# FCC ID:2BQYL-YX-CS2
# Report No. : NCT25030953E1-1
# FCC ID BLE
# FCC_BLE (Part15.247) Test Data

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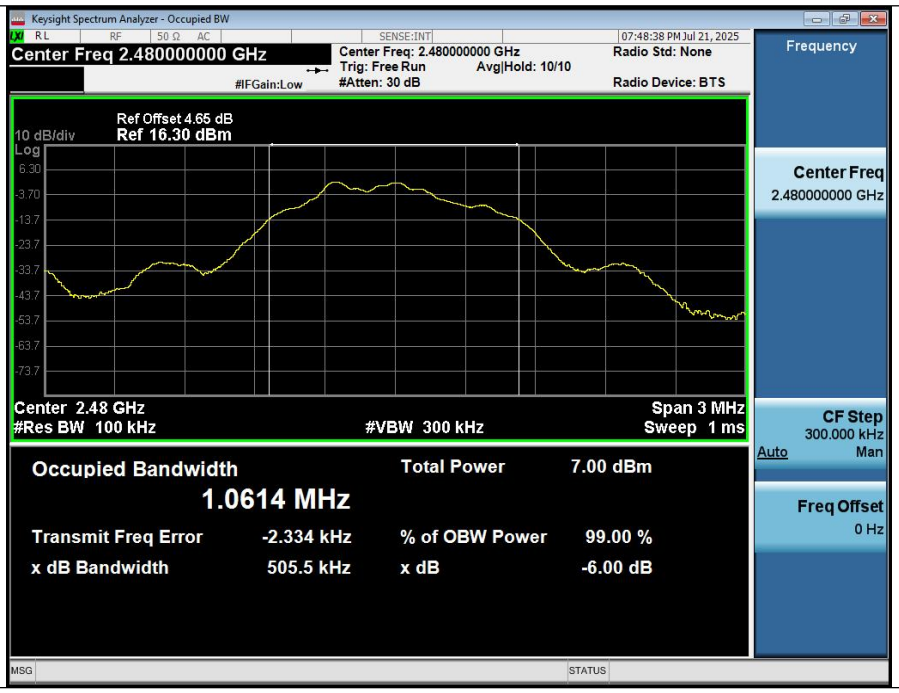
# 1. -6dB Bandwidth

| Condition | Antenna | Rate | Frequency (MHz) | -6dB BW(kHz) | limit(kHz) | Result |
|---|---|---|---|---|---|---|
| NVNT | ANT1 | 1Mbps | 2402.00 | 504.55 | 500 | Pass |
| NVNT | ANT1 | 1Mbps | 2440.00 | 507.33 | 500 | Pass |
| NVNT | ANT1 | 1Mbps | 2480.00 | 505.47 | 500 | Pass |

**-6dB_Bandwidth_NVNT_ANT1_1Mbps_2402**

**-6dB_Bandwidth_NVNT_ANT1_1Mbps_2440**

**-6dB_Bandwidth_NVNT_ANT1_1Mbps_2480**


Keysight Spectrum Analyzer - Occupied BW
Center Freq 2.480000000 GHz
Center Freq: 2.480000000 GHz
Trig: Free Run
Avg|Hold: 10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
07:48:38 PM Jul 21, 2025
#IFGain:Low
Ref Offset 4.65 dB
10 dB/div
Ref 16.30 dBm
Log
Center 2.48 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 3 MHz
Sweep 1 ms
Occupied Bandwidth
1.0614 MHz
Total Power 7.00 dBm
Transmit Freq Error -2.334 kHz
% of OBW Power 99.00 %
x dB Bandwidth 505.5 kHz
x dB -6.00 dB
Frequency
Center Freq
2.480000000 GHz
CF Step
300.000 kHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

