



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Gutsi

Test Model: Gen 1

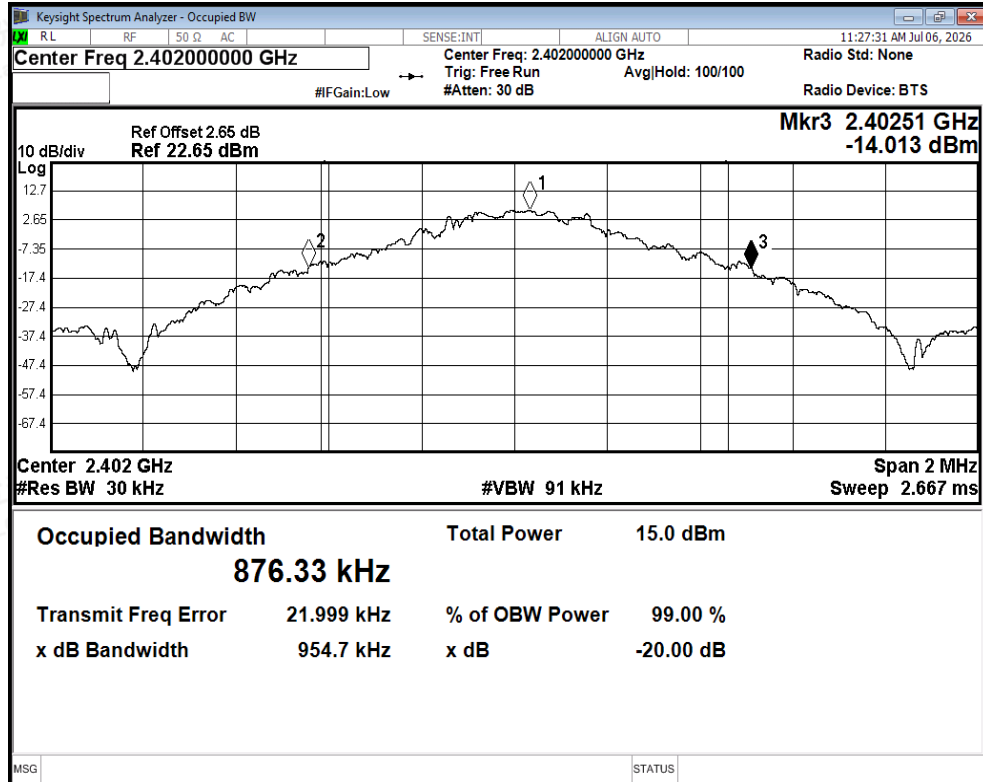
Environmental Conditions

Temperature:	23.4°C
Relative Humidity:	54.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Jerry Chu
Supervised by:	Can Kun

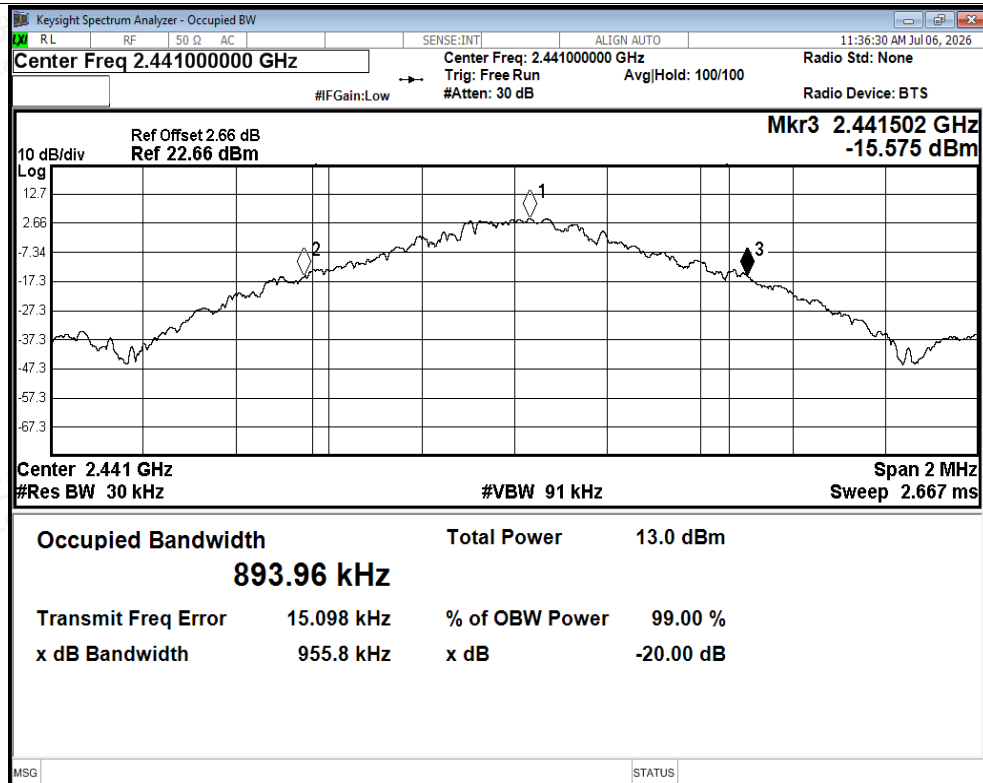


A.1 -20dB Bandwidth

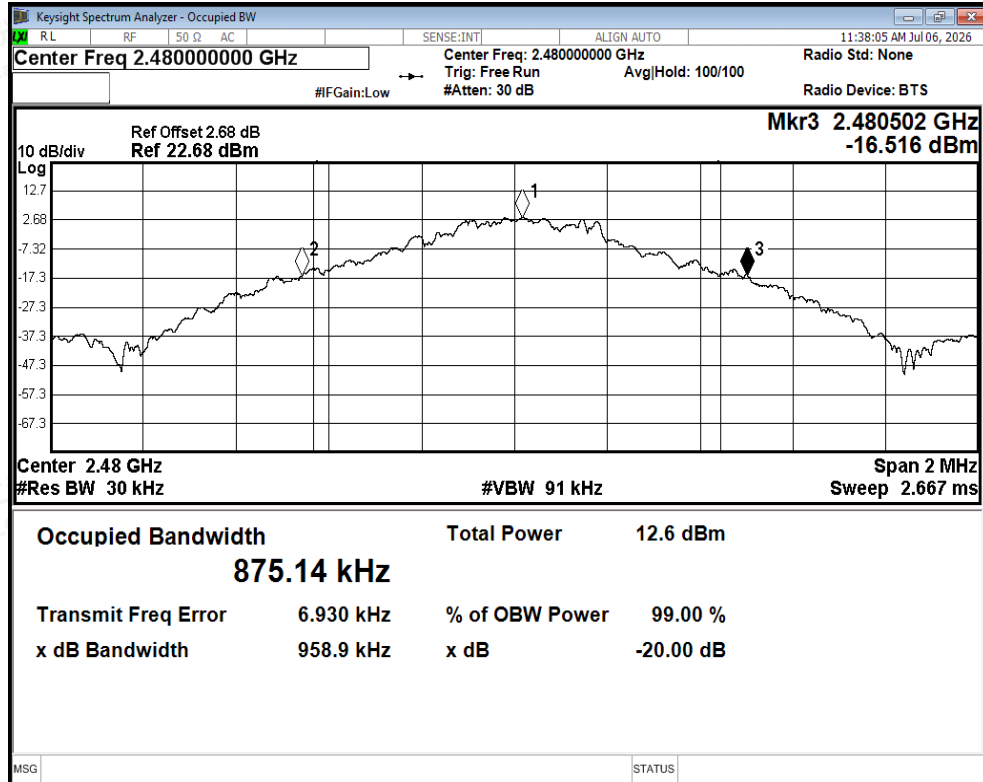
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.9547	0	Pass
NVNT	1-DH5	2441	Ant1	0.9558	0	Pass
NVNT	1-DH5	2480	Ant1	0.9589	0	Pass
NVNT	2-DH5	2402	Ant1	1.325	0	Pass
NVNT	2-DH5	2441	Ant1	1.336	0	Pass
NVNT	2-DH5	2480	Ant1	1.331	0	Pass
NVNT	3-DH5	2402	Ant1	1.338	0	Pass
NVNT	3-DH5	2441	Ant1	1.304	0	Pass
NVNT	3-DH5	2480	Ant1	1.294	0	Pass



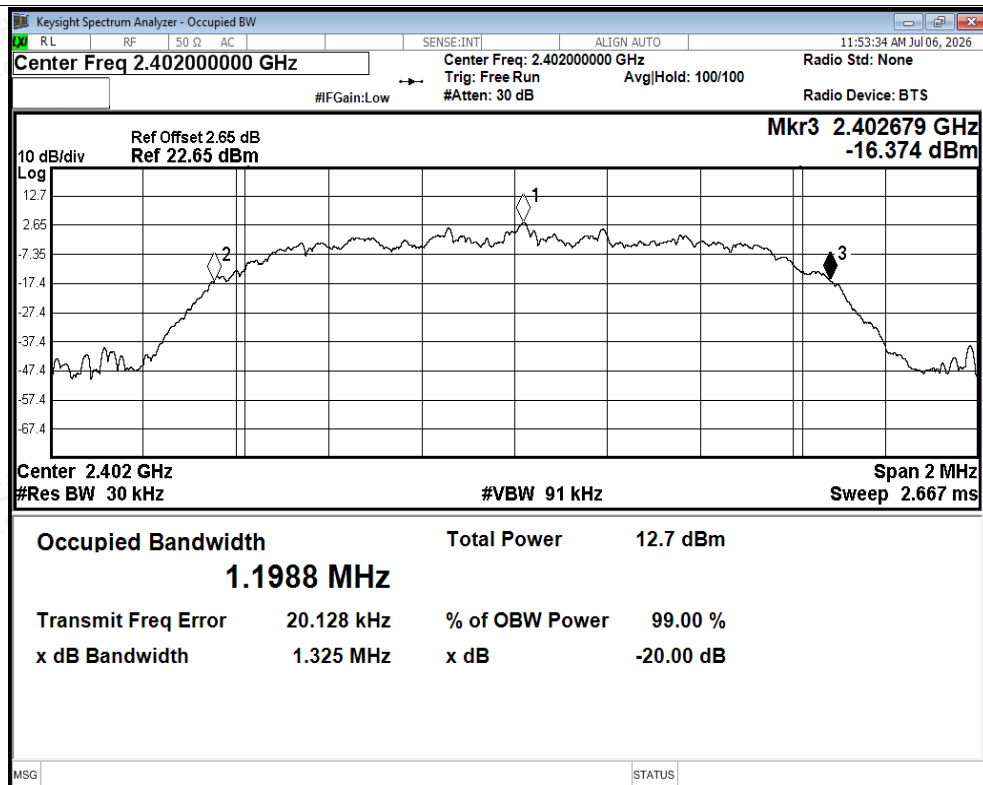
-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



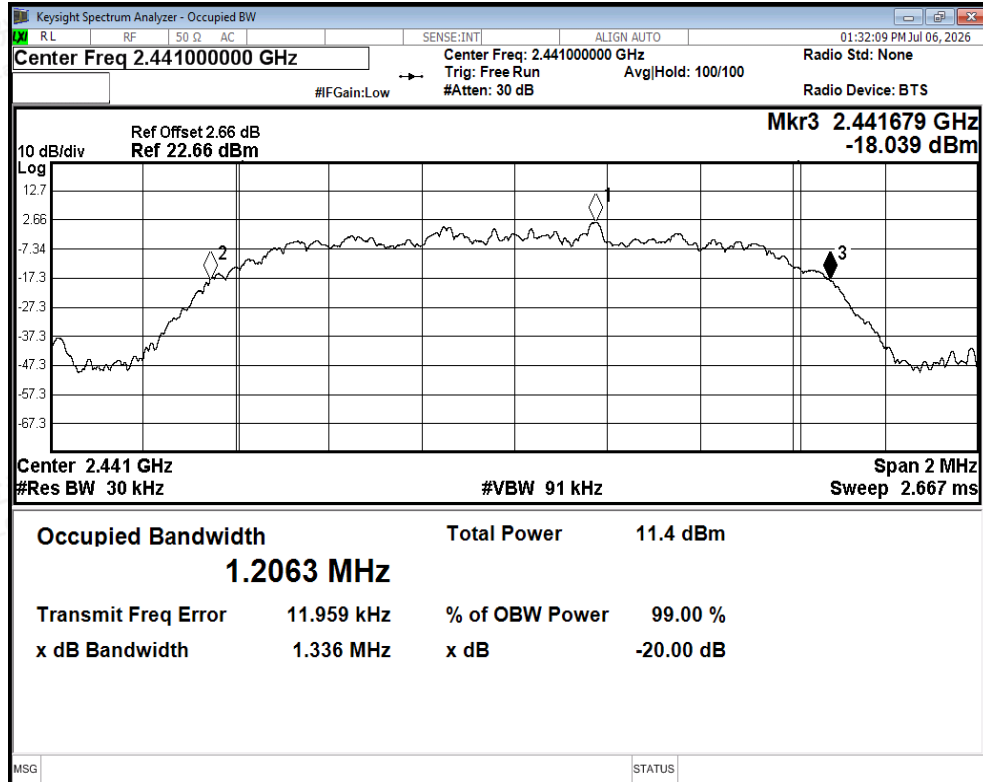
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



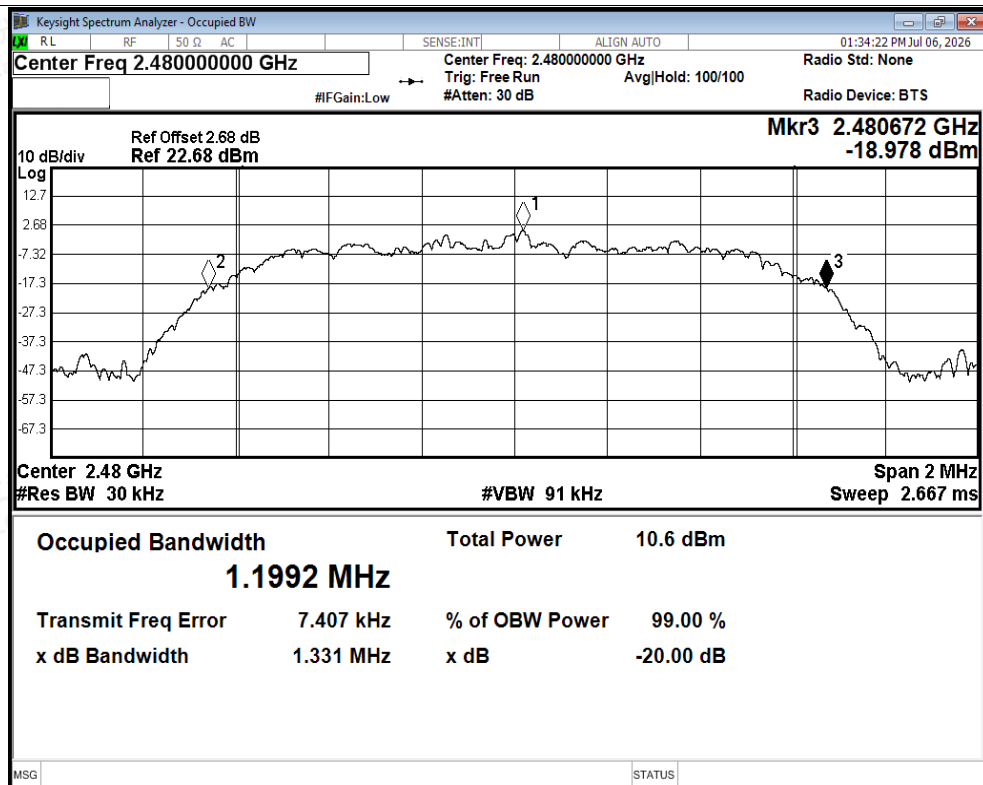
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



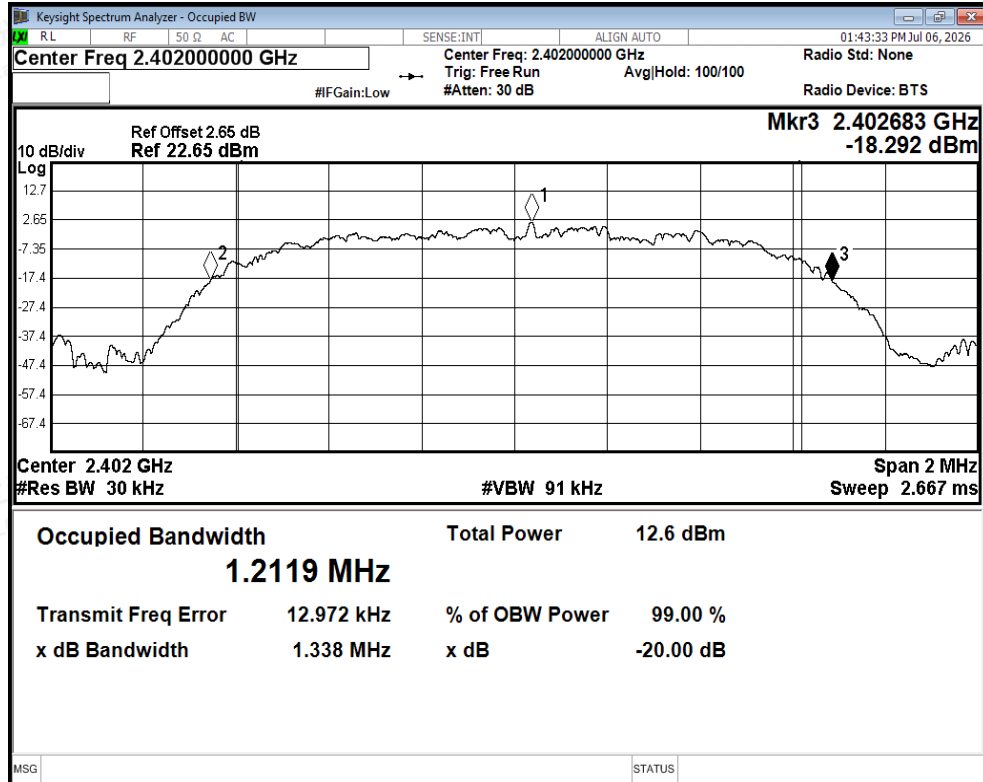
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



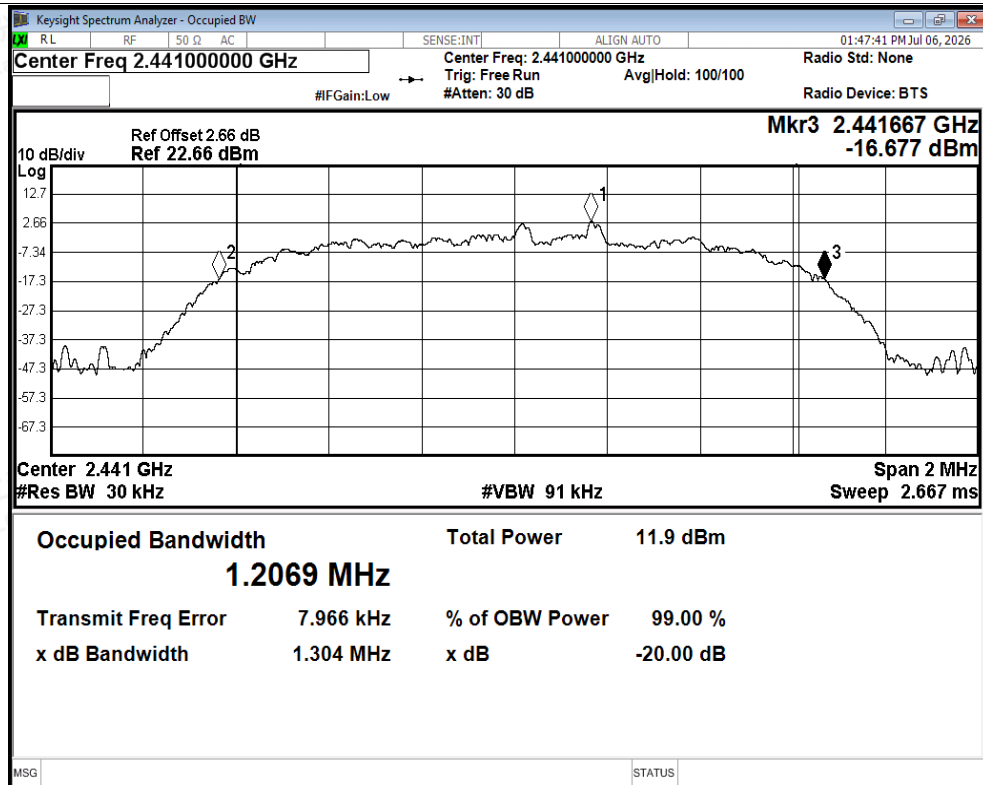
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



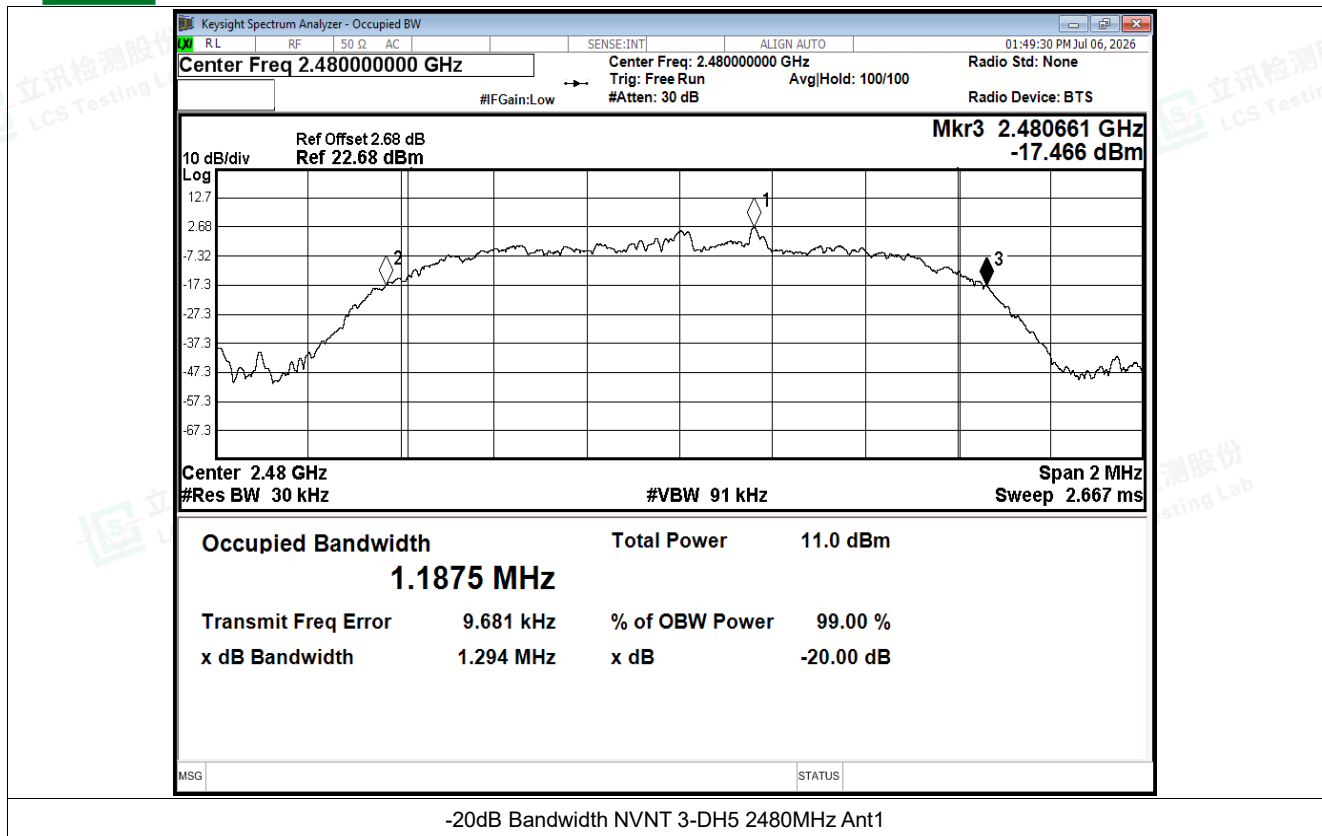
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



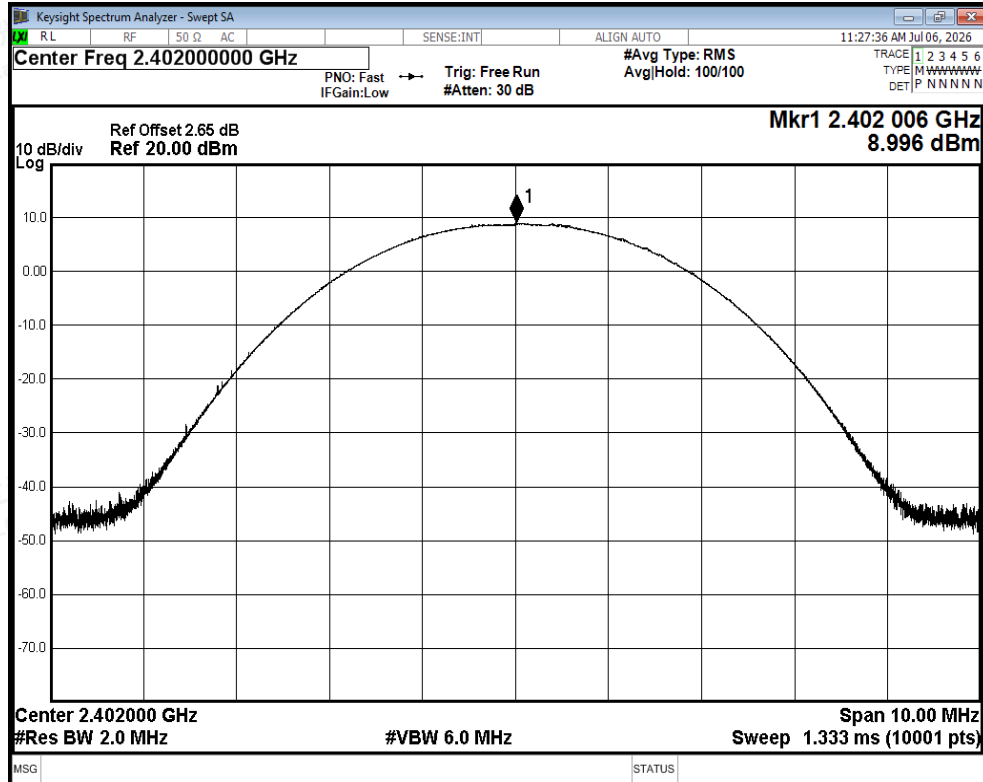
-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



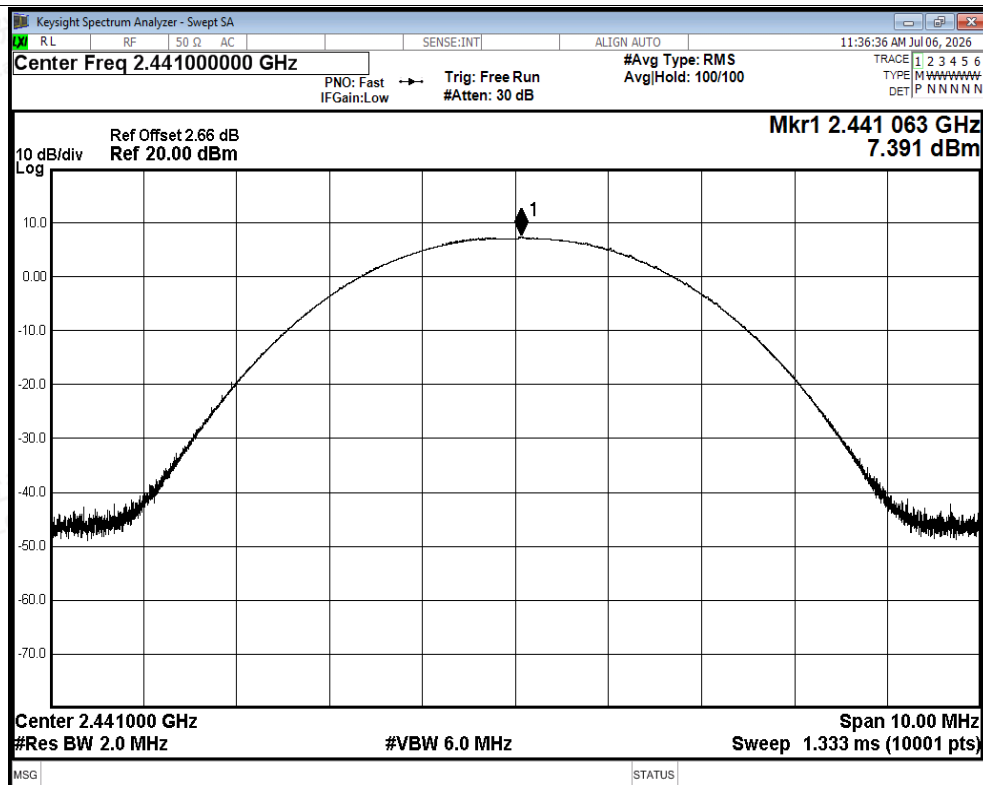


A.2 Maximum Peak Conducted Output Power

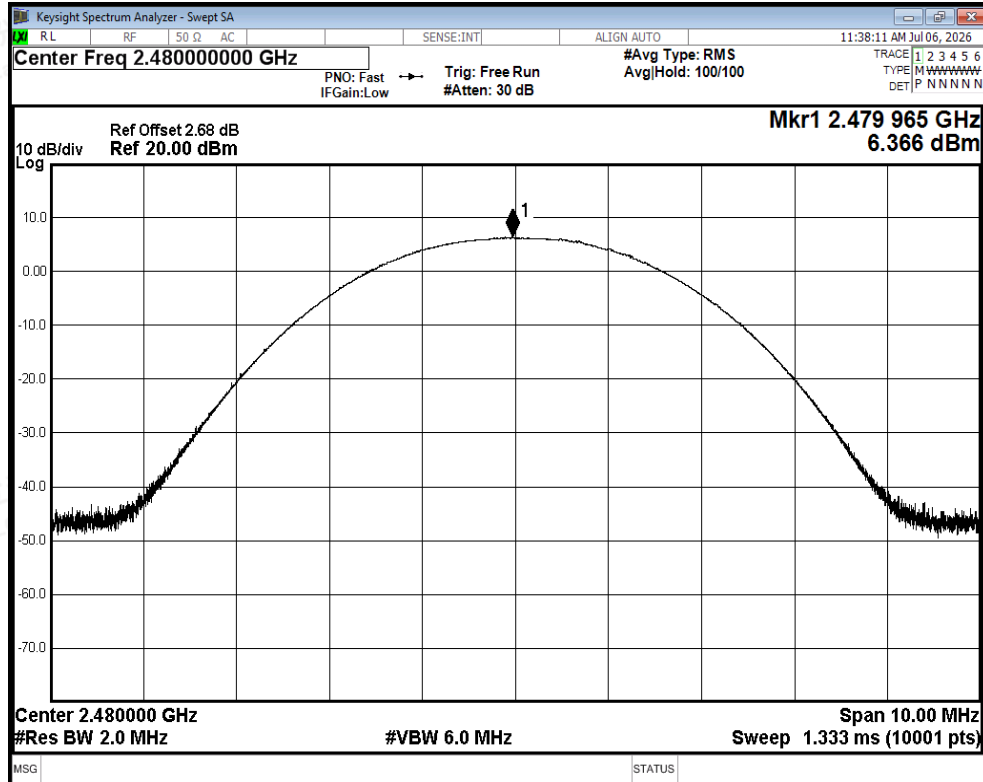
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit Conducted(dBm)	Verdict
NVNT	1-DH5	2402	Ant1	9.00	30	Pass
NVNT	1-DH5	2441	Ant1	7.39	30	Pass
NVNT	1-DH5	2480	Ant1	6.37	30	Pass
NVNT	2-DH5	2402	Ant1	8.22	30	Pass
NVNT	2-DH5	2441	Ant1	7.07	30	Pass
NVNT	2-DH5	2480	Ant1	6.20	30	Pass
NVNT	3-DH5	2402	Ant1	8.81	30	Pass
NVNT	3-DH5	2441	Ant1	7.64	30	Pass
NVNT	3-DH5	2480	Ant1	6.66	30	Pass



