

RF Test Data for Bluetooth(BR+EDR) (Conducted Measurements)

| General Description of EUT | |
|--|----------------------------|
| Product Name: | Smart POS Payment Terminal |
| Test Model: | CM30 |
| Sample ID: | 202311-0170-7-2# |
| Environmental Conditions | |
| Temperature: | 25°C |
| Relative Humidity: | 55% |
| Test Voltage: | DC 24V |
| Test Engineer: | Yan zhen ming |
| Note: For a more detailed features description, please refer to the report TBR-C-202311-0170-81 The report only show the worst case data. | |

Contents

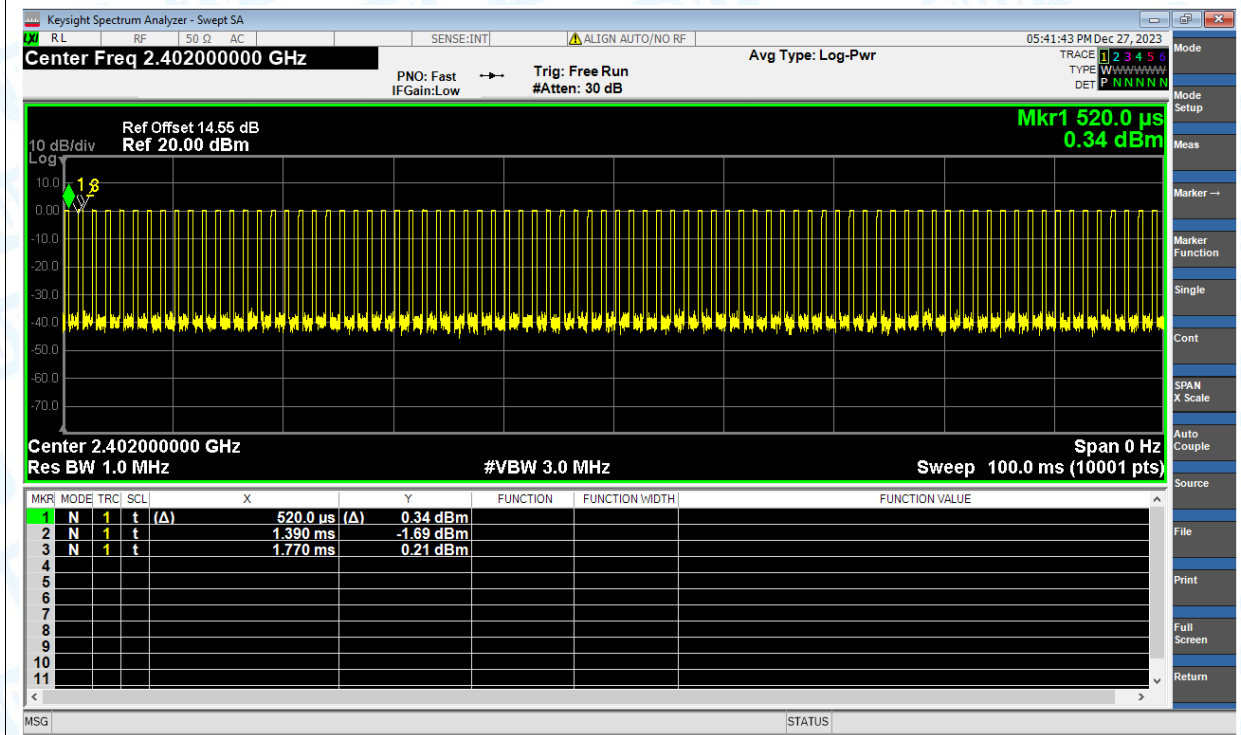
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1. Duty Cycle

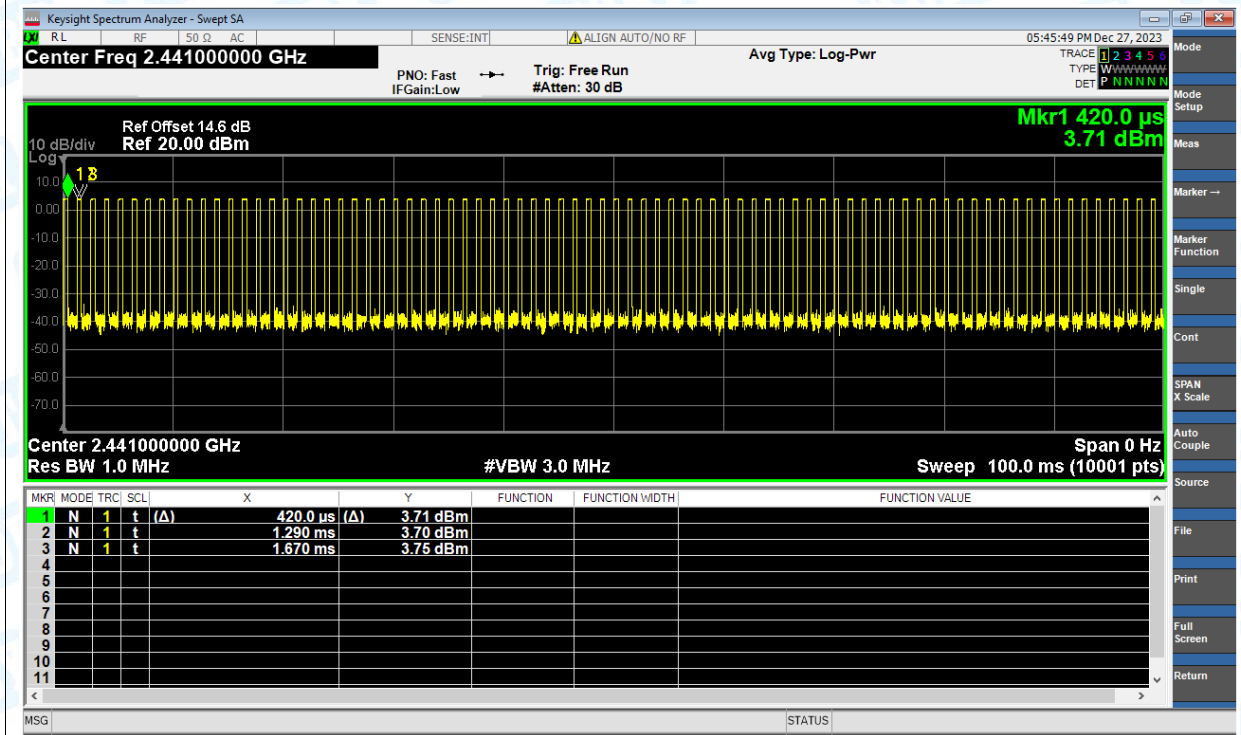
| Condition | Mode | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor (dB) | 1/T (kHz) |
|-----------|-------|-----------------|---------|----------------|------------------------|-----------|
| NVNT | 1-DH1 | 2402 | Ant1 | 30.4 | 5.17 | 2.63 |
| NVNT | 1-DH1 | 2441 | Ant1 | 30.4 | 5.17 | 2.63 |
| NVNT | 1-DH1 | 2480 | Ant1 | 30.4 | 5.17 | 2.63 |
| NVNT | 2-DH1 | 2402 | Ant1 | 31.2 | 5.06 | 2.56 |
| NVNT | 2-DH1 | 2441 | Ant1 | 30.4 | 5.17 | 2.63 |
| NVNT | 2-DH1 | 2480 | Ant1 | 31.2 | 5.06 | 2.56 |
| NVNT | 3-DH1 | 2402 | Ant1 | 31.2 | 5.06 | 2.56 |
| NVNT | 3-DH1 | 2441 | Ant1 | 31.2 | 5.06 | 2.56 |
| NVNT | 3-DH1 | 2480 | Ant1 | 30.4 | 5.17 | 2.63 |

