



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Wireless party speaker

Test Model: R7

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Paddi Chen
Supervised by:	Nick Peng





A.1-20dB Bandwidth

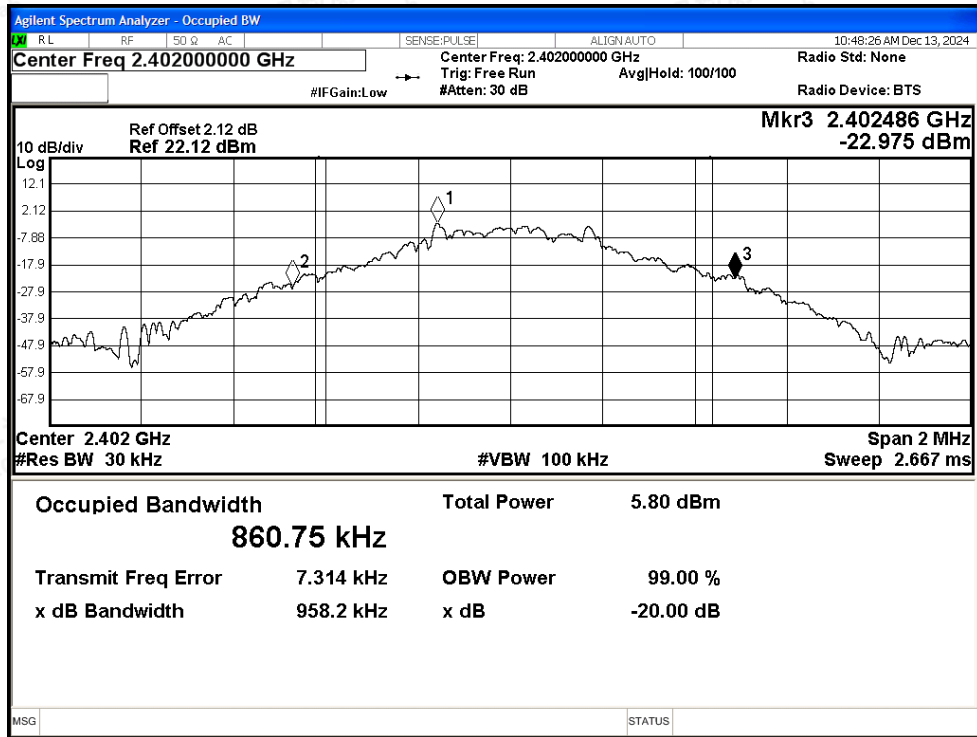
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant	0.958	N/A	Pass
NVNT	1-DH5	2441	Ant	0.977	N/A	Pass
NVNT	1-DH5	2480	Ant	0.94	N/A	Pass
NVNT	2-DH5	2402	Ant	1.28	N/A	Pass
NVNT	2-DH5	2441	Ant	1.308	N/A	Pass
NVNT	2-DH5	2480	Ant	1.284	N/A	Pass
NVNT	3-DH5	2402	Ant	1.298	N/A	Pass
NVNT	3-DH5	2441	Ant	1.289	N/A	Pass
NVNT	3-DH5	2480	Ant	1.298	N/A	Pass



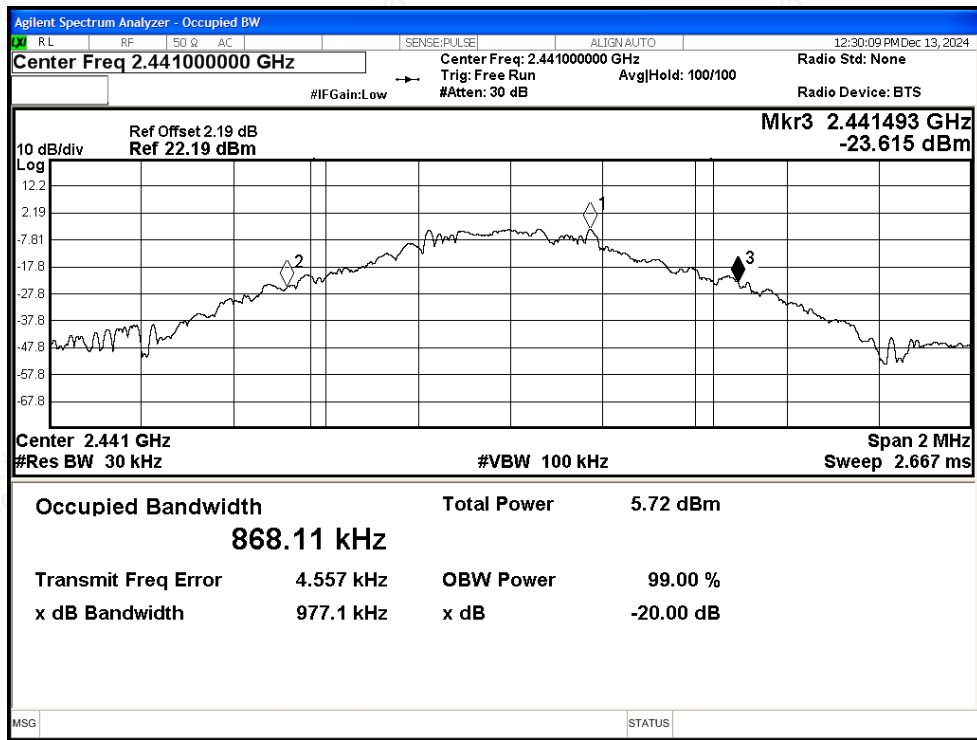


Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant

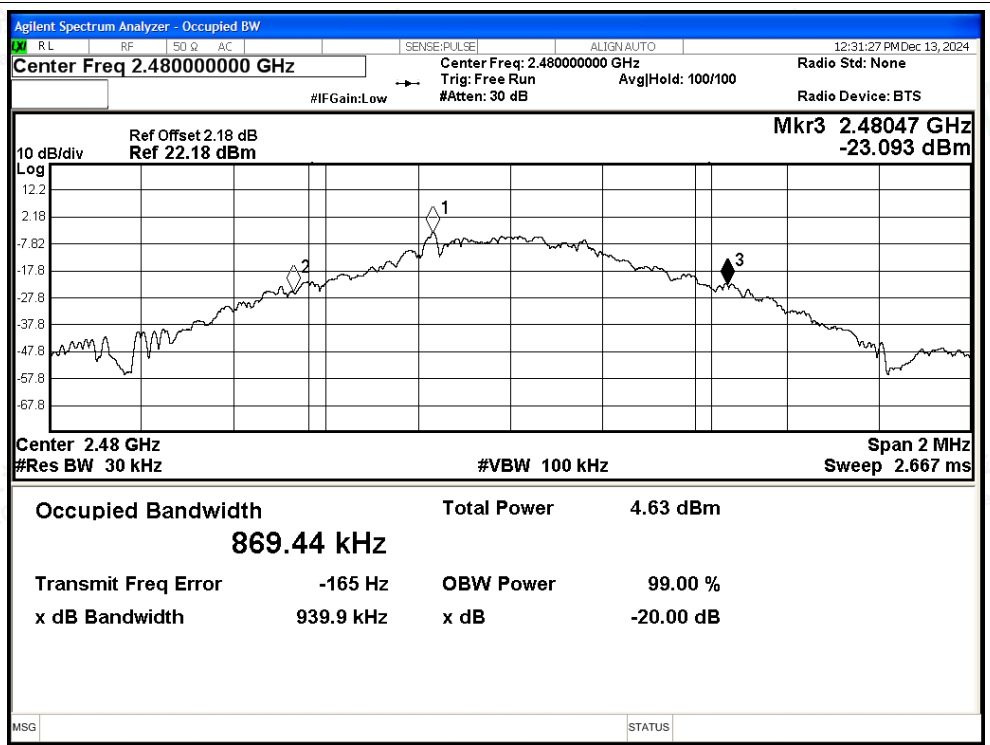


-20dB Bandwidth NVNT 1-DH5 2441MHz Ant

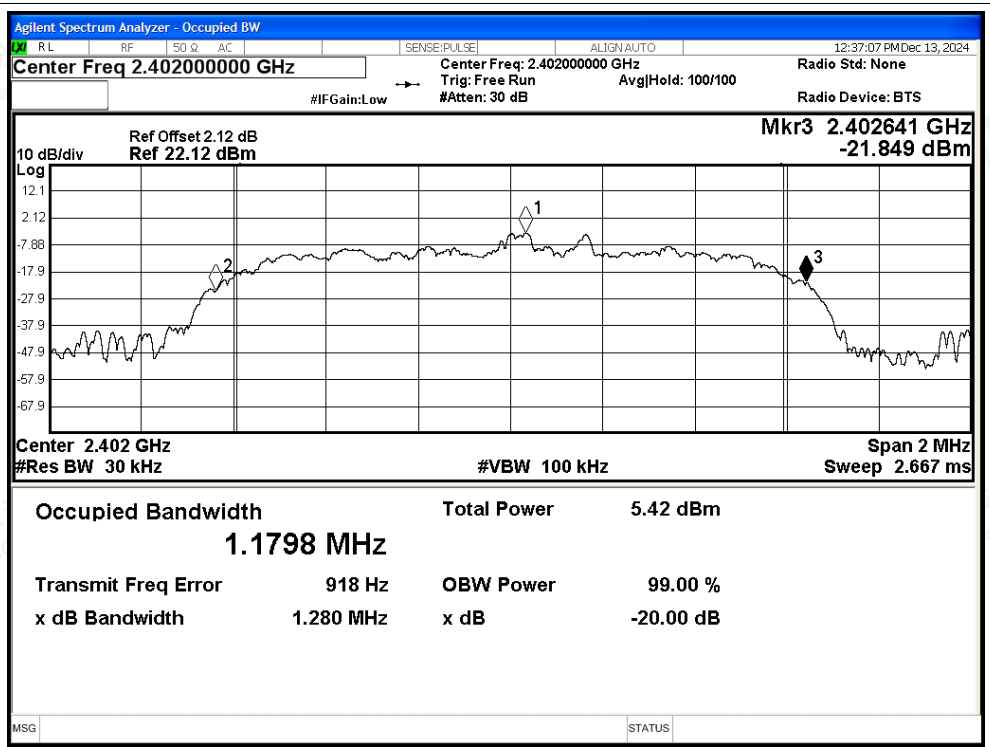


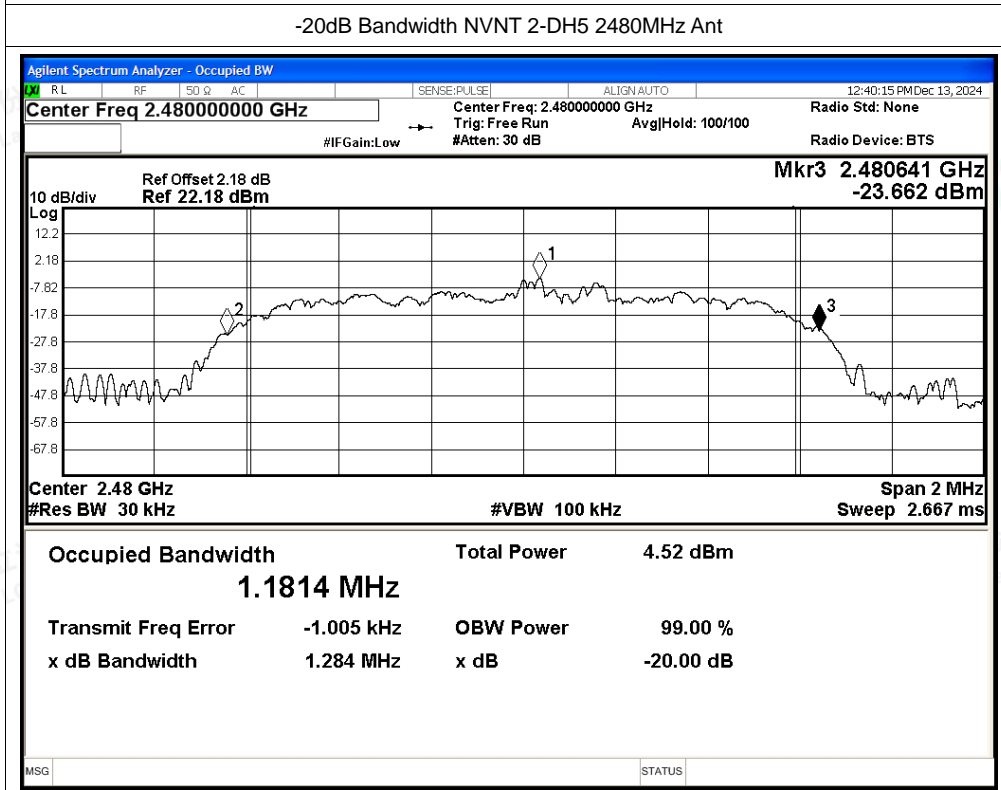
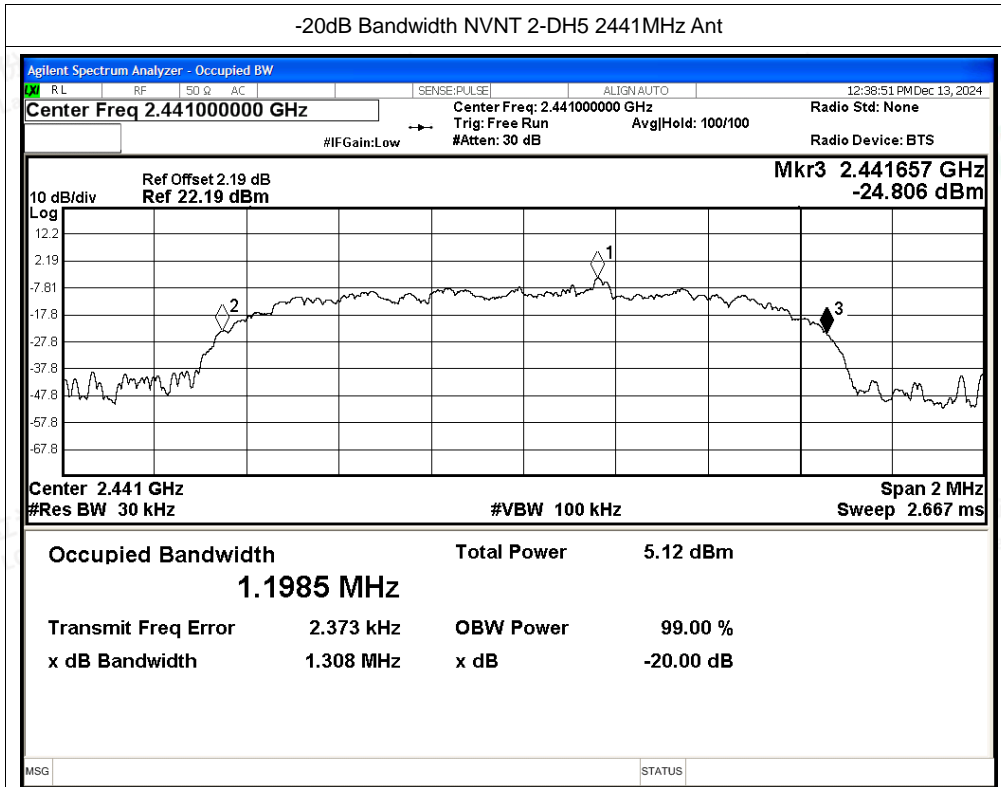


-20dB Bandwidth NVNT 1-DH5 2480MHz Ant



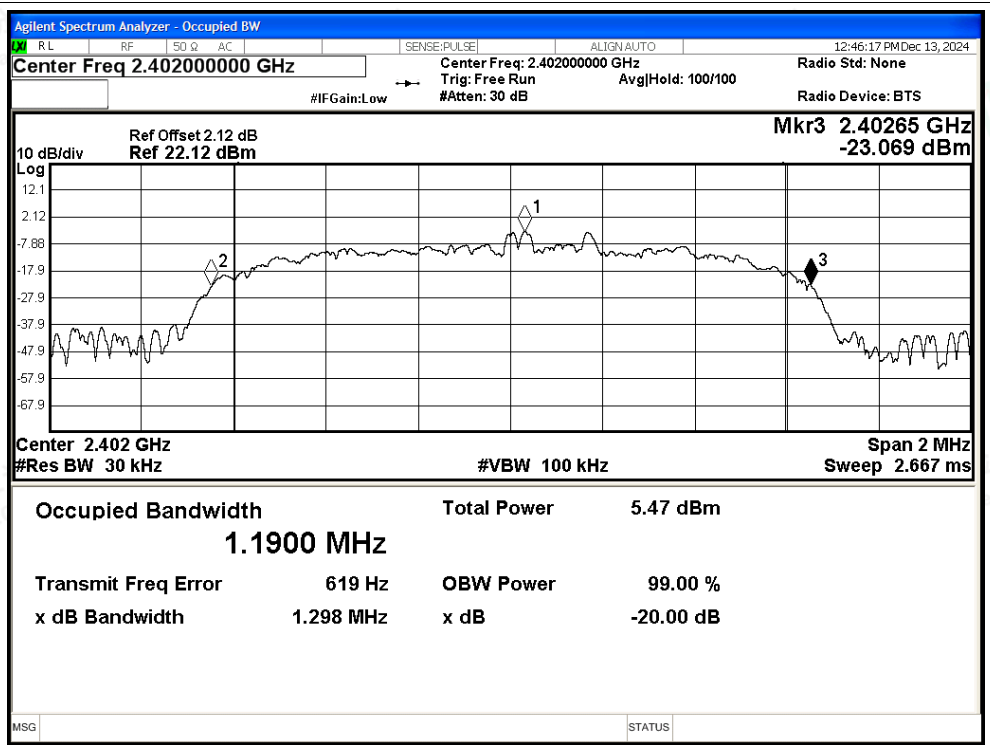
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant



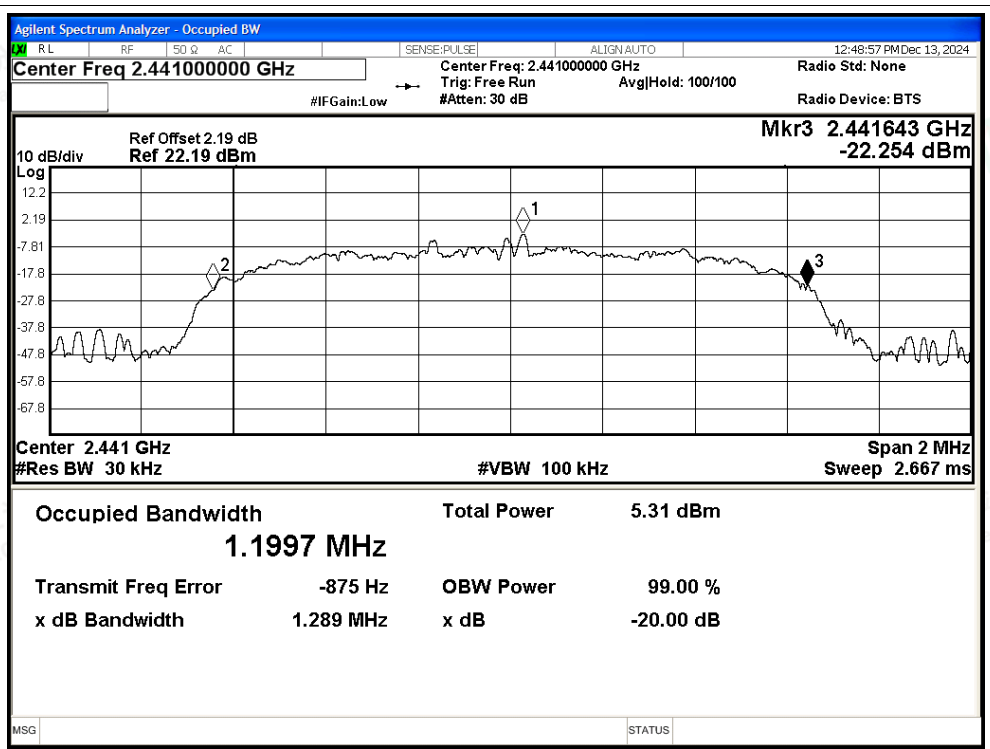


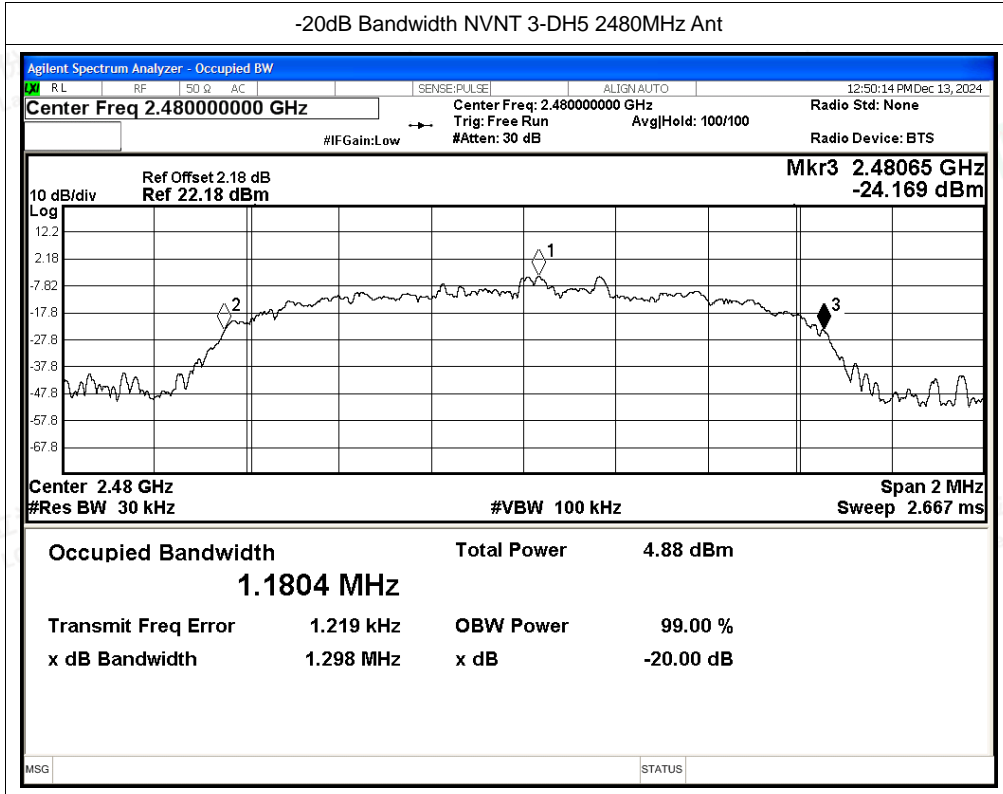


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant







A.2 Maximum Peak Conducted Output Power

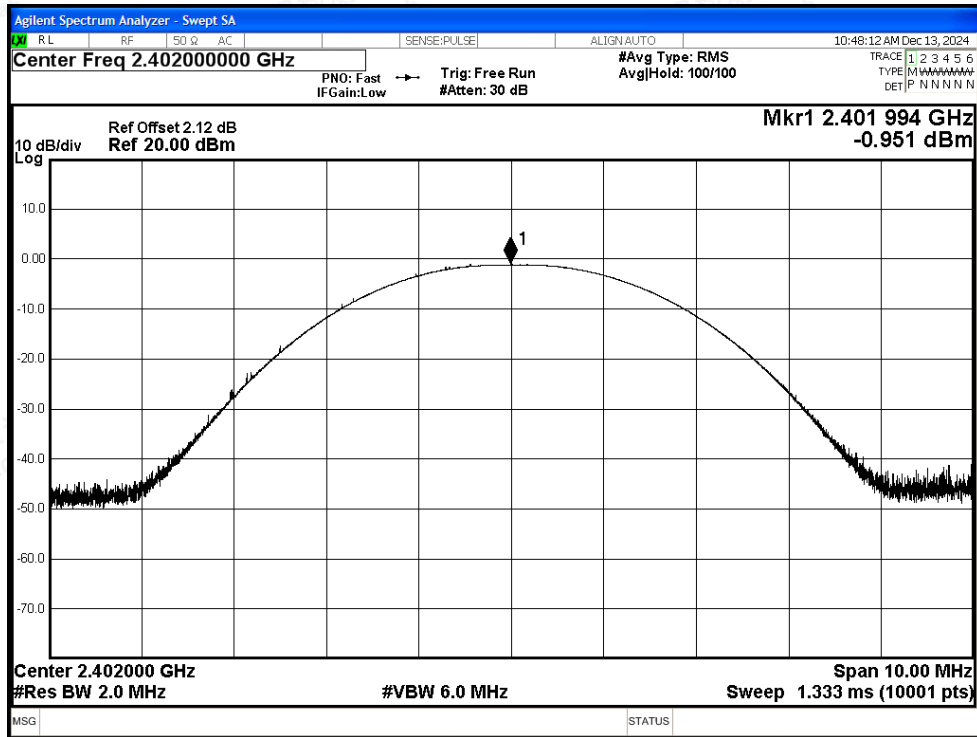
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant	-0.95	21	Pass
NVNT	1-DH5	2441	Ant	-0.91	21	Pass
NVNT	1-DH5	2480	Ant	-1.68	21	Pass
NVNT	2-DH5	2402	Ant	0.8	21	Pass
NVNT	2-DH5	2441	Ant	1.06	21	Pass
NVNT	2-DH5	2480	Ant	0.05	21	Pass
NVNT	3-DH5	2402	Ant	1.21	21	Pass
NVNT	3-DH5	2441	Ant	1.43	21	Pass
NVNT	3-DH5	2480	Ant	0.32	21	Pass