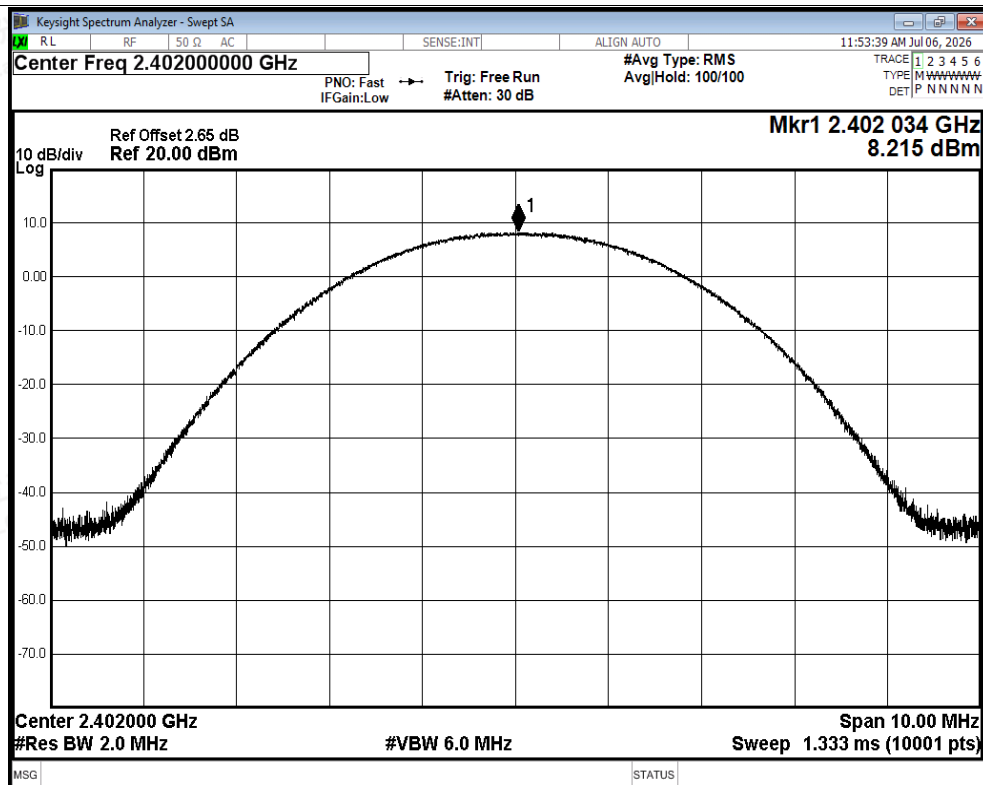
Peak Power NVNT 1-DH5 2402MHz Ant1



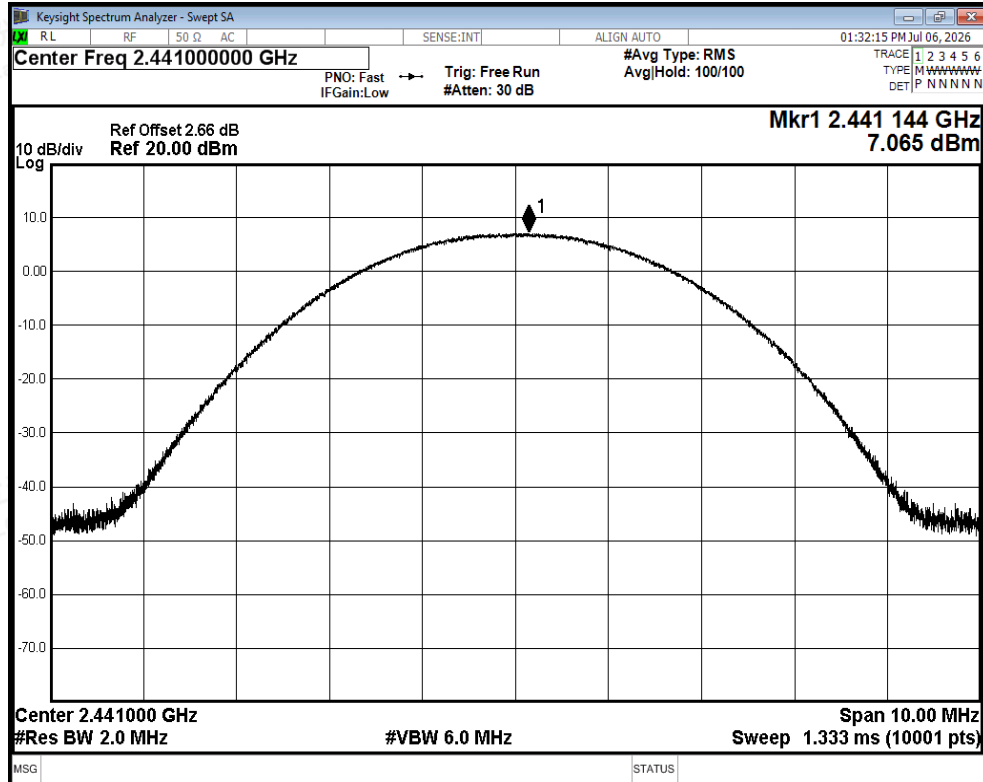
Peak Power NVNT 1-DH5 2441MHz Ant1



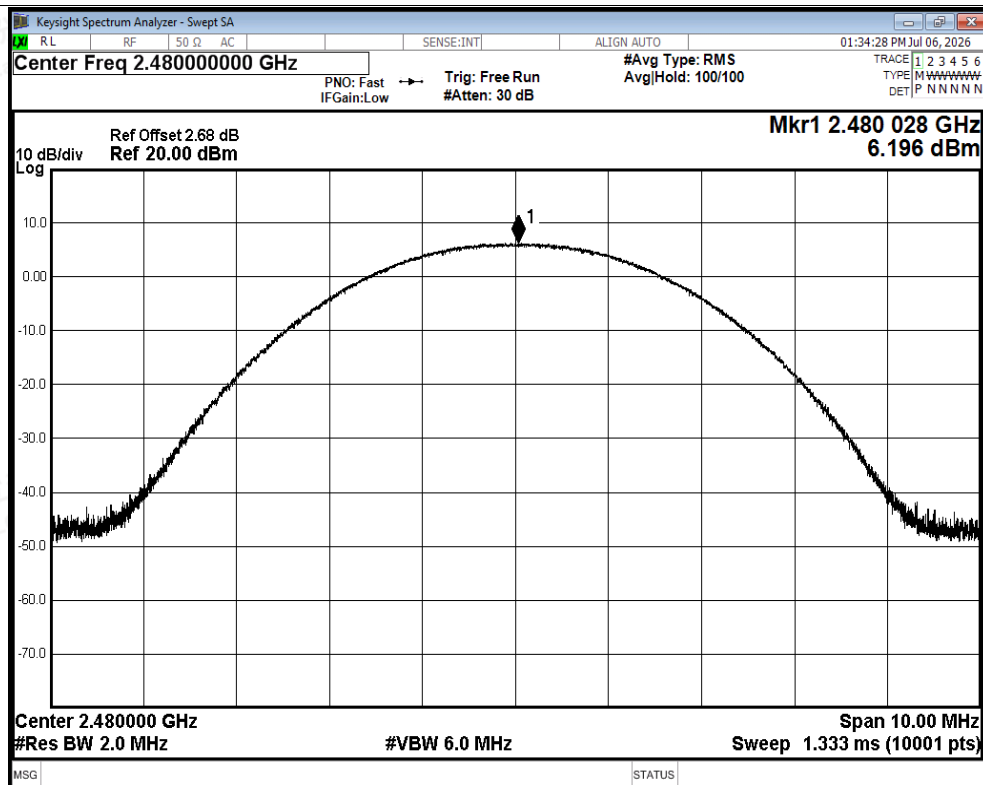
Peak Power NVNT 1-DH5 2480MHz Ant1



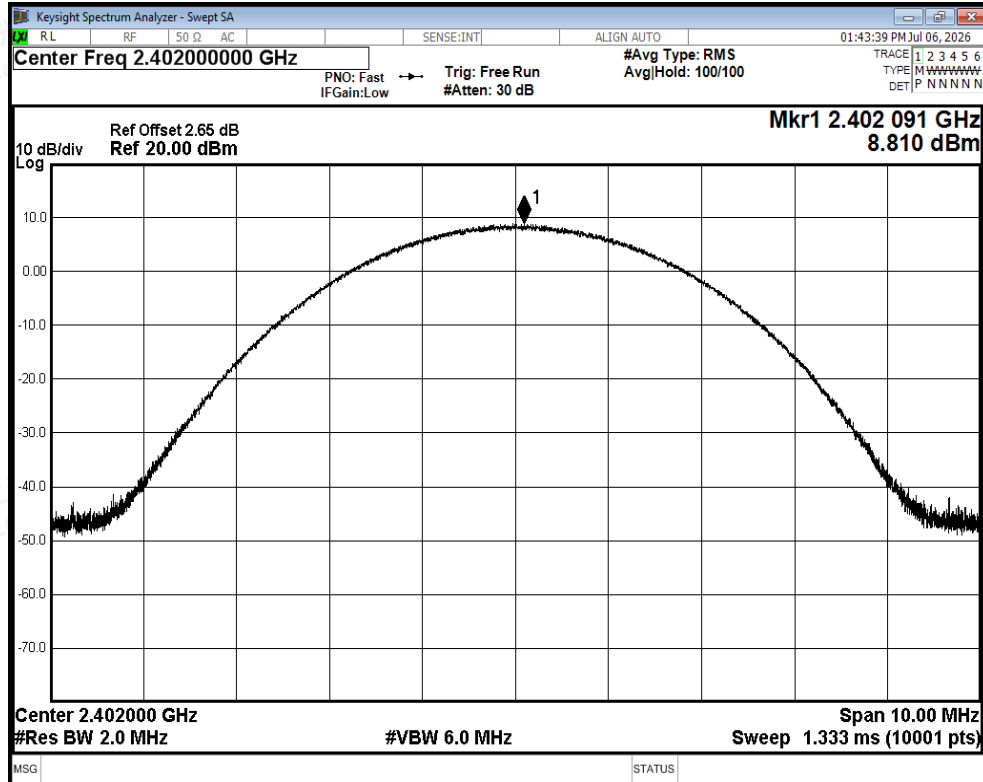
Peak Power NVNT 2-DH5 2402MHz Ant1



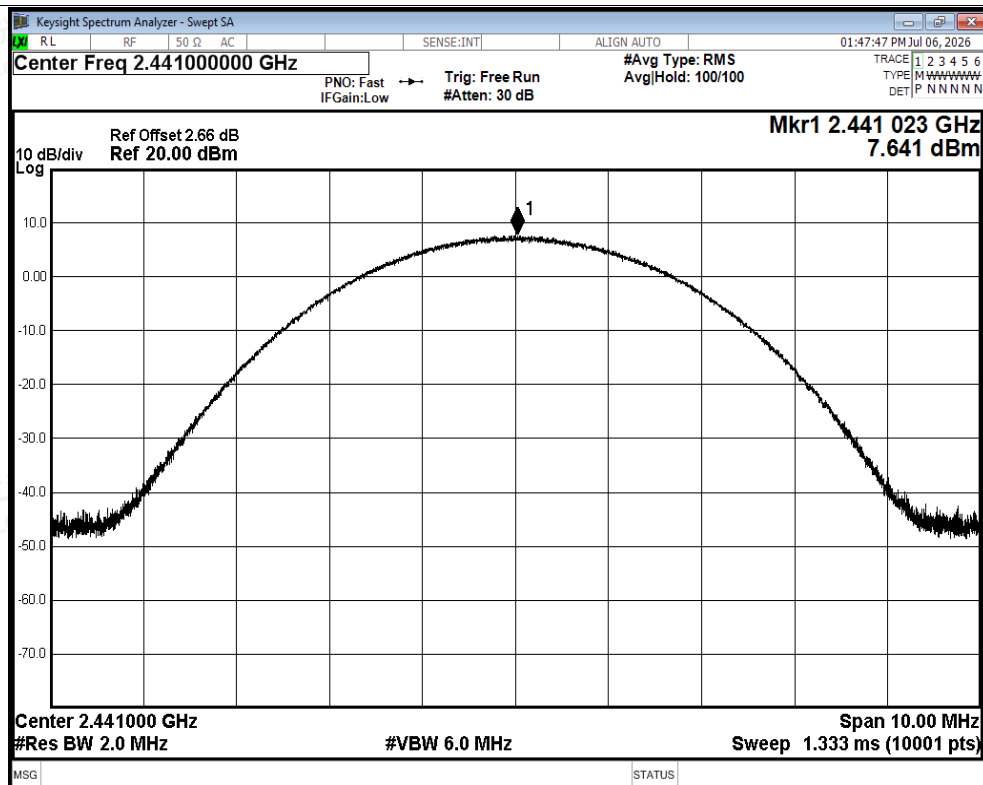
Peak Power NVNT 2-DH5 2441MHz Ant1



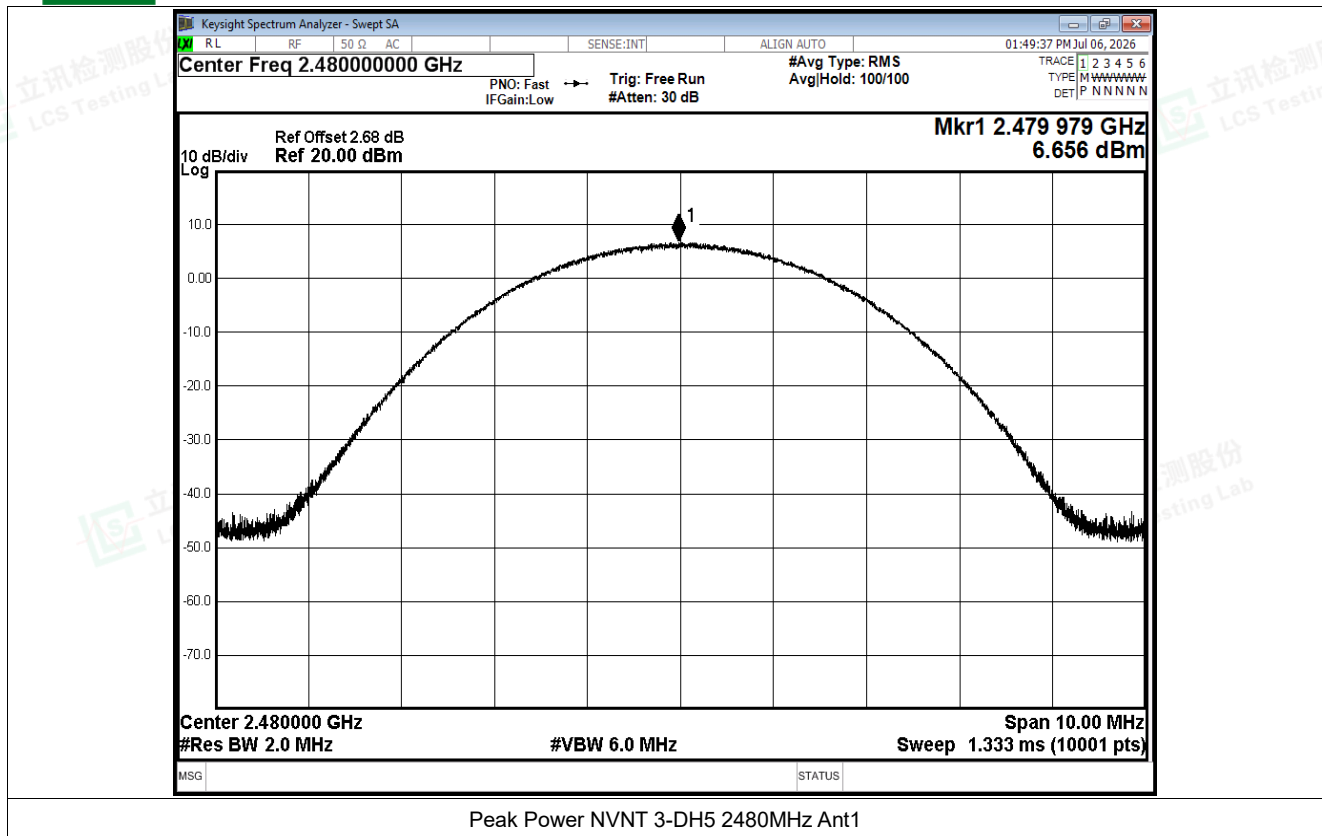
Peak Power NVNT 2-DH5 2480MHz Ant1



Peak Power NVNT 3-DH5 2402MHz Ant1



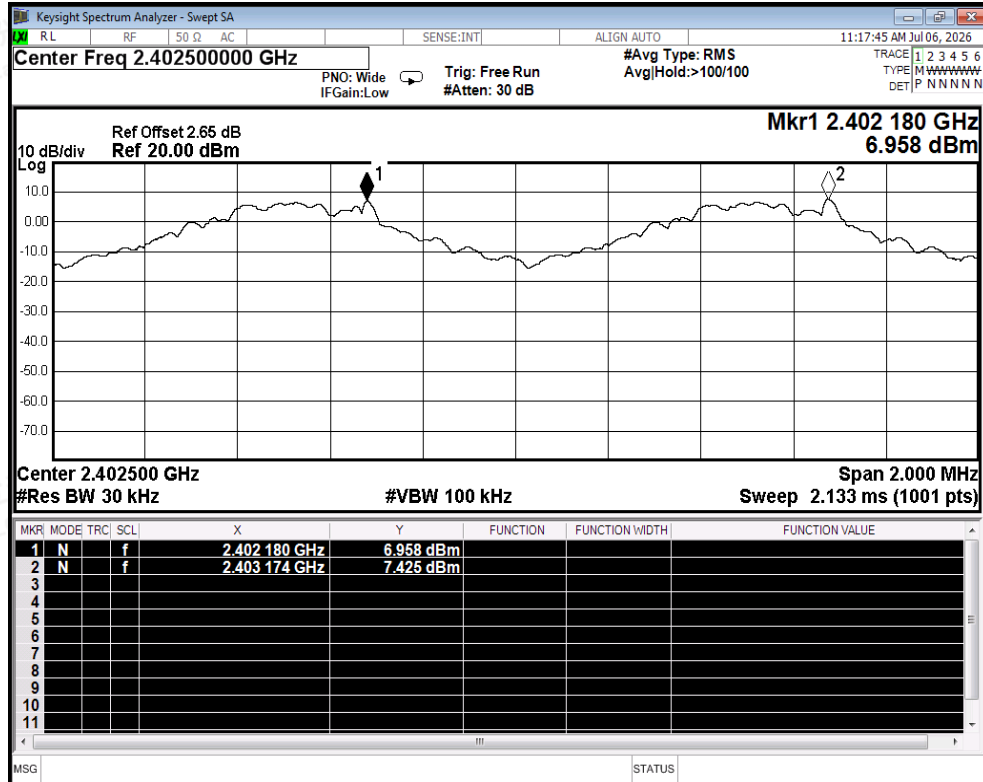
Peak Power NVNT 3-DH5 2441MHz Ant1



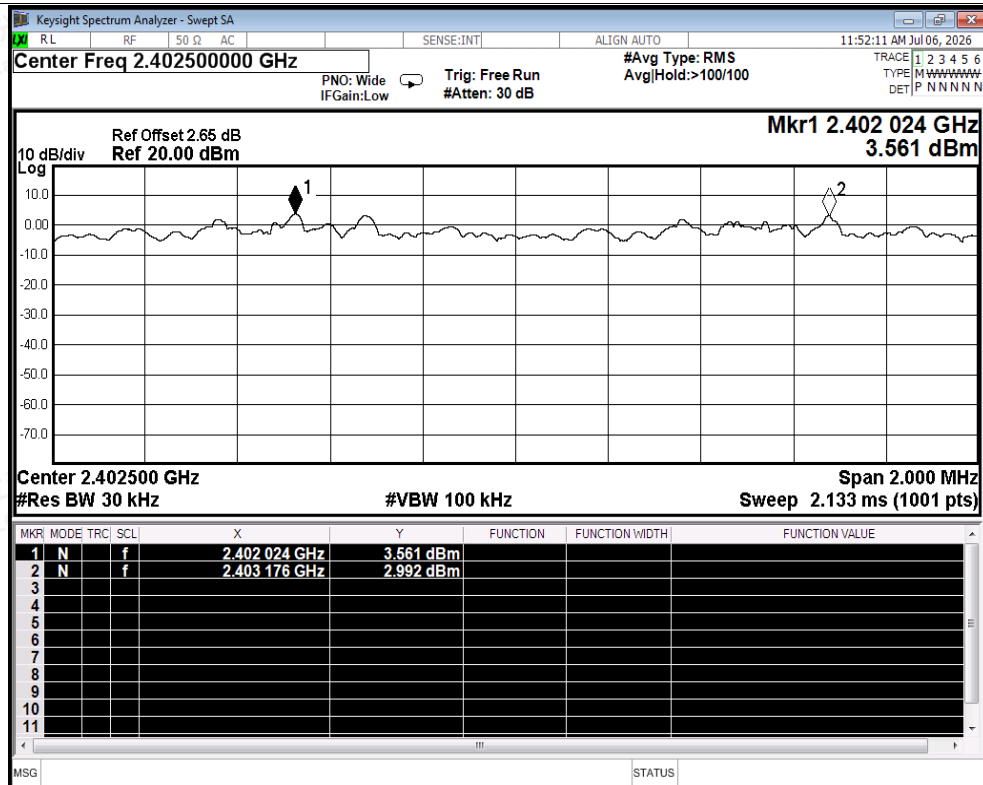


A.3 Carrier Frequencies Separation

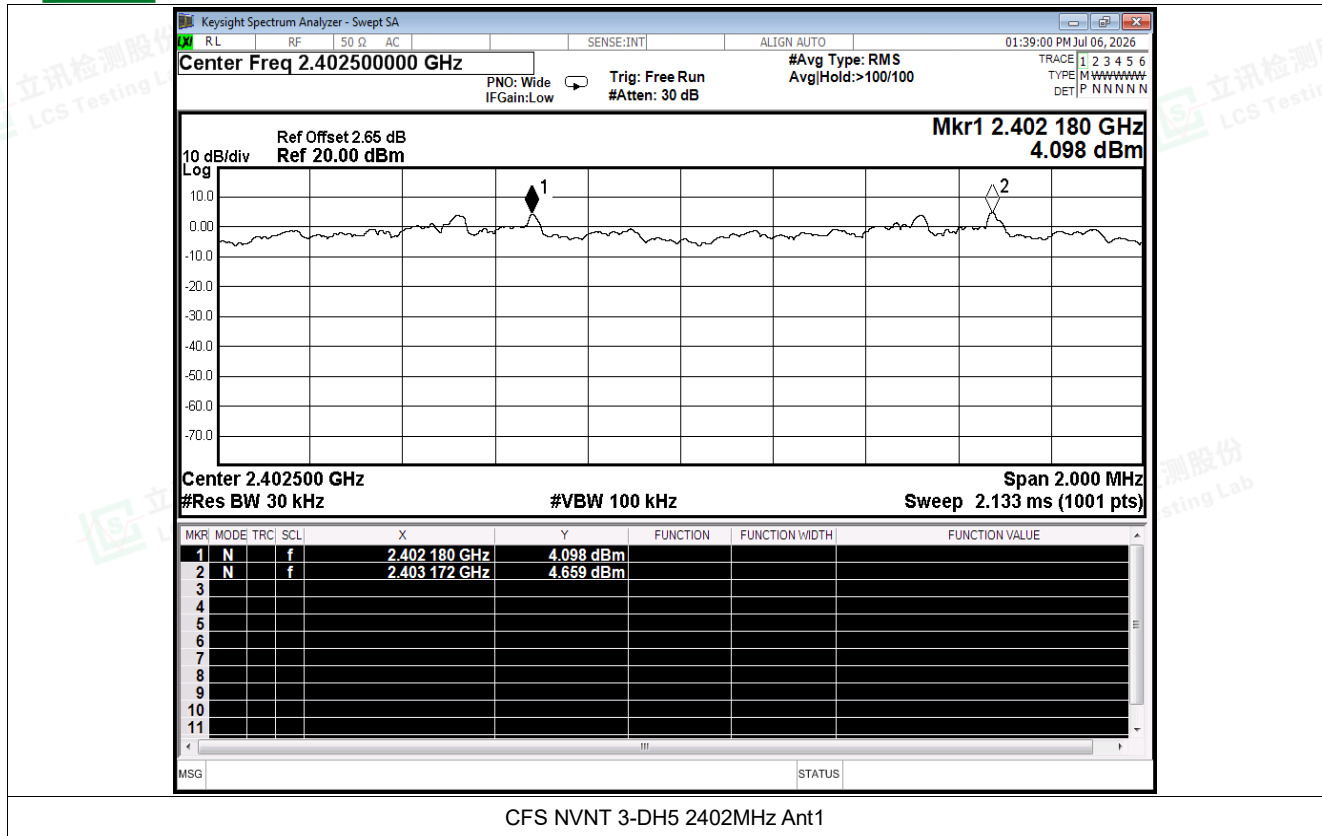
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2402.18	2403.174	0.994	0.639	Pass
NVNT	2-DH5	Ant1	2402.024	2403.176	1.152	0.891	Pass
NVNT	3-DH5	Ant1	2402.18	2403.172	0.992	0.892	Pass



