

Appendix B

7.1 Maximum Conducted Output Power

| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Duty Factor (dB) | Total Power (dBm) | Limit (dBm) | Verdict |
|-----------|--------|-----------------|---------|-----------------------|------------------|-------------------|-------------|---------|
| NVNT | BLE 1M | 2402 | Ant1 | -2.82 | 0 | -2.82 | 30 | Pass |
| NVNT | BLE 1M | 2440 | Ant1 | -3.43 | 0 | -3.43 | 30 | Pass |
| NVNT | BLE 1M | 2480 | Ant1 | -3.63 | 0 | -3.63 | 30 | Pass |
| NVNT | BLE 2M | 2402 | Ant1 | -2.82 | 0 | -2.82 | 30 | Pass |
| NVNT | BLE 2M | 2440 | Ant1 | -3.43 | 0 | -3.43 | 30 | Pass |
| NVNT | BLE 2M | 2480 | Ant1 | -3.64 | 0 | -3.64 | 30 | Pass |

E.I.R.P

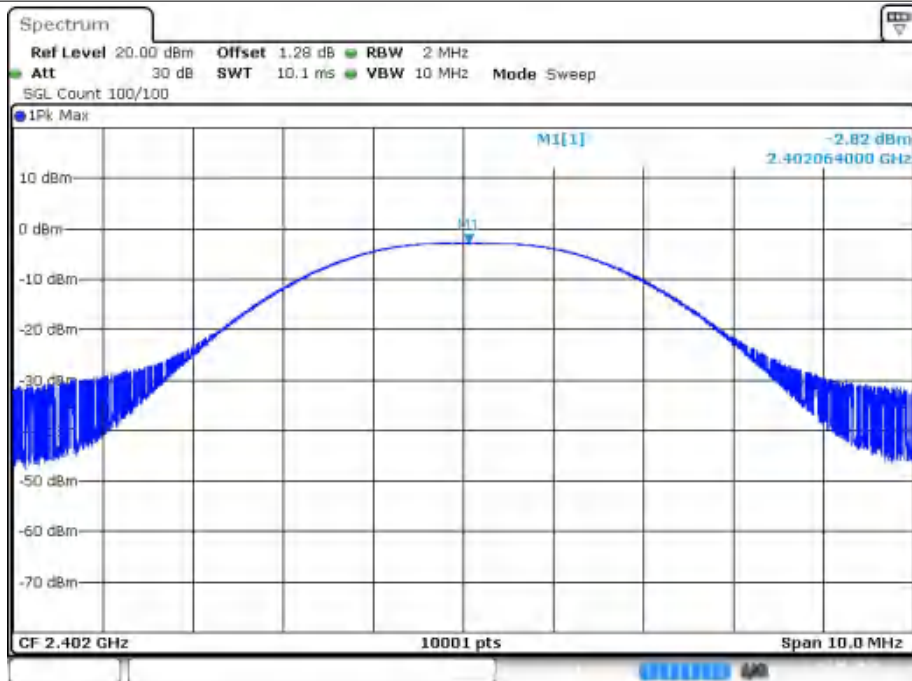
| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Duty Factor (dB) | Total Power (dBm) | Limit (dBm) | E.I.R.P (dBm) | E.I.R.P Limit (dBm) | Verdict |
|-----------|--------|-----------------|---------|-----------------------|------------------|-------------------|-------------|---------------|---------------------|---------|
| NVNT | BLE 1M | 2402 | Ant1 | -2.82 | 0 | -2.82 | 30 | 0.26 | <=36.02 | Pass |
| NVNT | BLE 1M | 2440 | Ant1 | -3.43 | 0 | -3.43 | 30 | -0.35 | <=36.02 | Pass |
| NVNT | BLE 1M | 2480 | Ant1 | -3.63 | 0 | -3.63 | 30 | -0.55 | <=36.02 | Pass |
| NVNT | BLE 2M | 2402 | Ant1 | -2.82 | 0 | -2.82 | 30 | 0.26 | <=36.02 | Pass |
| NVNT | BLE 2M | 2440 | Ant1 | -3.43 | 0 | -3.43 | 30 | -0.35 | <=36.02 | Pass |
| NVNT | BLE 2M | 2480 | Ant1 | -3.64 | 0 | -3.64 | 30 | -0.56 | <=36.02 | Pass |

Note1: Antenna Gain: 3.08dBi;

Note2: E.I.R.P = Measured Power + Antenna Gain

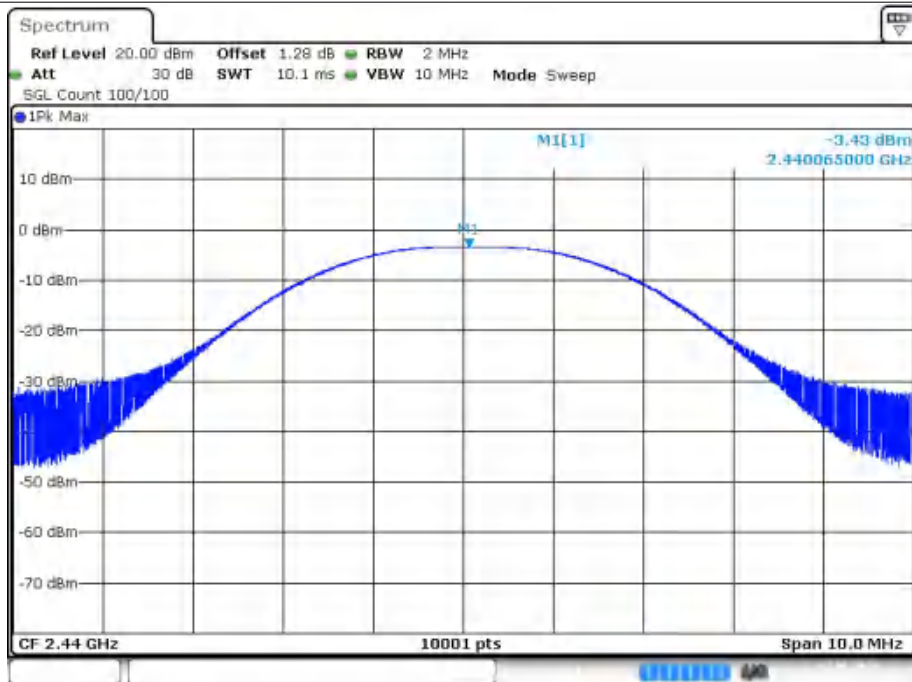
Test Graphs

Power NVNT BLE 1M 2402MHz Ant1



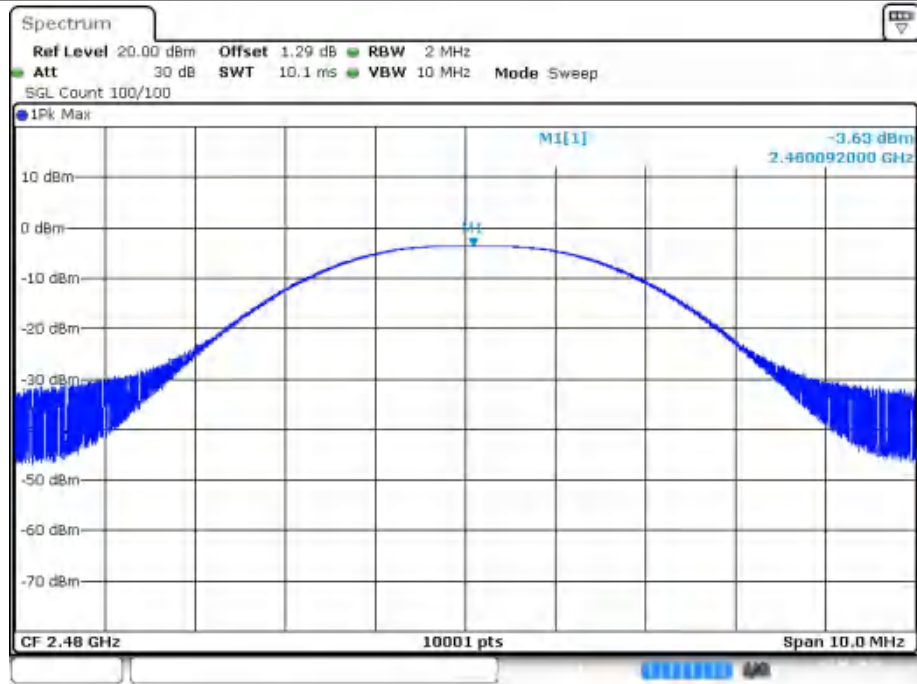
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Power NVNT BLE 1M 2440MHz Ant1



