



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: PROFESSIONAL SPEAKER

Test Model: MPD1240-XB

Environmental Conditions

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





A.1 -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.954	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.96	N/A	Pass
NVNT	1-DH5	2480	Ant1	1.029	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.287	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.284	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.289	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.299	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.286	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.303	N/A	Pass



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Scan code to check authenticity



Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1

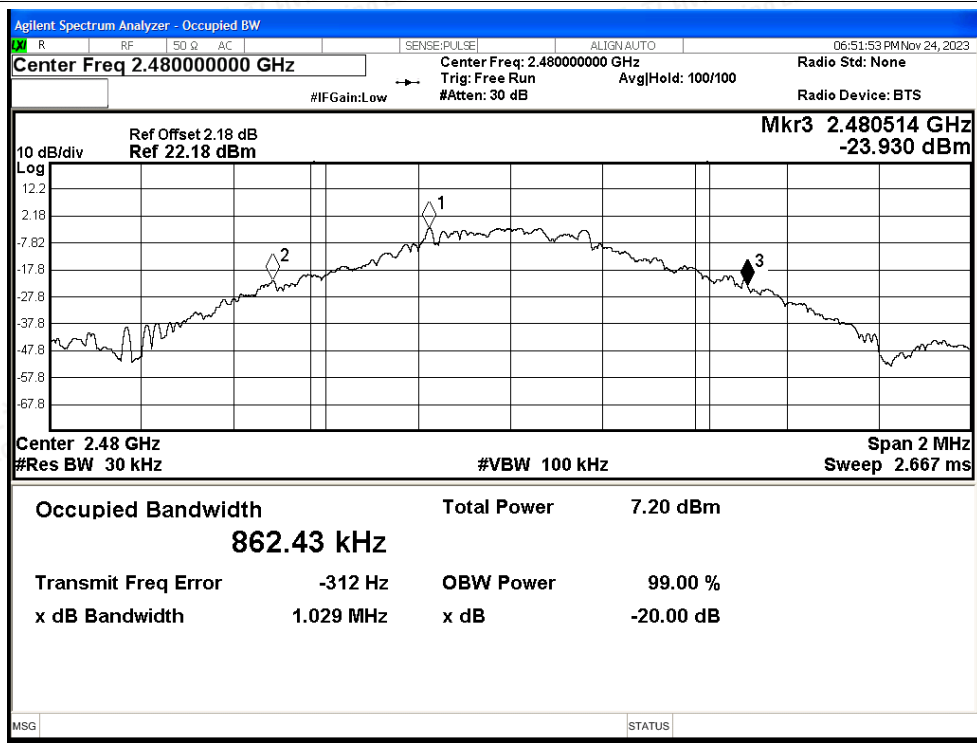


-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

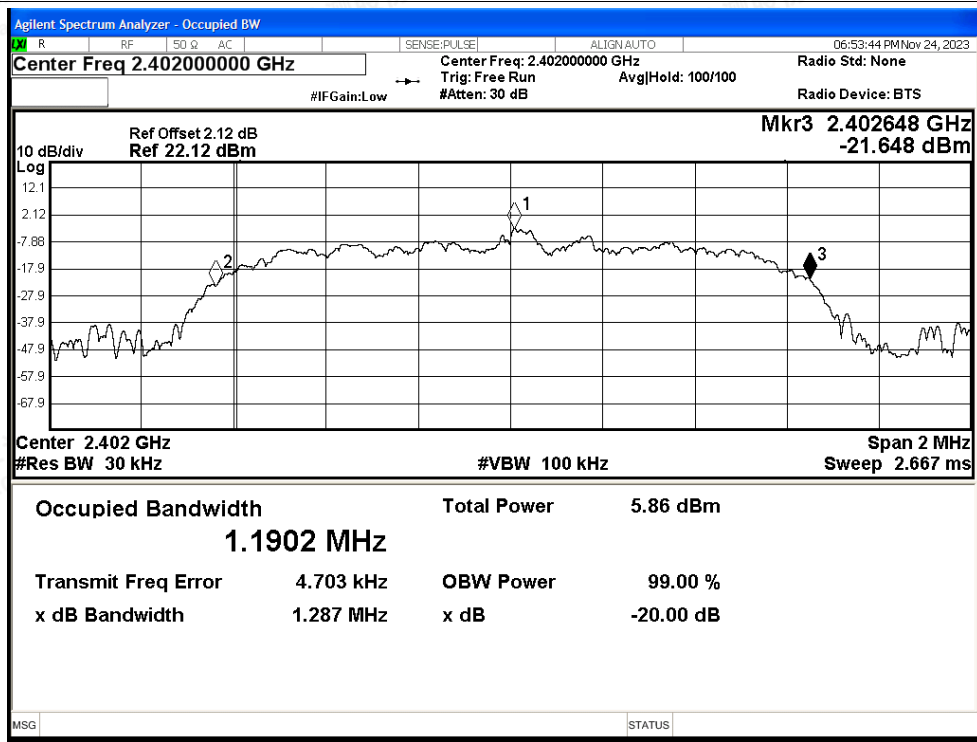




-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1

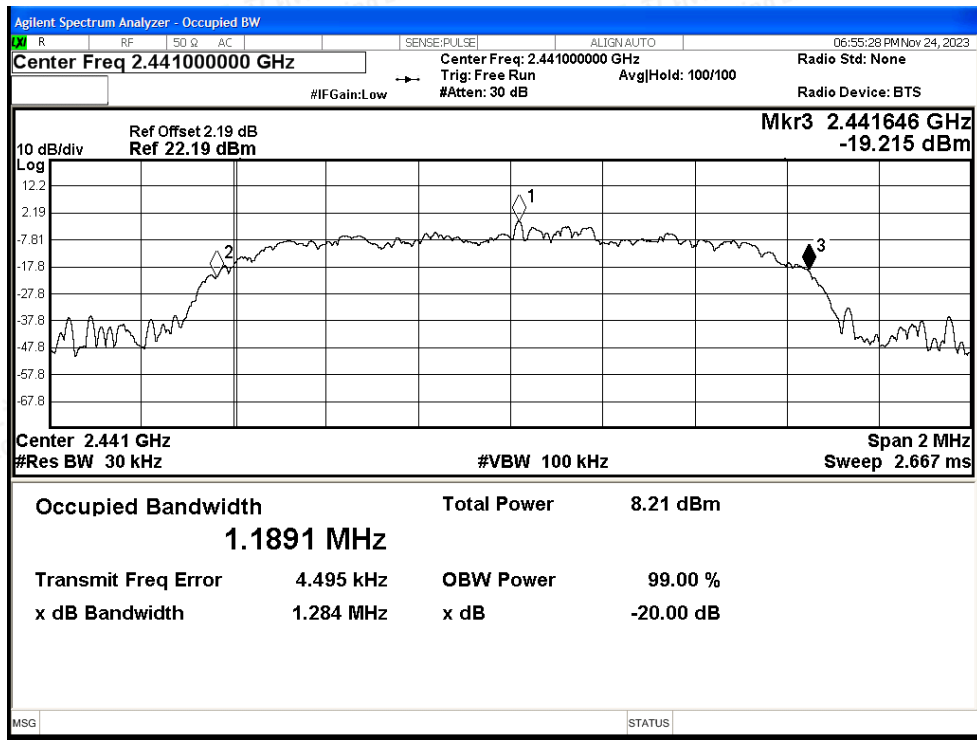


-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1

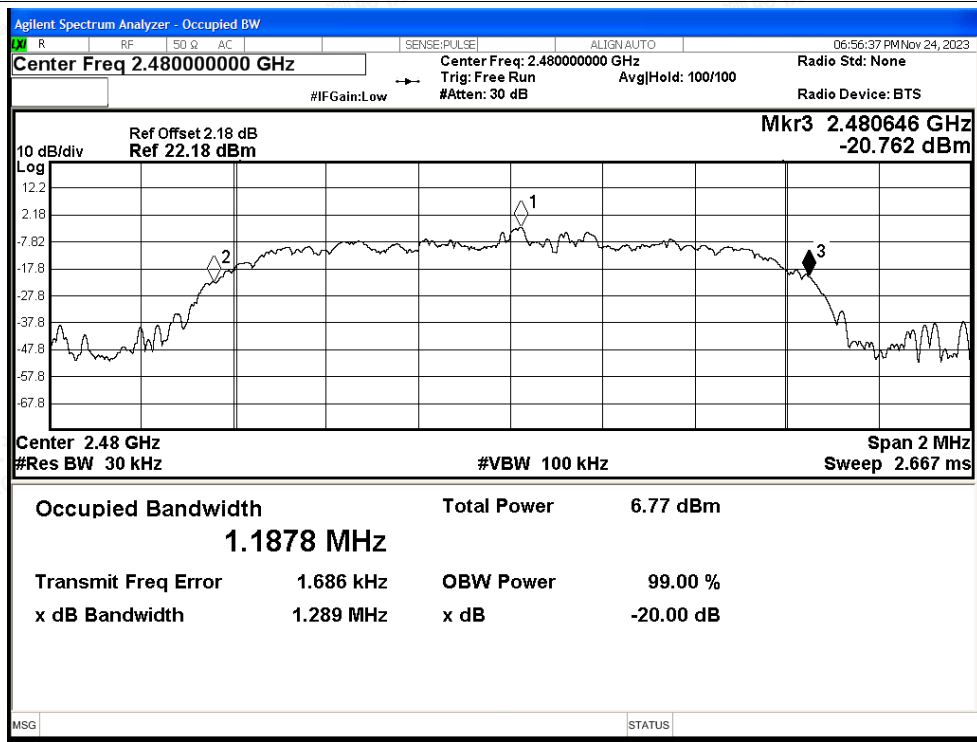




-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1

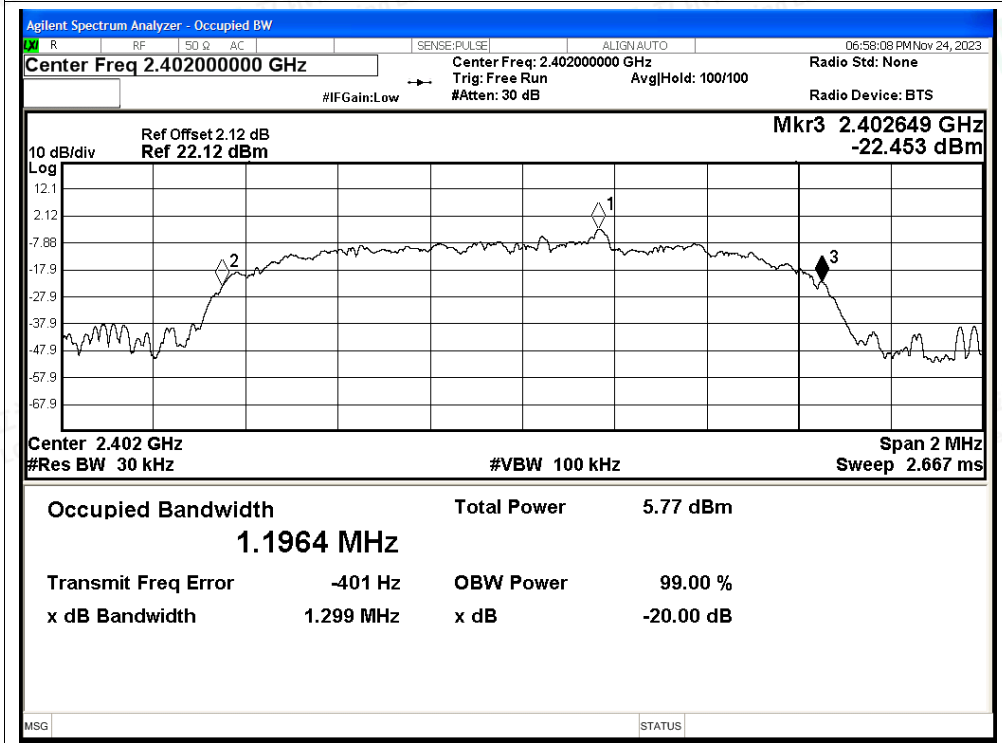


-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

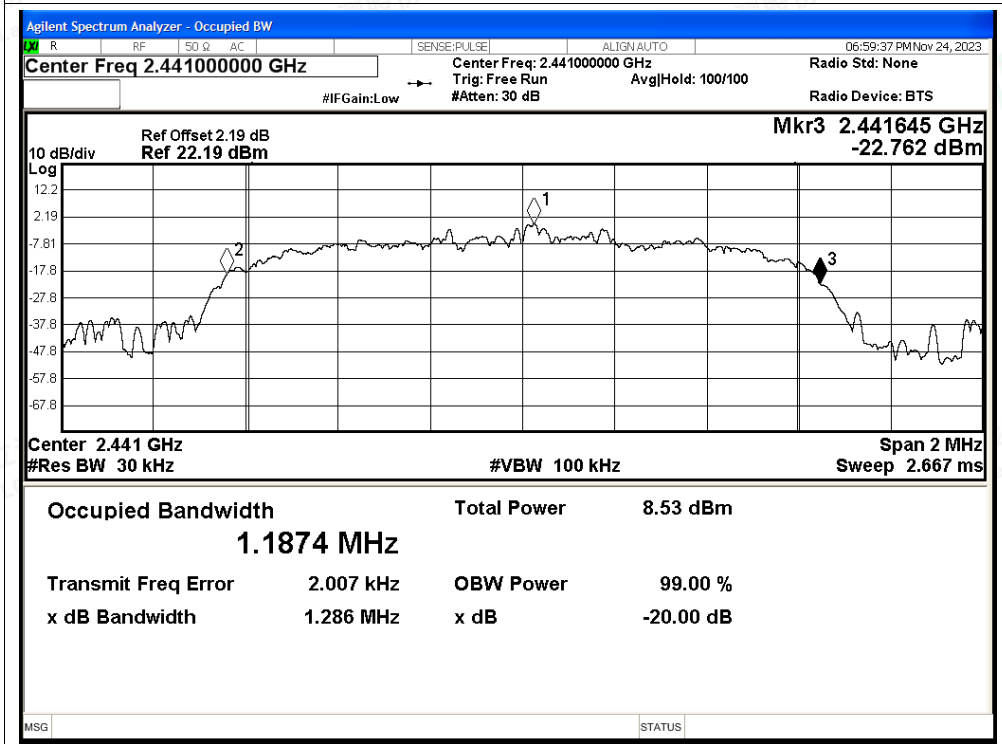


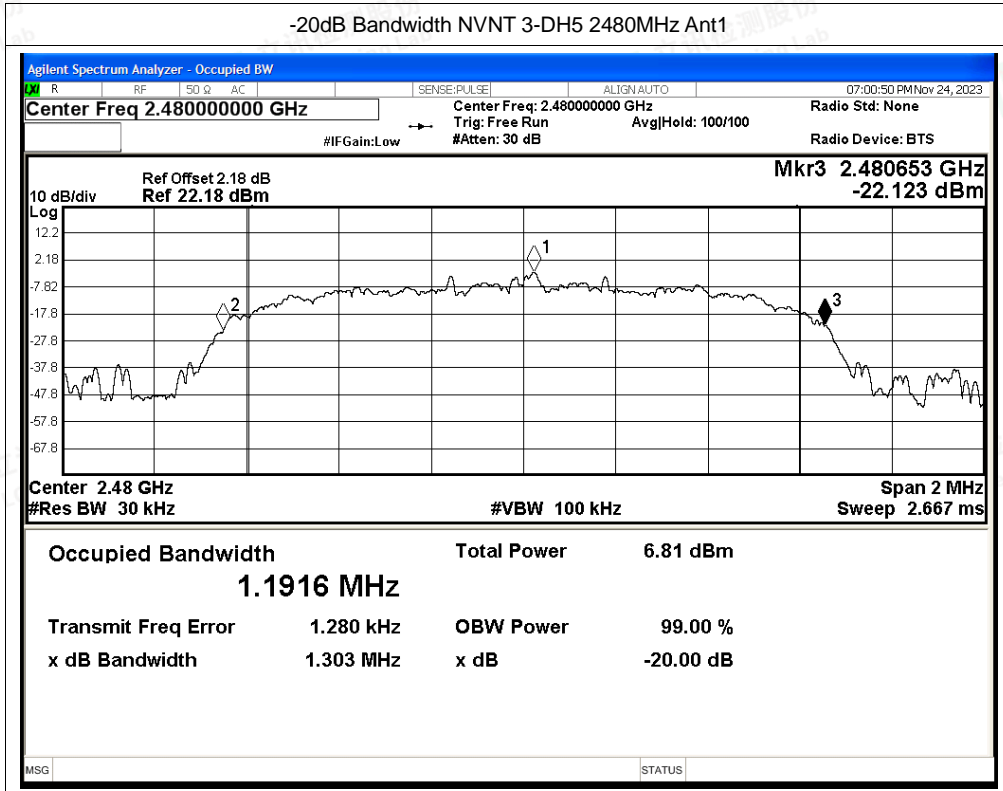


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1







A.2 Maximum Peak Conducted Output Power

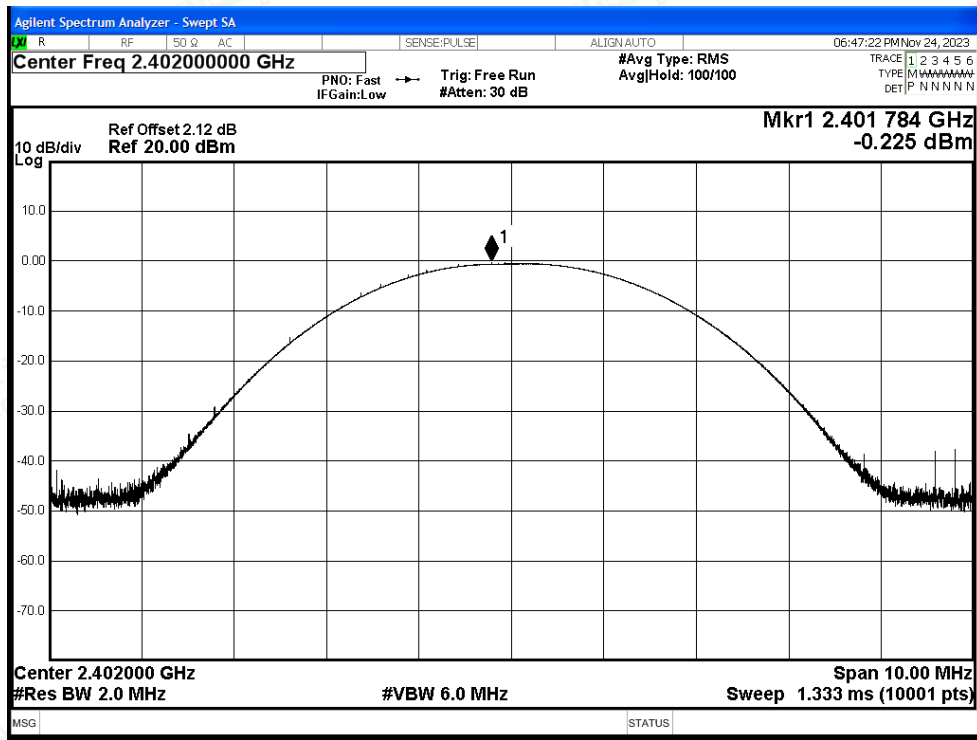
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-0.23	21	Pass
NVNT	1-DH5	2441	Ant1	1.94	21	Pass
NVNT	1-DH5	2480	Ant1	0.73	21	Pass
NVNT	2-DH5	2402	Ant1	-1.38	21	Pass
NVNT	2-DH5	2441	Ant1	1.09	21	Pass
NVNT	2-DH5	2480	Ant1	-0.09	21	Pass
NVNT	3-DH5	2402	Ant1	-0.97	21	Pass
NVNT	3-DH5	2441	Ant1	1.42	21	Pass
NVNT	3-DH5	2480	Ant1	0.19	21	Pass



