

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	Bluetooth headsets
Test Model:	CAMBRIAN
Sample ID:	HC-C-202507-0193-01-01
Environmental Conditions	
Temperature:	25.6℃
Relative Humidity:	52.2%
Test Voltage:	DC 3.7V
Test Engineer:	Gold zhang
Note: For a more detailed features description, please refer to the report TBR-C-202507-0193-17 The report only show the worst case data.	

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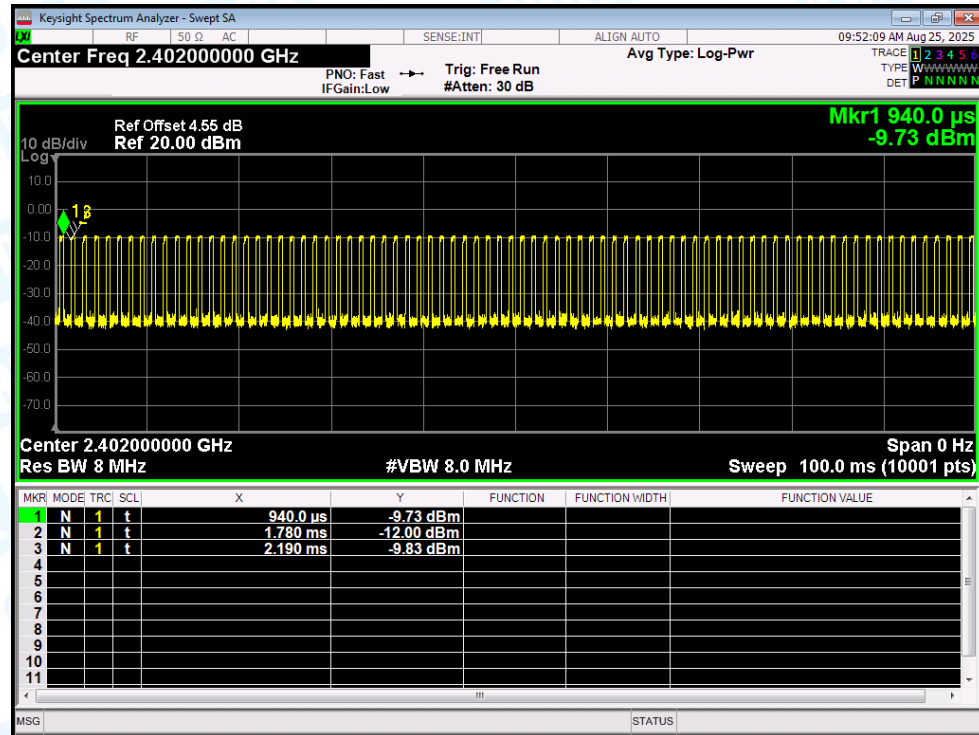
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1. Duty Cycle

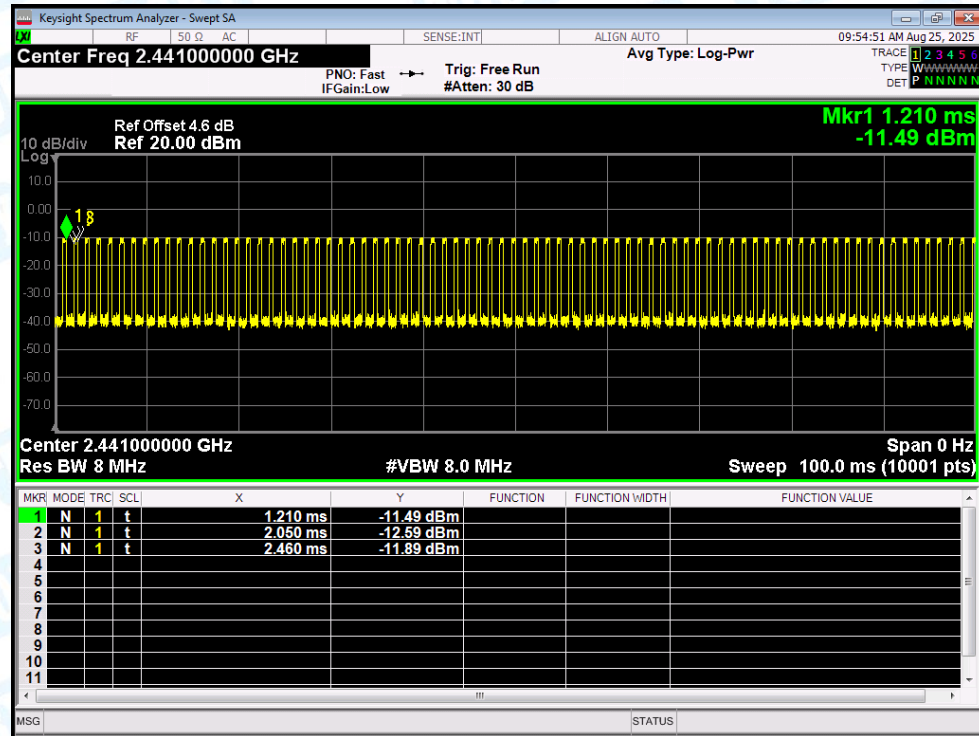
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	32.8	4.84	2.44
NVNT	1-DH1	2441	Ant1	32.8	4.84	2.44
NVNT	1-DH1	2480	Ant1	32.8	4.84	2.44
NVNT	2-DH1	2402	Ant1	33.6	4.74	2.38
NVNT	2-DH1	2441	Ant1	33.6	4.74	2.38
NVNT	2-DH1	2480	Ant1	33.6	4.74	2.38
NVNT	3-DH1	2402	Ant1	33.6	4.74	2.38
NVNT	3-DH1	2441	Ant1	33.6	4.74	2.38
NVNT	3-DH1	2480	Ant1	33.6	4.74	2.38

Test Graphs

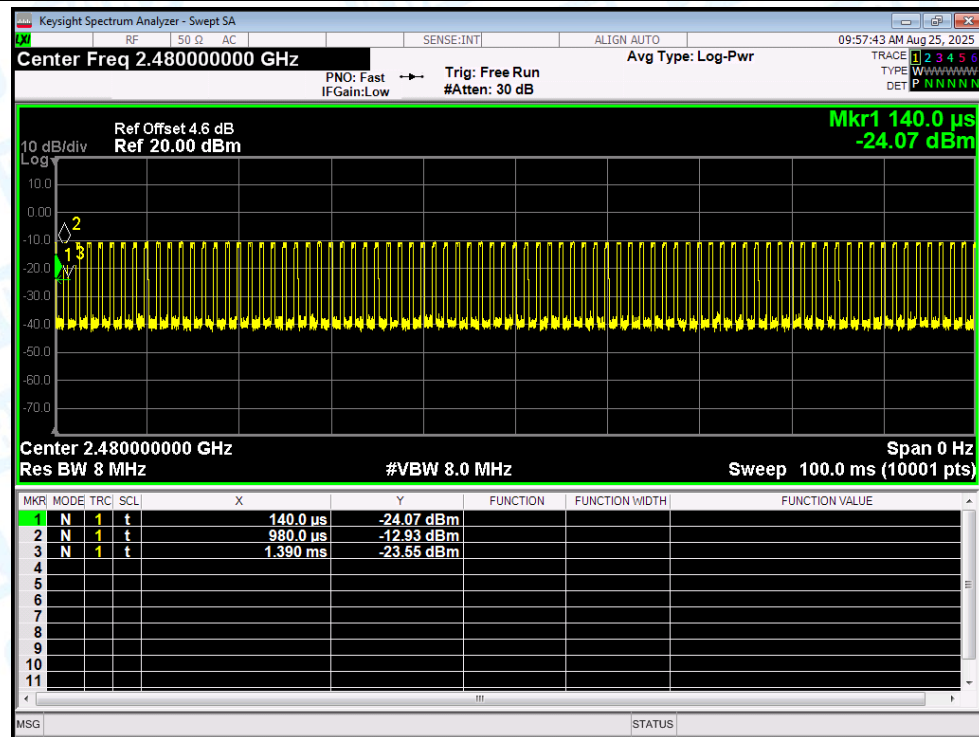
Duty Cycle NVNT 1-DH1 2402MHz Ant1



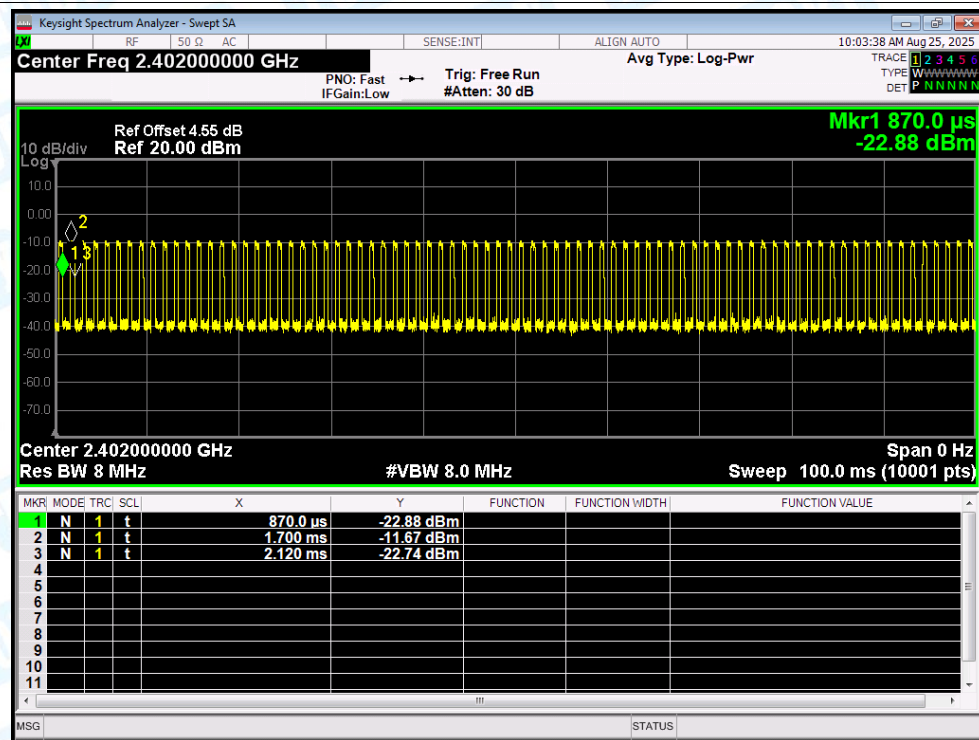
Duty Cycle NVNT 1-DH1 2441MHz Ant1



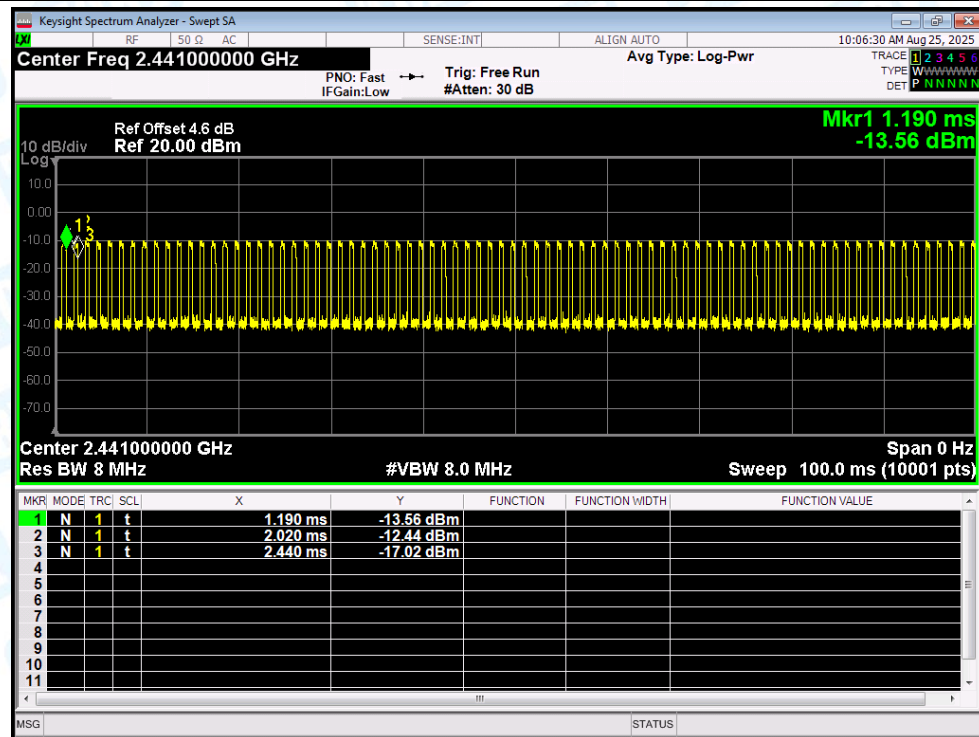
Duty Cycle NVNT 1-DH1 2480MHz Ant1



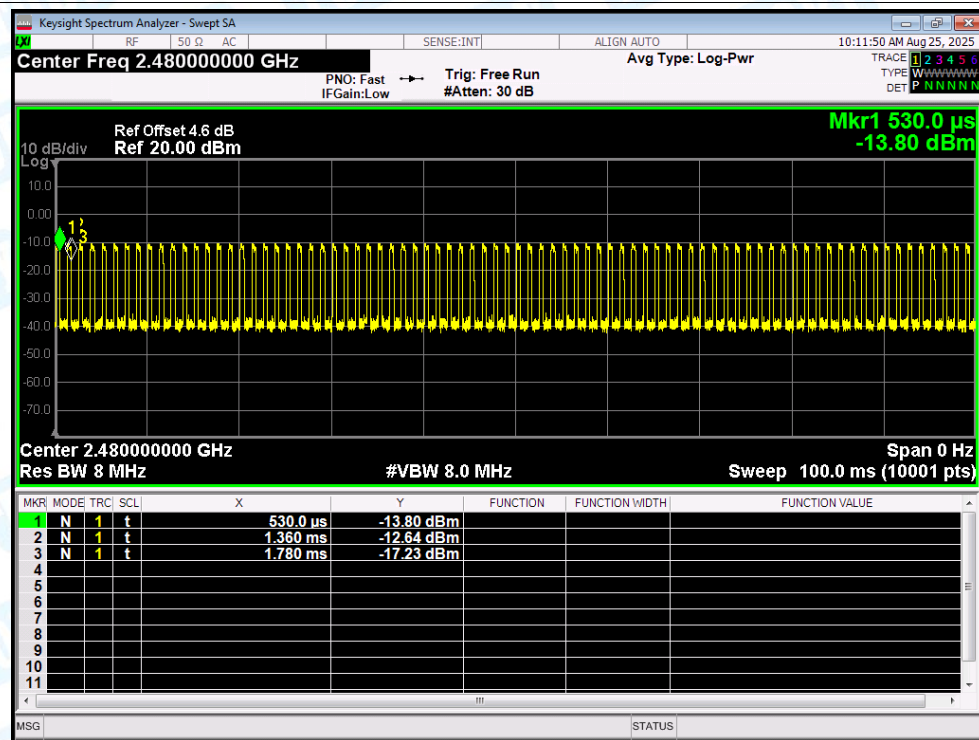
Duty Cycle NVNT 2-DH1 2402MHz Ant1



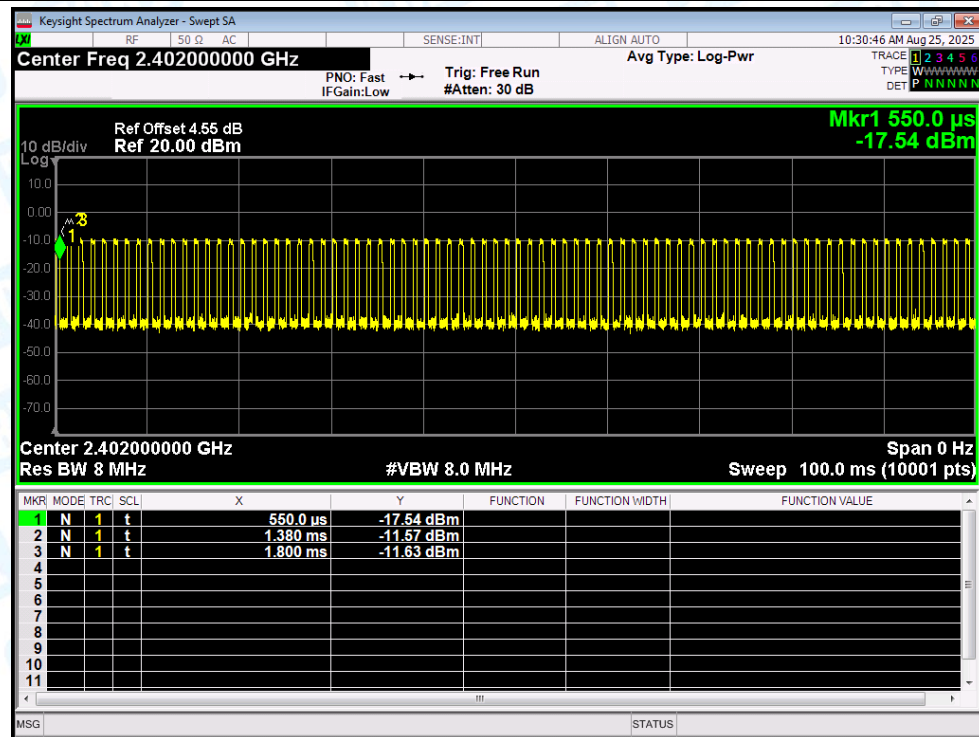
Duty Cycle NVNT 2-DH1 2441MHz Ant1



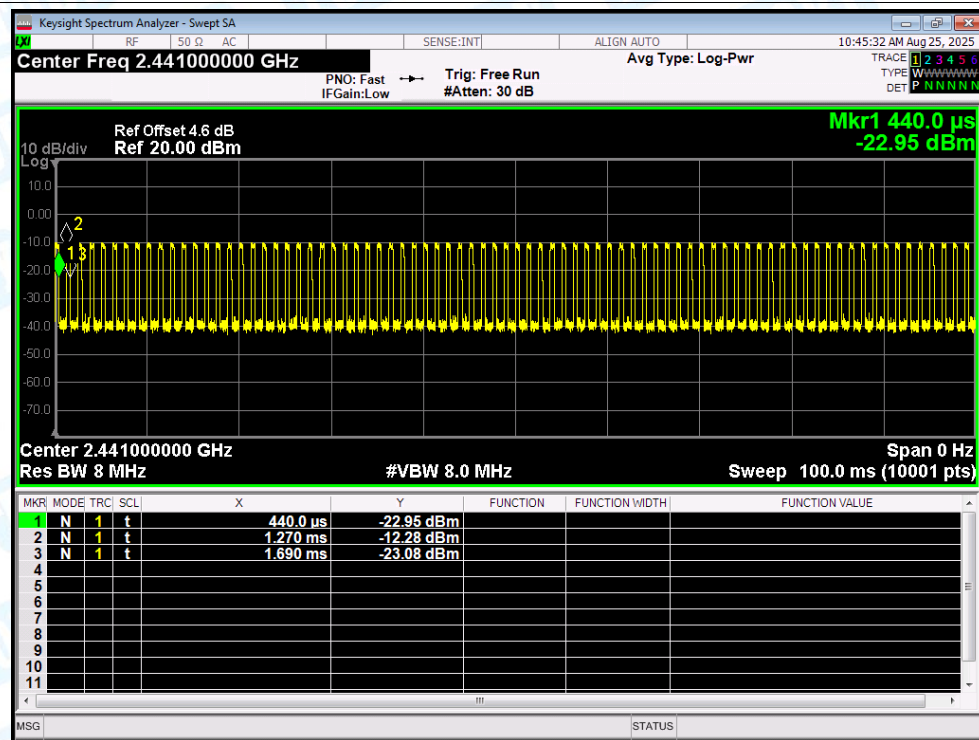
Duty Cycle NVNT 2-DH1 2480MHz Ant1

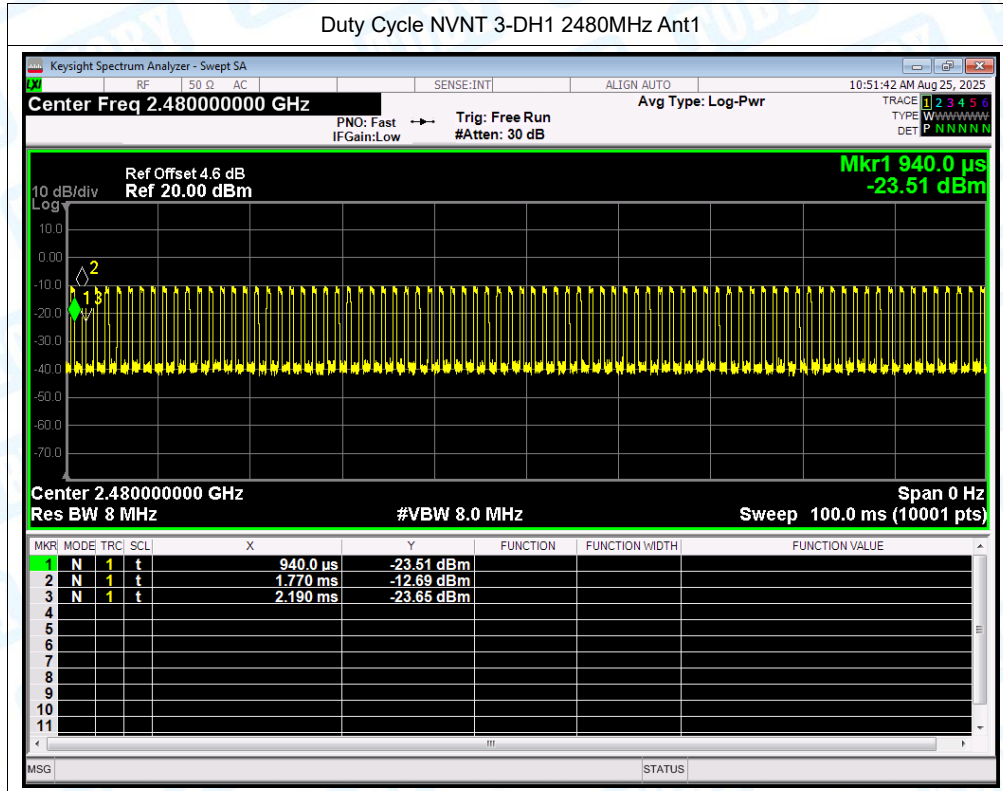


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



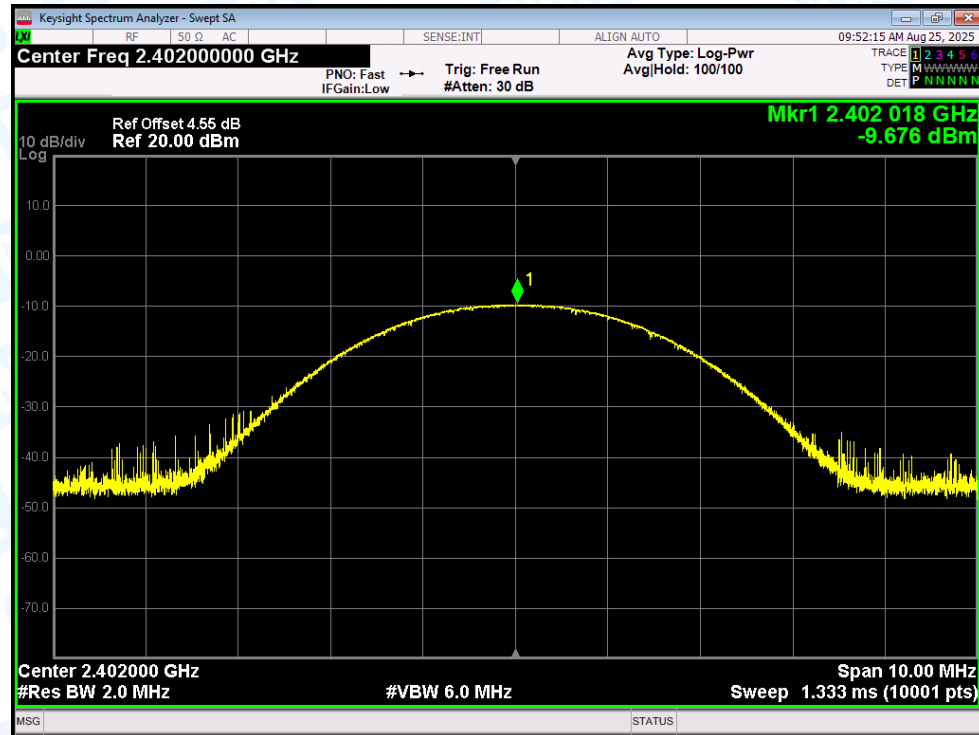


2. Maximum Conducted Output Power

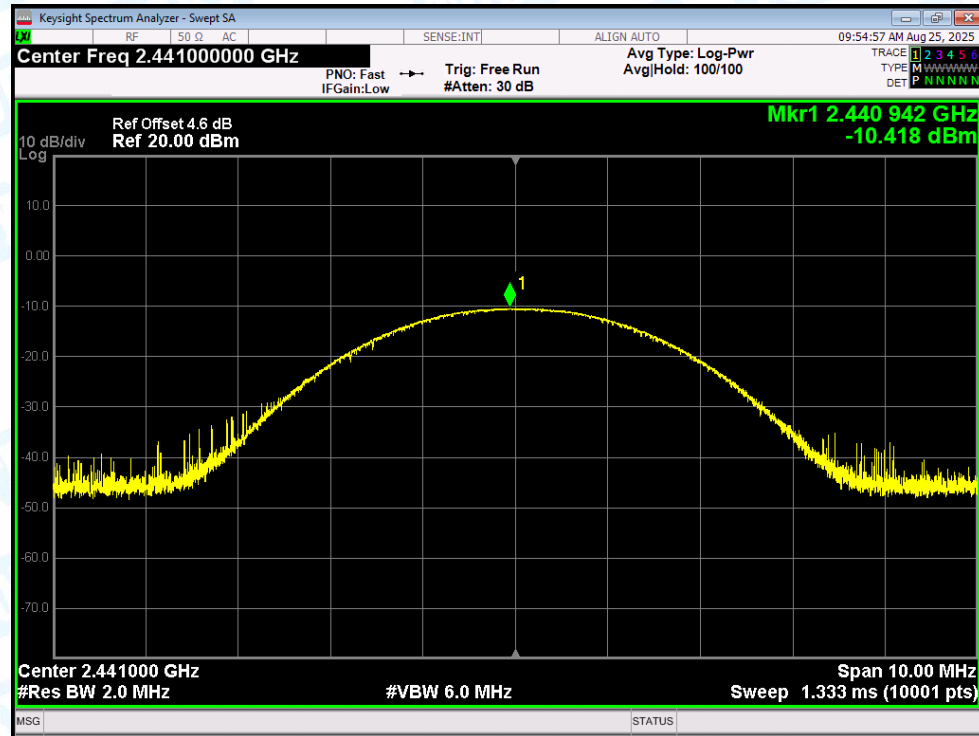
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	-9.676	21	Pass
NVNT	1-DH1	2441	Ant1	-10.418	21	Pass
NVNT	1-DH1	2480	Ant1	-10.892	21	Pass
NVNT	2-DH1	2402	Ant1	-9.549	21	Pass
NVNT	2-DH1	2441	Ant1	-10.272	21	Pass
NVNT	2-DH1	2480	Ant1	-10.628	21	Pass
NVNT	3-DH1	2402	Ant1	-9.525	21	Pass
NVNT	3-DH1	2441	Ant1	-10.243	21	Pass
NVNT	3-DH1	2480	Ant1	-10.654	21	Pass

