



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Ambient Monitoring Sensor

Test Model: AMS-R2O-C

Environmental Conditions

| | |
|--------------------|-----------|
| Temperature: | 23.8°C |
| Relative Humidity: | 52.1% |
| ATM Pressure: | 100.0 kPa |
| Test Engineer: | Jay Luo |
| Supervised by: | Nick Peng |





A.1 -20dB Bandwidth

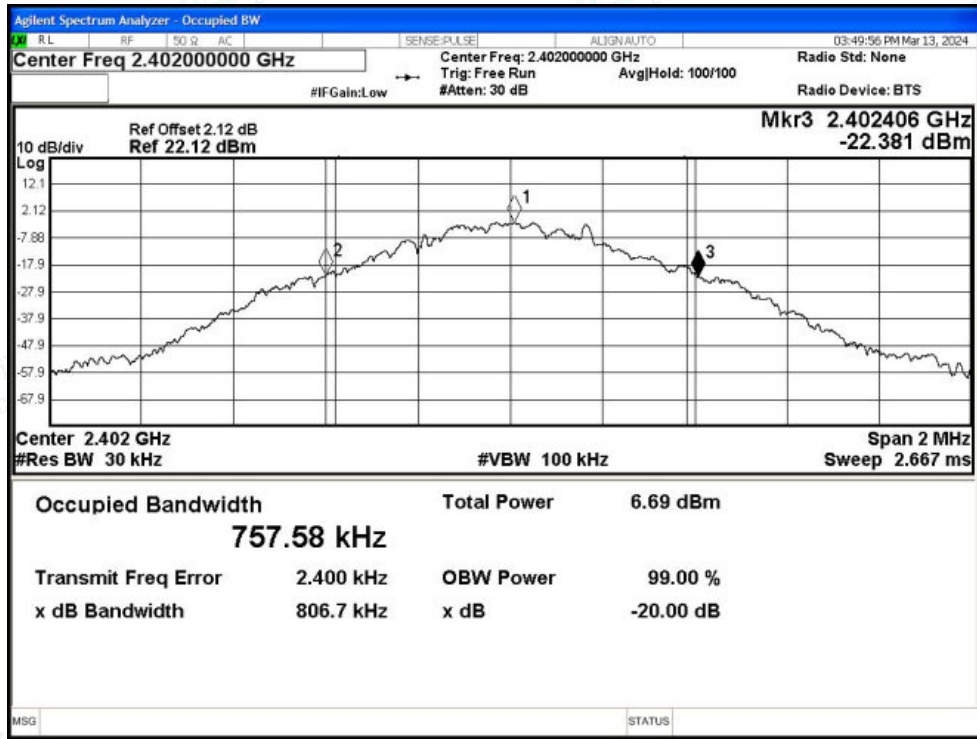
| Condition | Mode | Frequency (MHz) | Antenna | -20 dB Bandwidth (MHz) | Limit -20 dB Bandwidth (MHz) | Verdict |
|-----------|-------|-----------------|---------|------------------------|------------------------------|---------|
| NVNT | 1-DH5 | 2402 | Ant1 | 0.807 | N/A | Pass |
| NVNT | 1-DH5 | 2441 | Ant1 | 0.895 | N/A | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | 0.845 | N/A | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | 1.276 | N/A | Pass |
| NVNT | 2-DH5 | 2441 | Ant1 | 1.279 | N/A | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | 1.327 | N/A | Pass |
| NVNT | 3-DH5 | 2402 | Ant1 | 1.253 | N/A | Pass |
| NVNT | 3-DH5 | 2441 | Ant1 | 1.304 | N/A | Pass |
| NVNT | 3-DH5 | 2480 | Ant1 | 1.31 | N/A | Pass |



