



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Portable Radio

Test Model: NewWorld

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Luo
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	0.956	N/A	Pass
NVNT	1-DH5	2441	Ant1	1.014	N/A	Pass
NVNT	1-DH5	2480	Ant1	1.006	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.287	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.322	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.283	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.297	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.298	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.296	N/A	Pass



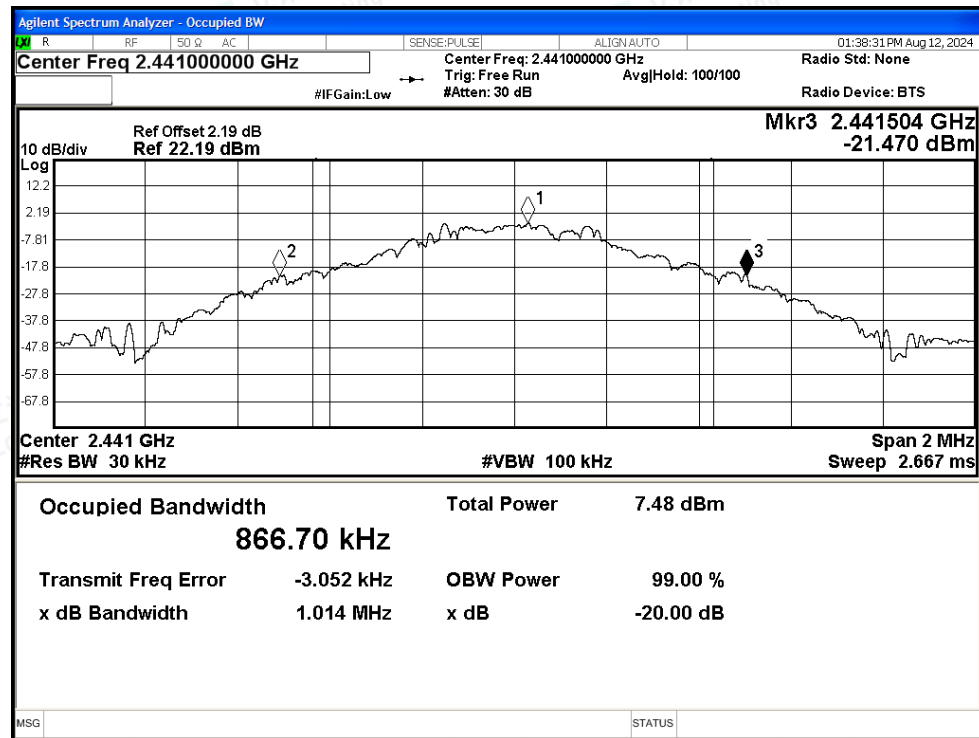


Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

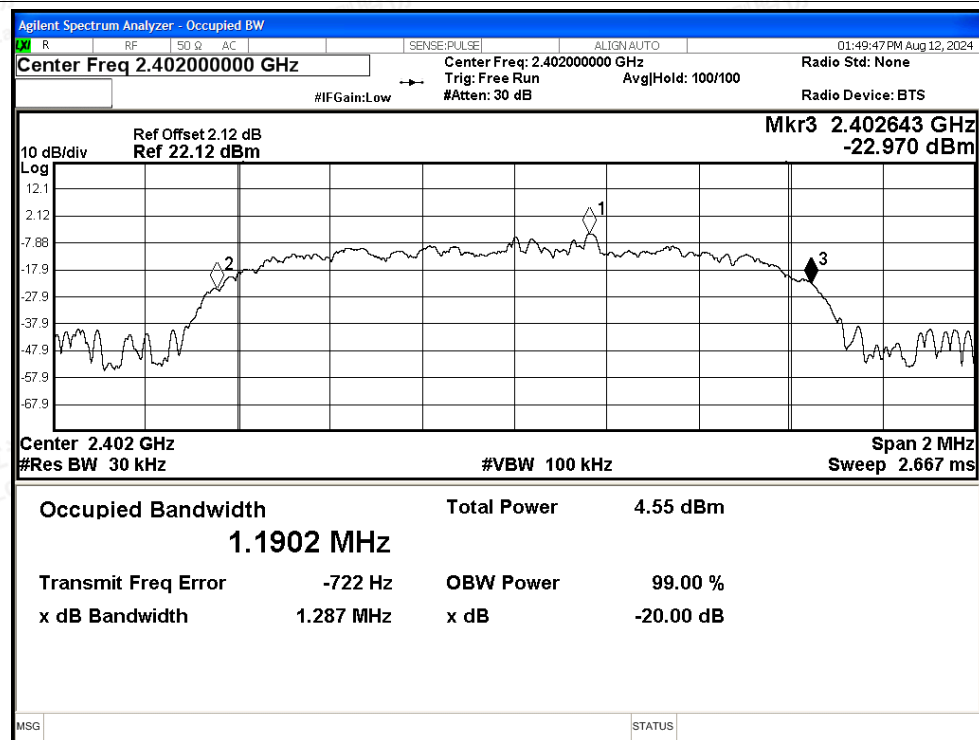




-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1

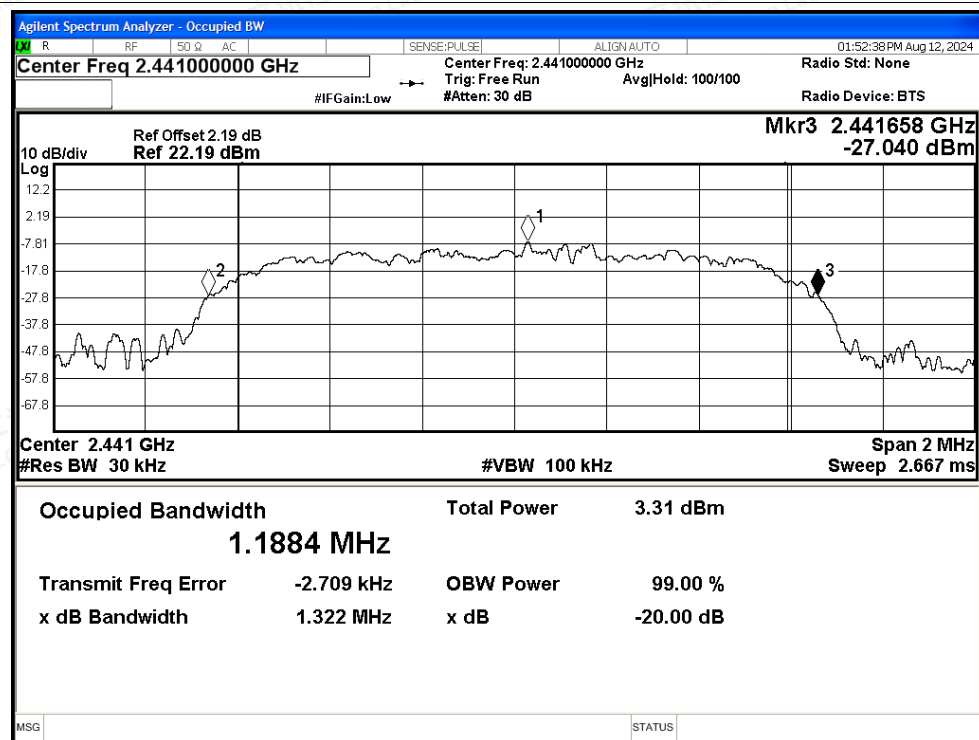


-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1

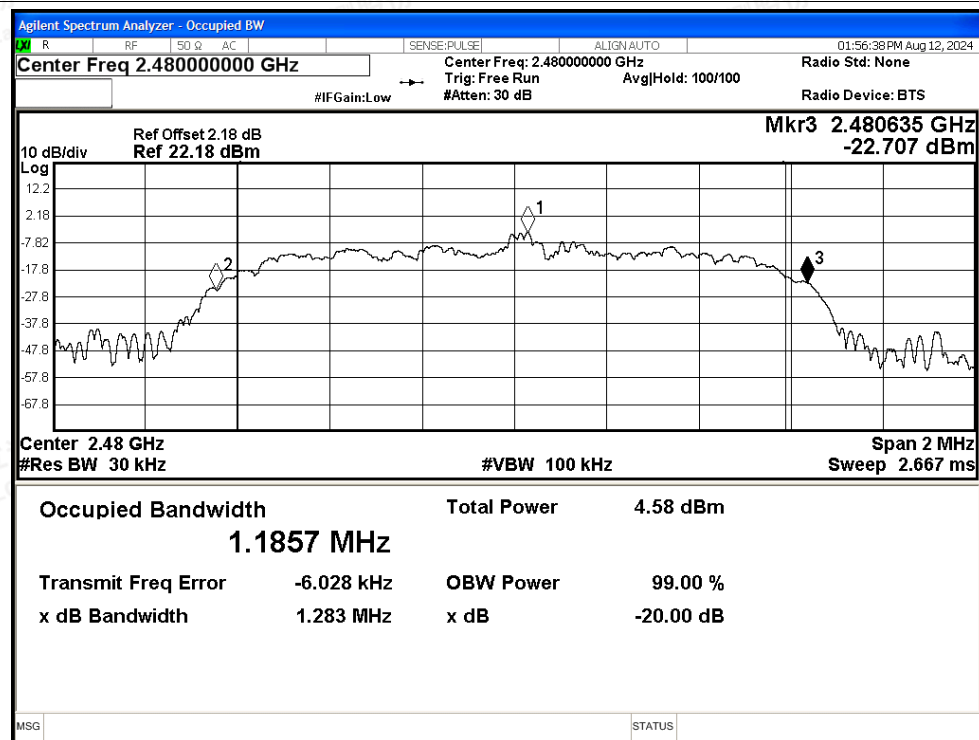




-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1

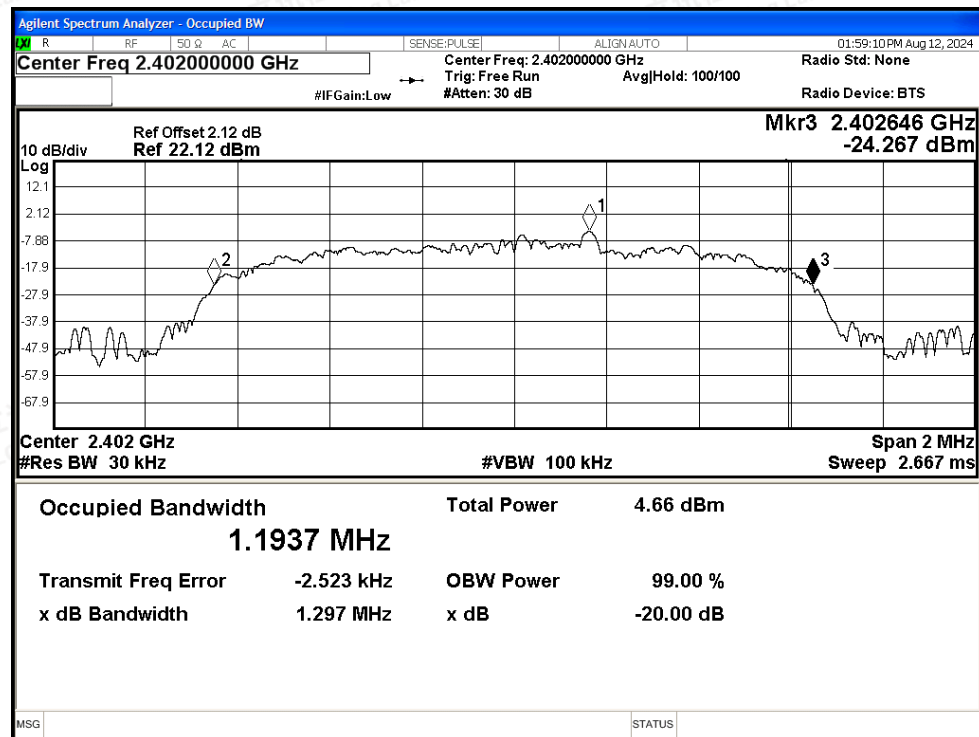


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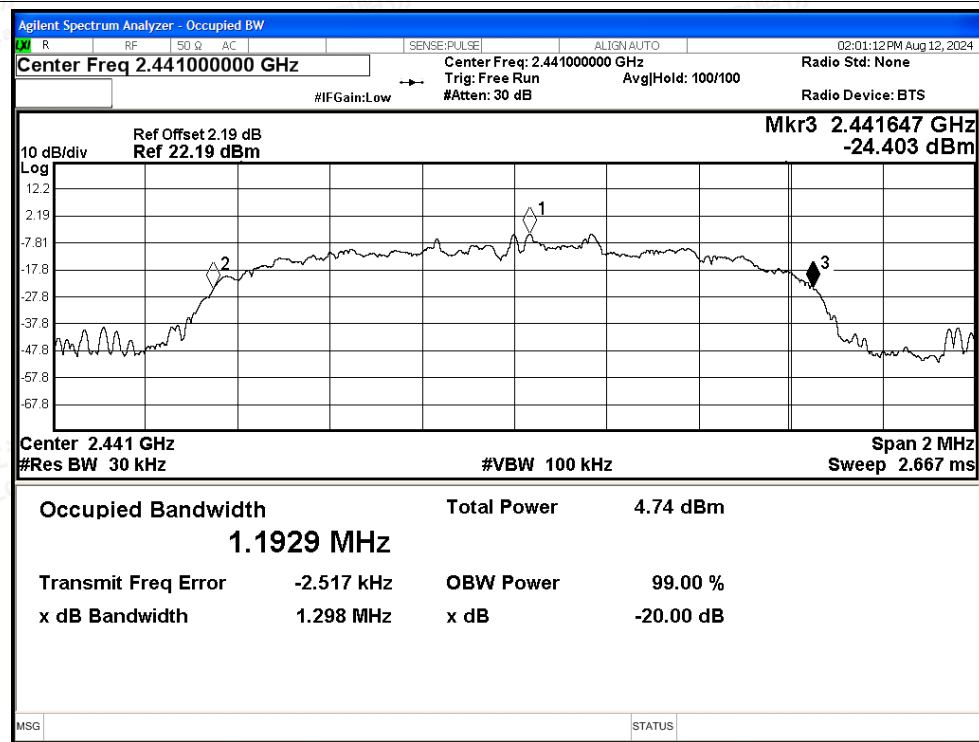


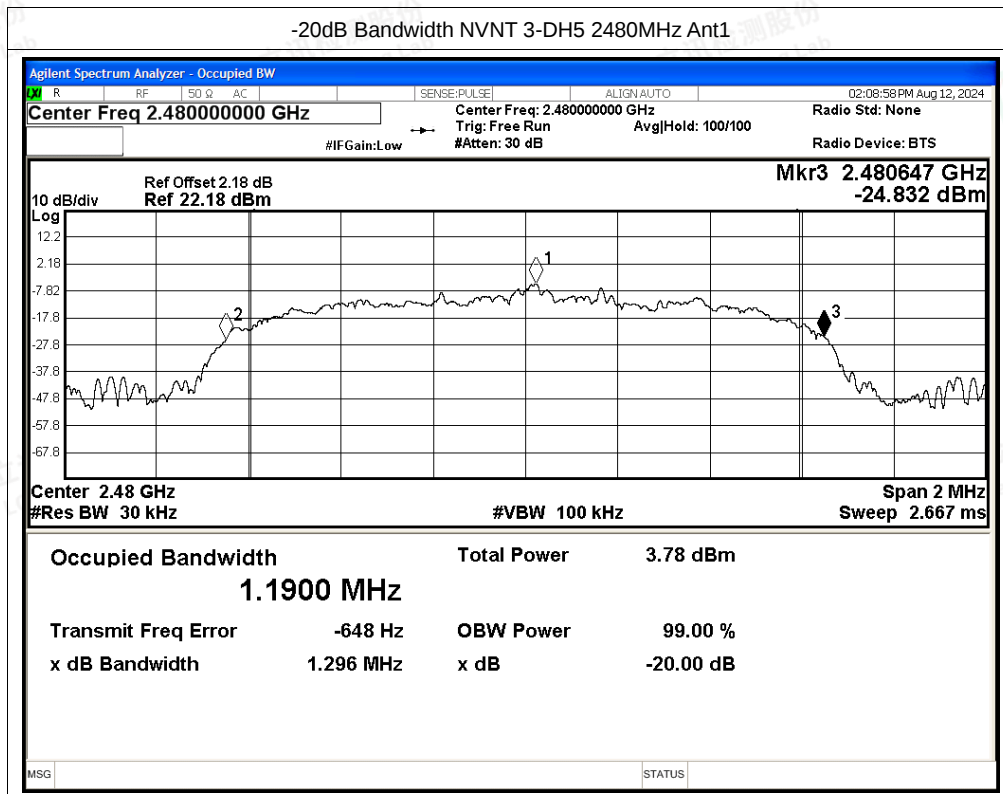


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1







A.2 Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	0.29	21	Pass
NVNT	1-DH5	2441	Ant1	0.78	21	Pass
NVNT	1-DH5	2480	Ant1	0.39	21	Pass
NVNT	2-DH5	2402	Ant1	0.24	21	Pass
NVNT	2-DH5	2441	Ant1	-0.57	21	Pass
NVNT	2-DH5	2480	Ant1	-0.18	21	Pass
NVNT	3-DH5	2402	Ant1	0.56	21	Pass
NVNT	3-DH5	2441	Ant1	0.65	21	Pass
NVNT	3-DH5	2480	Ant1	-0.32	21	Pass

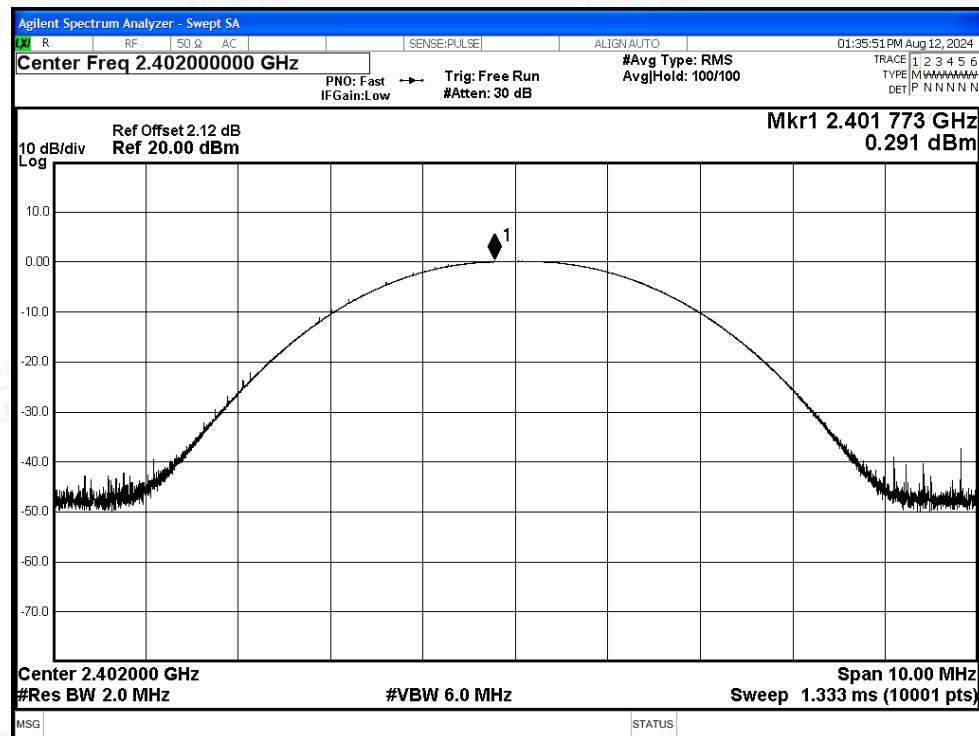


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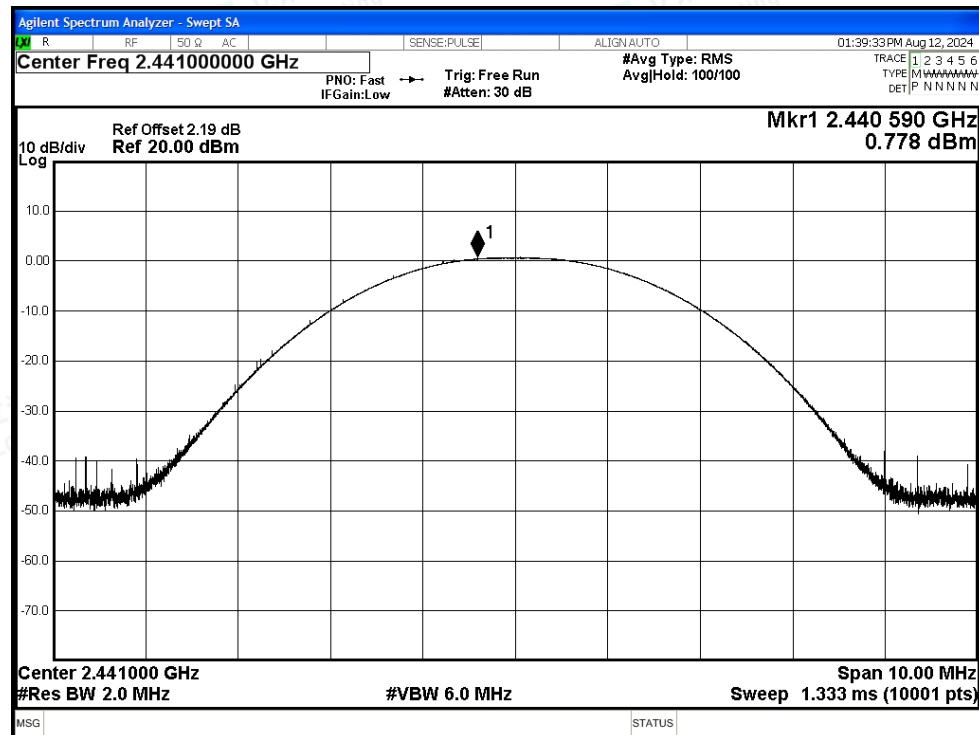


