

Appendix A

RF Test Data for BLE(Conducted Measurement)

Product Name: Electric unicycle
Trade Mark: INMOTION
Test Model: V14

Environmental Conditions

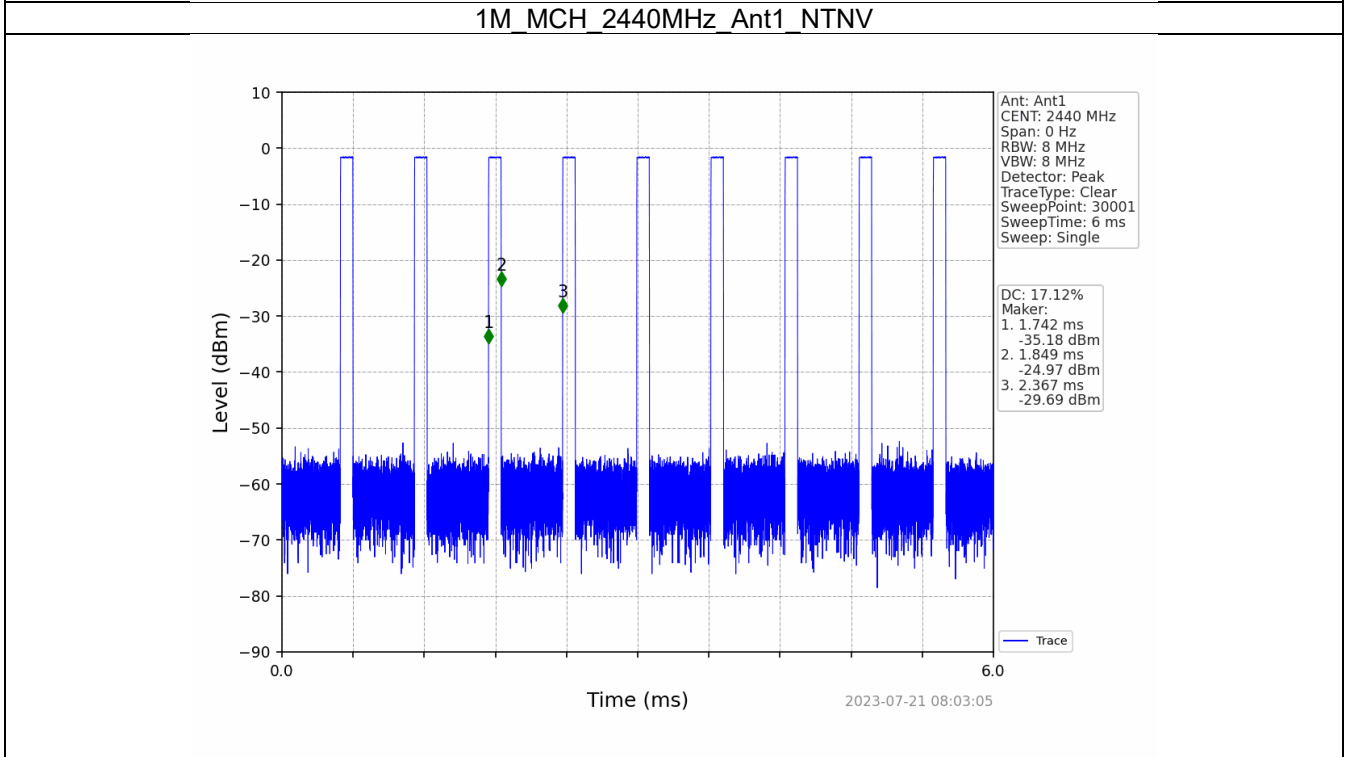
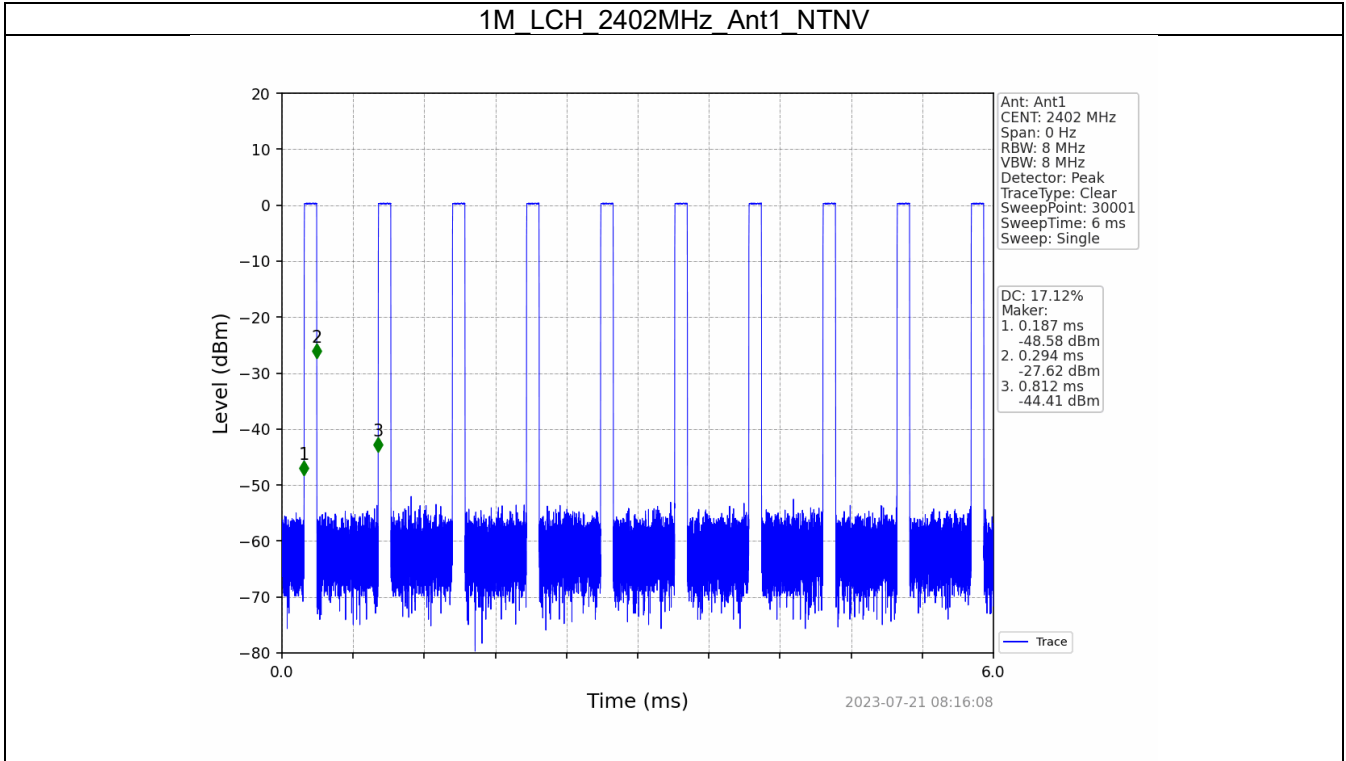
| | |
|--------------------|-------------|
| Temperature: | 25.6°C |
| Relative Humidity: | 52.4% |
| ATM Pressure: | 101Kpa |
| Test Engineer: | Simba Huang |
| Supervised by: | Seal Chen |



