



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: LED PROJECTOR

Test Model: L018

Environmental Conditions

Temperature:	23.1°C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Paddi Chen
Supervised by:	Nick Peng



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A.1 -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.949	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.973	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.946	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.285	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.287	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.286	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.308	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.307	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.313	N/A	Pass





Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

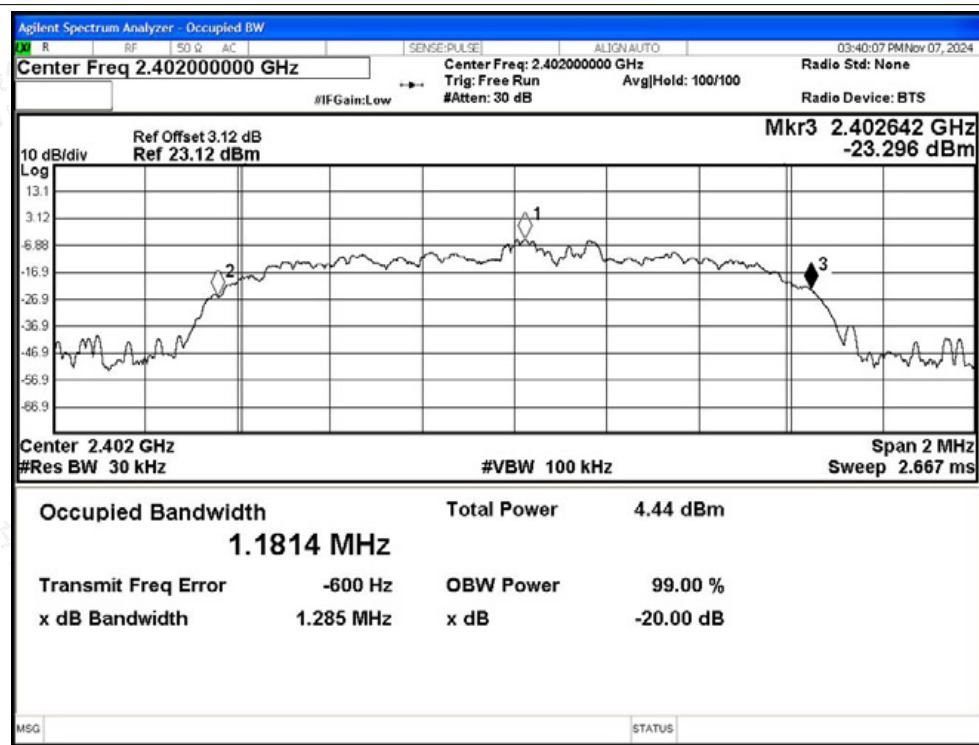




-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



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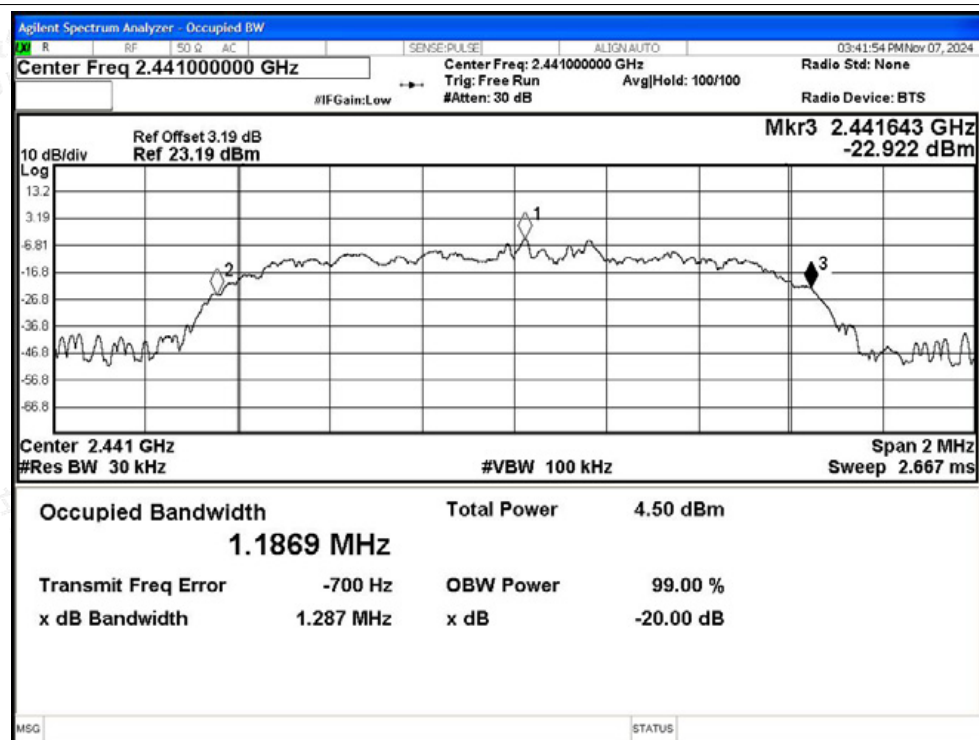
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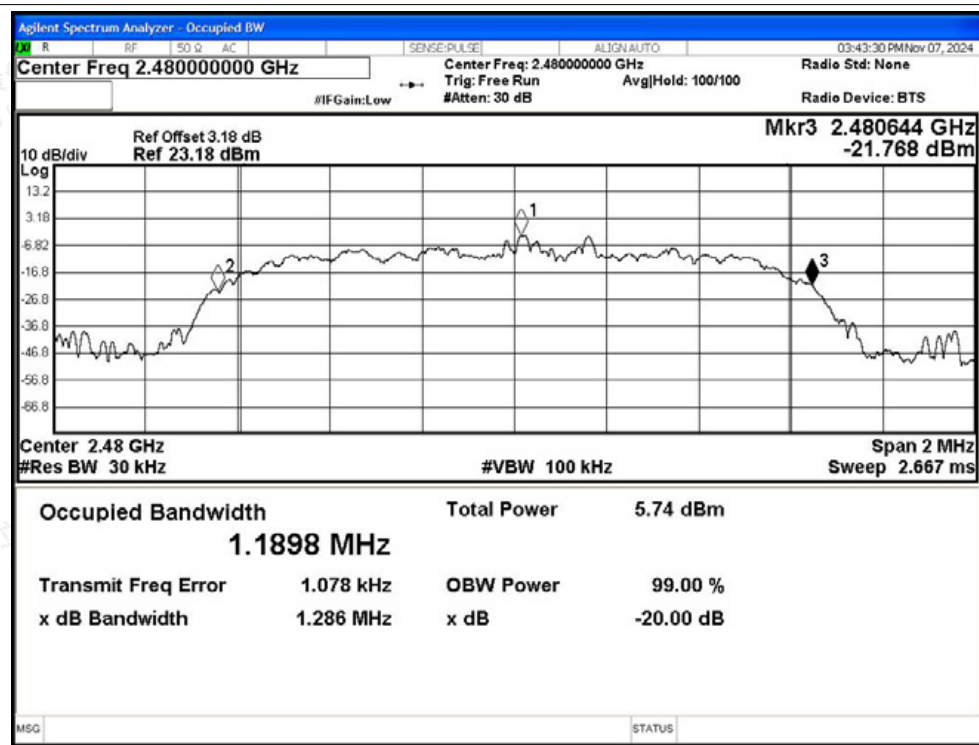
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-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1



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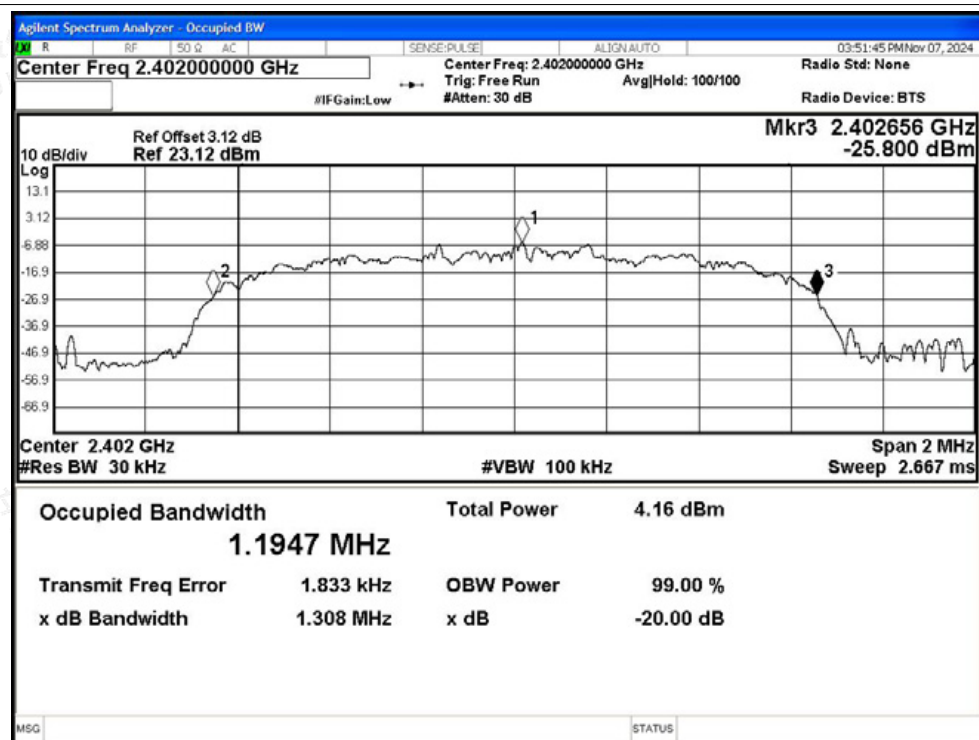
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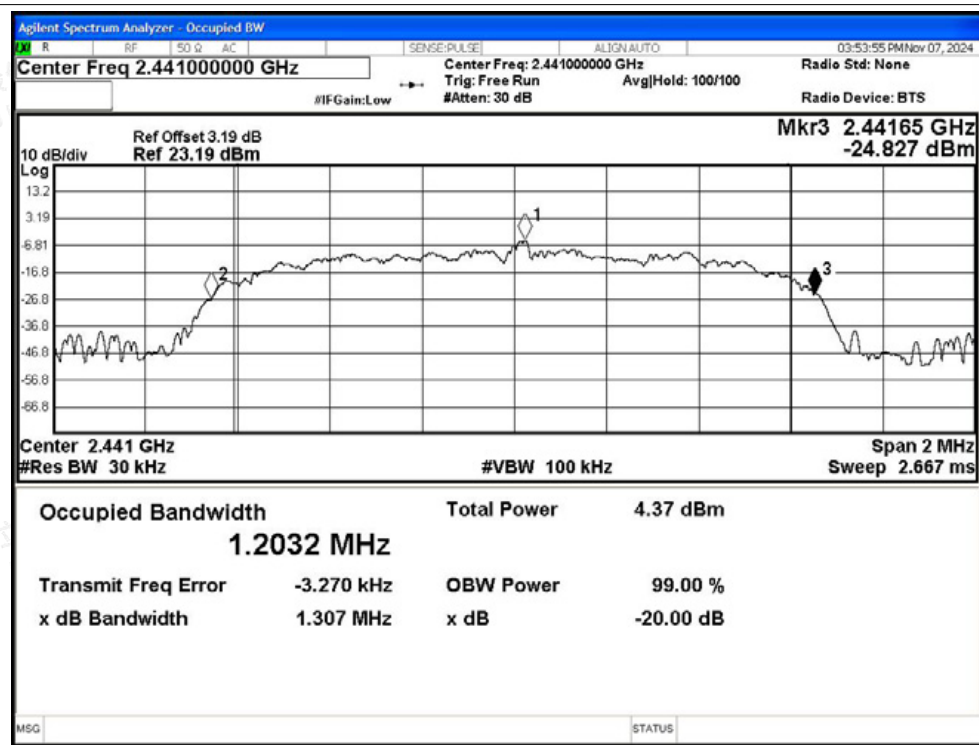
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-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



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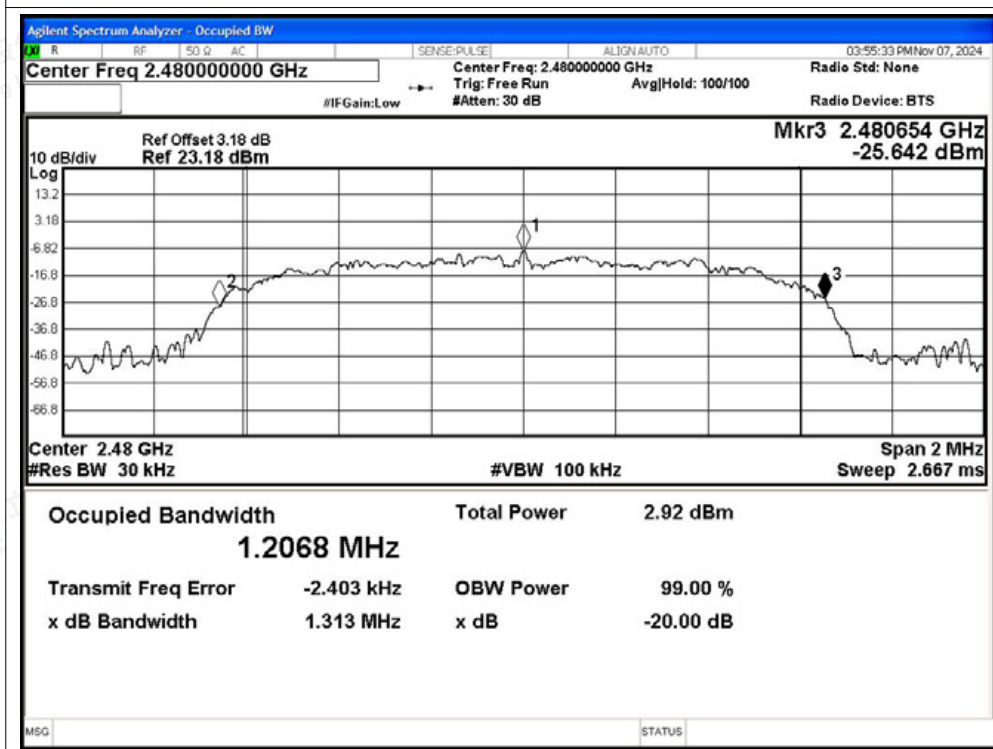
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-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1



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A.2 Maximum Conducted Output Power

