

## Appendix A: Test Results

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## Maximum Peak Conducted Output Power

| Condition | Mode   | Frequency (MHz) | Antenna | Conducted Power (dBm) | Duty Factor (dB) | Total Conducted Power (dBm) | Total Conducted Power (W) | Gain (dBi) | eirp (dBm) | eirp (W) | Limit Conducted (dBm) | Limit EIRP (dBm) | Verdict |
|-----------|--------|-----------------|---------|-----------------------|------------------|-----------------------------|---------------------------|------------|------------|----------|-----------------------|------------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | 5.06                  | 0                | 5.06                        | 0.00321                   | 2.38       | 7.44       | 0.00555  | 30                    | 36               | Pass    |
| NVNT      | BLE 1M | 2440            | Ant1    | 5.15                  | 0                | 5.15                        | 0.00327                   | 2.38       | 7.53       | 0.00566  | 30                    | 36               | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 5.09                  | 0                | 5.09                        | 0.00323                   | 2.38       | 7.47       | 0.00558  | 30                    | 36               | Pass    |
| NVNT      | BLE 2M | 2404            | Ant1    | 4.91                  | 0                | 4.91                        | 0.0031                    | 2.38       | 7.29       | 0.00536  | 30                    | 36               | Pass    |
| NVNT      | BLE 2M | 2440            | Ant1    | 5.01                  | 0                | 5.01                        | 0.00317                   | 2.38       | 7.39       | 0.00548  | 30                    | 36               | Pass    |
| NVNT      | BLE 2M | 2478            | Ant1    | 4.96                  | 0                | 4.96                        | 0.00313                   | 2.38       | 7.34       | 0.00542  | 30                    | 36               | Pass    |