A.1. Duty Cycle

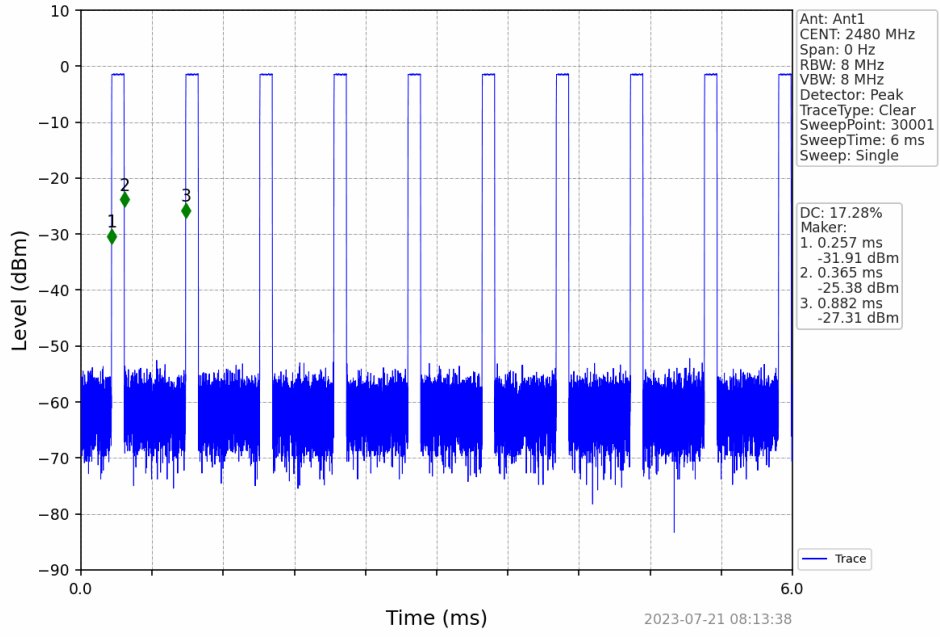
Test Result

| Mode | TX Type | Frequency (MHz) | T_on (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) | Max. DC Variation (%) |
|------|---------|-----------------|-----------|-------------|----------------|-----------------------------------|-----------------------|
| 1M | SISO | 2402 | 0.107 | 0.625 | 17.12 | 7.66 | 0.00 |
| | | 2440 | 0.107 | 0.625 | 17.12 | 7.66 | 0.03 |
| | | 2480 | 0.108 | 0.625 | 17.28 | 7.62 | 0.03 |





1M HCH 2480MHz Ant1 NTN



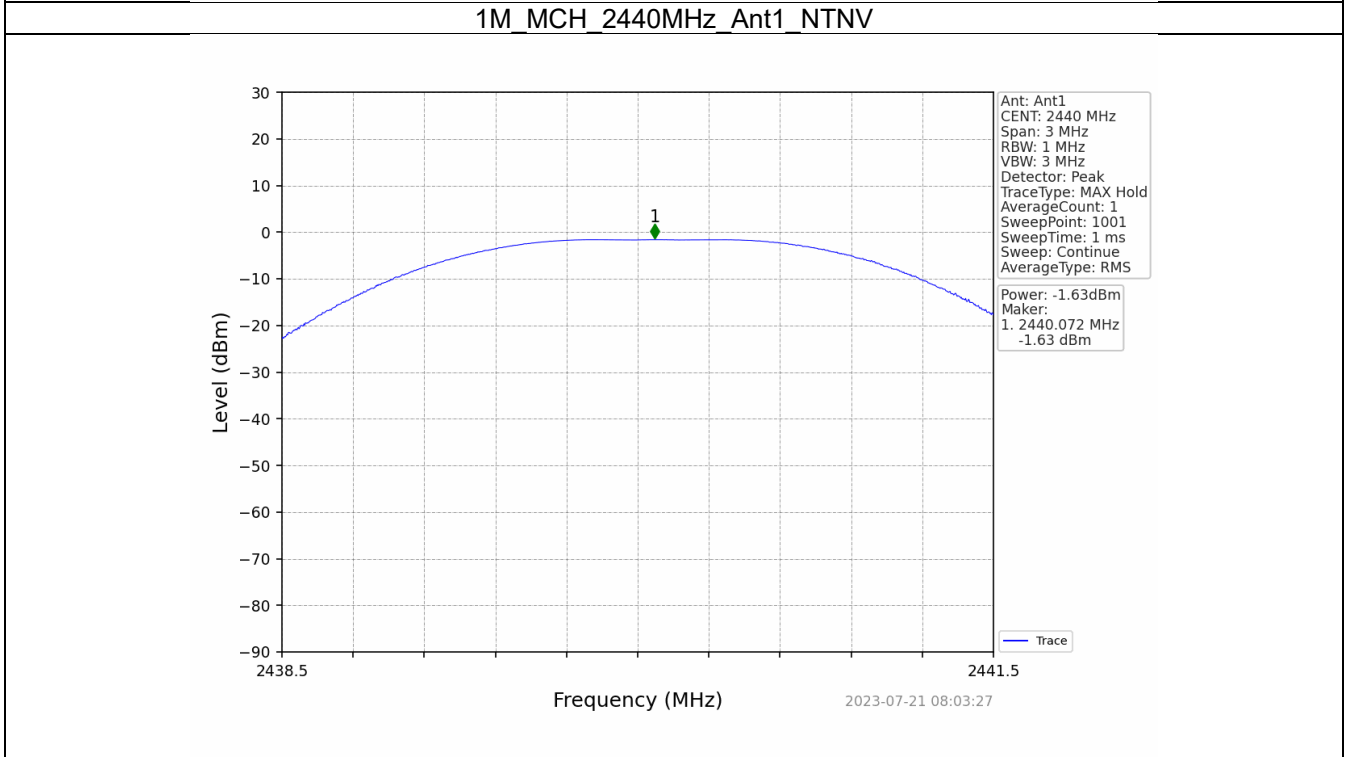
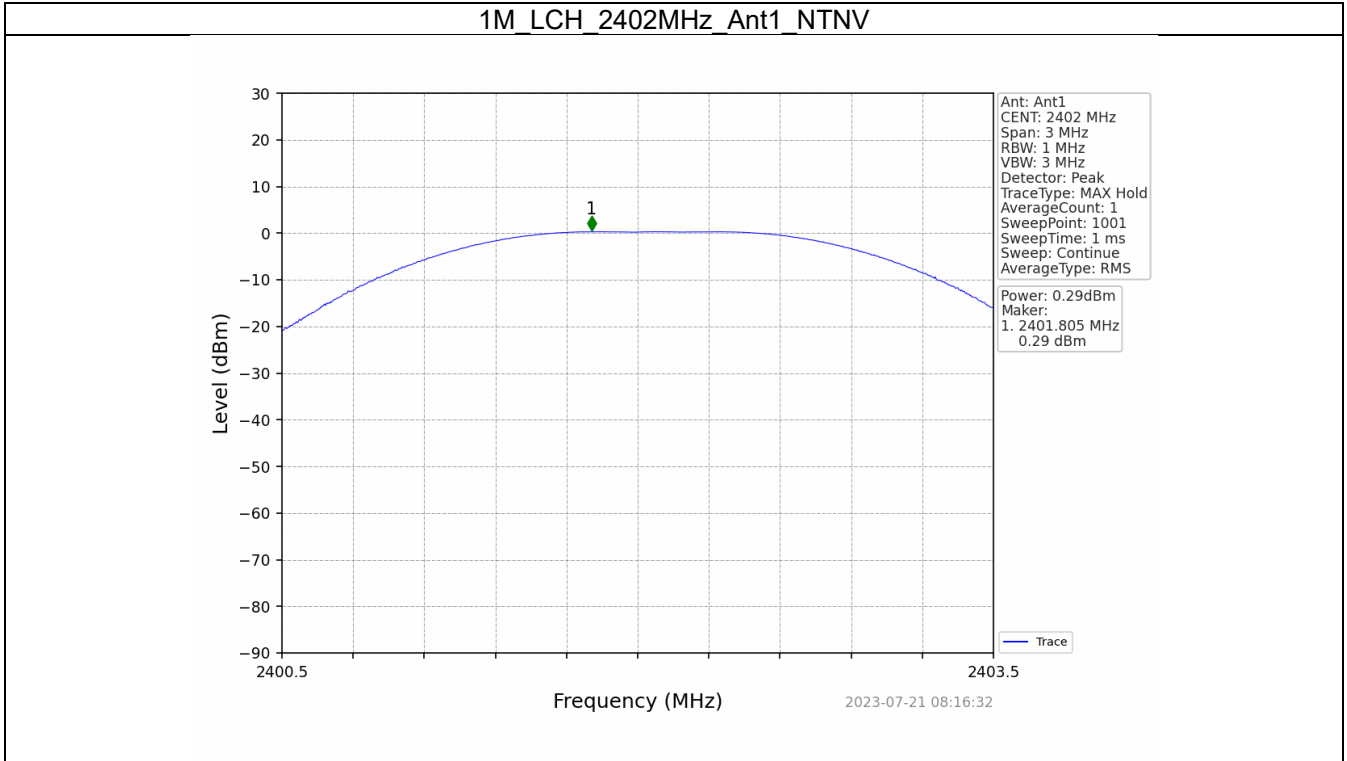