Test Graphs

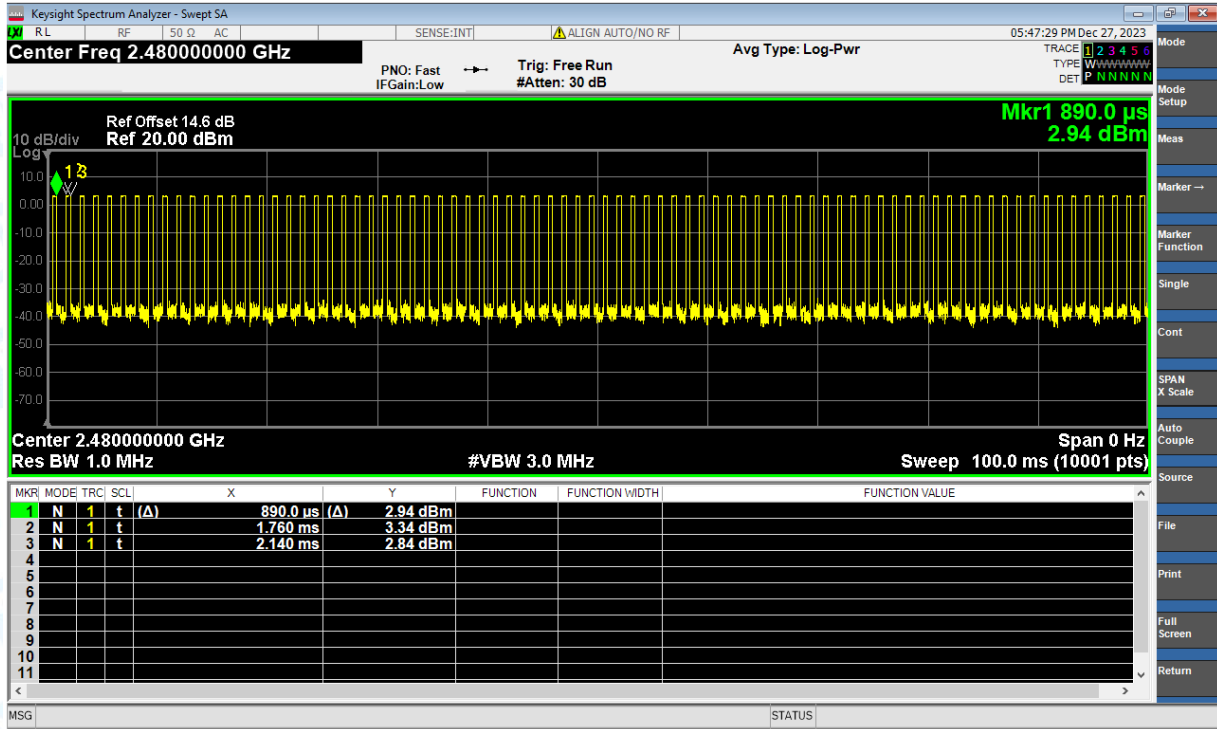
Duty Cycle NVNT 1-DH1 2402MHz Ant1



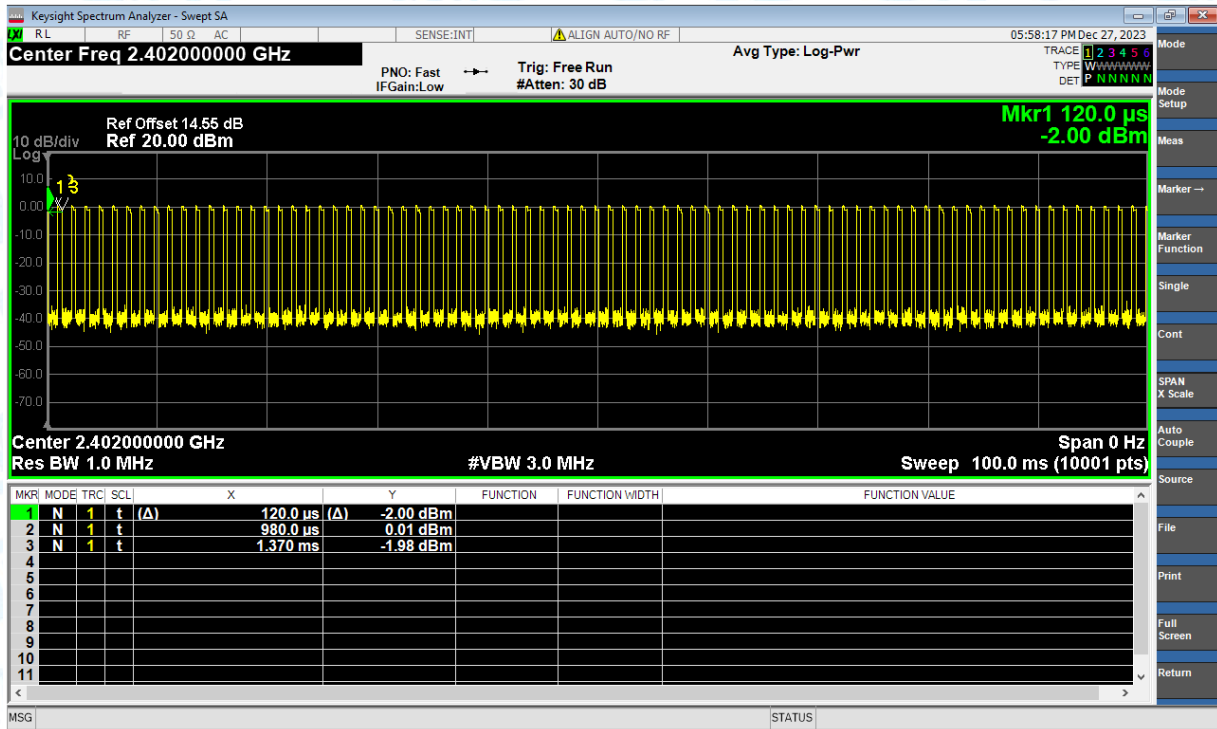
Duty Cycle NVNT 1-DH1 2441MHz Ant1



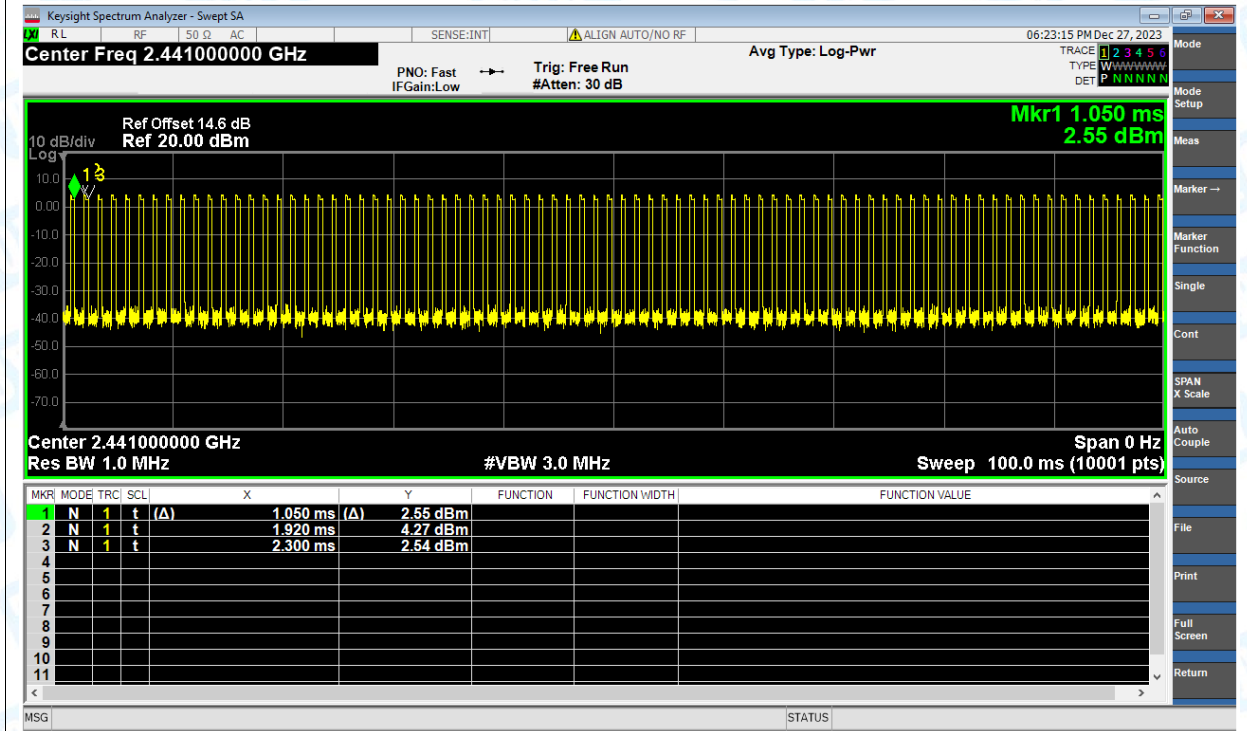
Duty Cycle NVNT 1-DH1 2480MHz Ant1



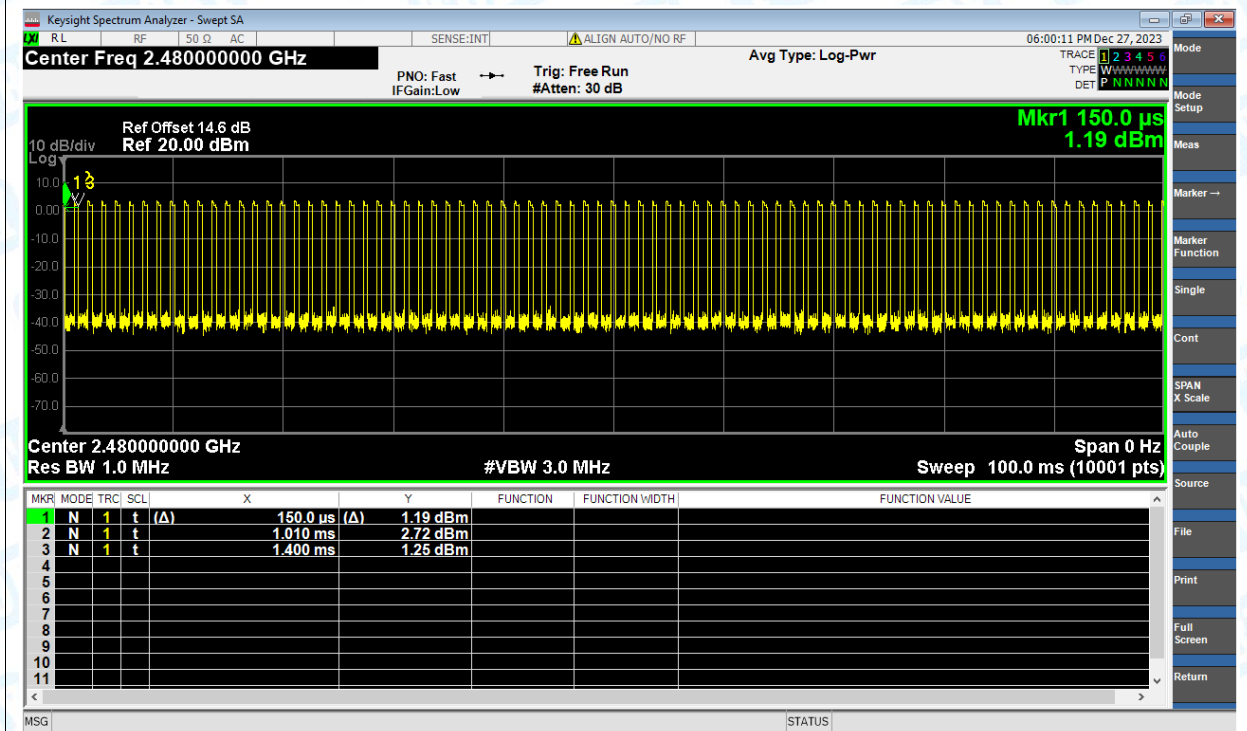
Duty Cycle NVNT 2-DH1 2402MHz Ant1



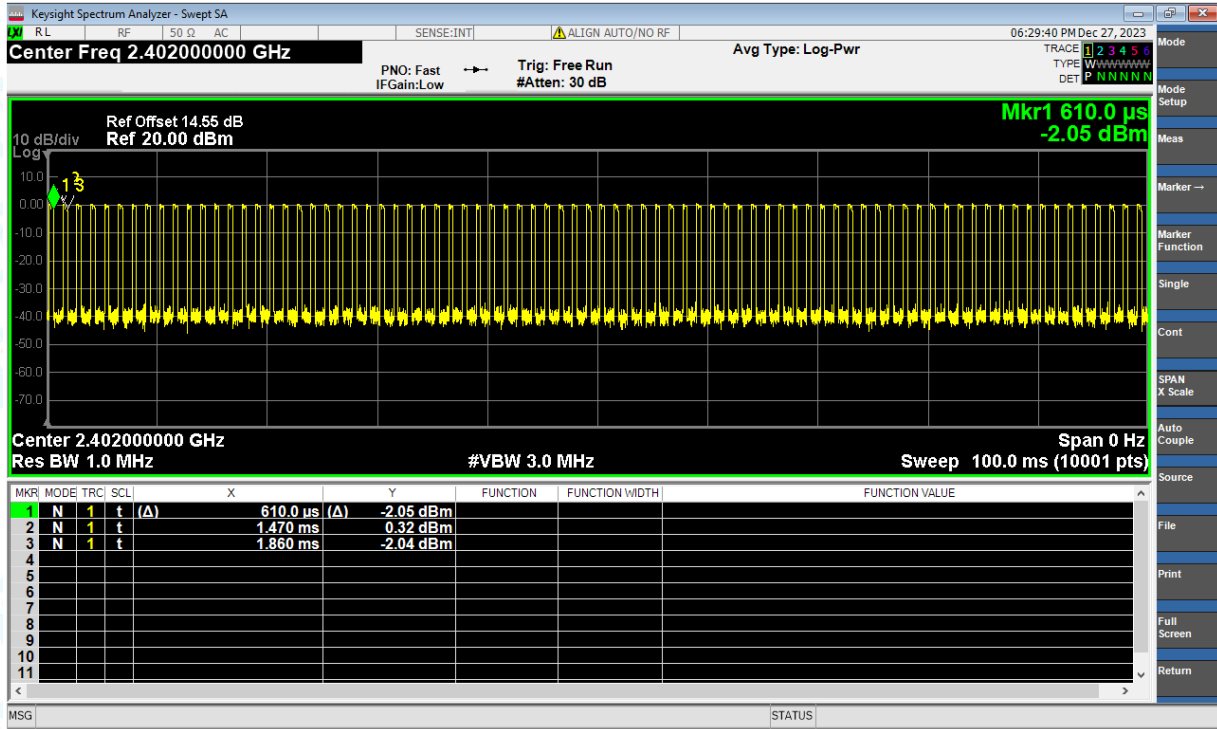
Duty Cycle NVNT 2-DH1 2441MHz Ant1



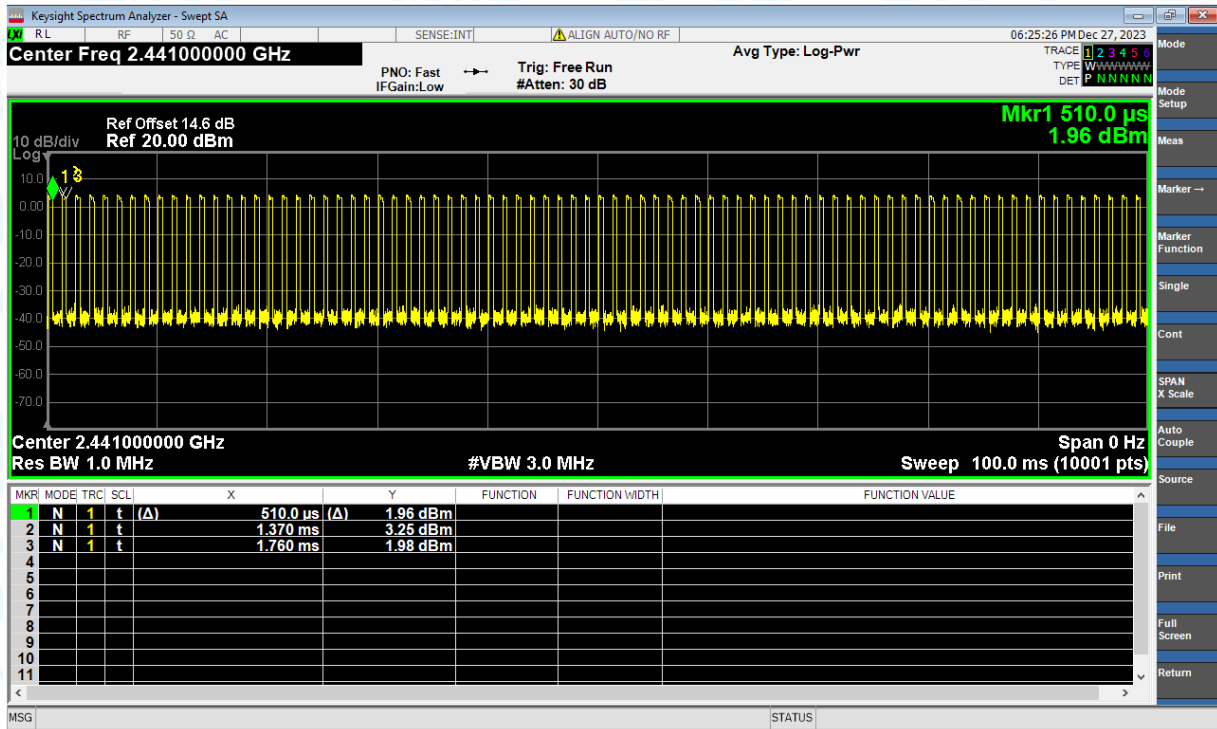
Duty Cycle NVNT 2-DH1 2480MHz Ant1

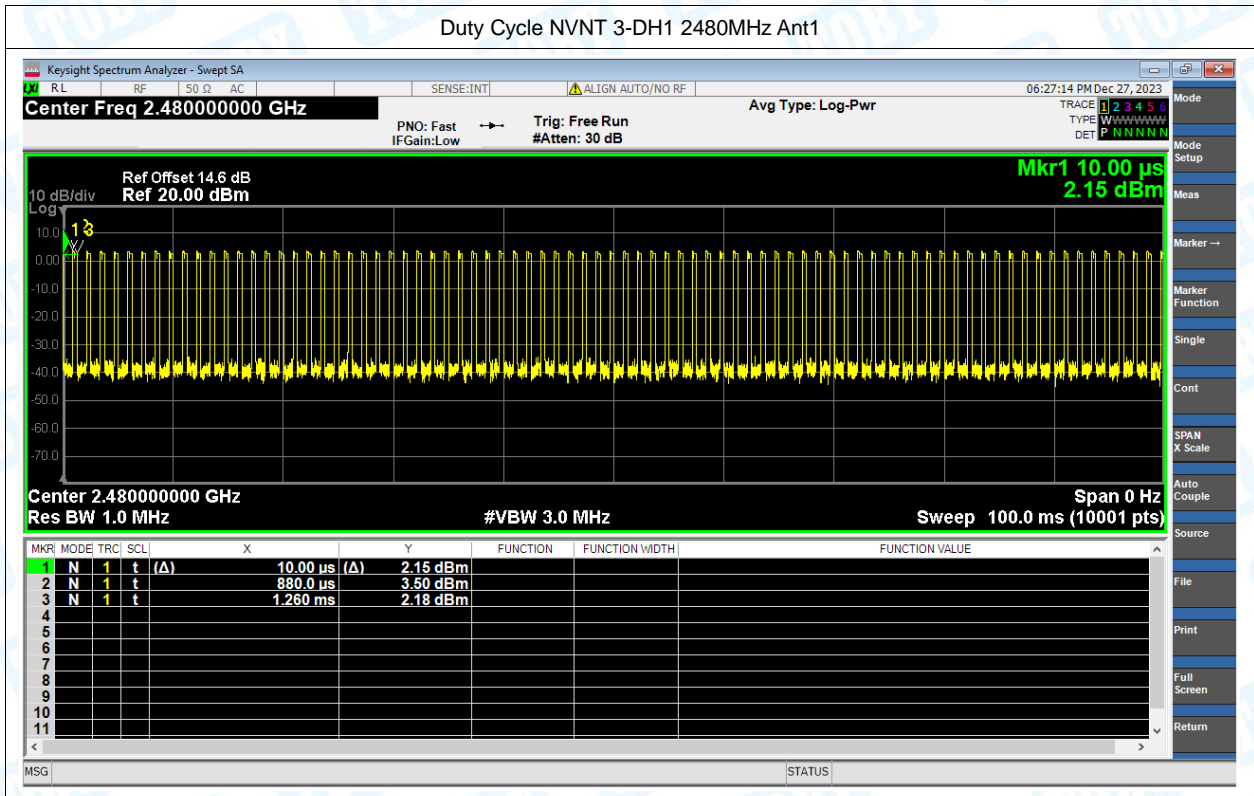


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



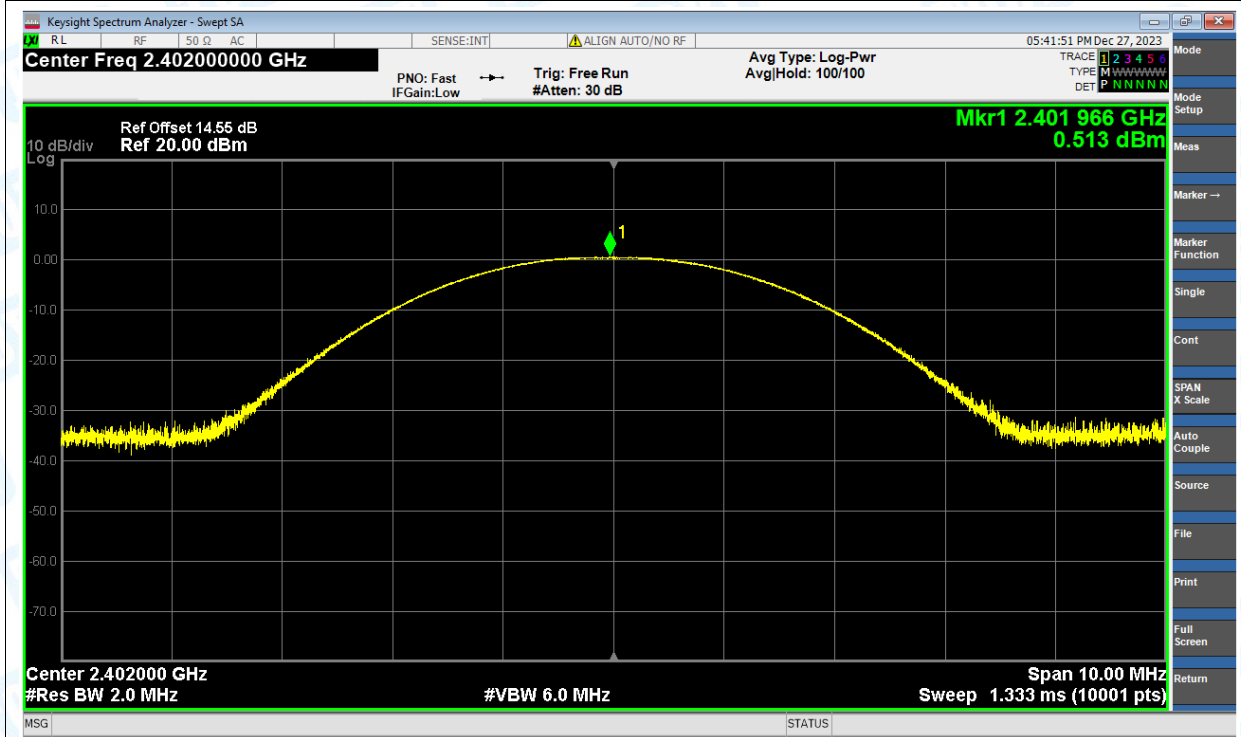


2. Maximum Conducted Output Power

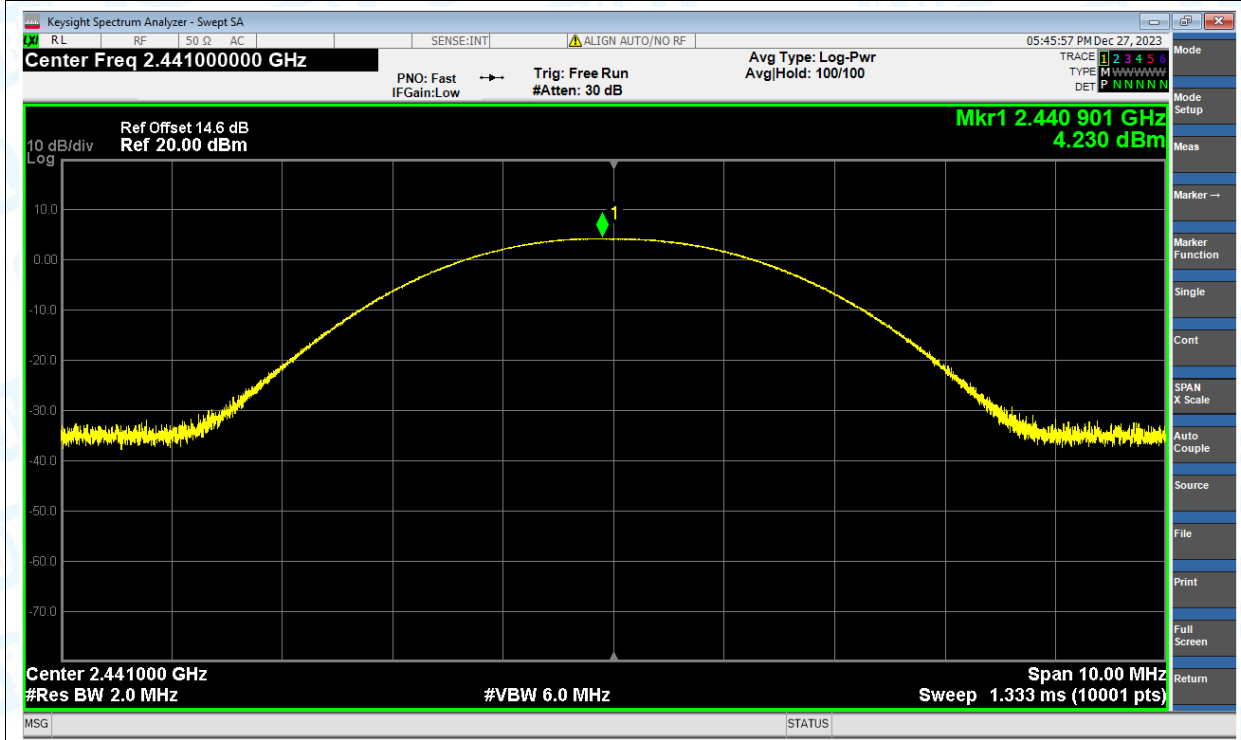
| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Limit (dBm) | Verdict |
|-----------|-------|-----------------|---------|-----------------------|-------------|---------|
| NVNT | 1-DH1 | 2402 | Ant1 | 0.513 | 21 | Pass |
| NVNT | 1-DH1 | 2441 | Ant1 | 4.23 | 21 | Pass |
| NVNT | 1-DH1 | 2480 | Ant1 | 3.591 | 21 | Pass |
| NVNT | 1-DH3 | 2441 | Ant1 | 4.115 | 21 | Pass |
| NVNT | 1-DH5 | 2441 | Ant1 | 4.039 | 21 | Pass |
| NVNT | 2-DH1 | 2402 | Ant1 | 0.565 | 21 | Pass |
| NVNT | 2-DH1 | 2441 | Ant1 | 4.431 | 21 | Pass |
| NVNT | 2-DH1 | 2480 | Ant1 | 3.736 | 21 | Pass |
| NVNT | 2-DH3 | 2441 | Ant1 | 4.092 | 21 | Pass |
| NVNT | 2-DH5 | 2441 | Ant1 | 4.053 | 21 | Pass |
| NVNT | 3-DH1 | 2402 | Ant1 | 0.642 | 21 | Pass |
| NVNT | 3-DH1 | 2441 | Ant1 | 4.359 | 21 | Pass |
| NVNT | 3-DH1 | 2480 | Ant1 | 3.652 | 21 | Pass |
| NVNT | 3-DH3 | 2441 | Ant1 | 4.051 | 21 | Pass |
| NVNT | 3-DH5 | 2441 | Ant1 | 4.034 | 21 | Pass |

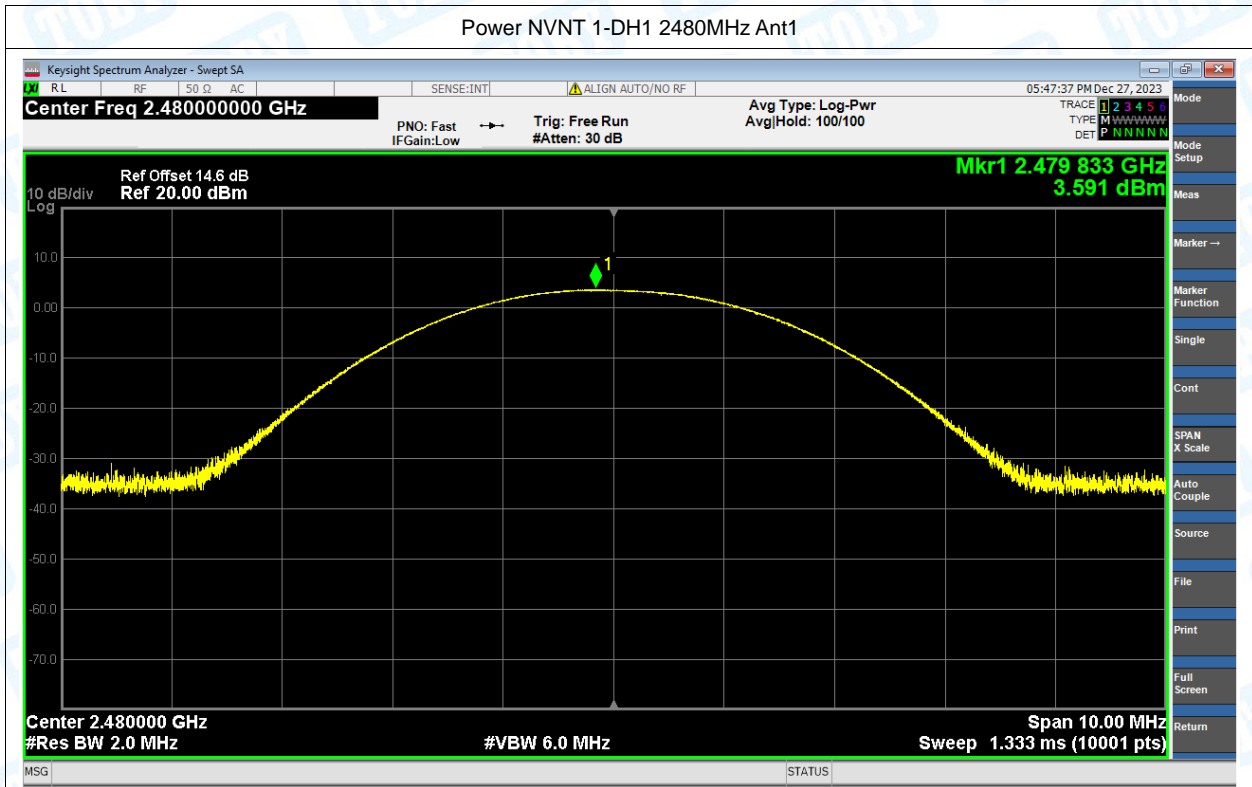
Test Graphs

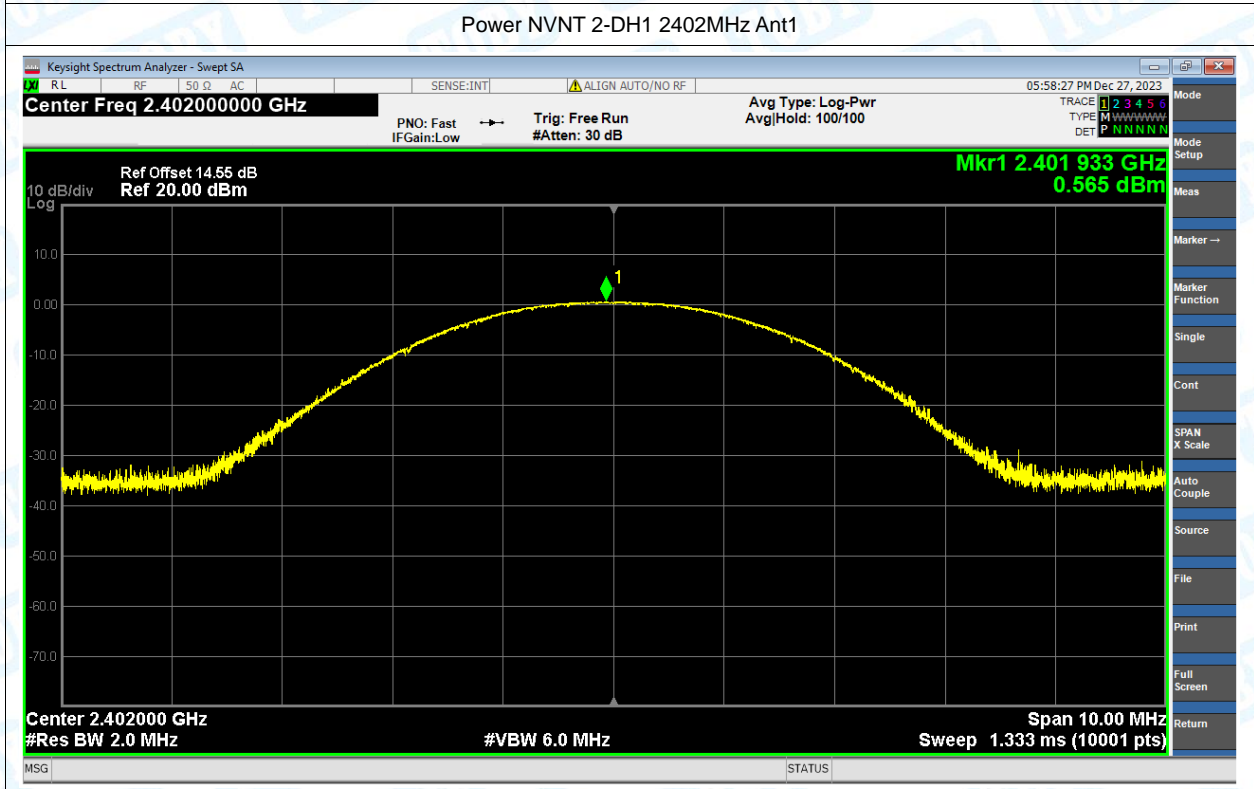
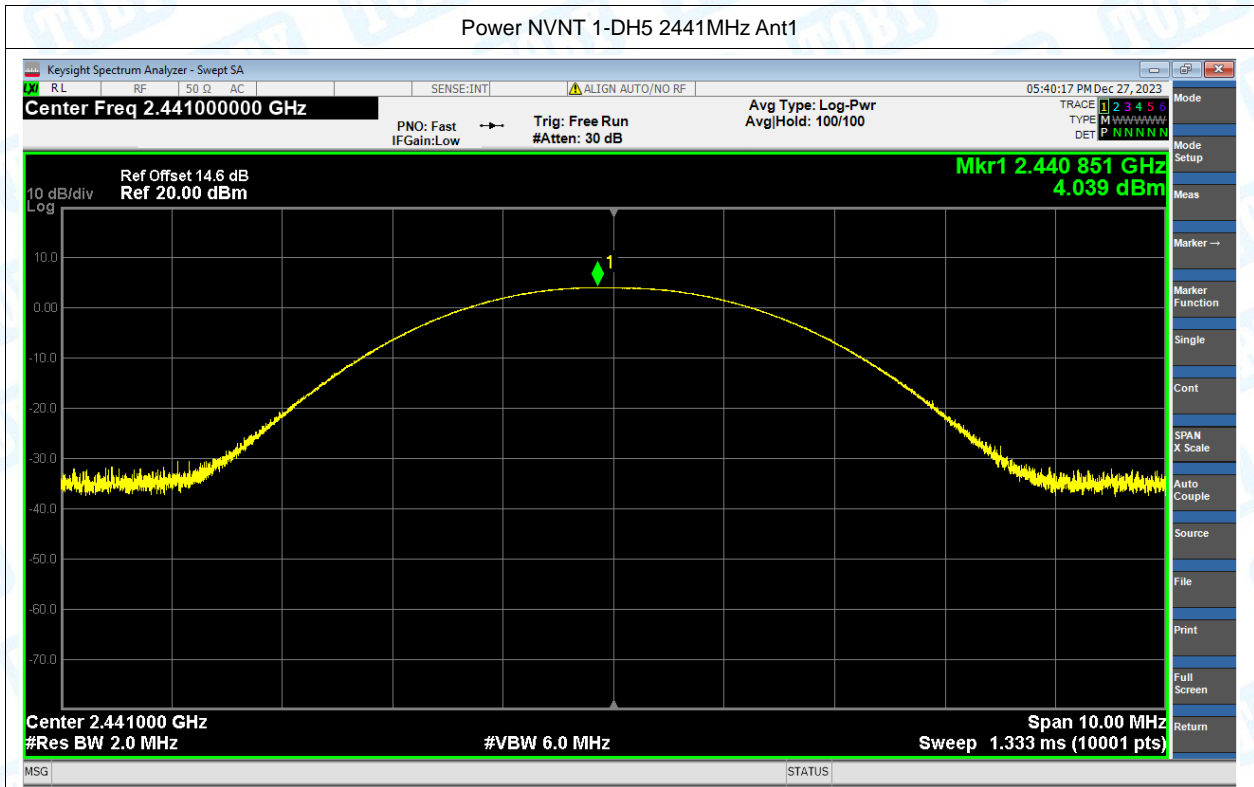
Power NVNT 1-DH1 2402MHz Ant1