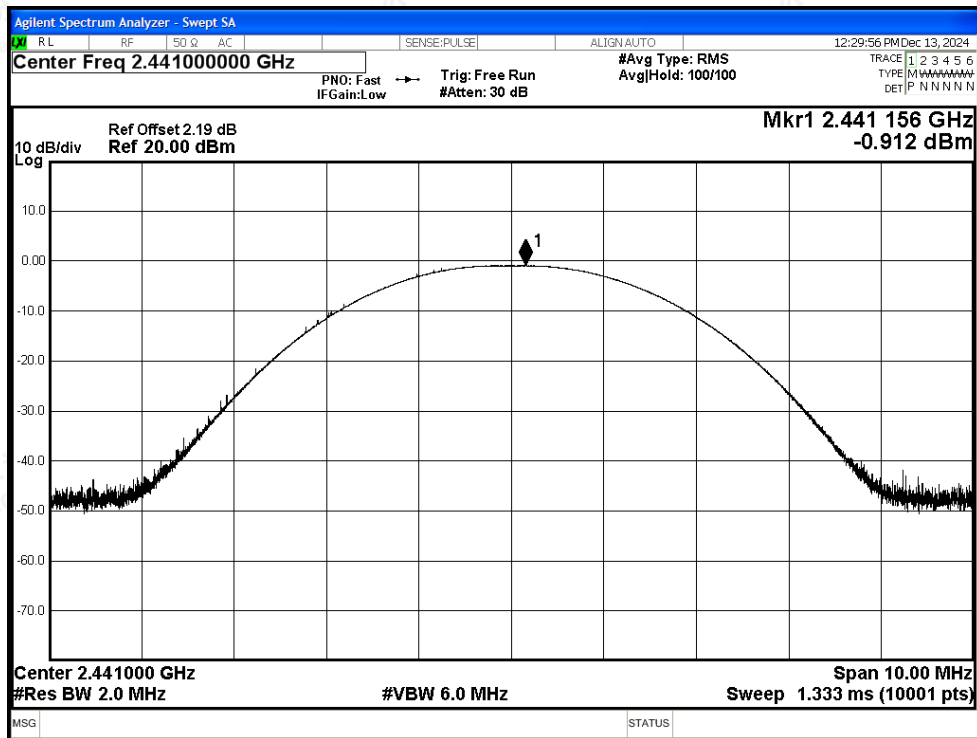


Test Graphs

Power NVNT 1-DH5 2402MHz Ant

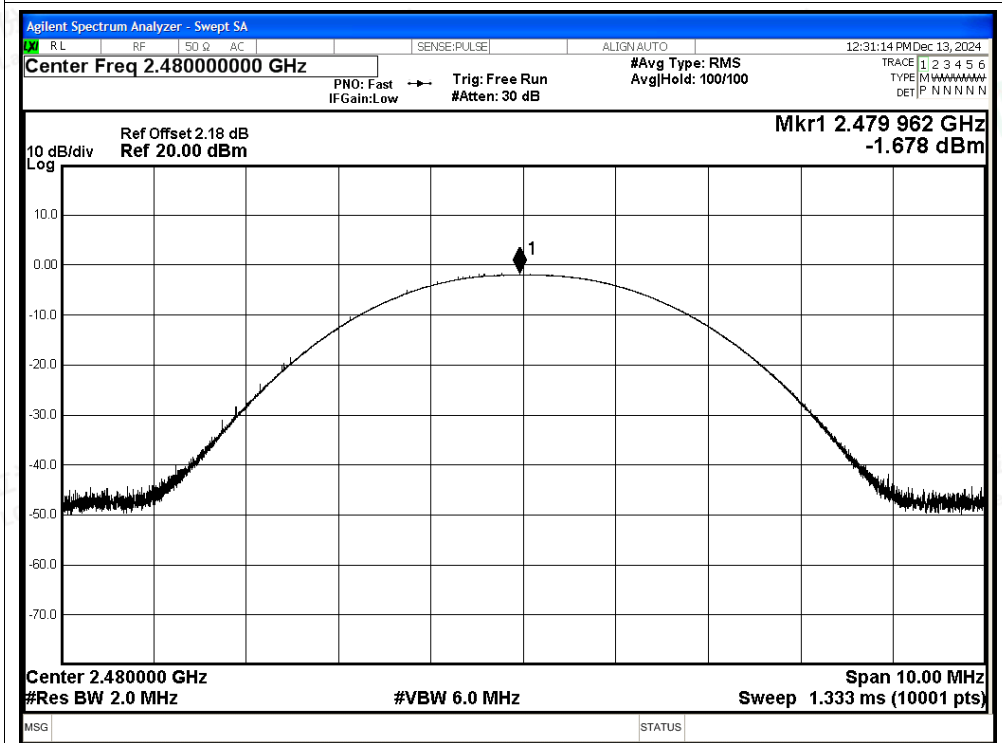


Power NVNT 1-DH5 2441MHz Ant

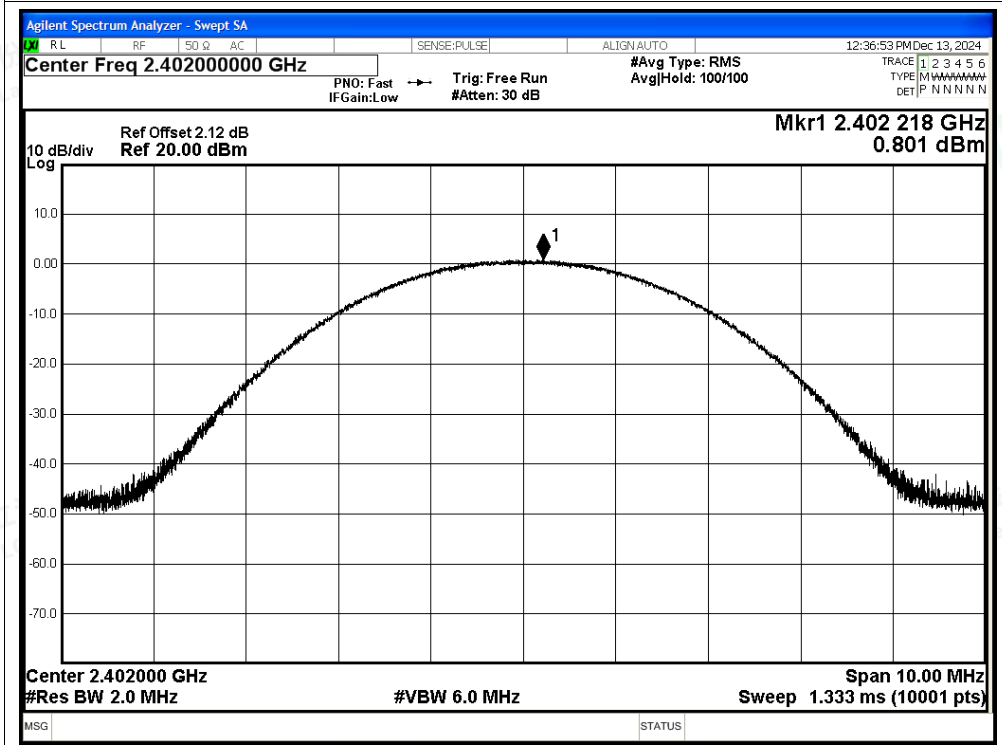




Power NVNT 1-DH5 2480MHz Ant

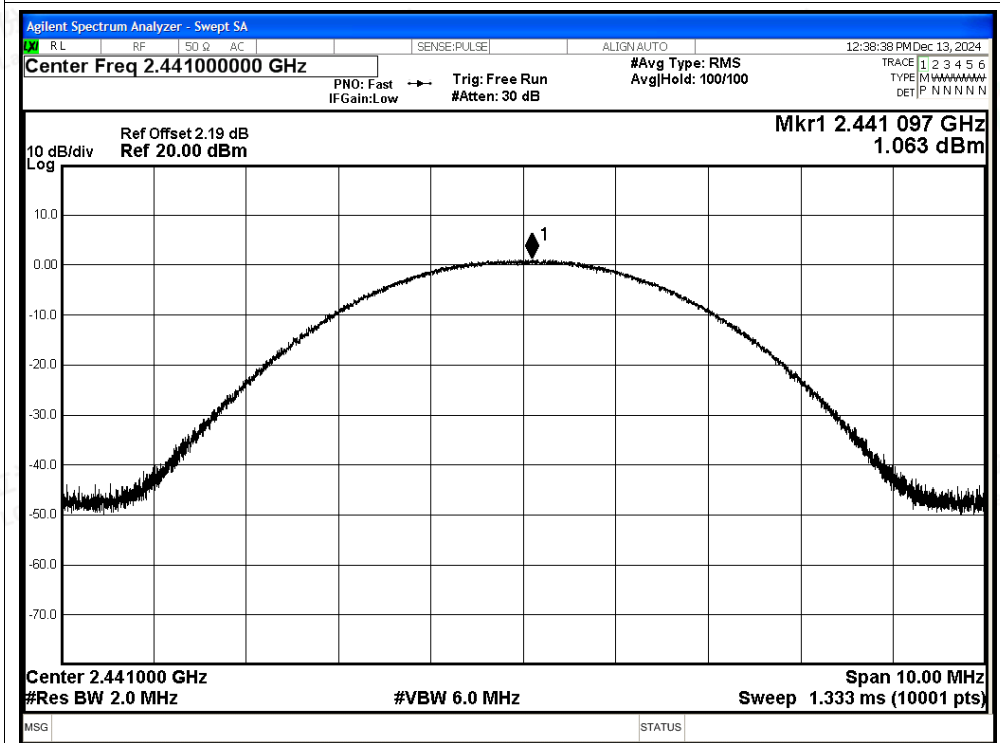


Power NVNT 2-DH5 2402MHz Ant

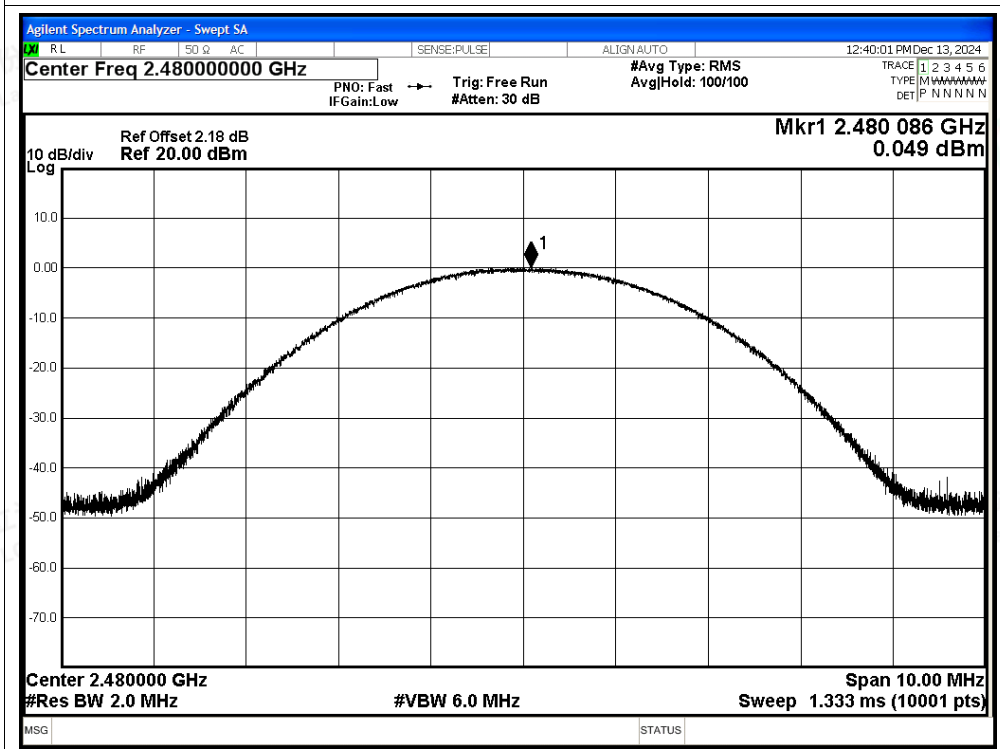


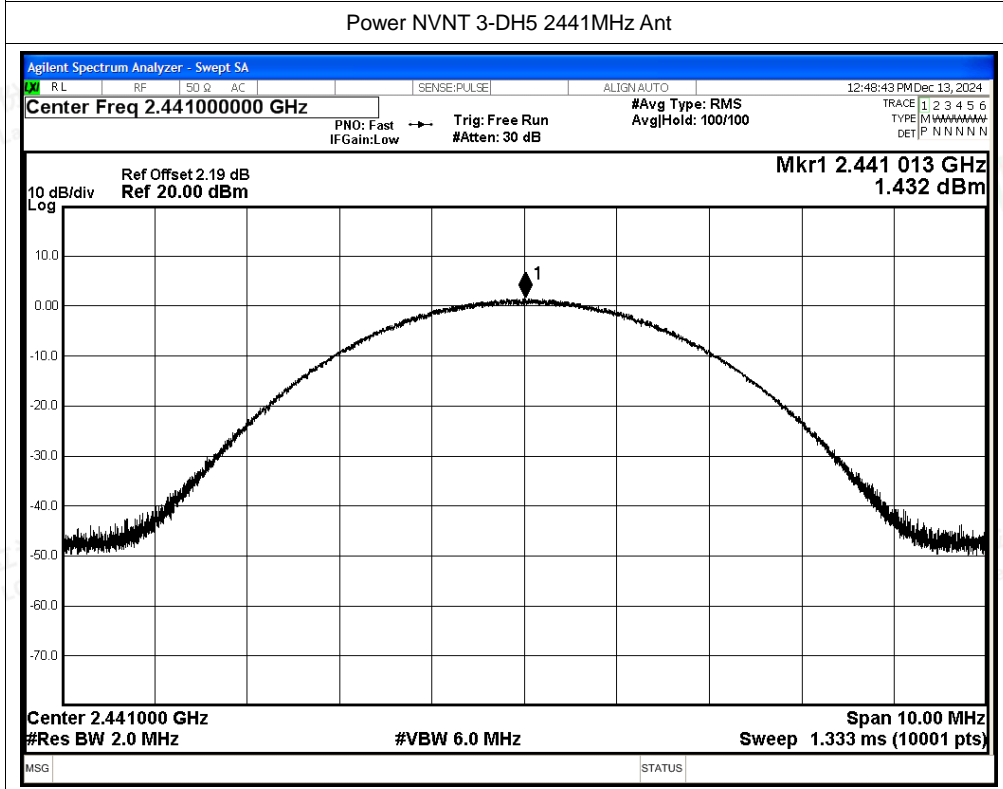
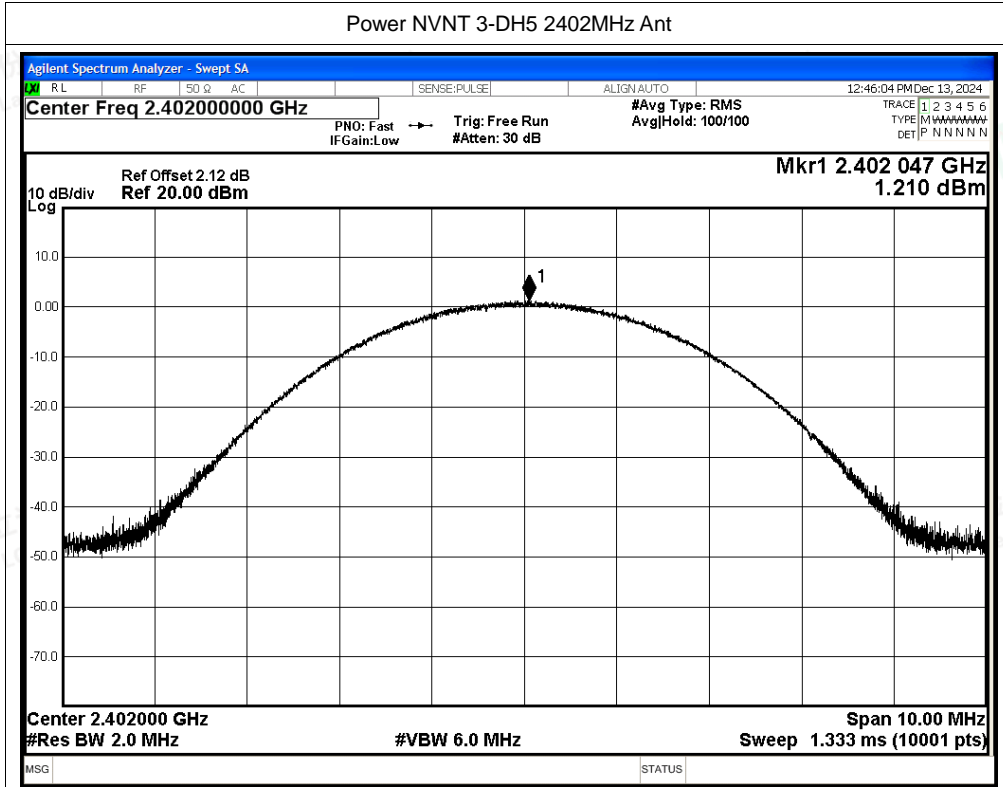


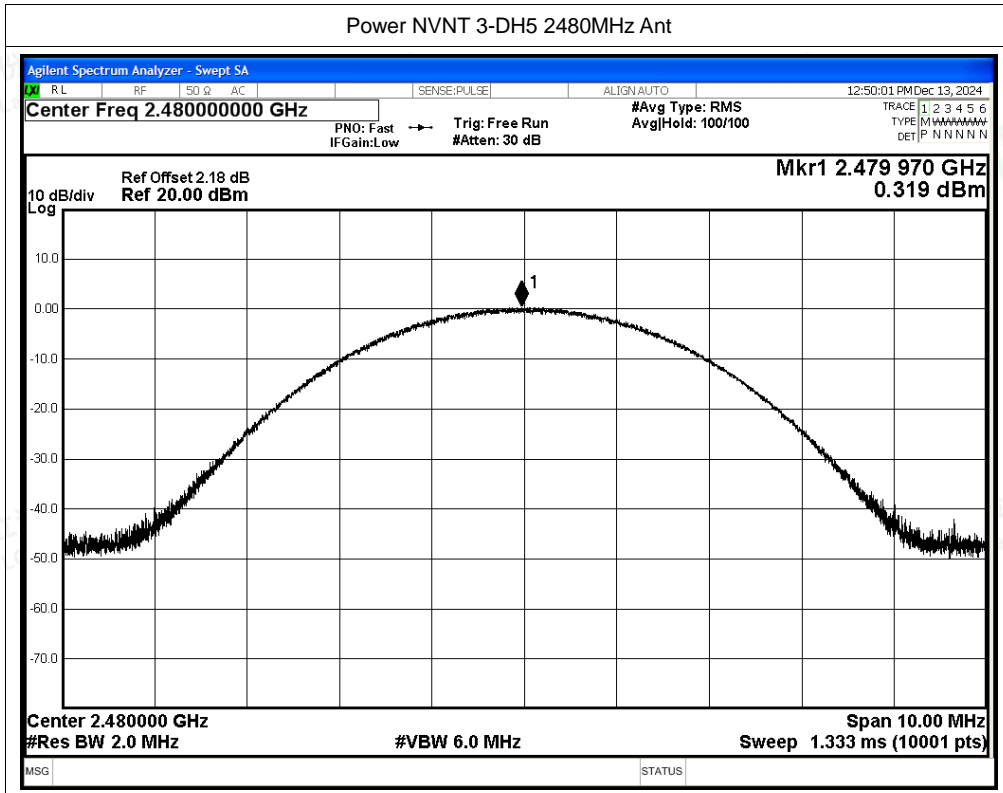
Power NVNT 2-DH5 2441MHz Ant



Power NVNT 2-DH5 2480MHz Ant









A.3 Carrier Frequencies Separation

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant	2402.002	2402.846	0.844	0.651	Pass
NVNT	2-DH5	Ant	2402.036	2403.026	0.99	0.872	Pass
NVNT	3-DH5	Ant	2402.16	2403.032	0.872	0.865	Pass

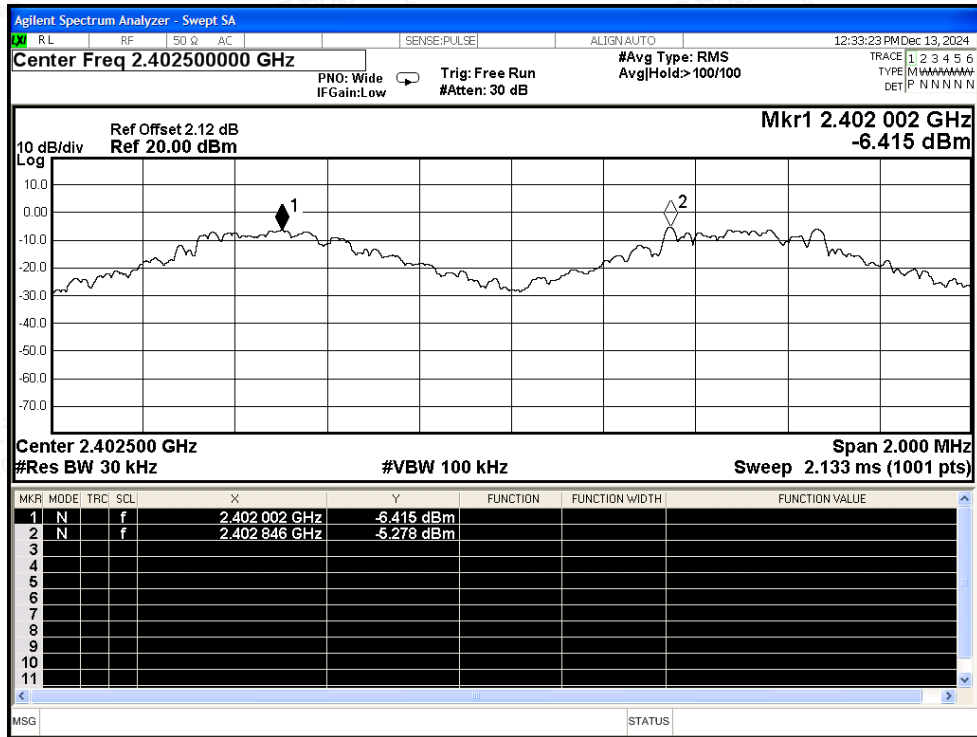


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Scan code to check authenticity

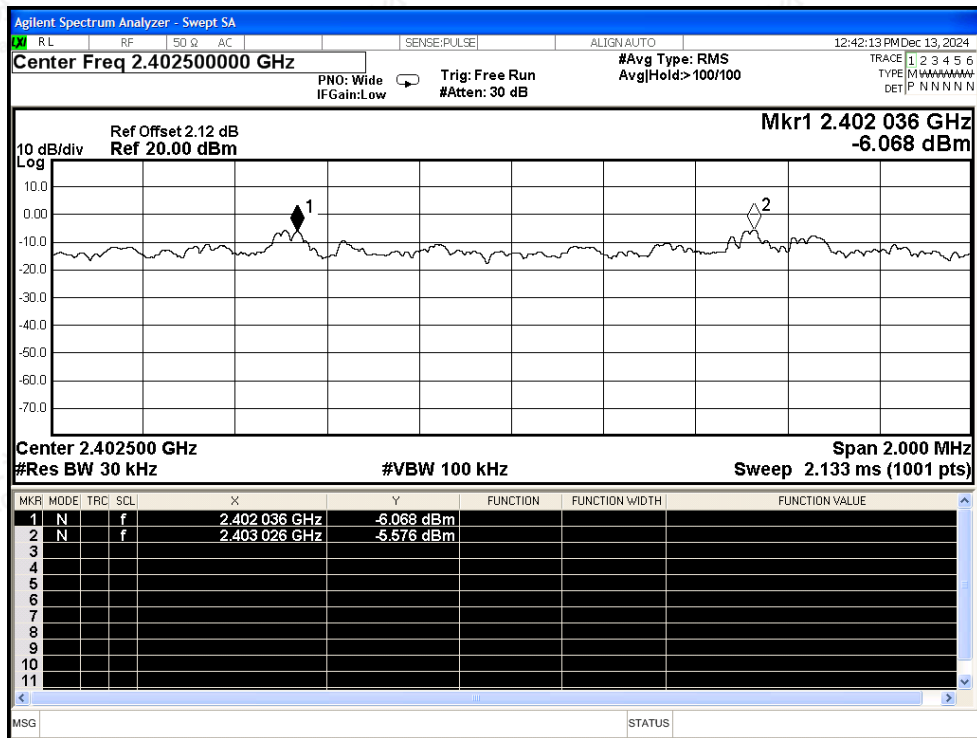


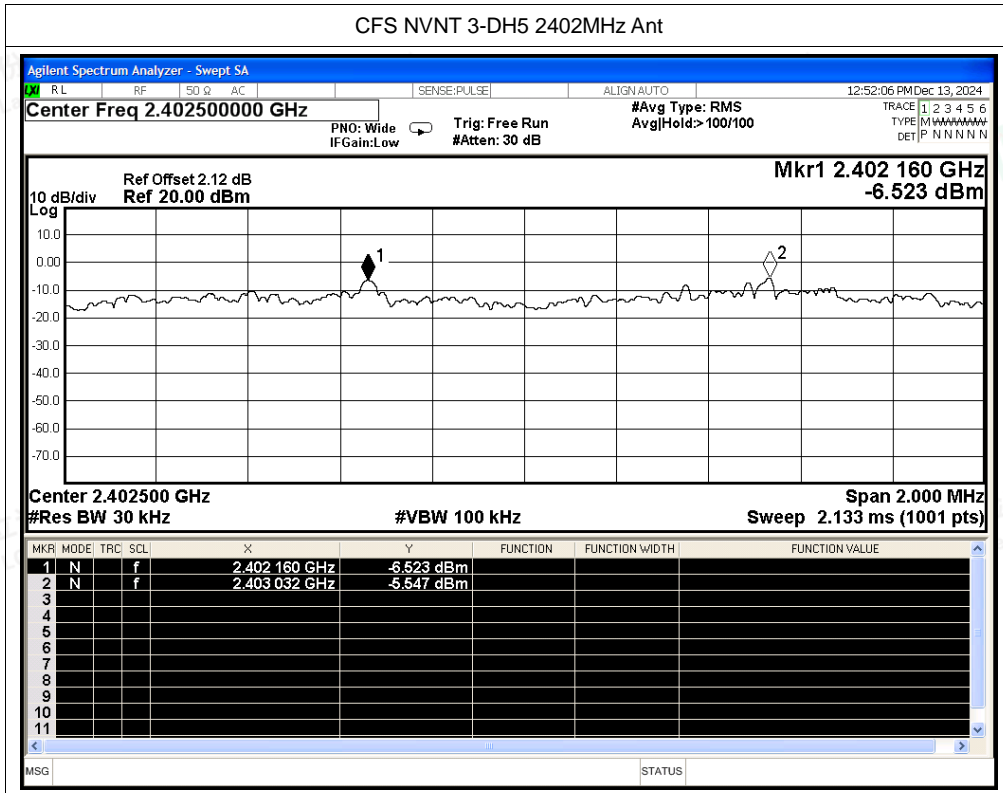
Test Graphs

CFS NVNT 1-DH5 2402MHz Ant



CFS NVNT 2-DH5 2402MHz Ant







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	Ant	2.909	308.354	106	31600	400	Pass
NVNT	2-DH5	2402	Ant	2.898	312.984	108	31600	400	Pass
NVNT	3-DH5	2402	Ant	2.897	298.391	103	31600	400	Pass

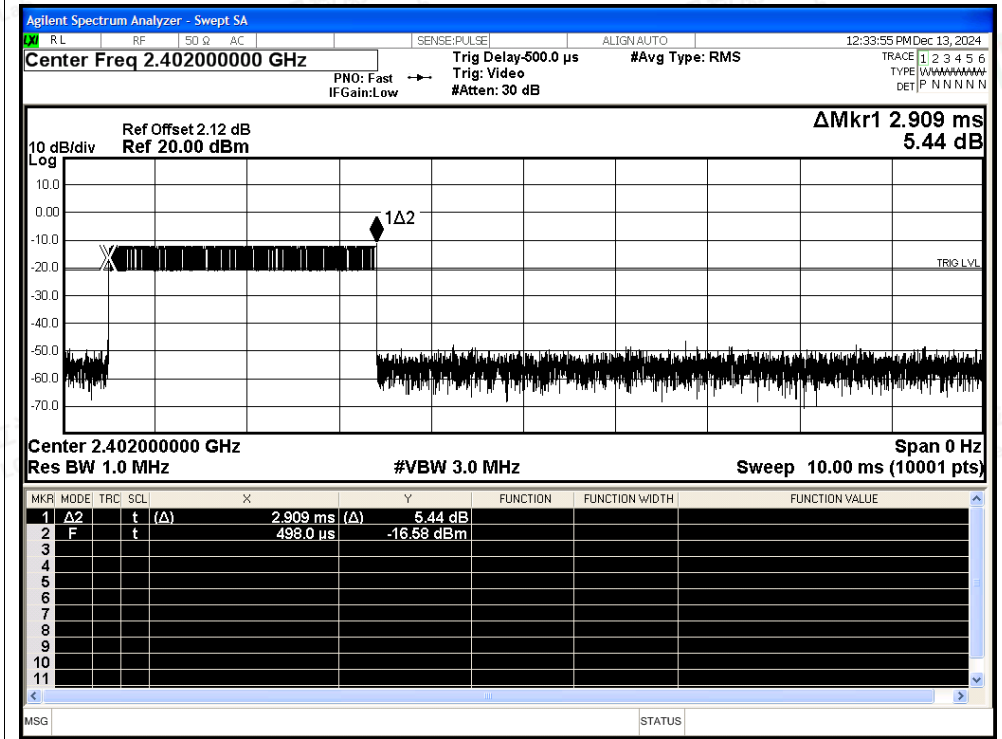


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Scan code to check authenticity