Test Graphs

Power NVNT 1-DH5 2402MHz Ant1

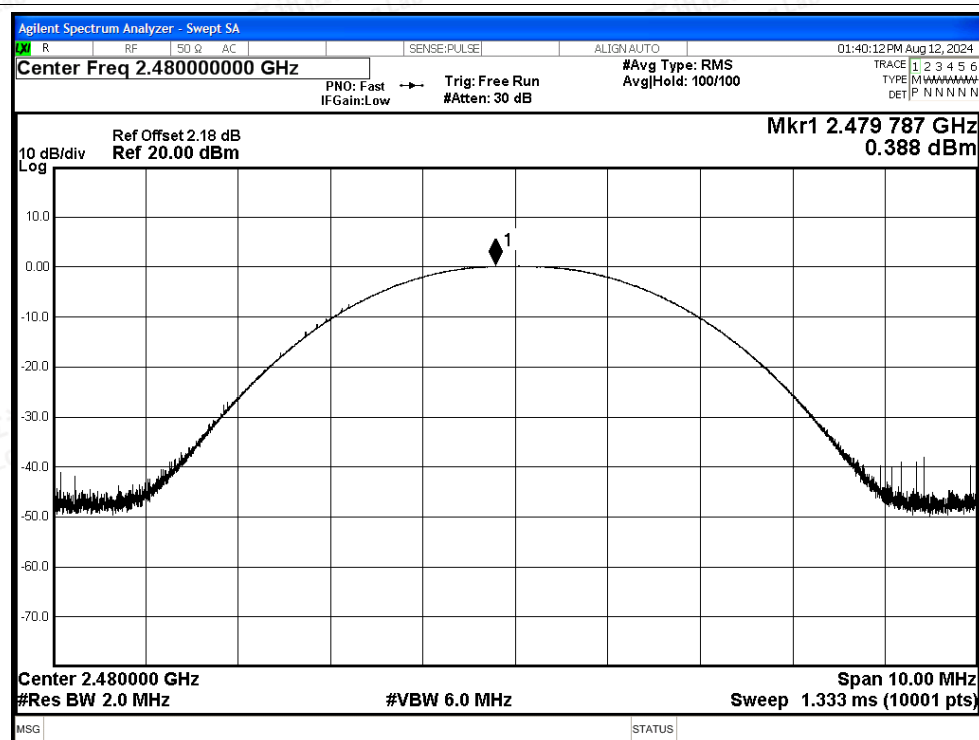


Power NVNT 1-DH5 2441MHz Ant1

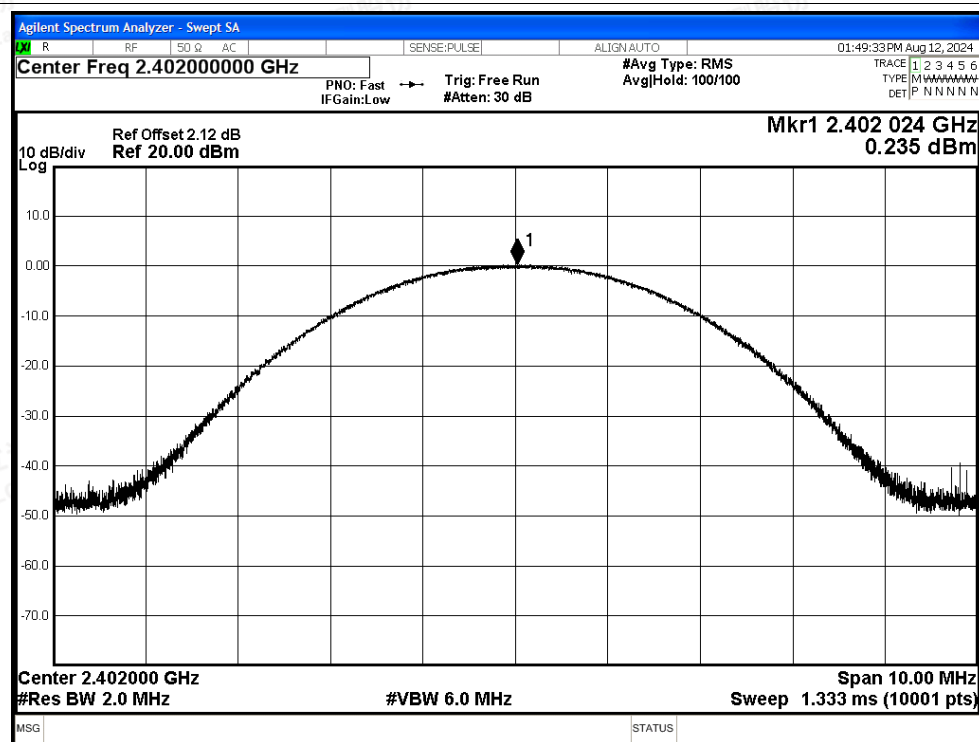




Power NVNT 1-DH5 2480MHz Ant1

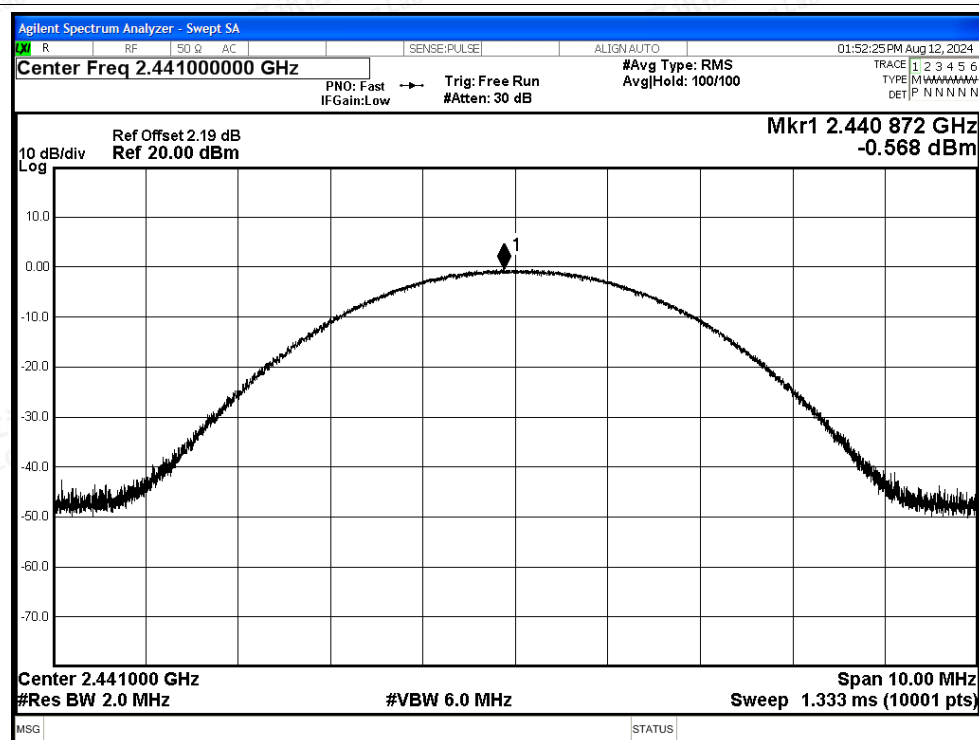


Power NVNT 2-DH5 2402MHz Ant1

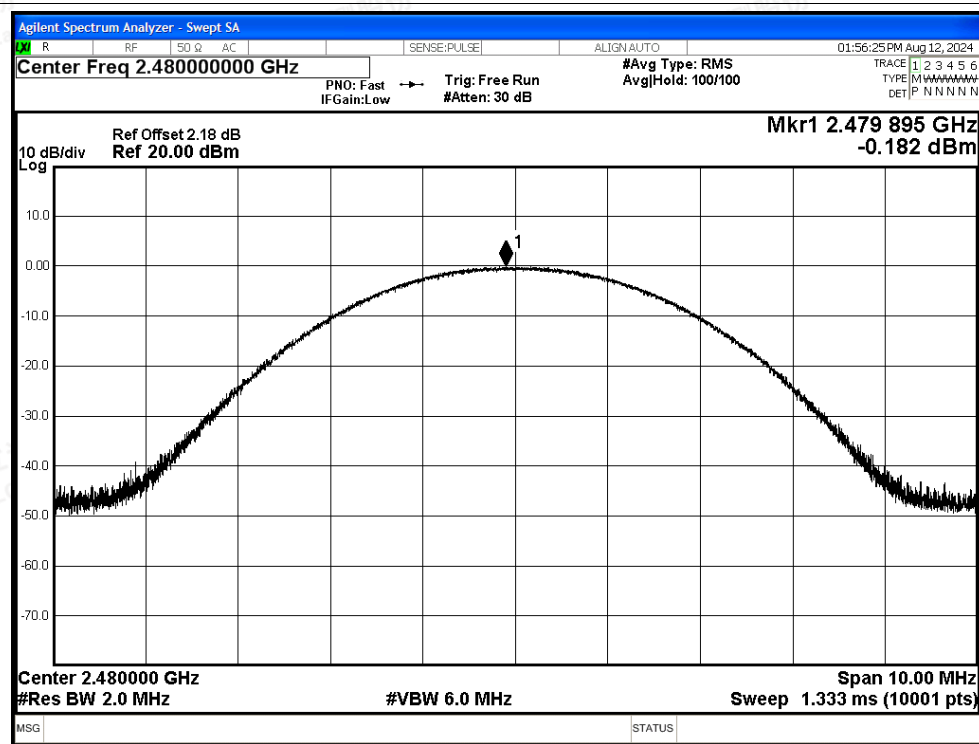




Power NVNT 2-DH5 2441MHz Ant1

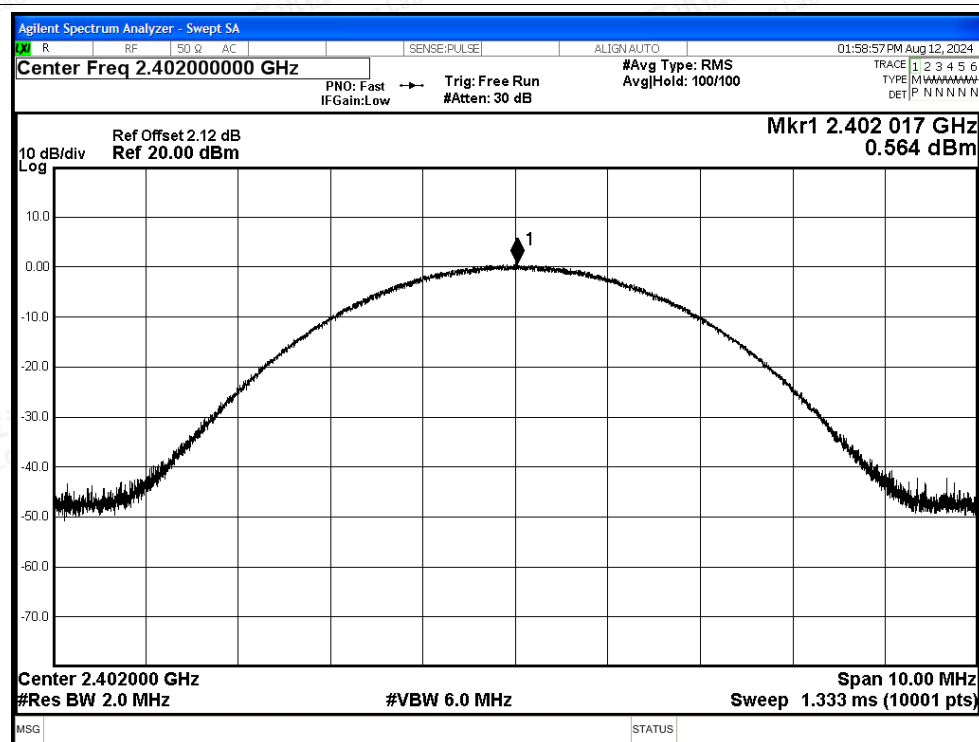


Power NVNT 2-DH5 2480MHz Ant1

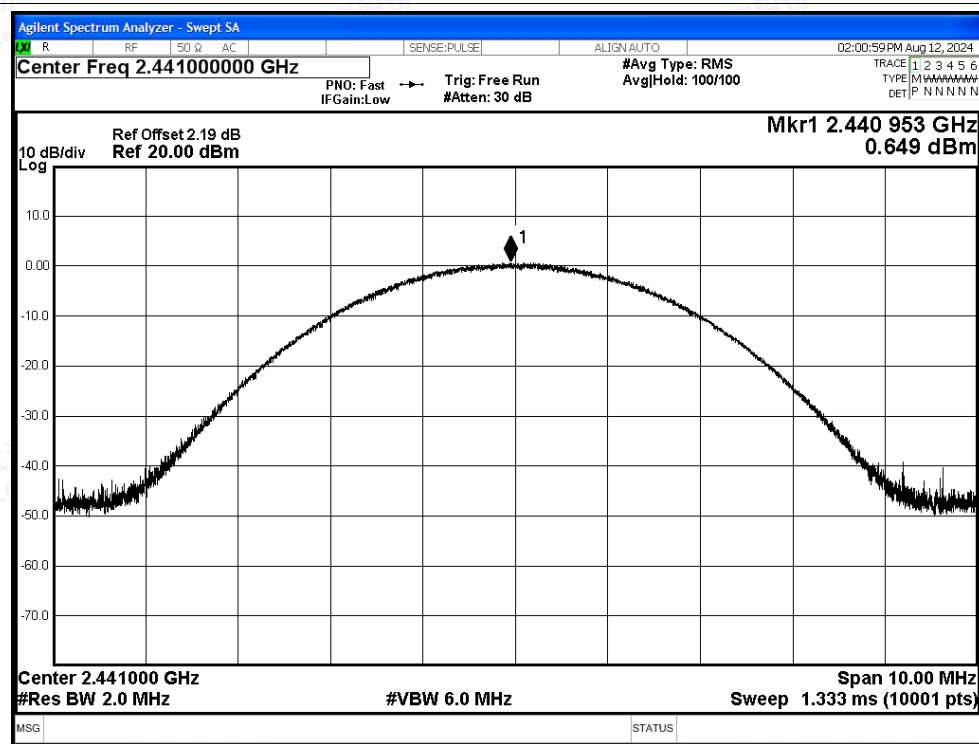


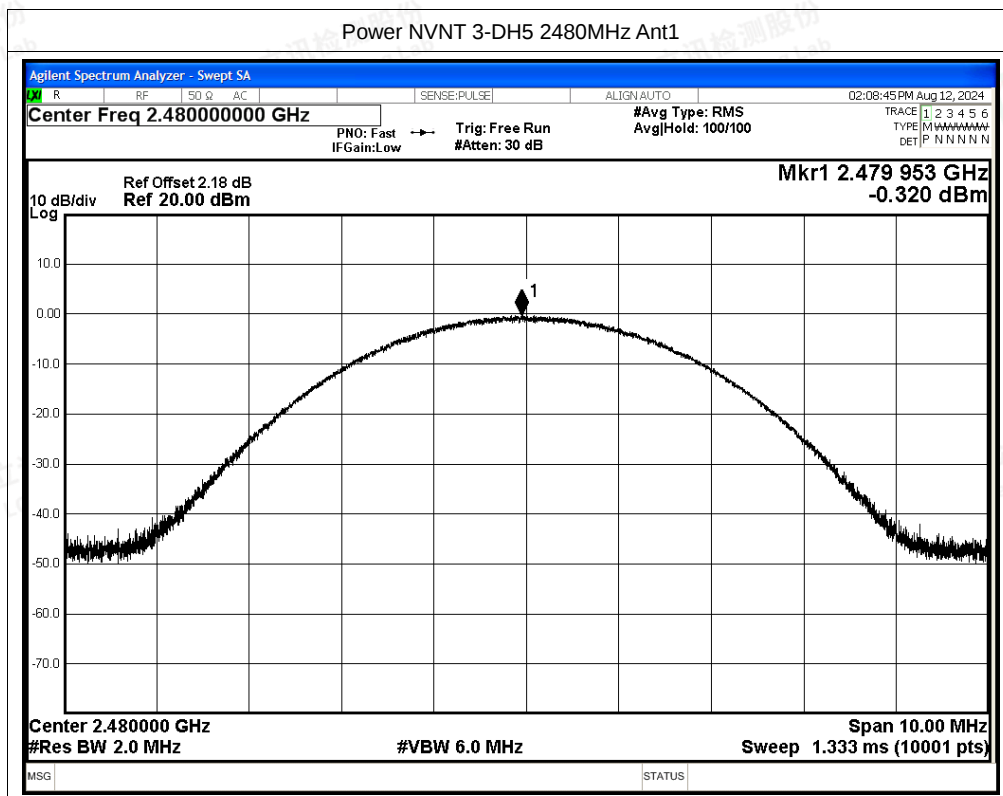


Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1







A.3 Carrier Frequencies Separation

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2402.032	2402.844	0.812	0.676	Pass
NVNT	2-DH5	Ant1	2402.034	2403.028	0.994	0.881	Pass
NVNT	3-DH5	Ant1	2401.834	2403.034	1.2	0.865	Pass

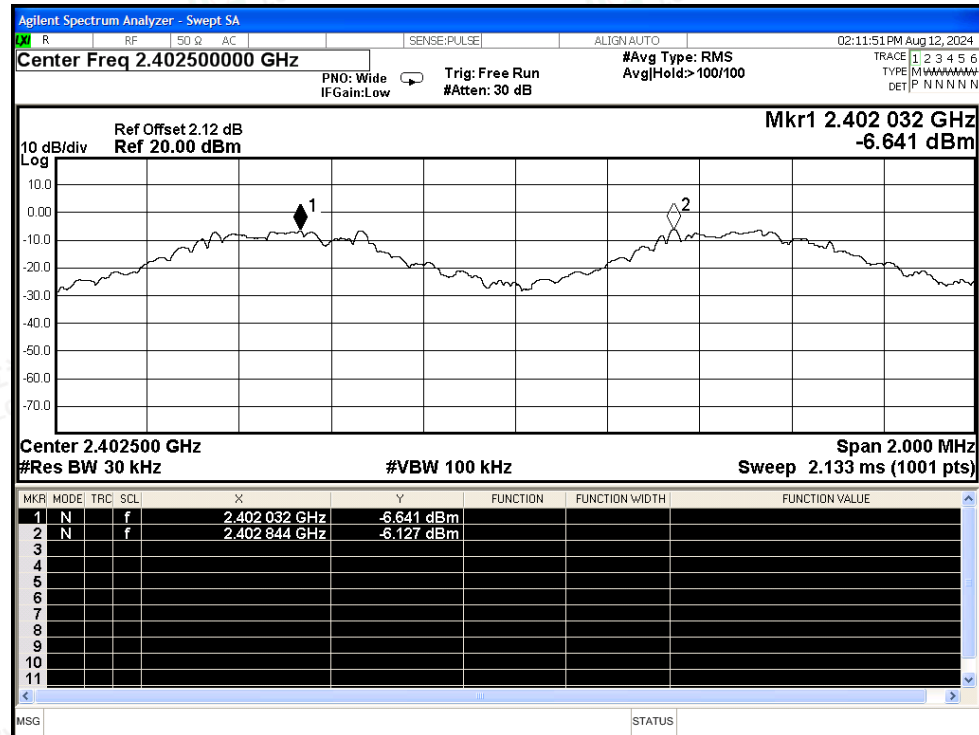


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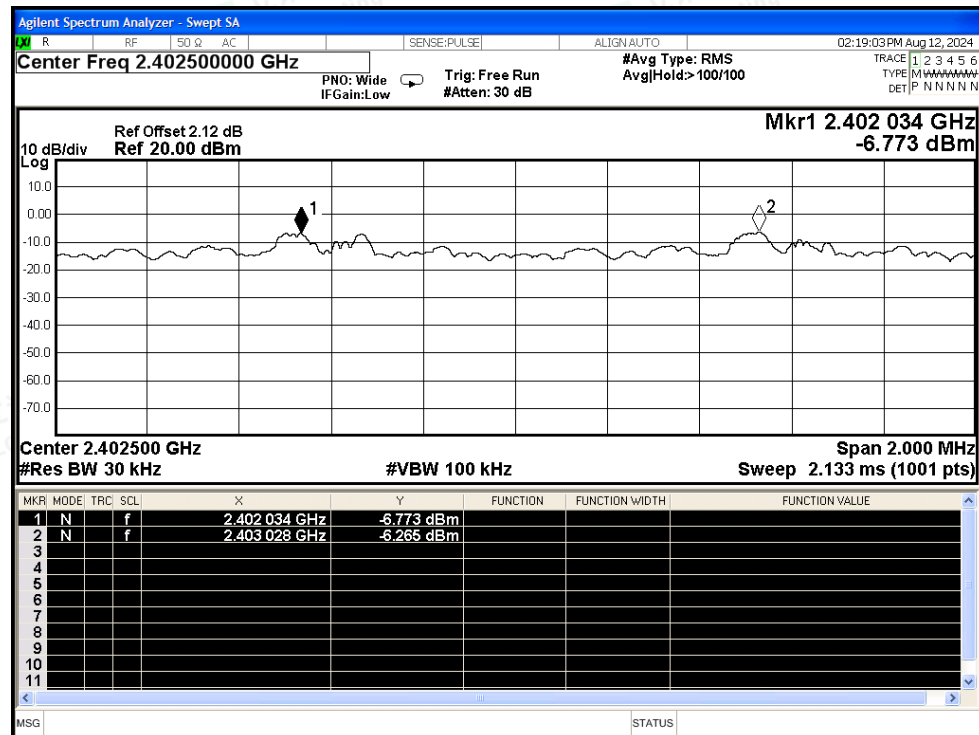


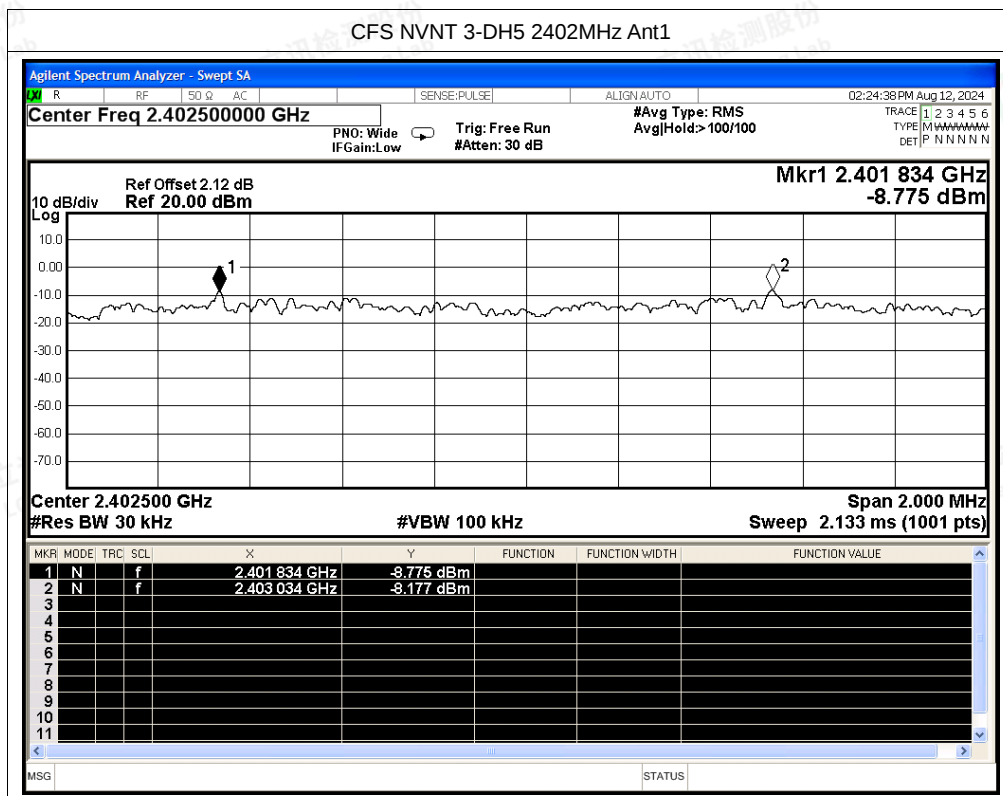
Test Graphs

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	2.91	305.55	105	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.898	284.004	98	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.897	281.009	97	31600	400	Pass

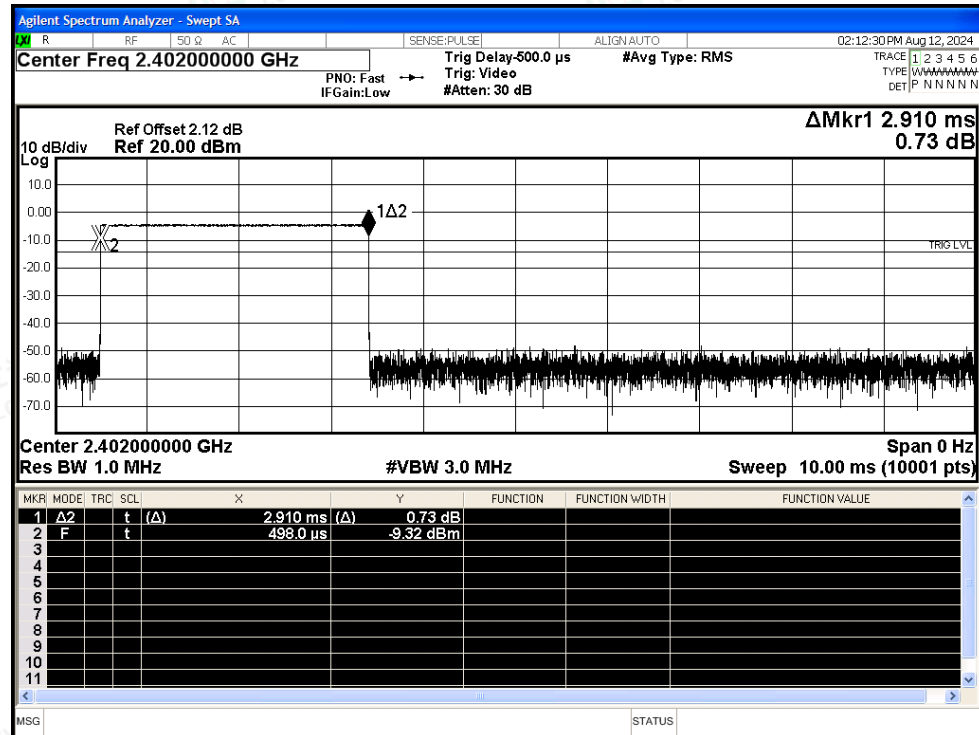


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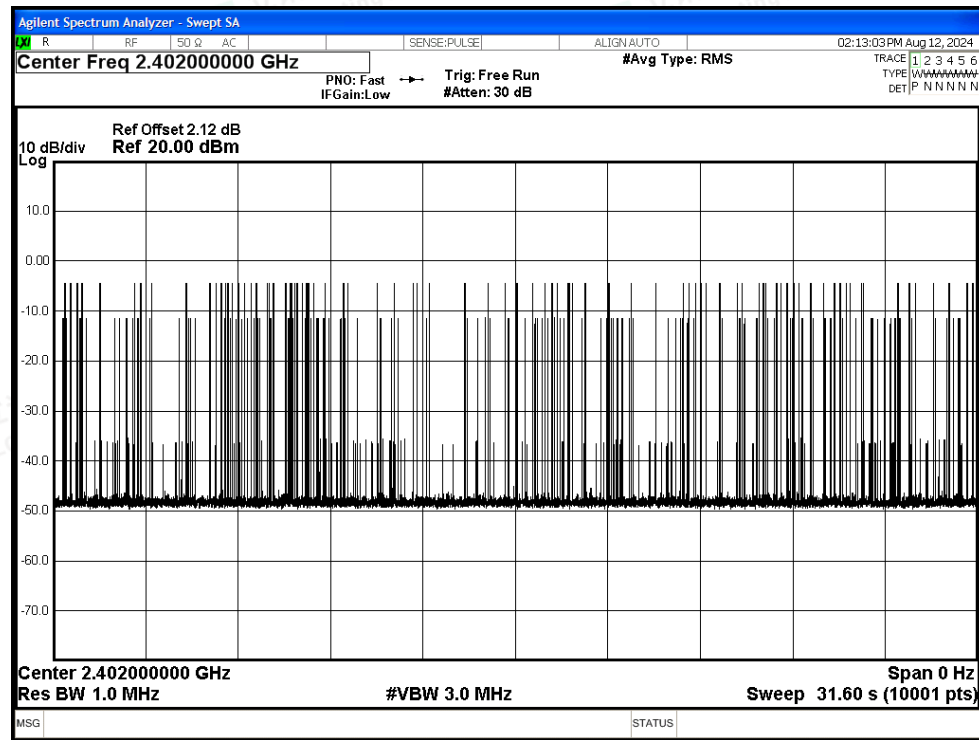


Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant1 One Burst

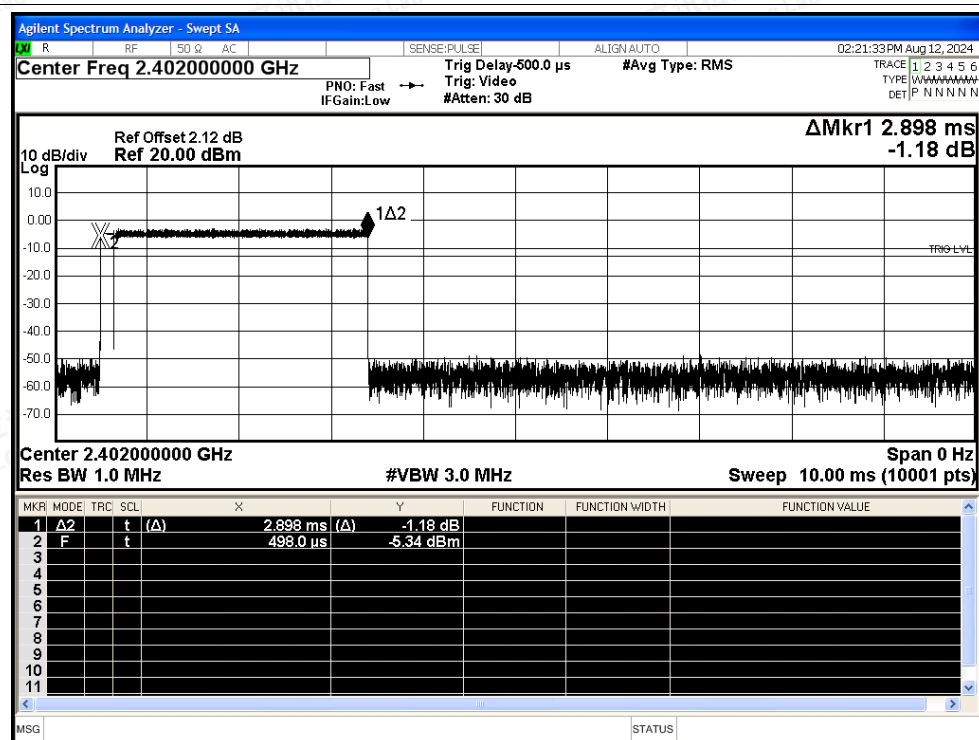


Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated

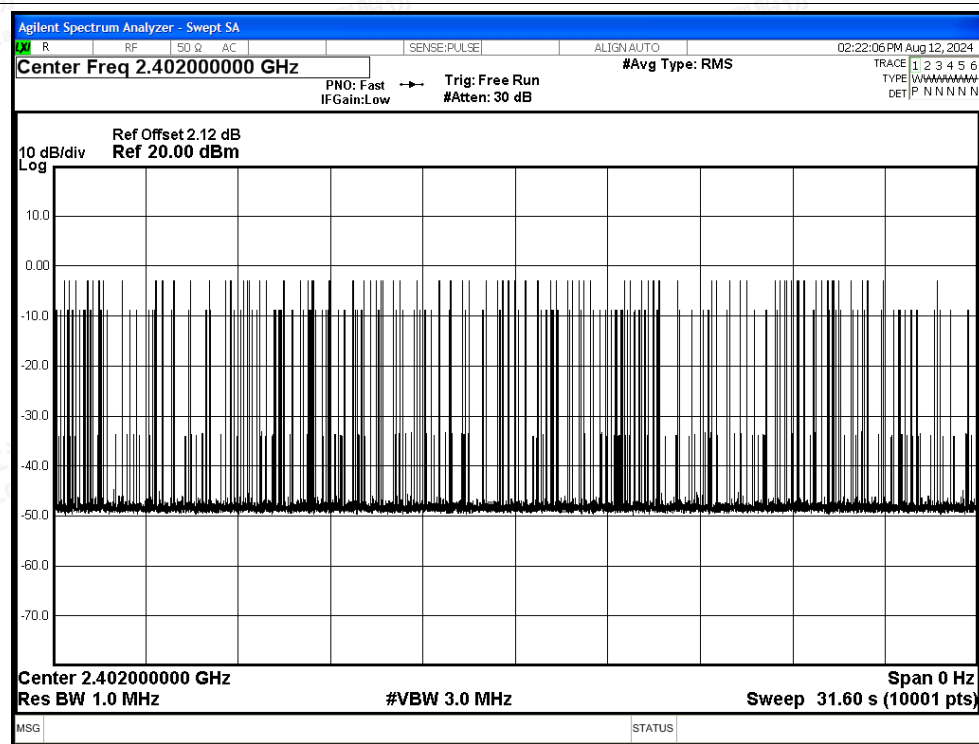




Dwell NVNT 2-DH5 2402MHz Ant1 One Burst

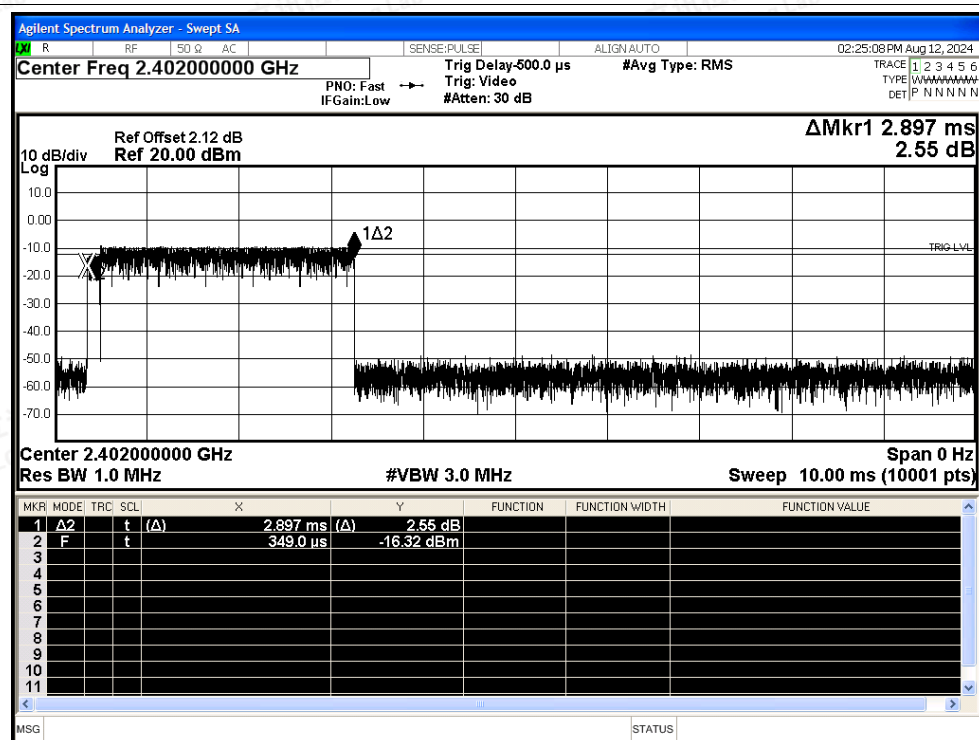


Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated

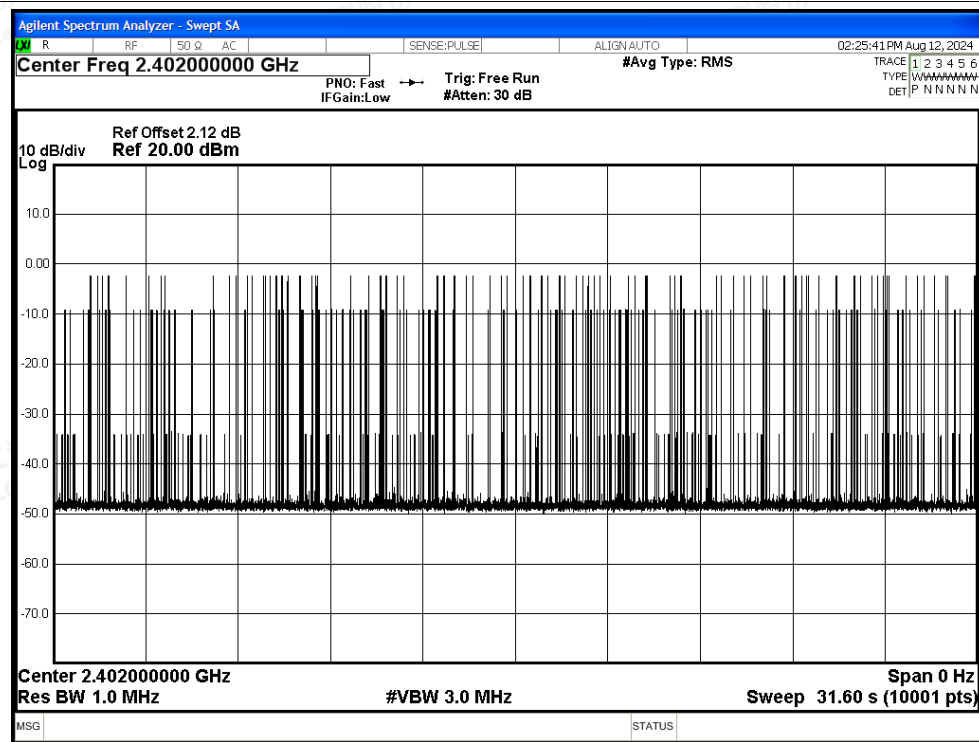




Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



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

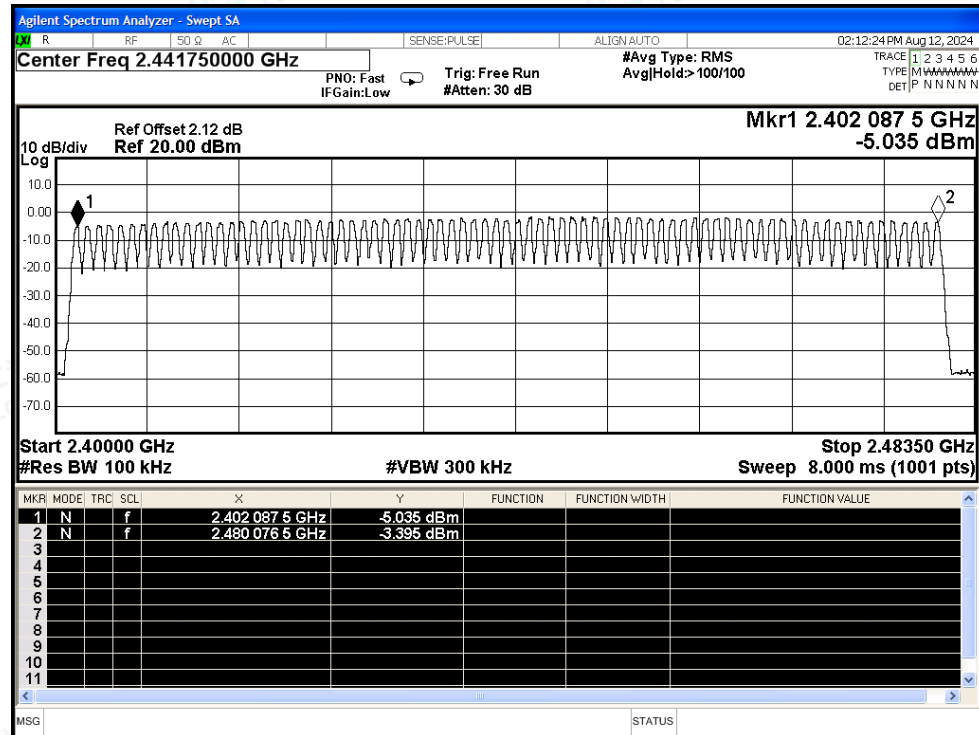


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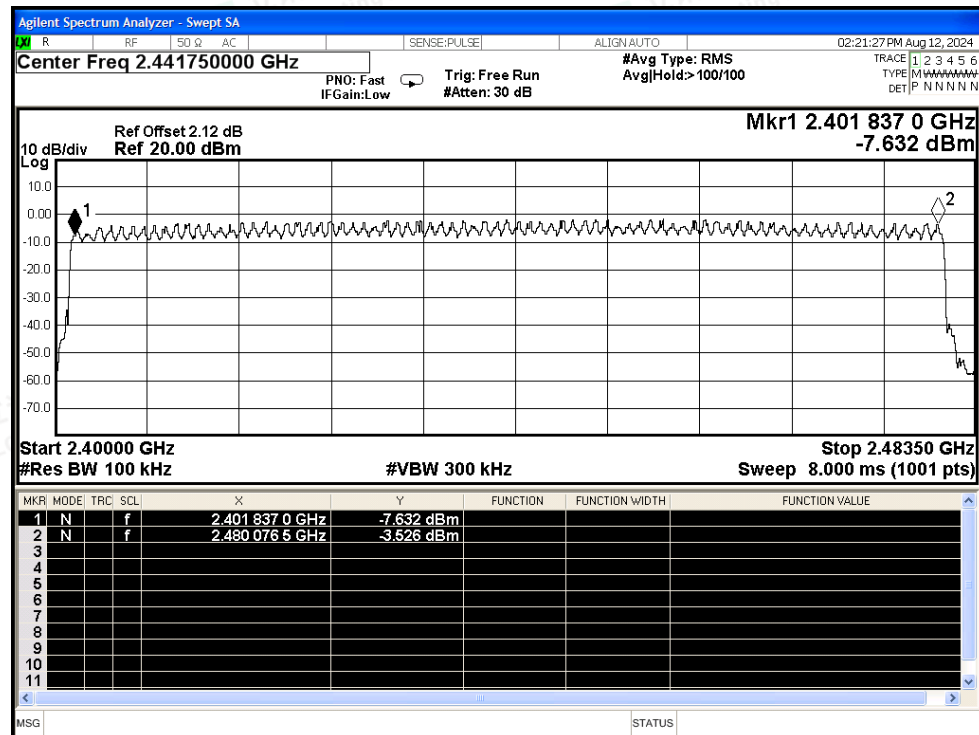


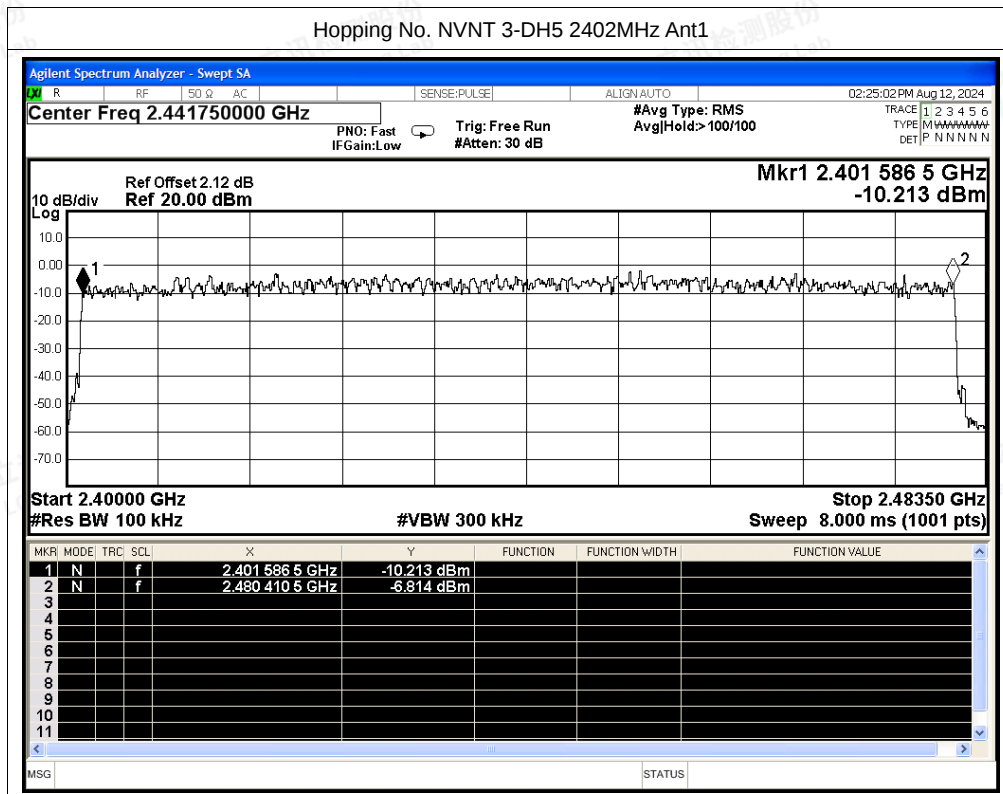
Test Graphs

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	-55.77	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-57.37	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-52.67	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-52.94	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-50.97	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-53.52	-20	Pass

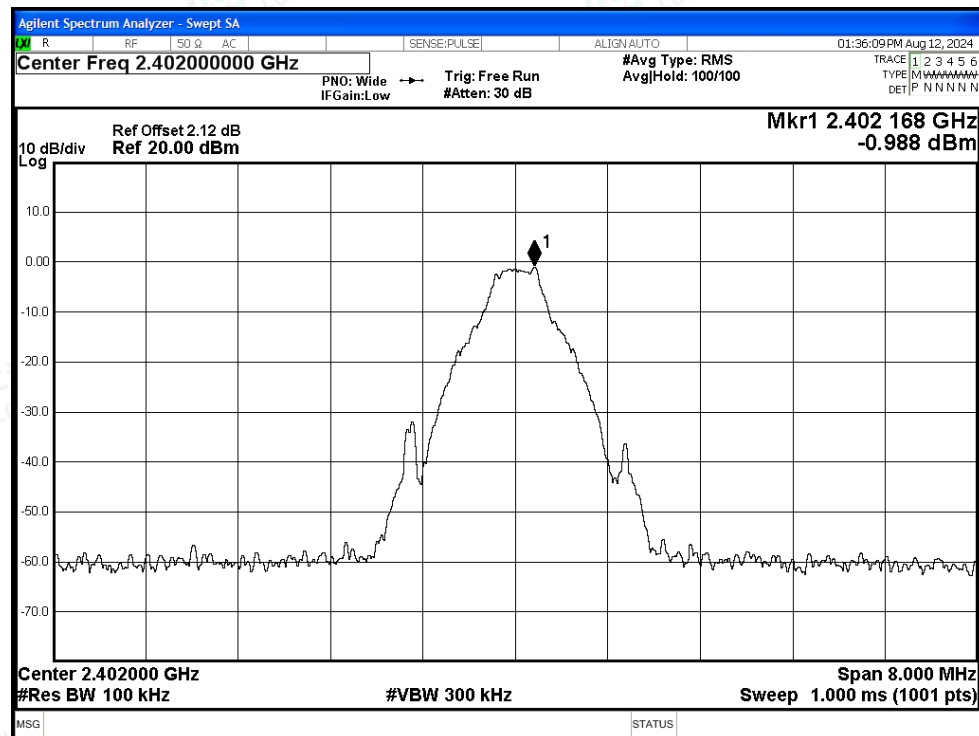


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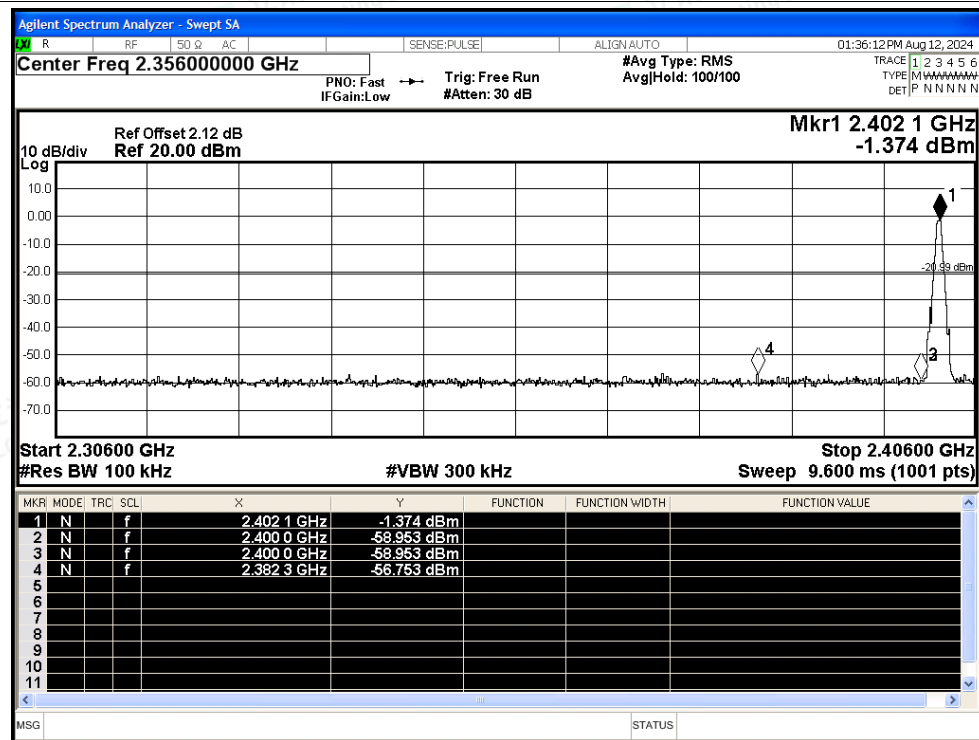