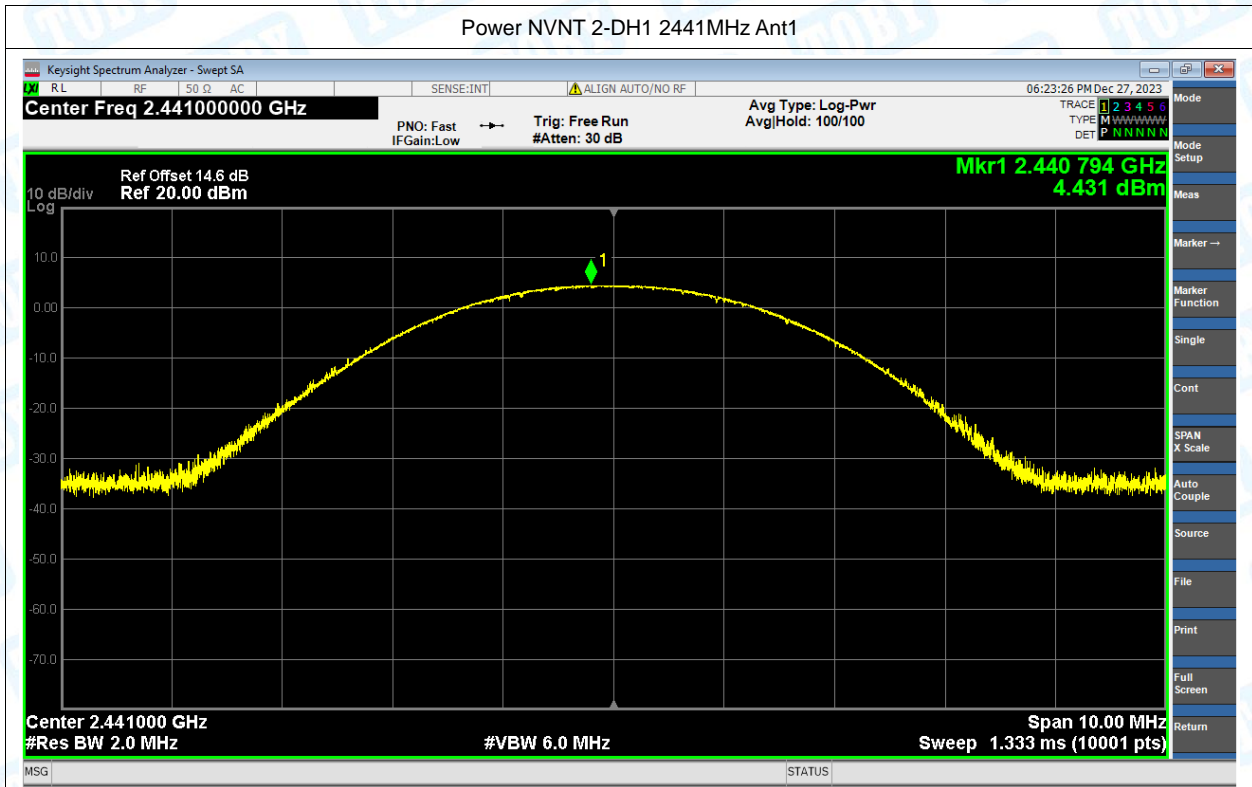


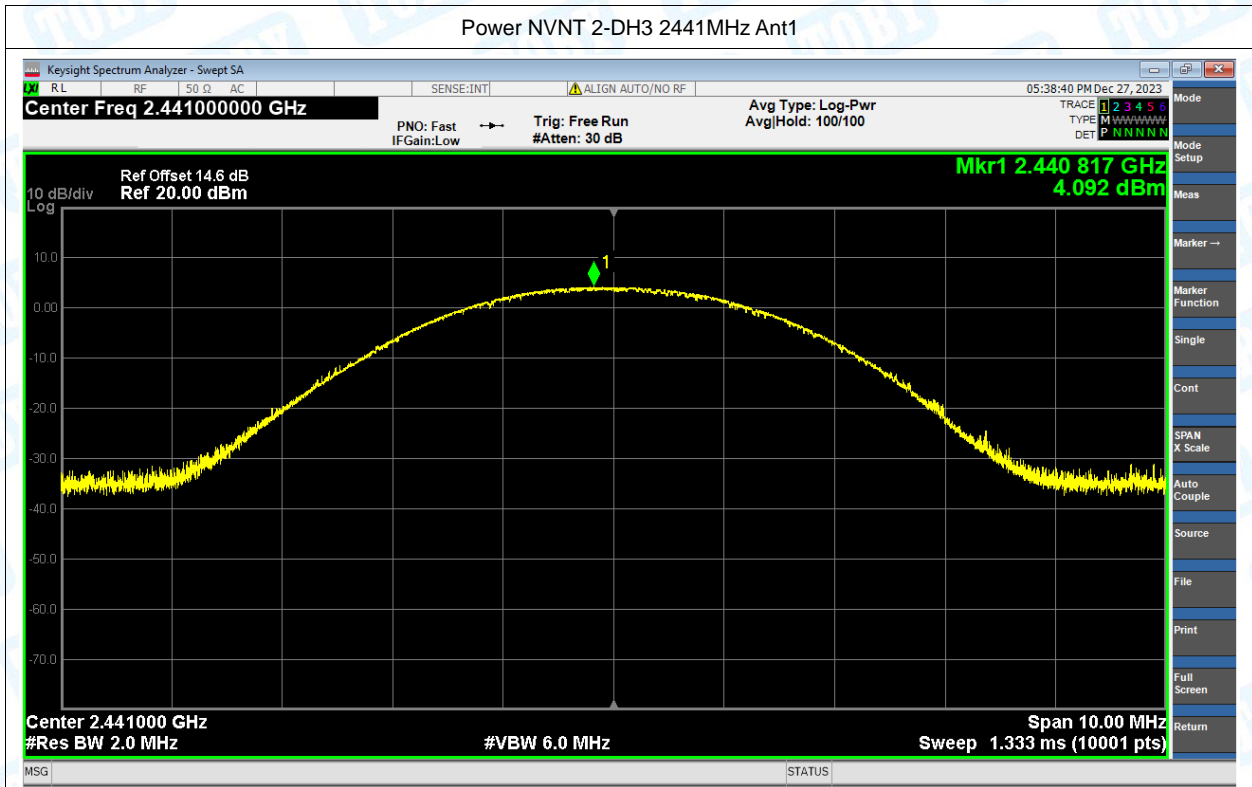
Power NVNT 1-DH1 2441MHz Ant1



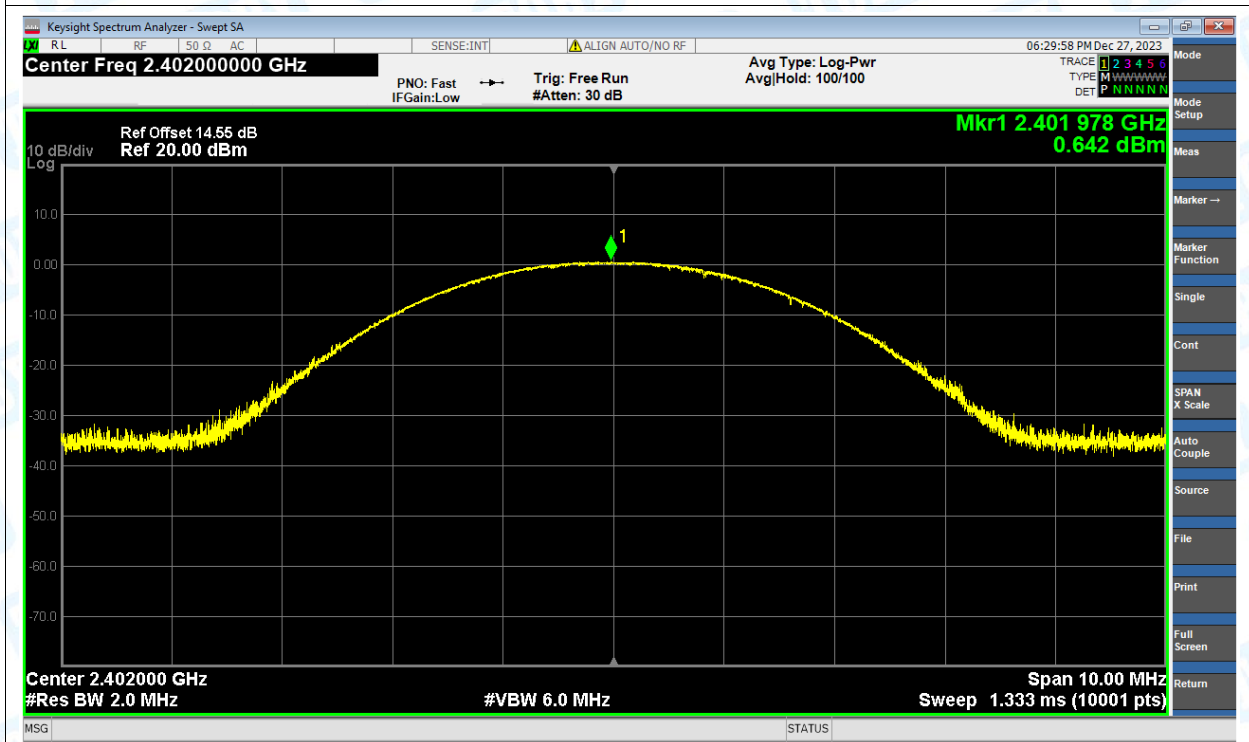




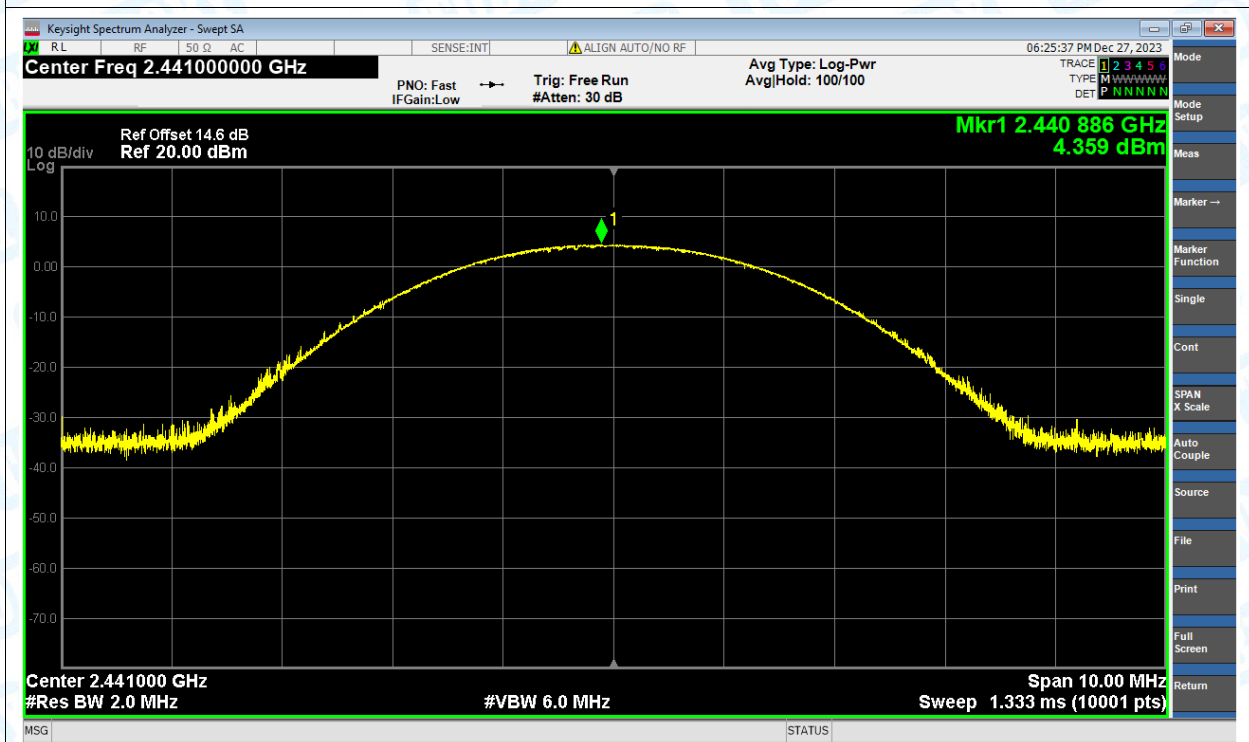




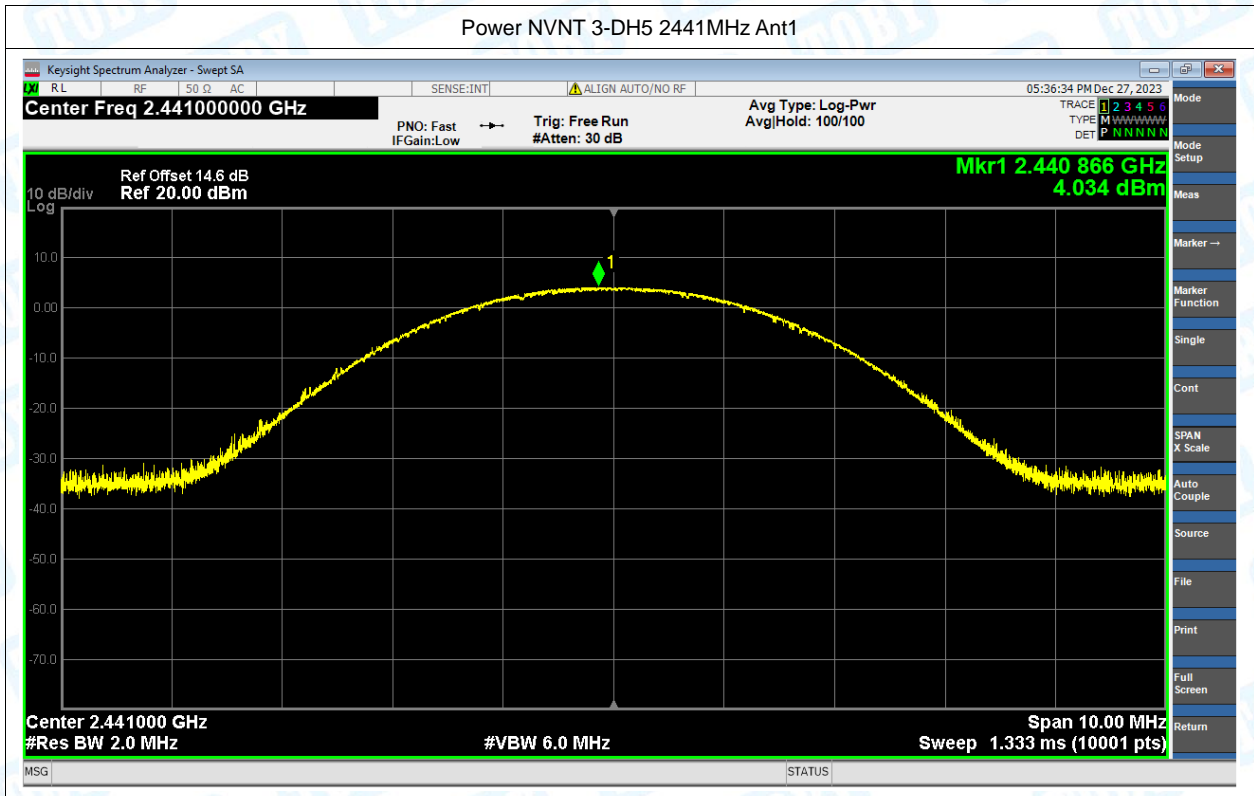
Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1





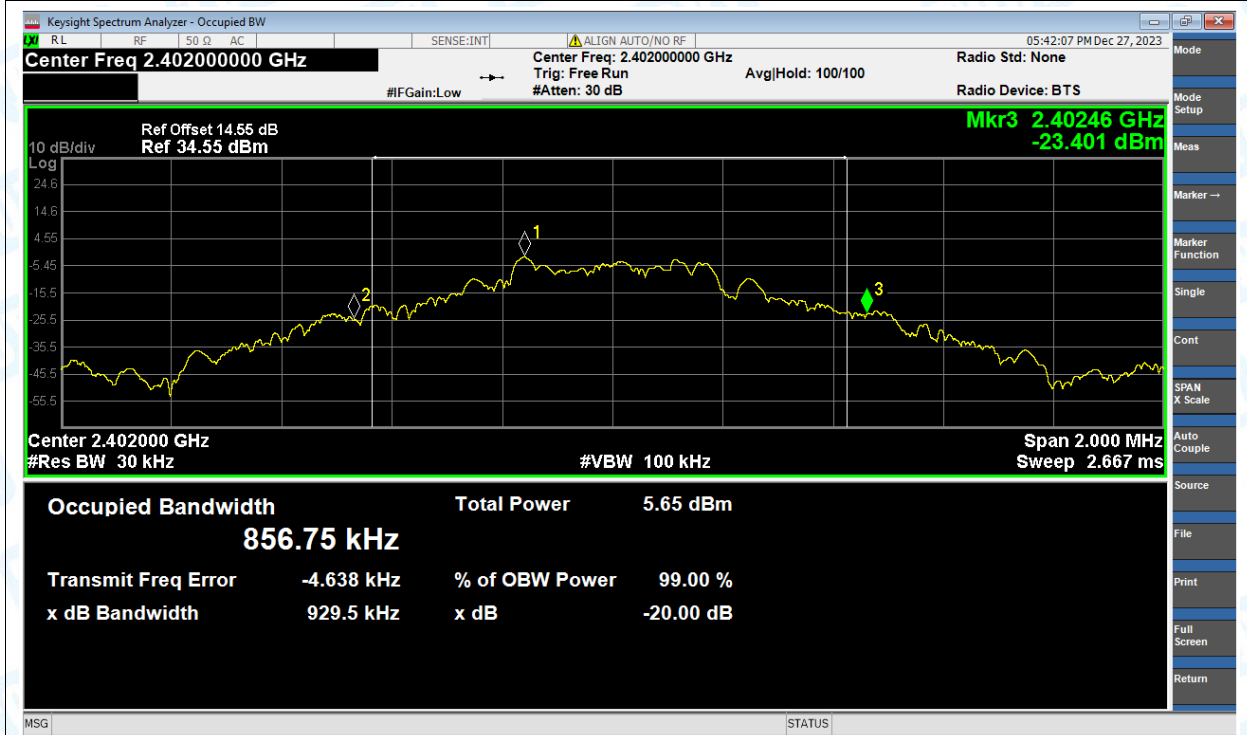


3. -20dB Bandwidth

| Condition | Mode | Frequency (MHz) | Antenna | -20 dB Bandwidth (MHz) | Limit -20 dB Bandwidth (MHz) | Verdict |
|-----------|-------|-----------------|---------|------------------------|------------------------------|---------|
| NVNT | 1-DH1 | 2402 | Ant1 | 0.93 | 0 | Pass |
| NVNT | 1-DH1 | 2441 | Ant1 | 0.85 | 0 | Pass |
| NVNT | 1-DH1 | 2480 | Ant1 | 0.93 | 0 | Pass |
| NVNT | 2-DH1 | 2402 | Ant1 | 1.28 | 0 | Pass |
| NVNT | 2-DH1 | 2441 | Ant1 | 1.29 | 0 | Pass |
| NVNT | 2-DH1 | 2480 | Ant1 | 1.28 | 0 | Pass |
| NVNT | 3-DH1 | 2402 | Ant1 | 1.25 | 0 | Pass |
| NVNT | 3-DH1 | 2441 | Ant1 | 1.25 | 0 | Pass |
| NVNT | 3-DH1 | 2480 | Ant1 | 1.27 | 0 | Pass |

Test Graphs

-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



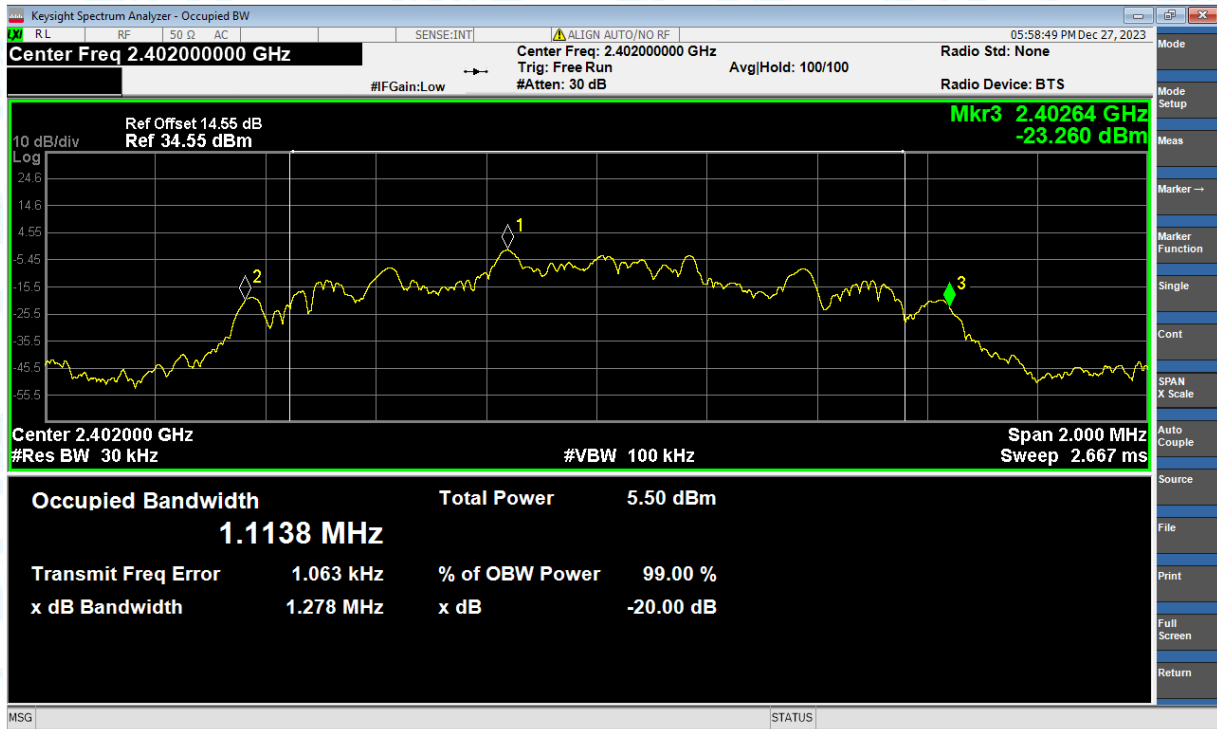
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



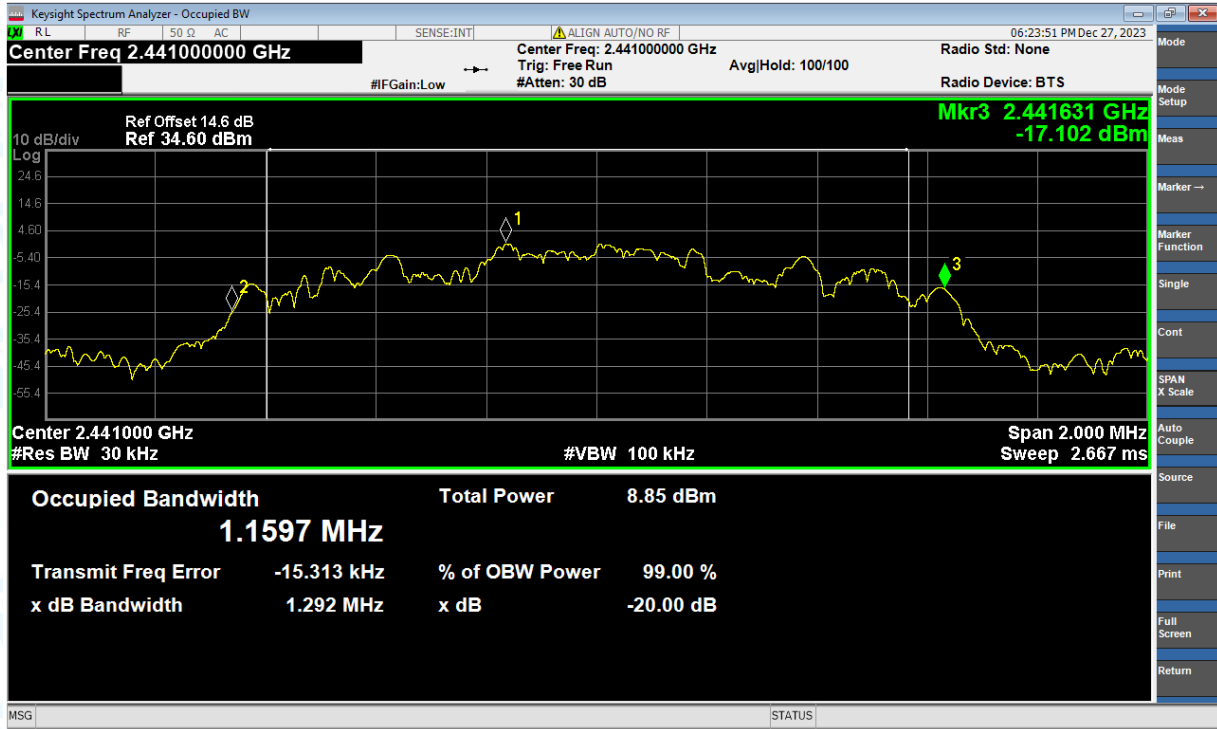
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



