



## Appendix B

### RF Test Data for BT LE(Conducted Measurement)

Product Name: Projector

Test Model: X3AA

#### Environmental Conditions

|                    |           |
|--------------------|-----------|
| Temperature:       | 23.2°C    |
| Relative Humidity: | 52.7%     |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Jay Luo   |
| Supervised by:     | Nick Peng |



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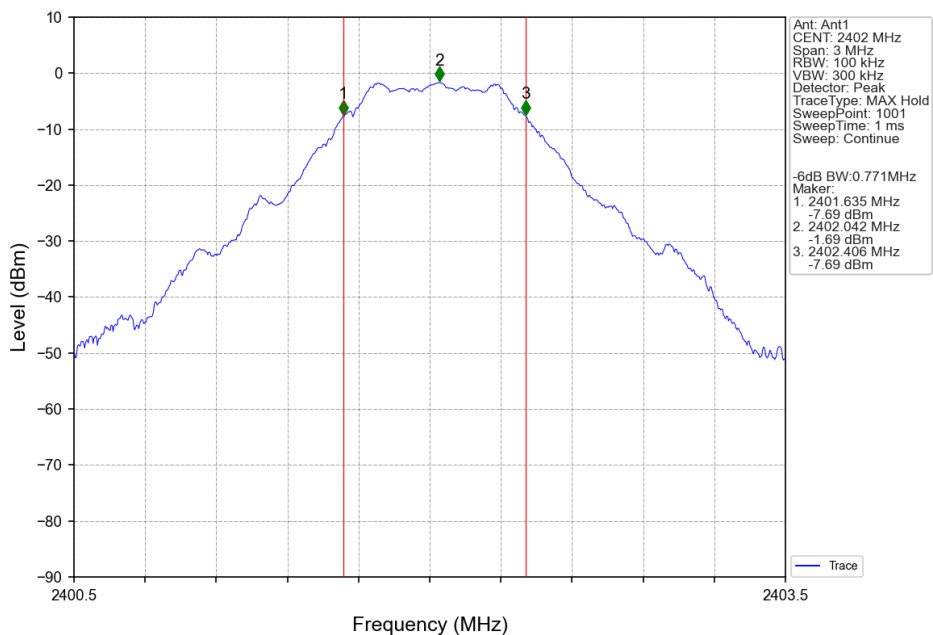
## B.1 -6dB Bandwidth

| Mode | TX Type | Frequency (MHz) | ANT | 6dB Bandwidth (MHz) |            | Verdict |
|------|---------|-----------------|-----|---------------------|------------|---------|
|      |         |                 |     | Result              | Limit      |         |
| 1M   | SISO    | 2402            | 1   | 0.771               | $\geq 0.5$ | Pass    |
|      |         | 2440            | 1   | 0.762               | $\geq 0.5$ | Pass    |
|      |         | 2480            | 1   | 0.734               | $\geq 0.5$ | Pass    |
| 2M   | SISO    | 2402            | 1   | 1.184               | $\geq 0.5$ | Pass    |
|      |         | 2440            | 1   | 1.171               | $\geq 0.5$ | Pass    |
|      |         | 2480            | 1   | 1.179               | $\geq 0.5$ | Pass    |

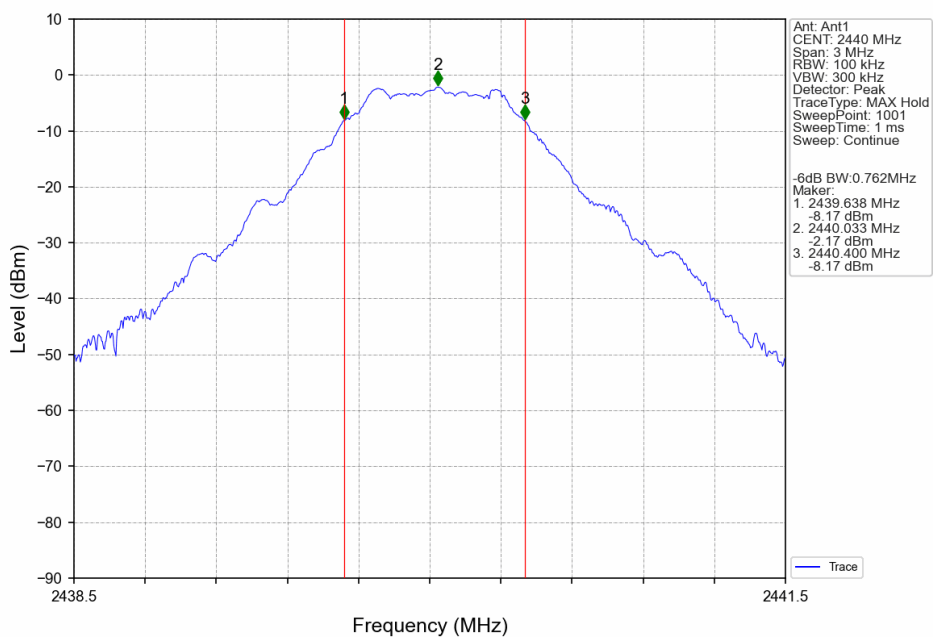




## 1M\_LCH\_2402MHz\_Ant1\_NTNV



## 1M\_MCH\_2440MHz\_Ant1\_NTNV



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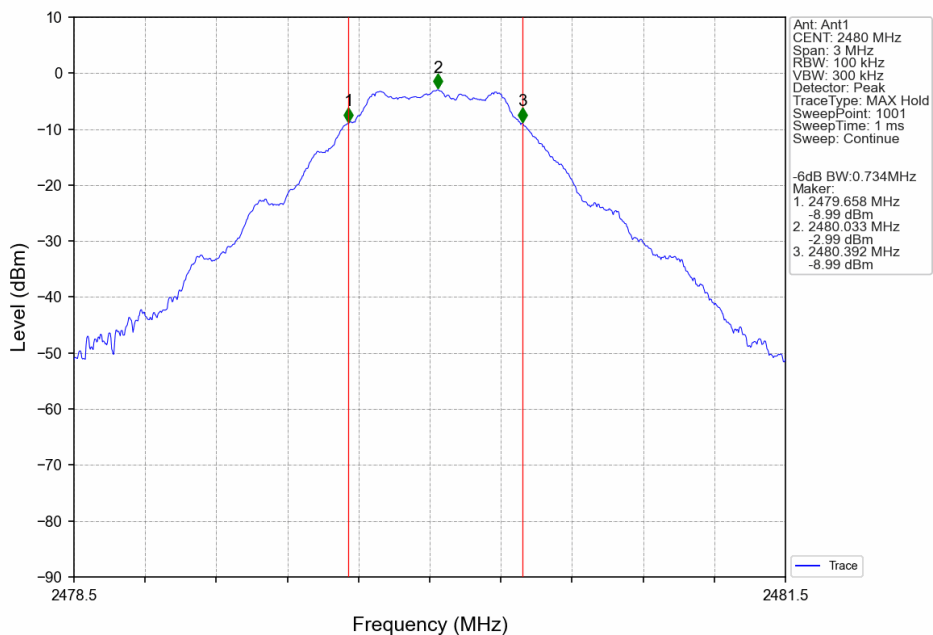
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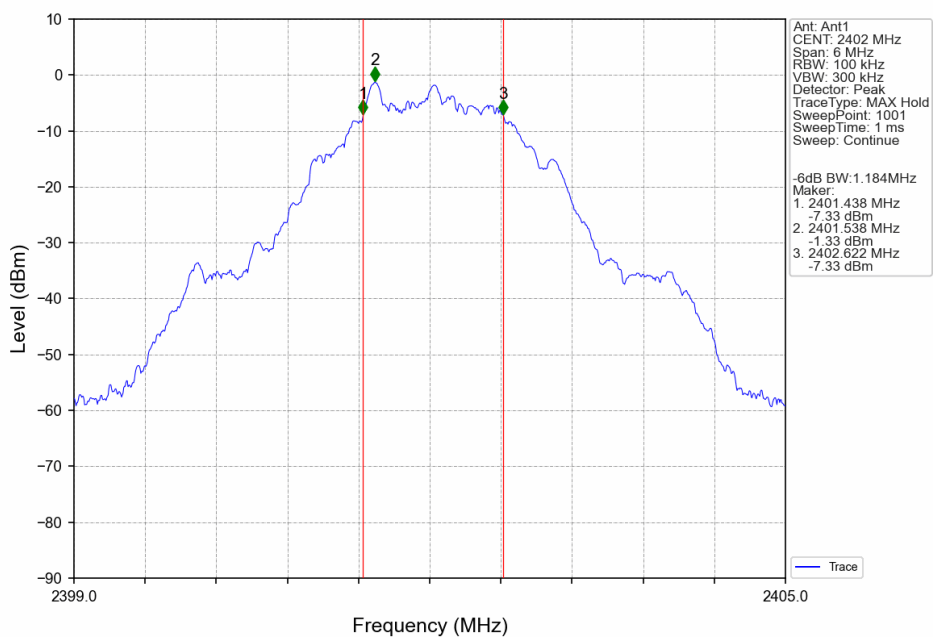
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## 1M\_HCH\_2480MHz\_Ant1\_NTNV



## 2M\_LCH\_2402MHz\_Ant1\_NTNV



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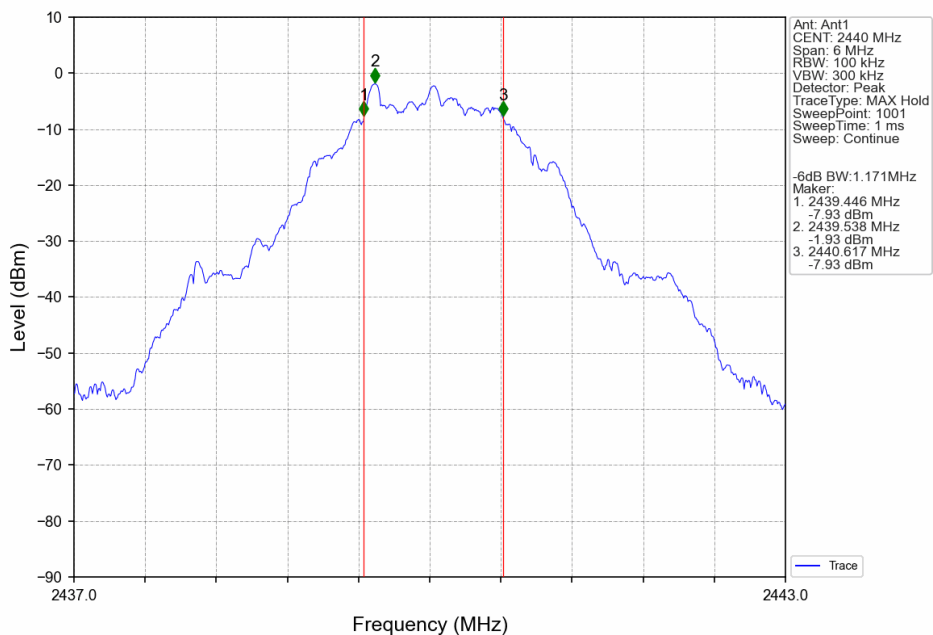
Add: 101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

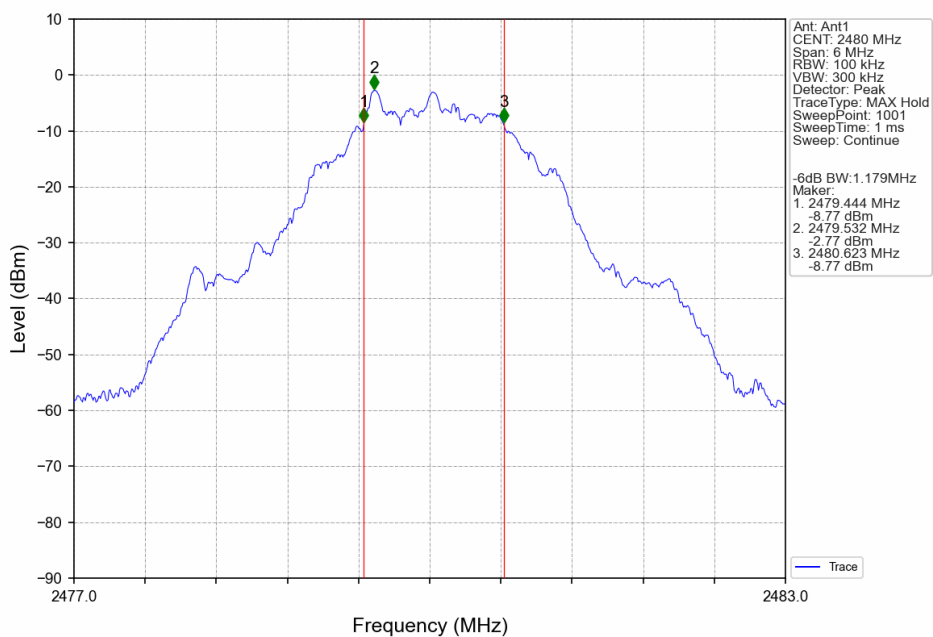
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## 2M\_MCH\_2440MHz\_Ant1\_NTNV