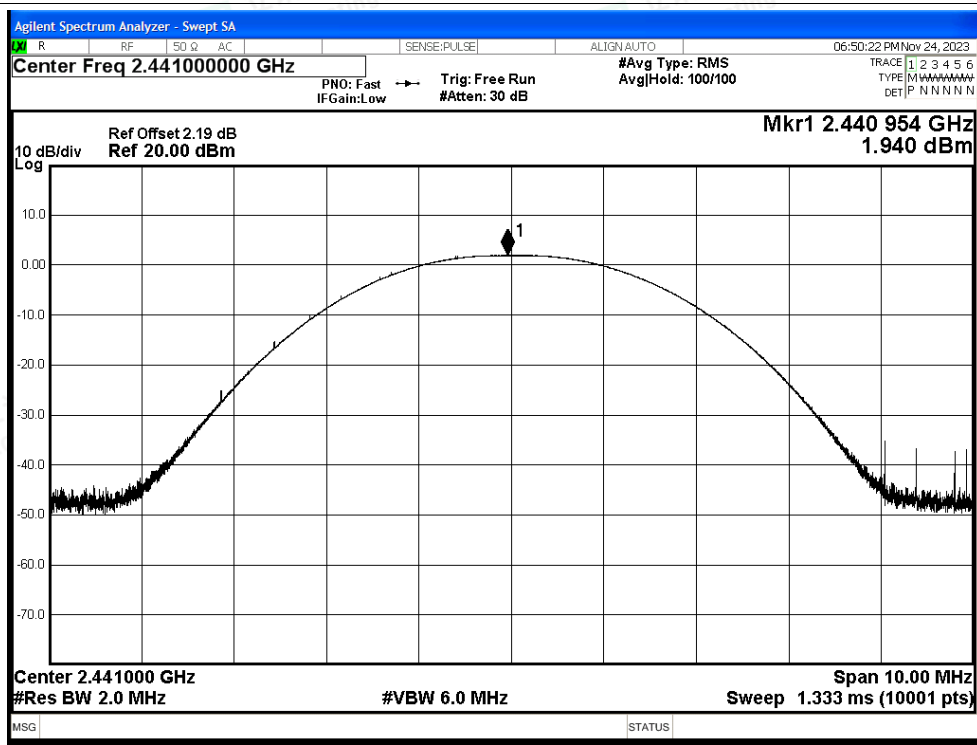


Test Graphs

Power NVNT 1-DH5 2402MHz Ant1

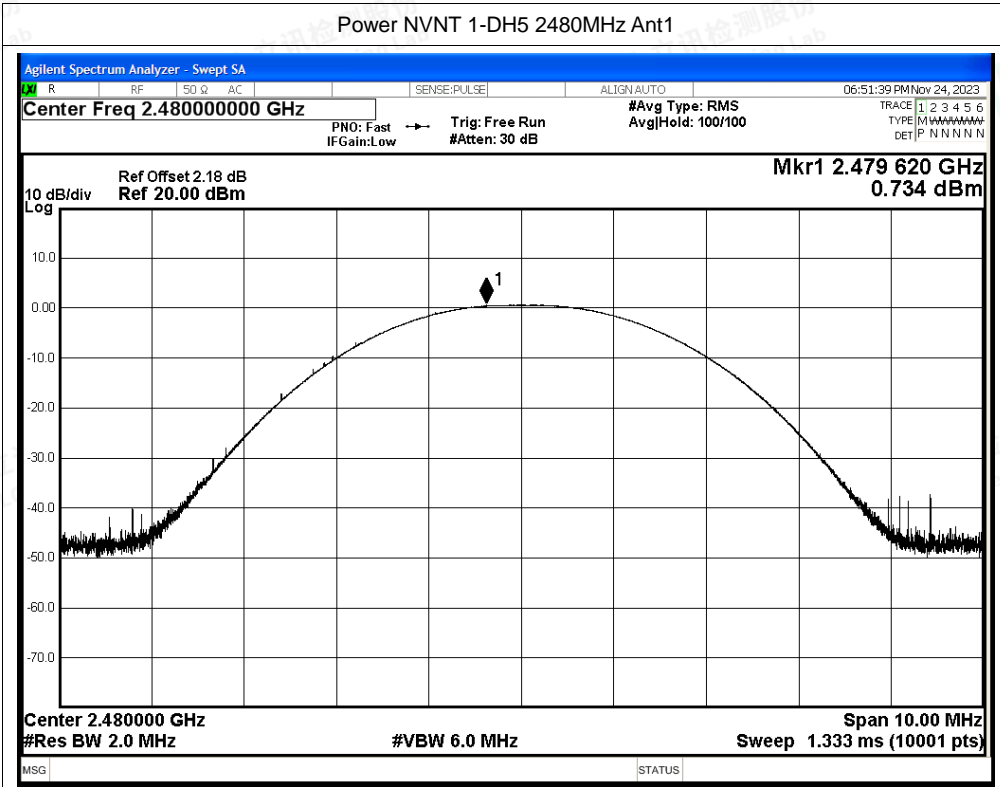


Power NVNT 1-DH5 2441MHz Ant1

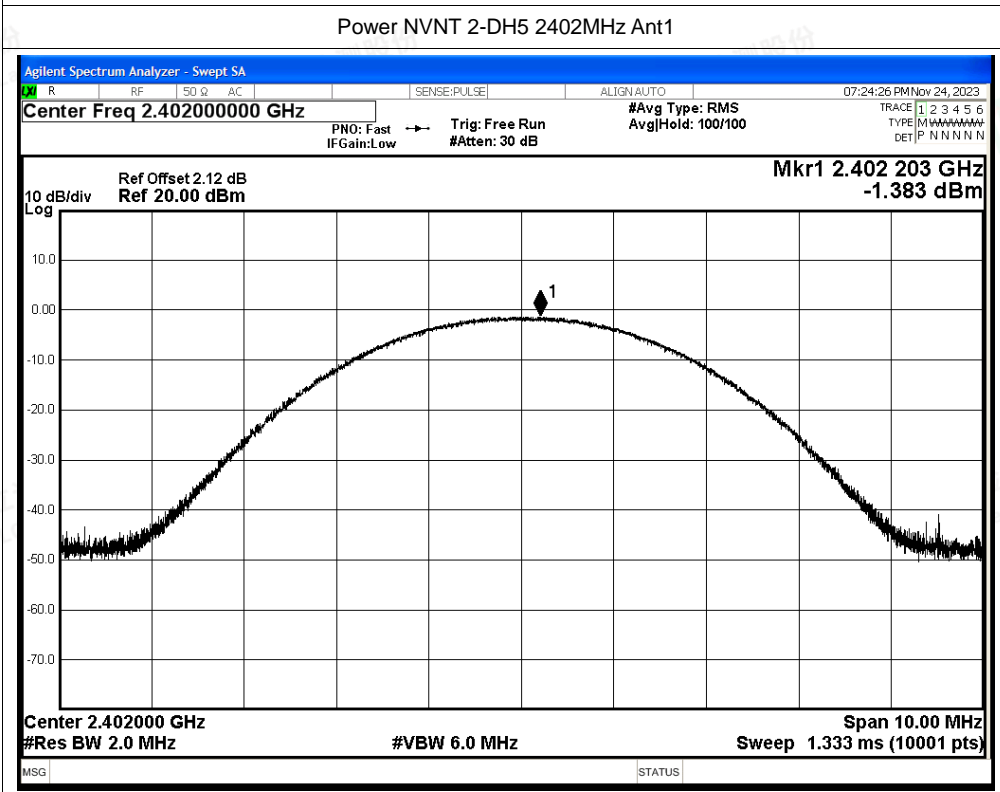




Power NVNT 1-DH5 2480MHz Ant1

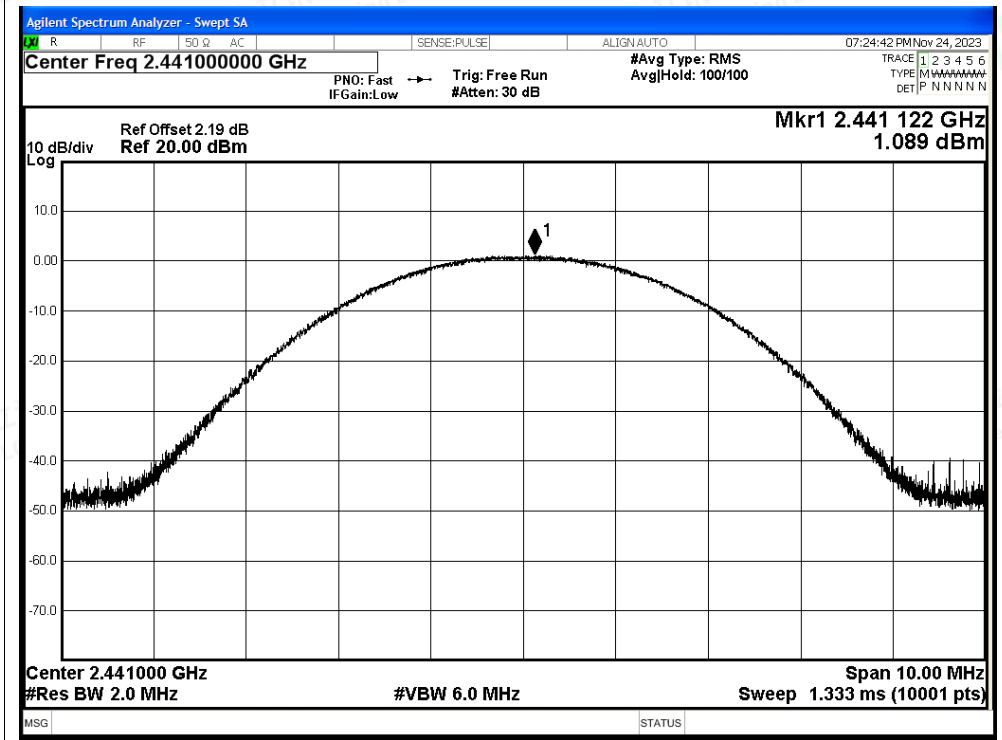


Power NVNT 2-DH5 2402MHz Ant1

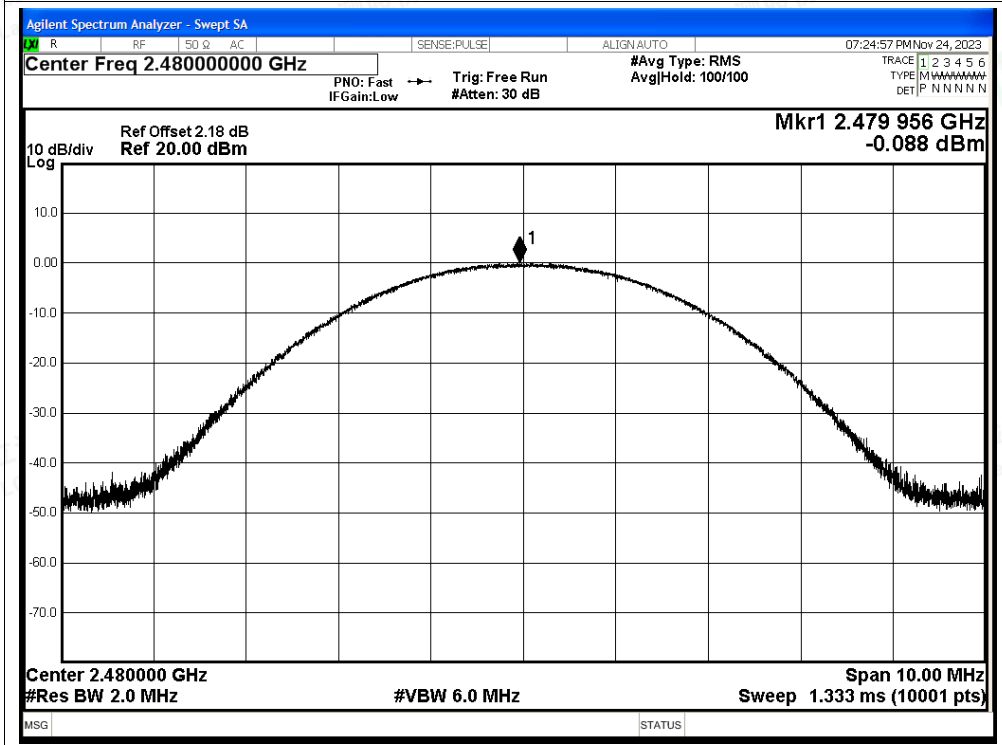




Power NVNT 2-DH5 2441MHz Ant1

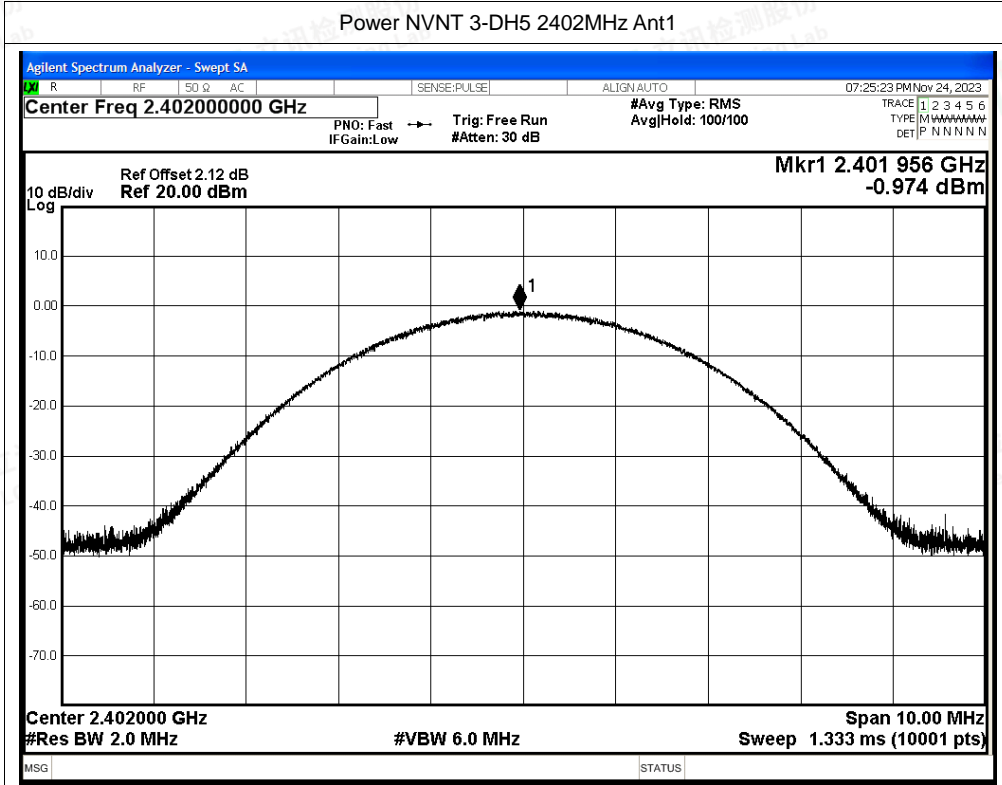


Power NVNT 2-DH5 2480MHz Ant1

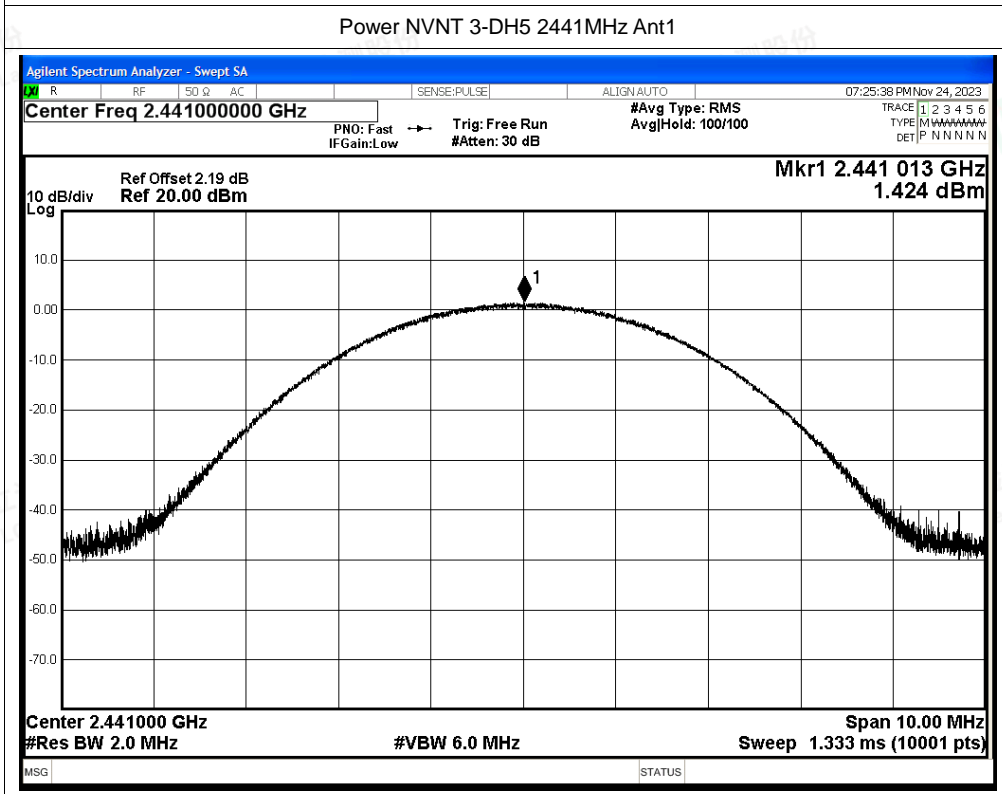


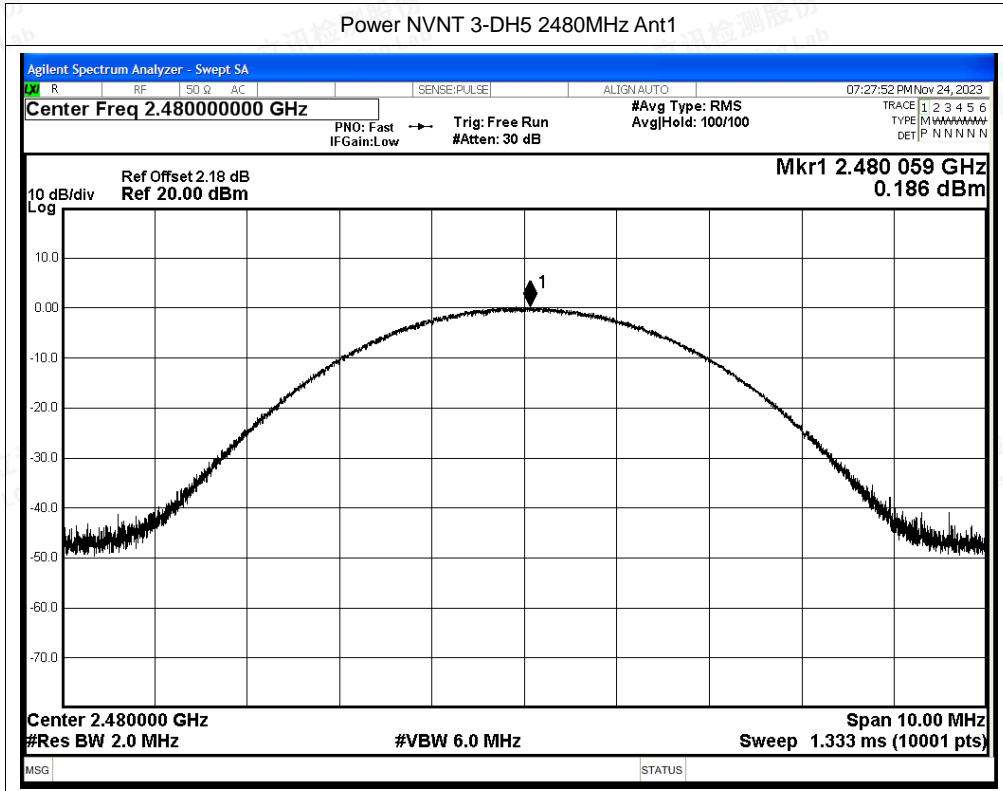


Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1







A.3 Carrier Frequencies Separation

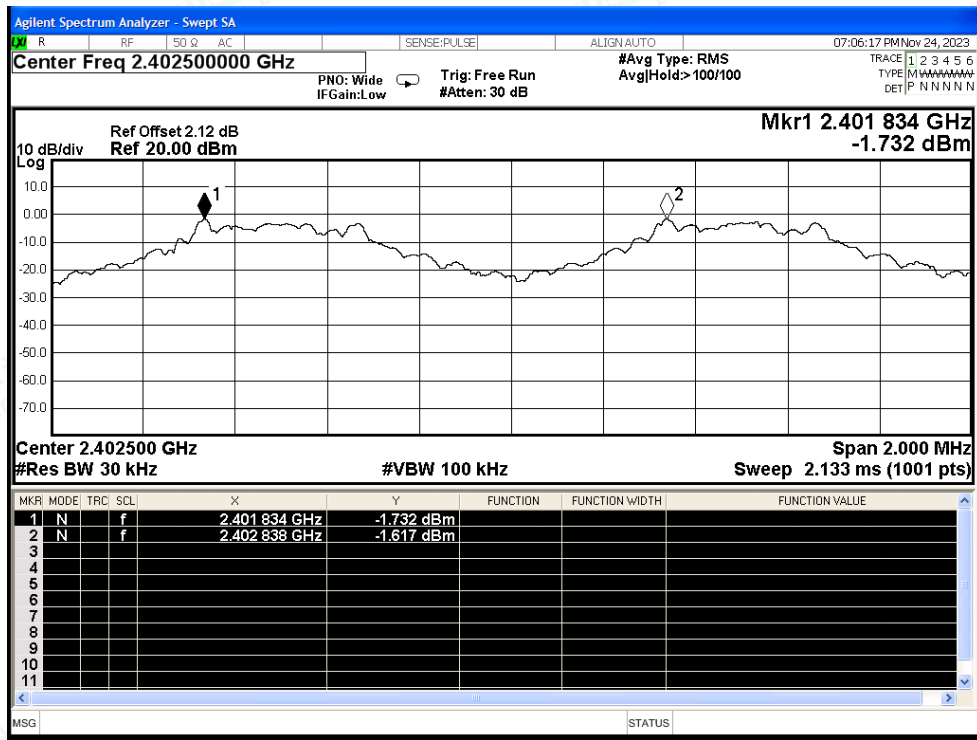
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.834	2402.838	1.004	0.686	Pass
NVNT	2-DH5	Ant1	2402.012	2403.032	1.02	0.859	Pass
NVNT	3-DH5	Ant1	2402	2403.002	1.002	0.869	Pass



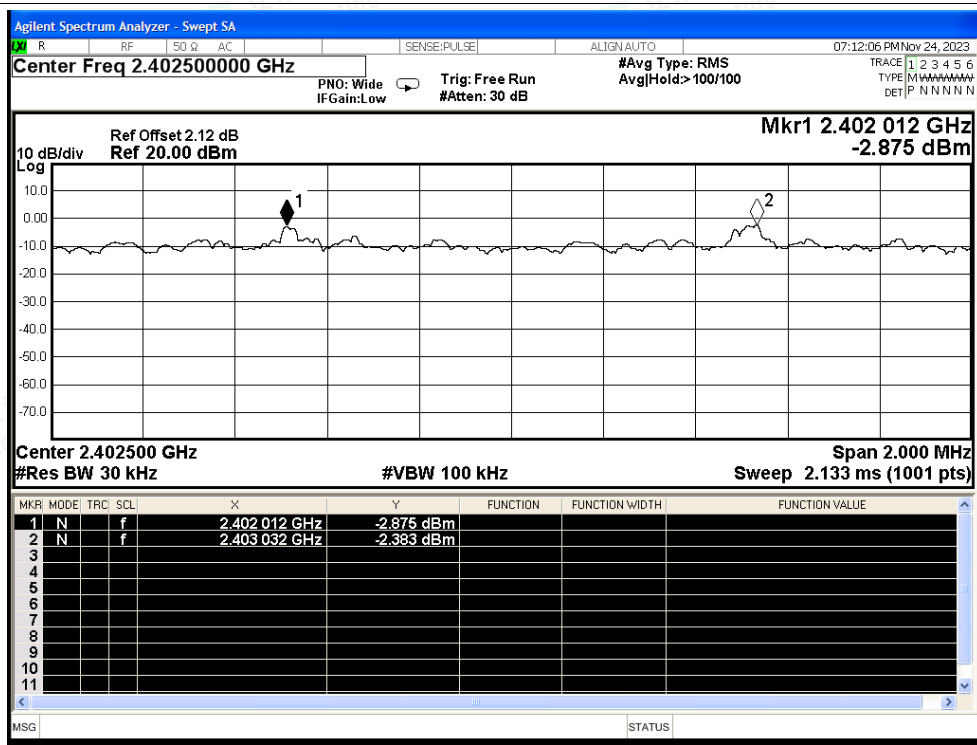


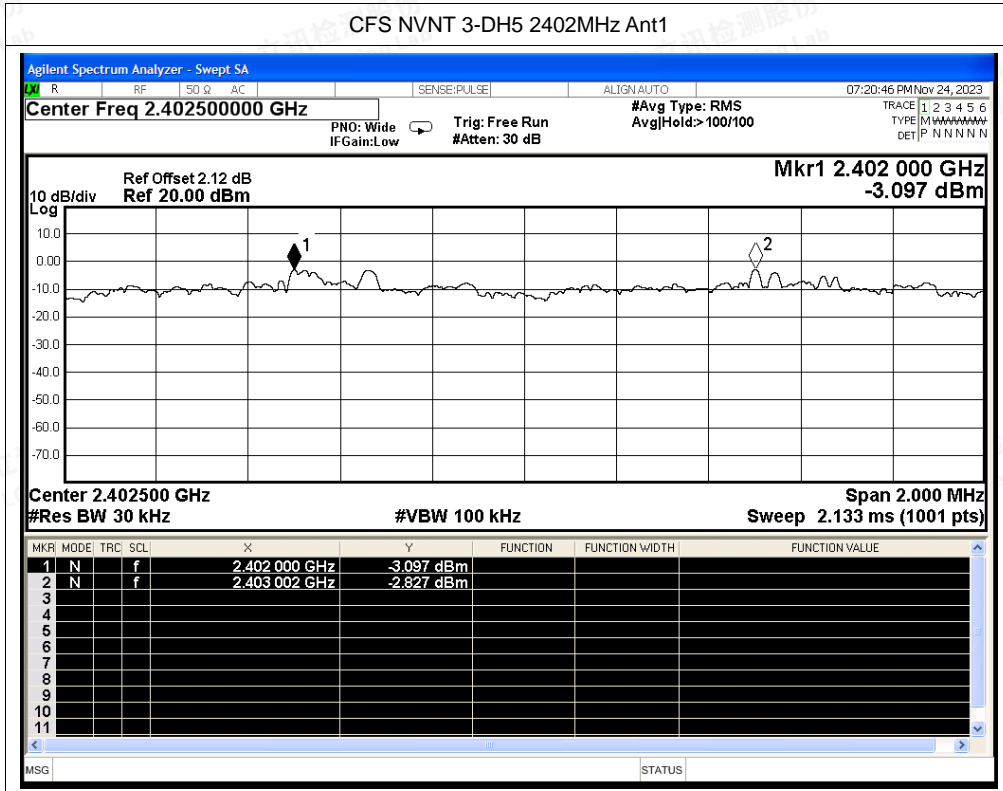
Test Graphs

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	2.909	279.264	96	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.898	292.698	101	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.897	257.833	89	31600	400	Pass

