



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Smart LED Security Light 40W

Test Model: NTA21

Environmental Conditions

Temperature:	23.8 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Nick Peng
Supervised by:	Li Huan





A.1 -20dB Bandwidth

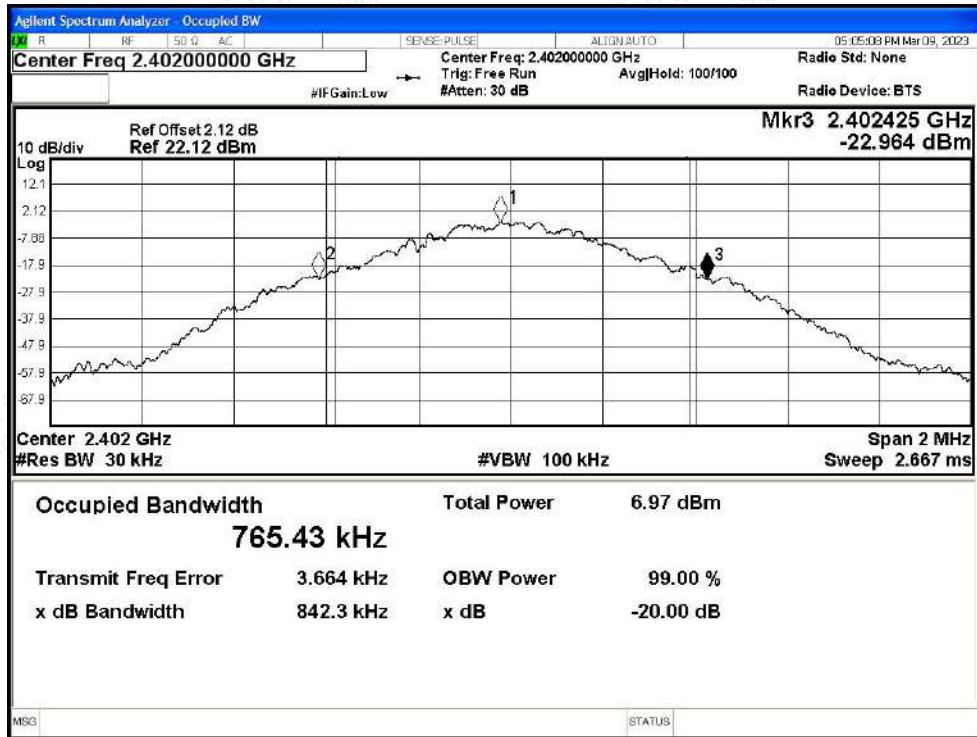
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.842	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.846	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.919	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.308	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.285	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.302	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.294	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.295	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.301	N/A	Pass



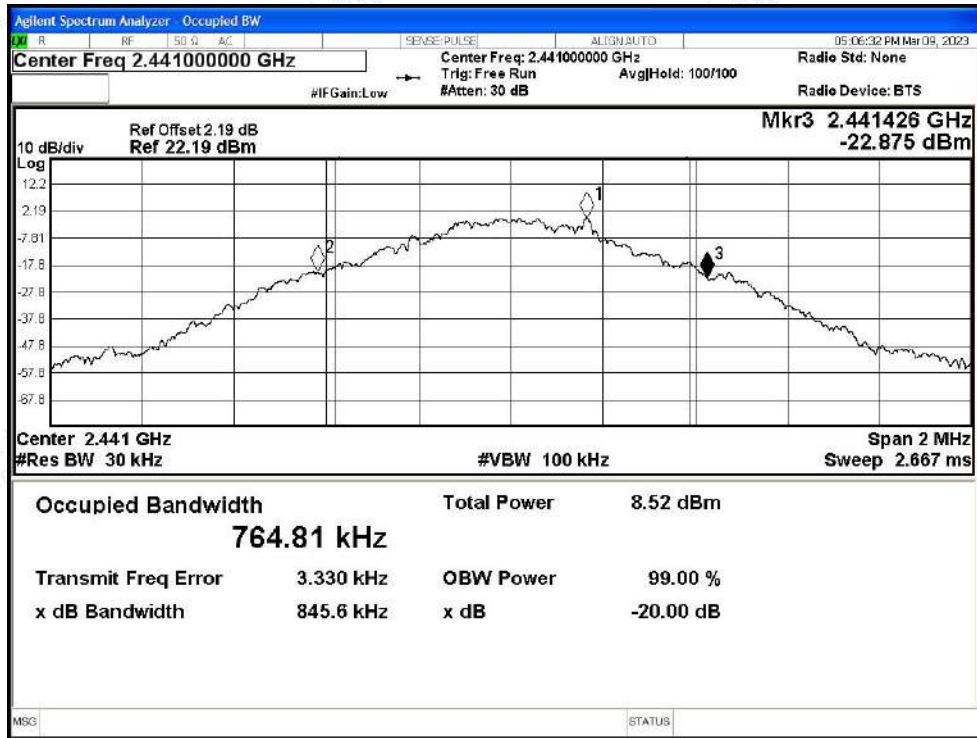


Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



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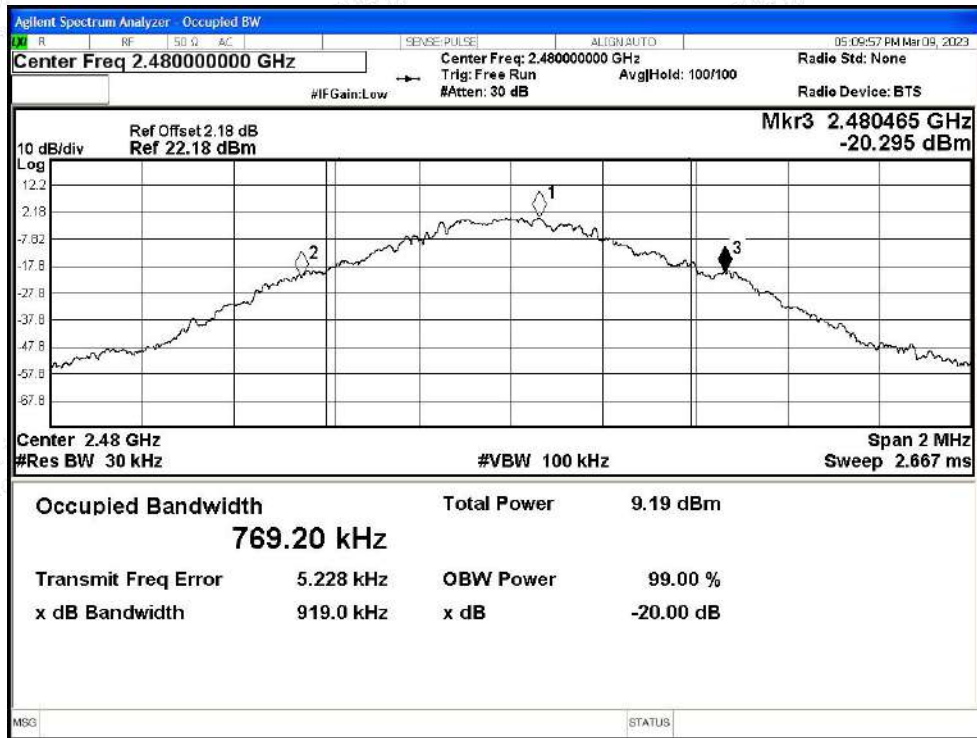
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

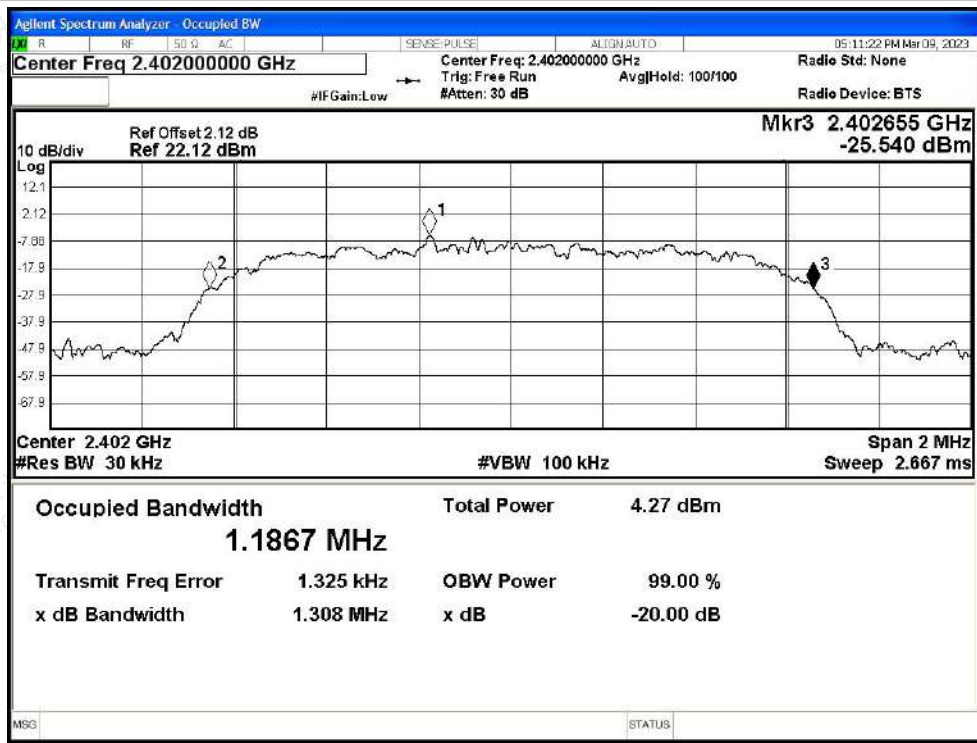
Scan code to check authenticity



-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



Shenzhen LCS Compliance Testing Laboratory Ltd.

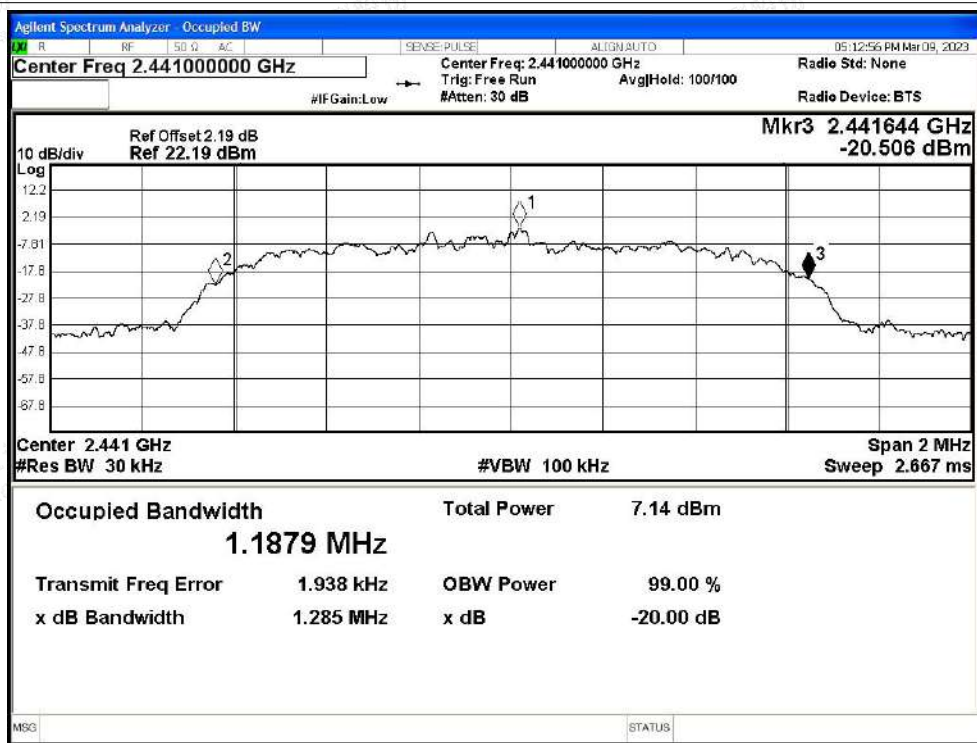
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

Scan code to check authenticity



-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1

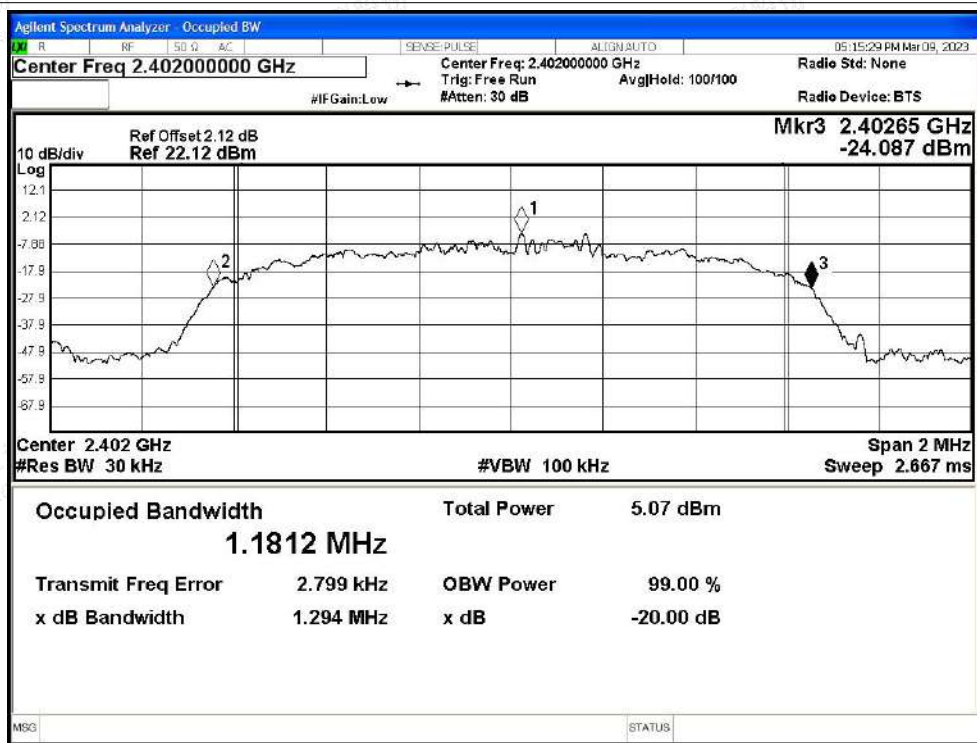


-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

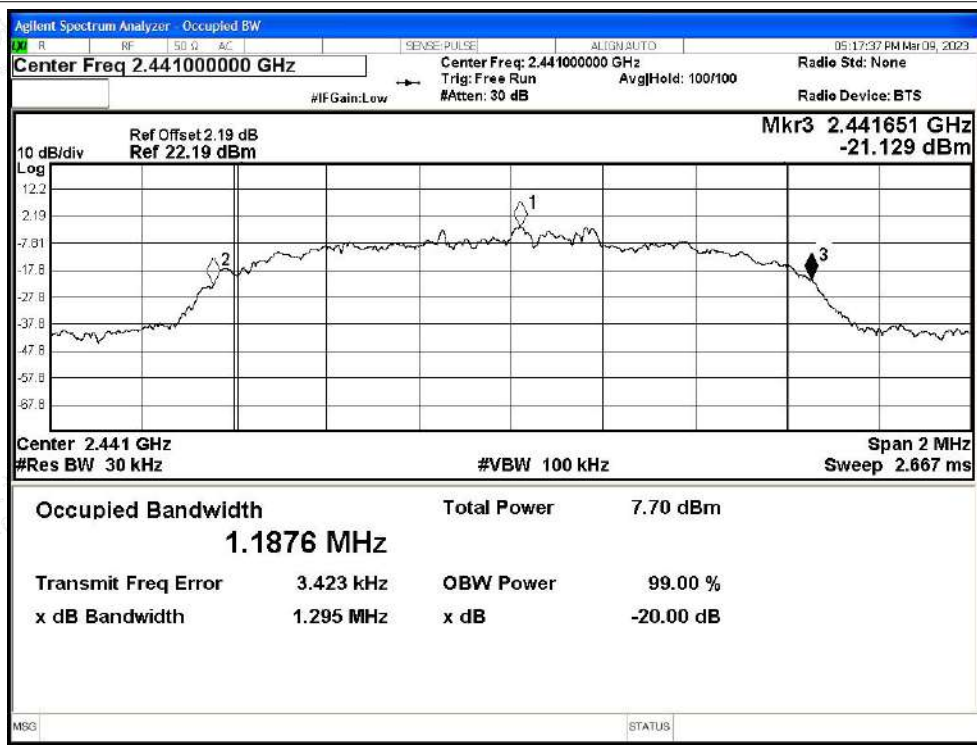




-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1

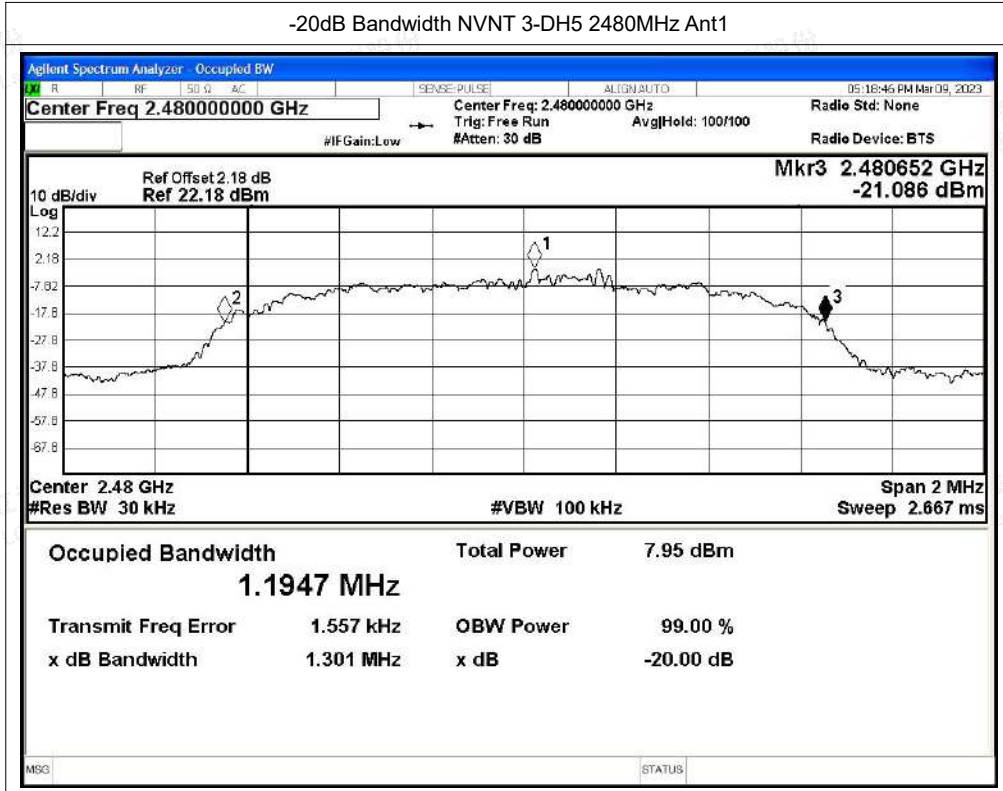


-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1





-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1





A.2 Maximum Conducted Output Power

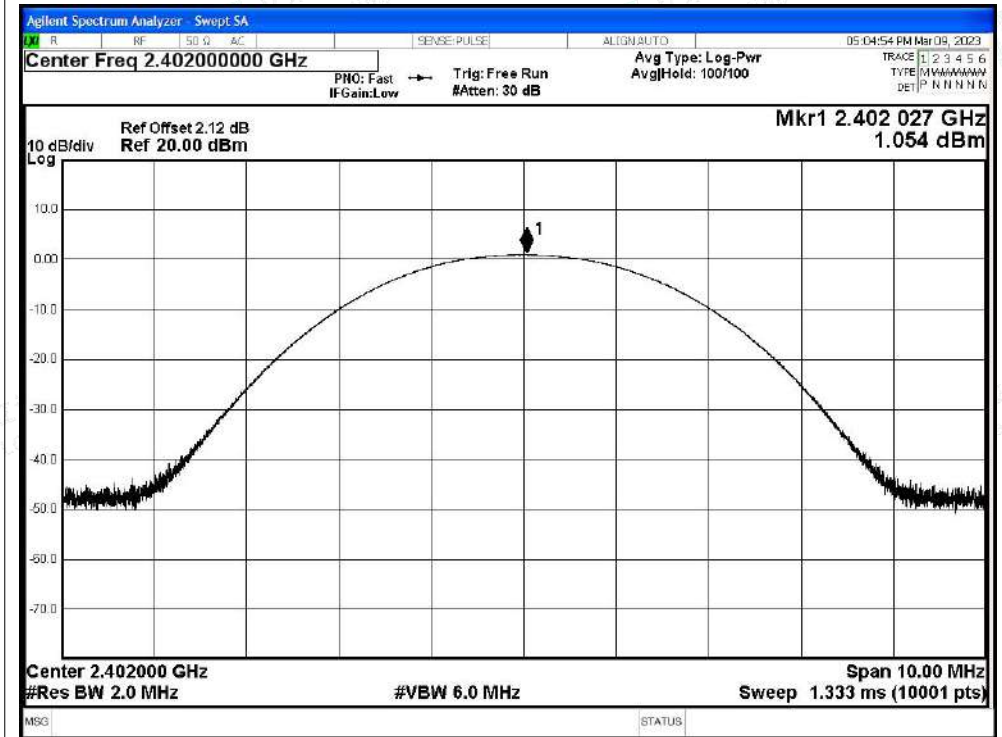
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	1.05	21	Pass
NVNT	1-DH5	2441	Ant1	2.5	21	Pass
NVNT	1-DH5	2480	Ant1	3.26	21	Pass
NVNT	2-DH5	2402	Ant1	0.41	21	Pass
NVNT	2-DH5	2441	Ant1	2.65	21	Pass
NVNT	2-DH5	2480	Ant1	3.39	21	Pass
NVNT	3-DH5	2402	Ant1	0.41	21	Pass
NVNT	3-DH5	2441	Ant1	2.57	21	Pass
NVNT	3-DH5	2480	Ant1	3.39	21	Pass