A.2. Maximum Conducted Output Power

Test Result

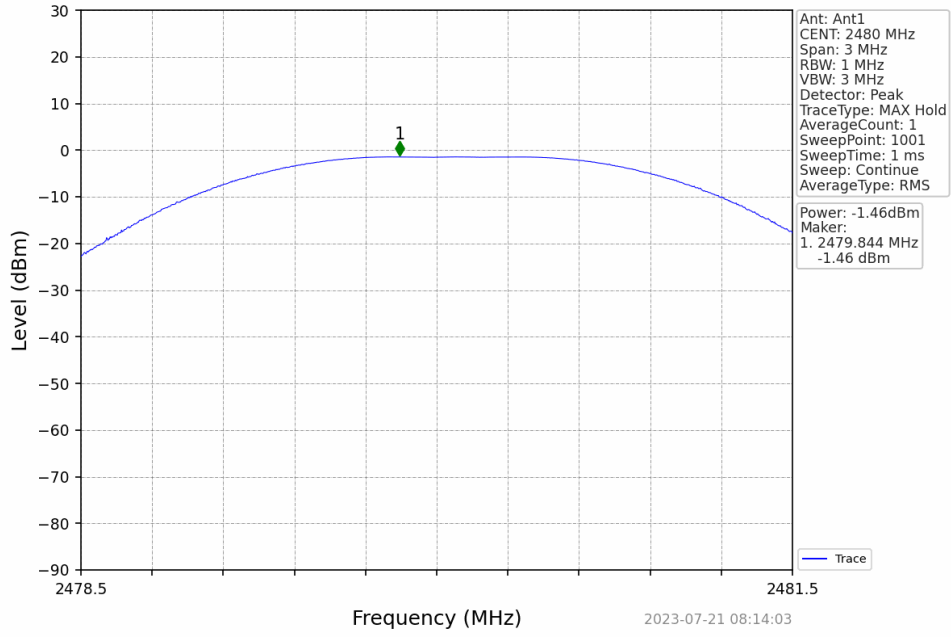
| Mode | TX Type | Frequency (MHz) | Maximum Peak Conducted Output Power (dBm) | | Verdict |
|------|---------|-----------------|---|-------|---------|
| | | | ANT1 | Limit | |
| 1M | SISO | 2402 | 0.29 | <=30 | Pass |
| | | 2440 | -1.63 | <=30 | Pass |
| | | 2480 | -1.46 | <=30 | Pass |

Test Graph





1M HCH 2480MHz Ant1 NTN



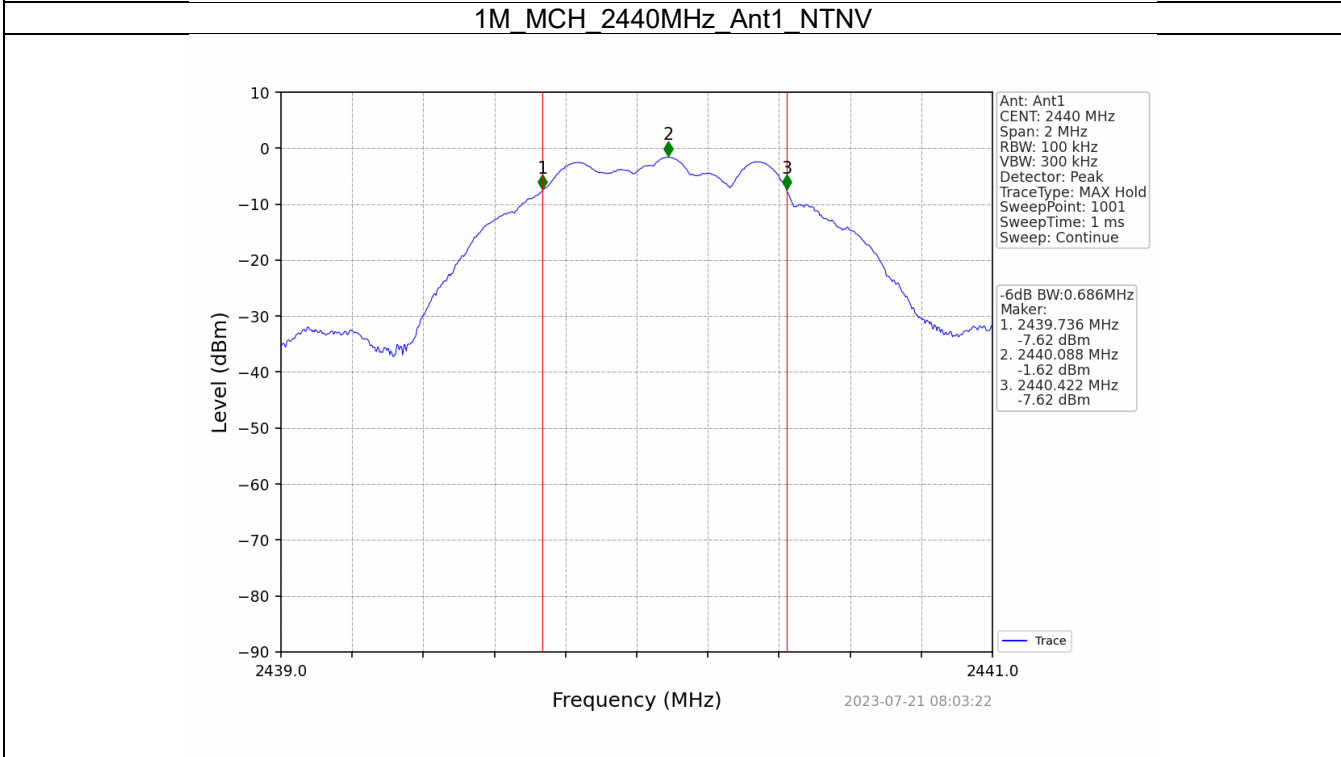
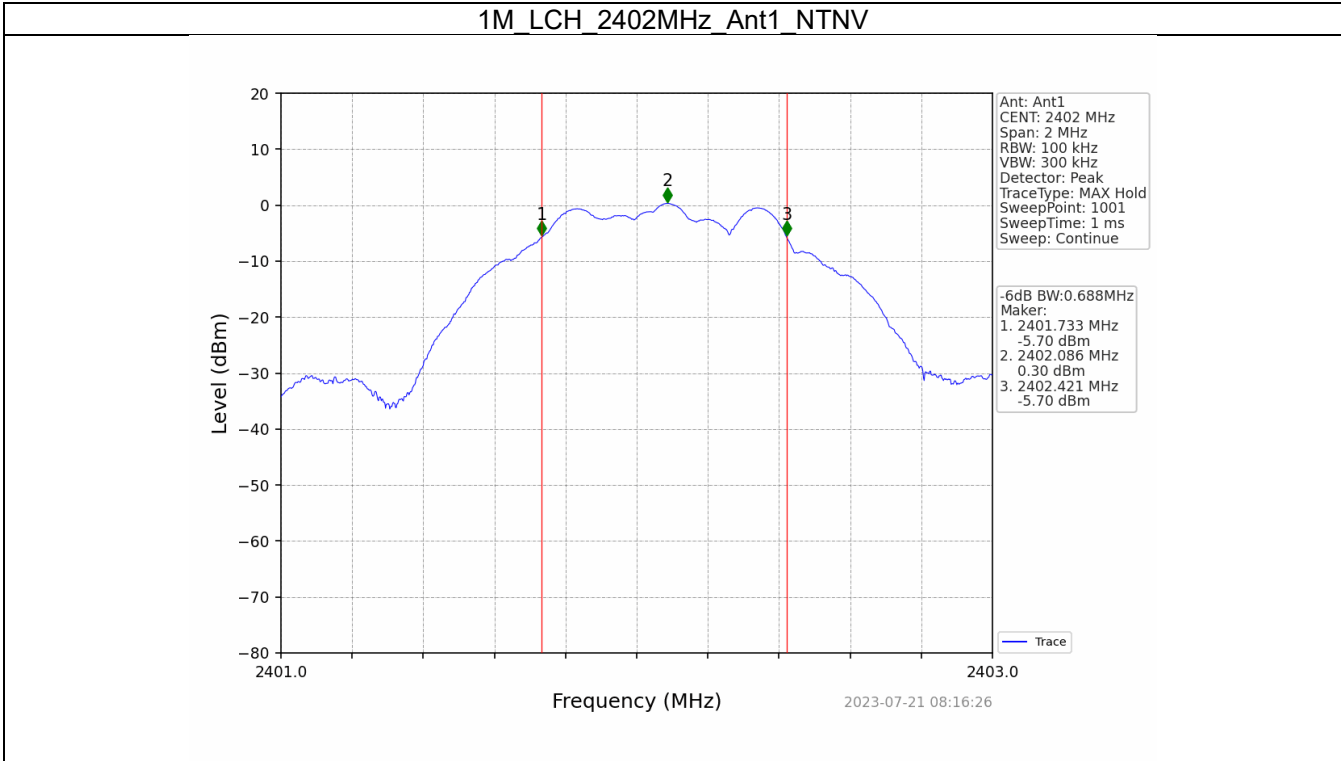


