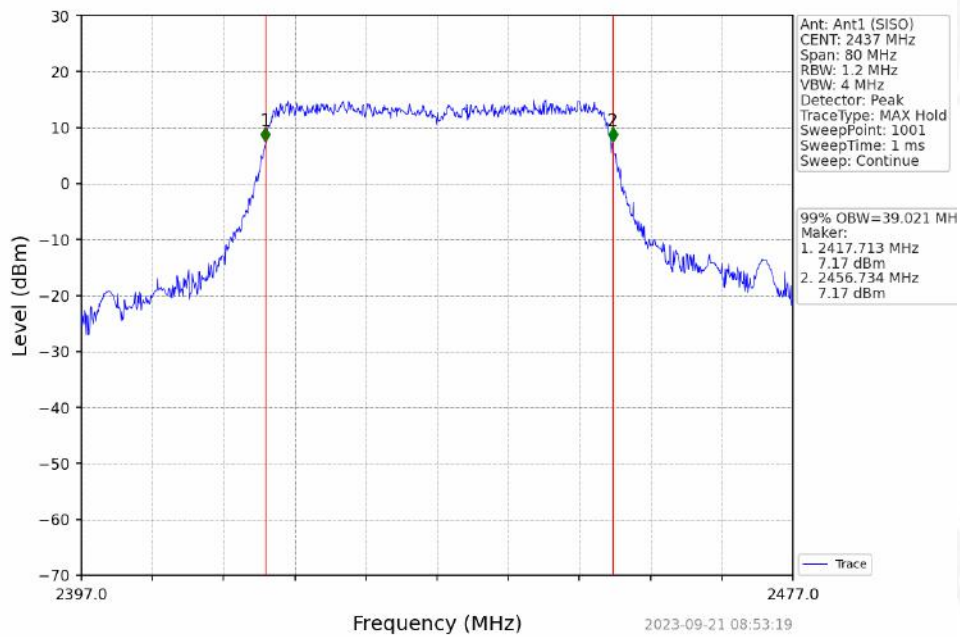
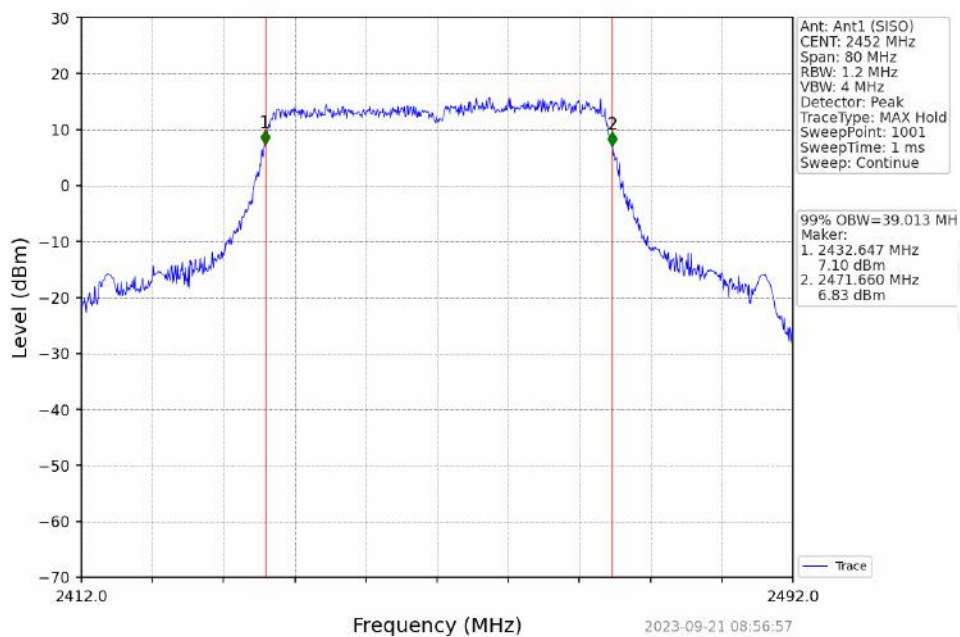




802.11ax(HEW40)_MCH_2437MHz_RU484_Left_NTNV

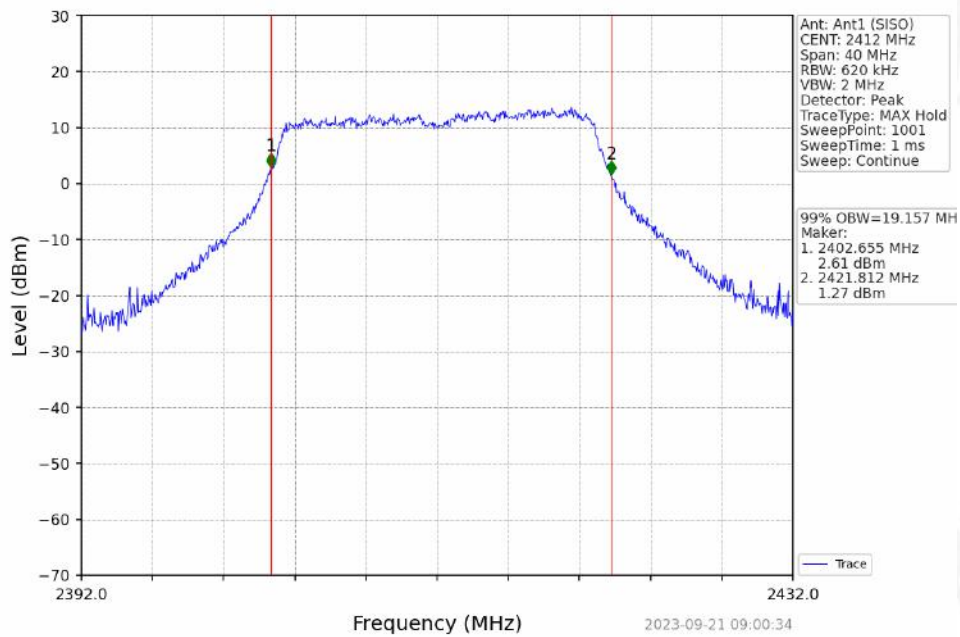


802.11ax(HEW40)_HCH_2452MHz_RU484_Left_NTNV

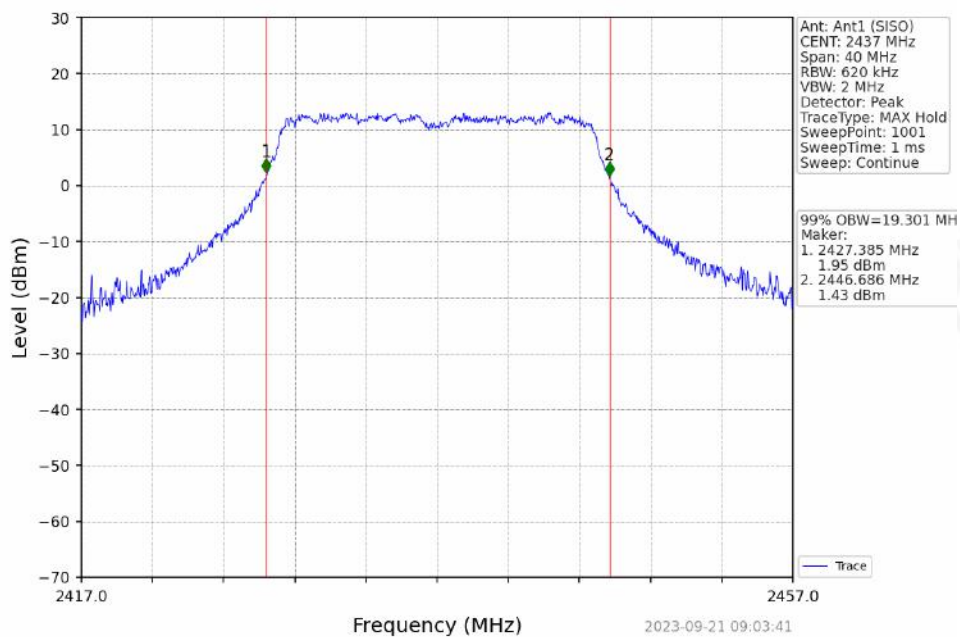




802.11ac(VHT20)_LCH_2412MHz__NTNV

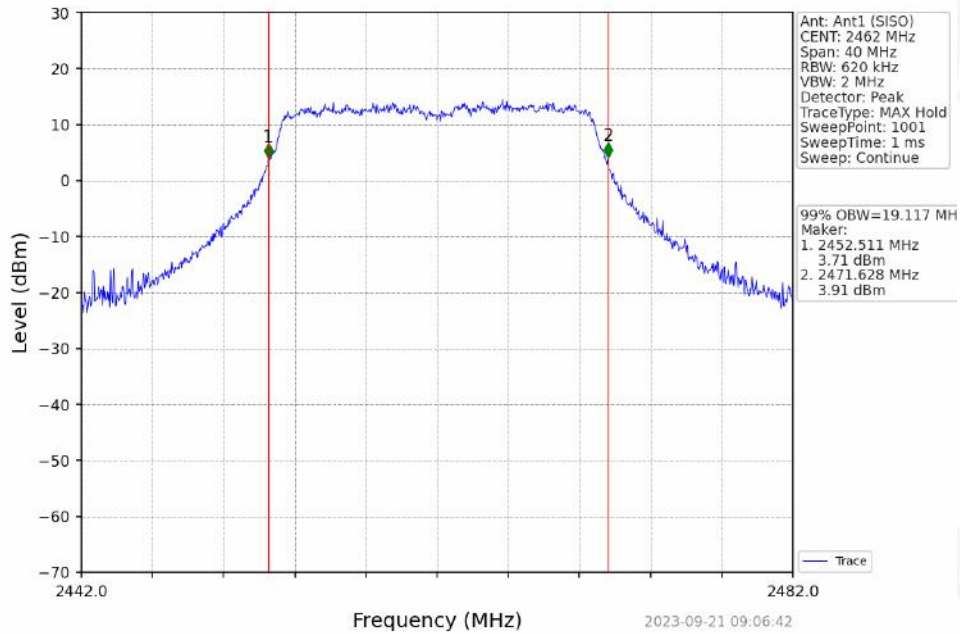


802.11ac(VHT20)_MCH_2437MHz__NTNV

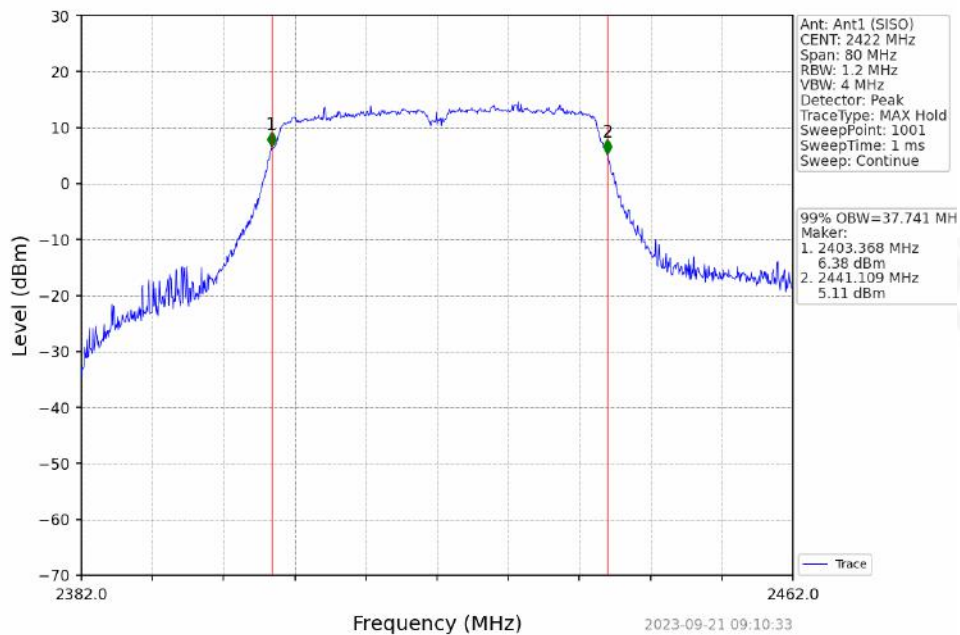




802.11ac(VHT20)_HCH_2462MHz__NTNV

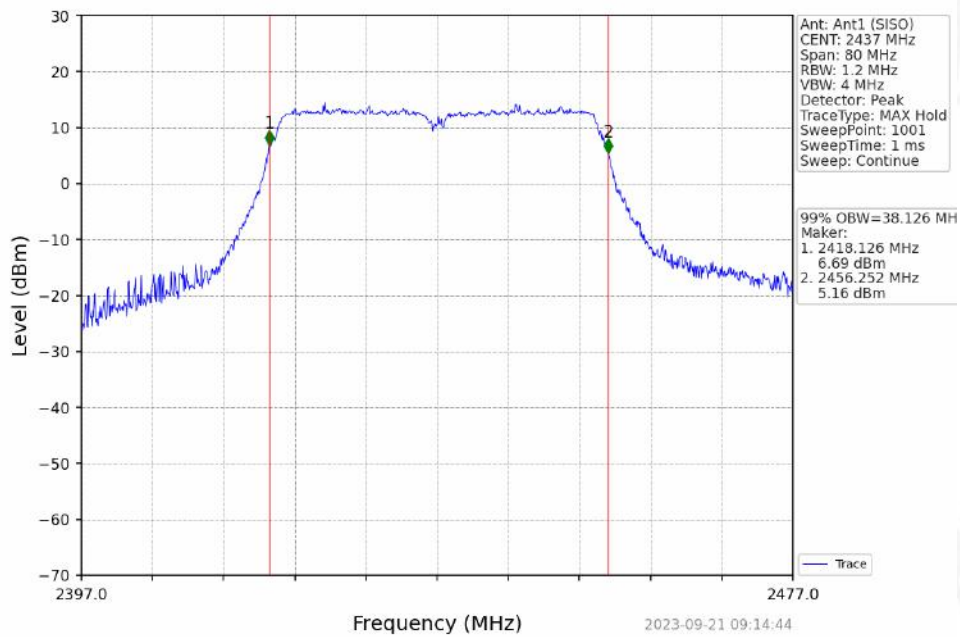


802.11ac(VHT40)_LCH_2422MHz__NTNV

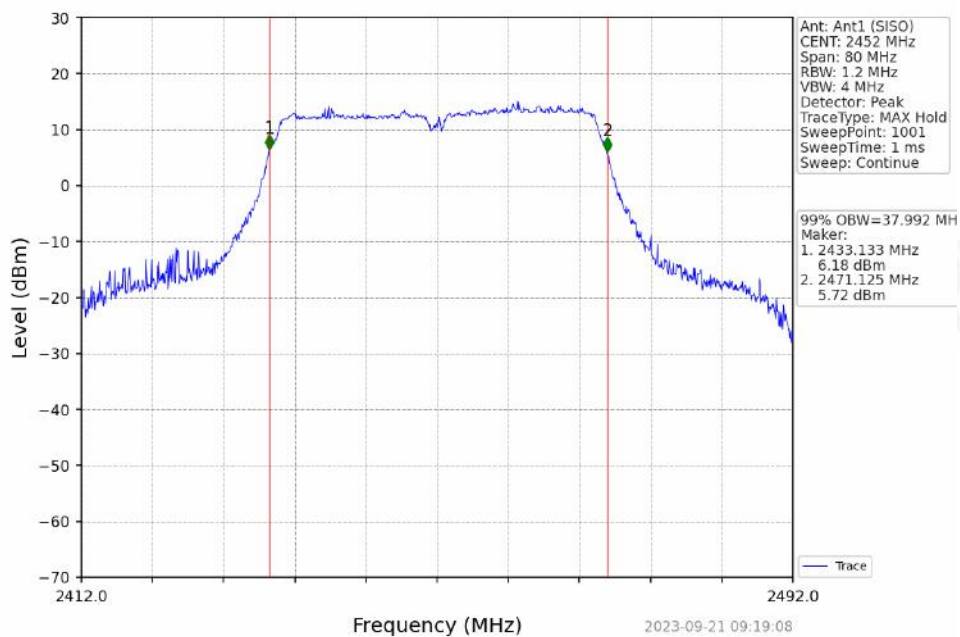




802.11ac(VHT40)_MCH_2437MHz__NTNV

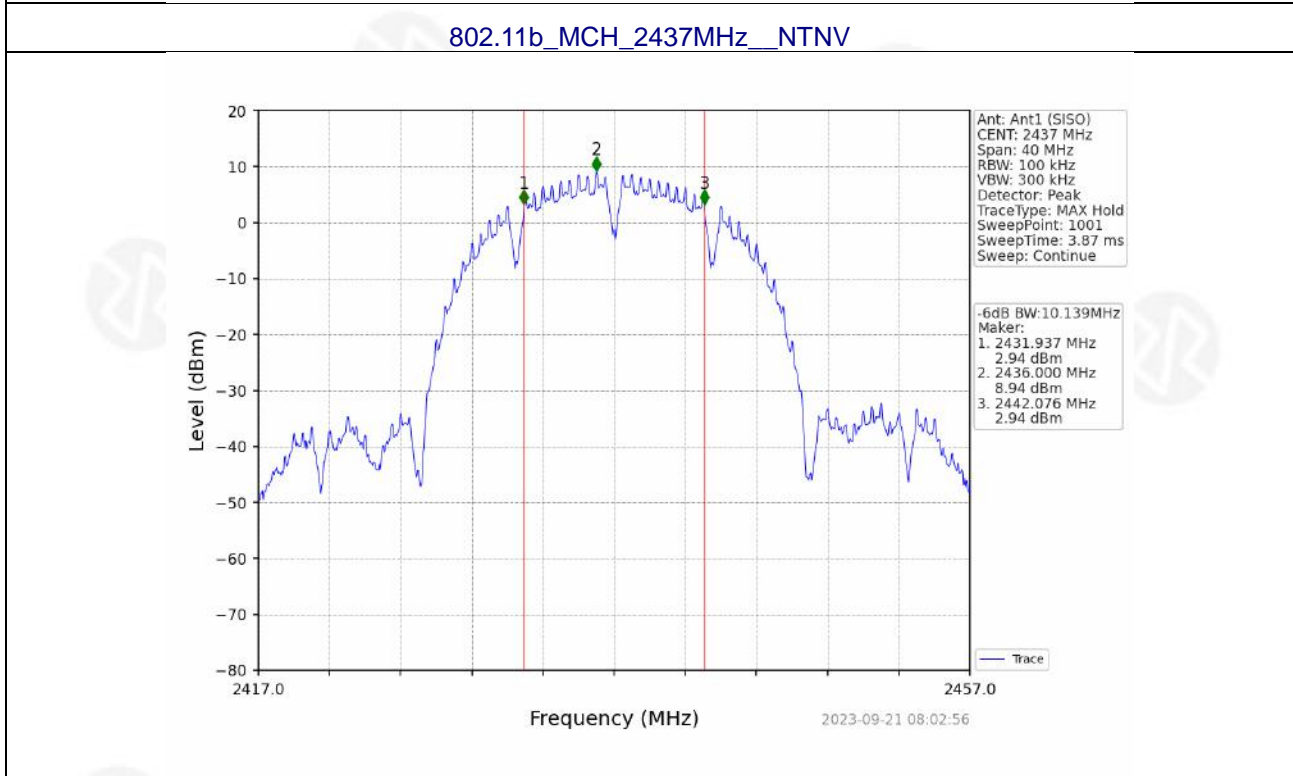
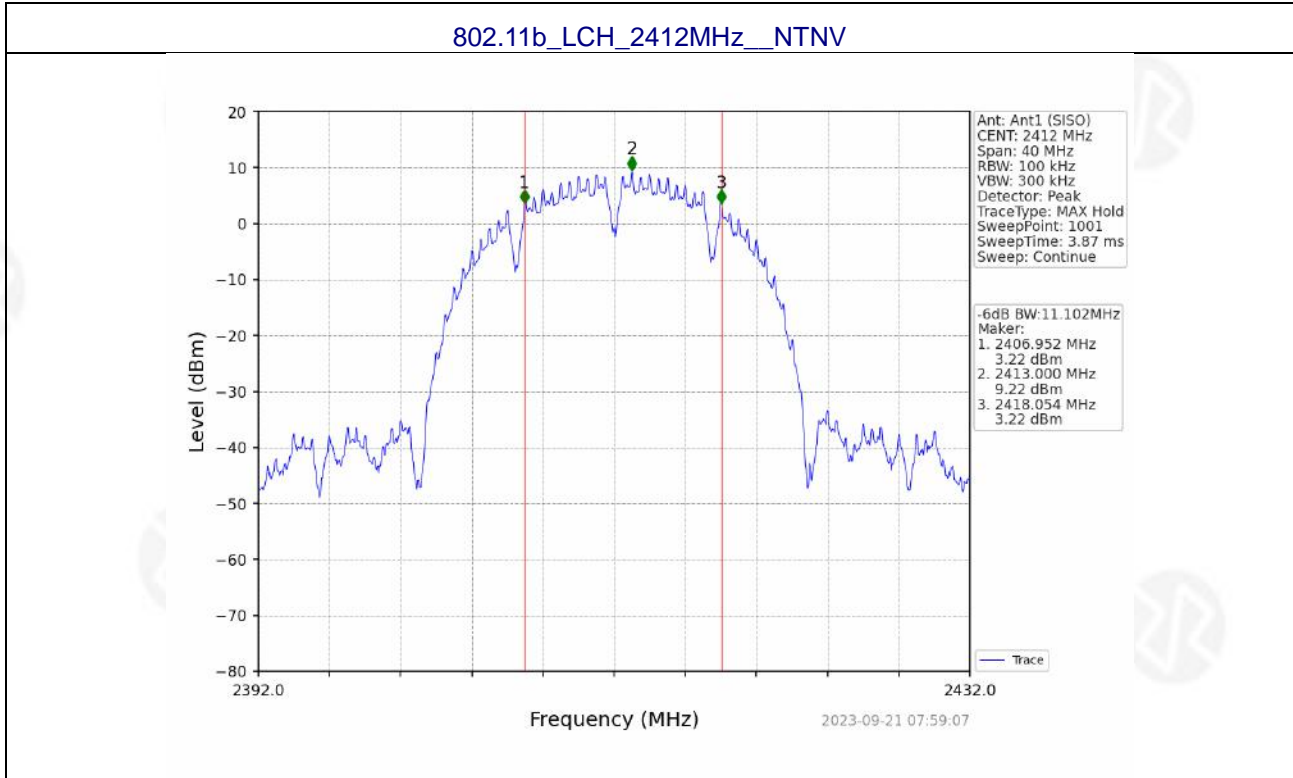


