

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	SMART WATCH
Test Model:	G115
Sample ID:	HC-C-202503-0325-01-01
Environmental Conditions	
Temperature:	25.6℃
Relative Humidity:	52.3%
Test Voltage:	DC 3.7V
Test Engineer:	Glod zhang
Note: For a more detailed features description, please refer to the report TBR-C-202503-0325-18 The report only show the worst case data.	

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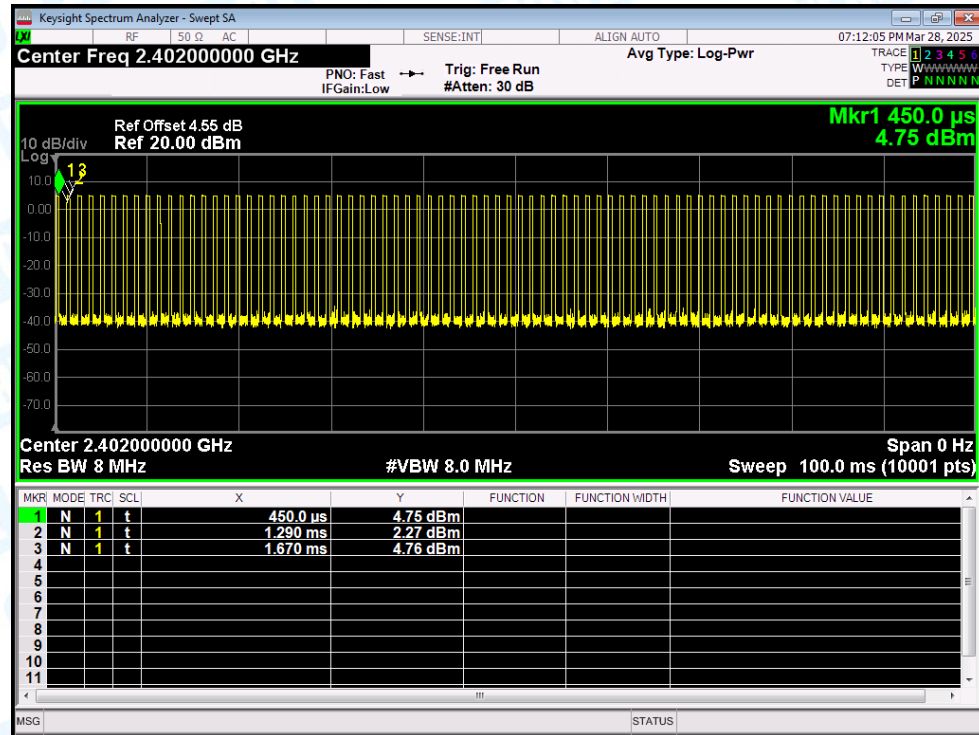
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1. Duty Cycle

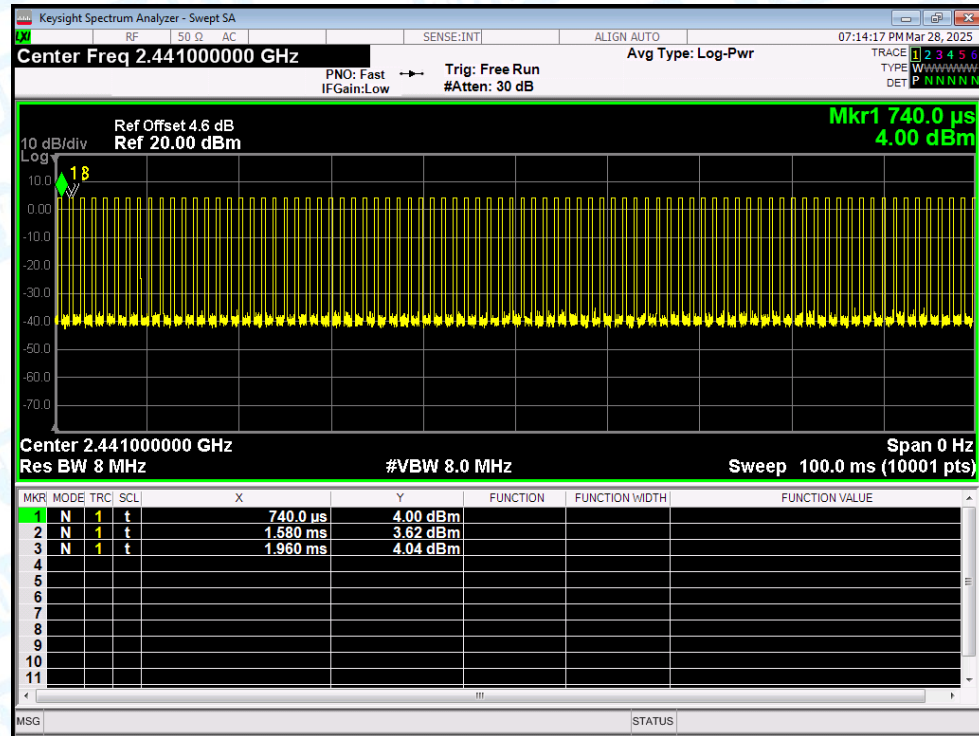
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	31.15	5.07	2.63
NVNT	1-DH1	2441	Ant1	31.15	5.07	2.63
NVNT	1-DH1	2480	Ant1	31.15	5.07	2.63
NVNT	2-DH1	2402	Ant1	31.71	4.99	2.56
NVNT	2-DH1	2441	Ant1	31.71	4.99	2.56
NVNT	2-DH1	2480	Ant1	30.89	5.1	2.63
NVNT	3-DH1	2402	Ant1	31.71	4.99	2.56
NVNT	3-DH1	2441	Ant1	31.45	5.02	2.56
NVNT	3-DH1	2480	Ant1	31.45	5.02	2.56

Test Graphs

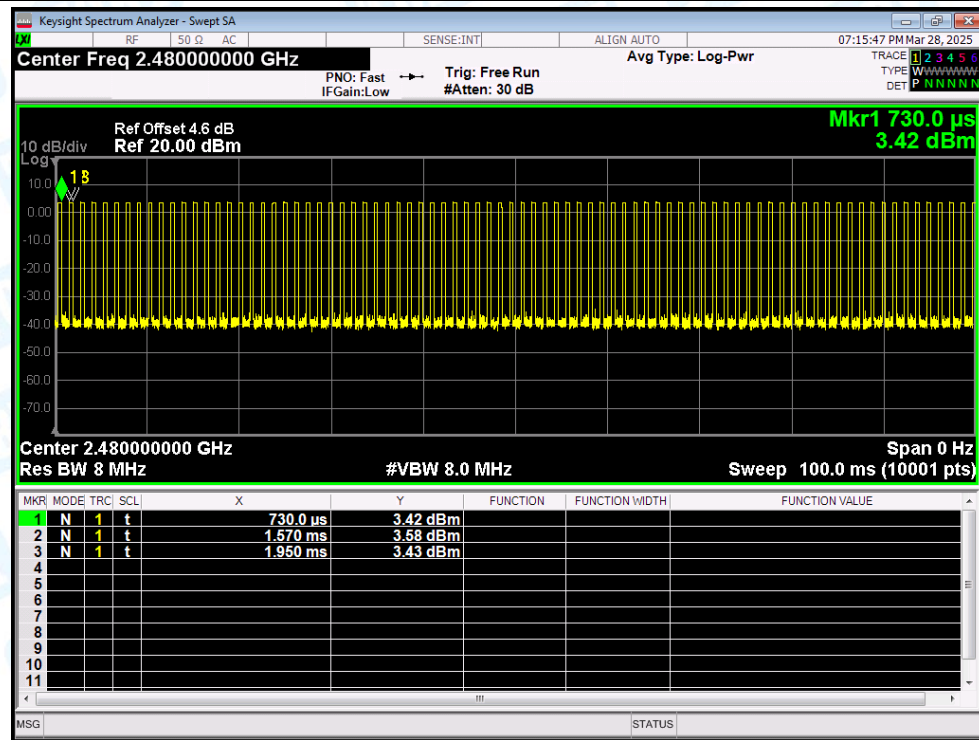
Duty Cycle NVNT 1-DH1 2402MHz Ant1



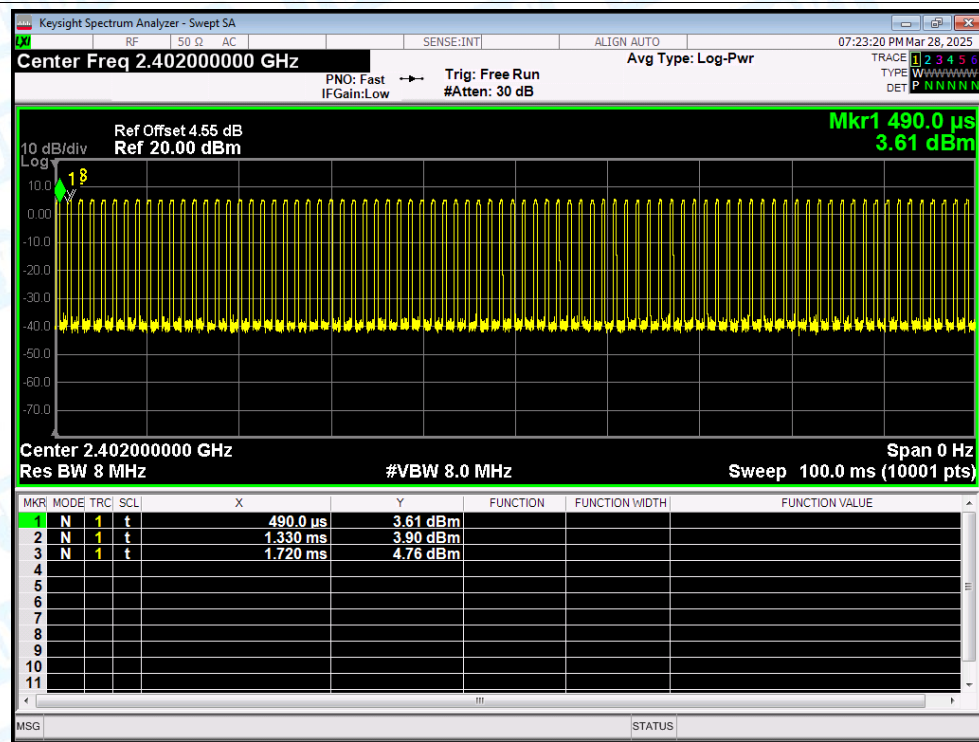
Duty Cycle NVNT 1-DH1 2441MHz Ant1



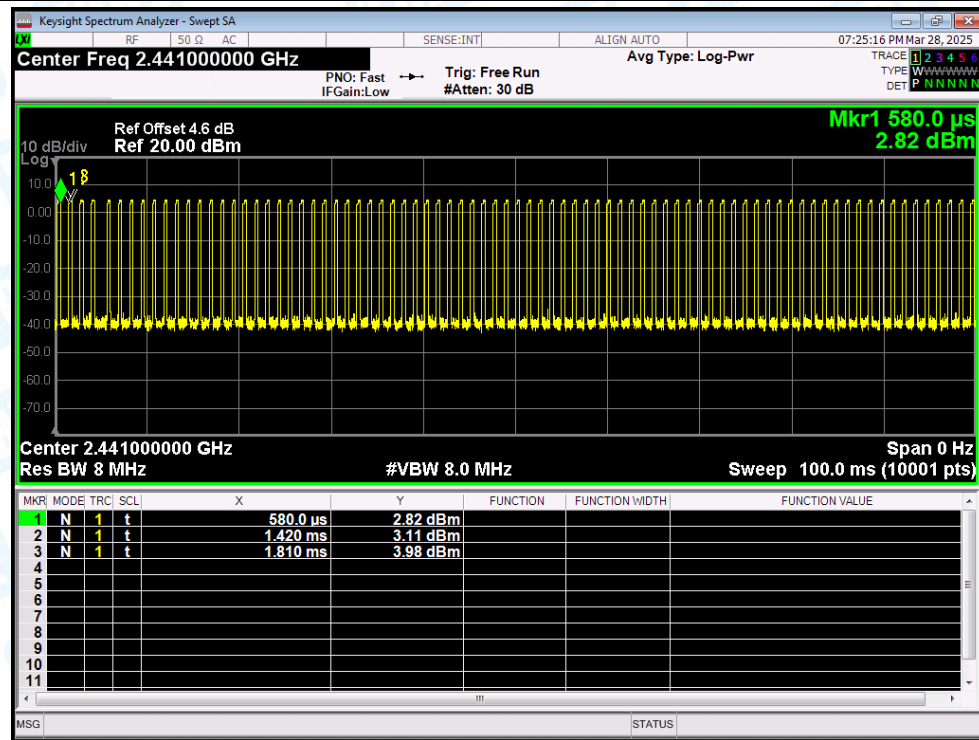
Duty Cycle NVNT 1-DH1 2480MHz Ant1



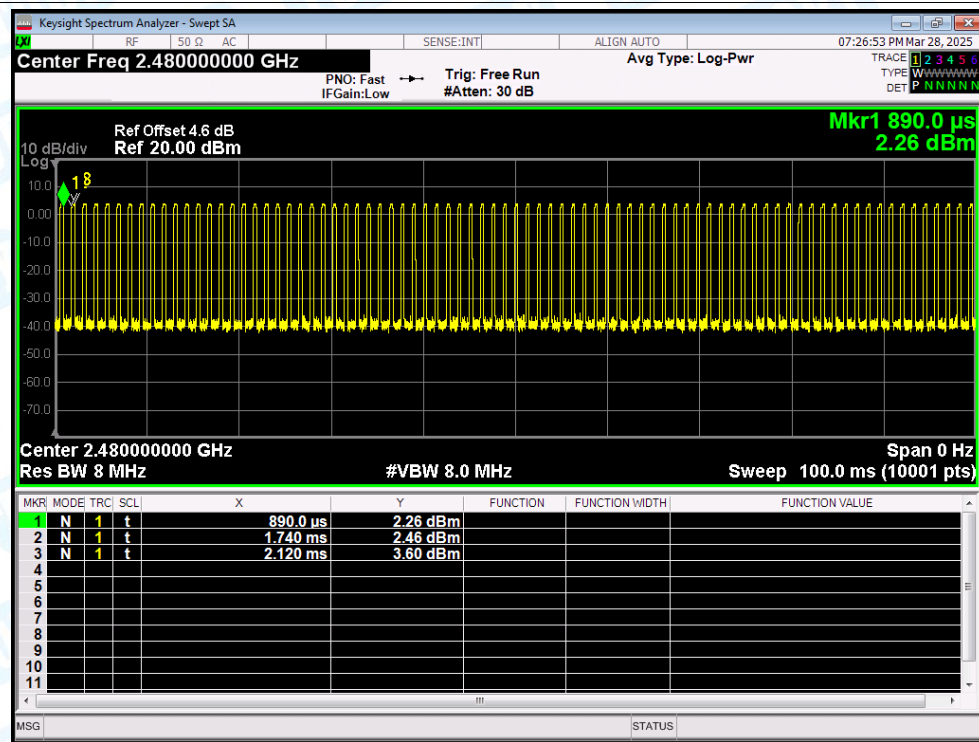
Duty Cycle NVNT 2-DH1 2402MHz Ant1



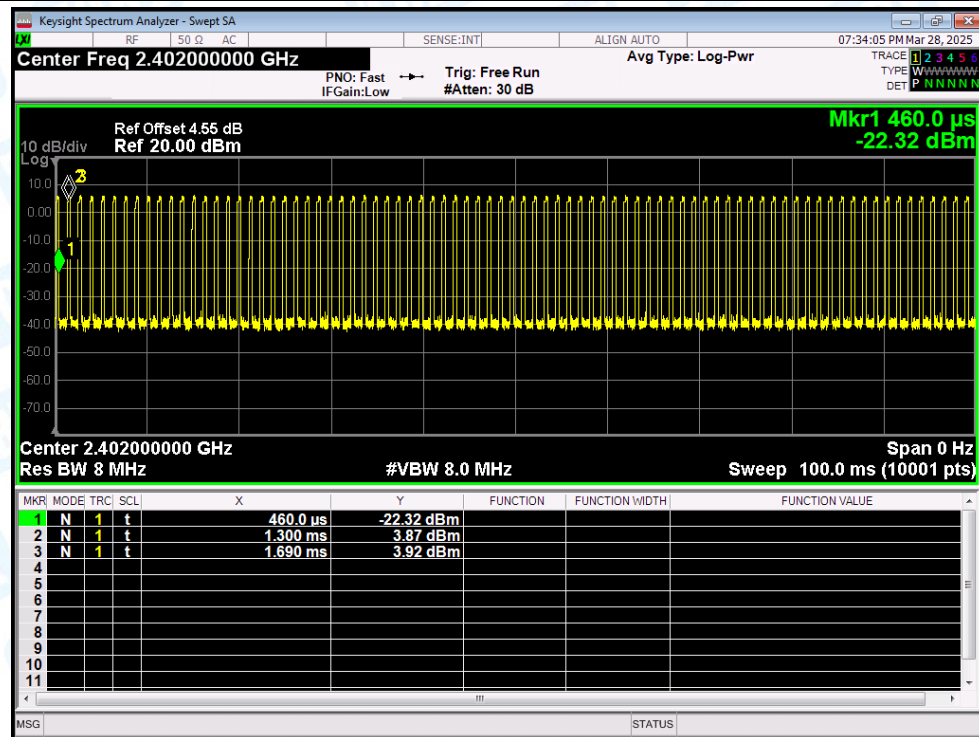
Duty Cycle NVNT 2-DH1 2441MHz Ant1



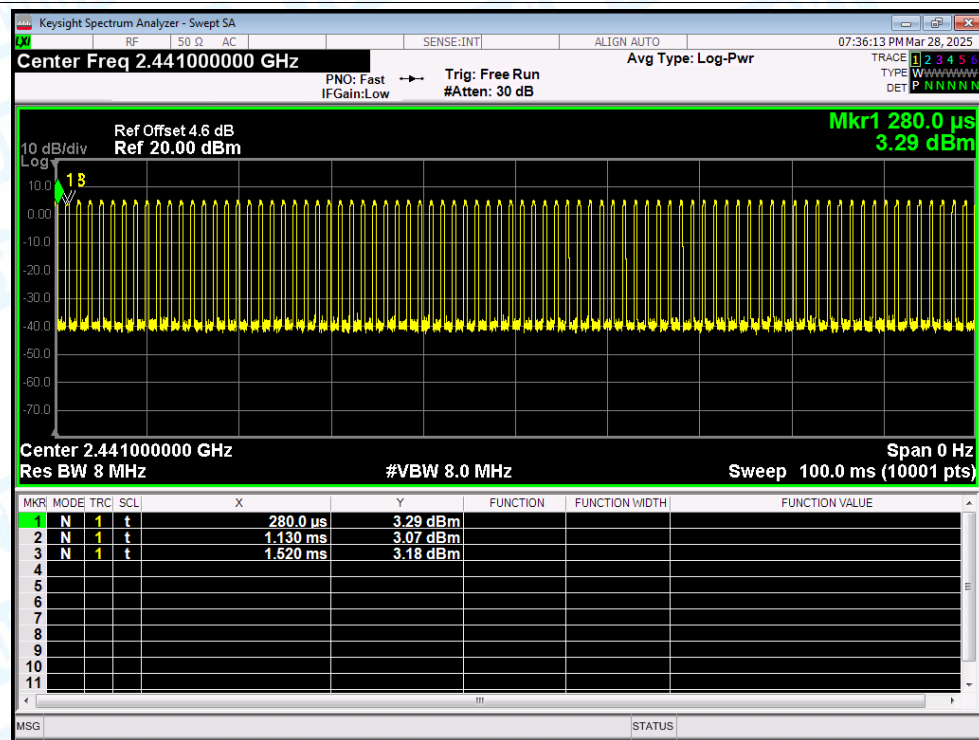
Duty Cycle NVNT 2-DH1 2480MHz Ant1

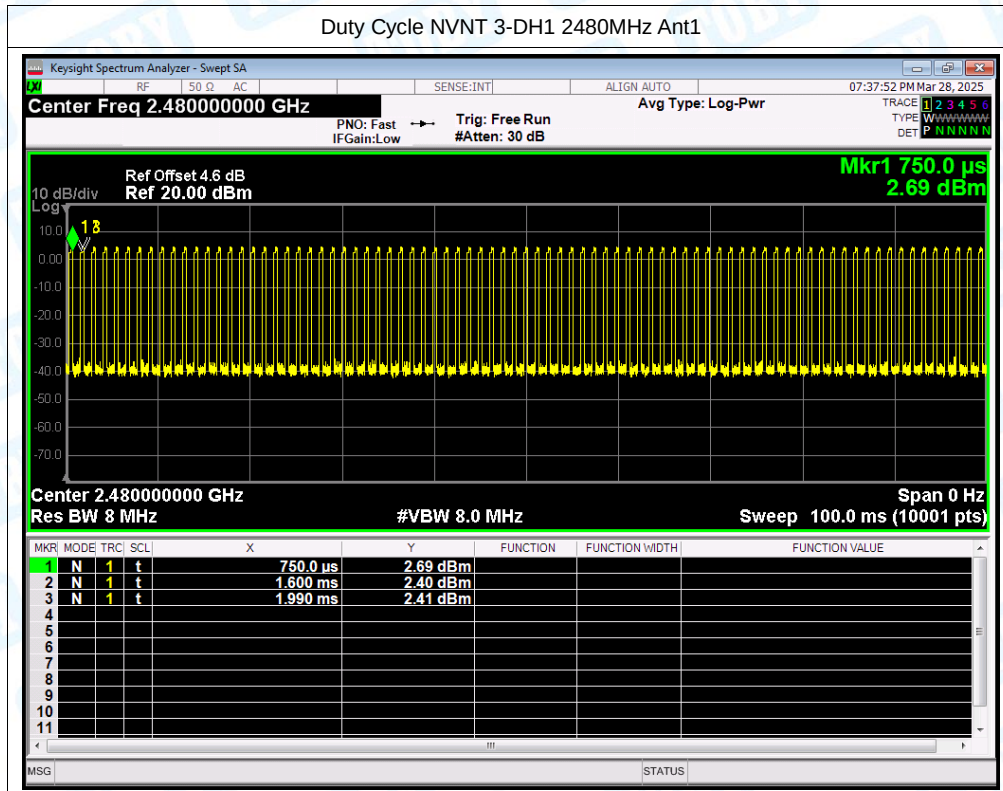


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



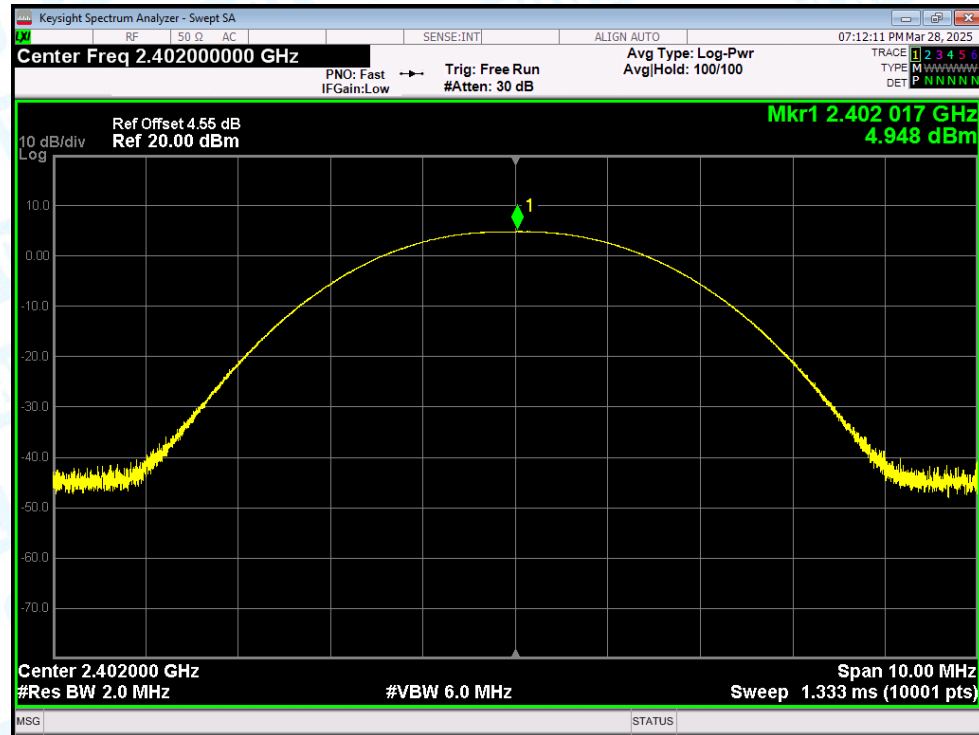


2. Maximum Conducted Output Power

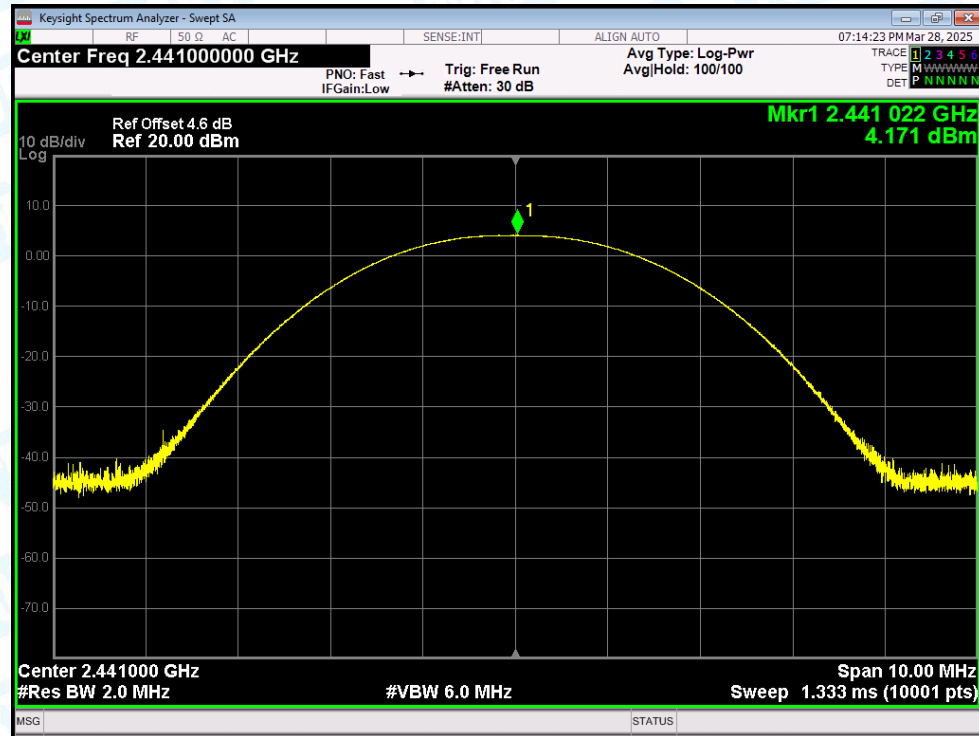
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	4.948	21	Pass
NVNT	1-DH1	2441	Ant1	4.171	21	Pass
NVNT	1-DH1	2480	Ant1	3.491	21	Pass
NVNT	2-DH1	2402	Ant1	5.187	21	Pass
NVNT	2-DH1	2441	Ant1	4.368	21	Pass
NVNT	2-DH1	2480	Ant1	3.722	21	Pass
NVNT	3-DH1	2402	Ant1	5.782	21	Pass
NVNT	3-DH1	2441	Ant1	4.992	21	Pass
NVNT	3-DH1	2480	Ant1	4.419	21	Pass