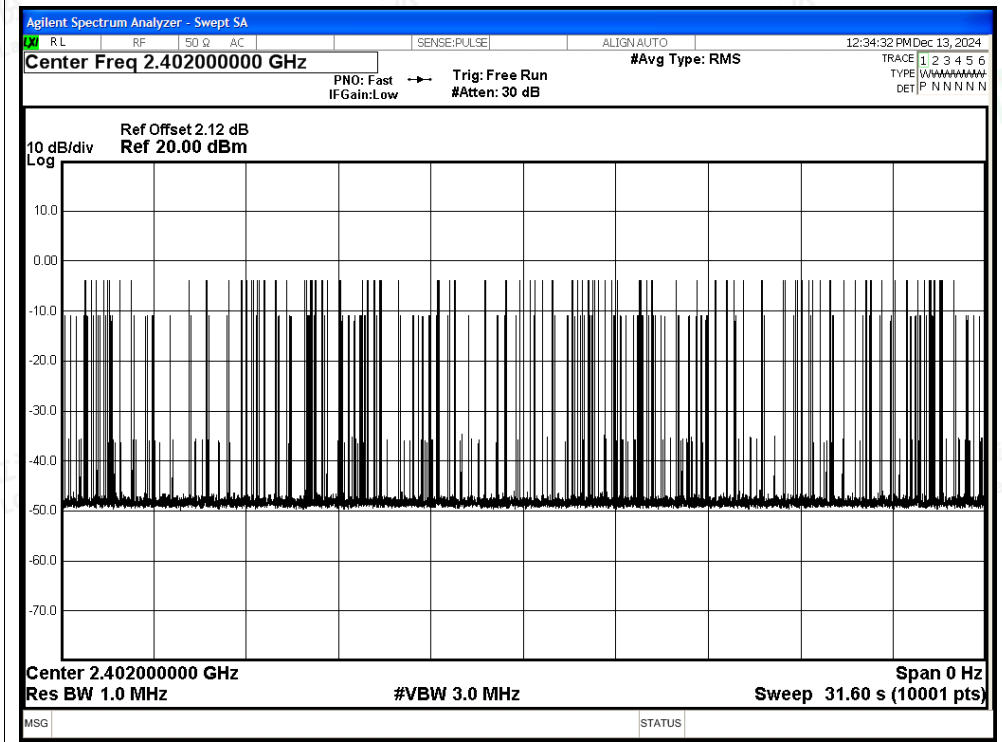


Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant One Burst

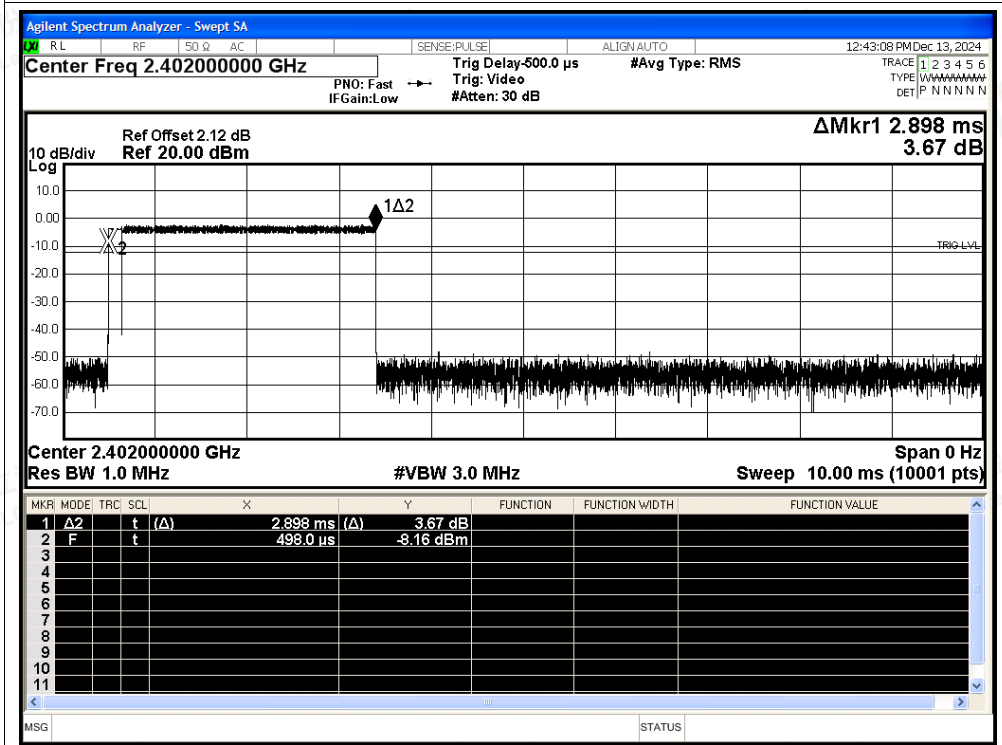


Dwell NVNT 1-DH5 2402MHz Ant Accumulated

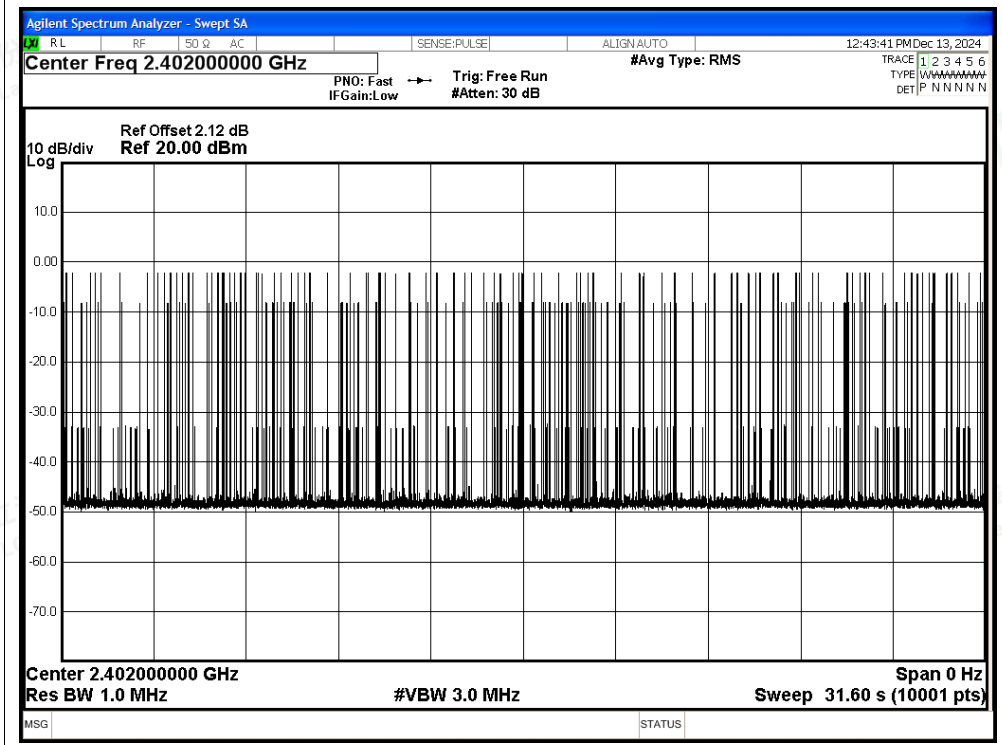




Dwell NVNT 2-DH5 2402MHz Ant One Burst

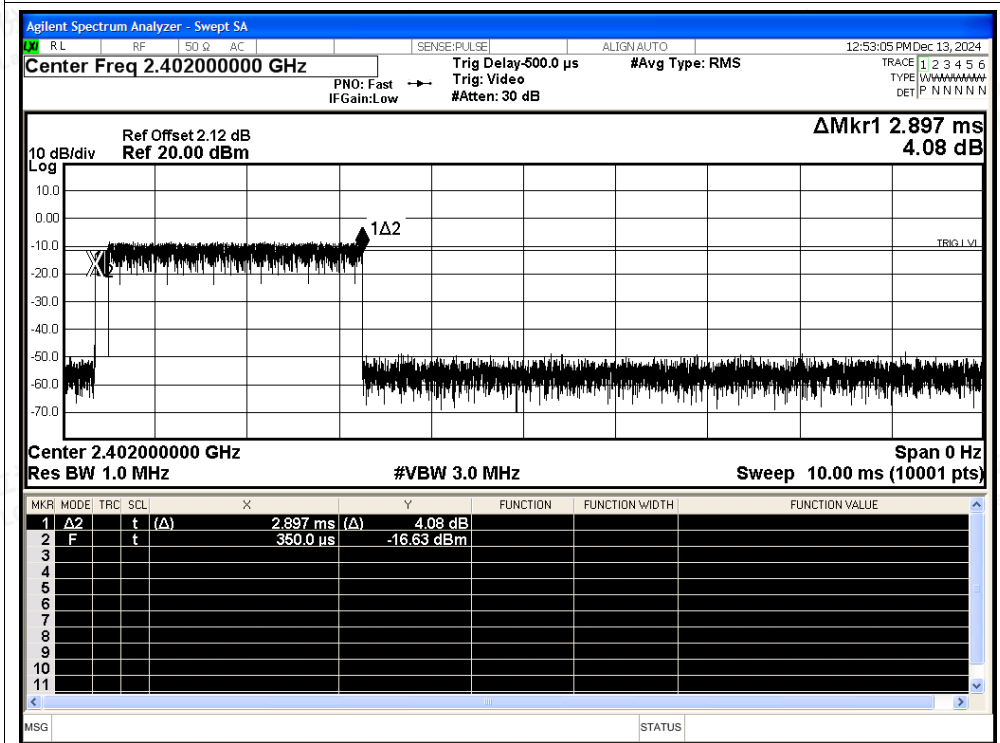


Dwell NVNT 2-DH5 2402MHz Ant Accumulated

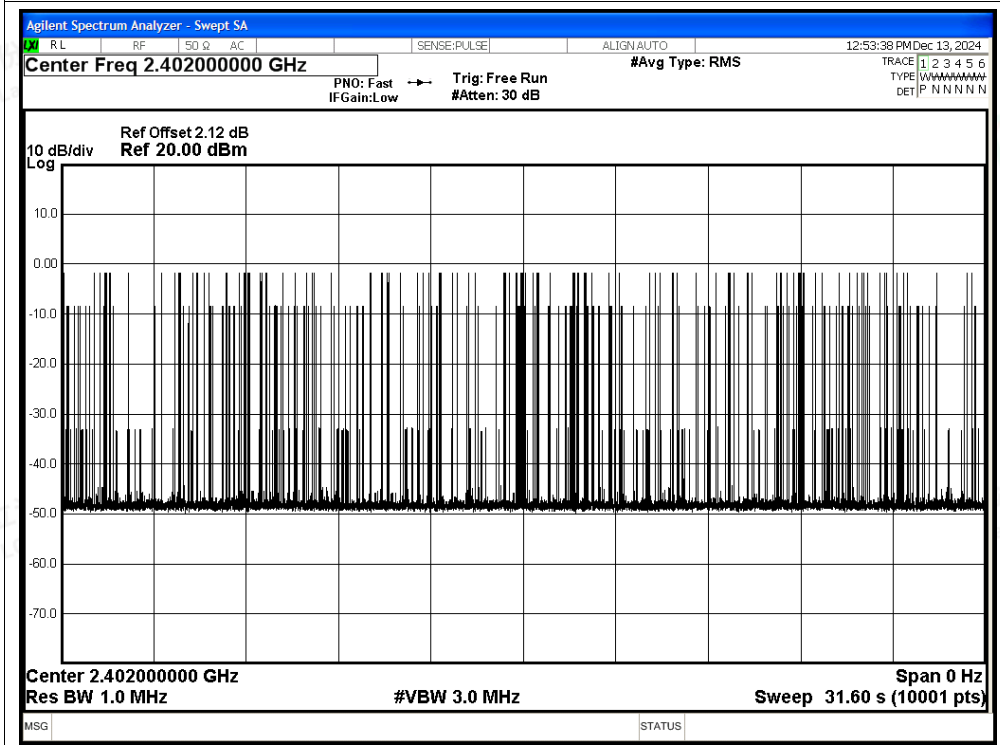




Dwell NVNT 3-DH5 2402MHz Ant One Burst



Dwell NVNT 3-DH5 2402MHz Ant Accumulated





A.5 Number of Hopping Channel

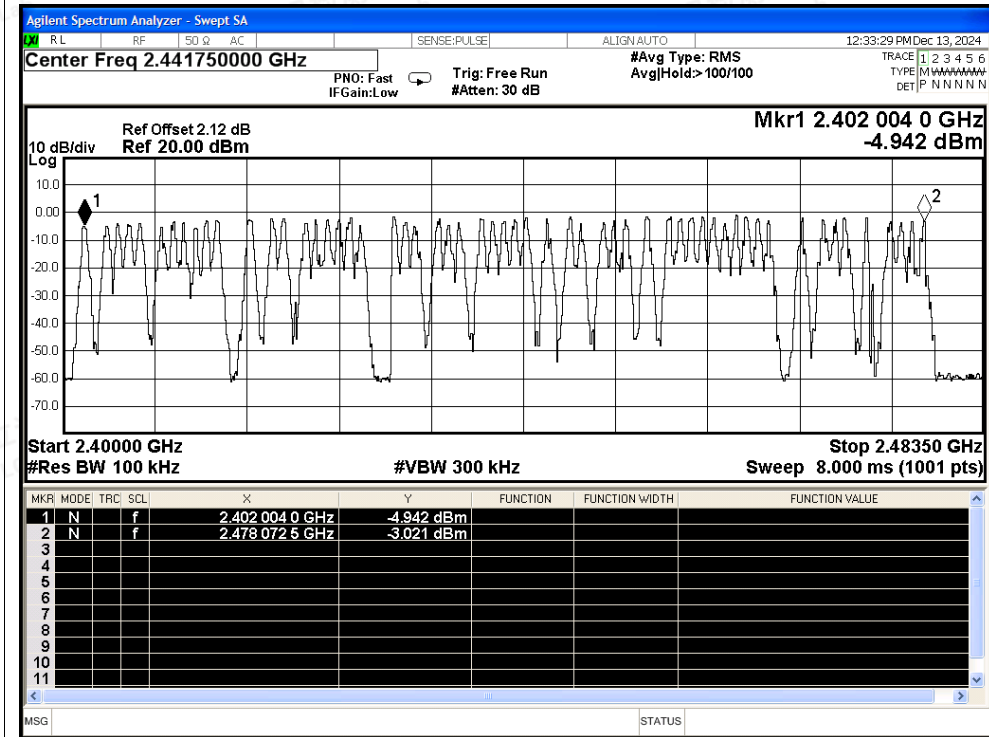
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant	79	15	Pass
NVNT	2-DH5	Ant	79	15	Pass
NVNT	3-DH5	Ant	79	15	Pass



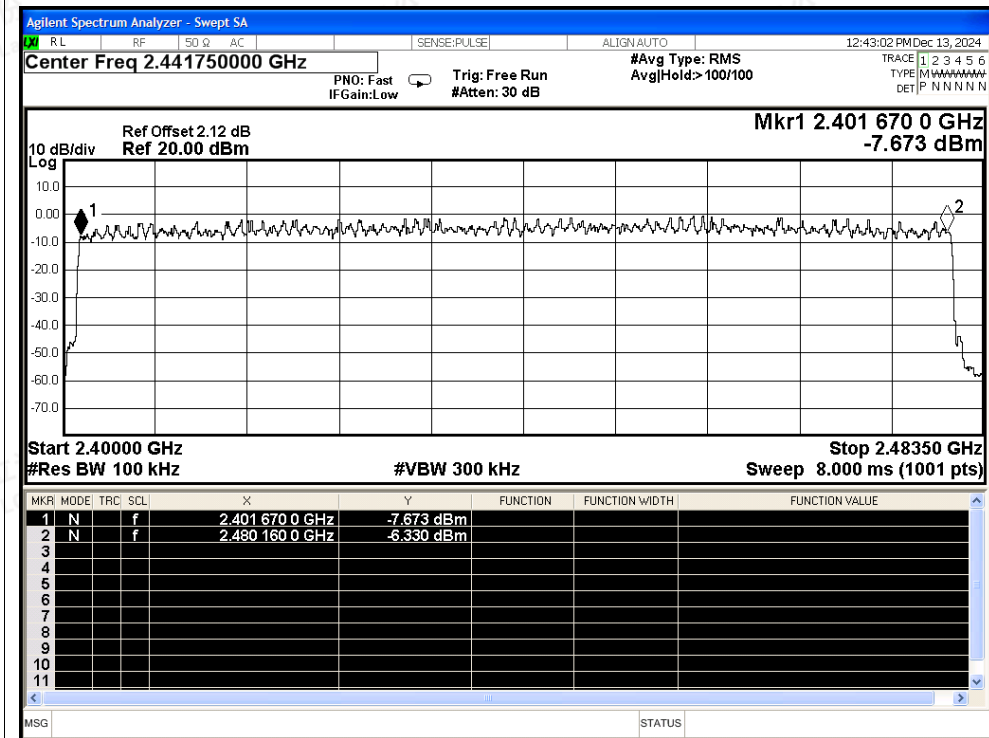


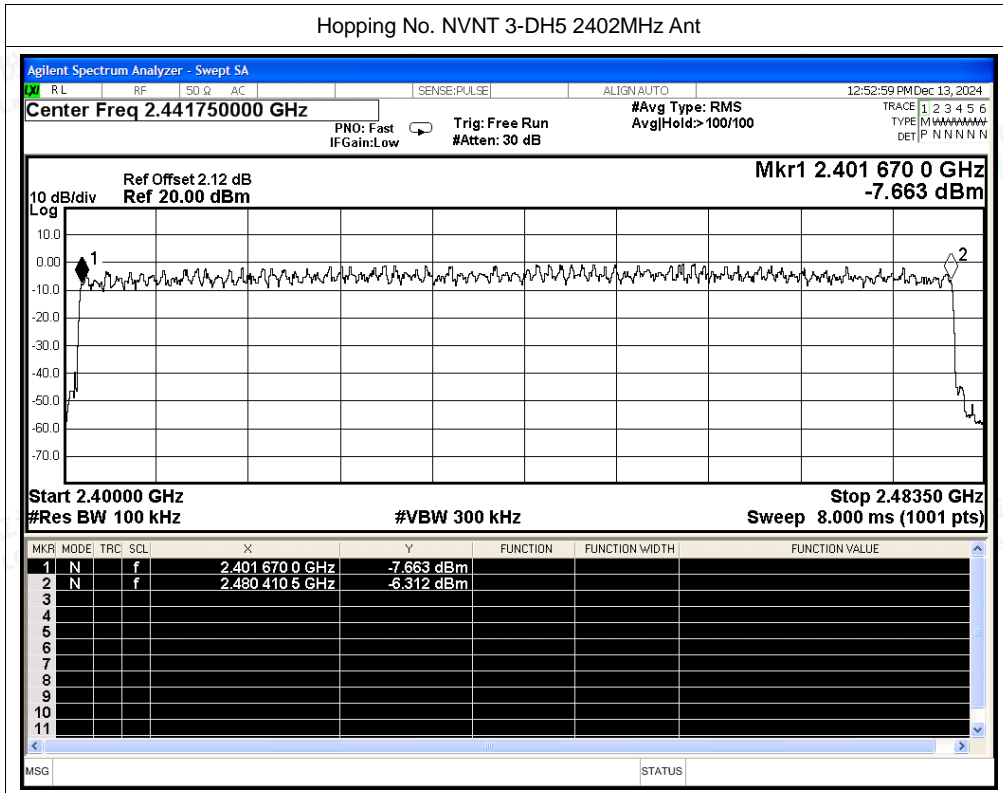
Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant



Hopping No. NVNT 2-DH5 2402MHz Ant







A.6 Band Edge

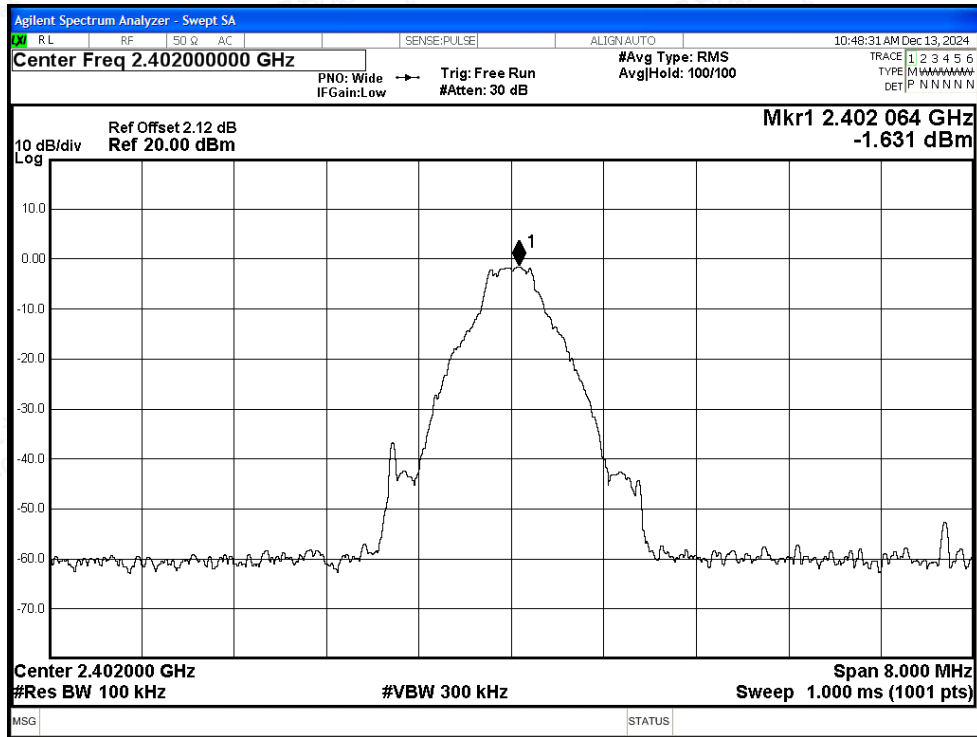
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant	No-Hopping	-55.49	-20	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	-55.06	-20	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	-52.57	-20	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	-52.01	-20	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	-49.61	-20	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	-53.78	-20	Pass



