





Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: BLUETOOTH PARTY SYSTEM

Test Model: GPLT-360

Environmental Conditions

| | |
|--------------------|---|
| Temperature: | 23.5 ° C |
| Relative Humidity: | 52.2% |
| ATM Pressure: | 100.0 kPa |
| Test Engineer: |  Bill Zhu |
| Supervised by: |  Li Huan |





A.1 -20dB Bandwidth

| Condition | Mode | Frequency (MHz) | Antenna | -20 dB Bandwidth (MHz) | Limit -20 dB Bandwidth (MHz) | Verdict |
|-----------|-------|-----------------|---------|------------------------|------------------------------|---------|
| NVNT | 1-DH5 | 2402 | Ant1 | 0.935 | 0 | Pass |
| NVNT | 1-DH5 | 2441 | Ant1 | 0.944 | 0 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | 0.937 | 0 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | 1.297 | 0 | Pass |
| NVNT | 2-DH5 | 2441 | Ant1 | 1.32 | 0 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | 1.316 | 0 | Pass |





Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1

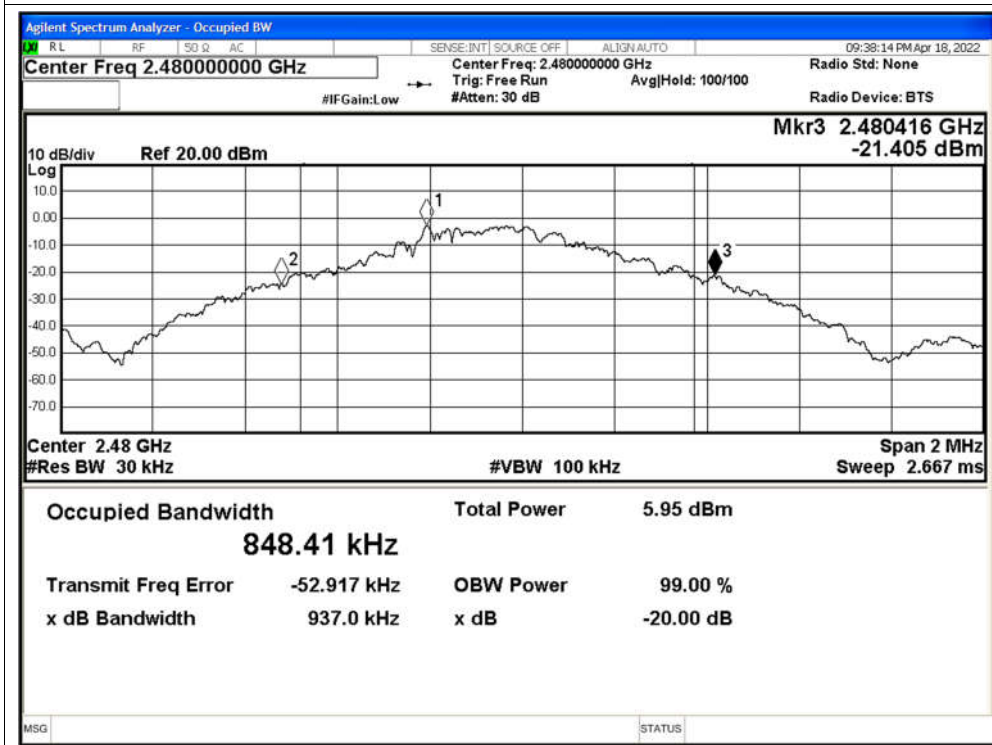


-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

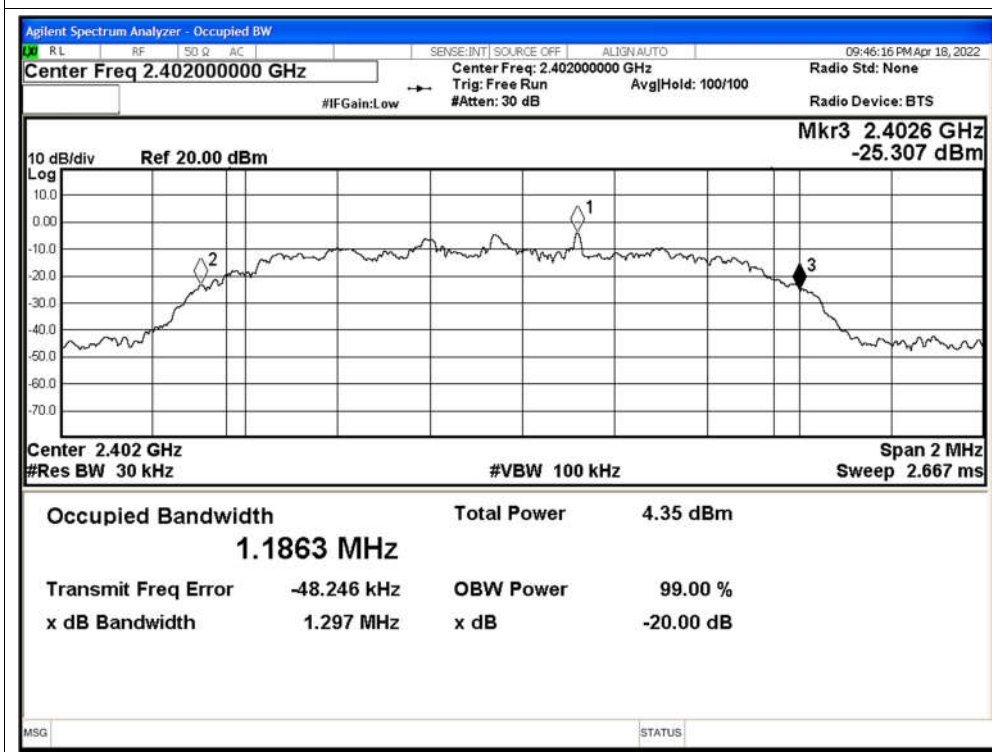




-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1

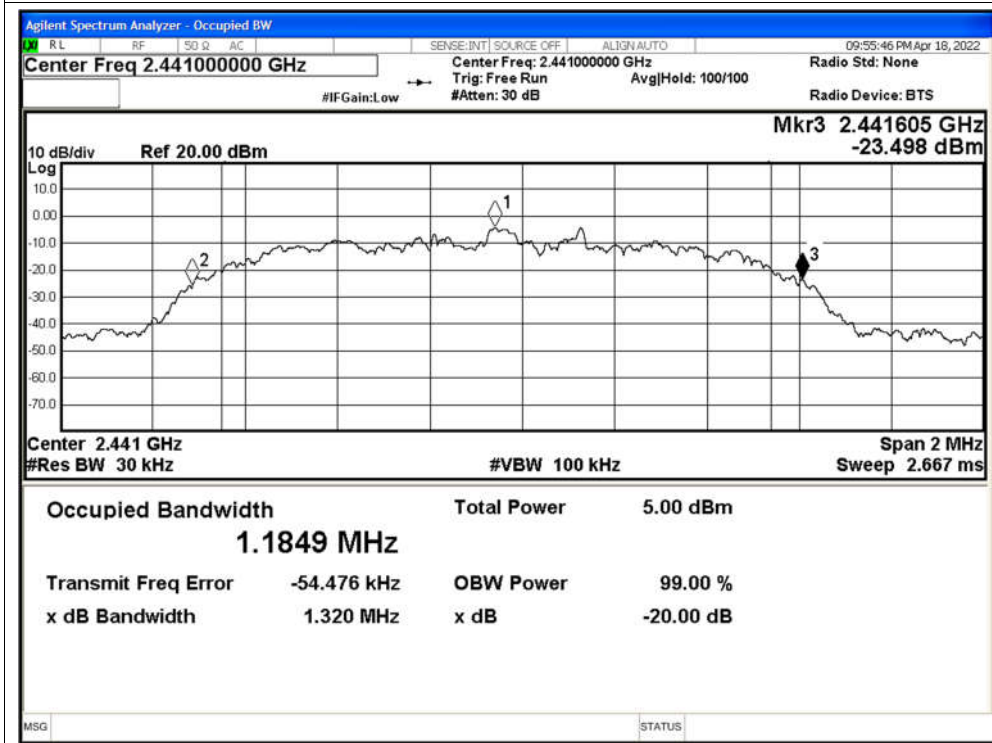


-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1

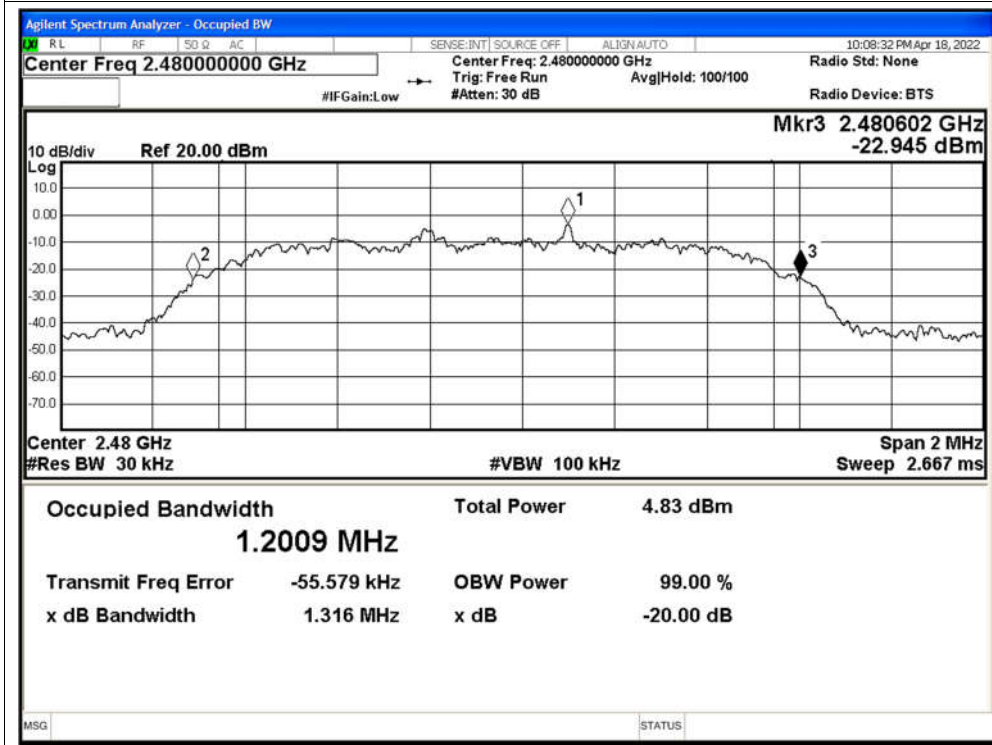




-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1





A.2 Maximum Peak Conducted Output Power

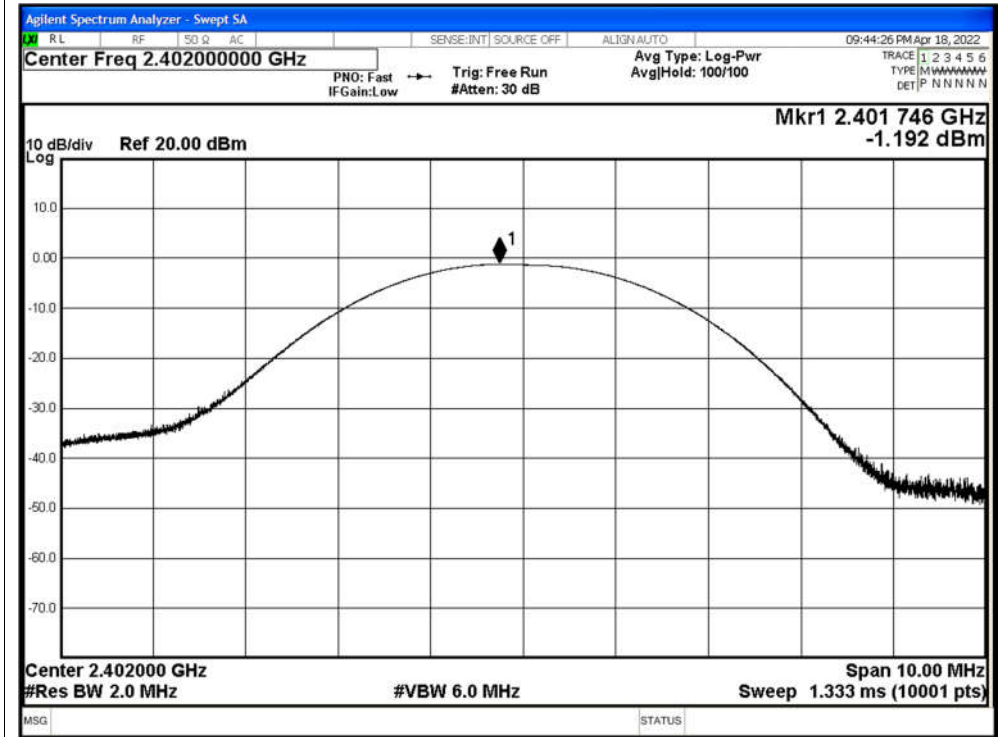
| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Duty Factor (dB) | Total Power (dBm) | Limit (dBm) | Verdict |
|-----------|-------|-----------------|---------|-----------------------|------------------|-------------------|-------------|---------|
| NVNT | 1-DH5 | 2402 | Ant1 | -1.19 | 0 | -1.19 | 21 | Pass |
| NVNT | 1-DH5 | 2441 | Ant1 | -0.54 | 0 | -0.54 | 21 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | -0.2 | 0 | -0.2 | 21 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | -0.45 | 0 | -0.45 | 21 | Pass |
| NVNT | 2-DH5 | 2441 | Ant1 | 0.16 | 0 | 0.16 | 21 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | 0.55 | 0 | 0.55 | 21 | Pass |



