



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Fingerbot

Test Model: ADFB0301

Environmental Conditions

Temperature:	23.5 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	 Kay Hu
Supervised by:	 Li Huan



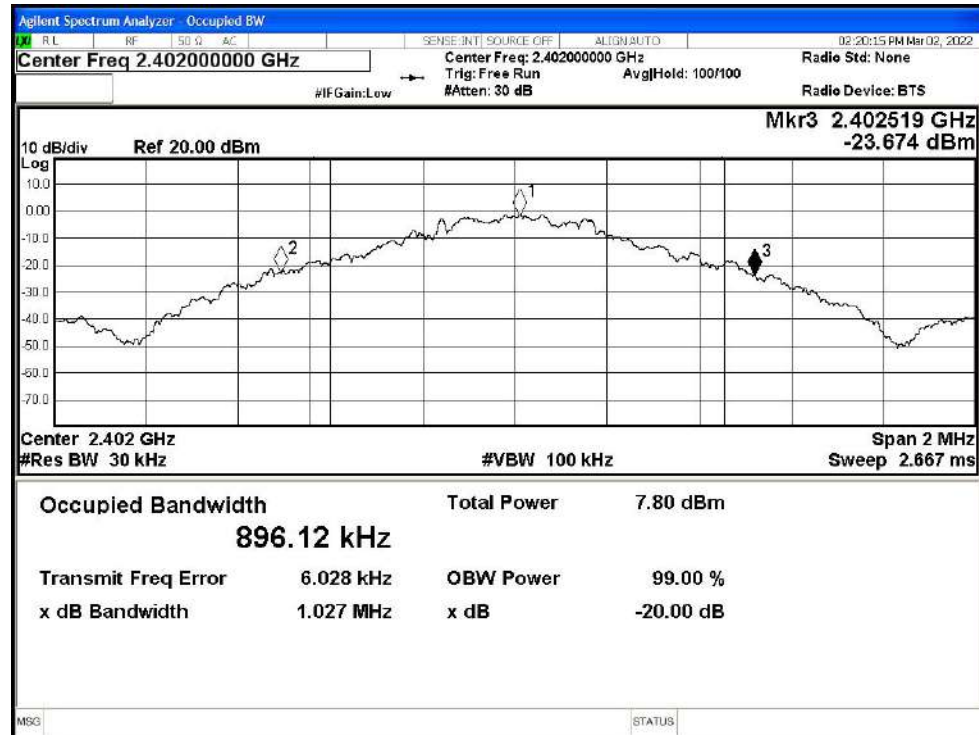
A.1 -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	1.027	---	Pass
NVNT	1-DH5	2441	Ant1	0.954	---	Pass
NVNT	1-DH5	2480	Ant1	1.025	---	Pass
NVNT	2-DH5	2402	Ant1	1.304	---	Pass
NVNT	2-DH5	2441	Ant1	1.311	---	Pass
NVNT	2-DH5	2480	Ant1	1.286	---	Pass
NVNT	3-DH5	2402	Ant1	1.301	---	Pass
NVNT	3-DH5	2441	Ant1	1.307	---	Pass
NVNT	3-DH5	2480	Ant1	1.288	---	Pass

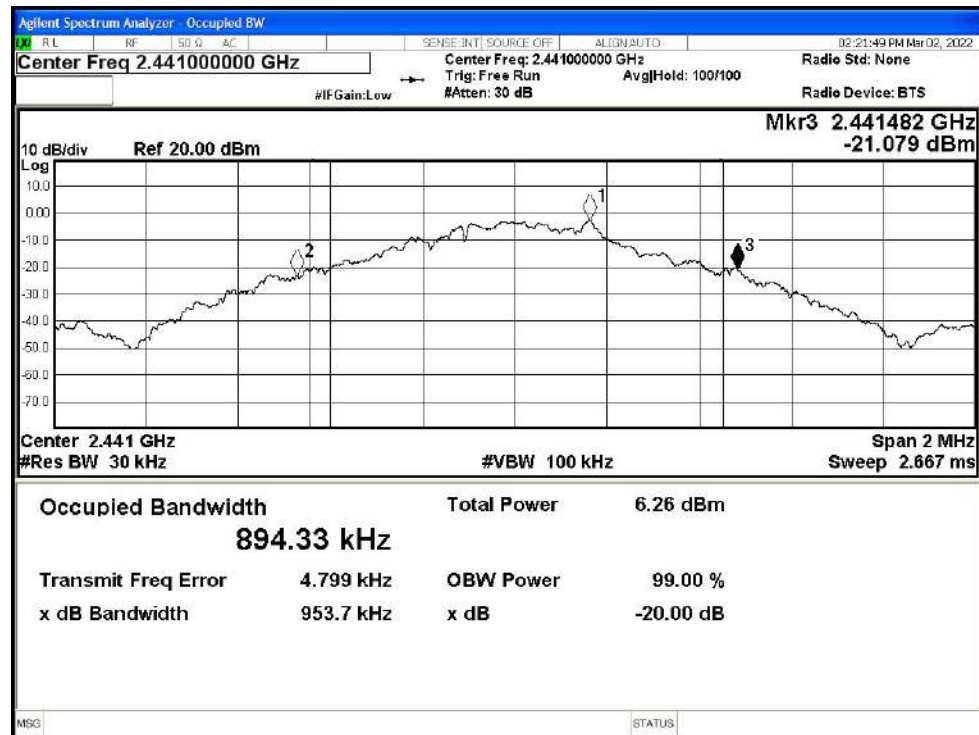


Test Graphs

-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1

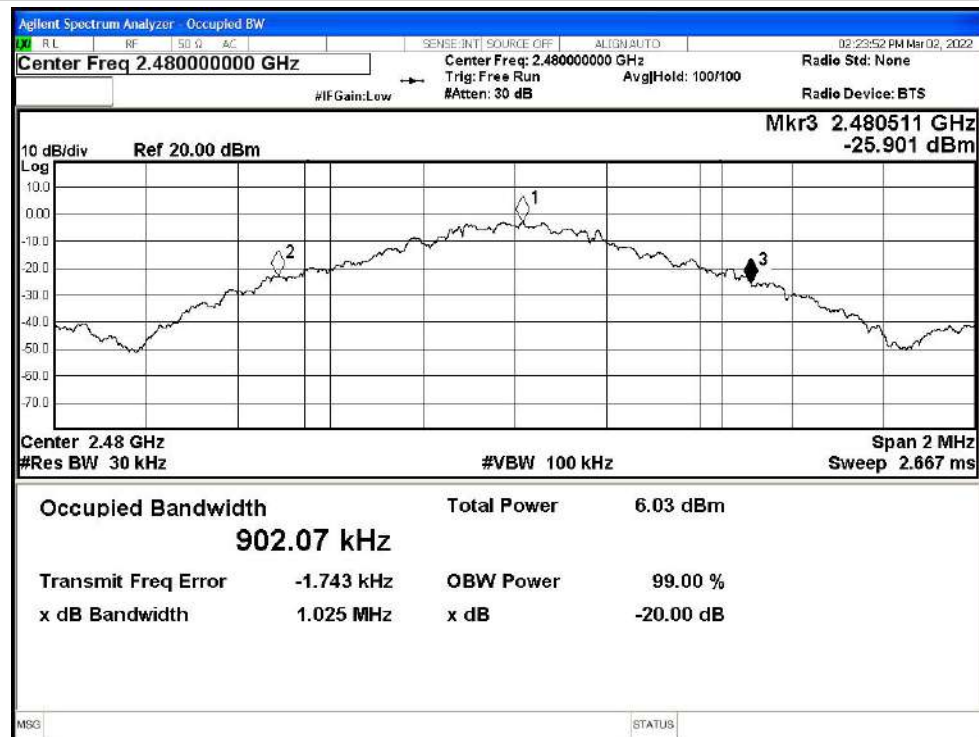


-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

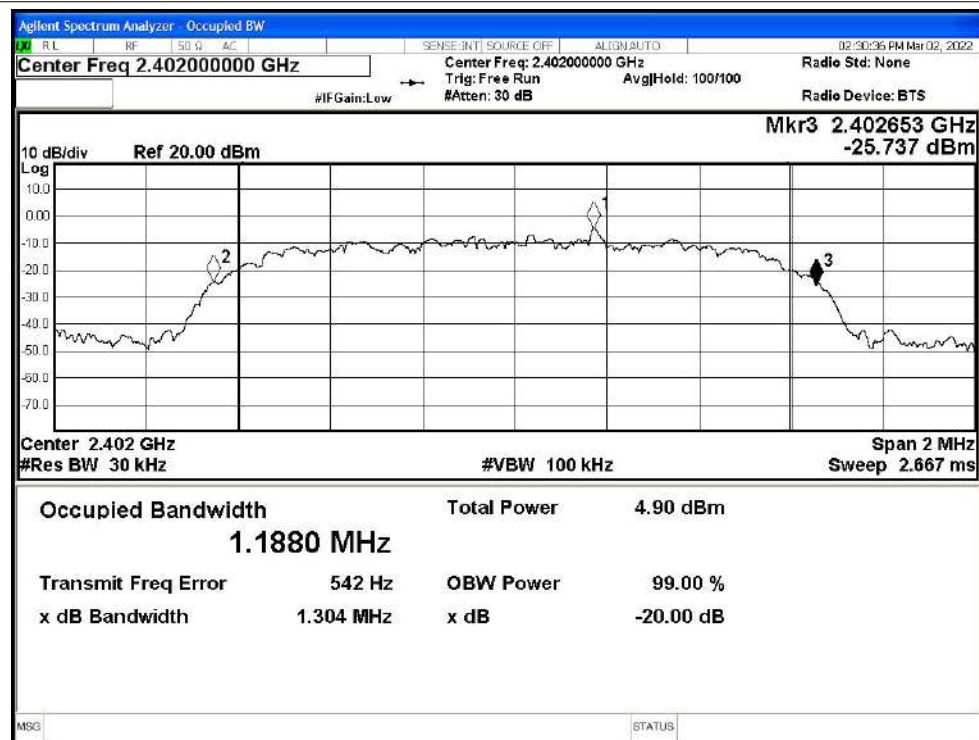




-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1

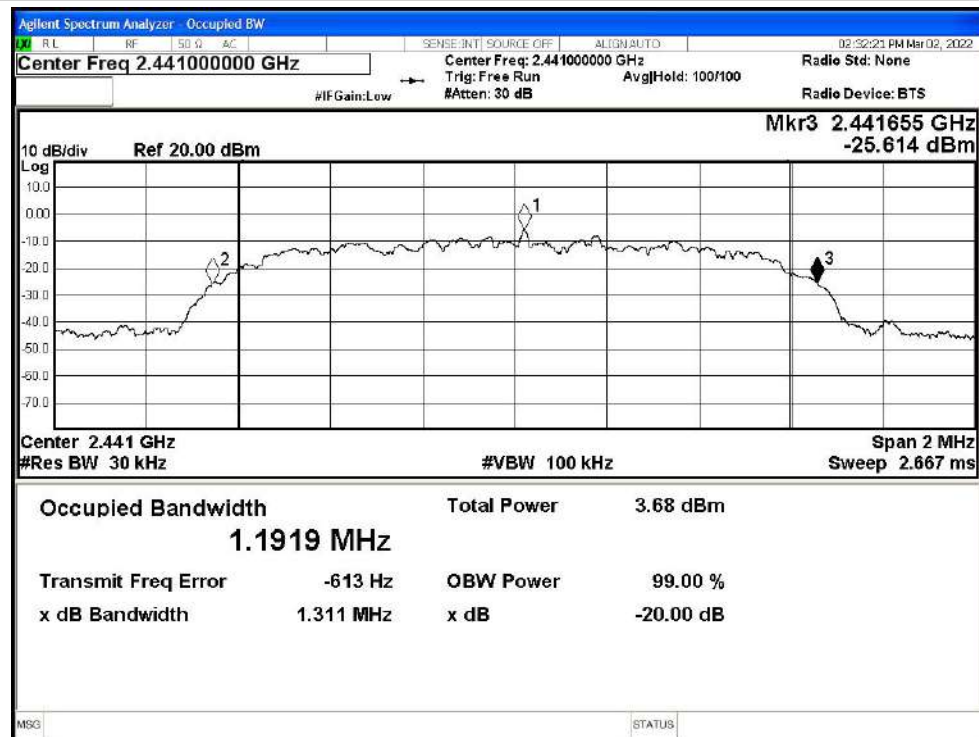


-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1

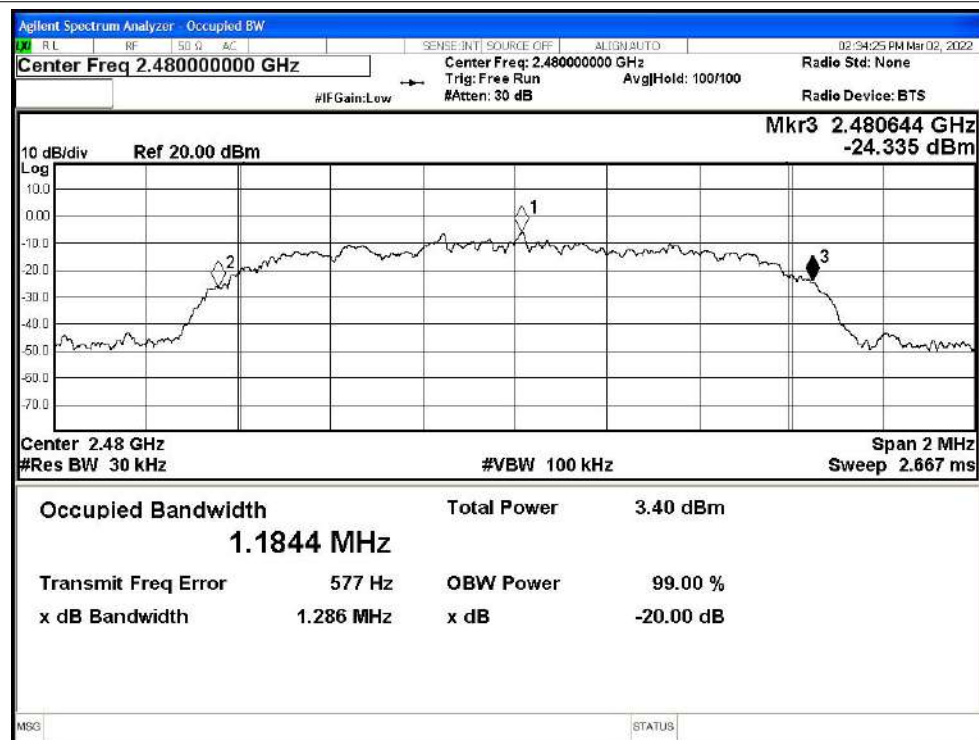




-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1

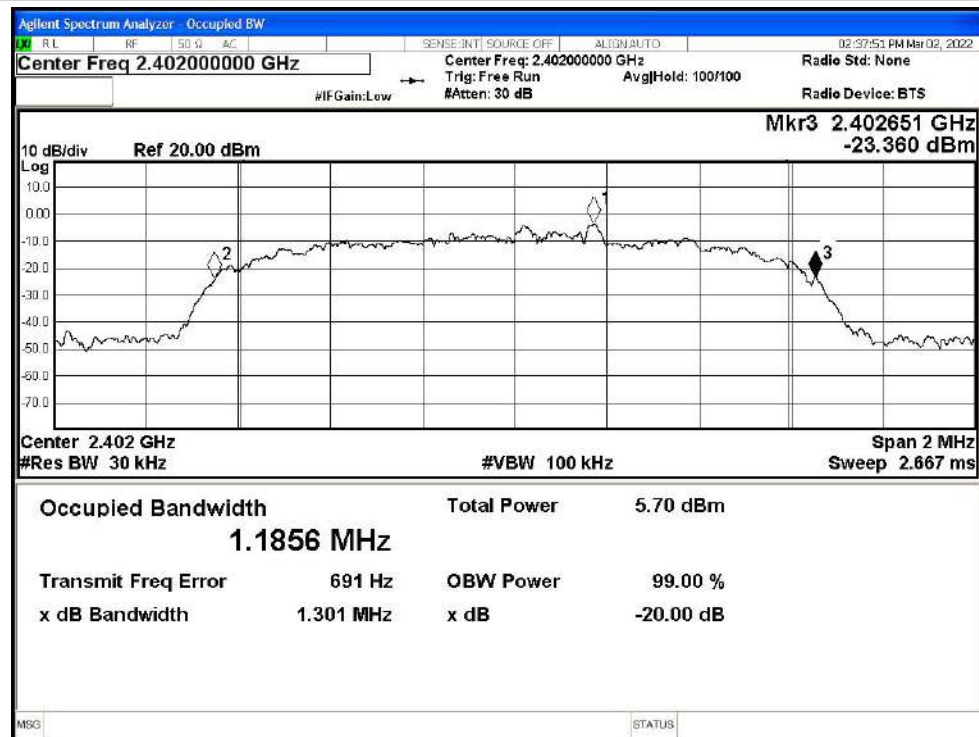


-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

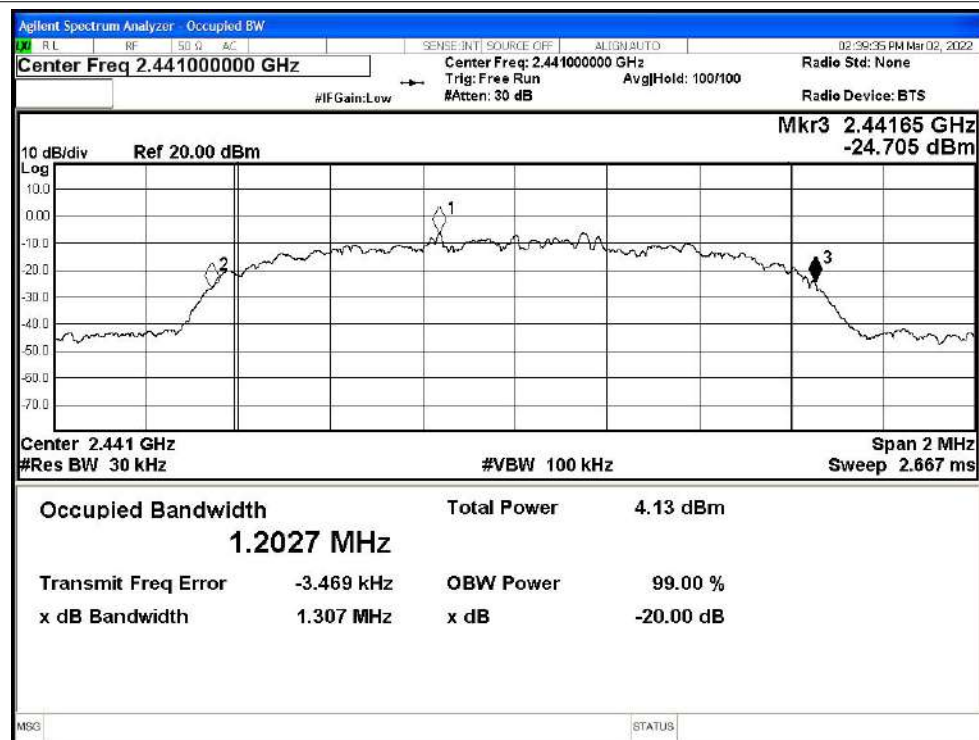




-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1

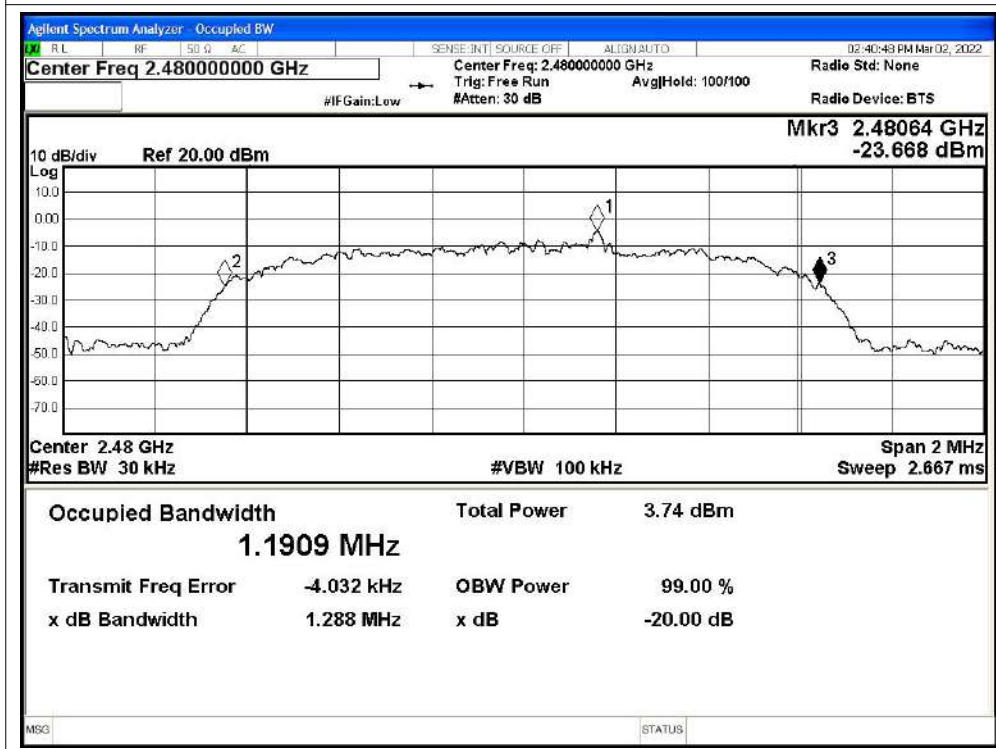


-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1





-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1





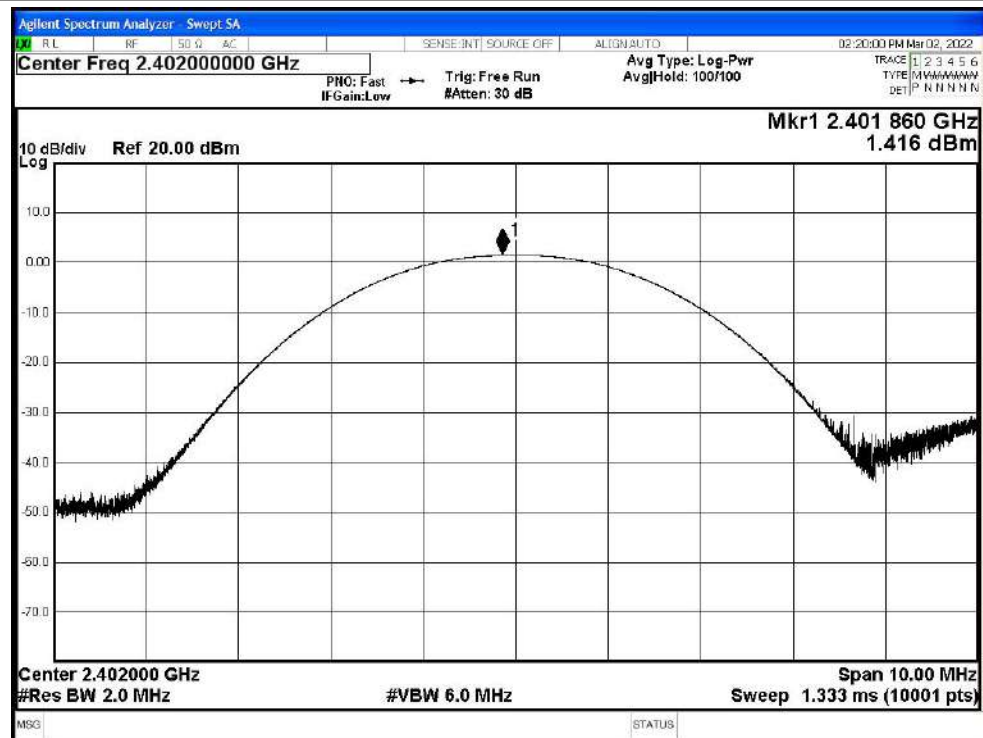
A.2 Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	1.42	≤ 20.97	Pass
NVNT	1-DH5	2441	Ant1	-0.23	≤ 20.97	Pass
NVNT	1-DH5	2480	Ant1	-0.14	≤ 20.97	Pass
NVNT	2-DH5	2402	Ant1	0.56	≤ 20.97	Pass
NVNT	2-DH5	2441	Ant1	-1.03	≤ 20.97	Pass
NVNT	2-DH5	2480	Ant1	-1.17	≤ 20.97	Pass
NVNT	3-DH5	2402	Ant1	0.77	≤ 20.97	Pass
NVNT	3-DH5	2441	Ant1	-0.73	≤ 20.97	Pass
NVNT	3-DH5	2480	Ant1	-1	≤ 20.97	Pass