802.11ac(VHT40)_HCH_2452MHz__NTNV



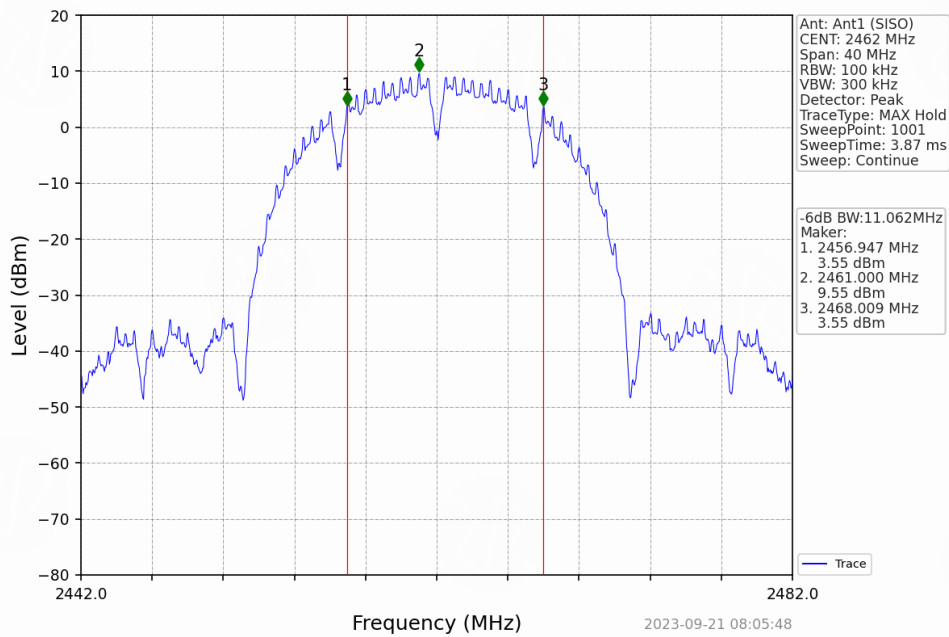


6dB Bandwidth

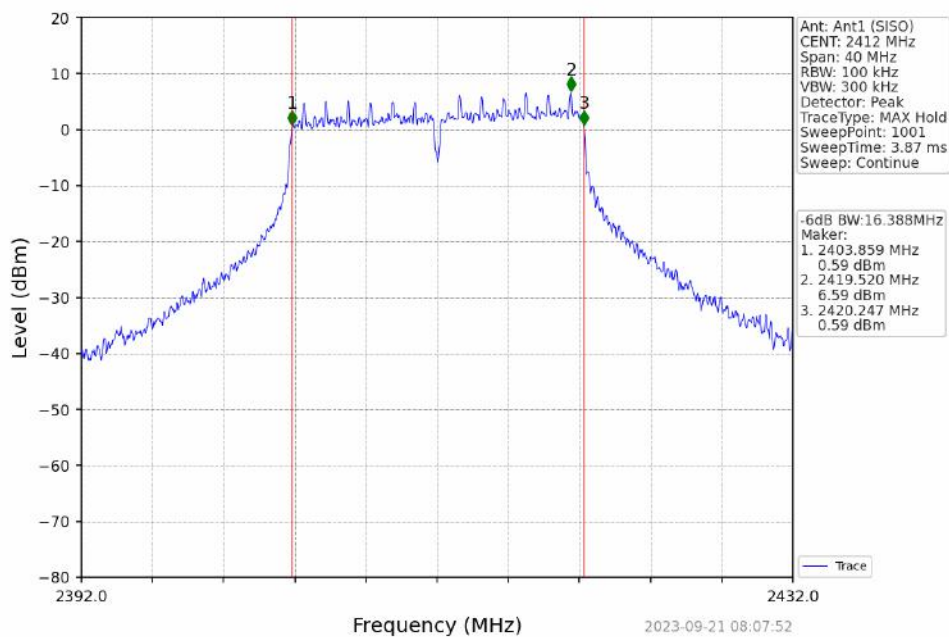




802.11b_HCH_2462MHz__NTNV

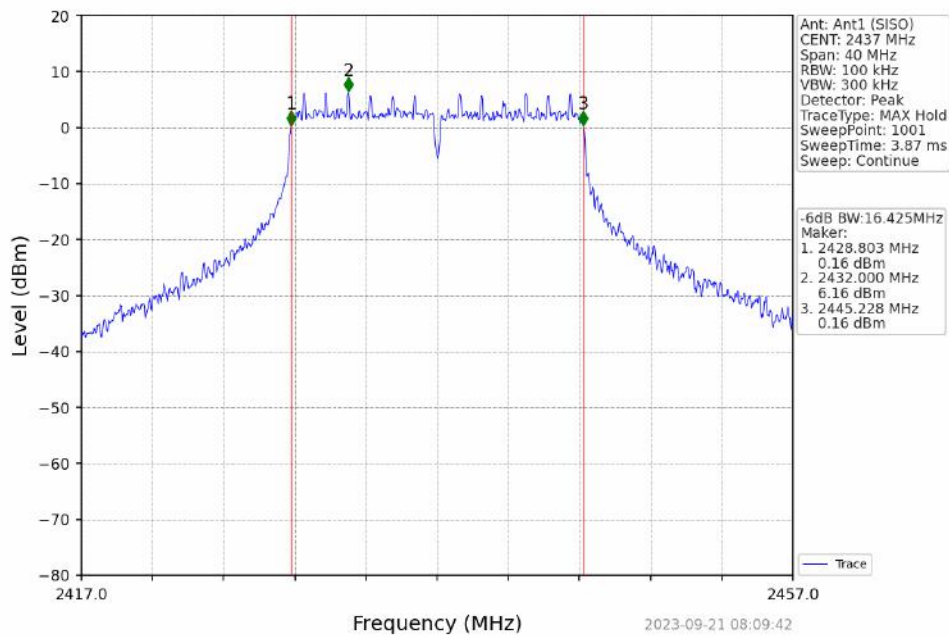


802.11g_LCH_2412MHz__NTNV

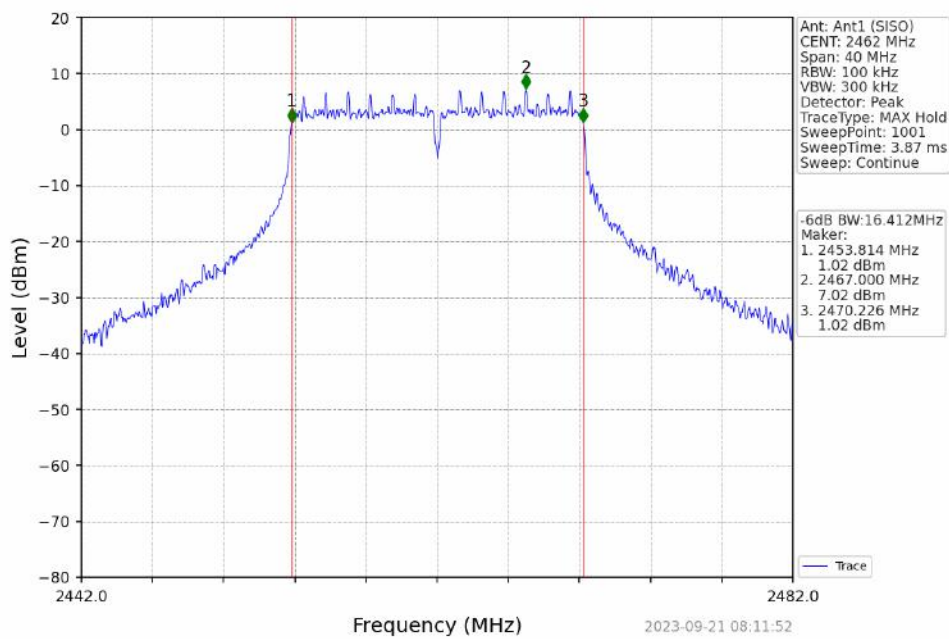




802.11g_MCH_2437MHz__NTNV

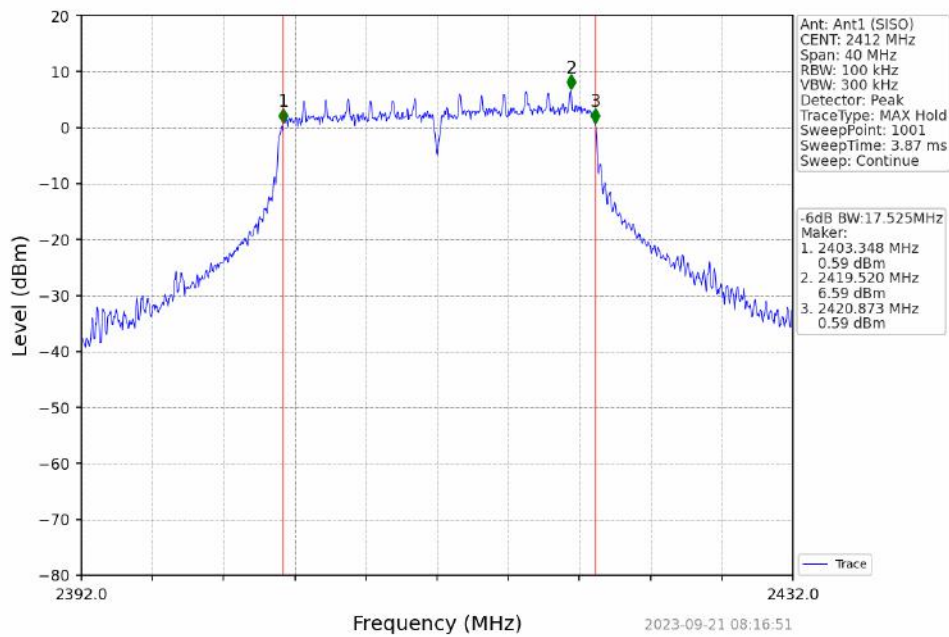


802.11g_HCH_2462MHz__NTNV

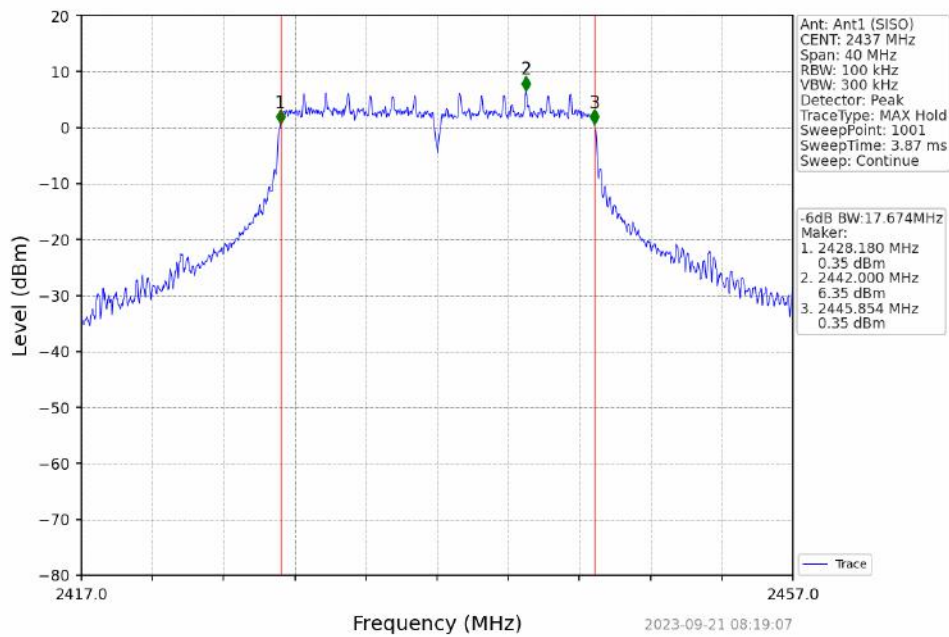




802.11n(HT20)_LCH_2412MHz__NTNV

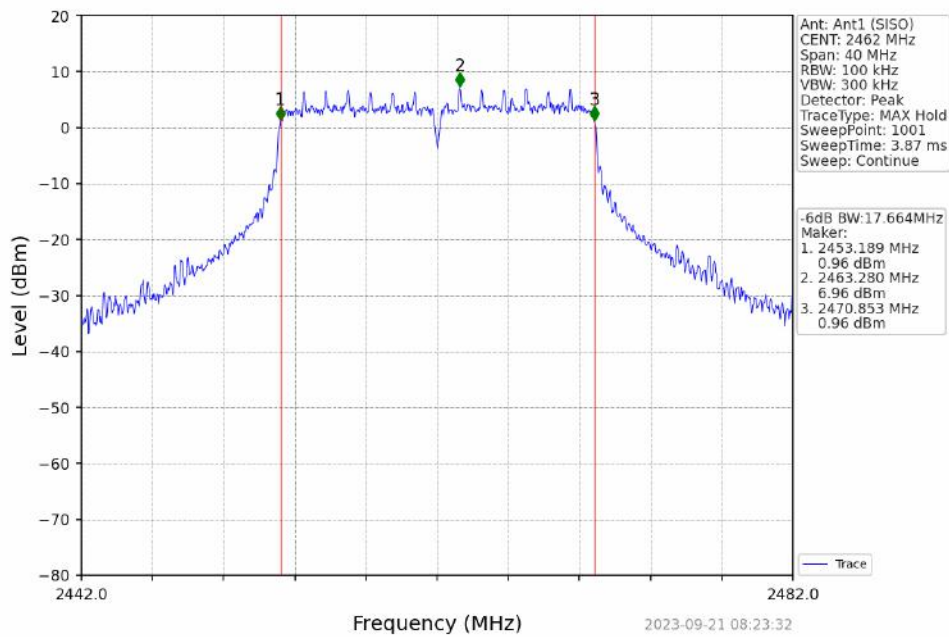


802.11n(HT20)_MCH_2437MHz__NTNV

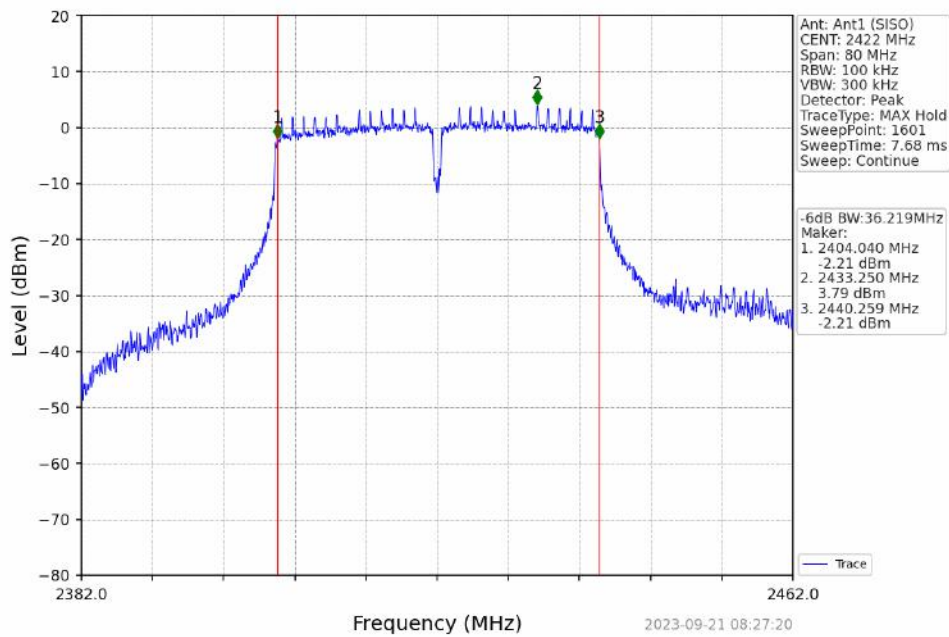




802.11n(HT20)_HCH_2462MHz__NTNV

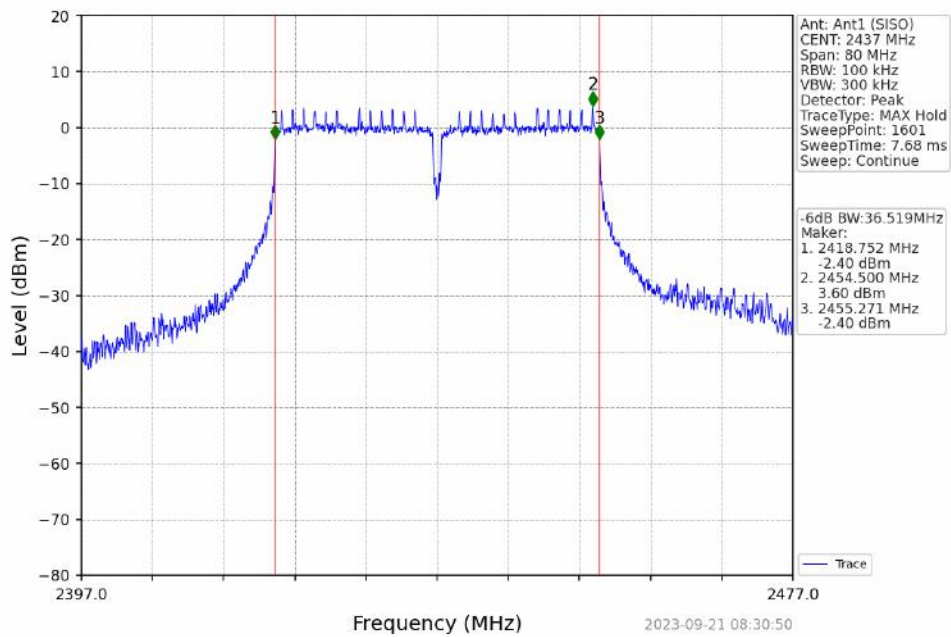


802.11n(HT40)_LCH_2422MHz__NTNV

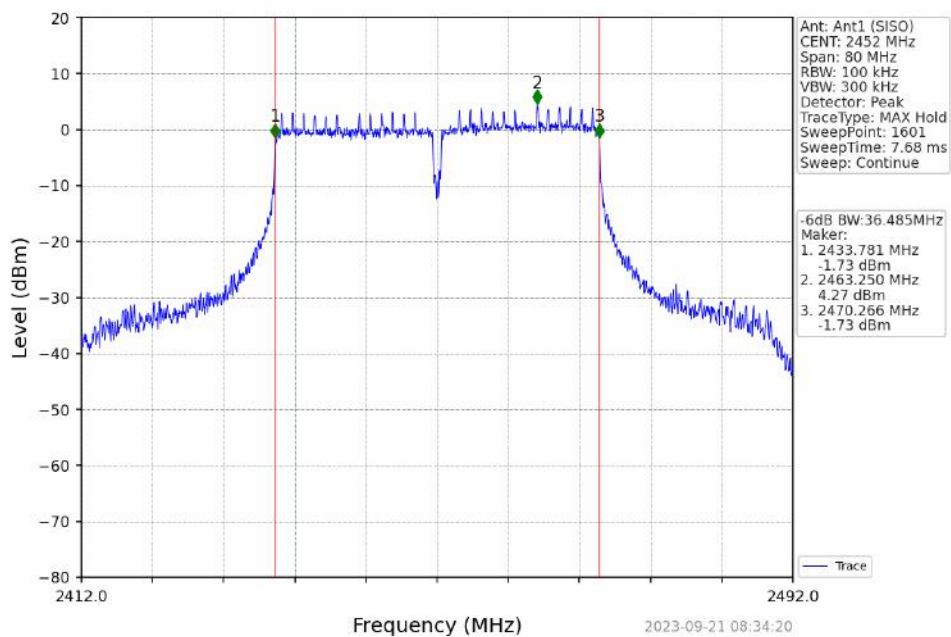




802.11n(HT40)_MCH_2437MHz__NTNV

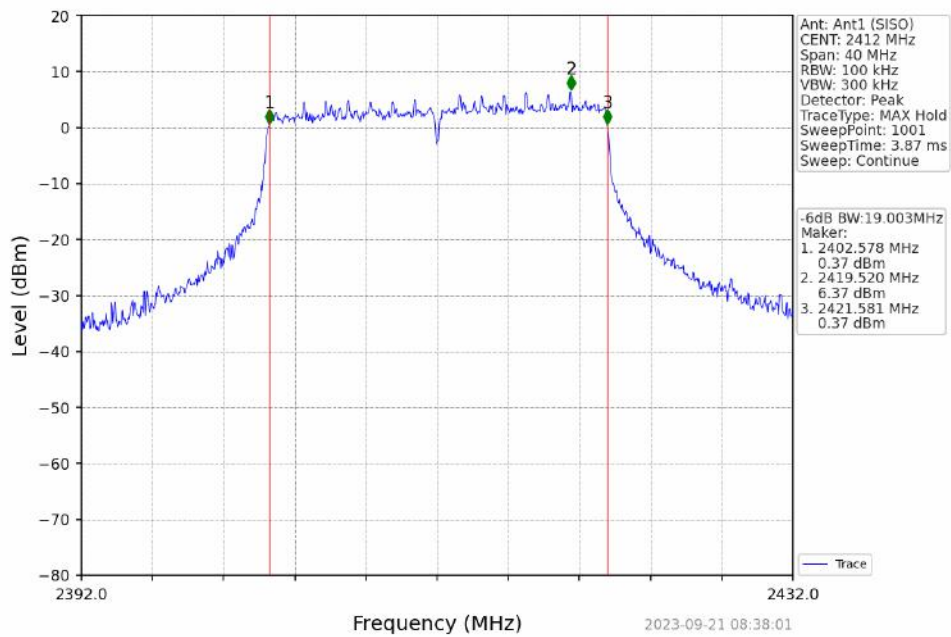


802.11n(HT40)_HCH_2452MHz__NTNV

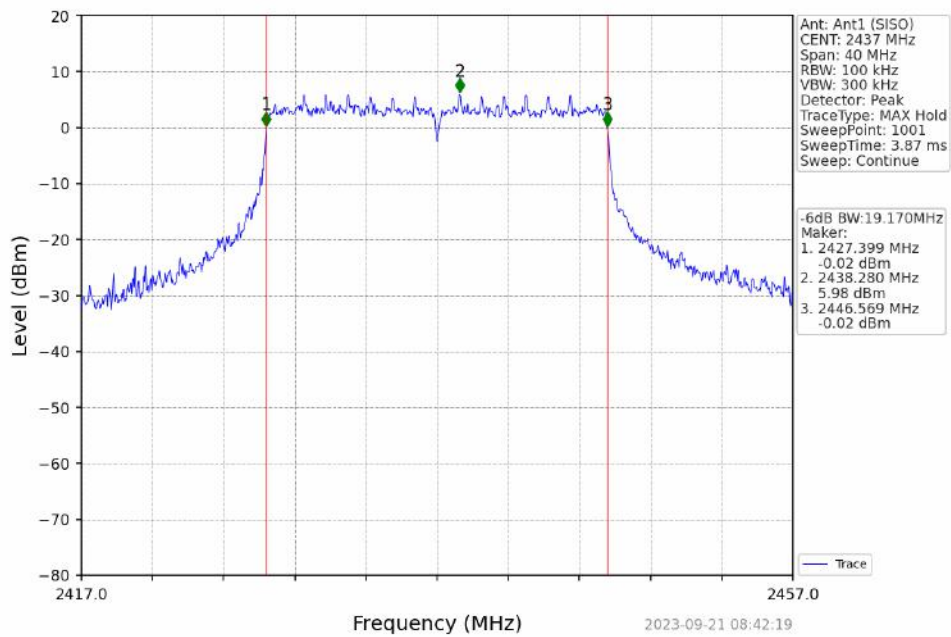




802.11ax(HEW20)_LCH_2412MHz_RU242_Left__NTNV

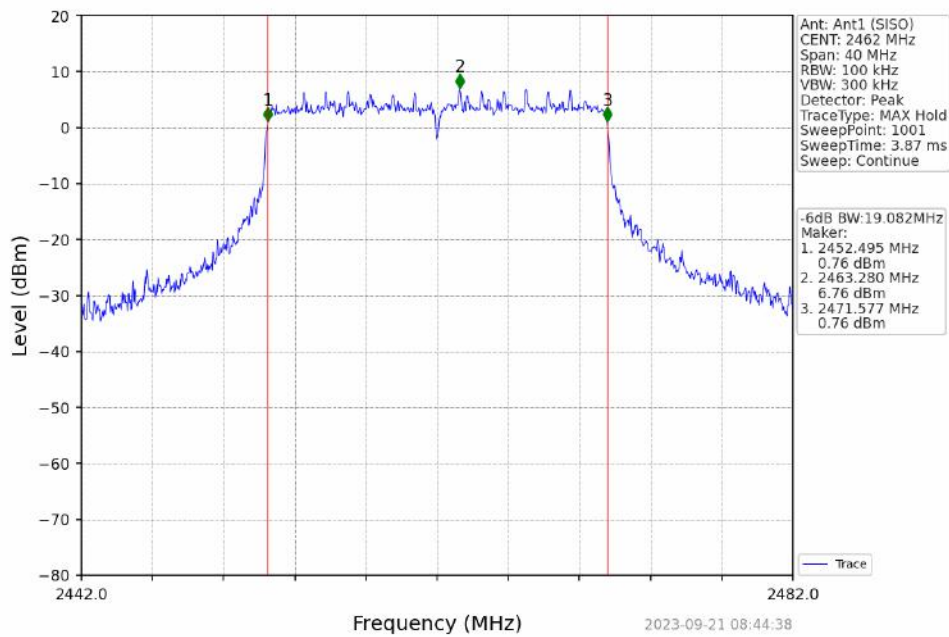


802.11ax(HEW20)_MCH_2437MHz_RU242_Left__NTNV

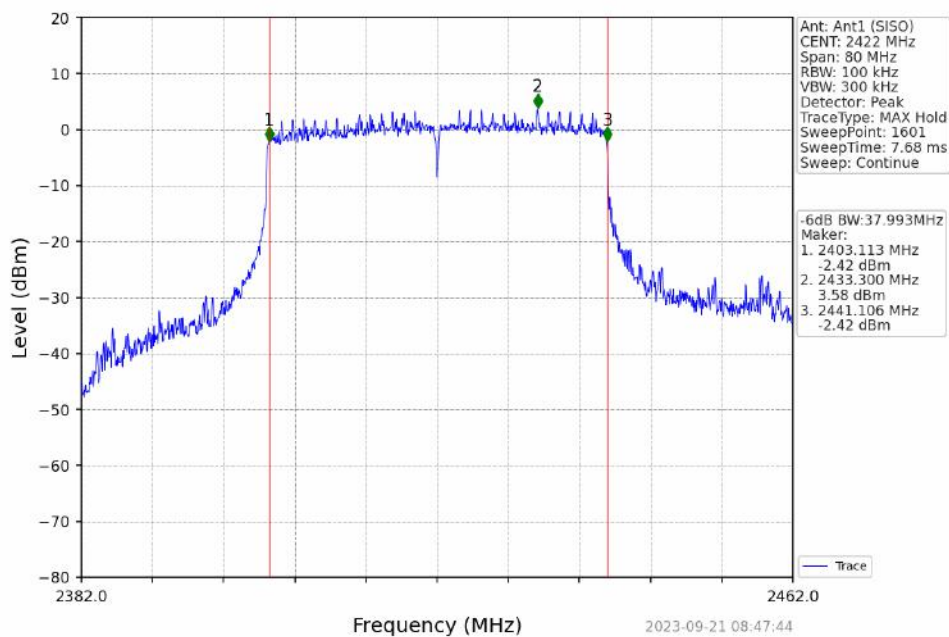




802.11ax(HEW20)_HCH_2462MHz_RU242_Left_NTNV

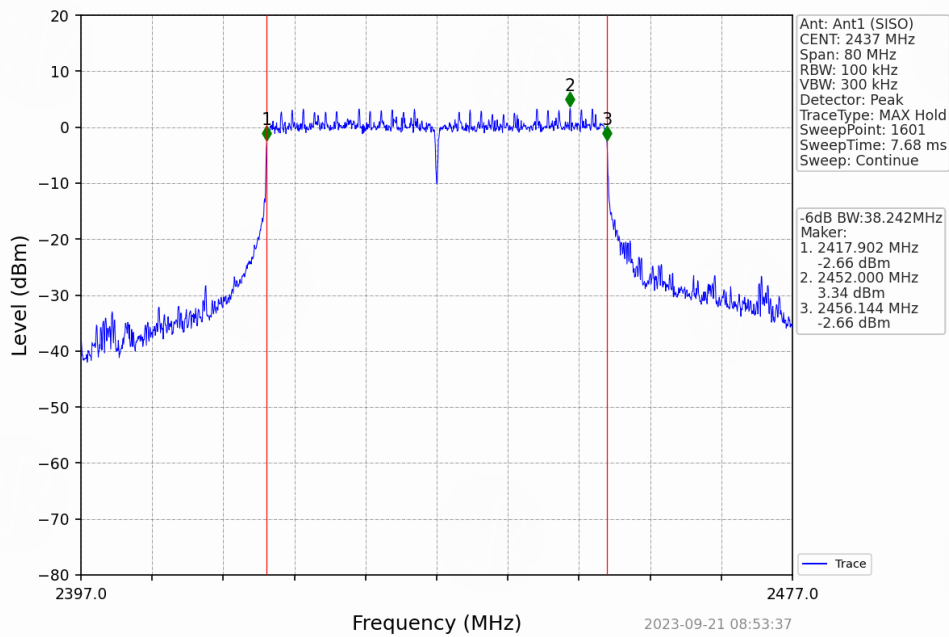


802.11ax(HEW40)_LCH_2422MHz_RU484_Left_NTNV

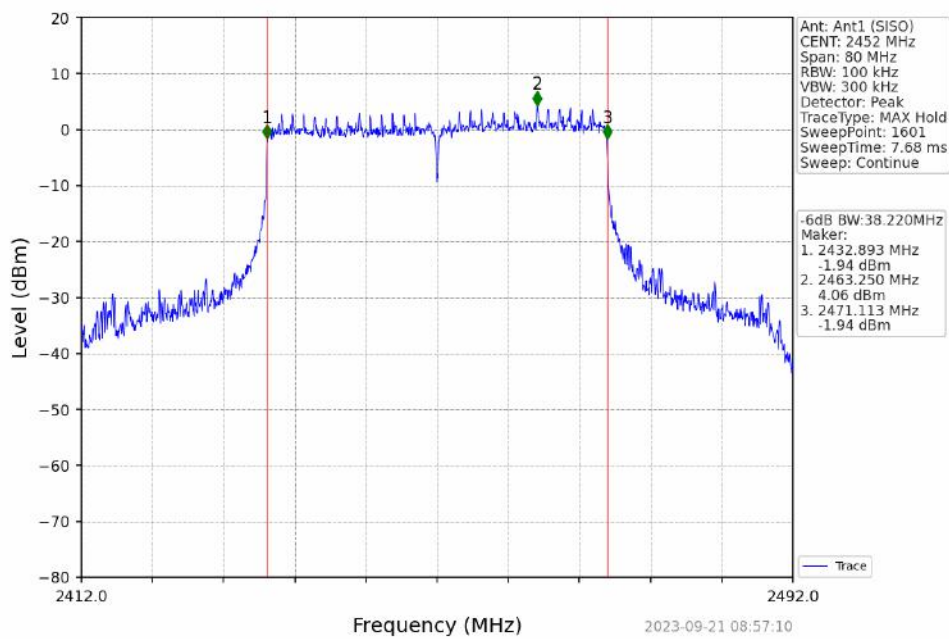




802.11ax(HEW40)_MCH_2437MHz_RU484_Left__NTNV

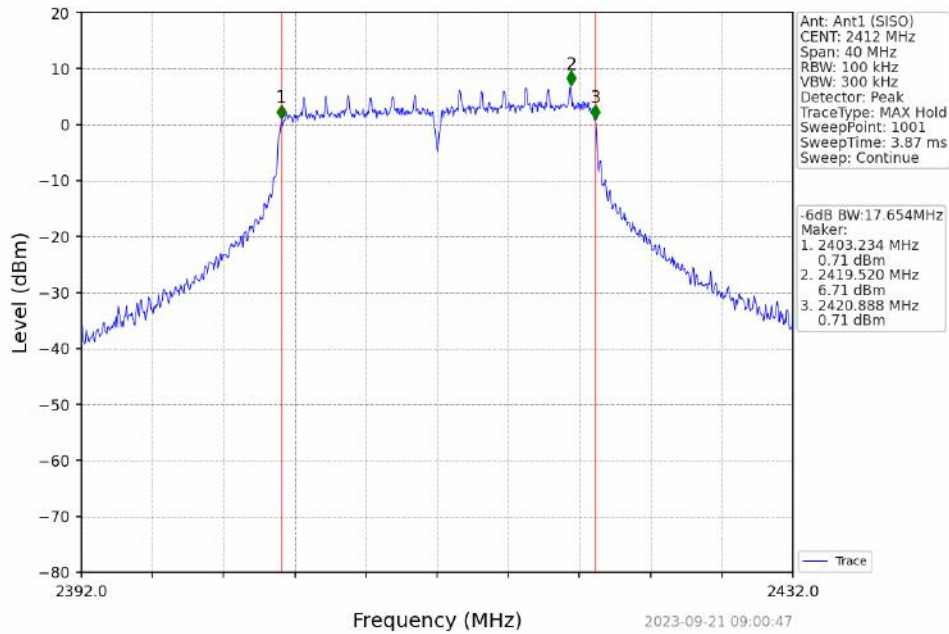


802.11ax(HEW40)_HCH_2452MHz_RU484_Left__NTNV

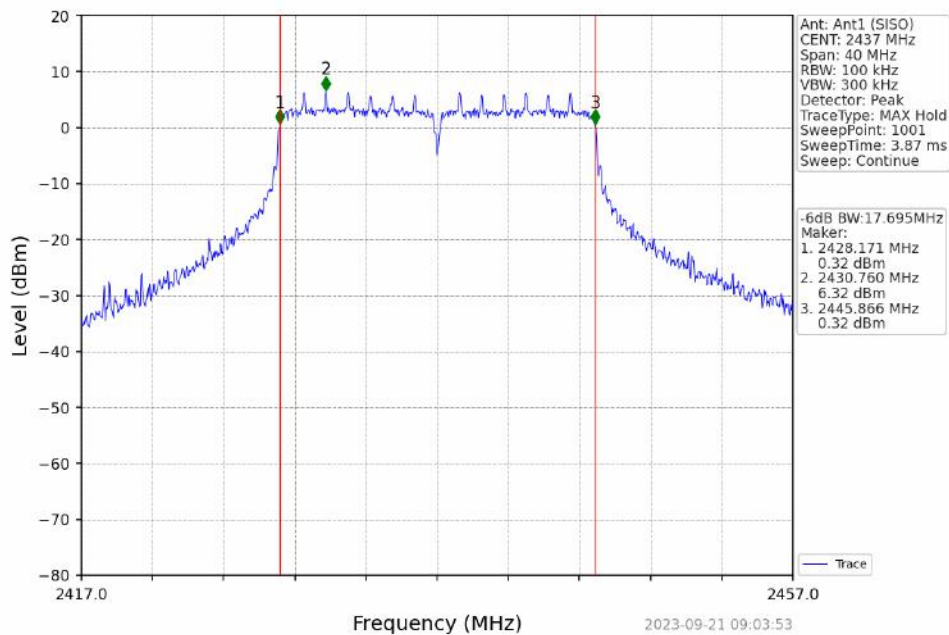




802.11ac(VHT20)_LCH_2412MHz__NTNV

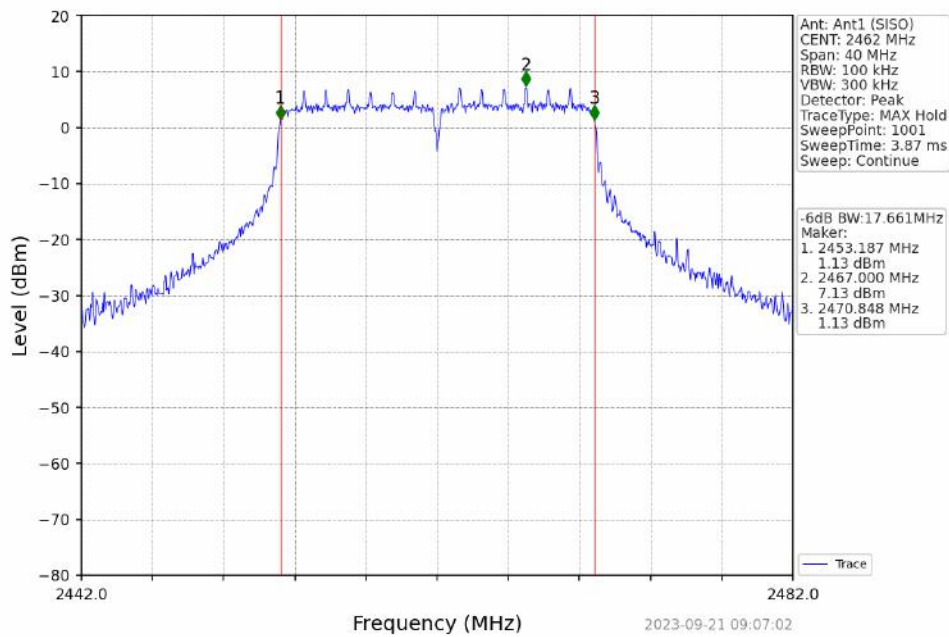


802.11ac(VHT20)_MCH_2437MHz__NTNV

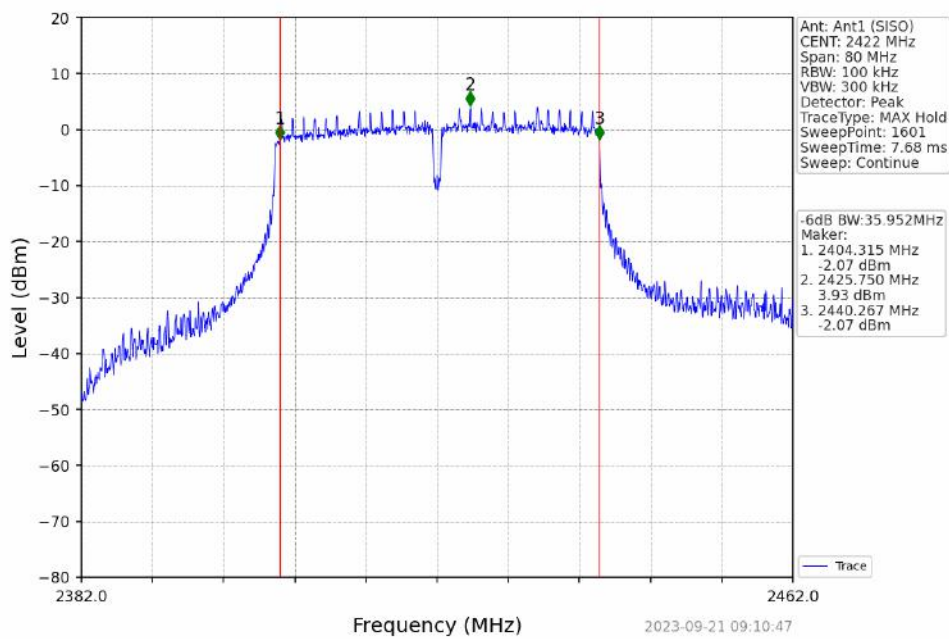




802.11ac(VHT20)_HCH_2462MHz__NTNV

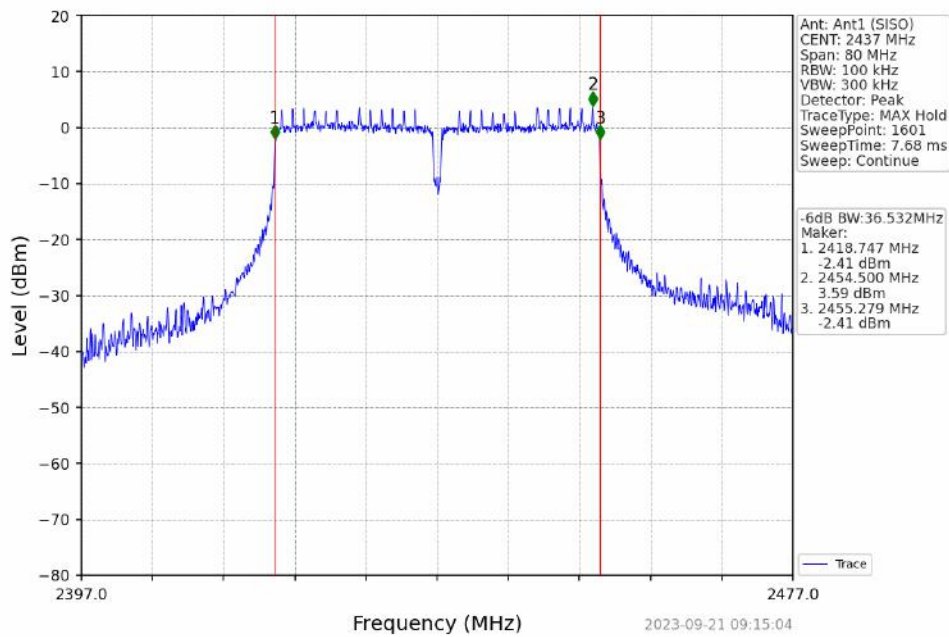


802.11ac(VHT40)_LCH_2422MHz__NTNV

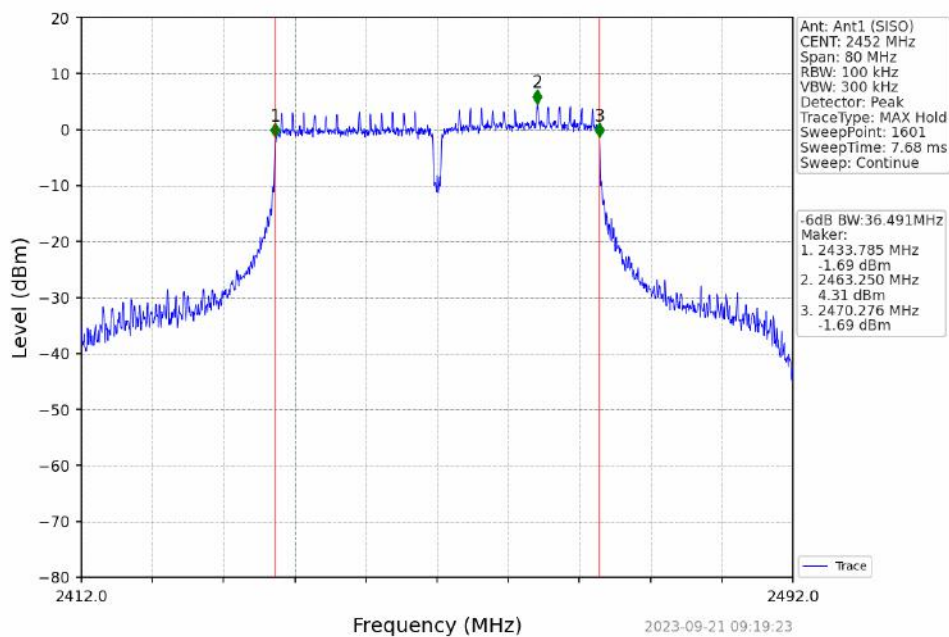




802.11ac(VHT40)_MCH_2437MHz__NTNV

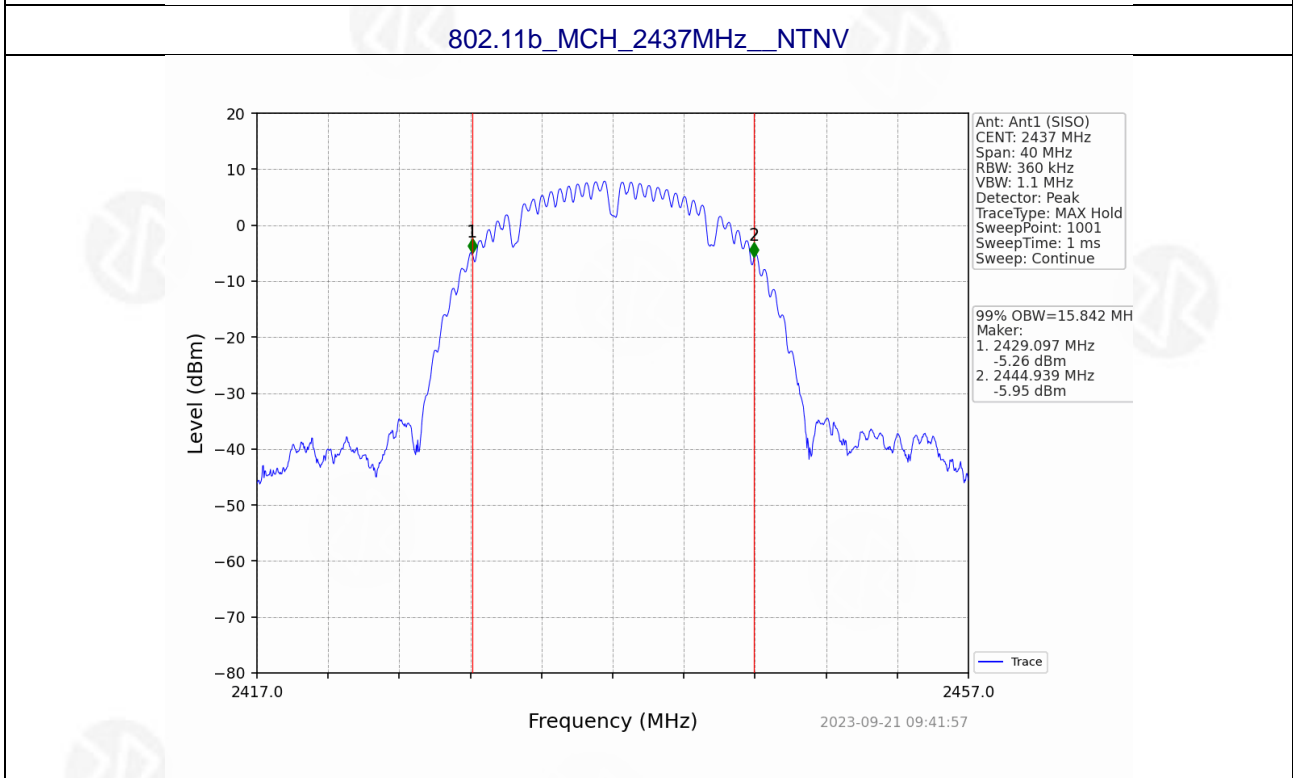
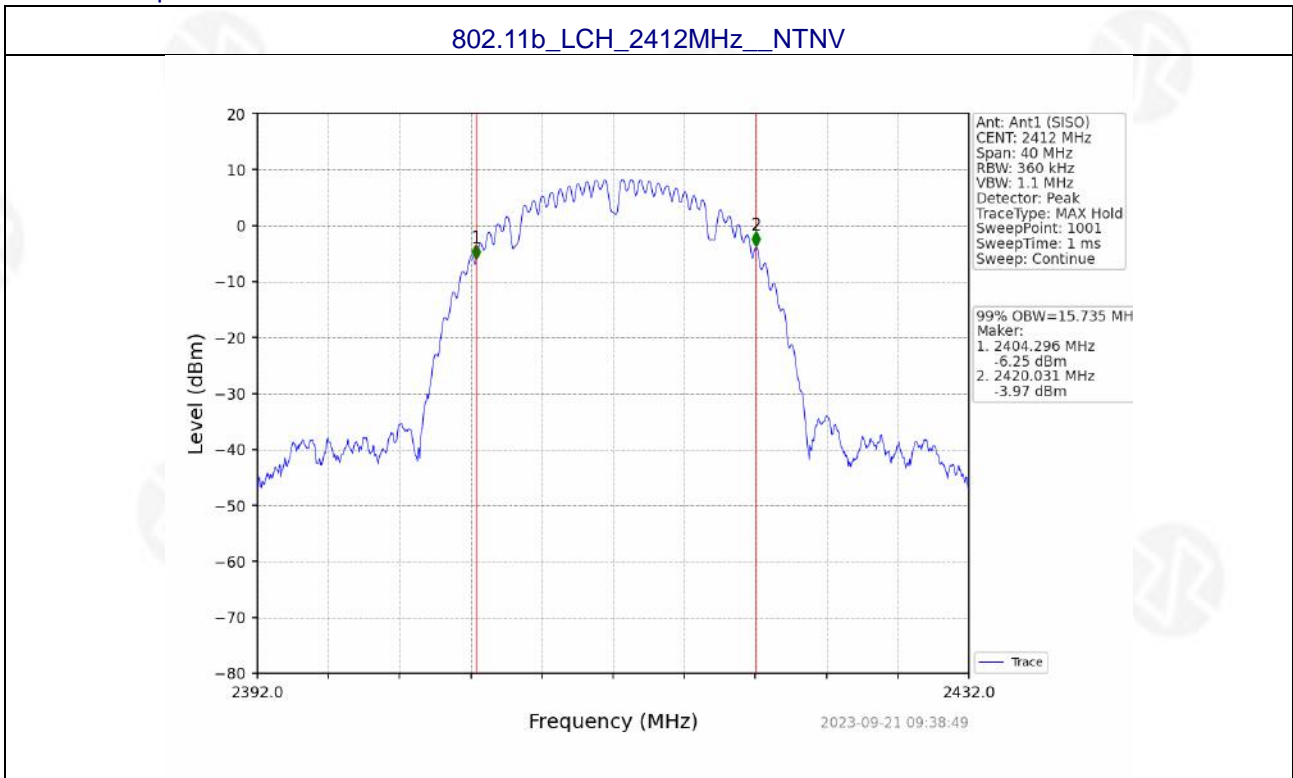