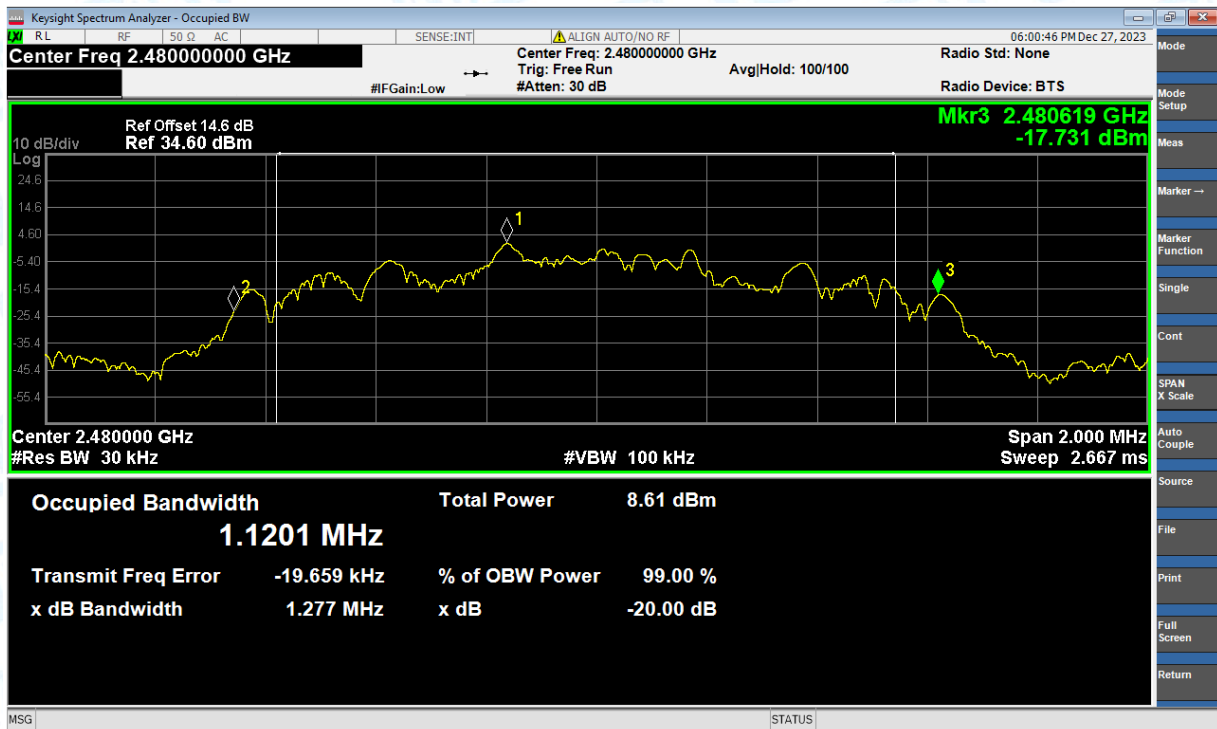
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



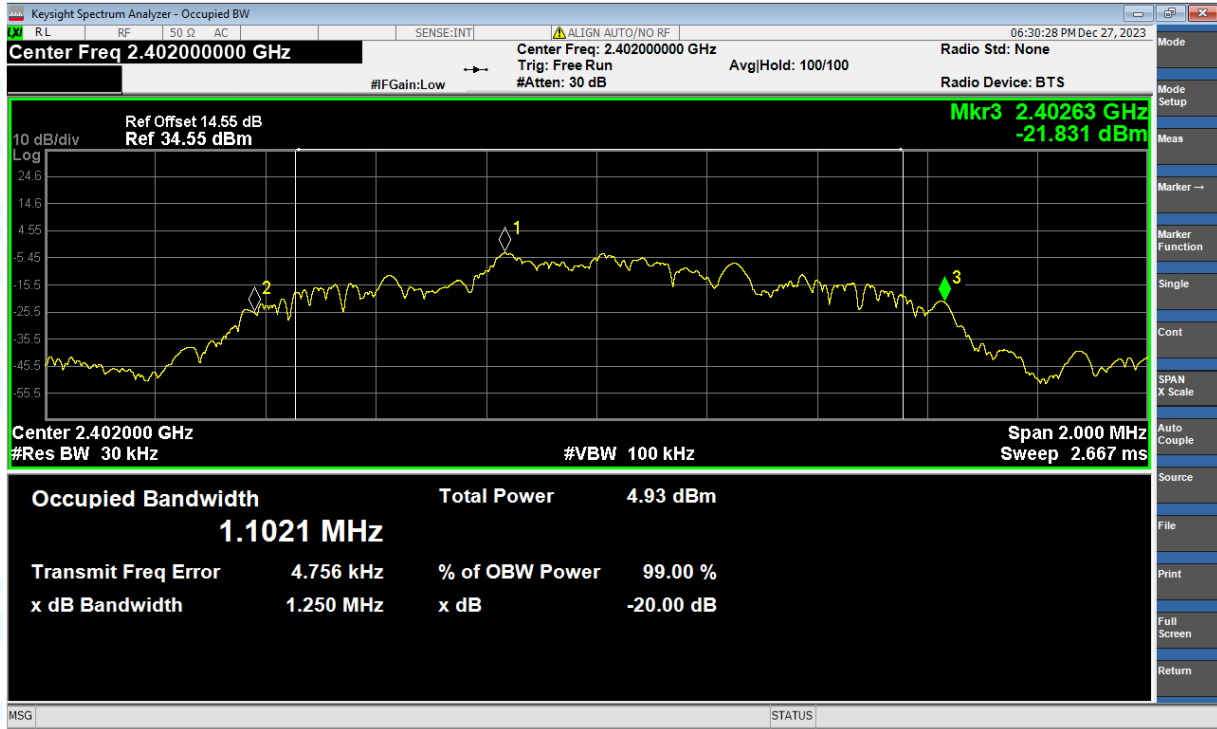
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



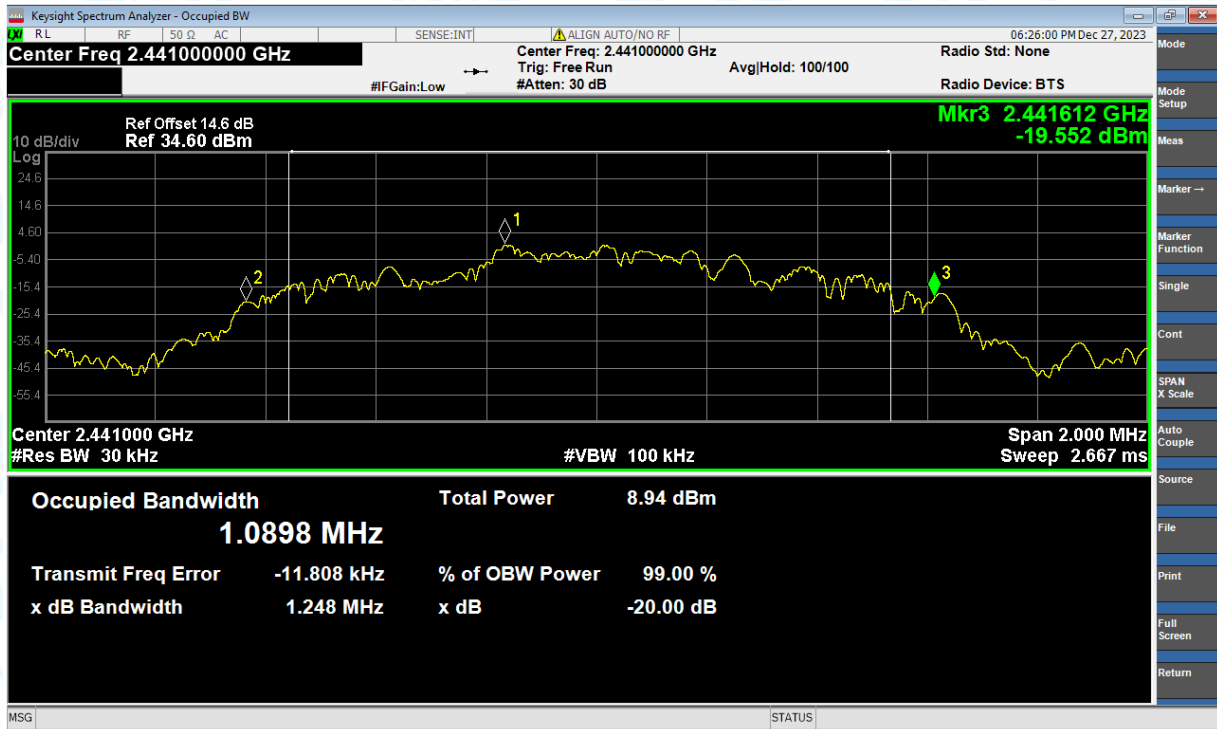
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

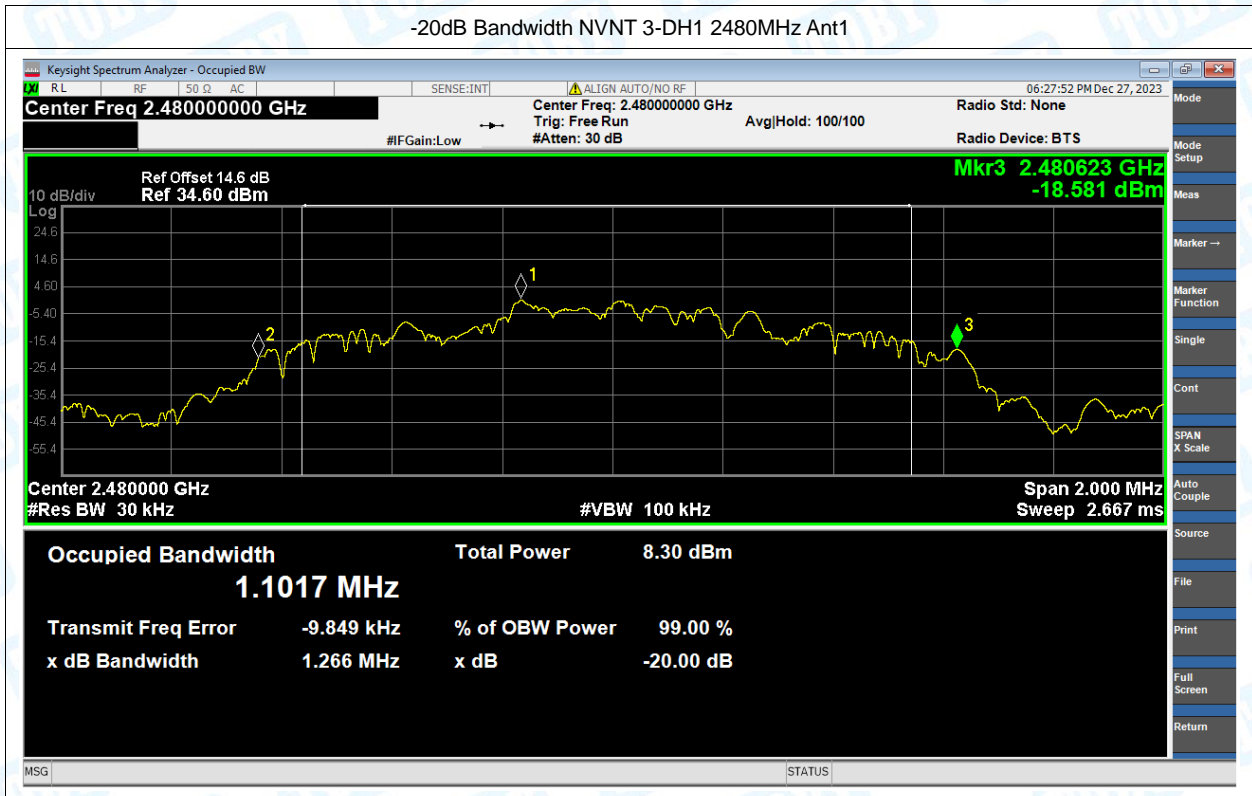


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



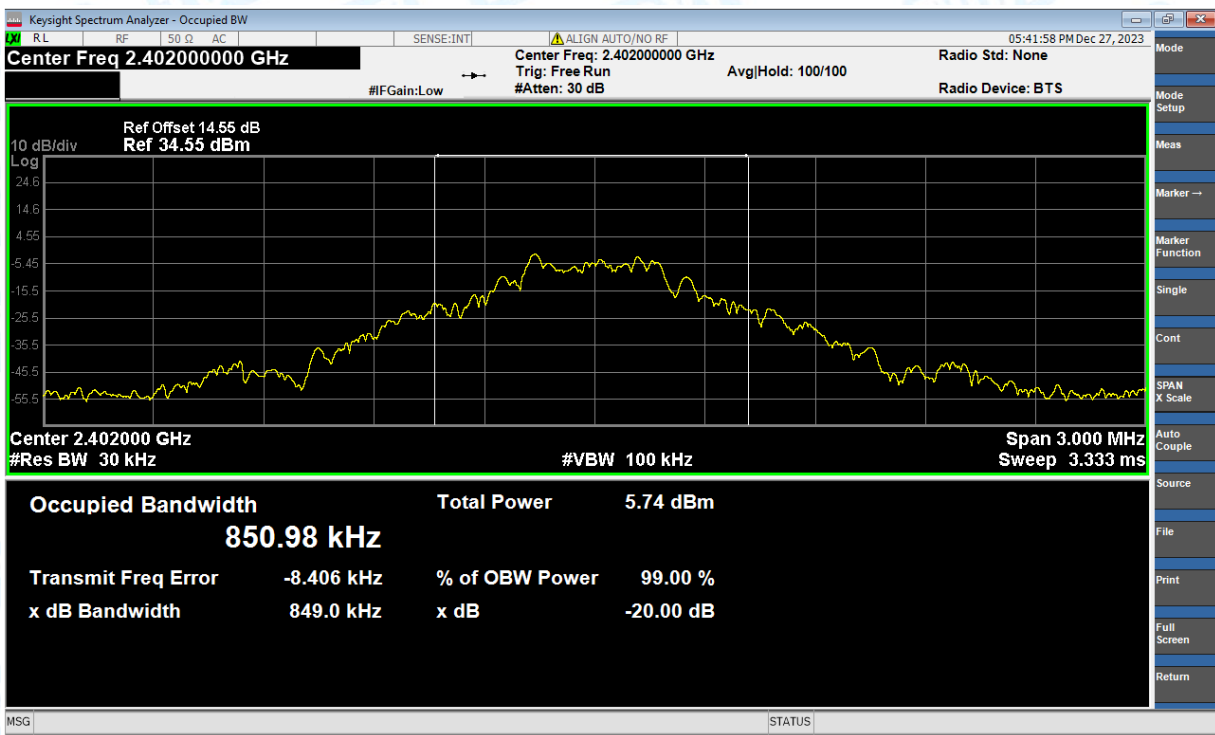


4. Occupied Channel Bandwidth

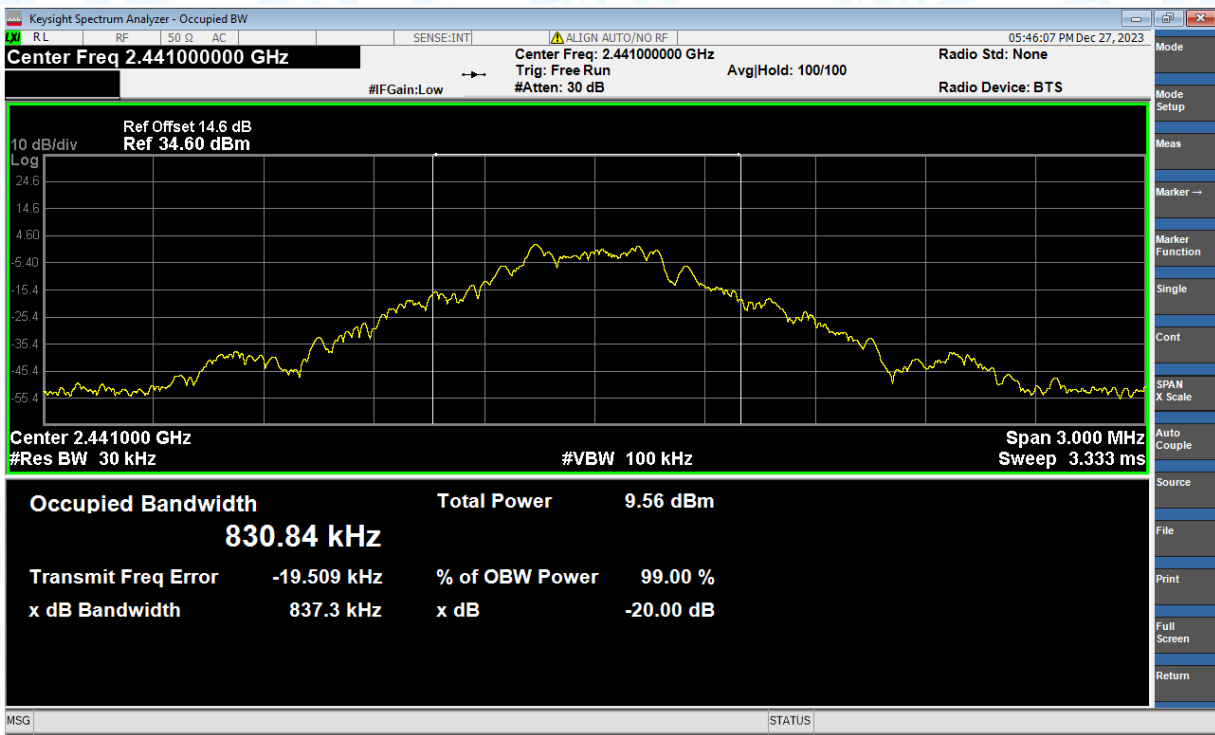
| Condition | Mode | Frequency (MHz) | Antenna | 99% OBW (MHz) |
|-----------|-------|-----------------|---------|---------------|
| NVNT | 1-DH1 | 2402 | Ant1 | 0.851 |
| NVNT | 1-DH1 | 2441 | Ant1 | 0.831 |
| NVNT | 1-DH1 | 2480 | Ant1 | 0.847 |
| NVNT | 2-DH1 | 2402 | Ant1 | 1.155 |
| NVNT | 2-DH1 | 2441 | Ant1 | 1.117 |
| NVNT | 2-DH1 | 2480 | Ant1 | 1.126 |
| NVNT | 3-DH1 | 2402 | Ant1 | 1.11 |
| NVNT | 3-DH1 | 2441 | Ant1 | 1.11 |
| NVNT | 3-DH1 | 2480 | Ant1 | 1.109 |