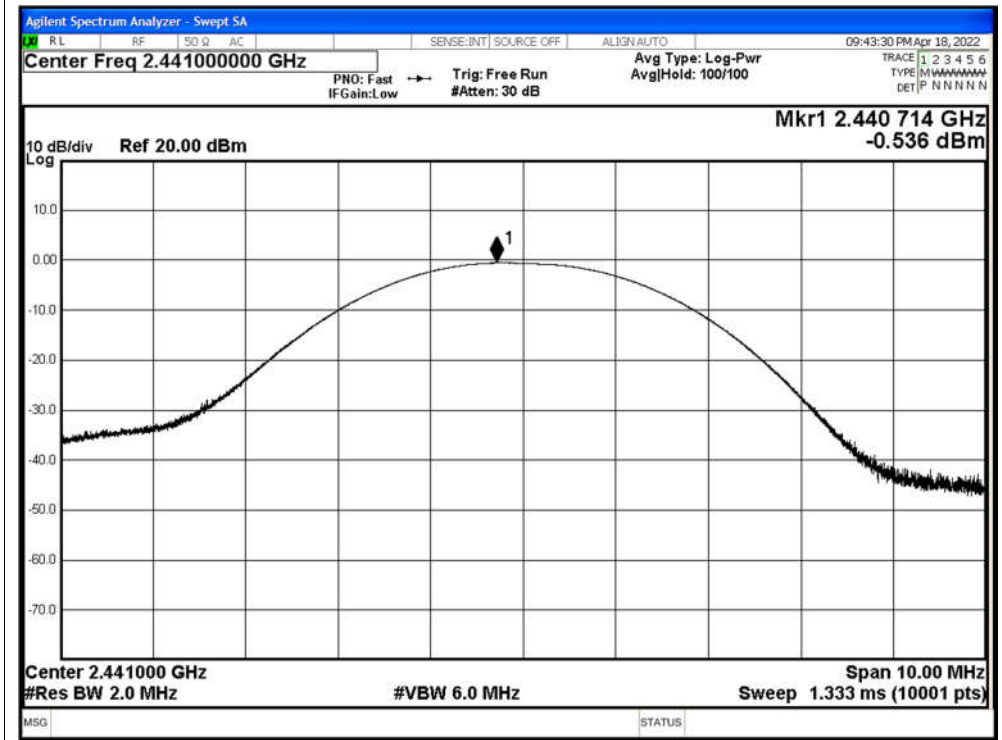


Test Graphs

Power NVNT 1-DH5 2402MHz Ant1

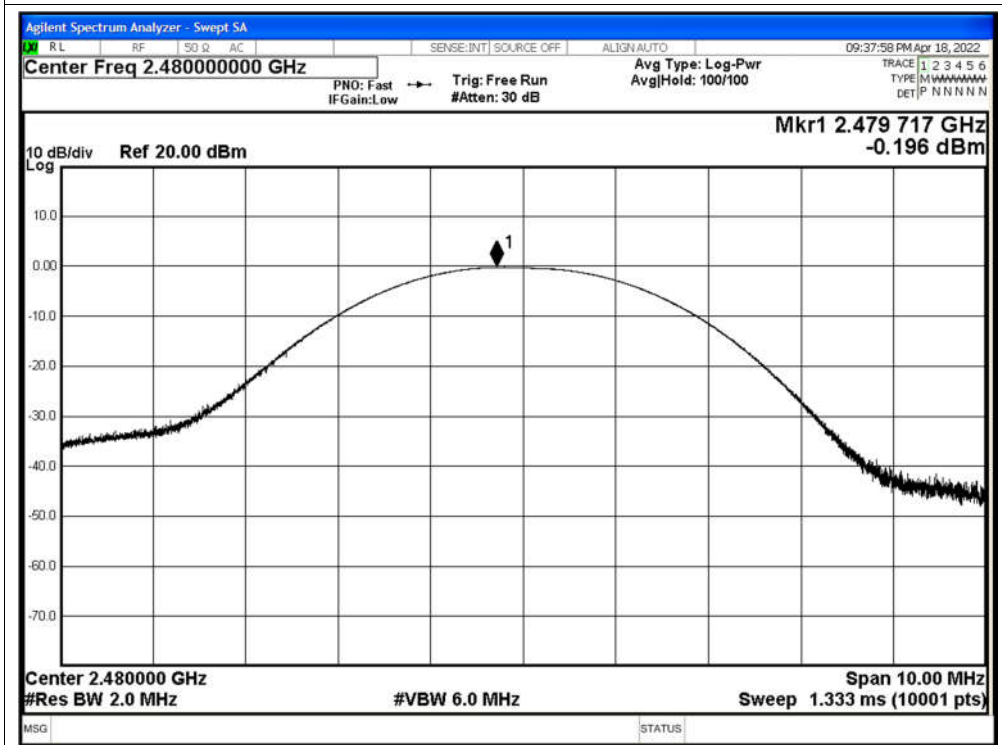


Power NVNT 1-DH5 2441MHz Ant1

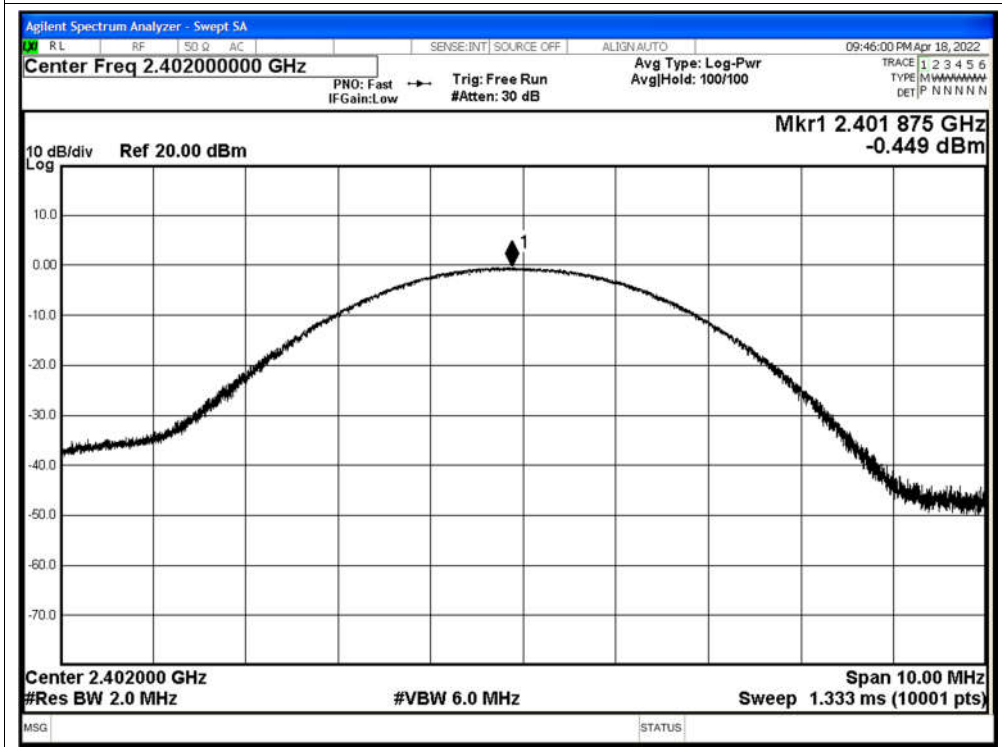




Power NVNT 1-DH5 2480MHz Ant1

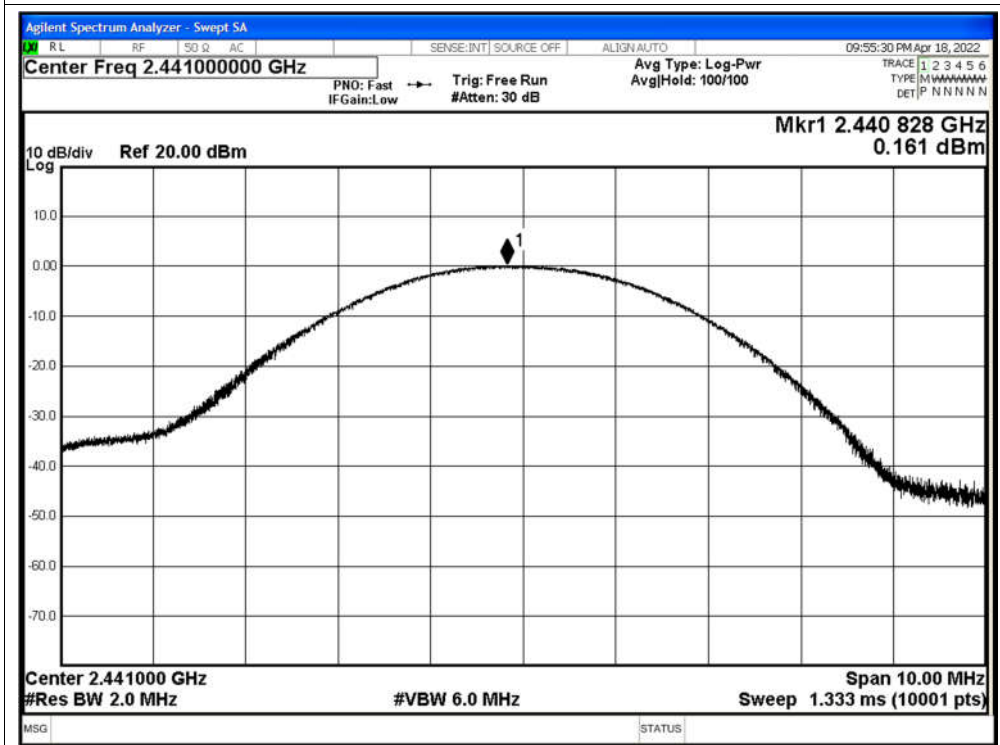


Power NVNT 2-DH5 2402MHz Ant1

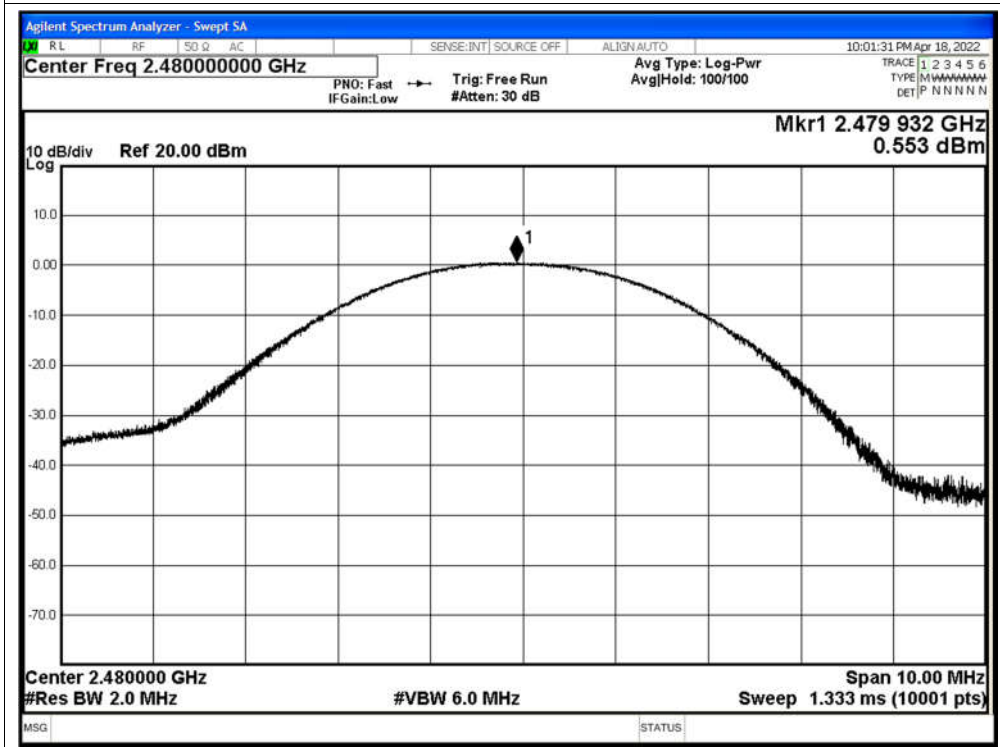




Power NVNT 2-DH5 2441MHz Ant1



Power NVNT 2-DH5 2480MHz Ant1





A.3 Carrier Frequencies Separation

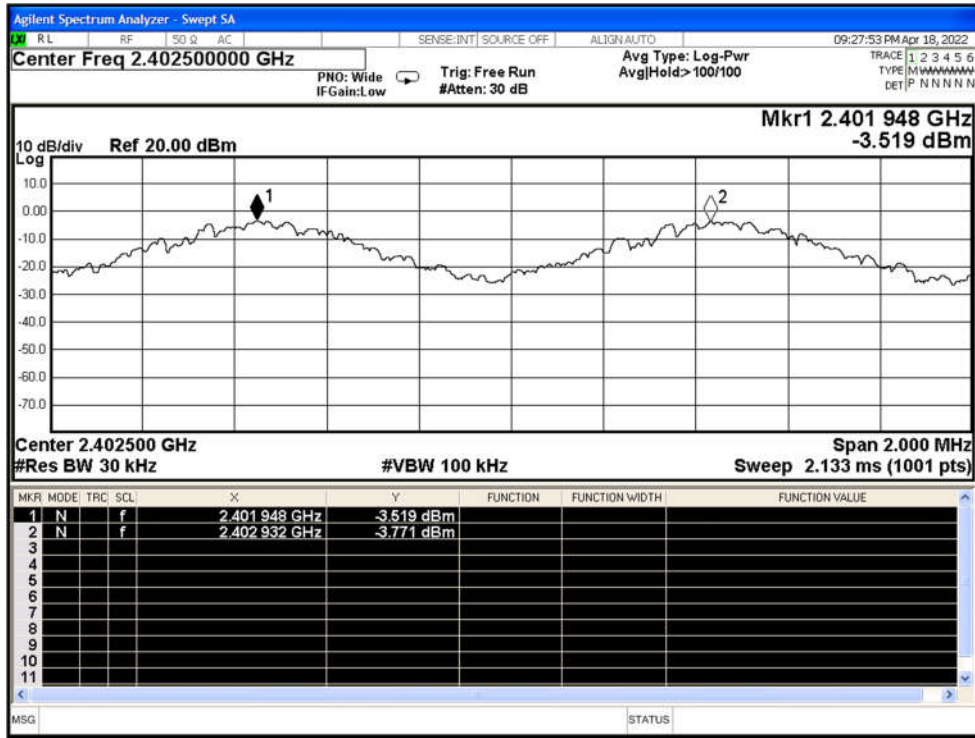
| Condition | Mode | Antenna | Hopping Freq1 (MHz) | Hopping Freq2 (MHz) | HFS (MHz) | Limit (MHz) | Verdict |
|-----------|-------|---------|---------------------|---------------------|-----------|-------------|---------|
| NVNT | 1-DH5 | Ant1 | 2401.948 | 2402.932 | 0.984 | 0.631 | Pass |
| NVNT | 2-DH5 | Ant1 | 2402.114 | 2403.11 | 0.996 | 0.865 | Pass |



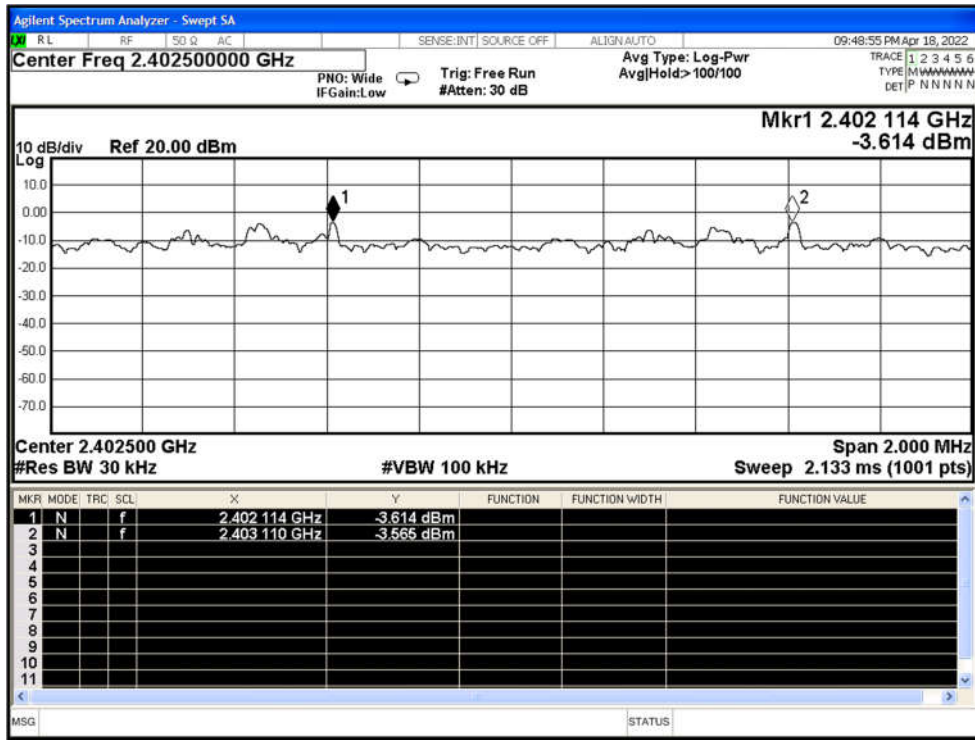


Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1





A.4 Dwell Time

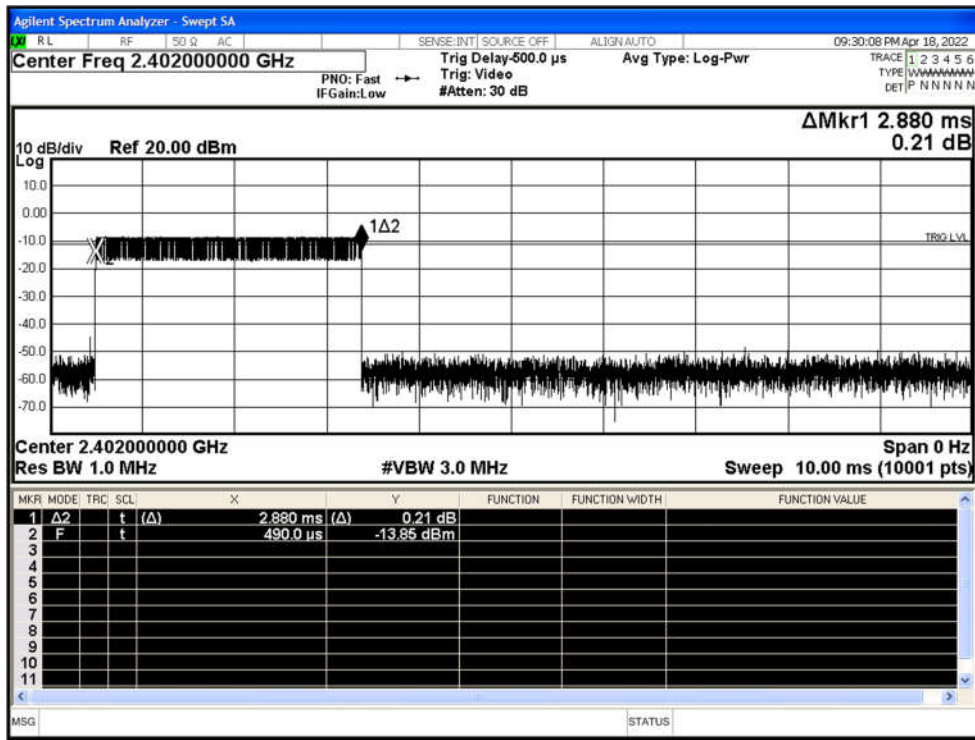
| Condition | Mode | Frequency (MHz) | Antenna | Pulse Time (ms) | Total Dwell Time (ms) | Burst Count | Period Time (ms) | Limit (ms) | Verdict |
|-----------|-------|-----------------|---------|-----------------|-----------------------|-------------|------------------|------------|---------|
| NVNT | 1-DH5 | 2402 | Ant1 | 2.88 | 181.44 | 63 | 31600 | 400 | Pass |
| NVNT | 1-DH5 | 2441 | Ant1 | 2.881 | 195.908 | 68 | 31600 | 400 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | 2.879 | 175.619 | 61 | 31600 | 400 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | 2.887 | 337.779 | 117 | 31600 | 400 | Pass |
| NVNT | 2-DH5 | 2441 | Ant1 | 2.881 | 351.482 | 122 | 31600 | 400 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | 2.885 | 121.17 | 42 | 31600 | 400 | Pass |