CFS NVNT 1-DH5 2402MHz Ant1



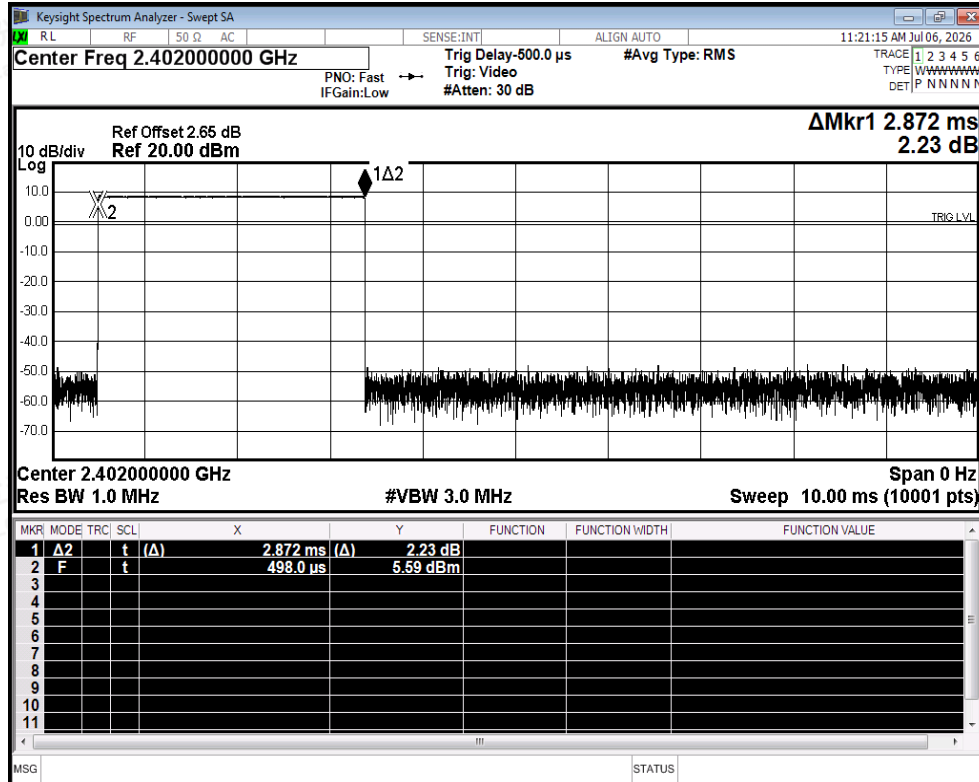
CFS NVNT 2-DH5 2402MHz Ant1



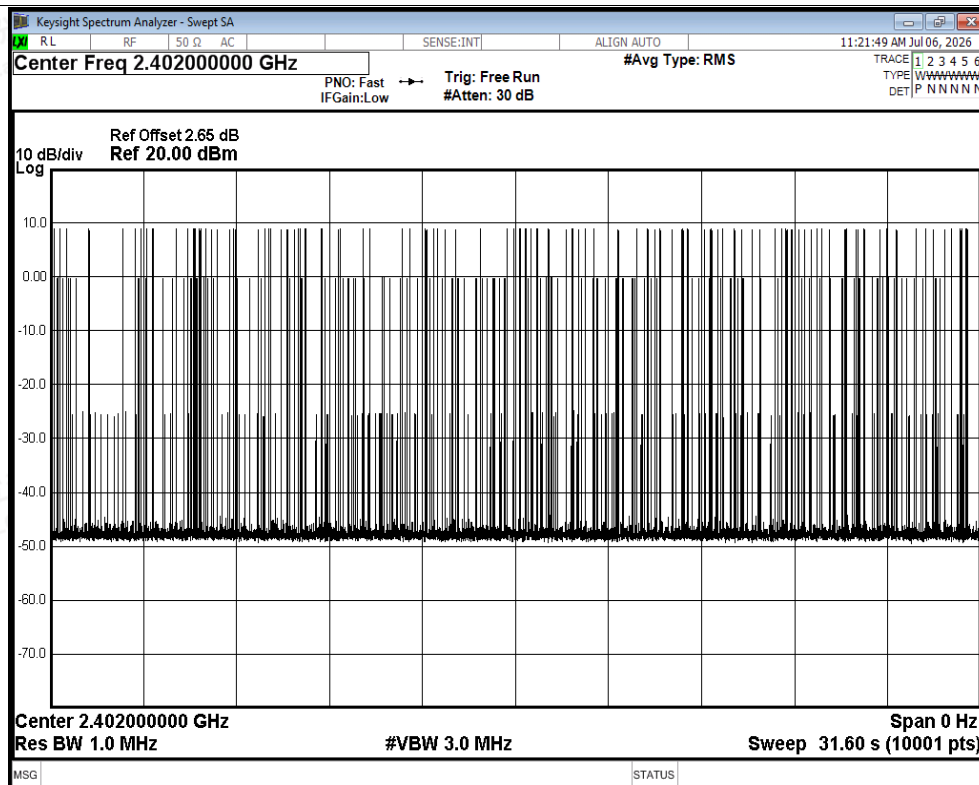


A.4 Dwell Time

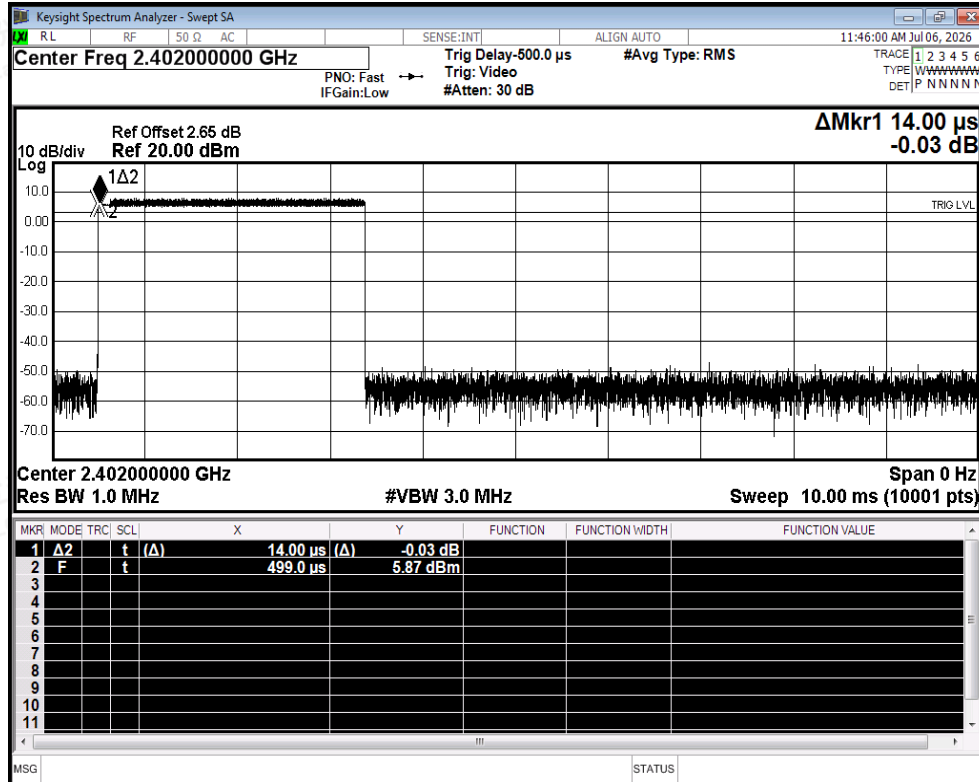
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.872	327.408	114	31600	400	Pass
NVNT	2-DH5	2402	Ant1	0.014	1.414	101	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.875	301.875	105	31600	400	Pass



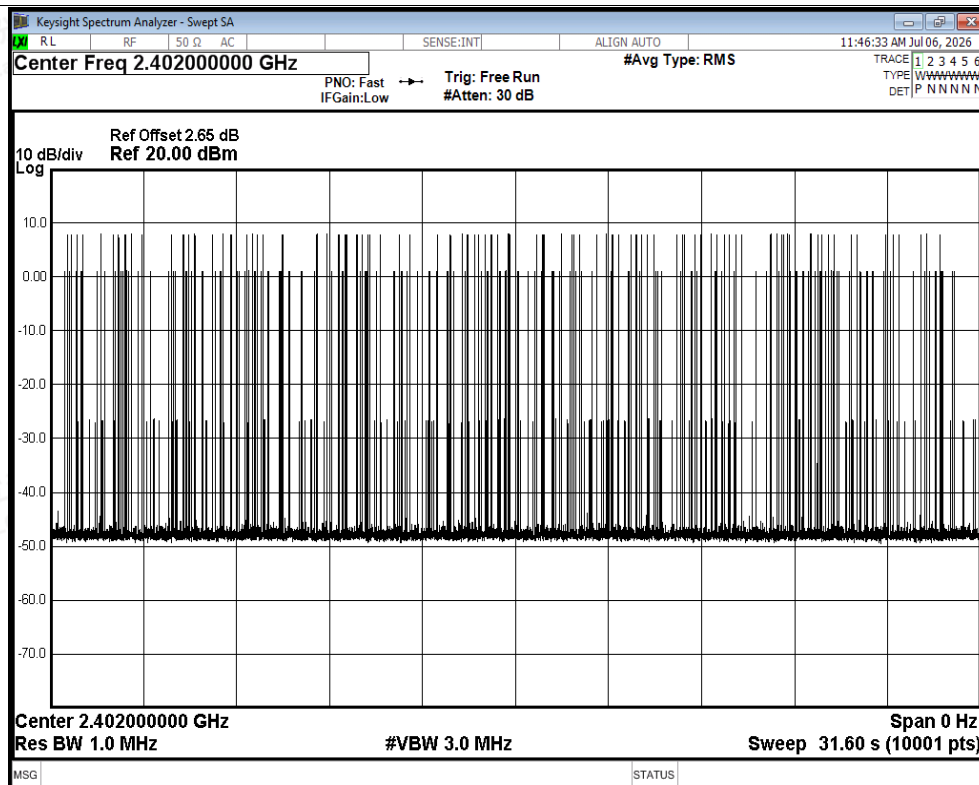
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



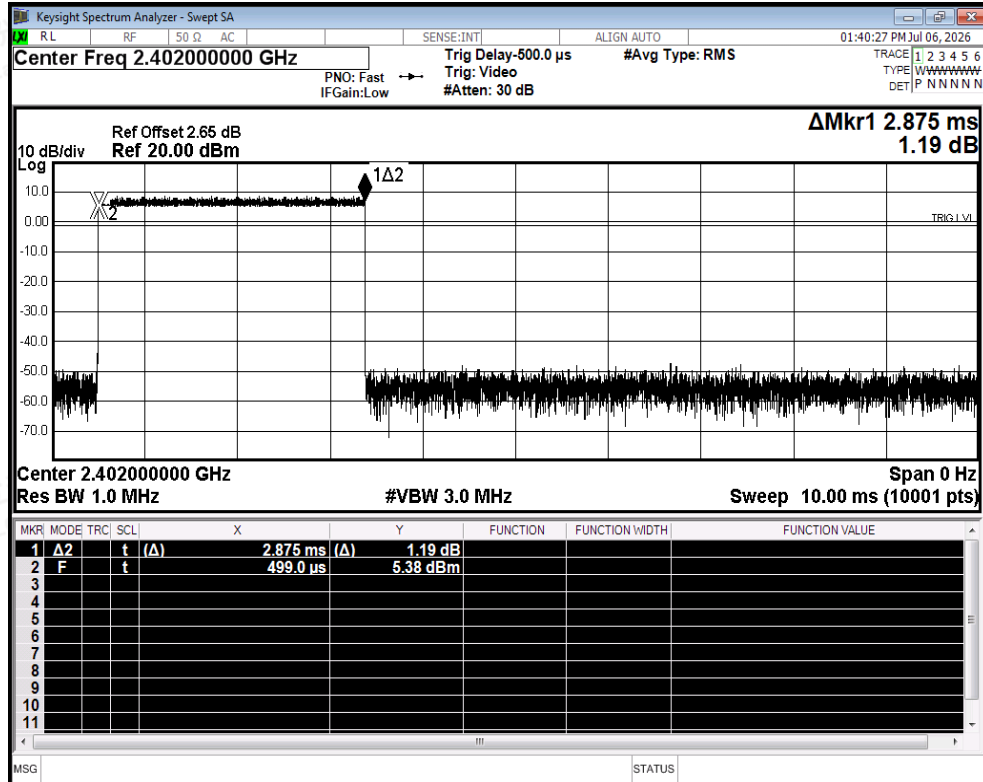
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



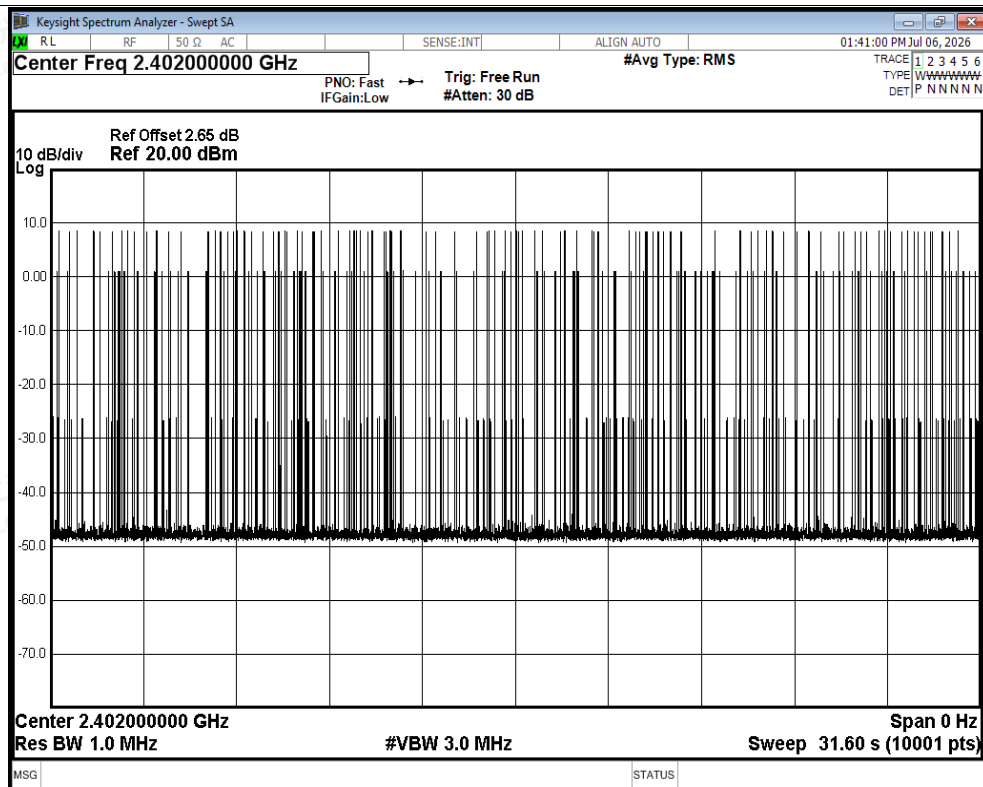
Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2402MHz Ant1 One Burst

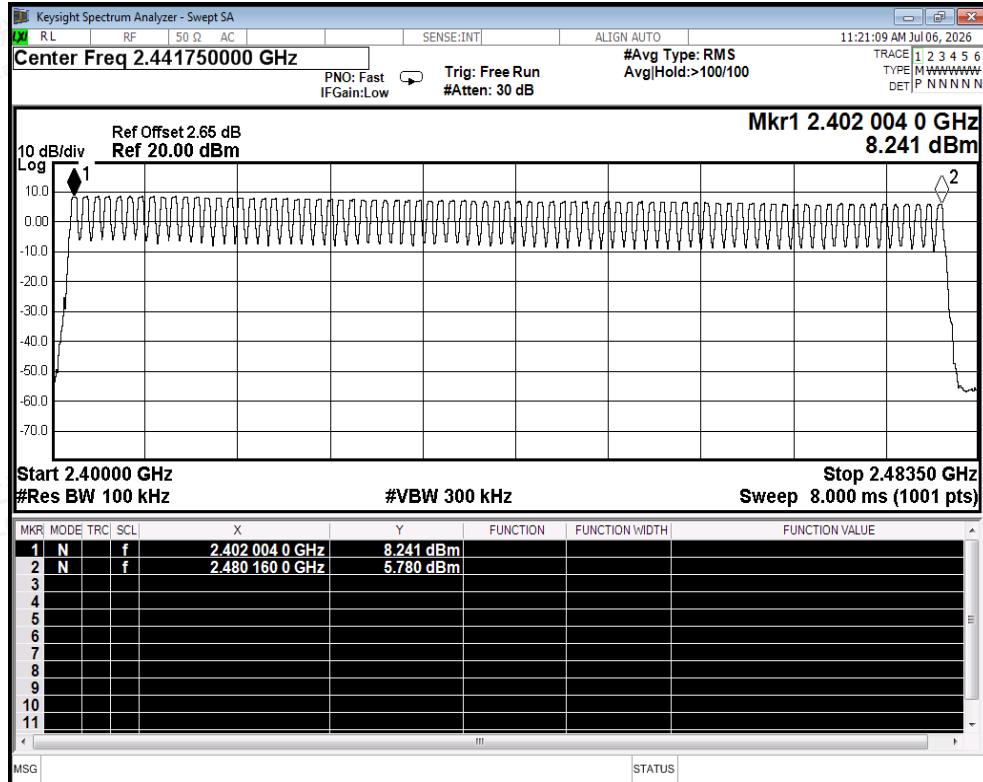


Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated

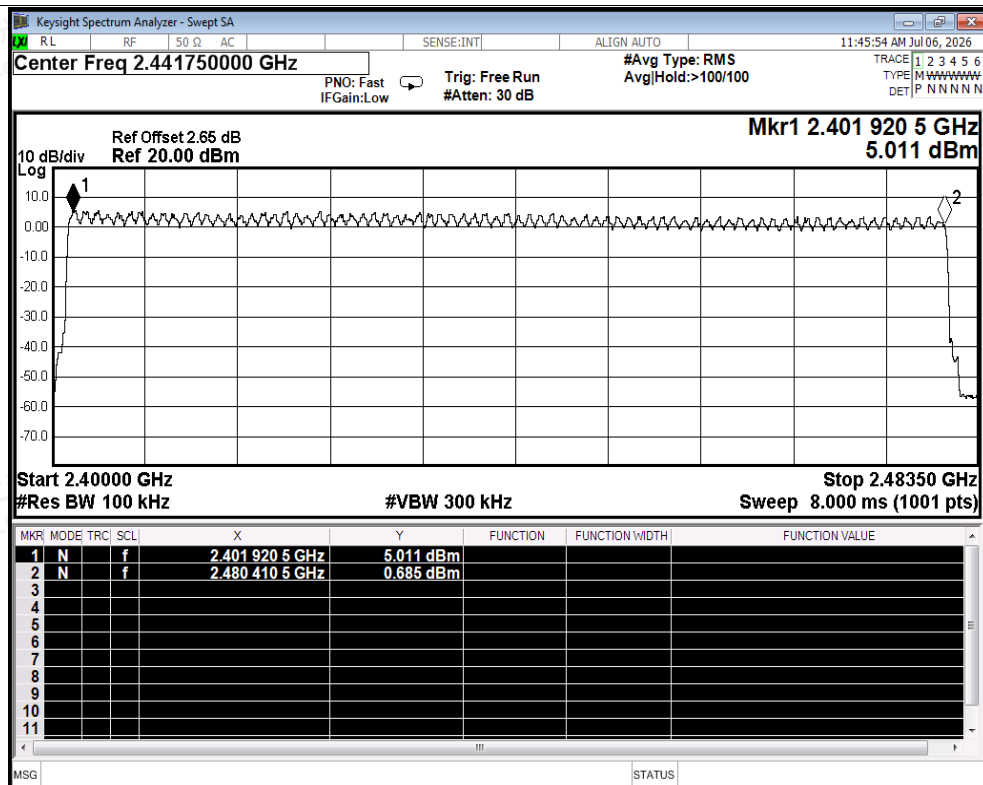


A.5 Number of Hopping Channel

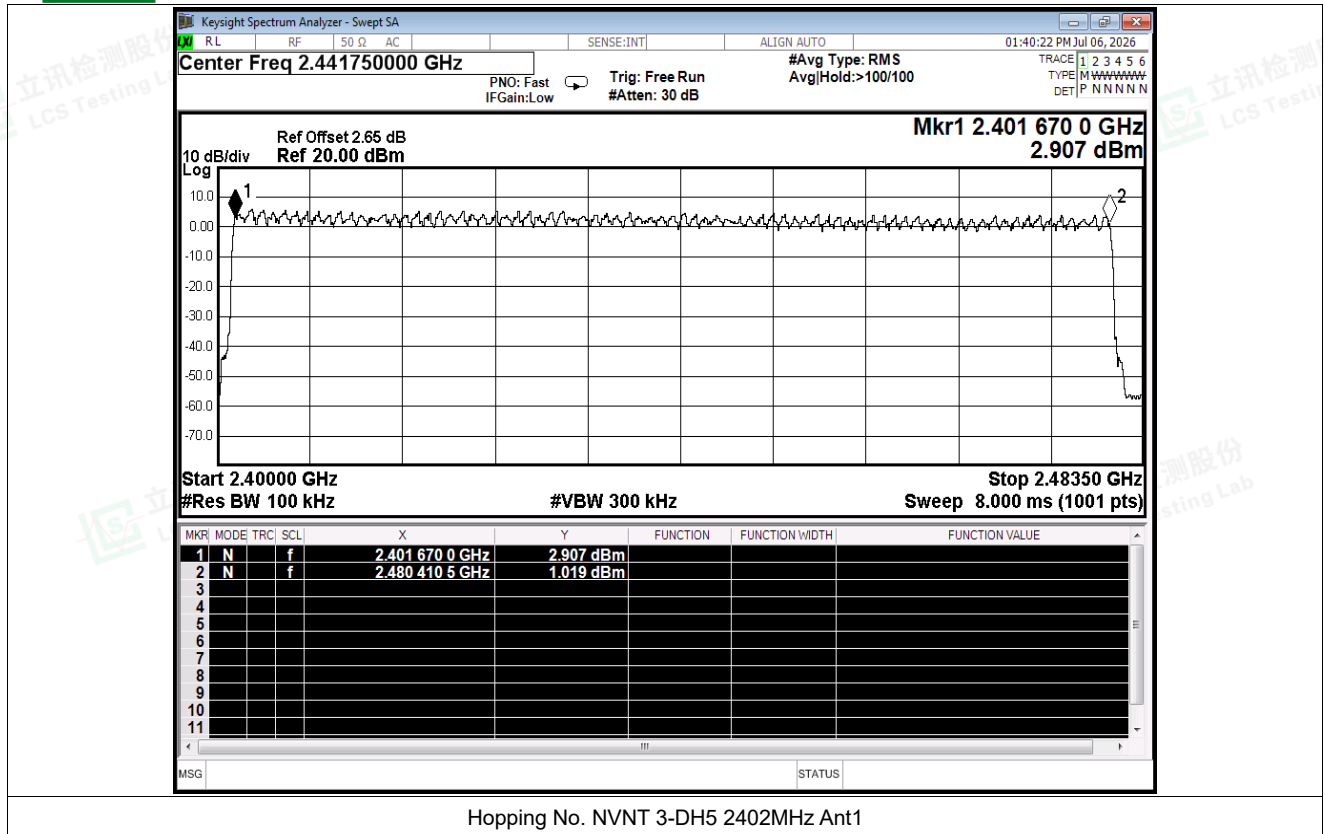
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass



Hopping No. NVNT 1-DH5 2402MHz Ant1



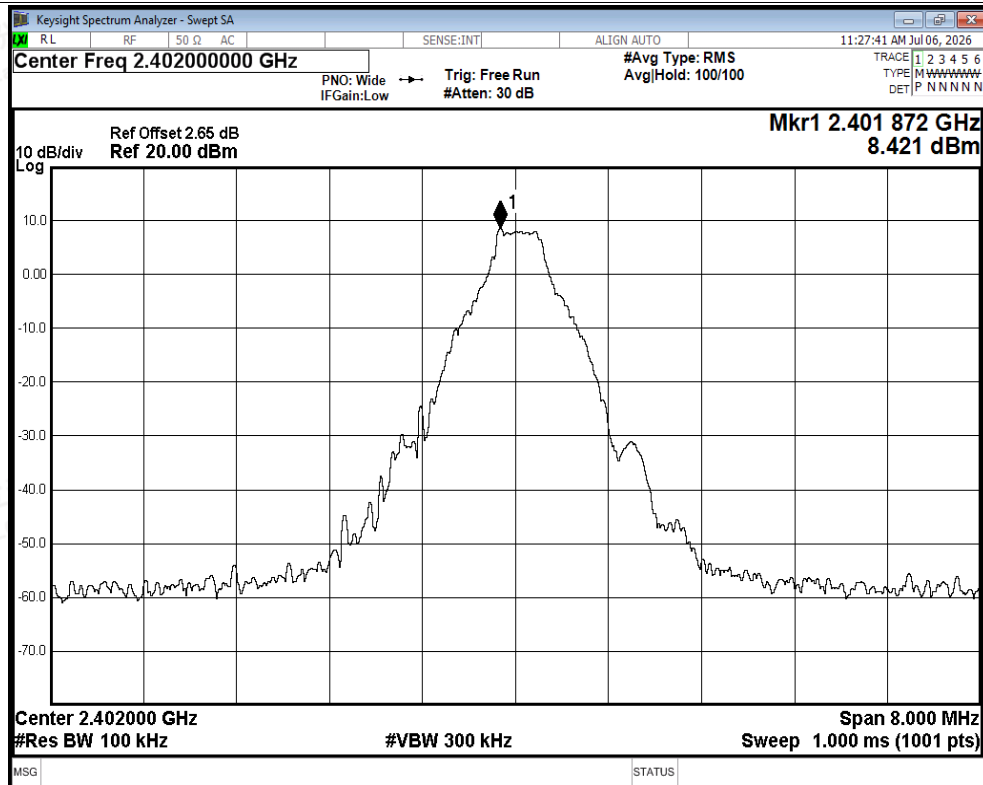
Hopping No. NVNT 2-DH5 2402MHz Ant1



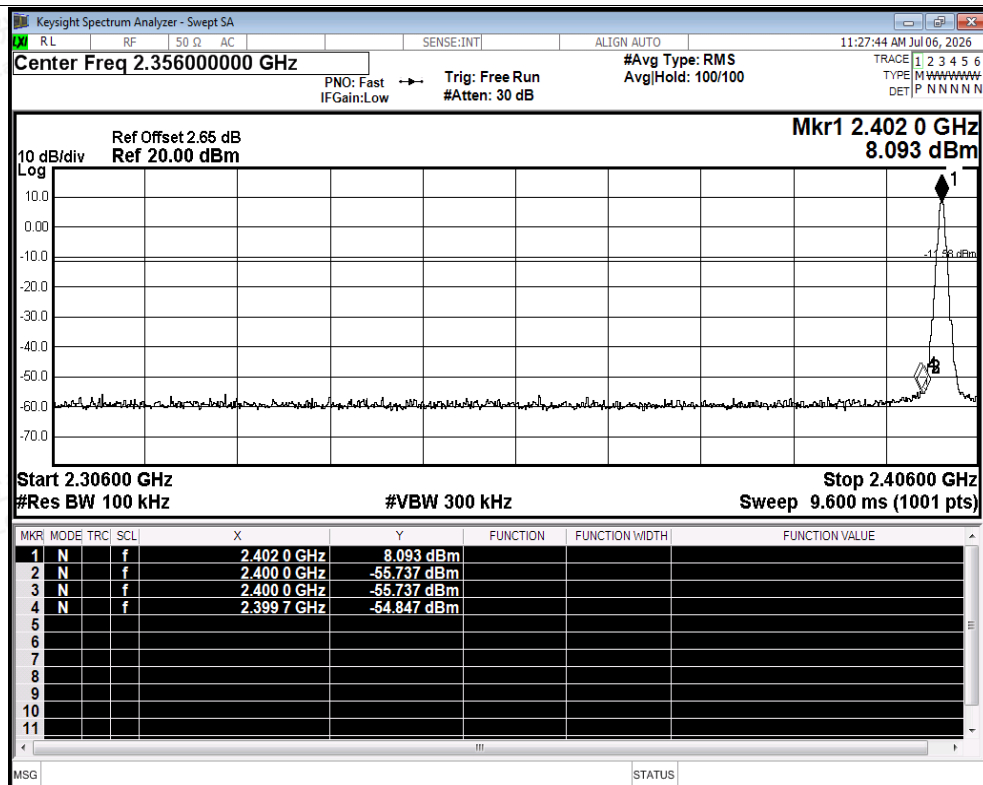


A.6 Band Edge

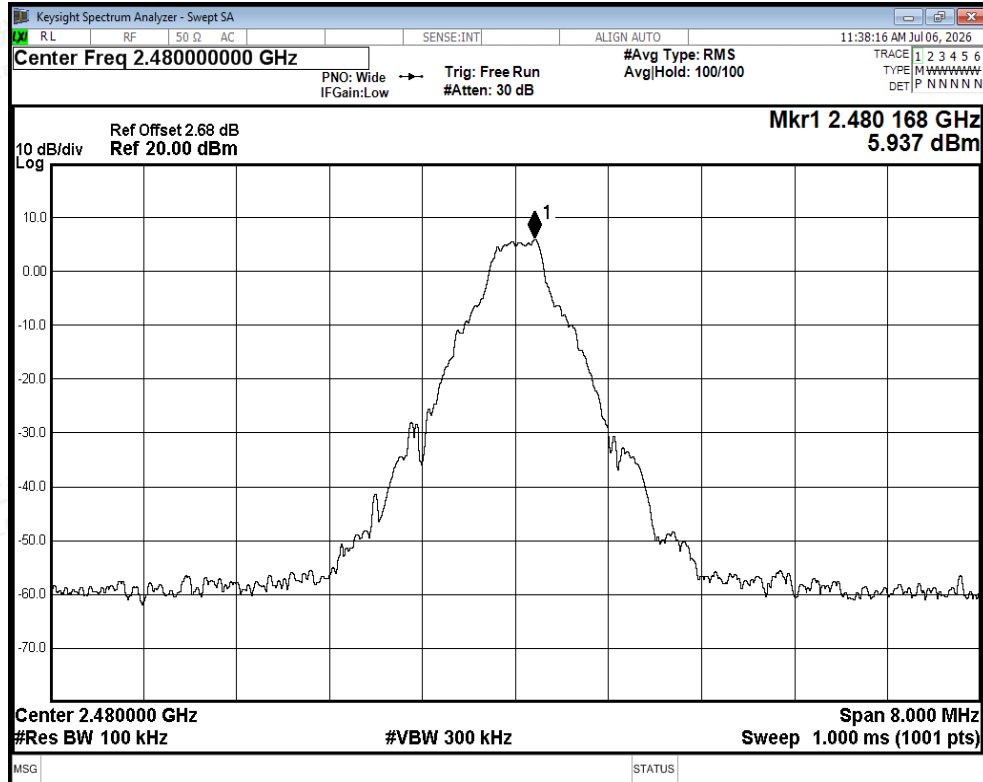
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-63.26	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-62.29	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-59.12	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-60.31	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-59.89	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-60.5	-20	Pass



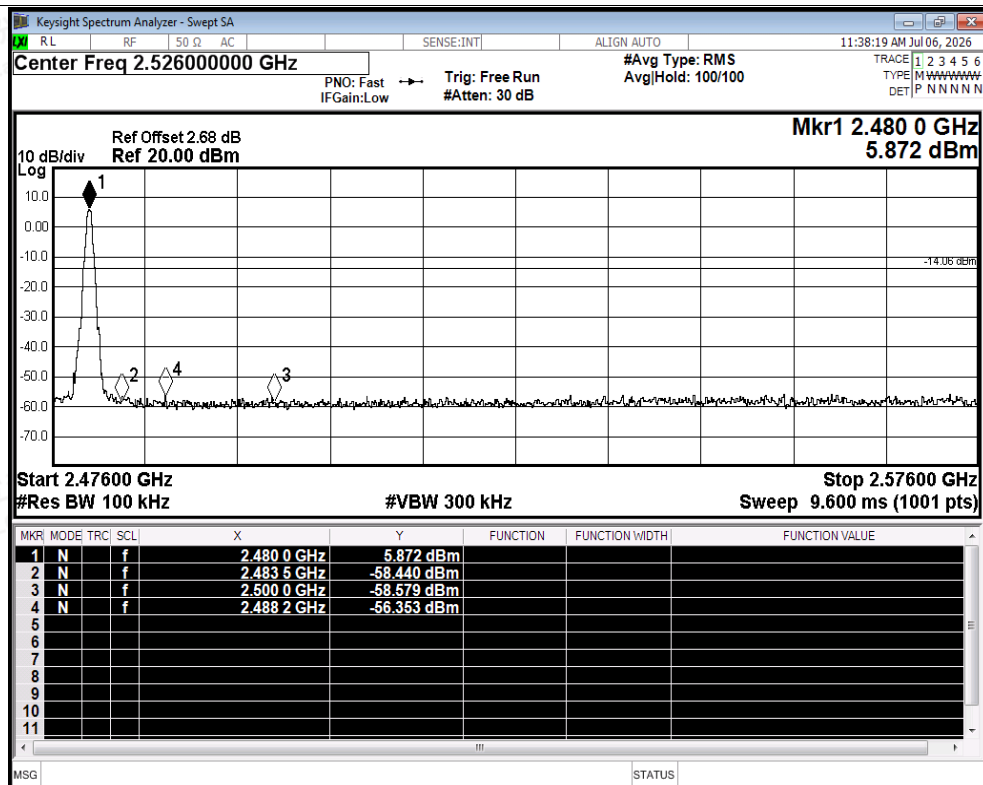
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