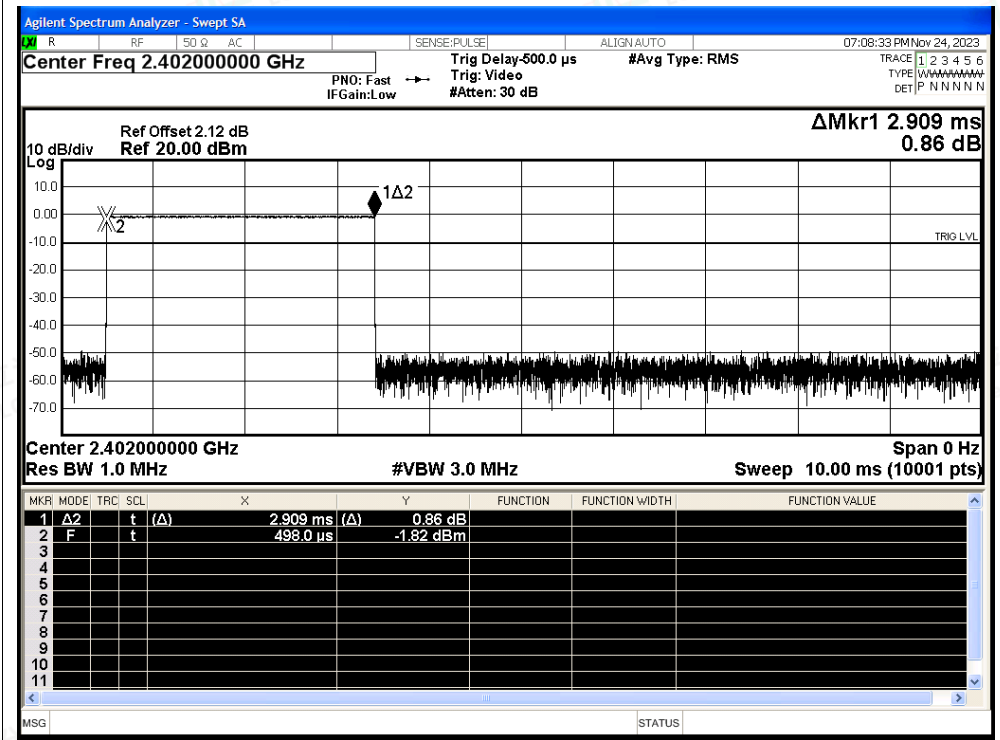


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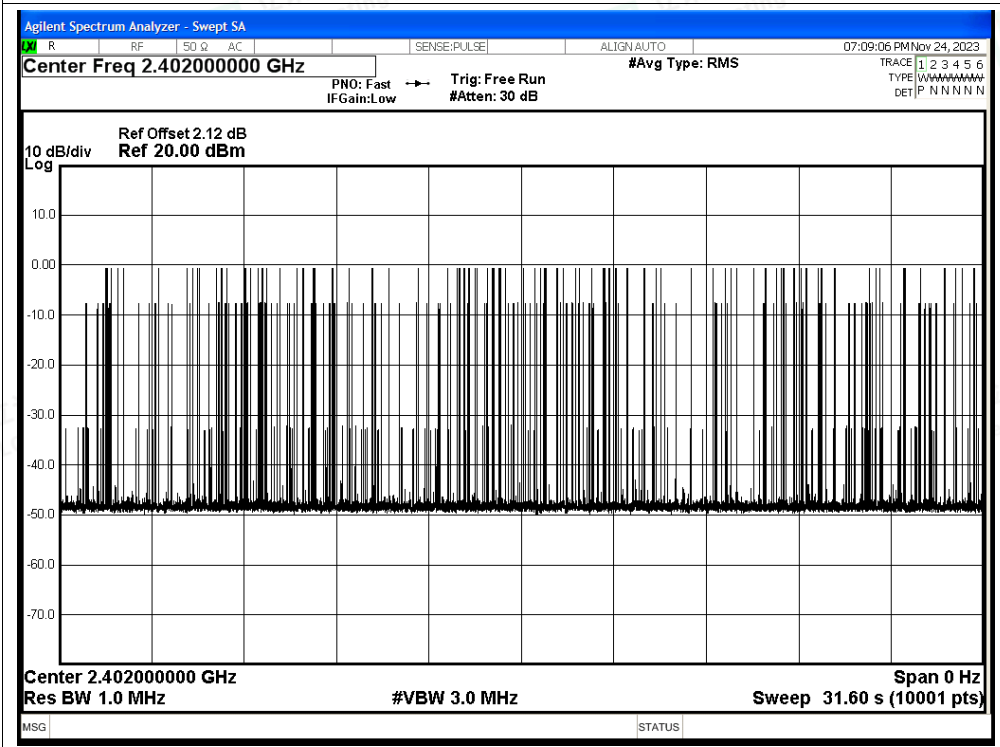


Test Graphs

Dwell NVNT 1-DH5 2402MHz Ant1 One Burst

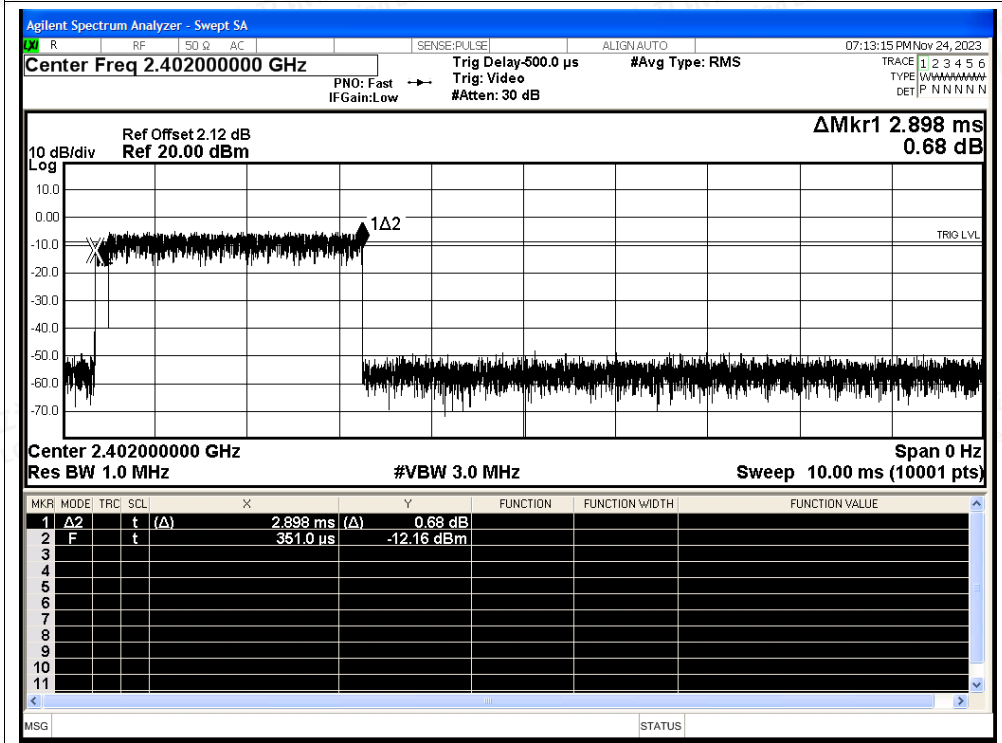


Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated

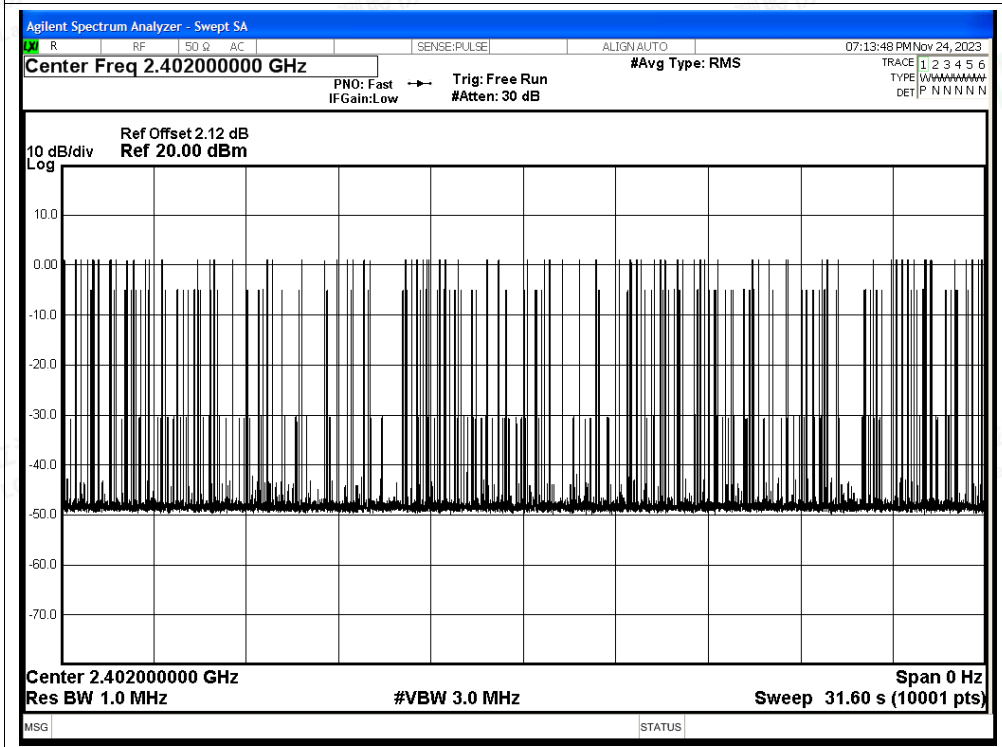




Dwell NVNT 2-DH5 2402MHz Ant1 One Burst

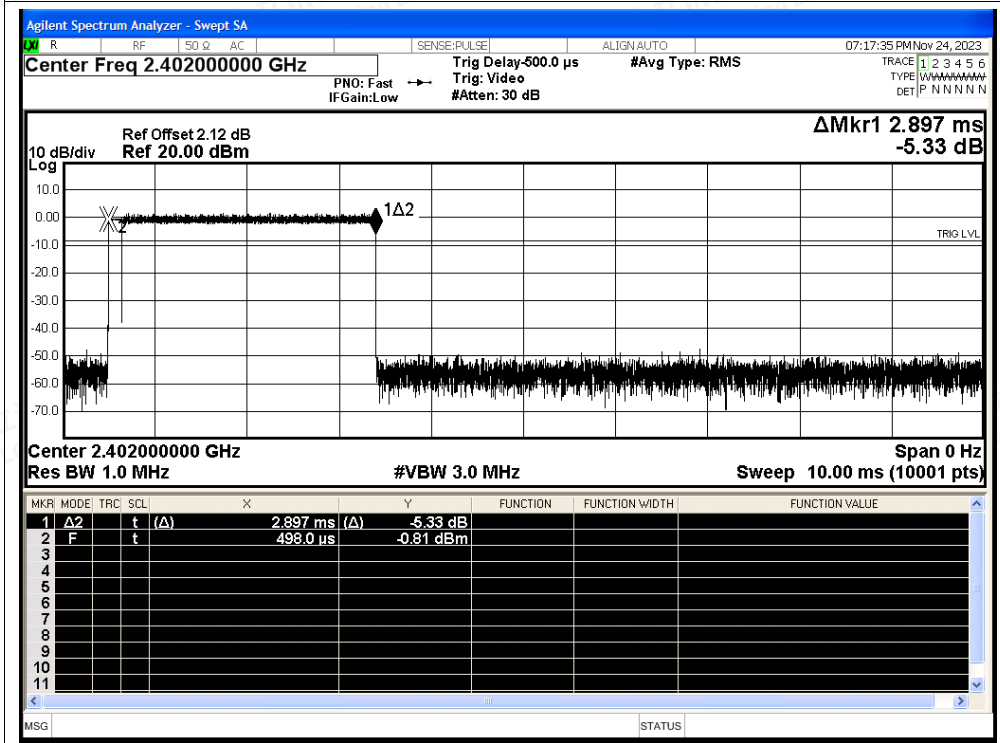


Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated

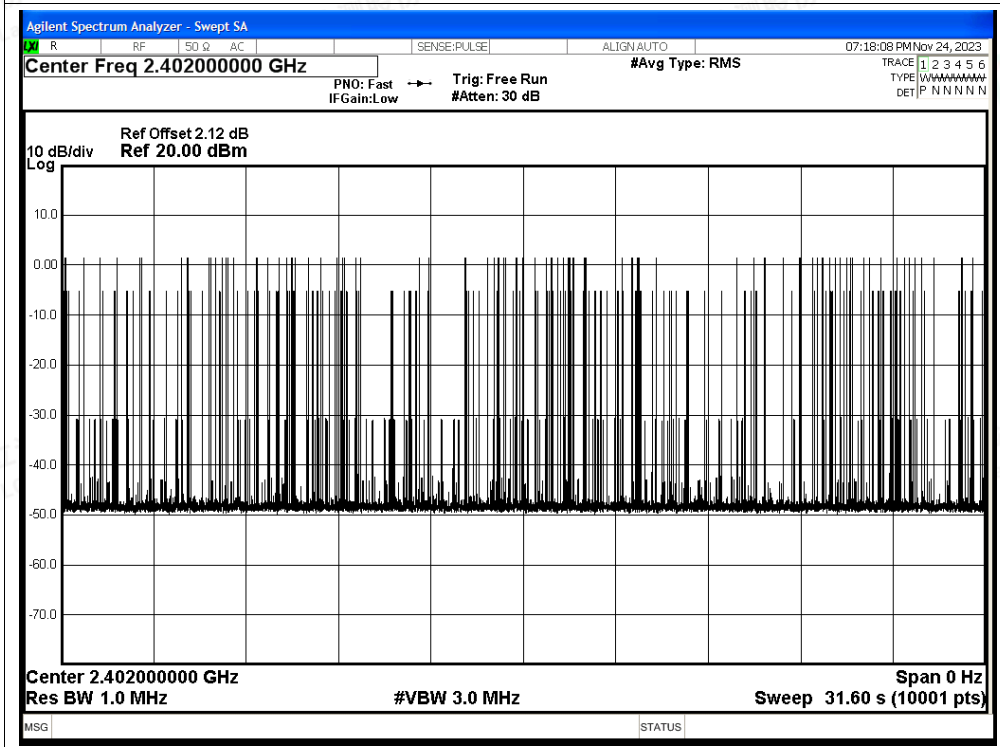




Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated





A.5 Number of Hopping Channel

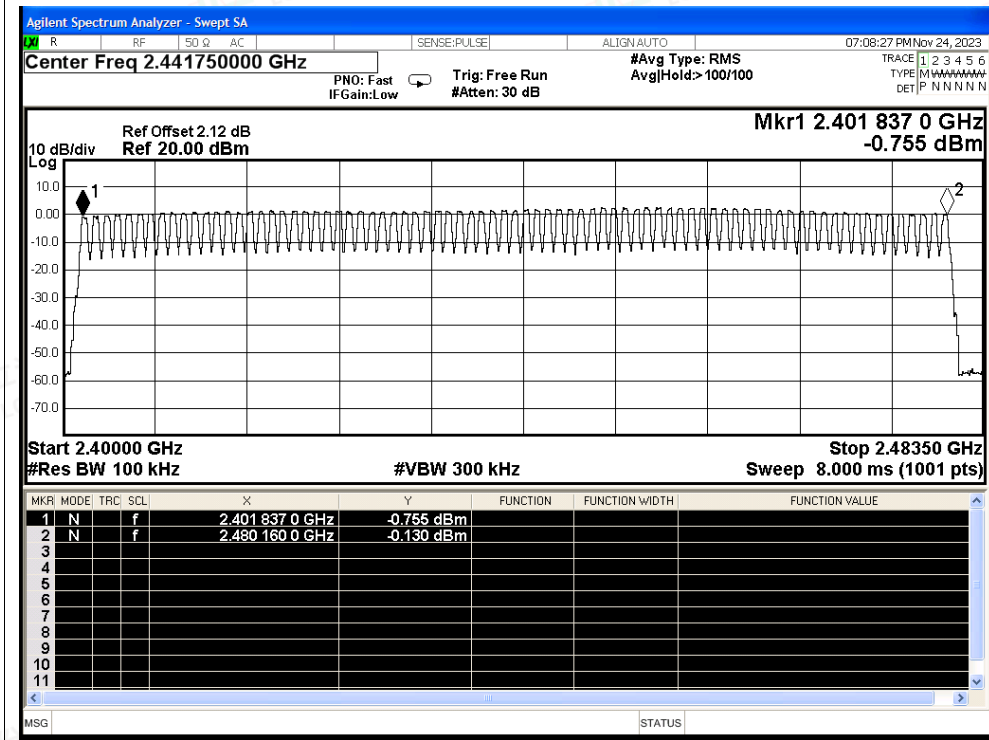
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass



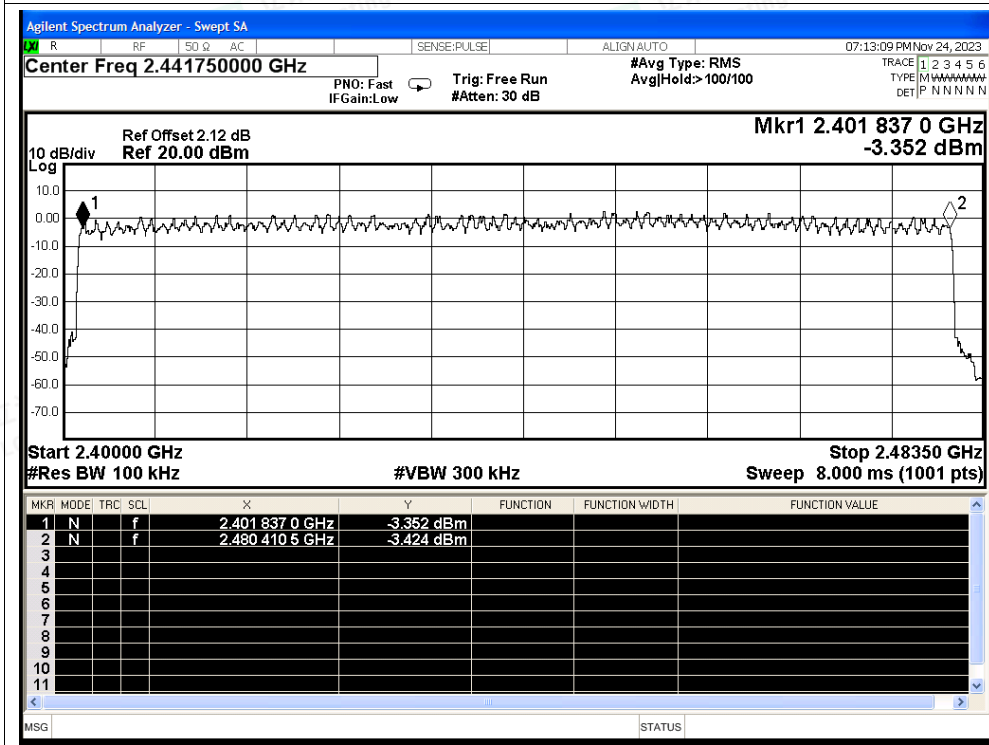


Test Graphs

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	-55.61	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-56.85	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-52.94	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-57.07	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-52.41	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-56.19	-20	Pass