## 2M\_HCH\_2480MHz\_Ant1\_NTNV





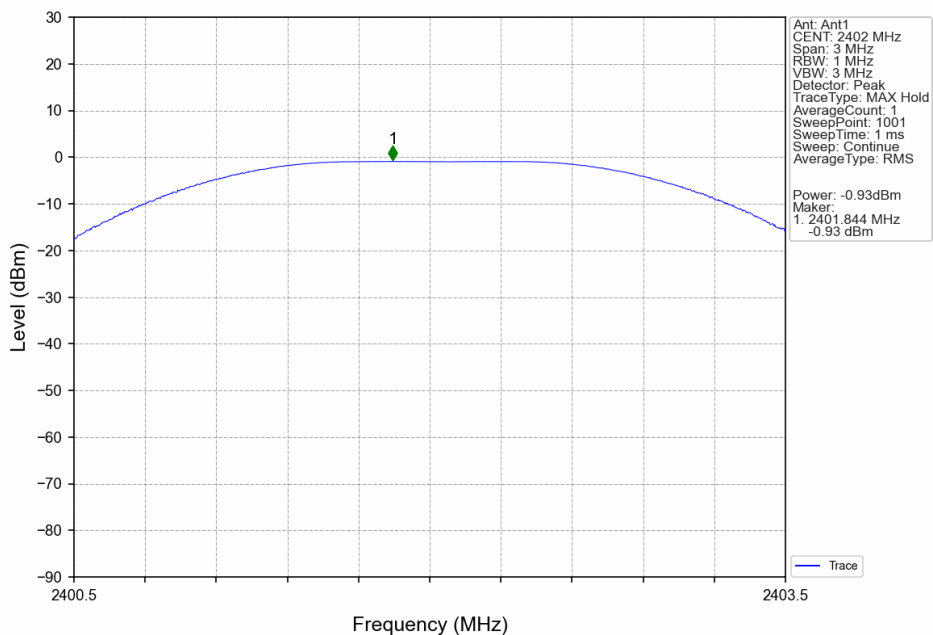
## B.2 Maximum Peak Conducted Output Power

| Mode | TX Type | Frequency (MHz) | Maximum Peak Conducted Output Power (dBm) |       | Verdict |
|------|---------|-----------------|-------------------------------------------|-------|---------|
|      |         |                 | ANT1                                      | Limit |         |
| 1M   | SISO    | 2402            | -0.93                                     | <=30  | Pass    |
|      |         | 2440            | -1.53                                     | <=30  | Pass    |
|      |         | 2480            | -2.33                                     | <=30  | Pass    |
| 2M   | SISO    | 2402            | -0.93                                     | <=30  | Pass    |
|      |         | 2440            | -1.50                                     | <=30  | Pass    |
|      |         | 2480            | -2.31                                     | <=30  | Pass    |

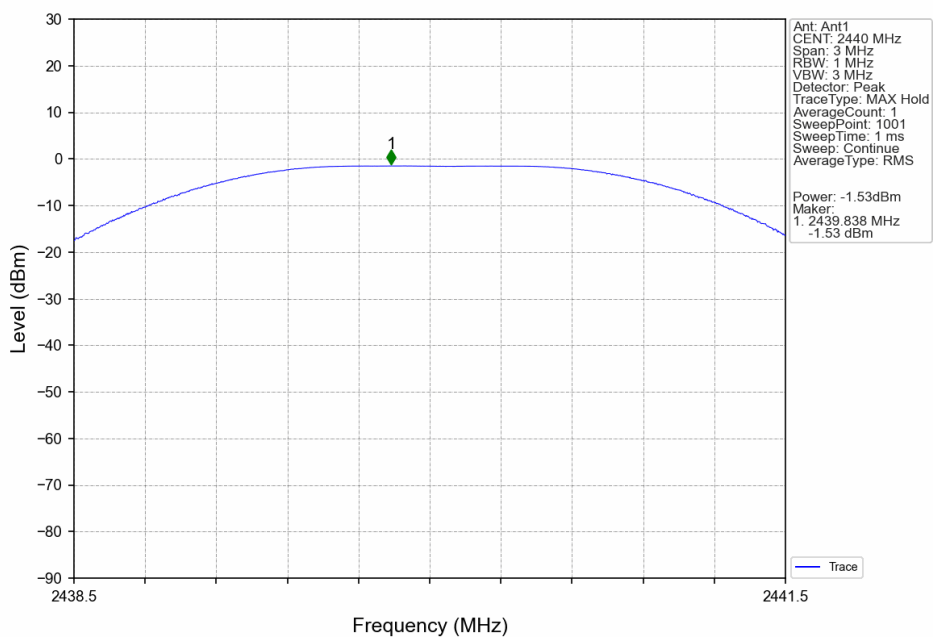




## 1M\_LCH\_2402MHz\_Ant1\_NTNV



## 1M\_MCH\_2440MHz\_Ant1\_NTNV



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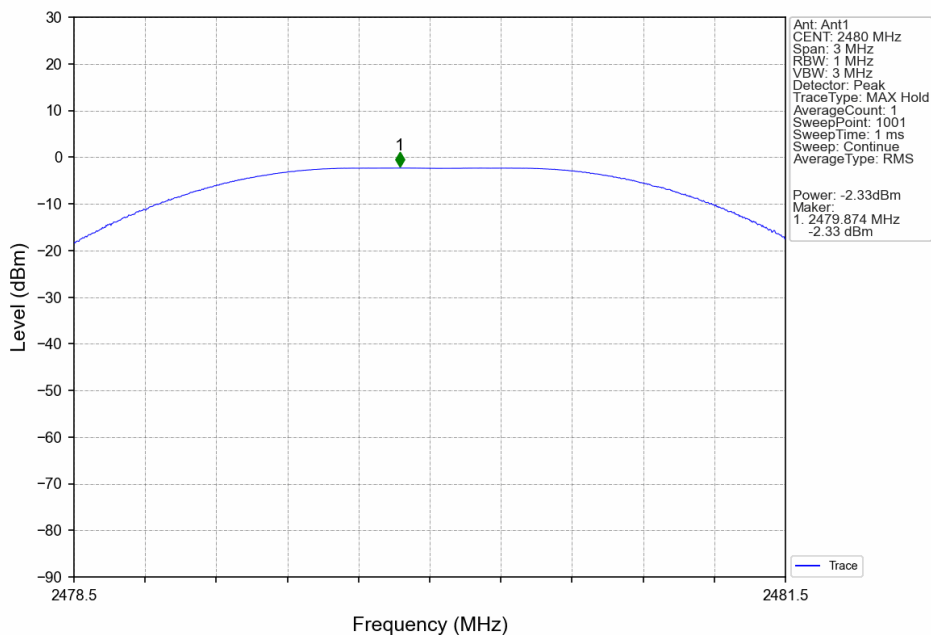
Add: 101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

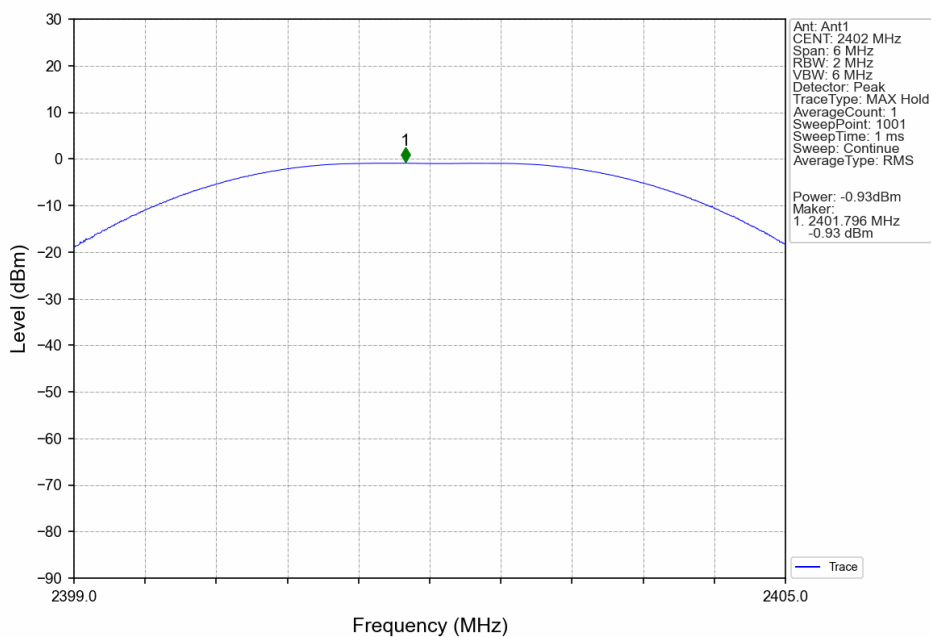
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## 1M\_HCH\_2480MHz\_Ant1\_NTNV



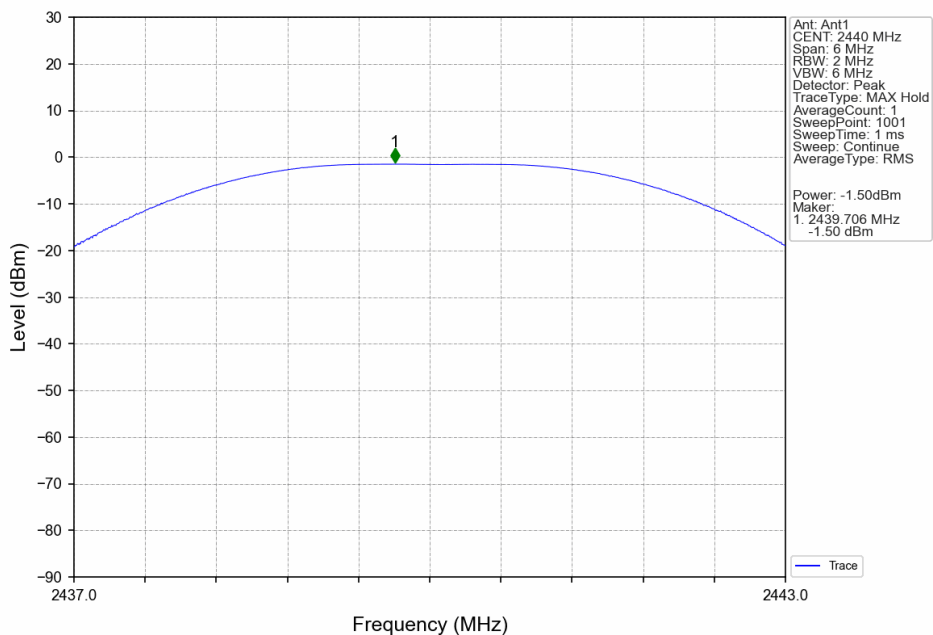
## 2M\_LCH\_2402MHz\_Ant1\_NTNV



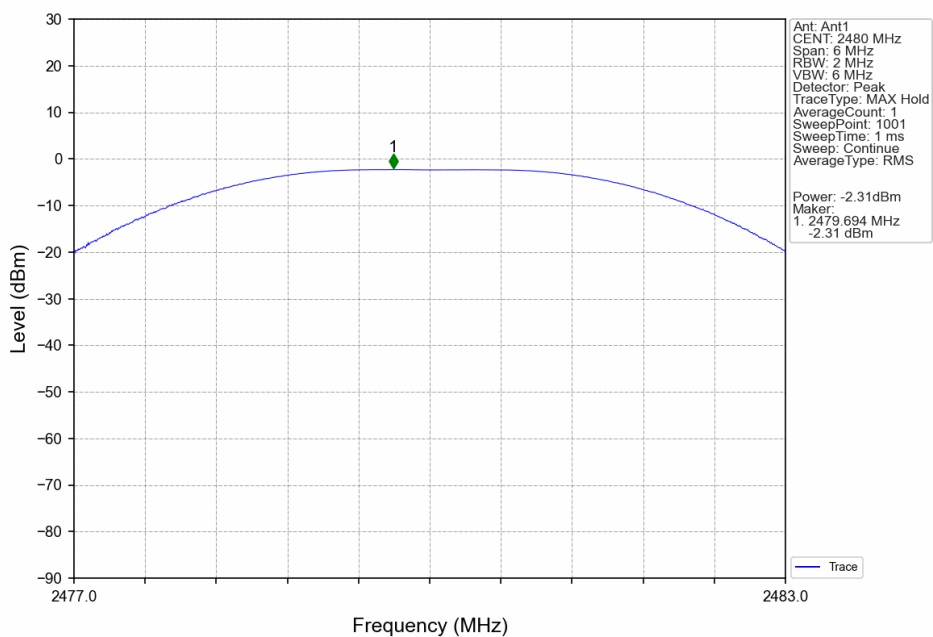




## 2M\_MCH\_2440MHz\_Ant1\_NTNV



## 2M\_HCH\_2480MHz\_Ant1\_NTNV





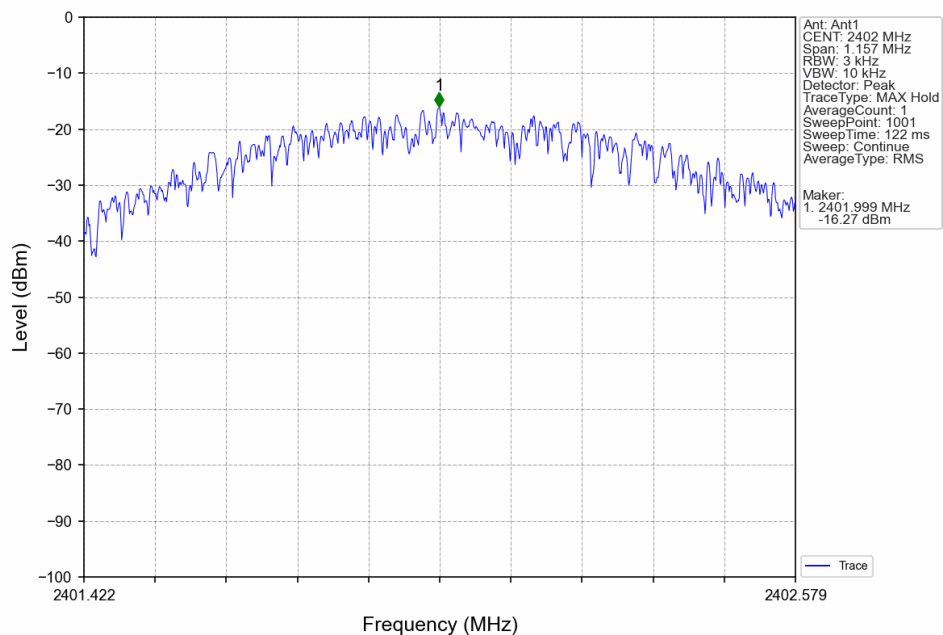
### B.3 Maximum Power Spectral Density Level

| Mode | TX Type | Frequency (MHz) | Maximum PSD (dBm/3kHz) |       | Verdict |
|------|---------|-----------------|------------------------|-------|---------|
|      |         |                 | ANT1                   | Limit |         |
| 1M   | SISO    | 2402            | -16.27                 | <=8   | Pass    |
|      |         | 2440            | -16.86                 | <=8   | Pass    |
|      |         | 2480            | -17.93                 | <=8   | Pass    |
| 2M   | SISO    | 2402            | -19.69                 | <=8   | Pass    |
|      |         | 2440            | -19.80                 | <=8   | Pass    |
|      |         | 2480            | -20.56                 | <=8   | Pass    |