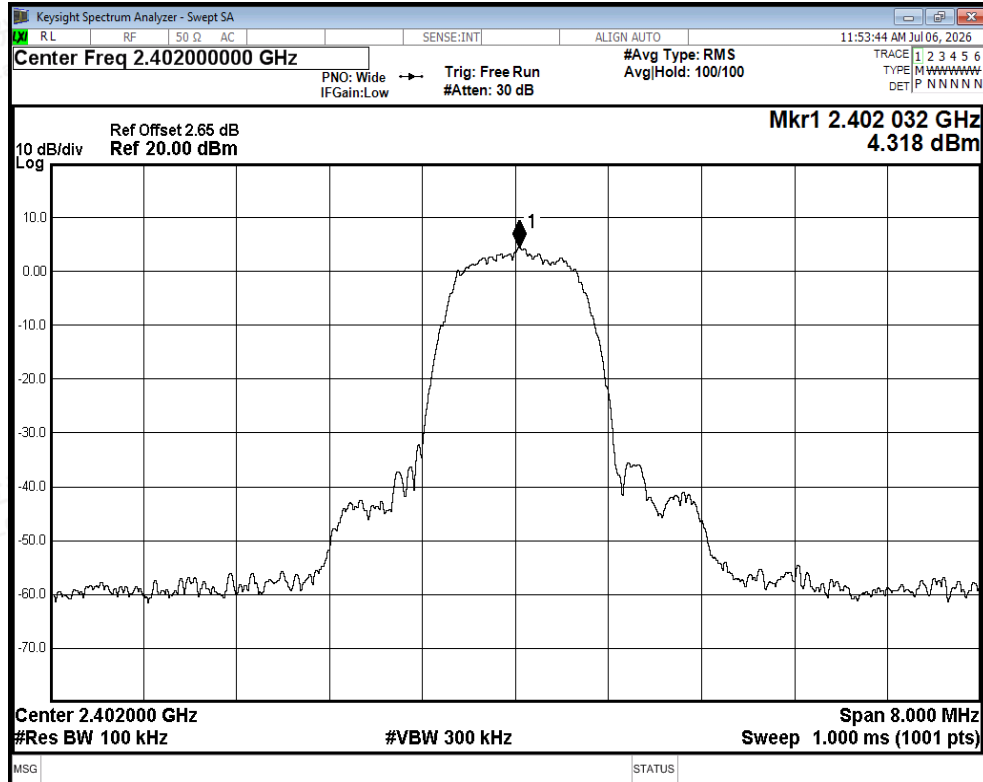
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



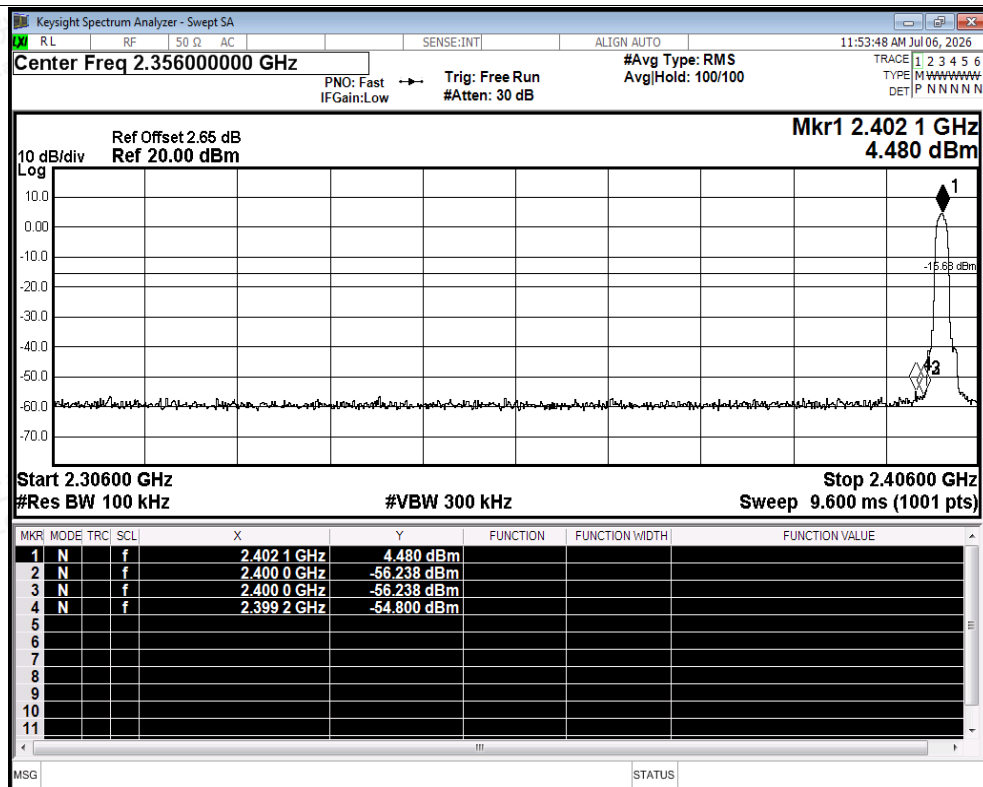
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



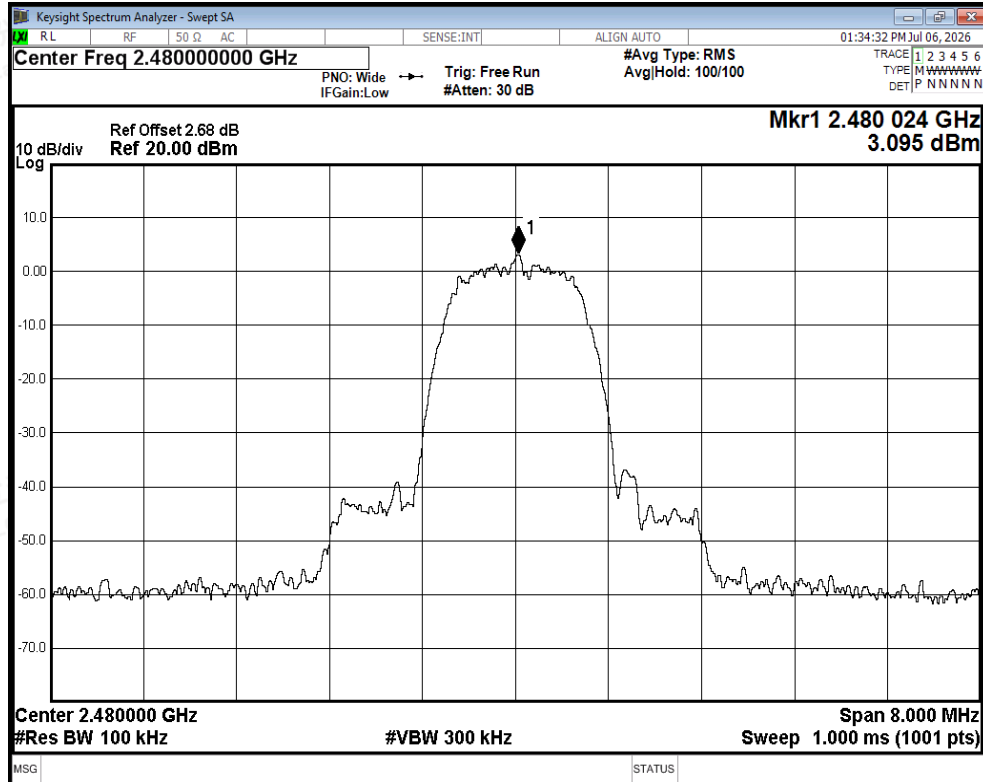
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



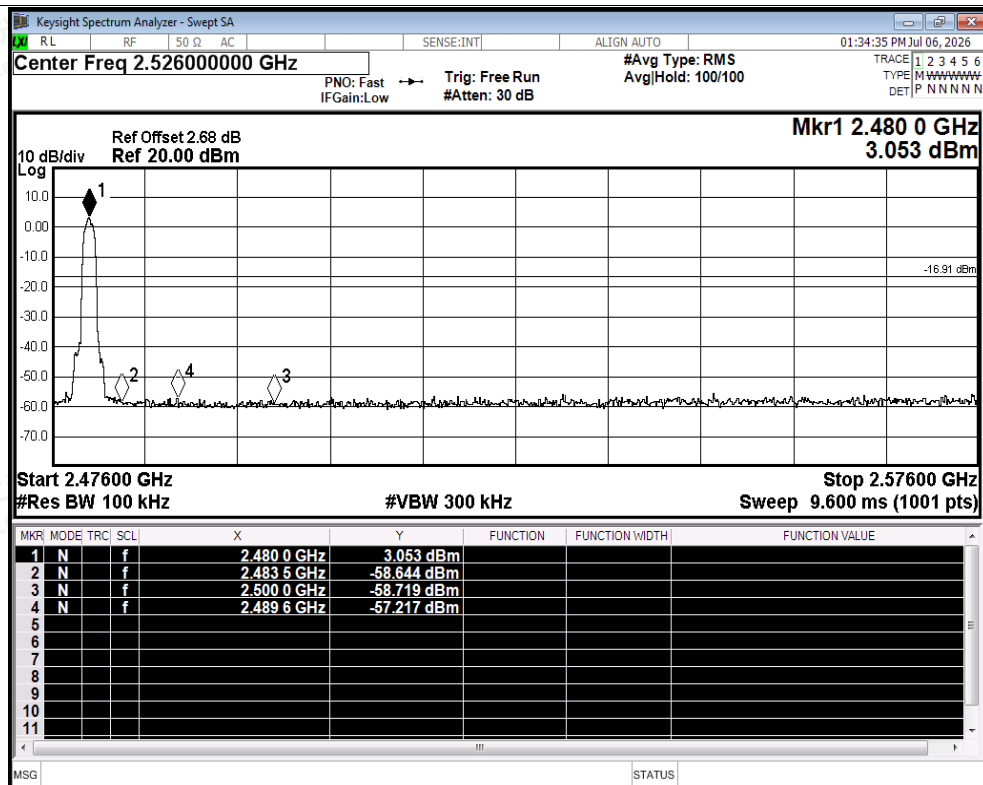
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



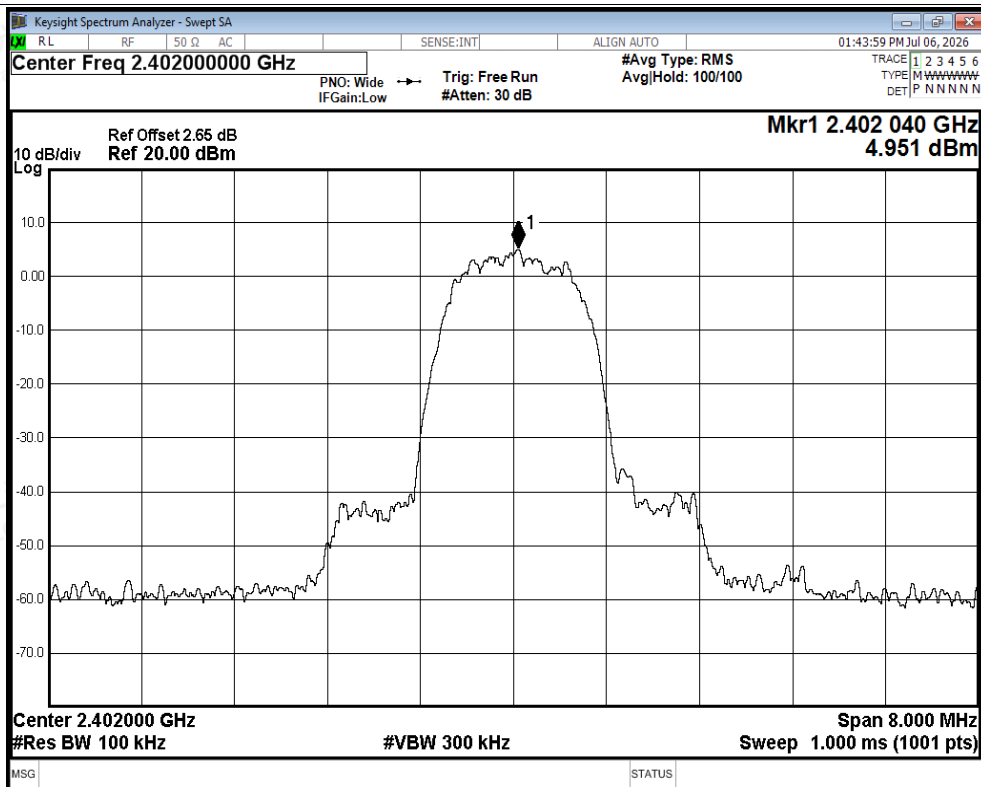
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



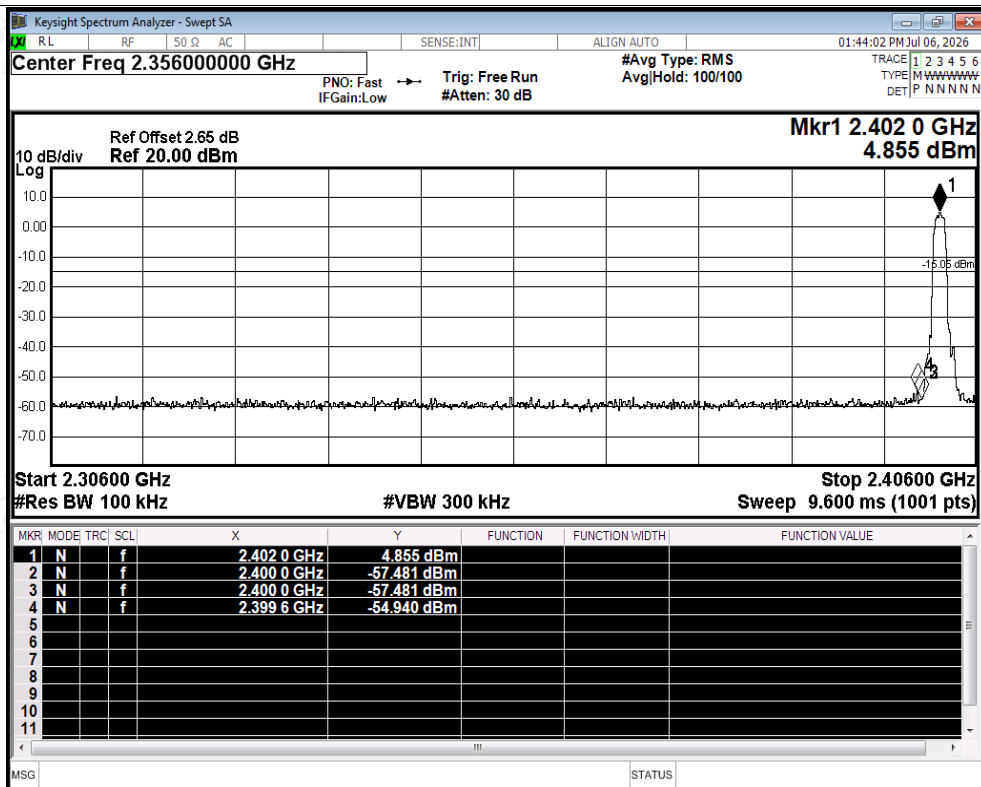
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



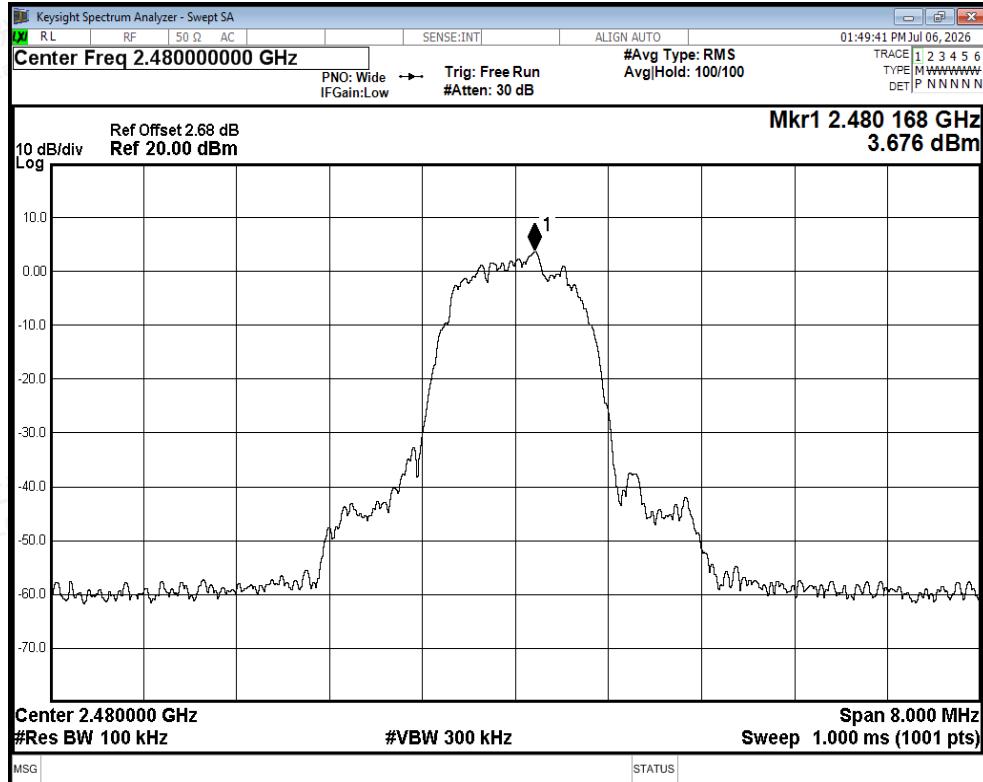
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



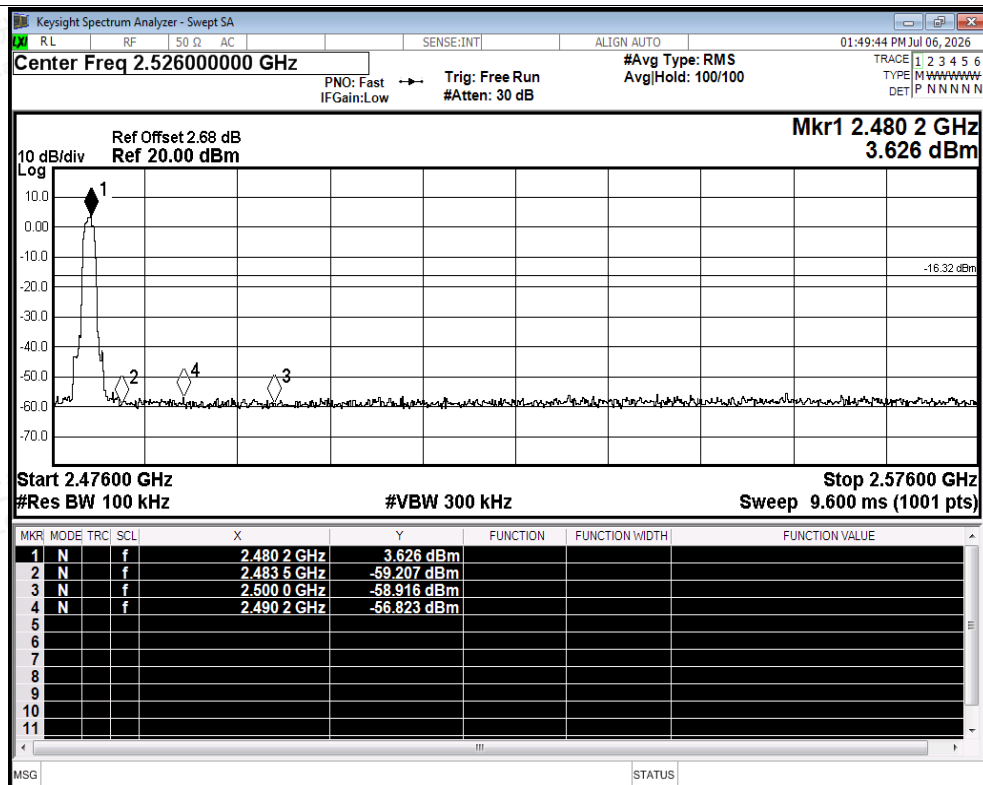
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



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



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

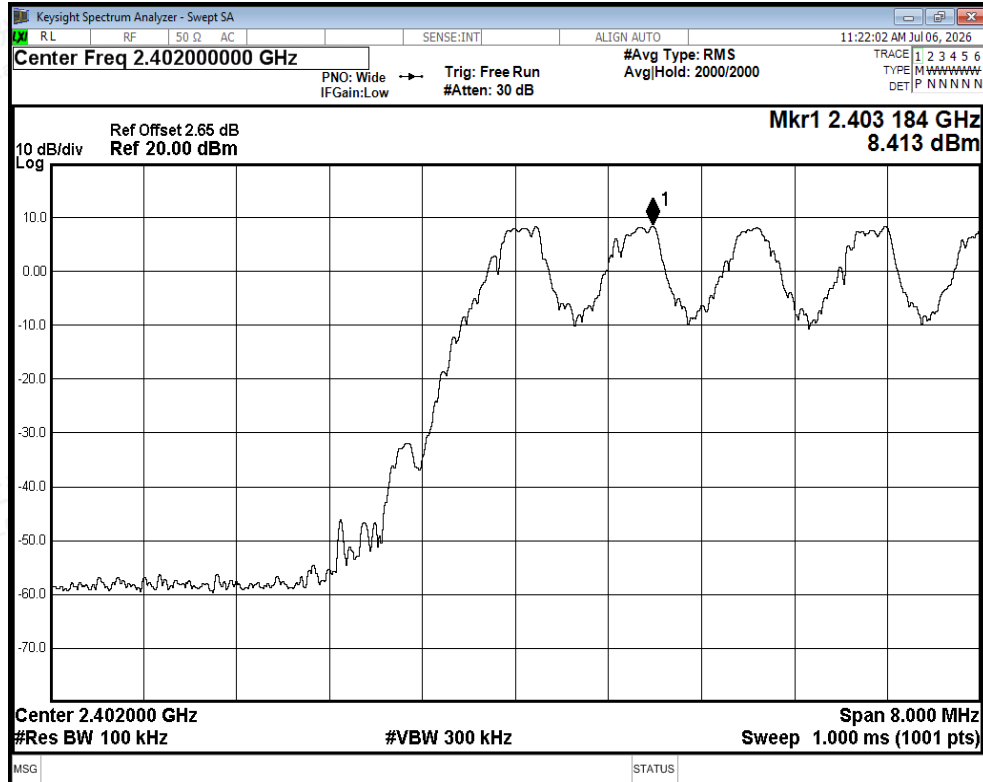


Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Emission

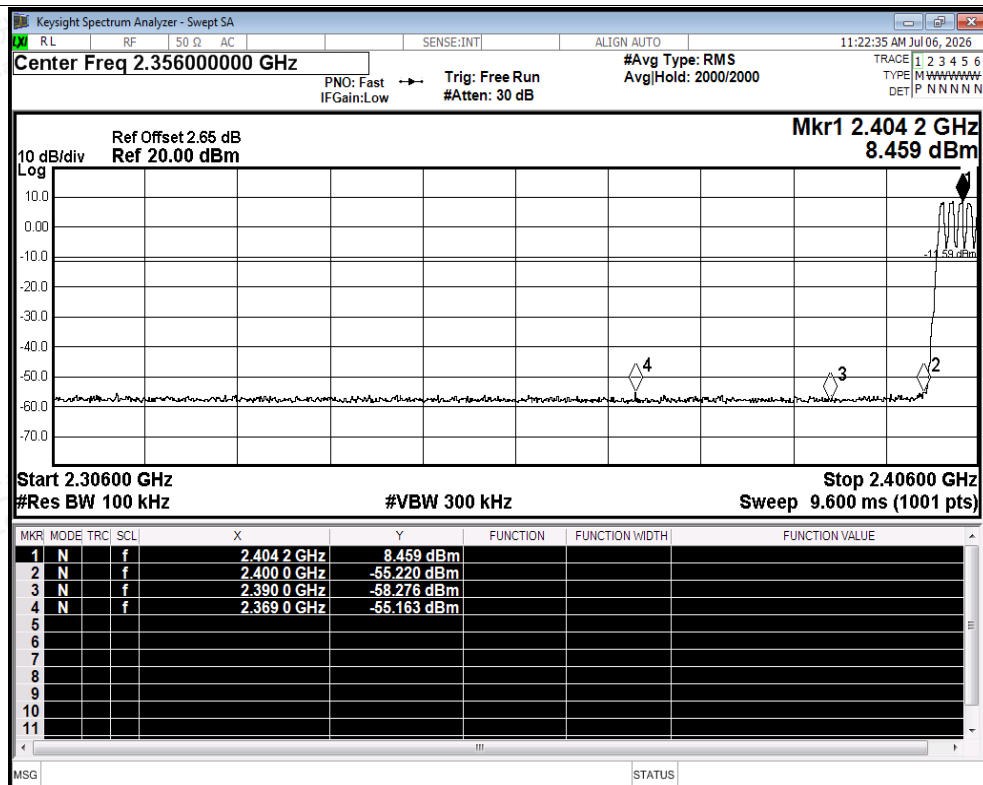


(Hopping)

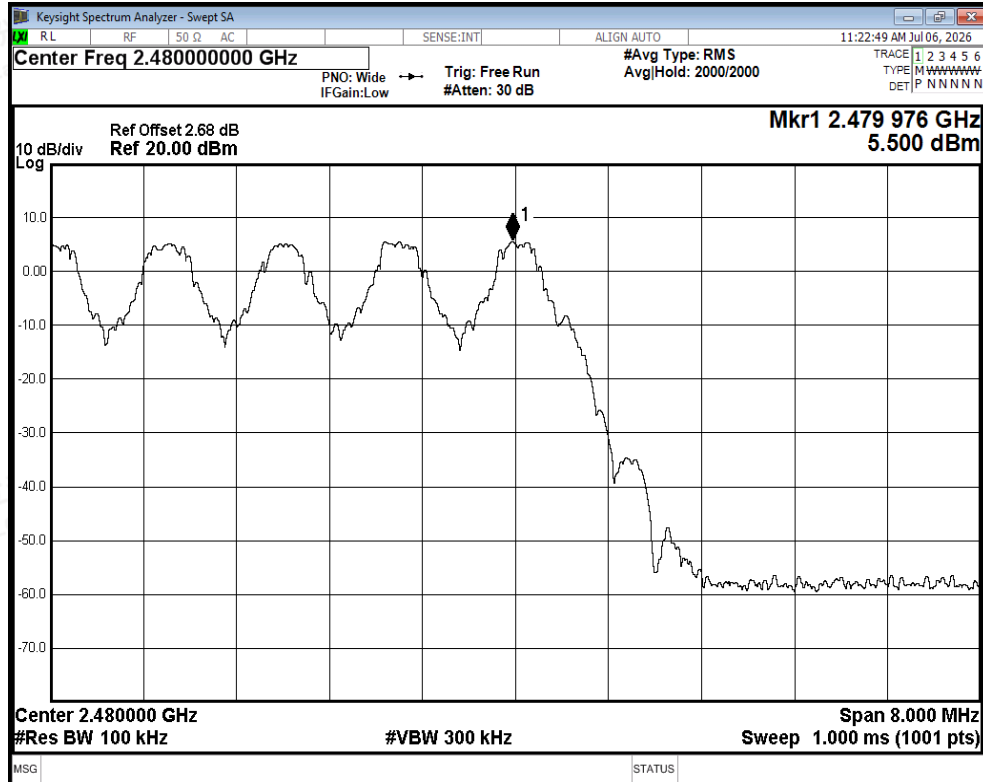
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-63.57	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-61.47	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-59.14	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-59.38	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-61.28	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-59.71	-20	Pass



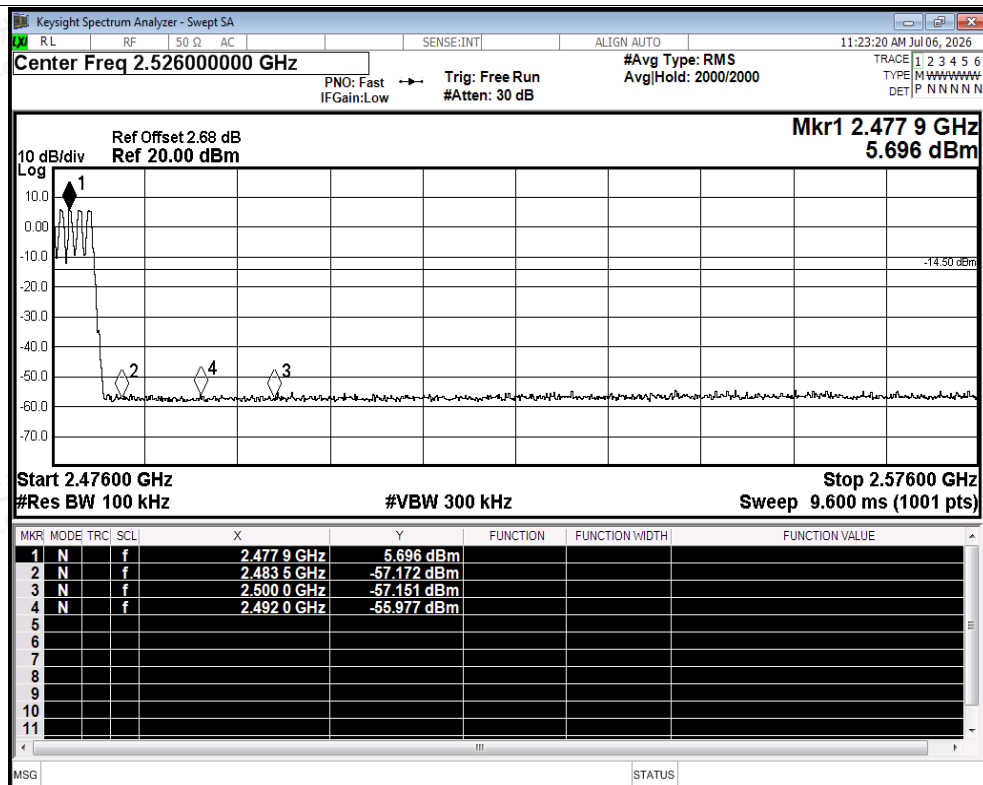
Band Edge (Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