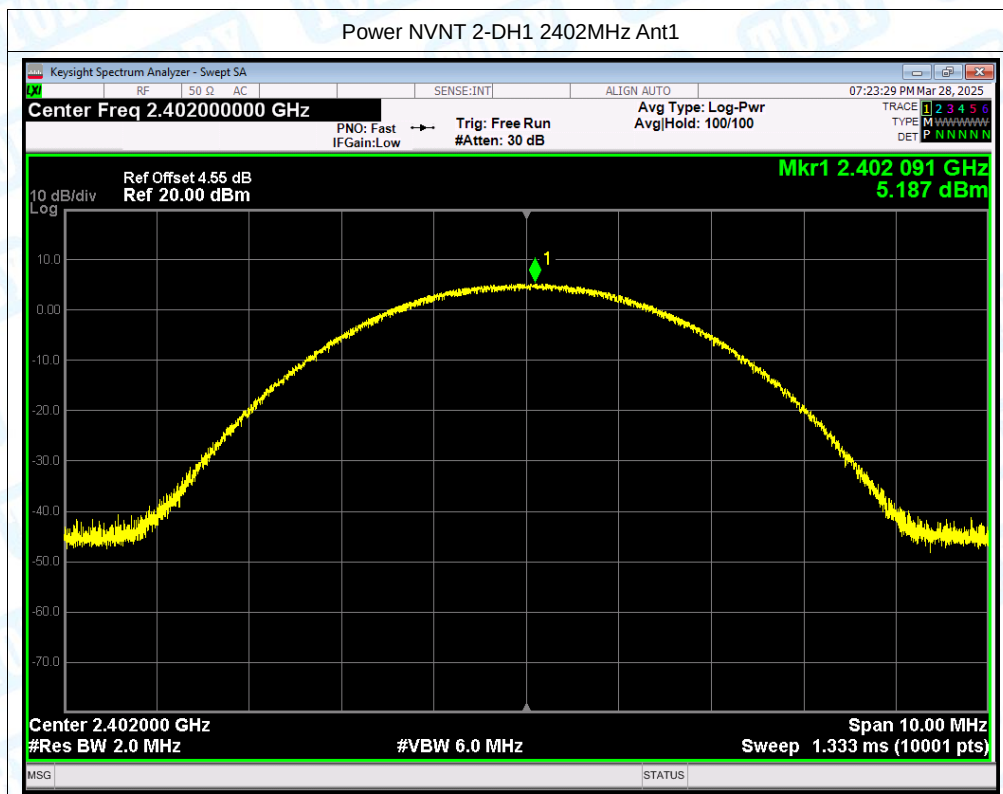
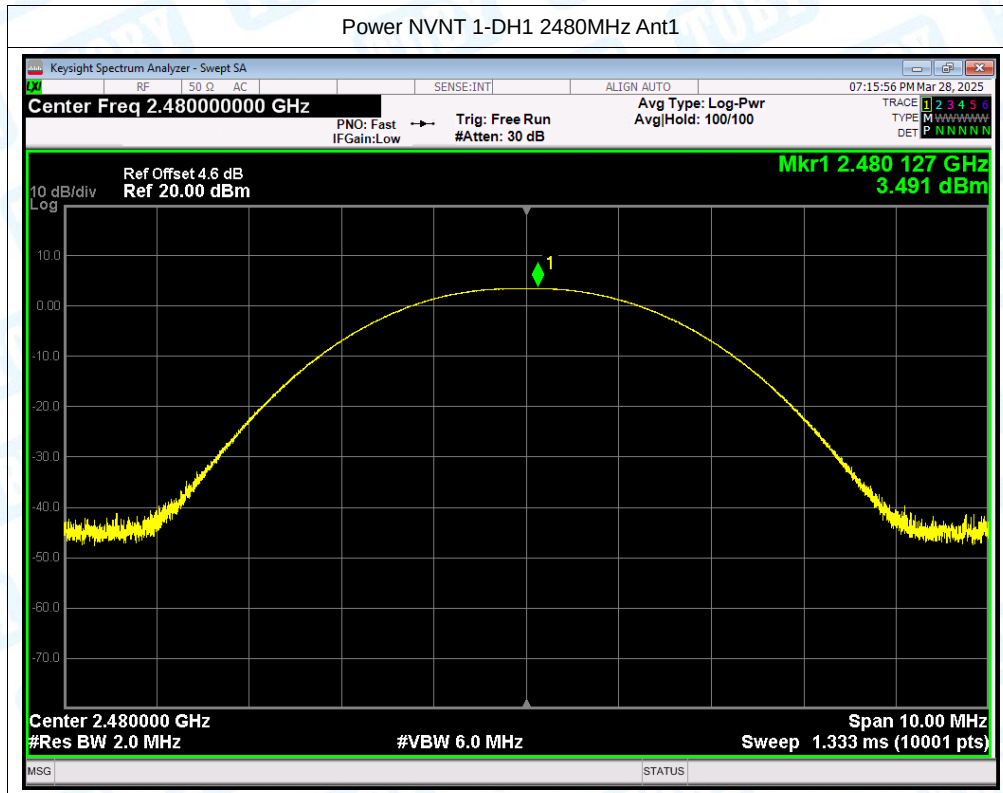
Test Graphs

Power NVNT 1-DH1 2402MHz Ant1

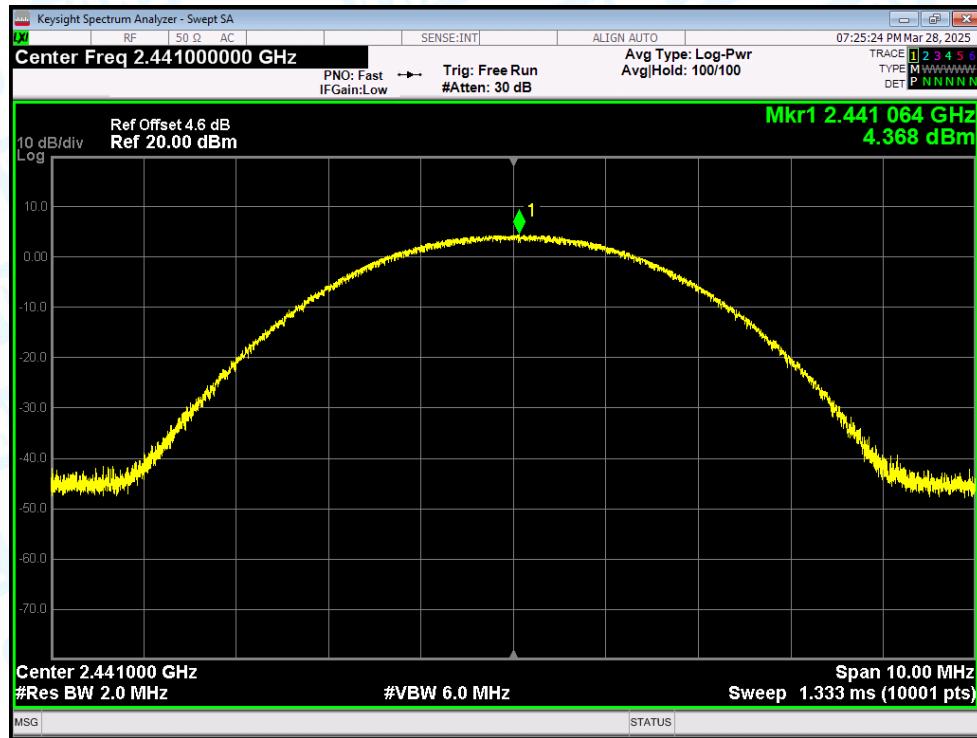


Power NVNT 1-DH1 2441MHz Ant1

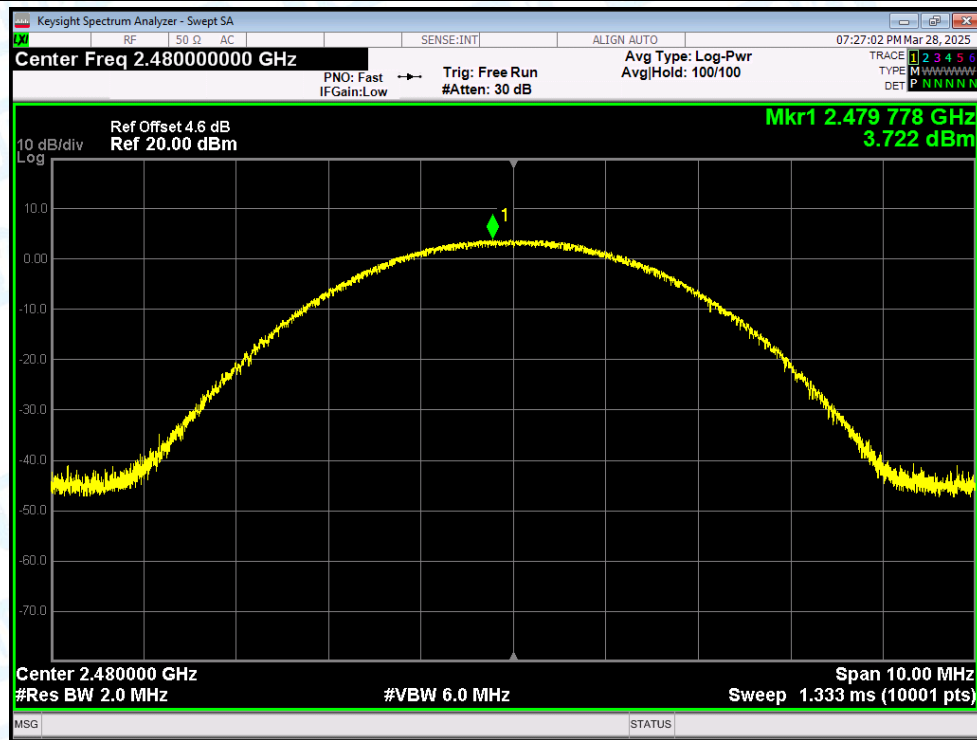




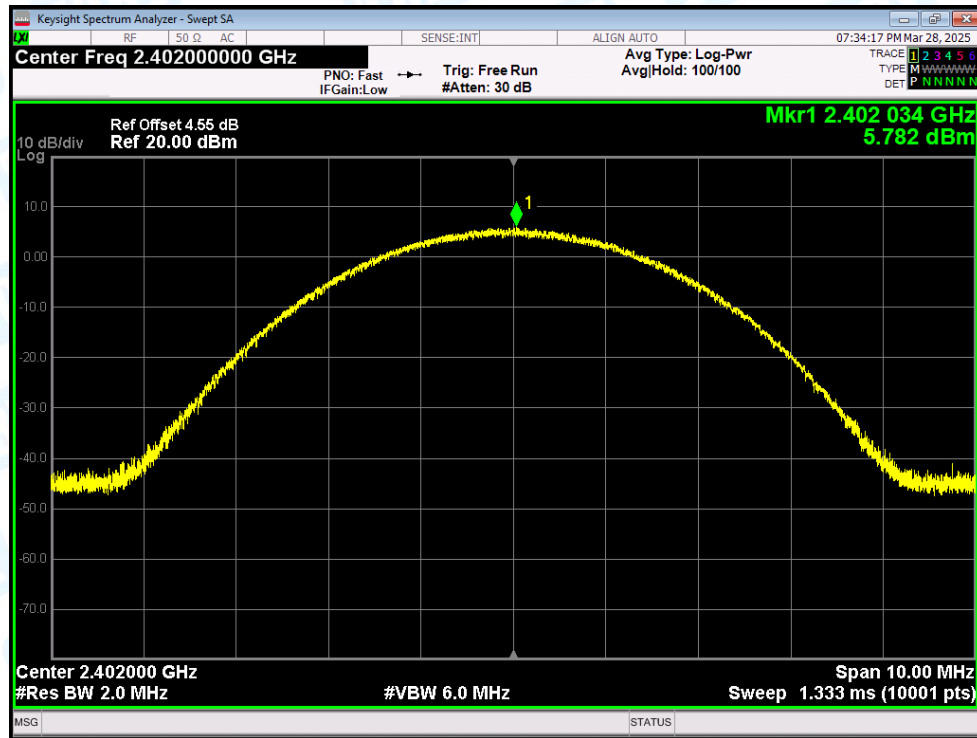
Power NVNT 2-DH1 2441MHz Ant1



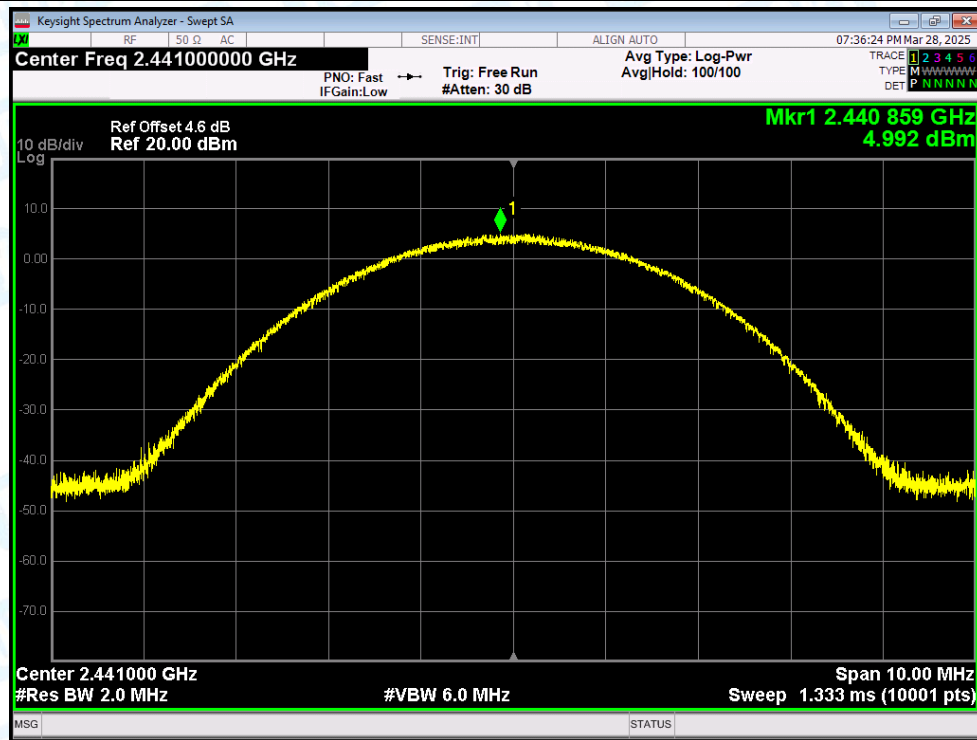
Power NVNT 2-DH1 2480MHz Ant1

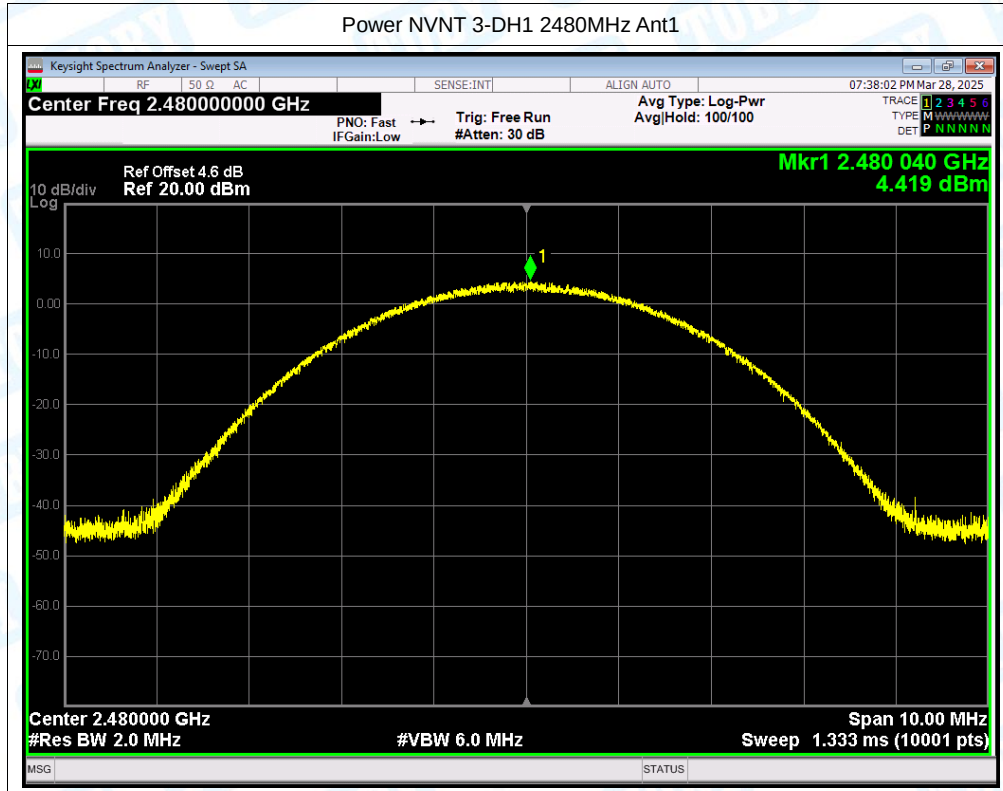


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



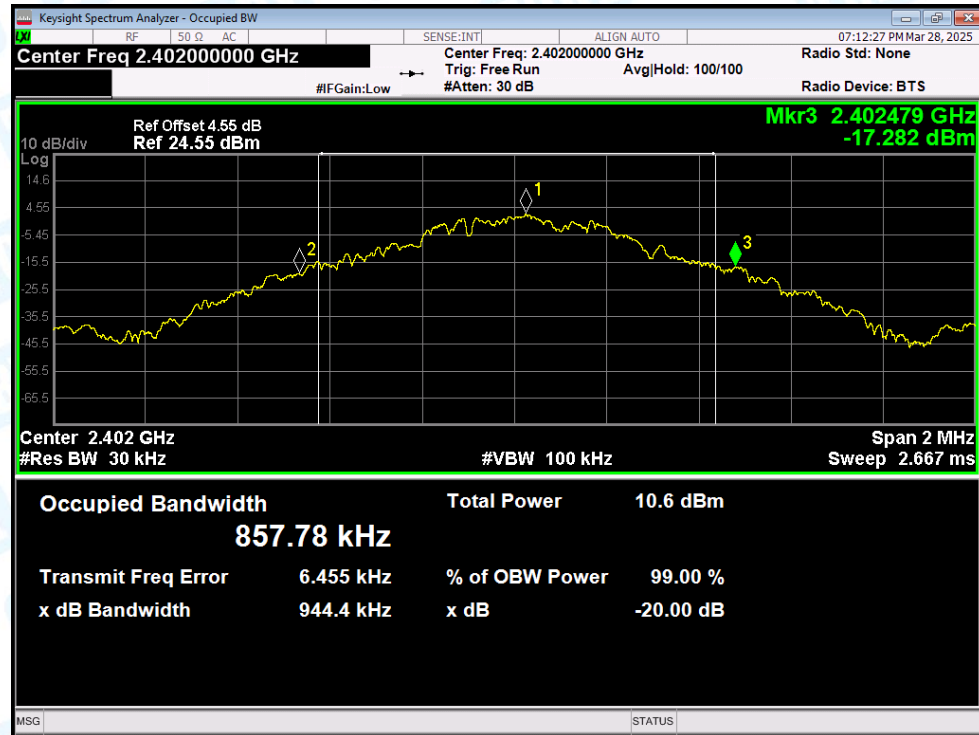


3. -20dB Bandwidth

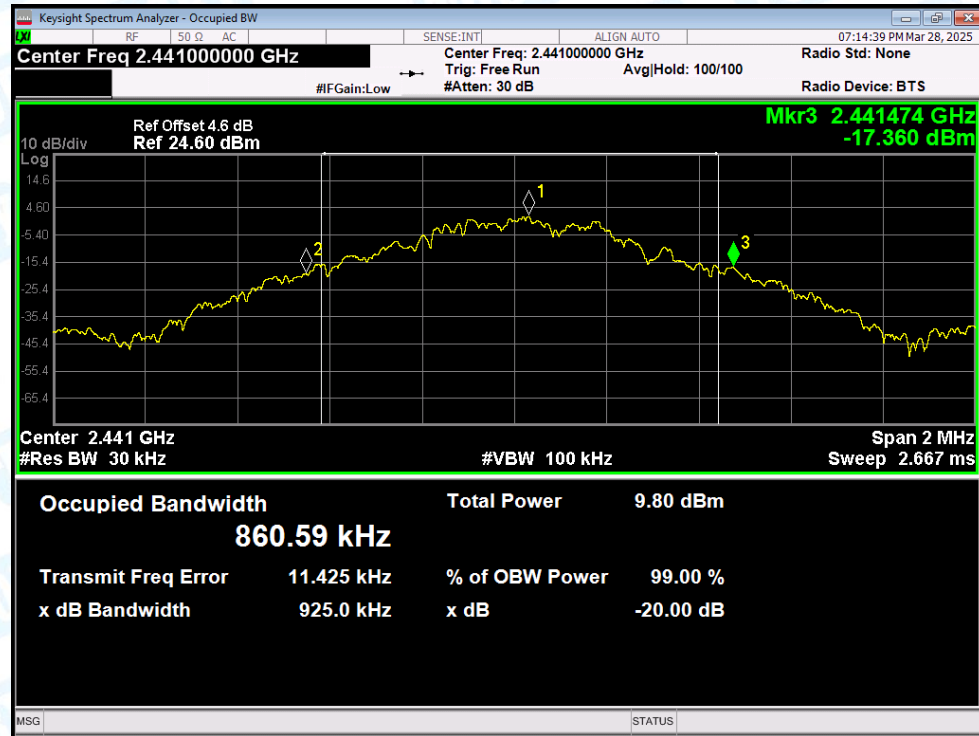
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.94	0	Pass
NVNT	1-DH1	2441	Ant1	0.93	0	Pass
NVNT	1-DH1	2480	Ant1	0.95	0	Pass
NVNT	2-DH1	2402	Ant1	1.27	0	Pass
NVNT	2-DH1	2441	Ant1	1.29	0	Pass
NVNT	2-DH1	2480	Ant1	1.25	0	Pass
NVNT	3-DH1	2402	Ant1	1.22	0	Pass
NVNT	3-DH1	2441	Ant1	1.2	0	Pass
NVNT	3-DH1	2480	Ant1	1.21	0	Pass