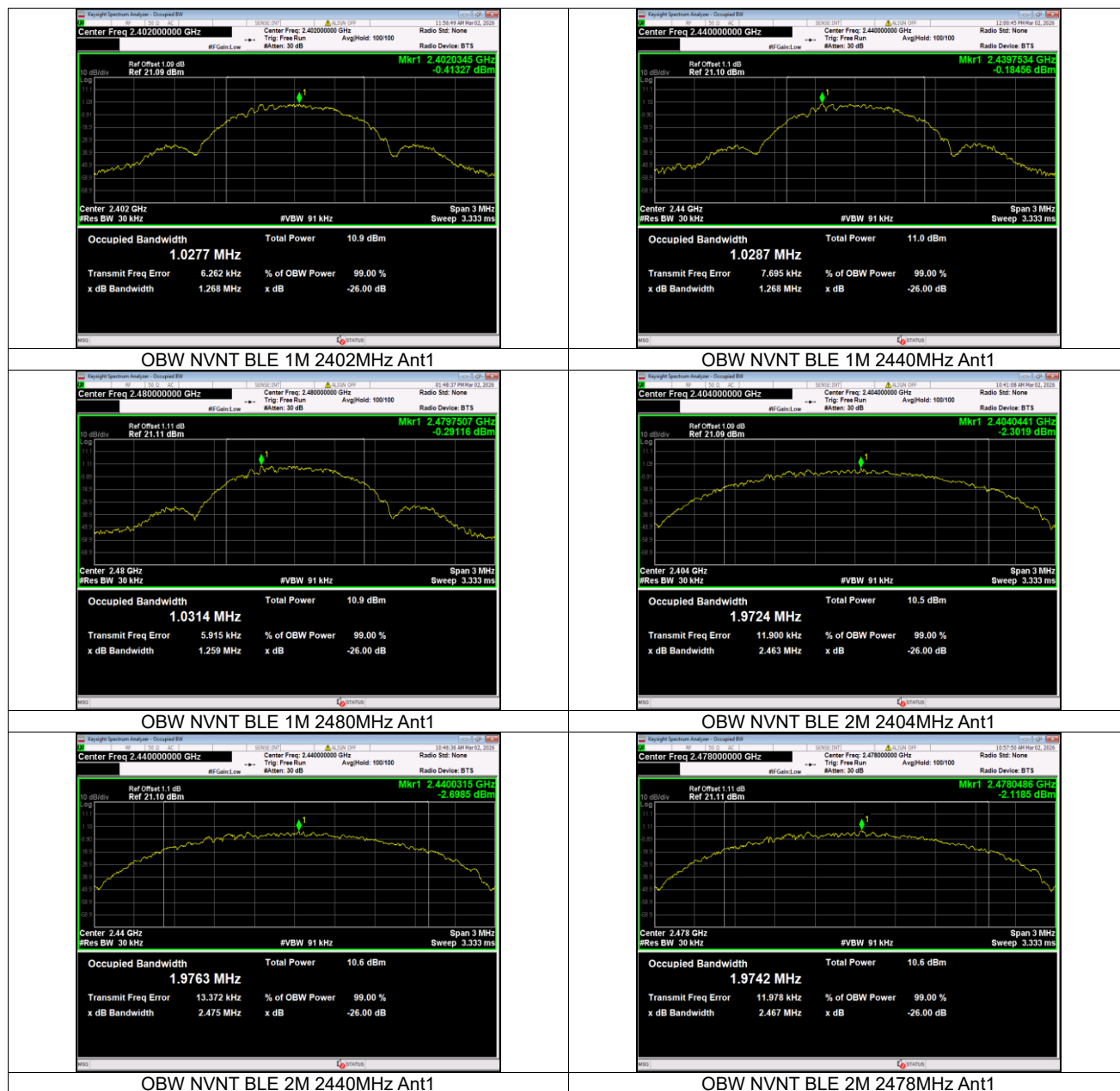
## -6dB Bandwidth

| Condition | Mode   | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|-----------|--------|-----------------|---------|-----------------------|-----------------------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | 0.6884                | 0.5                         | Pass    |
| NVNT      | BLE 1M | 2440            | Ant1    | 0.7085                | 0.5                         | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 0.6891                | 0.5                         | Pass    |
| NVNT      | BLE 2M | 2404            | Ant1    | 1.327                 | 0.5                         | Pass    |
| NVNT      | BLE 2M | 2440            | Ant1    | 1.142                 | 0.5                         | Pass    |
| NVNT      | BLE 2M | 2478            | Ant1    | 1.137                 | 0.5                         | Pass    |



