

# Appendix

## BLE Test Data

### for BTEK240509014AE



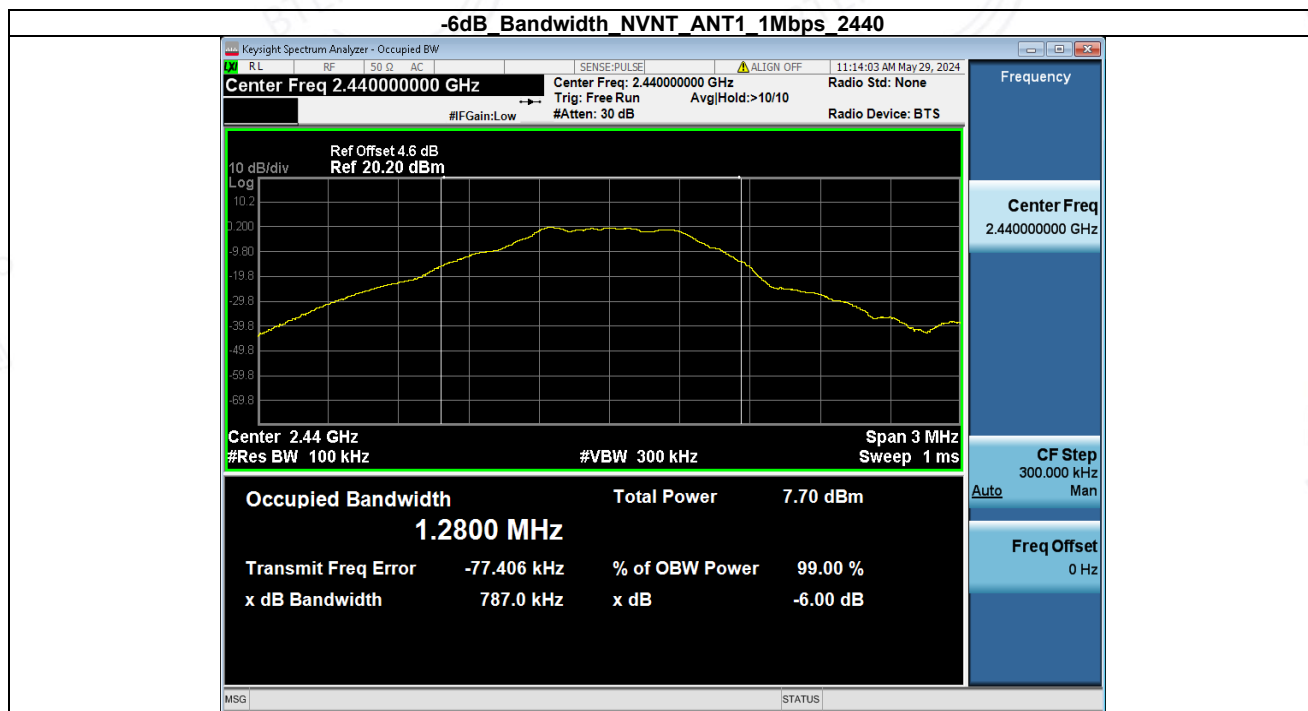
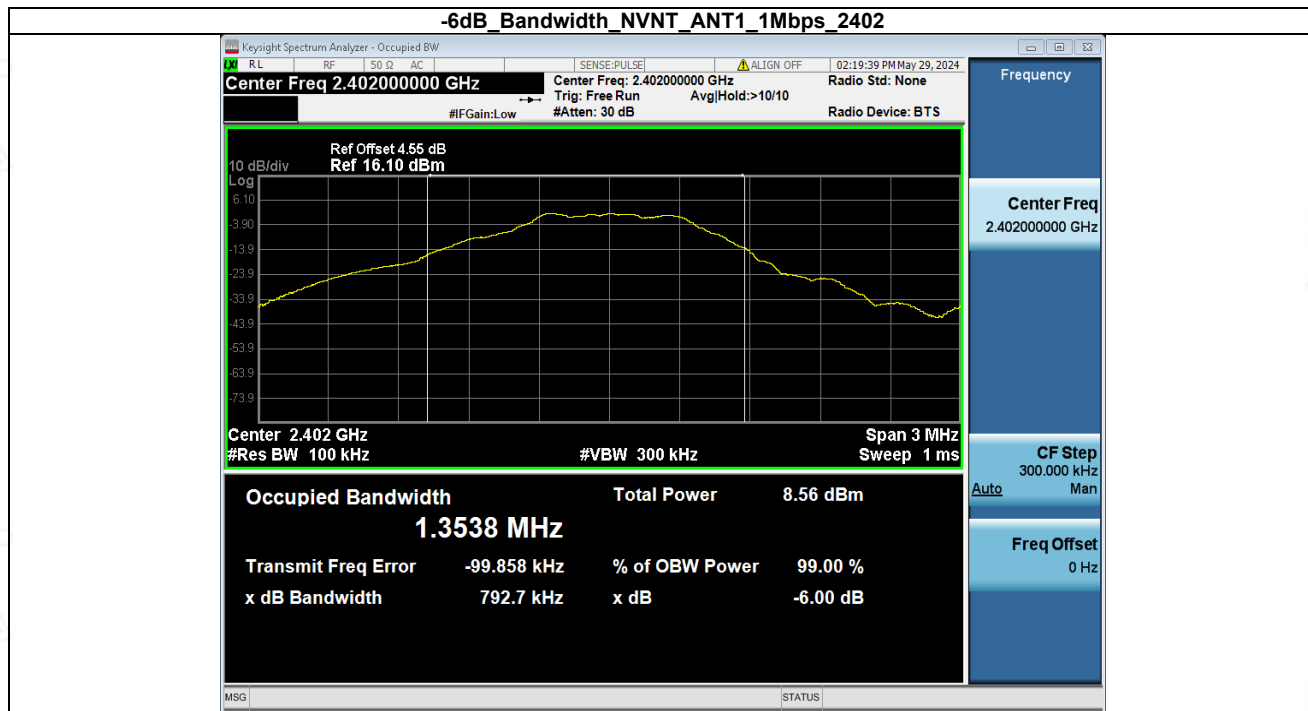
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## 1. -6dB Bandwidth

| Condition | Antenna | Rate  | Frequency (MHz) | -6dB BW(kHz) | limit(kHz) | Result |
|-----------|---------|-------|-----------------|--------------|------------|--------|
| NVNT      | ANT1    | 1Mbps | 2402.00         | 792.66       | 500        | Pass   |
| NVNT      | ANT1    | 1Mbps | 2440.00         | 787.01       | 500        | Pass   |
| NVNT      | ANT1    | 1Mbps | 2480.00         | 800.92       | 500        | Pass   |