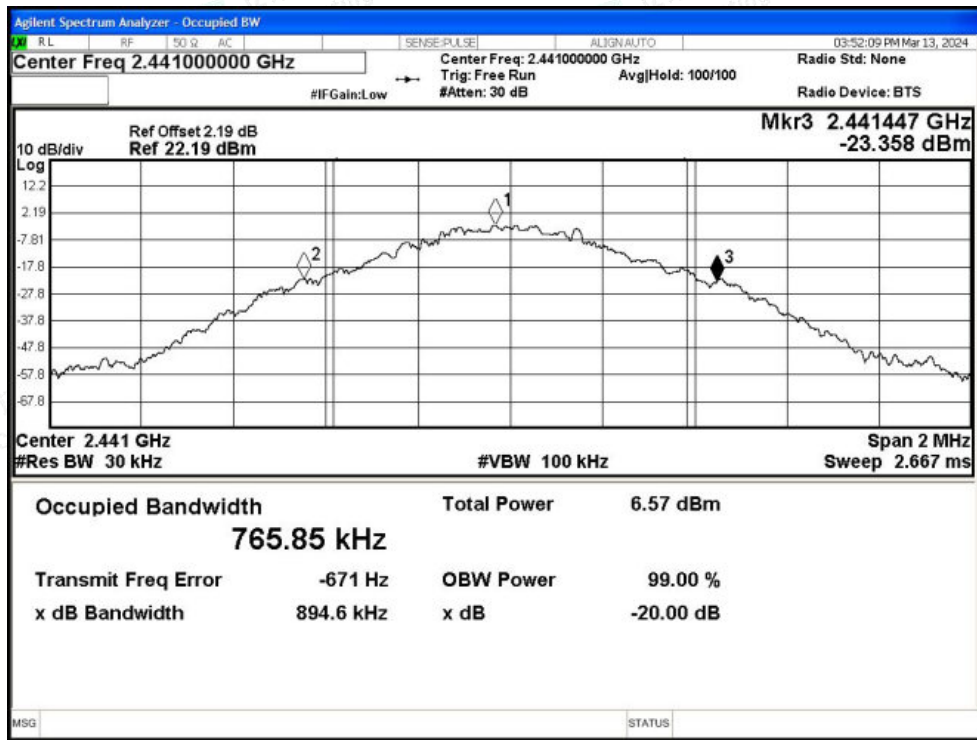


Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1

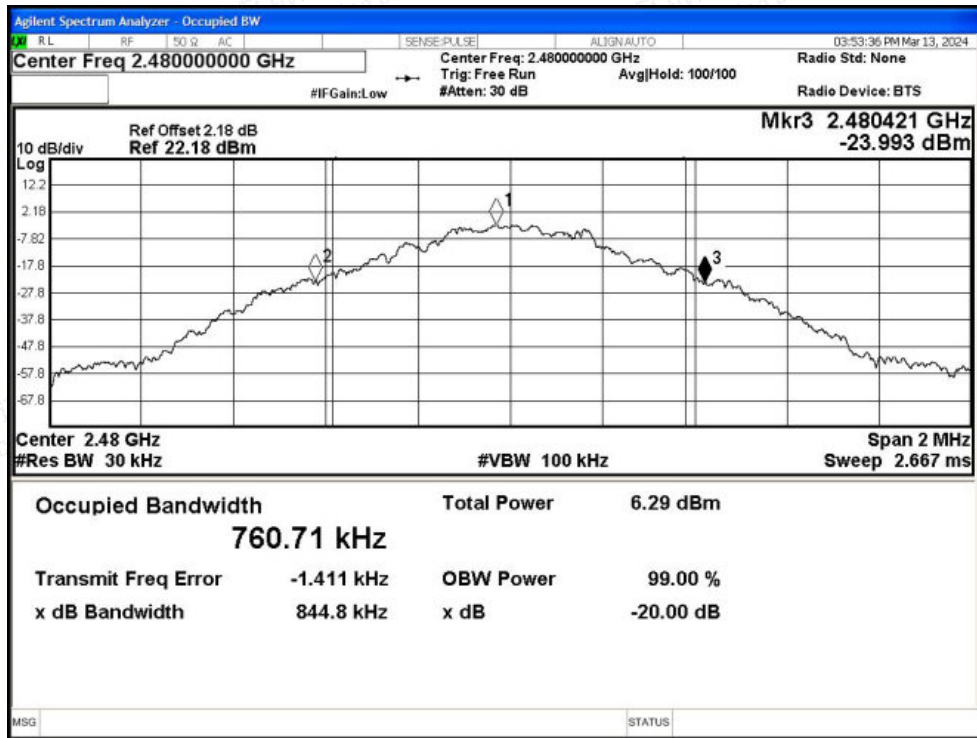


-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1





-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1

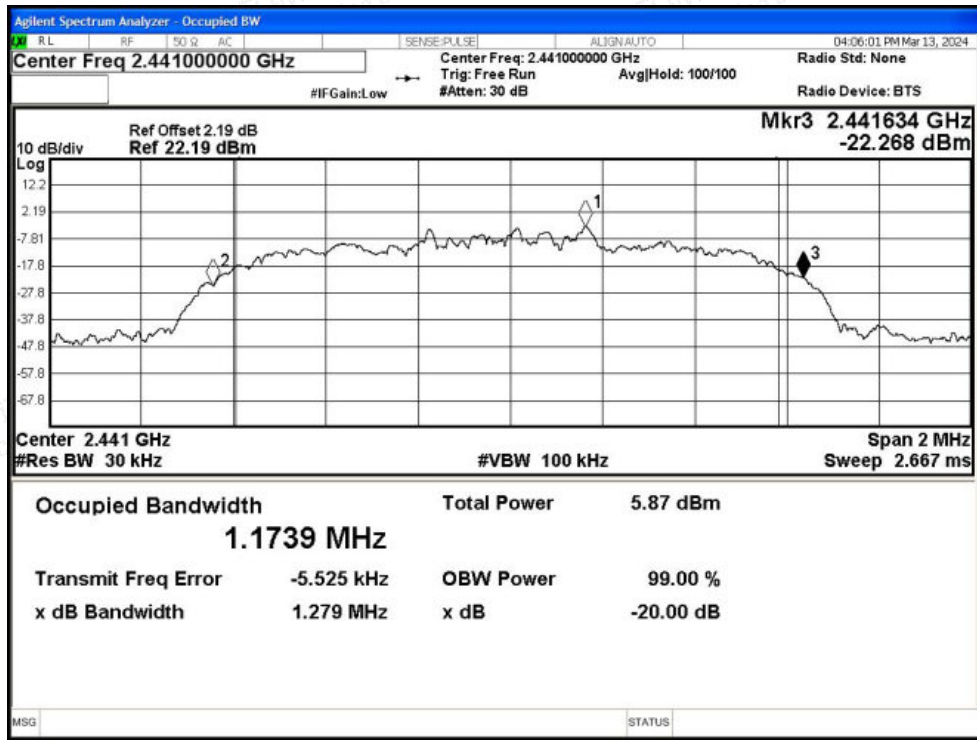


-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1

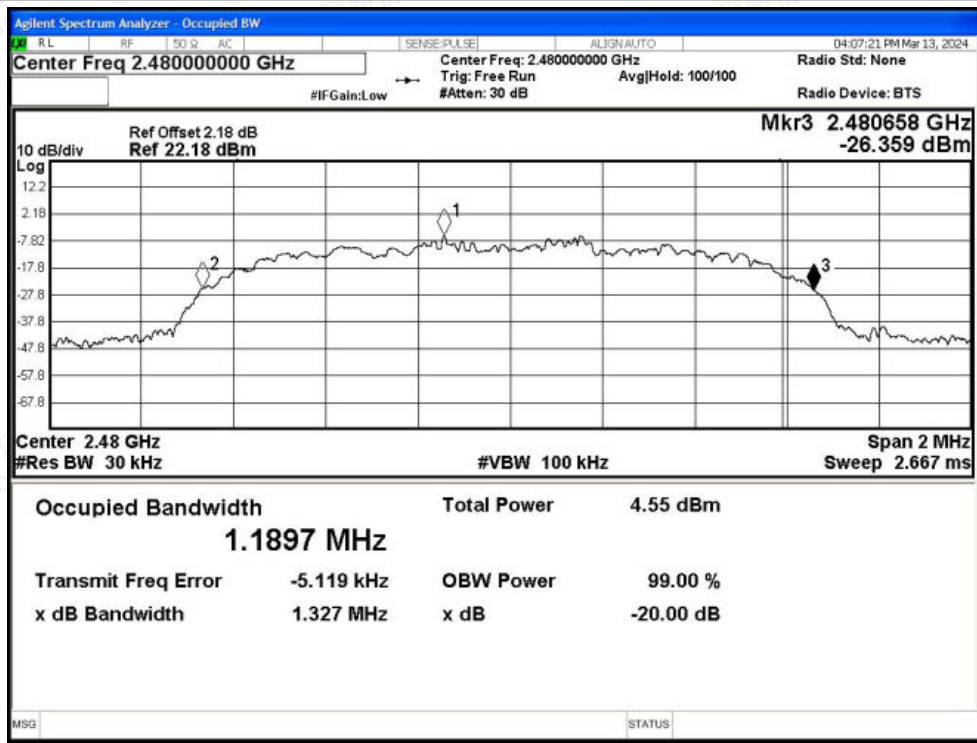




-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1

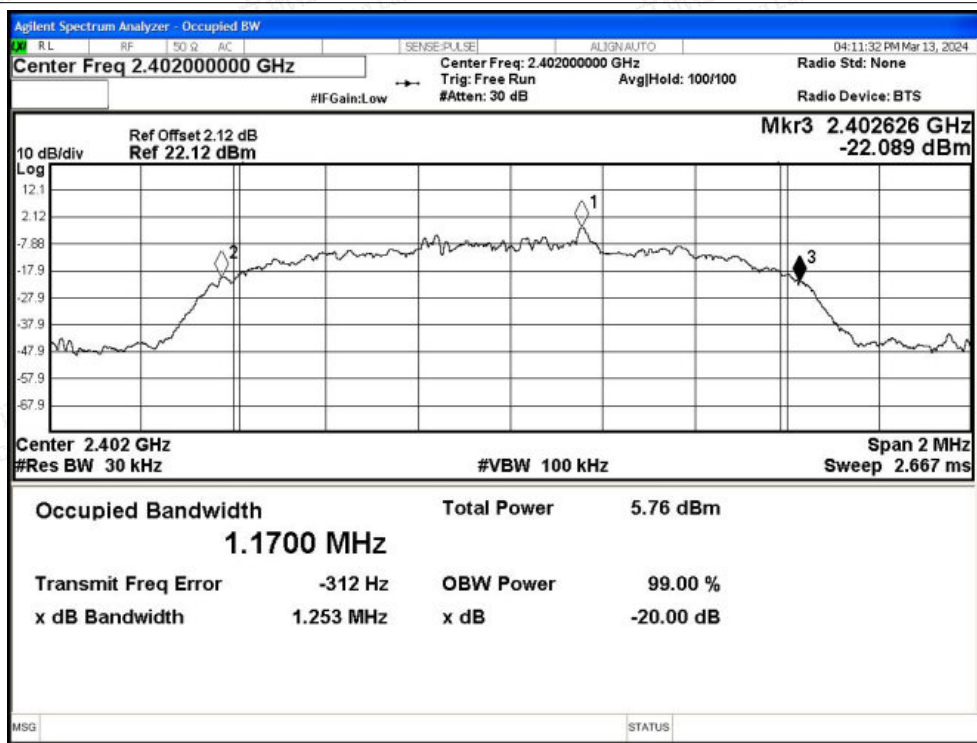


-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

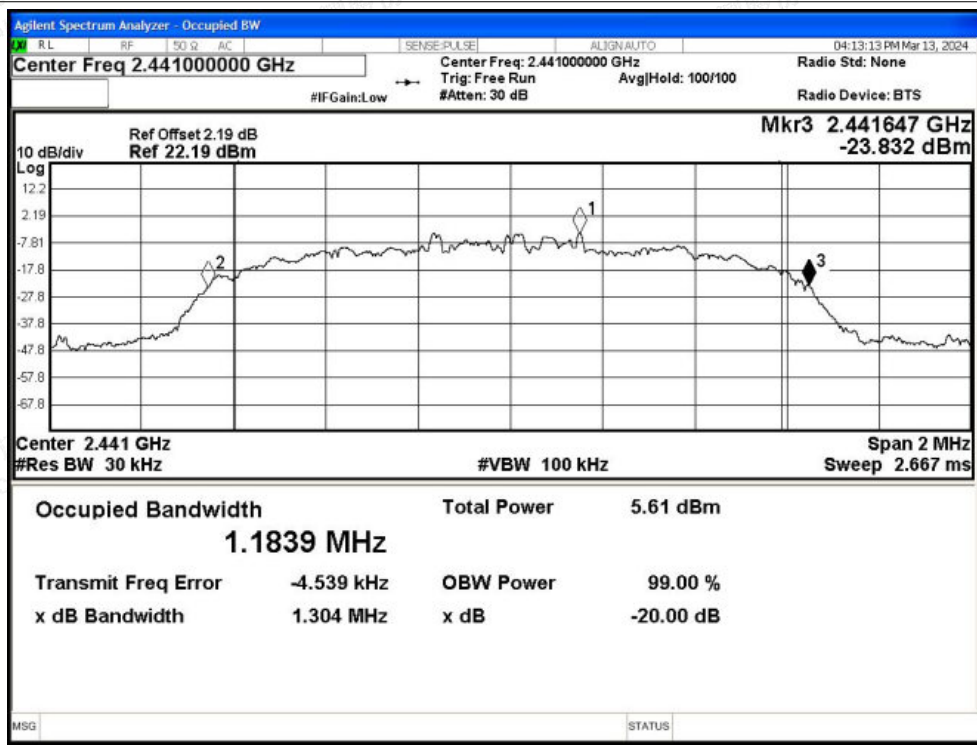




-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1

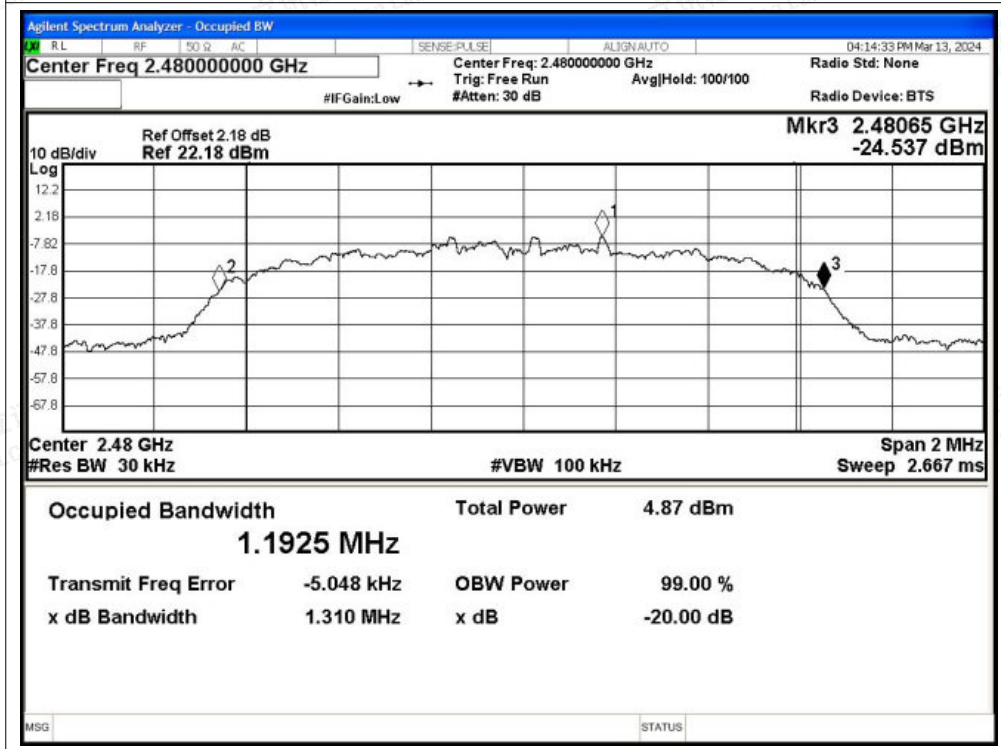


-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1





-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1





A.2 Maximum Conducted Output Power

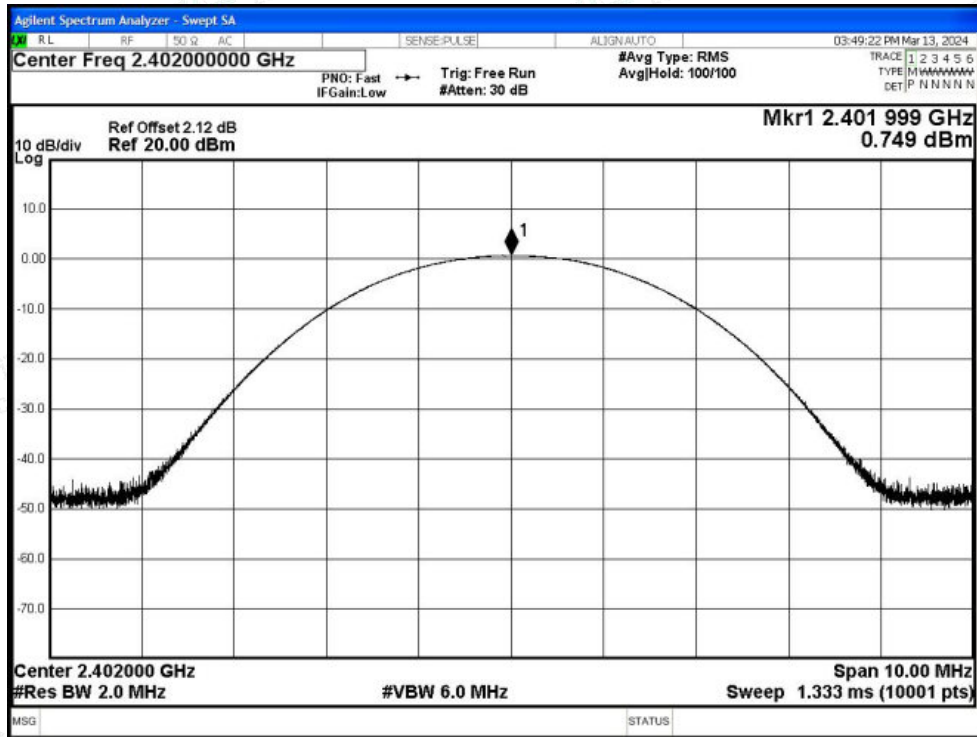
| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Limit (dBm) | Verdict |
|-----------|-------|-----------------|---------|-----------------------|-------------|---------|
| NVNT | 1-DH5 | 2402 | Ant1 | 0.75 | 21 | Pass |
| NVNT | 1-DH5 | 2441 | Ant1 | 0.68 | 21 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | 0.18 | 21 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | 0.8 | 21 | Pass |
| NVNT | 2-DH5 | 2441 | Ant1 | 0.78 | 21 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | 0.22 | 21 | Pass |
| NVNT | 3-DH5 | 2402 | Ant1 | 0.77 | 21 | Pass |
| NVNT | 3-DH5 | 2441 | Ant1 | 0.76 | 21 | Pass |
| NVNT | 3-DH5 | 2480 | Ant1 | 0.23 | 21 | Pass |