Test Graphs

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

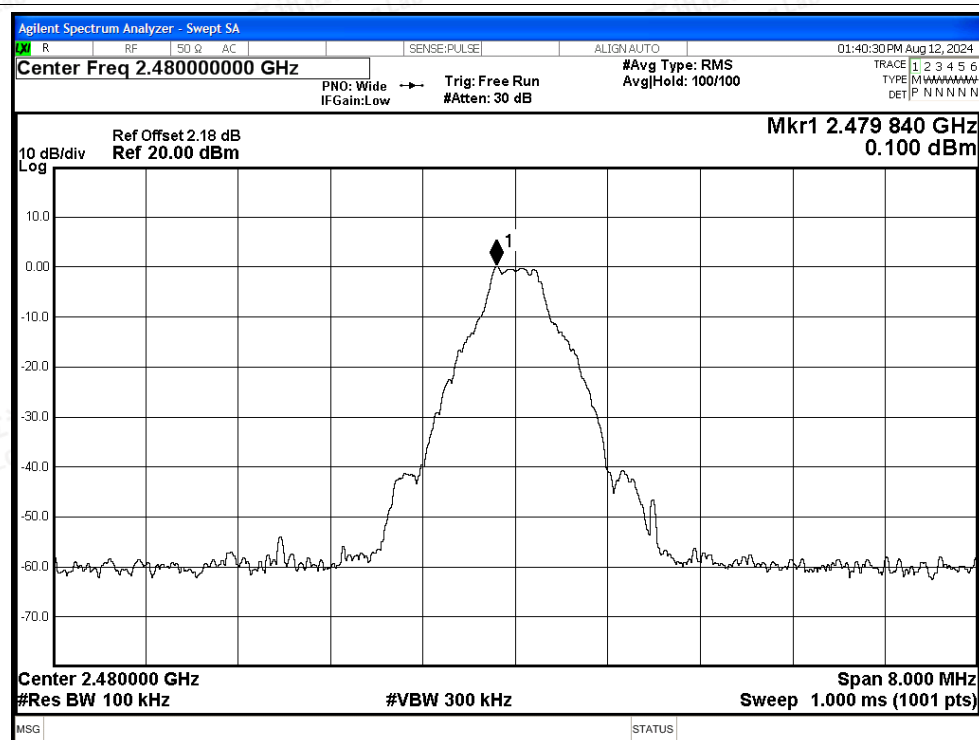


Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

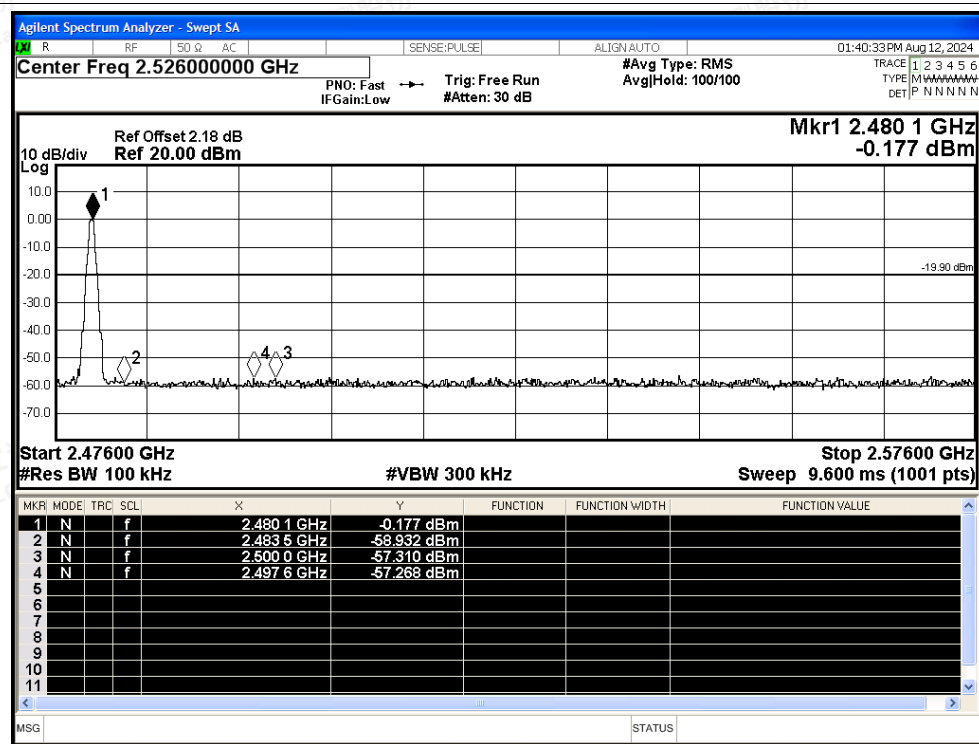




Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

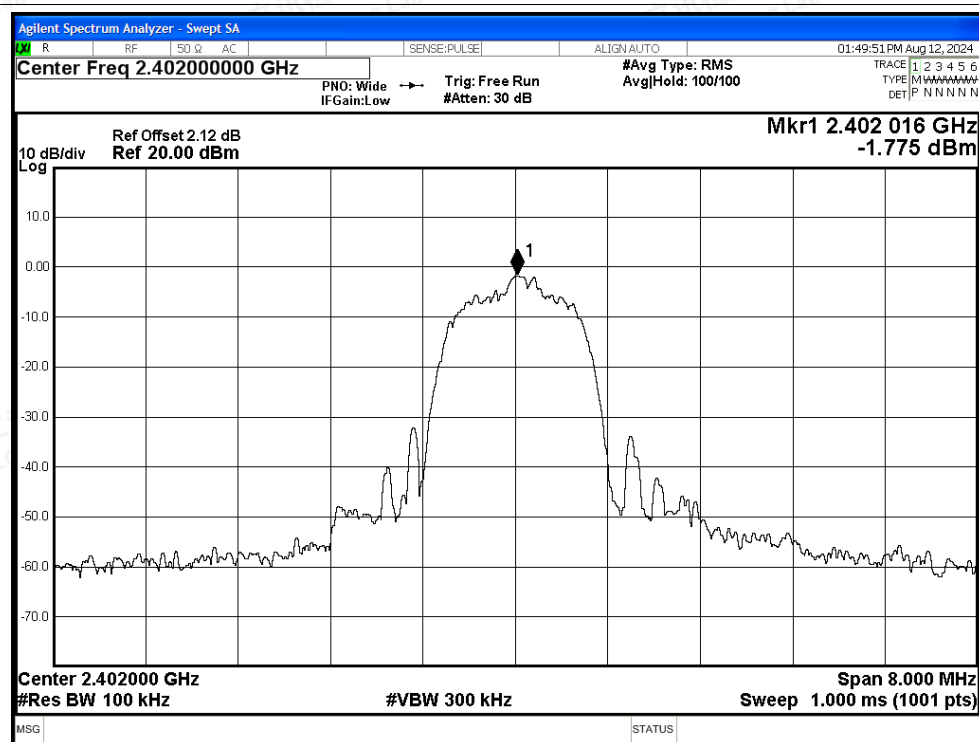


Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission

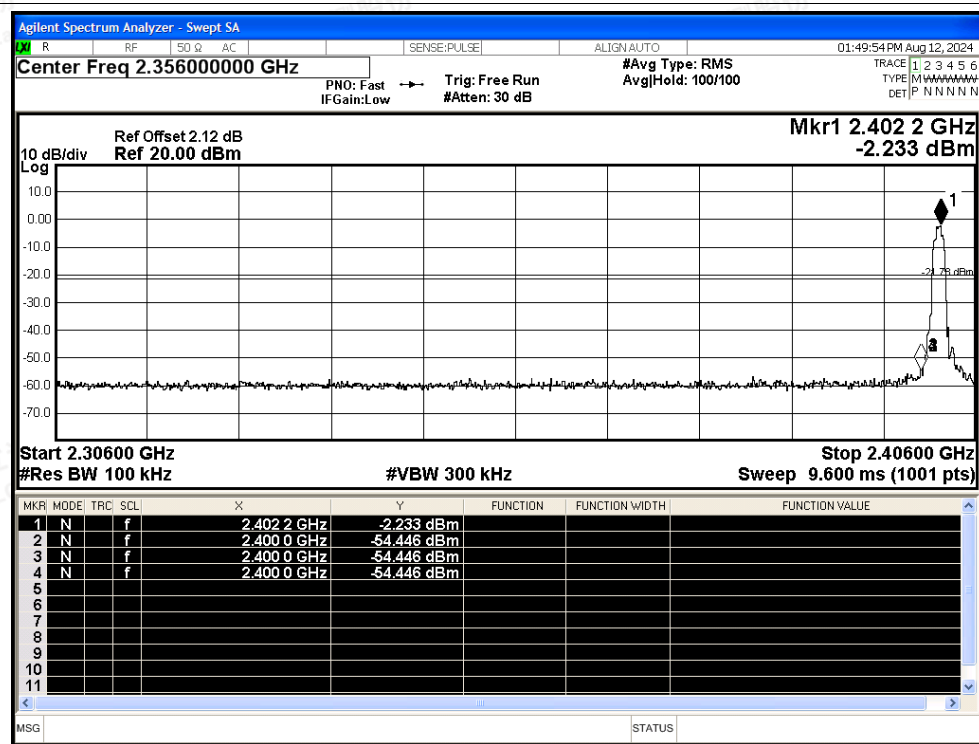




Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref

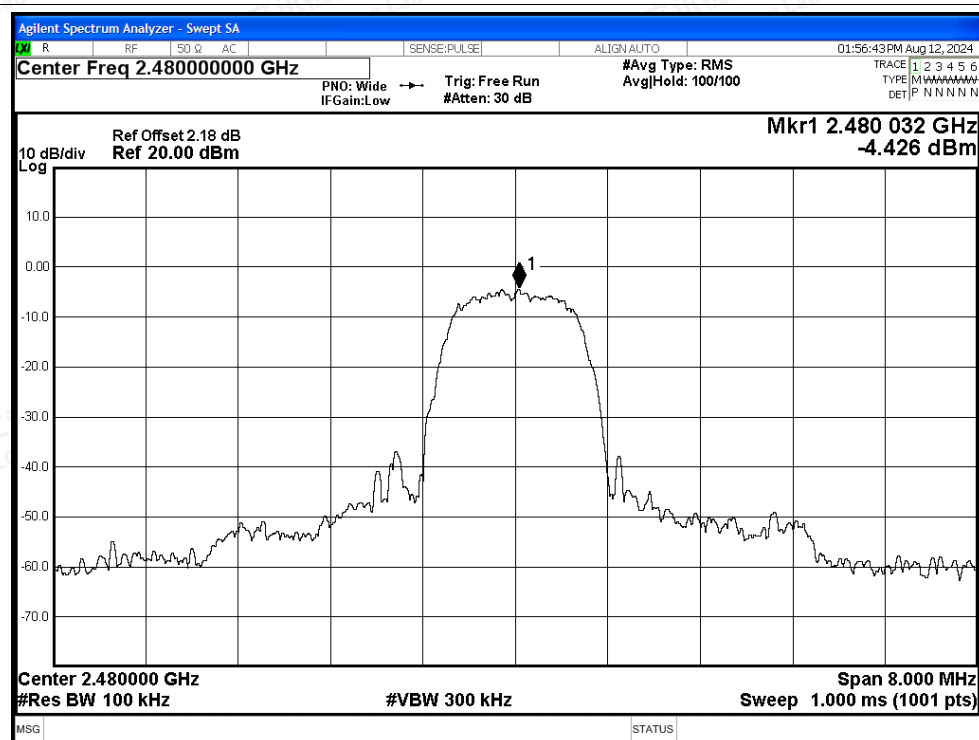


Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission

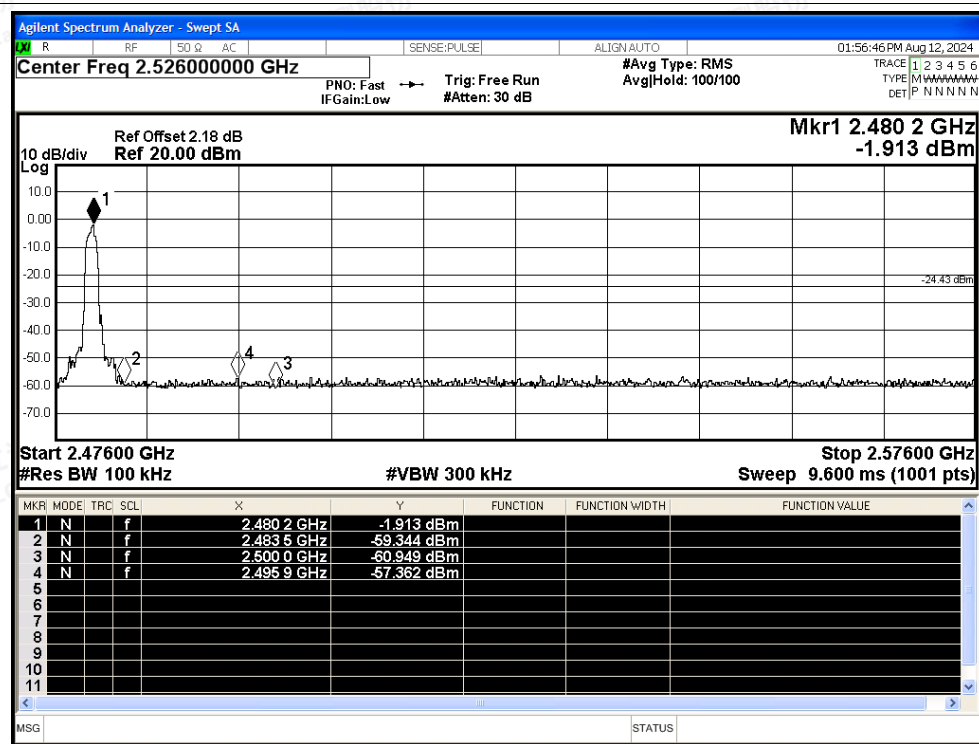


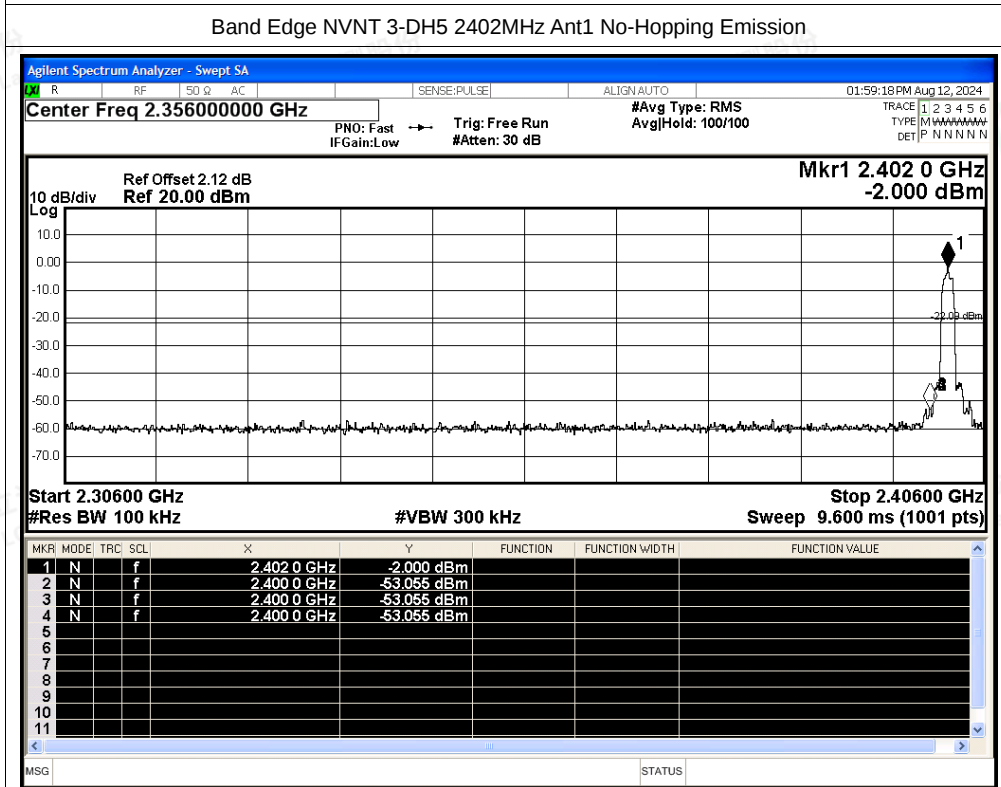
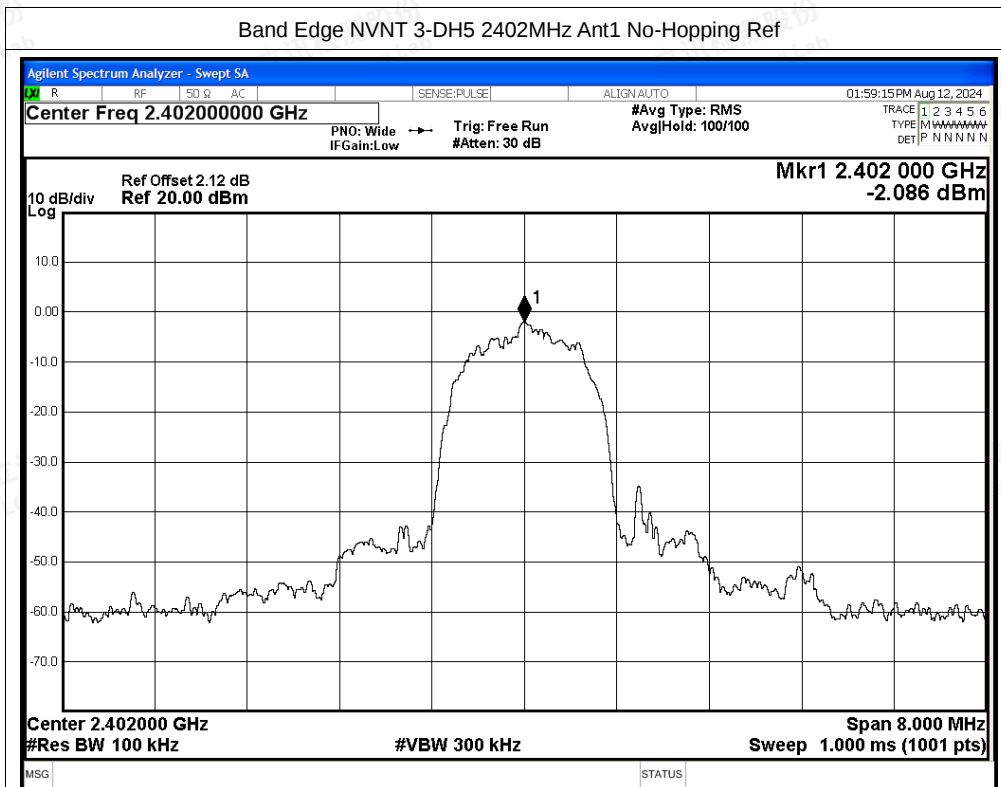


Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



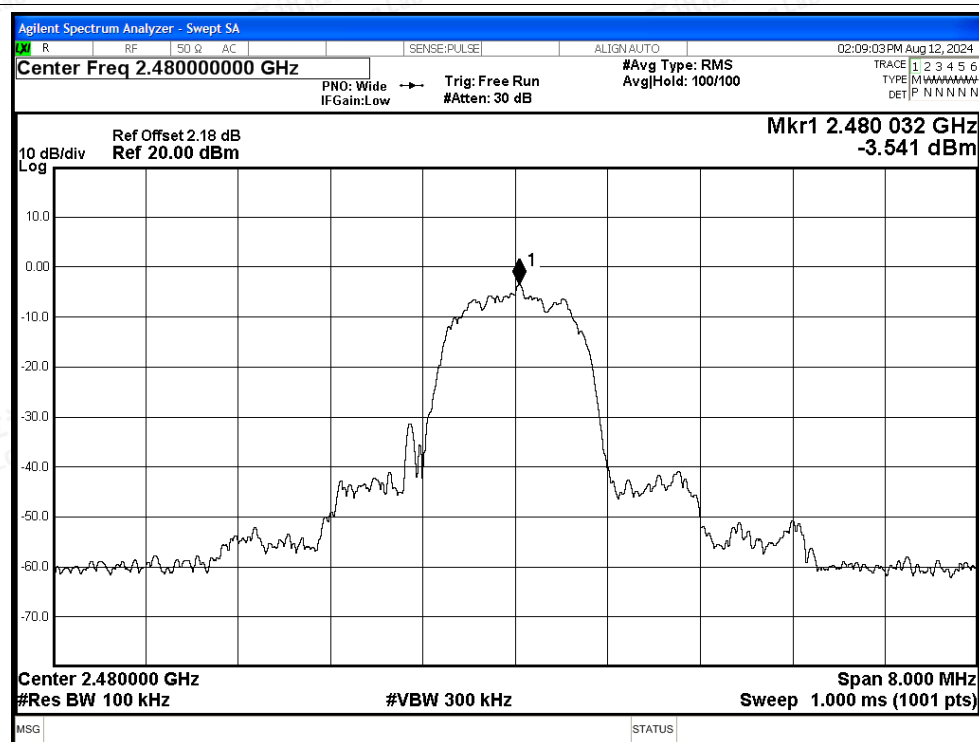
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



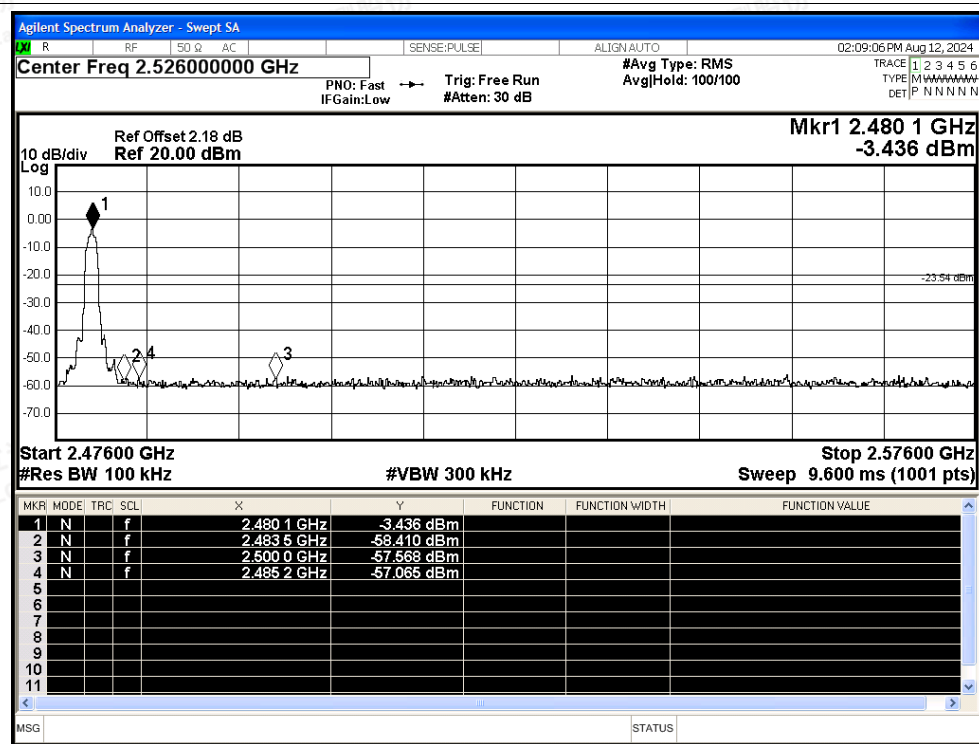




Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



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





(Hopping)

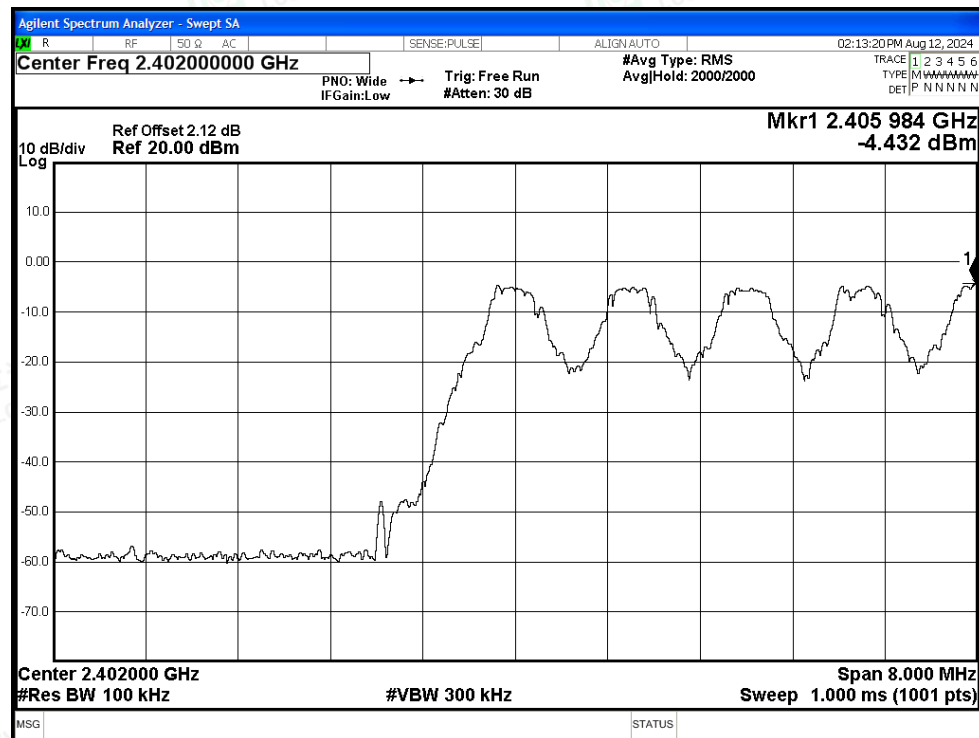
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-50.66	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-52.28	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-51.03	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-53.16	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-51.48	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-52.55	-20	Pass



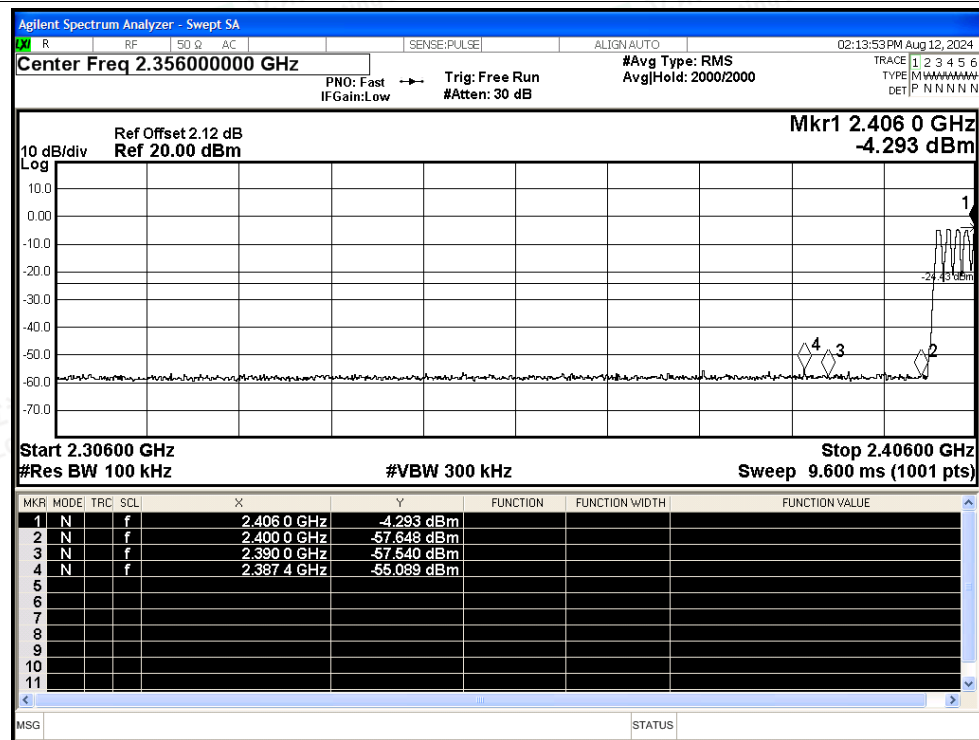


Test Graphs

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



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



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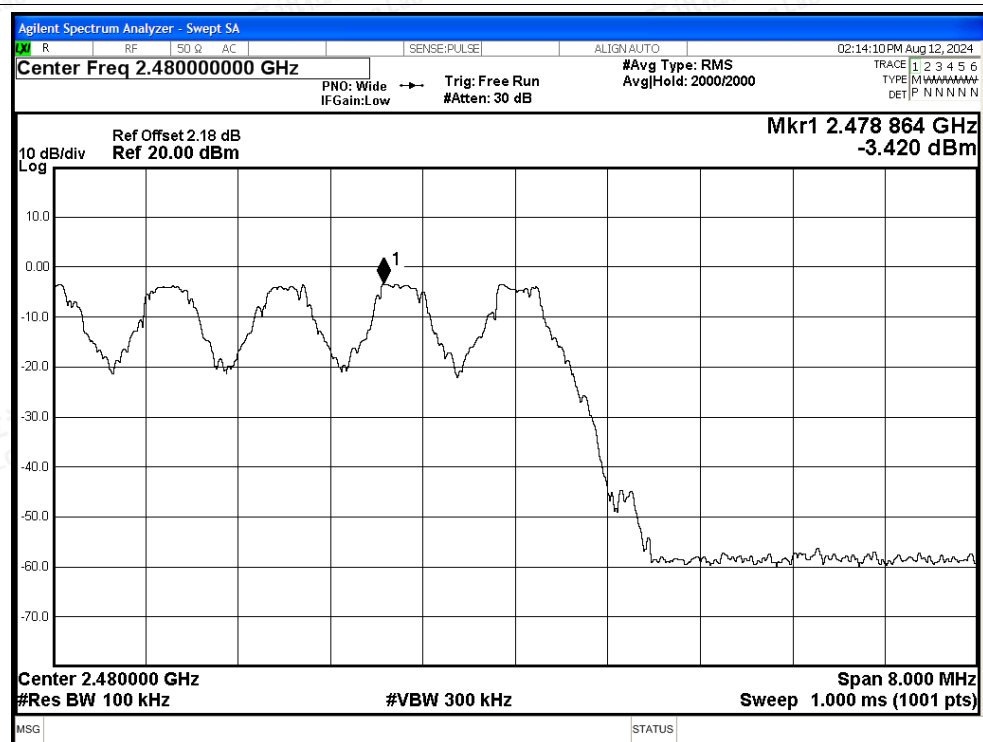
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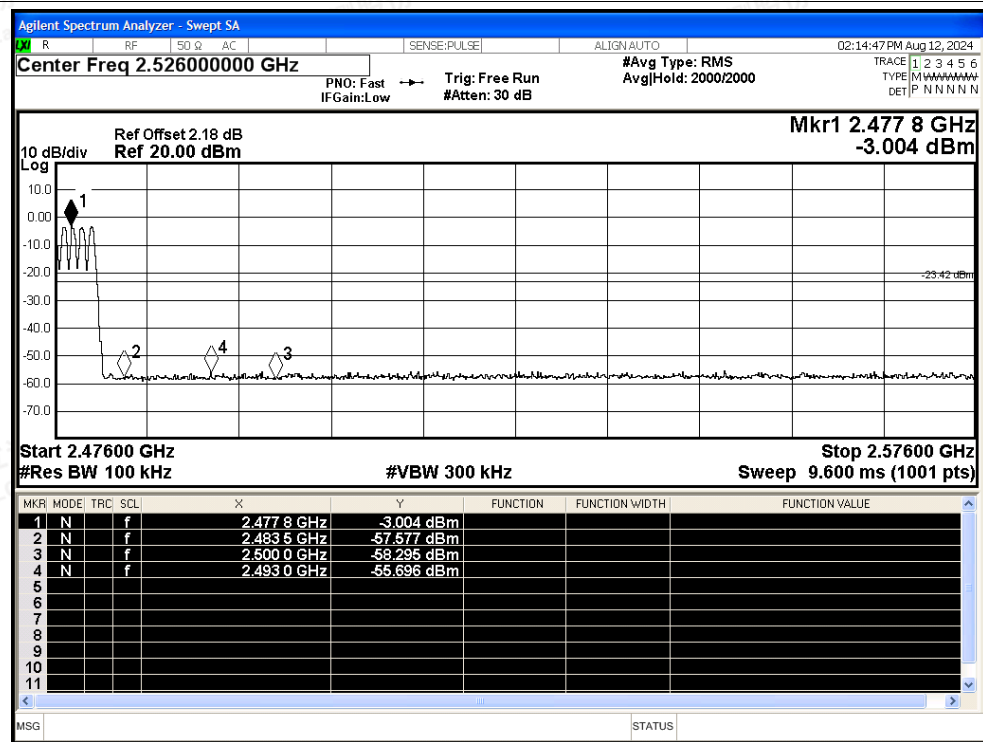
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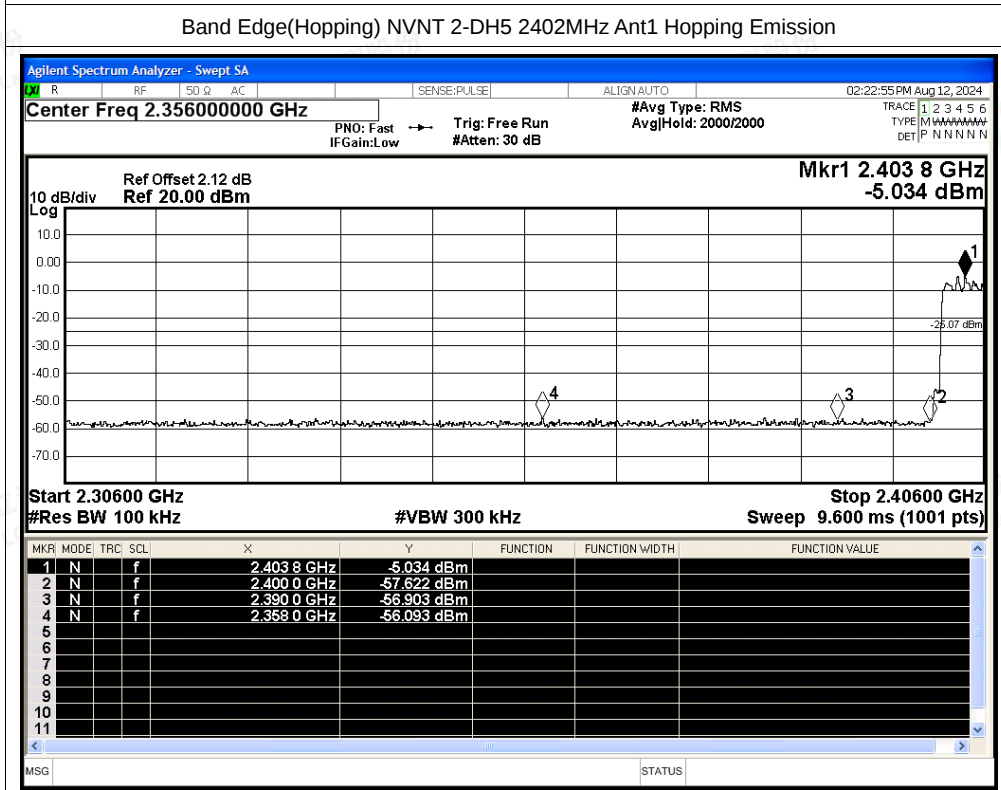
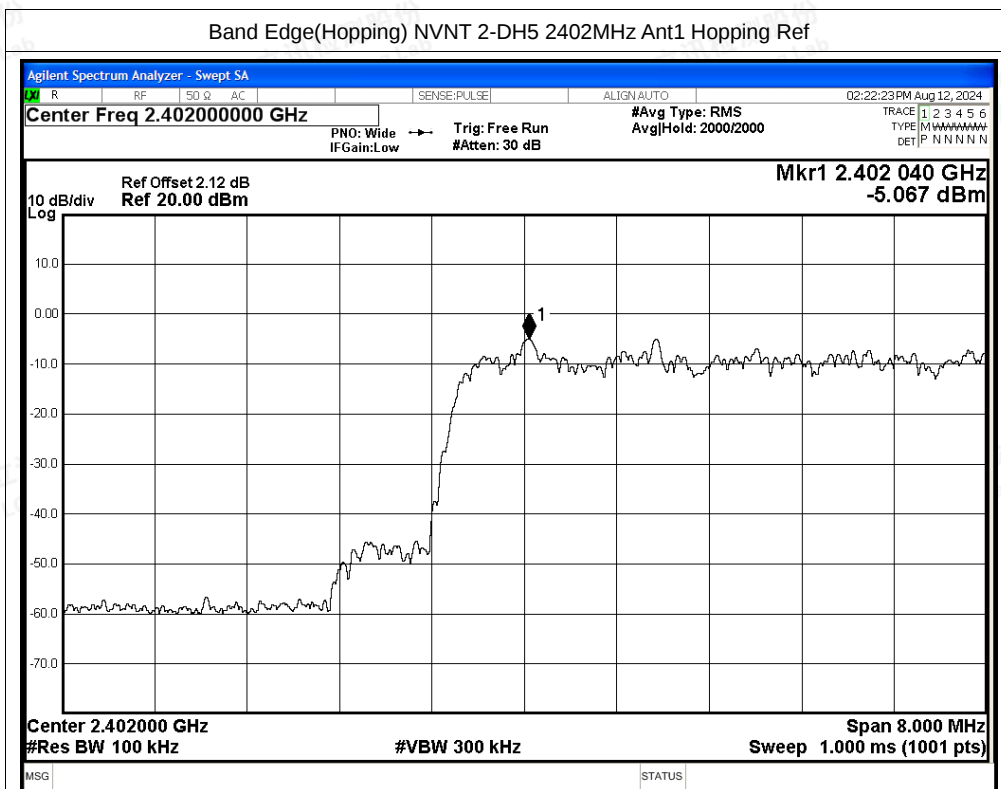