802.11ac(VHT40)_HCH_2452MHz__NTNV



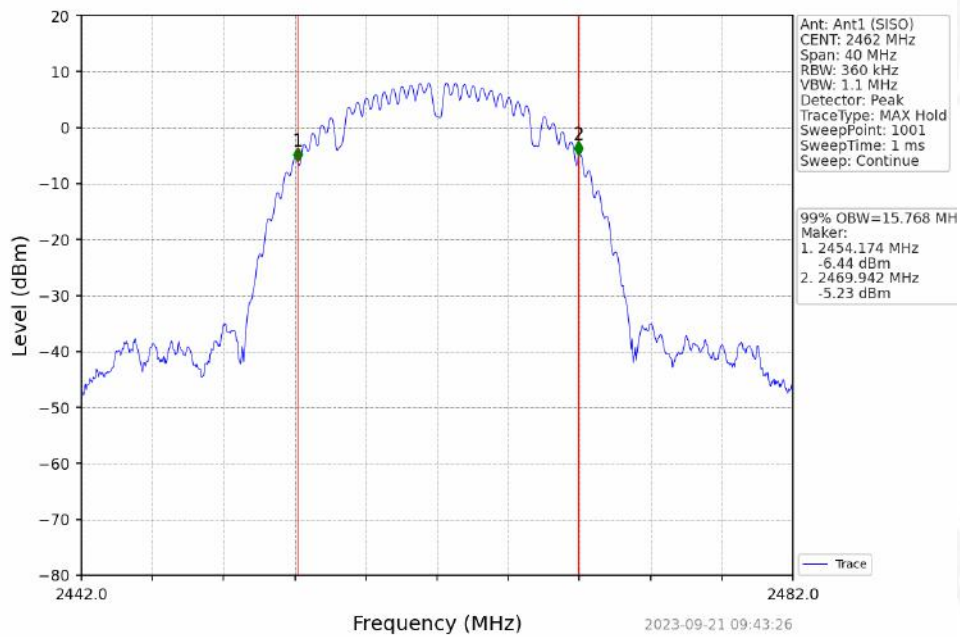


Antenna 2:
99% Occupied Bandwidth

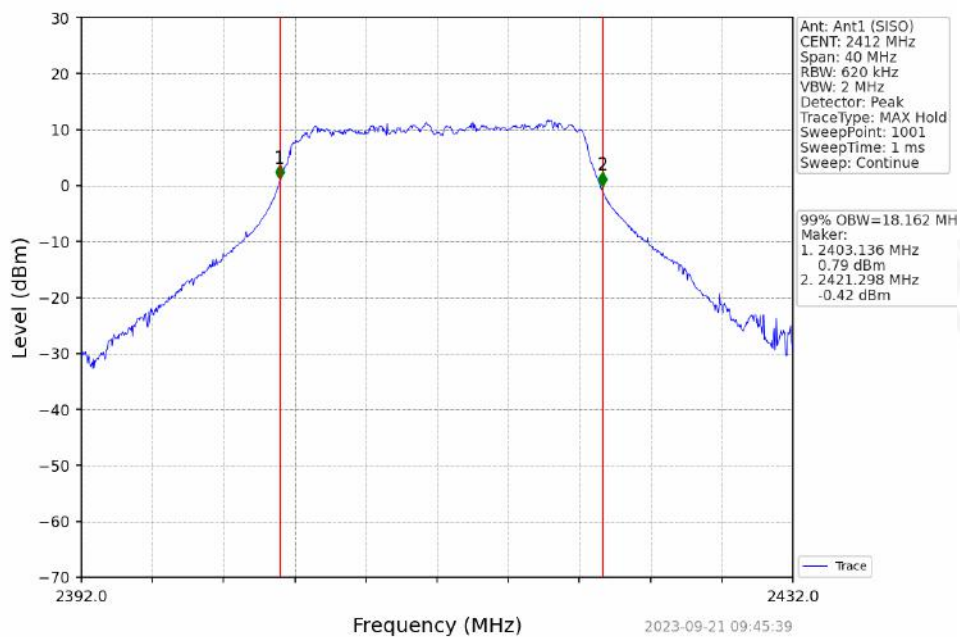




802.11b_HCH_2462MHz__NTNV

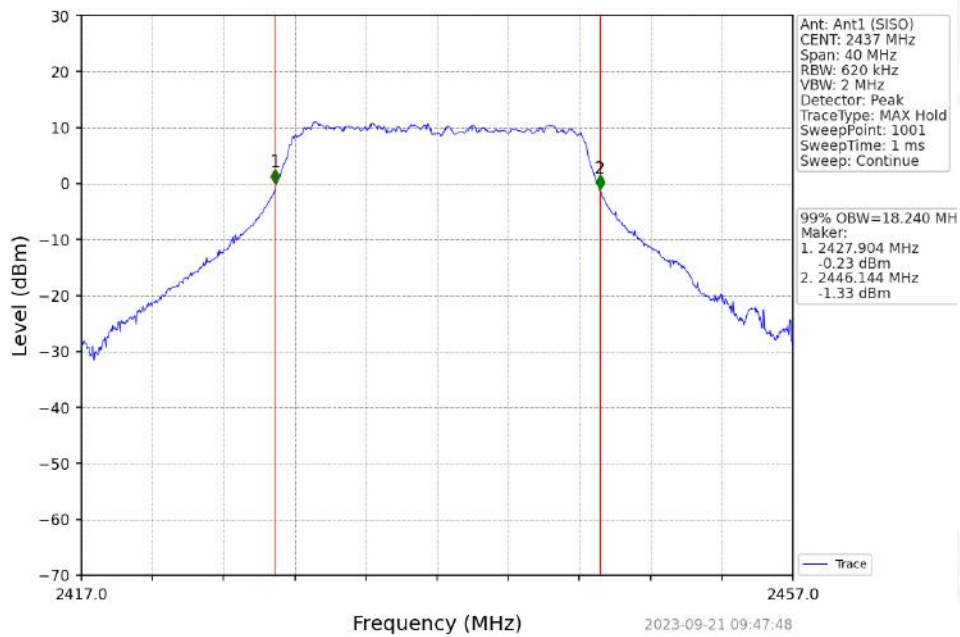


802.11g_LCH_2412MHz__NTNV

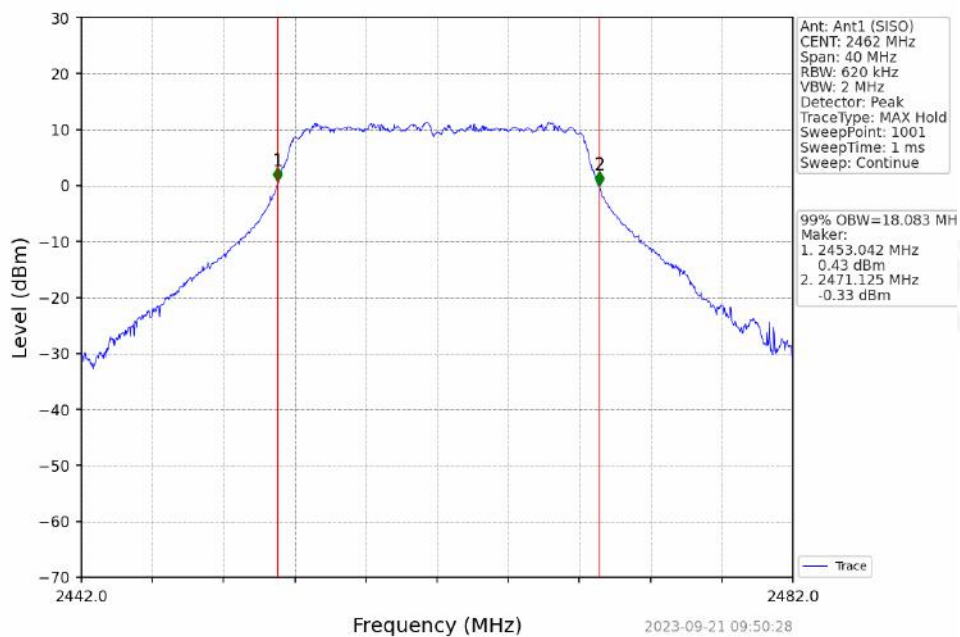




802.11g_MCH_2437MHz__NTNV

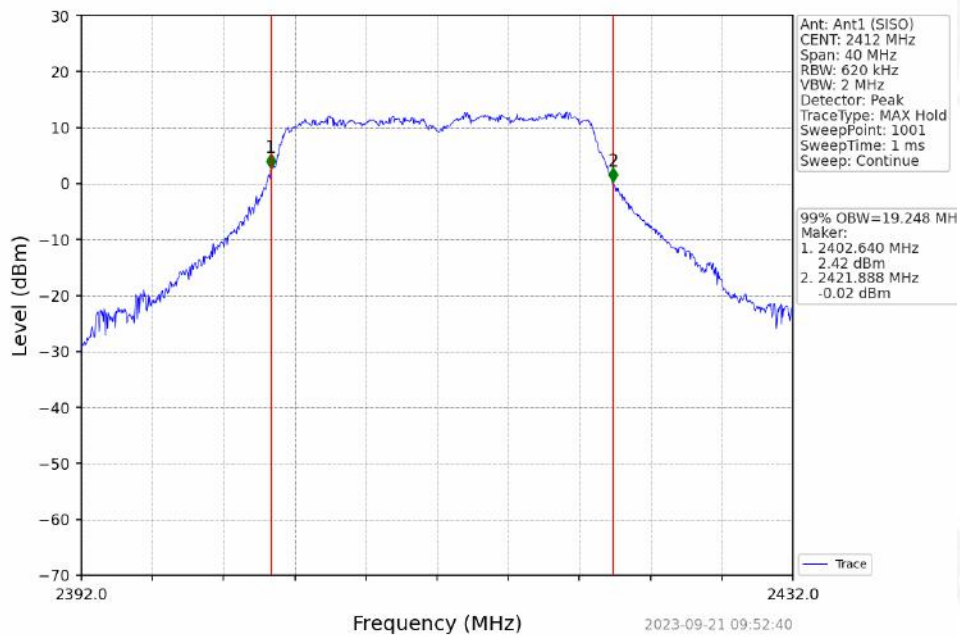


802.11g_HCH_2462MHz__NTNV

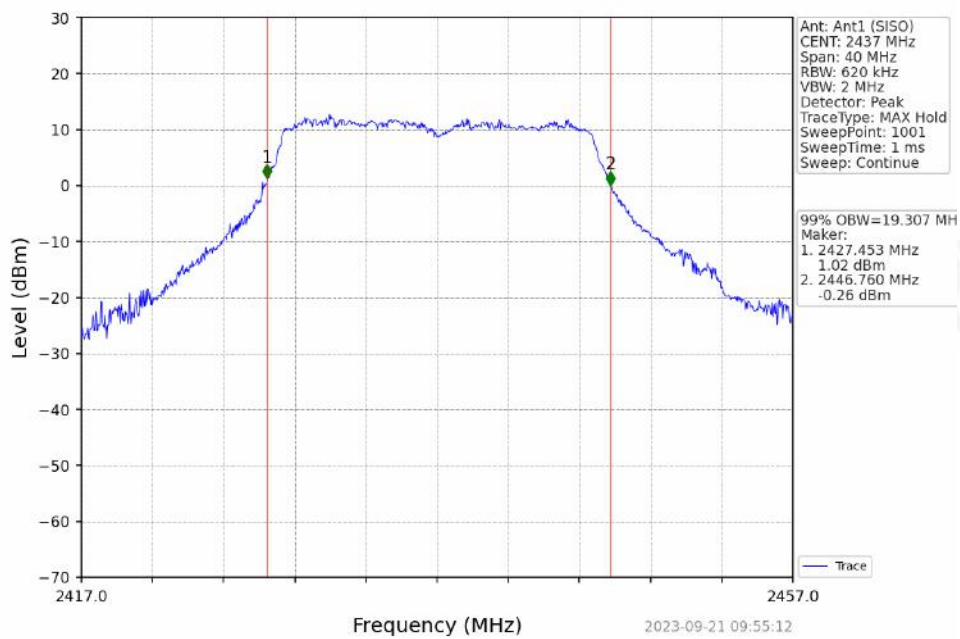




802.11n(HT20)_LCH_2412MHz__NTNV

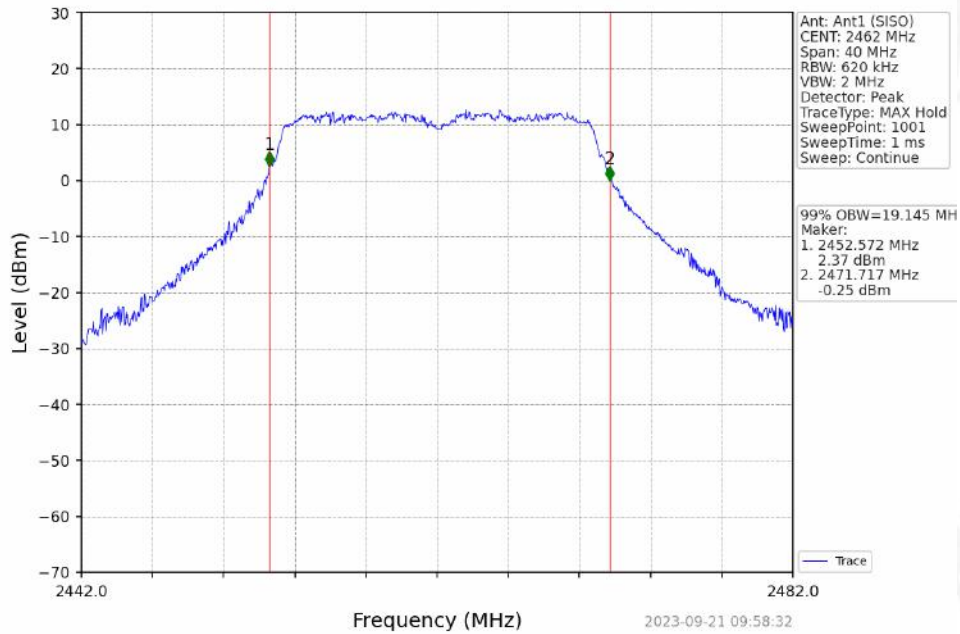


802.11n(HT20)_MCH_2437MHz__NTNV

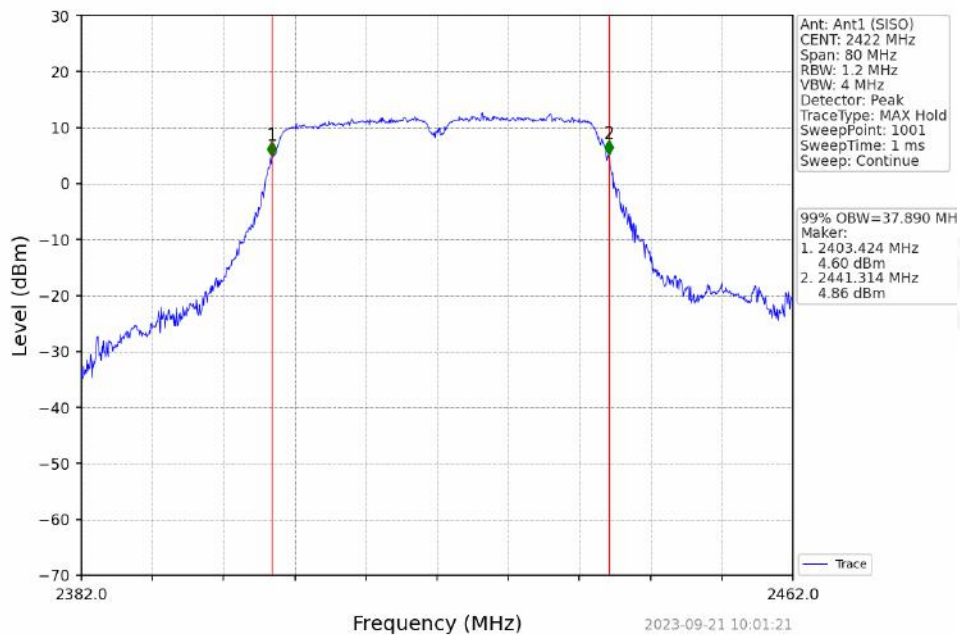




802.11n(HT20)_HCH_2462MHz__NTNV

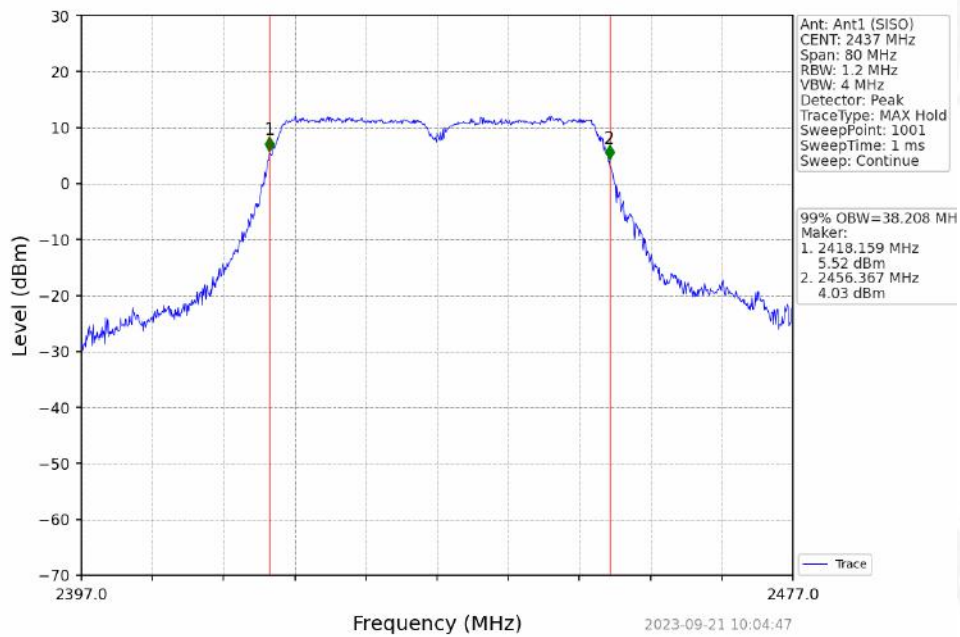


802.11n(HT40)_LCH_2422MHz__NTNV

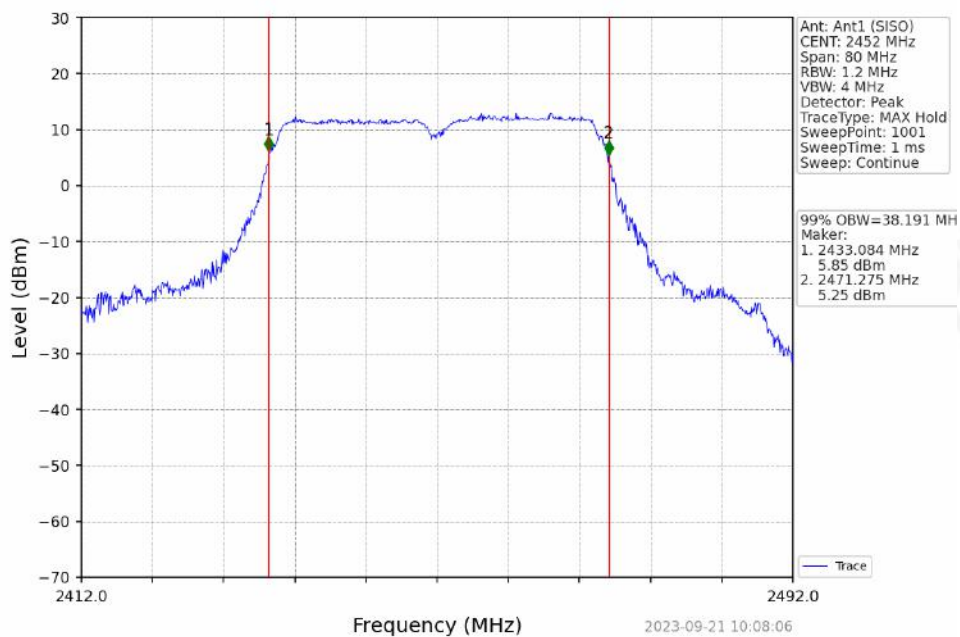




802.11n(HT40)_MCH_2437MHz__NTNV

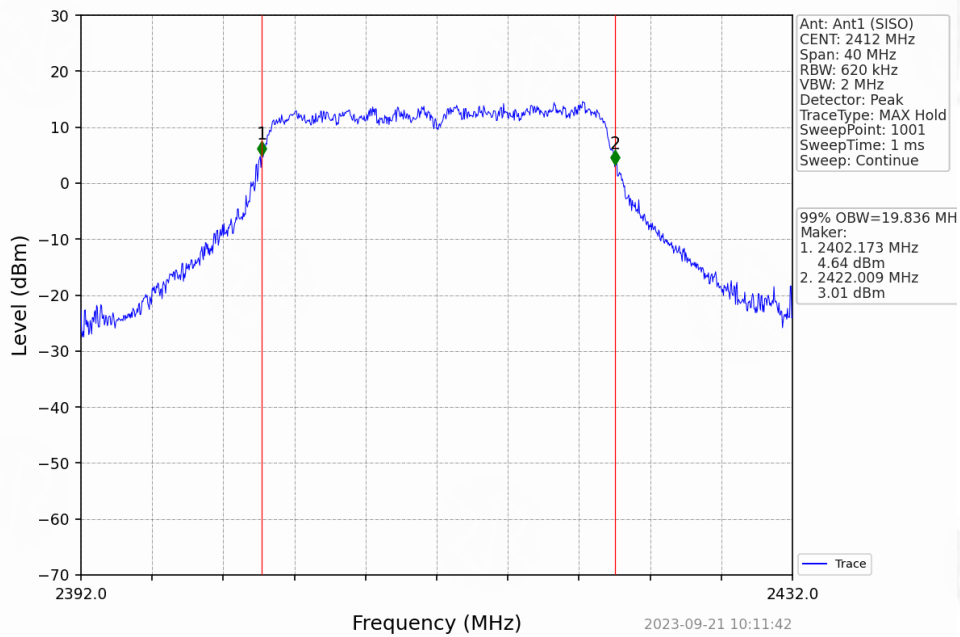


802.11n(HT40)_HCH_2452MHz__NTNV

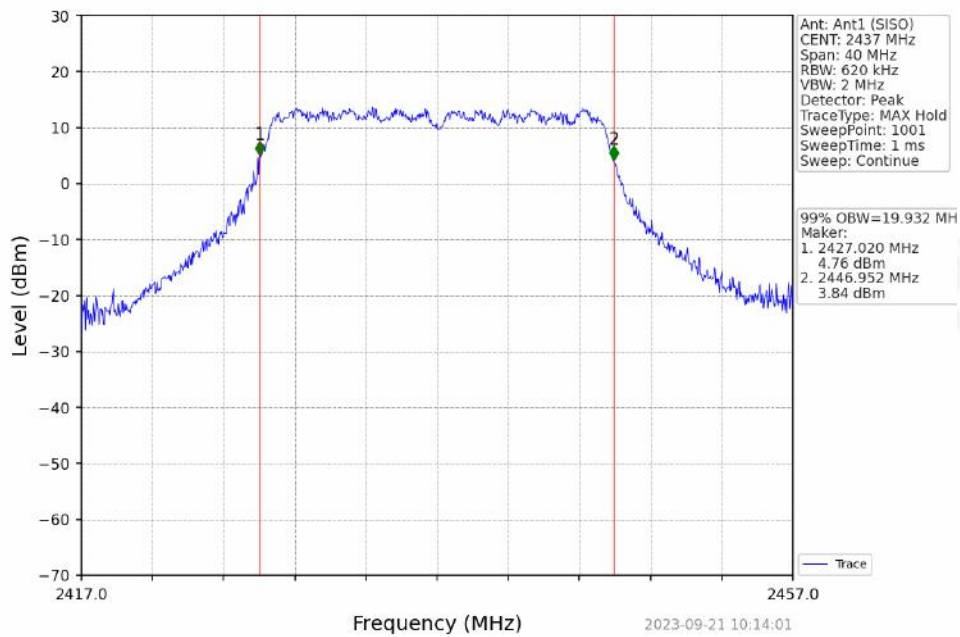




802.11ax(HEW20)_LCH_2412MHz_RU242_Left__NTNV

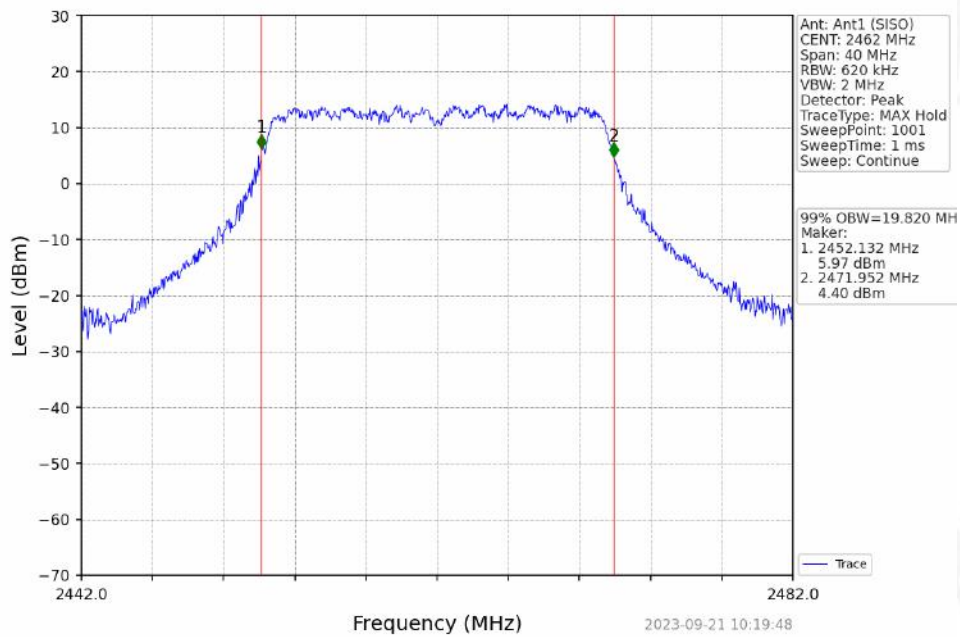


802.11ax(HEW20)_MCH_2437MHz_RU242_Left__NTNV

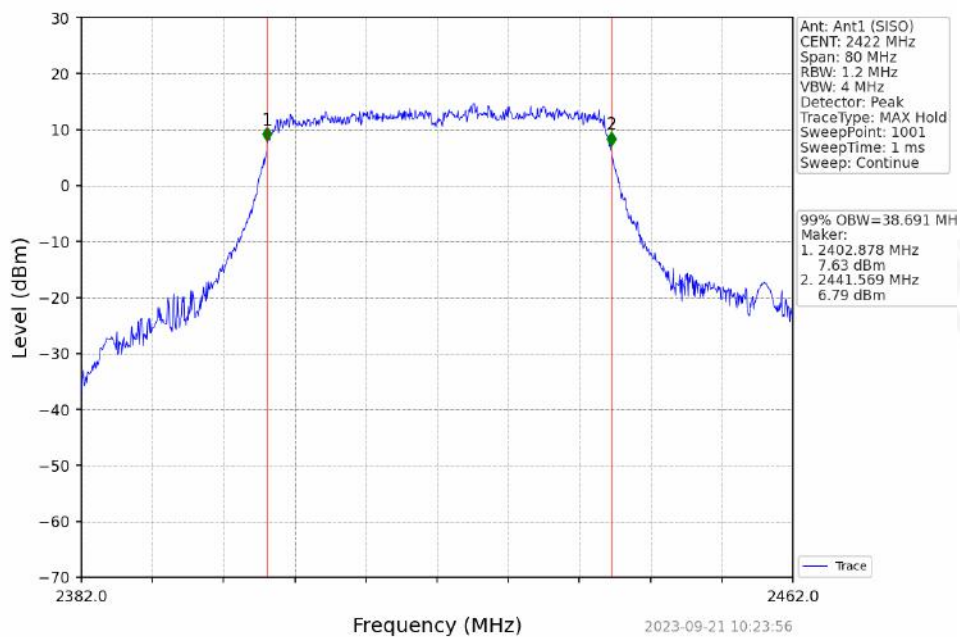




802.11ax(HEW20)_HCH_2462MHz_RU242_Left_NTNV

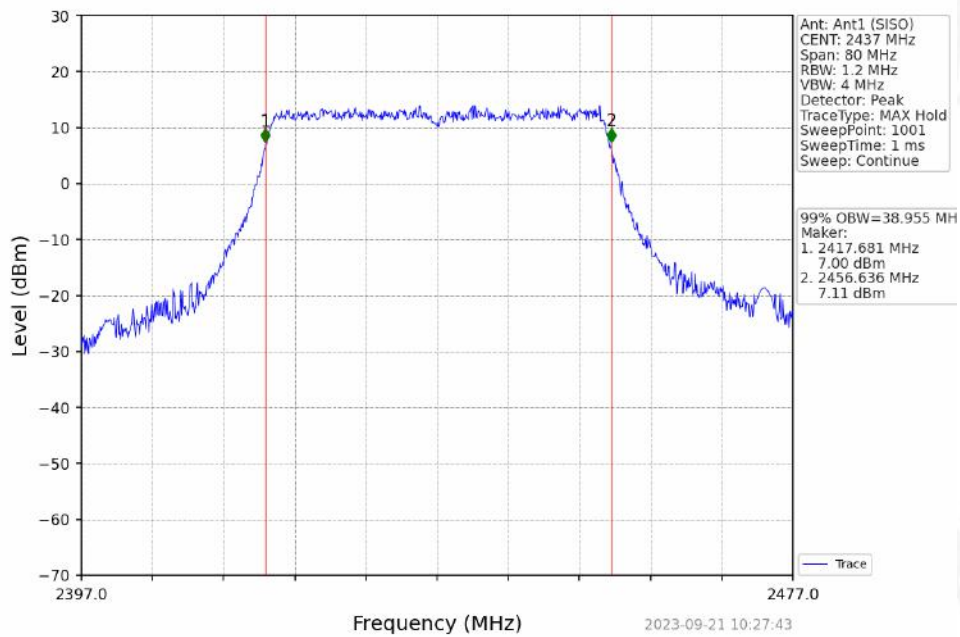


802.11ax(HEW40)_LCH_2422MHz_RU484_Left_NTNV

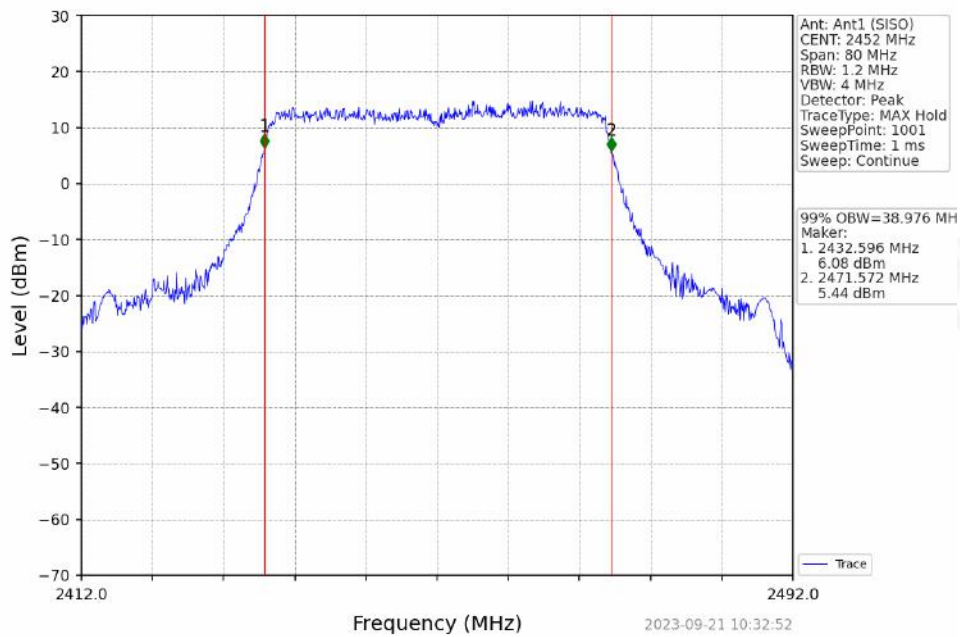




802.11ax(HEW40)_MCH_2437MHz_RU484_Left_NTNV

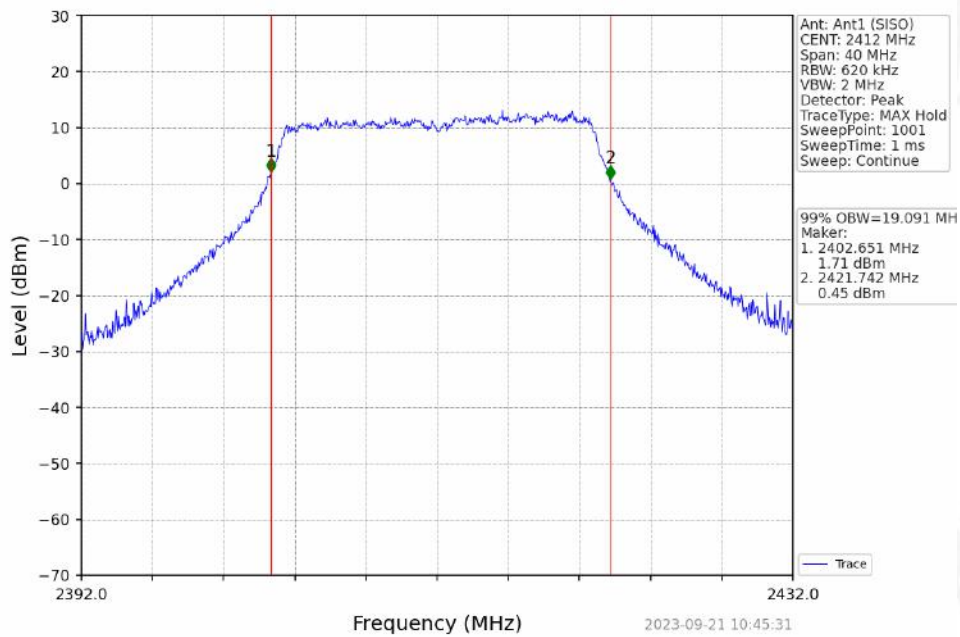


802.11ax(HEW40)_HCH_2452MHz_RU484_Left_NTNV

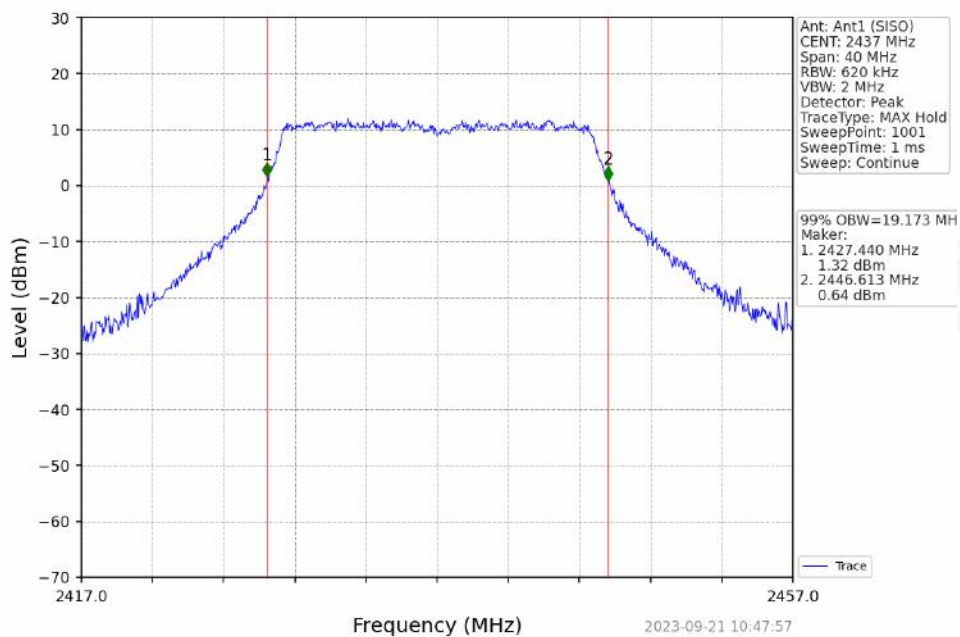




802.11ac(VHT20)_LCH_2412MHz__NTNV

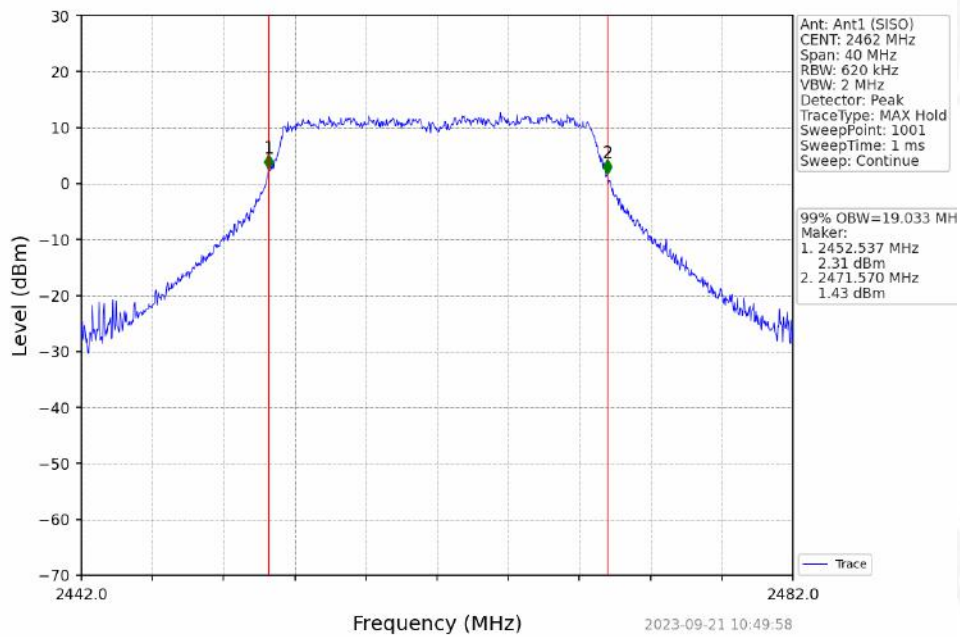


802.11ac(VHT20)_MCH_2437MHz__NTNV

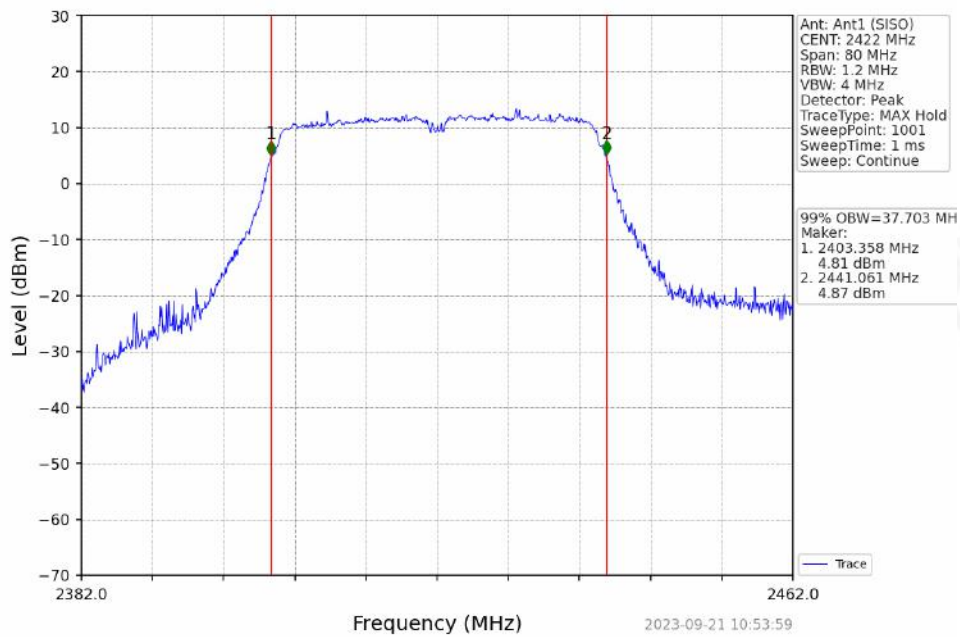




802.11ac(VHT20)_HCH_2462MHz__NTNV

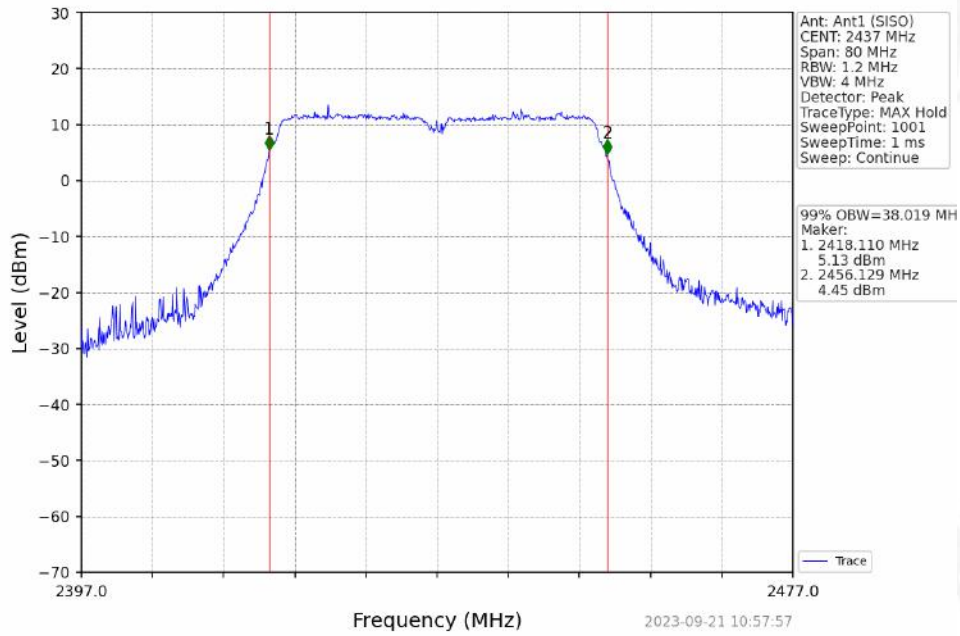


802.11ac(VHT40)_LCH_2422MHz__NTNV

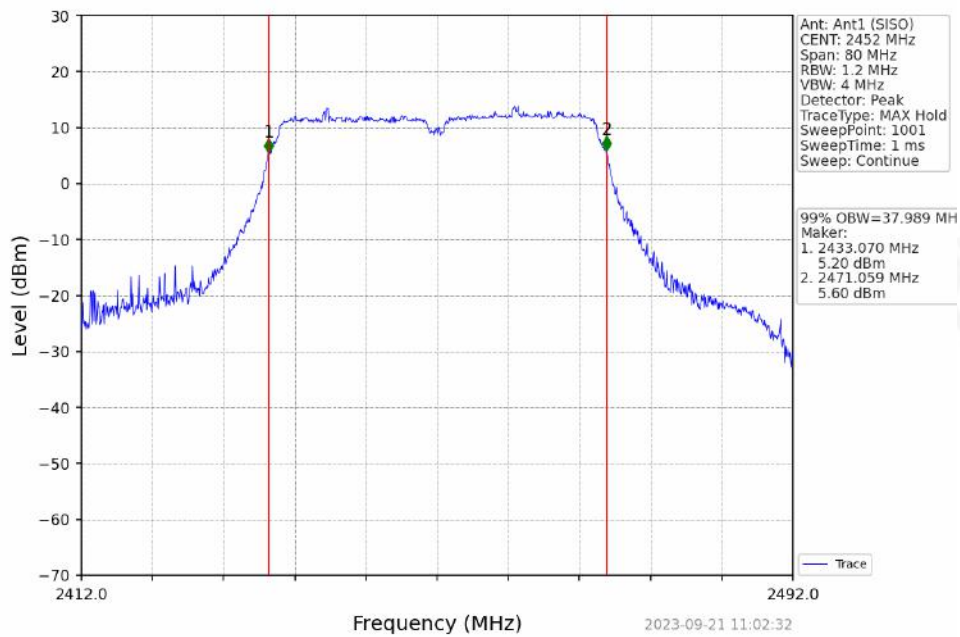




802.11ac(VHT40)_MCH_2437MHz__NTNV

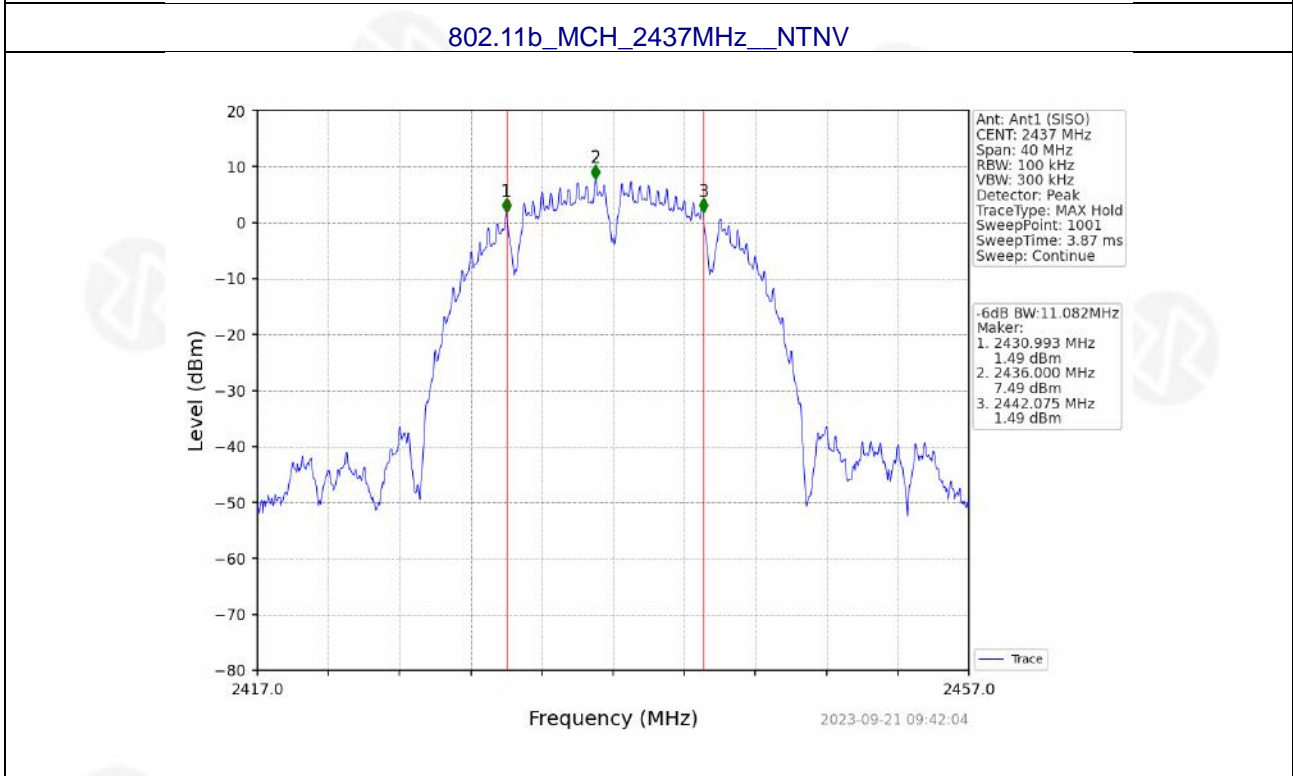
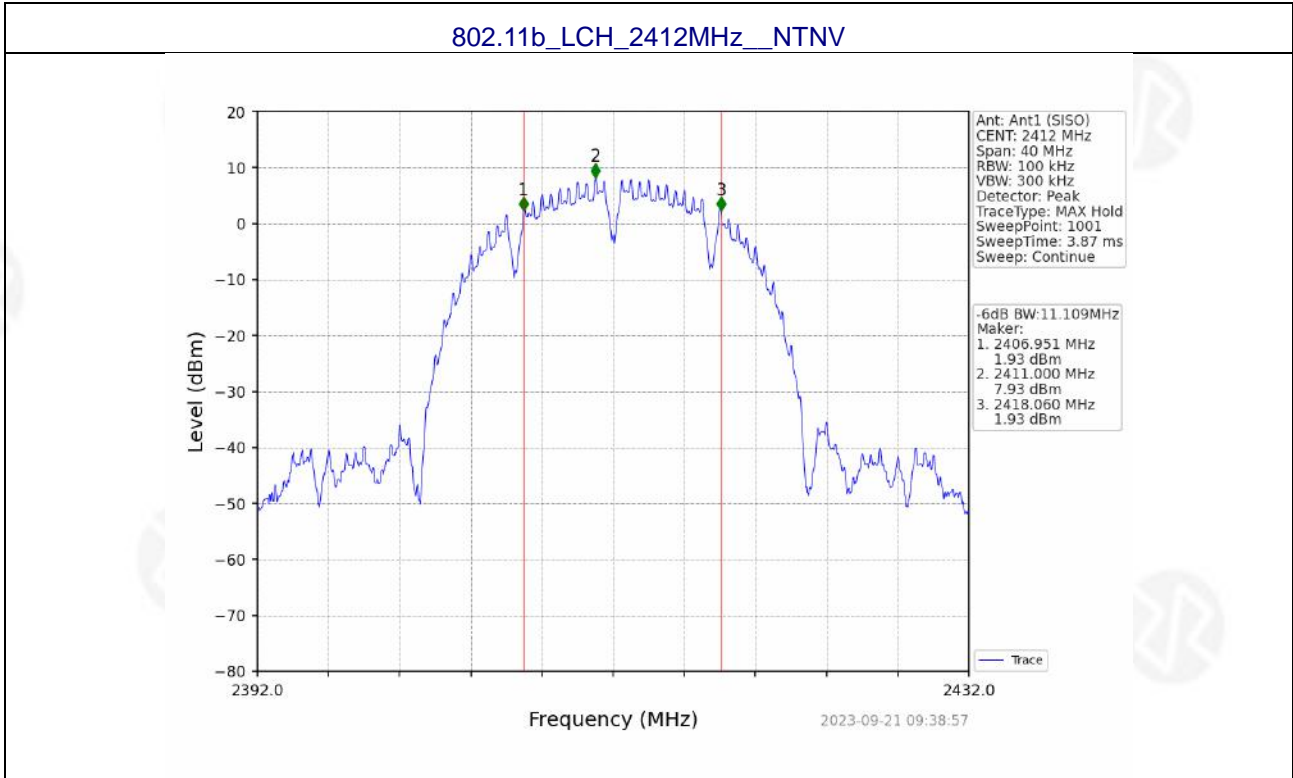


