

## ANNEX F TEST DATA

For

|                      |                                             |
|----------------------|---------------------------------------------|
| Project No.:         | 8232EU010604W                               |
| Client:              | Shenzhen Qianhai Runway Technology Co., LTD |
| Product Description: | Smart Pet Feeder                            |
| Model No.:           | F15-C                                       |
| FCC ID:              | 2AU2C-F15-C                                 |
| Technology:          | WiFi 5G                                     |
| Test Engineer:       | <i>Mikoy zhu</i>                            |
| Test Date:           | 2024-08-16                                  |

## Test Summary

| Item                           | Result |
|--------------------------------|--------|
| Duty Cycle                     | Pass   |
| Bandwidth                      | Pass   |
| Maximum Conducted Output Power | Pass   |
| Maximum Power Spectral Density | Pass   |
| Frequency Stability            | Pass   |



## 1. Duty Cycle

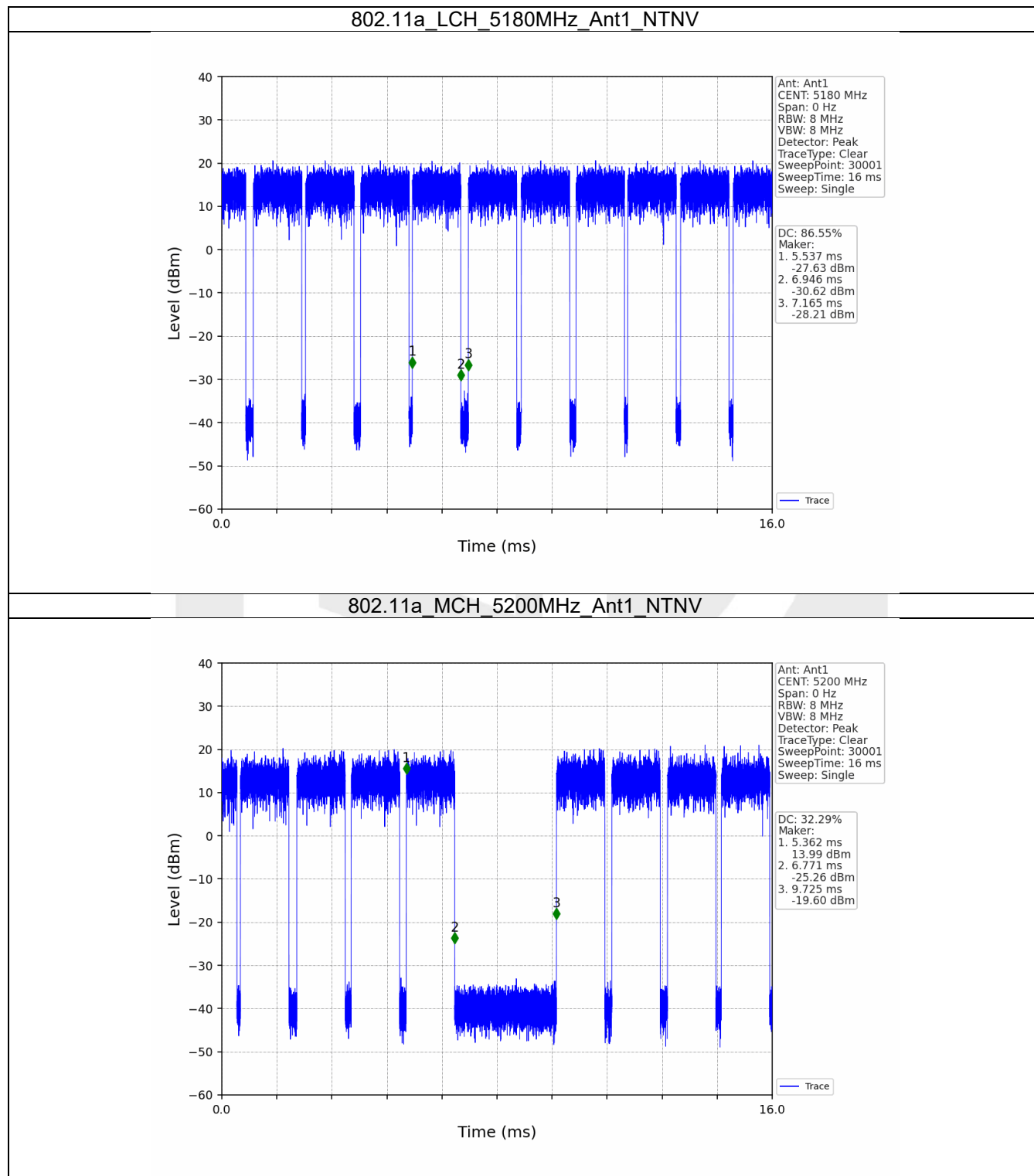
### 1.1 Test Result

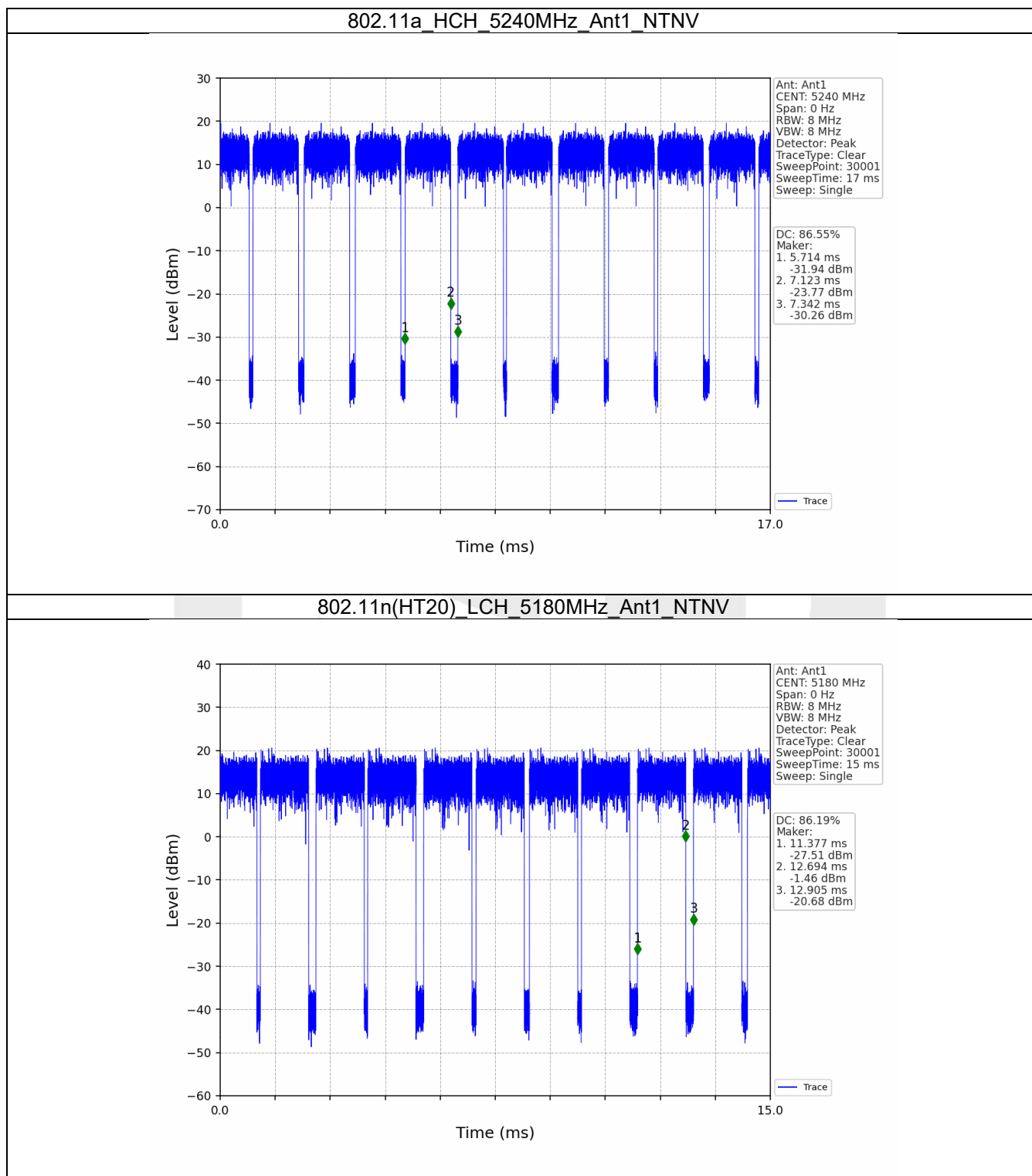
#### 1.1.1 Ant1

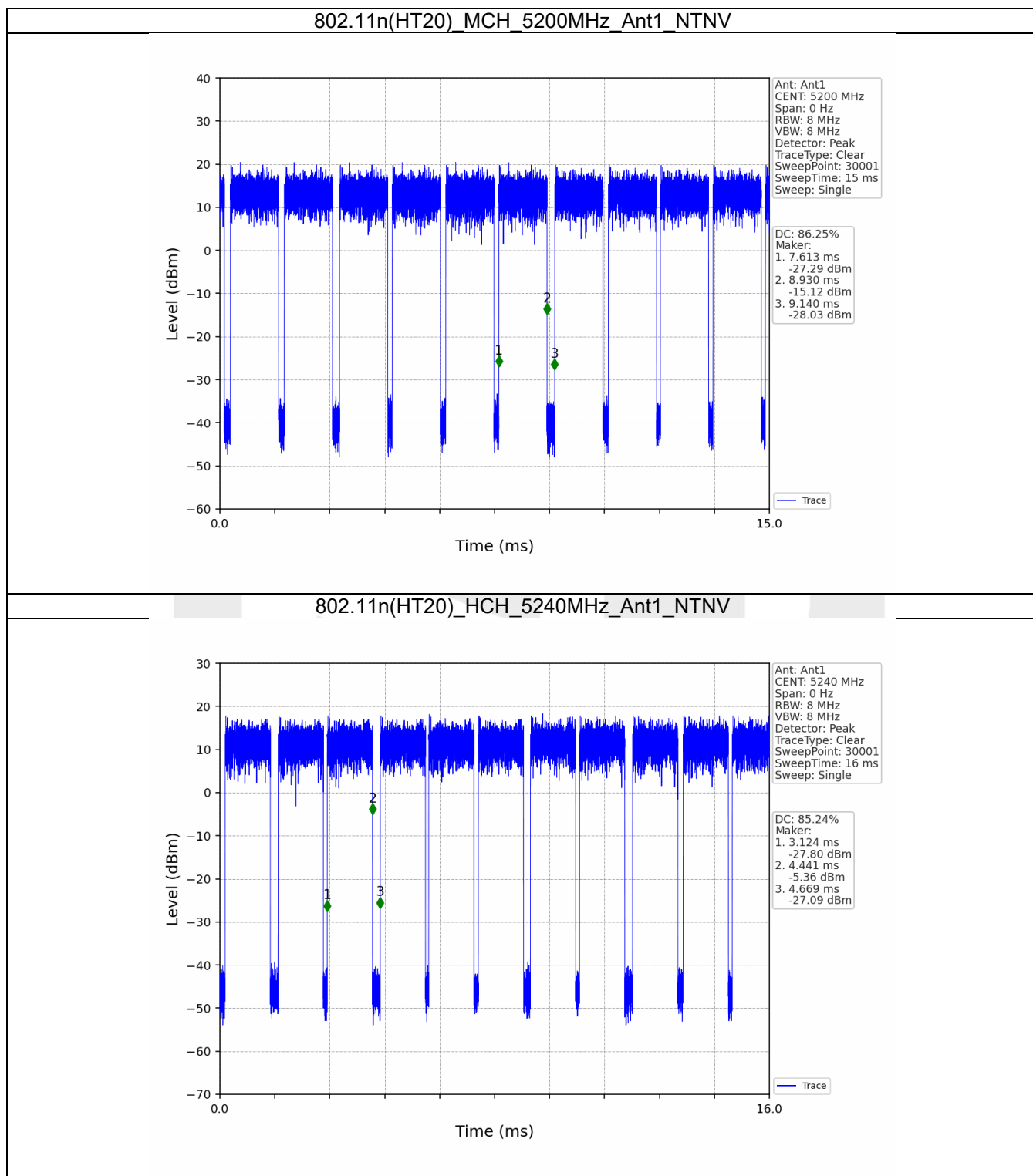
| Ant1           |         |                 |           |             |                |                                   |                       |
|----------------|---------|-----------------|-----------|-------------|----------------|-----------------------------------|-----------------------|
| Mode           | TX Type | Frequency (MHz) | T_on (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) | Max. DC Variation (%) |
| 802.11a        | SISO    | 5180            | 1.409     | 1.628       | 86.55          | 0.63                              | 7.26                  |