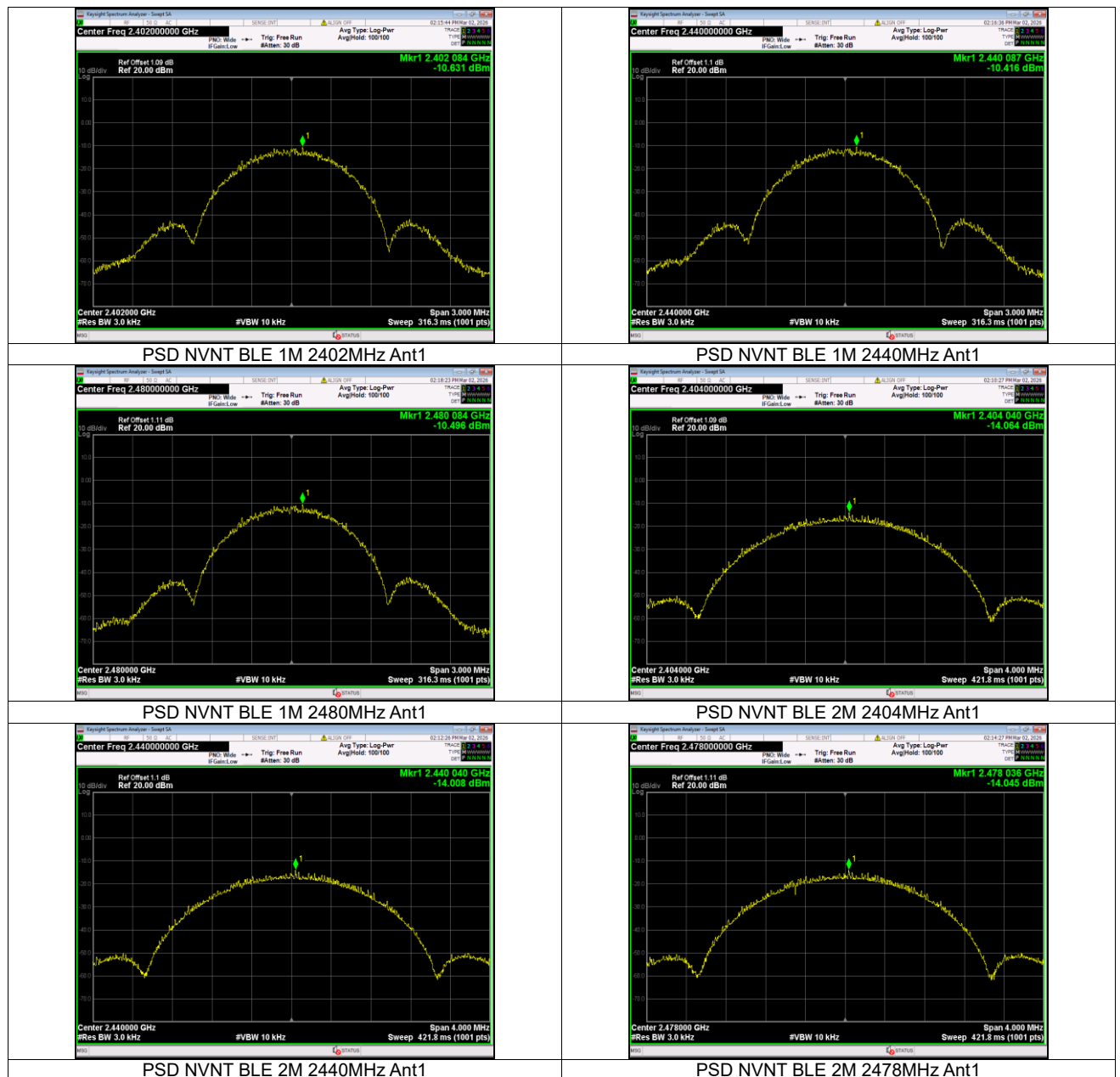
## Occupied Channel Bandwidth

| Condition | Mode   | Frequency (MHz) | Antenna | 99% OBW (MHz) |
|-----------|--------|-----------------|---------|---------------|
| NVNT      | BLE 1M | 2402            | Ant1    | 1.0277        |
| NVNT      | BLE 1M | 2440            | Ant1    | 1.0287        |
| NVNT      | BLE 1M | 2480            | Ant1    | 1.0314        |
| NVNT      | BLE 2M | 2404            | Ant1    | 1.9724        |
| NVNT      | BLE 2M | 2440            | Ant1    | 1.9763        |
| NVNT      | BLE 2M | 2478            | Ant1    | 1.9742        |