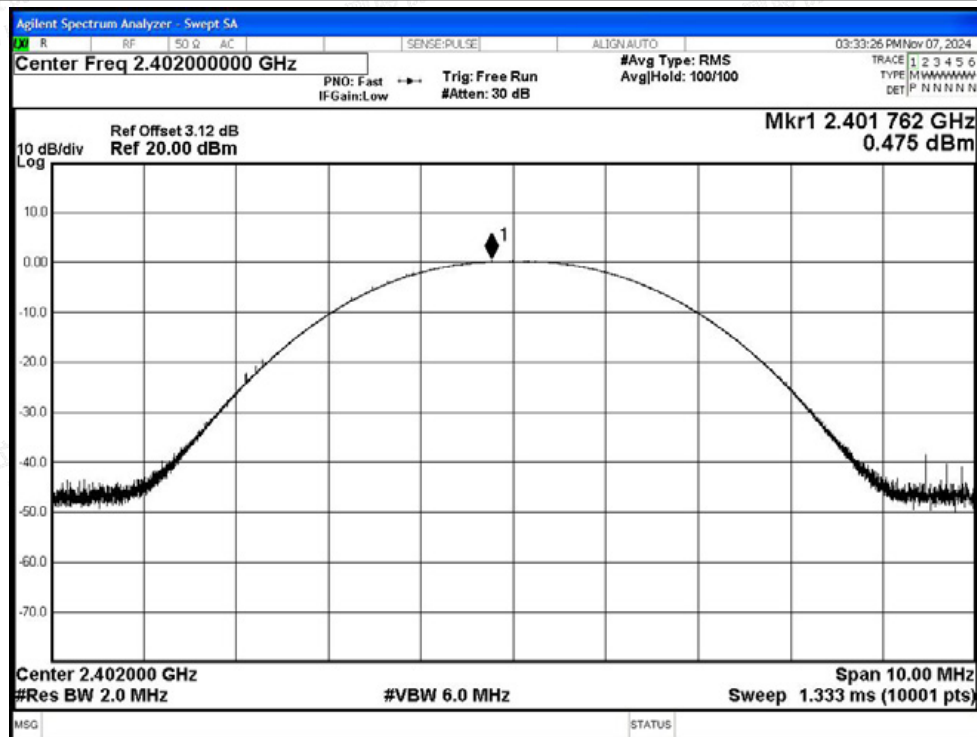
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	0.48	21	Pass
NVNT	1-DH5	2441	Ant1	0.77	21	Pass
NVNT	1-DH5	2480	Ant1	-0.26	21	Pass
NVNT	2-DH5	2402	Ant1	-0.31	21	Pass
NVNT	2-DH5	2441	Ant1	0.11	21	Pass
NVNT	2-DH5	2480	Ant1	0.53	21	Pass
NVNT	3-DH5	2402	Ant1	0.16	21	Pass
NVNT	3-DH5	2441	Ant1	0.62	21	Pass
NVNT	3-DH5	2480	Ant1	-0.49	21	Pass