|                |         | 5200            | 1.409     | 4.363       | 32.29          | 4.91                              | 57.75                 |
|                |         | 5240            | 1.409     | 1.628       | 86.55          | 0.63                              | 7.25                  |
| 802.11n (HT20) | SISO    | 5180            | 1.317     | 1.528       | 86.19          | 0.65                              | 7.19                  |
|                |         | 5200            | 1.317     | 1.527       | 86.25          | 0.64                              | 6.57                  |
|                |         | 5240            | 1.317     | 1.545       | 85.24          | 0.69                              | 8.16                  |

## 1.2 Test Graph

### 1.2.1 Ant1







## 2. Bandwidth

### 2.1 Test Result

#### 2.1.1 OBW

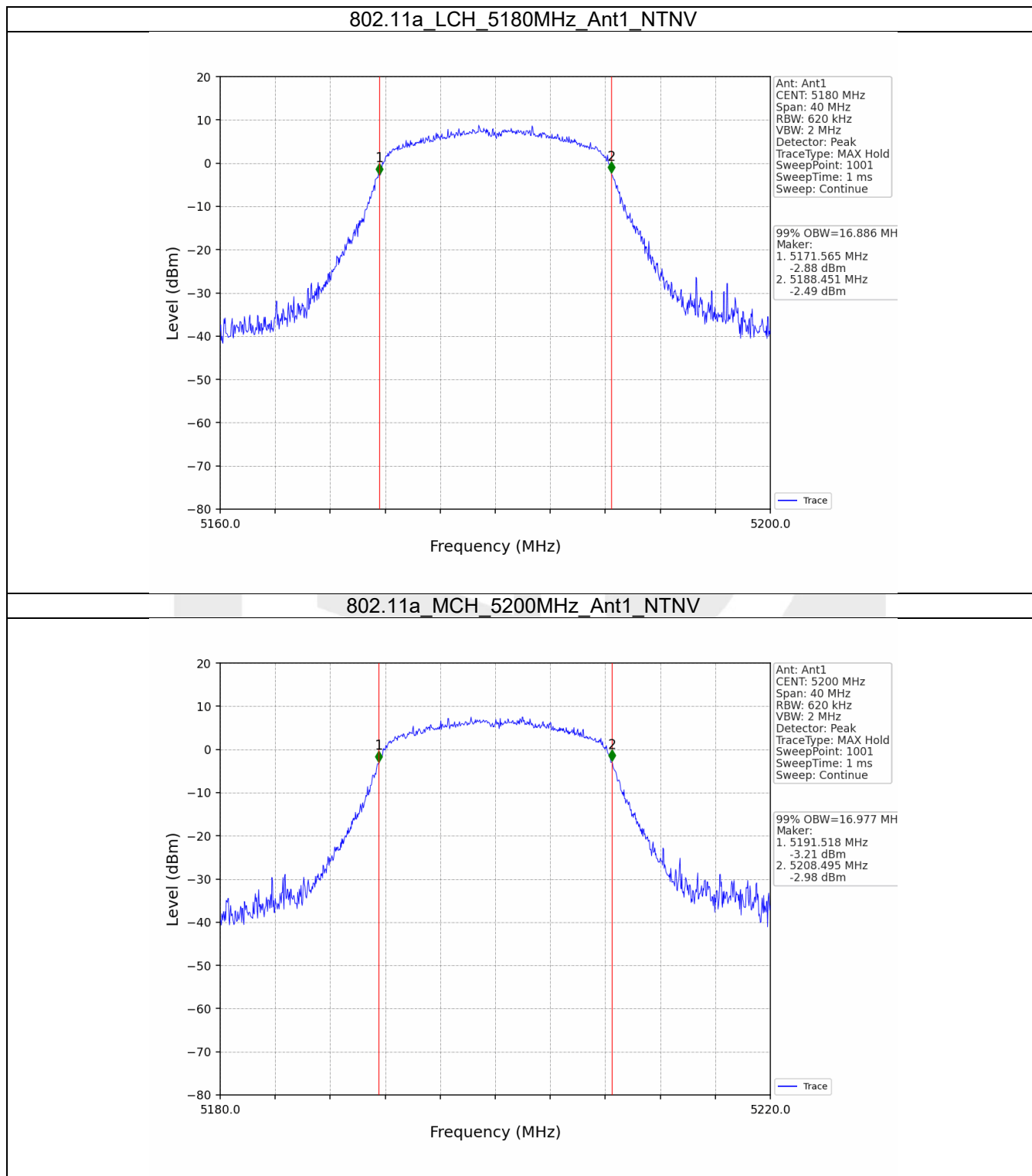
| Mode           | TX Type | Frequency (MHz) | ANT | 99% Occupied Bandwidth (MHz) |       | Verdict |
|----------------|---------|-----------------|-----|------------------------------|-------|---------|
|                |         |                 |     | Result                       | Limit |         |
| 802.11a        | SISO    | 5180            | 1   | 16.886                       | /     | Pass    |
|                |         | 5200            | 1   | 16.977                       | /     | Pass    |
|                |         | 5240            | 1   | 17.025                       | /     | Pass    |
| 802.11n (HT20) | SISO    | 5180            | 1   | 17.843                       | /     | Pass    |
|                |         | 5200            | 1   | 17.916                       | /     | Pass    |
|                |         | 5240            | 1   | 17.948                       | /     | Pass    |