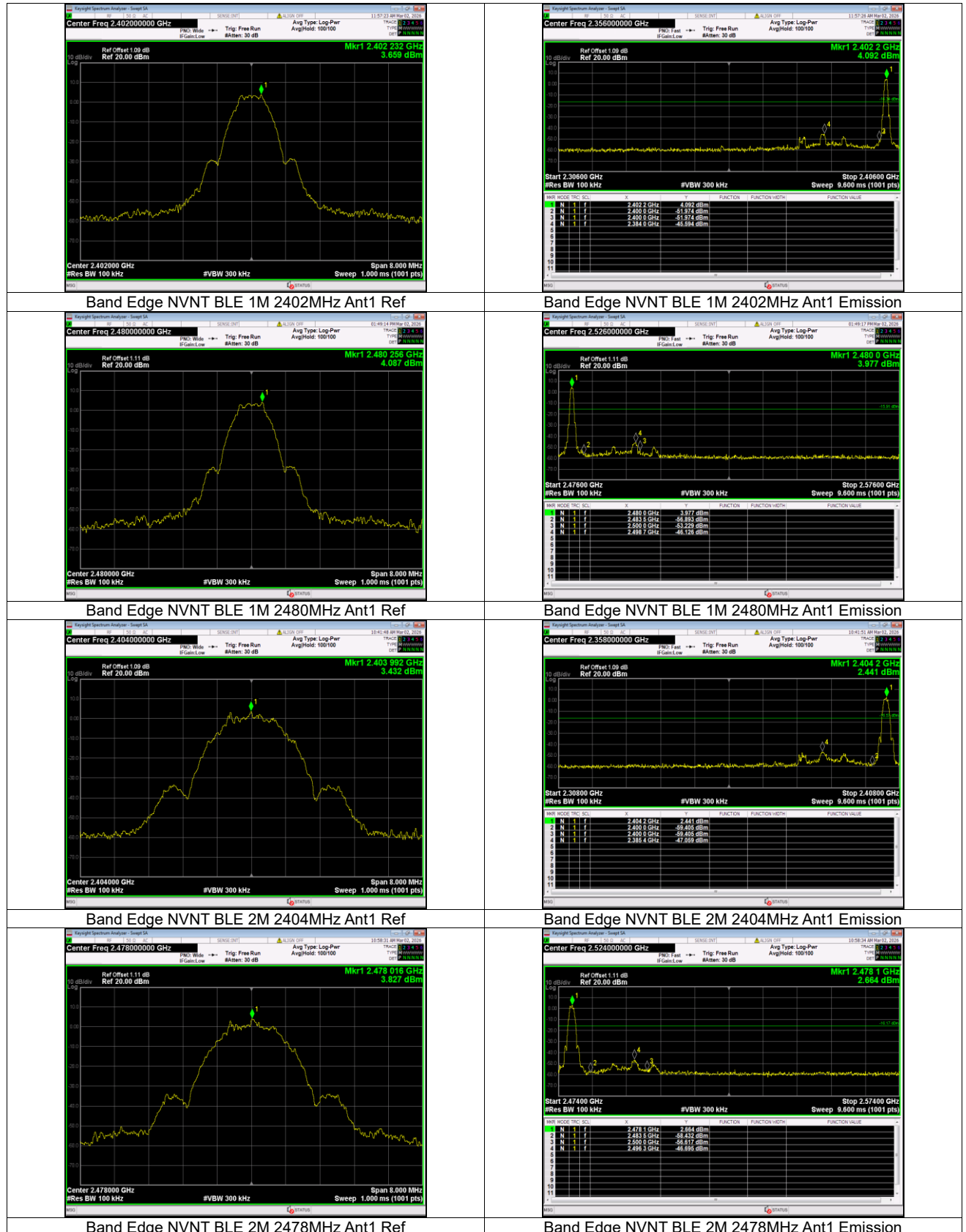
## Maximum Power Spectral Density Level

| 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    | -10.63                   | 0                | -10.63               | 8                | Pass    |
| NVNT      | BLE 1M | 2440            | Ant1    | -10.42                   | 0                | -10.42               | 8                | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | -10.5                    | 0                | -10.5                | 8                | Pass    |
| NVNT      | BLE 2M | 2404            | Ant1    | -14.06                   | 0                | -14.06               | 8                | Pass    |
| NVNT      | BLE 2M | 2440            | Ant1    | -14.01                   | 0                | -14.01               | 8                | Pass    |
| NVNT      | BLE 2M | 2478            | Ant1    | -14.05                   | 0                | -14.05               | 8                | Pass    |



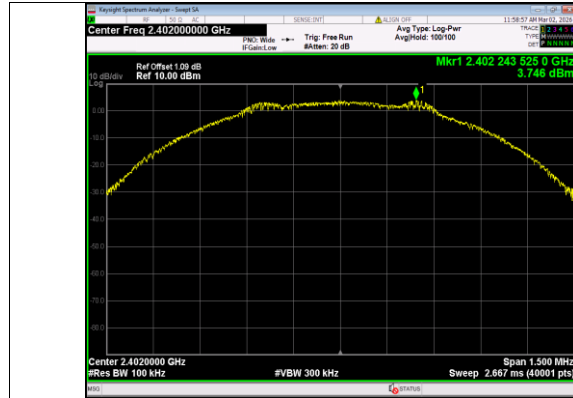
## Band Edge

| Condition | Mode   | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|--------|-----------------|---------|-----------------|-------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | -49.25          | -20         | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | -50.21          | -20         | Pass    |
| NVNT      | BLE 2M | 2404            | Ant1    | -50.48          | -20         | Pass    |
| NVNT      | BLE 2M | 2478            | Ant1    | -50.52          | -20         | Pass    |

