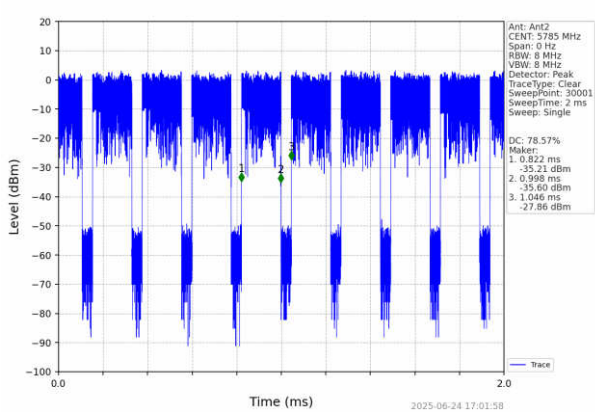
802.11n(HT20) HCH 5240MHz Ant2 NTN

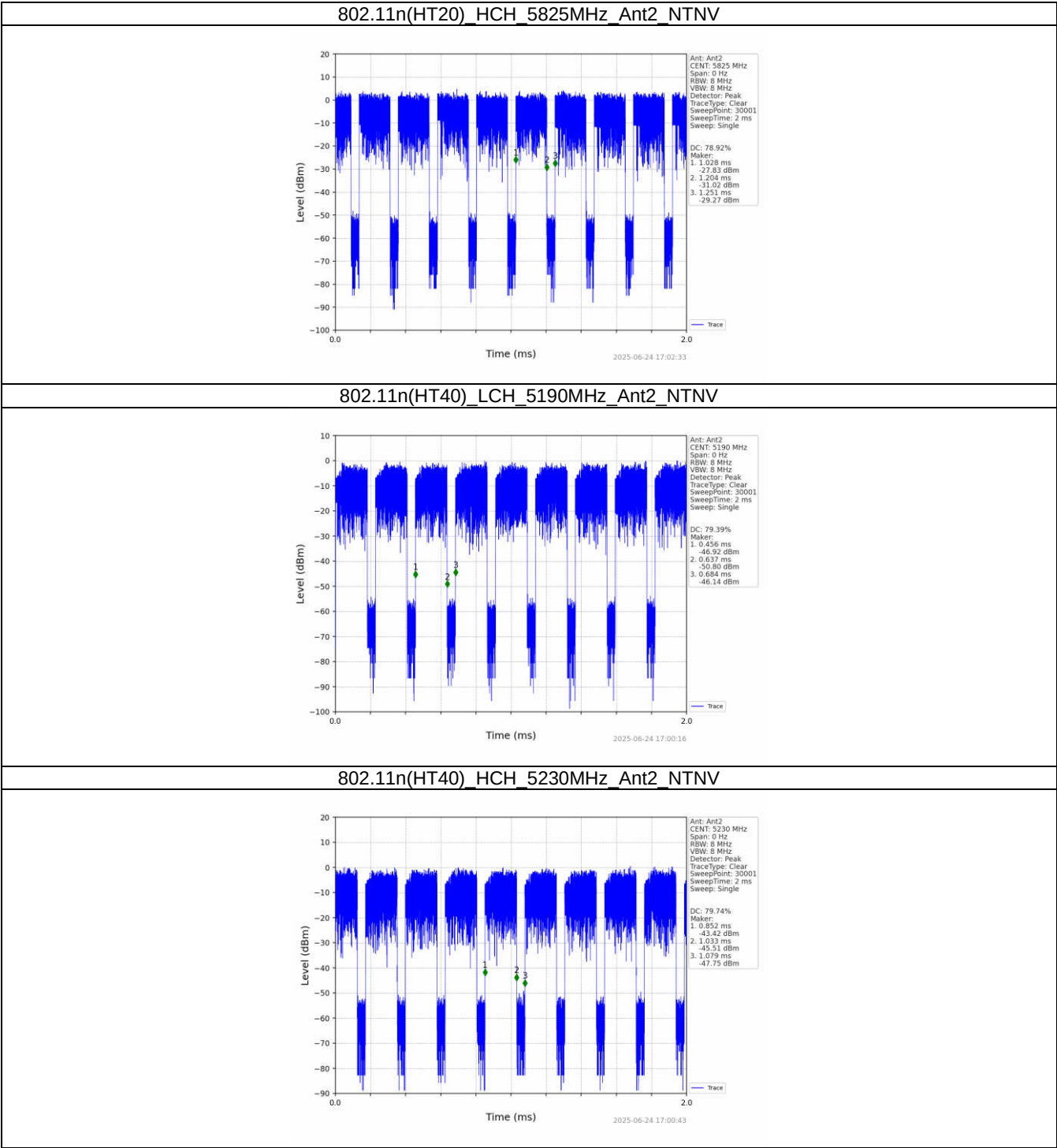


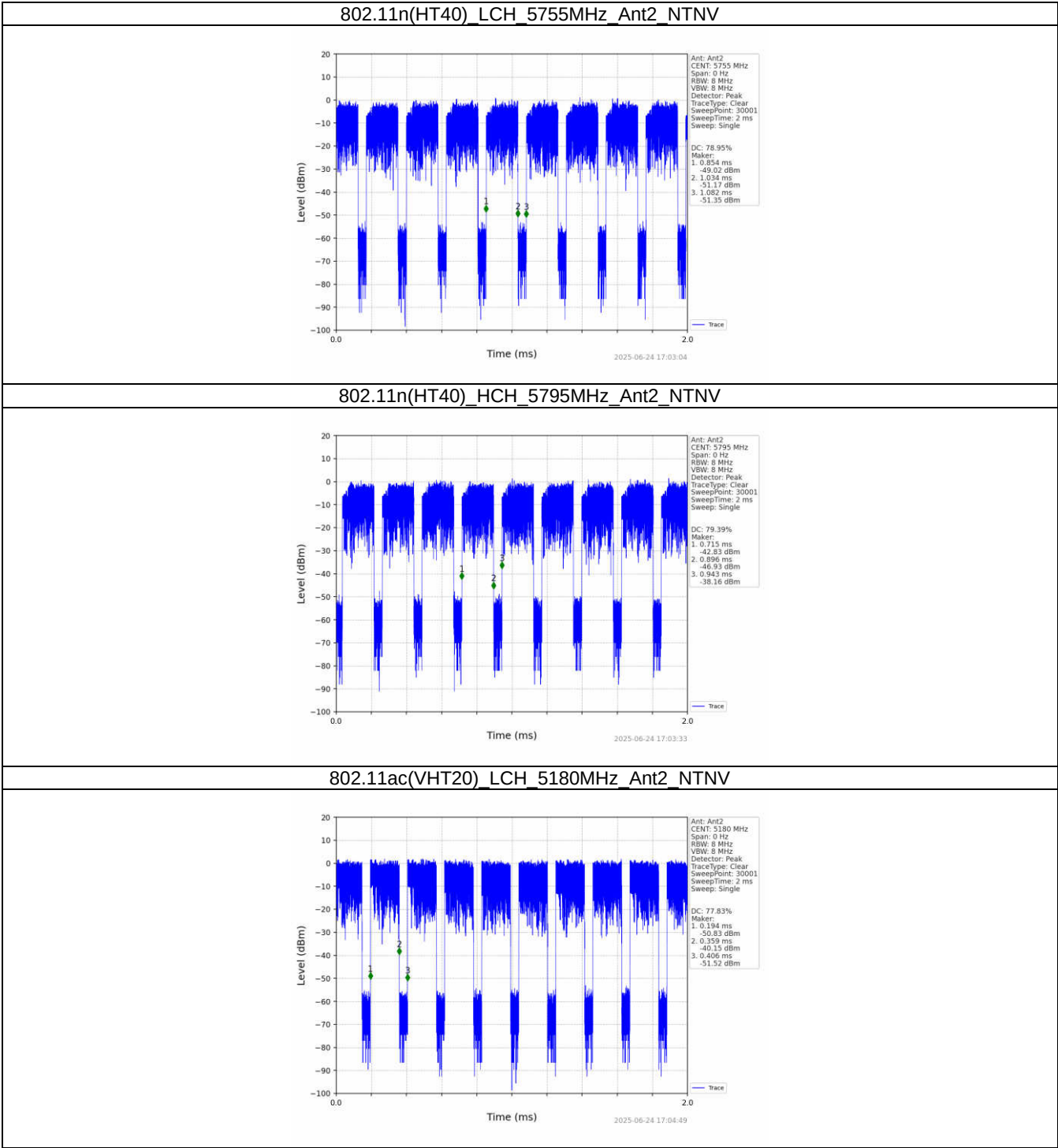
802.11n(HT20) LCH 5745MHz Ant2 NTN