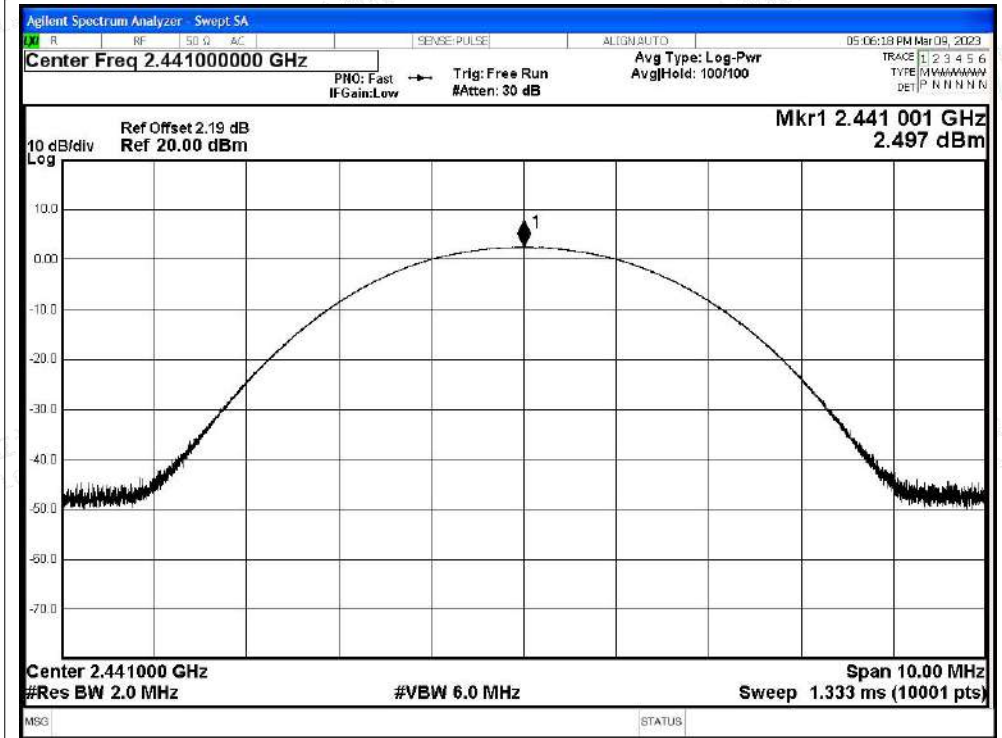


Test Graphs

Power NVNT 1-DH5 2402MHz Ant1

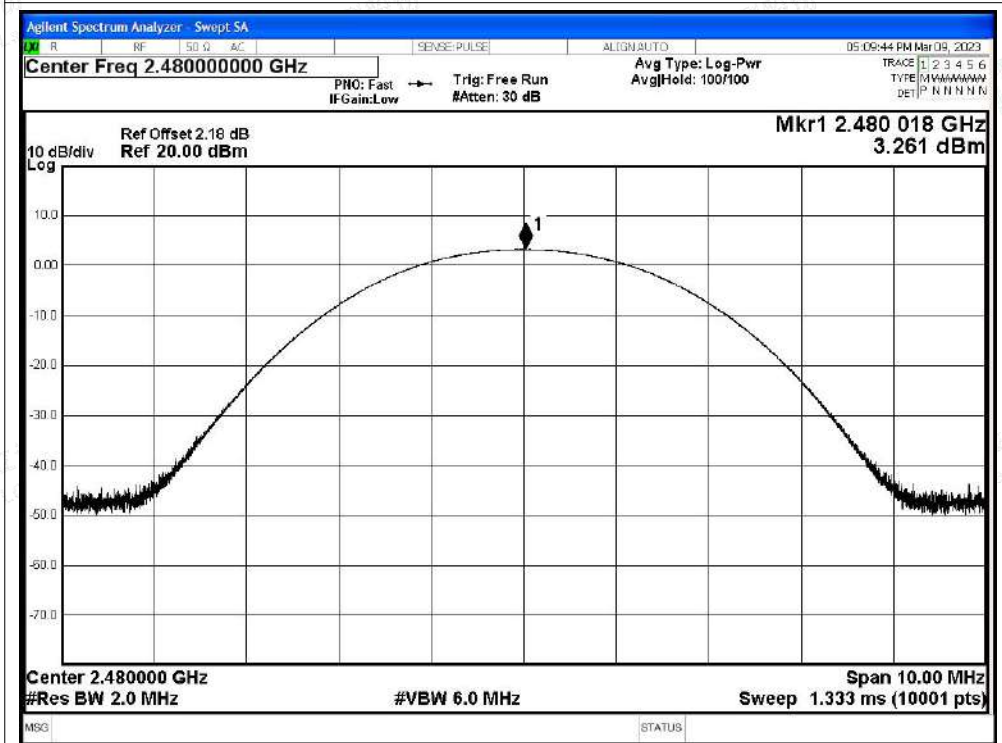


Power NVNT 1-DH5 2441MHz Ant1

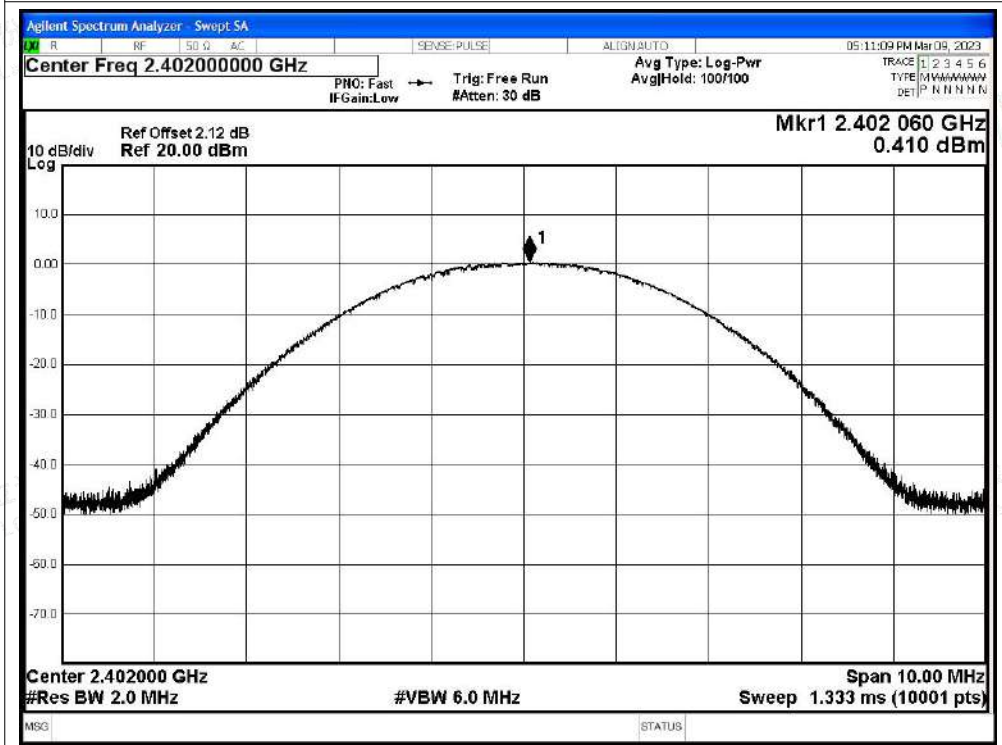


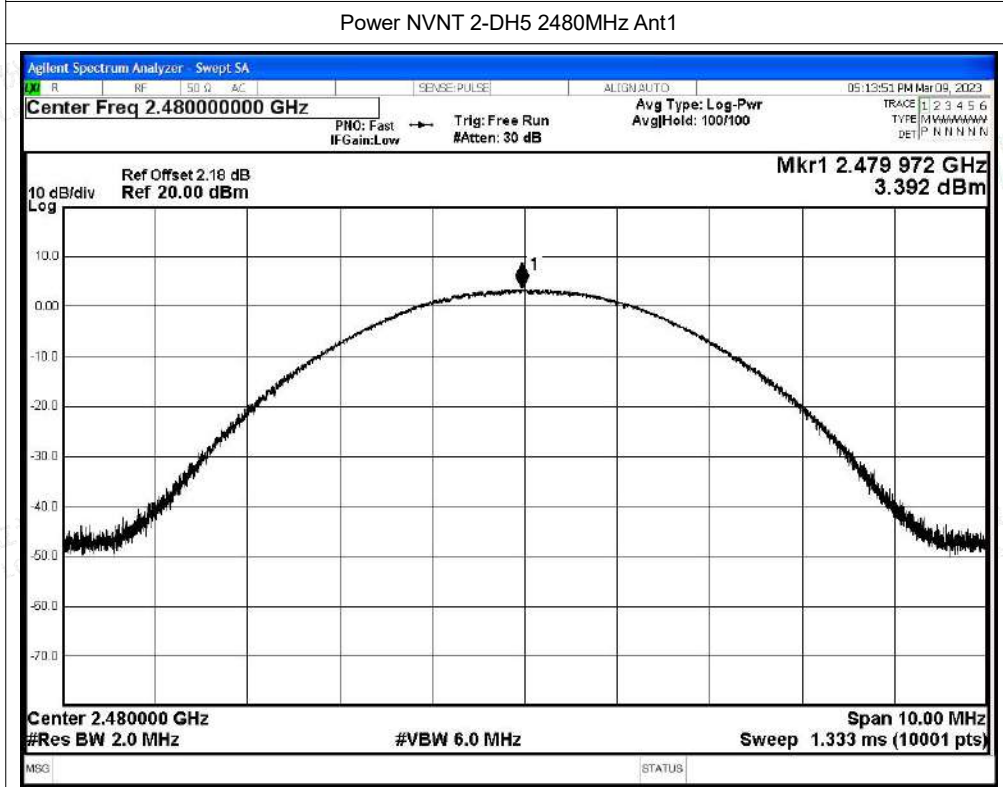
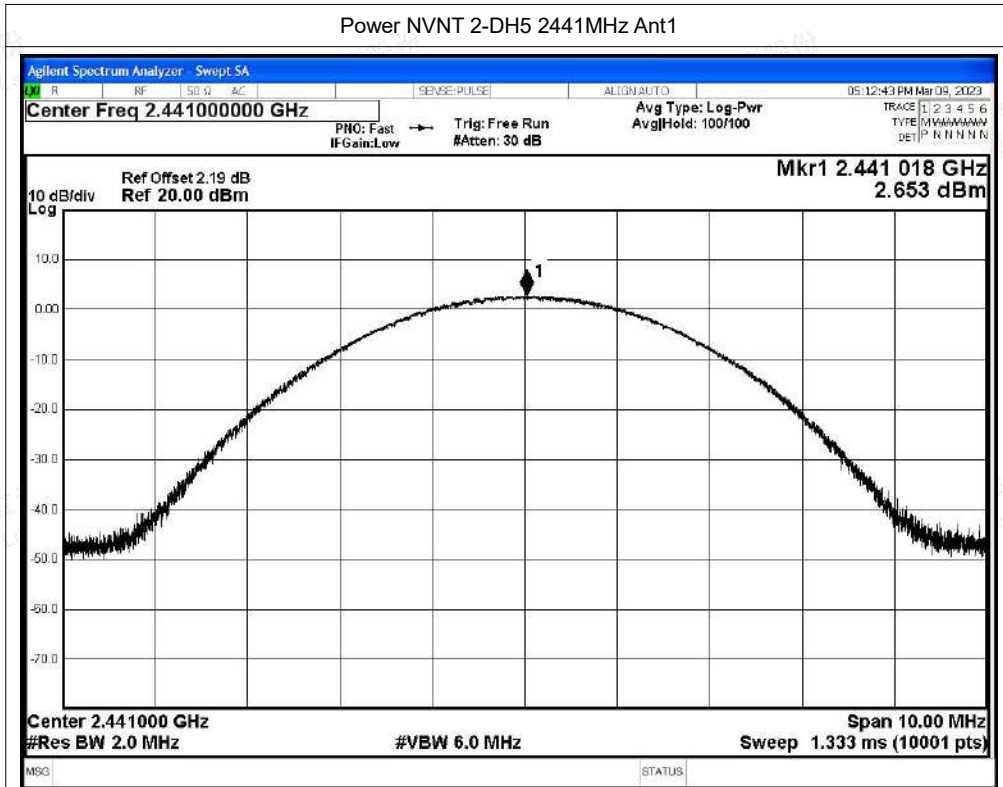


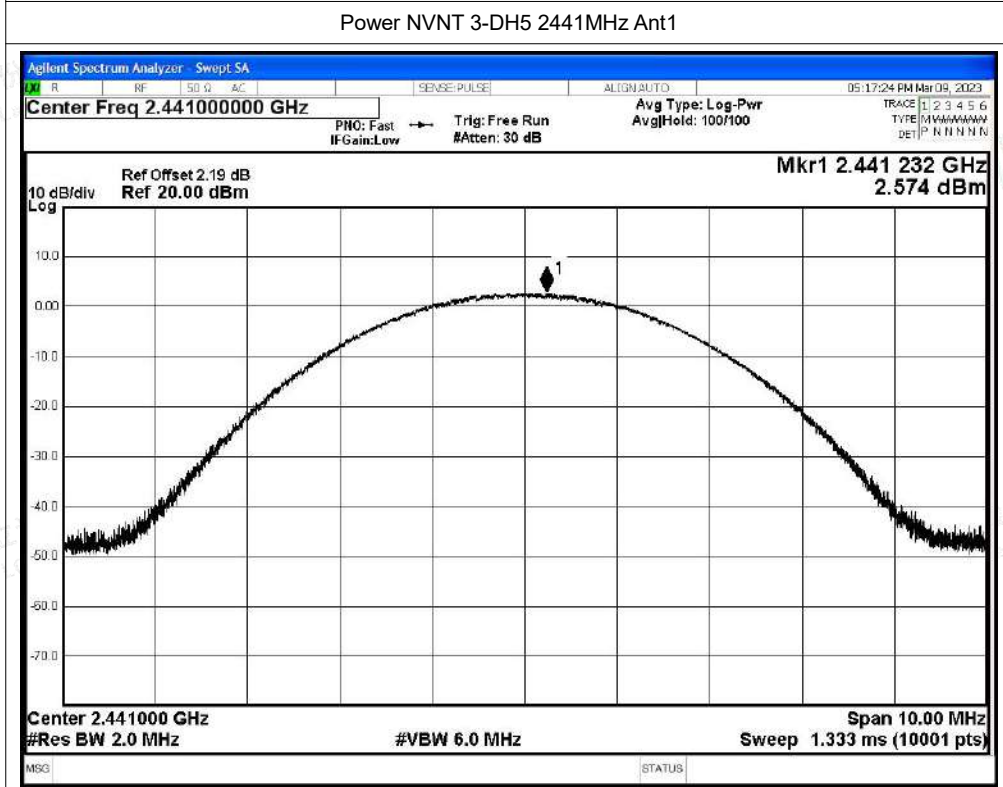
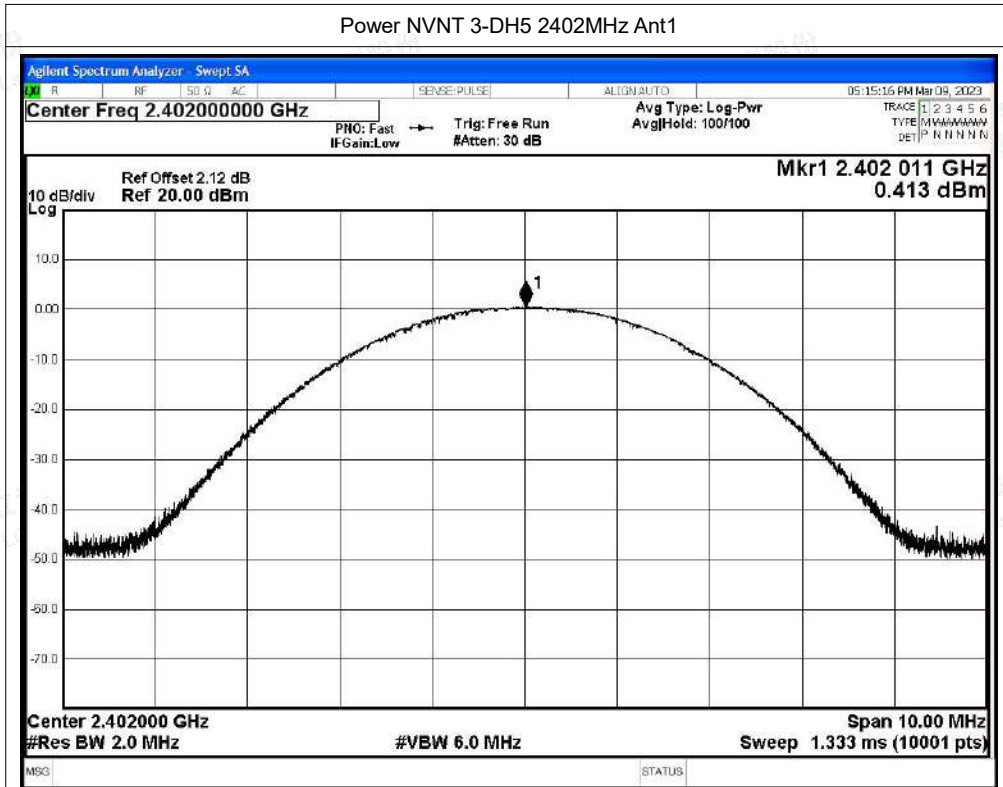
Power NVNT 1-DH5 2480MHz Ant1

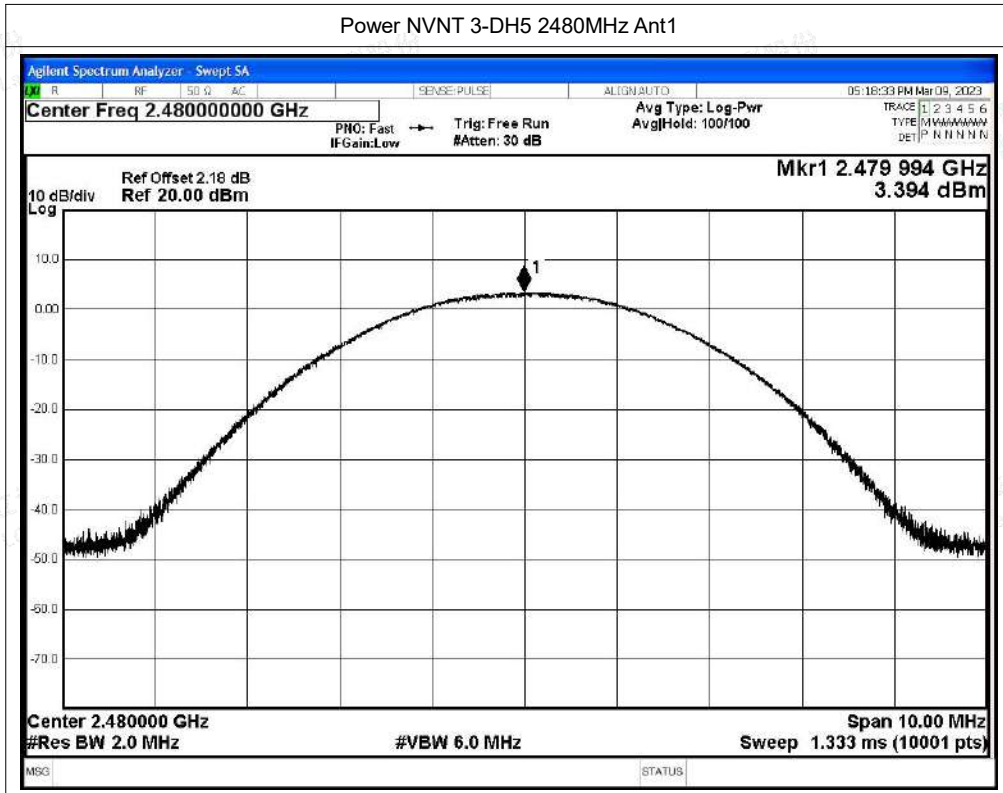


Power NVNT 2-DH5 2402MHz Ant1











A.3 Carrier Frequencies Separation

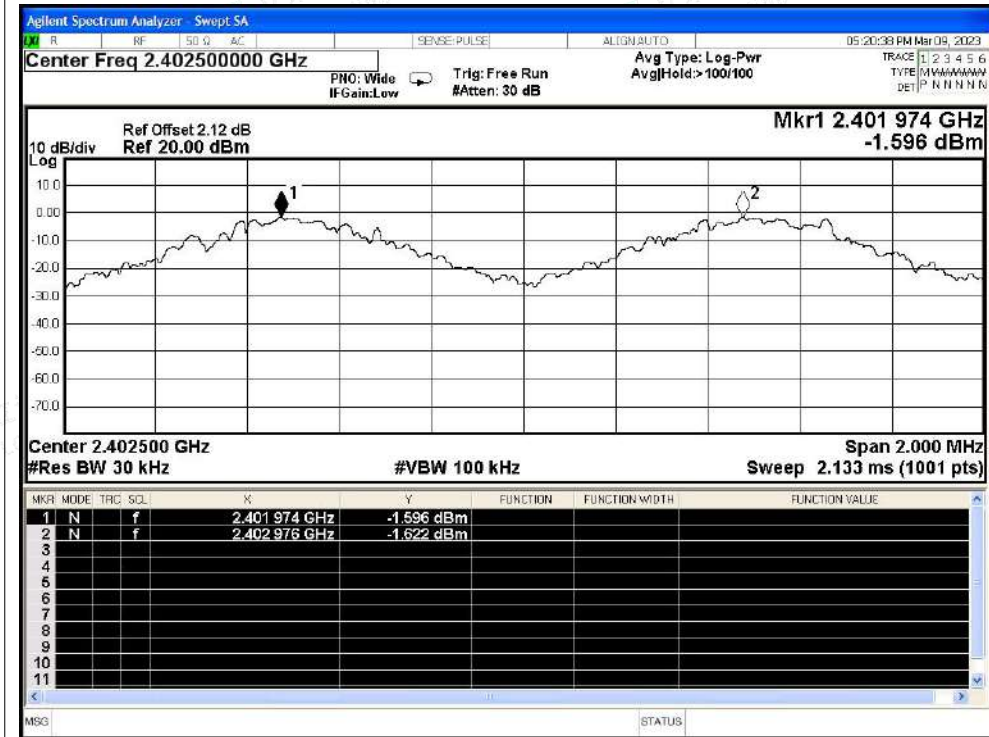
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.974	2402.976	1.002	0.613	Pass
NVNT	2-DH5	Ant1	2401.85	2403.022	1.172	0.872	Pass
NVNT	3-DH5	Ant1	2402.016	2403.026	1.01	0.867	Pass



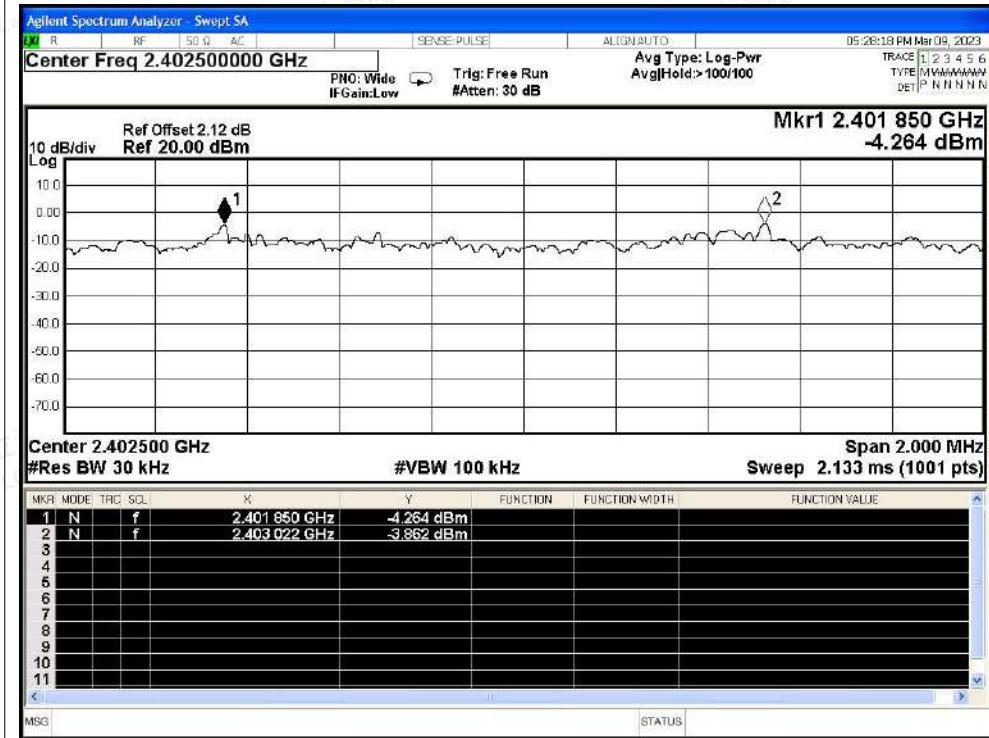


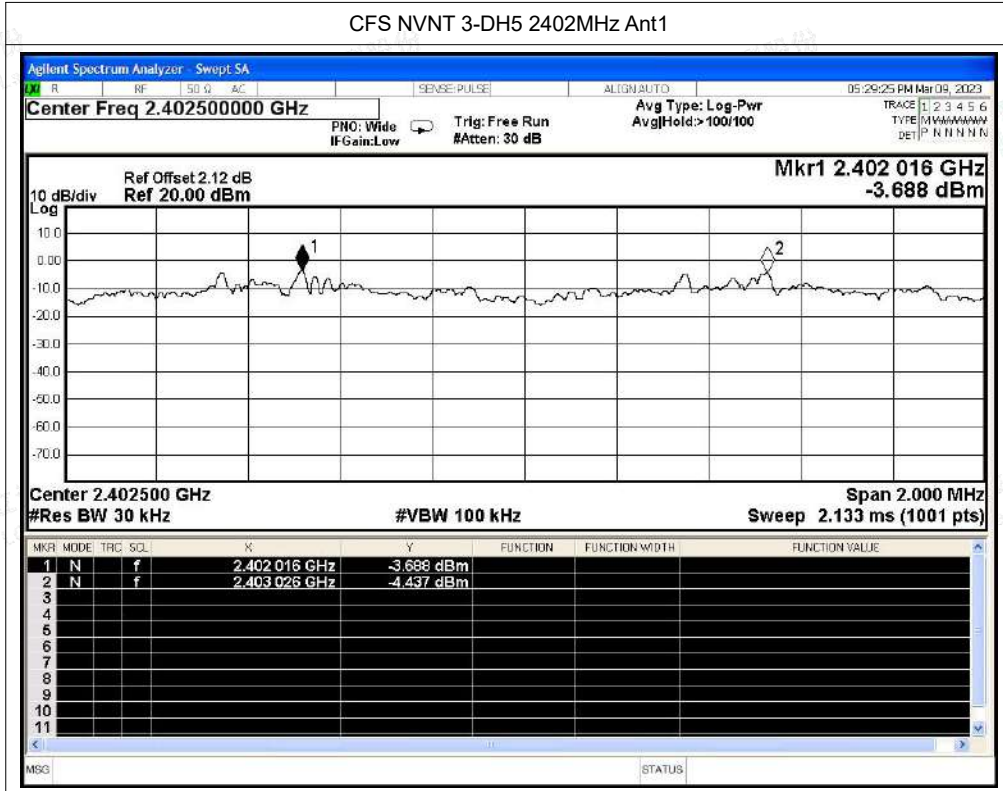
Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1