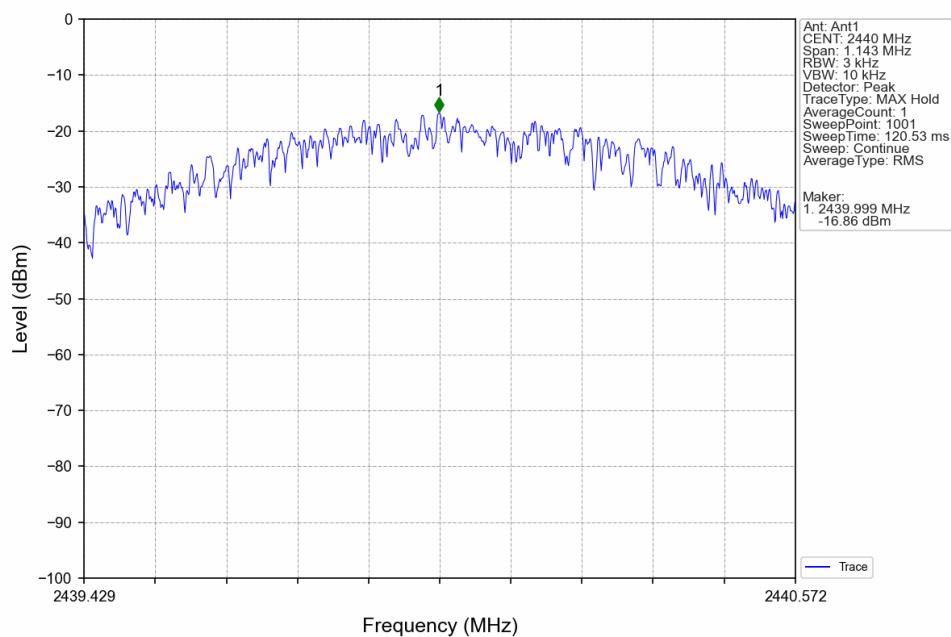




1M\_LCH\_2402MHz\_Ant1\_NTNV



1M\_MCH\_2440MHz\_Ant1\_NTNV



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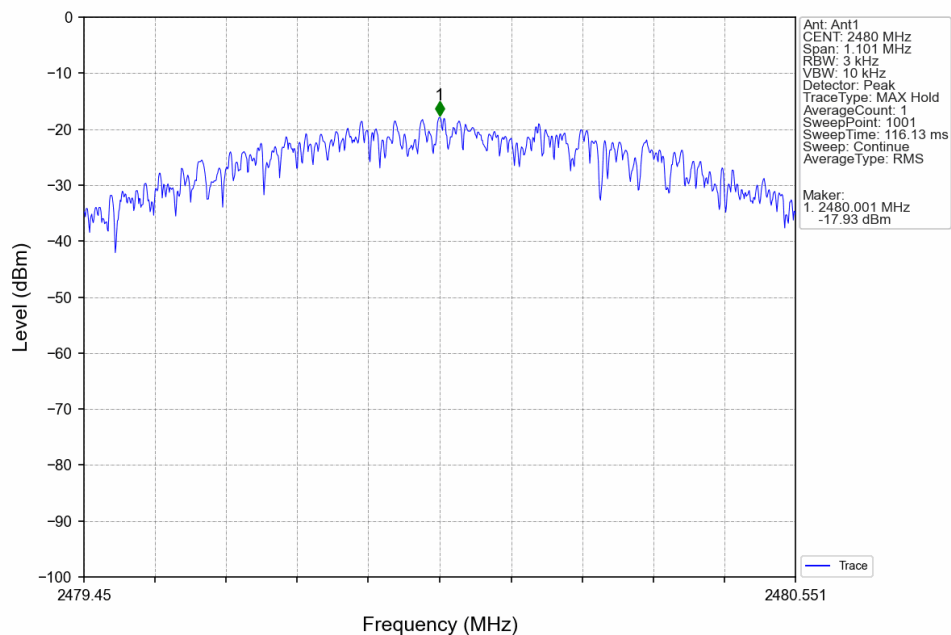
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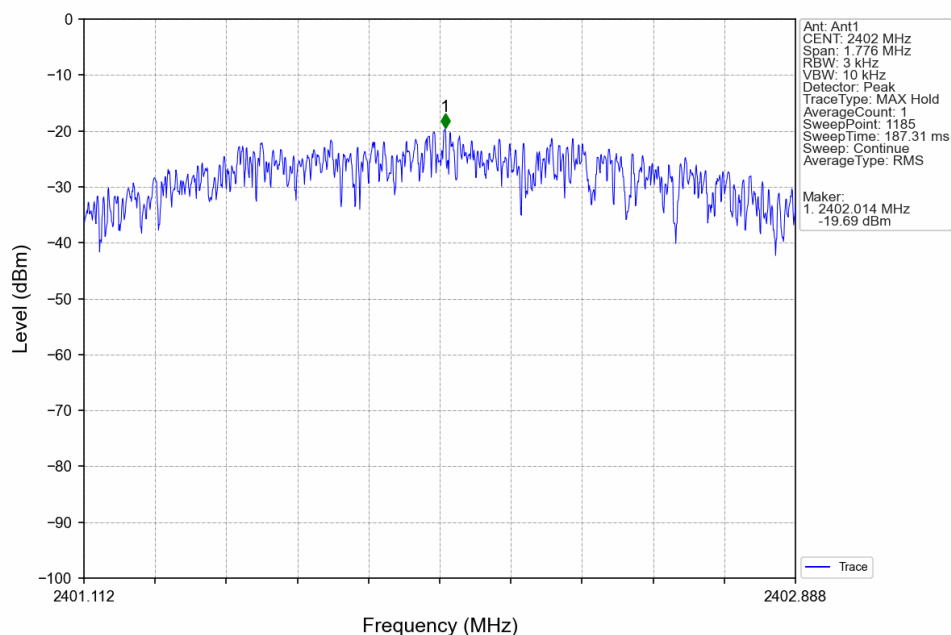
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## 1M\_HCH\_2480MHz\_Ant1\_NTNV



## 2M\_LCH\_2402MHz\_Ant1\_NTNV



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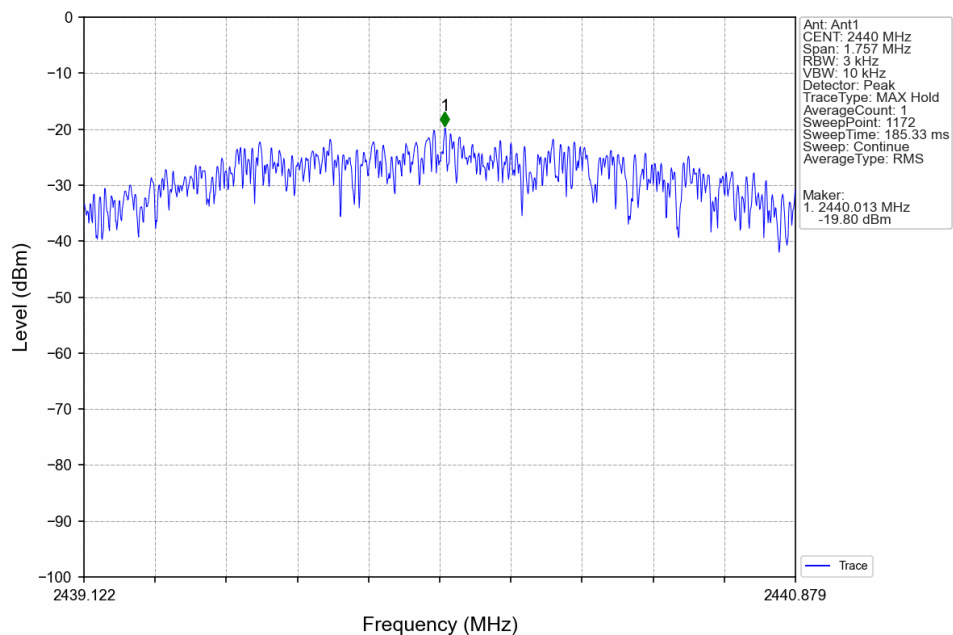
Add: 101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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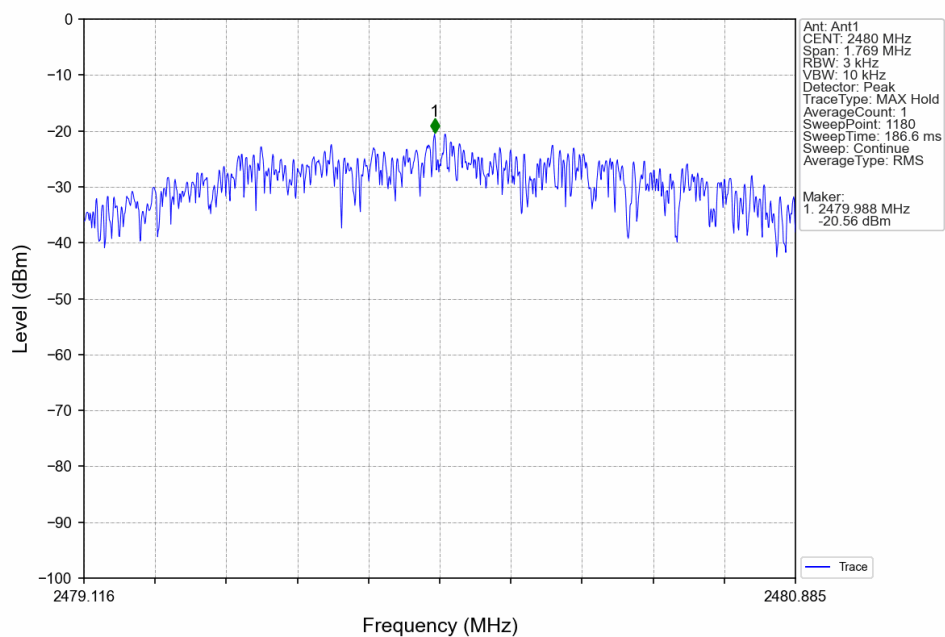
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## 2M\_MCH\_2440MHz\_Ant1\_NTNV



## 2M\_HCH\_2480MHz\_Ant1\_NTNV





## B.4 Band Edge

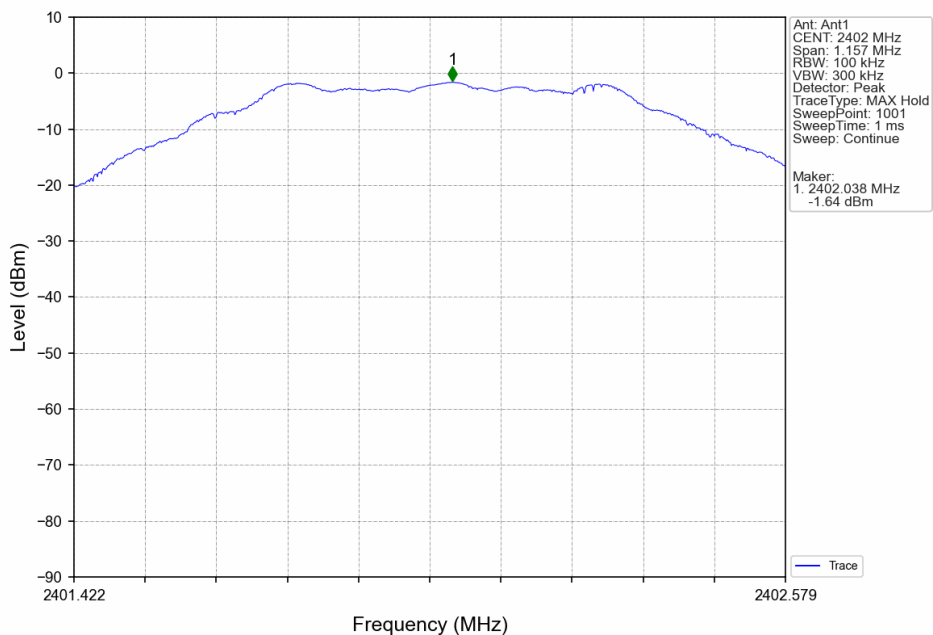
| Mode | TX Type | Frequency (MHz) | ANT | Level of Reference (dBm) | Limit (dBm) | Verdict |
|------|---------|-----------------|-----|--------------------------|-------------|---------|
| 1M   | SISO    | 2402            | 1   | -1.64                    | -21.64      | Pass    |
|      |         | 2440            | 1   | -2.15                    | -22.15      | Pass    |
|      |         | 2480            | 1   | -2.99                    | -22.99      | Pass    |
| 2M   | SISO    | 2402            | 1   | -1.38                    | -21.38      | Pass    |
|      |         | 2440            | 1   | -1.97                    | -21.97      | Pass    |
|      |         | 2480            | 1   | -2.80                    | -22.80      | 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.