**-6dB\_Bandwidth\_NVNT\_ANT1\_1Mbps\_2480**

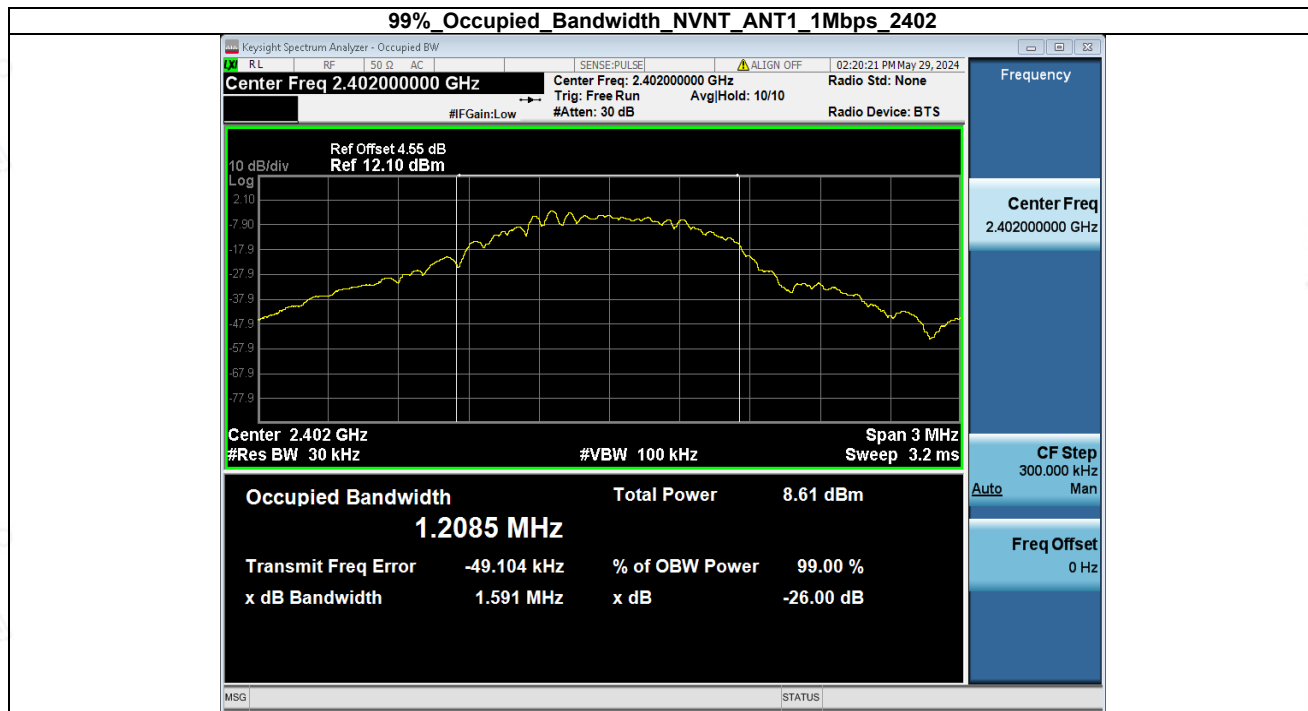




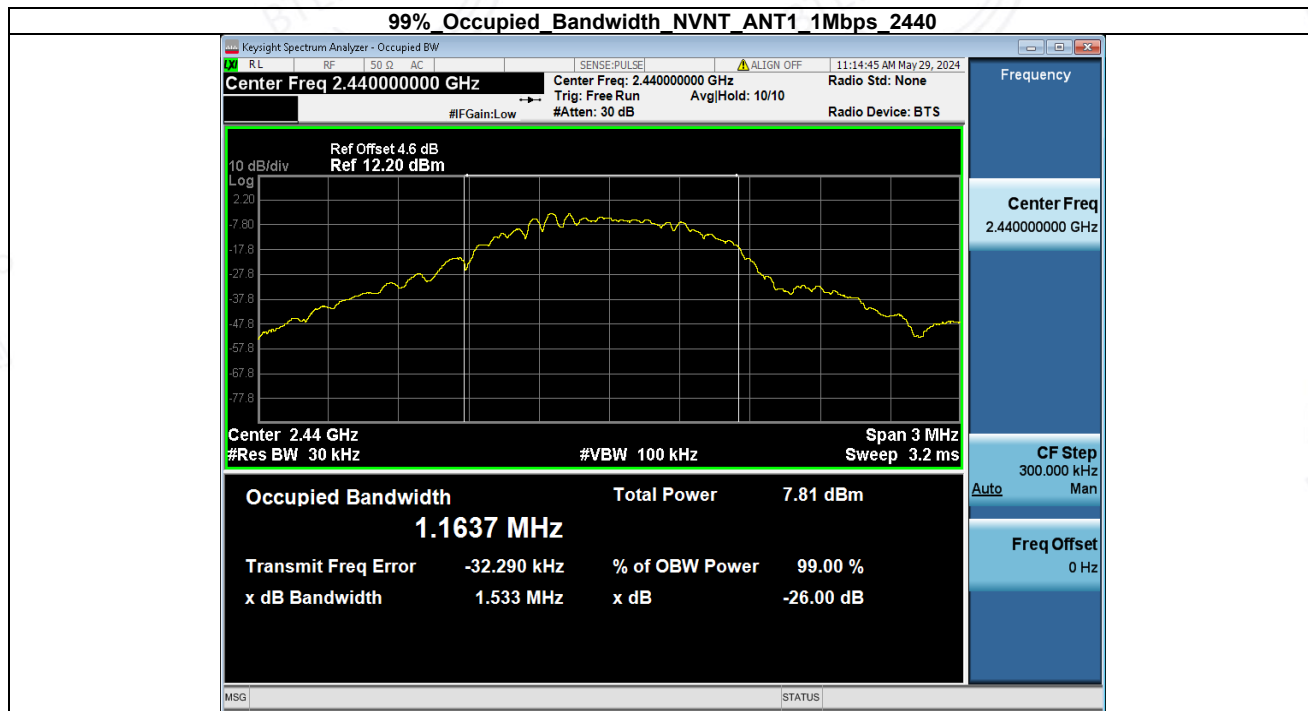
## 2. 99% Occupied Bandwidth

| Condition | Antenna | Rate  | Frequency (MHz) | 99% BW (MHz) |
|-----------|---------|-------|-----------------|--------------|
| NVNT      | ANT1    | 1Mbps | 2402.00         | 1.208        |
| NVNT      | ANT1    | 1Mbps | 2440.00         | 1.164        |
| NVNT      | ANT1    | 1Mbps | 2480.00         | 1.163        |