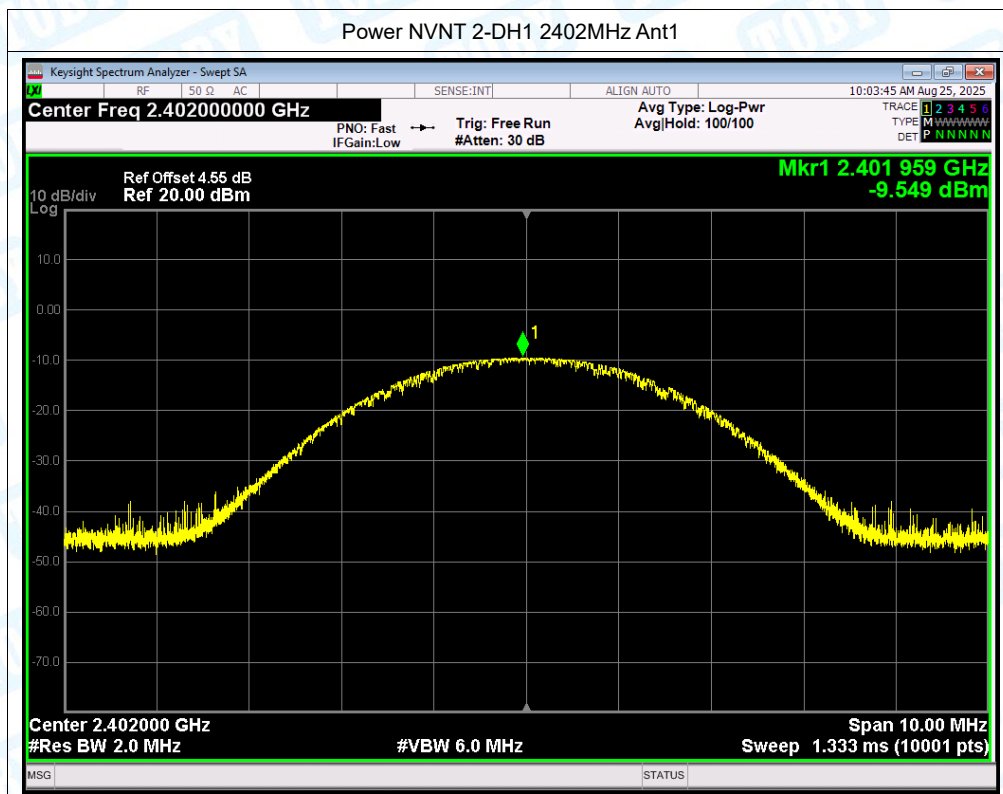
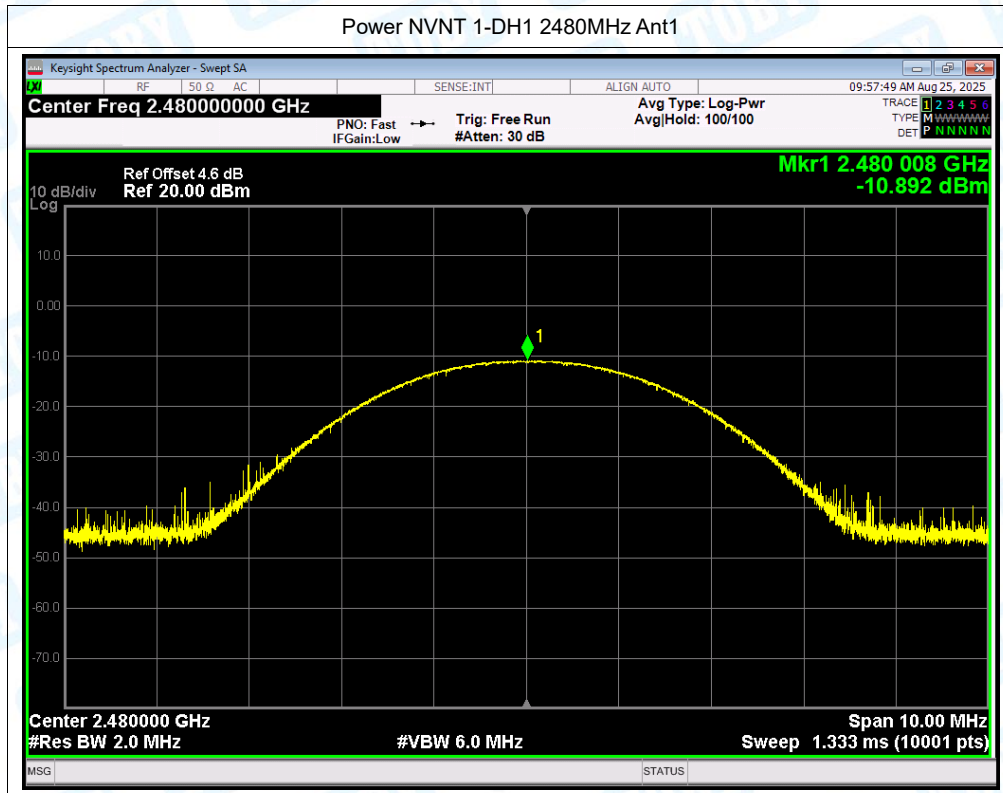
Test Graphs

Power NVNT 1-DH1 2402MHz Ant1

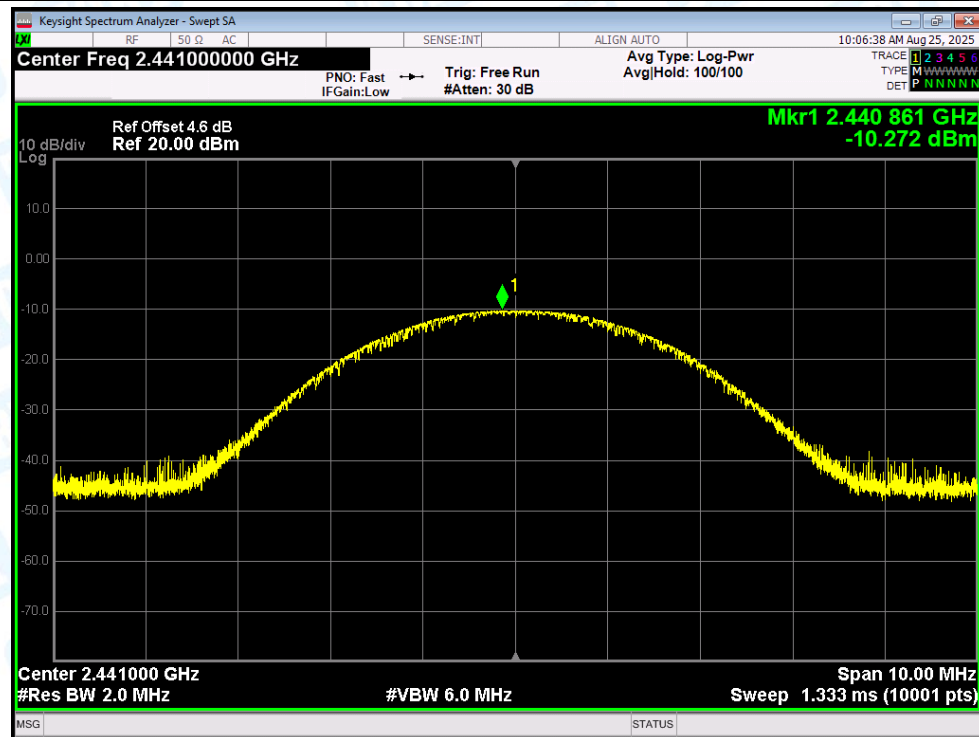


Power NVNT 1-DH1 2441MHz Ant1

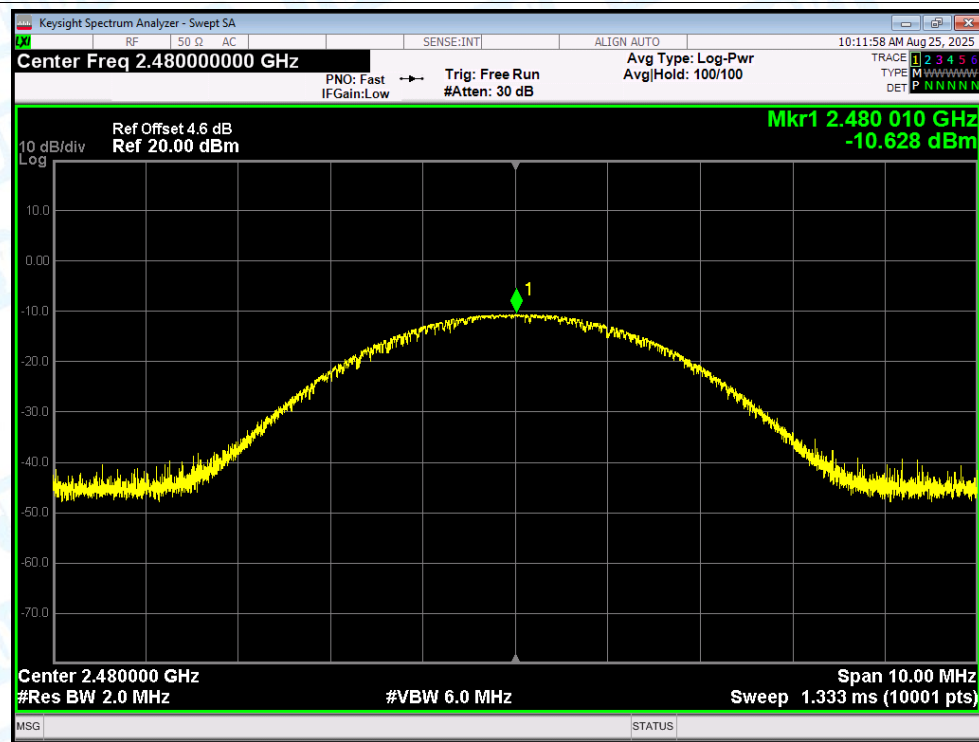




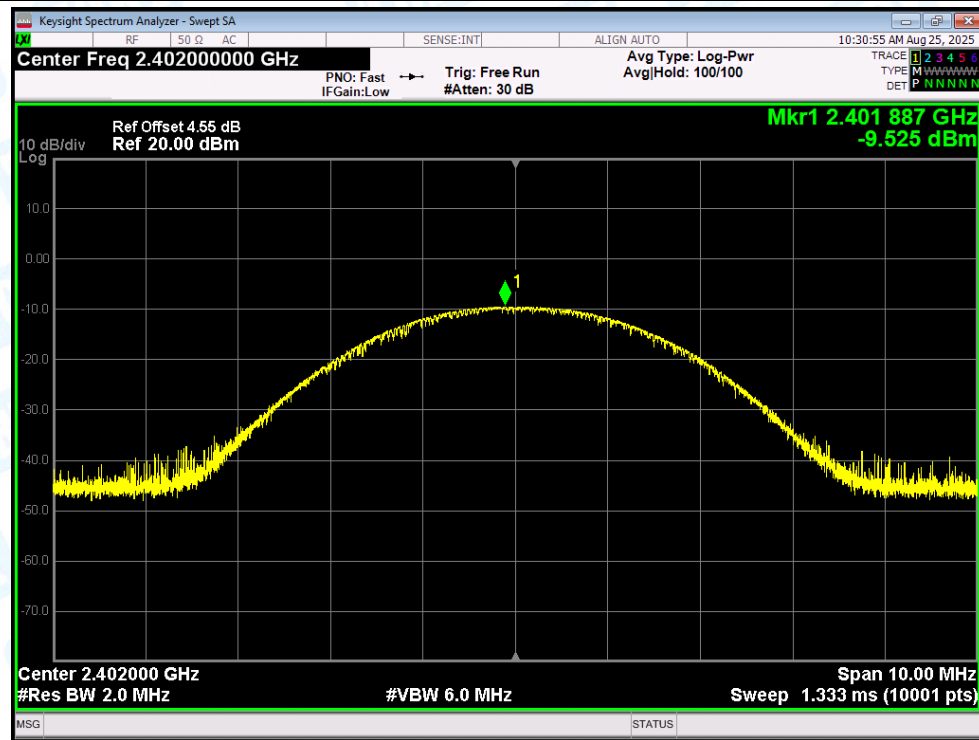
Power NVNT 2-DH1 2441MHz Ant1



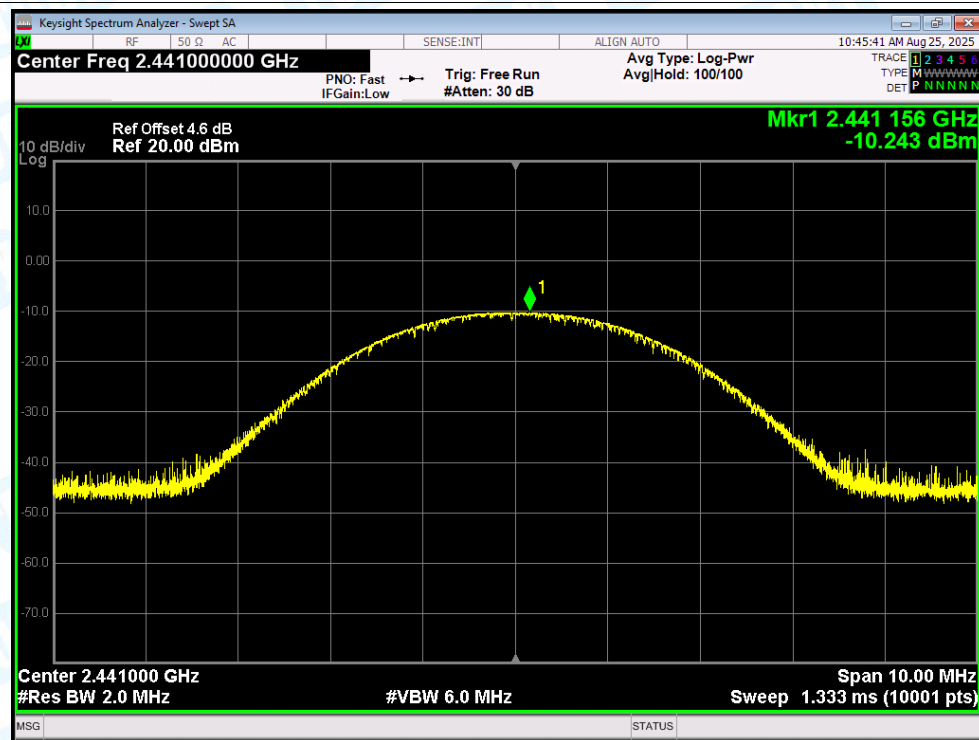
Power NVNT 2-DH1 2480MHz Ant1

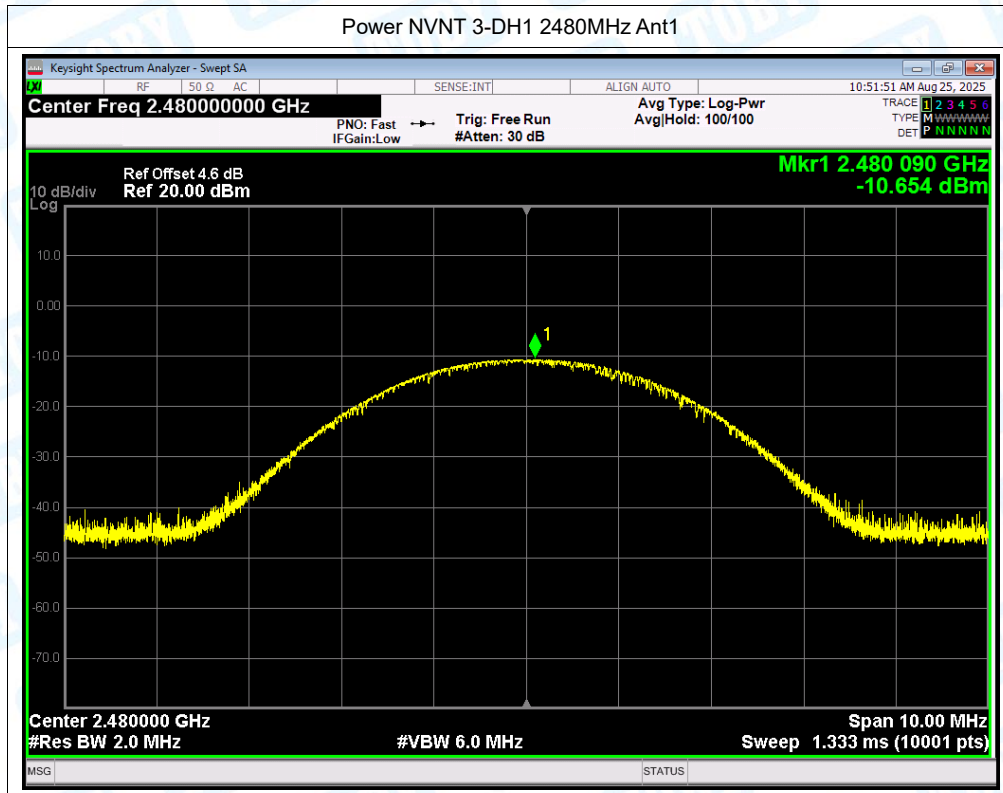


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1





3. -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.84	/	Pass
NVNT	1-DH1	2441	Ant1	0.78	/	Pass
NVNT	1-DH1	2480	Ant1	0.83	/	Pass
NVNT	2-DH1	2402	Ant1	1.17	/	Pass
NVNT	2-DH1	2441	Ant1	1.17	/	Pass
NVNT	2-DH1	2480	Ant1	1.17	/	Pass
NVNT	3-DH1	2402	Ant1	1.12	/	Pass
NVNT	3-DH1	2441	Ant1	1.17	/	Pass
NVNT	3-DH1	2480	Ant1	1.17	/	Pass

Test Graphs

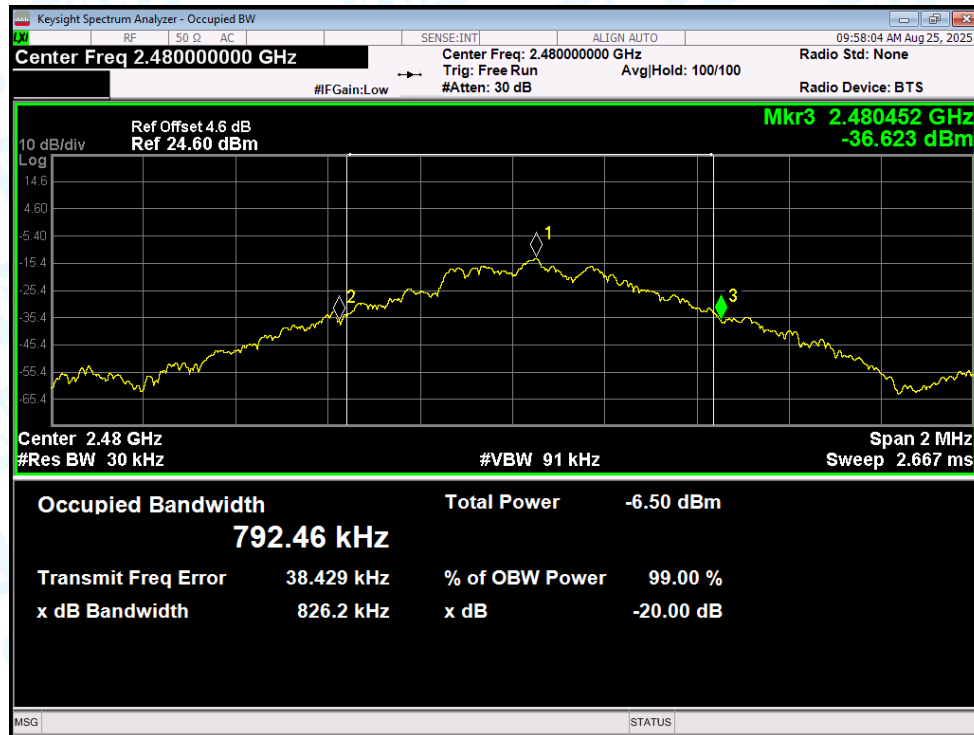
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



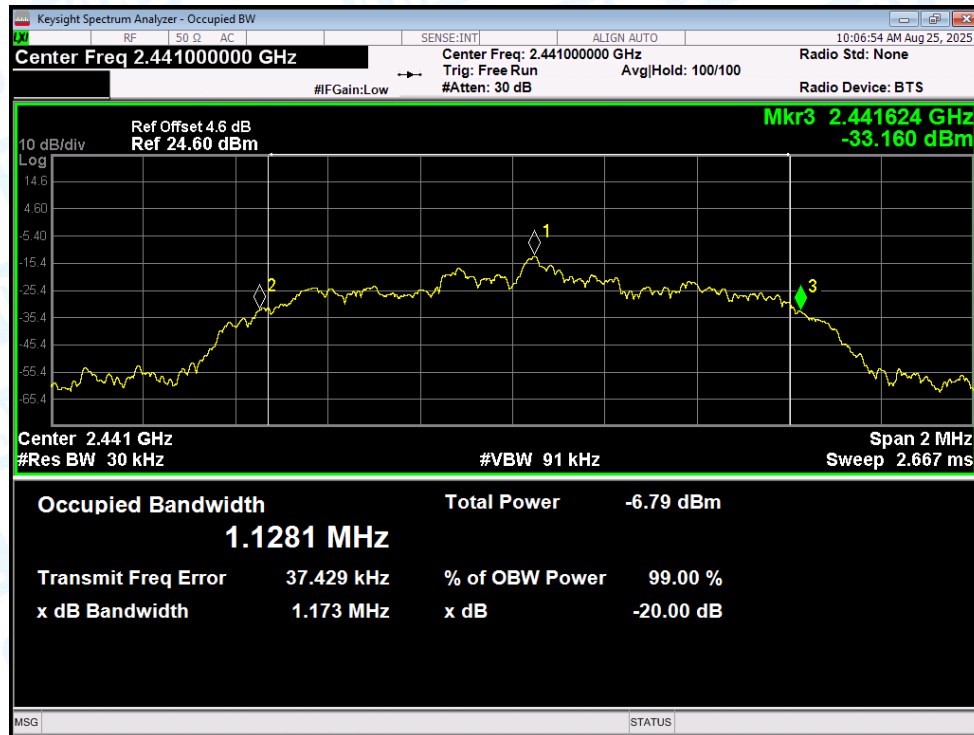
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



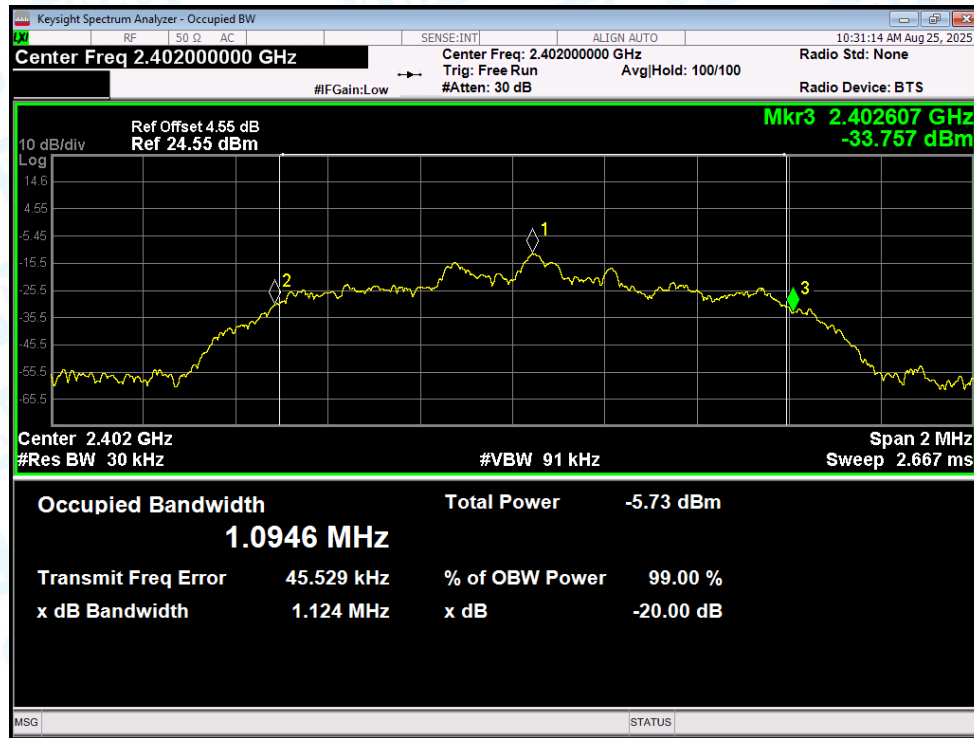
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



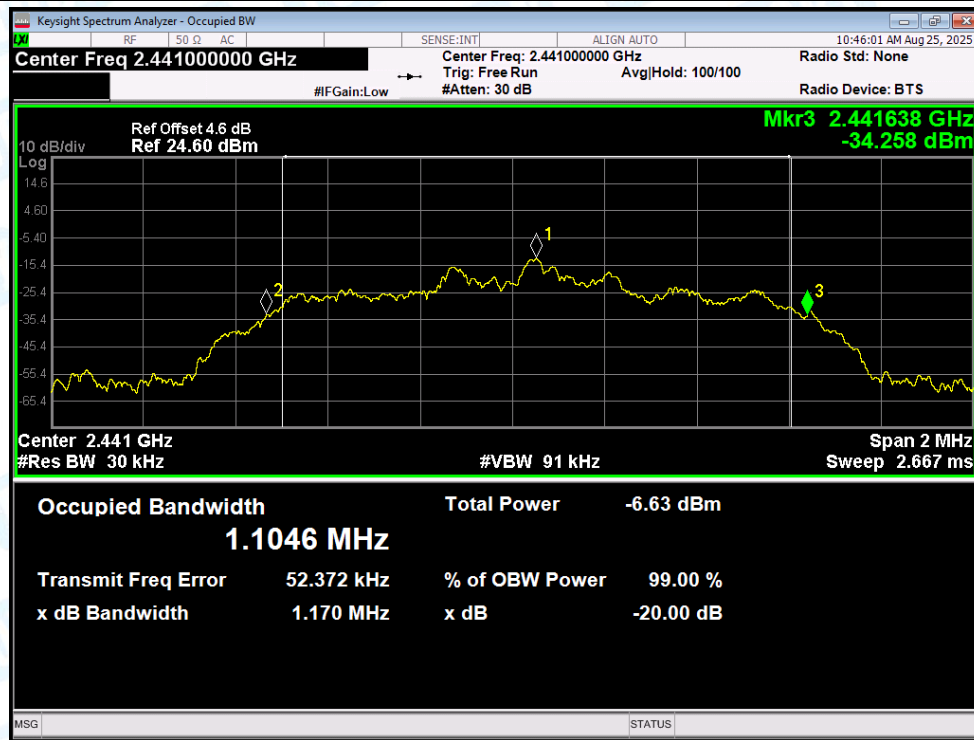
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