Test Graphs

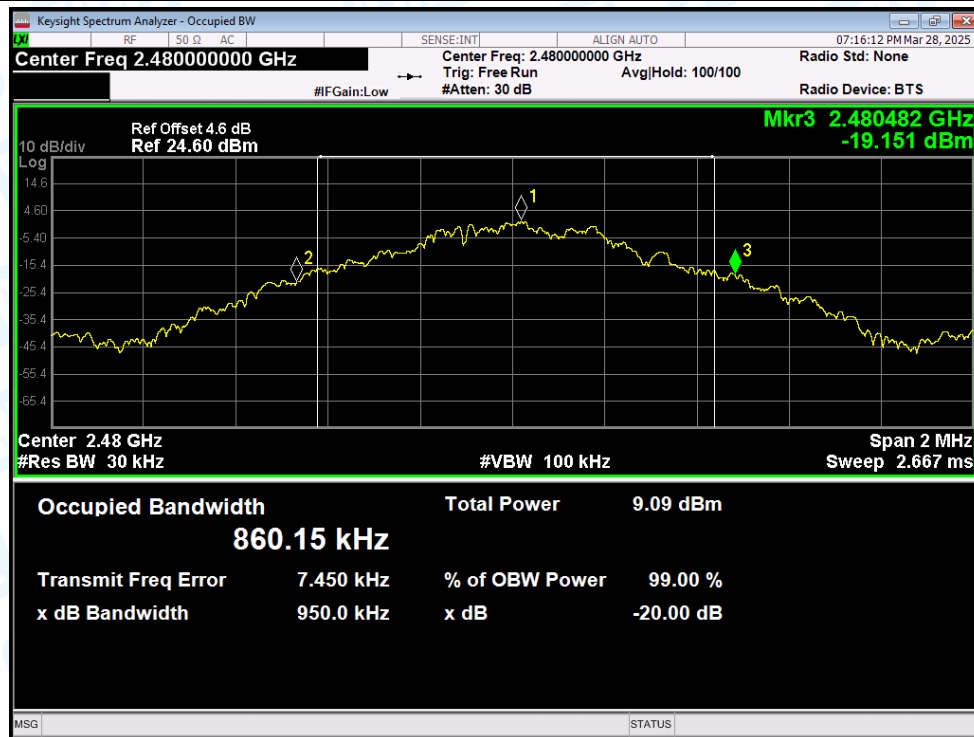
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



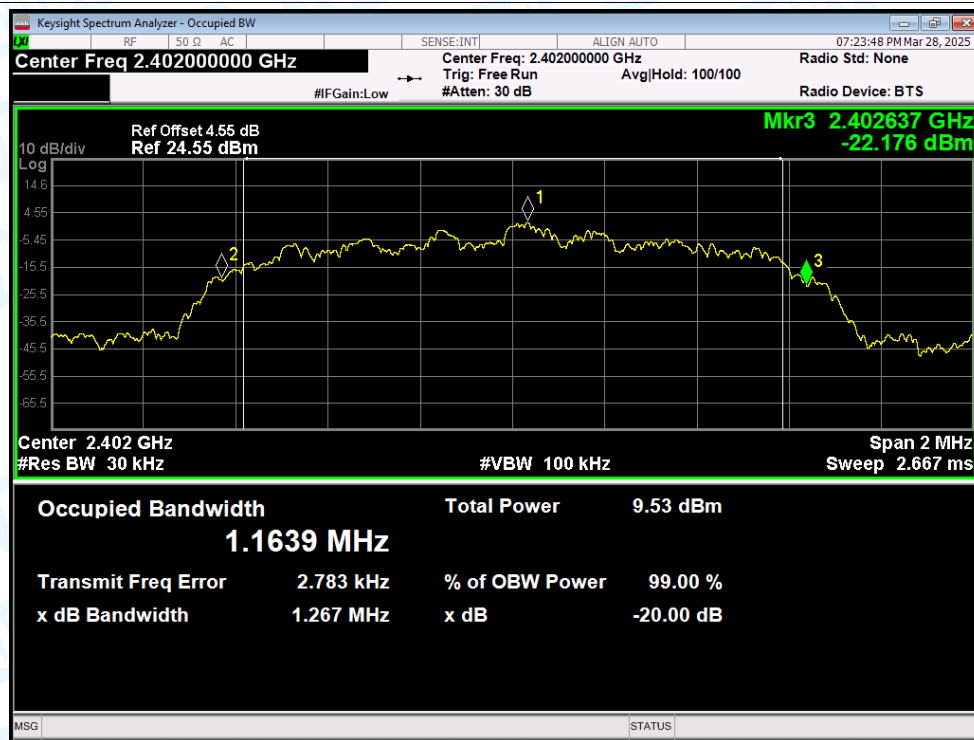
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



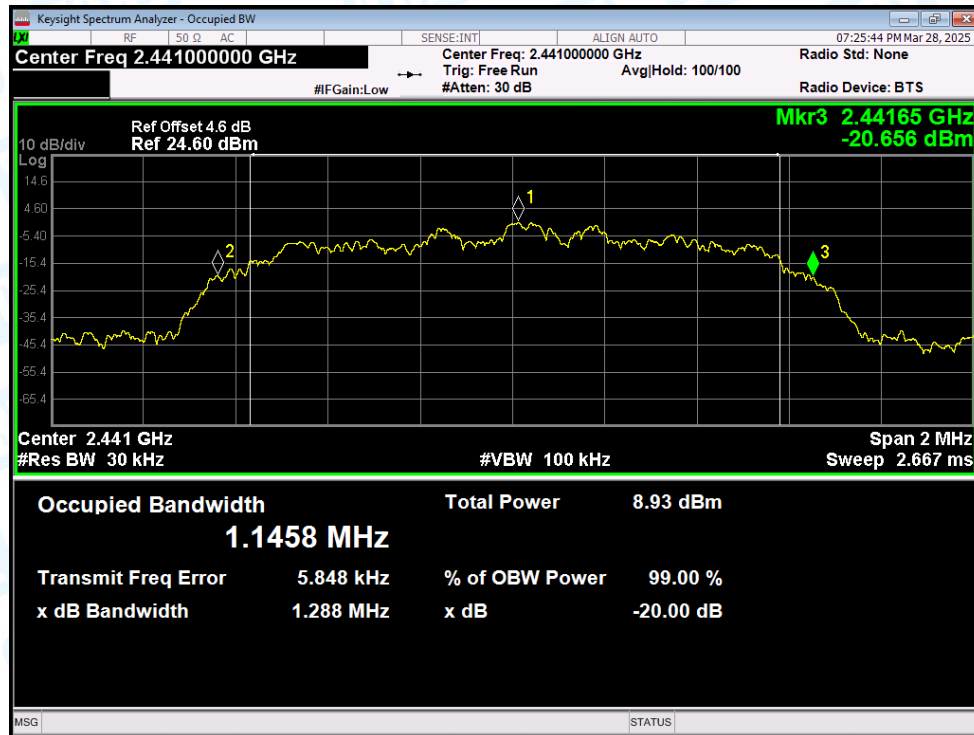
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



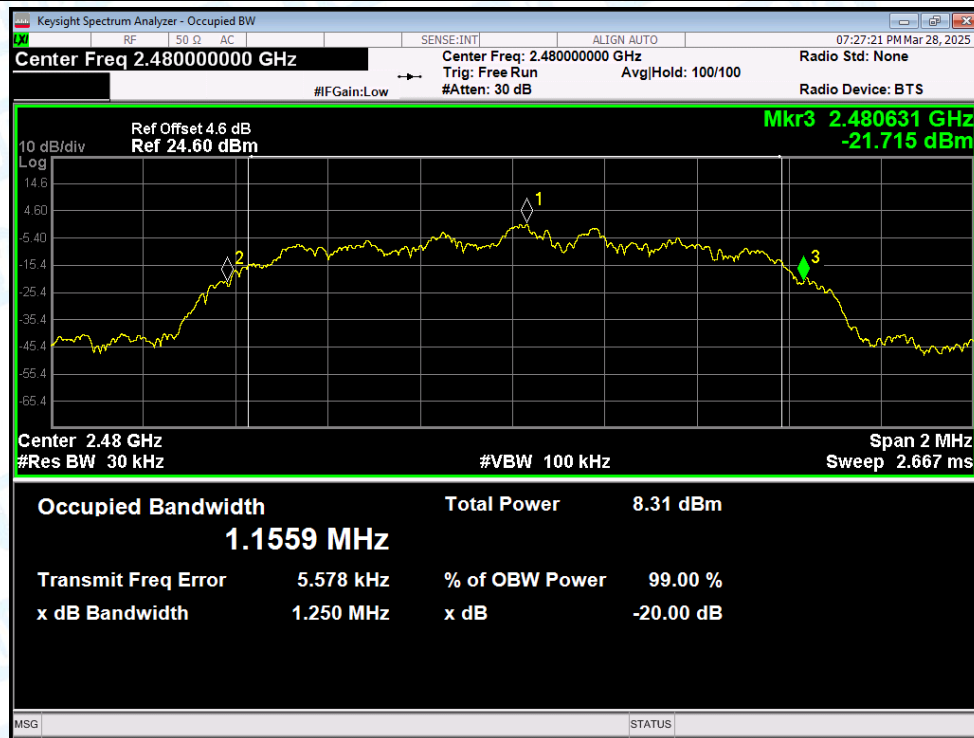
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



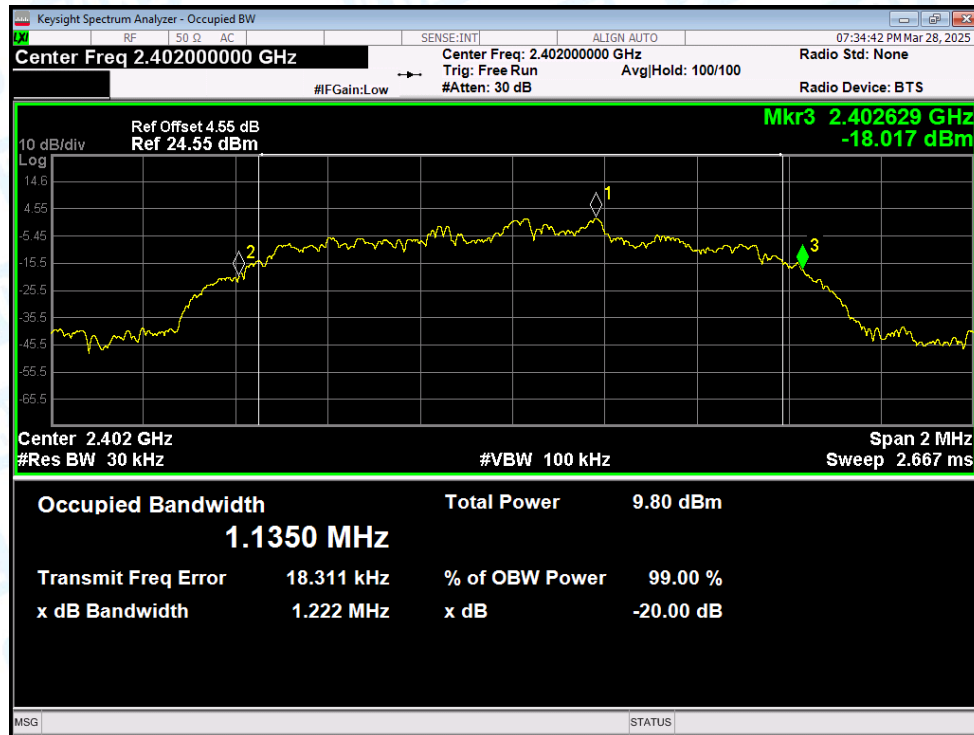
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



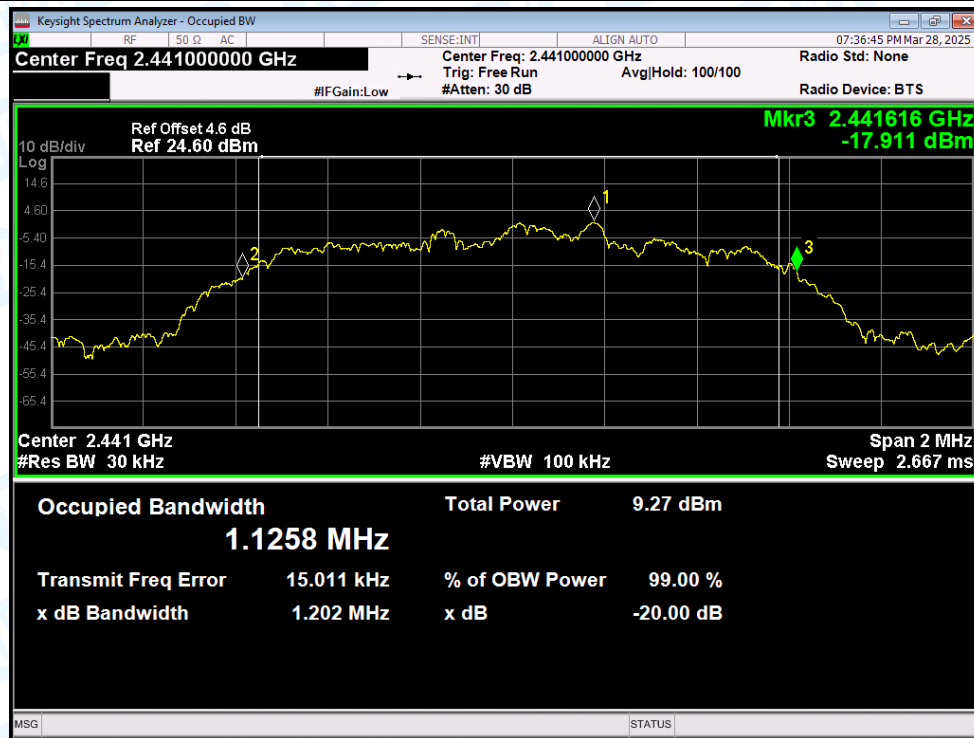
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

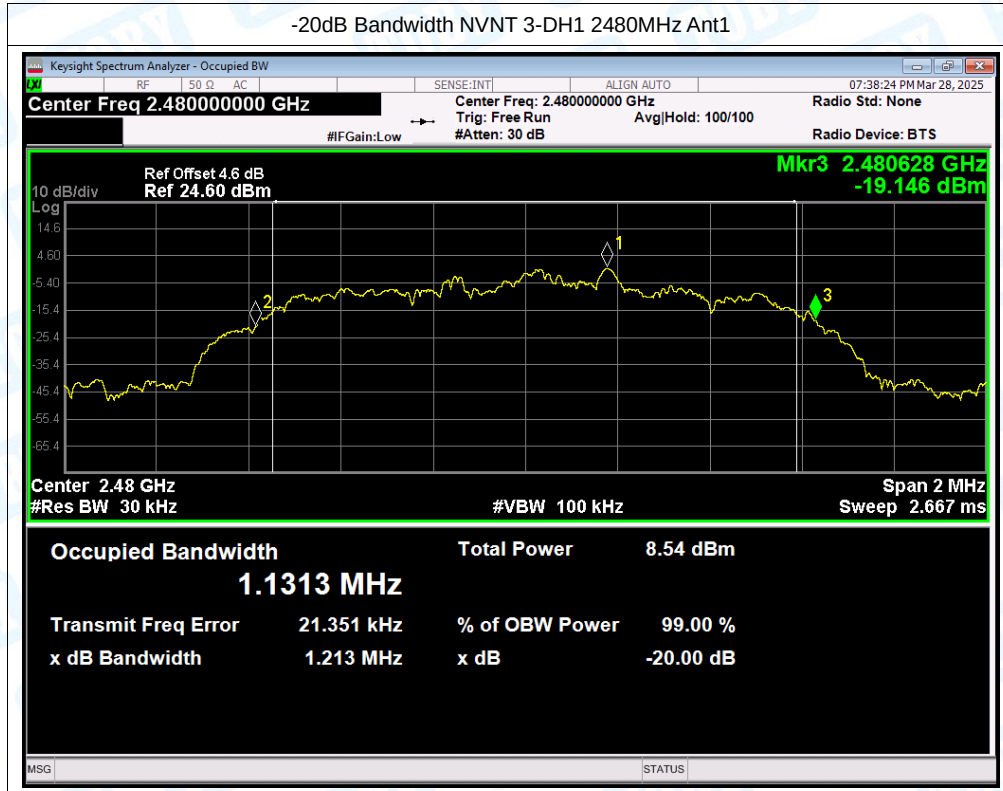


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



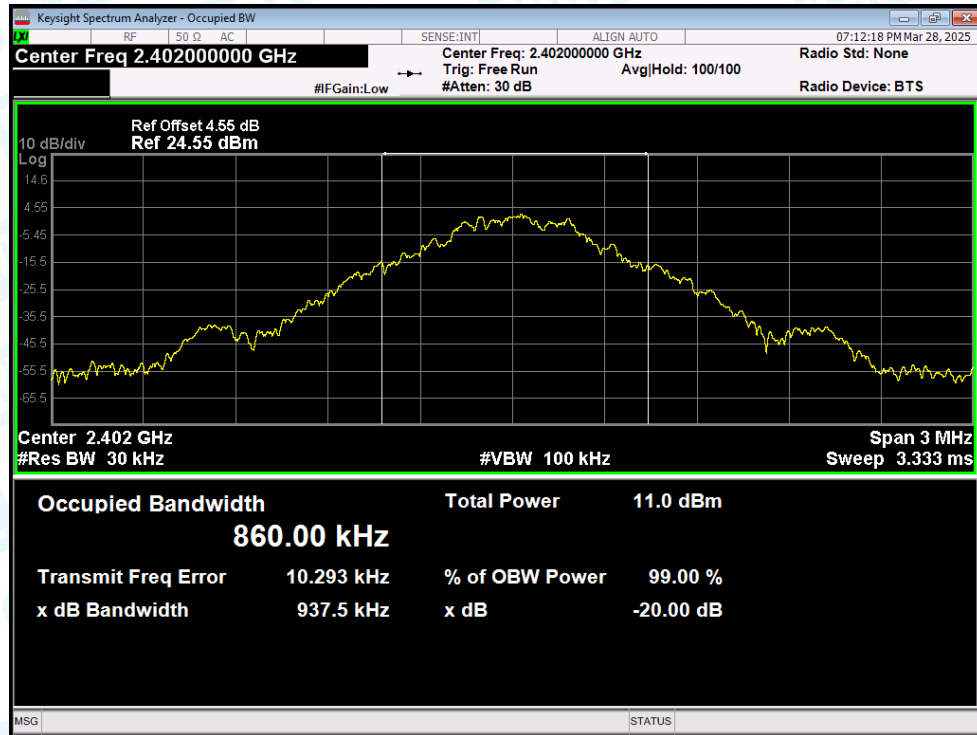


4. Occupied Channel Bandwidth

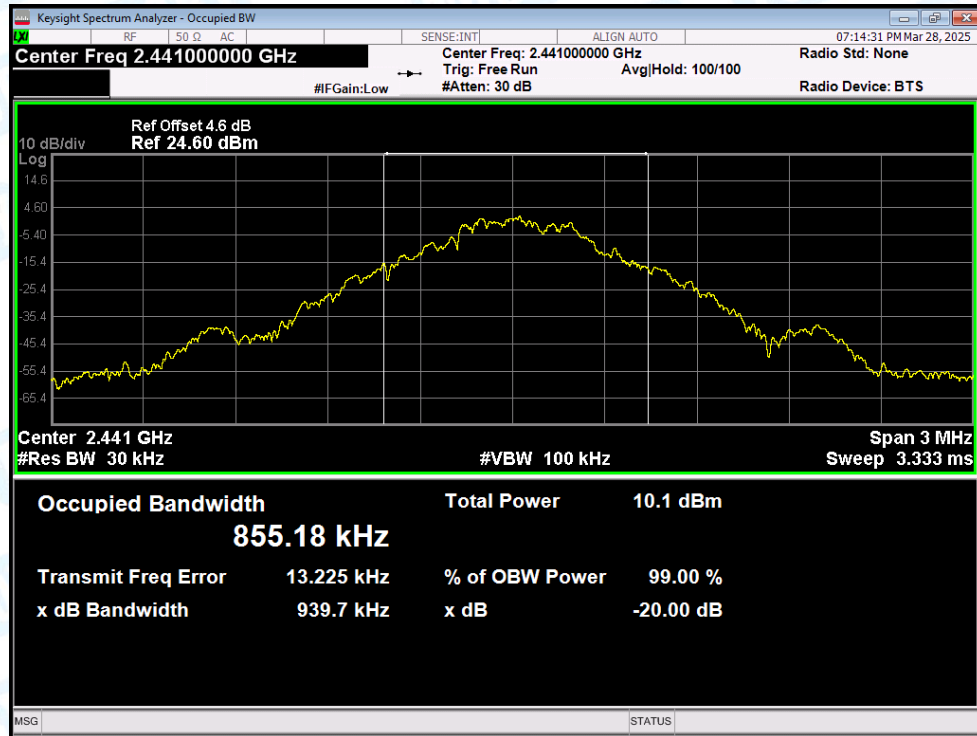
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.86
NVNT	1-DH1	2441	Ant1	0.855
NVNT	1-DH1	2480	Ant1	0.862
NVNT	2-DH1	2402	Ant1	1.163
NVNT	2-DH1	2441	Ant1	1.152
NVNT	2-DH1	2480	Ant1	1.155
NVNT	3-DH1	2402	Ant1	1.144
NVNT	3-DH1	2441	Ant1	1.148
NVNT	3-DH1	2480	Ant1	1.147