A.3. 6dB BW

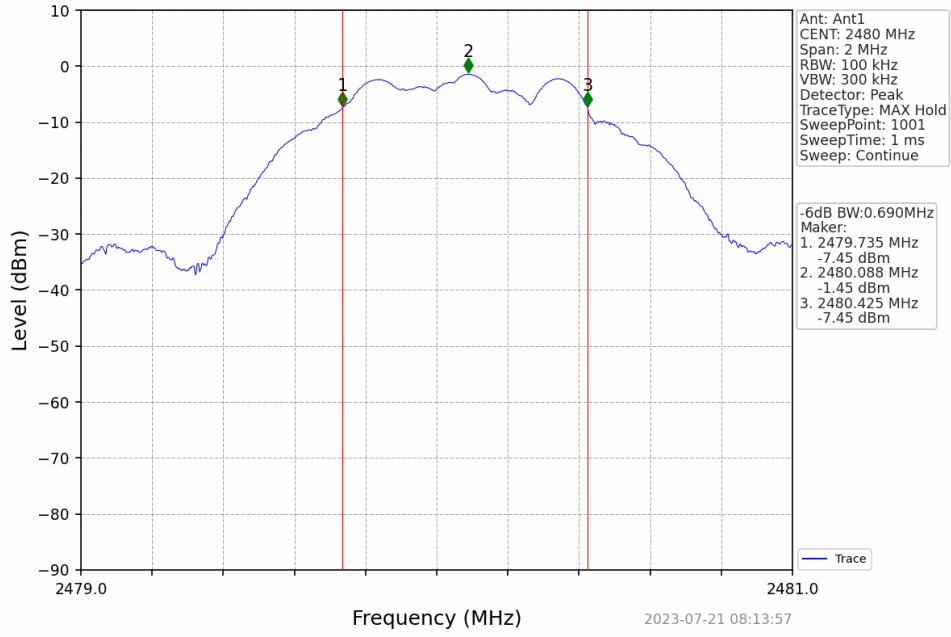
Test Result

| Mode | TX Type | Frequency (MHz) | ANT | 6dB Bandwidth (MHz) | | Verdict |
|------|---------|-----------------|-----|---------------------|------------|---------|
| | | | | Result | Limit | |
| 1M | SISO | 2402 | 1 | 0.688 | ≥ 0.5 | Pass |
| | | 2440 | 1 | 0.686 | ≥ 0.5 | Pass |
| | | 2480 | 1 | 0.690 | ≥ 0.5 | Pass |