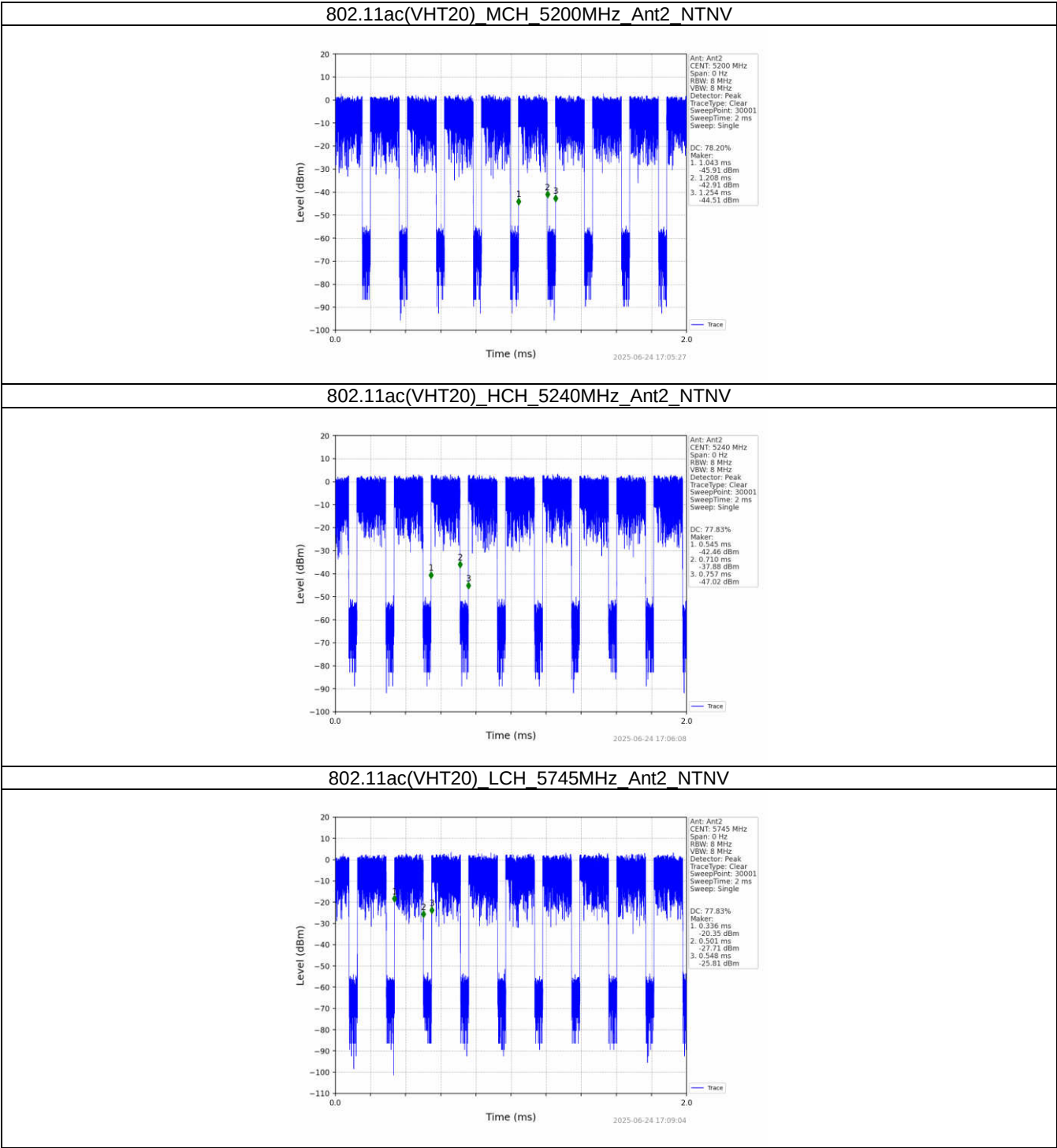


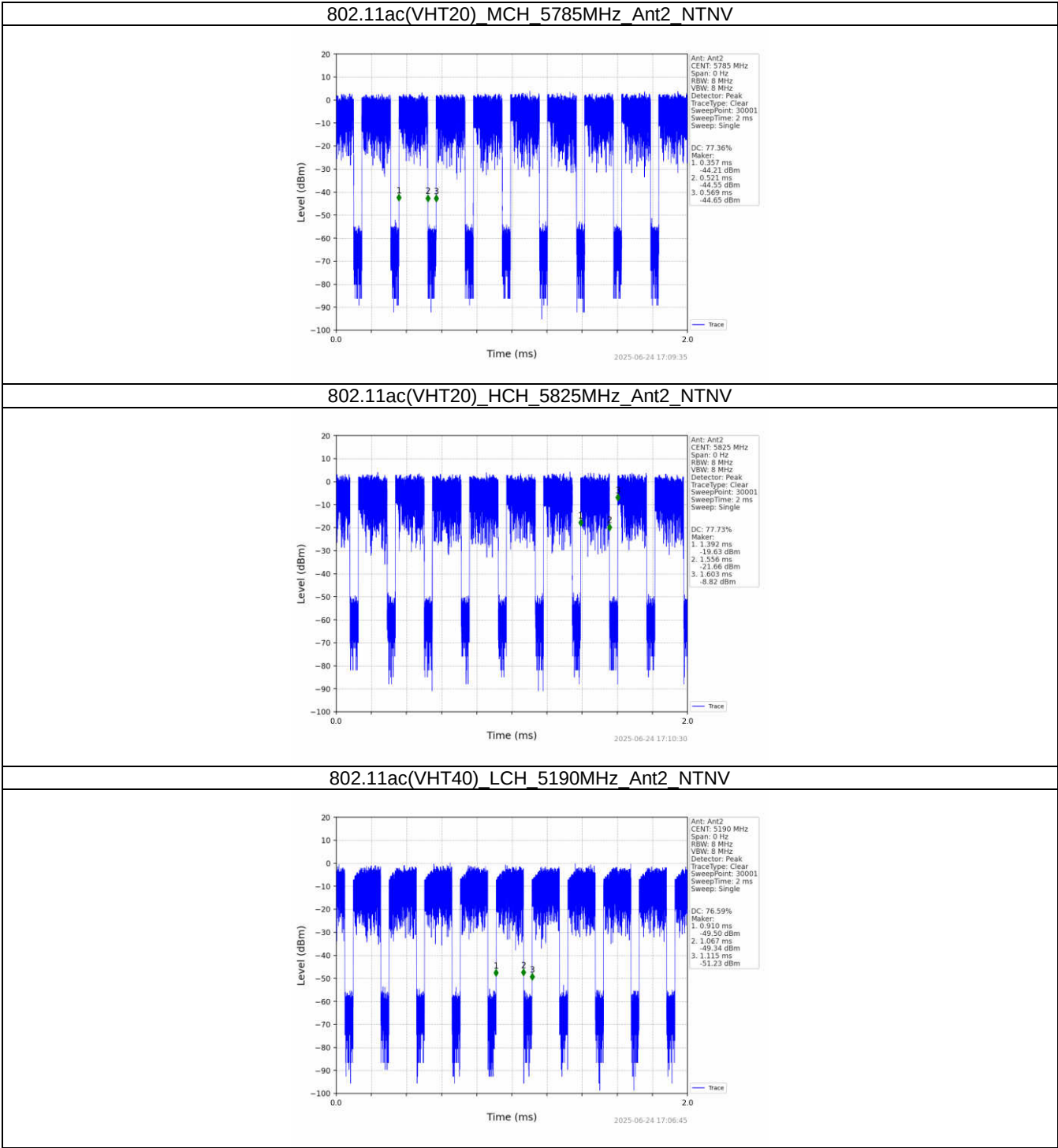
802.11n(HT20) MCH 5785MHz Ant2 NTN



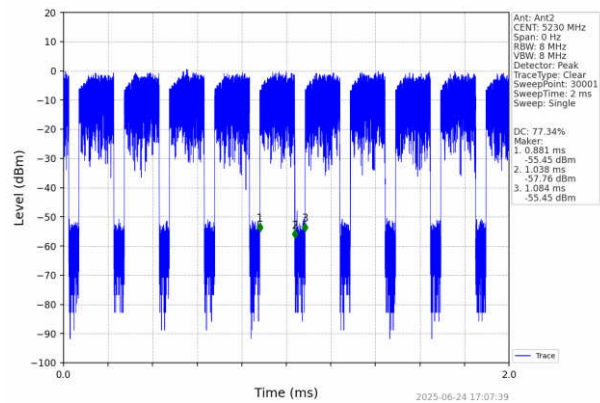