Test Graphs

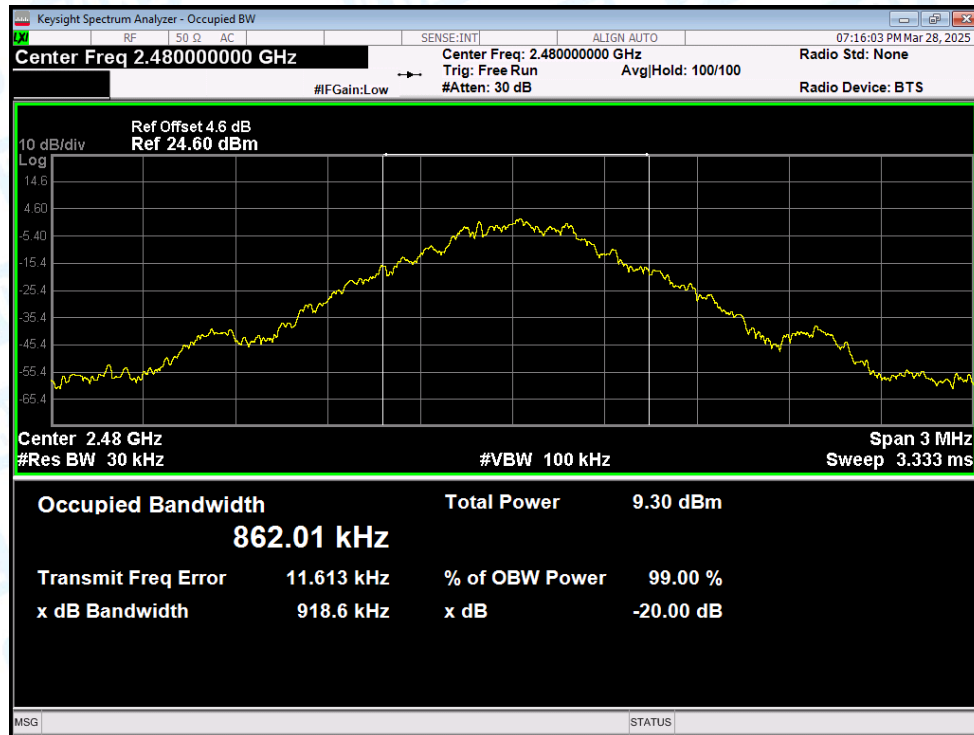
OBW NVNT 1-DH1 2402MHz Ant1



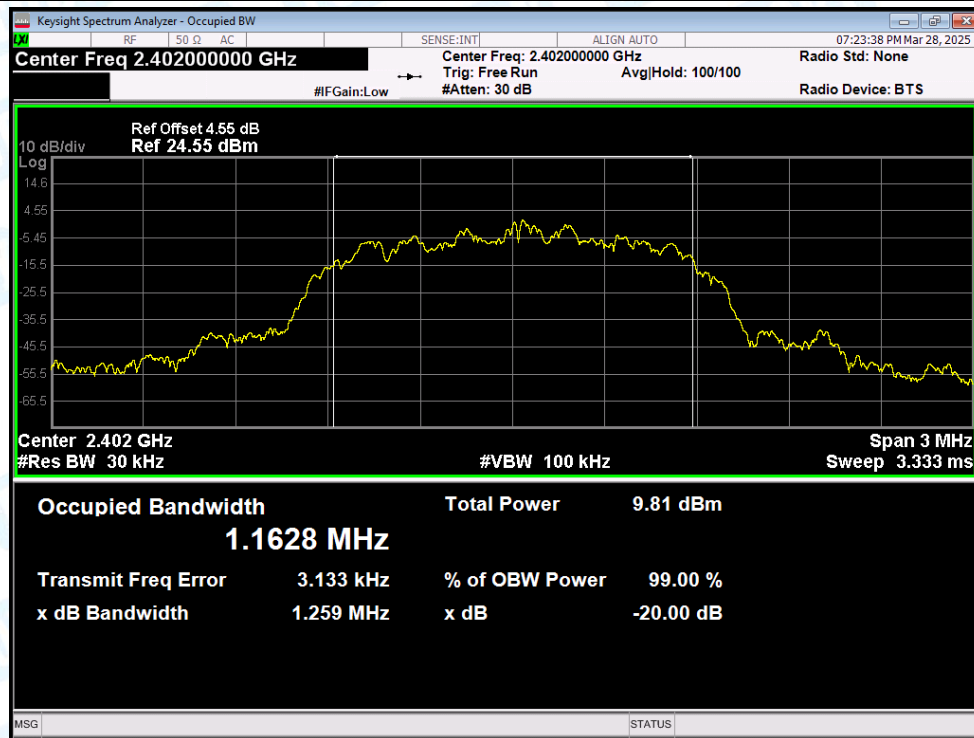
OBW NVNT 1-DH1 2441MHz Ant1



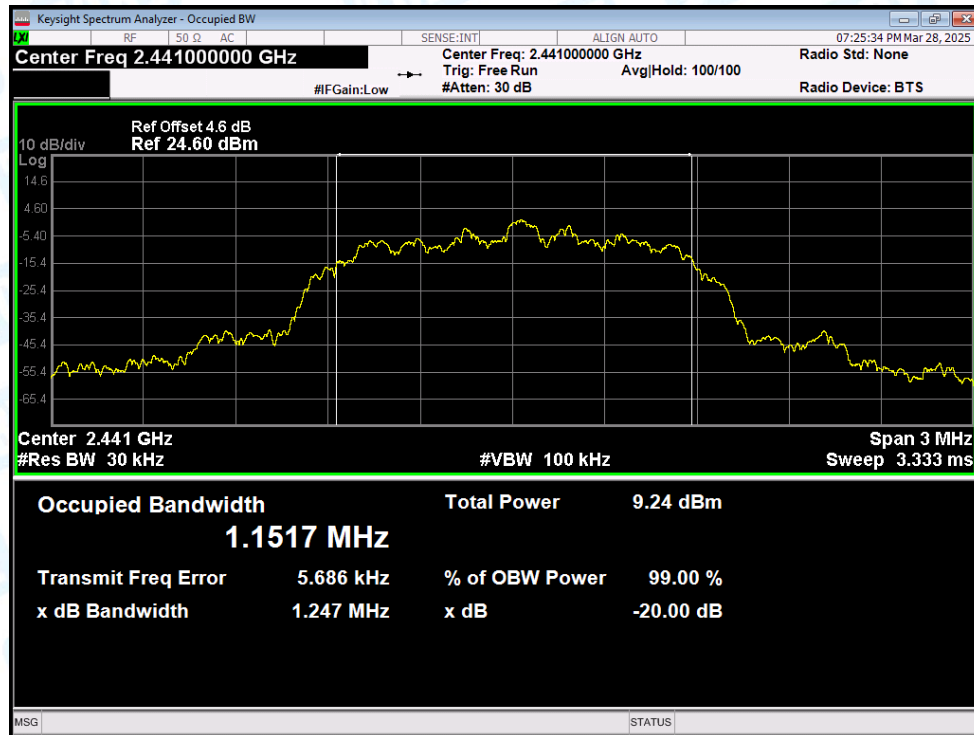
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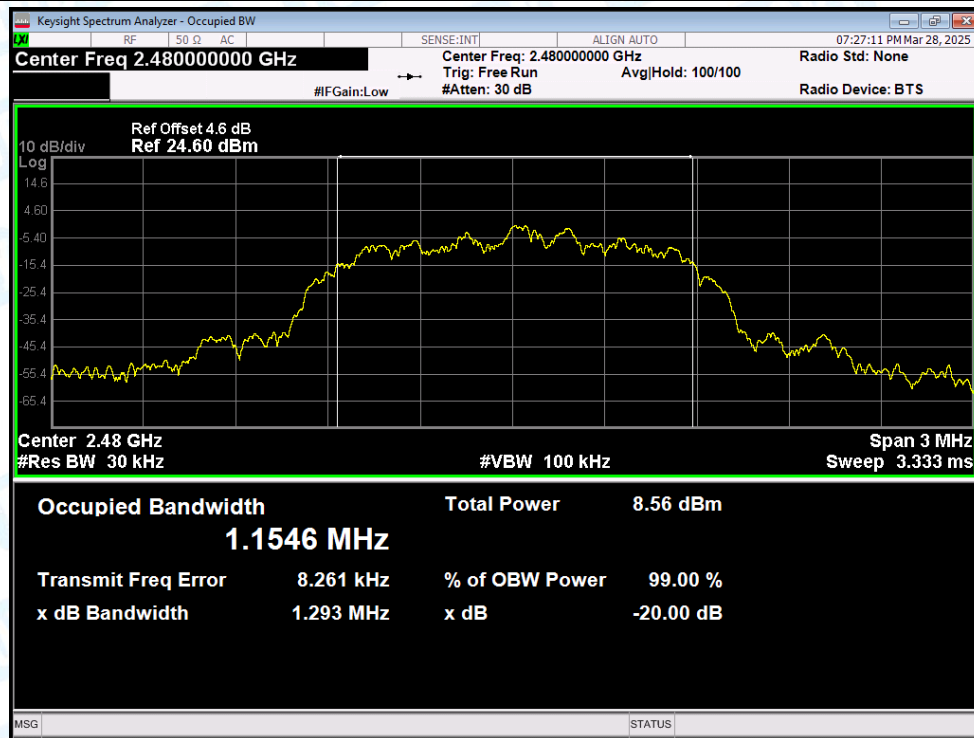
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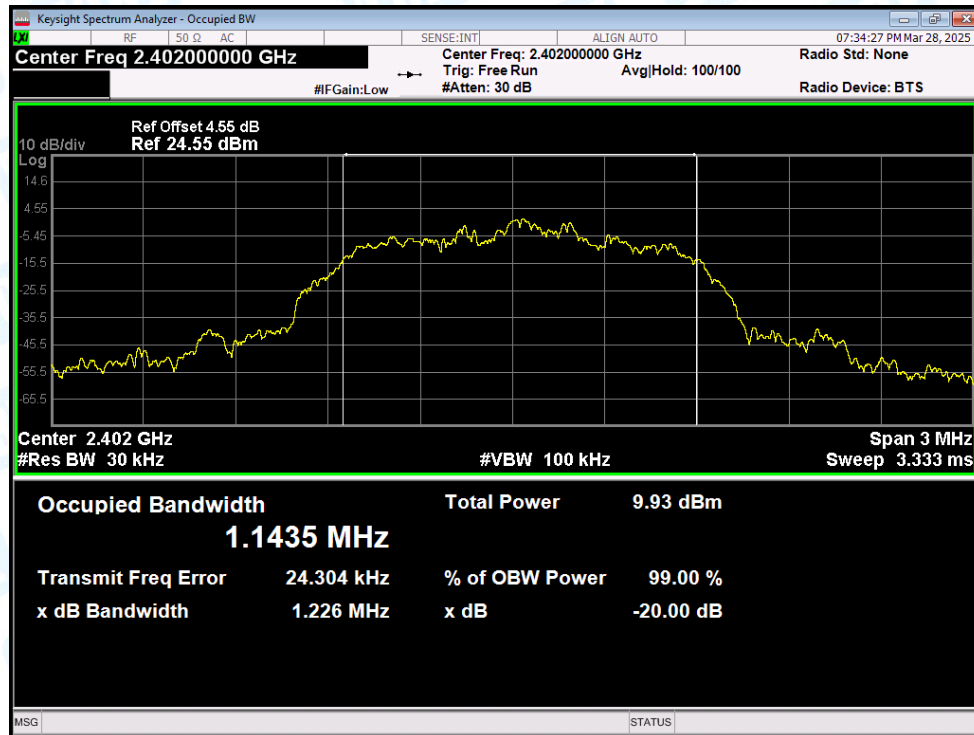
OBW NVNT 2-DH1 2441MHz Ant1



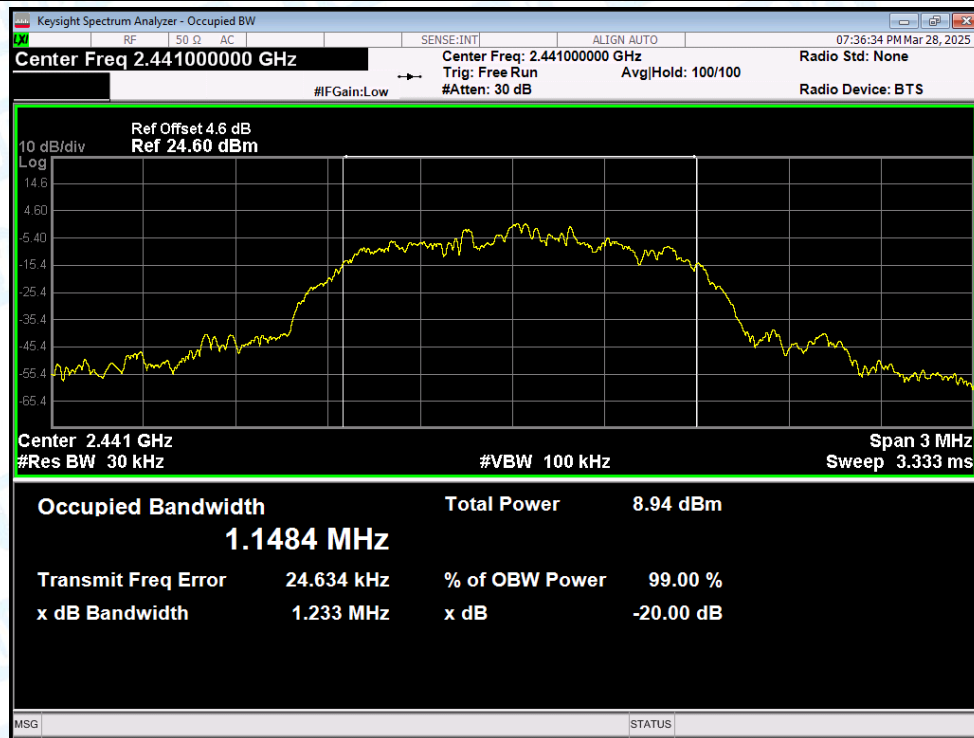
OBW NVNT 2-DH1 2480MHz Ant1

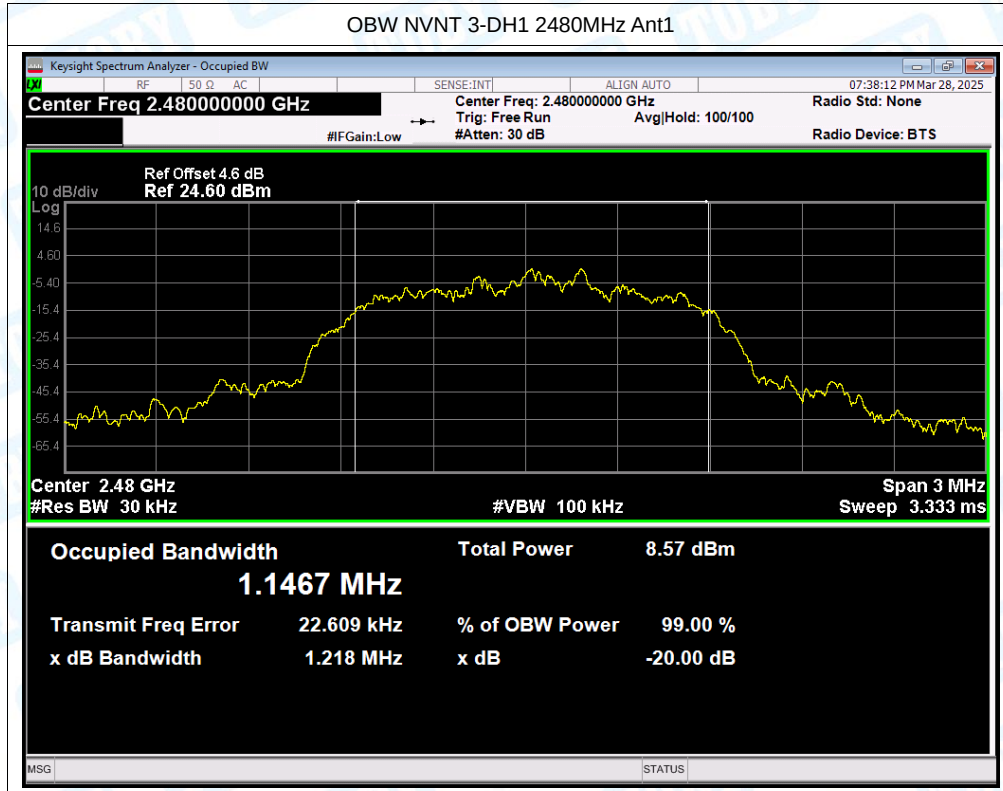


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



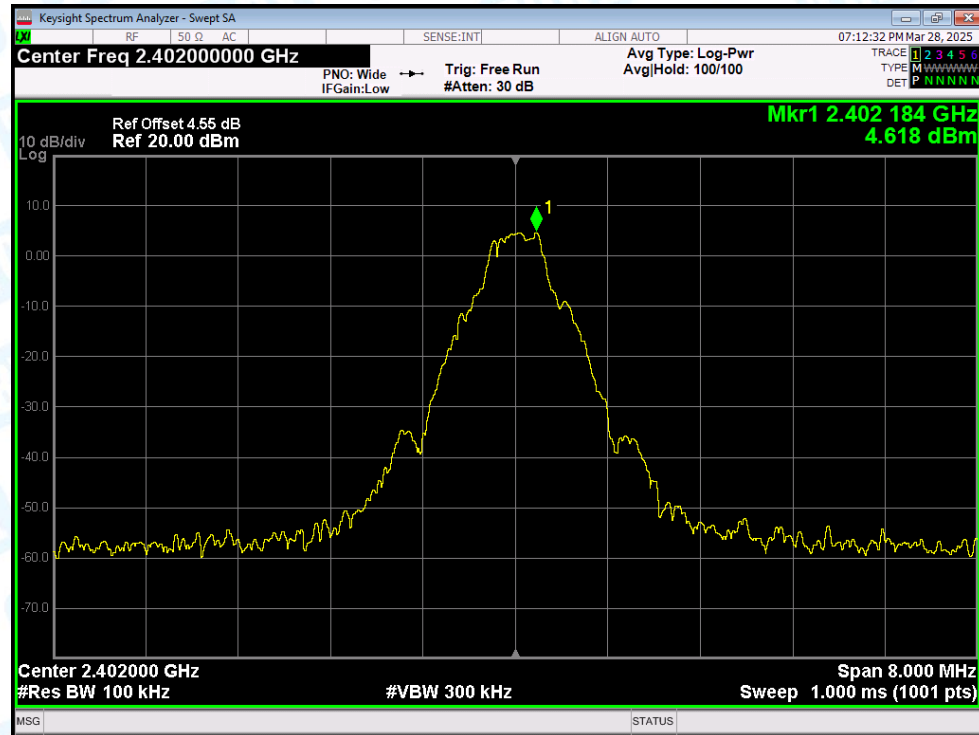


5. Band Edge

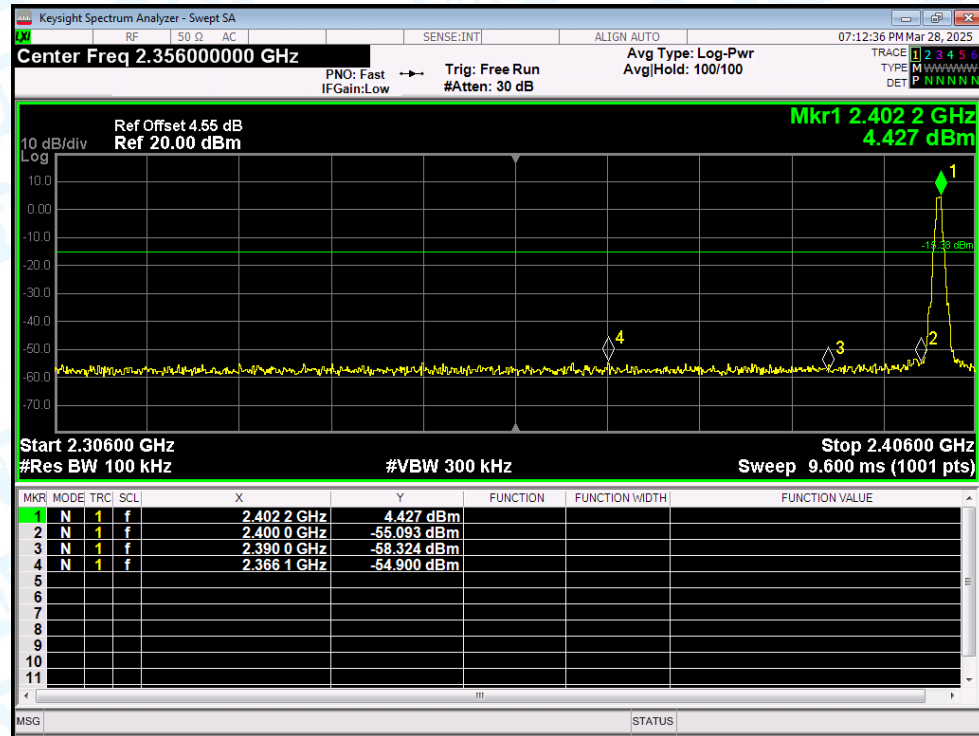
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-59.52	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-58.24	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-58.45	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-56.28	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-58.26	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-54.71	-20	Pass

Test Graphs

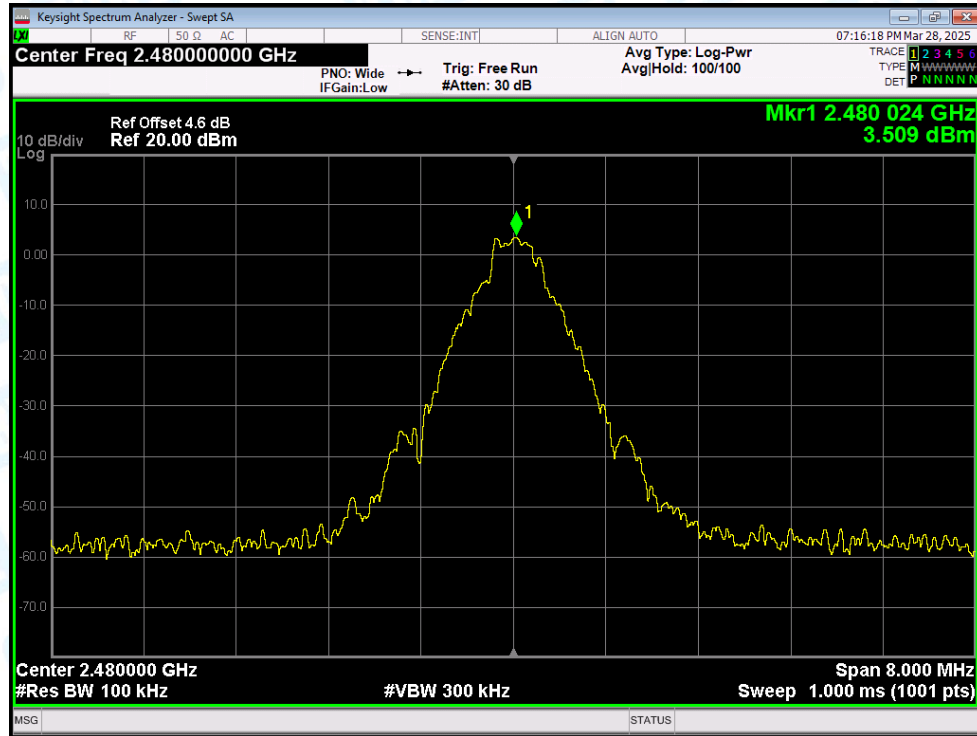
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



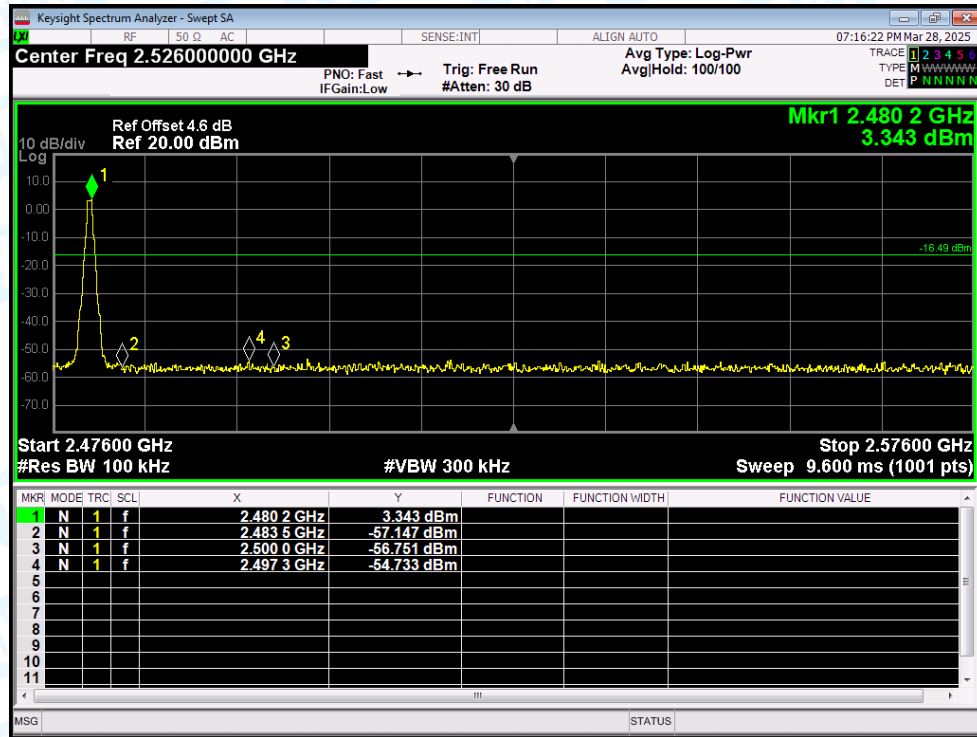
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