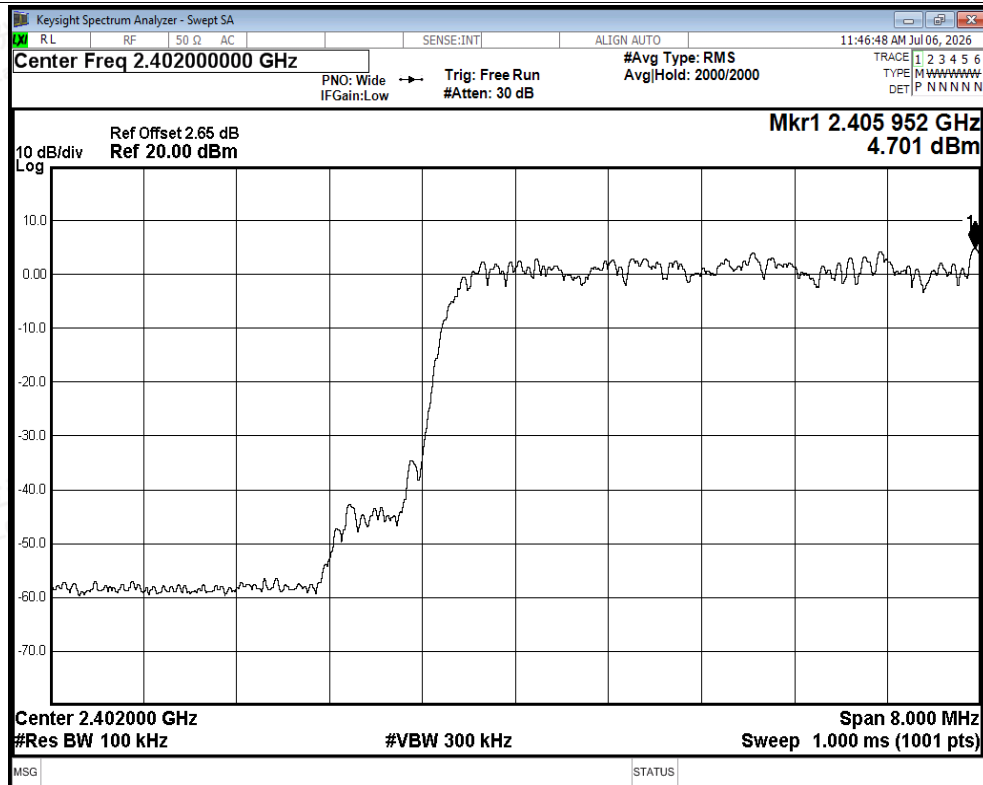
Band Edge (Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



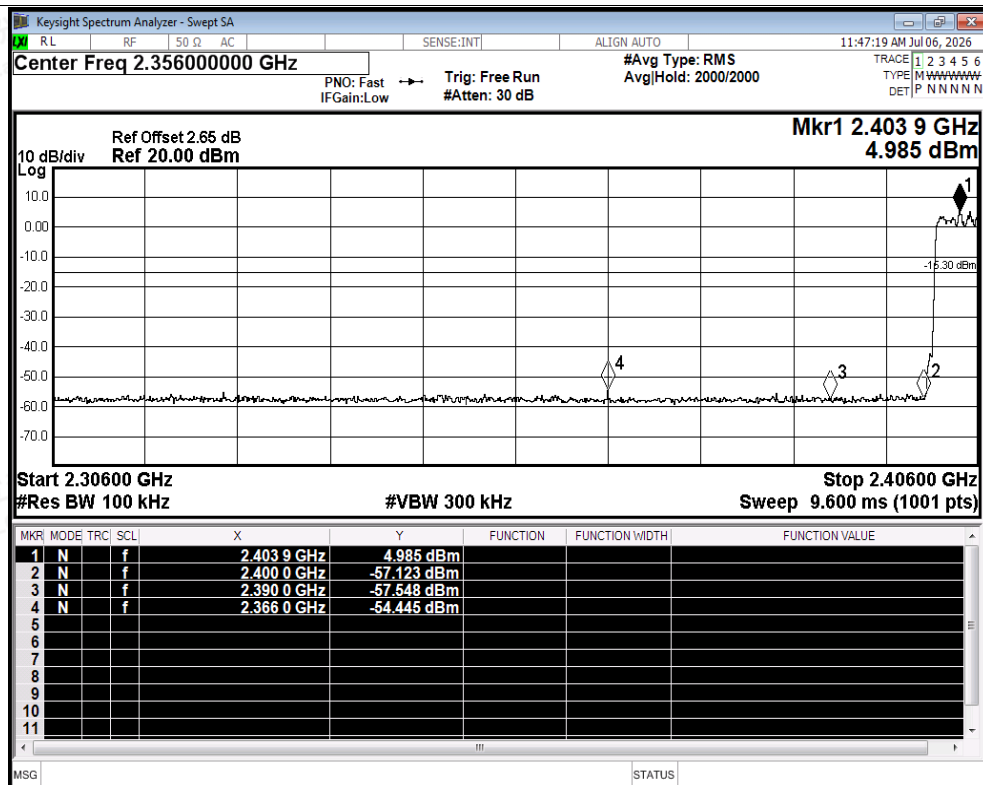
Band Edge (Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



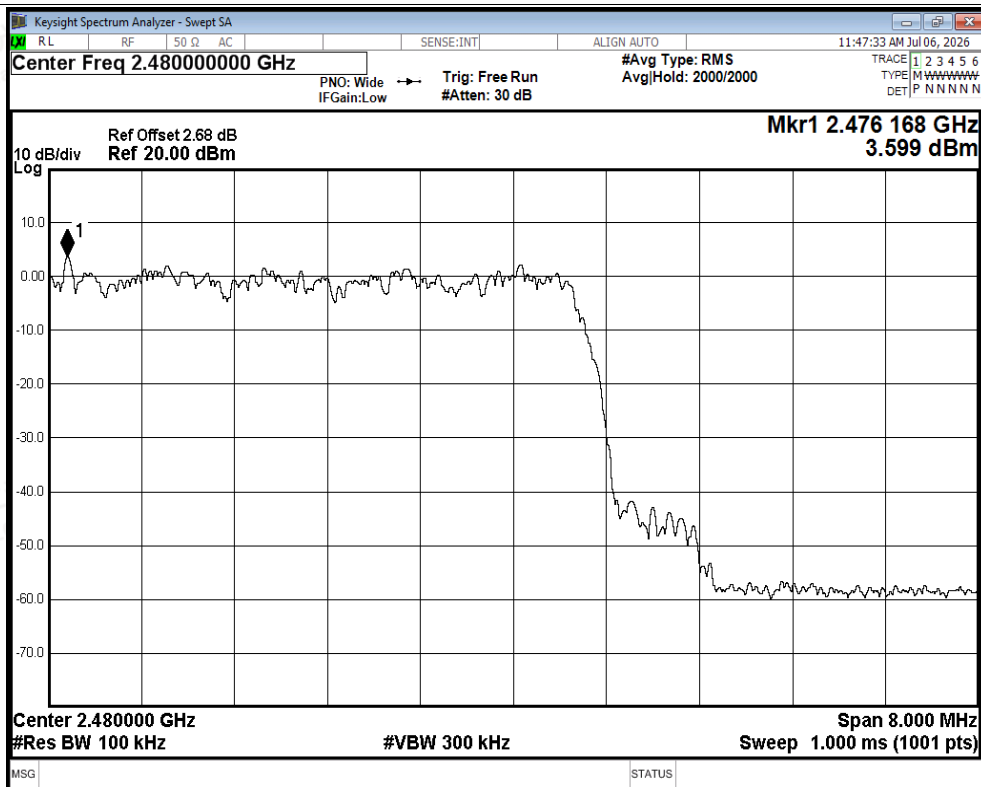
Band Edge (Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



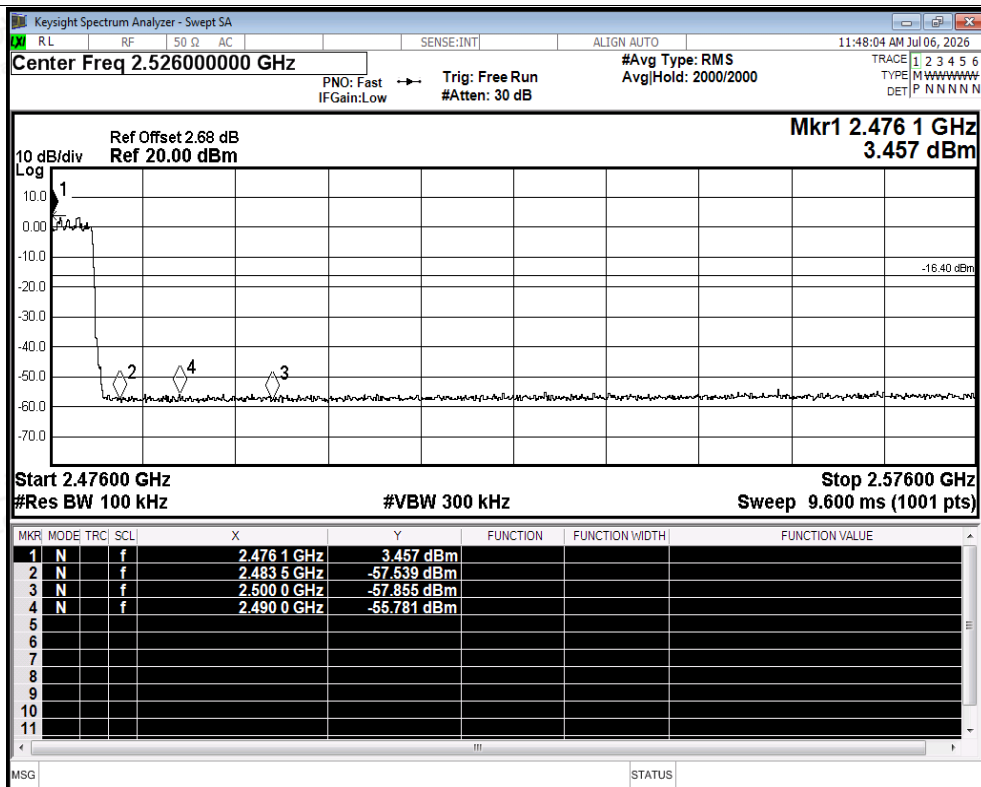
Band Edge (Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



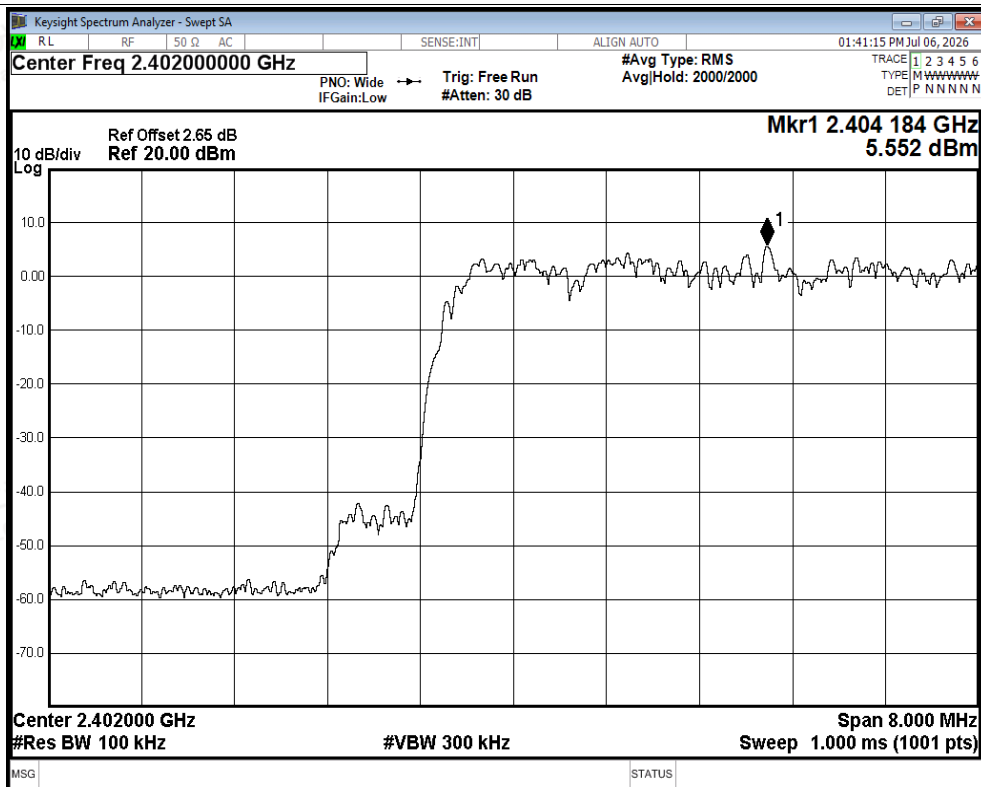
Band Edge (Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



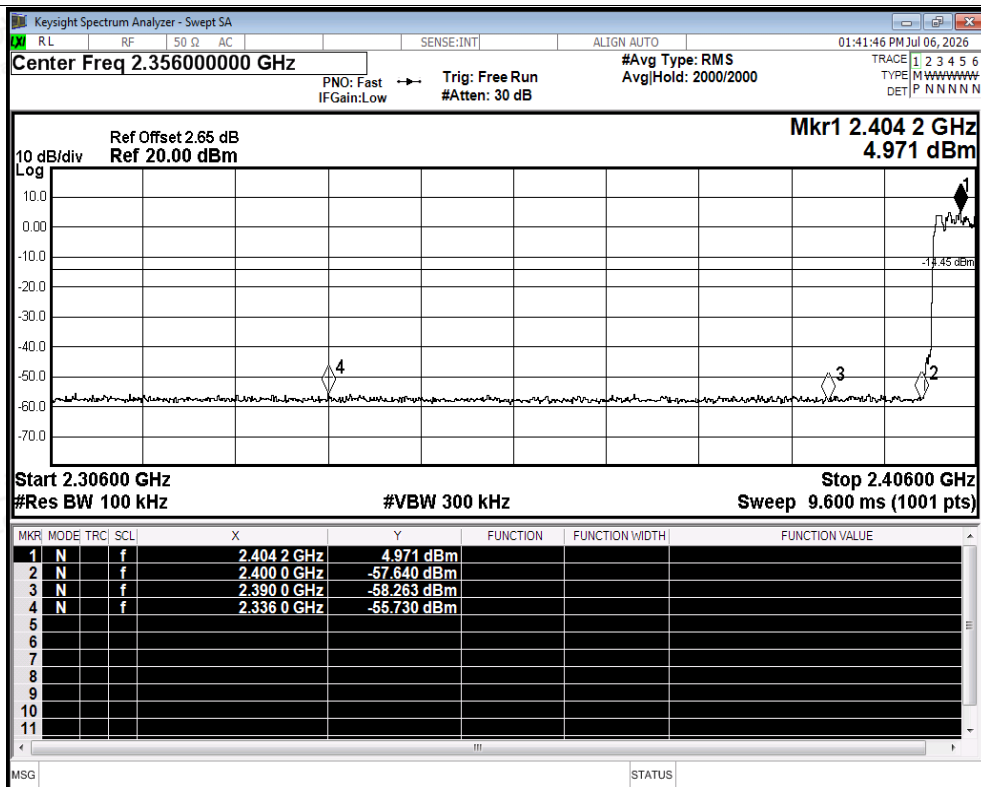
Band Edge (Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



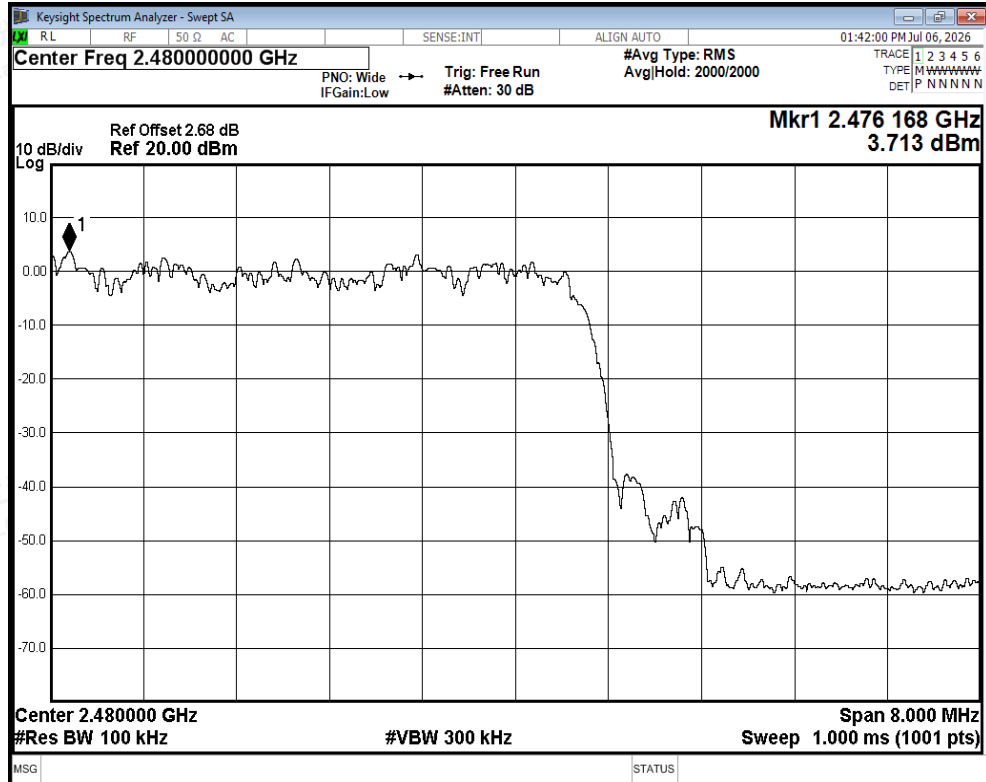
Band Edge (Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission



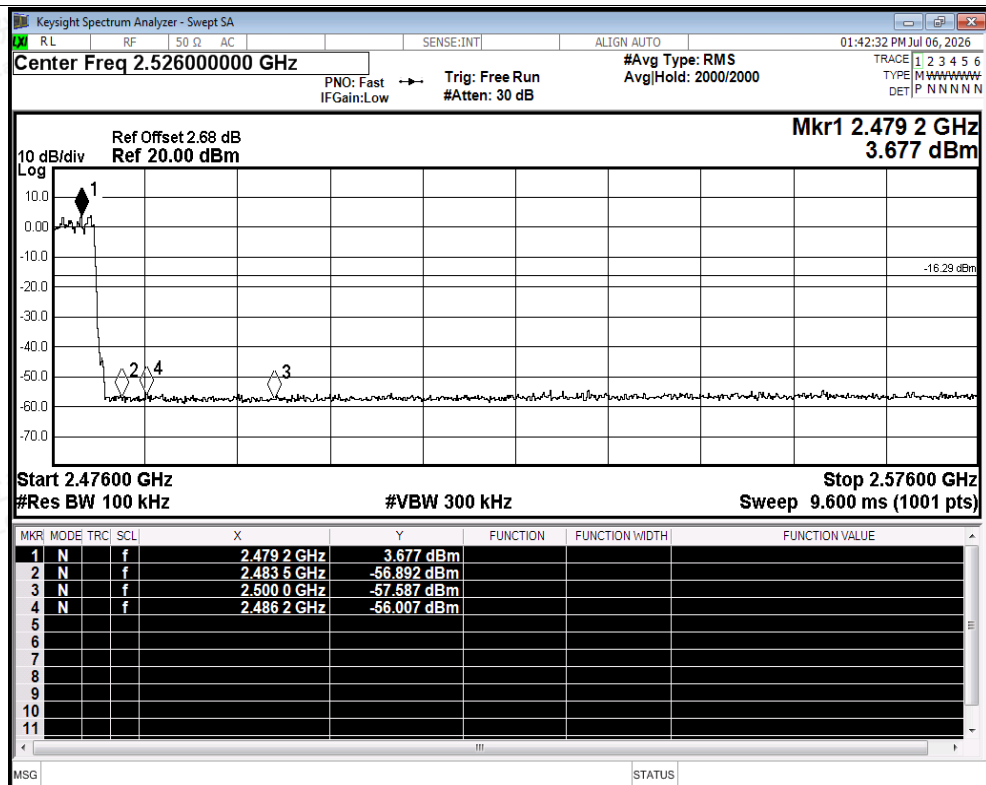
Band Edge (Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref



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



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

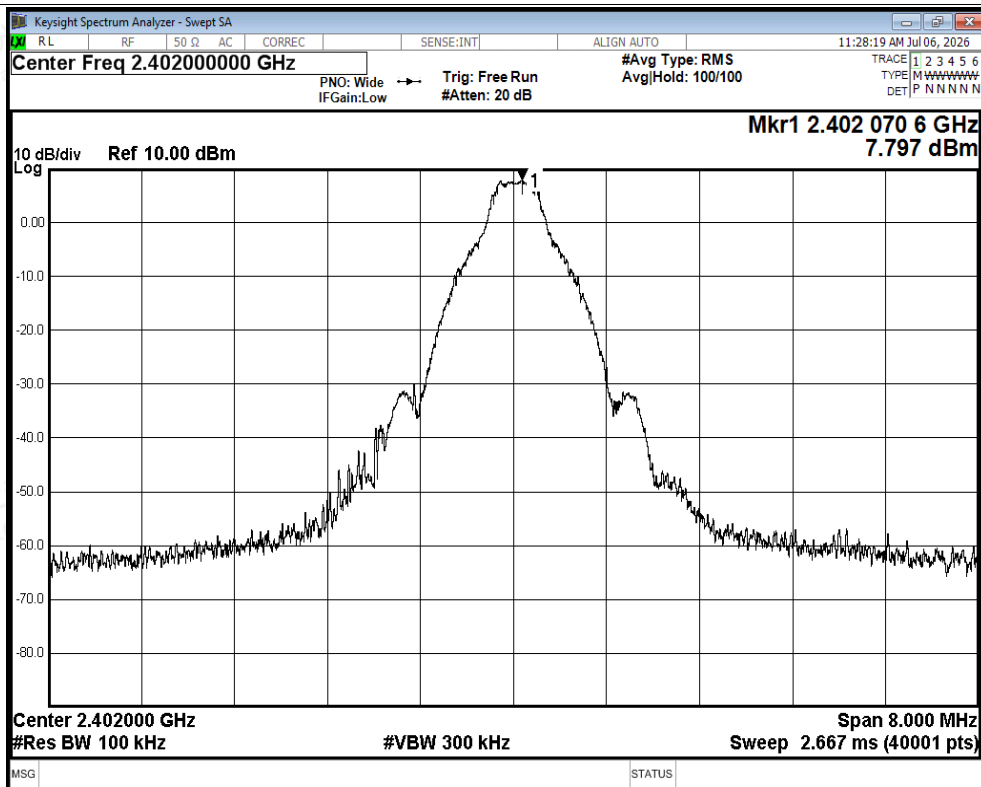


Band Edge (Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Emission

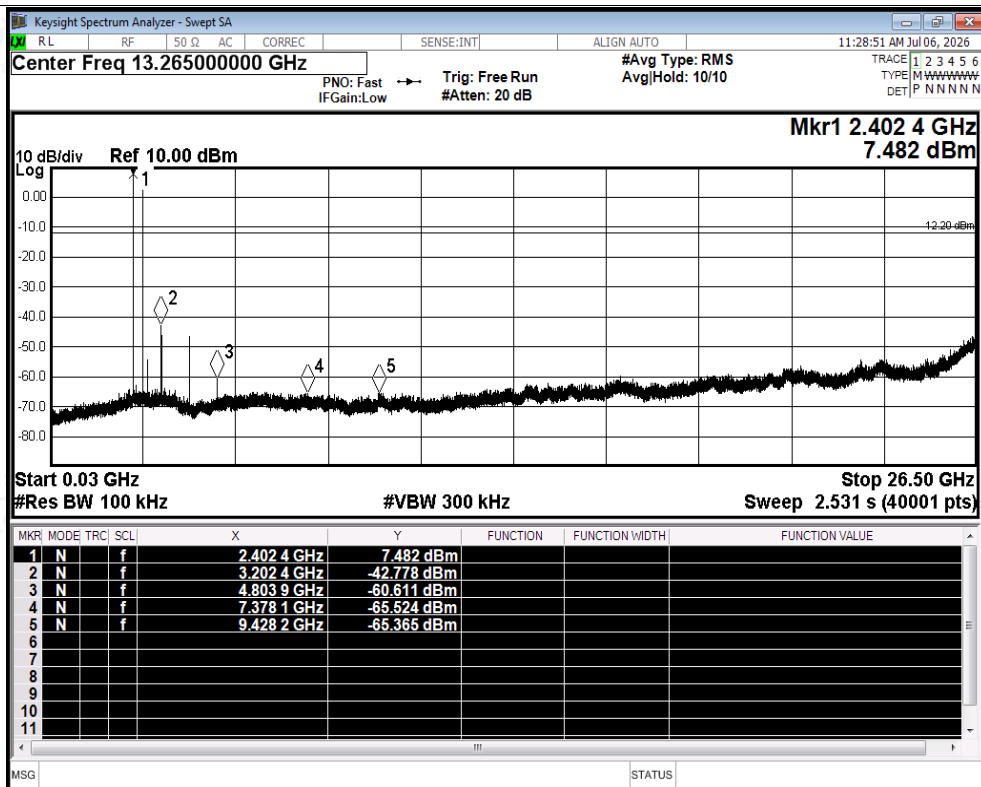


A.7 Conducted RF Spurious Emission

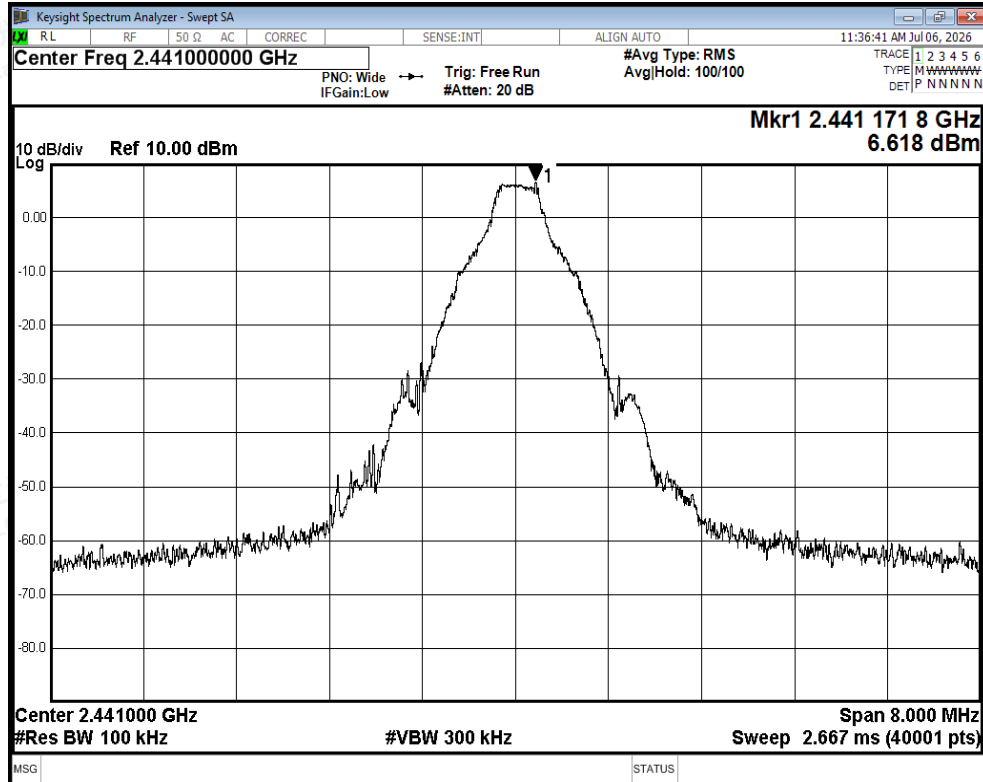
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-50.57	-20	Pass
NVNT	1-DH5	2441	Ant1	-53.85	-20	Pass
NVNT	1-DH5	2480	Ant1	-51.86	-20	Pass
NVNT	2-DH5	2402	Ant1	-48.28	-20	Pass
NVNT	2-DH5	2441	Ant1	-50.06	-20	Pass
NVNT	2-DH5	2480	Ant1	-49.58	-20	Pass
NVNT	3-DH5	2402	Ant1	-47.63	-20	Pass
NVNT	3-DH5	2441	Ant1	-50.74	-20	Pass
NVNT	3-DH5	2480	Ant1	-49.47	-20	Pass



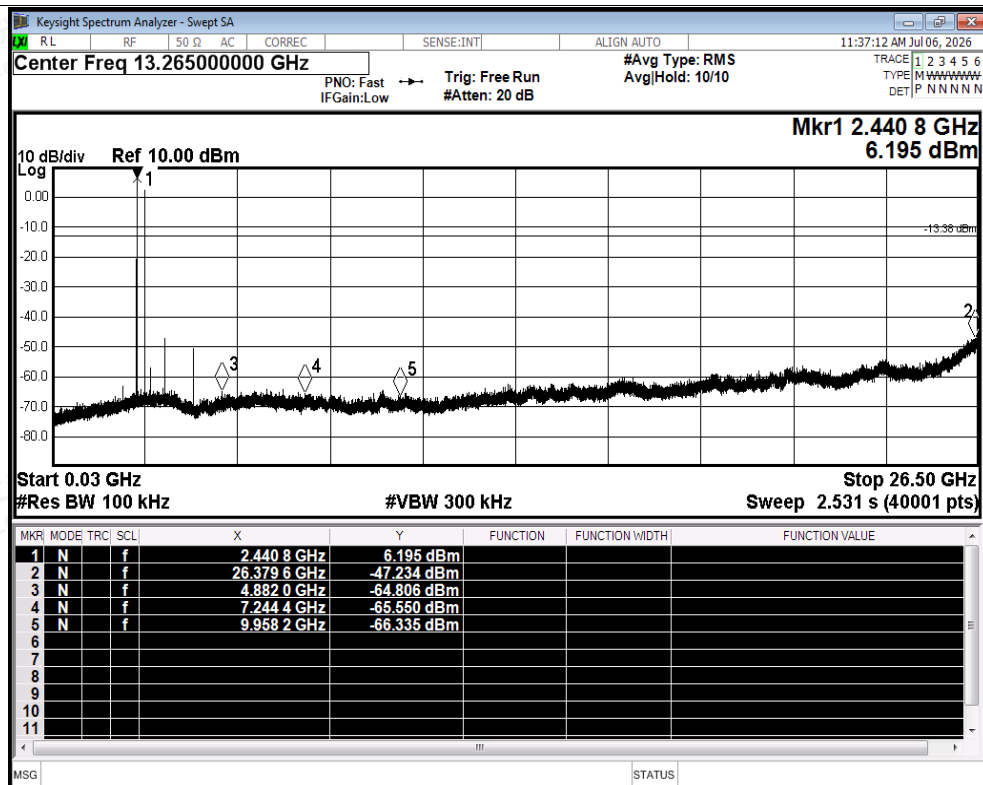
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