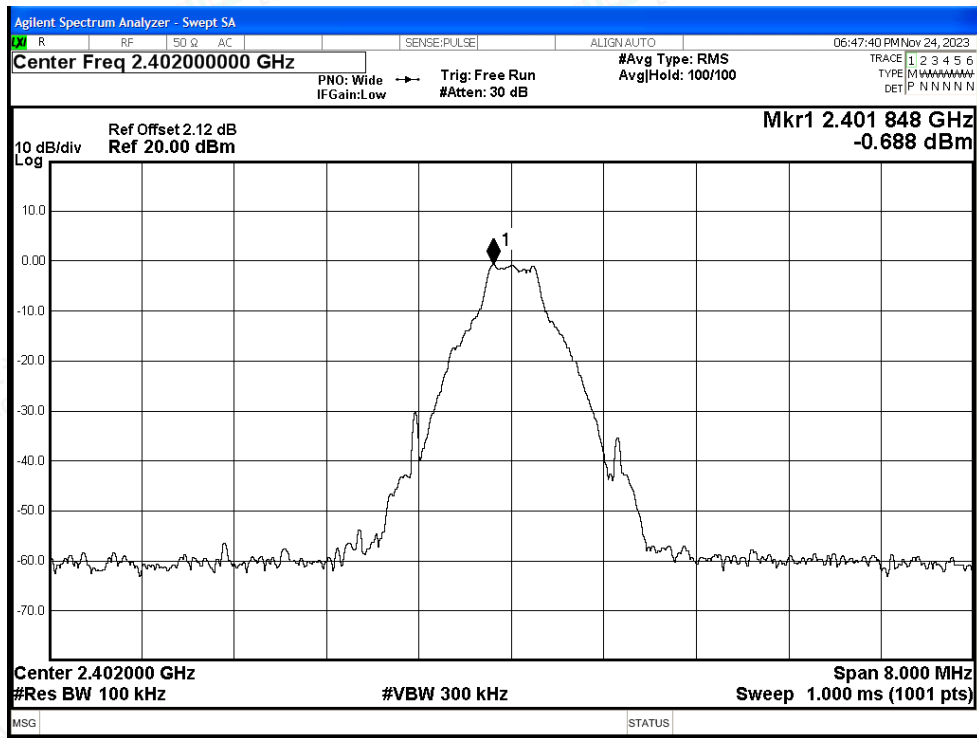


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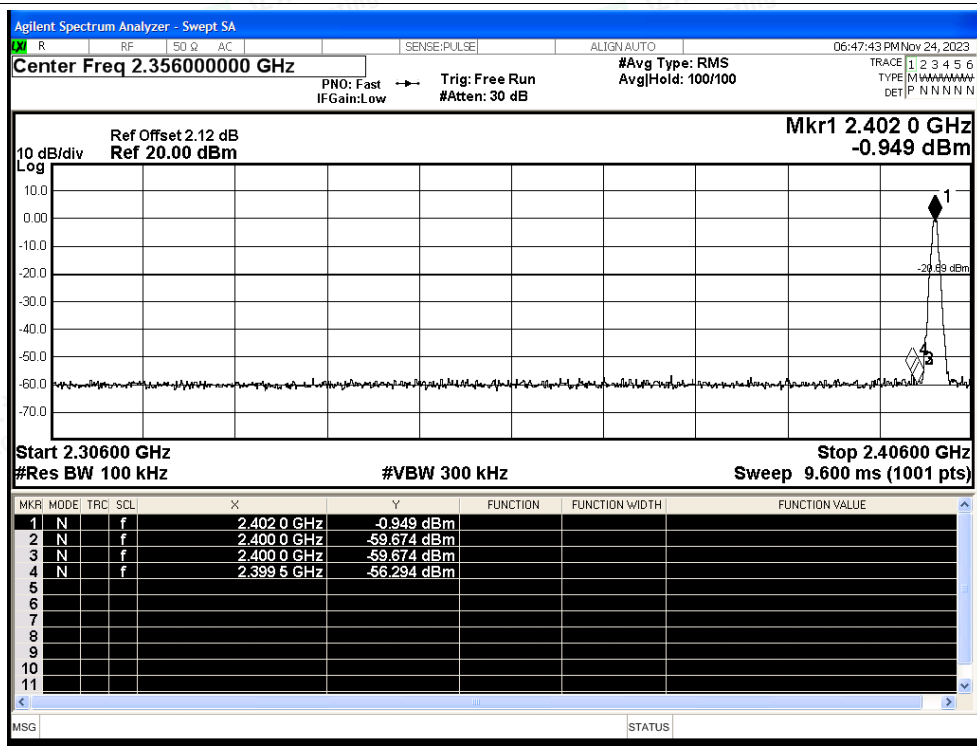


Test Graphs

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

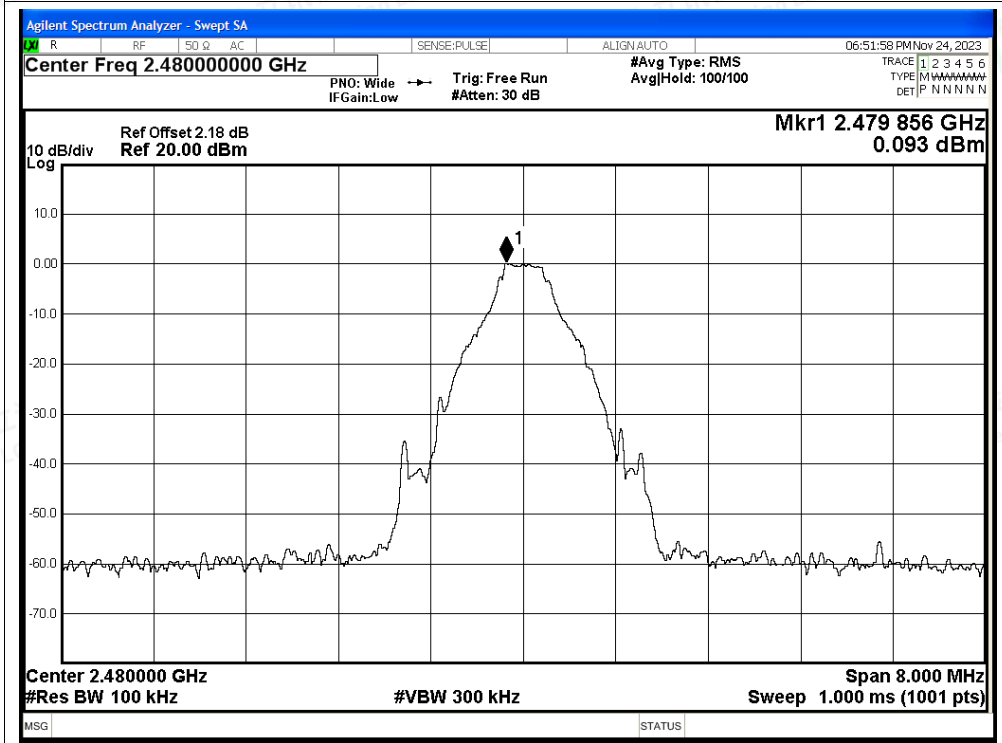


Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

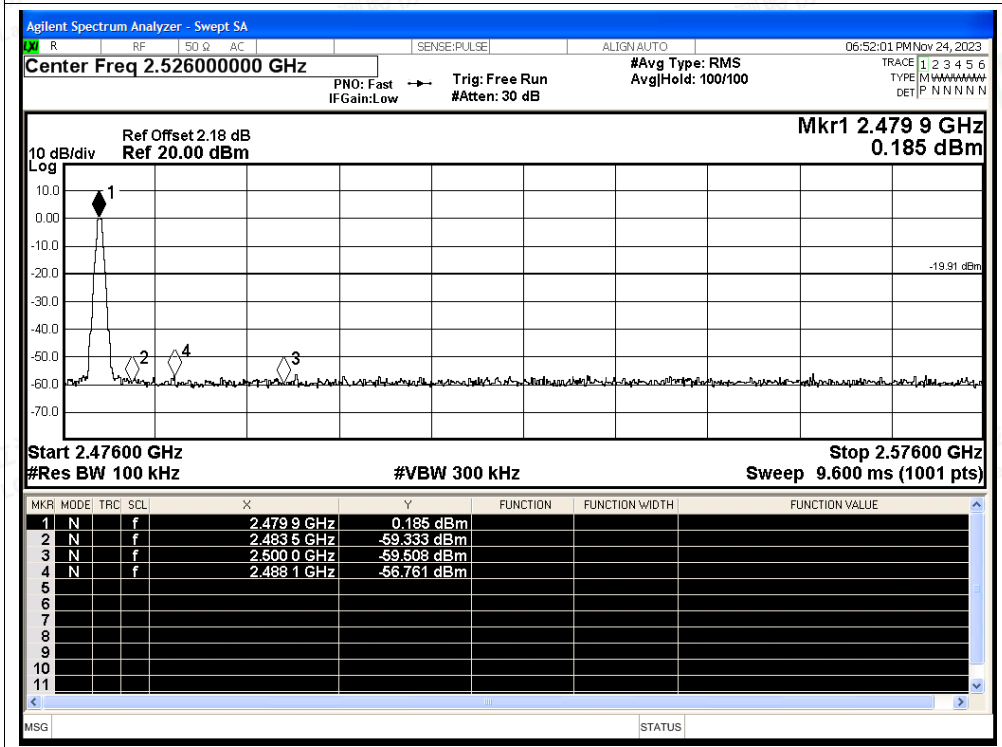




Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



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

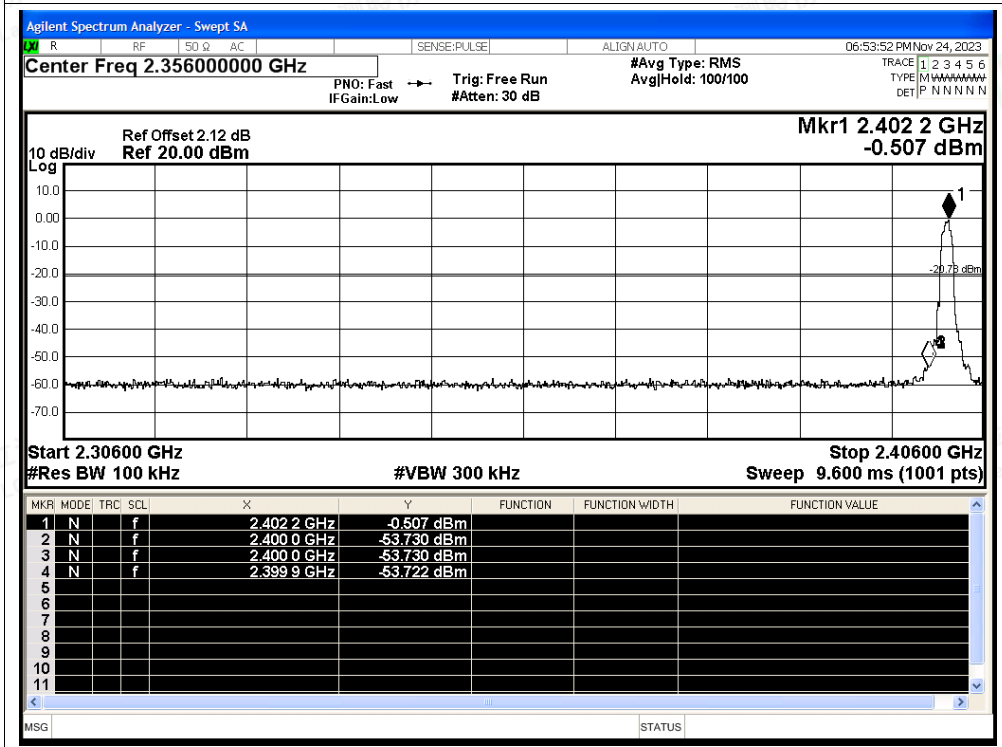




Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref

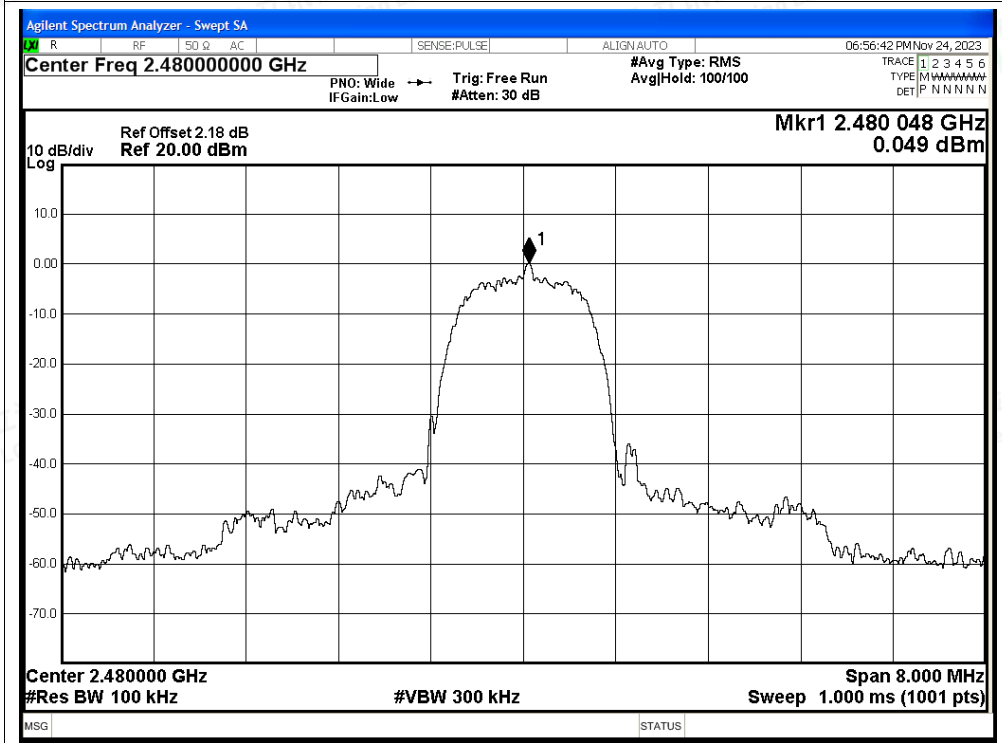


Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission

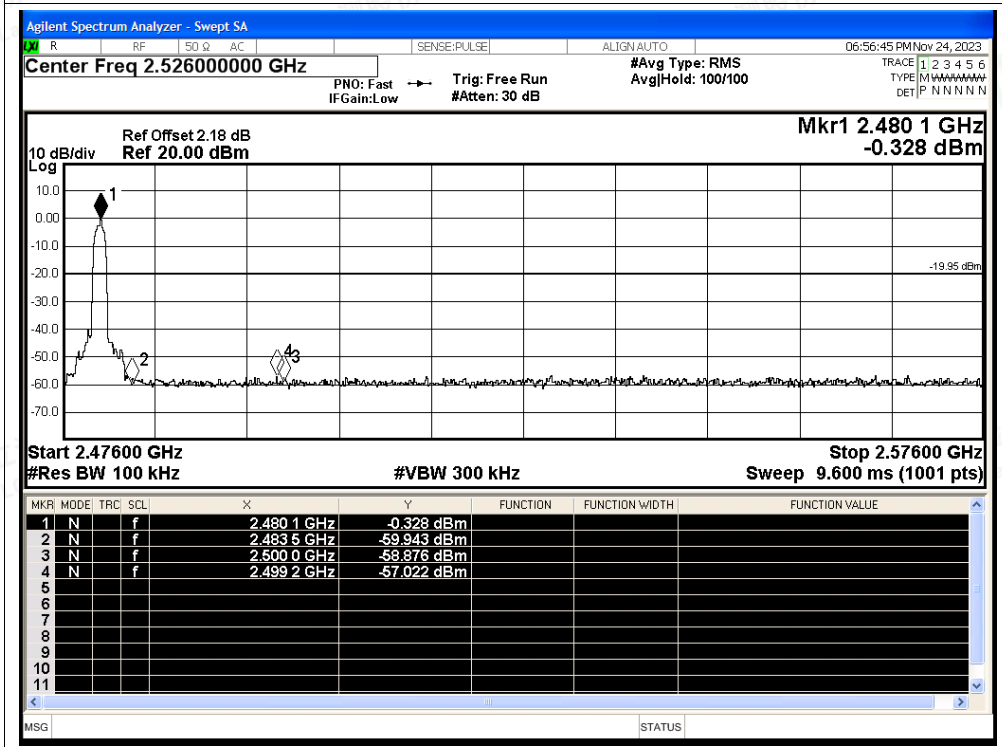




Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref

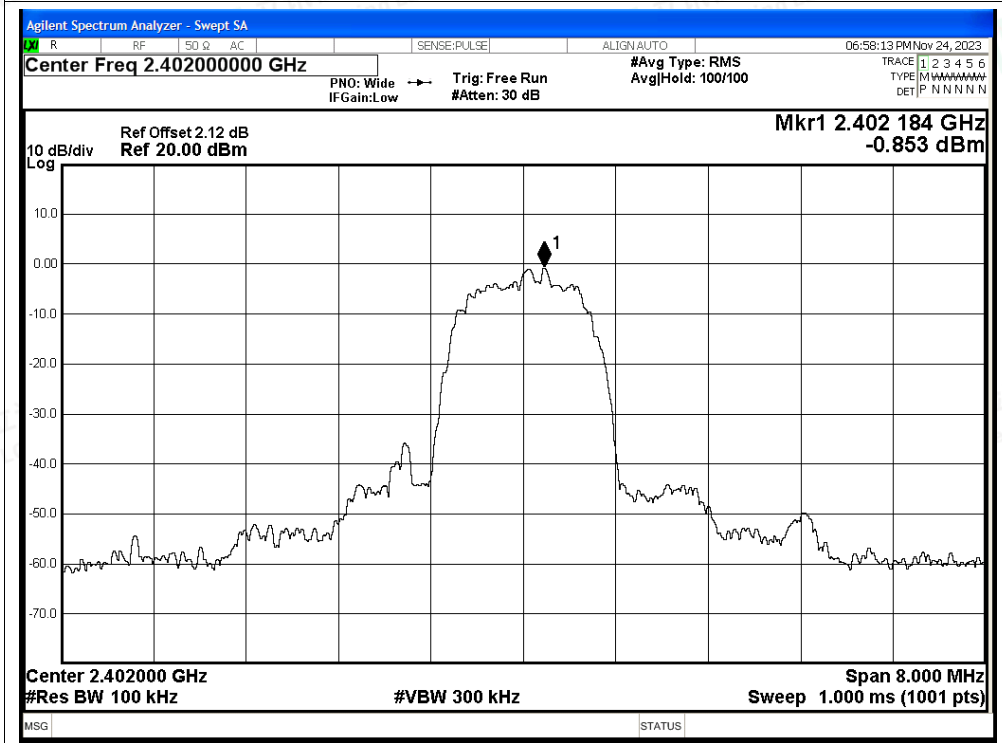


Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission

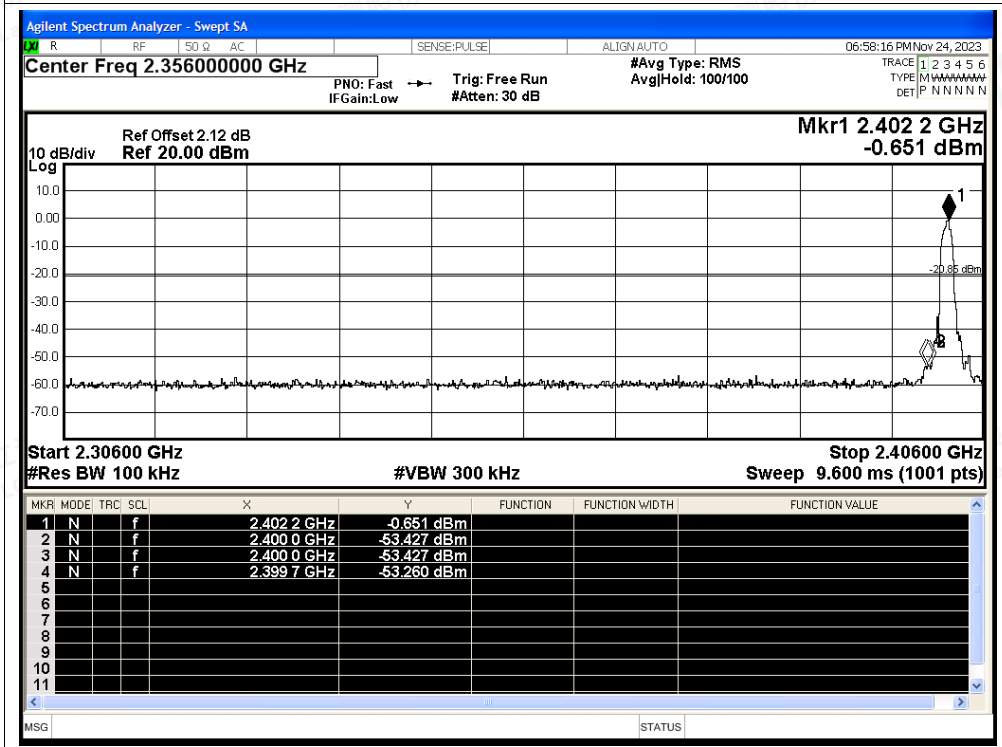




Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref

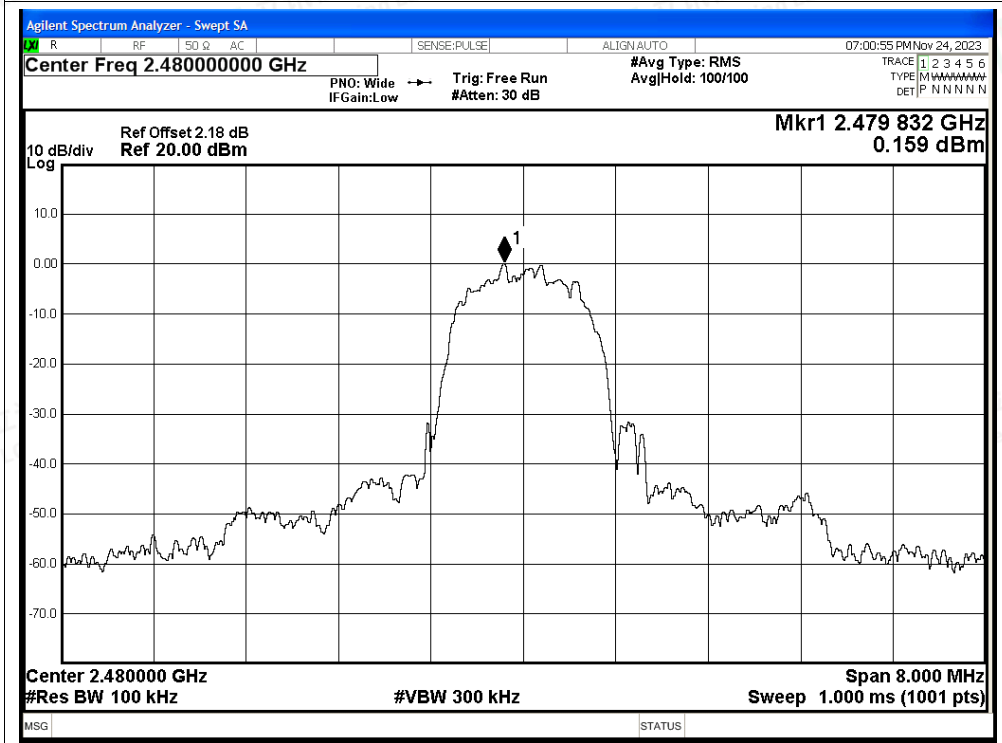


Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission

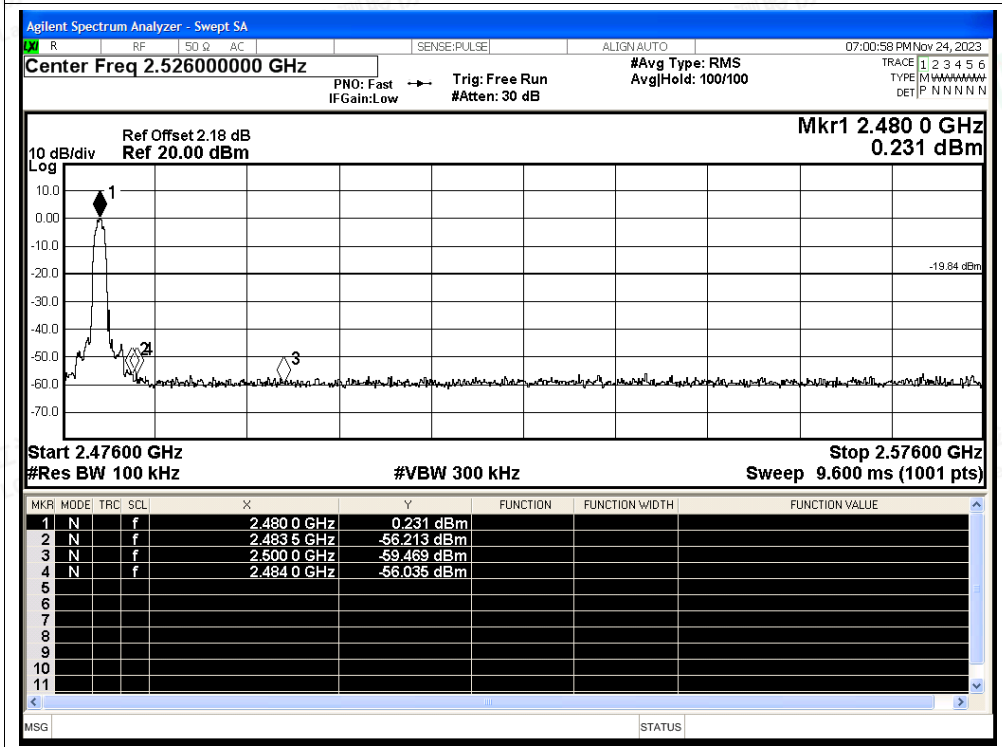




Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



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





Band Edge(Hopping)