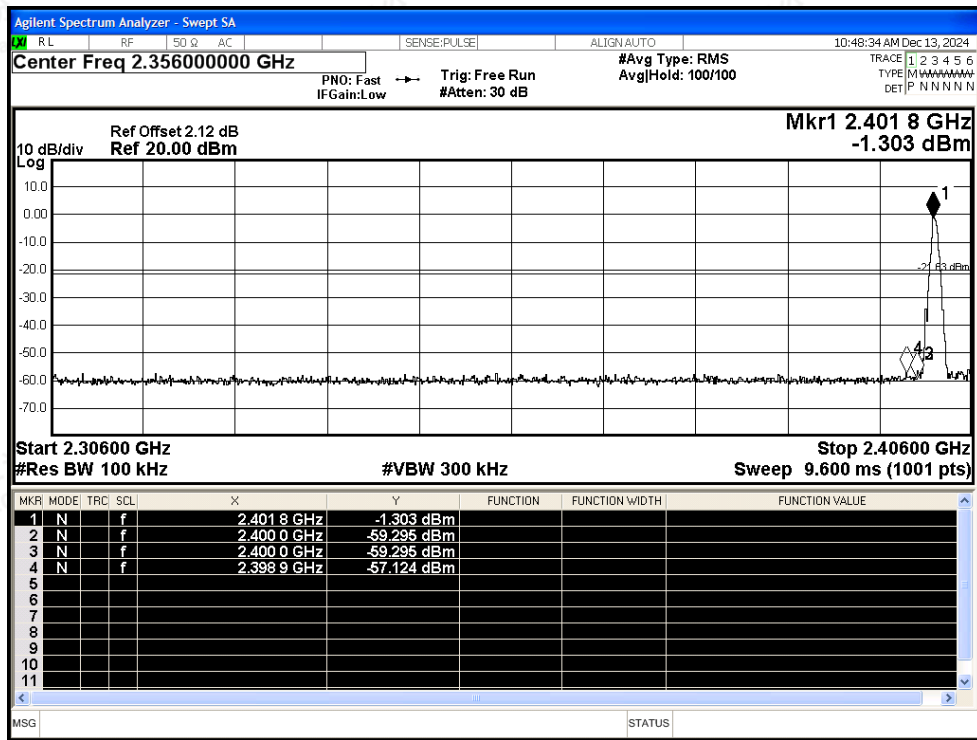


Test Graphs

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

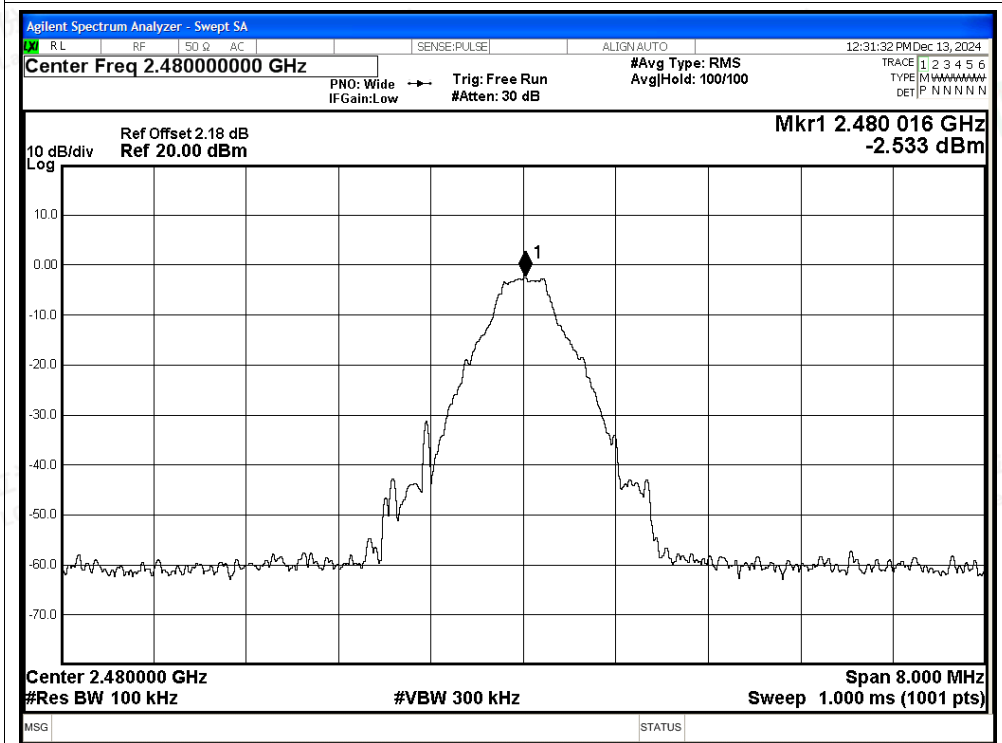


Band Edge NVNT 1-DH5 2402MHz Ant No-Hopping Emission

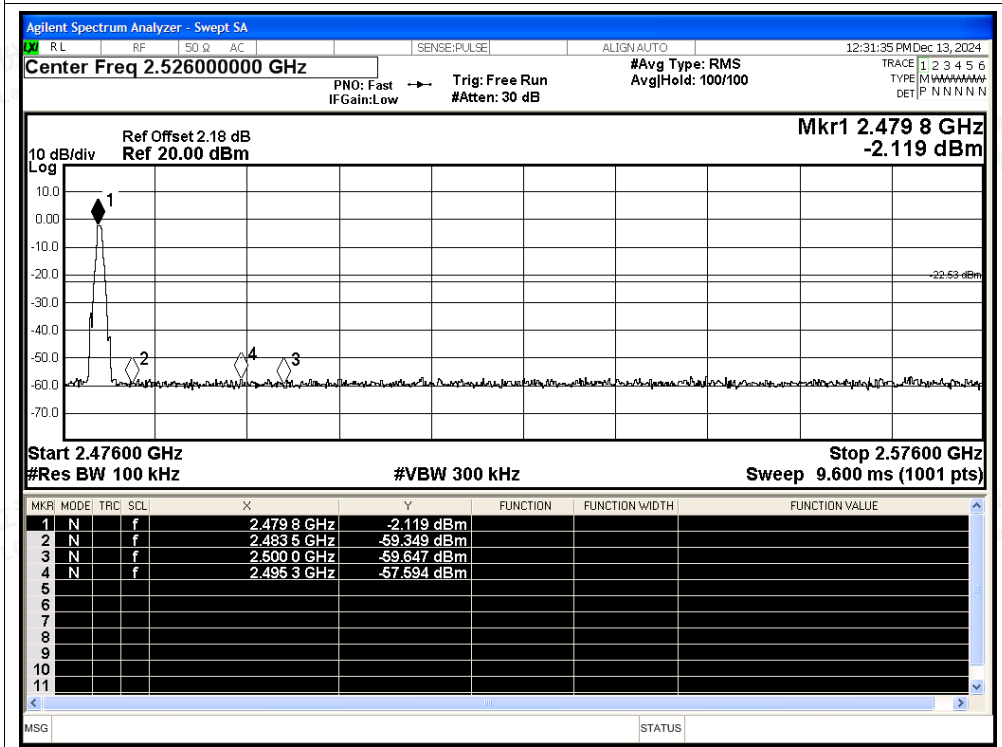




Band Edge NVNT 1-DH5 2480MHz Ant No-Hopping Ref

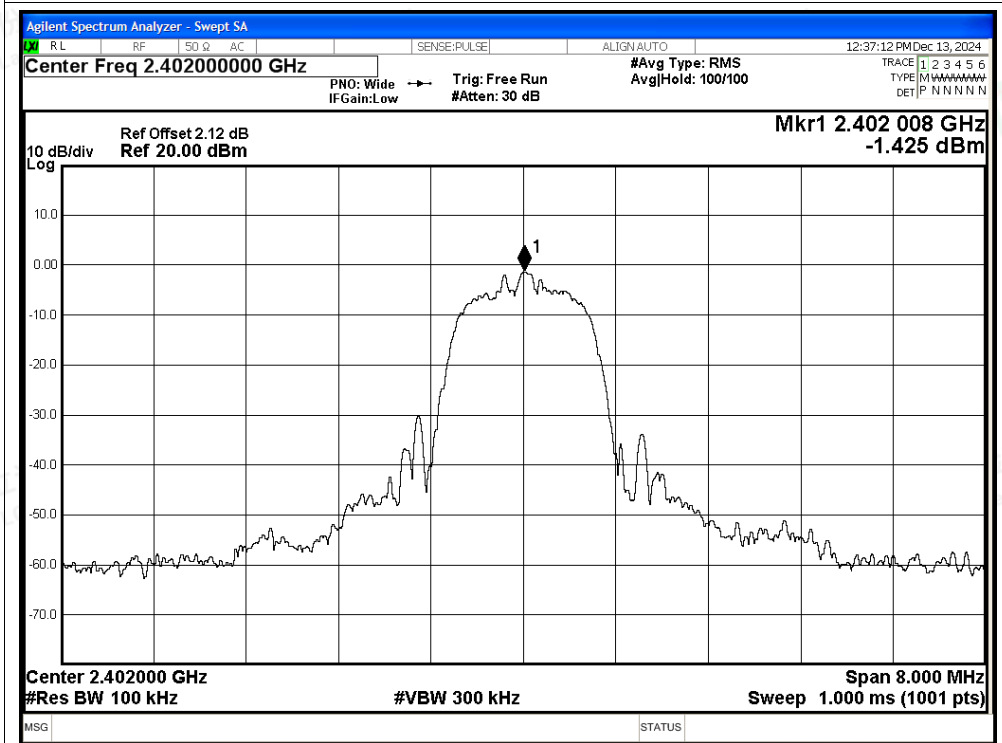


Band Edge NVNT 1-DH5 2480MHz Ant No-Hopping Emission

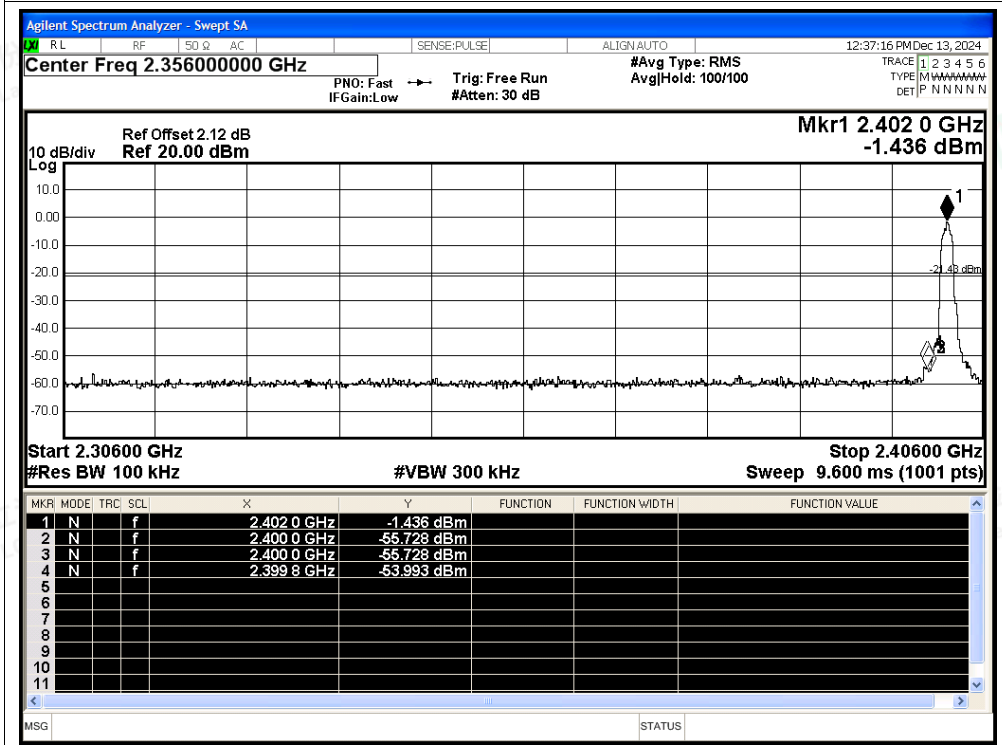




Band Edge NVNT 2-DH5 2402MHz Ant No-Hopping Ref

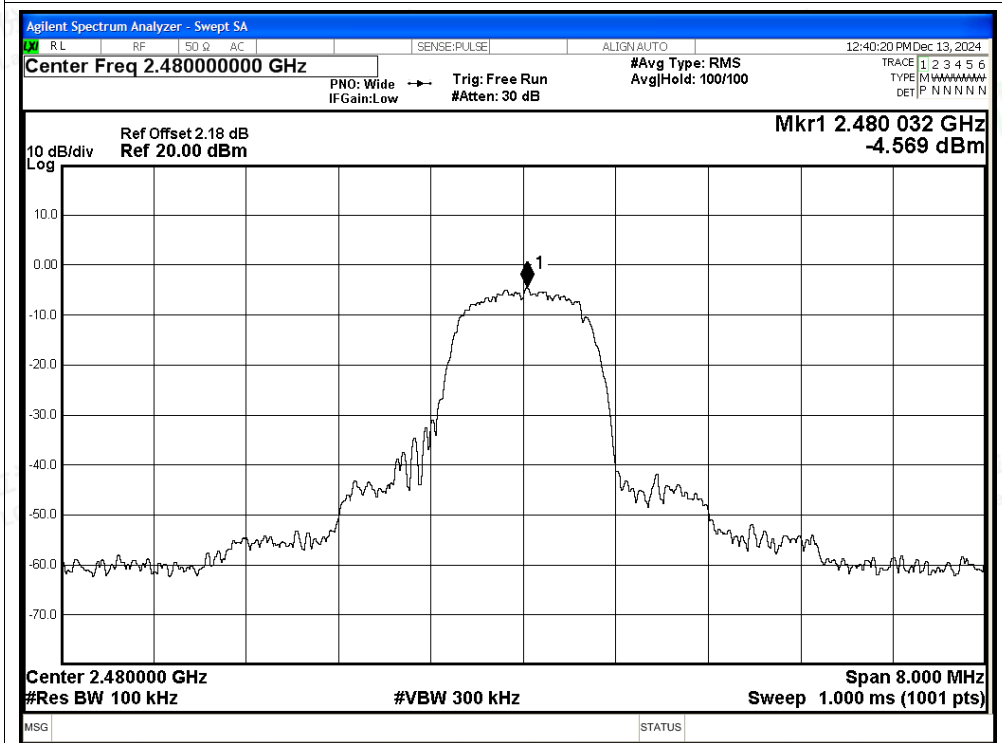


Band Edge NVNT 2-DH5 2402MHz Ant No-Hopping Emission

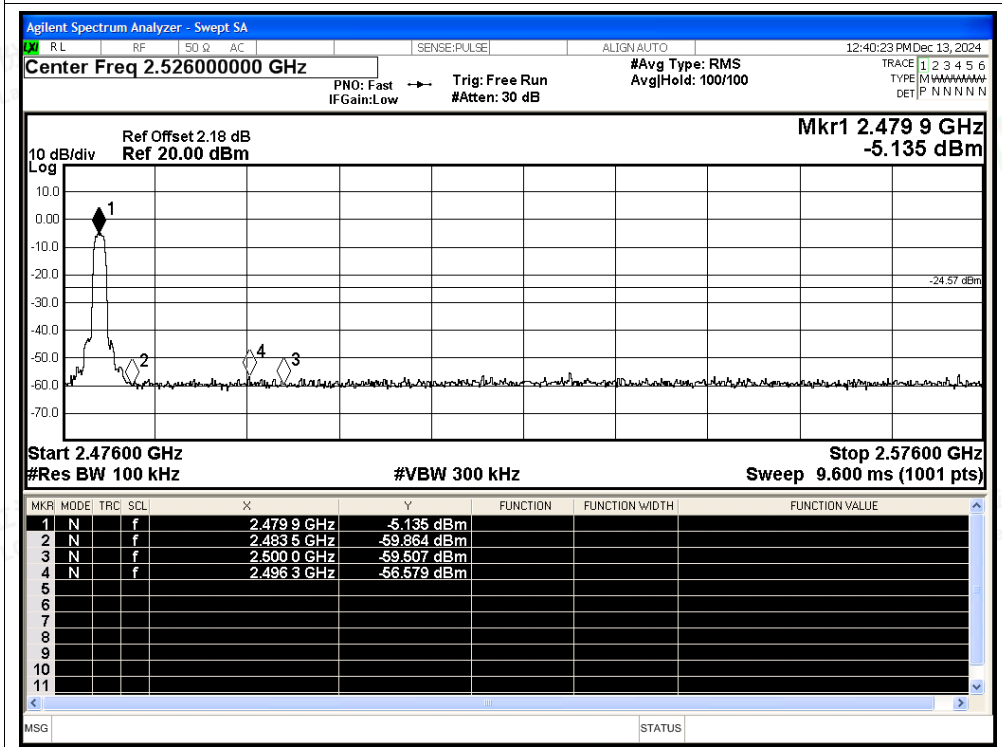




Band Edge NVNT 2-DH5 2480MHz Ant No-Hopping Ref

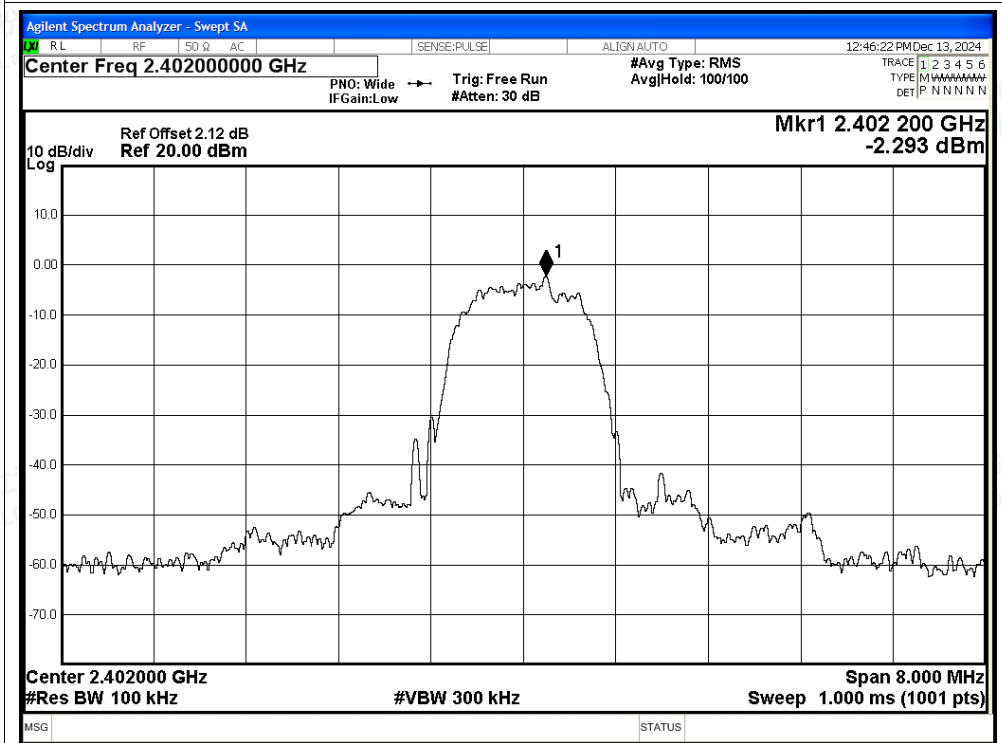


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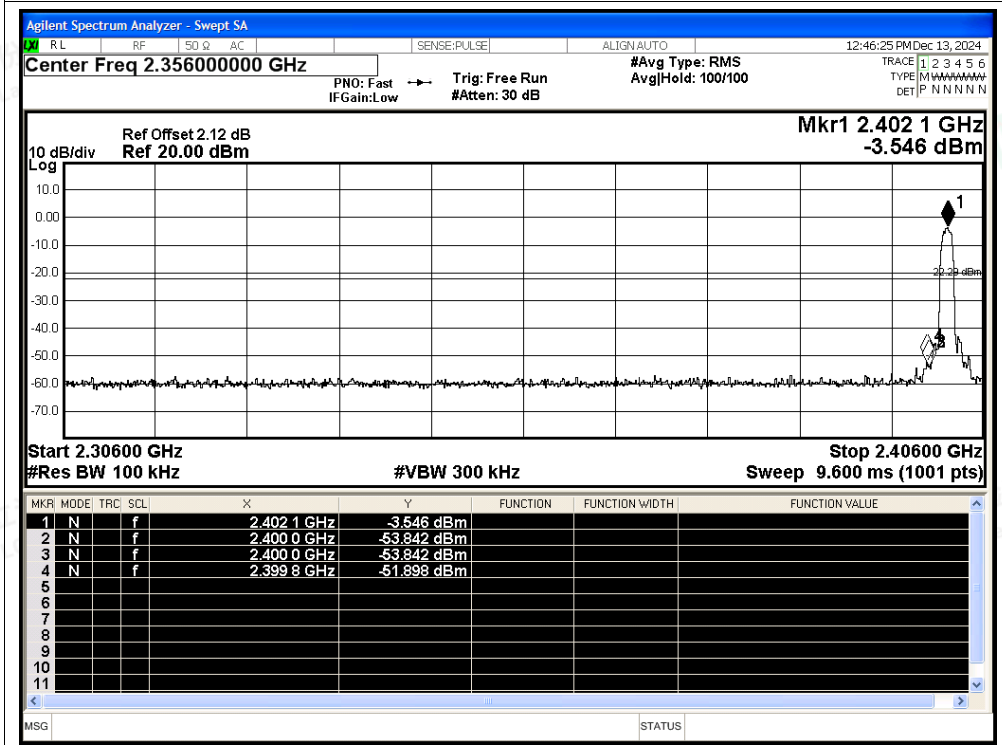




Band Edge NVNT 3-DH5 2402MHz Ant No-Hopping Ref

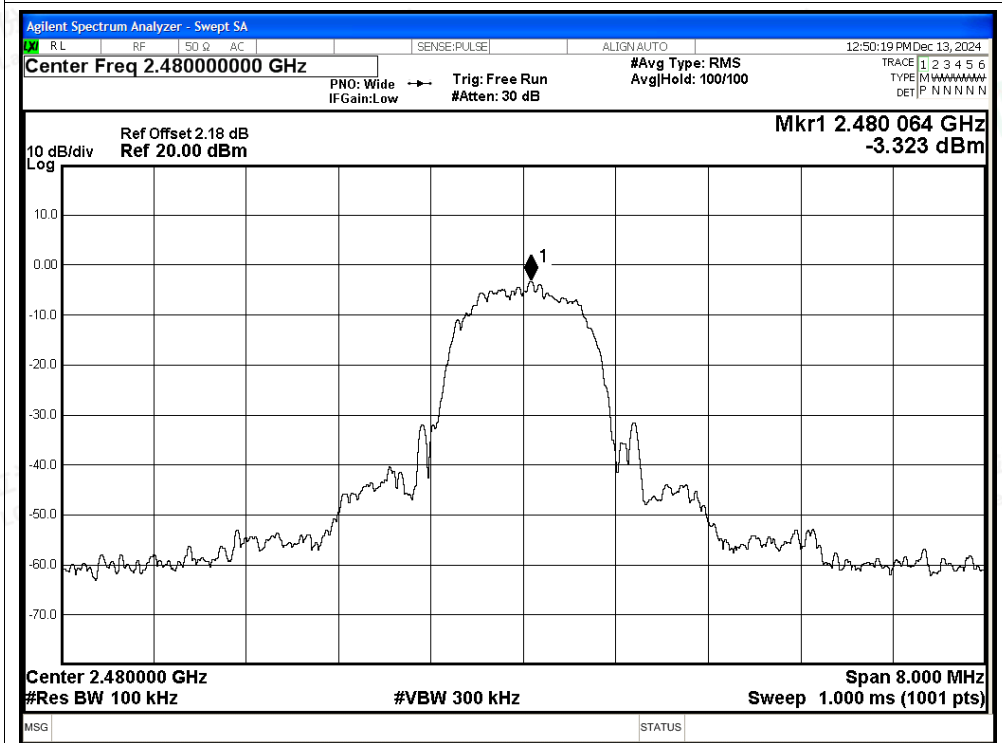


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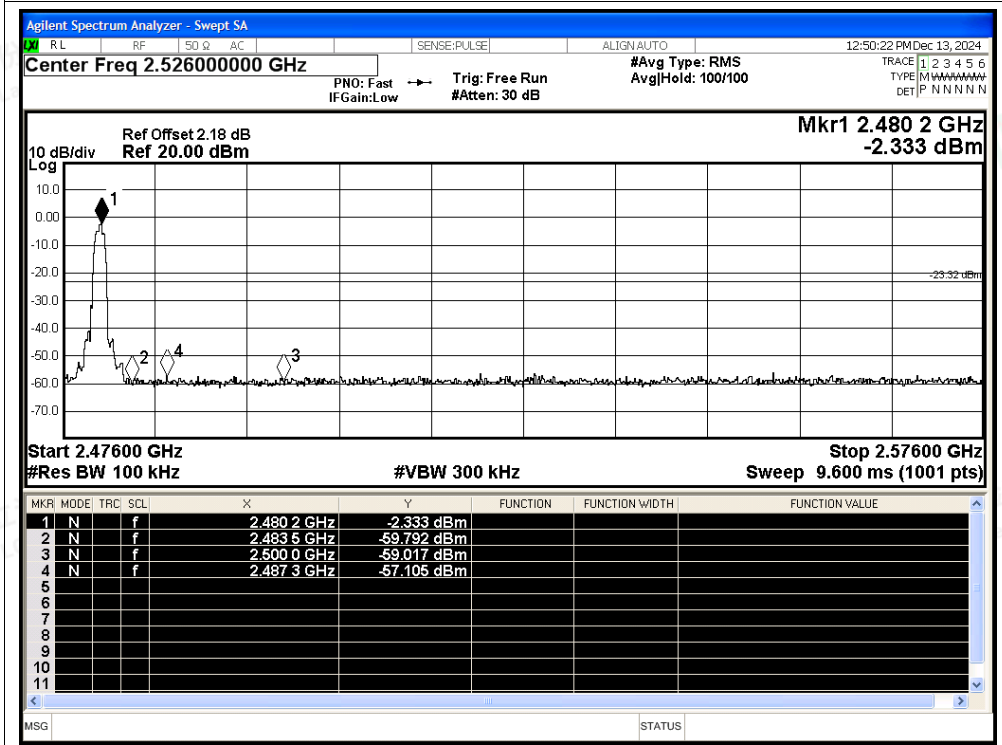




Band Edge NVNT 3-DH5 2480MHz Ant No-Hopping Ref



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





(Hopping)

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant	Hopping	-51.92	-20	Pass
NVNT	1-DH5	2480	Ant	Hopping	-53.07	-20	Pass
NVNT	2-DH5	2402	Ant	Hopping	-52.55	-20	Pass
NVNT	2-DH5	2480	Ant	Hopping	-53.18	-20	Pass
NVNT	3-DH5	2402	Ant	Hopping	-51.64	-20	Pass
NVNT	3-DH5	2480	Ant	Hopping	-53.91	-20	Pass

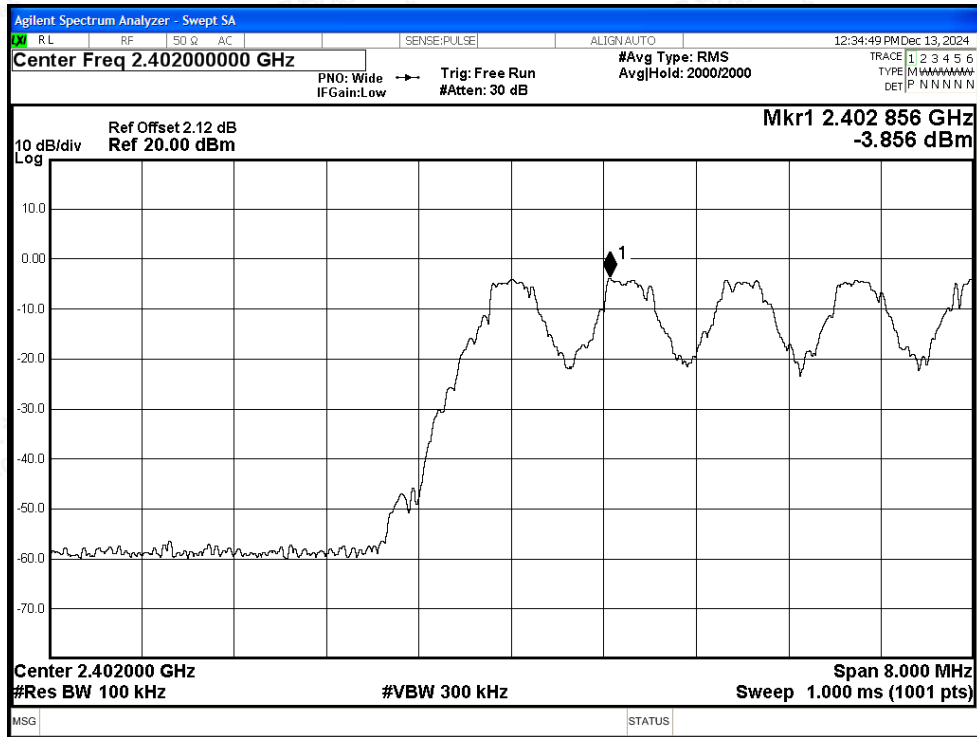


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Scan code to check authenticity

