

Appendix A

RF Test Data for BT(Conducted Measurement)

Product Name: Omni Microphone

Test Model: SVN O1

Environmental Conditions

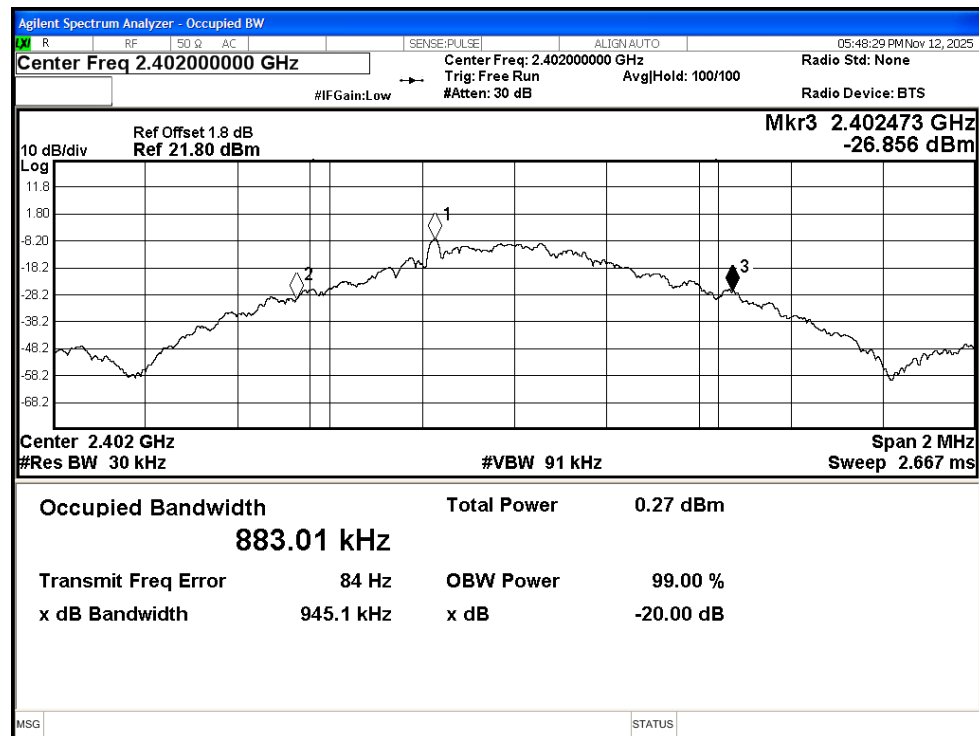
Temperature:	23.8°C
Relative Humidity:	52.5%
ATM Pressure:	100.0 kPa
Test Engineer:	Yan Chen
Supervised by:	Fengliu Tang

A.1 -20dB Bandwidth

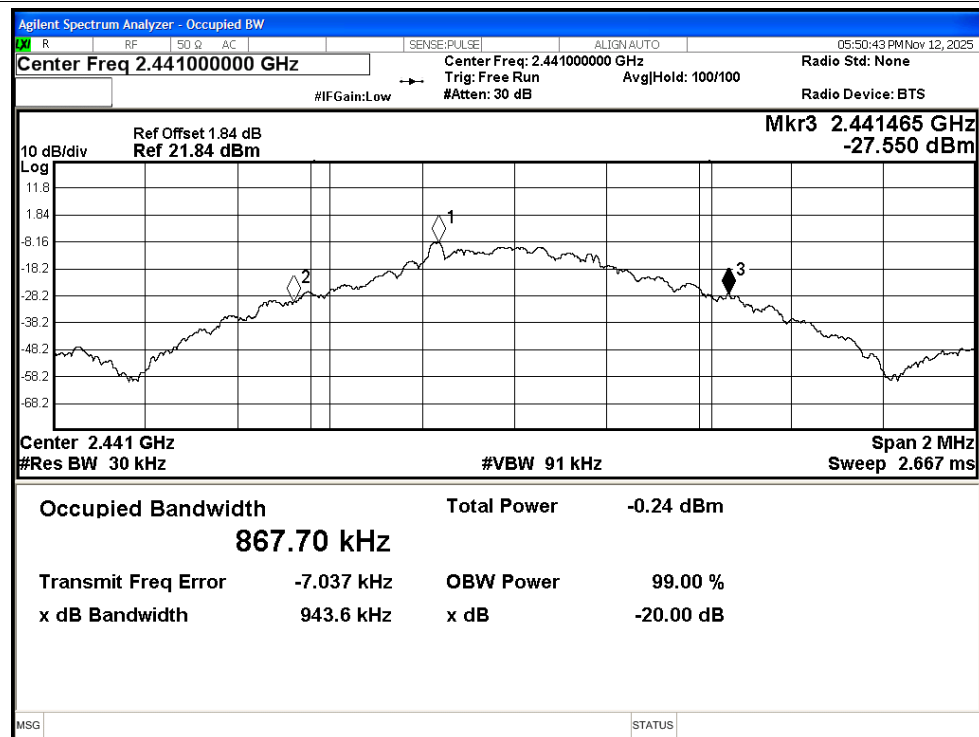
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.945	N/A	Pass
NVNT	1-DH5	2441	Ant1	0.944	N/A	Pass
NVNT	1-DH5	2480	Ant1	0.937	N/A	Pass
NVNT	2-DH5	2402	Ant1	1.305	N/A	Pass
NVNT	2-DH5	2441	Ant1	1.261	N/A	Pass
NVNT	2-DH5	2480	Ant1	1.268	N/A	Pass
NVNT	3-DH5	2402	Ant1	1.253	N/A	Pass
NVNT	3-DH5	2441	Ant1	1.242	N/A	Pass
NVNT	3-DH5	2480	Ant1	1.247	N/A	Pass

Test Graphs

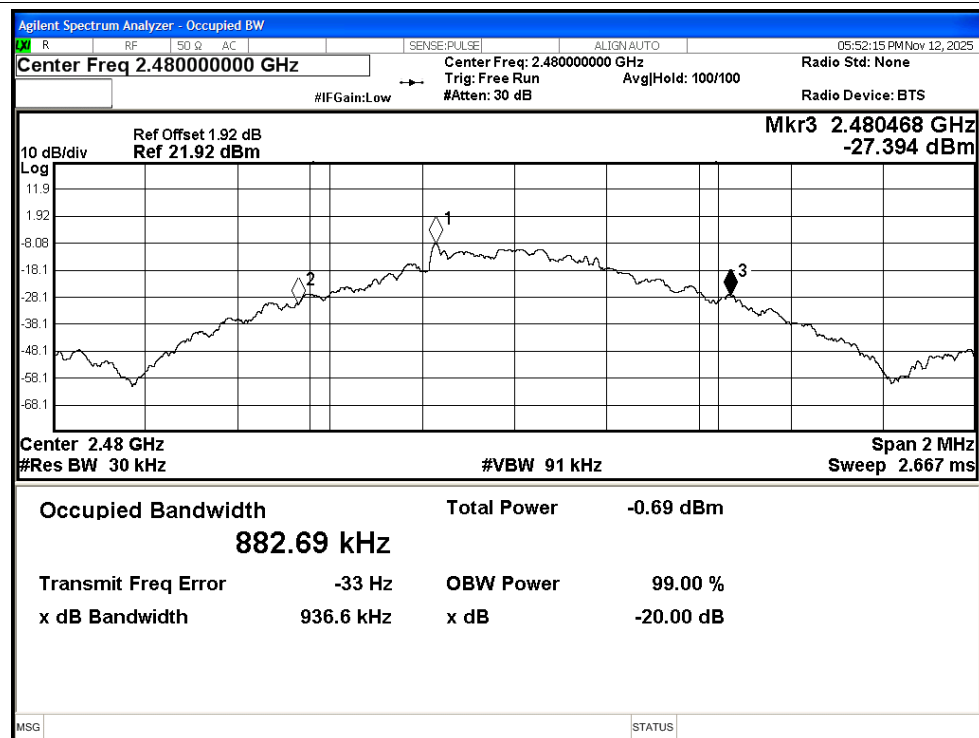
-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



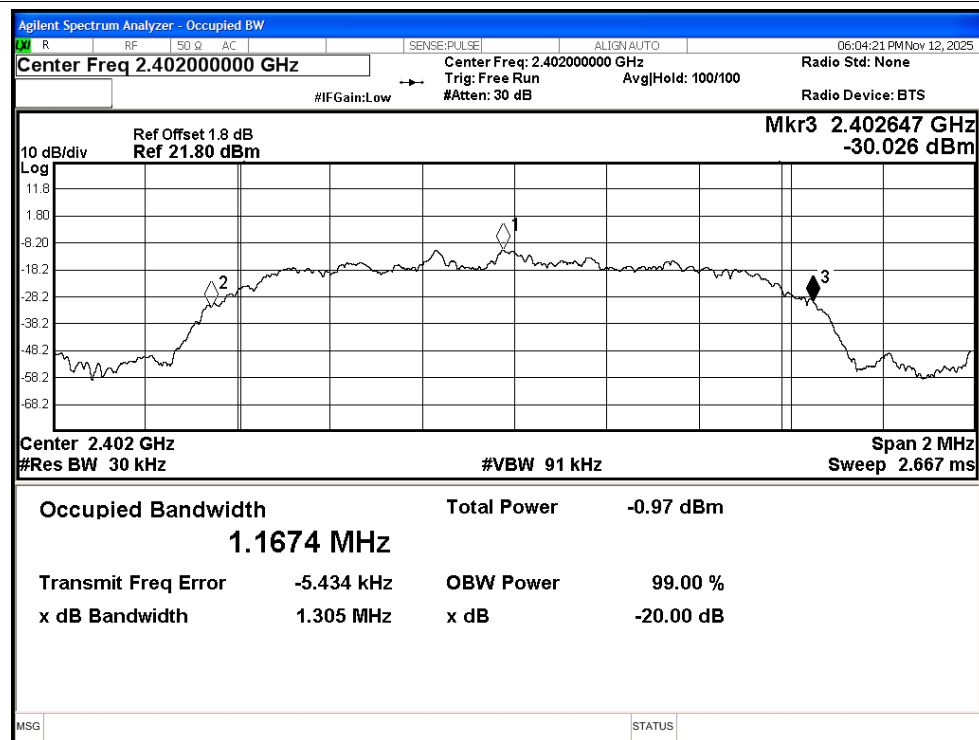
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



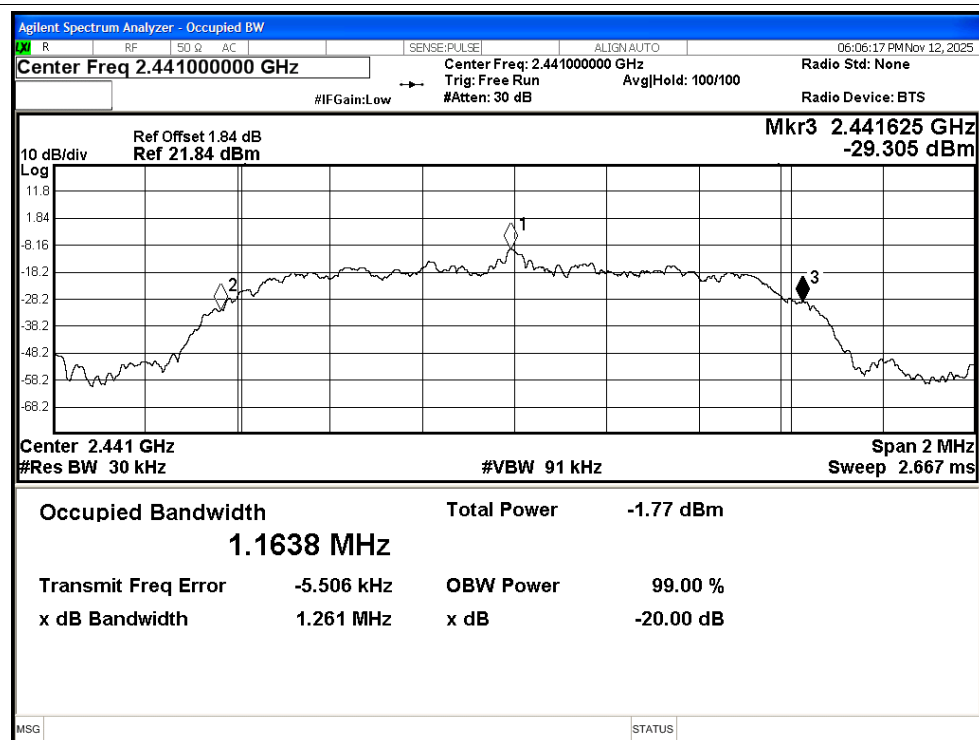
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



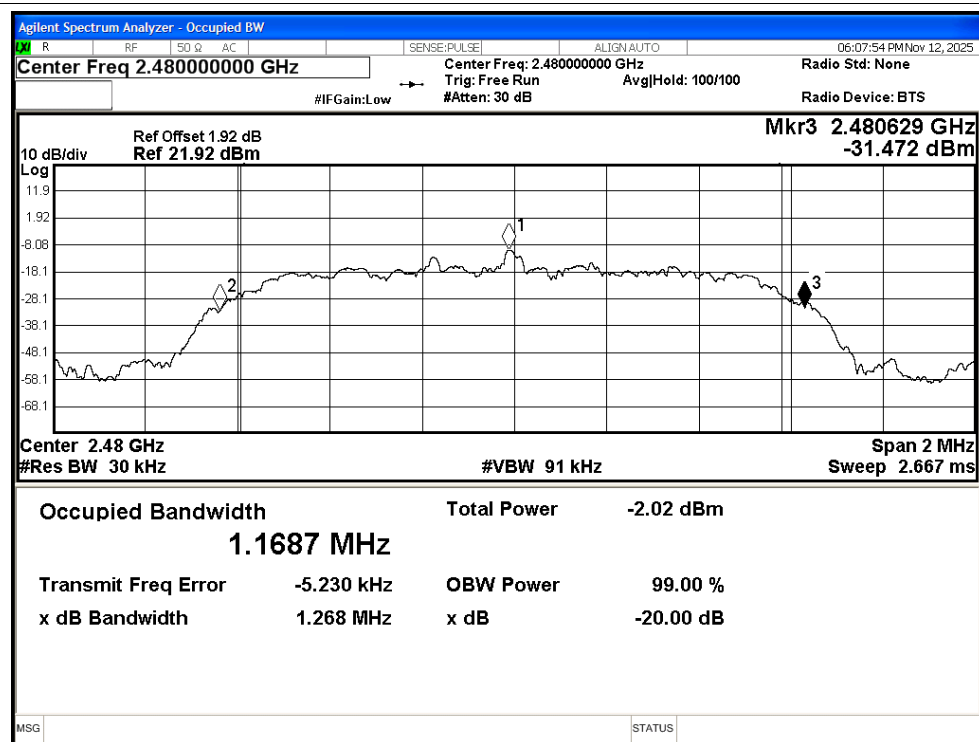
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



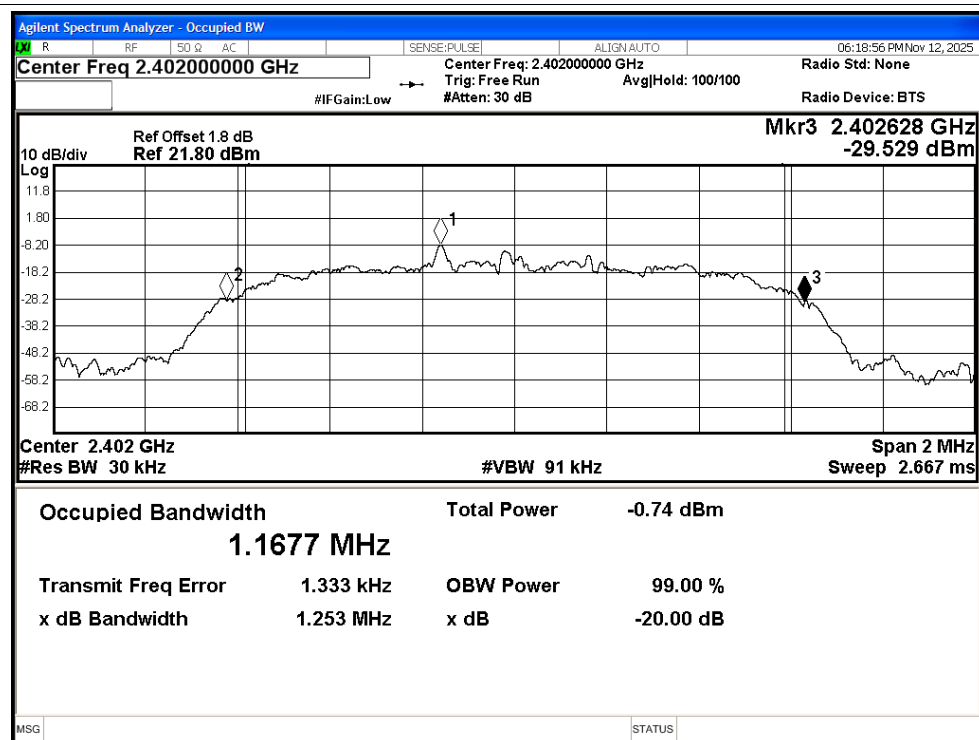
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



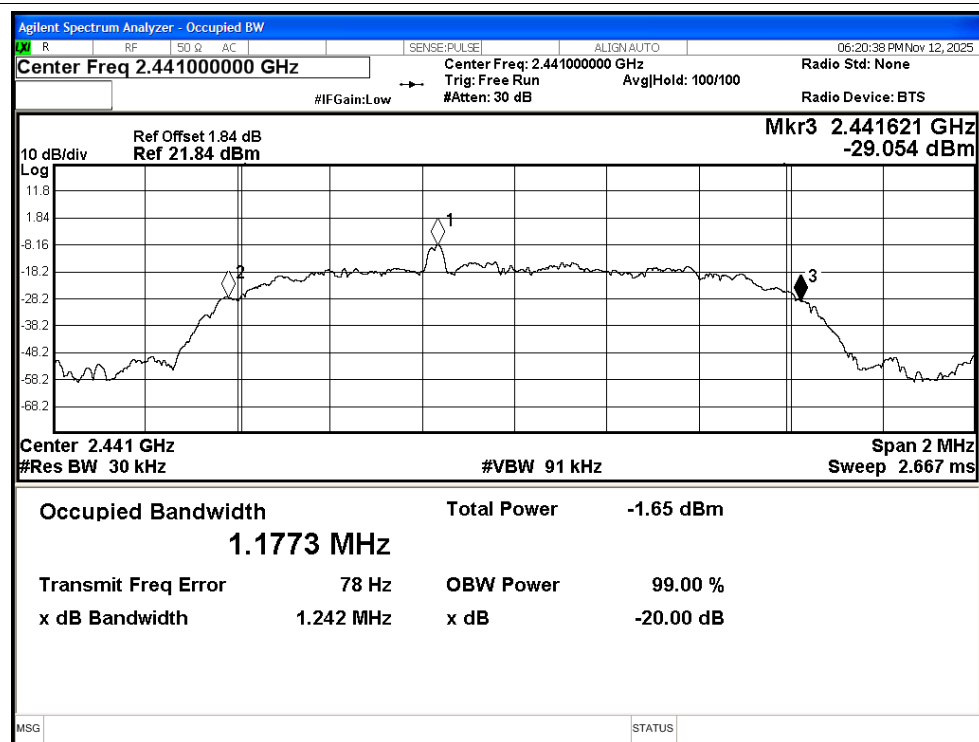
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

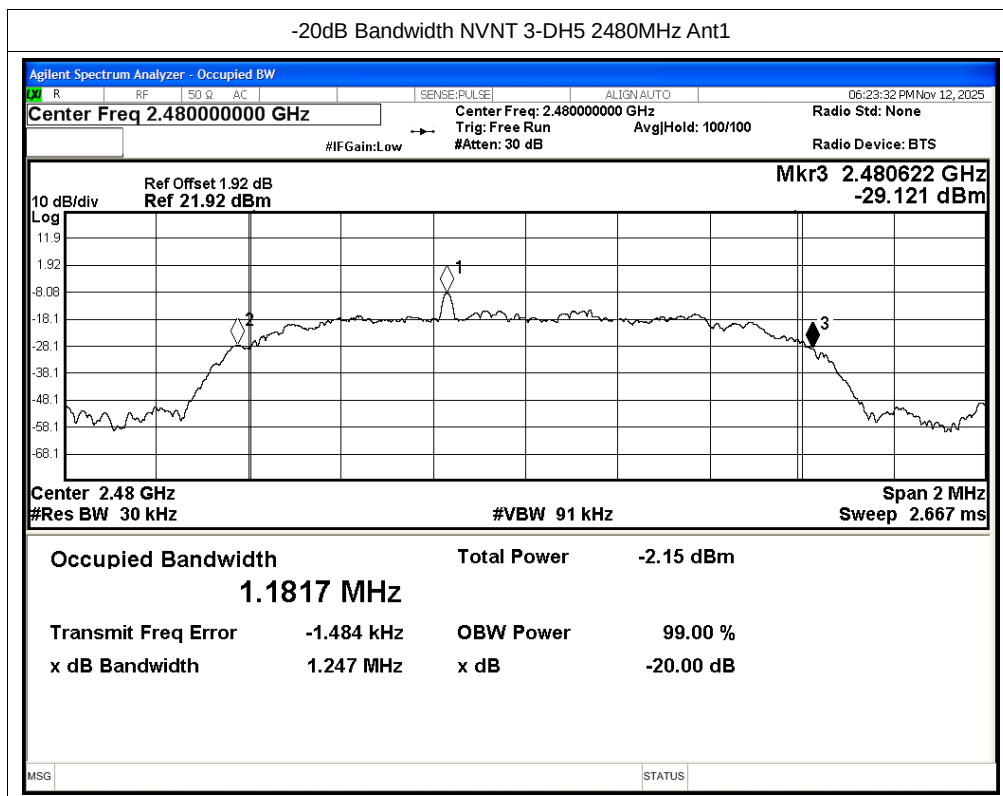


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



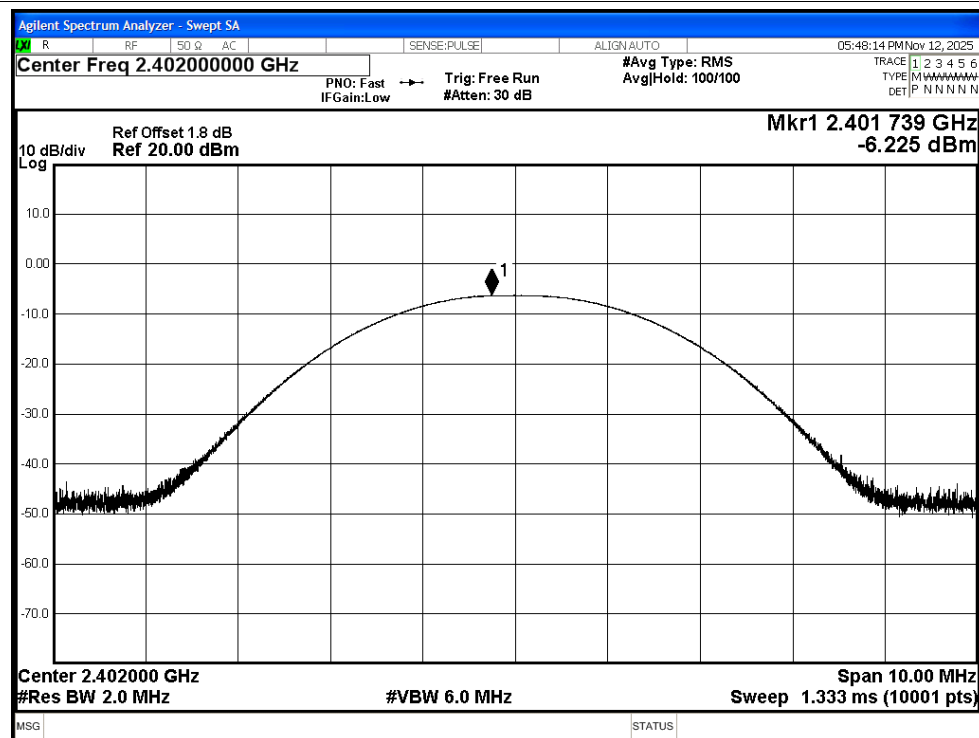


A.2 Maximum Peak Conducted Output Power

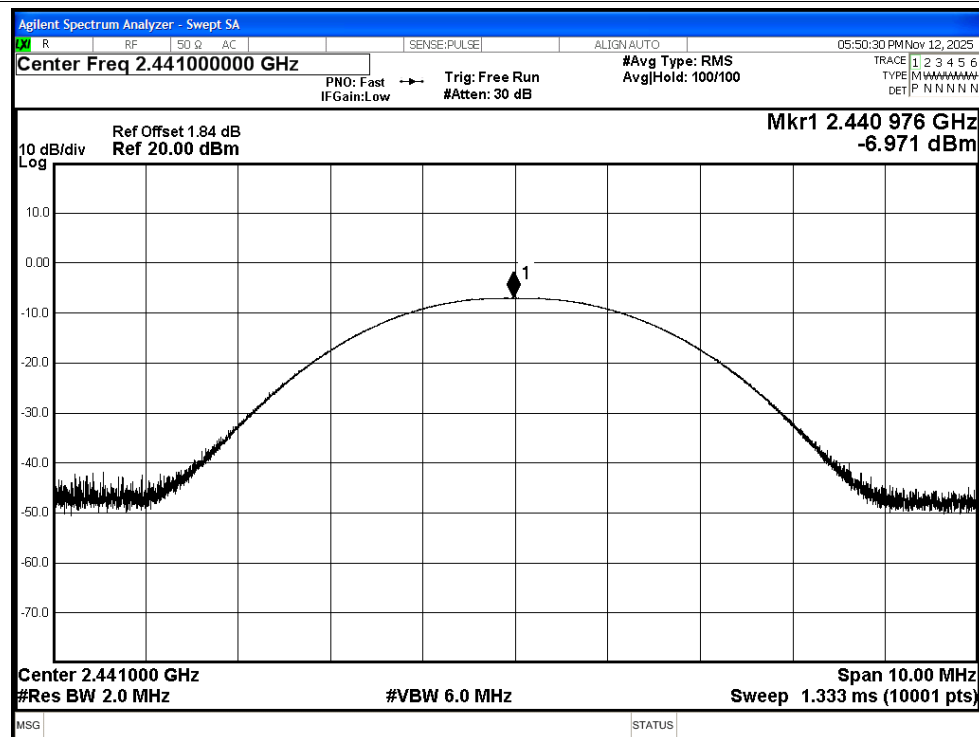
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-6.23	21	Pass
NVNT	1-DH5	2441	Ant1	-6.97	21	Pass
NVNT	1-DH5	2480	Ant1	-7.24	21	Pass
NVNT	2-DH5	2402	Ant1	-5.46	21	Pass
NVNT	2-DH5	2441	Ant1	-6.25	21	Pass
NVNT	2-DH5	2480	Ant1	-6.43	21	Pass
NVNT	3-DH5	2402	Ant1	-4.9	21	Pass
NVNT	3-DH5	2441	Ant1	-5.67	21	Pass
NVNT	3-DH5	2480	Ant1	-5.87	21	Pass