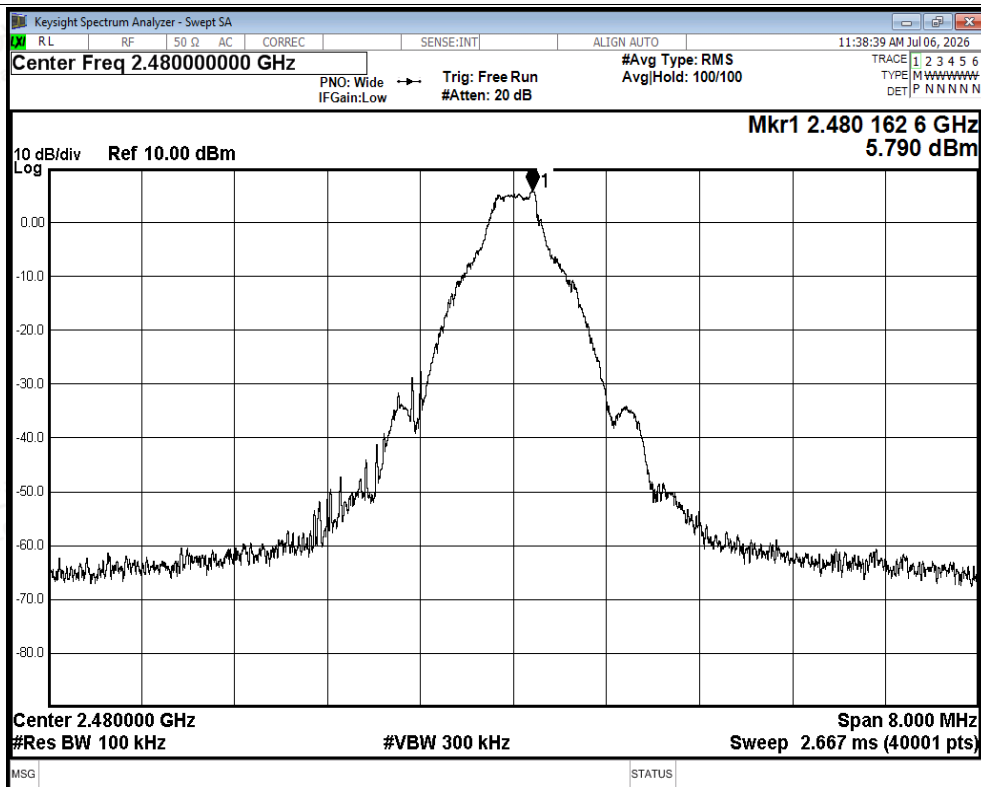
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



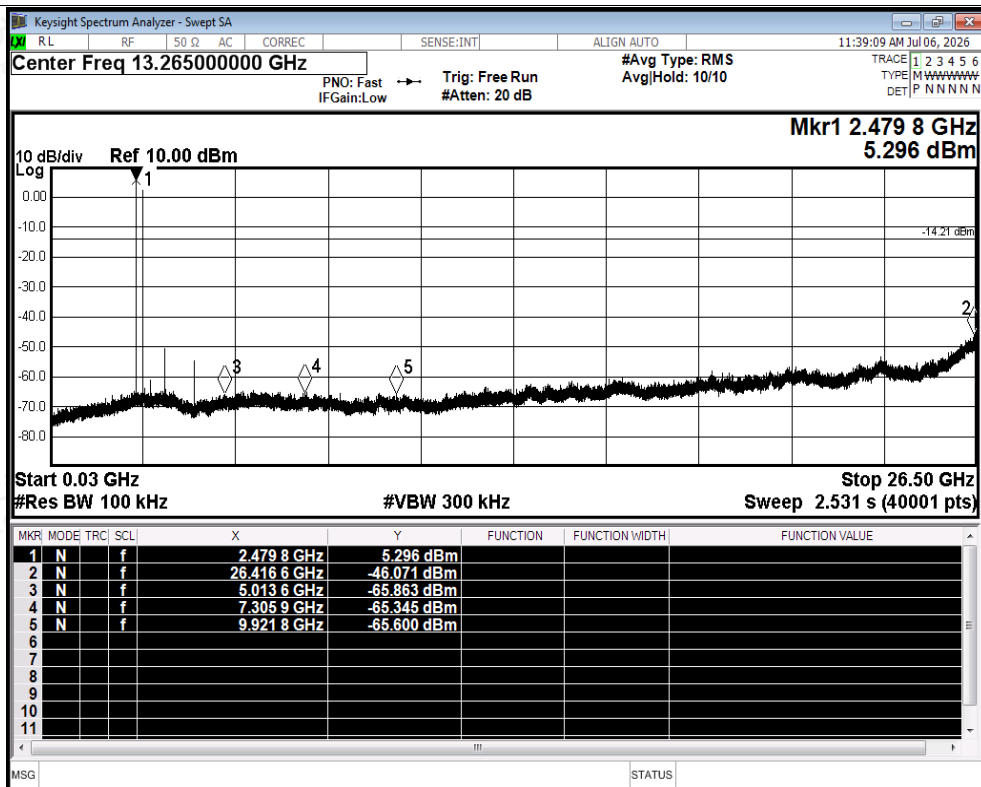
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



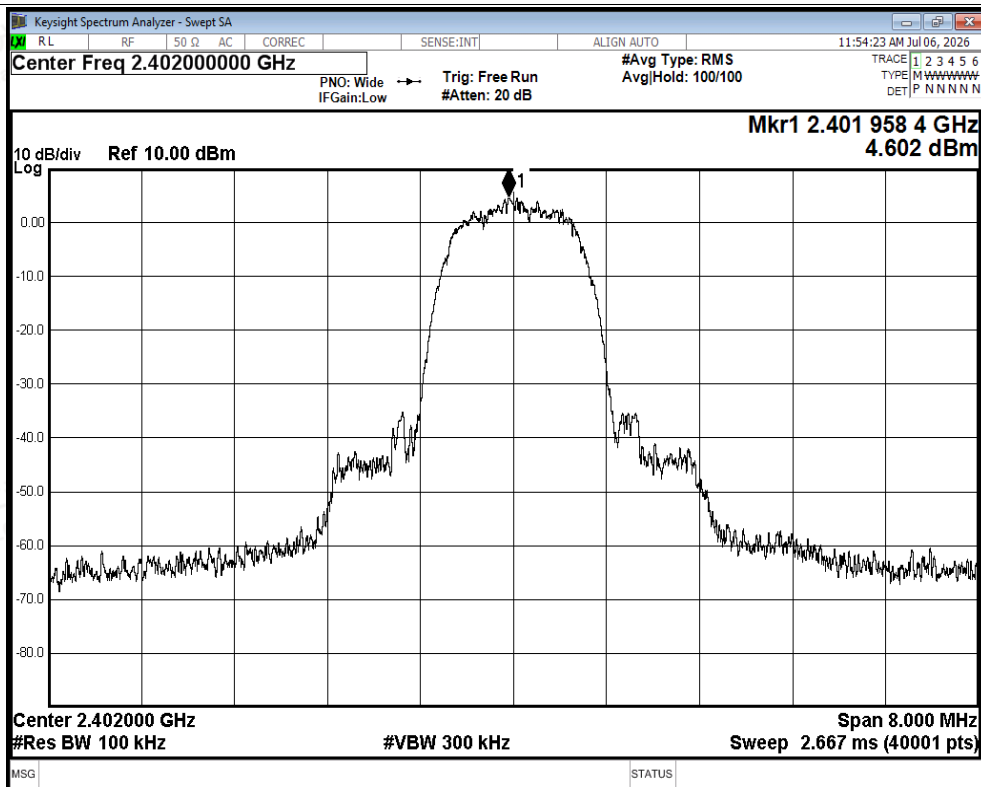
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



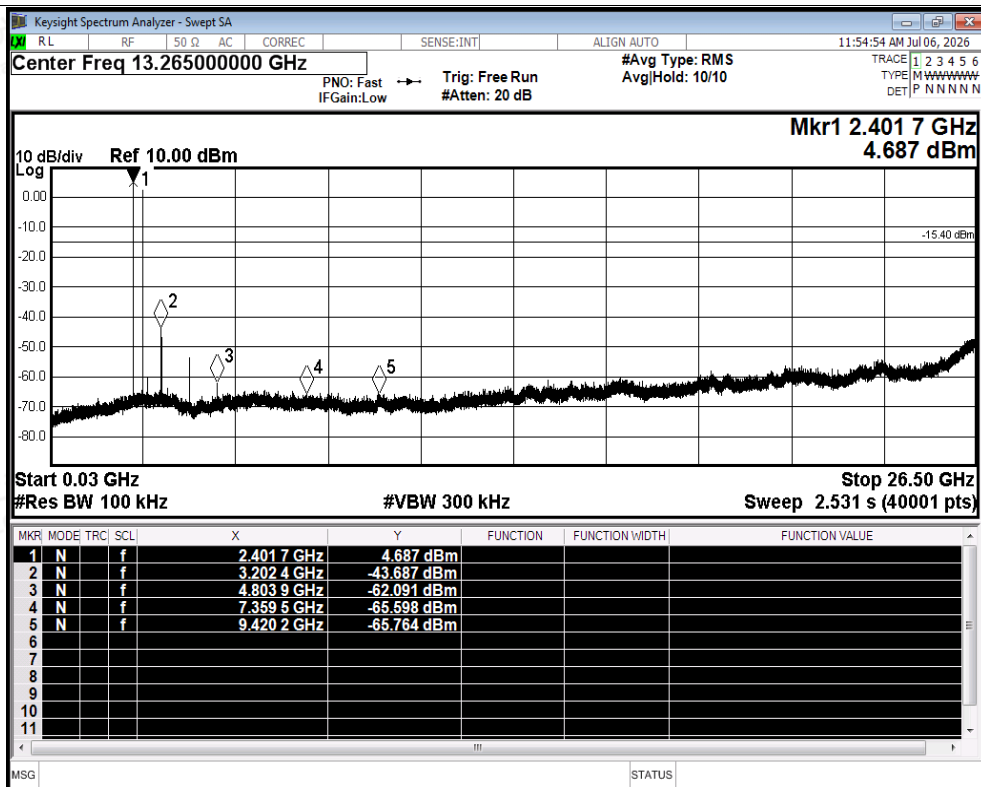
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



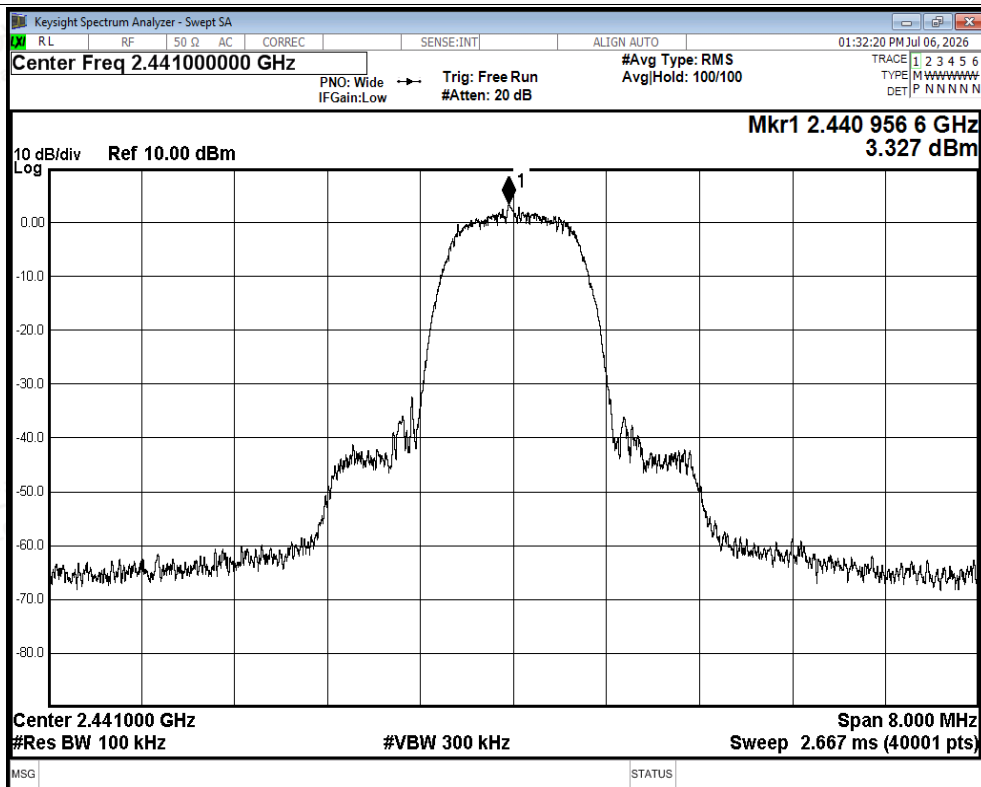
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



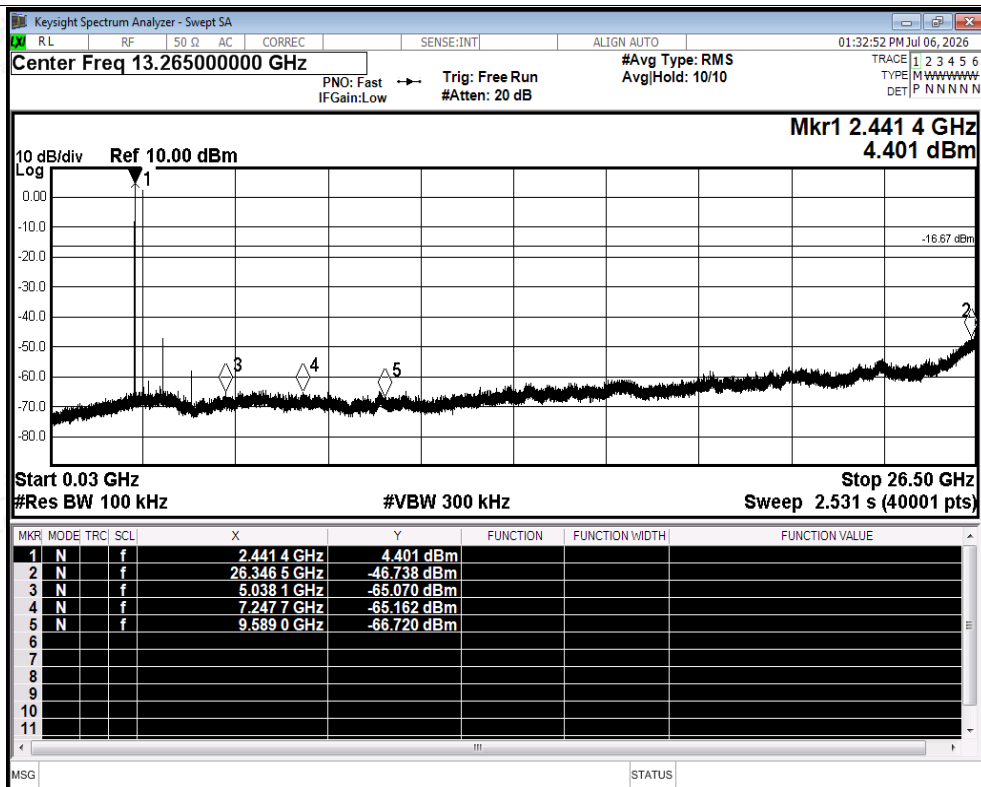
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



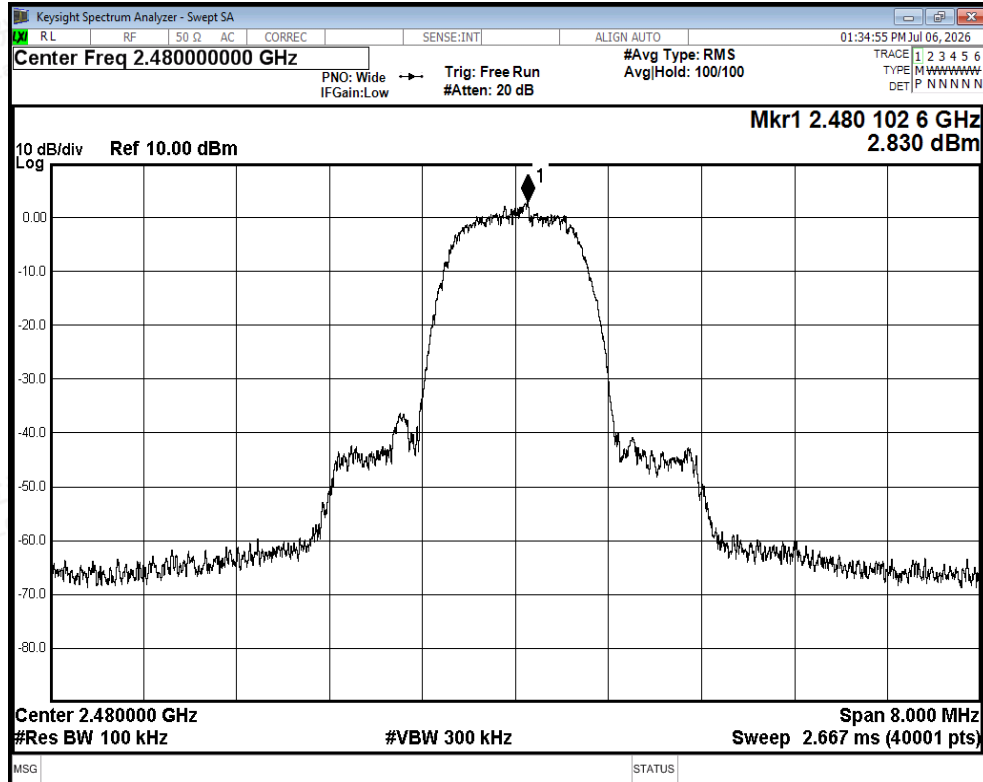
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



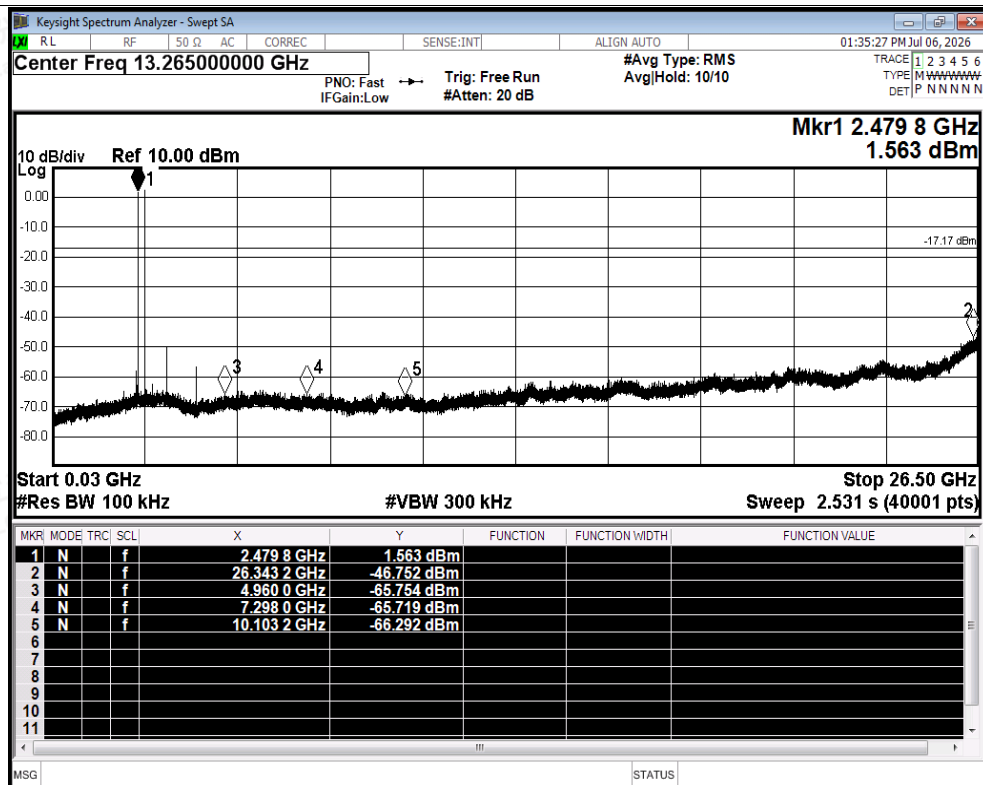
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



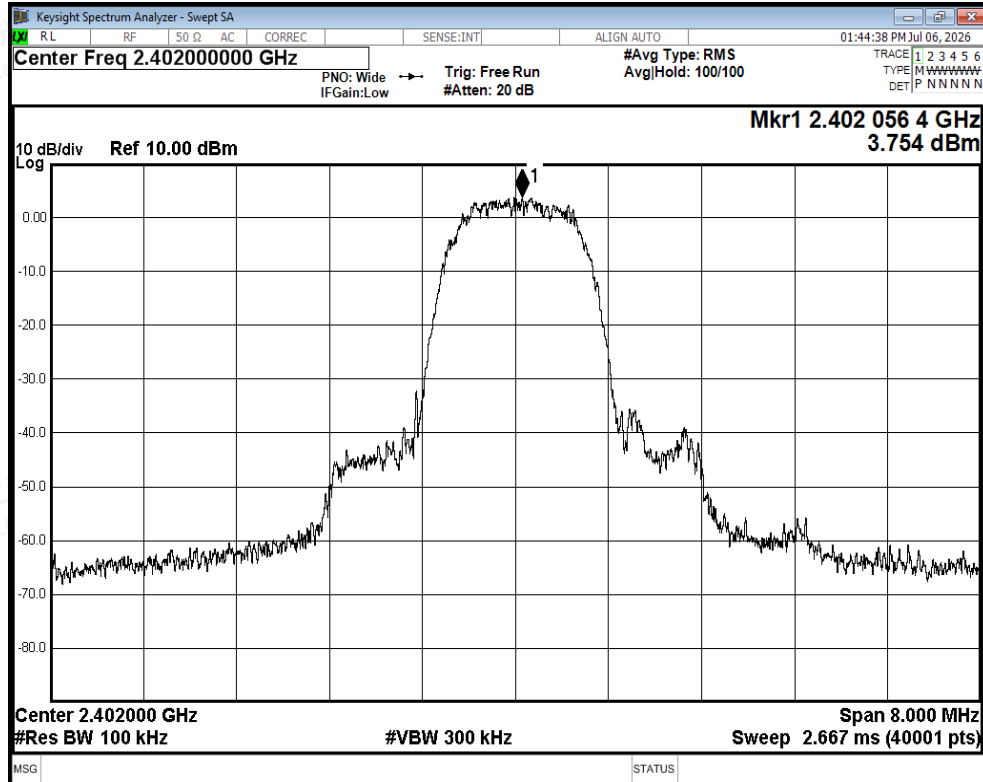
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



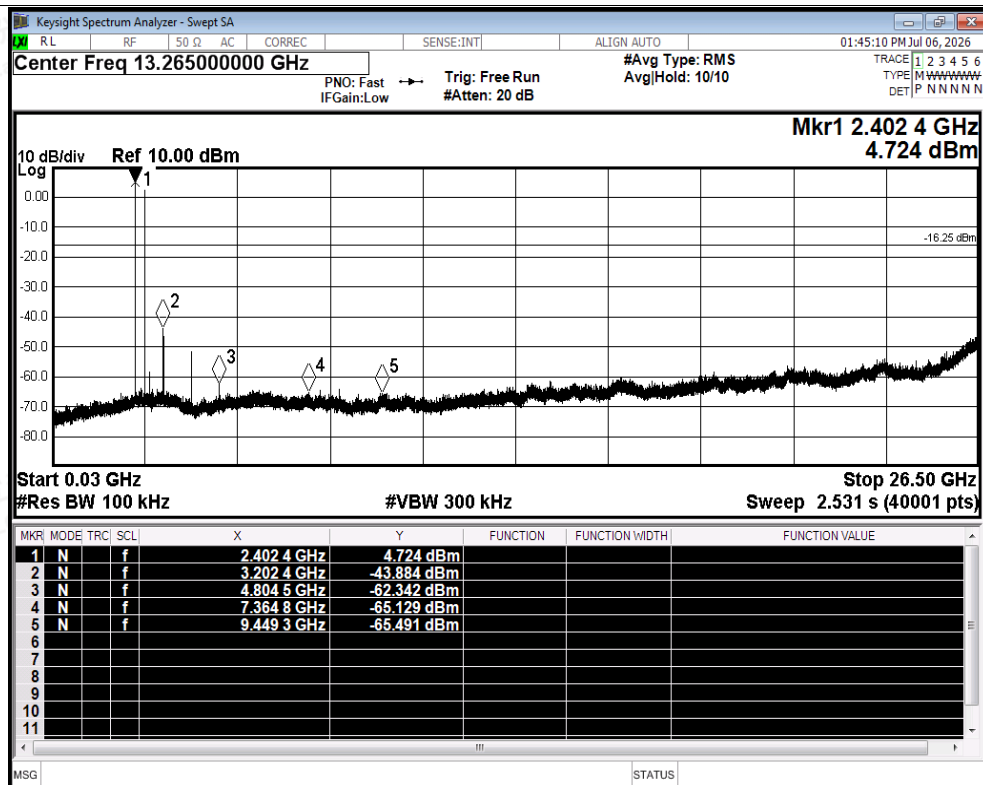
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



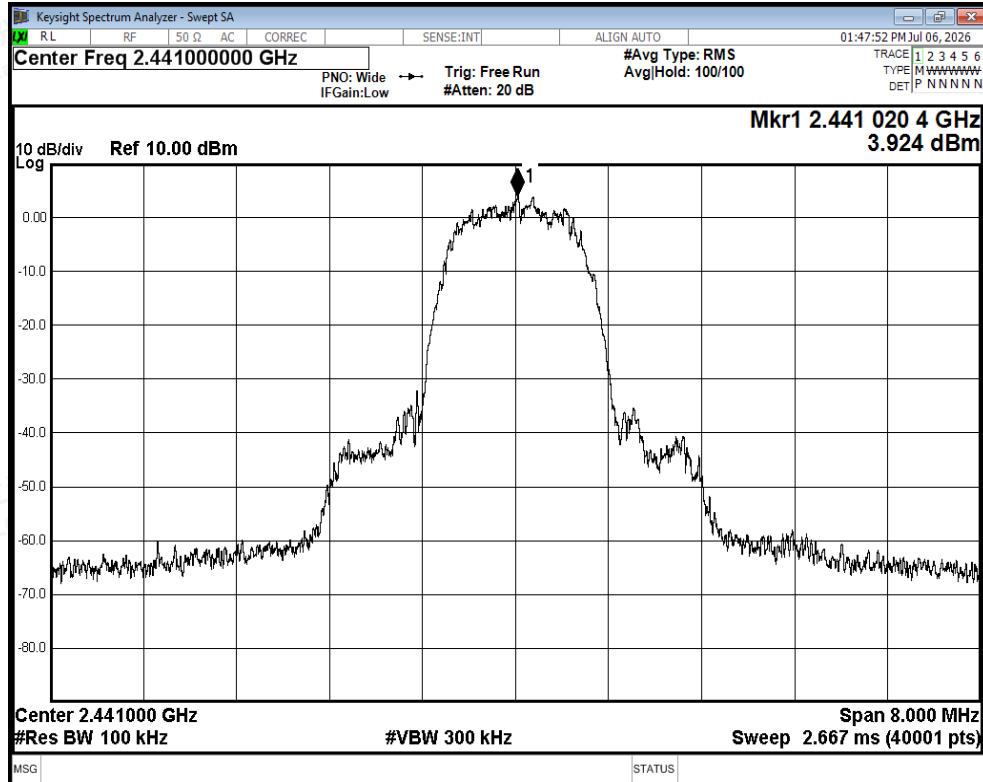
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



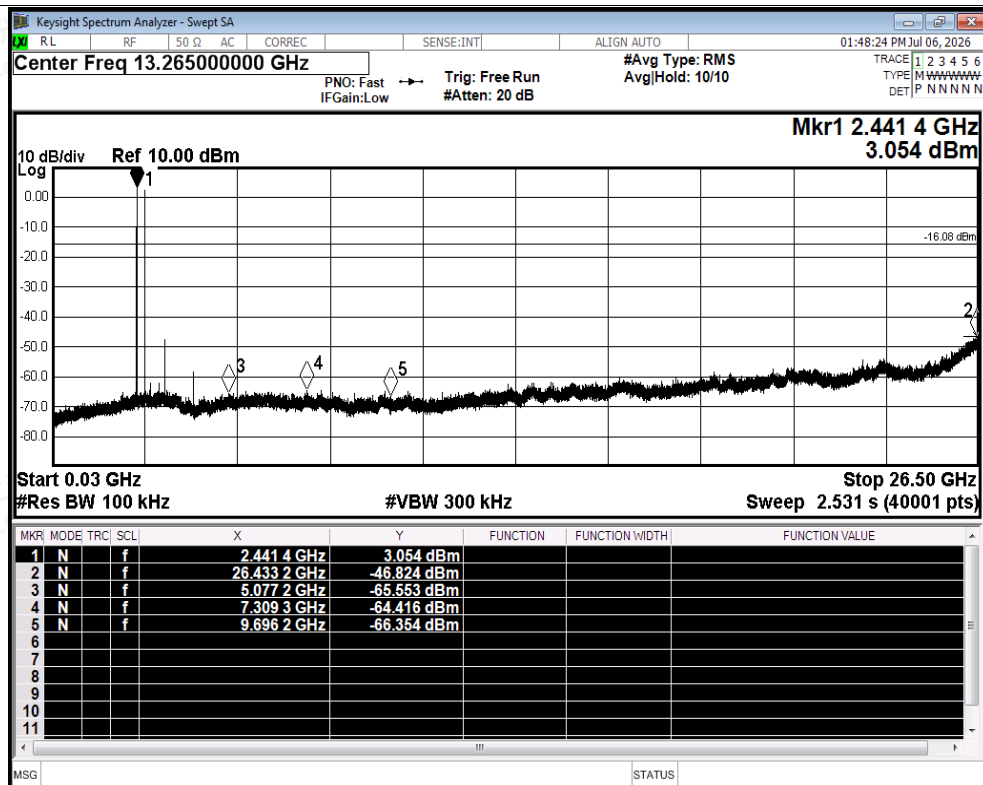
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