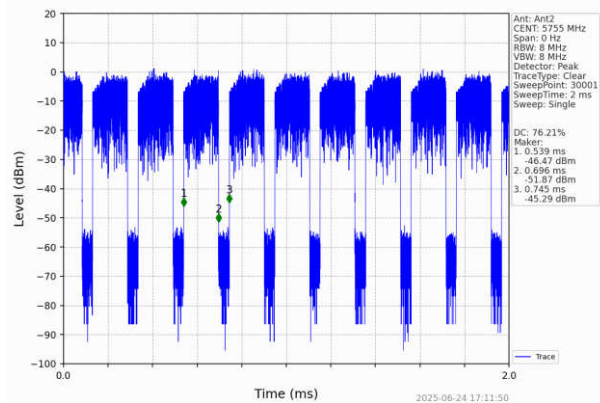




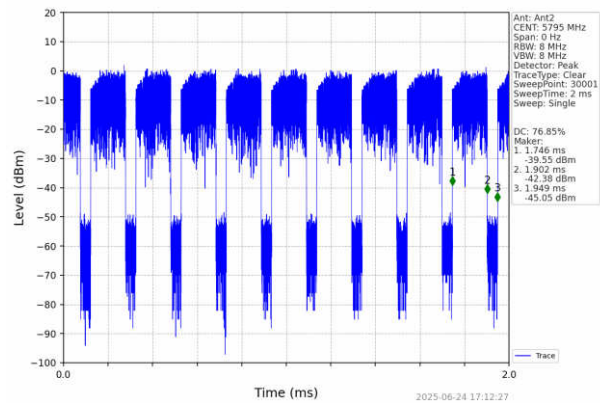
802.11ac(VHT40)\_HCH\_5230MHz\_Ant2\_NTNV



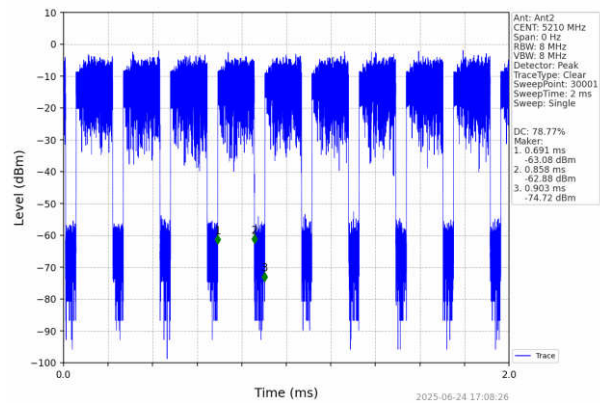
802.11ac(VHT40)\_LCH\_5755MHz\_Ant2\_NTNV