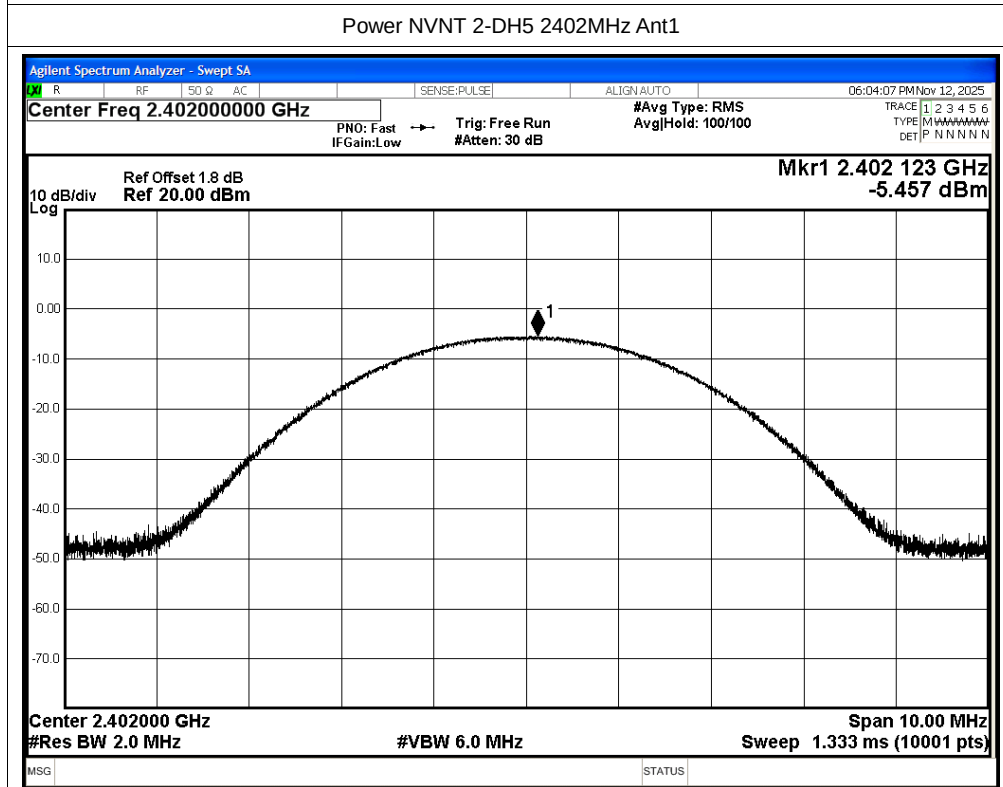
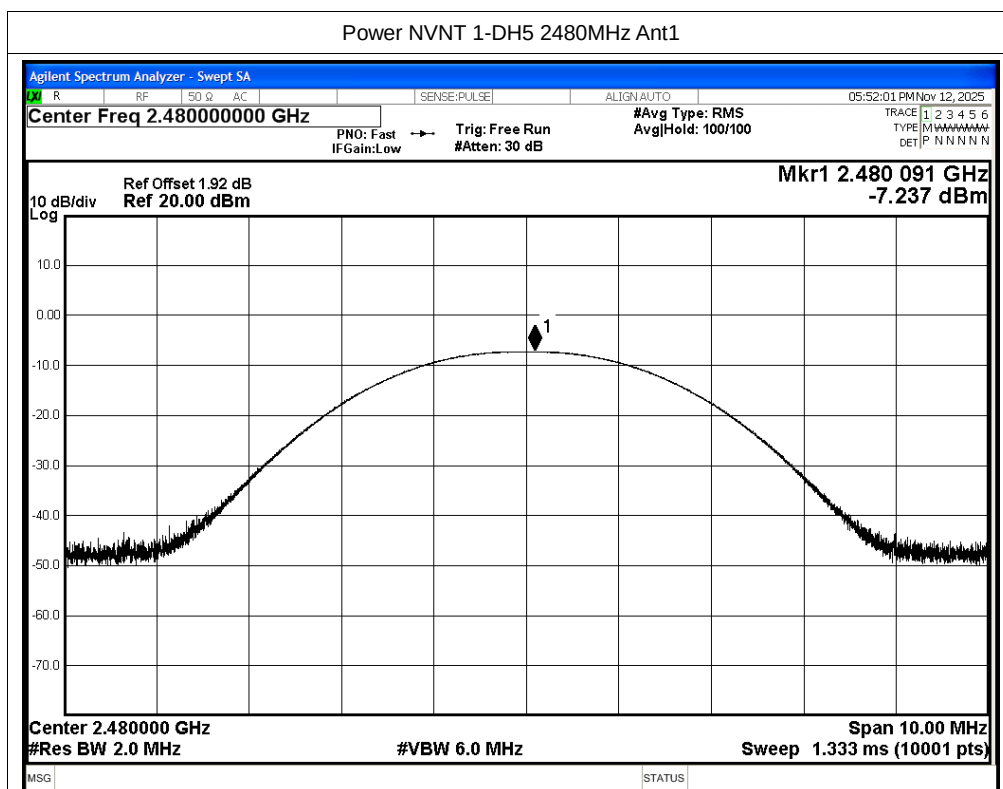
Test Graphs

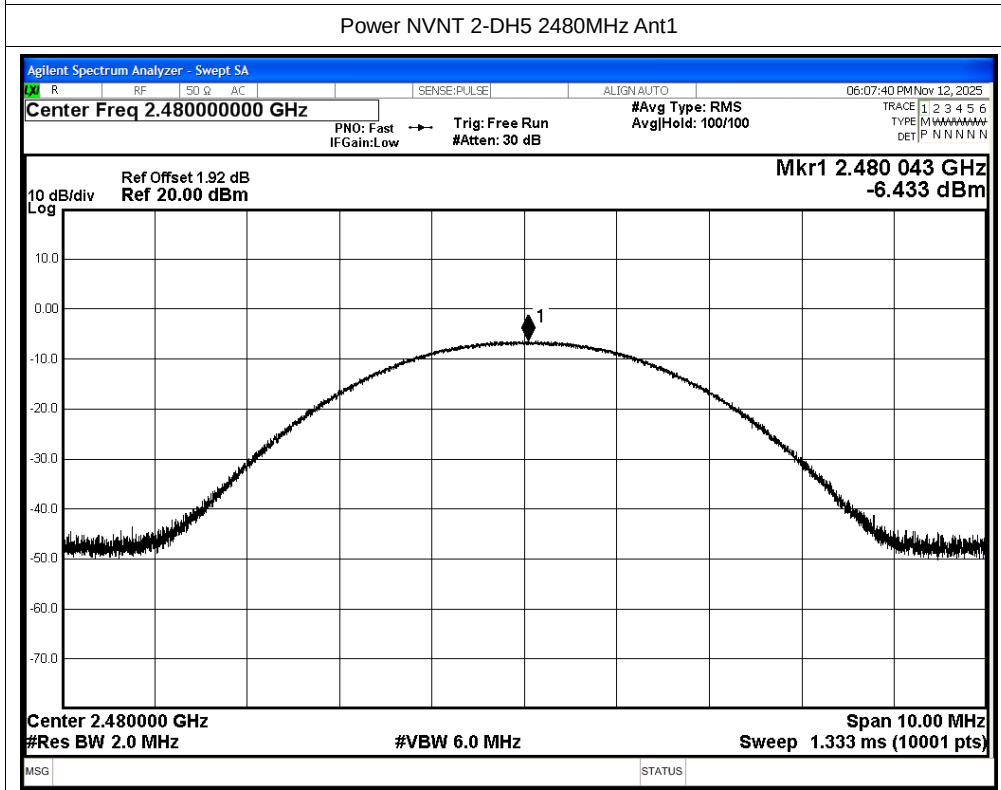
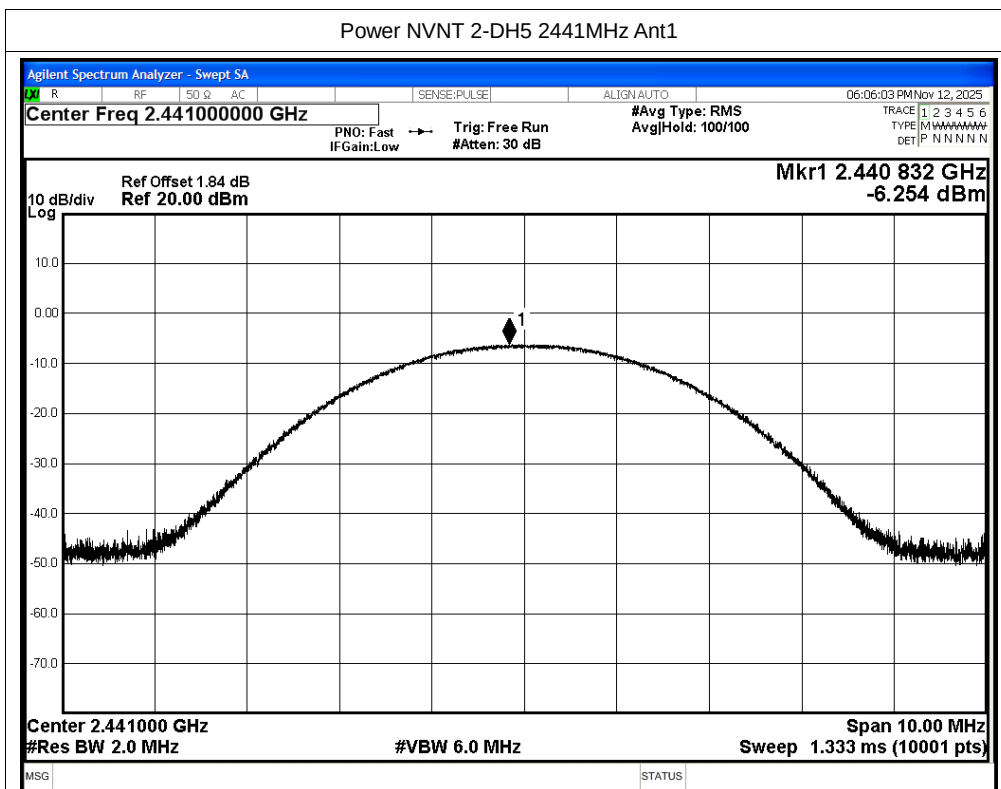
Power NVNT 1-DH5 2402MHz Ant1

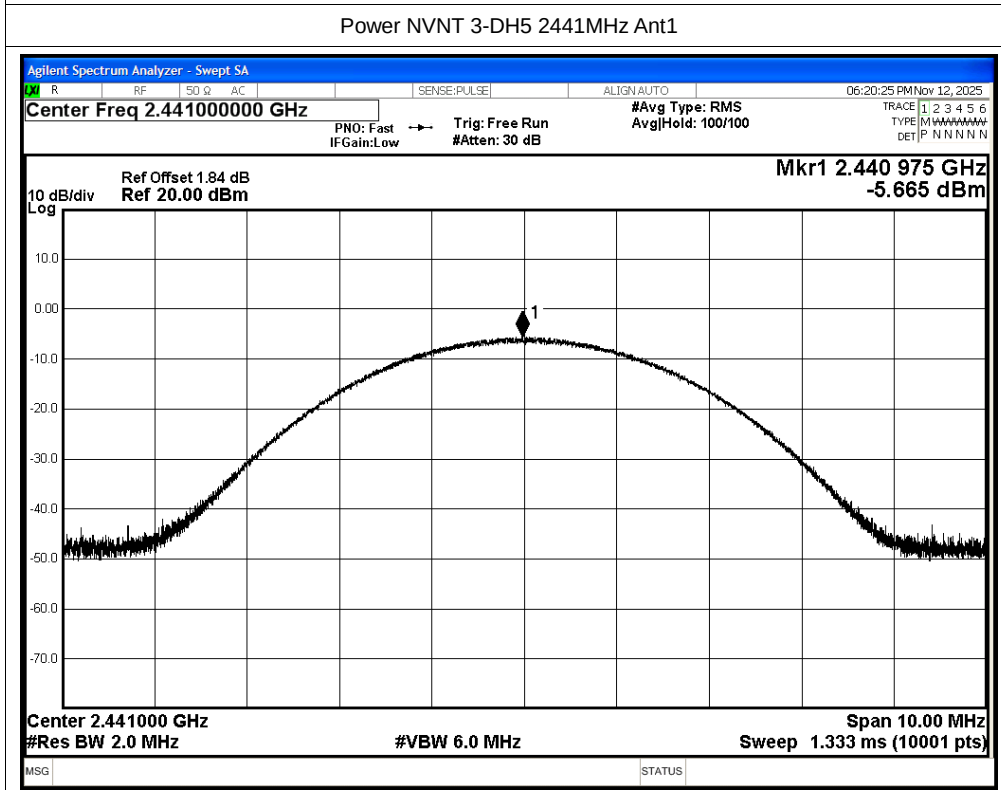
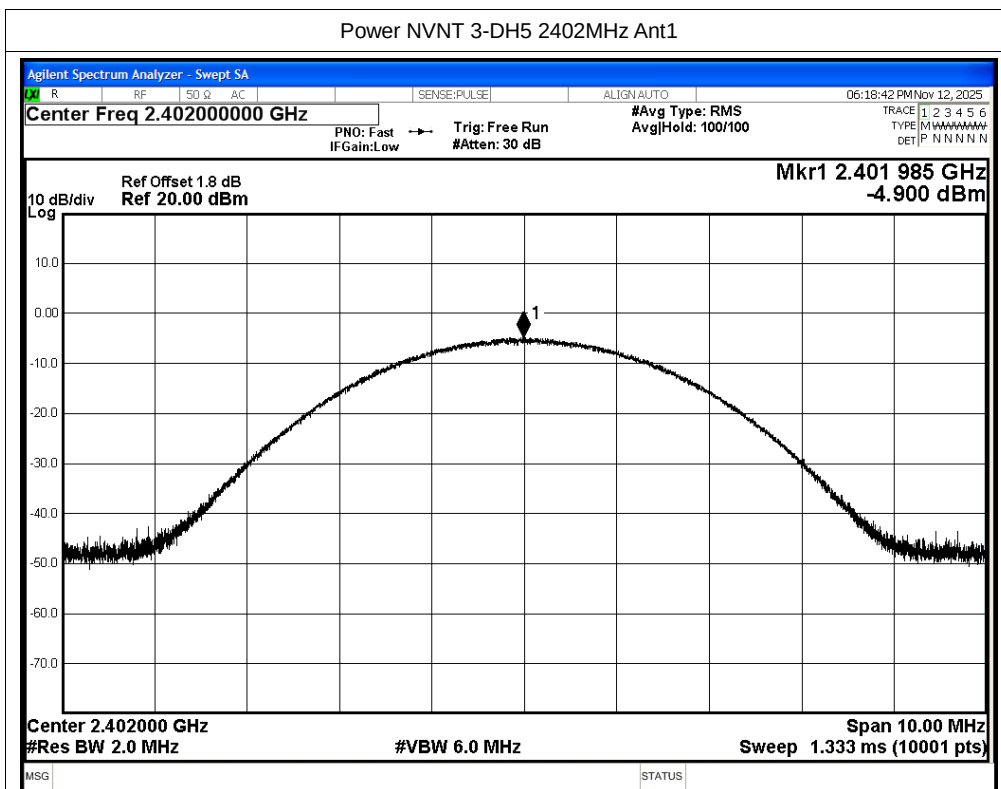


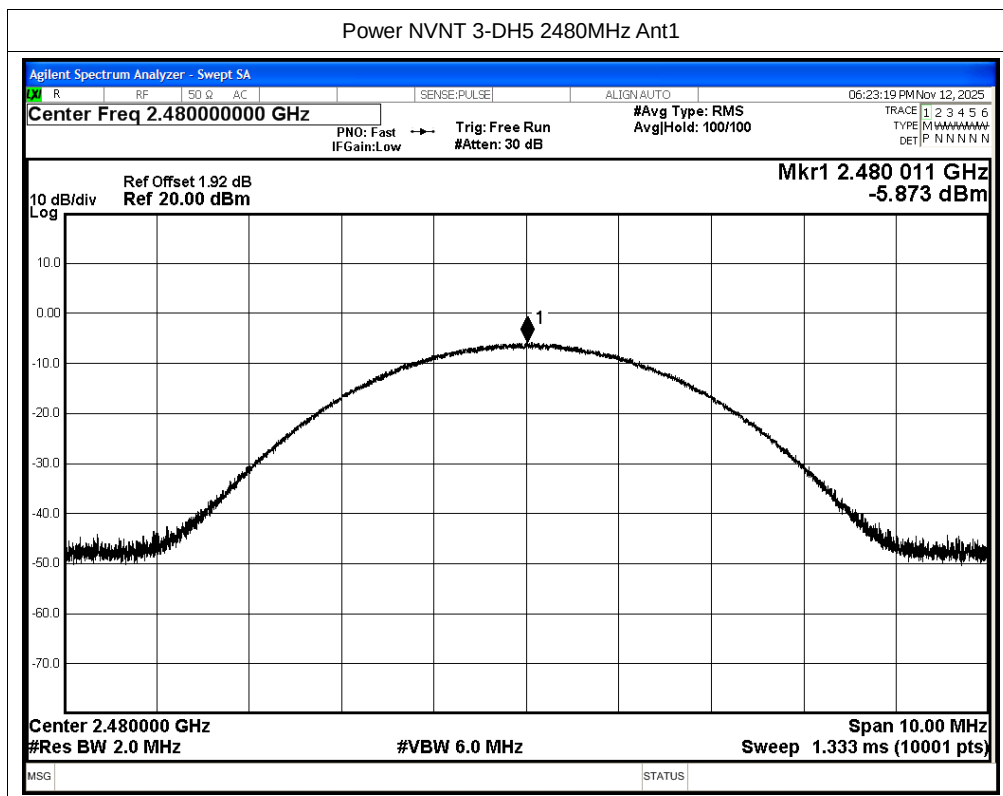
Power NVNT 1-DH5 2441MHz Ant1









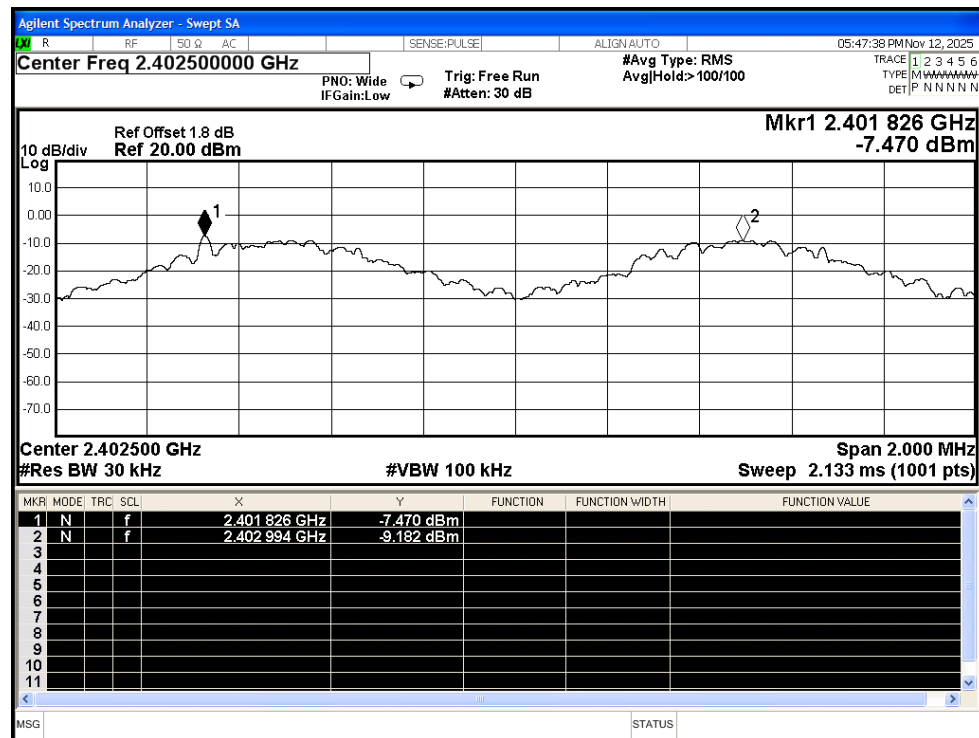


A.3 Carrier Frequencies Separation

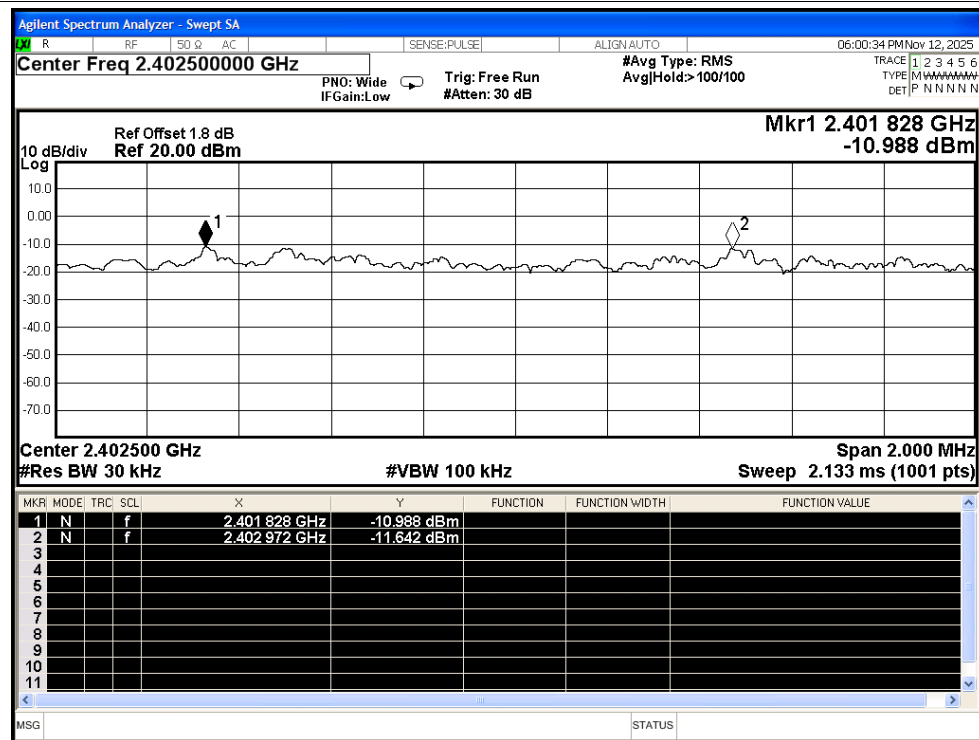
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.826	2402.994	1.168	0.630	Pass
NVNT	2-DH5	Ant1	2401.828	2402.972	1.144	0.870	Pass
NVNT	3-DH5	Ant1	2401.822	2402.824	1.002	0.835	Pass

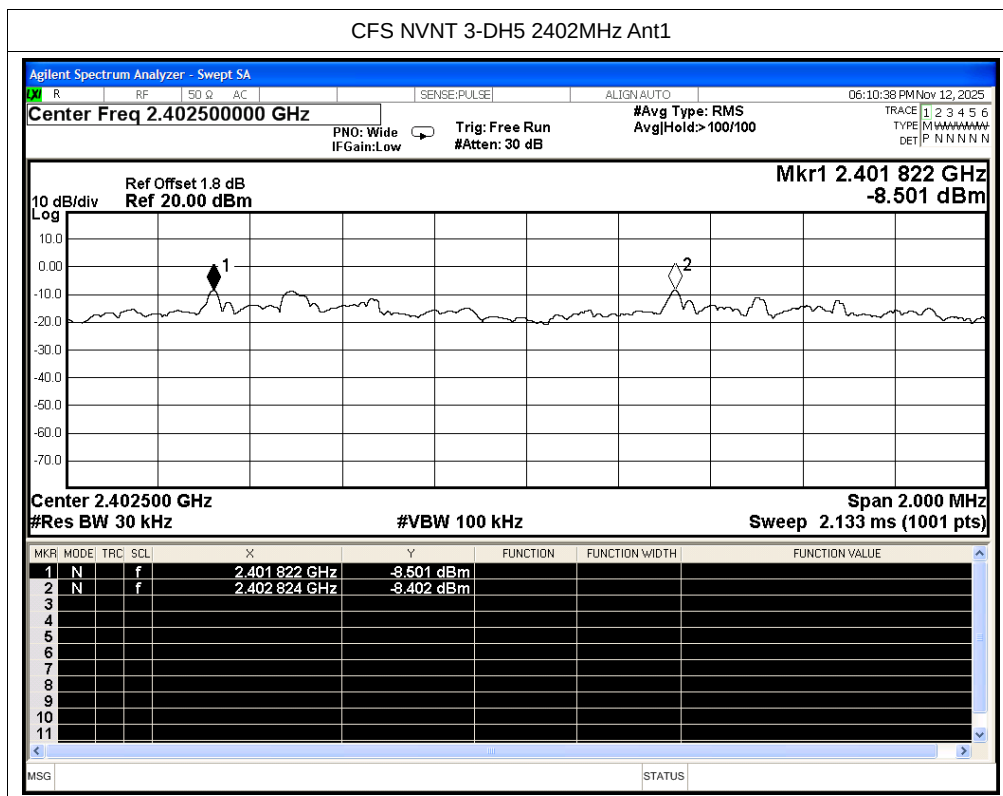
Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2402MHz Ant1