#### 2.1.2 26dB BW

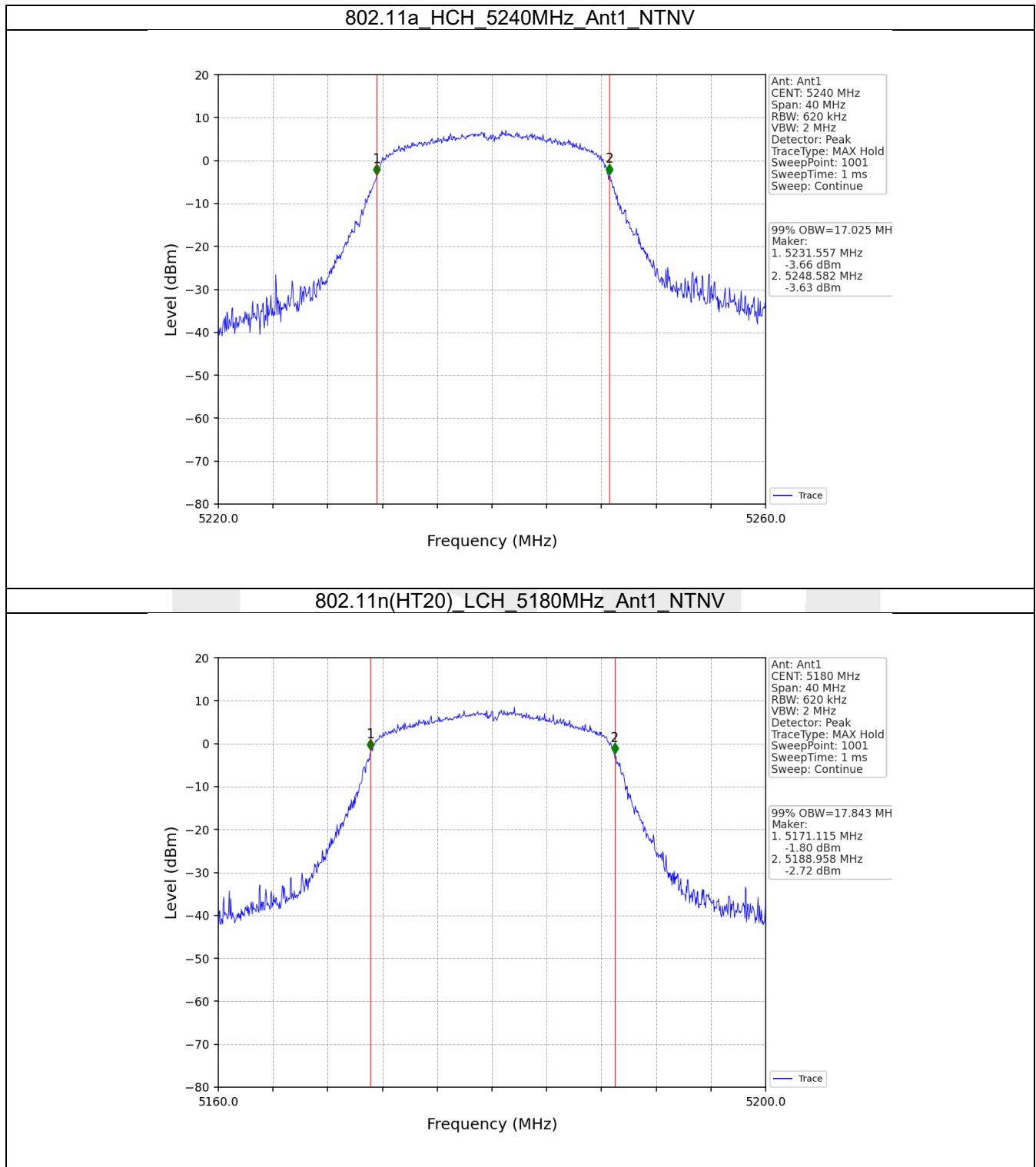
| Mode           | TX Type | Frequency (MHz) | ANT | 26dB Bandwidth (MHz) |       | Verdict |
|----------------|---------|-----------------|-----|----------------------|-------|---------|
|                |         |                 |     | Result               | Limit |         |
| 802.11a        | SISO    | 5180            | 1   | 19.518               | /     | Pass    |
|                |         | 5200            | 1   | 19.960               | /     | Pass    |
|                |         | 5240            | 1   | 19.569               | /     | Pass    |
| 802.11n (HT20) | SISO    | 5180            | 1   | 20.102               | /     | Pass    |
|                |         | 5200            | 1   | 20.543               | /     | Pass    |
|                |         | 5240            | 1   | 20.347               | /     | Pass    |