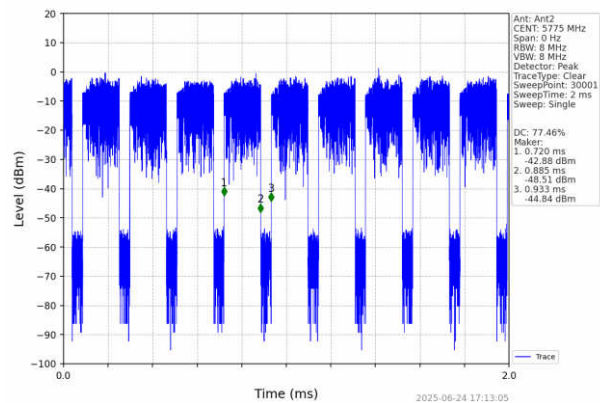
802.11ac(VHT40)\_HCH\_5795MHz\_Ant2\_NTNV



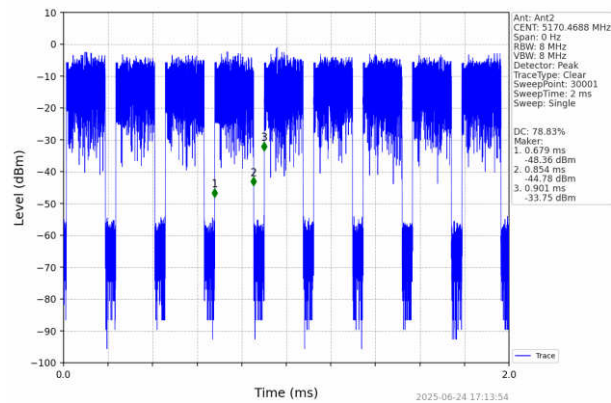
802.11ac(VHT80)\_MCH\_5210MHz\_Ant2\_NTNV