802.11ac(VHT40)_HCH_2452MHz__NTNV



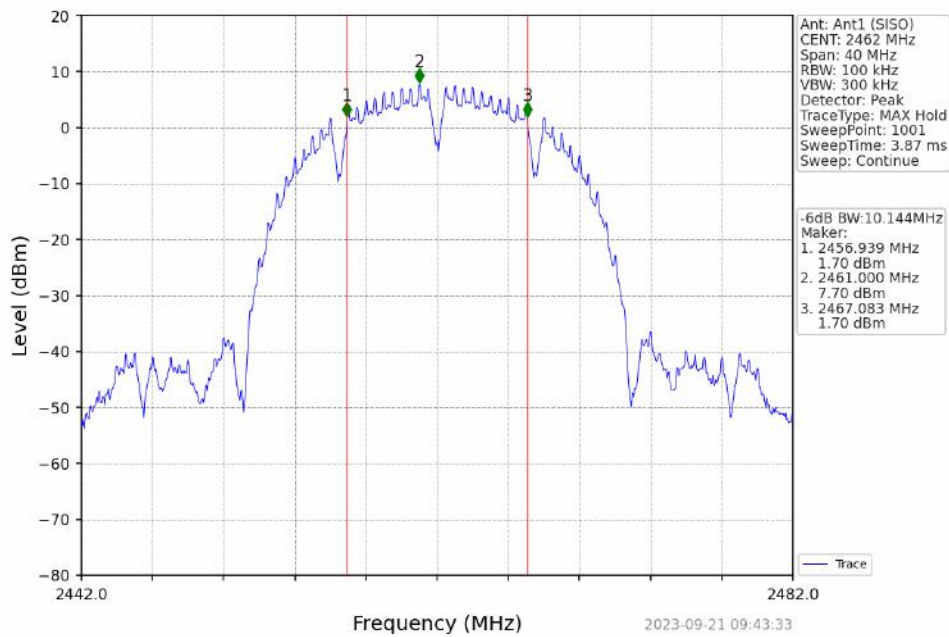


6dB Bandwidth

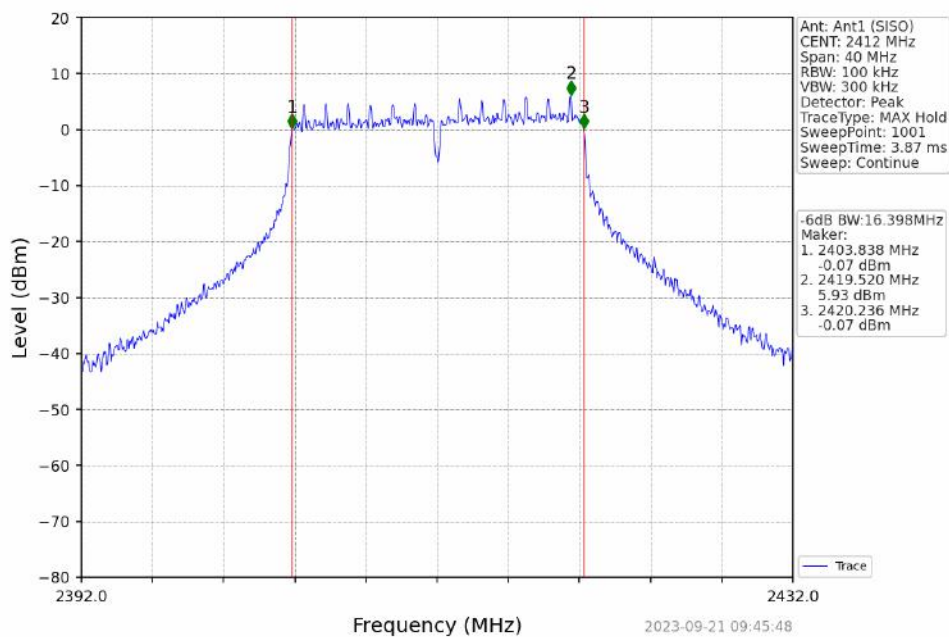




802.11b_HCH_2462MHz__NTNV

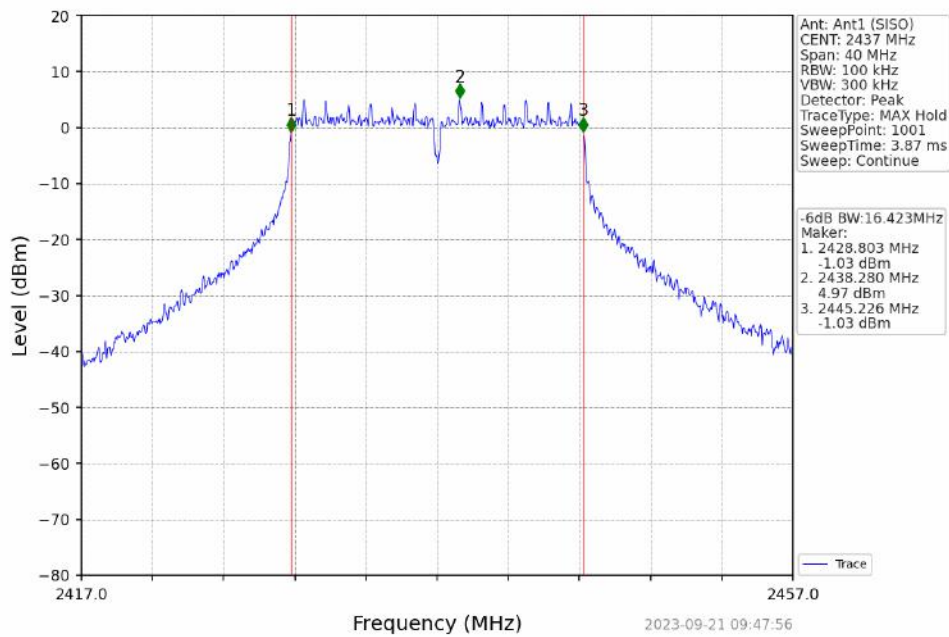


802.11g_LCH_2412MHz__NTNV

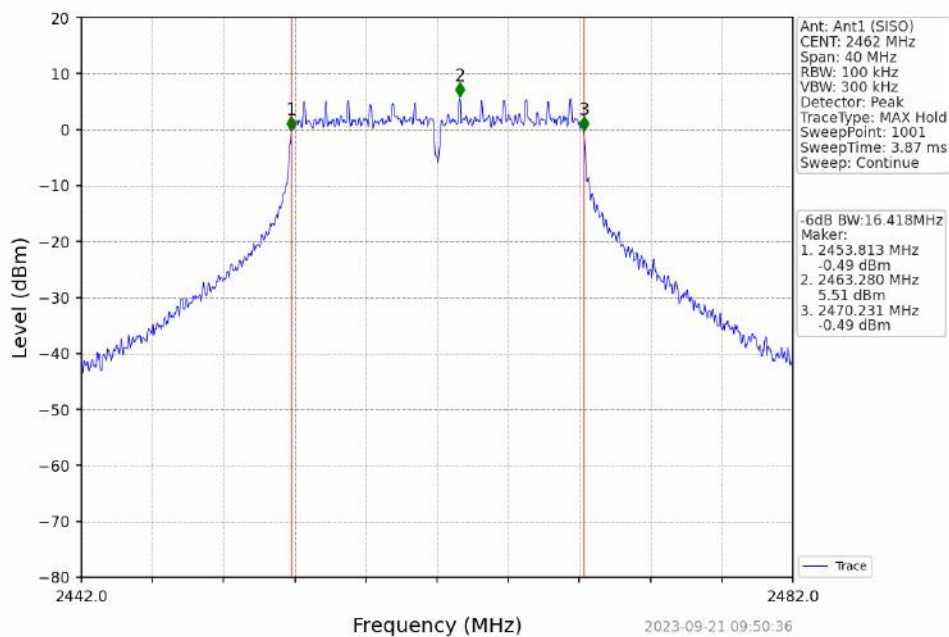




802.11g_MCH_2437MHz__NTNV

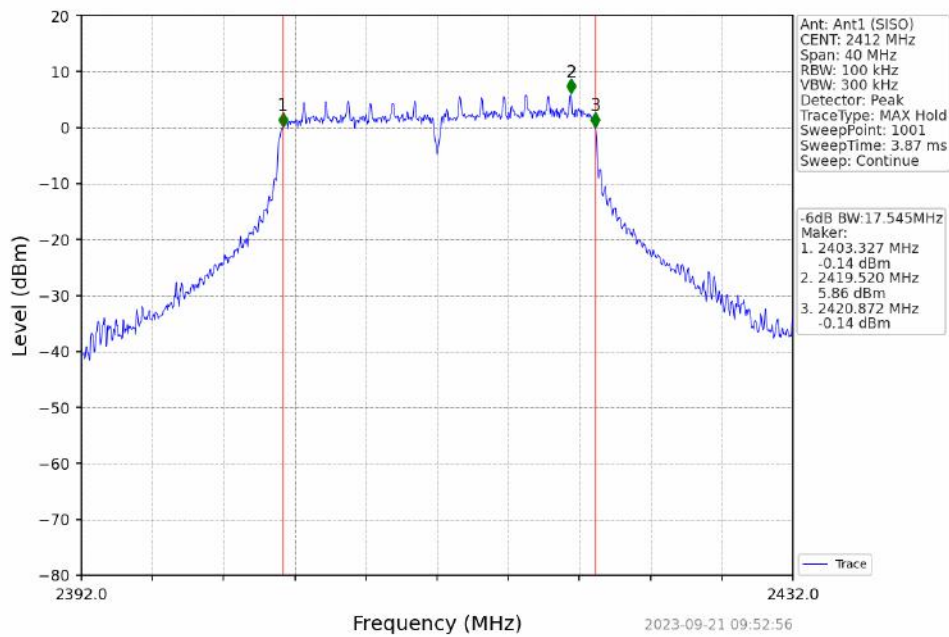


802.11g_HCH_2462MHz__NTNV

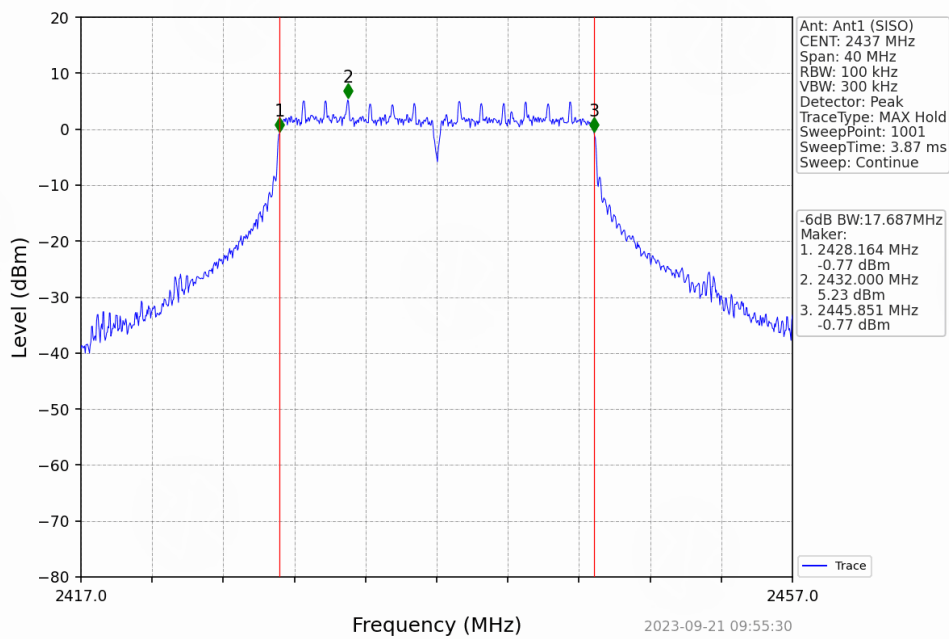




802.11n(HT20)_LCH_2412MHz__NTNV

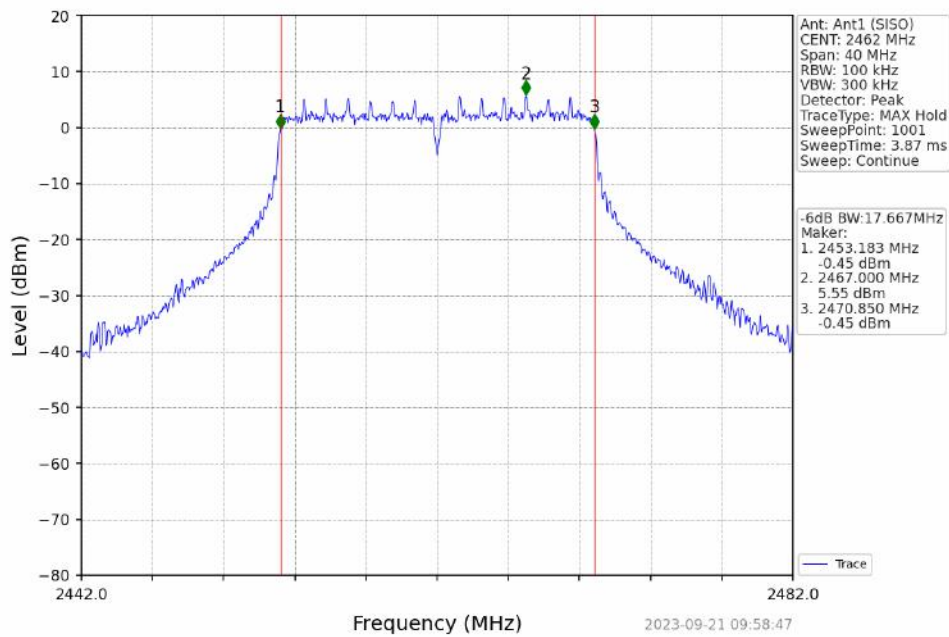


802.11n(HT20)_MCH_2437MHz__NTNV

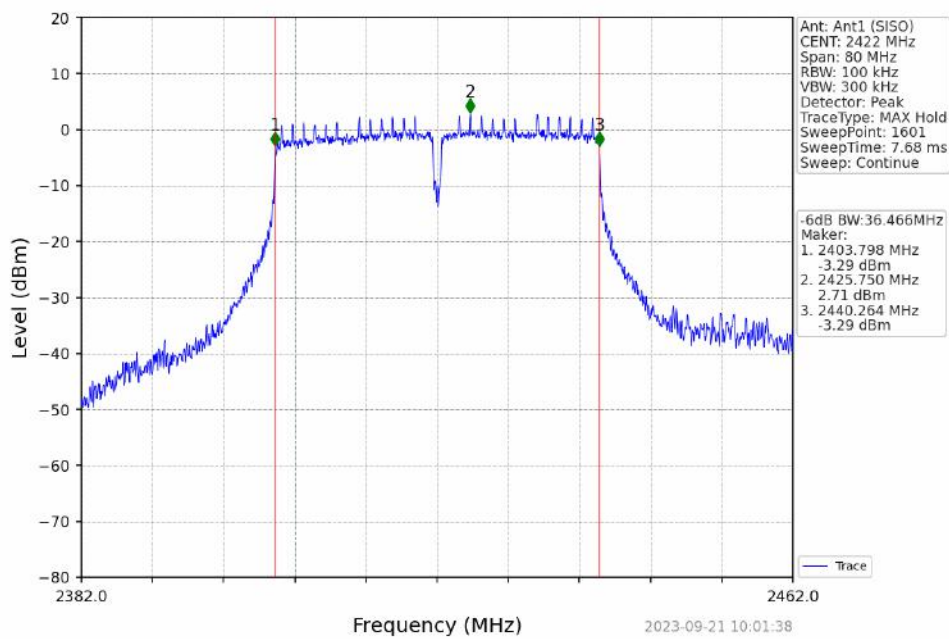




802.11n(HT20)_HCH_2462MHz__NTNV

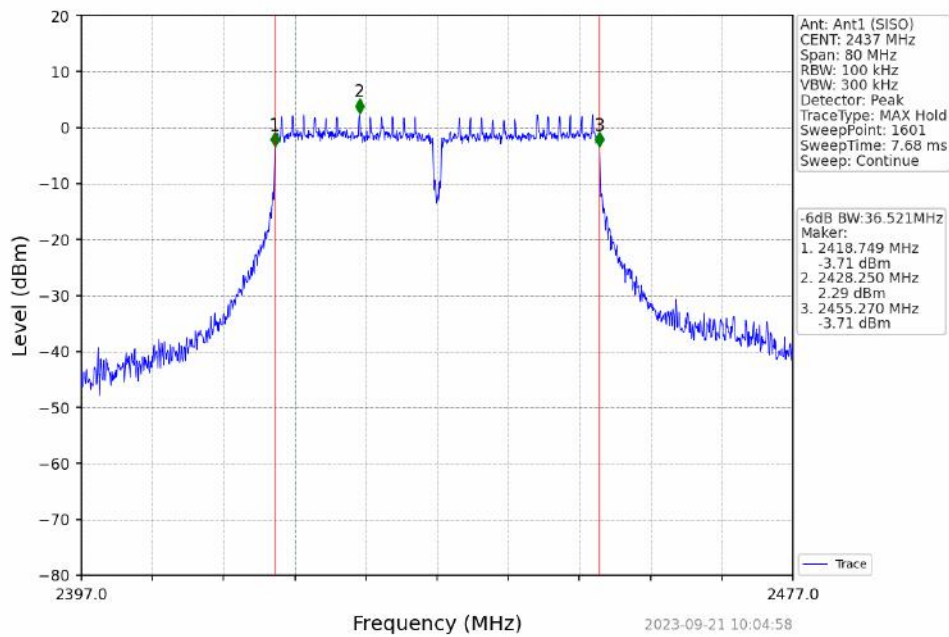


802.11n(HT40)_LCH_2422MHz__NTNV

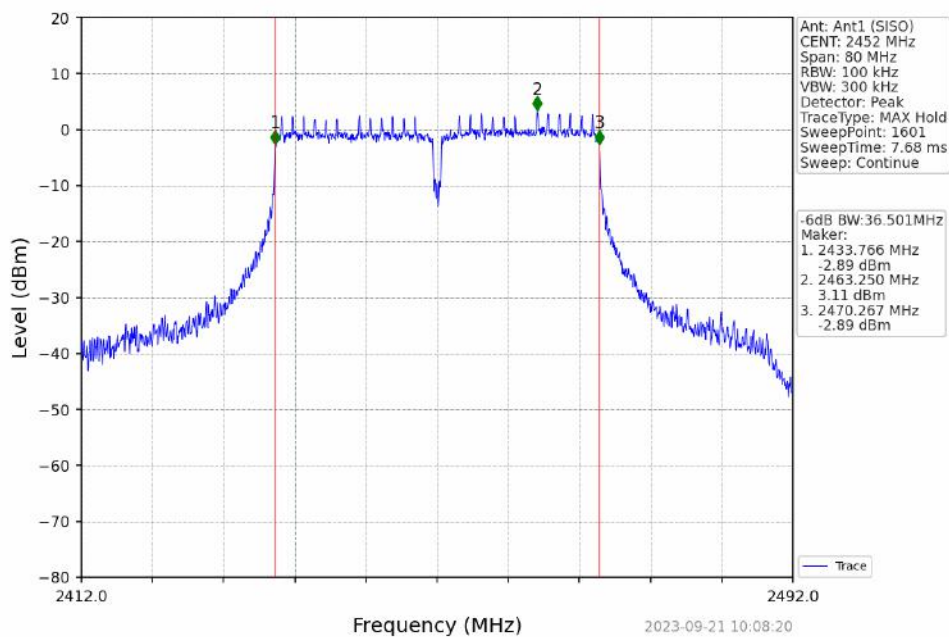




802.11n(HT40)_MCH_2437MHz__NTNV

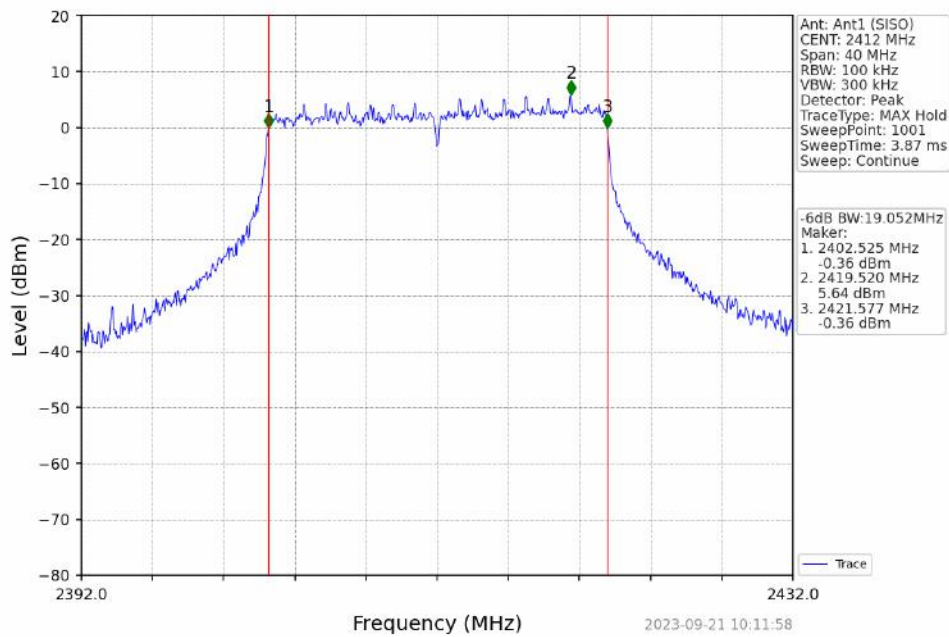


802.11n(HT40)_HCH_2452MHz__NTNV

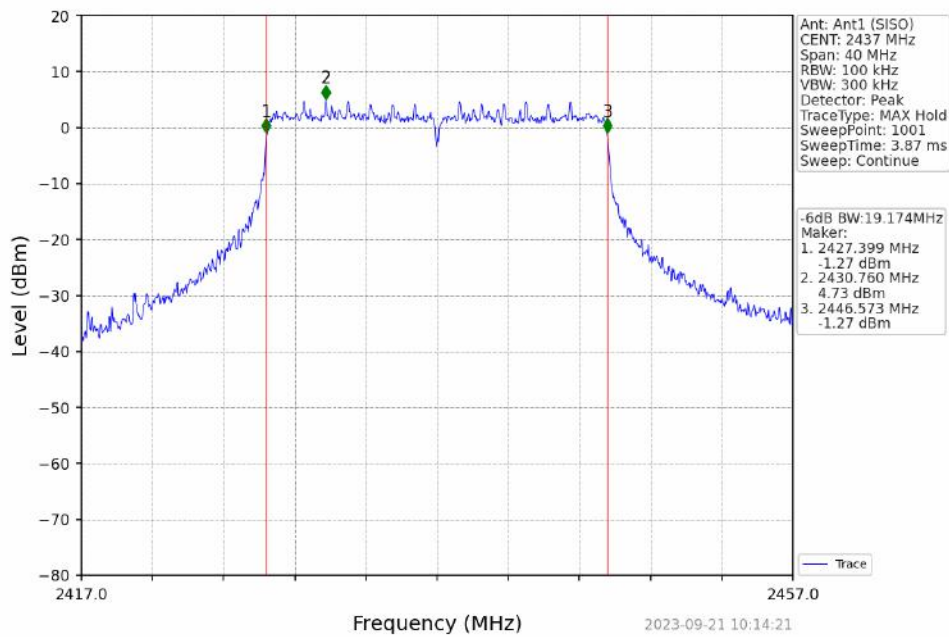




802.11ax(HEW20)_LCH_2412MHz_RU242_Left__NTNV

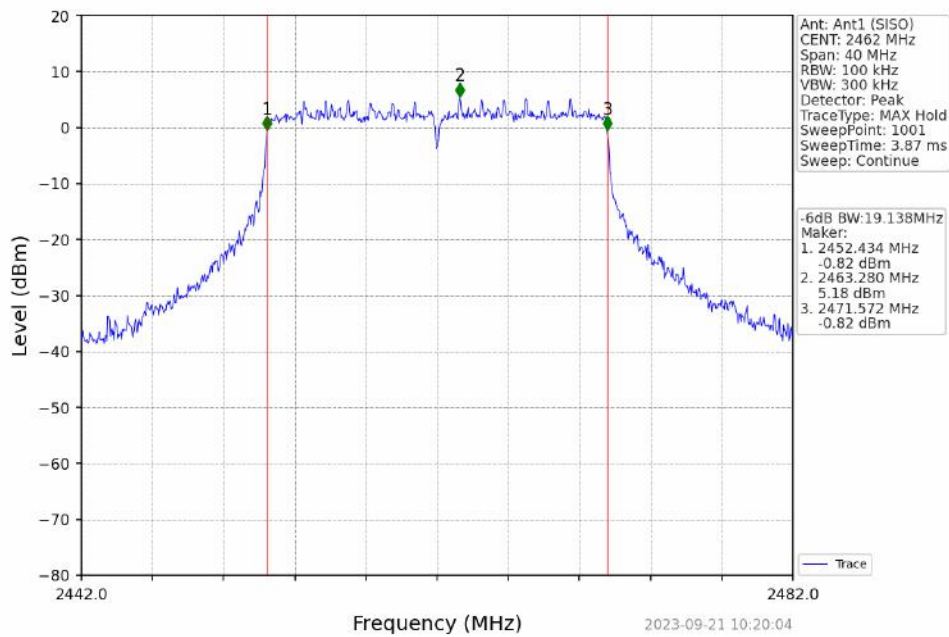


802.11ax(HEW20)_MCH_2437MHz_RU242_Left__NTNV

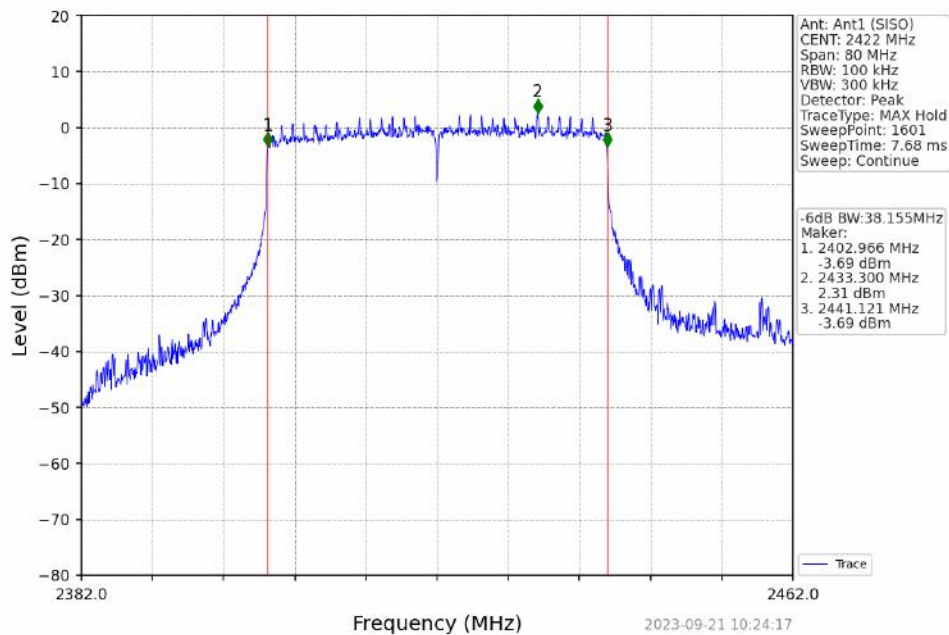




802.11ax(HEW20)_HCH_2462MHz_RU242_Left_NTNV

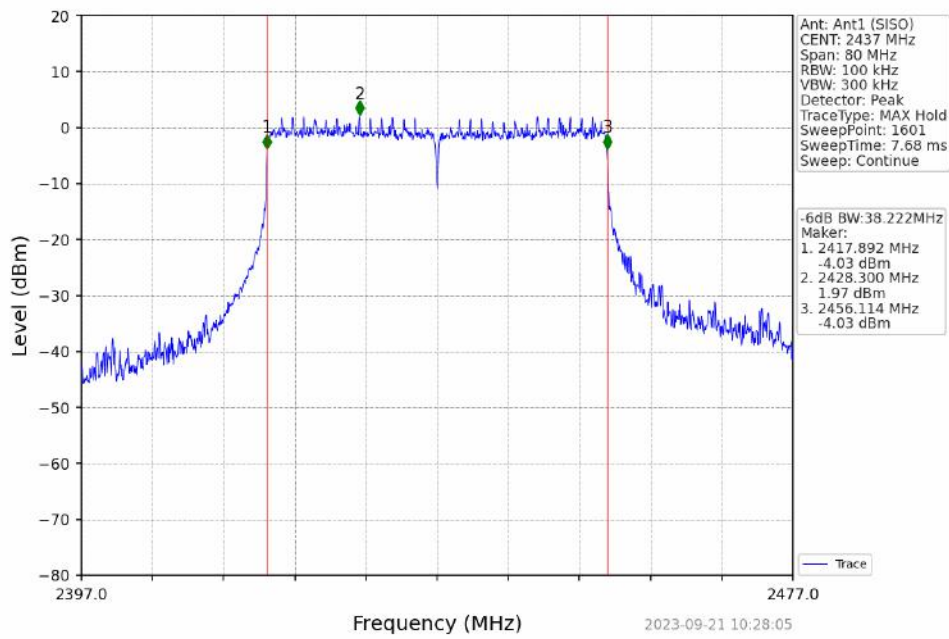


802.11ax(HEW40)_LCH_2422MHz_RU484_Left_NTNV

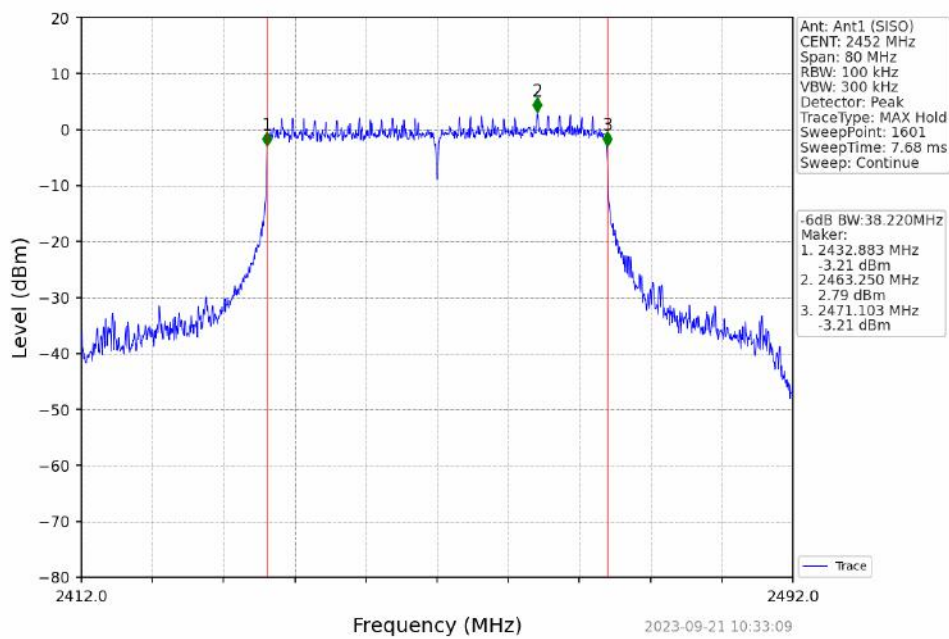




802.11ax(HEW40)_MCH_2437MHz_RU484_Left_NTNV

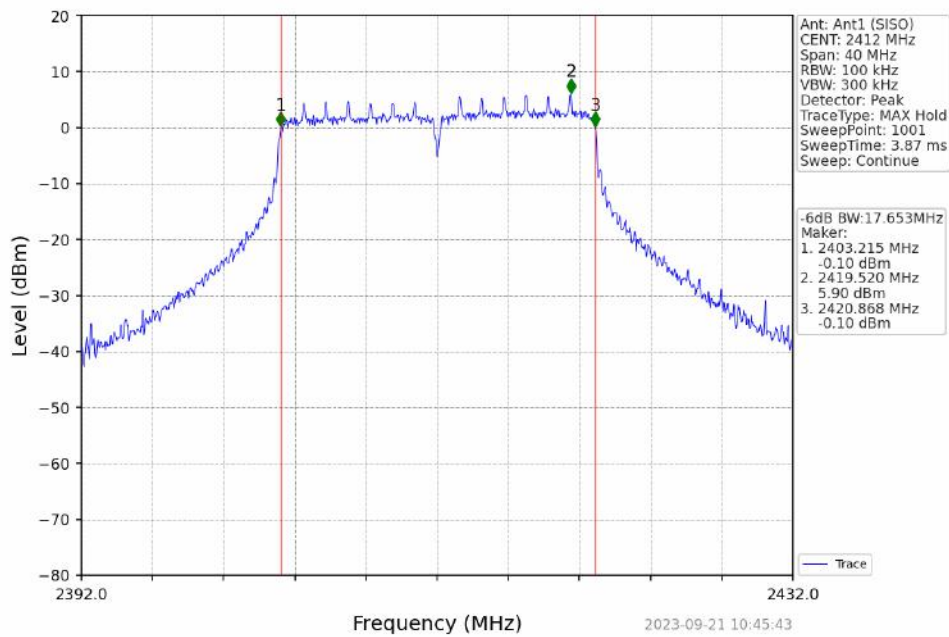


802.11ax(HEW40)_HCH_2452MHz_RU484_Left_NTNV

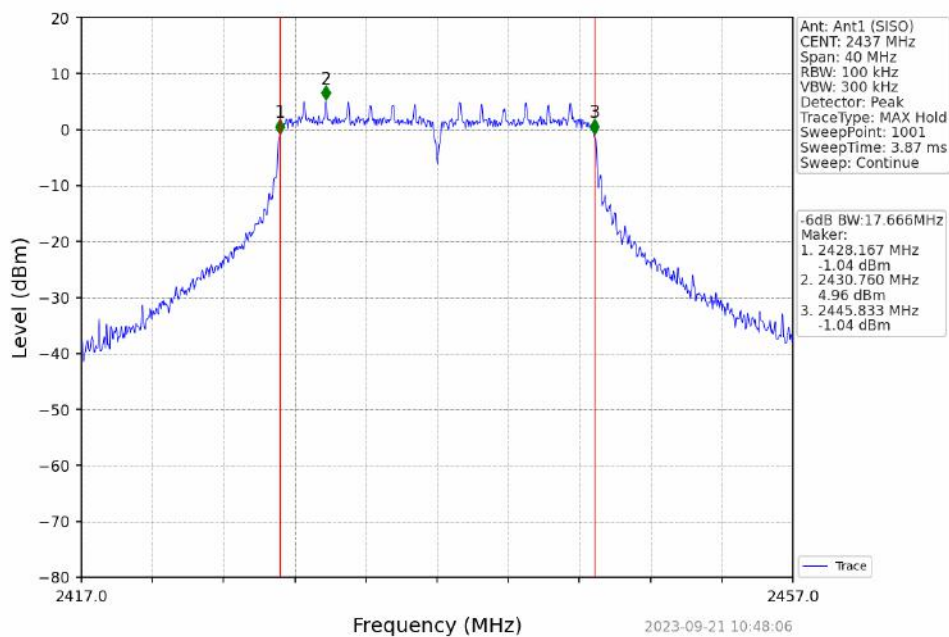




802.11ac(VHT20)_LCH_2412MHz__NTNV

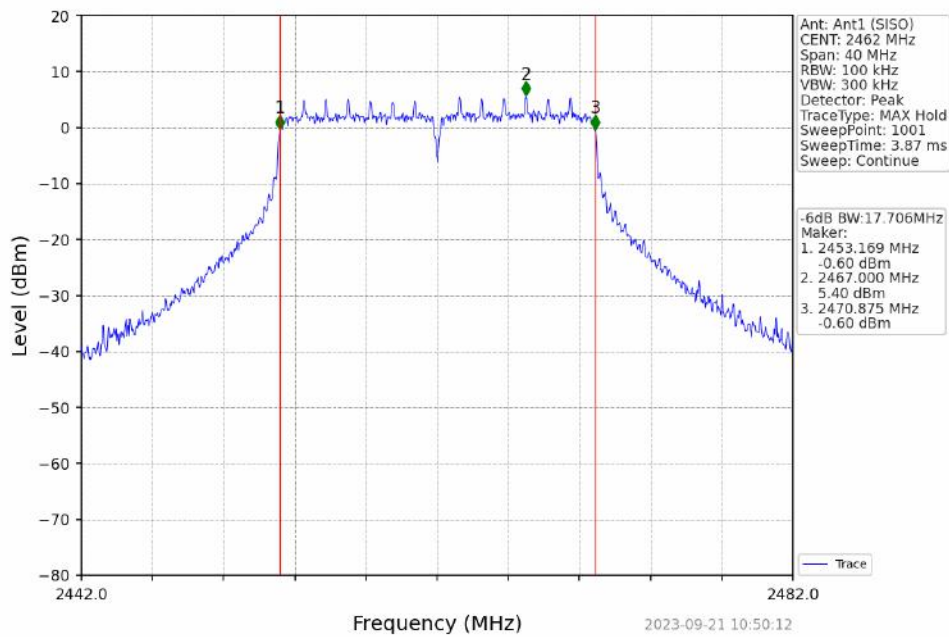


802.11ac(VHT20)_MCH_2437MHz__NTNV

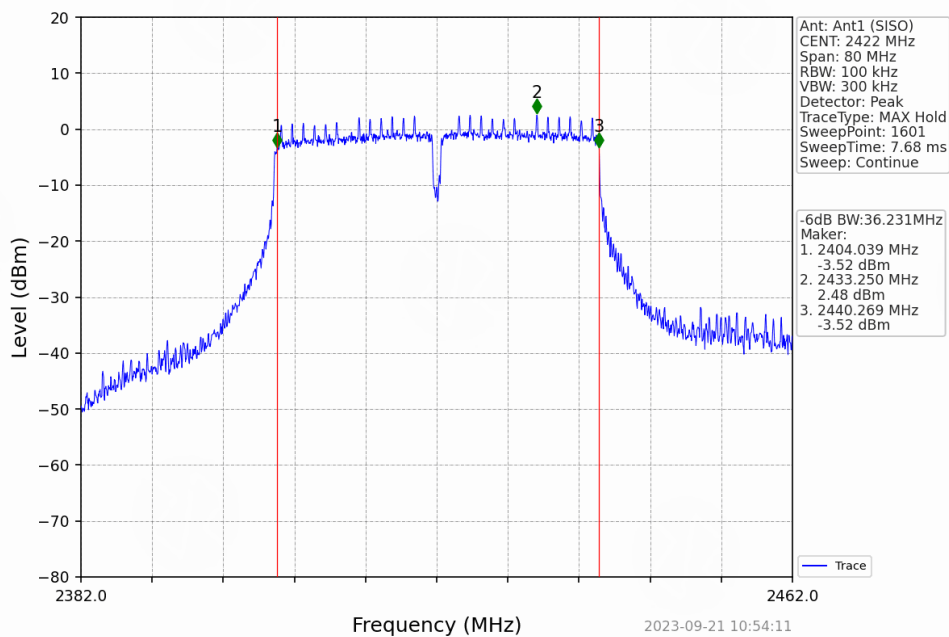




802.11ac(VHT20)_HCH_2462MHz__NTNV

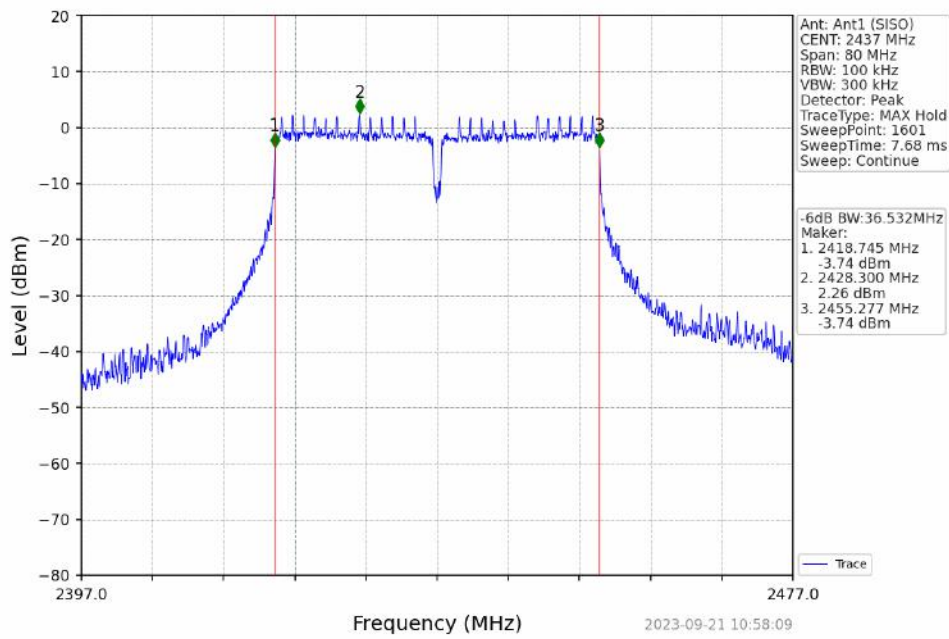


802.11ac(VHT40)_LCH_2422MHz__NTNV

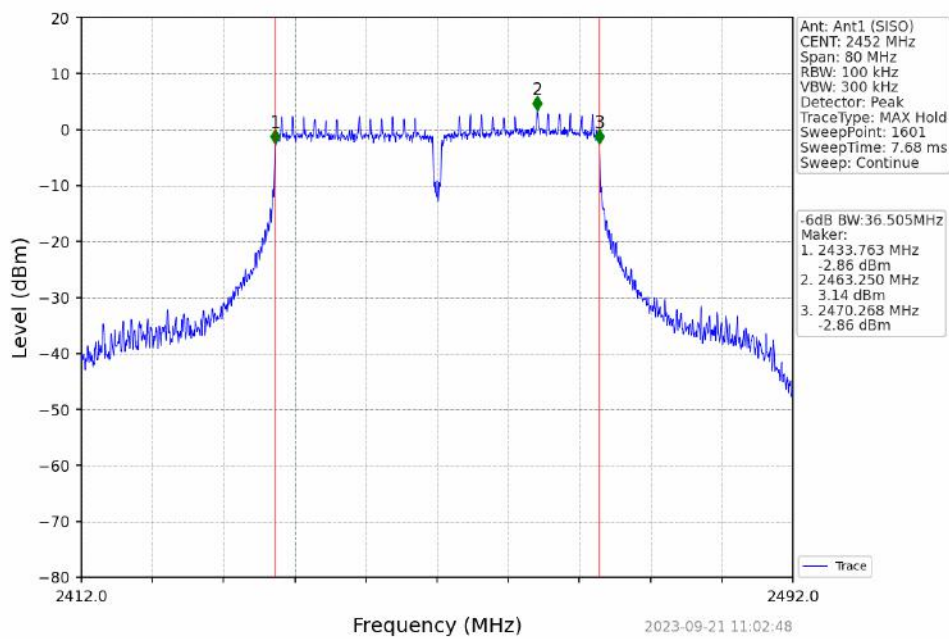




802.11ac(VHT40)_MCH_2437MHz__NTNV



802.11ac(VHT40)_HCH_2452MHz__NTNV





8. MAXIMUM CONDUCTED OUTPUT POWER TEST

| | |
|-------------------|---|
| Test Requirement: | FCC Part15 C Section 15.247 (b)(3) |
| Test Method: | ANSI C63.10:2013 and KDB558074 D01DTS Meas Guidancev05r02 |

8.1 APPLIED PROCEDURES/LIMIT

| FCC Part15 (15.247) , Subpart C | | | | |
|---------------------------------|----------------------|-----------------|-----------------------|--------|
| Section | Test Item | Limit | Frequency Range (MHz) | Result |
| 15.247(b)(3) | Average Output Power | 1 watt or 30dBm | 2400-2483.5 | PASS |

8.2 TEST PROCEDURE

- a. The EUT was directly connected to the Power meter

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.



8.6 TEST RESULT

| | | | |
|--------------|--------|--------------------|---------|
| Temperature: | 26°C | Relative Humidity: | 54% |
| Pressure: | 101kPa | Test Voltage : | DC 3.8V |

Antenna 3:
Output Power:

| Mode | TX Type | Frequency (MHz) | Maximum Average Conducted Output Power (dBm) | | Verdict |
|----------------|---------|-----------------|--|-------|---------|
| | | | ANT3 | Limit | |
| 802.11b | SISO | 2412 | 17.40 | <=30 | Pass |
| | | 2437 | 17.97 | <=30 | Pass |
| | | 2462 | 18.47 | <=30 | Pass |
| 802.11g | SISO | 2412 | 17.96 | <=30 | Pass |
| | | 2437 | 18.67 | <=30 | Pass |
| | | 2462 | 19.05 | <=30 | Pass |
| 802.11n (HT20) | SISO | 2412 | 17.83 | <=30 | Pass |
| | | 2437 | 18.62 | <=30 | Pass |
| | | 2462 | 19.04 | <=30 | Pass |

Duty Cycle:

| Mode | TX Type | Frequency (MHz) | T_on (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) | Max. DC Variation (%) |
|----------------|---------|-----------------|-----------|-------------|----------------|-----------------------------------|-----------------------|
| 802.11b | SISO | 2412 | 8.417 | 8.510 | 98.91 | 0.05 | 0.00 |
| | | 2437 | 8.417 | 8.510 | 98.91 | 0.05 | 0.00 |
| | | 2462 | 8.417 | 8.510 | 98.91 | 0.05 | 0.04 |
| 802.11g | SISO | 2412 | 1.397 | 1.496 | 93.38 | 0.30 | 0.03 |
| | | 2437 | 1.397 | 1.495 | 93.44 | 0.29 | 0.03 |
| | | 2462 | 1.396 | 1.495 | 93.38 | 0.30 | 0.03 |
| 802.11n (HT20) | SISO | 2412 | 1.308 | 1.408 | 92.90 | 0.32 | 0.03 |
| | | 2437 | 1.309 | 1.407 | 93.03 | 0.31 | 0.03 |
| | | 2462 | 1.309 | 1.407 | 93.03 | 0.31 | 0.03 |



Antenna 4:
Output Power:

| Mode | TX Type | Frequency (MHz) | Maximum Average Conducted Output Power (dBm) | | Verdict |
|----------------|---------|-----------------|--|-------|---------|
| | | | ANT4 | Limit | |
| 802.11b | SISO | 2412 | 19.00 | <=30 | Pass |
| | | 2437 | 19.51 | <=30 | Pass |
| | | 2462 | 19.74 | <=30 | Pass |
| 802.11g | SISO | 2412 | 18.00 | <=30 | Pass |
| | | 2437 | 16.88 | <=30 | Pass |
| | | 2462 | 18.69 | <=30 | Pass |
| 802.11n (HT20) | SISO | 2412 | 15.29 | <=30 | Pass |
| | | 2437 | 15.91 | <=30 | Pass |
| | | 2462 | 16.09 | <=30 | Pass |

Duty Cycle:

| Mode | TX Type | Frequency (MHz) | T_on (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) | Max. DC Variation (%) |
|----------------|---------|-----------------|-----------|-------------|----------------|-----------------------------------|-----------------------|
| 802.11b | SISO | 2412 | 8.416 | 8.510 | 98.90 | 0.05 | 0.04 |
| | | 2437 | 8.417 | 8.510 | 98.91 | 0.05 | 0.00 |
| | | 2462 | 8.417 | 8.510 | 98.91 | 0.05 | 0.00 |
| 802.11g | SISO | 2412 | 0.180 | 0.276 | 65.22 | 1.86 | 0.12 |
| | | 2437 | 0.177 | 0.275 | 64.36 | 1.91 | 0.09 |
| | | 2462 | 0.178 | 0.276 | 64.49 | 1.90 | 0.12 |
| 802.11n (HT20) | SISO | 2412 | 1.309 | 1.408 | 92.97 | 0.32 | 0.03 |
| | | 2437 | 1.309 | 1.408 | 92.97 | 0.32 | 0.03 |
| | | 2462 | 1.309 | 1.408 | 92.97 | 0.32 | 0.03 |



WiFi module (AMPAK AP6275PR3) ANT 3+ANT 4 MIMO

| Mode | TX Type | Frequency (MHz) | Maximum Average Conducted Output Power (dBm) | | Verdict |
|----------------|---------|-----------------|--|---------|---------|
| | | | Total | Limit | |
| 802.11b | MIMO | 2412 | 21.28 | <=29.46 | Pass |
| | | 2437 | 21.82 | <=29.46 | Pass |
| | | 2462 | 22.16 | <=29.46 | Pass |
| 802.11g | MIMO | 2412 | 20.99 | <=29.46 | Pass |
| | | 2437 | 20.88 | <=29.46 | Pass |
| | | 2462 | 21.88 | <=29.46 | Pass |
| 802.11n (HT20) | MIMO | 2412 | 19.75 | <=29.46 | Pass |
| | | 2437 | 20.48 | <=29.46 | Pass |
| | | 2462 | 20.82 | <=29.46 | Pass |

Note: Antenna 3 gain: 2.3dBi, Antenna 4 gain: 4.6dBi, Correlated antenna gain=6.54dBi.
Limit= 30-(6.54-6)=30-0.54=29.46



Antenna 1:
Output Power:

| Mode | TX Type | Frequency (MHz) | RU | RU Pos | Maximum Average Conducted Output Power (dBm) | | Verdict |
|------------------|---------|-----------------|-------|--------|--|-------|---------|
| | | | | | ANT1 | Limit | |
| 802.11b | SISO | 2412 | / | / | 18.22 | <=30 | Pass |
| | | 2437 | / | / | 18.02 | <=30 | Pass |
| | | 2462 | / | / | 18.76 | <=30 | Pass |
| 802.11g | SISO | 2412 | / | / | 17.24 | <=30 | Pass |
| | | 2437 | / | / | 17.35 | <=30 | Pass |
| | | 2462 | / | / | 18.22 | <=30 | Pass |
| 802.11n (HT20) | SISO | 2412 | / | / | 17.29 | <=30 | Pass |
| | | 2437 | / | / | 17.50 | <=30 | Pass |
| | | 2462 | / | / | 18.25 | <=30 | Pass |
| 802.11n (HT40) | SISO | 2422 | / | / | 17.76 | <=30 | Pass |
| | | 2437 | / | / | 17.81 | <=30 | Pass |
| | | 2452 | / | / | 18.02 | <=30 | Pass |
| 802.11ax (HEW20) | SISO | 2412 | RU242 | Left | 17.38 | <=30 | Pass |
| | | 2437 | RU242 | Left | 17.55 | <=30 | Pass |
| | | 2462 | RU242 | Left | 18.31 | <=30 | Pass |
| 802.11ax (HEW40) | SISO | 2422 | RU484 | Left | 17.88 | <=30 | Pass |
| | | 2437 | RU484 | Left | 17.93 | <=30 | Pass |
| | | 2452 | RU484 | Left | 18.14 | <=30 | Pass |
| 802.11ac (VHT20) | SISO | 2412 | / | / | 17.35 | <=30 | Pass |
| | | 2437 | / | / | 17.56 | <=30 | Pass |
| | | 2462 | / | / | 18.32 | <=30 | Pass |
| 802.11ac (VHT40) | SISO | 2422 | / | / | 17.88 | <=30 | Pass |
| | | 2437 | / | / | 17.90 | <=30 | Pass |
| | | 2452 | / | / | 18.07 | <=30 | Pass |



Antenna 1:
Duty Cycle:

| Mode | TX Type | Frequency (MHz) | RU | RU Pos | T_on (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) | Max. DC Variation (%) |
|------------------|---------|-----------------|-------|--------|-----------|-------------|----------------|-----------------------------------|-----------------------|
| 802.11b | SISO | 2412 | / | / | 8.606 | 8.736 | 98.51 | 0.07 | 0.23 |
| | | 2437 | / | / | 8.610 | 9.276 | 92.82 | 0.32 | 6.65 |
| | | 2462 | / | / | 17.300 | 18.003 | 96.10 | 0.17 | 0.00 |
| 802.11g | SISO | 2412 | / | / | 1.429 | 1.544 | 92.55 | 0.34 | 1.10 |