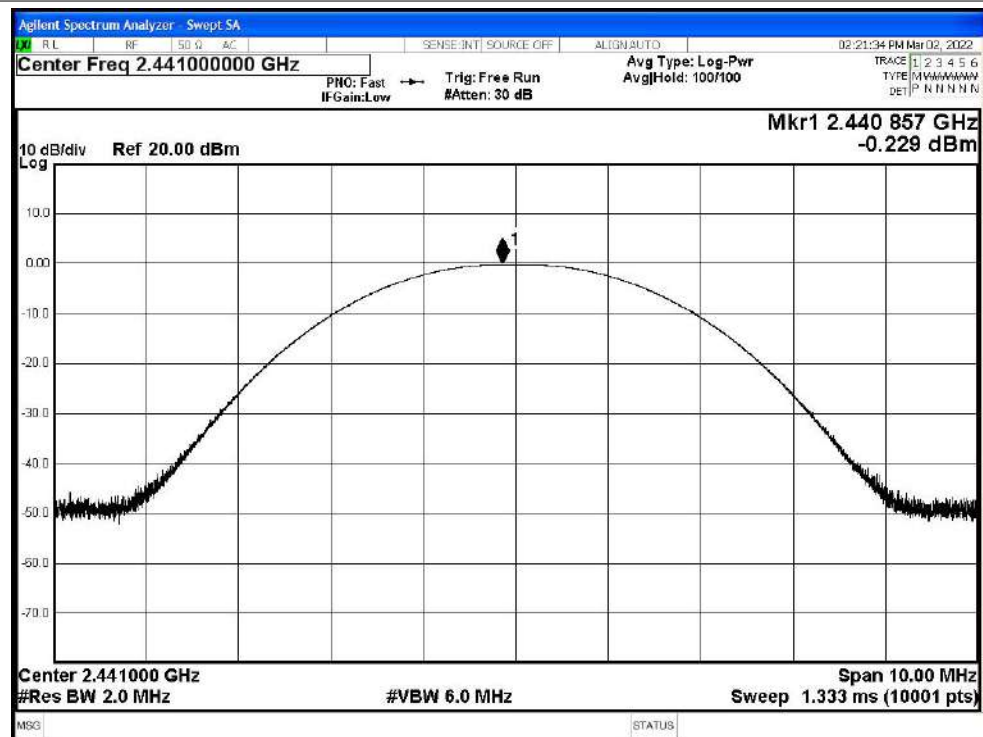


Test Graphs

Power NVNT 1-DH5 2402MHz Ant1

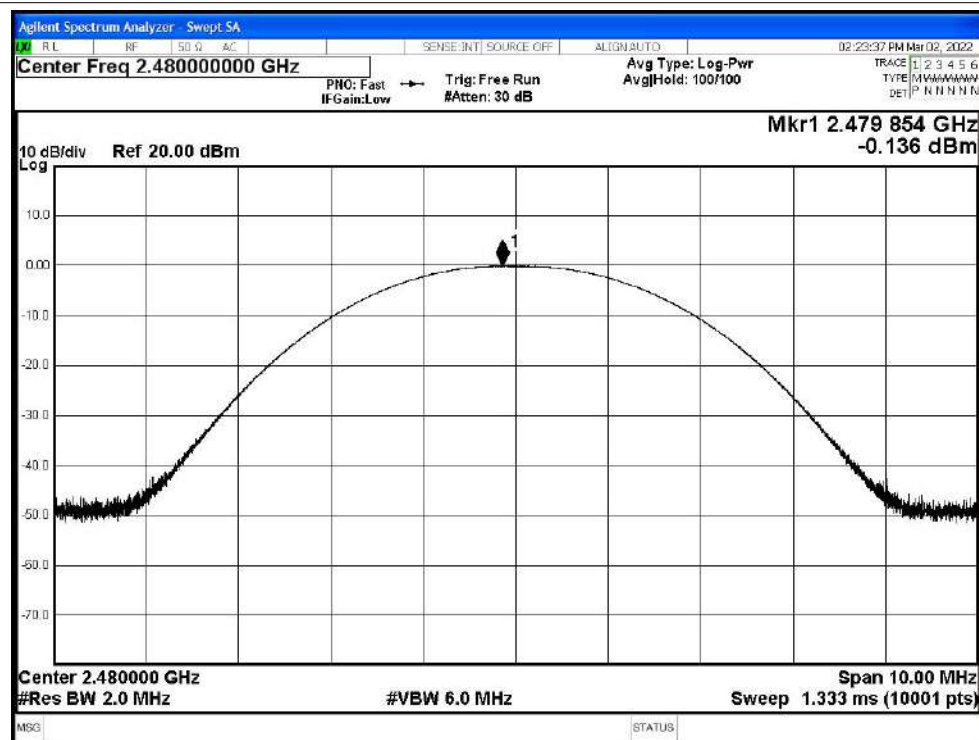


Power NVNT 1-DH5 2441MHz Ant1

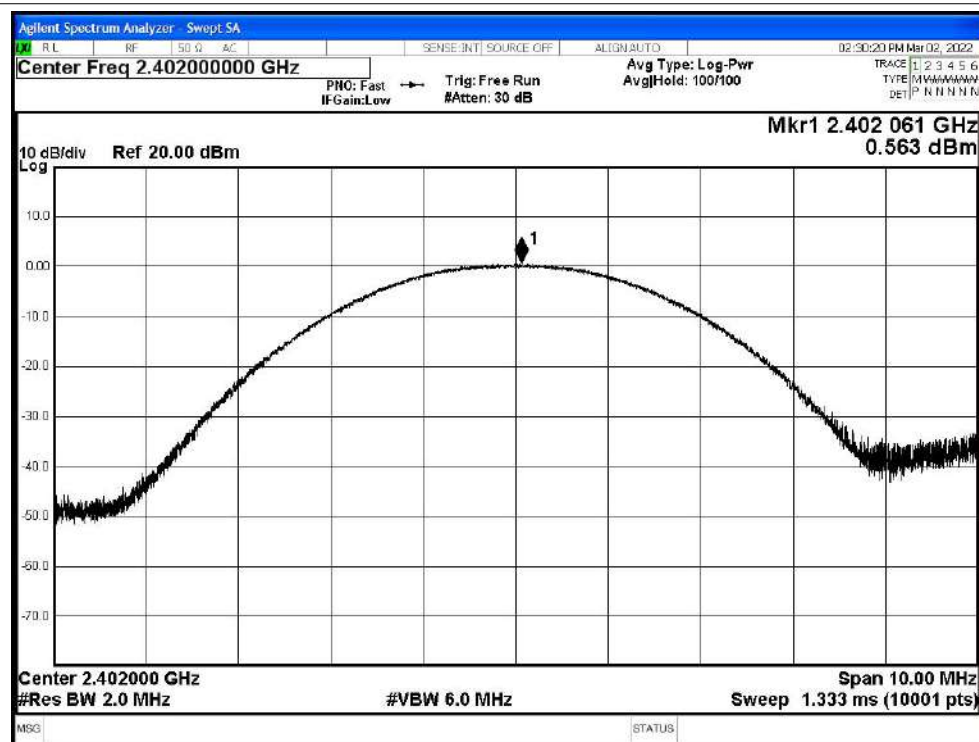




Power NVNT 1-DH5 2480MHz Ant1

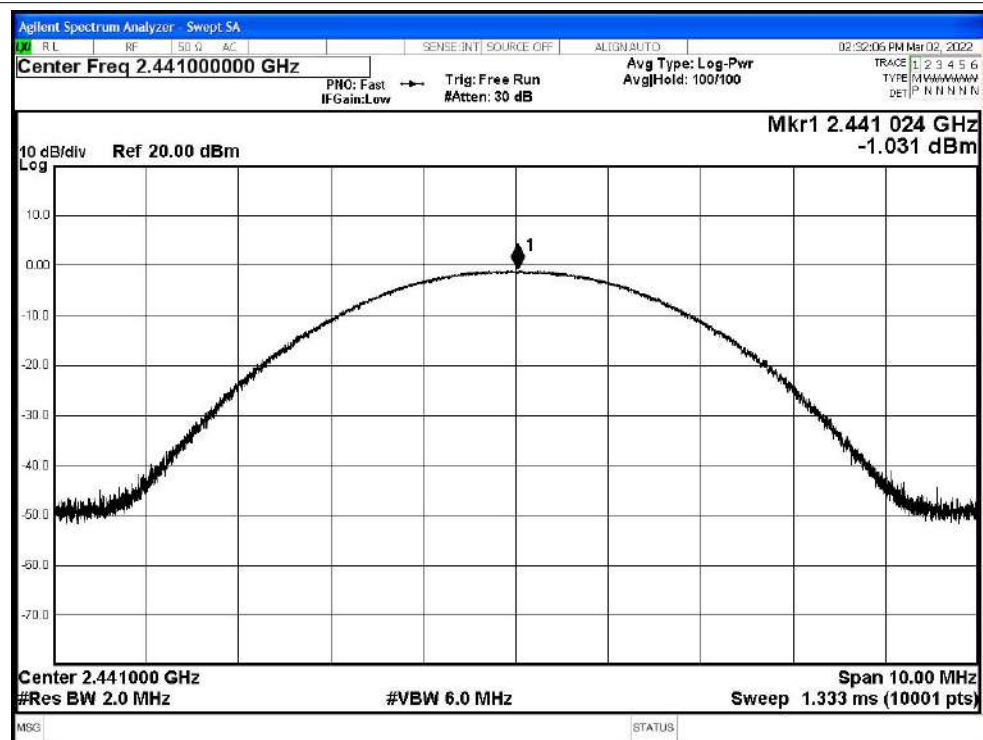


Power NVNT 2-DH5 2402MHz Ant1

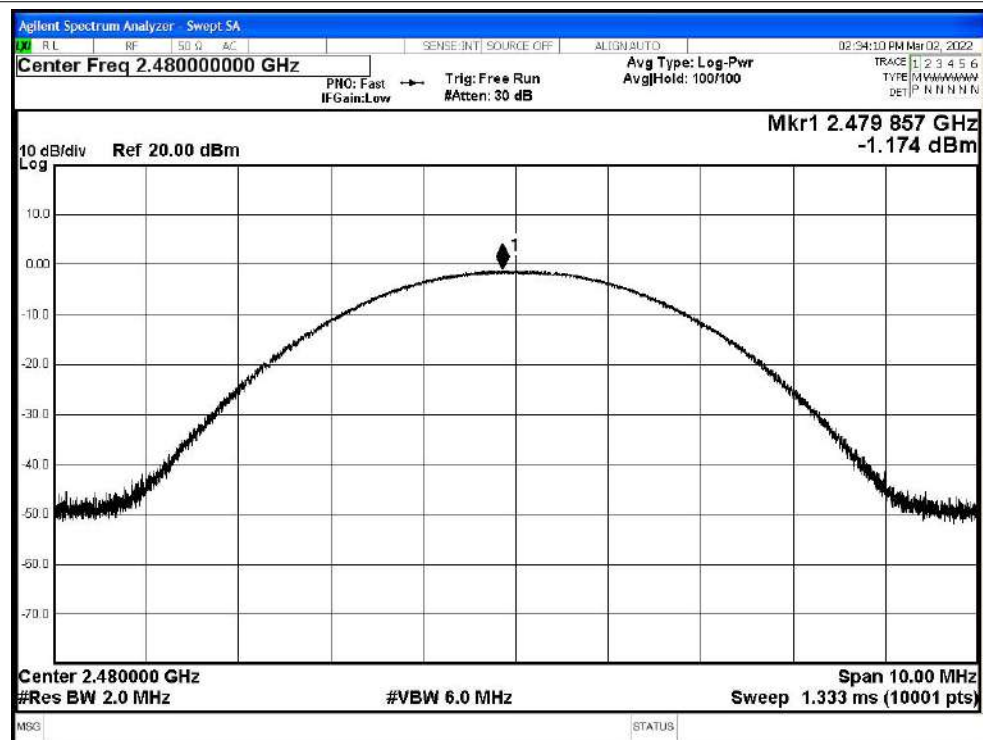




Power NVNT 2-DH5 2441MHz Ant1

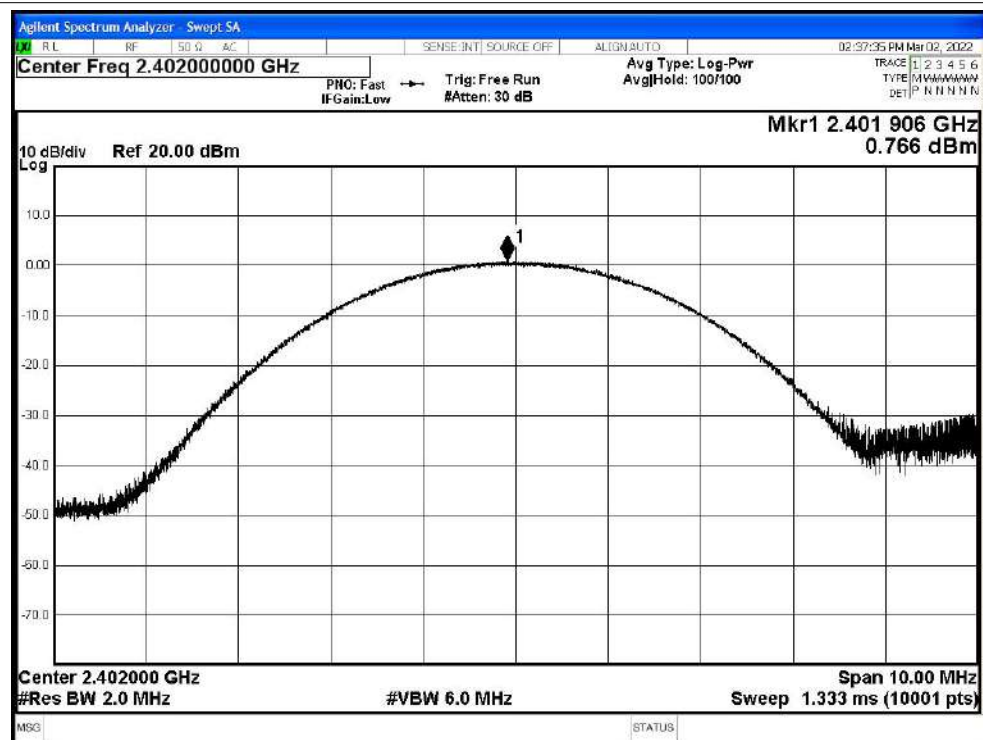


Power NVNT 2-DH5 2480MHz Ant1

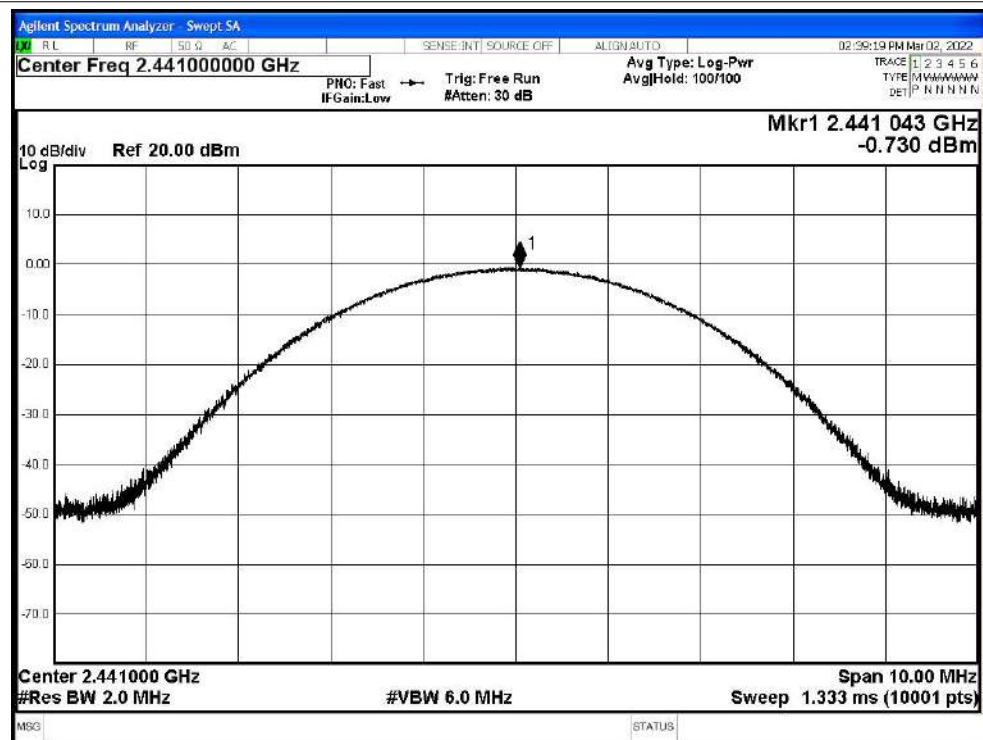


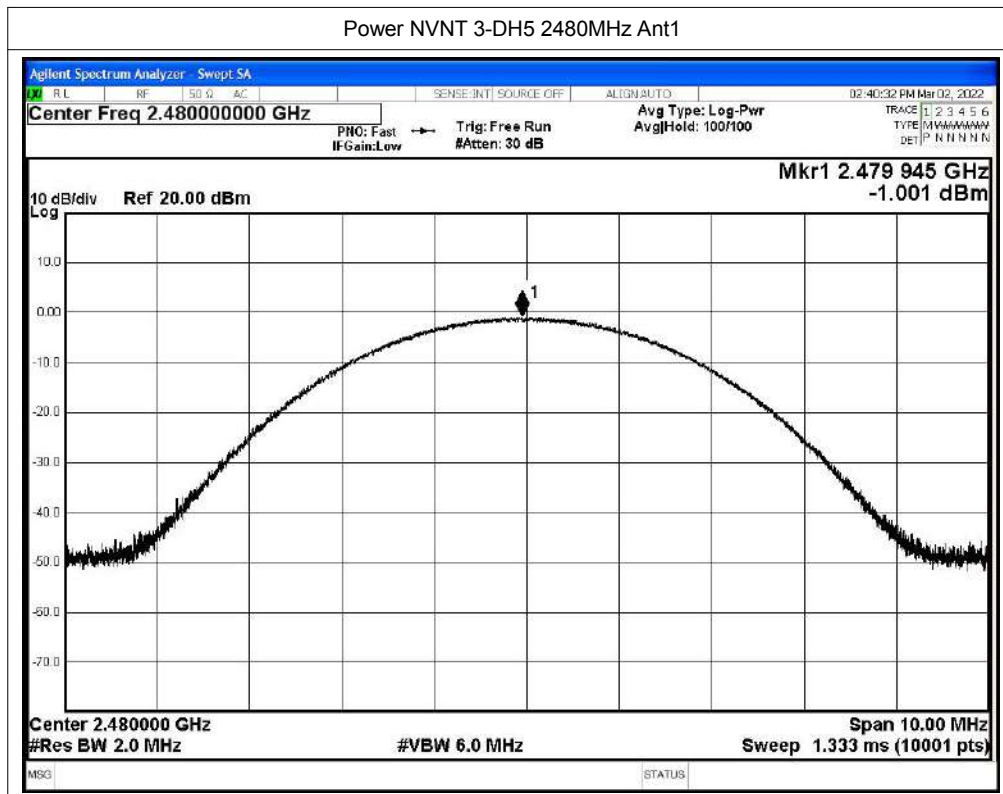


Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1







A.3 Carrier Frequencies Separation

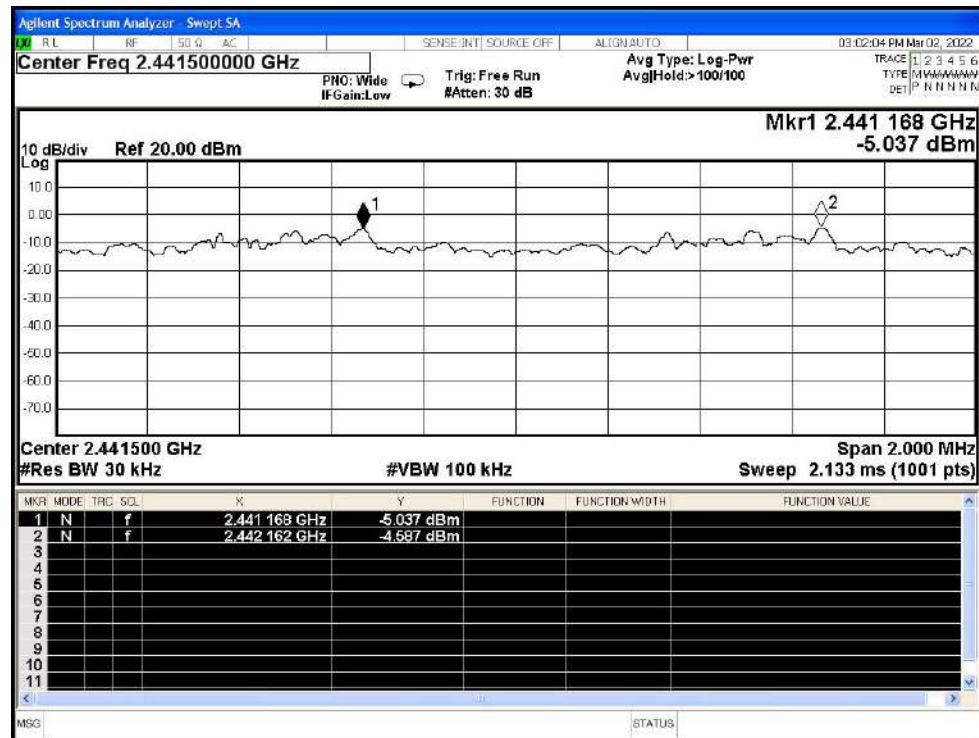
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2441.018	2441.976	0.958	≥ 0.685	Pass
NVNT	2-DH5	Ant1	2441.168	2442.162	0.994	≥ 0.874	Pass
NVNT	3-DH5	Ant1	2441.03	2442.156	1.126	≥ 0.871	Pass