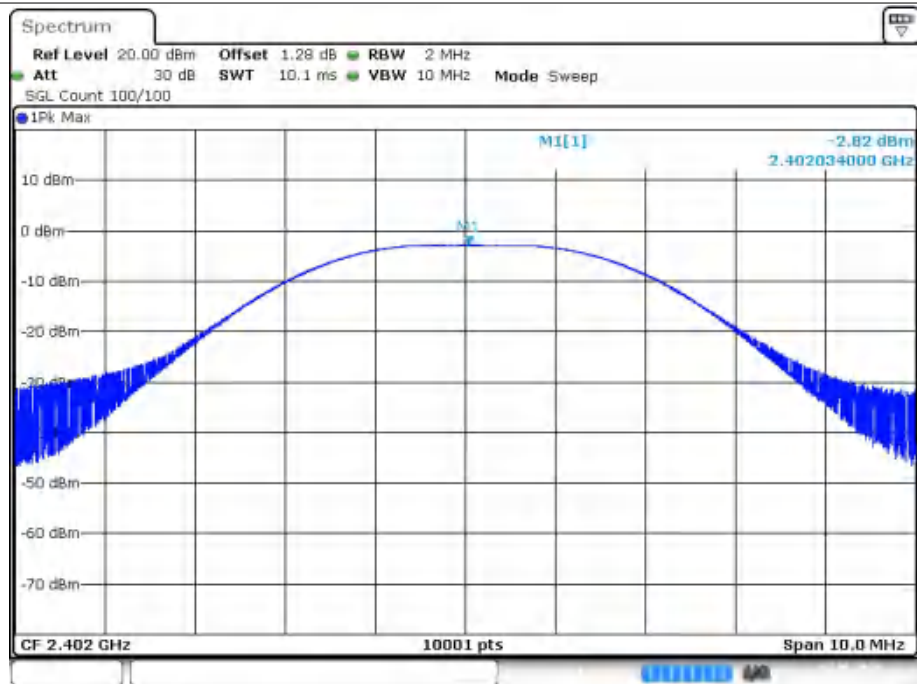
Date: 17 JUN 2023 16:46:54

Power NVNT BLE 1M 2480MHz Ant1



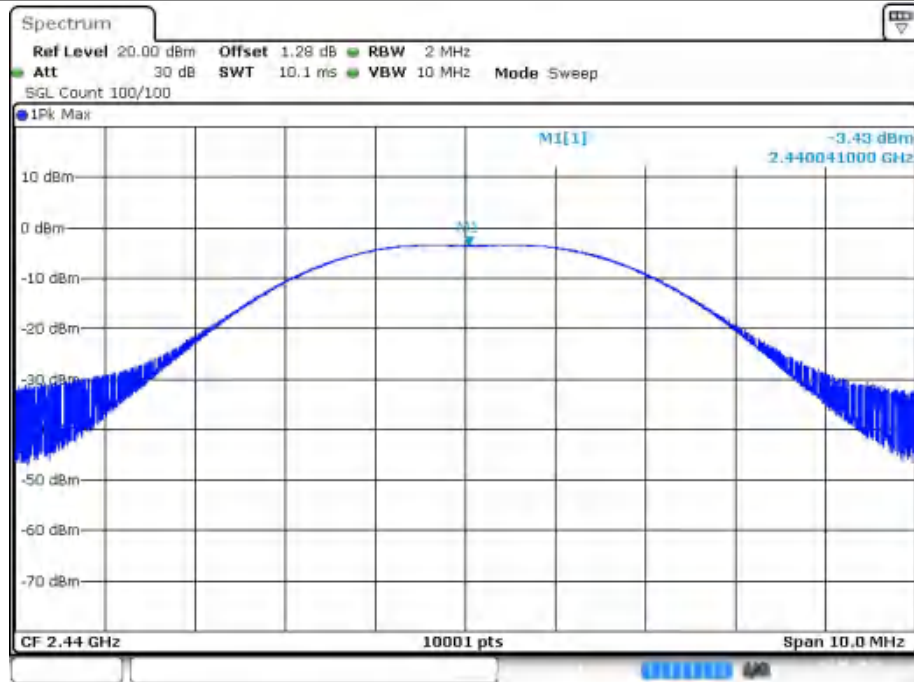
Date: 17.JUN.2023 16:49:23

Power NVNT BLE 2M 2402MHz Ant1



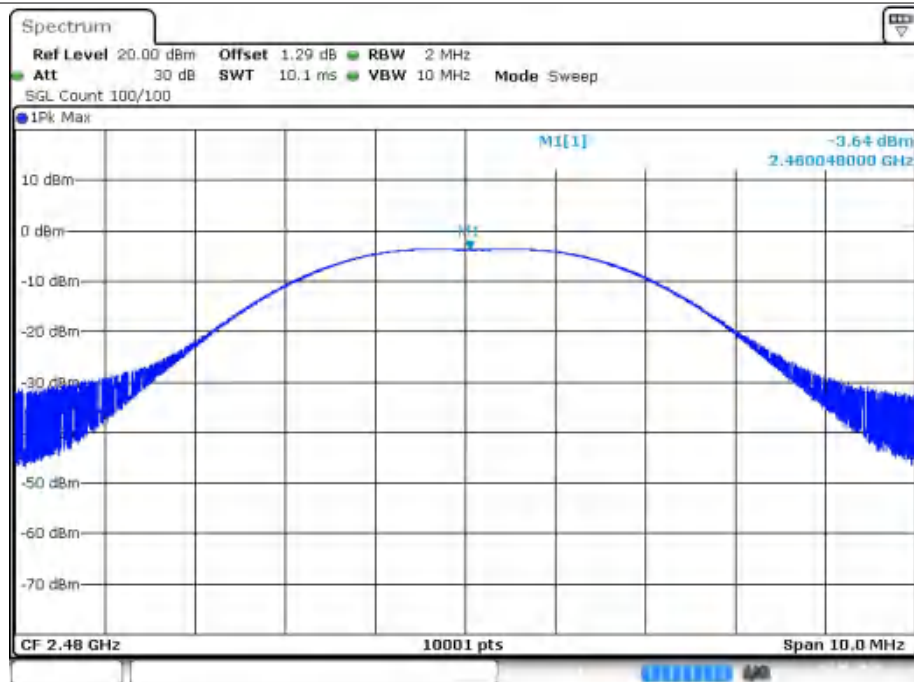
Date: 17.JUN.2023 16:50:40

Power NVNT BLE 2M 2440MHz Ant1



Date: 17.JUN.2023 16:52:12

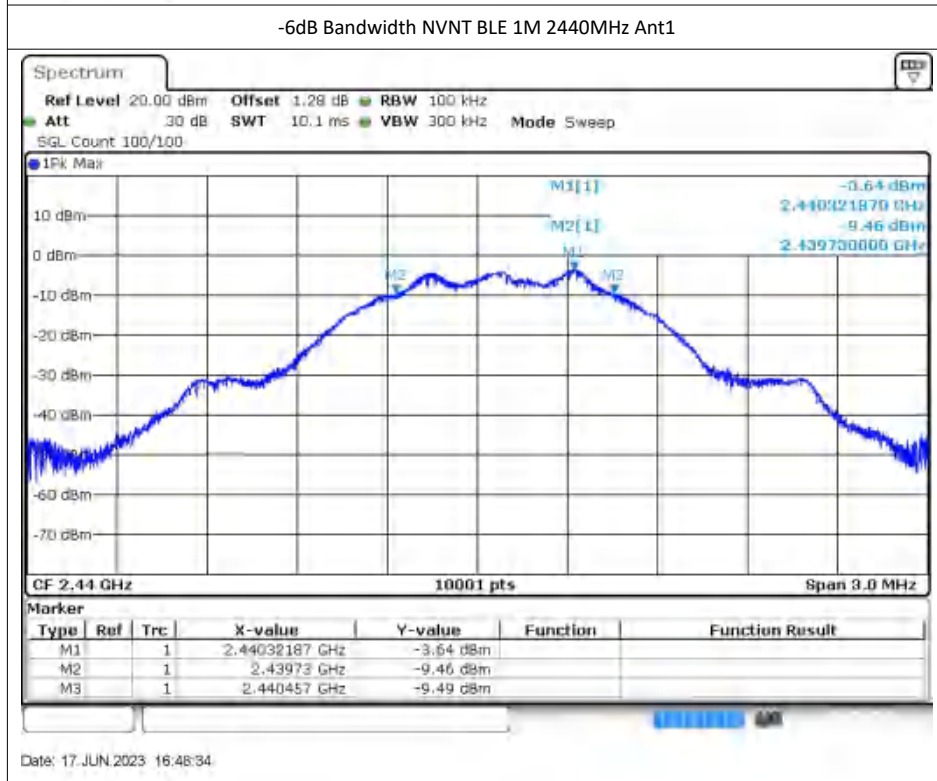
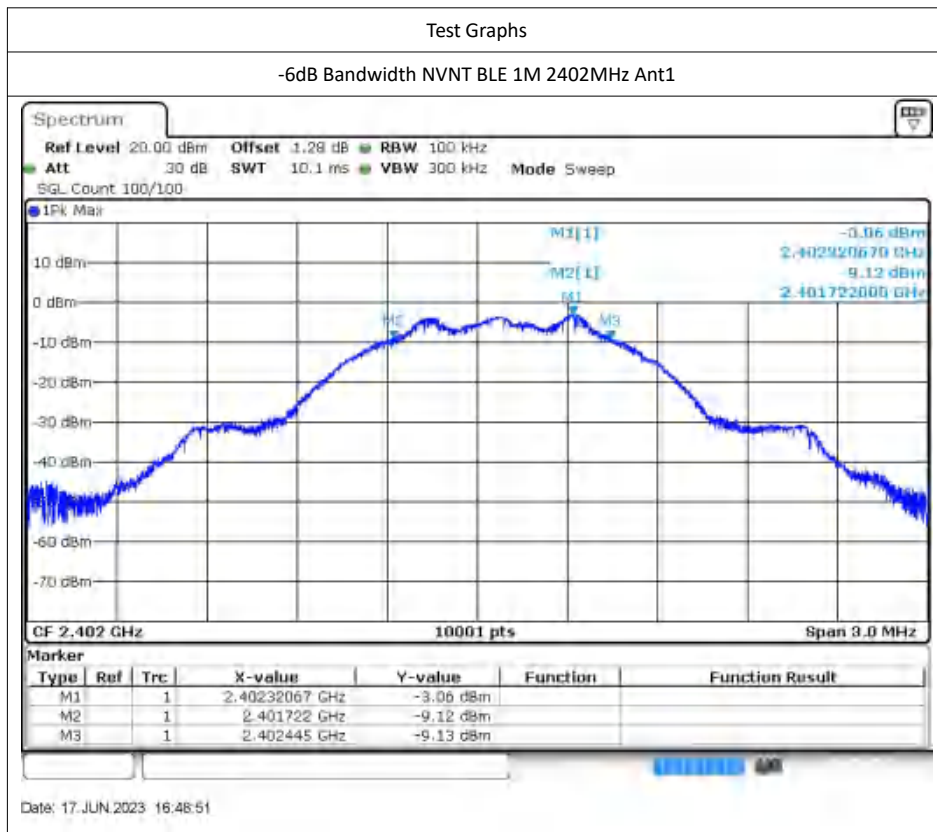
Power NVNT BLE 2M 2480MHz Ant1



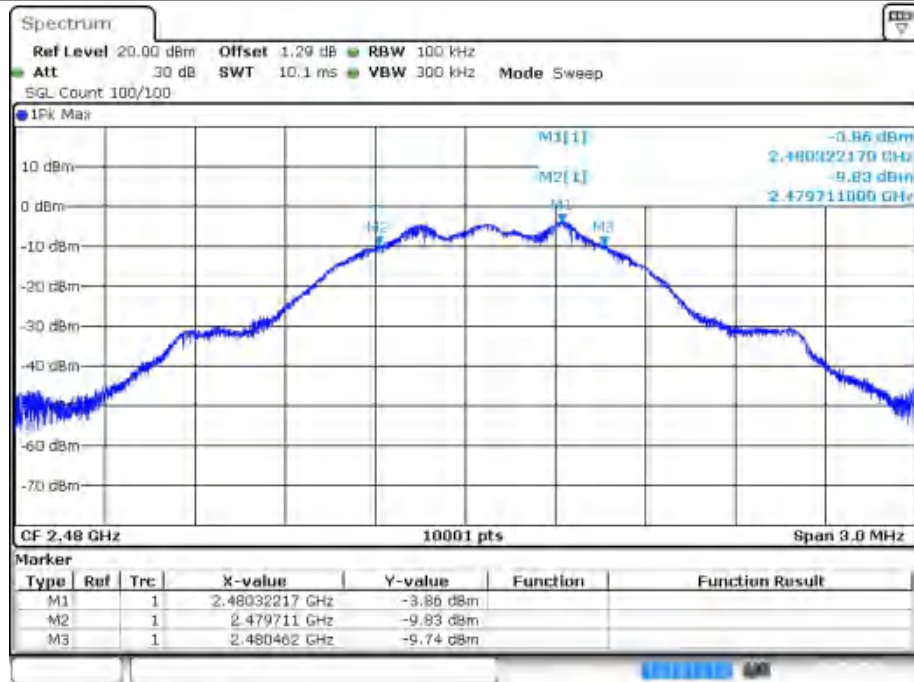
Date: 17.JUN.2023 16:54:13

7.2 6dB Bandwidth

| Condition | Mode | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|-----------|--------|-----------------|---------|-----------------------|-----------------------------|---------|
| NVNT | BLE 1M | 2402 | Ant1 | 0.722 | 0.5 | Pass |
| NVNT | BLE 1M | 2440 | Ant1 | 0.727 | 0.5 | Pass |
| NVNT | BLE 1M | 2480 | Ant1 | 0.751 | 0.5 | Pass |
| NVNT | BLE 2M | 2402 | Ant1 | 1.132 | 0.5 | Pass |
| NVNT | BLE 2M | 2440 | Ant1 | 1.128 | 0.5 | Pass |
| NVNT | BLE 2M | 2480 | Ant1 | 1.126 | 0.5 | Pass |