A.4 Dwell Time

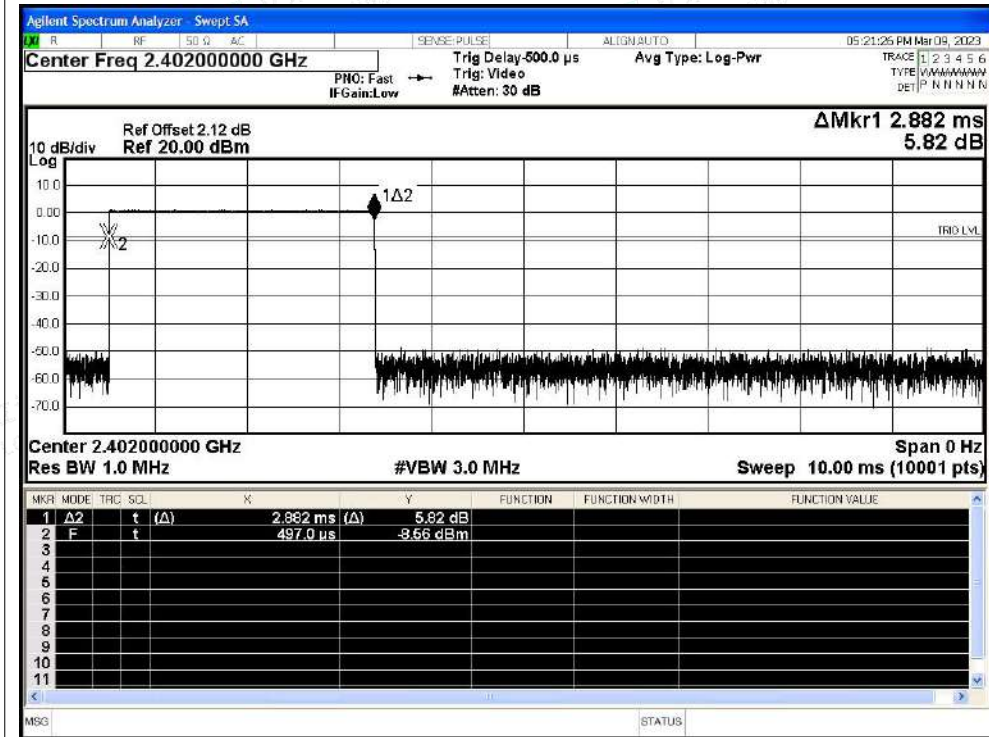
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.882	354.486	123	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.88	331.2	115	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.662	298.144	112	31600	400	Pass



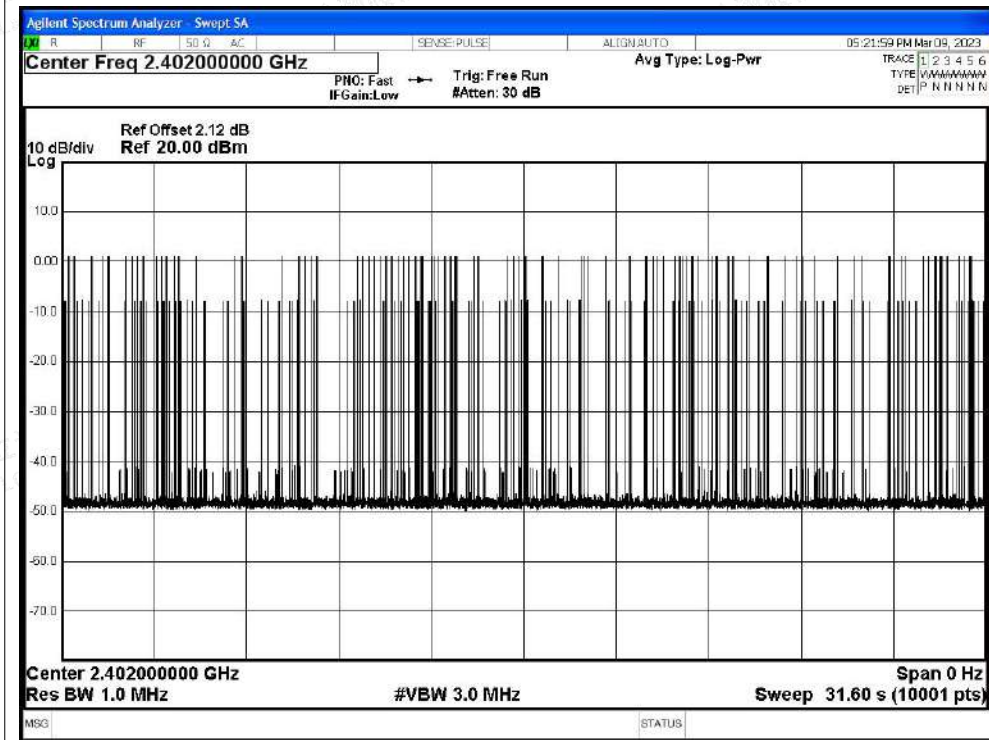


Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant1 One Burst

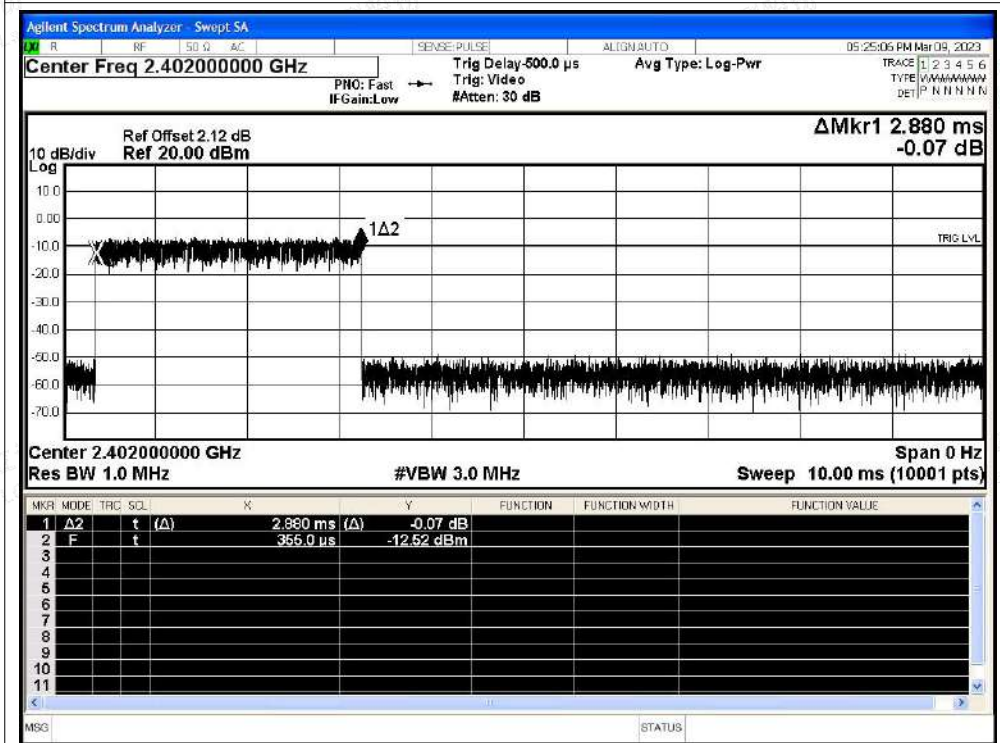


Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated

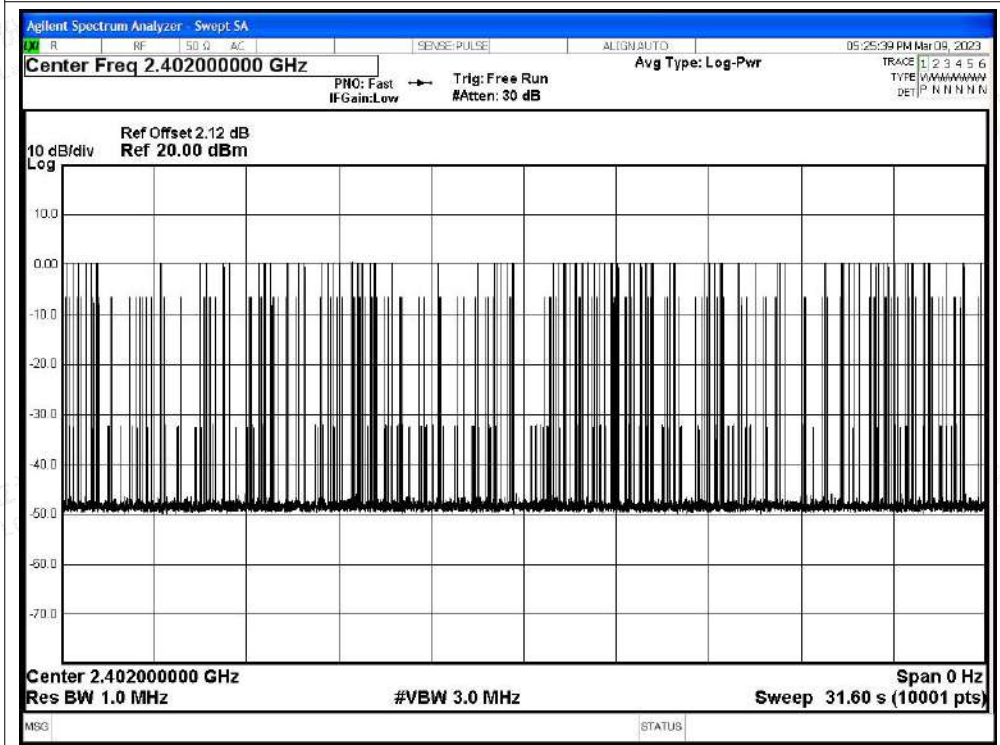




Dwell NVNT 2-DH5 2402MHz Ant1 One Burst

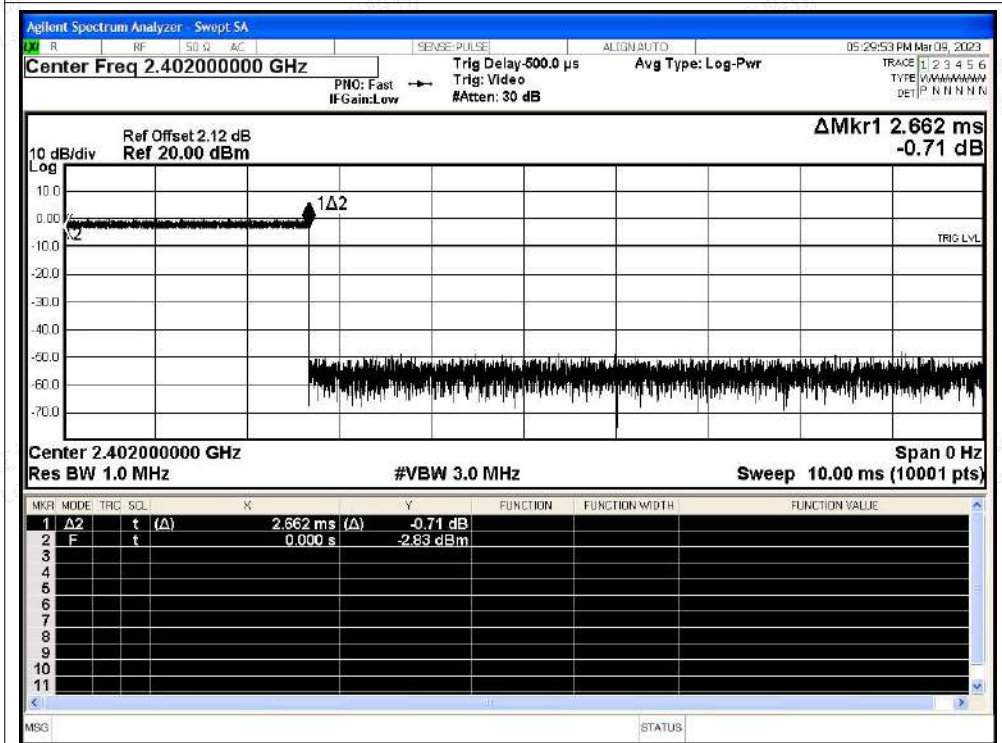


Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated

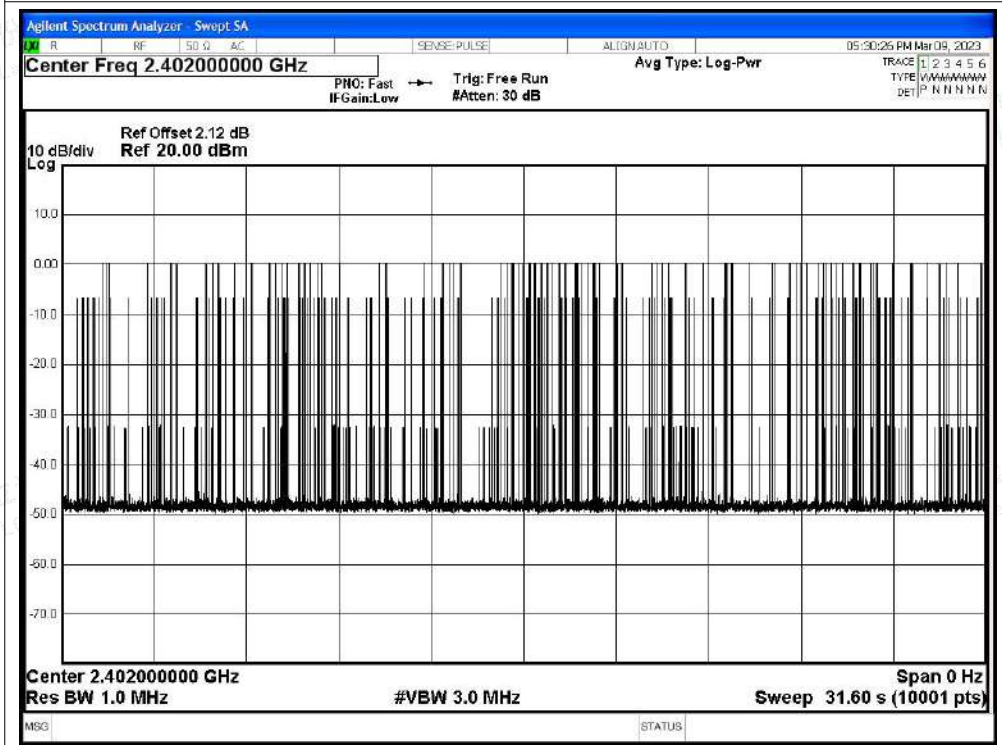




Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated





A.5 Number of Hopping Channel

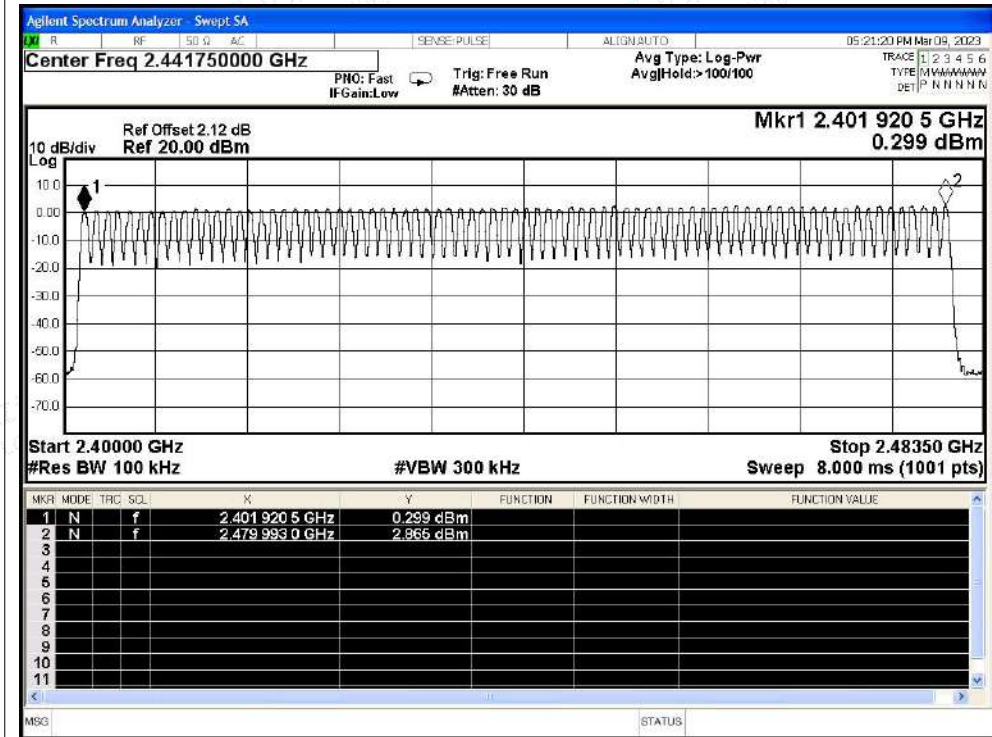
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass



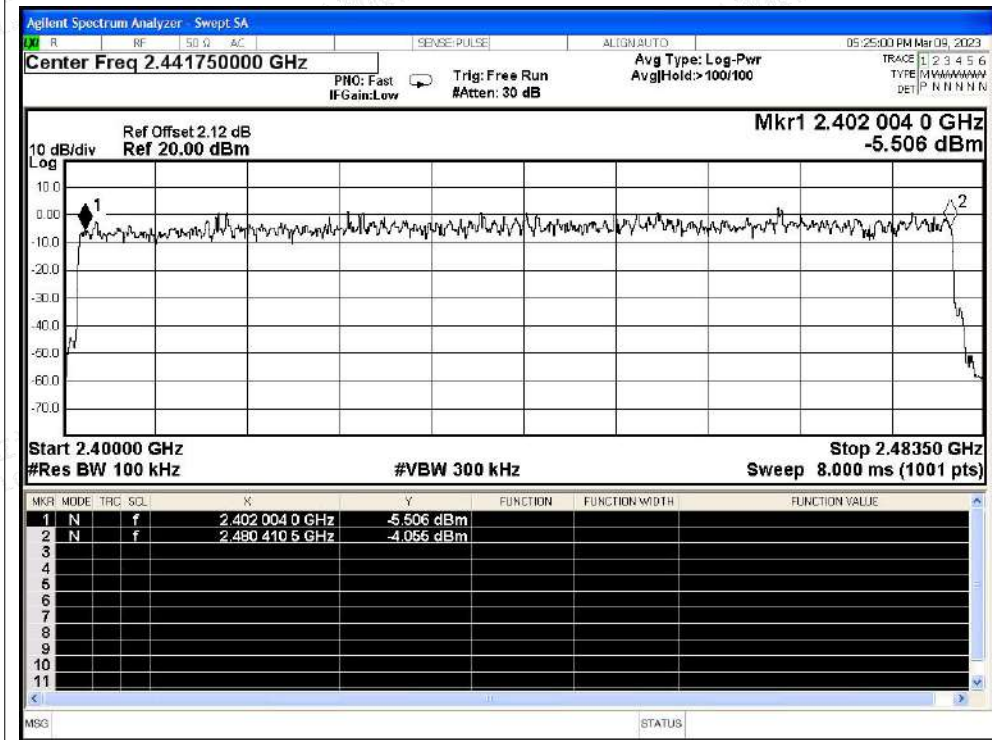


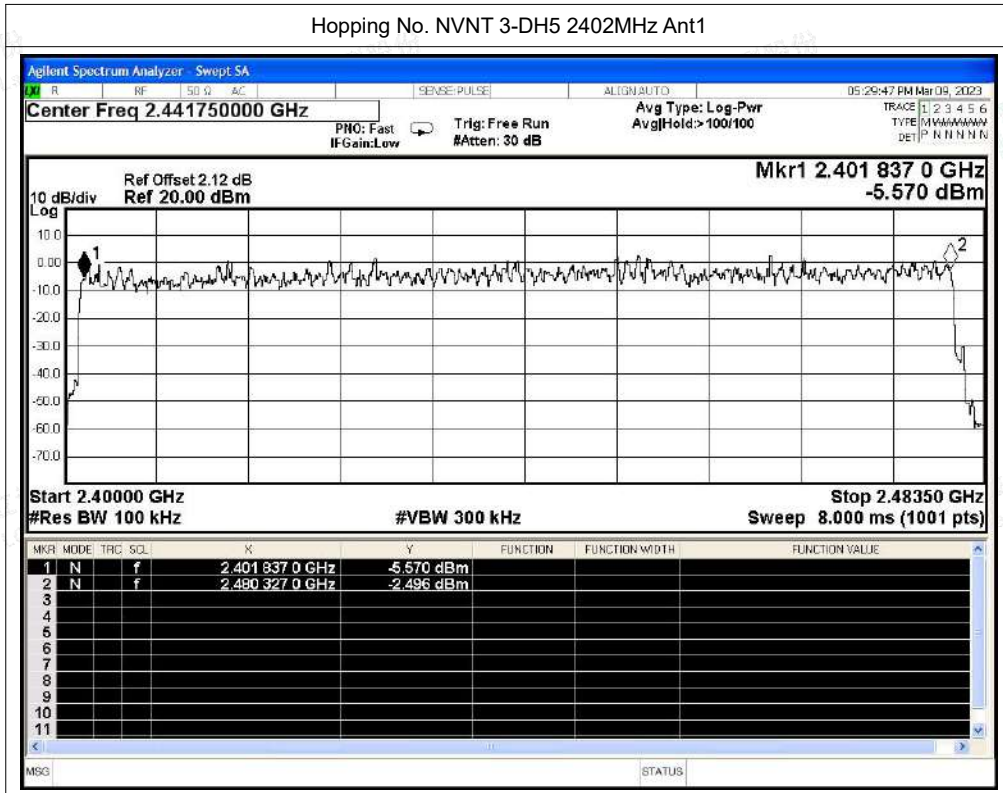
Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1







A.6 Band Edge

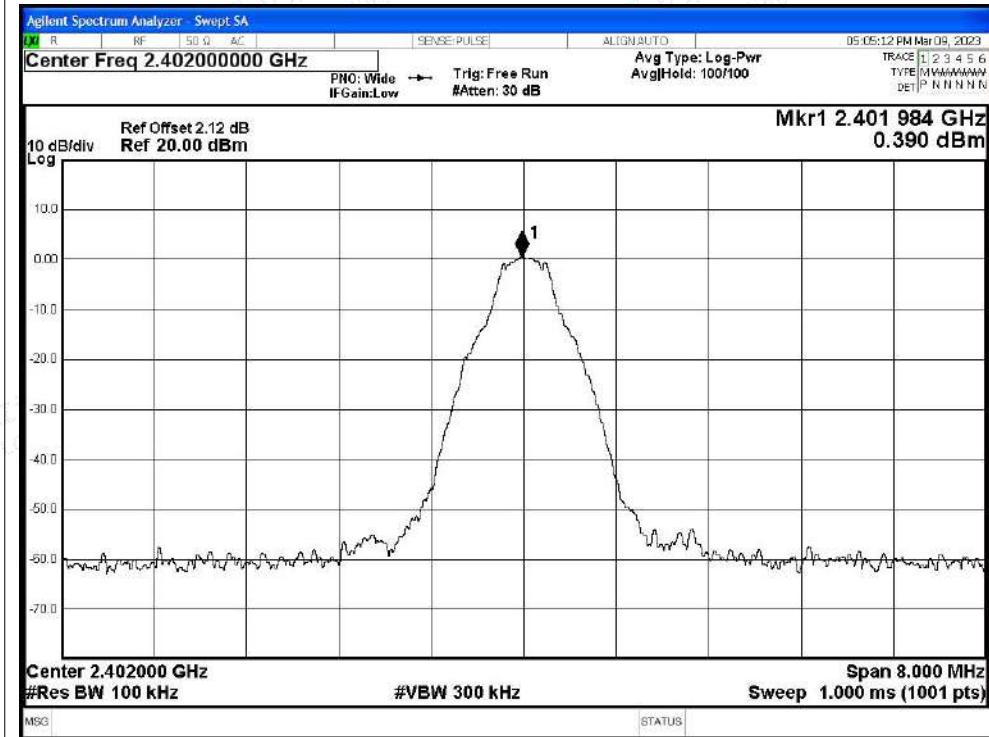
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-56.89	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-59.28	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-54.48	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-59	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-52.07	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-56.15	-20	Pass