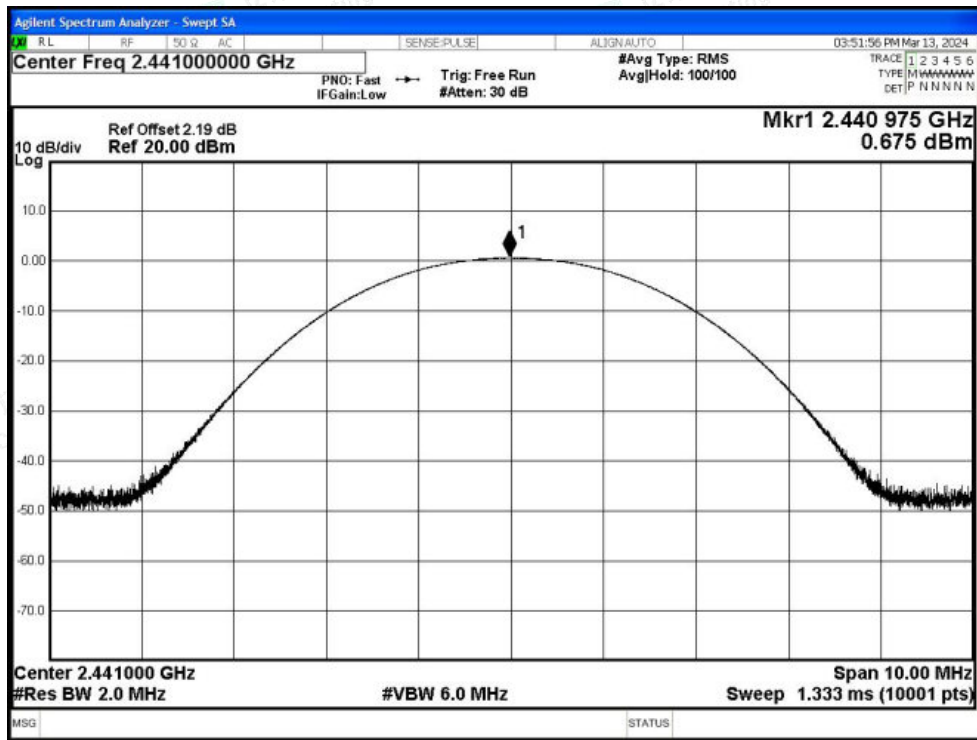


Test Graphs

Power NVNT 1-DH5 2402MHz Ant1

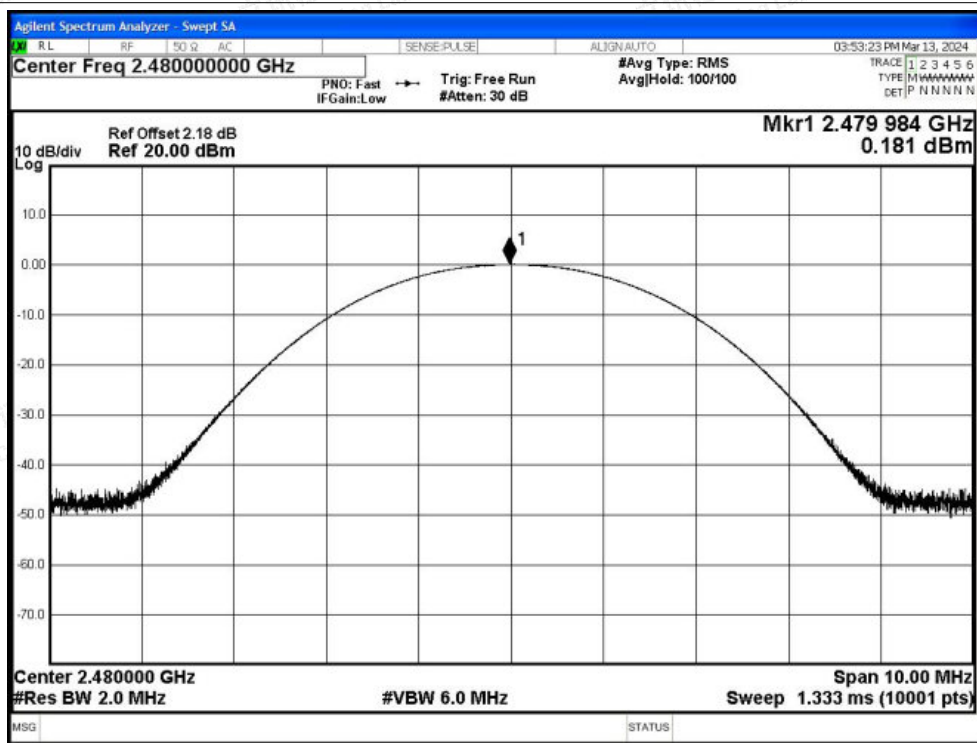


Power NVNT 1-DH5 2441MHz Ant1

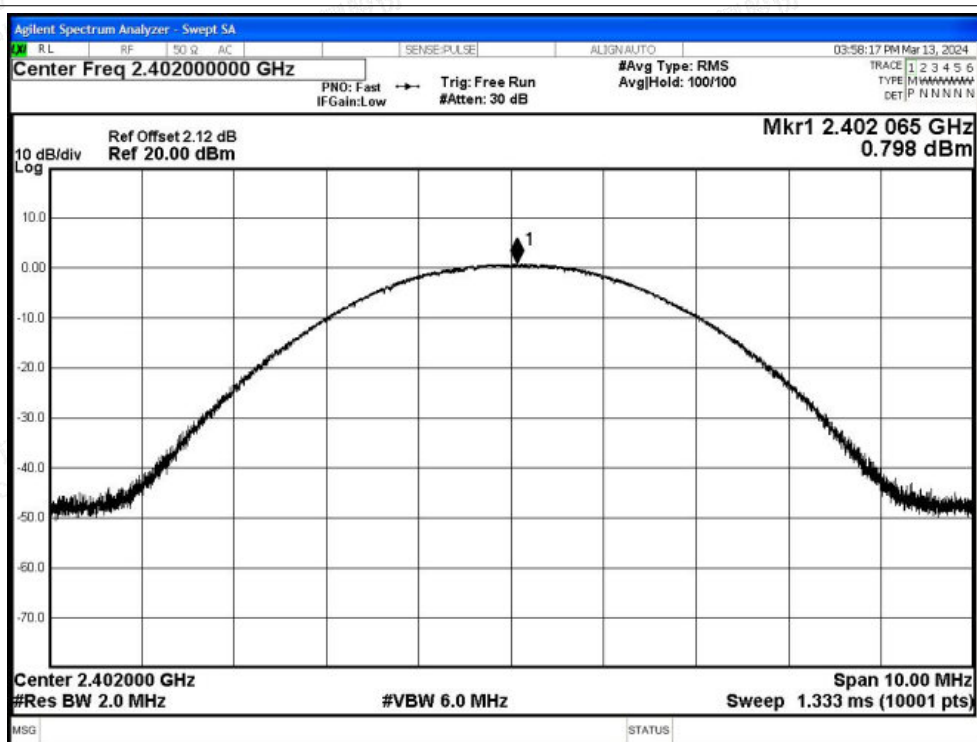




Power NVNT 1-DH5 2480MHz Ant1

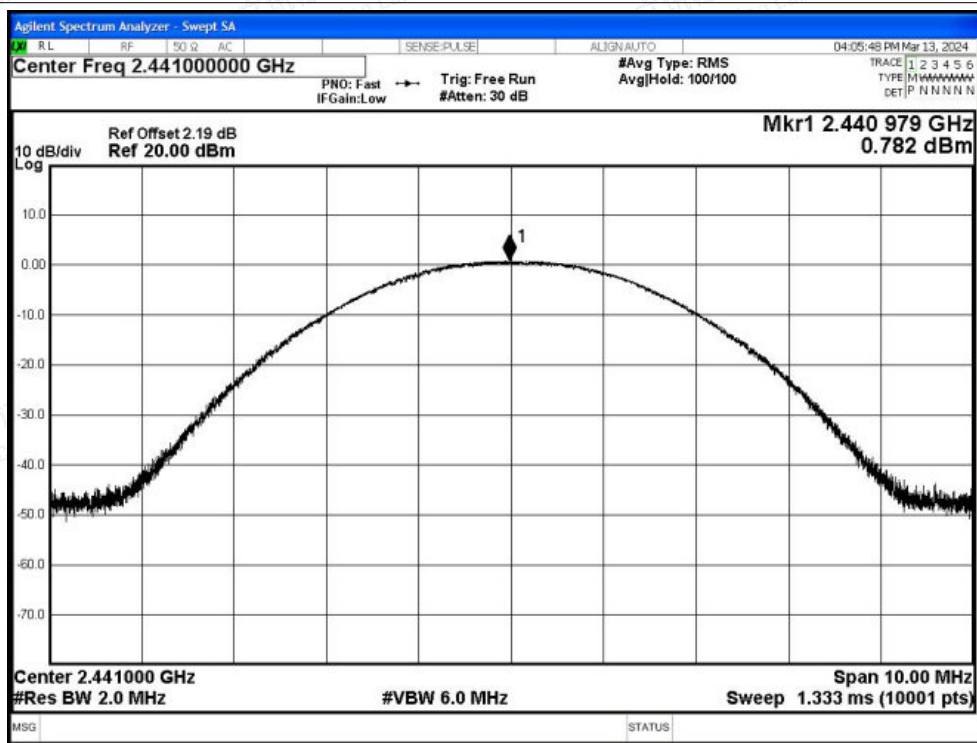


Power NVNT 2-DH5 2402MHz Ant1

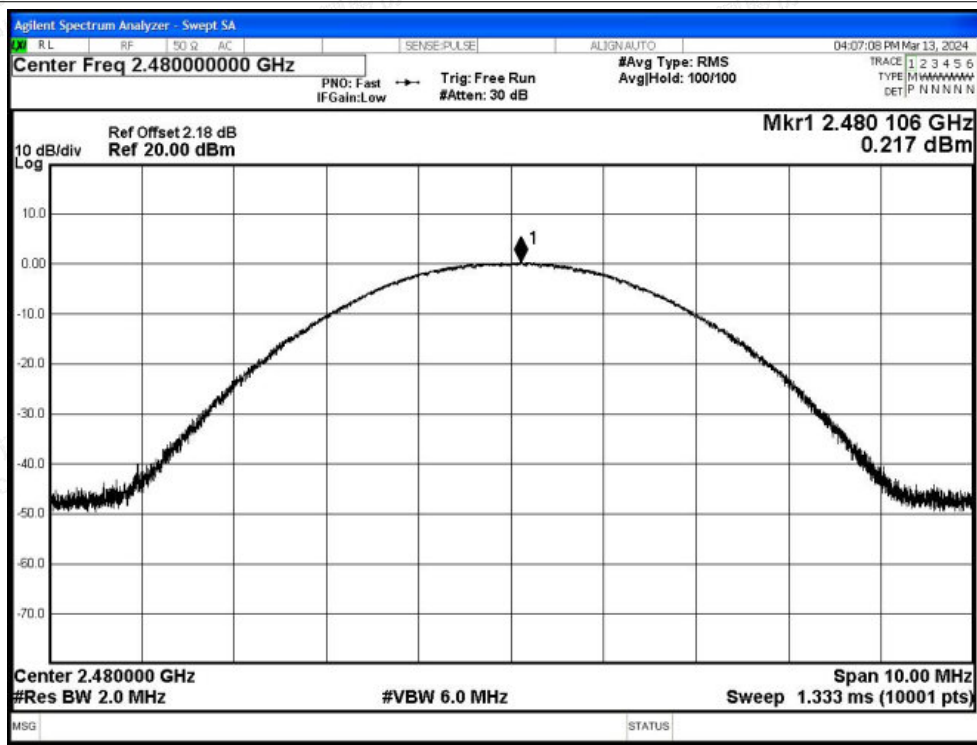




Power NVNT 2-DH5 2441MHz Ant1

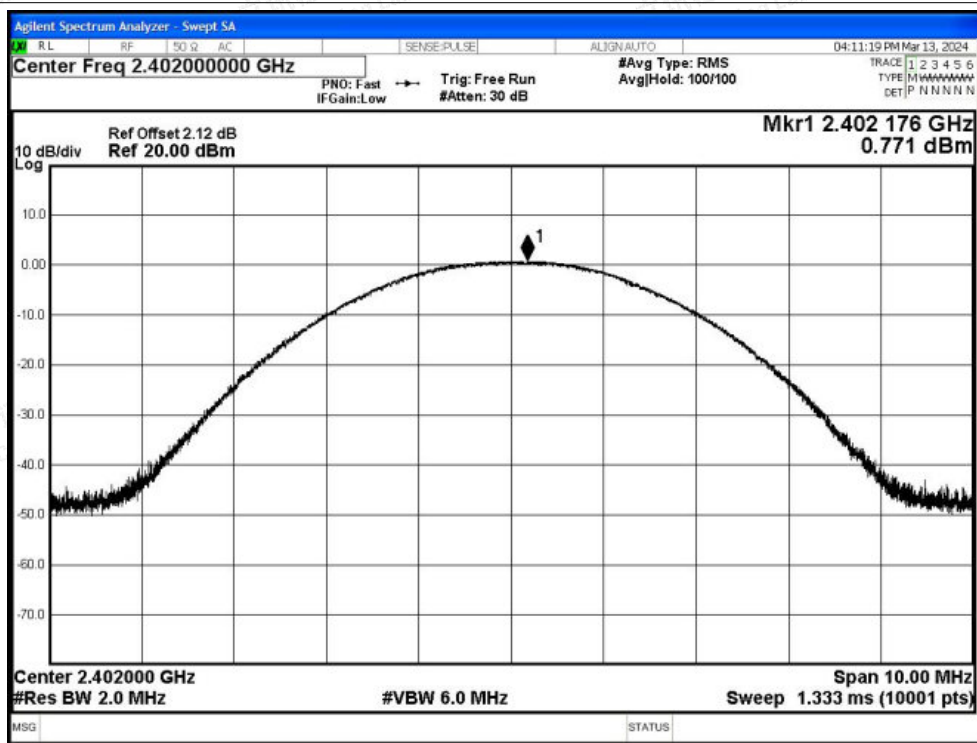


Power NVNT 2-DH5 2480MHz Ant1

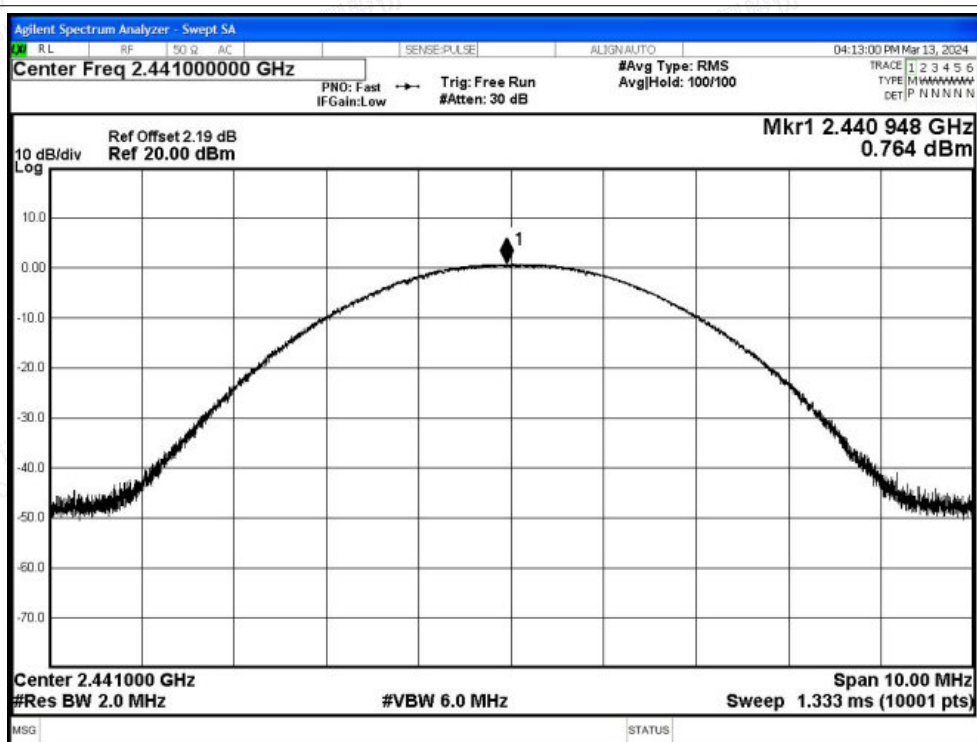




Power NVNT 3-DH5 2402MHz Ant1

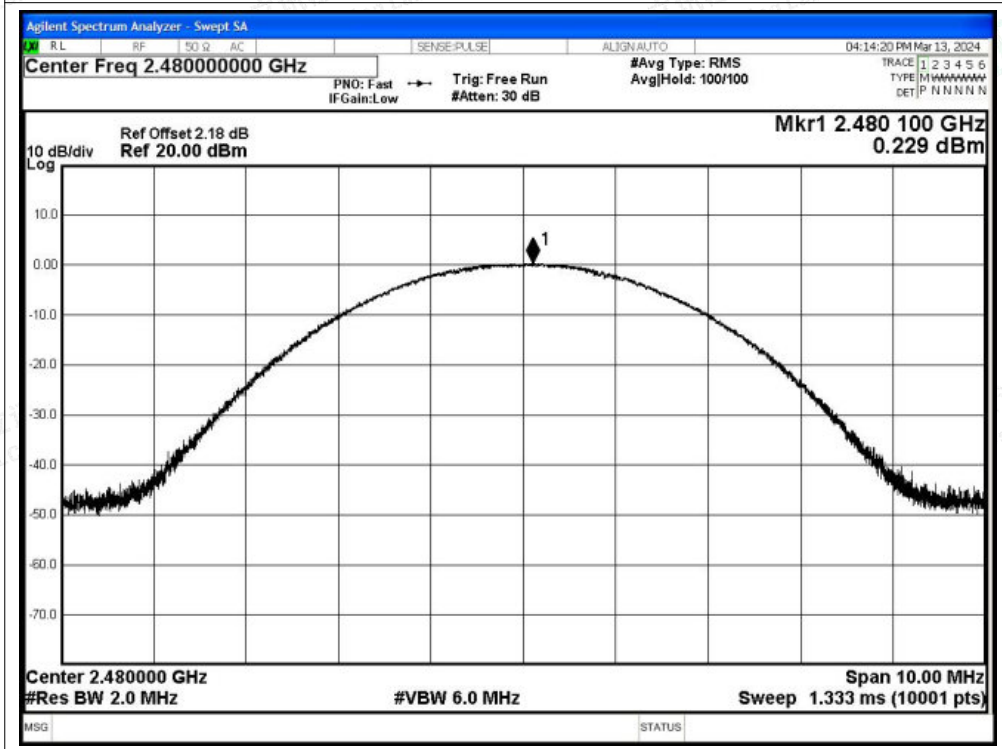


Power NVNT 3-DH5 2441MHz Ant1





Power NVNT 3-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 | 2402.012 | 2403.054 | 1.042 | 0.597 | Pass |
| NVNT | 2-DH5 | Ant1 | 2401.838 | 2403.004 | 1.166 | 0.885 | Pass |
| NVNT | 3-DH5 | Ant1 | 2401.908 | 2403.014 | 1.106 | 0.873 | Pass |

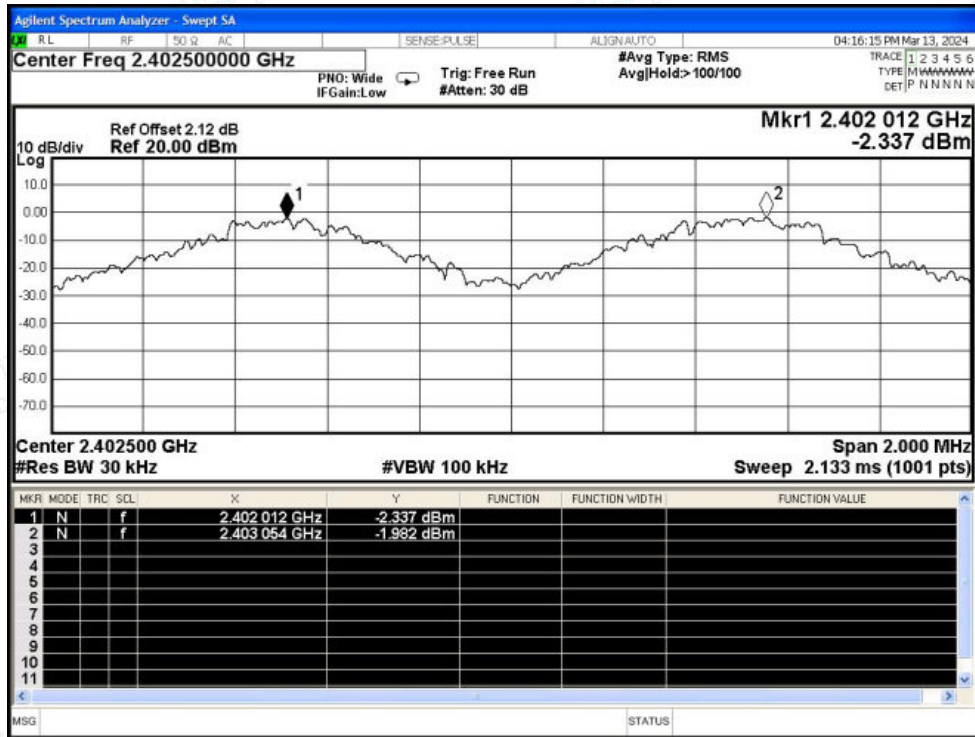


Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

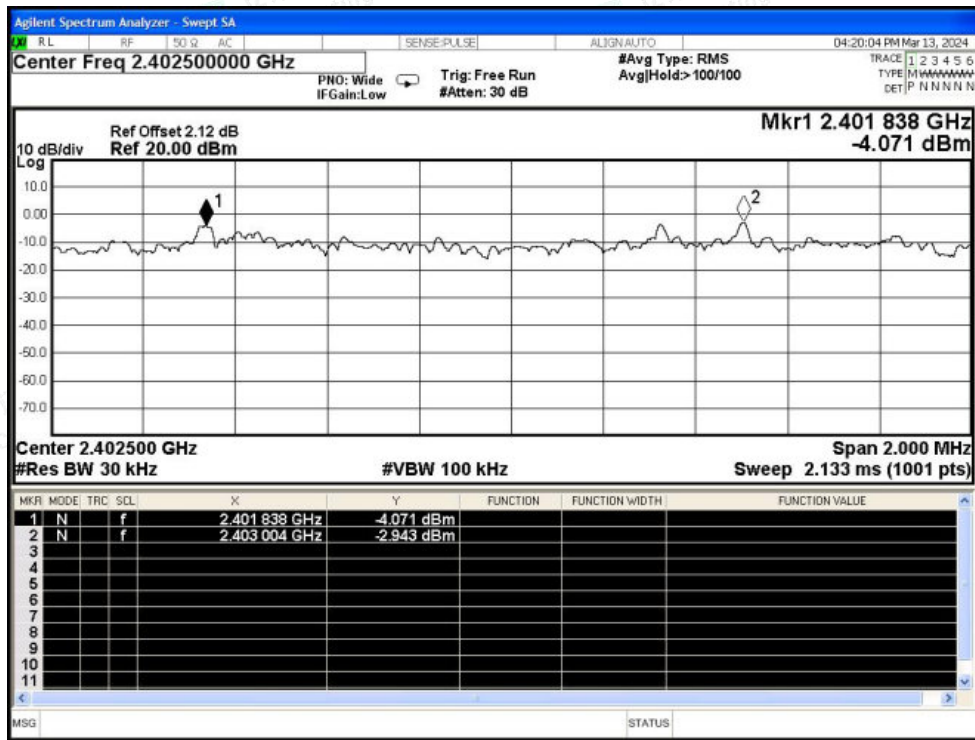


Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1

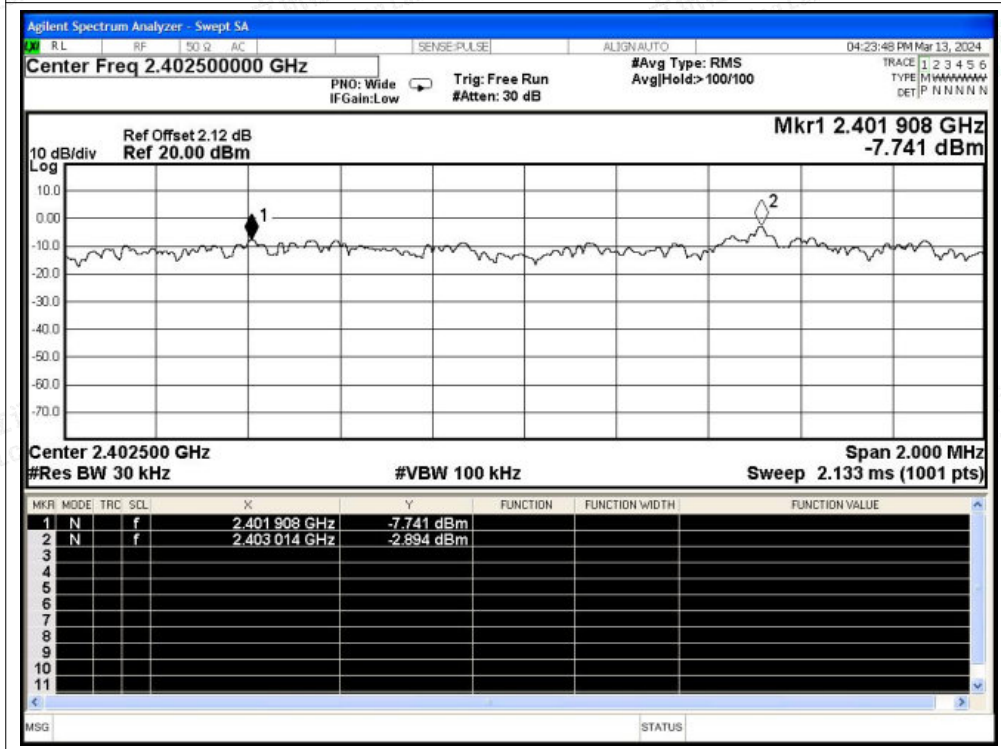


CFS NVNT 2-DH5 2402MHz Ant1





CFS NVNT 3-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 | 2.881 | 290.981 | 101 | 31600 | 400 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | 2.881 | 325.553 | 113 | 31600 | 400 | Pass |
| NVNT | 3-DH5 | 2402 | Ant1 | 2.887 | 340.666 | 118 | 31600 | 400 | Pass |