-6dB Bandwidth NVNT BLE 1M 2480MHz Ant1



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-6dB Bandwidth NVNT BLE 2M 2402MHz Ant1



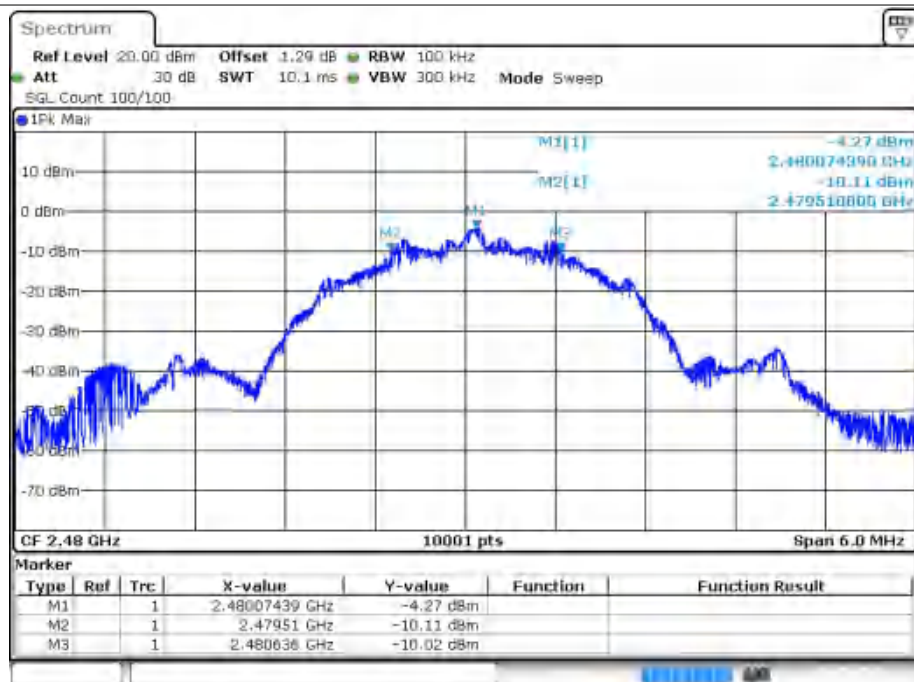
Date: 17 JUN 2023 16:50:50

-6dB Bandwidth NVNT BLE 2M 2440MHz Ant1



Date: 17 JUN 2023 16:52:23

-6dB Bandwidth NVNT BLE 2M 2480MHz Ant1



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Occupied Channel Bandwidth

| Condition | Mode | Frequency (MHz) | Antenna | 99% OBW (MHz) |
|-----------|--------|-----------------|---------|---------------|
| NVNT | BLE 1M | 2402 | Ant1 | 1.112 |
| NVNT | BLE 1M | 2440 | Ant1 | 1.124 |
| NVNT | BLE 1M | 2480 | Ant1 | 1.147 |
| NVNT | BLE 2M | 2402 | Ant1 | 2.064 |
| NVNT | BLE 2M | 2440 | Ant1 | 2.071 |
| NVNT | BLE 2M | 2480 | Ant1 | 2.067 |

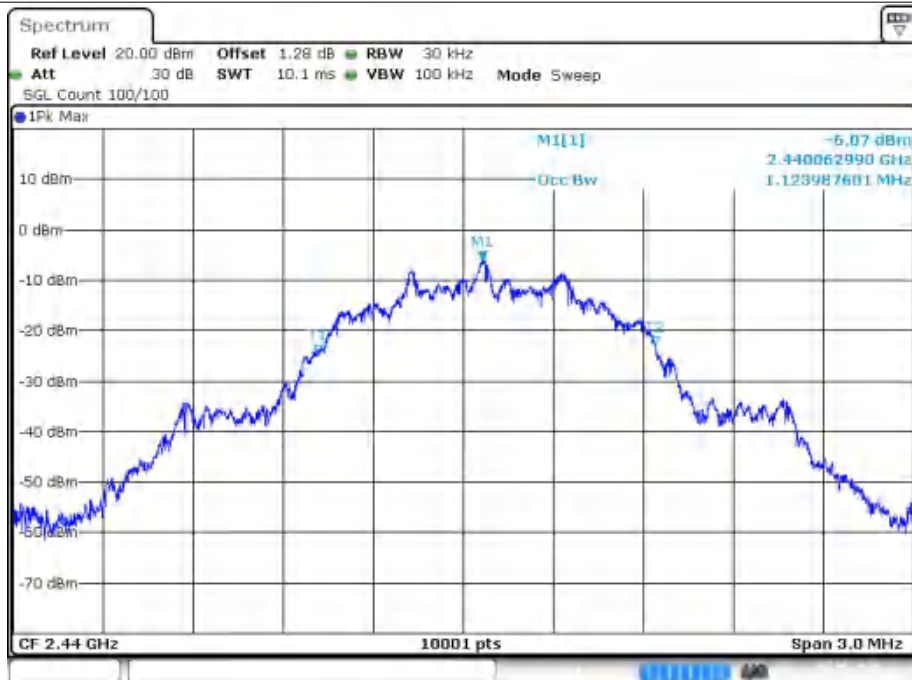
Test Graphs

OBW NVNT BLE 1M 2402MHz Ant1



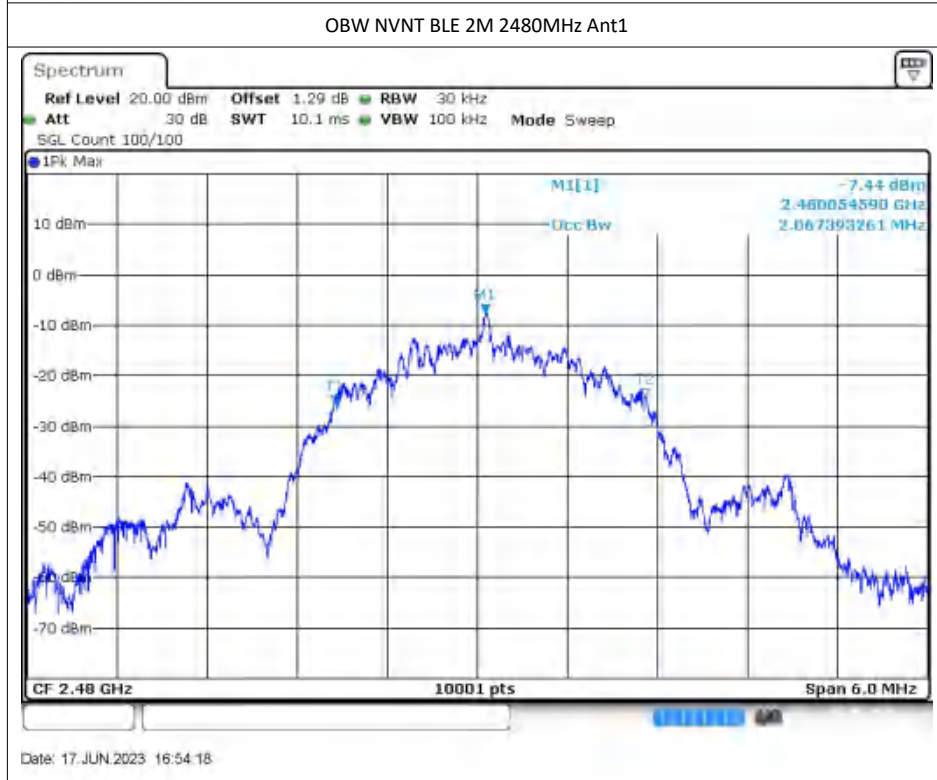
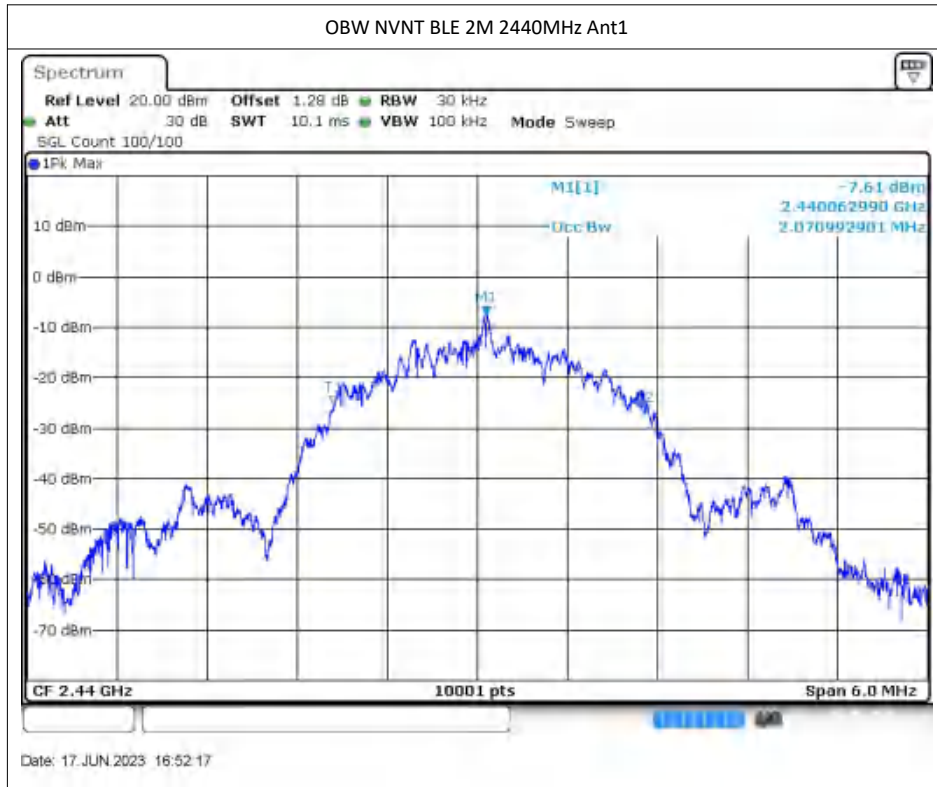
Date: 17 JUN 2023 16:45:41