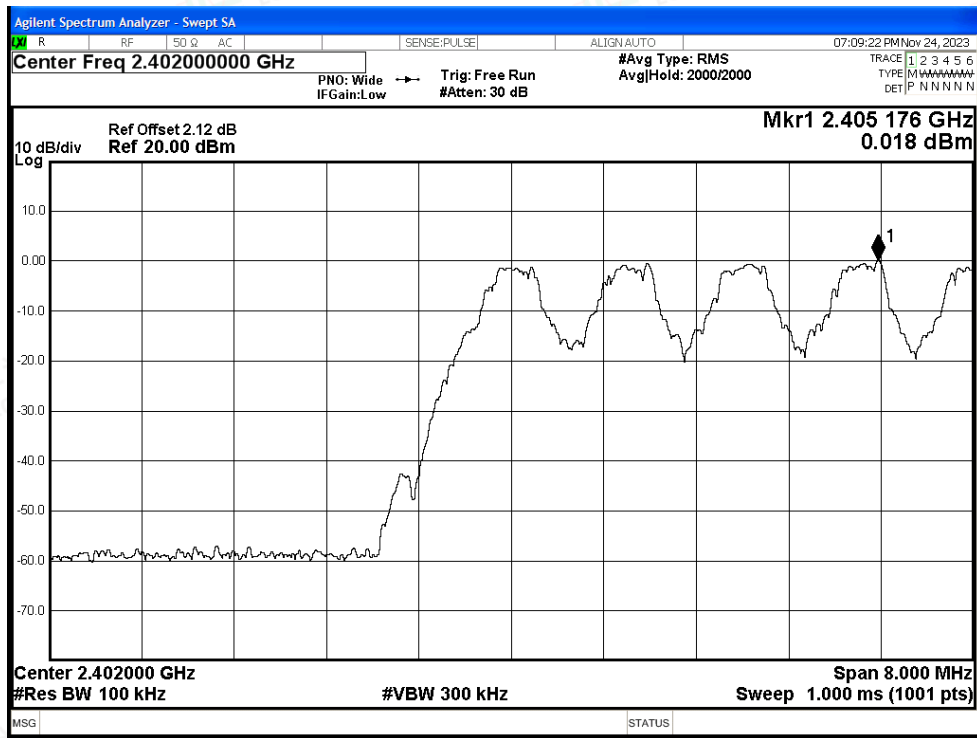
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-55.68	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-55.9	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-55.91	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-56.31	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-55.63	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-55.28	-20	Pass



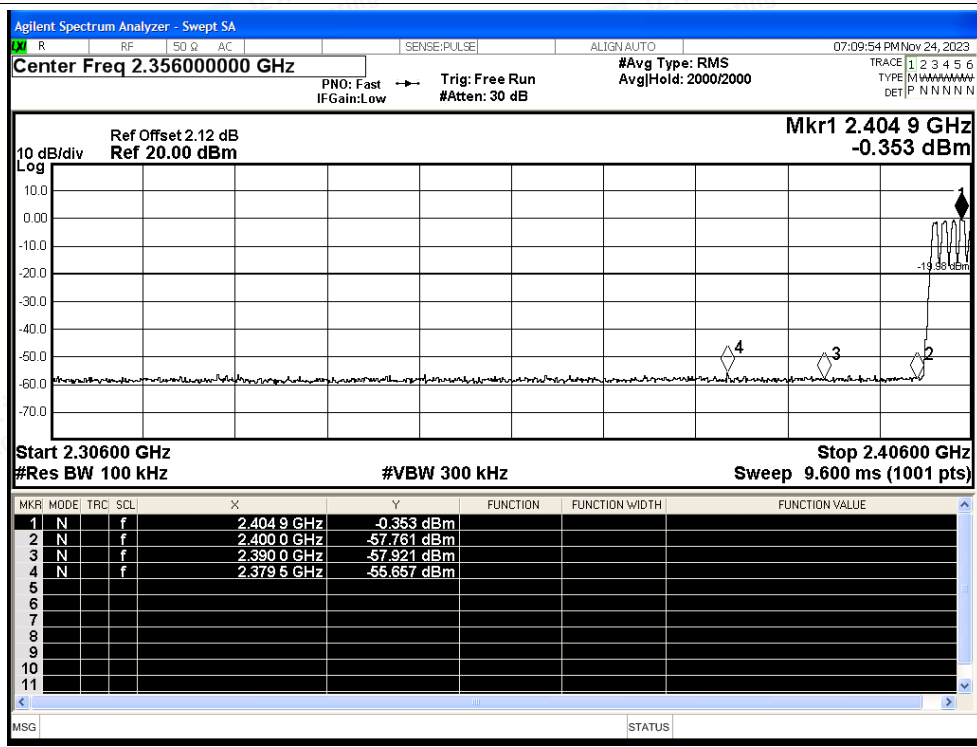


Test Graphs

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

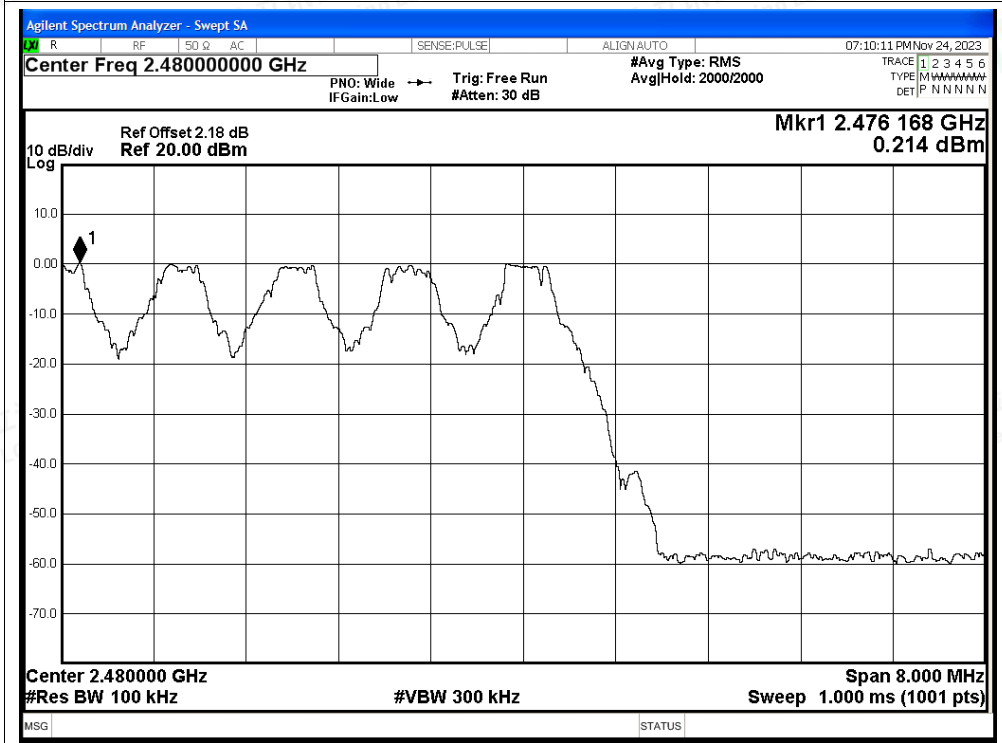


Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

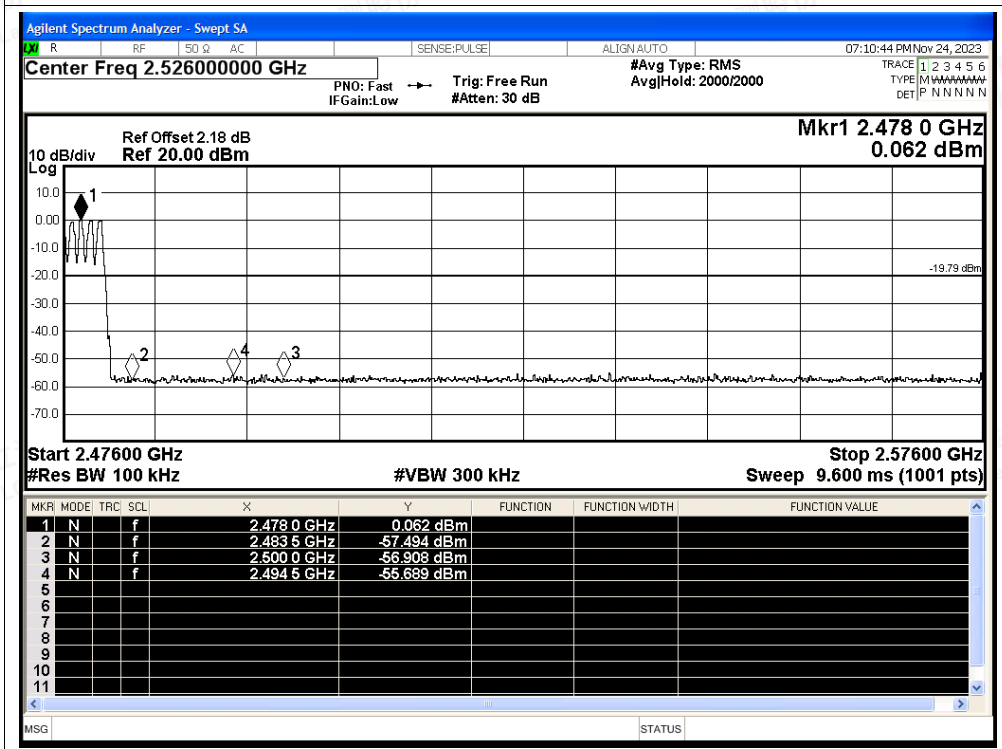




Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref

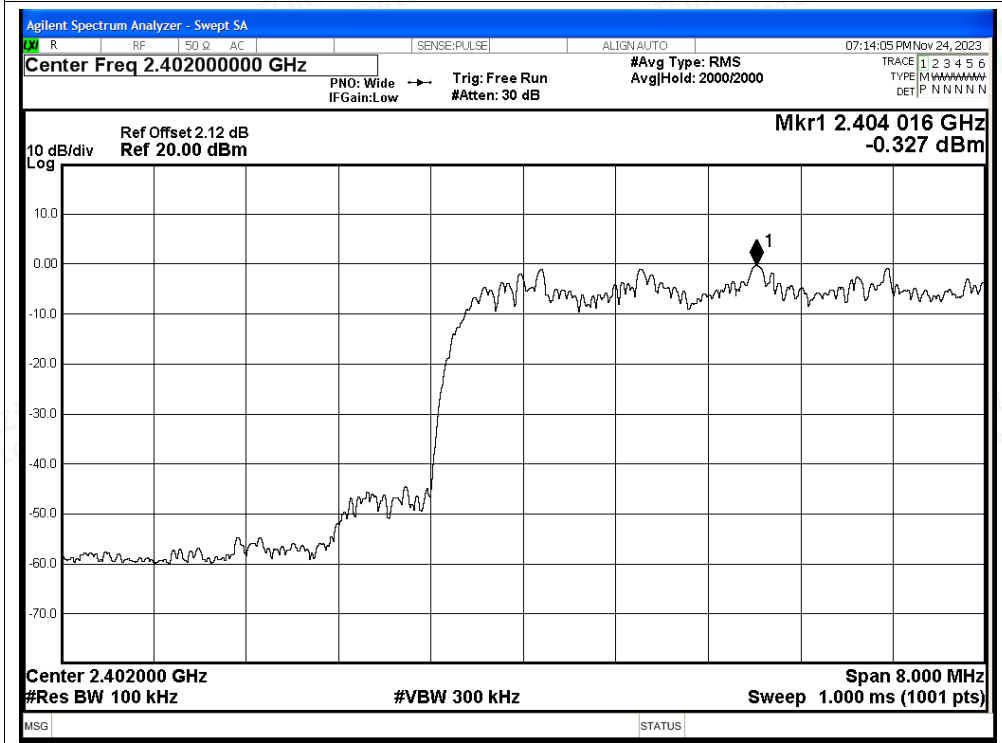


Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission

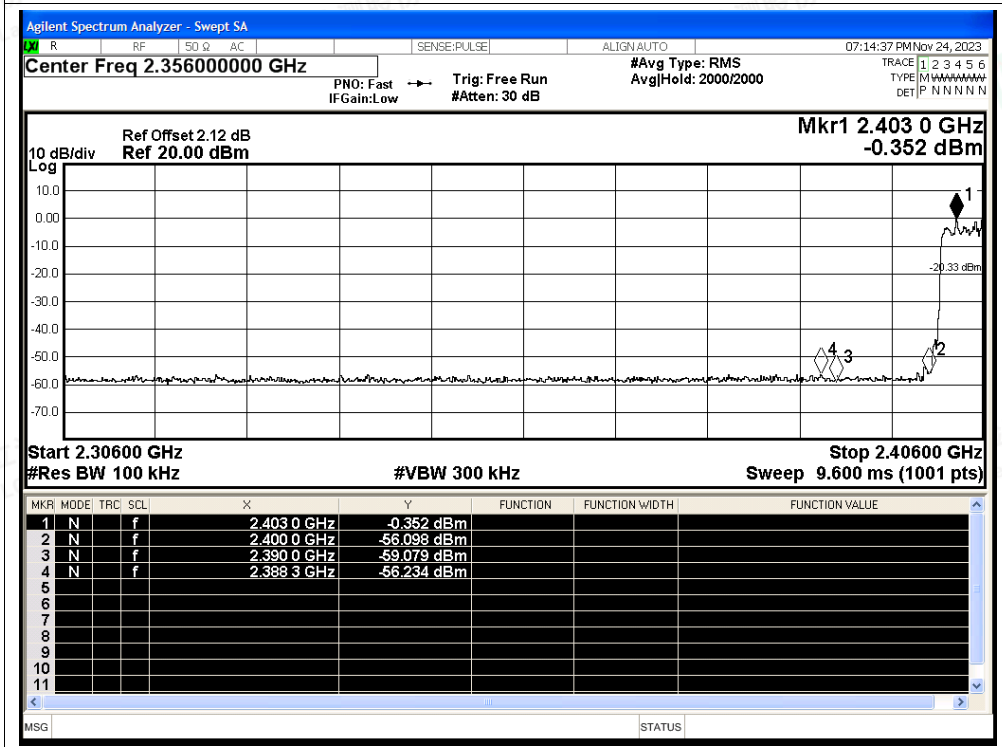


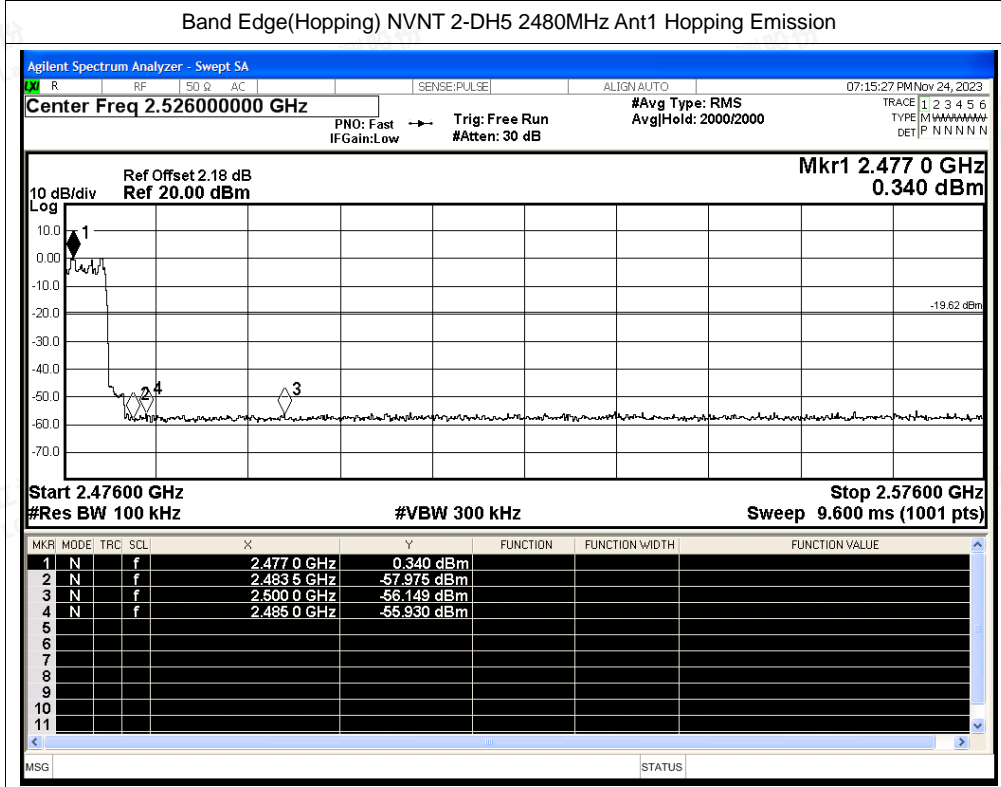
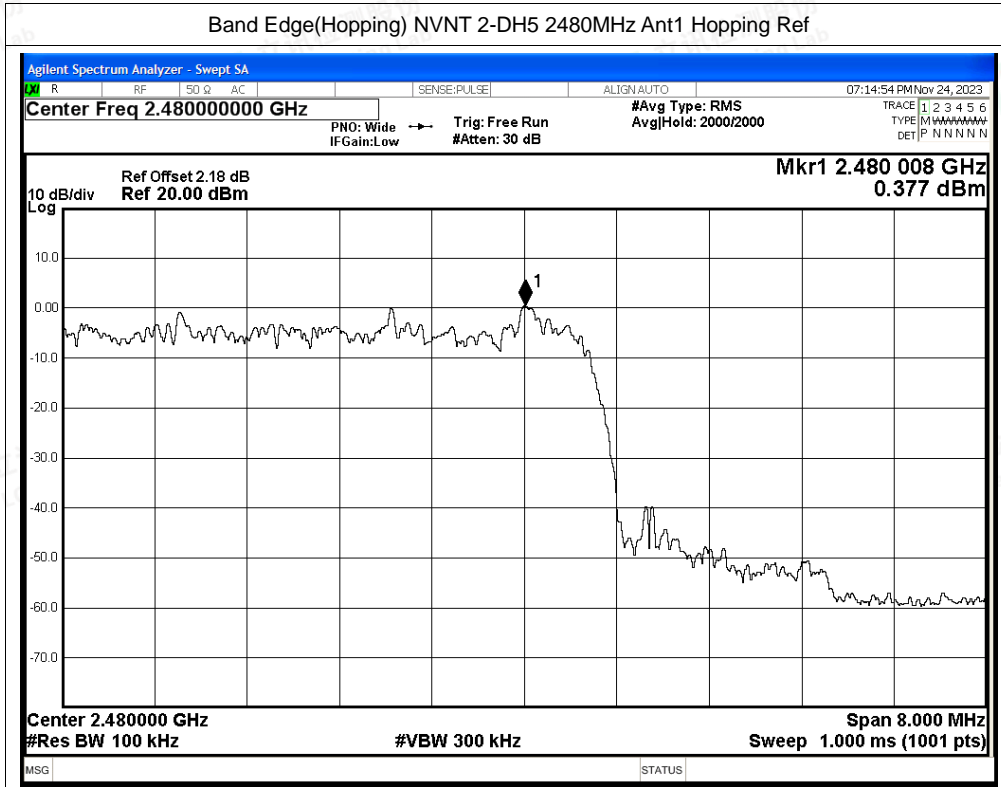


Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



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



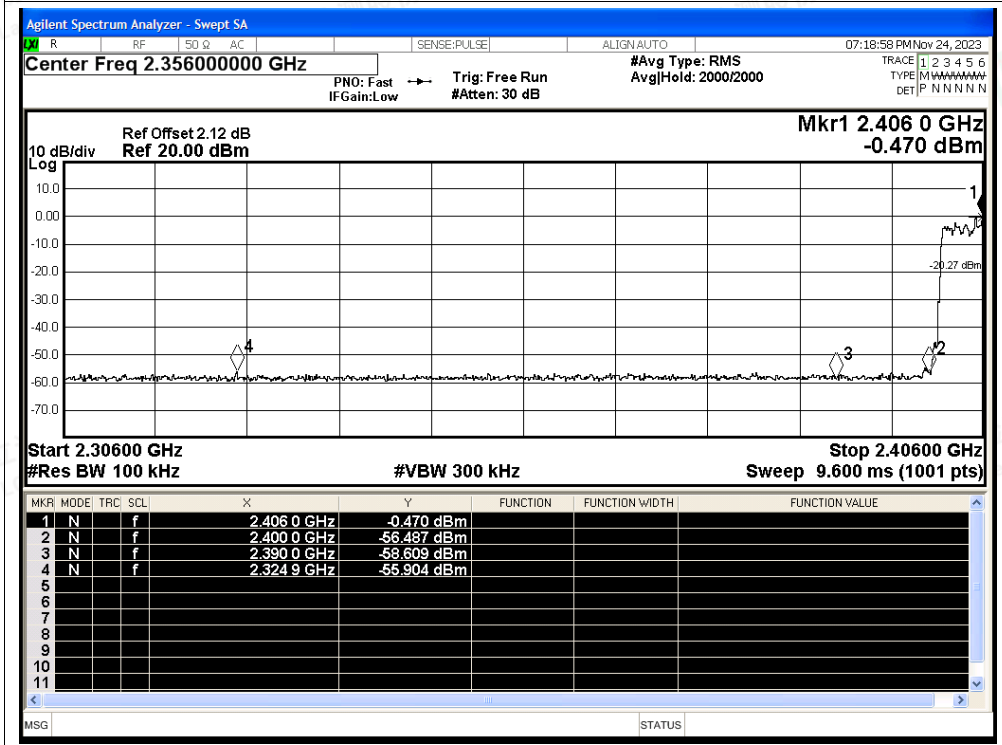


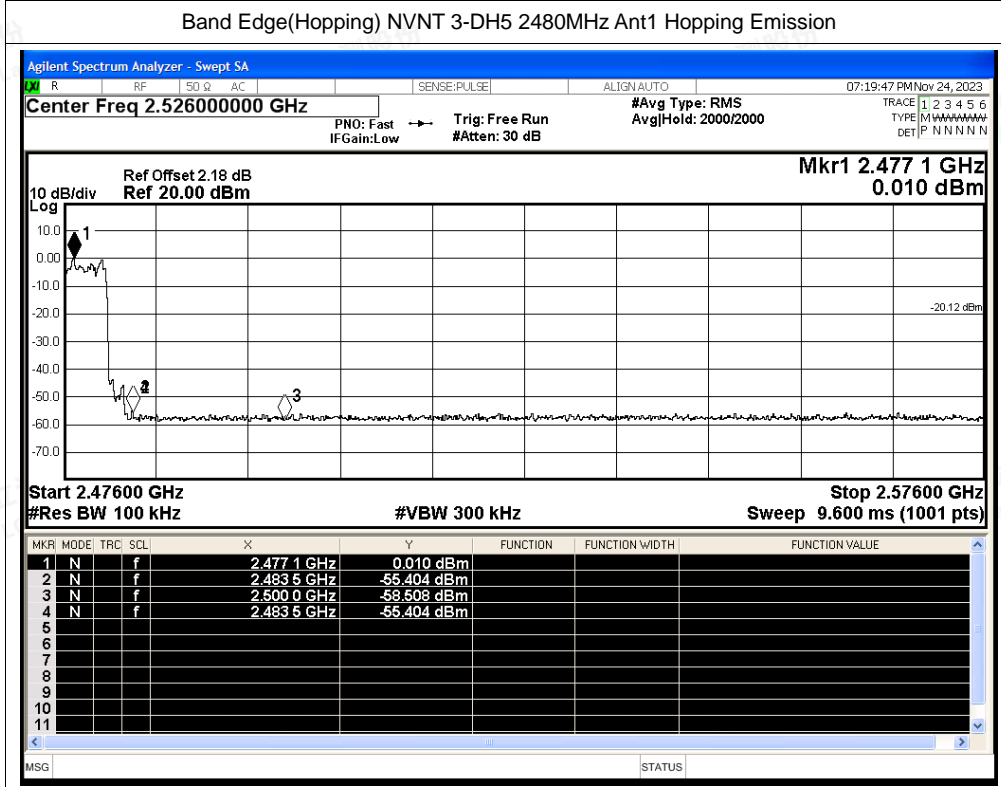
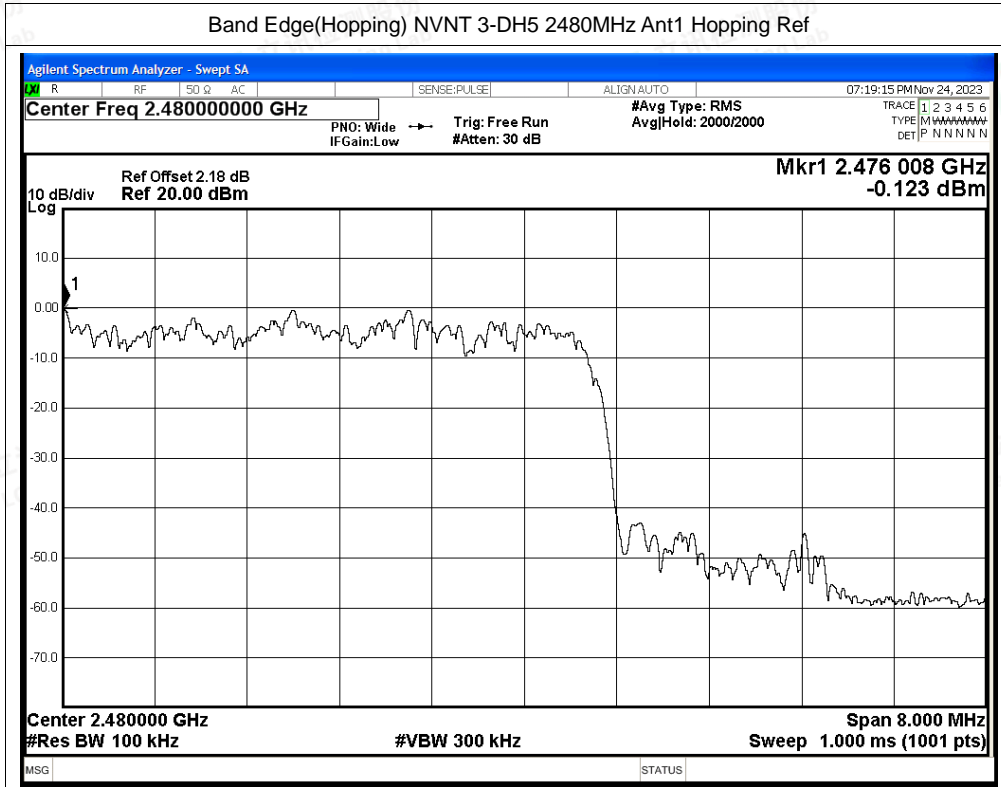


Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref



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







A.7 Conducted RF Spurious Emission

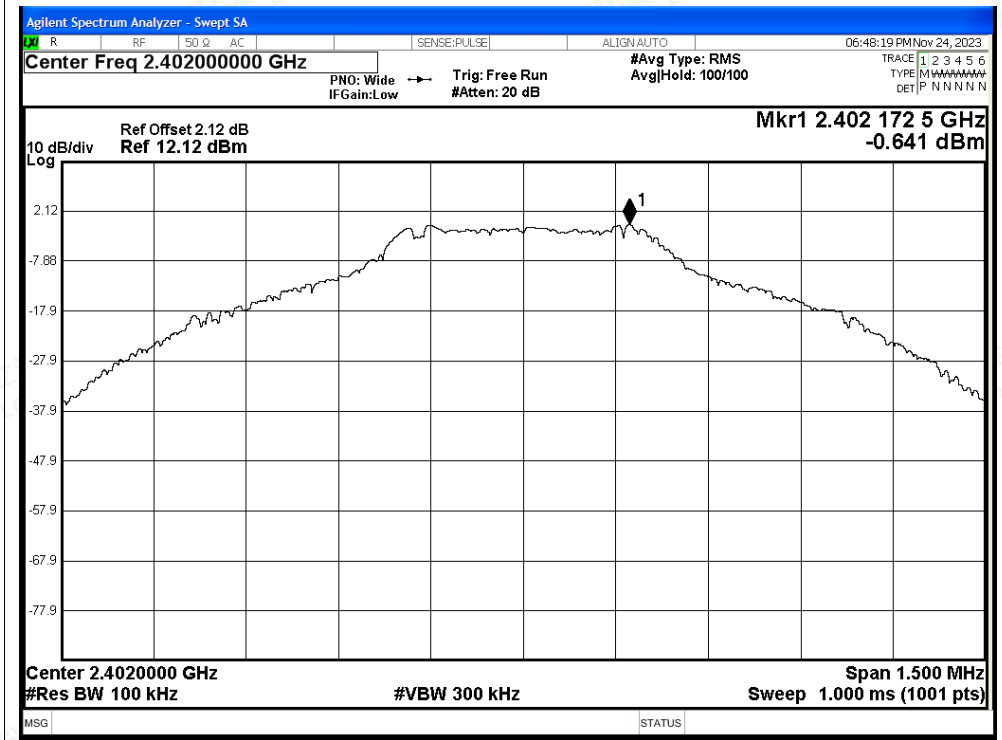
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-54.76	-20	Pass
NVNT	1-DH5	2441	Ant1	-57.04	-20	Pass
NVNT	1-DH5	2480	Ant1	-56.11	-20	Pass
NVNT	2-DH5	2402	Ant1	-53.9	-20	Pass
NVNT	2-DH5	2441	Ant1	-56.45	-20	Pass
NVNT	2-DH5	2480	Ant1	-55.65	-20	Pass
NVNT	3-DH5	2402	Ant1	-55.16	-20	Pass
NVNT	3-DH5	2441	Ant1	-56.85	-20	Pass
NVNT	3-DH5	2480	Ant1	-56.06	-20	Pass