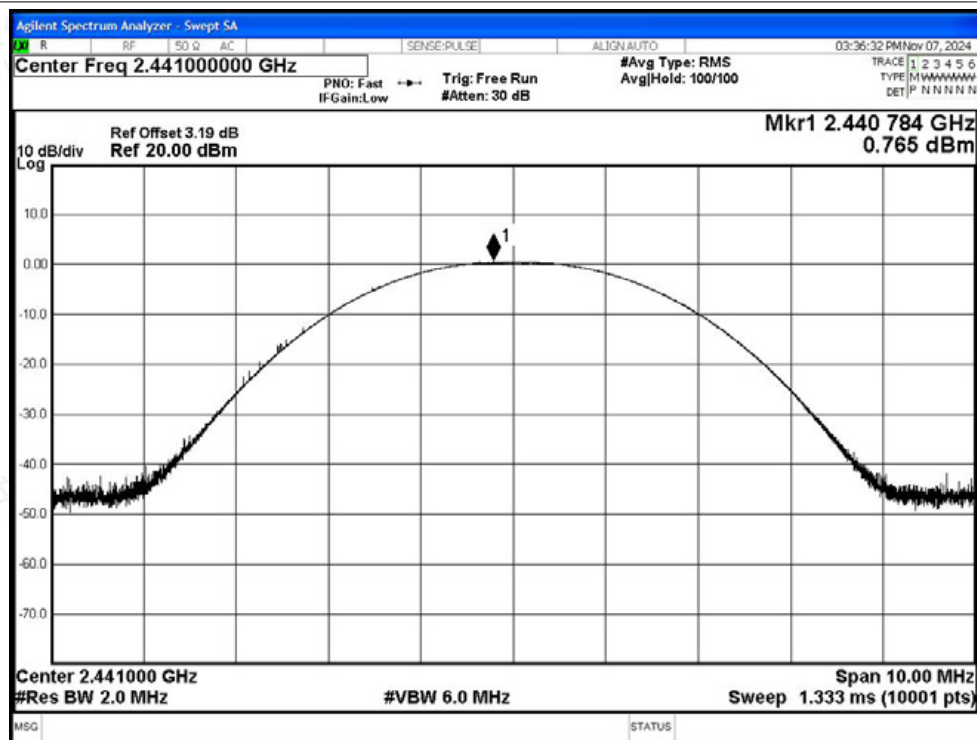


Test Graphs

Power NVNT 1-DH5 2402MHz Ant1

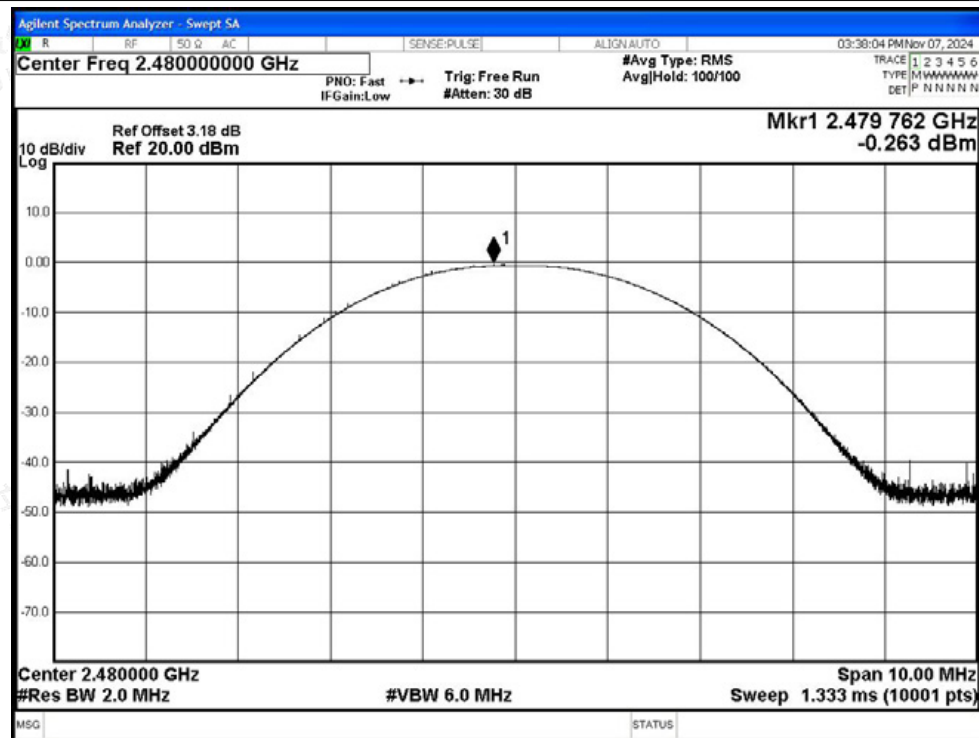


Power NVNT 1-DH5 2441MHz Ant1

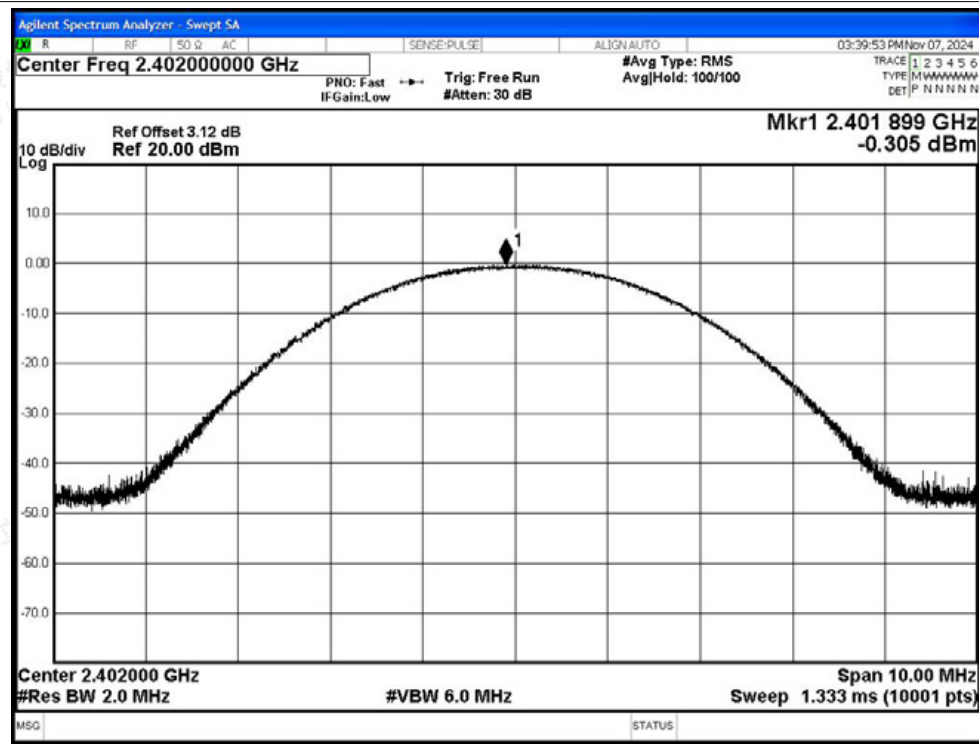




Power NVNT 1-DH5 2480MHz Ant1

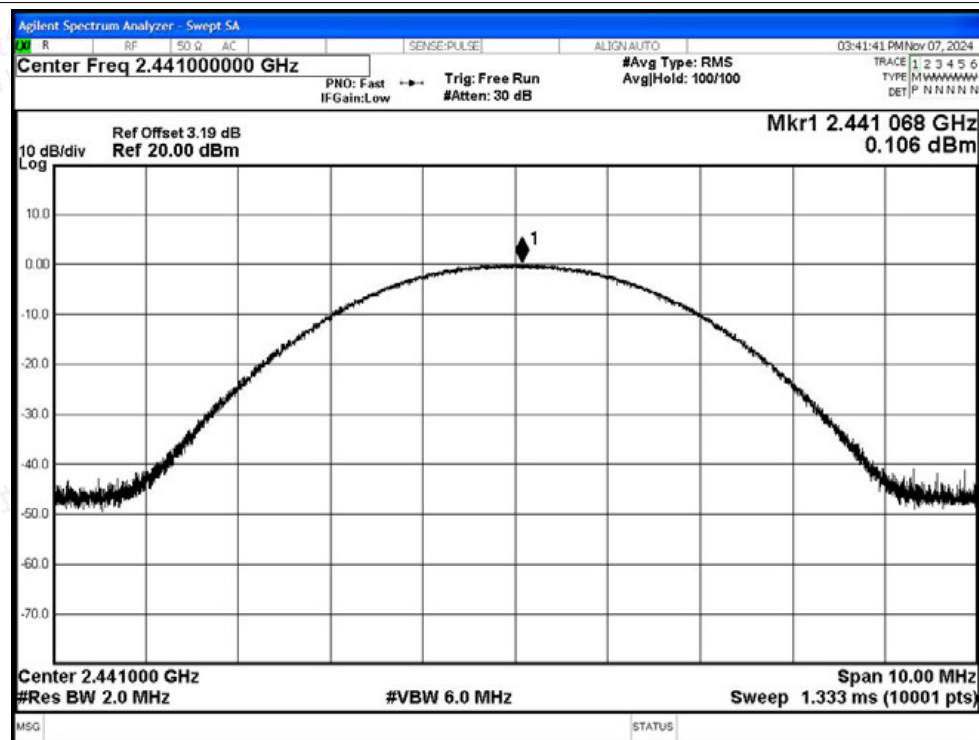


Power NVNT 2-DH5 2402MHz Ant1

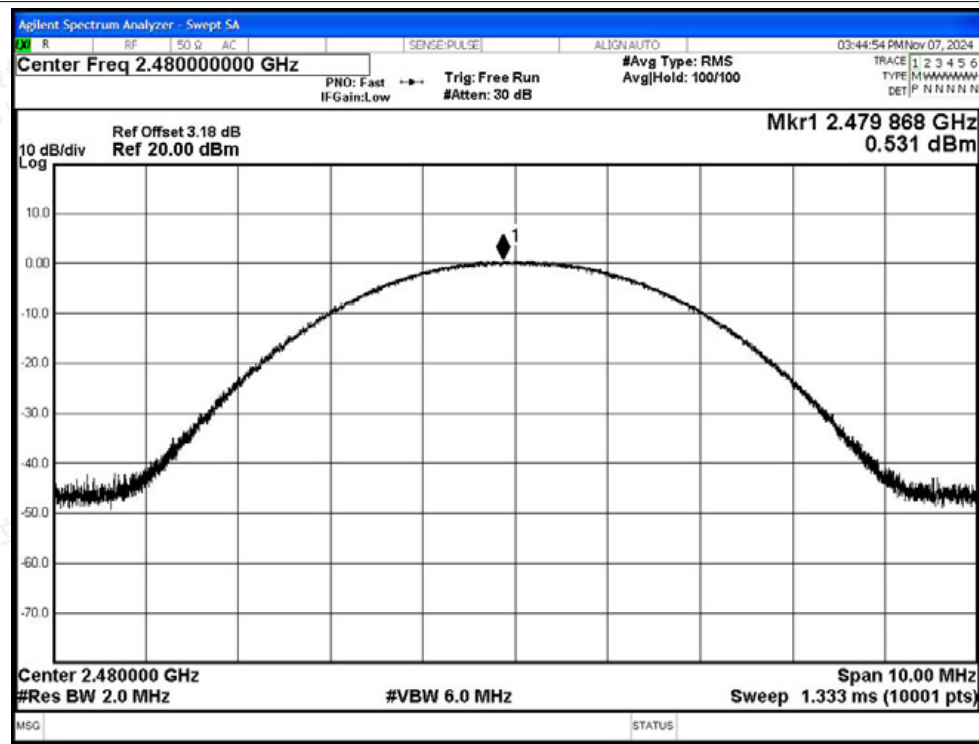




Power NVNT 2-DH5 2441MHz Ant1



Power NVNT 2-DH5 2480MHz Ant1



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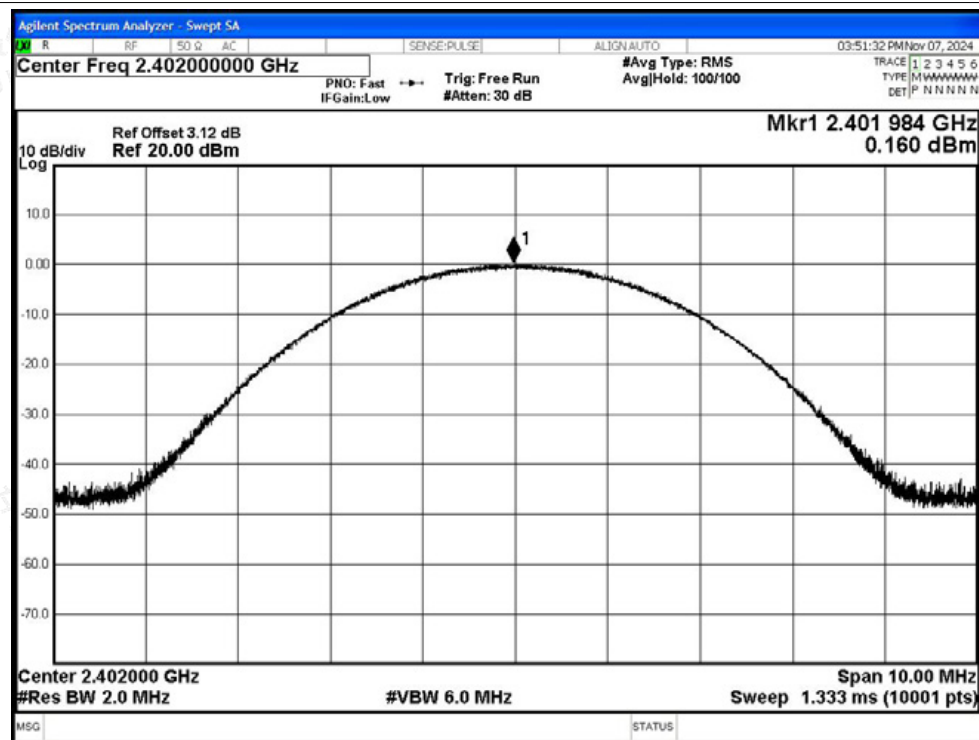
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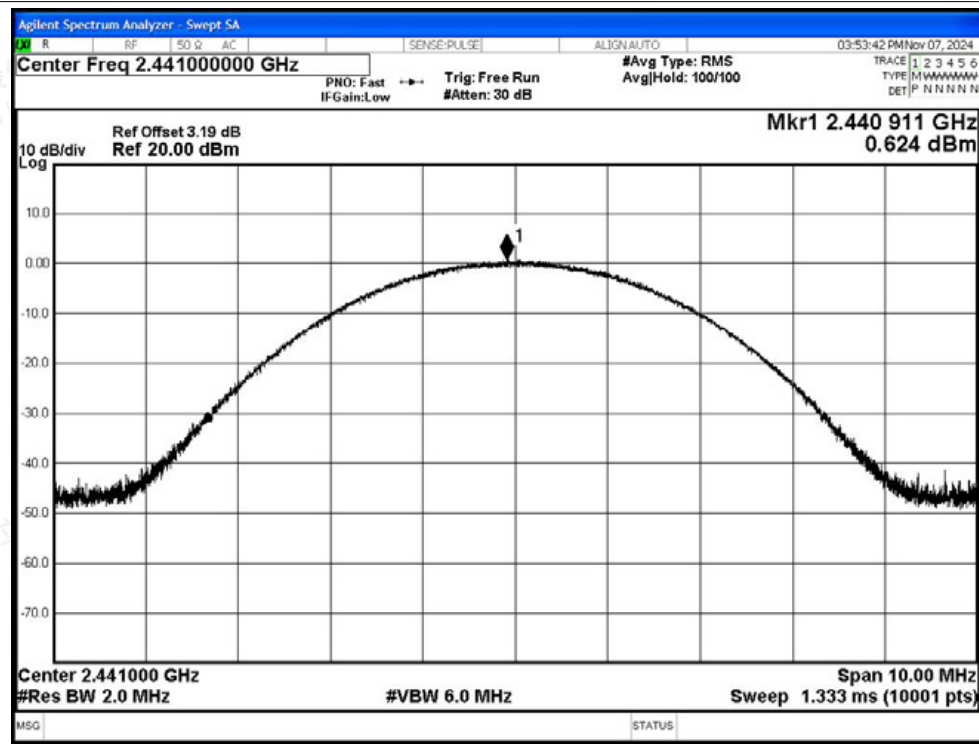
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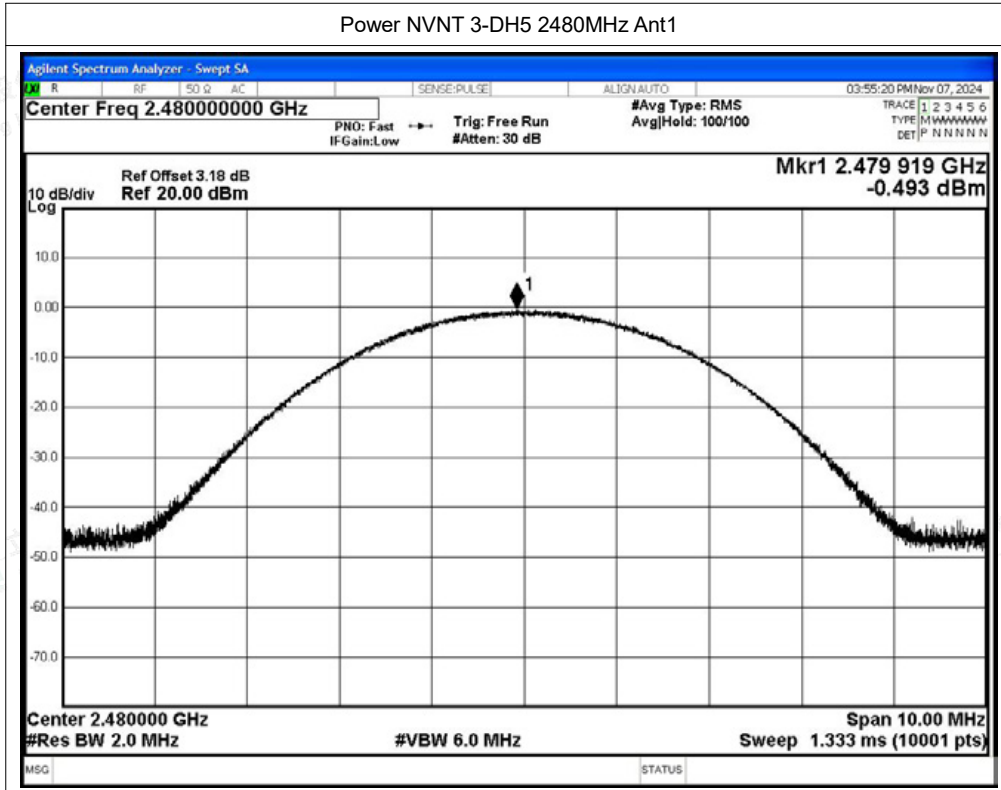


Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1







A.3 Carrier Frequencies Separation

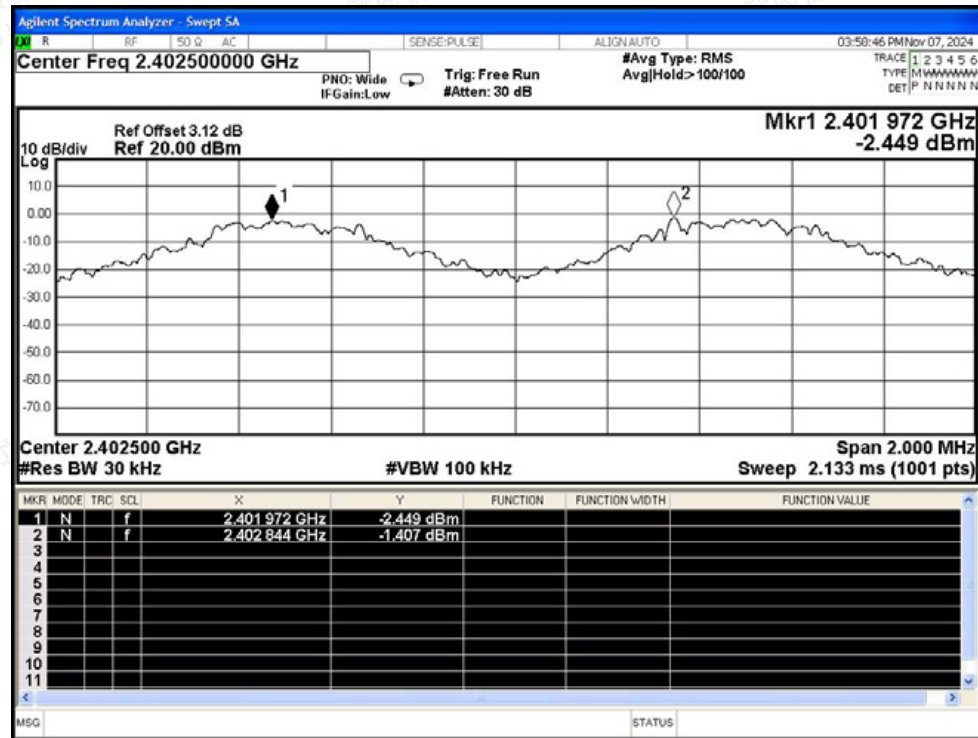
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.972	2402.844	0.872	0.649	Pass
NVNT	2-DH5	Ant1	2402.01	2403.016	1.006	0.858	Pass
NVNT	3-DH5	Ant1	2402.03	2403.026	0.996	0.872	Pass



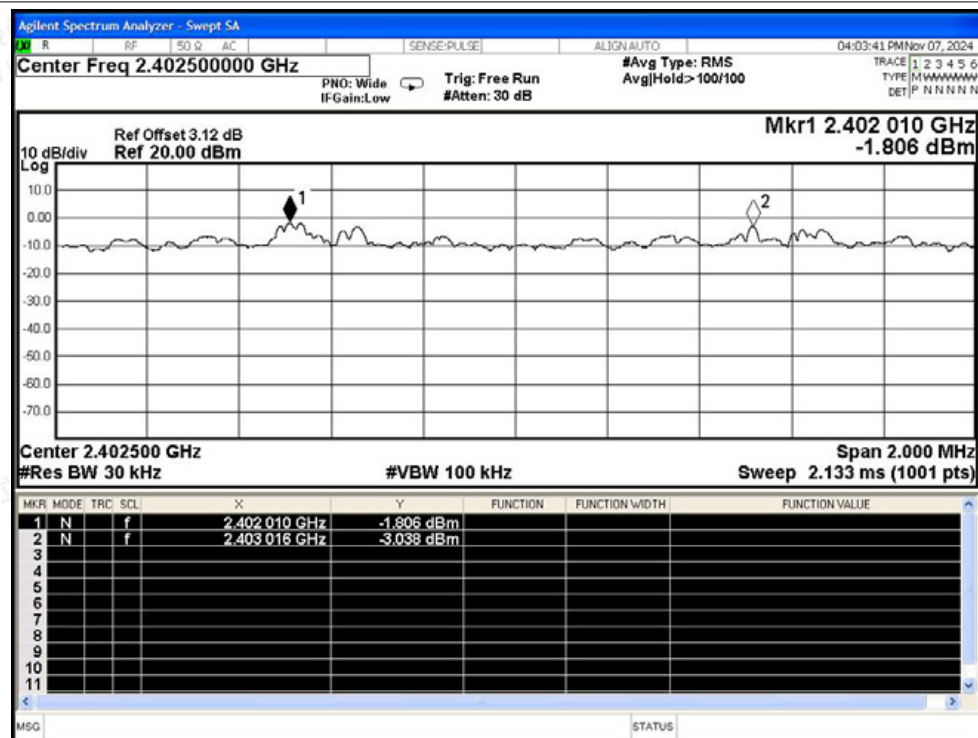


Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1



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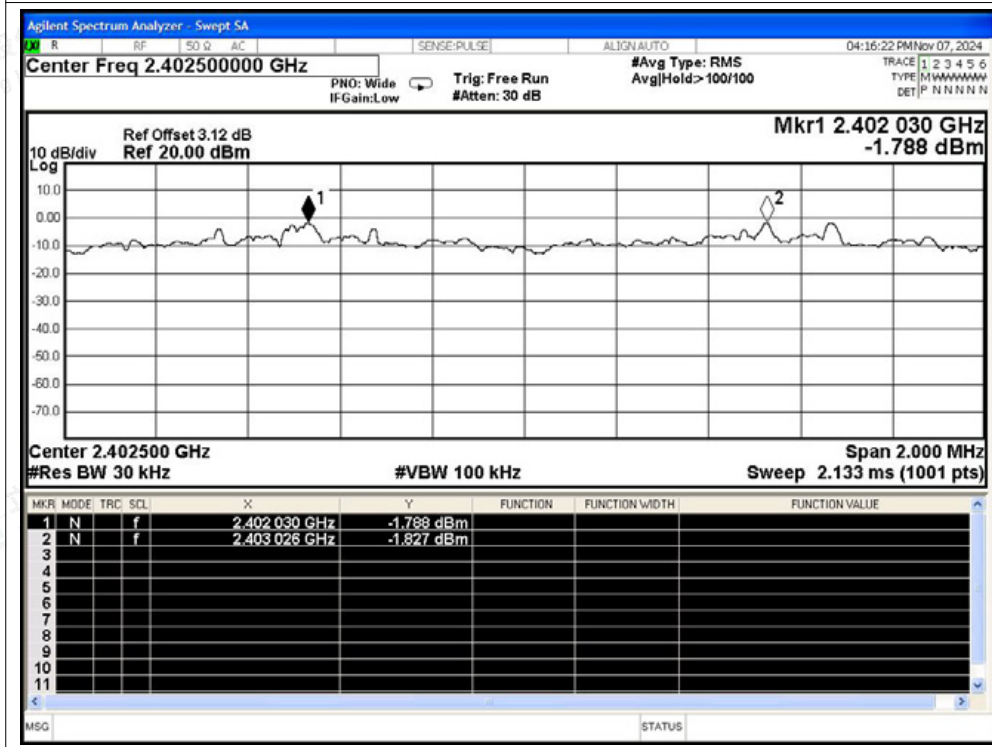
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CFS NVNT 3-DH5 2402MHz Ant1





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	2.91	334.65	115	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.898	333.27	115	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.897	338.949	117	31600	400	Pass