Test Graphs

CFS NVNT 1-DH5 2441MHz Ant1



CFS NVNT 2-DH5 2441MHz Ant1





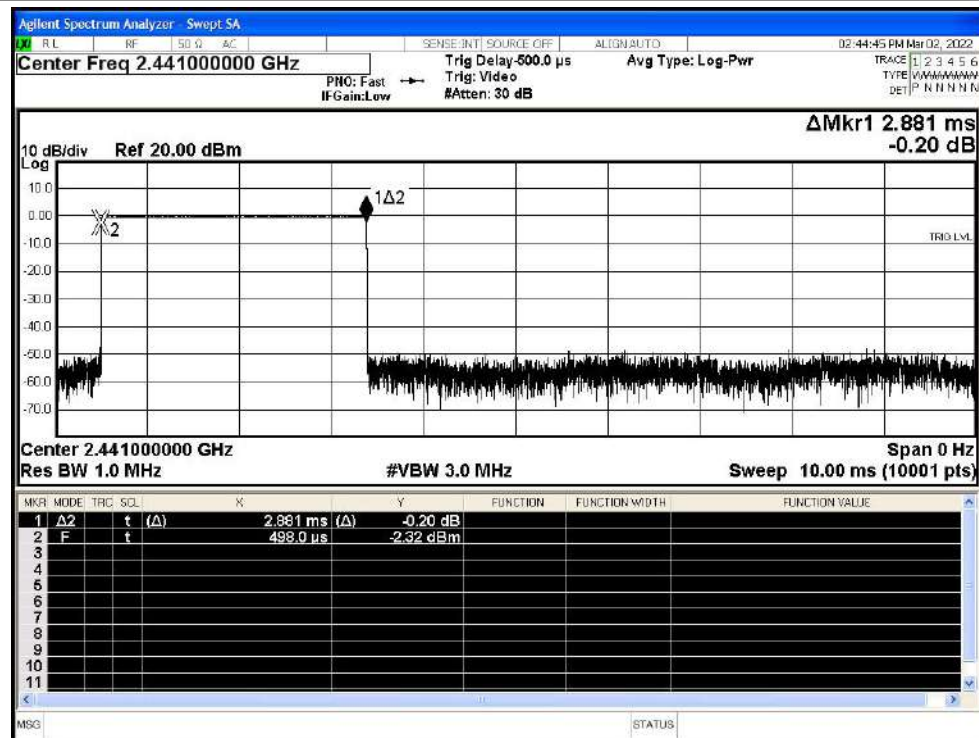
A.4 Dwell Time

Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2441	Ant1	2.881	279.457	97	31600	≤400	Pass
NVNT	2-DH5	2441	Ant1	2.88	308.16	107	31600	≤400	Pass
NVNT	3-DH5	2441	Ant1	2.887	329.118	114	31600	≤400	Pass

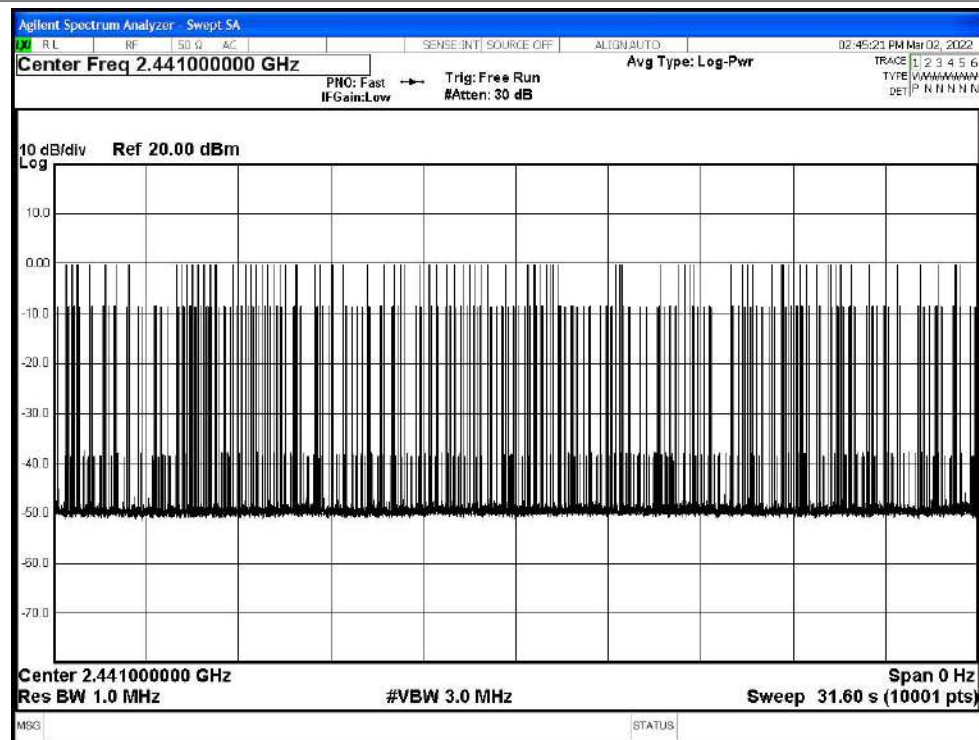


Test Graphs

Dwell NVNT 1-DH5 2441MHz Ant1 One Burst

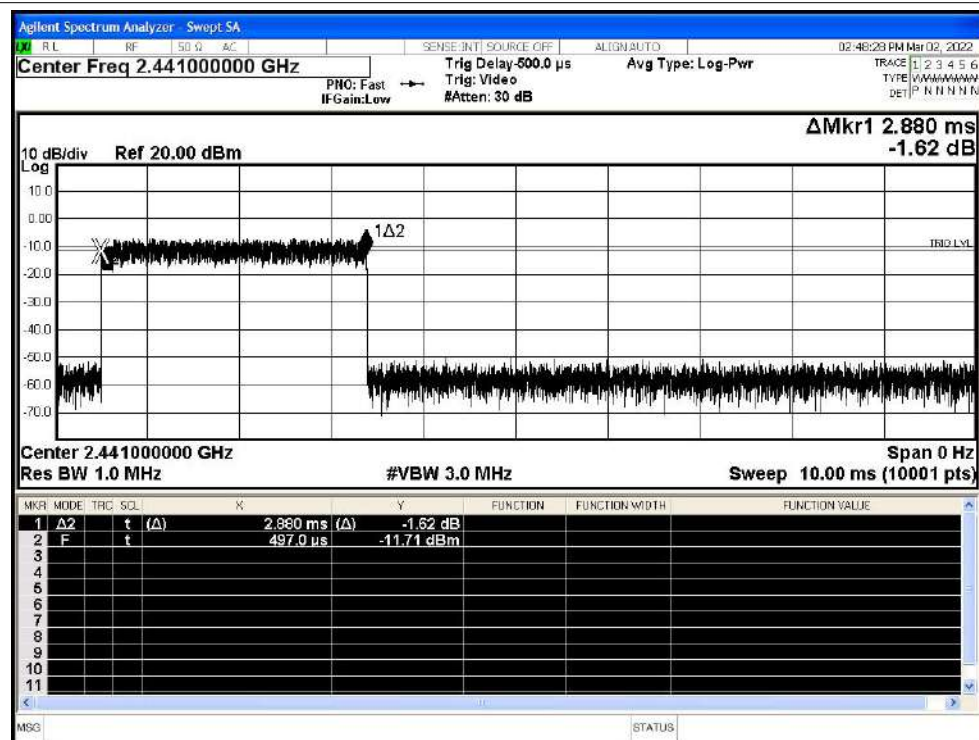


Dwell NVNT 1-DH5 2441MHz Ant1 Accumulated

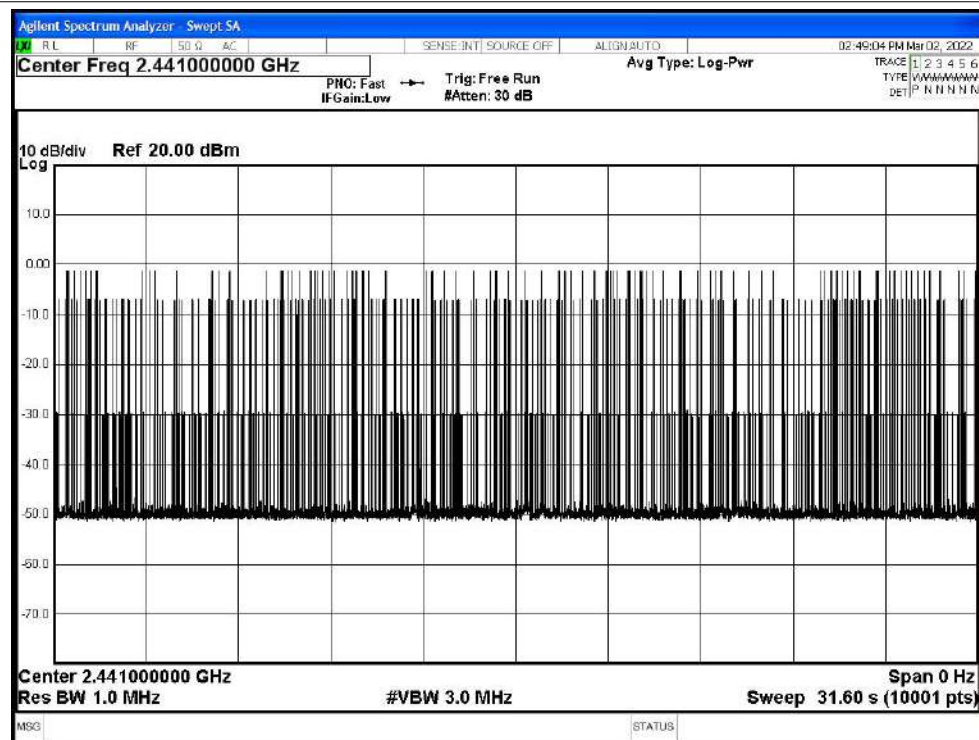




Dwell NVNT 2-DH5 2441MHz Ant1 One Burst

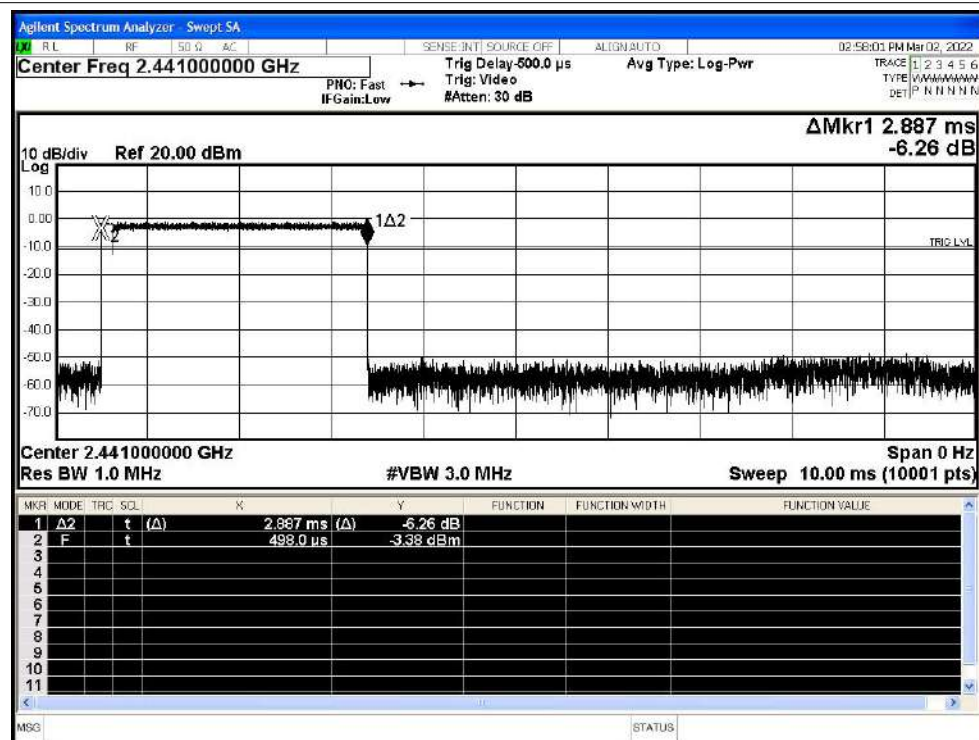


Dwell NVNT 2-DH5 2441MHz Ant1 Accumulated

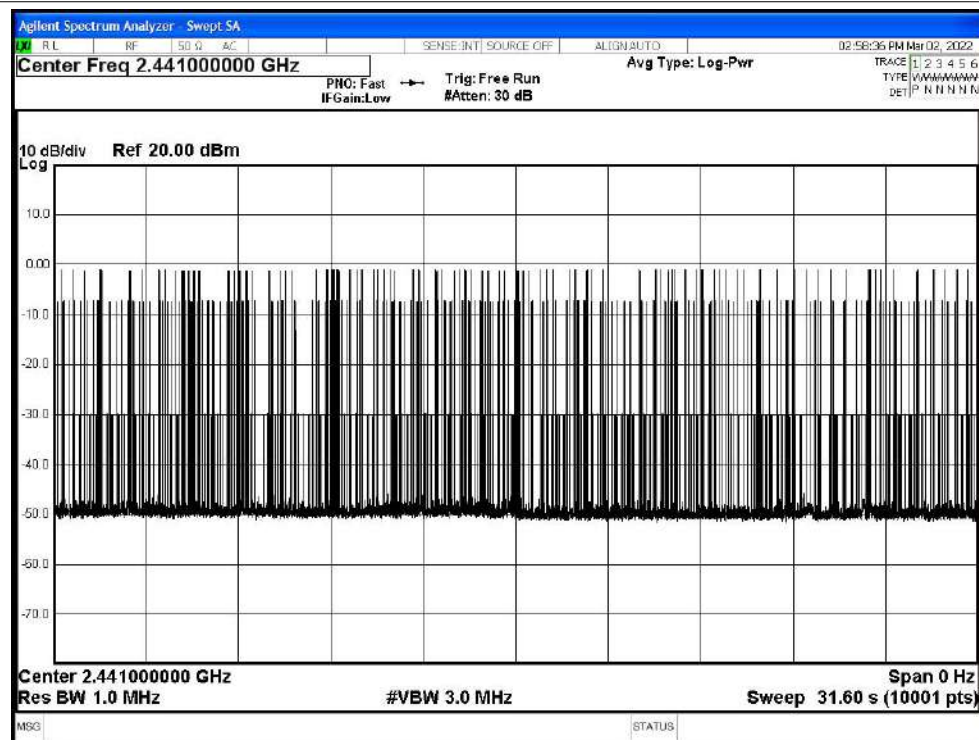




Dwell NVNT 3-DH5 2441MHz Ant1 One Burst



Dwell NVNT 3-DH5 2441MHz Ant1 Accumulated



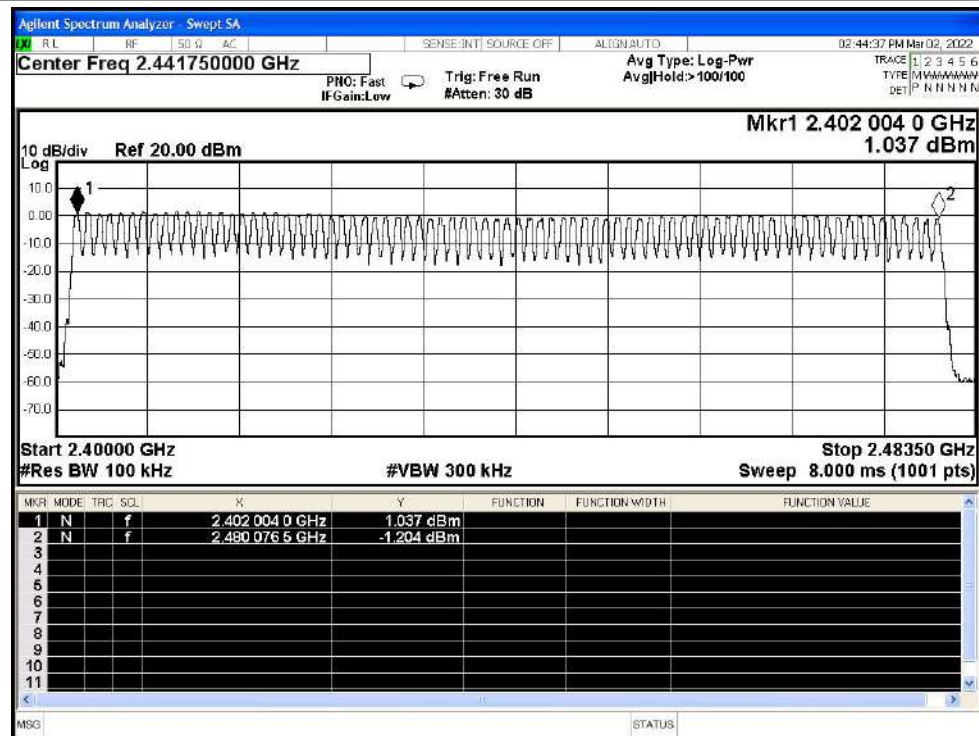


A.5 Number of Hopping Channel

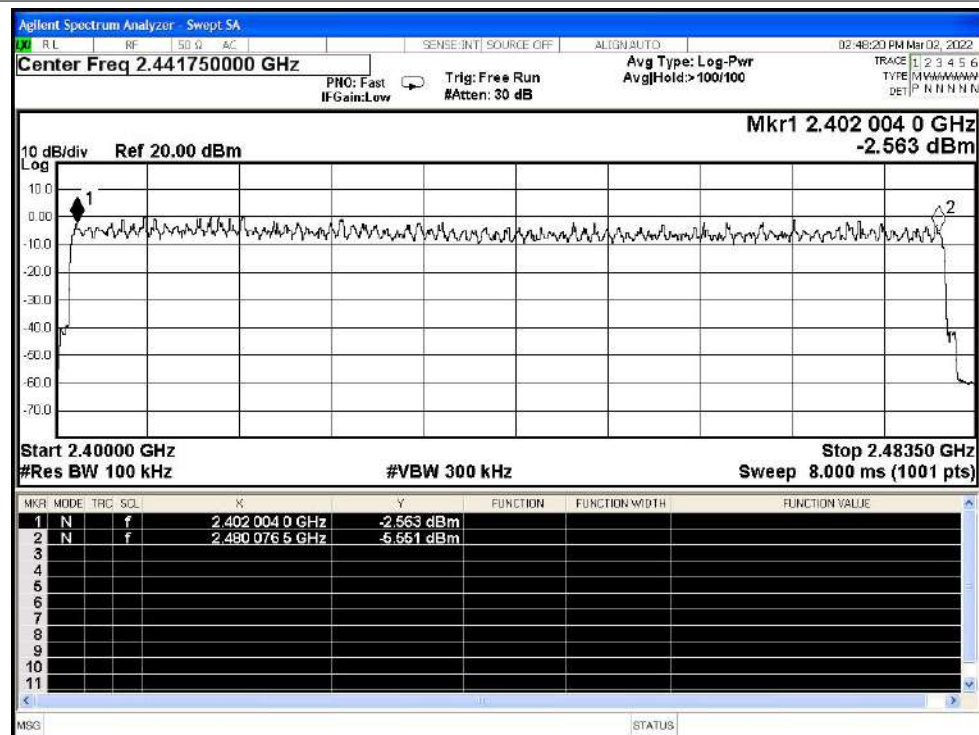
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	≥ 15	Pass
NVNT	2-DH5	Ant1	79	≥ 15	Pass
NVNT	3-DH5	Ant1	79	≥ 15	Pass

Test Graphs

Hopping No. NVNT 1-DH5 2441MHz Ant1



Hopping No. NVNT 2-DH5 2441MHz Ant1





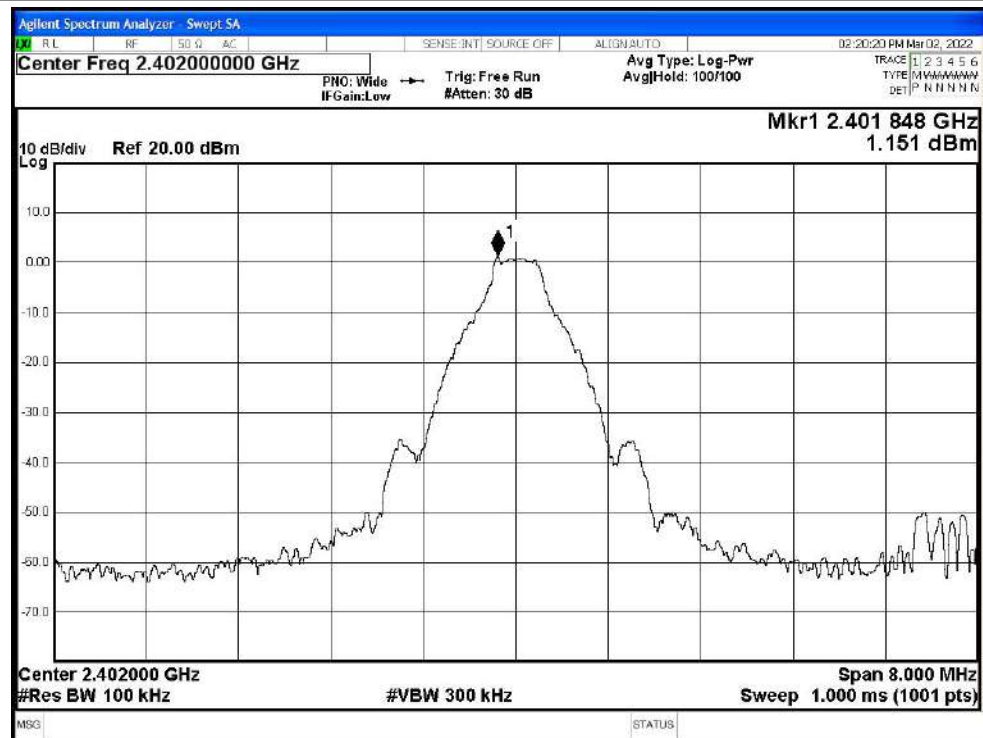
A.6 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-58.94	≤ -20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-58.04	≤ -20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-55.88	≤ -20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-54.06	≤ -20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-53.38	≤ -20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-55.26	≤ -20	Pass