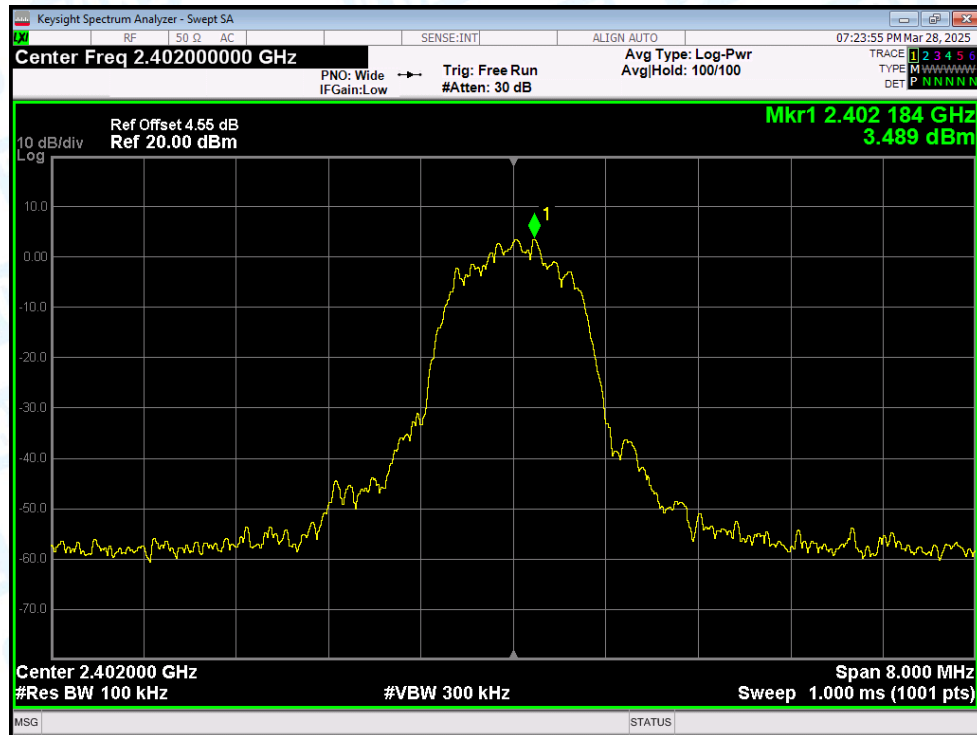
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



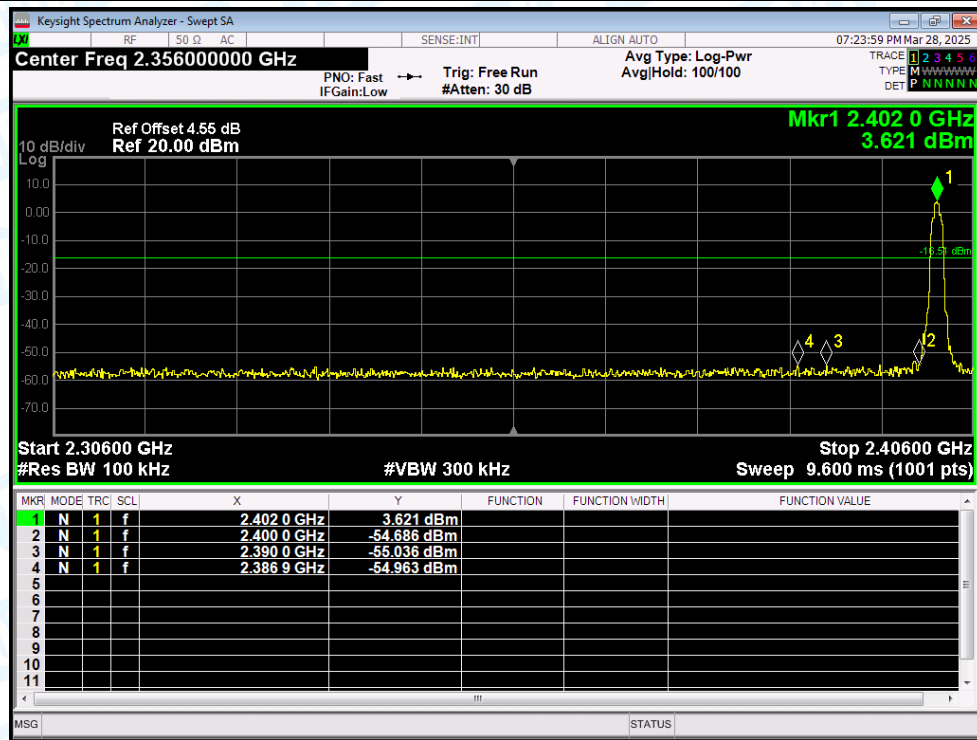
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission

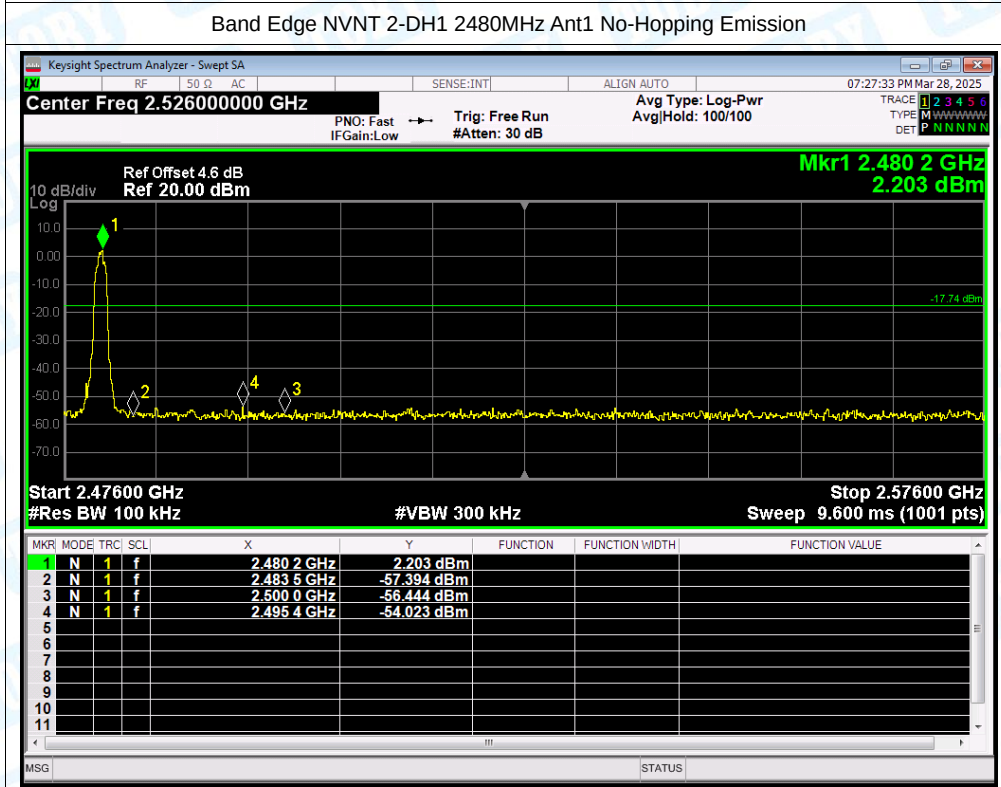
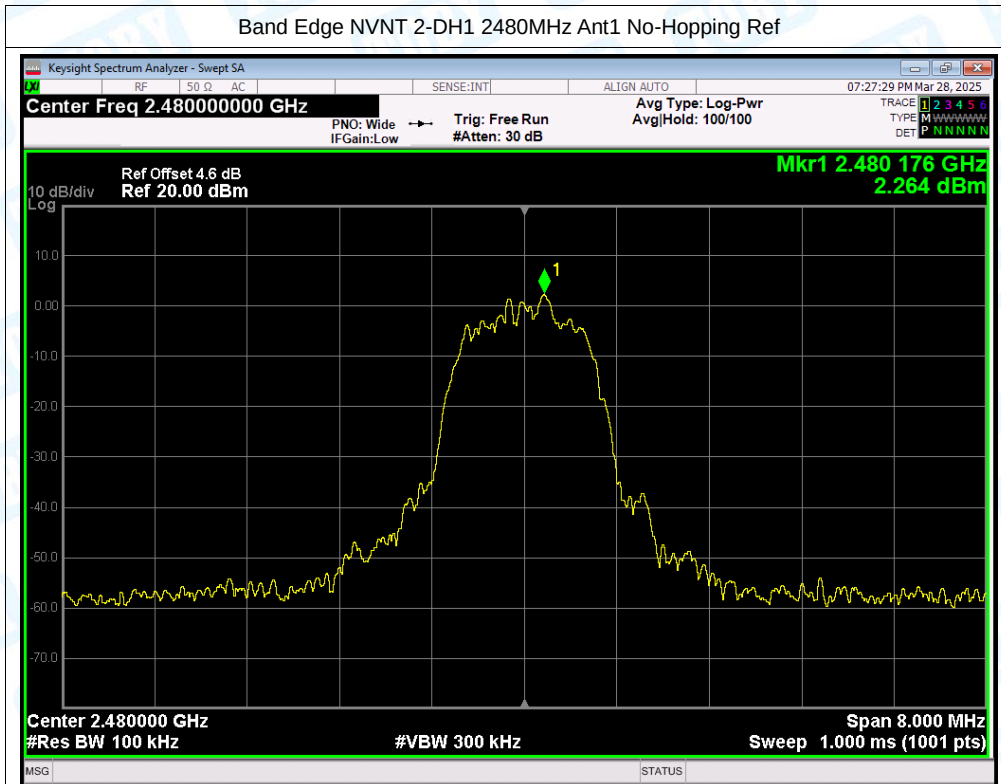


Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref

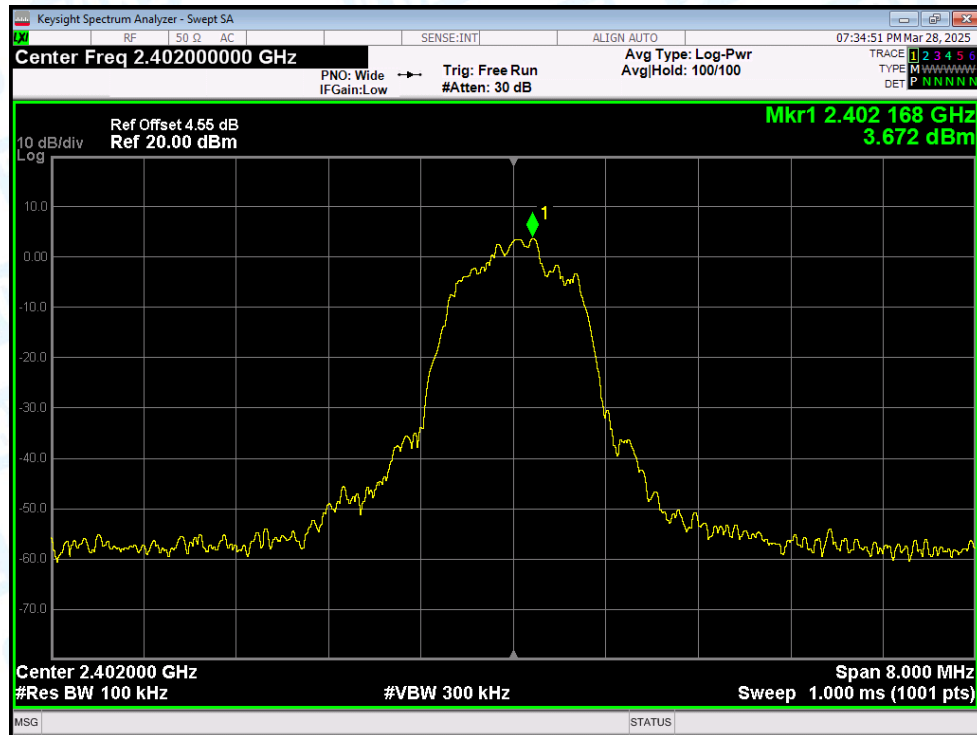


Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission

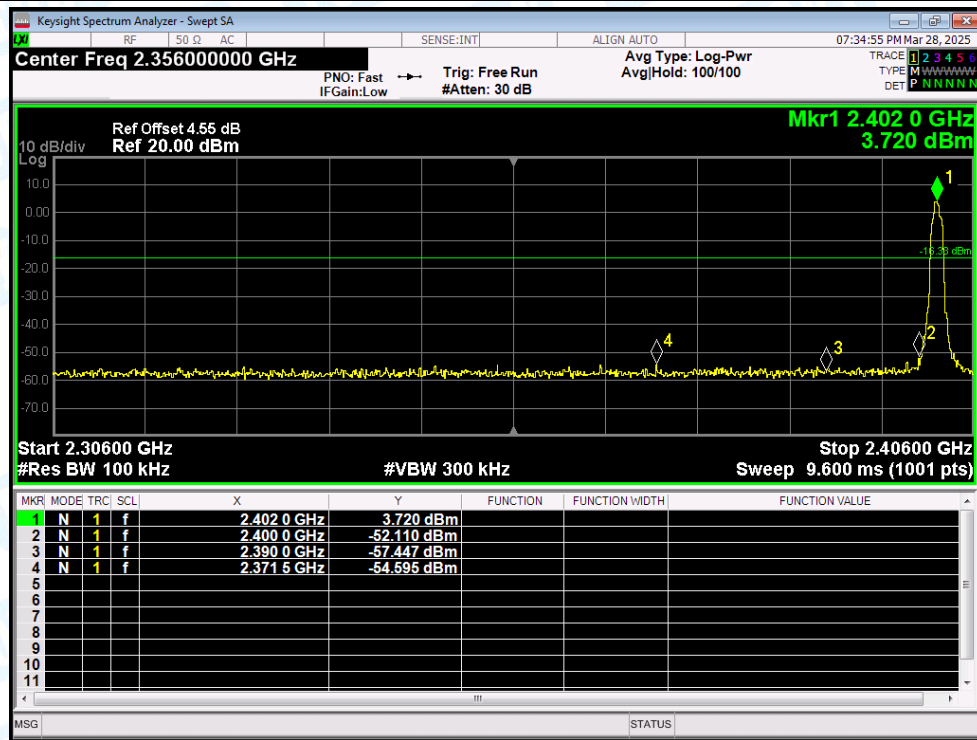




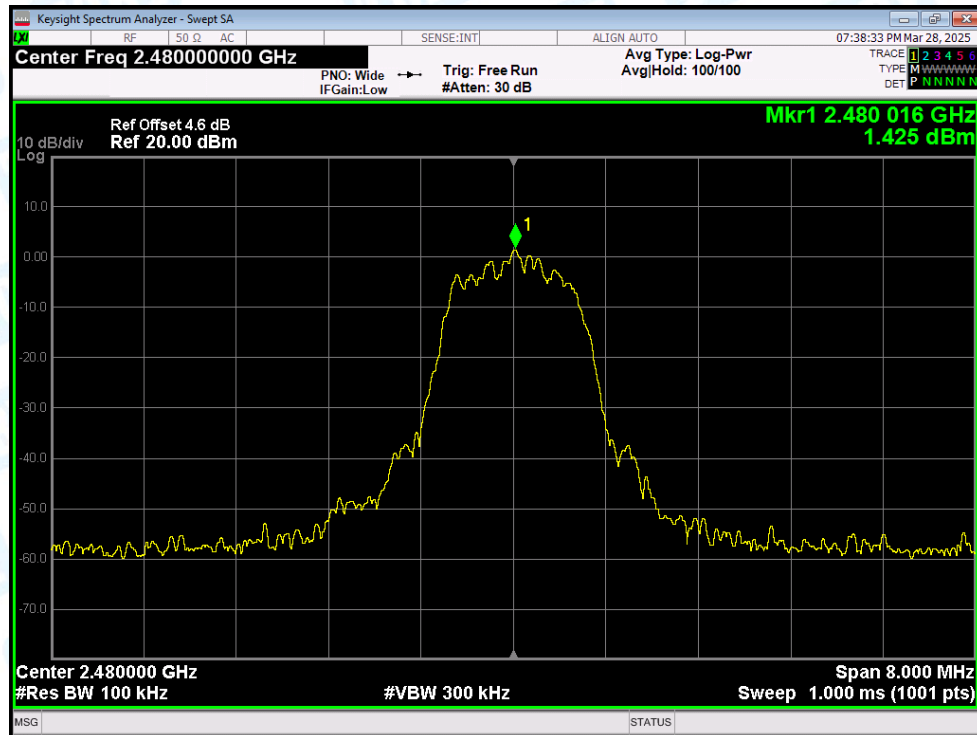
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



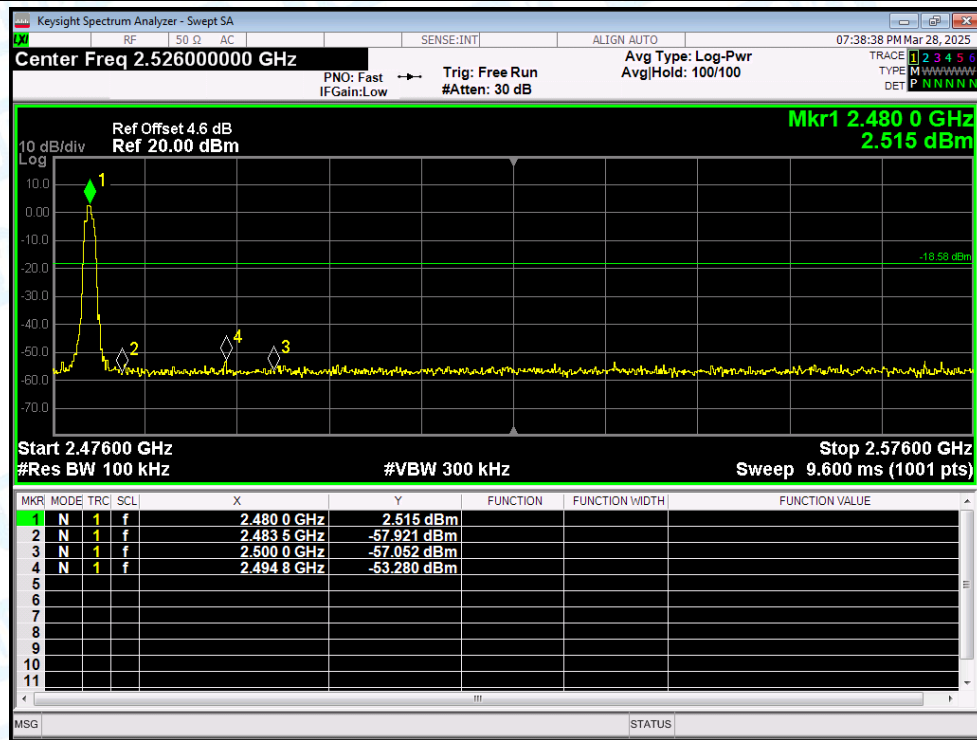
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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



6. Band Edge(Hopping)

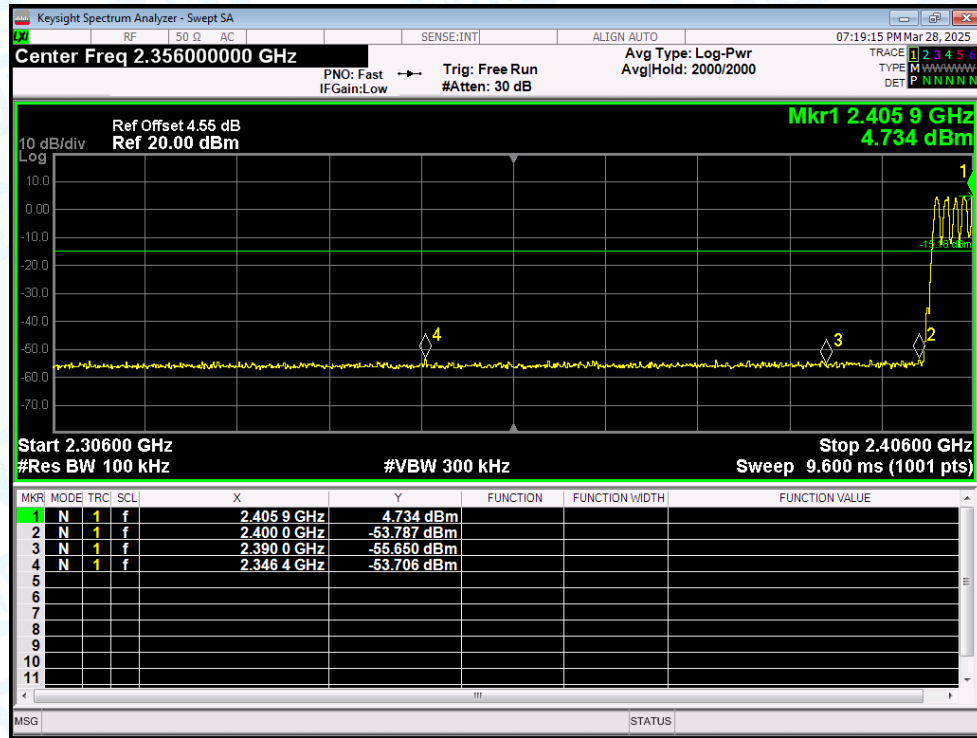
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-58.53	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-56.96	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-57.17	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-55.66	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-57.23	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-54.75	-20	Pass

Test Graphs

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



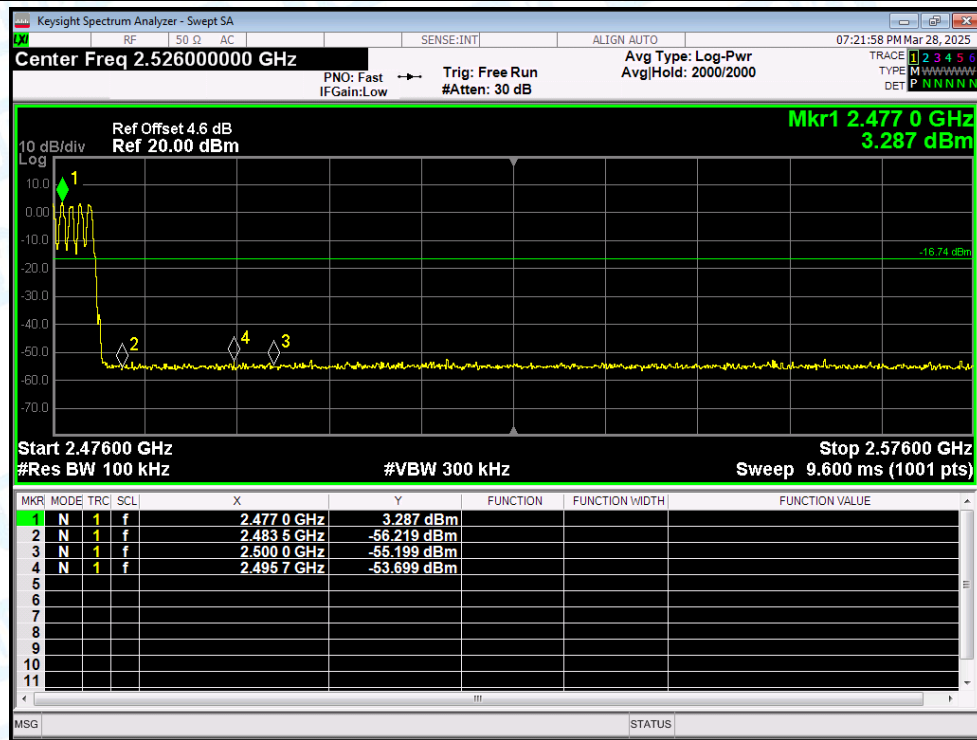
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