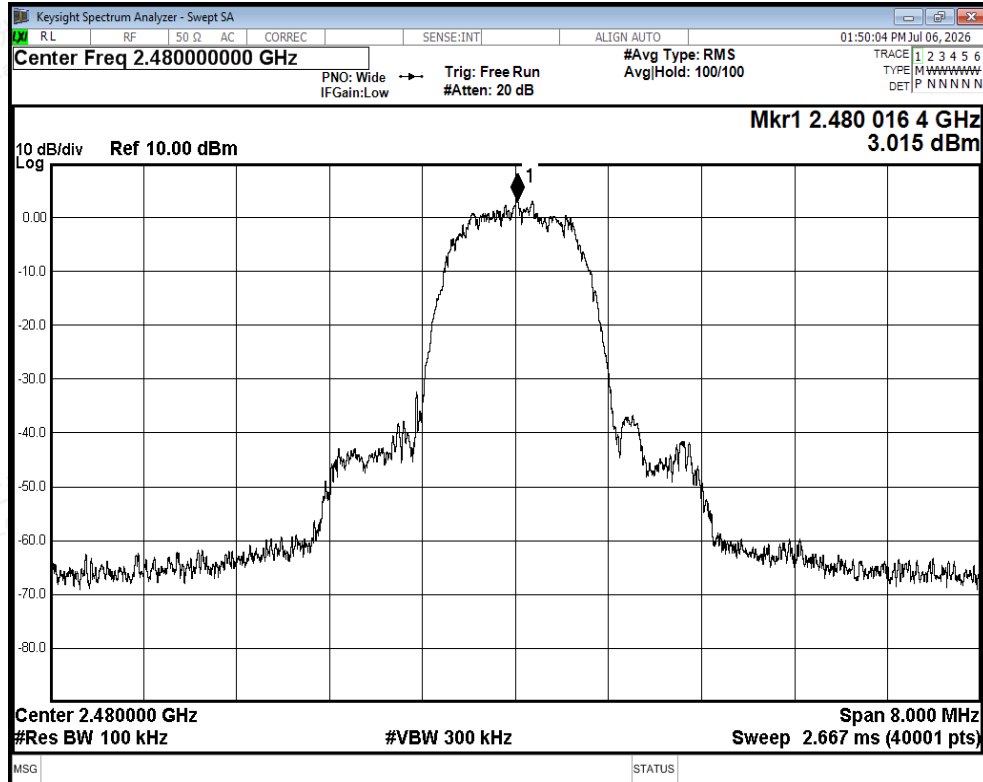
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



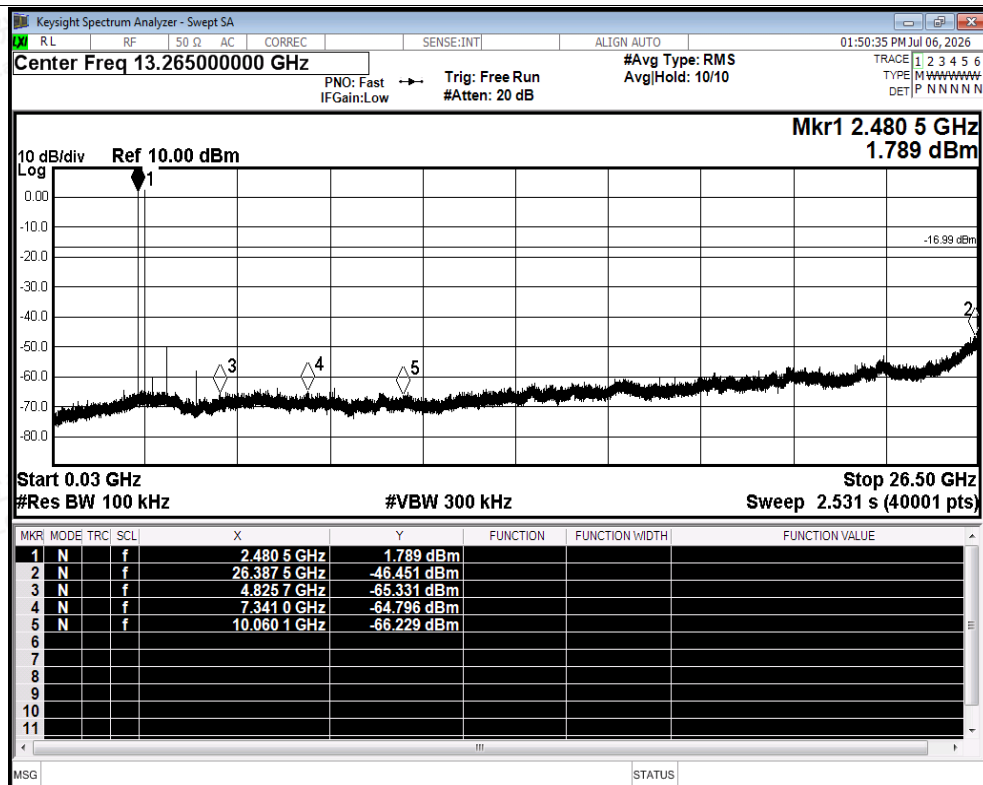
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref

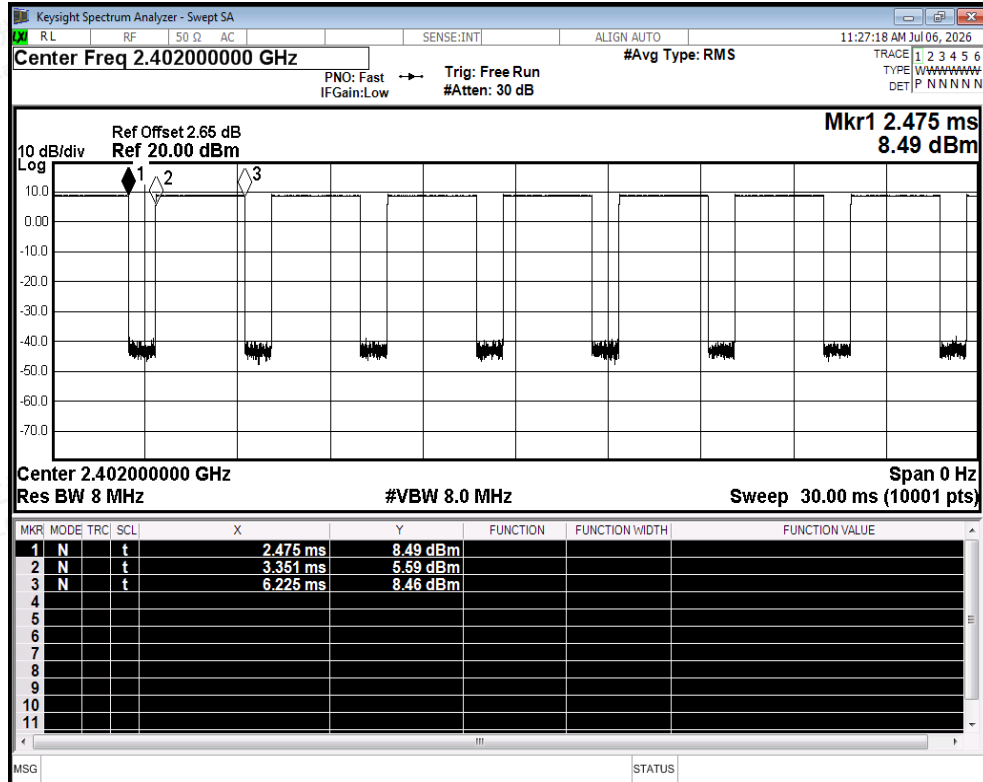


Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

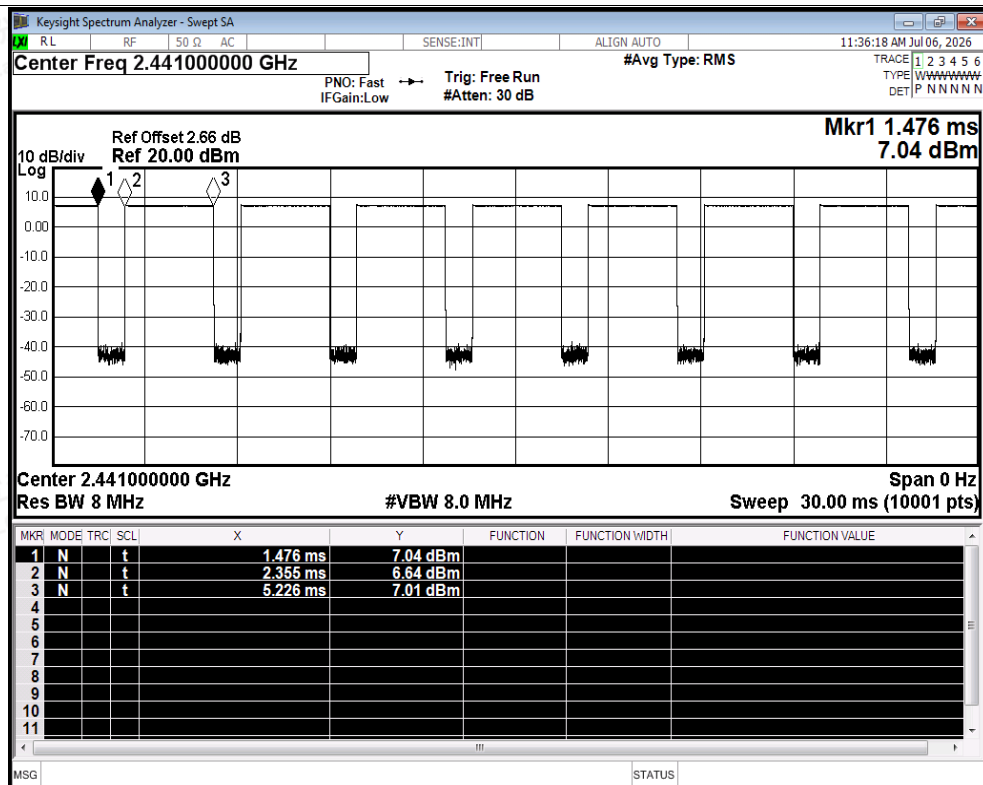


A.8 Duty Cycle

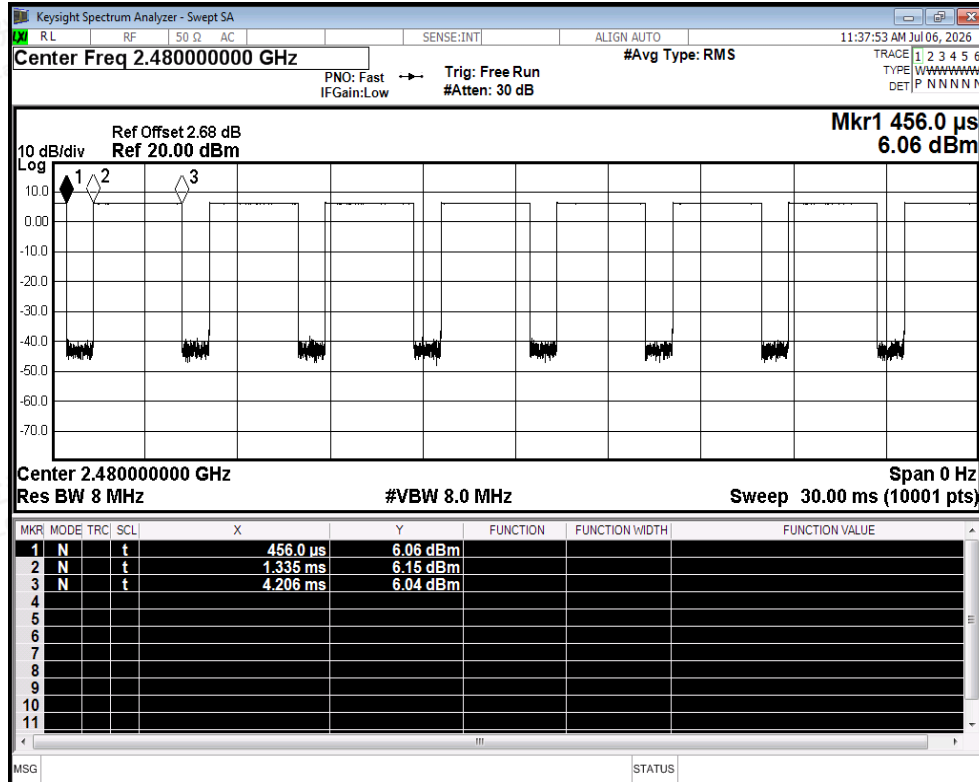
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	76.64	1.16	0.35
NVNT	1-DH5	2441	Ant1	76.56	1.16	0.35
NVNT	1-DH5	2480	Ant1	76.56	1.16	0.35
NVNT	2-DH5	2402	Ant1	76.64	1.16	0.35
NVNT	2-DH5	2441	Ant1	76.64	1.16	0.35
NVNT	2-DH5	2480	Ant1	76.64	1.16	0.35
NVNT	3-DH5	2402	Ant1	76.72	1.15	0.35
NVNT	3-DH5	2441	Ant1	76.72	1.15	0.35
NVNT	3-DH5	2480	Ant1	76.72	1.15	0.35