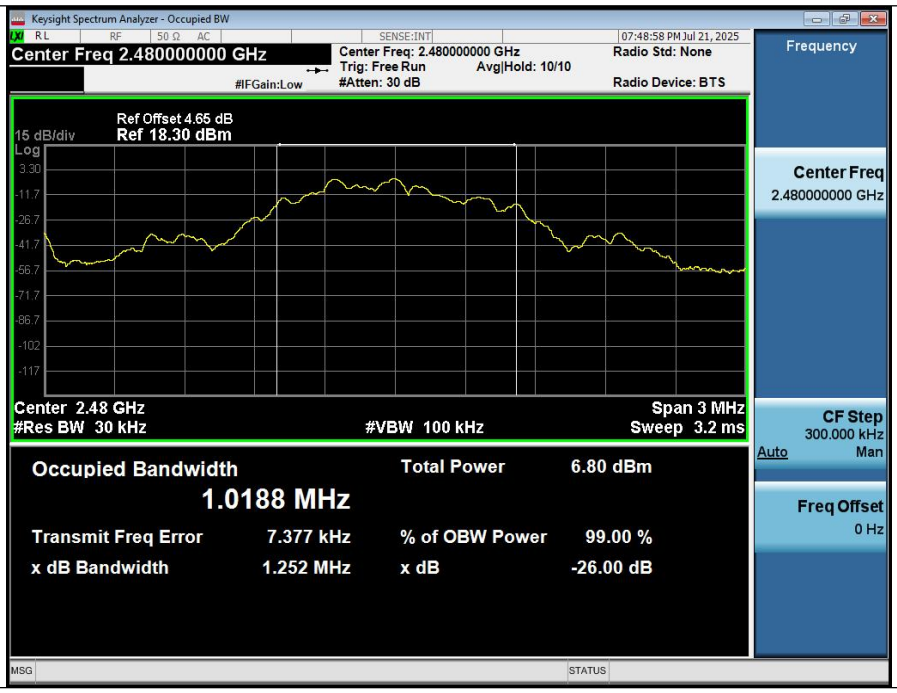
## 2. 99% Occupied Bandwidth

| Condition | Antenna | Rate | Frequency (MHz) | 99%%BW(MHz) |
|---|---|---|---|---|
| NVNT | ANT1 | 1Mbps | 2402.00 | 1.019 |
| NVNT | ANT1 | 1Mbps | 2440.00 | 1.019 |
| NVNT | ANT1 | 1Mbps | 2480.00 | 1.019 |

**99%_Occupied_Bandwidth_NVNT_ANT1_1Mbps_2402**

**99%_Occupied_Bandwidth_NVNT_ANT1_1Mbps_2440**

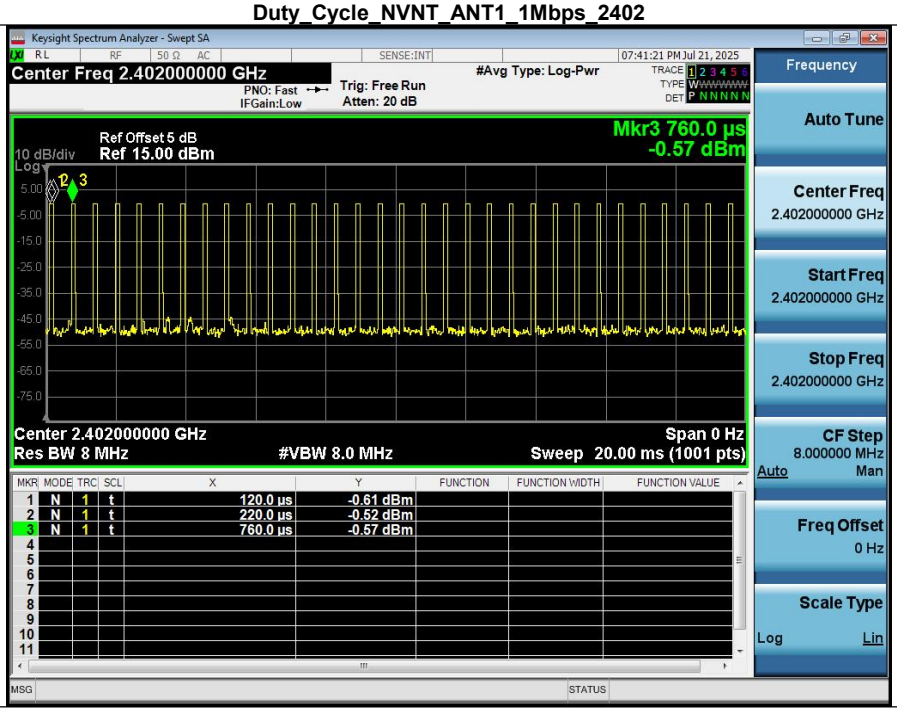
**99%_Occupied_Bandwidth_NVNT_ANT1_1Mbps_2480**


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:INT
07:48:58 PM Jul 21, 2025
Center Freq 2.480000000 GHz
Center Freq: 2.480000000 GHz
Trig: Free Run
Avg|Hold: 10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
#IFGain:Low
Frequency
Ref Offset 4.65 dB
15 dB/div
Ref 18.30 dBm
Log
3.30
-11.7
-26.7
-41.7
-56.7
-71.7
-86.7
-102
-117
Center 2.48 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 3 MHz
Sweep 3.2 ms
Center Freq
2.480000000 GHz
CF Step
300.000 kHz
Auto
Man
Freq Offset
0 Hz
Occupied Bandwidth
1.0188 MHz
Total Power
6.80 dBm
Transmit Freq Error
7.377 kHz
% of OBW Power
99.00 %
x dB Bandwidth
1.252 MHz
x dB
-26.00 dB
MSG
STATUS

