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Annex for BT

Test Report No.: CTL2406043071-WF01

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1. Bandwidth

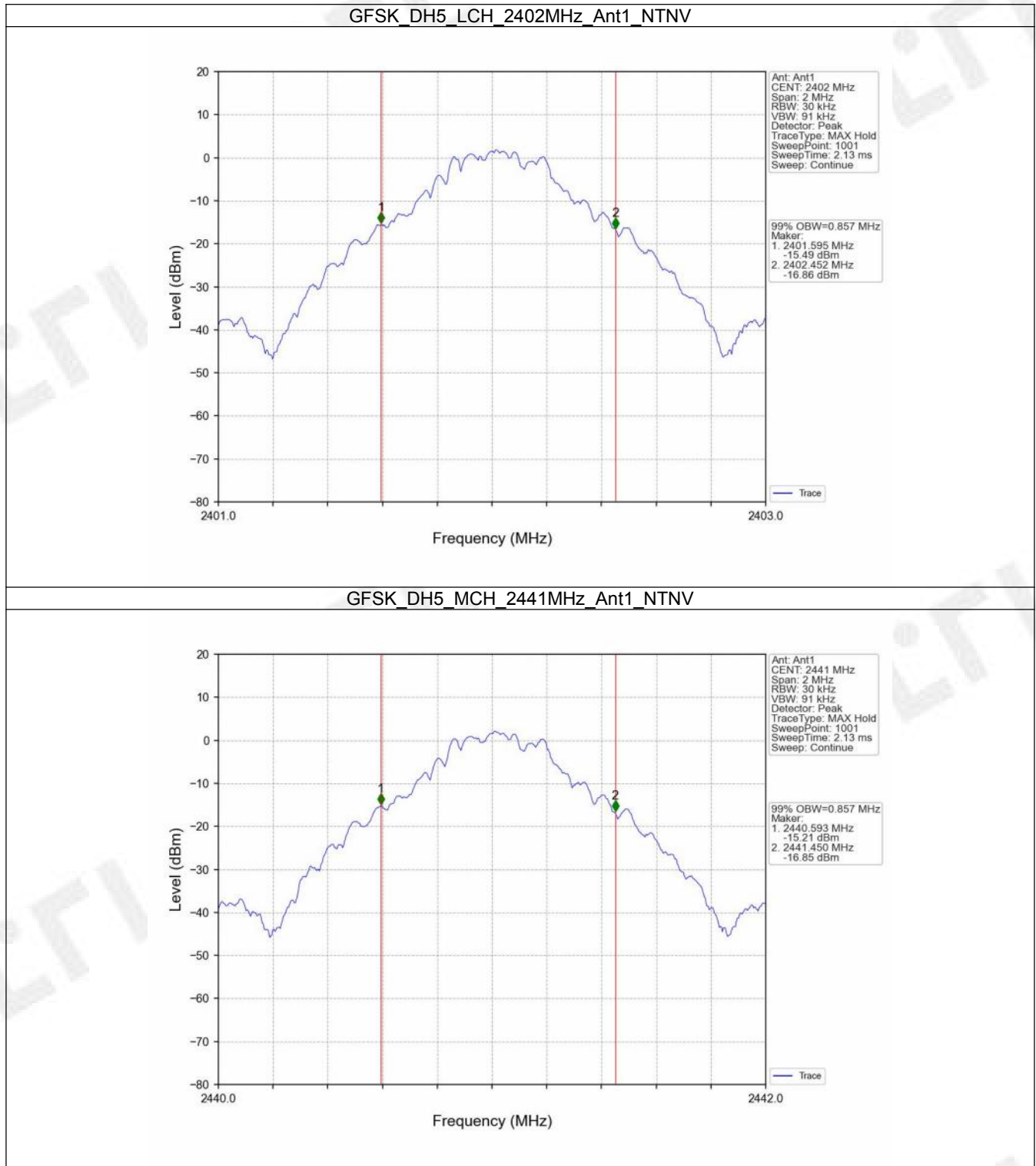
1.1 OBW

1.1.1 Test Result

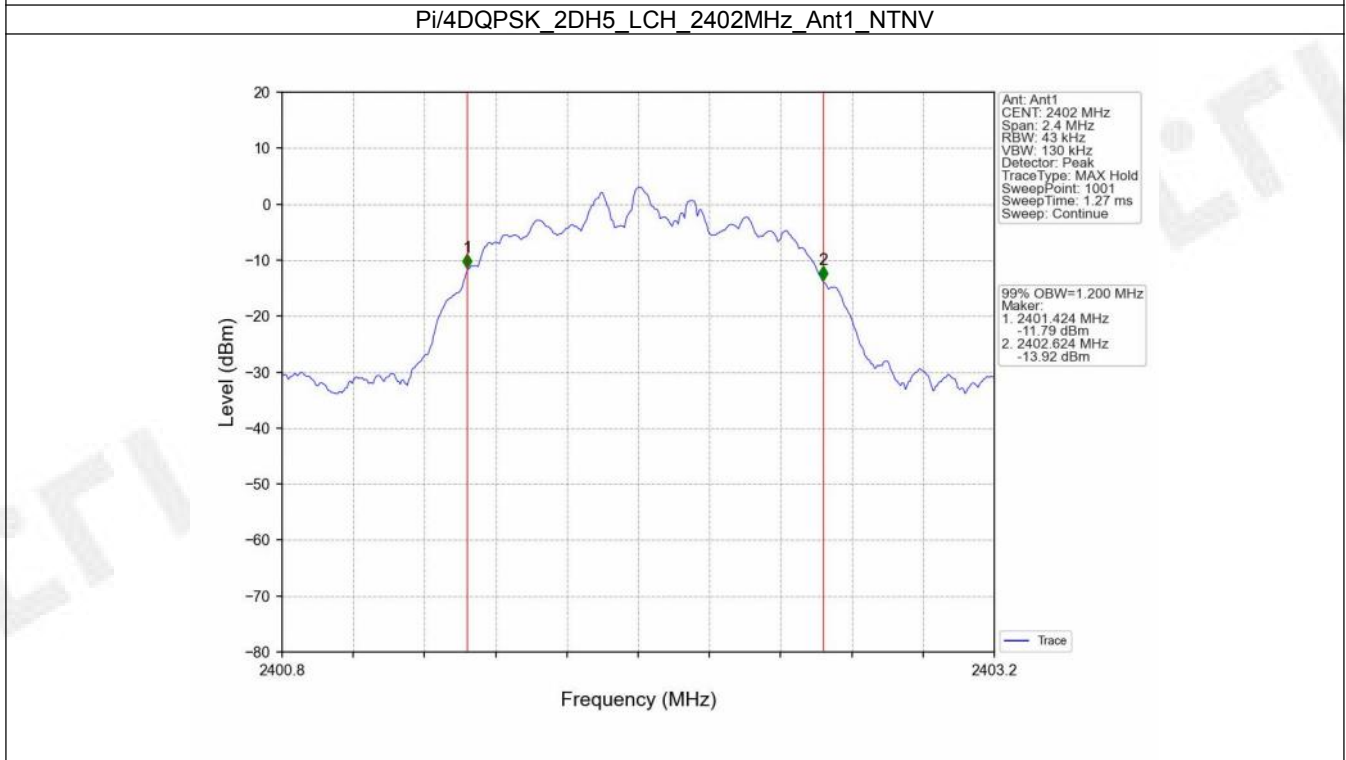
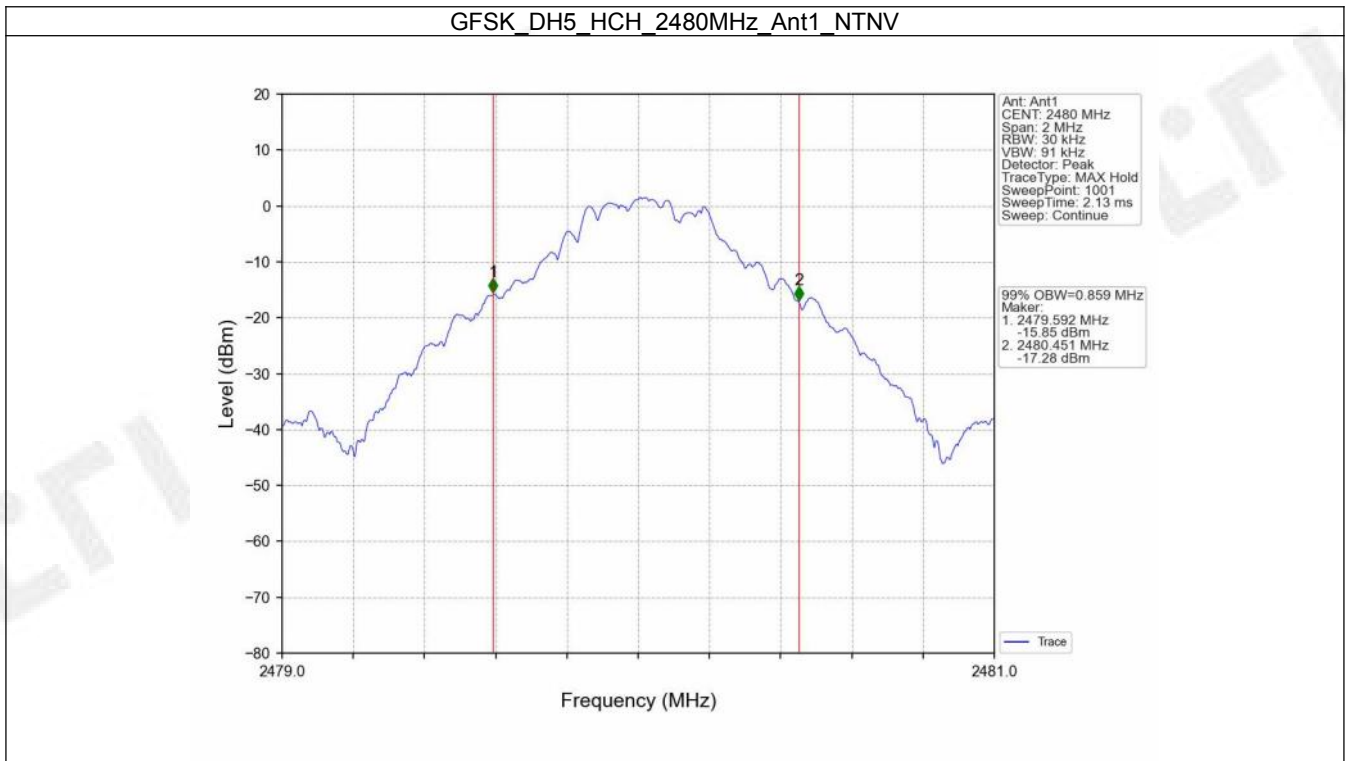
| Mode | TX Type | Frequency (MHz) | Packet Type | ANT | 99% Occupied Bandwidth (MHz) | | Verdict |
|-----------|---------|-----------------|-------------|-----|------------------------------|-------|---------|
| | | | | | Result | Limit | |
| GFSK | SISO | 2402 | DH5 | 1 | 0.857 | / | Pass |
| | | 2441 | DH5 | 1 | 0.857 | / | Pass |
| | | 2480 | DH5 | 1 | 0.859 | / | Pass |
| Pi/4DQPSK | SISO | 2402 | 2DH5 | 1 | 1.200 | / | Pass |
| | | 2441 | 2DH5 | 1 | 1.223 | / | Pass |
| | | 2480 | 2DH5 | 1 | 1.246 | / | Pass |
| 8DPSK | SISO | 2402 | 3DH5 | 1 | 1.205 | / | Pass |
| | | 2441 | 3DH5 | 1 | 1.232 | / | Pass |
| | | 2480 | 3DH5 | 1 | 1.248 | / | Pass |

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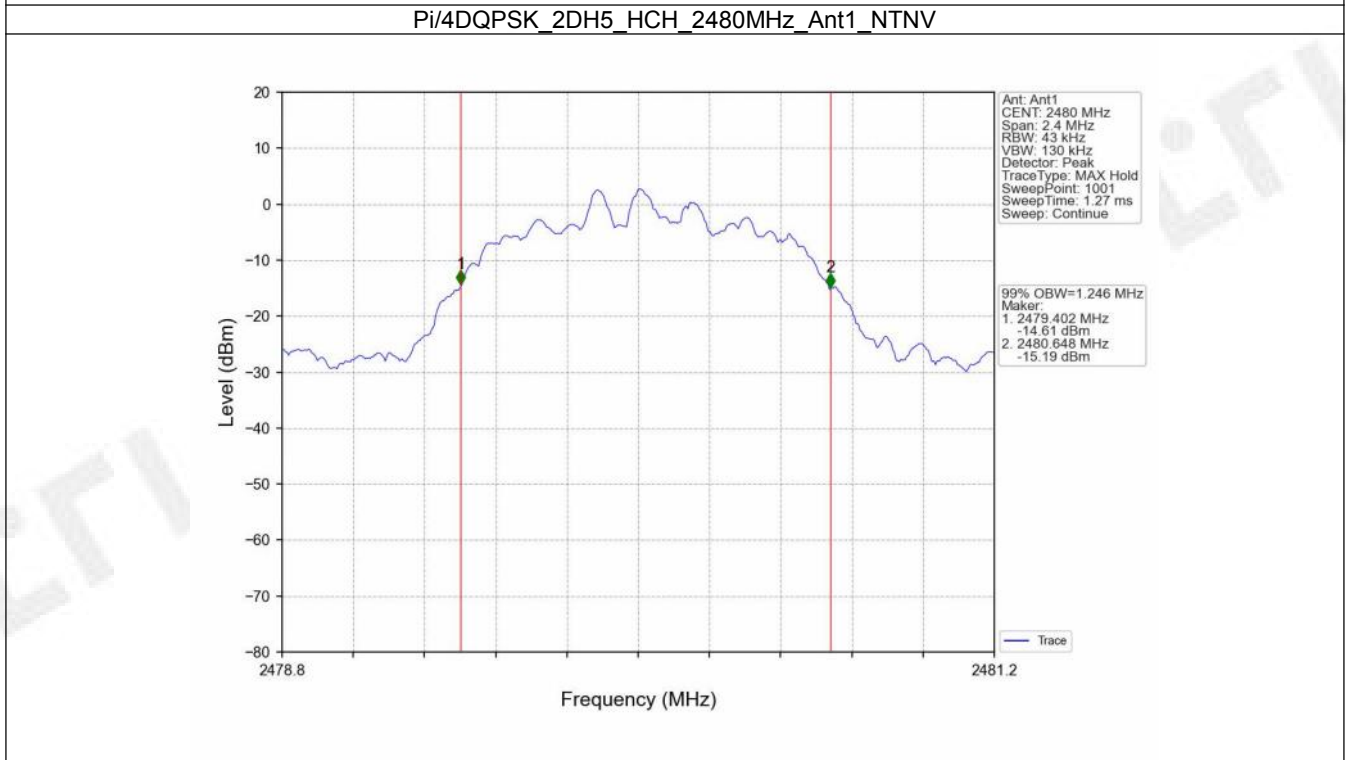
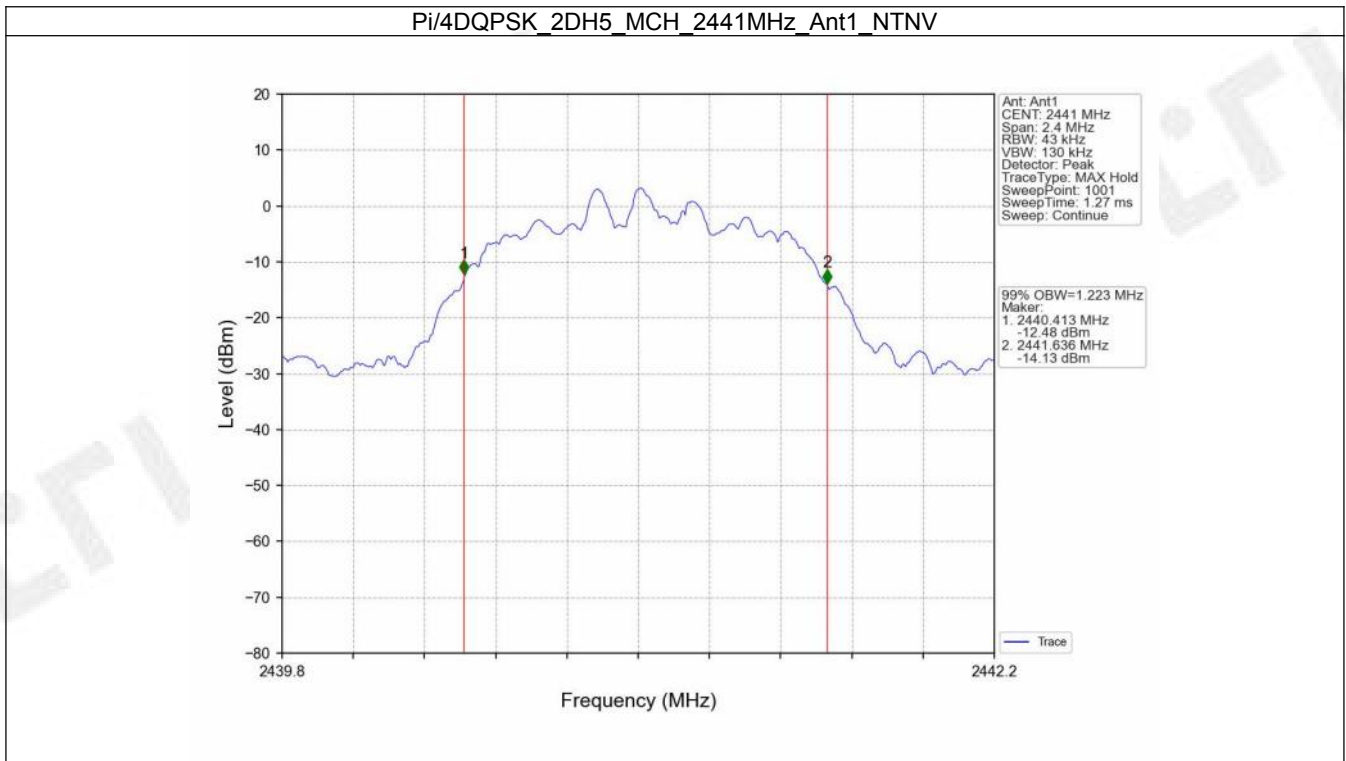
1.1.2 Test Graph



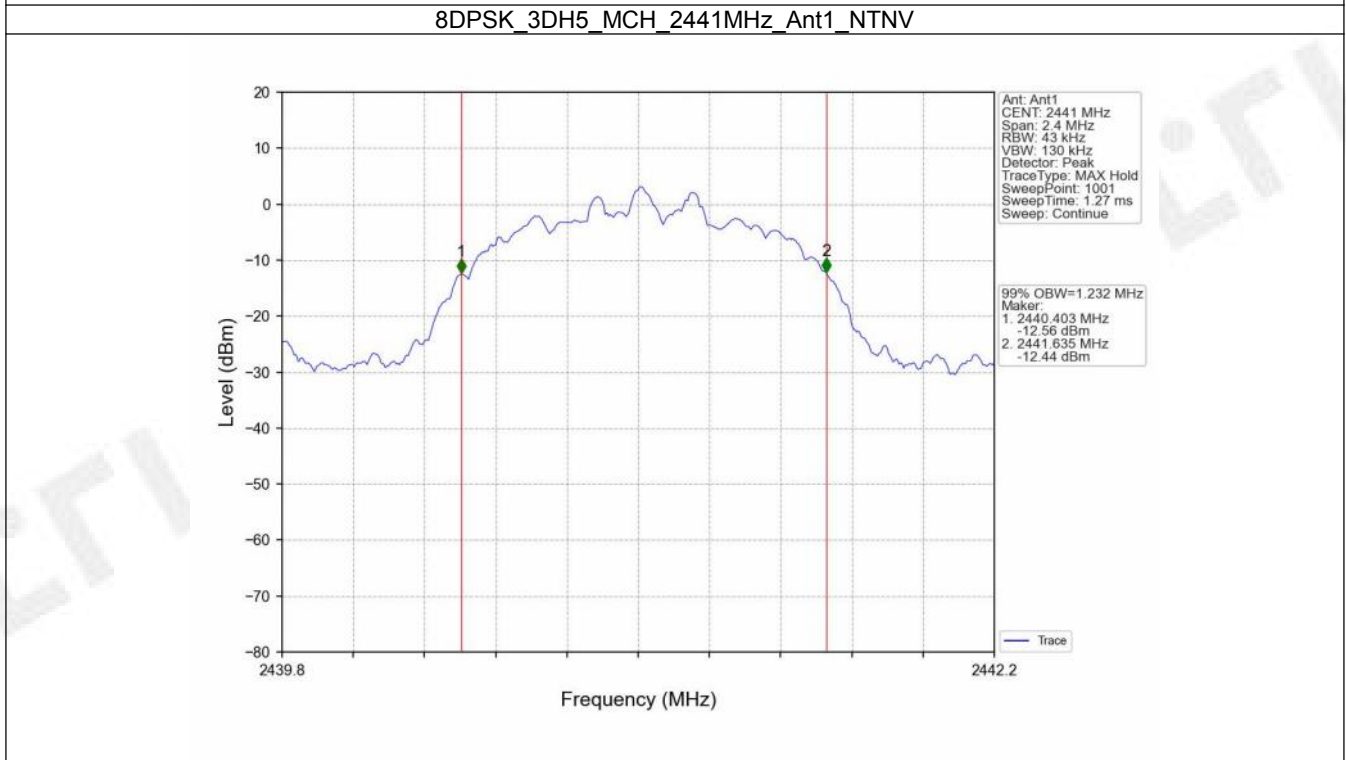
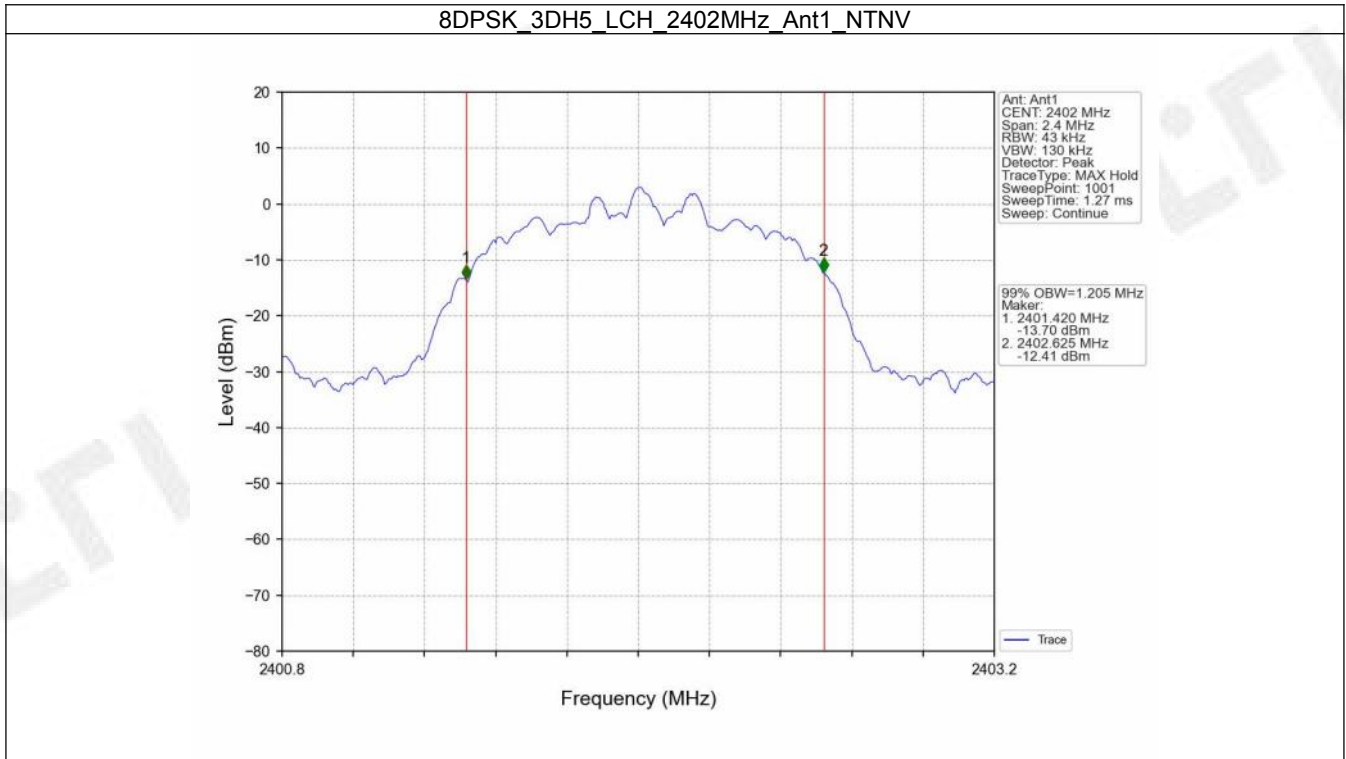
FCCID: 2BG3H-SW50