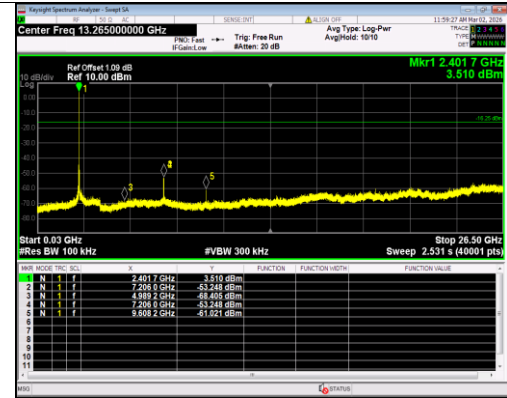


## Conducted RF Spurious Emission

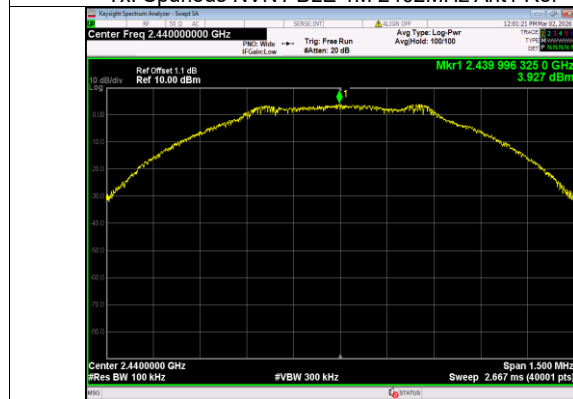
| Condition | Mode   | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|--------|-----------------|---------|-----------------|-------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | -56.99          | -20         | Pass    |
| NVNT      | BLE 1M | 2440            | Ant1    | -57.76          | -20         | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | -55.61          | -20         | Pass    |
| NVNT      | BLE 2M | 2404            | Ant1    | -59.07          | -20         | Pass    |
| NVNT      | BLE 2M | 2440            | Ant1    | -58.79          | -20         | Pass    |
| NVNT      | BLE 2M | 2478            | Ant1    | -56.34          | -20         | Pass    |



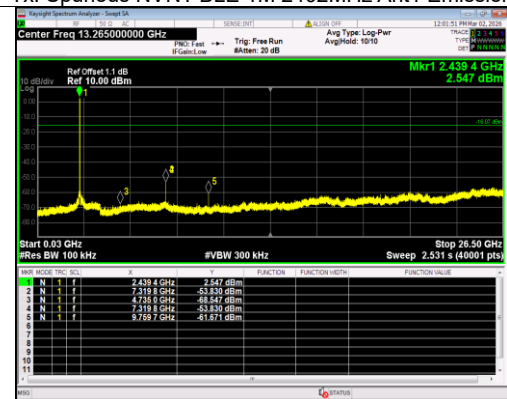
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Ref



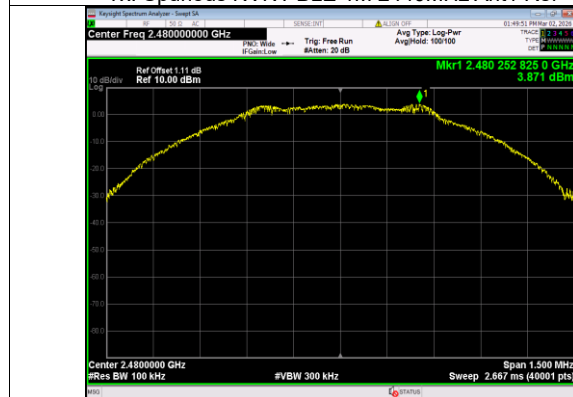
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 Emission



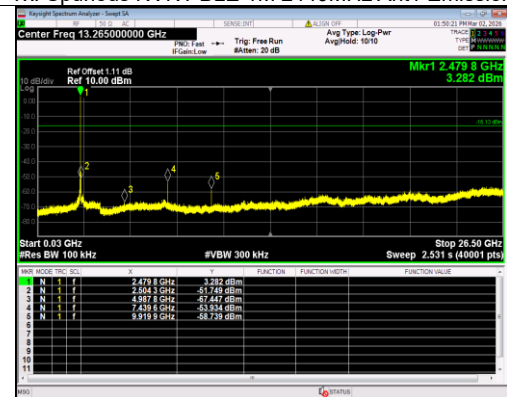
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Ref



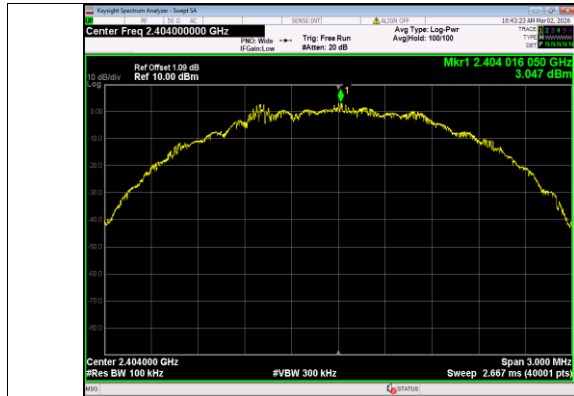
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 Emission