Test Graphs

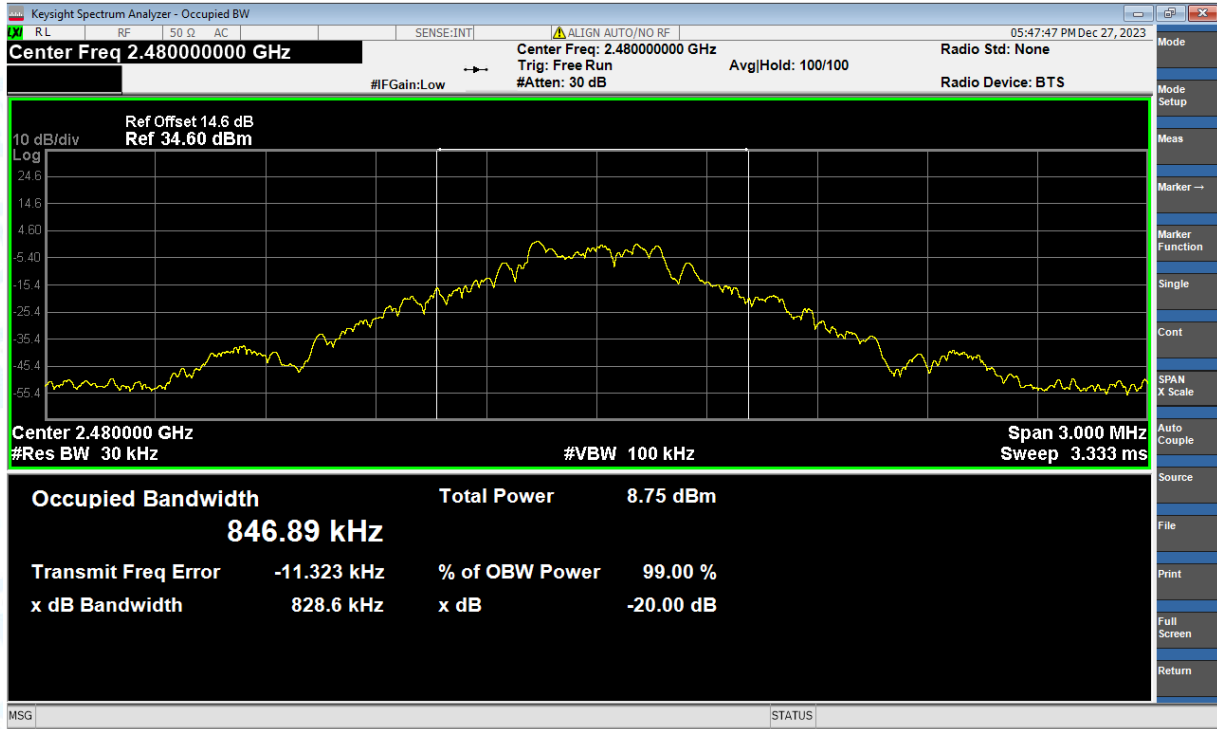
OBW NVNT 1-DH1 2402MHz Ant1



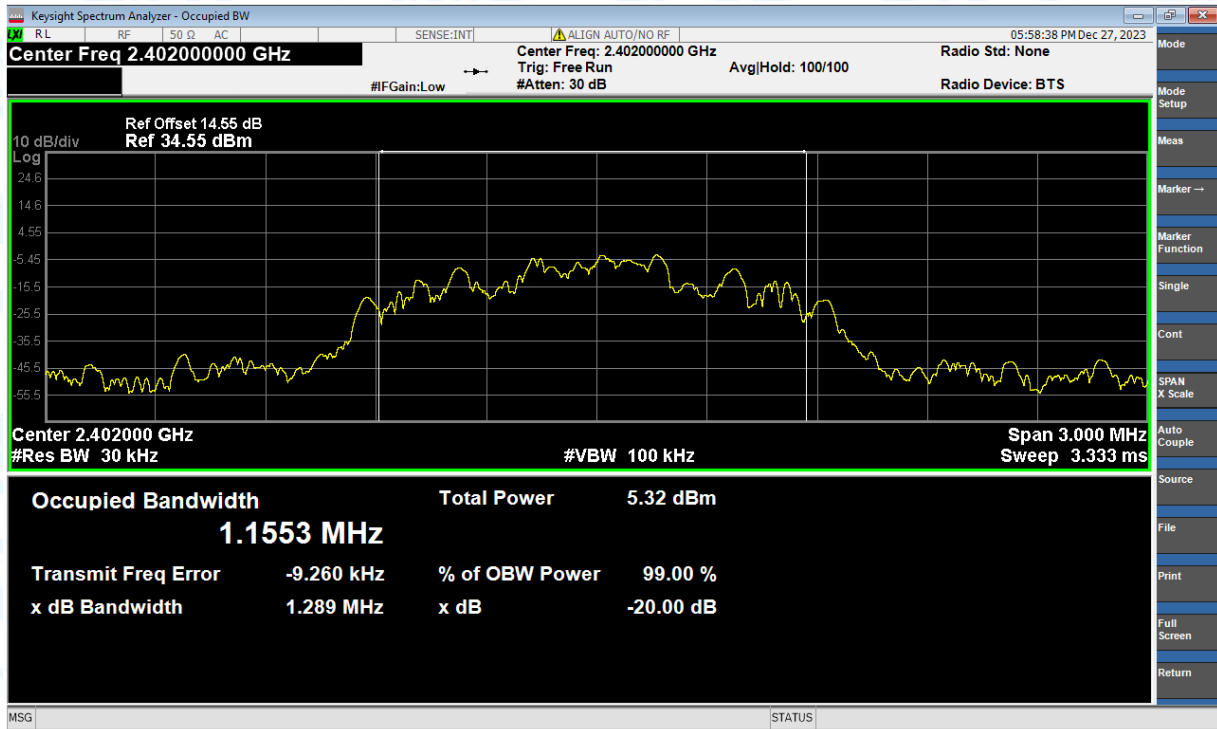
OBW NVNT 1-DH1 2441MHz Ant1



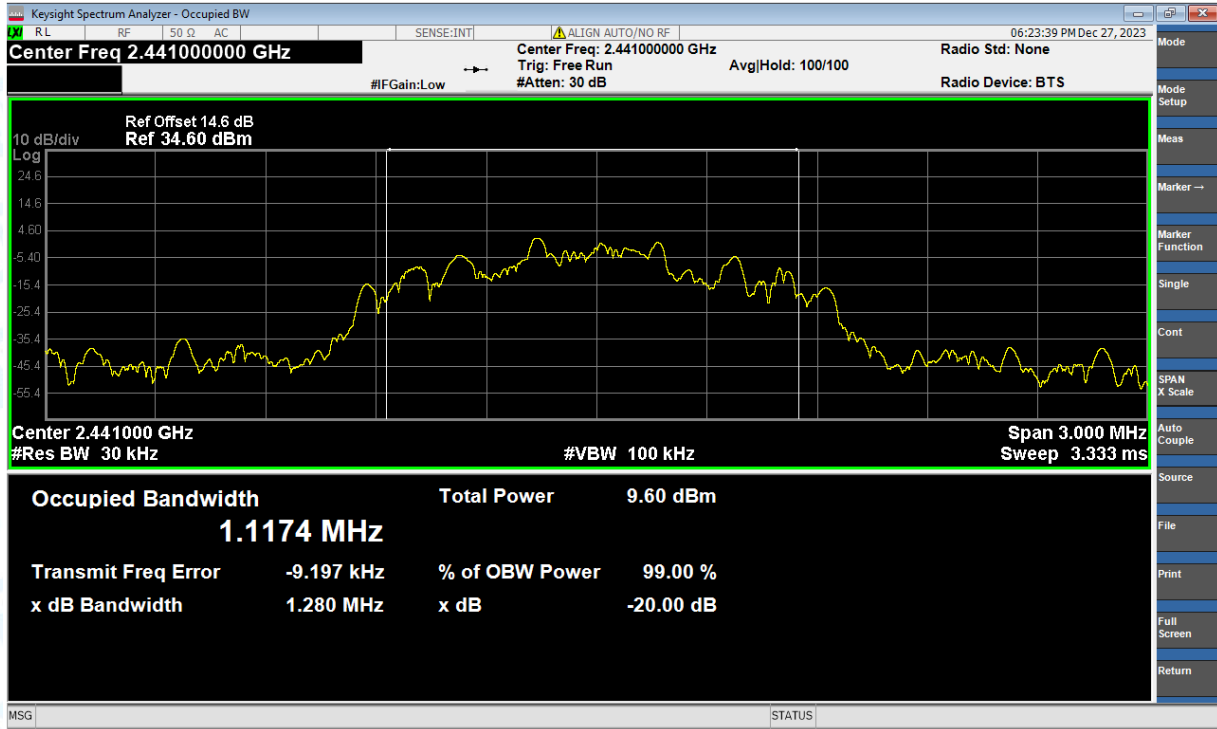
OBW NVNT 1-DH1 2480MHz Ant1



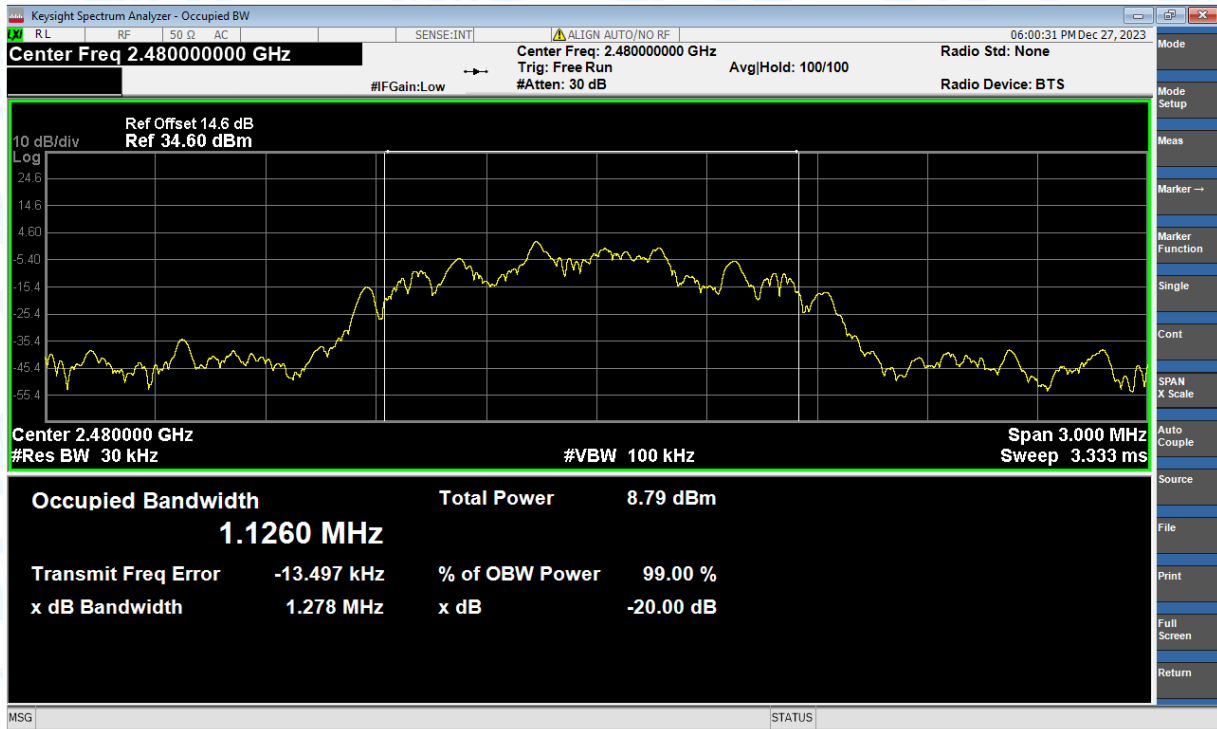
OBW NVNT 2-DH1 2402MHz Ant1



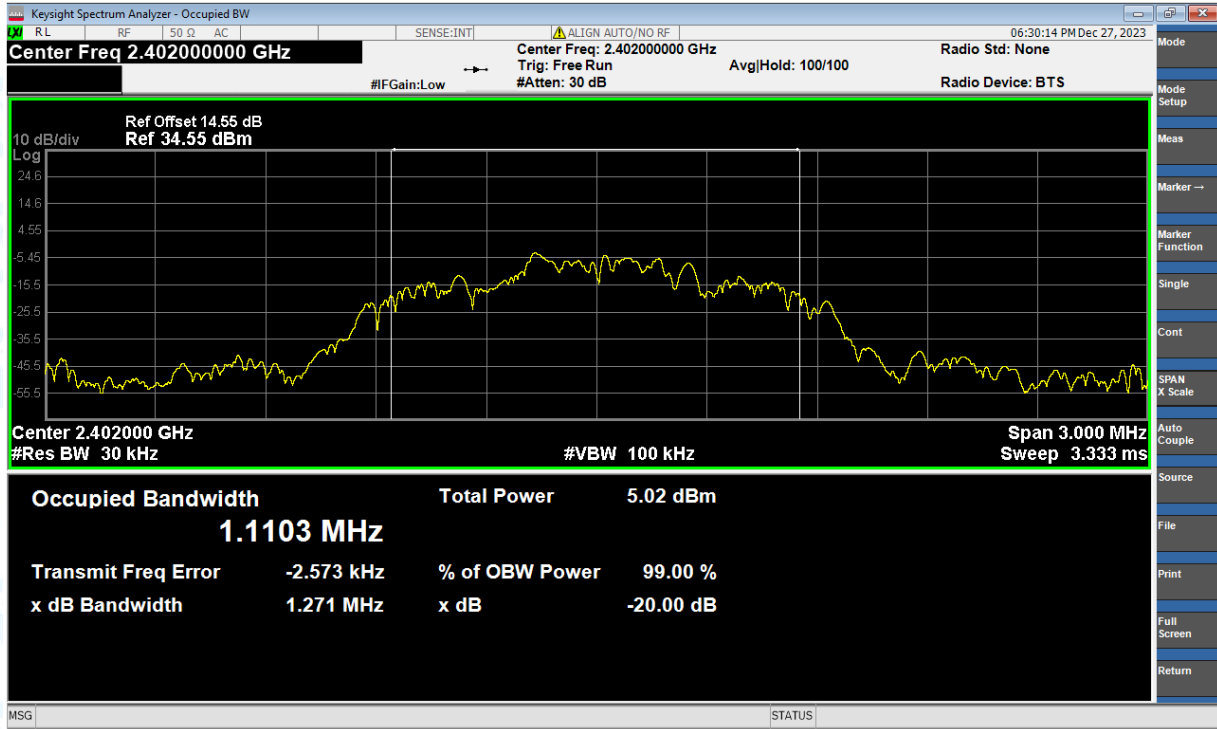
OBW NVNT 2-DH1 2441MHz Ant1



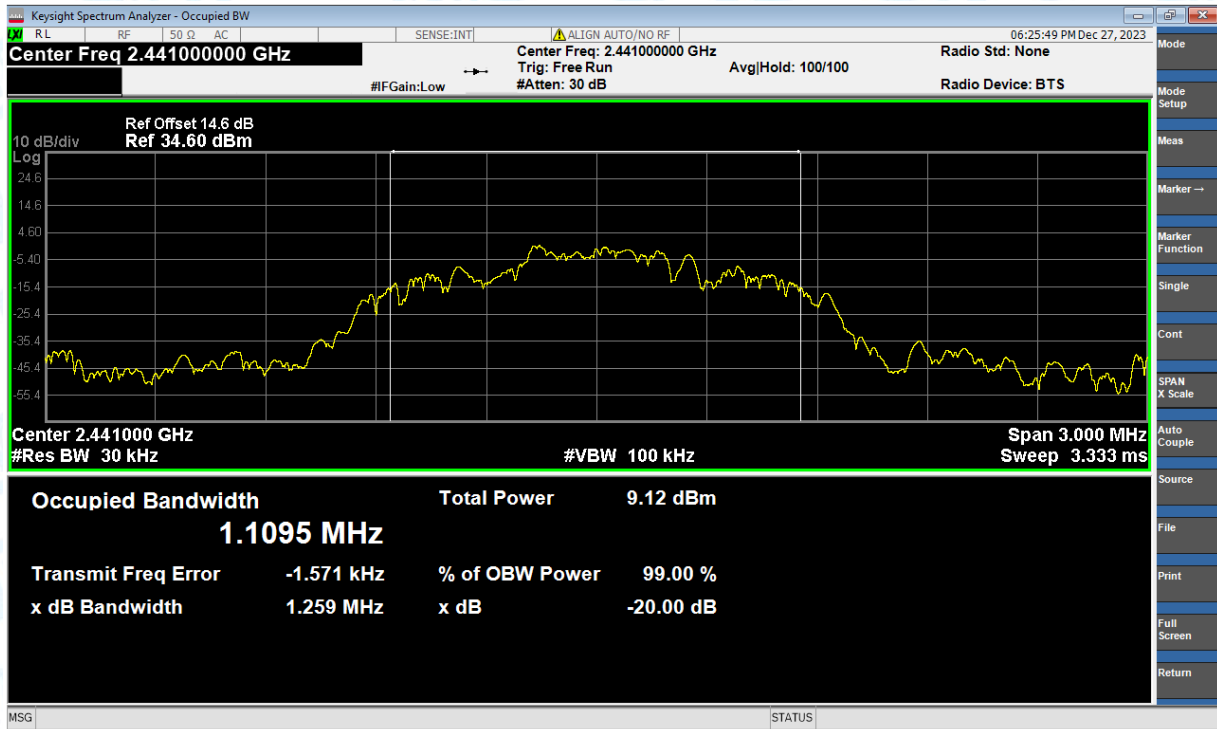
OBW NVNT 2-DH1 2480MHz Ant1

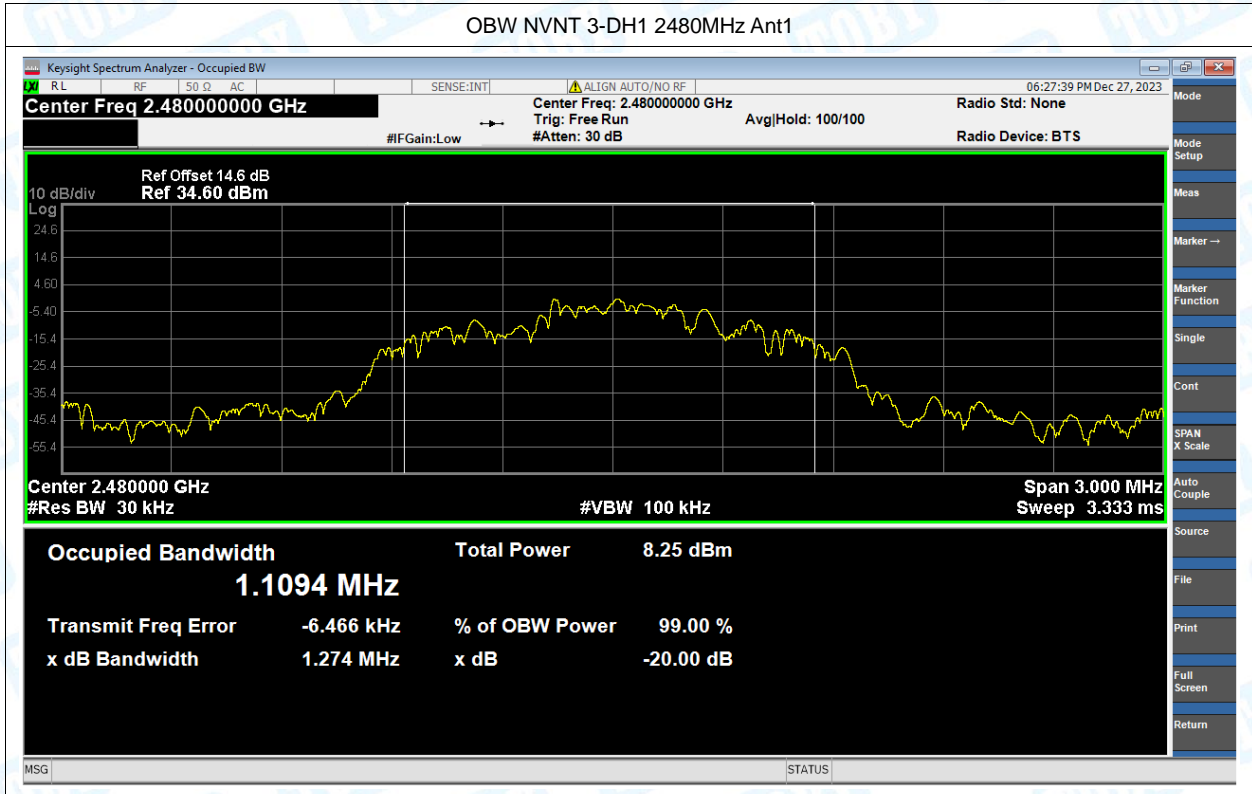


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



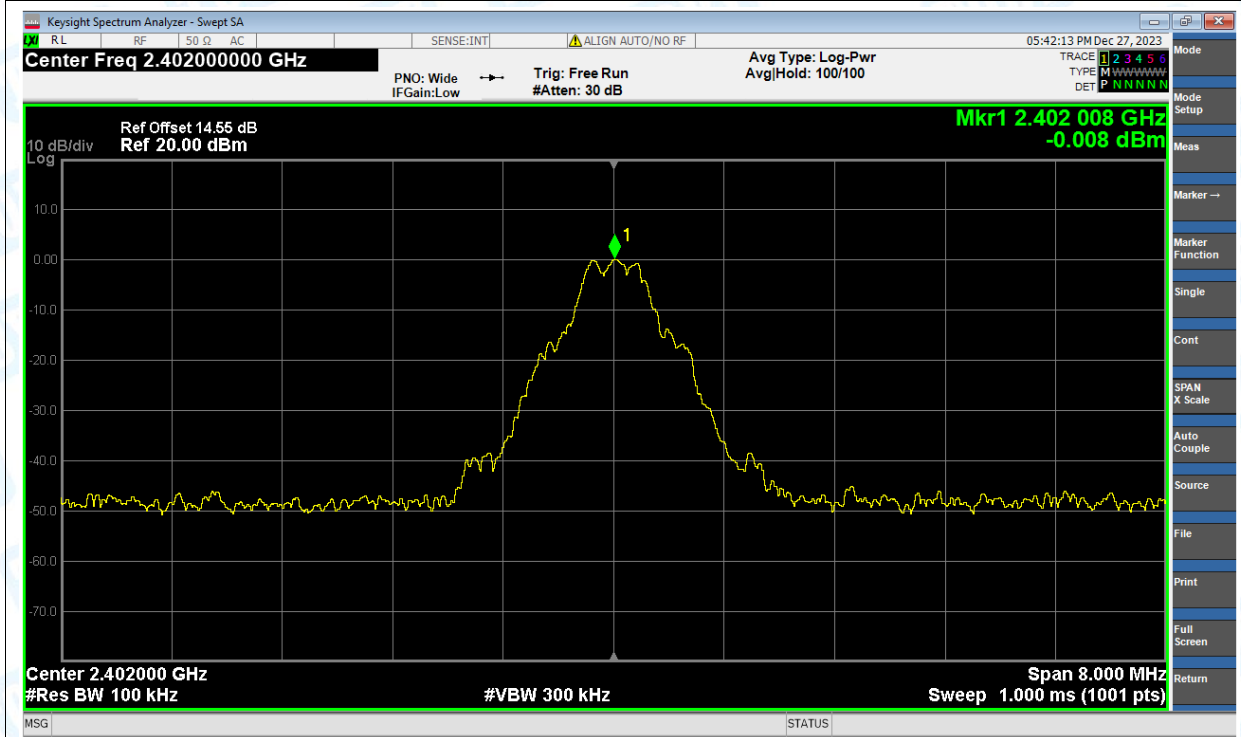


5. Band Edge

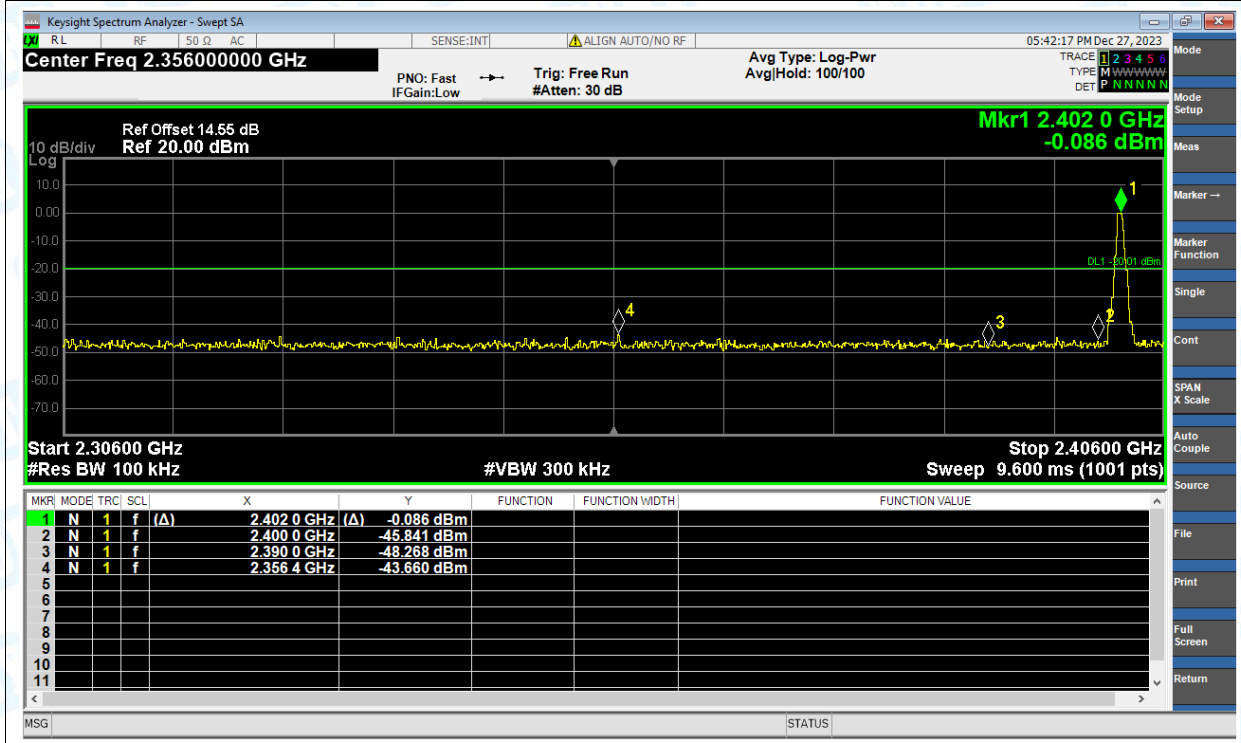
| Condition | Mode | Frequency (MHz) | Antenna | Hopping Mode | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|-------|-----------------|---------|--------------|-----------------|-------------|---------|
| NVNT | 1-DH1 | 2402 | Ant1 | No-Hopping | -43.65 | -20 | Pass |
| NVNT | 1-DH1 | 2480 | Ant1 | No-Hopping | -47.68 | -20 | Pass |
| NVNT | 2-DH1 | 2402 | Ant1 | No-Hopping | -42.96 | -20 | Pass |
| NVNT | 2-DH1 | 2480 | Ant1 | No-Hopping | -46.63 | -20 | Pass |
| NVNT | 3-DH1 | 2402 | Ant1 | No-Hopping | -43.42 | -20 | Pass |
| NVNT | 3-DH1 | 2480 | Ant1 | No-Hopping | -46.47 | -20 | Pass |