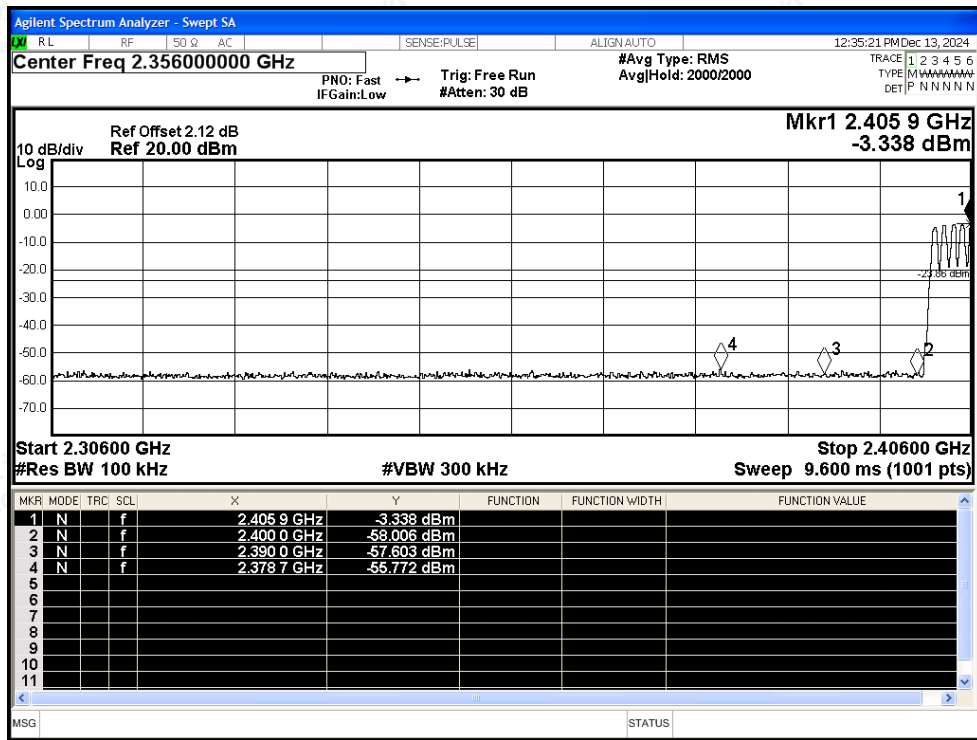


Test Graphs

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

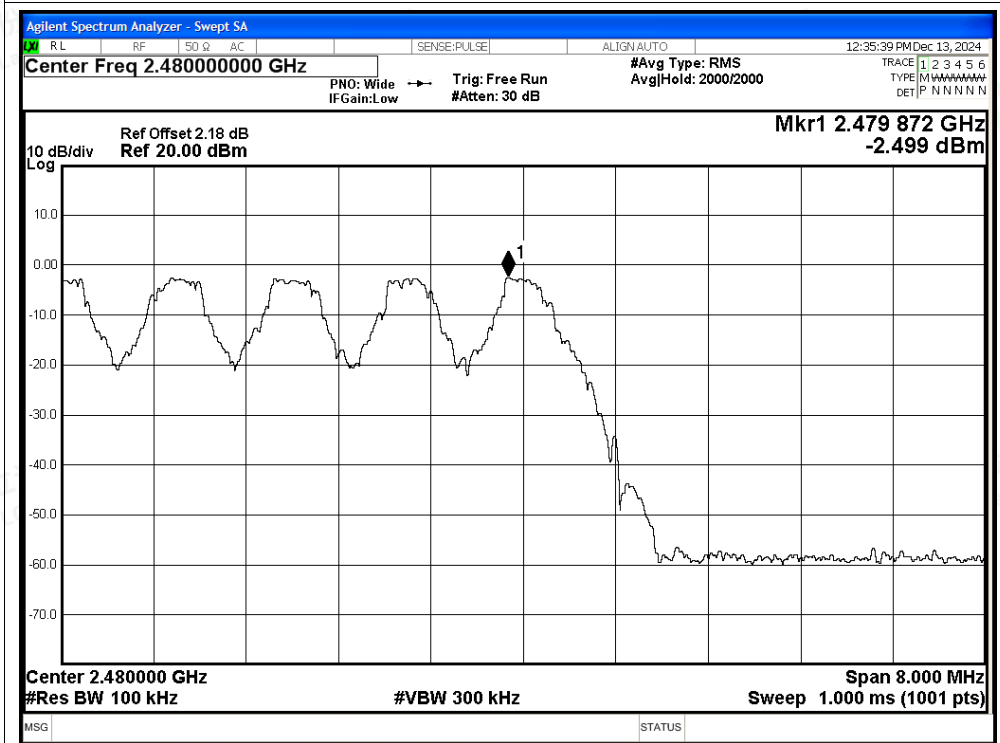


Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant Hopping Emission

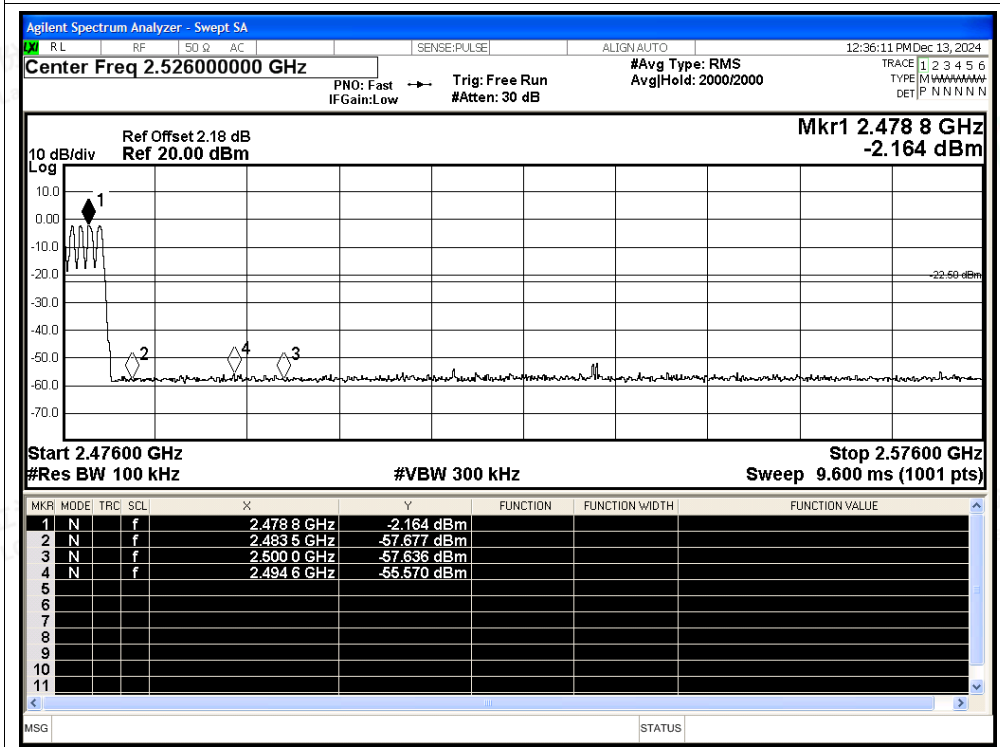




Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant Hopping Ref



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

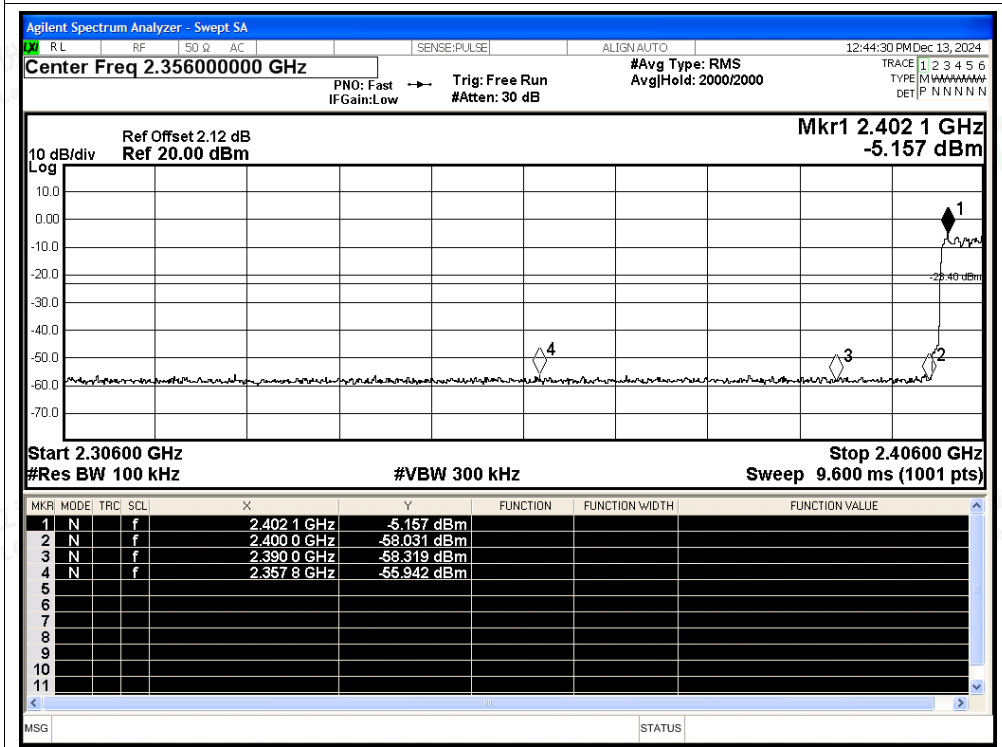




Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant Hopping Ref

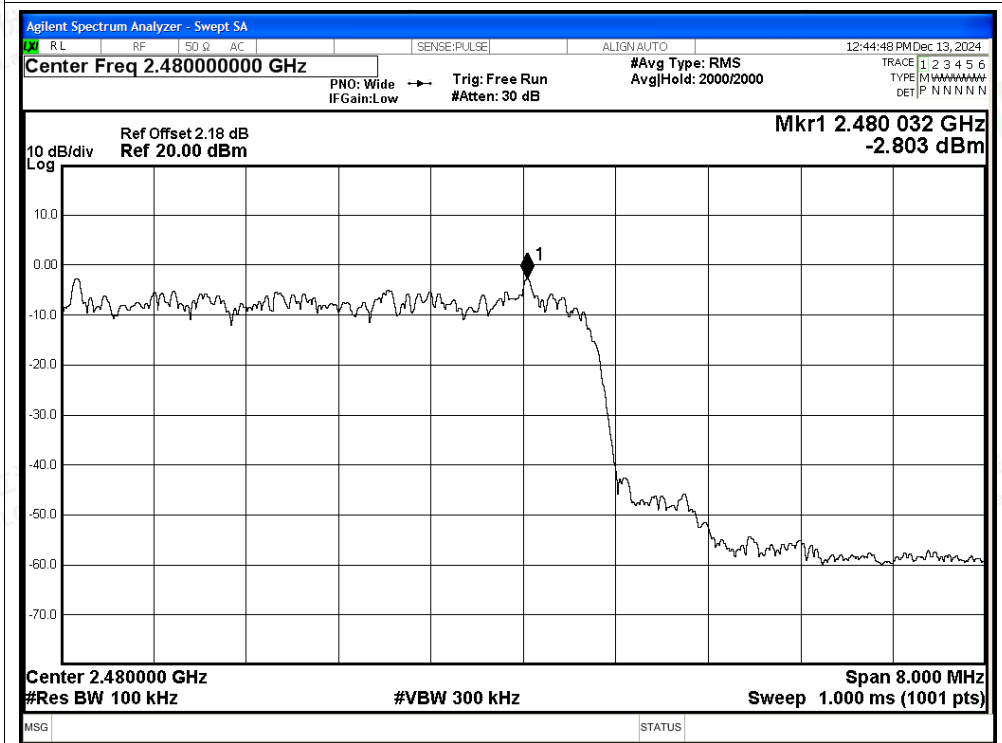


Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant Hopping Emission

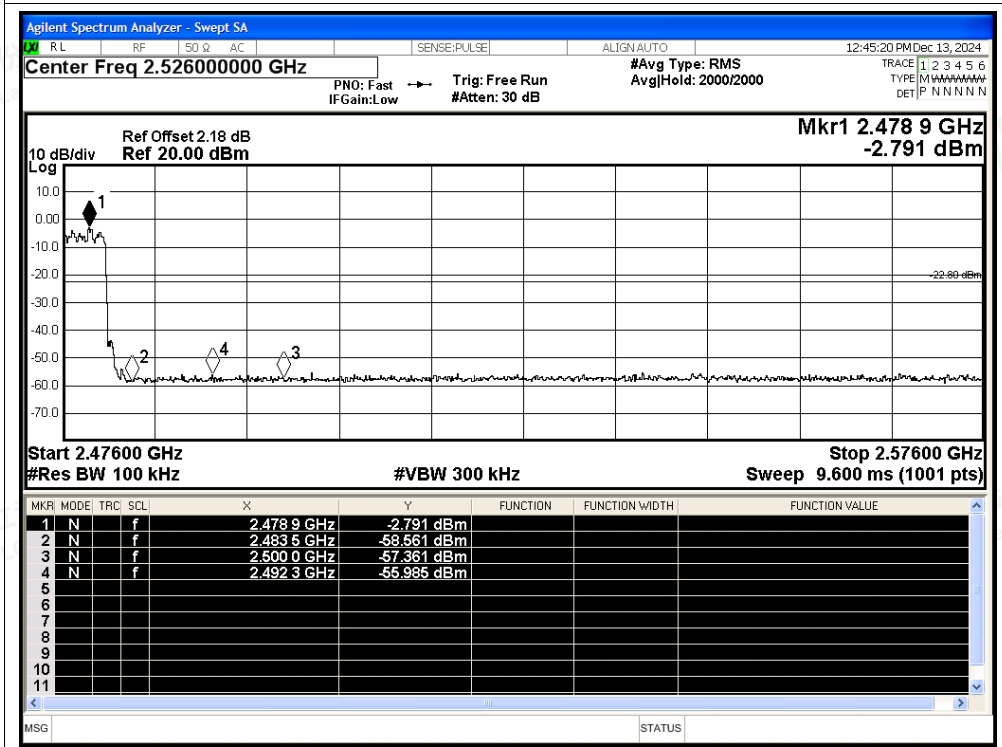




Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant Hopping Ref



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

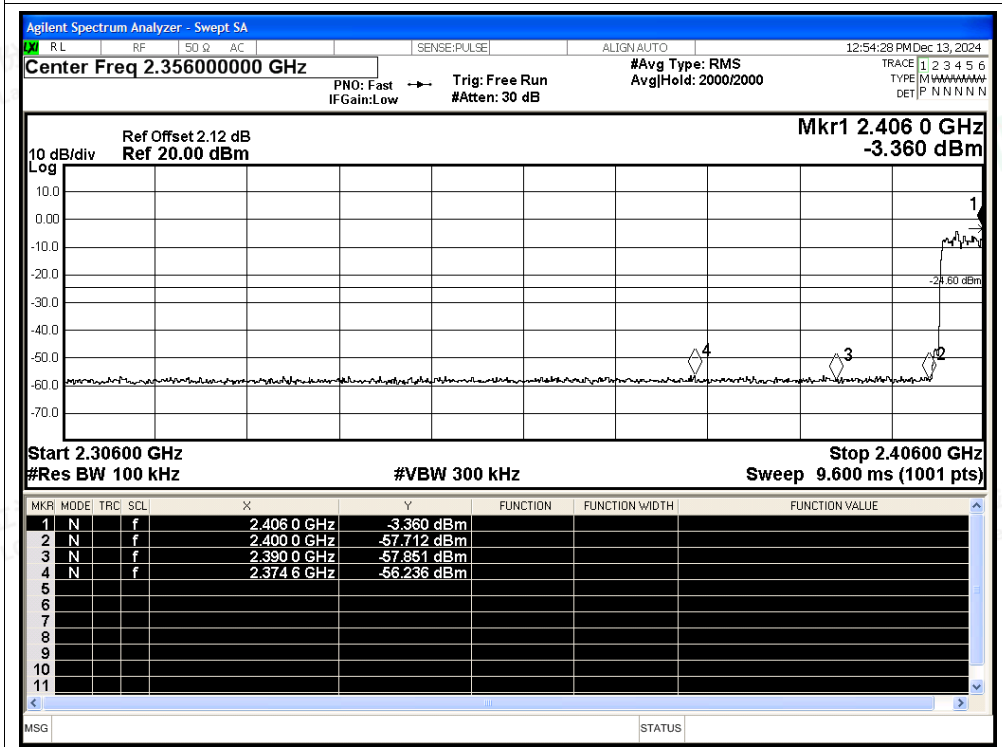




Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant Hopping Ref



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

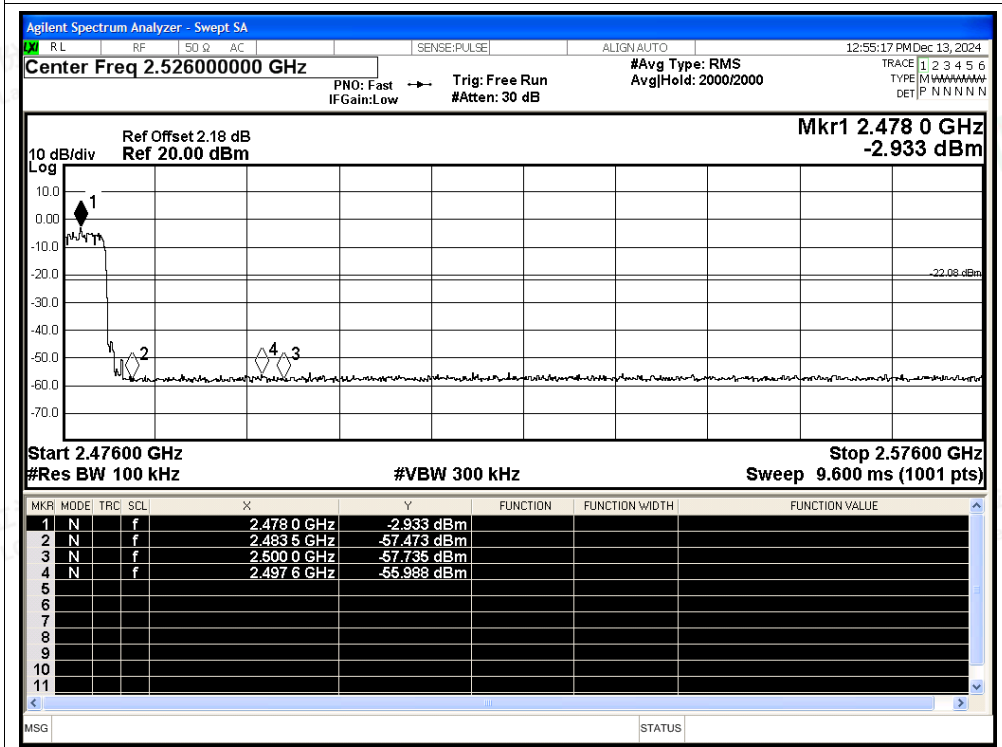




Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant Hopping Ref



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





A.7 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant	-53.73	-20	Pass
NVNT	1-DH5	2441	Ant	-54.29	-20	Pass
NVNT	1-DH5	2480	Ant	-52.86	-20	Pass
NVNT	2-DH5	2402	Ant	-52.36	-20	Pass
NVNT	2-DH5	2441	Ant	-53	-20	Pass
NVNT	2-DH5	2480	Ant	-51.67	-20	Pass
NVNT	3-DH5	2402	Ant	-54.36	-20	Pass
NVNT	3-DH5	2441	Ant	-54.46	-20	Pass
NVNT	3-DH5	2480	Ant	-53.04	-20	Pass

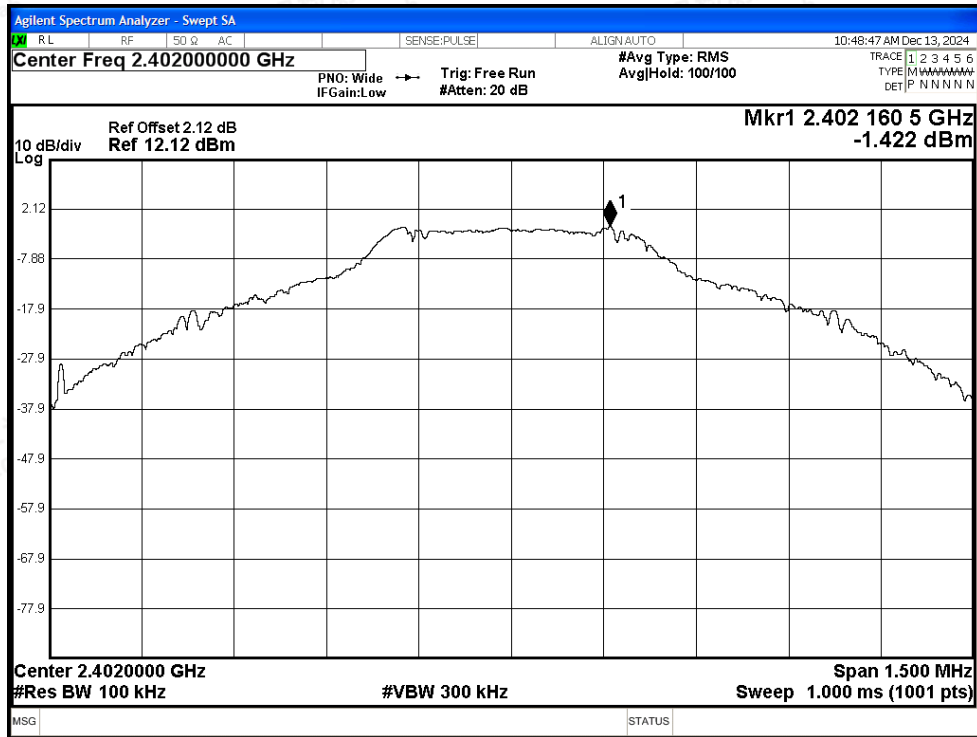


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 Scan code to check authenticity