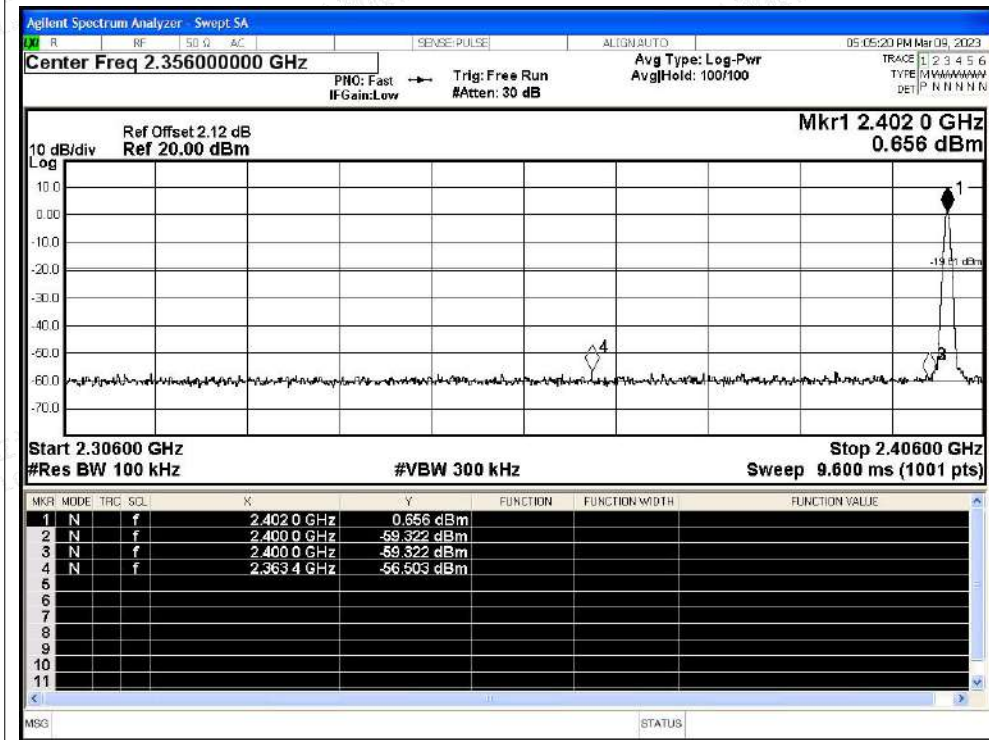


Test Graphs

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

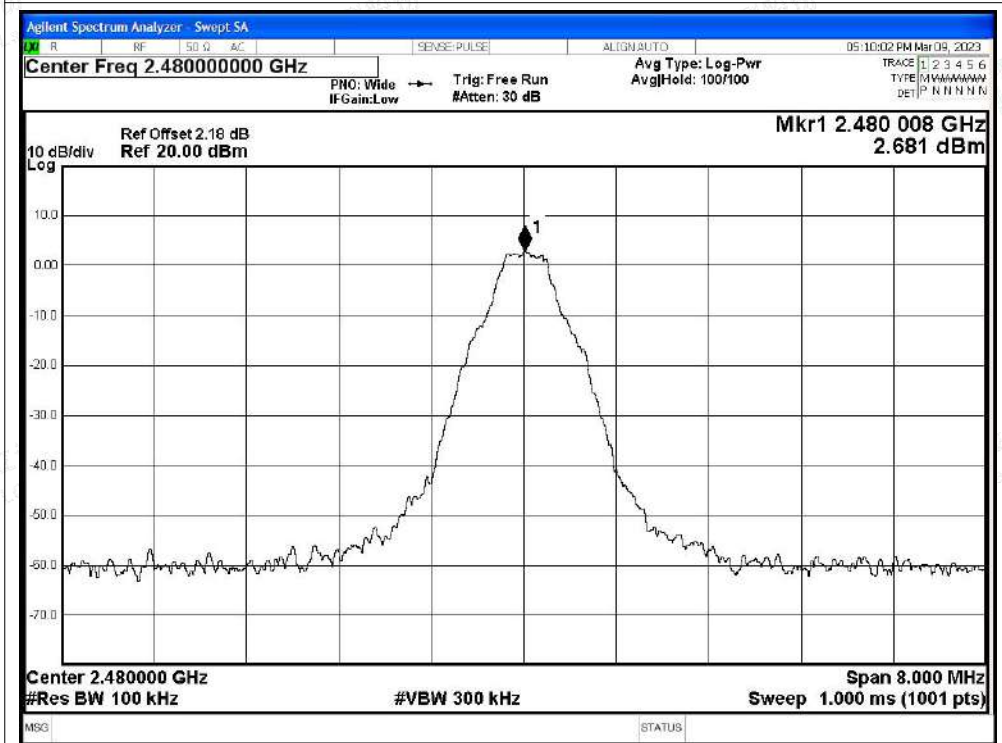


Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

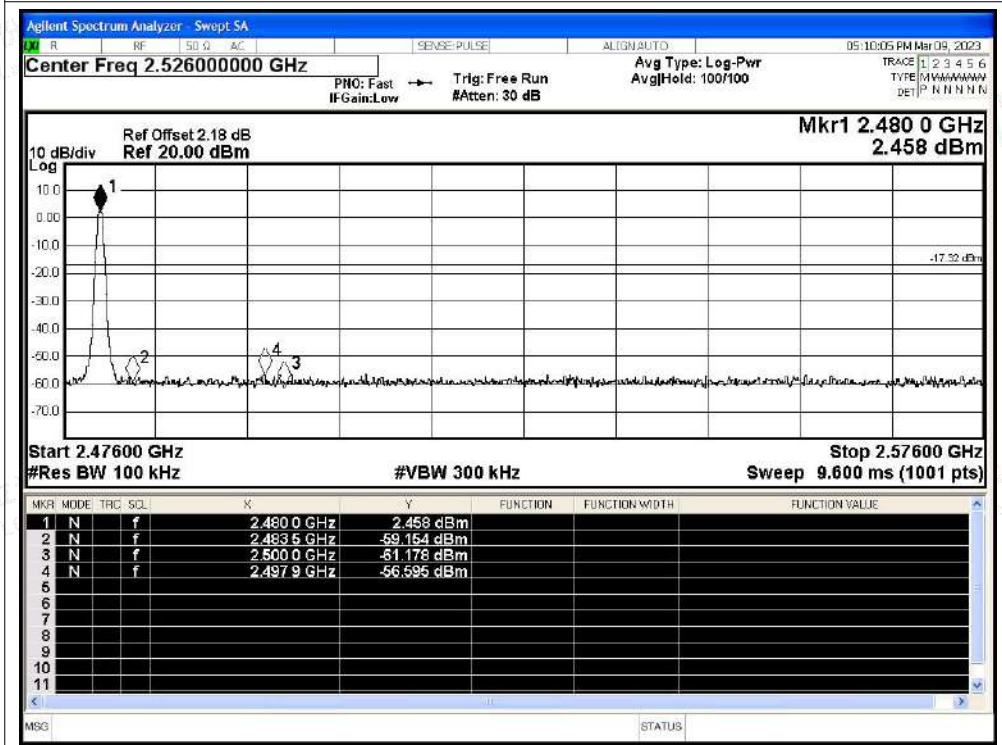




Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

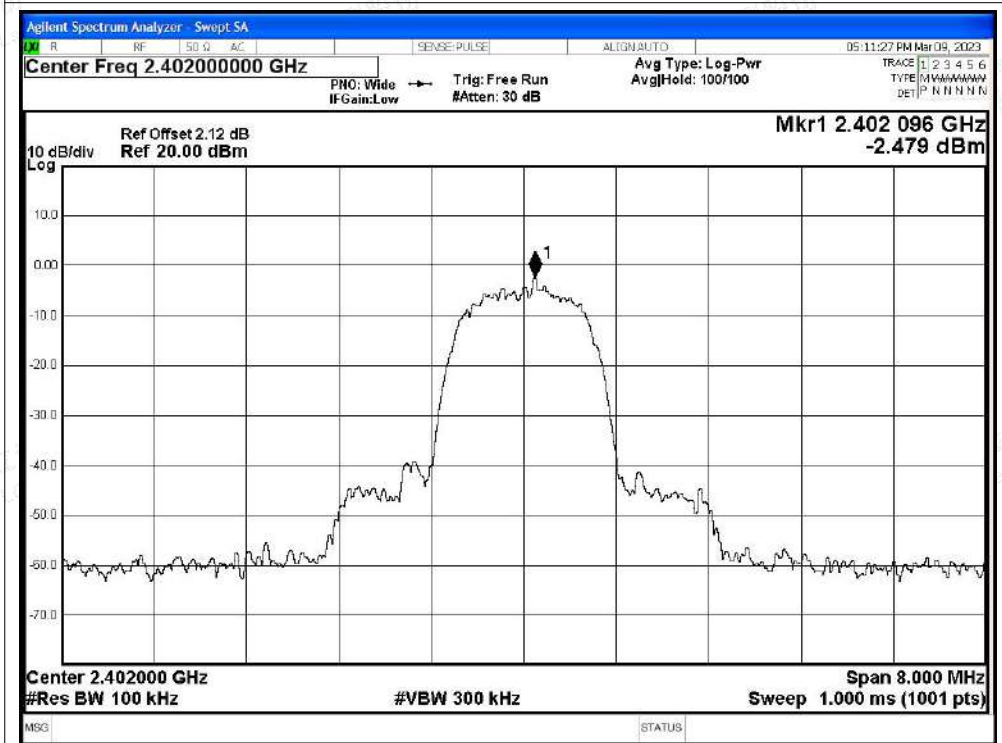


Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission

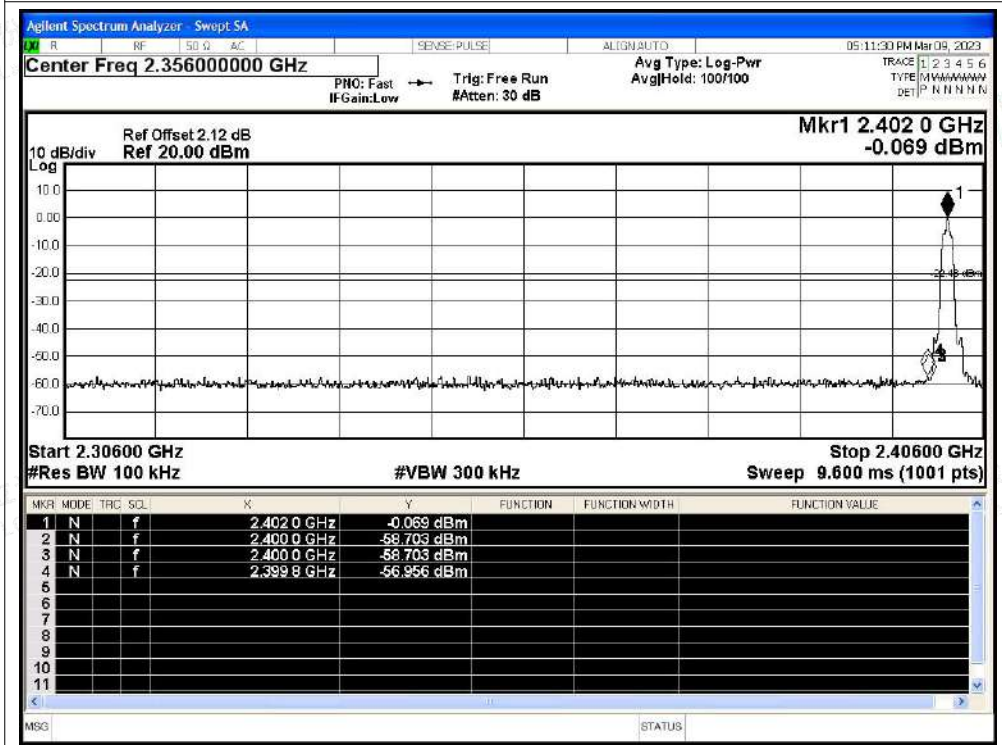




Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref

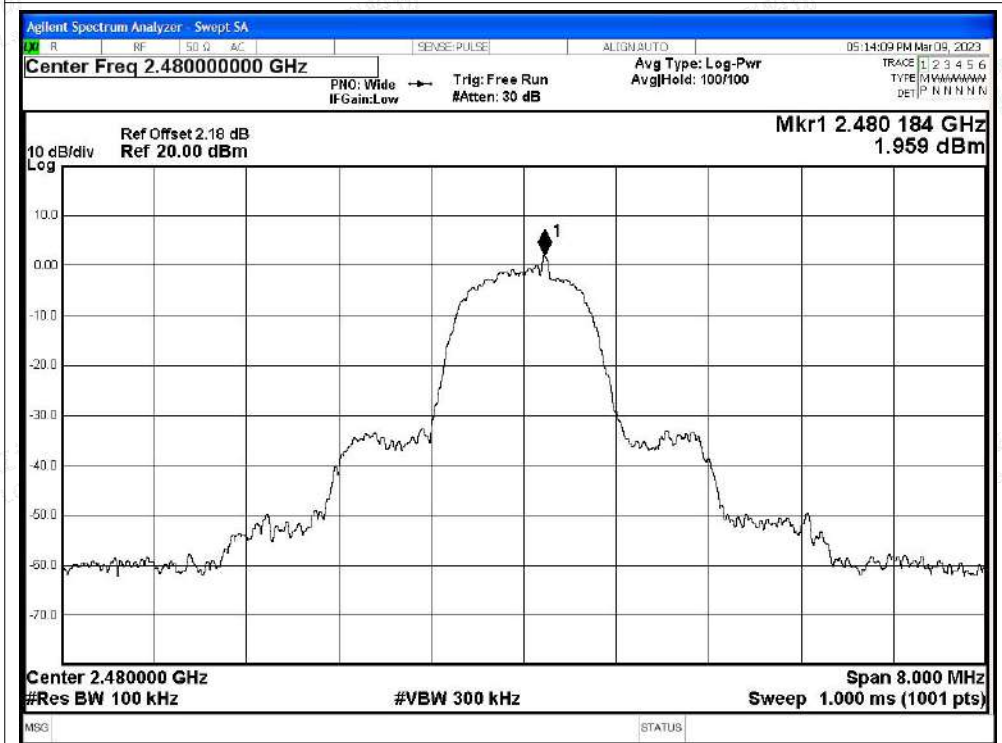


Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission

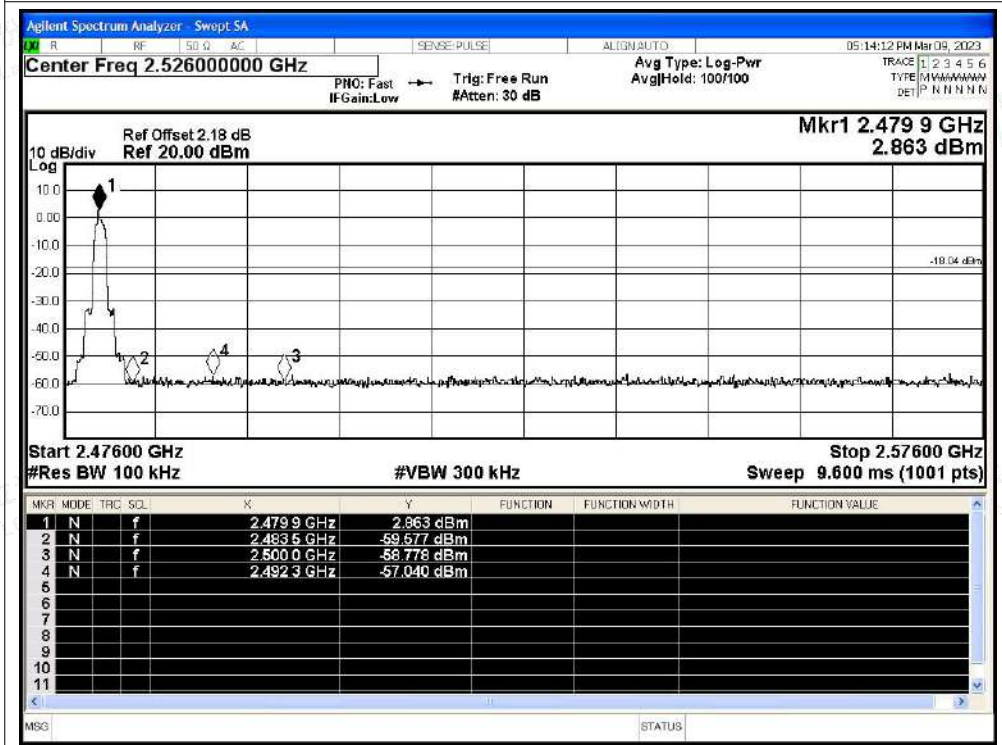




Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref

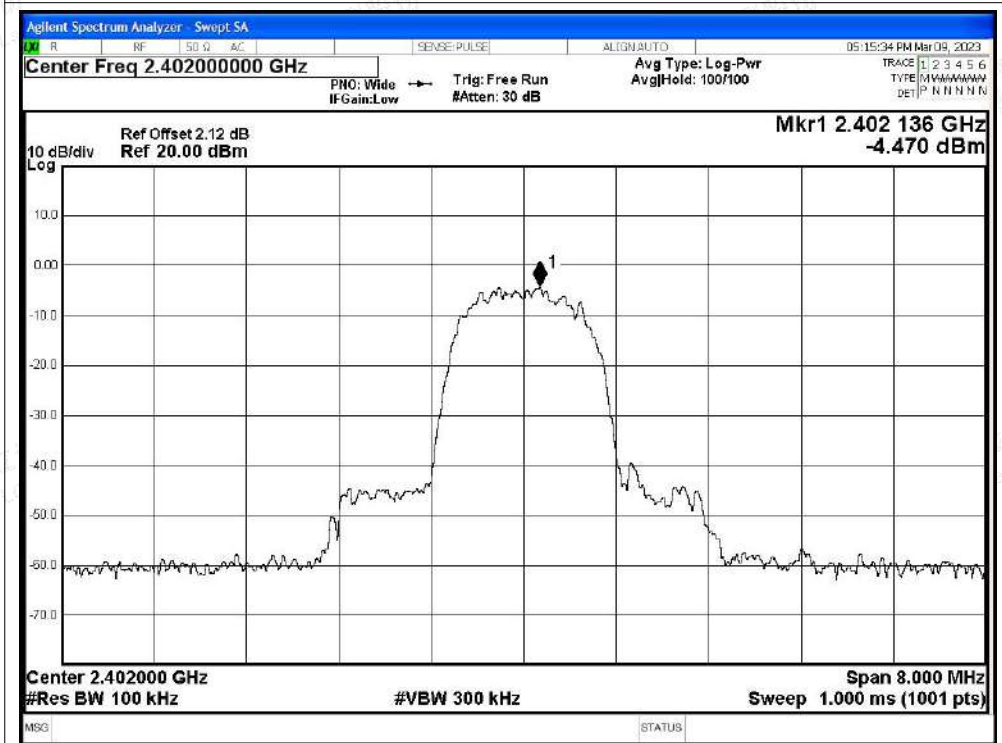


Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission

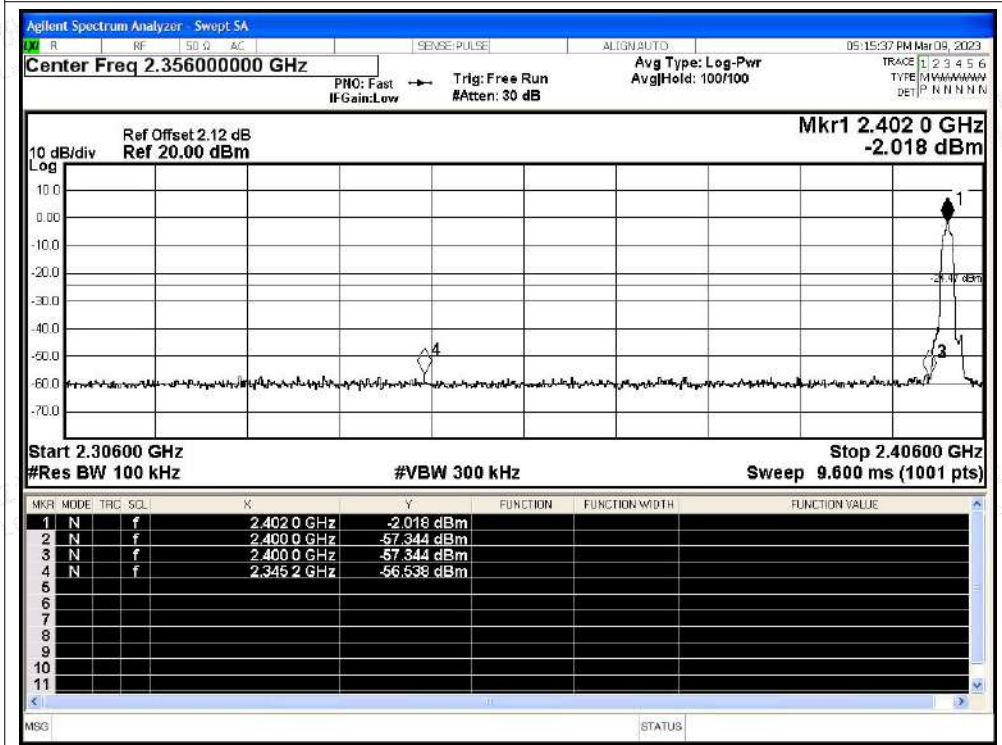




Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref

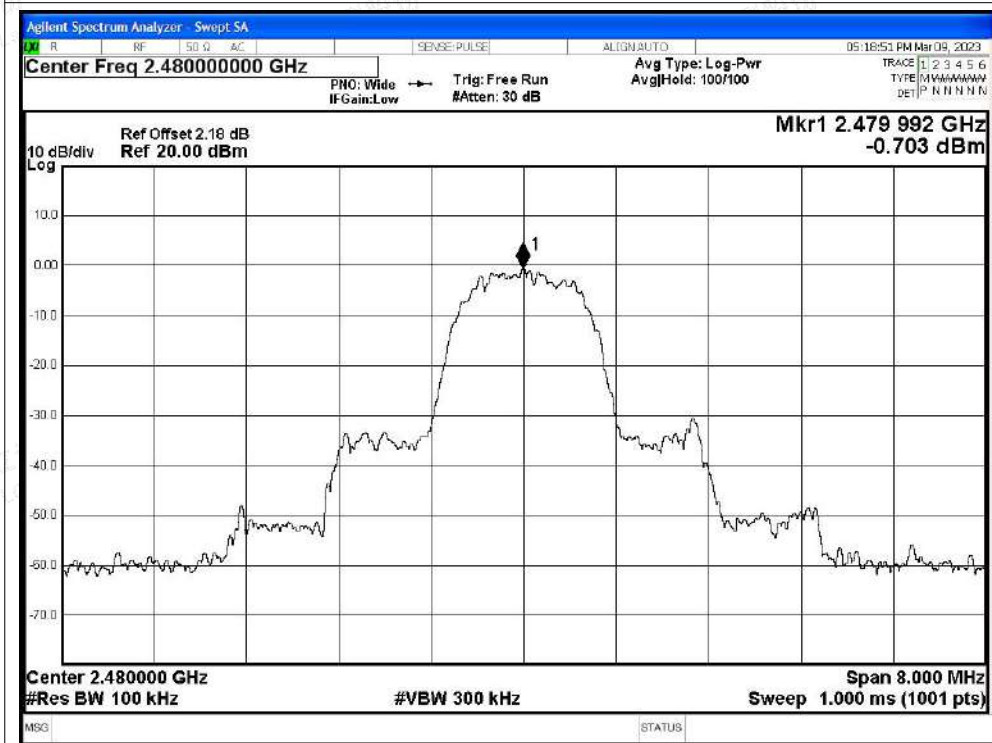


Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission

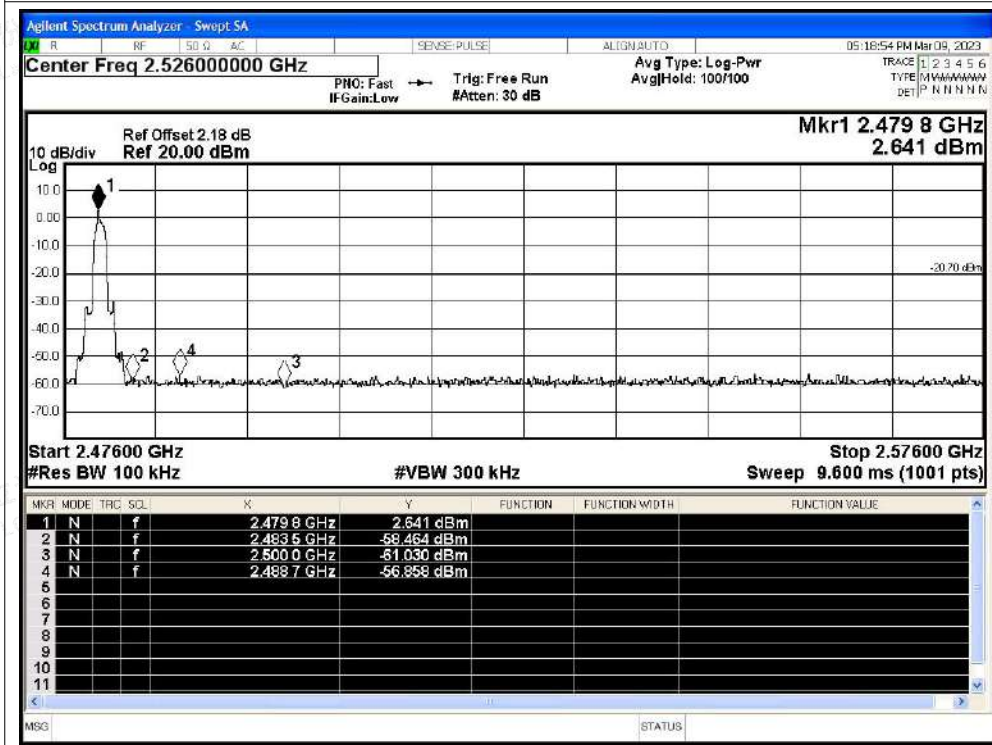




Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



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



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Scan code to check authenticity