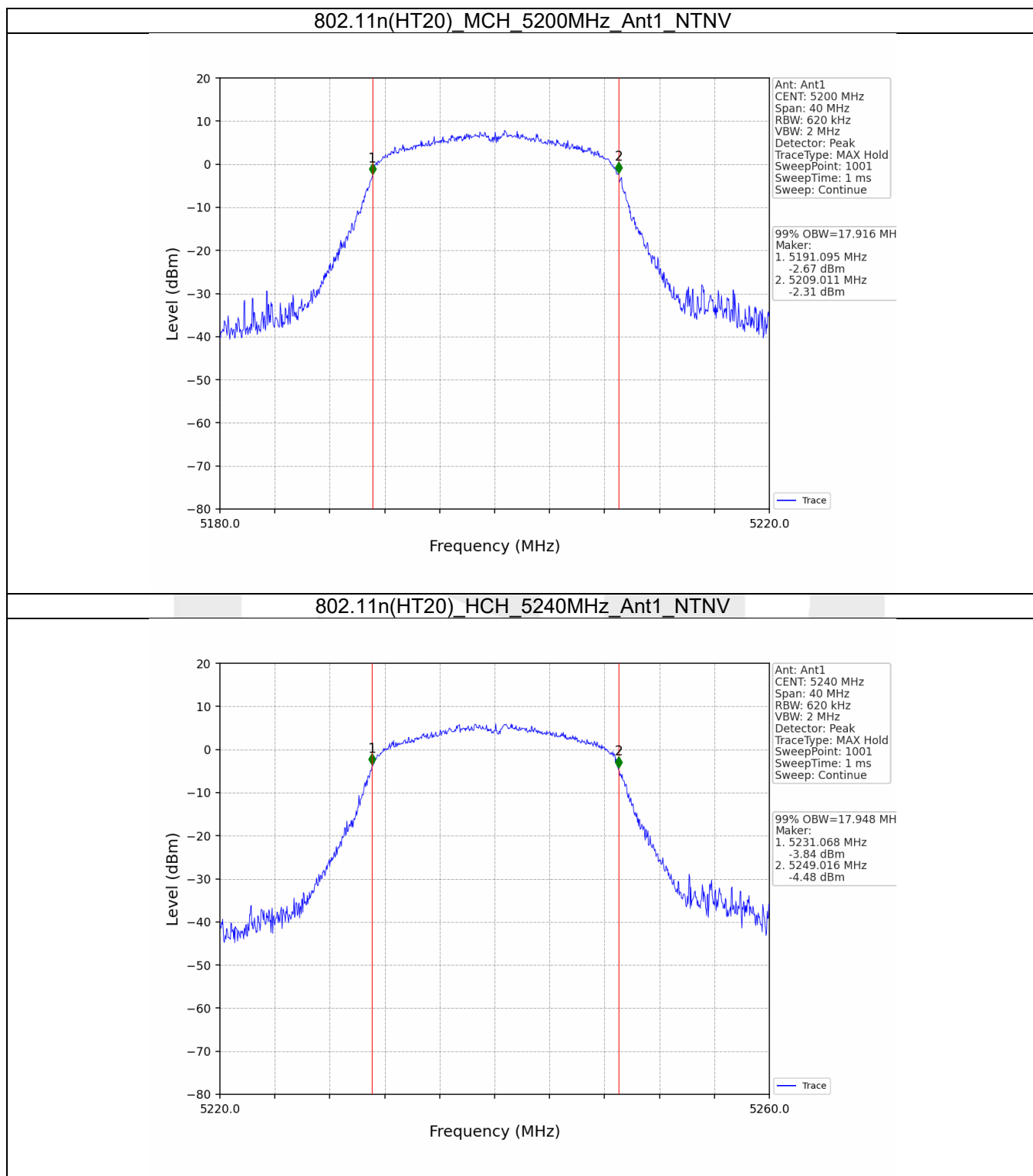
## 2.2 Test Graph

### 2.2.1 OBW

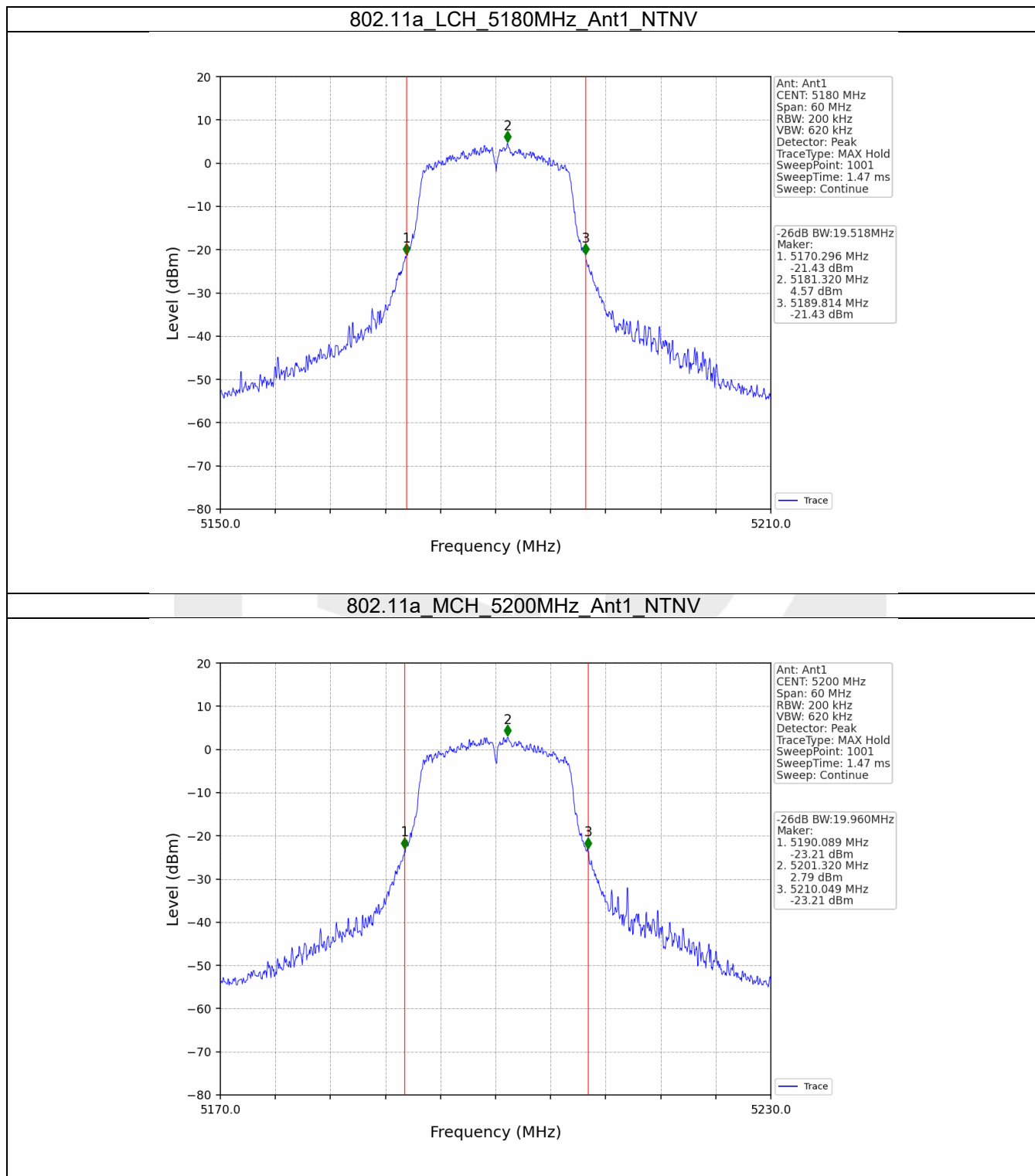


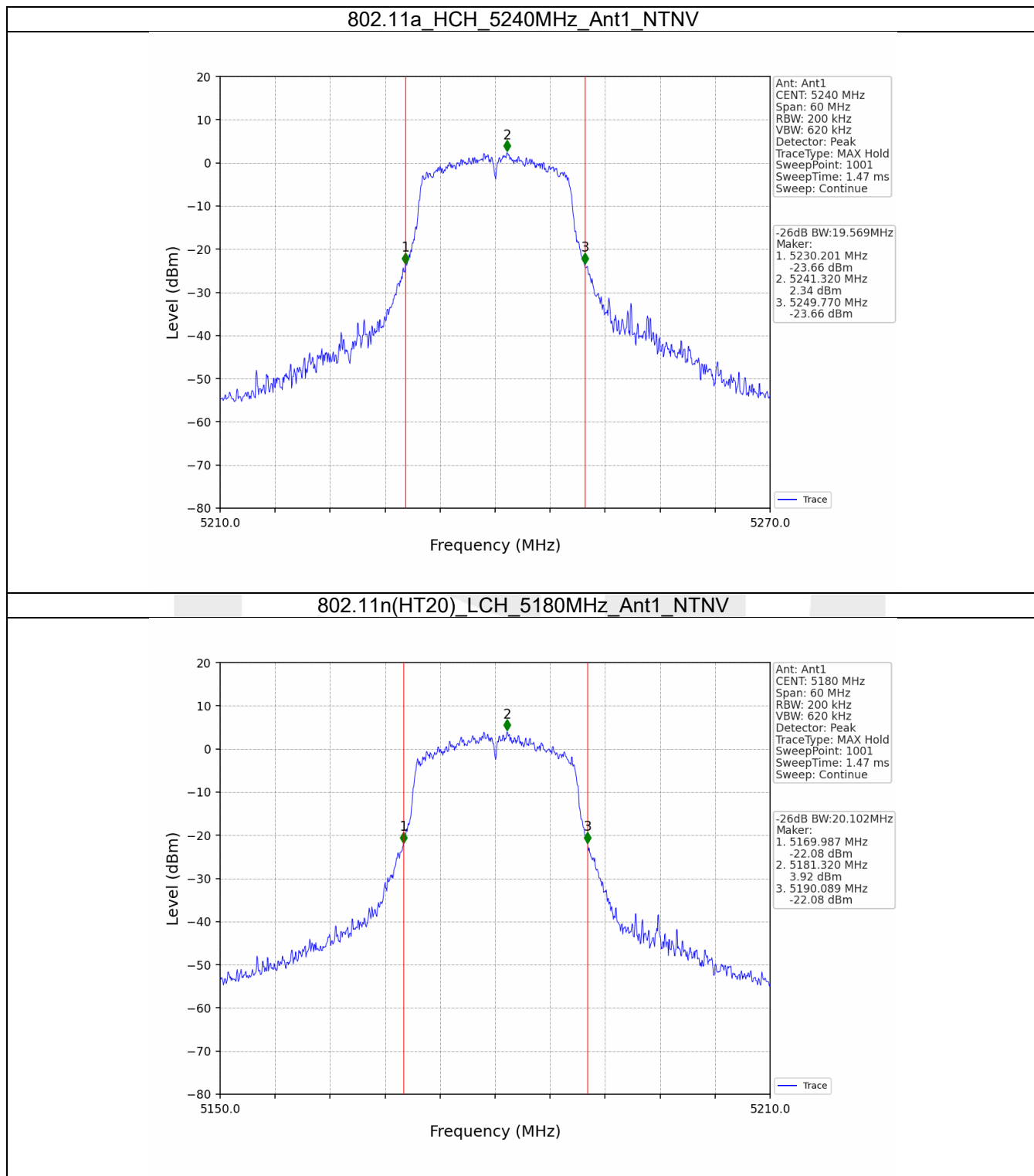


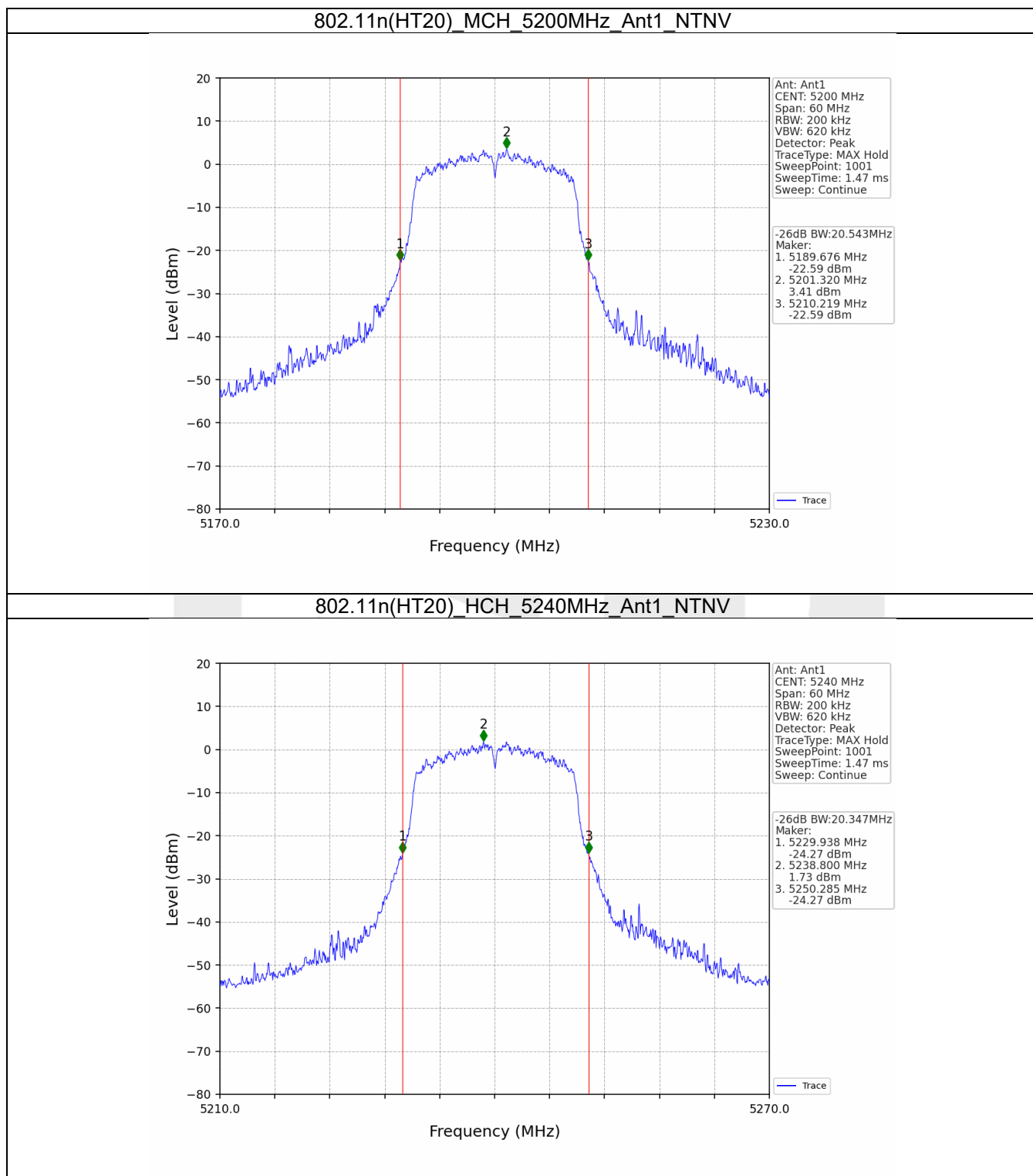




### 2.2.2 26dB BW







### 3. Maximum Conducted Output Power

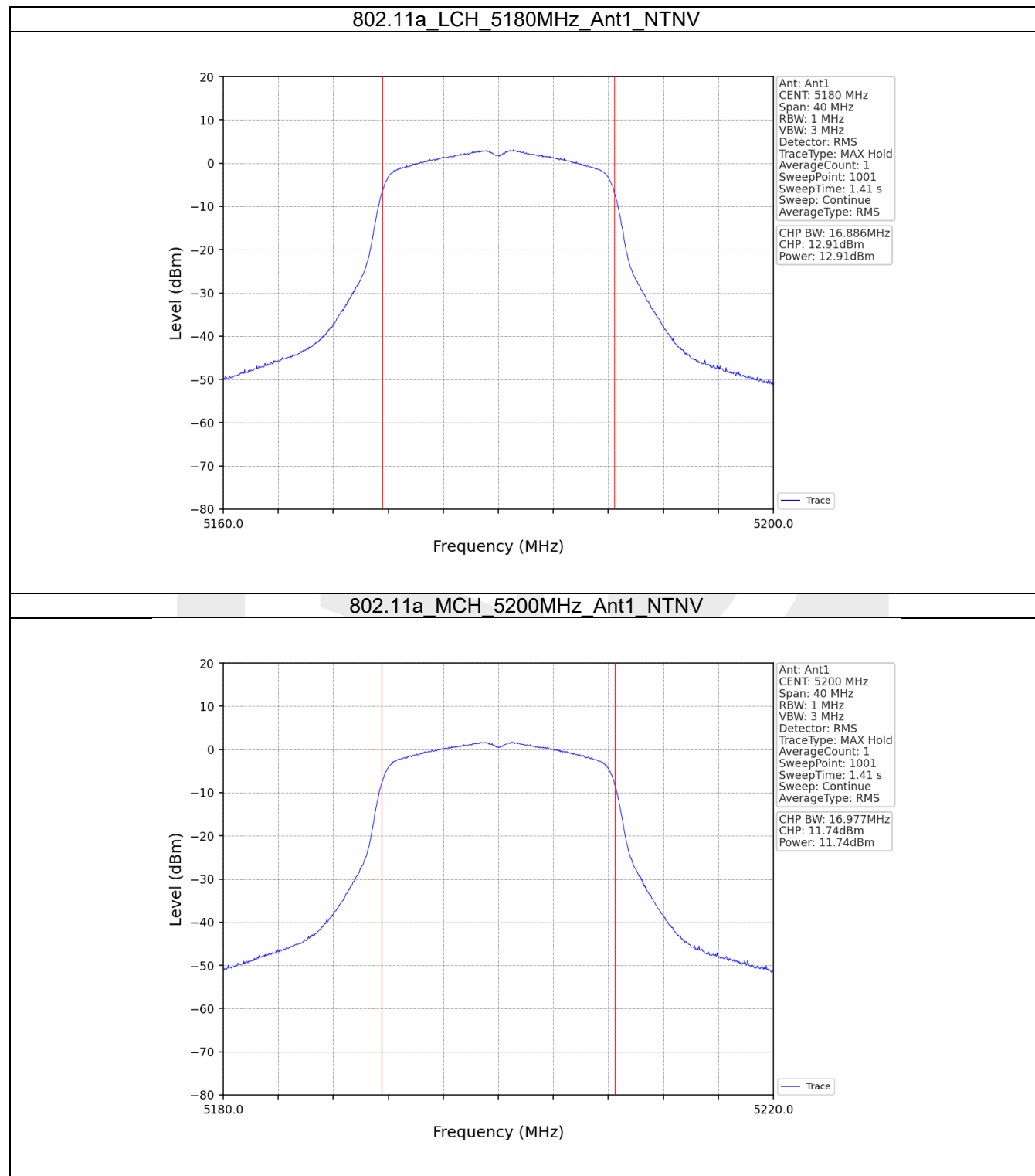
#### 3.1 Test Result

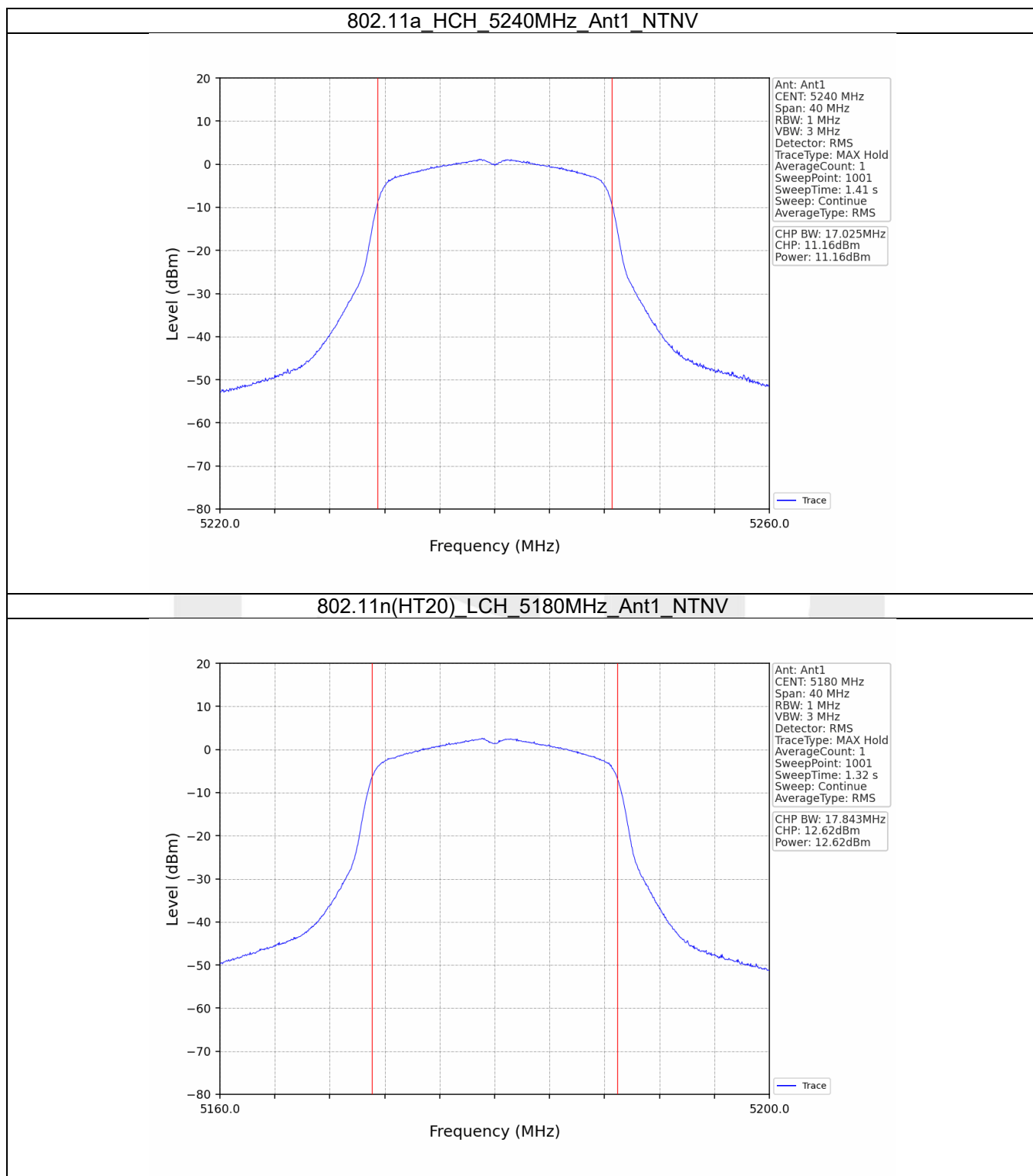
##### 3.1.1 Power

| Mode           | TX Type | Frequency (MHz) | Maximum Average Conducted Output Power (dBm) |              | Verdict |
|----------------|---------|-----------------|----------------------------------------------|--------------|---------|
|                |         |                 | ANT1                                         | Limit        |         |
| 802.11a        | SISO    | 5180            | 12.91                                        | $\leq 23.98$ | Pass    |
|                |         | 5200            | 11.74                                        | $\leq 23.98$ | Pass    |
|                |         | 5240            | 11.16                                        | $\leq 23.98$ | Pass    |
| 802.11n (HT20) | SISO    | 5180            | 12.62                                        | $\leq 23.98$ | Pass    |
|                |         | 5200            | 12.07                                        | $\leq 23.98$ | Pass    |
|                |         | 5240            | 10.48                                        | $\leq 23.98$ | Pass    |