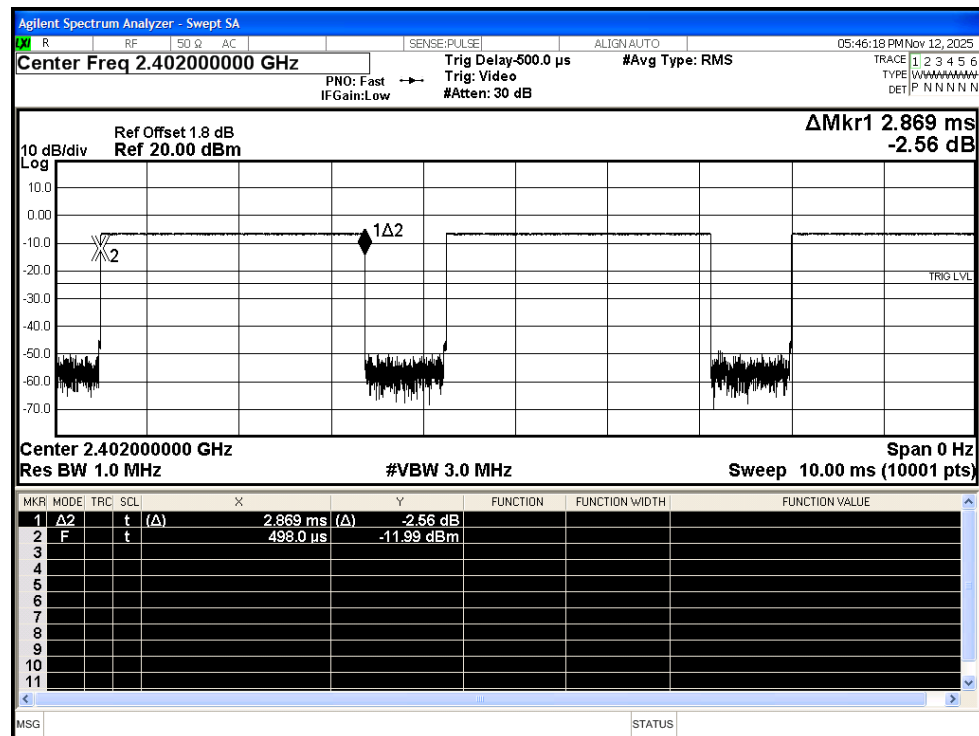


A.4 Dwell Time

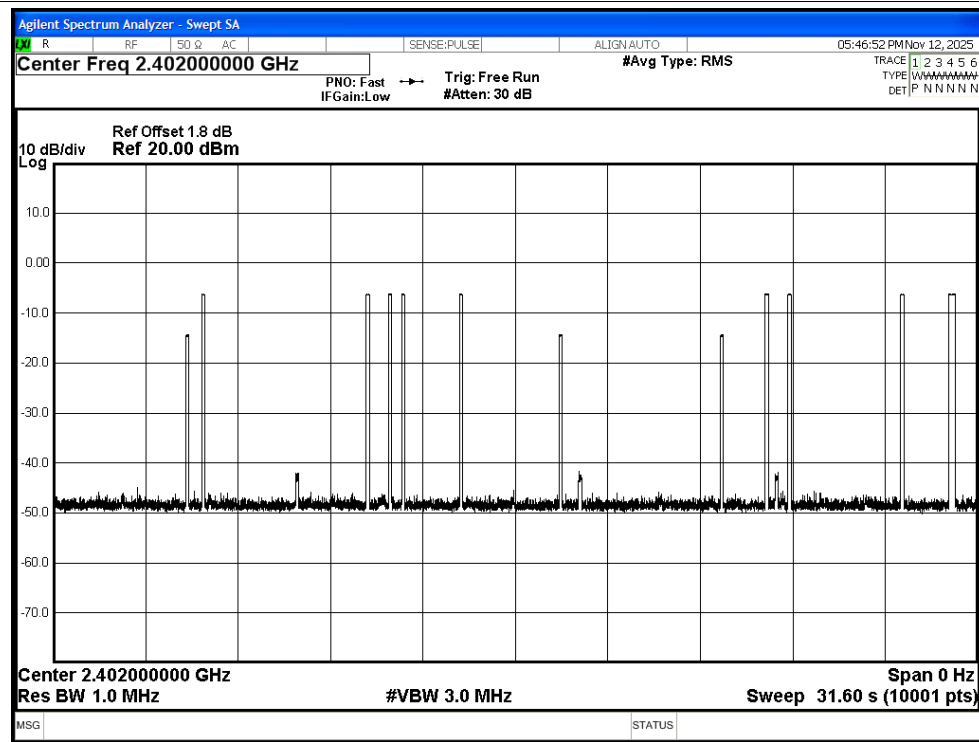
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.869	25.821	9	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.881	20.167	7	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.881	23.048	8	31600	400	Pass

Test Graphs

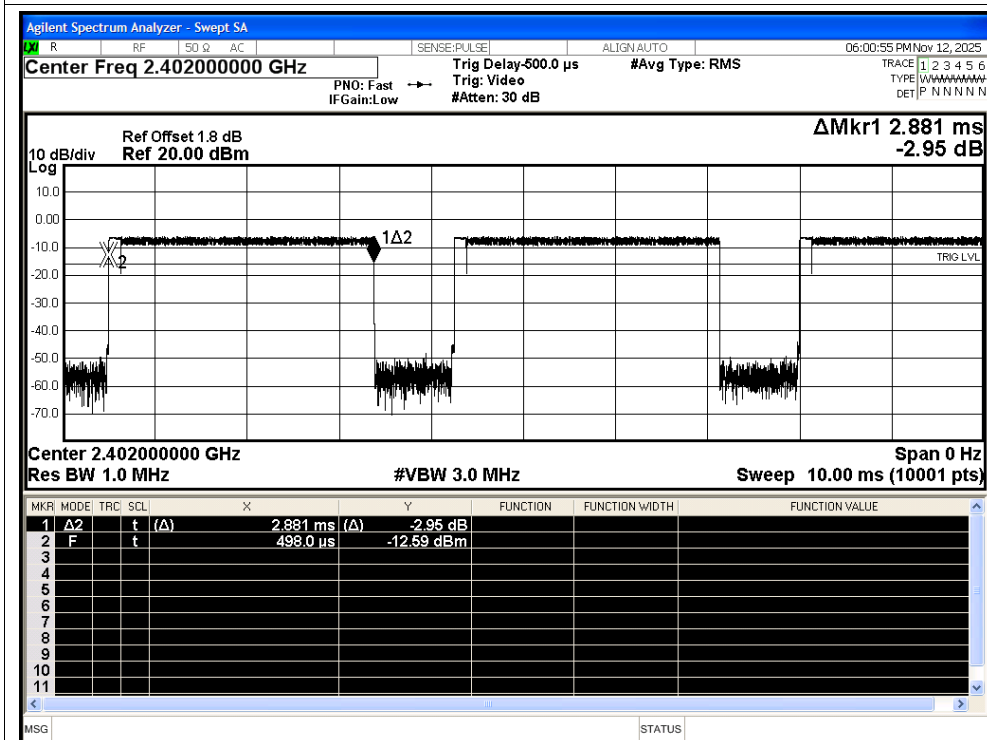
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



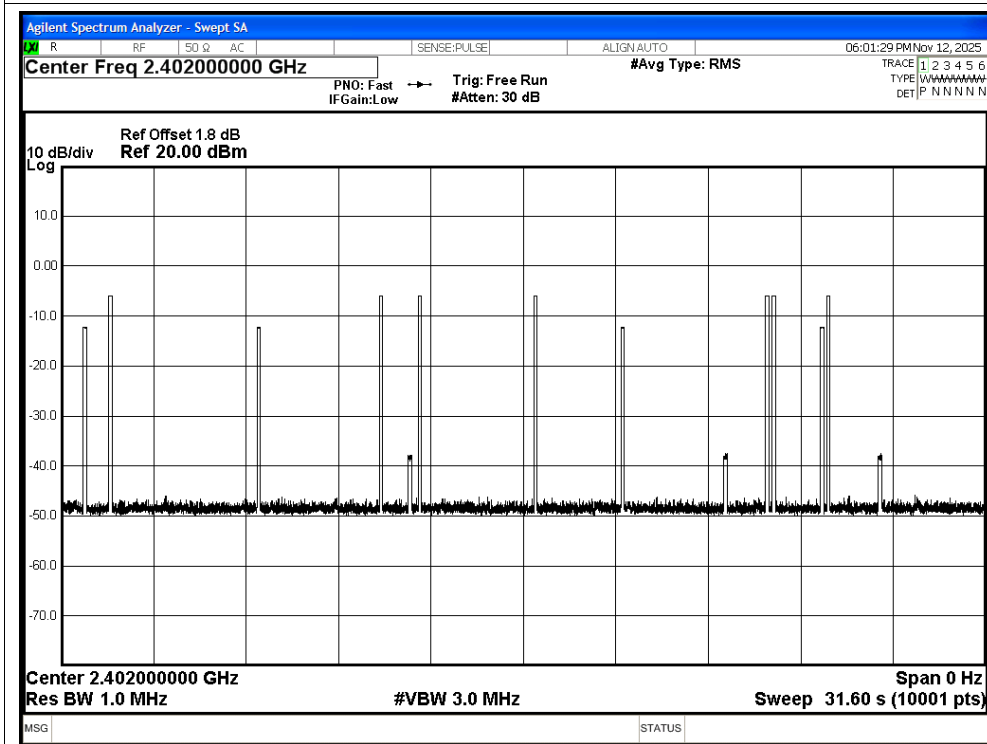
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



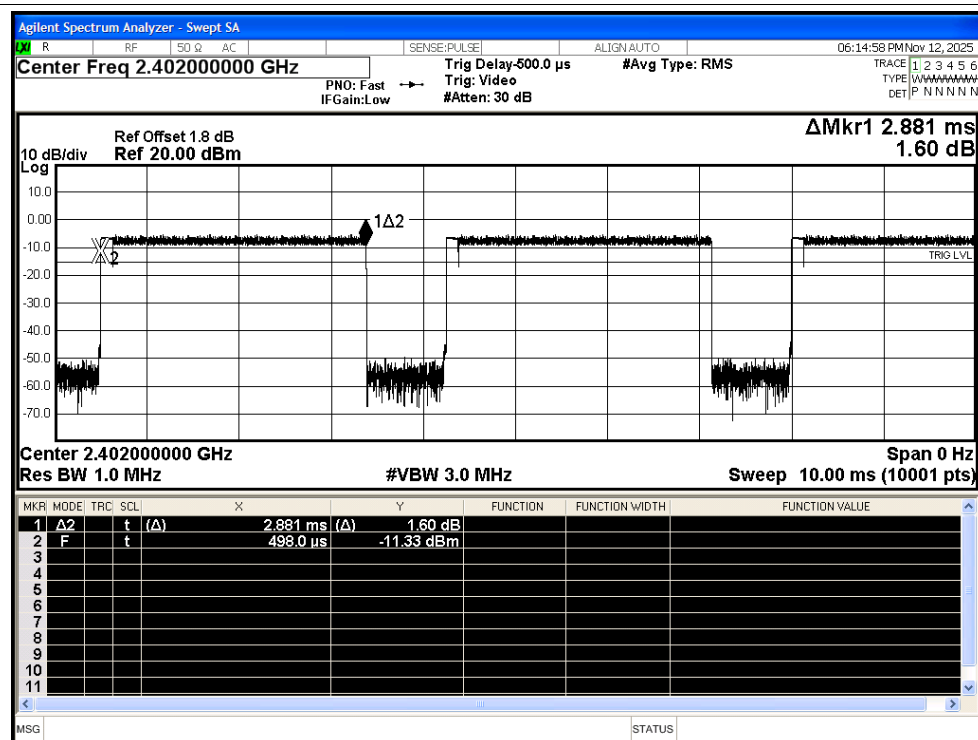
Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



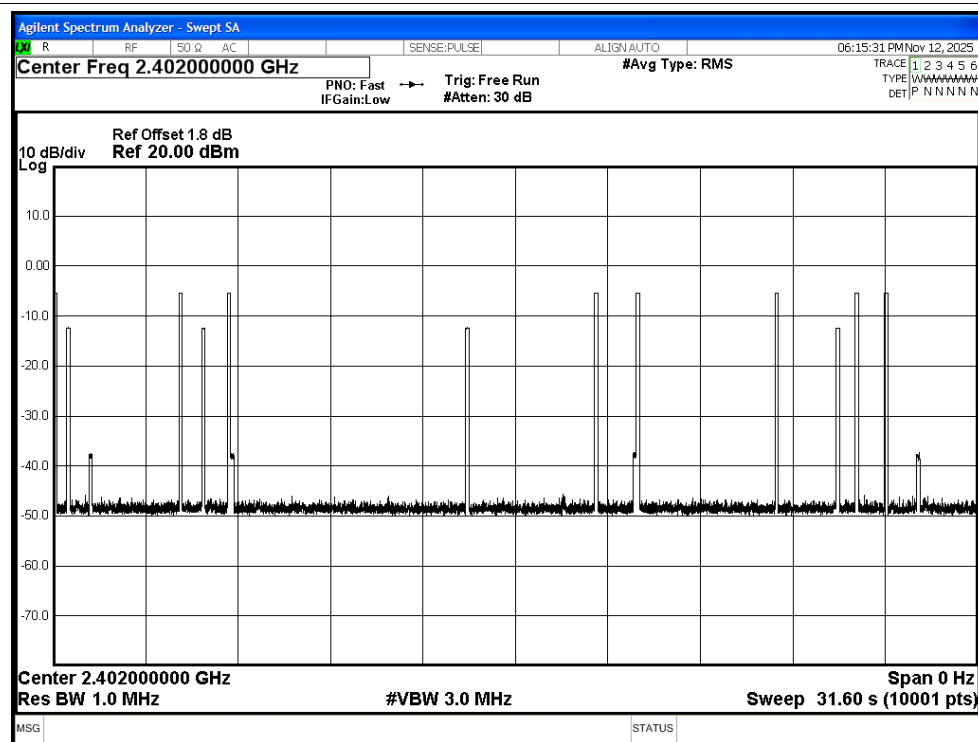
Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated

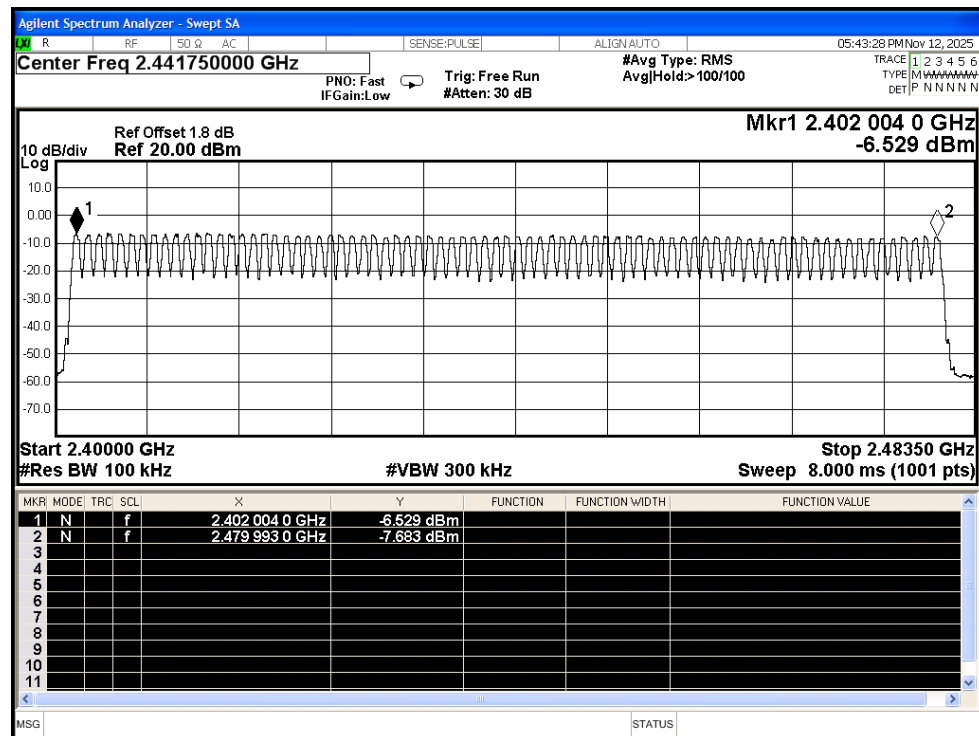


A.5 Number of Hopping Channel

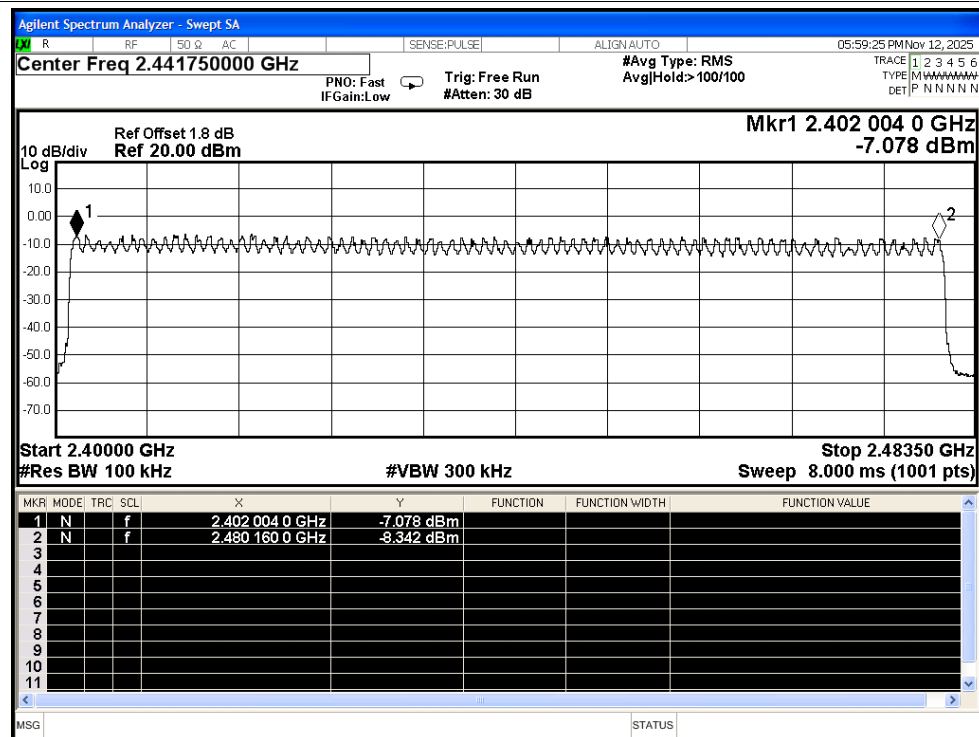
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

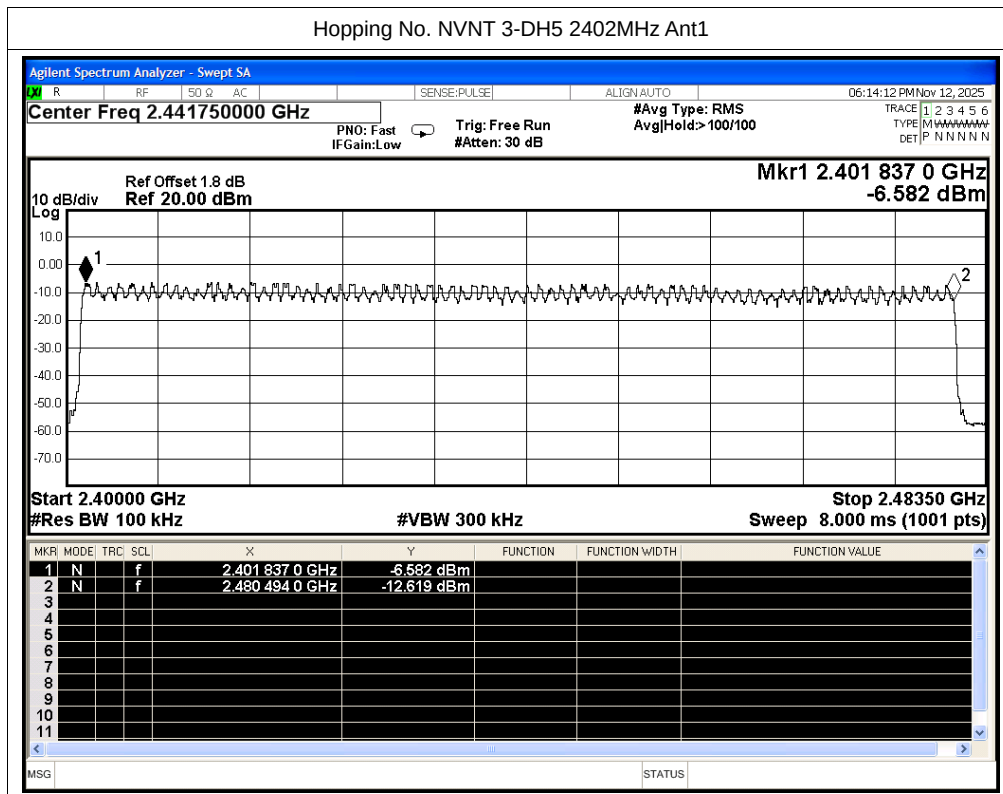
Test Graphs

Hopping No. NVNT 1-DH5 2402MHz Ant1



Hopping No. NVNT 2-DH5 2402MHz Ant1



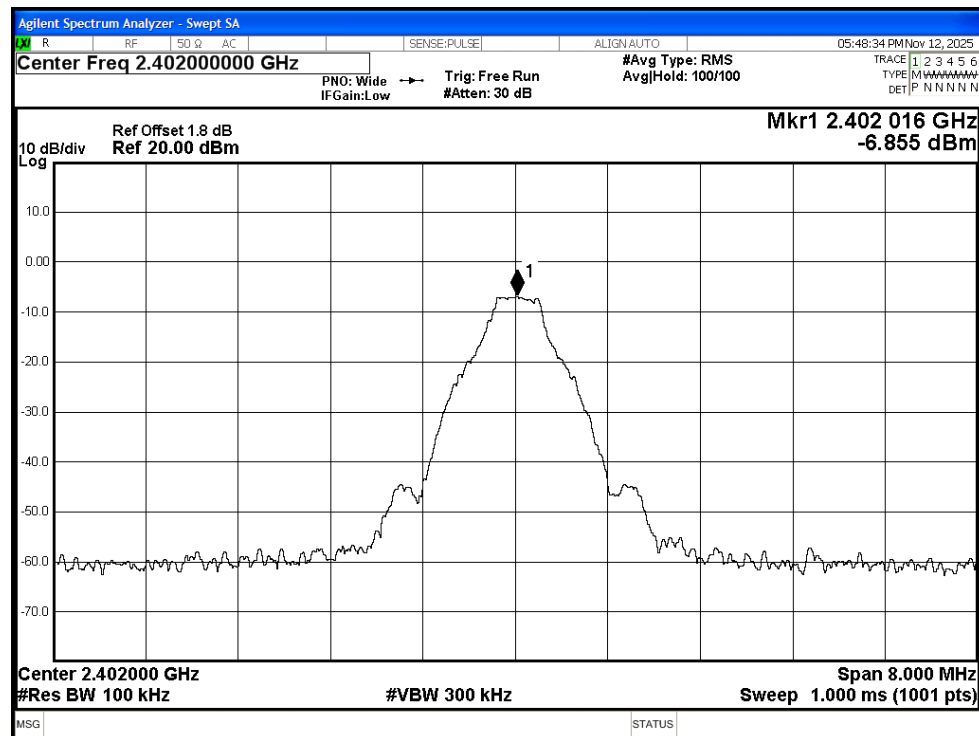


A.6 Band Edge

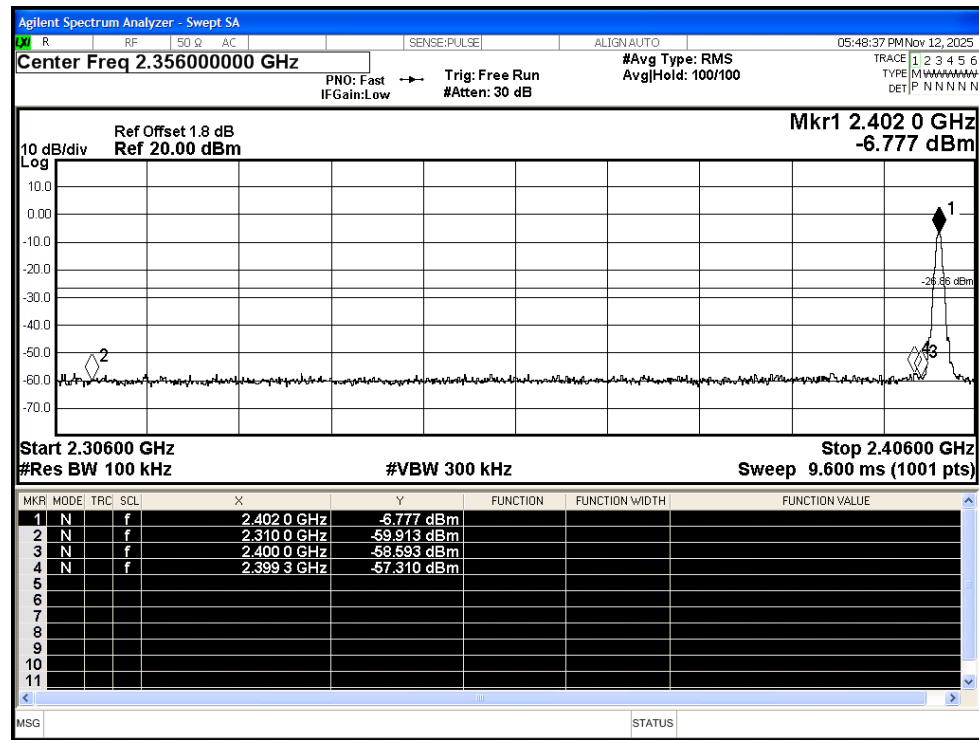
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-50.46	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-48.38	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-48.93	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-49.45	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-47.26	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-49.75	-20	Pass