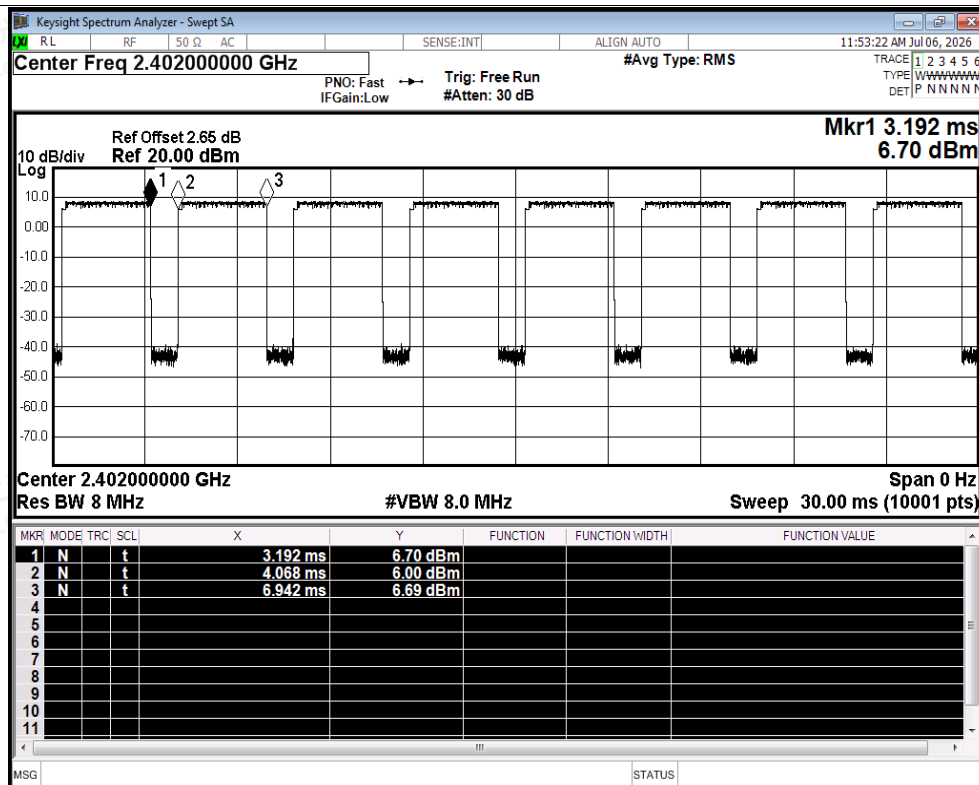
Duty Cycle NVNT 1-DH5 2402MHz Ant1



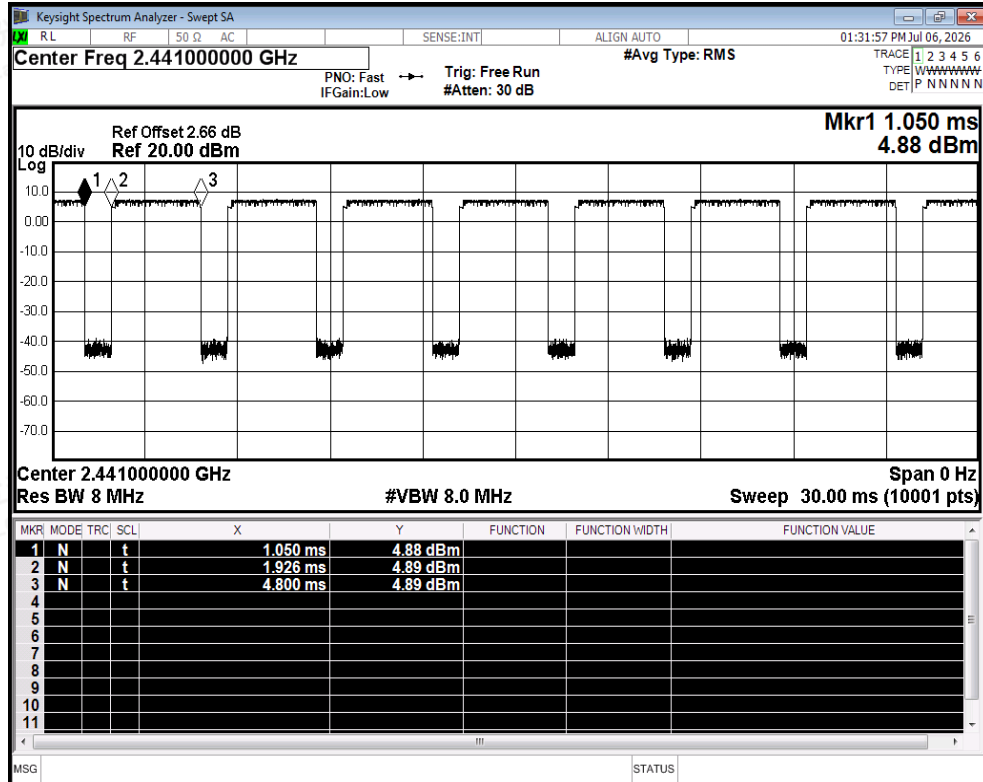
Duty Cycle NVNT 1-DH5 2441MHz Ant1



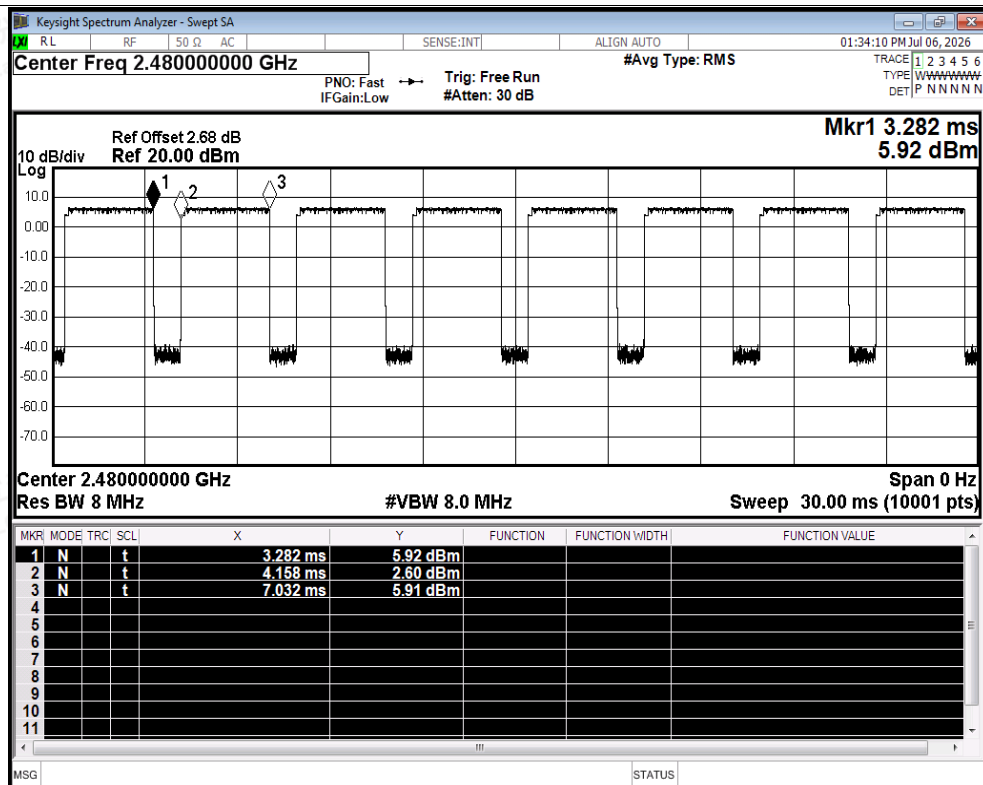
Duty Cycle NVNT 1-DH5 2480MHz Ant1



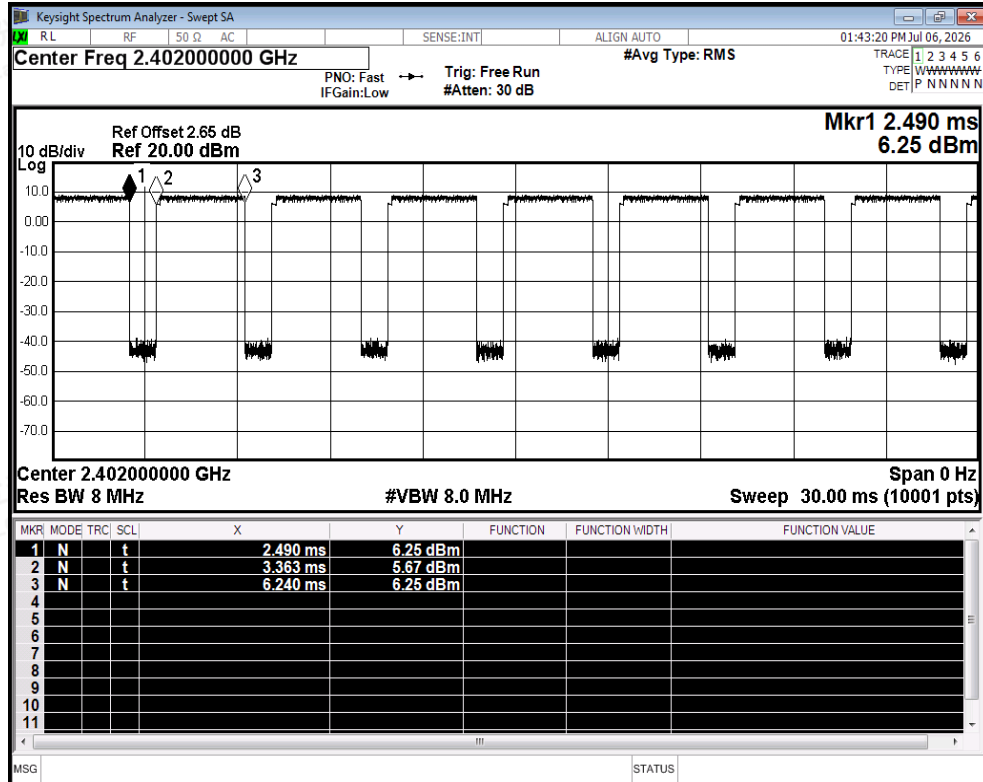
Duty Cycle NVNT 2-DH5 2402MHz Ant1



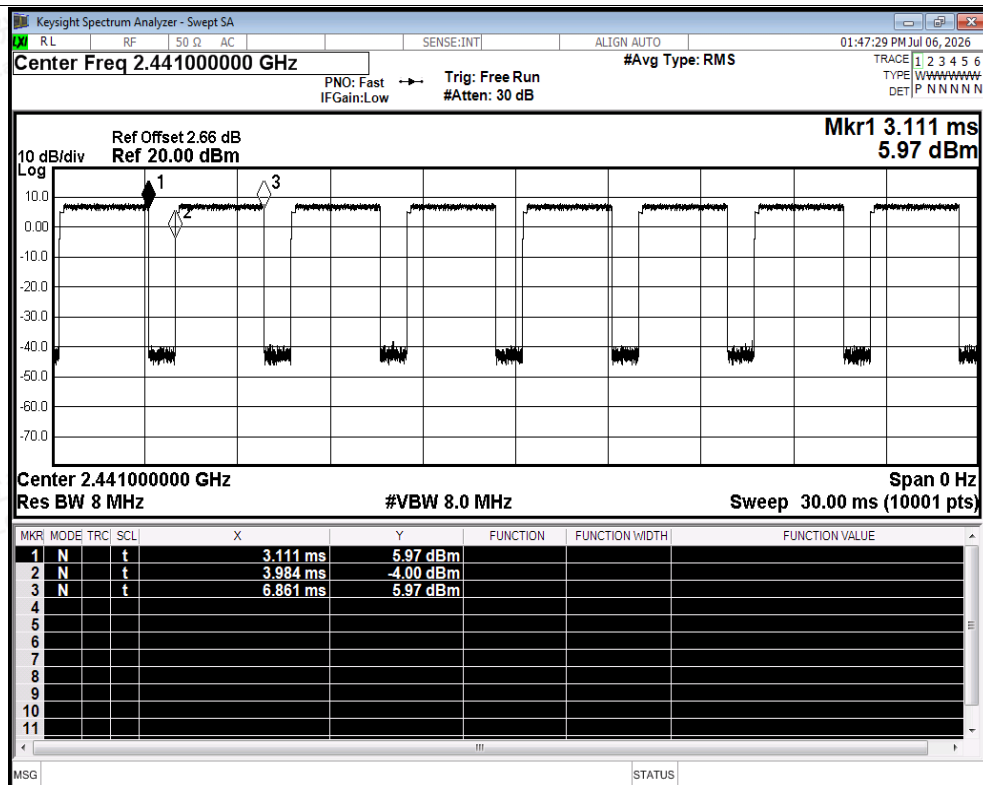
Duty Cycle NVNT 2-DH5 2441MHz Ant1



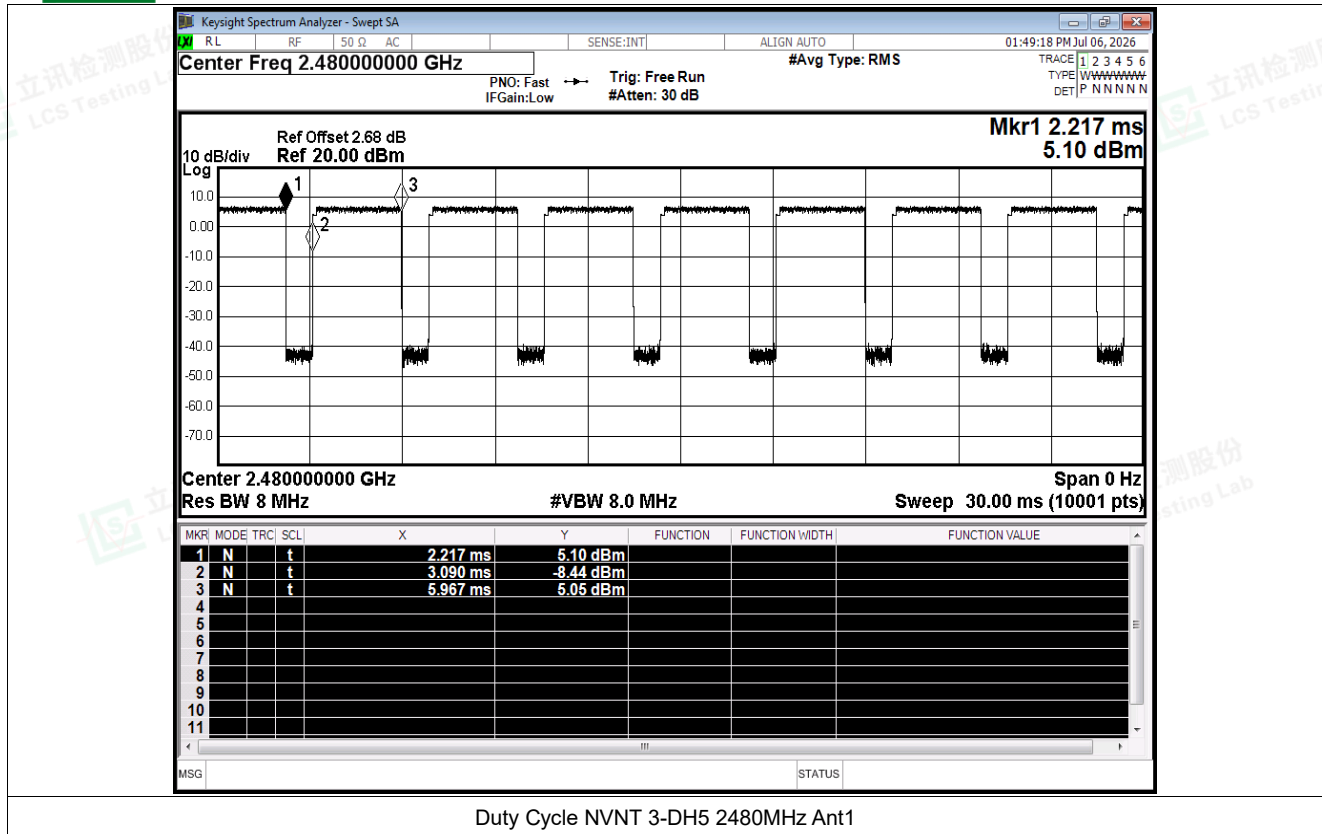
Duty Cycle NVNT 2-DH5 2480MHz Ant1



Duty Cycle NVNT 3-DH5 2402MHz Ant1



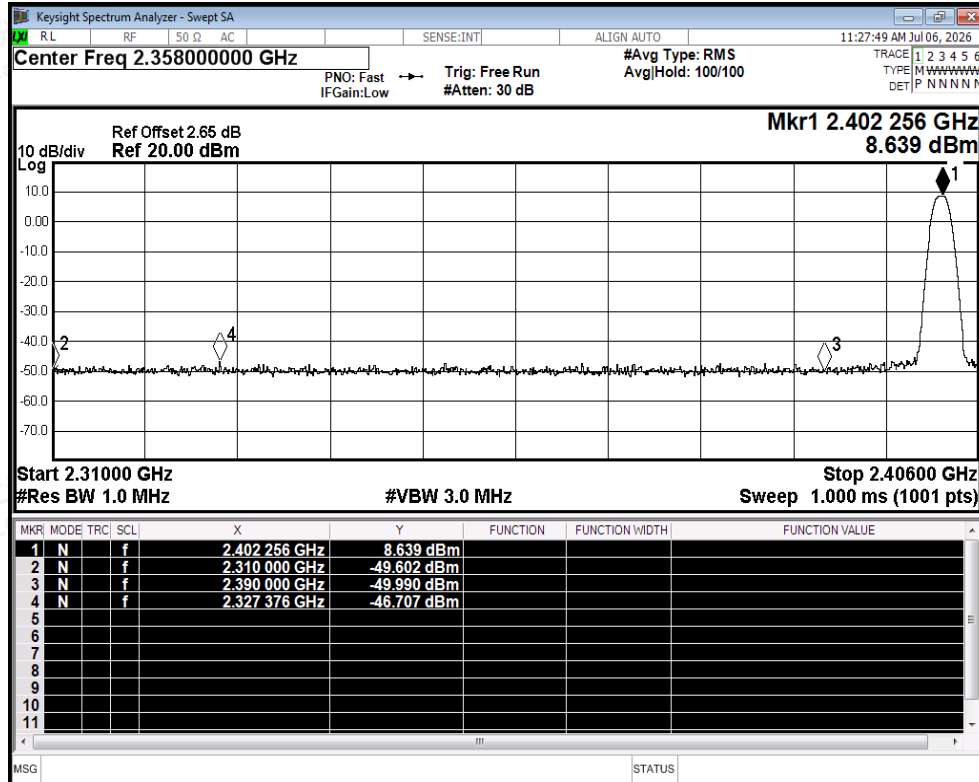
Duty Cycle NVNT 3-DH5 2441MHz Ant1



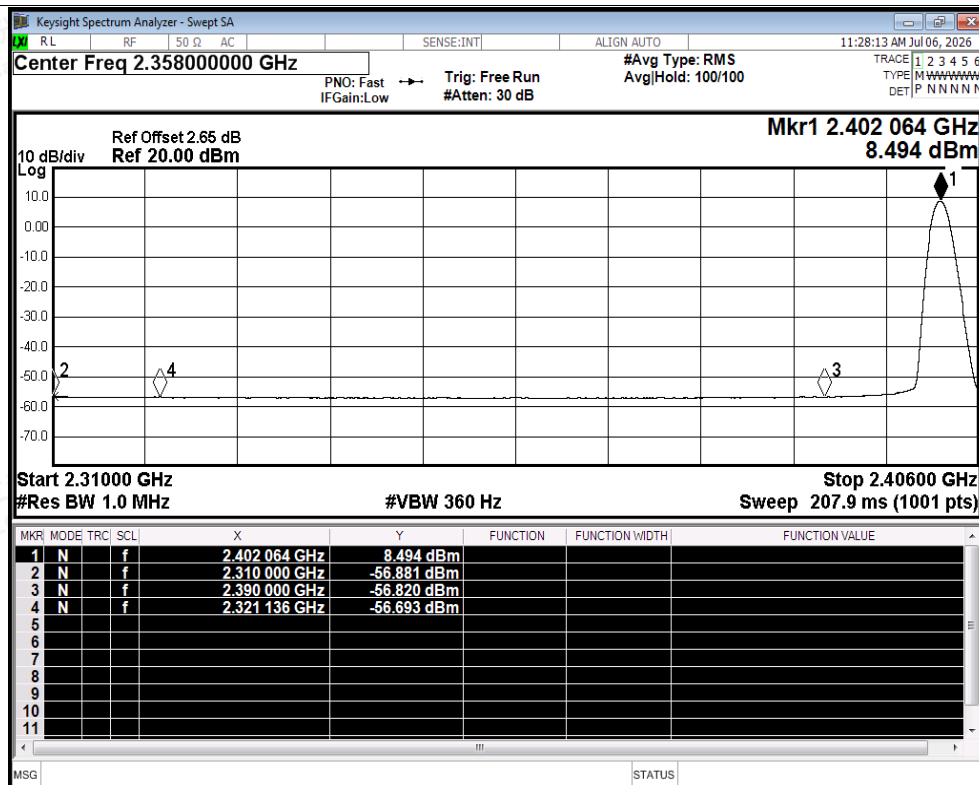


A.9 Restrict Band

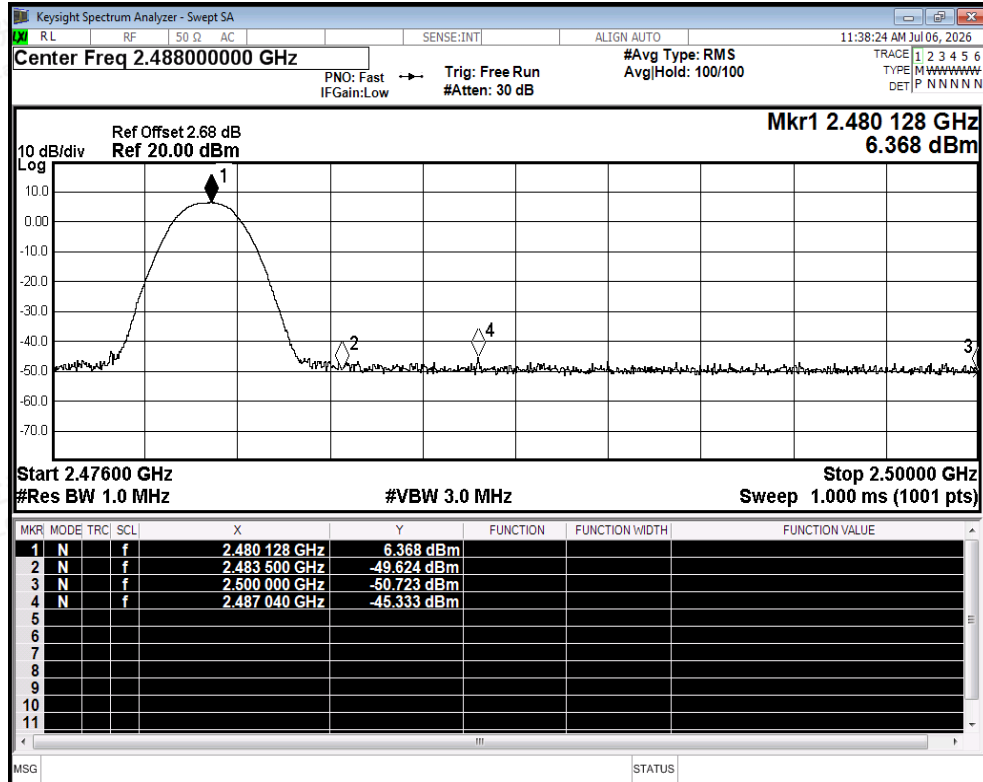
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-49.6	3.89	49.55	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-56.88	3.89	42.27	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2327.376	-46.7	3.89	52.45	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2321.136	-56.69	3.89	42.46	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-50.25	3.89	48.90	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-56.89	3.89	42.26	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-49.62	3.89	49.53	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-52.91	3.89	46.24	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2487.04	-45.33	3.89	53.82	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.512	-52.91	3.89	46.24	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-50.72	3.89	48.43	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-56.86	3.89	42.29	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-49.77	3.89	49.38	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-56.92	3.89	42.23	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2313.072	-47.27	3.89	51.88	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310.48	-56.69	3.89	42.46	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-49.97	3.89	49.18	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-56.84	3.89	42.31	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-48.75	3.89	50.40	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-52.34	3.89	46.81	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2490.832	-46.71	3.89	52.44	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.512	-52.34	3.89	46.81	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-48.34	3.89	50.81	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-56.78	3.89	42.37	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-49.86	3.89	49.29	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-56.95	3.89	42.20	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2325.744	-46.82	3.89	52.33	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310.864	-56.74	3.89	42.41	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-49.44	3.89	49.71	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-56.99	3.89	42.16	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-49.58	3.89	49.57	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-52.37	3.89	46.78	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2489.56	-46.75	3.89	52.40	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.512	-52.37	3.89	46.78	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-49.2	3.89	49.95	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-56.9	3.89	42.25	Average	54	Pass



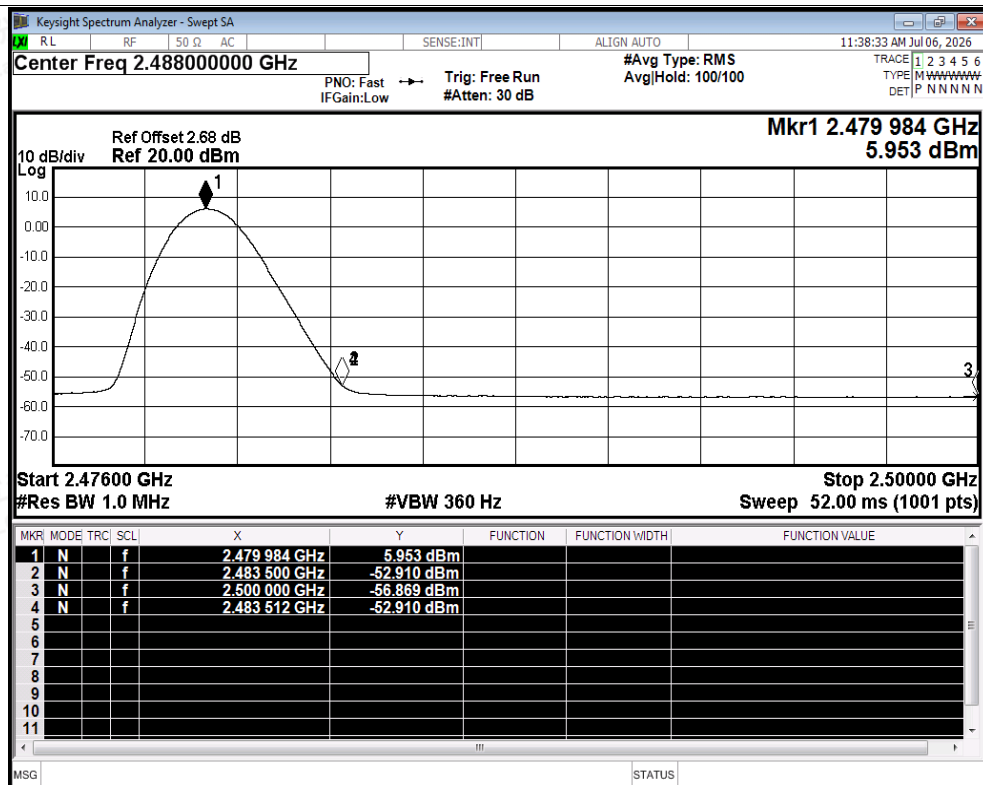
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



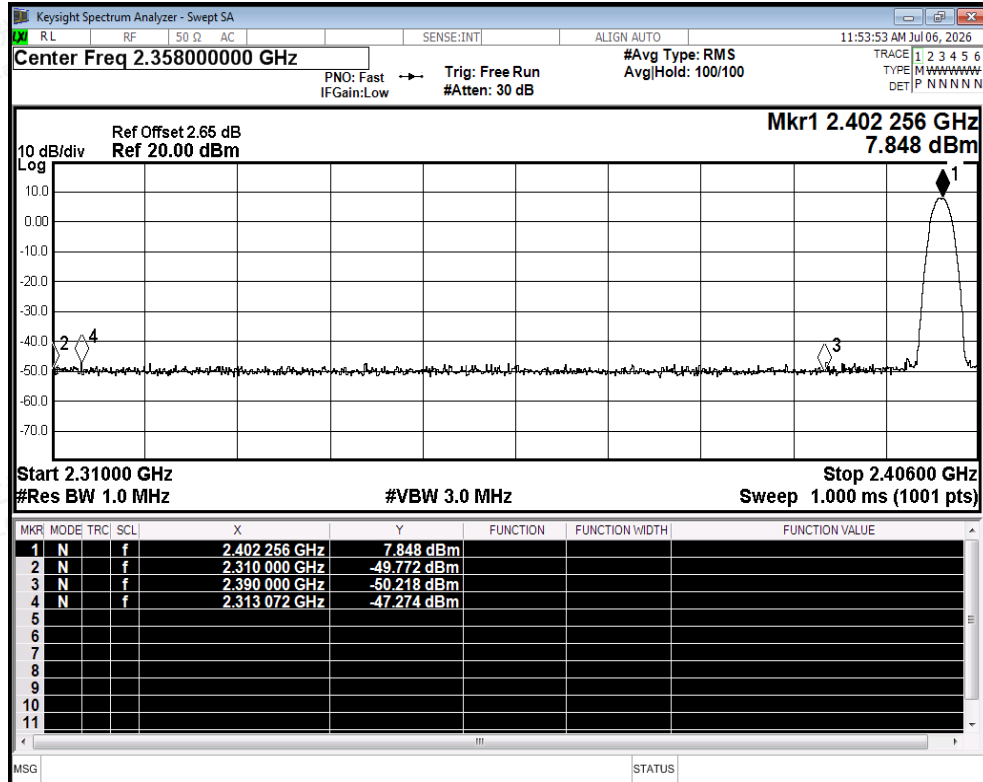
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



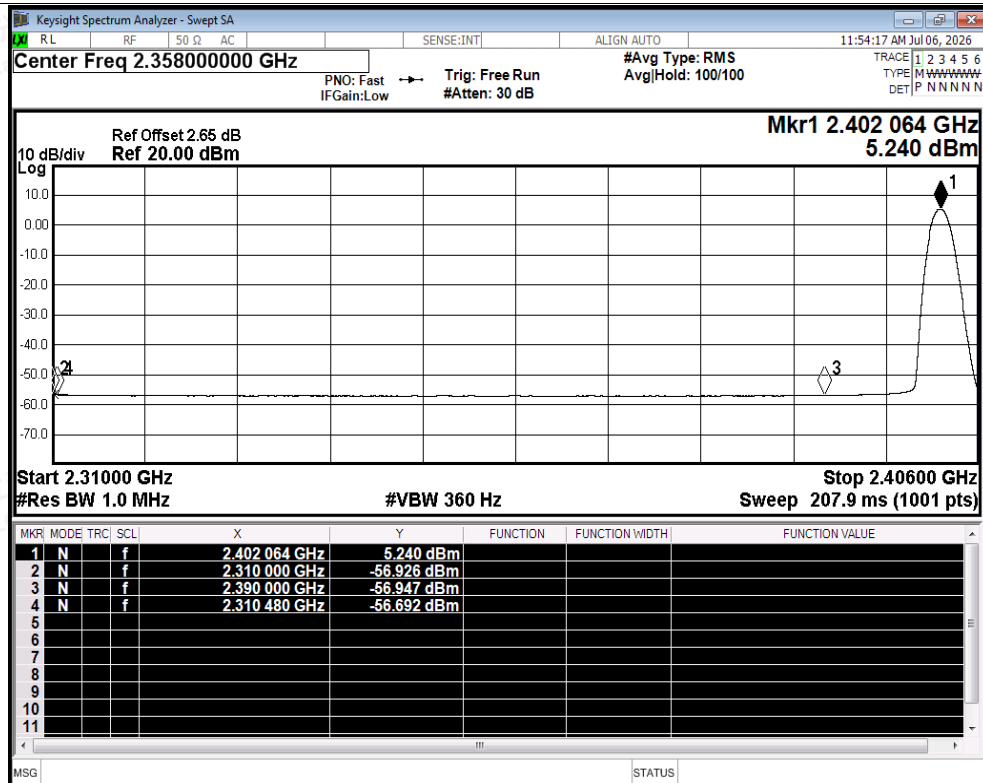
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



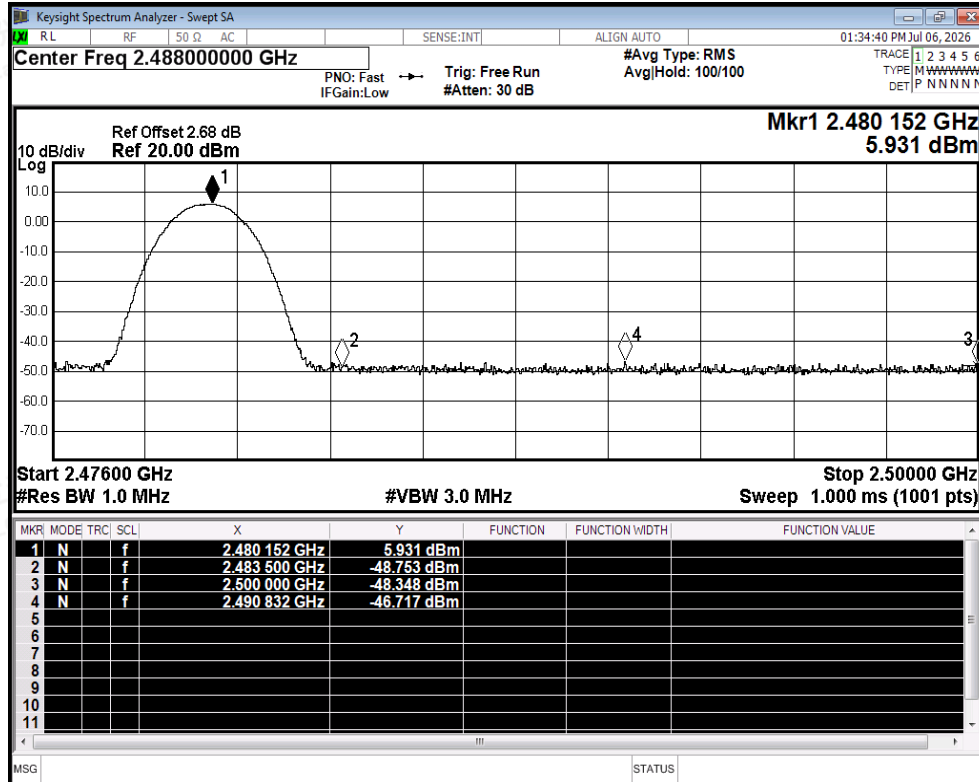
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



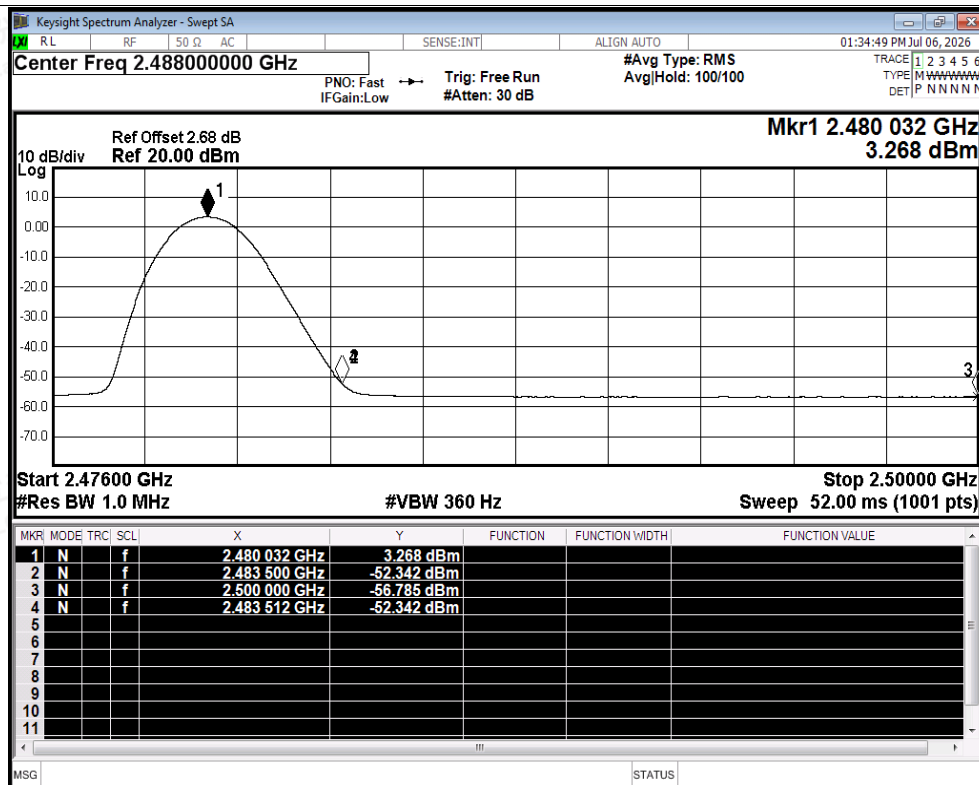
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak



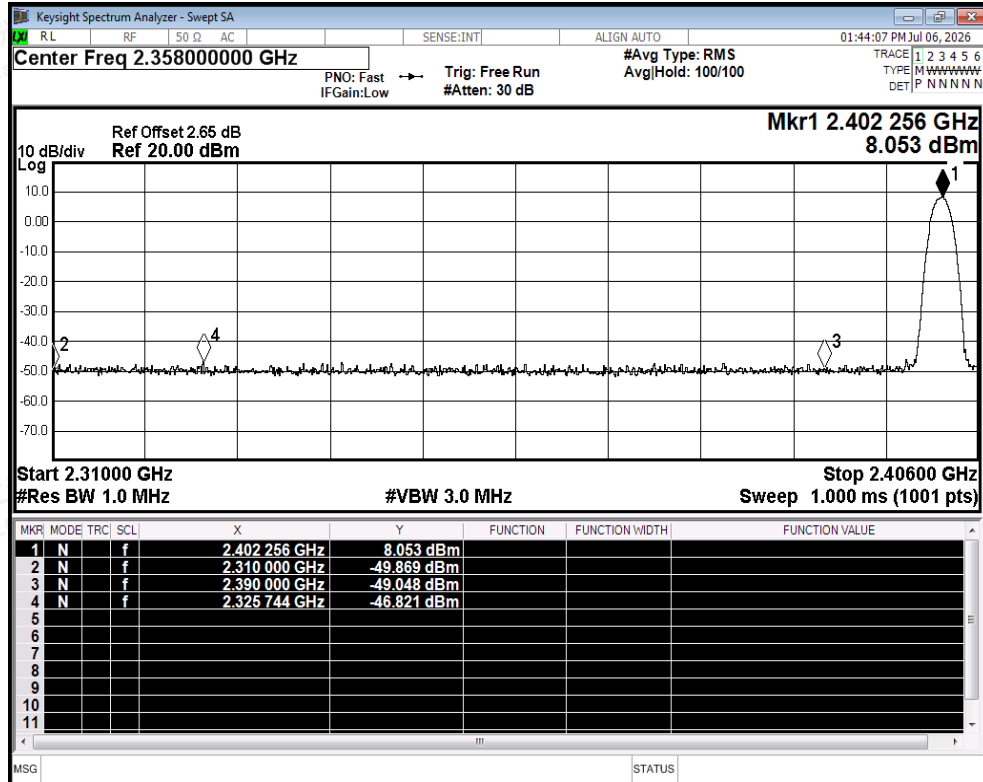
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average



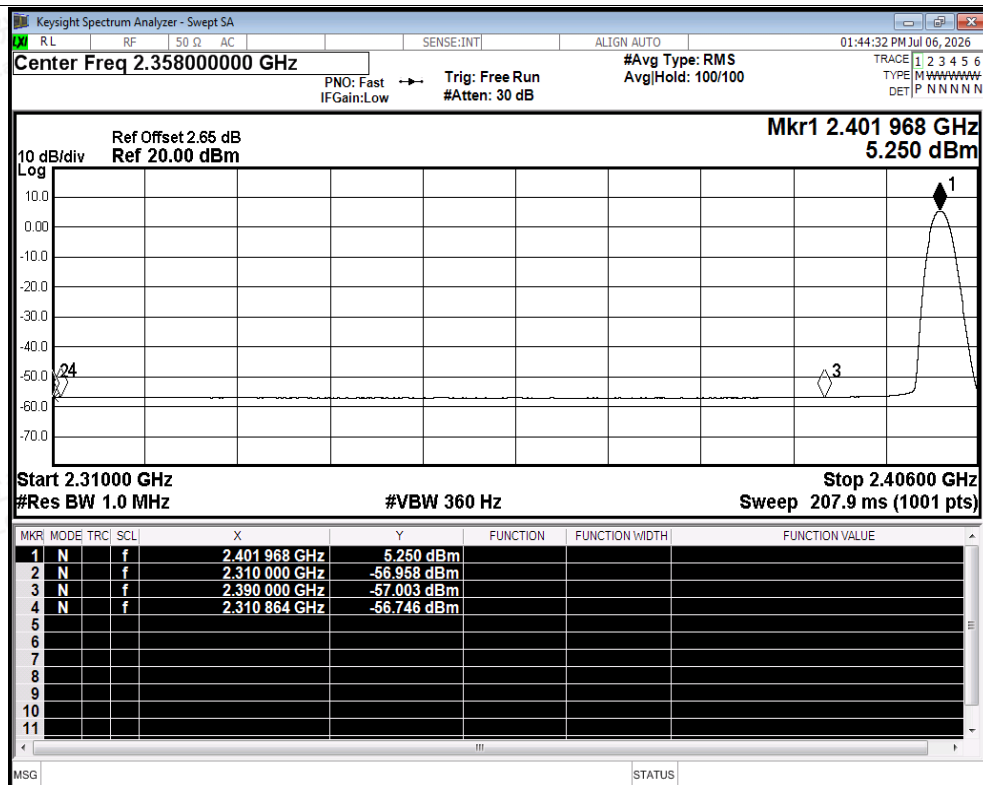
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak



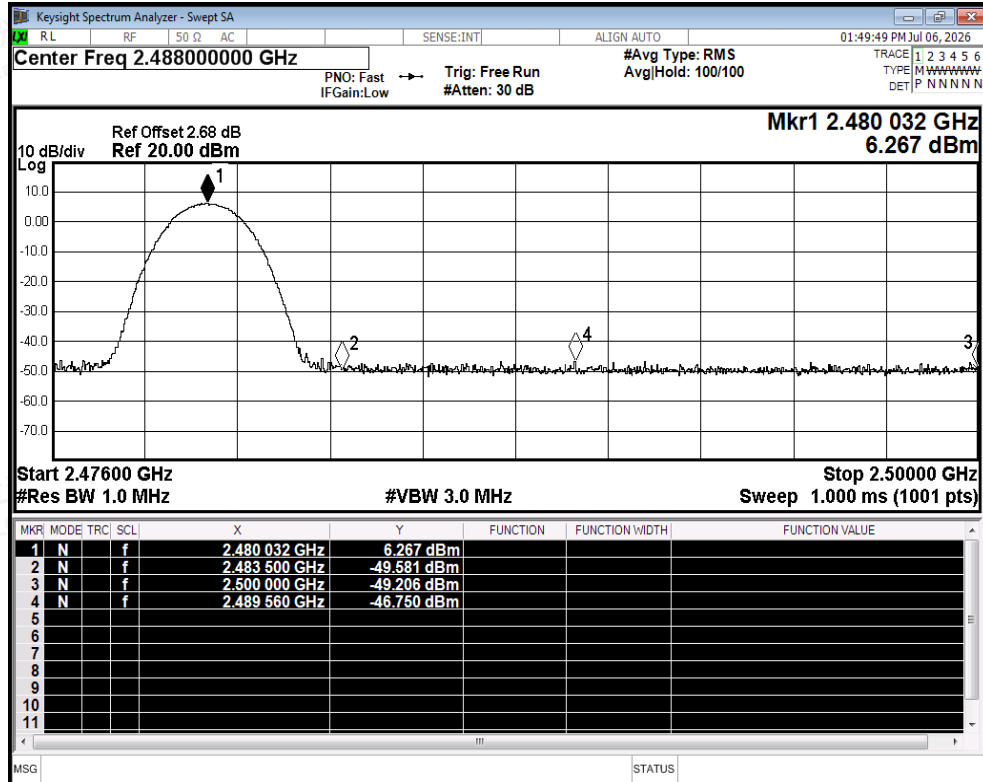
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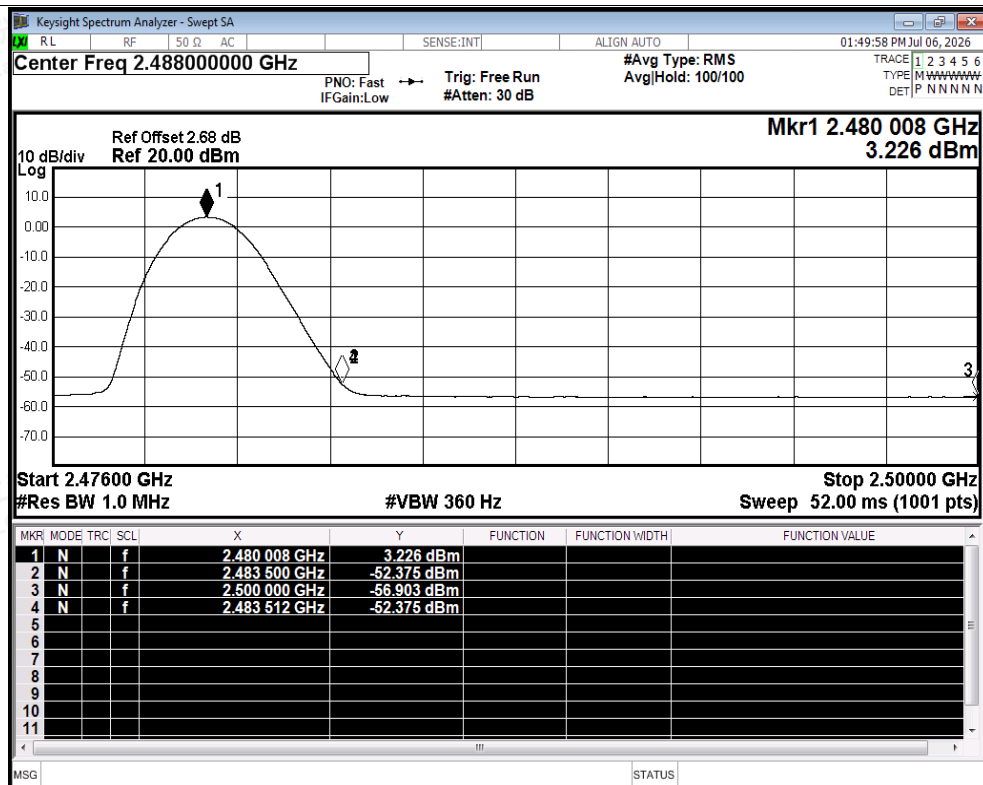
Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak



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