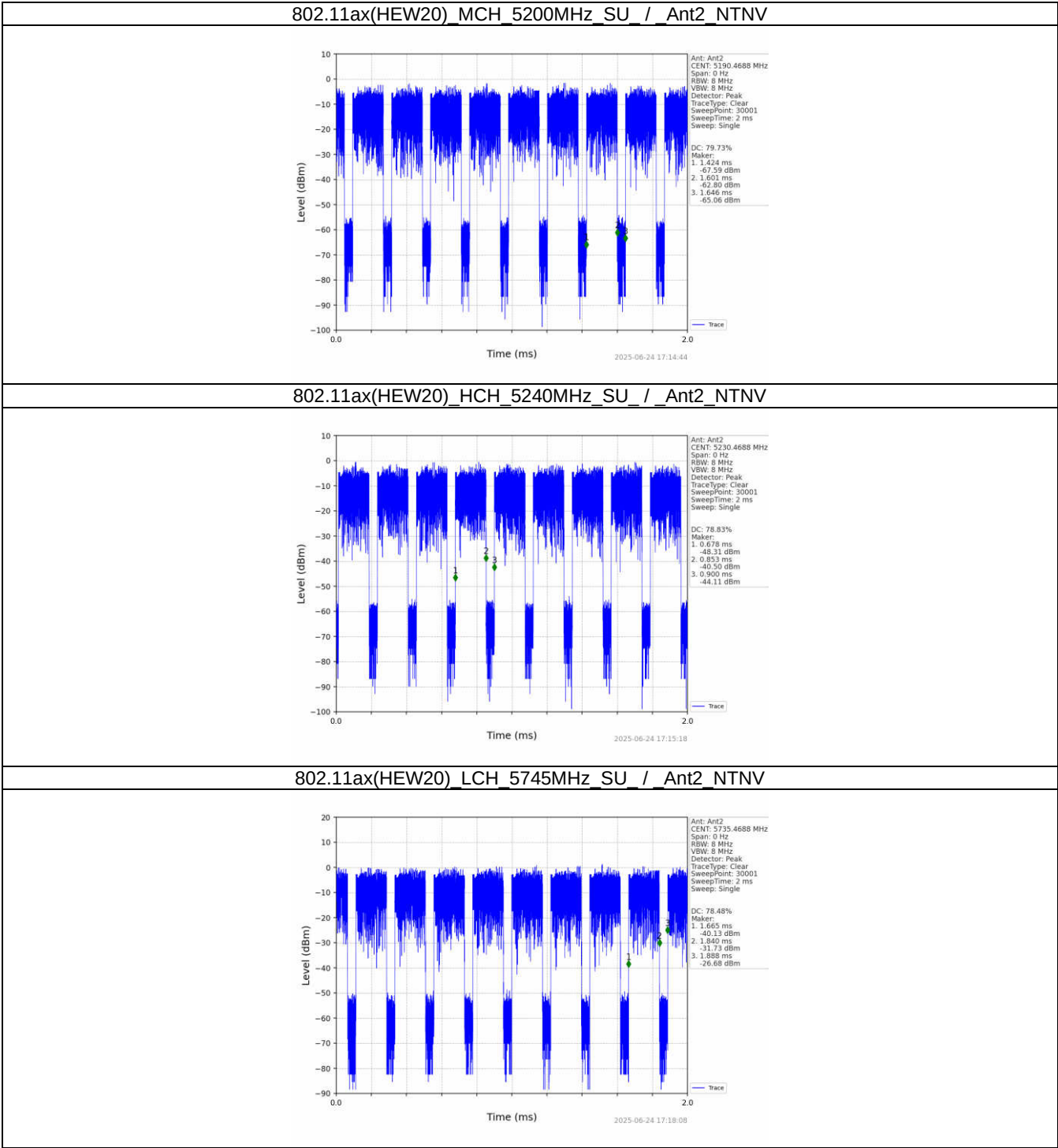


802.11ac(VHT80)\_MCH\_5775MHz\_Ant2\_NTNV

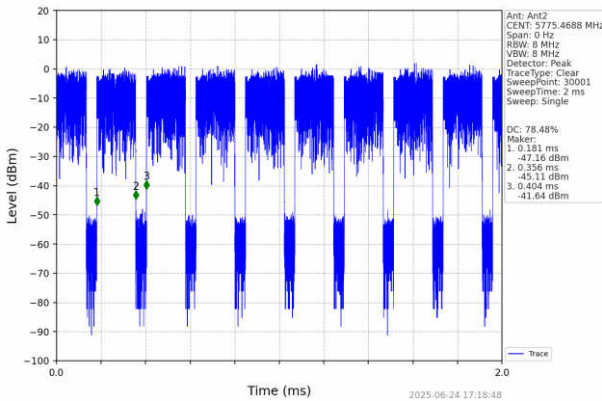


802.11ax(HEW20)\_LCH\_5180MHz\_SU / Ant2\_NTNV

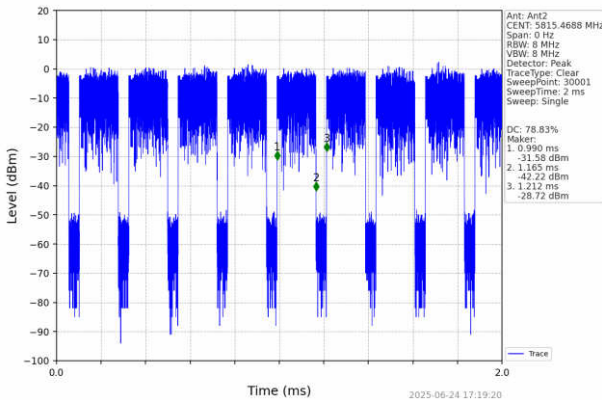




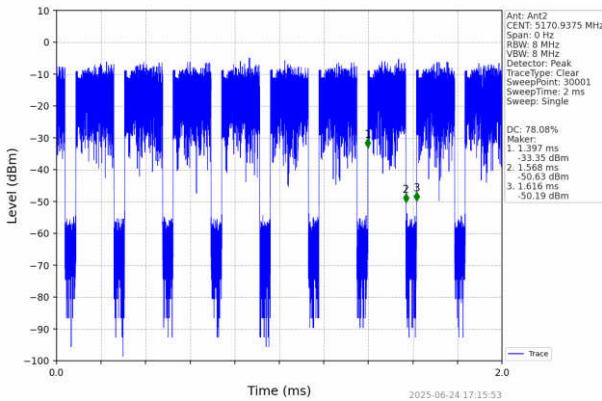
802.11ax(HEW20)\_MCH\_5785MHz\_SU / Ant2\_NTNV



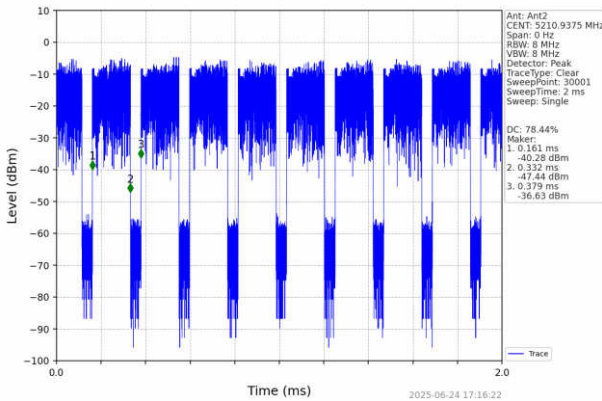
802.11ax(HEW20)\_HCH\_5825MHz\_SU / Ant2\_NTNV