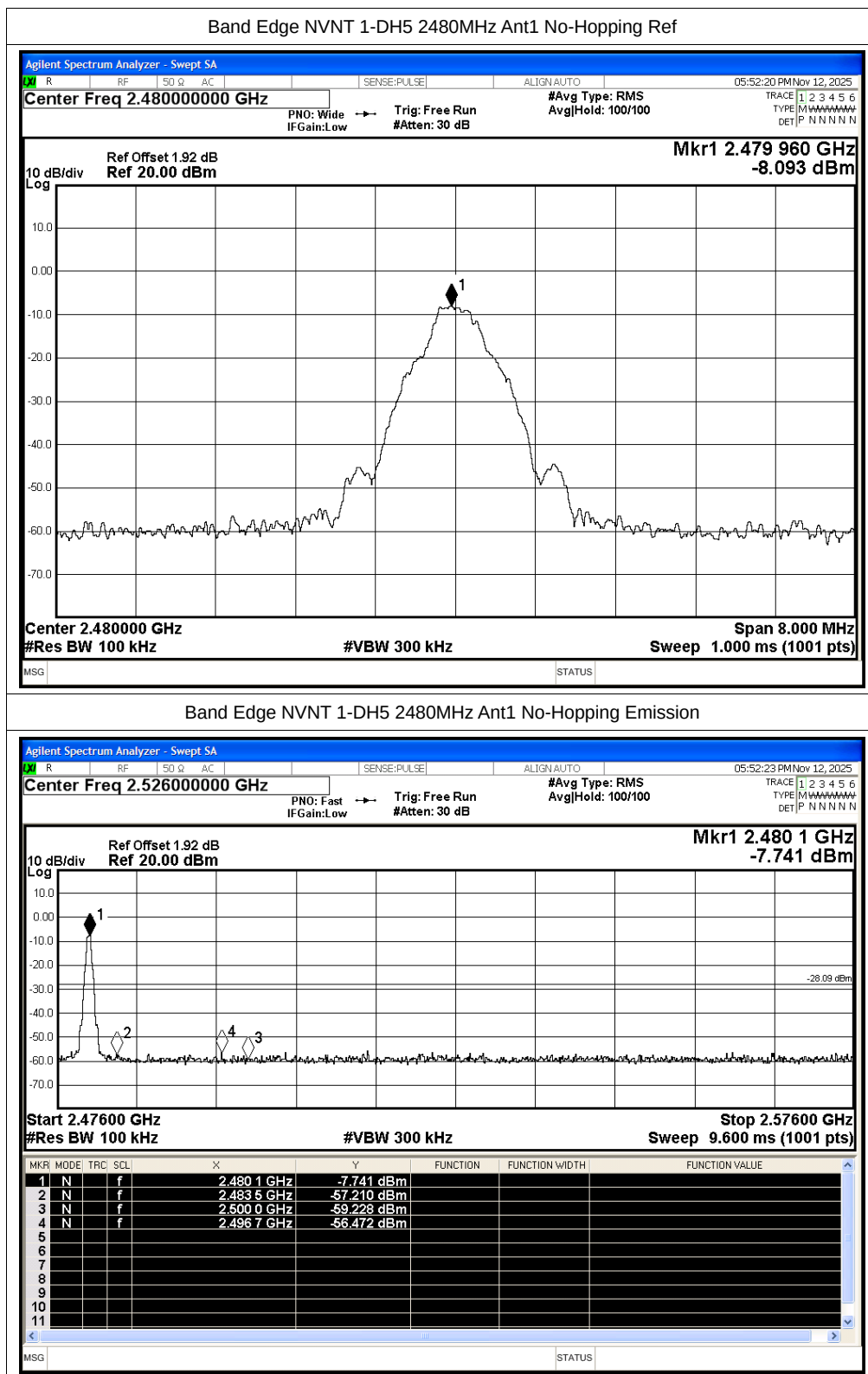
Test Graphs

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

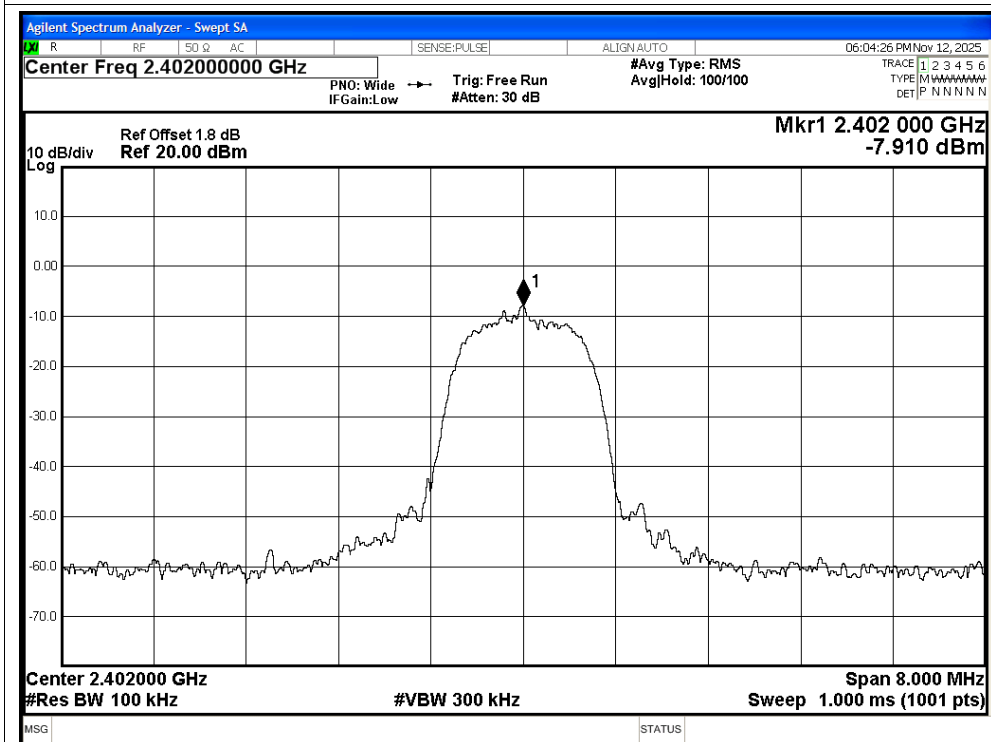


Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission

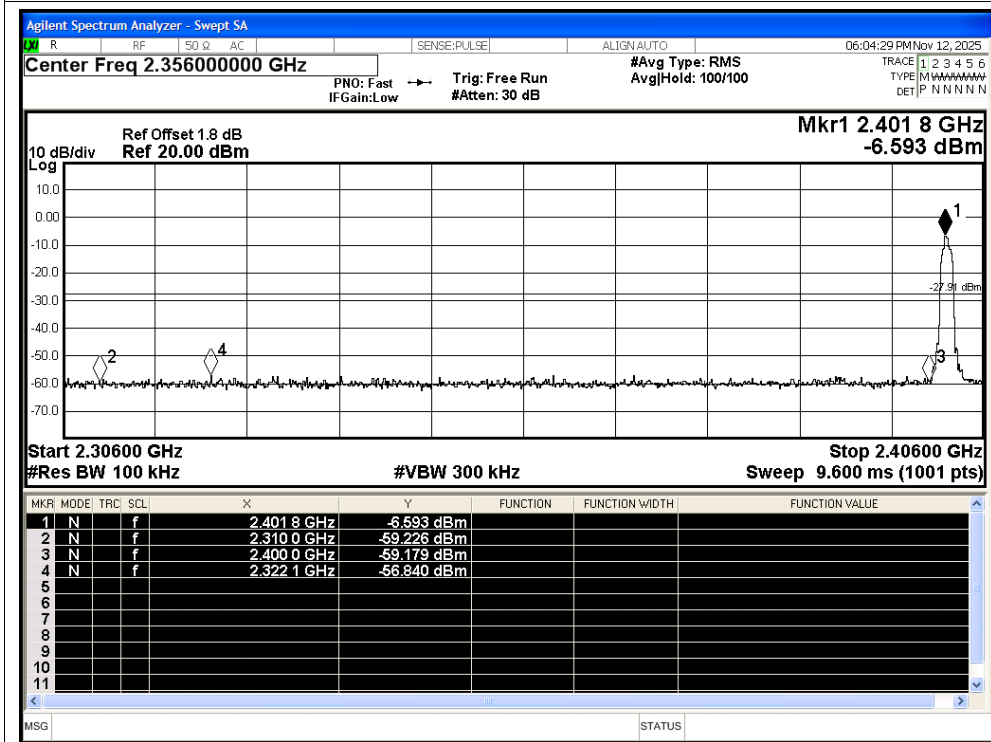




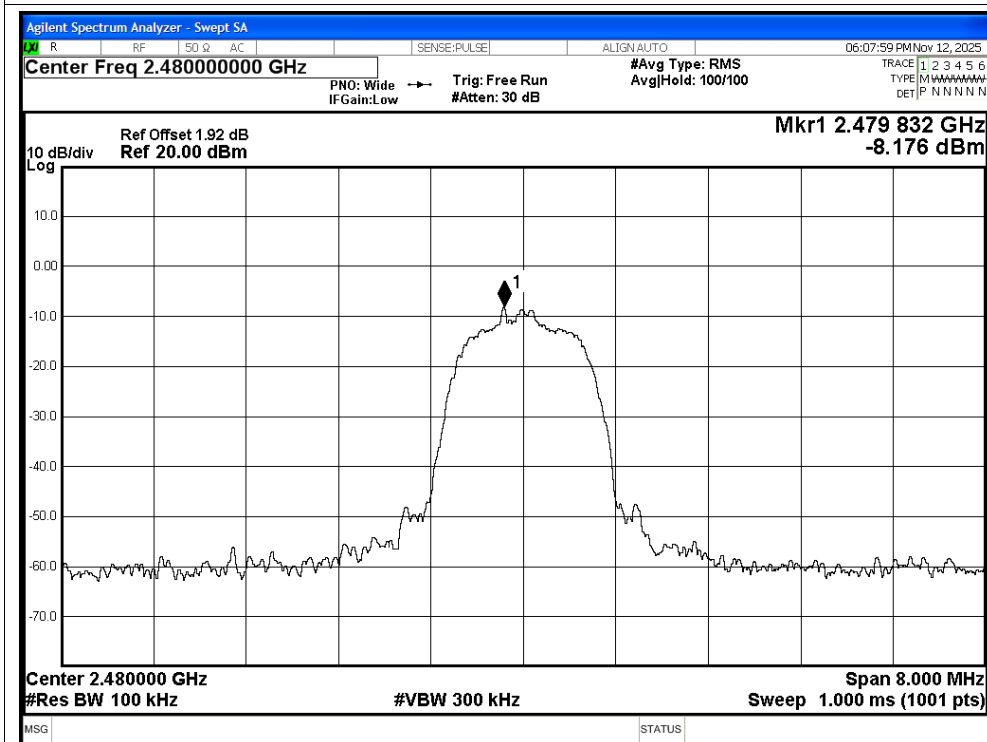
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



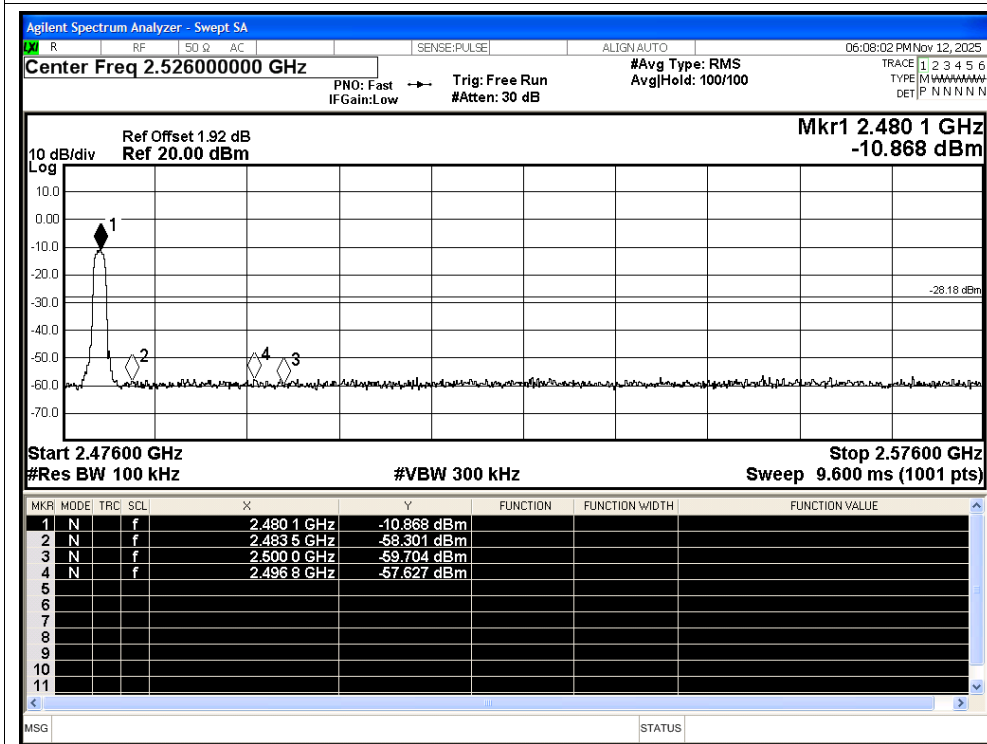
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



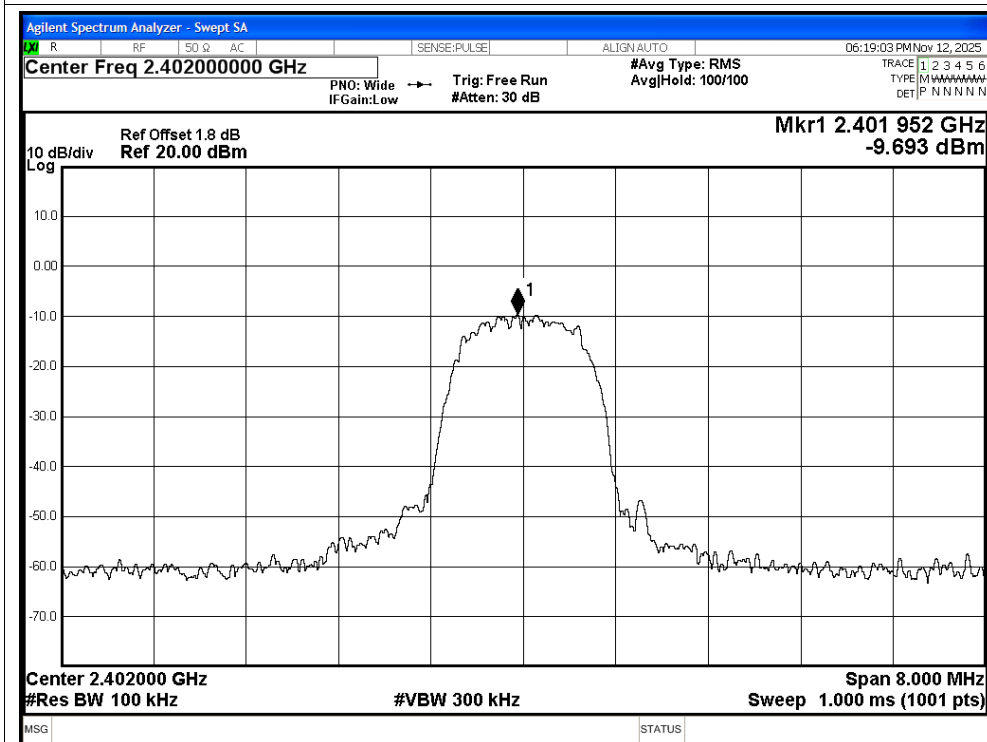
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



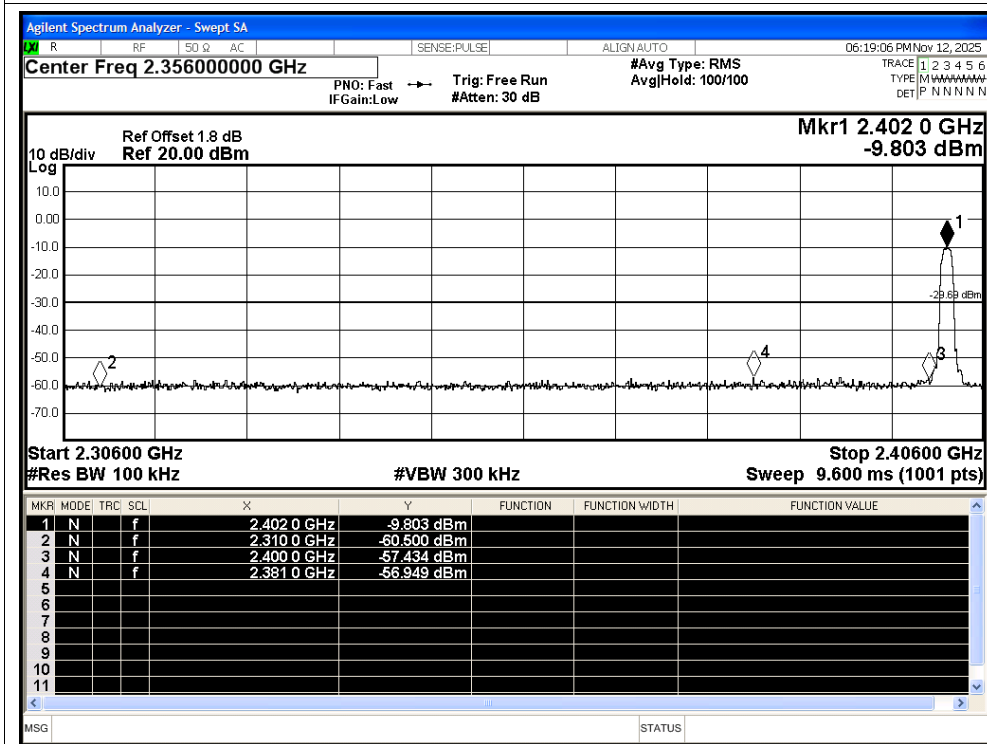
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



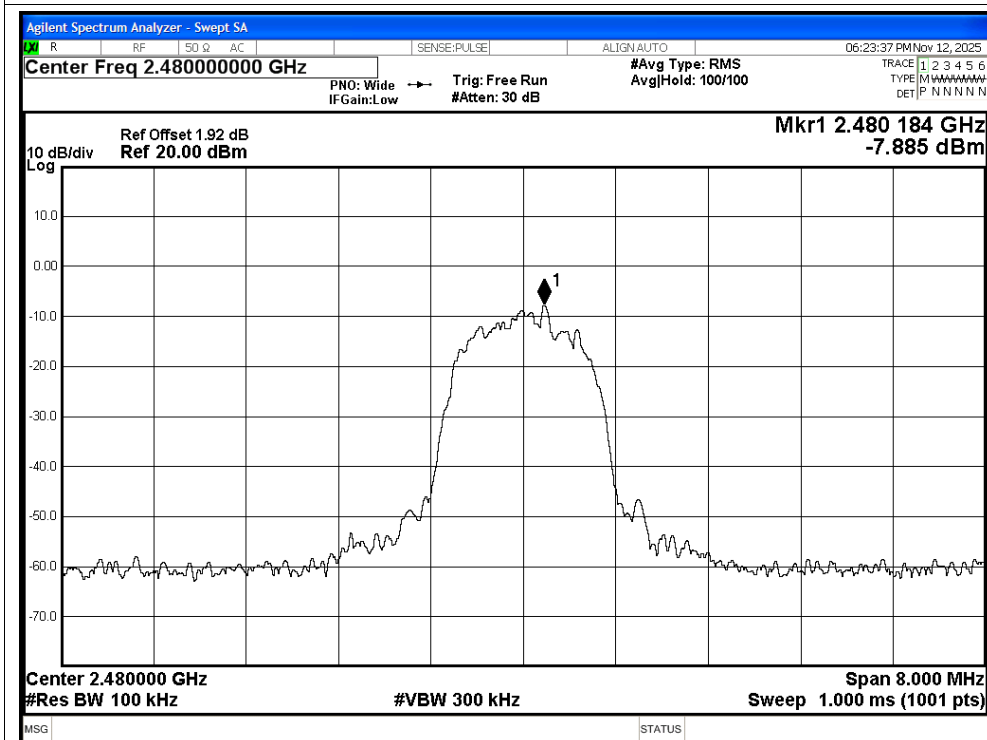
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



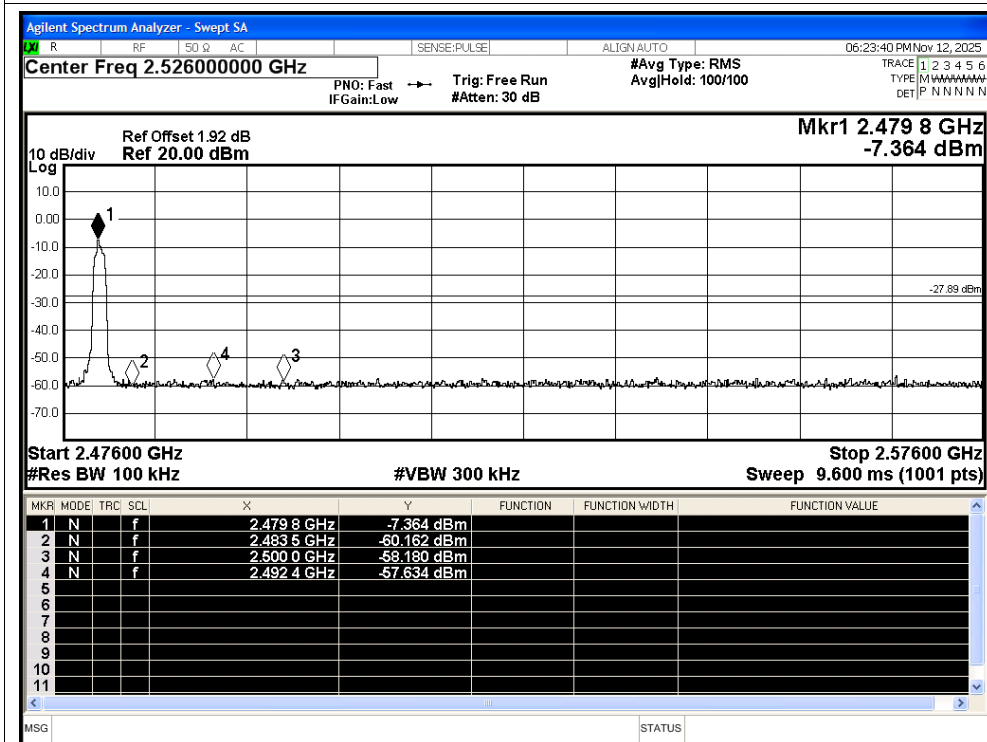
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



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



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

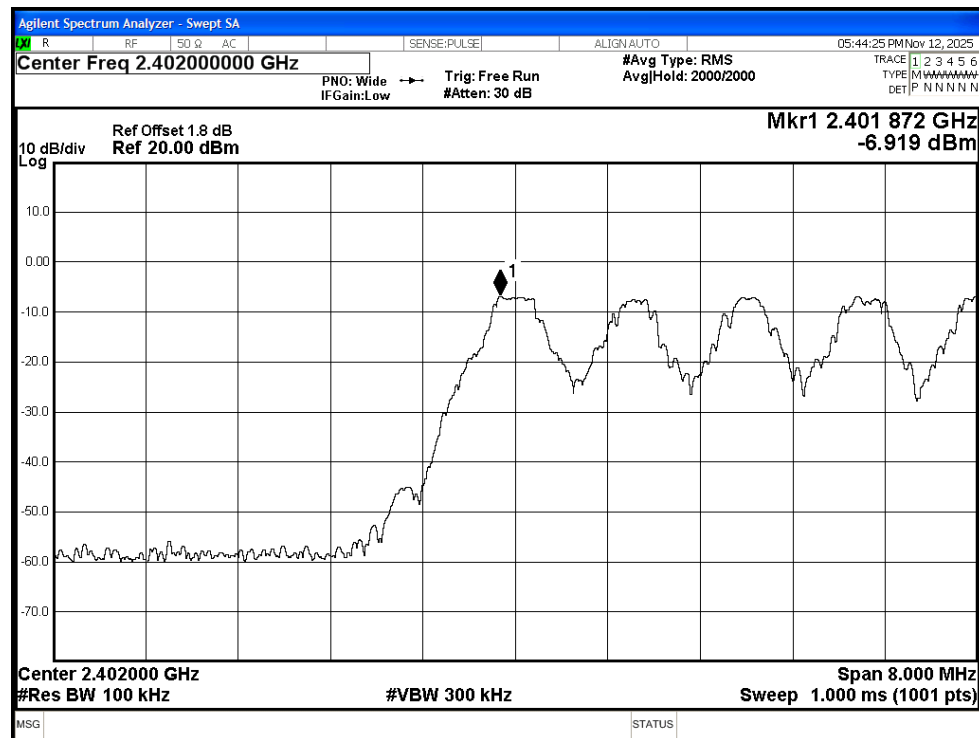


(Hopping)