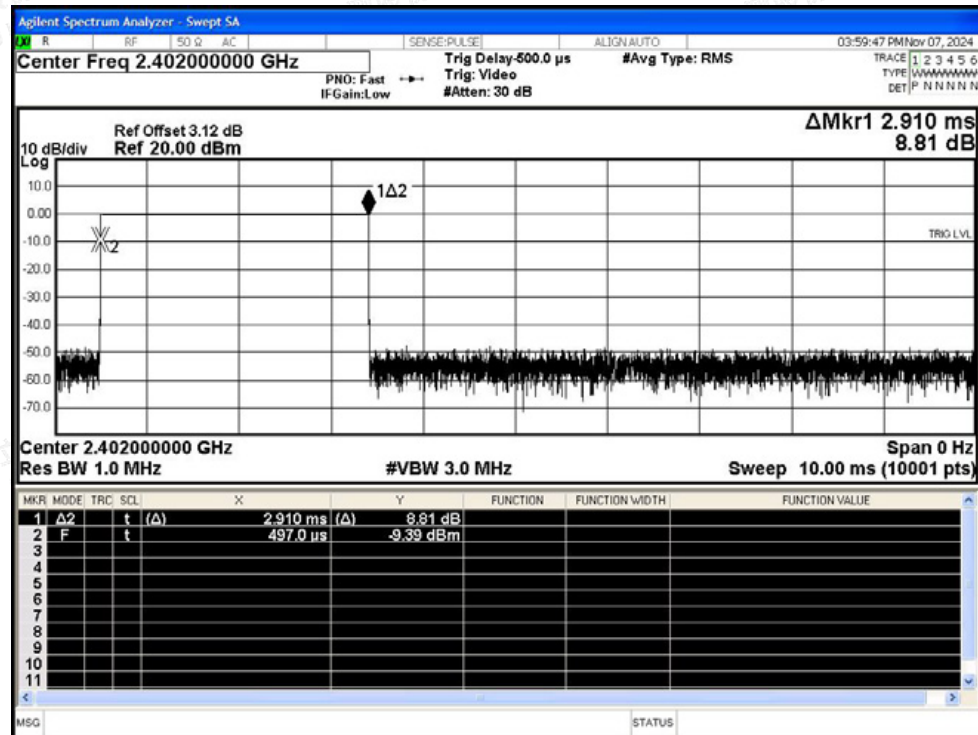


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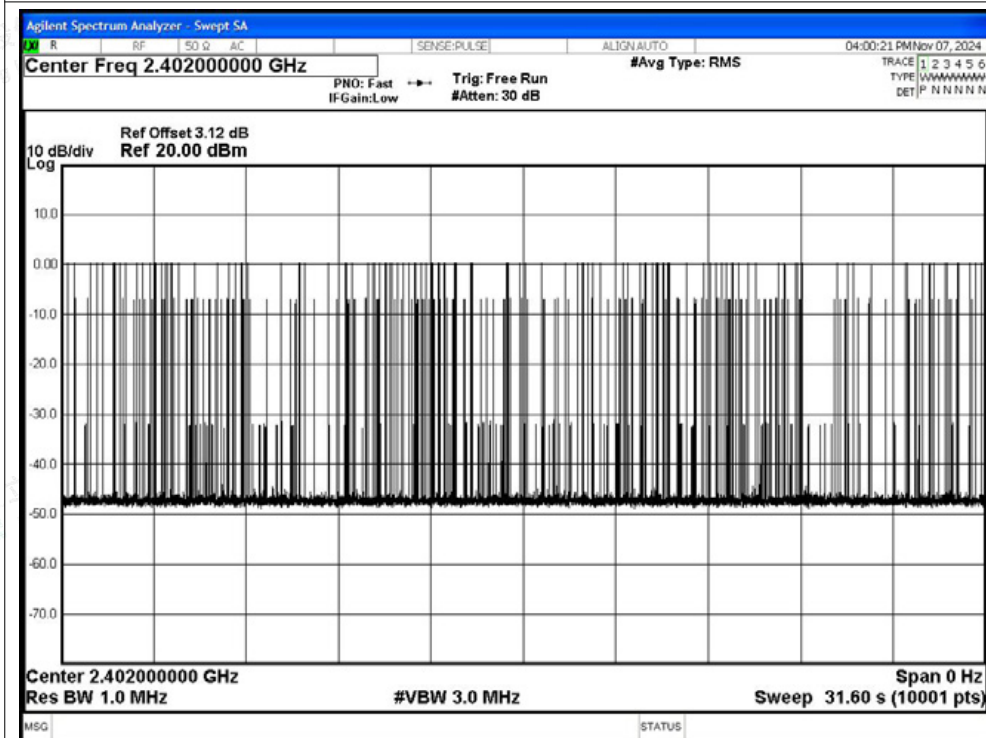


Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



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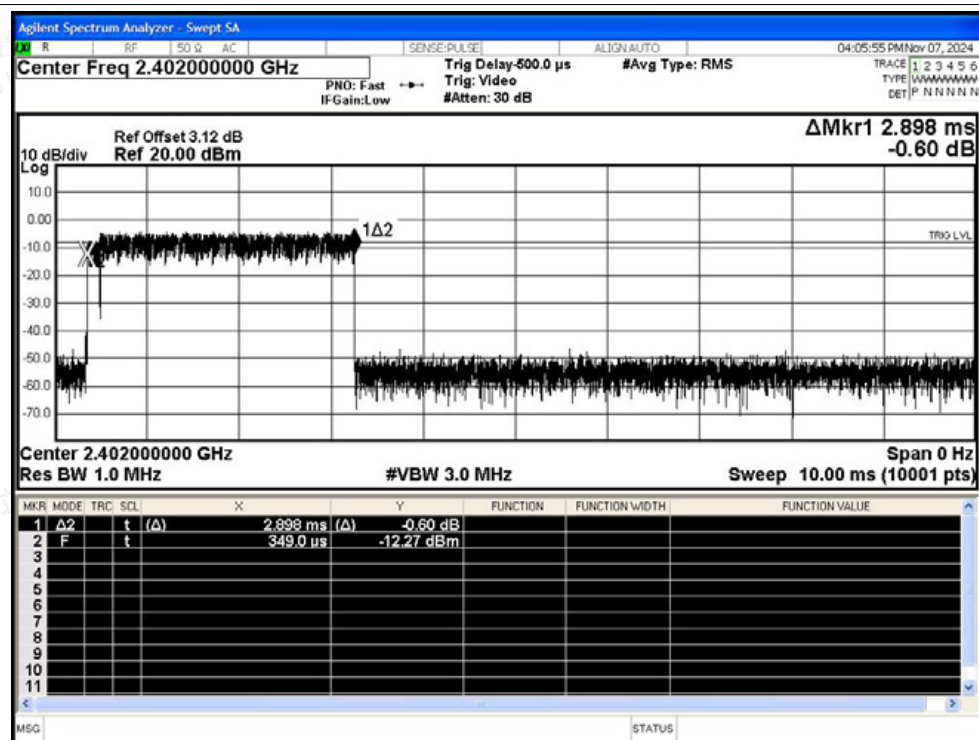
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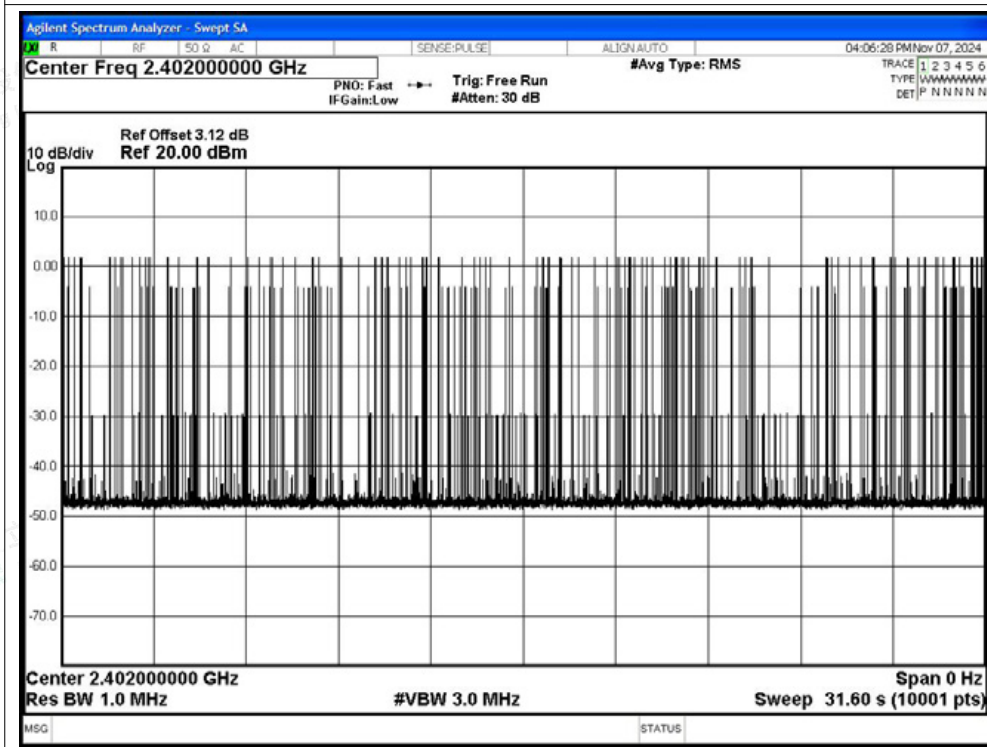
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Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated



Shenzhen LCS Compliance Testing Laboratory Ltd.

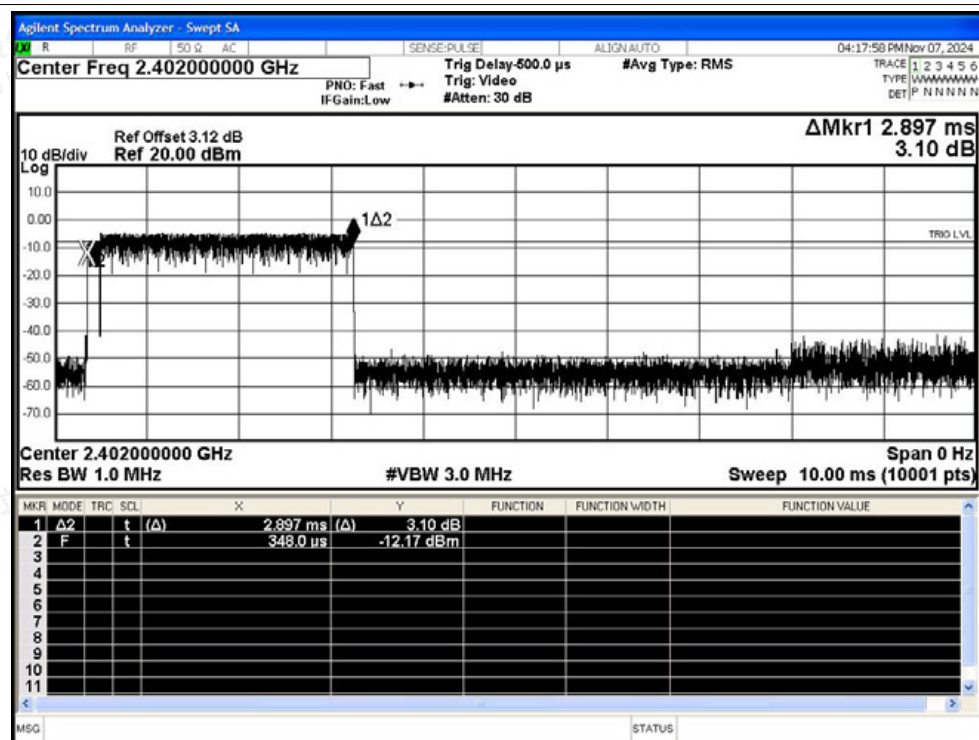
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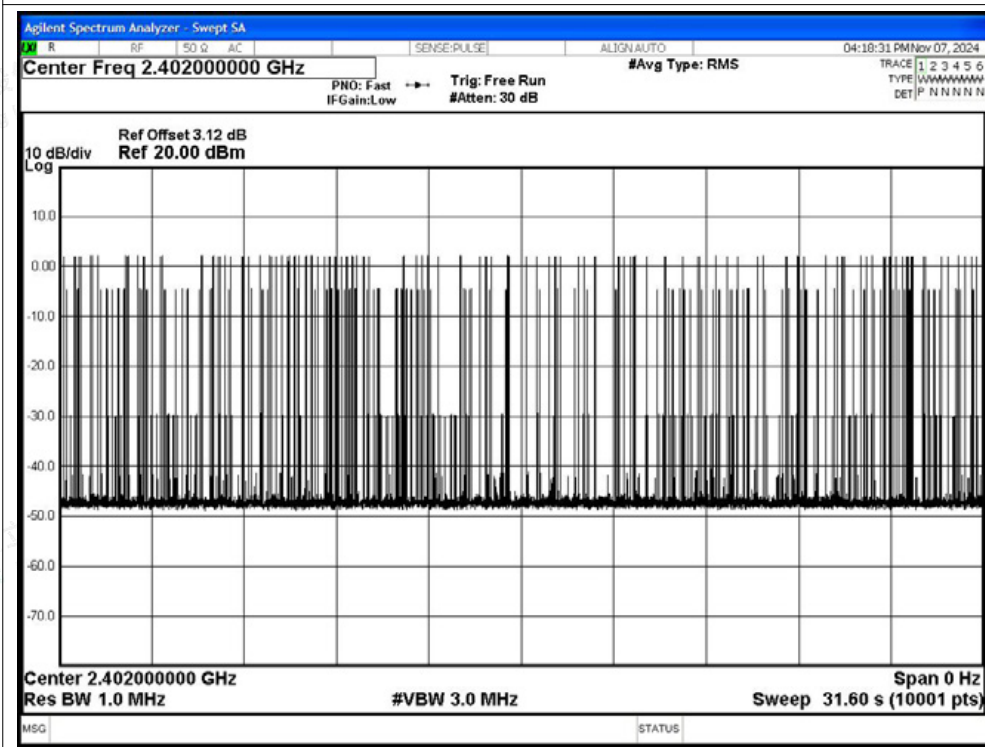
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Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated



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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