OBW NVNT BLE 1M 2440MHz Ant1



Date: 17 JUN 2023 16:46:59



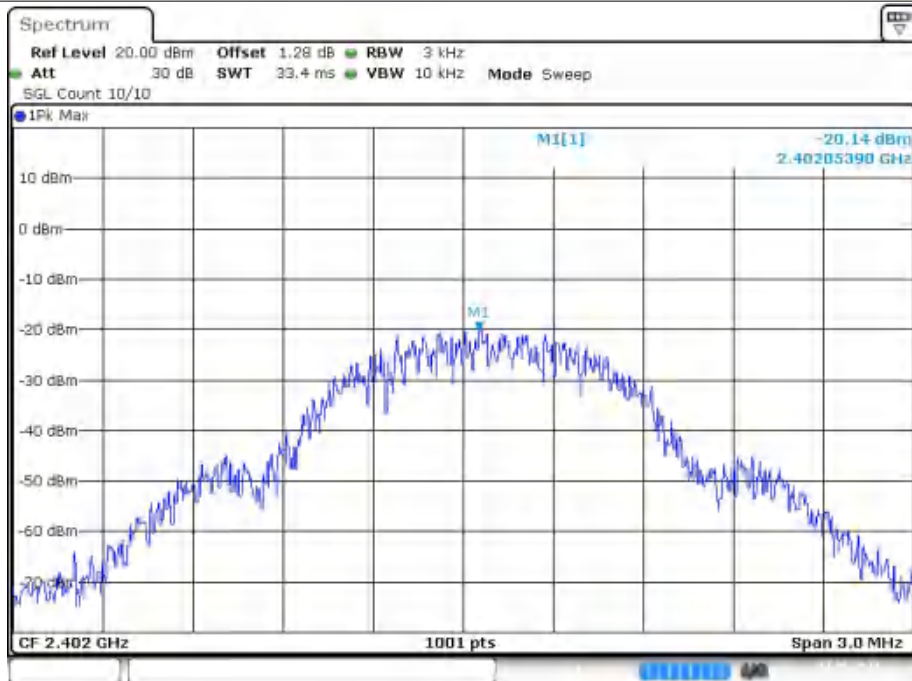


7.3 Maximum Power Spectral Density Level

| Condition | Mode | Frequency (MHz) | Antenna | Conducted PSD (dBm/3kHz) | Duty Factor (dB) | Total PSD (dBm/3kHz) | Limit (dBm/3kHz) | Verdict |
|-----------|--------|-----------------|---------|--------------------------|------------------|----------------------|------------------|---------|
| NVNT | BLE 1M | 2402 | Ant1 | -20.14 | 0 | -20.14 | 8 | Pass |
| NVNT | BLE 1M | 2440 | Ant1 | -20.76 | 0 | -20.76 | 8 | Pass |
| NVNT | BLE 1M | 2480 | Ant1 | -20.48 | 0 | -20.48 | 8 | Pass |
| NVNT | BLE 2M | 2402 | Ant1 | -22.38 | 0 | -22.38 | 8 | Pass |
| NVNT | BLE 2M | 2440 | Ant1 | -22.55 | 0 | -22.55 | 8 | Pass |
| NVNT | BLE 2M | 2480 | Ant1 | -22.62 | 0 | -22.62 | 8 | Pass |

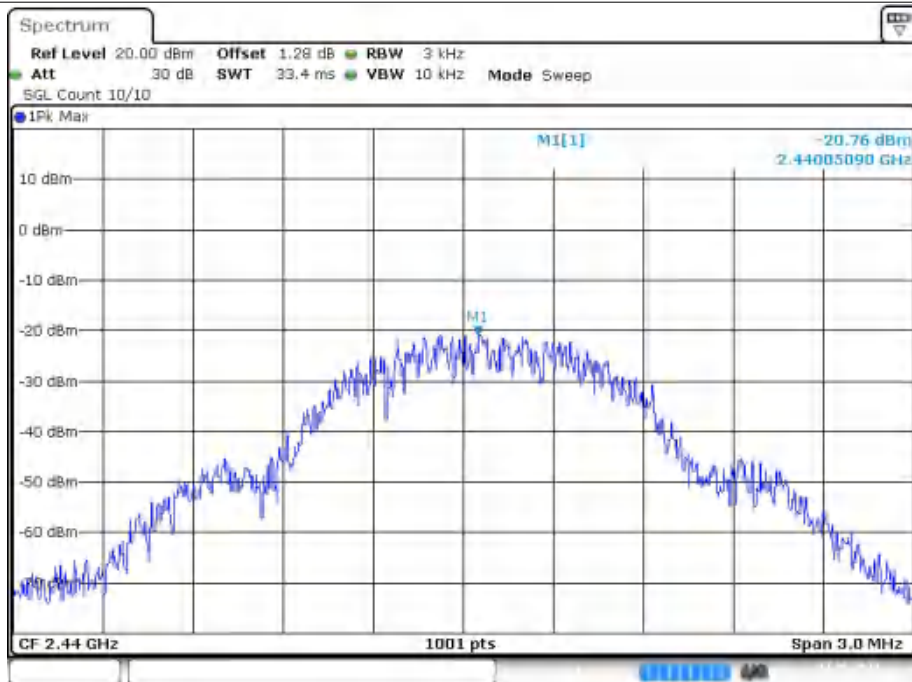
Test Graphs

PSD NVNT BLE 1M 2402MHz Ant1

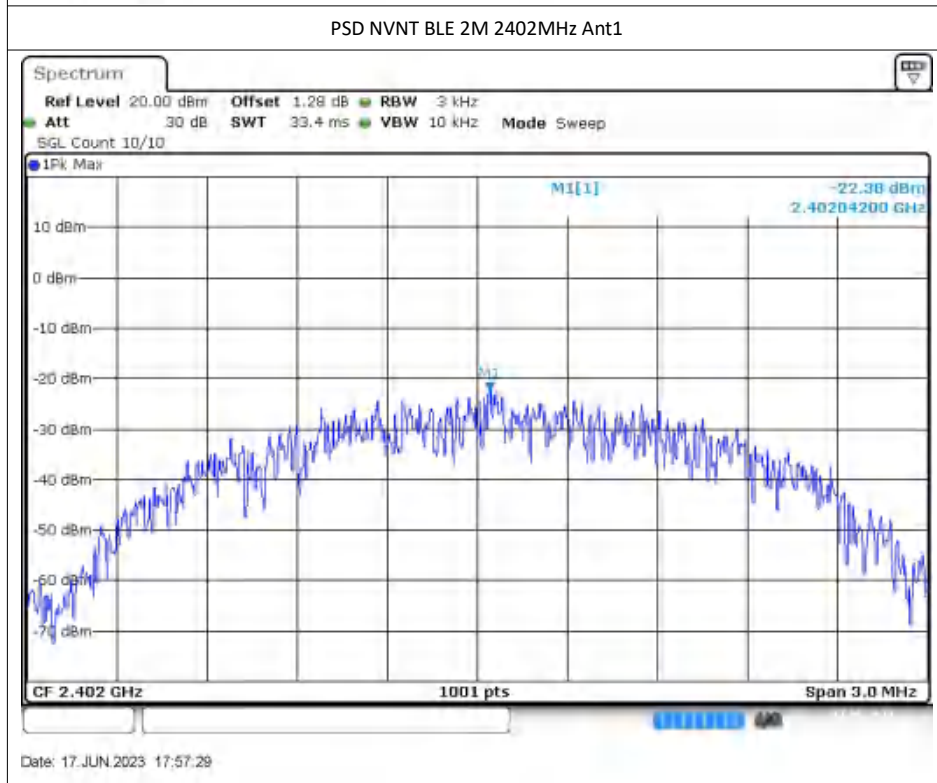
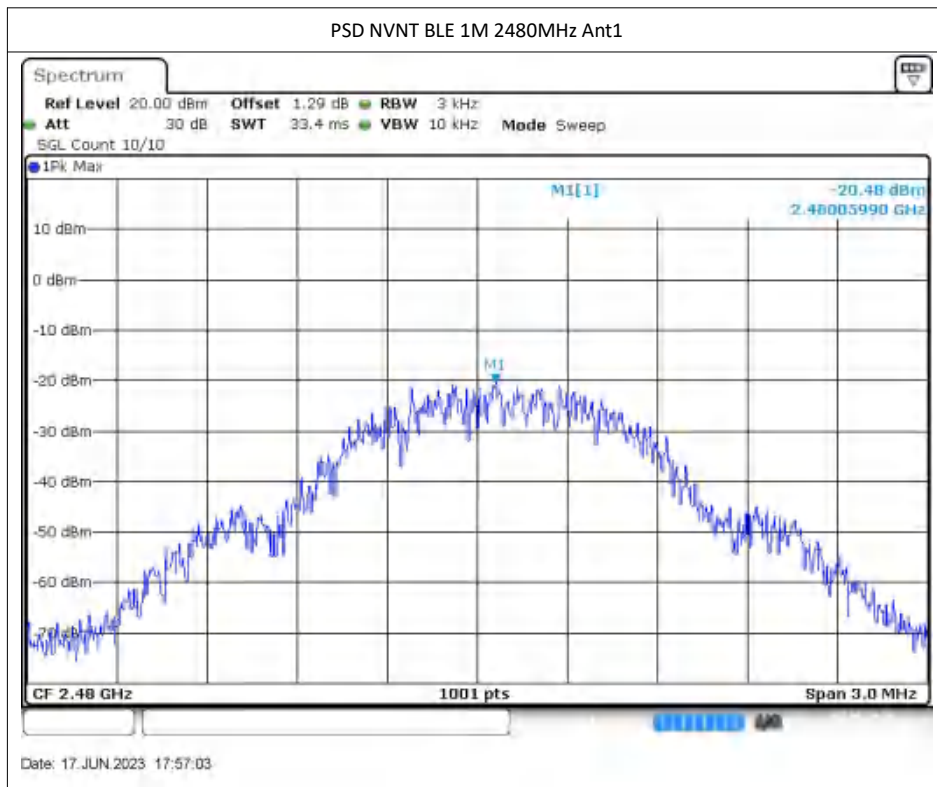