(Hopping)

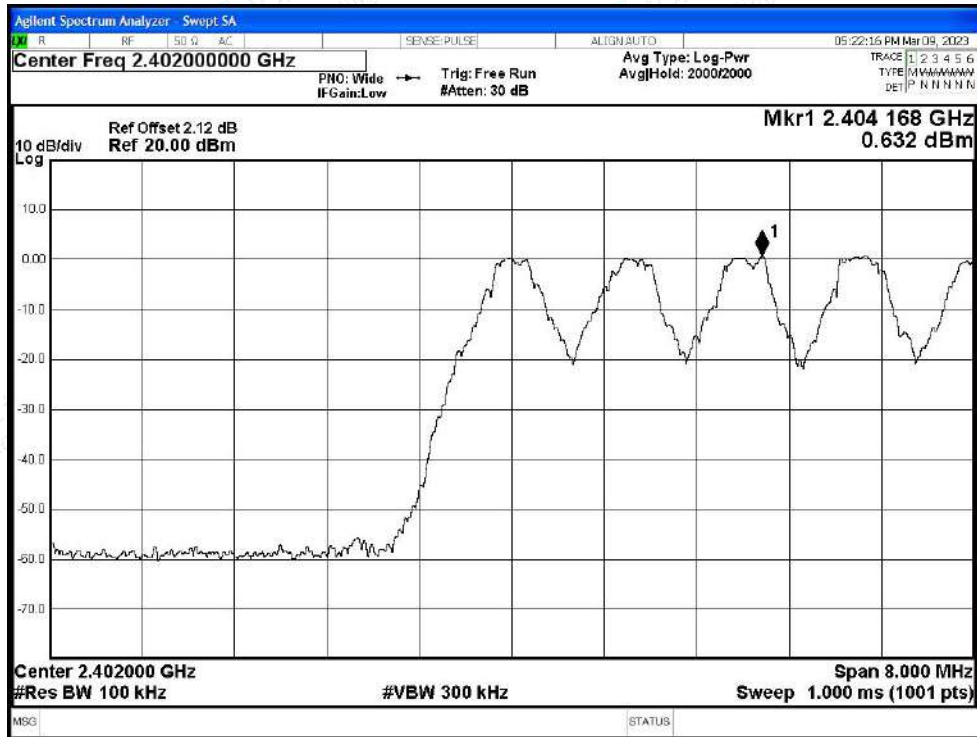
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-56.64	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-58.02	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-54.59	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-55.68	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-55.93	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-58.36	-20	Pass



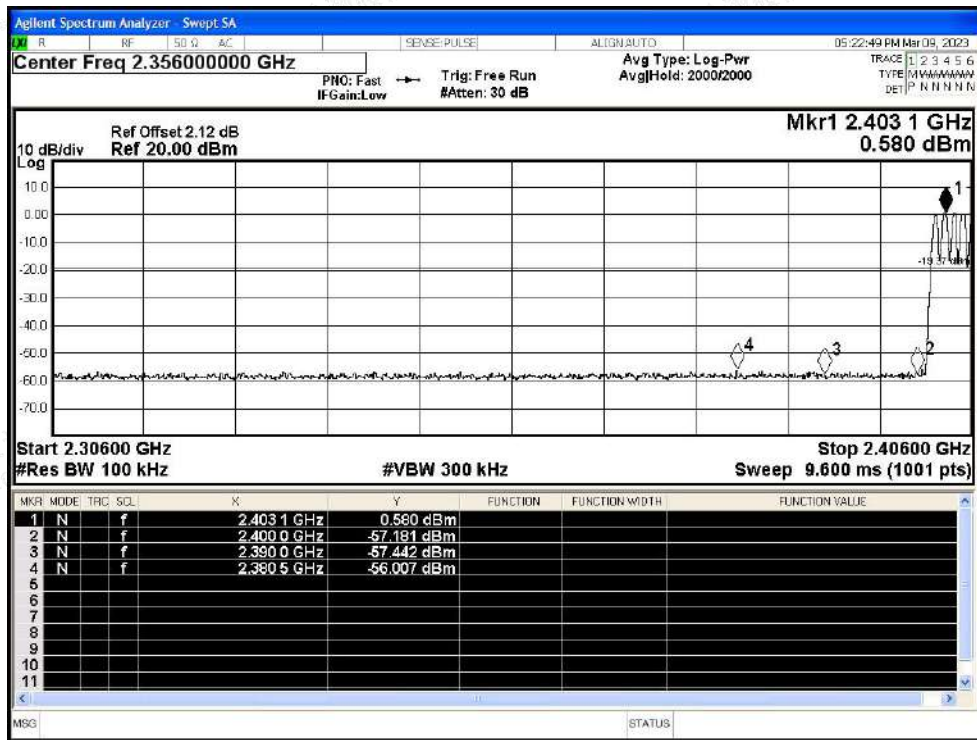


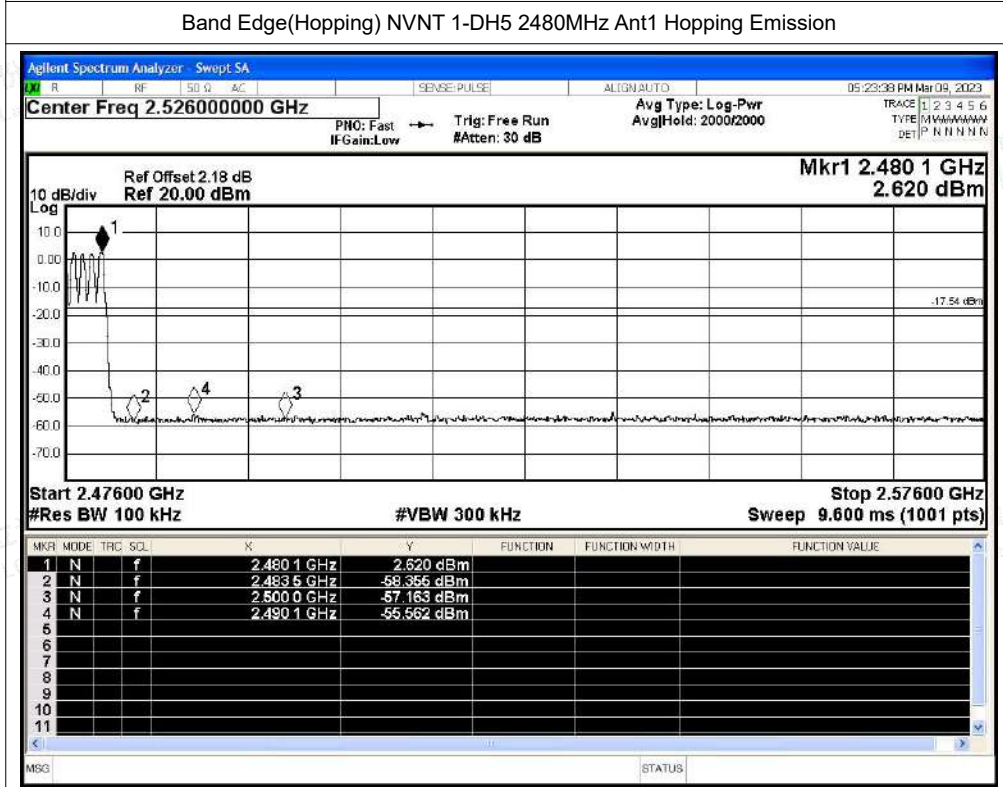
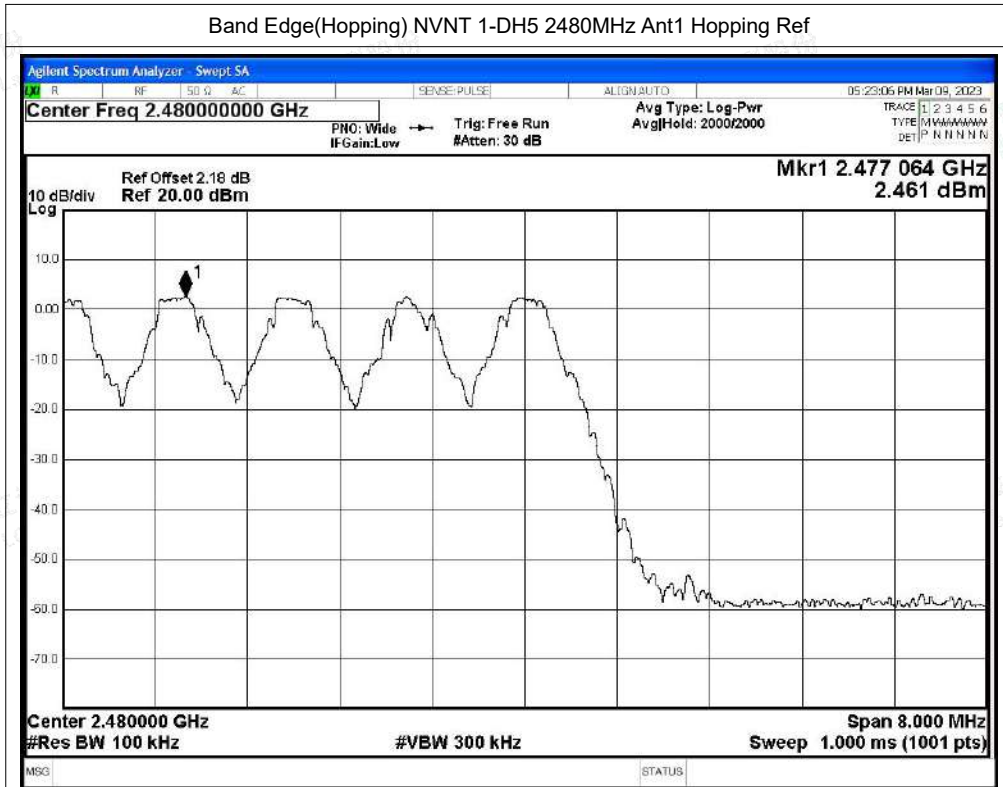
Test Graphs

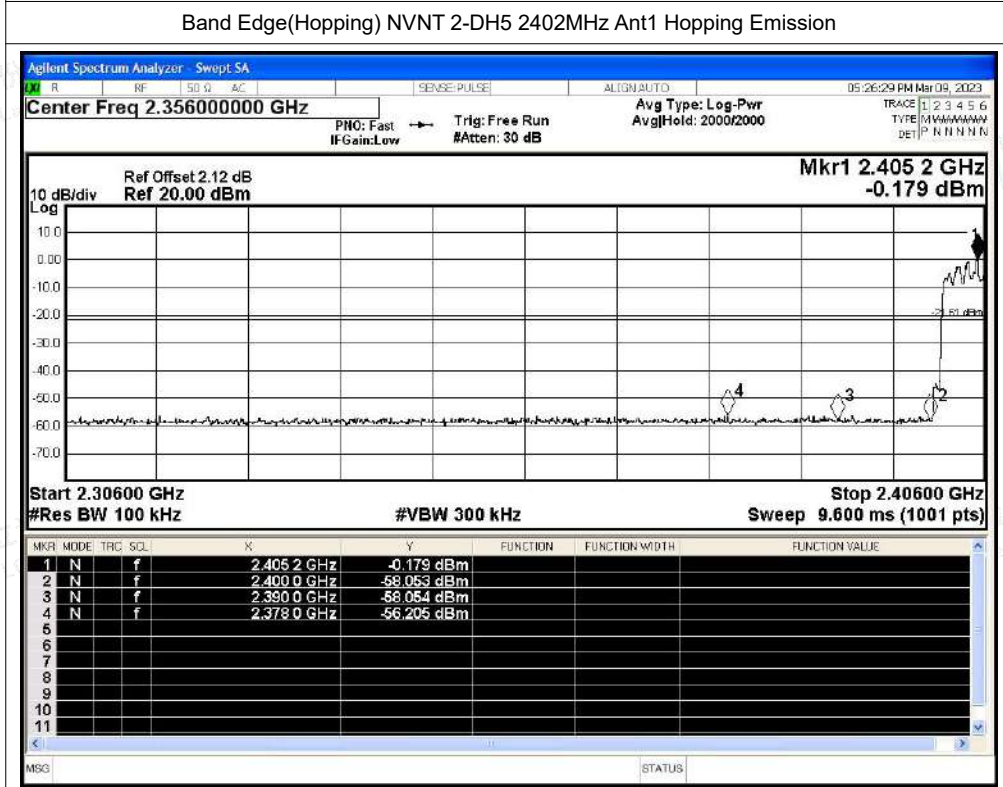
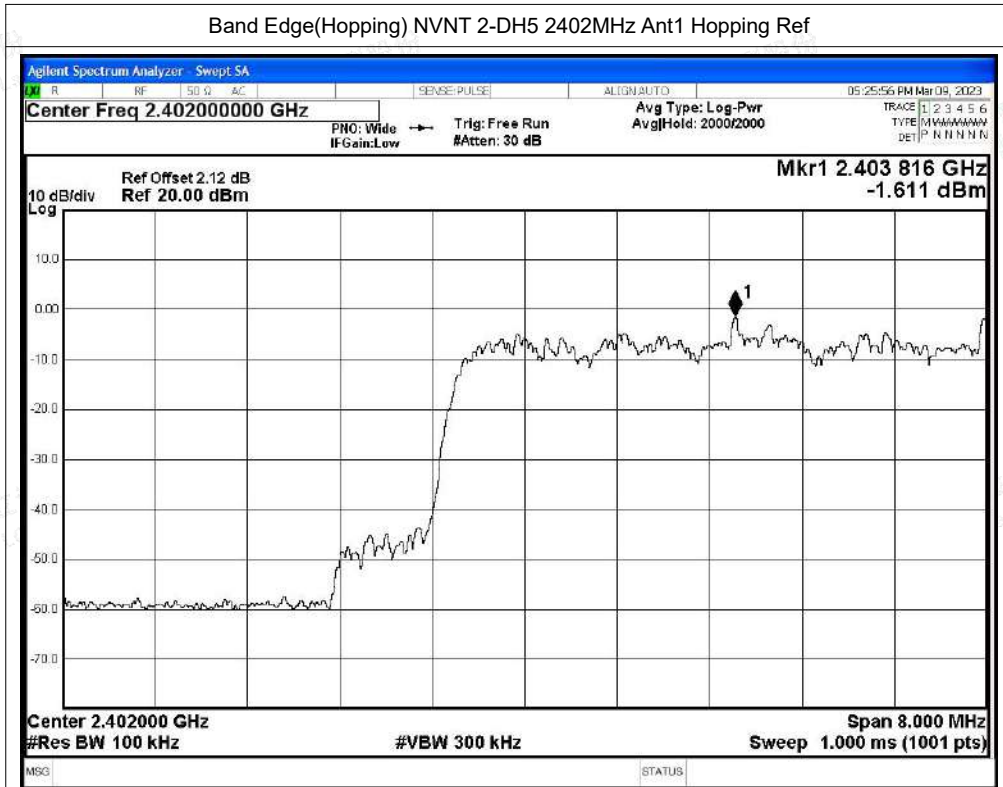
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