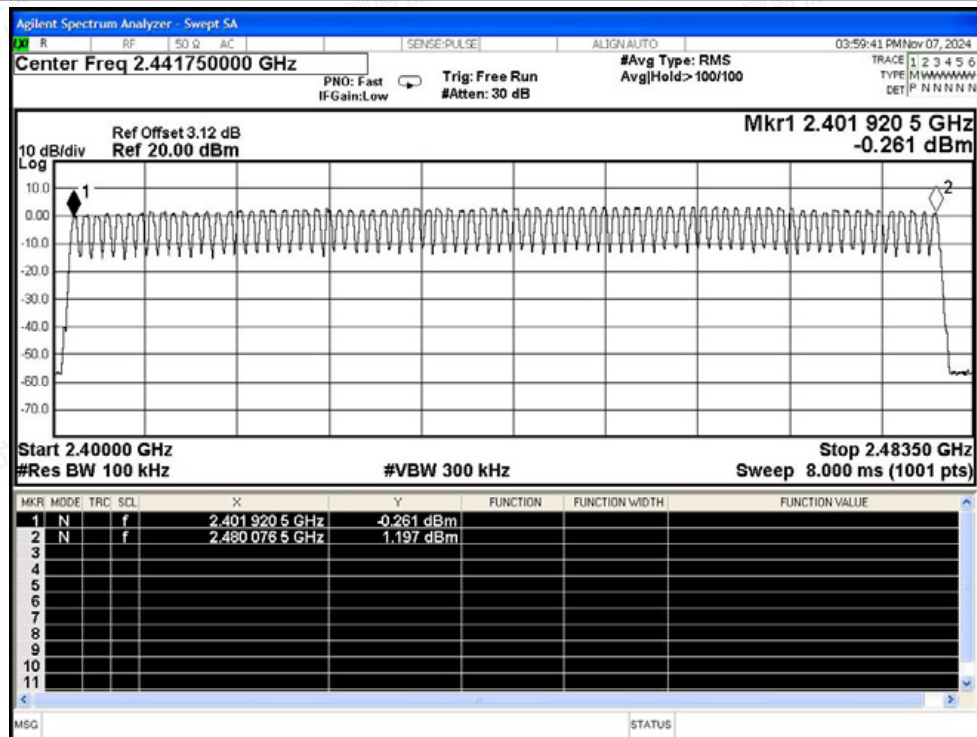


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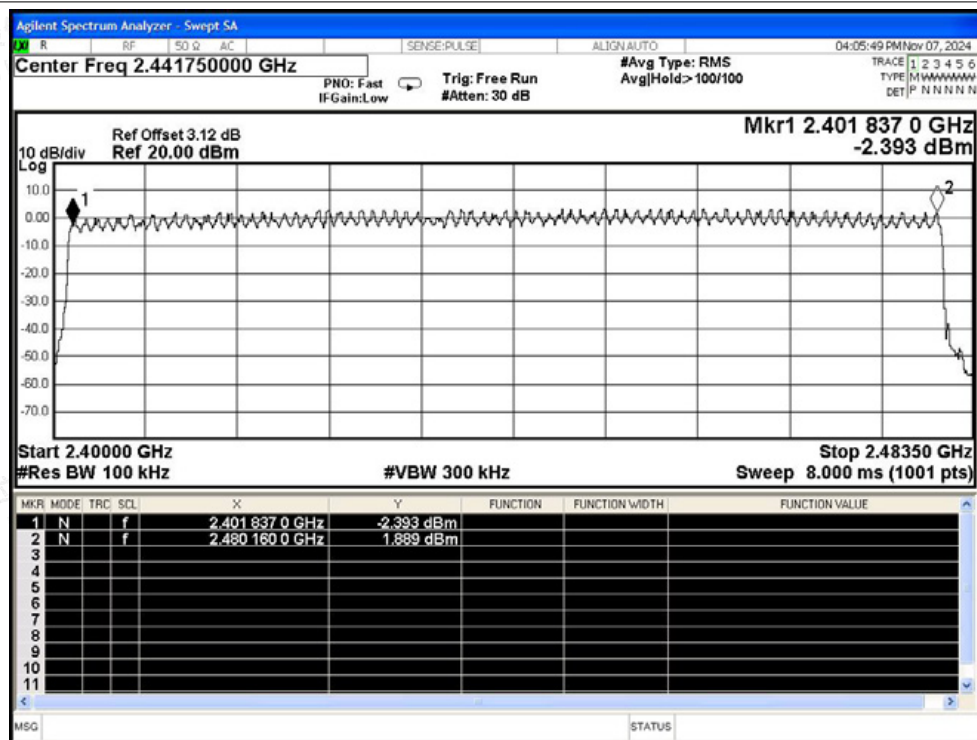


Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1

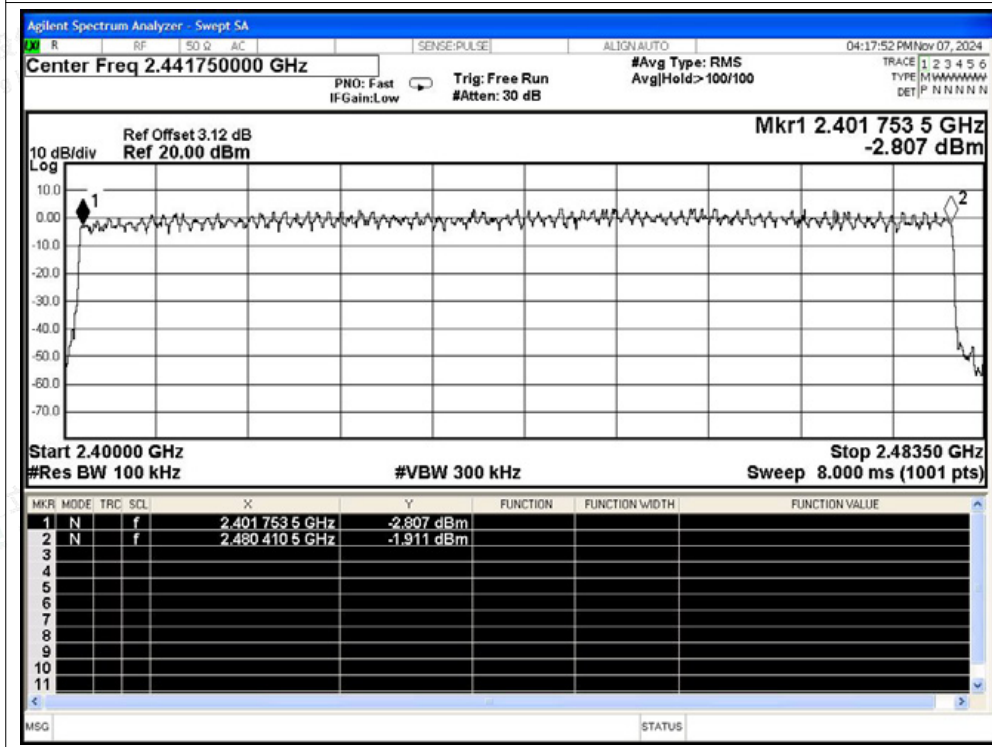


Hopping No. NVNT 2-DH5 2402MHz Ant1





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	-55.55	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-55.39	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-50.42	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-53.8	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-51.4	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-52.76	-20	Pass

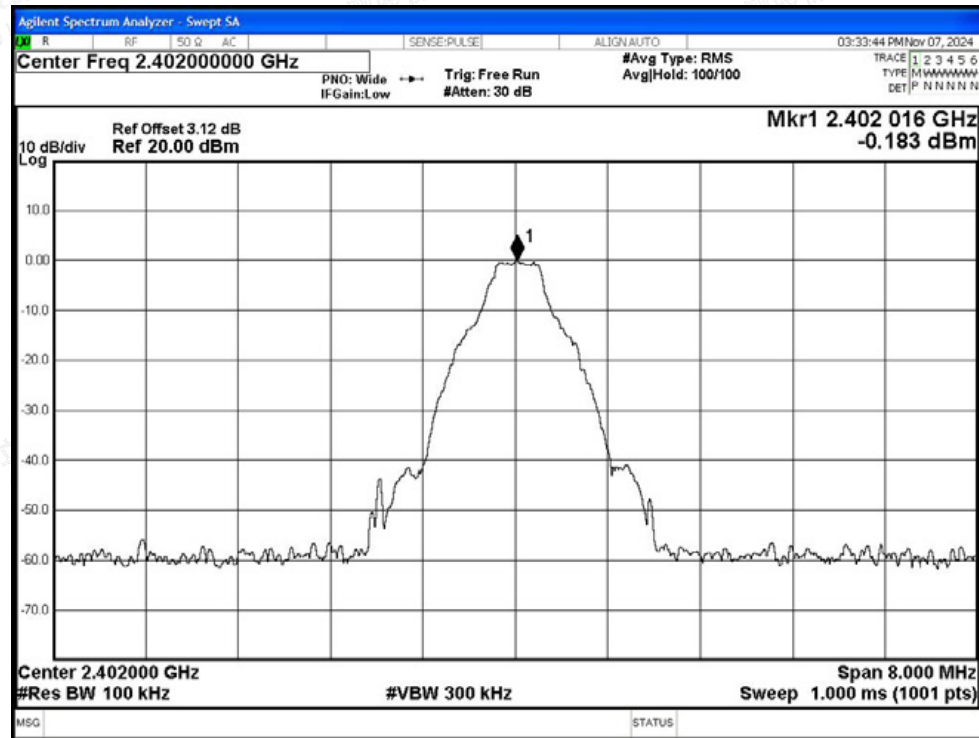


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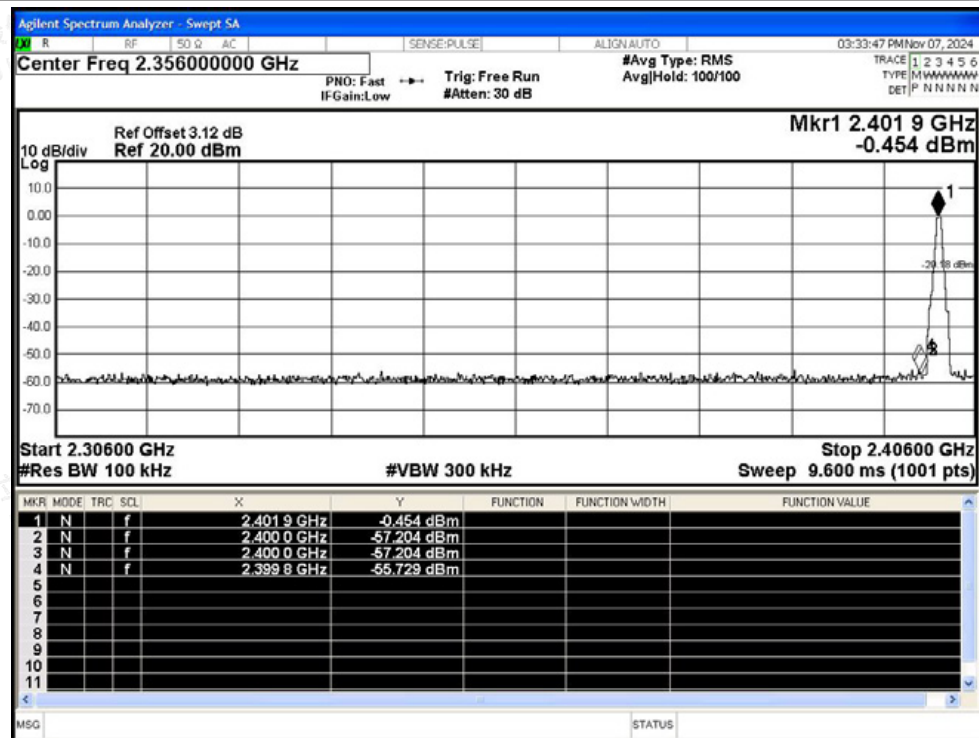


Test Graphs

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



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



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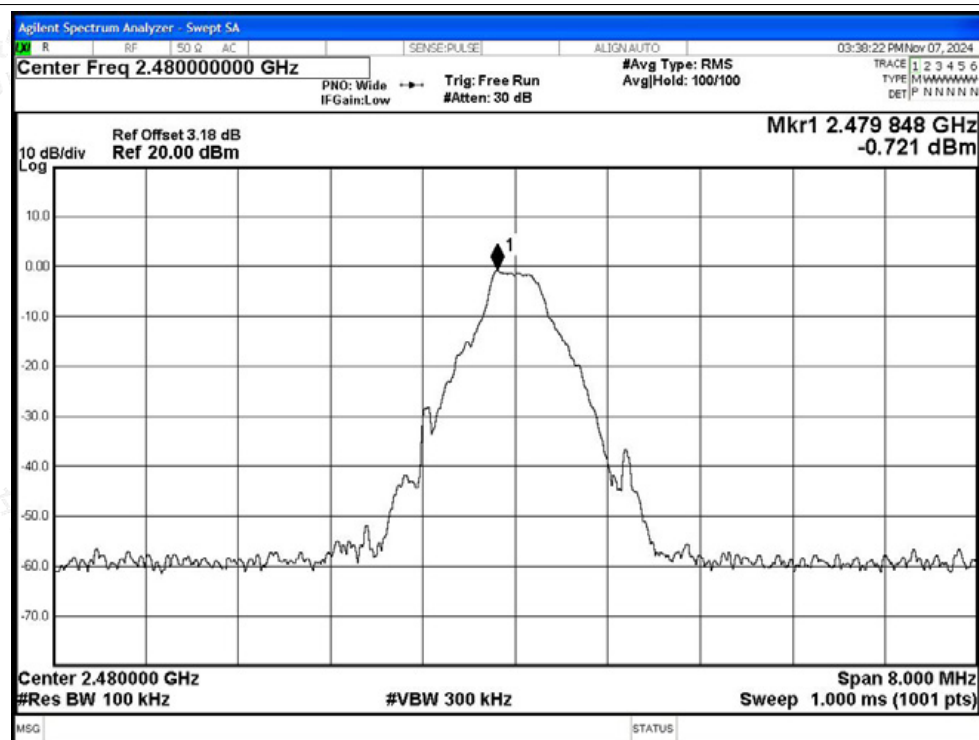
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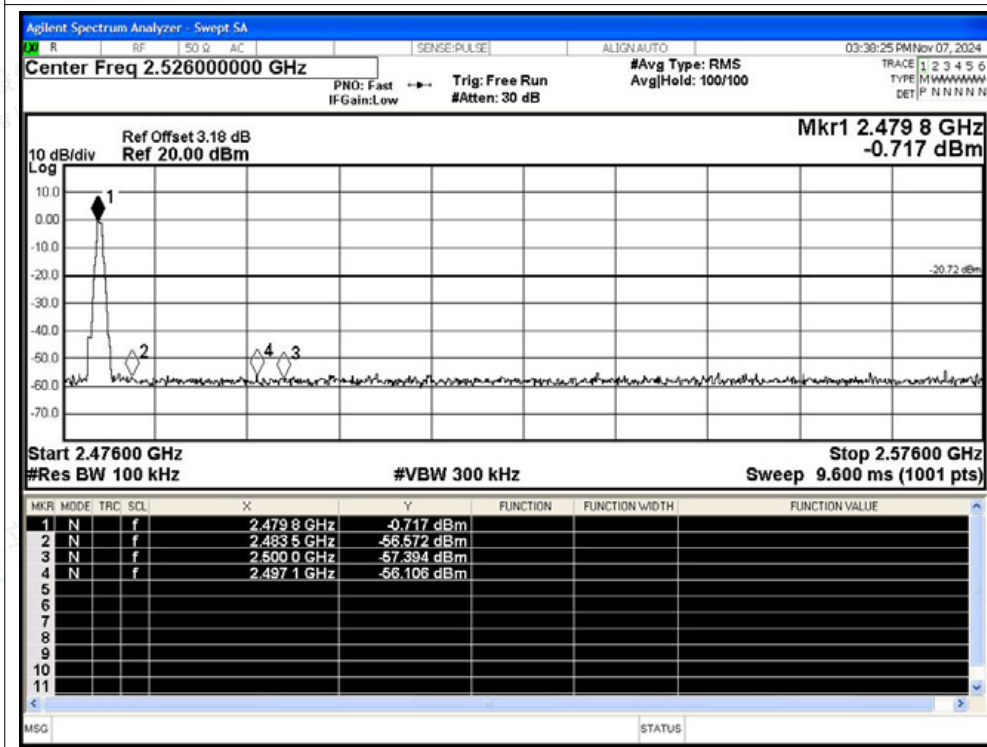
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Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