99% Occupied Bandwidth\_NVNT\_ANT1\_1Mbps\_2402



99% Occupied Bandwidth\_NVNT\_ANT1\_1Mbps\_2440



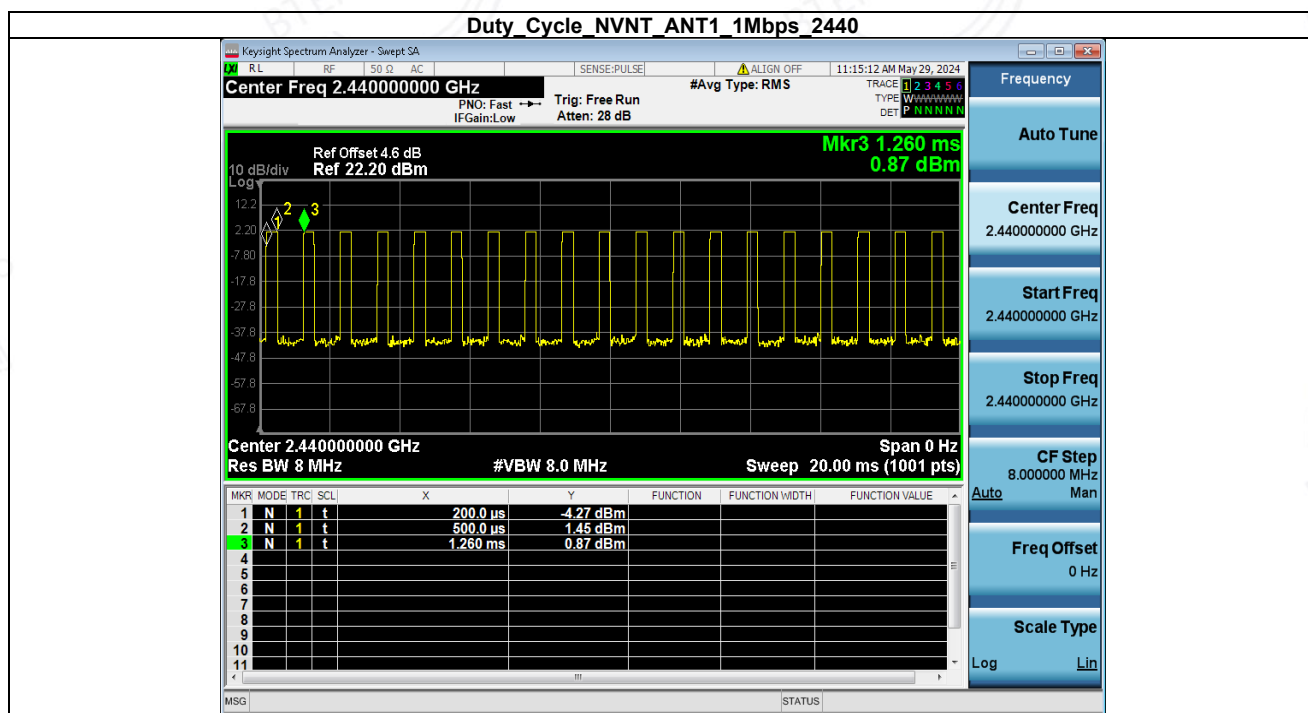
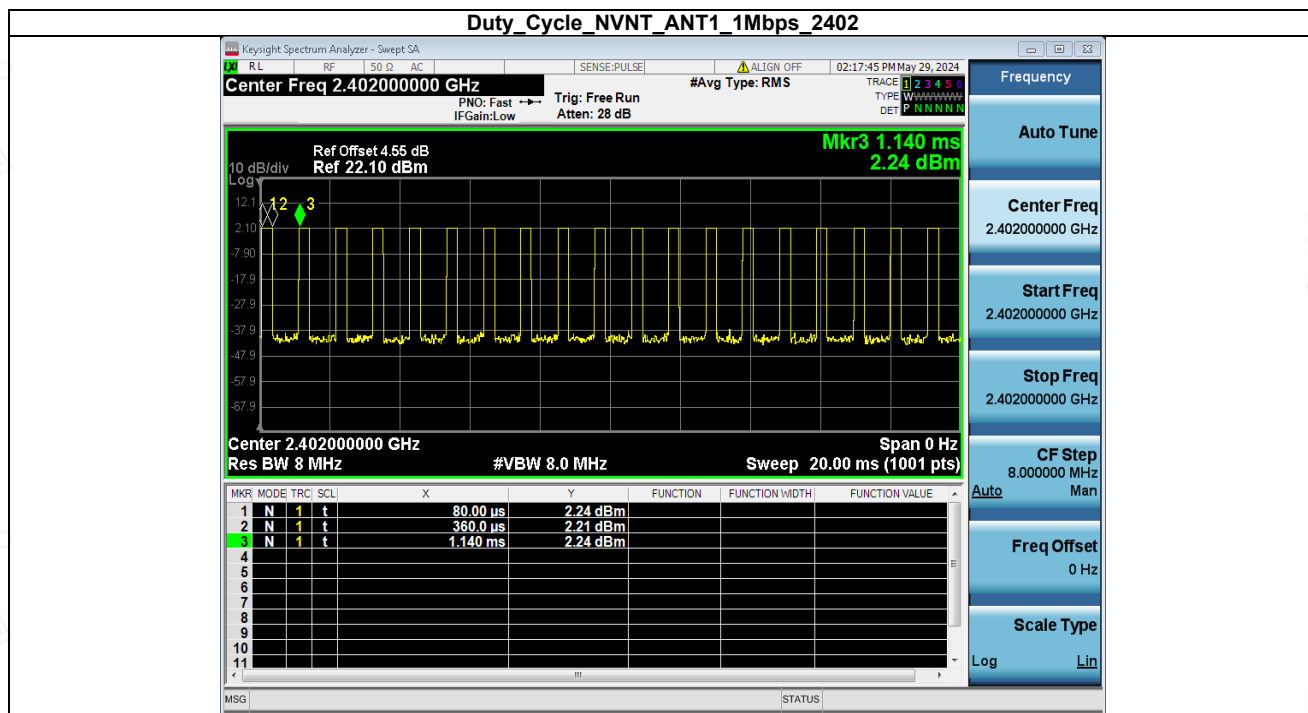
99% Occupied Bandwidth\_NVNT\_ANT1\_1Mbps\_2480