Test Graph



1M HCH 2480MHz Ant1 NTN



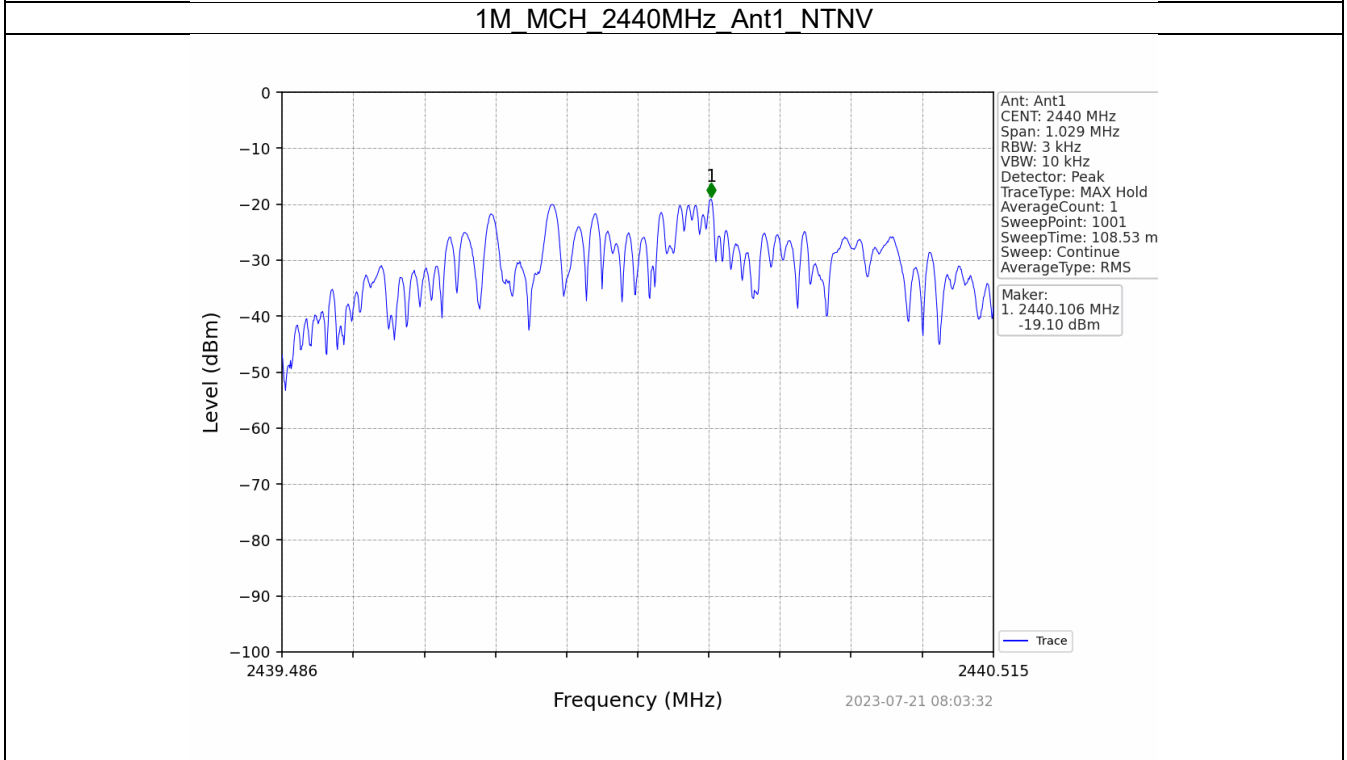
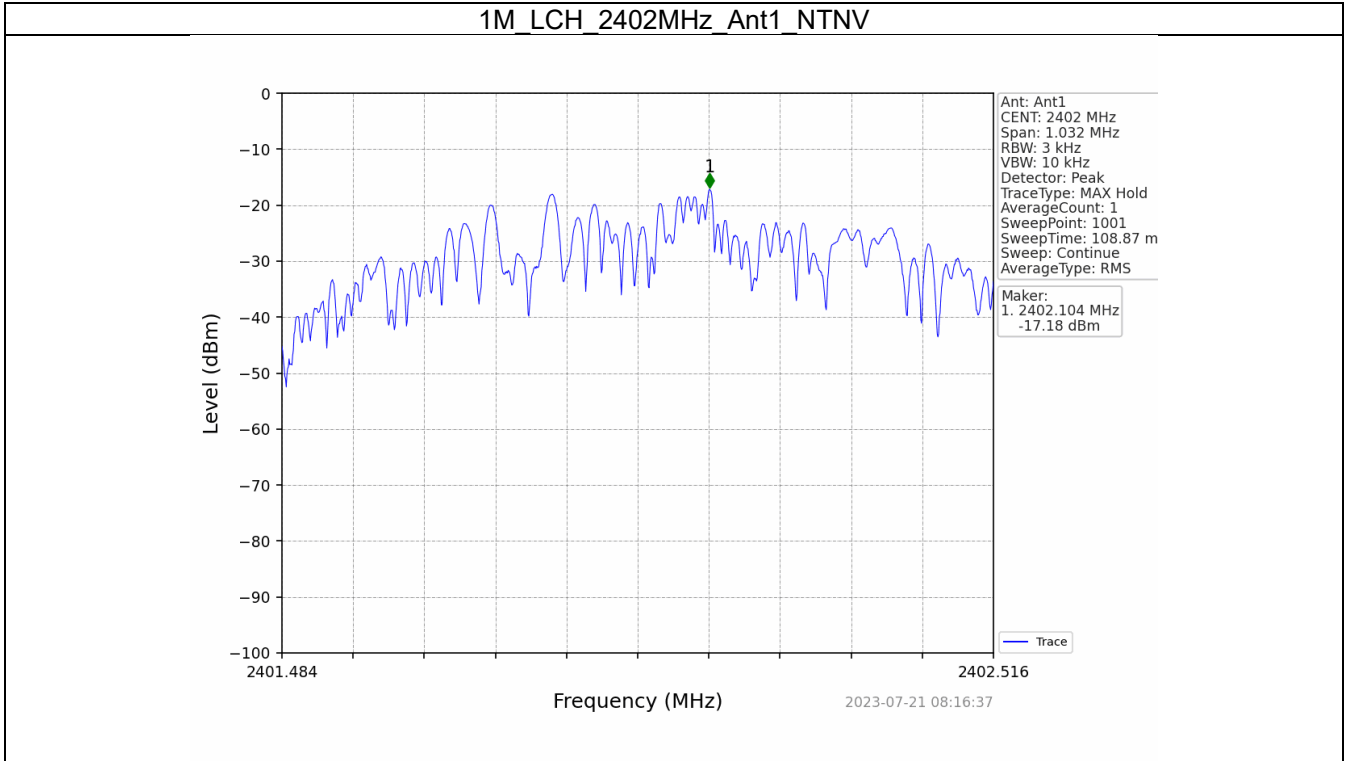
A.4. Maximum Power Spectral Density

Test Result

| Mode | TX Type | Frequency (MHz) | Maximum PSD (dBm/3kHz) | | Verdict |
|------|---------|-----------------|------------------------|-------|---------|
| | | | ANT1 | Limit | |
| 1M | SISO | 2402 | -17.18 | <=8 | Pass |
| | | 2440 | -19.10 | <=8 | Pass |
| | | 2480 | -18.90 | <=8 | Pass |