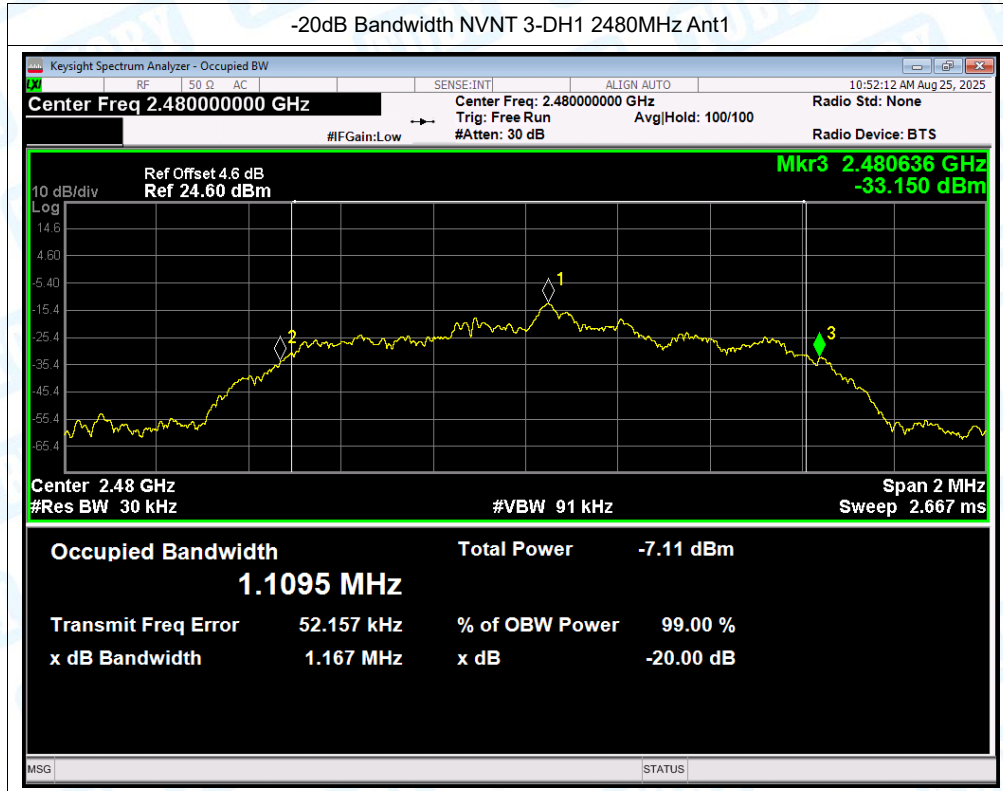


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



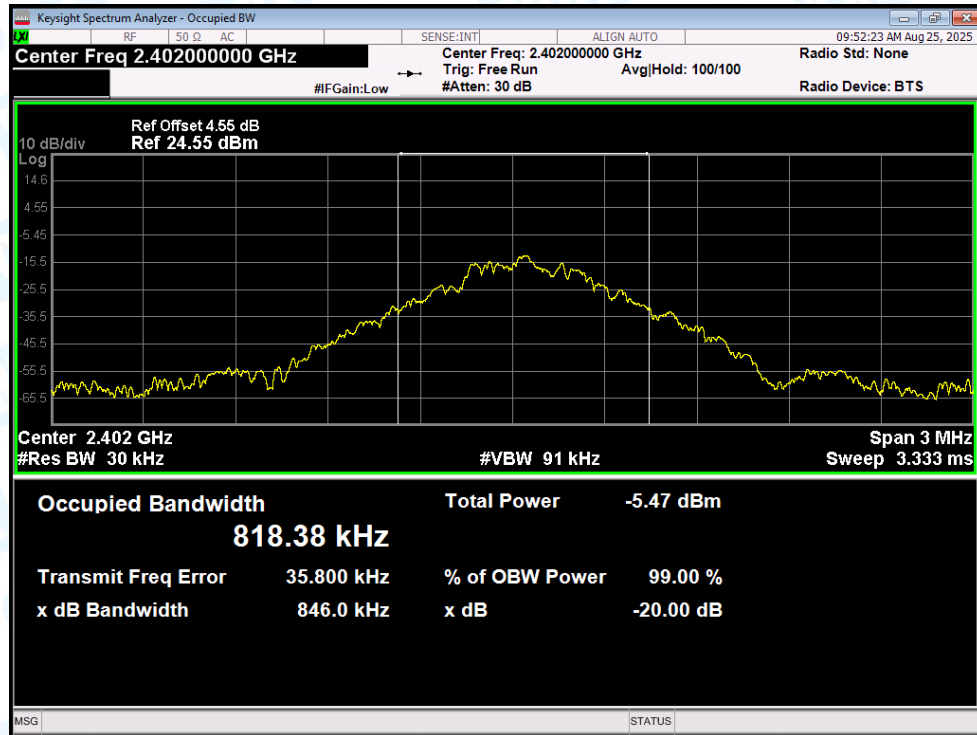


4. Occupied Channel Bandwidth

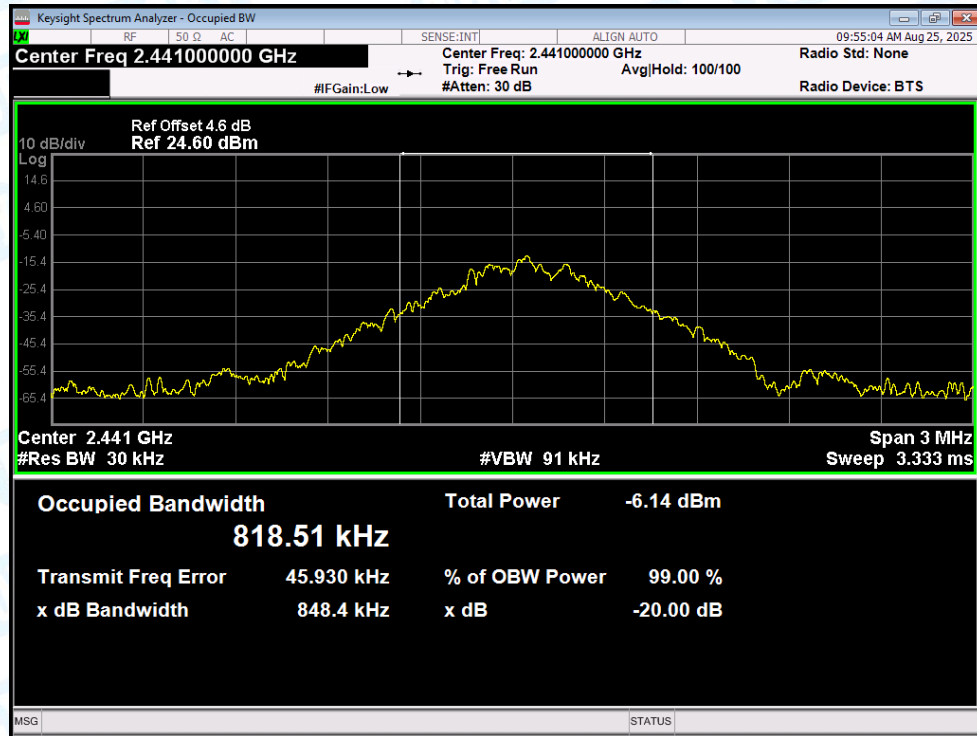
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.818
NVNT	1-DH1	2441	Ant1	0.819
NVNT	1-DH1	2480	Ant1	0.795
NVNT	2-DH1	2402	Ant1	1.122
NVNT	2-DH1	2441	Ant1	1.128
NVNT	2-DH1	2480	Ant1	1.124
NVNT	3-DH1	2402	Ant1	1.112
NVNT	3-DH1	2441	Ant1	1.104
NVNT	3-DH1	2480	Ant1	1.101

Test Graphs

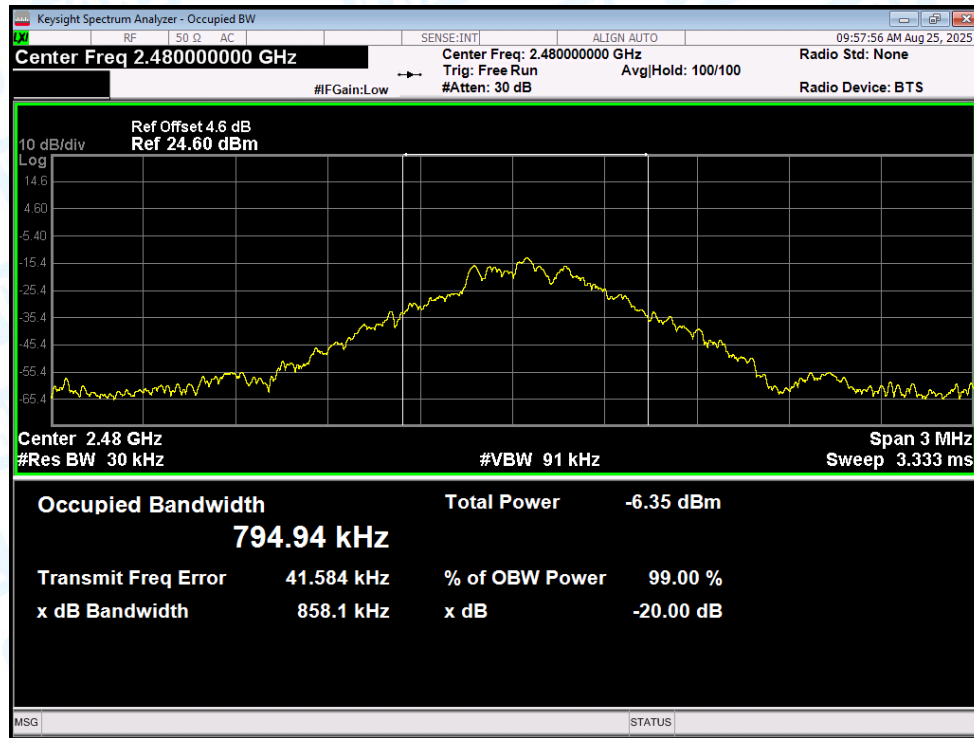
OBW NVNT 1-DH1 2402MHz Ant1



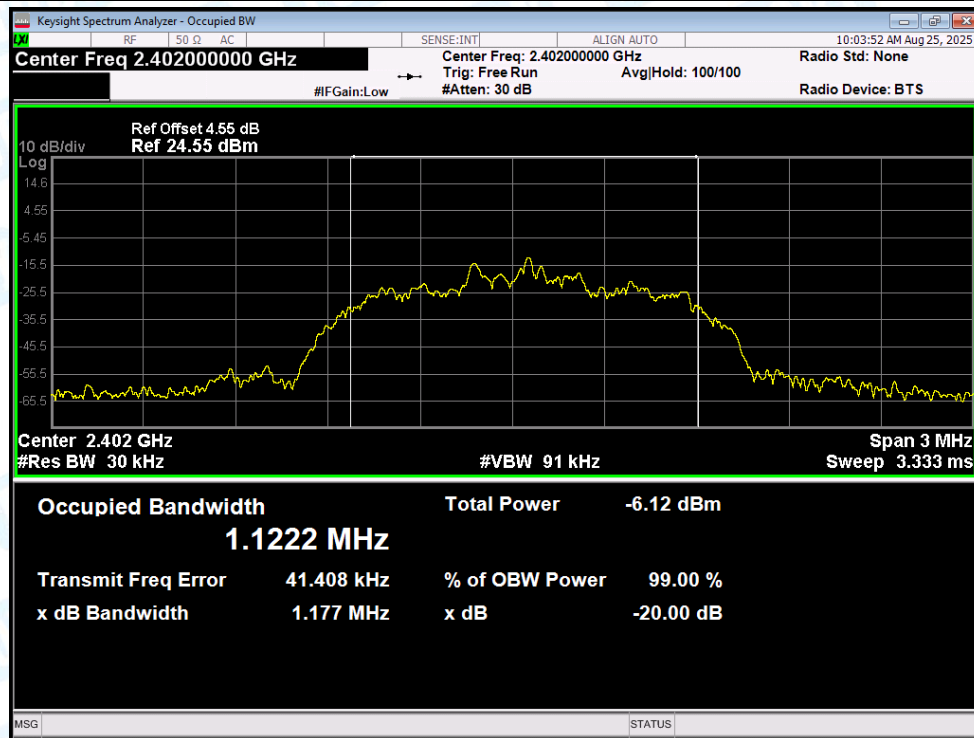
OBW NVNT 1-DH1 2441MHz Ant1



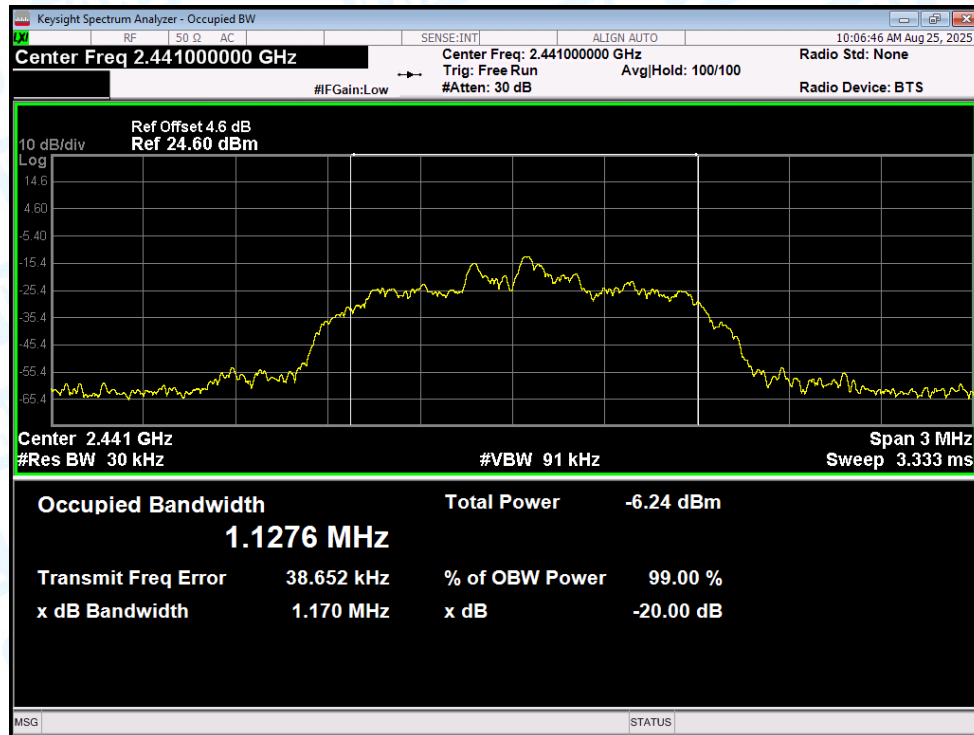
OBW NVNT 1-DH1 2480MHz Ant1



OBW NVNT 2-DH1 2402MHz Ant1



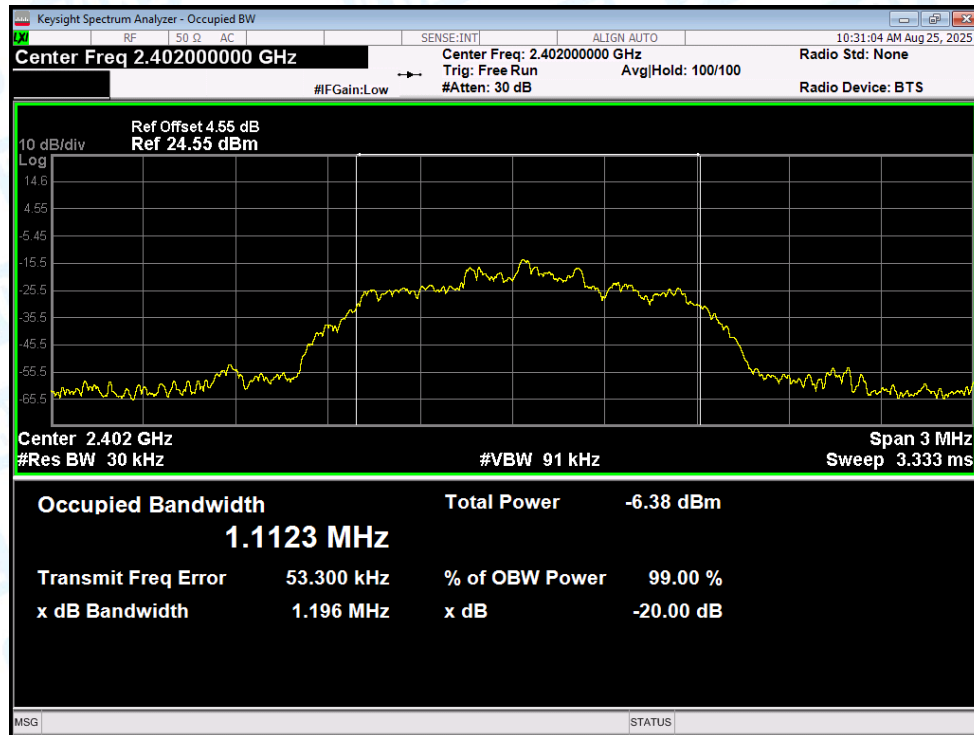
OBW NVNT 2-DH1 2441MHz Ant1



OBW NVNT 2-DH1 2480MHz Ant1

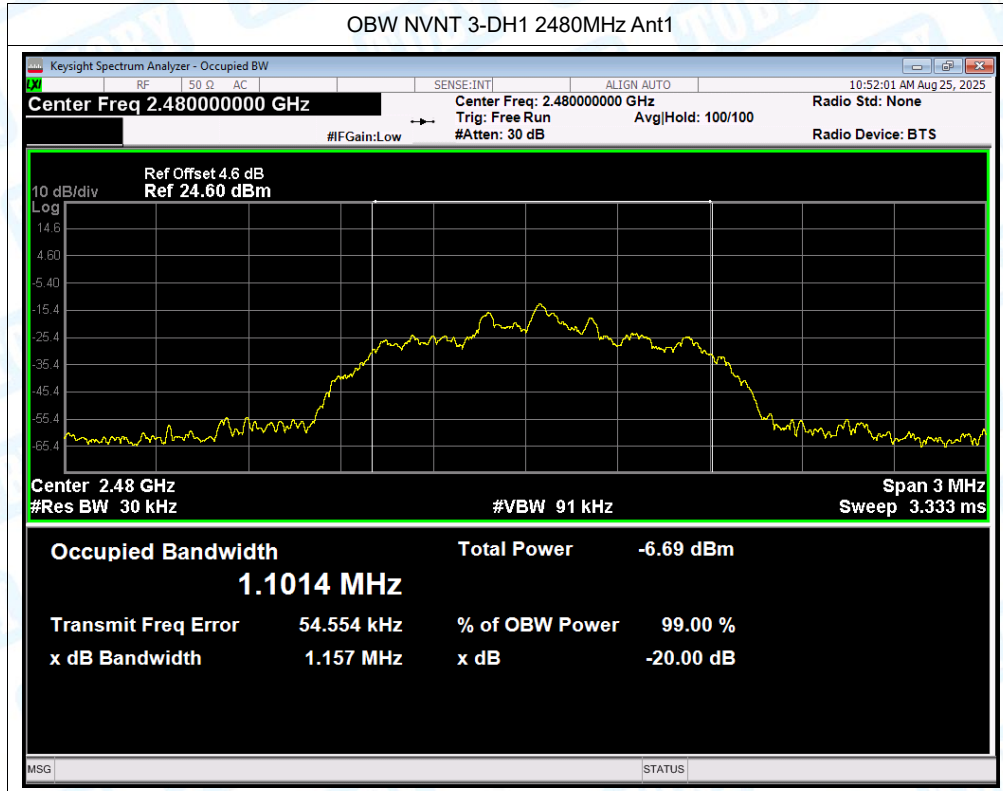


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



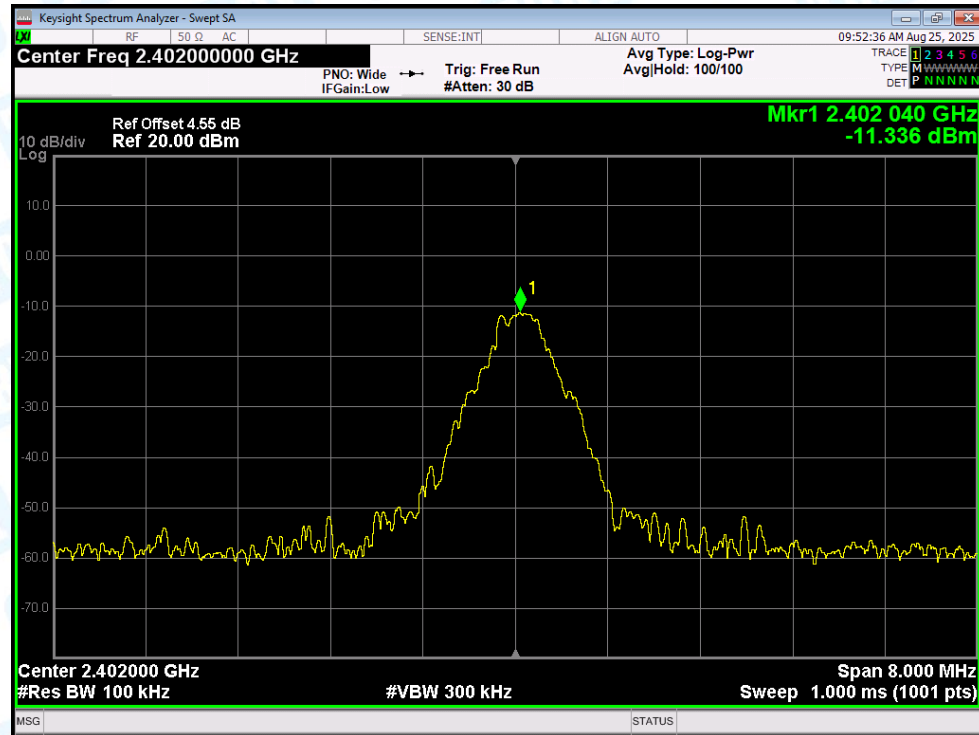


5. Band Edge

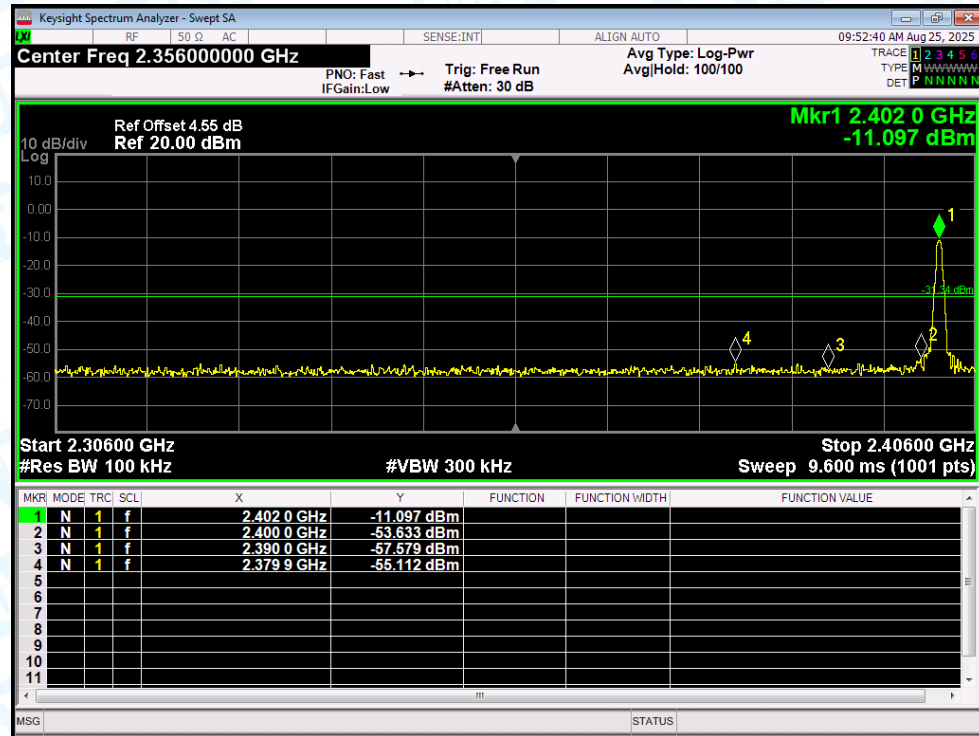
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-43.77	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-43.48	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-43.29	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-42.24	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-42.97	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-41.56	-20	Pass

Test Graphs

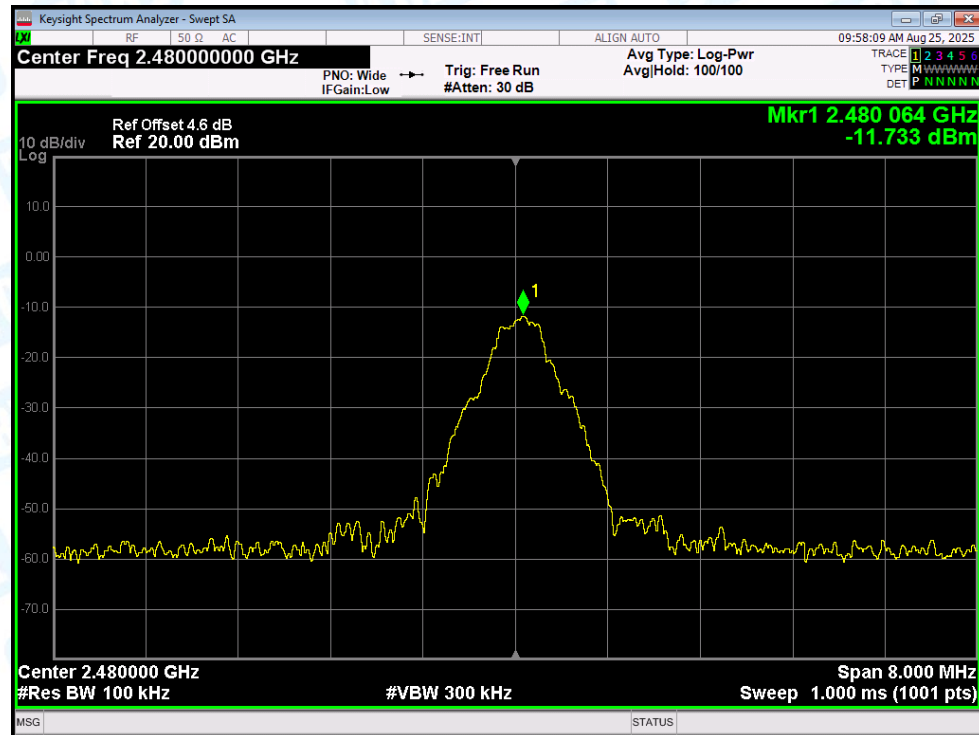
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



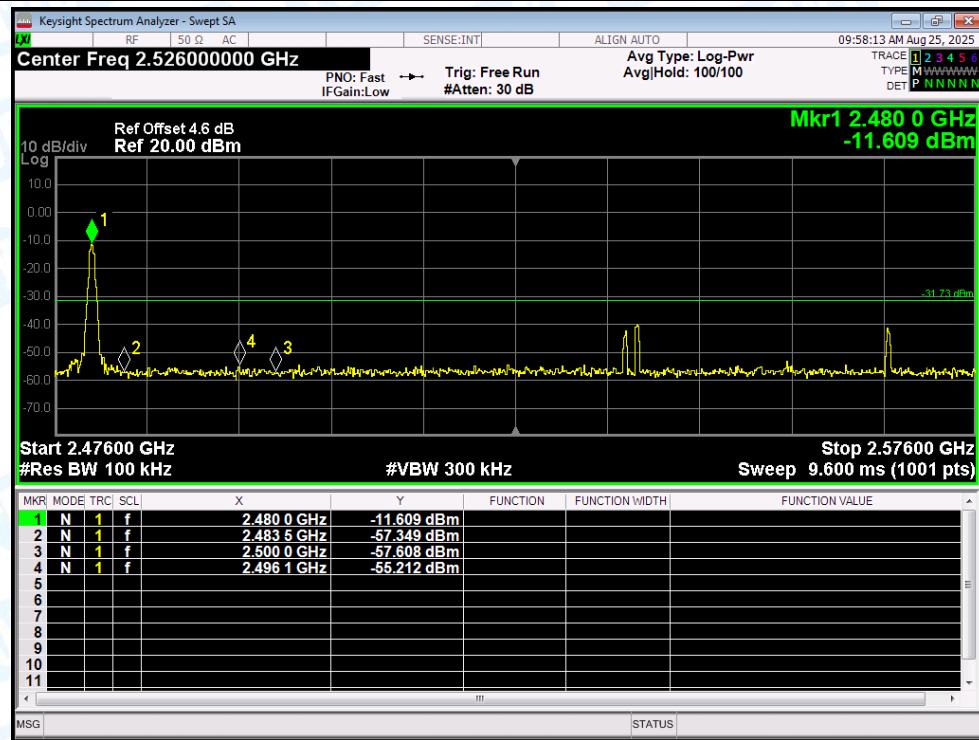
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission

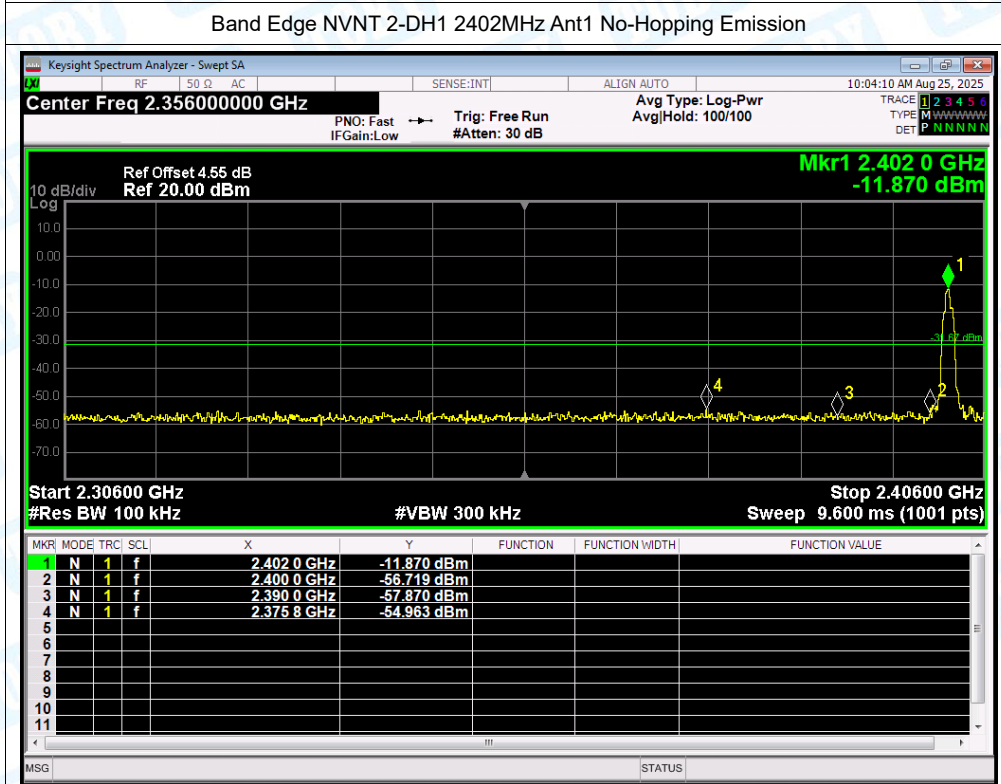
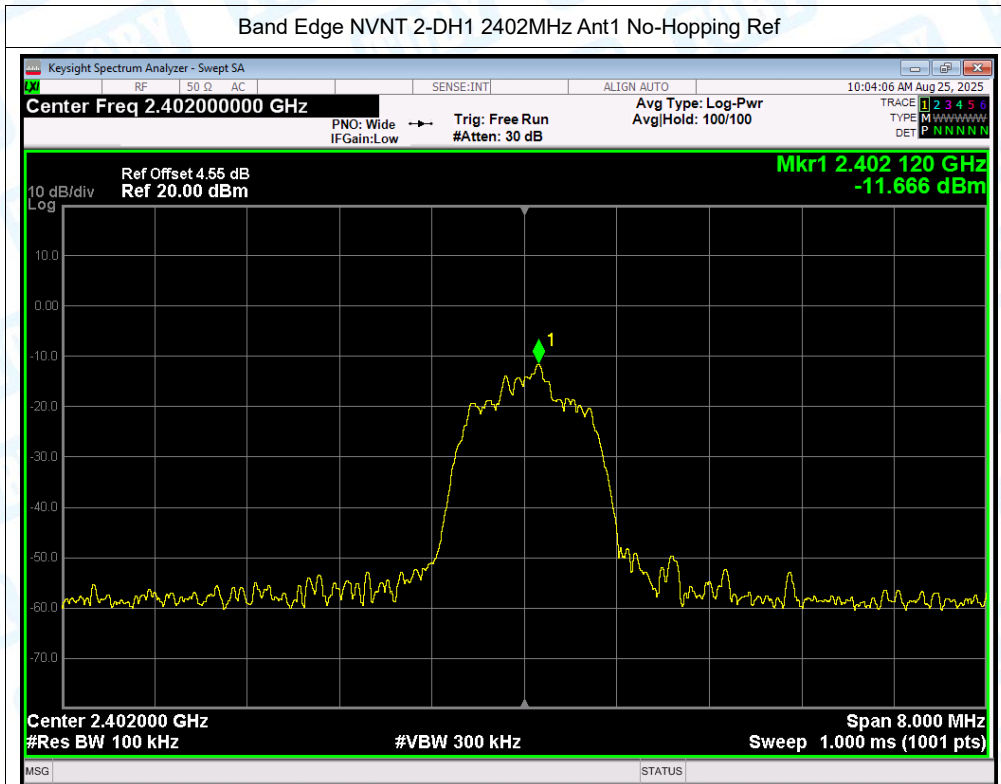


Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref

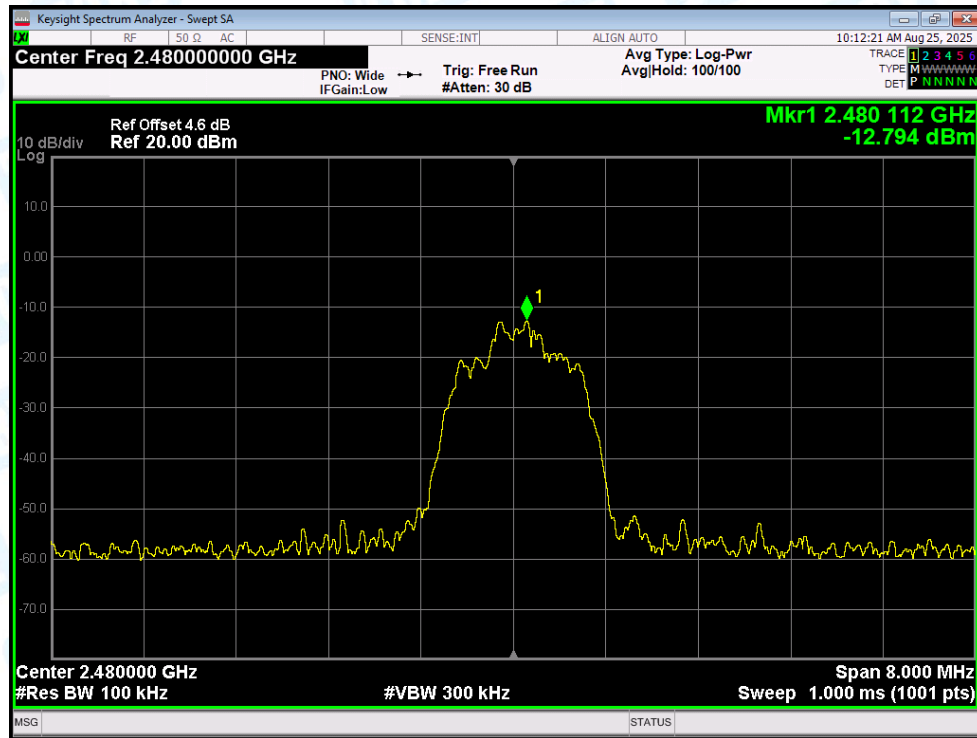


Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission

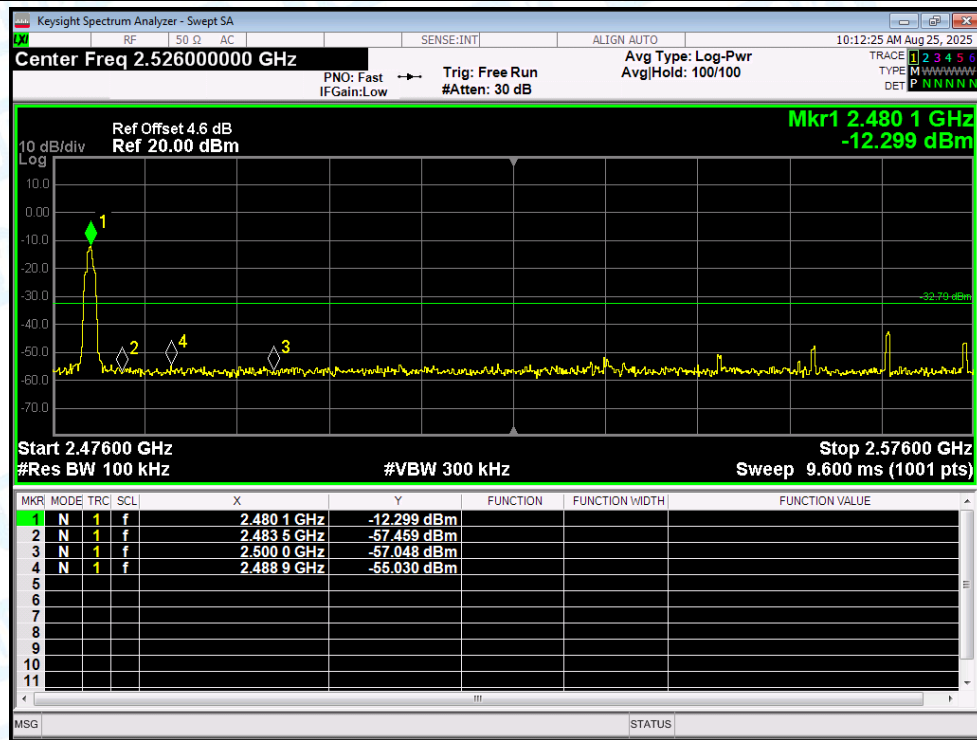


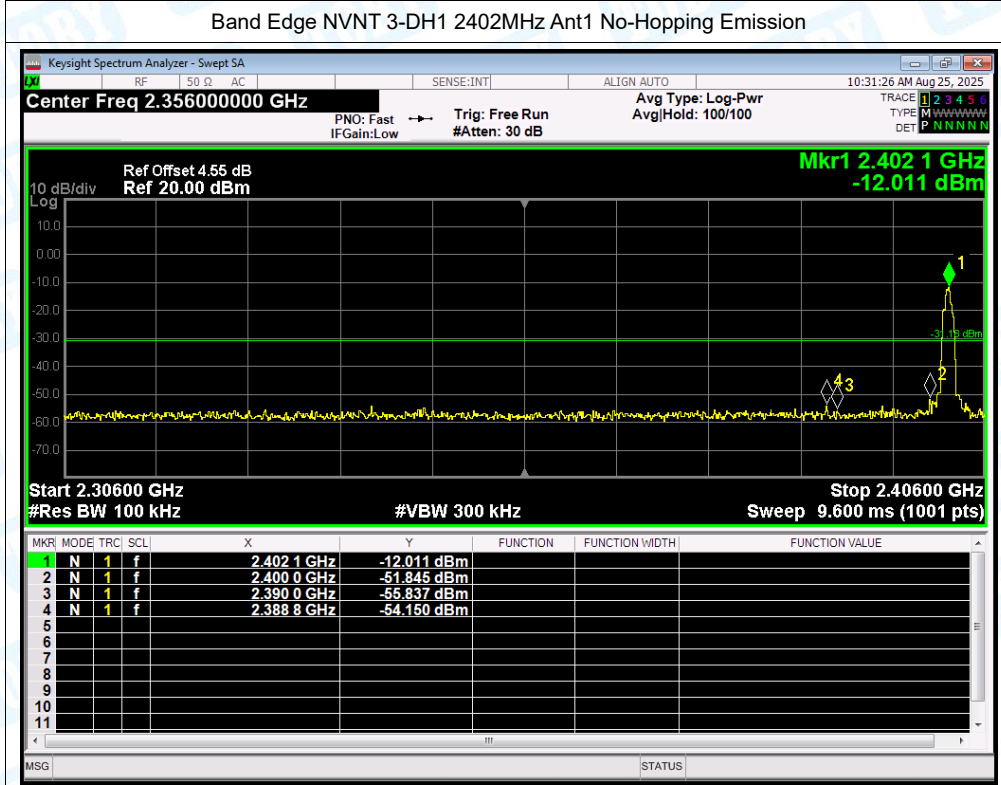
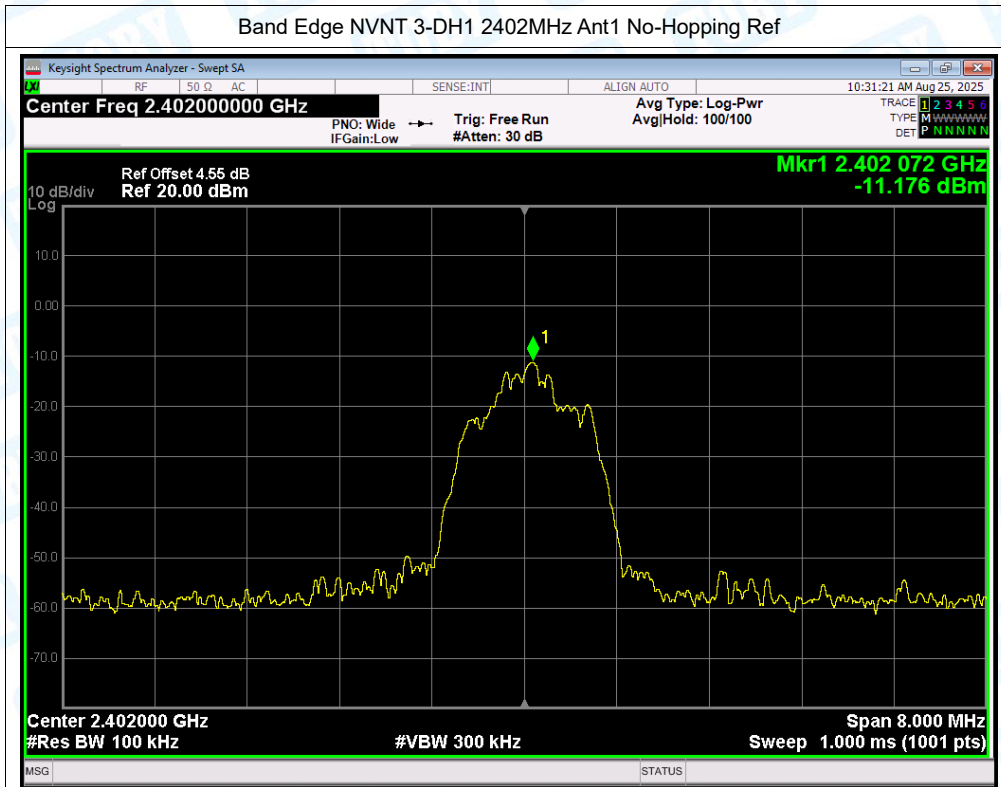


Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref

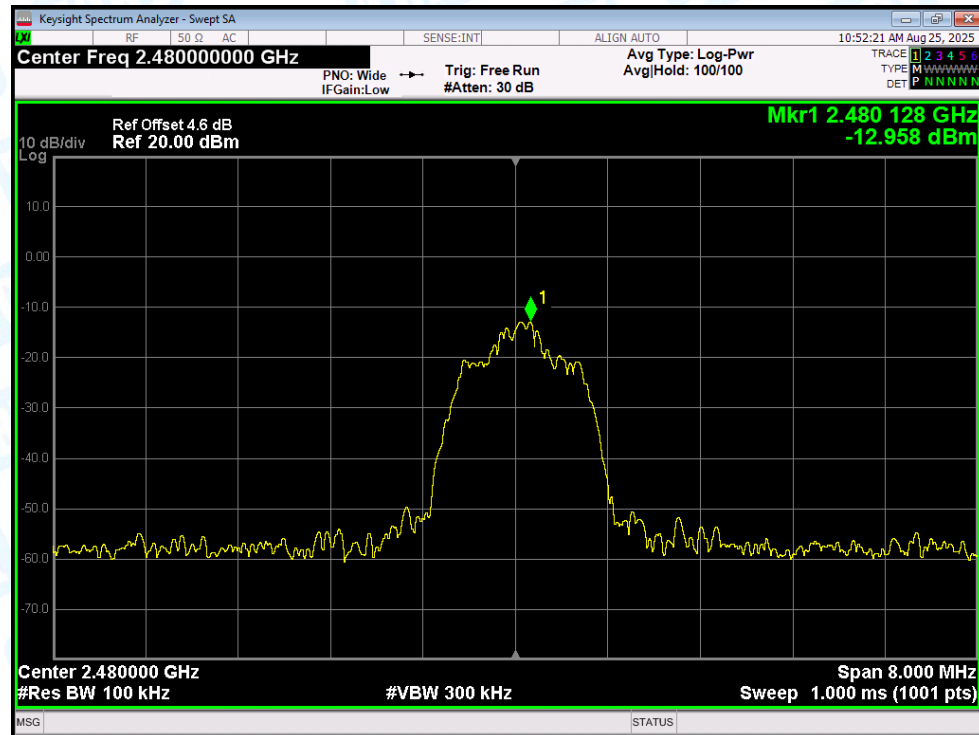


Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission

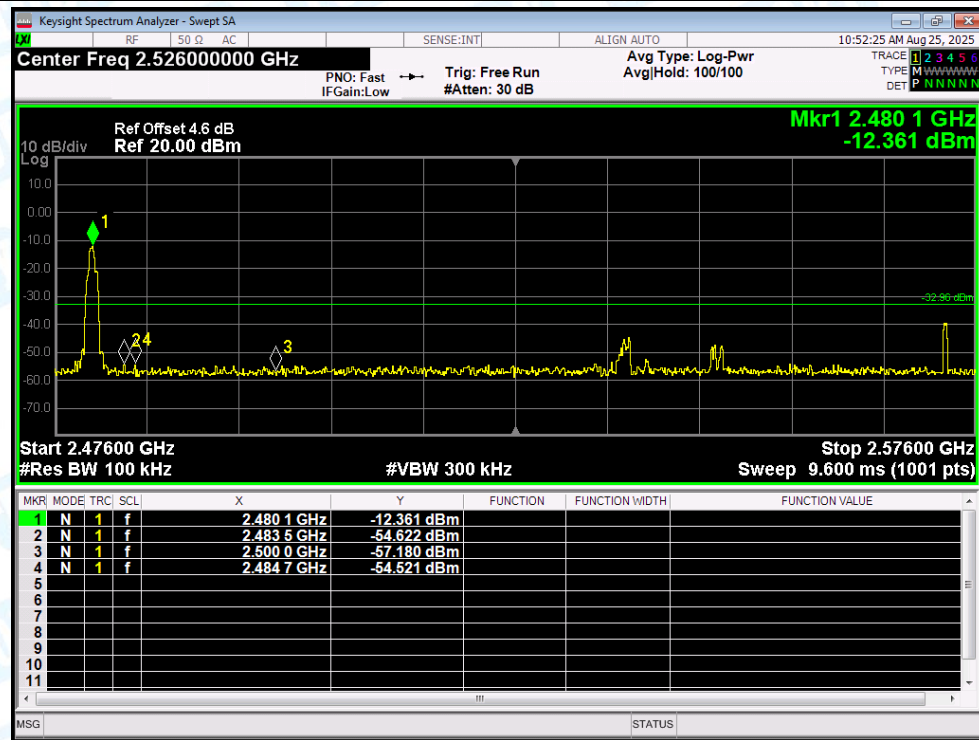




Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Ref



Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Emission

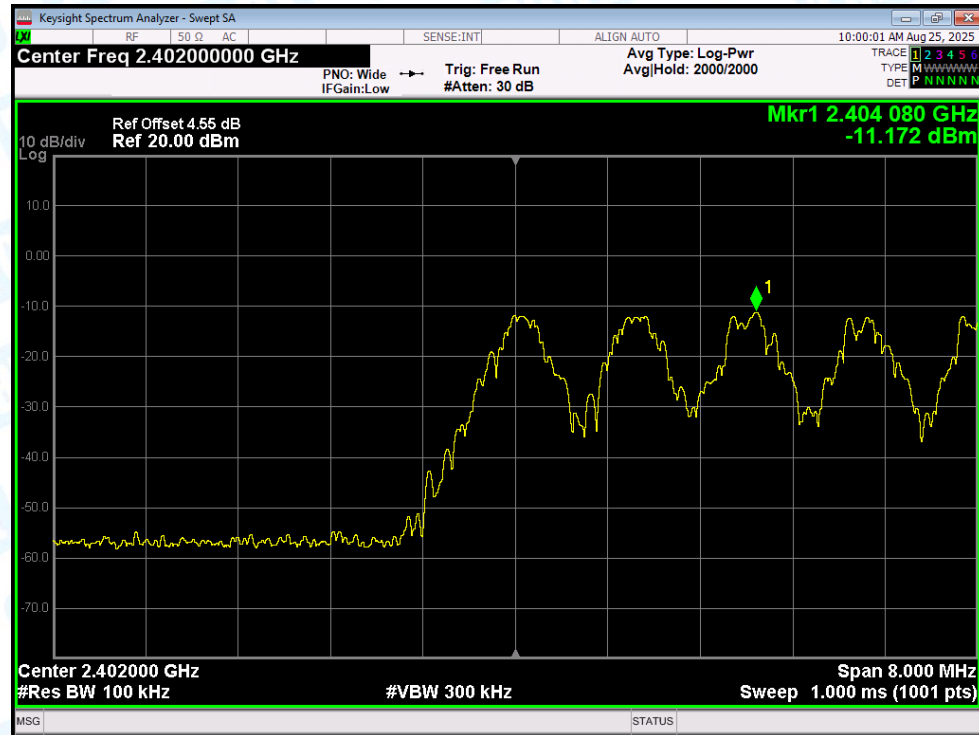


6. Band Edge(Hopping)

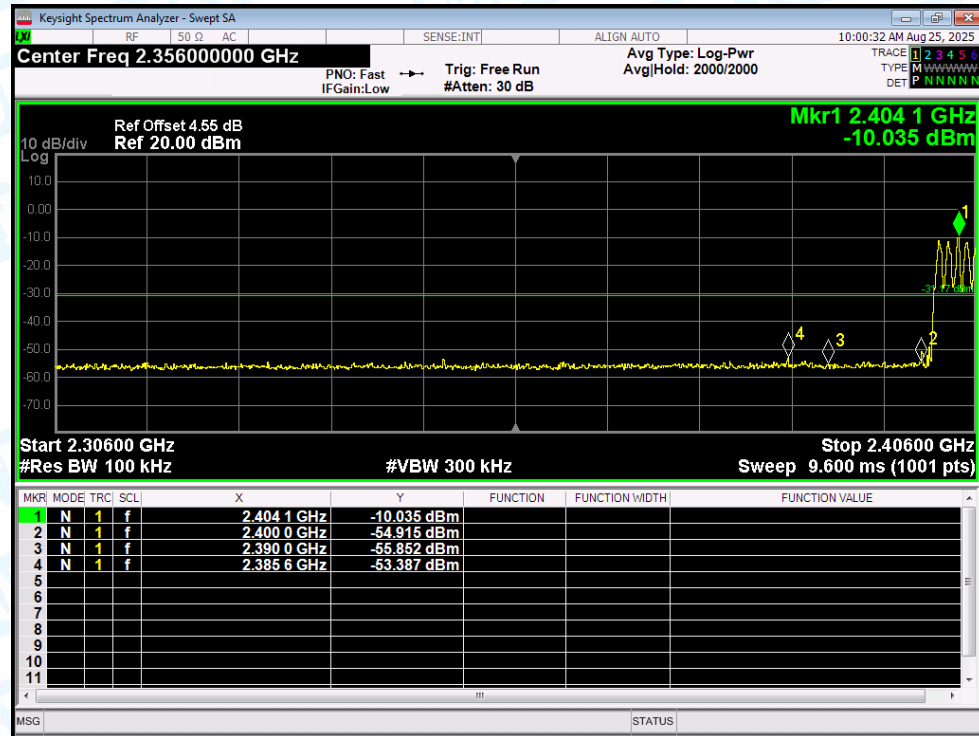
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-42.22	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-42.52	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-41.93	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-40.37	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-42.25	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-40.74	-20	Pass

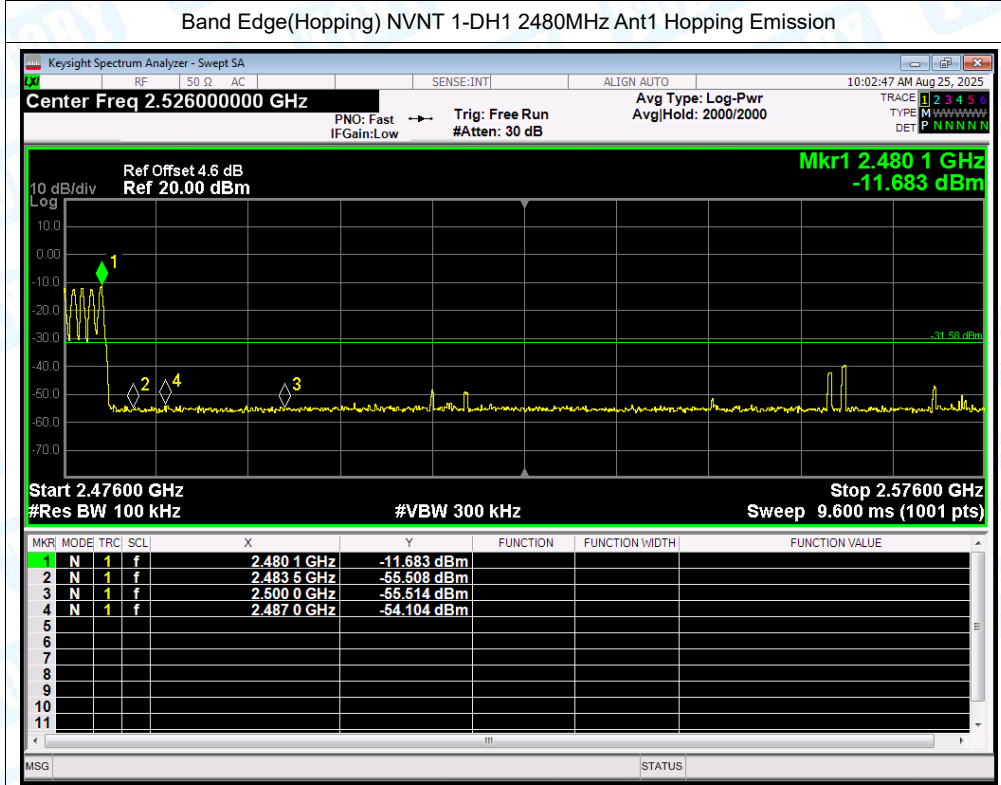
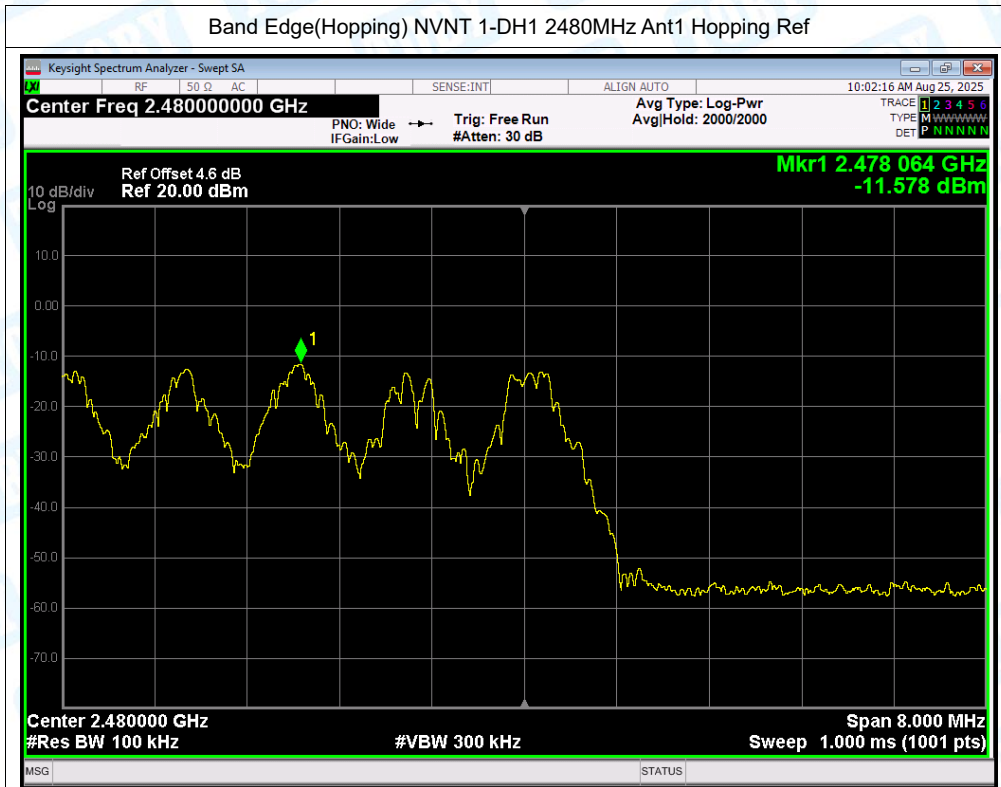
Test Graphs

Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref

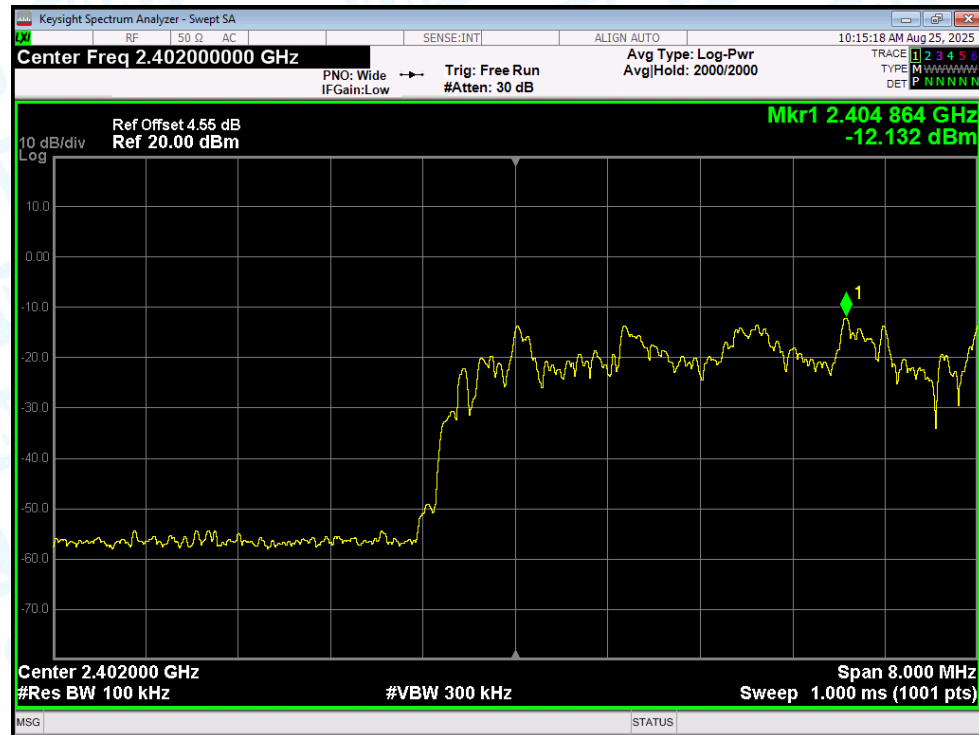


Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission

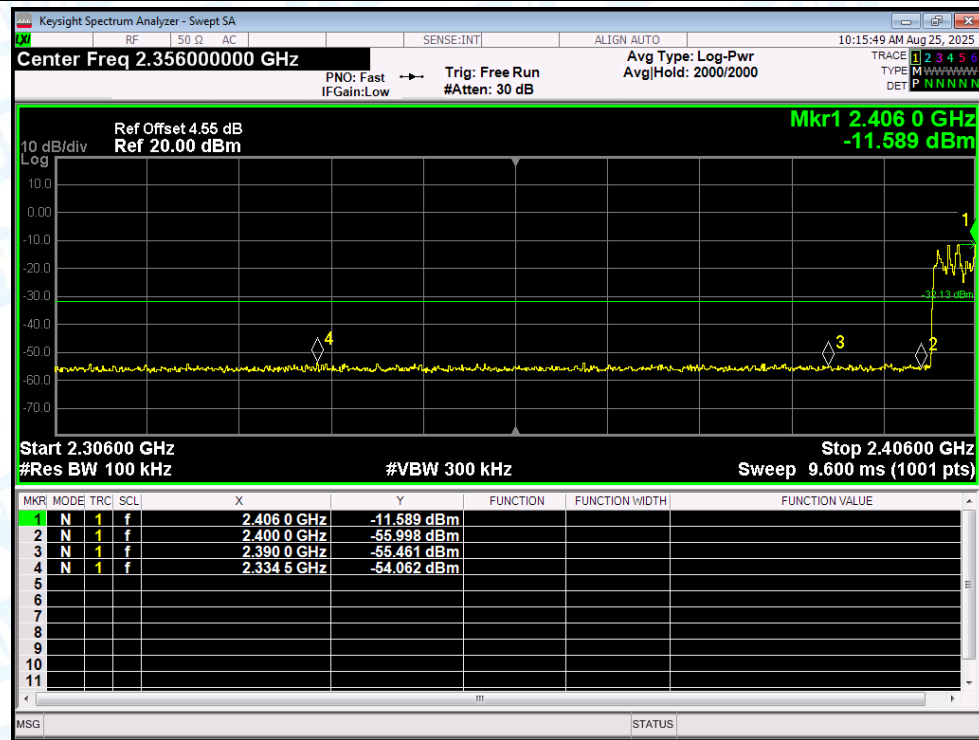


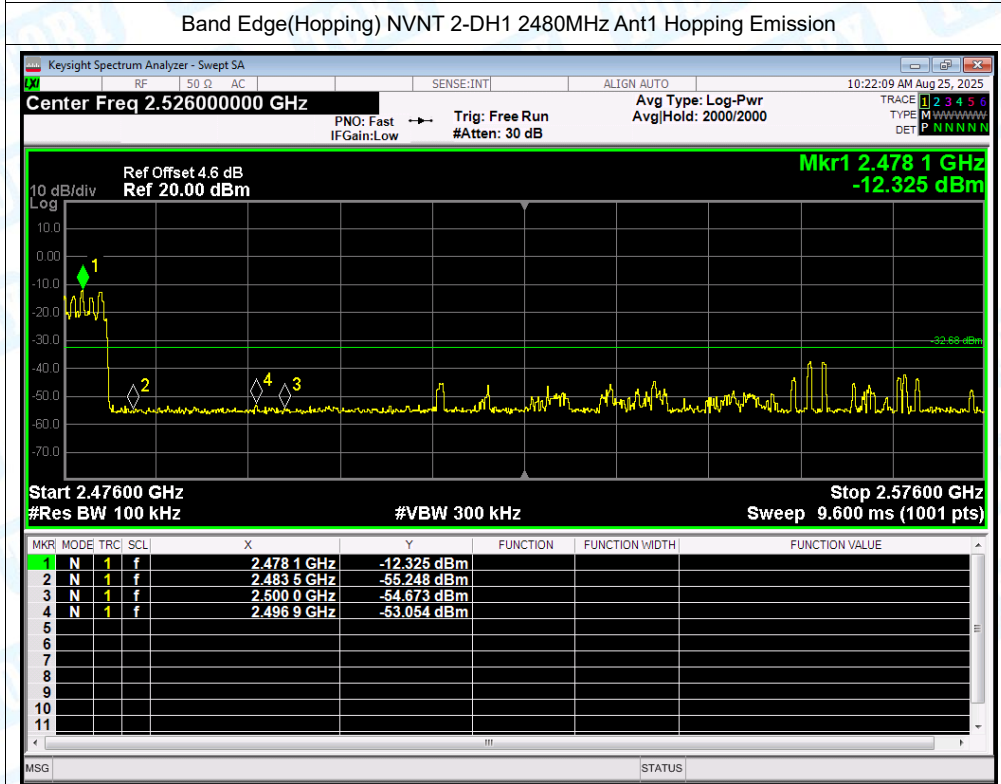
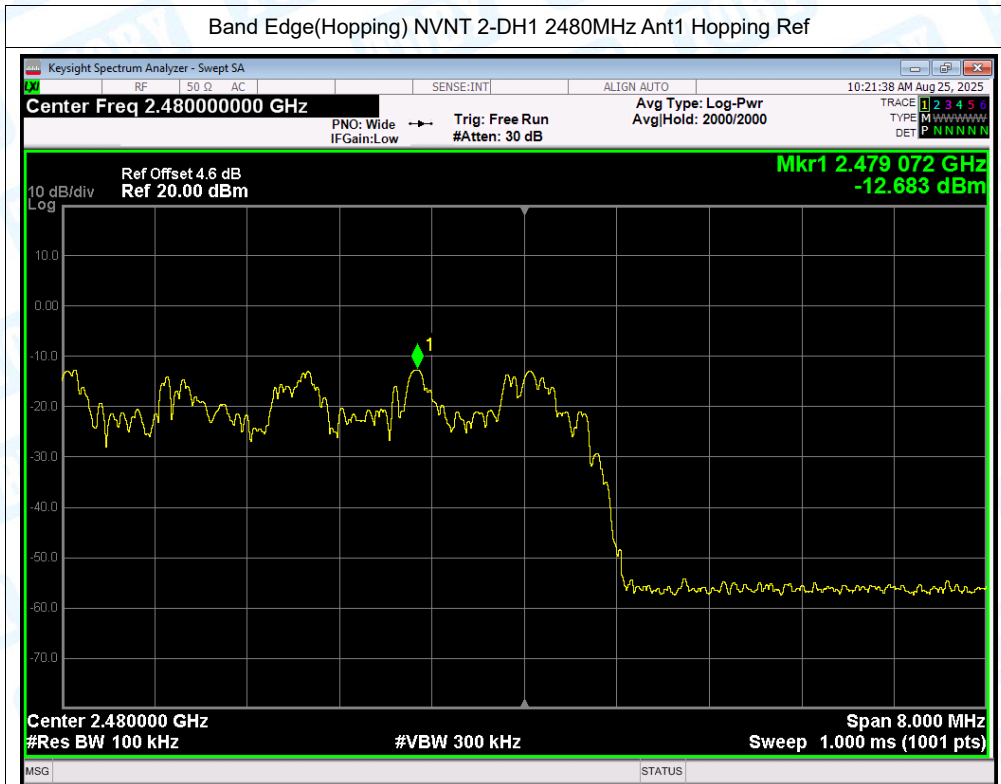


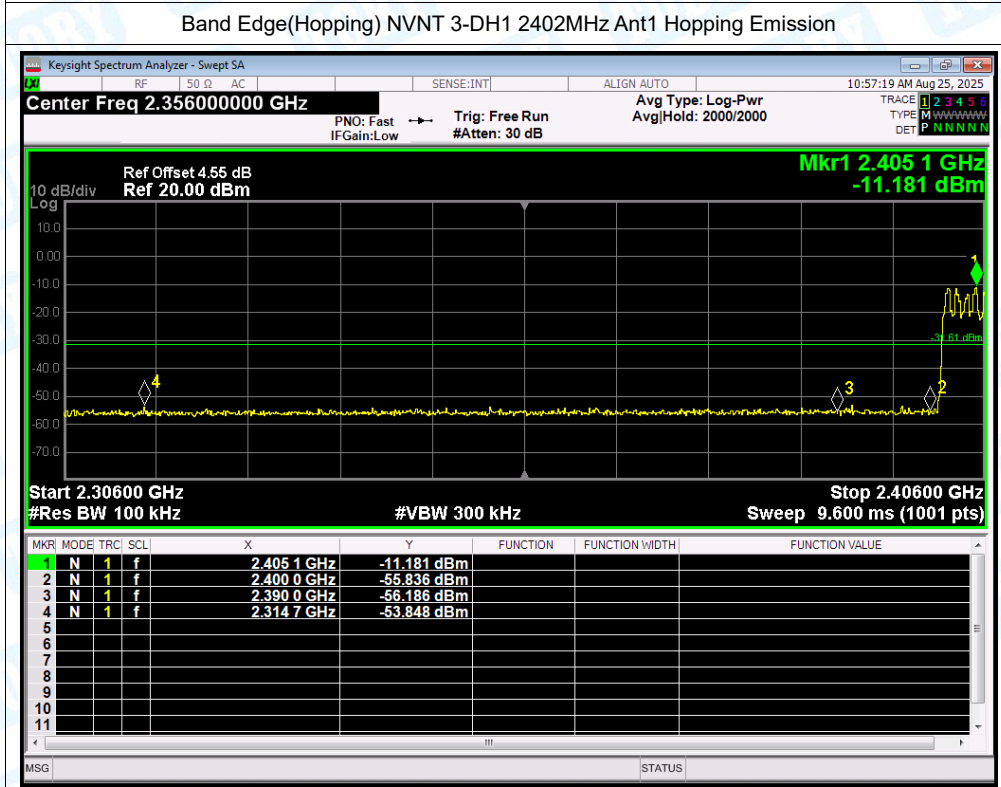
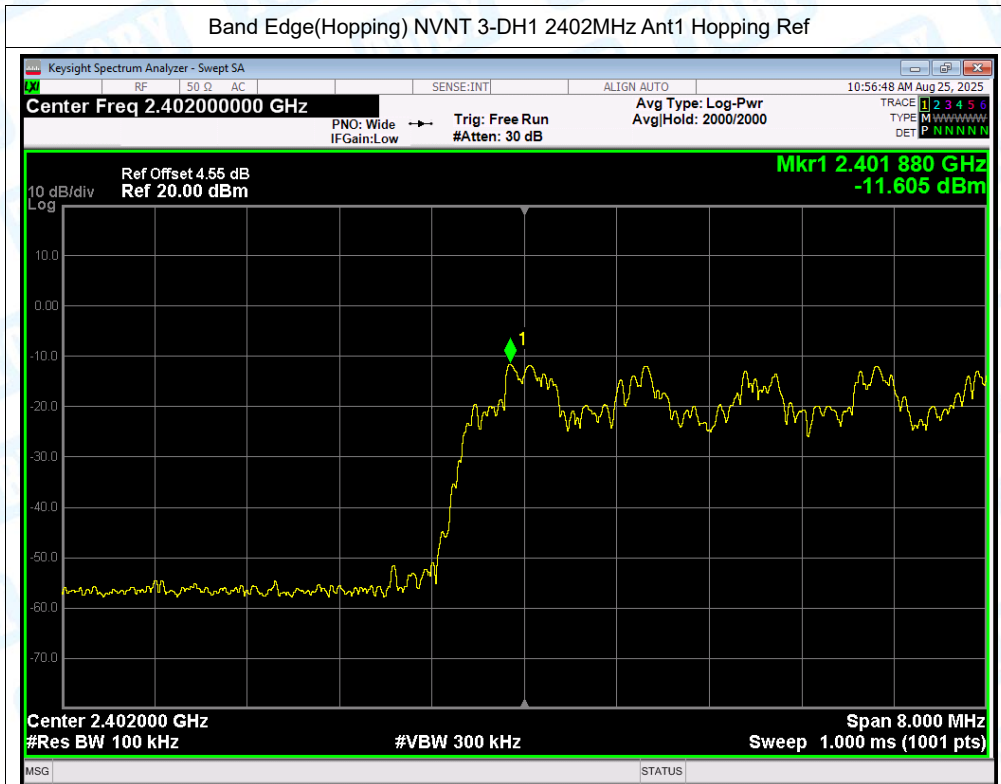
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref

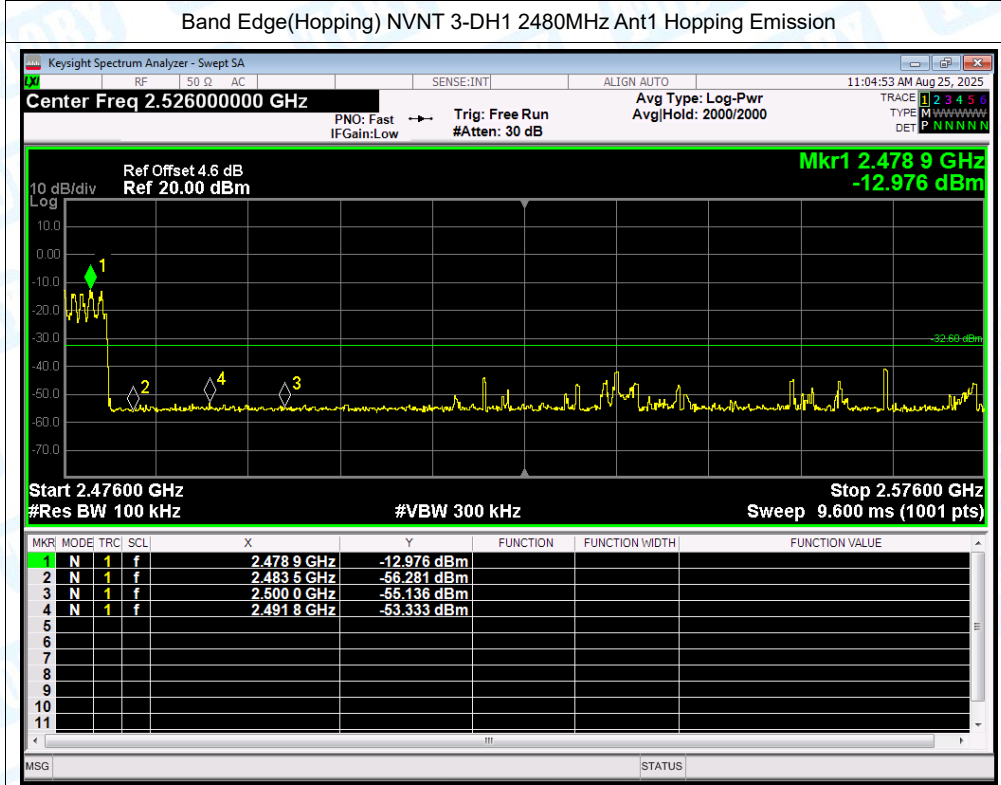
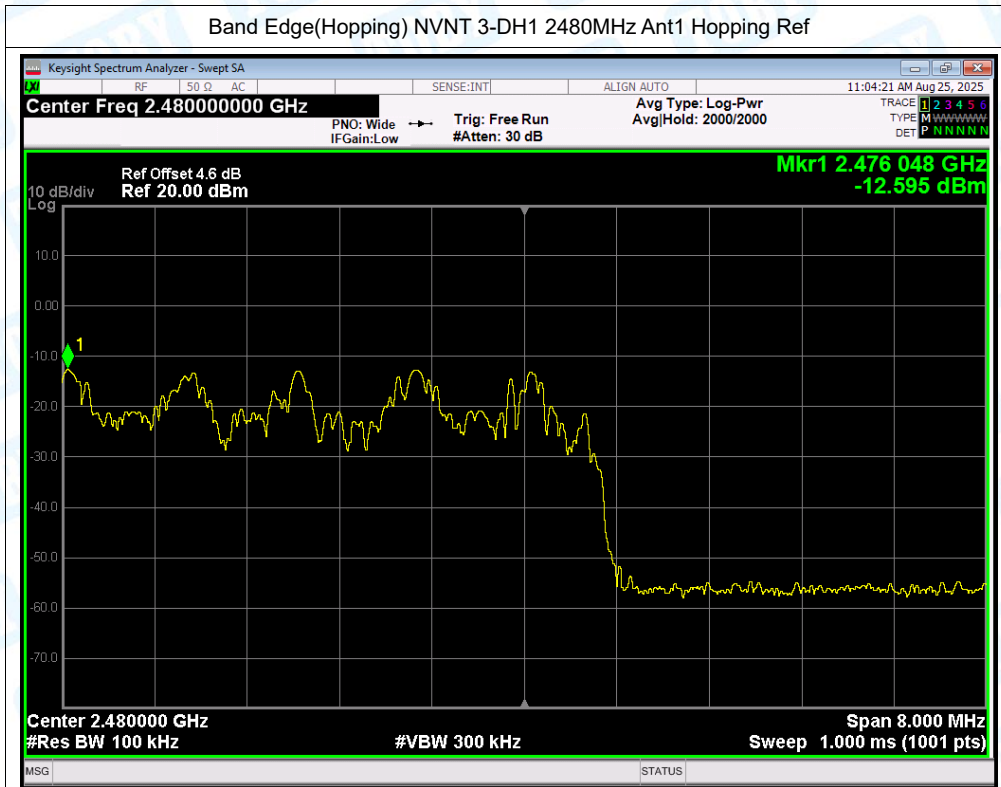


Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission







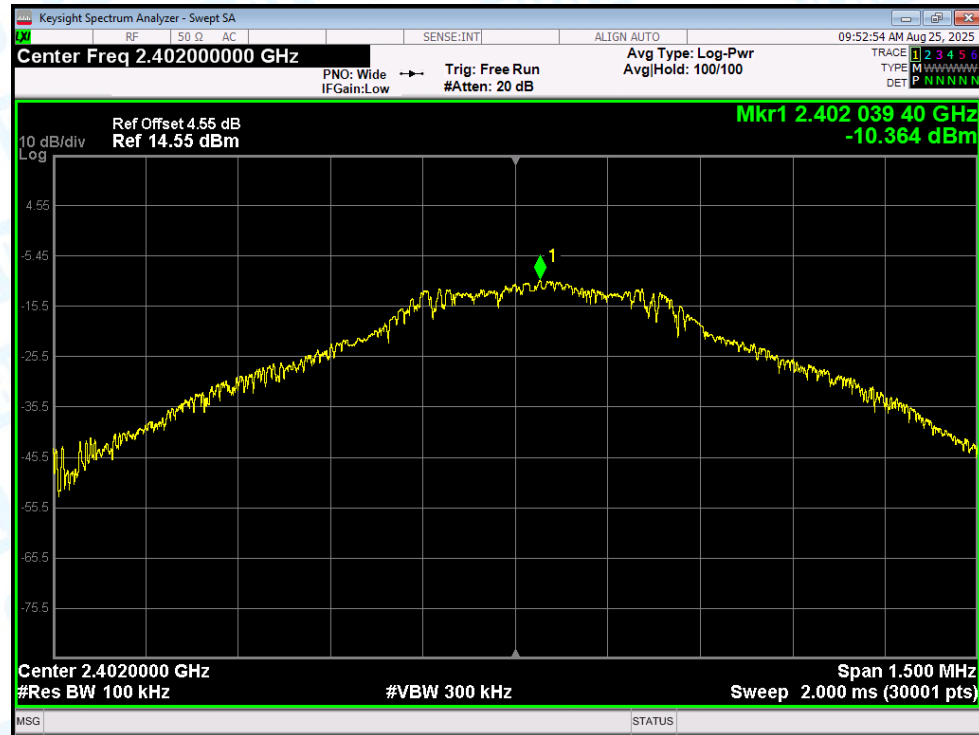


7. Conducted RF Spurious Emission

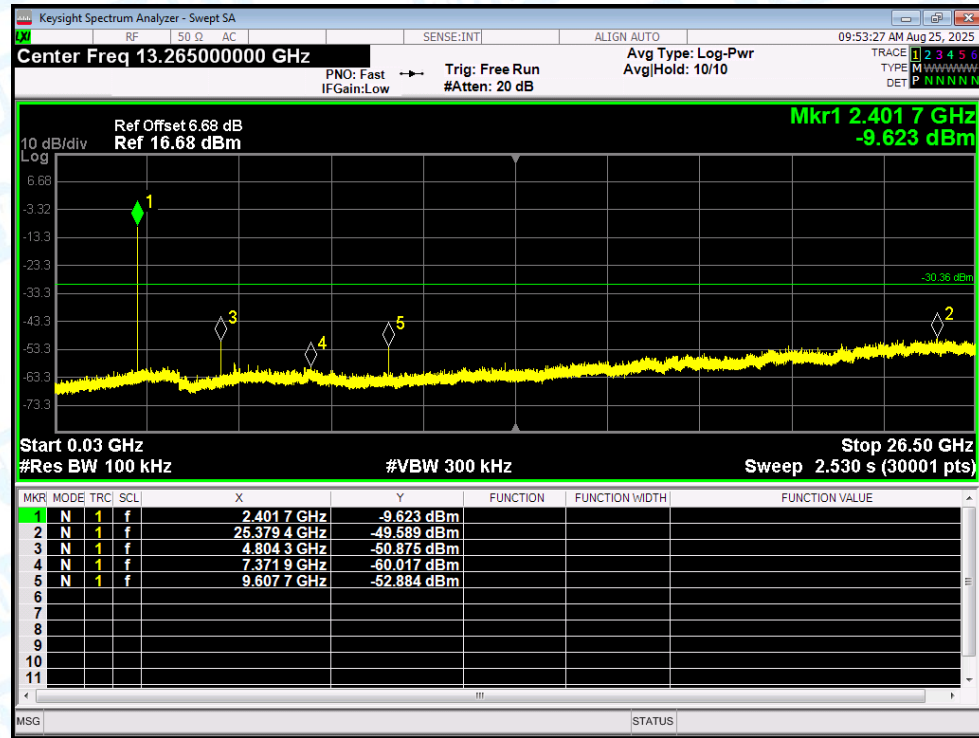
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-39.23	-20	Pass
NVNT	1-DH1	2441	Ant1	-37.33	-20	Pass
NVNT	1-DH1	2480	Ant1	-31.7	-20	Pass
NVNT	2-DH1	2402	Ant1	-37.96	-20	Pass
NVNT	2-DH1	2441	Ant1	-36.45	-20	Pass
NVNT	2-DH1	2480	Ant1	-28.22	-20	Pass
NVNT	3-DH1	2402	Ant1	-37.67	-20	Pass
NVNT	3-DH1	2441	Ant1	-34.77	-20	Pass
NVNT	3-DH1	2480	Ant1	-36.62	-20	Pass

Test Graphs

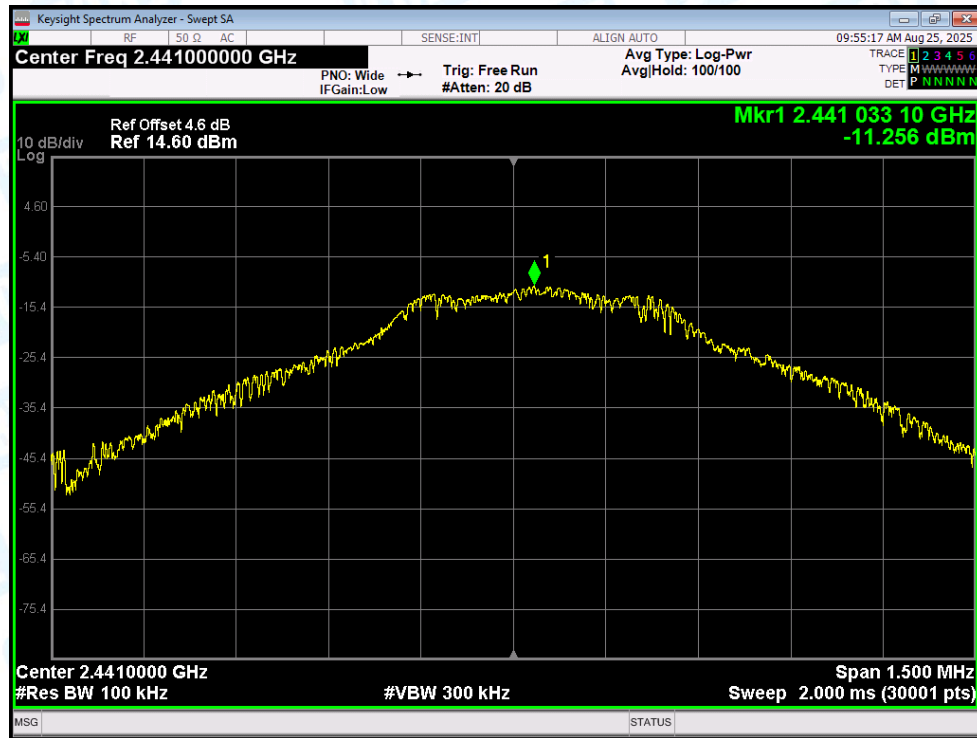
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



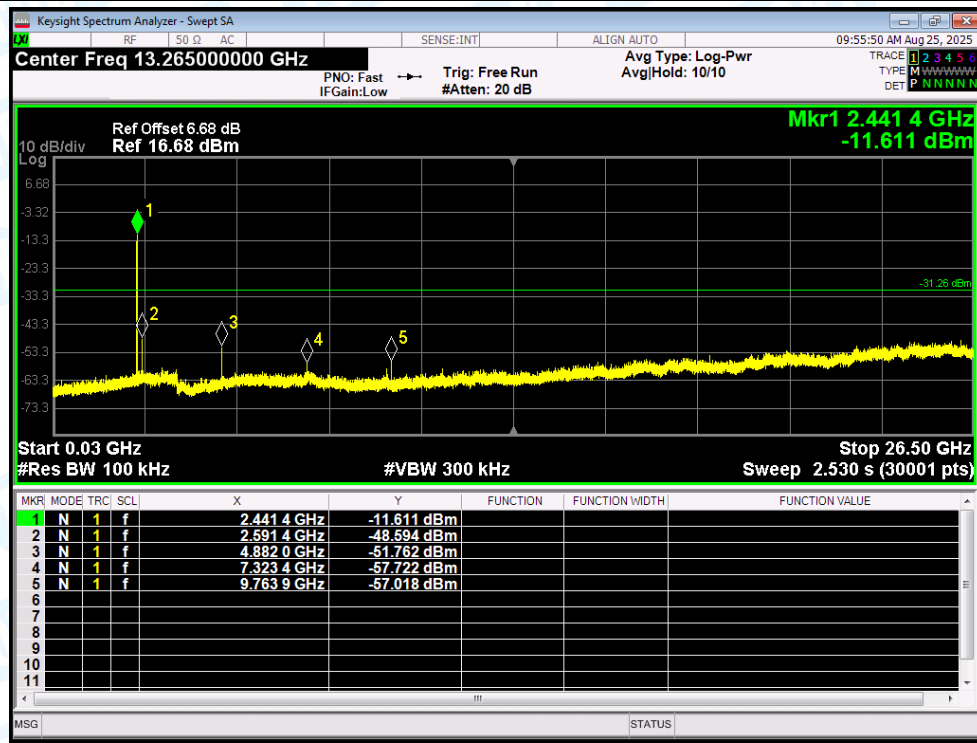
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



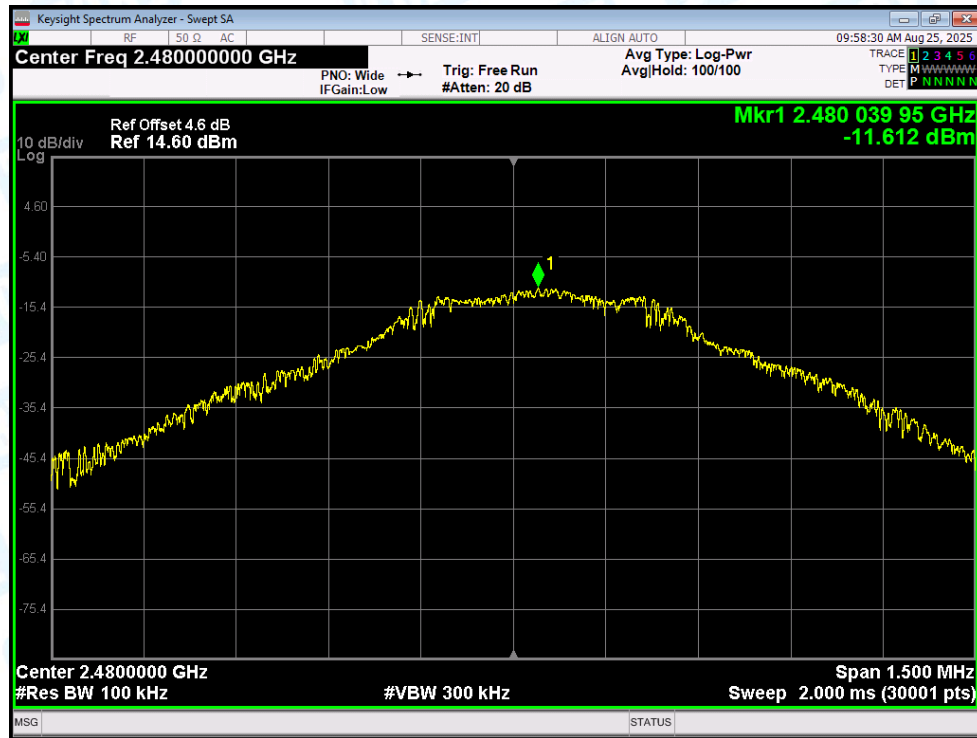
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