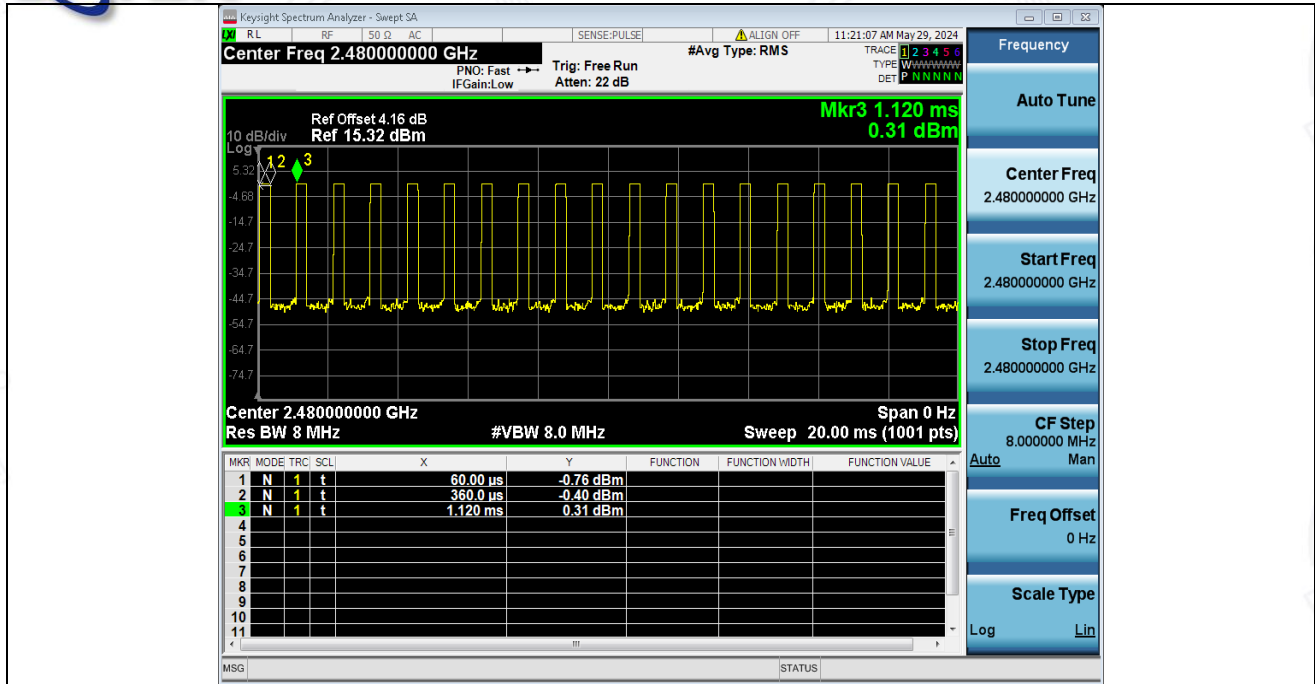
### 3. Duty Cycle

| Condition | Antenna | Rate  | Frequency (MHz) | Dutycycle(%) | Duty_factor |
|-----------|---------|-------|-----------------|--------------|-------------|
| NVNT      | ANT1    | 1Mbps | 2402.00         | 26.42        | 5.78        |
| NVNT      | ANT1    | 1Mbps | 2440.00         | 28.30        | 5.48        |
| NVNT      | ANT1    | 1Mbps | 2480.00         | 28.30        | 5.48        |



|                                        |
|----------------------------------------|
| <b>Duty_Cycle_NVNT_ANT1_1Mbps_2480</b> |
|----------------------------------------|

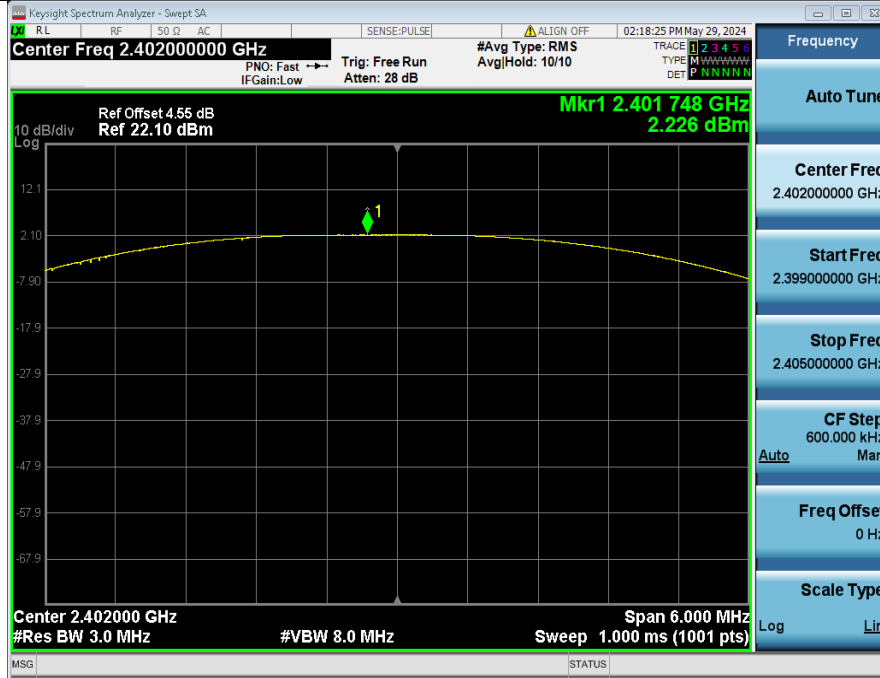




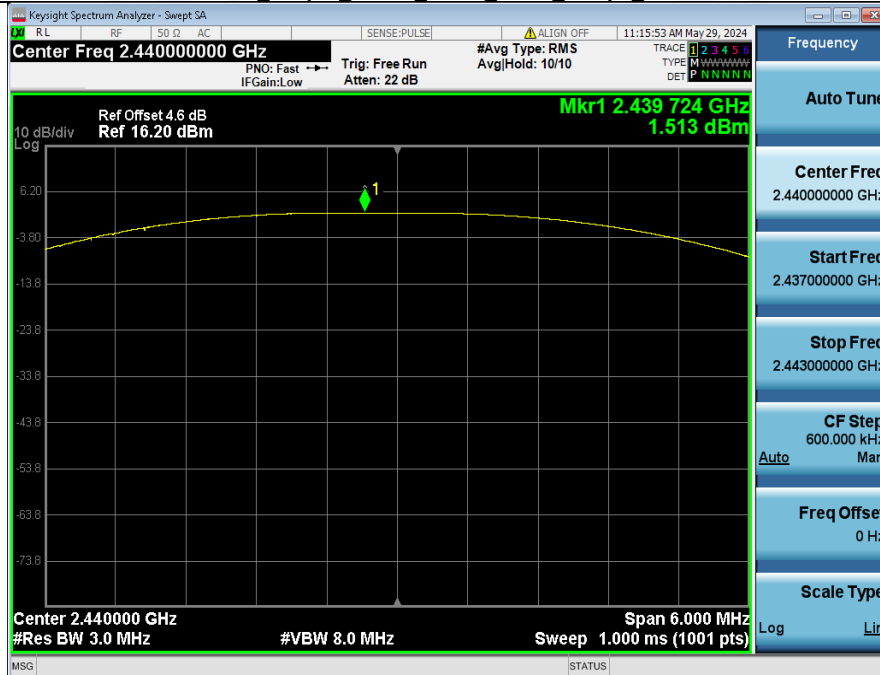
## 4. Peak Output Power

| Condition | Antenna | Rate  | Frequency (MHz) | Max. Conducted Power(dBm) | Max. Conducted Power(mW) | Limit(mW) | Result |
|-----------|---------|-------|-----------------|---------------------------|--------------------------|-----------|--------|
| NVNT      | ANT1    | 1Mbps | 2402.00         | 2.23                      | 1.67                     | 1000      | Pass   |
| NVNT      | ANT1    | 1Mbps | 2440.00         | 1.51                      | 1.42                     | 1000      | Pass   |
| NVNT      | ANT1    | 1Mbps | 2480.00         | 0.32                      | 1.08                     | 1000      | Pass   |