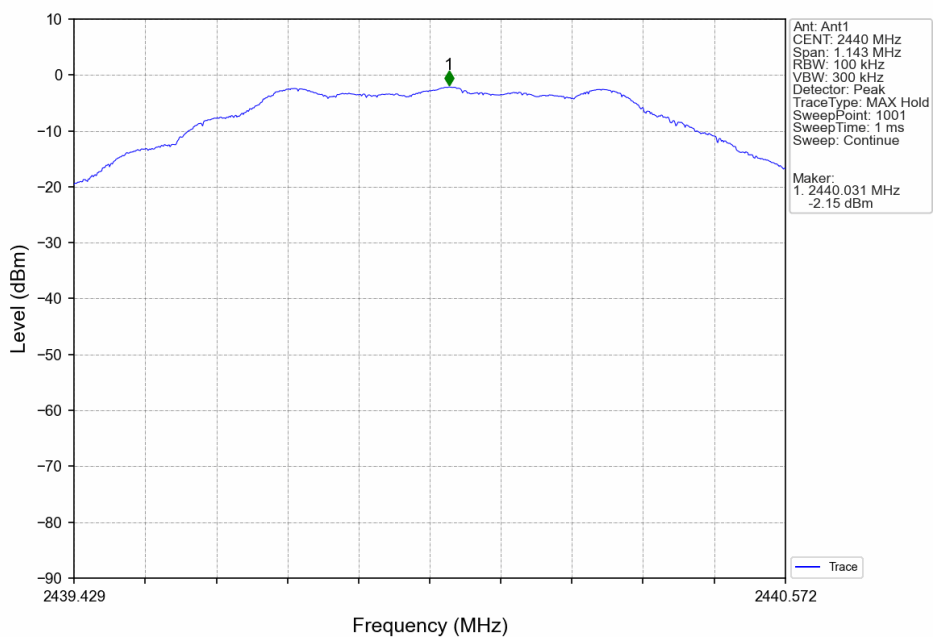




1M\_LCH\_2402MHz\_Ant1\_NTNV

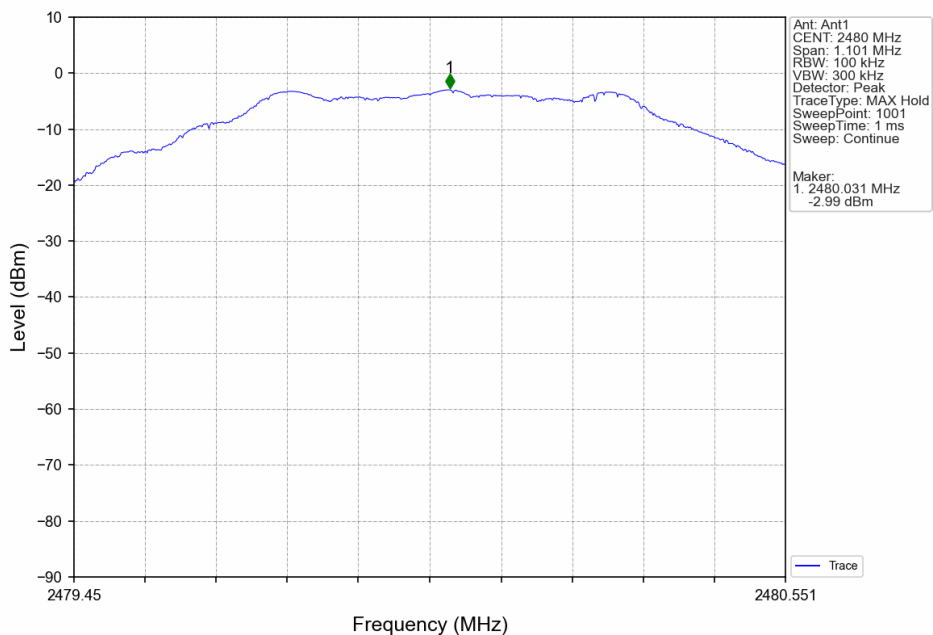


1M\_MCH\_2440MHz\_Ant1\_NTNV

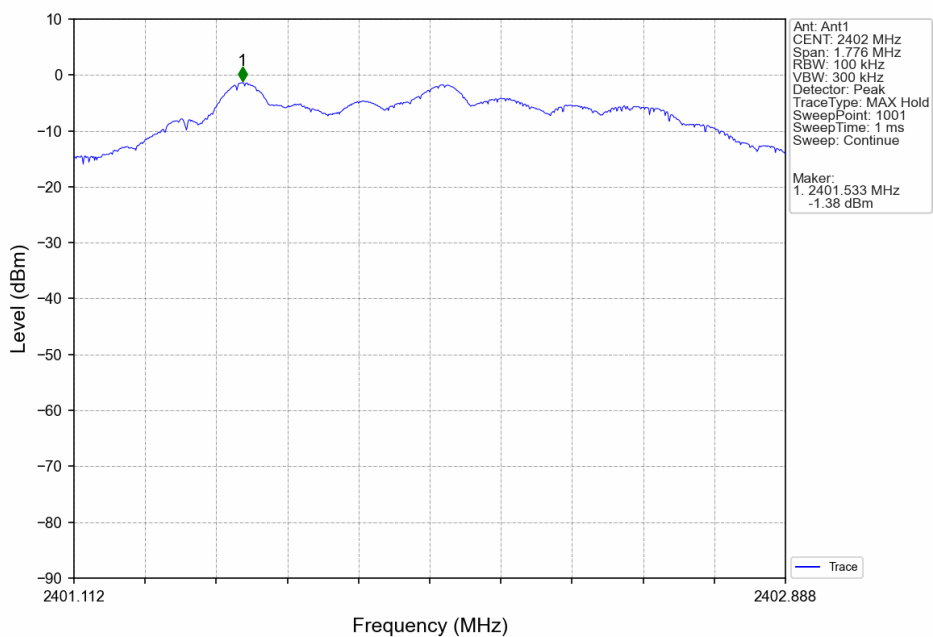




## 1M\_HCH\_2480MHz\_Ant1\_NTNV



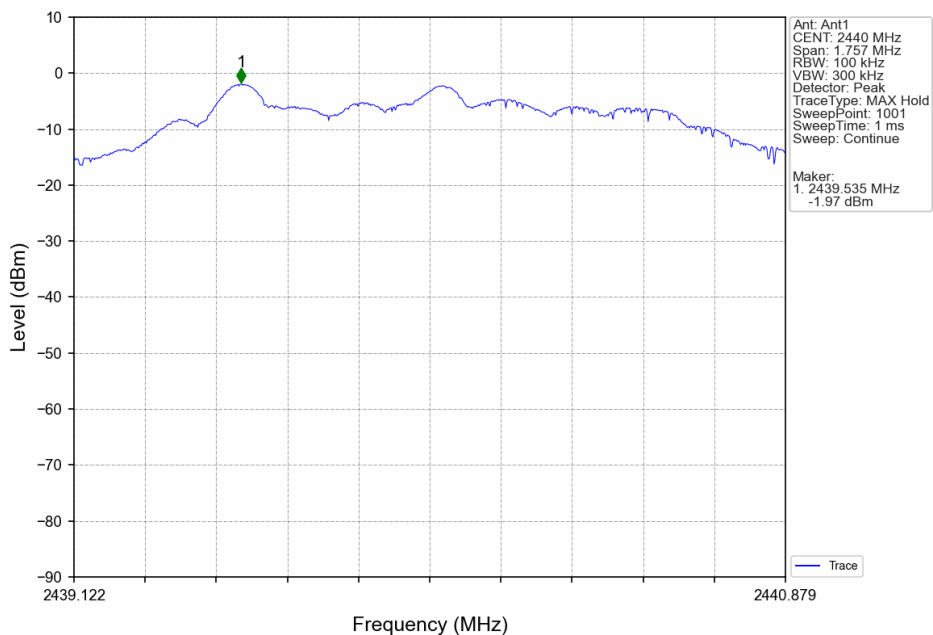
## 2M\_LCH\_2402MHz\_Ant1\_NTNV



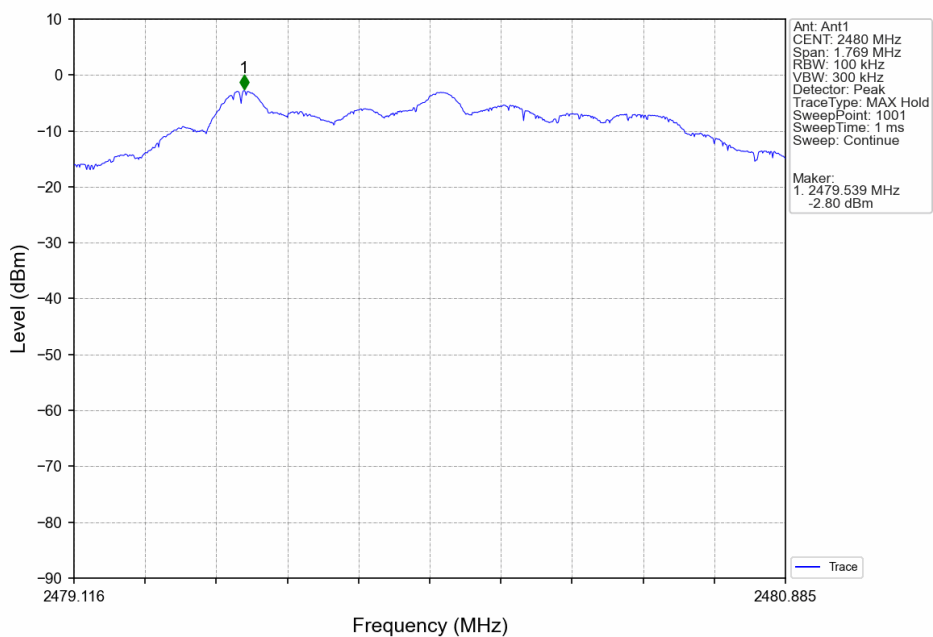




## 2M\_MCH\_2440MHz\_Ant1\_NTNV

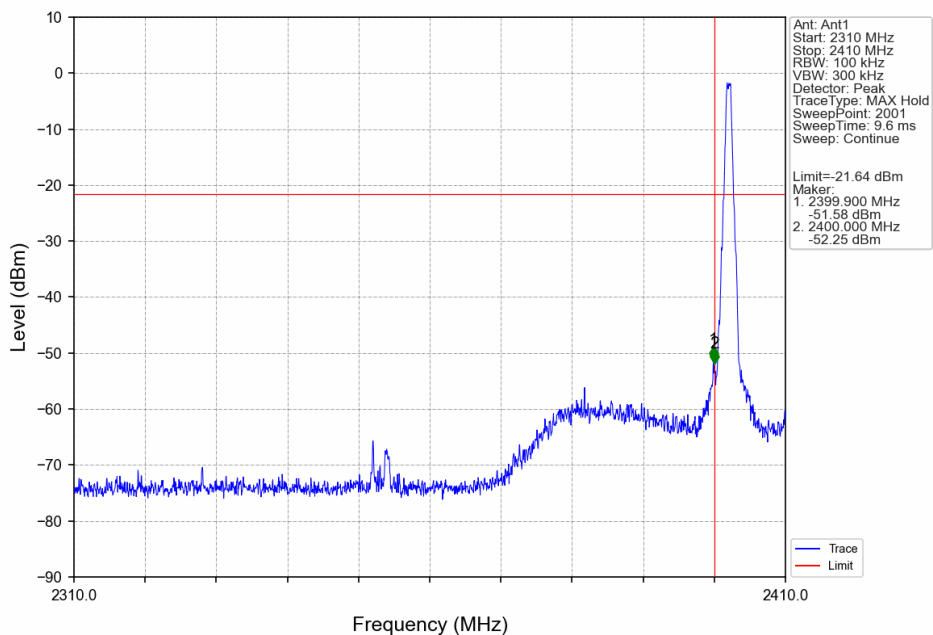


## 2M\_HCH\_2480MHz\_Ant1\_NTNV

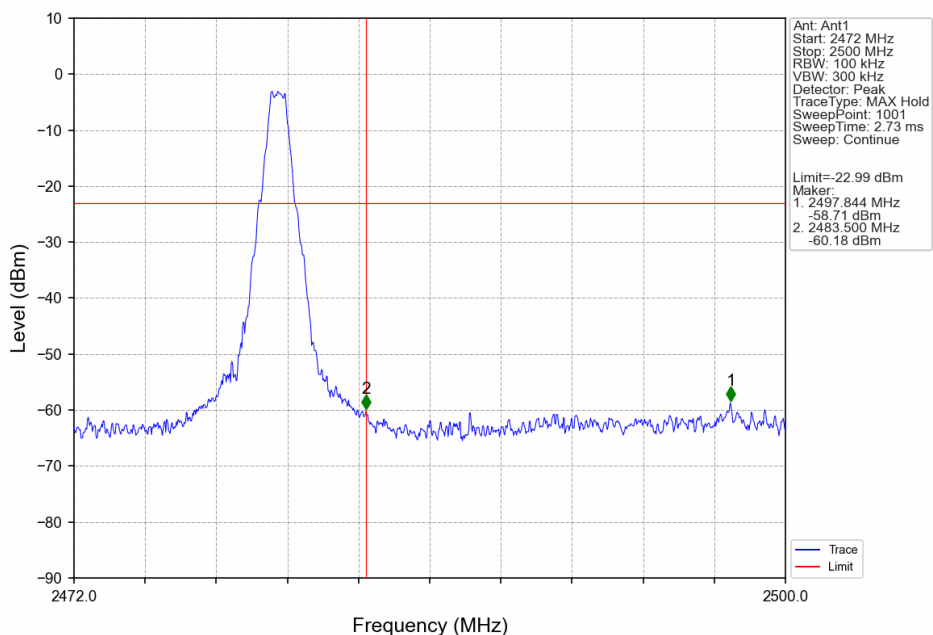




## 1M\_LCH\_2402MHz\_Ant1\_NTNV



## 1M\_HCH\_2480MHz\_Ant1\_NTNV



## 2M\_LCH\_2402MHz\_Ant1\_NTNV

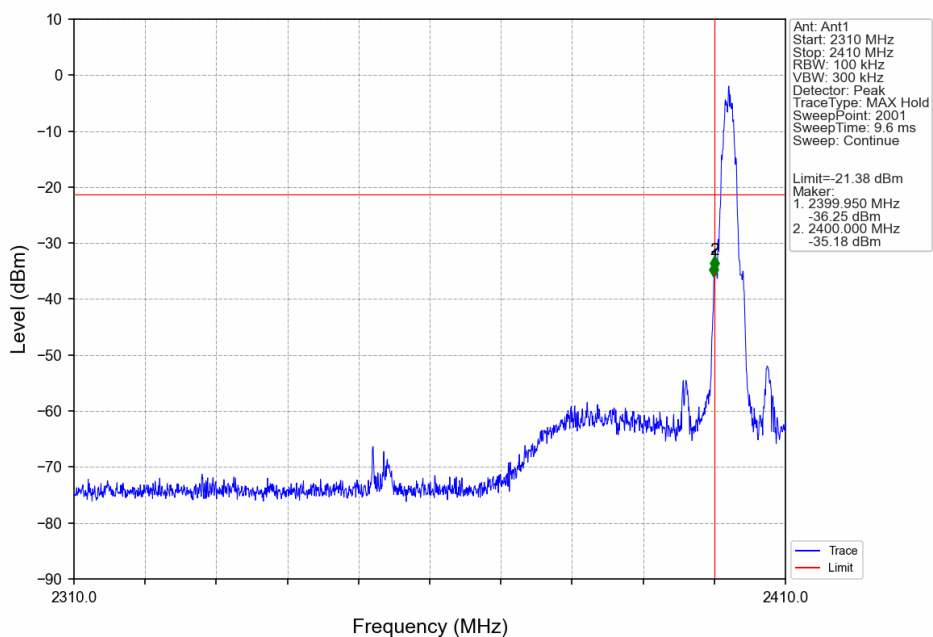


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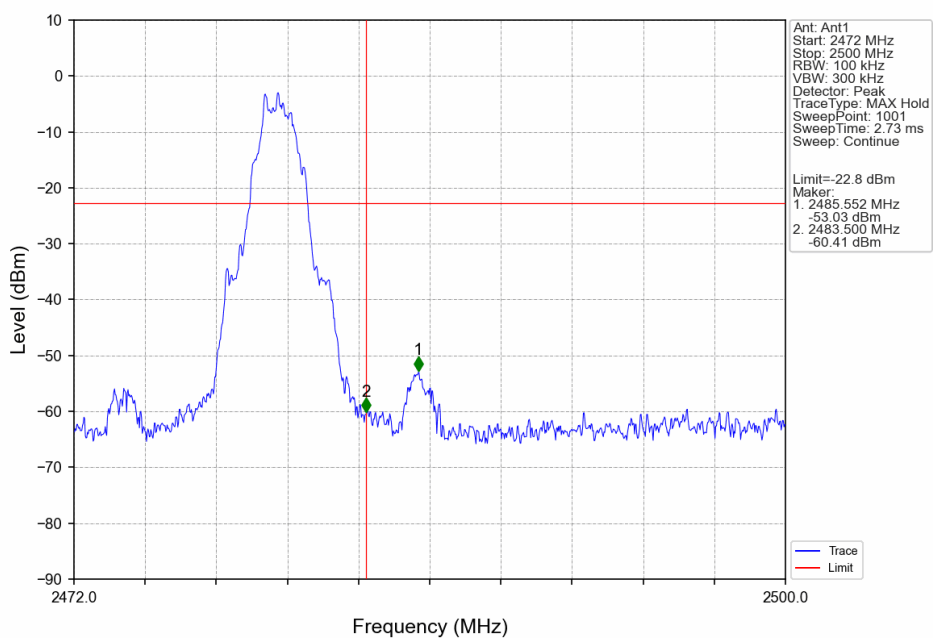
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2M\_HCH\_2480MHz\_Ant1\_NTNV