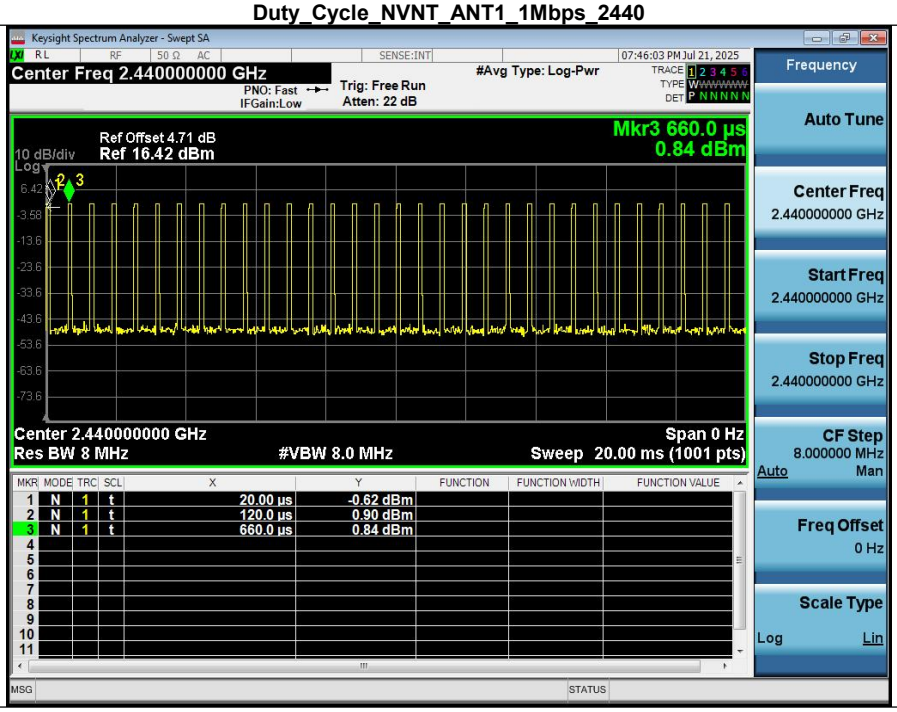
# 3. Duty Cycle

| Condition | Antenna | Rate | Frequency (MHz) | Dutycycle(%) | Duty_factor |
|---|---|---|---|---|---|
| NVNT | ANT1 | 1Mbps | 2402.00 | 15.63 | 8.06 |
| NVNT | ANT1 | 1Mbps | 2440.00 | 15.63 | 8.06 |
| NVNT | ANT1 | 1Mbps | 2480.00 | 15.63 | 8.06 |