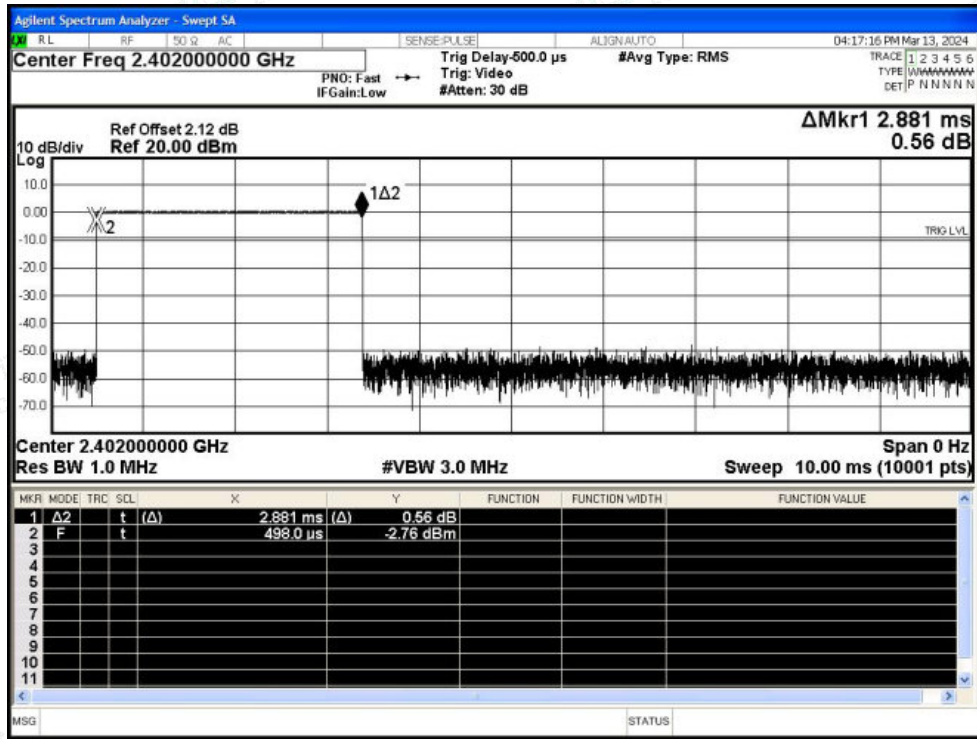


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Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

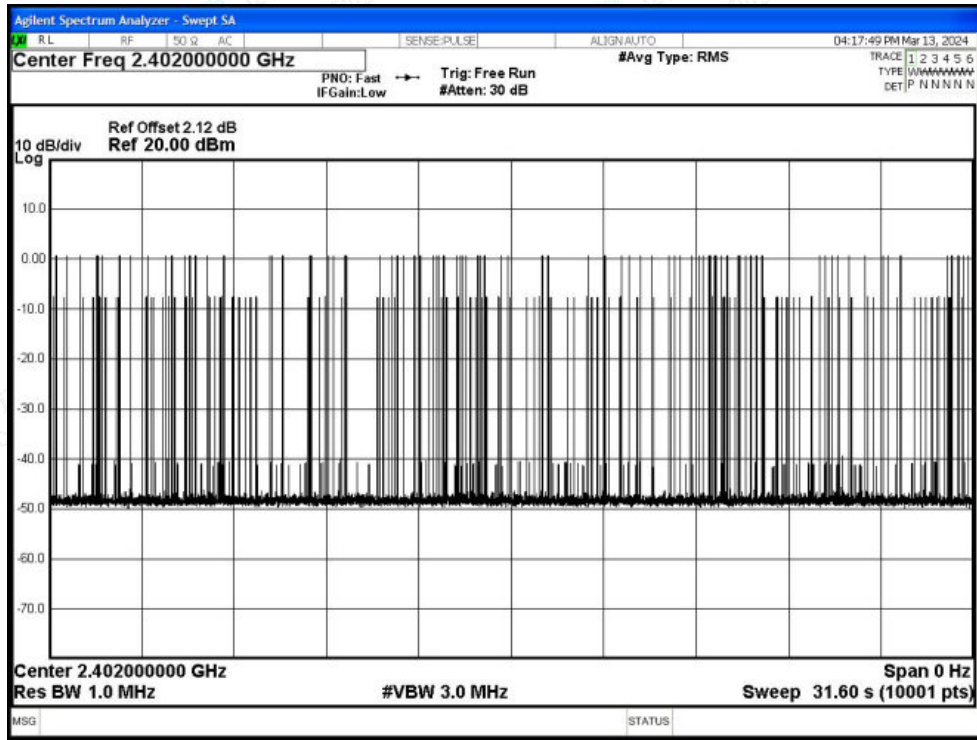


Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant1 One Burst

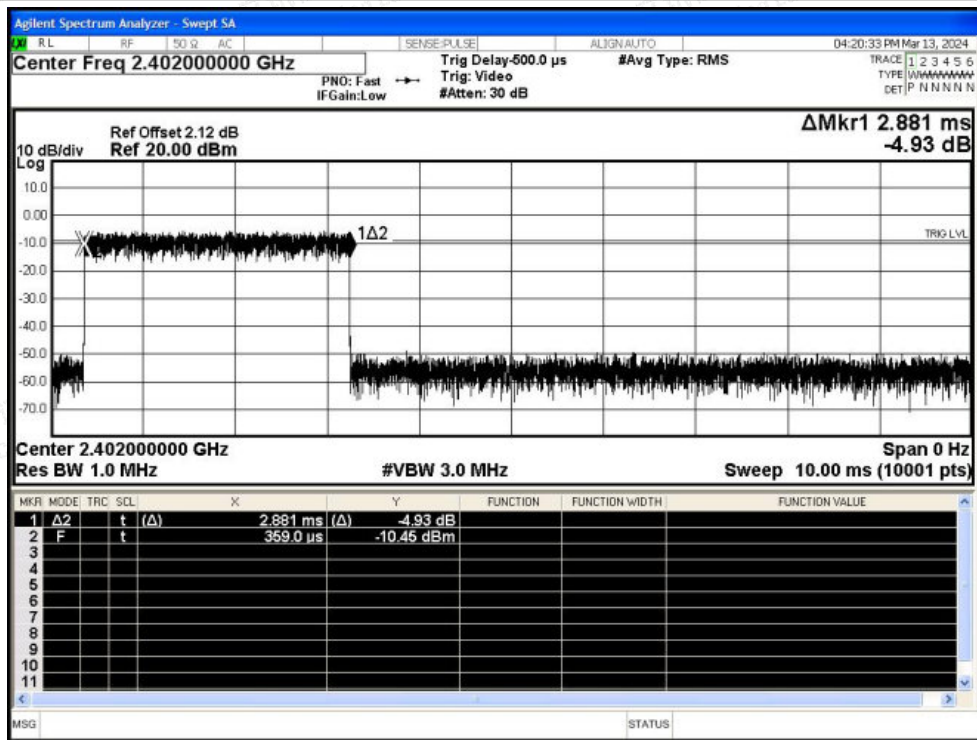


Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated

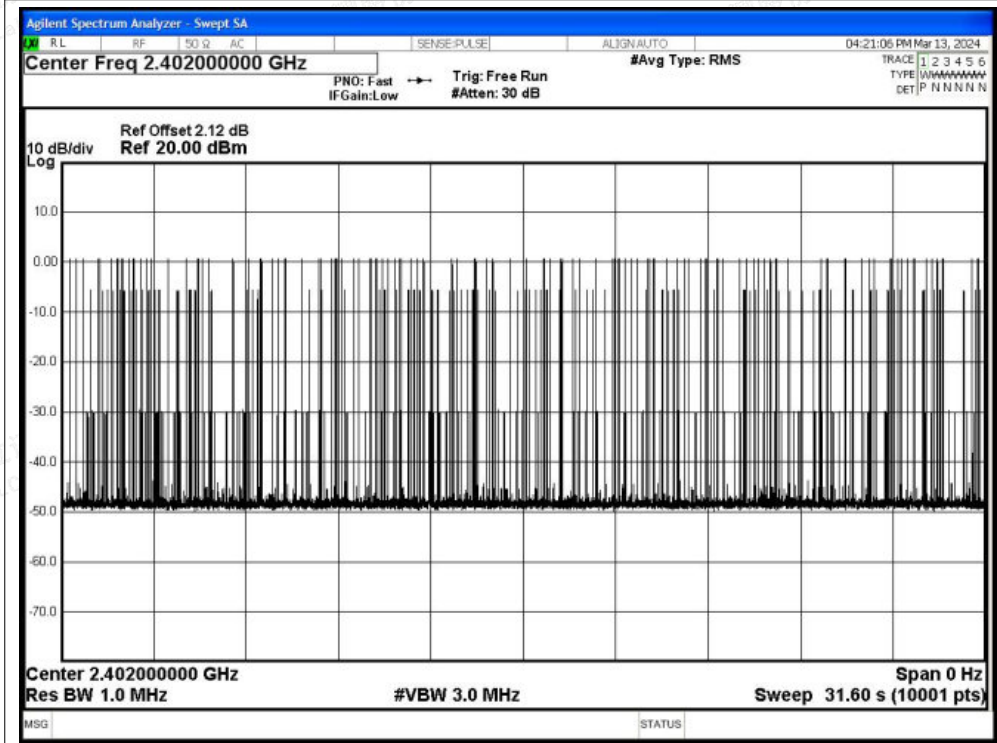




Dwell NVNT 2-DH5 2402MHz Ant1 One Burst

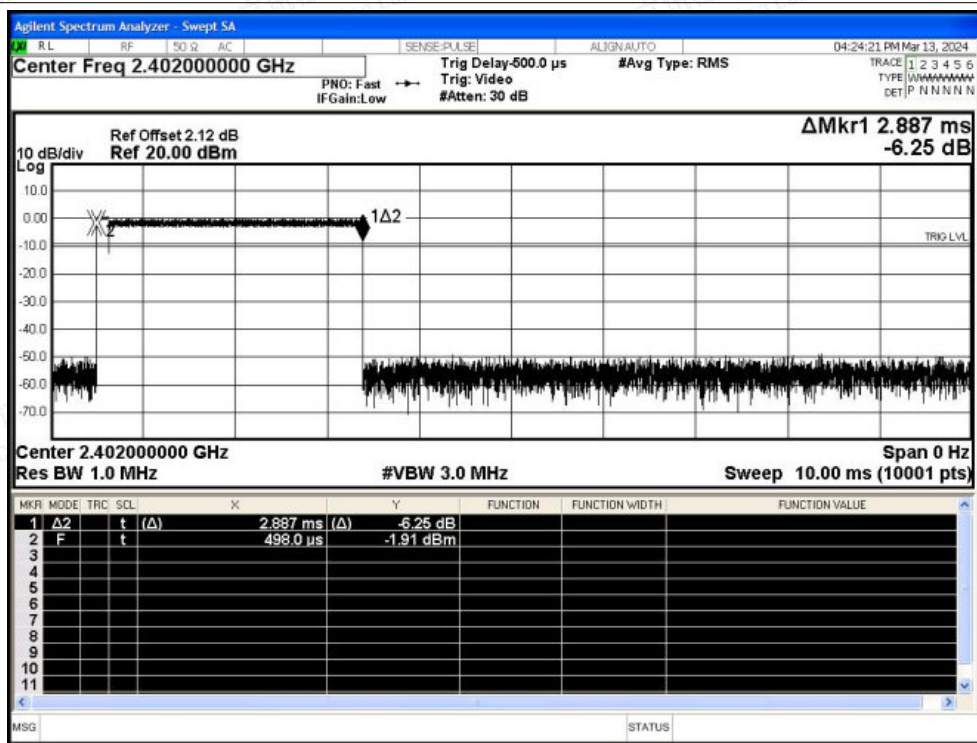


Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated

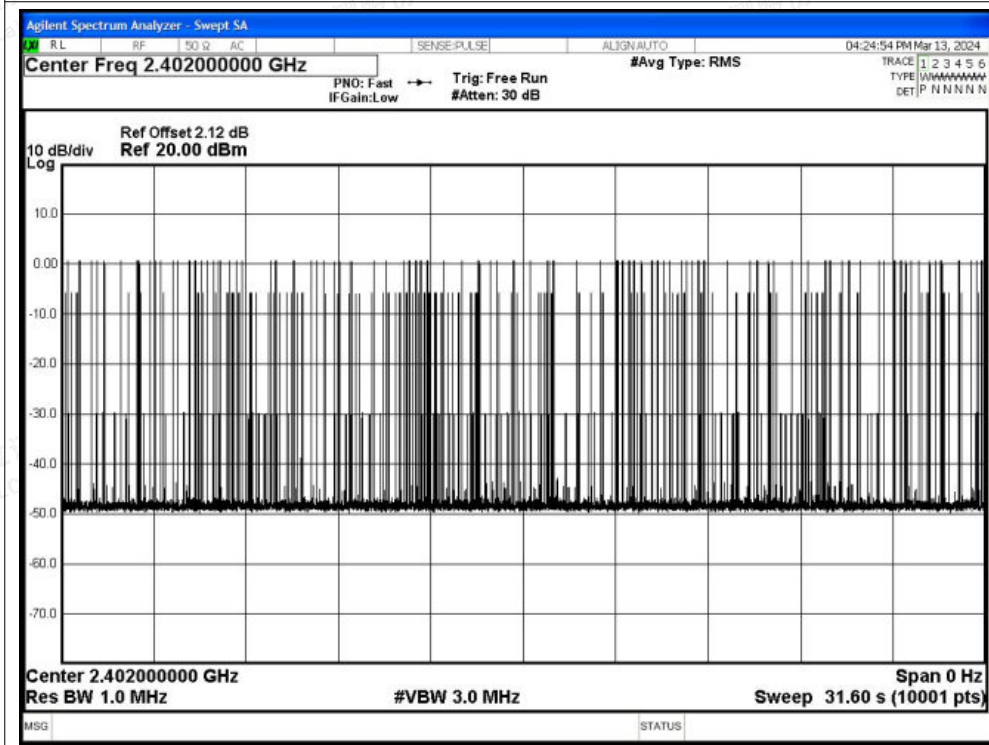




Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated





A.5 Number of Hopping Channel

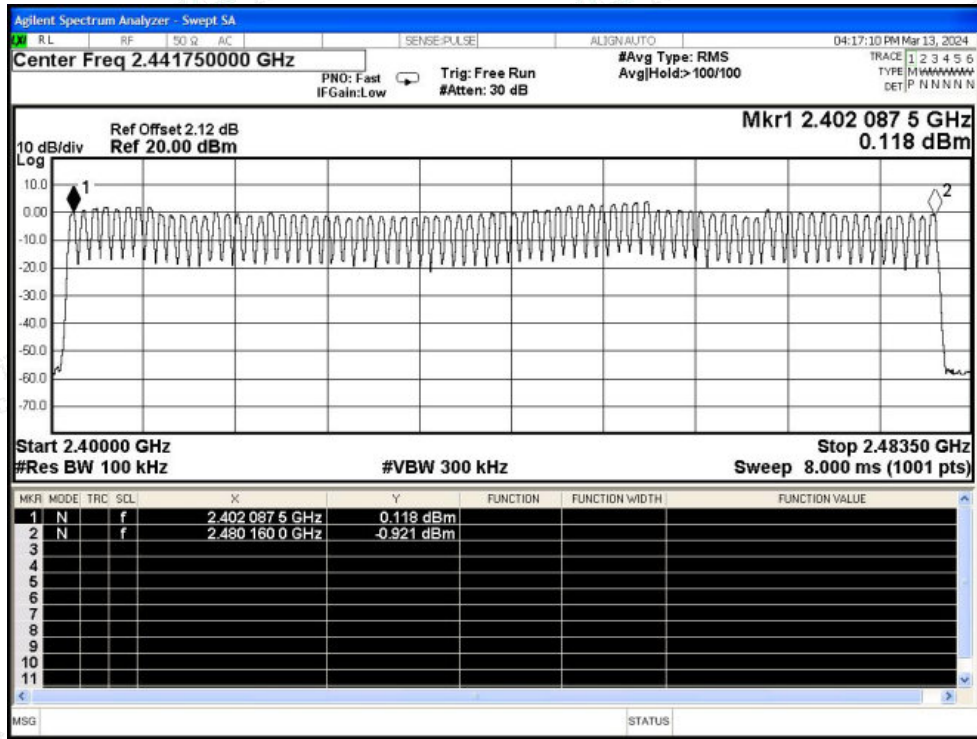
| Condition | Mode | Antenna | Hopping Number | Limit | Verdict |
|-----------|-------|---------|----------------|-------|---------|
| NVNT | 1-DH5 | Ant1 | 79 | 15 | Pass |
| NVNT | 2-DH5 | Ant1 | 79 | 15 | Pass |
| NVNT | 3-DH5 | Ant1 | 79 | 15 | Pass |