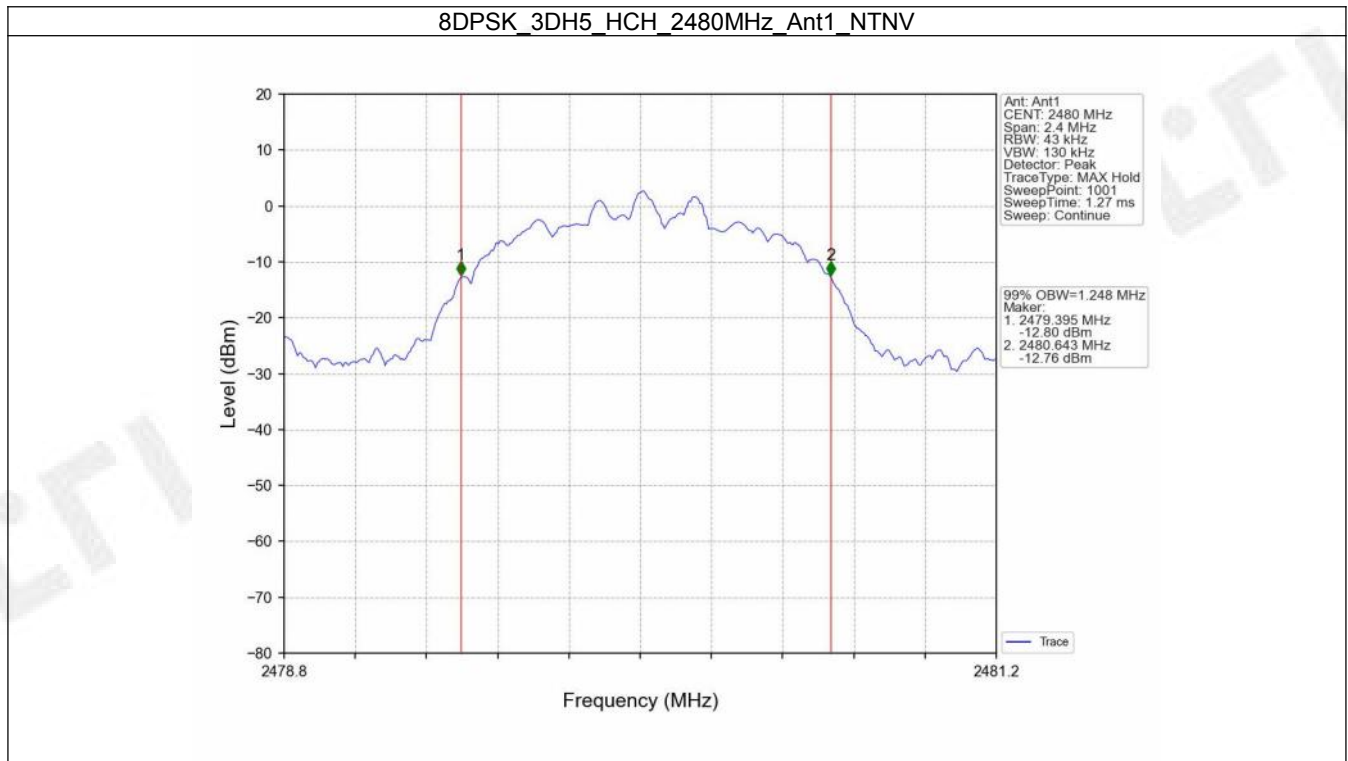
FCCID: 2BG3H-SW50



FCCID: 2BG3H-SW50



FCCID: 2BG3H-SW50



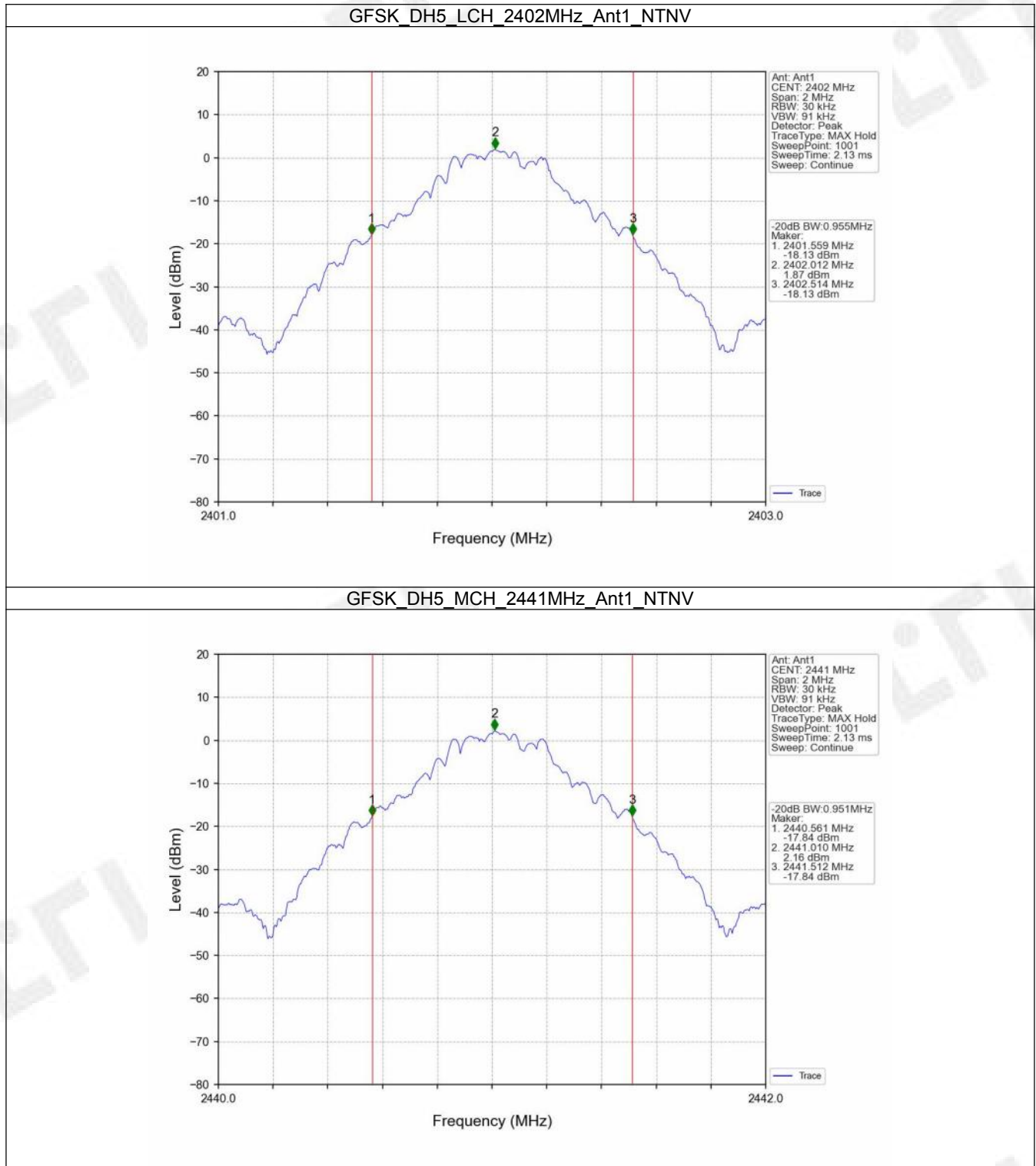
FCCID: 2BG3H-SW50

1.2 20dB BW**1.2.1 Test Result**

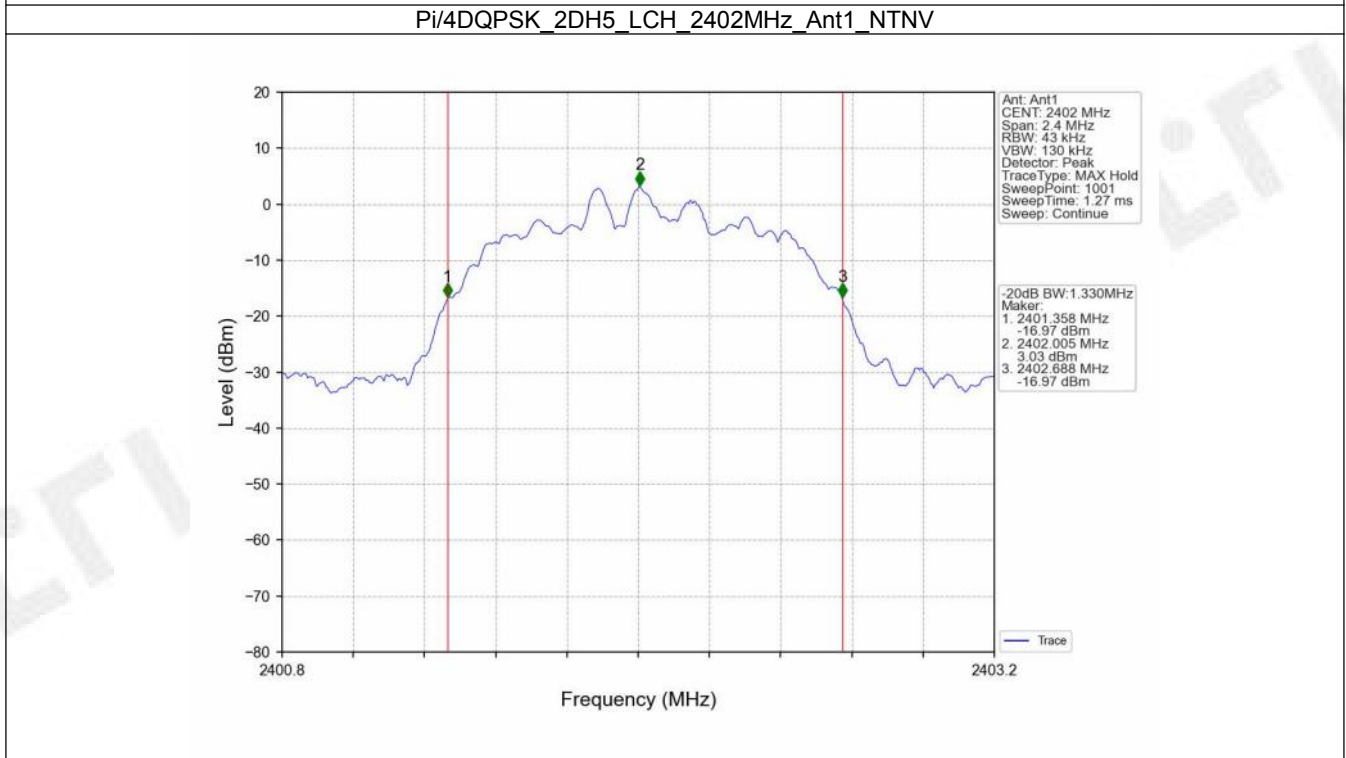
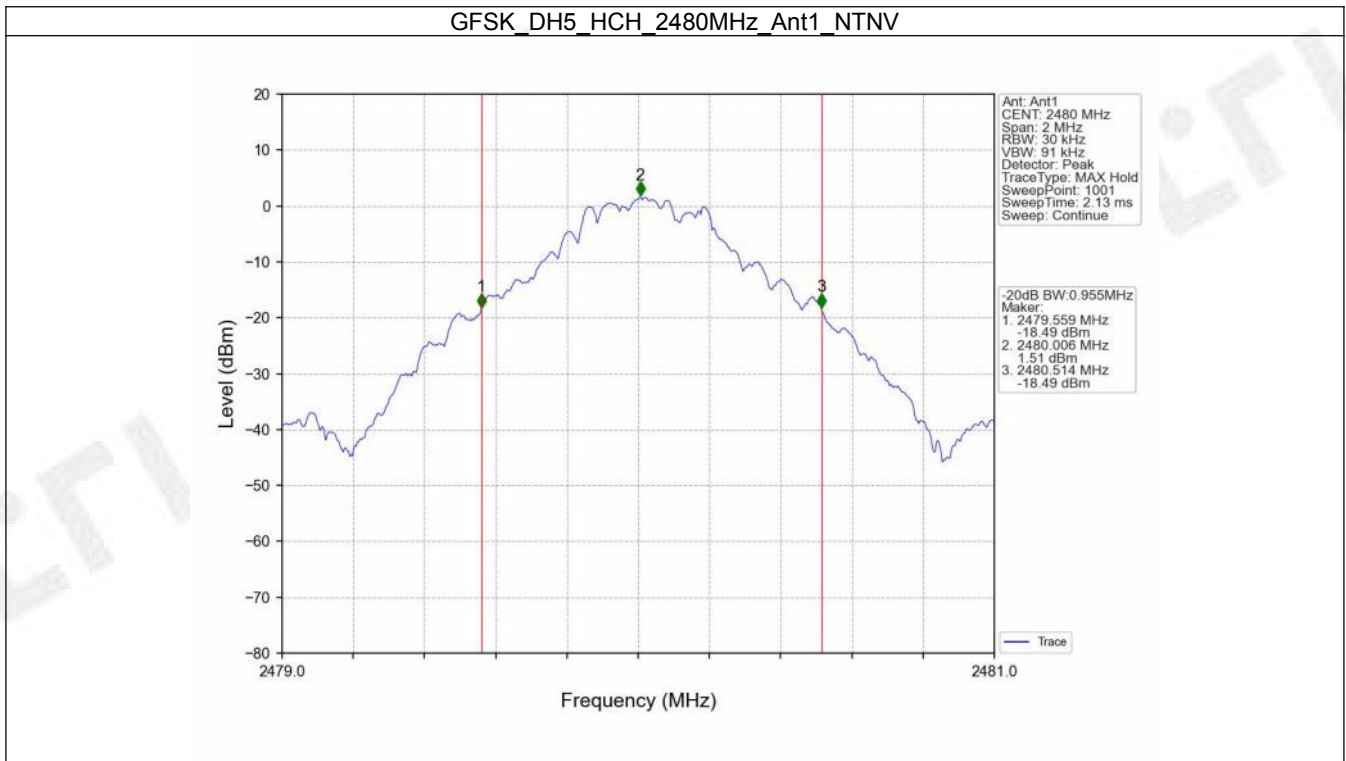
| Mode | TX Type | Frequency (MHz) | Packet Type | ANT | 20dB Bandwidth (MHz) | | Verdict |
|-----------|---------|-----------------|-------------|-----|----------------------|-------|---------|
| | | | | | Result | Limit | |
| GFSK | SISO | 2402 | DH5 | 1 | 0.955 | / | Pass |
| | | 2441 | DH5 | 1 | 0.951 | / | Pass |
| | | 2480 | DH5 | 1 | 0.955 | / | Pass |
| Pi/4DQPSK | SISO | 2402 | 2DH5 | 1 | 1.330 | / | Pass |
| | | 2441 | 2DH5 | 1 | 1.342 | / | Pass |
| | | 2480 | 2DH5 | 1 | 1.356 | / | Pass |
| 8DPSK | SISO | 2402 | 3DH5 | 1 | 1.313 | / | Pass |
| | | 2441 | 3DH5 | 1 | 1.331 | / | Pass |
| | | 2480 | 3DH5 | 1 | 1.345 | / | Pass |

FCCID: 2BG3H-SW50

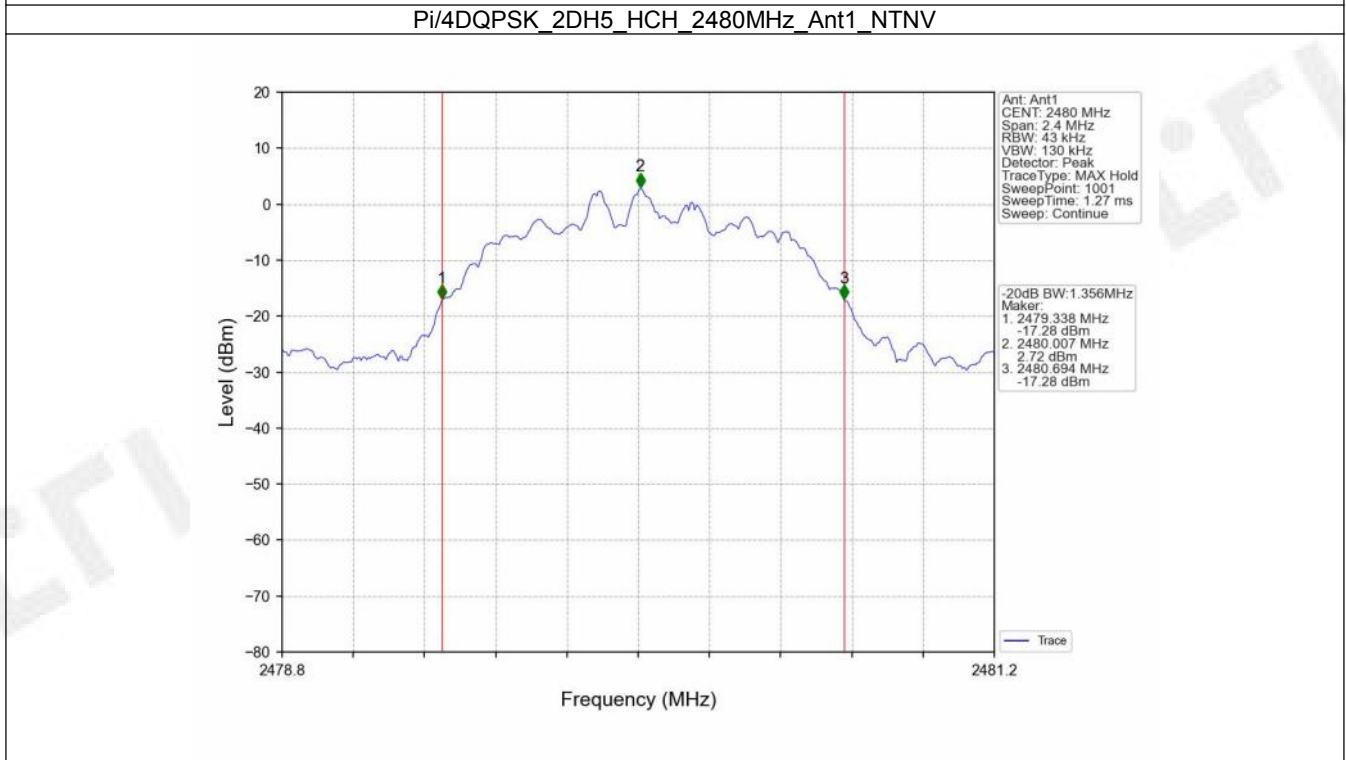
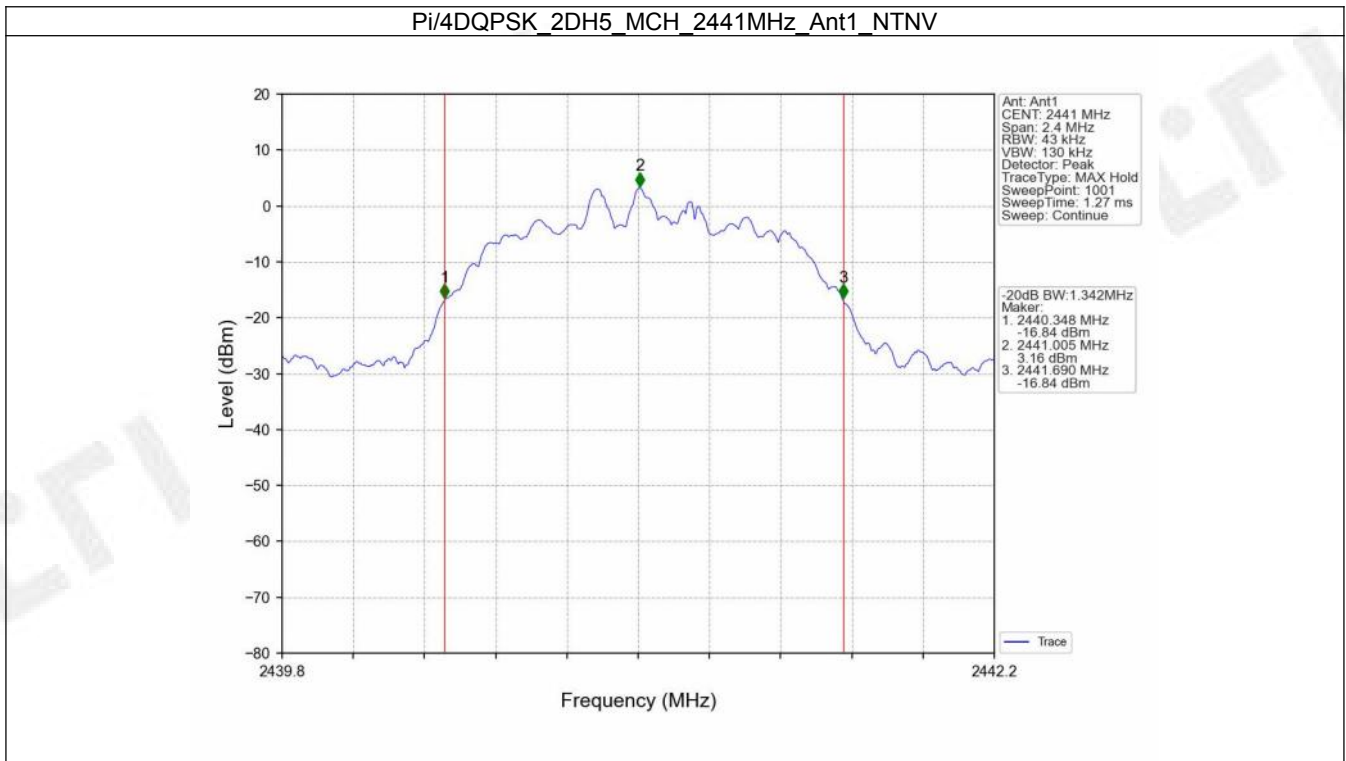
1.2.2 Test Graph



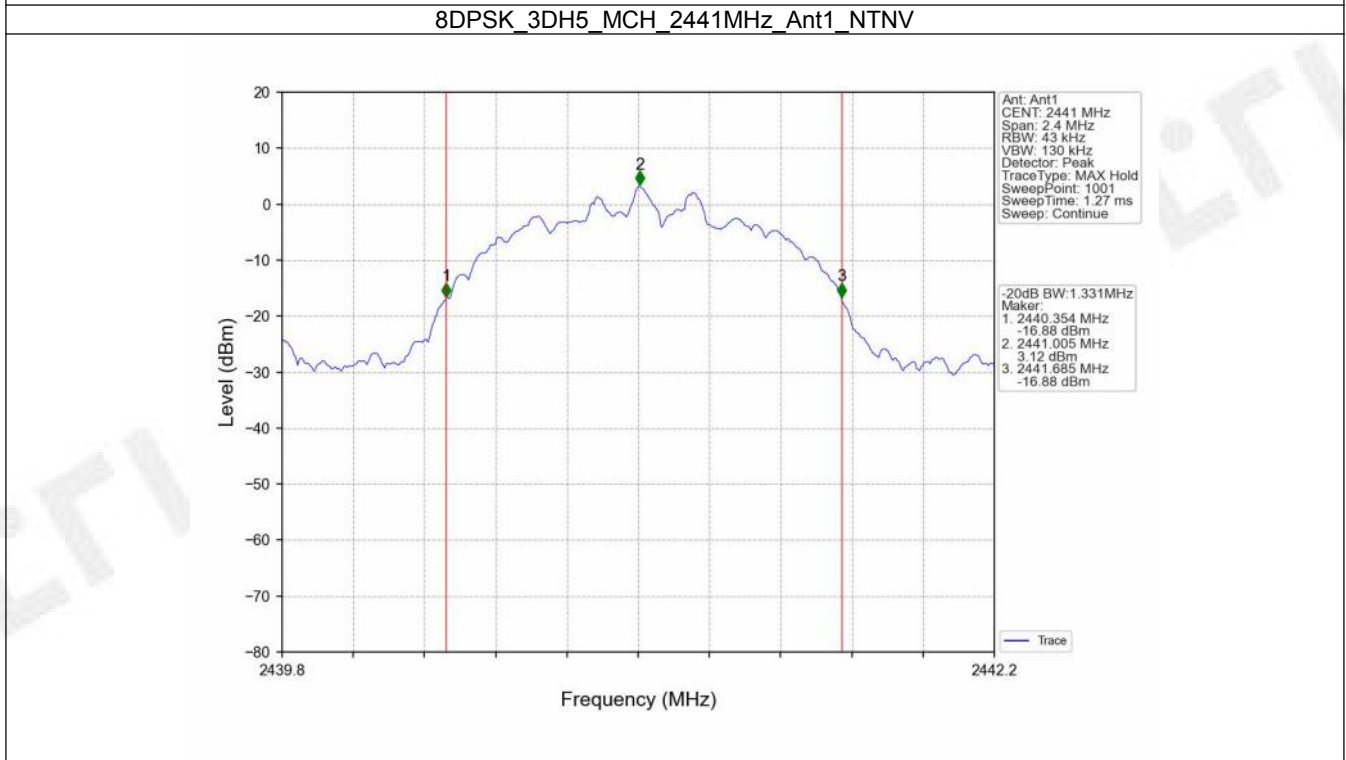
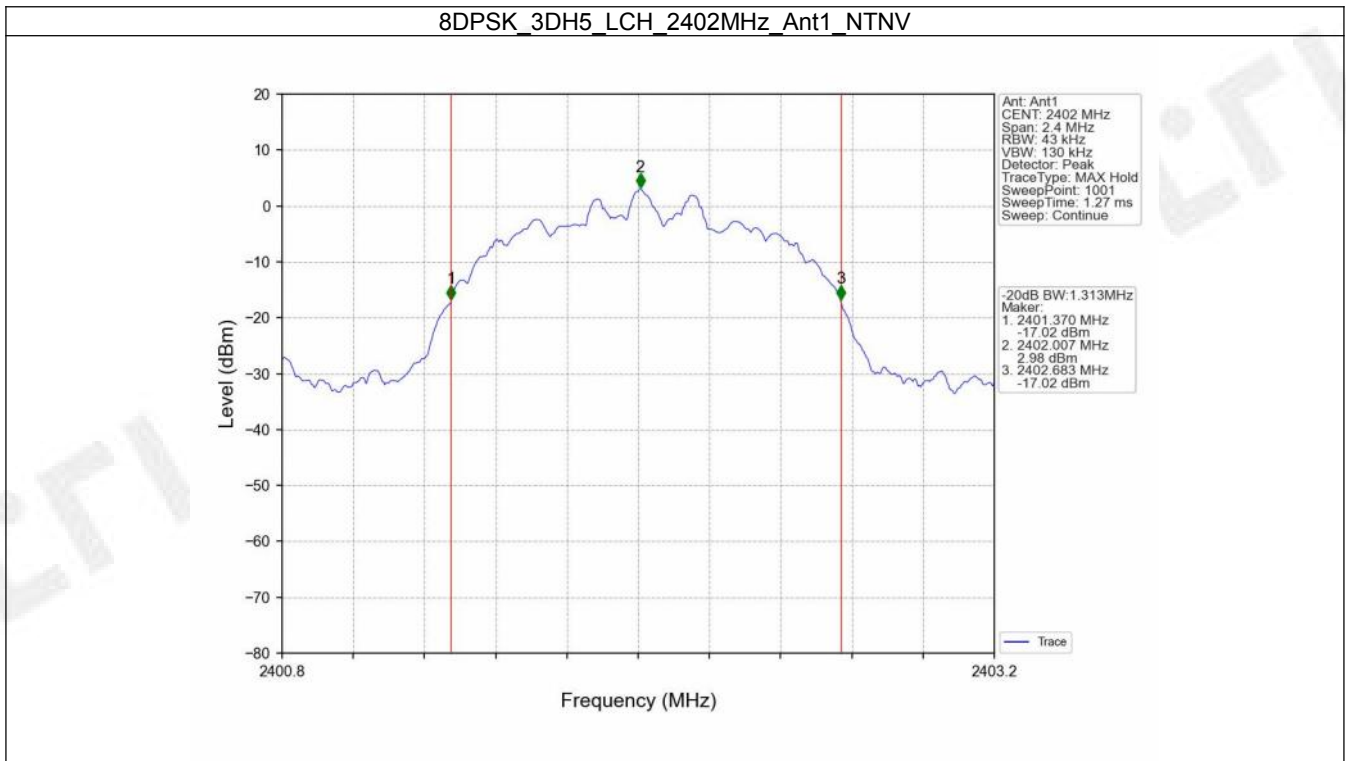
FCCID: 2BG3H-SW50



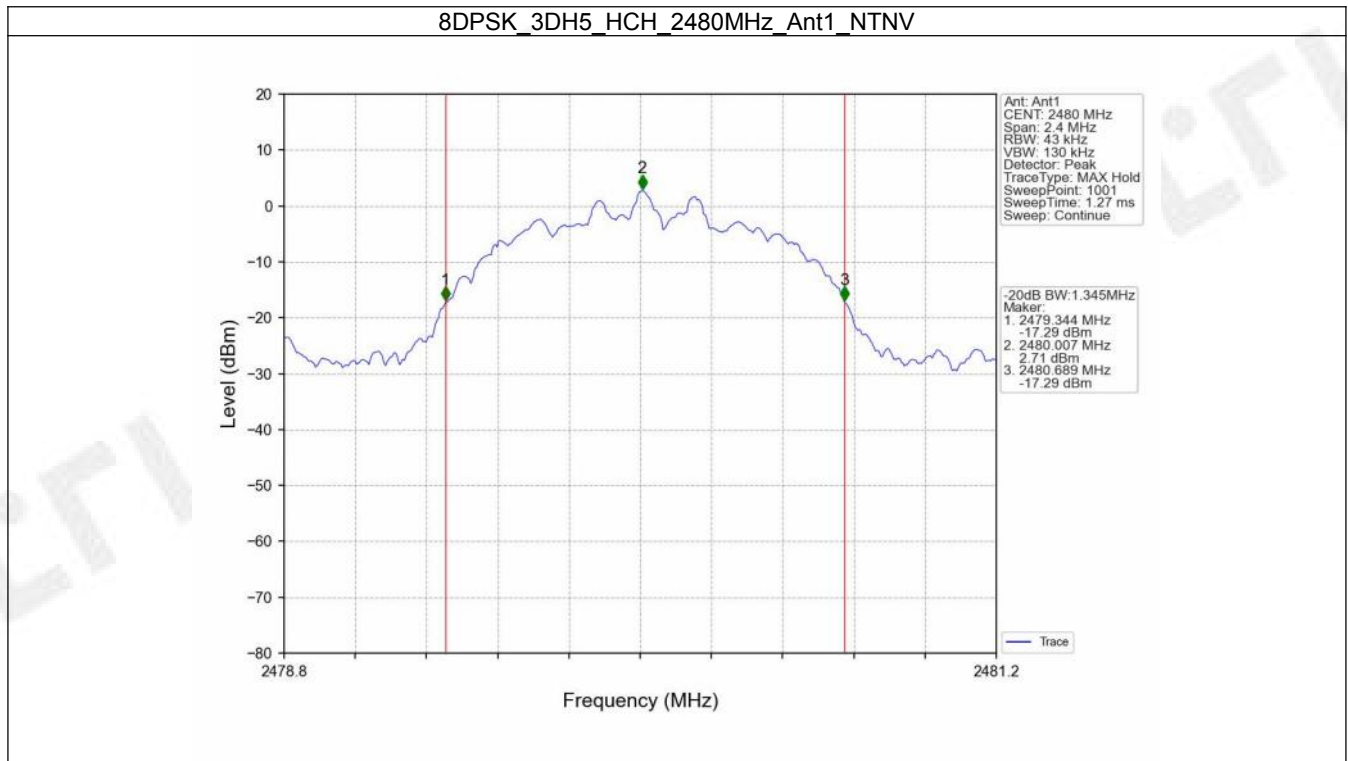
FCCID: 2BG3H-SW50



FCCID: 2BG3H-SW50



FCCID: 2BG3H-SW50



FCCID: 2BG3H-SW50

2. Maximum Conducted Output Power

2.1 Power

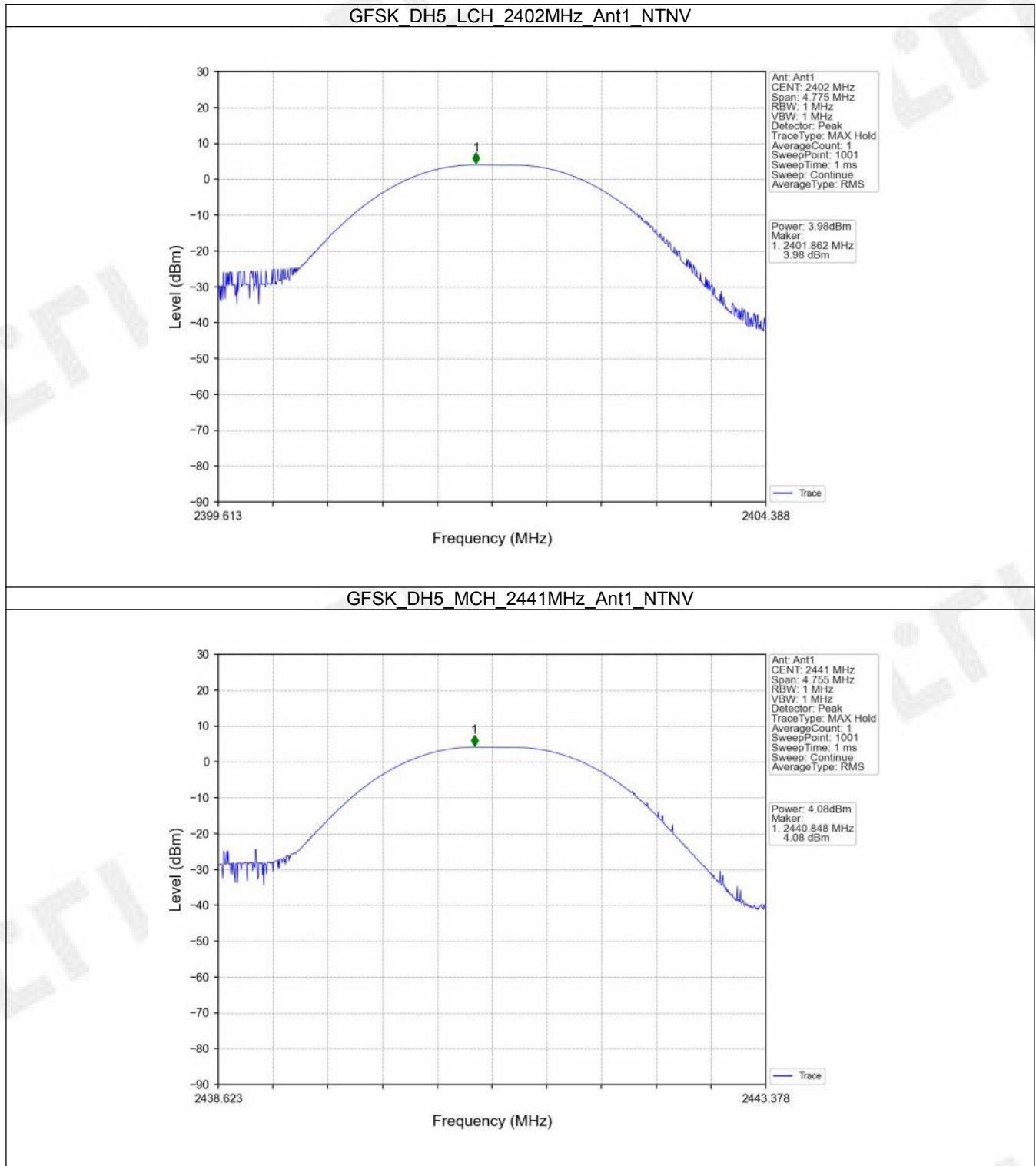
2.1.1 Test Result

| Mode | TX Type | Frequency (MHz) | Packet Type | Maximum Peak Conducted Output Power (dBm) | | Verdict |
|-----------|---------|-----------------|-------------|---|---------|---------|
| | | | | ANT1 | Limit | |
| GFSK | SISO | 2402 | DH5 | 3.98 | <=30 | Pass |
| | | 2441 | DH5 | 4.08 | <=30 | Pass |
| | | 2480 | DH5 | 3.65 | <=30 | Pass |
| Pi/4DQPSK | SISO | 2402 | 2DH5 | 4.30 | <=20.97 | Pass |
| | | 2441 | 2DH5 | 4.32 | <=20.97 | Pass |
| | | 2480 | 2DH5 | 3.86 | <=20.97 | Pass |
| 8DPSK | SISO | 2402 | 3DH5 | 4.42 | <=20.97 | Pass |
| | | 2441 | 3DH5 | 4.40 | <=20.97 | Pass |
| | | 2480 | 3DH5 | 3.93 | <=20.97 | Pass |

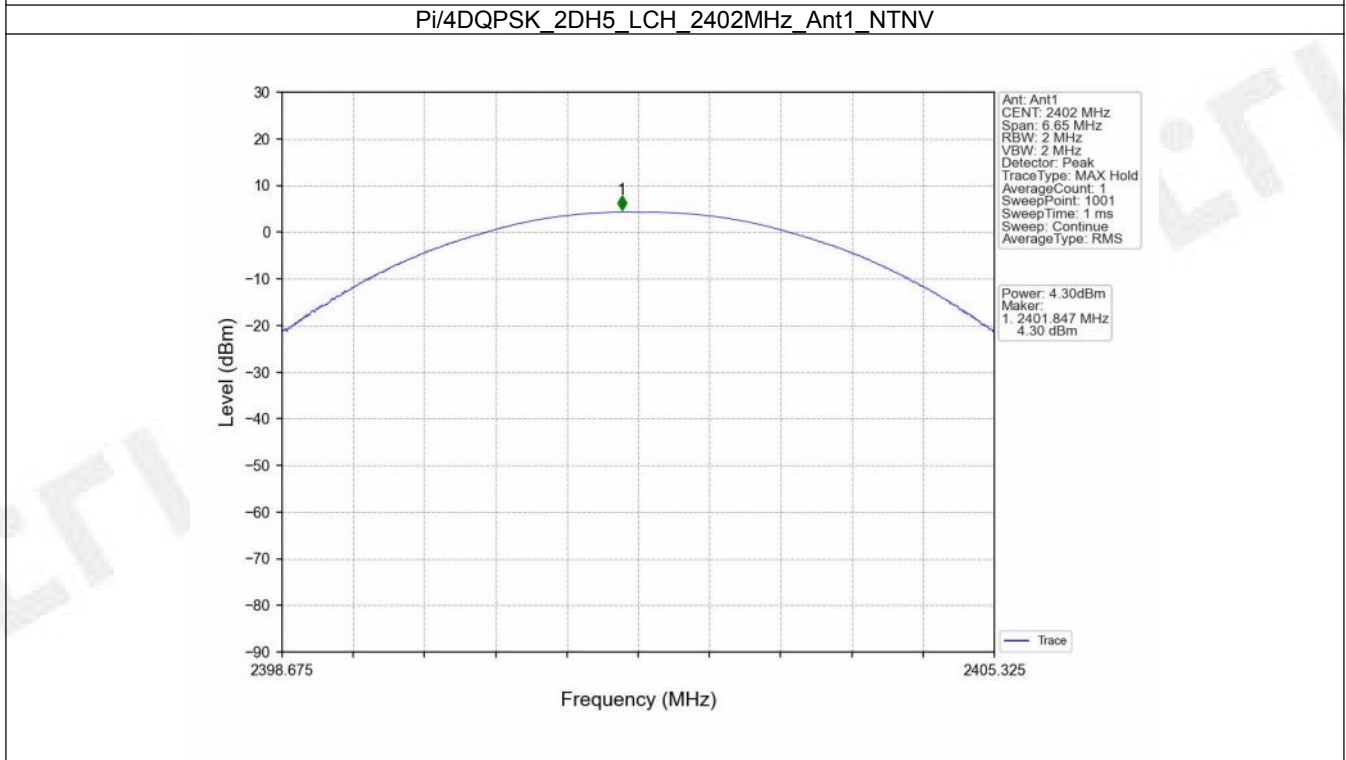
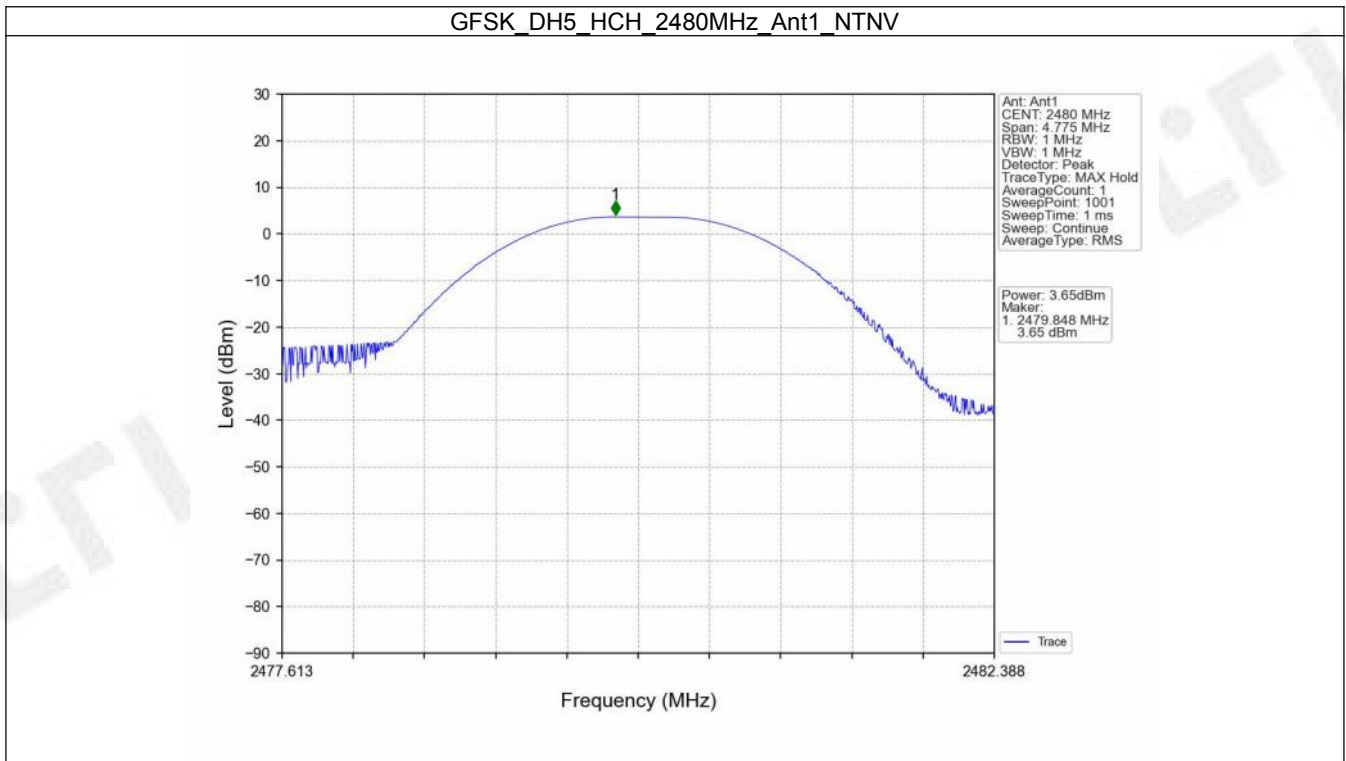
Note1: Antenna Gain: Ant1: 0.00dBi;