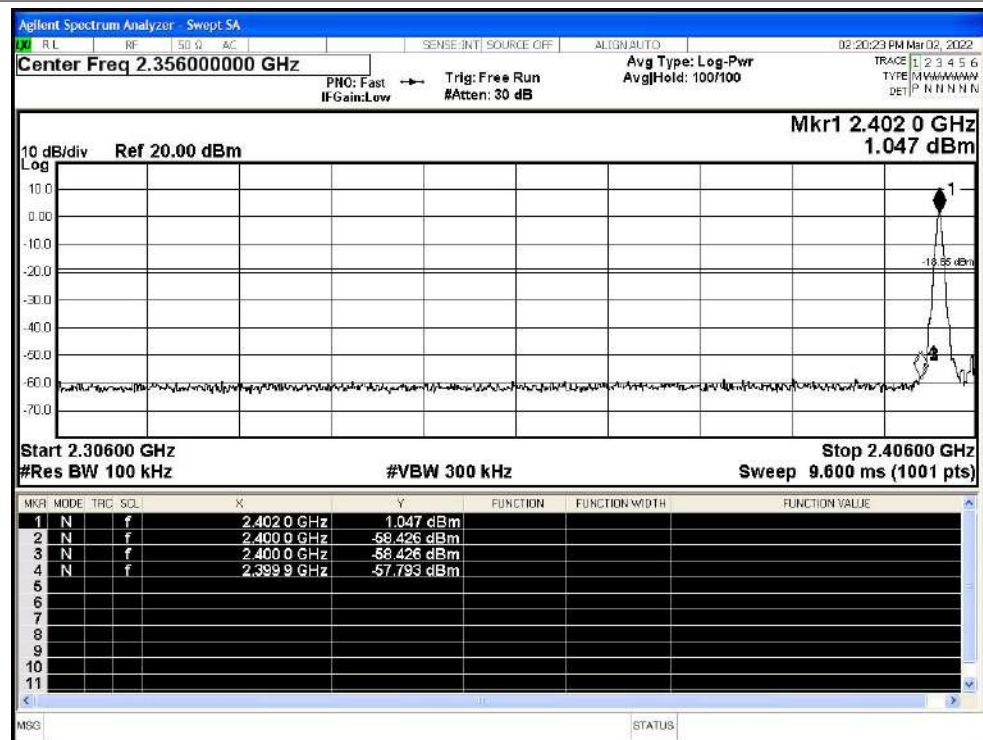


Test Graphs

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

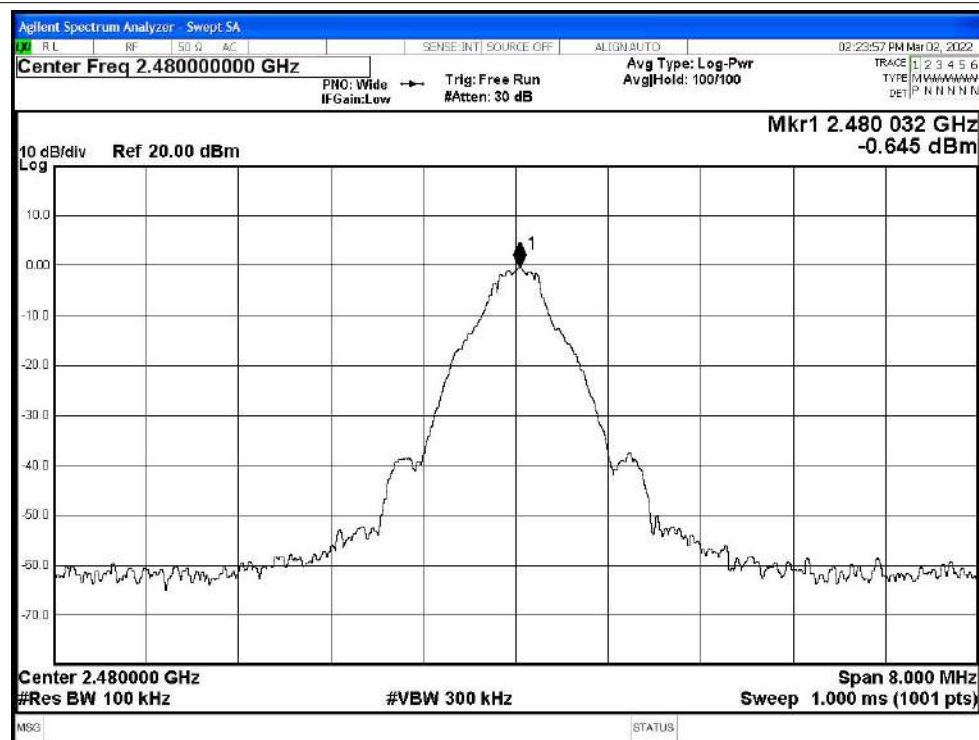


Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

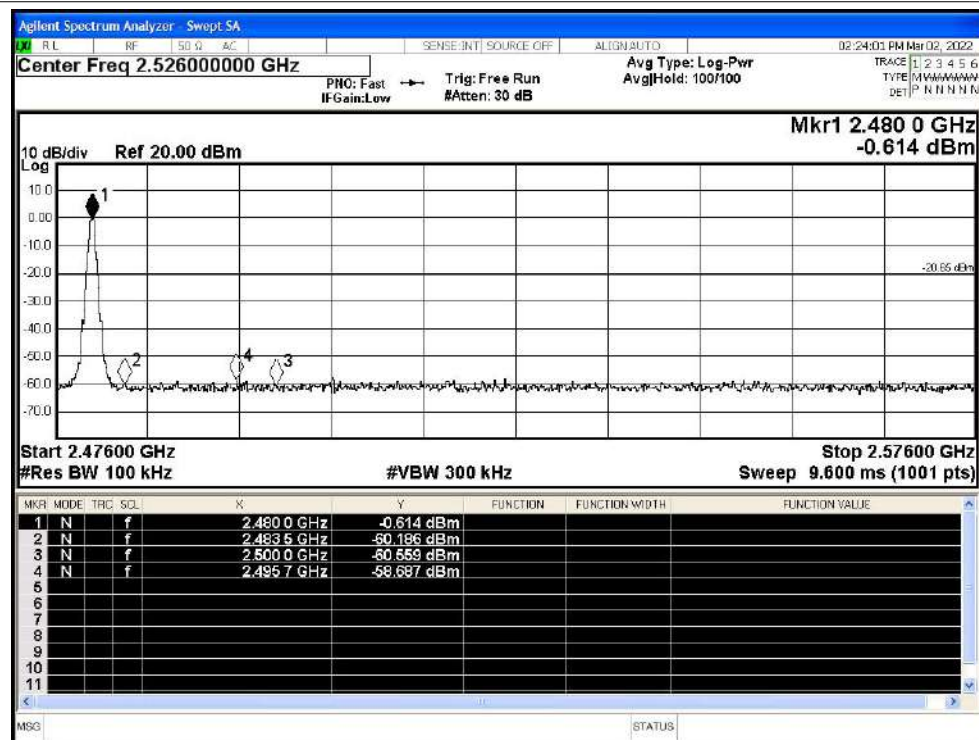




Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

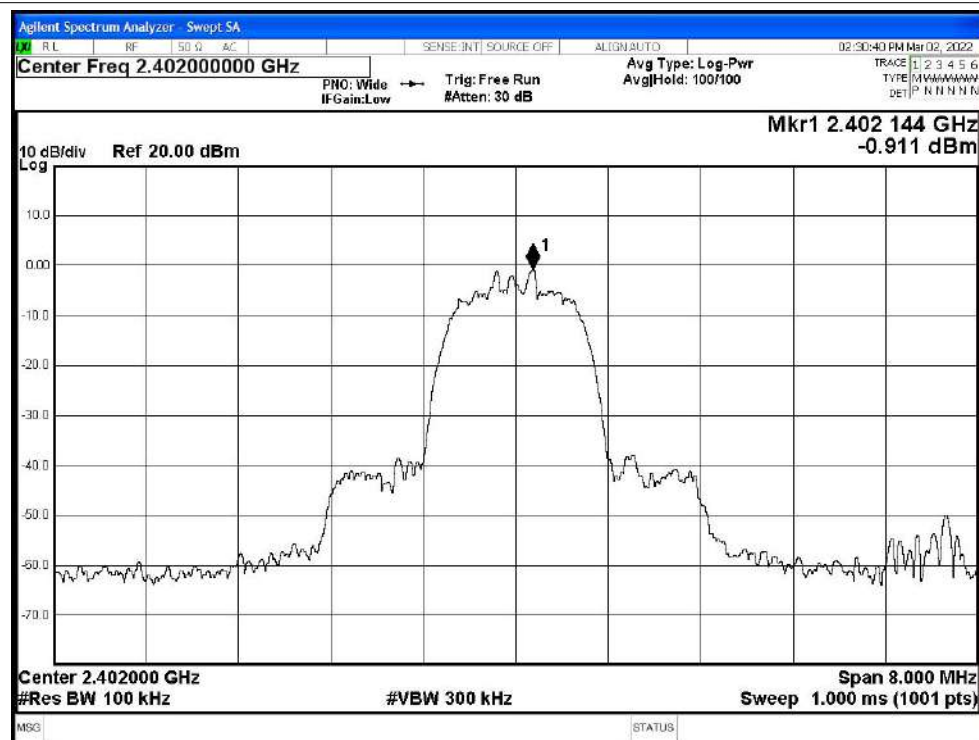


Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission

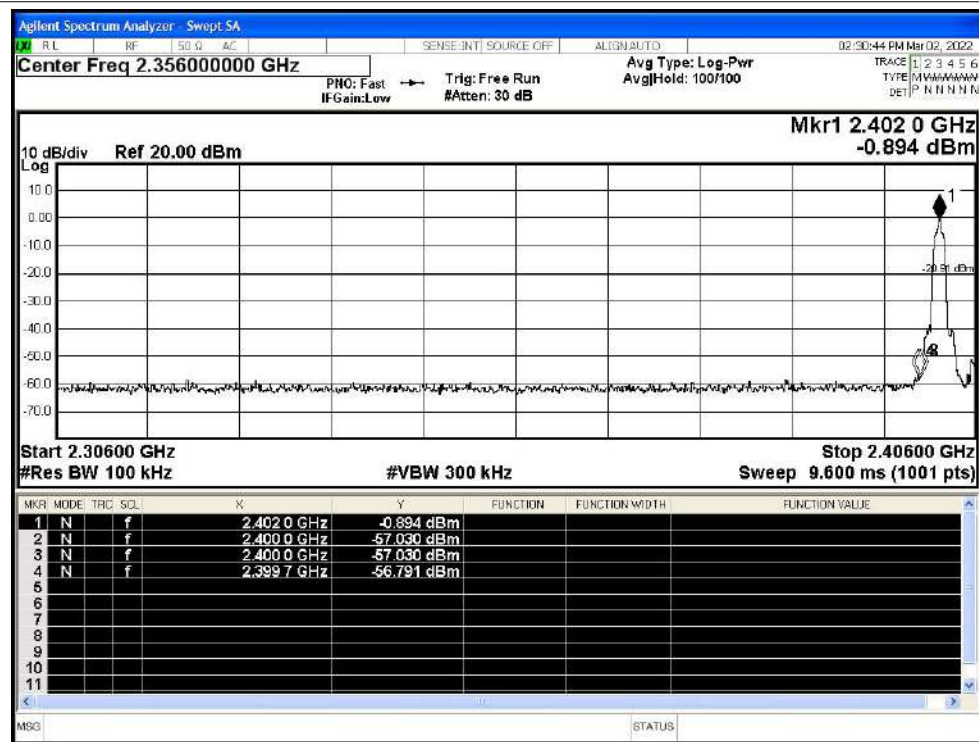




Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref

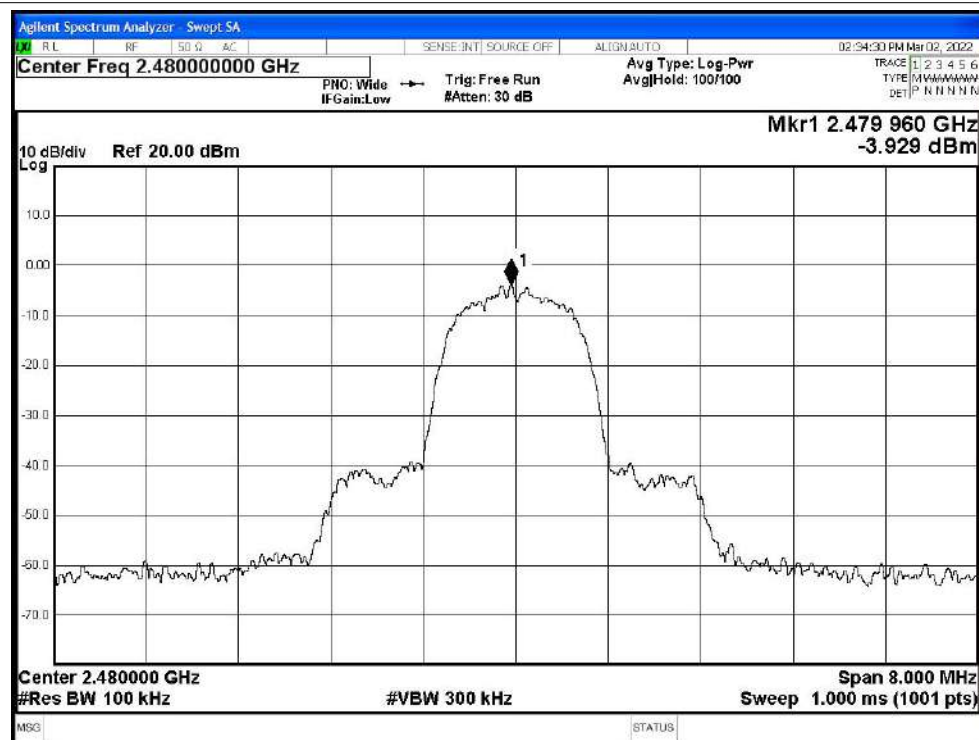


Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission

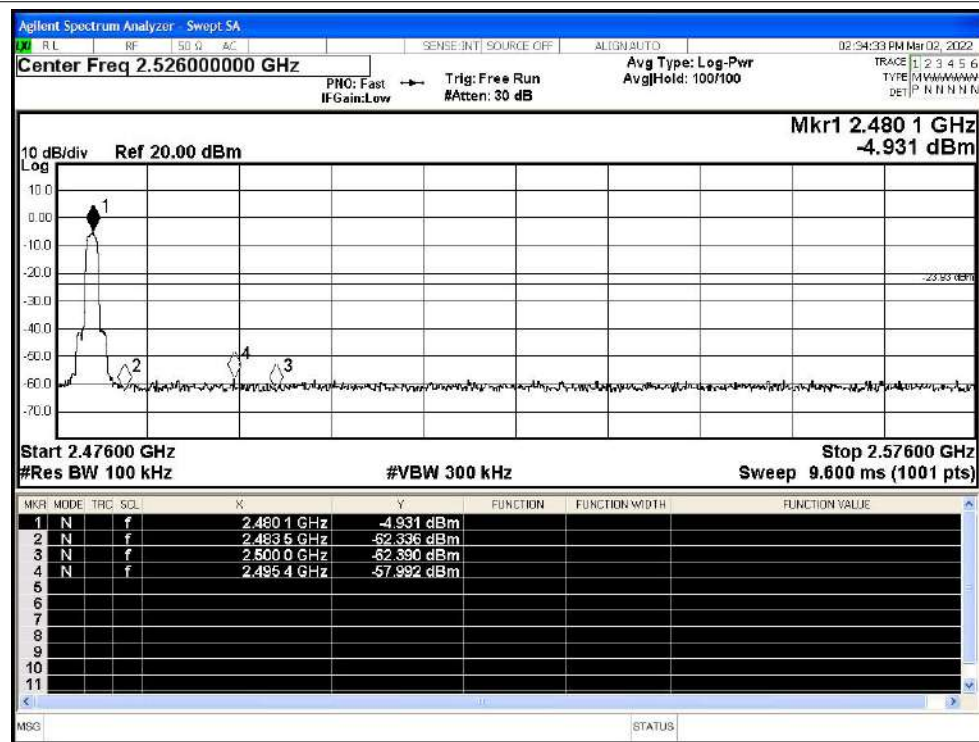




Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref

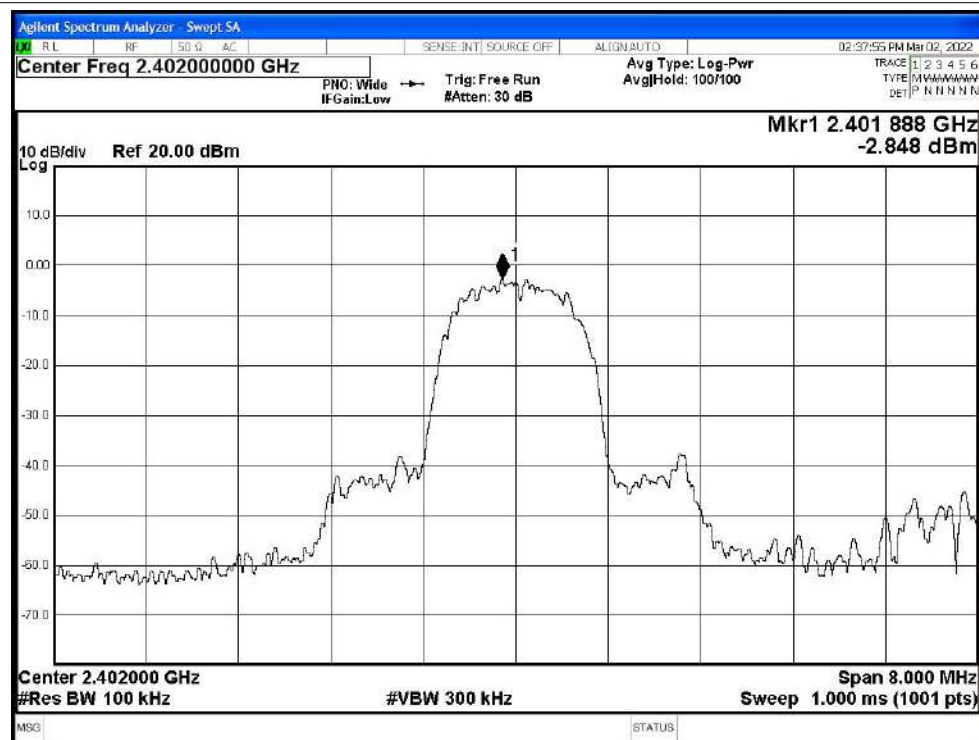


Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission

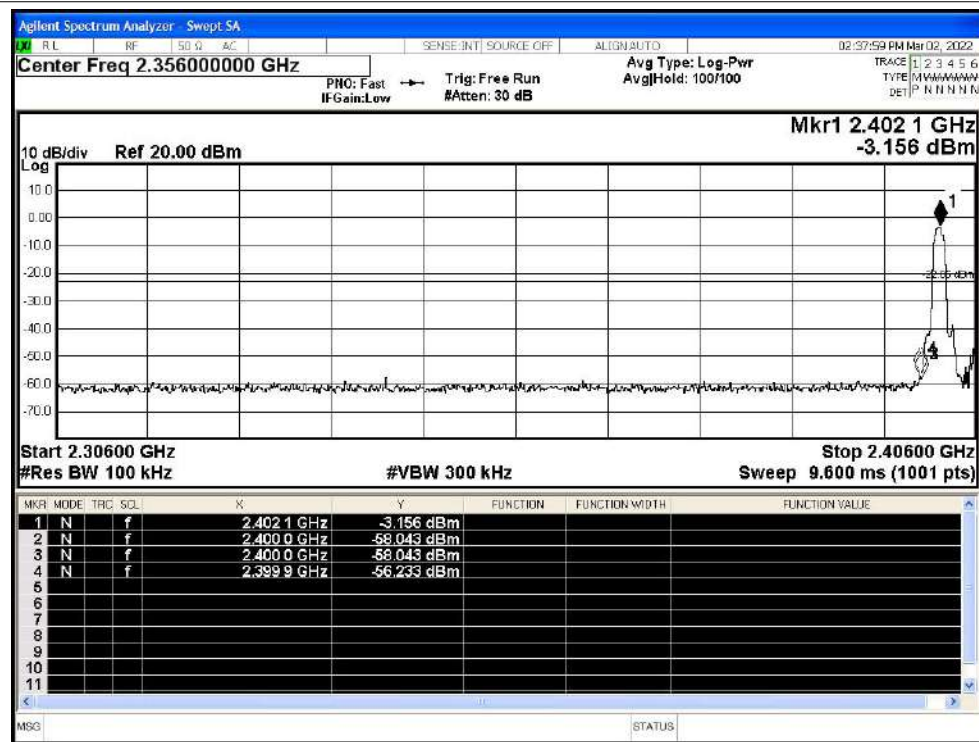




Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref

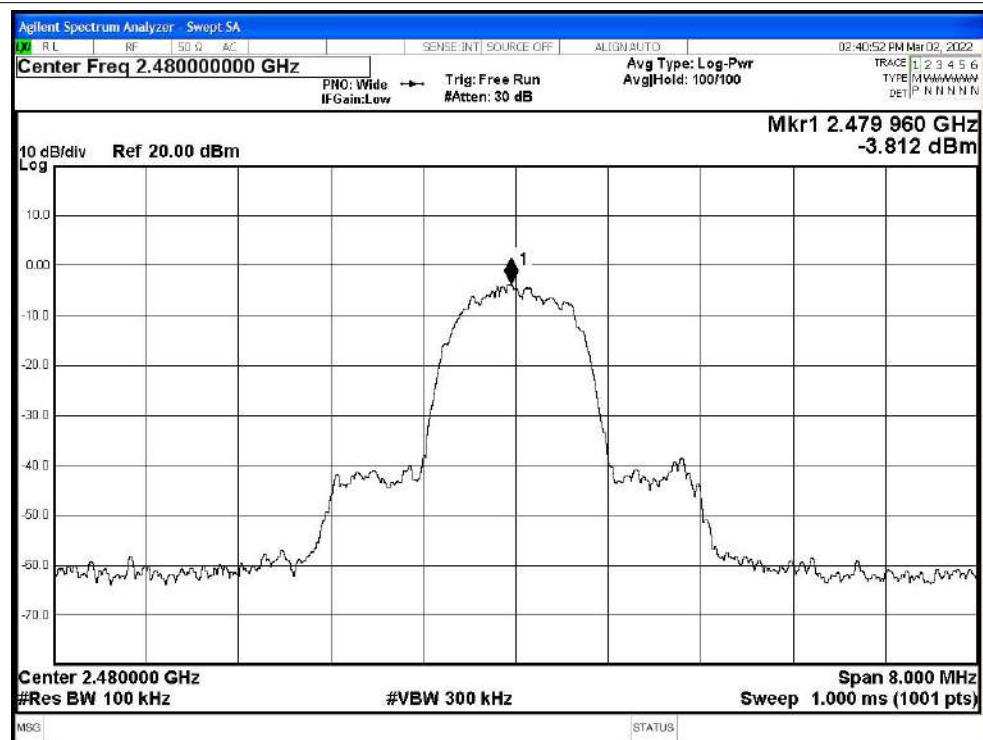


Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission

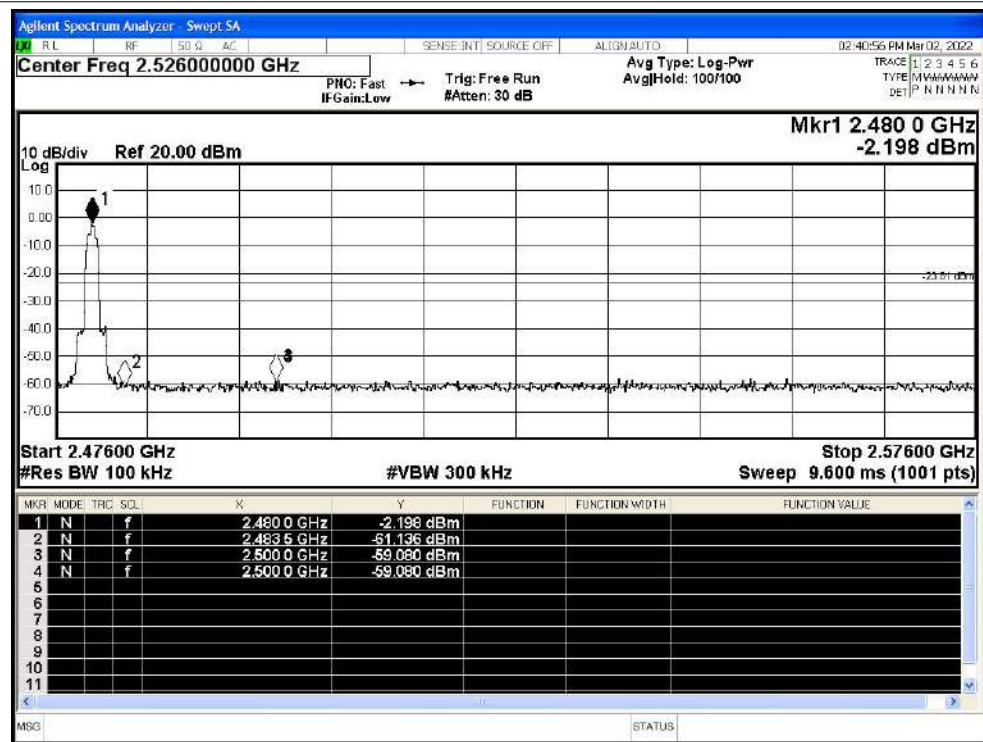




Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



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





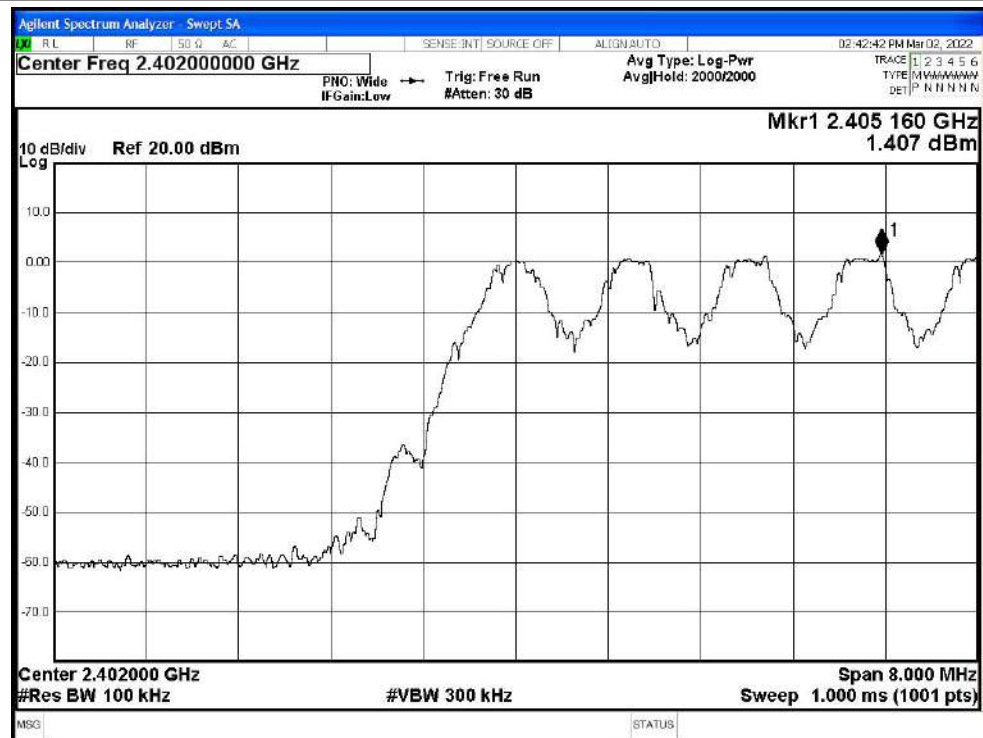
(Hopping)

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-59.07	≤ -20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-56.9	≤ -20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-57.12	≤ -20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-54.97	≤ -20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-56.71	≤ -20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-56.34	≤ -20	Pass