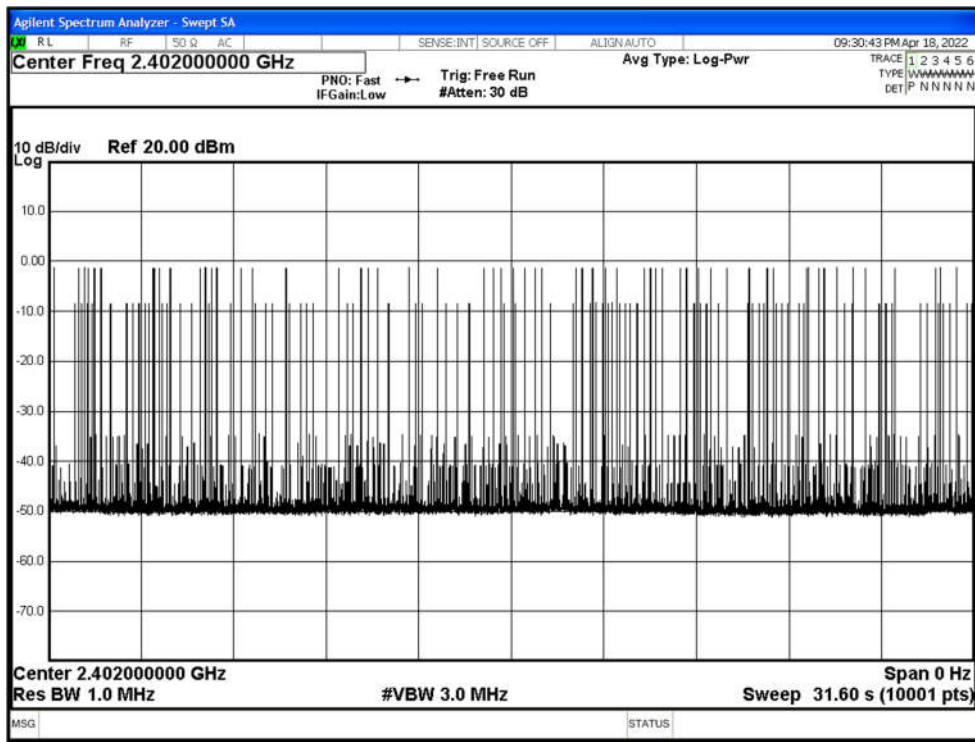


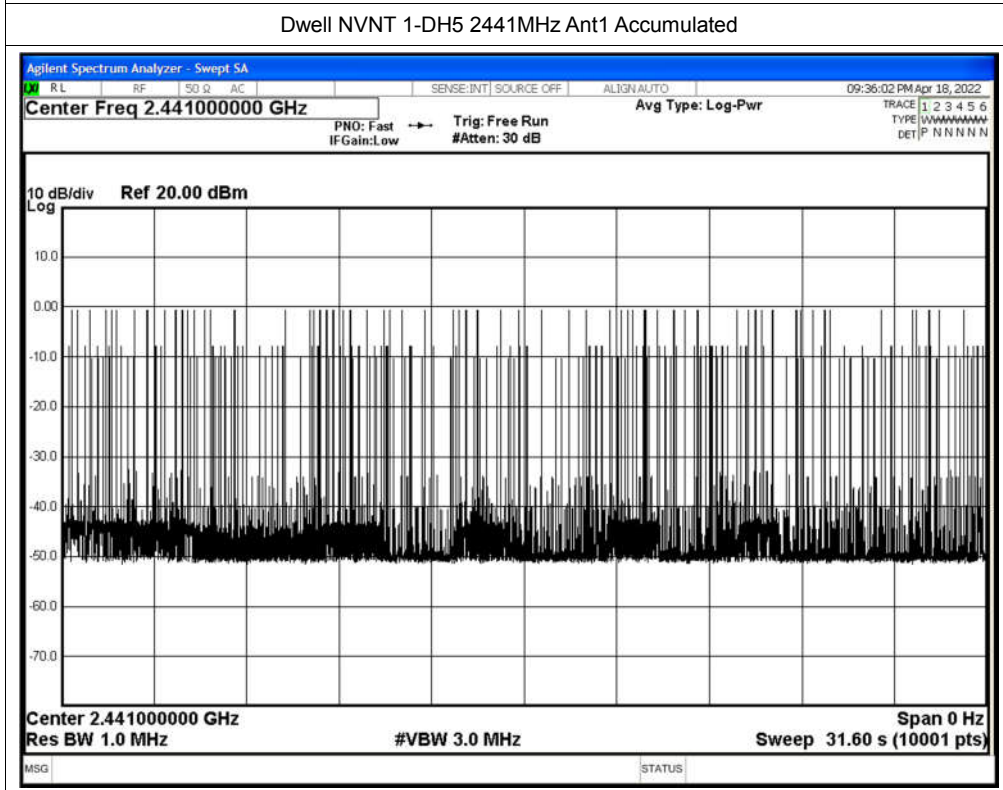
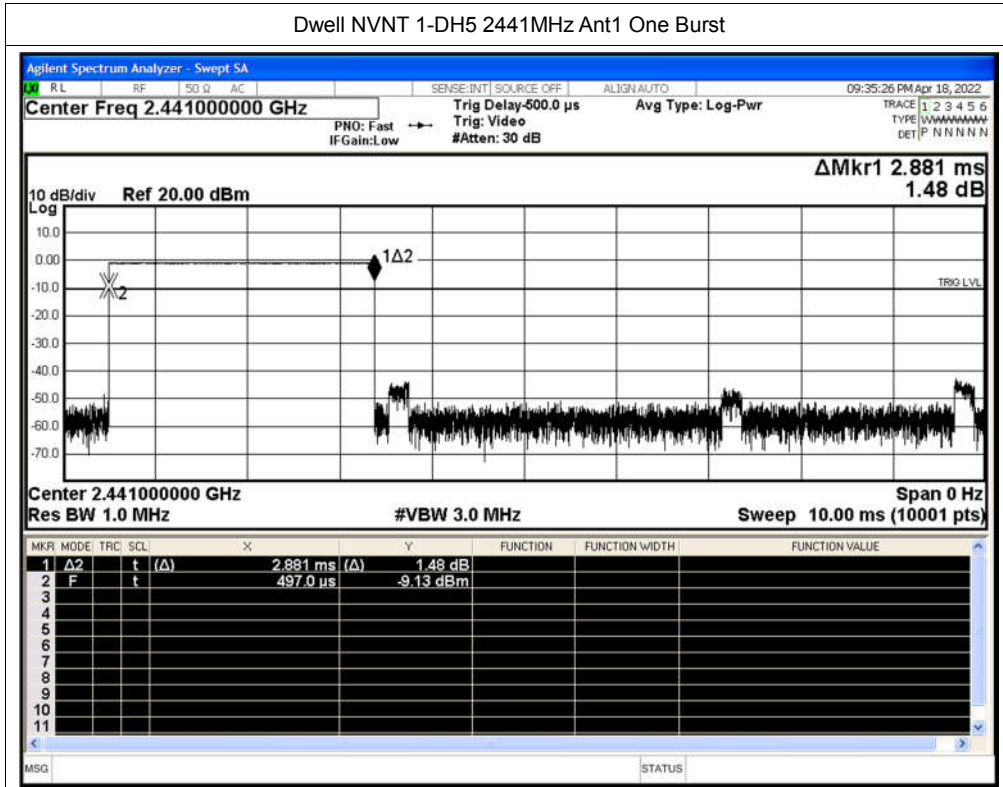
Test Graphs

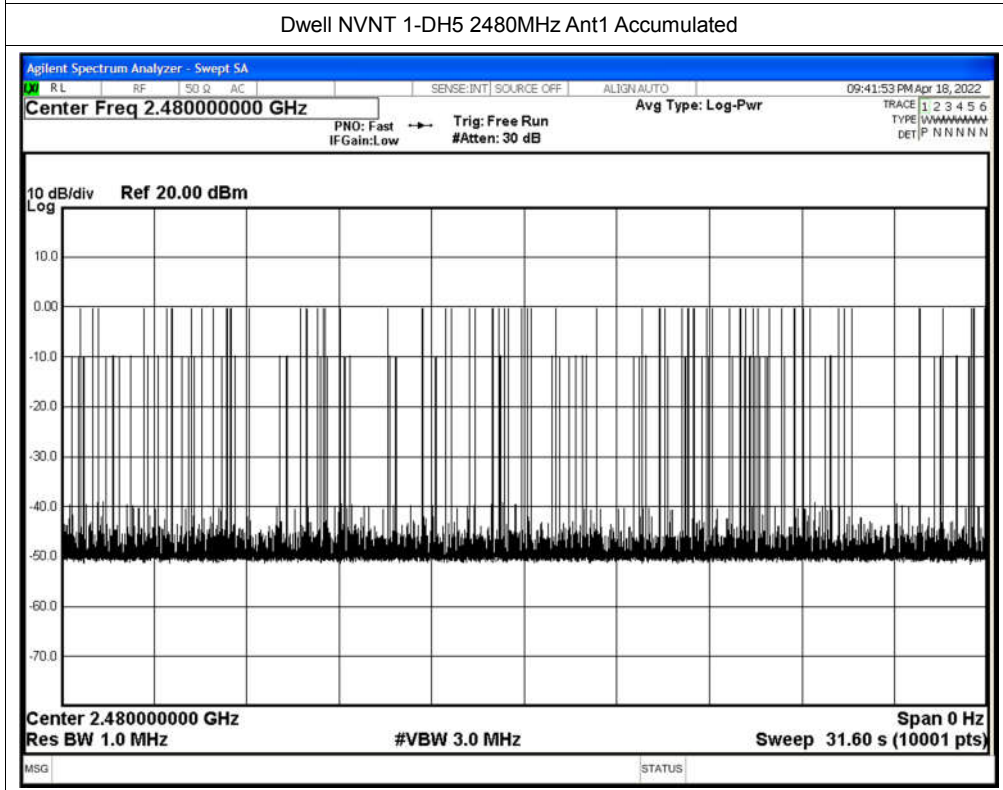
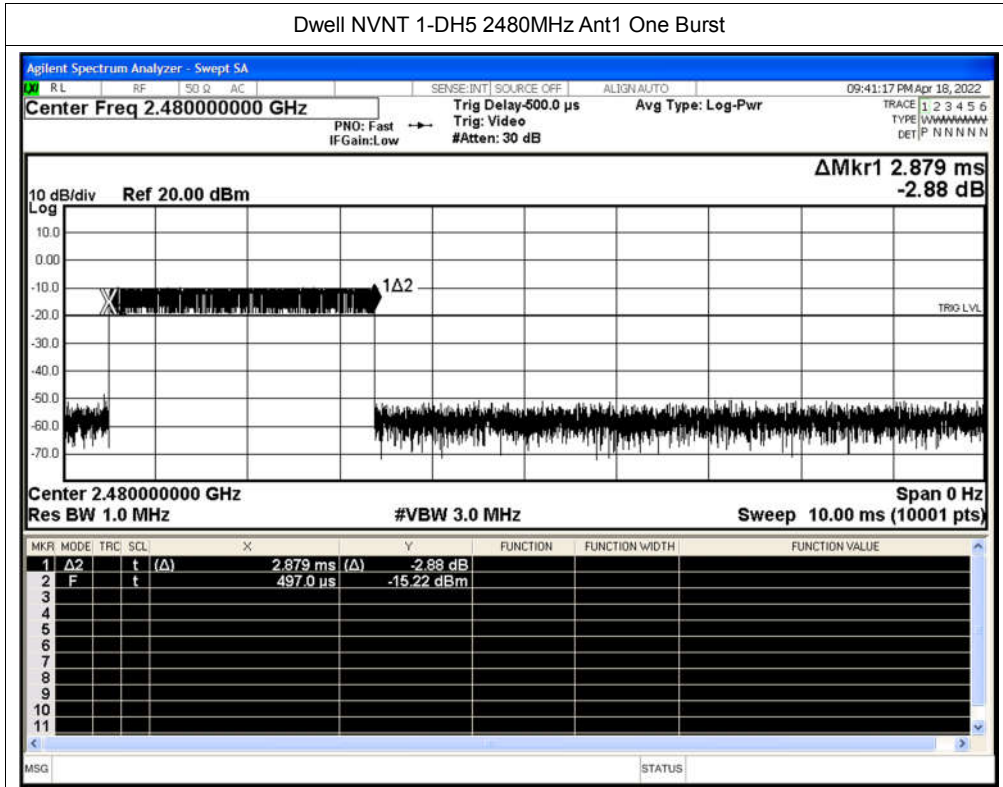
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst

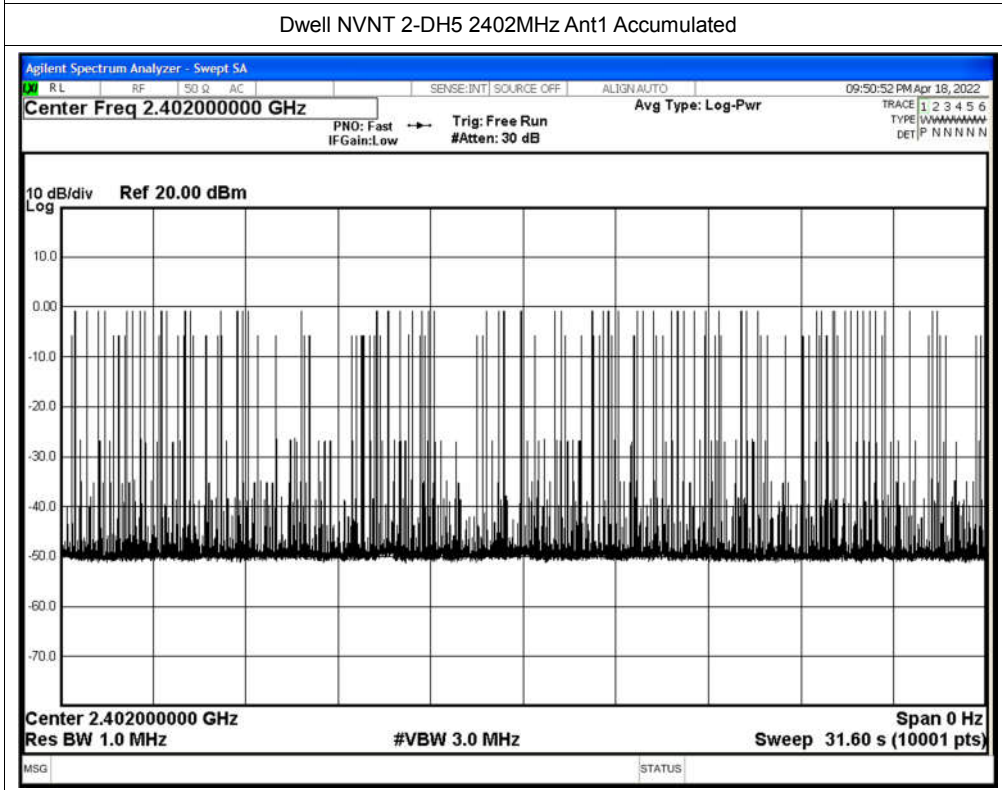
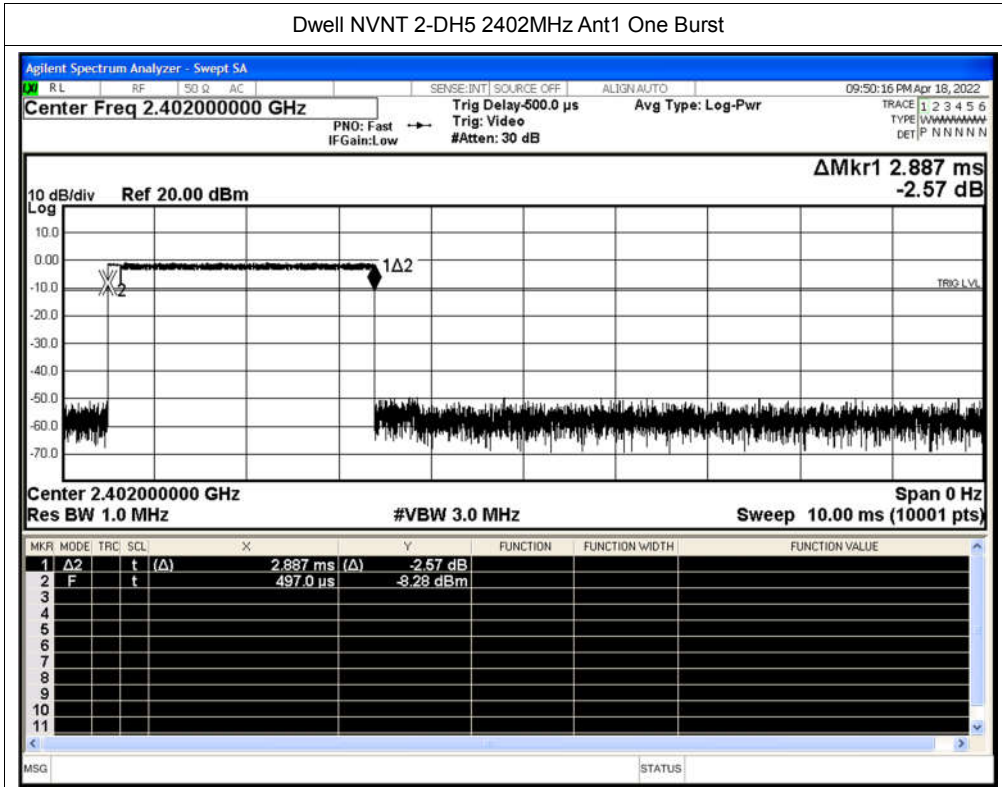


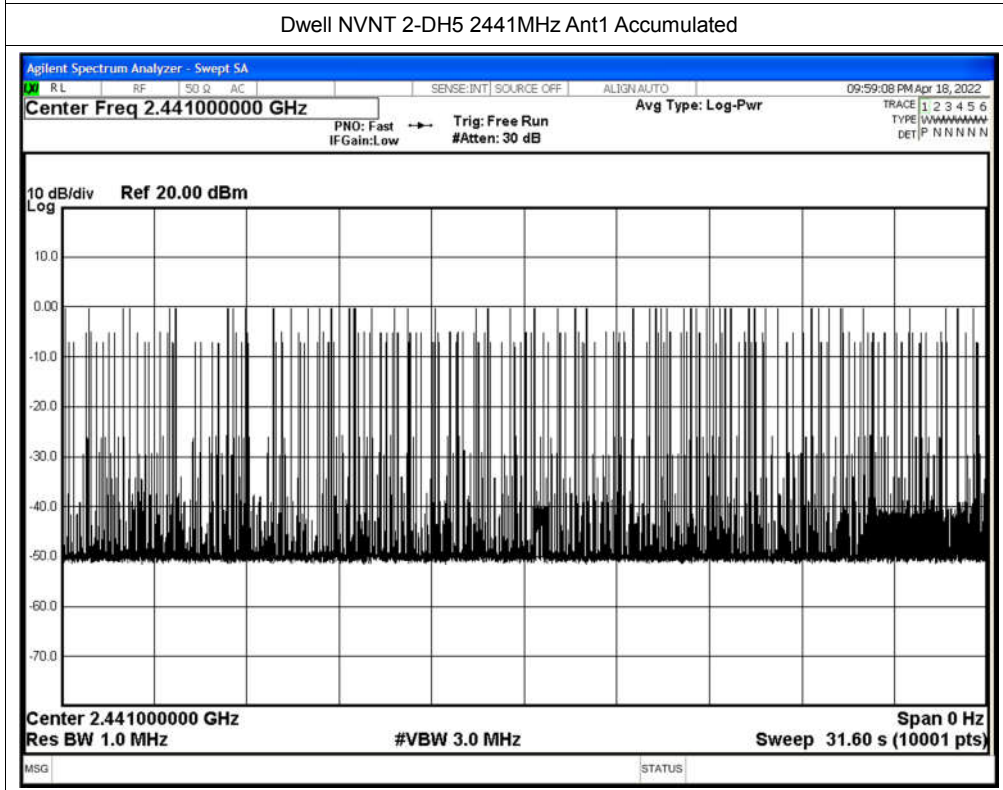
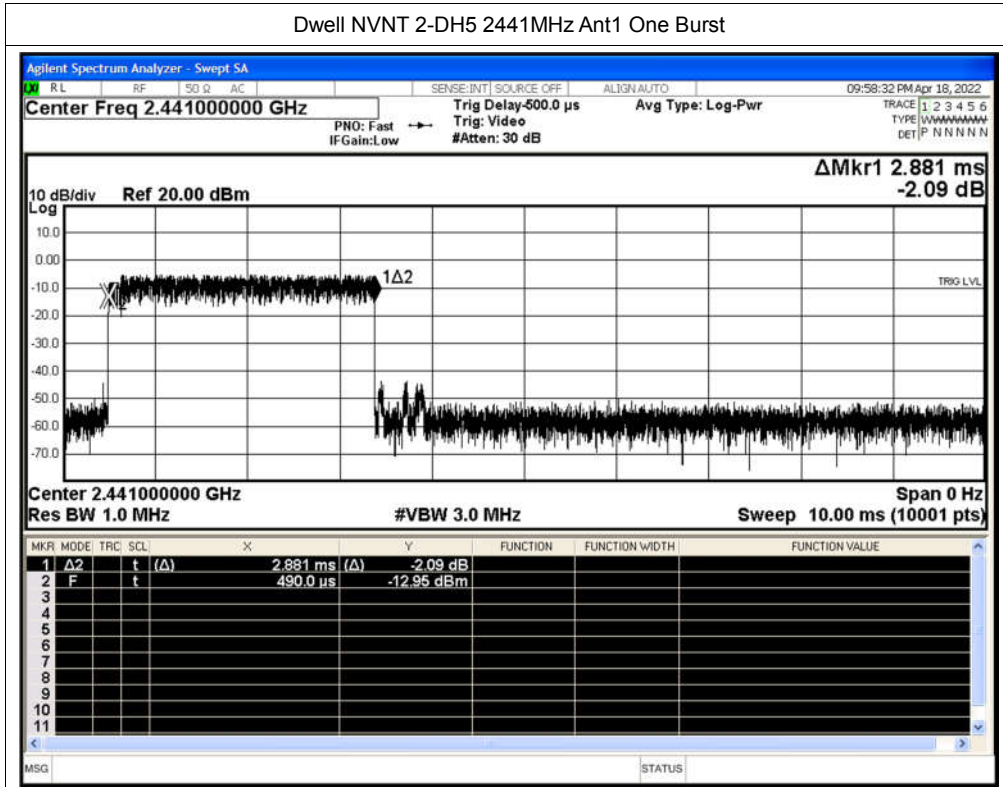
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated