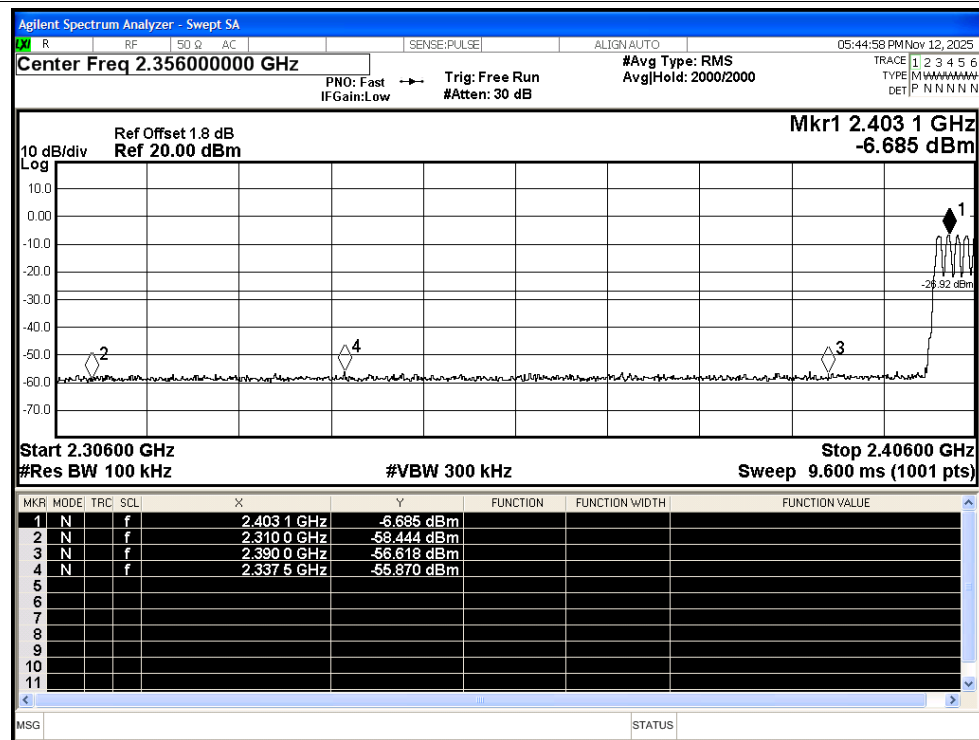
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-48.95	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-48.16	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-48.09	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-47.04	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-48.36	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-49.04	-20	Pass

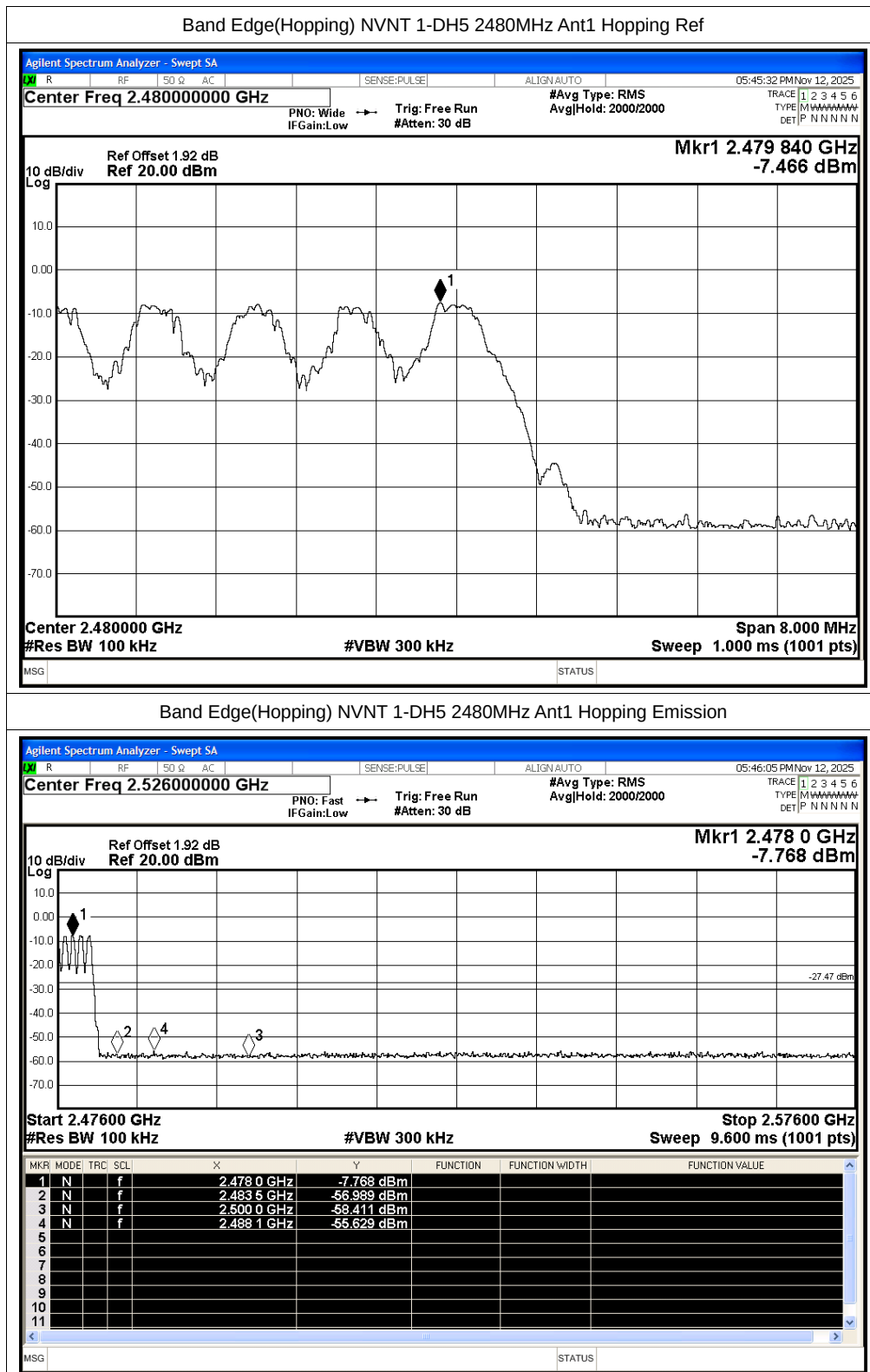
Test Graphs

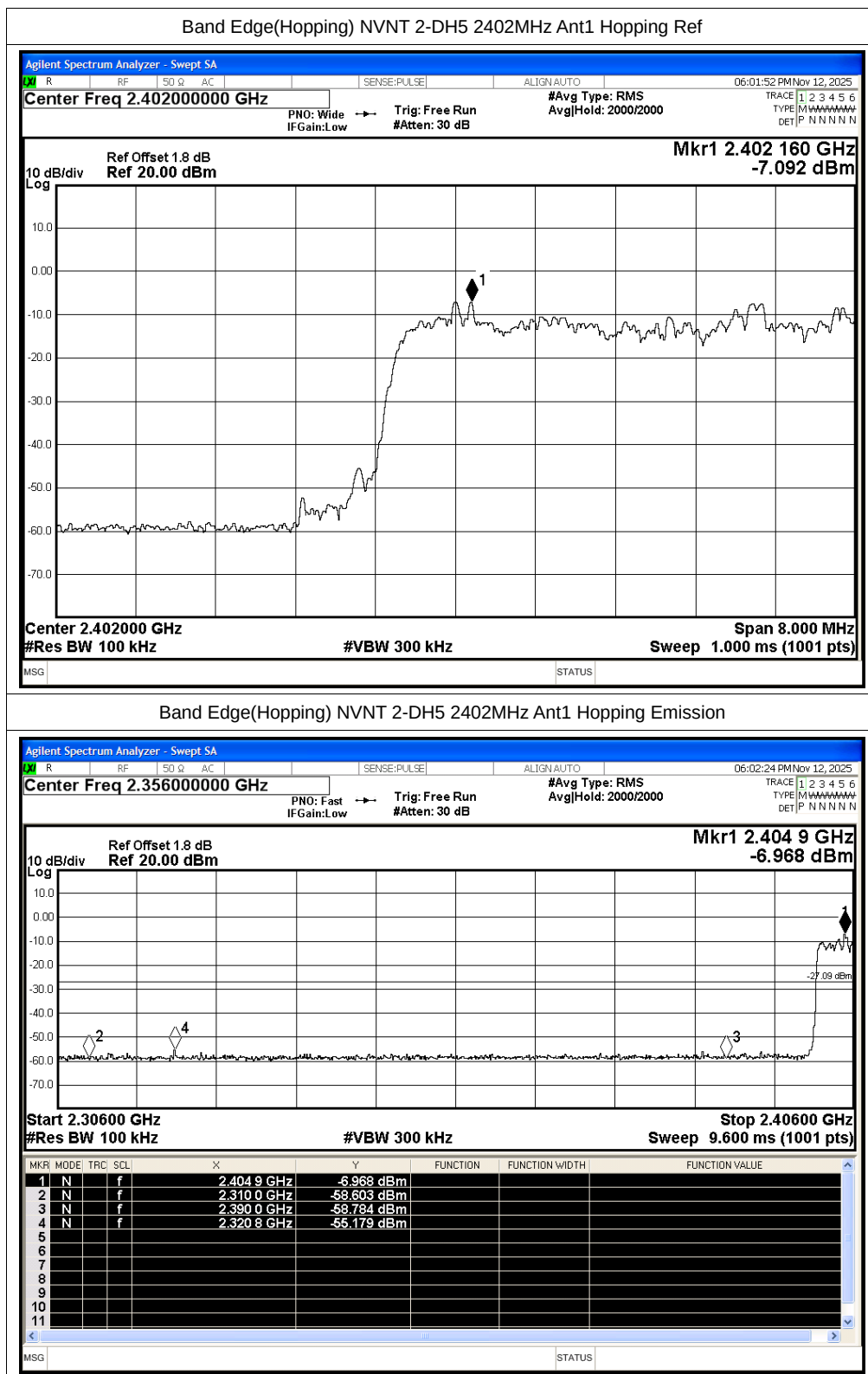
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref

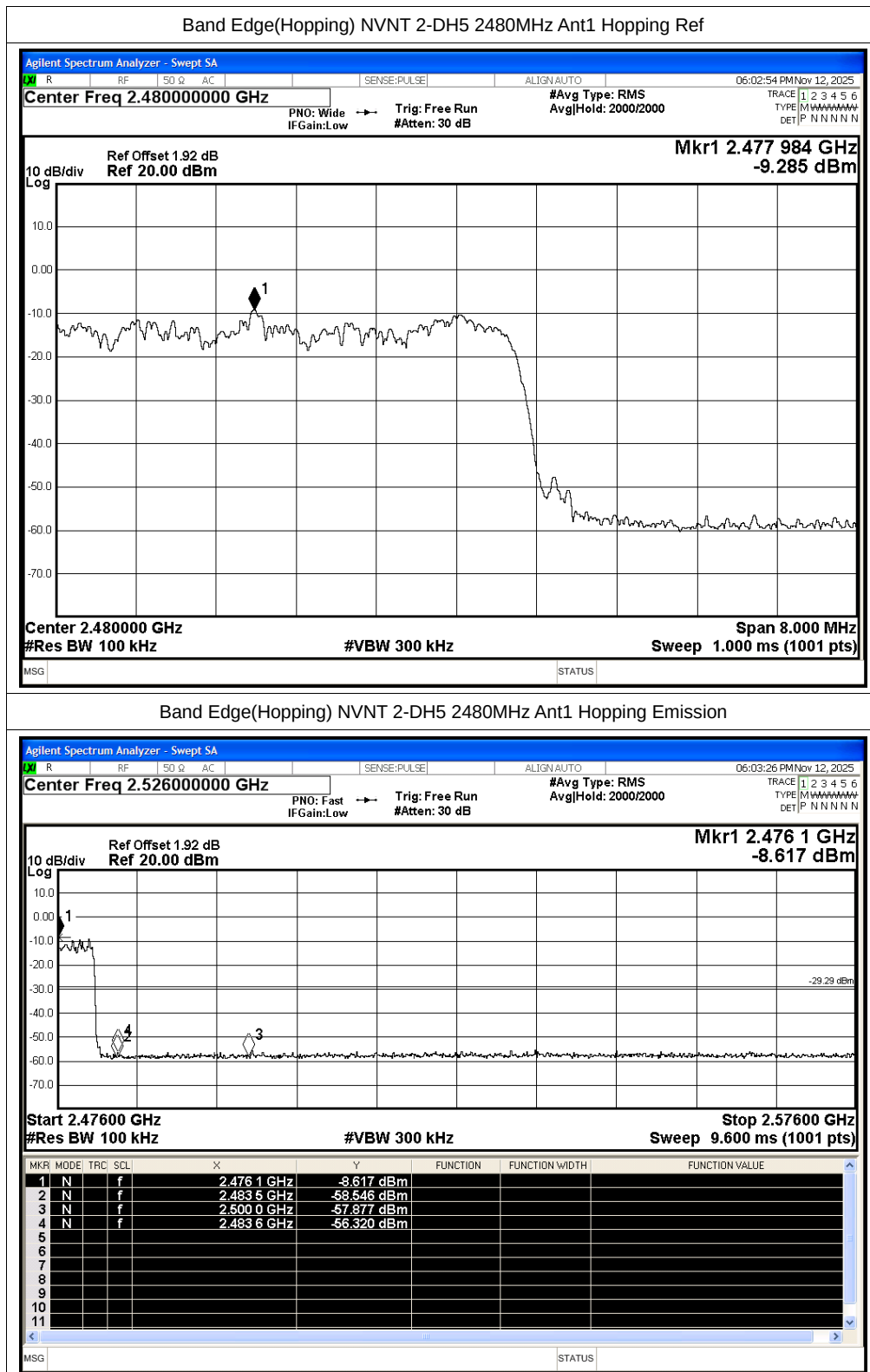


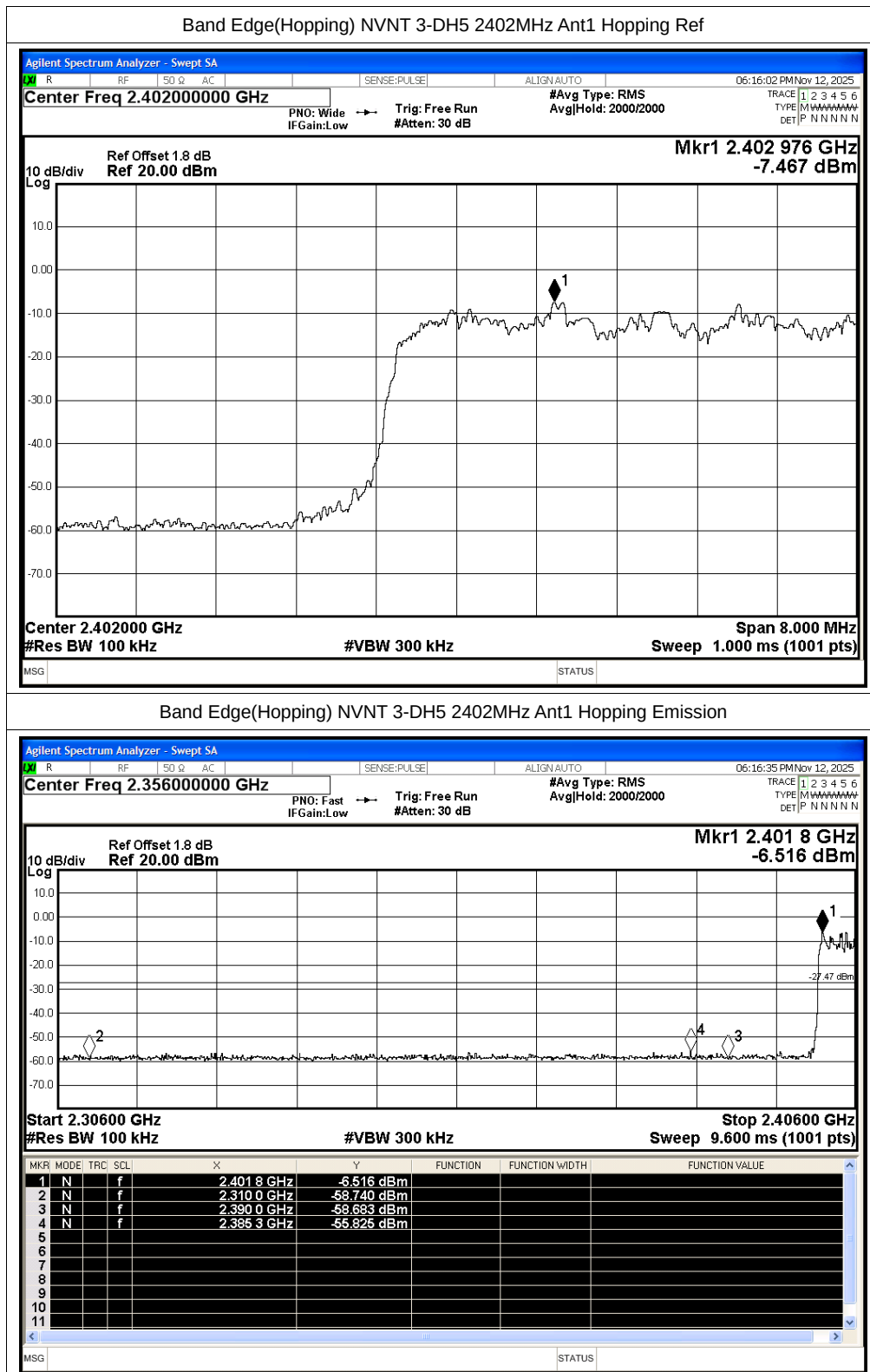
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

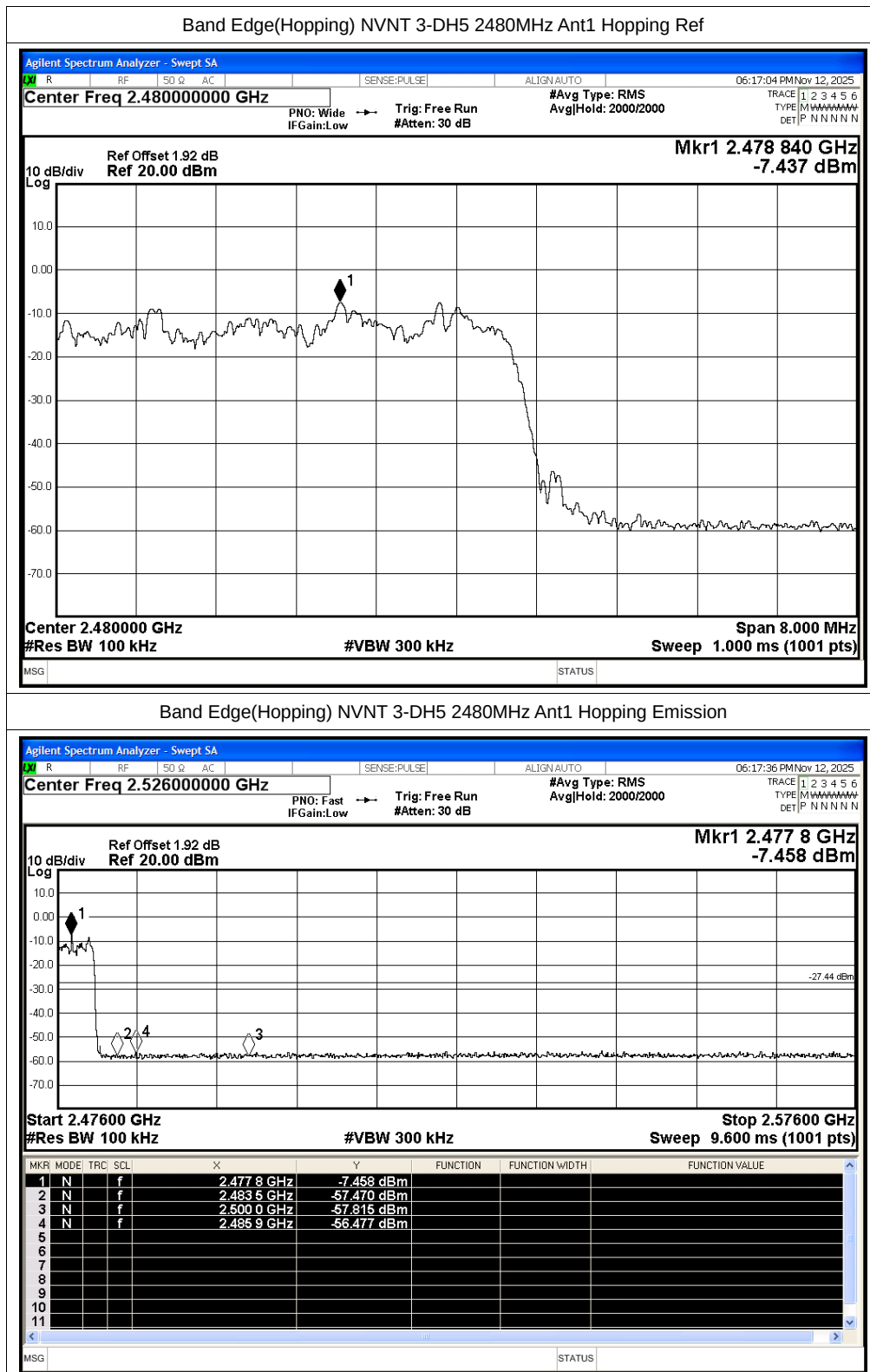










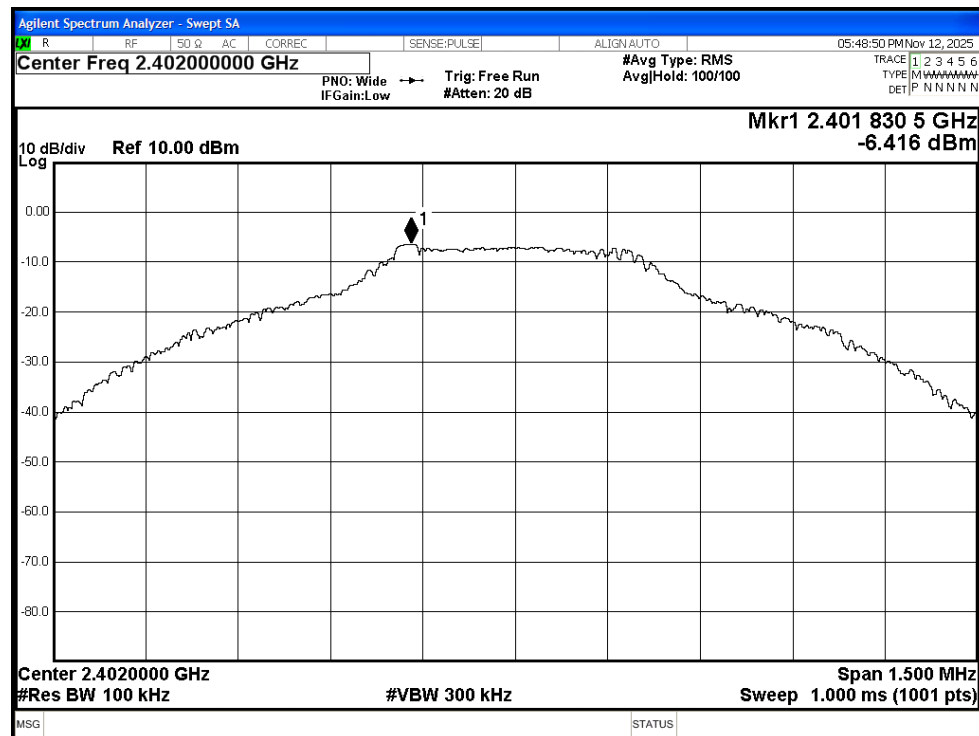


A.7 Conducted RF Spurious Emission

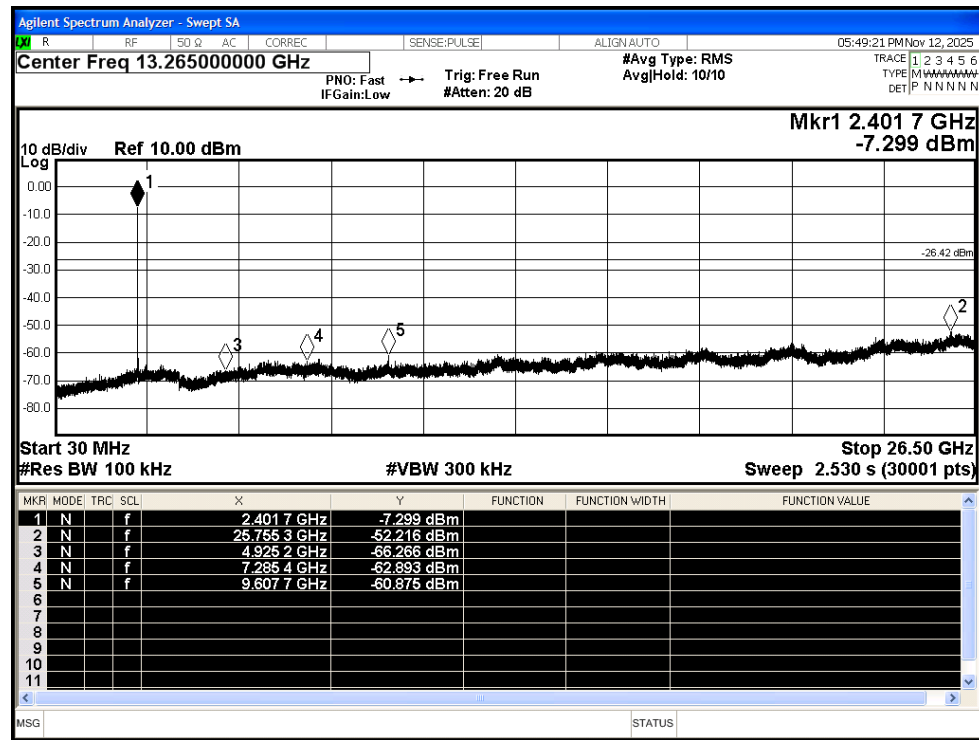
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-45.8	-20	Pass
NVNT	1-DH5	2441	Ant1	-44.01	-20	Pass
NVNT	1-DH5	2480	Ant1	-44.85	-20	Pass
NVNT	2-DH5	2402	Ant1	-45.71	-20	Pass
NVNT	2-DH5	2441	Ant1	-44.96	-20	Pass
NVNT	2-DH5	2480	Ant1	-44.19	-20	Pass
NVNT	3-DH5	2402	Ant1	-45.48	-20	Pass
NVNT	3-DH5	2441	Ant1	-45.82	-20	Pass
NVNT	3-DH5	2480	Ant1	-44.25	-20	Pass