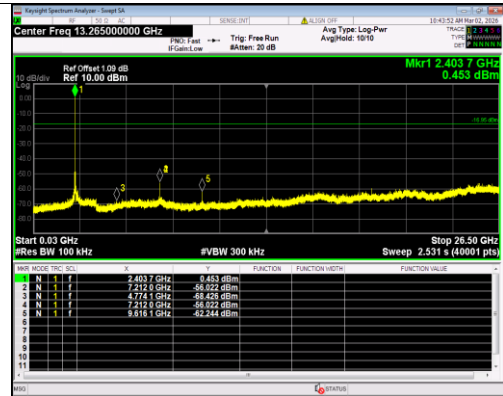
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Ref



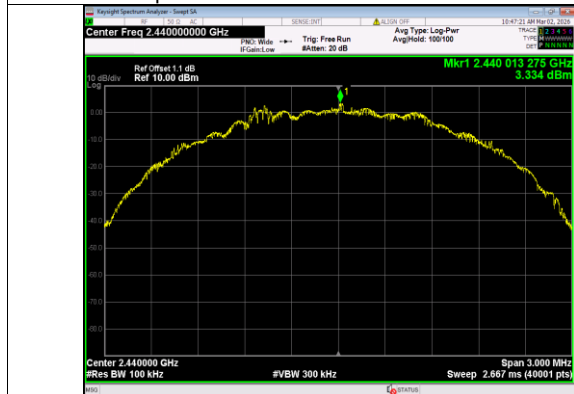
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 Emission



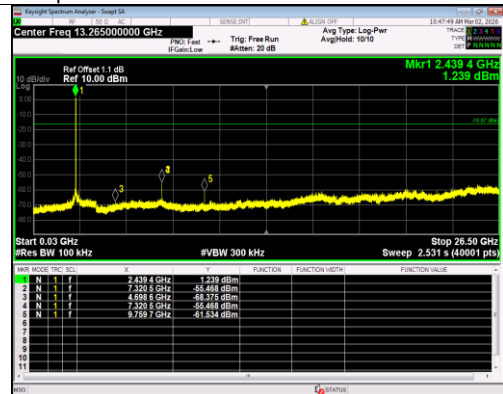
Tx. Spurious NVNT BLE 2M 2404MHz Ant1 Ref



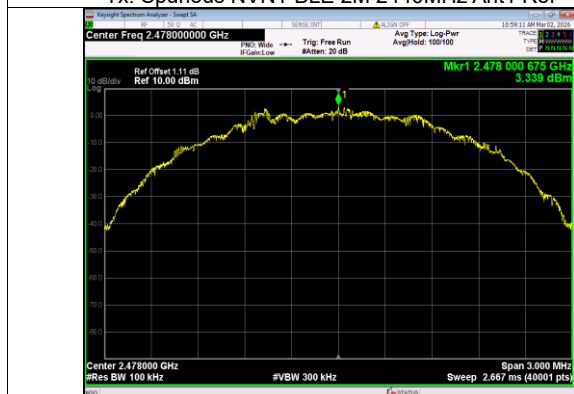
Tx. Spurious NVNT BLE 2M 2404MHz Ant1 Emission



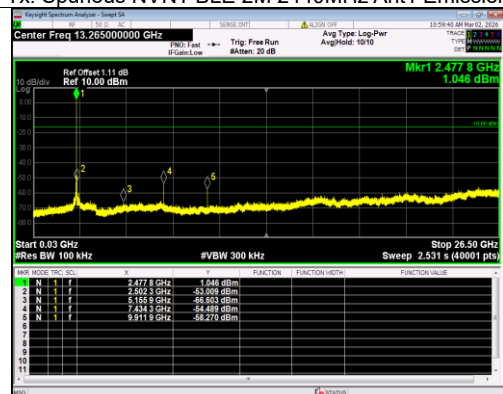
Tx. Spurious NVNT BLE 2M 2440MHz Ant1 Ref