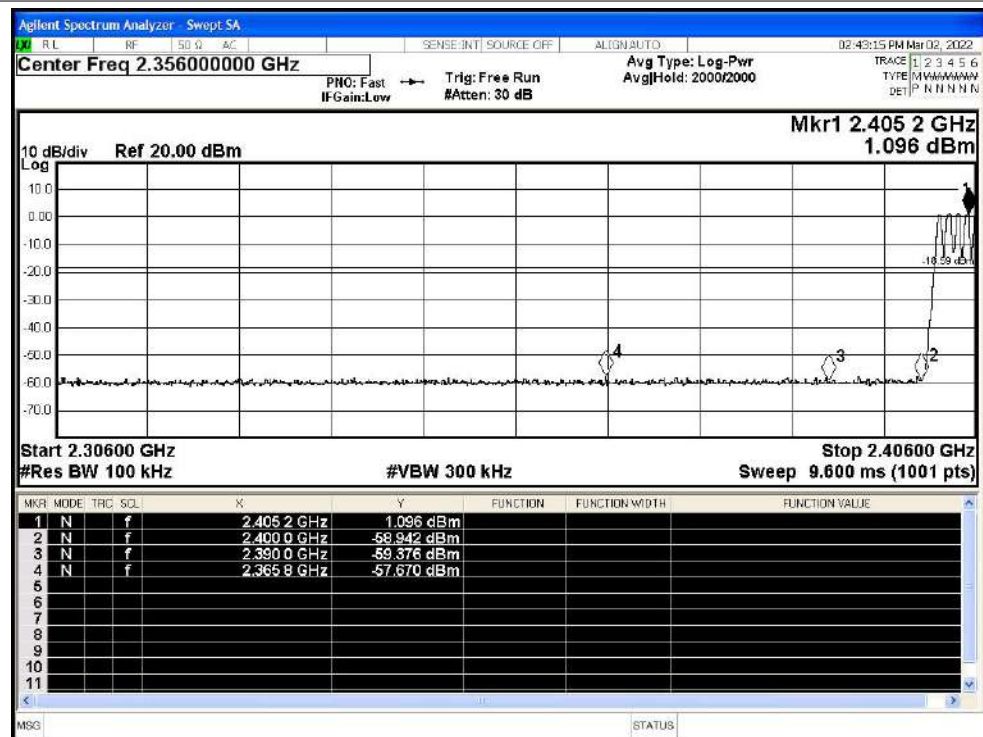


Test Graphs

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

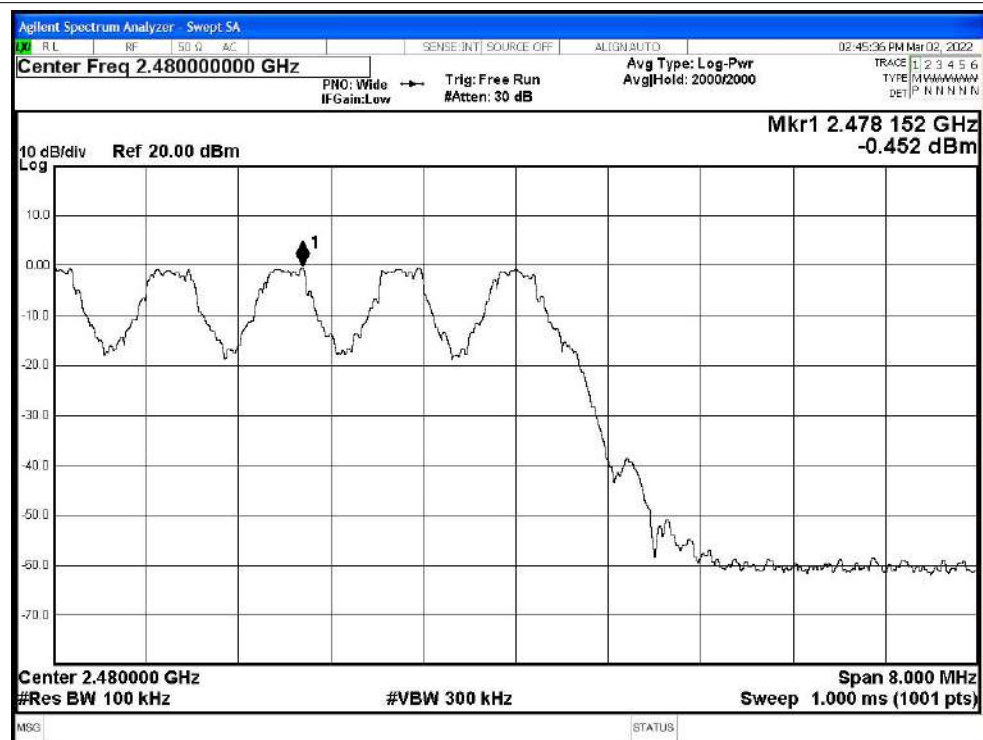


Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

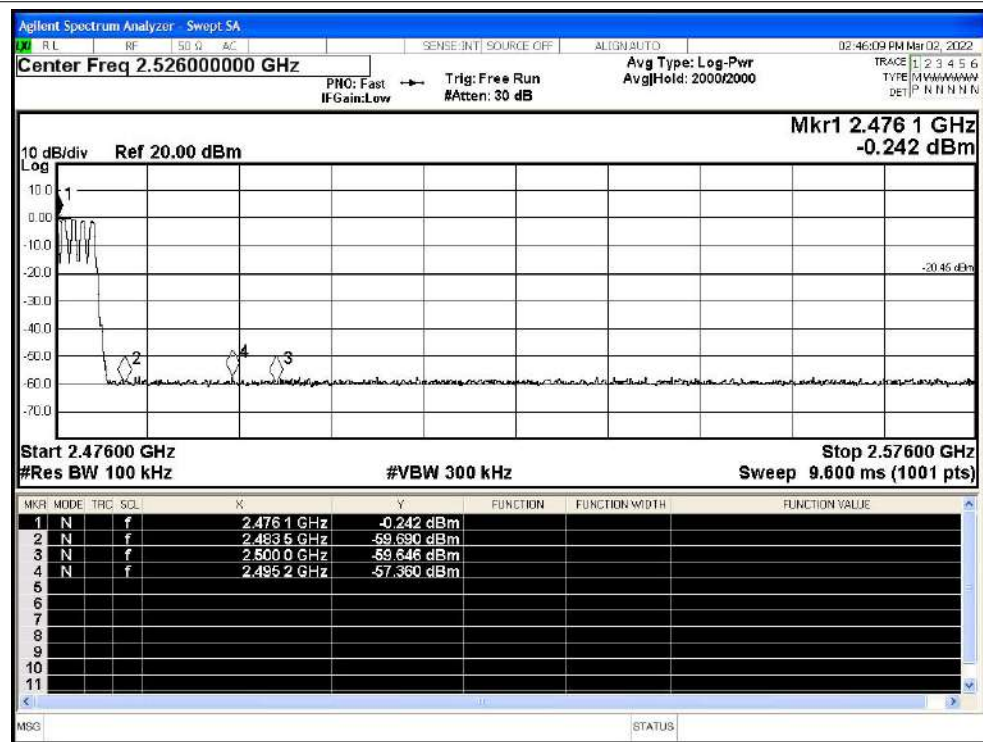




Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



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

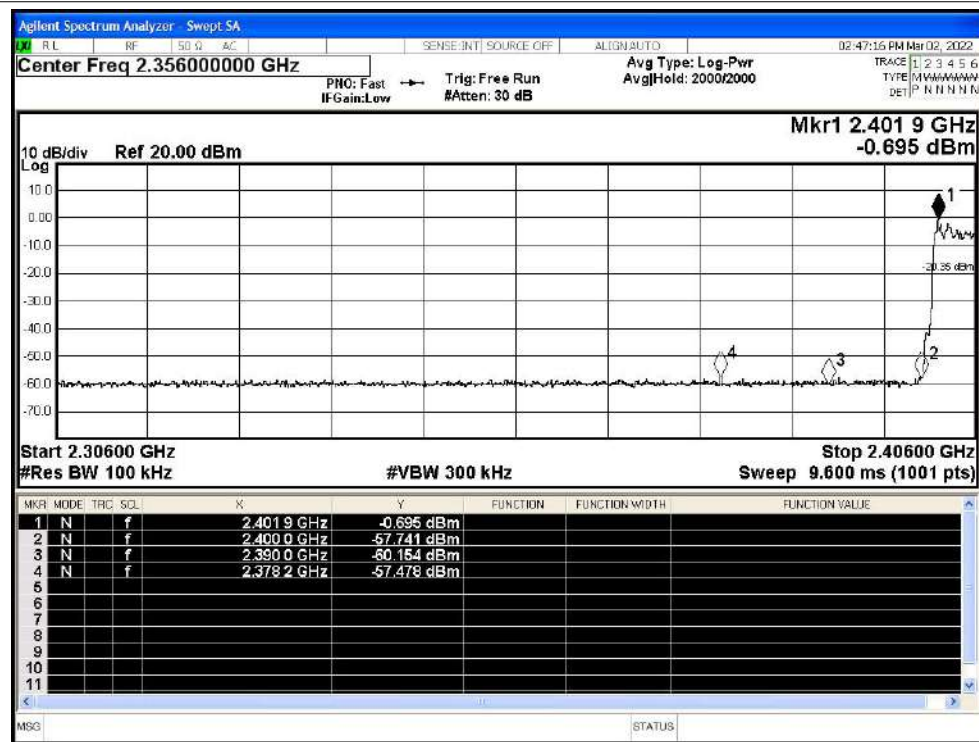




Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref

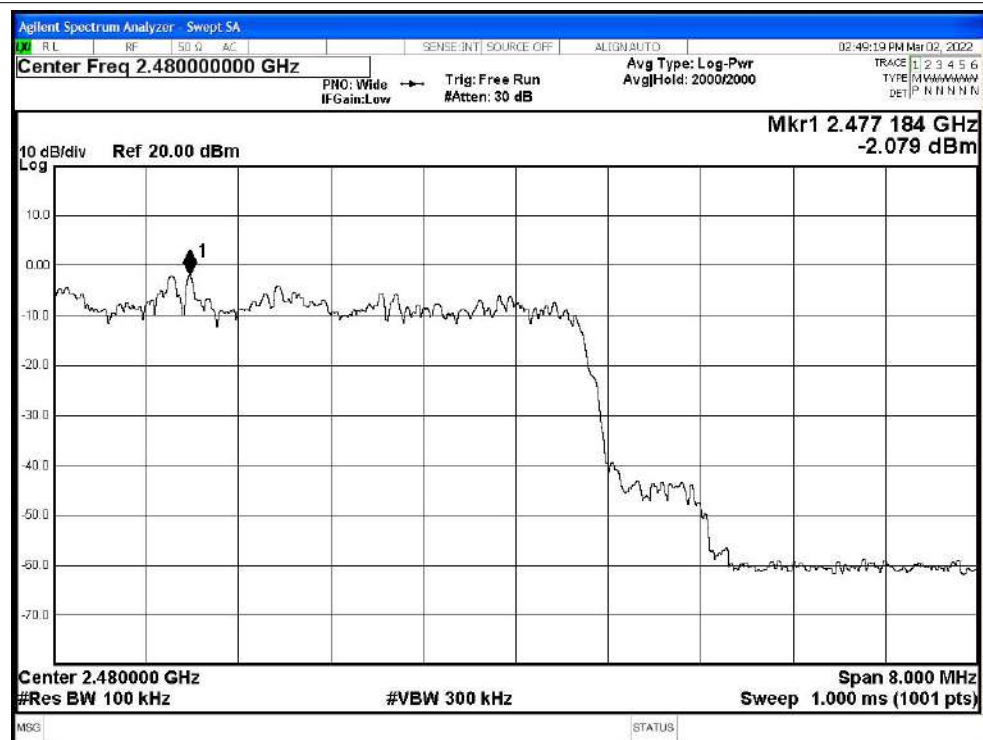


Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission

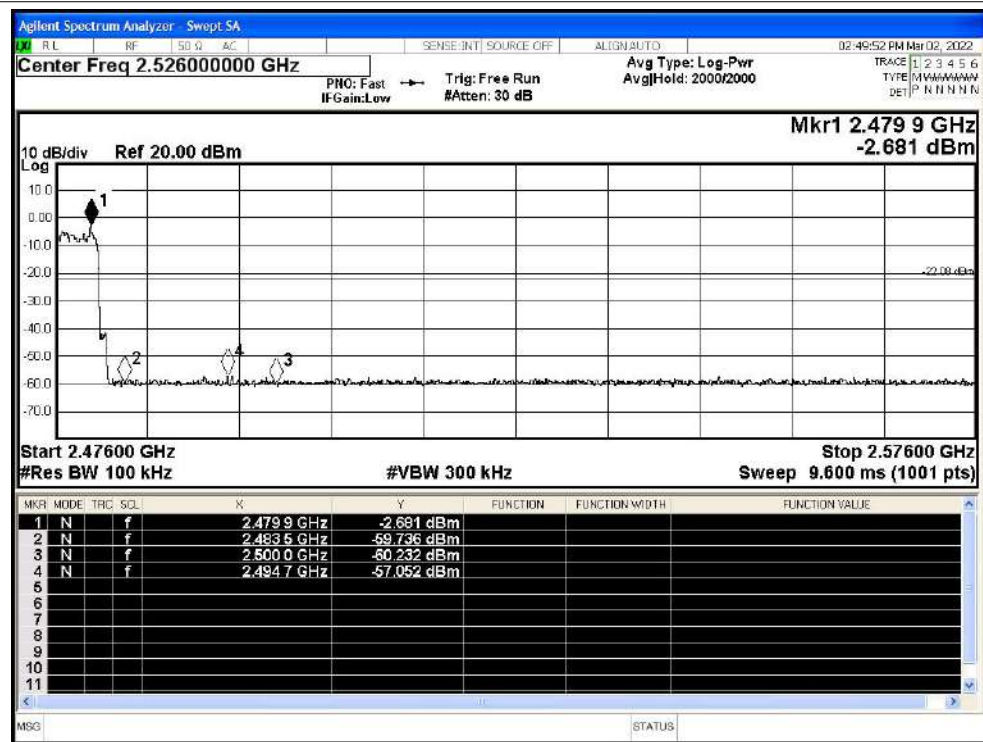




Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



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

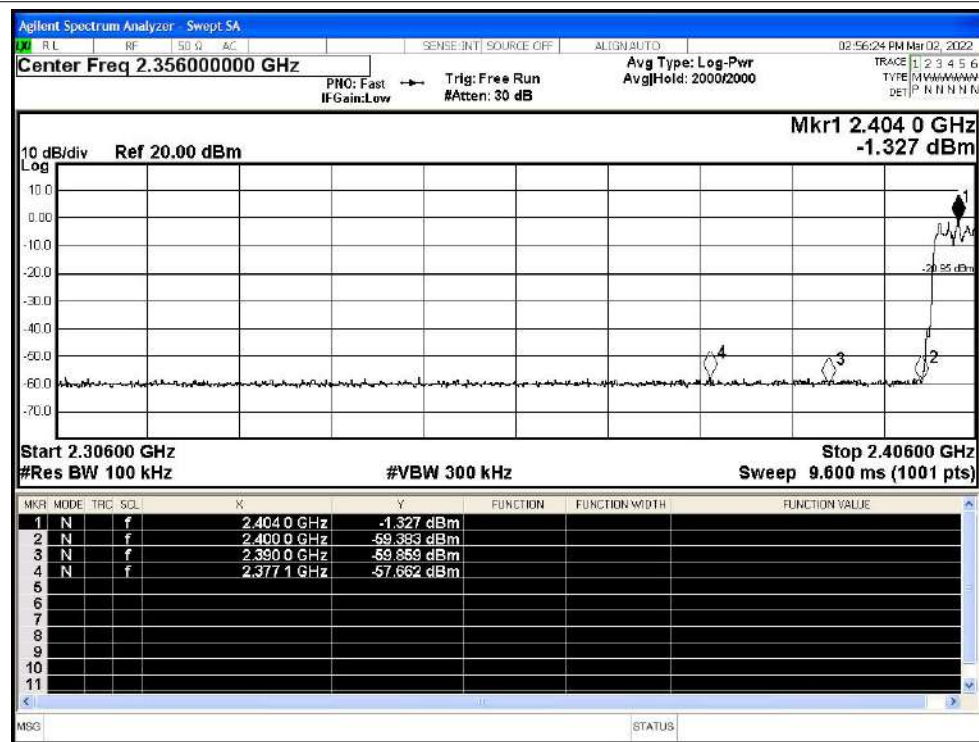




Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref

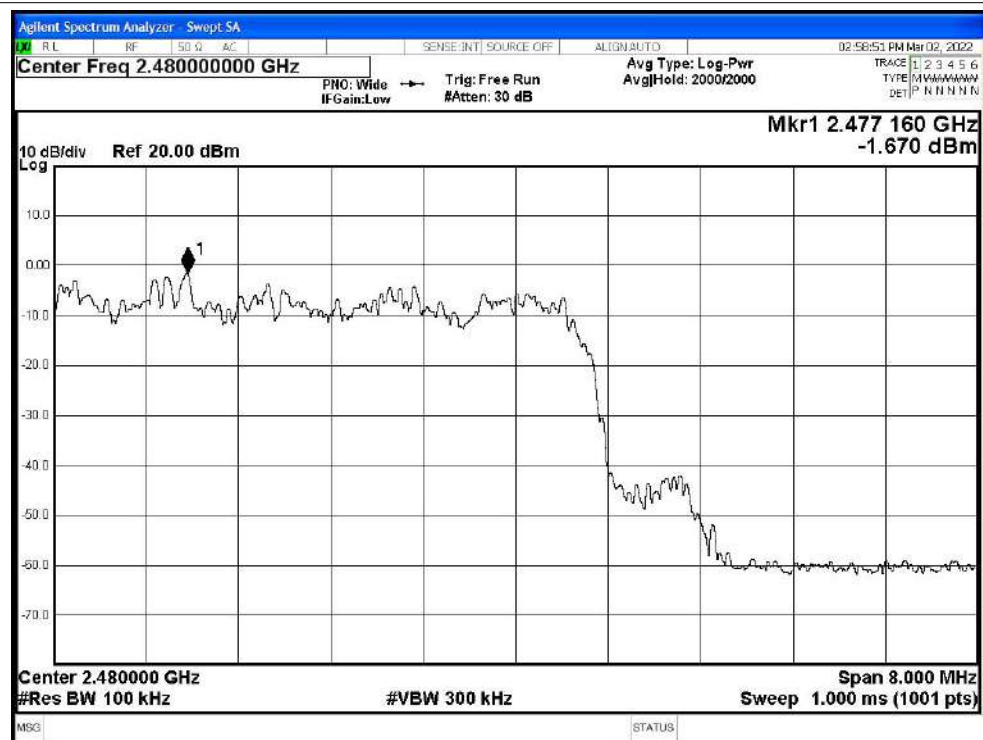


Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission

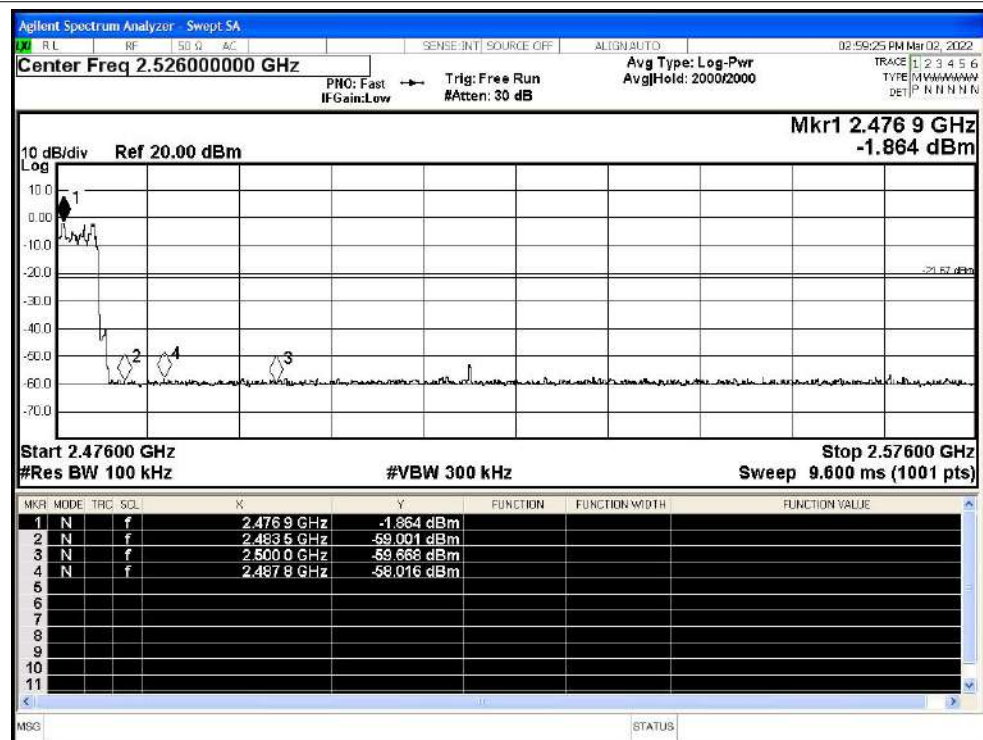




Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Ref



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





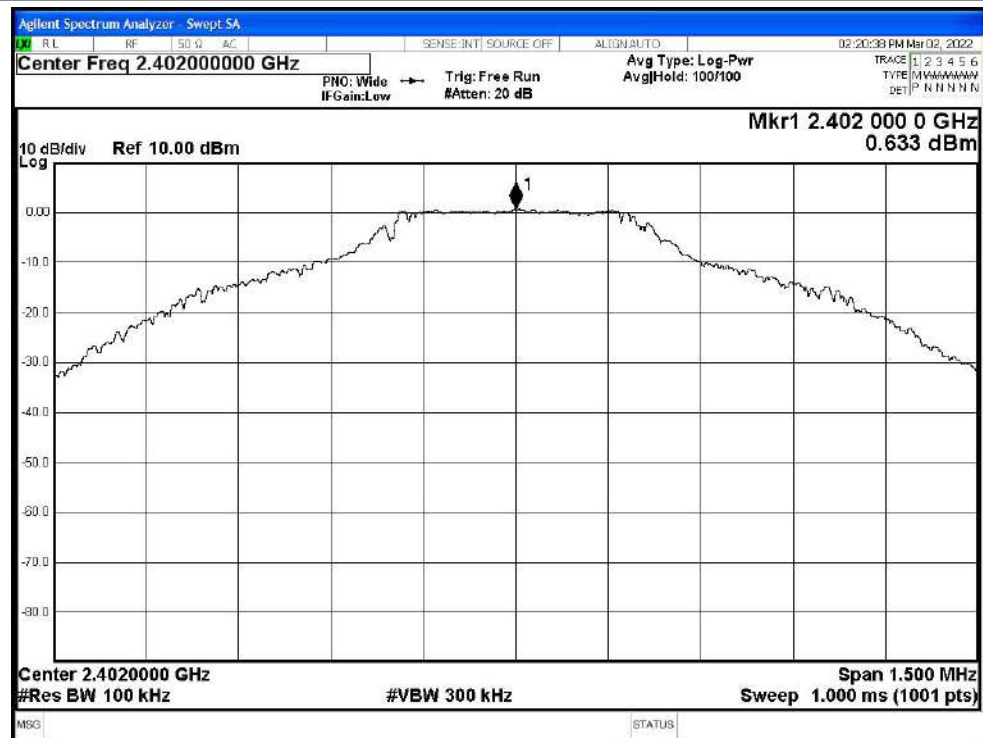
A.7 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-33.72	≤ -20	Pass
NVNT	1-DH5	2441	Ant1	-56.26	≤ -20	Pass
NVNT	1-DH5	2480	Ant1	-32.84	≤ -20	Pass
NVNT	2-DH5	2402	Ant1	-31.18	≤ -20	Pass
NVNT	2-DH5	2441	Ant1	-28.19	≤ -20	Pass
NVNT	2-DH5	2480	Ant1	-24.96	≤ -20	Pass
NVNT	3-DH5	2402	Ant1	-28.68	≤ -20	Pass
NVNT	3-DH5	2441	Ant1	-26.43	≤ -20	Pass
NVNT	3-DH5	2480	Ant1	-28.24	≤ -20	Pass