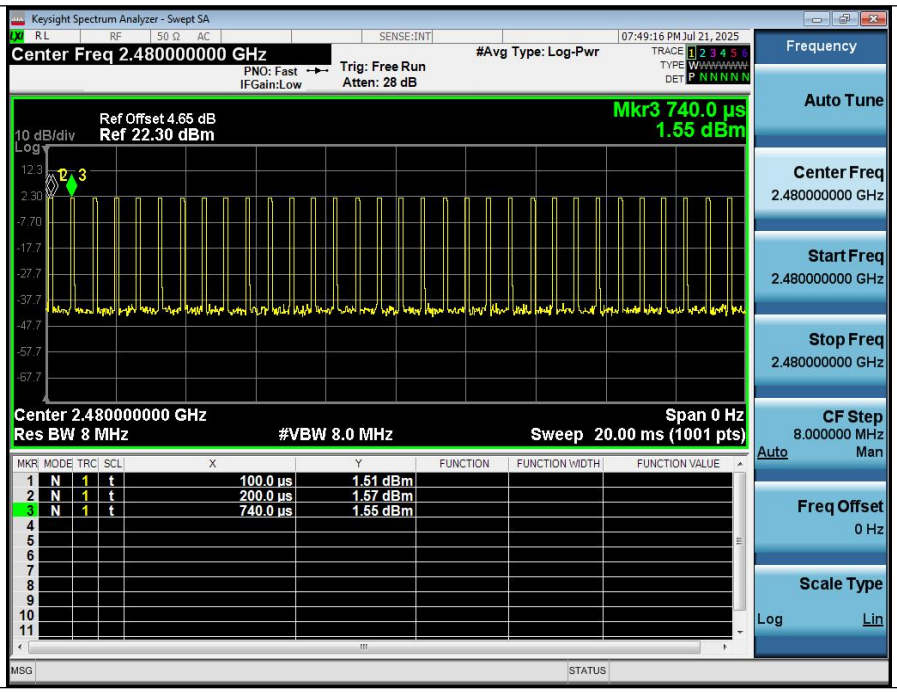
**Duty_Cycle_NVNT_ANT1_1Mbps_2402**




**Duty_Cycle_NVNT_ANT1_1Mbps_2440**



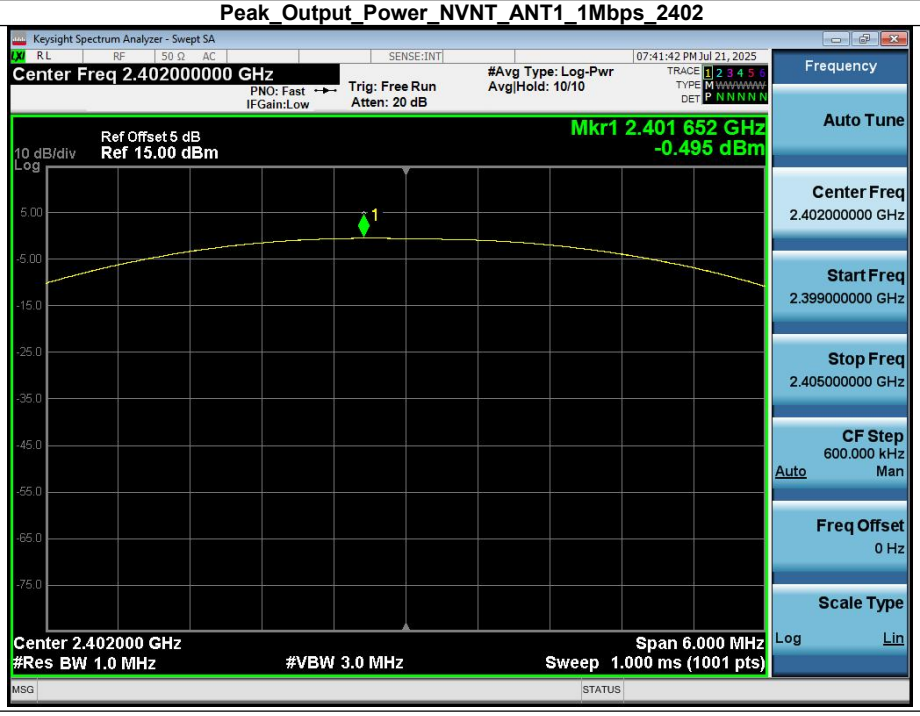

**Duty_Cycle_NVNT_ANT1_1Mbps_2480**


Keysight Spectrum Analyzer - Swept SA
Center Freq 2.480000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 28 dB
#Avg Type: Log-Pwr
07:49:16 PM Jul 21, 2025
Ref Offset 4.65 dB
10 dB/div
Ref 22.30 dBm
Mkr3 740.0 µs
1.55 dBm
Center 2.480000000 GHz
Res BW 8 MHz
#VBW 8.0 MHz
Span 0 Hz
Sweep 20.00 ms (1001 pts)
1 N 1 t 100.0 µs 1.51 dBm
2 N 1 t 200.0 µs 1.57 dBm
3 N 1 t 740.0 µs 1.55 dBm
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.480000000 GHz
Stop Freq
2.480000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz
Scale Type
Log
Lin

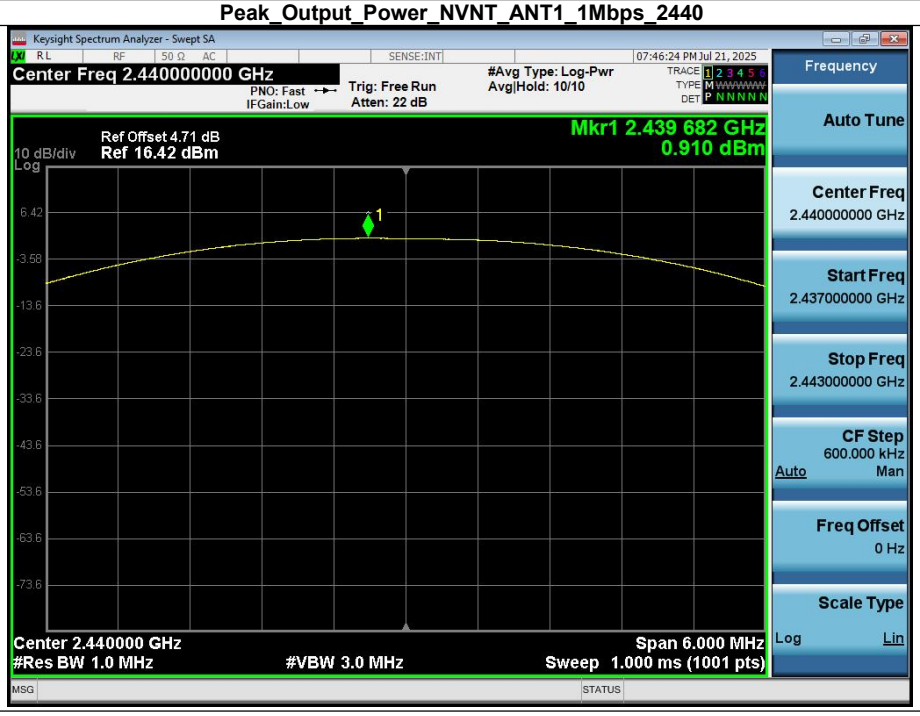
# 4. Peak Output Power

| Condition | Antenna | Rate | Frequency (MHz) | Max. Conducted Power(dBm) | Max. Conducted Power(mW) | Limit(mW) | Result |
|---|---|---|---|---|---|---|---|
| NVNT | ANT1 | 1Mbps | 2402.00 | -0.49 | 0.89 | 1000 | Pass |
| NVNT | ANT1 | 1Mbps | 2440.00 | 0.91 | 1.23 | 1000 | Pass |
| NVNT | ANT1 | 1Mbps | 2480.00 | 1.54 | 1.43 | 1000 | Pass |