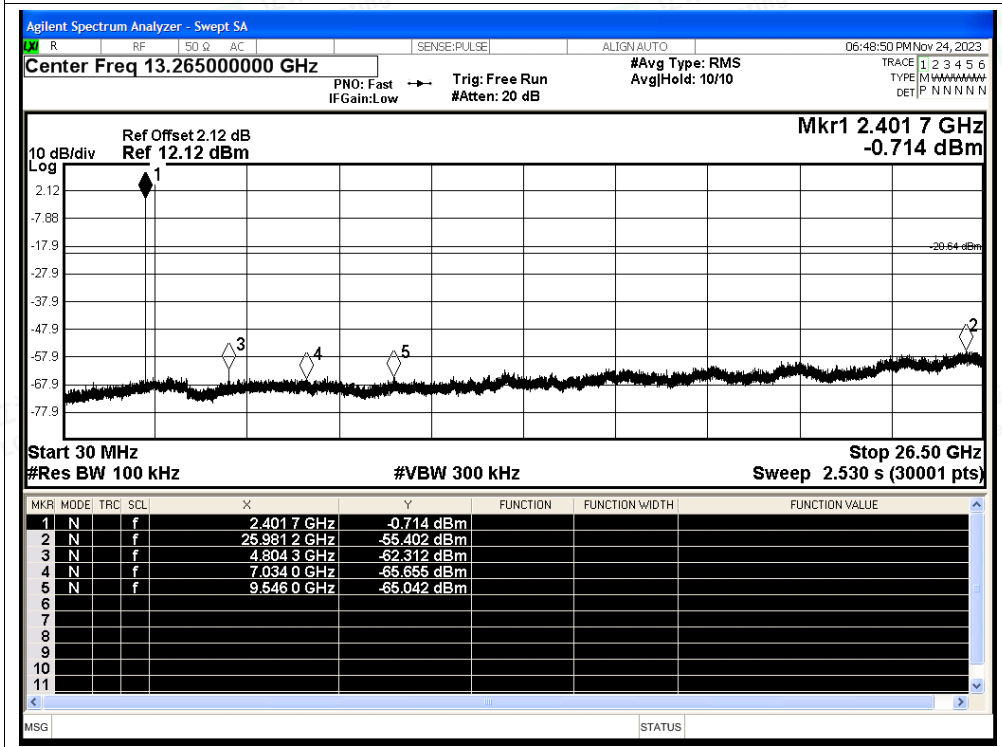


Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission

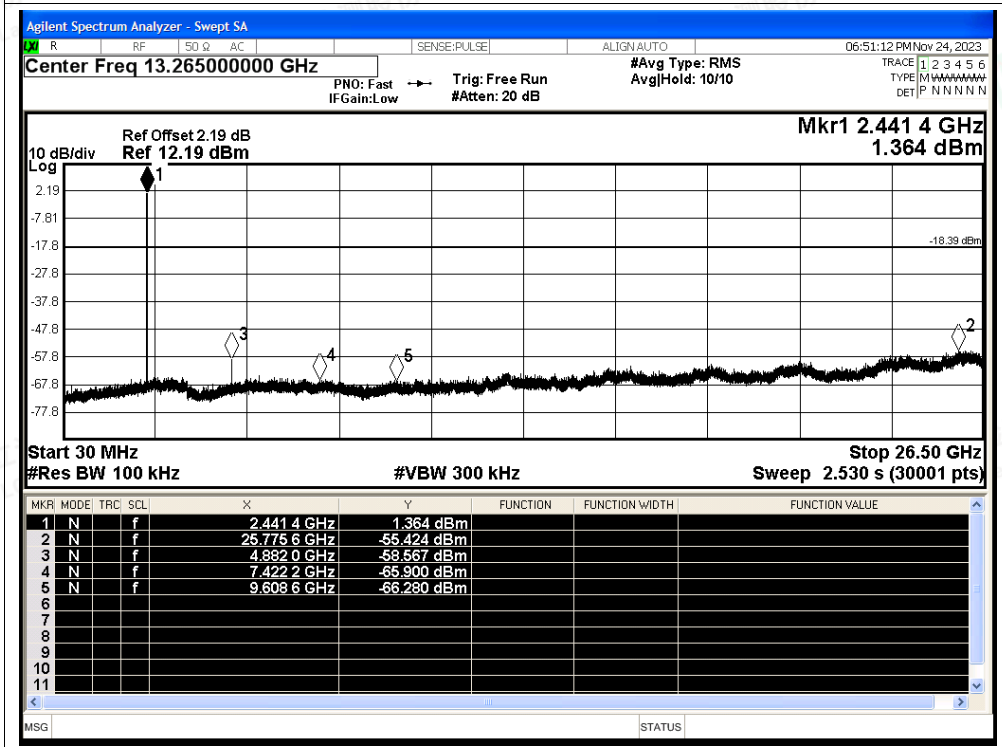




Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref

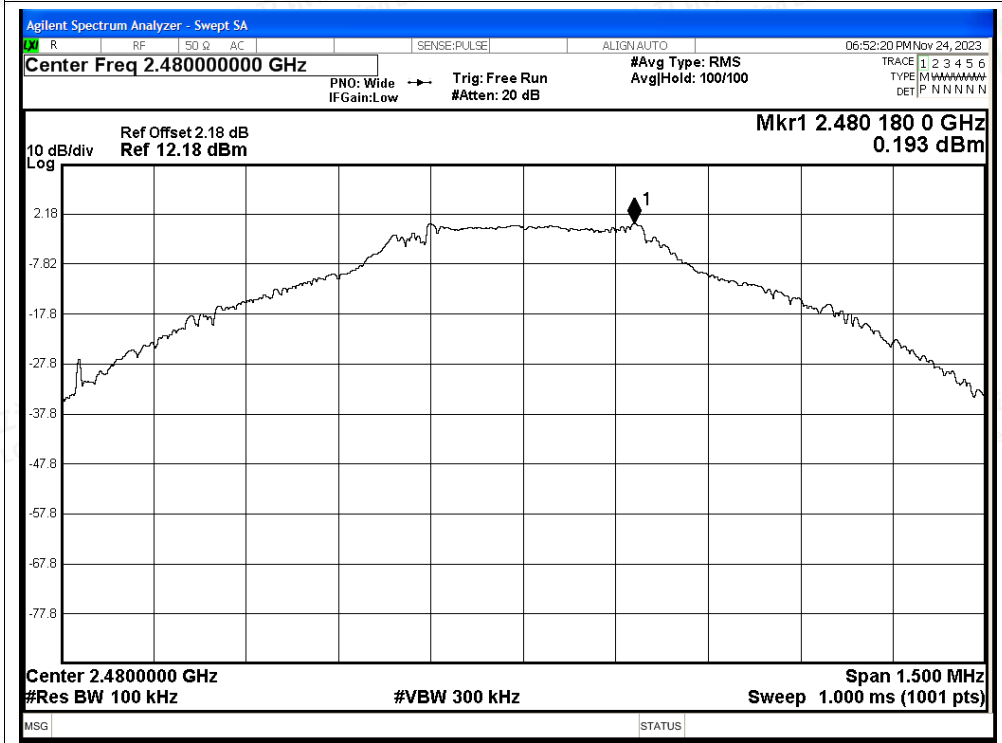


Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission

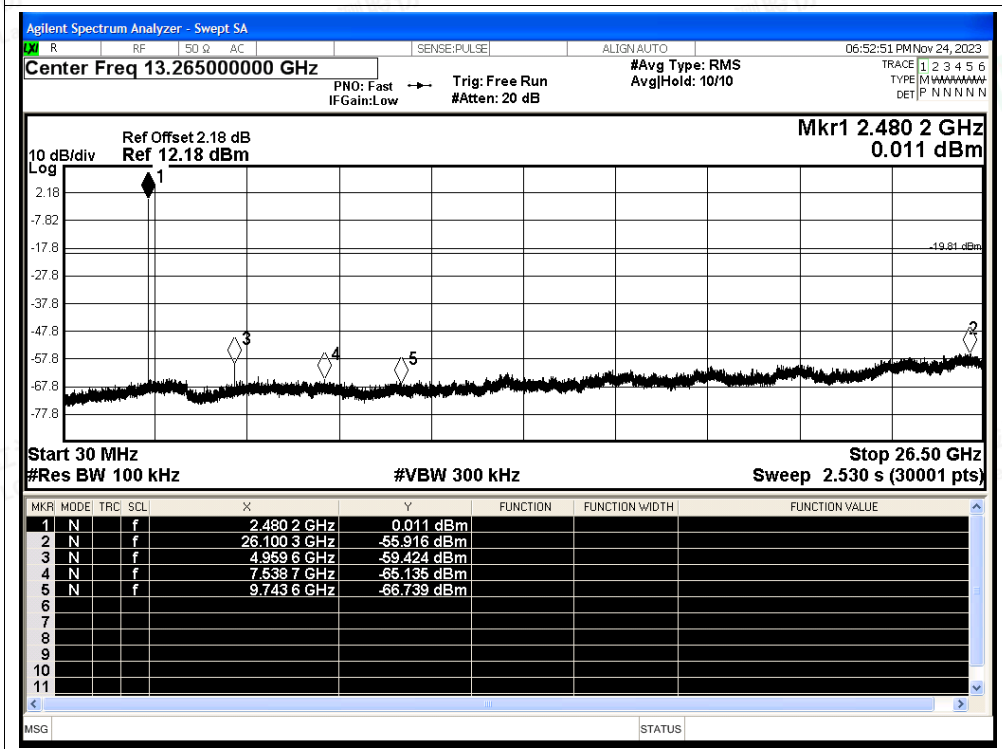




Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref

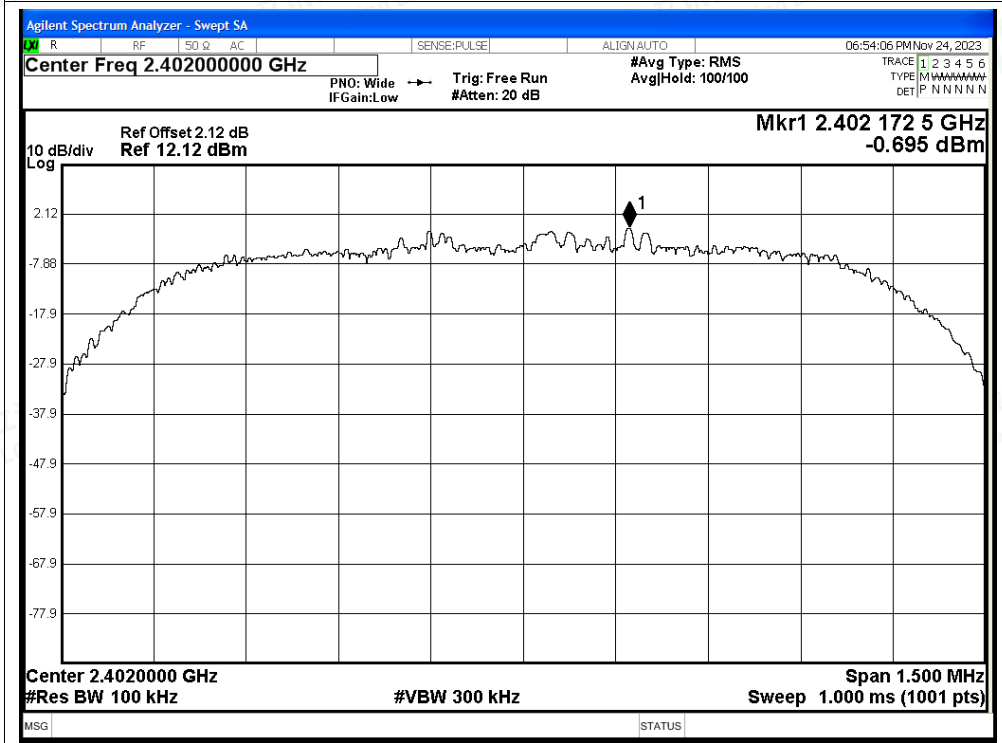


Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission

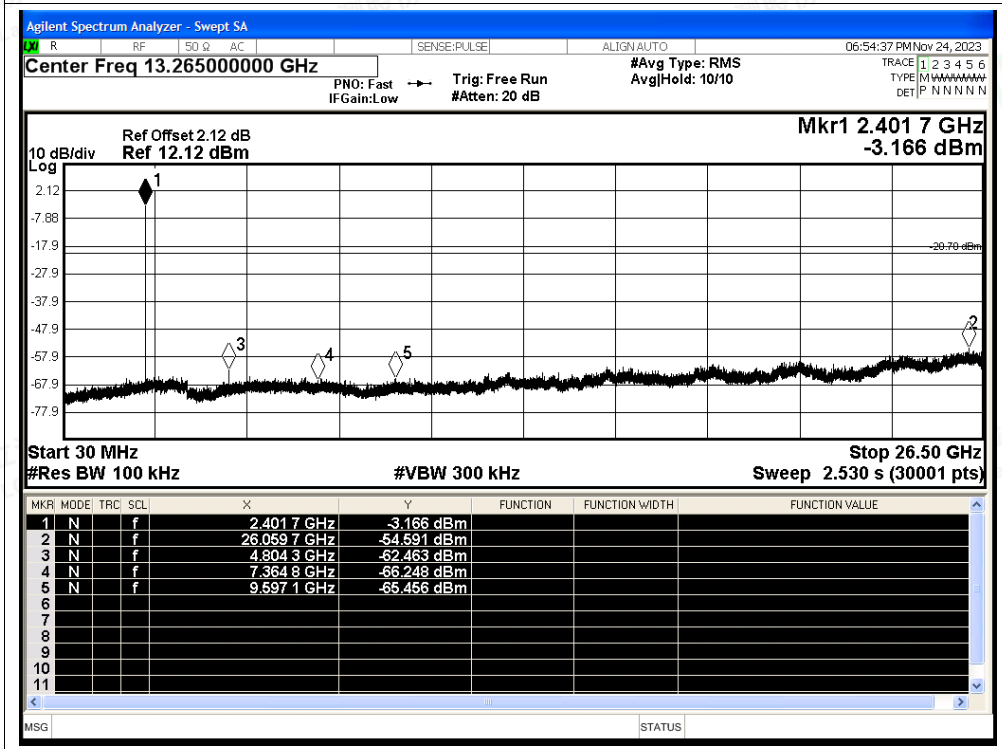




Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref

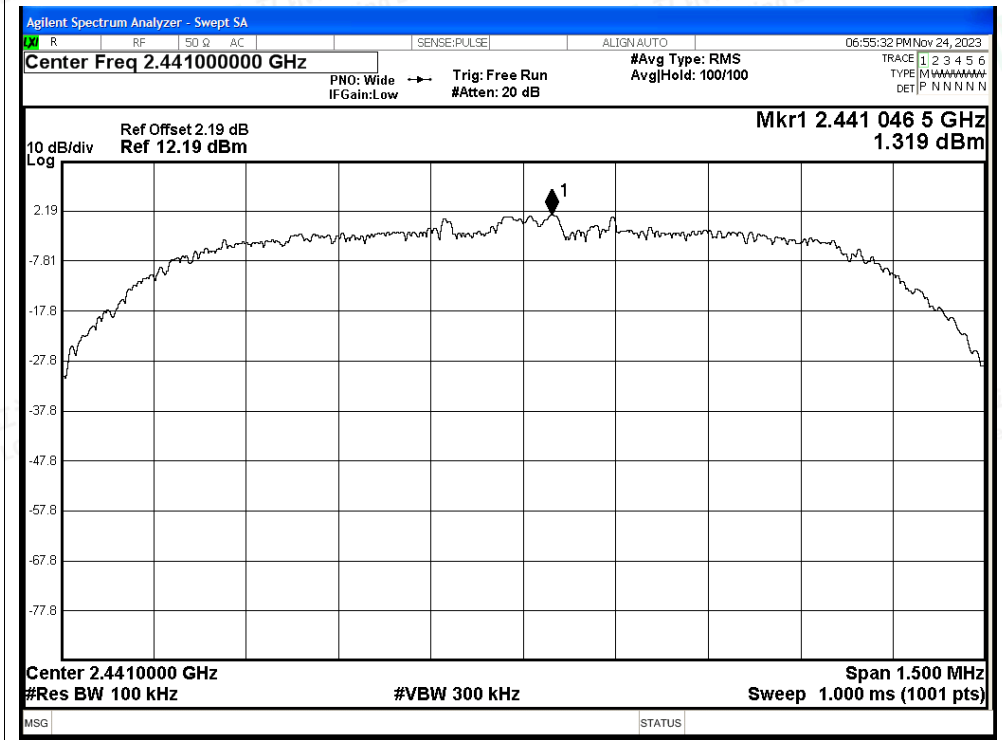


Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission

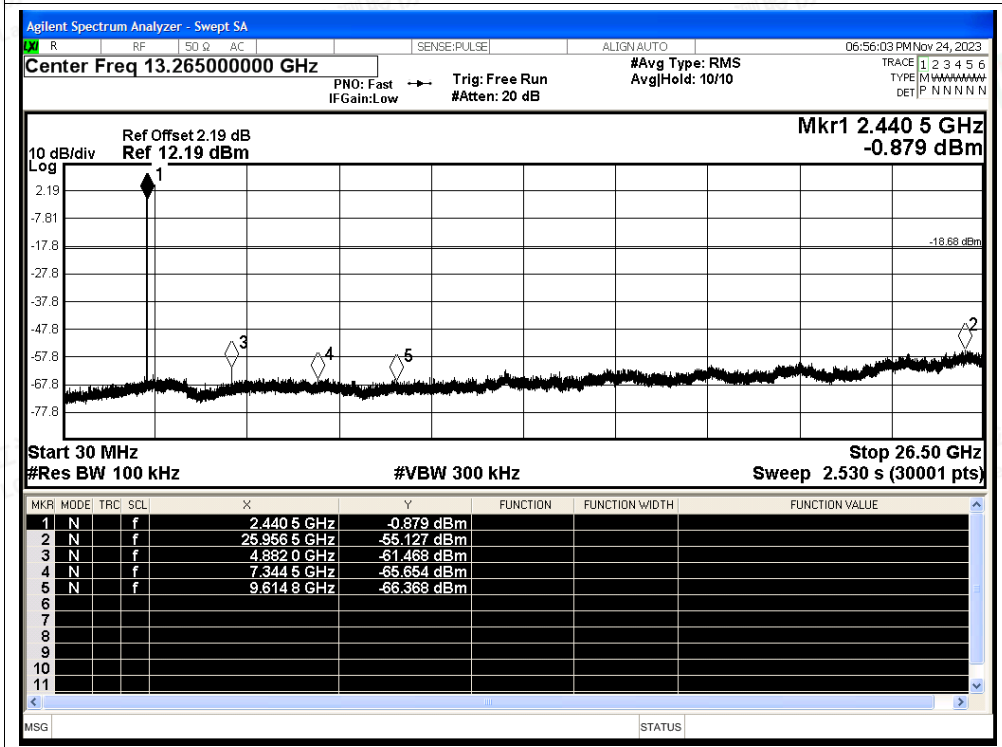




Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref

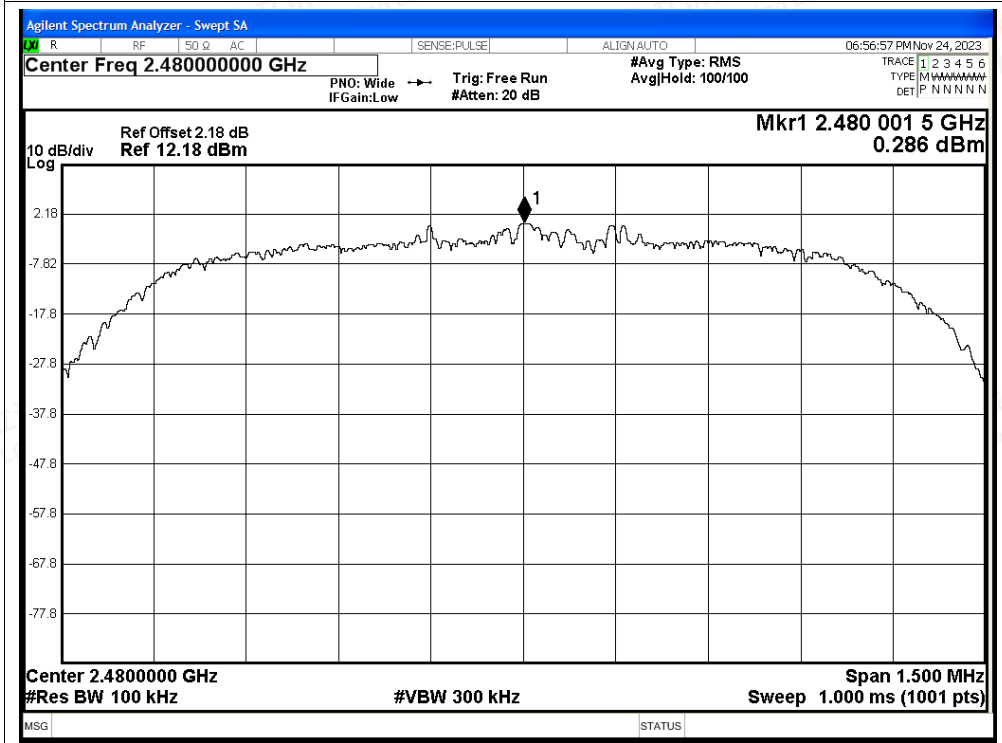


Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission

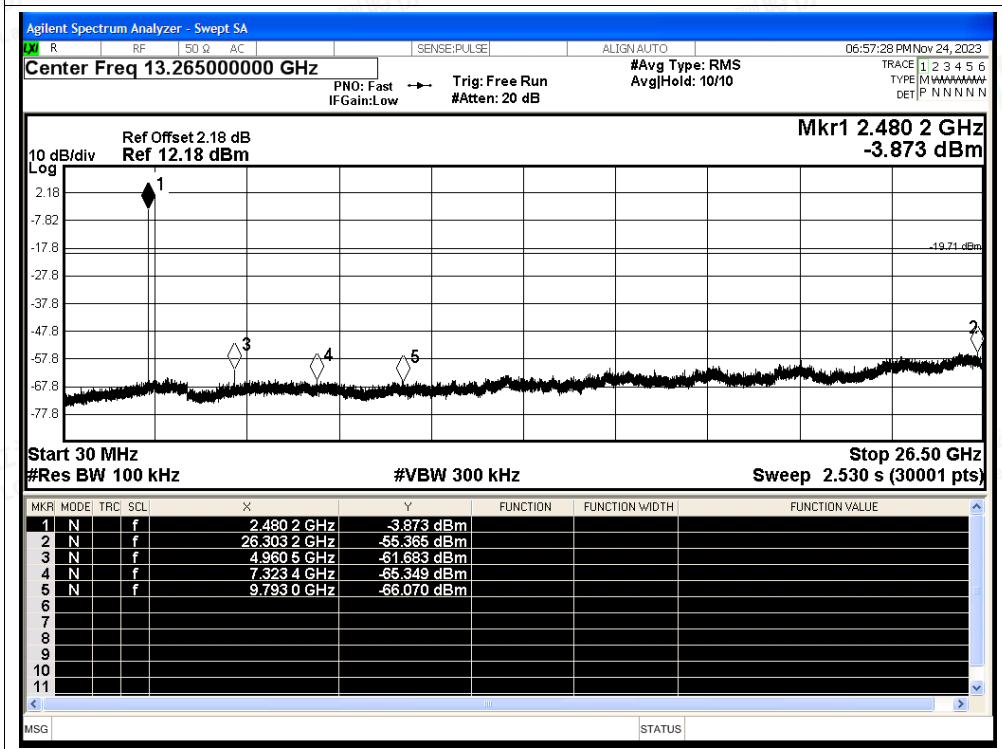




Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref

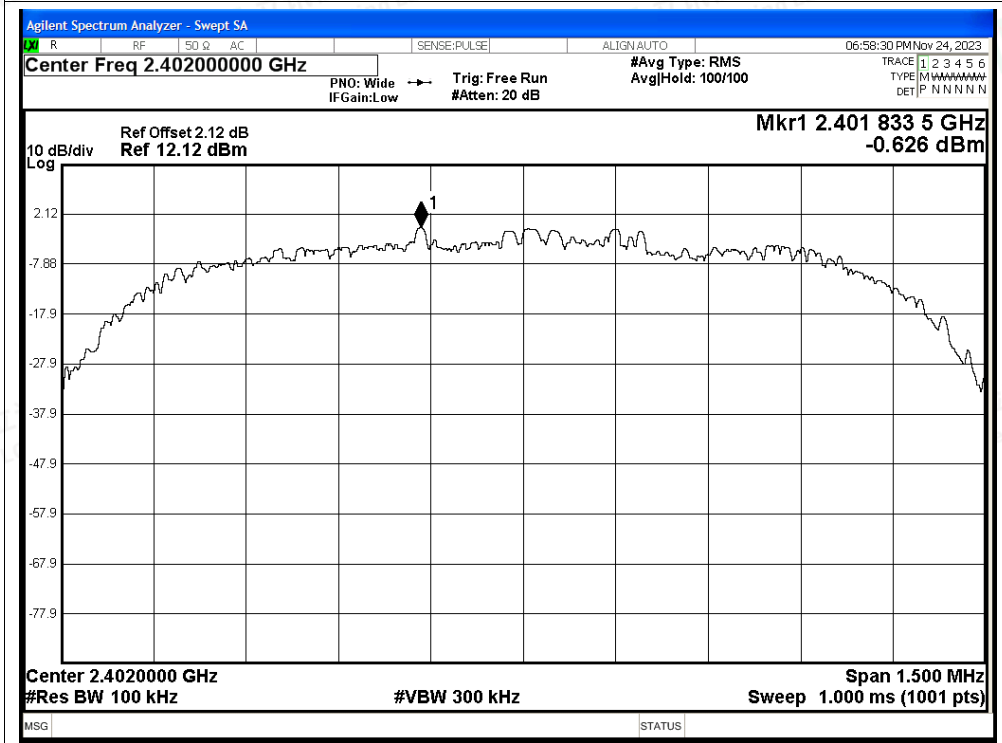


Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission

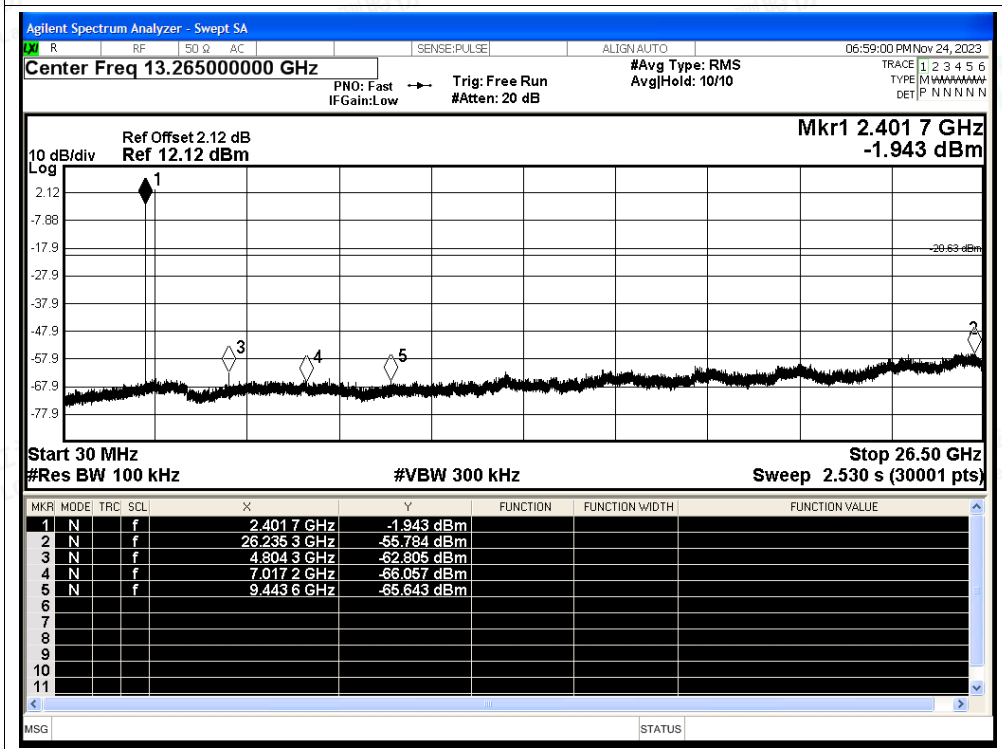




Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref

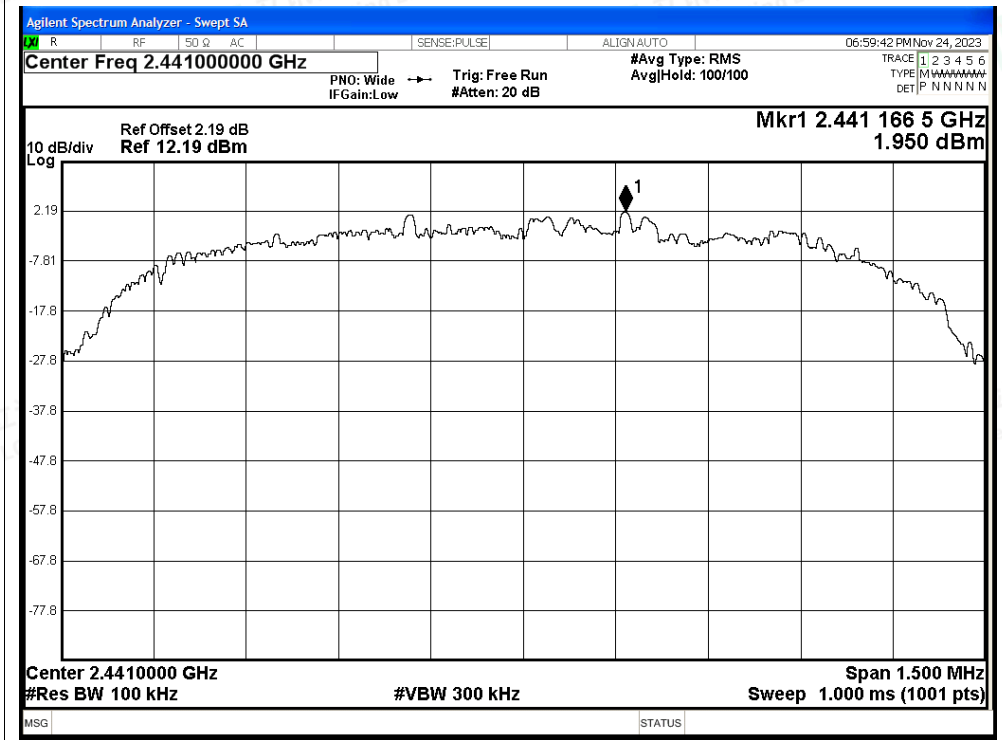


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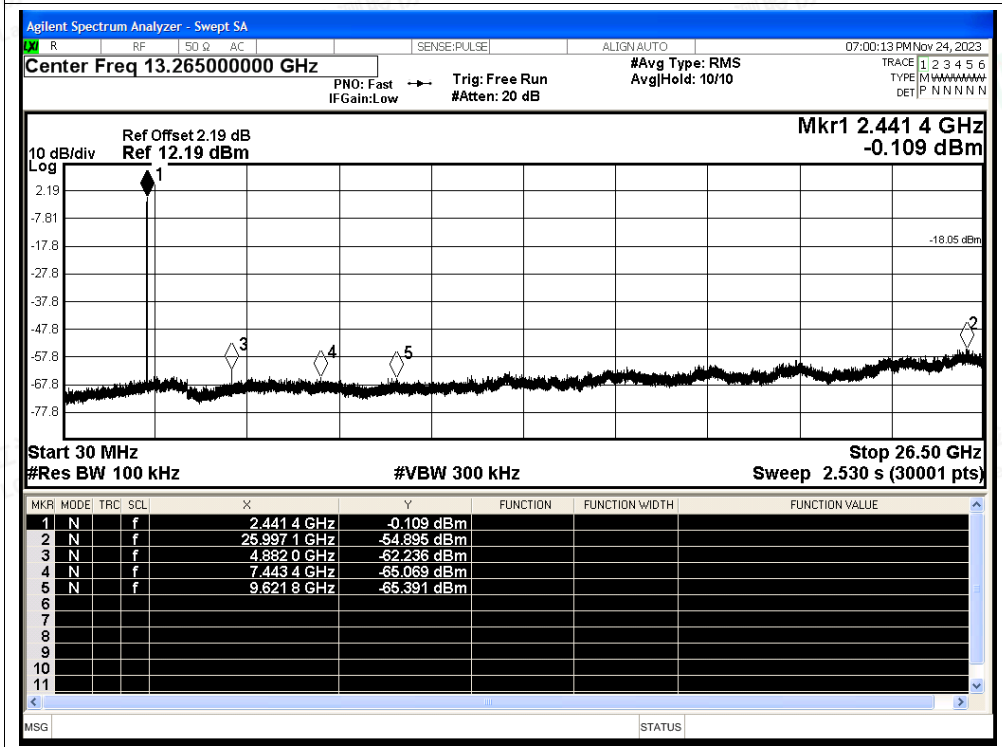




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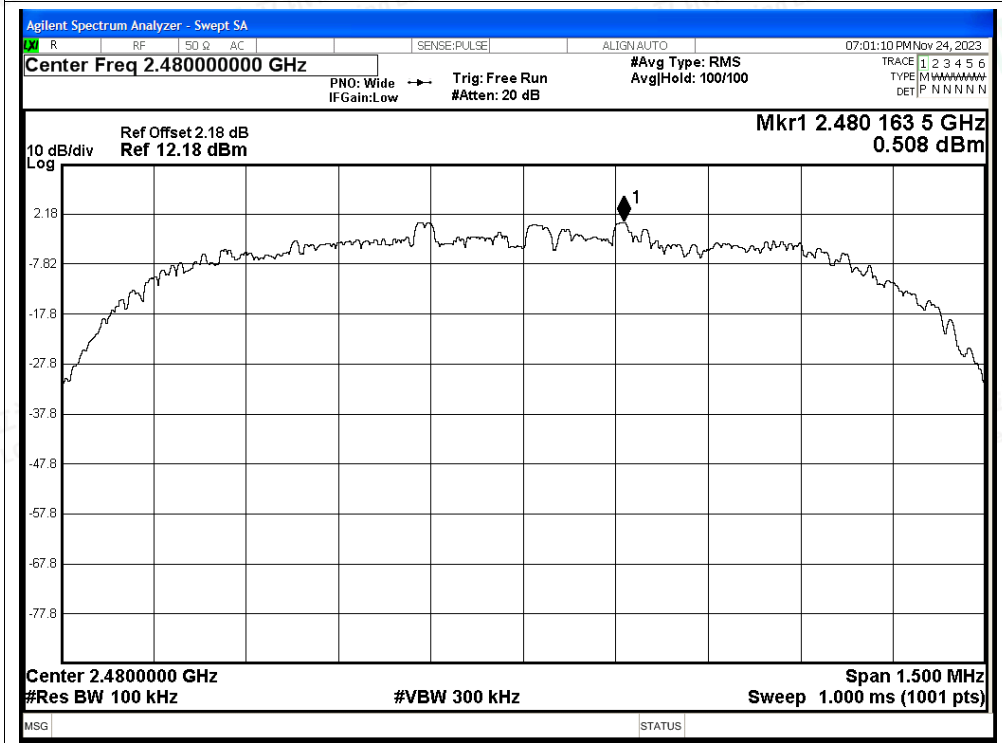


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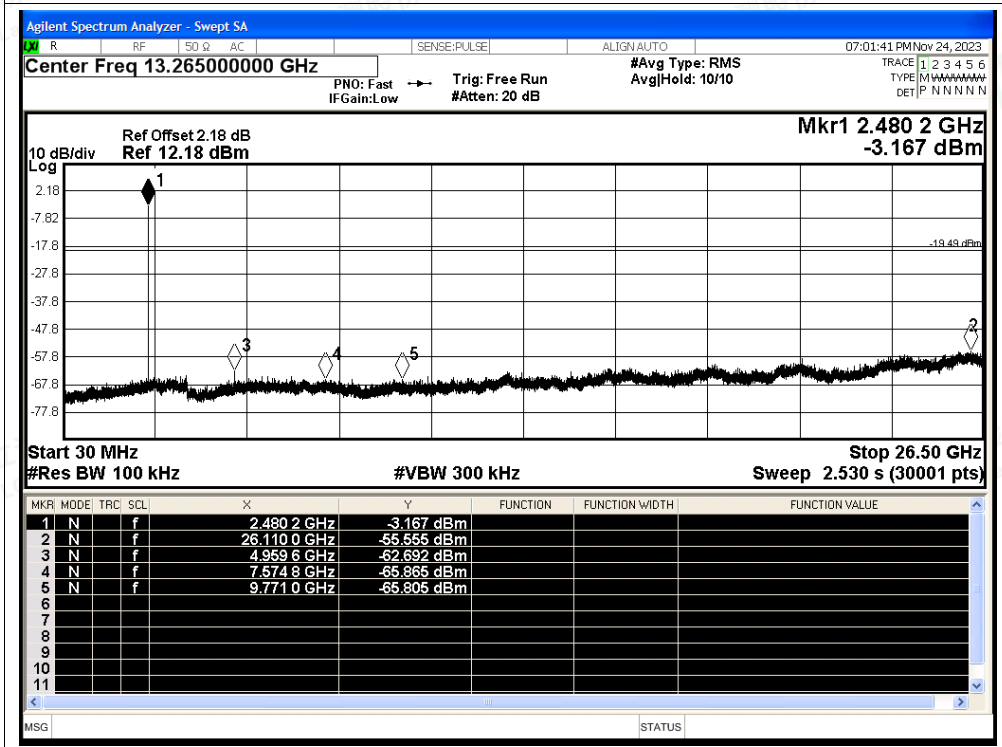




Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission





A.8 Restrict Band

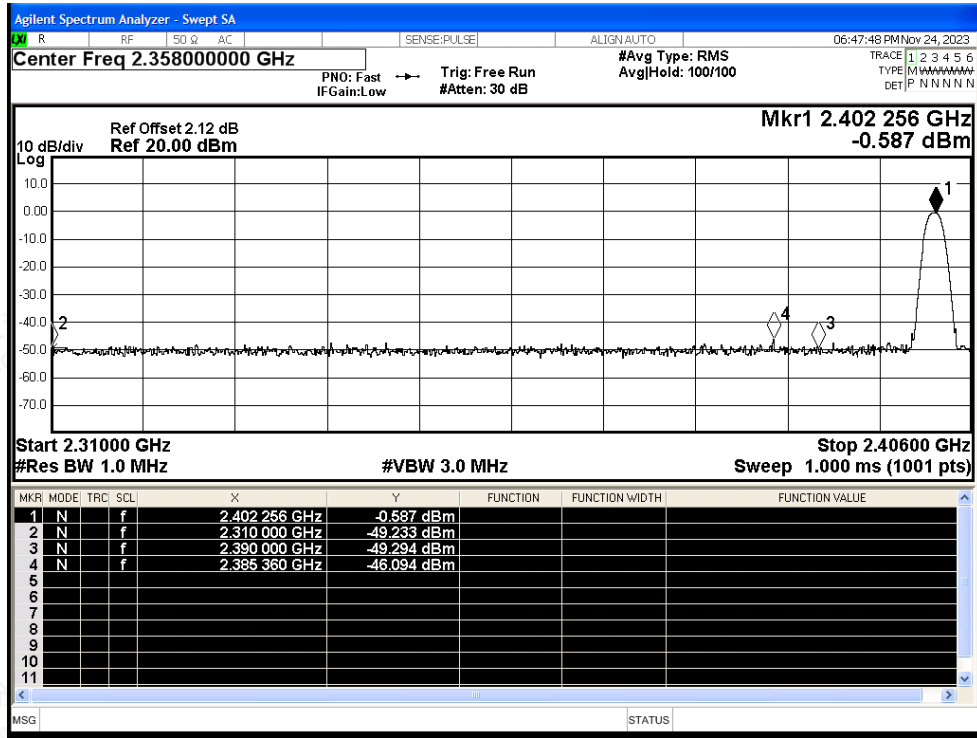
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-49.23	2	48.03	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-57.81	2	39.45	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2385.36	-46.09	2	51.17	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2388.048	-57.38	2	39.88	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-49.29	2	47.97	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-57.39	2	39.87	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-49.09	2	48.17	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-55.52	2	41.74	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2488.408	-46.85	2	50.41	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.512	-55.52	2	41.74	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-48.5	2	48.76	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-57.07	2	40.19	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-51.66	2	45.6	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-56.7	2	40.56	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2364.432	-47.05	2	50.21	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2382.096	-55.47	2	41.79	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-50.3	2	46.96	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-55.99	2	41.27	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-43.9	2	53.36	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-52.16	2	45.1	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2486.92	-43.57	2	53.69	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.512	-52.16	2	45.1	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-50.3	2	46.96	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-56.02	2	41.24	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-49.44	2	47.82	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-56.32	2	40.94	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2356.176	-47.55	2	49.71	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2366.256	-55.2	2	42.06	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-50.27	2	46.99	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-56.2	2	41.06	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-42.48	2	54.78	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-52.04	2	45.22	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2484.52	-42.27	2	54.99	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.512	-52.04	2	45.22	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-49.2	2	48.06	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-55.84	2	41.42	Average	54	Pass



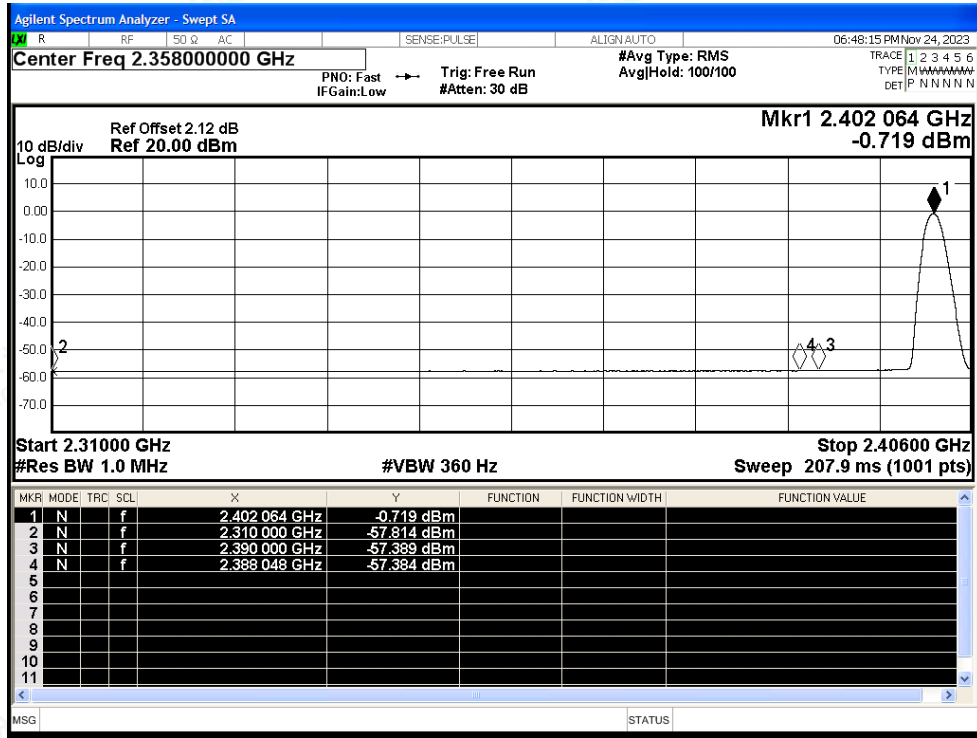


Test Graphs

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

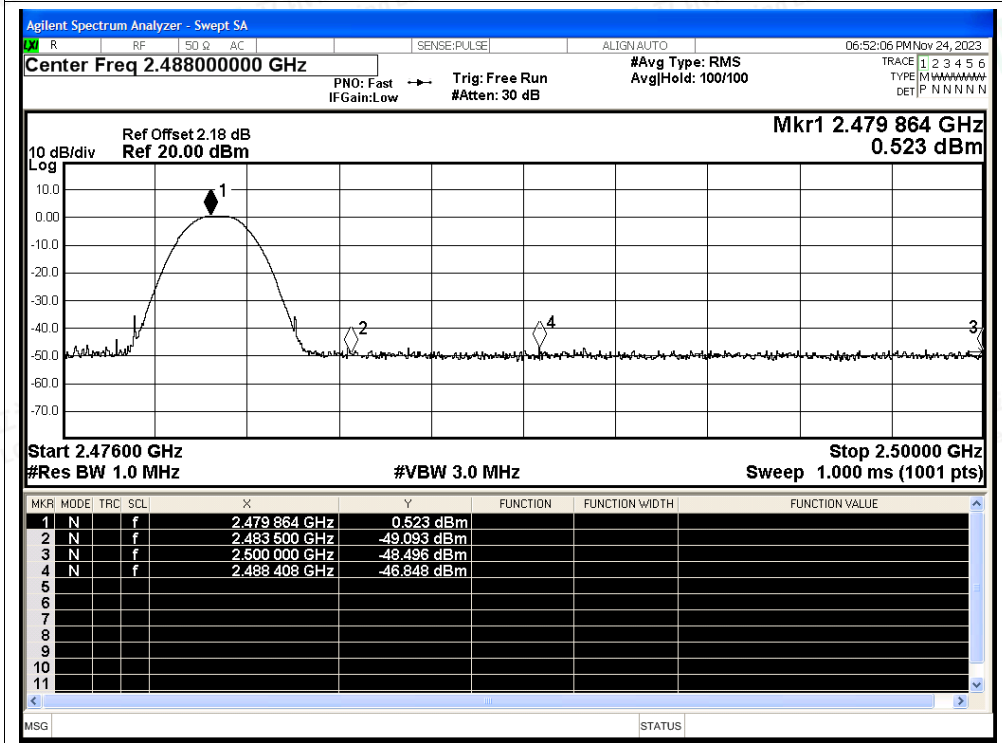


Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average

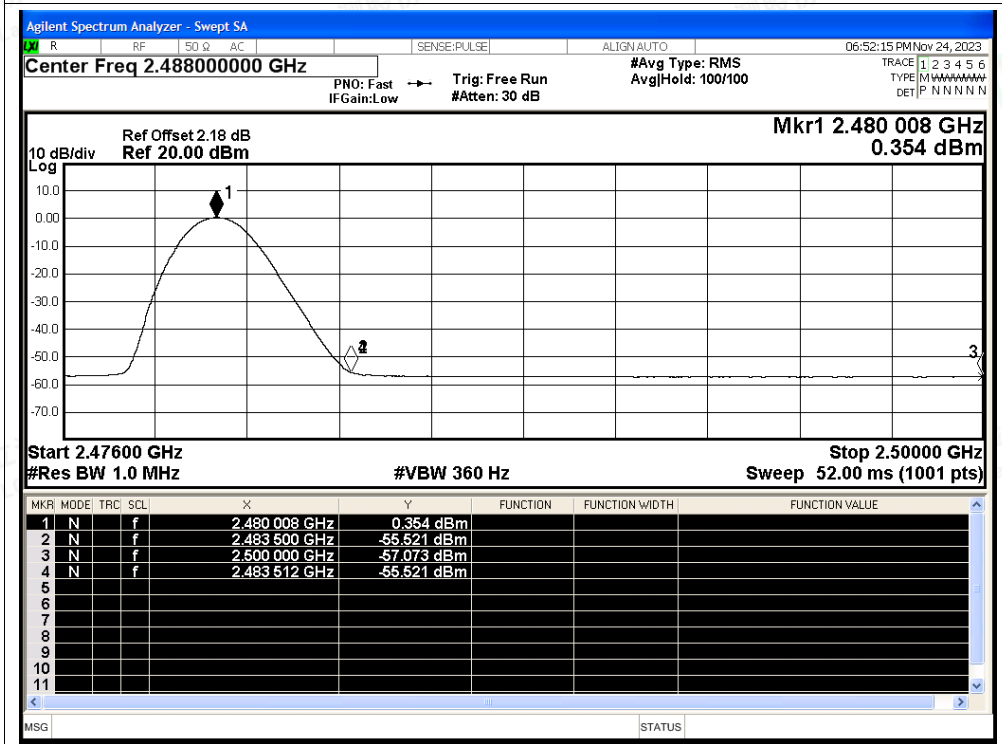




Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak

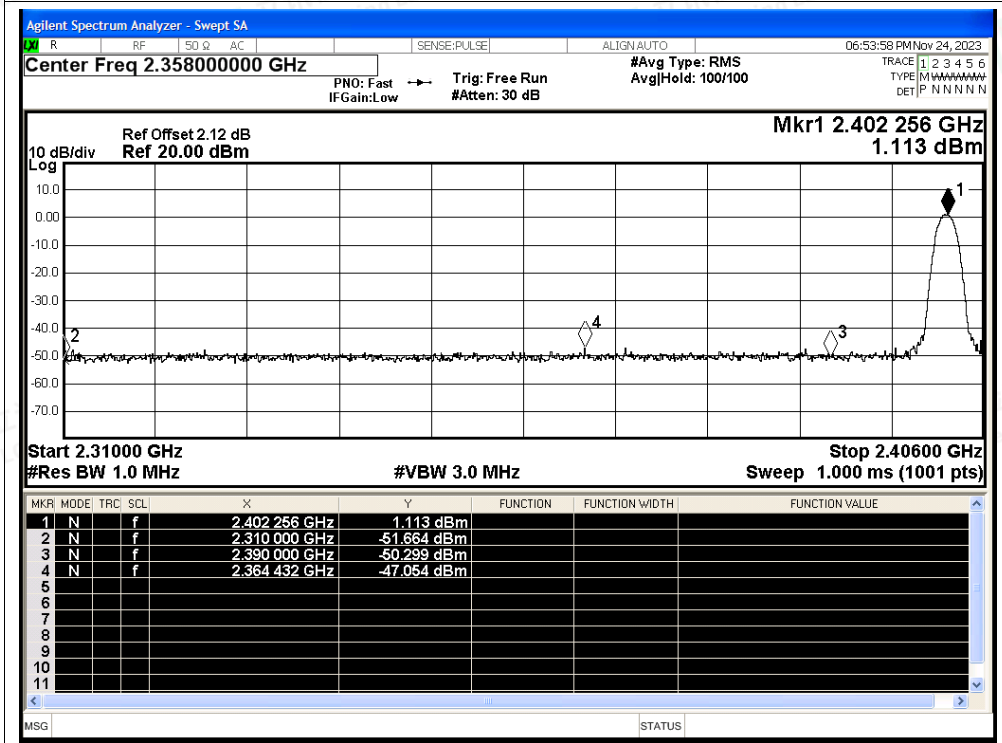


Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average

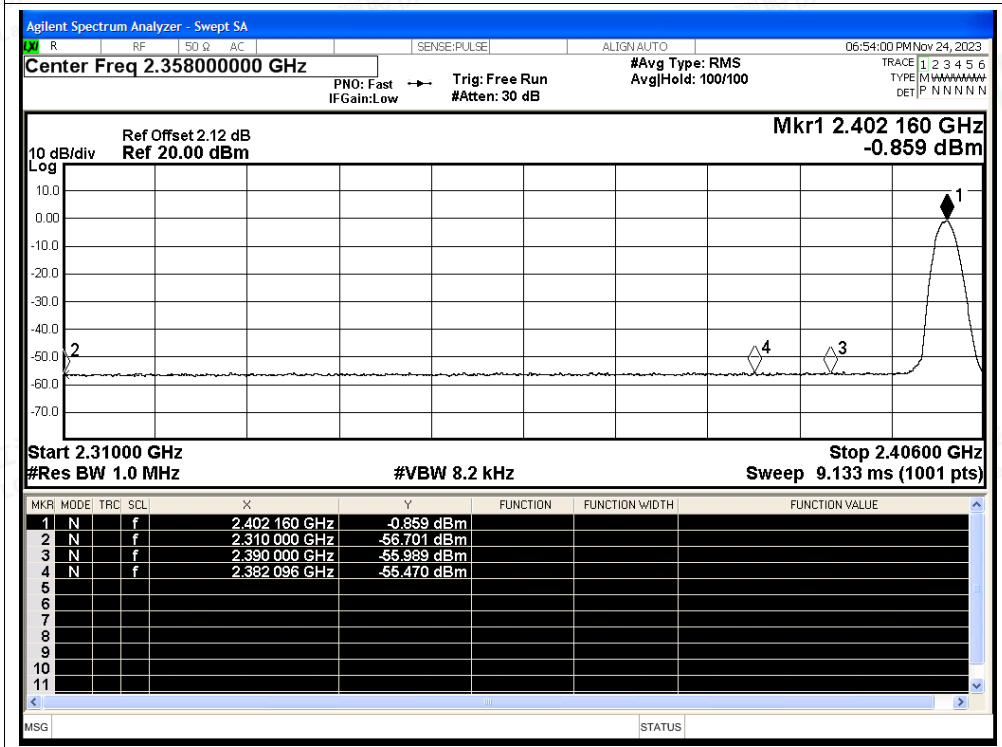




Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak

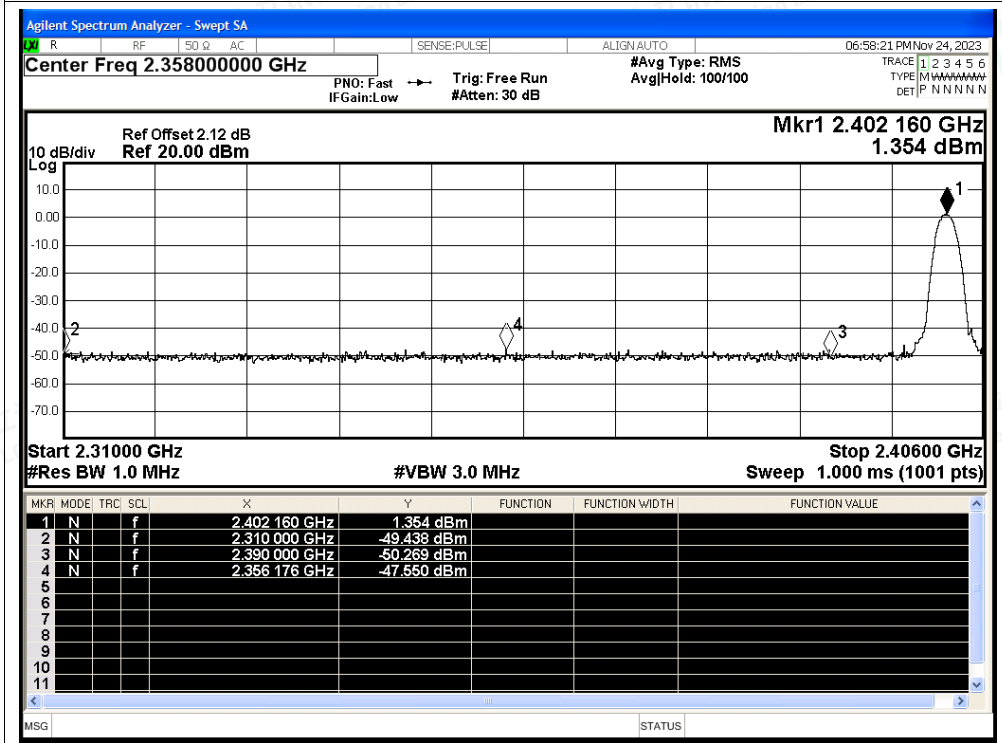


Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average

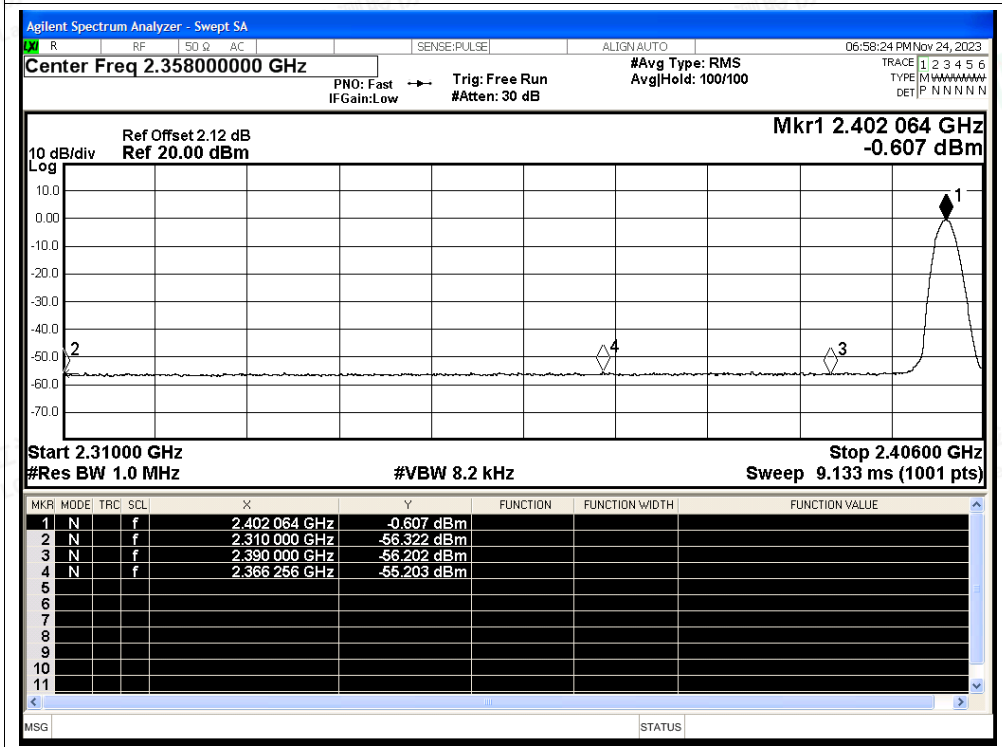




Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak

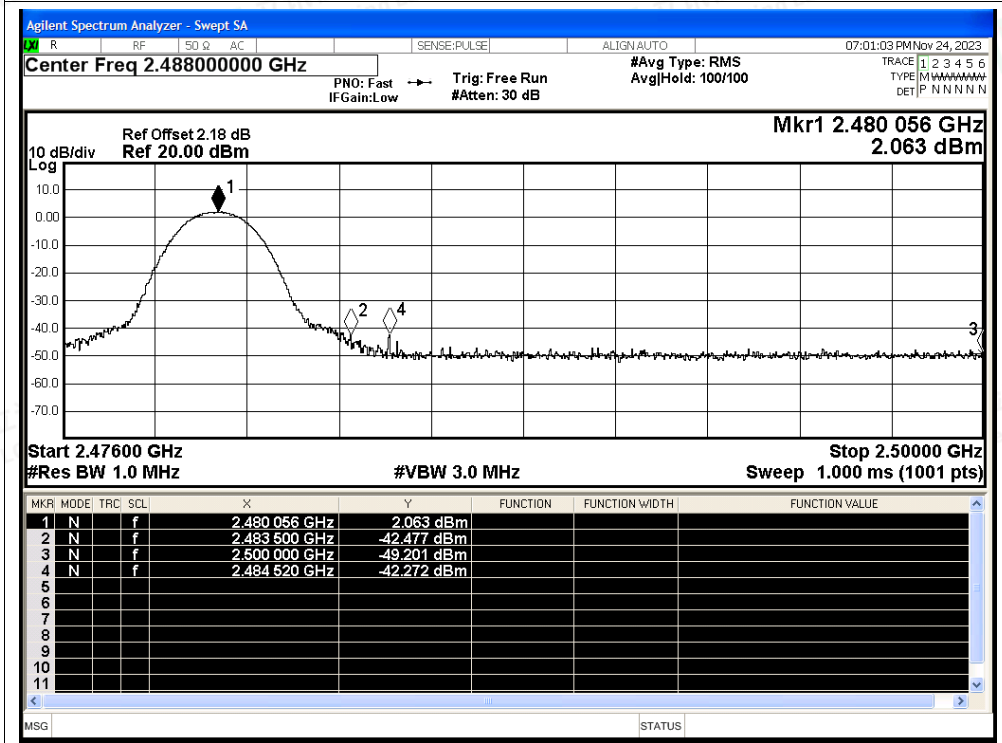


Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Average





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



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