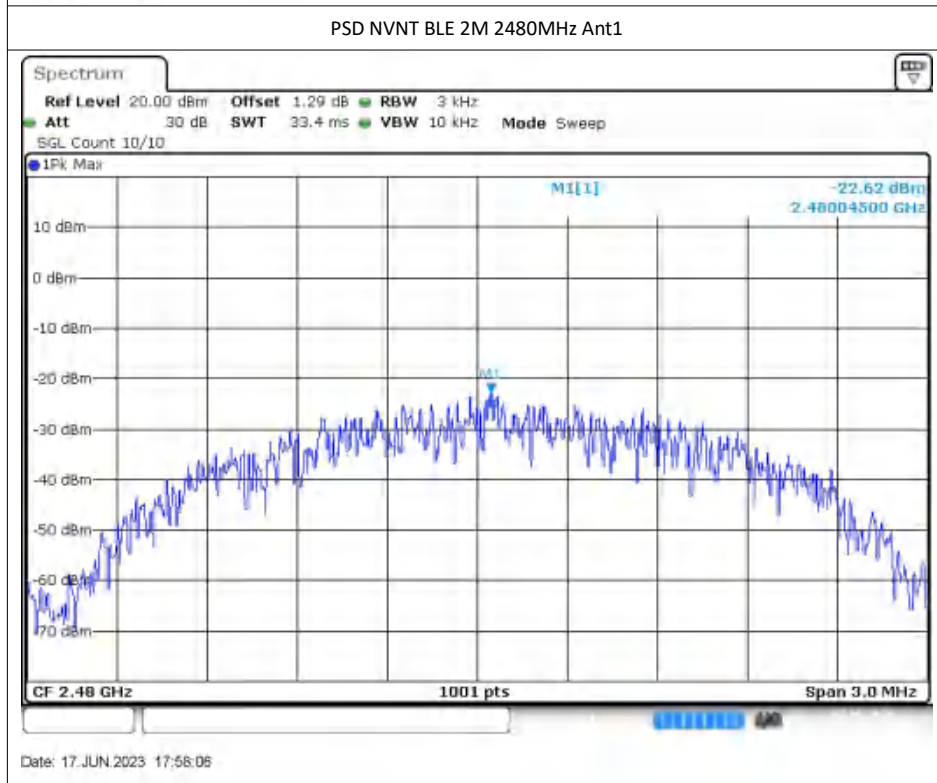
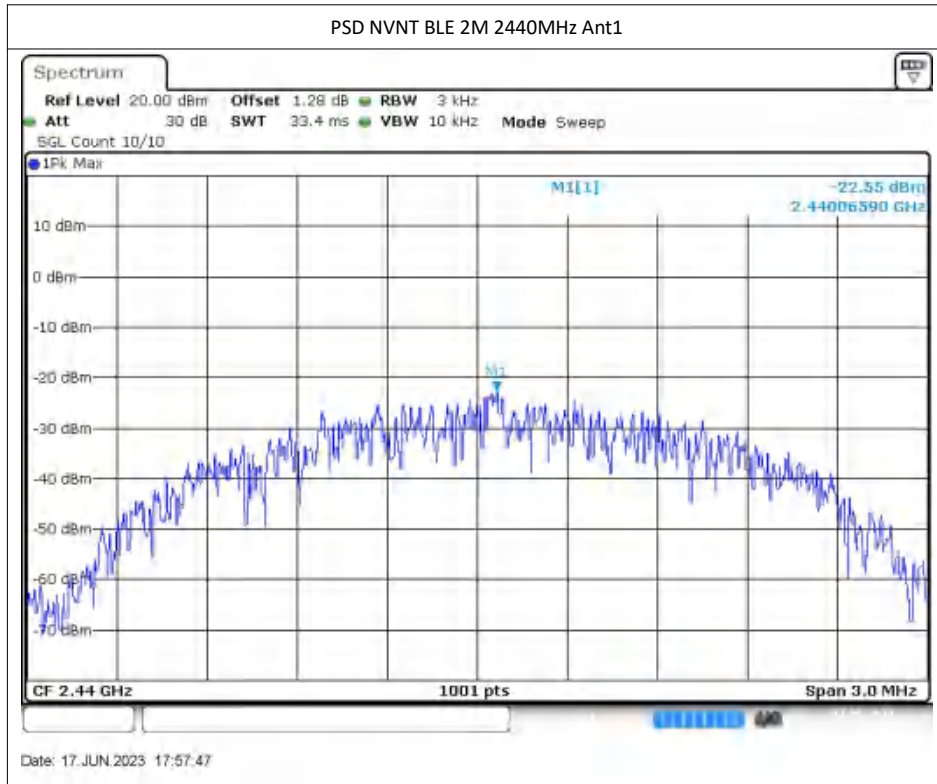
Date: 17 JUN 2023 17:53:51

PSD NVNT BLE 1M 2440MHz Ant1



Date: 17 JUN 2023 17:54:21



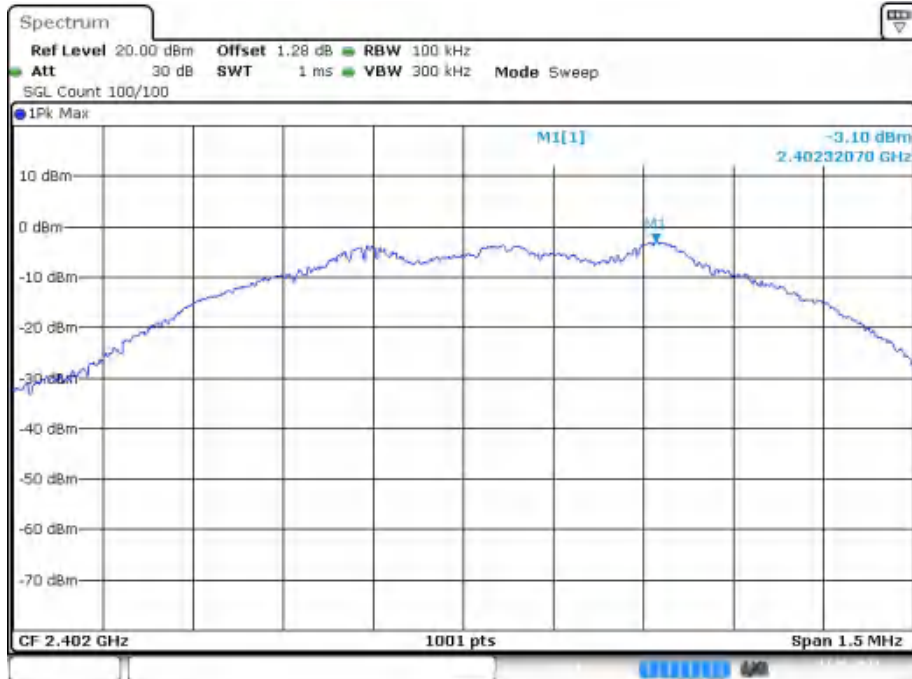


7.4 Conducted RF Spurious Emission

| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|--------|-----------------|---------|-----------------|-------------|---------|
| NVNT | BLE 1M | 2402 | Ant1 | -46.01 | -20 | Pass |
| NVNT | BLE 1M | 2440 | Ant1 | -45.2 | -20 | Pass |
| NVNT | BLE 1M | 2480 | Ant1 | -45.6 | -20 | Pass |
| NVNT | BLE 2M | 2402 | Ant1 | -44.9 | -20 | Pass |
| NVNT | BLE 2M | 2440 | Ant1 | -44.61 | -20 | Pass |
| NVNT | BLE 2M | 2480 | Ant1 | -44.46 | -20 | Pass |

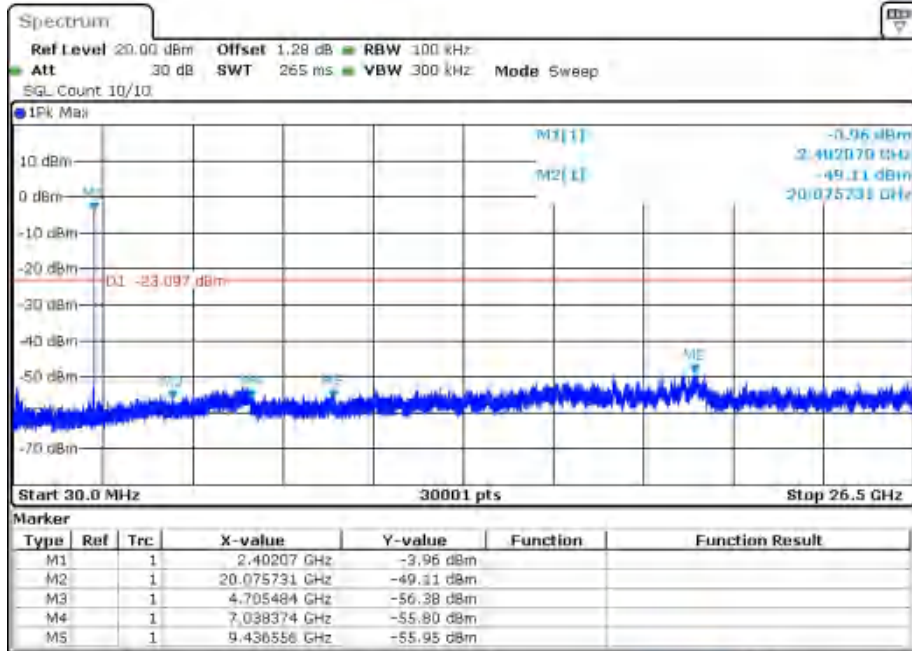
Test Graphs

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref

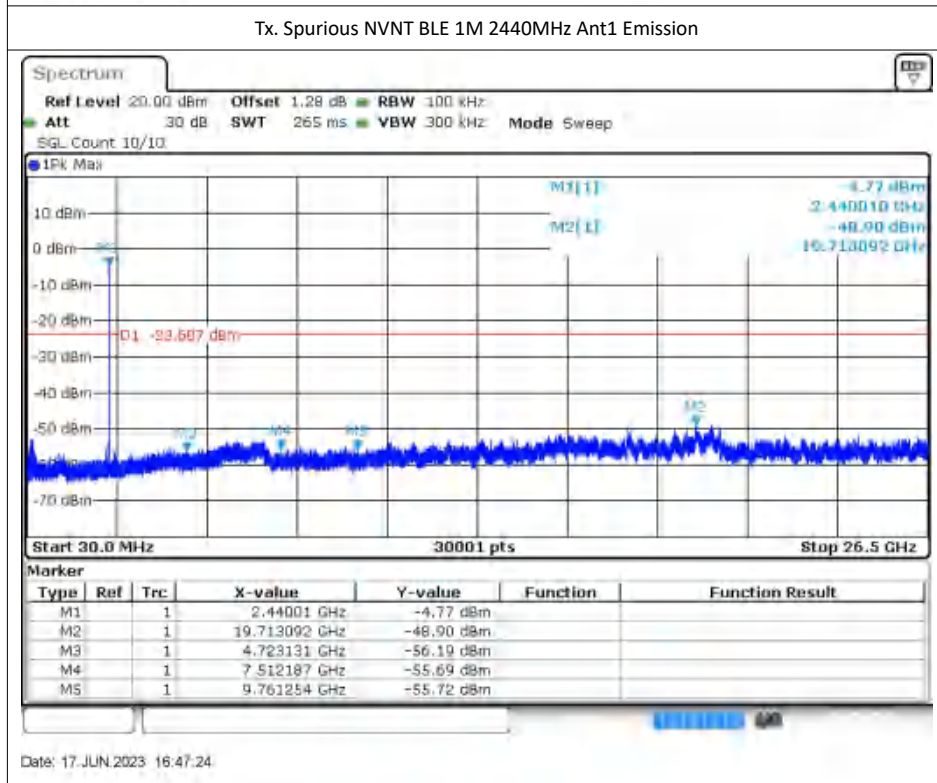
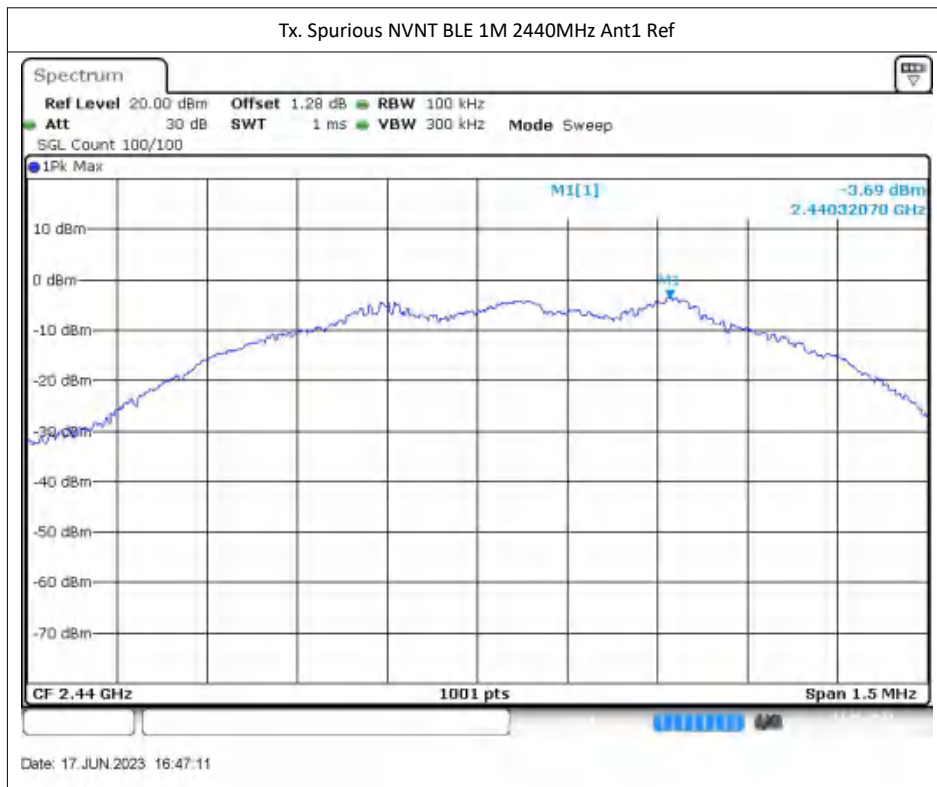