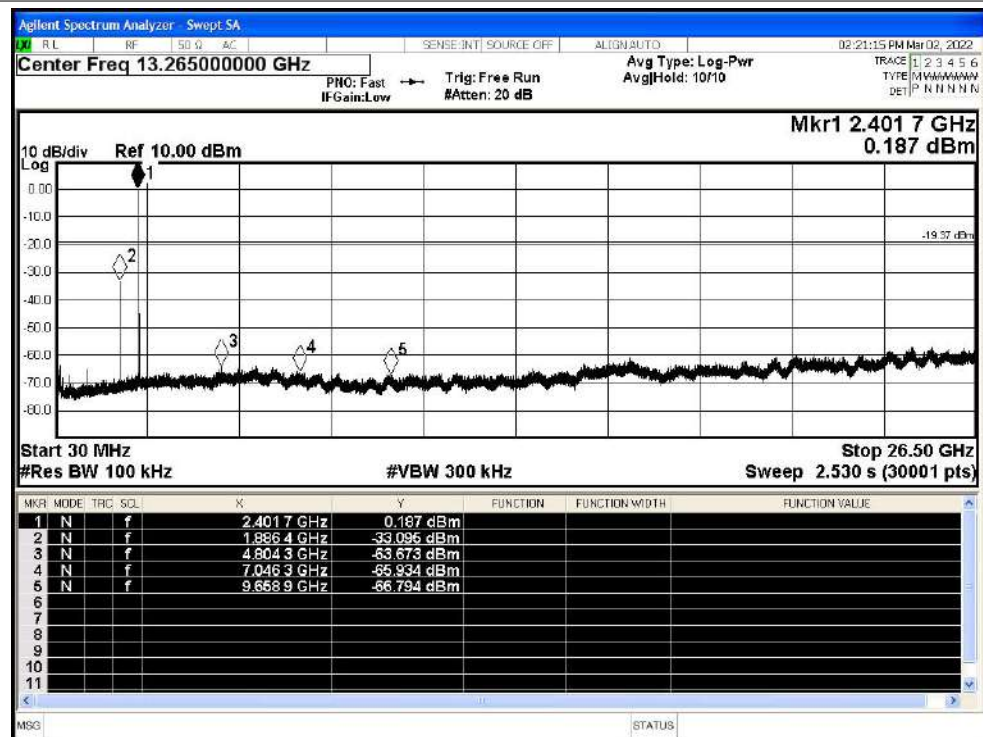


Test Graphs

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission

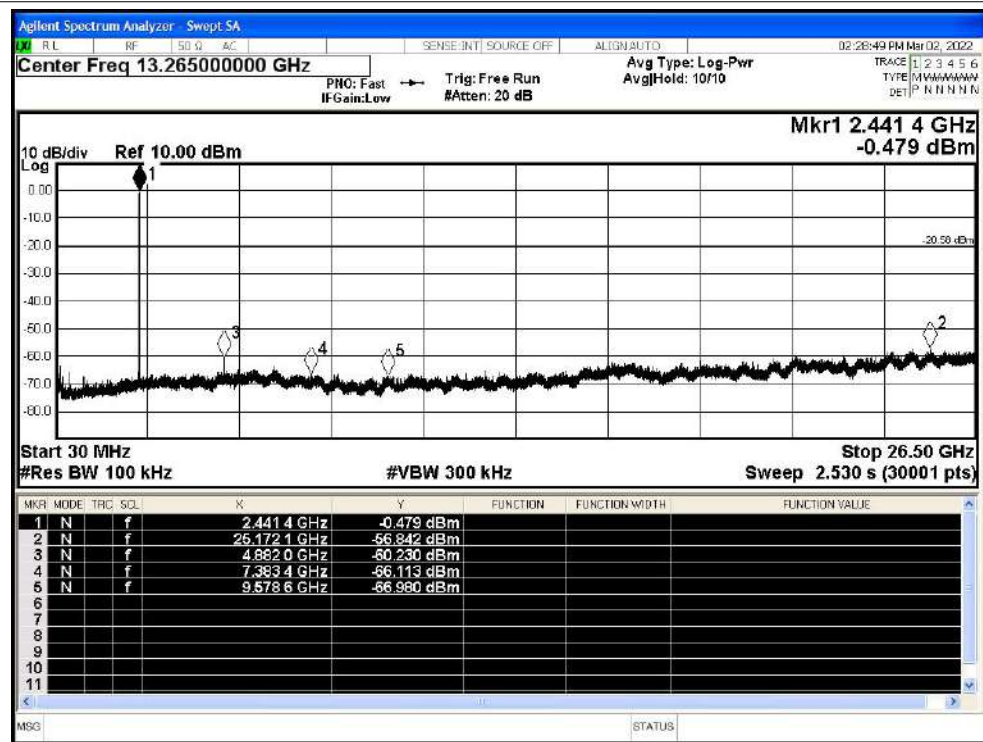




Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref

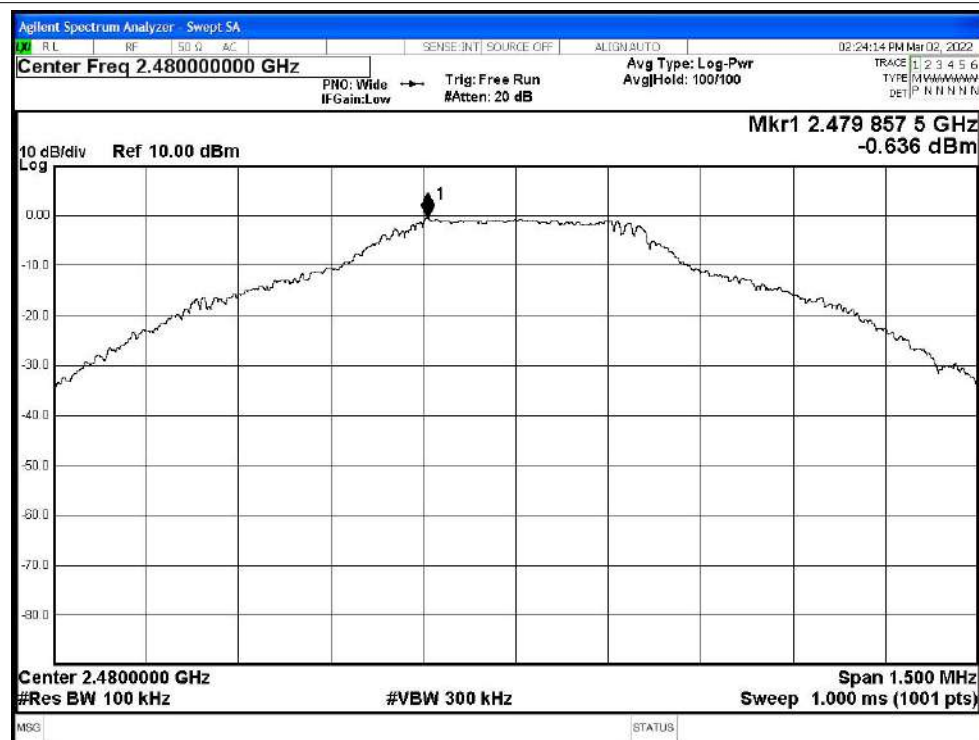


Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission

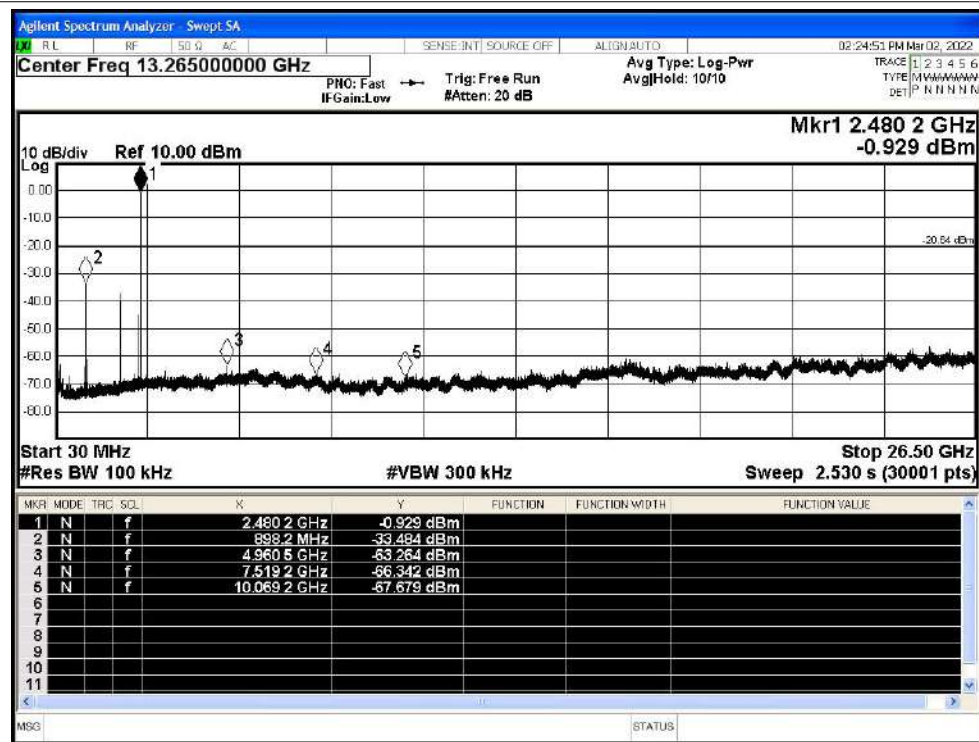




Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref

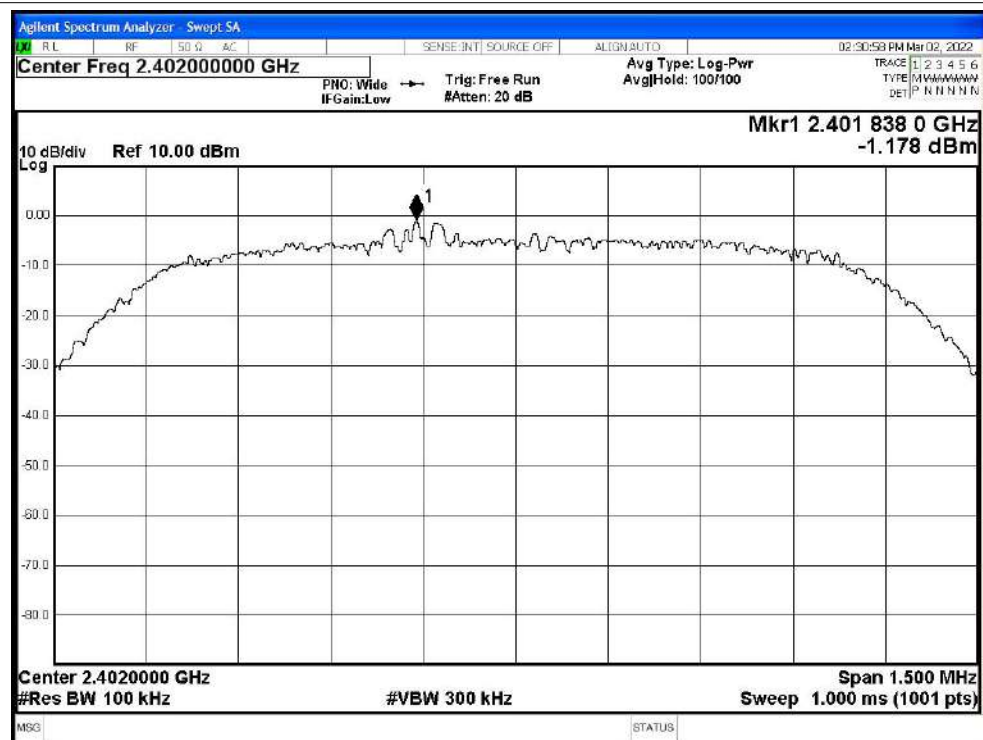


Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission

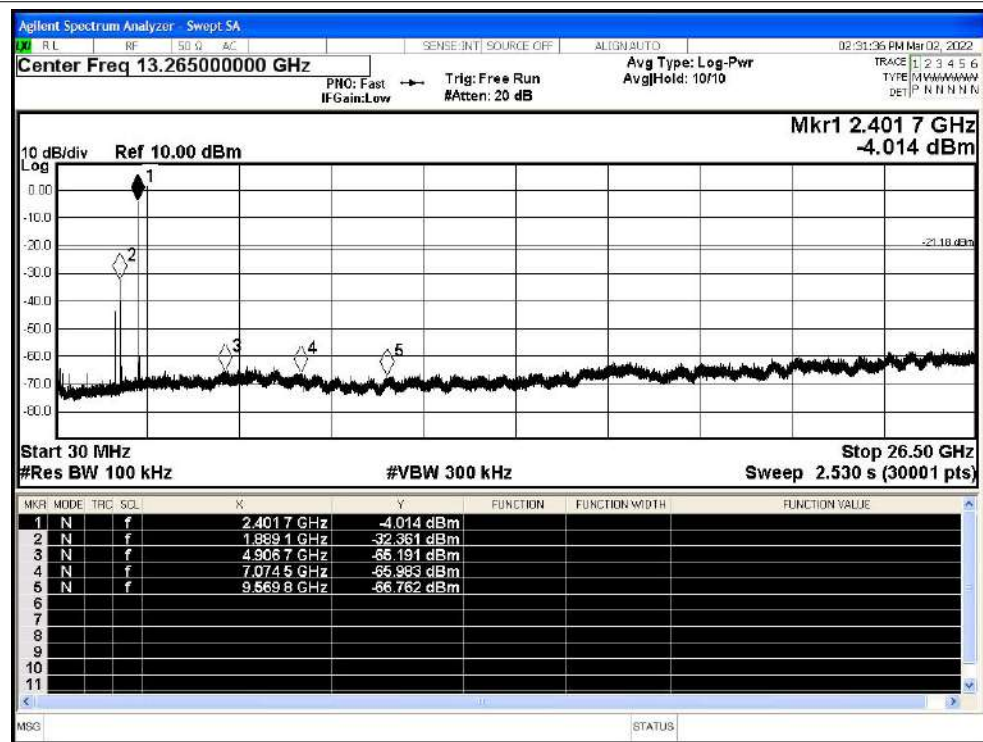




Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref

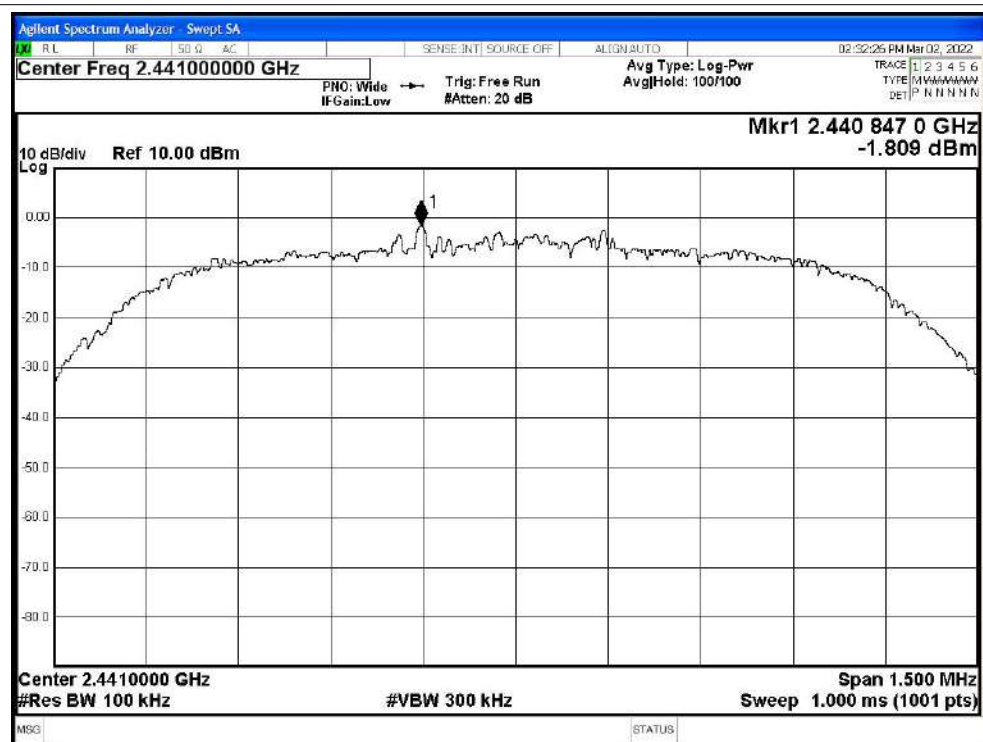


Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission

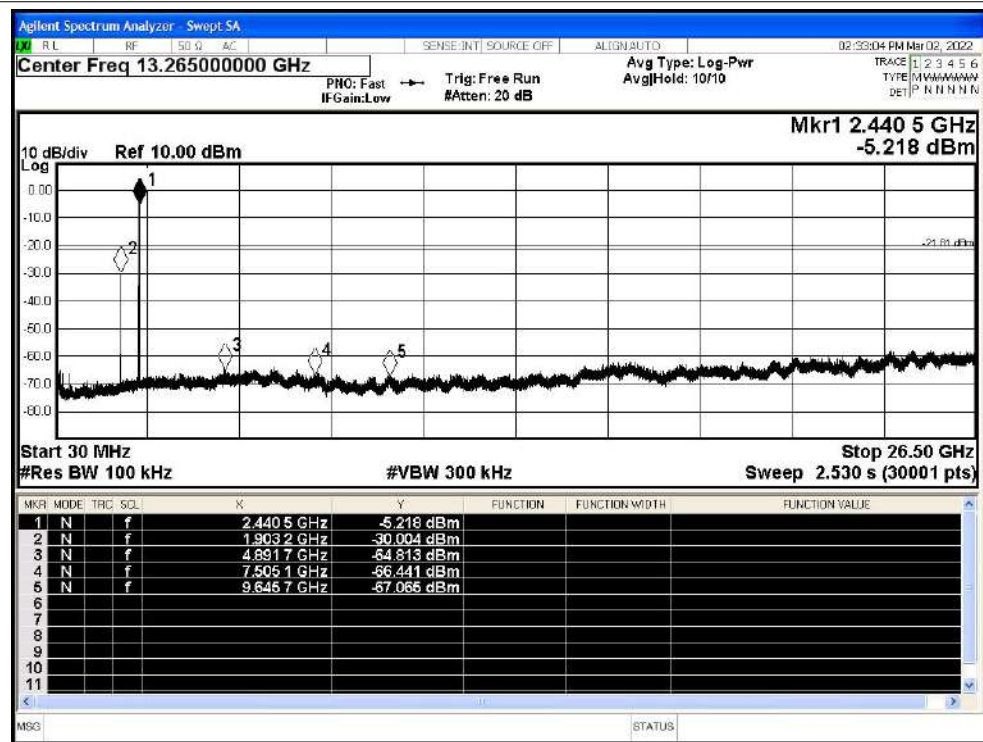




Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref

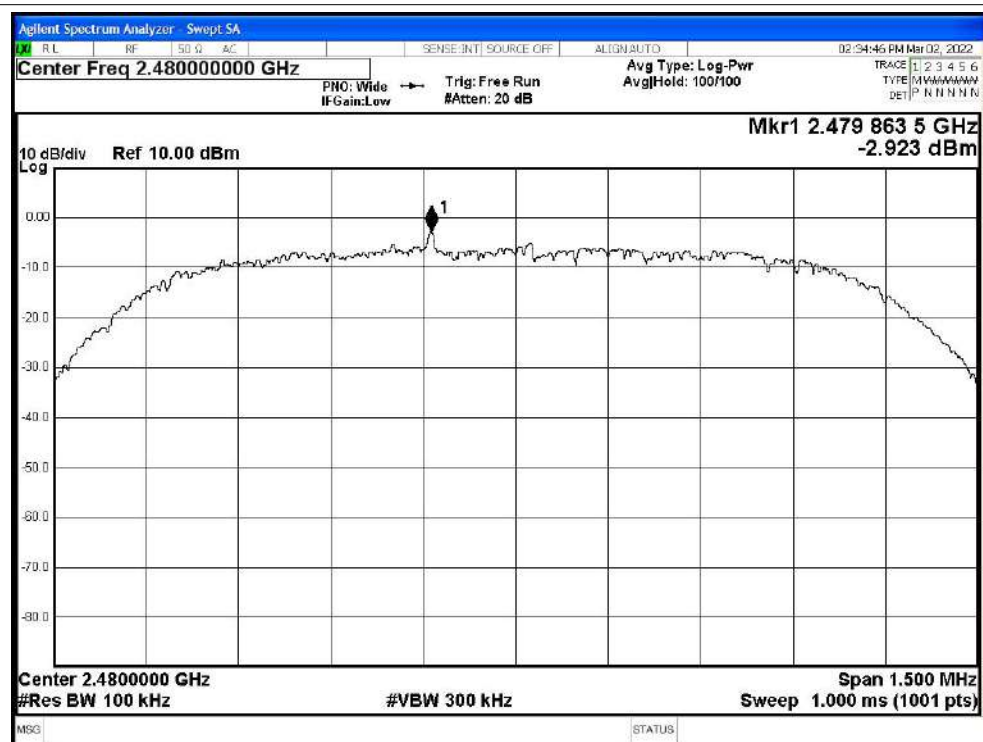


Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission

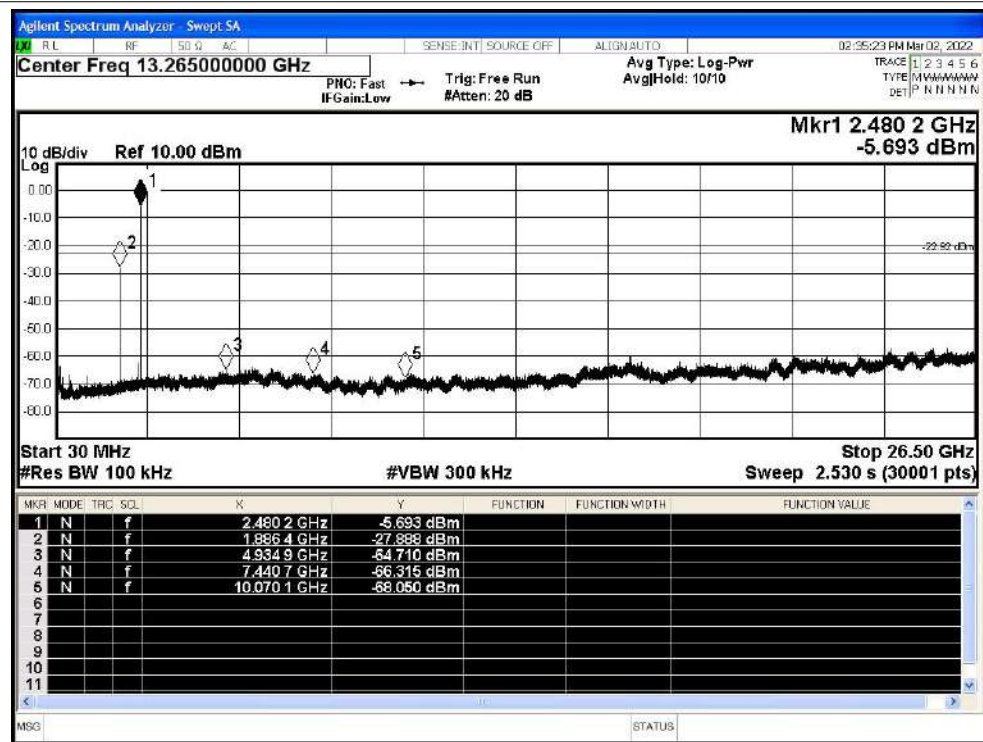




Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref

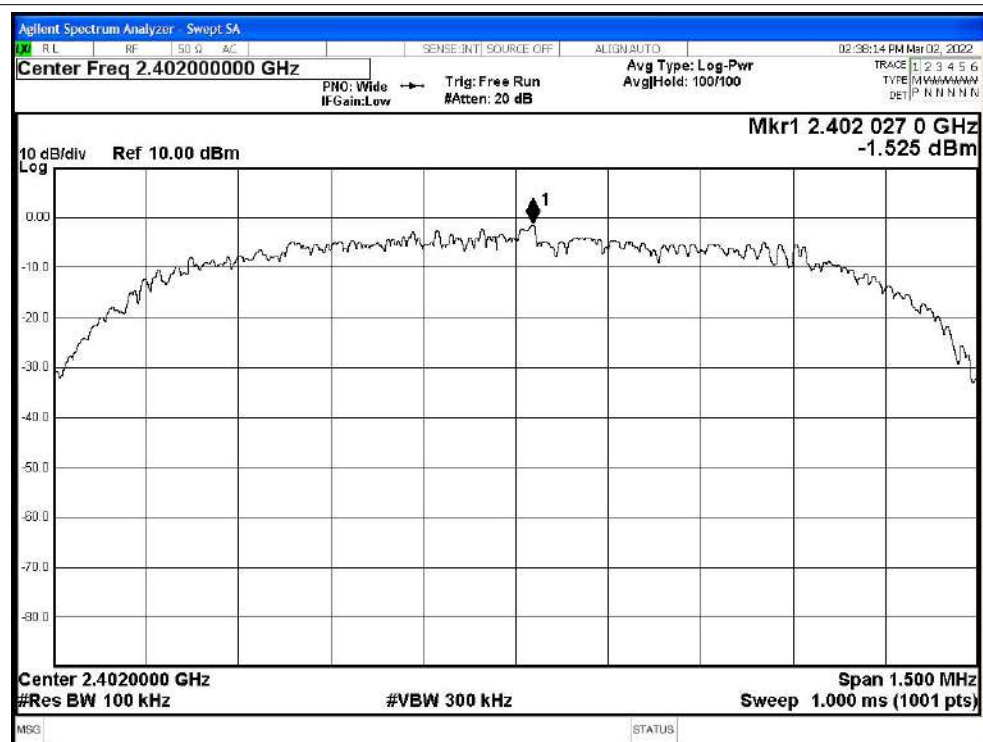


Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission

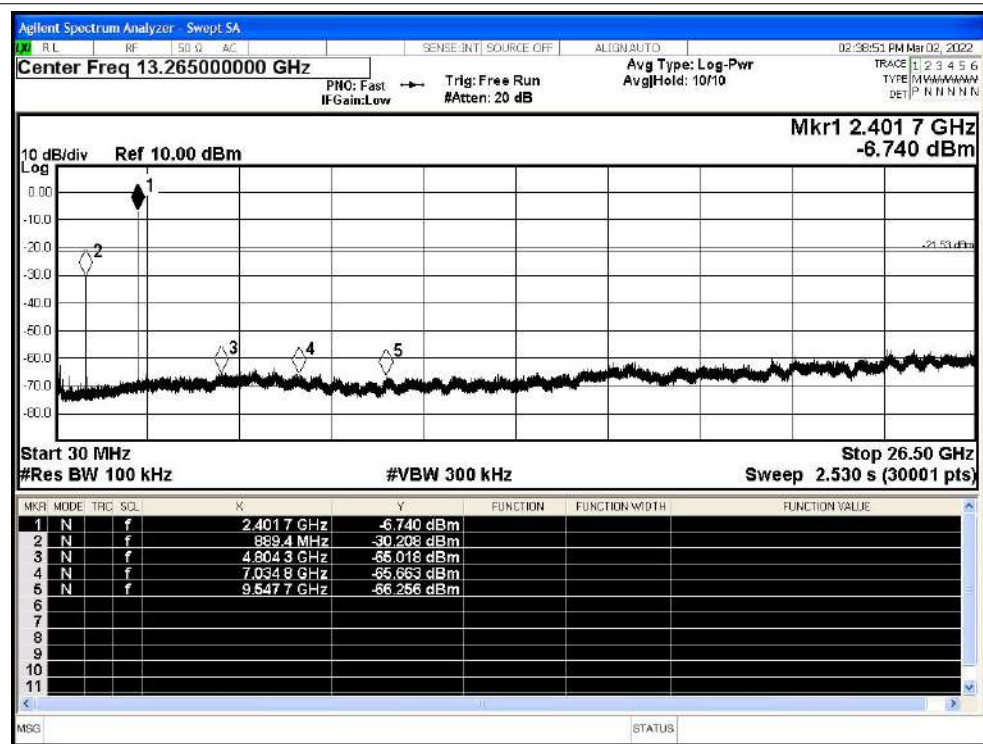




Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref

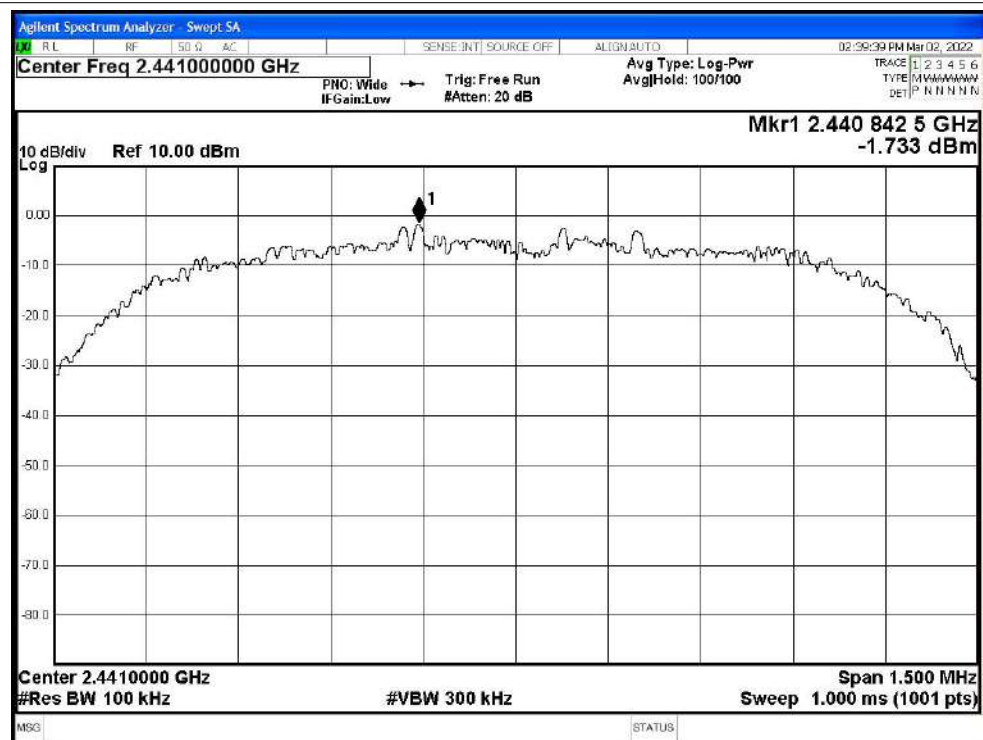


Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission

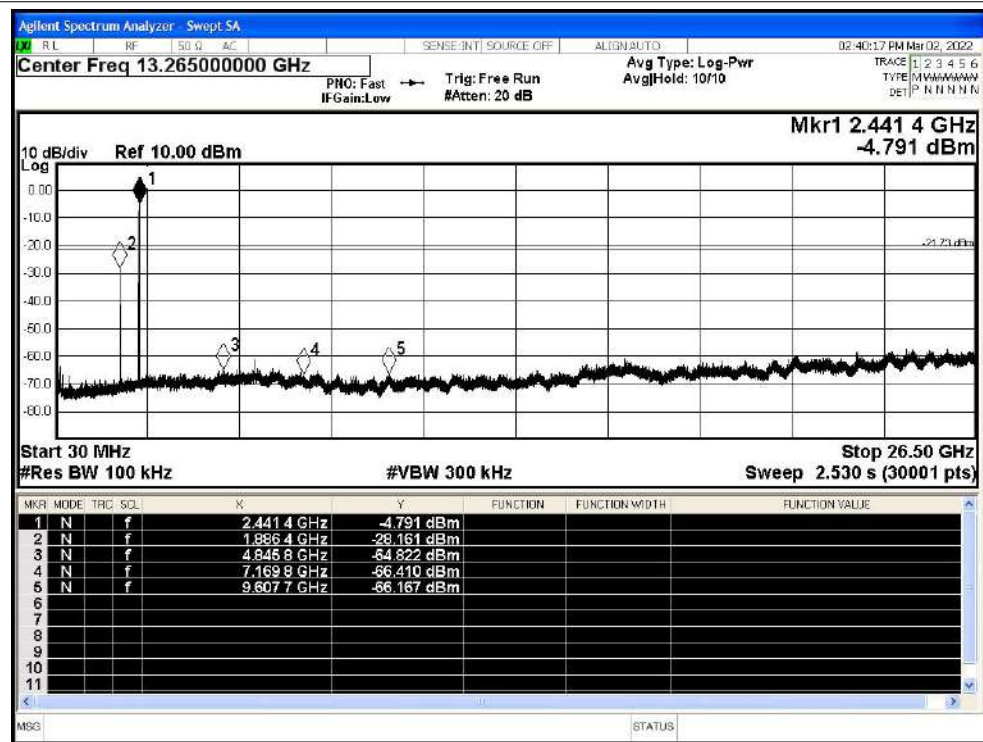




Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref

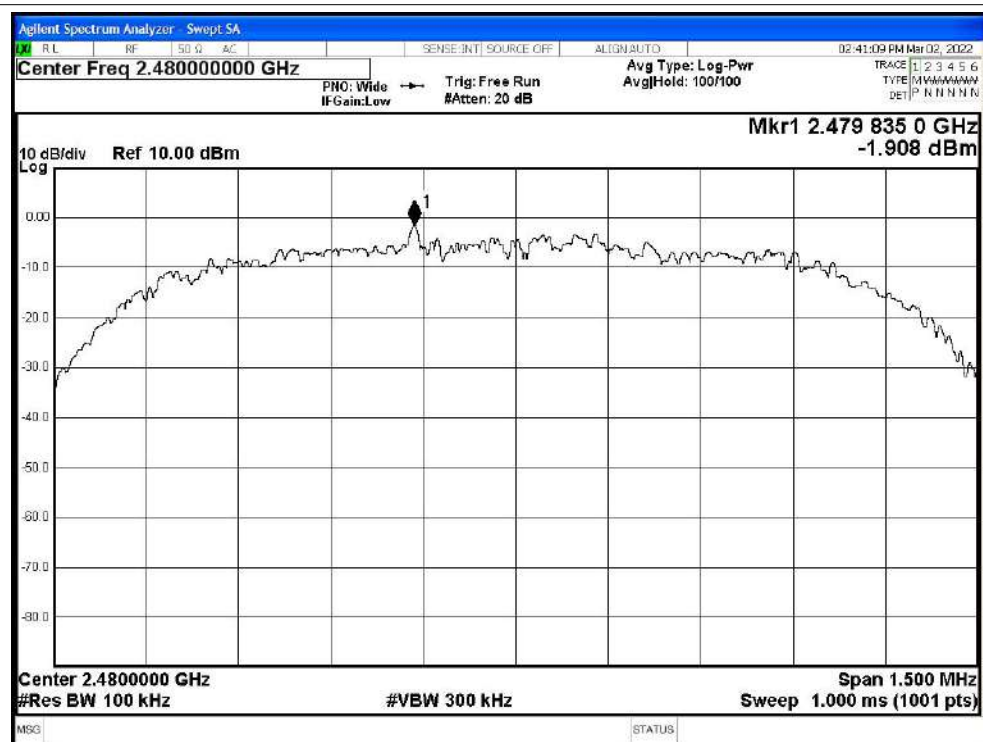


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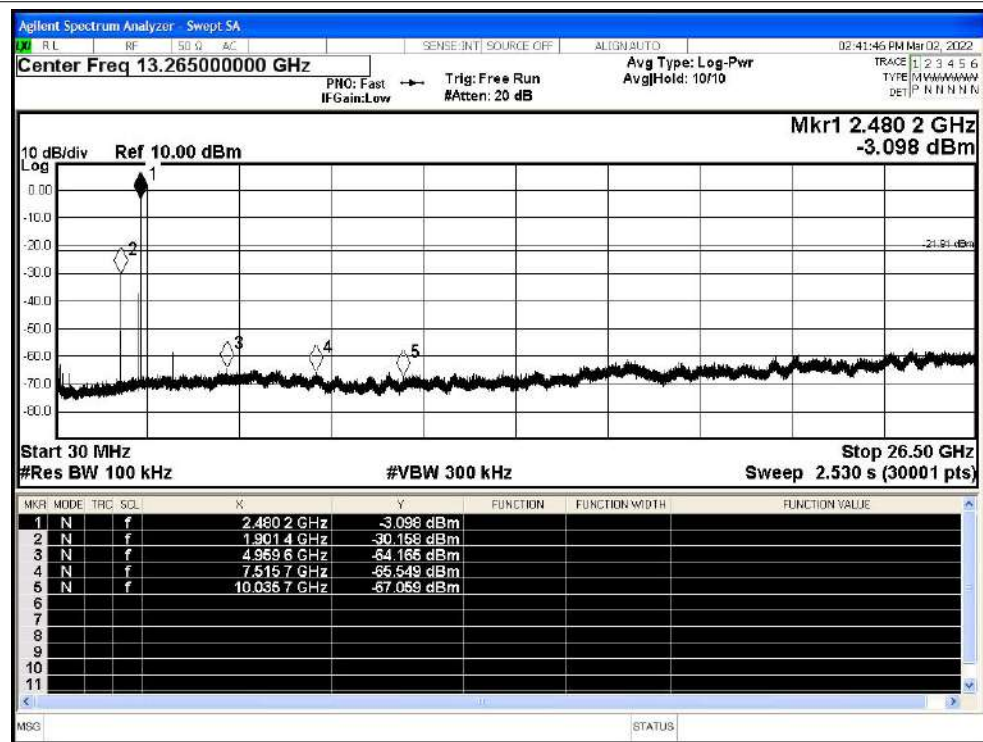




Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission





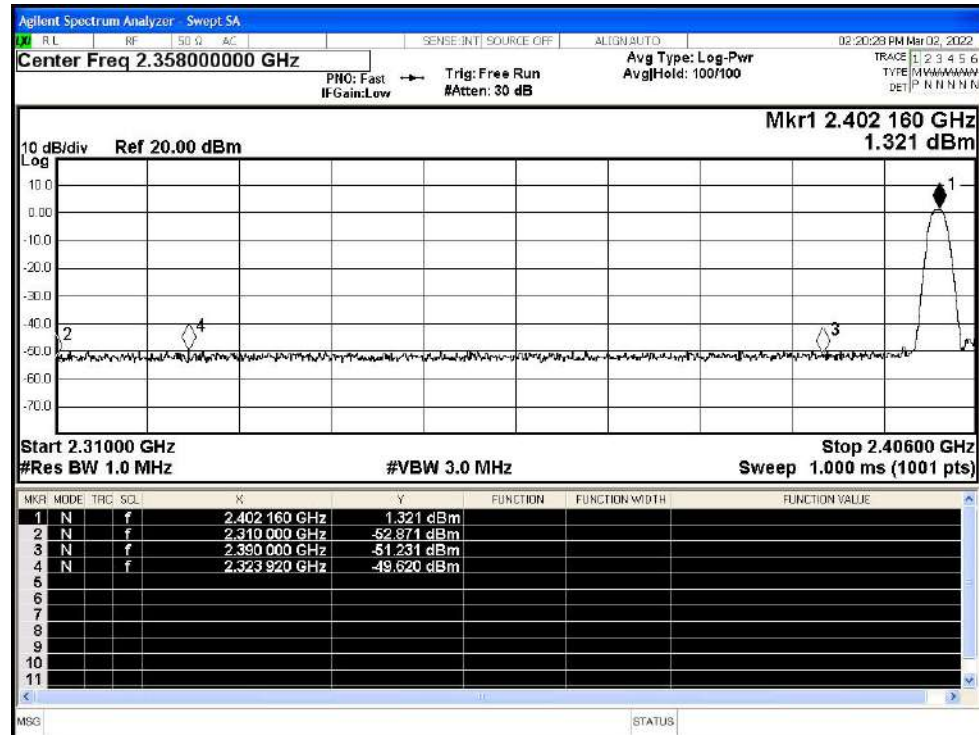
A.8 Restrict Band

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	-52.87	2	44.39	Peak	≤74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-62.06	2	35.2	Average	≤54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2323.92	-49.62	2	47.64	Peak	≤74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2384.592	-61.43	2	35.83	Average	≤54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-52.34	2	44.92	Peak	≤74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-61.38	2	35.88	Average	≤54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-51.77	2	45.49	Peak	