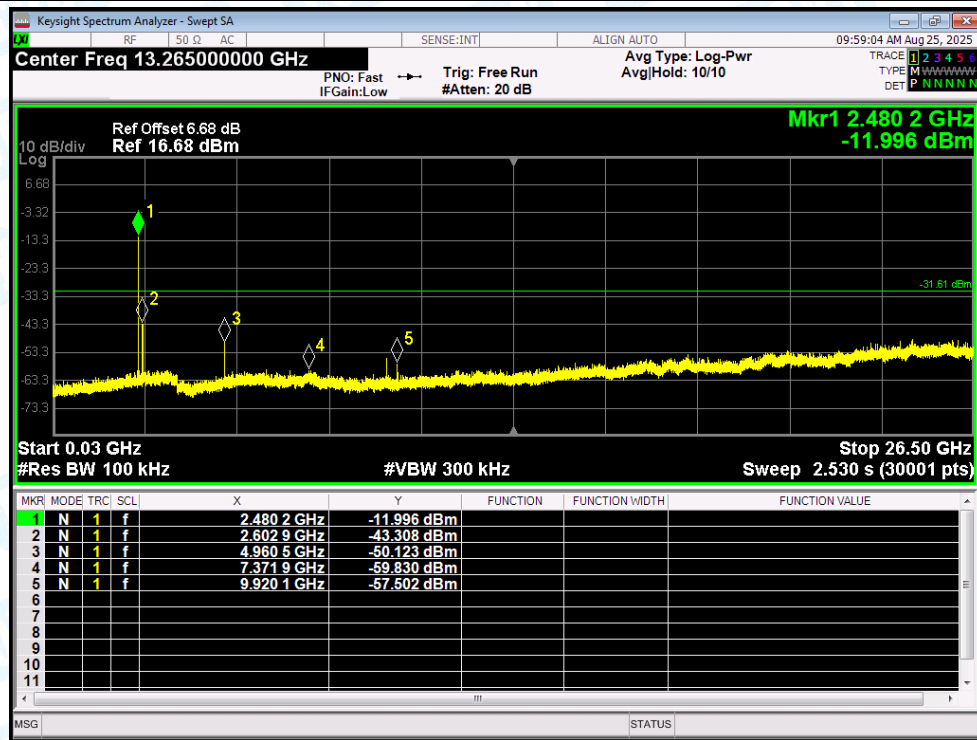
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



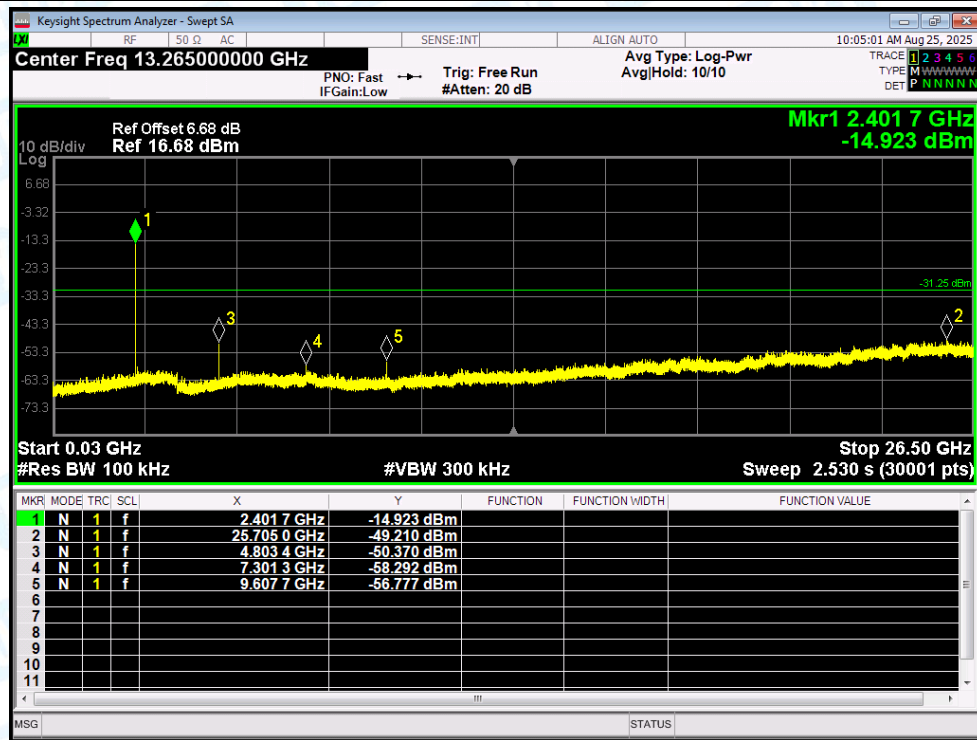
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



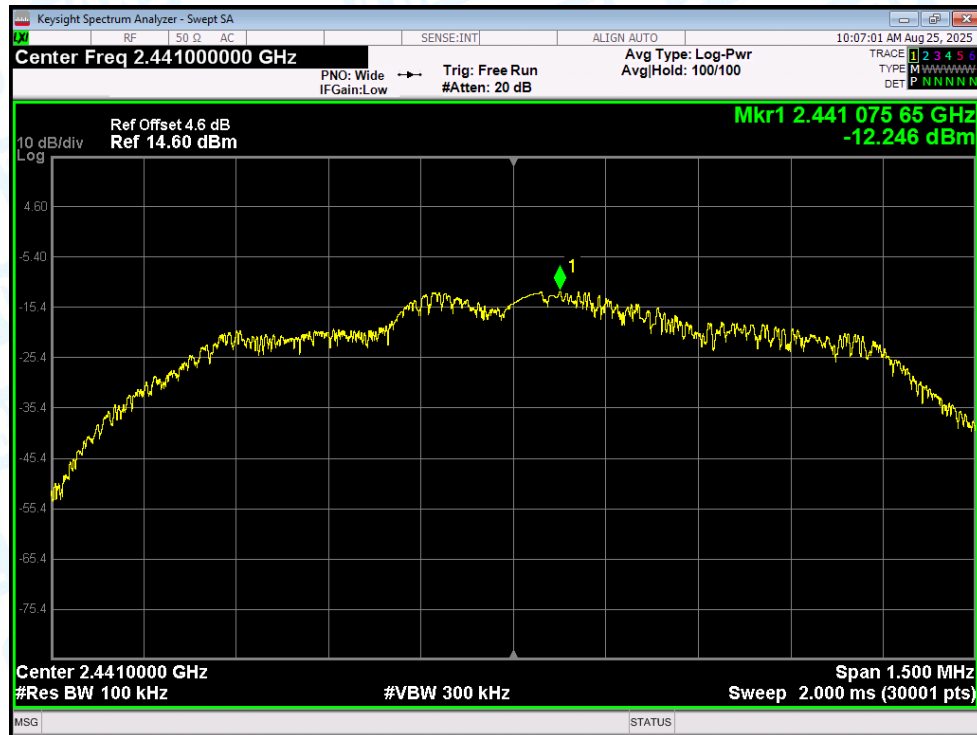
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



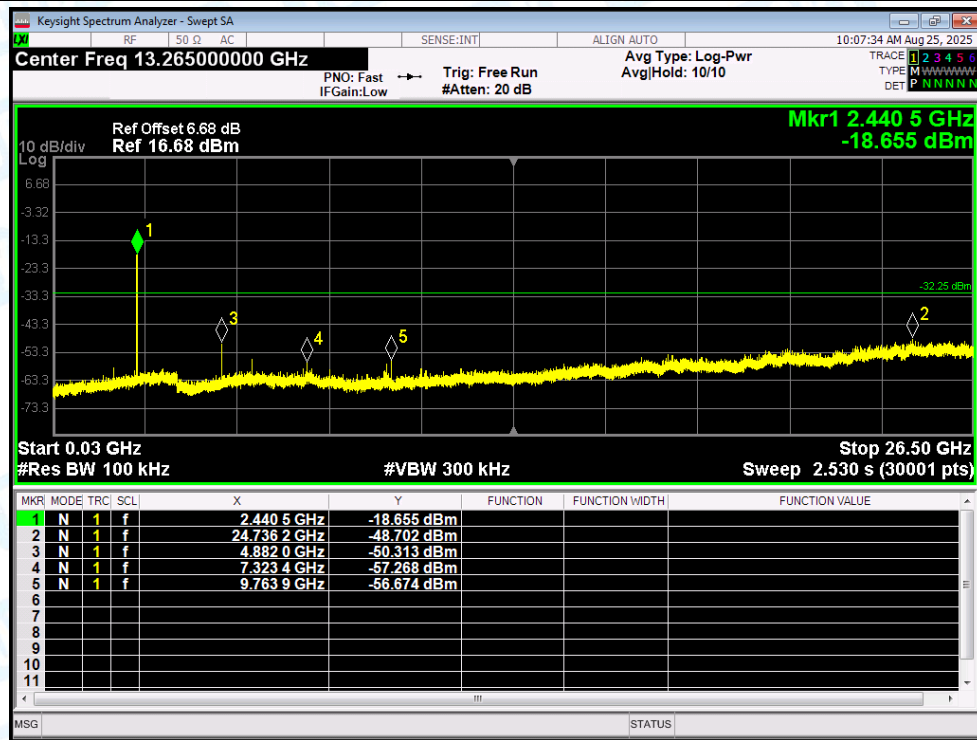
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



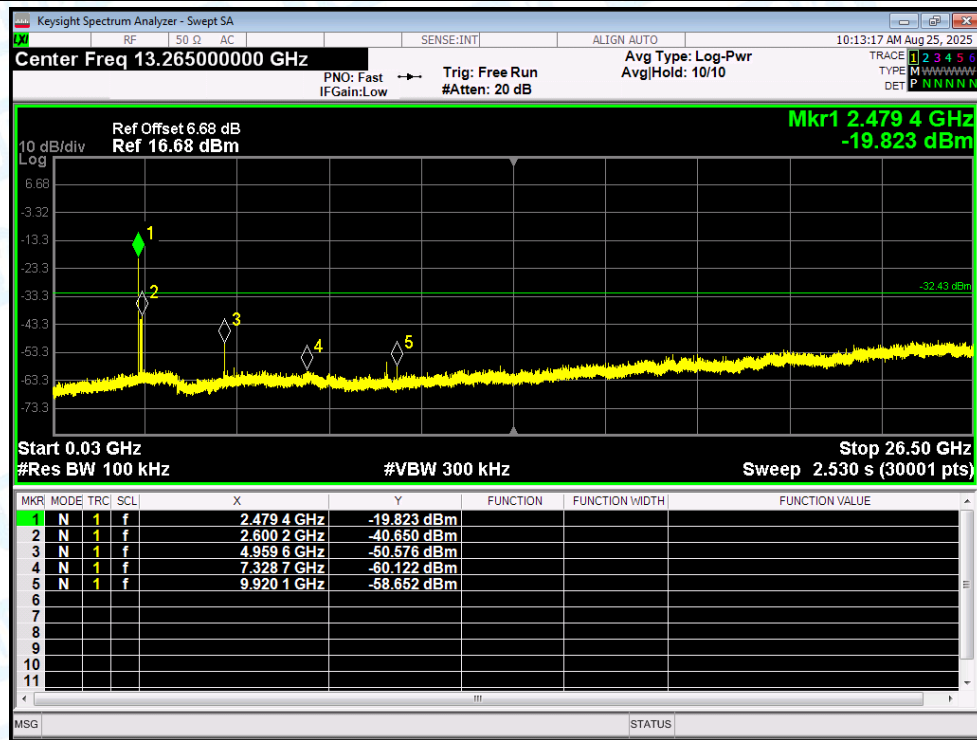
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



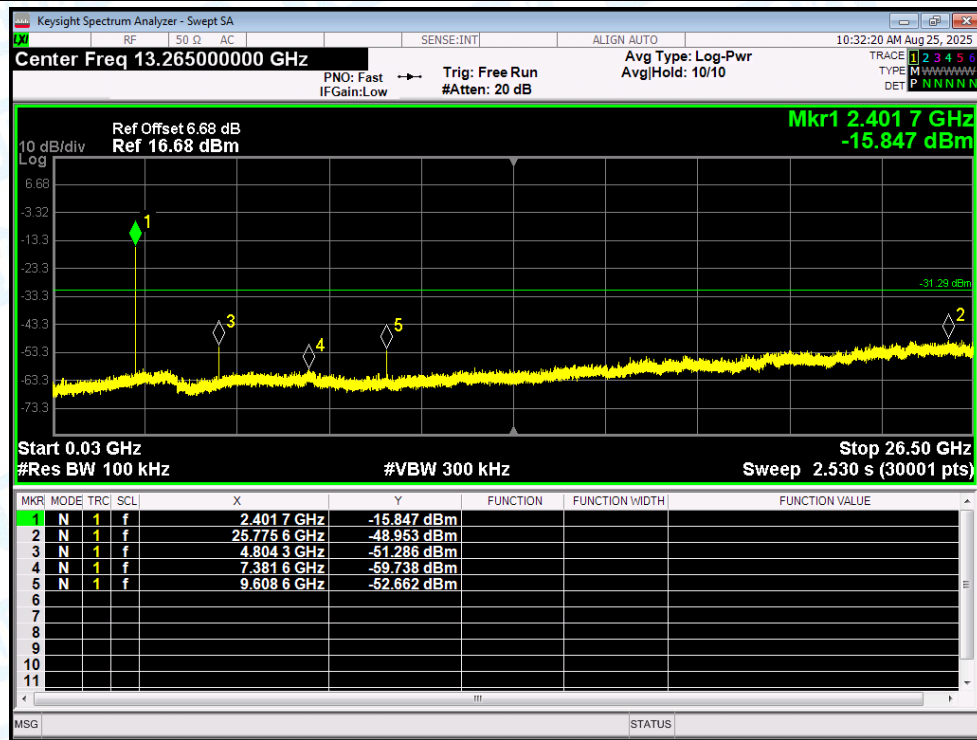
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



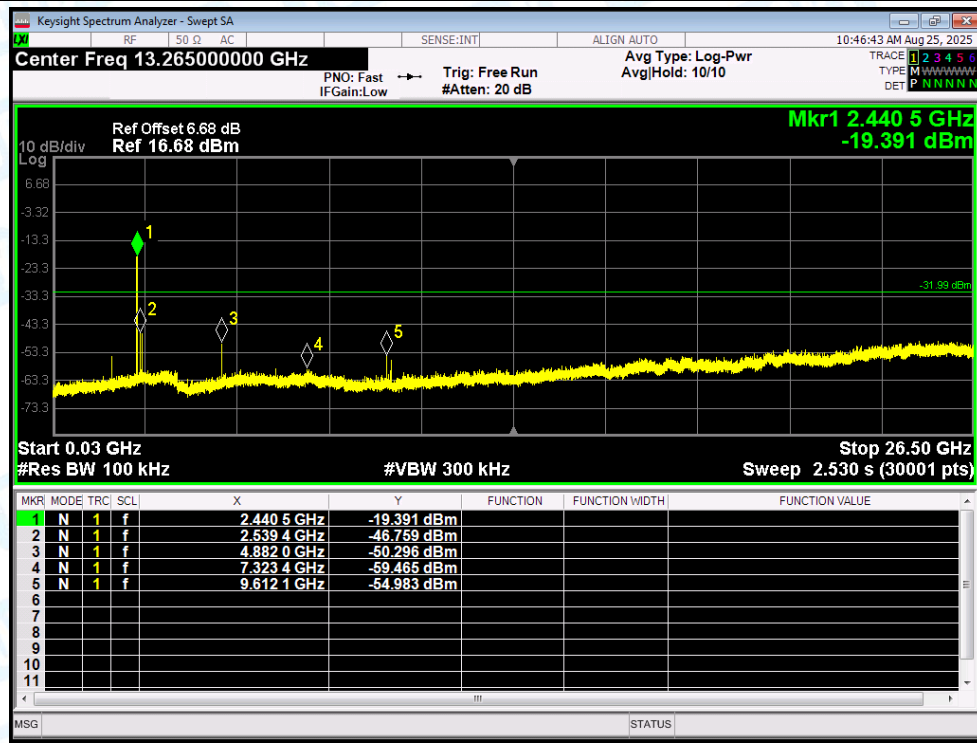
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



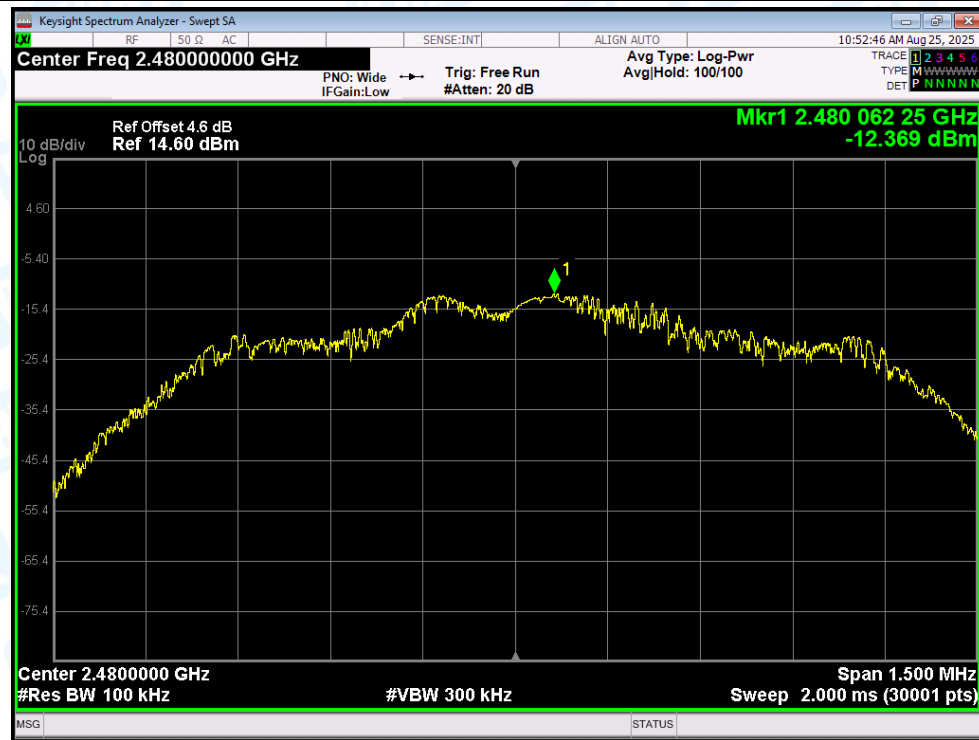
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



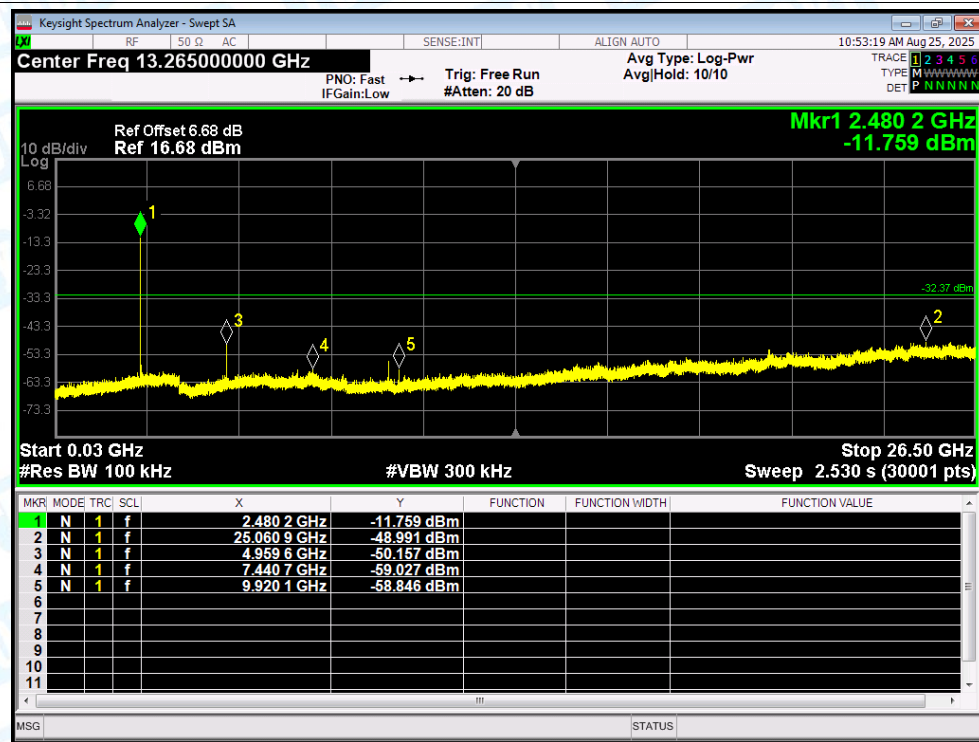
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

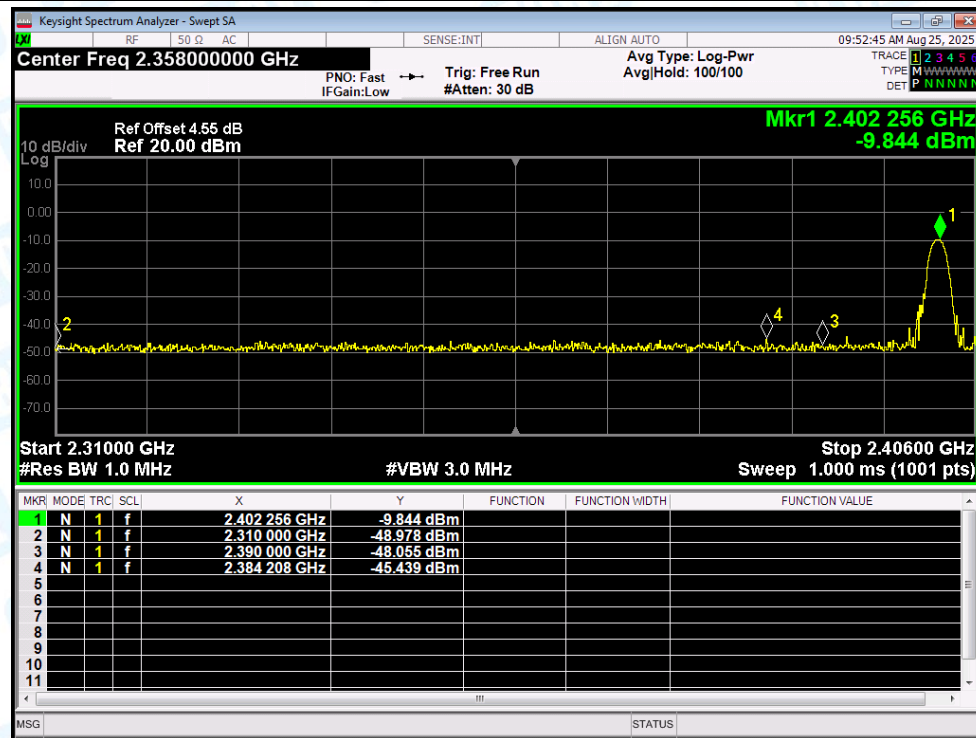


8. Restrict Band

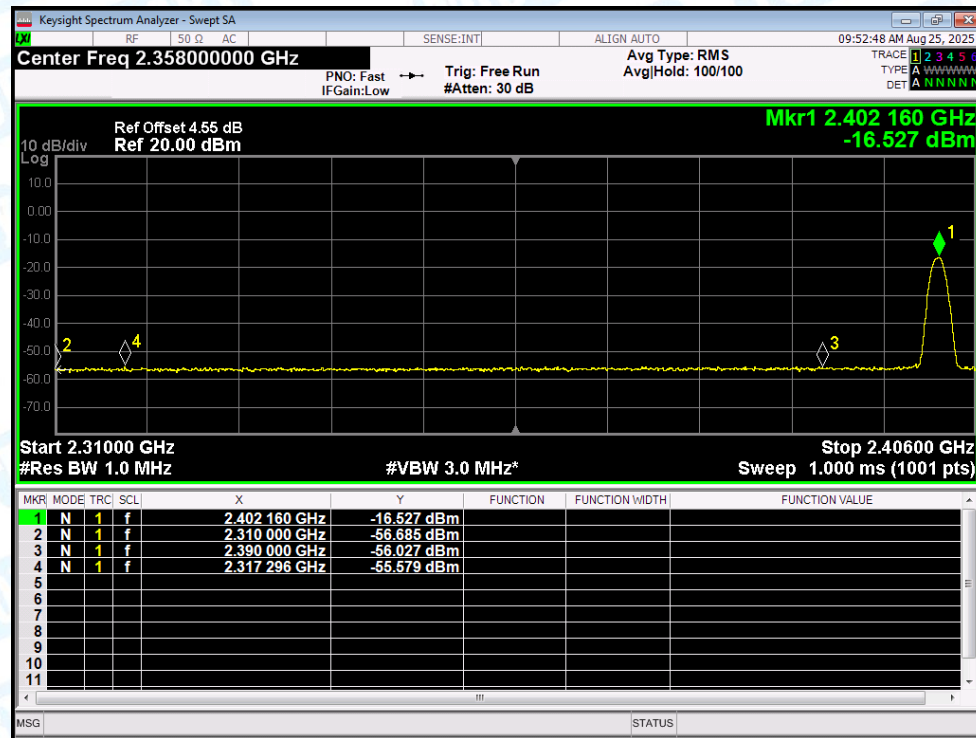
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-48.98	2	-	48.28	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.69	2	4.84	45.41	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2384.208	-45.44	2	-	51.82	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2317.296	-55.58	2	4.84	46.52	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-48.06	2	-	49.2	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-56.03	2	4.84	46.07	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-48.03	2	-	49.23	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-55.78	2	4.84	46.32	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2490.256	-45.12	2	-	52.14	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2499.712	-54.85	2	4.84	47.25	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-47.74	2	-	49.52	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.77	2	4.84	46.33	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-48.98	2	-	48.28	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.67	2	4.74	45.33	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2319.696	-45.42	2	-	51.84	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2378.736	-55.29	2	4.74	46.71	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-48.73	2	-	48.53	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-55.82	2	4.74	46.18	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-47.86	2	-	49.4	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-55.26	2	4.74	46.74	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2499.688	-44.1	2	-	53.16	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2485.552	-54.78	2	4.74	47.22	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-47.04	2	-	50.22	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-56.07	2	4.74	45.93	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-48.31	2	-	48.95	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.71	2	4.74	45.29	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2370.672	-45.4	2	-	51.86	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2386.896	-55.24	2	4.74	46.76	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-47.84	2	-	49.42	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-56.44	2	4.74	45.56	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-47.11	2	-	50.15	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-55.77	2	4.74	46.23	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2493.592	-45.06	2	-	52.2	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2497.48	-54.56	2	4.74	47.44	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-47.85	2	-	49.41	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.72	2	4.74	46.28	Average	54	Pass

Test Graphs

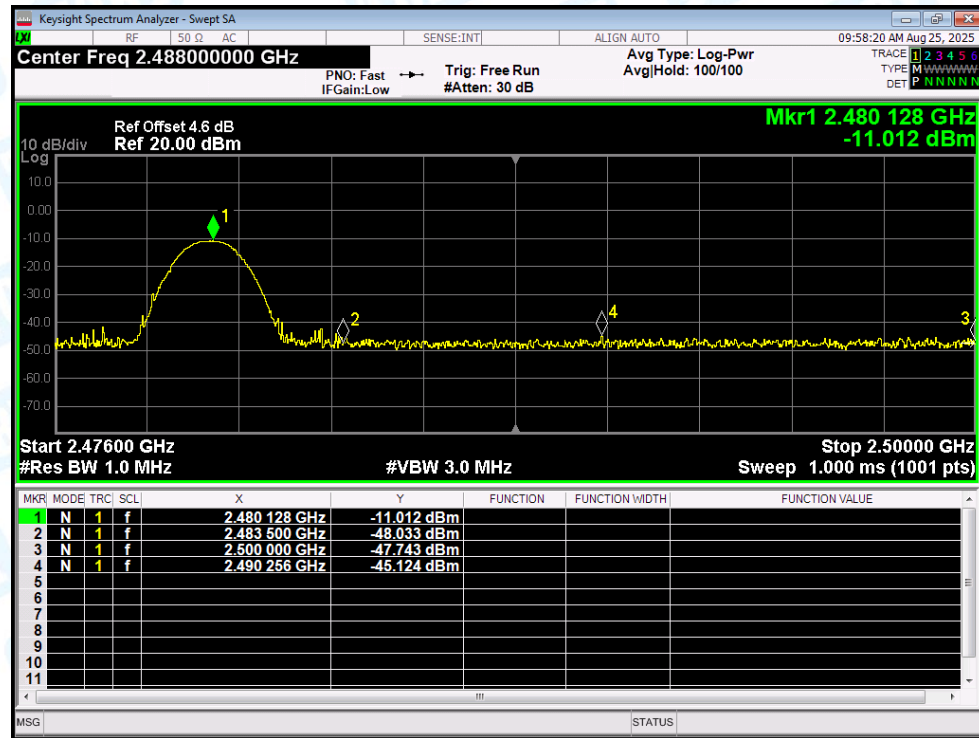
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