Tx. Spurious NVNT BLE 2M 2440MHz Ant1 Emission



Tx. Spurious NVNT BLE 2M 2478MHz Ant1 Ref

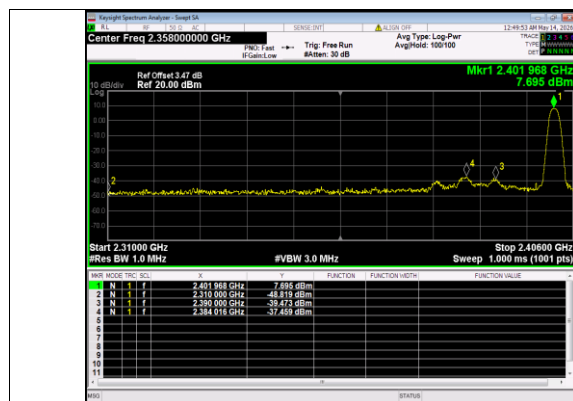


Tx. Spurious NVNT BLE 2M 2478MHz Ant1 Emission

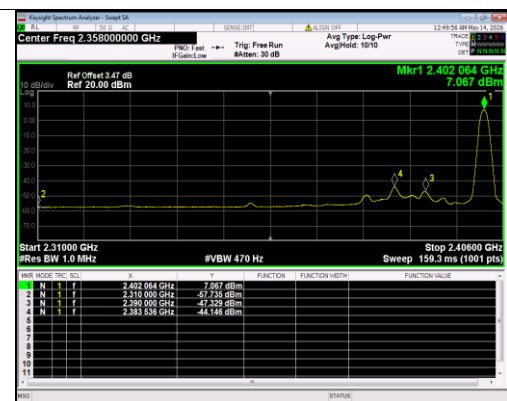


## Restrict Band

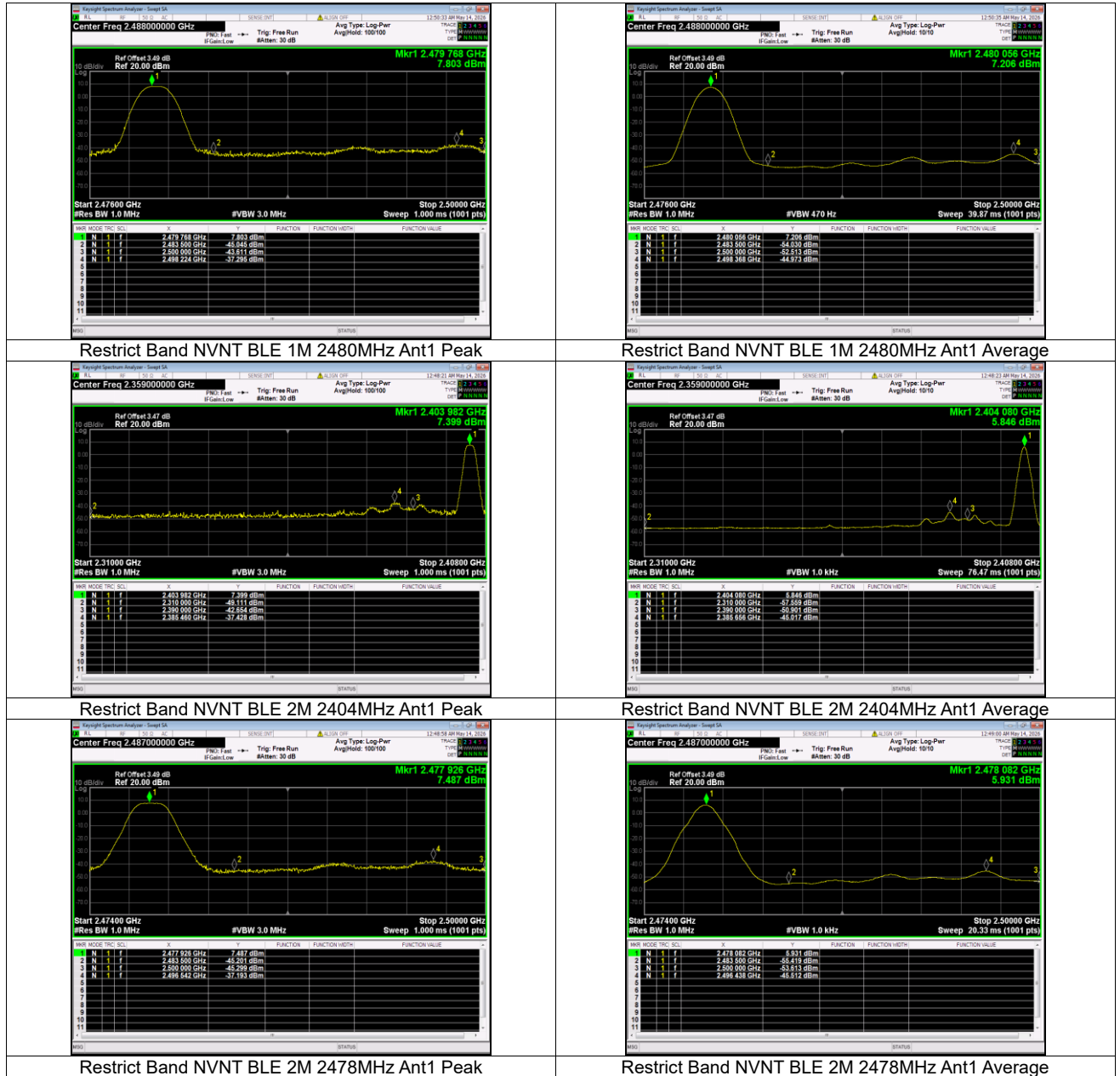
| Condition | Mode   | Frequency (MHz) | Antenna | Spur Freq (MHz) | Power (dBm) | Gain (dBi) | E (dBuV/m) | Detector | Limit (dBuV/m) | Verdict |
|-----------|--------|-----------------|---------|-----------------|-------------|------------|------------|----------|----------------|---------|
| NVNT      | BLE 1M | 2402            | Ant1    | 2310            | -48.81      | 2.38       | 46.45      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2310            | -57.73      | 2.38       | 37.53      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2384.016        | -37.45      | 2.38       | 57.81      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2383.536        | -44.14      | 2.38       | 51.12      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2390            | -39.8       | 2.38       | 55.46      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2402            | Ant1    | 2390            | -47.56      | 2.38       | 47.7       | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2483.5          | -45.04      | 2.38       | 50.22      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2483.5          | -54.02      | 2.38       | 41.24      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2498.224        | -37.29      | 2.38       | 57.97      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2498.368        | -44.97      | 2.38       | 50.29      | Average  | 54             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2500            | -43.61      | 2.38       | 51.65      | Peak     | 74             | Pass    |
| NVNT      | BLE 1M | 2480            | Ant1    | 2500            | -52.51      | 2.38       | 42.75      | Average  | 54             | Pass    |
| NVNT      | BLE 2M | 2404            | Ant1    | 2310            | -49.11      | 2.38       | 46.15      | Peak     | 74             | Pass    |