FCCID: 2BG3H-SW50

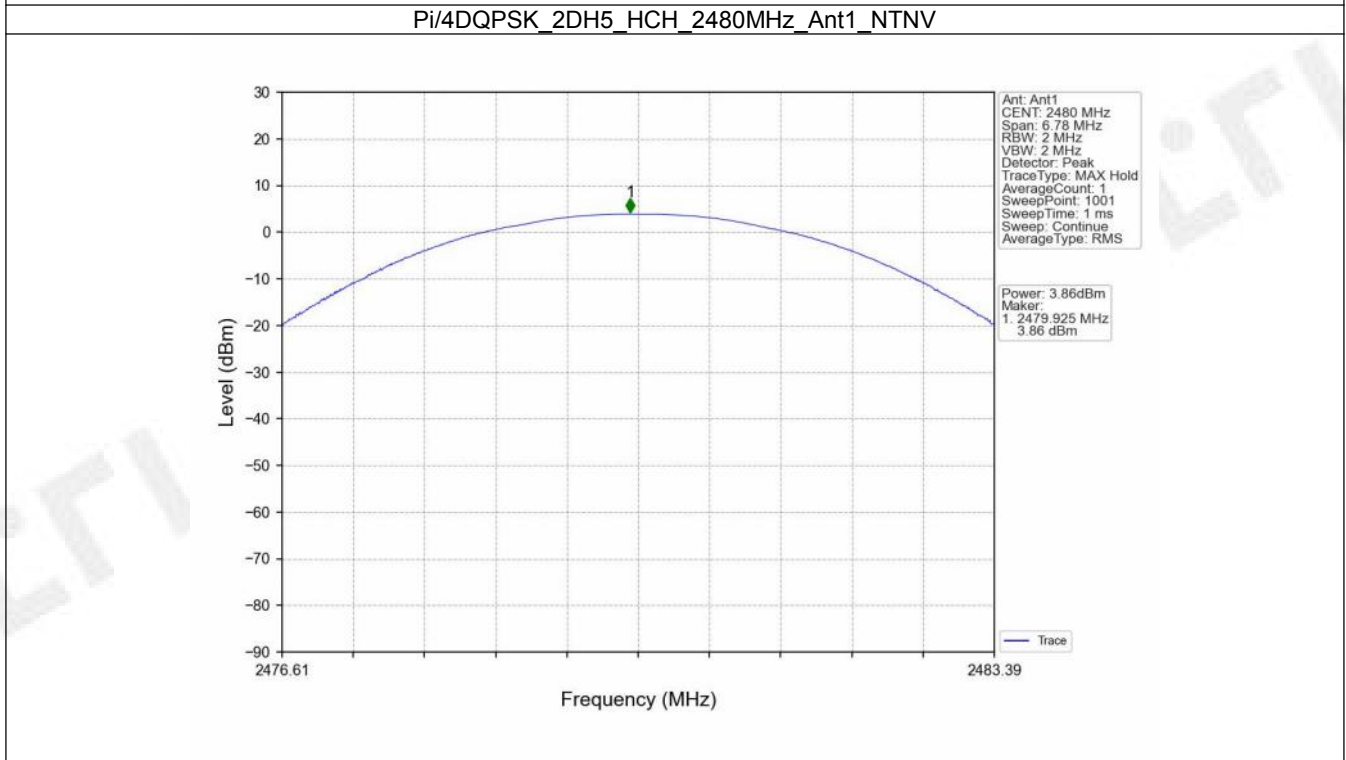
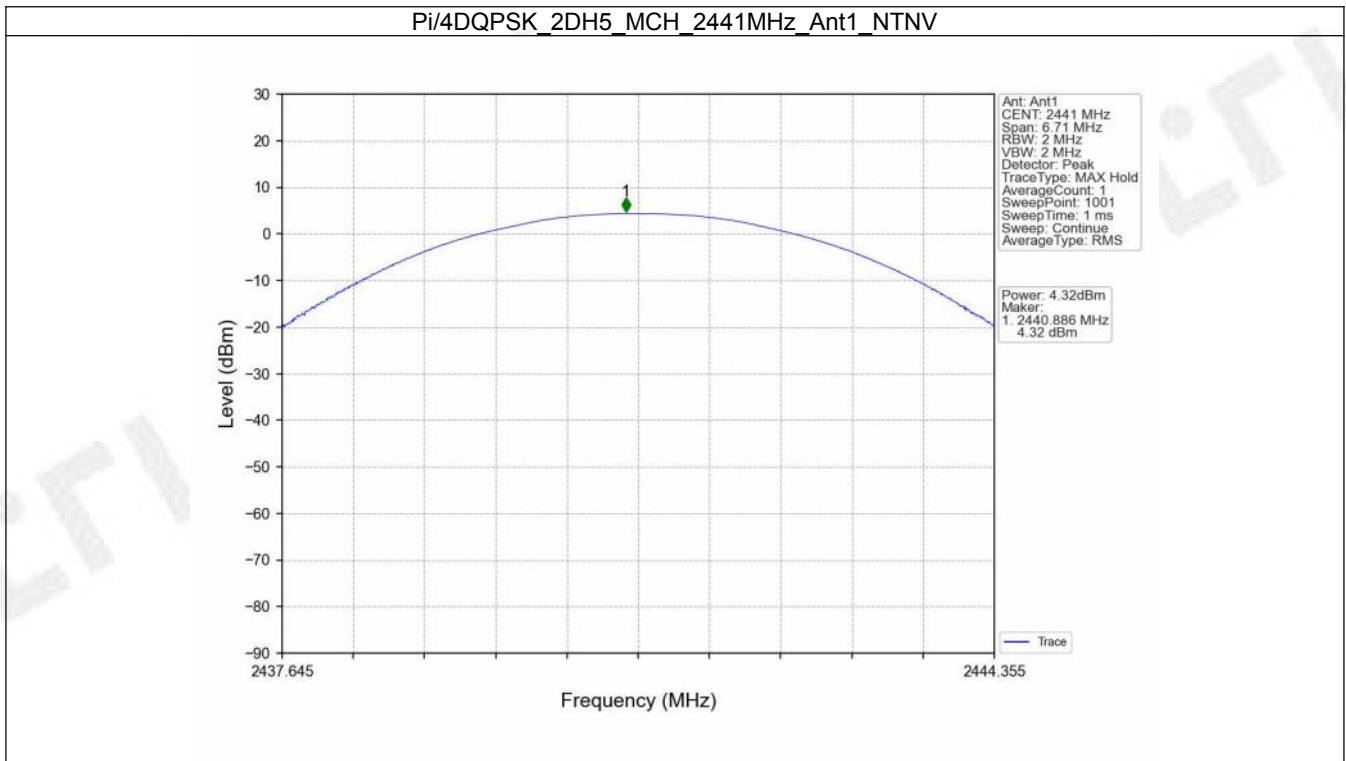
2.1.2 Test Graph



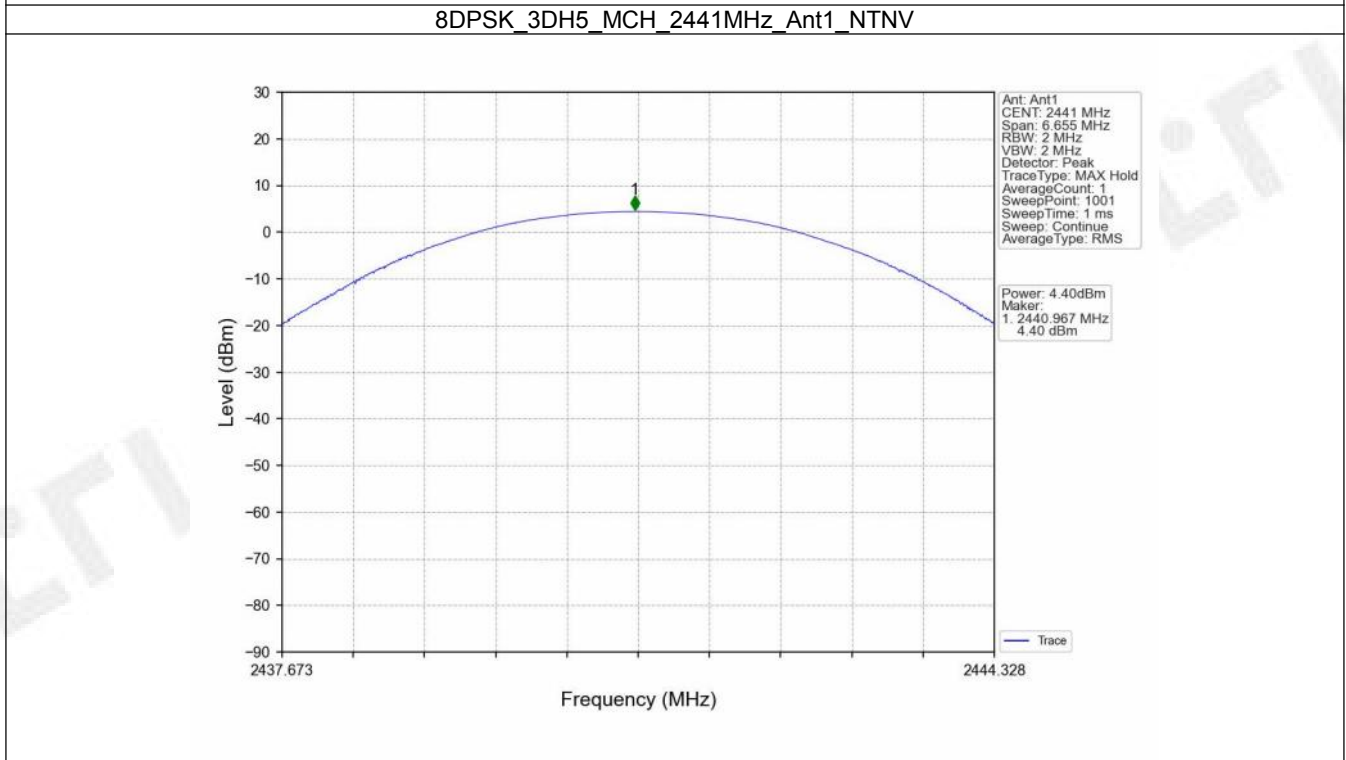
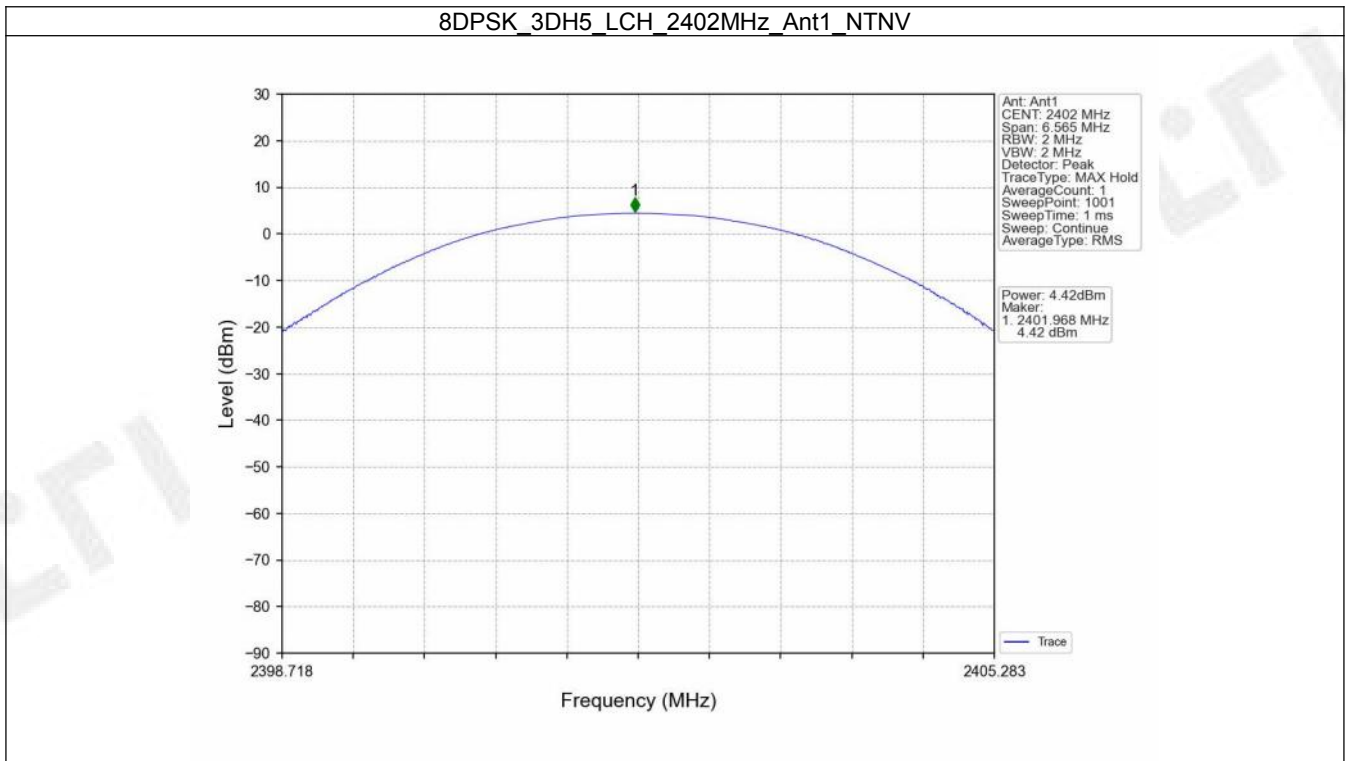
FCCID: 2BG3H-SW50



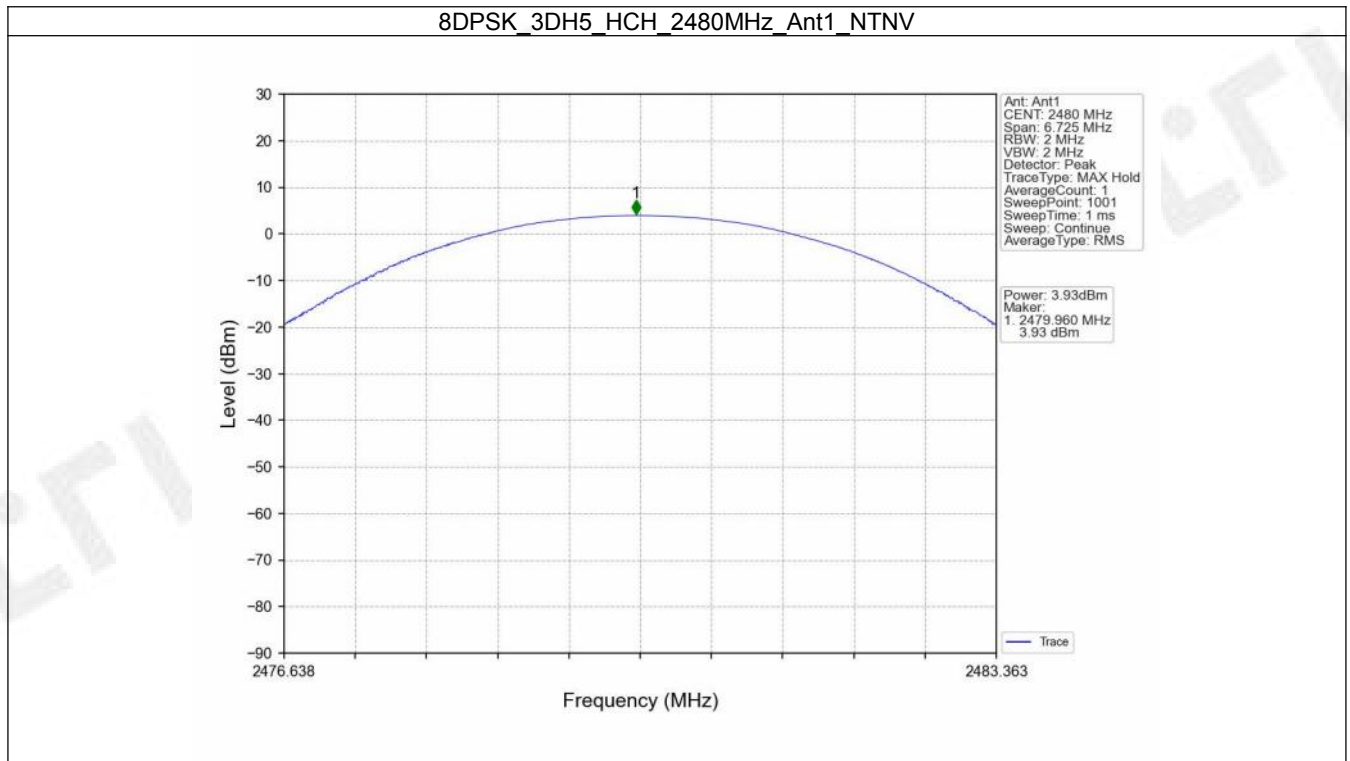
FCCID: 2BG3H-SW50



FCCID: 2BG3H-SW50



FCCID: 2BG3H-SW50



FCCID: 2BG3H-SW50

3. Carrier Frequency Separation

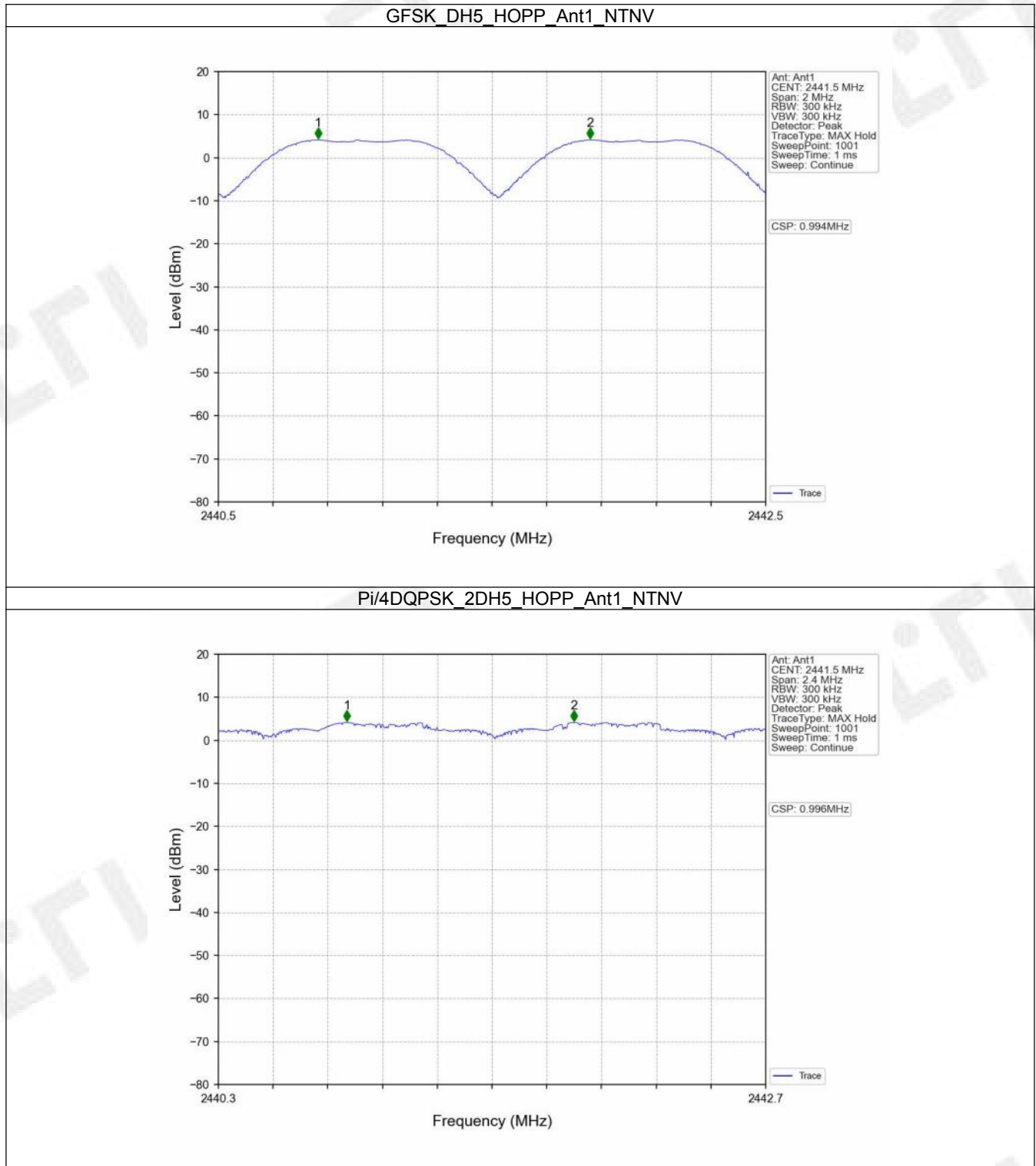
3.1 Ant1

3.1.1 Test Result

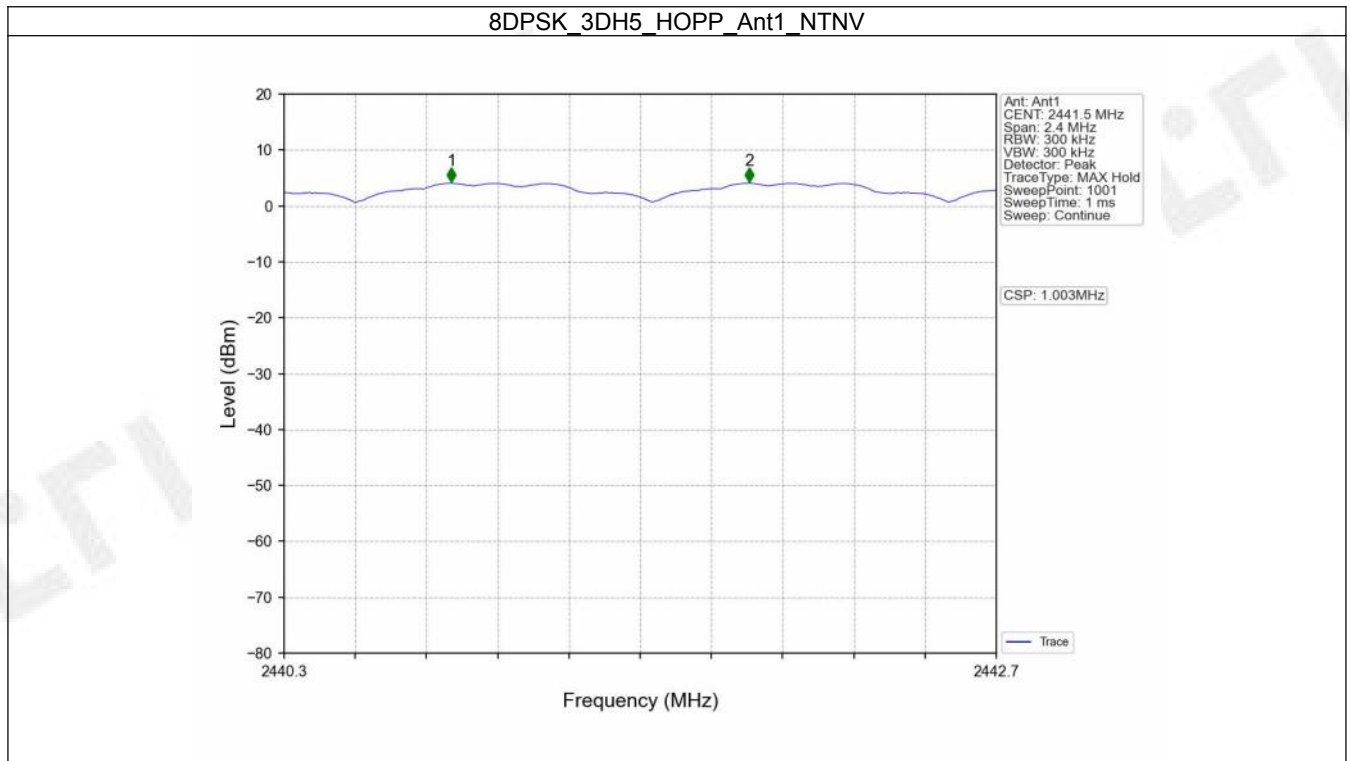
| Ant1 | | | | | | | |
|-----------|---------|-----------------|-------------|--------------------------|----------------------|--------------|---------|
| Mode | TX Type | Frequency (MHz) | Packet Type | Channel Separation (MHz) | 20dB Bandwidth (MHz) | Limit (MHz) | Verdict |
| GFSK | SISO | HOPP | DH5 | 0.994 | 0.955 | ≥ 0.955 | Pass |
| Pi/4DQPSK | SISO | HOPP | 2DH5 | 0.996 | 1.356 | ≥ 0.904 | Pass |
| 8DPSK | SISO | HOPP | 3DH5 | 1.003 | 1.345 | ≥ 0.897 | Pass |

FCCID: 2BG3H-SW50

3.1.2 Test Graph



FCCID: 2BG3H-SW50



FCCID: 2BG3H-SW50

4. Number of Hopping Frequencies

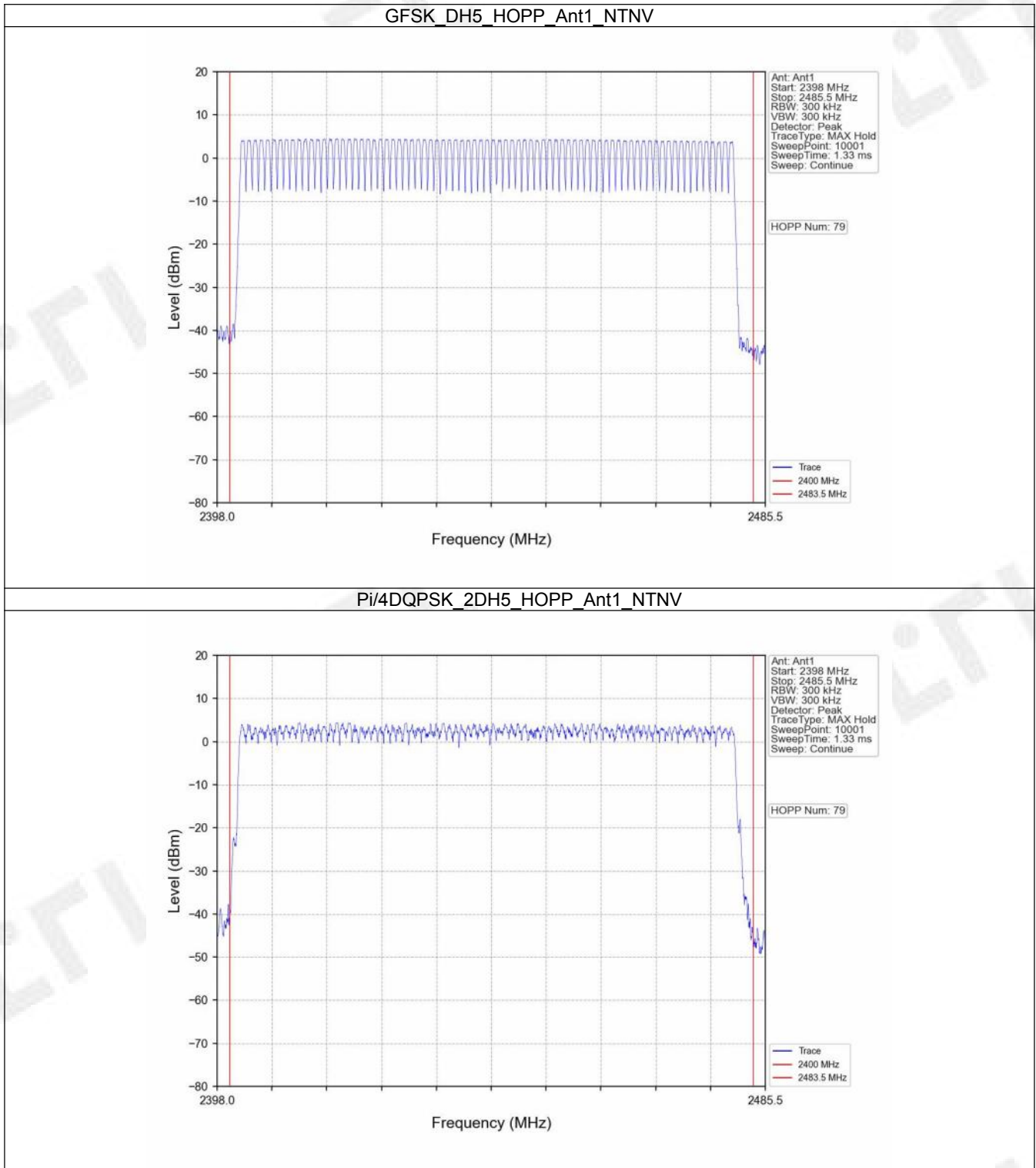
4.1 HoppNum

4.1.1 Test Result

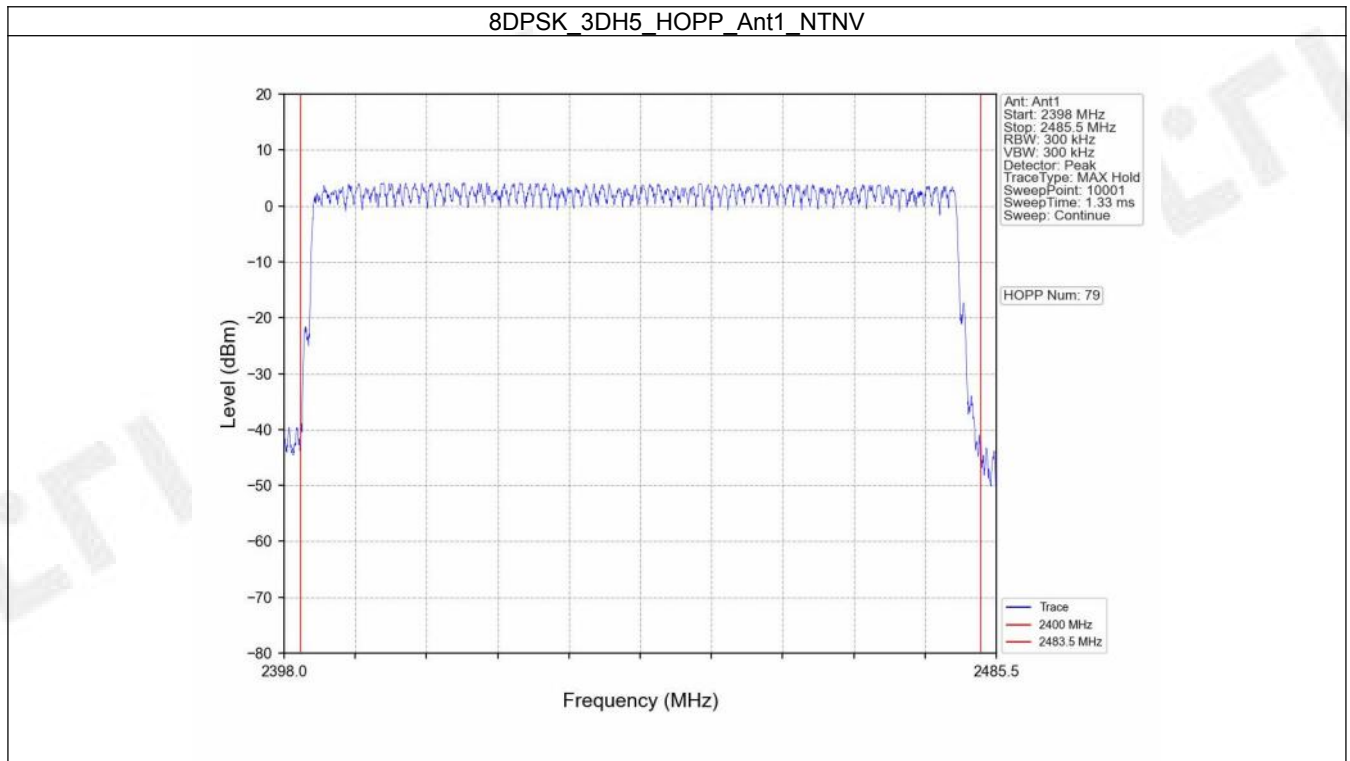
| Mode | TX Type | Frequency (MHz) | Packet Type | Num of Hopping Frequencies | | Verdict |
|-----------|---------|-----------------|-------------|----------------------------|-------|---------|
| | | | | ANT1 | Limit | |
| GFSK | SISO | HOPP | DH5 | 79 | >=15 | Pass |
| Pi/4DQPSK | SISO | HOPP | 2DH5 | 79 | >=15 | Pass |
| 8DPSK | SISO | HOPP | 3DH5 | 79 | >=15 | Pass |