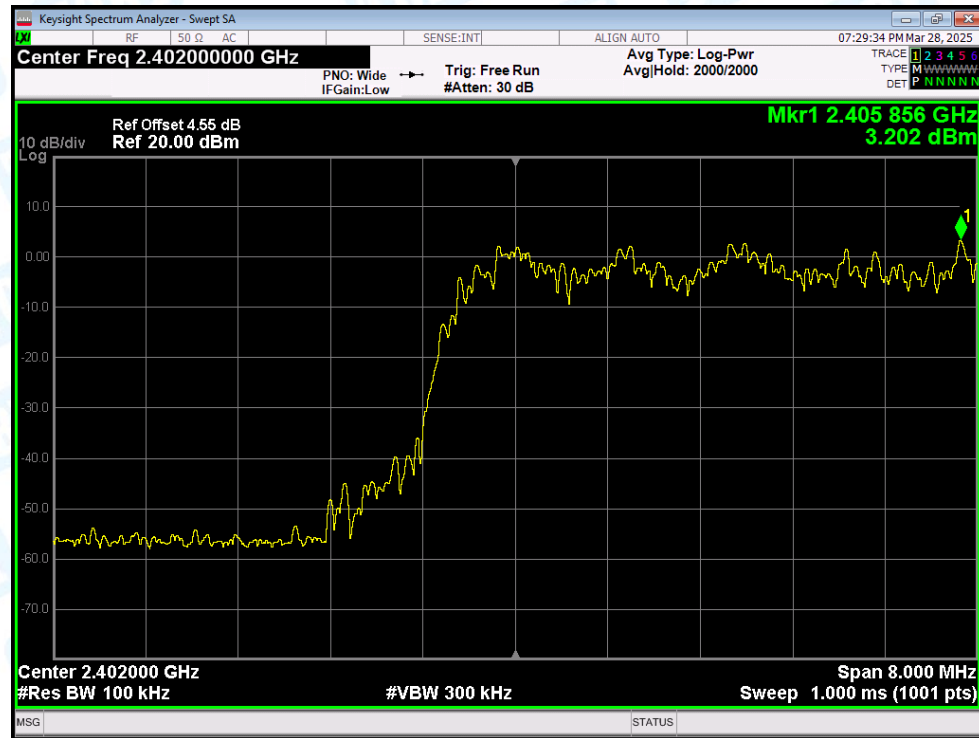
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref



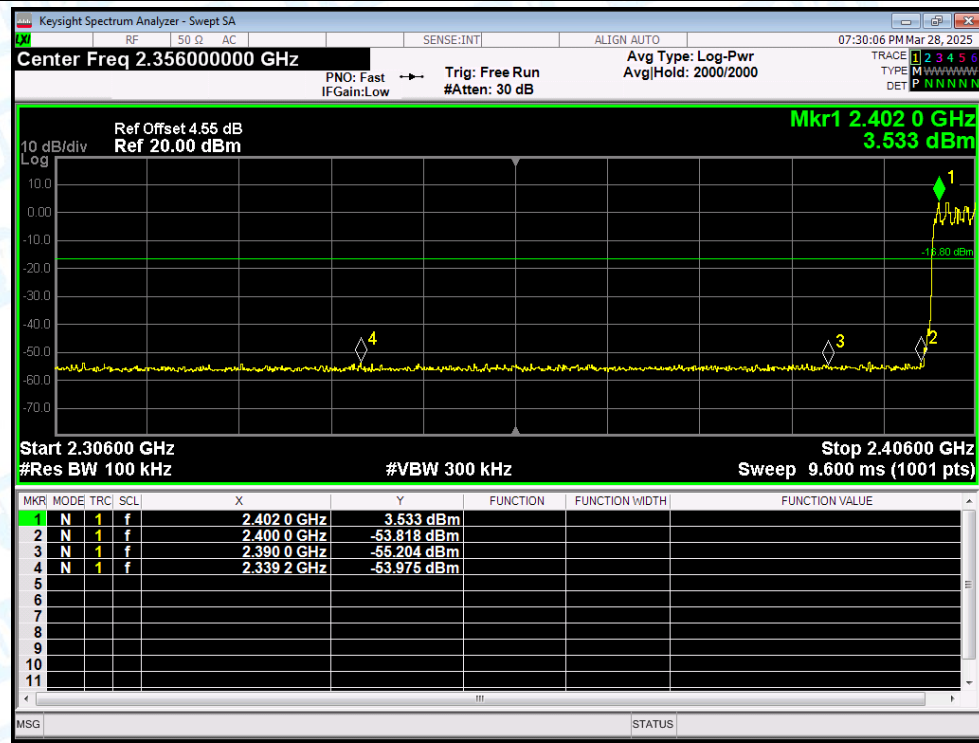
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission

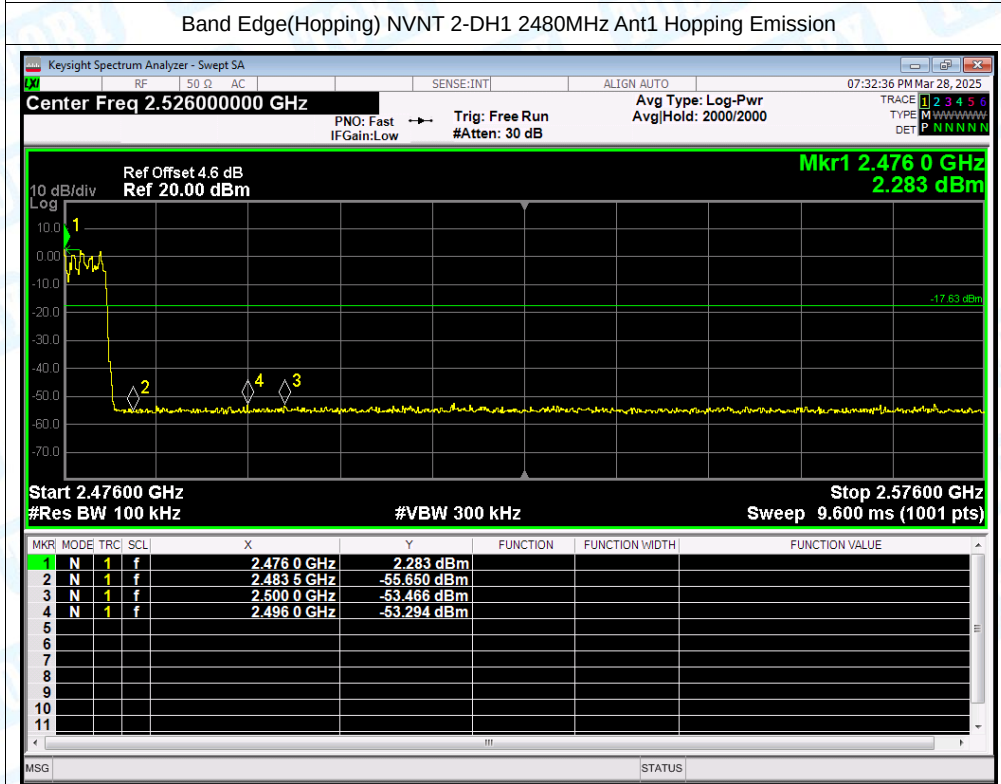


Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref

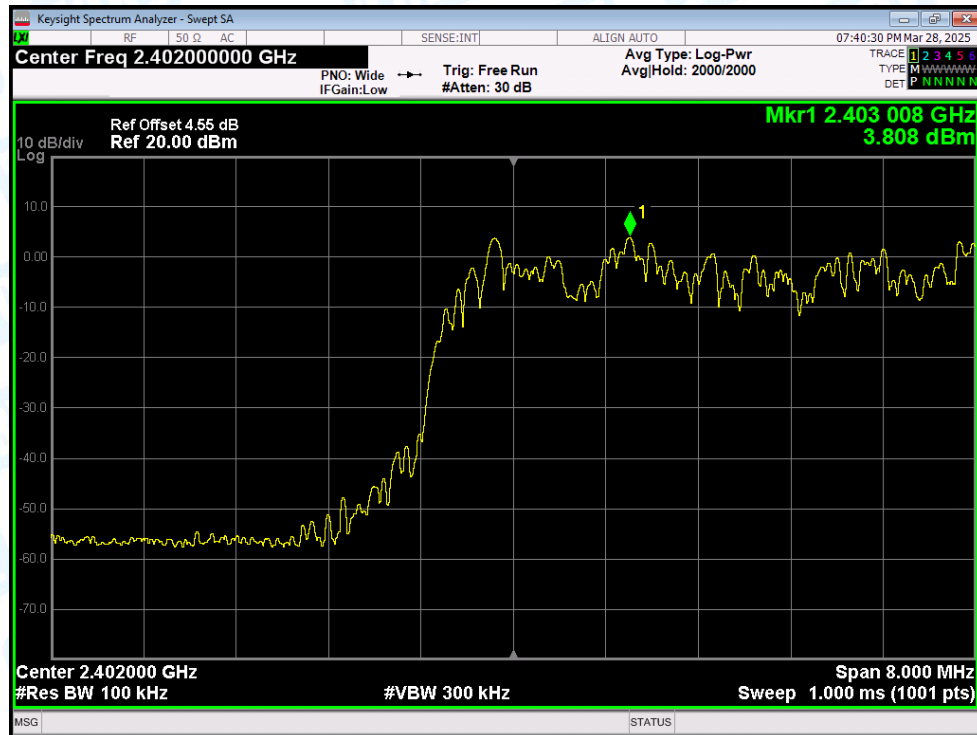


Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission

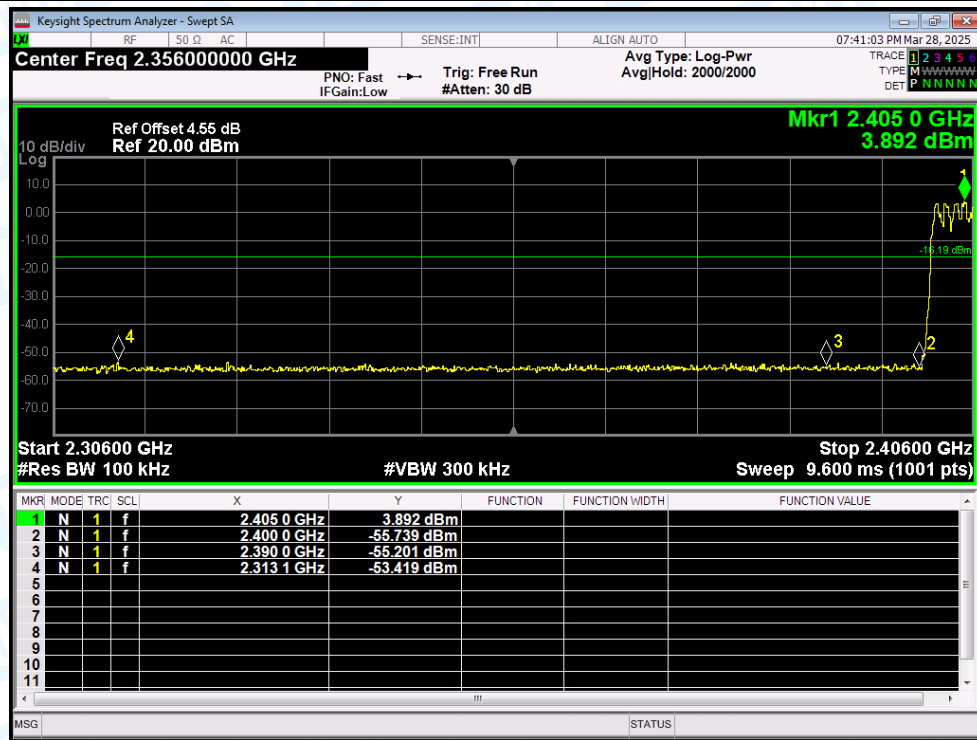


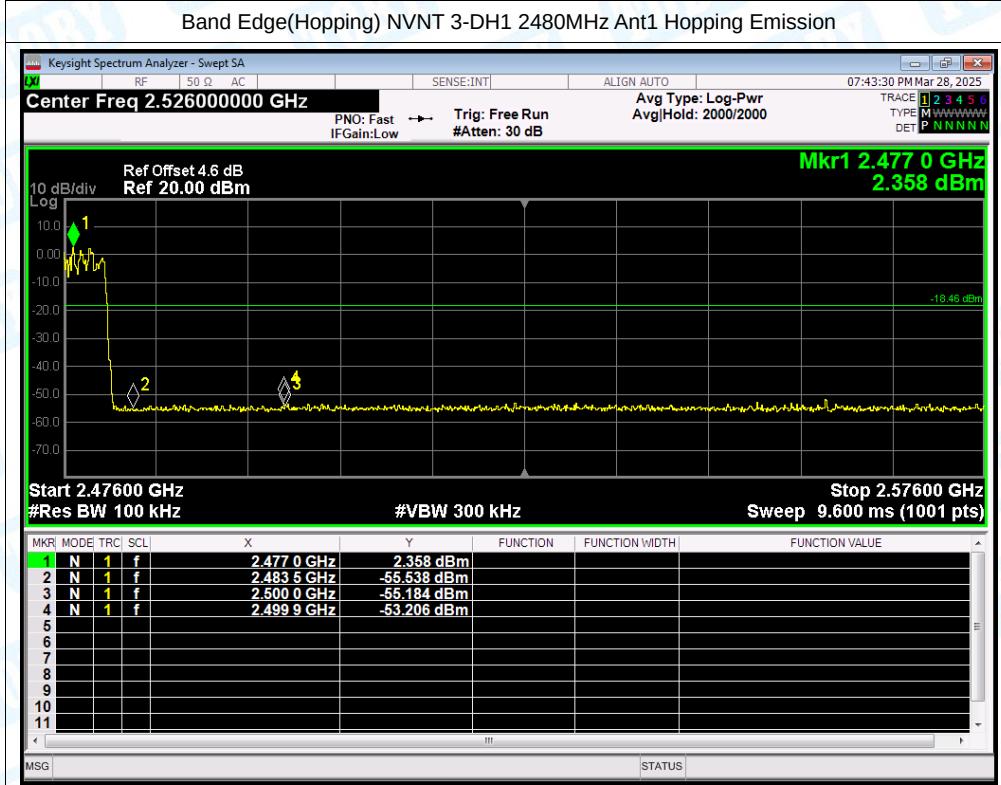
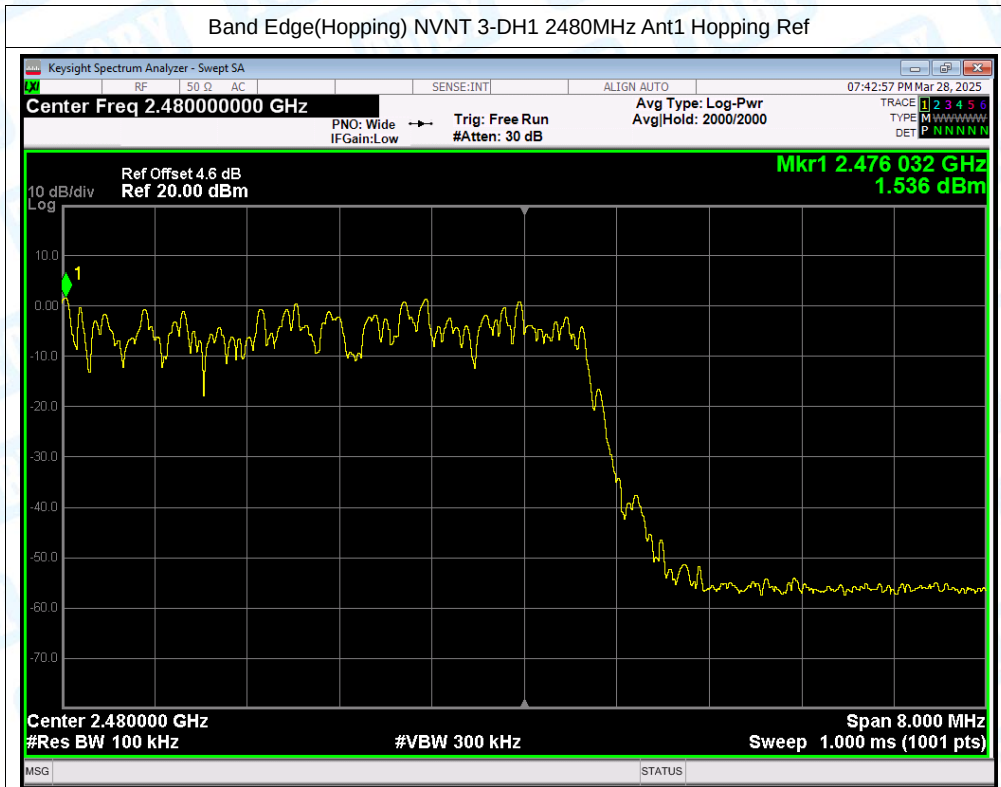


Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



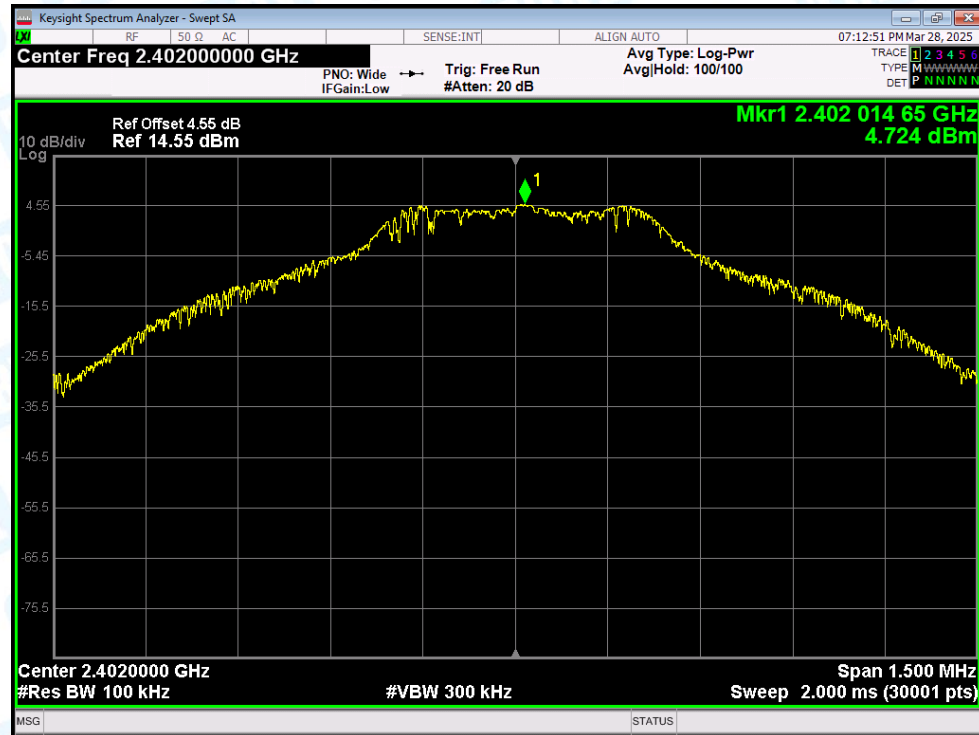


7. Conducted RF Spurious Emission

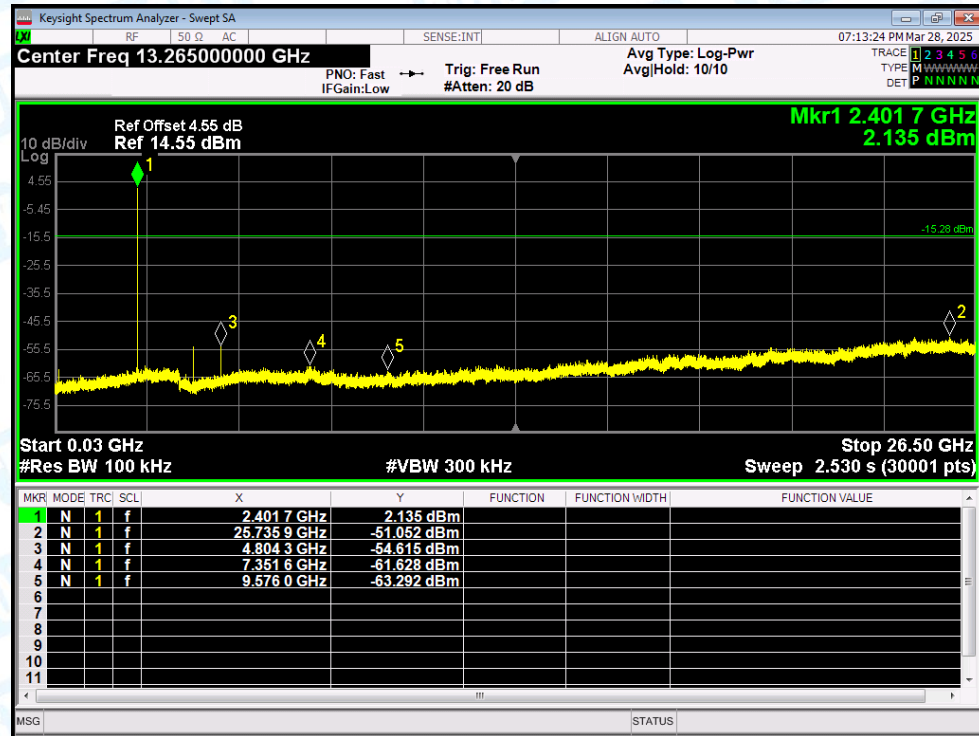
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-55.77	-20	Pass
NVNT	1-DH1	2441	Ant1	-54.29	-20	Pass
NVNT	1-DH1	2480	Ant1	-53.76	-20	Pass
NVNT	2-DH1	2402	Ant1	-54.62	-20	Pass
NVNT	2-DH1	2441	Ant1	-54.03	-20	Pass
NVNT	2-DH1	2480	Ant1	-47.03	-20	Pass
NVNT	3-DH1	2402	Ant1	-55.26	-20	Pass
NVNT	3-DH1	2441	Ant1	-53.62	-20	Pass
NVNT	3-DH1	2480	Ant1	-52.99	-20	Pass