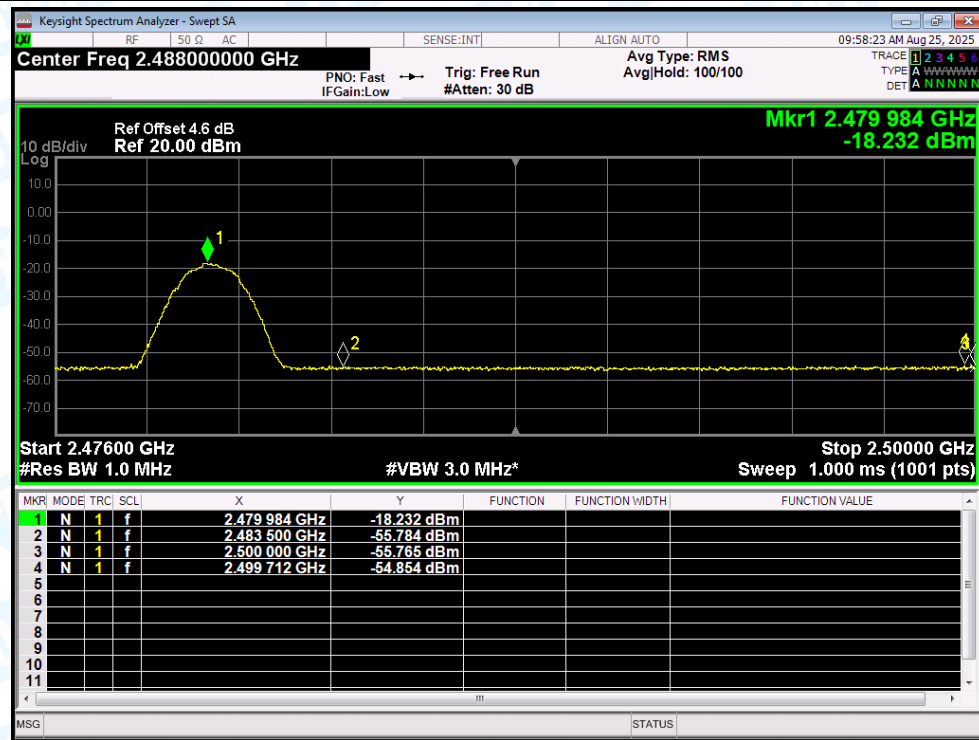
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



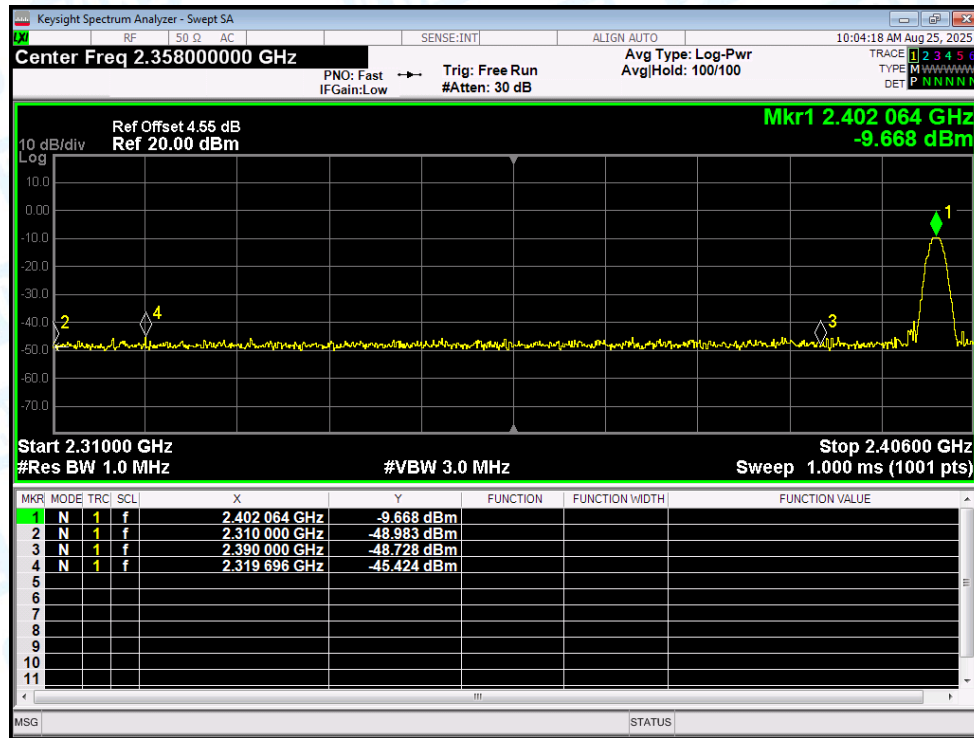
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



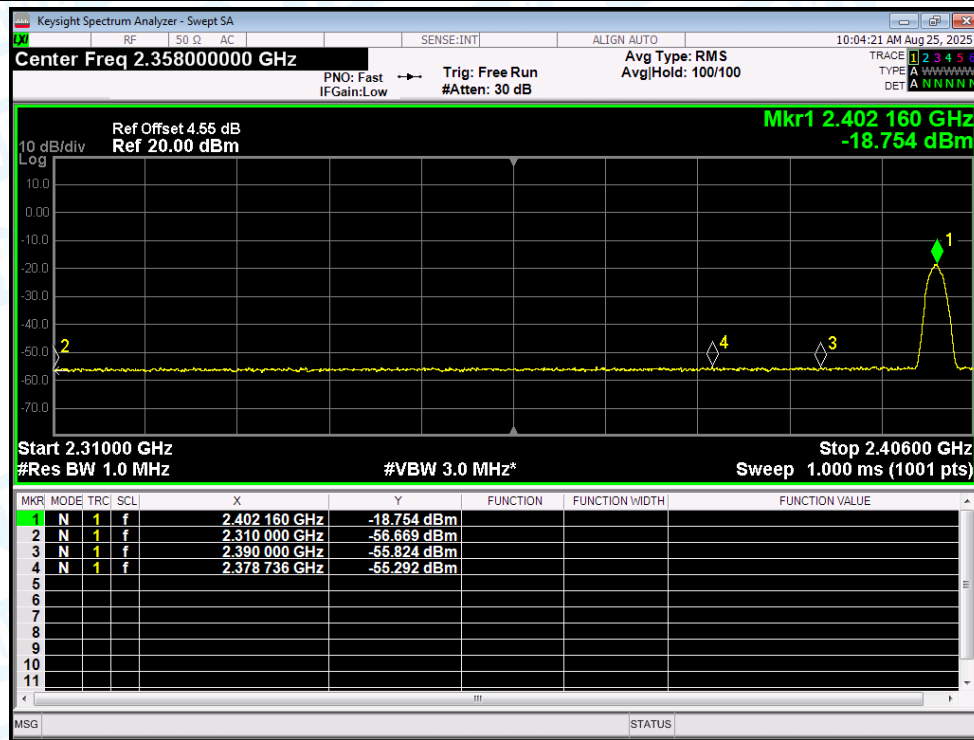
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



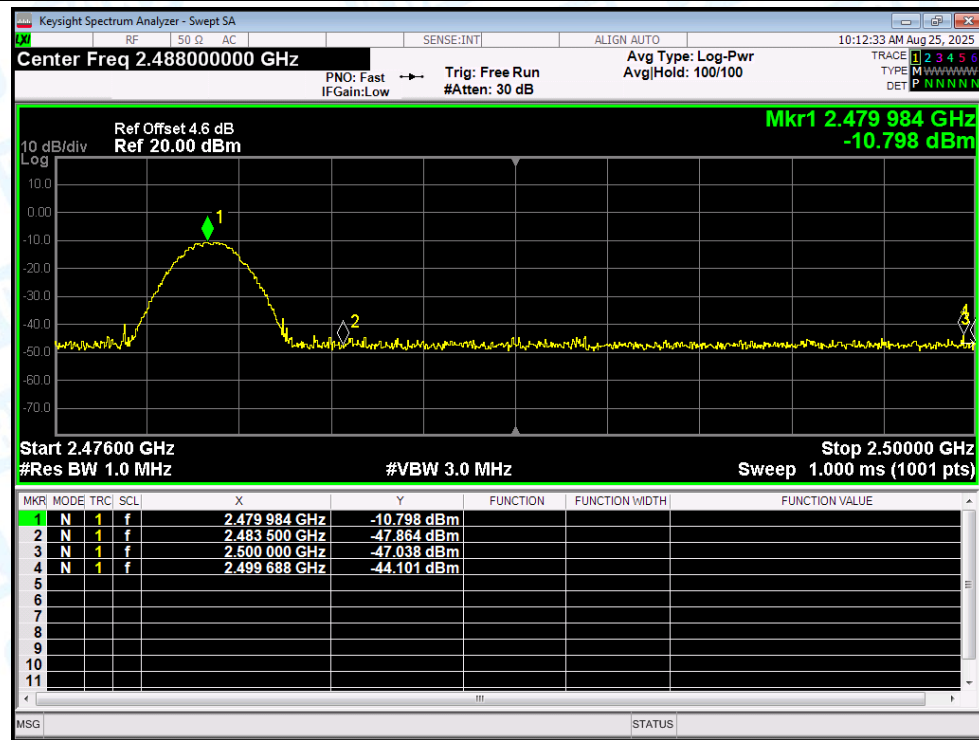
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



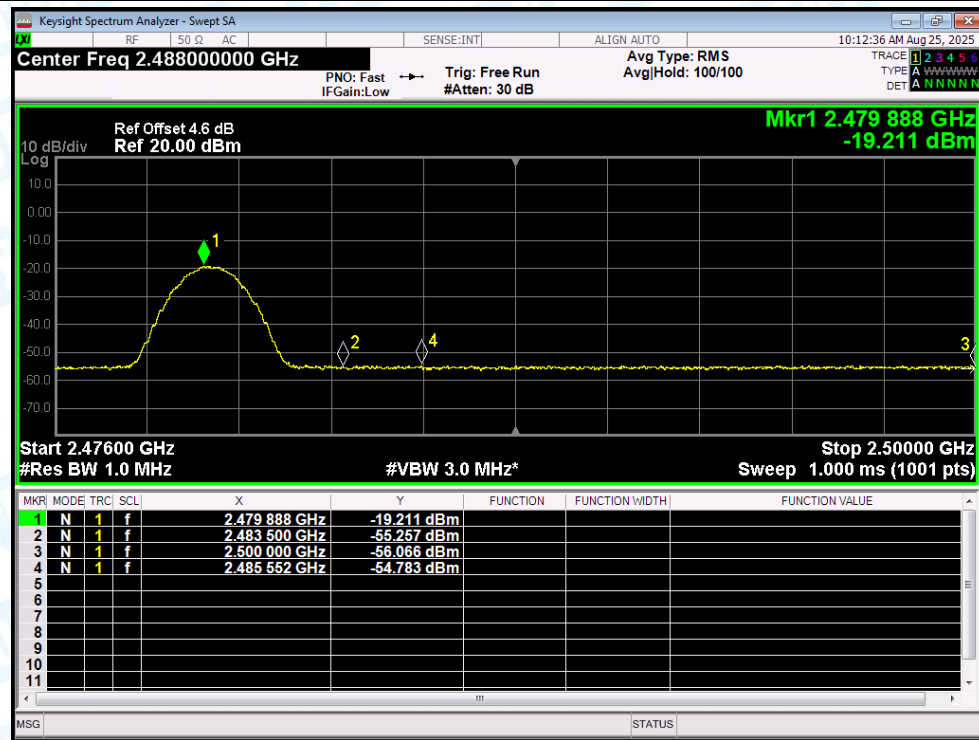
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



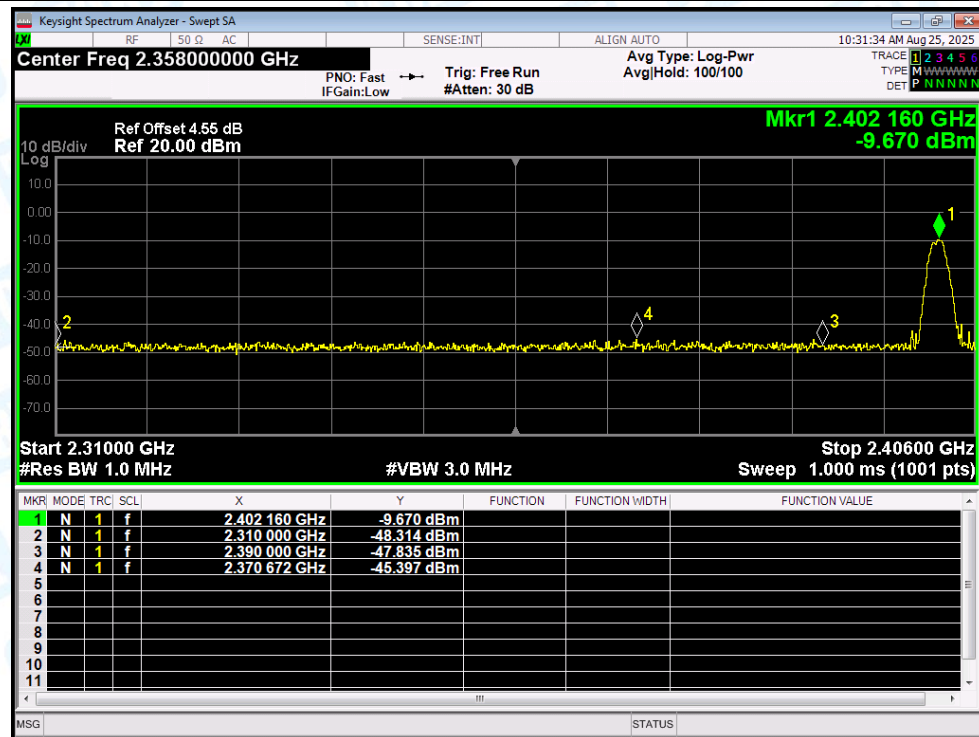
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



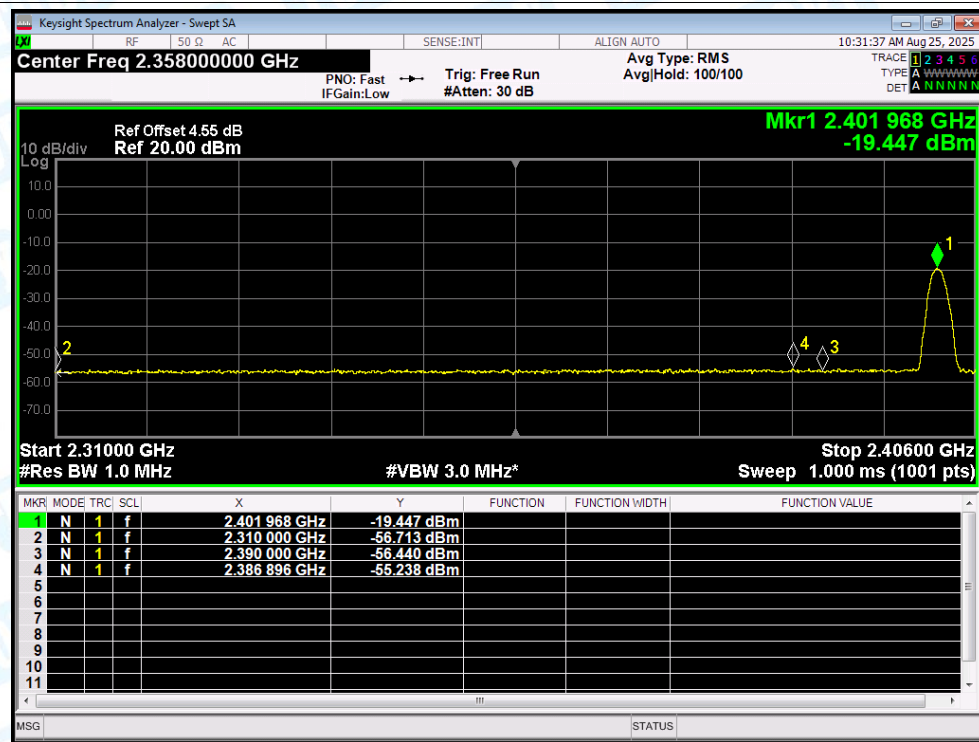
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



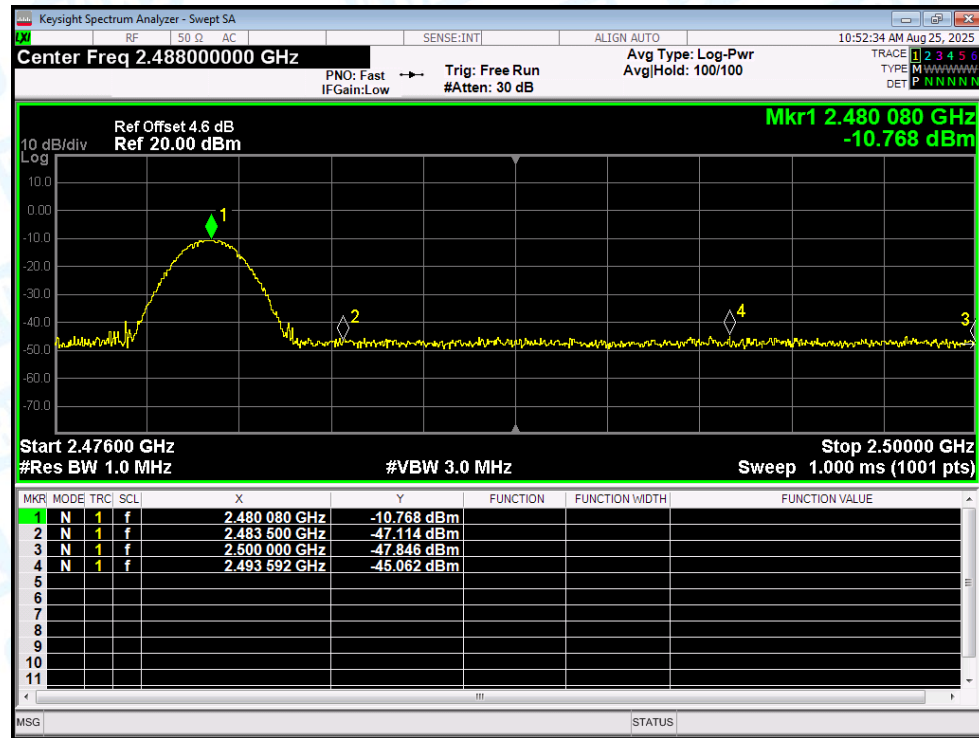
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



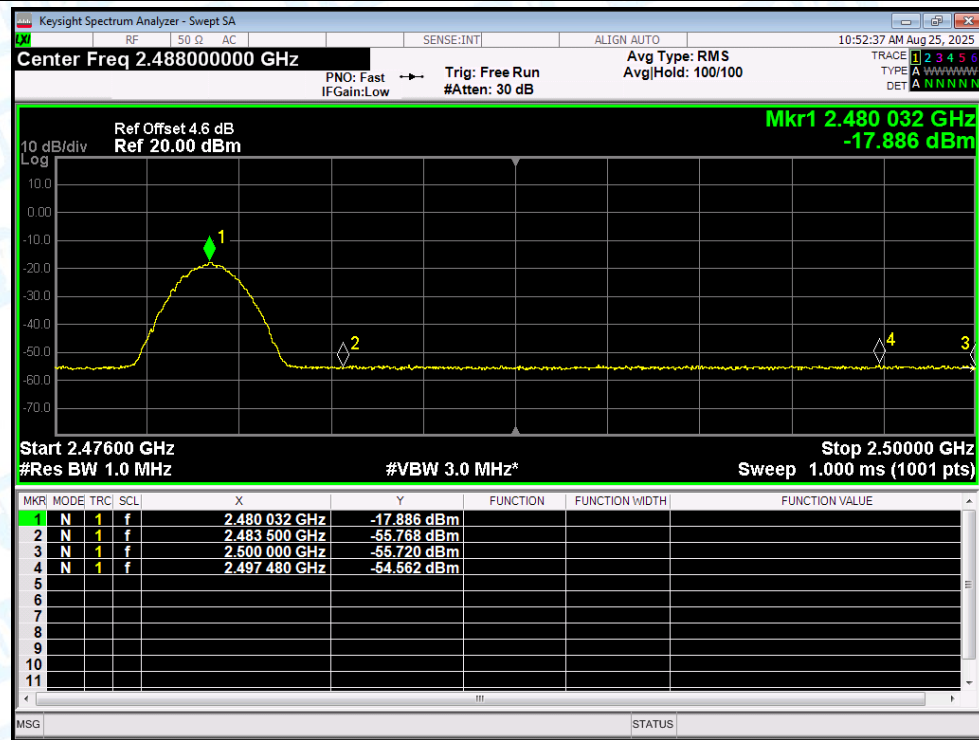
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



Restrict Band NVNT 3-DH1 2480MHz Ant1 No-Hopping Peak



Restrict Band NVNT 3-DH1 2480MHz Ant1 No-Hopping Average

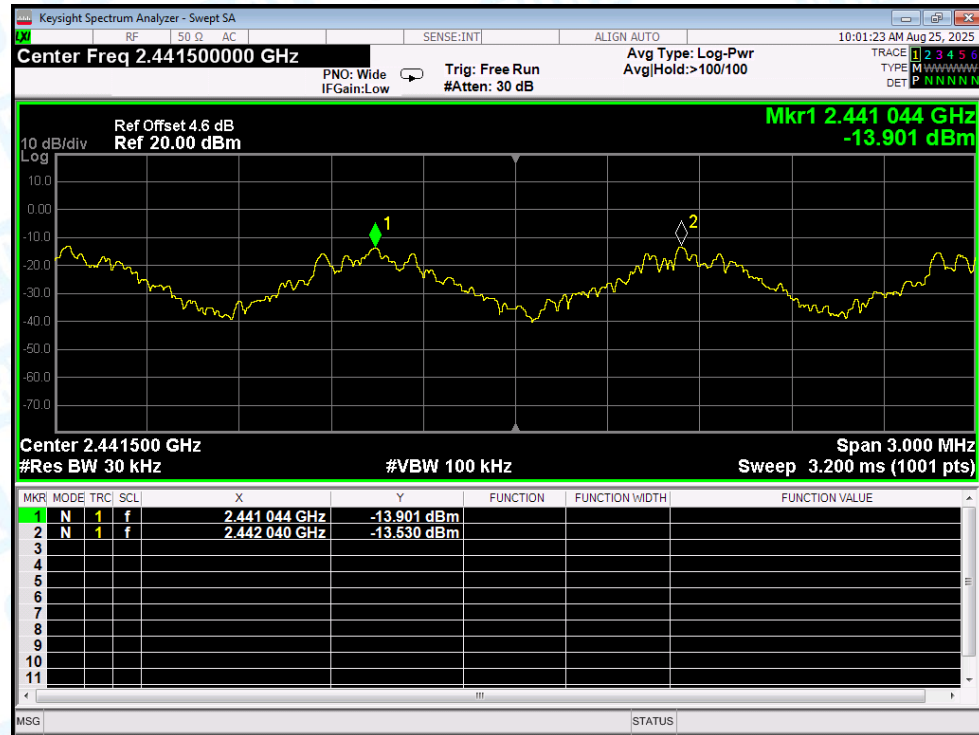


9. Carrier Frequencies Separation

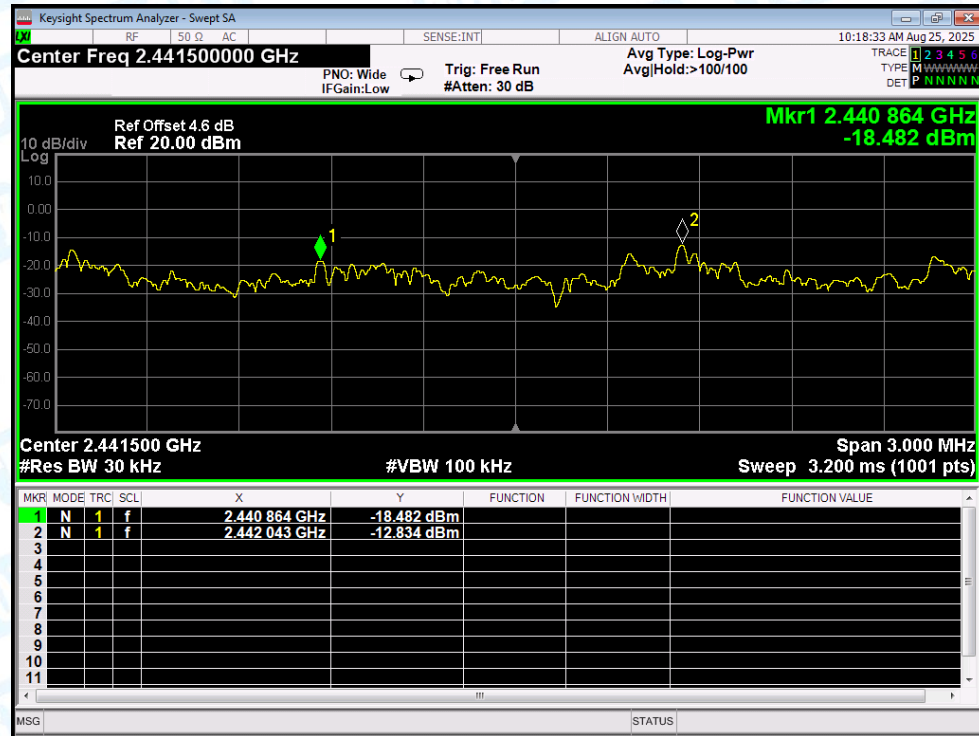
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2441.044	2442.04	0.996	0.52	Pass
NVNT	2-DH1	Ant1	2440.864	2442.043	1.179	0.78	Pass
NVNT	3-DH1	Ant1	2441.05	2442.049	0.999	0.78	Pass

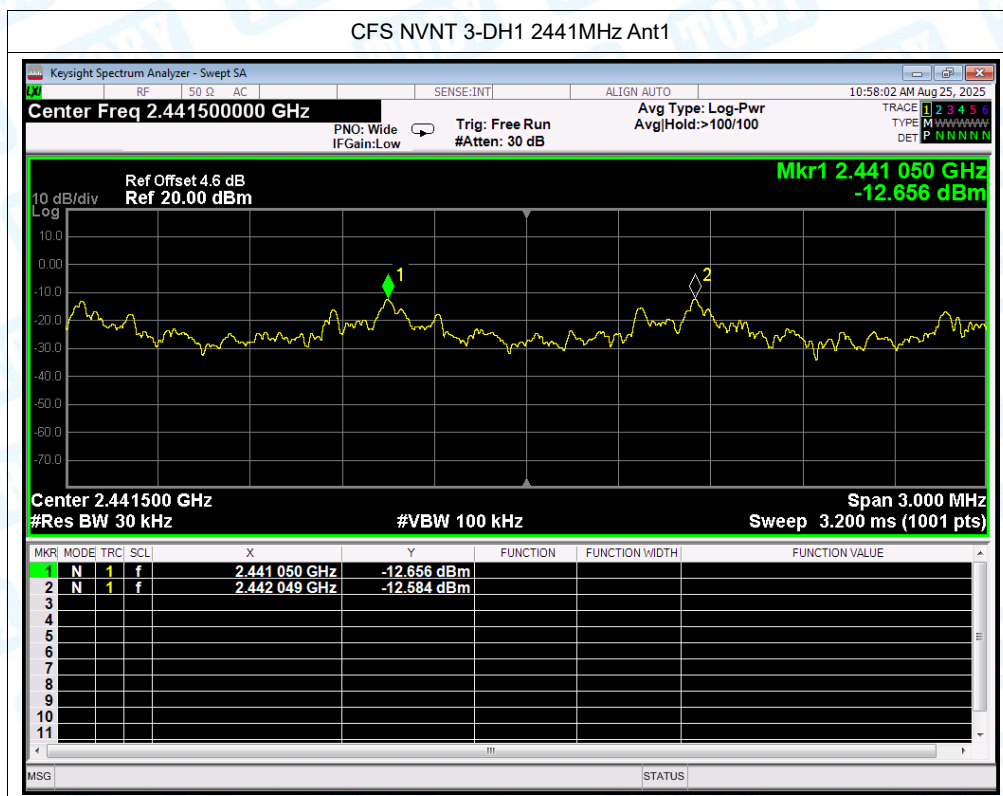
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