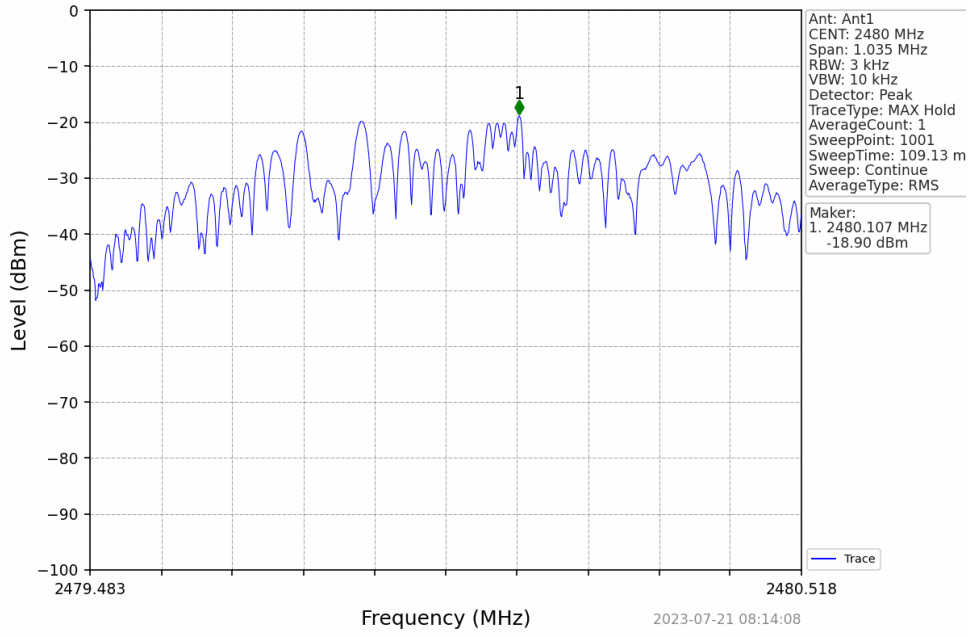


Test Graph





1M HCH 2480MHz Ant1 NTN

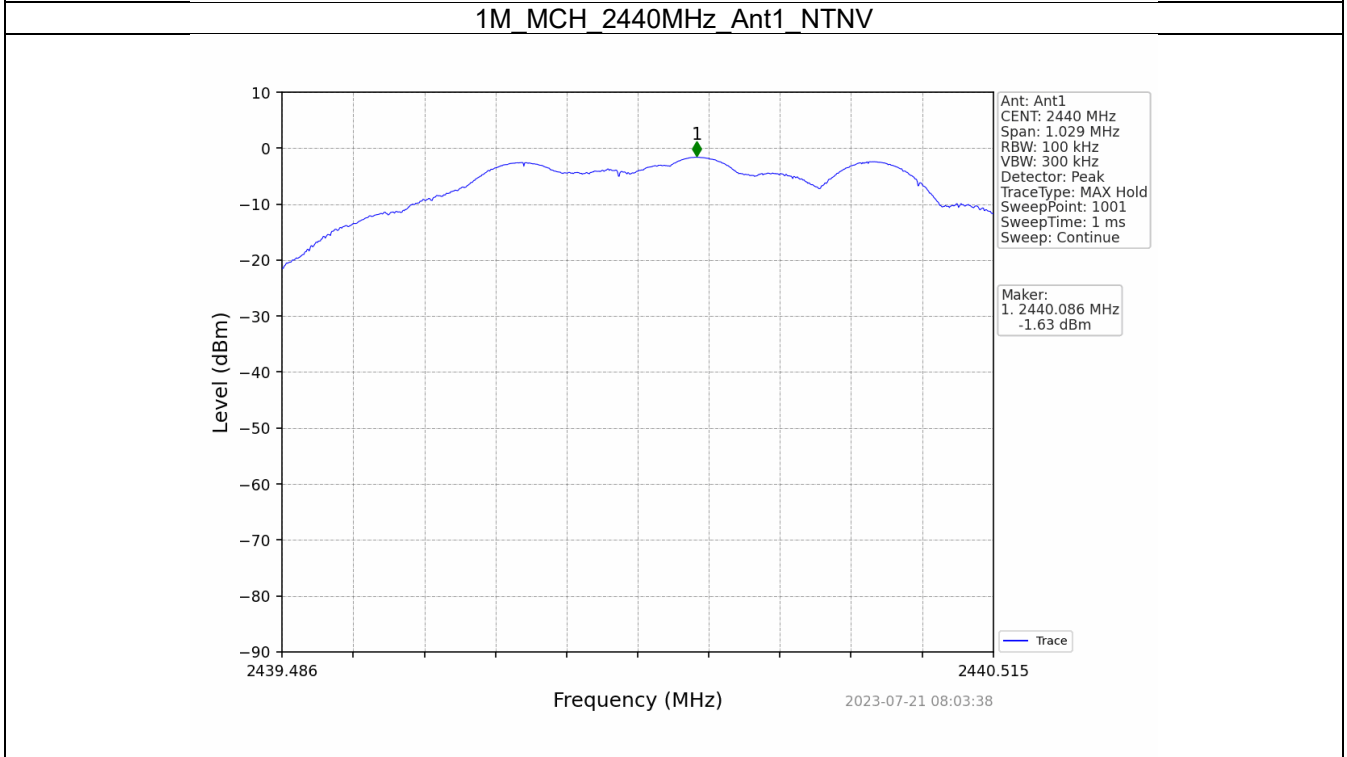
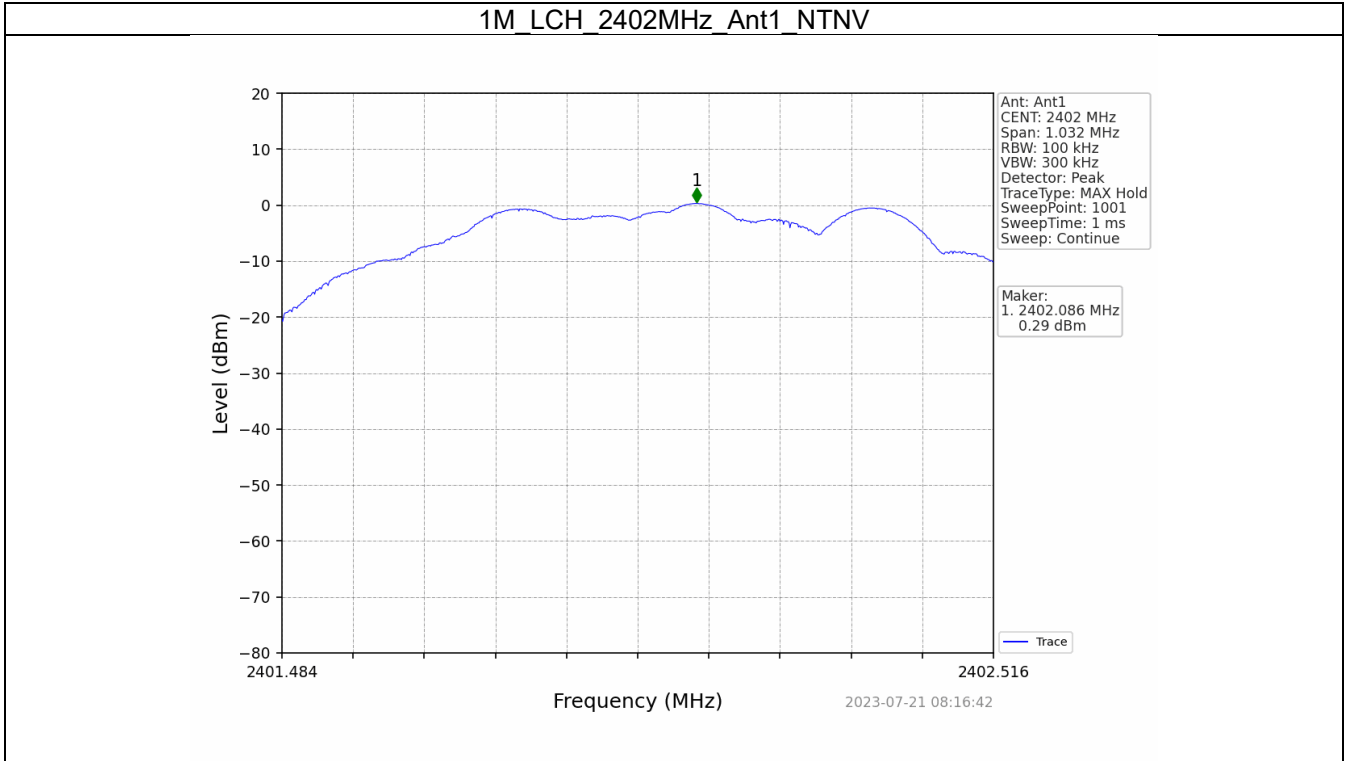


A.5. Conducted Spurious Emissions Test

Test Result

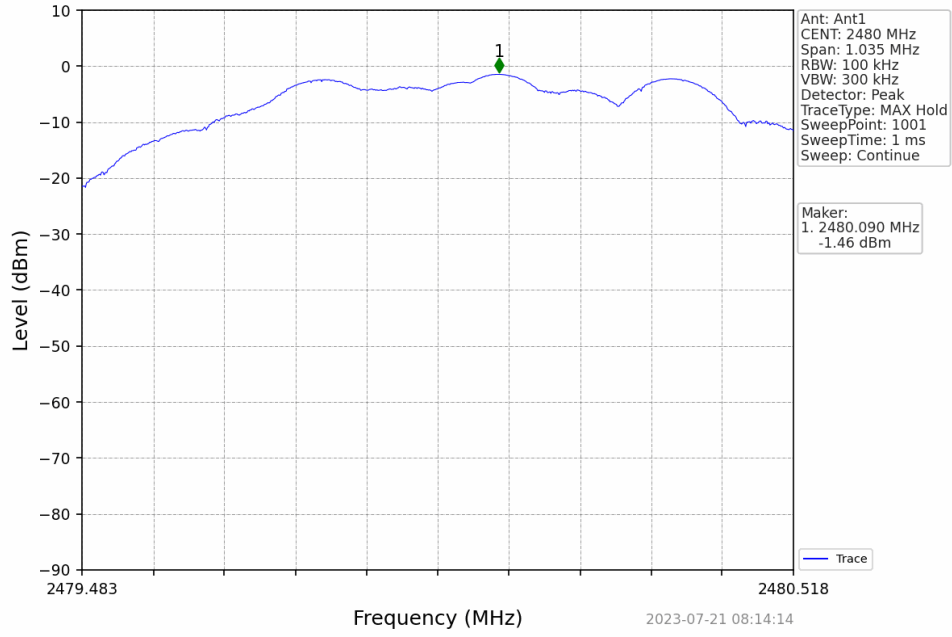
| Mode | TX Type | Frequency (MHz) | ANT | Level of Reference (dBm) |
|------|---------|-----------------|-----|--------------------------|
| 1M | SISO | 2402 | 1 | 0.29 |
| | | 2440 | 1 | -1.63 |
| | | 2480 | 1 | -1.46 |