Test Graphs

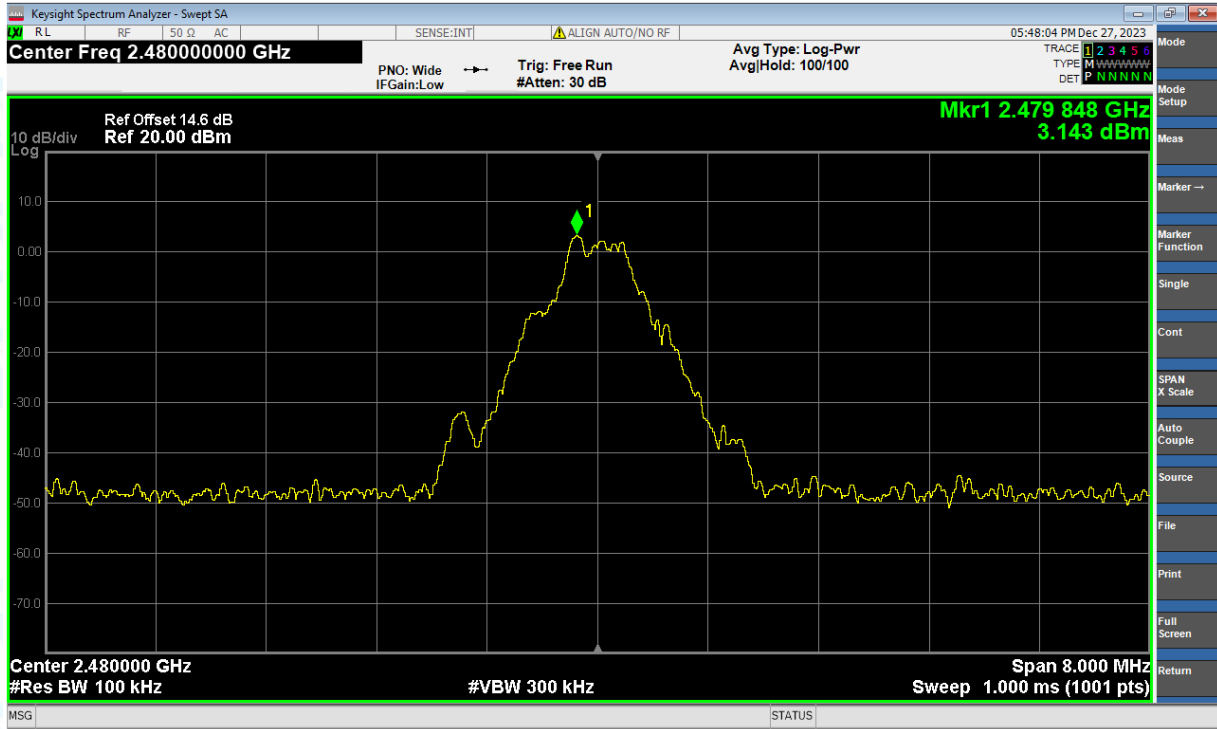
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



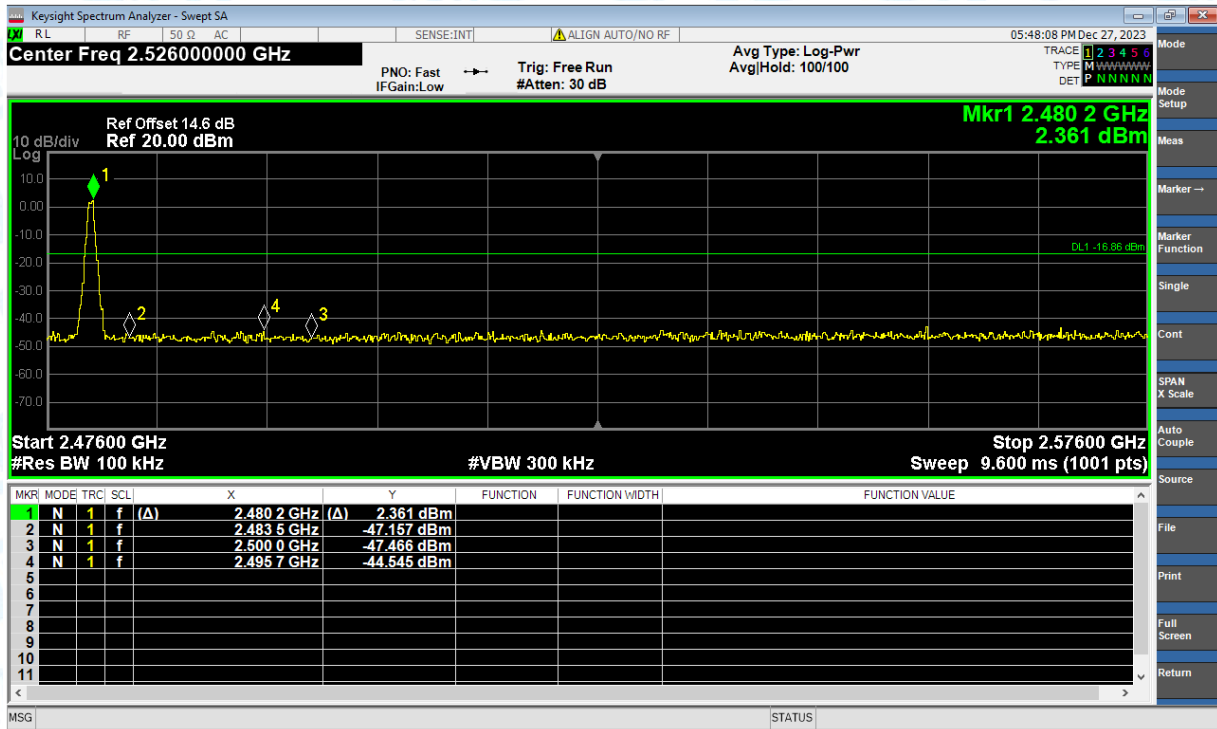
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



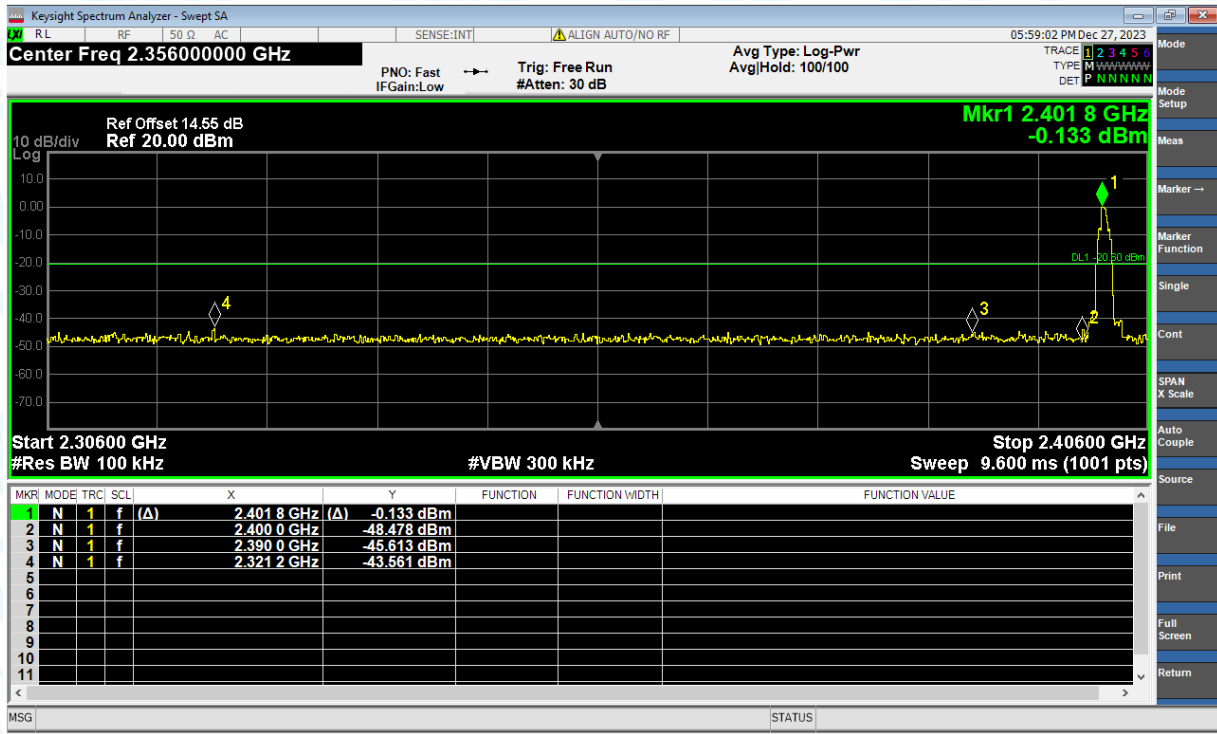
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission

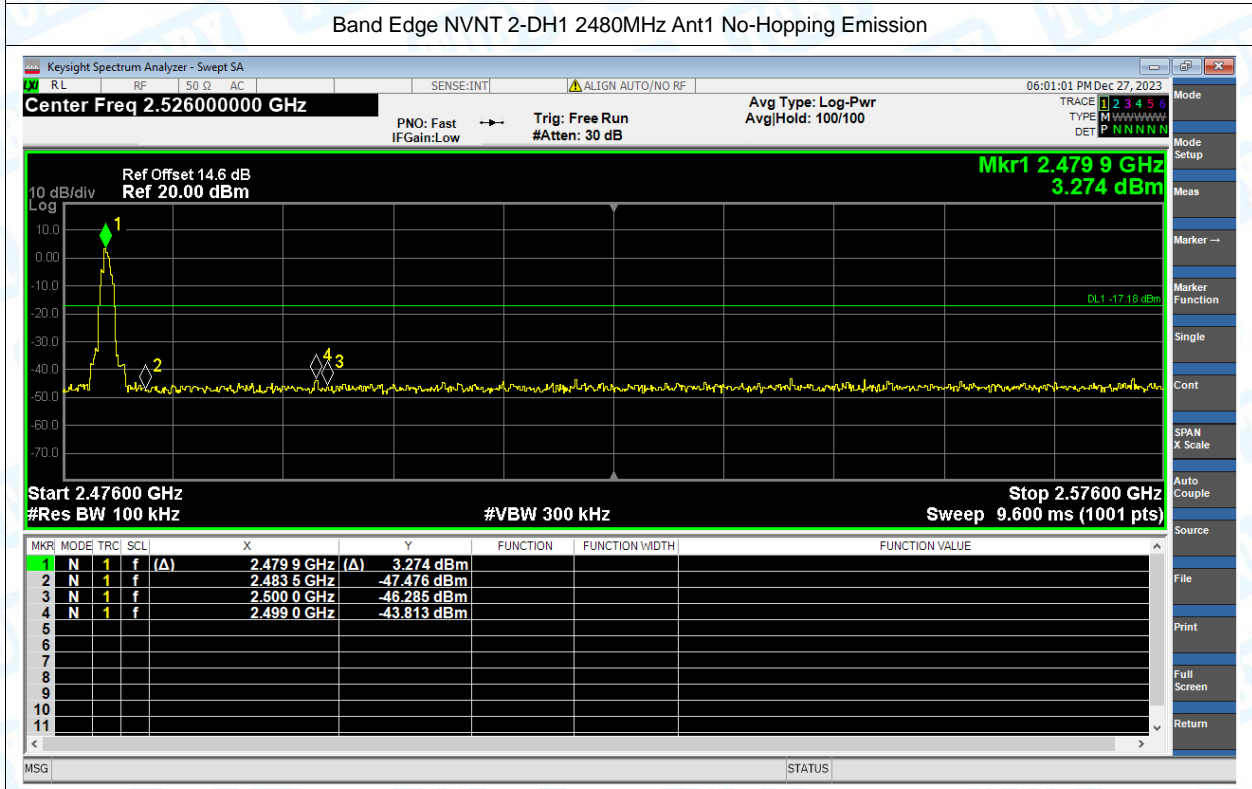
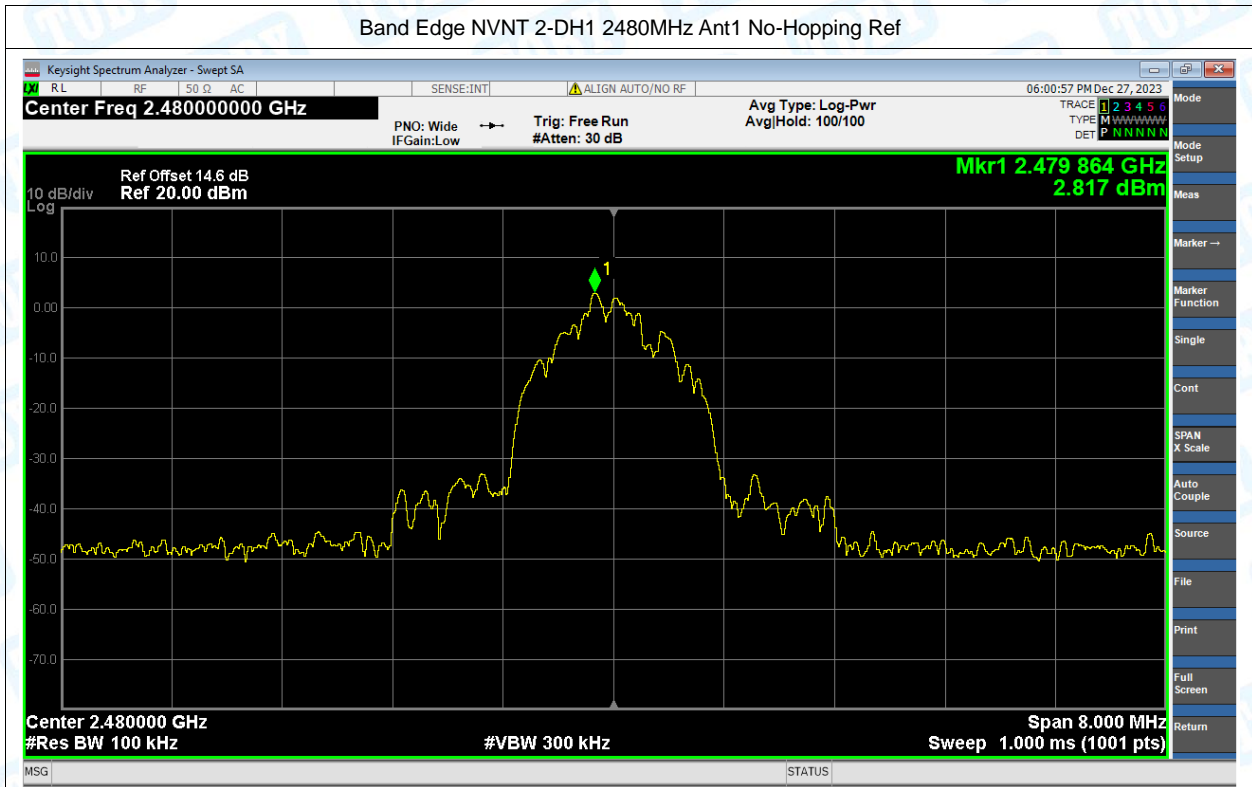


Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref

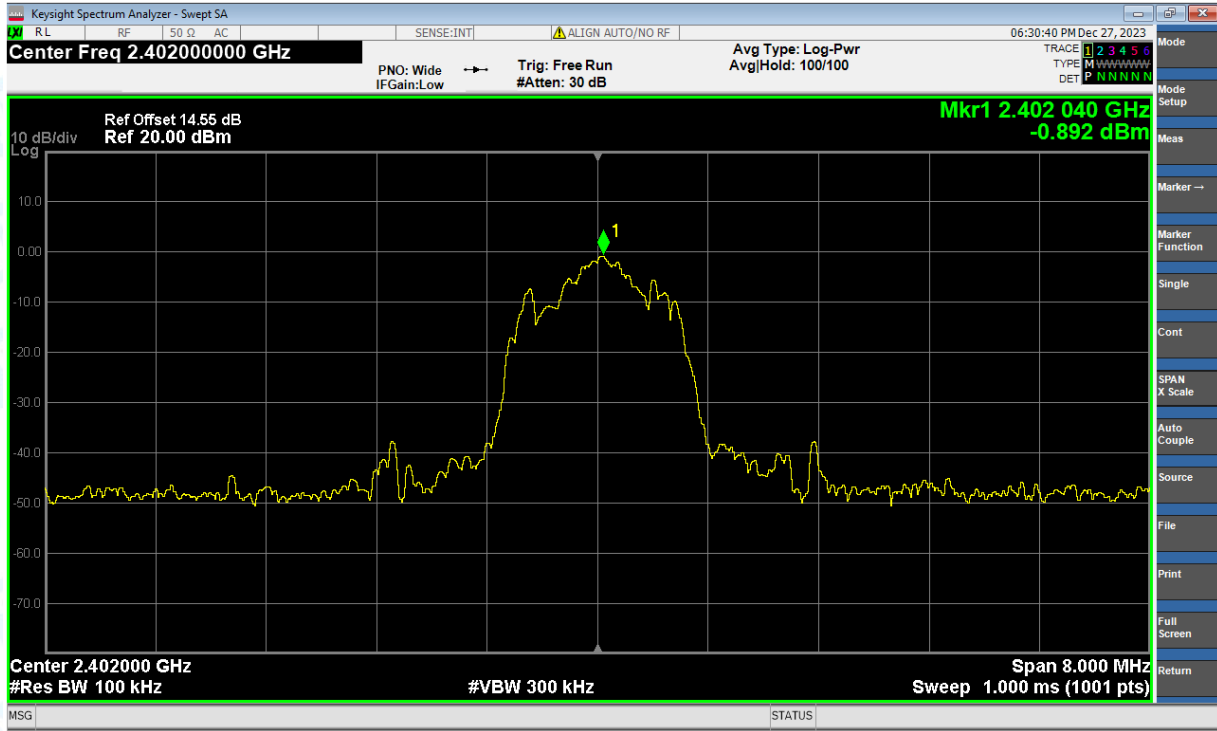


Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission

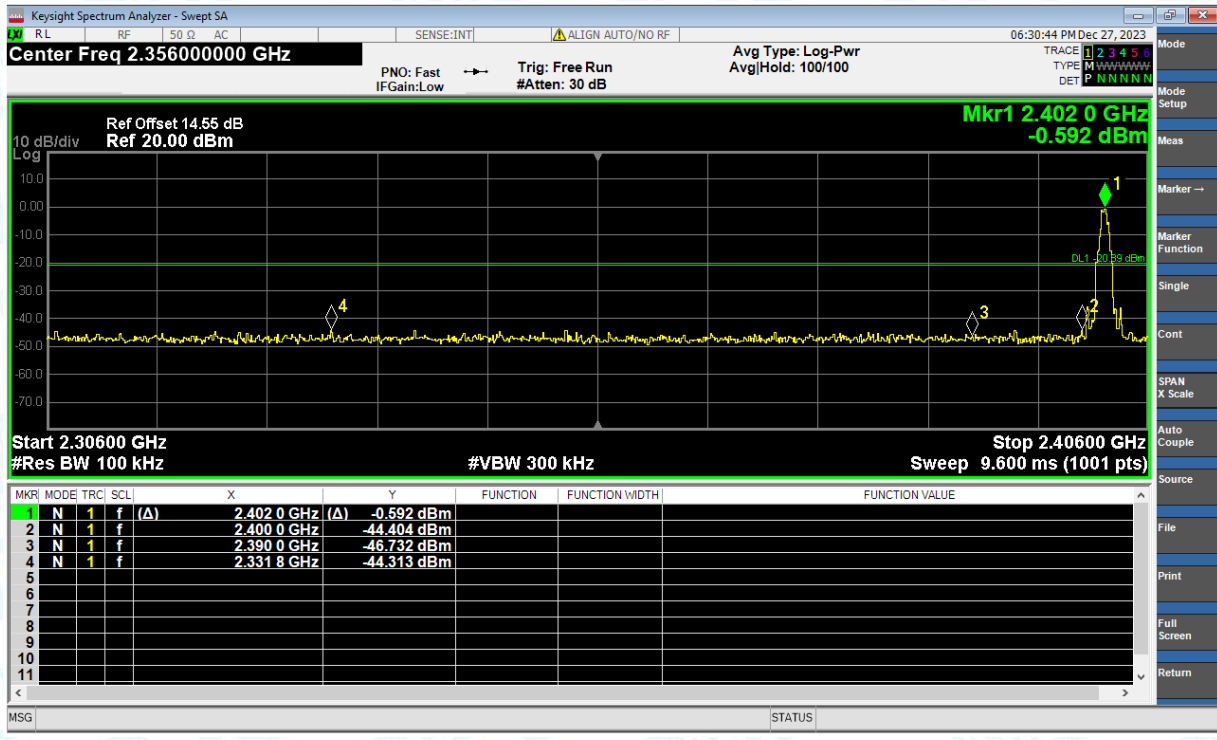




Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



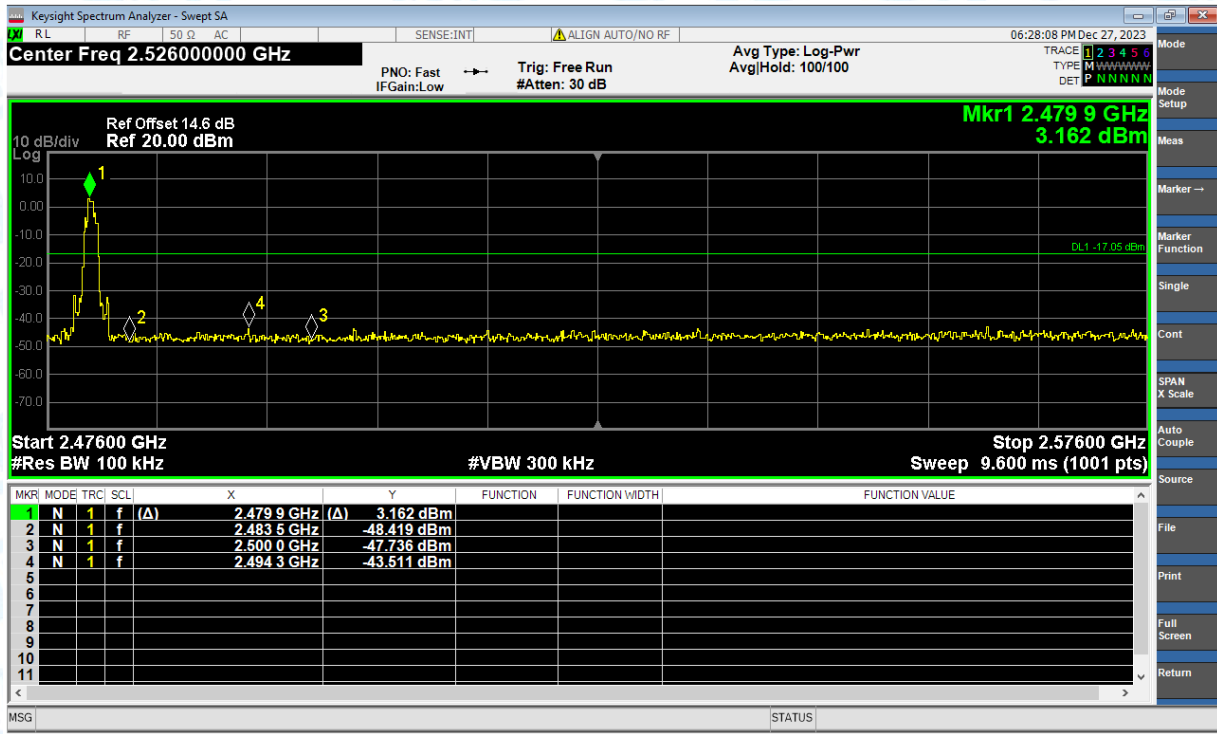
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Ref



Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Emission

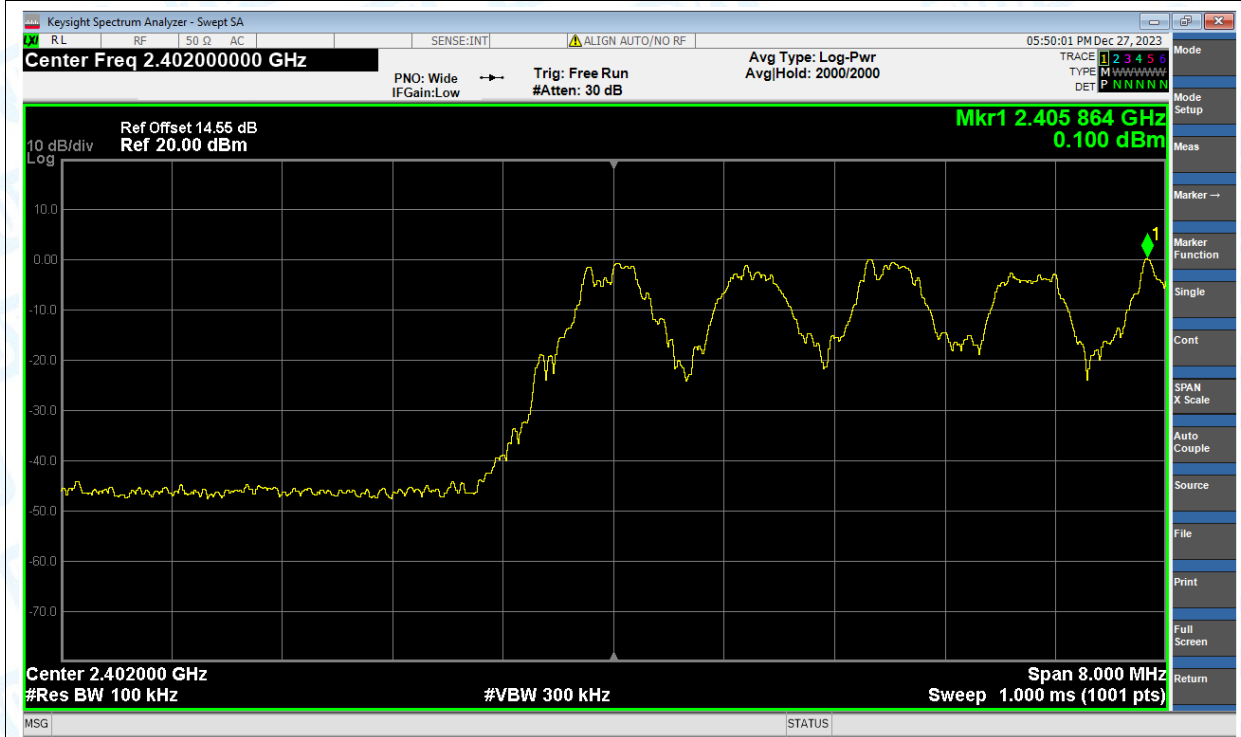


6. Band Edge(Hopping)

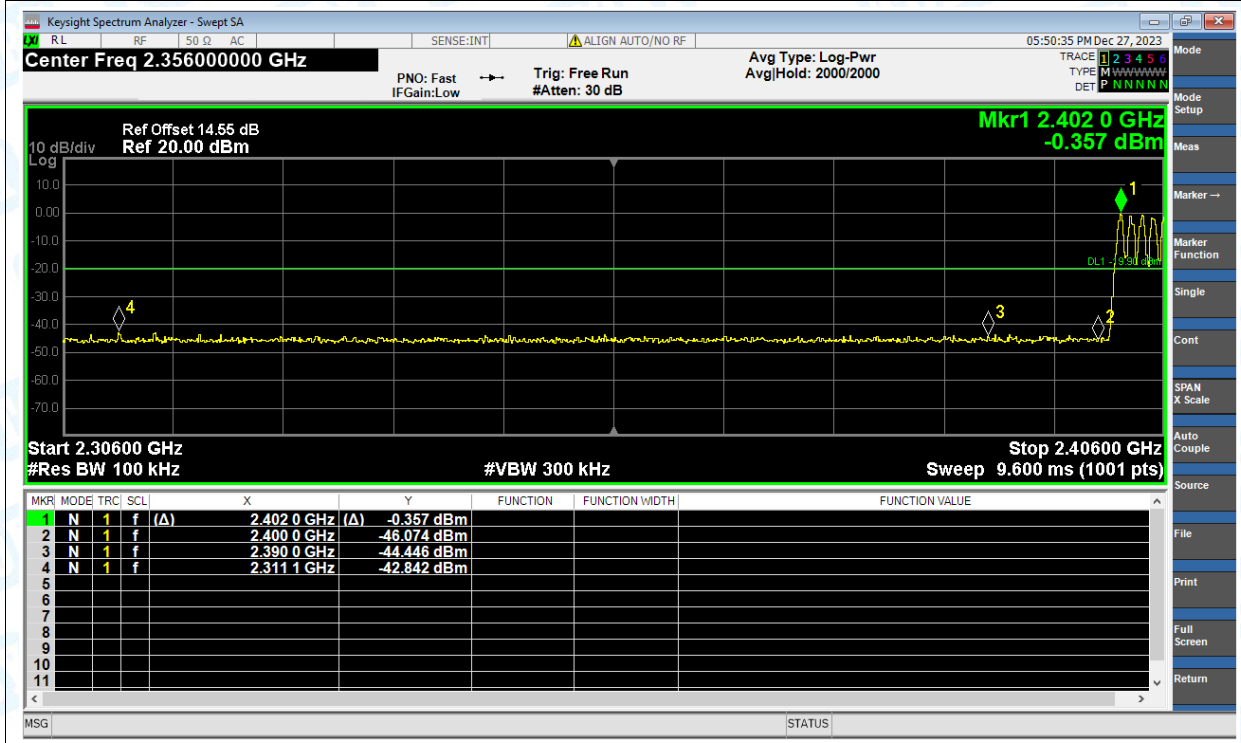
| Condition | Mode | Frequency (MHz) | Antenna | Hopping Mode | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|-------|-----------------|---------|--------------|-----------------|-------------|---------|
| NVNT | 1-DH1 | 2402 | Ant1 | Hopping | -42.94 | -20 | Pass |
| NVNT | 1-DH1 | 2480 | Ant1 | Hopping | -48.61 | -20 | Pass |
| NVNT | 2-DH1 | 2402 | Ant1 | Hopping | -43.68 | -20 | Pass |
| NVNT | 2-DH1 | 2480 | Ant1 | Hopping | -46.96 | -20 | Pass |
| NVNT | 3-DH1 | 2402 | Ant1 | Hopping | -42.41 | -20 | Pass |
| NVNT | 3-DH1 | 2480 | Ant1 | Hopping | -48.38 | -20 | Pass |

Test Graphs

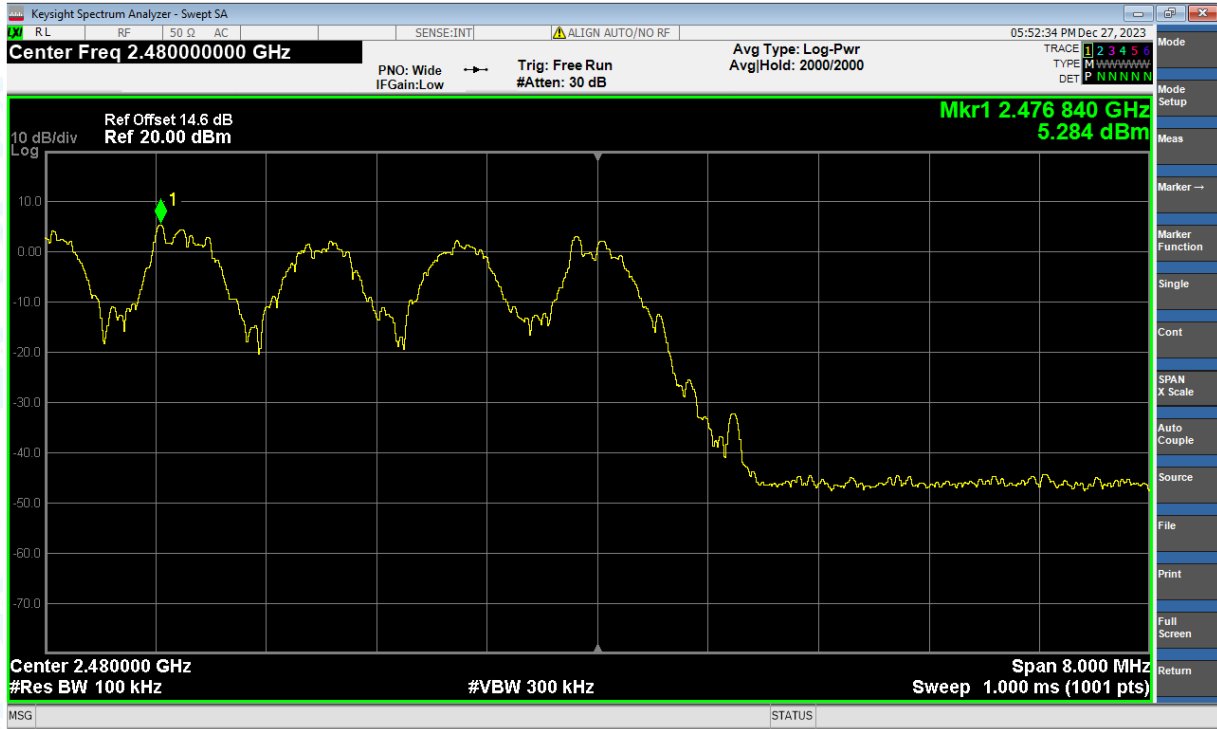
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref



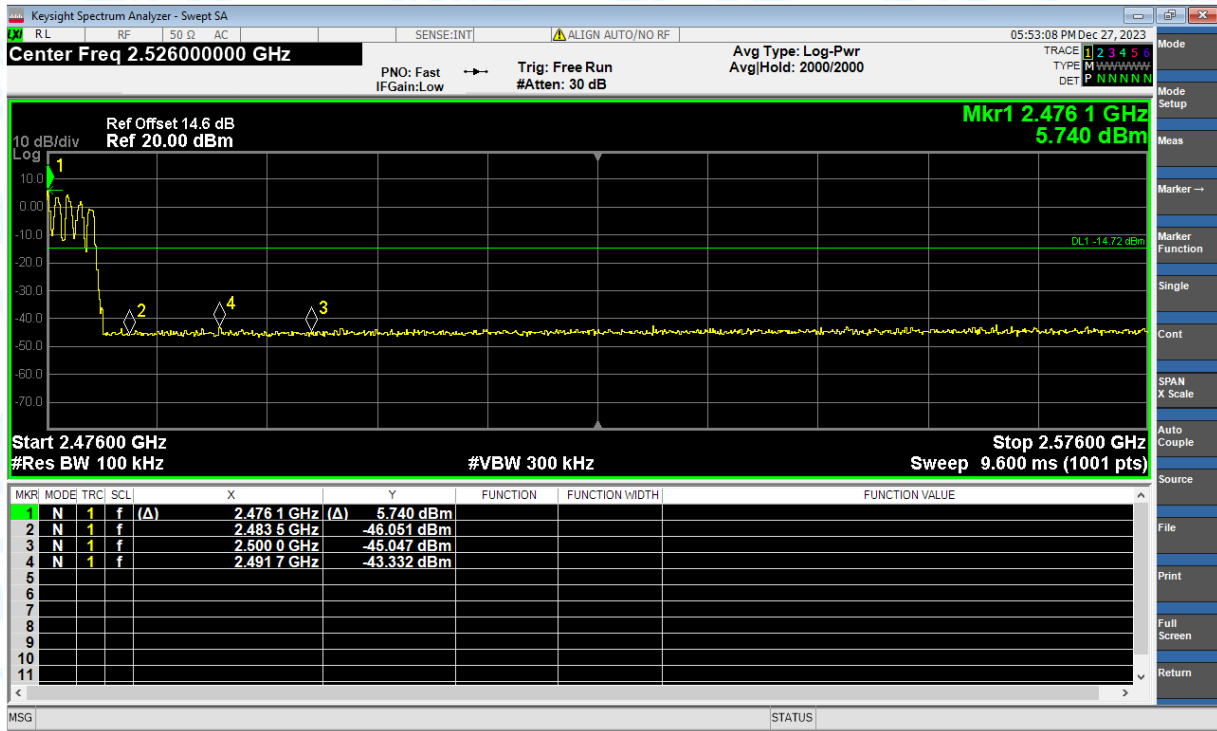
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



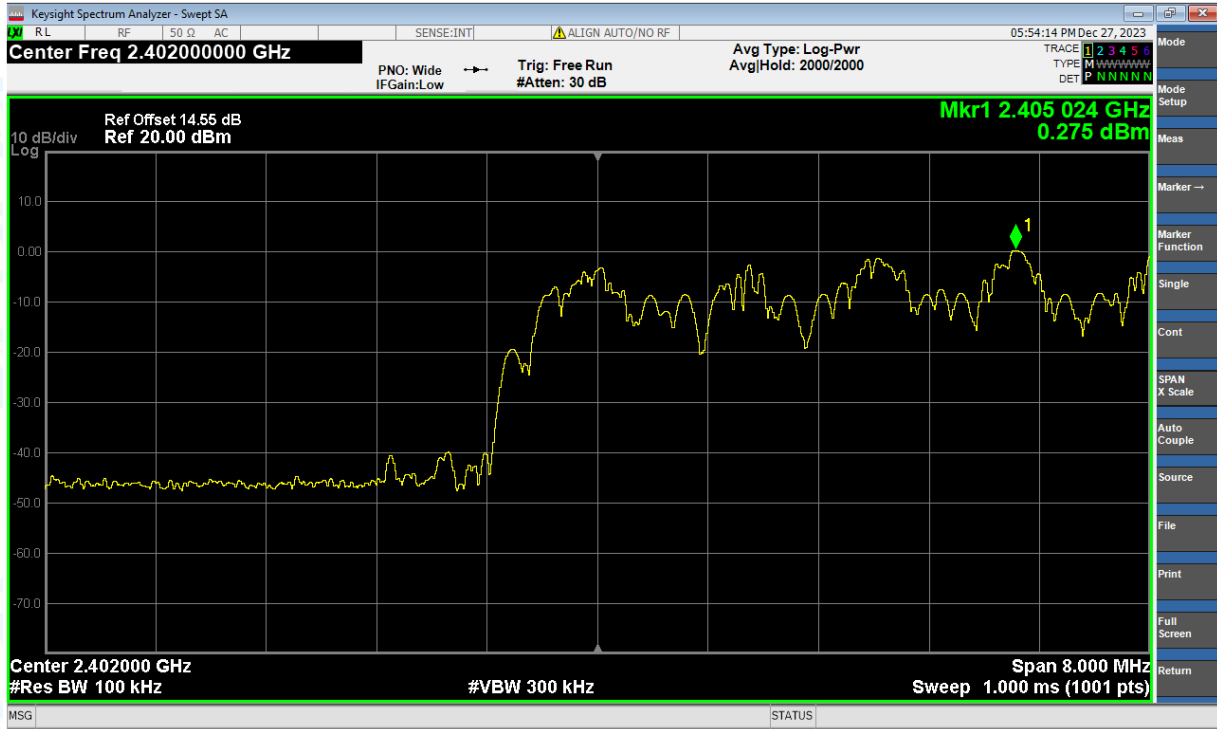
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref



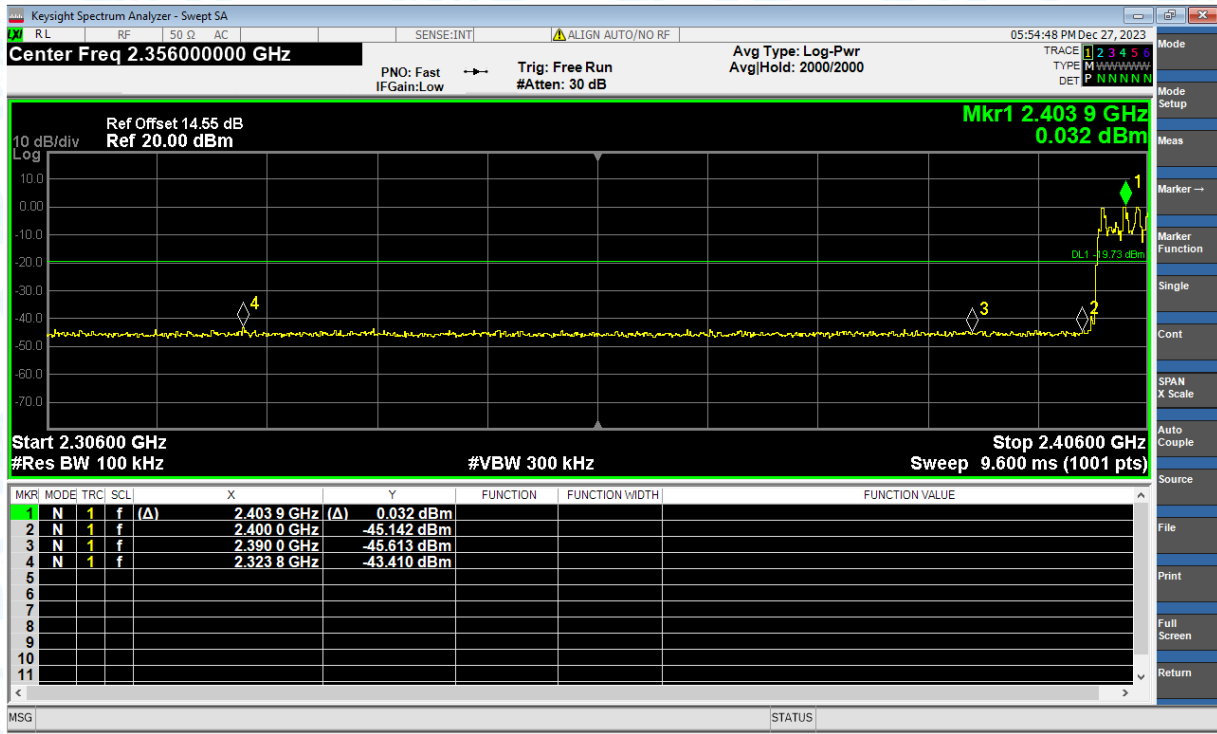
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



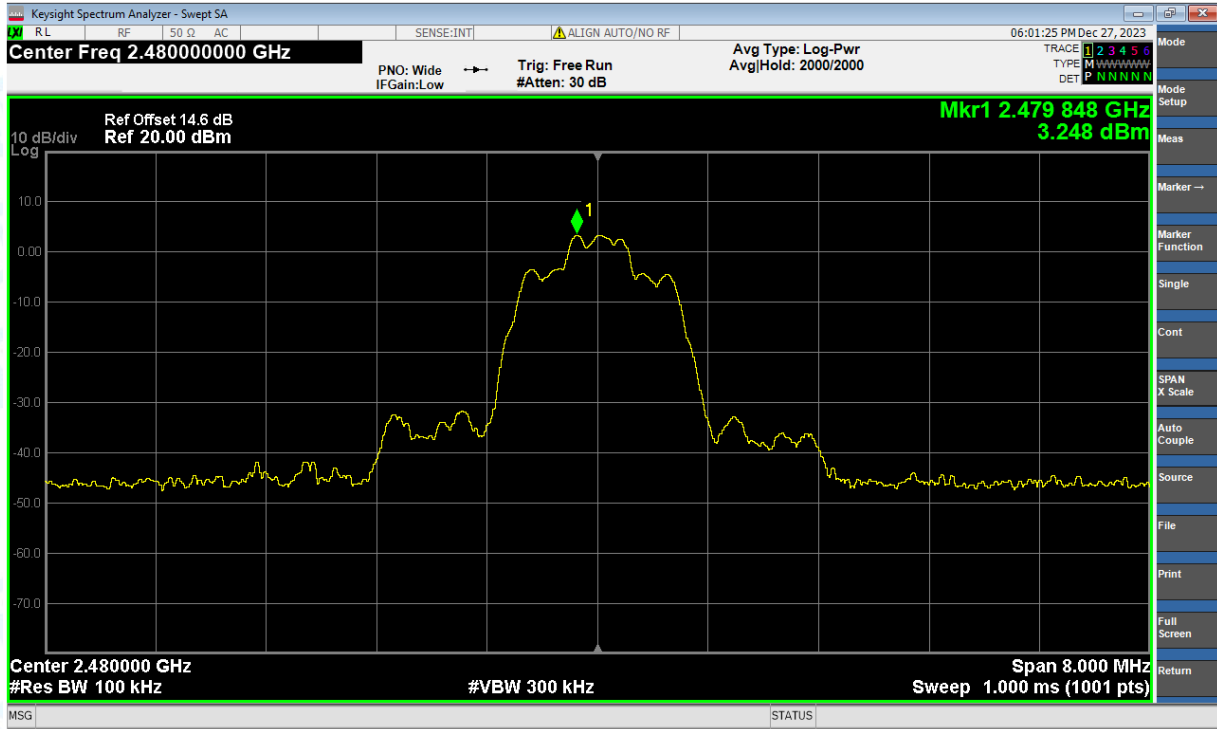
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