FCCID: 2BG3H-SW50

4.1.2 Test Graph



FCCID: 2BG3H-SW50



FCCID: 2BG3H-SW50

5. Time of Occupancy (Dwell Time)

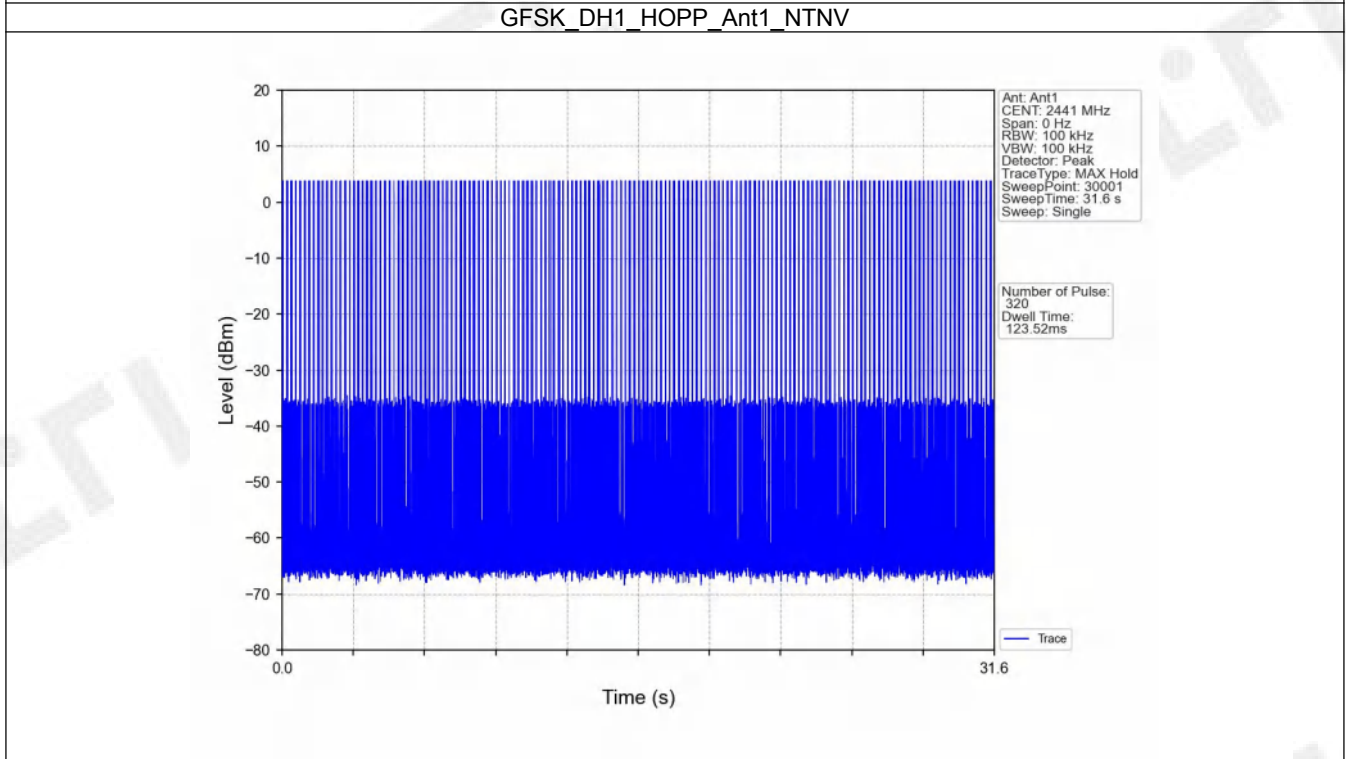
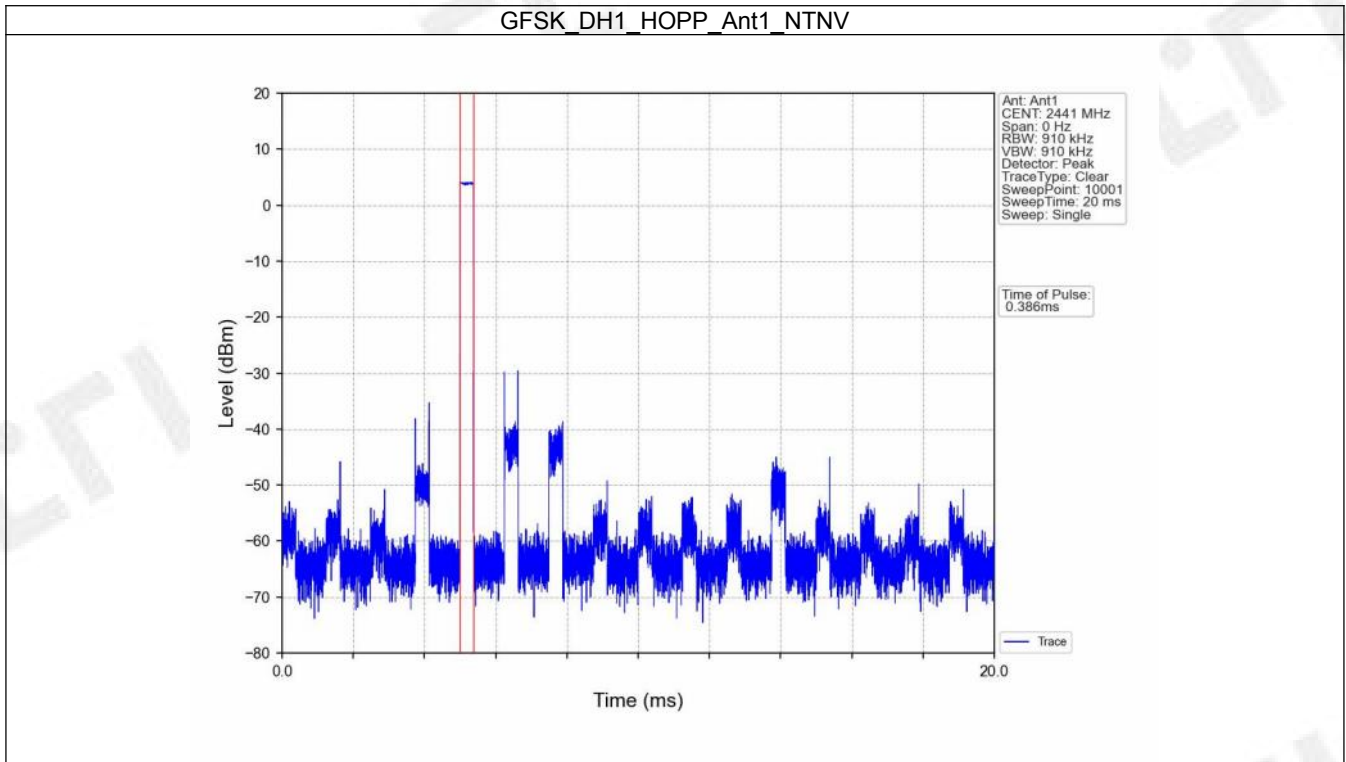
5.1 Ant1

5.1.1 Test Result

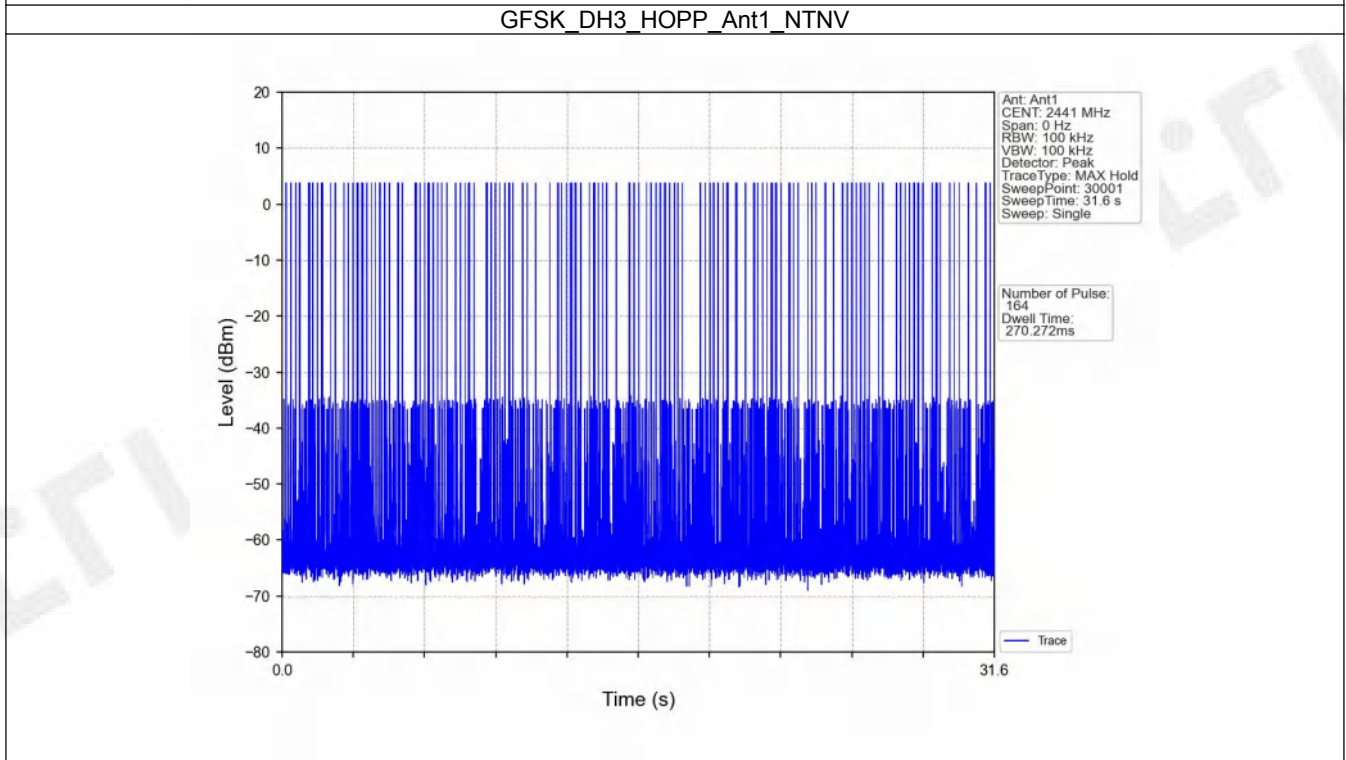
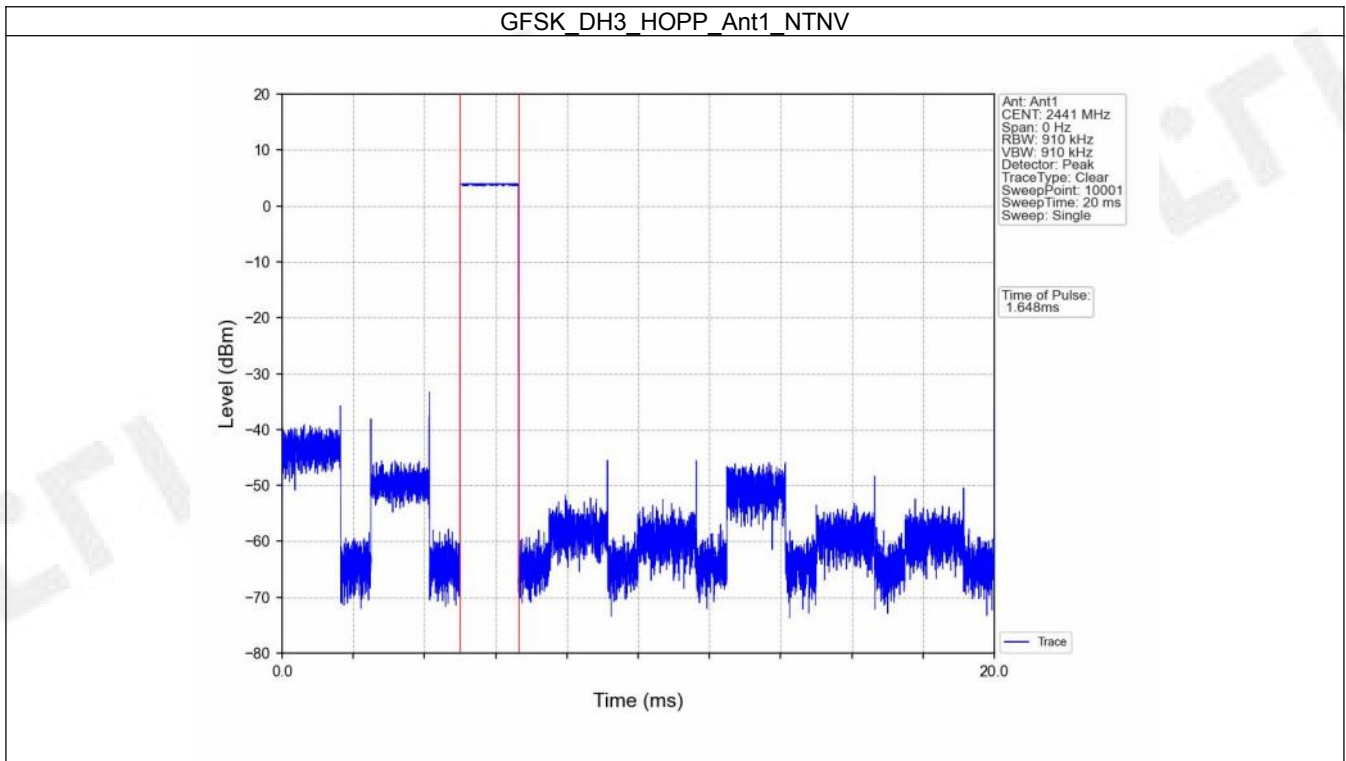
| Ant1 | | | | | | | | | |
|-----------|---------|-----------------|-------------|-------------------------------|------------------------|------------------------------------|-----------------|------------|---------|
| Mode | TX Type | Frequency (MHz) | Packet Type | Duration of Single Pulse (ms) | Observation Period (s) | Num of Pulse in Observation Period | Dwell Time (ms) | Limit (ms) | Verdict |
| GFSK | SISO | HOPP | DH1 | 0.386 | 31.600 | 320 | 123.520 | <=400 | Pass |
| | | | DH3 | 1.648 | 31.600 | 164 | 270.272 | <=400 | Pass |
| | | | DH5 | 2.896 | 31.600 | 99 | 286.704 | <=400 | Pass |
| Pi/4DQPSK | SISO | HOPP | 2DH1 | 0.396 | 31.600 | 319 | 126.324 | <=400 | Pass |
| | | | 2DH3 | 1.648 | 31.600 | 159 | 262.032 | <=400 | Pass |
| | | | 2DH5 | 2.896 | 31.600 | 97 | 280.912 | <=400 | Pass |
| 8DPSK | SISO | HOPP | 3DH1 | 0.394 | 31.600 | 320 | 126.080 | <=400 | Pass |
| | | | 3DH3 | 1.650 | 31.600 | 162 | 267.300 | <=400 | Pass |
| | | | 3DH5 | 2.896 | 31.600 | 103 | 298.288 | <=400 | Pass |

FCCID: 2BG3H-SW50

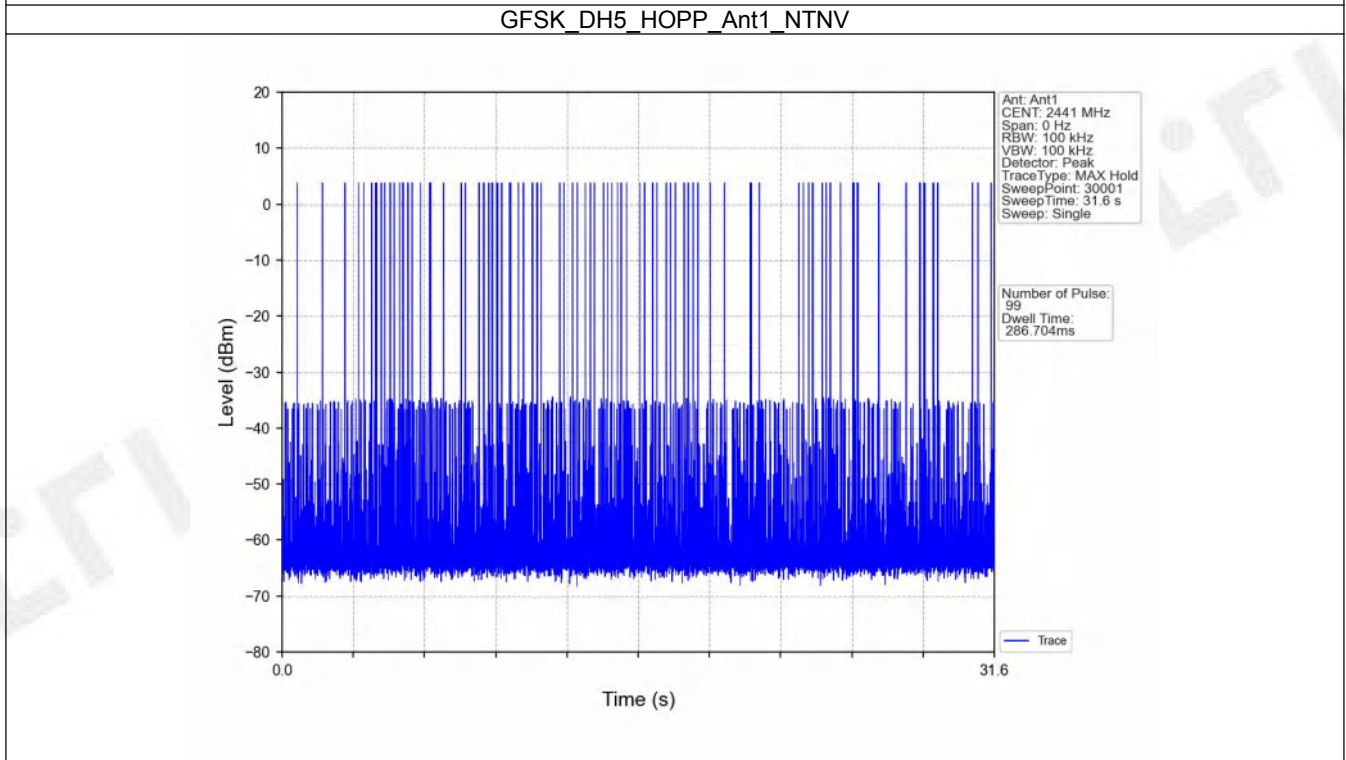
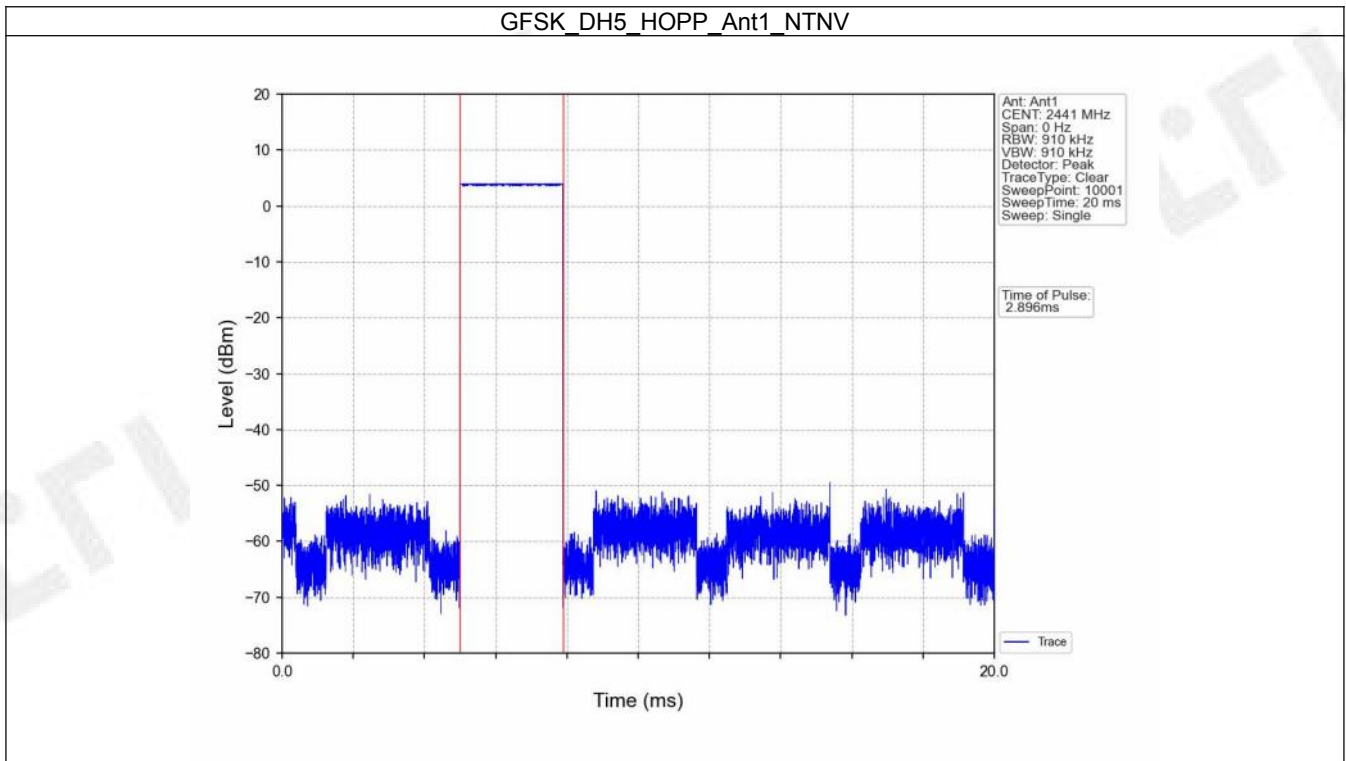
5.1.2 Test Graph



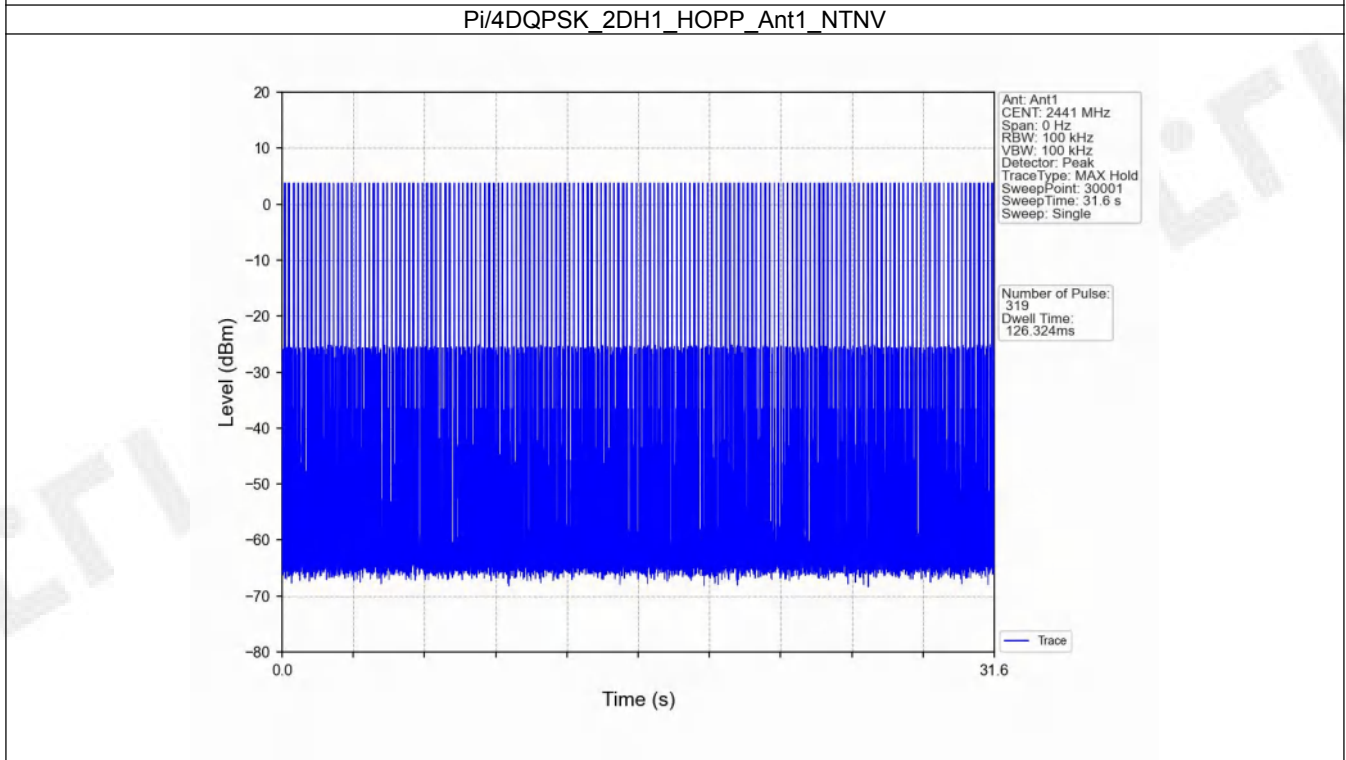
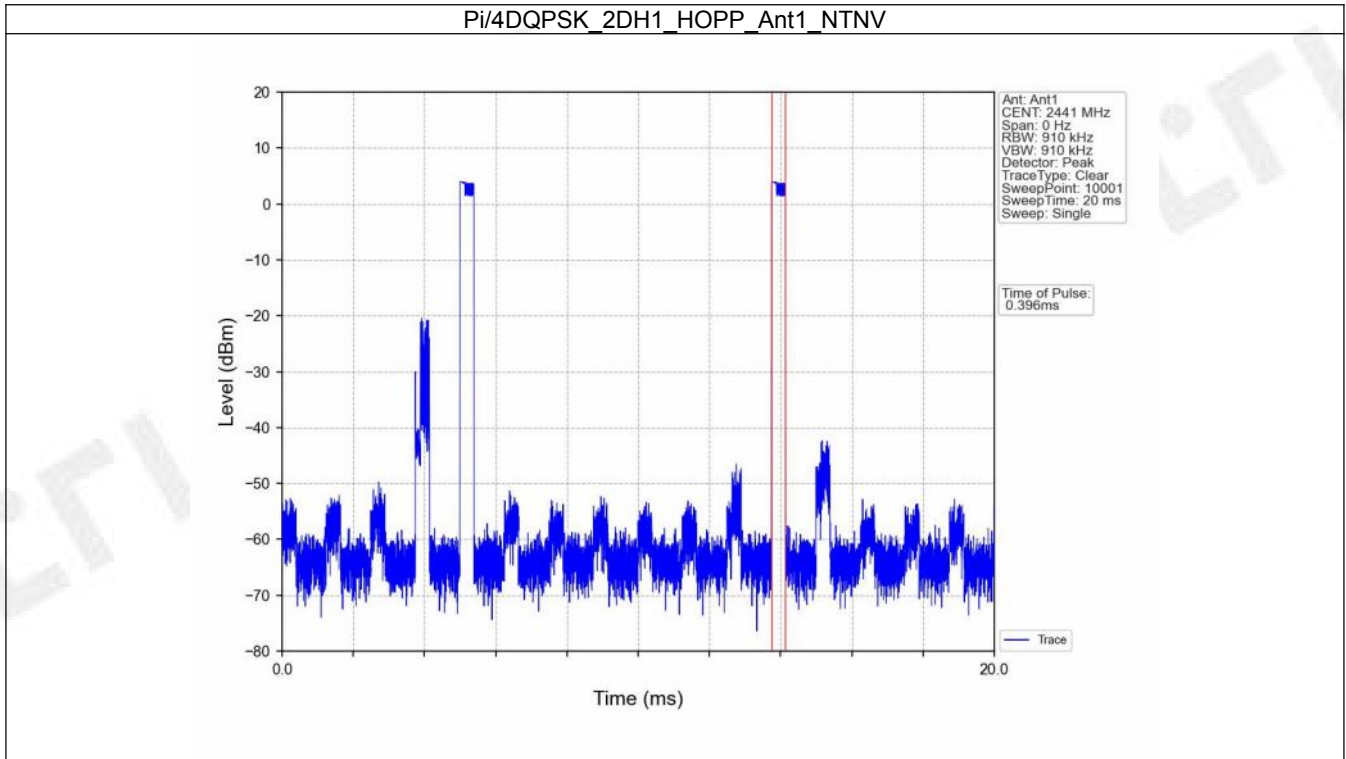
FCCID: 2BG3H-SW50