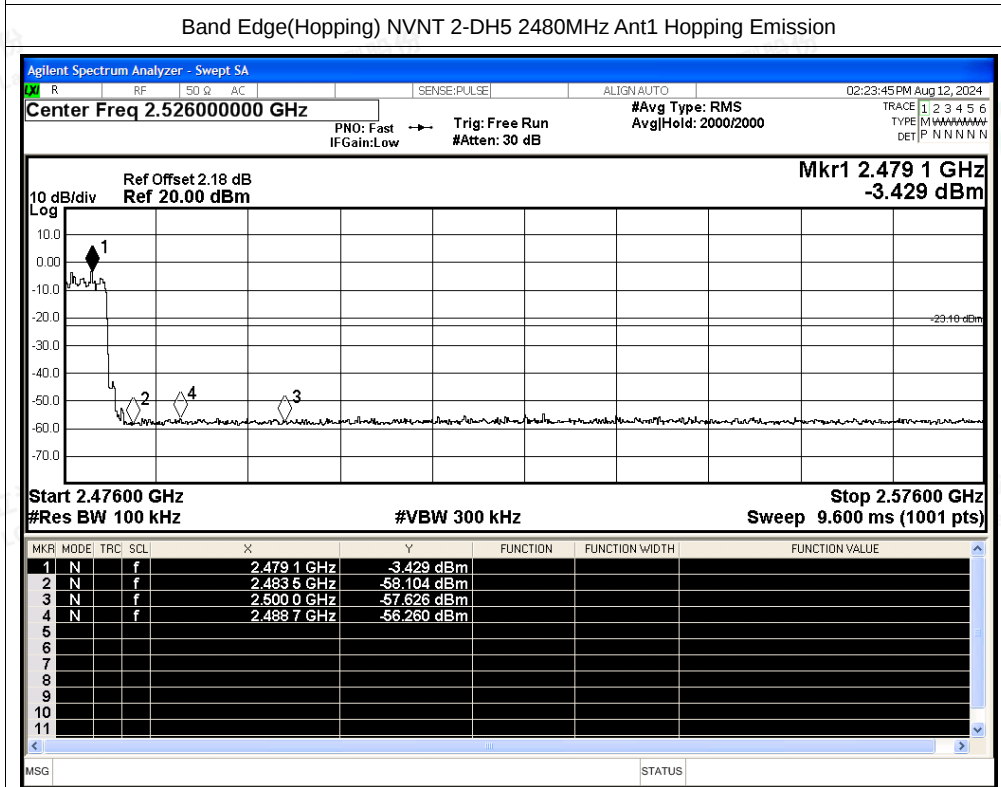
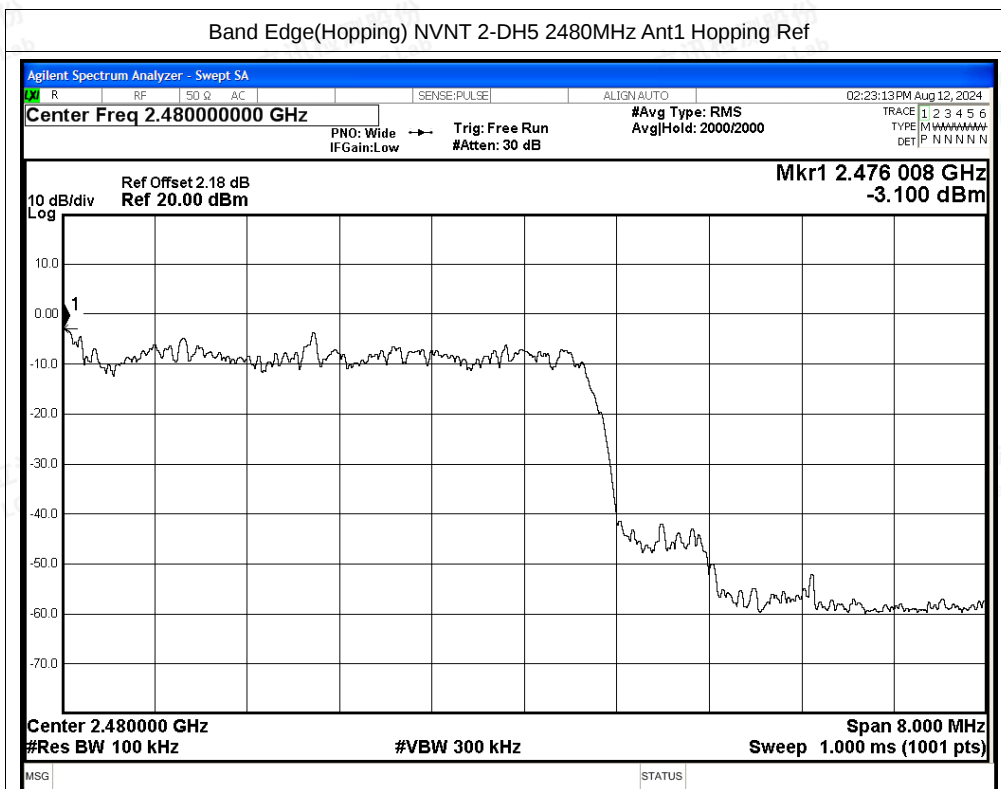
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



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

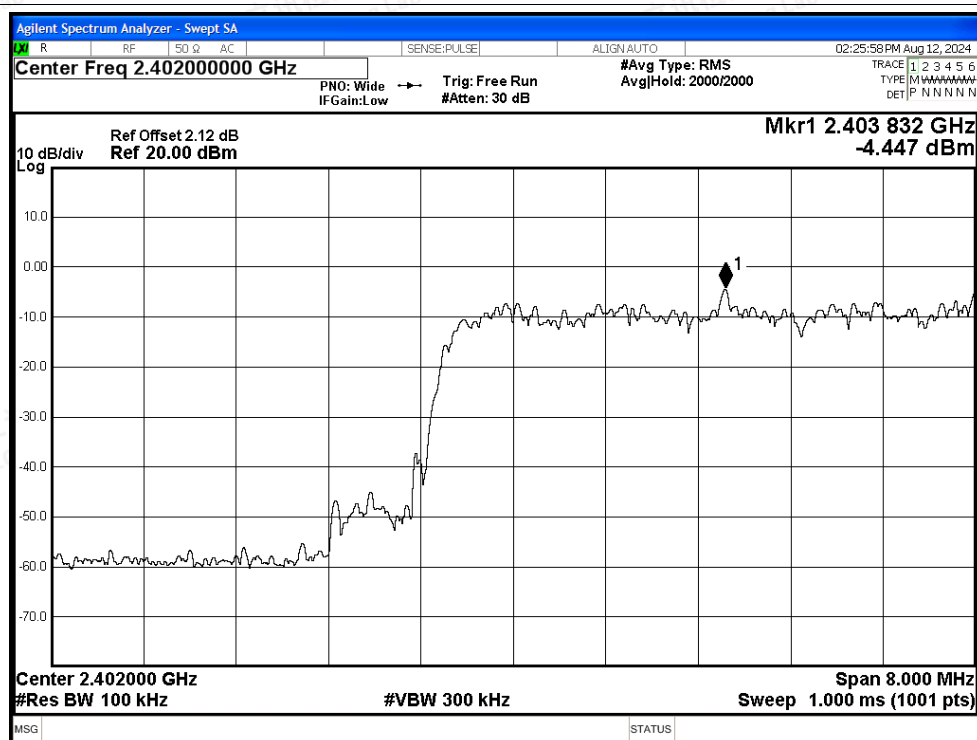




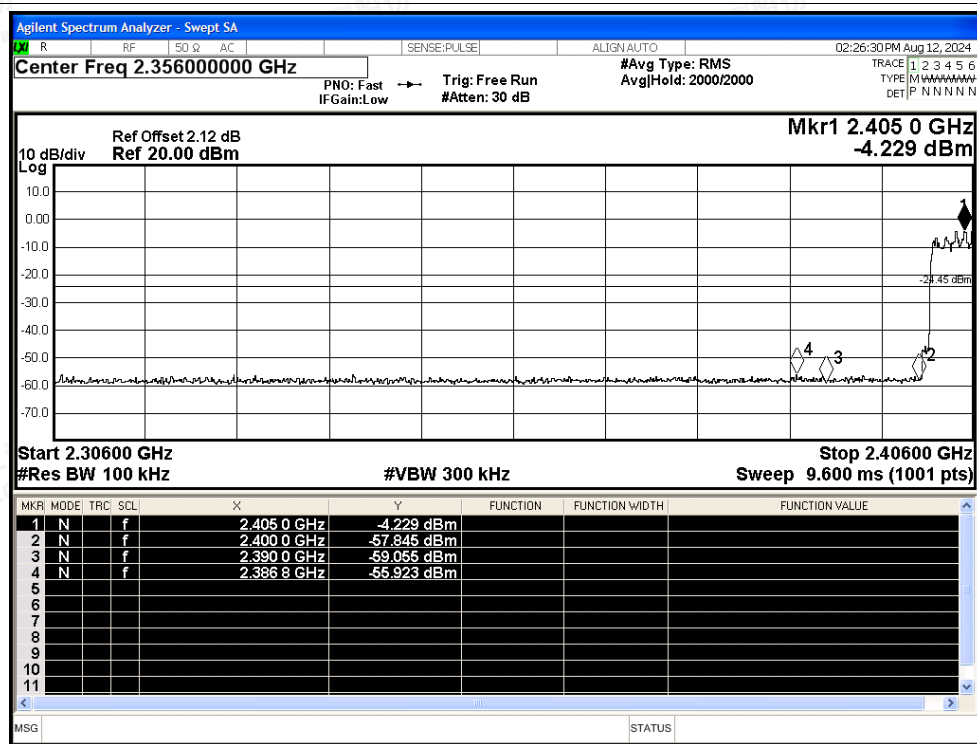




Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref

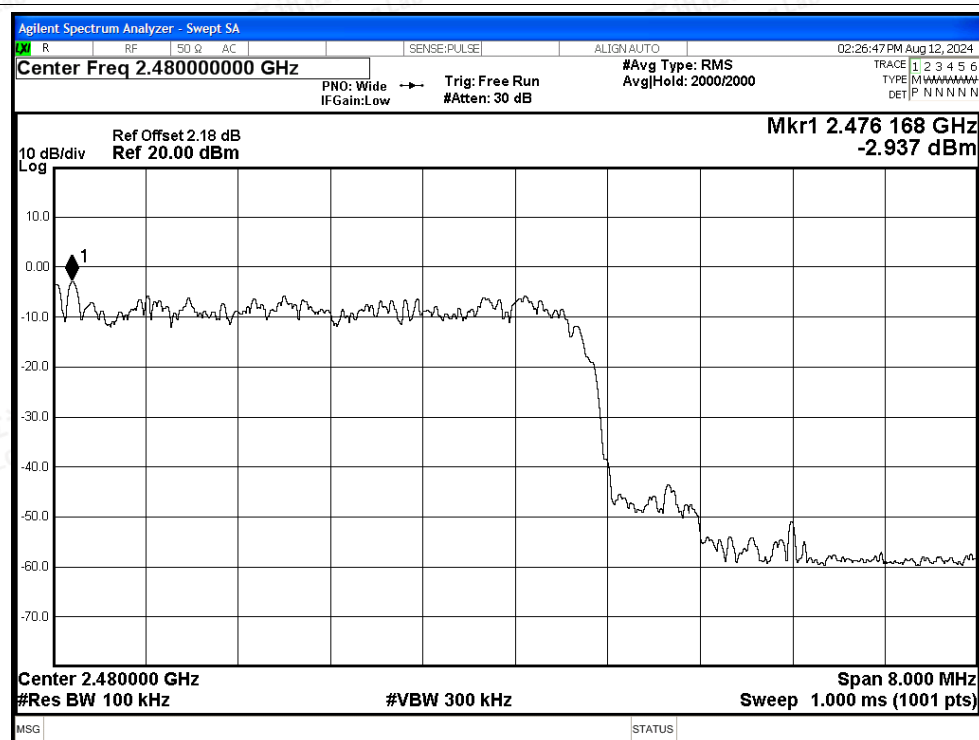


Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission

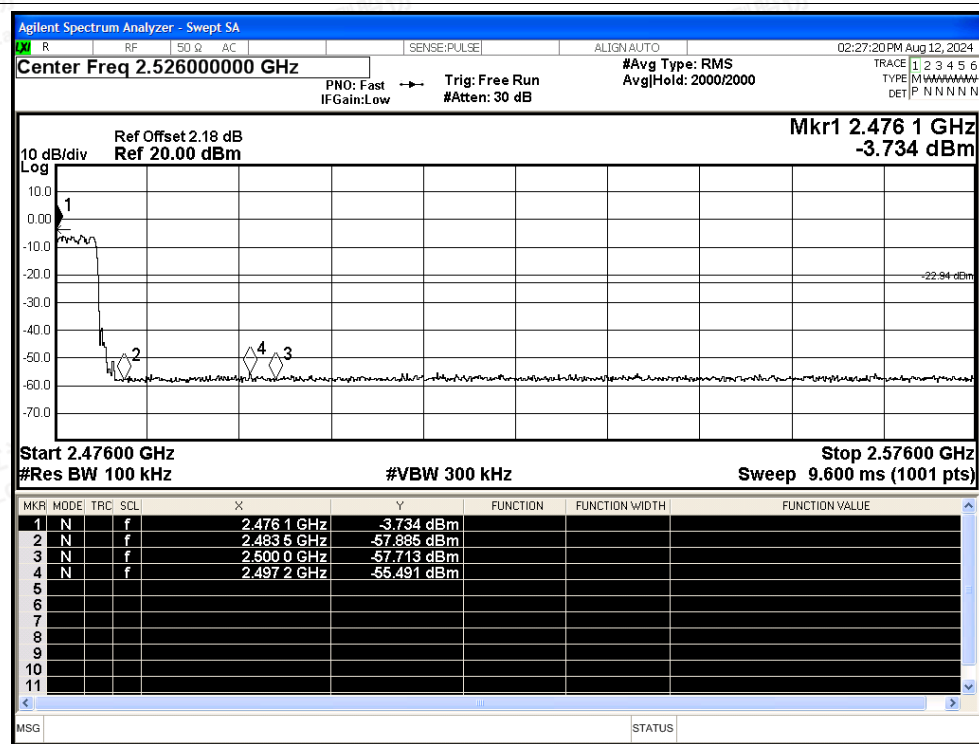




Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Ref



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	-53.96	-20	Pass
NVNT	1-DH5	2441	Ant1	-54.12	-20	Pass
NVNT	1-DH5	2480	Ant1	-54.72	-20	Pass
NVNT	2-DH5	2402	Ant1	-52.83	-20	Pass
NVNT	2-DH5	2441	Ant1	-43.38	-20	Pass
NVNT	2-DH5	2480	Ant1	-53.24	-20	Pass
NVNT	3-DH5	2402	Ant1	-52.14	-20	Pass
NVNT	3-DH5	2441	Ant1	-53.06	-20	Pass
NVNT	3-DH5	2480	Ant1	-48.43	-20	Pass

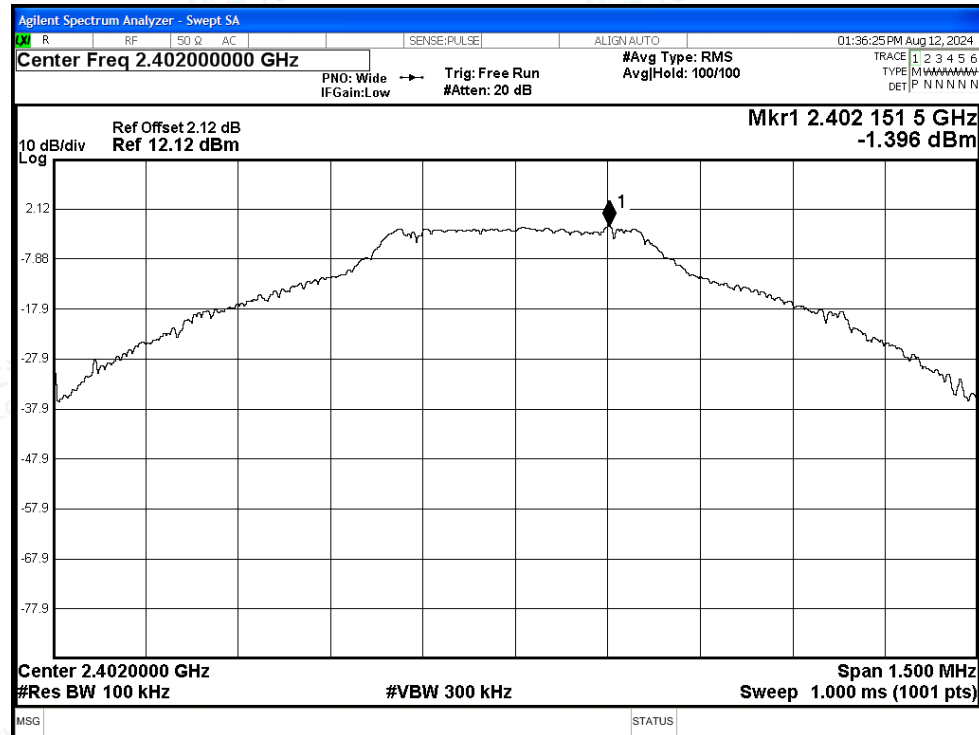


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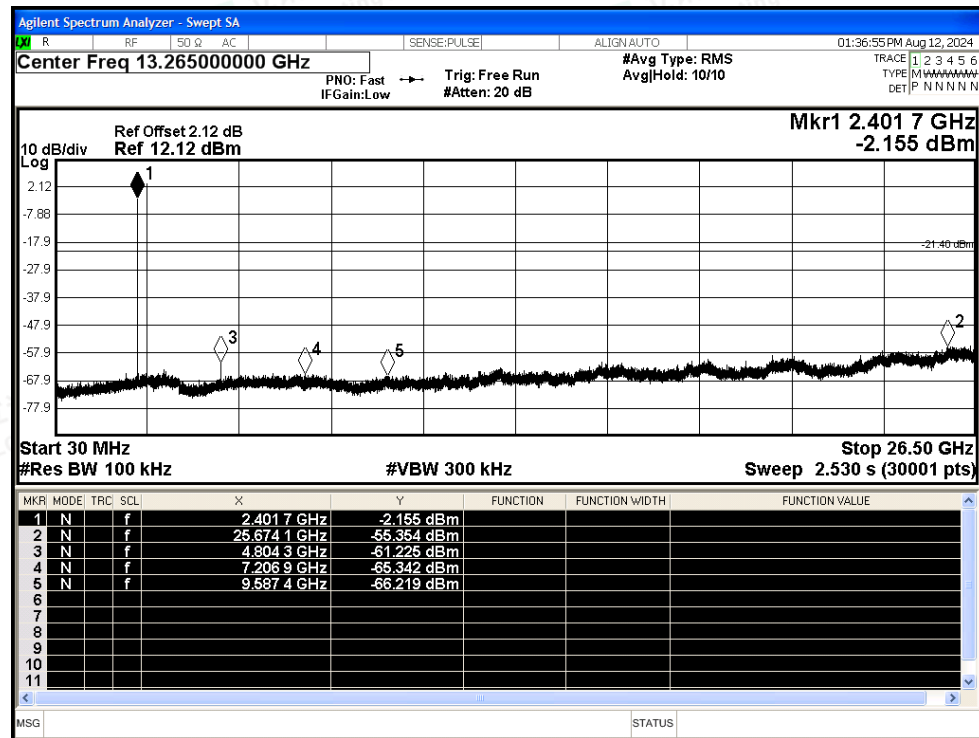


Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref

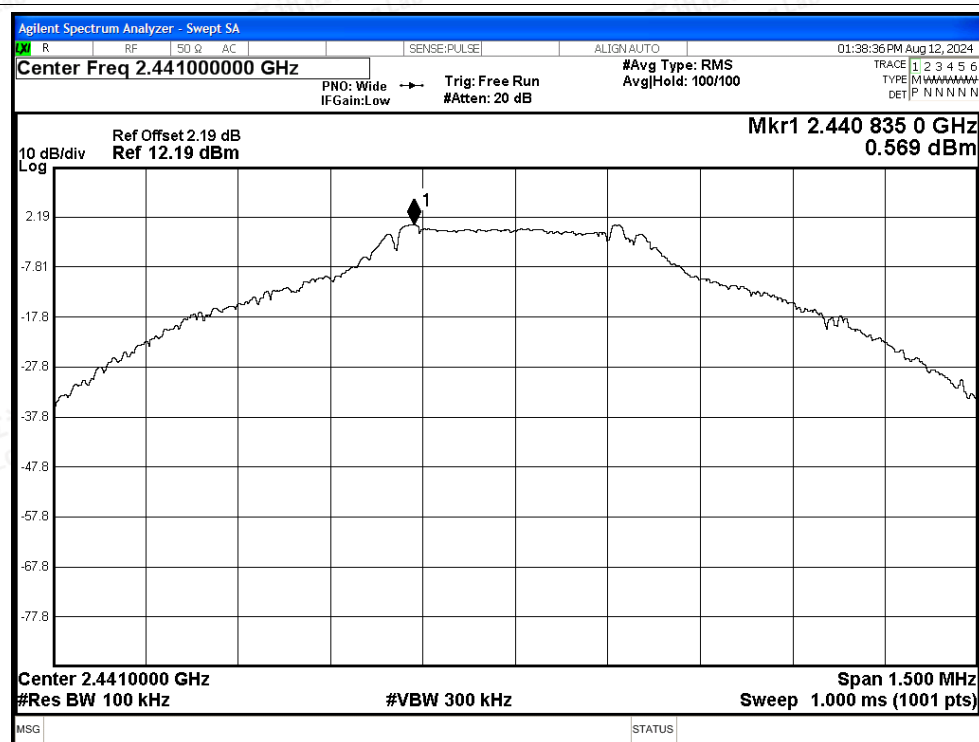


Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission

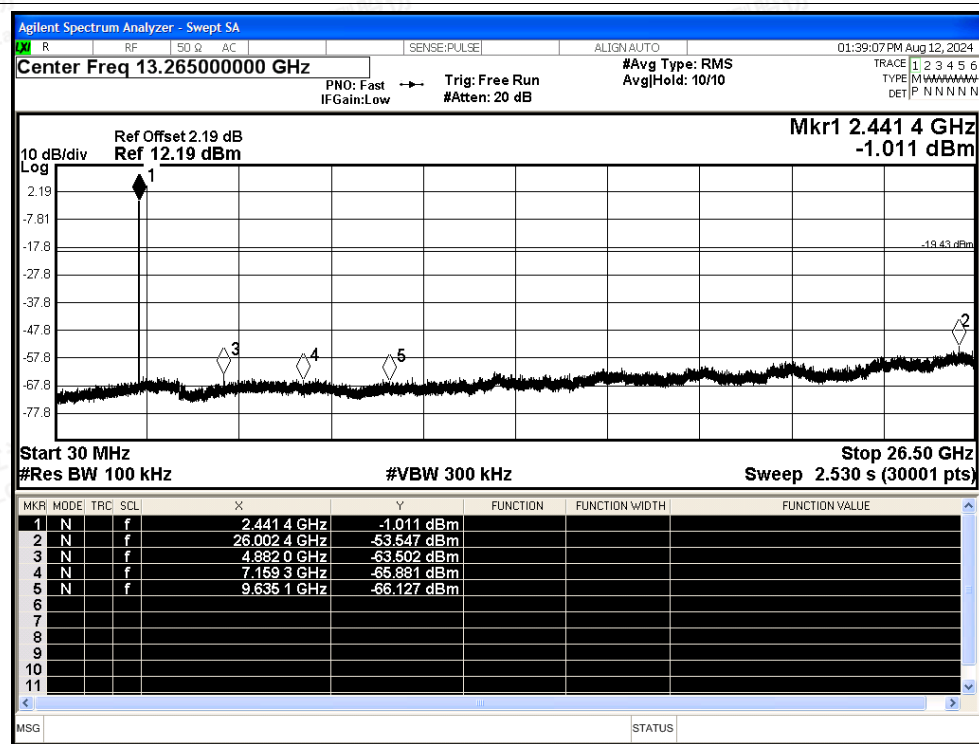




Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission

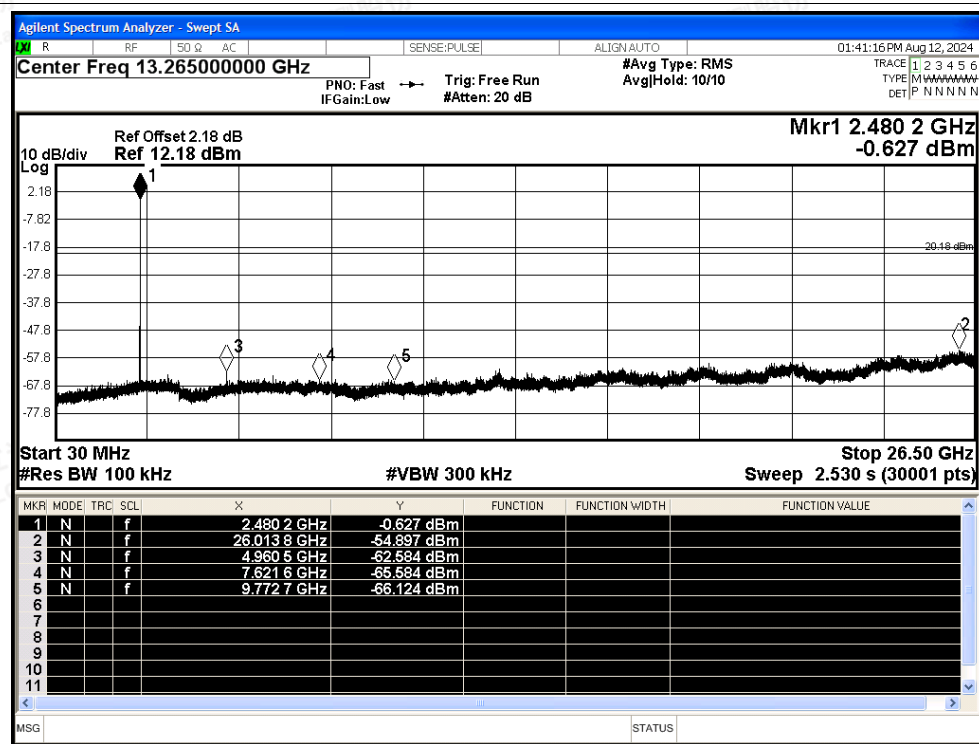




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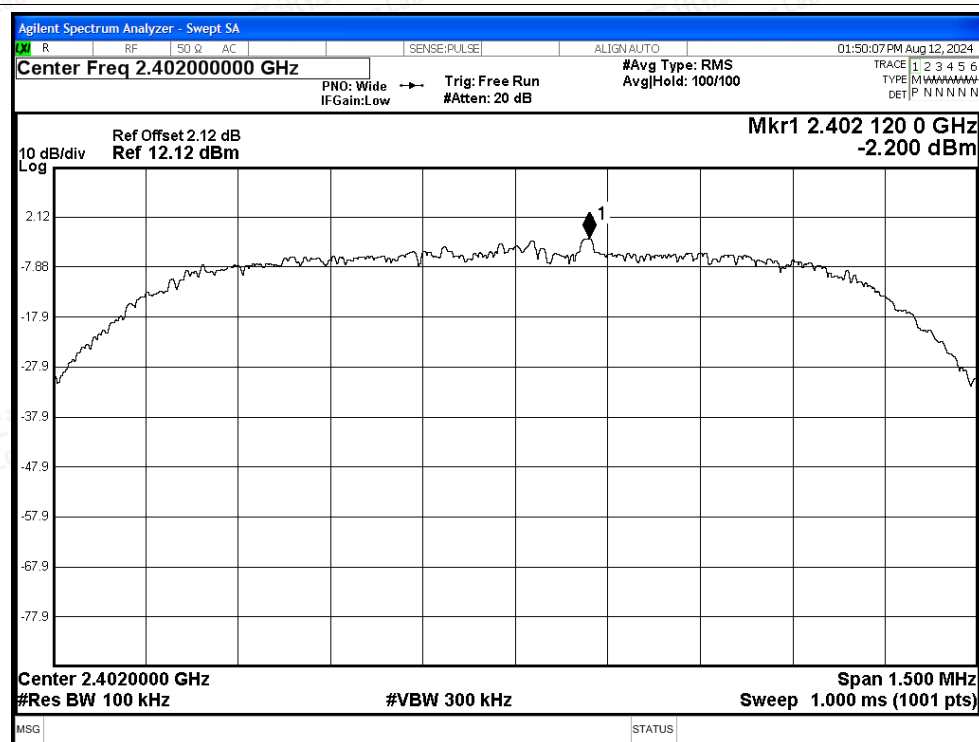


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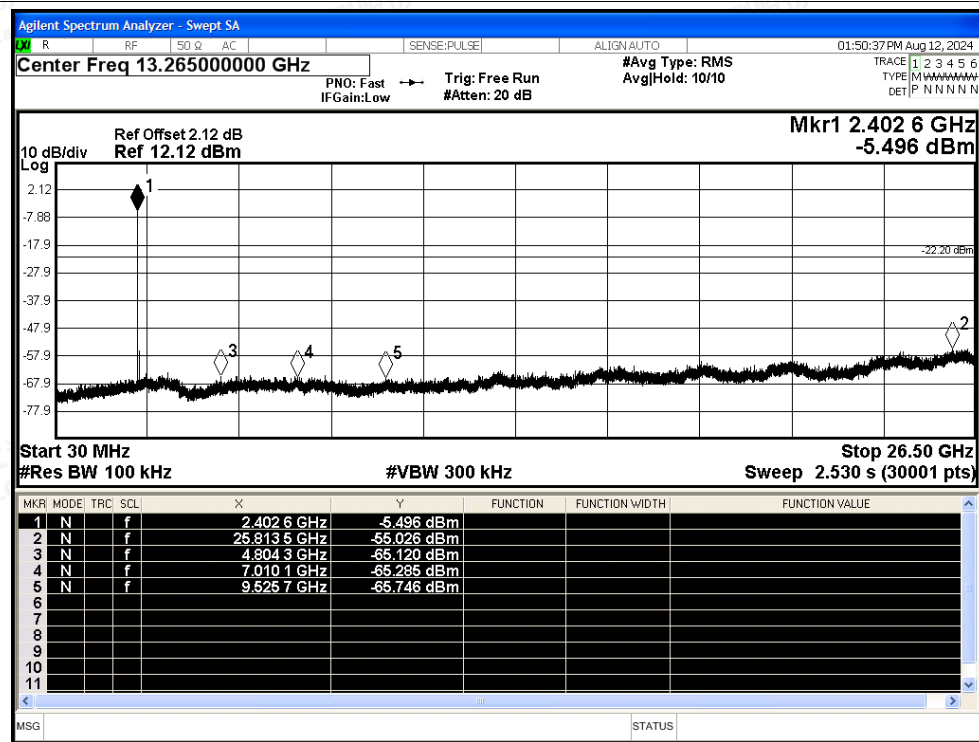




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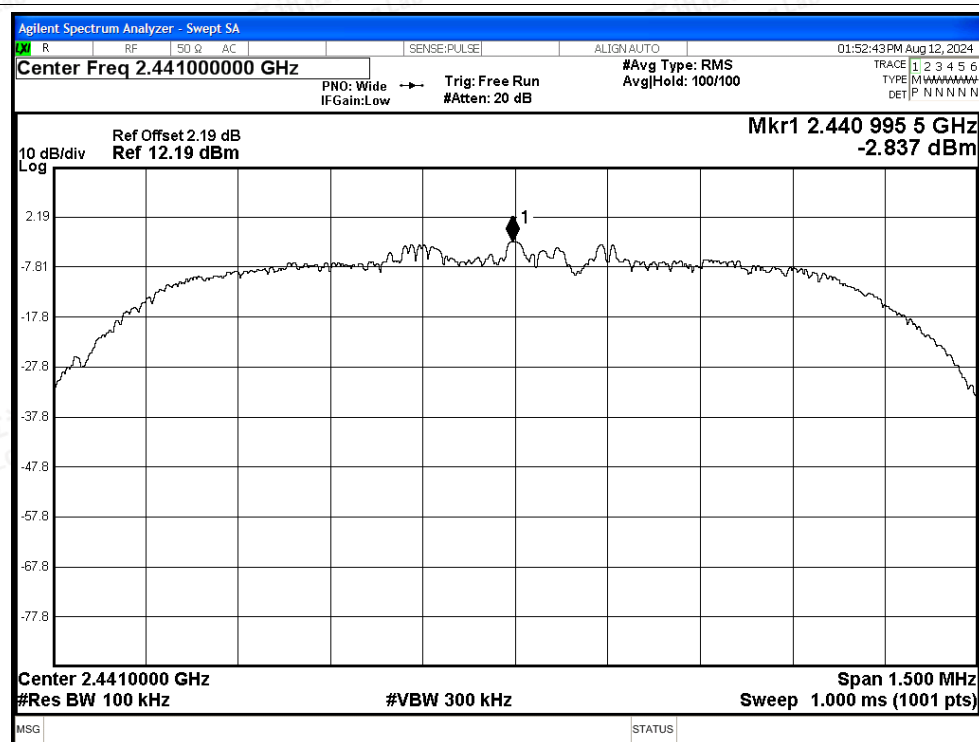


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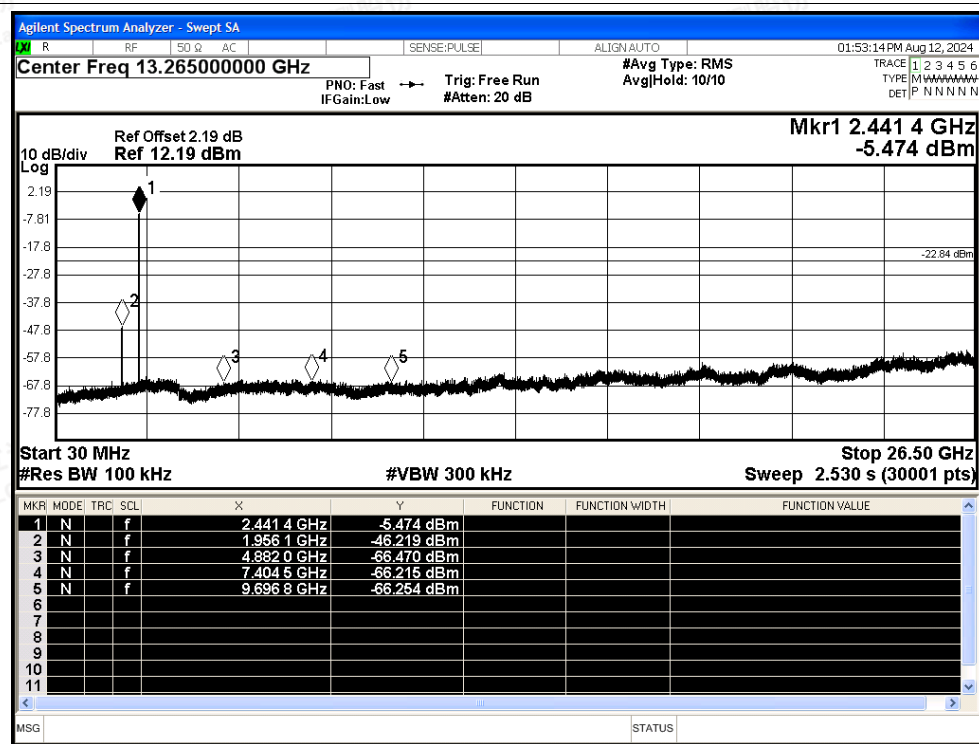




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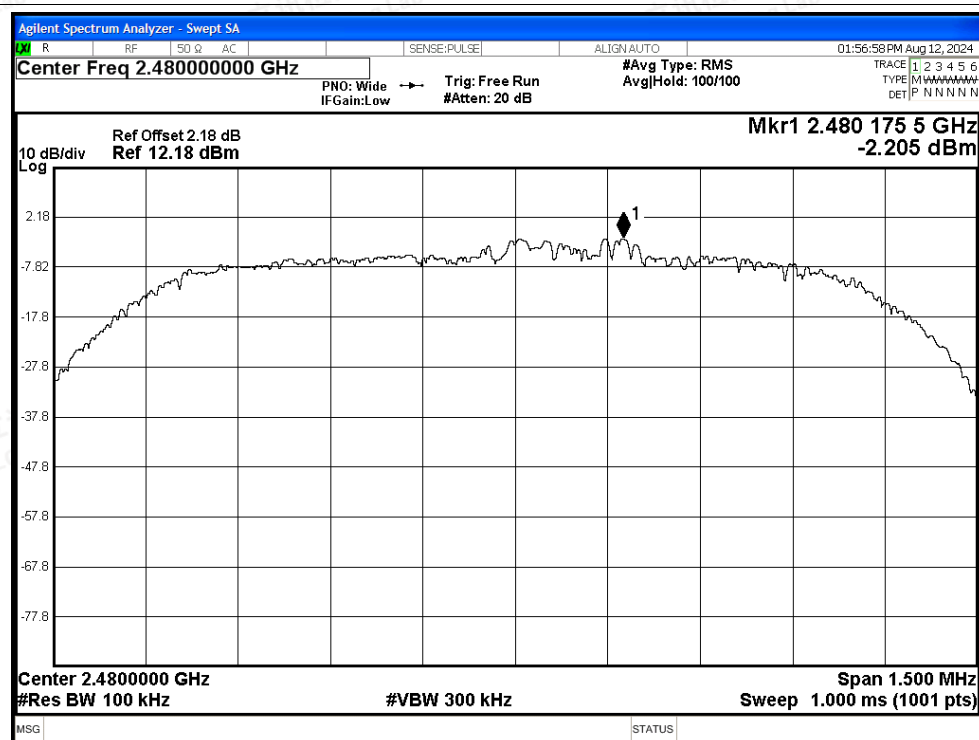


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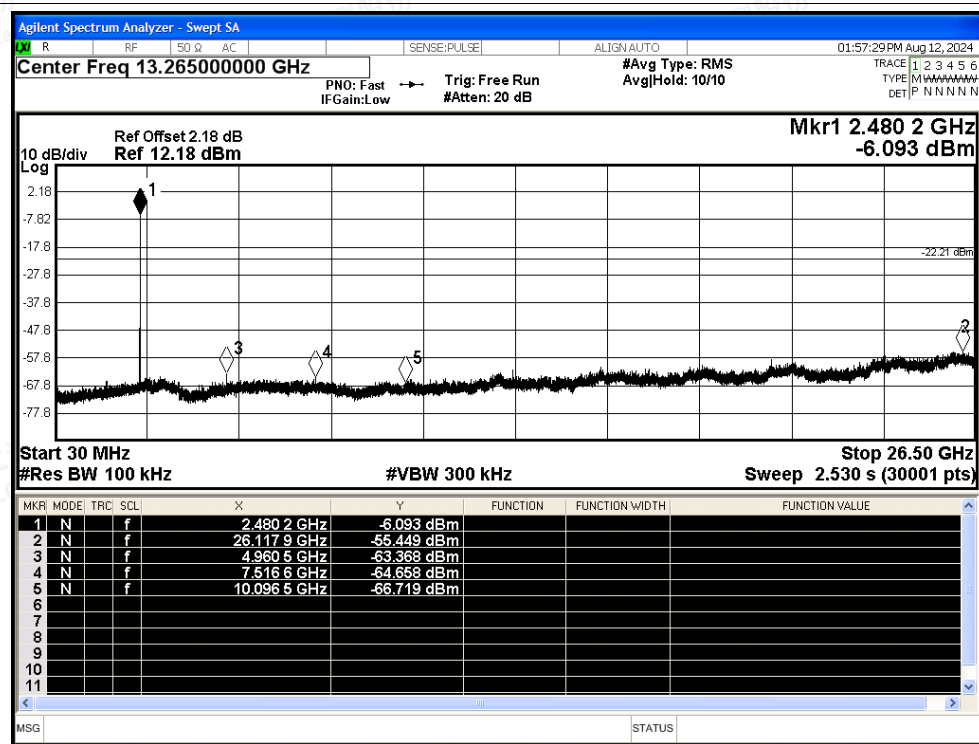




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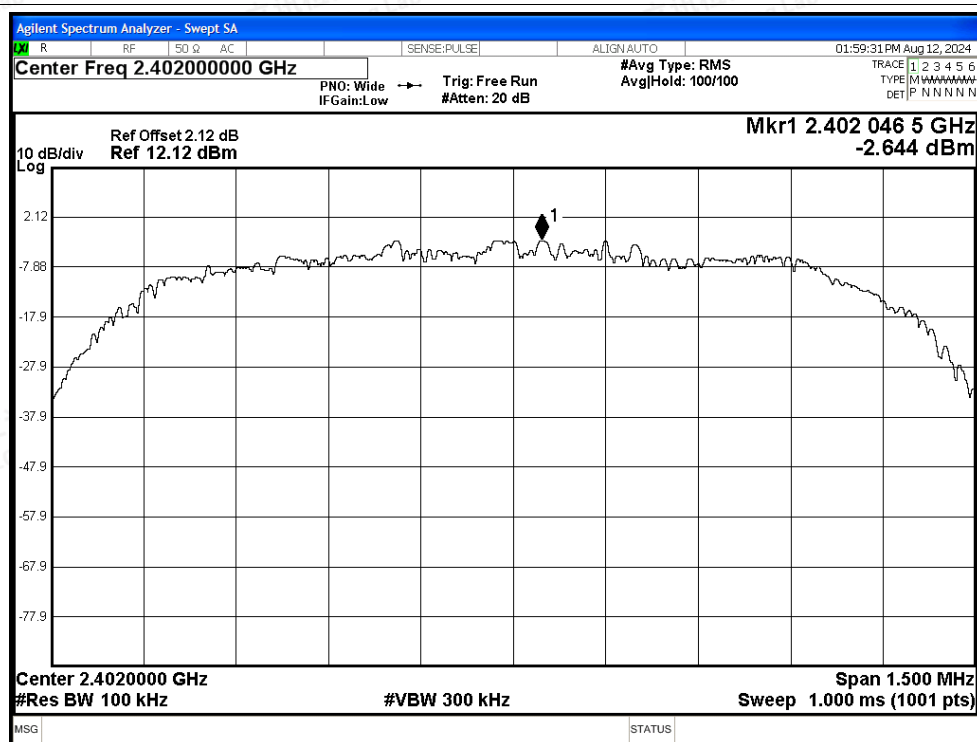


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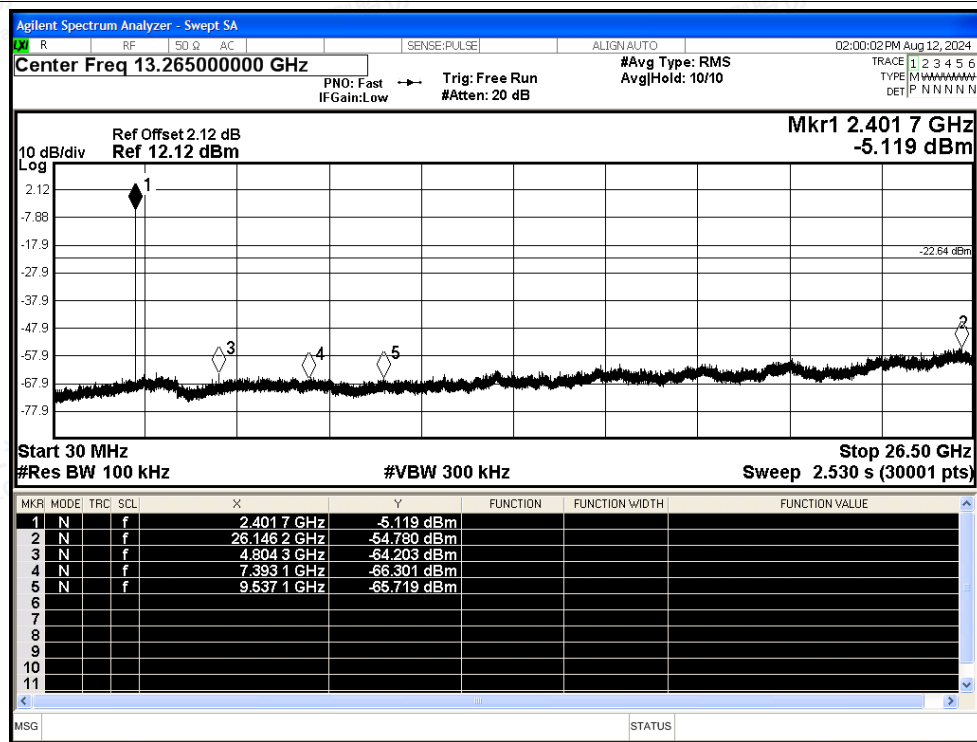




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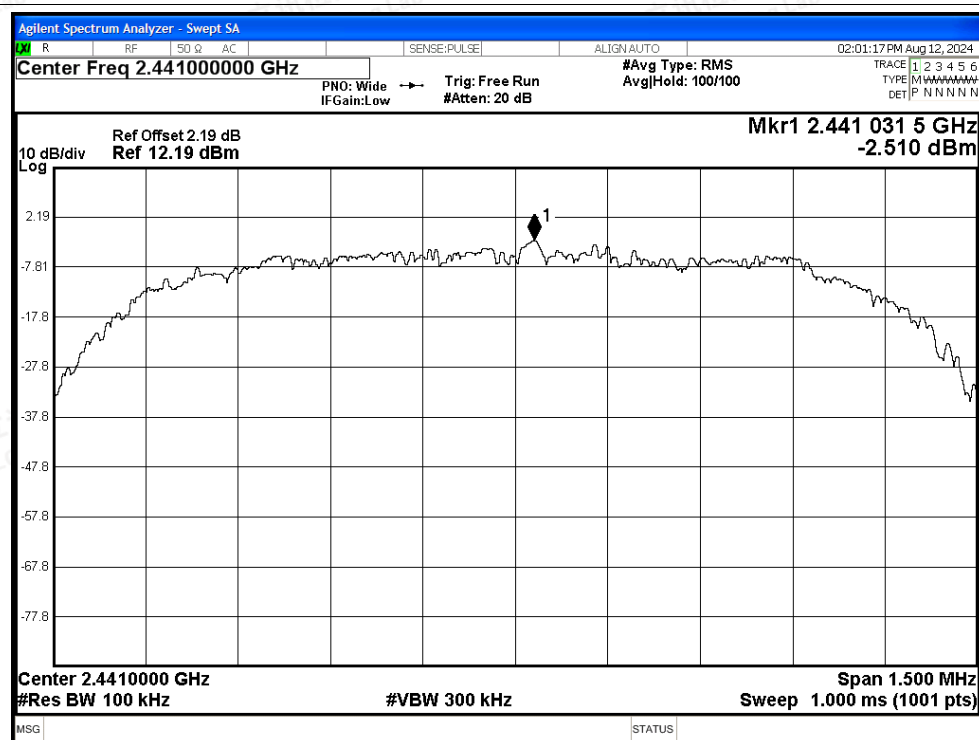


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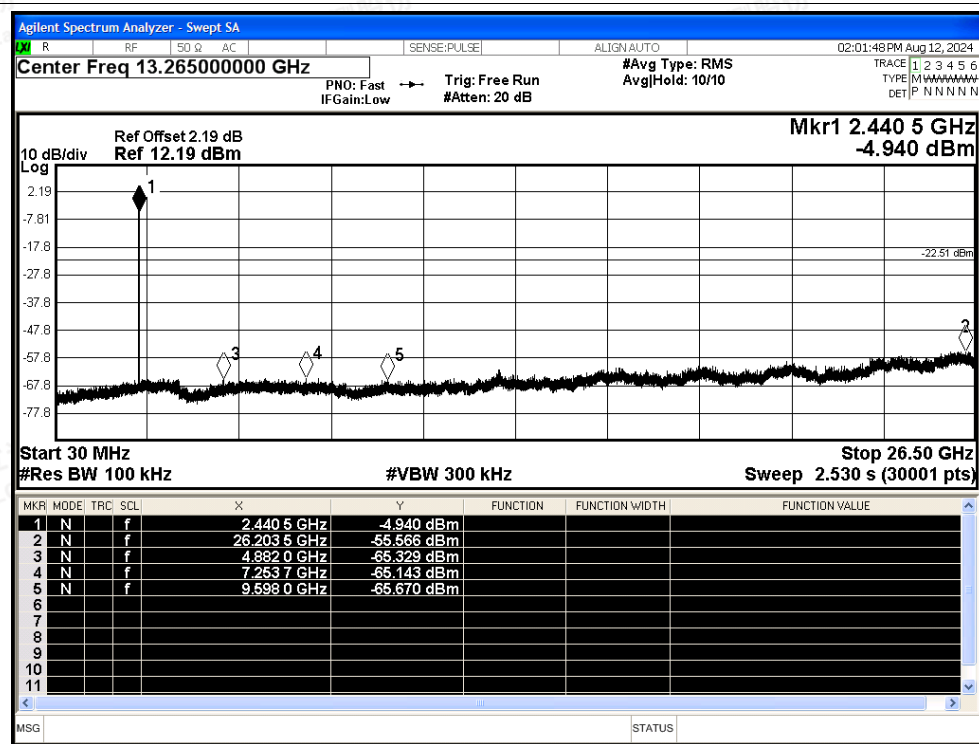




Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref

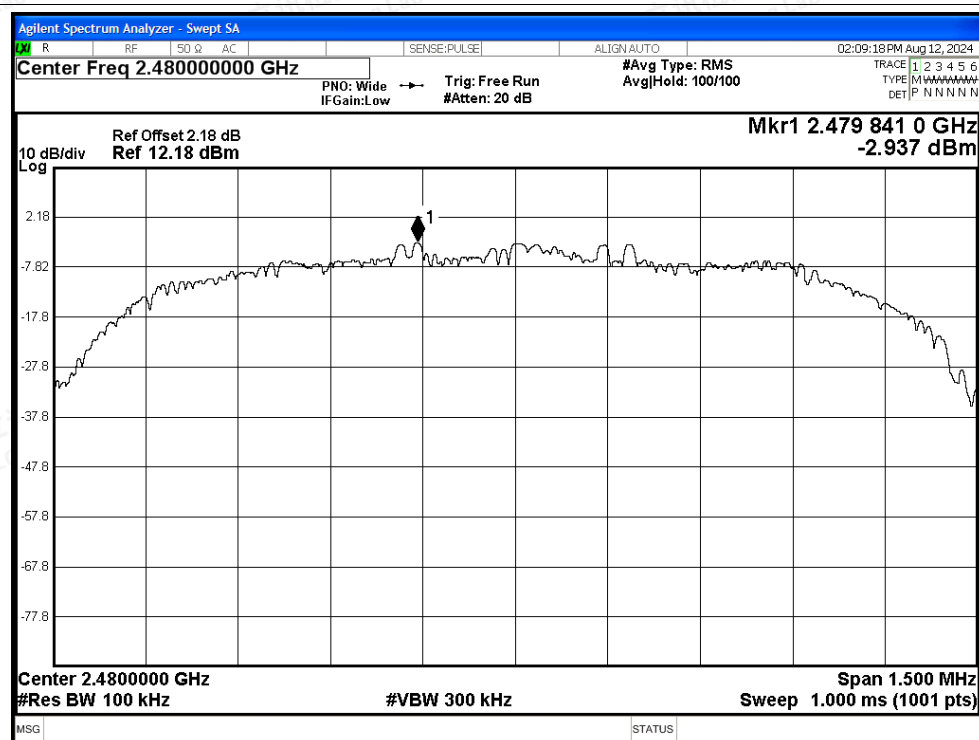


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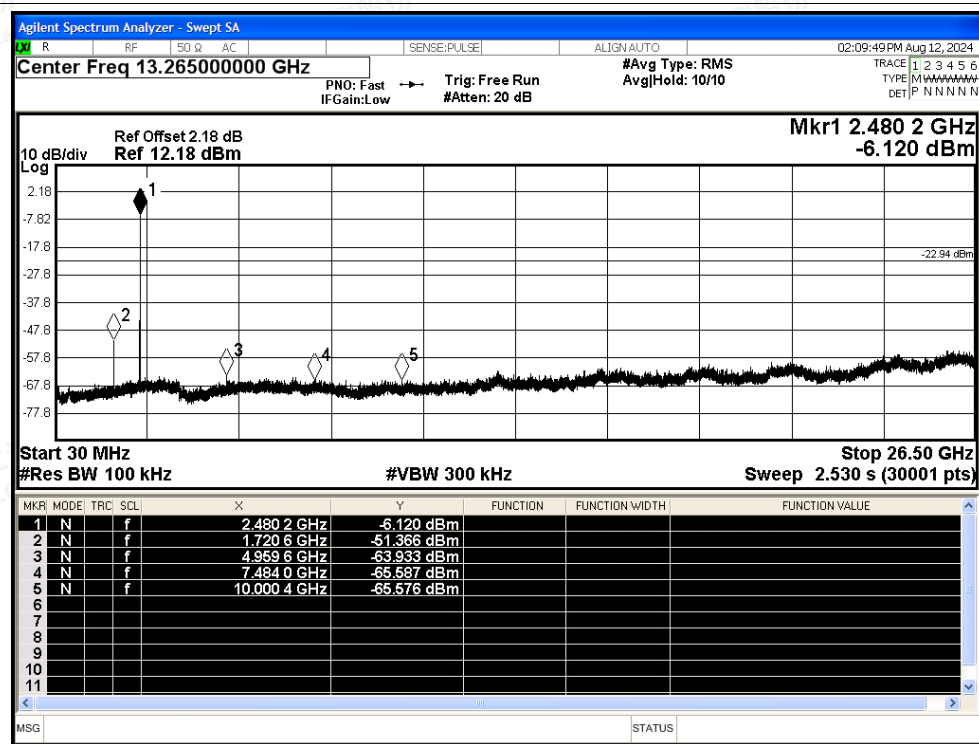




Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission





A.8 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	77.63	1.1	0.34
NVNT	1-DH5	2441	Ant1	77.6	1.1	0.34
NVNT	1-DH5	2480	Ant1	77.6	1.1	0.34
NVNT	2-DH5	2402	Ant1	76.43	1.17	0.36
NVNT	2-DH5	2441	Ant1	77.33	1.12	0.34
NVNT	2-DH5	2480	Ant1	77.33	1.12	0.34
NVNT	3-DH5	2402	Ant1	77.33	1.12	0.34
NVNT	3-DH5	2441	Ant1	77.23	1.12	0.35
NVNT	3-DH5	2480	Ant1	77.23	1.12	0.35

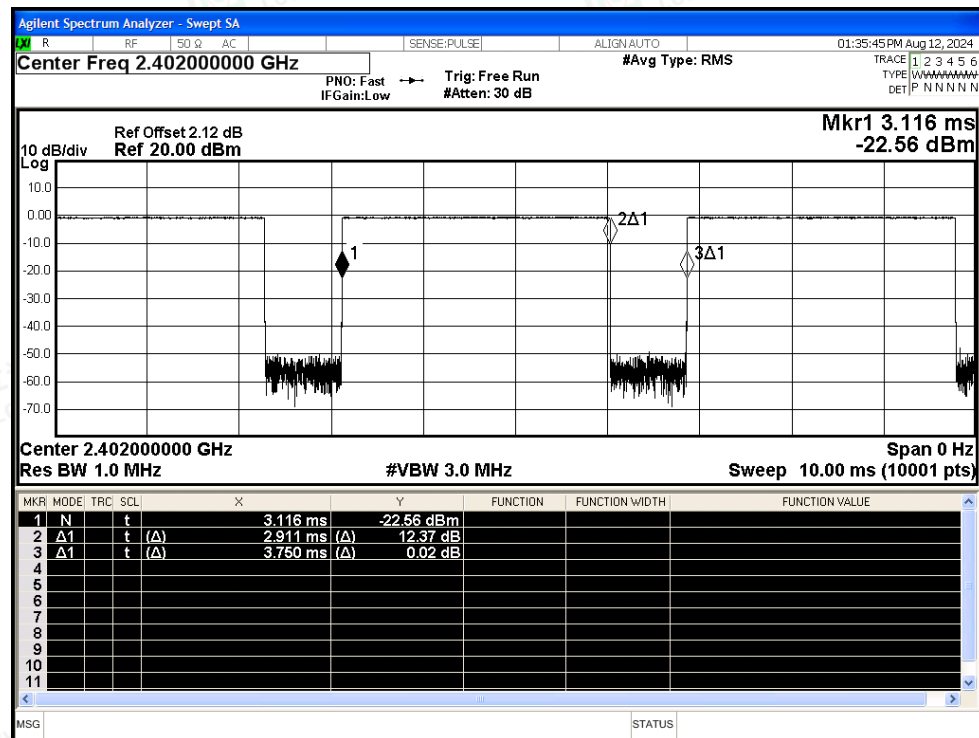


Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

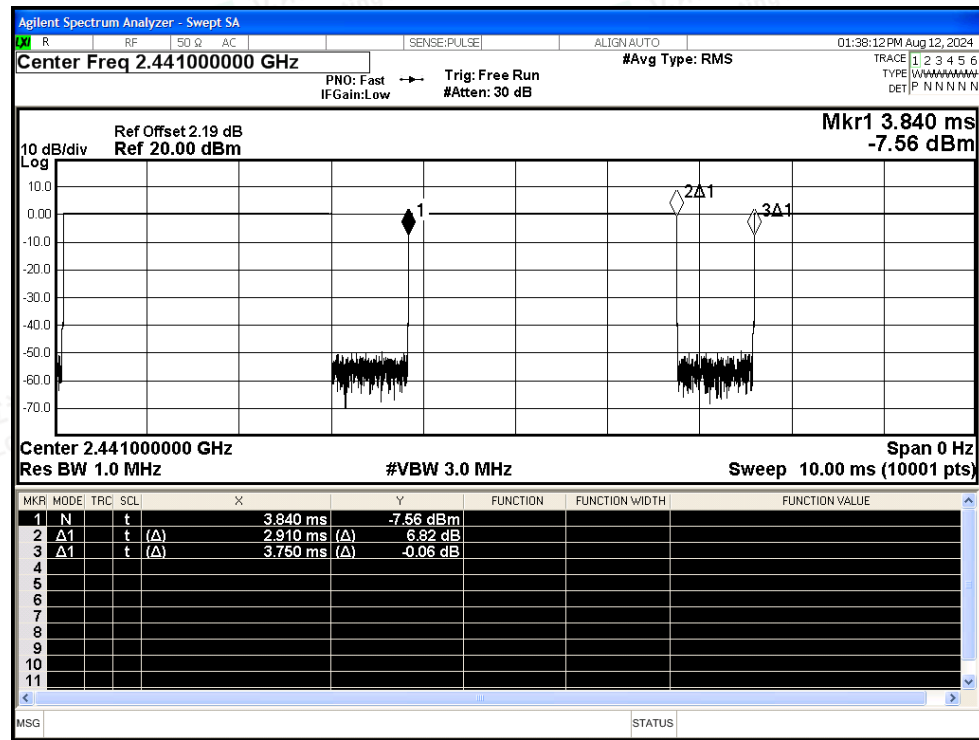


Test Graphs

Duty Cycle NVNT 1-DH5 2402MHz Ant1

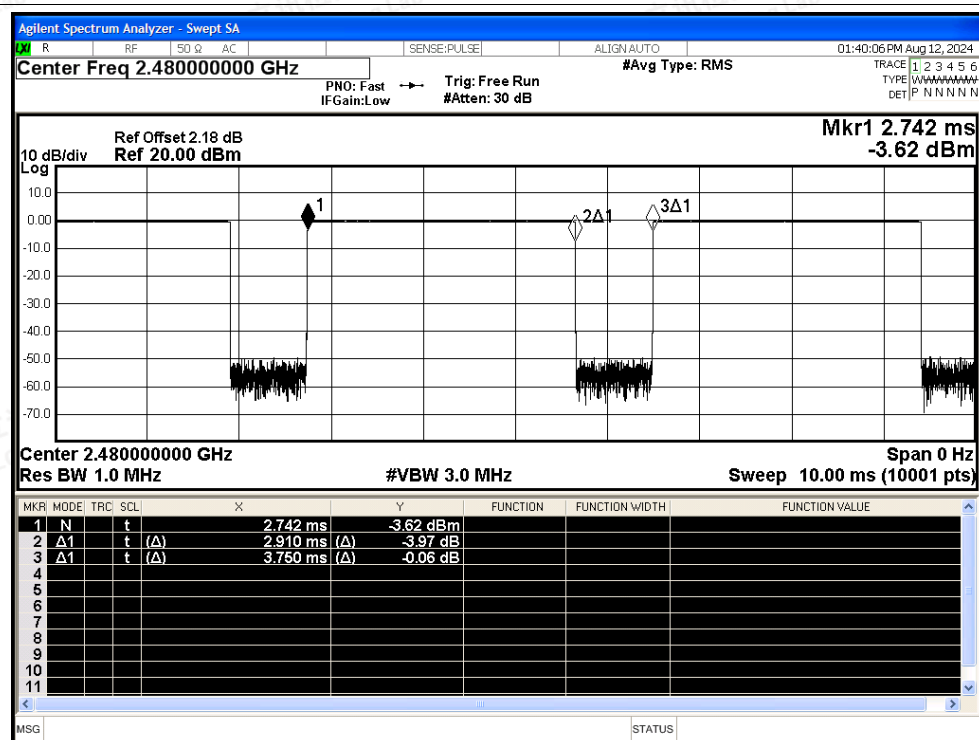


Duty Cycle NVNT 1-DH5 2441MHz Ant1

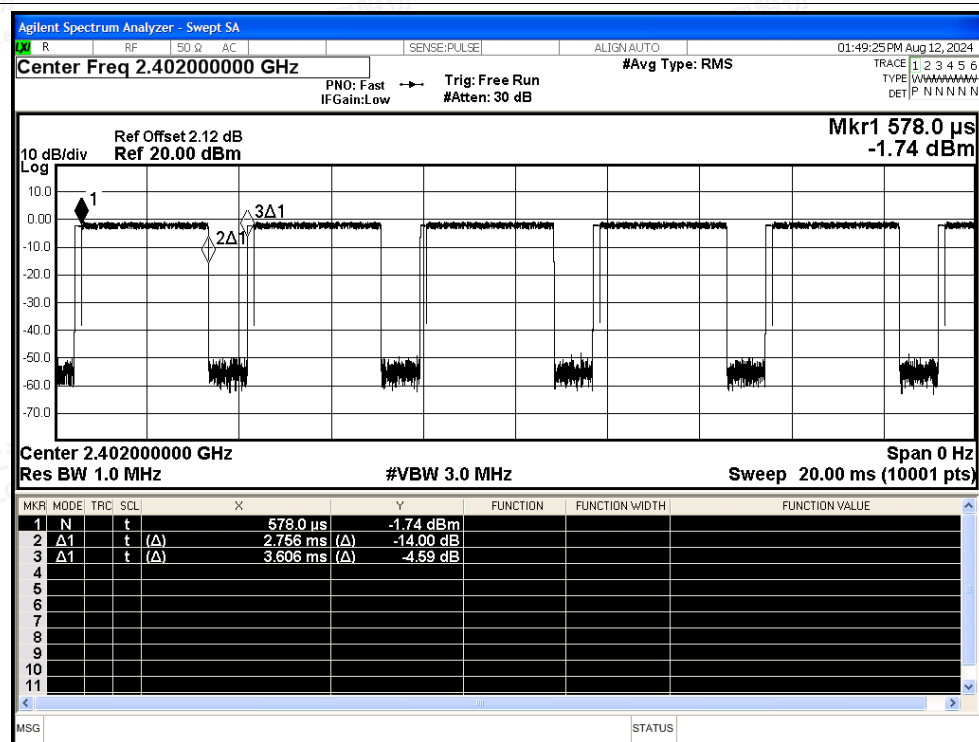




Duty Cycle NVNT 1-DH5 2480MHz Ant1

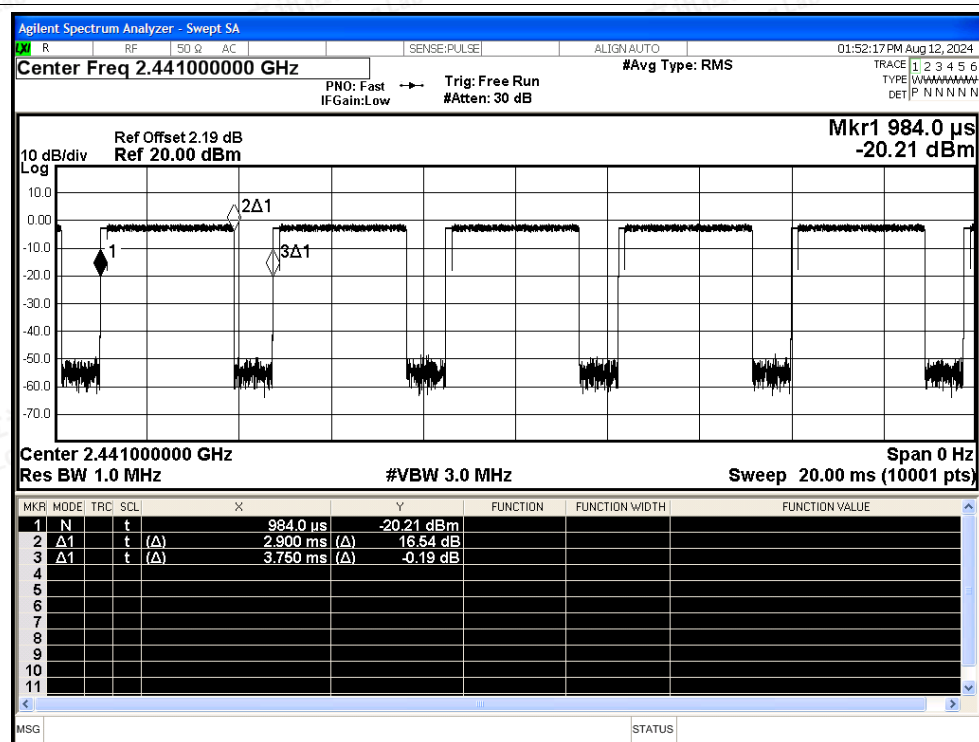


Duty Cycle NVNT 2-DH5 2402MHz Ant1

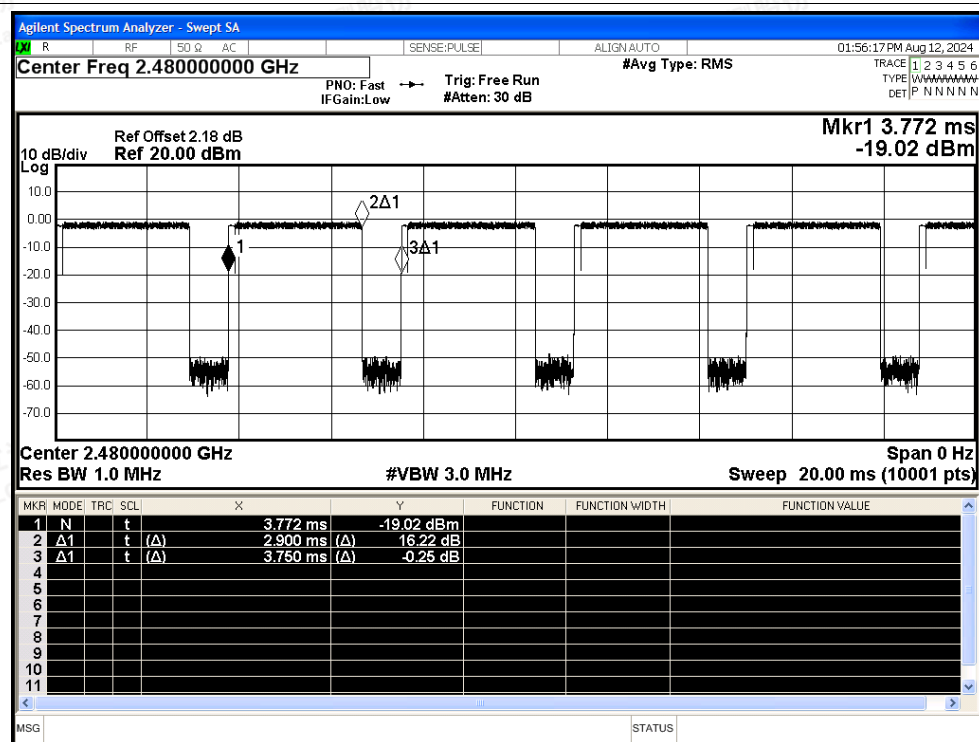




Duty Cycle NVNT 2-DH5 2441MHz Ant1

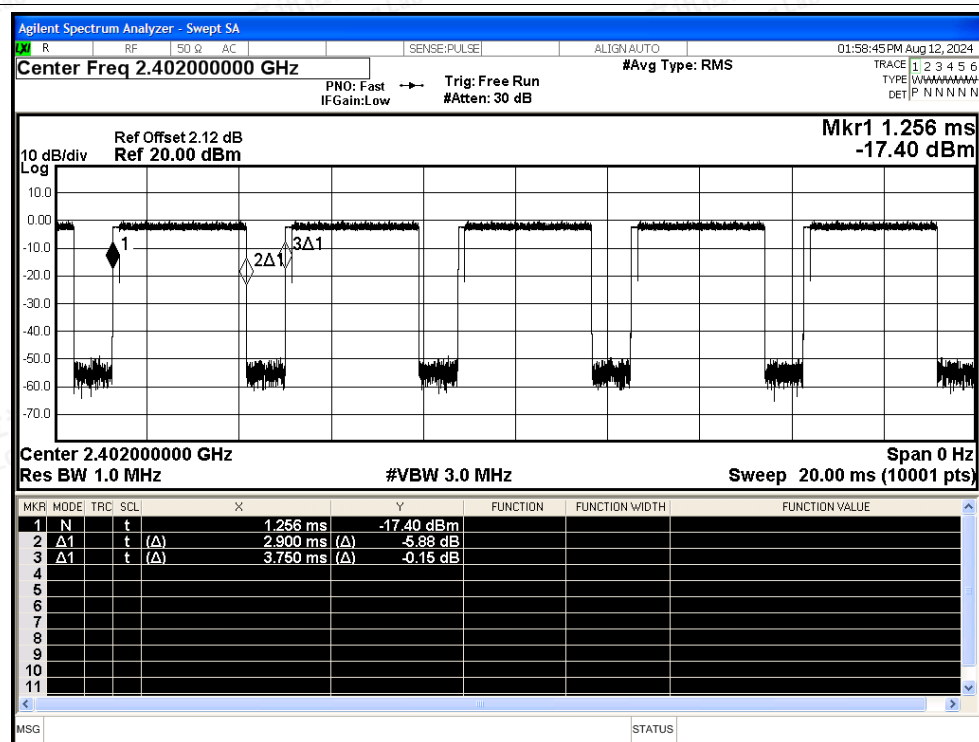


Duty Cycle NVNT 2-DH5 2480MHz Ant1

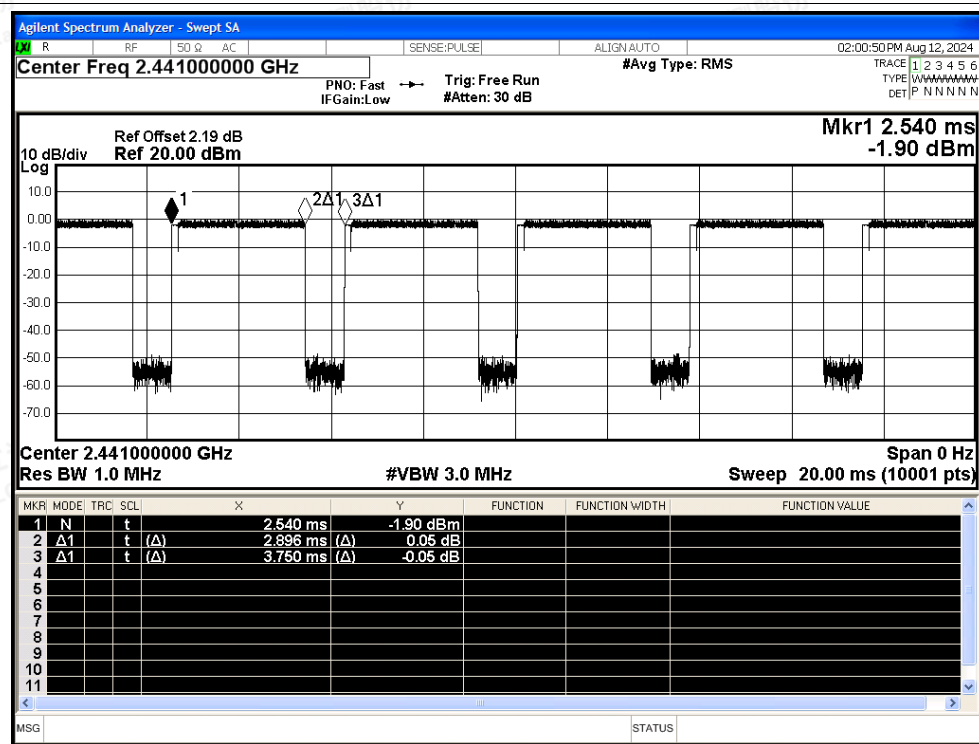


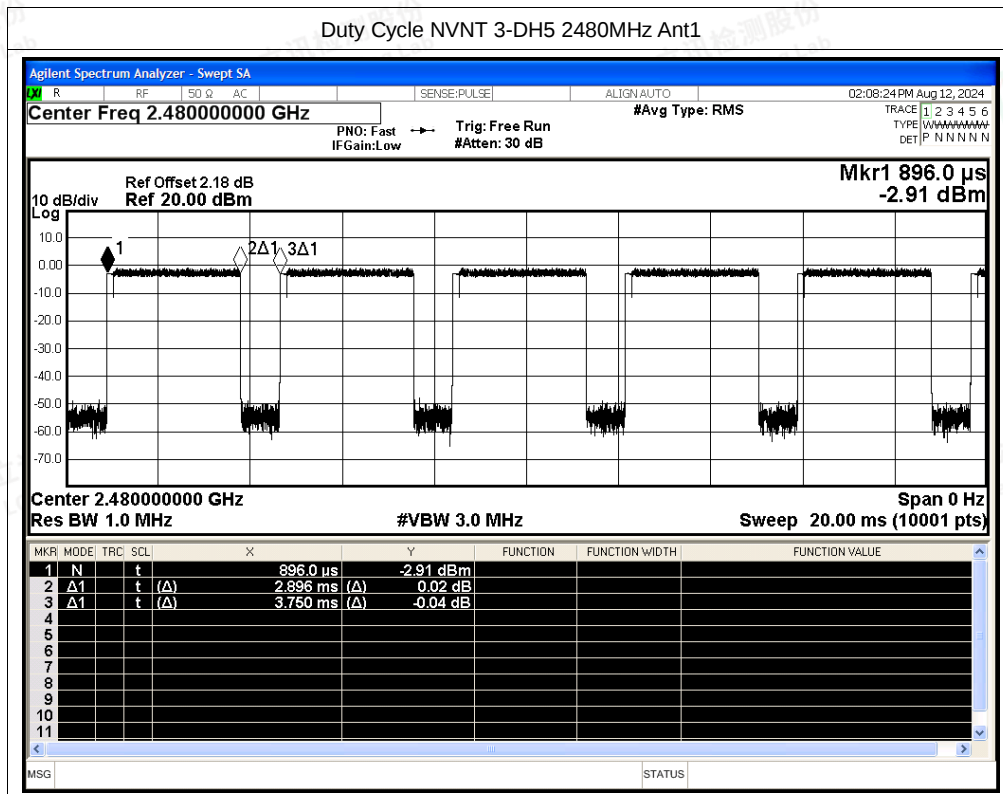


Duty Cycle NVNT 3-DH5 2402MHz Ant1



Duty Cycle NVNT 3-DH5 2441MHz Ant1







A.9 Restrict Band

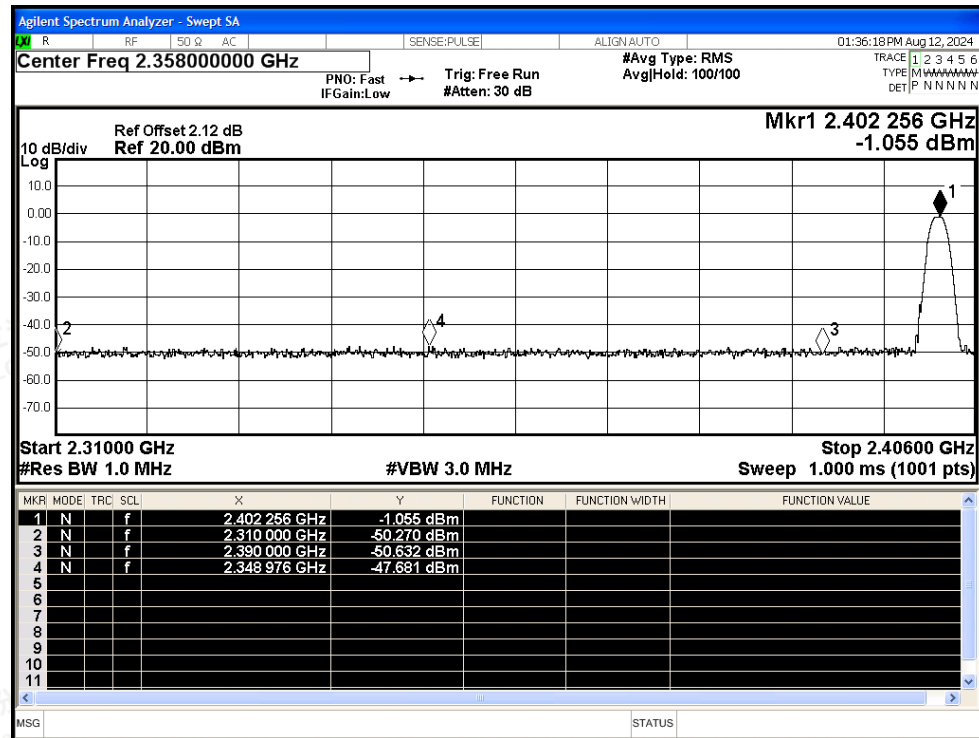
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-50.27	2	-	46.99	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-58.62	2	1.1	39.74	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2348.976	-47.68	2	-	49.58	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2384.496	-57.59	2	1.1	40.77	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-50.63	2	-	46.63	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-57.84	2	1.1	40.52	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-50.07	2	-	47.19	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-57.47	2	1.1	40.89	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.56	-42.45	2	-	54.81	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2486.248	-57.02	2	1.1	41.34	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-49.86	2	-	47.4	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-57.63	2	1.1	40.73	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-50.41	2	-	46.85	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-58.76	2	1.17	39.67	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2340.048	-47.41	2	-	49.85	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2389.968	-57.53	2	1.17	40.9	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-49.78	2	-	47.48	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-57.53	2	1.17	40.9	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-47.04	2	-	50.22	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-57.43	2	1.12	40.95	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2485.432	-45.73	2	-	51.53	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.584	-56.98	2	1.12	41.4	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-49.19	2	-	48.07	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-57.59	2	1.12	40.79	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-48.99	2	-	48.27	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-58.57	2	1.12	39.81	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2348.304	-46.85	2	-	50.41	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2345.712	-57.49	2	1.12	40.89	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-49.86	2	-	47.4	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-58.15	2	1.12	40.23	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-49.62	2	-	47.64	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-57.24	2	1.12	41.14	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2485.096	-47.23	2	-	50.03	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2484.064	-56.92	2	1.12	41.46	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-50.13	2	-	47.13	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-58.57	2	1.12	39.81	Average	54	Pass