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## B.5 Conducted RF Spurious Emission

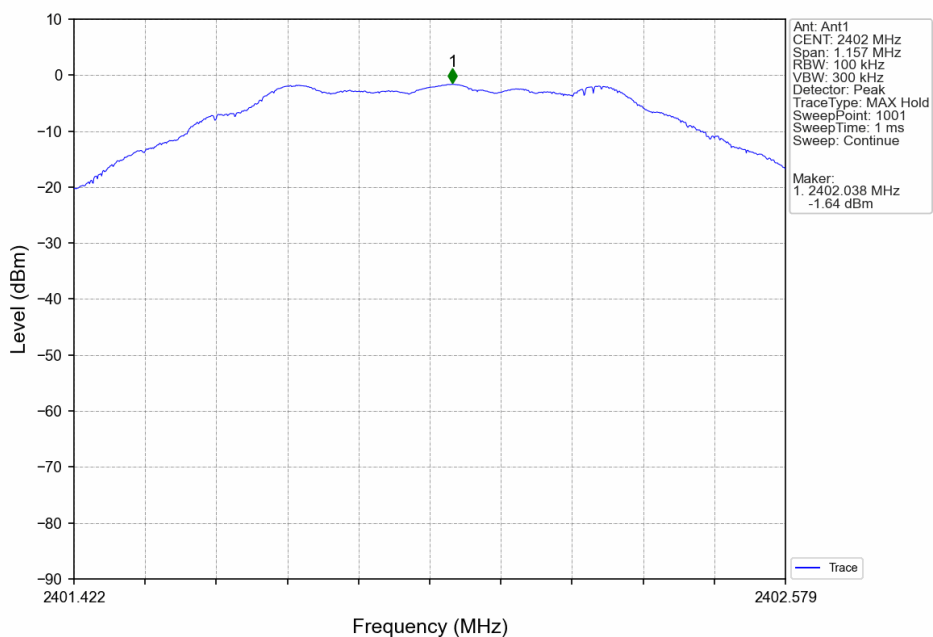
| Mode | TX Type | Frequency (MHz) | ANT | Level of Reference (dBm) |
|------|---------|-----------------|-----|--------------------------|
| 1M   | SISO    | 2402            | 1   | -1.64                    |
|      |         | 2440            | 1   | -2.15                    |
|      |         | 2480            | 1   | -2.99                    |
| 2M   | SISO    | 2402            | 1   | -1.38                    |
|      |         | 2440            | 1   | -1.97                    |
|      |         | 2480            | 1   | -2.80                    |

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.