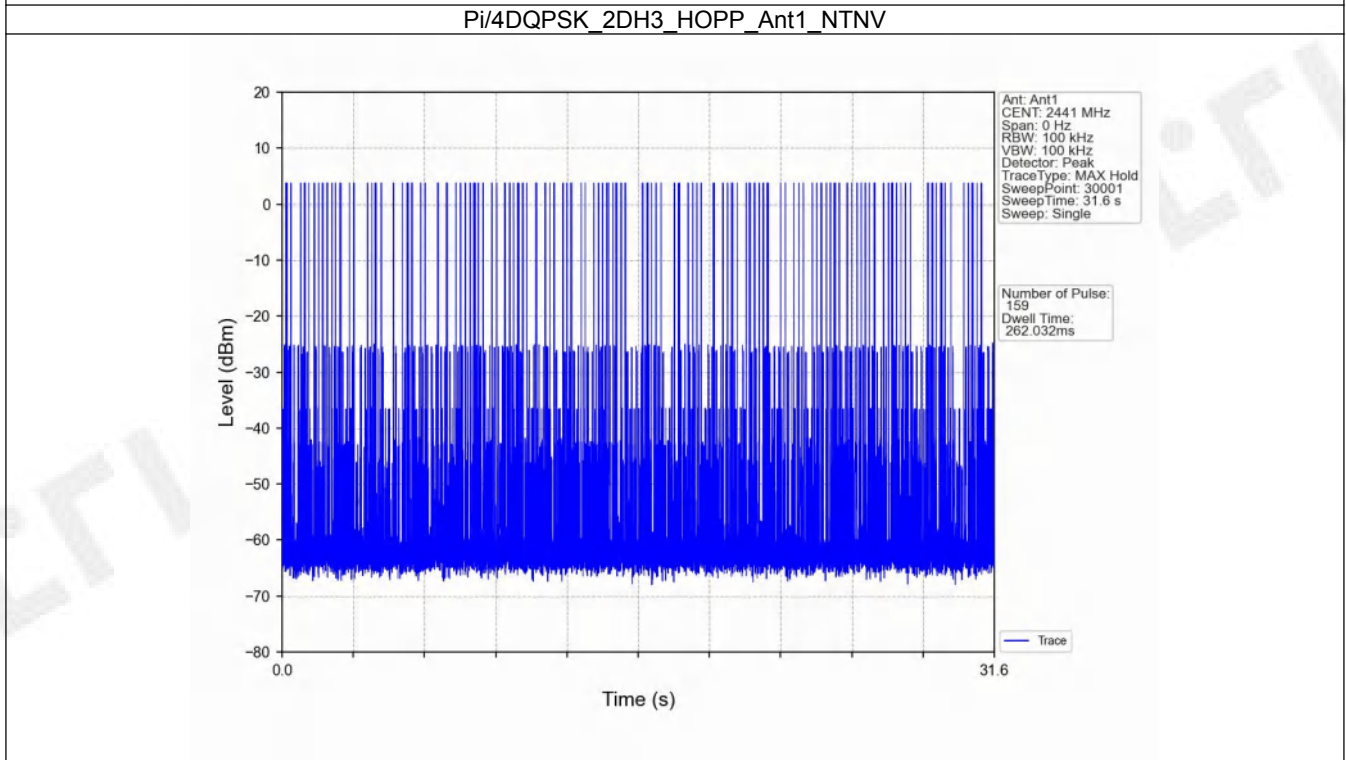
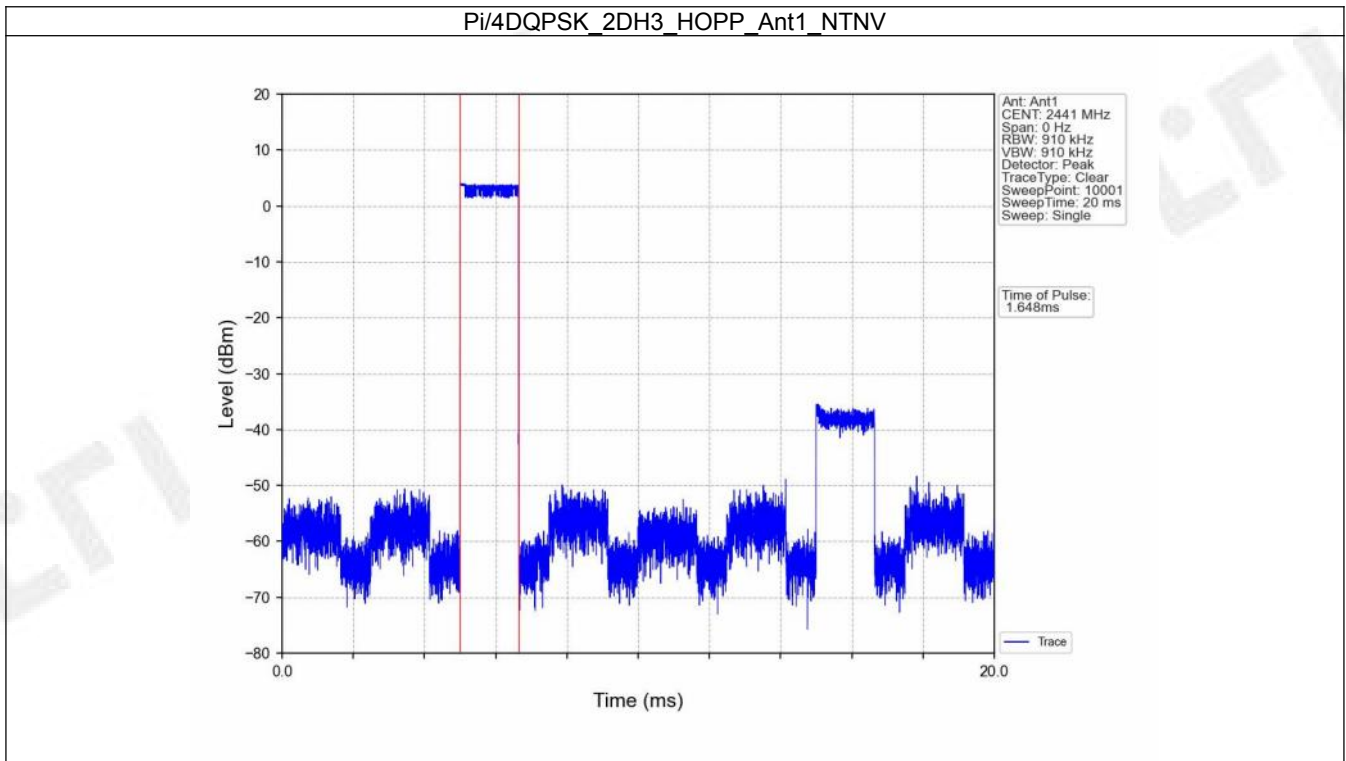
FCCID: 2BG3H-SW50



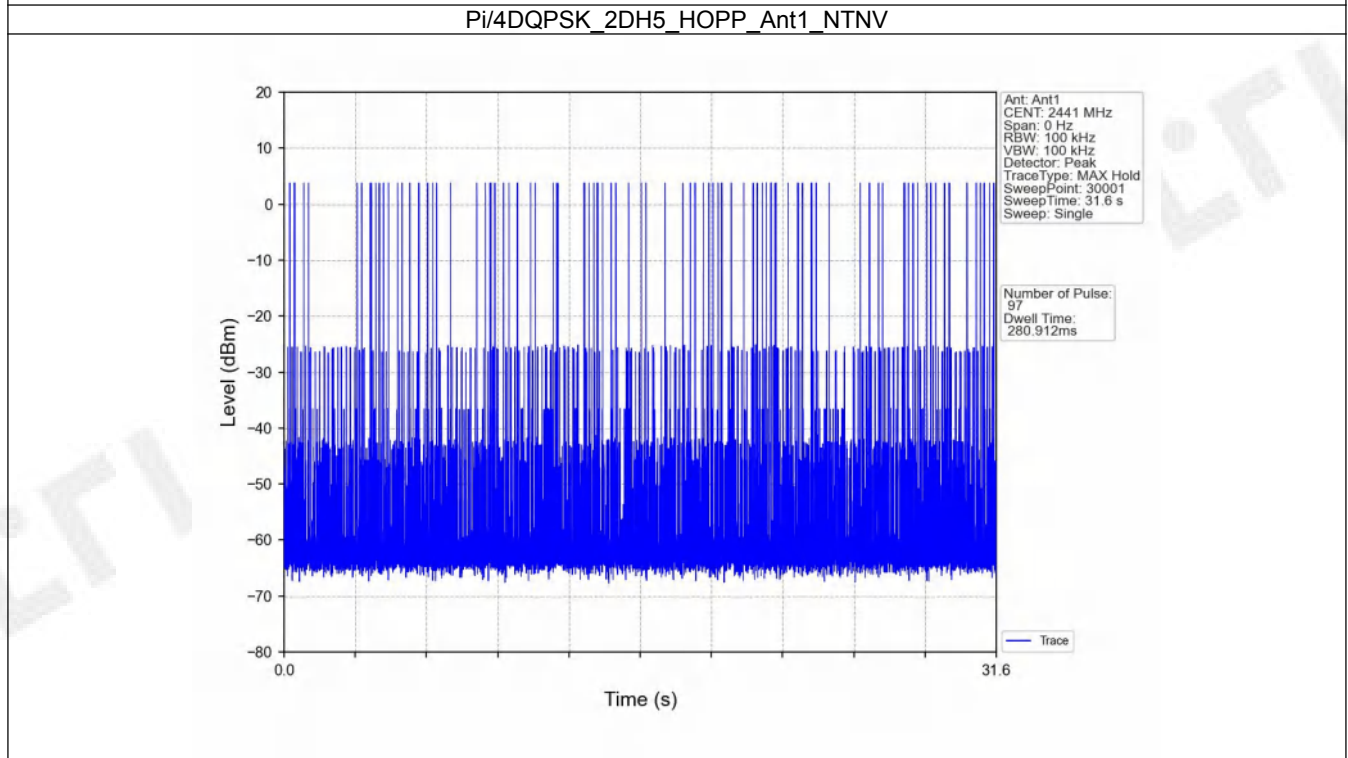
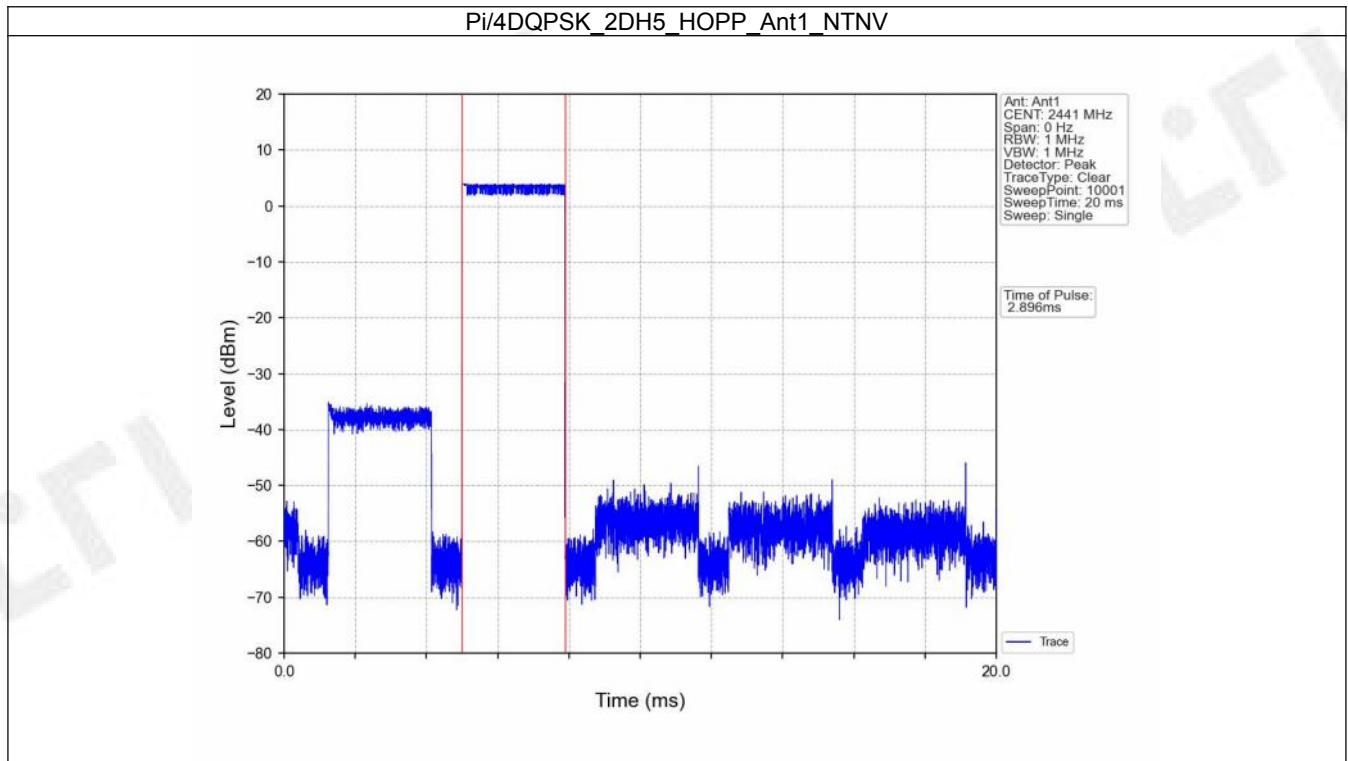
FCCID: 2BG3H-SW50



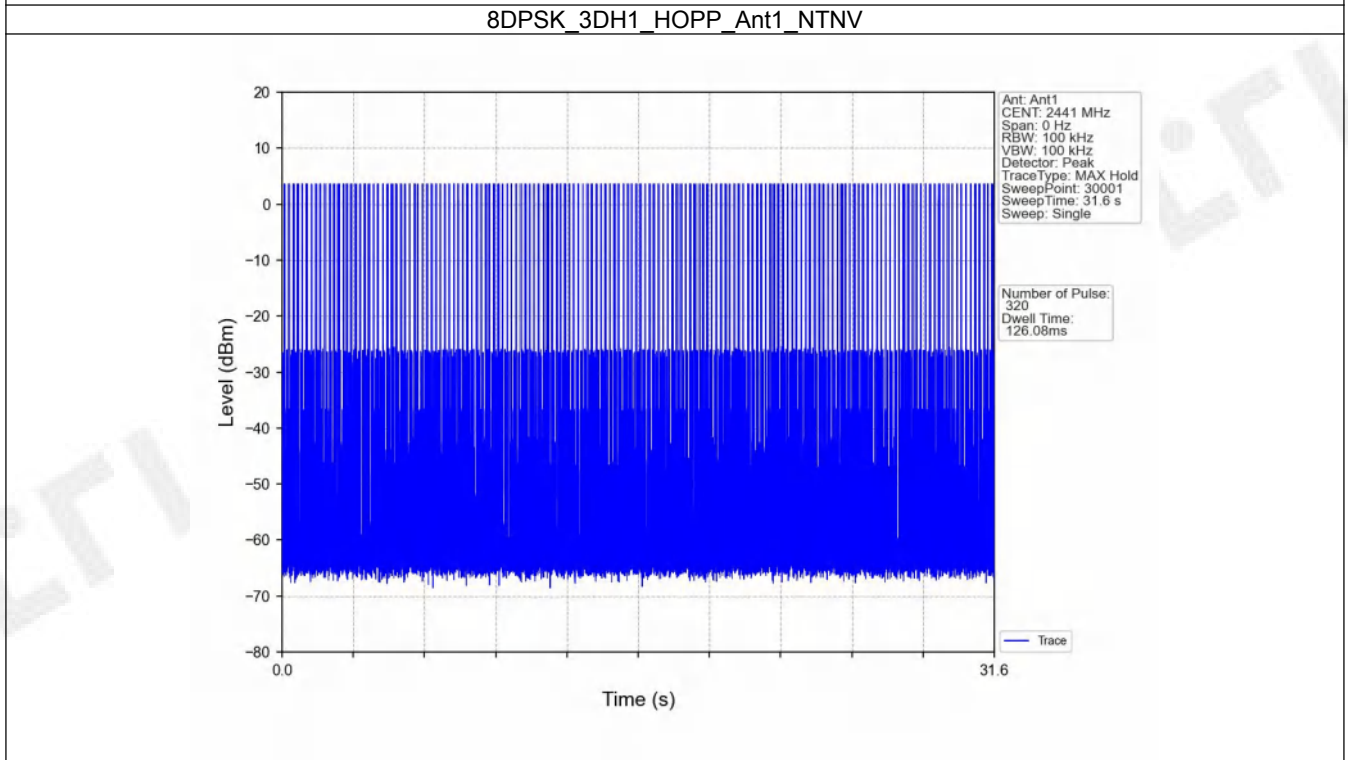
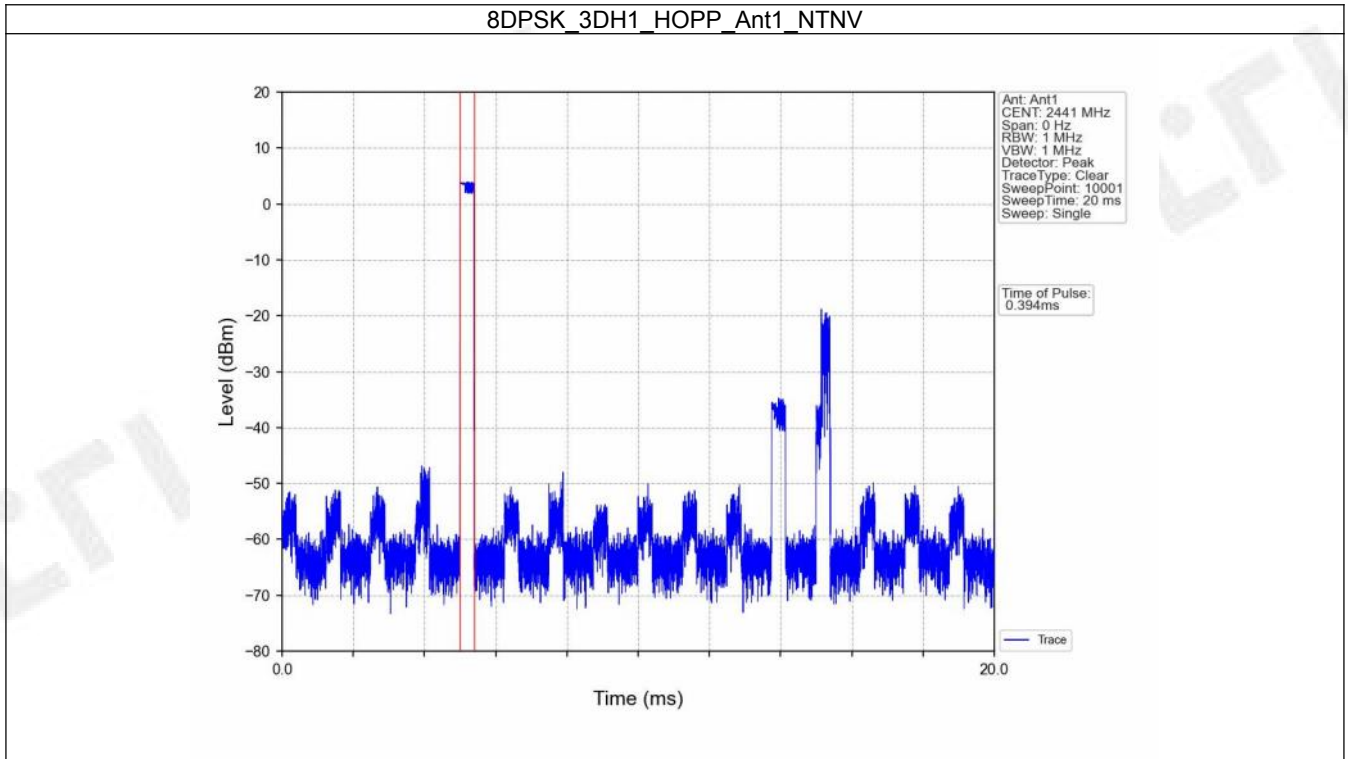
FCCID: 2BG3H-SW50



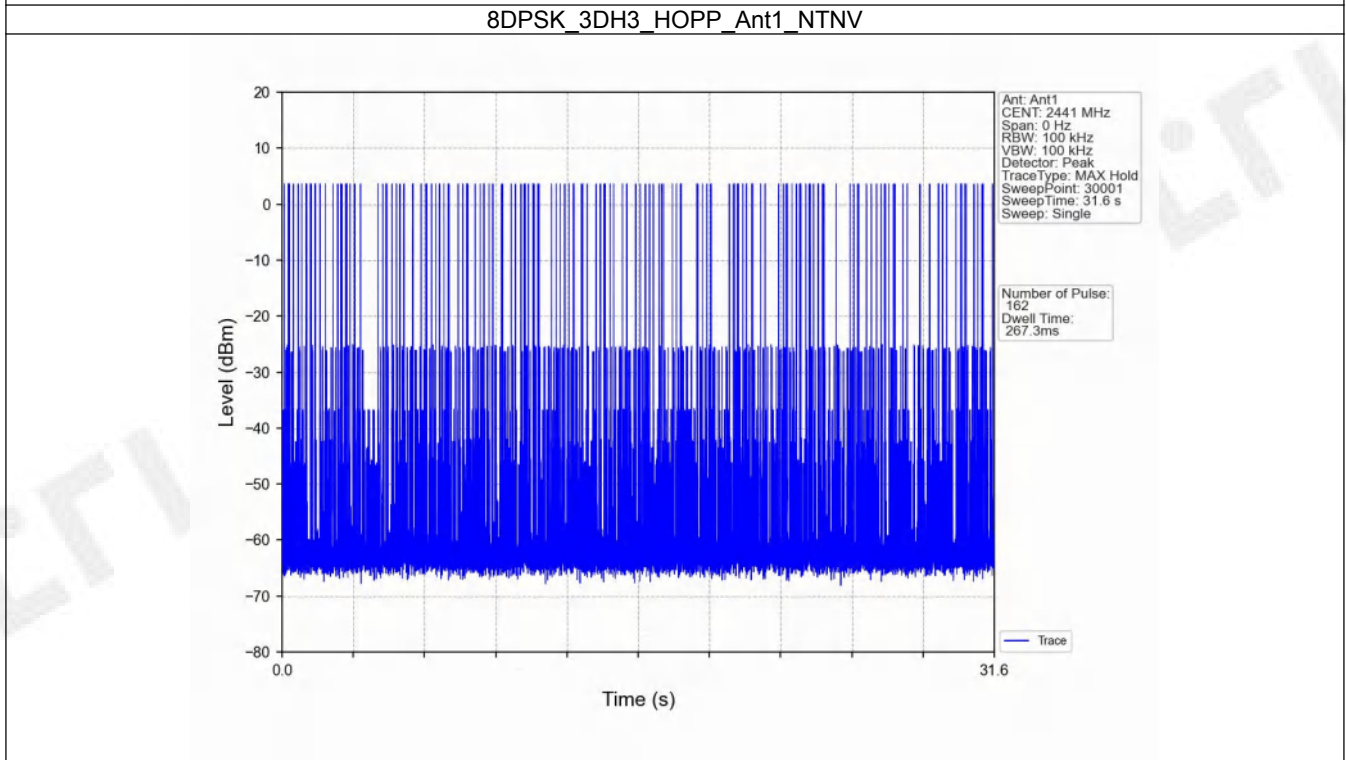
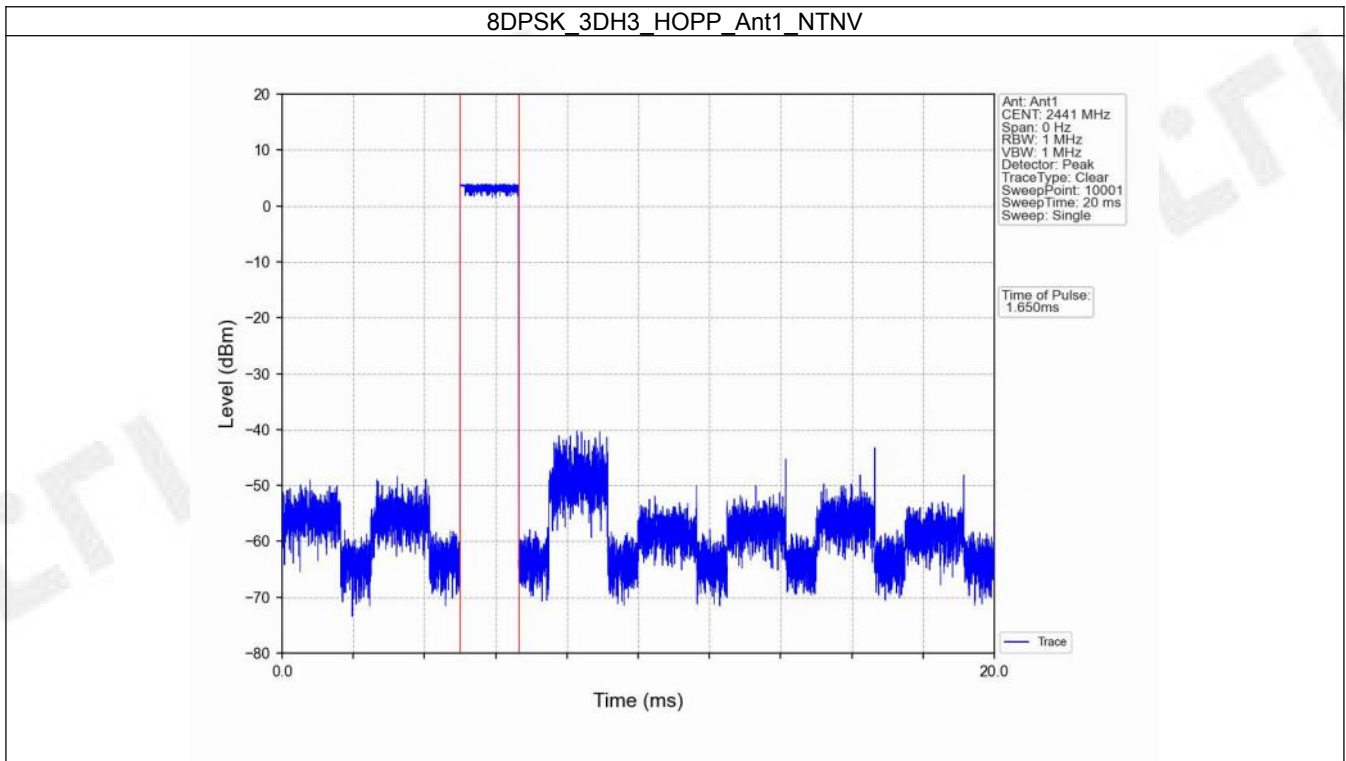
FCCID: 2BG3H-SW50



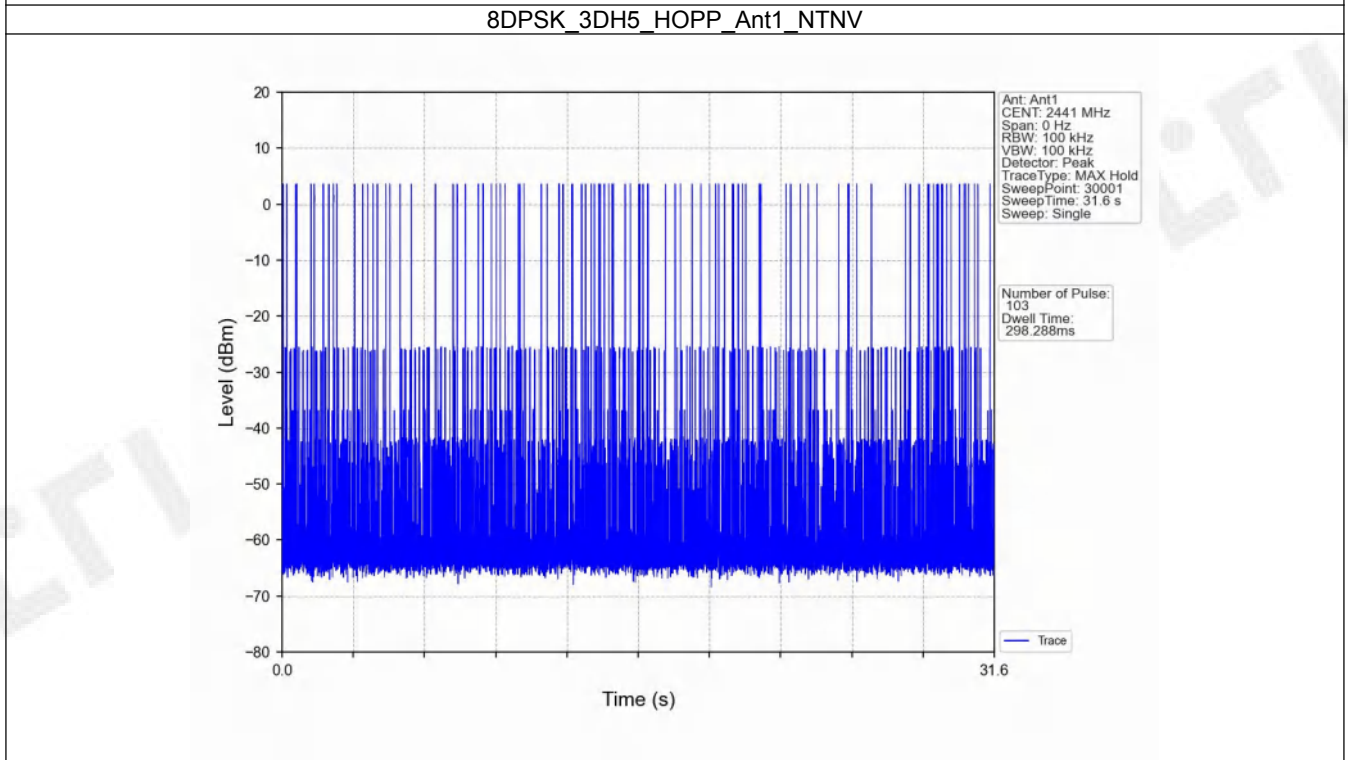
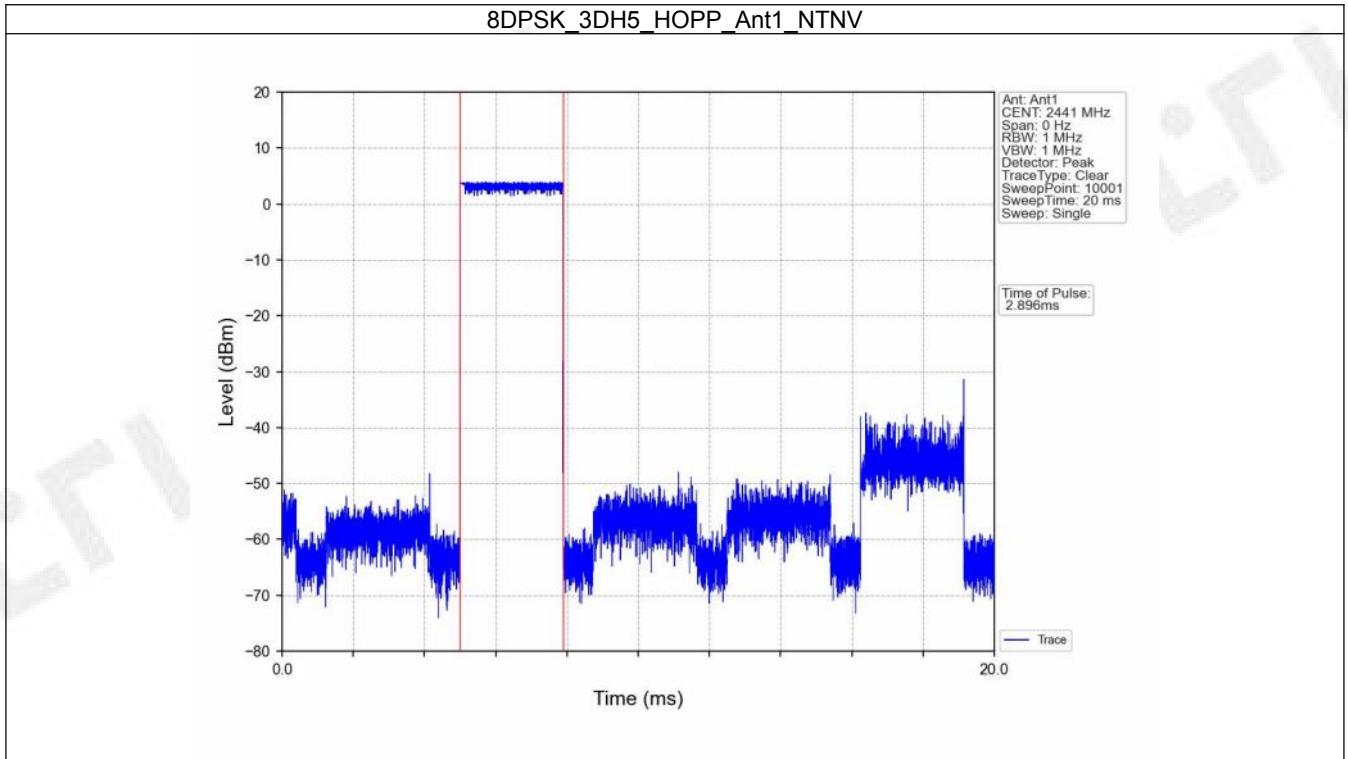
FCCID: 2BG3H-SW50