| | | 2437 | / | / | 1.429 | 1.486 | 96.16 | 0.17 | 0.16 |
| | | 2462 | / | / | 1.429 | 1.854 | 77.08 | 1.13 | 19.21 |
| 802.11n (HT20) | SISO | 2412 | / | / | 1.206 | 1.323 | 91.16 | 0.40 | 1.43 |
| | | 2437 | / | / | 1.207 | 1.545 | 78.12 | 1.07 | 17.54 |
| | | 2462 | / | / | 1.207 | 1.767 | 68.31 | 1.66 | 27.36 |
| 802.11n (HT40) | SISO | 2422 | / | / | 0.601 | 0.716 | 83.94 | 0.76 | 2.42 |
| | | 2437 | / | / | 0.602 | 0.717 | 83.96 | 0.76 | 2.42 |
| | | 2452 | / | / | 0.602 | 0.717 | 83.96 | 0.76 | 2.45 |
| 802.11ax (HEW20) | SISO | 2412 | RU242 | Left | 1.033 | 1.148 | 89.98 | 0.46 | 1.61 |
| | | 2437 | RU242 | Left | 1.033 | 1.149 | 89.90 | 0.46 | 1.46 |
| | | 2462 | RU242 | Left | 1.034 | 1.416 | 73.02 | 1.37 | 21.96 |
| 802.11ax (HEW40) | SISO | 2422 | RU484 | Left | 0.544 | 0.659 | 82.55 | 0.83 | 2.63 |
| | | 2437 | RU484 | Left | 0.544 | 0.661 | 82.30 | 0.85 | 2.89 |
| | | 2452 | RU484 | Left | 0.544 | 0.661 | 82.30 | 0.85 | 5.58 |
| 802.11ac (VHT20) | SISO | 2412 | / | / | 1.215 | 1.378 | 88.17 | 0.55 | 7.52 |
| | | 2437 | / | / | 1.214 | 1.329 | 91.35 | 0.39 | 1.43 |
| | | 2462 | / | / | 1.214 | 1.321 | 91.90 | 0.37 | 3.78 |
| 802.11ac (VHT40) | SISO | 2422 | / | / | 0.606 | 0.866 | 69.98 | 1.55 | 21.43 |
| | | 2437 | / | / | 0.606 | 0.721 | 84.05 | 0.75 | 7.37 |
| | | 2452 | / | / | 0.606 | 0.721 | 84.05 | 0.75 | 2.44 |



Antenna 2:

Output Power:

| Mode | TX Type | Frequency (MHz) | RU | RU Pos | Maximum Average Conducted Output Power (dBm) | | Verdict |
|------------------|---------|-----------------|-------|--------|--|-------|---------|
| | | | | | ANT2 | Limit | |
| 802.11b | SISO | 2412 | / | / | 17.06 | <=30 | Pass |
| | | 2437 | / | / | 16.73 | <=30 | Pass |
| | | 2462 | / | / | 16.81 | <=30 | Pass |
| 802.11g | SISO | 2412 | / | / | 16.65 | <=30 | Pass |
| | | 2437 | / | / | 16.35 | <=30 | Pass |
| | | 2462 | / | / | 16.77 | <=30 | Pass |
| 802.11n (HT20) | SISO | 2412 | / | / | 16.77 | <=30 | Pass |
| | | 2437 | / | / | 16.42 | <=30 | Pass |
| | | 2462 | / | / | 16.83 | <=30 | Pass |
| 802.11n (HT40) | SISO | 2422 | / | / | 16.64 | <=30 | Pass |
| | | 2437 | / | / | 16.62 | <=30 | Pass |
| | | 2452 | / | / | 17.10 | <=30 | Pass |
| 802.11ax (HEW20) | SISO | 2412 | RU242 | Left | 16.77 | <=30 | Pass |
| | | 2437 | RU242 | Left | 16.39 | <=30 | Pass |
| | | 2462 | RU242 | Left | 16.78 | <=30 | Pass |
| 802.11ax (HEW40) | SISO | 2422 | RU484 | Left | 16.68 | <=30 | Pass |
| | | 2437 | RU484 | Left | 16.67 | <=30 | Pass |
| | | 2452 | RU484 | Left | 17.14 | <=30 | Pass |
| 802.11ac (VHT20) | SISO | 2412 | / | / | 16.67 | <=30 | Pass |
| | | 2437 | / | / | 16.24 | <=30 | Pass |
| | | 2462 | / | / | 16.61 | <=30 | Pass |
| 802.11ac (VHT40) | SISO | 2422 | / | / | 16.56 | <=30 | Pass |
| | | 2437 | / | / | 16.53 | <=30 | Pass |
| | | 2452 | / | / | 17.01 | <=30 | Pass |



Antenna 2:

Duty Cycle:

| Mode | TX Type | Frequency (MHz) | RU | RU Pos | T_on (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) | Max. DC Variation (%) |
|------------------|---------|-----------------|-------|--------|-----------|-------------|----------------|-----------------------------------|-----------------------|
| 802.11b | SISO | 2412 | / | / | 8.607 | 8.737 | 98.51 | 0.07 | 0.23 |
| | | 2437 | / | / | 63.270 | 66.340 | 95.37 | 0.21 | 0.00 |
| | | 2462 | / | / | 8.607 | 8.780 | 98.03 | 0.09 | 1.40 |
| 802.11g | SISO | 2412 | / | / | 1.429 | 1.544 | 92.55 | 0.34 | 1.10 |
| | | 2437 | / | / | 1.429 | 1.808 | 79.04 | 1.02 | 17.28 |
| | | 2462 | / | / | 1.428 | 1.543 | 92.55 | 0.34 | 1.20 |
| 802.11n (HT20) | SISO | 2412 | / | / | 1.206 | 1.321 | 91.29 | 0.40 | 1.28 |
| | | 2437 | / | / | 1.206 | 1.322 | 91.23 | 0.40 | 1.28 |
| | | 2462 | / | / | 1.207 | 1.360 | 88.75 | 0.52 | 6.93 |
| 802.11n (HT40) | SISO | 2422 | / | / | 0.602 | 0.717 | 83.96 | 0.76 | 2.39 |
| | | 2437 | / | / | 0.601 | 0.717 | 83.82 | 0.77 | 2.45 |
| | | 2452 | / | / | 0.602 | 0.719 | 83.73 | 0.77 | 2.66 |
| 802.11ax (HEW20) | SISO | 2412 | RU242 | Left | 1.033 | 1.149 | 89.90 | 0.46 | 1.64 |
| | | 2437 | RU242 | Left | 1.033 | 4.965 | 20.81 | 6.82 | 74.16 |
| | | 2462 | RU242 | Left | 1.033 | 1.150 | 89.83 | 0.47 | 3.27 |
| 802.11ax (HEW40) | SISO | 2422 | RU484 | Left | 0.543 | 0.819 | 66.30 | 1.78 | 24.47 |
| | | 2437 | RU484 | Left | 0.544 | 0.659 | 82.55 | 0.83 | 2.59 |
| | | 2452 | RU484 | Left | 0.544 | 0.659 | 82.55 | 0.83 | 2.62 |
| 802.11ac (VHT20) | SISO | 2412 | / | / | 1.215 | 1.330 | 91.35 | 0.39 | 1.42 |
| | | 2437 | / | / | 1.214 | 1.331 | 91.21 | 0.40 | 1.54 |
| | | 2462 | / | / | 1.214 | 1.720 | 70.58 | 1.51 | 22.13 |
| 802.11ac (VHT40) | SISO | 2422 | / | / | 0.605 | 0.721 | 83.91 | 0.76 | 2.43 |
| | | 2437 | / | / | 0.606 | 0.723 | 83.82 | 0.77 | 2.68 |
| | | 2452 | / | / | 0.606 | 0.721 | 84.05 | 0.75 | 2.41 |



WiFi module (Samsung S621) ANT1+ANT2 MIMO

| Mode | TX Type | Frequency (MHz) | RU | RU Pos | Maximum Average Conducted Output Power (dBm) | | Verdict |
|------------------|---------|-----------------|-------|--------|--|---------|---------|
| | | | | | Total | Limit | |
| 802.11b | MIMO | 2412 | / | / | 20.69 | <=29.29 | Pass |
| | | 2437 | / | / | 20.43 | <=29.29 | Pass |
| | | 2462 | / | / | 20.90 | <=29.29 | Pass |
| 802.11g | MIMO | 2412 | / | / | 19.97 | <=29.29 | Pass |
| | | 2437 | / | / | 19.89 | <=29.29 | Pass |
| | | 2462 | / | / | 20.57 | <=29.29 | Pass |
| 802.11n (HT20) | MIMO | 2412 | / | / | 20.05 | <=29.29 | Pass |
| | | 2437 | / | / | 20.00 | <=29.29 | Pass |
| | | 2462 | / | / | 20.61 | <=29.29 | Pass |
| 802.11n (HT40) | MIMO | 2422 | / | / | 20.25 | <=29.29 | Pass |
| | | 2437 | / | / | 20.27 | <=29.29 | Pass |
| | | 2452 | / | / | 20.59 | <=29.29 | Pass |
| 802.11ax (HEW20) | MIMO | 2412 | RU242 | Left | 20.10 | <=29.29 | Pass |
| | | 2437 | RU242 | Left | 20.02 | <=29.29 | Pass |
| | | 2462 | RU242 | Left | 20.62 | <=29.29 | Pass |
| 802.11ax (HEW40) | MIMO | 2422 | RU484 | Left | 20.33 | <=29.29 | Pass |
| | | 2437 | RU484 | Left | 20.36 | <=29.29 | Pass |
| | | 2452 | RU484 | Left | 20.68 | <=29.29 | Pass |
| 802.11ac (VHT20) | MIMO | 2412 | / | / | 20.03 | <=29.29 | Pass |
| | | 2437 | / | / | 19.96 | <=29.29 | Pass |
| | | 2462 | / | / | 20.56 | <=29.29 | Pass |
| 802.11ac (VHT40) | MIMO | 2422 | / | / | 20.28 | <=29.29 | Pass |
| | | 2437 | / | / | 20.28 | <=29.29 | Pass |
| | | 2452 | / | / | 20.58 | <=29.29 | Pass |

Note: Antenna 1 gain: 2.3dBi, Antenna 2 gain: 4.9dBi, Correlated antenna gain=6.71dBi.
Limit= 30-(6.71-6)=30-0.71=29.29



Module 1+ Module 2 MIMO:

| Mode | TX Type | Frequency (MHz) | RU | RU Pos | Maximum Average Conducted Output Power (dBm) | | Verdict |
|------------------|---------|-----------------|-------|--------|--|---------|---------|
| | | | | | Total | Limit | |
| 802.11b | MIMO | 2412 | / | / | 24.01 | <=29.38 | Pass |
| | | 2437 | / | / | 24.19 | <=29.38 | Pass |
| | | 2462 | / | / | 24.59 | <=29.38 | Pass |
| 802.11g | MIMO | 2412 | / | / | 23.52 | <=29.38 | Pass |
| | | 2437 | / | / | 23.42 | <=29.38 | Pass |
| | | 2462 | / | / | 24.28 | <=29.38 | Pass |
| 802.11n (HT20) | MIMO | 2412 | / | / | 22.91 | <=29.38 | Pass |
| | | 2437 | / | / | 23.26 | <=29.38 | Pass |
| | | 2462 | / | / | 23.73 | <=29.38 | Pass |
| 802.11n (HT40) | MIMO | 2422 | / | / | 20.25 | <=29.38 | Pass |
| | | 2437 | / | / | 20.27 | <=29.38 | Pass |
| | | 2452 | / | / | 20.59 | <=29.38 | Pass |
| 802.11ax (HEW20) | MIMO | 2412 | RU242 | Left | 20.10 | <=29.38 | Pass |
| | | 2437 | RU242 | Left | 20.02 | <=29.38 | Pass |
| | | 2462 | RU242 | Left | 20.62 | <=29.38 | Pass |
| 802.11ax (HEW40) | MIMO | 2422 | RU484 | Left | 20.33 | <=29.38 | Pass |
| | | 2437 | RU484 | Left | 20.36 | <=29.38 | Pass |
| | | 2452 | RU484 | Left | 20.68 | <=29.38 | Pass |
| 802.11ac (VHT20) | MIMO | 2412 | / | / | 20.03 | <=29.38 | Pass |
| | | 2437 | / | / | 19.96 | <=29.38 | Pass |
| | | 2462 | / | / | 20.56 | <=29.38 | Pass |
| 802.11ac (VHT40) | MIMO | 2422 | / | / | 20.28 | <=29.38 | Pass |
| | | 2437 | / | / | 20.28 | <=29.38 | Pass |
| | | 2452 | / | / | 20.58 | <=29.38 | Pass |

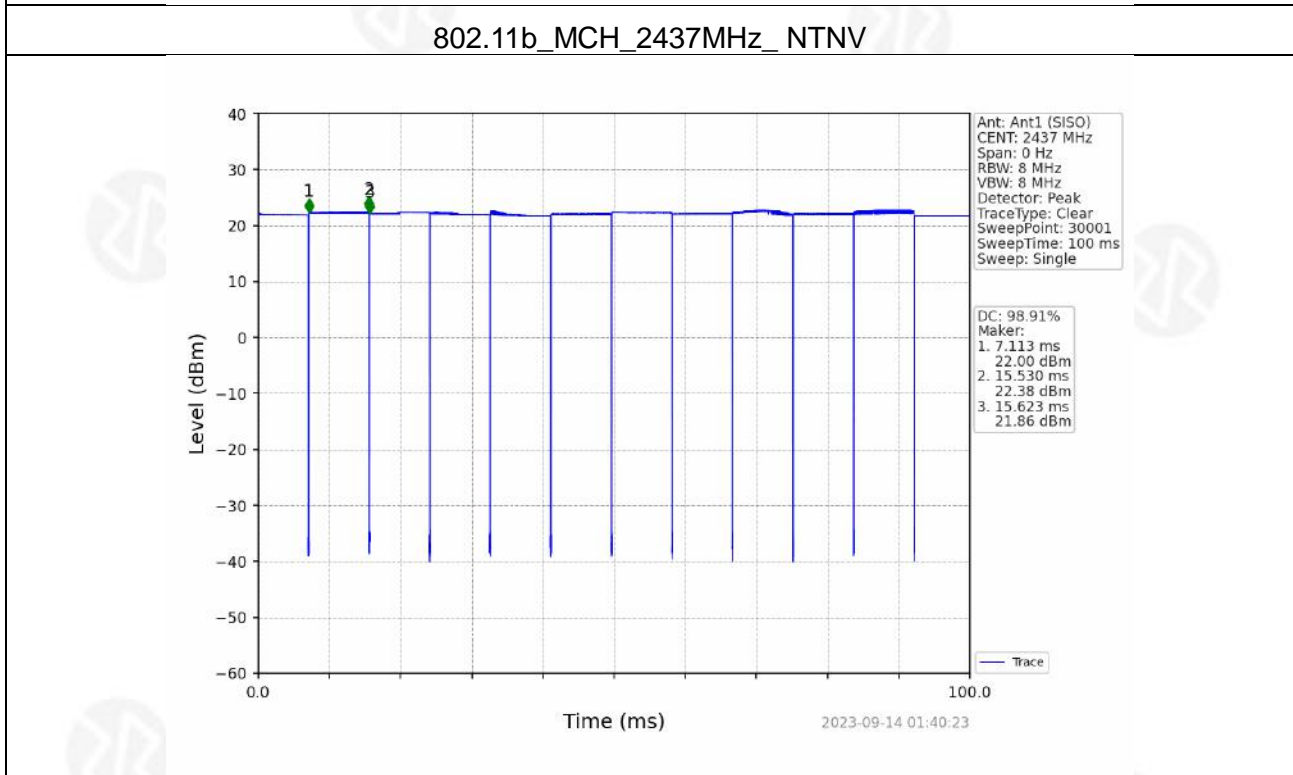
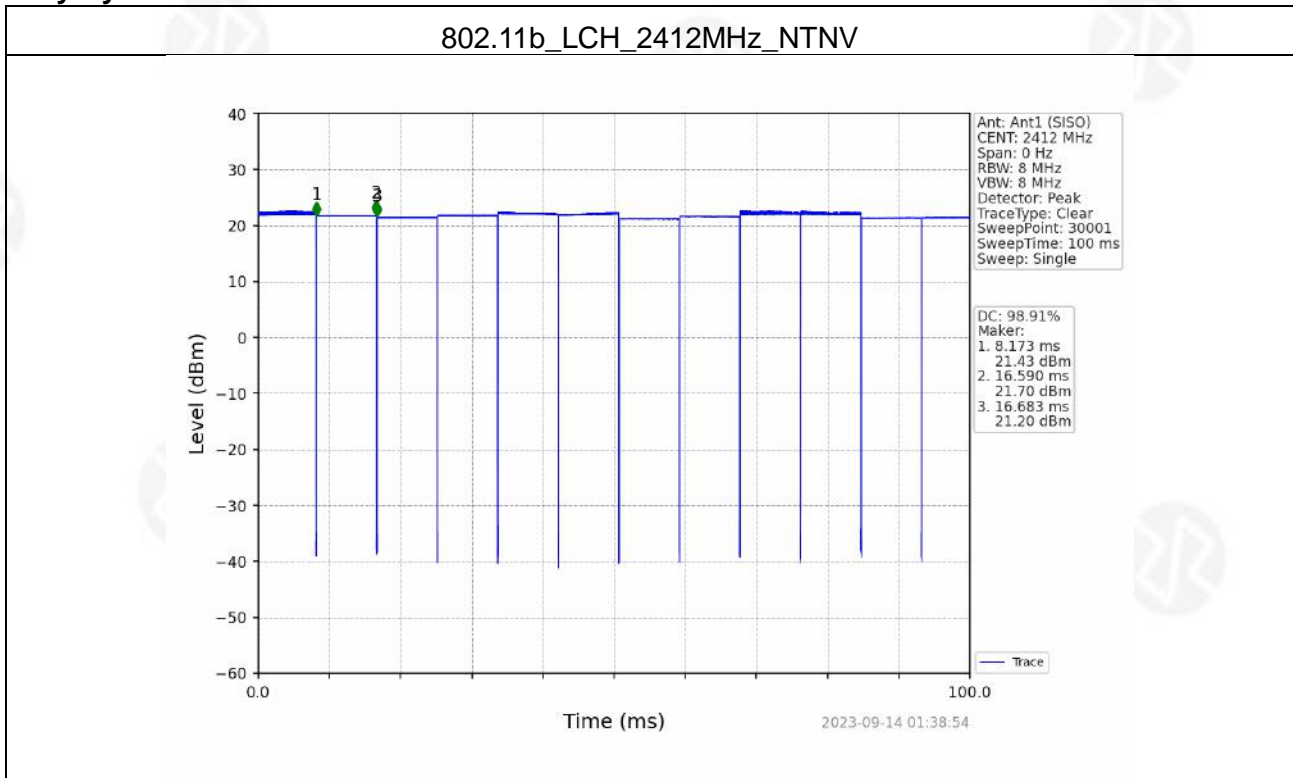
Note: WiFi module 1 gain: 6.71dBi, WiFi module 2 gain: 6.54dBi, Uncorrelated antenna gain=6.62dBi.
Limit= 30-(6.62-6)=30-0.62=29.38