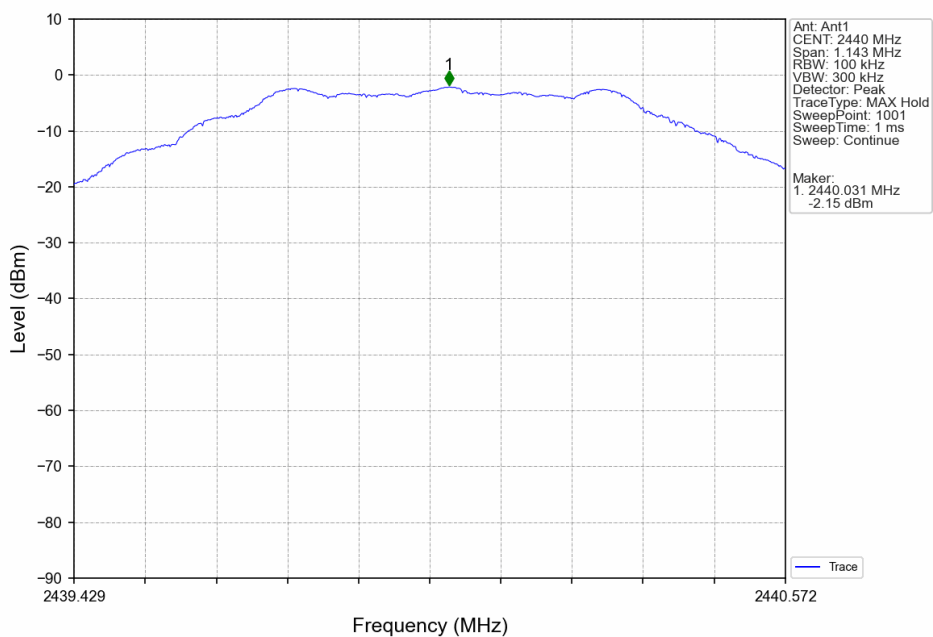




1M\_LCH\_2402MHz\_Ant1\_NTNV

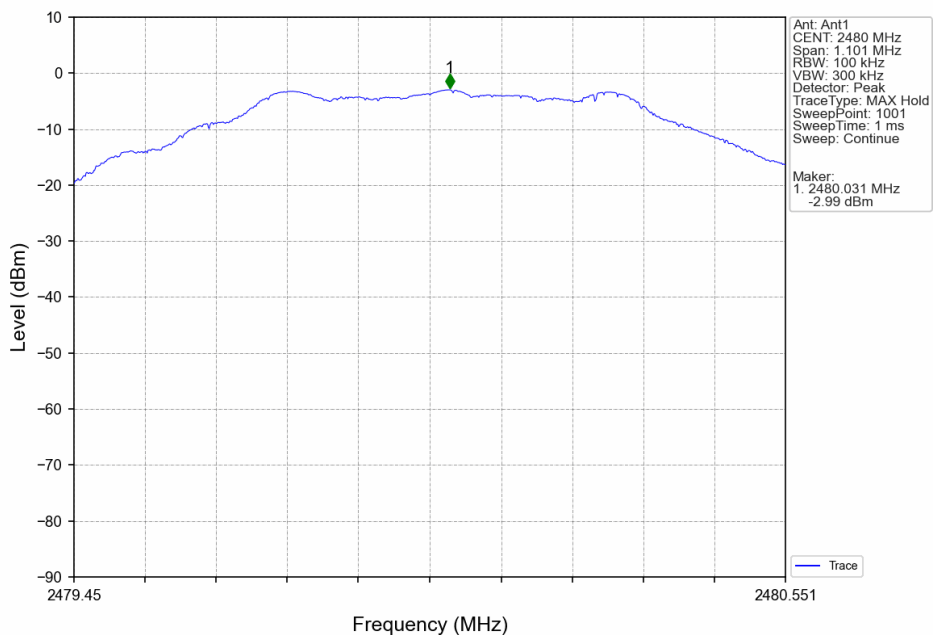


1M\_MCH\_2440MHz\_Ant1\_NTNV

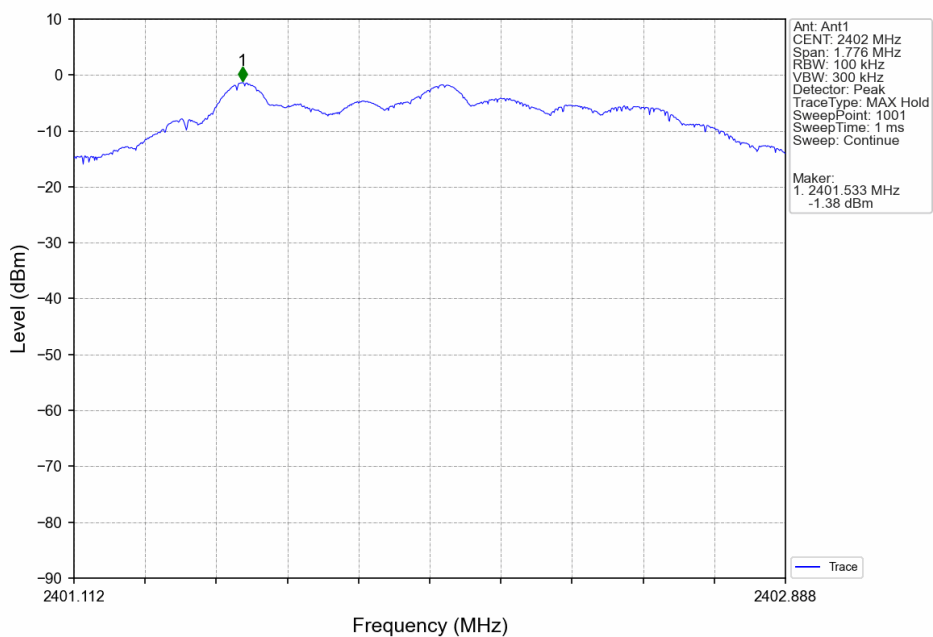




## 1M\_HCH\_2480MHz\_Ant1\_NTNV

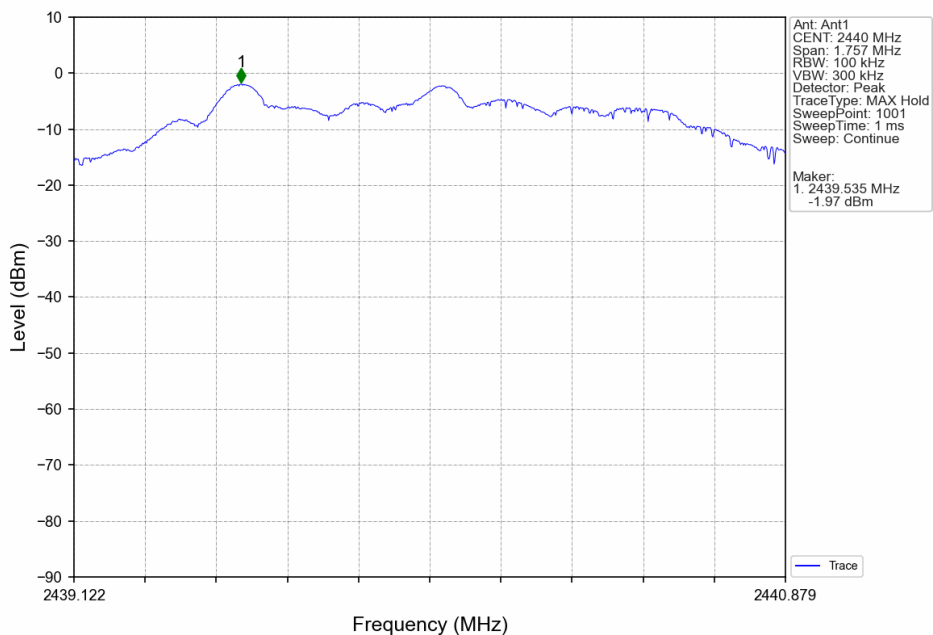


## 2M\_LCH\_2402MHz\_Ant1\_NTNV

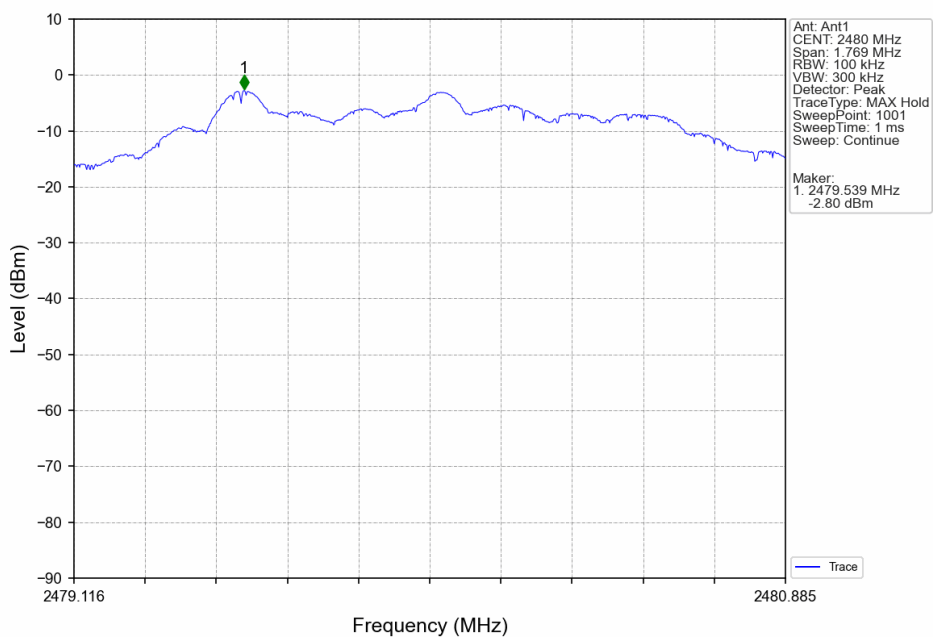




## 2M\_MCH\_2440MHz\_Ant1\_NTNV

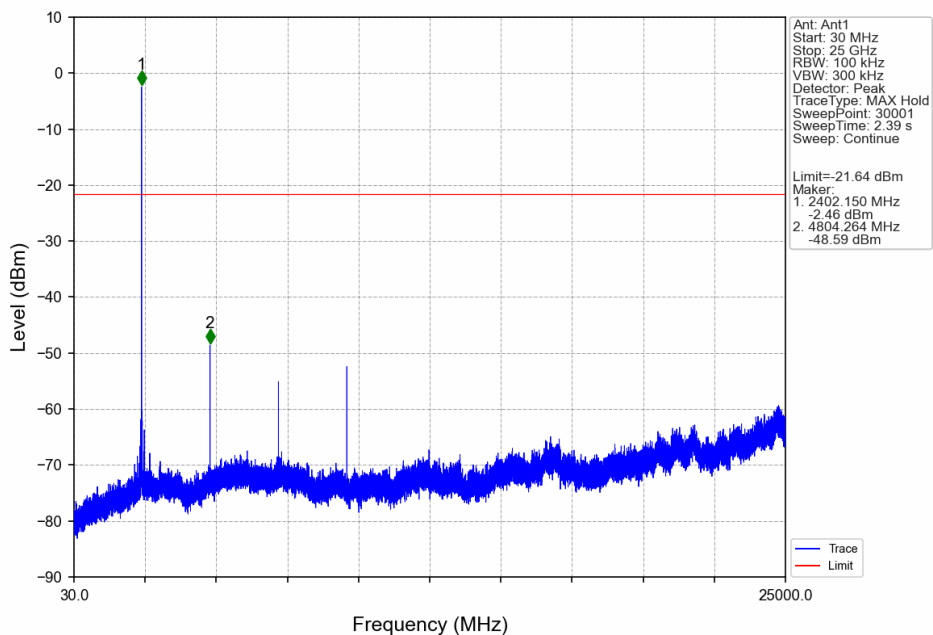


## 2M\_HCH\_2480MHz\_Ant1\_NTNV

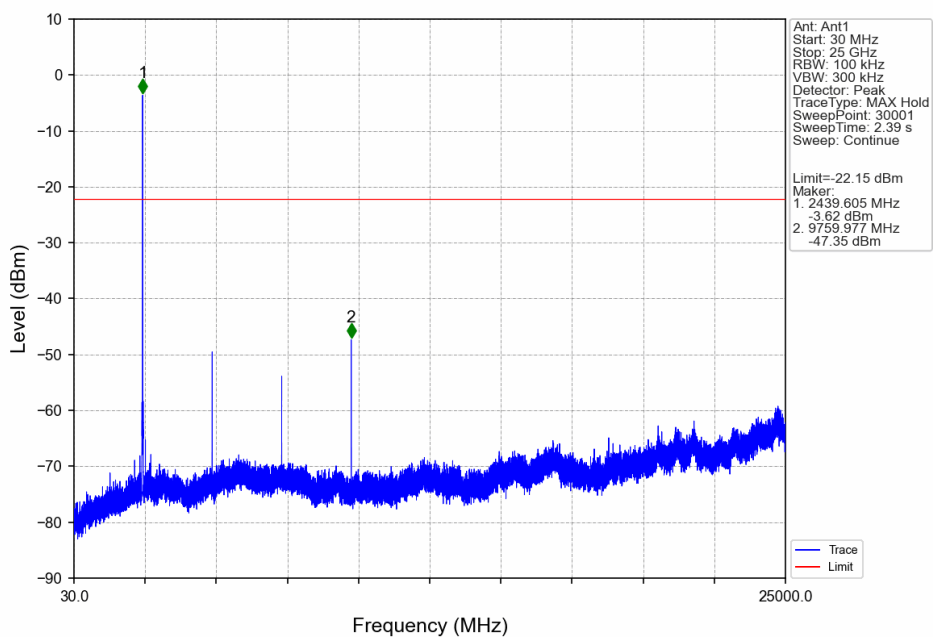




## 1M\_LCH\_2402MHz\_Ant1\_NTNV



## 1M\_MCH\_2440MHz\_Ant1\_NTNV



## 1M\_HCH\_2480MHz\_Ant1\_NTNV



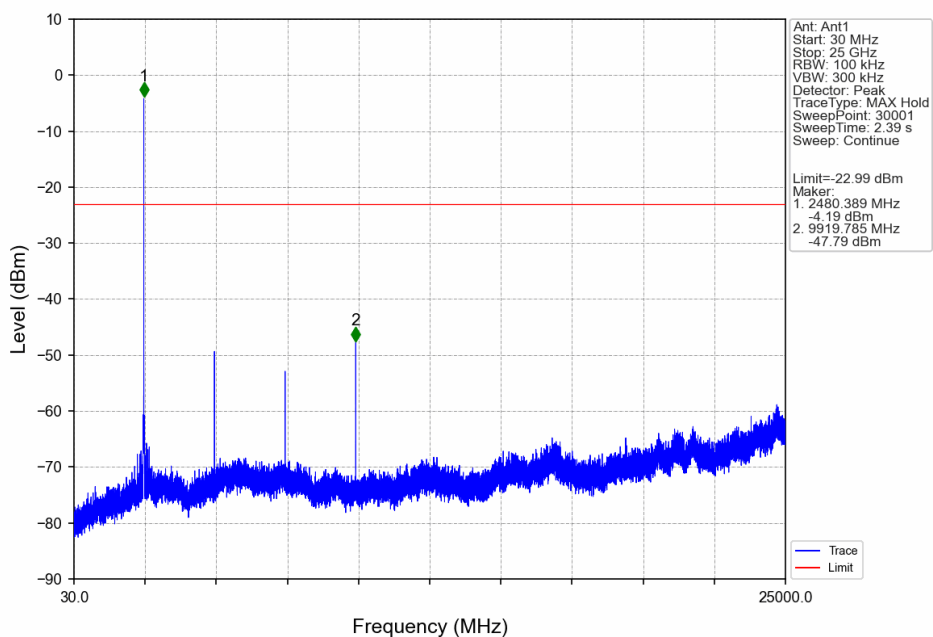
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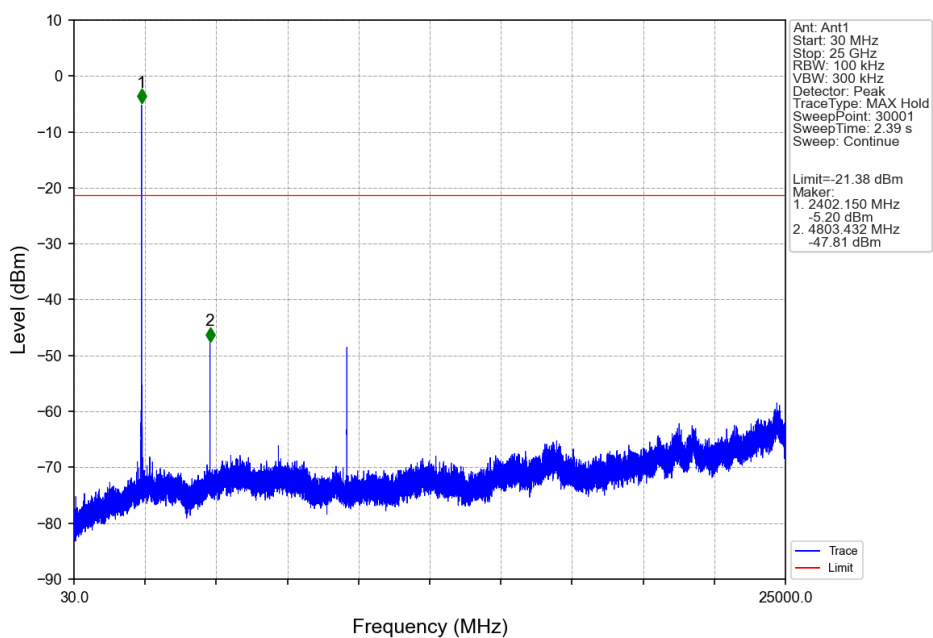
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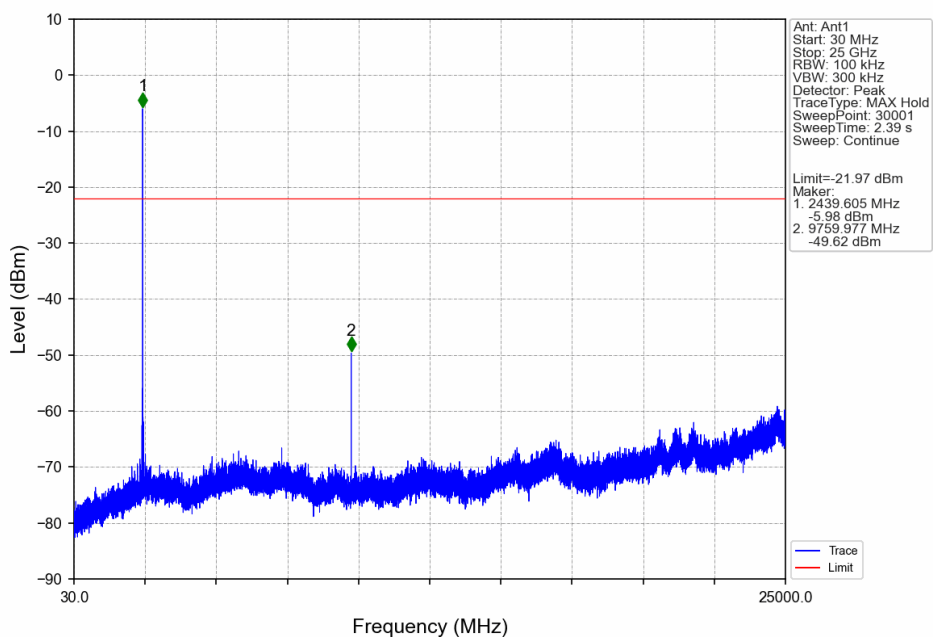