| NVNT      | BLE 2M | 2404            | Ant1    | 2310            | -57.55      | 2.38       | 37.71      | Average  | 54             | Pass    |
| NVNT      | BLE 2M | 2404            | Ant1    | 2385.46         | -37.42      | 2.38       | 57.84      | Peak     | 74             | Pass    |
| NVNT      | BLE 2M | 2404            | Ant1    | 2385.656        | -45.01      | 2.38       | 50.25      | Average  | 54             | Pass    |
| NVNT      | BLE 2M | 2404            | Ant1    | 2390            | -42.84      | 2.38       | 52.42      | Peak     | 74             | Pass    |
| NVNT      | BLE 2M | 2404            | Ant1    | 2390            | -50.99      | 2.38       | 44.27      | Average  | 54             | Pass    |
| NVNT      | BLE 2M | 2478            | Ant1    | 2483.5          | -46.41      | 2.38       | 48.85      | Peak     | 74             | Pass    |
| NVNT      | BLE 2M | 2478            | Ant1    | 2483.5          | -55.51      | 2.38       | 39.75      | Average  | 54             | Pass    |
| NVNT      | BLE 2M | 2478            | Ant1    | 2496.542        | -37.19      | 2.38       | 58.07      | Peak     | 74             | Pass    |
| NVNT      | BLE 2M | 2478            | Ant1    | 2496.438        | -45.51      | 2.38       | 49.75      | Average  | 54             | Pass    |
| NVNT      | BLE 2M | 2478            | Ant1    | 2500            | -45.29      | 2.38       | 49.97      | Peak     | 74             | Pass    |
| NVNT      | BLE 2M | 2478            | Ant1    | 2500            | -53.61      | 2.38       | 41.65      | Average  | 54             | Pass    |



Restrict Band NVNT BLE 1M 2402MHz Ant1 Peak



Restrict Band NVNT BLE 1M 2402MHz Ant1 Average



## Duty Cycle

| Condition | Mode   | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor (dB) | 1/T (kHz) |
|-----------|--------|-----------------|---------|----------------|------------------------|-----------|
| NVNT      | BLE 1M | 2440            | Ant1    | 85.12          | 0.7                    | 0.47      |
| NVNT      | BLE 2M | 2440            | Ant1    | 85.92          | 0.66                   | 0.93      |