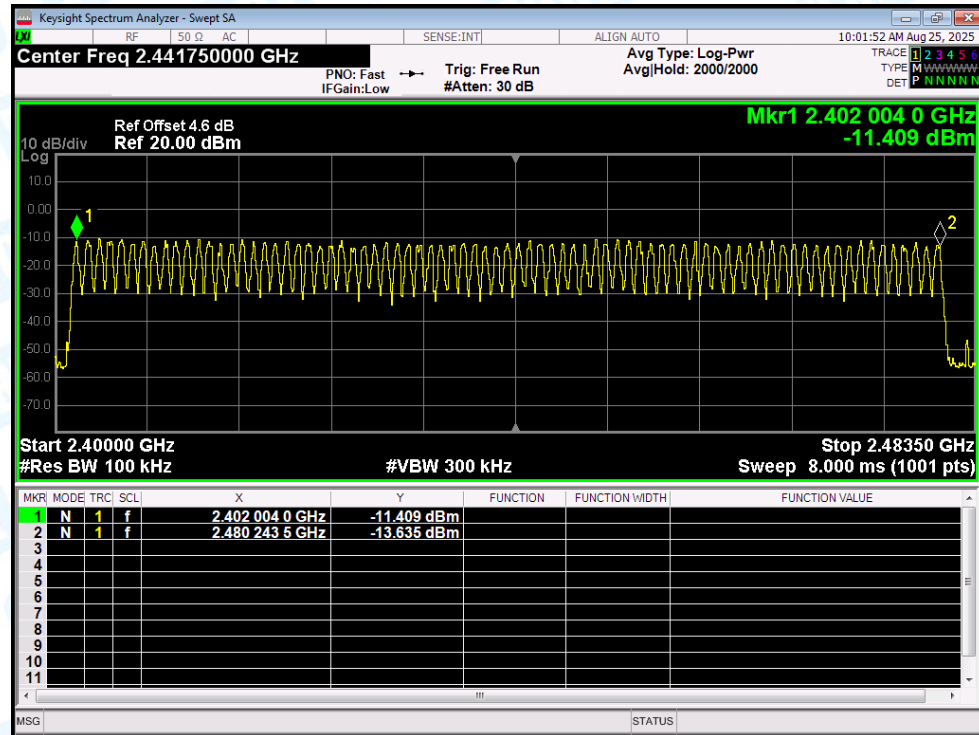


10. Number of Hopping Channel

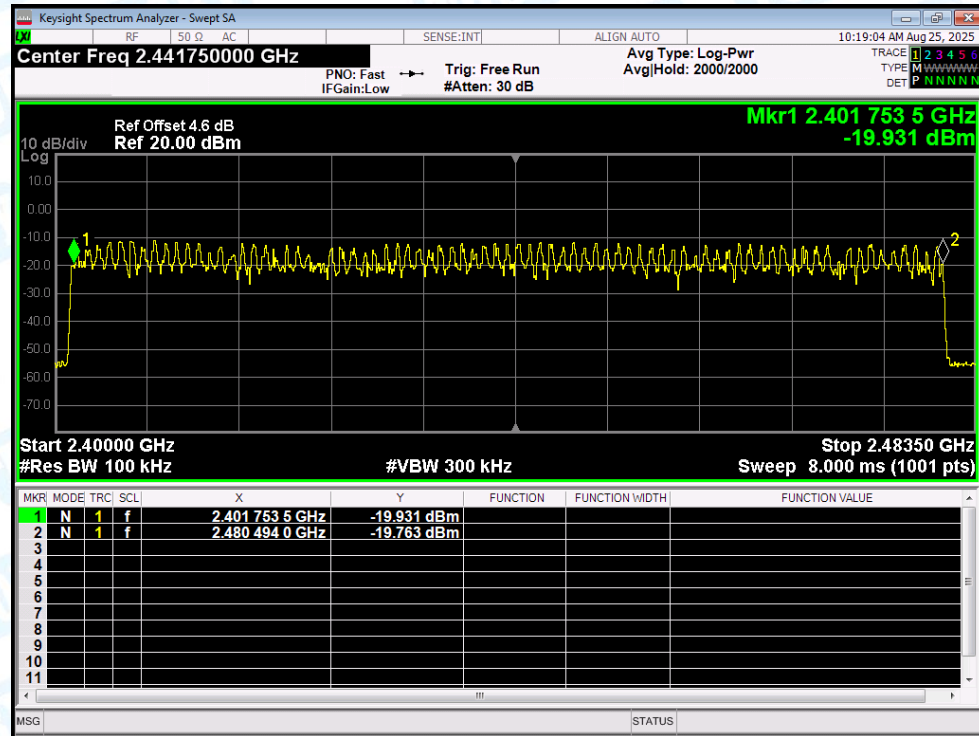
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

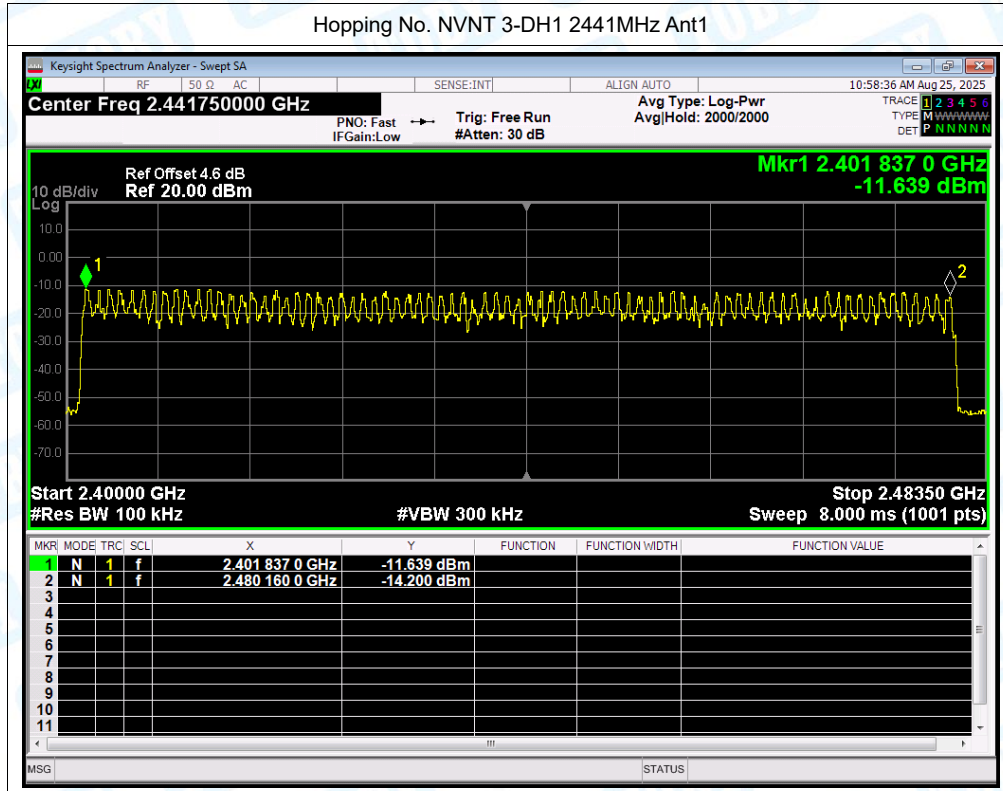
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



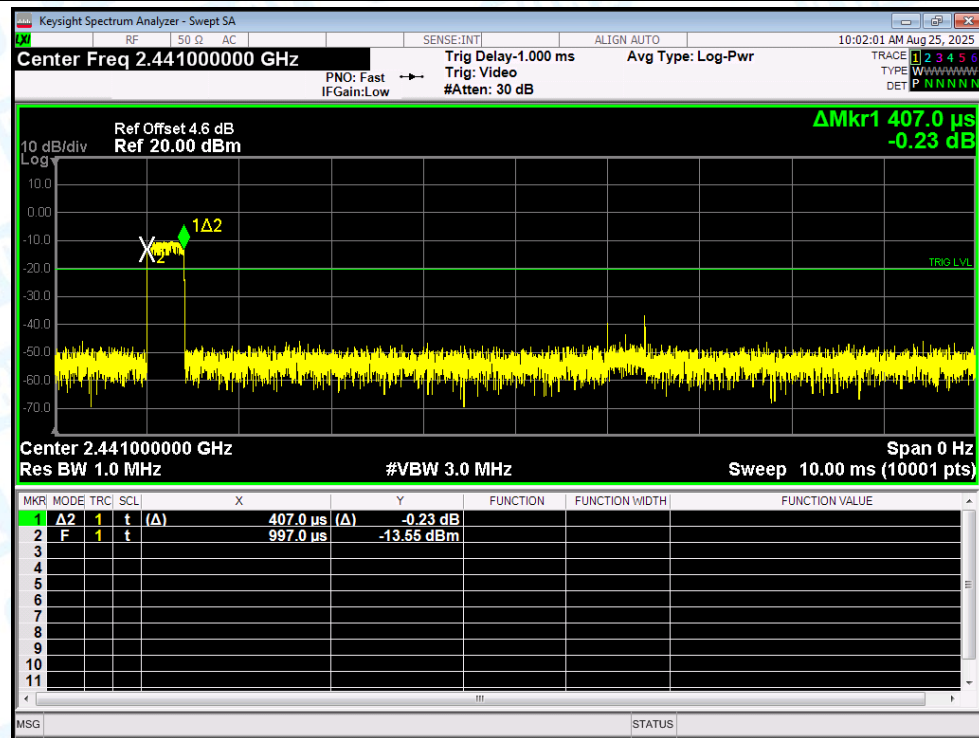


11. Dwell Time

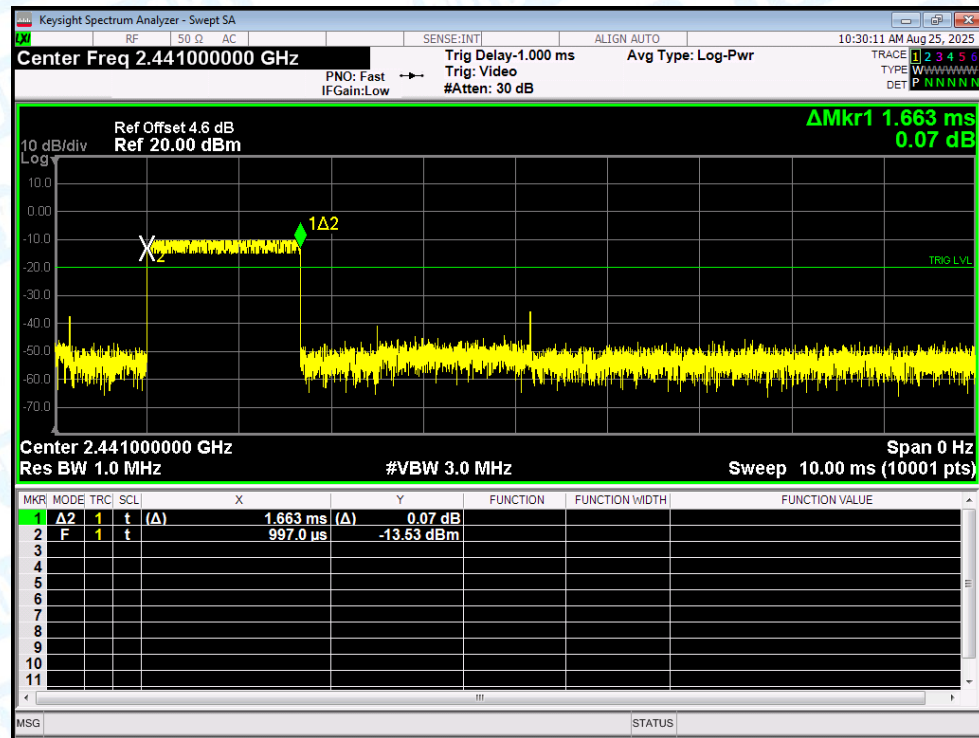
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.407	130.24	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.663	266.08	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.911	310.507	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.417	133.44	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.669	267.04	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.917	311.147	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.417	133.44	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.667	266.72	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.918	311.253	31600	400	Pass

Test Graphs

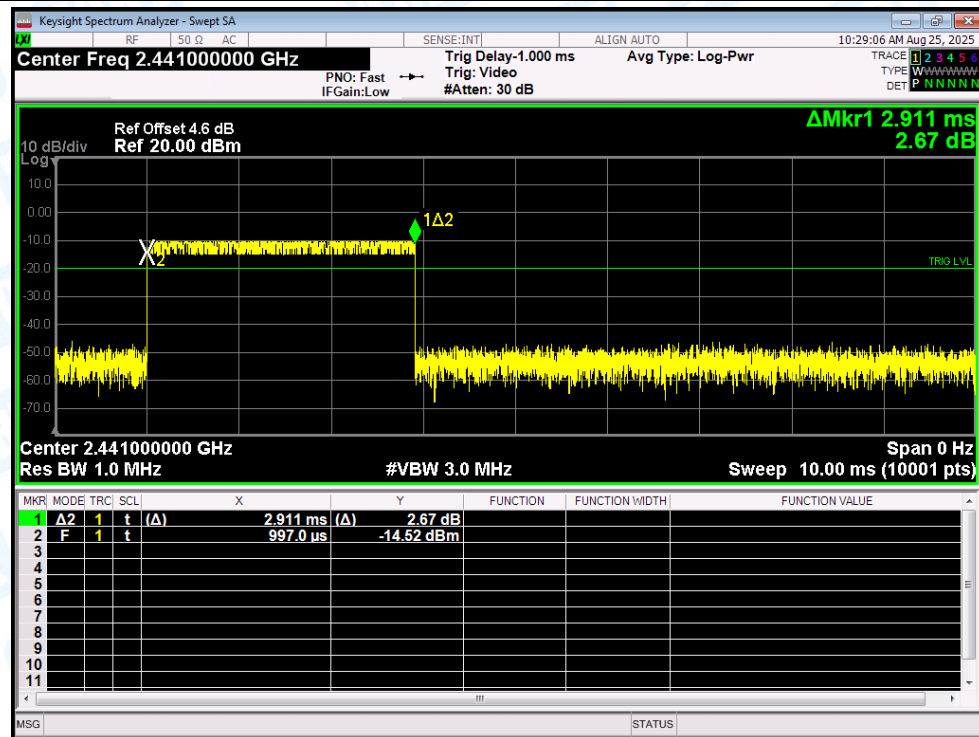
Dwell NVNT 1-DH1 2441MHz Ant1



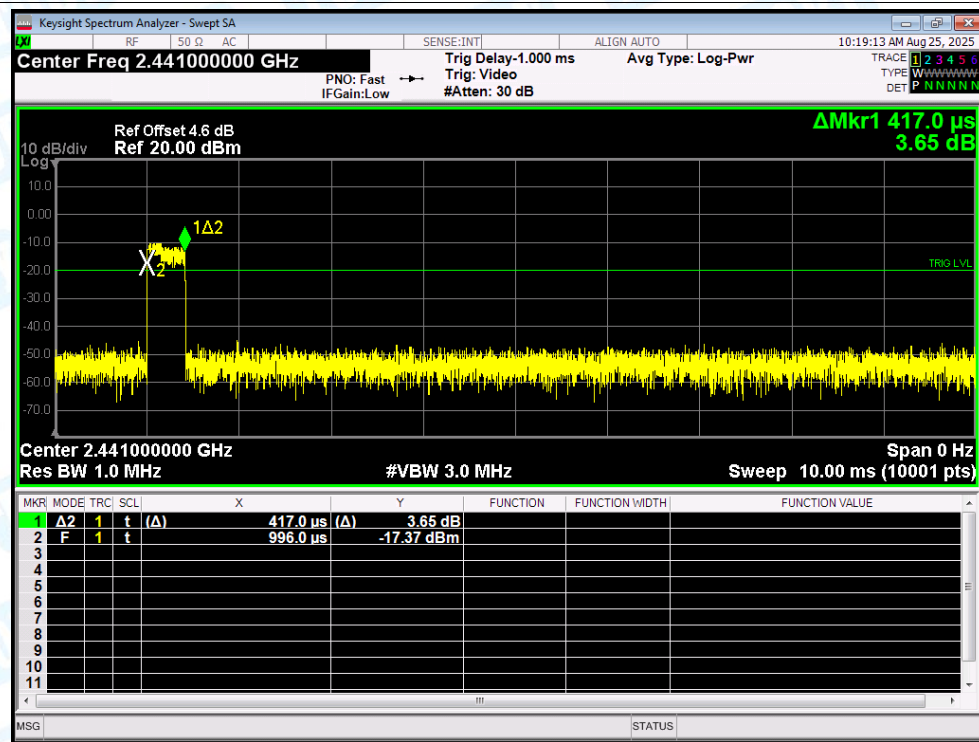
Dwell NVNT 1-DH3 2441MHz Ant1



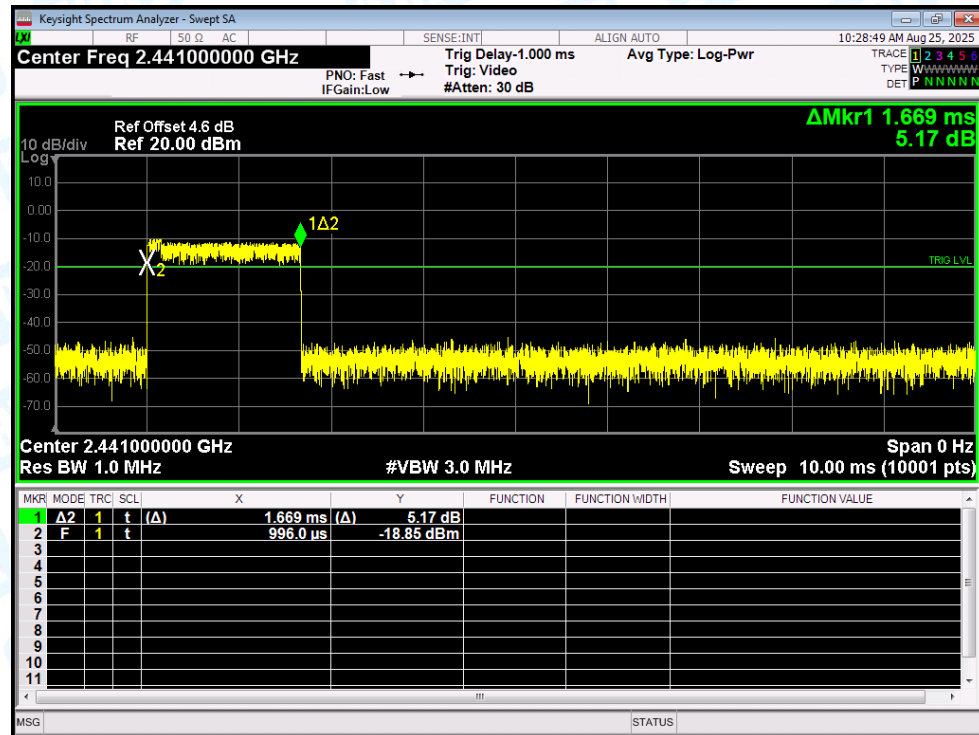
Dwell NVNT 1-DH5 2441MHz Ant1



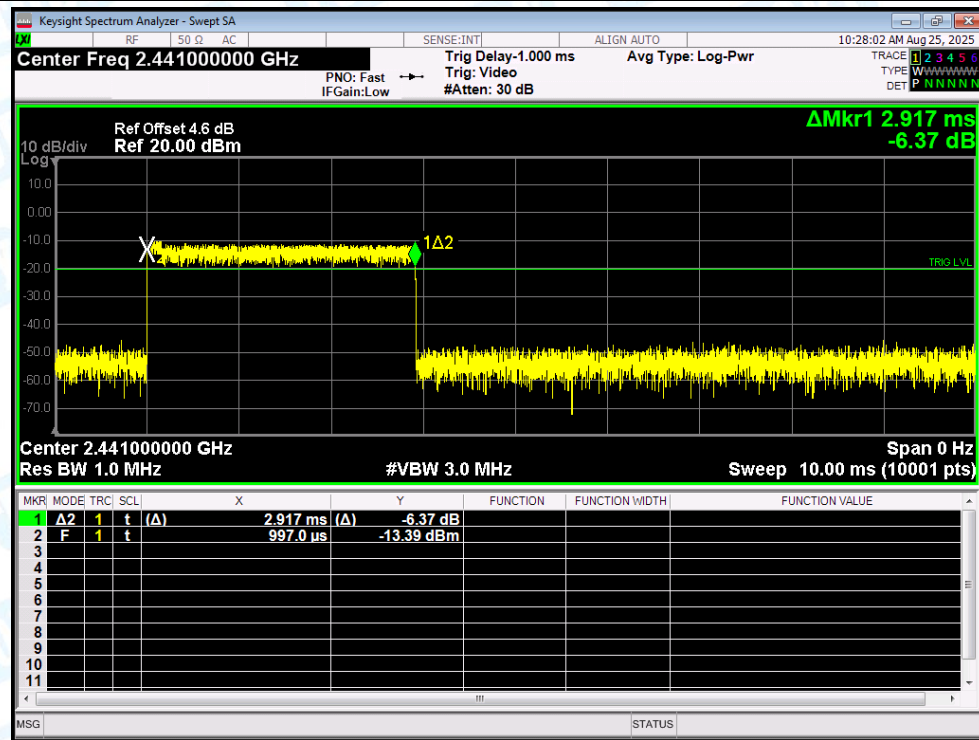
Dwell NVNT 2-DH1 2441MHz Ant1



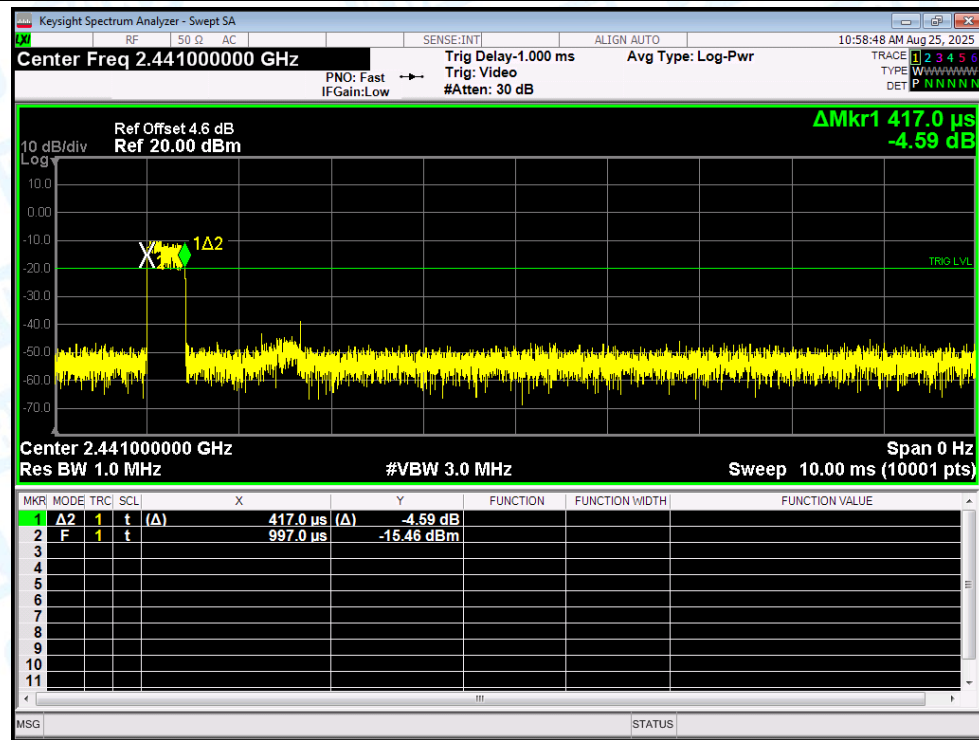
Dwell NVNT 2-DH3 2441MHz Ant1



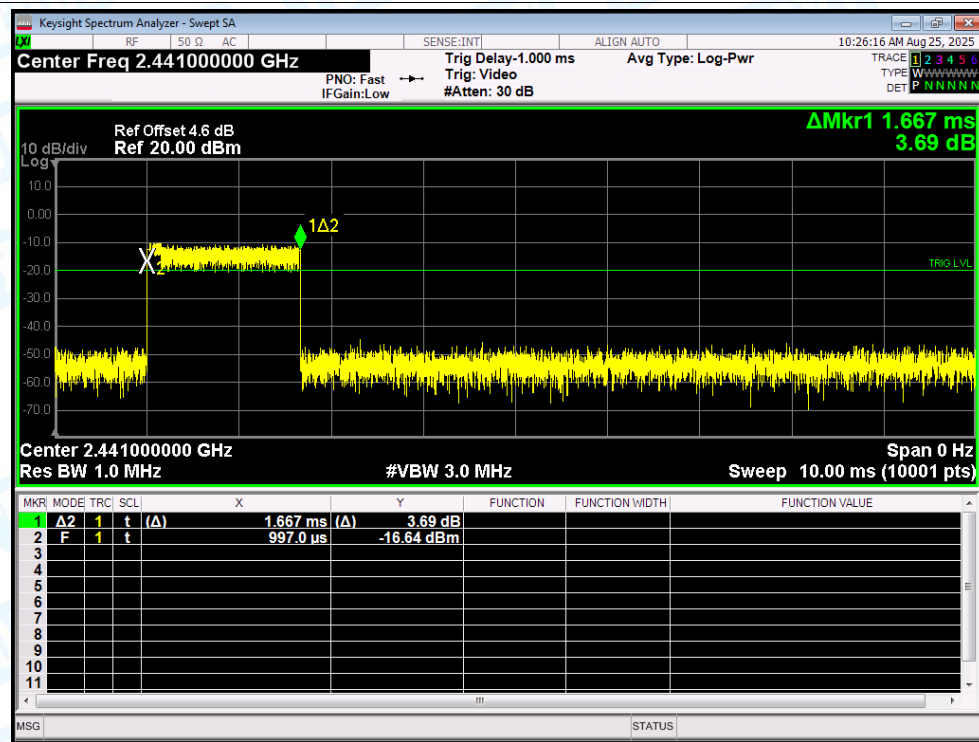
Dwell NVNT 2-DH5 2441MHz Ant1

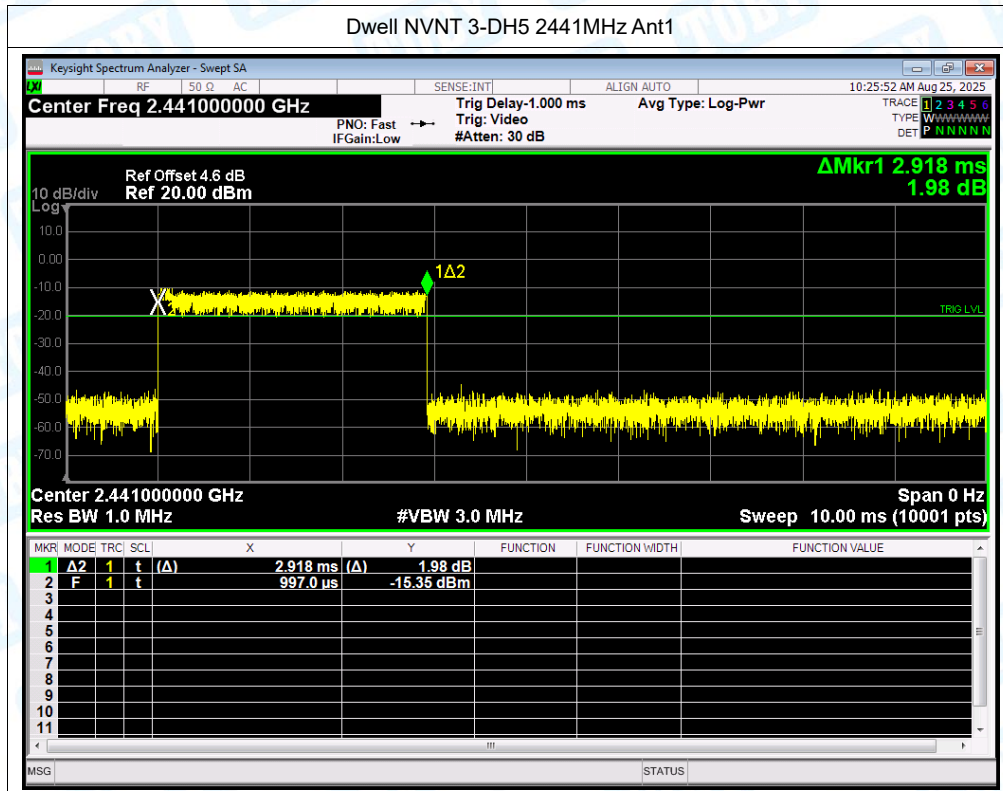


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





--- END OF REPORT ---