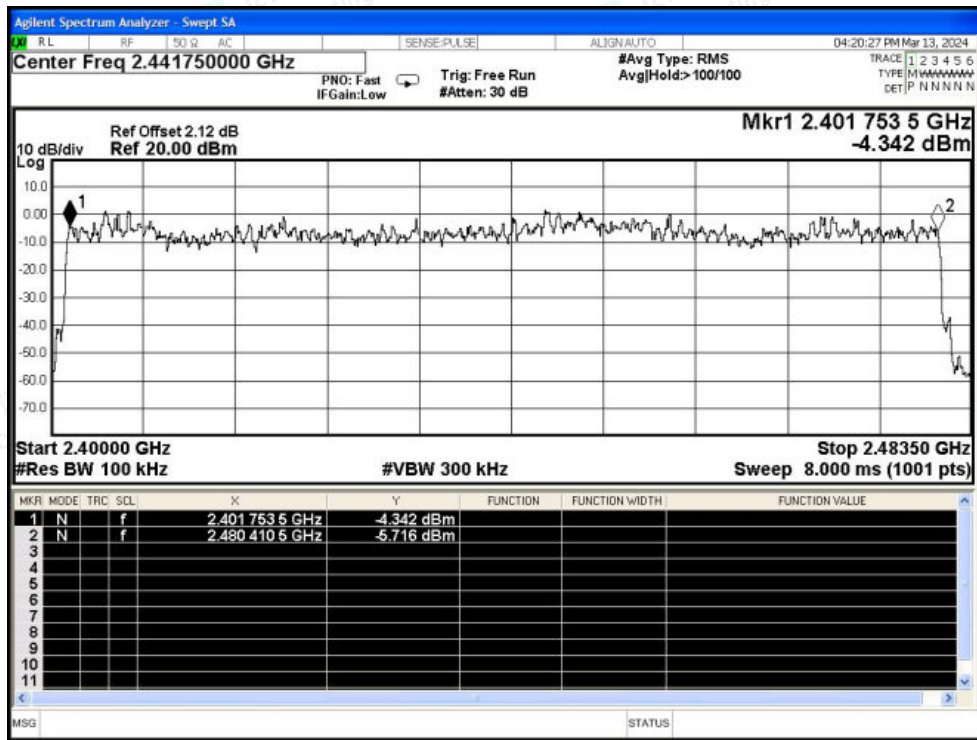


Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1

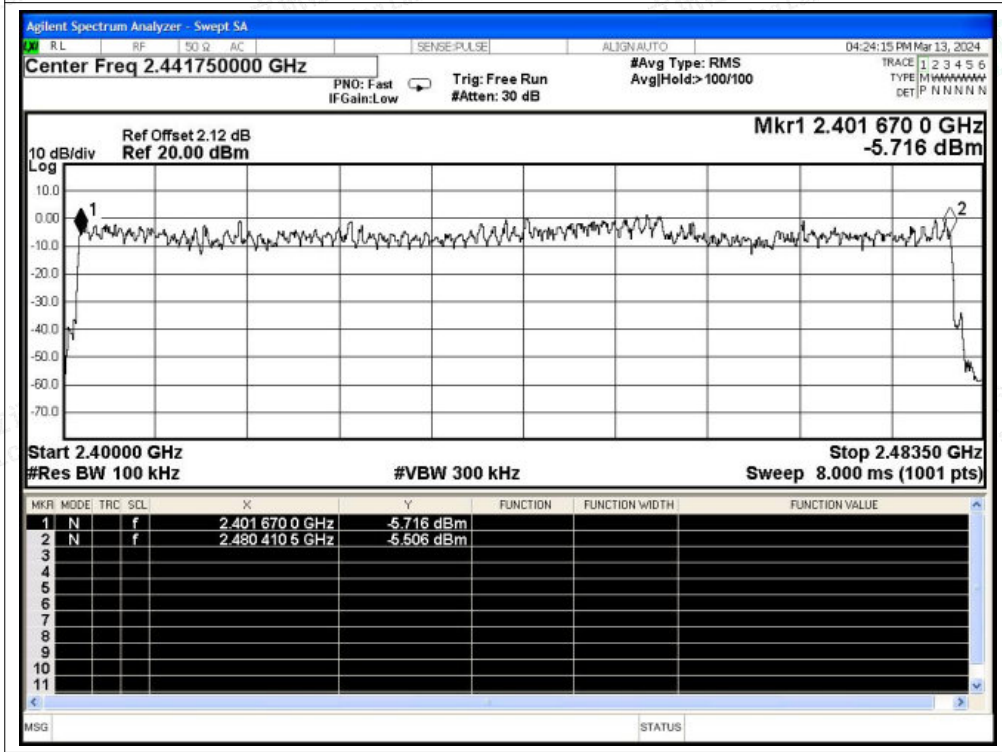


Hopping No. NVNT 2-DH5 2402MHz Ant1





Hopping No. NVNT 3-DH5 2402MHz Ant1





A.6 Band Edge

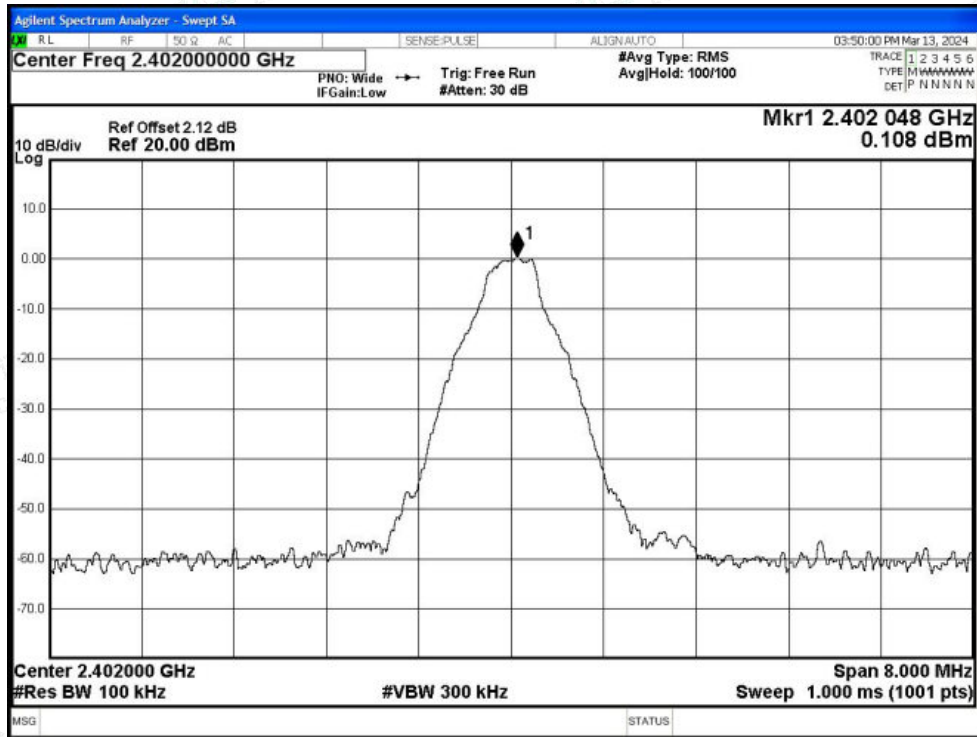
| Condition | Mode | Frequency (MHz) | Antenna | Hopping Mode | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|-------|-----------------|---------|--------------|-----------------|-------------|---------|
| NVNT | 1-DH5 | 2402 | Ant1 | No-Hopping | -57.43 | -20 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | No-Hopping | -56.67 | -20 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | No-Hopping | -53.38 | -20 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | No-Hopping | -56.47 | -20 | Pass |
| NVNT | 3-DH5 | 2402 | Ant1 | No-Hopping | -52.14 | -20 | Pass |
| NVNT | 3-DH5 | 2480 | Ant1 | No-Hopping | -56.51 | -20 | Pass |