Test Graph:

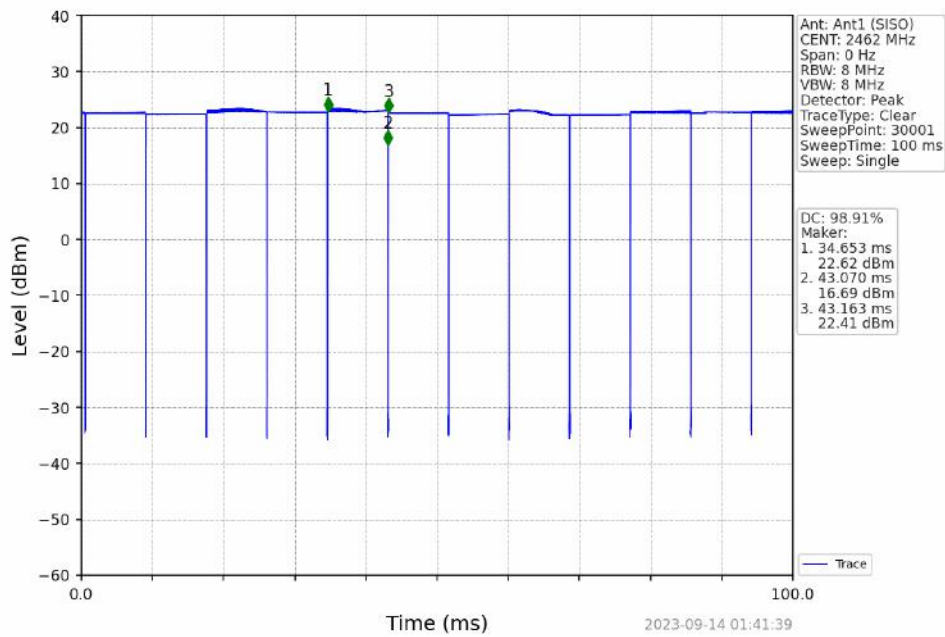
Antenna 3:

Duty Cycle:

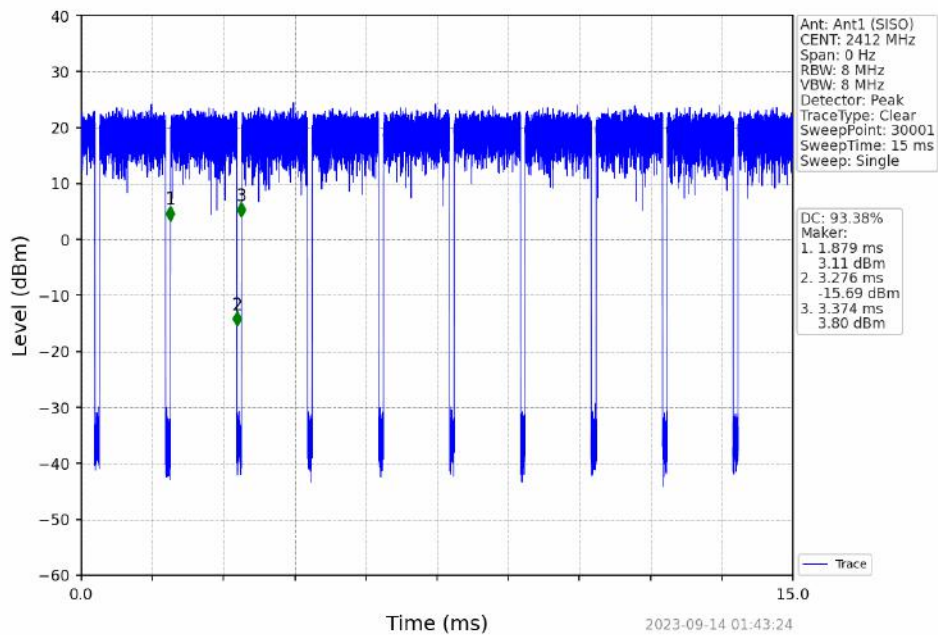




802.11b_HCH_2462MHz_NTNV

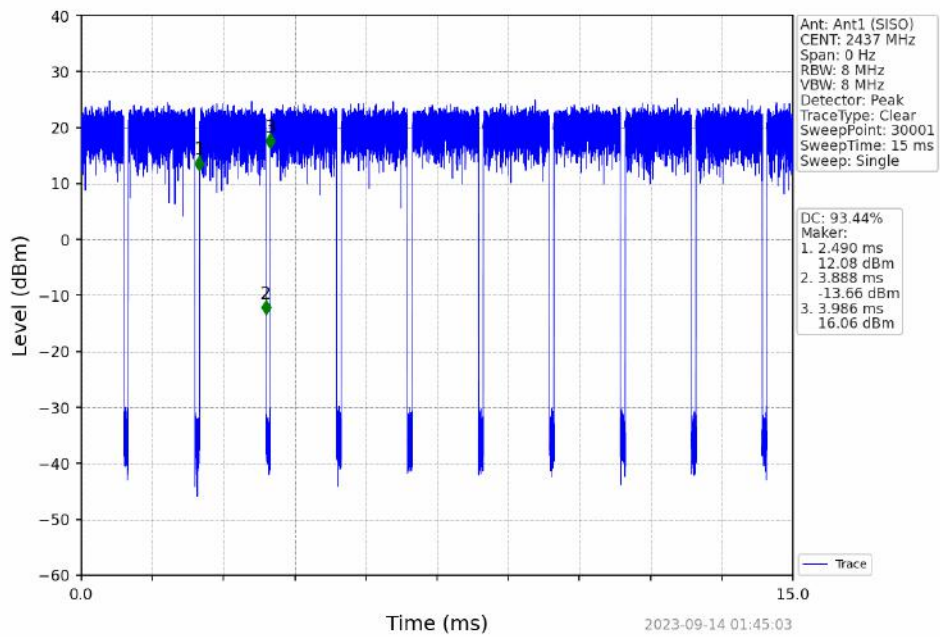


802.11g_LCH_2412MHz_NTNV

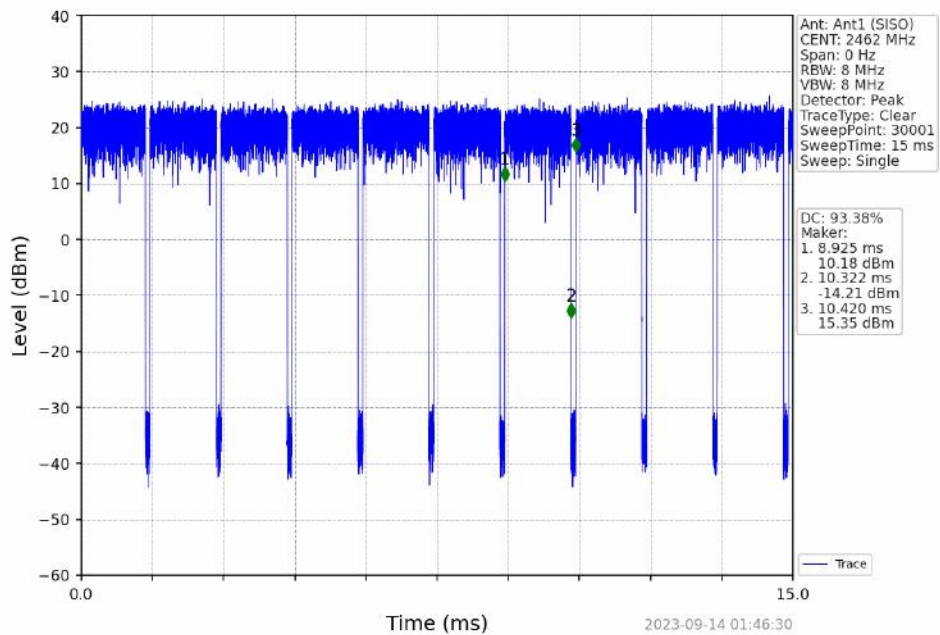




802.11g_MCH_2437MHz NTN

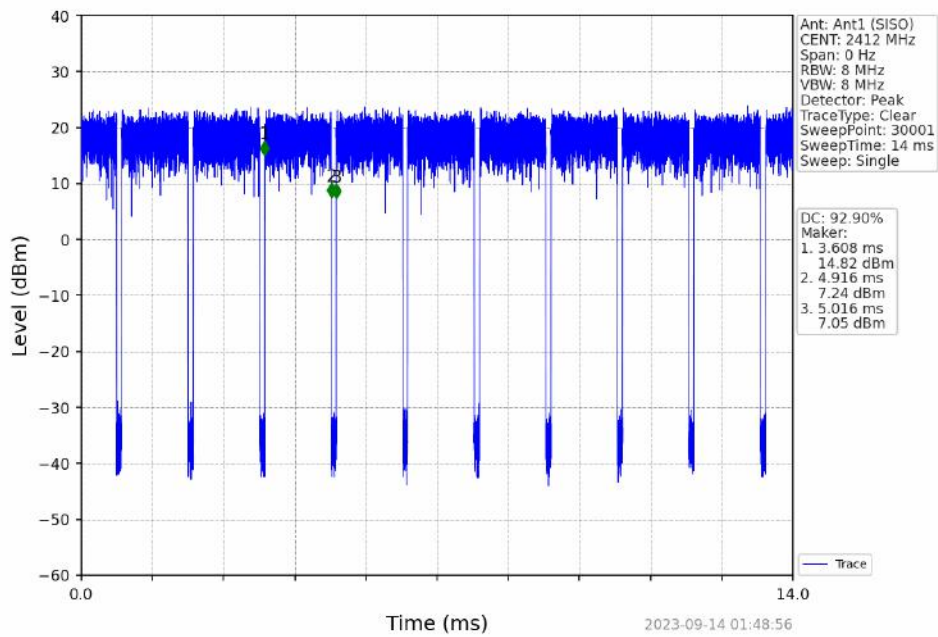


802.11g_HCH_2462MHz NTN

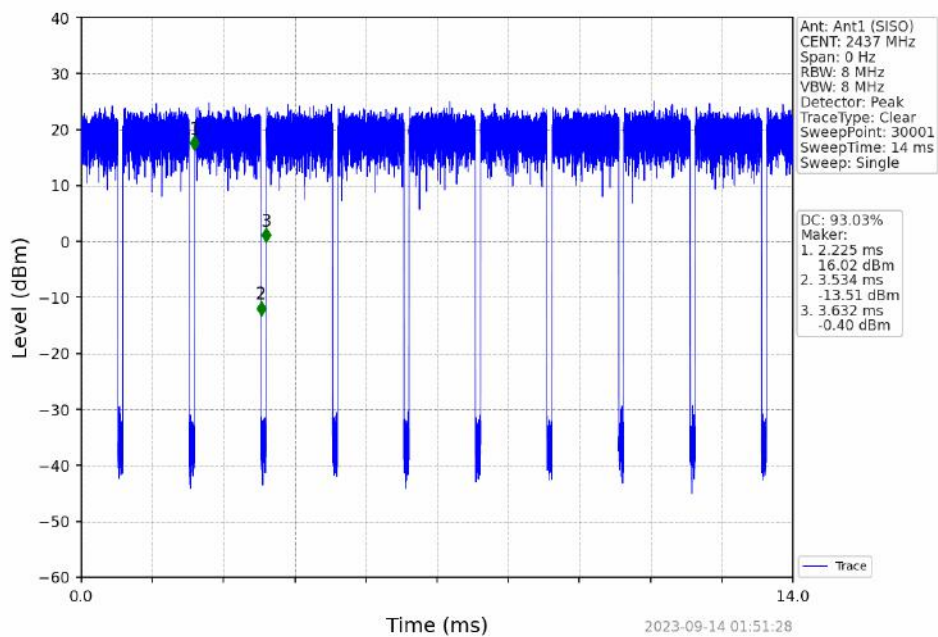


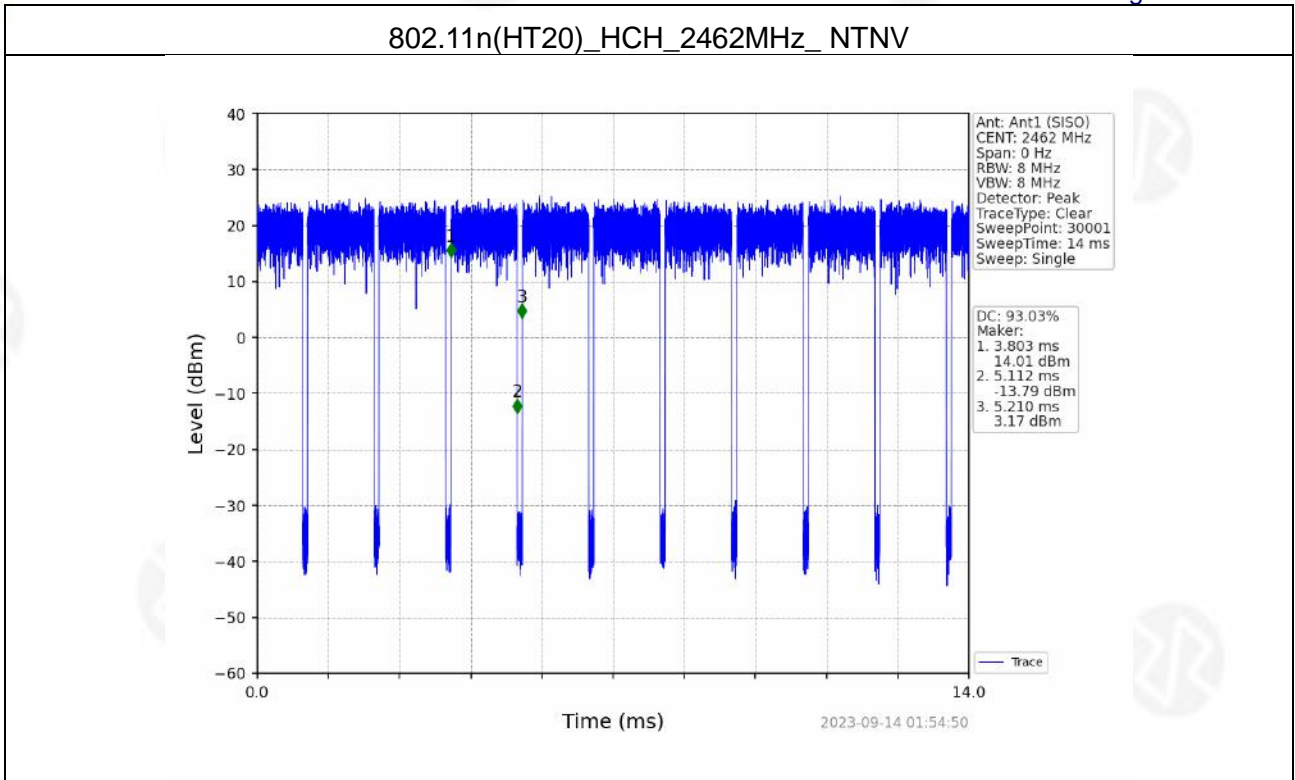


802.11n(HT20)_LCH_2412MHz_NTNV



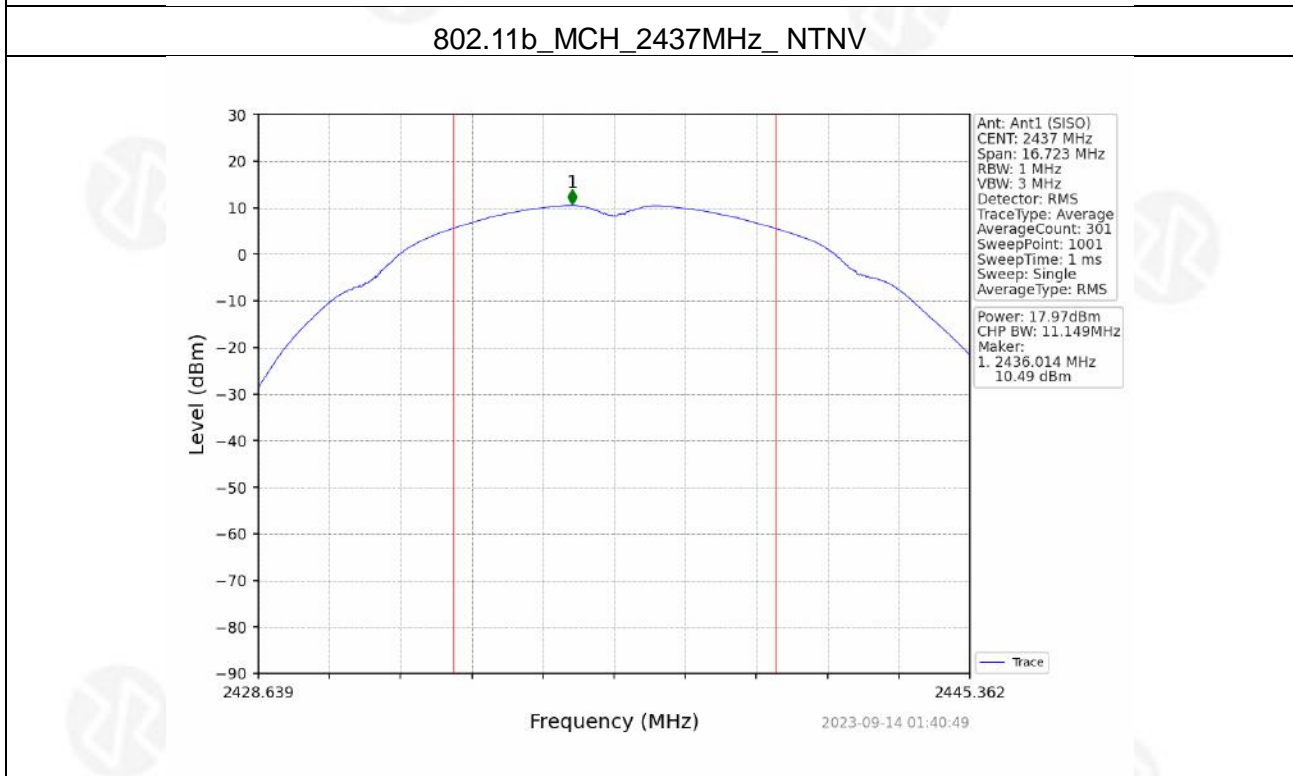
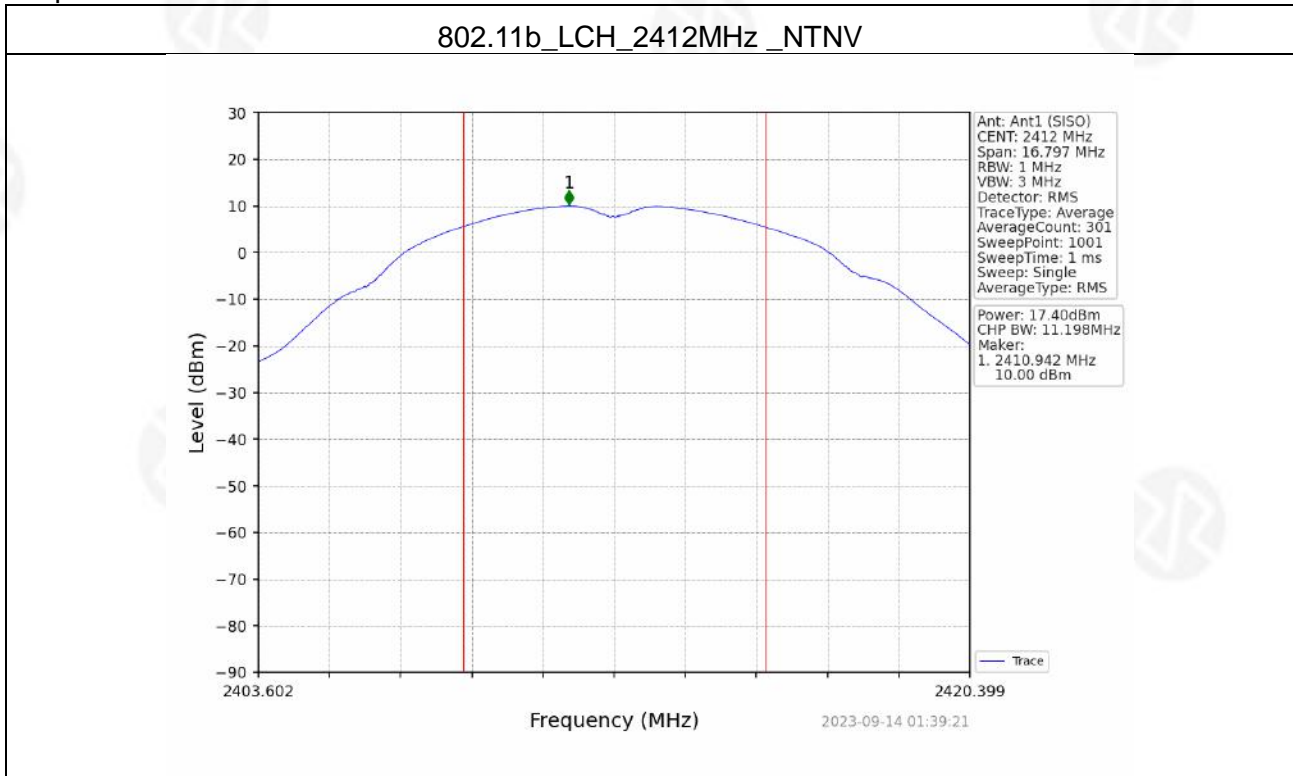
802.11n(HT20)_MCH_2437MHz_NTNV





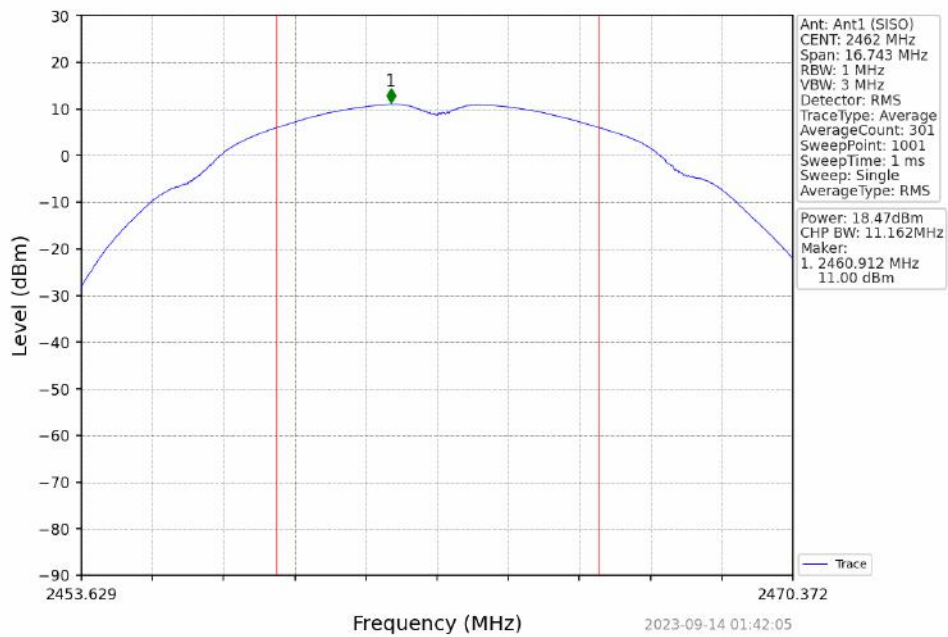


Test Graph:
Antenna 3:
Output Power:

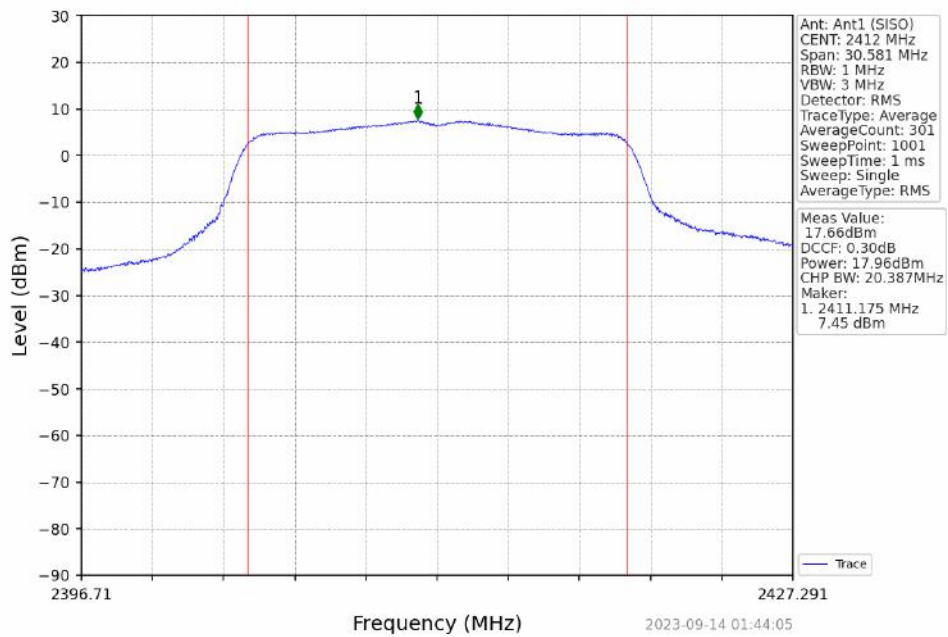




802.11b_HCH_2462MHz_NTNV

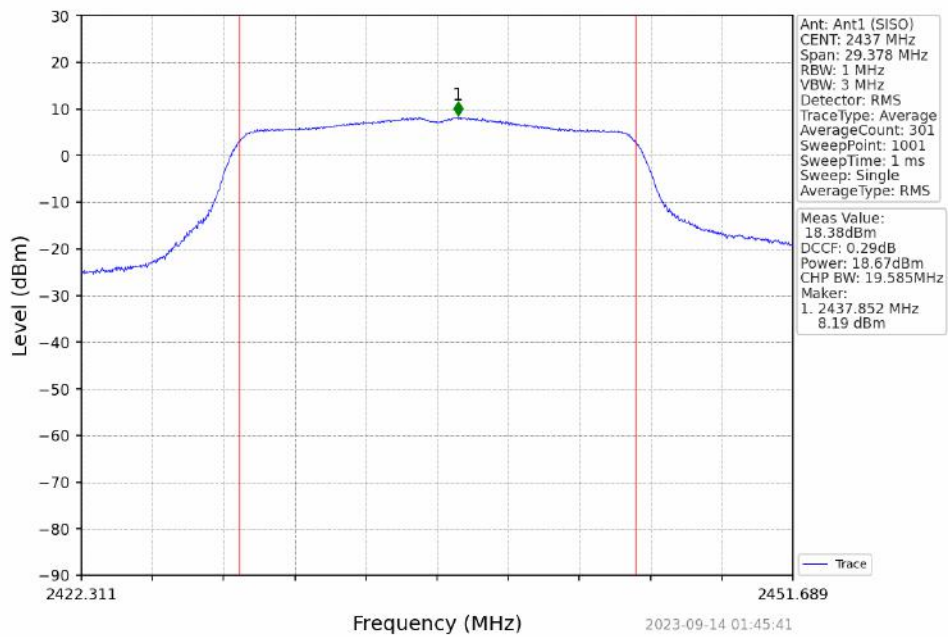


802.11g_LCH_2412MHz_NTNV

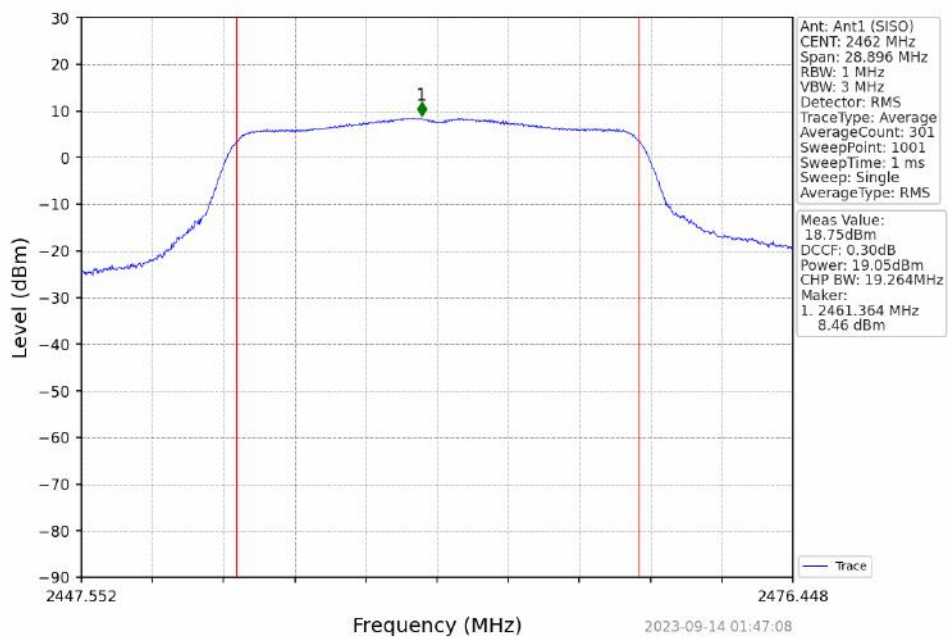




802.11g_MCH_2437MHz_NTNV

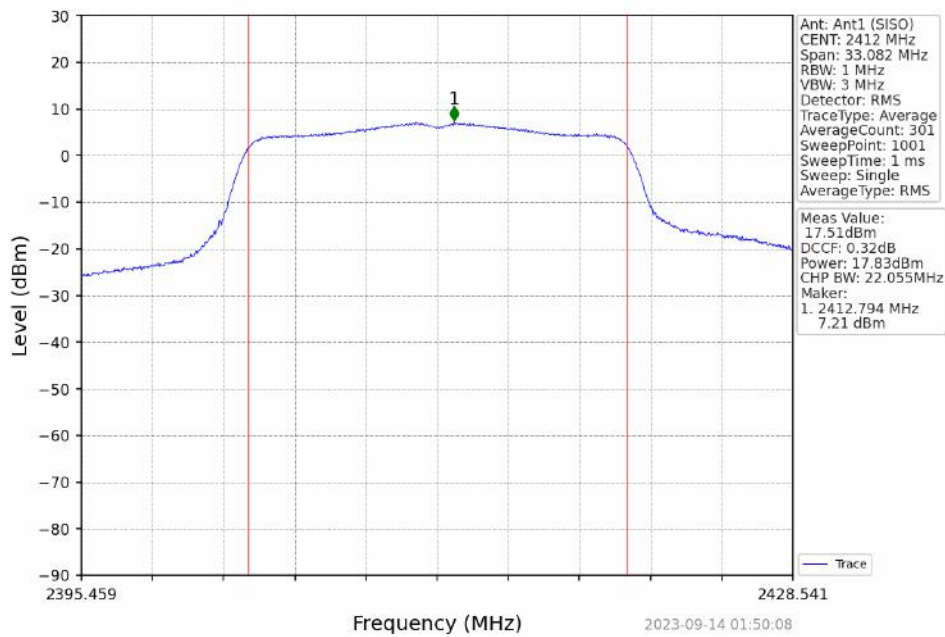


802.11g_HCH_2462MHz_NTNV

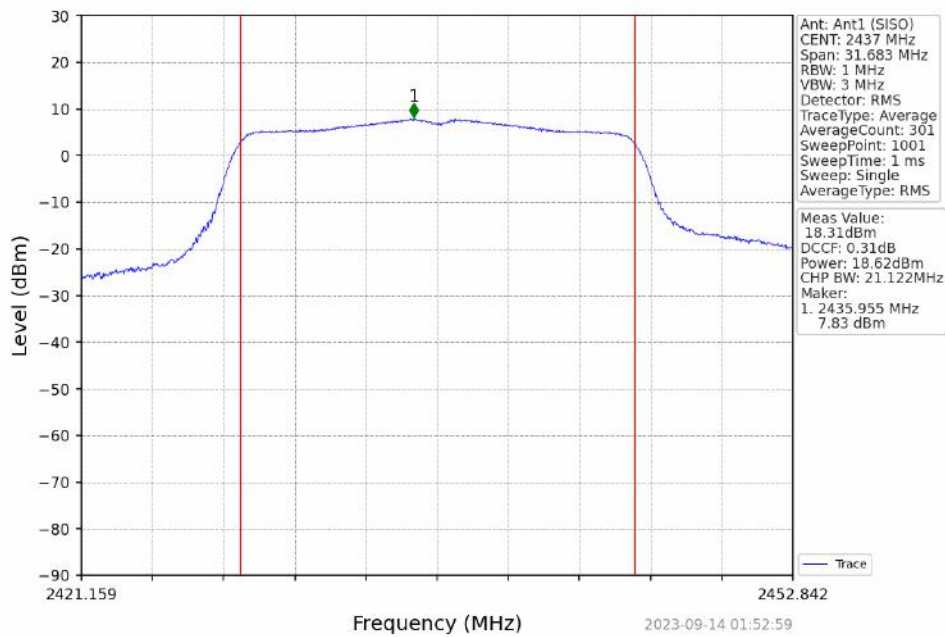




802.11n(HT20)_LCH_2412MHz_ NTNV

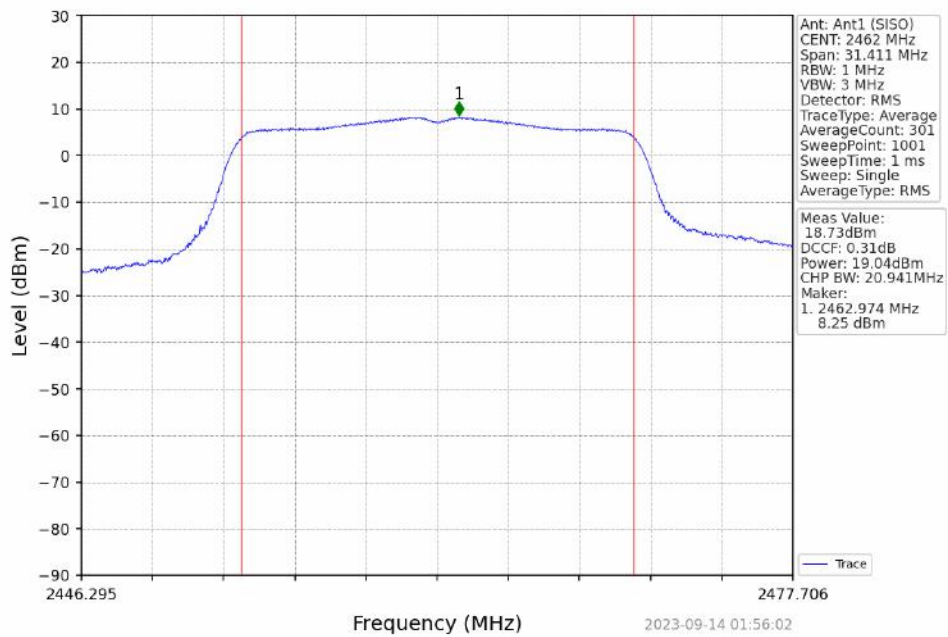


802.11n(HT20)_MCH_2437MHz_ NTNV



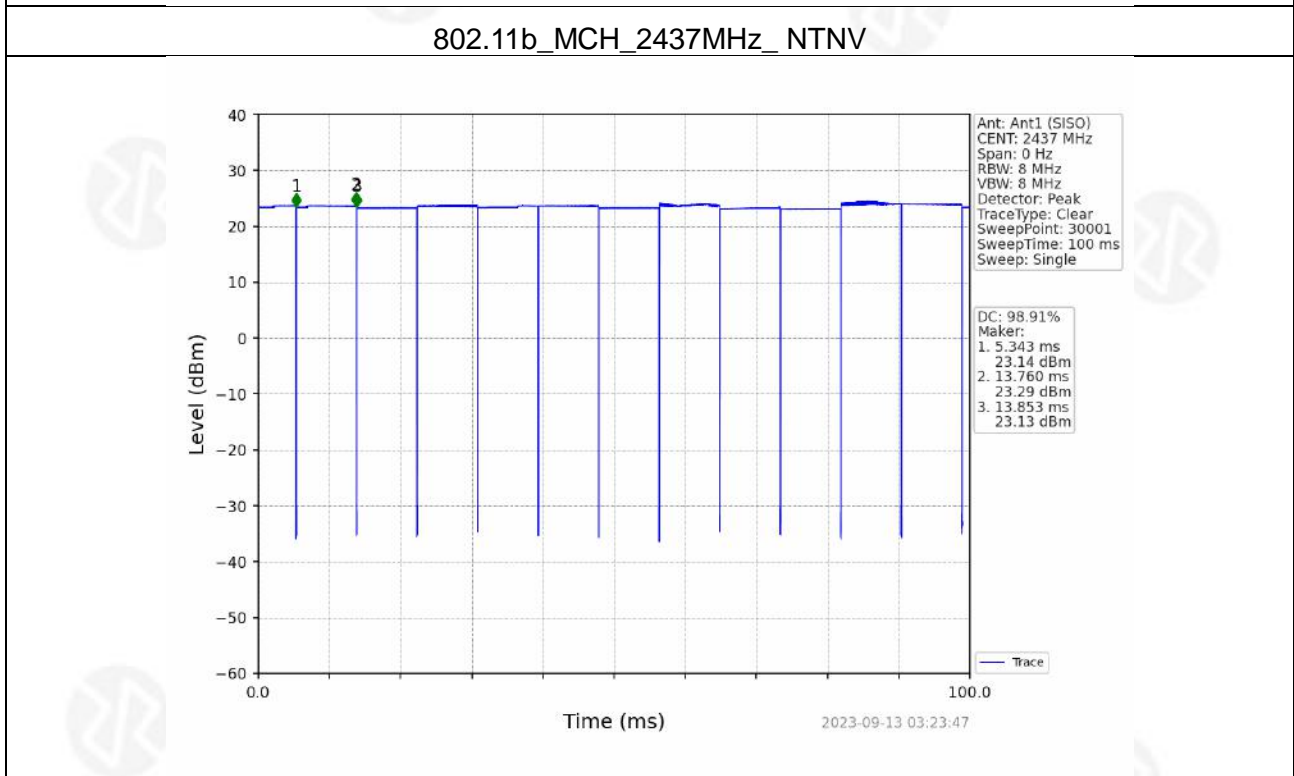
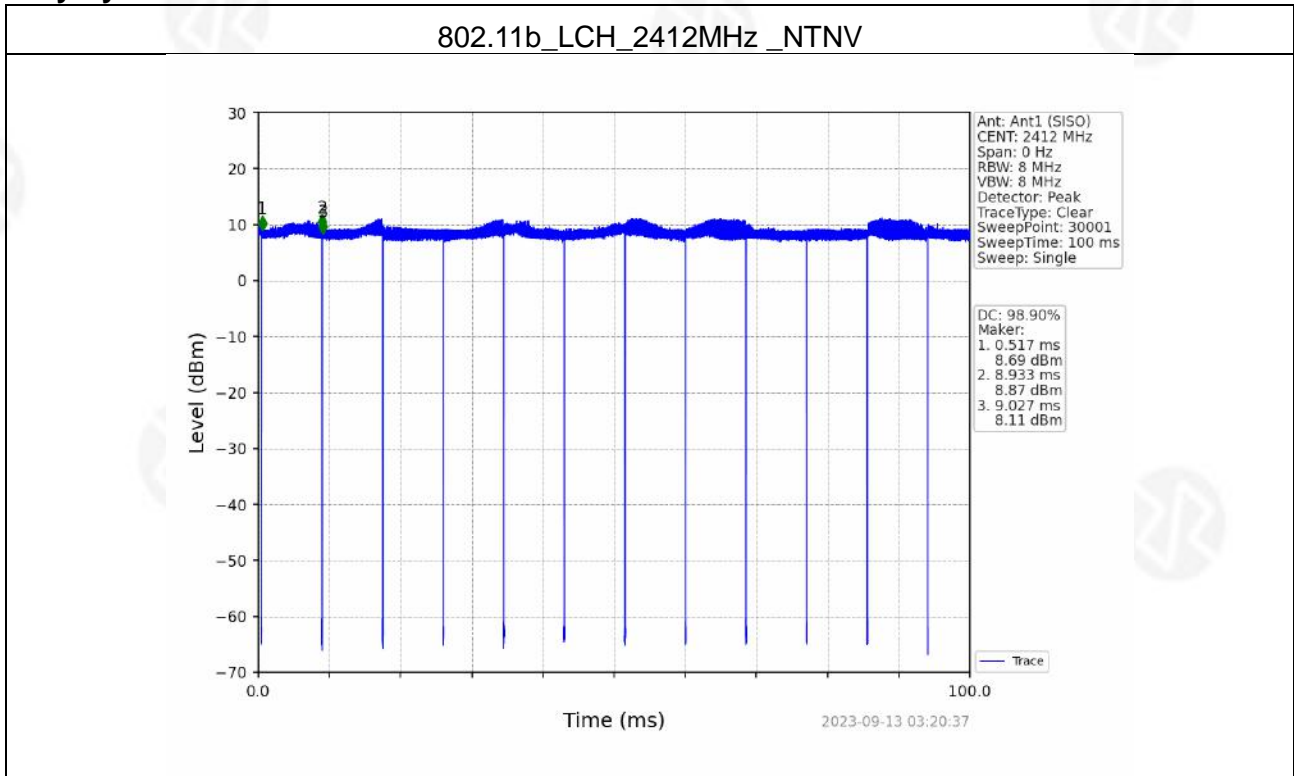