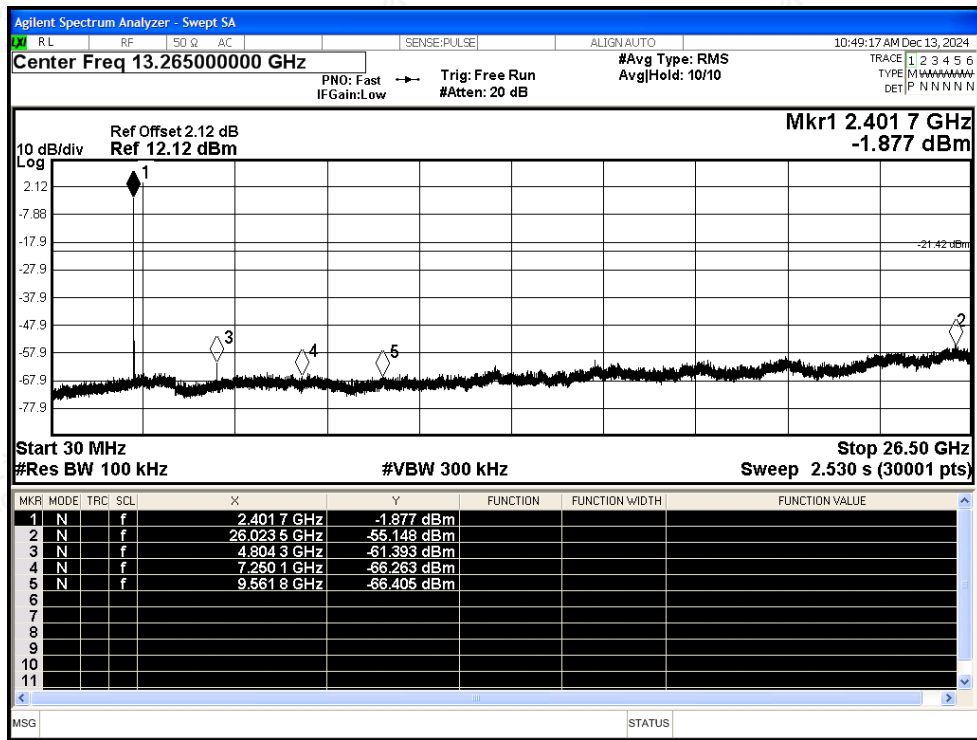


Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant Ref

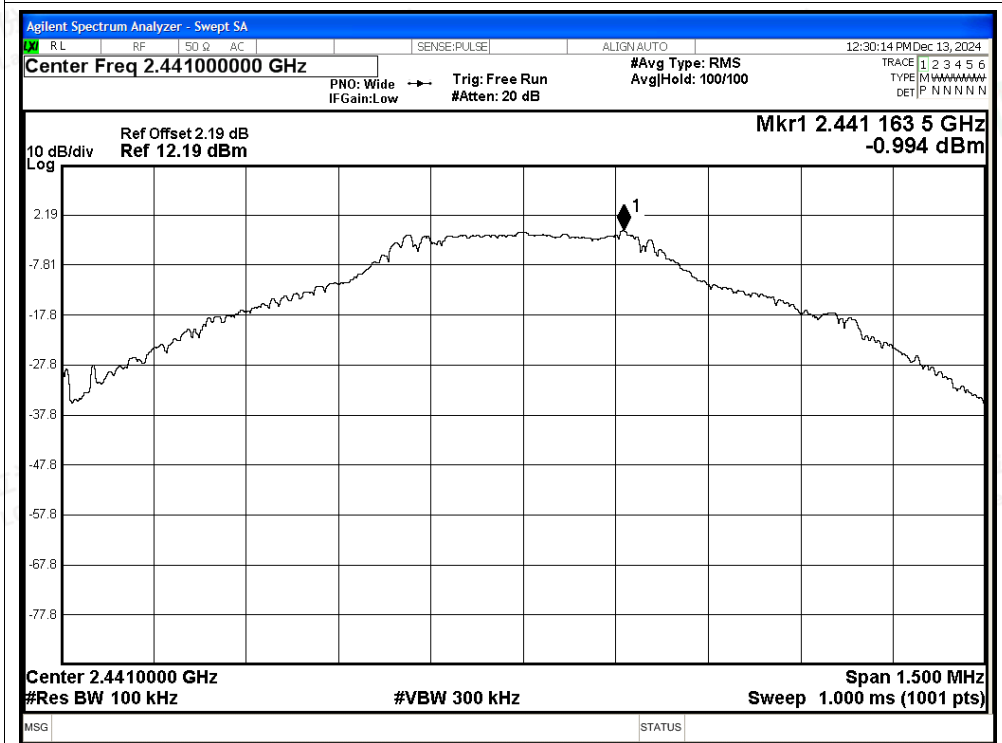


Tx. Spurious NVNT 1-DH5 2402MHz Ant Emission

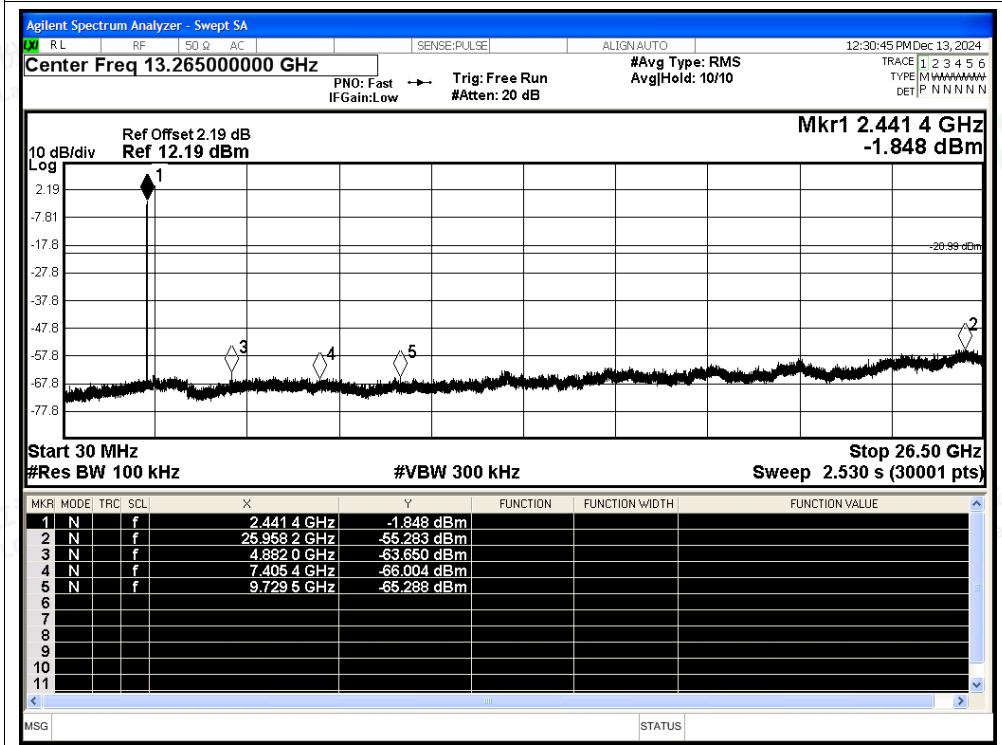




Tx. Spurious NVNT 1-DH5 2441MHz Ant Ref

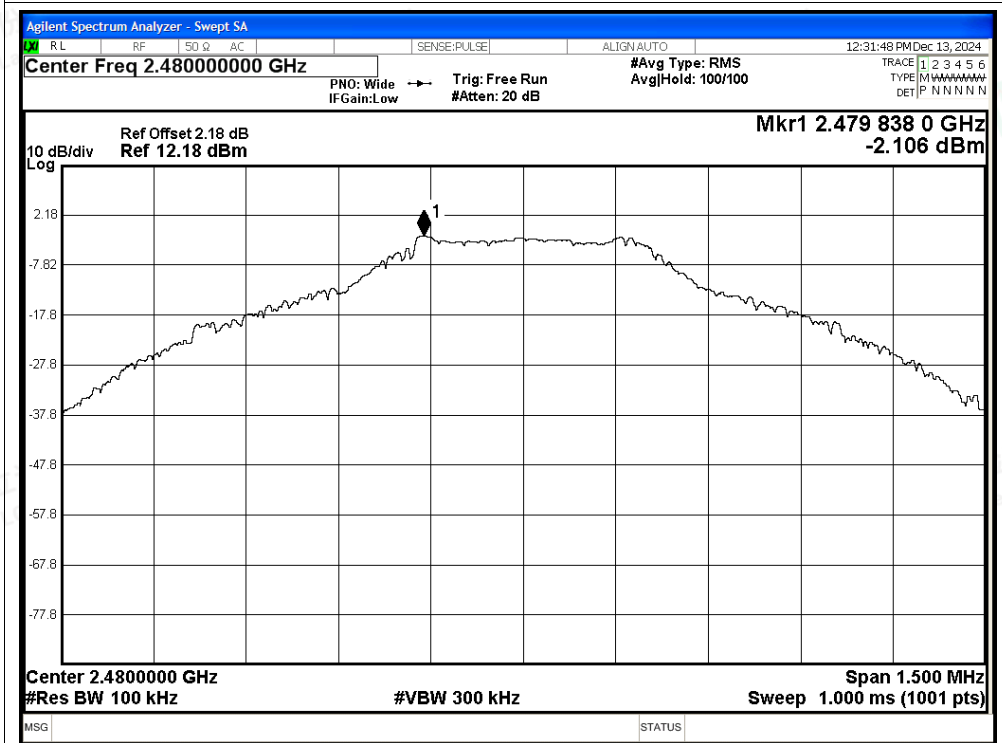


Tx. Spurious NVNT 1-DH5 2441MHz Ant Emission

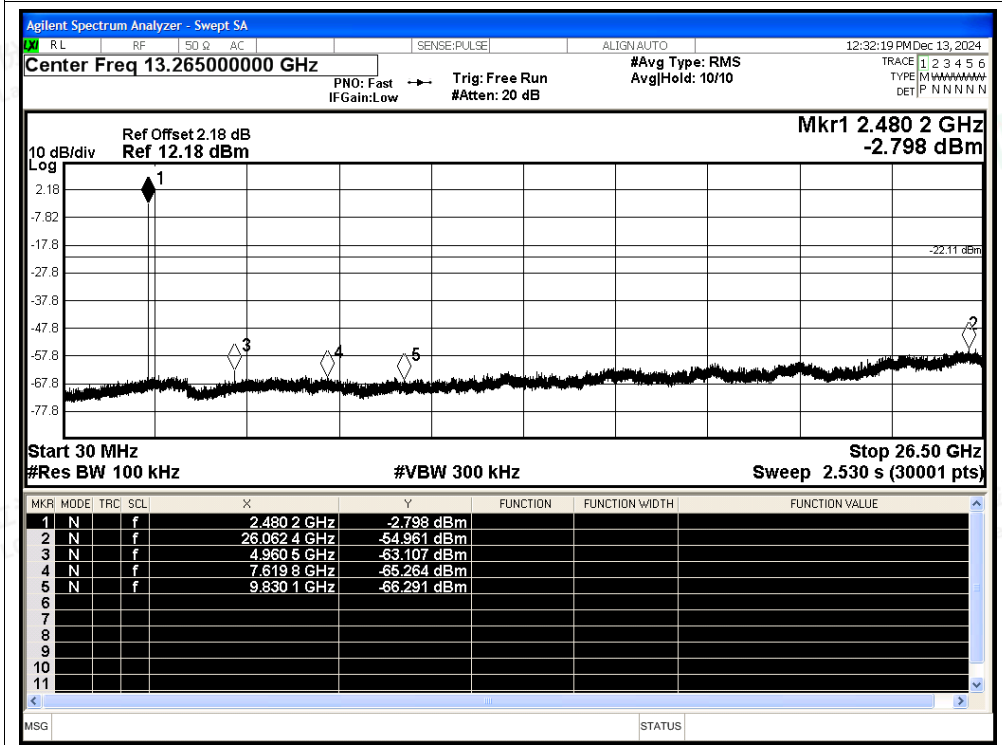




Tx. Spurious NVNT 1-DH5 2480MHz Ant Ref

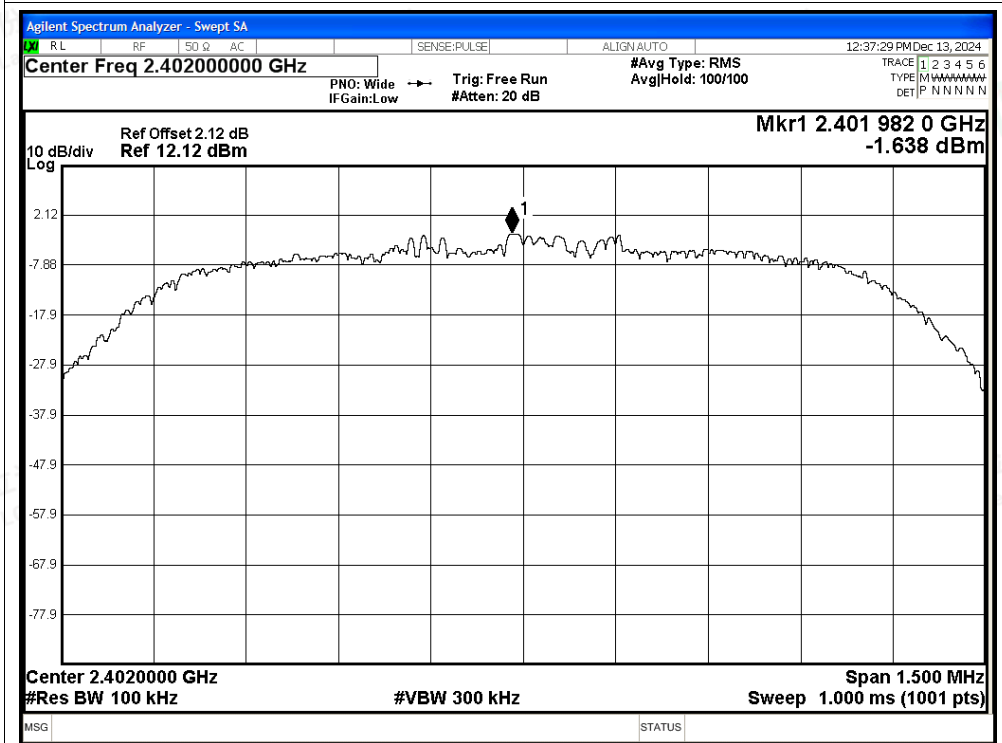


Tx. Spurious NVNT 1-DH5 2480MHz Ant Emission

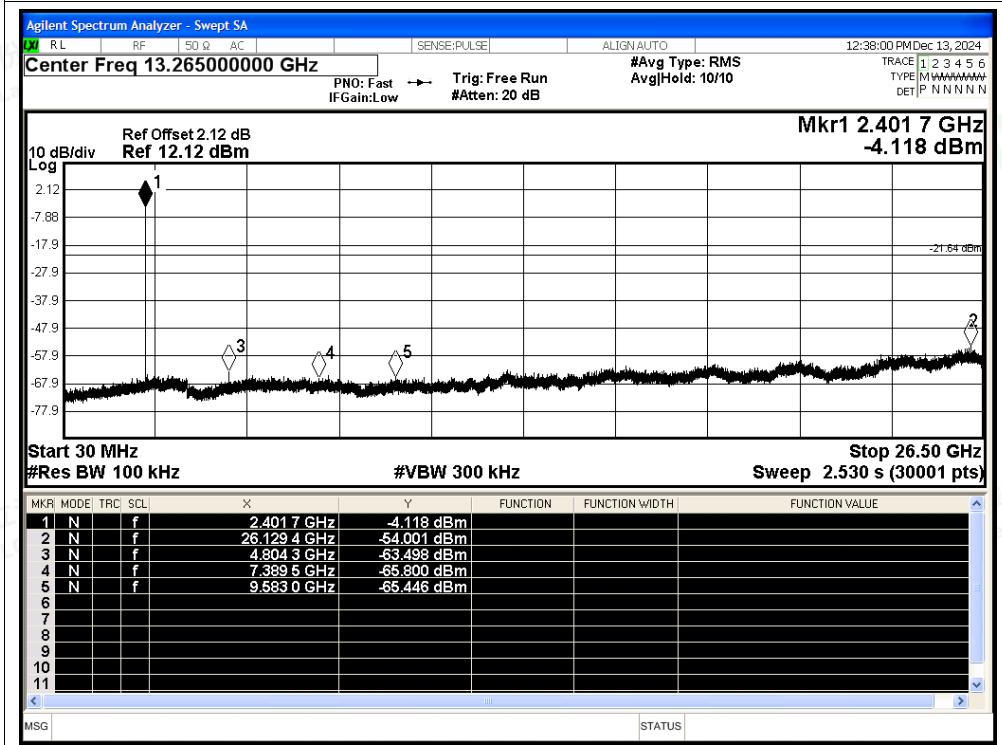




Tx. Spurious NVNT 2-DH5 2402MHz Ant Ref

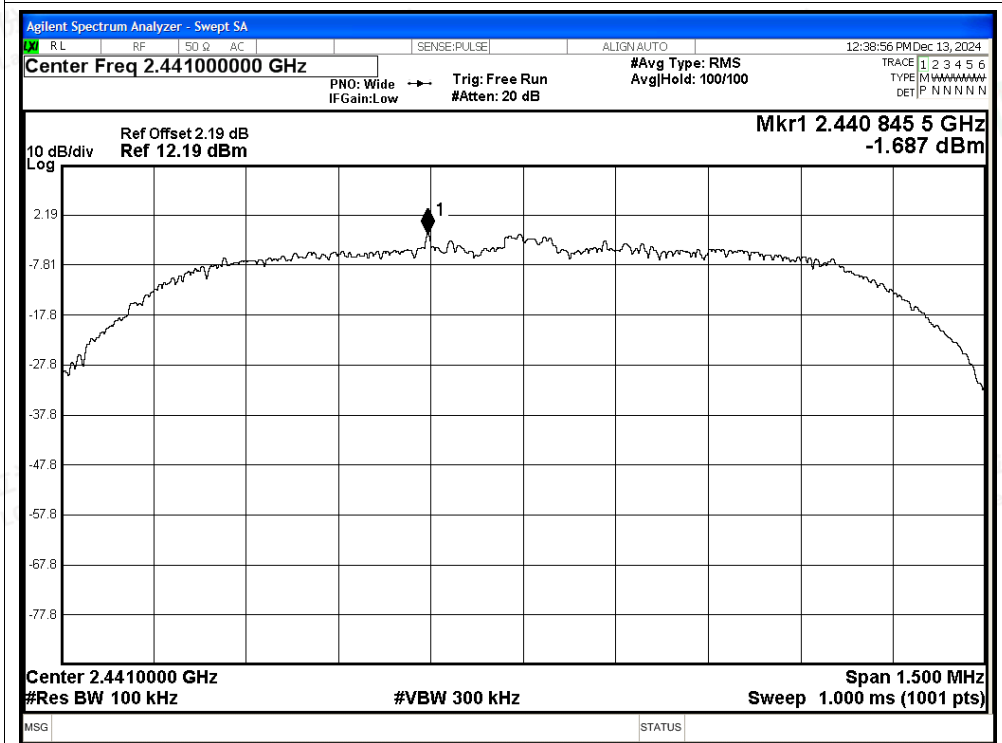


Tx. Spurious NVNT 2-DH5 2402MHz Ant Emission

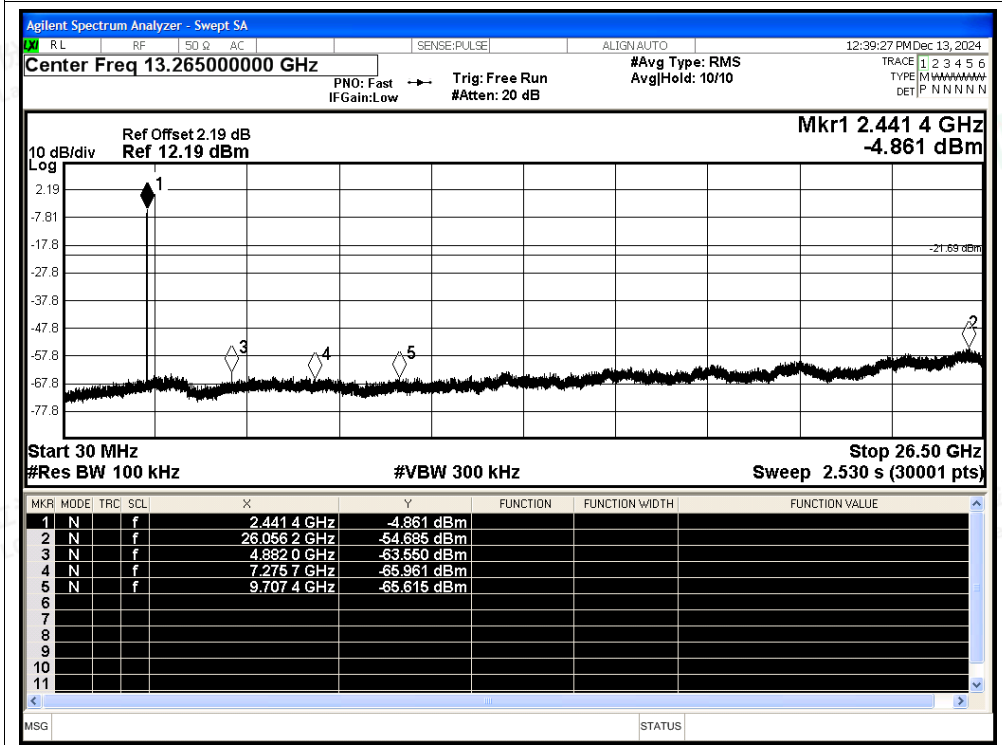




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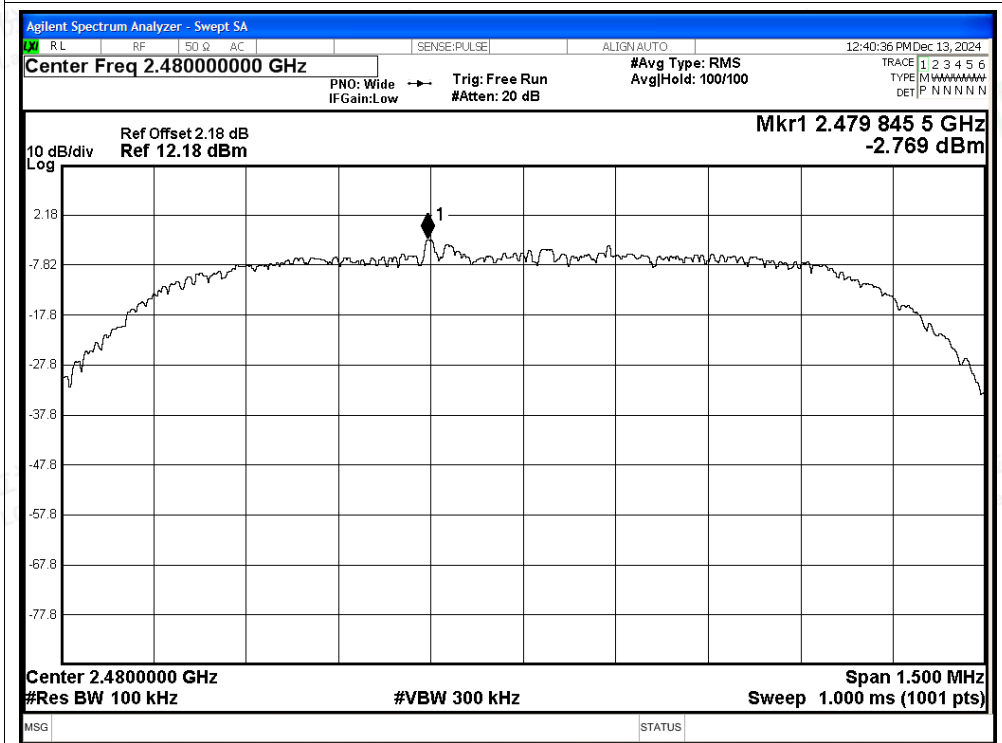


Tx. Spurious NVNT 2-DH5 2441MHz Ant Emission

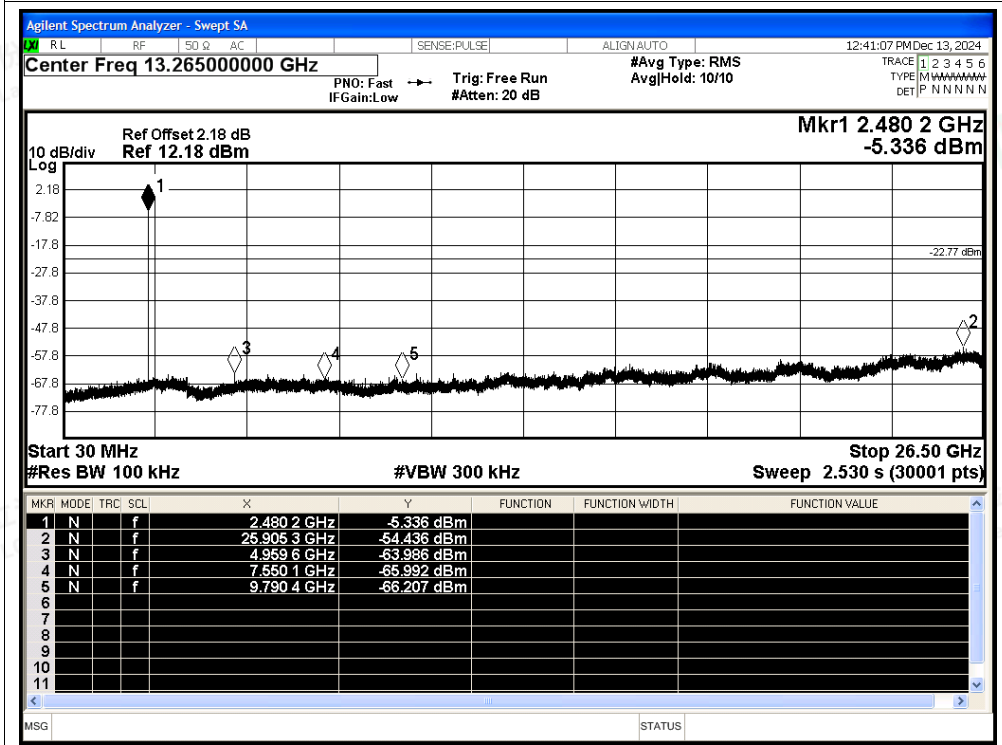




Tx. Spurious NVNT 2-DH5 2480MHz Ant Ref

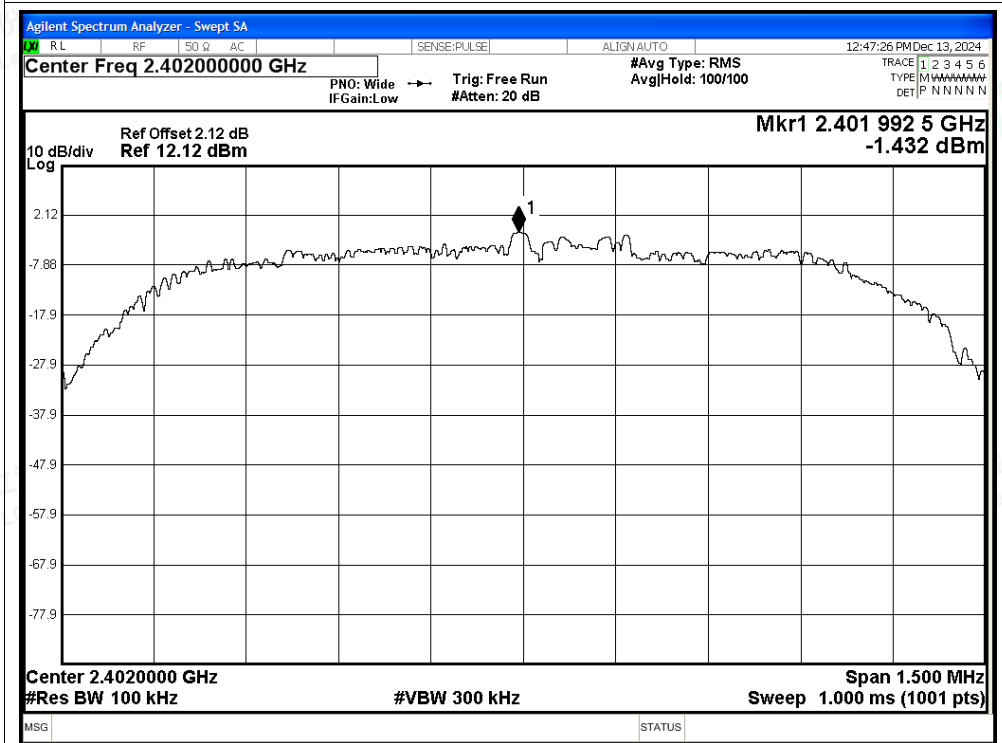


Tx. Spurious NVNT 2-DH5 2480MHz Ant Emission

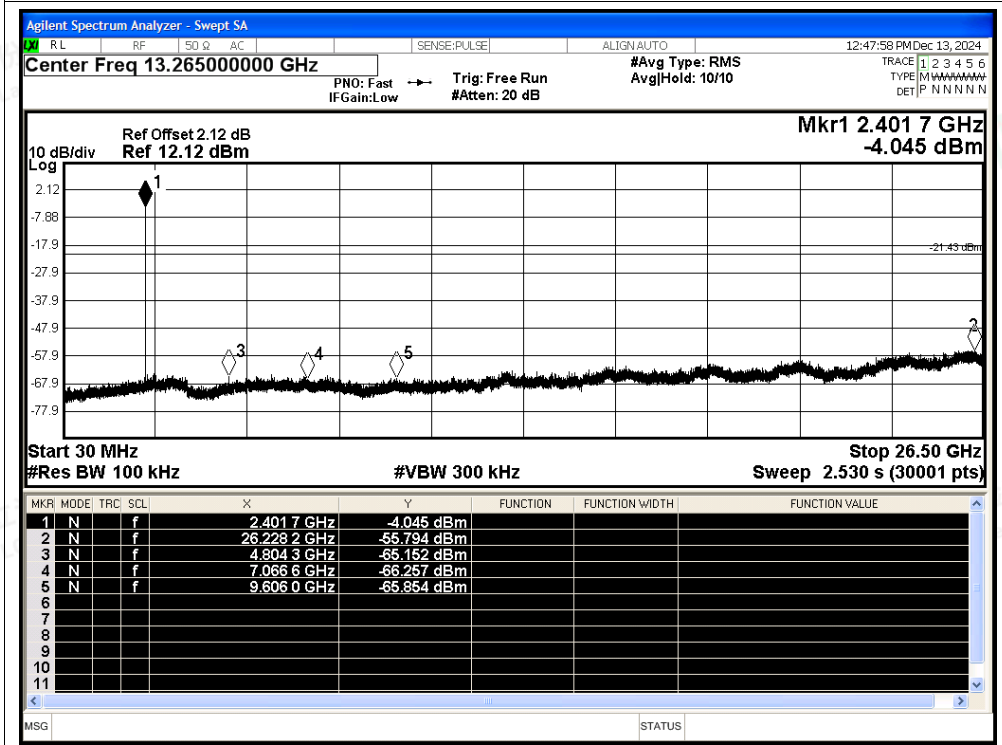




Tx. Spurious NVNT 3-DH5 2402MHz Ant Ref

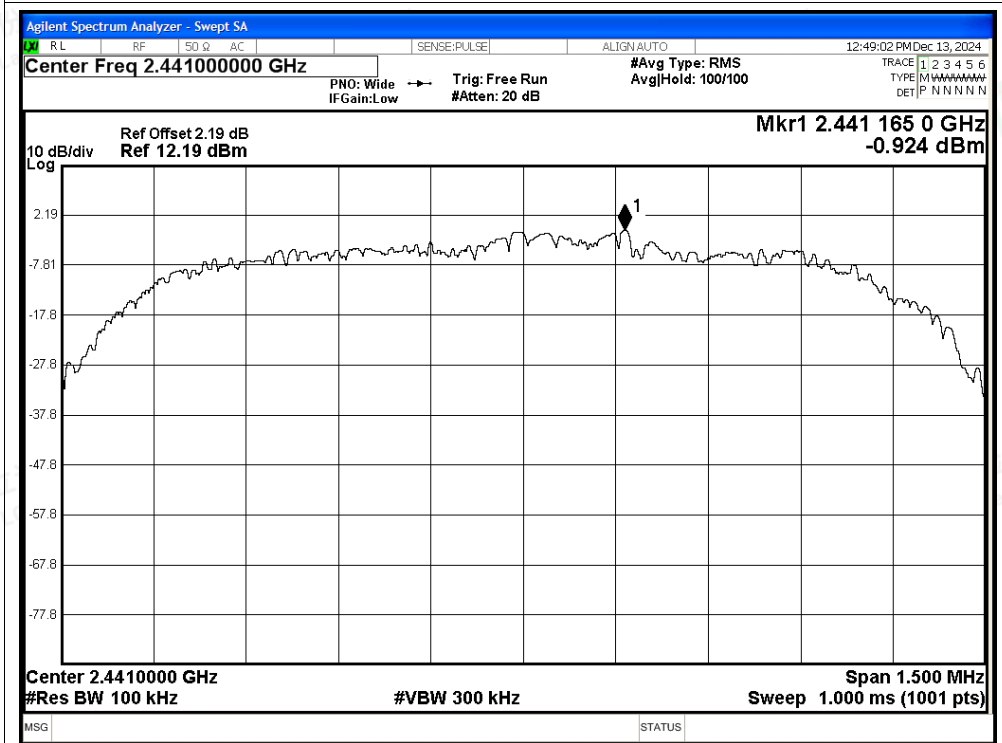


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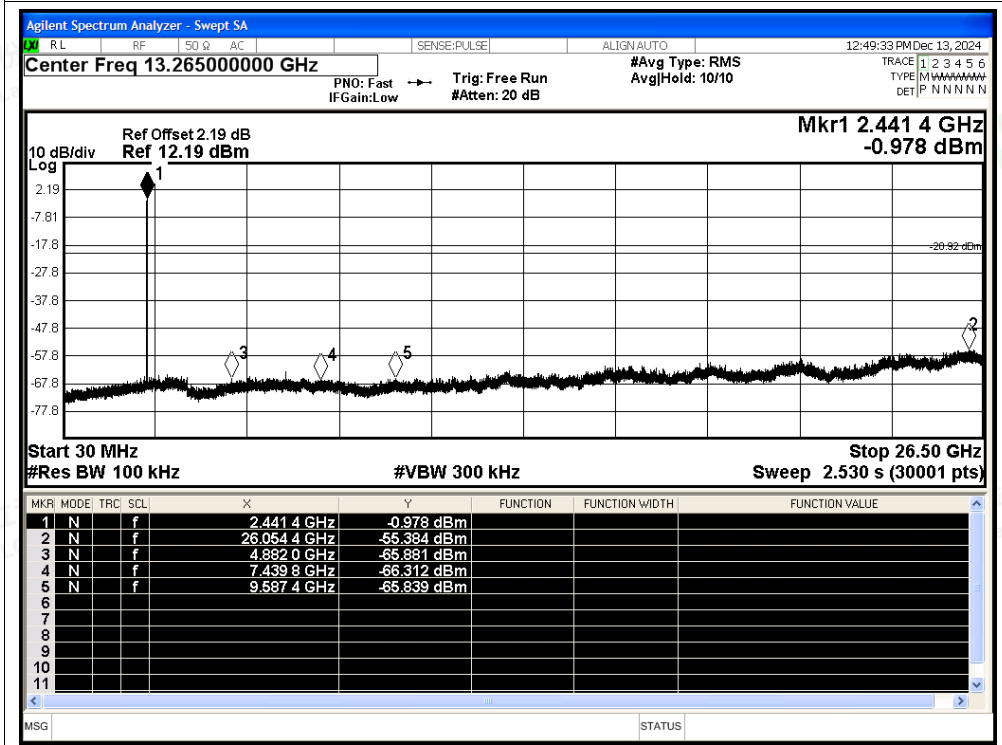