Peak\_Output\_Power\_NVNT\_ANT1\_1Mbps\_2402

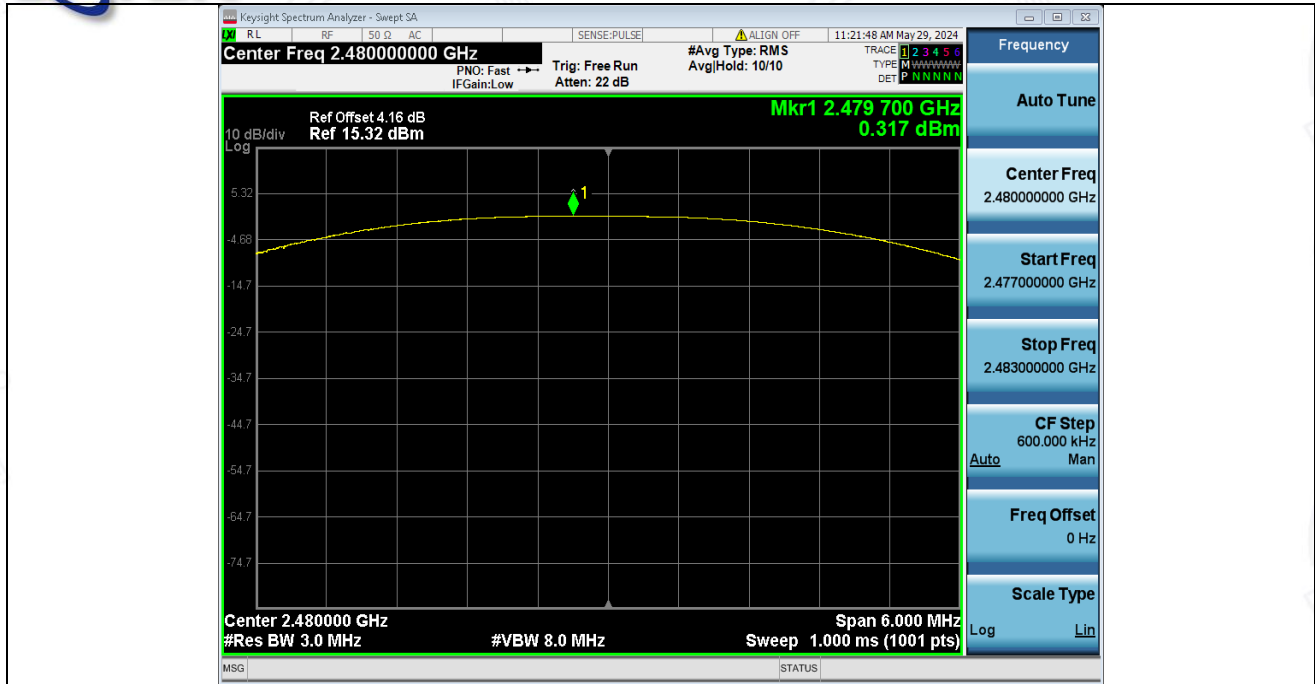


Peak\_Output\_Power\_NVNT\_ANT1\_1Mbps\_2440



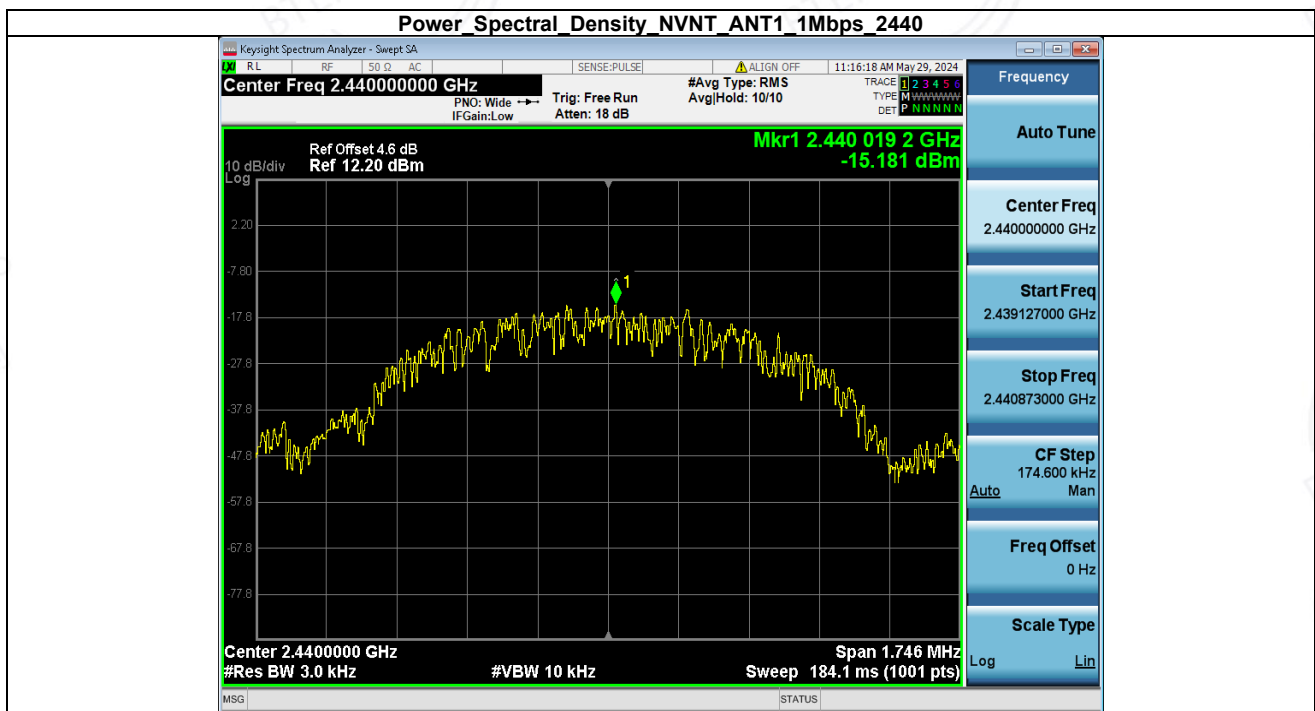
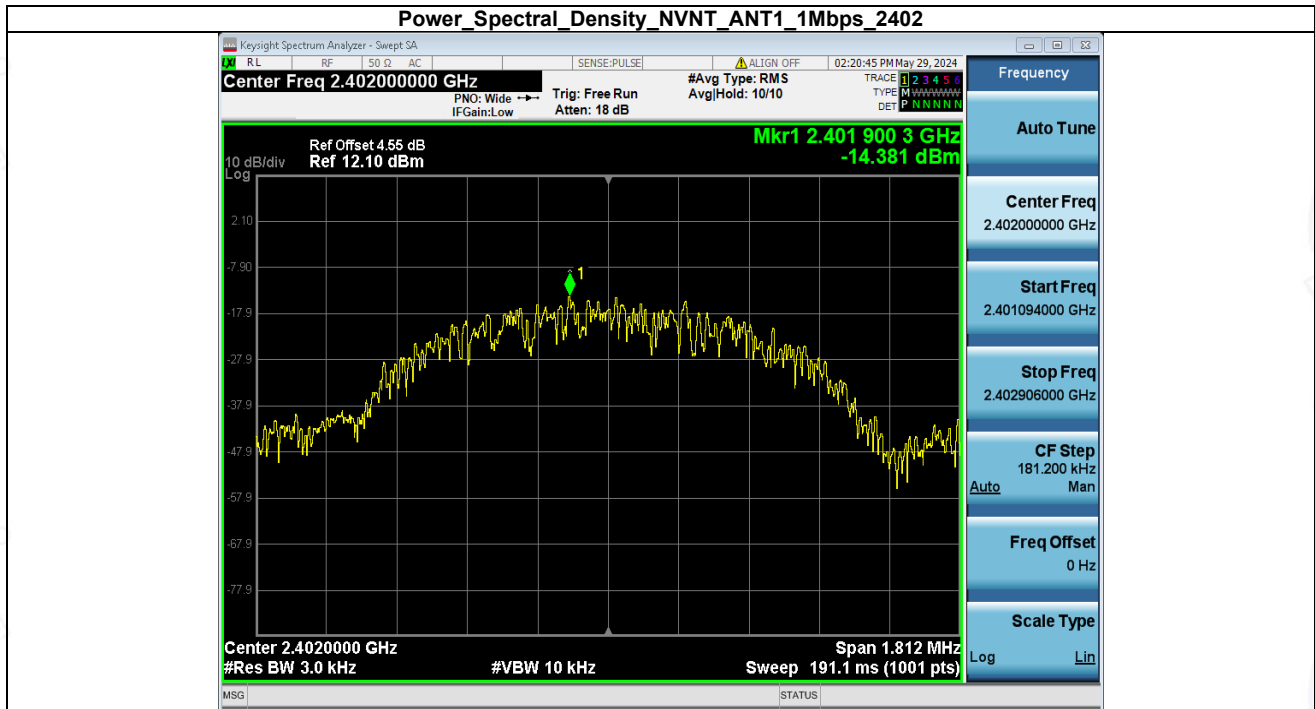
Peak\_Output\_Power\_NVNT\_ANT1\_1Mbps\_2480