FCCID: 2BG3H-SW50



FCCID: 2BG3H-SW50



FCCID: 2BG3H-SW50

6. Unwanted Emissions In Non-restricted Frequency Bands

6.1 Ref

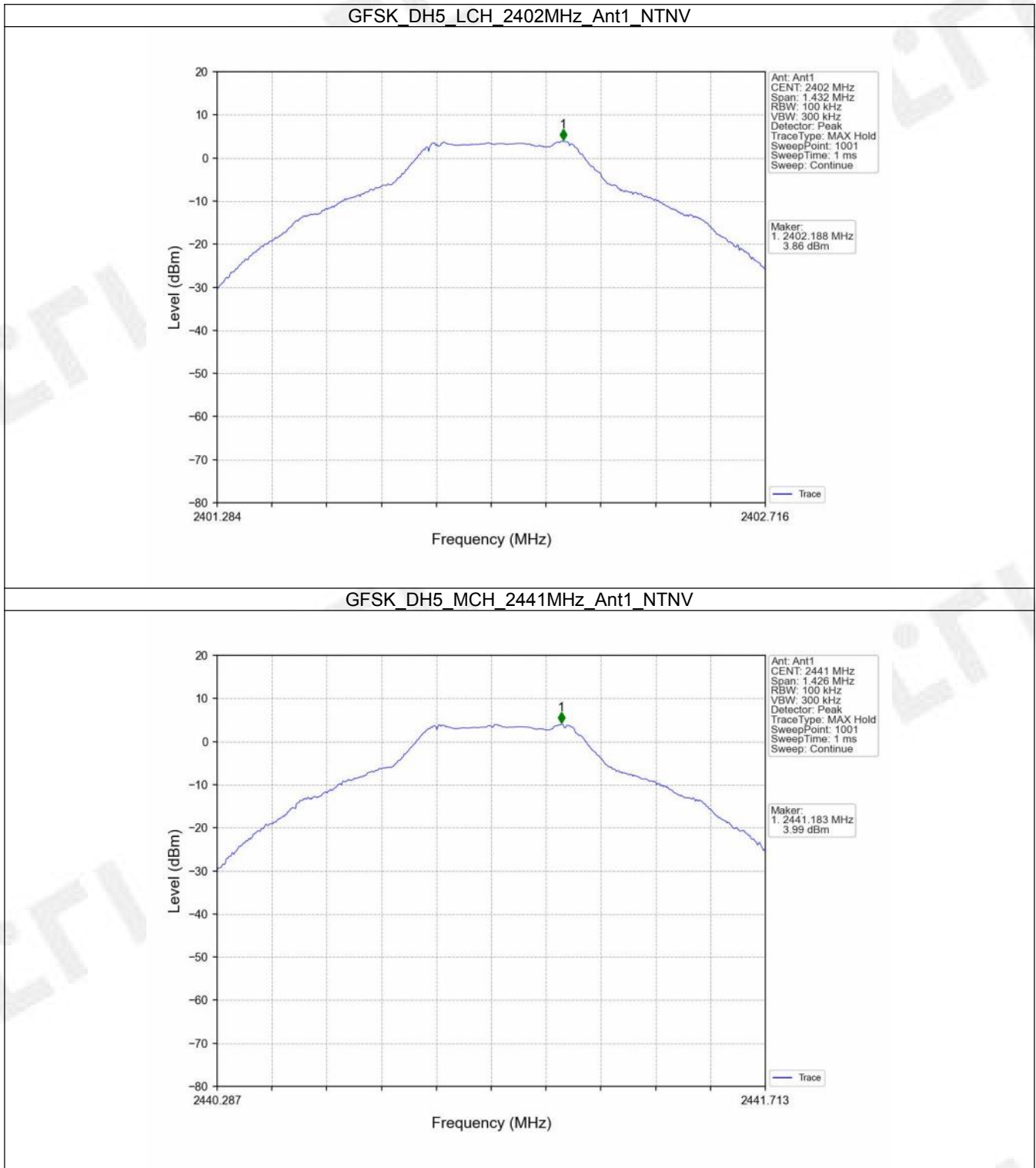
6.1.1 Test Result

| Mode | TX Type | Frequency (MHz) | Packet Type | ANT | Level of Reference (dBm) |
|-----------|---------|-----------------|-------------|-----|--------------------------|
| GFSK | SISO | 2402 | DH5 | 1 | 3.86 |
| | | 2441 | DH5 | 1 | 3.99 |
| | | 2480 | DH5 | 1 | 3.56 |
| Pi/4DQPSK | SISO | 2402 | 2DH5 | 1 | 3.87 |
| | | 2441 | 2DH5 | 1 | 4.01 |
| | | 2480 | 2DH5 | 1 | 3.56 |
| 8DPSK | SISO | 2402 | 3DH5 | 1 | 3.77 |
| | | 2441 | 3DH5 | 1 | 3.90 |
| | | 2480 | 3DH5 | 1 | 3.42 |

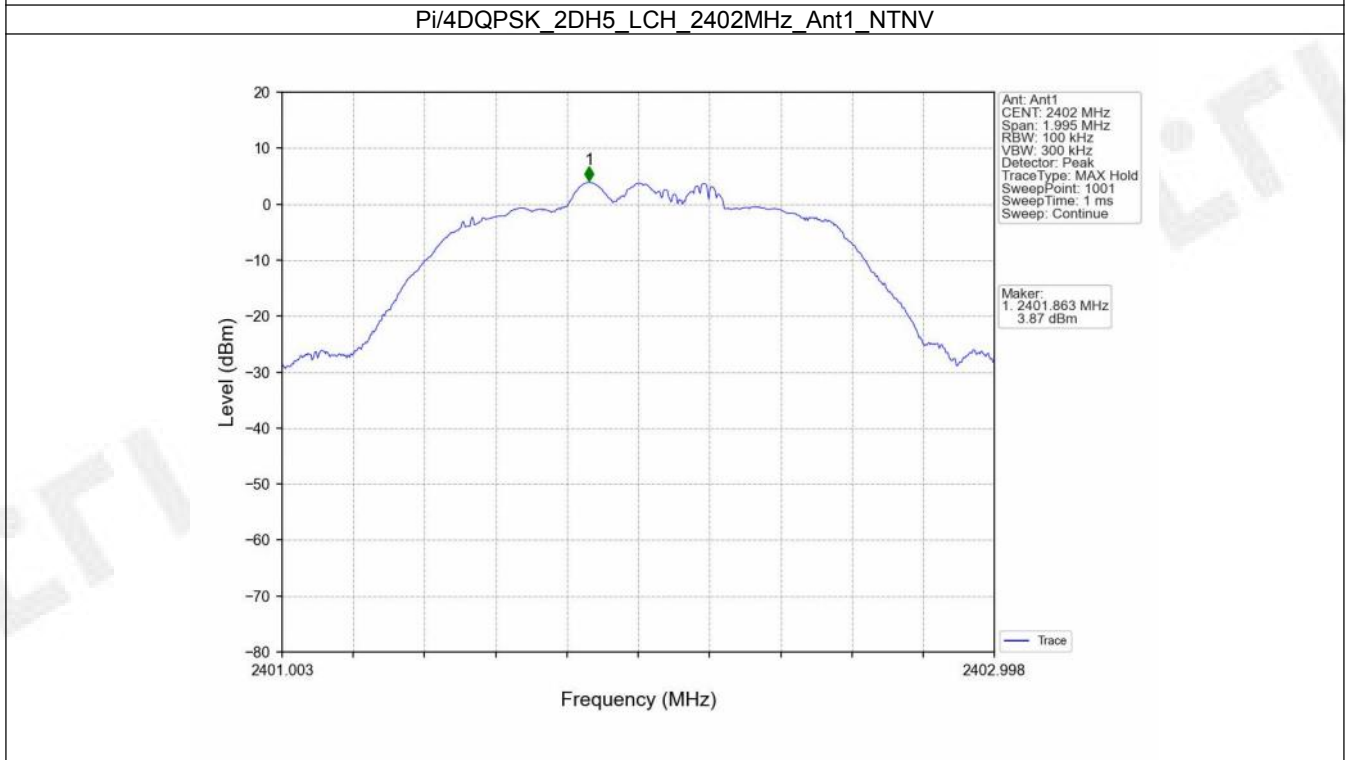
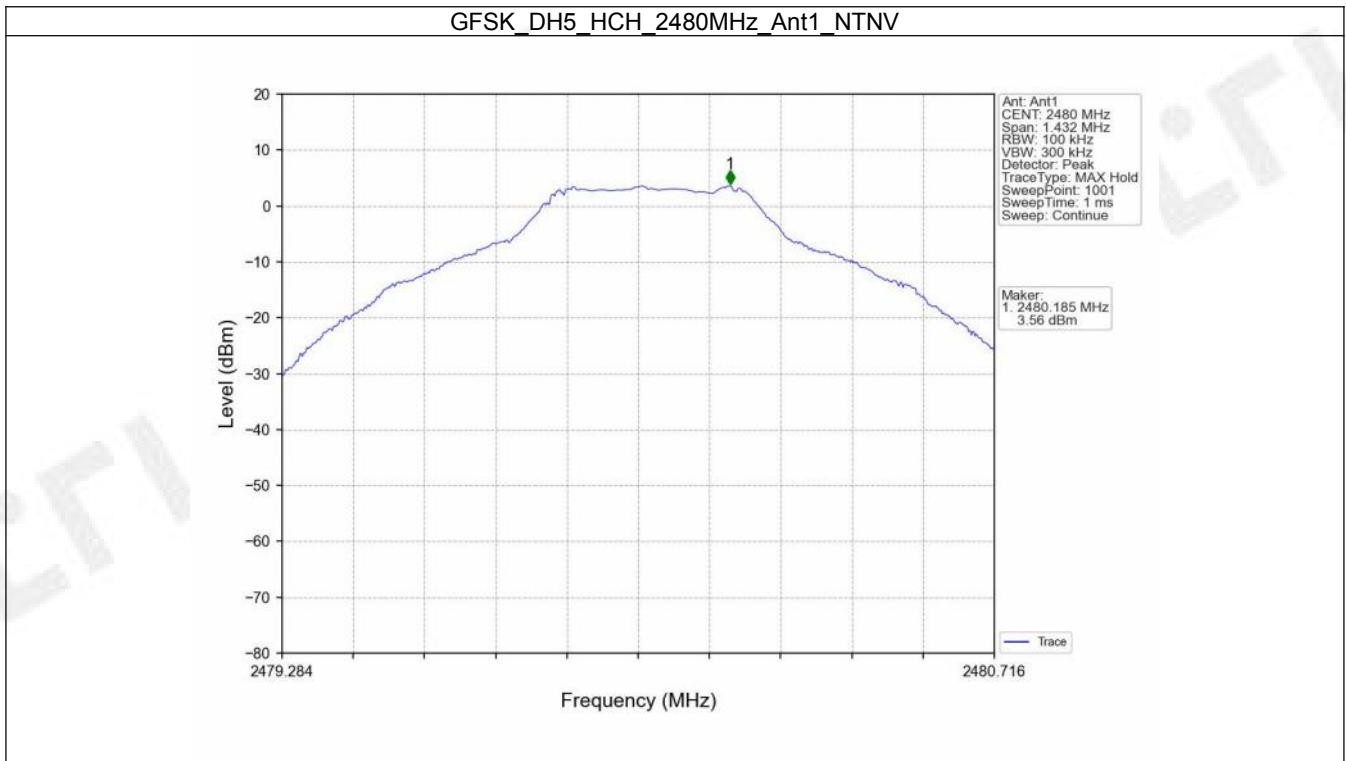
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

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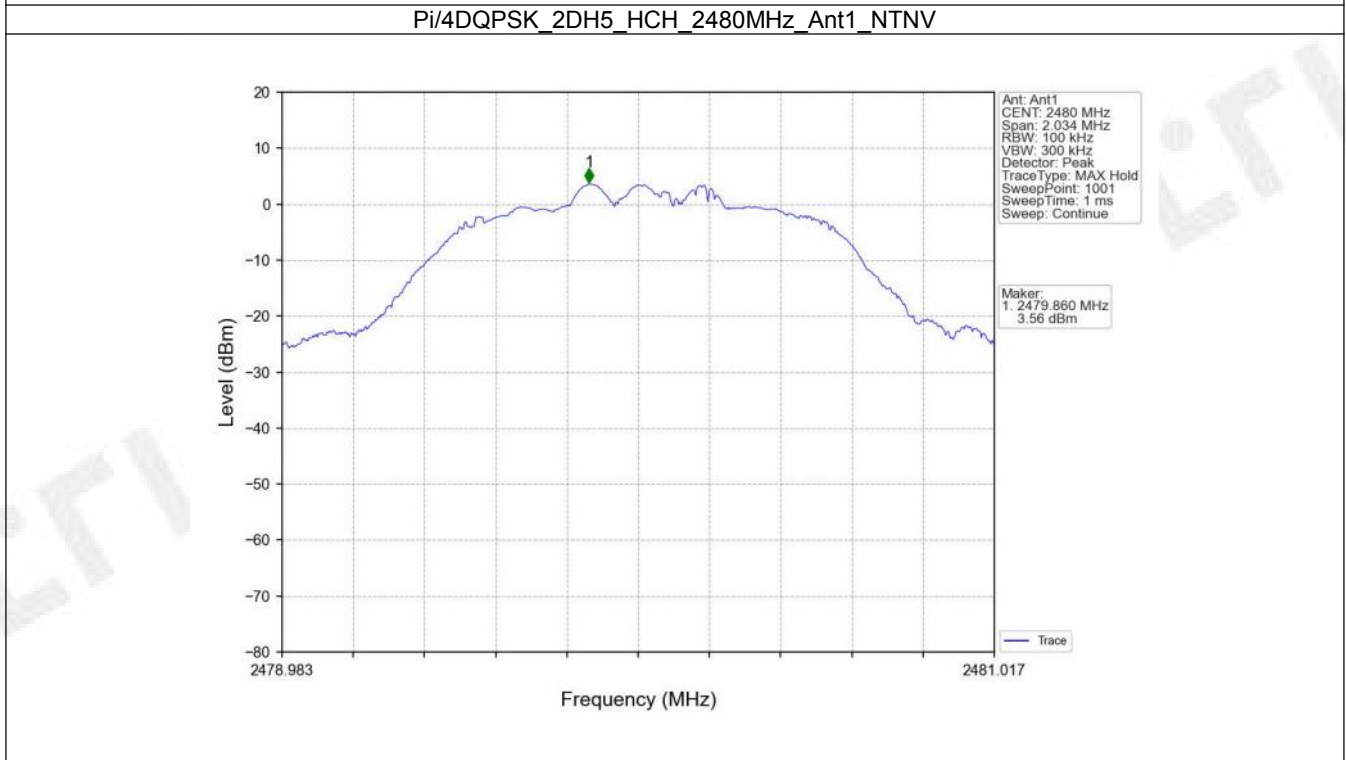
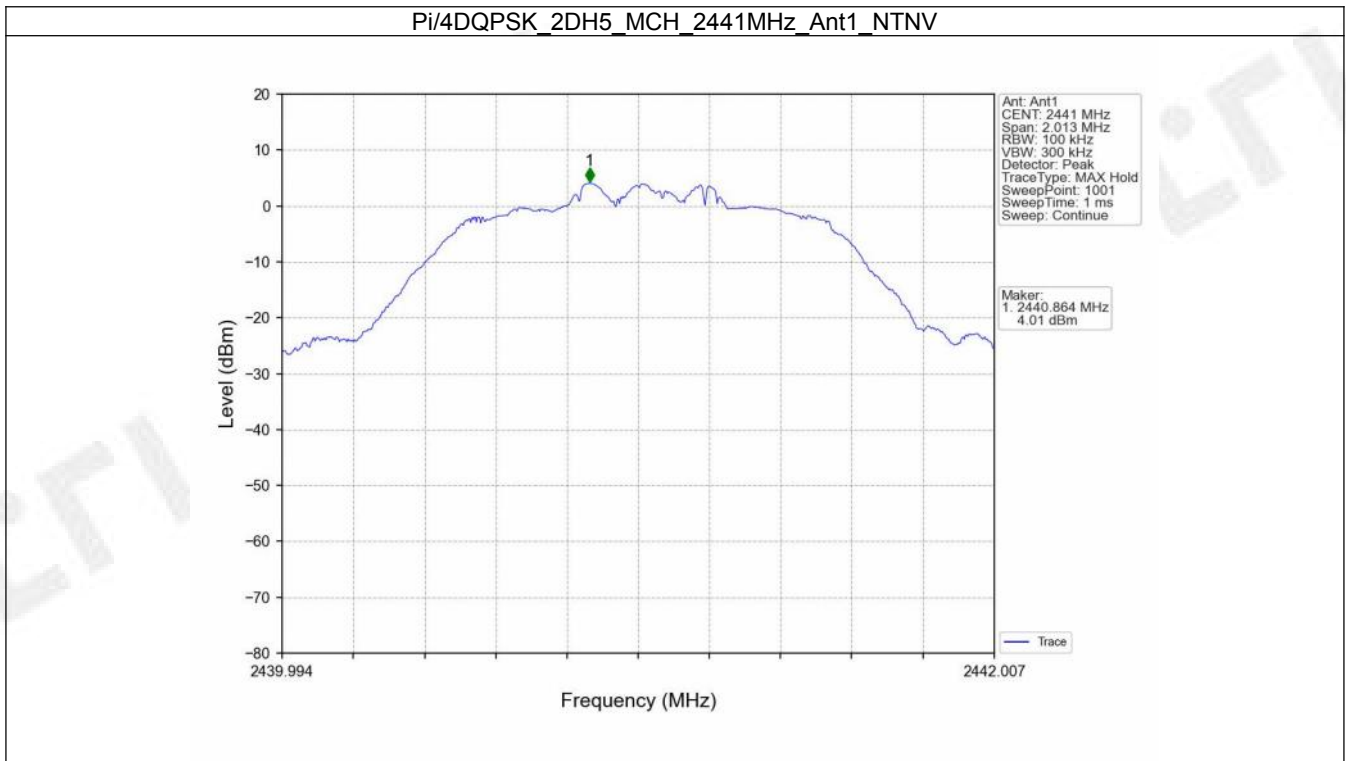
6.1.2 Test Graph



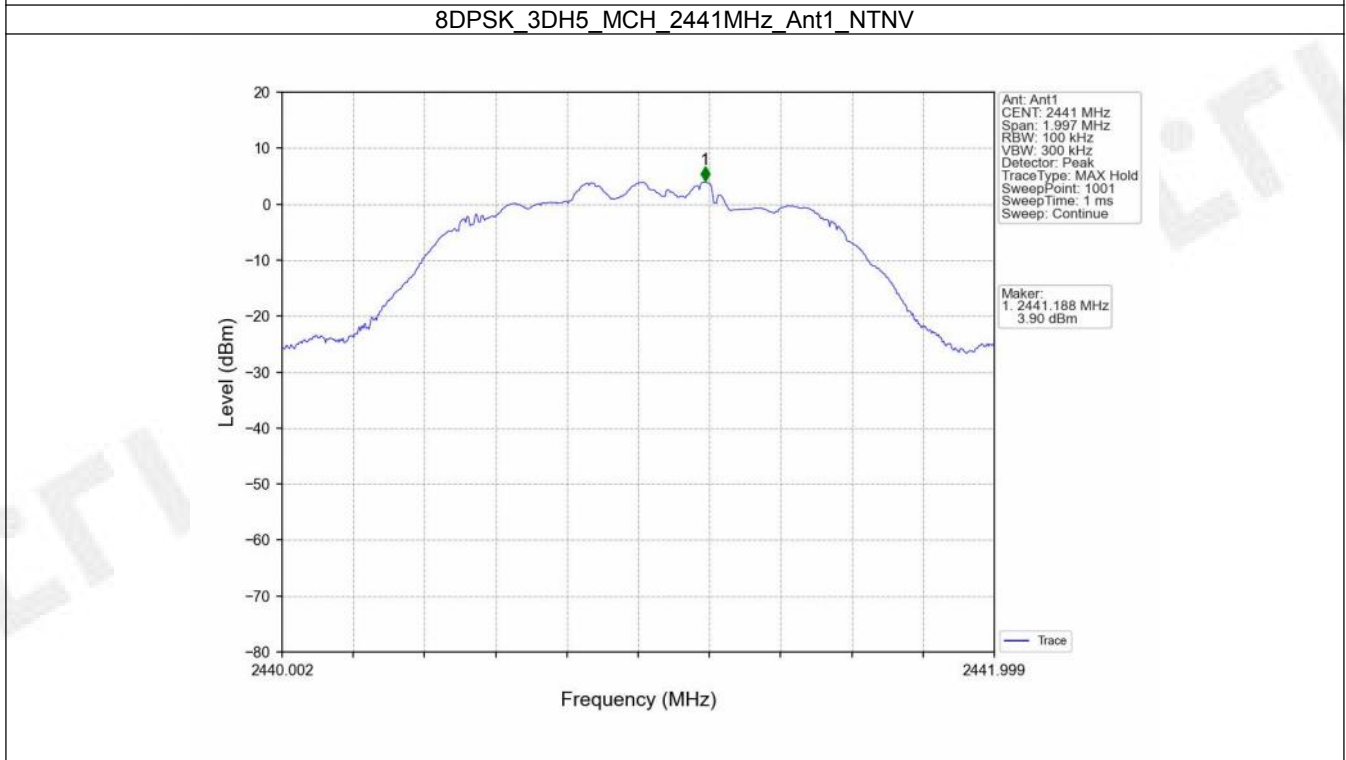
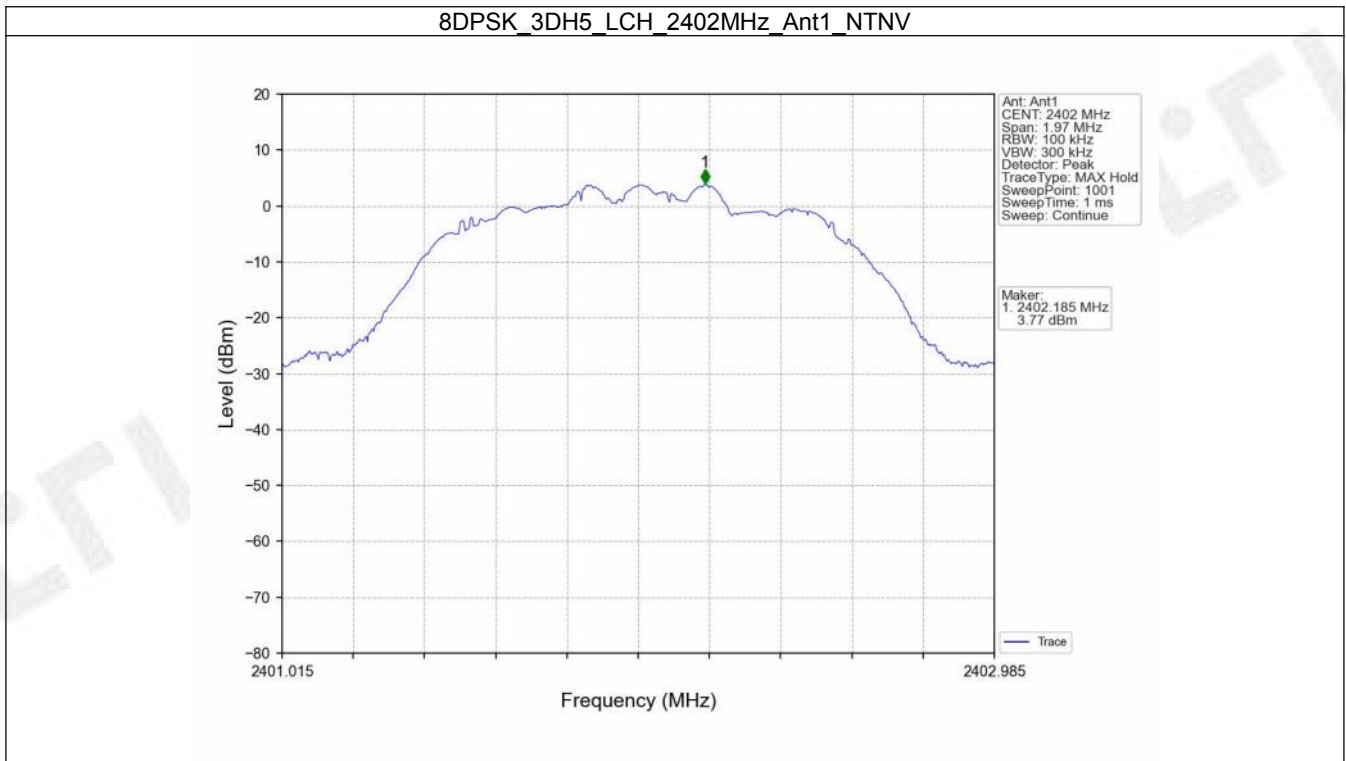
FCCID: 2BG3H-SW50



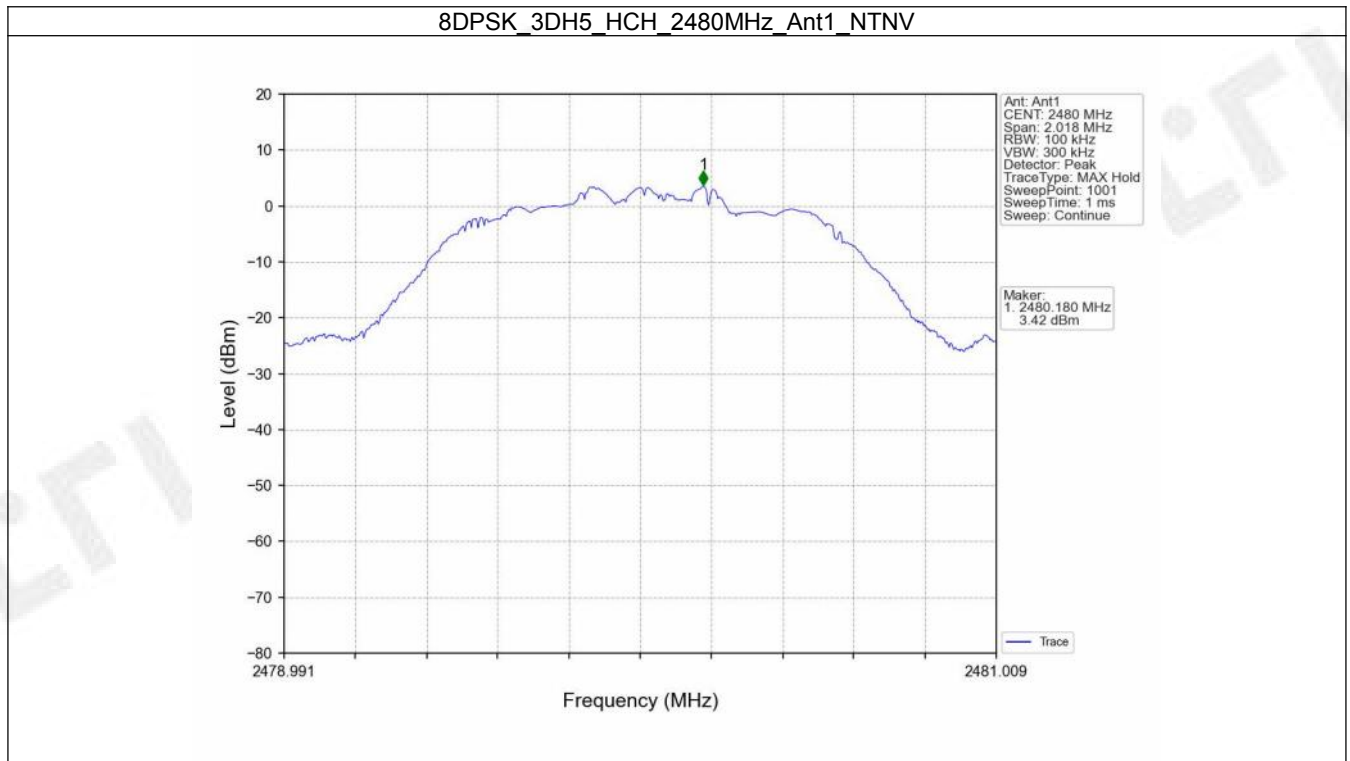
FCCID: 2BG3H-SW50



FCCID: 2BG3H-SW50



FCCID: 2BG3H-SW50



FCCID: 2BG3H-SW50

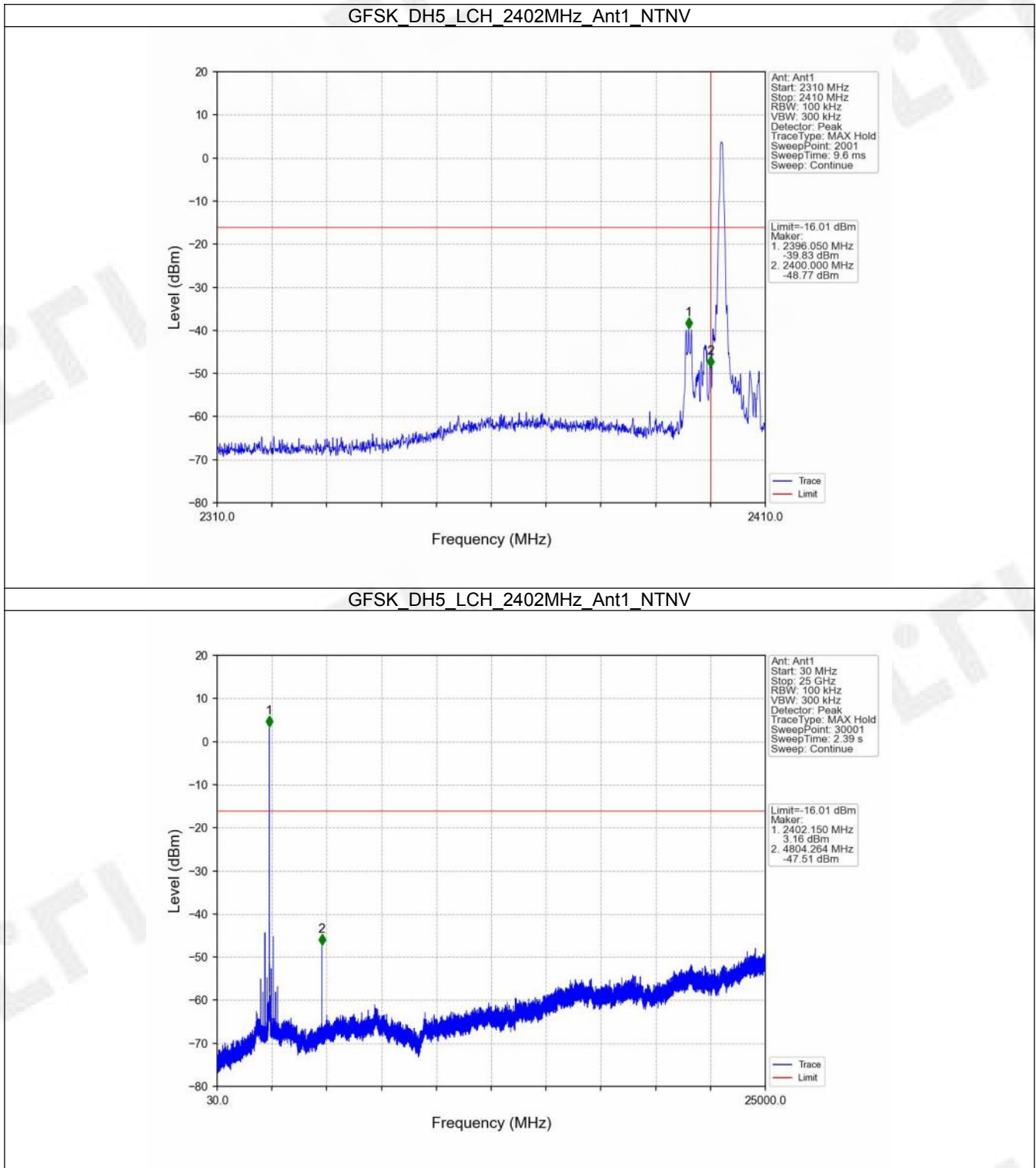
6.2 CSE**6.2.1 Test Result**

| Mode | TX Type | Frequency (MHz) | Packet Type | ANT | Level of Reference (dBm) | Limit (dBm) | Verdict |
|-----------|---------|-----------------|-------------|-----|--------------------------|-------------|---------|
| GFSK | SISO | 2402 | DH5 | 1 | 3.99 | -16.01 | Pass |
| | | 2441 | DH5 | 1 | 3.99 | -16.01 | Pass |
| | | 2480 | DH5 | 1 | 3.99 | -16.01 | Pass |
| | | HOPP | DH5 | 1 | 3.99 | -16.01 | Pass |
| | | | | | 3.99 | -16.01 | Pass |
| Pi/4DQPSK | SISO | 2402 | 2DH5 | 1 | 4.01 | -15.99 | Pass |
| | | 2441 | 2DH5 | 1 | 4.01 | -15.99 | Pass |
| | | 2480 | 2DH5 | 1 | 4.01 | -15.99 | Pass |
| | | HOPP | 2DH5 | 1 | 4.01 | -15.99 | Pass |
| | | | | | 4.01 | -15.99 | Pass |
| 8DPSK | SISO | 2402 | 3DH5 | 1 | 3.90 | -16.10 | Pass |
| | | 2441 | 3DH5 | 1 | 3.90 | -16.10 | Pass |
| | | 2480 | 3DH5 | 1 | 3.90 | -16.10 | Pass |
| | | HOPP | 3DH5 | 1 | 3.90 | -16.10 | Pass |
| | | | | | 3.90 | -16.10 | Pass |