2M\_LCH\_2402MHz\_Ant1\_NTNV

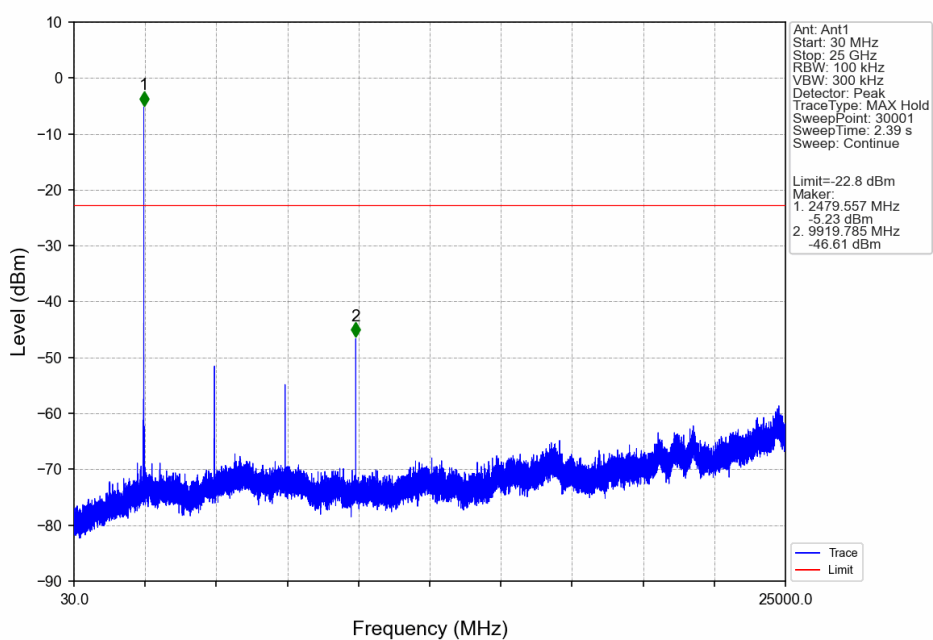


2M\_MCH\_2440MHz\_Ant1\_NTNV





2M\_HCH\_2480MHz\_Ant1\_NTNV





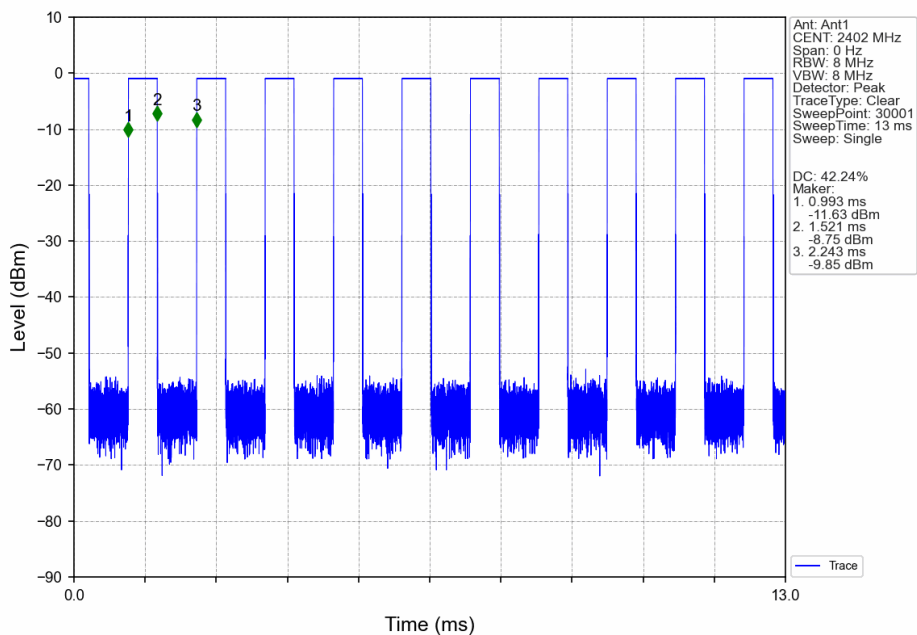
## B.6 Duty Cycle

| Ant1 |         |                 |           |             |                |                                   |                       |
|------|---------|-----------------|-----------|-------------|----------------|-----------------------------------|-----------------------|
| Mode | TX Type | Frequency (MHz) | T_on (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) | Max. DC Variation (%) |
| 1M   | SISO    | 2402            | 0.528     | 1.250       | 42.24          | 3.74                              | 0.03                  |
|      |         | 2440            | 0.528     | 1.250       | 42.24          | 3.74                              | 0.03                  |
|      |         | 2480            | 0.528     | 1.250       | 42.24          | 3.74                              | 0.03                  |
| 2M   | SISO    | 2402            | 0.276     | 1.250       | 22.08          | 6.56                              | 0.01                  |
|      |         | 2440            | 0.277     | 1.250       | 22.16          | 6.54                              | 0.01                  |
|      |         | 2480            | 0.277     | 1.250       | 22.16          | 6.54                              | 0.01                  |

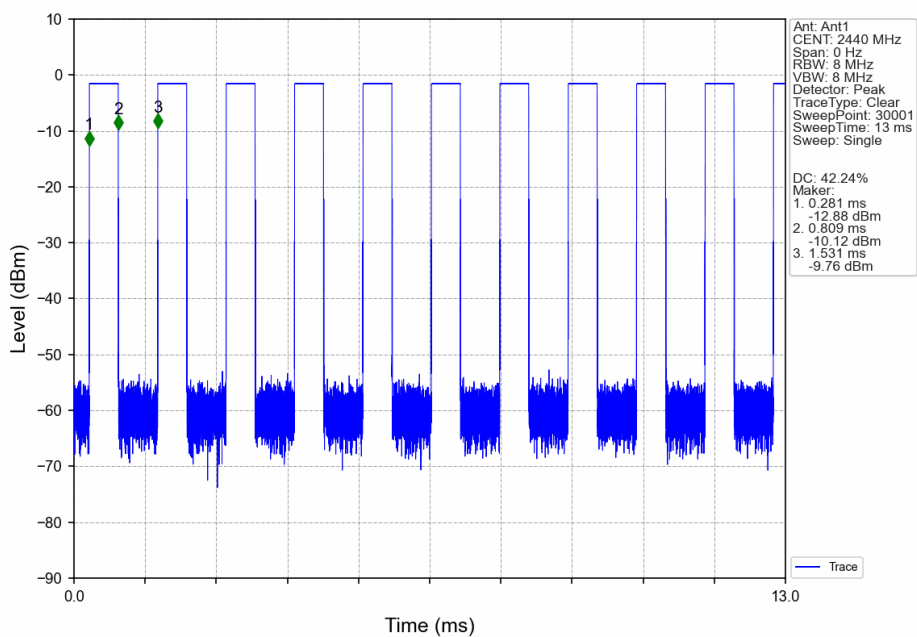




## 1M\_LCH\_2402MHz\_Ant1\_NTNV



## 1M\_MCH\_2440MHz\_Ant1\_NTNV



Shenzhen LCS Compliance Testing Laboratory Ltd.

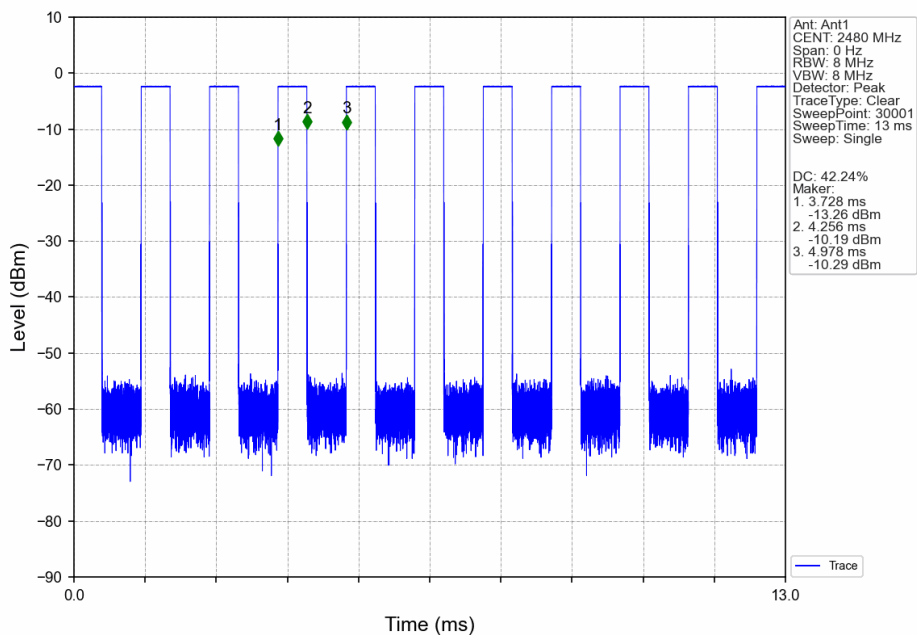
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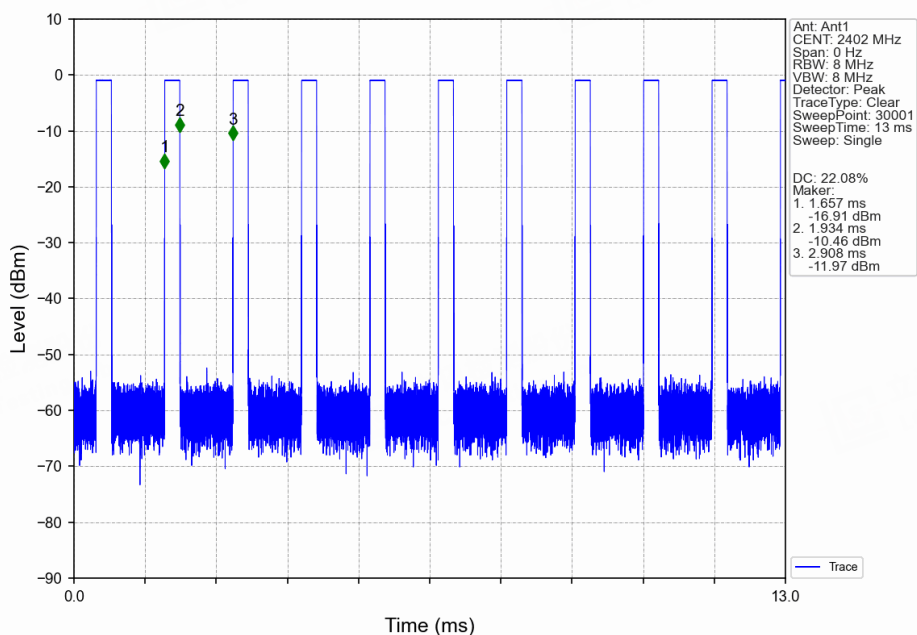
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## 1M\_HCH\_2480MHz\_Ant1\_NTNV