Test Graphs

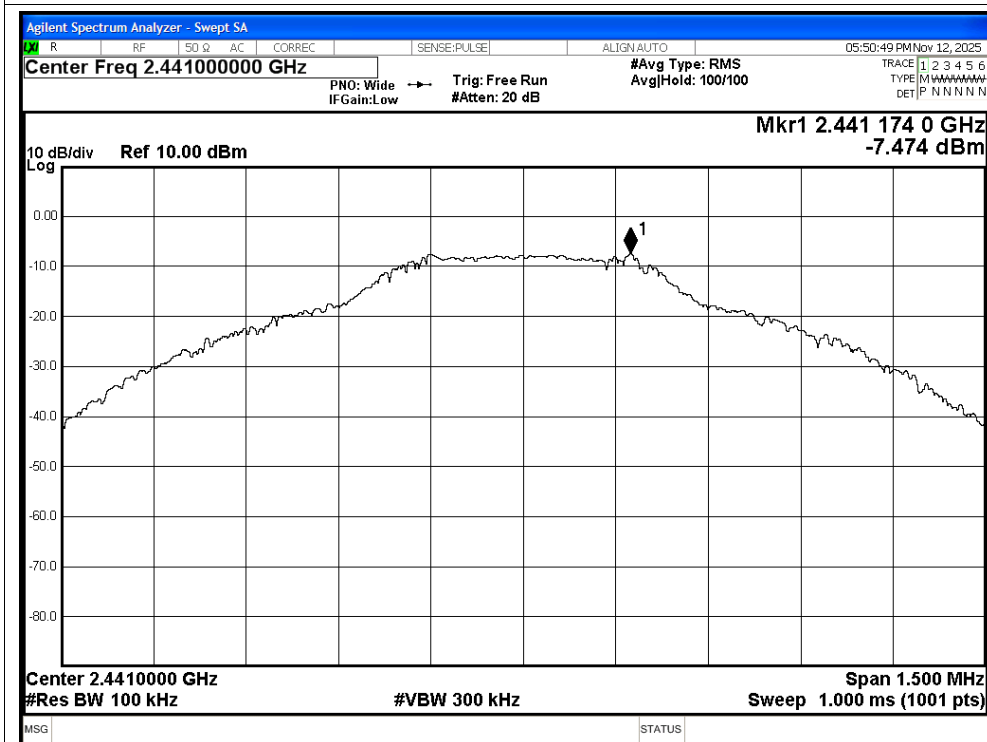
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



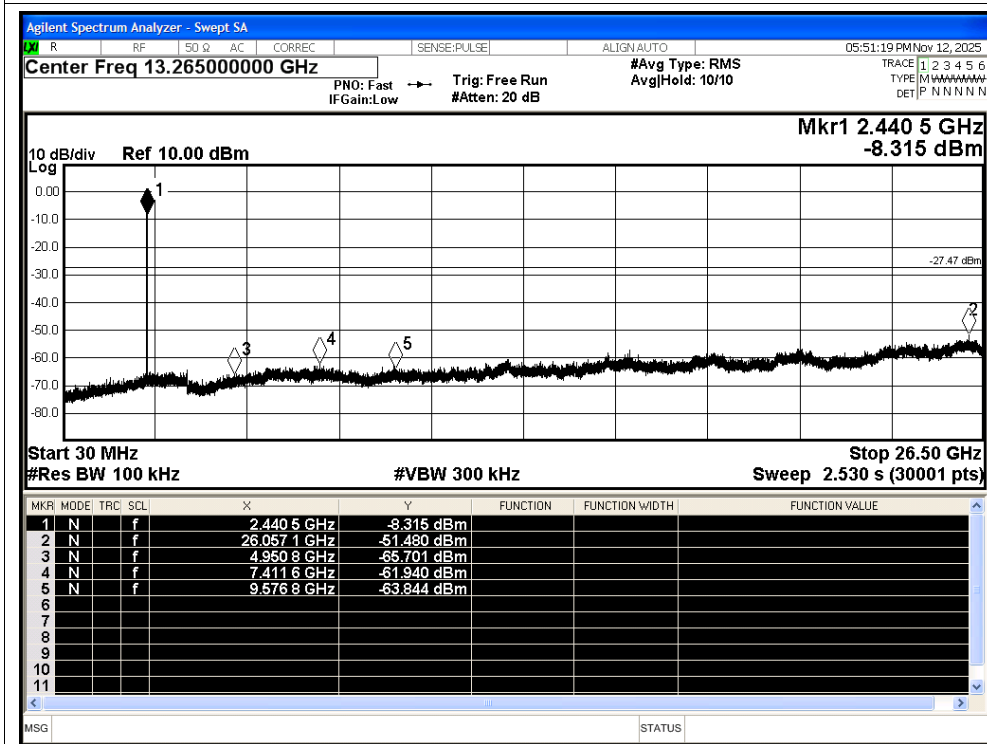
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



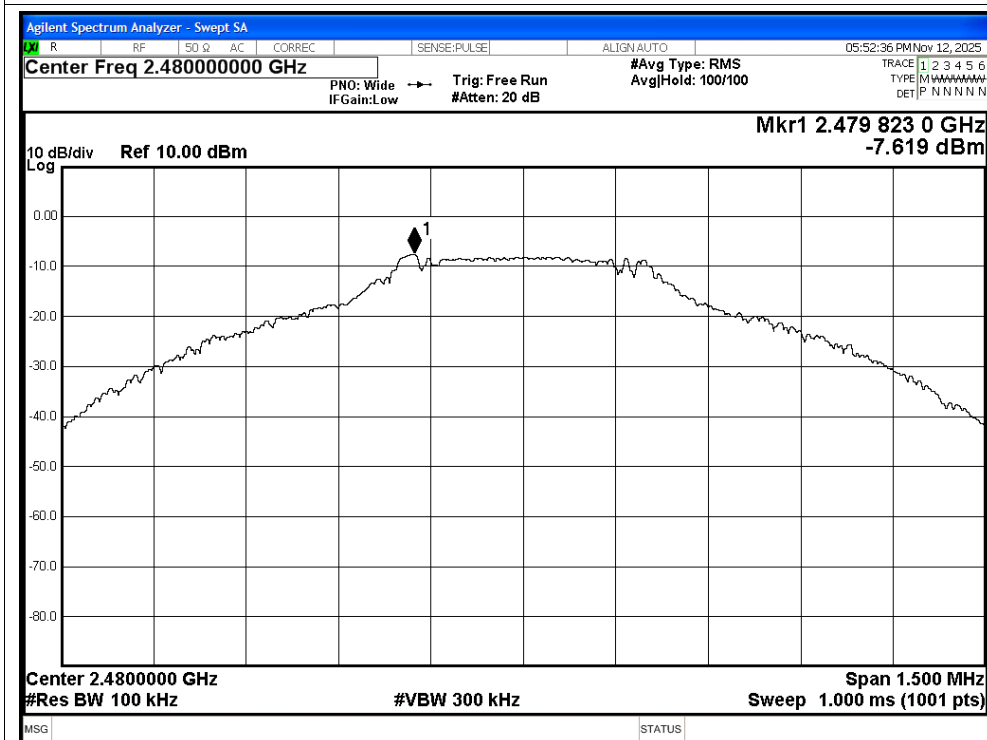
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



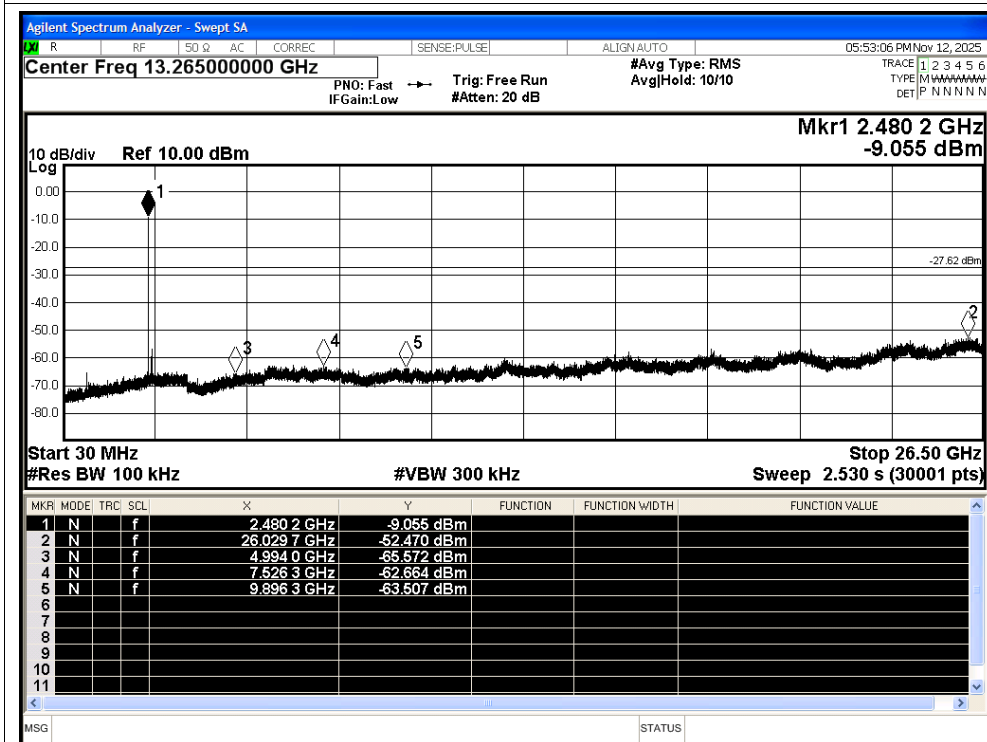
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



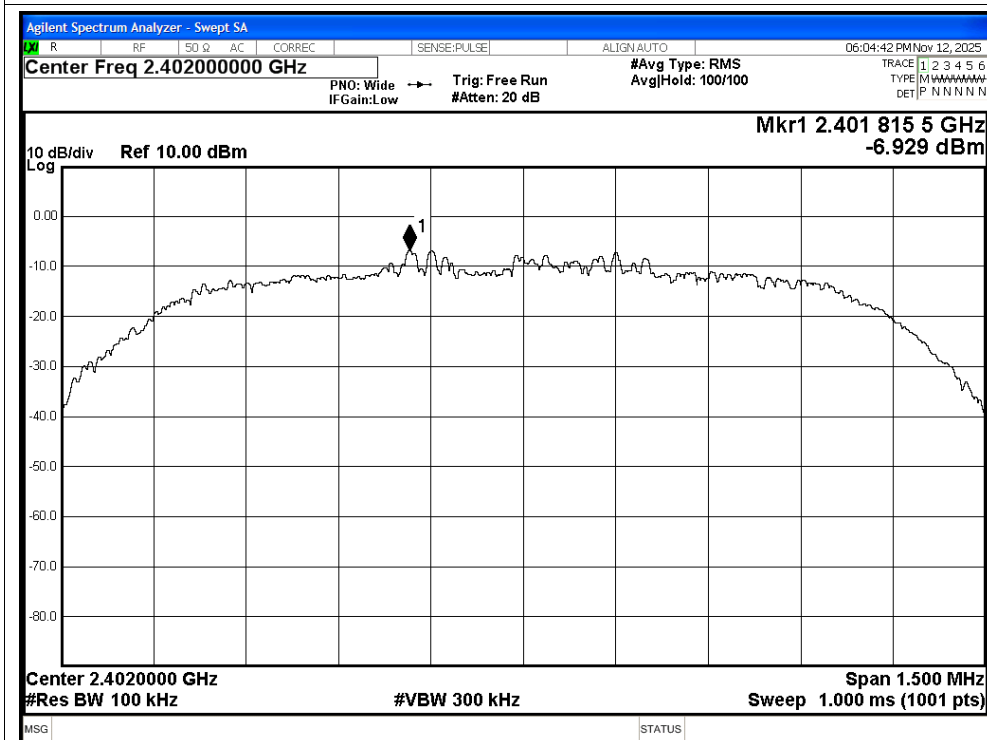
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



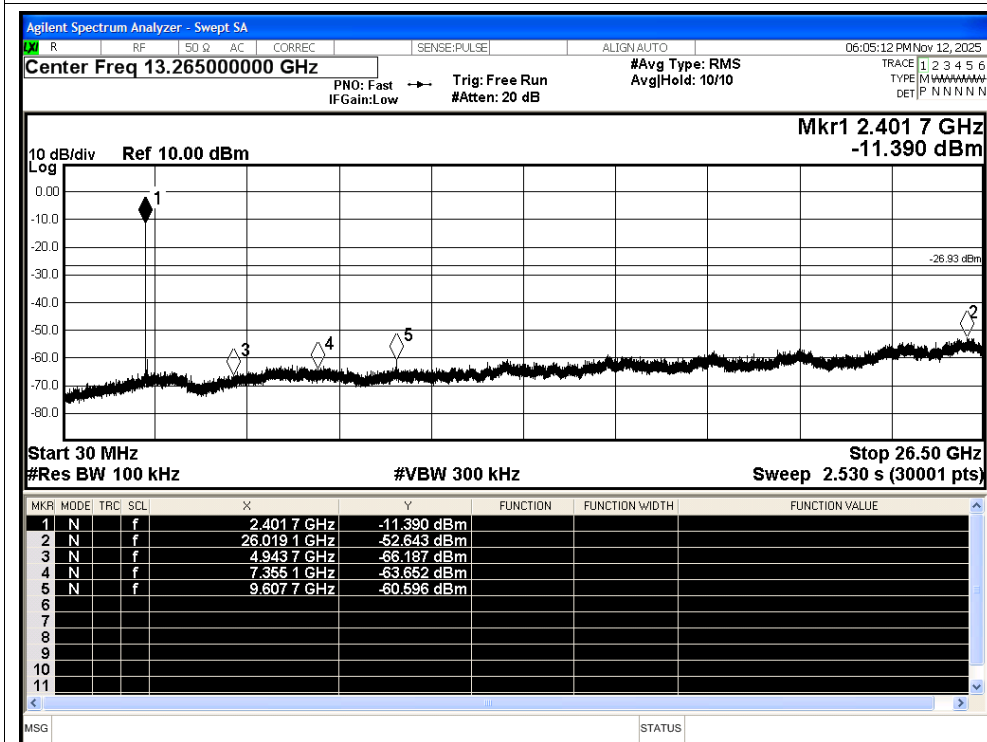
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



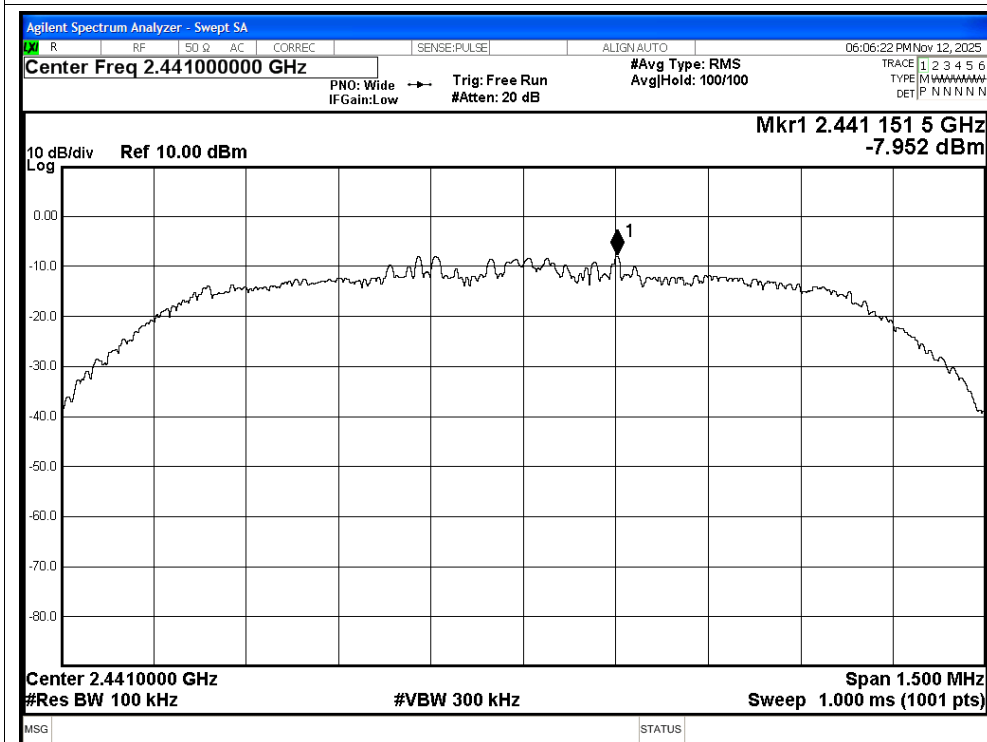
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



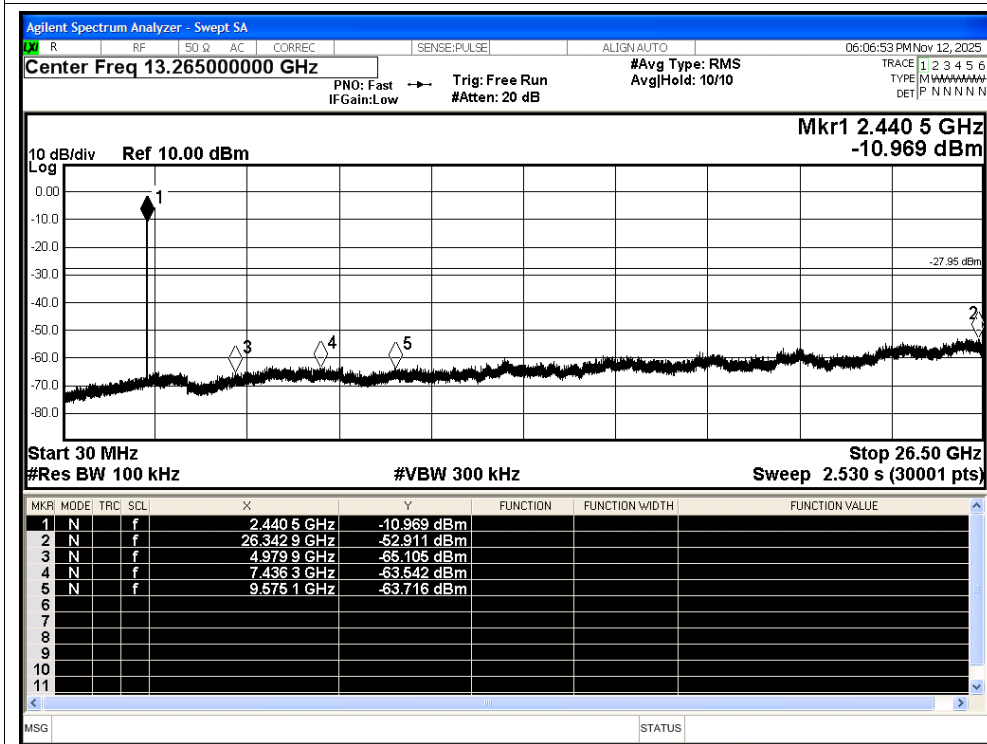
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



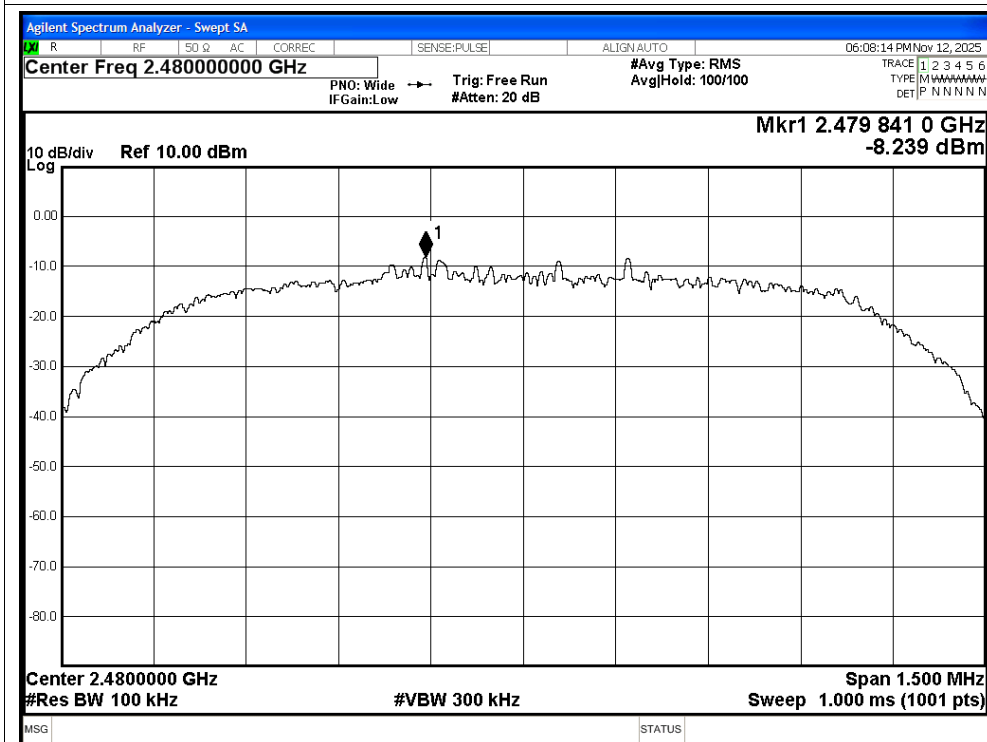
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



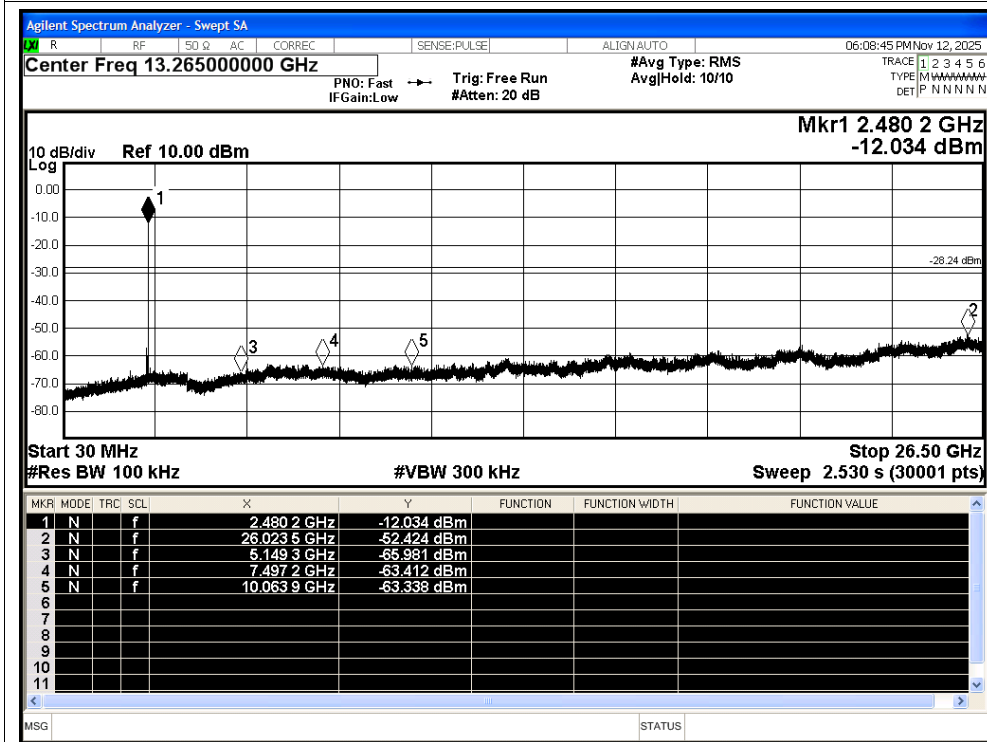
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



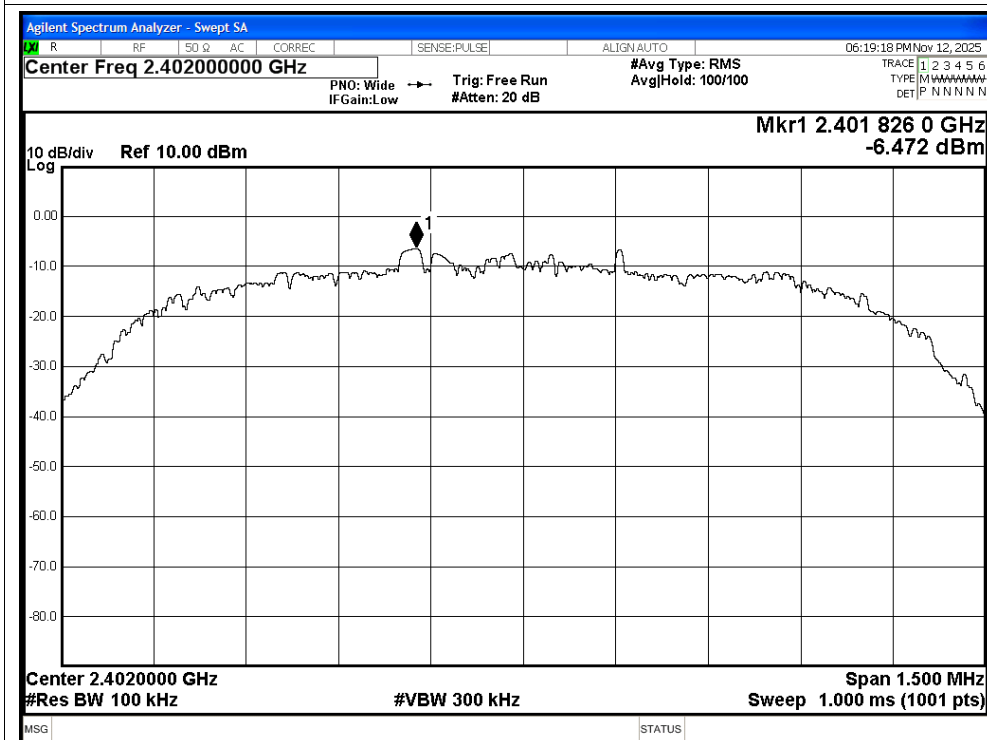
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