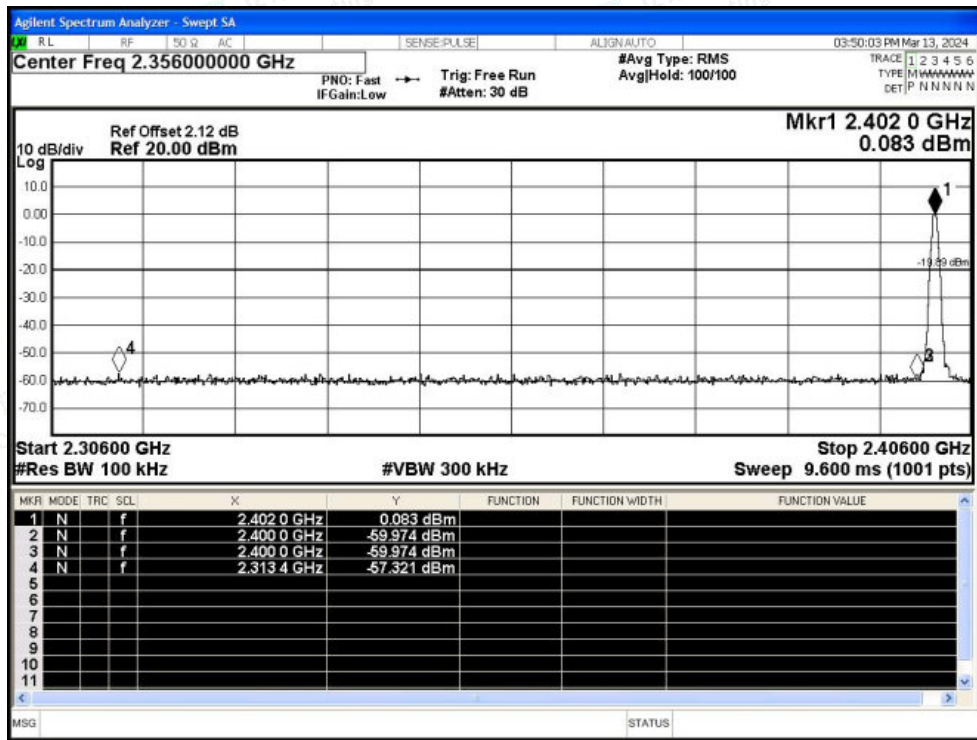


Test Graphs

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

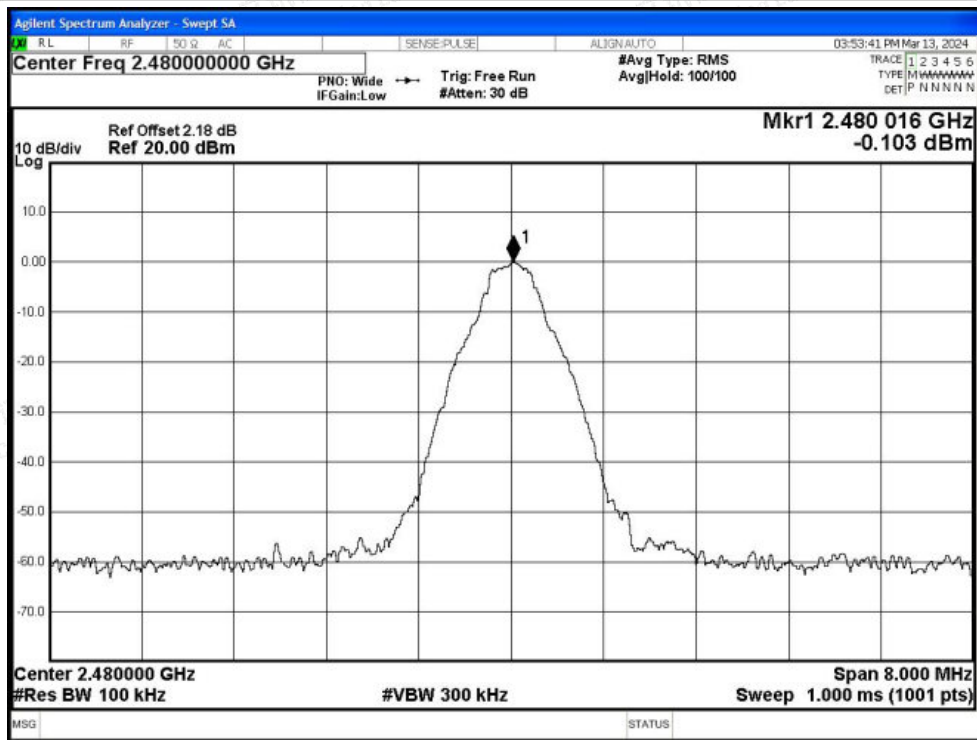


Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

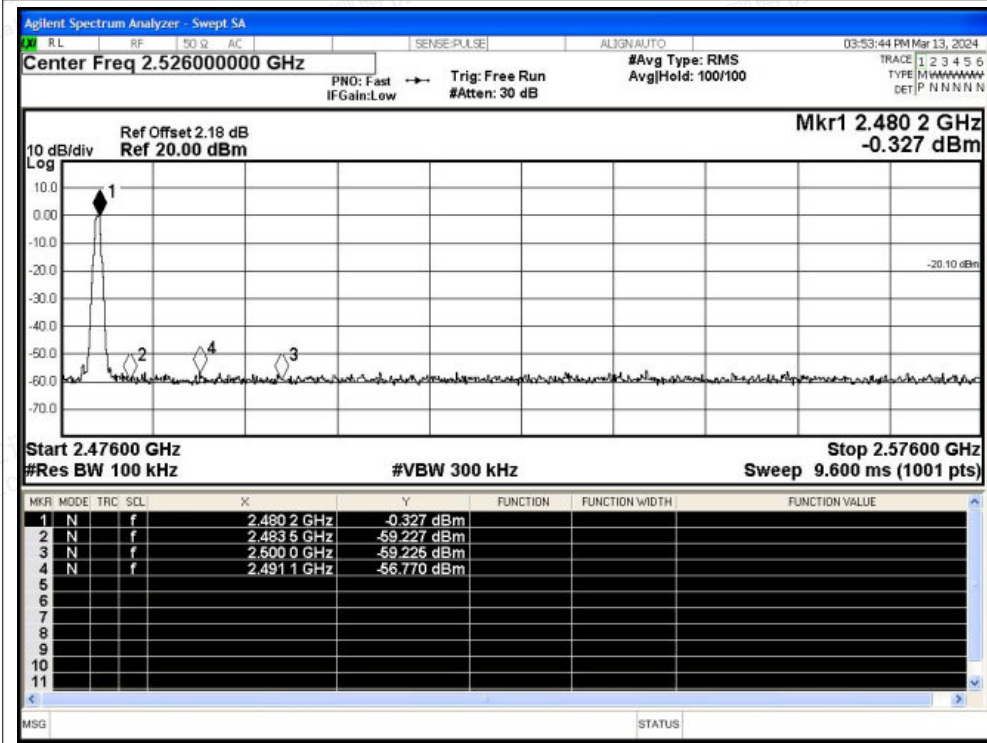




Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

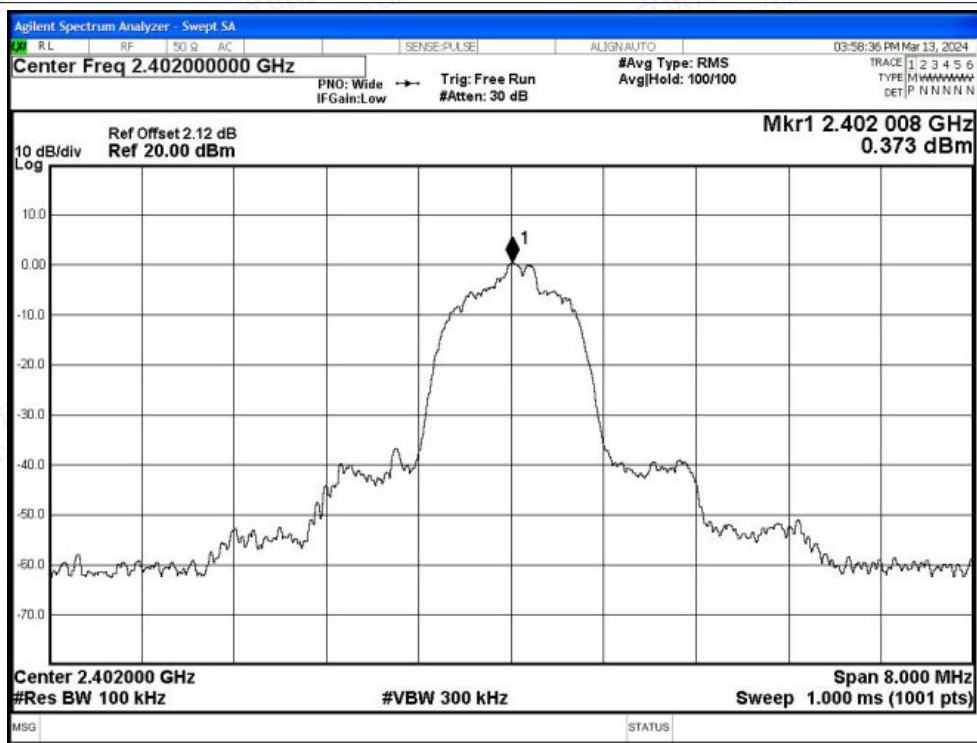


Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission

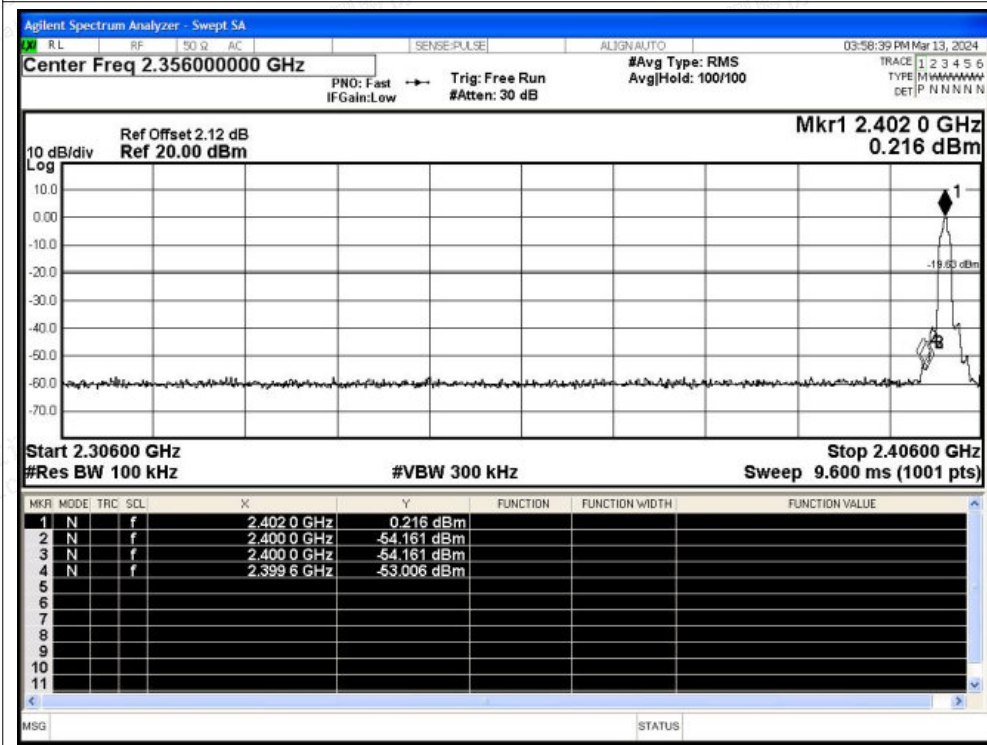




Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref

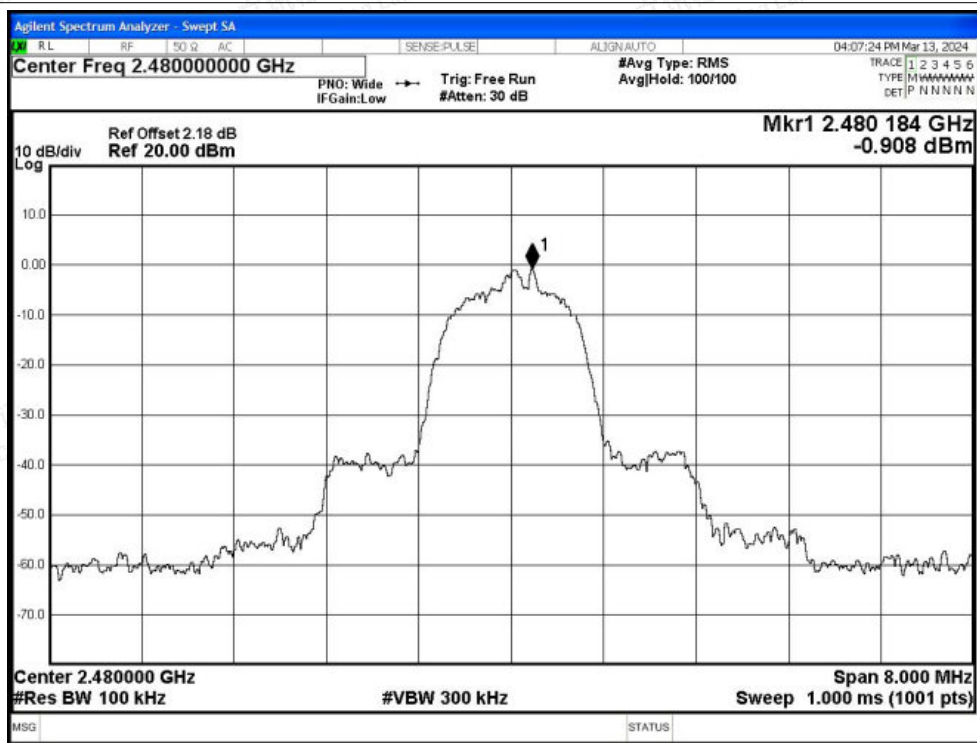


Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission

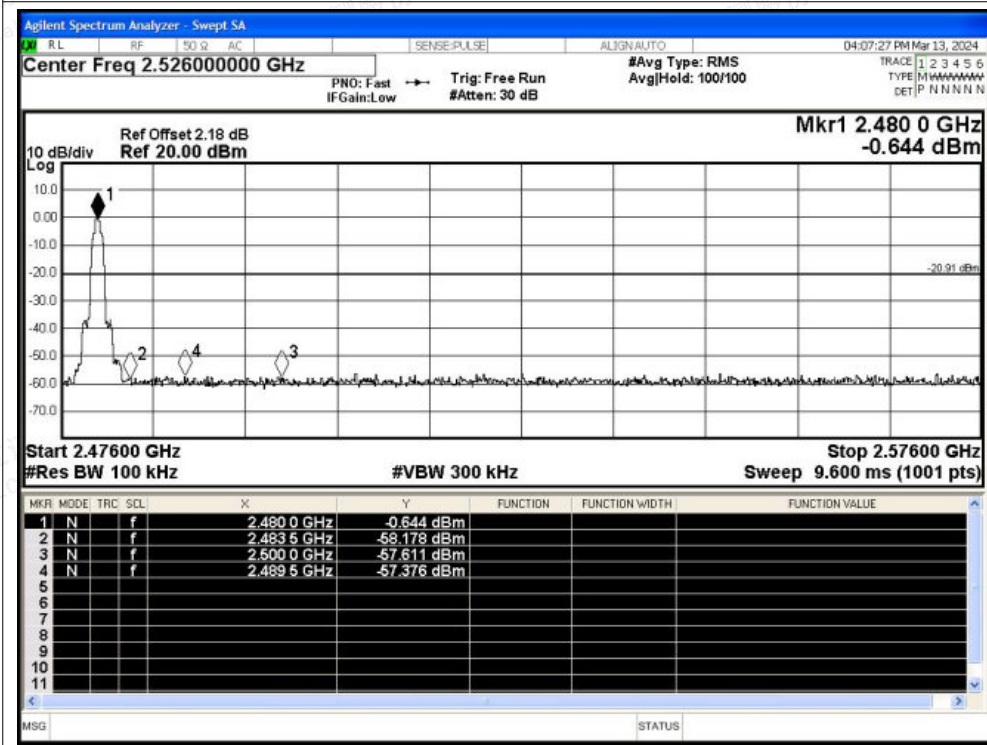




Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref

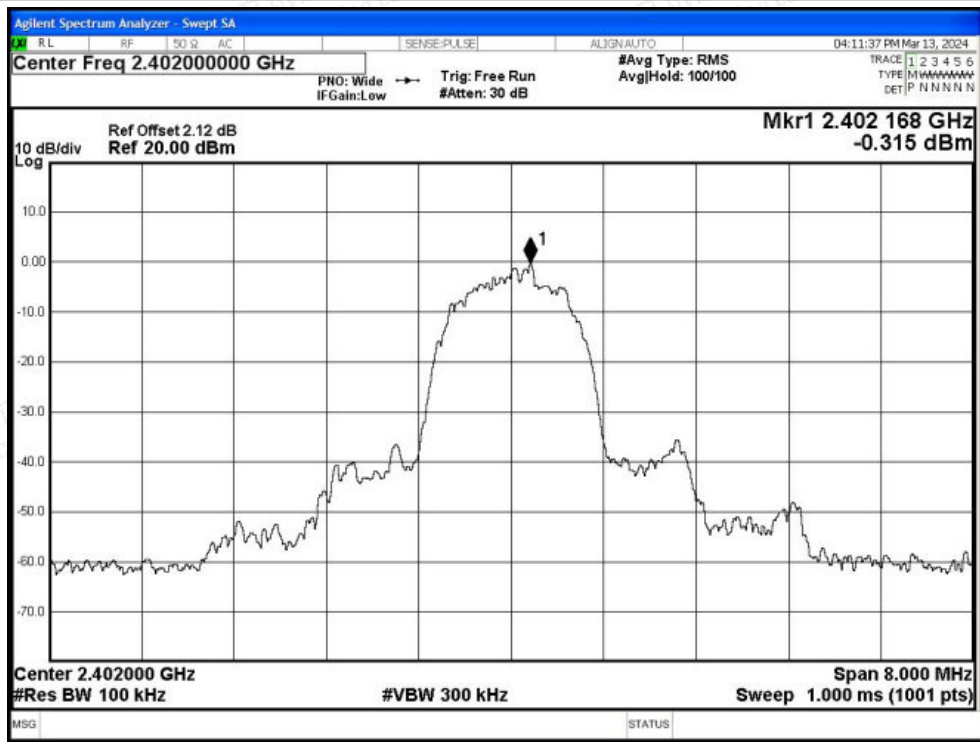


Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission

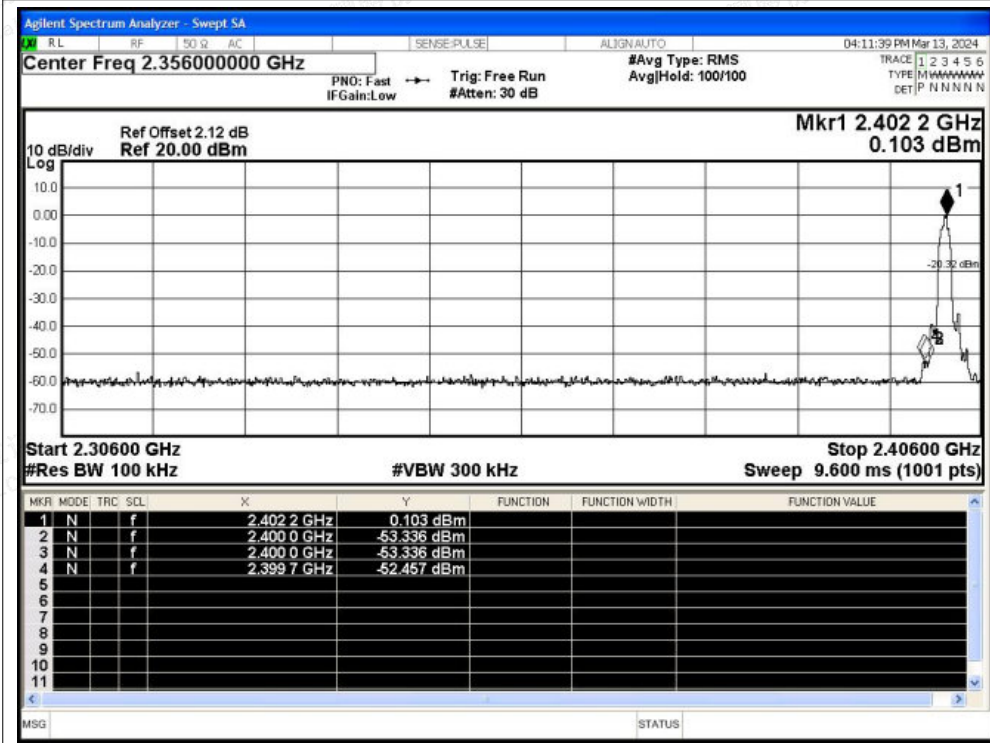




Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref

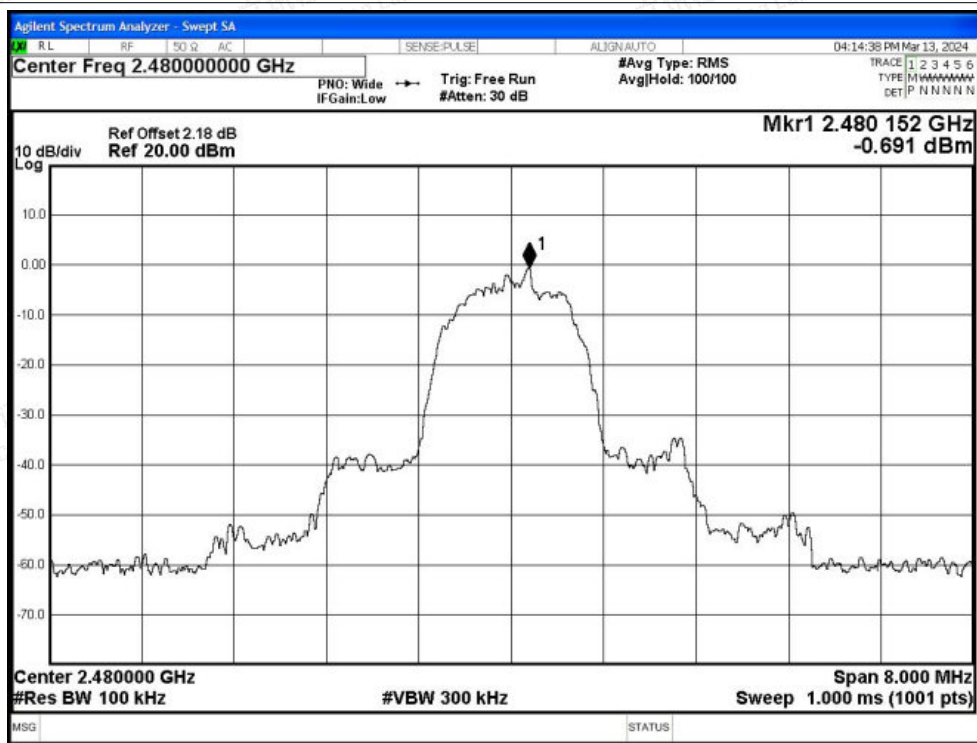


Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission

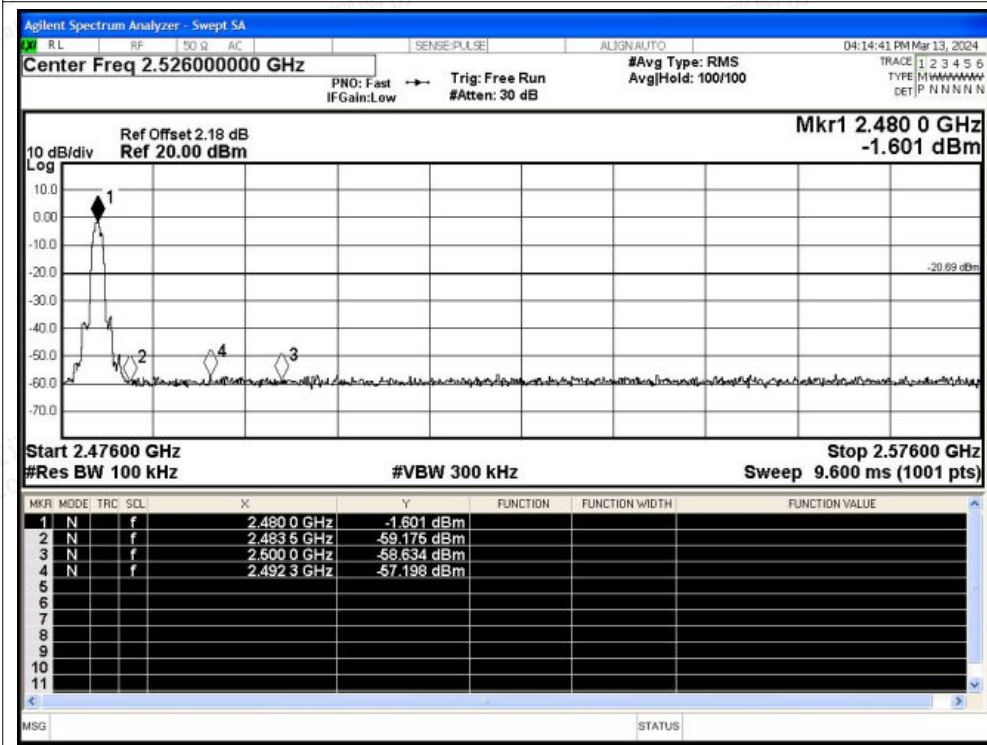




Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Emission





(Hopping)