Date: 17 JUN 2023 16:45:58

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission



Date: 17 JUN 2023 16:46:11

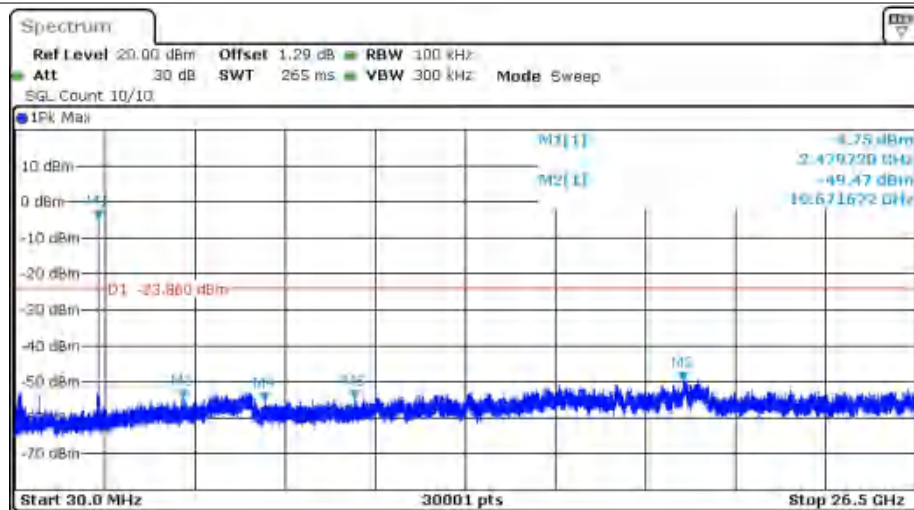


Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



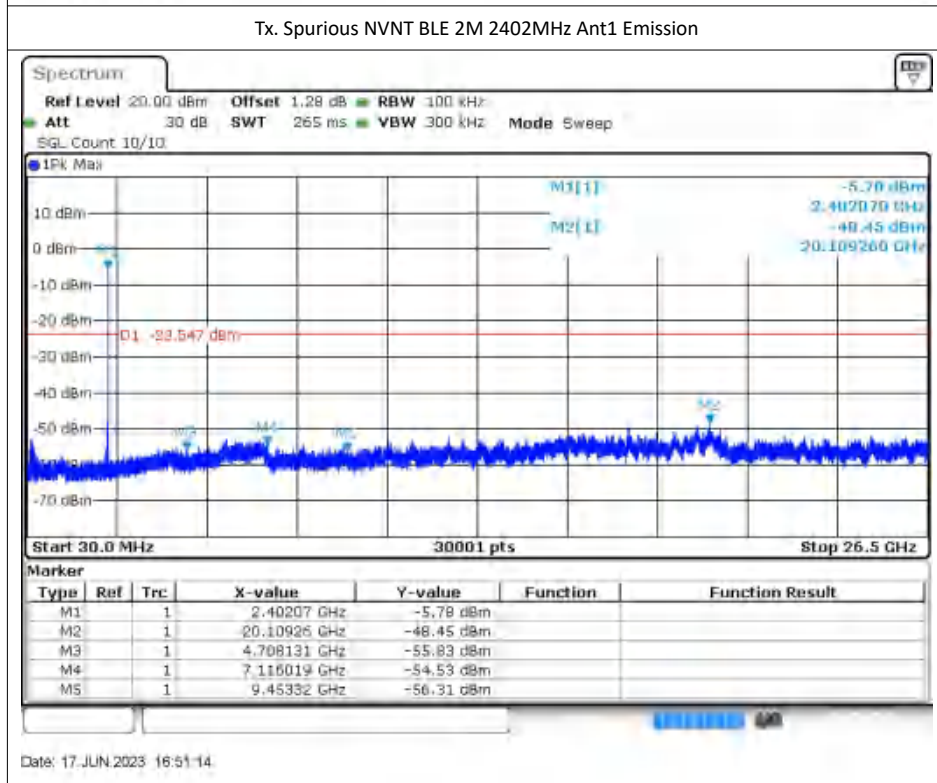
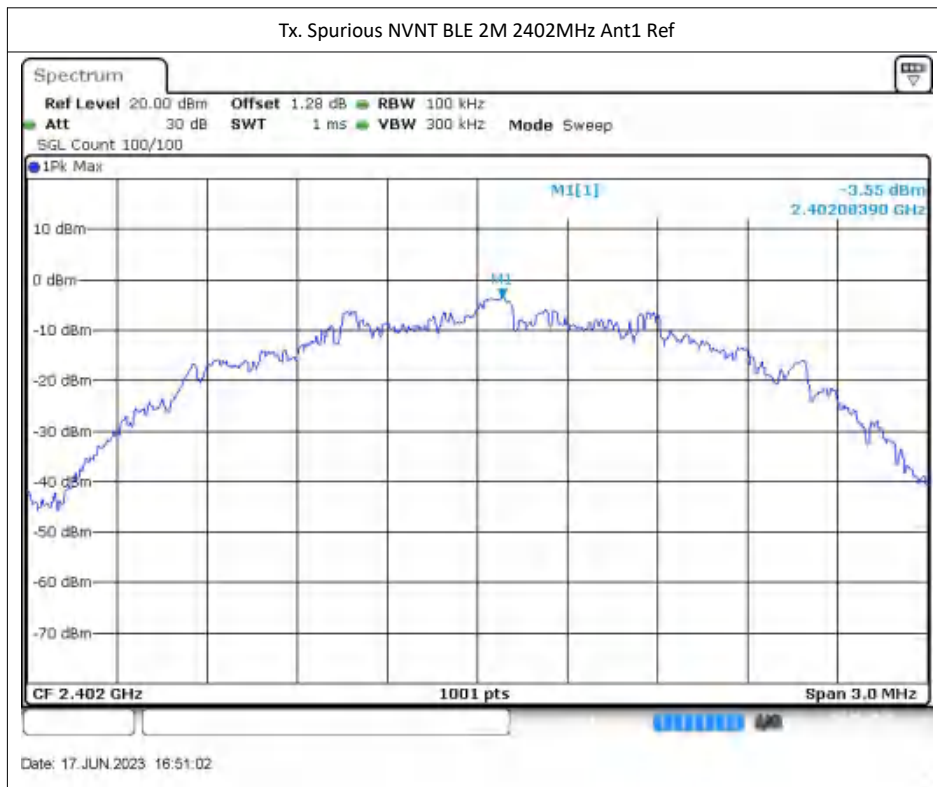
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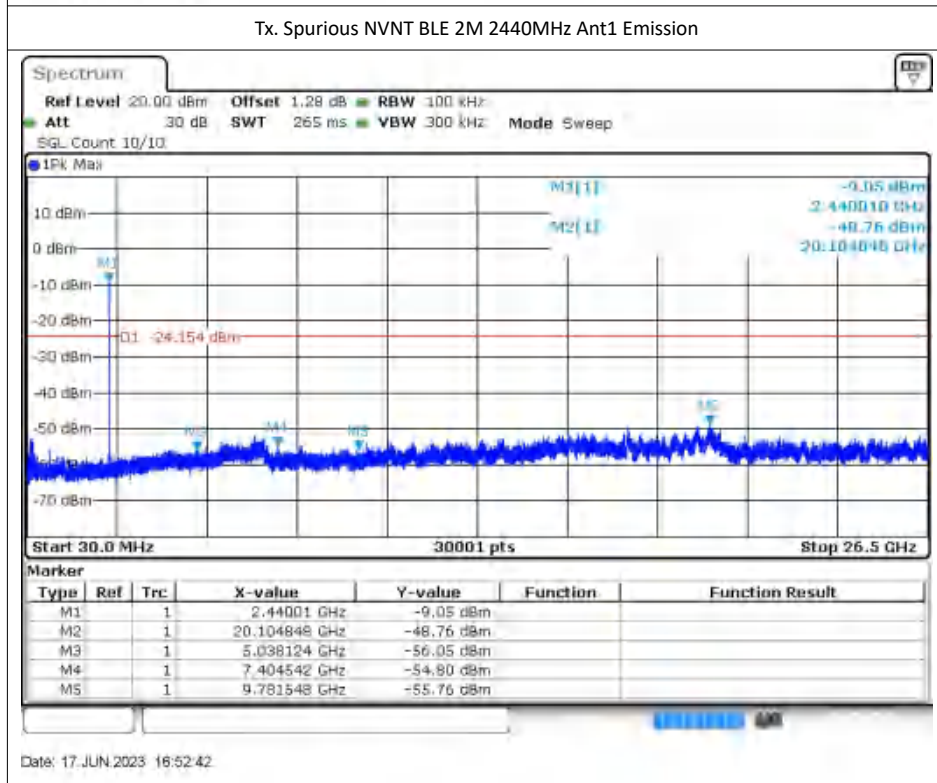
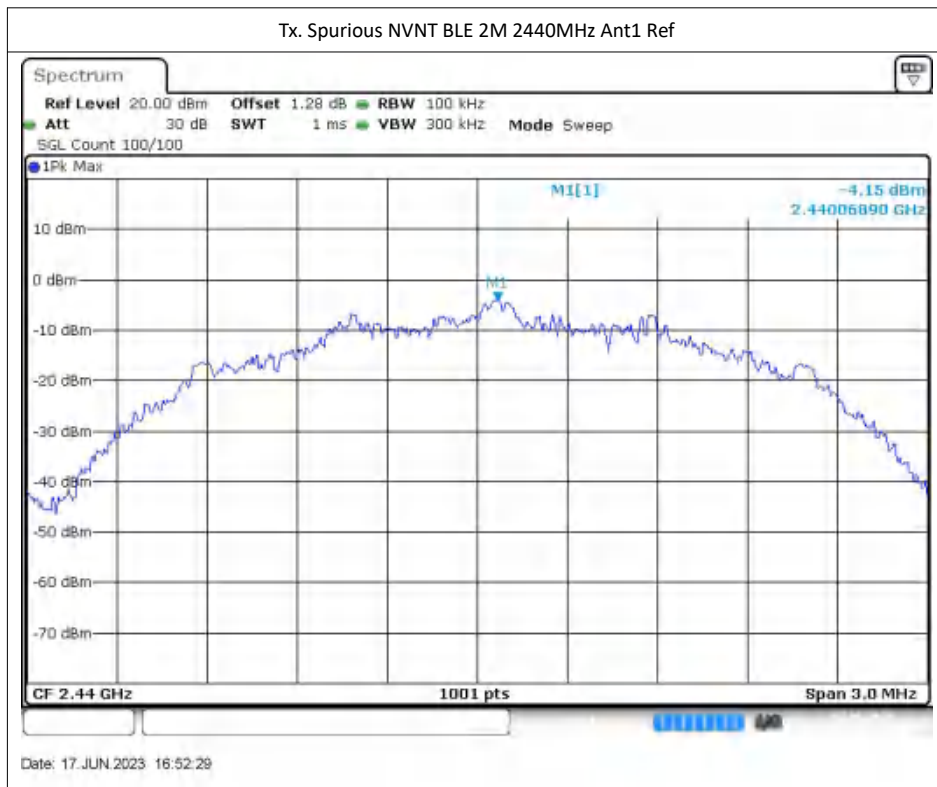
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission