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



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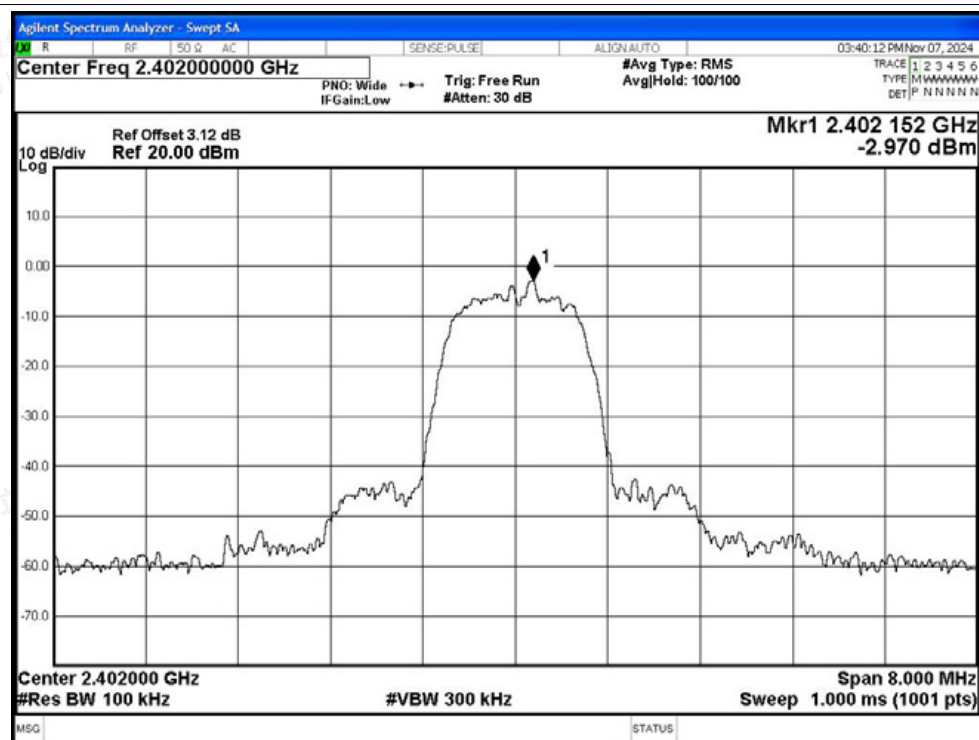
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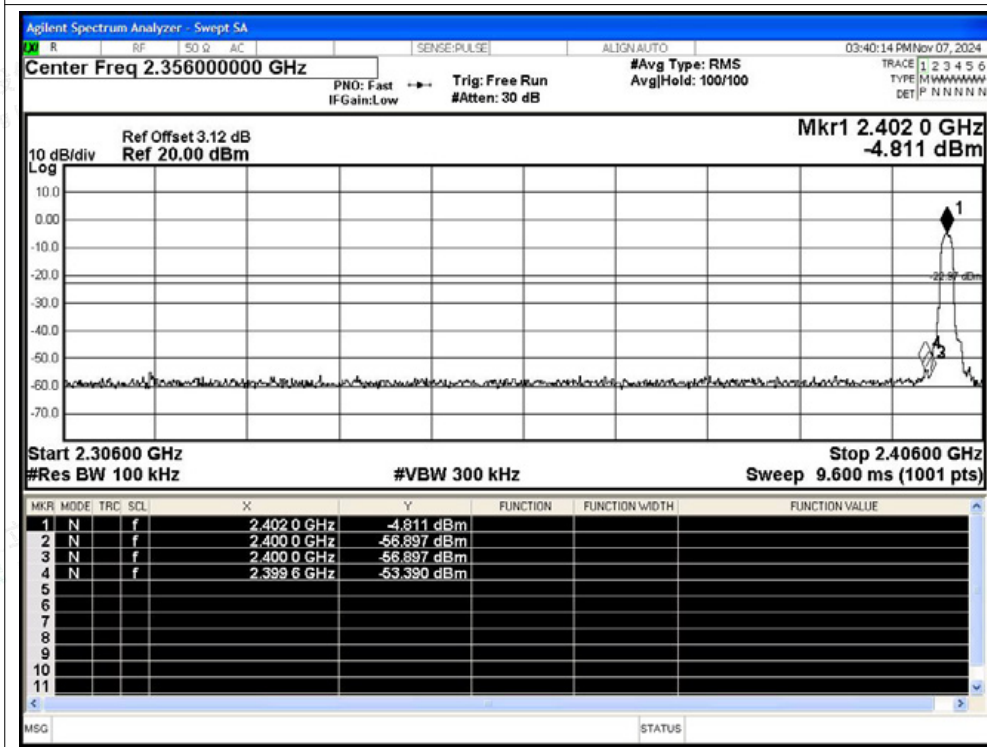
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Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



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



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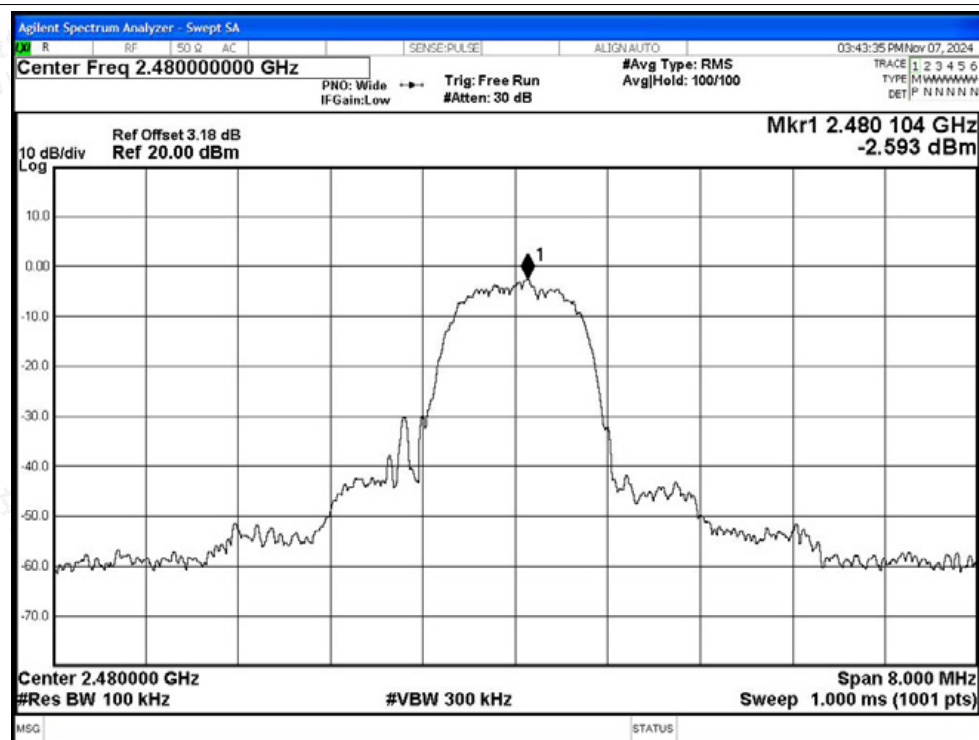
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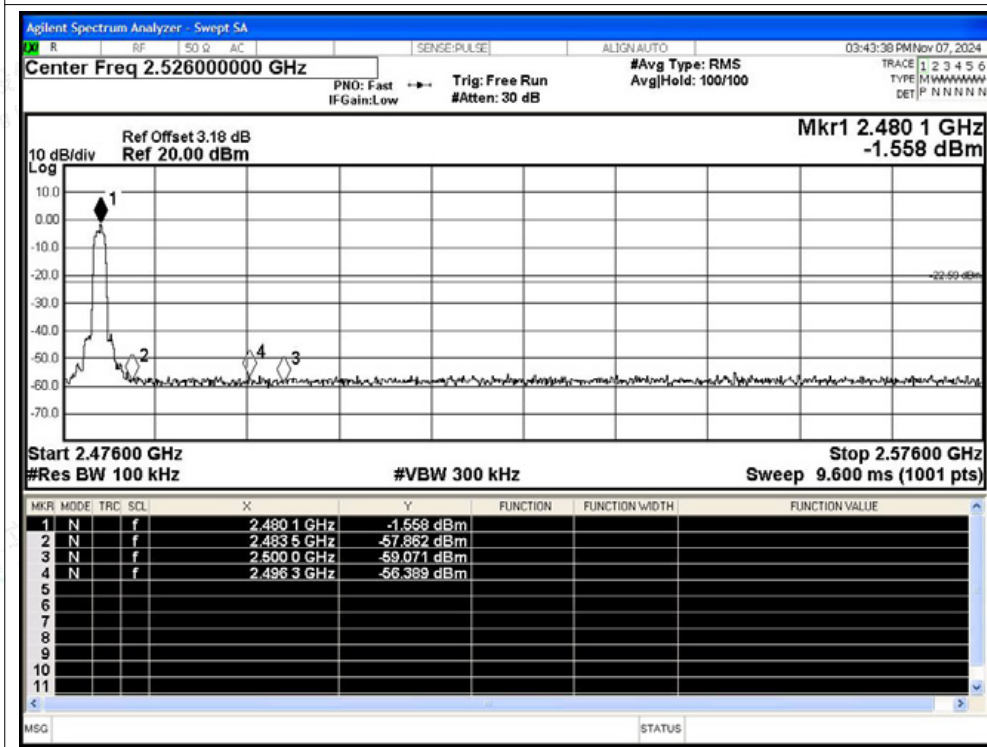
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Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



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



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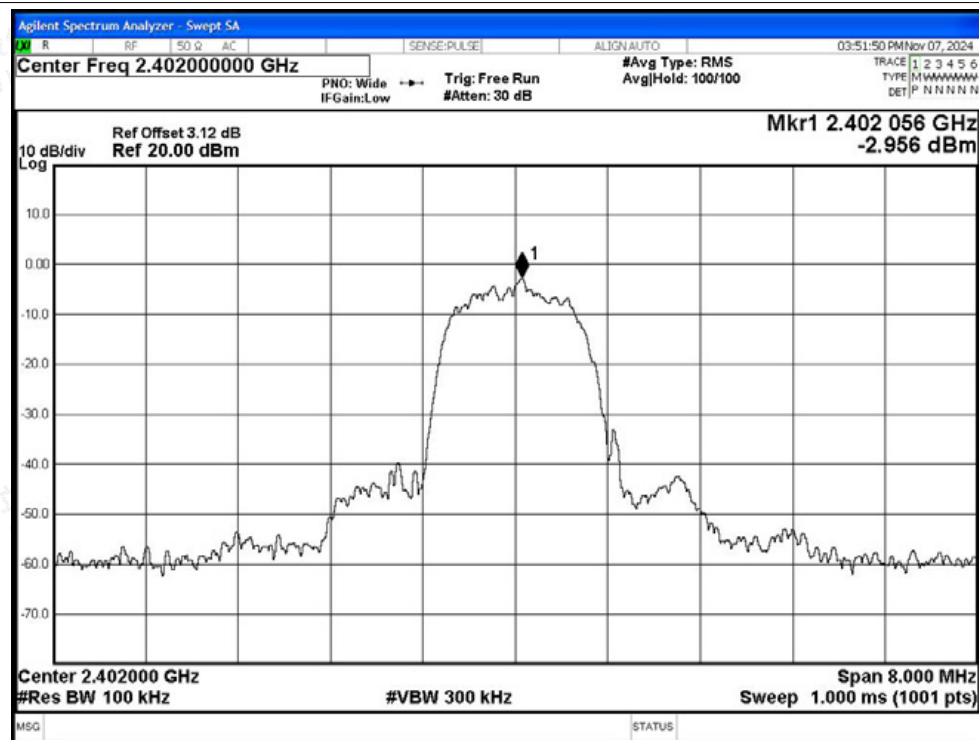
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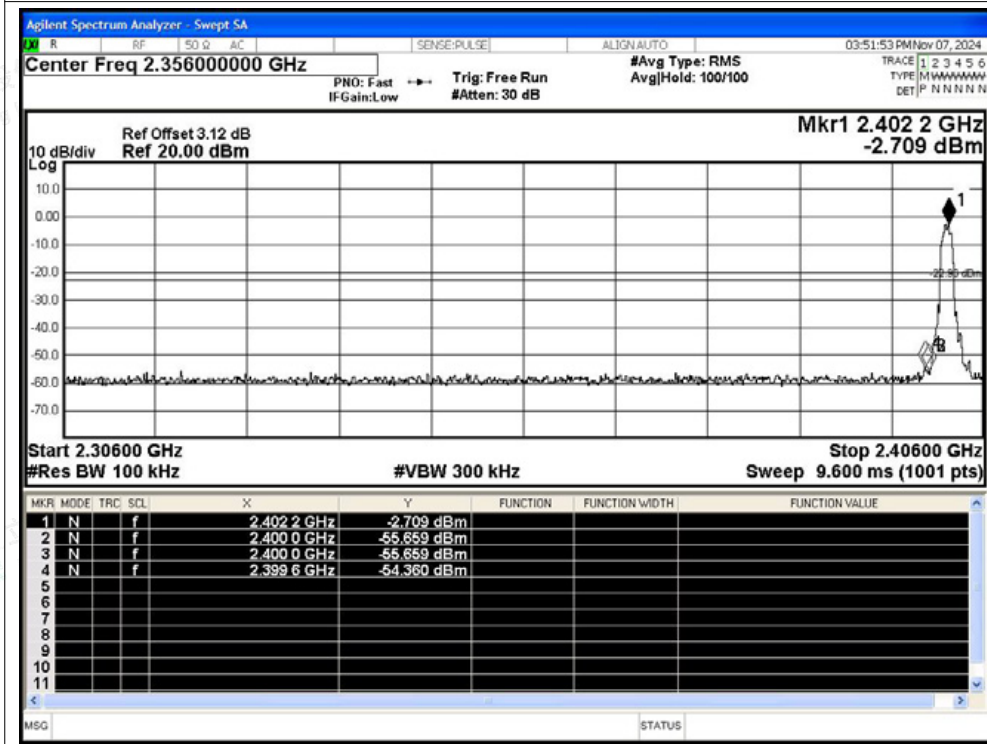
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Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref

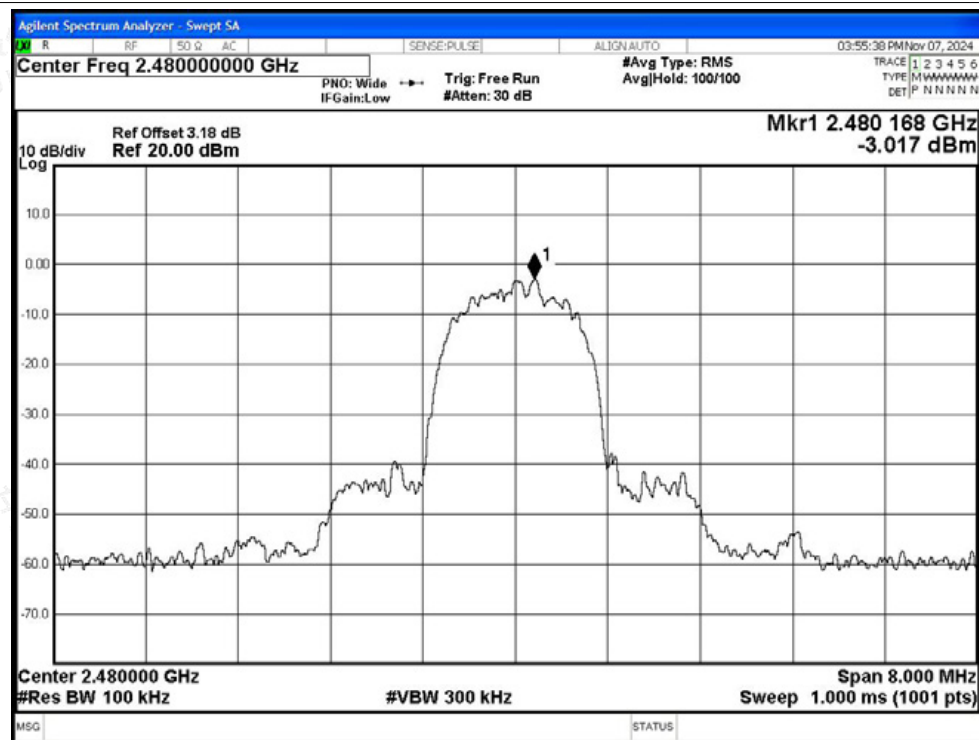


Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission

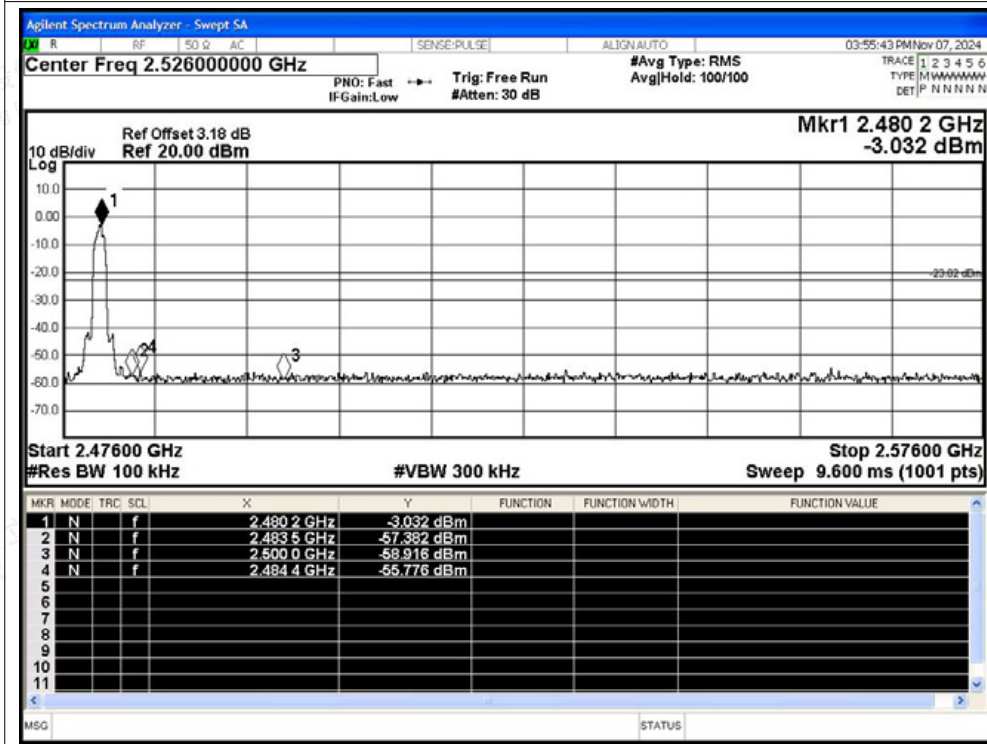




Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



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



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**(Hopping)**

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-55.58	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-56.7	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-55.5	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-56.09	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-54.65	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-55.62	-20	Pass

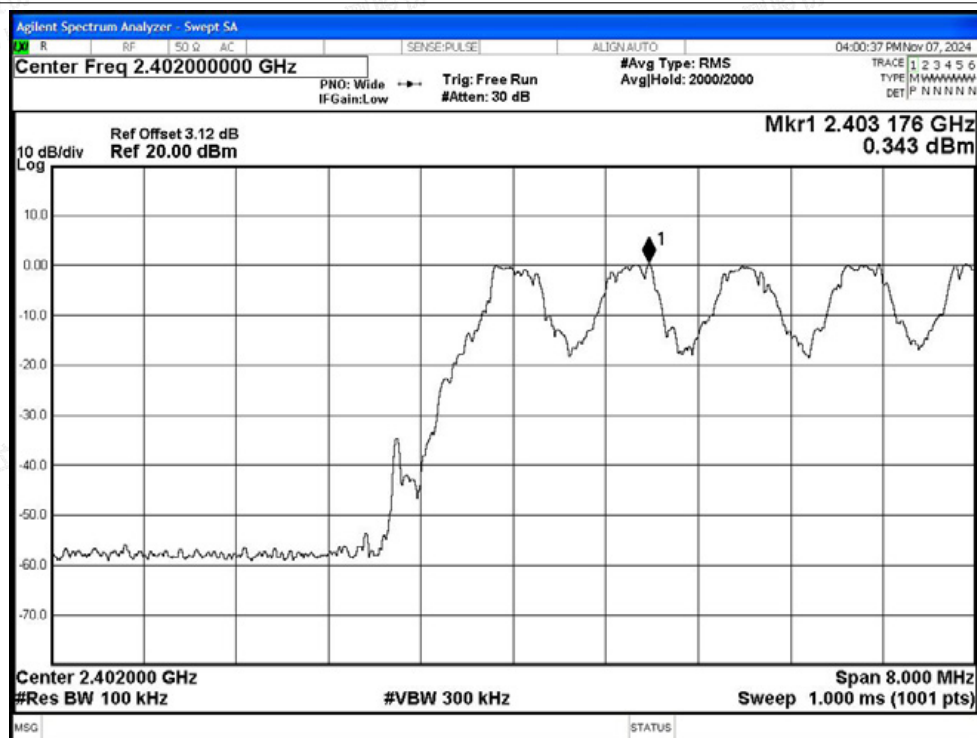


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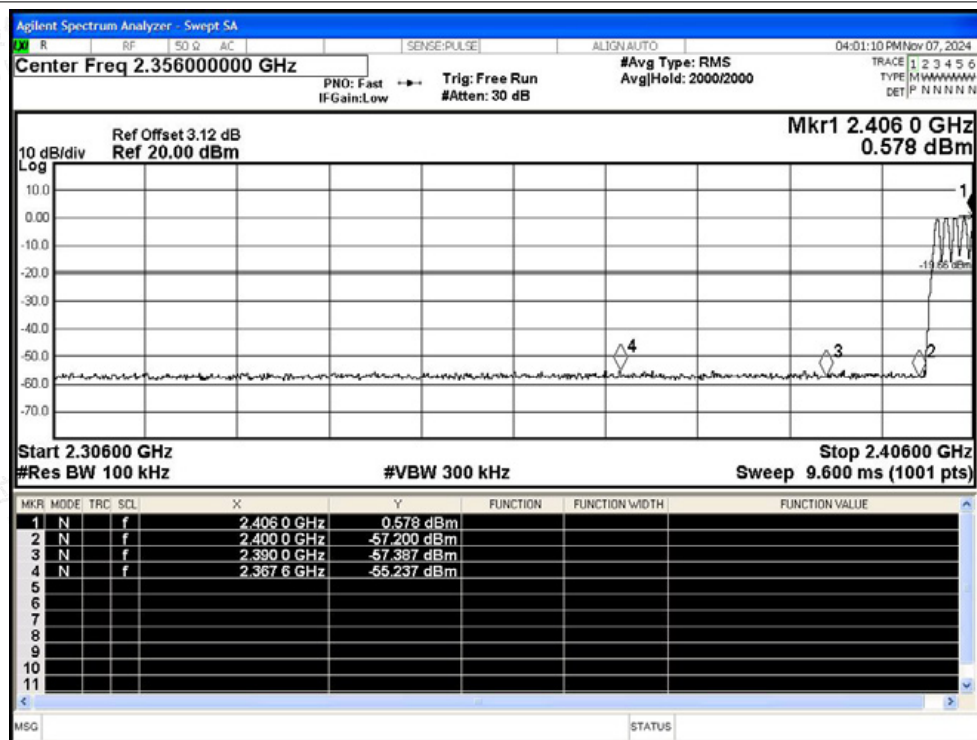


Test Graphs

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



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



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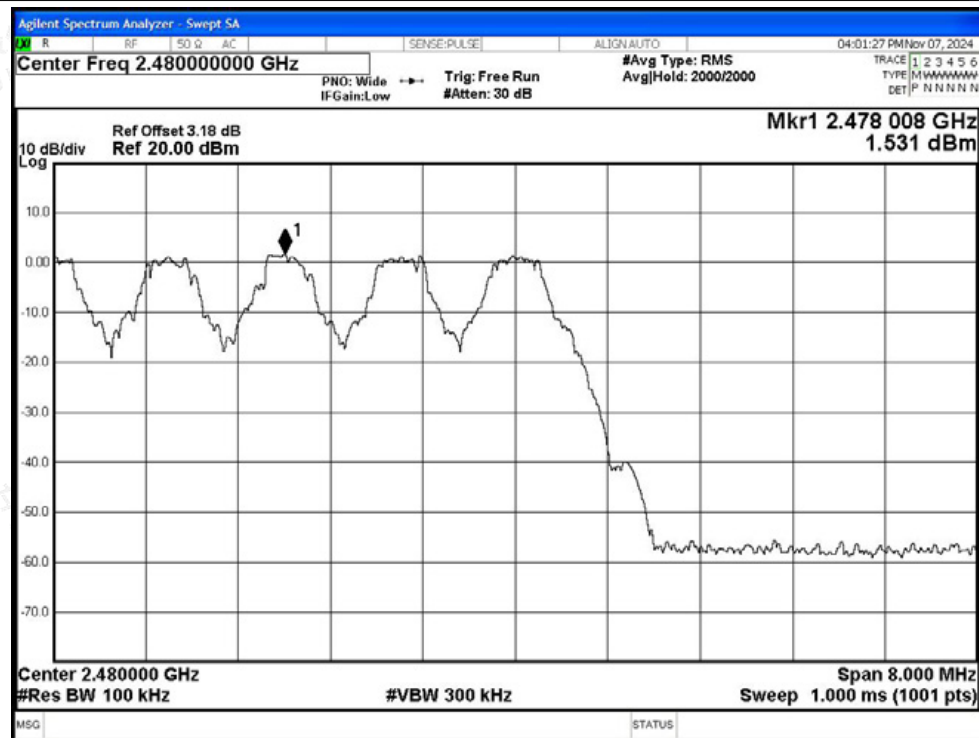
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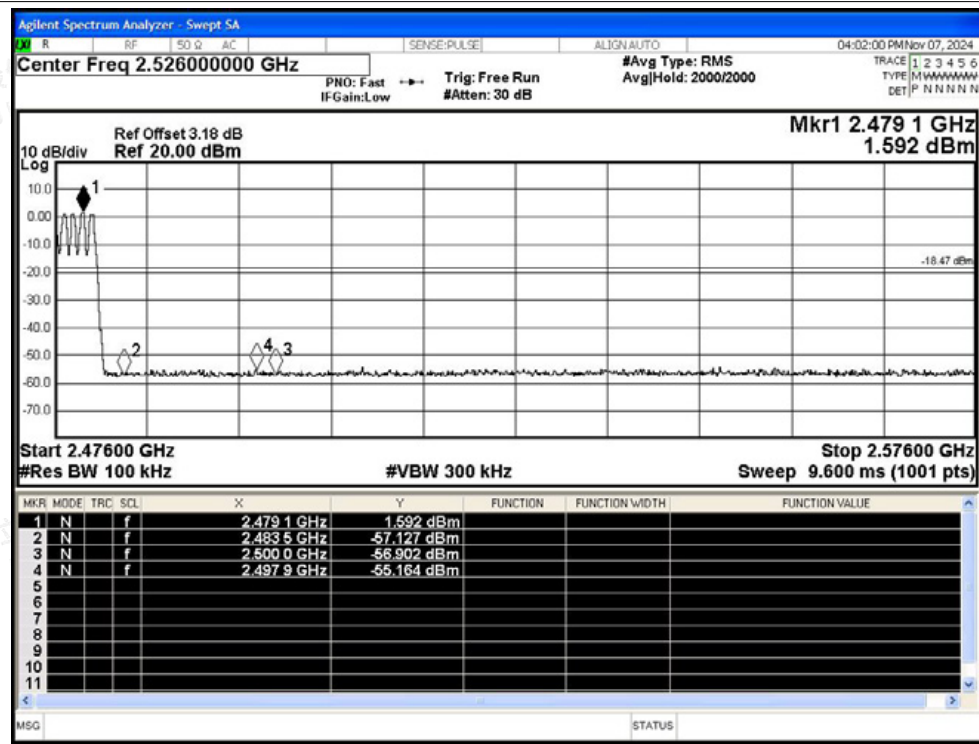
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Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