**Peak_Output_Power_NVNT_ANT1_1Mbps_2402**




**Peak_Output_Power_NVNT_ANT1_1Mbps_2440**



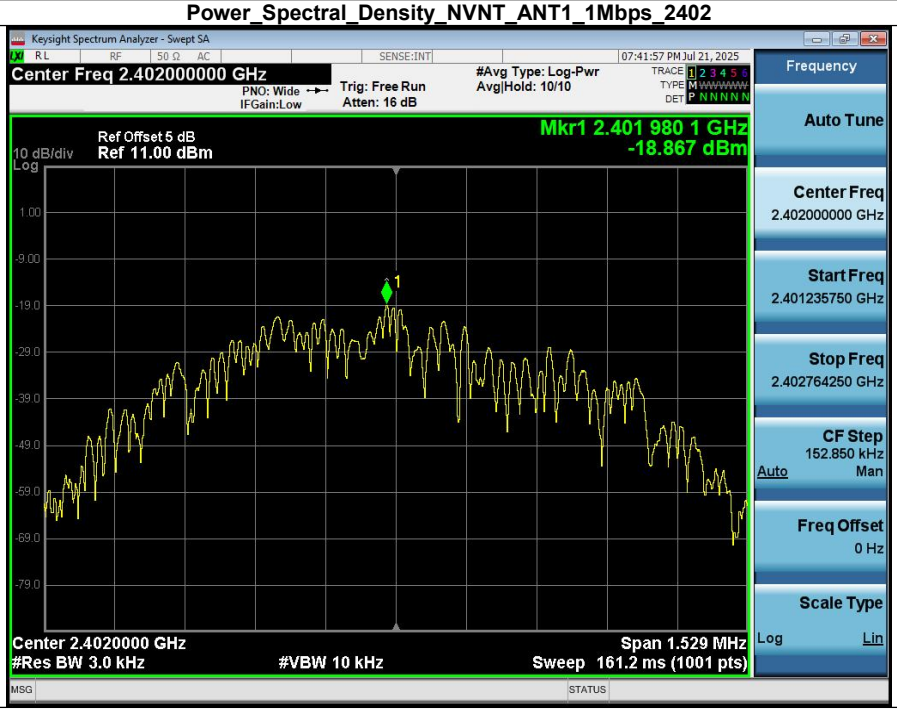

**Peak_Output_Power_NVNT_ANT1_1Mbps_2480**

Keysight Spectrum Analyzer - Swept SA
Center Freq 2.480000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
#Avg Type: Log-Pwr
Avg|Hold:>10/10
07:49:37 PM Jul 21, 2025
Ref Offset 4.65 dB
10 dB/div
Ref 16.30 dBm
Log
Mkr1 2.479 676 GHz
1.542 dBm
Center 2.480000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Span 6.000 MHz
Sweep 1.000 ms (1001 pts)
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.477000000 GHz
Stop Freq
2.483000000 GHz
CF Step
600.000 kHz
Auto
Man
Freq Offset
0 Hz
Scale Type
Log
Lin

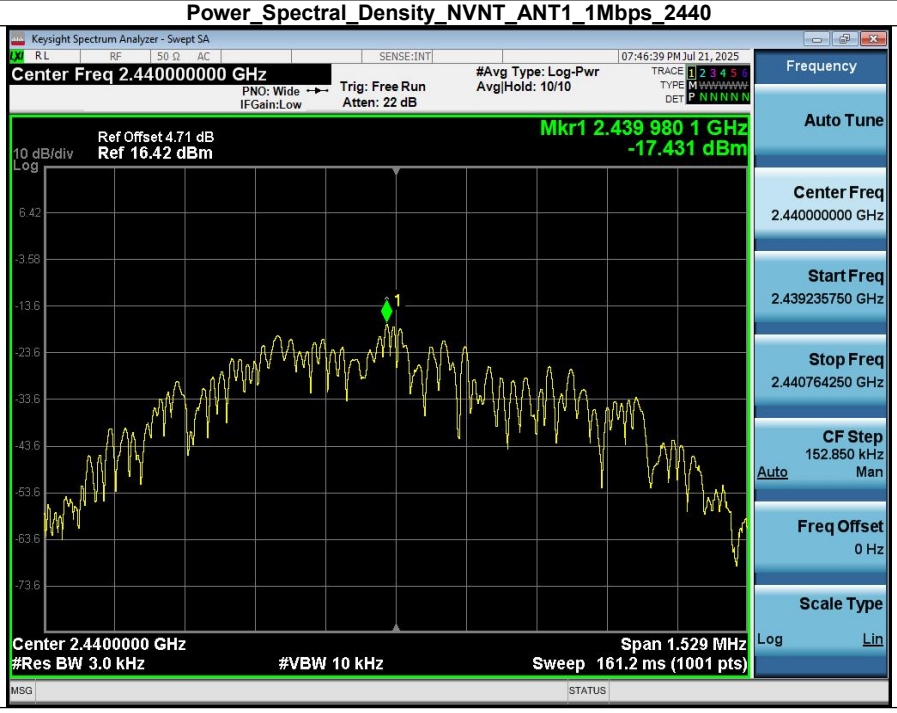
# 5. Power Spectral Density

| Condition | Antenna | Rate | Frequency (MHz) | Power Spectral Density(dBm/3kHz) | Limit(dBm/3kHz) | Result |
|---|---|---|---|---|---|---|
| NVNT | ANT1 | 1Mbps | 2402.00 | -18.87 | 8 | Pass |
| NVNT | ANT1 | 1Mbps | 2440.00 | -17.43 | 8 | Pass |
| NVNT | ANT1 | 1Mbps | 2480.00 | -16.58 | 8 | Pass |