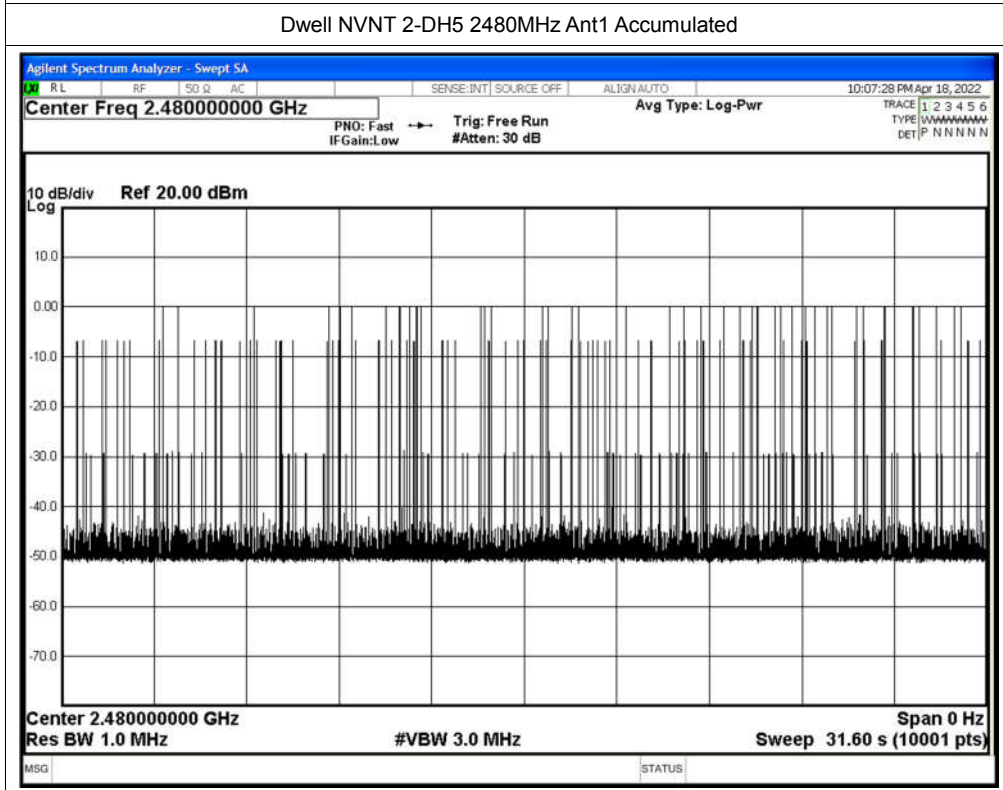
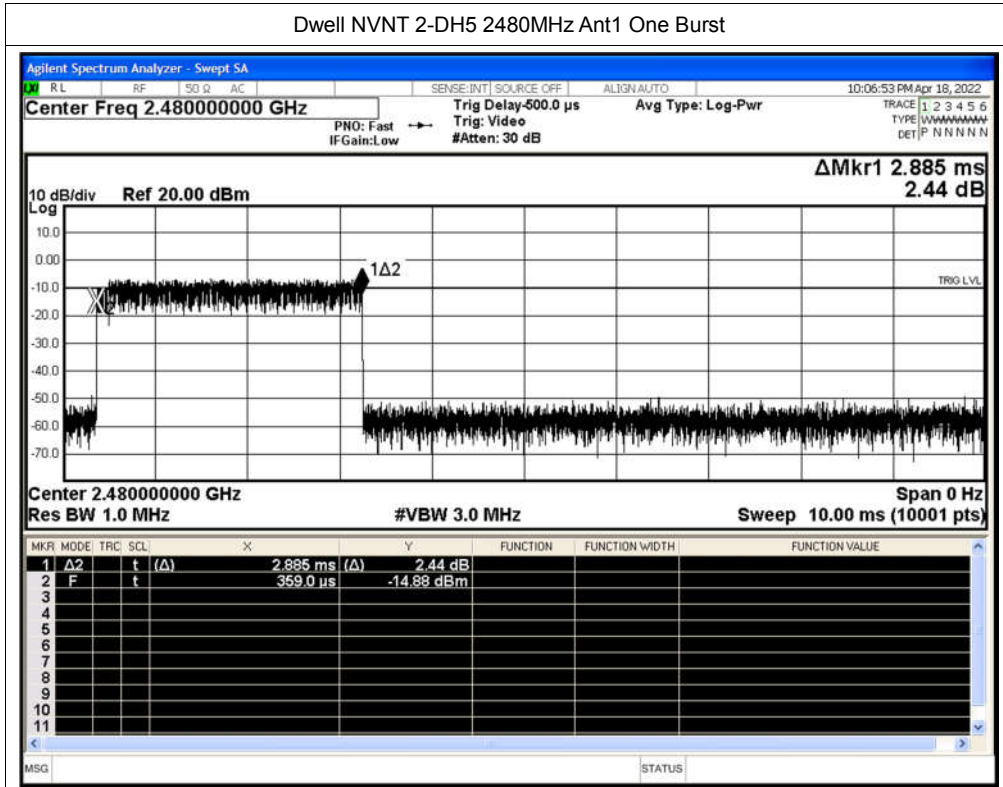










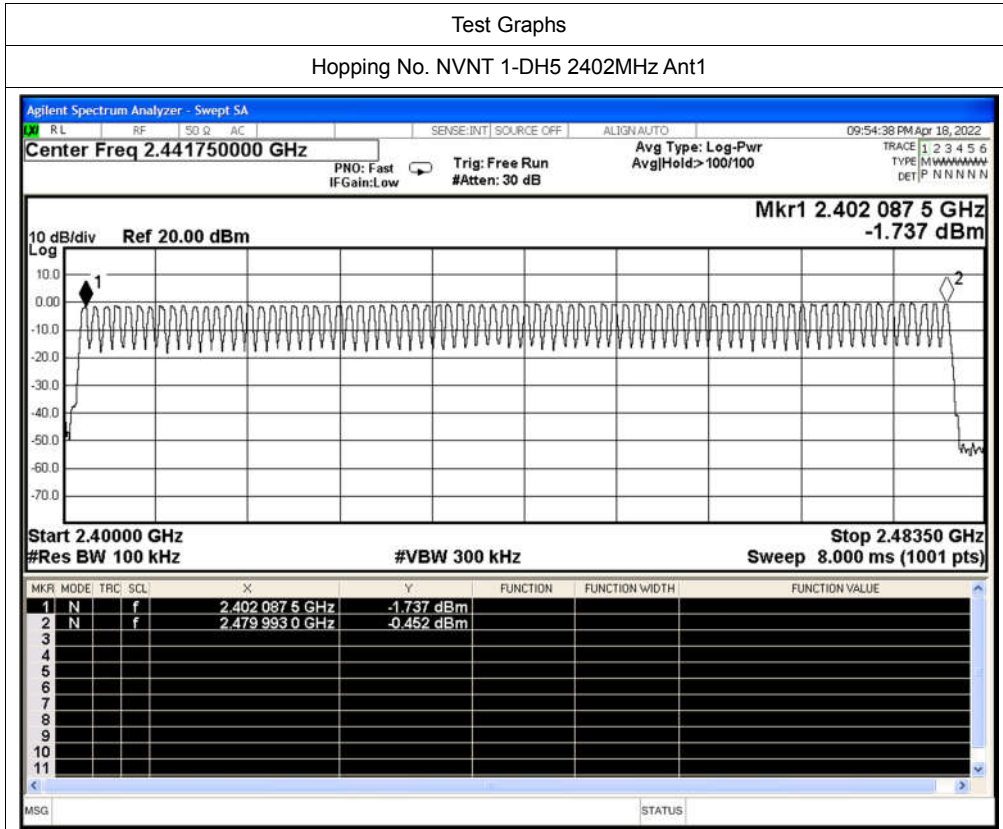




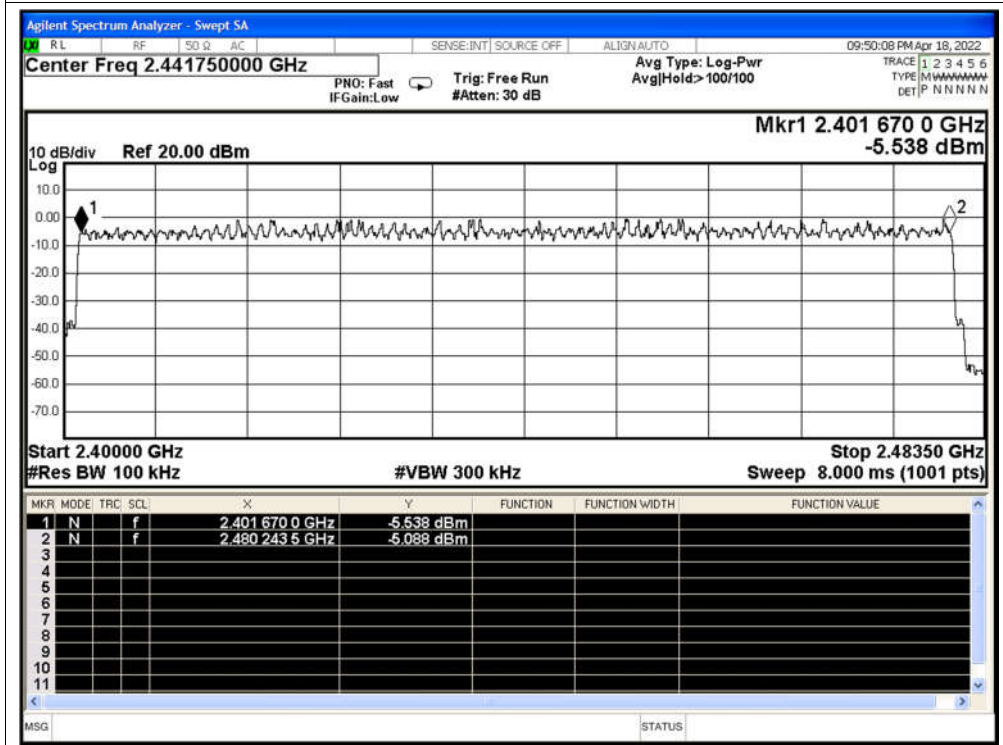
A.5 Number of Hopping Channel

| Condition | Mode | Antenna | Hopping Number | Limit | Verdict |
|-----------|-------|---------|----------------|-------|---------|
| NVNT | 1-DH5 | Ant1 | 79 | 15 | Pass |
| NVNT | 2-DH5 | Ant1 | 79 | 15 | Pass |





Hopping No. NVNT 2-DH5 2402MHz Ant1

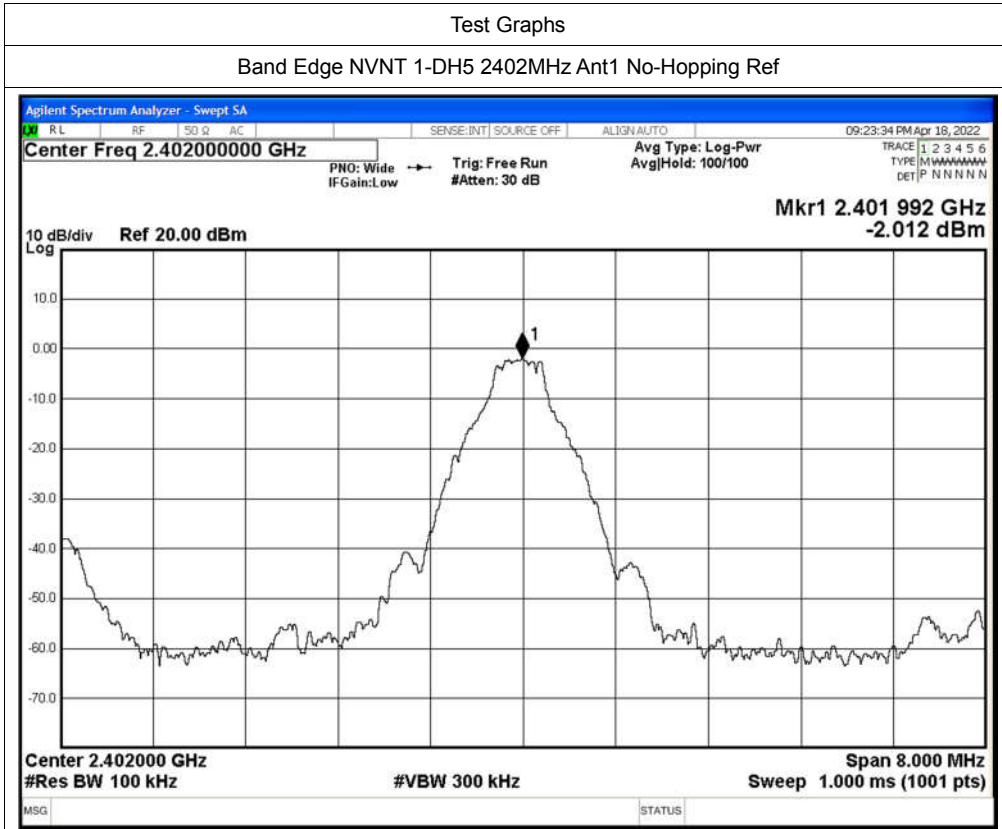




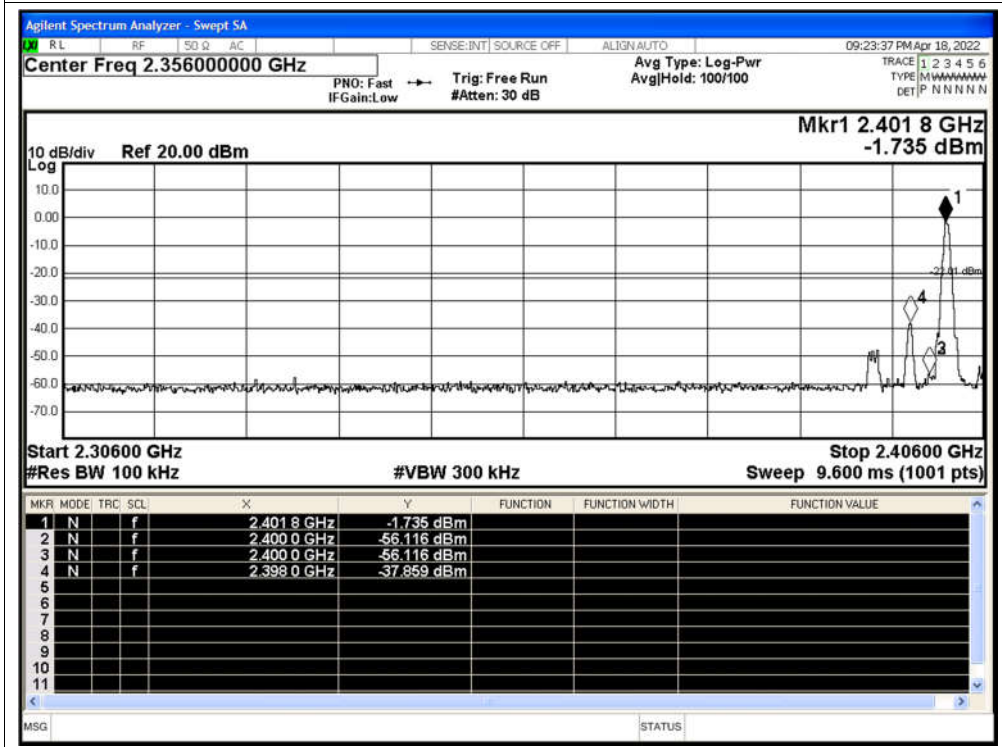
A.6 Band Edge

| Condition | Mode | Frequency (MHz) | Antenna | Hopping Mode | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|-------|-----------------|---------|--------------|-----------------|-------------|---------|
| NVNT | 1-DH5 | 2402 | Ant1 | No-Hopping | -35.84 | -20 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | No-Hopping | -49.76 | -20 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | No-Hopping | -36.44 | -20 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | No-Hopping | -48.73 | -20 | Pass |