Test Graph





1M HCH 2480MHz Ant1 NTN



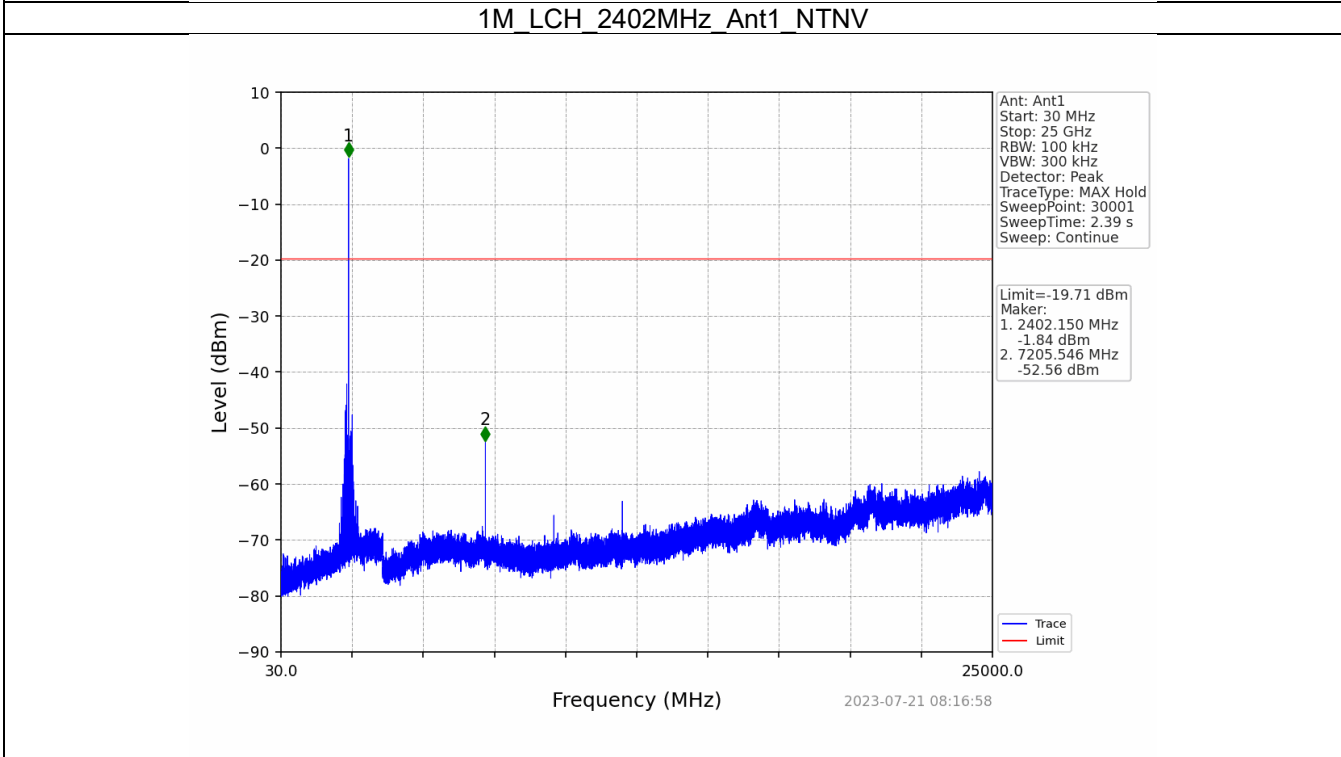
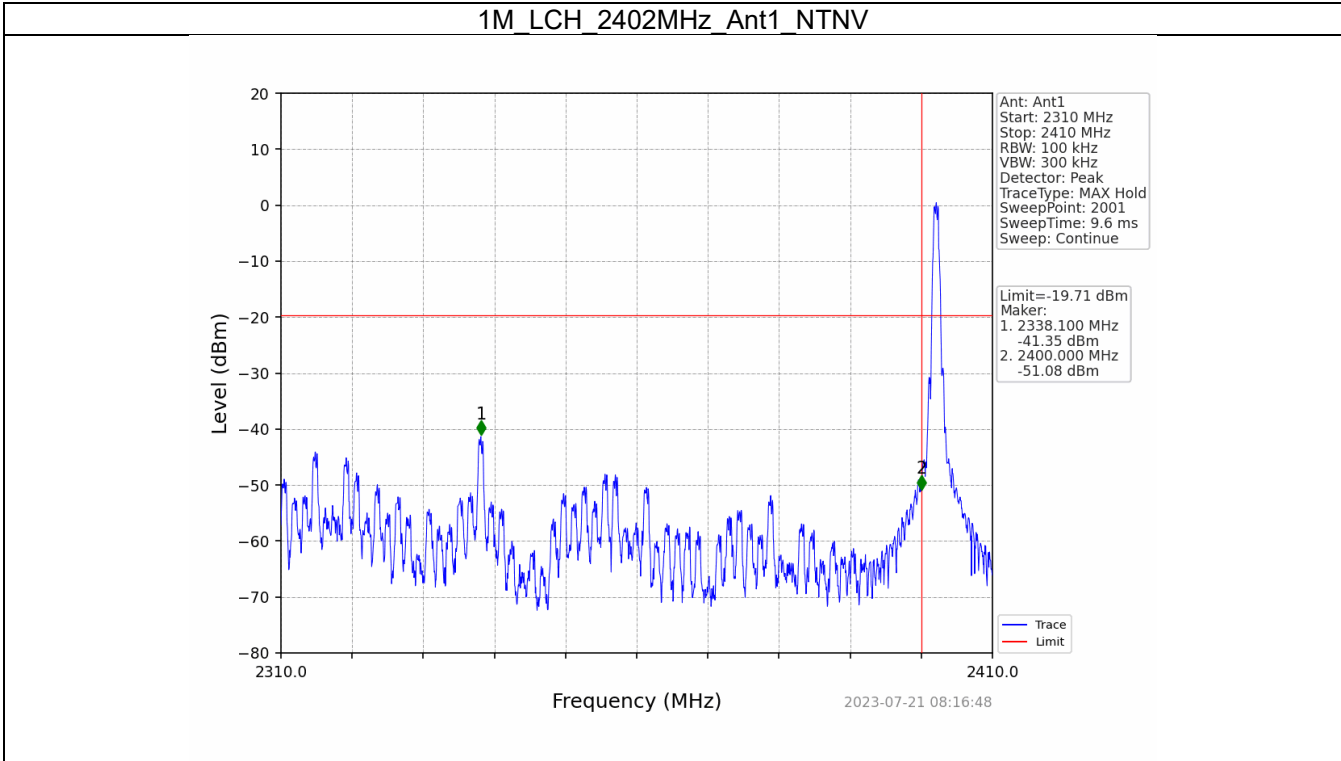
CSE

Test Result

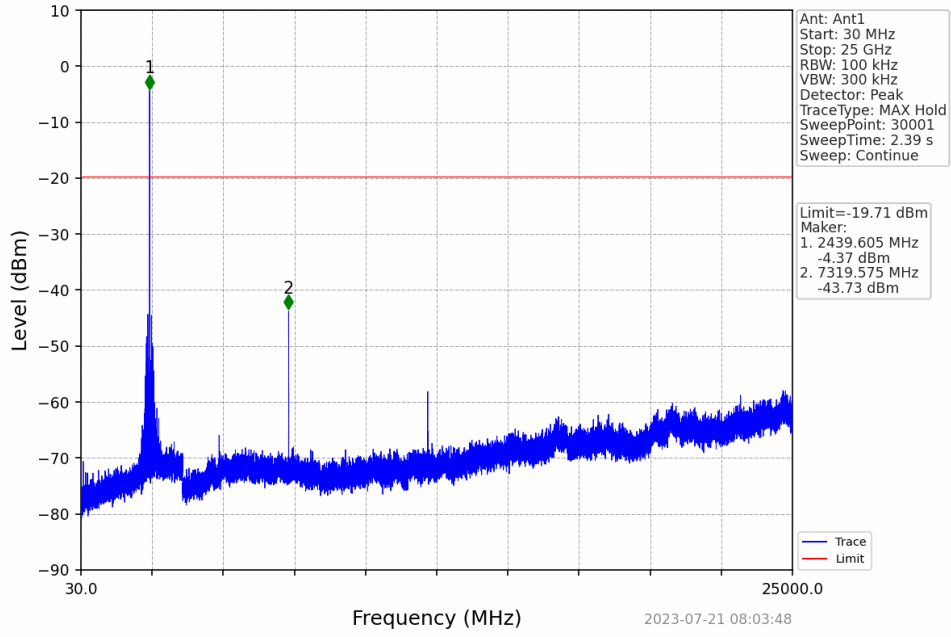
| Mode | TX Type | Frequency (MHz) | ANT | Level of Reference (dBm) | Limit (dBm) | Verdict |
|------|---------|-----------------|-----|--------------------------|-------------|---------|
| 1M | SISO | 2402 | 1 | 0.29 | -19.71 | Pass |
| | | 2440 | 1 | 0.29 | -19.71 | Pass |
| | | 2480 | 1 | 0.29 | -19.71 | 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.