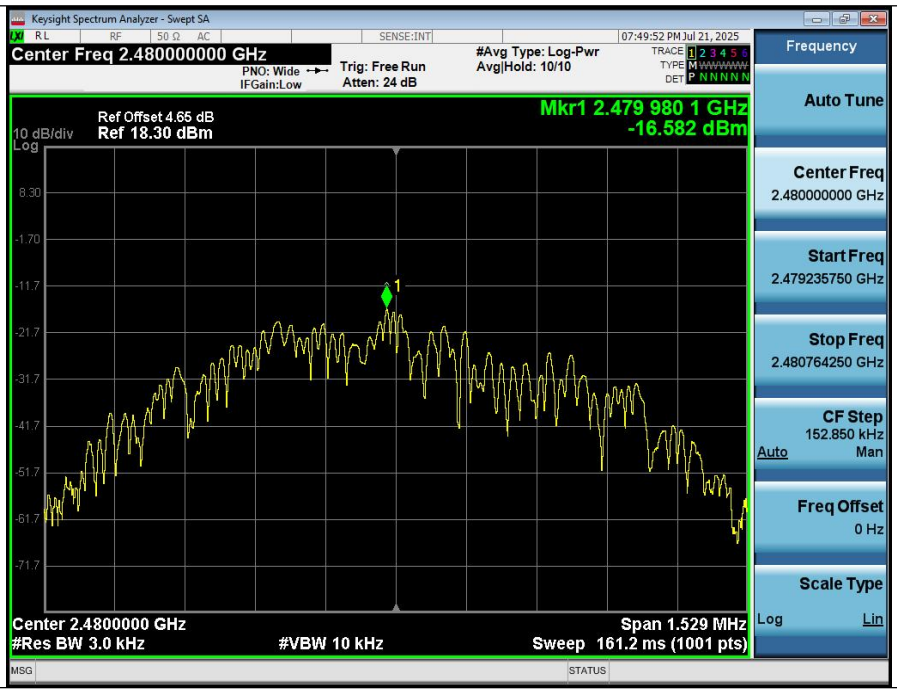
**Power_Spectral_Density_NVNT_ANT1_1Mbps_2402**




**Power_Spectral_Density_NVNT_ANT1_1Mbps_2440**




**Power_Spectral_Density_NVNT_ANT1_1Mbps_2480**

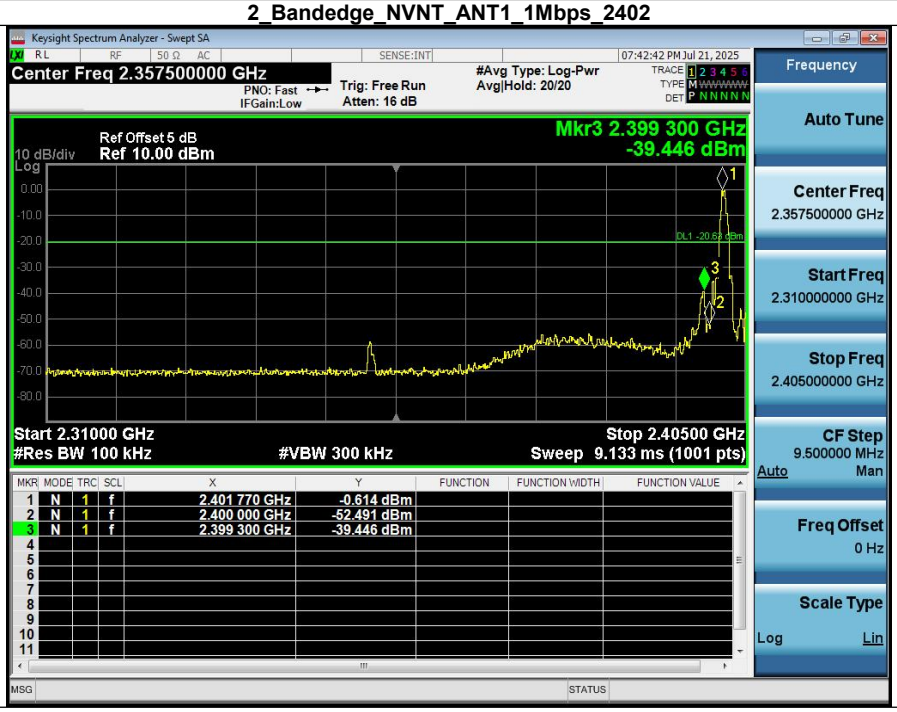

Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
07:49:52 PM Jul 21, 2025
Center Freq 2.480000000 GHz
PNO: Wide
IFGain:Low
Trig: Free Run
Atten: 24 dB
#Avg Type: Log-Pwr
Avg|Hold: 10/10
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Ref Offset 4.65 dB
10 dB/div
Ref 18.30 dBm
Log
Mkr1 2.479 980 1 GHz
-16.582 dBm
8.30
-1.70
-11.7
-21.7
-31.7
-41.7
-51.7
-61.7
-71.7
Center 2.4800000 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Span 1.529 MHz
Sweep 161.2 ms (1001 pts)
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.479235750 GHz
Stop Freq
2.480764250 GHz
CF Step
152.850 kHz
Auto
Man
Freq Offset
0 Hz
Scale Type
Log
Lin
MSG
STATUS

# 6. Bandedge

| Condition | Antenna | Modulation | TX_Frequency (MHz) | Max. Mark_freq(MHz) | Ref_level(dBm) | Spurious level(dBm) | limit(dBm) | Result |
|---|---|---|---|---|---|---|---|---|
| NVNT | ANT1 | 1Mbps | 2402.00 | 2399.300 | -0.634 | -39.446 | -20.634 | Pass |
| NVNT | ANT1 | 1Mbps | 2480.00 | 2483.575 | 1.443 | -51.479 | -18.557 | Pass |

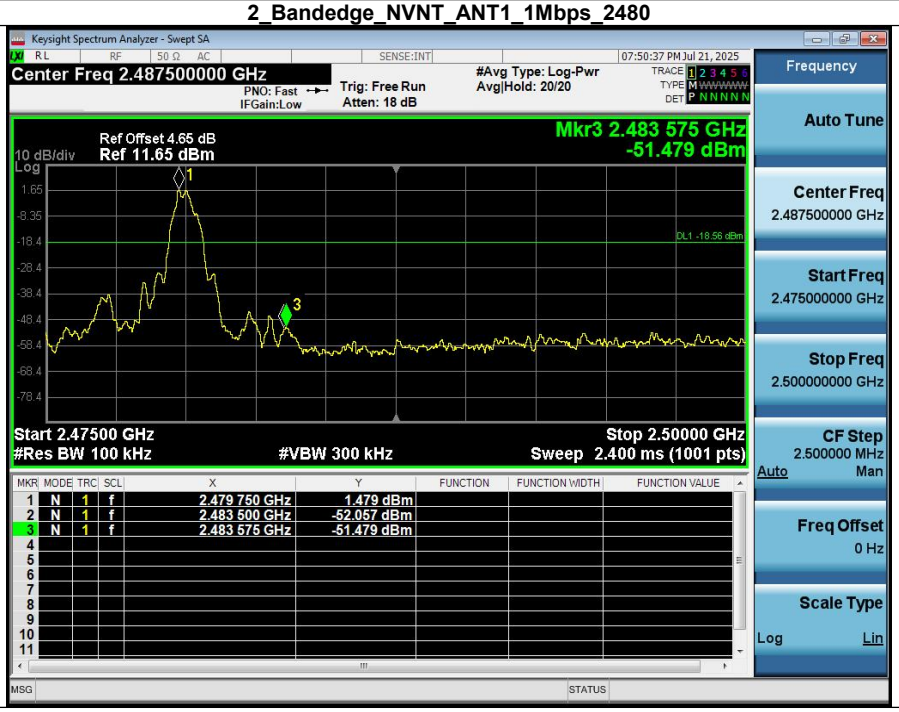
**1_Reference_Level_NVNT_ANT1_1Mbps_2402**

**2_Bandedge_NVNT_ANT1_1Mbps_2402**




**1_Reference_Level_NVNT_ANT1_1Mbps_2480**

2_Bandedge_NVNT_ANT1_1Mbps_2480

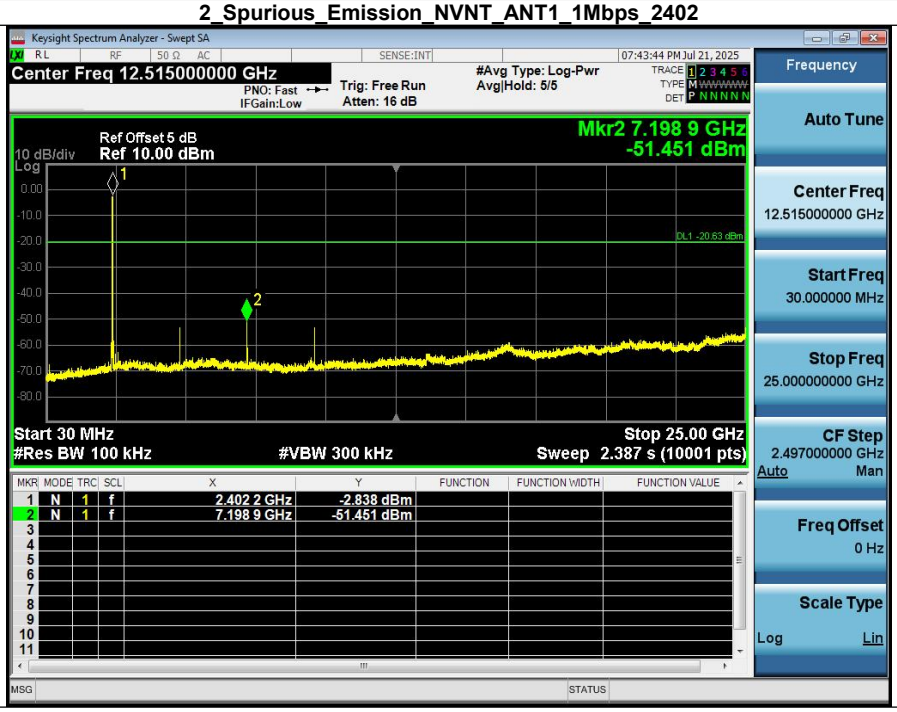


# 7. Spurious Emission

| Condition | Antenna | Modulation | TX_Frequency (MHz) | Ref_level(dBm) | Spurious level(dBm) | limit(dBm) | Result |
|---|---|---|---|---|---|---|---|
| NVNT | ANT1 | 1Mbps | 2402.00 | -0.634 | -51.451 | -20.634 | Pass |
| NVNT | ANT1 | 1Mbps | 2440.00 | 0.794 | -50.455 | -19.206 | Pass |
| NVNT | ANT1 | 1Mbps | 2480.00 | 1.443 | -51.066 | -18.557 | Pass |