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



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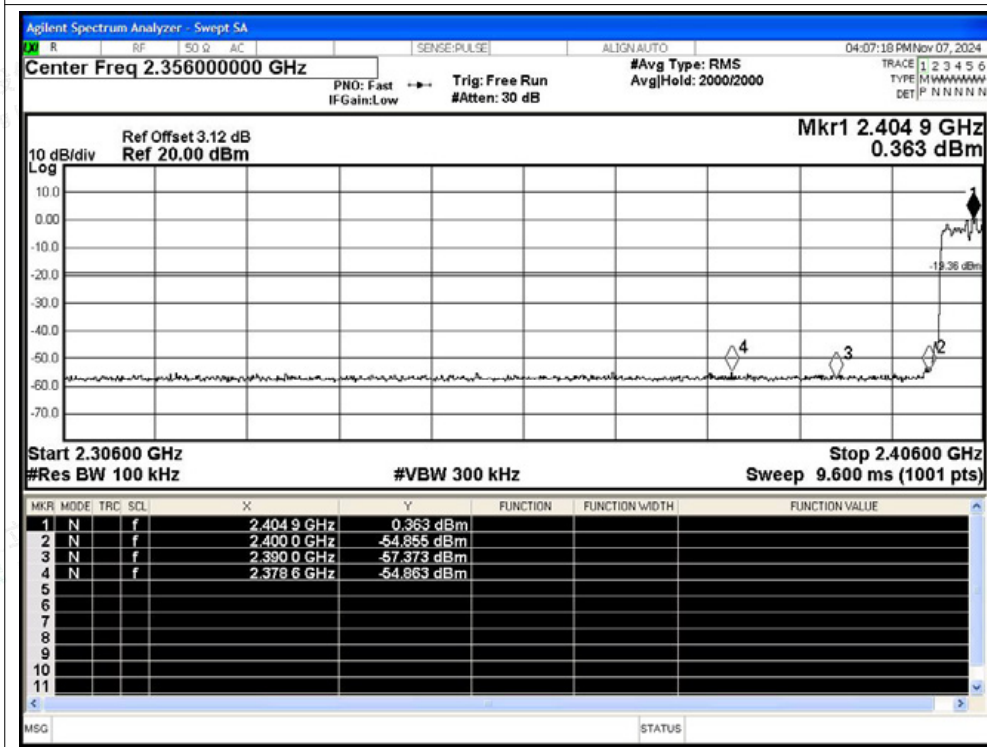
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Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



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



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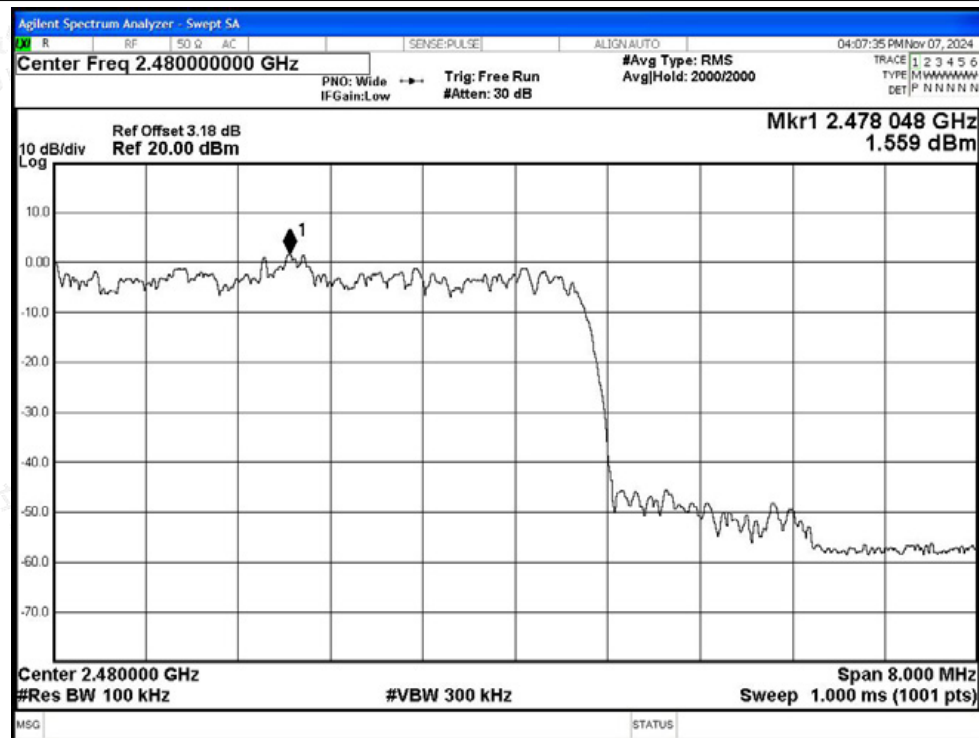
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

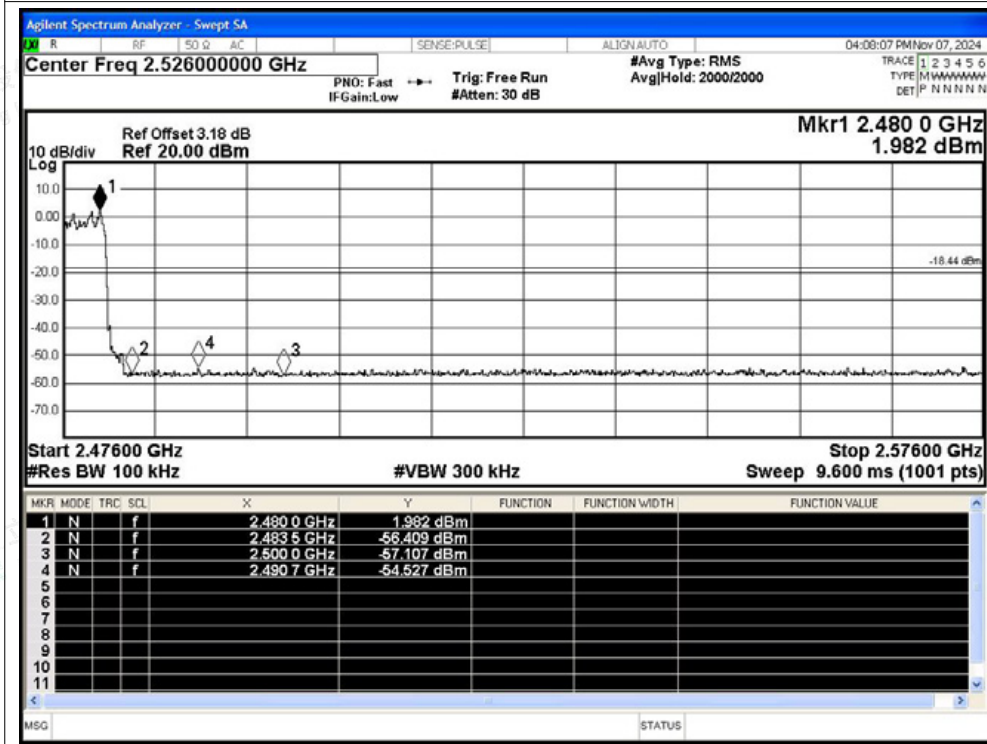
Scan code to check authenticity



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



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



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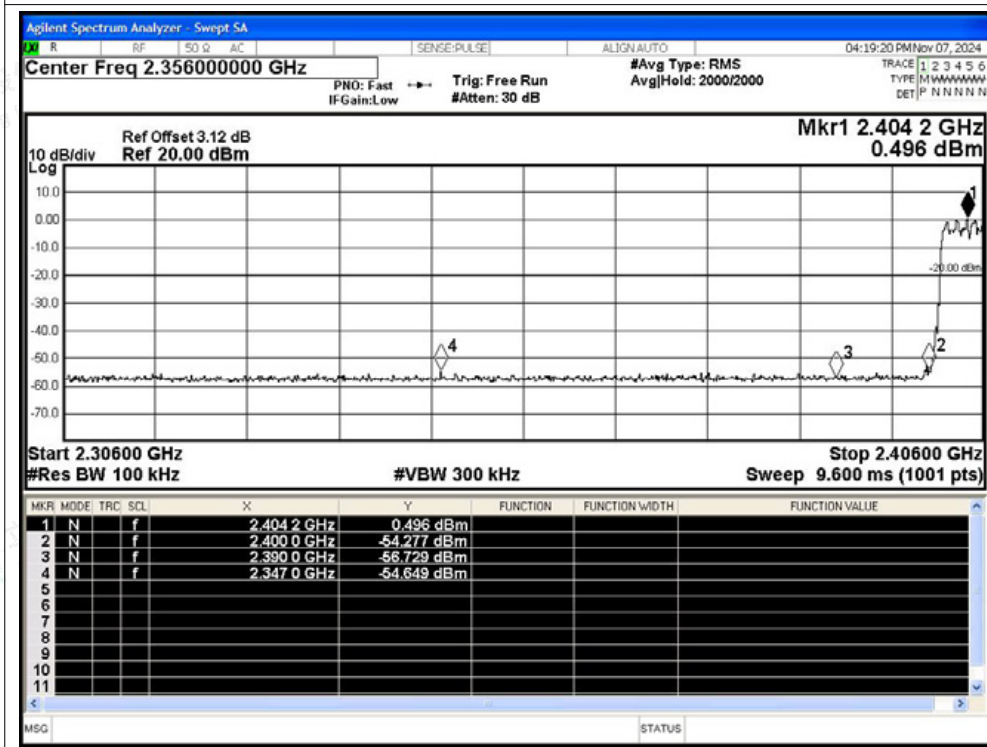
Scan code to check authenticity



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



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



Shenzhen LCS Compliance Testing Laboratory Ltd.

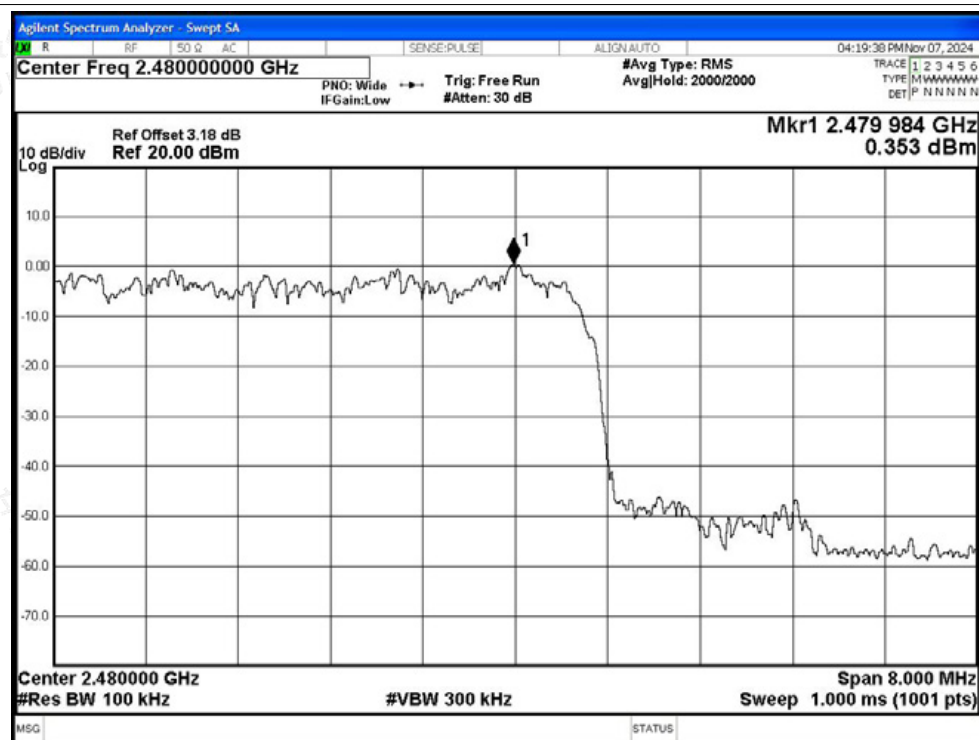
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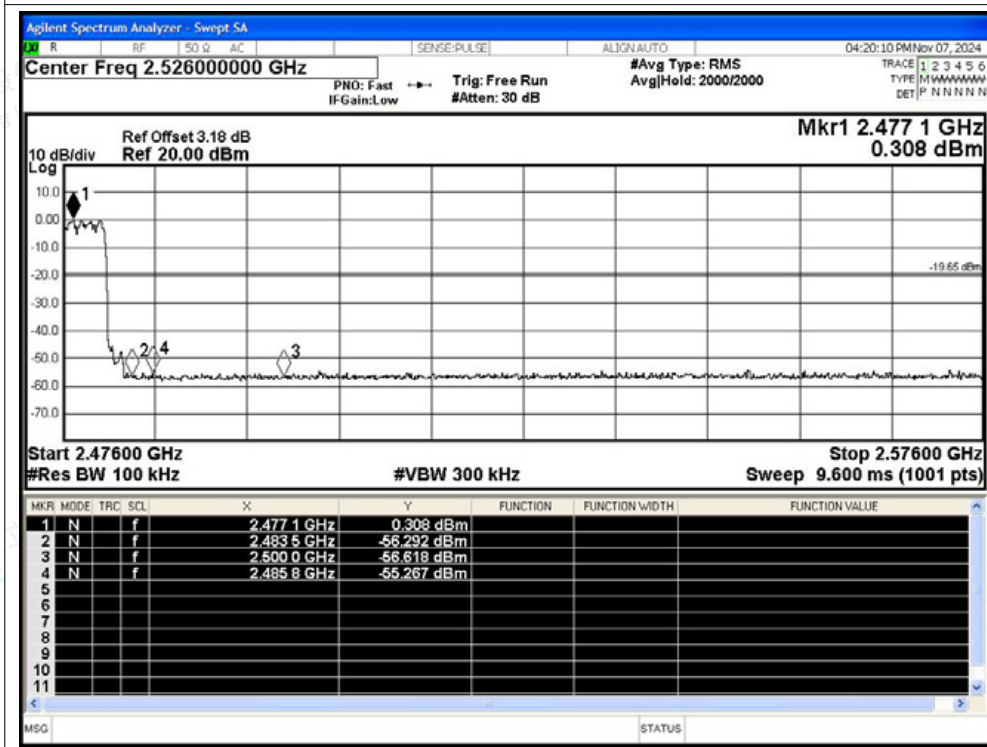
Scan code to check authenticity



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



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A.7 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-53.8	-20	Pass
NVNT	1-DH5	2441	Ant1	-54.23	-20	Pass
NVNT	1-DH5	2480	Ant1	-53.29	-20	Pass
NVNT	2-DH5	2402	Ant1	-52.09	-20	Pass
NVNT	2-DH5	2441	Ant1	-52.17	-20	Pass
NVNT	2-DH5	2480	Ant1	-52.92	-20	Pass
NVNT	3-DH5	2402	Ant1	-50.86	-20	Pass
NVNT	3-DH5	2441	Ant1	-51.75	-20	Pass
NVNT	3-DH5	2480	Ant1	-50.91	-20	Pass



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