Tx. Spurious NVNT 3-DH5 2441MHz Ant Ref

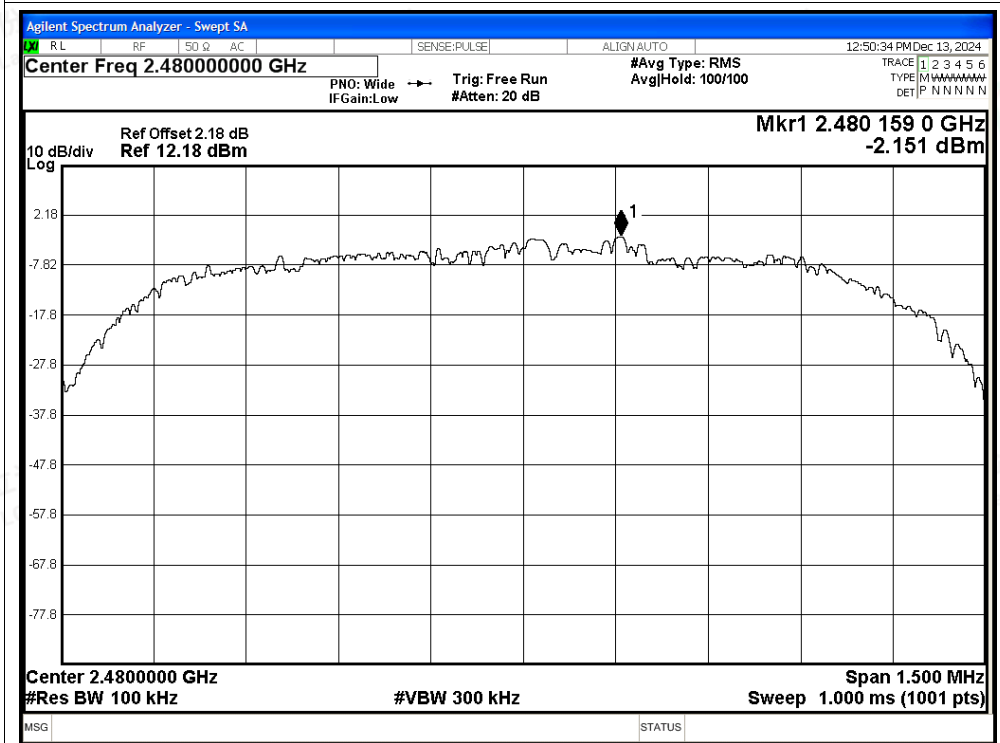


Tx. Spurious NVNT 3-DH5 2441MHz Ant Emission

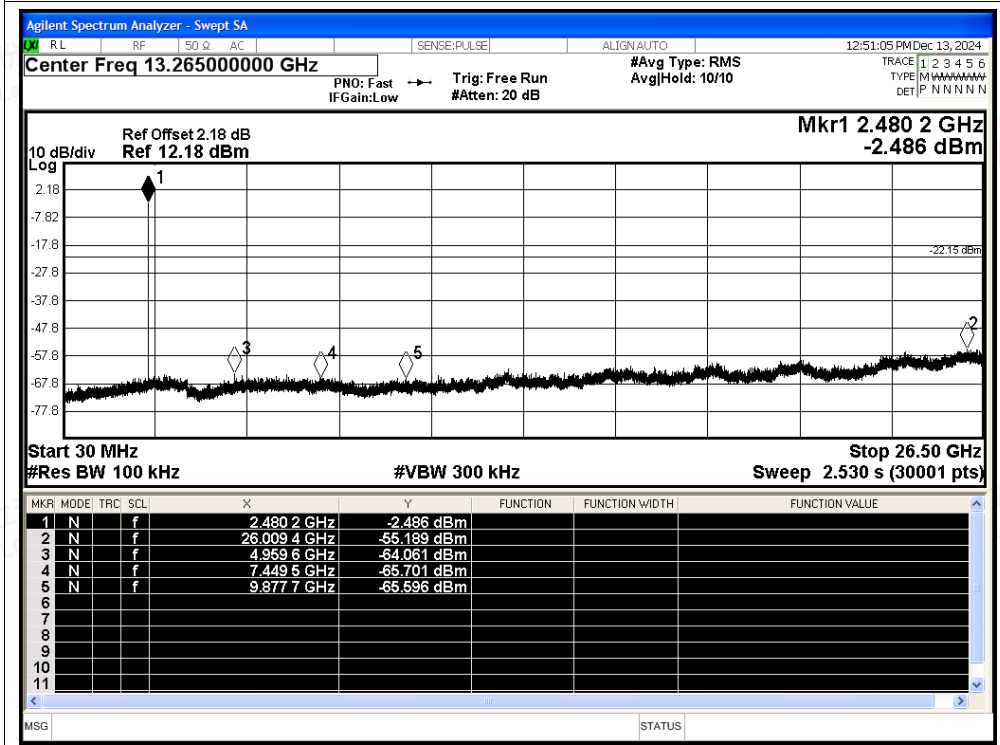




Tx. Spurious NVNT 3-DH5 2480MHz Ant Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant Emission





A.8 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant	77.63	1.1	0.34
NVNT	1-DH5	2441	Ant	77.63	1.1	0.34
NVNT	1-DH5	2480	Ant	77.6	1.1	0.34
NVNT	2-DH5	2402	Ant	77.33	1.12	0.34
NVNT	2-DH5	2441	Ant	77.28	1.12	0.35
NVNT	2-DH5	2480	Ant	77.28	1.12	0.35
NVNT	3-DH5	2402	Ant	77.28	1.12	0.35
NVNT	3-DH5	2441	Ant	77.28	1.12	0.35
NVNT	3-DH5	2480	Ant	77.28	1.12	0.35

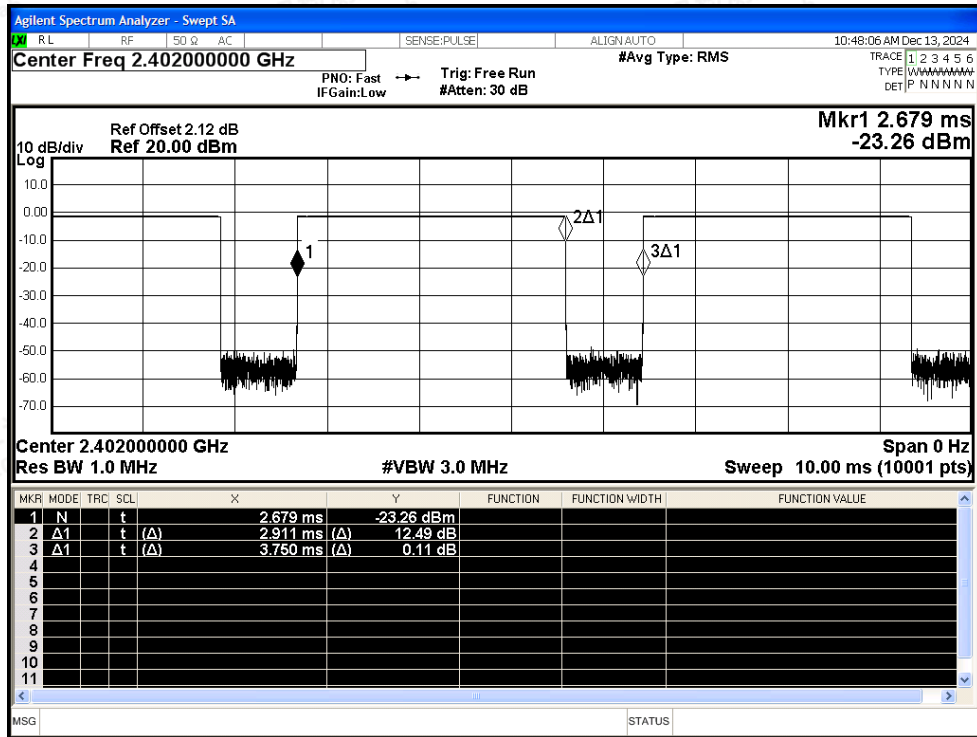


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 Scan code to check authenticity

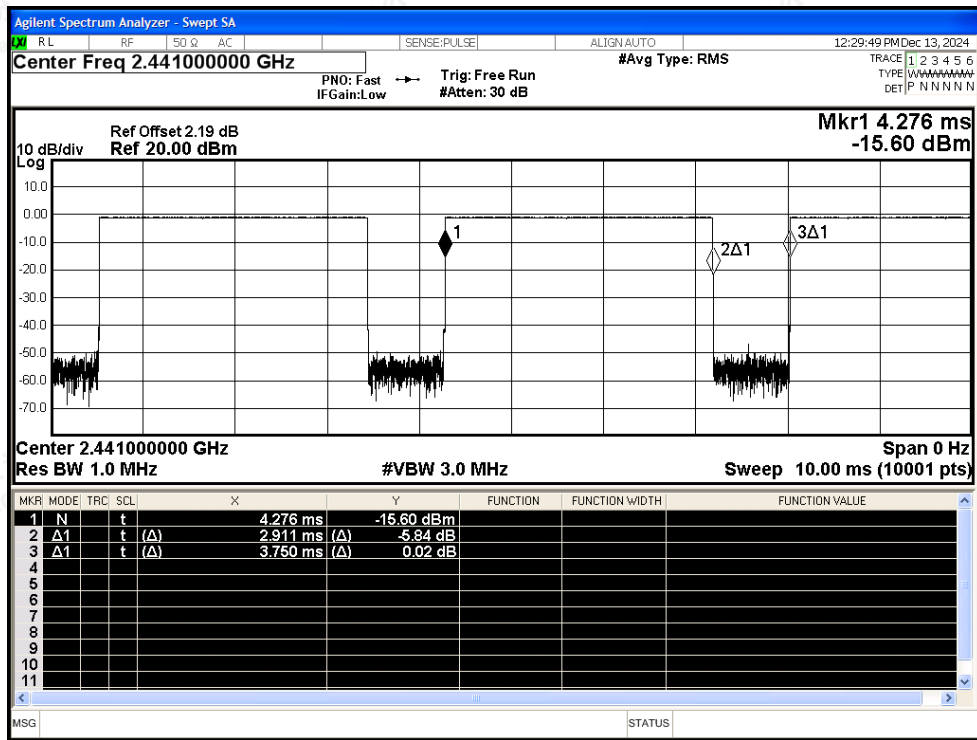


Test Graphs

Duty Cycle NVNT 1-DH5 2402MHz Ant

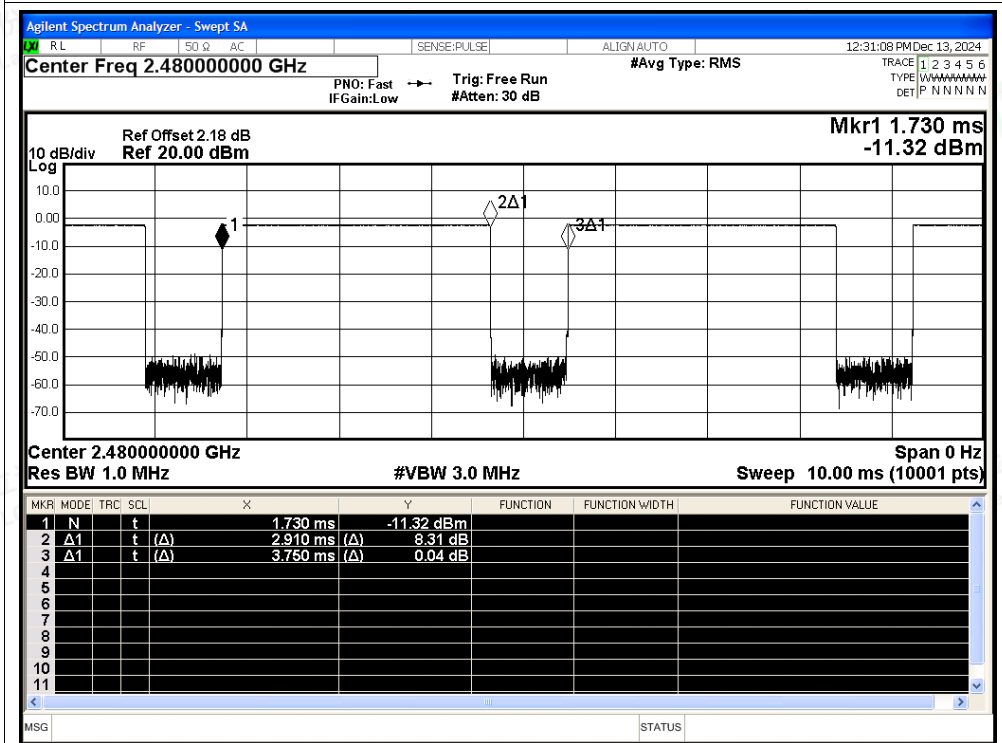


Duty Cycle NVNT 1-DH5 2441MHz Ant

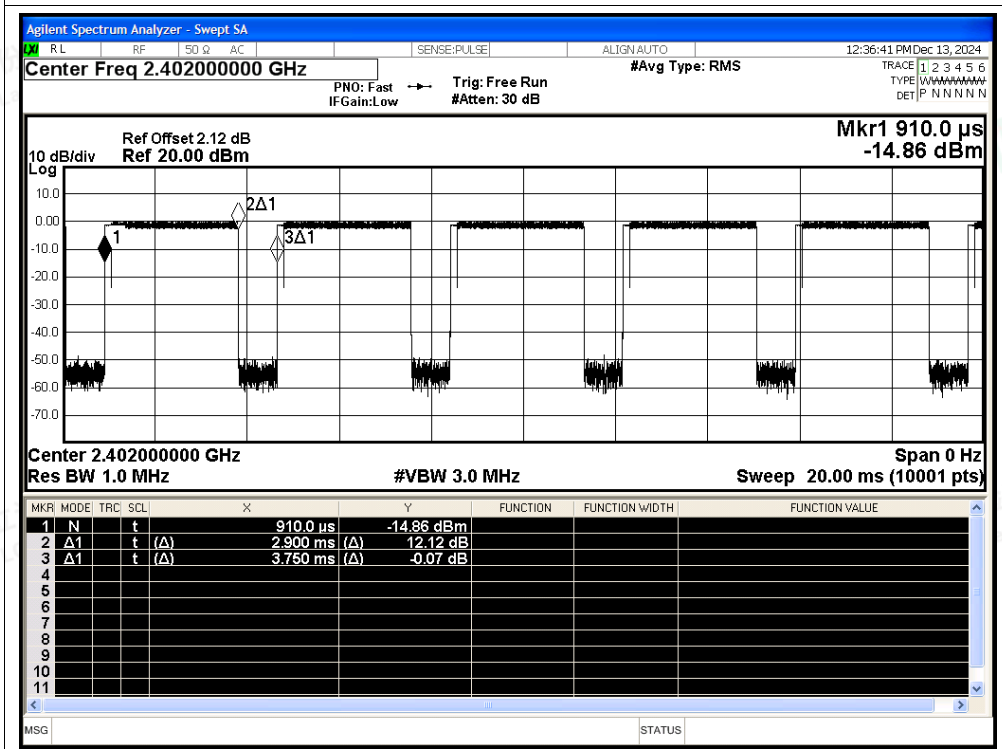




Duty Cycle NVNT 1-DH5 2480MHz Ant

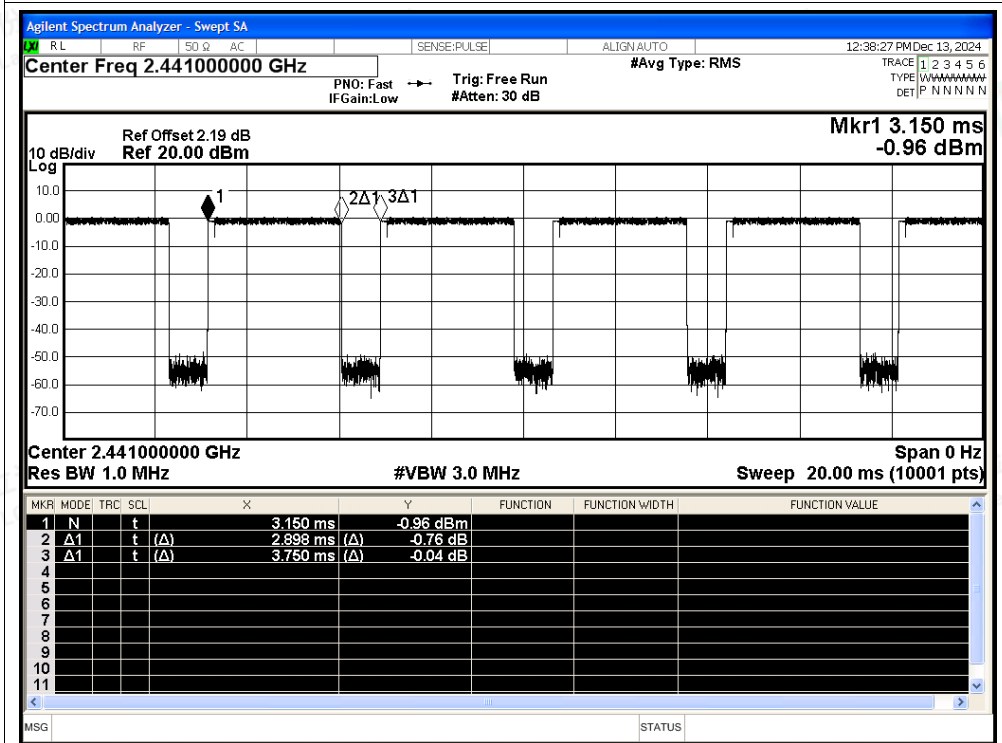


Duty Cycle NVNT 2-DH5 2402MHz Ant

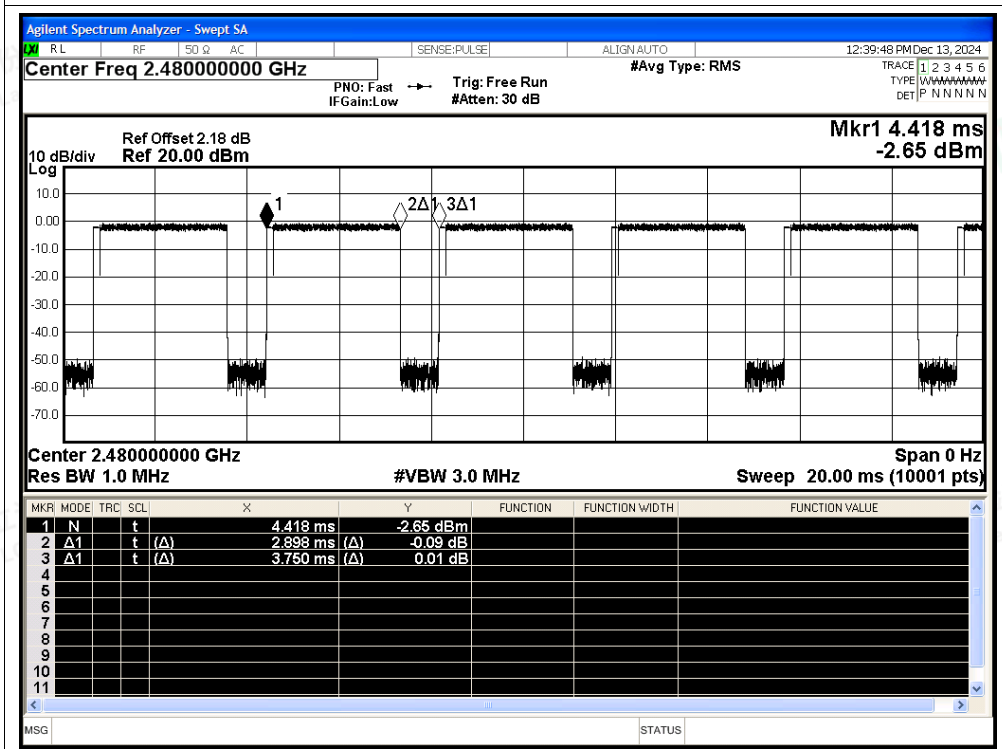




Duty Cycle NVNT 2-DH5 2441MHz Ant

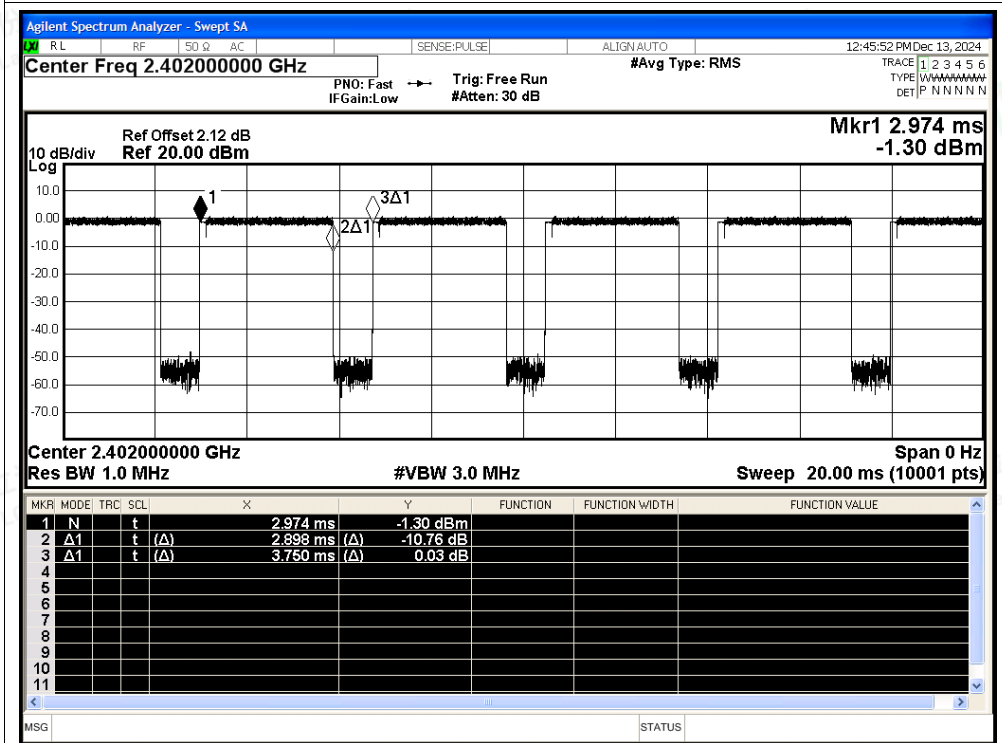


Duty Cycle NVNT 2-DH5 2480MHz Ant

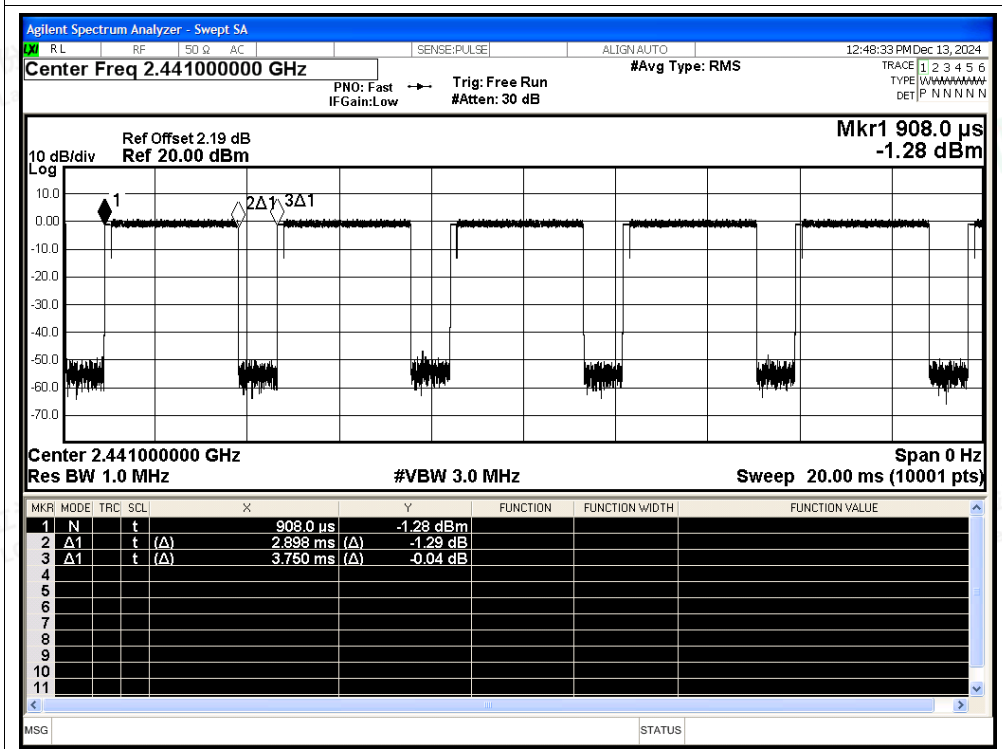


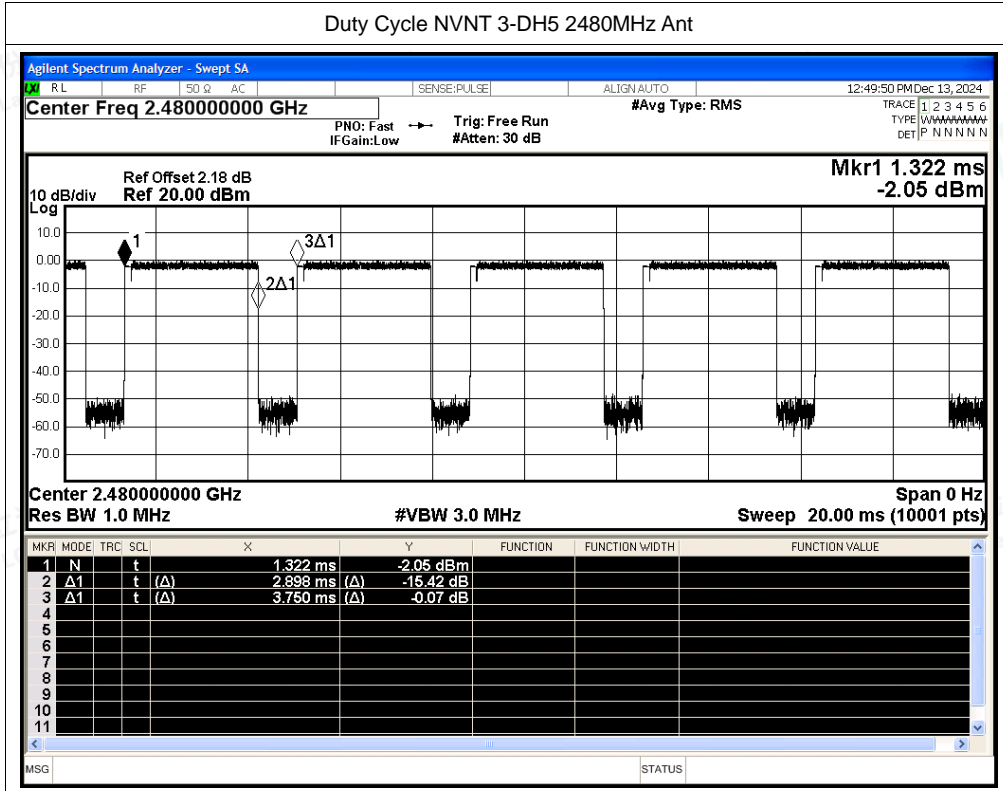


Duty Cycle NVNT 3-DH5 2402MHz Ant



Duty Cycle NVNT 3-DH5 2441MHz Ant







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	Ant	No-Hopping	2310	-51.38	2.499	-	46.38	Peak	74	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2310	-58.96	2.499	1.1	39.90	Average	54	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2362.32	-47.68	2.499	-	50.08	Peak	74	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2372.784	-57.68	2.499	1.1	41.18	Average	54	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2390	-51.41	2.499	-	46.35	Peak	74	Pass
NVNT	1-DH5	2402	Ant	No-Hopping	2390	-58.49	2.499	1.1	40.37	Average	54	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2483.5	-49.77	2.499	-	47.99	Peak	74	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2483.5	-57.75	2.499	1.1	41.11	Average	54	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2491.984	-46.86	2.499	-	50.90	Peak	74	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2493.496	-56.92	2.499	1.1	41.94	Average	54	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2500	-50.39	2.499	-	47.37	Peak	74	Pass
NVNT	1-DH5	2480	Ant	No-Hopping	2500	-57.64	2.499	1.1	41.22	Average	54	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2310	-49.66	2.499	-	48.10	Peak	74	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2310	-58.31	2.499	1.12	40.57	Average	54	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2373.648	-47.56	2.499	-	50.20	Peak	74	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2380.848	-57.49	2.499	1.12	41.39	Average	54	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2390	-49.14	2.499	-	48.62	Peak	74	Pass
NVNT	2-DH5	2402	Ant	No-Hopping	2390	-58.32	2.499	1.12	40.56	Average	54	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2483.5	-48.82	2.499	-	48.94	Peak	74	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2483.5	-57.95	2.499	1.12	40.93	Average	54	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2484.952	-46.83	2.499	-	50.93	Peak	74	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2498.44	-57.02	2.499	1.12	41.86	Average	54	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2500	-50.32	2.499	-	47.44	Peak	74	Pass
NVNT	2-DH5	2480	Ant	No-Hopping	2500	-58.34	2.499	1.12	40.54	Average	54	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2310	-48.46	2.499	-	49.30	Peak	74	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2310	-58.35	2.499	1.12	40.53	Average	54	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2381.424	-47.68	2.499	-	50.08	Peak	74	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2366.928	-57.59	2.499	1.12	41.29	Average	54	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2390	-50.56	2.499	-	47.20	Peak	74	Pass
NVNT	3-DH5	2402	Ant	No-Hopping	2390	-58.34	2.499	1.12	40.54	Average	54	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2483.5	-49.84	2.499	-	47.92	Peak	74	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2483.5	-57.28	2.499	1.12	41.60	Average	54	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2497.792	-47.25	2.499	-	50.51	Peak	74	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2484.232	-57.11	2.499	1.12	41.77	Average	54	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2500	-50.05	2.499	-	47.71	Peak	74	Pass
NVNT	3-DH5	2480	Ant	No-Hopping	2500	-58.18	2.499	1.12	40.70	Average	54	Pass