≤74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-61.12	2	36.14	Average	≤54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2497.096	-48.2	2	49.06	Peak	≤74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.584	-61.04	2	36.22	Average	≤54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-52.53	2	44.73	Peak	≤74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-61.62	2	35.64	Average	≤54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-52.25	2	45.01	Peak	≤74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-62.1	2	35.16	Average	≤54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2344.56	-48.9	2	48.36	Peak	≤74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2388.72	-61.39	2	35.87	Average	≤54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-52.6	2	44.66	Peak	≤74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-61.5	2	35.76	Average	≤54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-51.75	2	45.51	Peak	≤74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-60.93	2	36.33	Average	≤54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2495.248	-47.92	2	49.34	Peak	≤74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.536	-60.91	2	36.35	Average	≤54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-52.69	2	44.57	Peak	≤74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-61.49	2	35.77	Average	≤54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-51.47	2	45.79	Peak	≤74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-61.88	2	35.38	Average	≤54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2320.176	-48.4	2	48.86	Peak	≤74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2383.344	-61.42	2	35.84	Average	≤54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-51.43	2	45.83	Peak	≤74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-61.58	2	35.68	Average	≤54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-52.51	2	44.75	Peak	≤74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-61.02	2	36.24	Average	≤54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2495.704	-48.71	2	48.55	Peak	≤74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.512	-61.02	2	36.24	Average	≤54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-52.75	2	44.51	Peak	≤74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-61.46	2	35.8	Average	≤54	Pass