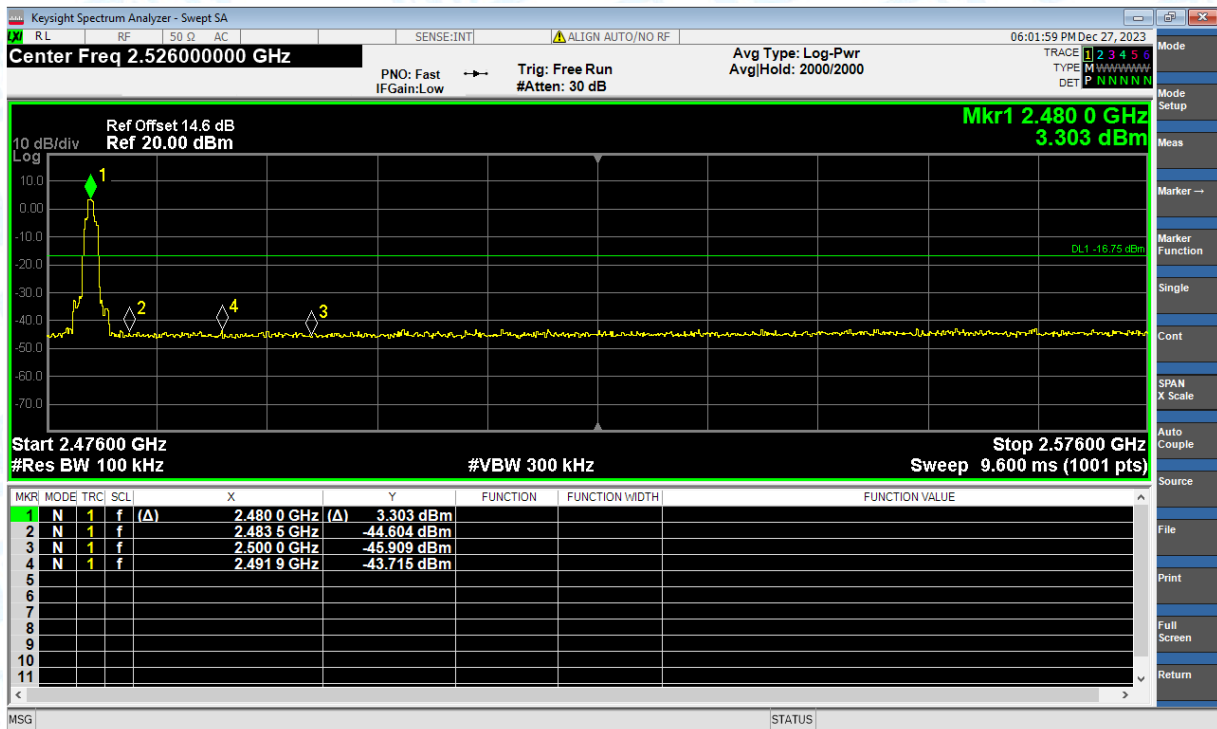
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Ref



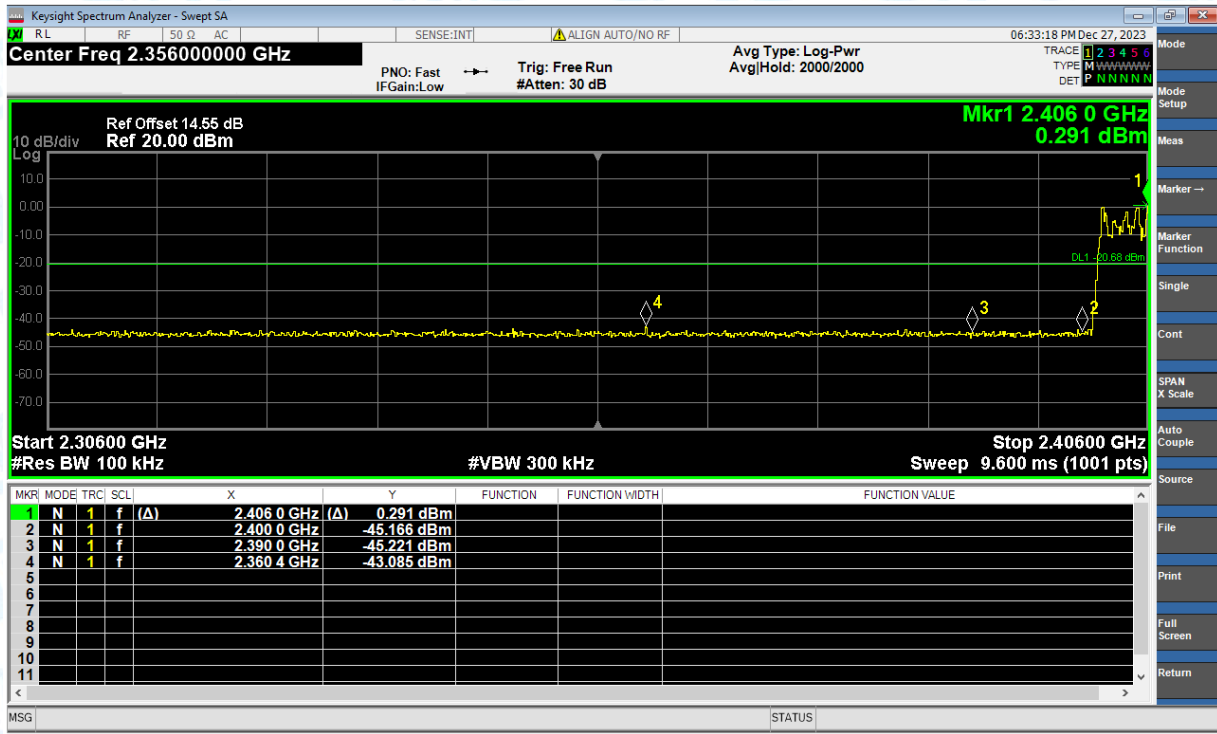
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



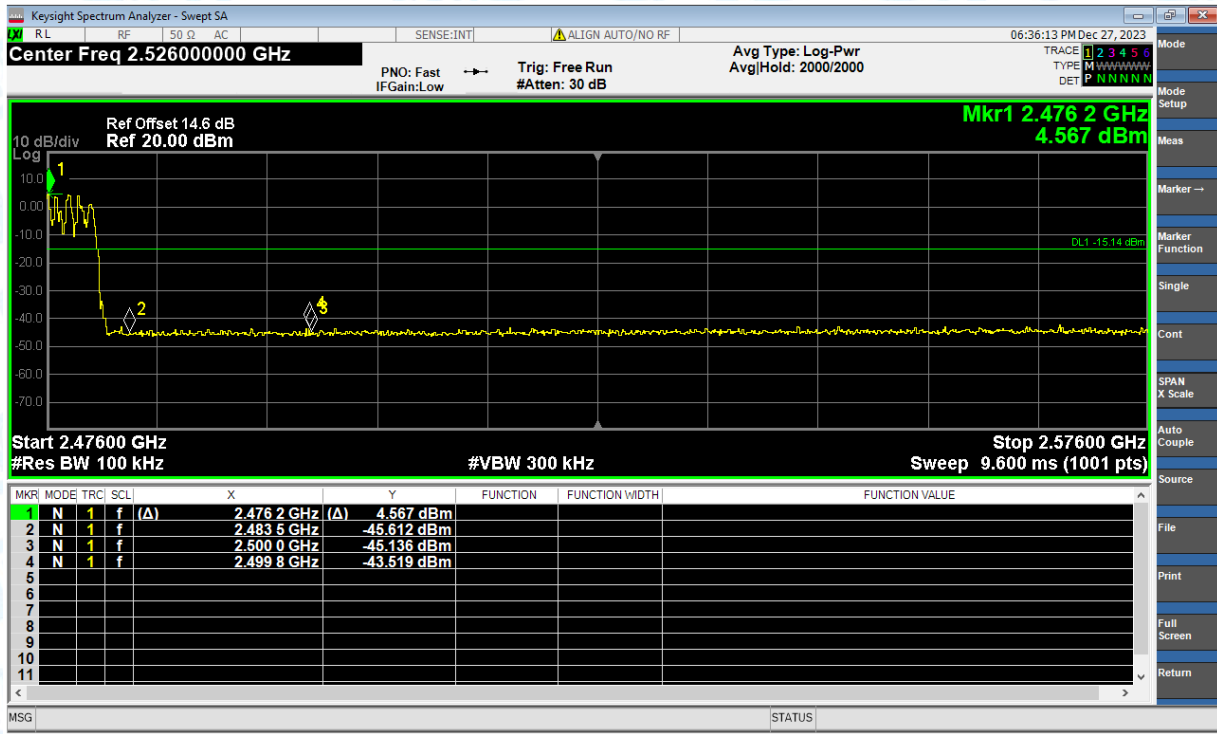
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 3-DH1 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 3-DH1 2480MHz Ant1 Hopping Emission

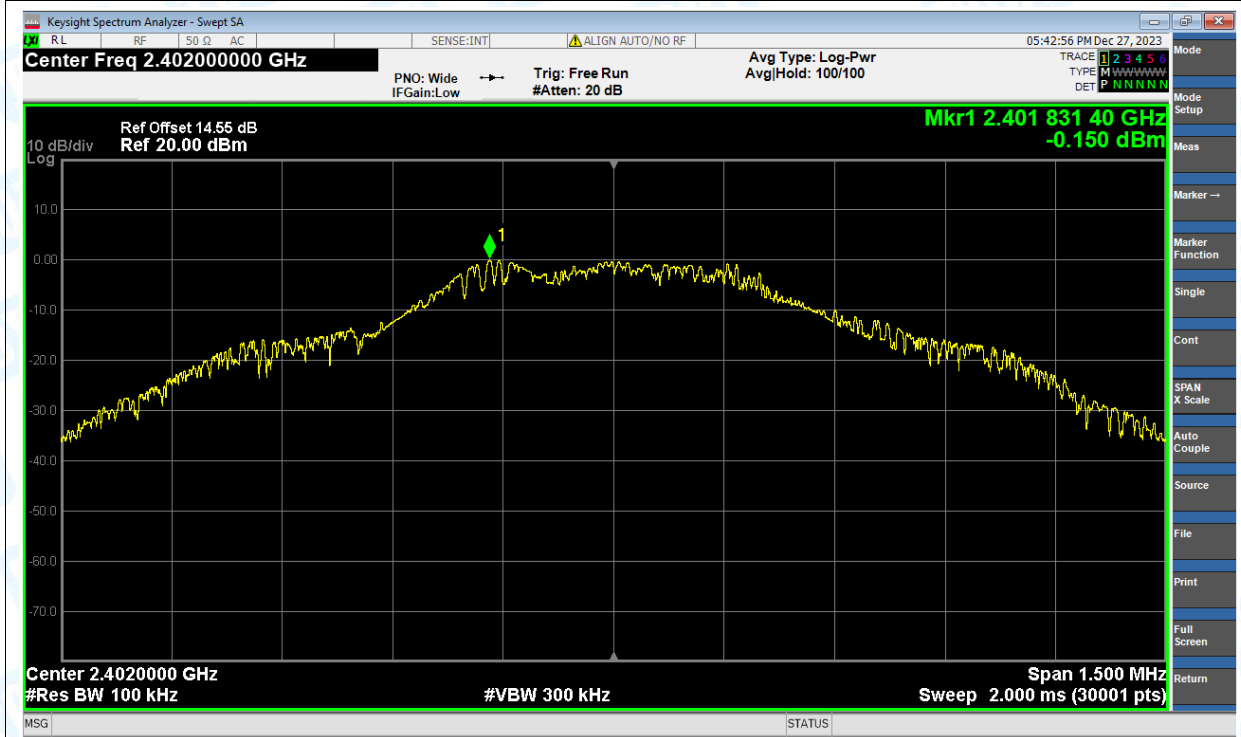


7. Conducted RF Spurious Emission

| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|-------|-----------------|---------|-----------------|-------------|---------|
| NVNT | 1-DH1 | 2402 | Ant1 | -39.78 | -20 | Pass |
| NVNT | 1-DH1 | 2441 | Ant1 | -44.08 | -20 | Pass |
| NVNT | 1-DH1 | 2480 | Ant1 | -42.37 | -20 | Pass |
| NVNT | 2-DH1 | 2402 | Ant1 | -39.05 | -20 | Pass |
| NVNT | 2-DH1 | 2441 | Ant1 | -42.27 | -20 | Pass |
| NVNT | 2-DH1 | 2480 | Ant1 | -43.58 | -20 | Pass |
| NVNT | 3-DH1 | 2402 | Ant1 | -38.85 | -20 | Pass |
| NVNT | 3-DH1 | 2441 | Ant1 | -43.3 | -20 | Pass |
| NVNT | 3-DH1 | 2480 | Ant1 | -43.34 | -20 | Pass |

Test Graphs

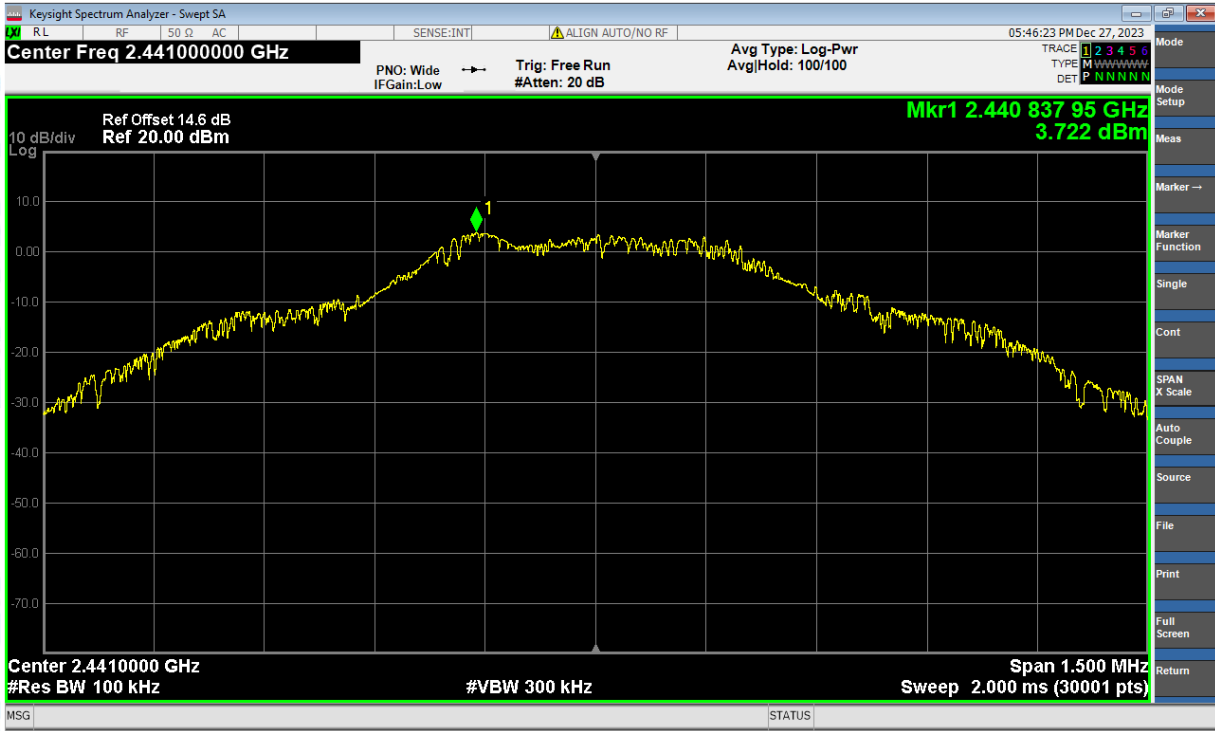
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



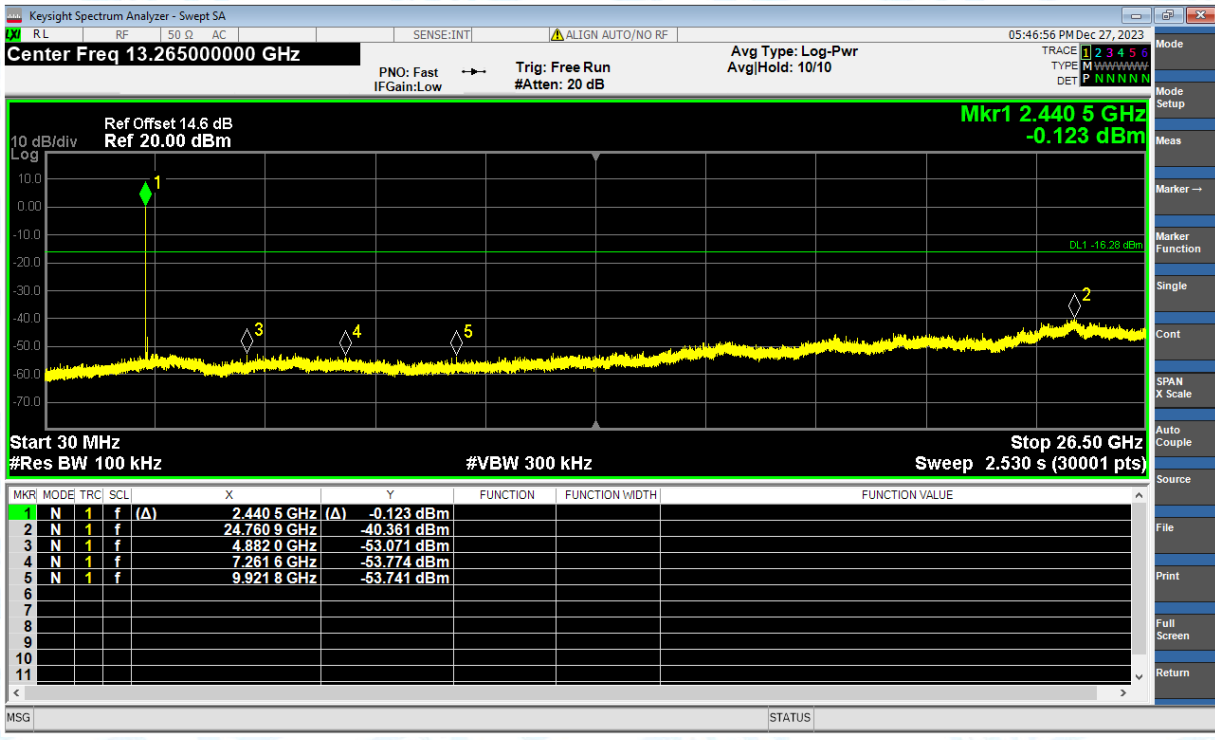
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



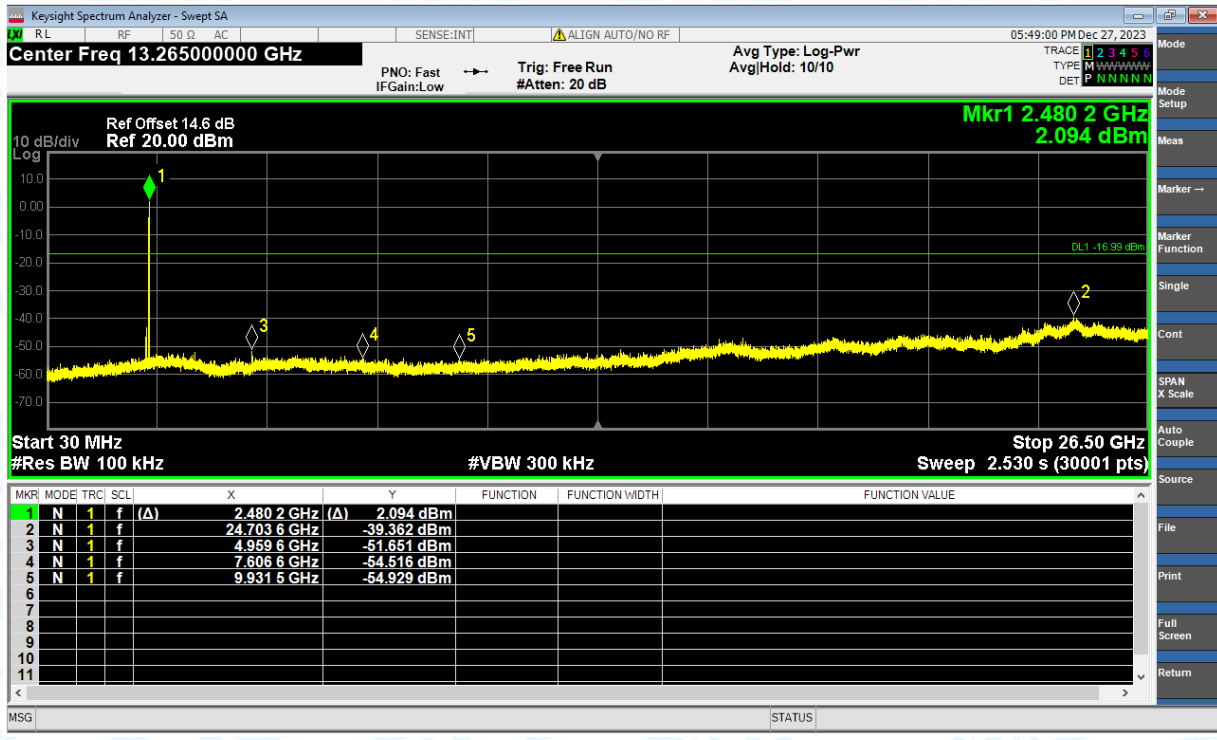
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



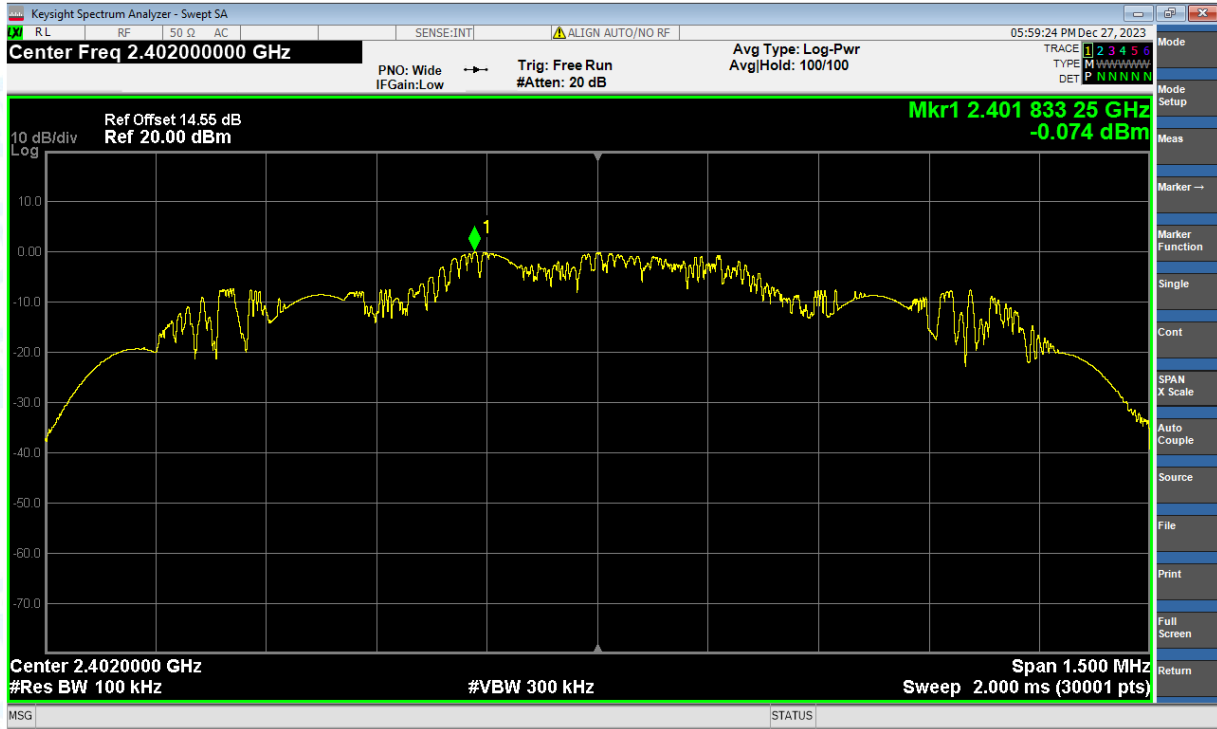
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission