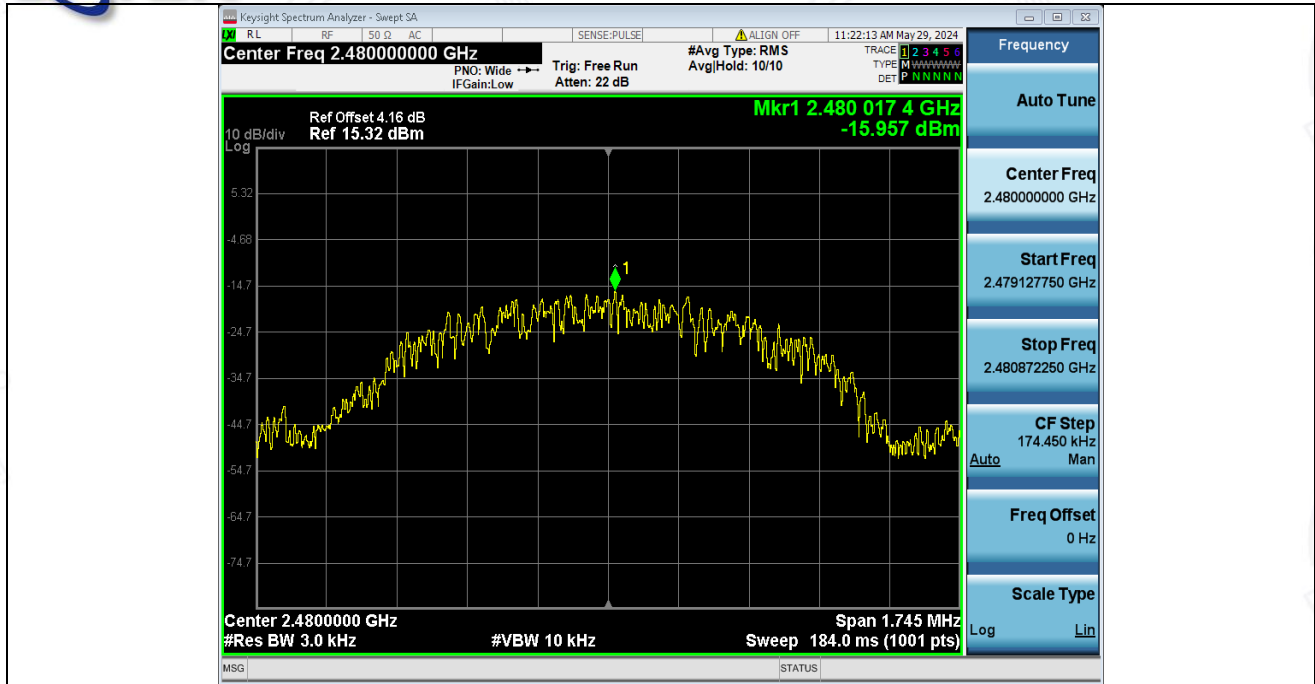
## 5. Power Spectral Density

| Condition | Antenna | Rate  | Frequency (MHz) | Power Spectral Density(dBm) | Limit(dBm/3kHz) | Result |
|-----------|---------|-------|-----------------|-----------------------------|-----------------|--------|
| NVNT      | ANT1    | 1Mbps | 2402.00         | -14.38                      | 8               | Pass   |
| NVNT      | ANT1    | 1Mbps | 2440.00         | -15.18                      | 8               | Pass   |
| NVNT      | ANT1    | 1Mbps | 2480.00         | -15.96                      | 8               | Pass   |



**Power Spectral Density\_NVNT\_ANT1\_1Mbps\_2480**





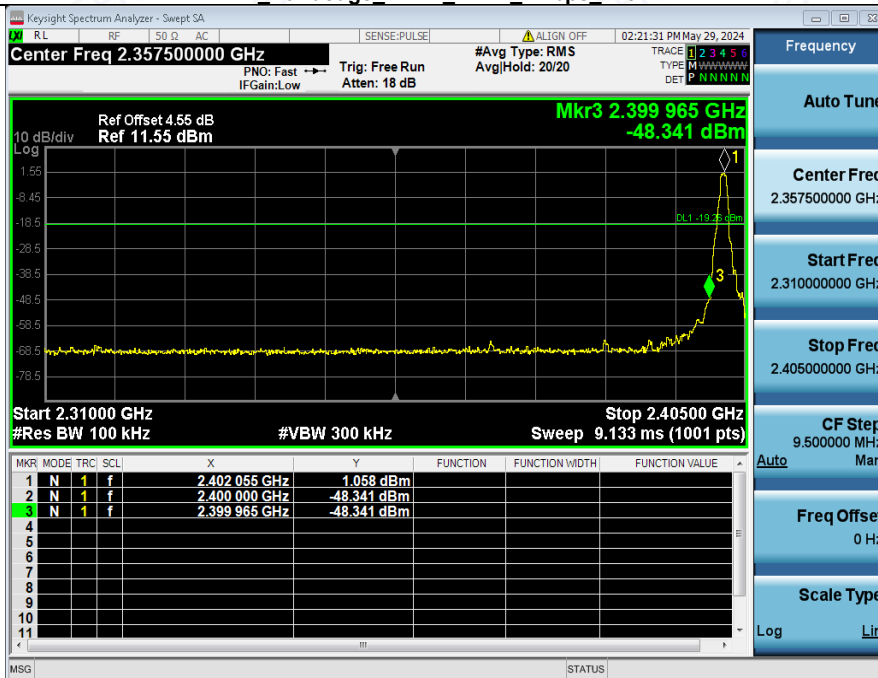
## 6. Bandedge

| Condition | Antenna | Rate  | TX_Frequency (MHz) | Max. Mark Frequency (MHz) | Spurious level(dBm) | limit(dBm) | Result |
|-----------|---------|-------|--------------------|---------------------------|---------------------|------------|--------|
| NVNT      | ANT1    | 1Mbps | 2402.00            | 2399.965                  | -48.341             | -19.256    | Pass   |
| NVNT      | ANT1    | 1Mbps | 2480.00            | 2483.600                  | -57.302             | -21.096    | Pass   |

1 Reference\_Level\_NVNT\_ANT1\_1Mbps\_2402



2 Bandedge\_NVNT\_ANT1\_1Mbps\_2402

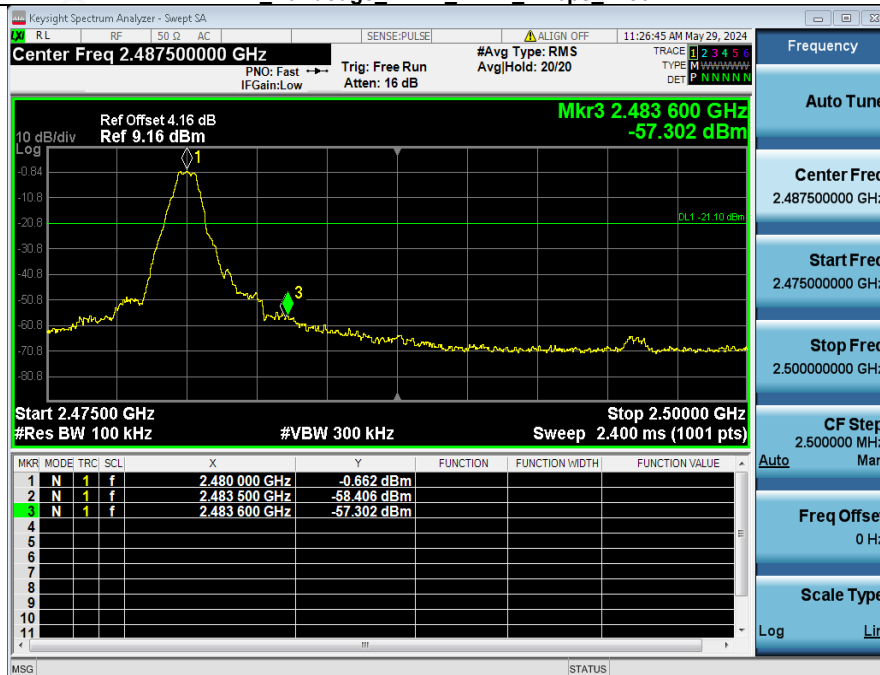


1 Reference\_Level\_NVNT\_ANT1\_1Mbps\_2480





## 2\_Bandedge\_NVNT\_ANT1\_1Mbps\_2480



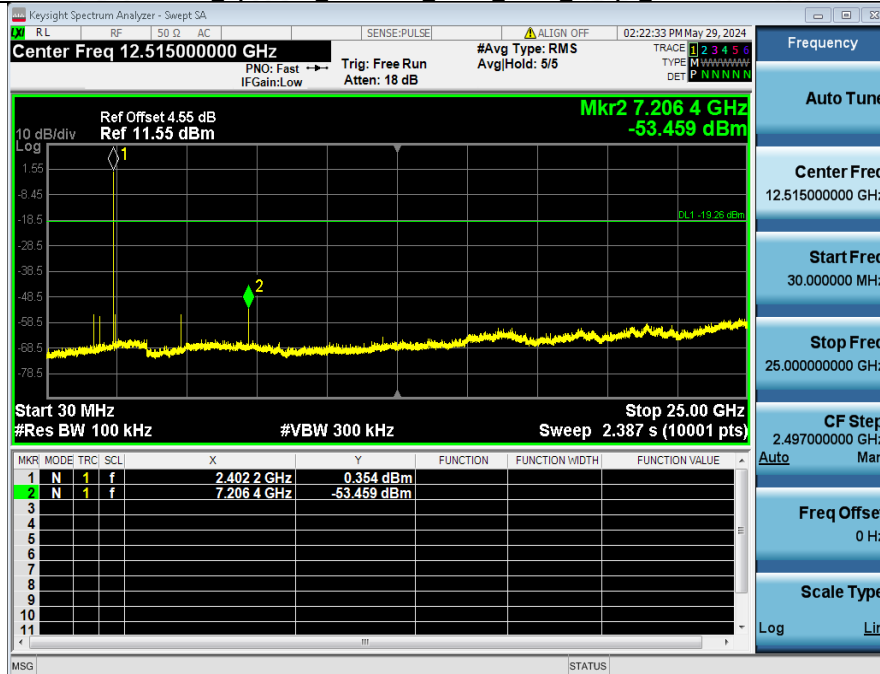
## 7. Spurious Emission

| Condition | Antenna | Rate  | TX_Frequency(MHz) | Spurious MAX.Value(dBm) | Limit   | Result |
|-----------|---------|-------|-------------------|-------------------------|---------|--------|
| NVNT      | ANT1    | 1Mbps | 2402.00           | -53.459                 | -19.256 | Pass   |
| NVNT      | ANT1    | 1Mbps | 2440.00           | -52.054                 | -19.999 | Pass   |
| NVNT      | ANT1    | 1Mbps | 2480.00           | -57.643                 | -21.106 | Pass   |