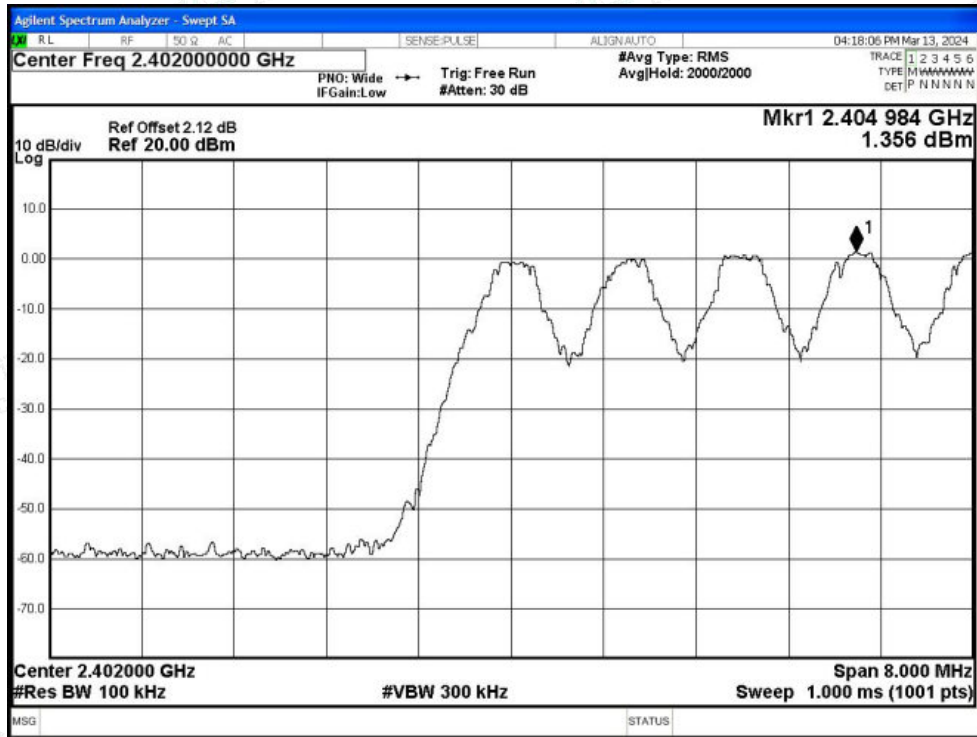
| Condition | Mode | Frequency (MHz) | Antenna | Hopping Mode | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|-------|-----------------|---------|--------------|-----------------|-------------|---------|
| NVNT | 1-DH5 | 2402 | Ant1 | Hopping | -57.6 | -20 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | Hopping | -54.84 | -20 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | Hopping | -56.85 | -20 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | Hopping | -52.7 | -20 | Pass |
| NVNT | 3-DH5 | 2402 | Ant1 | Hopping | -56.22 | -20 | Pass |
| NVNT | 3-DH5 | 2480 | Ant1 | Hopping | -54.91 | -20 | Pass |