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

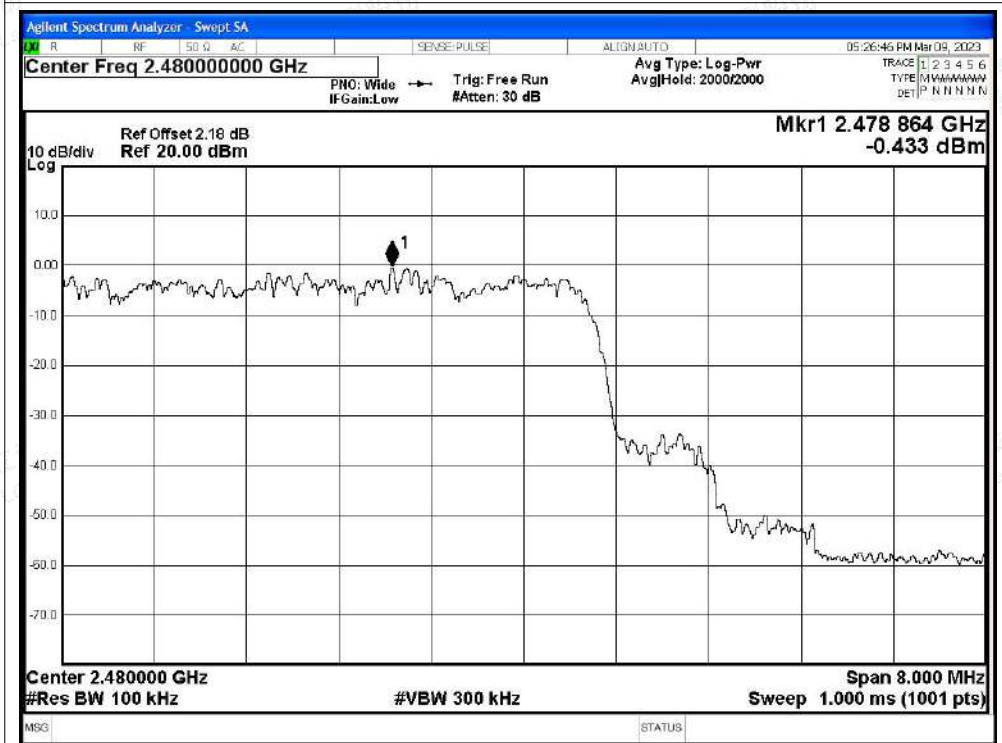




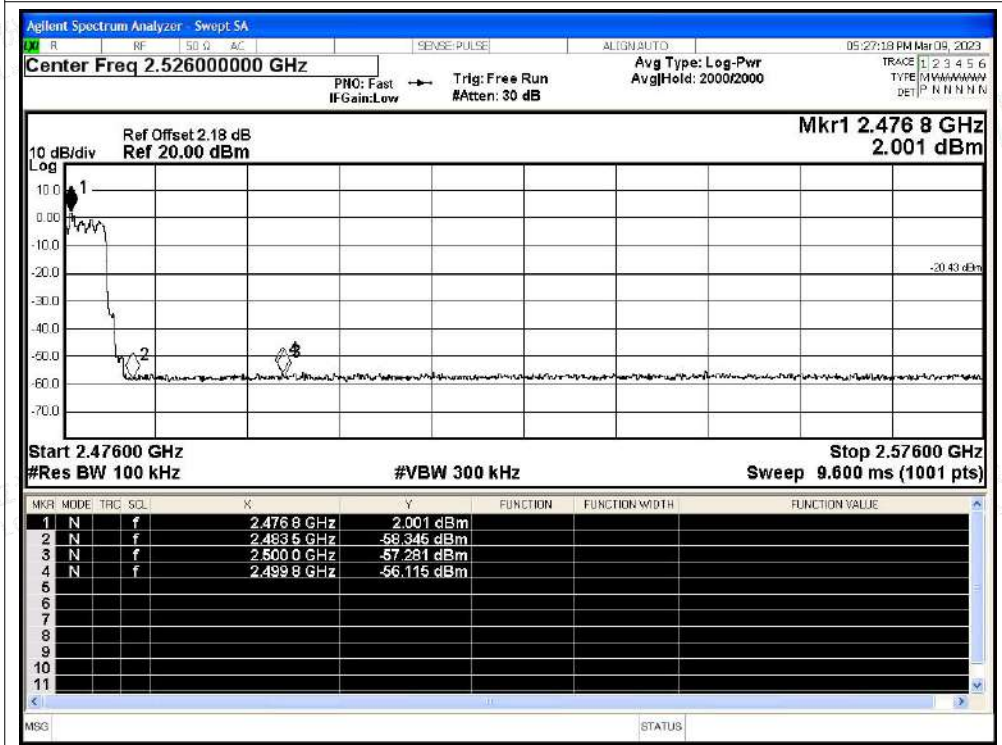




Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref

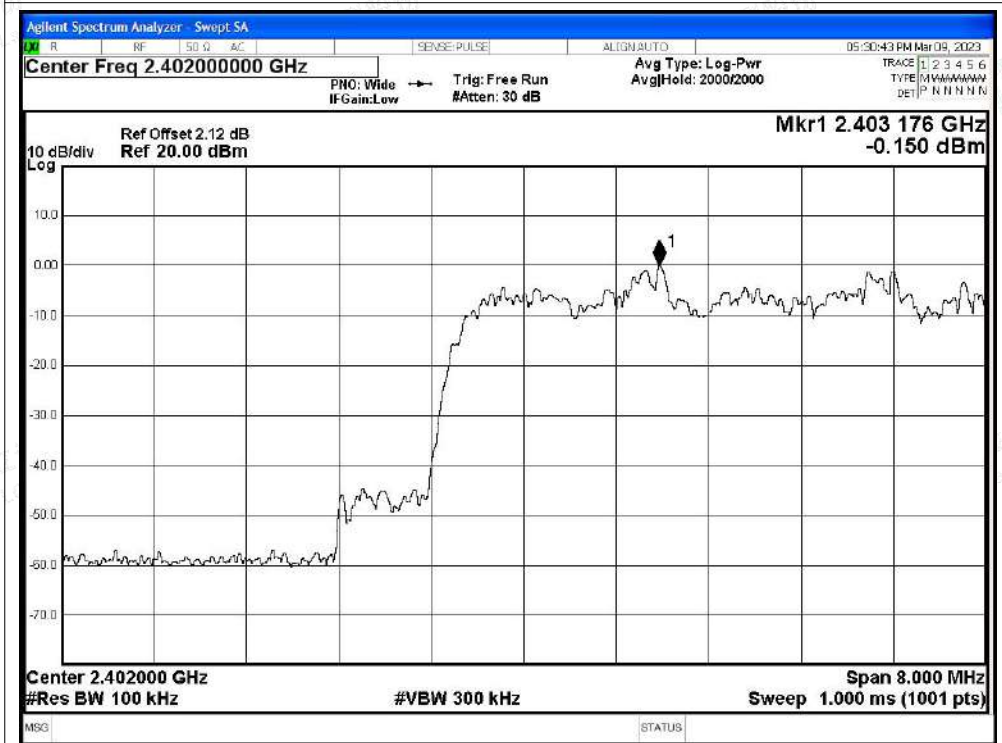


Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission

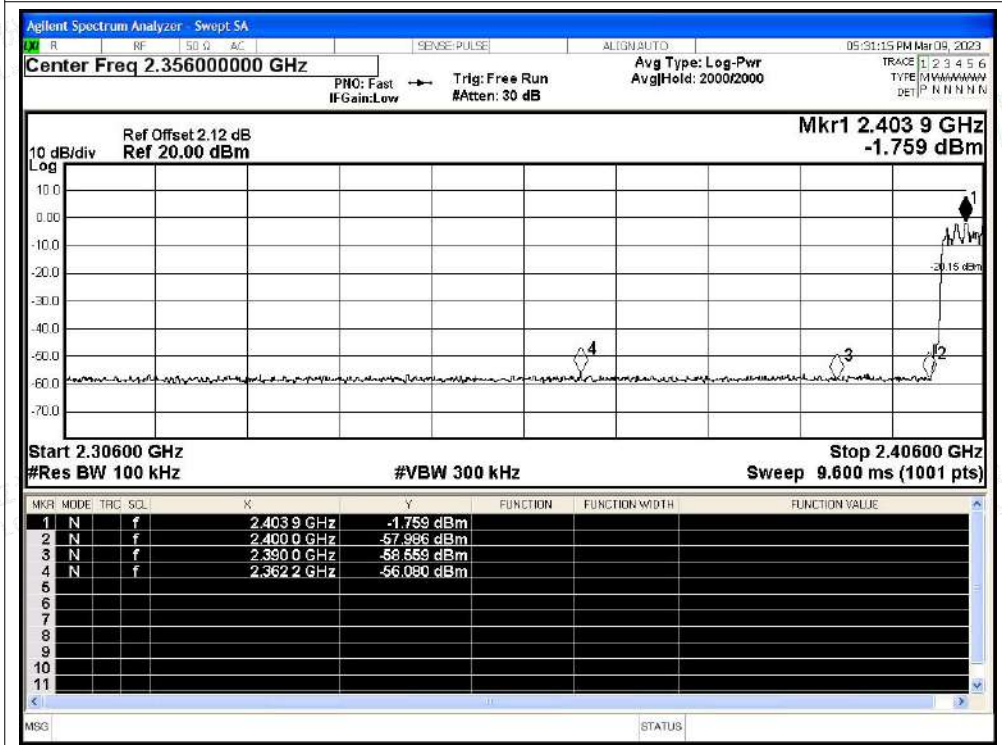




Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref

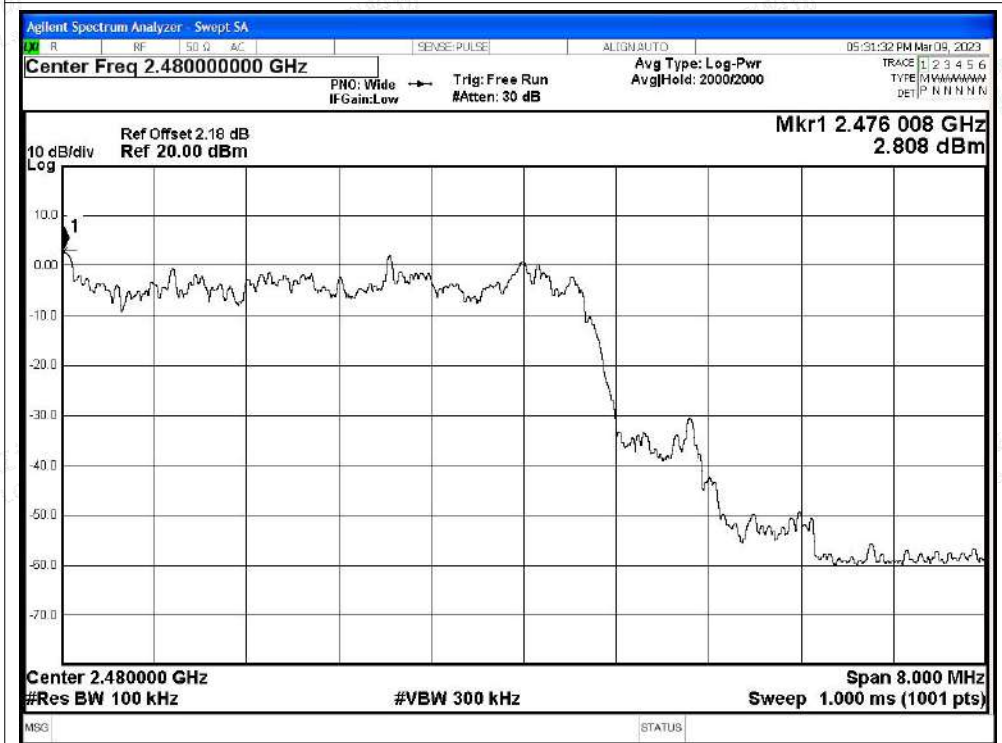


Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission

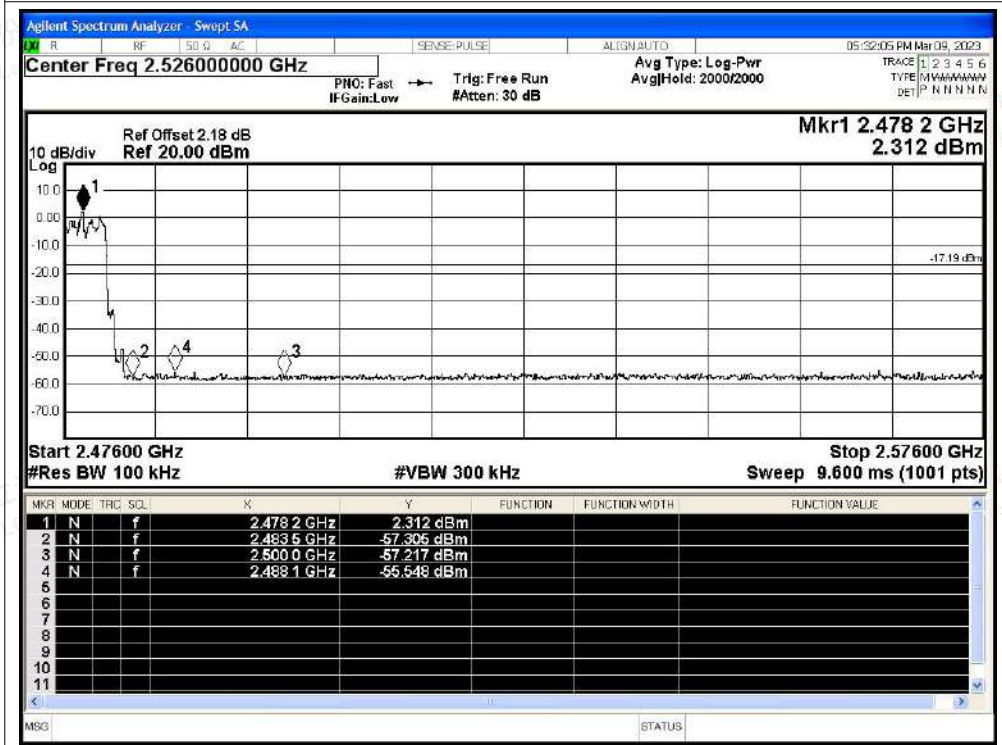




Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Ref



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





A.7 Conducted RF Spurious Emission

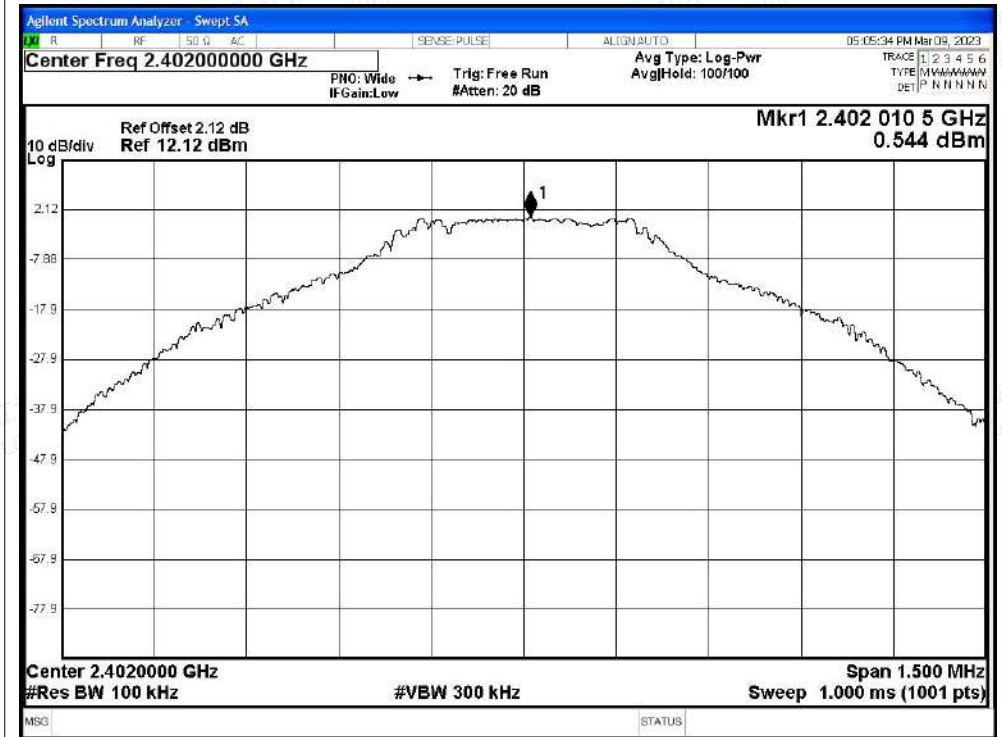
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-55.84	-20	Pass
NVNT	1-DH5	2441	Ant1	-57.2	-20	Pass
NVNT	1-DH5	2480	Ant1	-58.23	-20	Pass
NVNT	2-DH5	2402	Ant1	-55.13	-20	Pass
NVNT	2-DH5	2441	Ant1	-57.83	-20	Pass
NVNT	2-DH5	2480	Ant1	-58.01	-20	Pass
NVNT	3-DH5	2402	Ant1	-55.76	-20	Pass
NVNT	3-DH5	2441	Ant1	-57.64	-20	Pass
NVNT	3-DH5	2480	Ant1	-56.87	-20	Pass



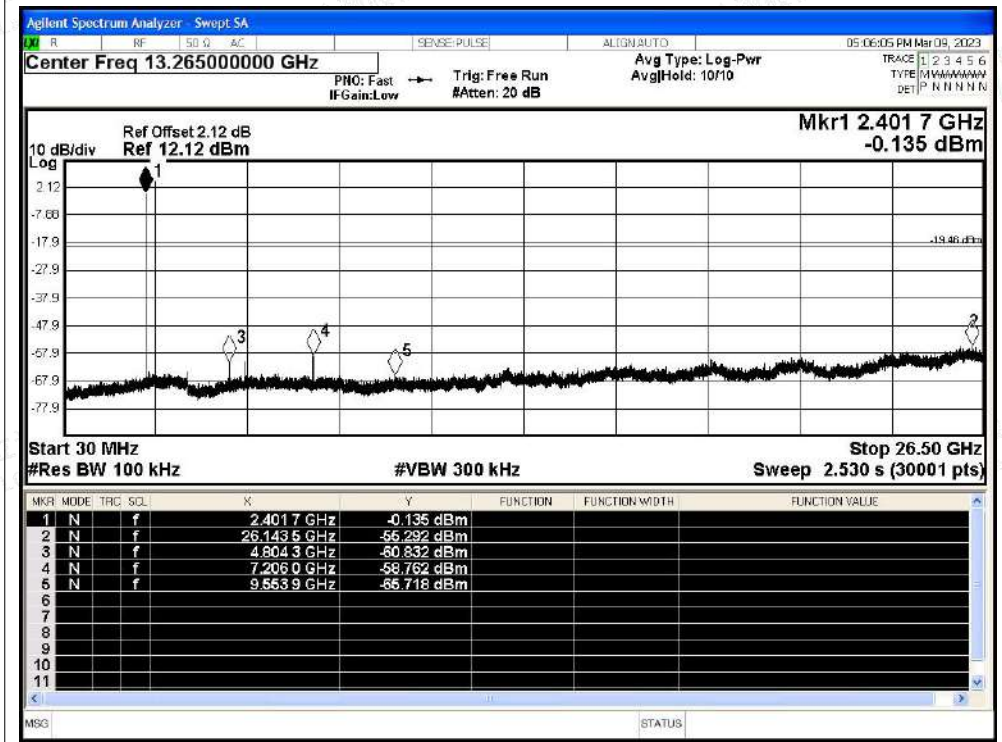


Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission

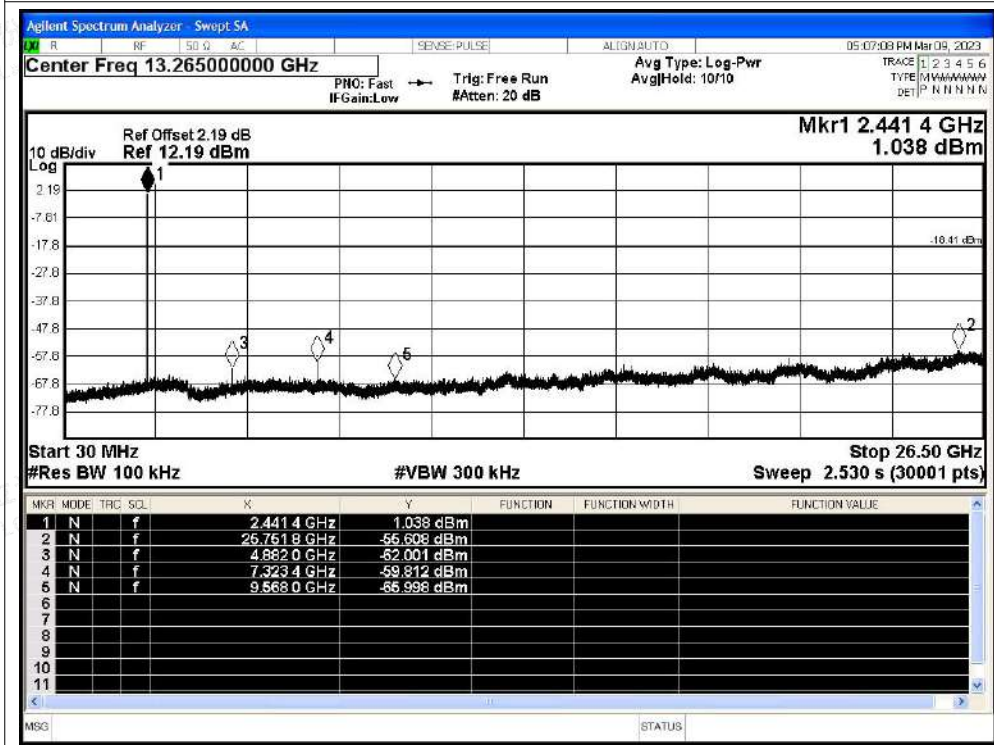




Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref

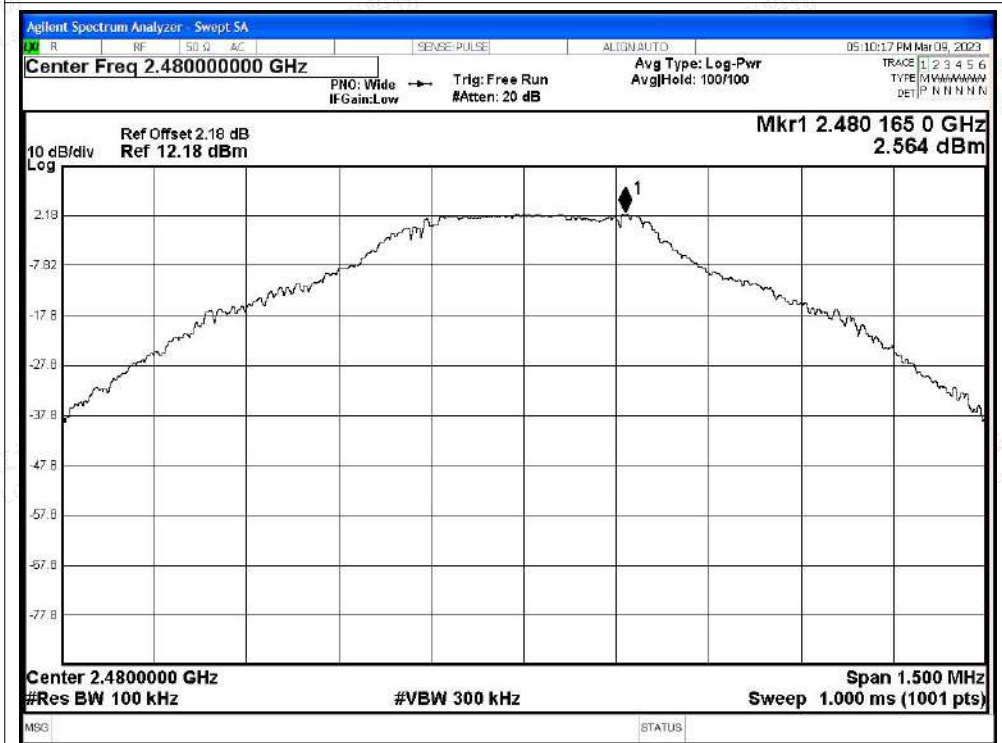


Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission

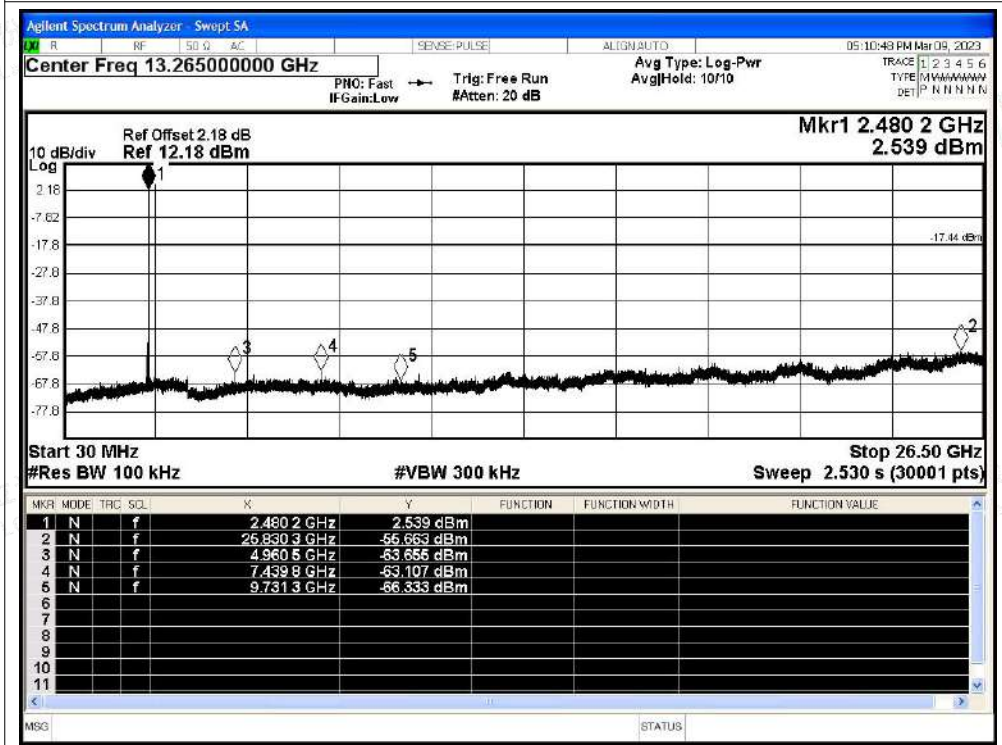




Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



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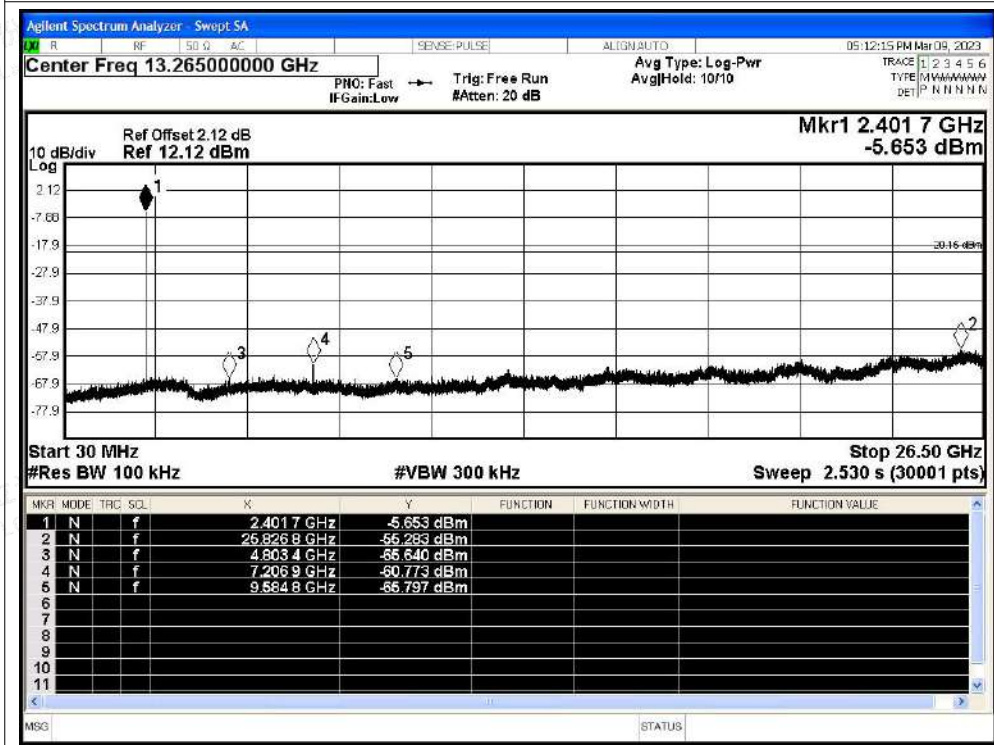
Scan code to check authenticity



Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



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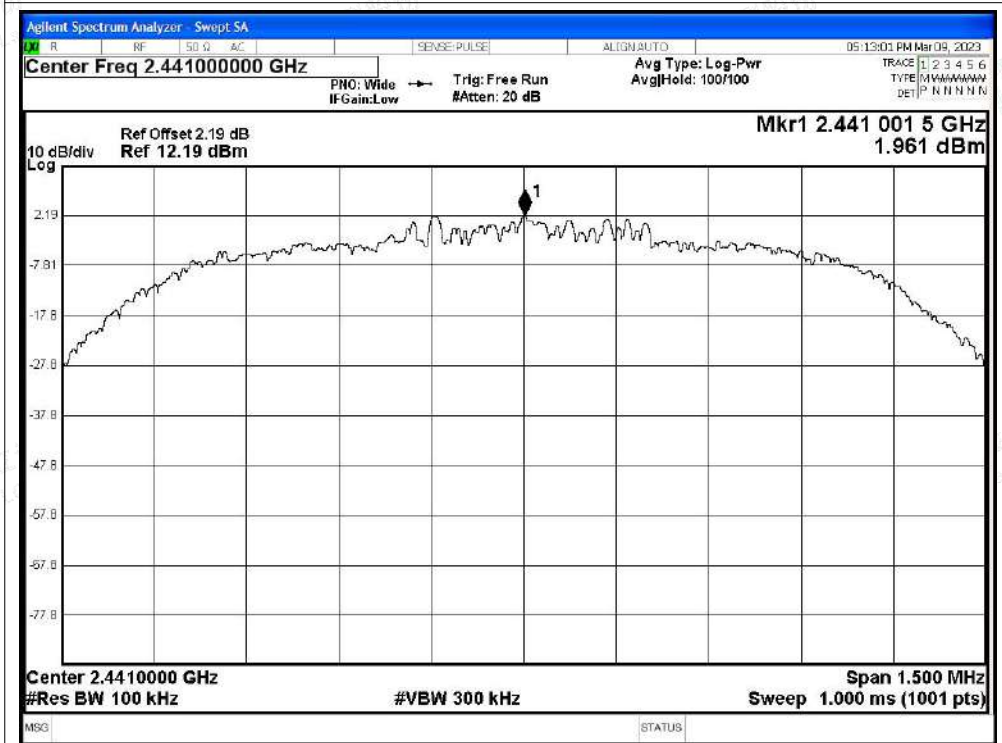
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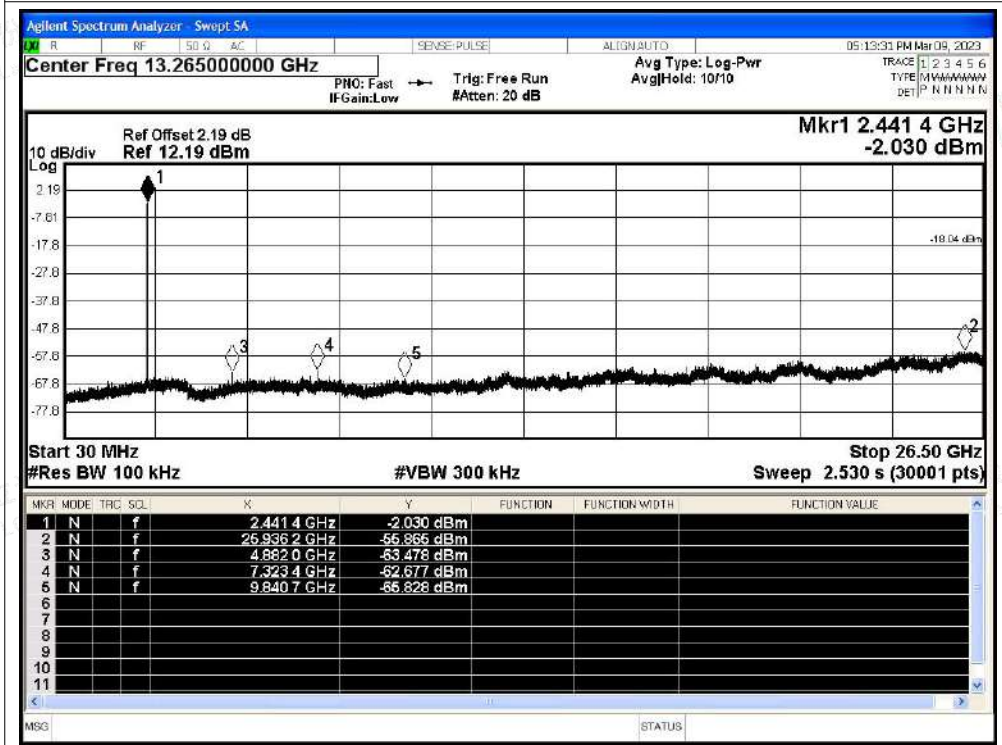
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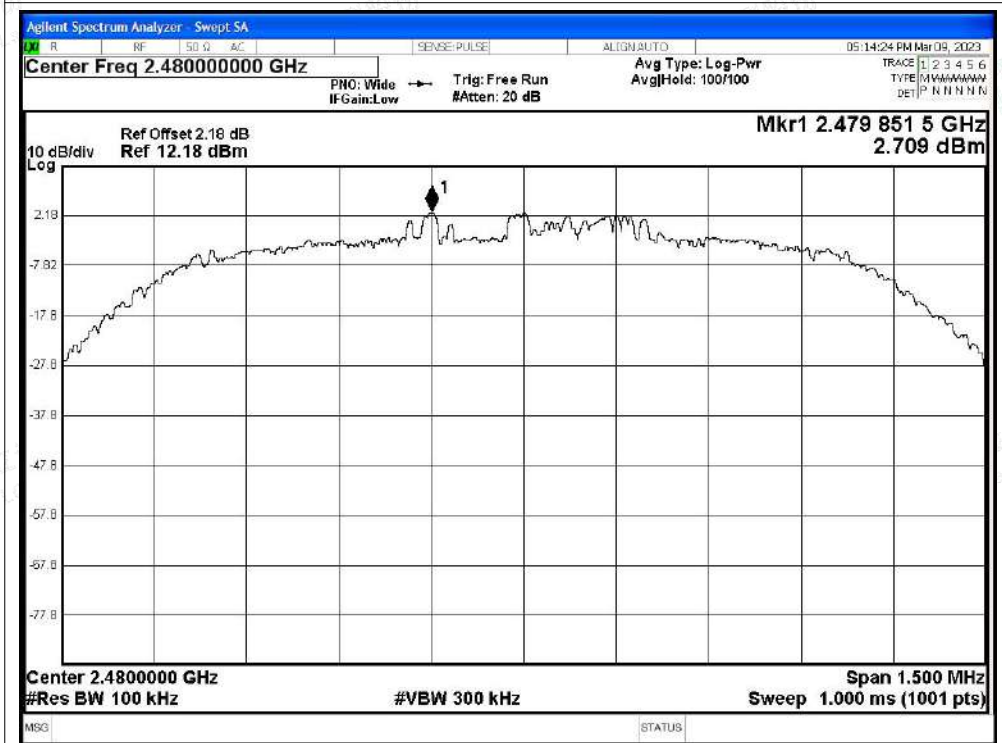