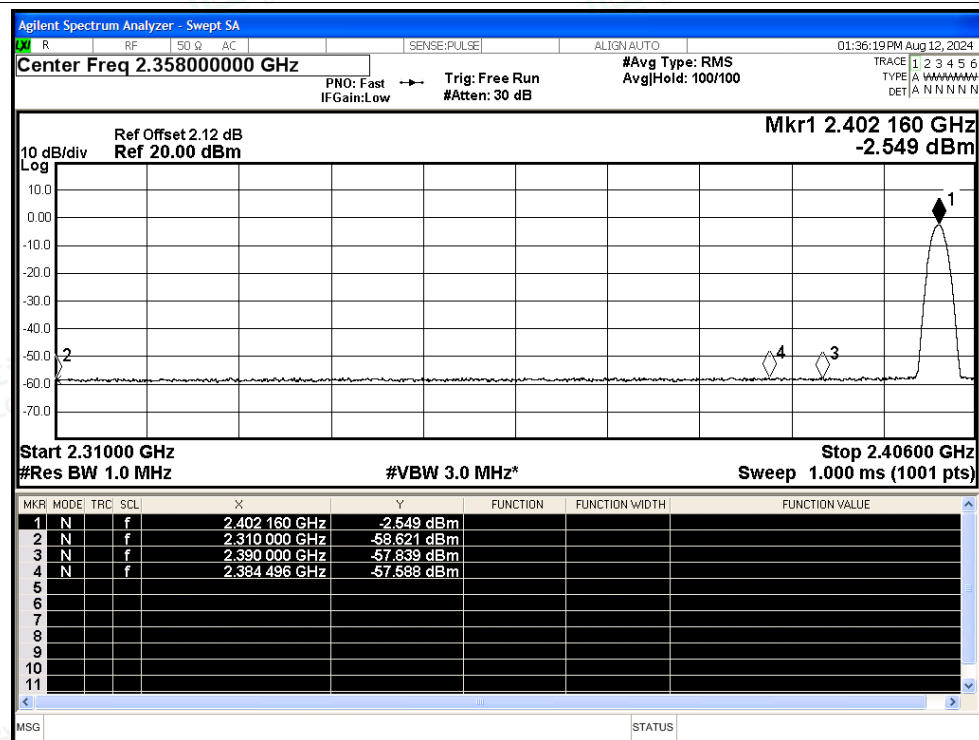


Test Graphs

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

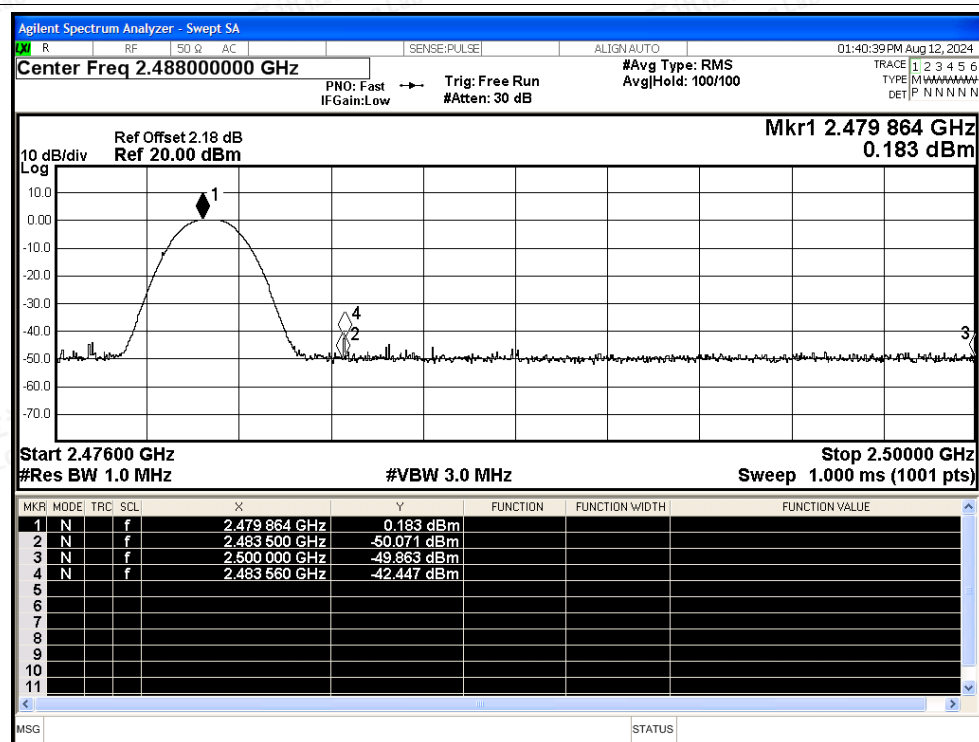


Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average

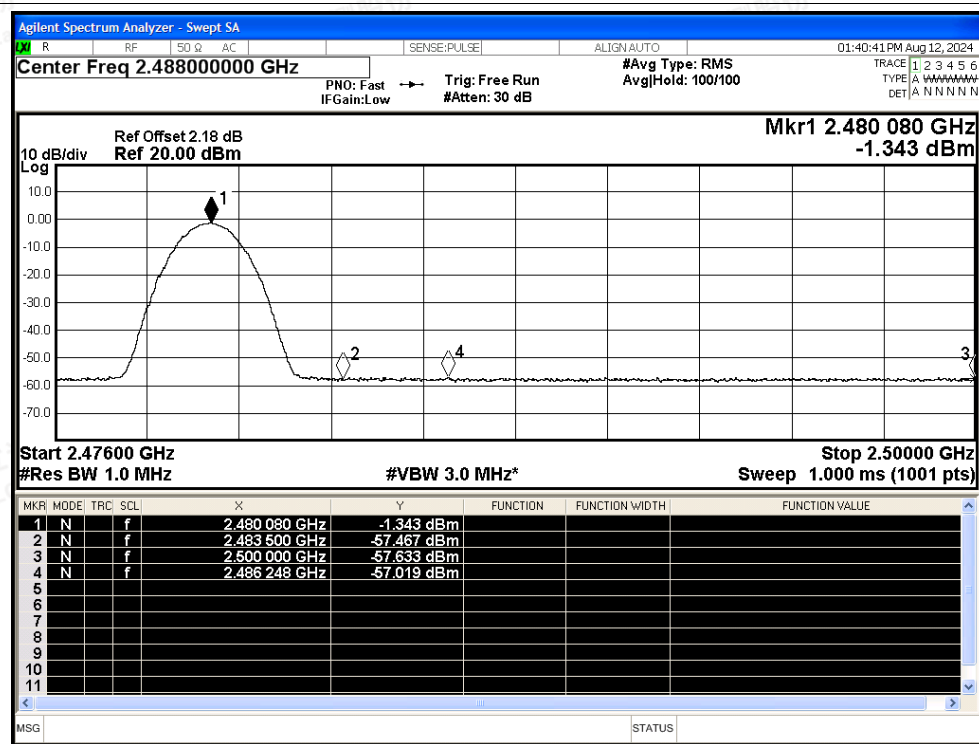




Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak

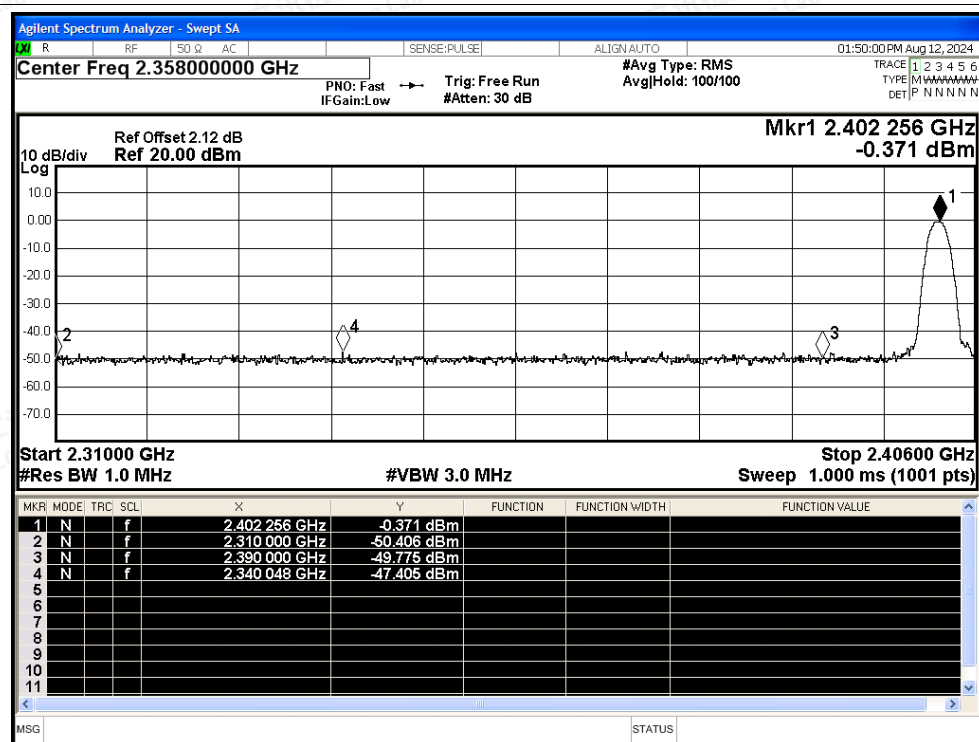


Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average

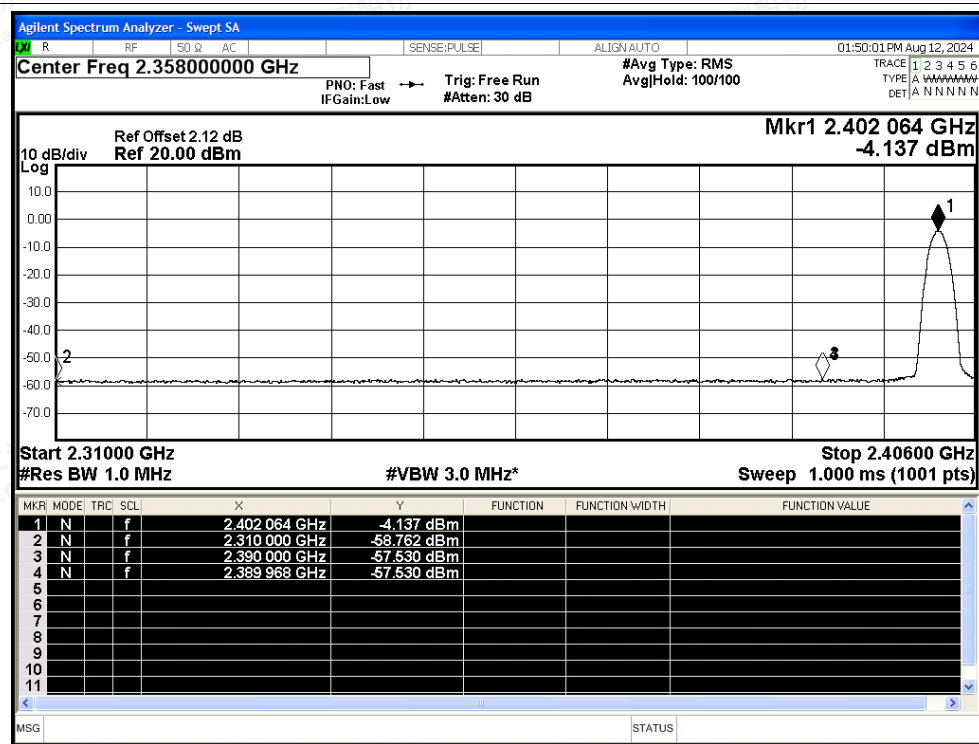




Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak

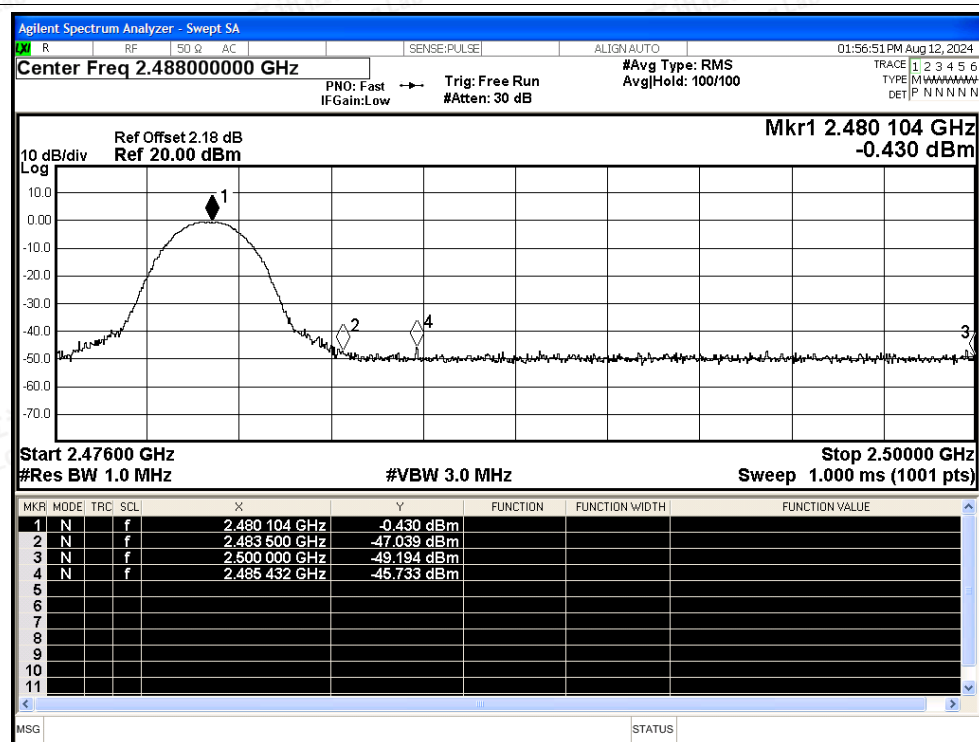


Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average

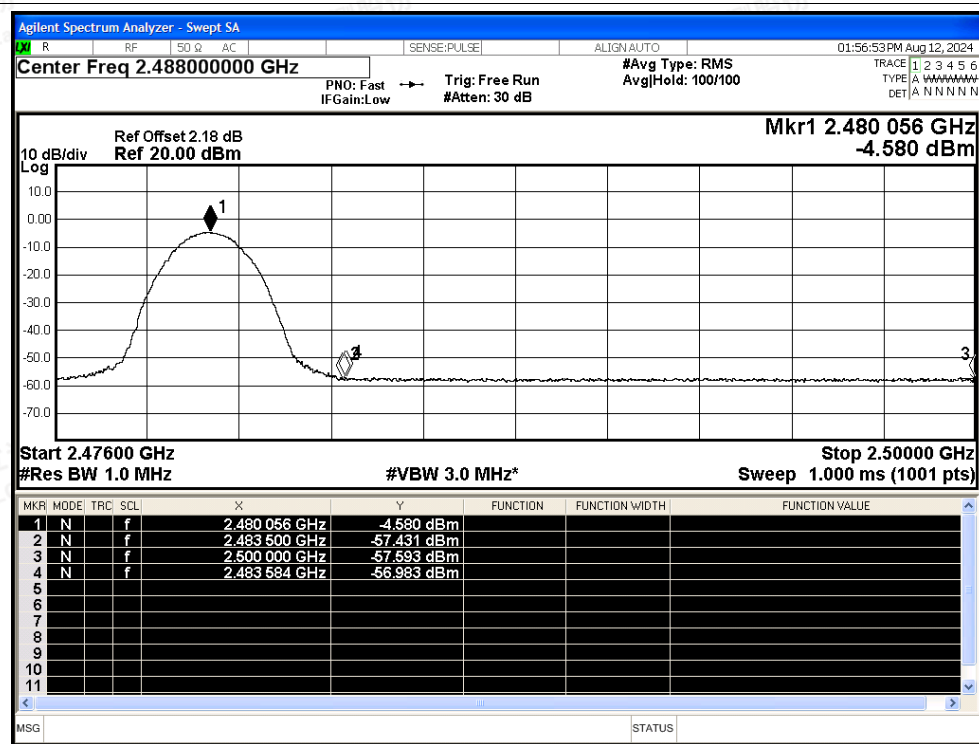


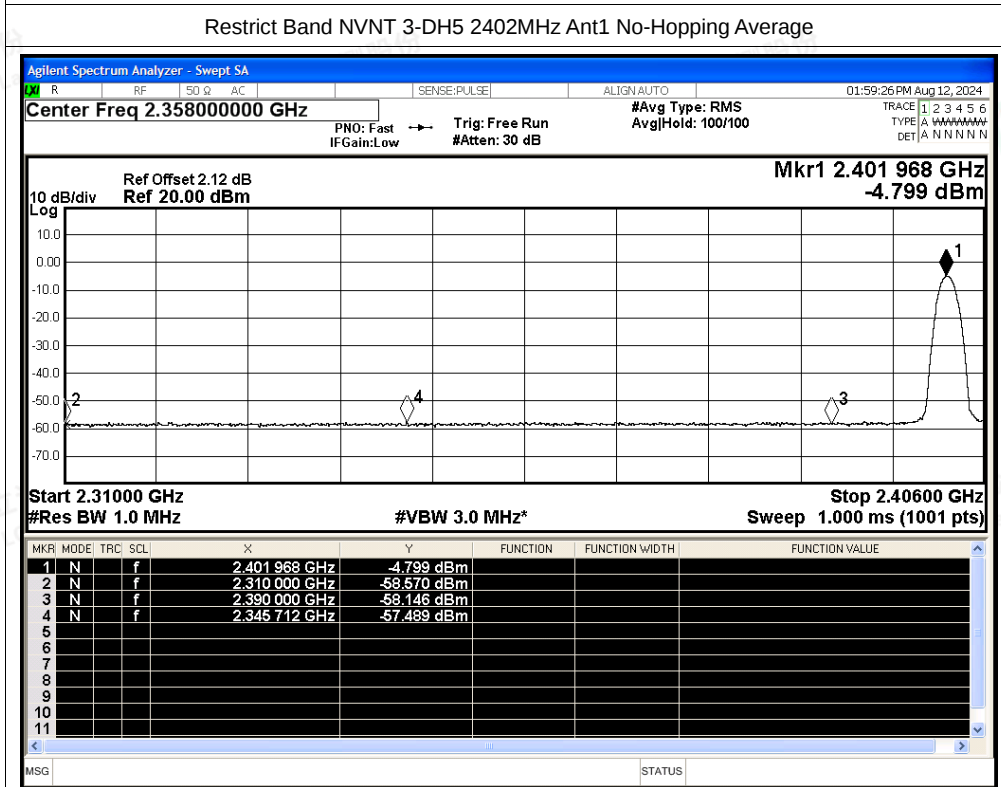
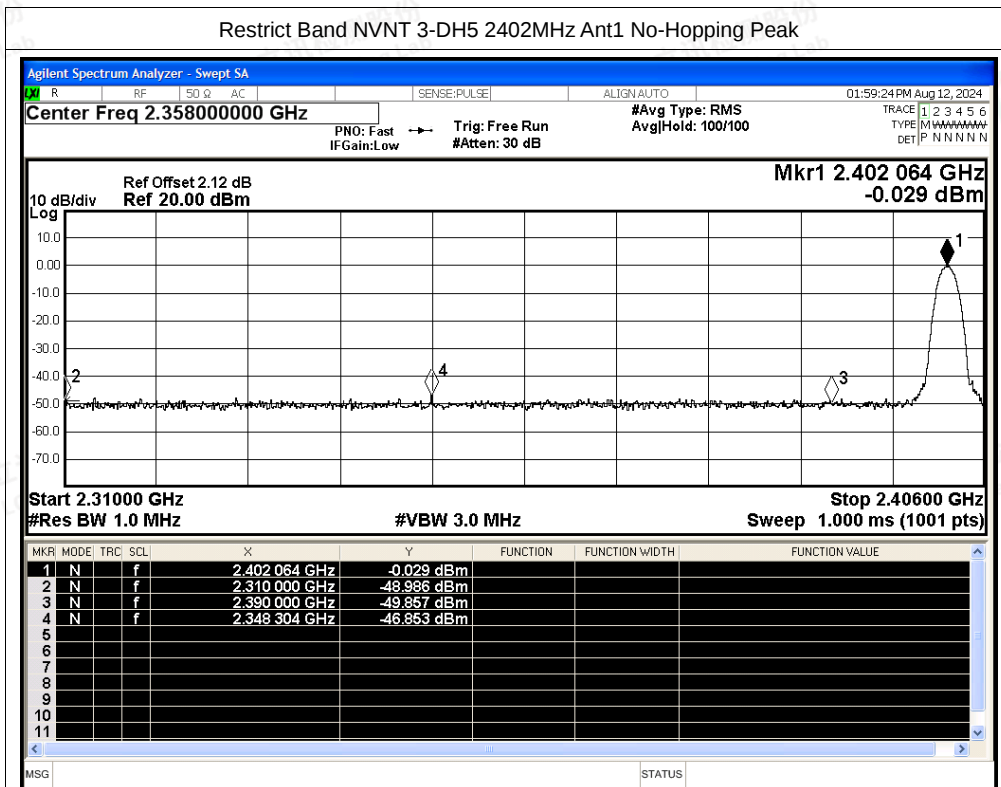


Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak



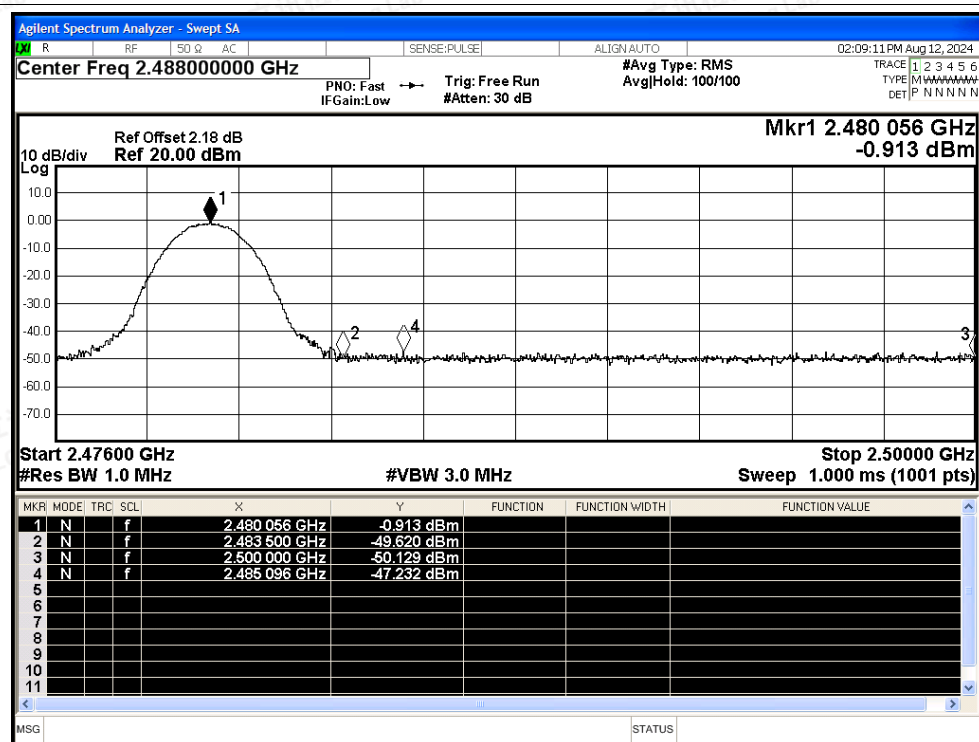
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average







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



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