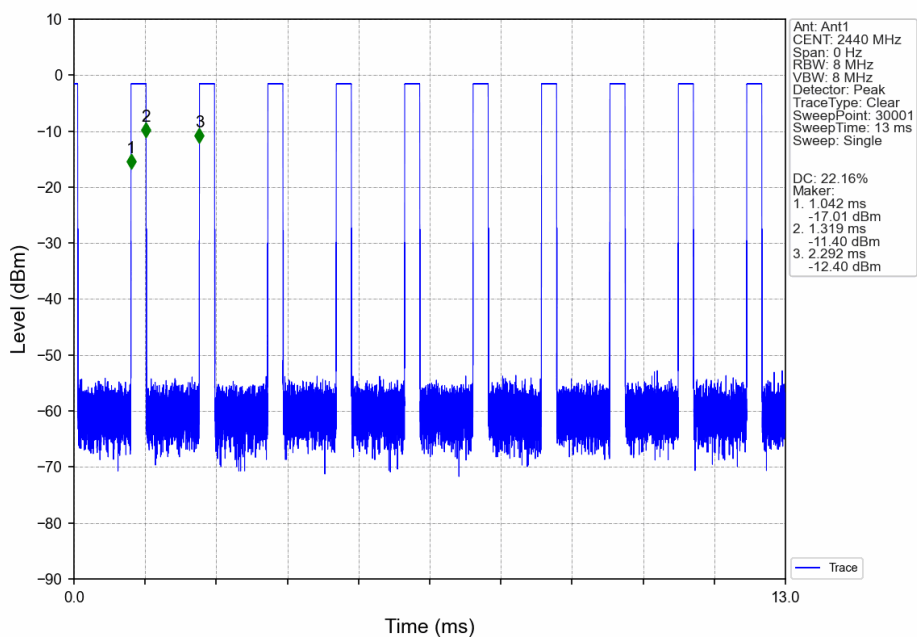


## 2M\_LCH\_2402MHz\_Ant1\_NTNV

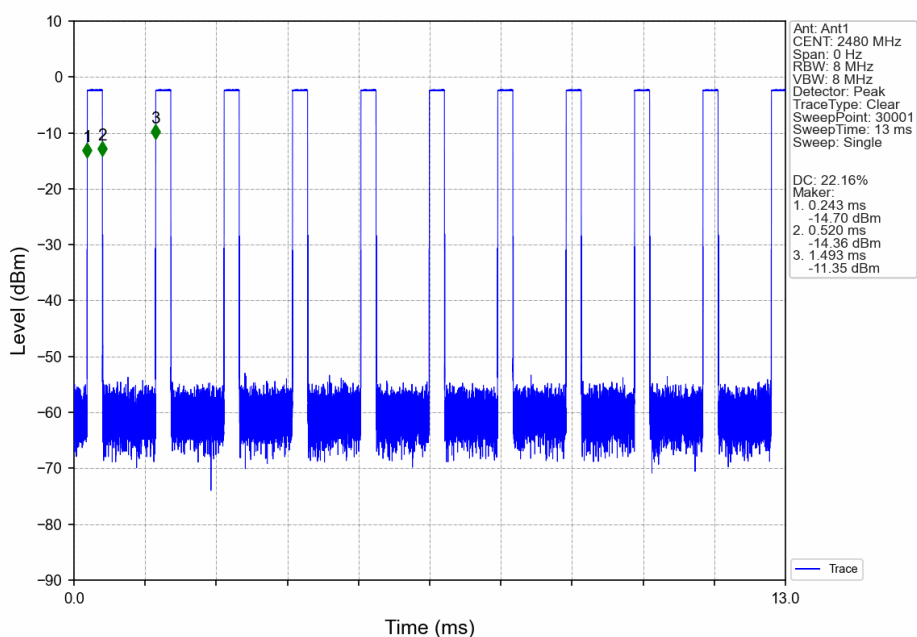




## 2M\_MCH\_2440MHz\_Ant1\_NTNV



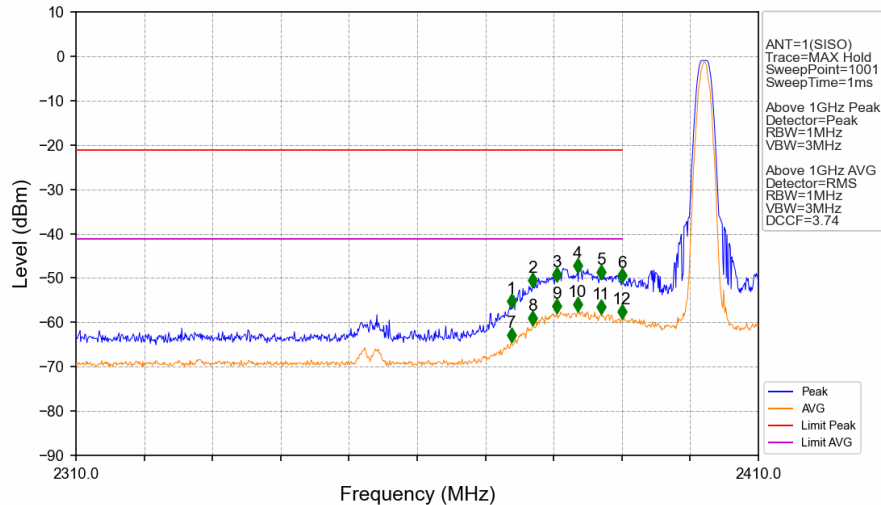
## 2M\_HCH\_2480MHz\_Ant1\_NTNV





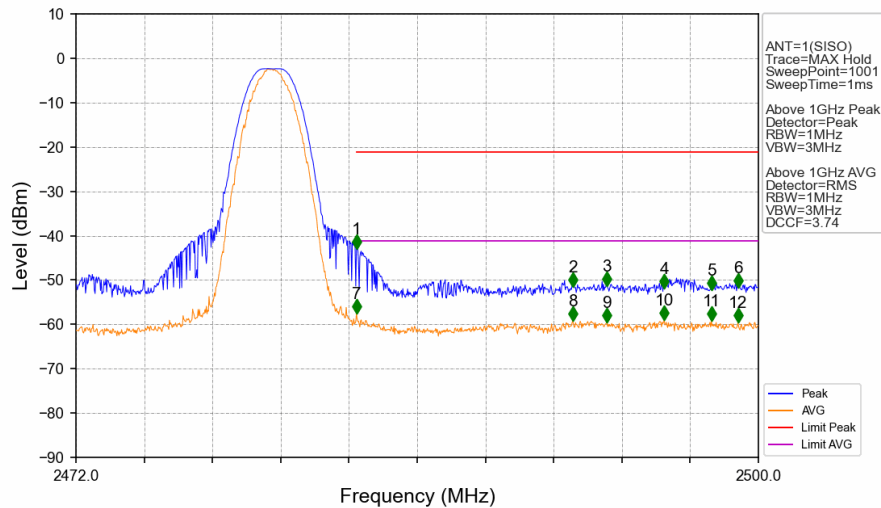
## B.7 Restrict Band

1M\_LCH\_2402MHz\_Ant1\_NTNV



| No | Frequency (MHz) | Level (dBm) | Limit (dBm) | Margin (dB) | Status | Remark | No | Frequency (MHz) | Level (dBm) | Limit (dBm) | Margin (dB) | Status | Remark |
|----|-----------------|-------------|-------------|-------------|--------|--------|----|-----------------|-------------|-------------|-------------|--------|--------|
| 1  | 2373.800        | -56.88      | -21.20      | 35.68       | Pass   | Peak   | 7  | 2373.800        | -64.52      | -41.20      | 23.32       | Pass   | AVG    |
| 2  | 2376.900        | -52.07      | -21.20      | 30.87       | Pass   | Peak   | 8  | 2376.900        | -60.60      | -41.20      | 19.40       | Pass   | AVG    |
| 3  | 2380.400        | -50.75      | -21.20      | 29.55       | Pass   | Peak   | 9  | 2380.400        | -57.96      | -41.20      | 16.76       | Pass   | AVG    |
| 4  | 2383.500        | -48.72      | -21.20      | 27.52       | Pass   | Peak   | 10 | 2383.500        | -57.60      | -41.20      | 16.40       | Pass   | AVG    |
| 5  | 2386.900        | -50.28      | -21.20      | 29.08       | Pass   | Peak   | 11 | 2386.900        | -58.09      | -41.20      | 16.89       | Pass   | AVG    |
| 6  | 2390.000        | -50.98      | -21.20      | 29.78       | Pass   | Peak   | 12 | 2390.000        | -59.08      | -41.20      | 17.88       | Pass   | AVG    |

1M\_HCH\_2480MHz\_Ant1\_NTNV



| No | Frequency (MHz) | Level (dBm) | Limit (dBm) | Margin (dB) | Status | Remark | No | Frequency (MHz) | Level (dBm) | Limit (dBm) | Margin (dB) | Status | Remark |
|----|-----------------|-------------|-------------|-------------|--------|--------|----|-----------------|-------------|-------------|-------------|--------|--------|
| 1  | 2483.508        | -42.88      | -21.20      | 21.68       | Pass   | Peak   | 7  | 2483.508        | -57.57      | -41.20      | 16.37       | Pass   | AVG    |
| 2  | 2492.384        | -51.46      | -21.20      | 30.26       | Pass   | Peak   | 8  | 2492.384        | -59.23      | -41.20      | 18.03       | Pass   | AVG    |
| 3  | 2493.784        | -51.31      | -21.20      | 30.11       | Pass   | Peak   | 9  | 2493.784        | -59.52      | -41.20      | 18.32       | Pass   | AVG    |
| 4  | 2496.136        | -51.95      | -21.20      | 30.75       | Pass   | Peak   | 10 | 2496.136        | -58.93      | -41.20      | 17.73       | Pass   | AVG    |
| 5  | 2498.068        | -52.16      | -21.20      | 30.96       | Pass   | Peak   | 11 | 2498.068        | -59.22      | -41.20      | 18.02       | Pass   | AVG    |
| 6  | 2499.160        | -51.71      | -21.20      | 30.51       | Pass   | Peak   | 12 | 2499.160        | -59.54      | -41.20      | 18.34       | Pass   | AVG    |

2M\_LCH\_2402MHz\_Ant1\_NTNV



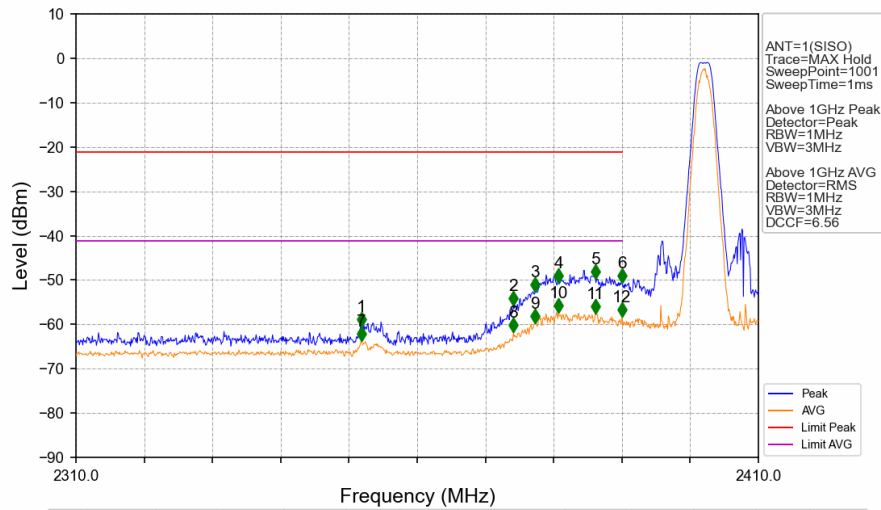
Shenzhen LCS Compliance Testing Laboratory Ltd.

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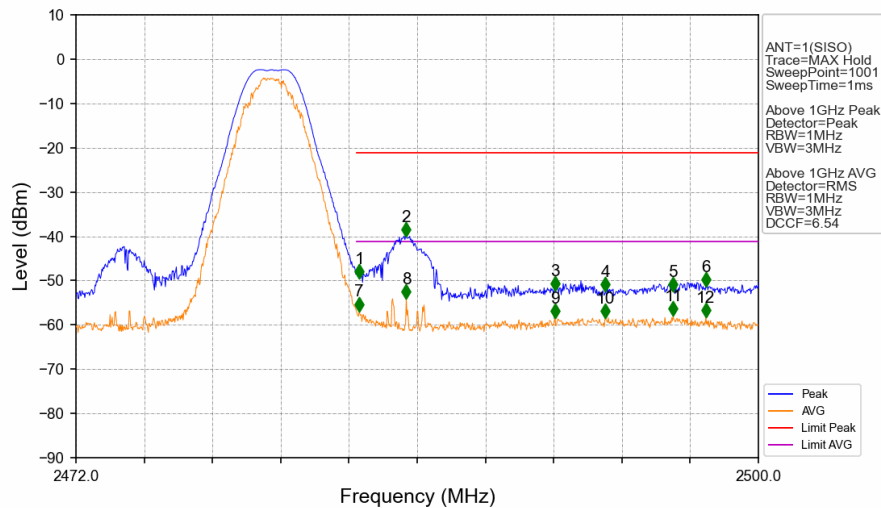
Scan code to check authenticity





| No | Frequency (MHz) | Level (dBm) | Limit (dBm) | Margin (dB) | Status | Remark | No | Frequency (MHz) | Level (dBm) | Limit (dBm) | Margin (dB) | Status | Remark |
|----|-----------------|-------------|-------------|-------------|--------|--------|----|-----------------|-------------|-------------|-------------|--------|--------|
| 1  | 2351.800        | -60.49      | -21.20      | 39.29       | Pass   | Peak   | 7  | 2351.800        | -63.75      | -41.20      | 22.55       | Pass   | AVG    |
| 2  | 2374.100        | -55.76      | -21.20      | 34.56       | Pass   | Peak   | 8  | 2374.100        | -61.76      | -41.20      | 20.56       | Pass   | AVG    |
| 3  | 2377.300        | -52.64      | -21.20      | 31.44       | Pass   | Peak   | 9  | 2377.300        | -59.63      | -41.20      | 18.43       | Pass   | AVG    |
| 4  | 2380.700        | -50.60      | -21.20      | 29.40       | Pass   | Peak   | 10 | 2380.700        | -57.29      | -41.20      | 16.09       | Pass   | AVG    |
| 5  | 2386.100        | -49.64      | -21.20      | 28.44       | Pass   | Peak   | 11 | 2386.100        | -57.51      | -41.20      | 16.31       | Pass   | AVG    |
| 6  | 2390.000        | -50.53      | -21.20      | 29.33       | Pass   | Peak   | 12 | 2390.000        | -58.29      | -41.20      | 17.09       | Pass   | AVG    |

## 2M\_HCH\_2480MHz\_Ant1\_NTNV



| No | Frequency (MHz) | Level (dBm) | Limit (dBm) | Margin (dB) | Status | Remark | No | Frequency (MHz) | Level (dBm) | Limit (dBm) | Margin (dB) | Status | Remark |
|----|-----------------|-------------|-------------|-------------|--------|--------|----|-----------------|-------------|-------------|-------------|--------|--------|
| 1  | 2483.620        | -49.56      | -21.20      | 28.36       | Pass   | Peak   | 7  | 2483.620        | -56.89      | -41.20      | 15.69       | Pass   | AVG    |
| 2  | 2485.552        | -40.07      | -21.20      | 18.87       | Pass   | Peak   | 8  | 2485.552        | -54.00      | -41.20      | 12.80       | Pass   | AVG    |
| 3  | 2491.656        | -52.26      | -21.20      | 31.06       | Pass   | Peak   | 9  | 2491.656        | -58.47      | -41.20      | 17.27       | Pass   | AVG    |
| 4  | 2493.728        | -52.42      | -21.20      | 31.22       | Pass   | Peak   | 10 | 2493.728        | -58.38      | -41.20      | 17.18       | Pass   | AVG    |
| 5  | 2496.500        | -52.41      | -21.20      | 31.21       | Pass   | Peak   | 11 | 2496.500        | -57.95      | -41.20      | 16.75       | Pass   | AVG    |
| 6  | 2497.844        | -51.38      | -21.20      | 30.18       | Pass   | Peak   | 12 | 2497.844        | -58.29      | -41.20      | 17.09       | Pass   | AVG    |



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