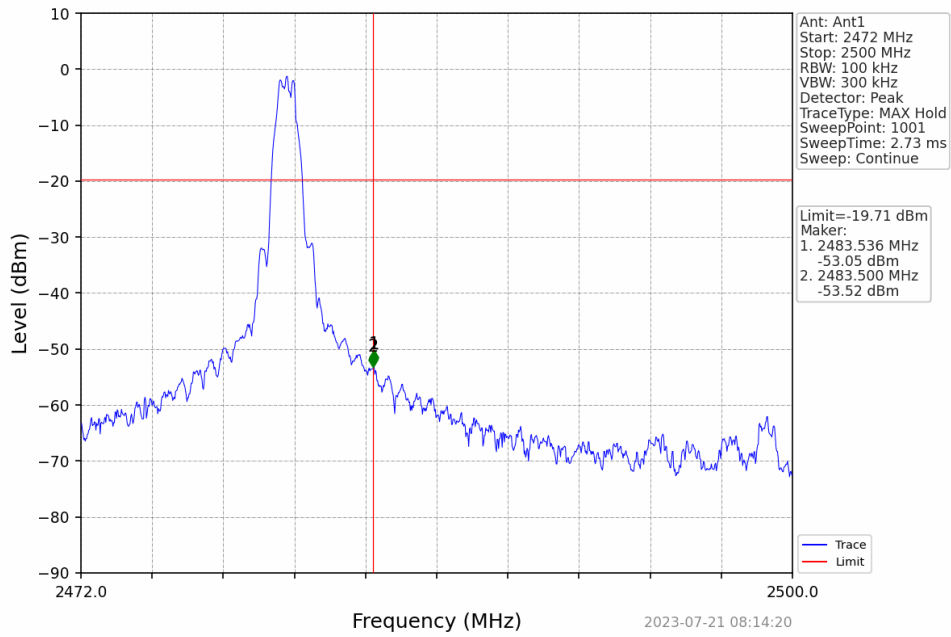
Test Graph



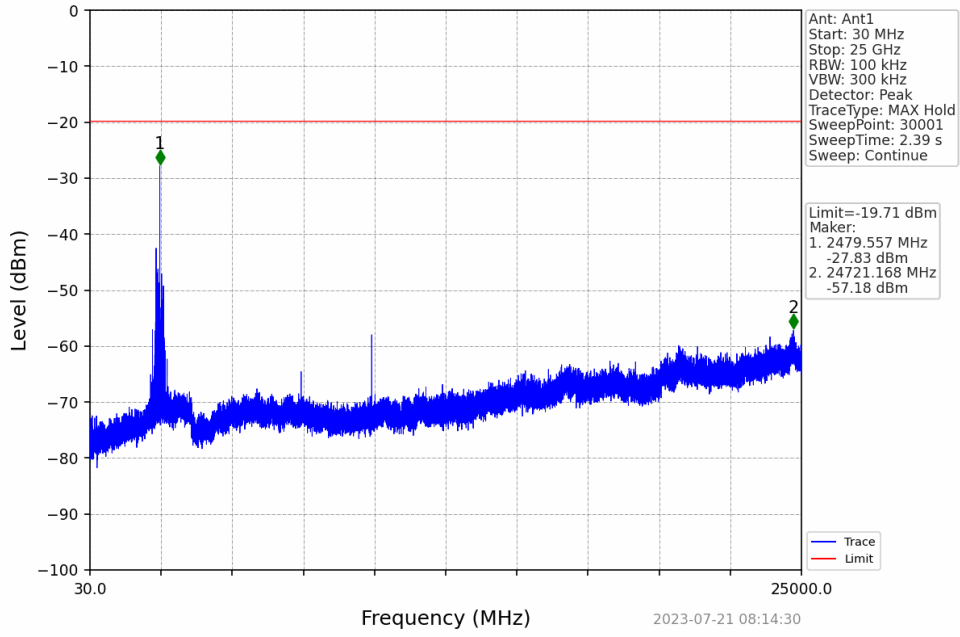
1M MCH 2440MHz Ant1 NTV



1M HCH 2480MHz Ant1 NTV



1M HCH 2480MHz Ant1 NTN



A.6. Conducted band edge emission Test

| Test Mode: GFSK | | | | | | | | | | |
|---|-------------------------|----------------------------|---------------------------|-----------------------|-----------------------------|-------------------------------|-----------------------|----------------|----------------------|--------|
| Pol. | Frequen- cy (MHz) | Meter Reading (dBuV) | Pre- amplifier (dB) | Cable Loss (dB) | Antenna Factor (dB/m) | Emission level (dBuV/m) | Limit (dBuV/ m) | Margin (dB) | Detect or Type | Result |
| Low Channel: 2402MHz | | | | | | | | | | |
| H | 2390.00 | 47.71 | 29.15 | 3.41 | 34.01 | 46.26 | 74.00 | -27.74 | PK | PASS |
| H | 2400.00 | 65.19 | 29.16 | 3.43 | 34.01 | 63.77 | 74.00 | -10.23 | PK | PASS |
| V | 2390.00 | 48.72 | 29.15 | 3.41 | 34.01 | 47.27 | 74.00 | -26.73 | PK | PASS |
| V | 2400.00 | 67.74 | 29.16 | 3.43 | 34.01 | 66.32 | 74.00 | -7.68 | PK | PASS |
| H | 2390.00 | 37.17 | 29.15 | 3.41 | 34.01 | 35.72 | 54.00 | -18.28 | AV | PASS |
| H | 2400.00 | 48.69 | 29.16 | 3.43 | 34.01 | 47.27 | 54.00 | -6.73 | AV | PASS |
| V | 2390.00 | 37.46 | 29.15 | 3.41 | 34.01 | 36.01 | 54.00 | -17.99 | AV | PASS |
| V | 2400.00 | 45.80 | 29.16 | 3.43 | 34.01 | 44.38 | 54.00 | -9.62 | AV | PASS |
| High Channel: 2480MHz | | | | | | | | | | |
| H | 2483.50 | 50.39 | 29.28 | 3.53 | 34.03 | 49.17 | 74.00 | -24.83 | PK | PASS |
| H | 2500.00 | 48.64 | 29.30 | 3.56 | 34.03 | 47.47 | 74.00 | -26.53 | PK | PASS |
| V | 2483.50 | 52.04 | 29.28 | 3.53 | 34.03 | 50.82 | 74.00 | -23.18 | PK | PASS |
| V | 2500.00 | 50.10 | 29.30 | 3.56 | 34.03 | 48.93 | 74.00 | -25.07 | PK | PASS |
| H | 2483.50 | 40.05 | 29.28 | 3.53 | 34.03 | 38.83 | 54.00 | -15.17 | AV | PASS |
| H | 2500.00 | 37.36 | 29.30 | 3.56 | 34.03 | 36.19 | 54.00 | -17.81 | AV | PASS |
| V | 2483.50 | 41.67 | 29.28 | 3.53 | 34.03 | 40.45 | 54.00 | -13.55 | AV | PASS |
| V | 2500.00 | 37.69 | 29.30 | 3.56 | 34.03 | 36.52 | 54.00 | -17.48 | AV | PASS |
| Remark: | | | | | | | | | | |
| 1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier, Margin= Emission Level - Limit | | | | | | | | | | |

End of the report