802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



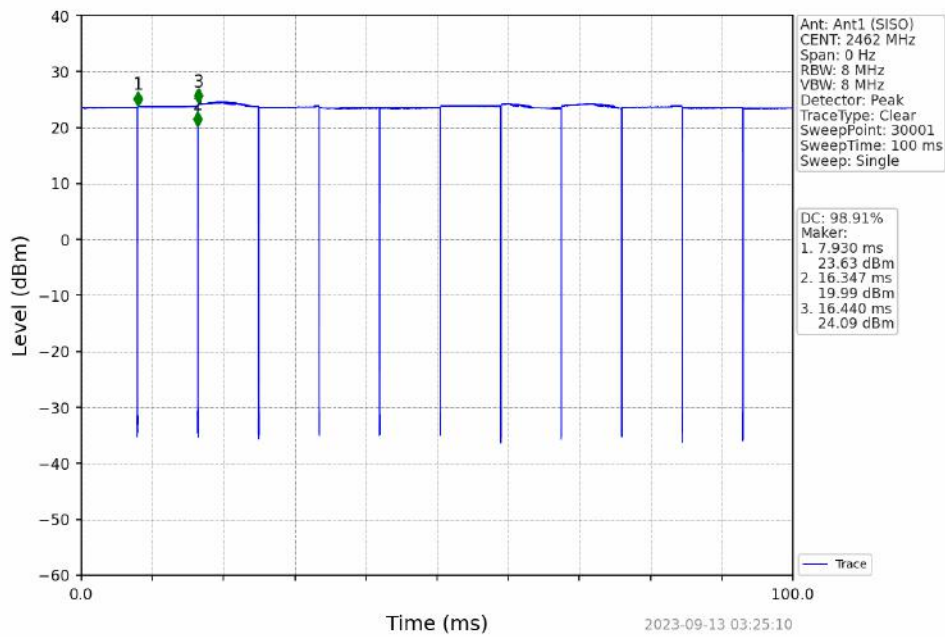


Test Graph:
Antenna 4:
Duty Cycle:

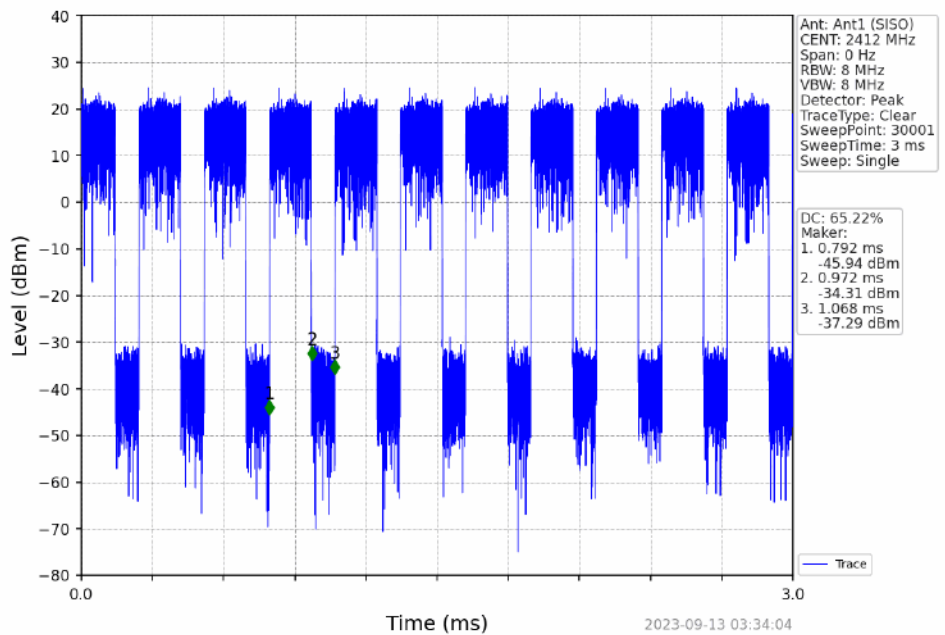




802.11b_HCH_2462MHz_NTNV

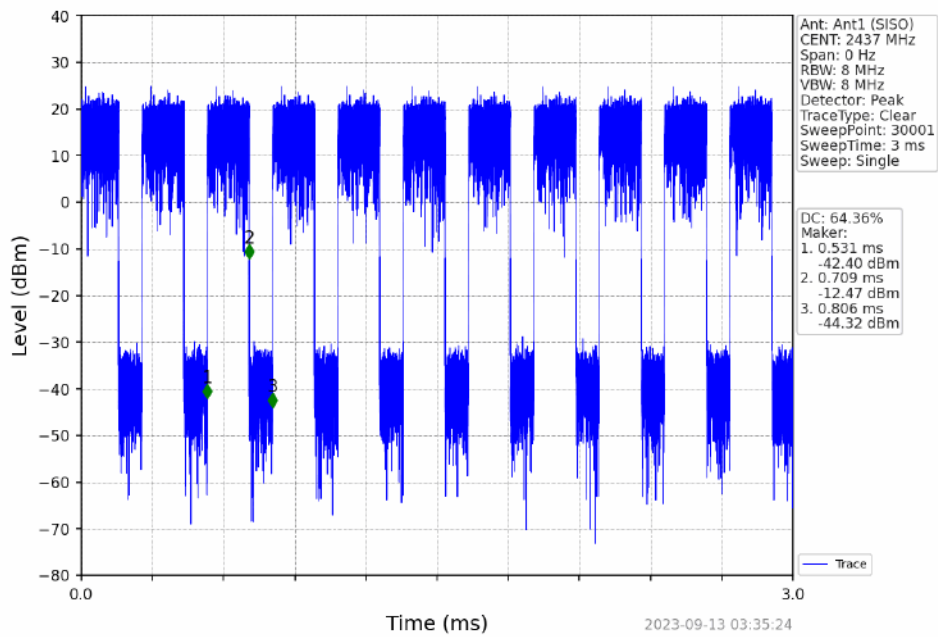


802.11g_LCH_2412MHz_NTNV

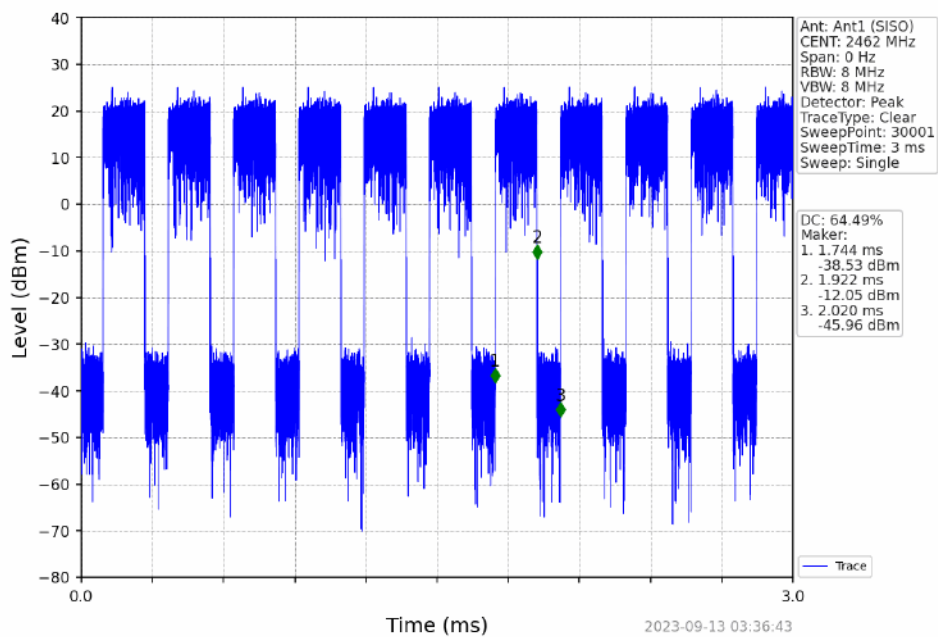




802.11g_MCH_2437MHz_NTNV

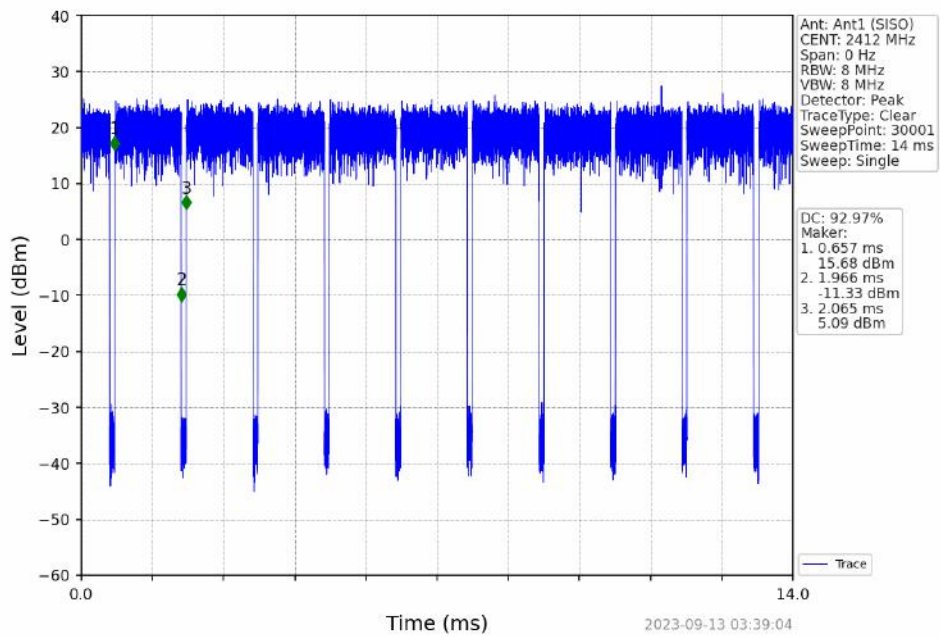


802.11g_HCH_2462MHz_NTNV

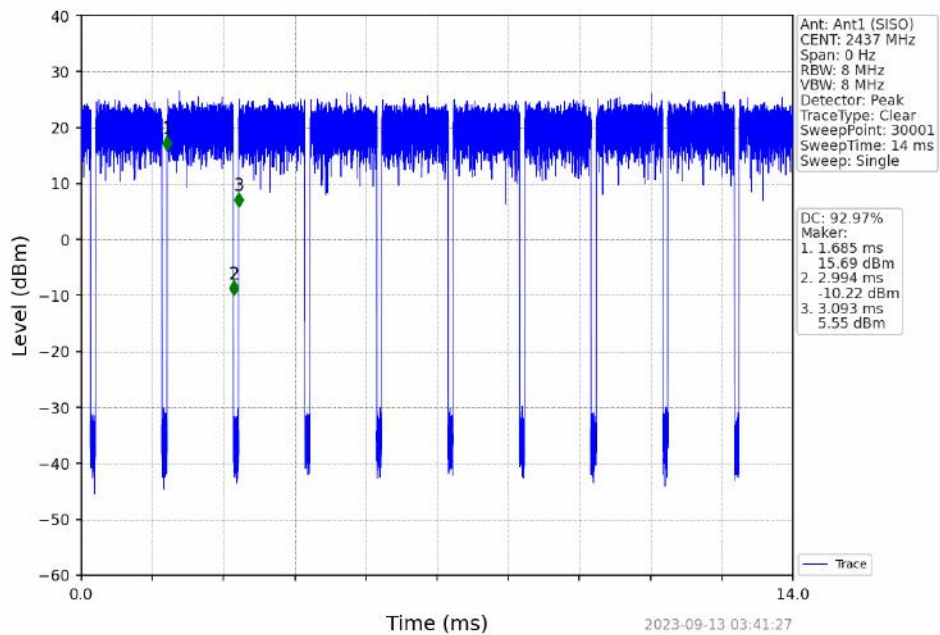




802.11n(HT20)_LCH_2412MHz_NTNV

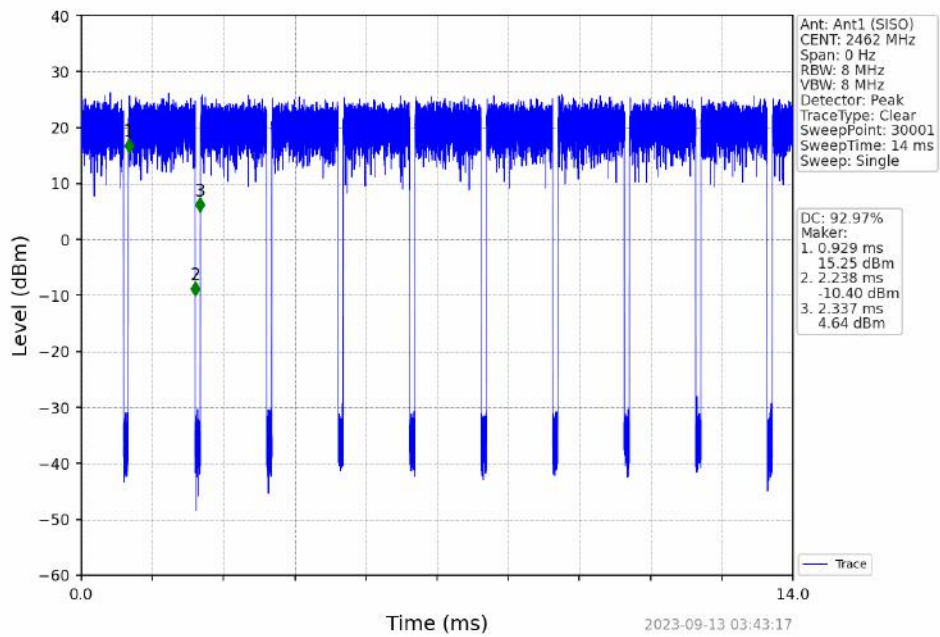


802.11n(HT20)_MCH_2437MHz_NTNV



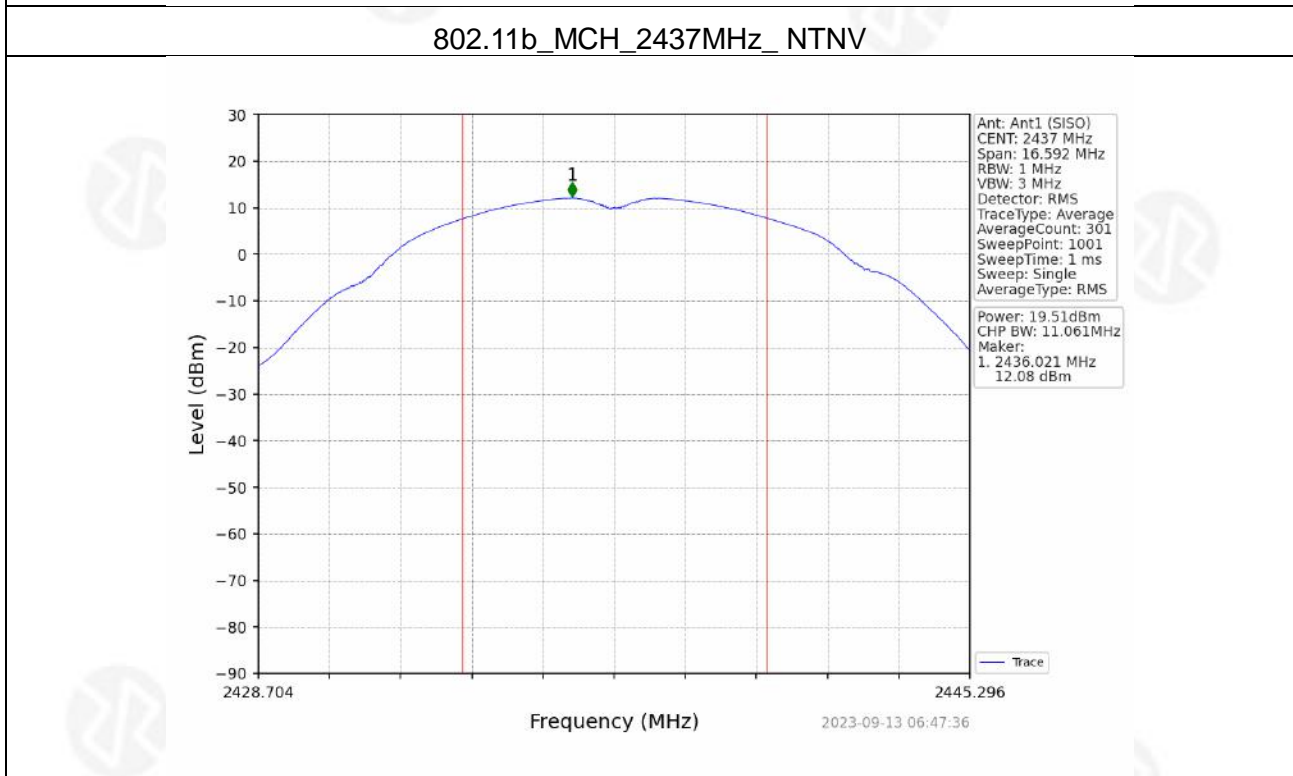
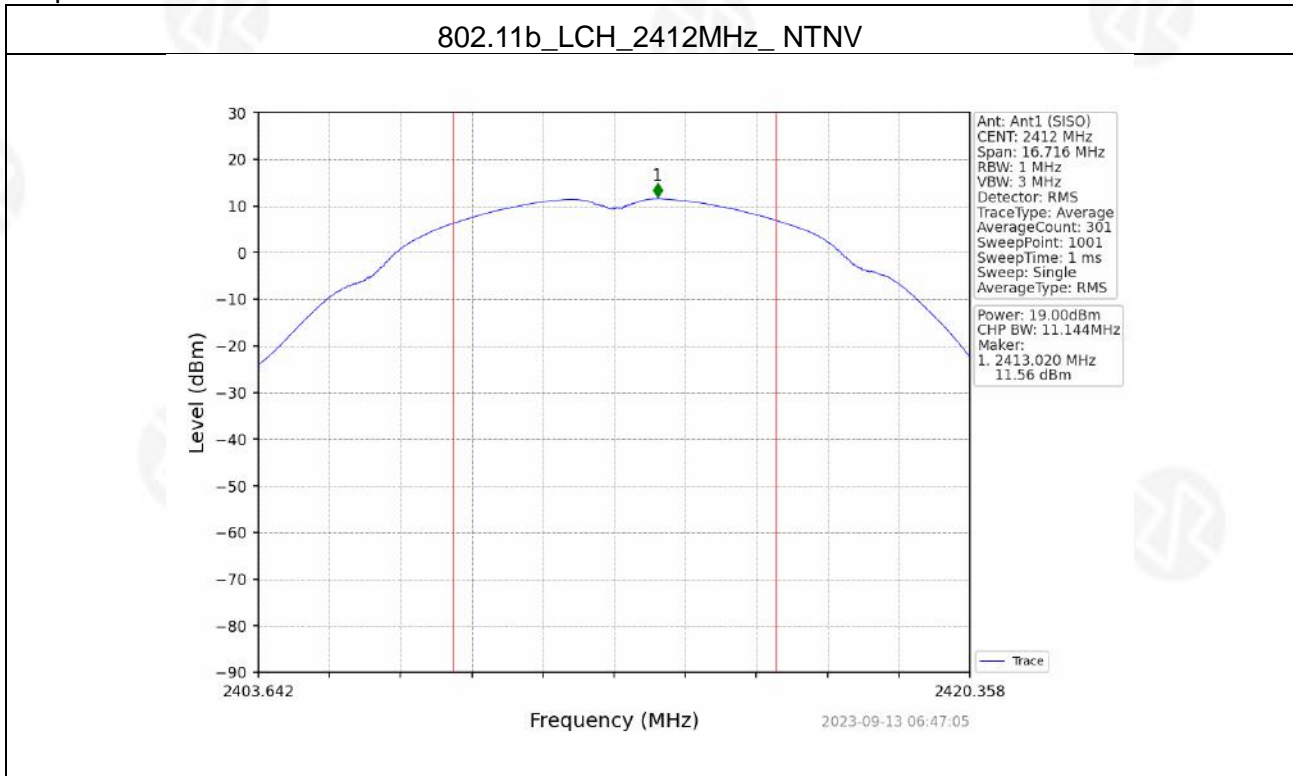


802.11n(HT20)_HCH_2462MHz _NTNV



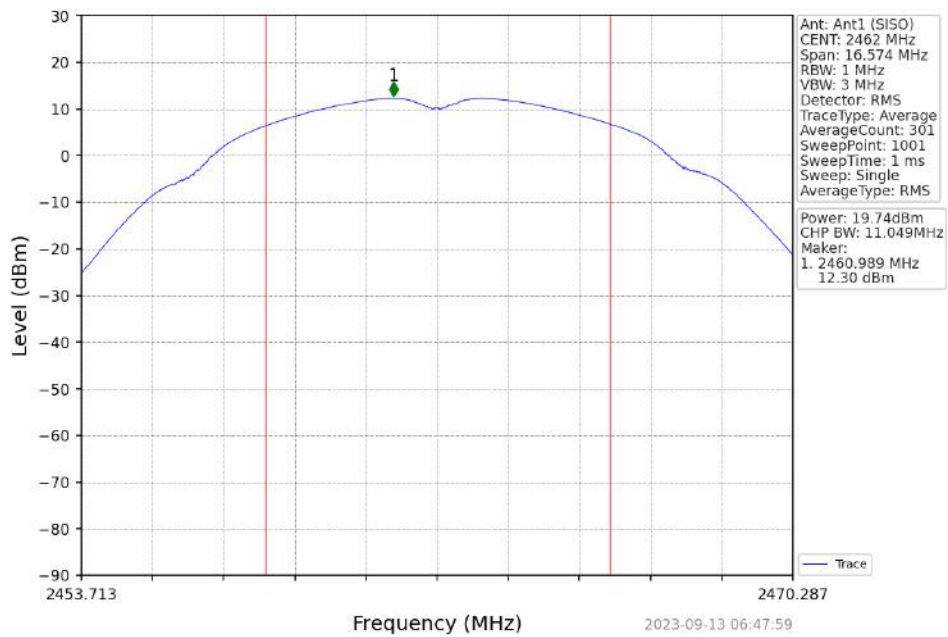


Test Graph:
Antenna 4:
Output Power:

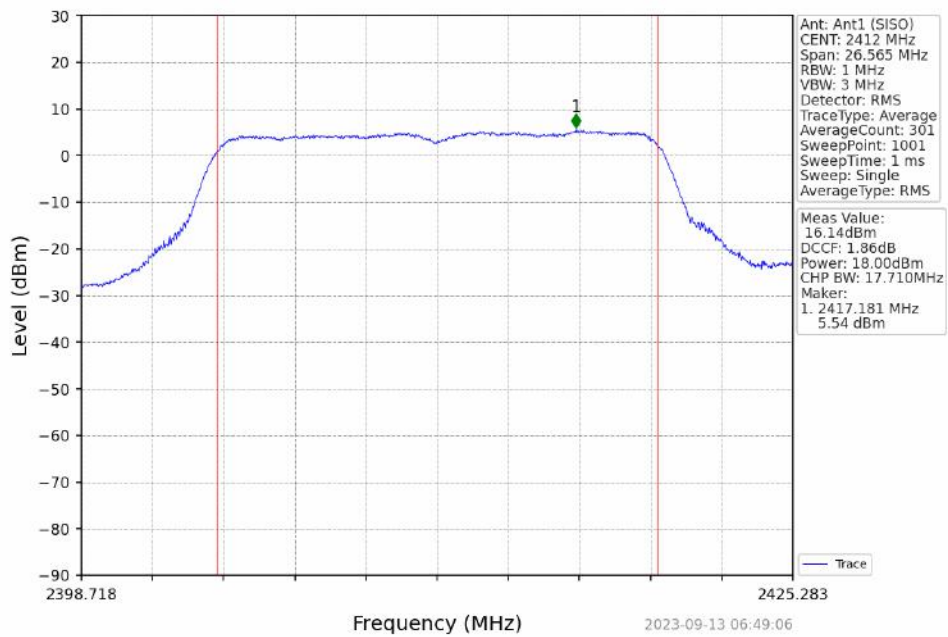




802.11b_HCH_2462MHz_NTNV

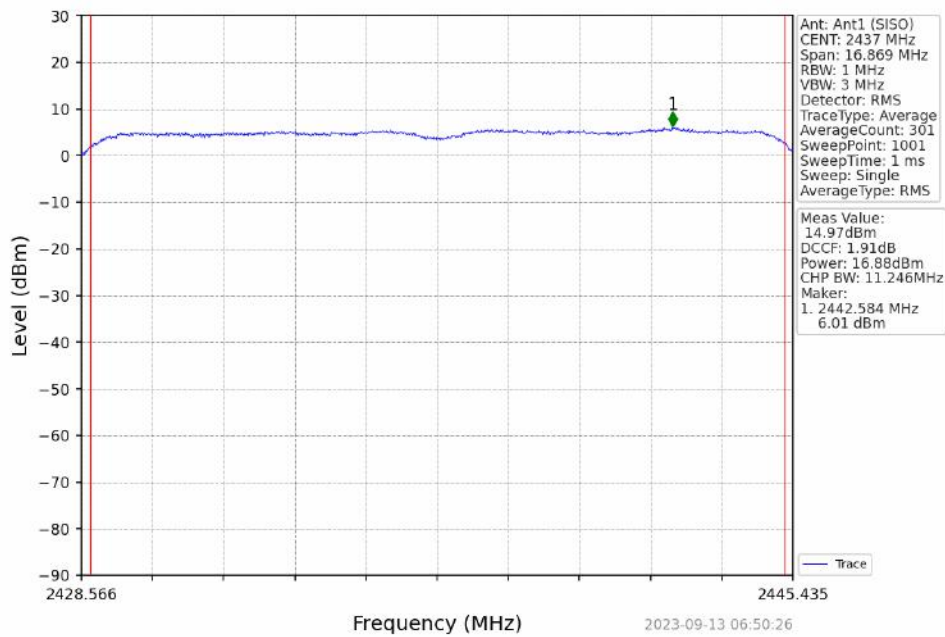


802.11g_LCH_2412MHz_NTNV

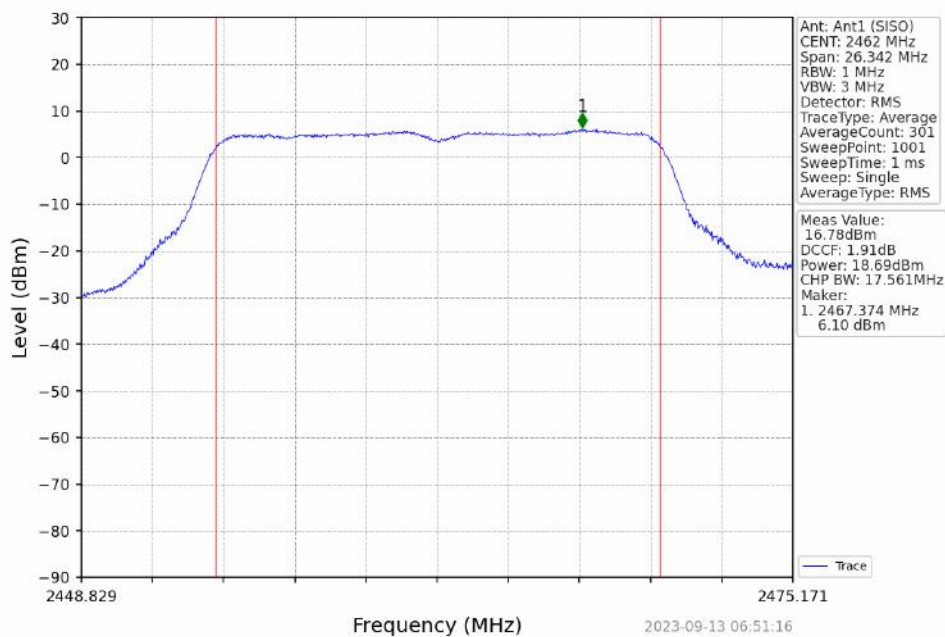




802.11g_MCH_2437MHz_NTNV

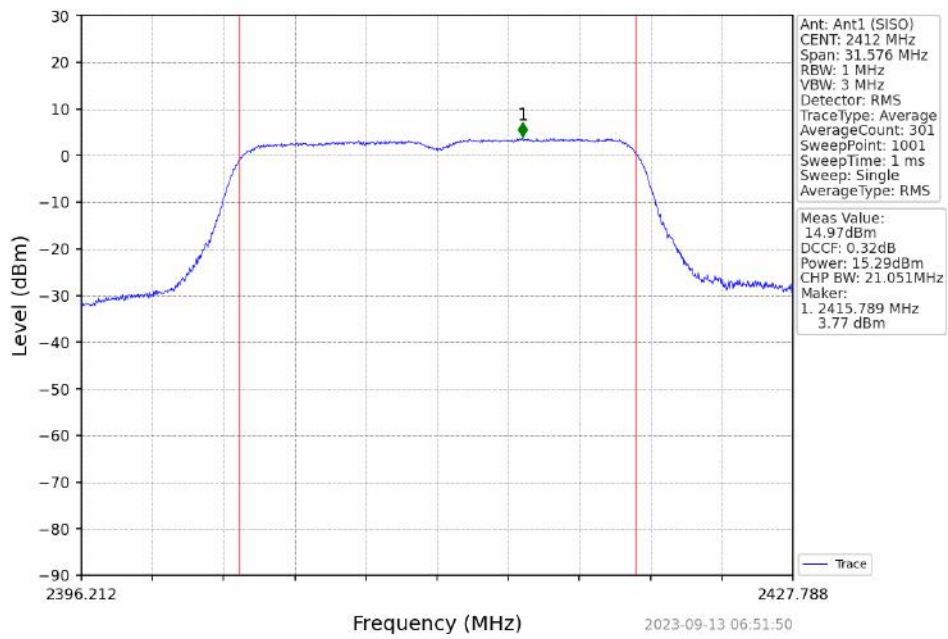


802.11g_HCH_2462MHz_NTNV

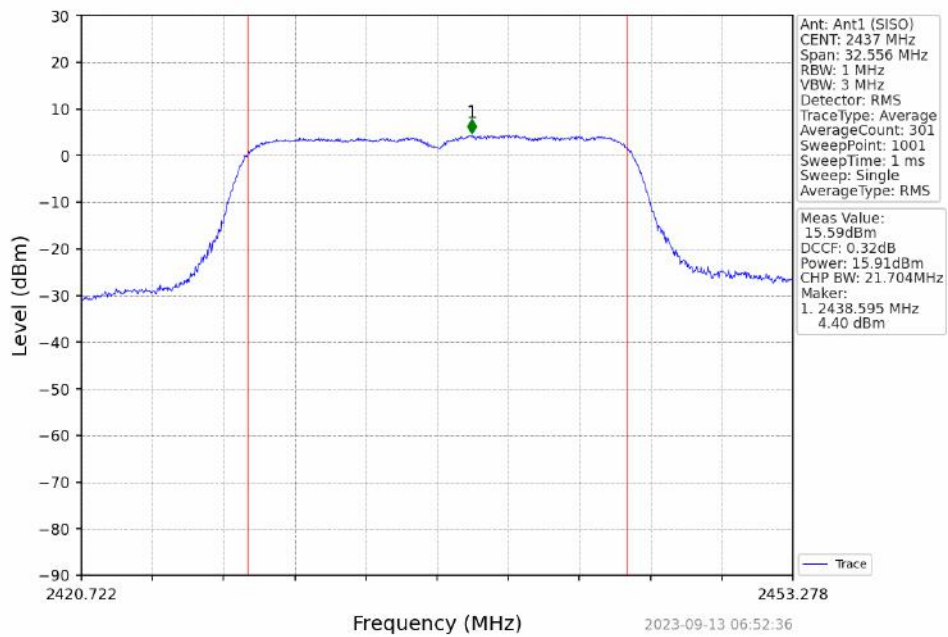


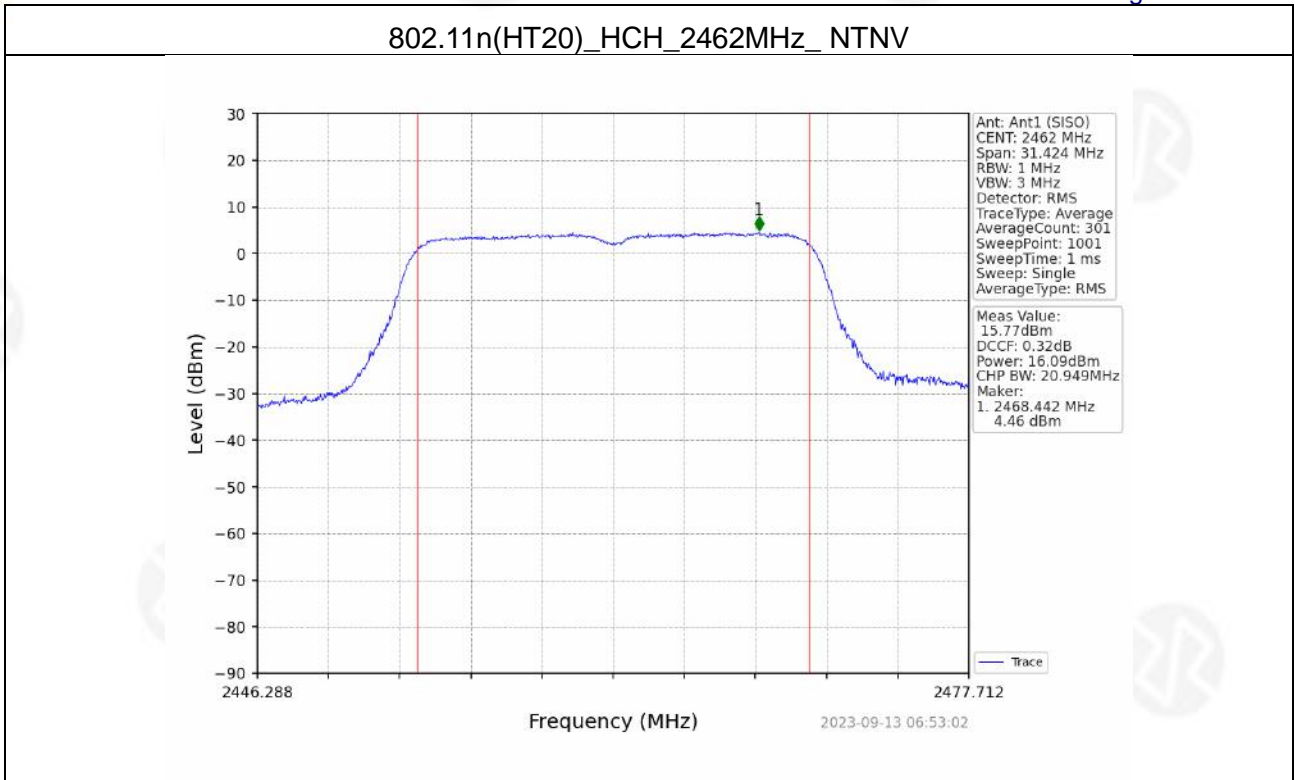


802.11n(HT20)_LCH_2412MHz_ NTNV



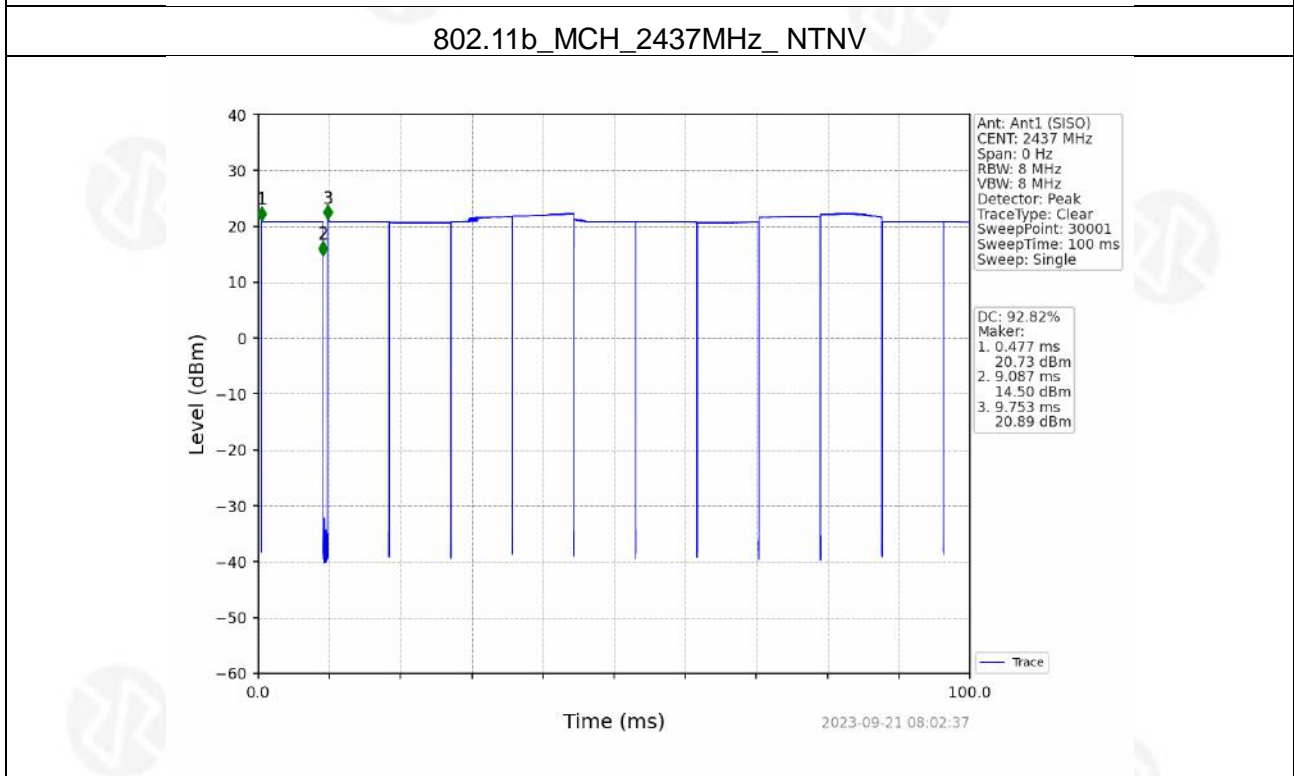
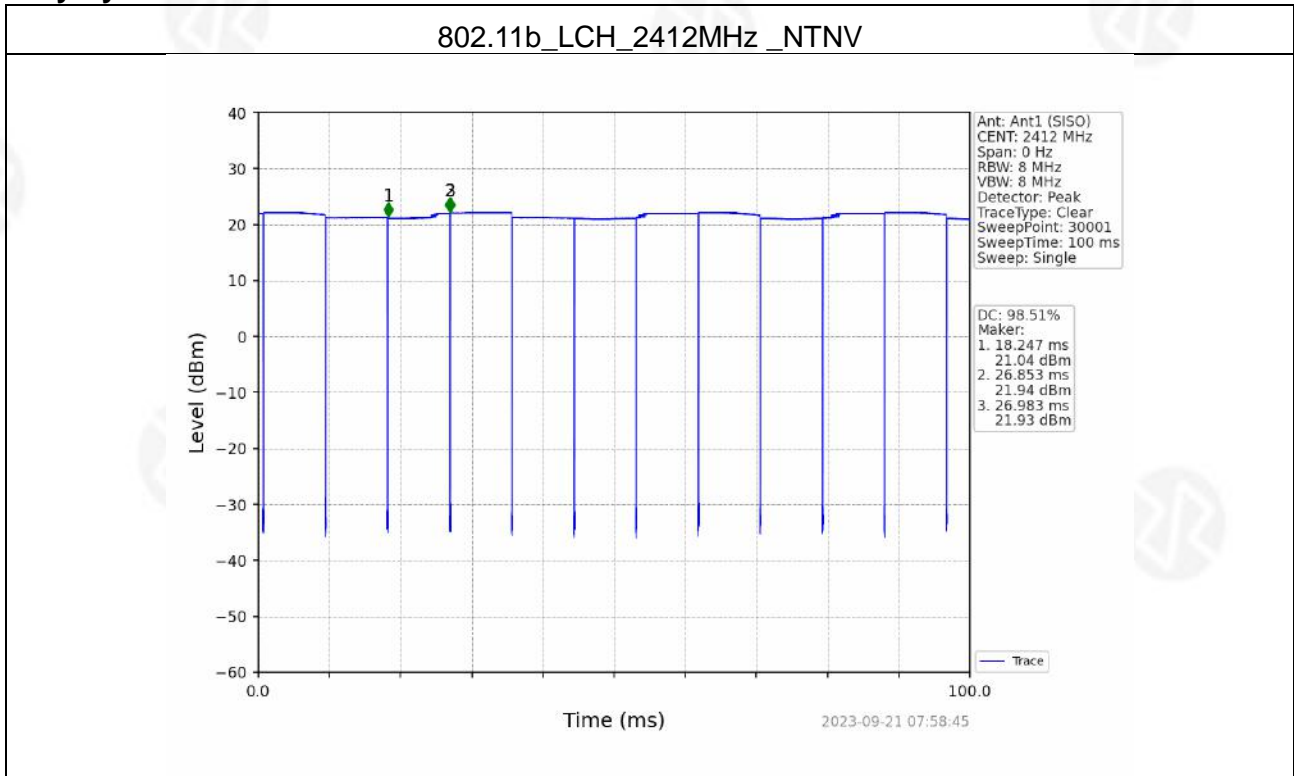
802.11n(HT20)_MCH_2437MHz_ NTNV





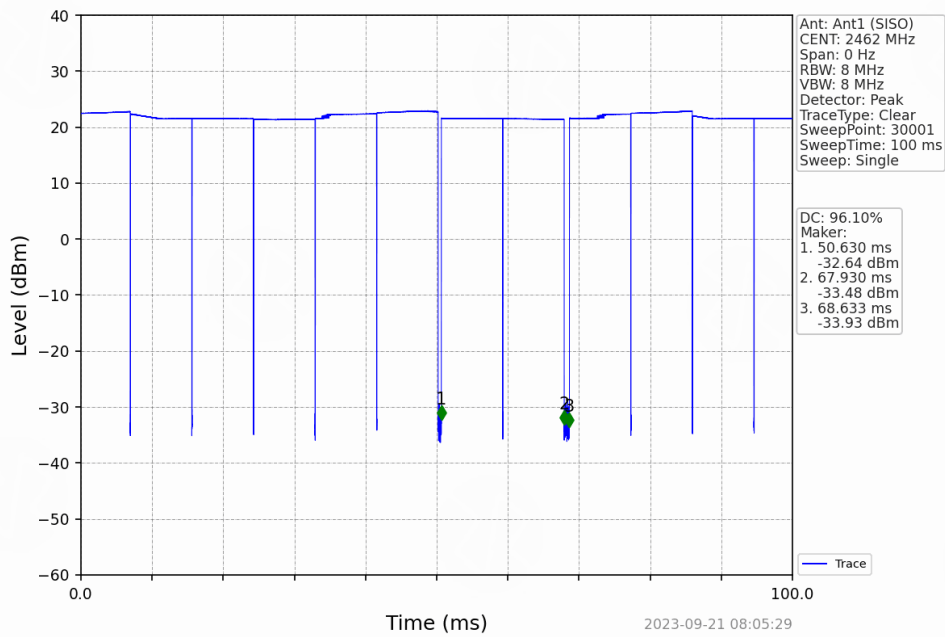


Test Graph:
Antenna 1:
Duty Cycle:

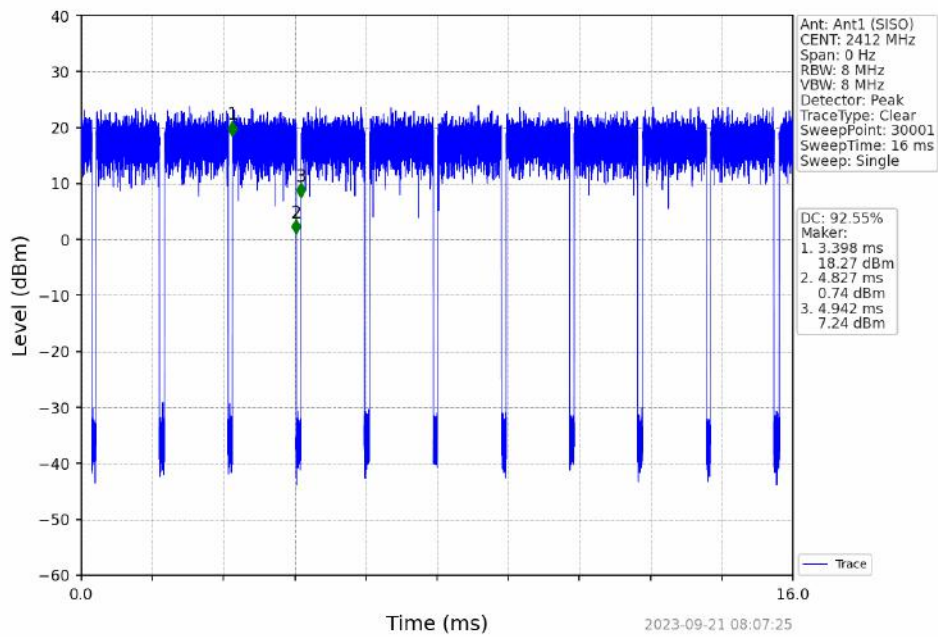




802.11b_HCH_2462MHz_NTNV

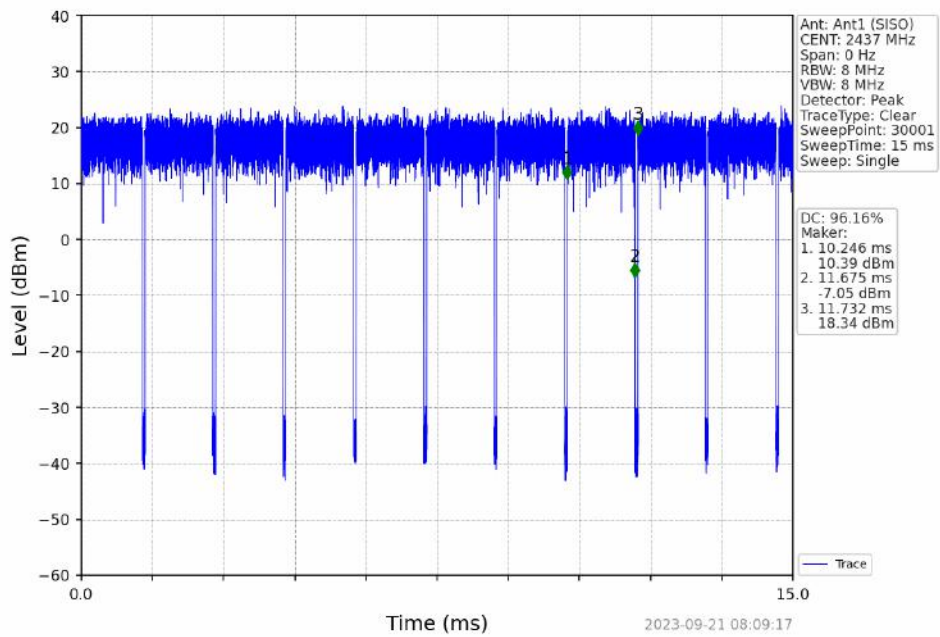


802.11g_LCH_2412MHz_NTNV

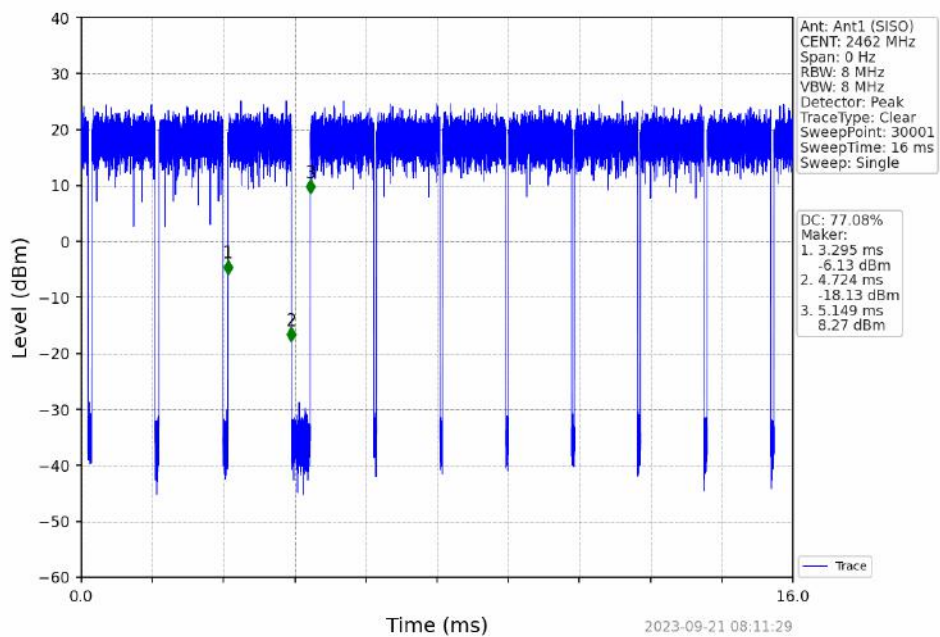




802.11g_MCH_2437MHz_NTNV

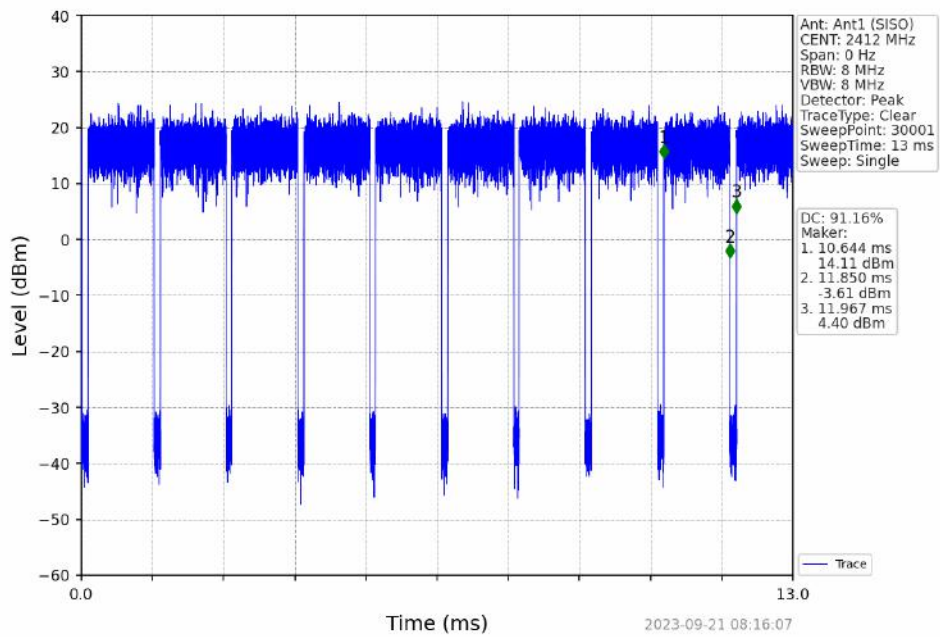


802.11g_HCH_2462MHz_NTNV

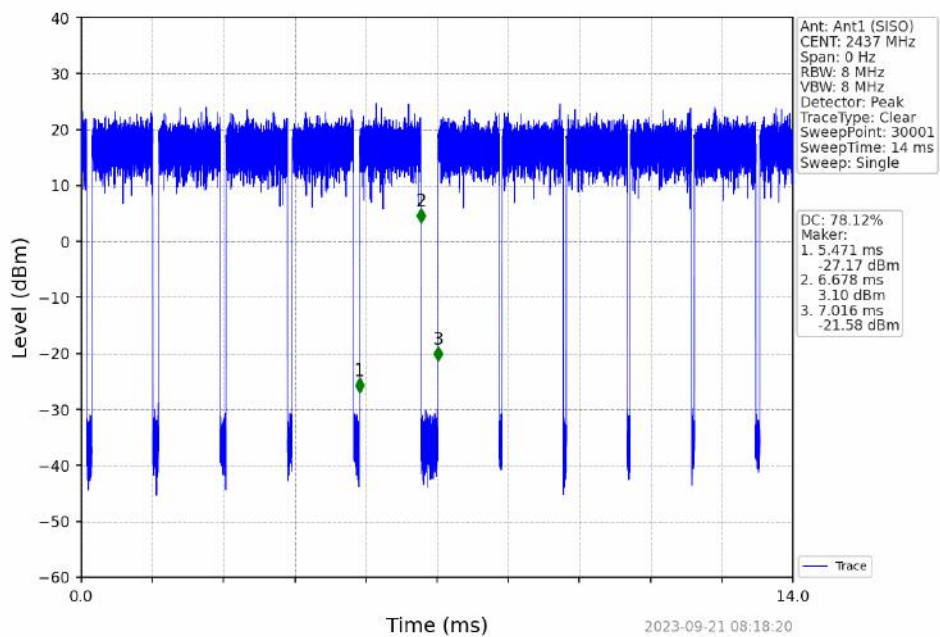




802.11n(HT20)_LCH_2412MHz_NTNV

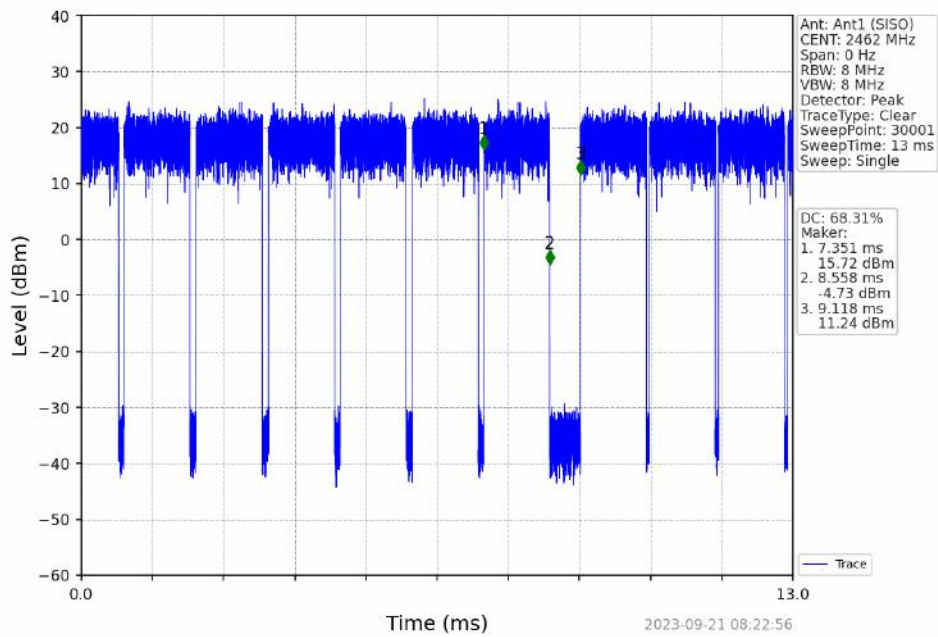


802.11n(HT20)_MCH_2437MHz_NTNV

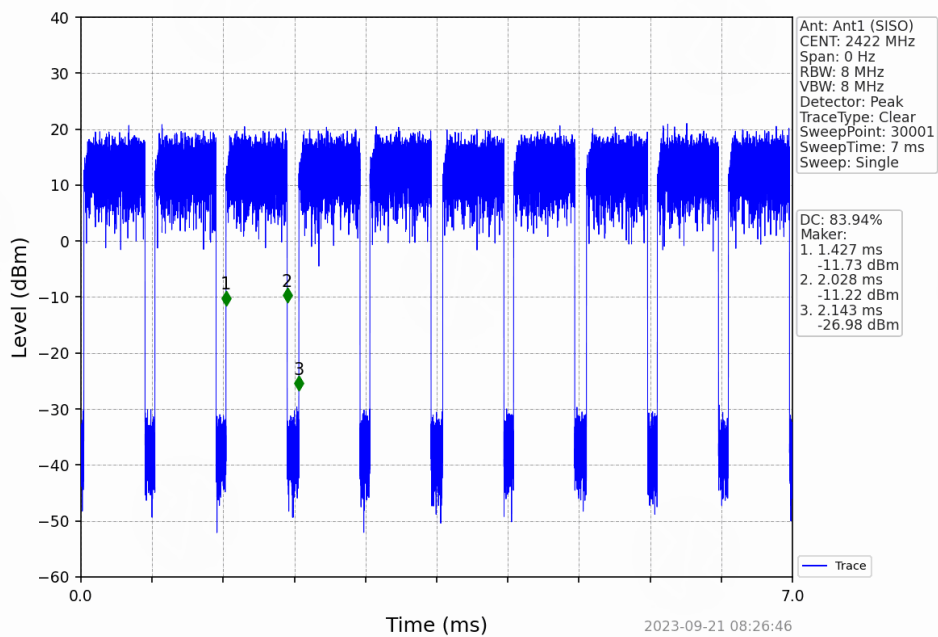




802.11n(HT20)_HCH_2462MHz_NTNV

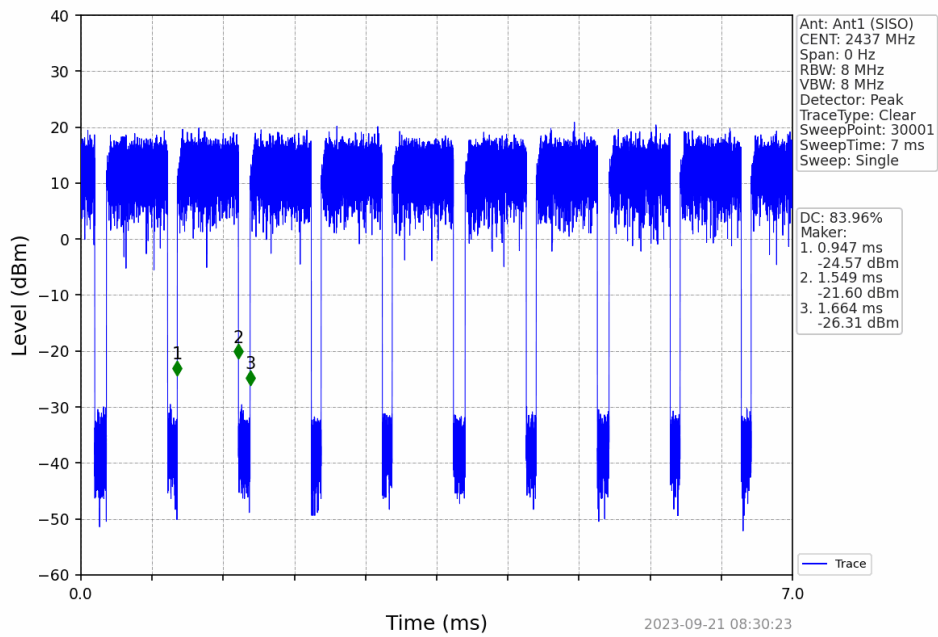


802.11n(HT40)_LCH_2422MHz_NTNV

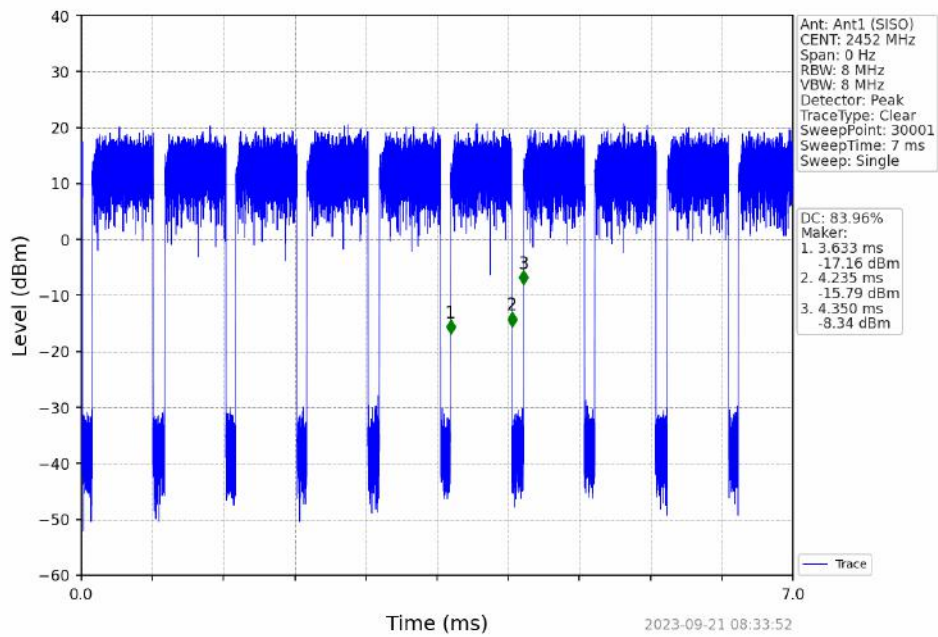




802.11n(HT40)_MCH_2437MHz_NTNV

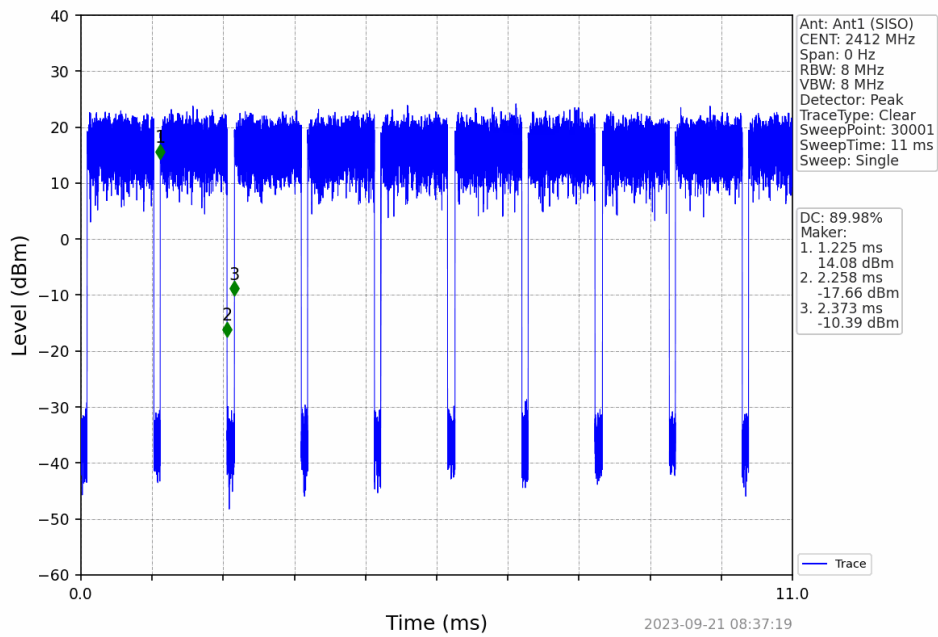


802.11n(HT40)_HCH_2452MHz_NTNV

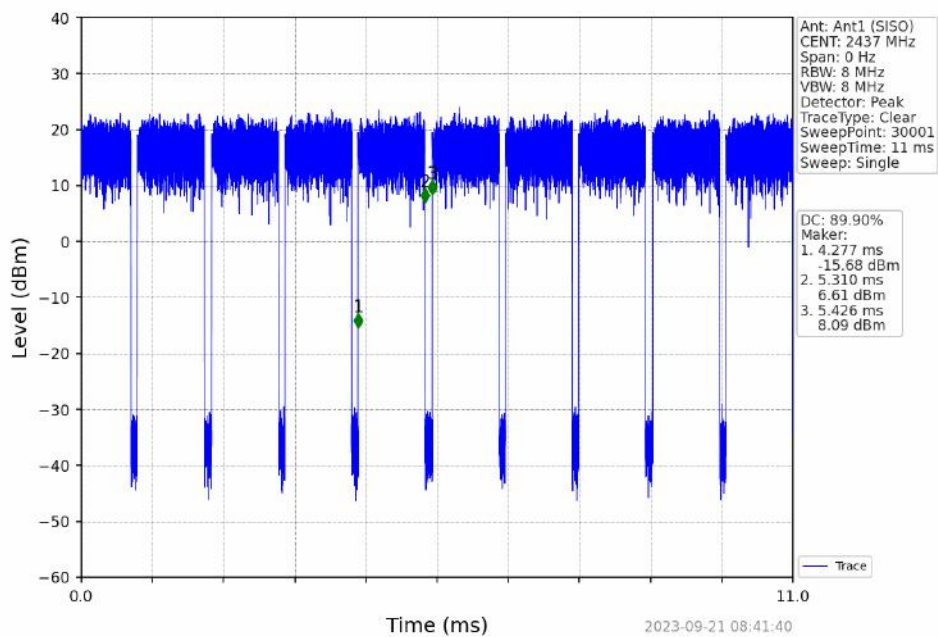




802.11ax(HEW20)_LCH_2412MHz_RU242_Left_NTNV

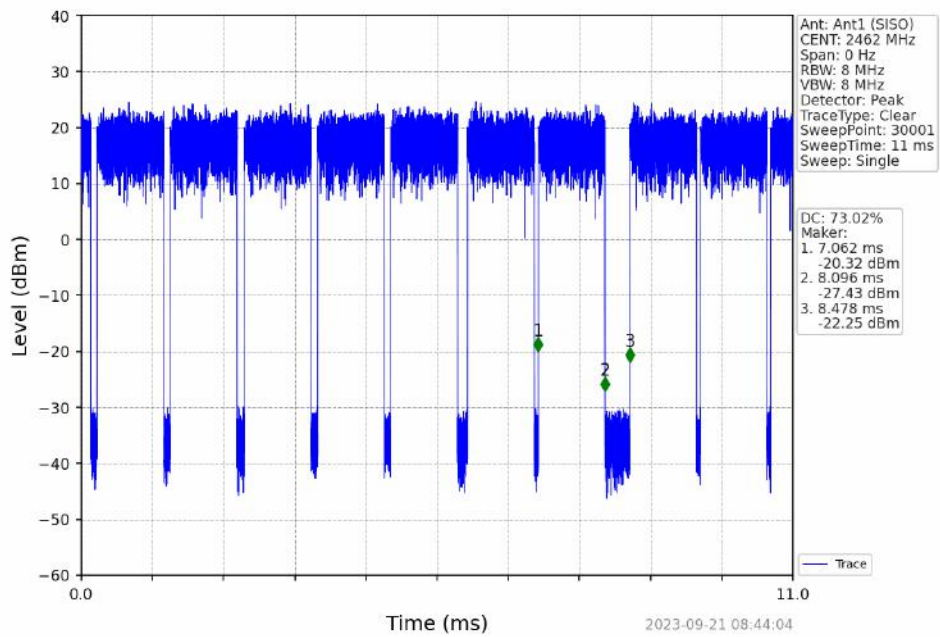


802.11ax(HEW20)_MCH_2437MHz_RU242_Left_NTNV

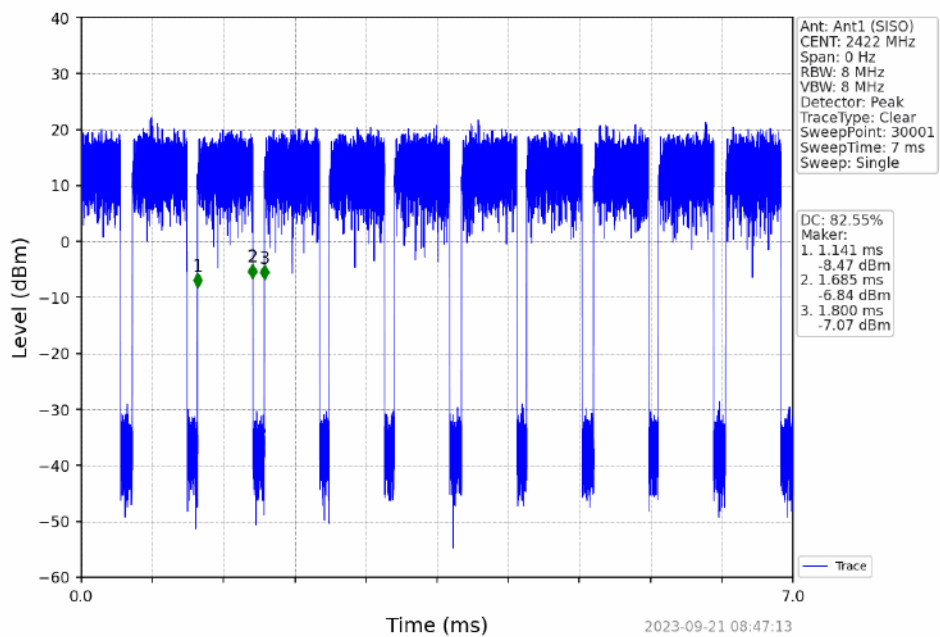




802.11ax(HEW20)_HCH_2462MHz_RU242_Left_NTNV

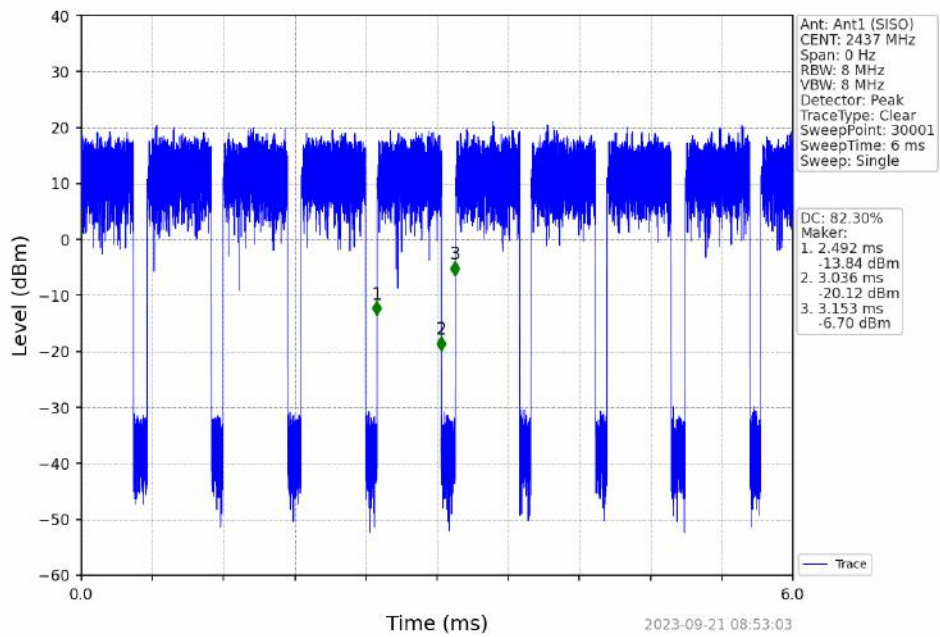


802.11ax(HEW40)_LCH_2422MHz_RU484_Left_NTNV





802.11ax(HEW40)_MCH_2437MHz_RU484_Left_NTNV



802.11ax(HEW40)_HCH_2452MHz_RU484_Left_NTNV