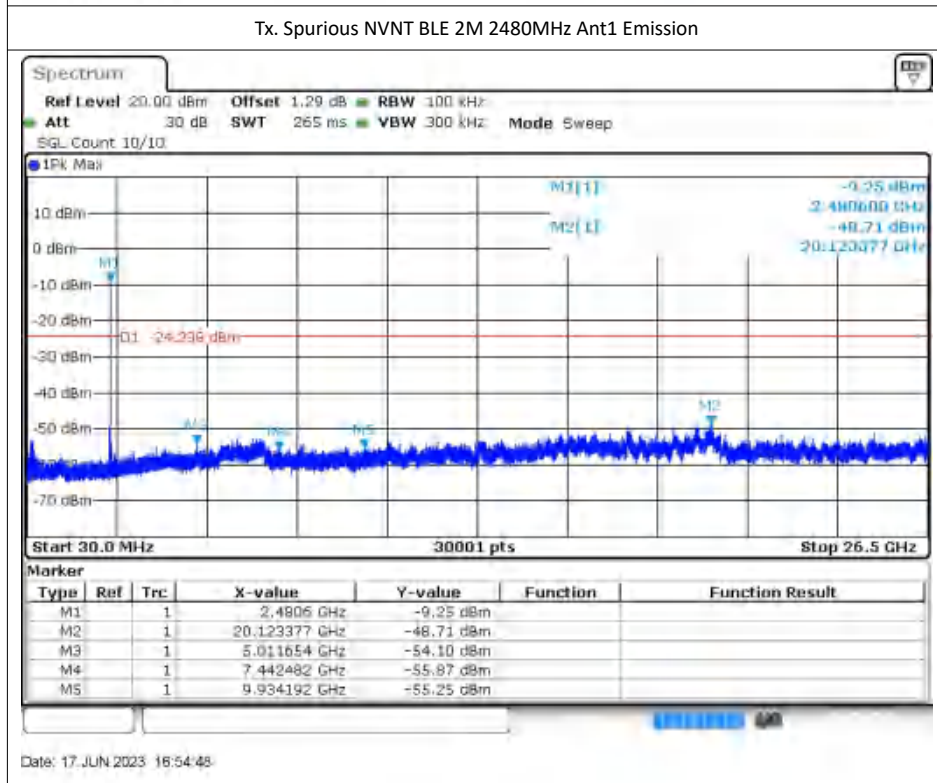
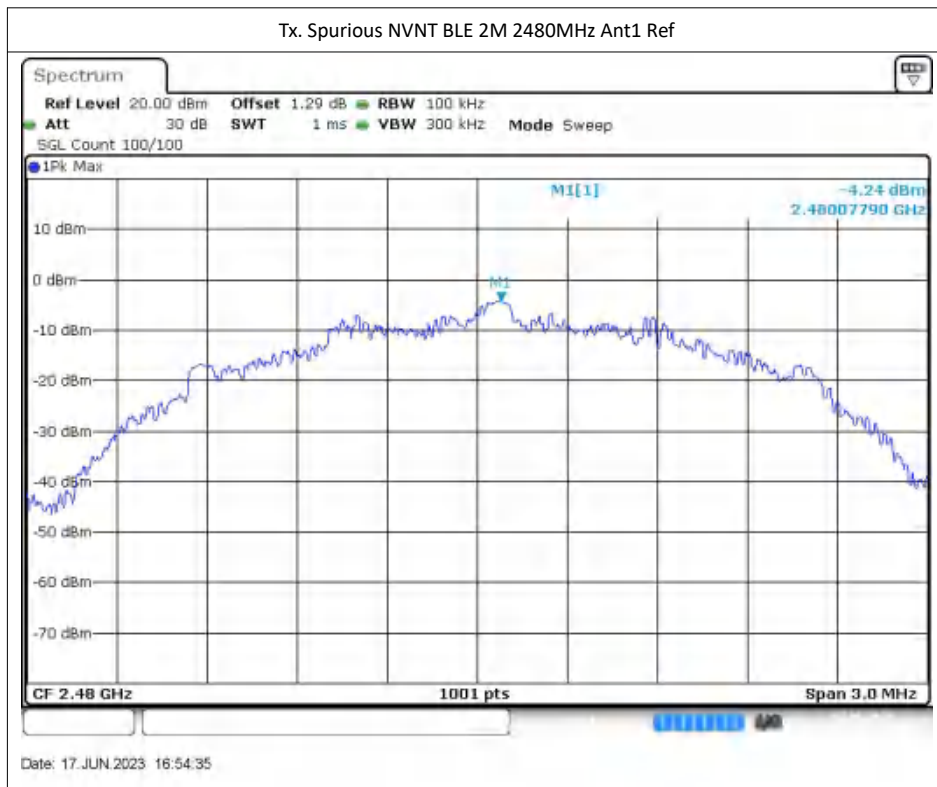


| Marker | | | | | | |
|--------|-----|-----|---------------|------------|----------|-----------------|
| Type | Ref | Trc | X-value | Y-value | Function | Function Result |
| M1 | 1 | | 2.47972 GHz | -4.75 dBm | | |
| M2 | 1 | | 19.671622 GHz | -49.47 dBm | | |
| M3 | 1 | | 4.959596 GHz | -54.60 dBm | | |
| M4 | 1 | | 7.352484 GHz | -55.34 dBm | | |
| M5 | 1 | | 10.001249 GHz | -54.59 dBm | | |

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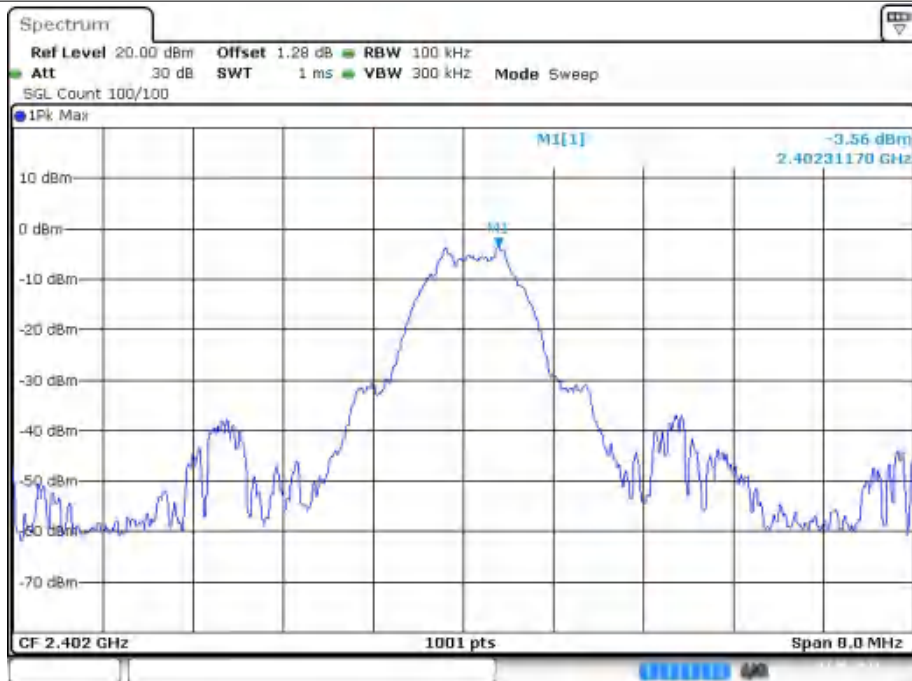


Band Edge

| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|--------|-----------------|---------|-----------------|-------------|---------|
| NVNT | BLE 1M | 2402 | Ant1 | -34.78 | -20 | Pass |
| NVNT | BLE 1M | 2480 | Ant1 | -45.57 | -20 | Pass |
| NVNT | BLE 2M | 2402 | Ant1 | -37.59 | -20 | Pass |
| NVNT | BLE 2M | 2480 | Ant1 | -37.9 | -20 | Pass |