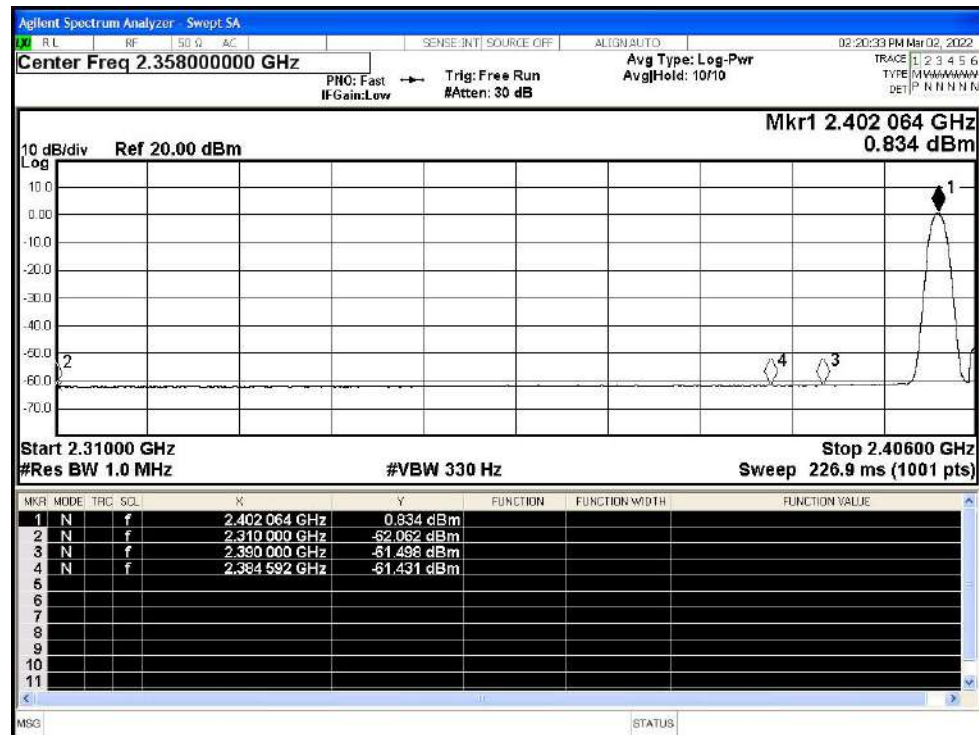


Test Graphs

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

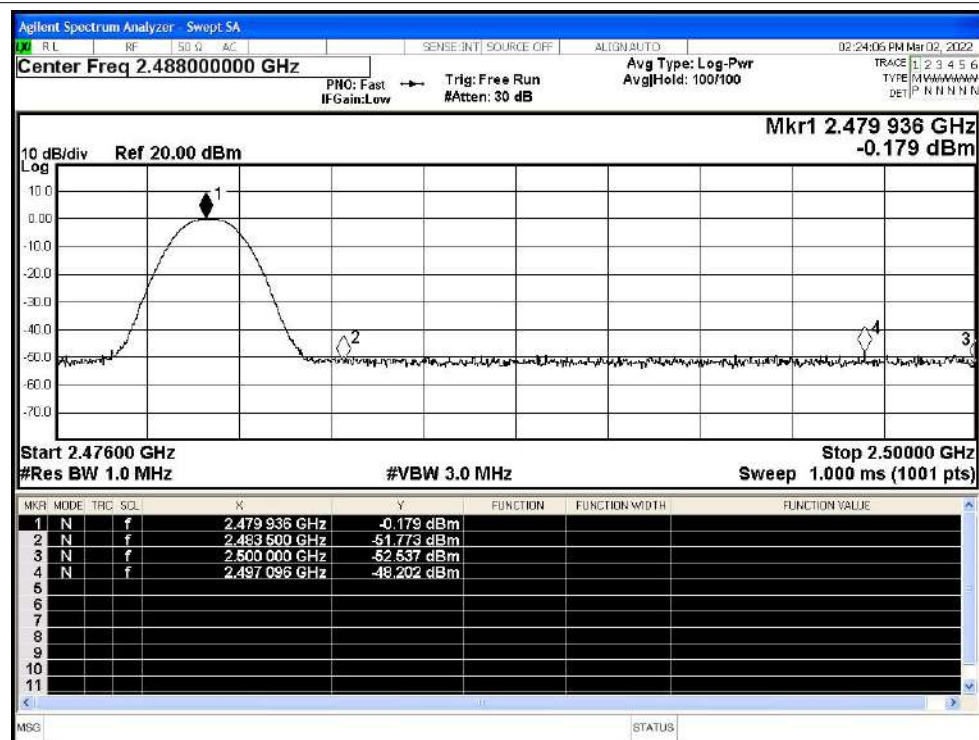


Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average

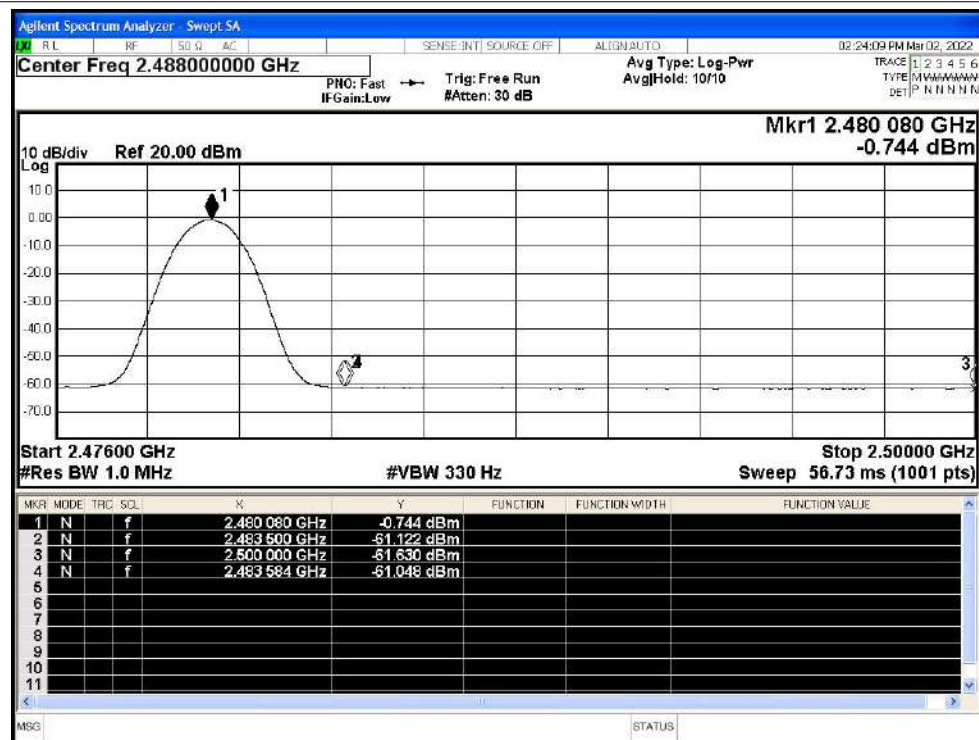




Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak

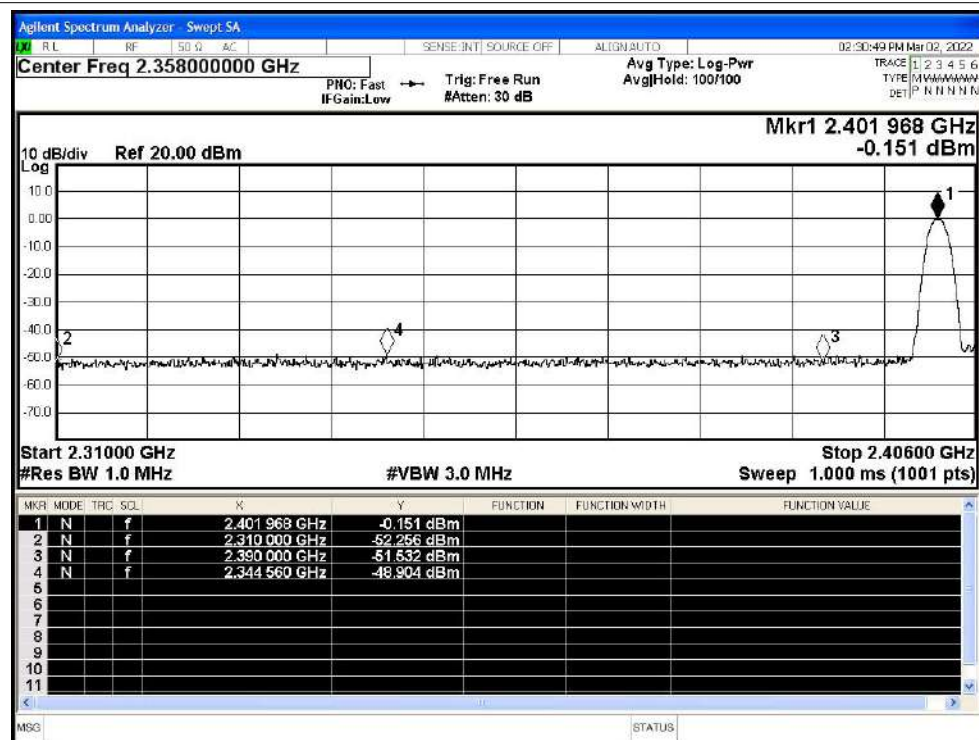


Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average

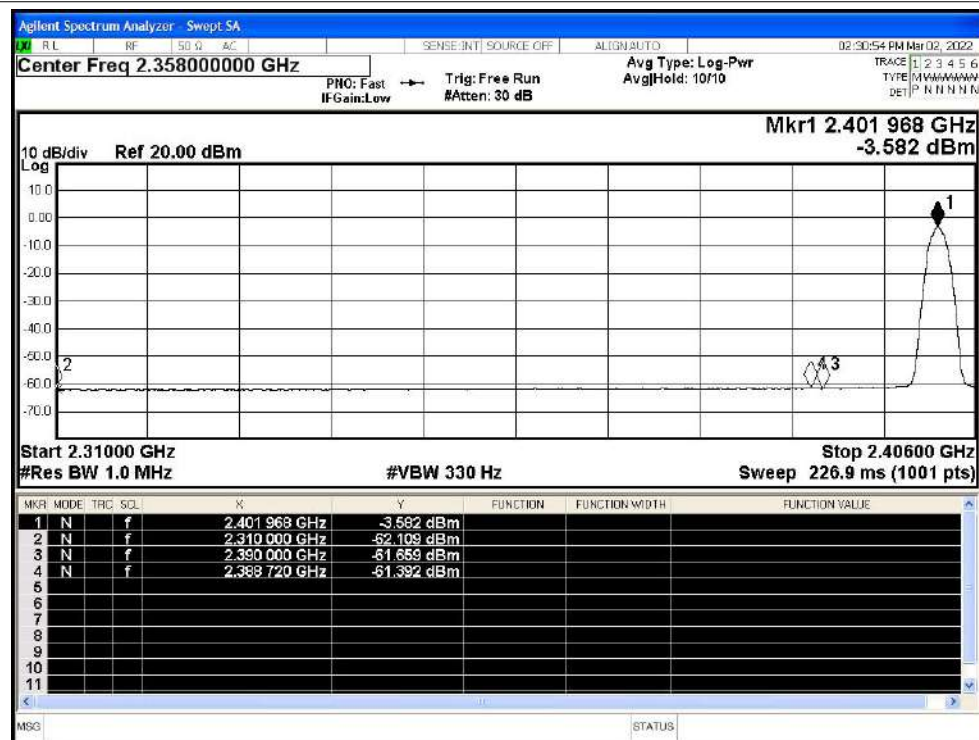




Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak

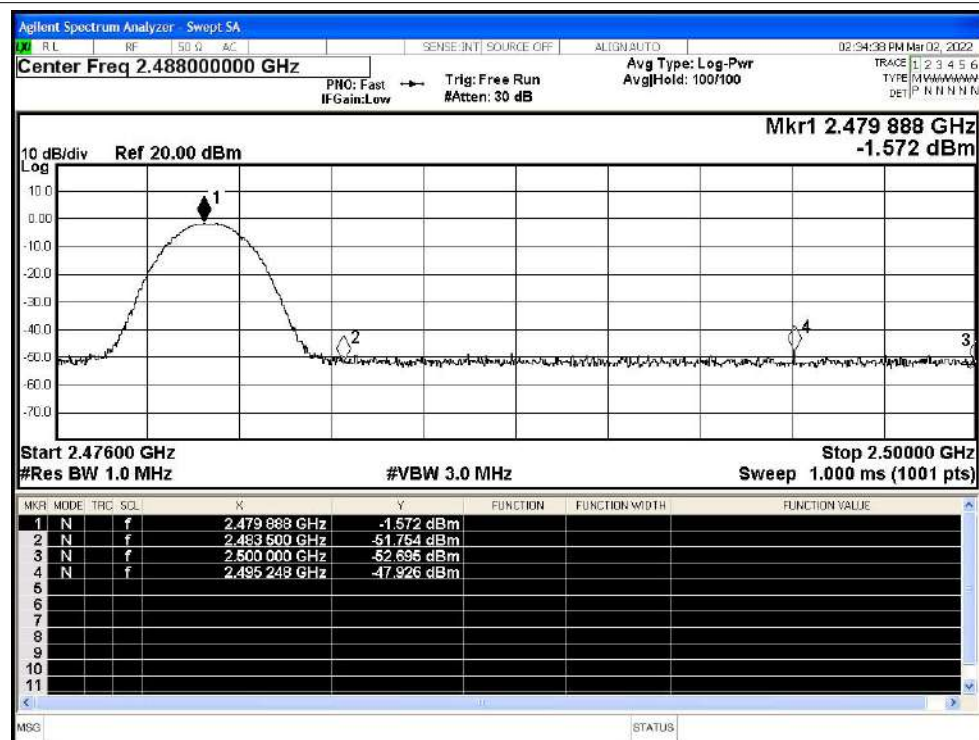


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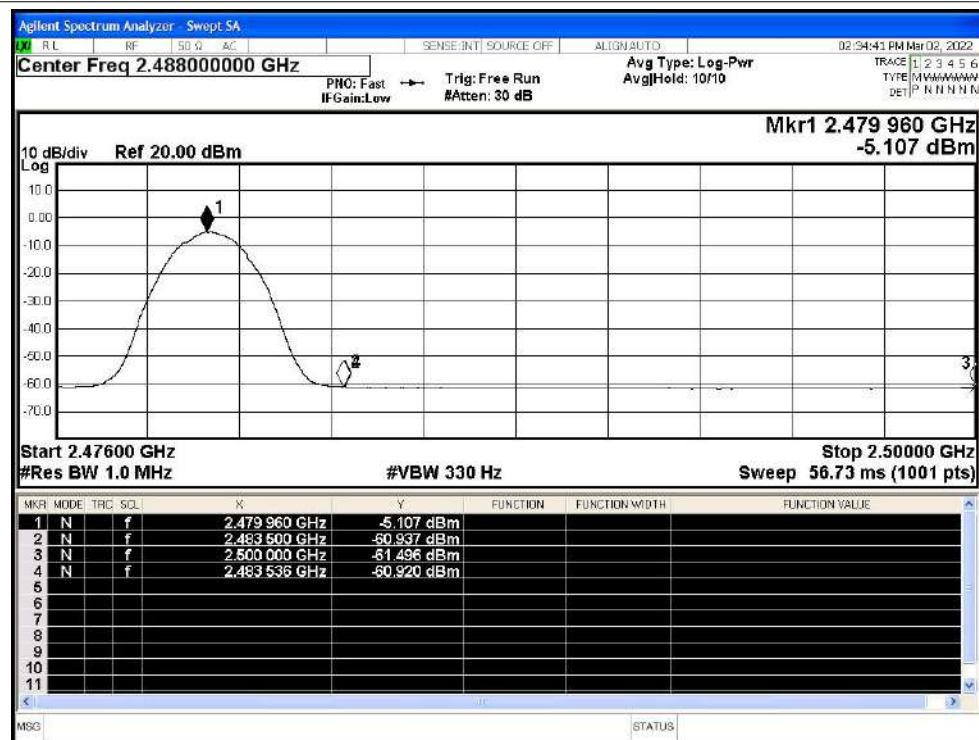




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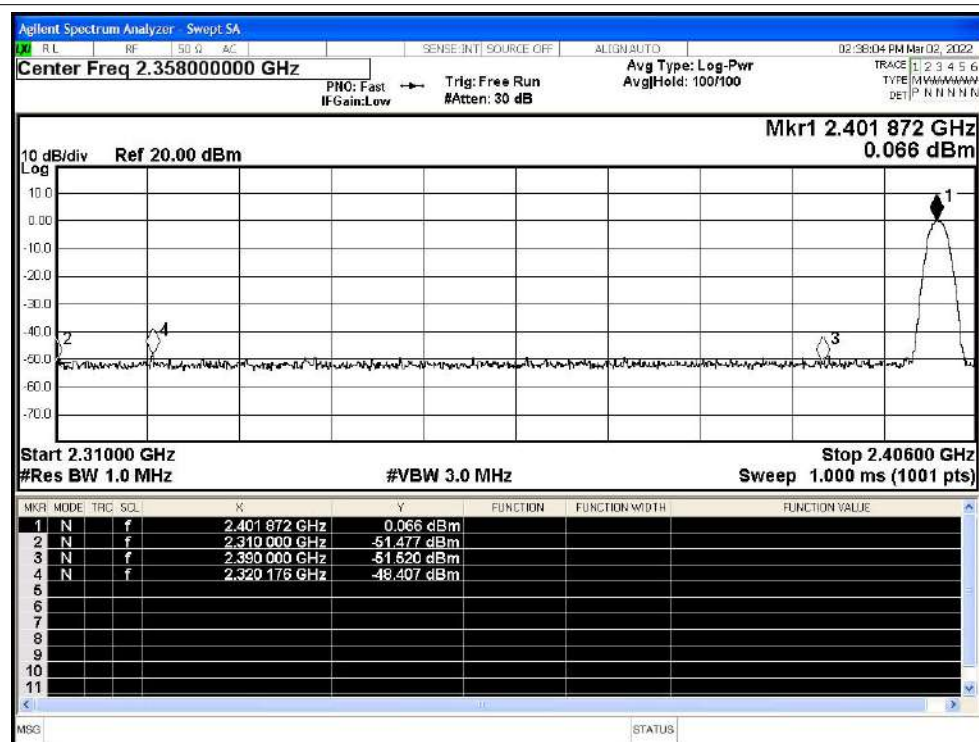


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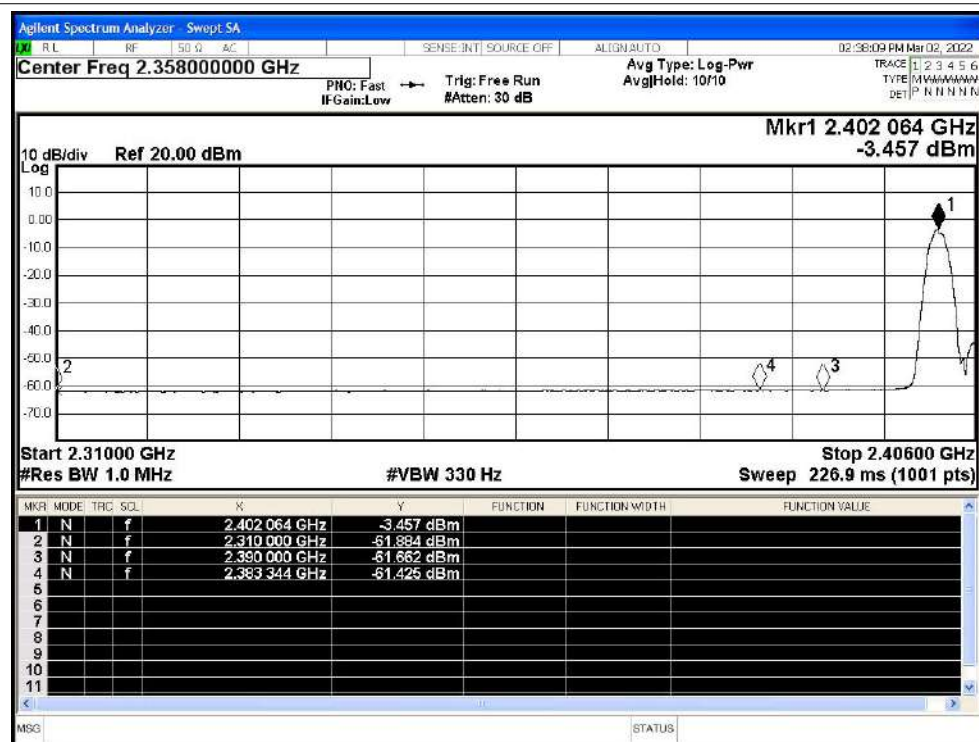




Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak

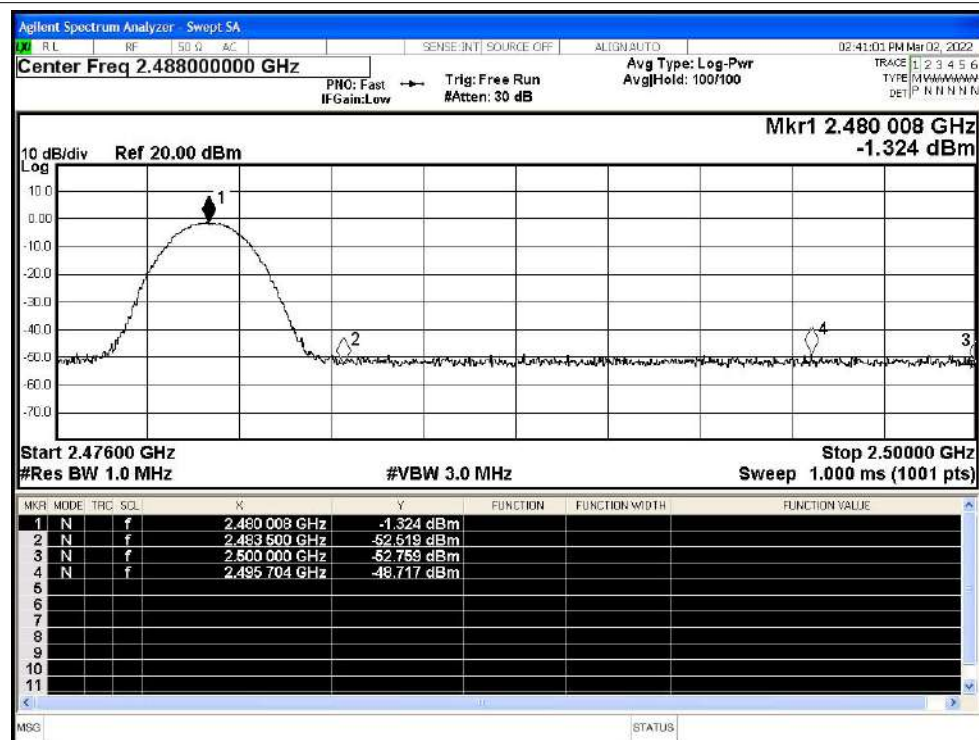


Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Average





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



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