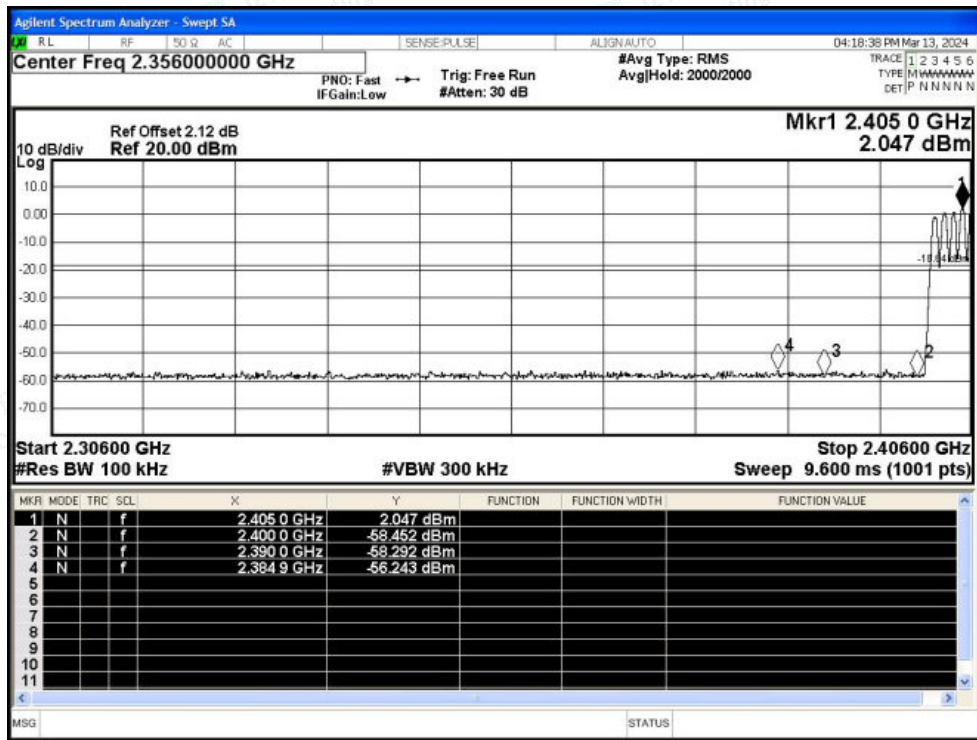


Test Graphs

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

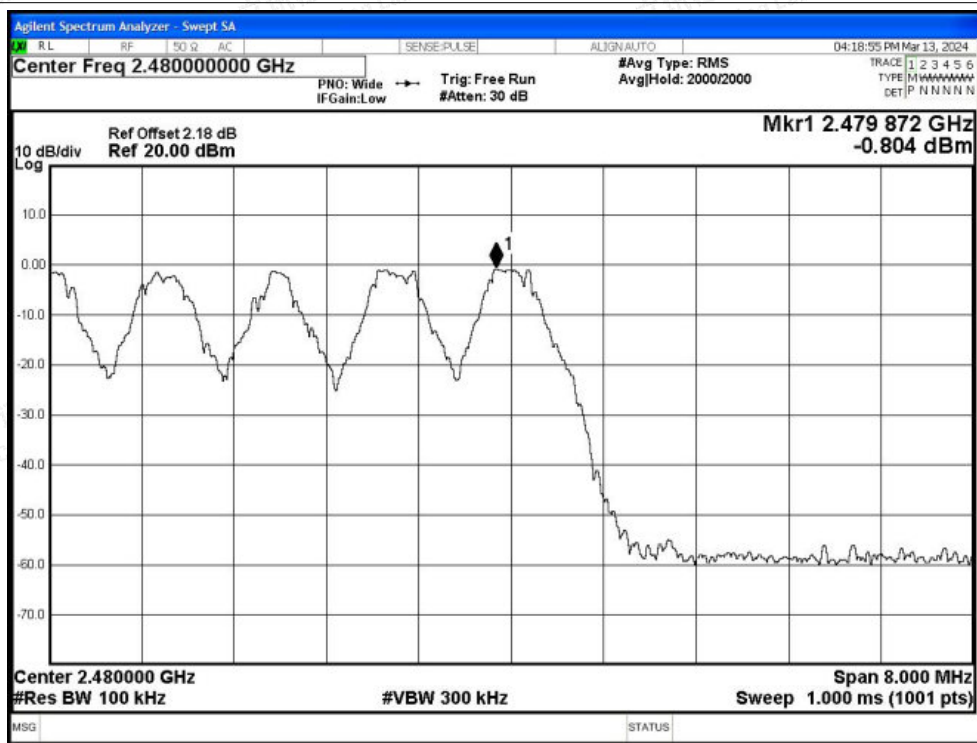


Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

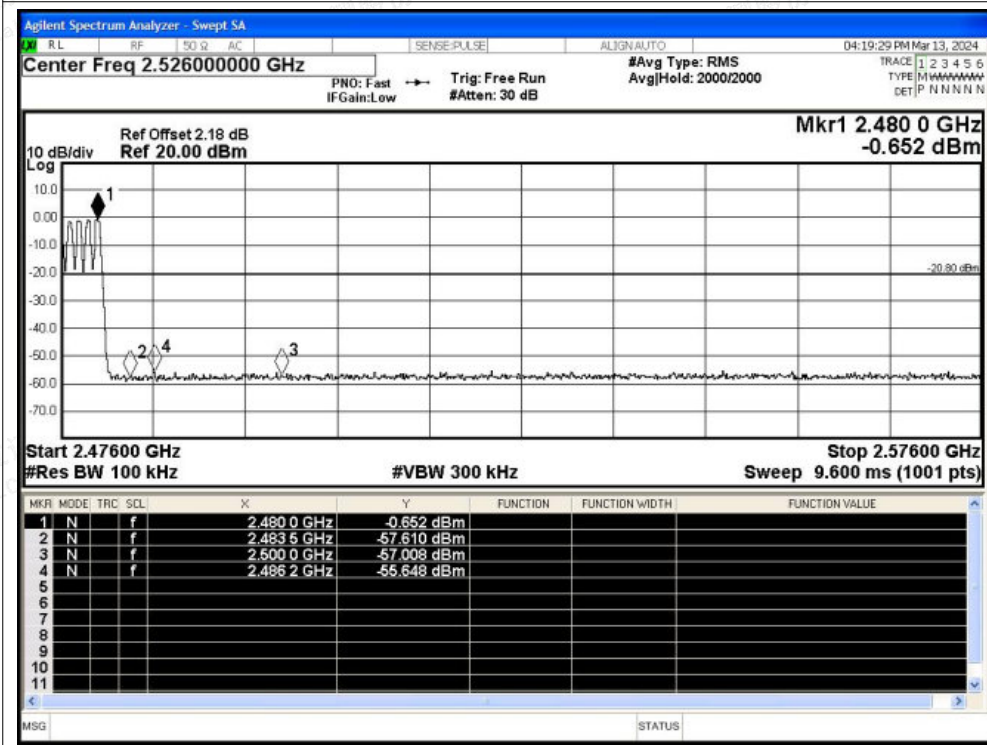




Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission

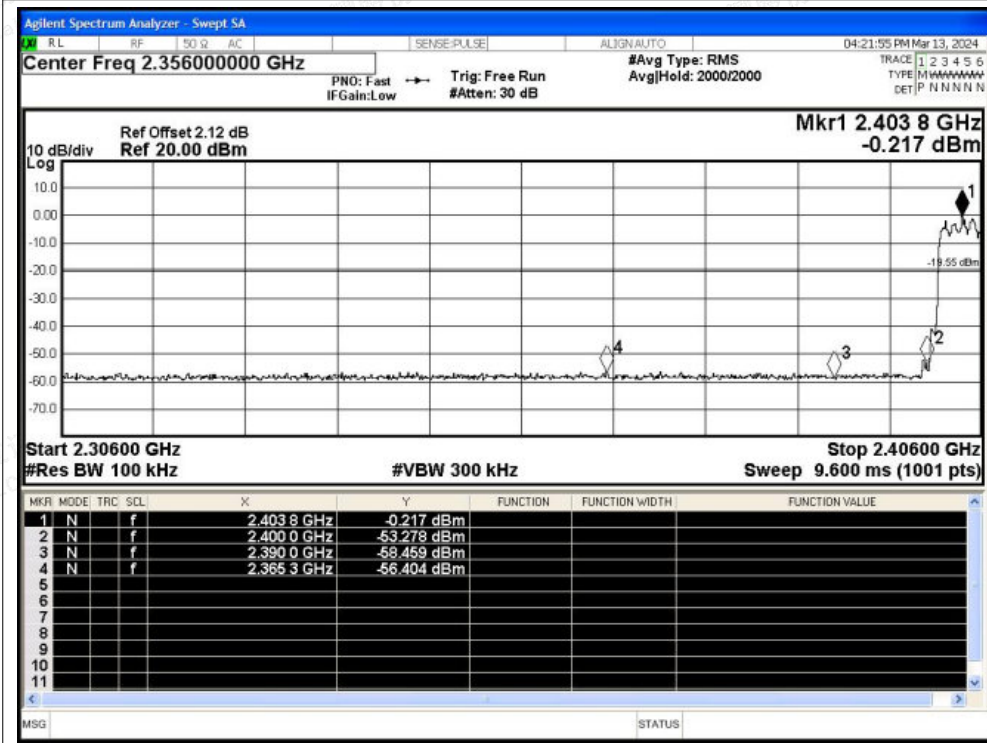




Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref

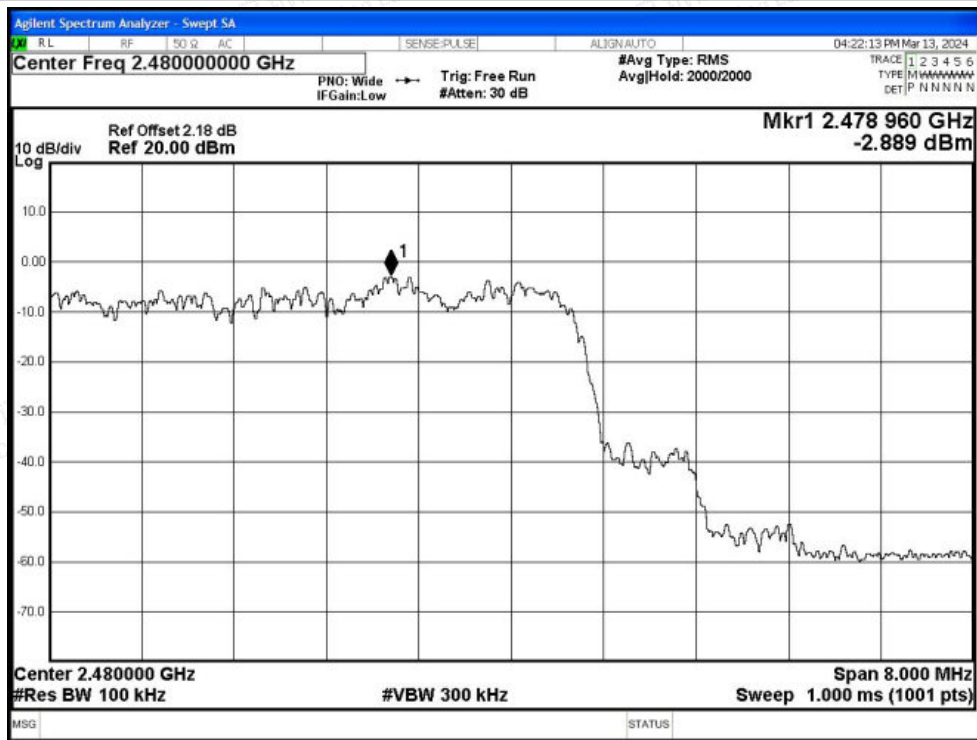


Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission

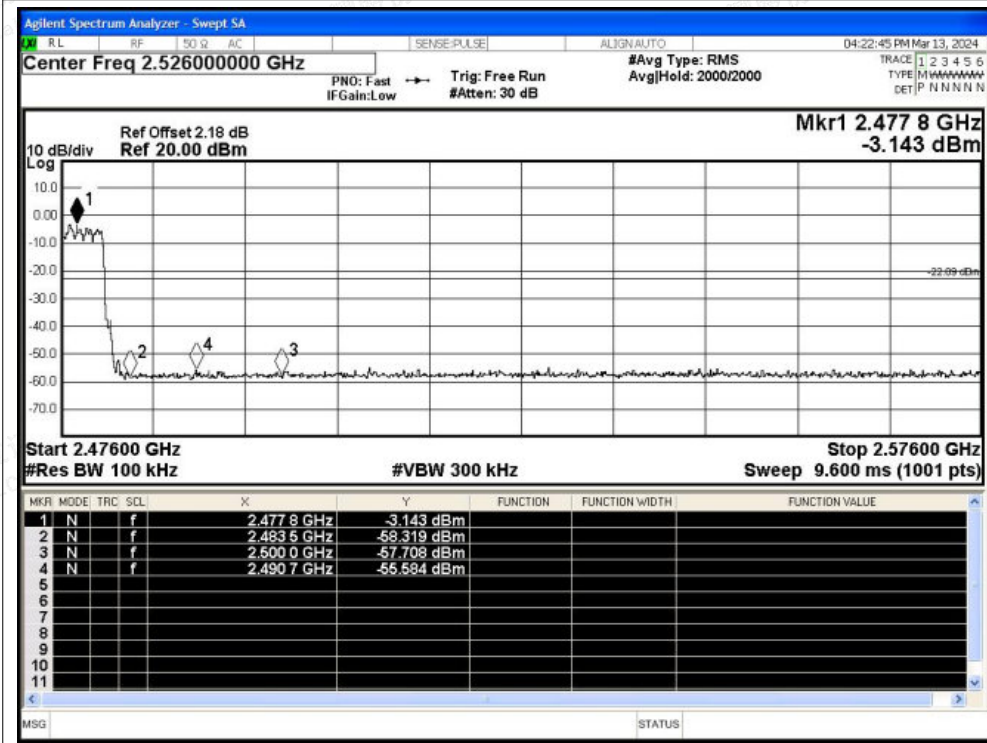




Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



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

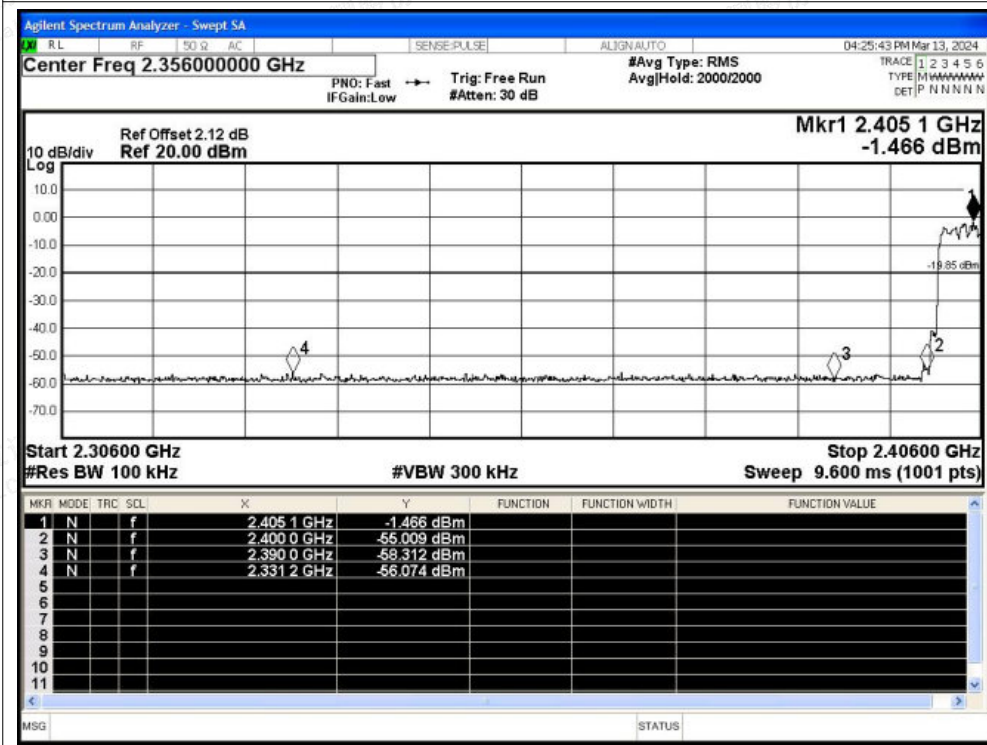




Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref

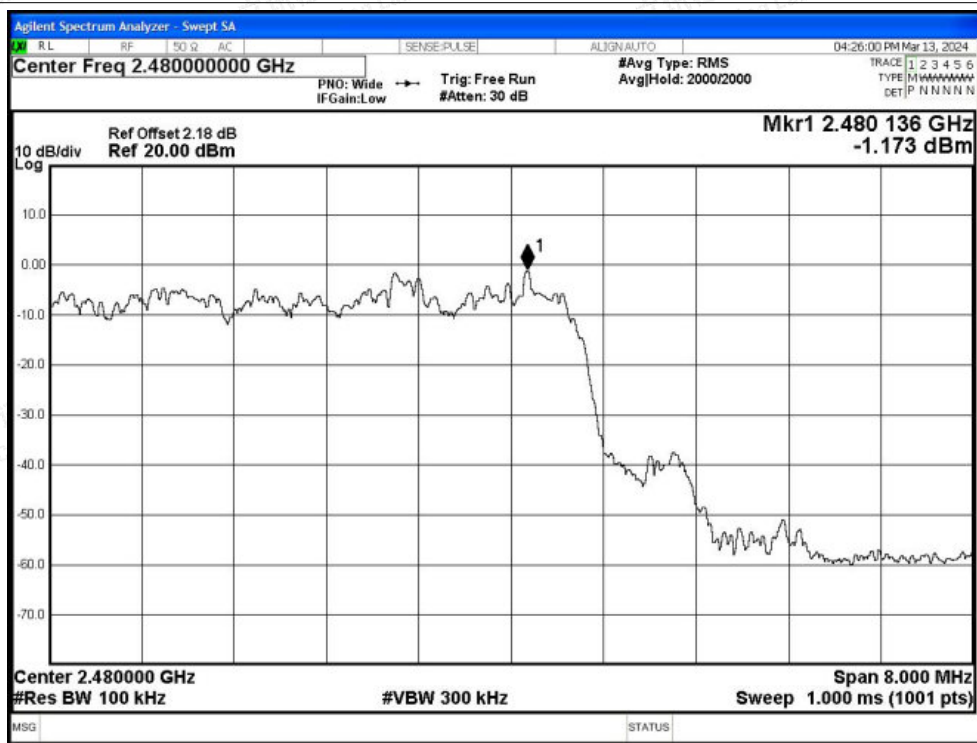


Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission

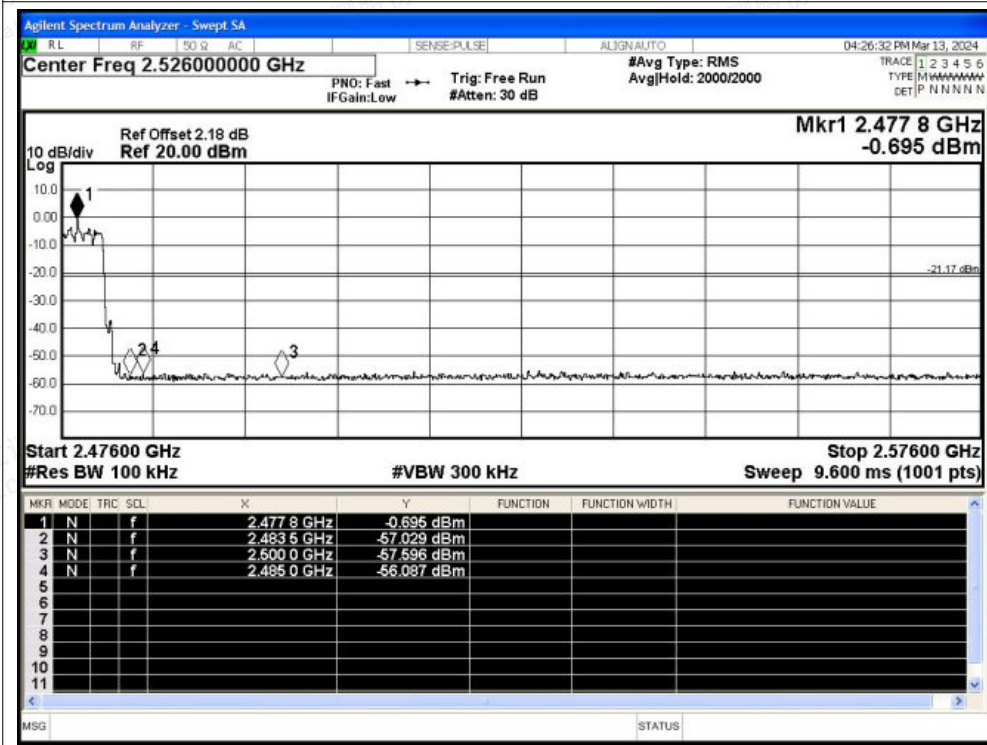




Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 3-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 | -55.25 | -20 | Pass |
| NVNT | 1-DH5 | 2441 | Ant1 | -54.92 | -20 | Pass |
| NVNT | 1-DH5 | 2480 | Ant1 | -54.72 | -20 | Pass |
| NVNT | 2-DH5 | 2402 | Ant1 | -55.72 | -20 | Pass |
| NVNT | 2-DH5 | 2441 | Ant1 | -55.74 | -20 | Pass |
| NVNT | 2-DH5 | 2480 | Ant1 | -54.71 | -20 | Pass |
| NVNT | 3-DH5 | 2402 | Ant1 | -55.86 | -20 | Pass |
| NVNT | 3-DH5 | 2441 | Ant1 | -55.27 | -20 | Pass |
| NVNT | 3-DH5 | 2480 | Ant1 | -55.02 | -20 | Pass |

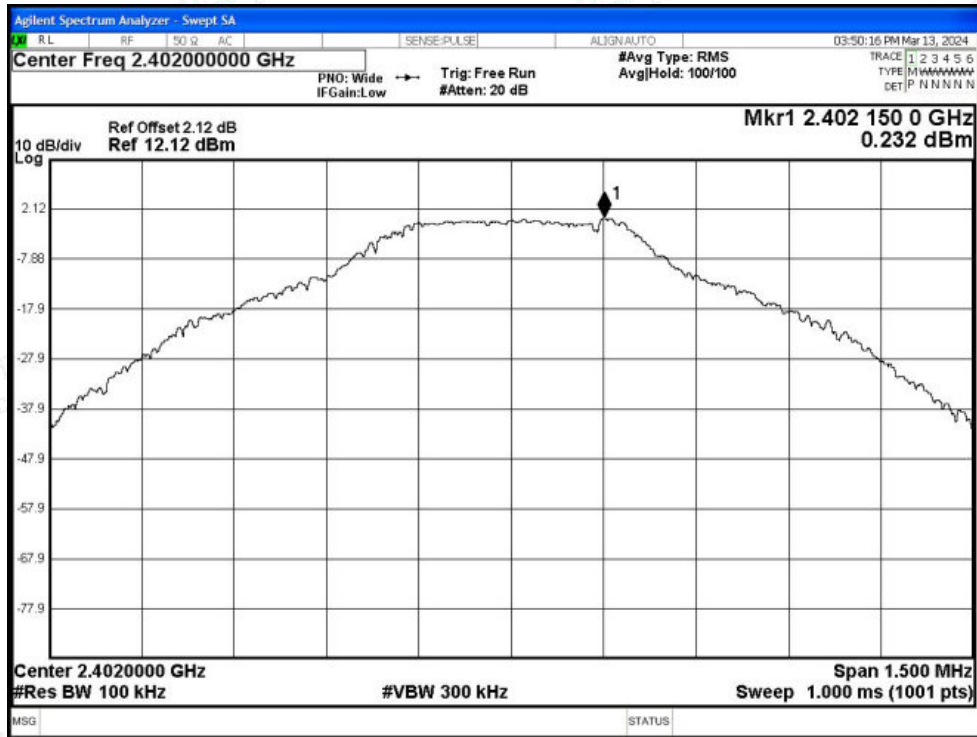


Shenzhen LCS Compliance Testing Laboratory Ltd.
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Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

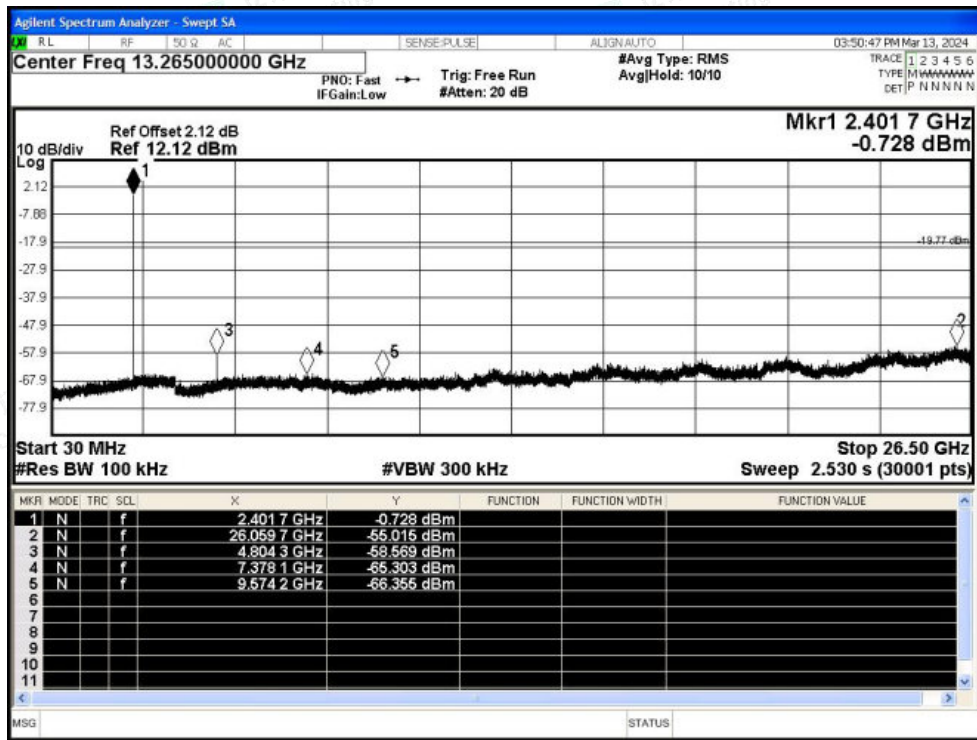


Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref

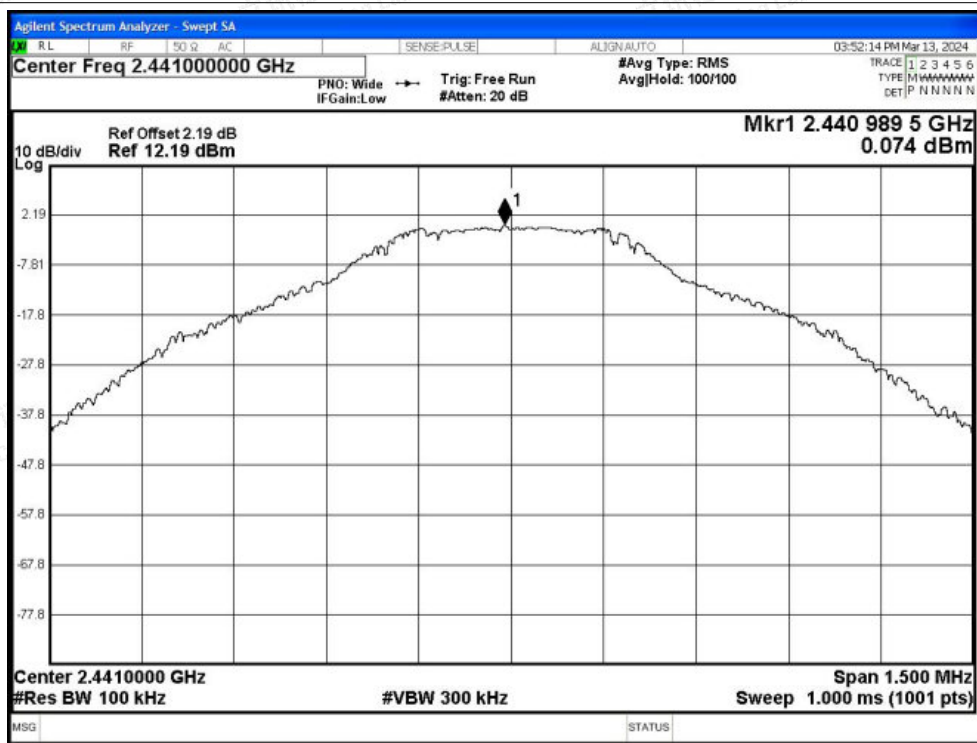


Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission





Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission