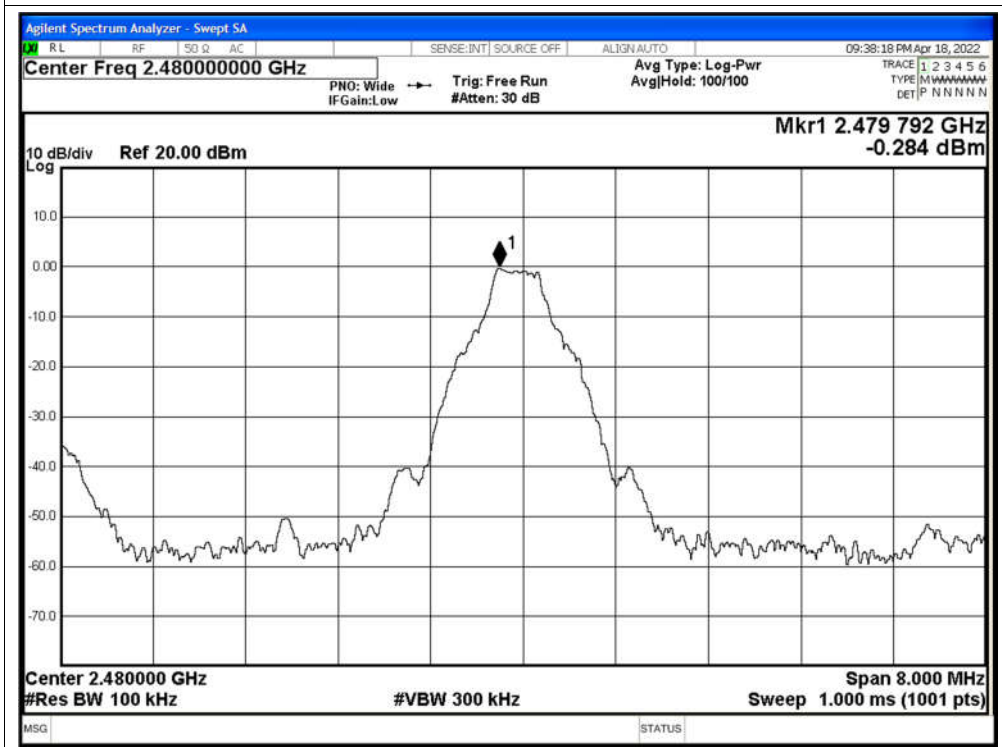


Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

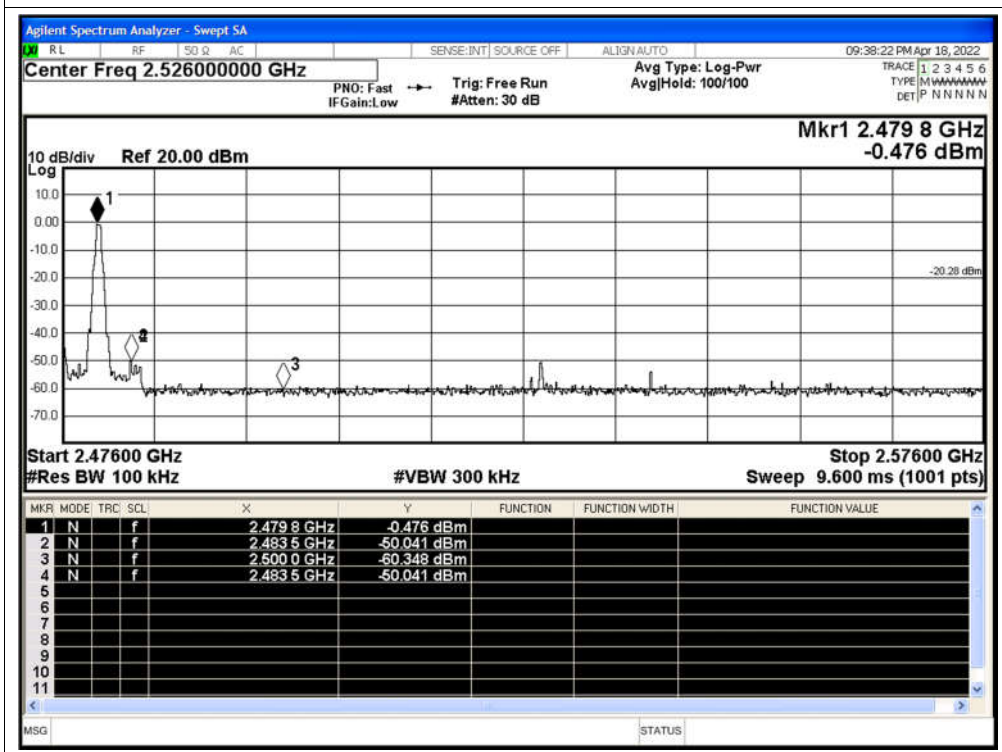




Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

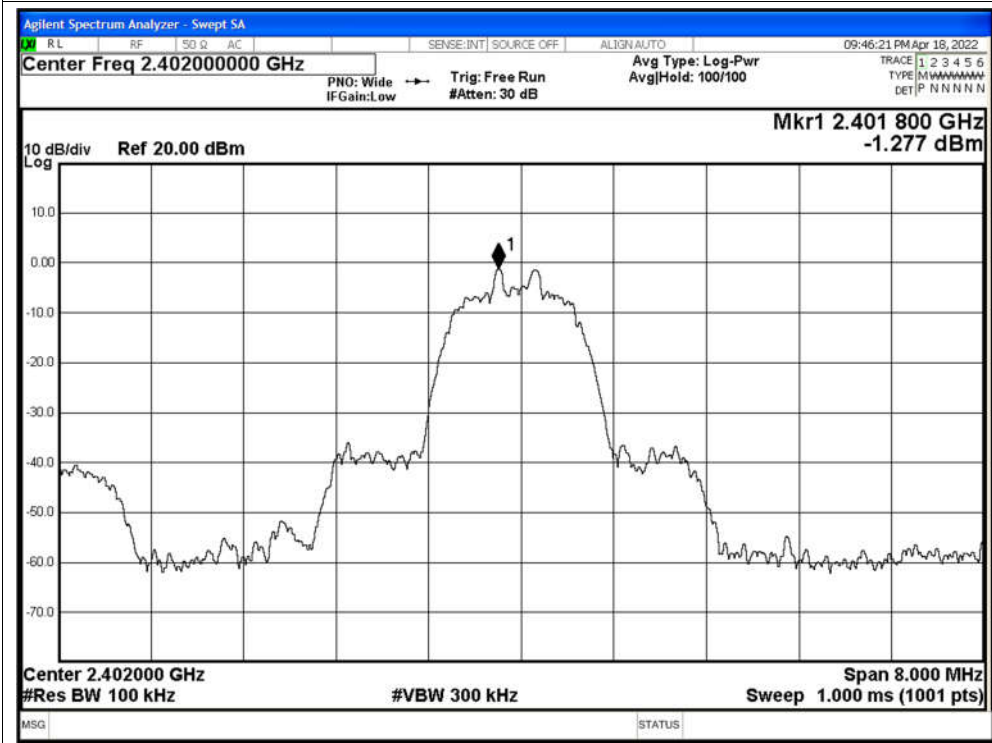


Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission

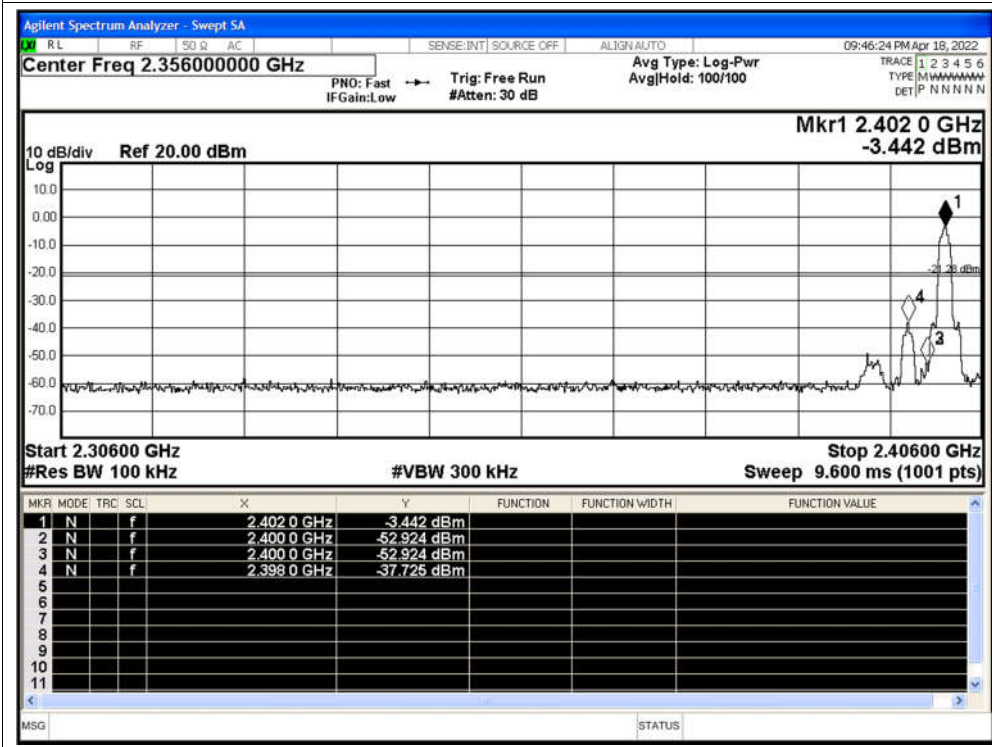




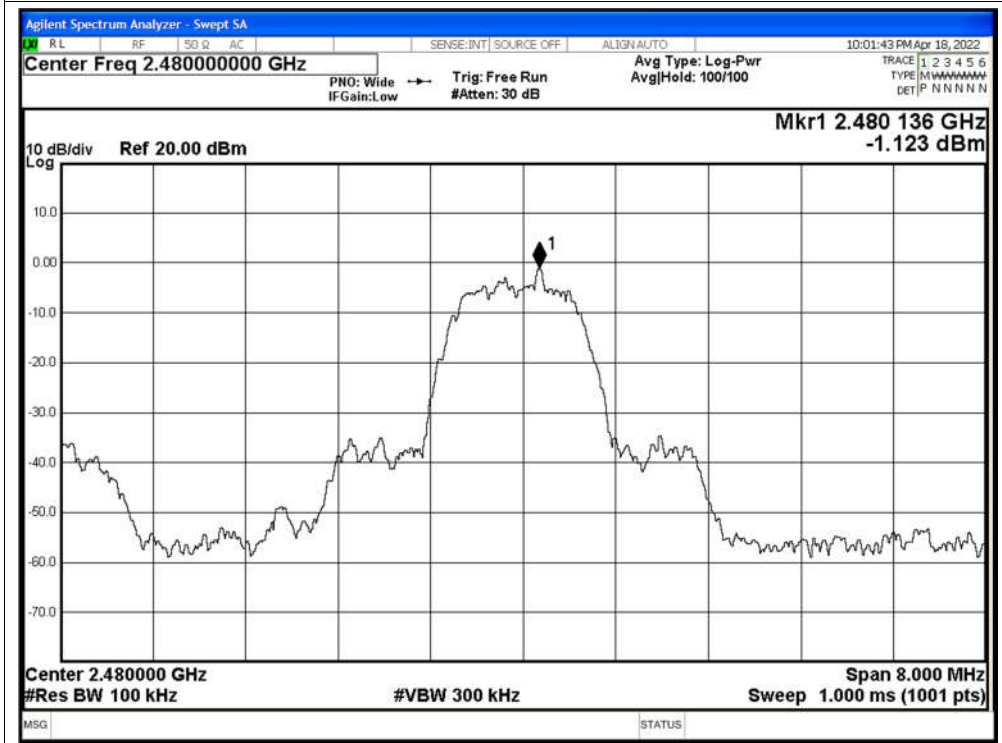
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



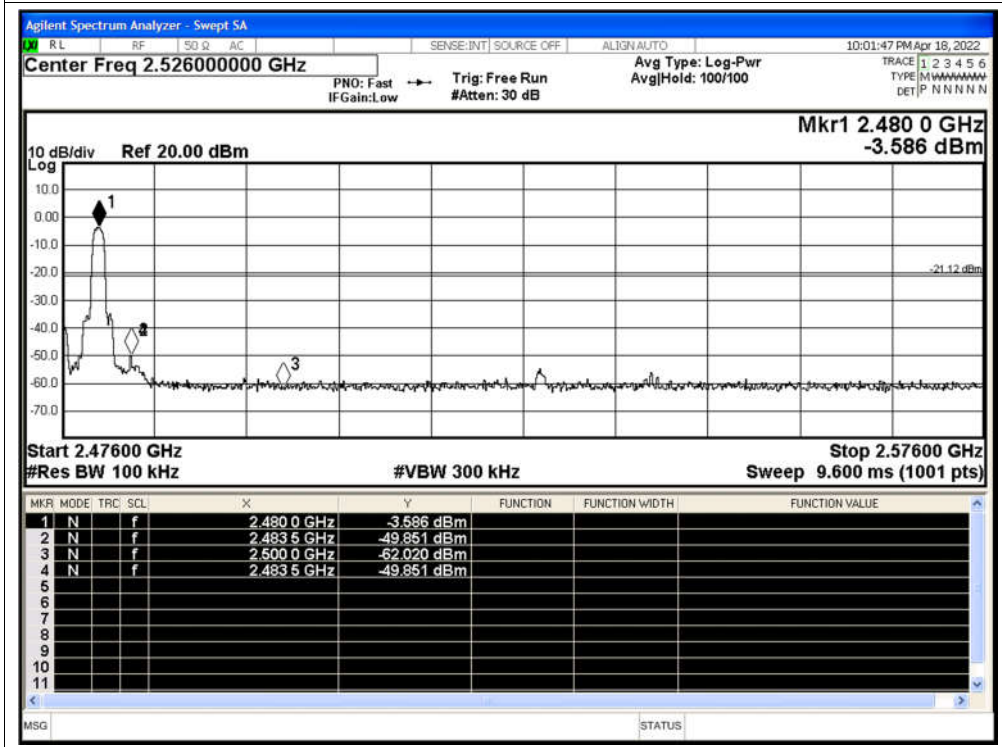
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission





(Hopping)

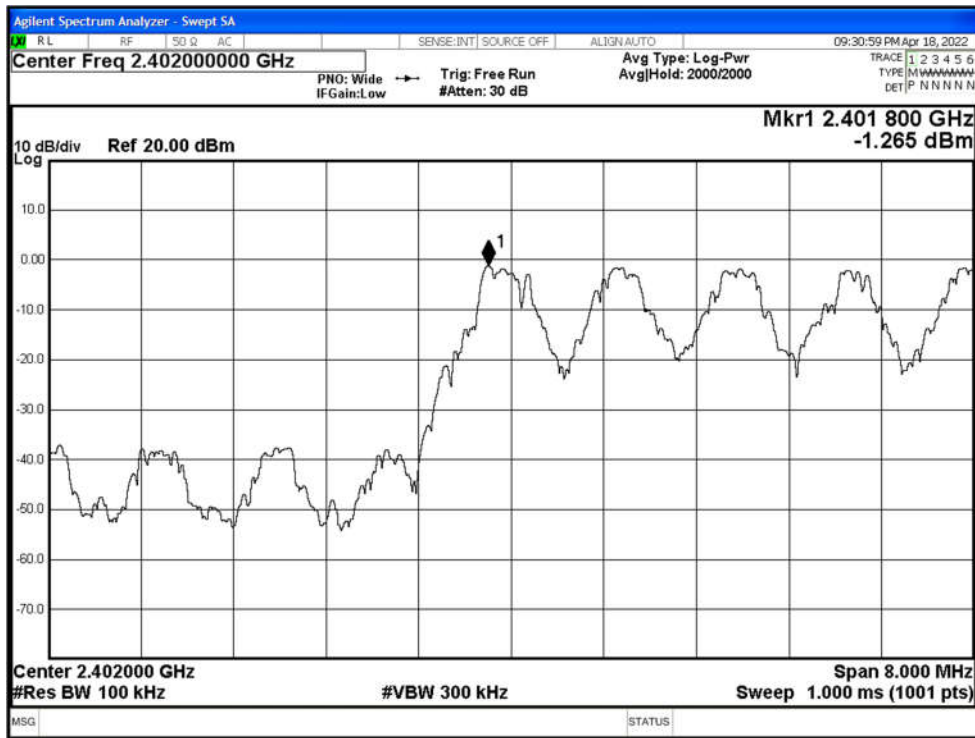
| Condition | Mode | Frequency (MHz) | Antenna | Hopping Mode | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|-------|-----------------|---------|--------------|-----------------|-------------|---------|
| NVNT | 1-DH5 | 2402 | Ant1 | Hopping | -54.88 | -20 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | Hopping | -49.45 | -20 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | Hopping | -55.97 | -20 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | Hopping | -47.39 | -20 | Pass |



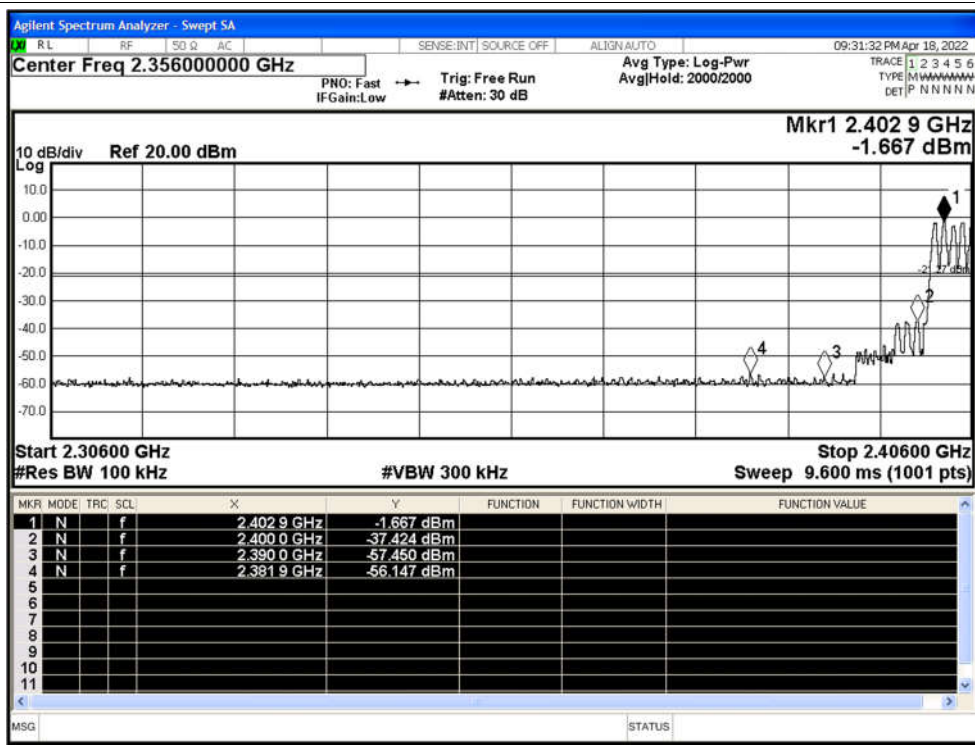


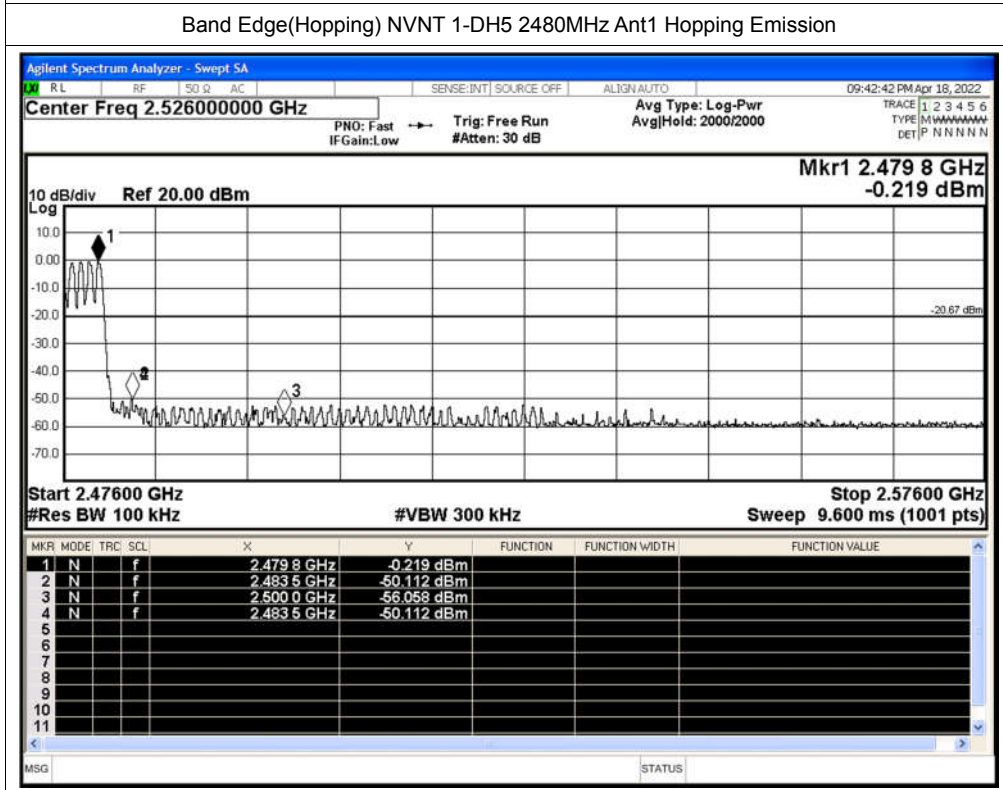
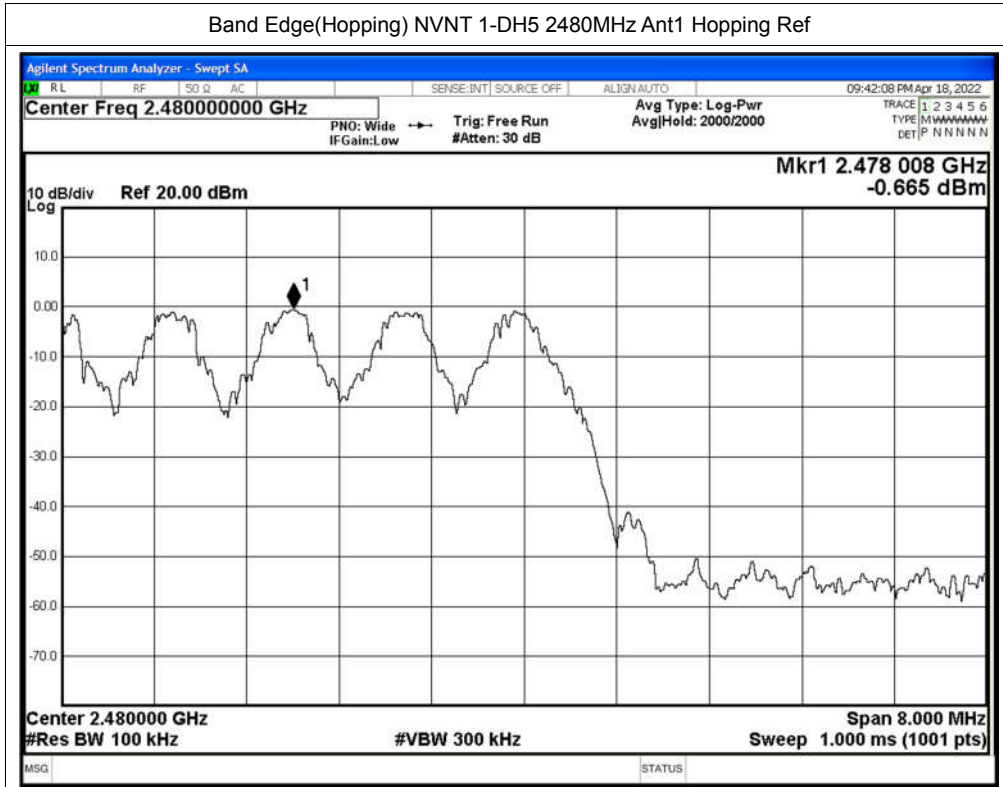
Test Graphs

Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



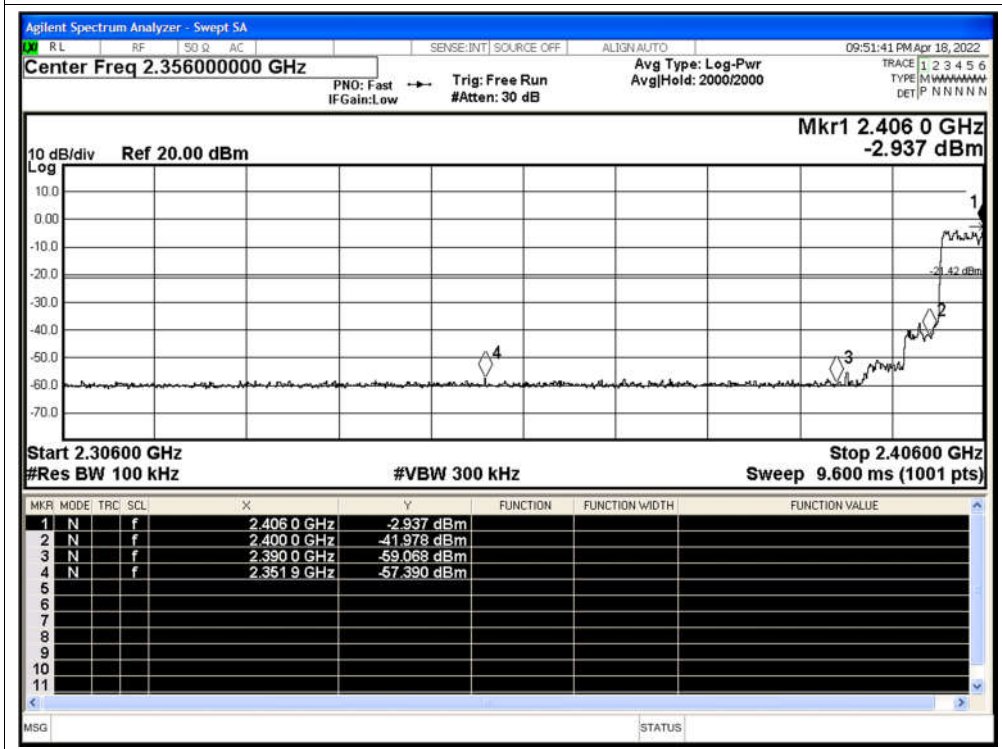




Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref

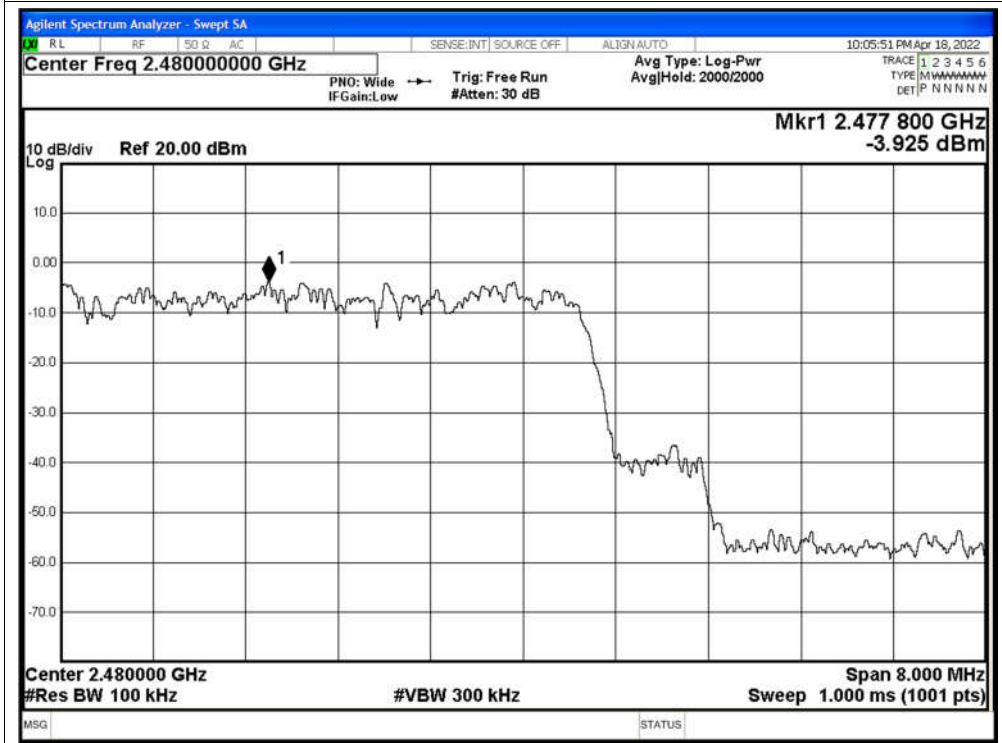


Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission

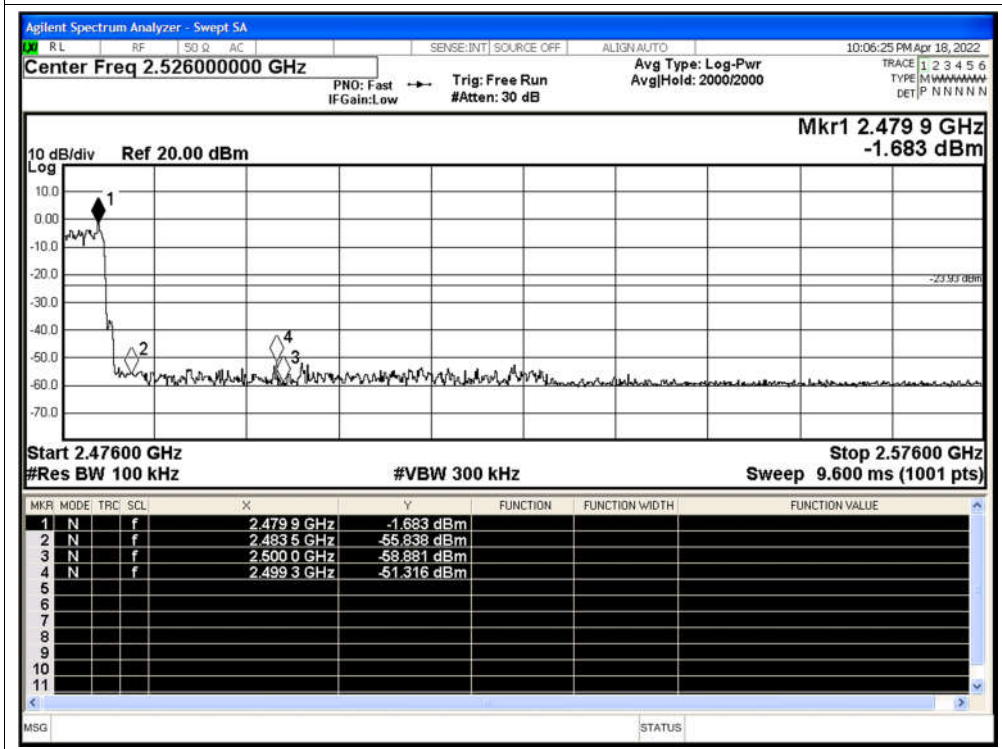




Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission





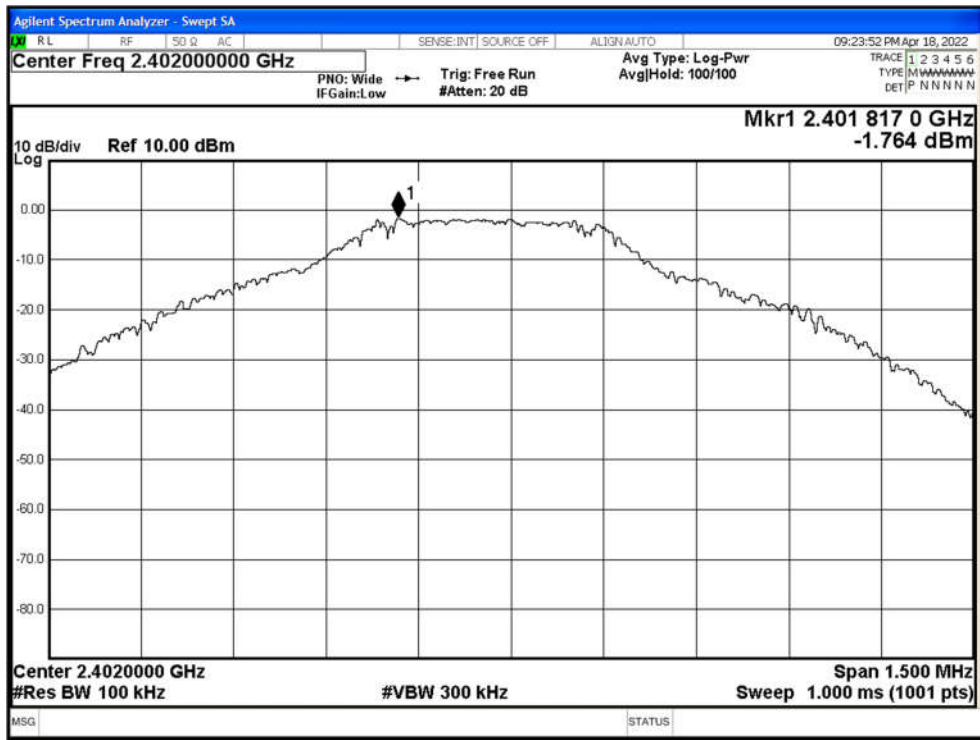
A.7 Conducted RF Spurious Emission

| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|-------|-----------------|---------|-----------------|-------------|---------|
| NVNT | 1-DH5 | 2402 | Ant1 | -43.66 | -20 | Pass |
| NVNT | 1-DH5 | 2441 | Ant1 | -36.9 | -20 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | -46.53 | -20 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | -45.94 | -20 | Pass |
| NVNT | 2-DH5 | 2441 | Ant1 | -43.13 | -20 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | -46.18 | -20 | Pass |

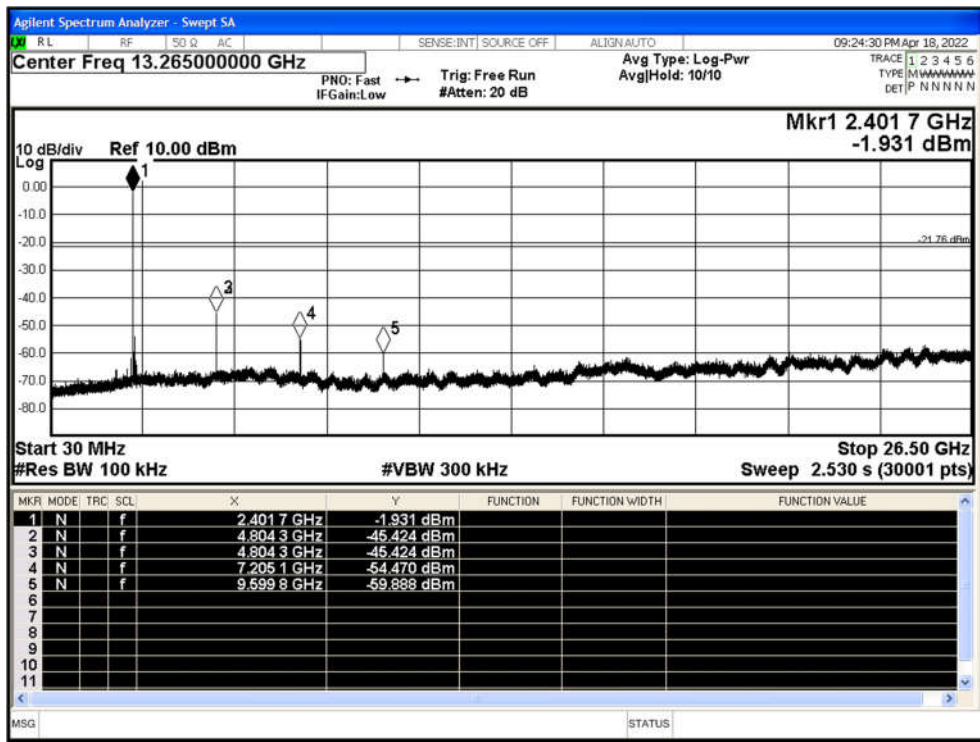


Test Graphs

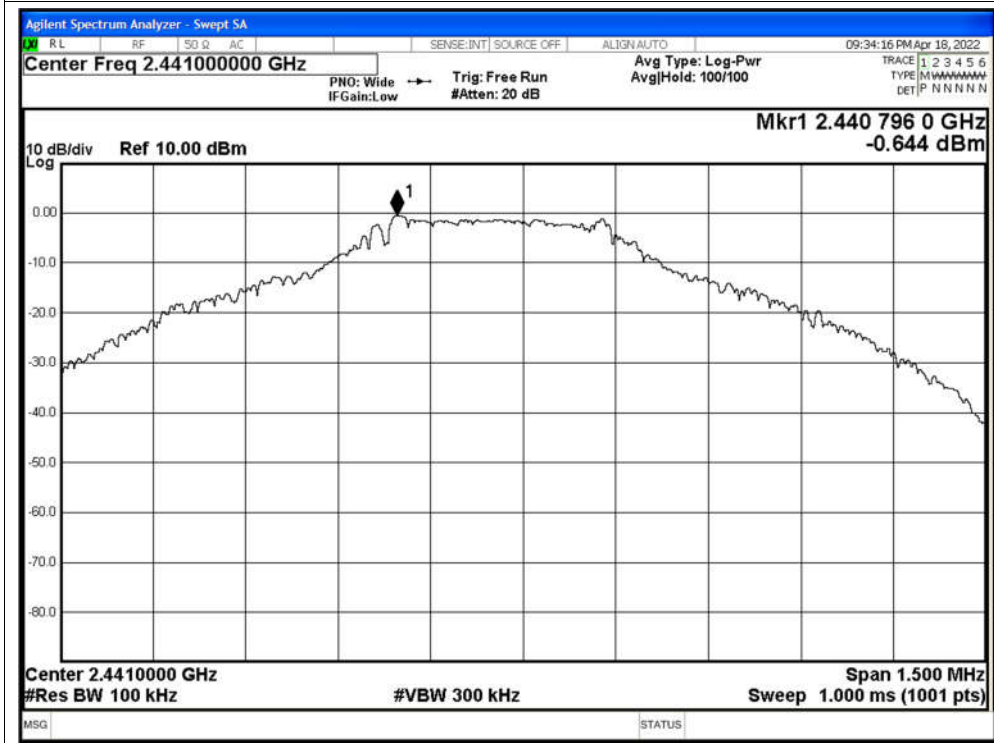
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



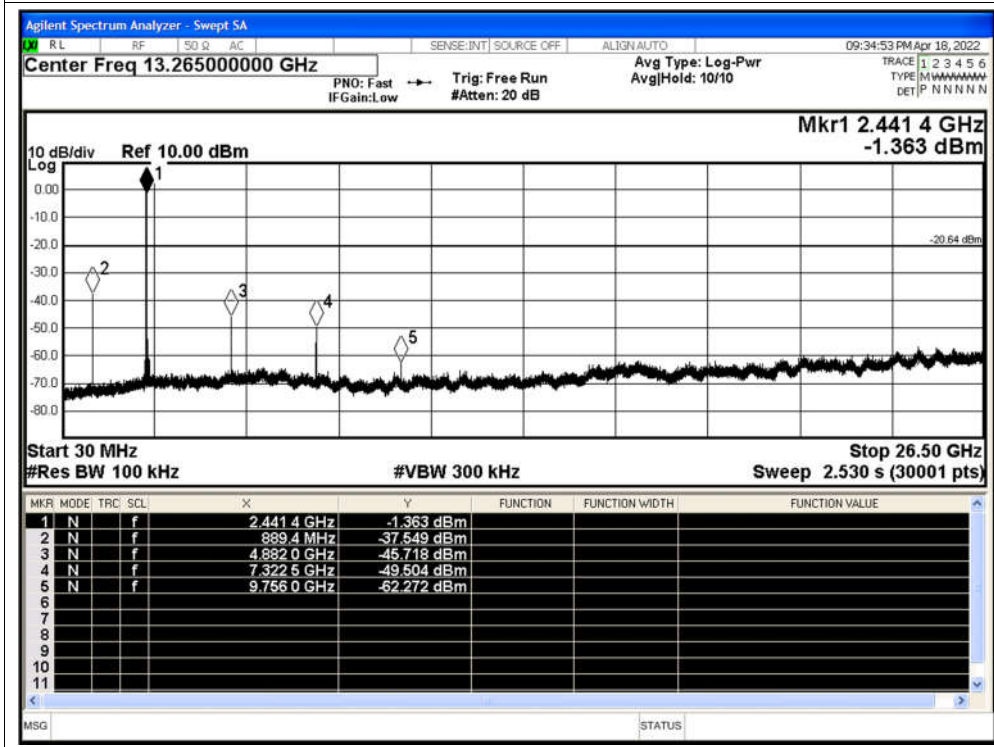
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref

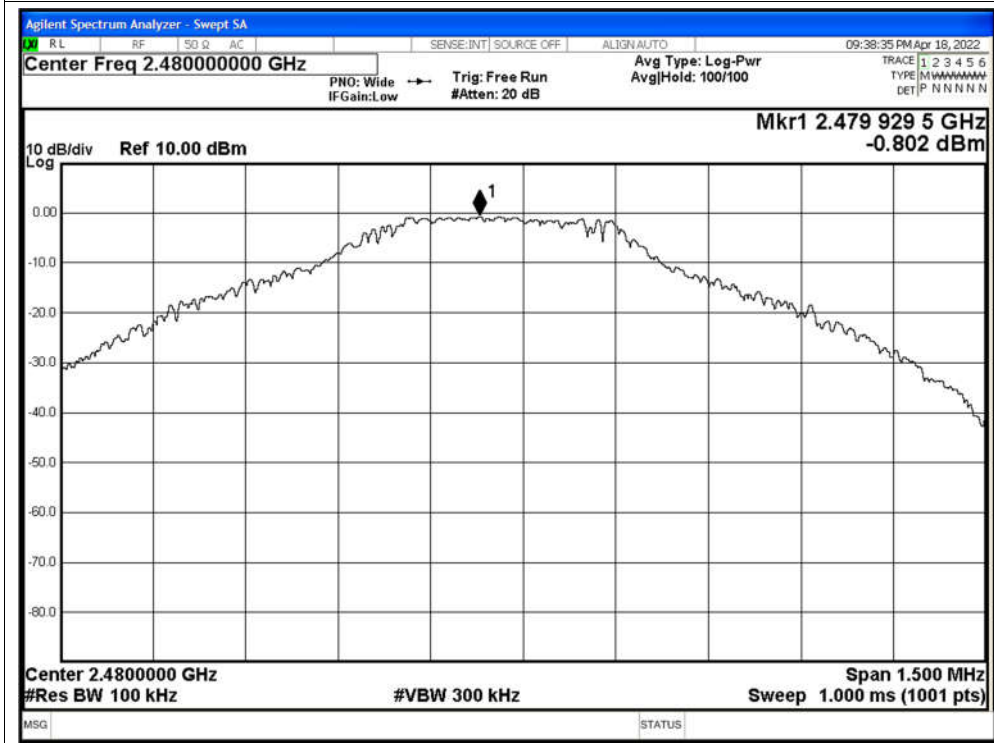


Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission

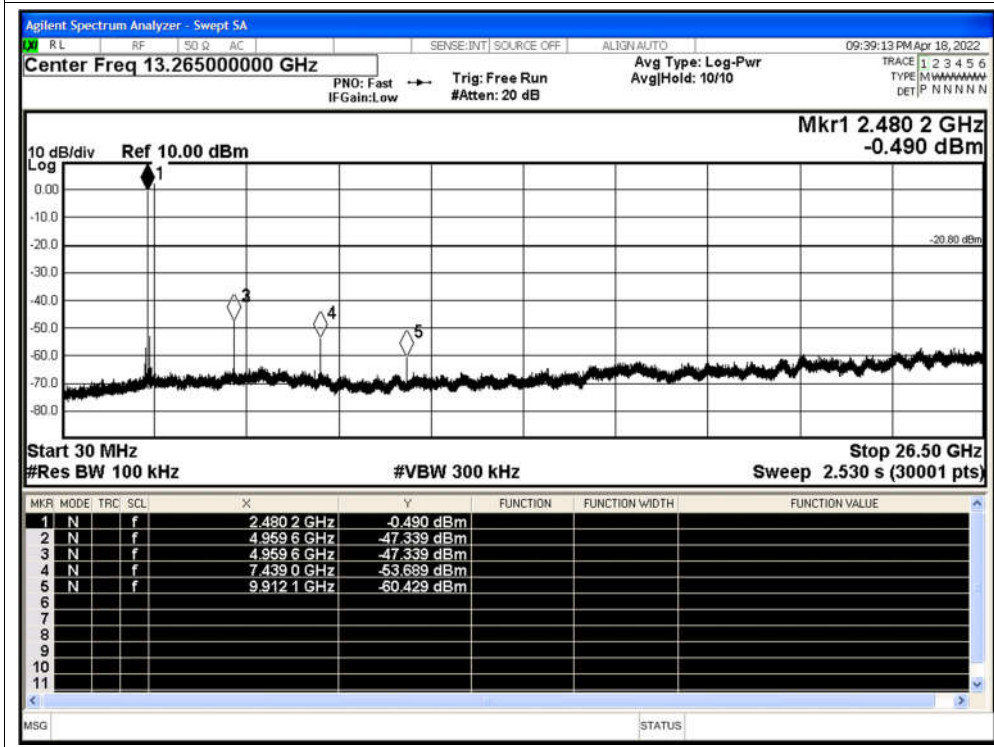




Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref

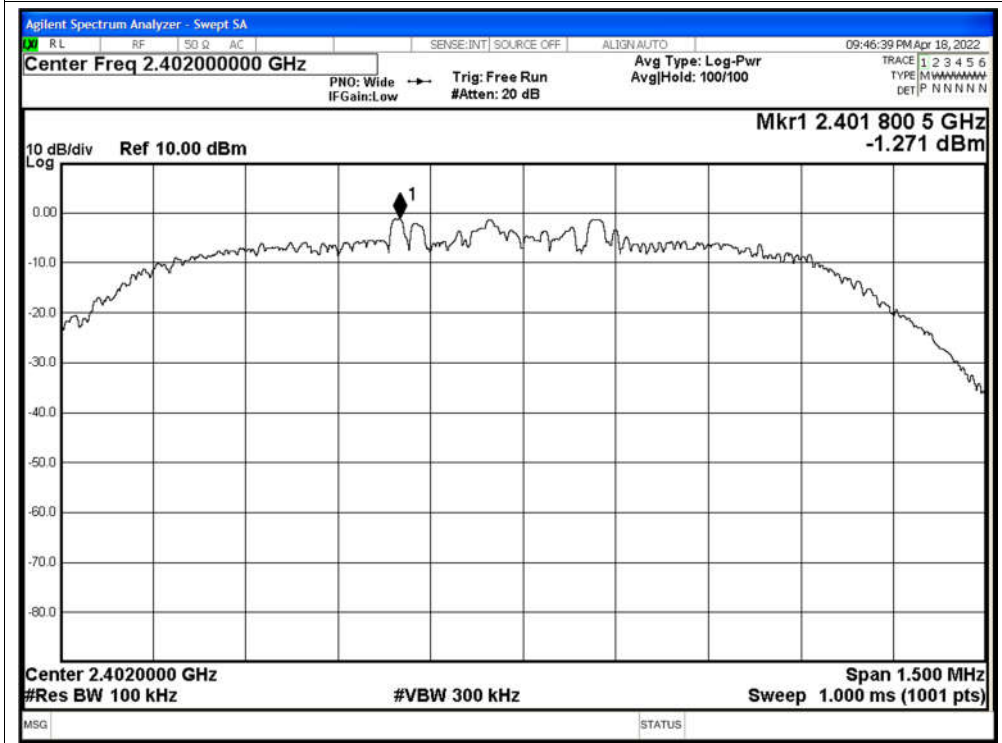


Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission

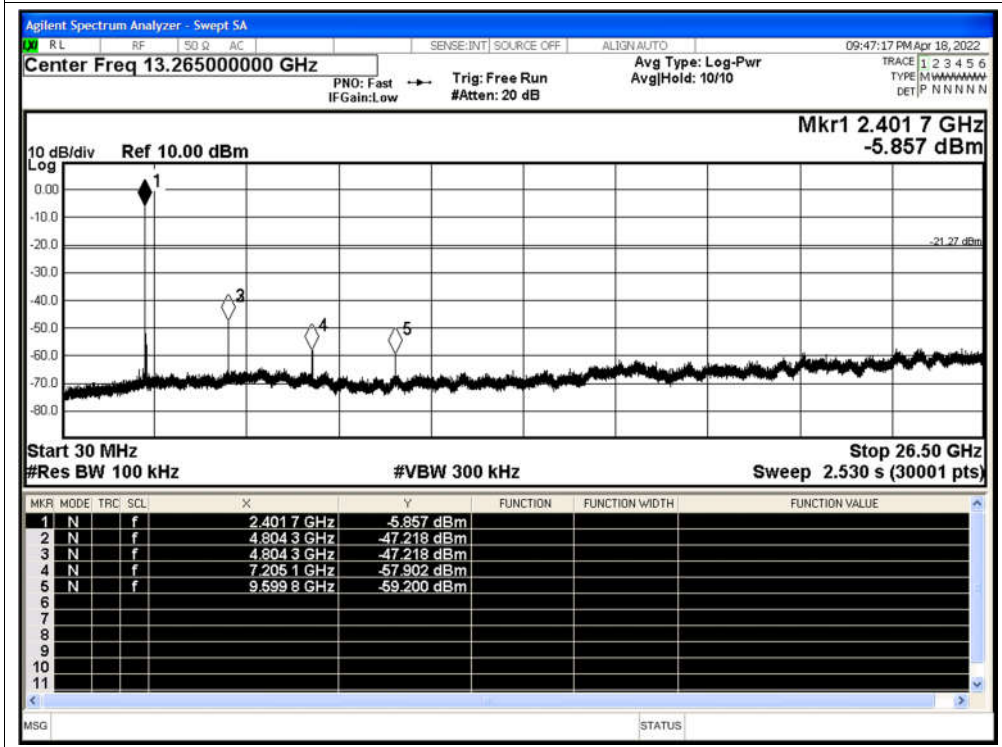




Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref

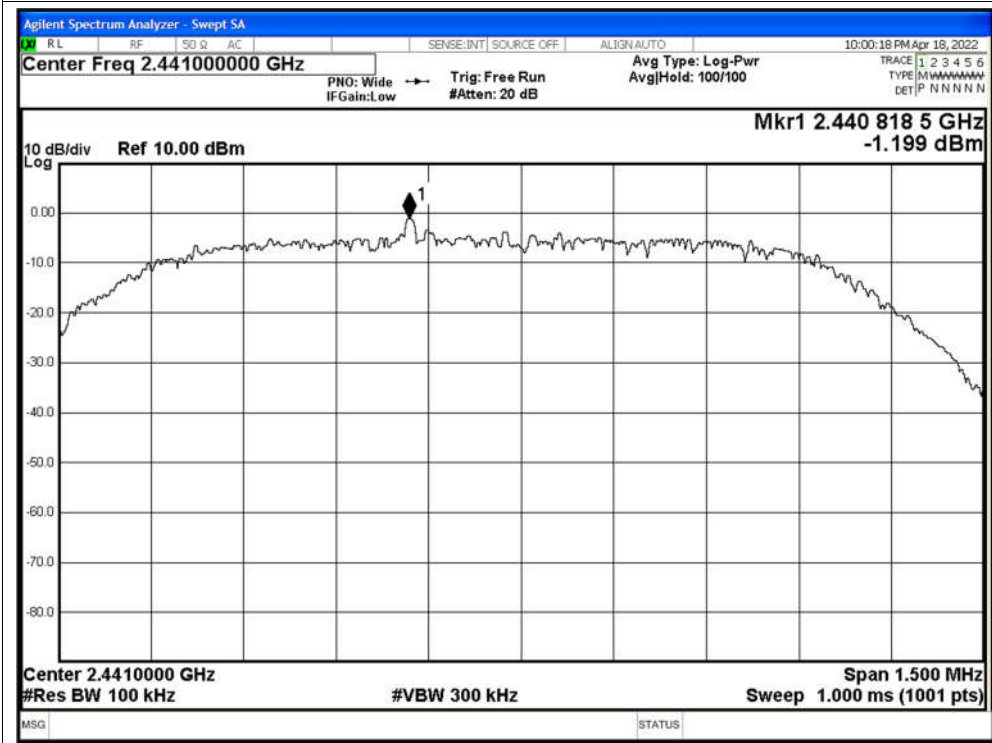


Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission

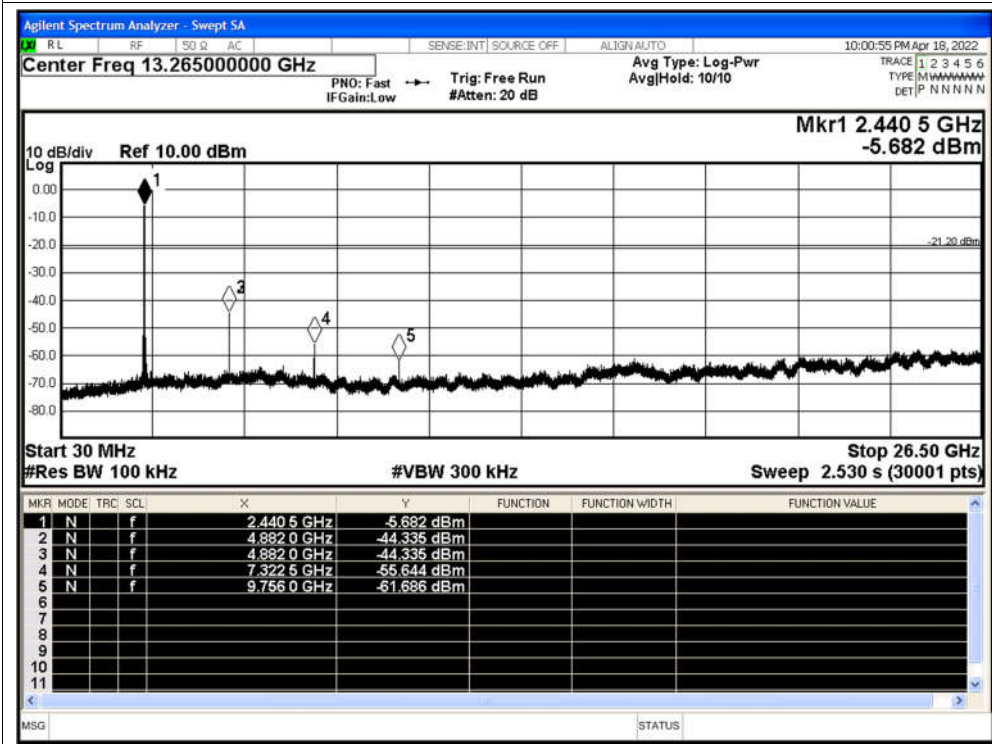




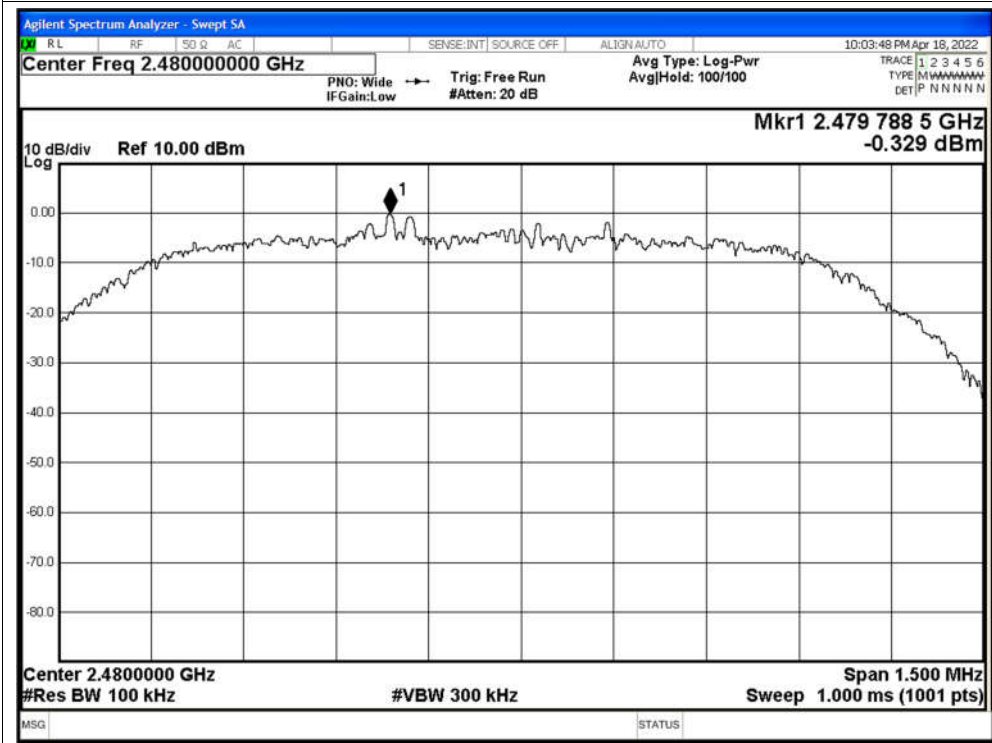
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



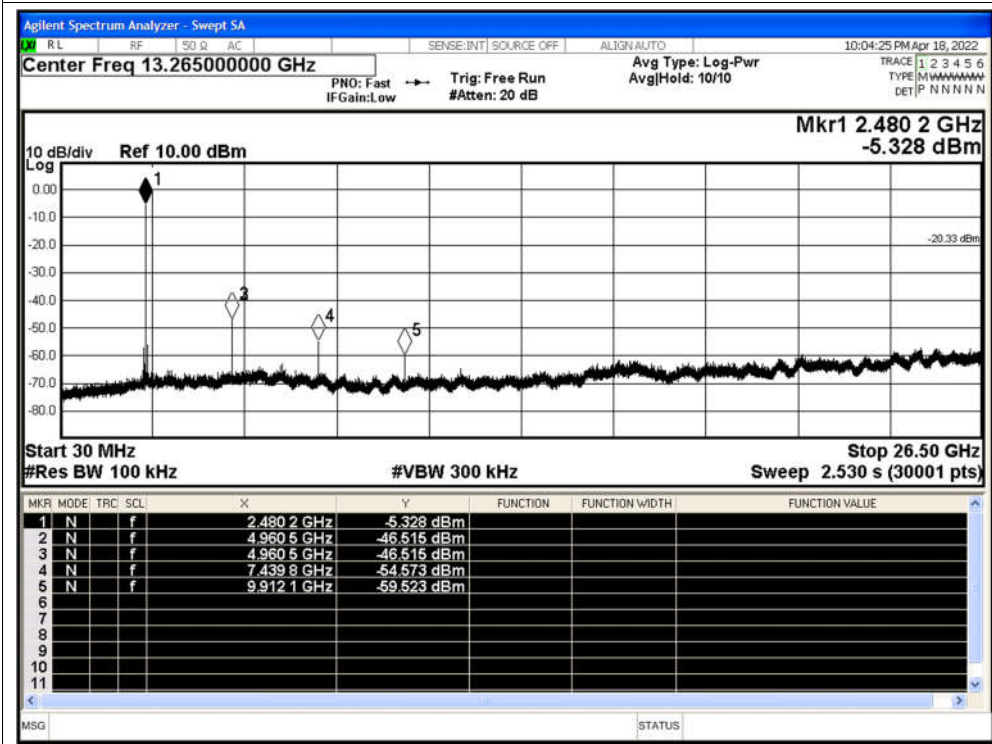
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission

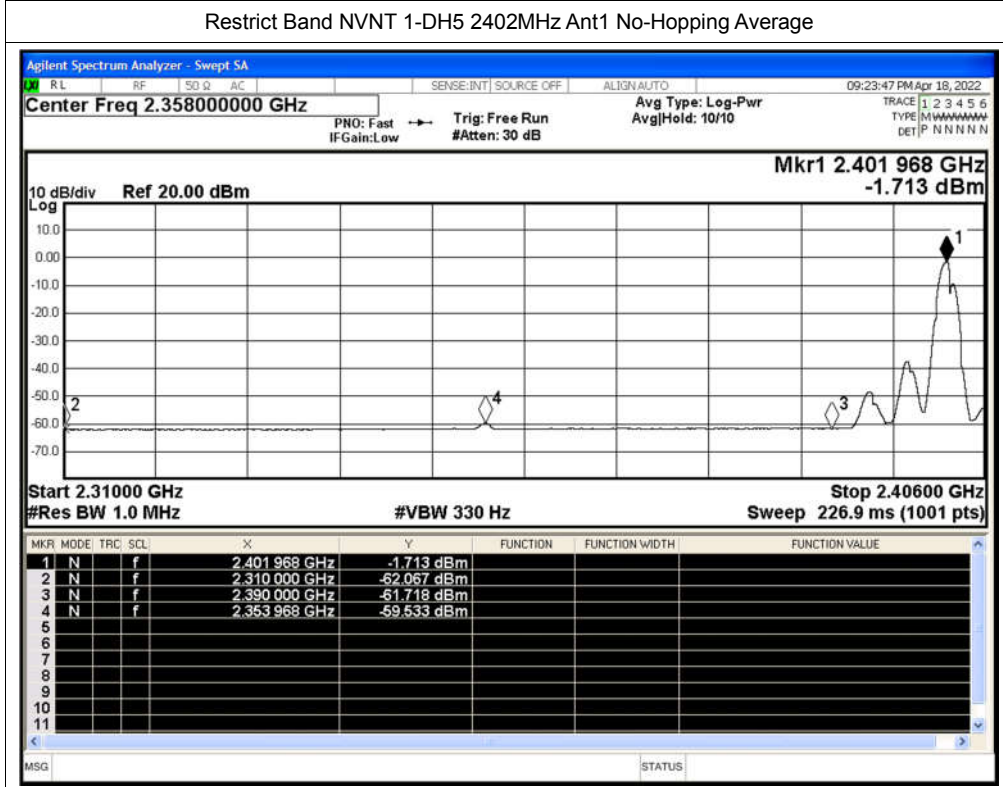
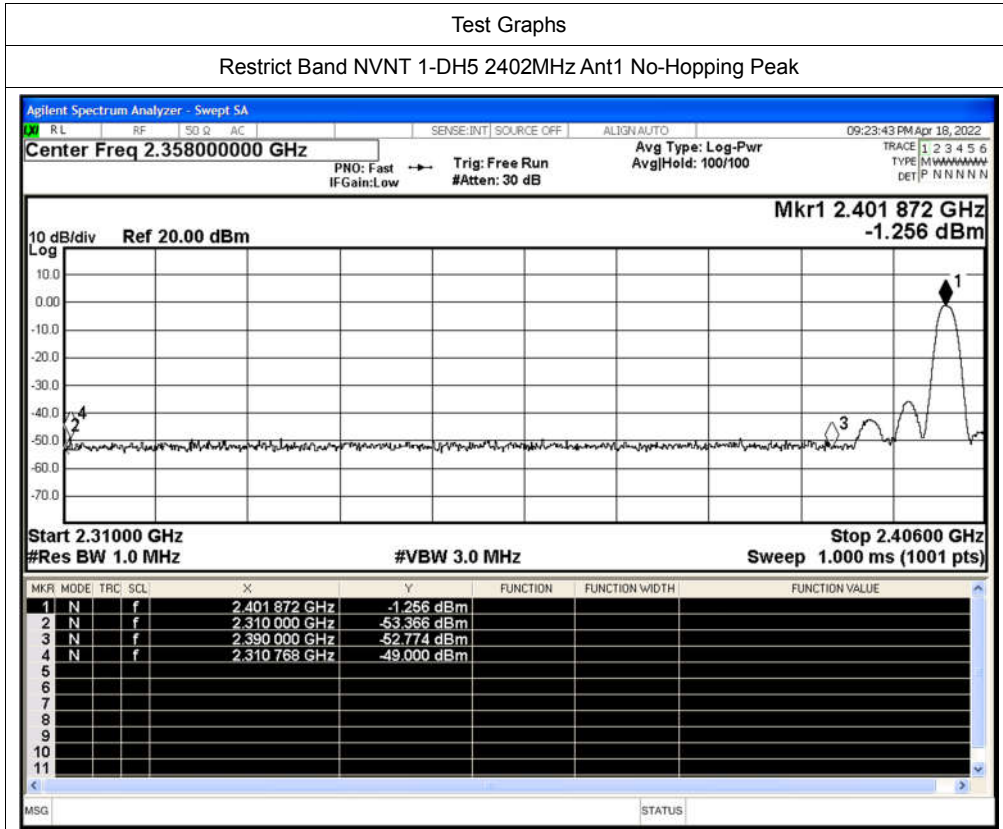




A.8 Restrict Band

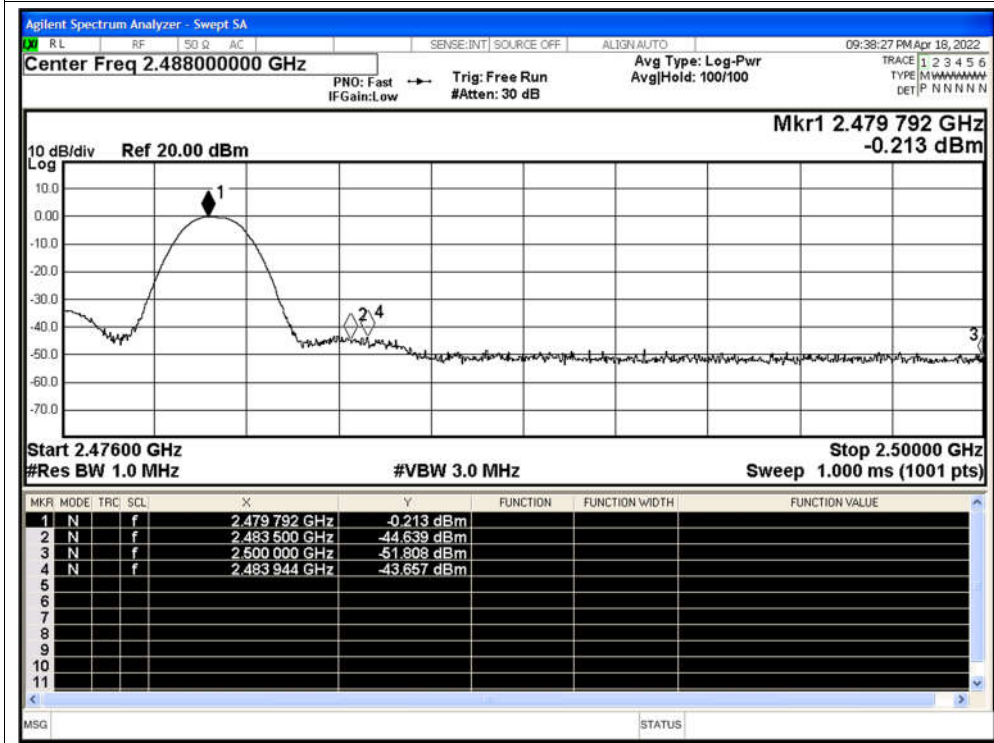
| Condition | Mode | Frequency (MHz) | Antenna | Hopping Mode | Spur Freq (MHz) | Power (dBm) | Gain (dBi) | E (dBUV/m) | Detector | Limit (dBUV/m) | Verdict |
|-----------|-------|-----------------|---------|--------------|-----------------|-------------|------------|------------|----------|----------------|---------|
| NVNT | 1-DH5 | 2402 | Ant1 | No-Hopping | 2310 | -53.36 | 2 | 43.9 | Peak | 74 | Pass |
| NVNT | 1-DH5 | 2402 | Ant1 | No-Hopping | 2310 | -62.06 | 2 | 35.2 | Average | 54 | Pass |
| NVNT | 1-DH5 | 2402 | Ant1 | No-Hopping | 2310.768 | -49 | 2 | 48.26 | Peak | 74 | Pass |
| NVNT | 1-DH5 | 2402 | Ant1 | No-Hopping | 2353.968 | -59.53 | 2 | 37.73 | Average | 54 | Pass |
| NVNT | 1-DH5 | 2402 | Ant1 | No-Hopping | 2390 | -52.75 | 2 | 44.51 | Peak | 74 | Pass |
| NVNT | 1-DH5 | 2402 | Ant1 | No-Hopping | 2390 | -61.67 | 2 | 35.59 | Average | 54 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | No-Hopping | 2483.5 | -44.63 | 2 | 52.63 | Peak | 74 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | No-Hopping | 2483.5 | -52.91 | 2 | 44.35 | Average | 54 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | No-Hopping | 2483.944 | -43.65 | 2 | 53.61 | Peak | 74 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | No-Hopping | 2483.992 | -52.04 | 2 | 45.22 | Average | 54 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | No-Hopping | 2500 | -51.8 | 2 | 45.46 | Peak | 74 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | No-Hopping | 2500 | -61.38 | 2 | 35.88 | Average | 54 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | No-Hopping | 2310 | -52.5 | 2 | 44.76 | Peak | 74 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | No-Hopping | 2310 | -61.93 | 2 | 35.33 | Average | 54 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | No-Hopping | 2386.224 | -48.92 | 2 | 48.34 | Peak | 74 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | No-Hopping | 2354.16 | -60.27 | 2 | 36.99 | Average | 54 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | No-Hopping | 2390 | -51.6 | 2 | 45.66 | Peak | 74 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | No-Hopping | 2390 | -61.58 | 2 | 35.68 | Average | 54 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | No-Hopping | 2483.5 | -46.12 | 2 | 51.14 | Peak | 74 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | No-Hopping | 2483.5 | -54.89 | 2 | 42.37 | Average | 54 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | No-Hopping | 2483.776 | -43.9 | 2 | 53.36 | Peak | 74 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | No-Hopping | 2483.68 | -54.61 | 2 | 42.65 | Average | 54 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | No-Hopping | 2500 | -50.21 | 2 | 47.05 | Peak | 74 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | No-Hopping | 2500 | -61.48 | 2 | 35.78 | Average | 54 | Pass |



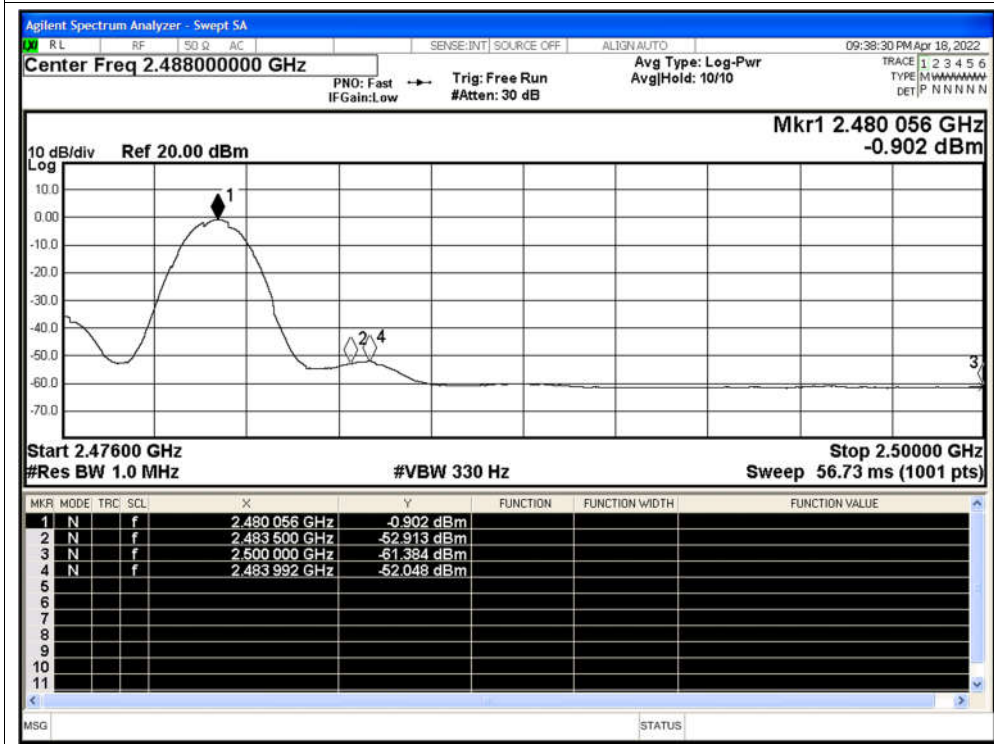




Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak

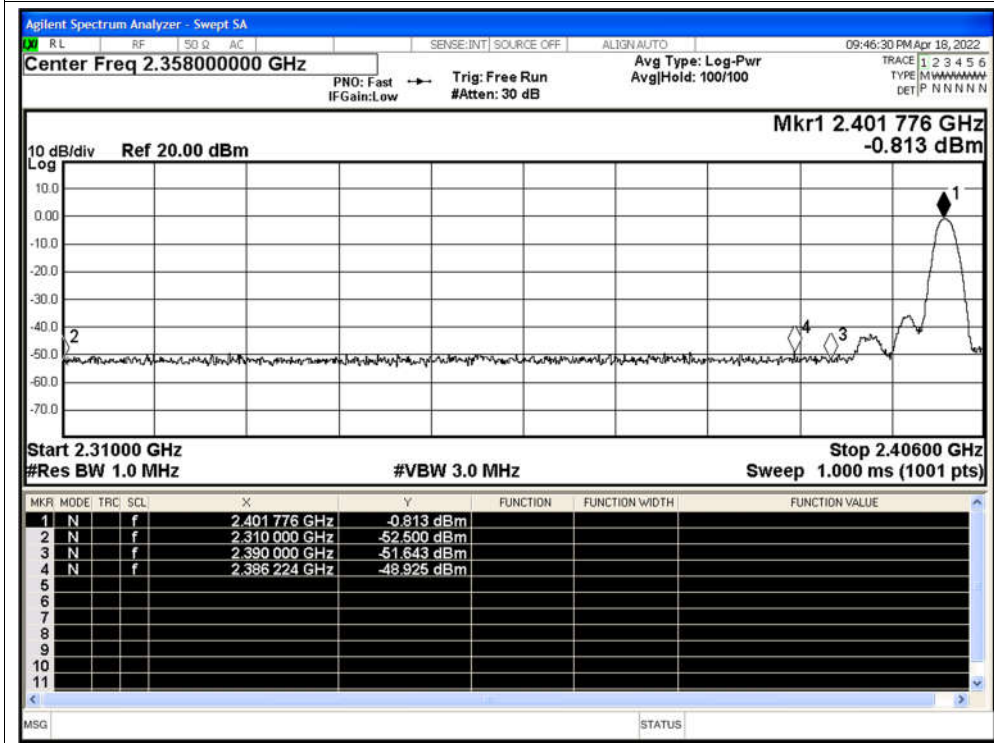


Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average

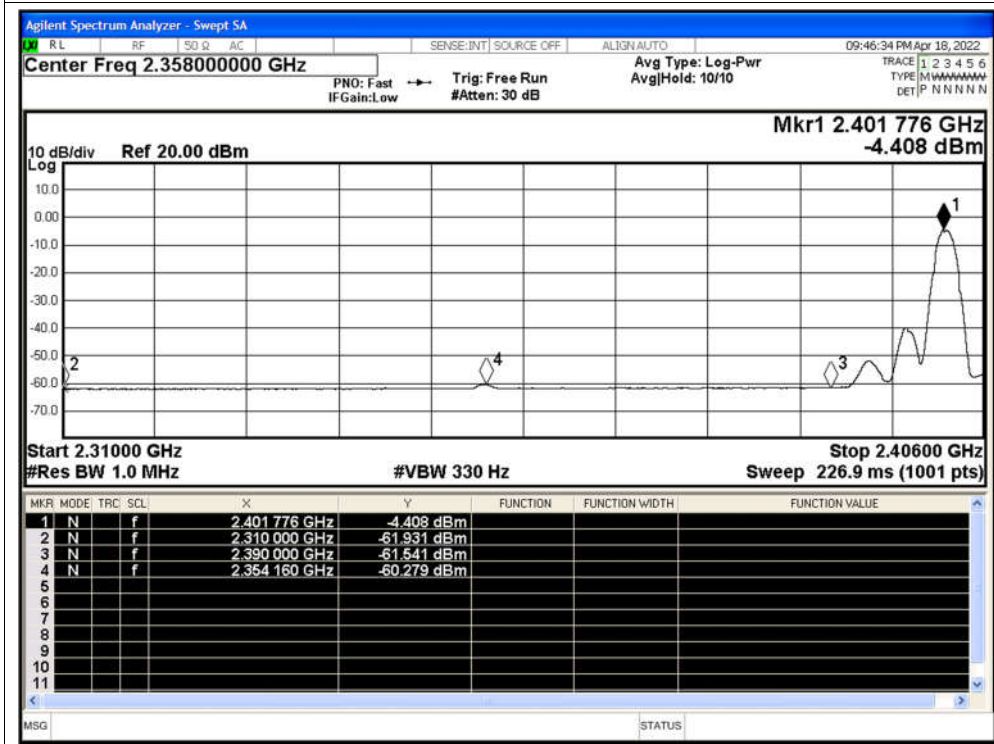




Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak

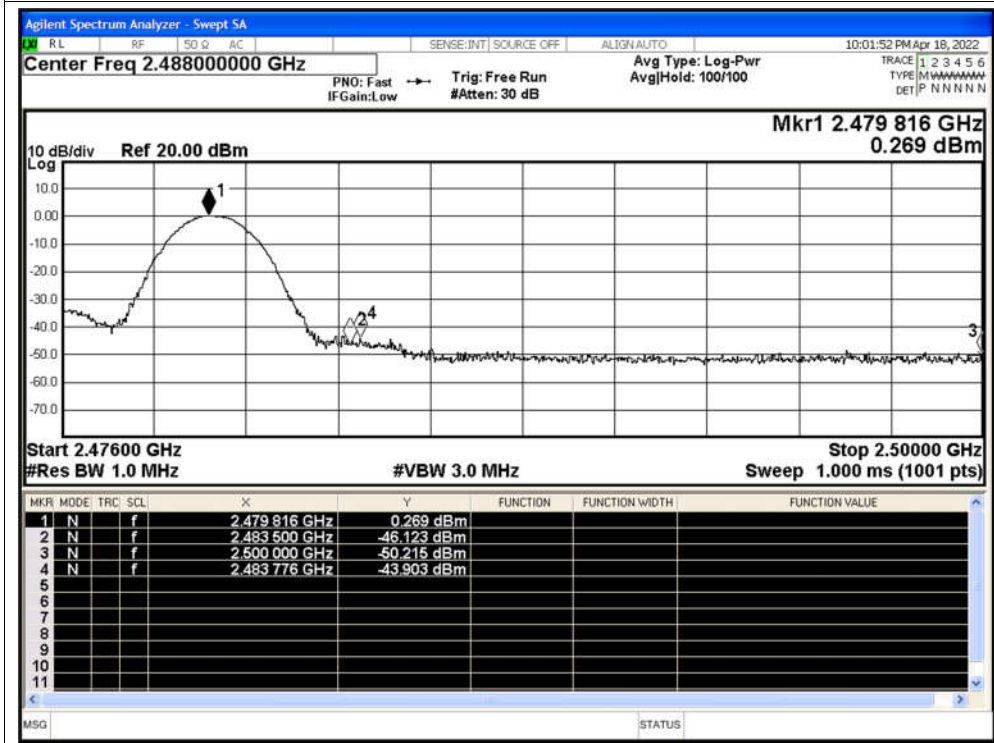


Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average





Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak



Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average