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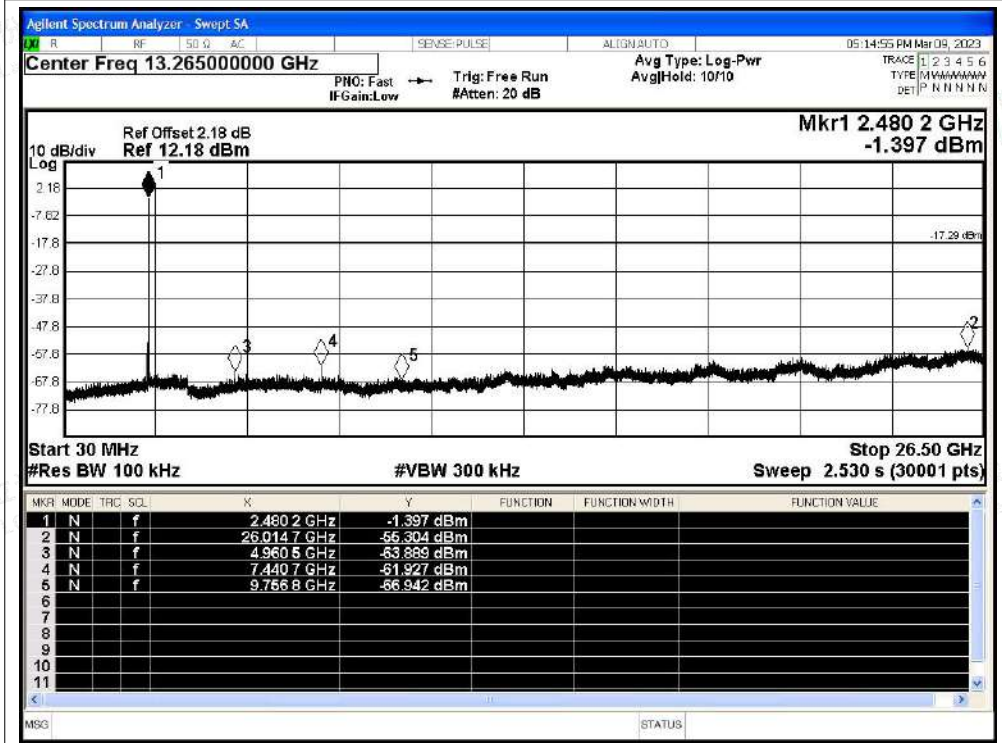




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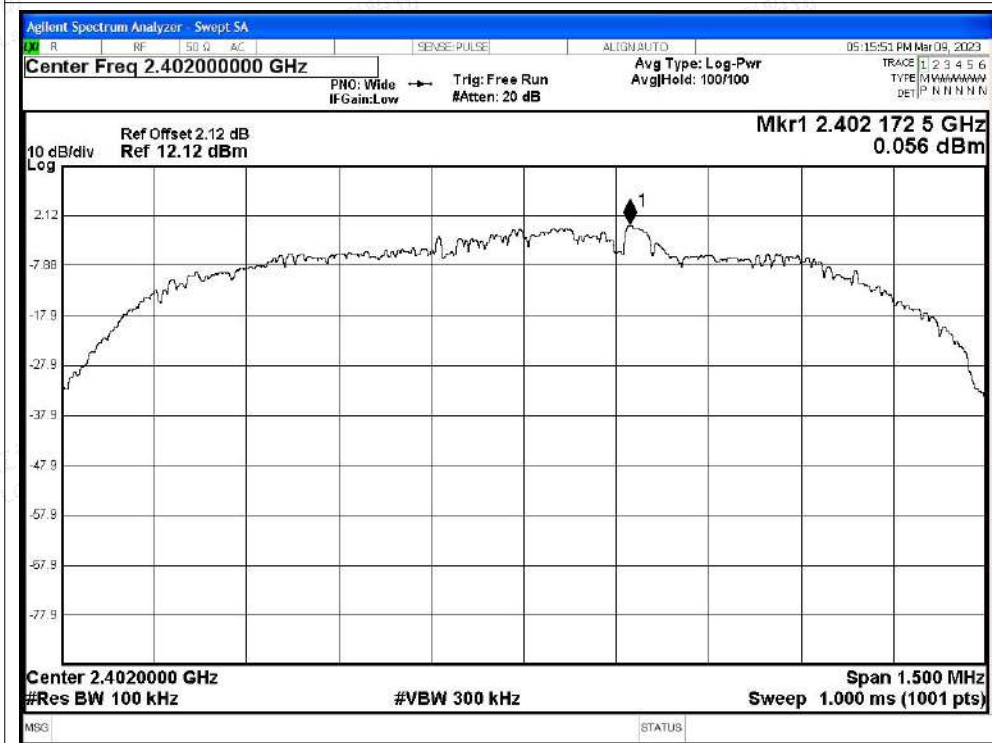


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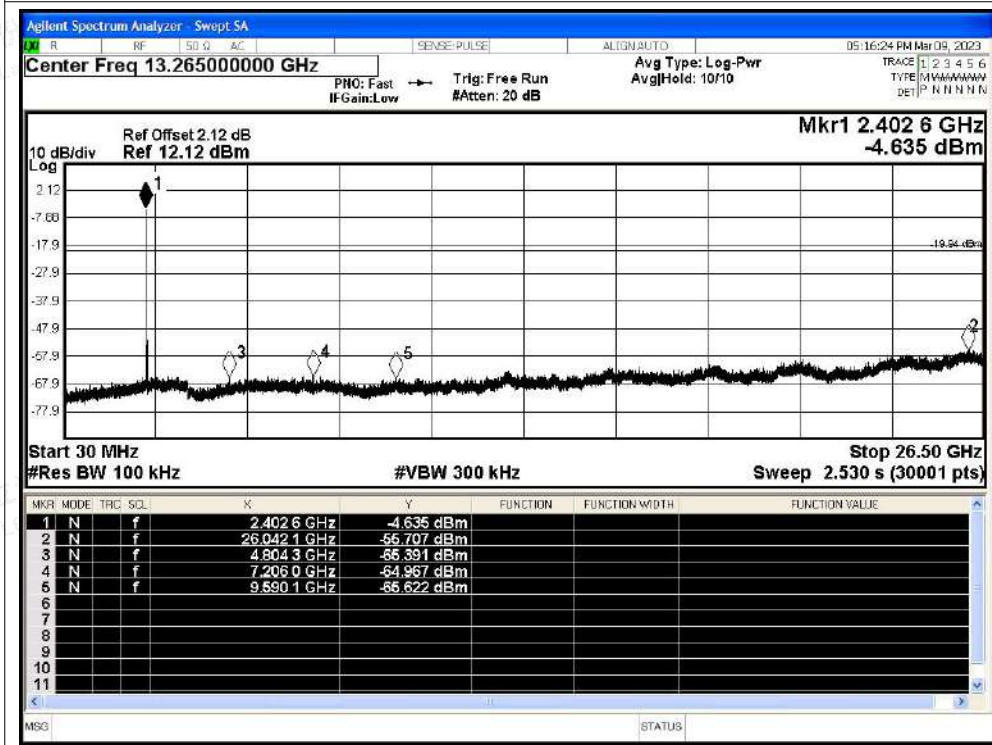




Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

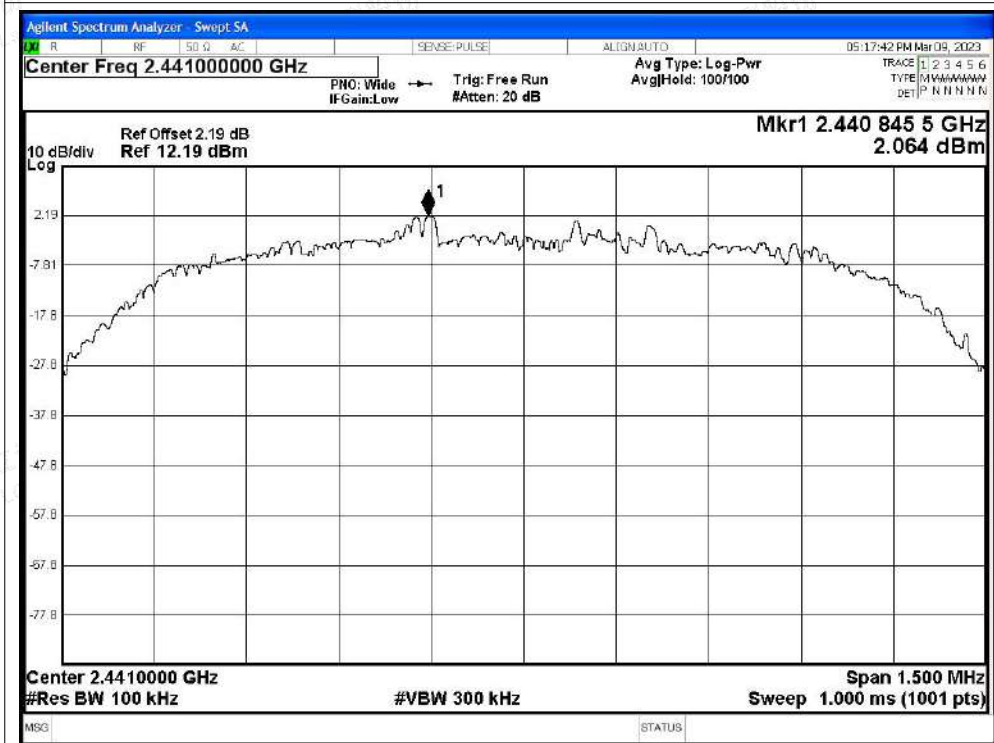
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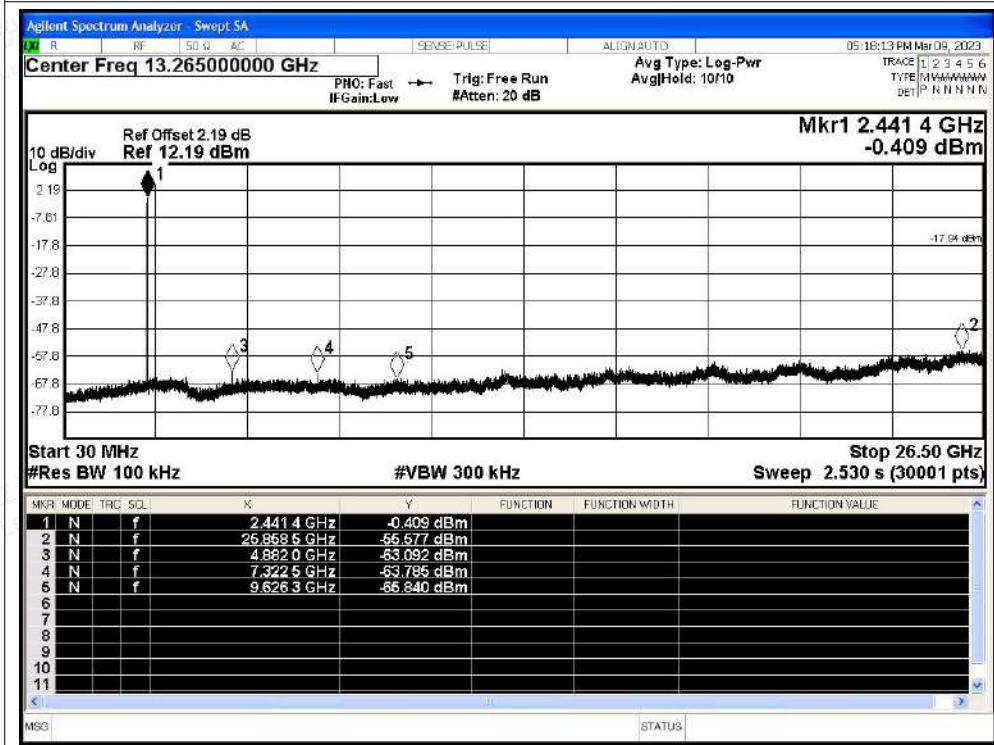
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Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



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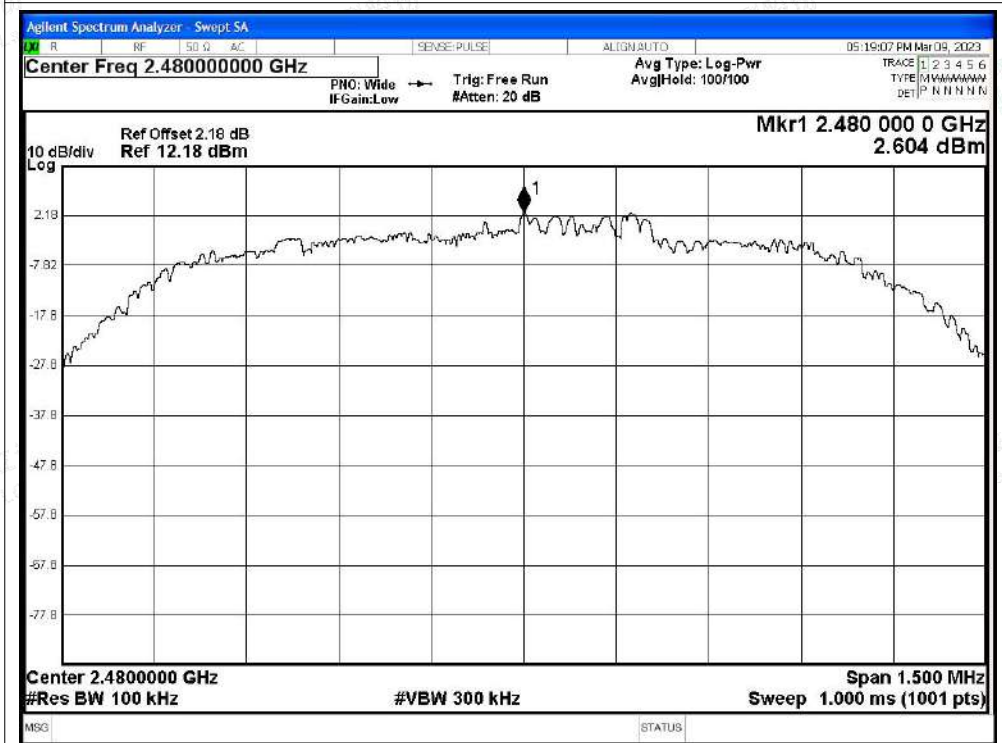
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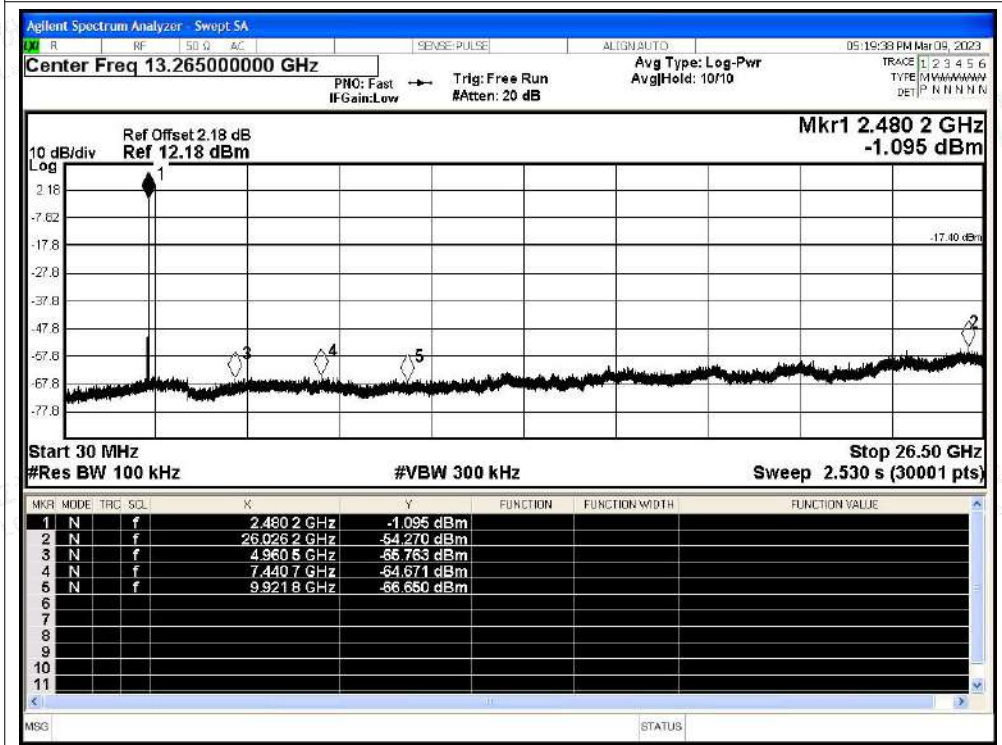
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Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-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	-50.67	0	44.56	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-60.45	0	34.78	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2372.112	-47.06	0	48.17	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2380.08	-59.87	0	35.36	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-48.44	0	46.79	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-60.06	0	35.17	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-50.69	0	44.54	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-59.62	0	35.61	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2495.848	-45.5	0	49.73	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2485.024	-59.39	0	35.84	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-50.36	0	44.87	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-59.67	0	35.56	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-51.41	0	43.82	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-60.32	0	34.91	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2336.208	-47.07	0	48.16	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2386.896	-59.89	0	35.34	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-49.64	0	45.59	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-60.07	0	35.16	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-48.18	0	47.05	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-58.88	0	36.35	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2494.216	-47.19	0	48.04	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.512	-58.88	0	36.35	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-50.32	0	44.91	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-59.67	0	35.56	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-49.59	0	45.64	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-60.42	0	34.81	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2372.208	-47.66	0	47.57	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2387.568	-59.68	0	35.55	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-50.89	0	44.34	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-60.07	0	35.16	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-48.14	0	47.09	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-58.81	0	36.42	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.608	-46.8	0	48.43	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.512	-58.81	0	36.42	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-49.57	0	45.66	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-59.65	0	35.58	Average	54	Pass



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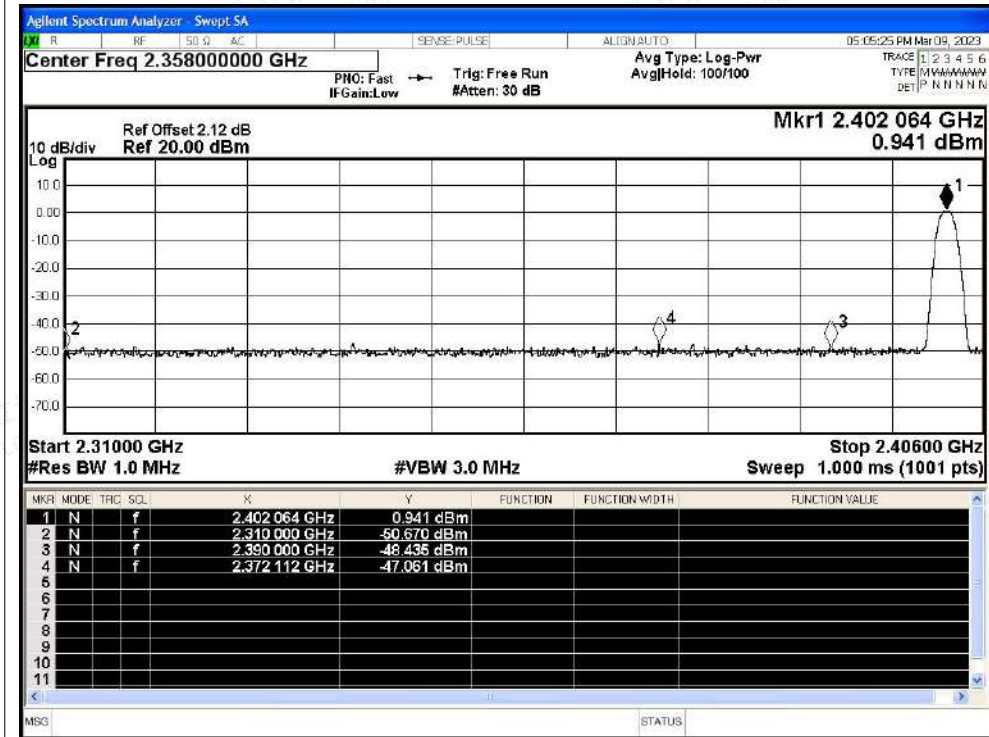
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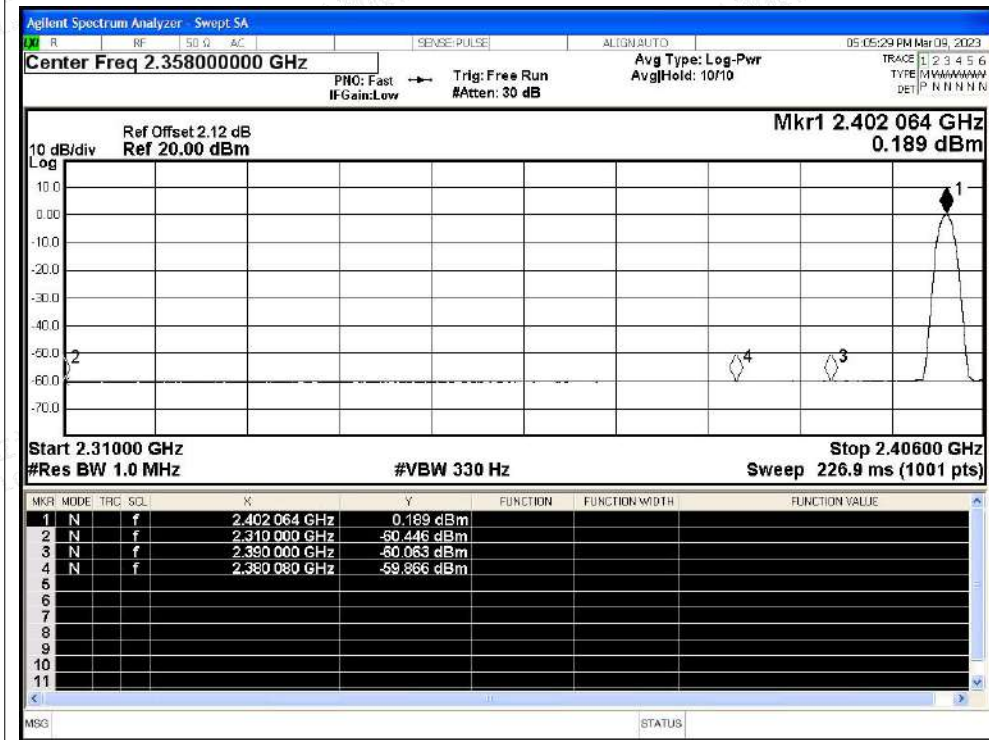