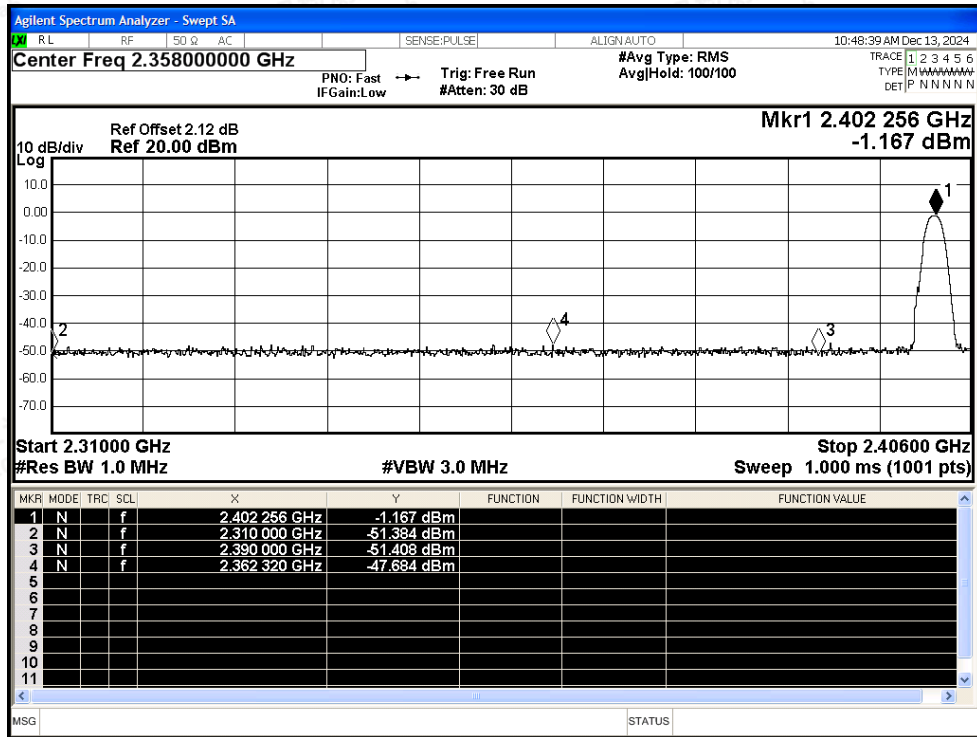


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 Scan code to check authenticity

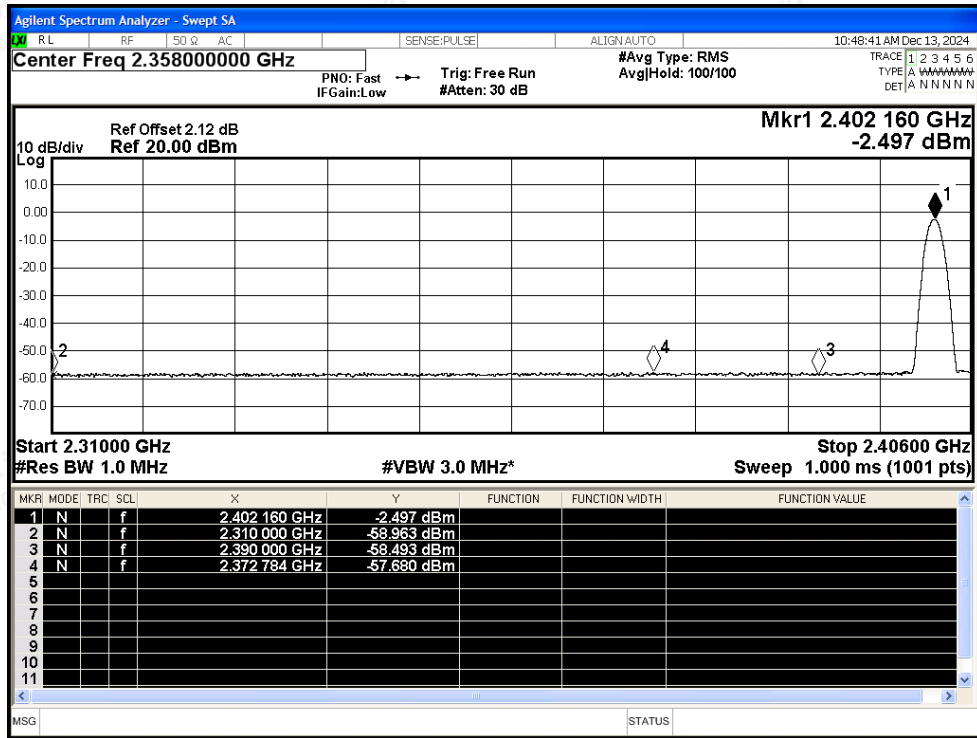


Test Graphs

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

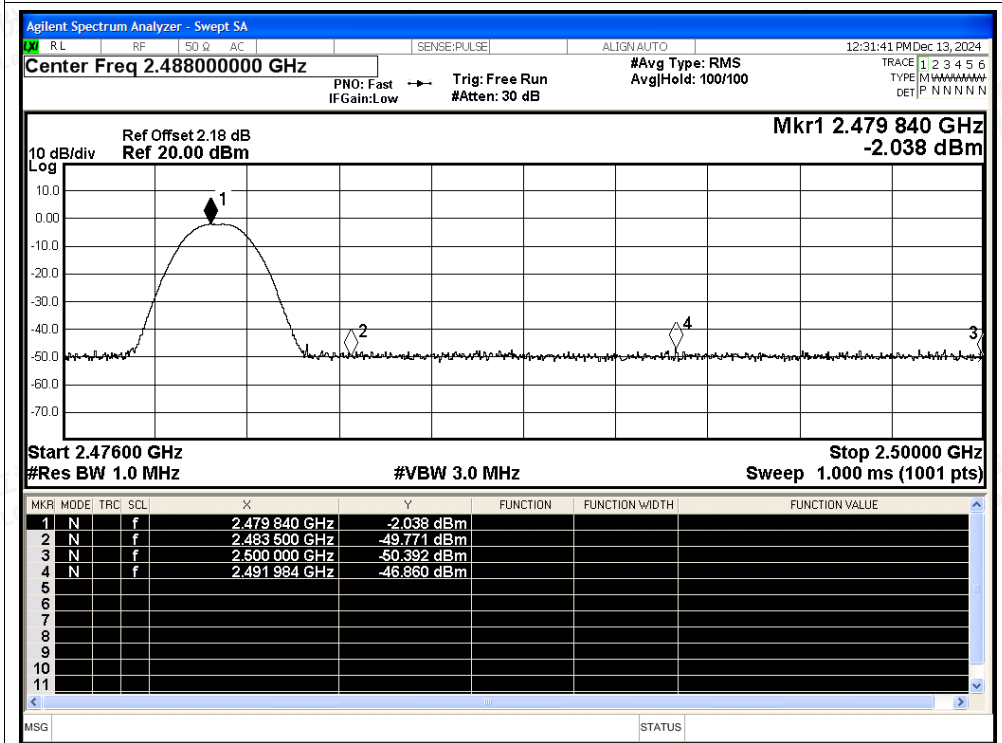


Restrict Band NVNT 1-DH5 2402MHz Ant No-Hopping Average

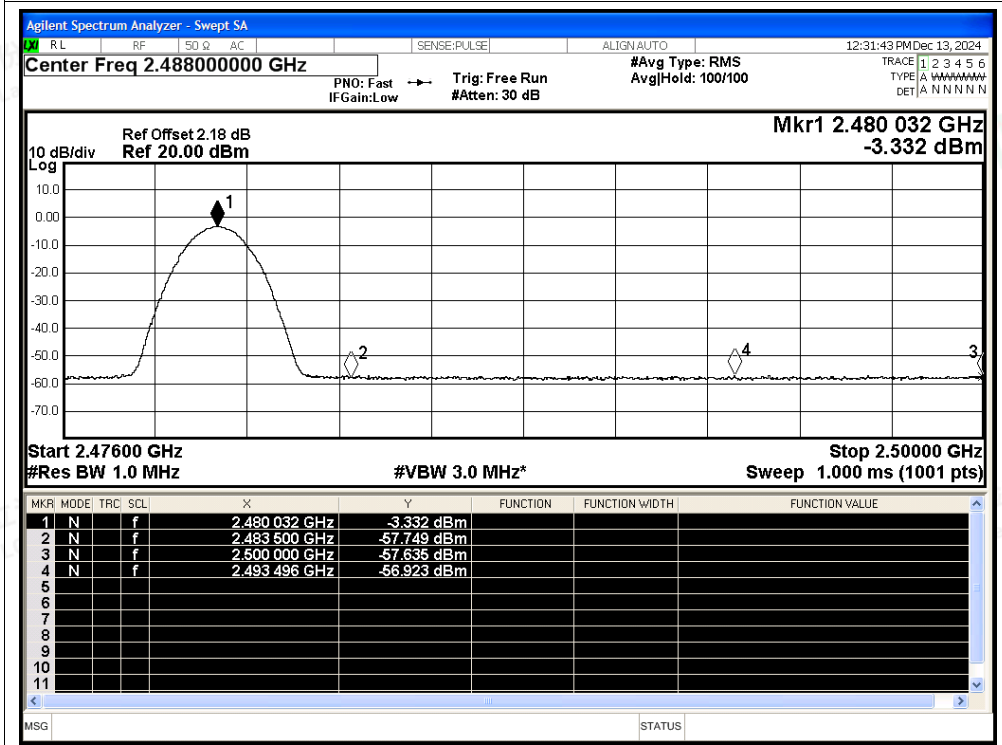




Restrict Band NVNT 1-DH5 2480MHz Ant No-Hopping Peak

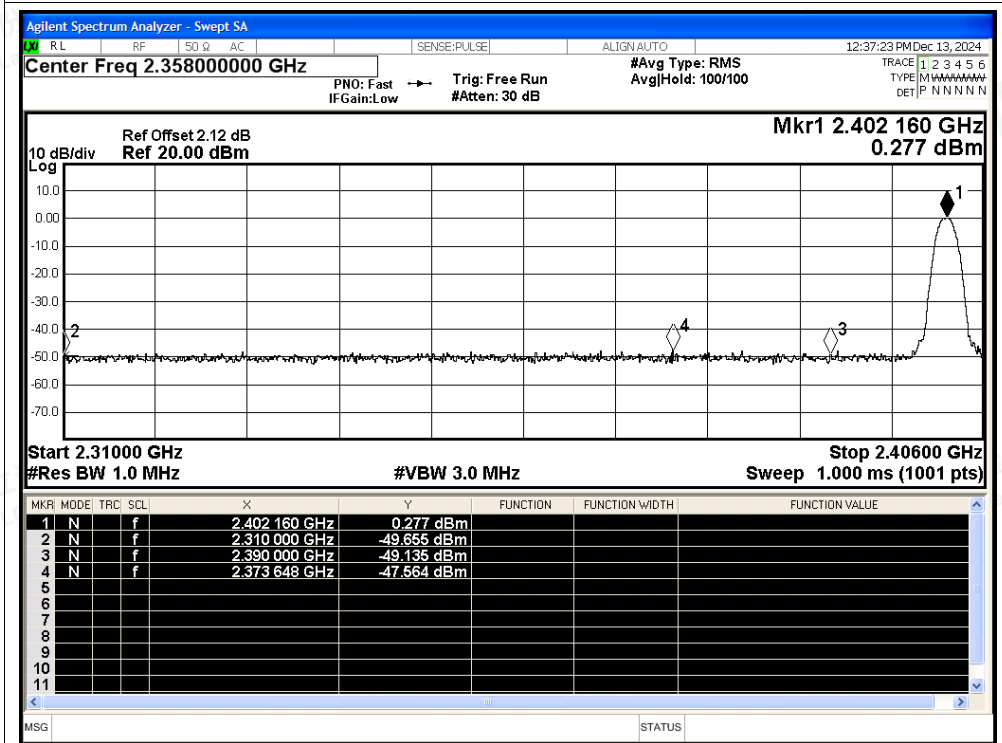


Restrict Band NVNT 1-DH5 2480MHz Ant No-Hopping Average

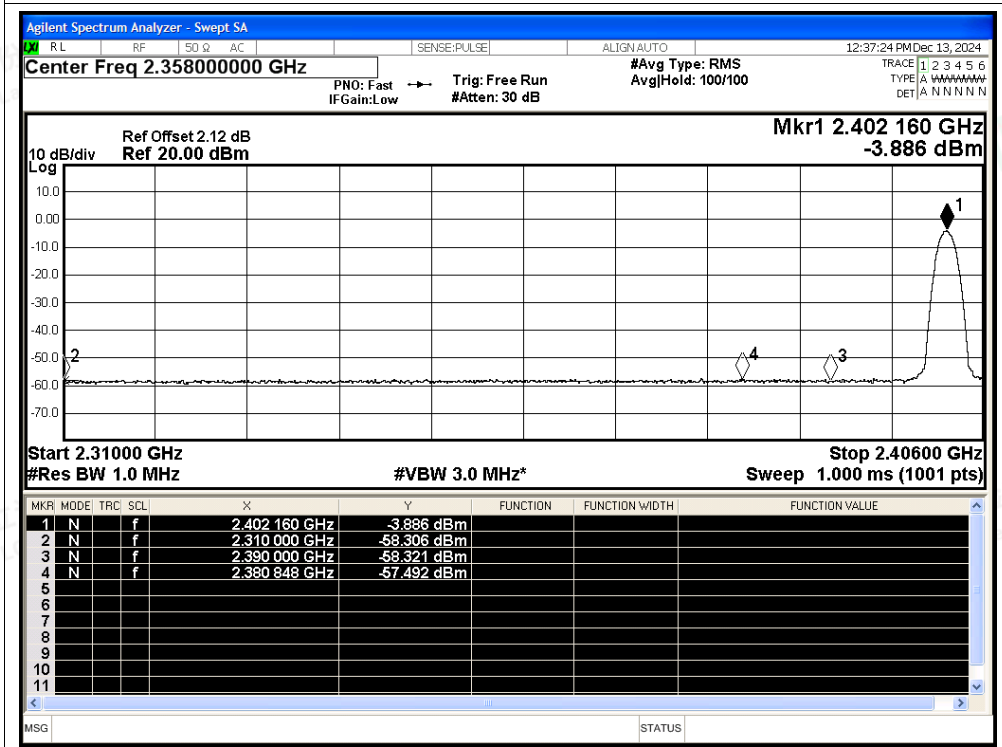




Restrict Band NVNT 2-DH5 2402MHz Ant No-Hopping Peak

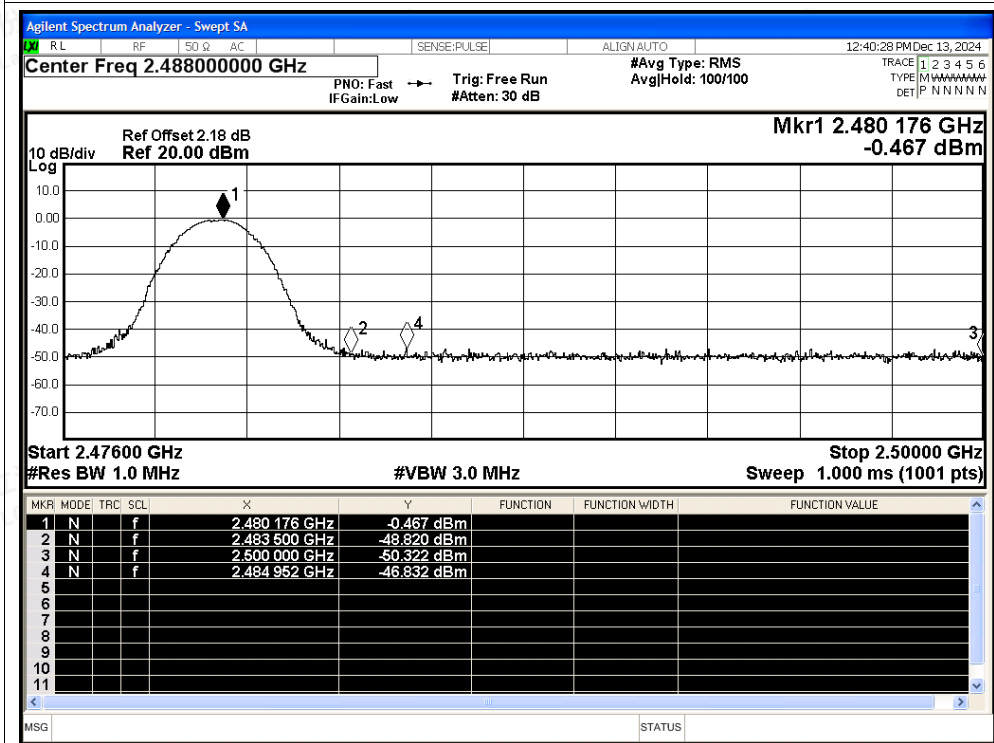


Restrict Band NVNT 2-DH5 2402MHz Ant No-Hopping Average

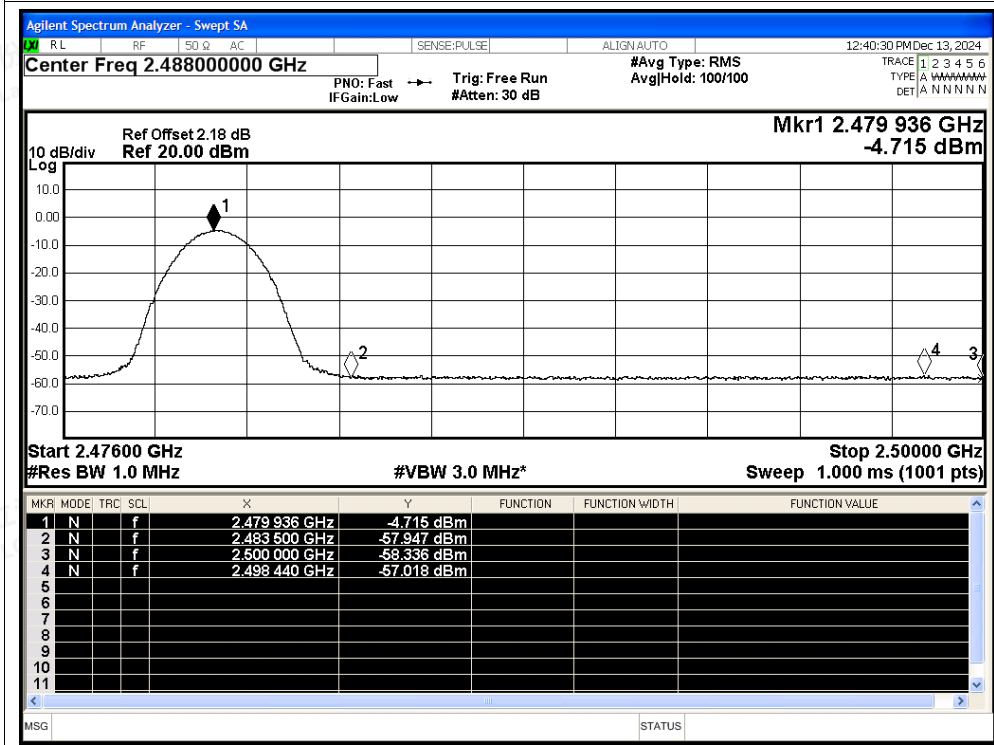




Restrict Band NVNT 2-DH5 2480MHz Ant No-Hopping Peak

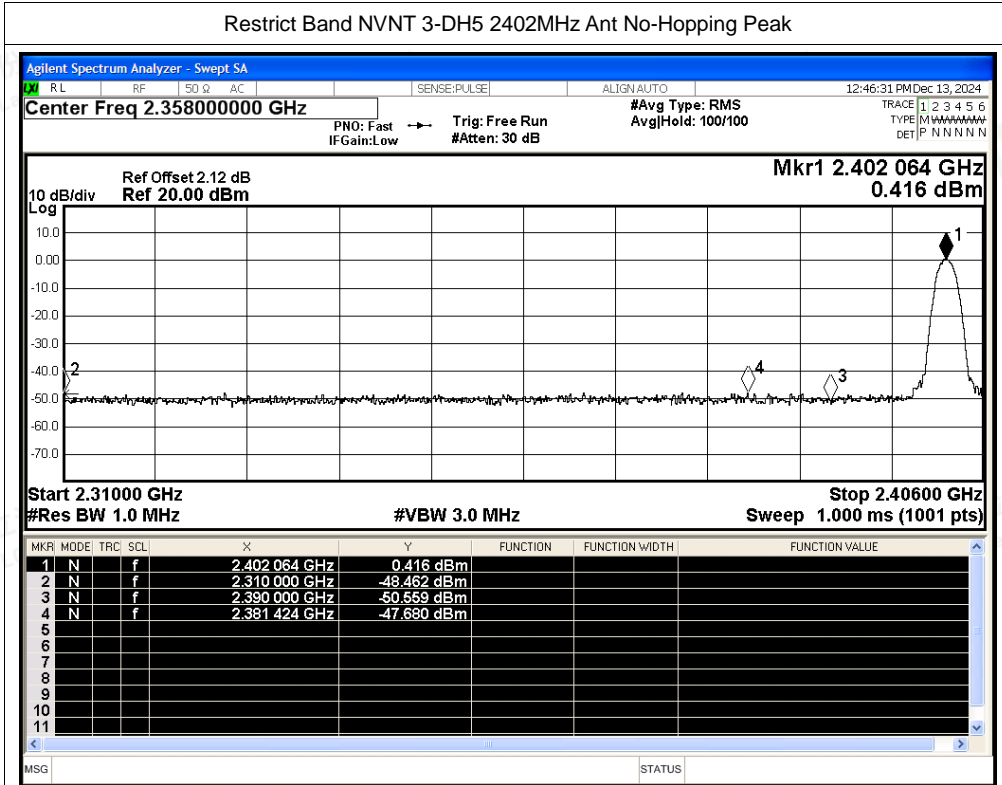


Restrict Band NVNT 2-DH5 2480MHz Ant No-Hopping Average

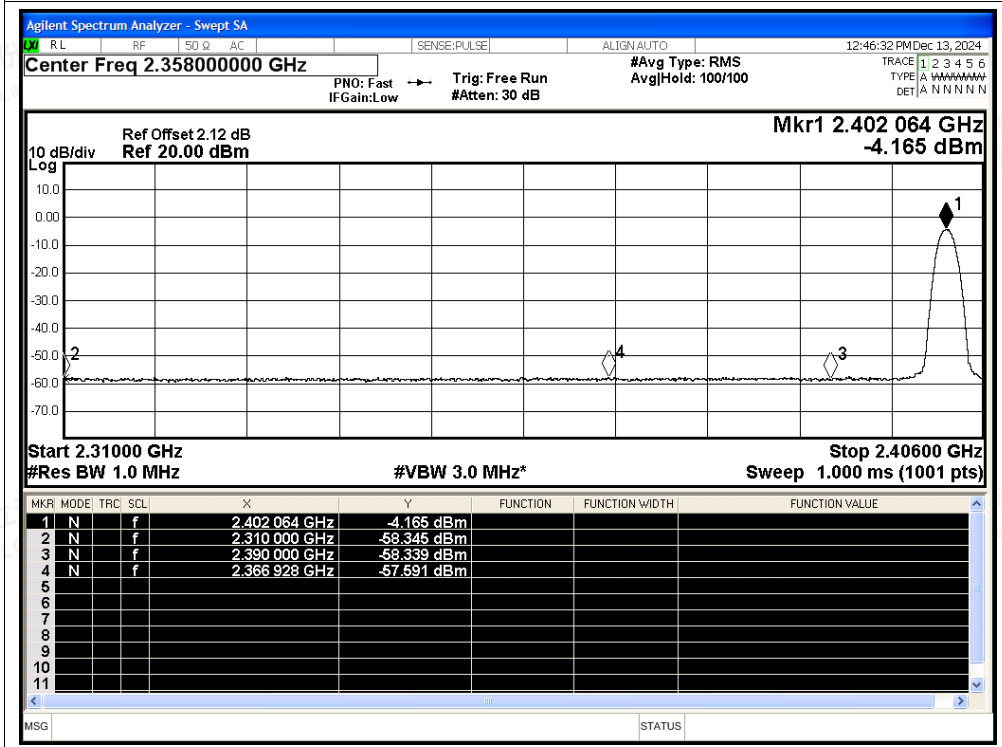




Restrict Band NVNT 3-DH5 2402MHz Ant No-Hopping Peak

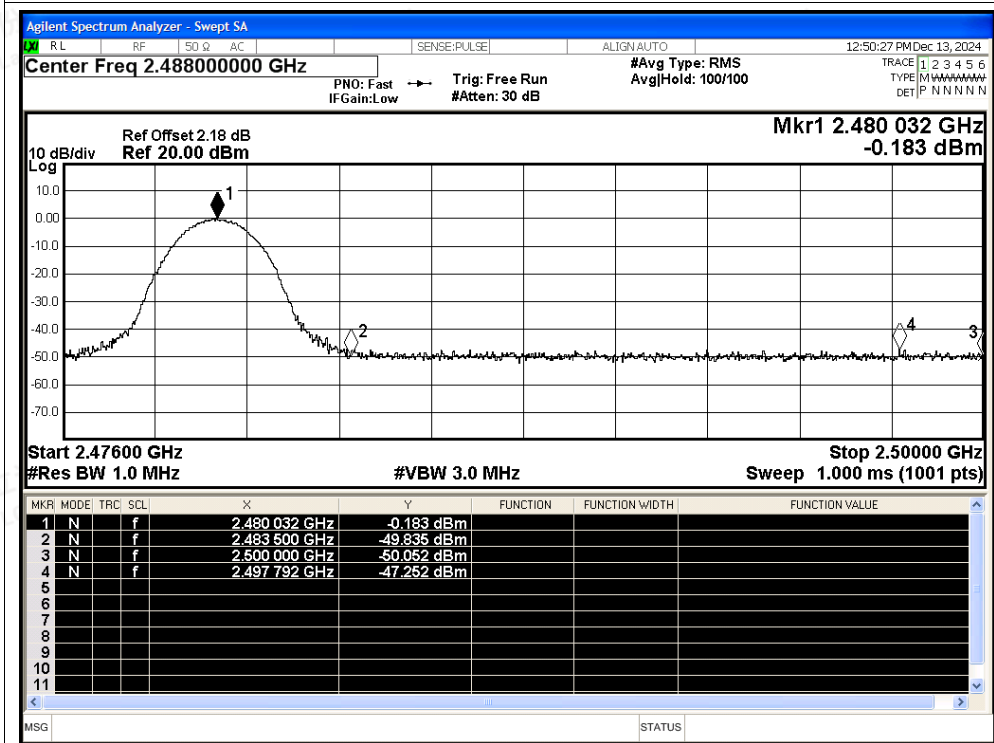


Restrict Band NVNT 3-DH5 2402MHz Ant No-Hopping Average





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



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