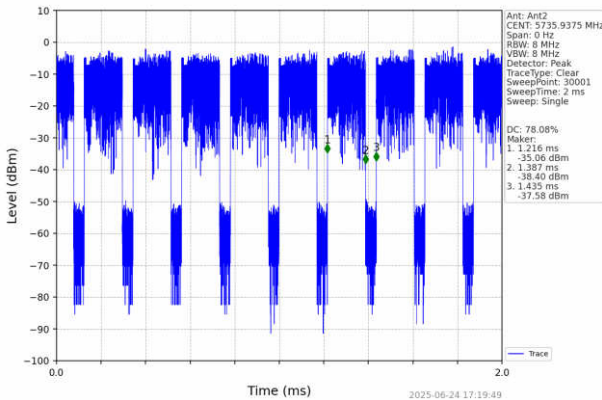
802.11ax(HEW40)\_LCH\_5190MHz\_SU / Ant2\_NTNV



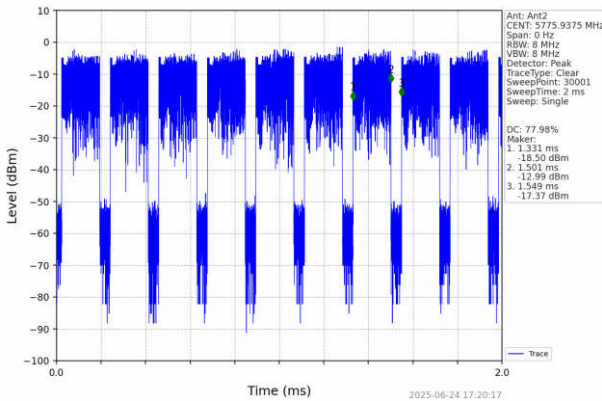
802.11ax(HEW40)\_HCH\_5230MHz\_SU\_/\_Ant2\_NTNV

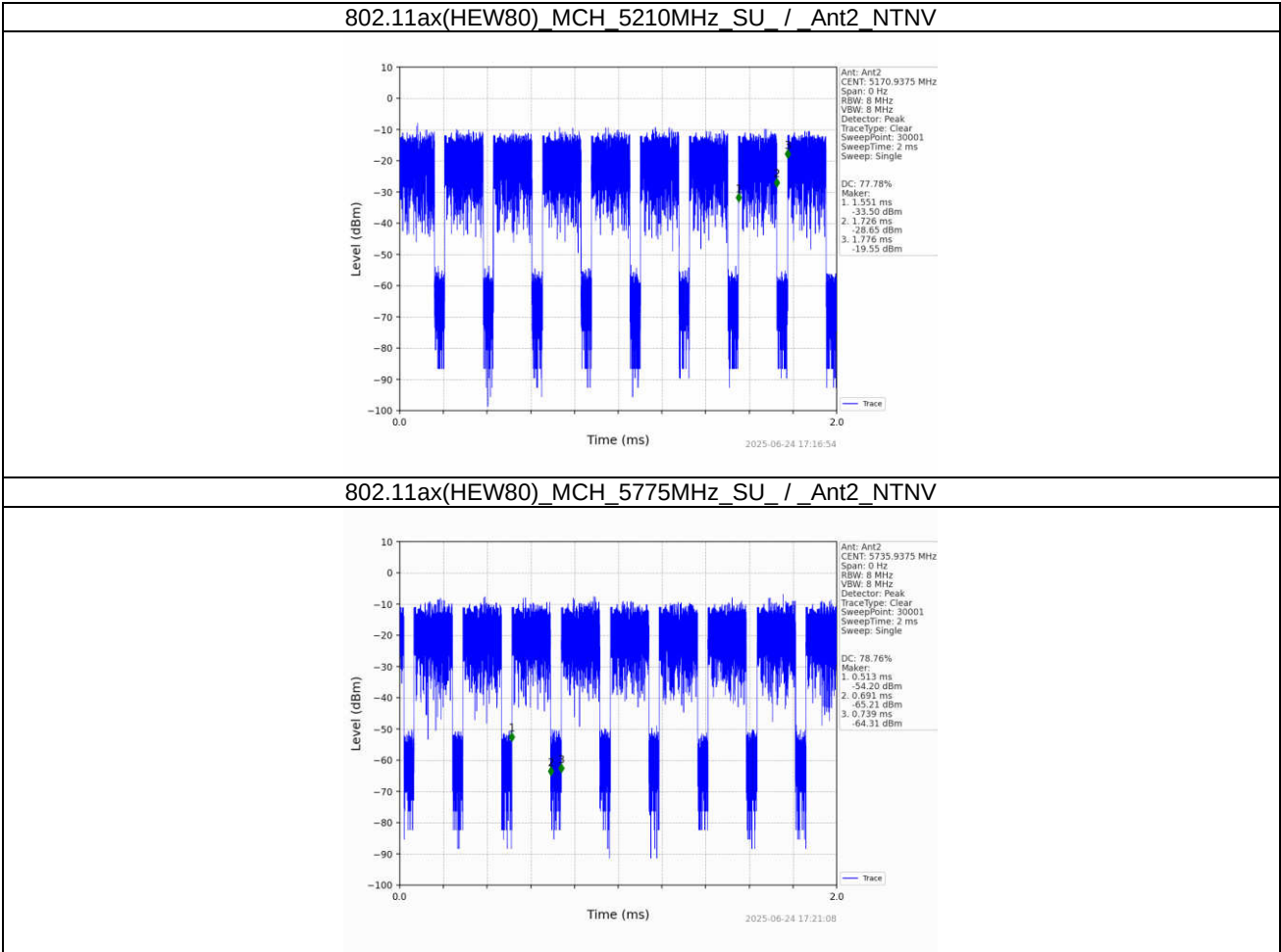


802.11ax(HEW40)\_LCH\_5755MHz\_SU\_/\_Ant2\_NTNV



802.11ax(HEW40)\_HCH\_5795MHz\_SU\_/\_Ant2\_NTNV





## 4.5 Power Spectral Density

### Limit

(1) For the band 5.15 - 5.25 GHz.