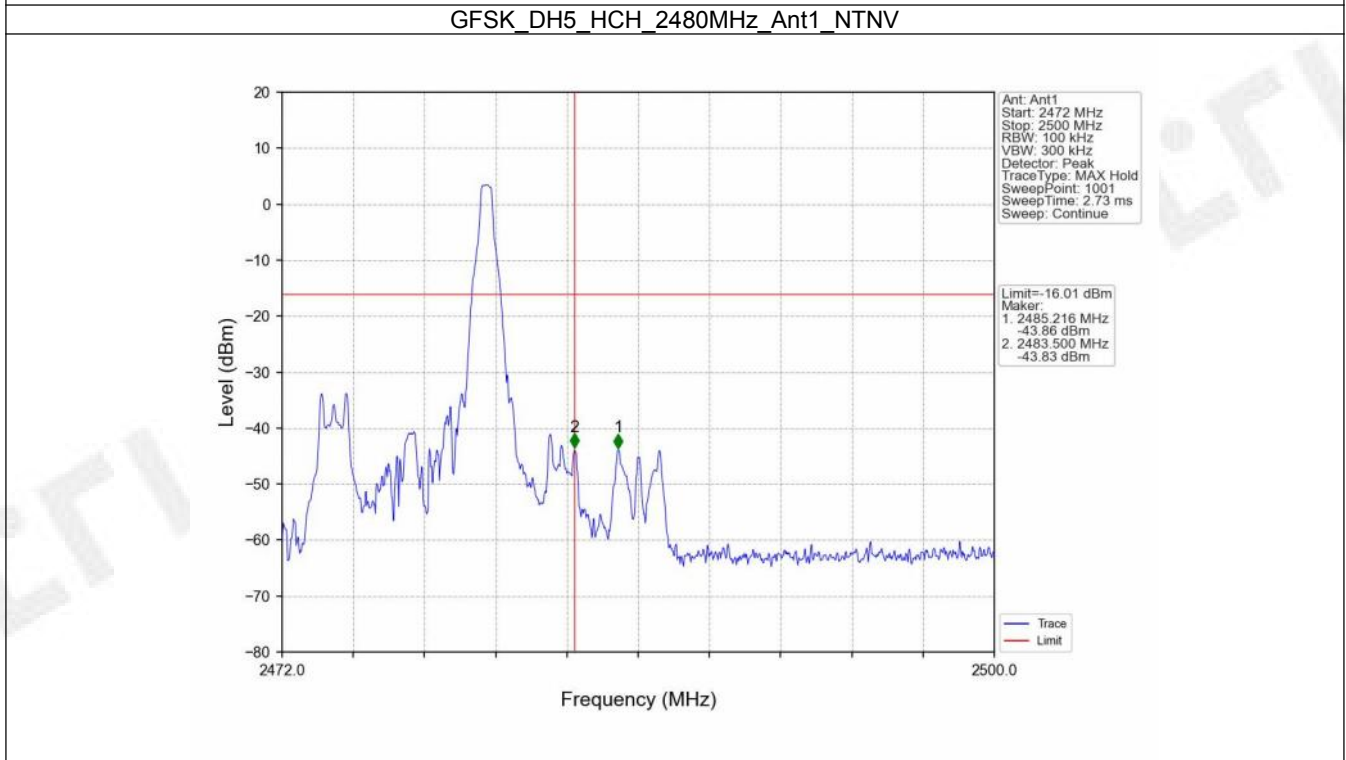
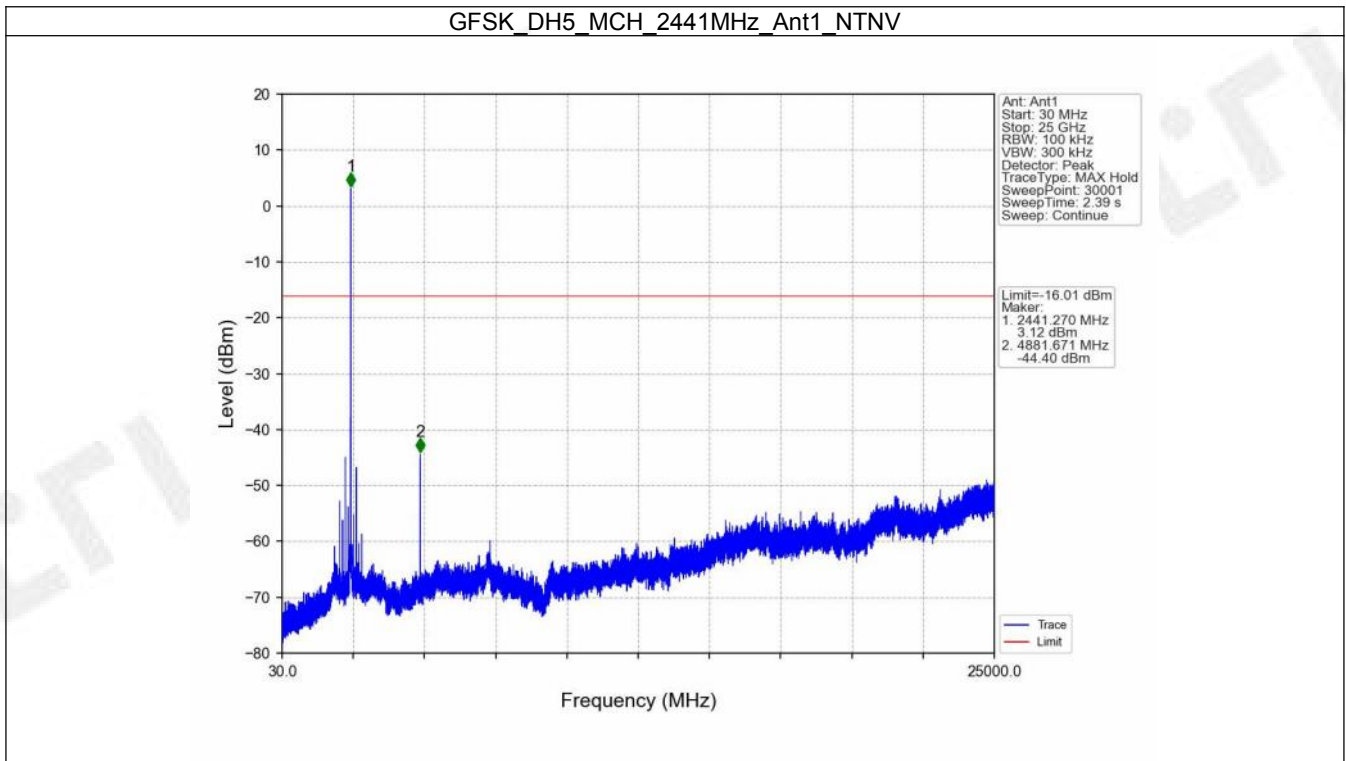
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

FCCID: 2BG3H-SW50

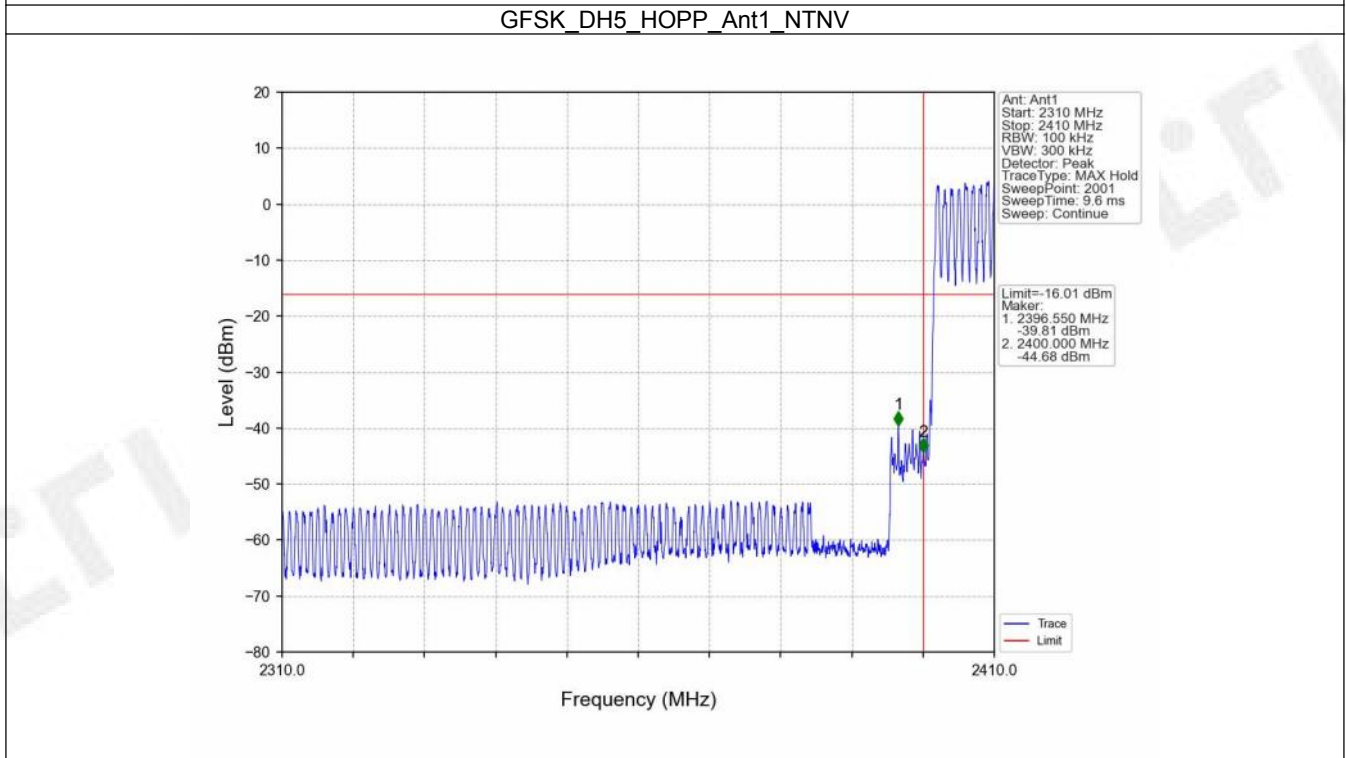
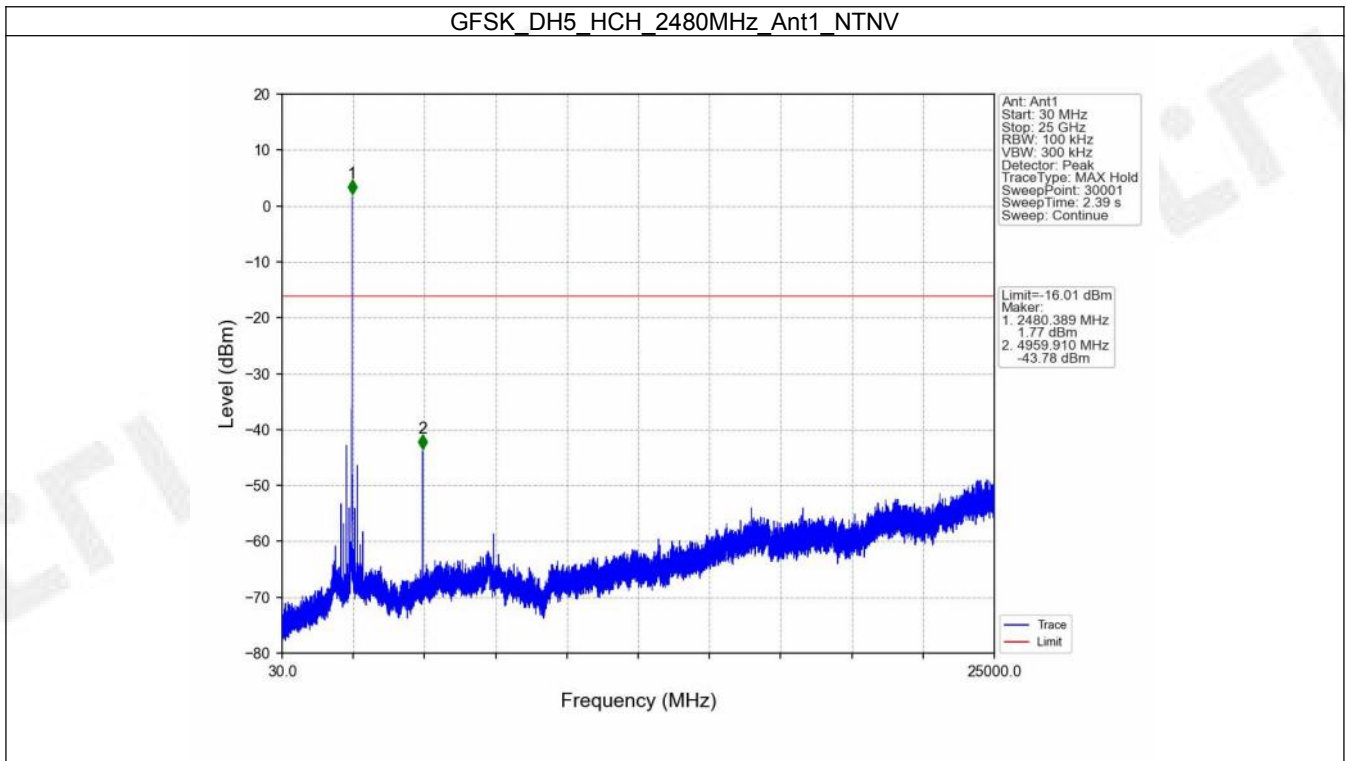
6.2.2 Test Graph



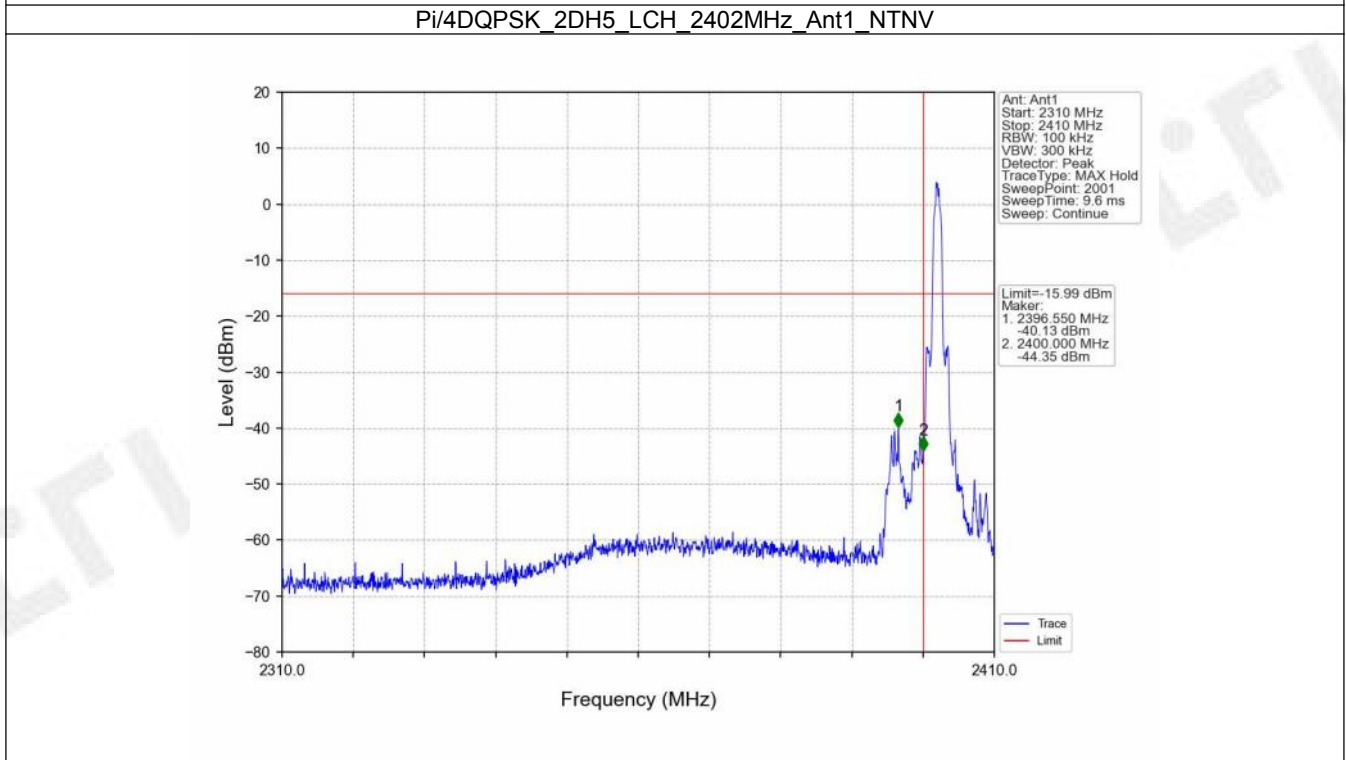
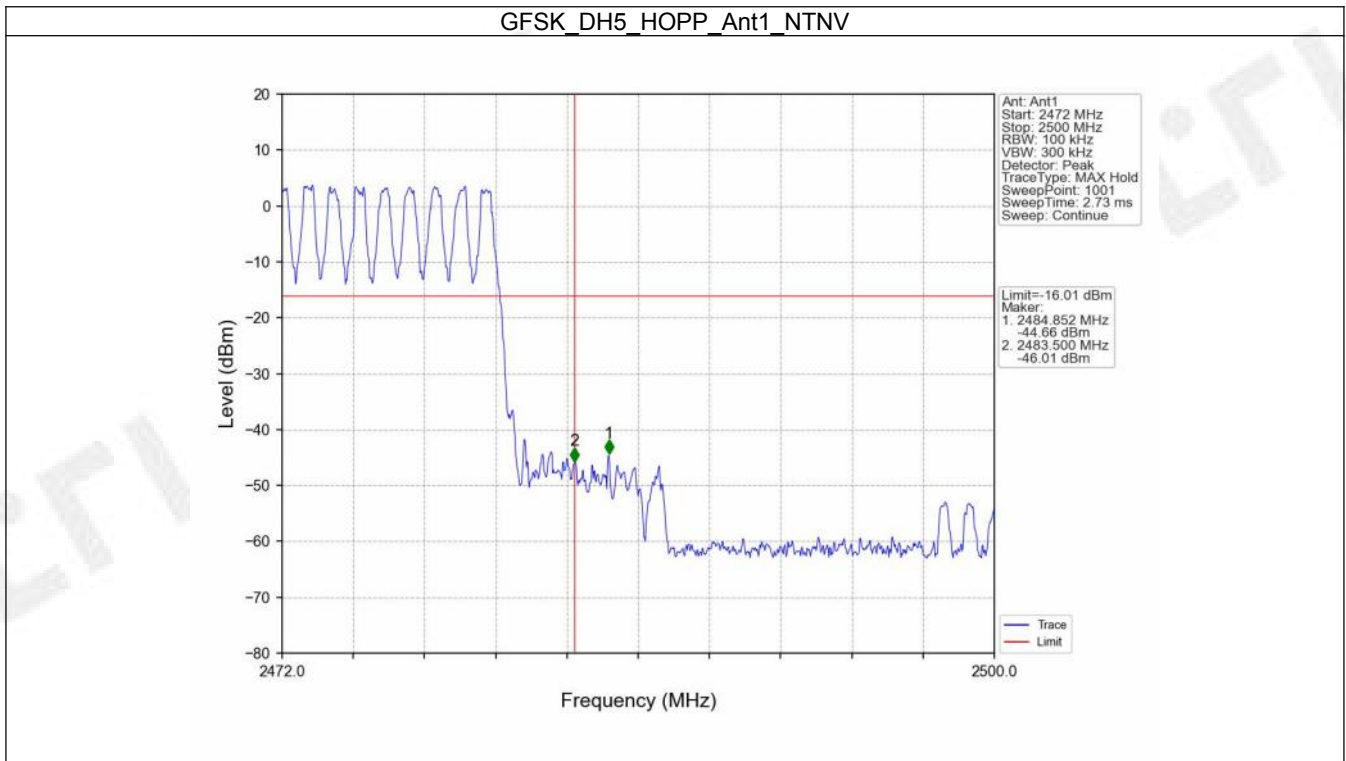
FCCID: 2BG3H-SW50



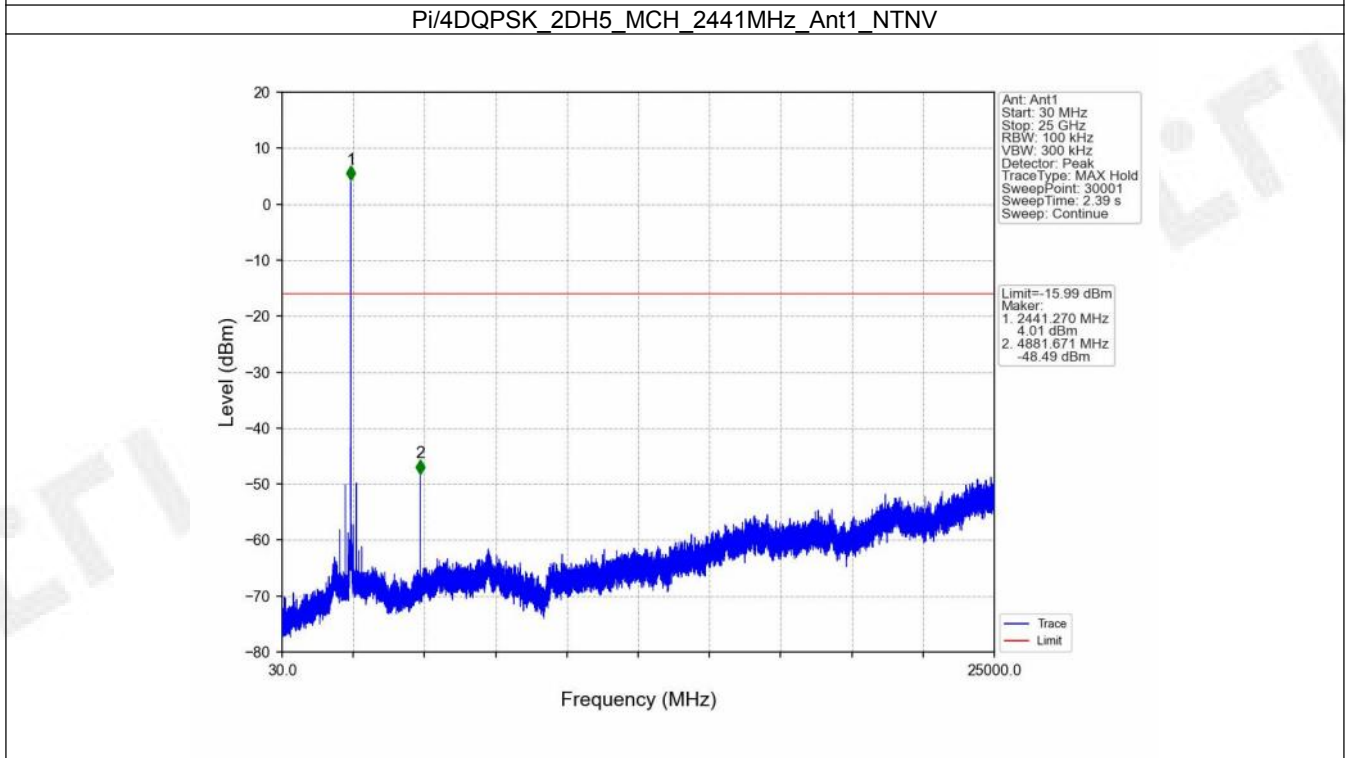
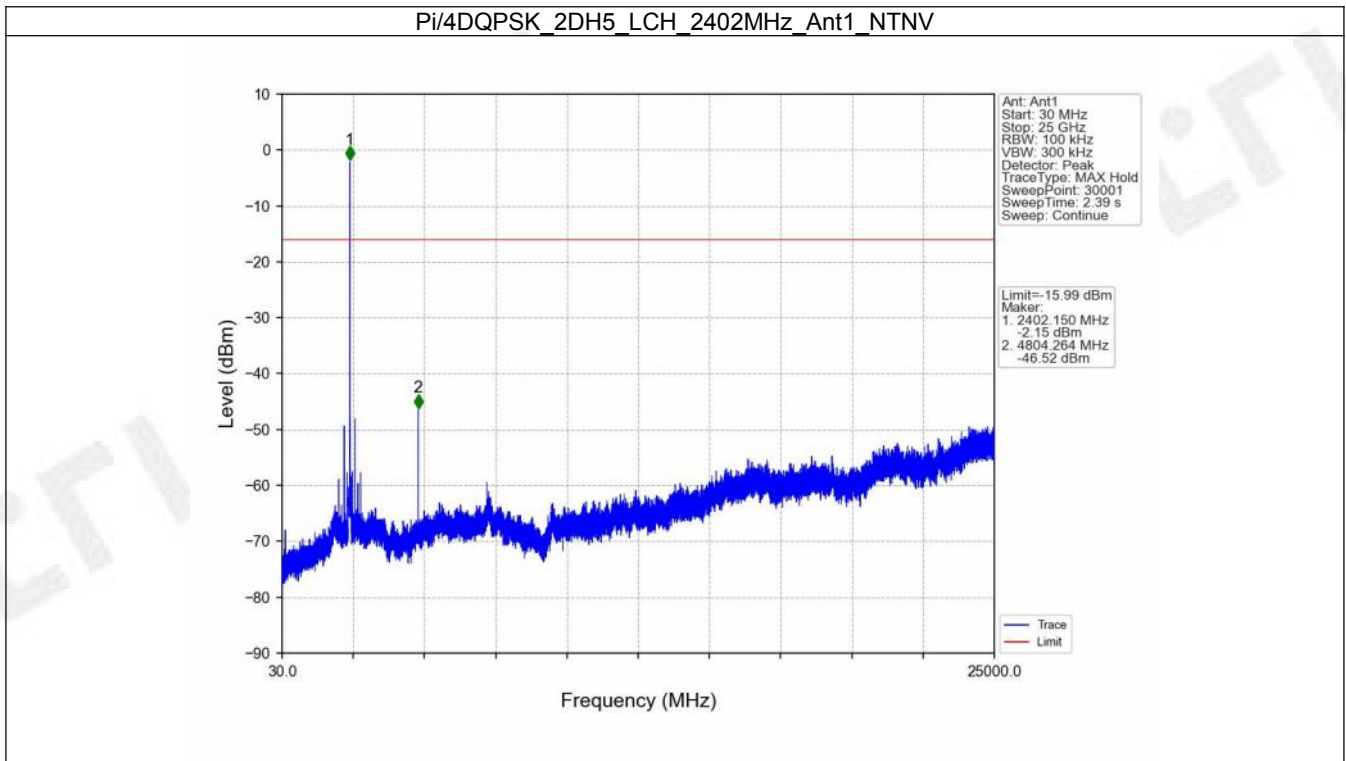
FCCID: 2BG3H-SW50