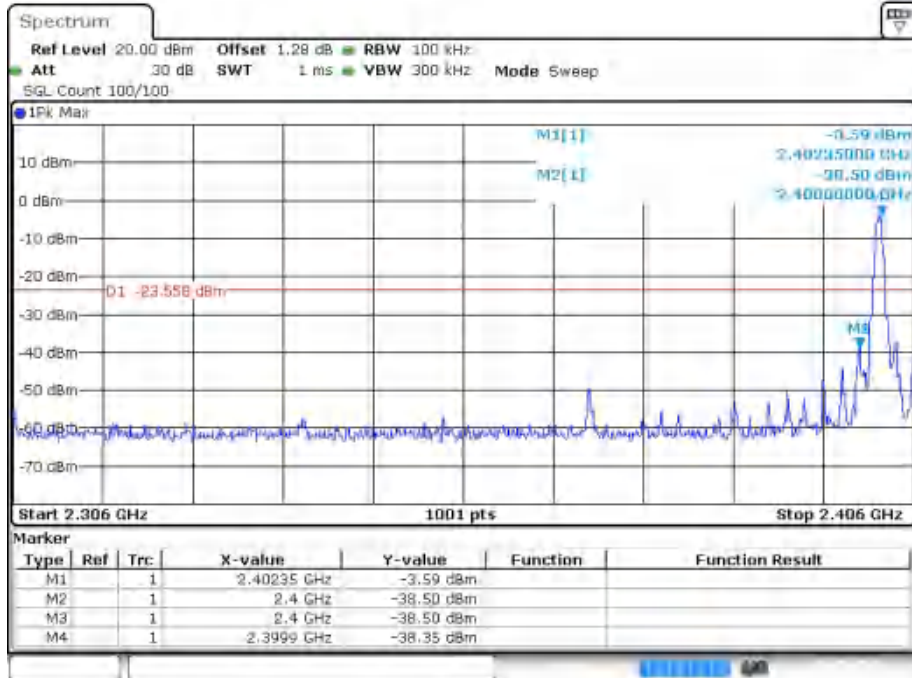
Test Graphs

Band Edge NVNT BLE 1M 2402MHz Ant1 Ref



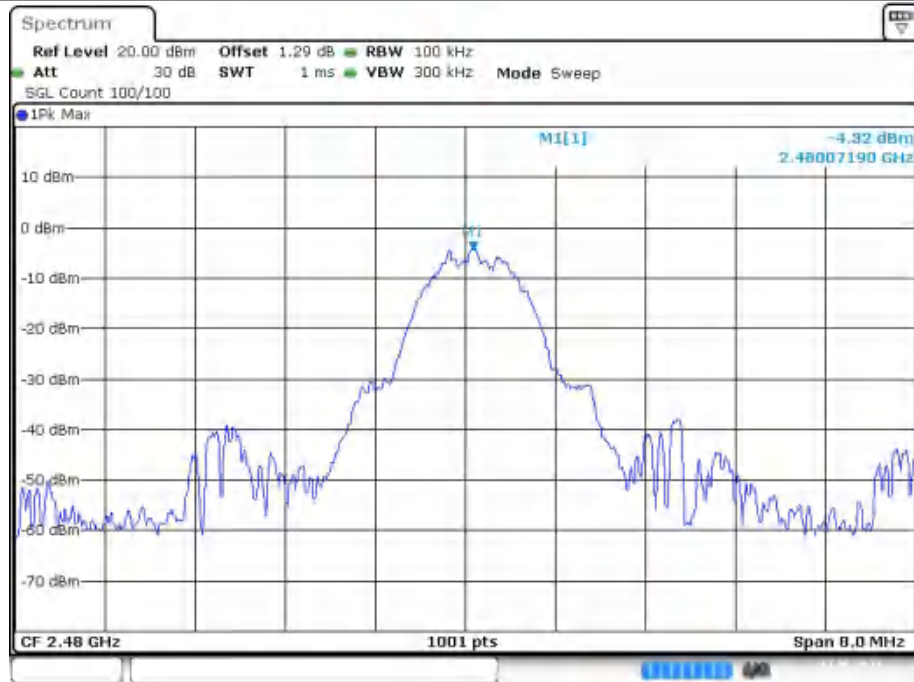
Date: 17 JUN 2023 16:45:53

Band Edge NVNT BLE 1M 2402MHz Ant1 Emission



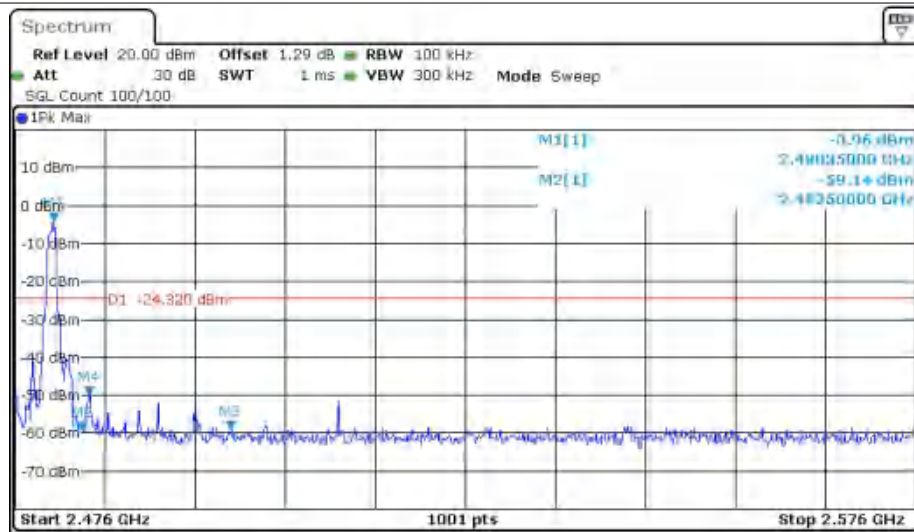
Date: 17 JUN 2023 16:45:55

Band Edge NVNT BLE 1M 2480MHz Ant1 Ref



Date: 17 JUN 2023 16:49:40

Band Edge NVNT BLE 1M 2480MHz Ant1 Emission



| Marker | | | | | | |
|--------|-----|-----|-------------|------------|----------|-----------------|
| Type | Ref | Trc | X-value | Y-value | Function | Function Result |
| M1 | | 1 | 2.48035 GHz | -3.96 dBm | | |
| M2 | | 1 | 2.4835 GHz | -59.14 dBm | | |
| M3 | | 1 | 2.5 GHz | -59.04 dBm | | |
| M4 | | 1 | 2.4843 GHz | -49.90 dBm | | |

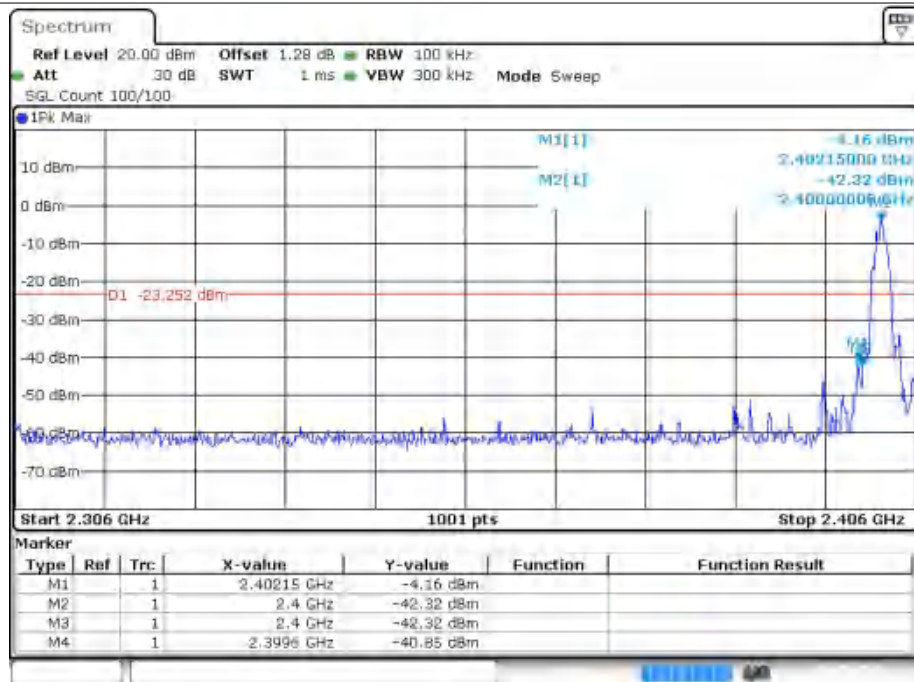
Date: 17 JUN 2023 16:49:42

Band Edge NVNT BLE 2M 2402MHz Ant1 Ref



Date: 17.JUN.2023 16:50:57

Band Edge NVNT BLE 2M 2402MHz Ant1 Emission

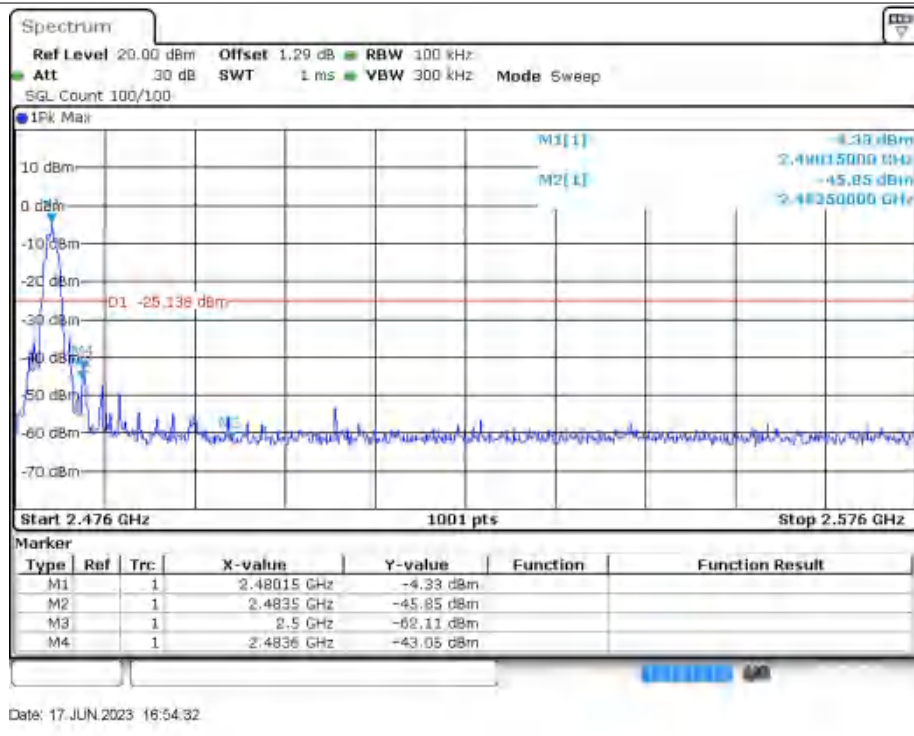


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Band Edge NVNT BLE 2M 2480MHz Ant1 Ref



Band Edge NVNT BLE 2M 2480MHz Ant1 Emission



7.5 Duty Cycle

| Condition | Mode | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor (dB) | 1/T (kHz) |
|-----------|--------|-----------------|---------|----------------|------------------------|-----------|
| NVNT | BLE 1M | 2402 | Ant1 | 64.63 | 1.9 | 2.45 |
| NVNT | BLE 1M | 2440 | Ant1 | 65.78 | 1.82 | 2.45 |
| NVNT | BLE 1M | 2480 | Ant1 | 64.63 | 1.9 | 2.45 |
| NVNT | BLE 2M | 2402 | Ant1 | 32.91 | 4.83 | 4.82 |
| NVNT | BLE 2M | 2440 | Ant1 | 32.91 | 4.83 | 4.82 |
| NVNT | BLE 2M | 2480 | Ant1 | 33.49 | 4.75 | 4.82 |