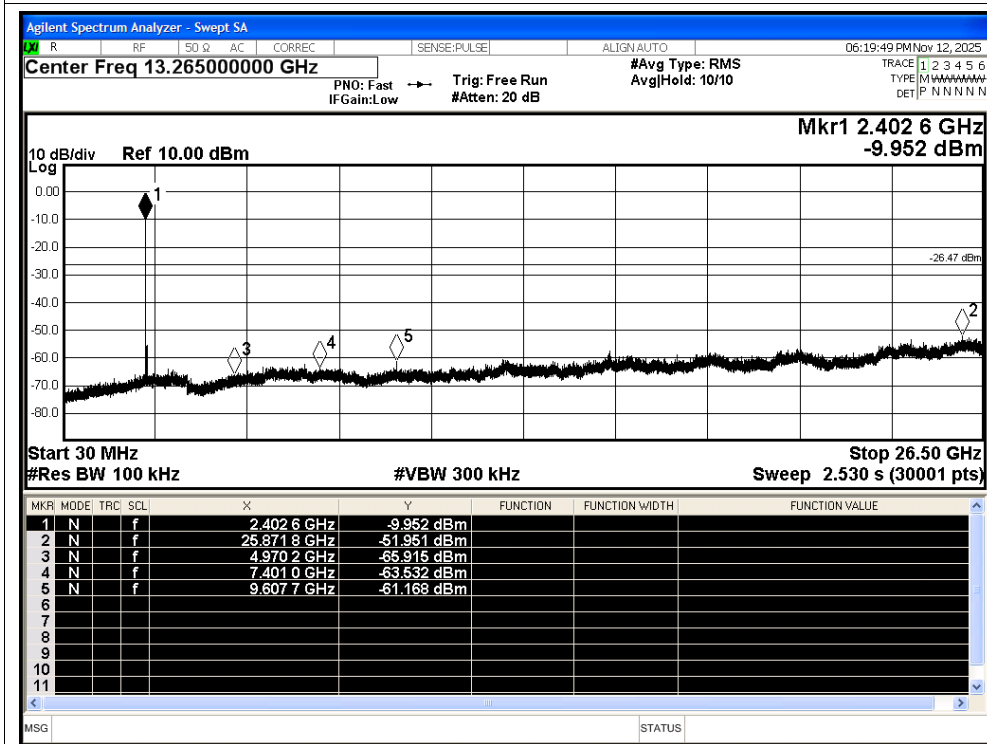
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



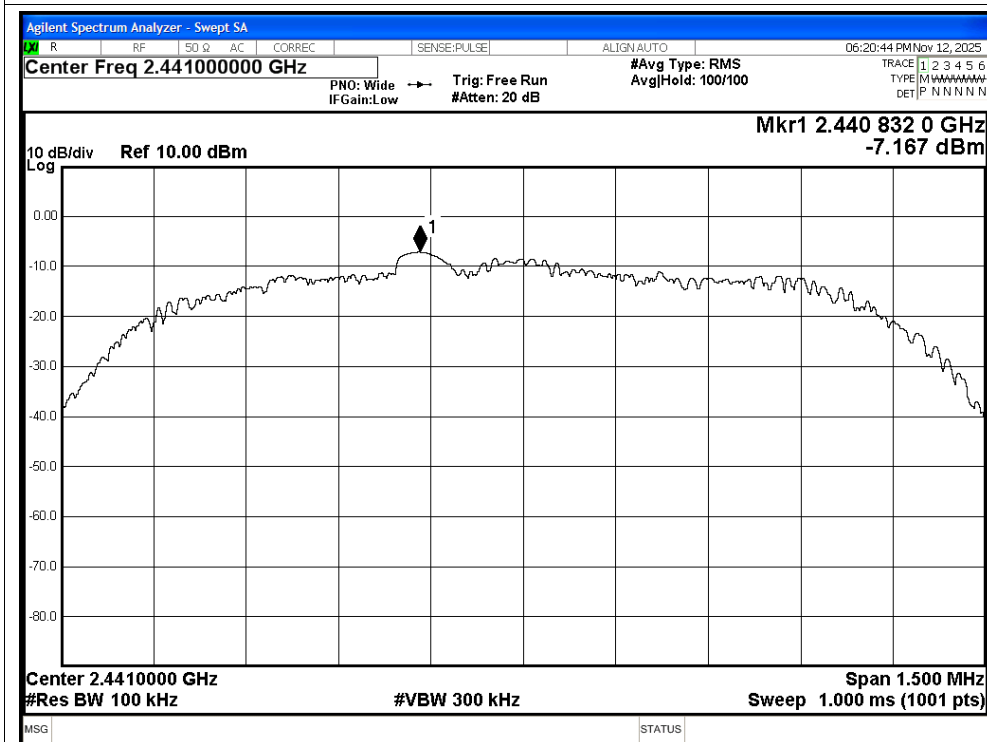
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



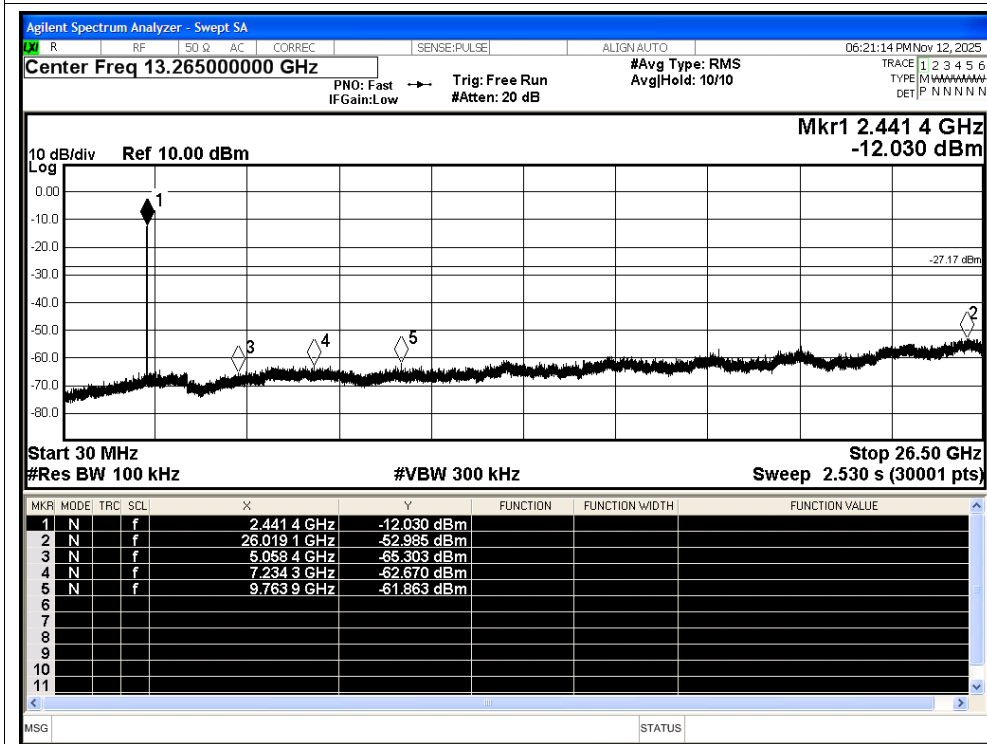
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



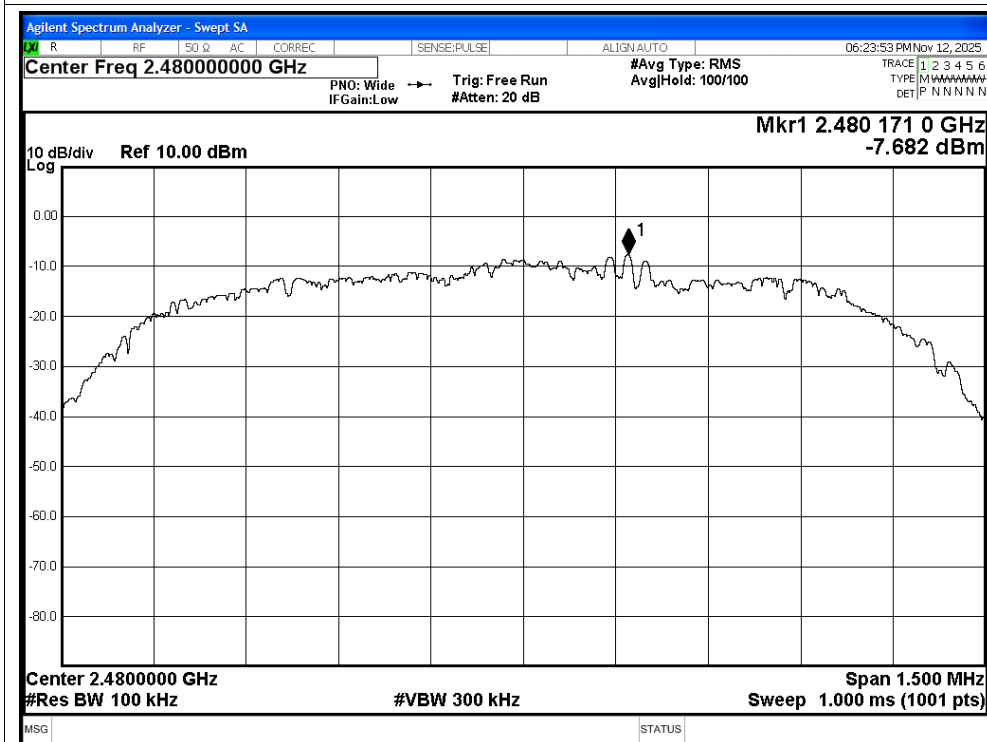
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



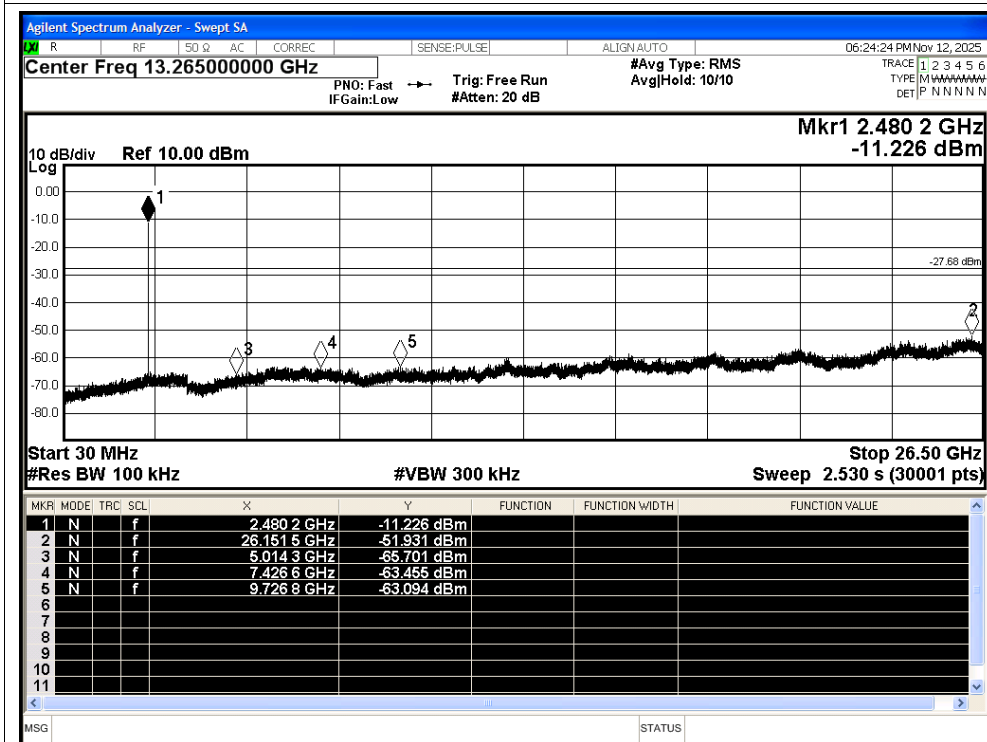
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

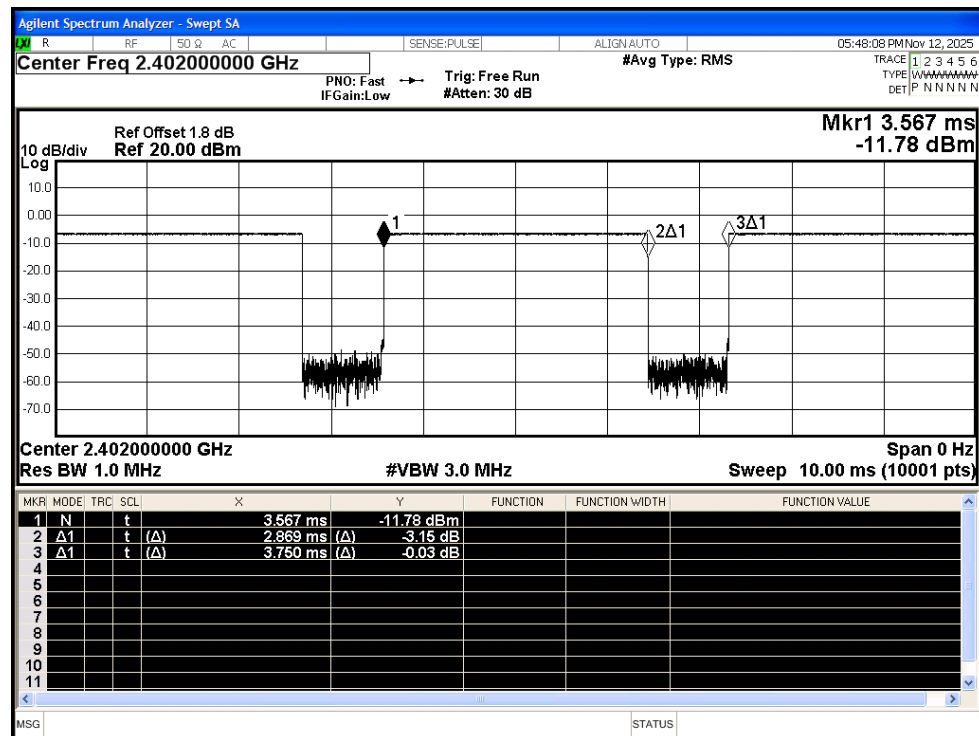


A.8 Duty Cycle

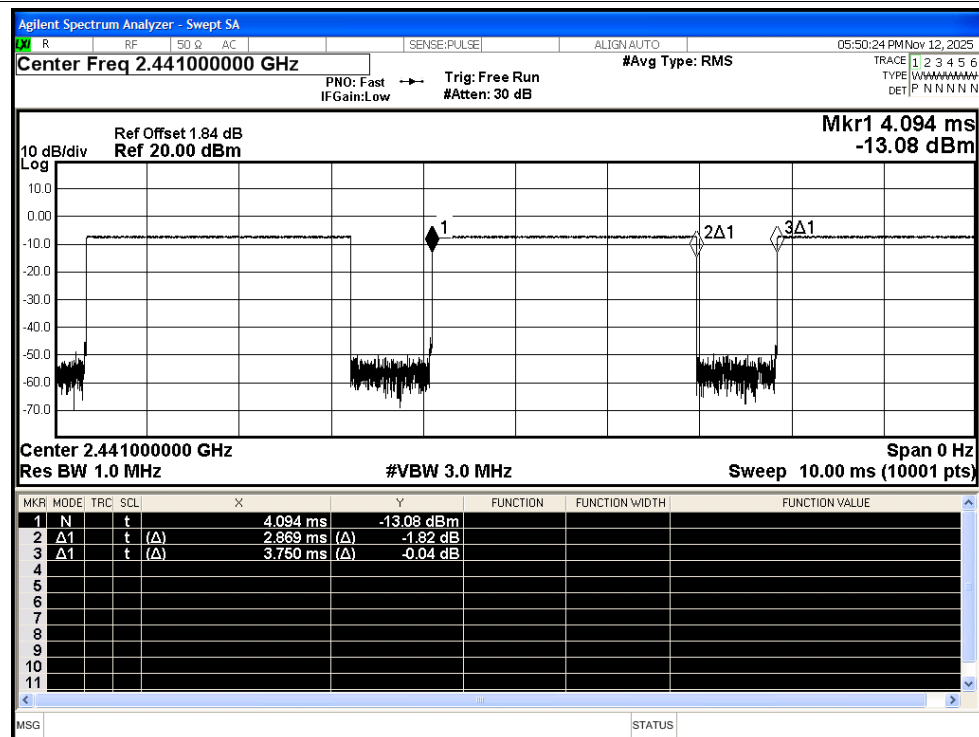
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	76.51	1.16	0.35
NVNT	1-DH5	2441	Ant1	76.51	1.16	0.35
NVNT	1-DH5	2480	Ant1	76.51	1.16	0.35
NVNT	2-DH5	2402	Ant1	76.85	1.14	0.35
NVNT	2-DH5	2441	Ant1	76.85	1.14	0.35
NVNT	2-DH5	2480	Ant1	76.85	1.14	0.35
NVNT	3-DH5	2402	Ant1	76.85	1.14	0.35
NVNT	3-DH5	2441	Ant1	76.85	1.14	0.35
NVNT	3-DH5	2480	Ant1	76.8	1.15	0.35