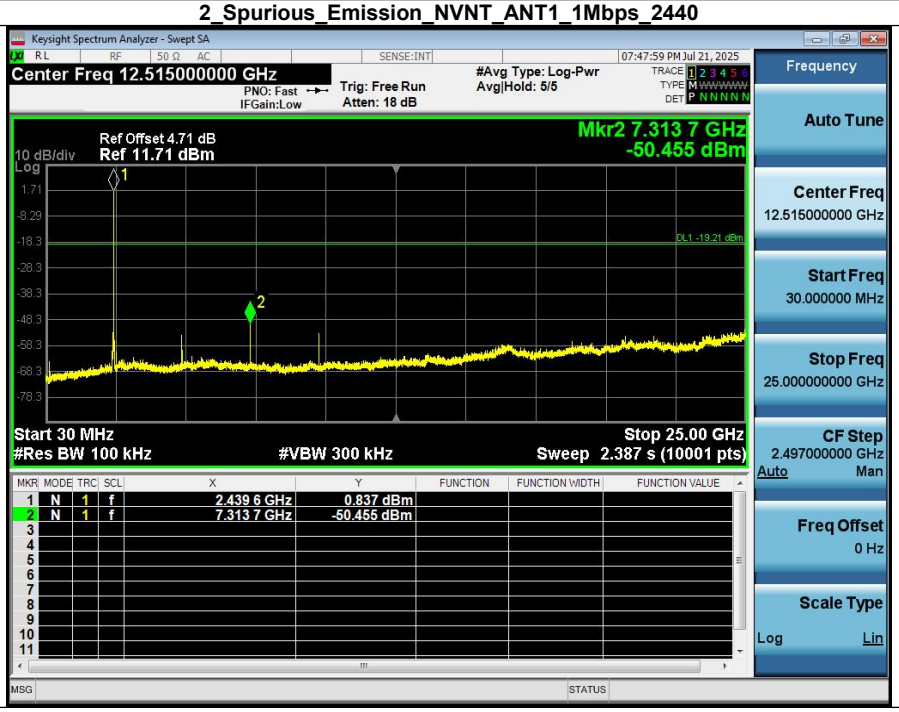
**1_Reference_Level_NVNT_ANT1_1Mbps_2402**

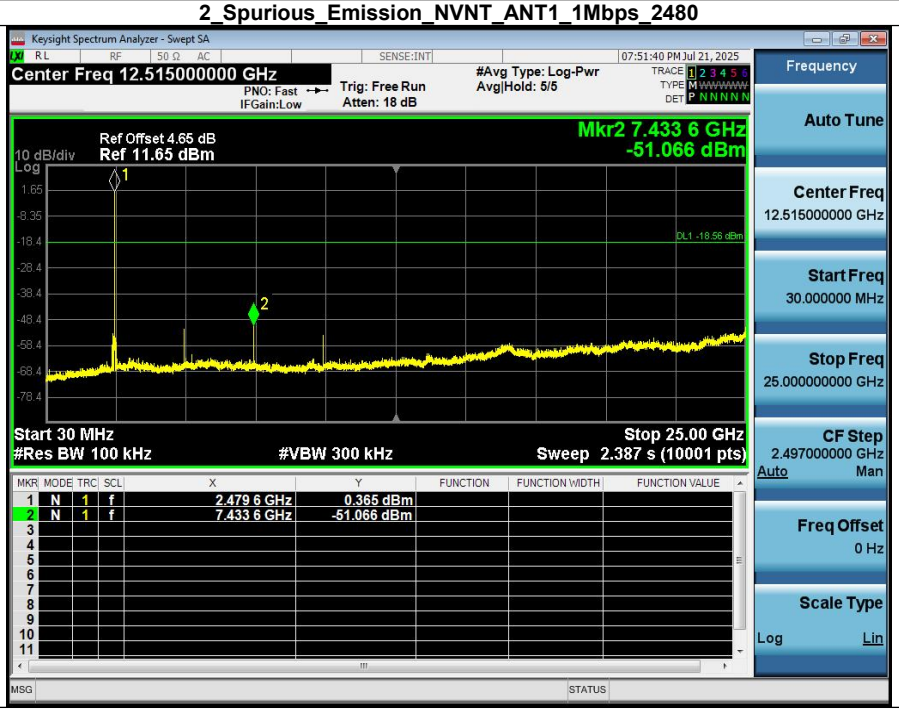
**2_Spurious_Emission_NVNT_ANT1_1Mbps_2402**




**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