(i) For an outdoor access point operating in the band 5.15 - 5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 MHz band. <sup>note1</sup>

(ii) For an indoor access point operating in the band 5.15 - 5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 MHz band. <sup>note1</sup>

(iii) For fixed point-to-point access points operating in the band 5.15 - 5.25 GHz, transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi.

(iv) For mobile and portable client devices in the 5.15 - 5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 MHz band. <sup>note1</sup>

(2) For the 5.25 - 5.35 GHz and 5.47 - 5.725 GHz bands, the peak power spectral density shall not exceed 11 dBm in any 1 MHz band. <sup>note1</sup>

(3) For the band 5.725 - 5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500 kHz band. <sup>note1, note2</sup>

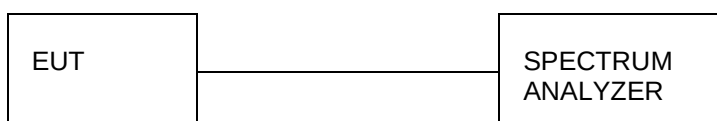
Note1: If transmitting antennas of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Note2: Fixed point - to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information.

### Test Procedure

1. Use this procedure when the maximum peak conducted output power in the fundamental emission is used to demonstrate compliance.
2. Set the RBW = 1MHz for U-NII 1, U-NII 2A, U-NII C band and 510KHz for U-NII 3 band.
3. Set the VBW  $\geq 3 \times$  RBW.
4. Set the span to encompass the entire EBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum power level.

### Test Configuration



**Test Results**

| Mode                                                                                                                                 | TX Type | Frequency (MHz) | Maximum PSD (dBm/MHz) for 5.2GWIFI    |       | Verdict |
|--------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------|---------------------------------------|-------|---------|
|                                                                                                                                      |         |                 | Maximum PSD (dBm/500kHz) for 5.8GWIFI |       |         |
|                                                                                                                                      |         |                 | ANT1                                  | Limit |         |
| 802.11a                                                                                                                              | SISO    | 5180            | -9.99                                 | <=11  | Pass    |
|                                                                                                                                      |         | 5200            | -10.35                                | <=11  | Pass    |
|                                                                                                                                      |         | 5240            | -9.63                                 | <=11  | Pass    |
| 802.11n (HT20)                                                                                                                       | SISO    | 5180            | -10.43                                | <=11  | Pass    |
|                                                                                                                                      |         | 5200            | -10.44                                | <=11  | Pass    |
|                                                                                                                                      |         | 5240            | -10.13                                | <=11  | Pass    |
| 802.11n (HT40)                                                                                                                       | SISO    | 5190            | -13.89                                | <=11  | Pass    |
|                                                                                                                                      |         | 5230            | -13.44                                | <=11  | Pass    |
| 802.11ac (VHT20)                                                                                                                     | SISO    | 5180            | -10.35                                | <=11  | Pass    |
|                                                                                                                                      |         | 5200            | -10.43                                | <=11  | Pass    |
|                                                                                                                                      |         | 5240            | -10.07                                | <=11  | Pass    |
| 802.11ac (VHT40)                                                                                                                     | SISO    | 5190            | -13.66                                | <=11  | Pass    |
|                                                                                                                                      |         | 5230            | -13.49                                | <=11  | Pass    |
| 802.11ac (VHT80)                                                                                                                     | SISO    | 5210            | -16.46                                | <=11  | Pass    |
| 802.11ax (HEW20)                                                                                                                     | SISO    | 5180            | -10.95                                | <=11  | Pass    |
|                                                                                                                                      |         | 5200            | -10.85                                | <=11  | Pass    |
|                                                                                                                                      |         | 5240            | -10.56                                | <=11  | Pass    |
| 802.11ax (HEW40)                                                                                                                     | SISO    | 5190            | -14.37                                | <=11  | Pass    |
|                                                                                                                                      |         | 5230            | -14.11                                | <=11  | Pass    |
| 802.11ax (HEW80)                                                                                                                     | SISO    | 5210            | -16.85                                | <=11  | Pass    |
| 802.11a                                                                                                                              | SISO    | 5745            | -13.62                                | <=30  | Pass    |
|                                                                                                                                      |         | 5785            | -13.41                                | <=30  | Pass    |
|                                                                                                                                      |         | 5825            | -13.48                                | <=30  | Pass    |
| 802.11n (HT20)                                                                                                                       | SISO    | 5745            | -13.68                                | <=30  | Pass    |
|                                                                                                                                      |         | 5785            | -13.28                                | <=30  | Pass    |
|                                                                                                                                      |         | 5825            | -13.64                                | <=30  | Pass    |
| 802.11n (HT40)                                                                                                                       | SISO    | 5755            | -15.94                                | <=30  | Pass    |
|                                                                                                                                      |         | 5795            | -16.23                                | <=30  | Pass    |
| 802.11ac (VHT20)                                                                                                                     | SISO    | 5745            | -13.64                                | <=30  | Pass    |
|                                                                                                                                      |         | 5785            | -13.59                                | <=30  | Pass    |
|                                                                                                                                      |         | 5825            | -13.26                                | <=30  | Pass    |
| 802.11ac (VHT40)                                                                                                                     | SISO    | 5755            | -16.01                                | <=30  | Pass    |
|                                                                                                                                      |         | 5795            | -16.42                                | <=30  | Pass    |
| 802.11ac (VHT80)                                                                                                                     | SISO    | 5775            | -18.15                                | <=30  | Pass    |
| 802.11ax (HEW20)                                                                                                                     | SISO    | 5745            | -14.18                                | <=30  | Pass    |
|                                                                                                                                      |         | 5785            | -14.07                                | <=30  | Pass    |
|                                                                                                                                      |         | 5825            | -14.09                                | <=30  | Pass    |
| 802.11ax (HEW40)                                                                                                                     | SISO    | 5755            | -16.87                                | <=30  | Pass    |
|                                                                                                                                      |         | 5795            | -17.00                                | <=30  | Pass    |
| 802.11ax (HEW80)                                                                                                                     | SISO    | 5775            | -18.99                                | <=30  | Pass    |
| Note1: Antenna Gain:<br>- Band: 3 Ant1: 3.47dBi;<br>- Band: 1 Ant1: 4.01dBi;<br>- Band: 1 Ant2: 2.31dBi;<br>- Band: 3 Ant2: 3.61dBi; |         |                 |                                       |       |         |