Test Graphs

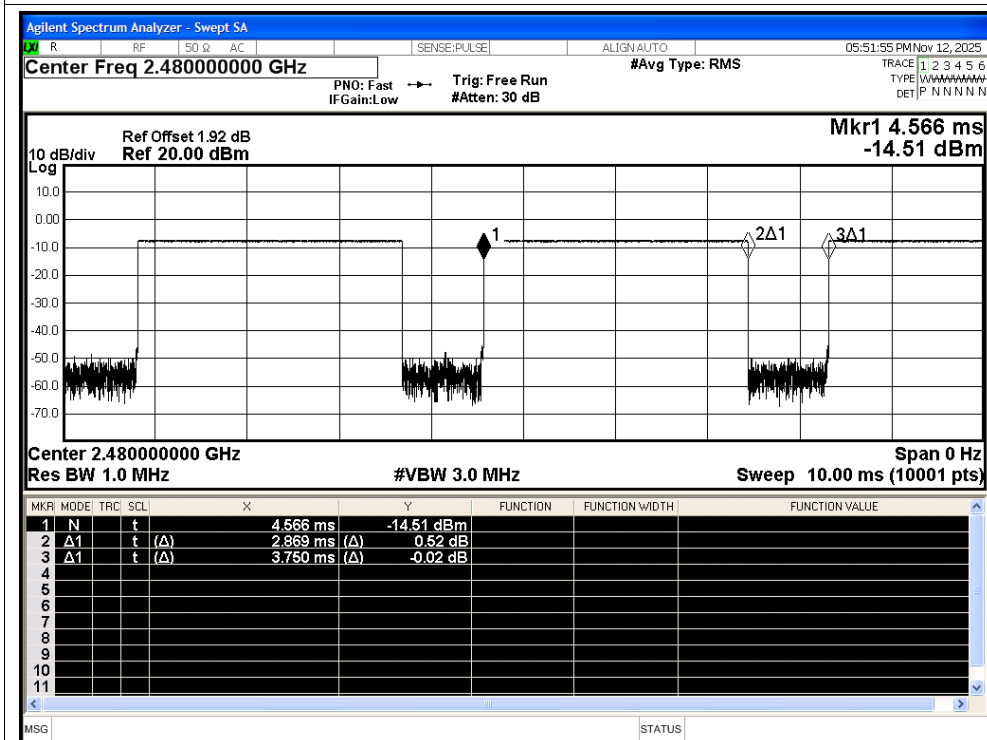
Duty Cycle NVNT 1-DH5 2402MHz Ant1



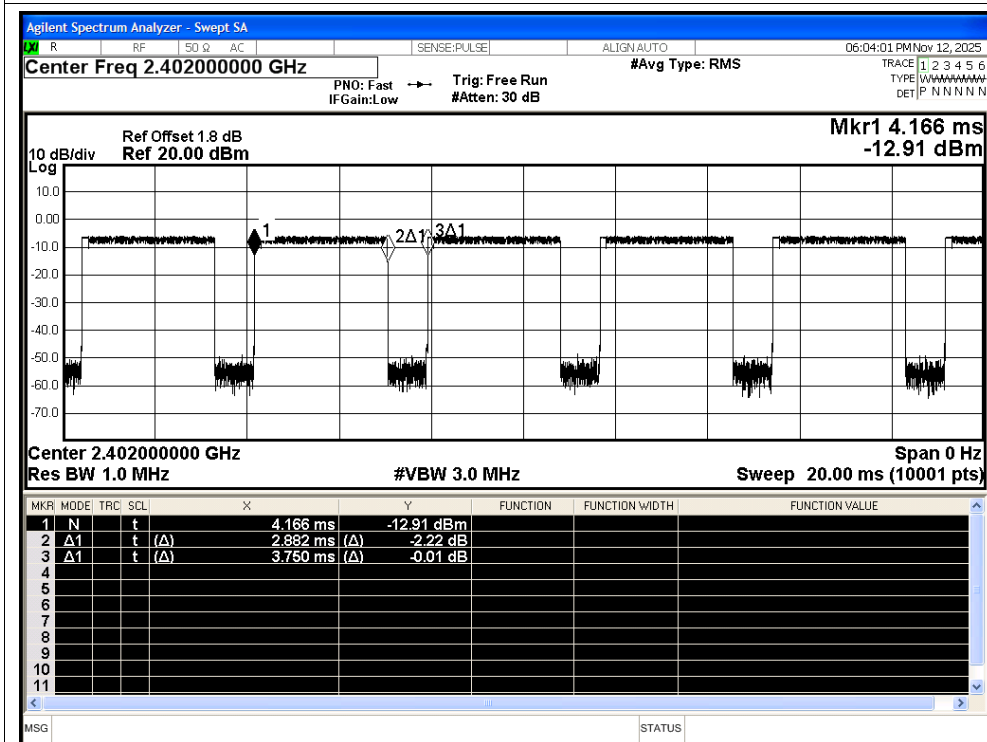
Duty Cycle NVNT 1-DH5 2441MHz Ant1



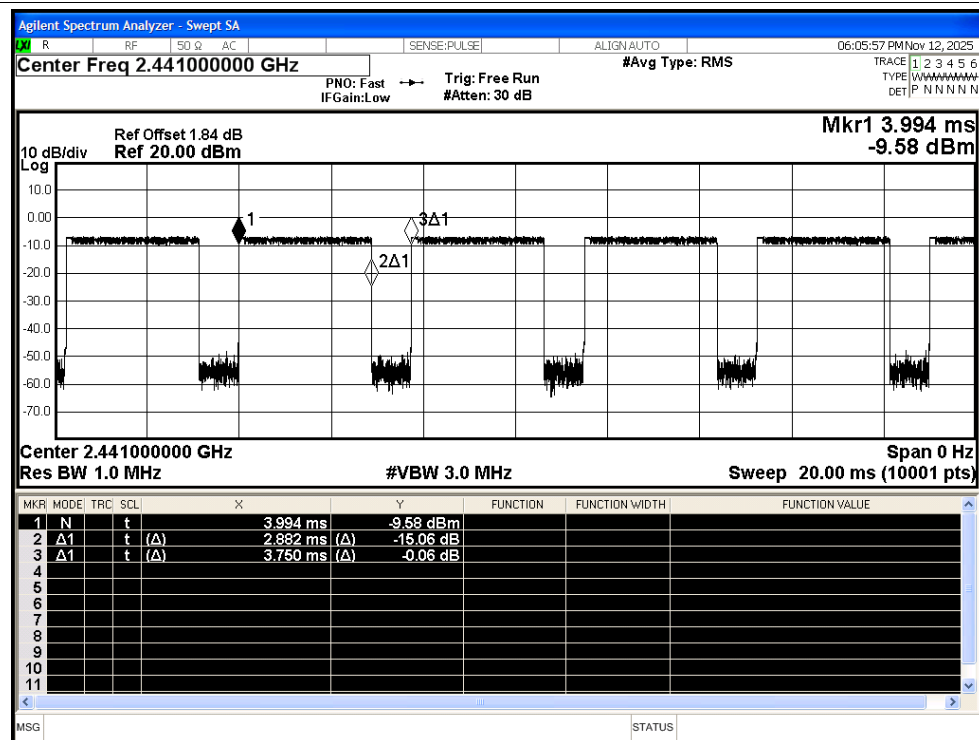
Duty Cycle NVNT 1-DH5 2480MHz Ant1



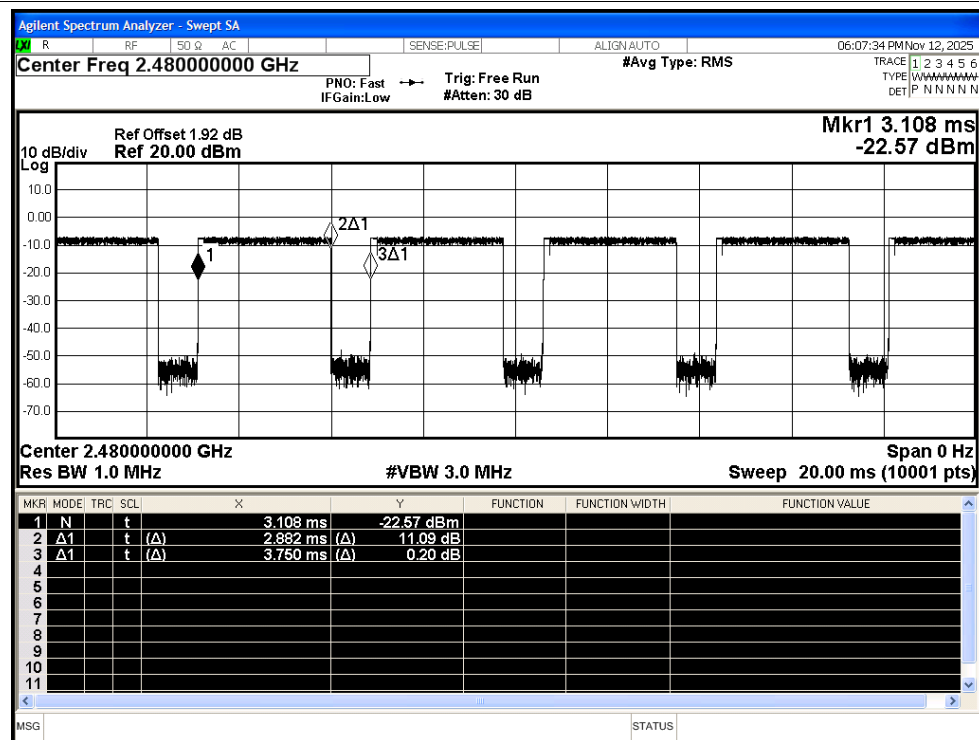
Duty Cycle NVNT 2-DH5 2402MHz Ant1



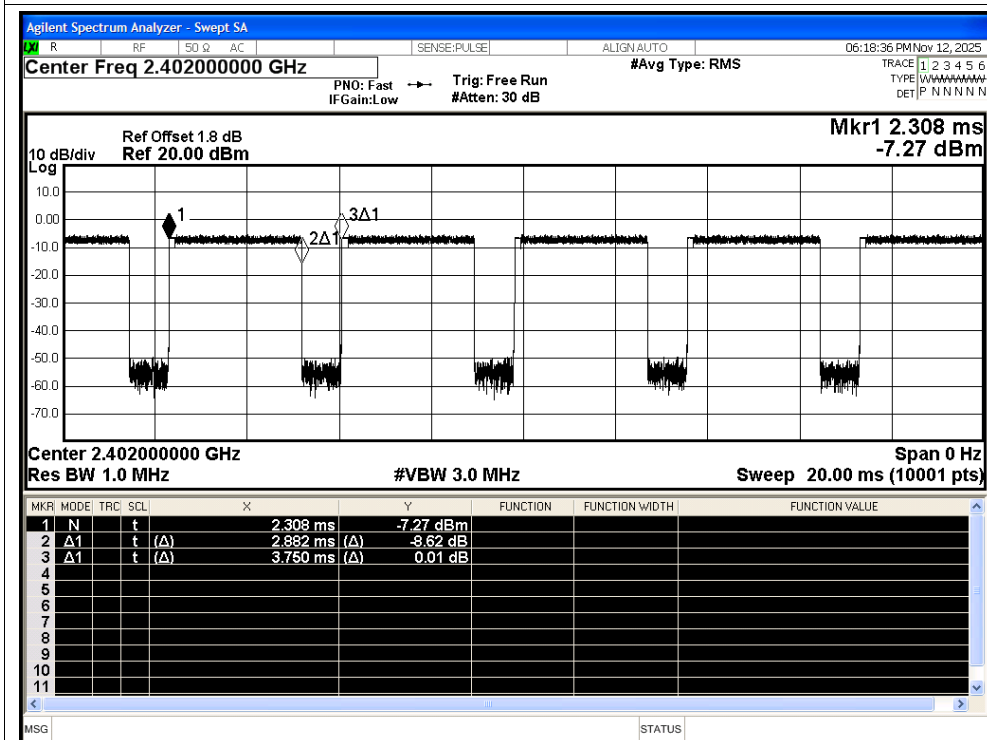
Duty Cycle NVNT 2-DH5 2441MHz Ant1



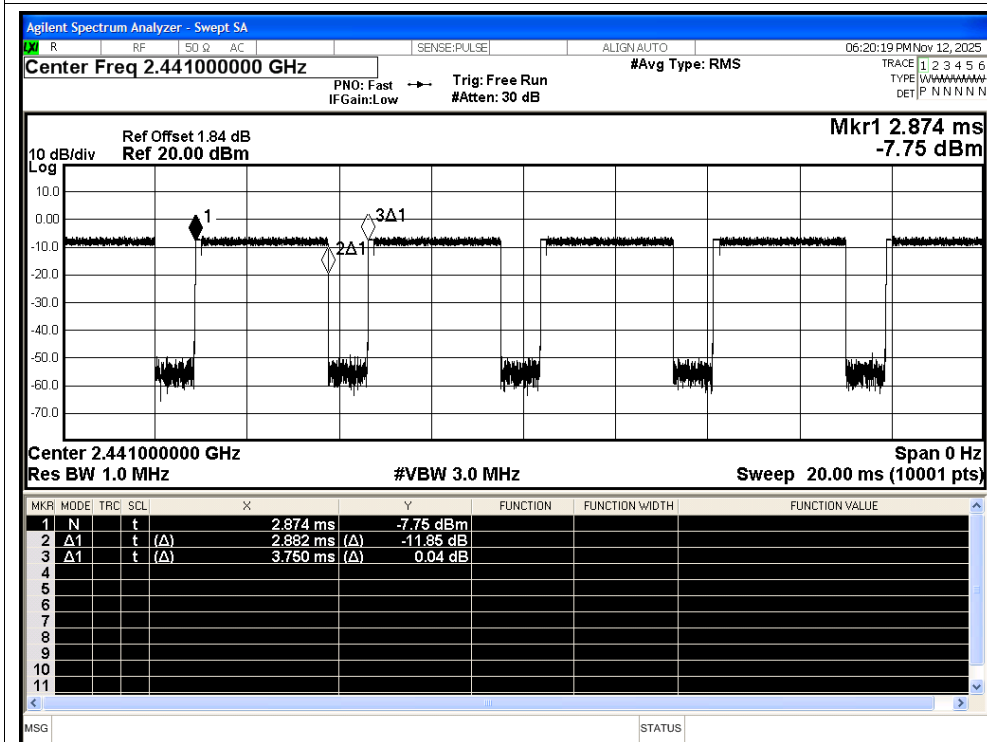
Duty Cycle NVNT 2-DH5 2480MHz Ant1

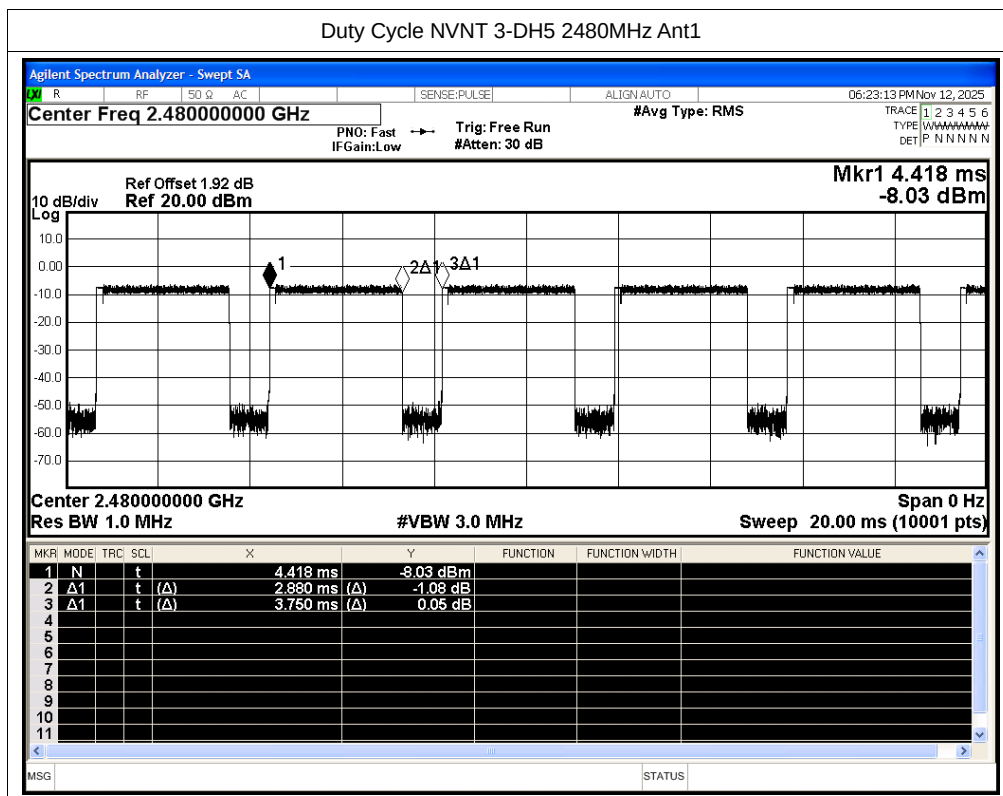


Duty Cycle NVNT 3-DH5 2402MHz Ant1



Duty Cycle NVNT 3-DH5 2441MHz Ant1



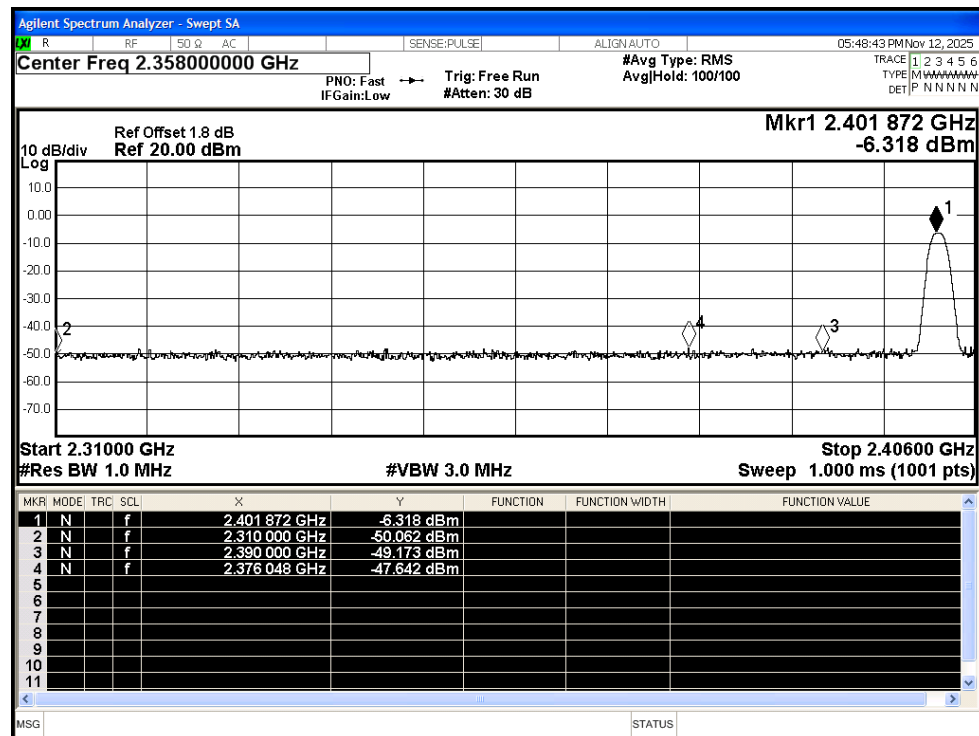


A.7 Restrict Band

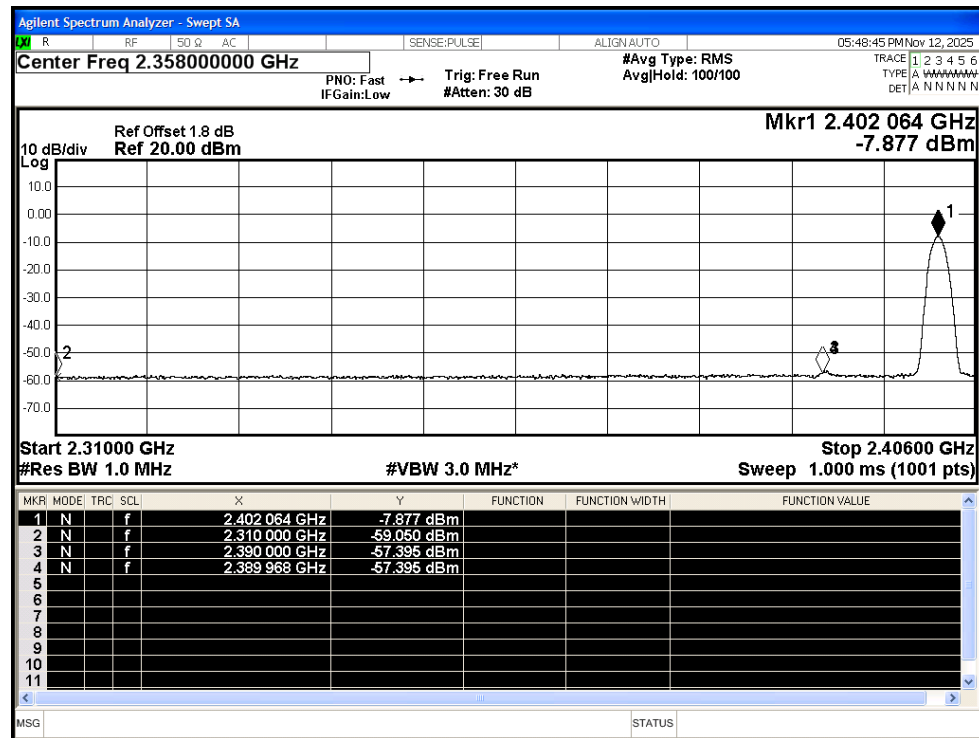
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBUV/m)	Detector	Limit (dBUV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-50.06	2	-	47.2	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-59.05	2	1.16	39.37	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2376.048	-47.64	2	-	49.62	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2389.968	-57.4	2	1.16	41.02	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-49.17	2	-	48.09	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-57.4	2	1.16	41.02	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-50.28	2	-	46.98	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-57.98	2	1.16	40.44	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2491.504	-46.3	2	-	50.96	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2491.816	-56.64	2	1.16	41.78	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-49.25	2	-	48.01	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-58.23	2	1.16	40.19	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-51.04	2	-	46.22	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-58.87	2	1.14	39.53	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2365.872	-47.75	2	-	49.51	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2389.968	-57.57	2	1.14	40.83	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-49.96	2	-	47.3	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-57.57	2	1.14	40.83	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-49.5	2	-	47.76	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-57.7	2	1.14	40.7	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2492.512	-46.38	2	-	50.88	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2491.36	-56.87	2	1.14	41.53	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-49.69	2	-	47.57	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-58.18	2	1.14	40.22	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-49.69	2	-	47.57	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-58.37	2	1.14	40.03	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2389.104	-47.48	2	-	49.78	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2382.864	-57.59	2	1.14	40.81	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-50.07	2	-	47.19	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-58.01	2	1.14	40.39	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-51.07	2	-	46.19	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-58.11	2	1.15	40.3	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2484.832	-46.96	2	-	50.3	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2491.552	-56.82	2	1.15	41.59	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-50.45	2	-	46.81	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-58.11	2	1.15	40.3	Average	54	Pass

Test Graphs

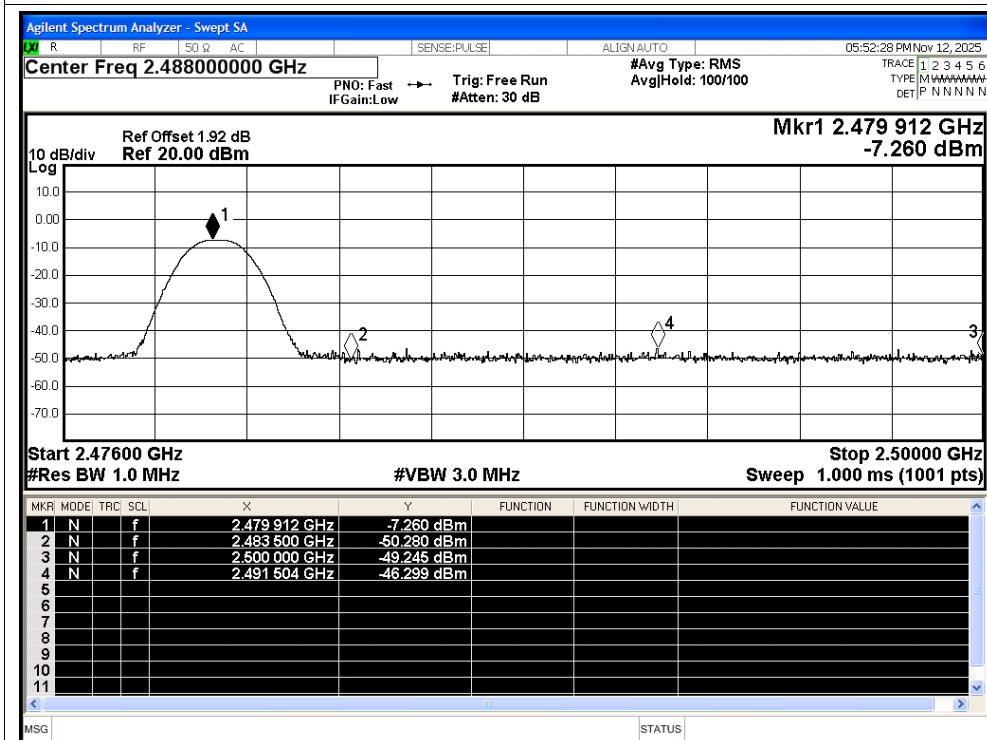
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



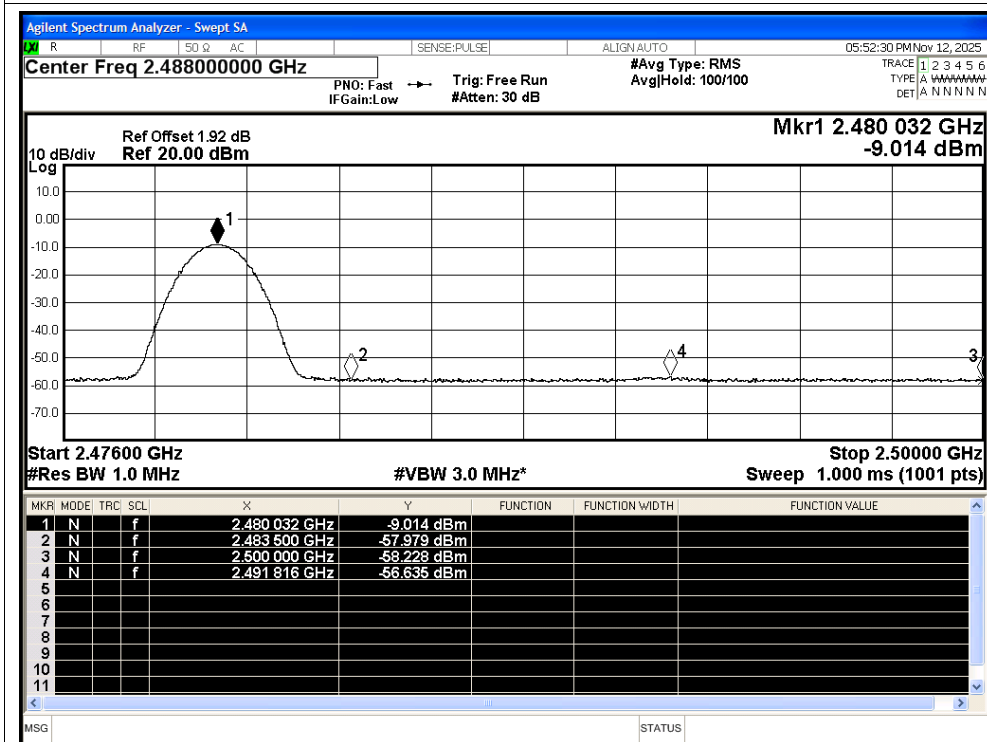
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



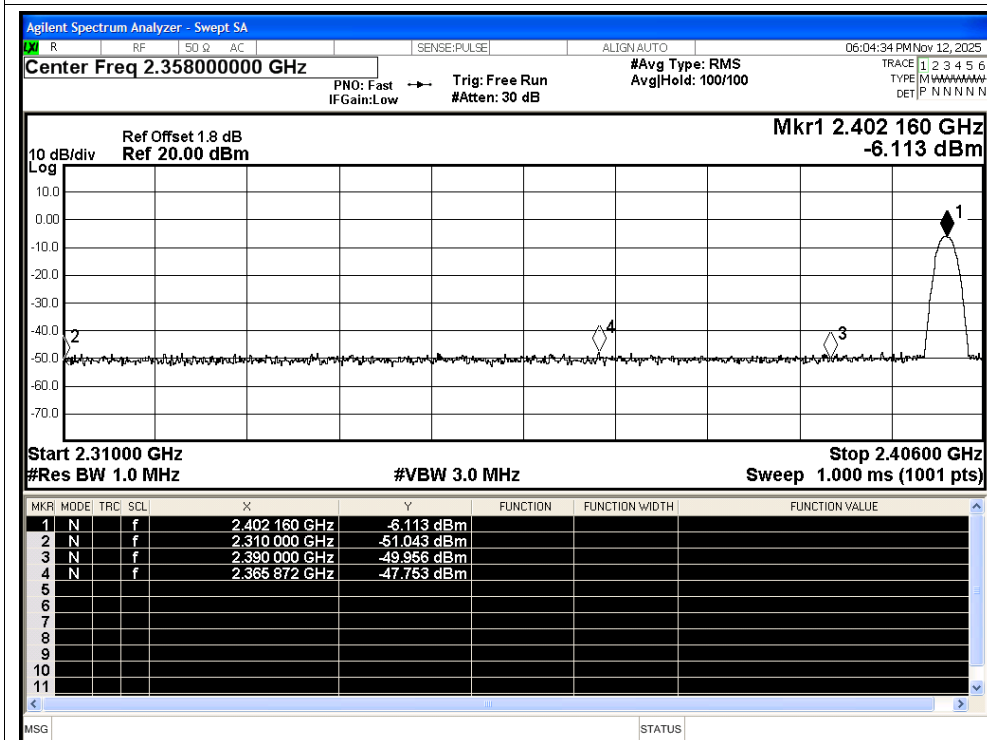
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



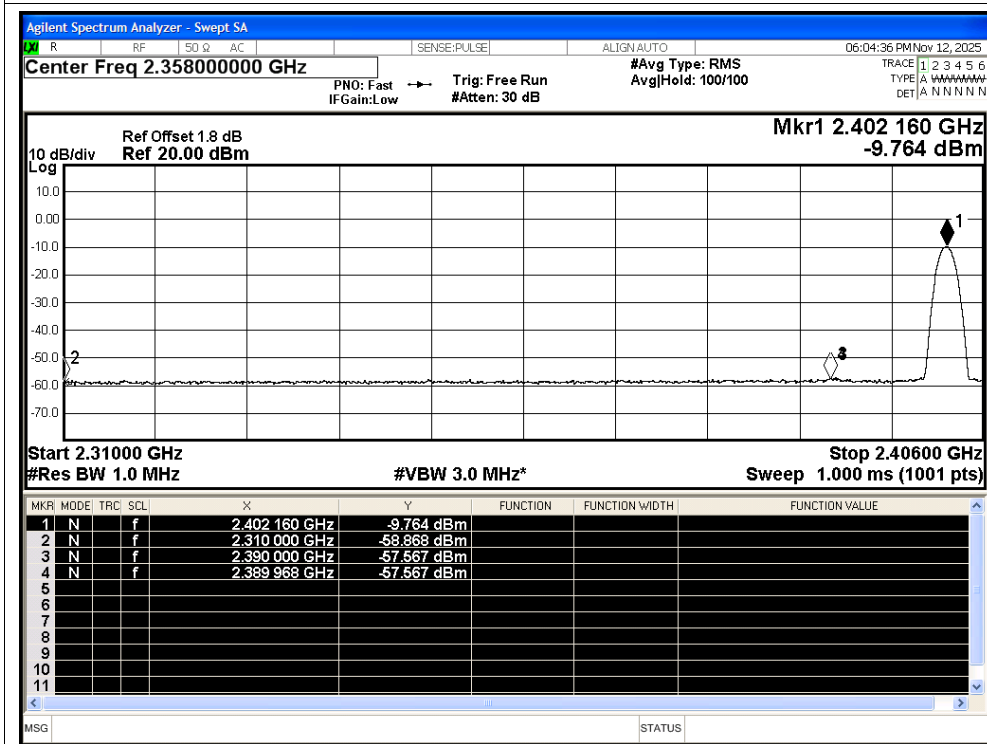
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



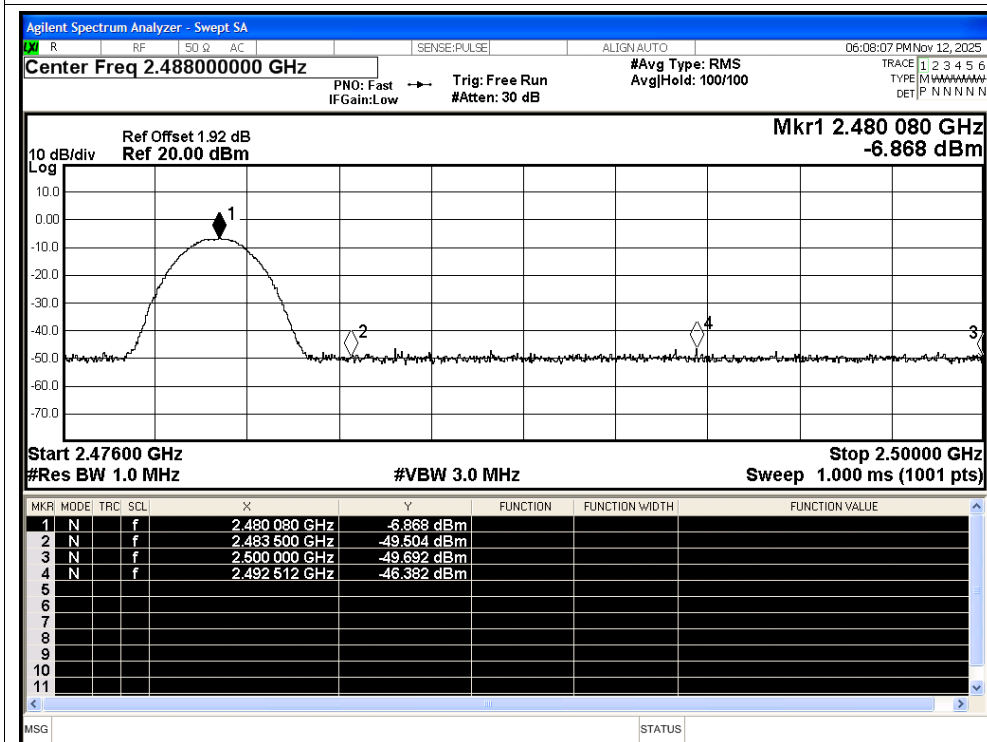
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak



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