Test Graphs

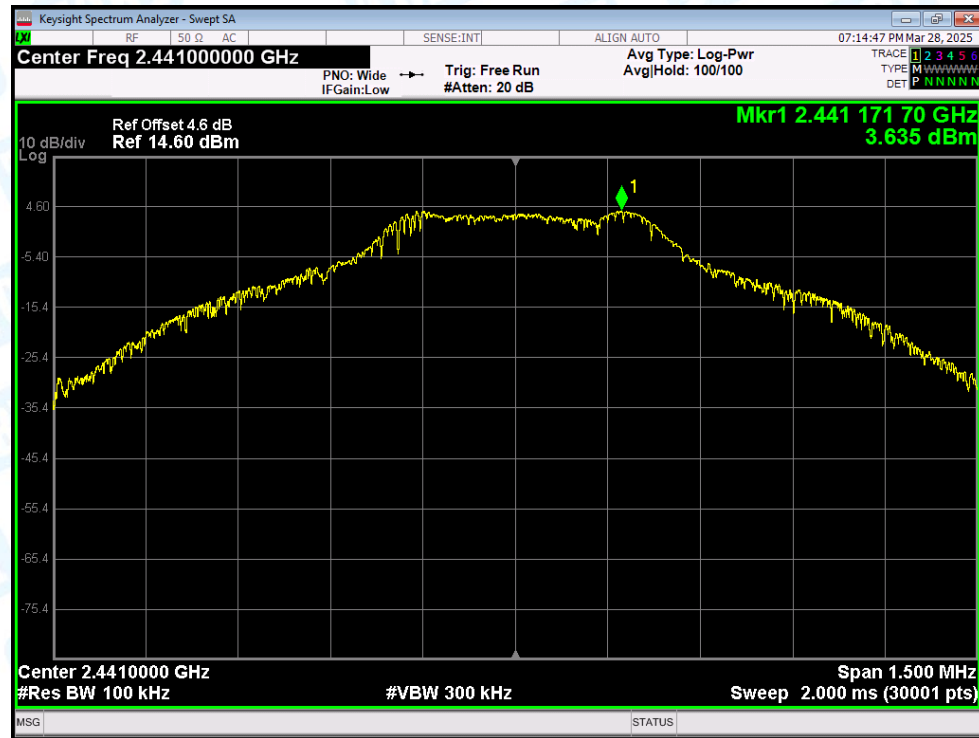
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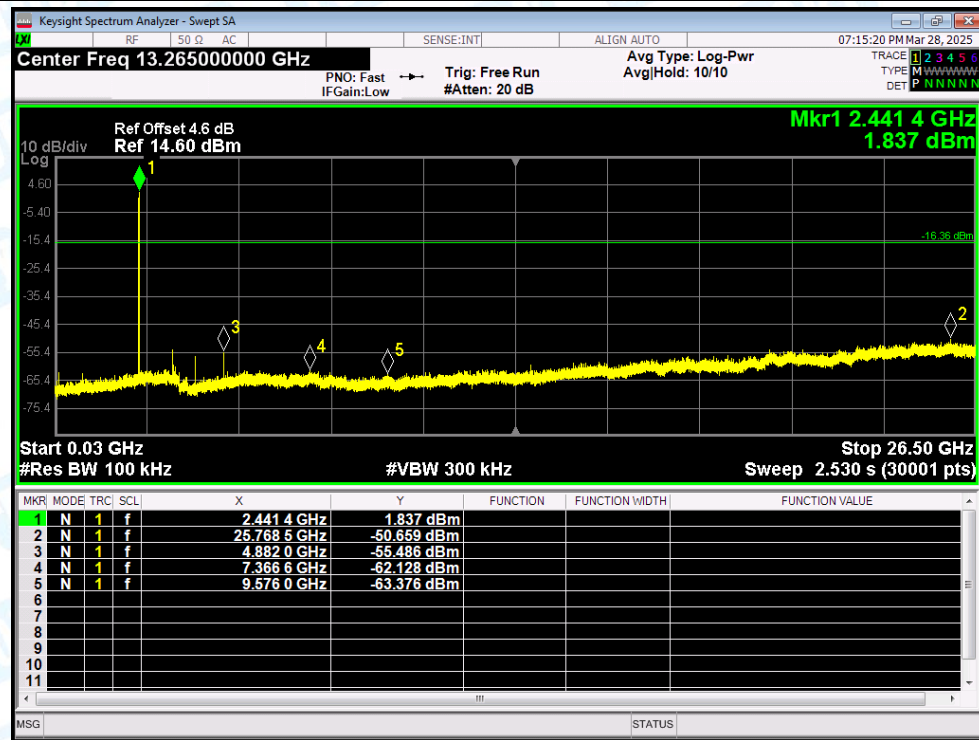
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



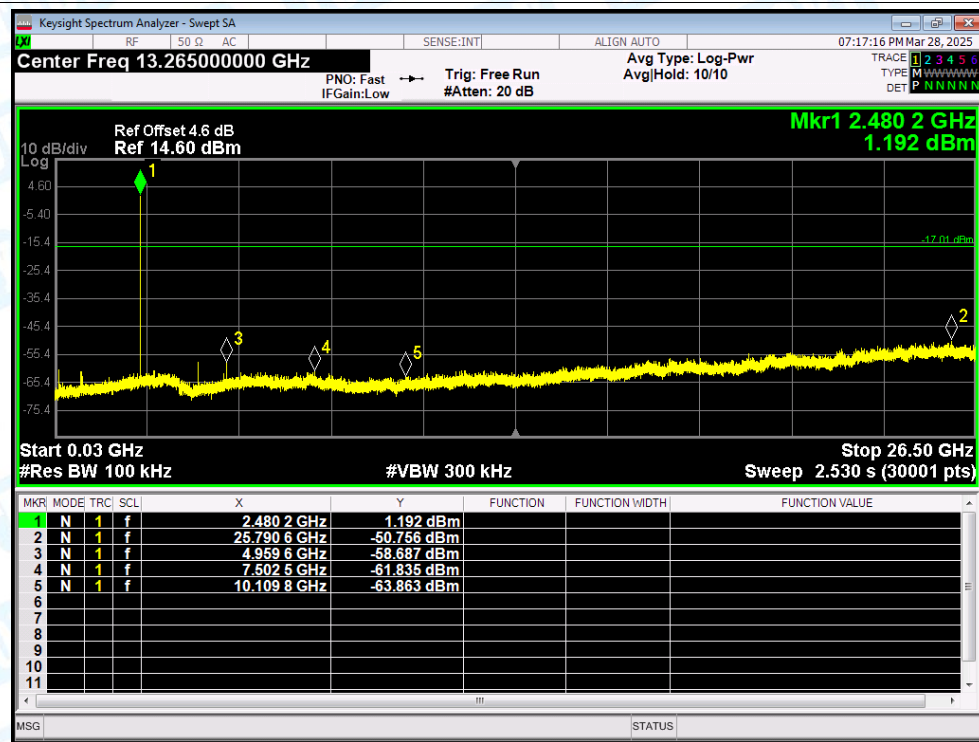
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



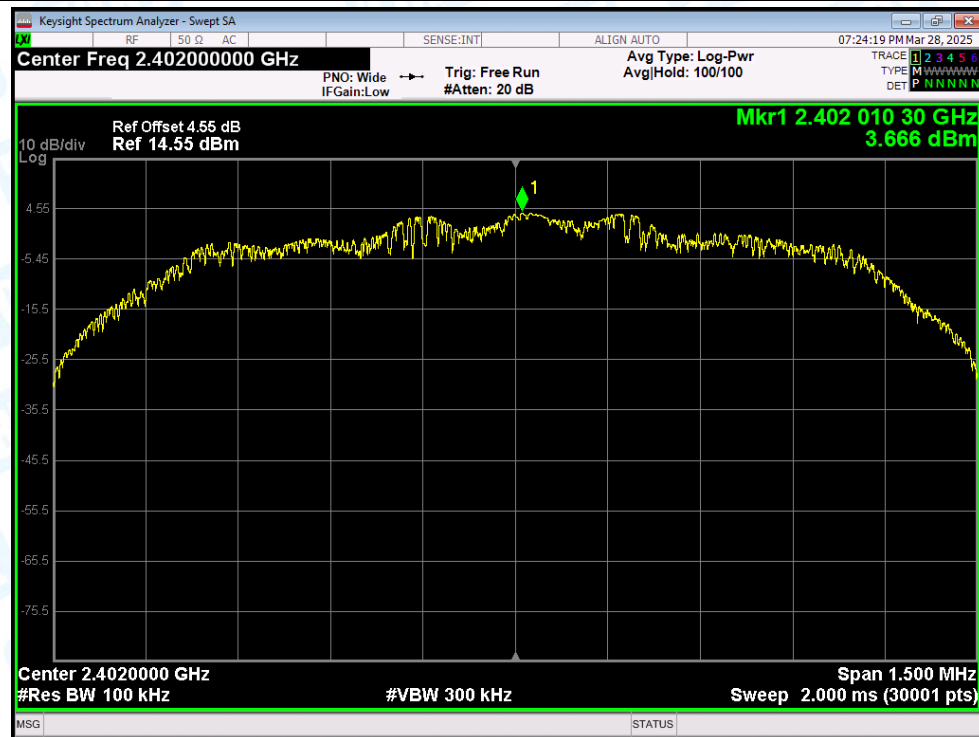
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



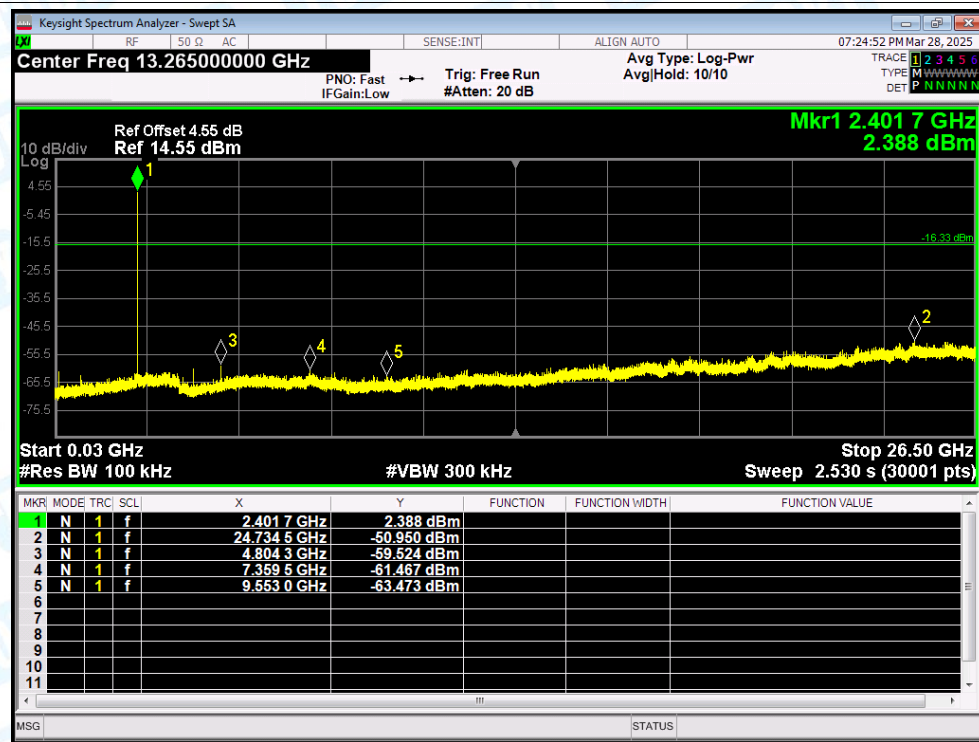
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



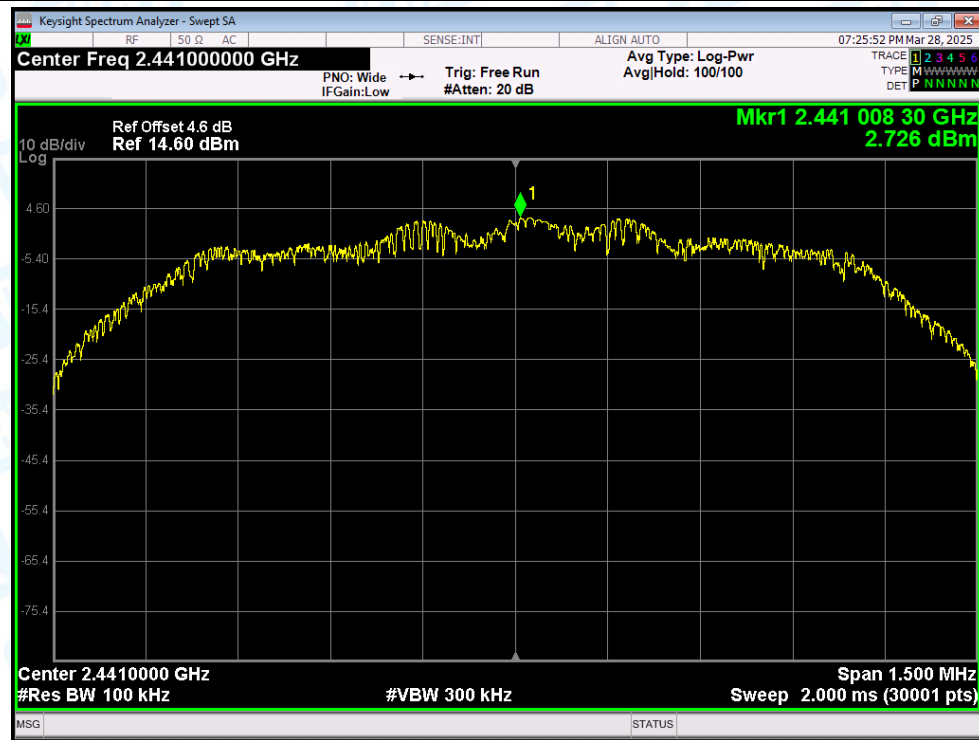
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



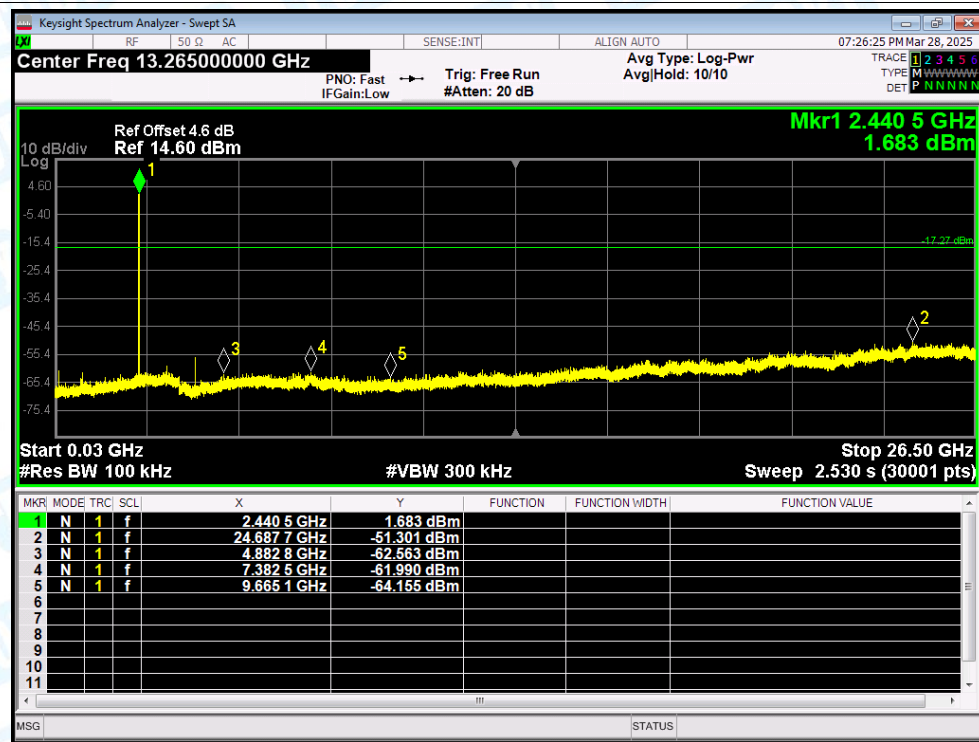
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



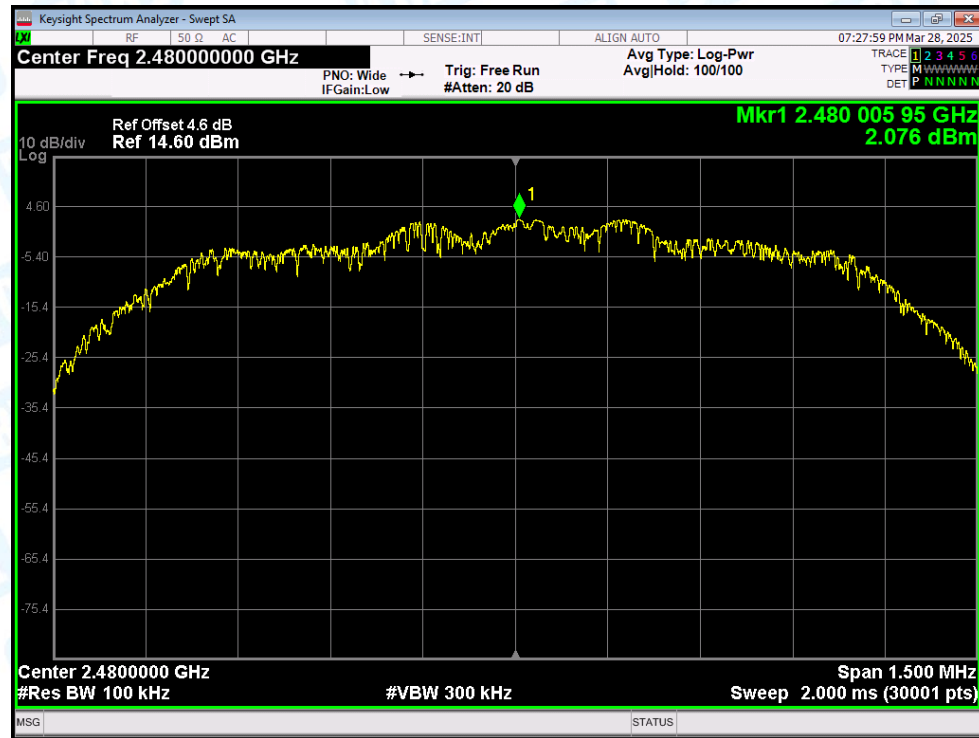
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



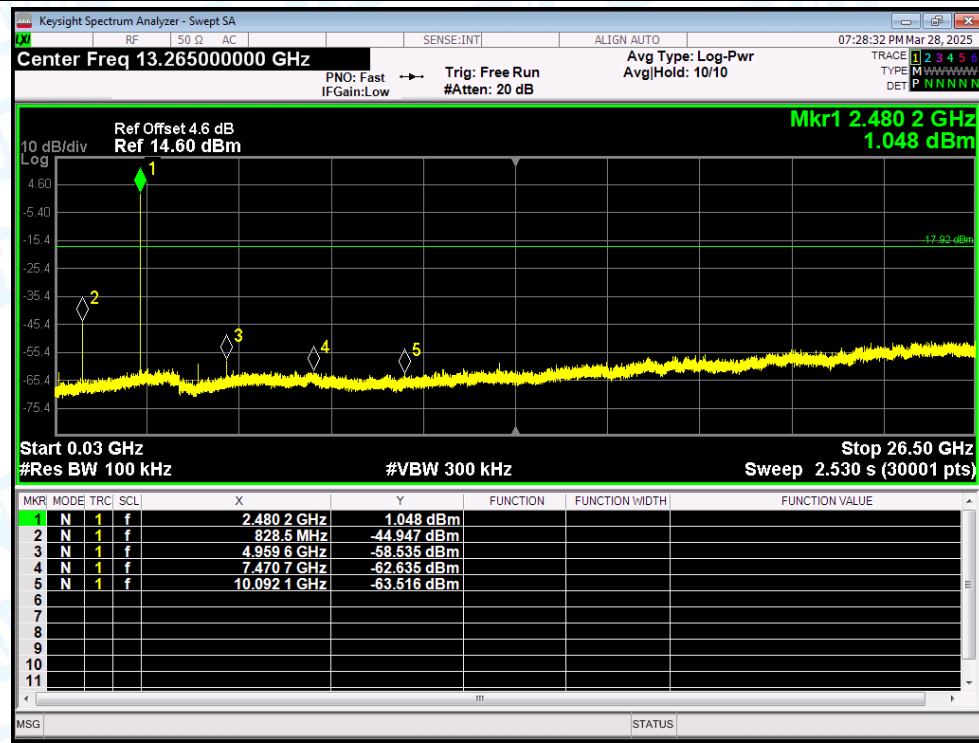
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



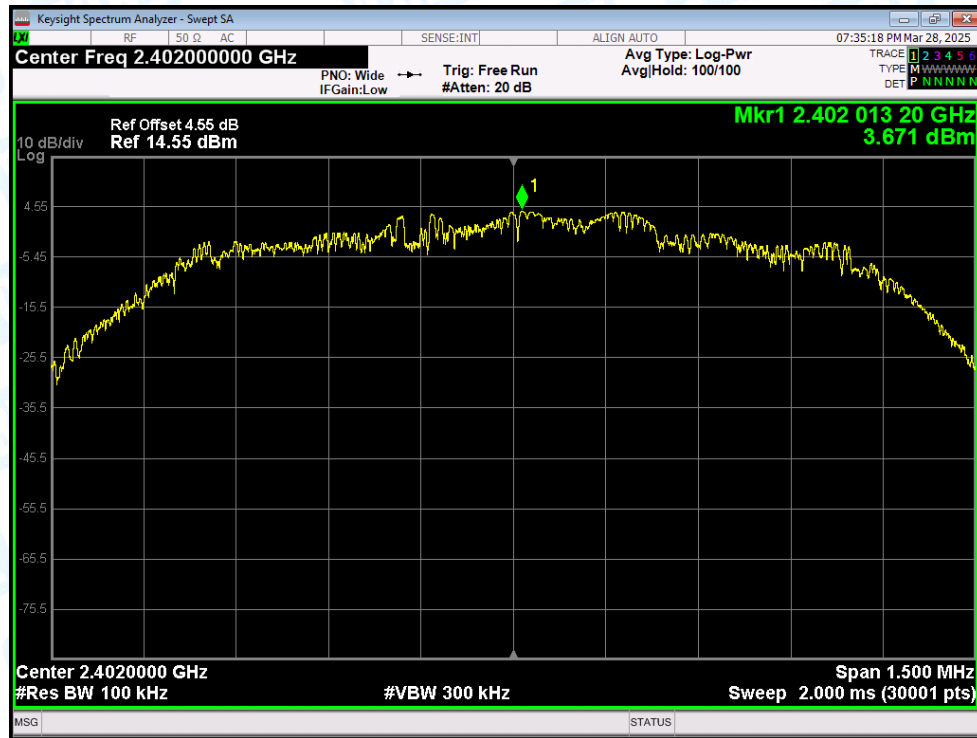
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



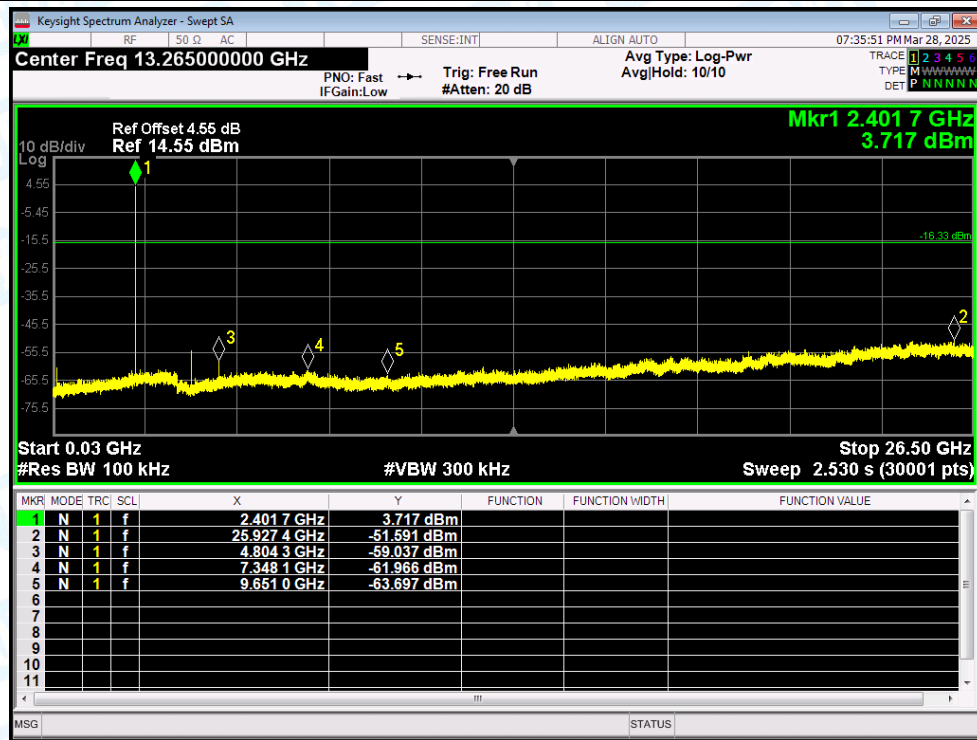
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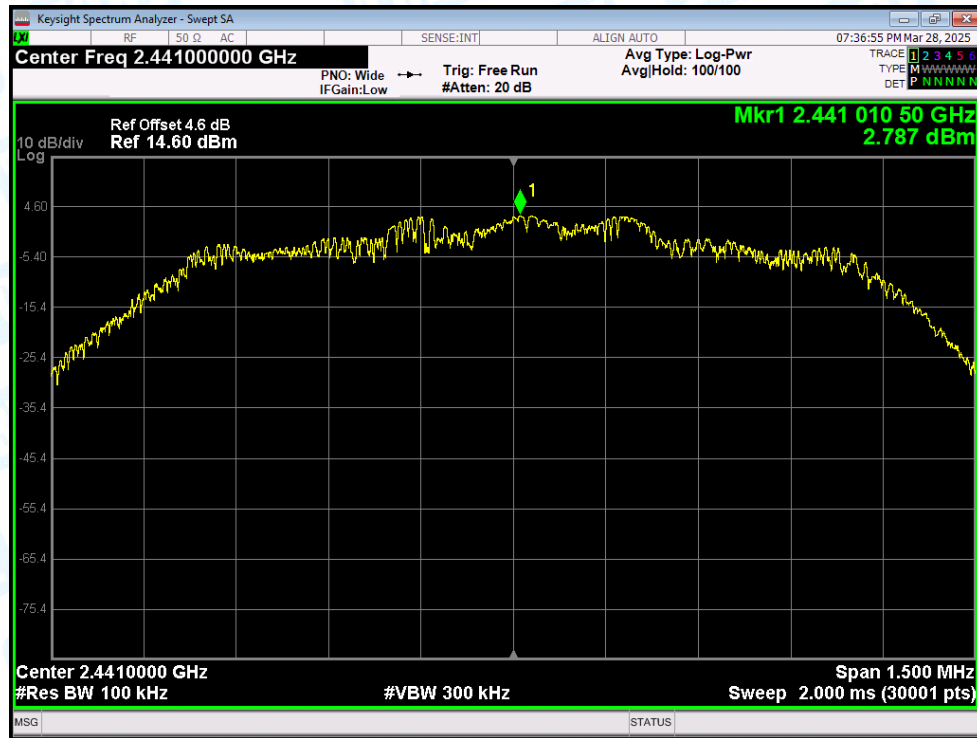
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