1\_Reference\_Level\_NVNT\_ANT1\_1Mbps\_2402

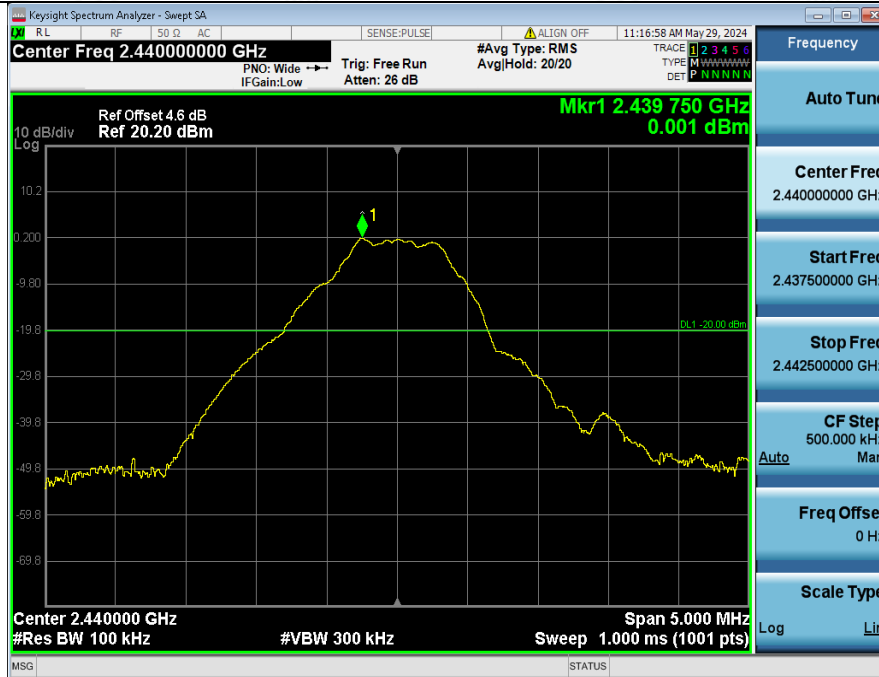


2\_Spurious\_Emission\_NVNT\_ANT1\_1Mbps\_2402

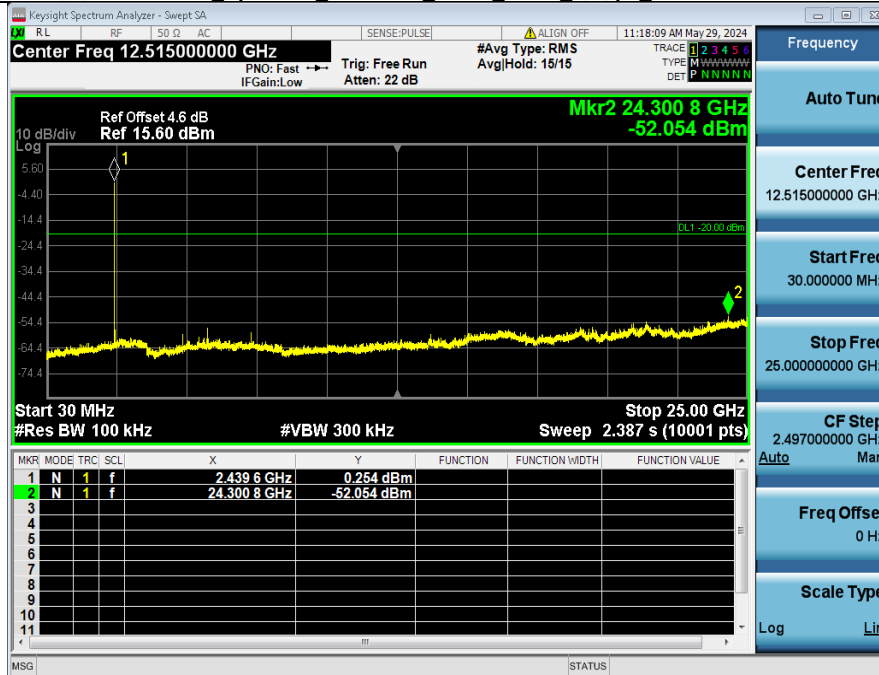


1\_Reference\_Level\_NVNT\_ANT1\_1Mbps\_2440



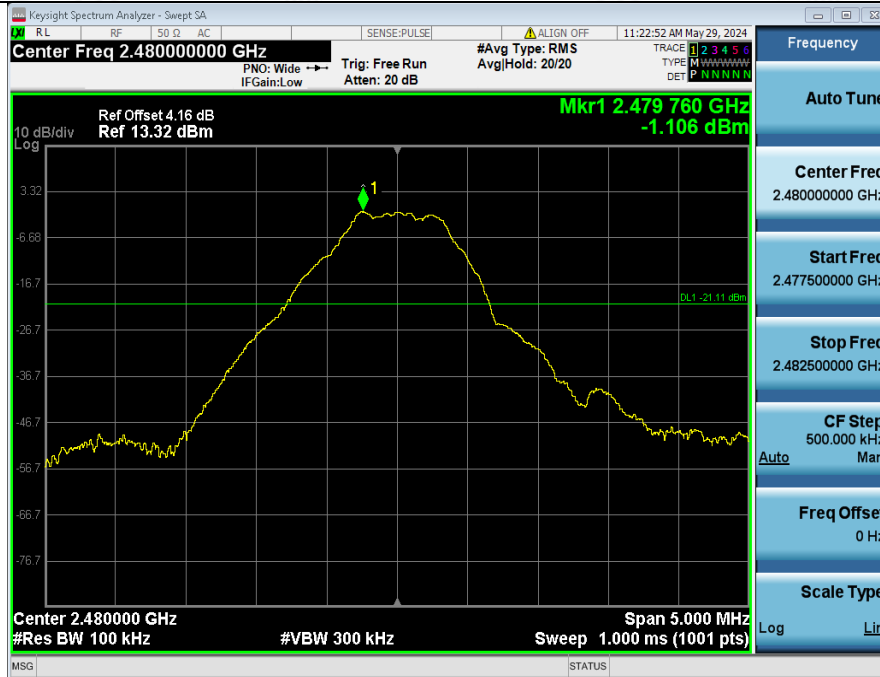


## 2\_Spurious\_Emission\_NVNT\_ANT1\_1Mbps\_2440



## 1\_Reference\_Level\_NVNT\_ANT1\_1Mbps\_2480





## 2\_Spurious Emission\_NVNT\_ANT1\_1Mbps\_2480