Test Graphs

Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



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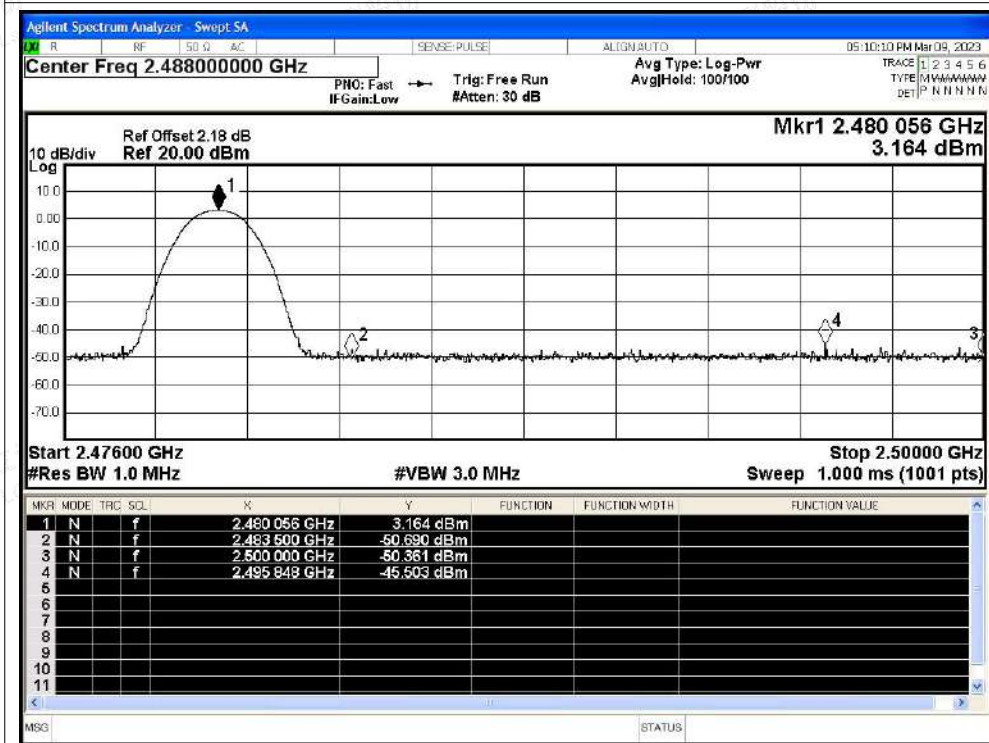
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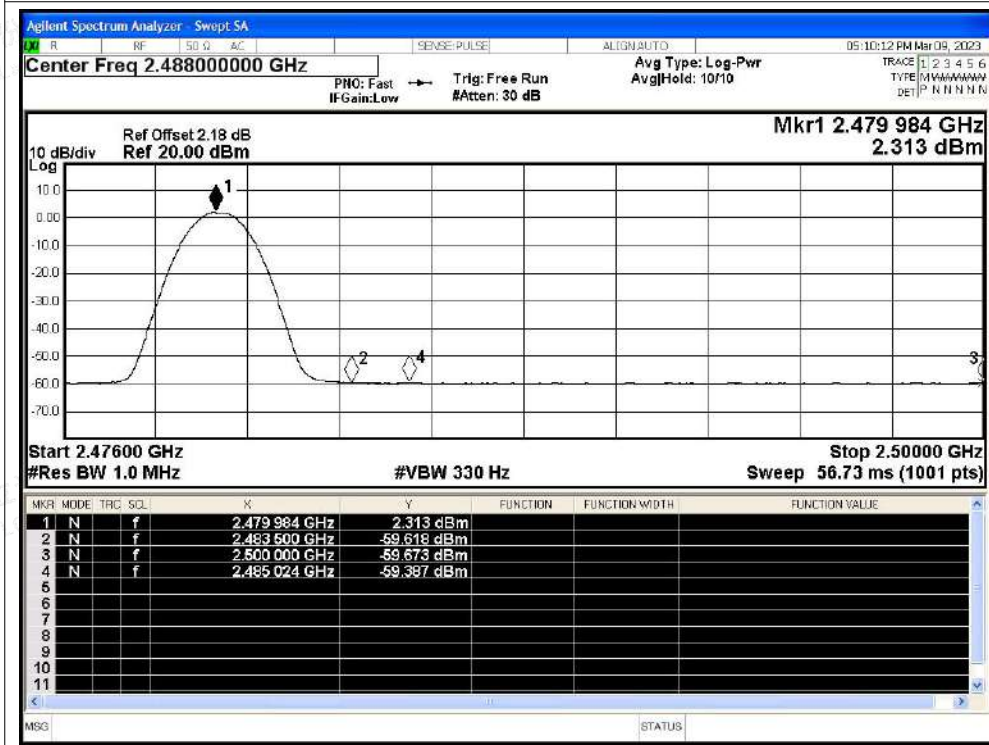
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Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



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



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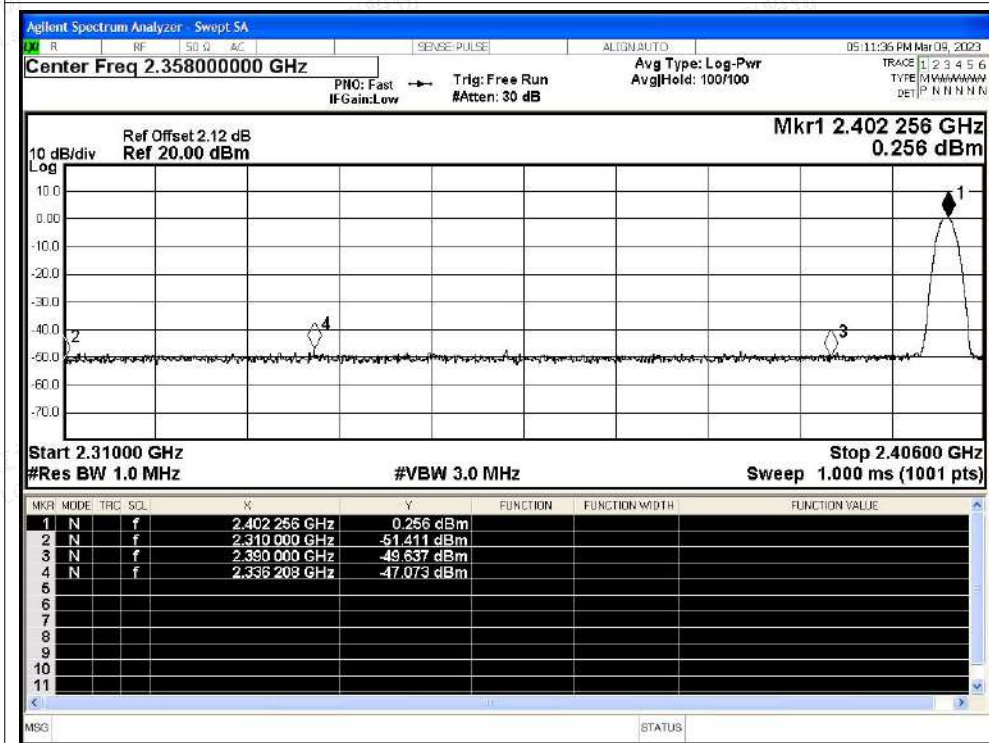
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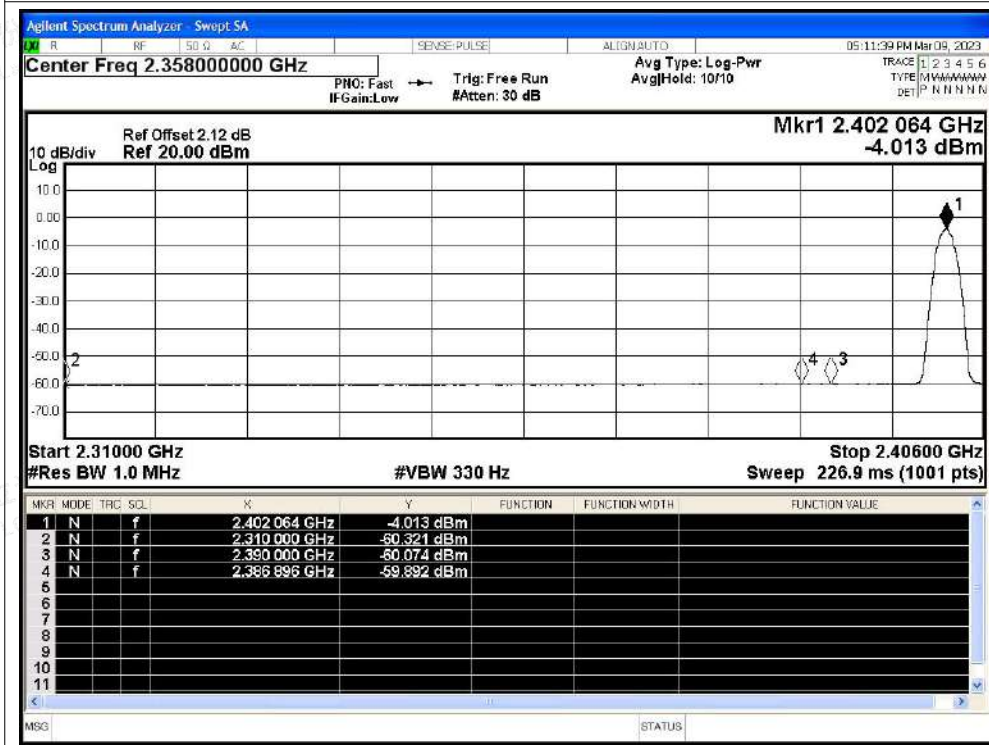
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Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak



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



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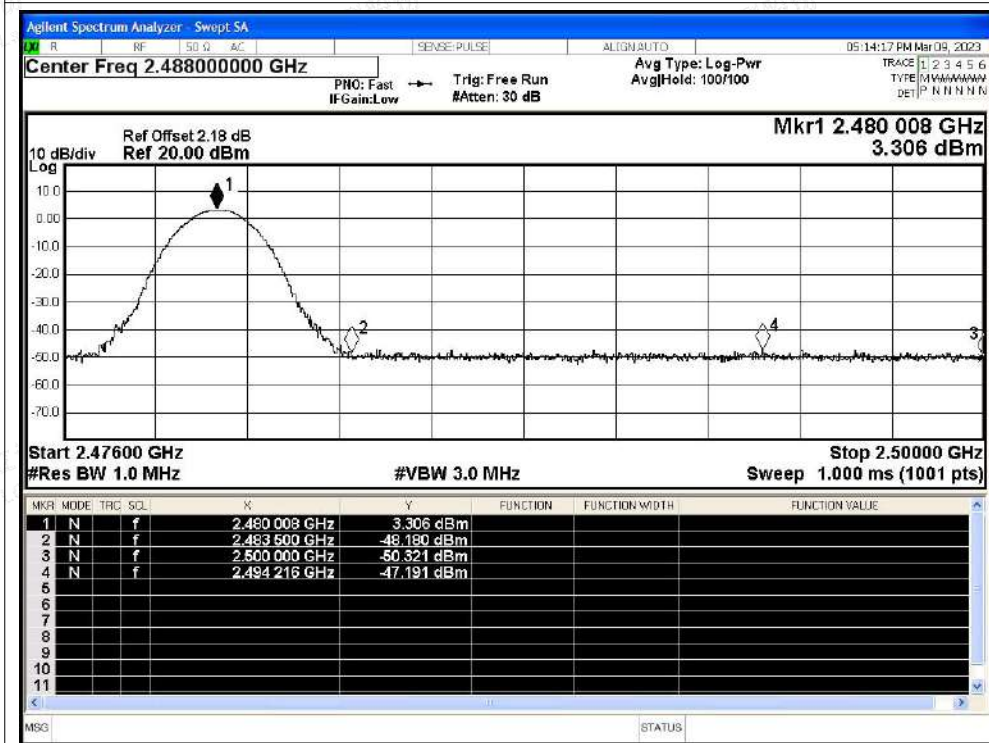
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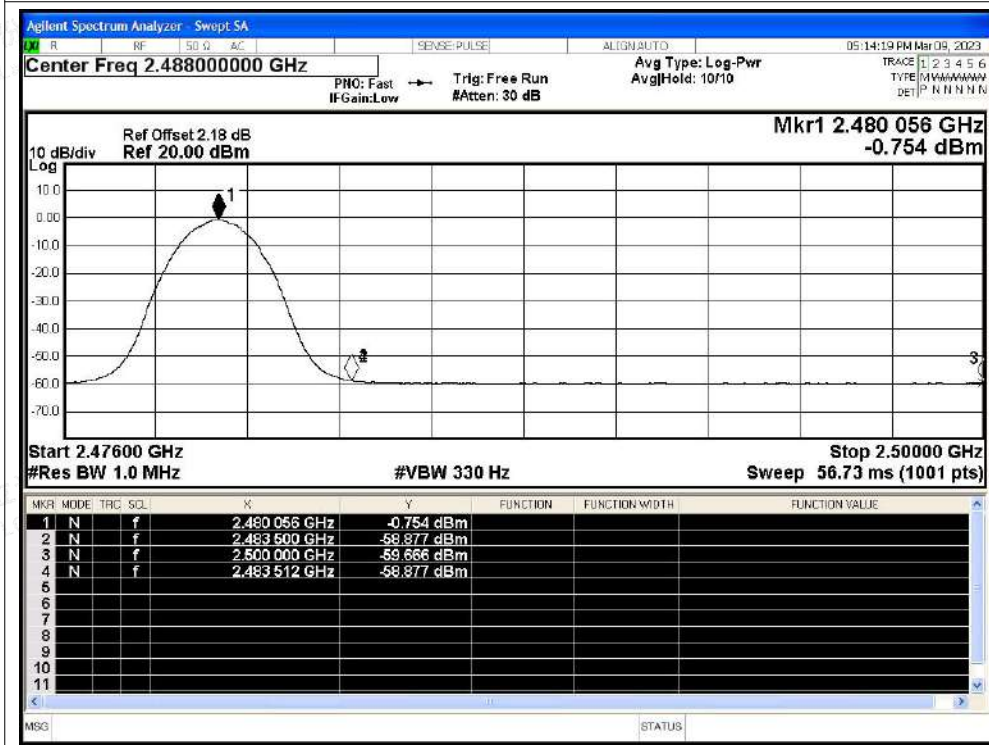
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Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak



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



Shenzhen LCS Compliance Testing Laboratory Ltd.

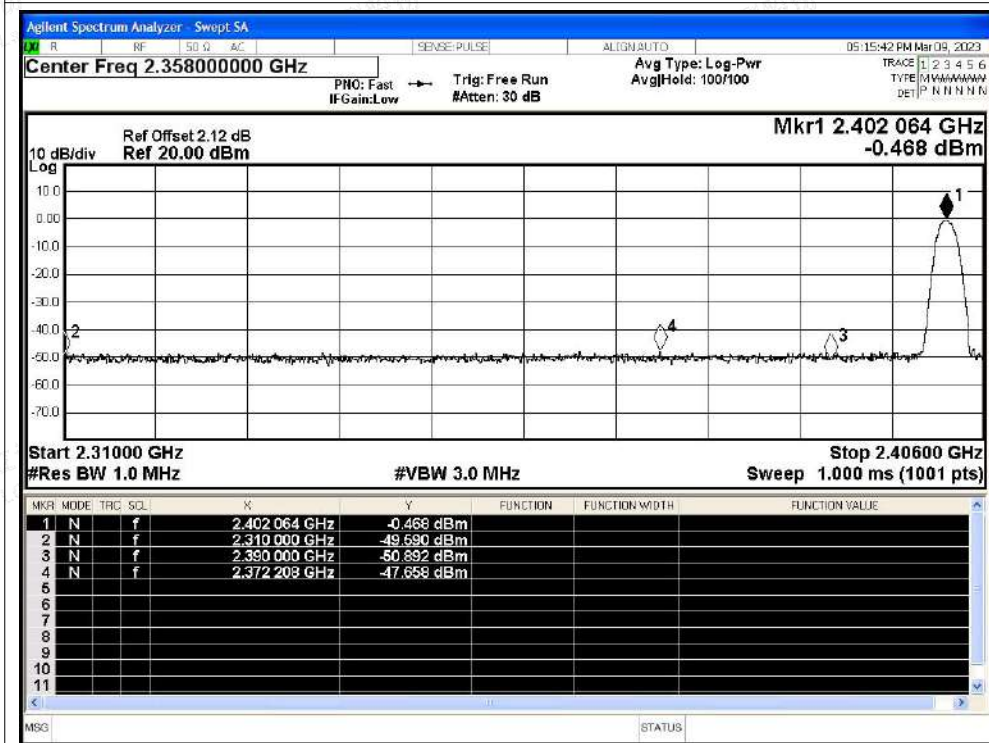
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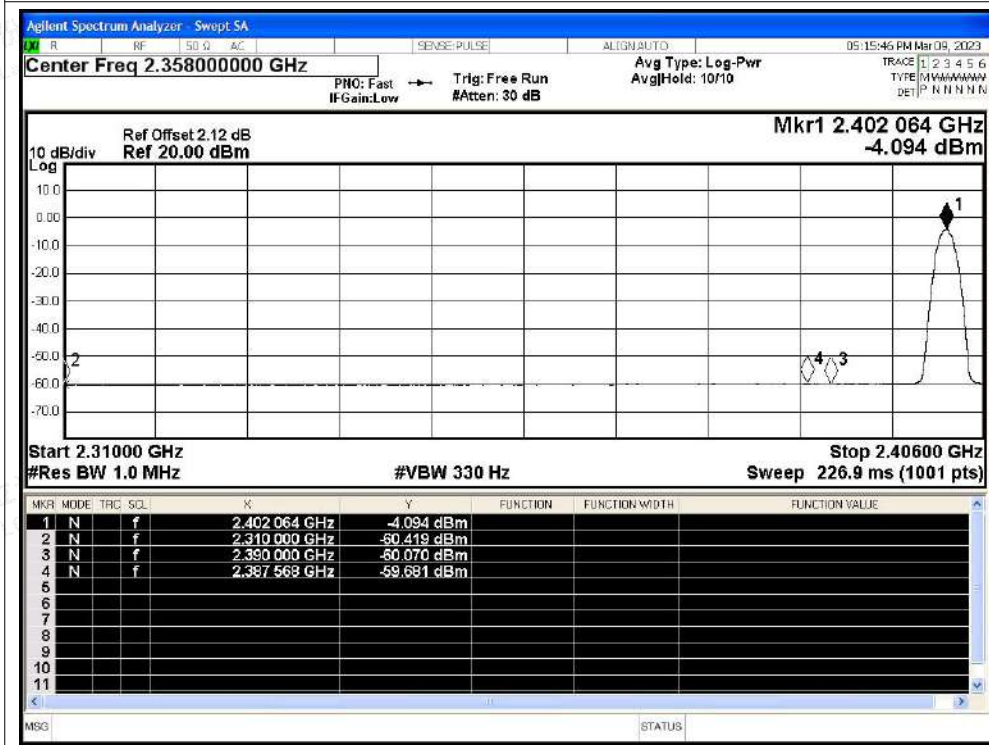
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Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak



Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Average



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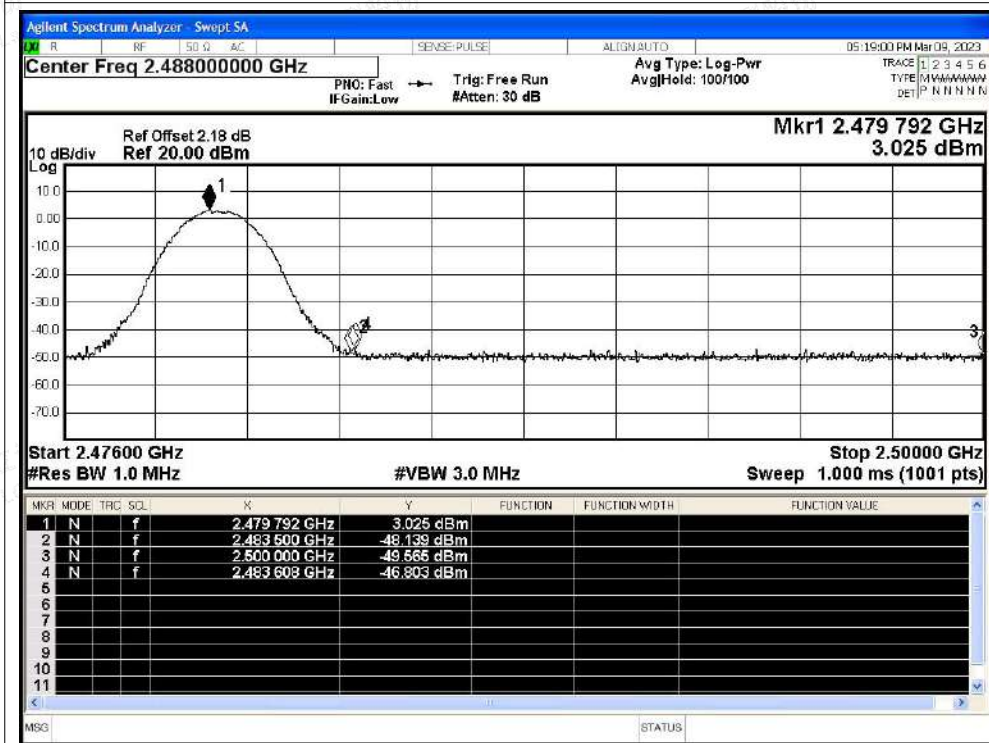
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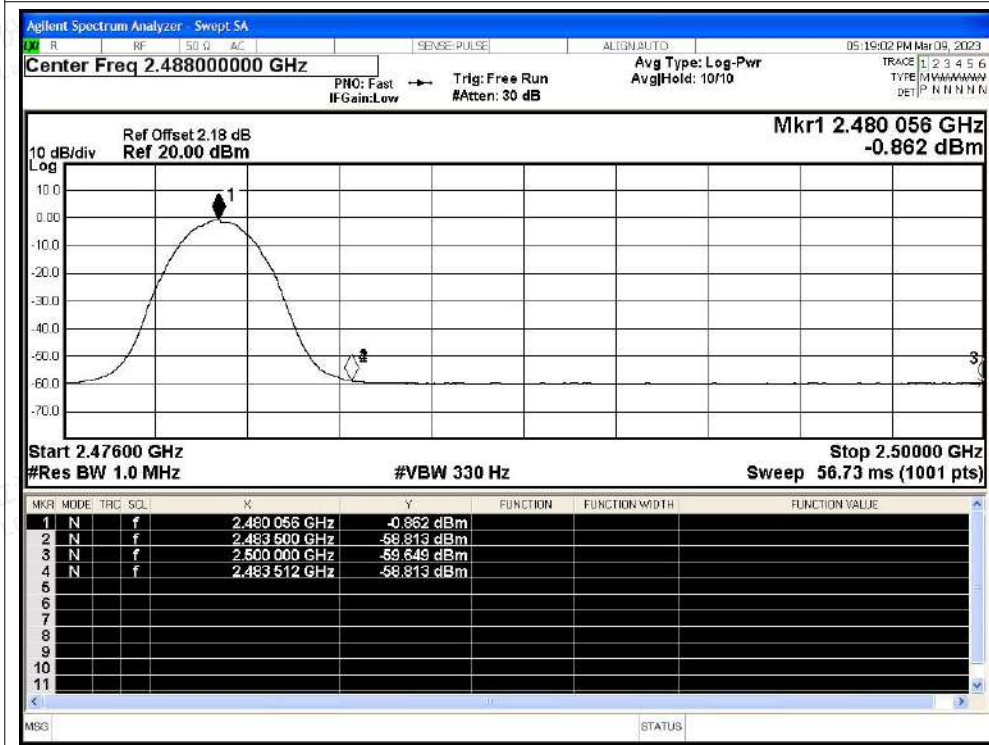
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Restrict Band NVNT 3-DH5 2480MHz Ant1 No-Hopping Peak



Restrict Band NVNT 3-DH5 2480MHz Ant1 No-Hopping Average



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