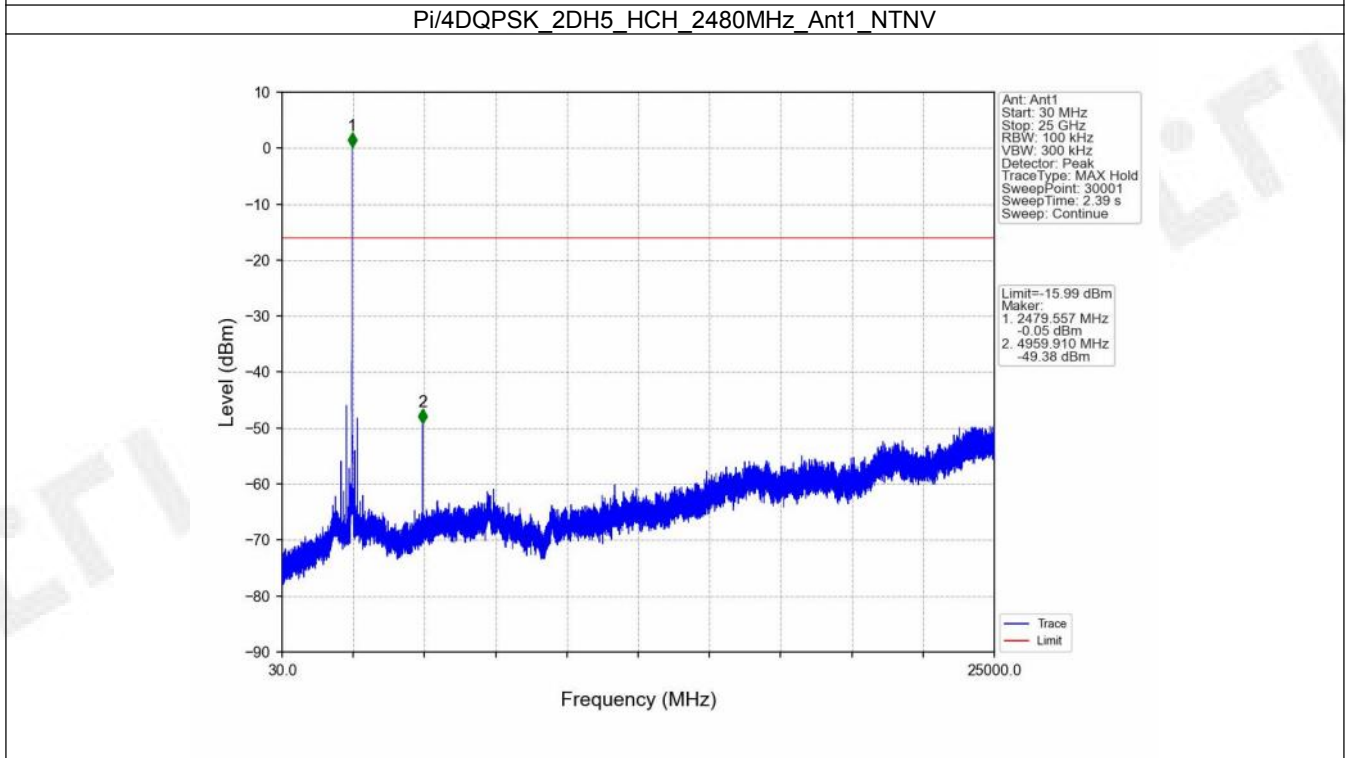
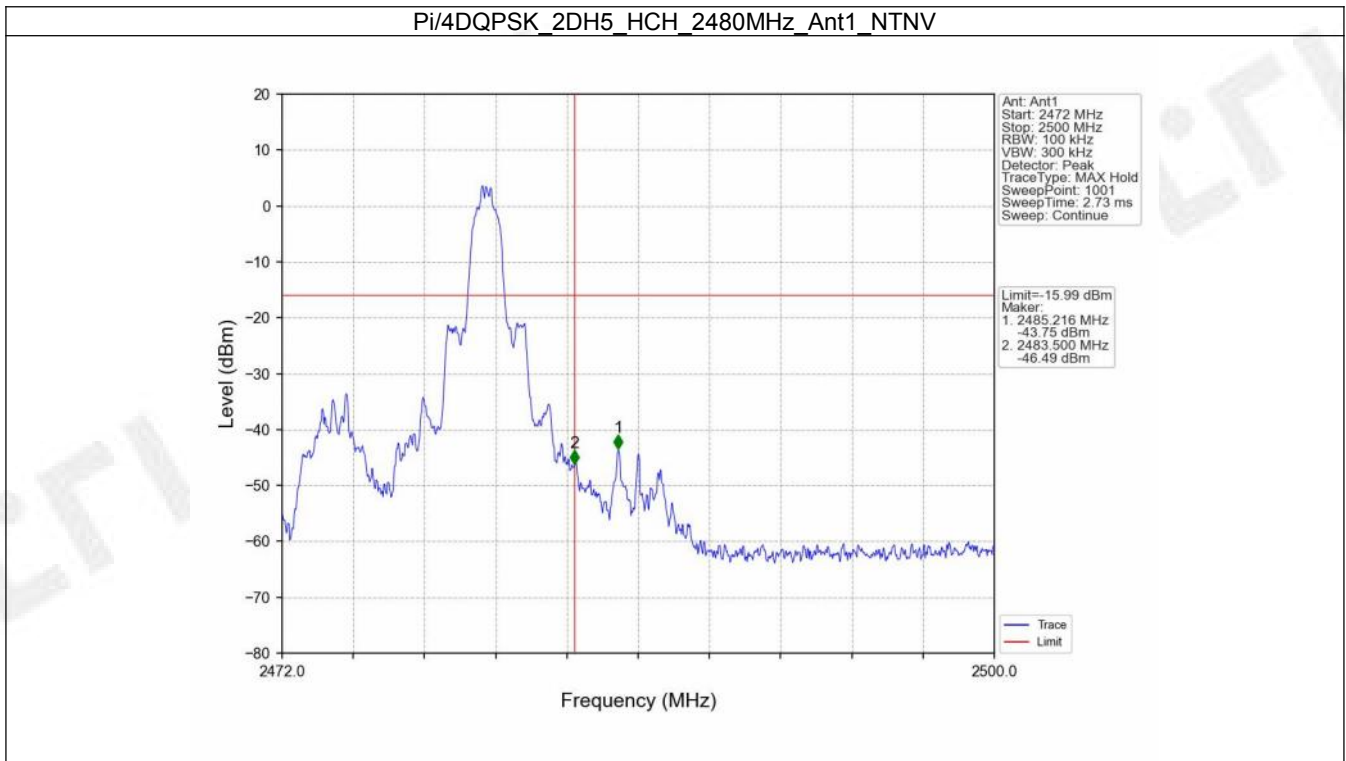
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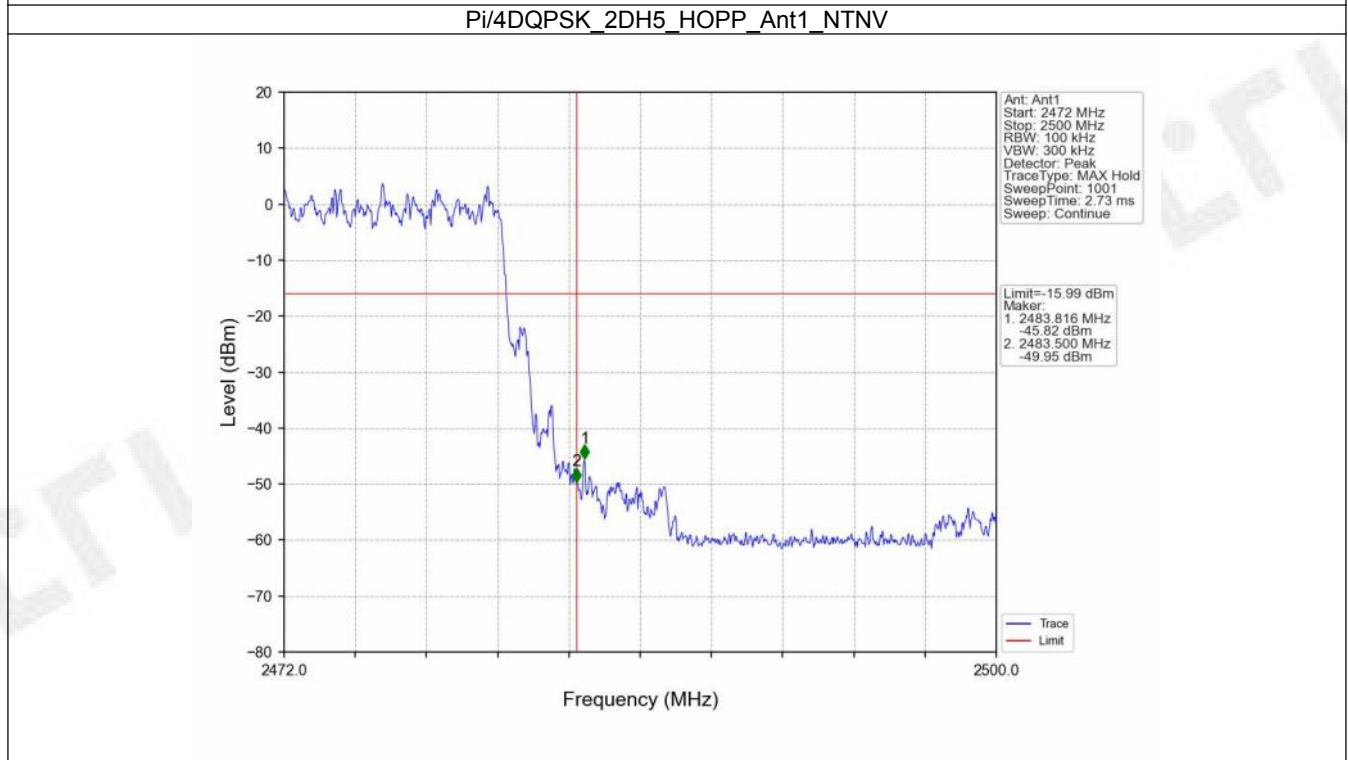
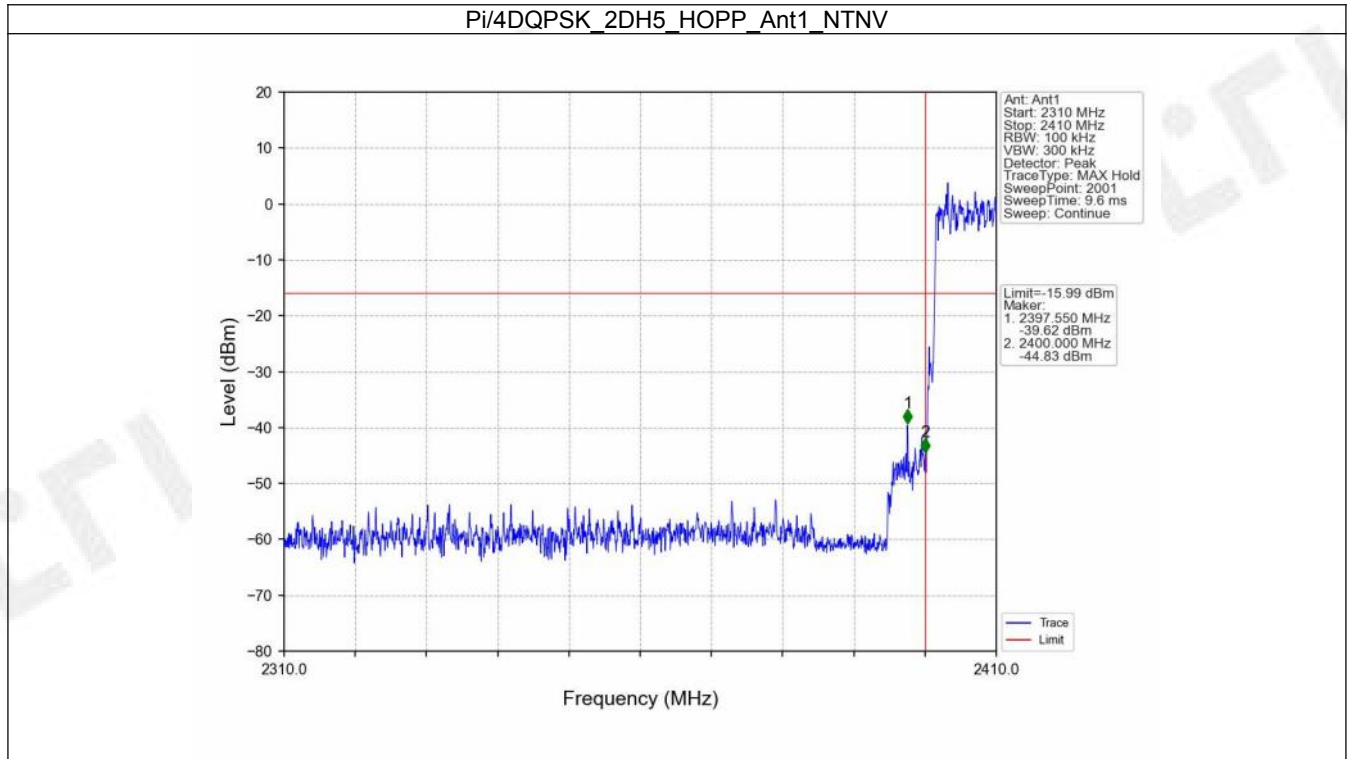
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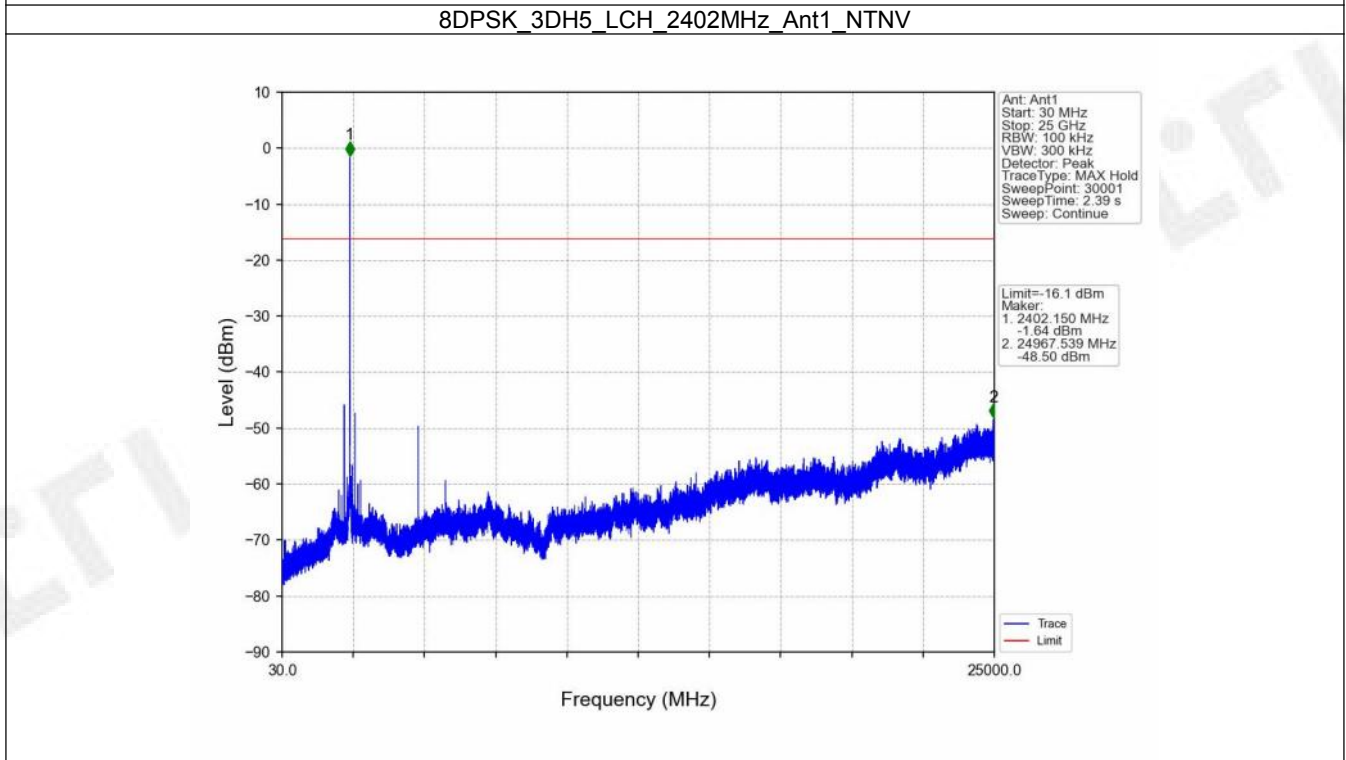
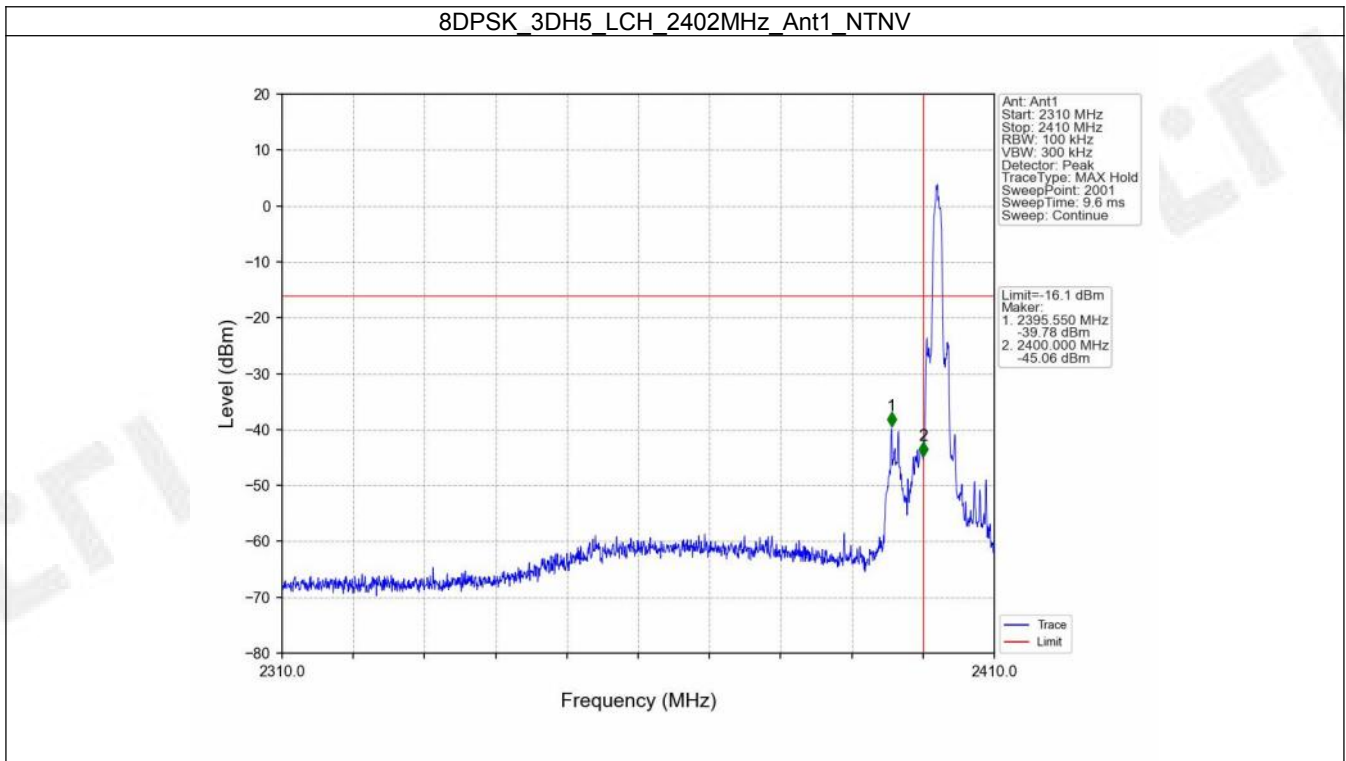
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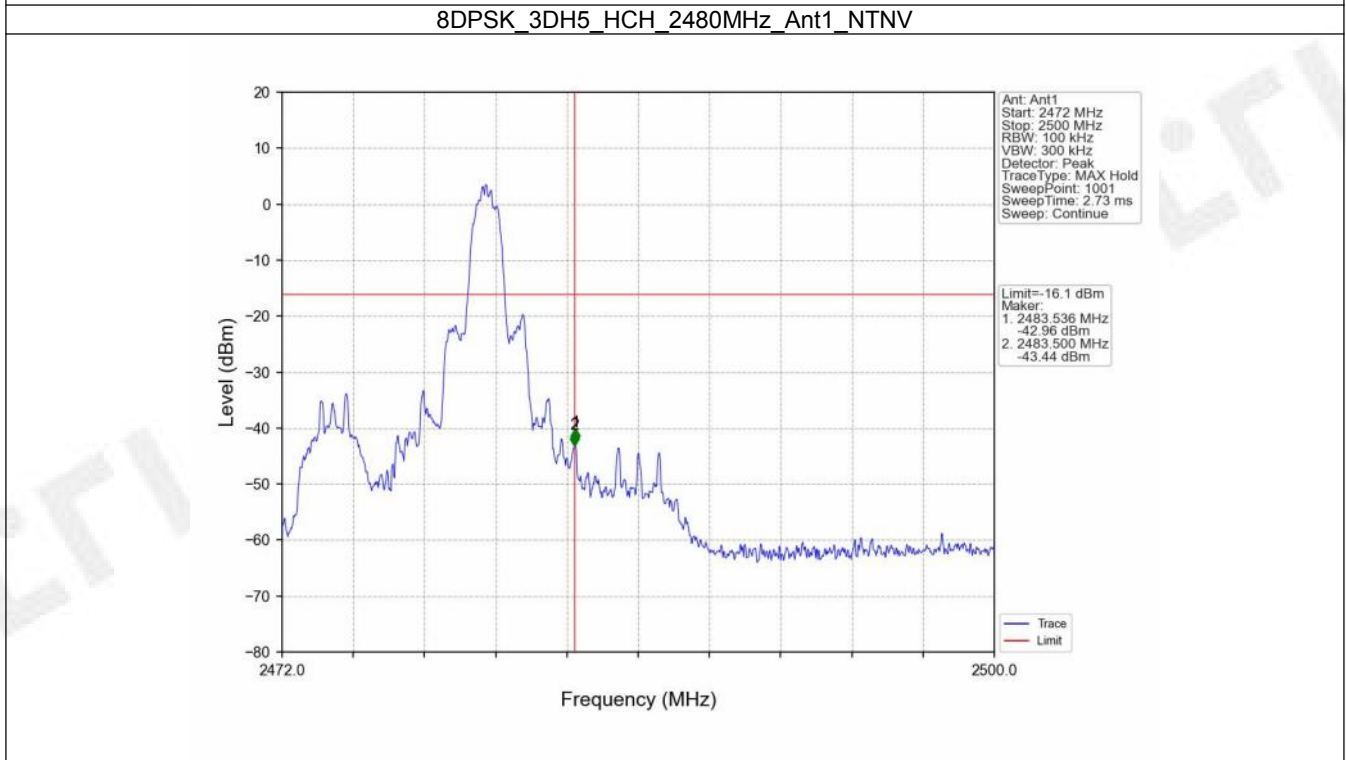
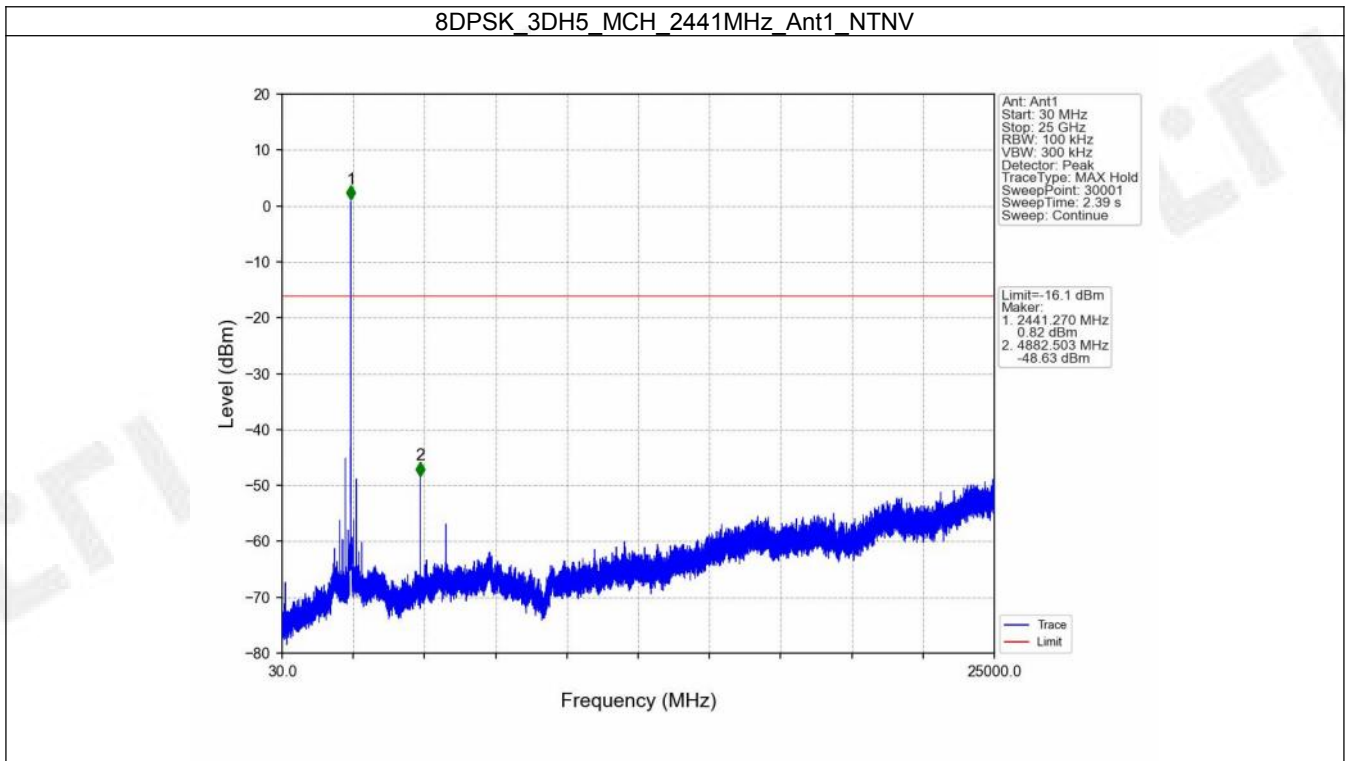
FCCID: 2BG3H-SW50



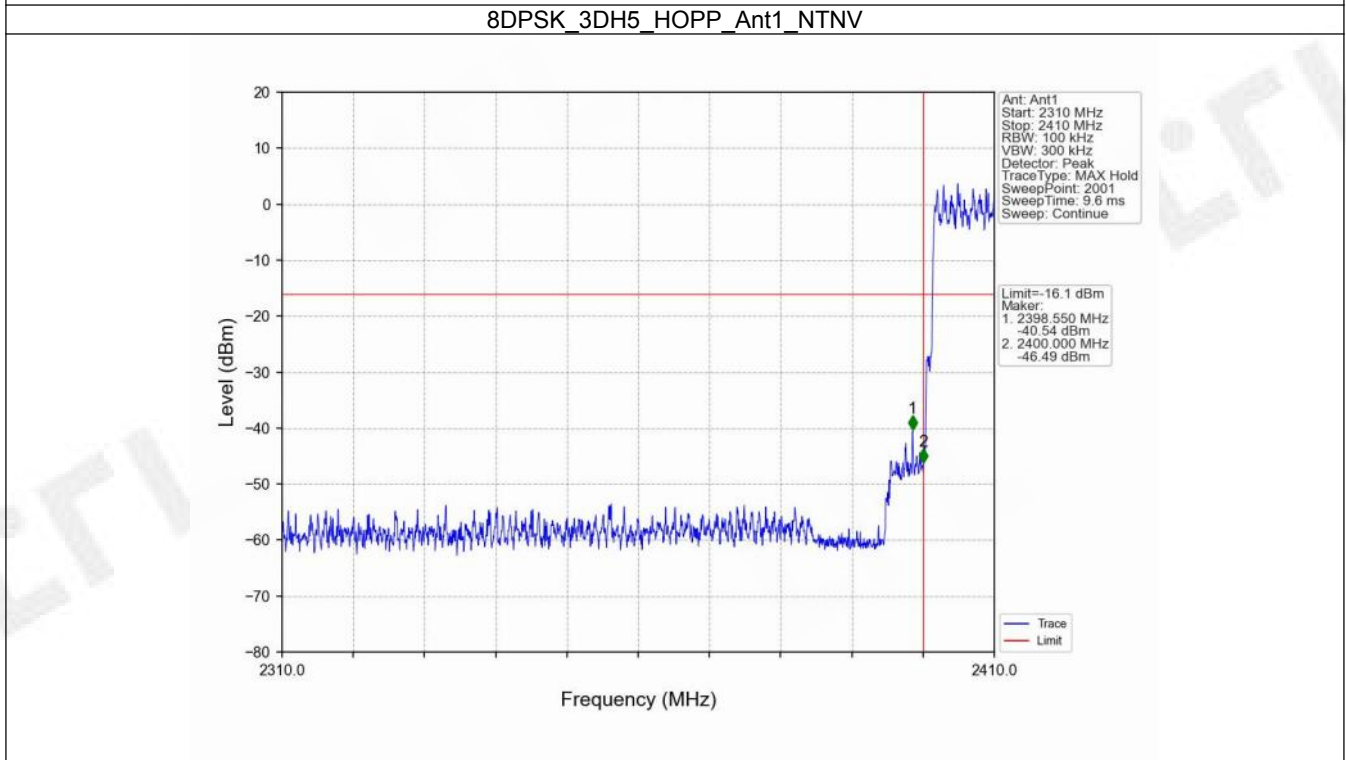
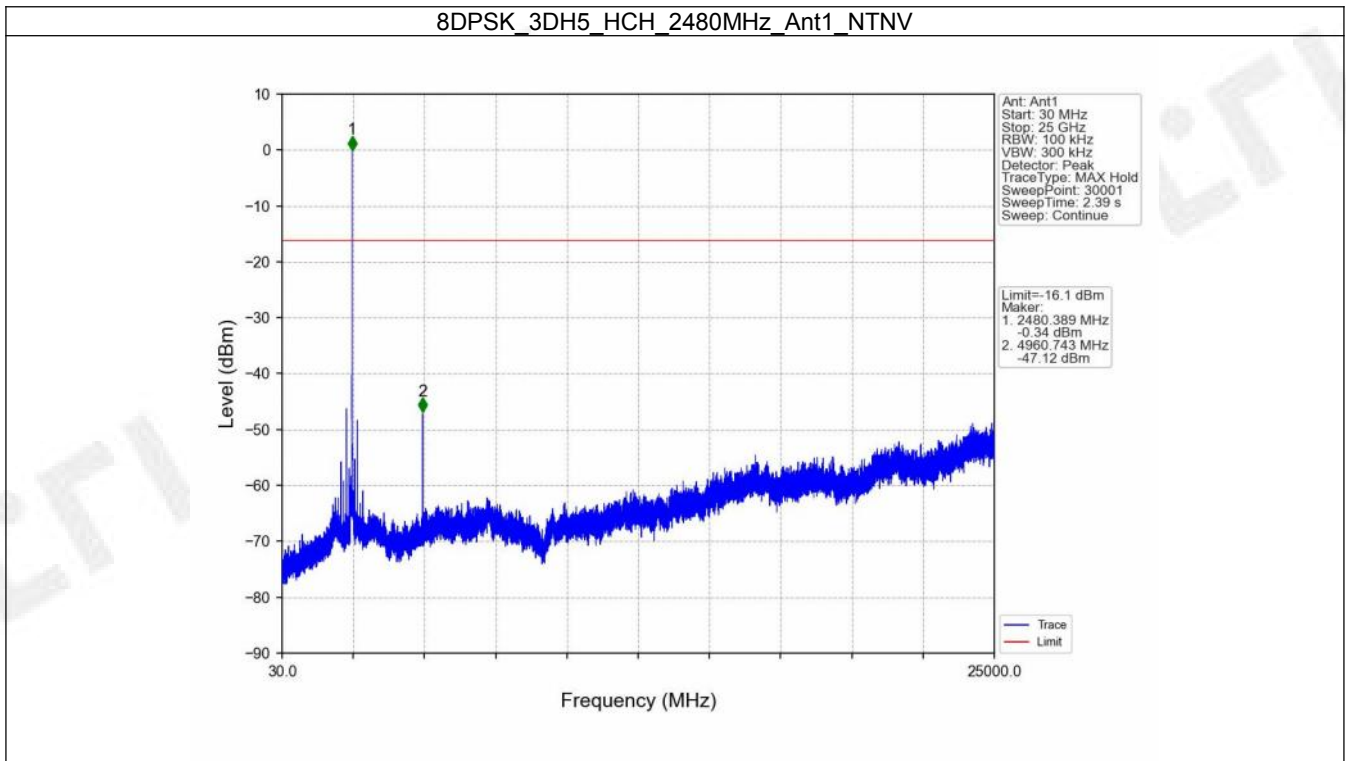
FCCID: 2BG3H-SW50



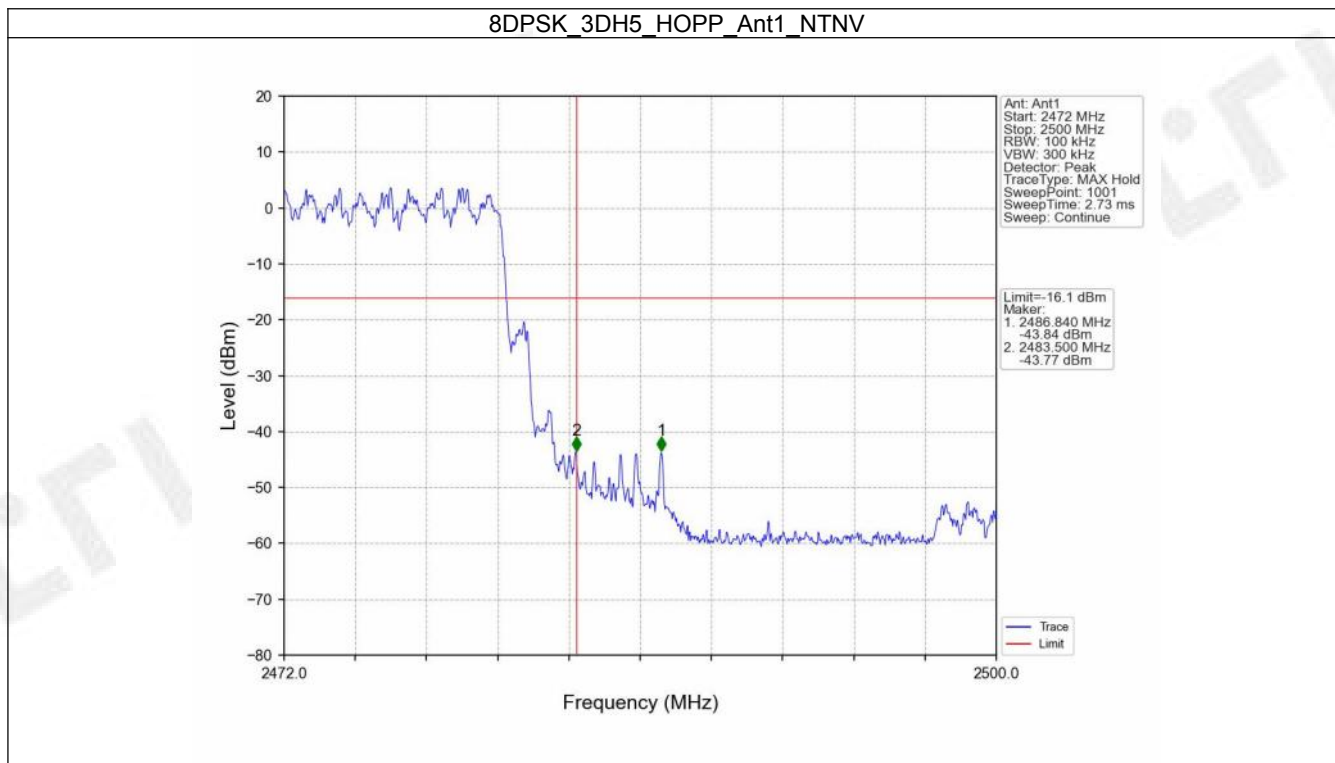
FCCID: 2BG3H-SW50



FCCID: 2BG3H-SW50



FCCID: 2BG3H-SW50



FCCID: 2BG3H-SW50

7. Form731

7.1 Form731

7.1.1 Test Result

| Lower Freq (MHz) | High Freq (MHz) | MAX Power (W) | MAX Power (dBm) |
|------------------|-----------------|---------------|-----------------|
| 2402 | 2480 | 0.0028 | 4.42 |