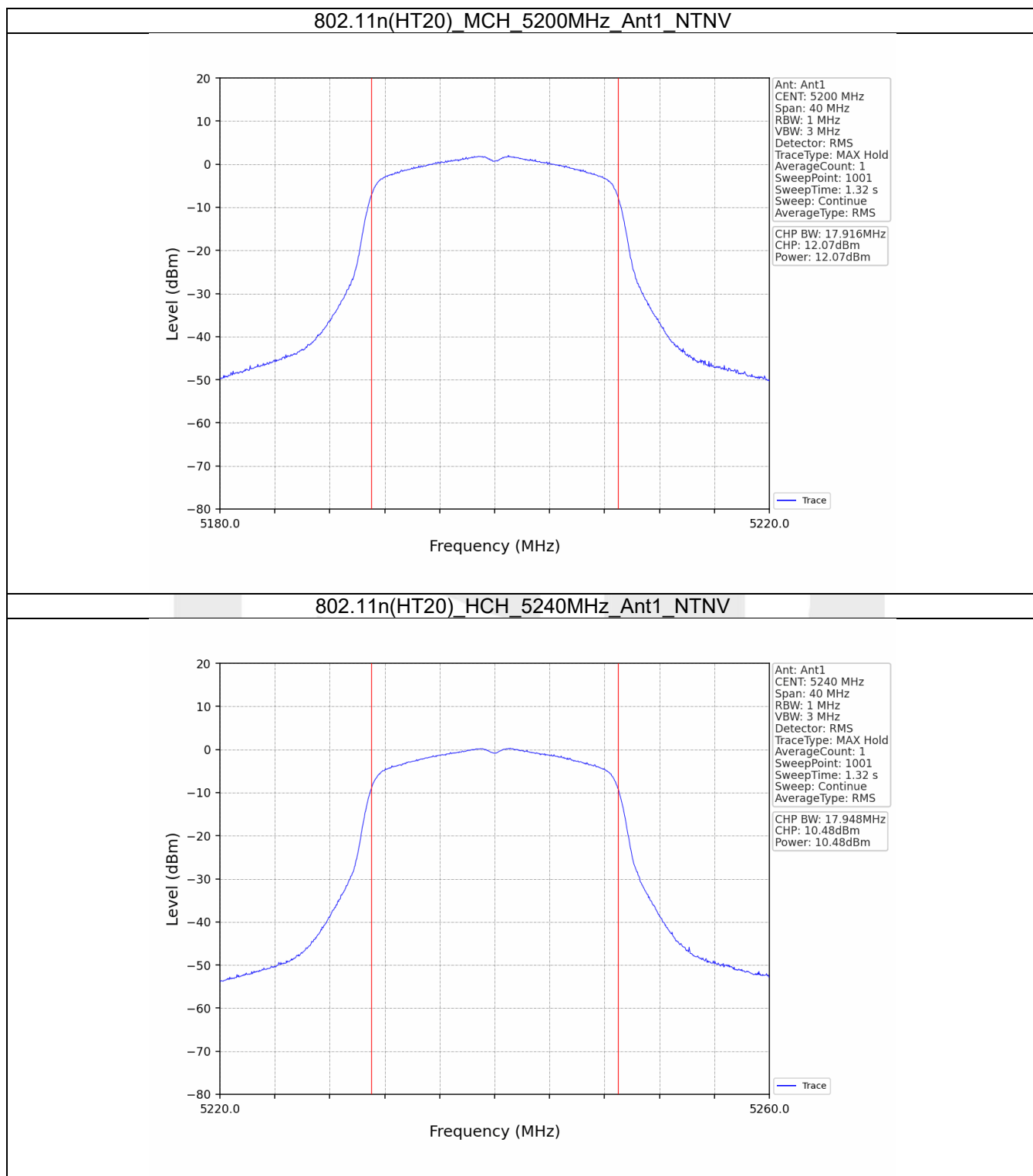
### 3.2 Test Graph

#### 3.2.1 Power









#### 4. Maximum Power Spectral Density

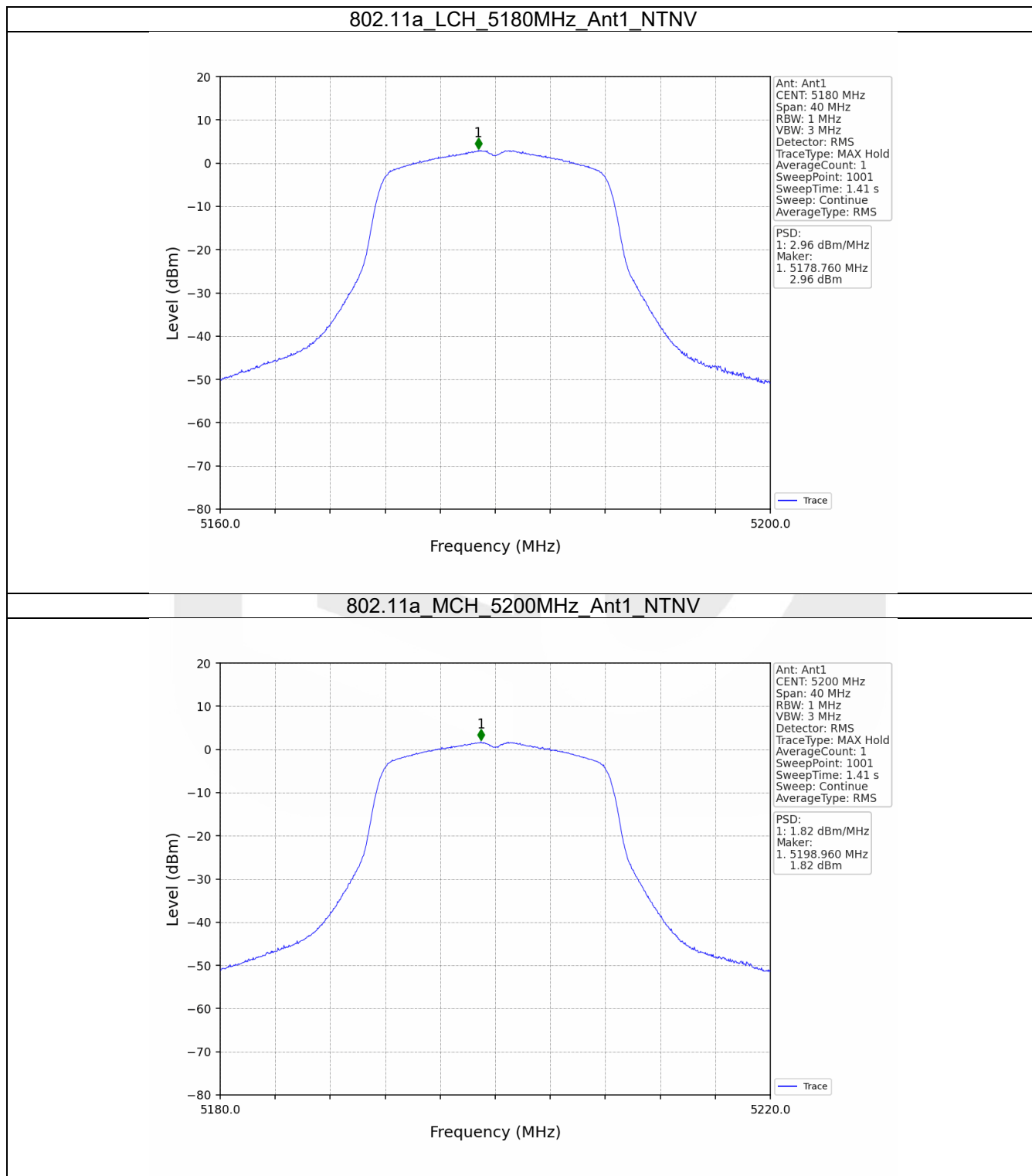
##### 4.1 Test Result

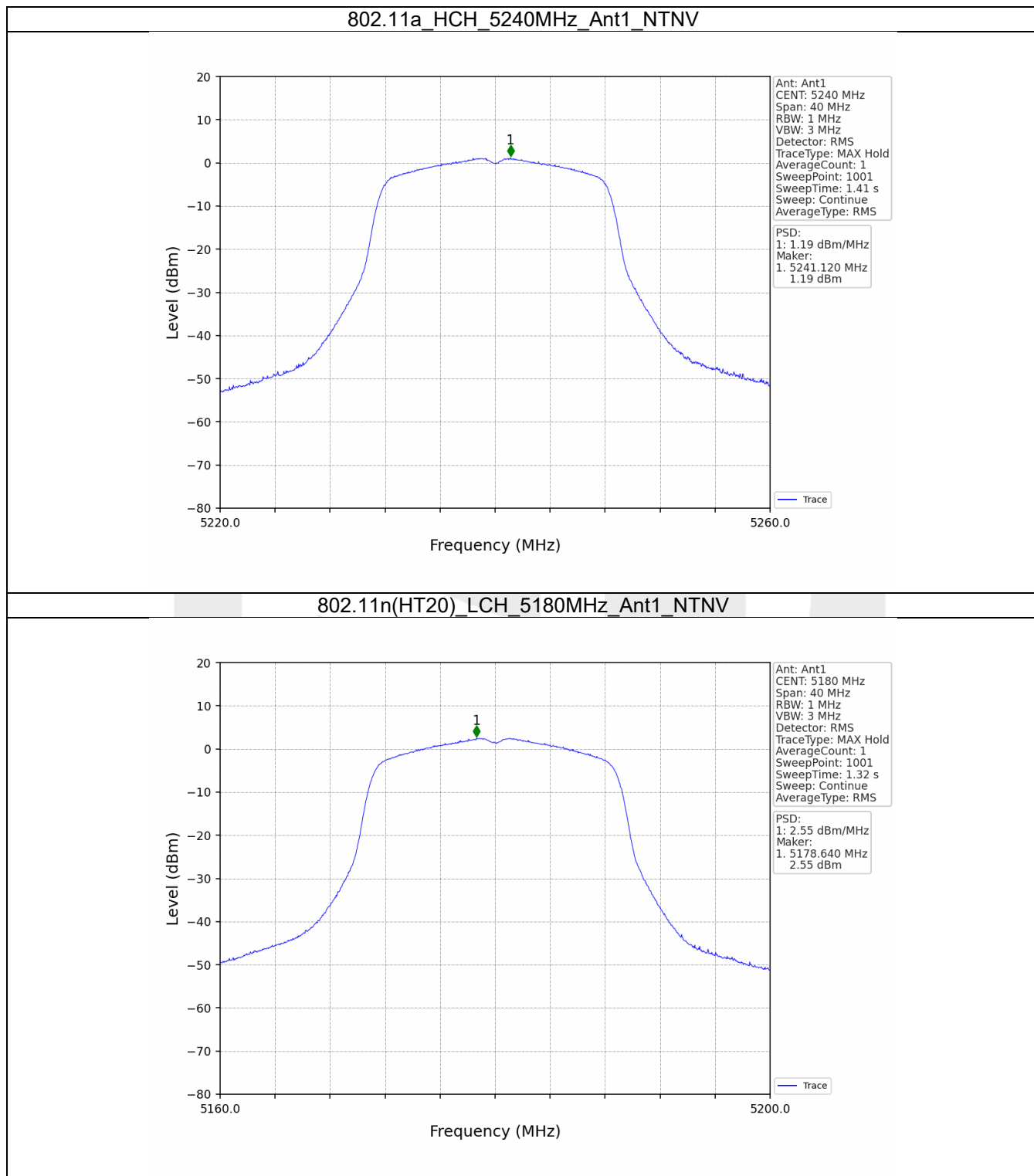
###### 4.1.1 PSD

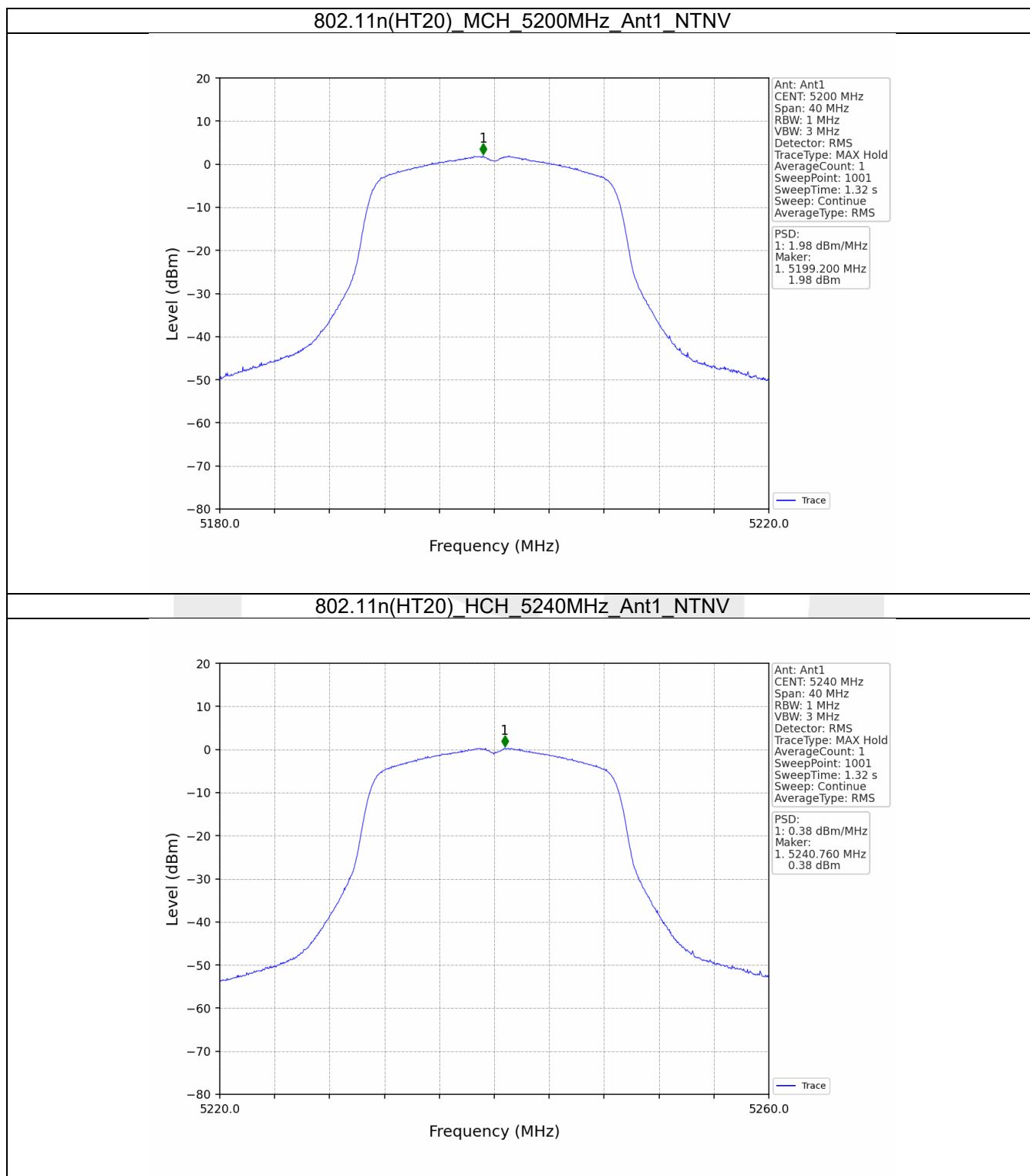
| Mode           | TX Type | Frequency (MHz) | Maximum PSD (dBm/MHz) |           | Verdict |
|----------------|---------|-----------------|-----------------------|-----------|---------|
|                |         |                 | ANT1                  | Limit     |         |
| 802.11a        | SISO    | 5180            | 2.96                  | $\leq 11$ | Pass    |
|                |         | 5200            | 1.82                  | $\leq 11$ | Pass    |
|                |         | 5240            | 1.19                  | $\leq 11$ | Pass    |
| 802.11n (HT20) | SISO    | 5180            | 2.55                  | $\leq 11$ | Pass    |
|                |         | 5200            | 1.98                  | $\leq 11$ | Pass    |
|                |         | 5240            | 0.38                  | $\leq 11$ | Pass    |

## 4.2 Test Graph

### 4.2.1 PSD







## 6. Frequency Stability

### 6.1 Test Result

#### 6.1.1 Ant1

| Ant1         |         |                 |                  |               |                          |              |         |
|--------------|---------|-----------------|------------------|---------------|--------------------------|--------------|---------|
| Mode         | TX Type | Frequency (MHz) | Temperature (°C) | Voltage (VAC) | Measured Frequency (MHz) | Limit (MHz)  | Verdict |
| Carrier Wave | SISO    | 5180            | 20               | 102           | 5180.000                 | 5150 to 5250 | Pass    |
|              |         |                 |                  | 120           | 5180.000                 | 5150 to 5250 | Pass    |
|              |         |                 |                  | 138           | 5180.000                 | 5150 to 5250 | Pass    |
|              |         |                 | -30              | 120           | 5180.000                 | 5150 to 5250 | Pass    |
|              |         |                 | -20              | 120           | 5180.001                 | 5150 to 5250 | Pass    |
|              |         |                 | -10              | 120           | 5180.001                 | 5150 to 5250 | Pass    |
|              |         |                 | 0                | 120           | 5180.001                 | 5150 to 5250 | Pass    |
|              |         |                 | 10               | 120           | 5180.001                 | 5150 to 5250 | Pass    |
|              |         |                 | 30               | 120           | 5180.001                 | 5150 to 5250 | Pass    |
|              |         |                 | 40               | 120           | 5180.001                 | 5150 to 5250 | Pass    |