| Mode                                                                                                                                 | TX Type | Frequency (MHz) | Maximum PSD (dBm/MHz) for 5.2GWIFI    |       | Verdict |
|--------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------|---------------------------------------|-------|---------|
|                                                                                                                                      |         |                 | Maximum PSD (dBm/500kHz) for 5.8GWIFI |       |         |
|                                                                                                                                      |         |                 | ANT2                                  | Limit |         |
| 802.11a                                                                                                                              | SISO    | 5180            | -11.46                                | <=11  | Pass    |
|                                                                                                                                      |         | 5200            | -11.13                                | <=11  | Pass    |
|                                                                                                                                      |         | 5240            | -10.62                                | <=11  | Pass    |
| 802.11n (HT20)                                                                                                                       | SISO    | 5180            | -11.55                                | <=11  | Pass    |
|                                                                                                                                      |         | 5200            | -11.40                                | <=11  | Pass    |
|                                                                                                                                      |         | 5240            | -10.64                                | <=11  | Pass    |
| 802.11n (HT40)                                                                                                                       | SISO    | 5190            | -14.79                                | <=11  | Pass    |
|                                                                                                                                      |         | 5230            | -14.42                                | <=11  | Pass    |
| 802.11ac (VHT20)                                                                                                                     | SISO    | 5180            | -11.77                                | <=11  | Pass    |
|                                                                                                                                      |         | 5200            | -11.43                                | <=11  | Pass    |
|                                                                                                                                      |         | 5240            | -10.52                                | <=11  | Pass    |
| 802.11ac (VHT40)                                                                                                                     | SISO    | 5190            | -14.86                                | <=11  | Pass    |
|                                                                                                                                      |         | 5230            | -14.56                                | <=11  | Pass    |
| 802.11ac (VHT80)                                                                                                                     | SISO    | 5210            | -17.73                                | <=11  | Pass    |
| 802.11ax (HEW20)                                                                                                                     | SISO    | 5180            | -11.09                                | <=11  | Pass    |
|                                                                                                                                      |         | 5200            | -10.93                                | <=11  | Pass    |
|                                                                                                                                      |         | 5240            | -10.33                                | <=11  | Pass    |
| 802.11ax (HEW40)                                                                                                                     | SISO    | 5190            | -14.24                                | <=11  | Pass    |
|                                                                                                                                      |         | 5230            | -14.03                                | <=11  | Pass    |
| 802.11ax (HEW80)                                                                                                                     | SISO    | 5210            | -17.29                                | <=11  | Pass    |
| 802.11a                                                                                                                              | SISO    | 5745            | -14.27                                | <=30  | Pass    |
|                                                                                                                                      |         | 5785            | -14.19                                | <=30  | Pass    |
|                                                                                                                                      |         | 5825            | -13.61                                | <=30  | Pass    |
| 802.11n (HT20)                                                                                                                       | SISO    | 5745            | -14.29                                | <=30  | Pass    |
|                                                                                                                                      |         | 5785            | -14.33                                | <=30  | Pass    |
|                                                                                                                                      |         | 5825            | -13.85                                | <=30  | Pass    |
| 802.11n (HT40)                                                                                                                       | SISO    | 5755            | -16.79                                | <=30  | Pass    |
|                                                                                                                                      |         | 5795            | -17.24                                | <=30  | Pass    |
| 802.11ac (VHT20)                                                                                                                     | SISO    | 5745            | -14.04                                | <=30  | Pass    |
|                                                                                                                                      |         | 5785            | -14.29                                | <=30  | Pass    |
|                                                                                                                                      |         | 5825            | -13.12                                | <=30  | Pass    |
| 802.11ac (VHT40)                                                                                                                     | SISO    | 5755            | -15.95                                | <=30  | Pass    |
|                                                                                                                                      |         | 5795            | -16.05                                | <=30  | Pass    |
| 802.11ac (VHT80)                                                                                                                     | SISO    | 5775            | -18.55                                | <=30  | Pass    |
| 802.11ax (HEW20)                                                                                                                     | SISO    | 5745            | -14.01                                | <=30  | Pass    |
|                                                                                                                                      |         | 5785            | -14.45                                | <=30  | Pass    |
|                                                                                                                                      |         | 5825            | -13.94                                | <=30  | Pass    |
| 802.11ax (HEW40)                                                                                                                     | SISO    | 5755            | -16.92                                | <=30  | Pass    |
|                                                                                                                                      |         | 5795            | -16.99                                | <=30  | Pass    |
| 802.11ax (HEW80)                                                                                                                     | SISO    | 5775            | -19.66                                | <=30  | Pass    |
| Note1: Antenna Gain:<br>- Band: 3 Ant1: 3.47dBi;<br>- Band: 1 Ant1: 4.01dBi;<br>- Band: 1 Ant2: 2.31dBi;<br>- Band: 3 Ant2: 3.61dBi; |         |                 |                                       |       |         |

Test plot as follows