|              |         |                 | 50               | 120           | 5180.001                 | 5150 to 5250 | Pass    |
|              |         | 5200            | 20               | 102           | 5200.001                 | 5150 to 5250 | Pass    |
|              |         |                 |                  | 120           | 5200.001                 | 5150 to 5250 | Pass    |
|              |         |                 |                  | 138           | 5200.001                 | 5150 to 5250 | Pass    |
|              |         |                 | -30              | 120           | 5200.001                 | 5150 to 5250 | Pass    |
|              |         |                 | -20              | 120           | 5200.001                 | 5150 to 5250 | Pass    |
|              |         |                 | -10              | 120           | 5200.001                 | 5150 to 5250 | Pass    |
|              |         |                 | 0                | 120           | 5200.001                 | 5150 to 5250 | Pass    |
|              |         |                 | 10               | 120           | 5200.001                 | 5150 to 5250 | Pass    |
|              |         |                 | 30               | 120           | 5200.001                 | 5150 to 5250 | Pass    |
|              |         |                 | 40               | 120           | 5200.001                 | 5150 to 5250 | Pass    |
|              |         |                 | 50               | 120           | 5200.001                 | 5150 to 5250 | Pass    |
|              |         | 5240            | 20               | 102           | 5240.001                 | 5150 to 5250 | Pass    |
|              |         |                 |                  | 120           | 5240.001                 | 5150 to 5250 | Pass    |
|              |         |                 |                  | 138           | 5240.001                 | 5150 to 5250 | Pass    |
|              |         |                 | -30              | 120           | 5240.001                 | 5150 to 5250 | Pass    |
|              |         |                 | -20              | 120           | 5240.001                 | 5150 to 5250 | Pass    |
|              |         |                 | -10              | 120           | 5240.001                 | 5150 to 5250 | Pass    |
|              |         |                 | 0                | 120           | 5240.001                 | 5150 to 5250 | Pass    |
|              |         |                 | 10               | 120           | 5240.001                 | 5150 to 5250 | Pass    |
|              |         |                 | 30               | 120           | 5240.001                 | 5150 to 5250 | Pass    |
|              |         |                 | 40               | 120           | 5240.001                 | 5150 to 5250 | Pass    |
|              |         |                 | 50               | 120           | 5240.001                 | 5150 to 5250 | Pass    |

----- End of Report -----