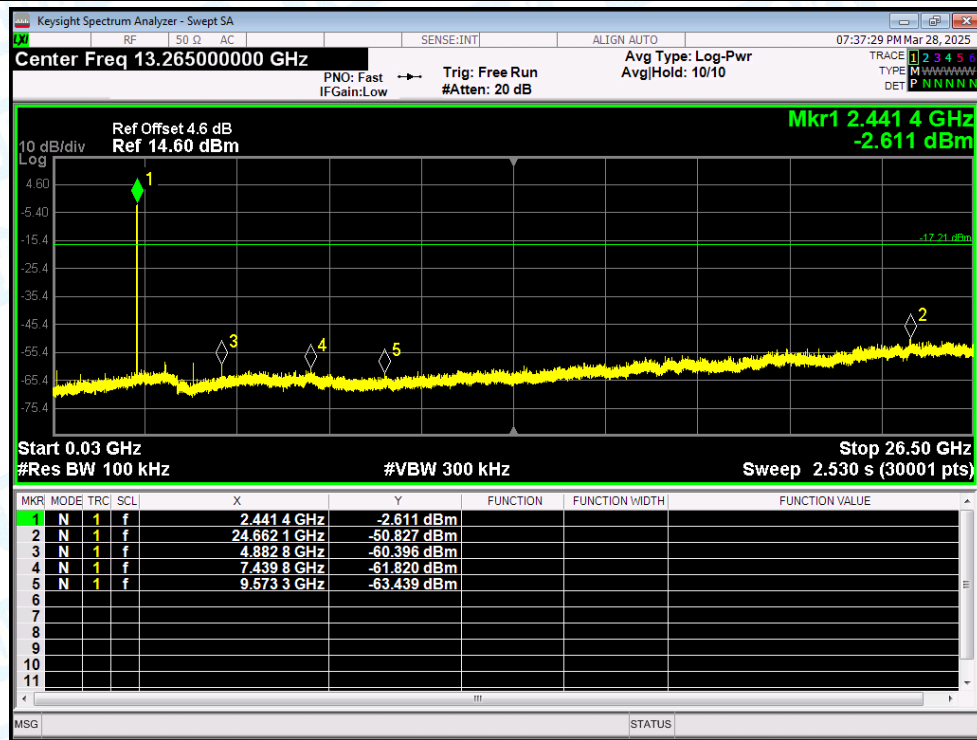
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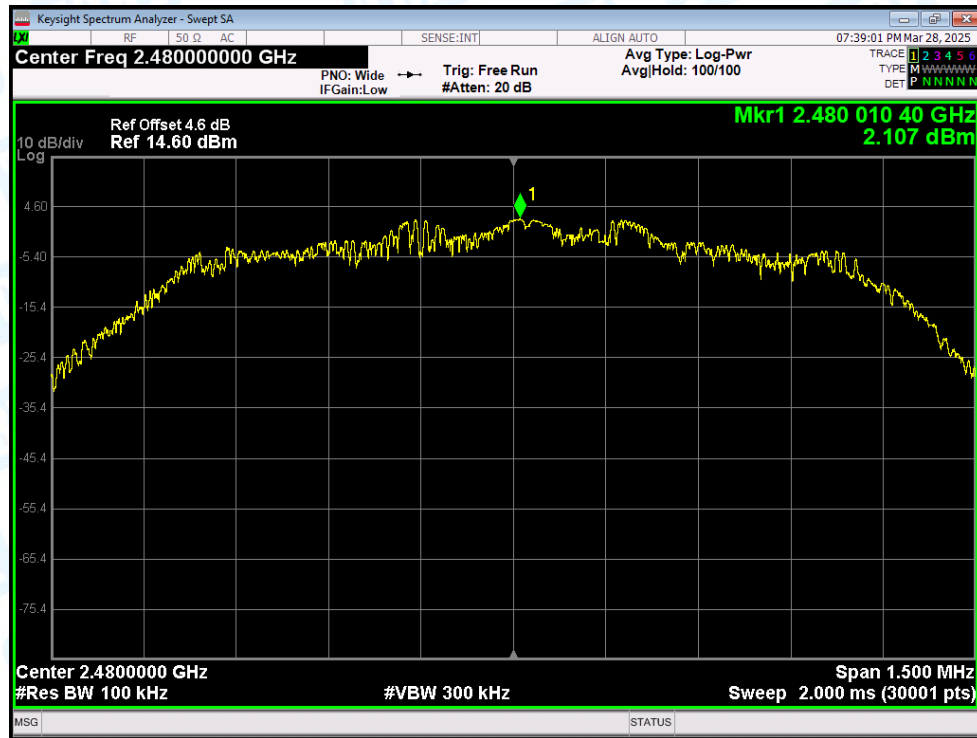
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



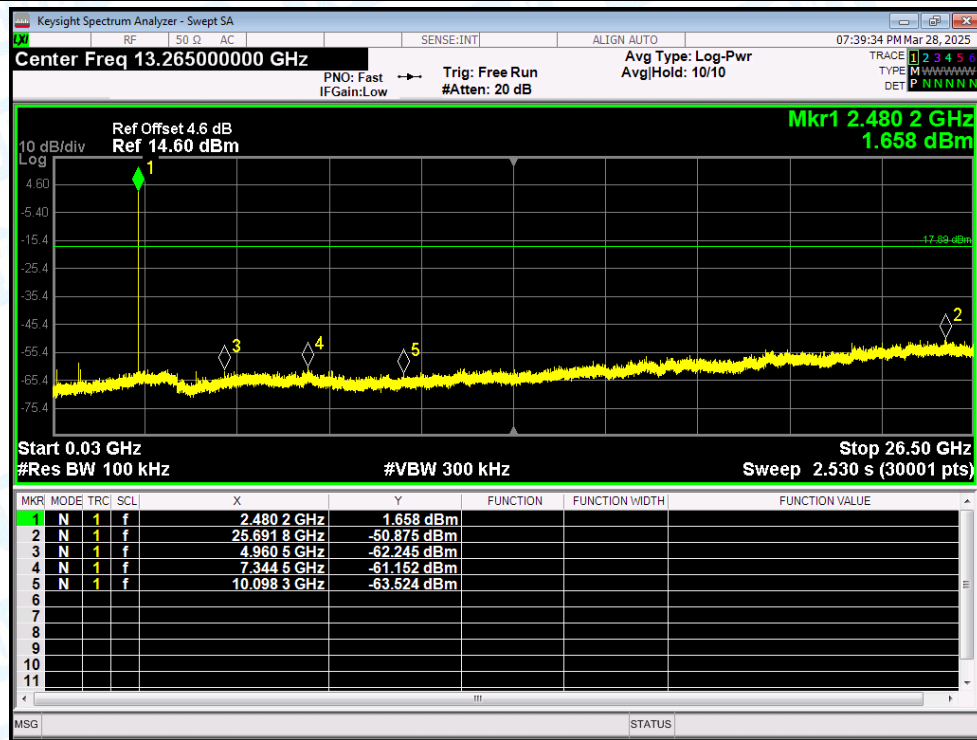
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

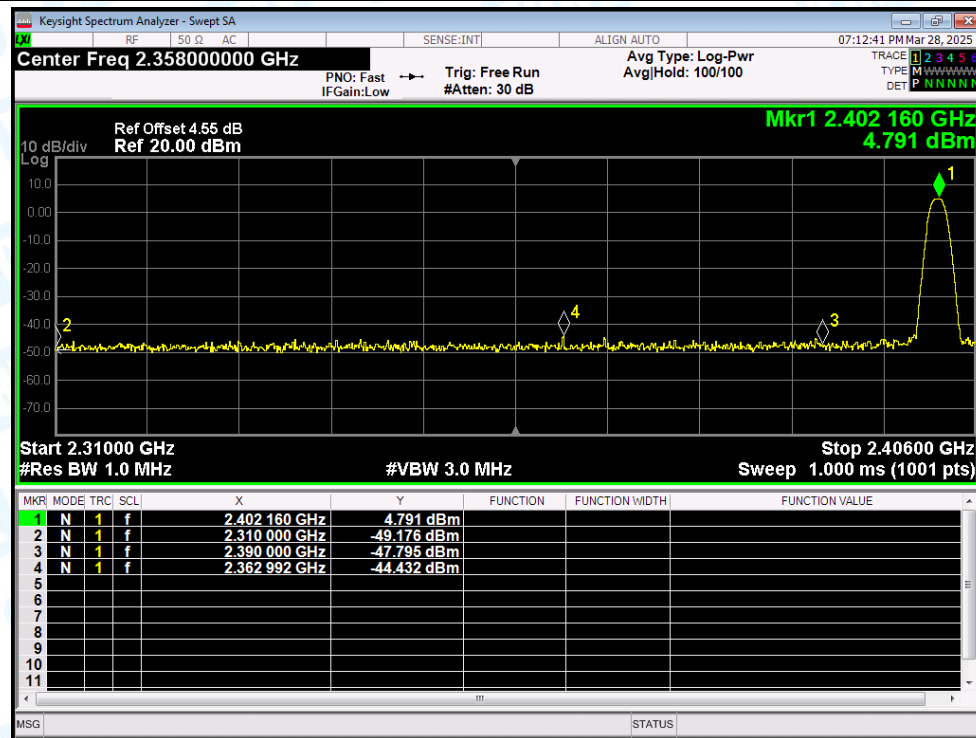


8. Restrict Band

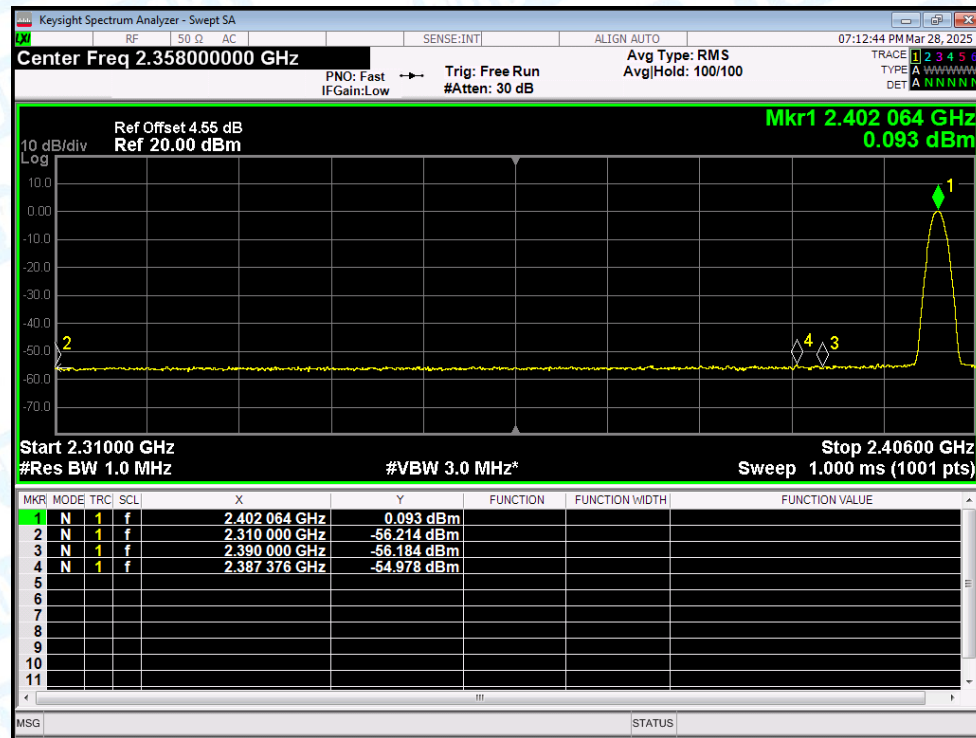
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-49.18	2	-	48.08	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.21	2	5.07	46.12	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2362.992	-44.43	2	-	52.83	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2387.376	-54.98	2	5.07	47.35	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-47.8	2	-	49.46	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-56.18	2	5.07	46.15	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-48.28	2	-	48.98	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-55.02	2	5.07	47.31	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2497.576	-44.55	2	-	52.71	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.608	-54.27	2	5.07	48.06	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-47.76	2	-	49.5	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.02	2	5.07	47.31	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-48.68	2	-	48.58	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.48	2	4.99	45.77	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2317.584	-44.96	2	-	52.3	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2373.552	-55.03	2	4.99	47.22	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-47.59	2	-	49.67	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-55.73	2	4.99	46.52	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-46.03	2	-	51.23	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-54.4	2	5.1	47.96	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2494.84	-44.15	2	-	53.11	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.512	-54.4	2	5.1	47.96	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-46.31	2	-	50.95	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.75	2	5.1	46.61	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-47.89	2	-	49.37	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.63	2	4.99	45.62	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2382.96	-45.33	2	-	51.93	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2383.824	-55.09	2	4.99	47.16	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-46.51	2	-	50.75	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-56.56	2	4.99	45.69	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-47.42	2	-	49.84	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-55.39	2	5.02	46.89	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.728	-43.79	2	-	53.47	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2491.864	-54.6	2	5.02	47.68	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-48.09	2	-	49.17	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.51	2	5.02	46.77	Average	54	Pass

Test Graphs

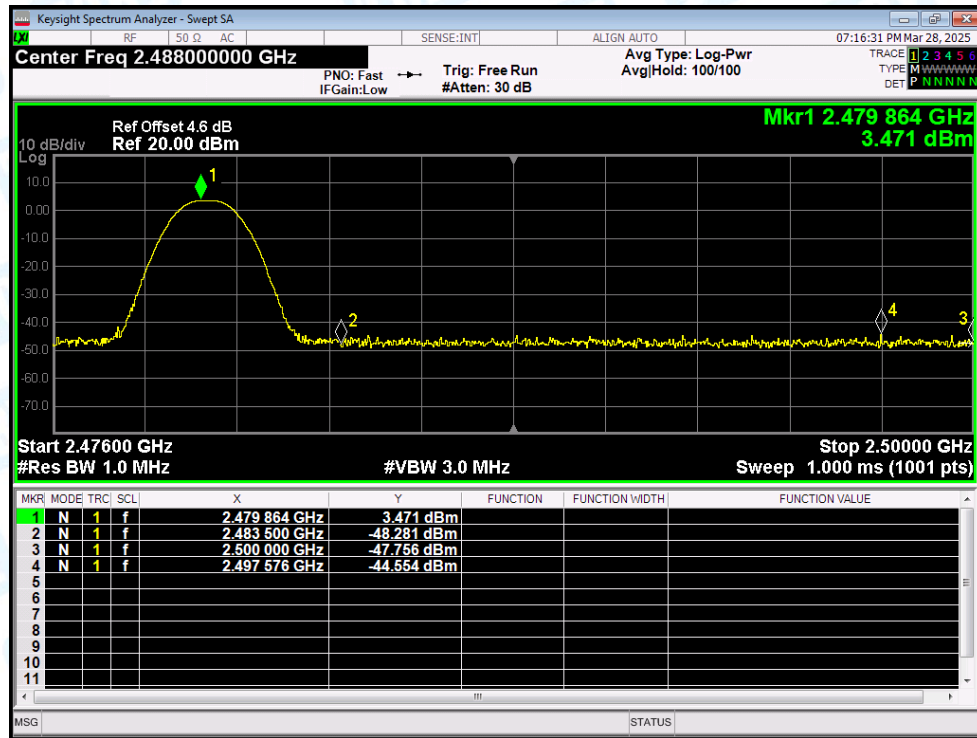
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



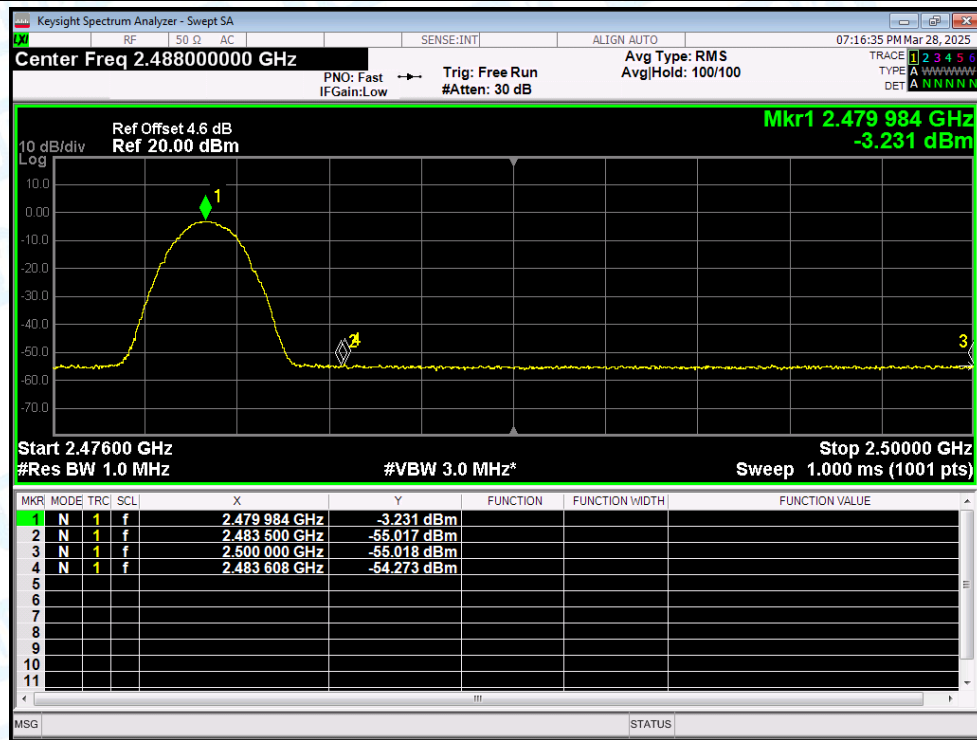
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



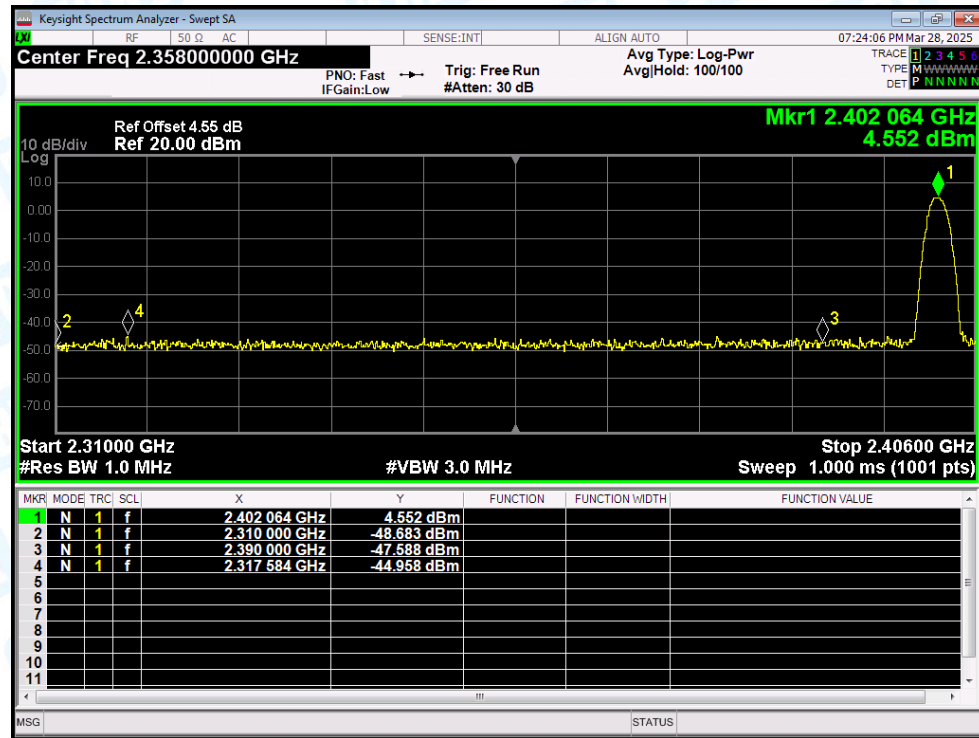
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



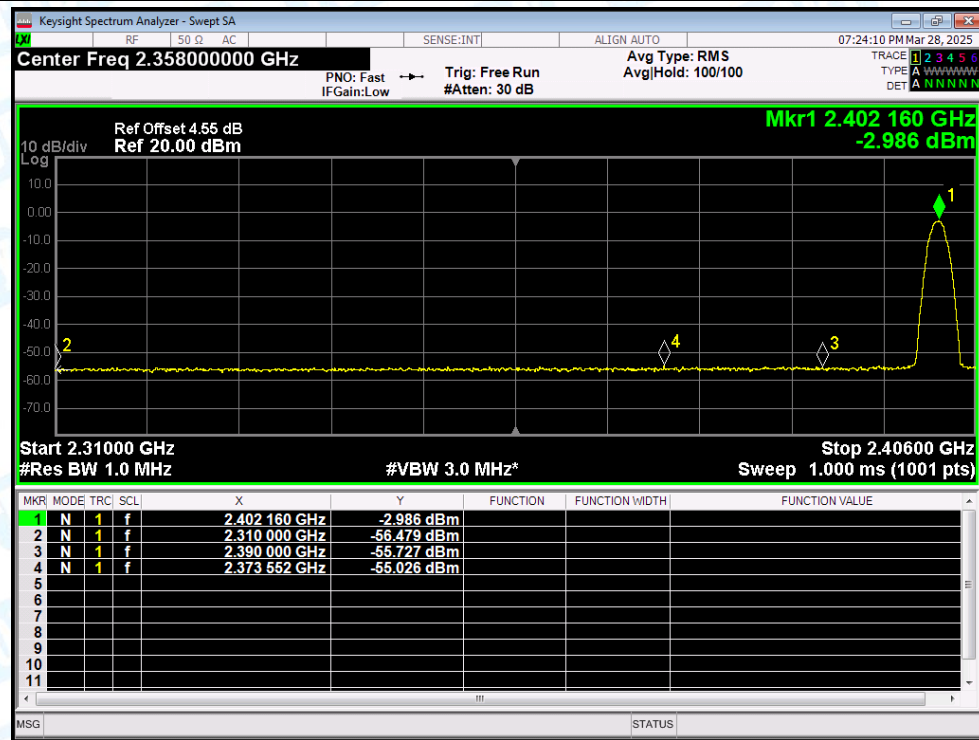
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



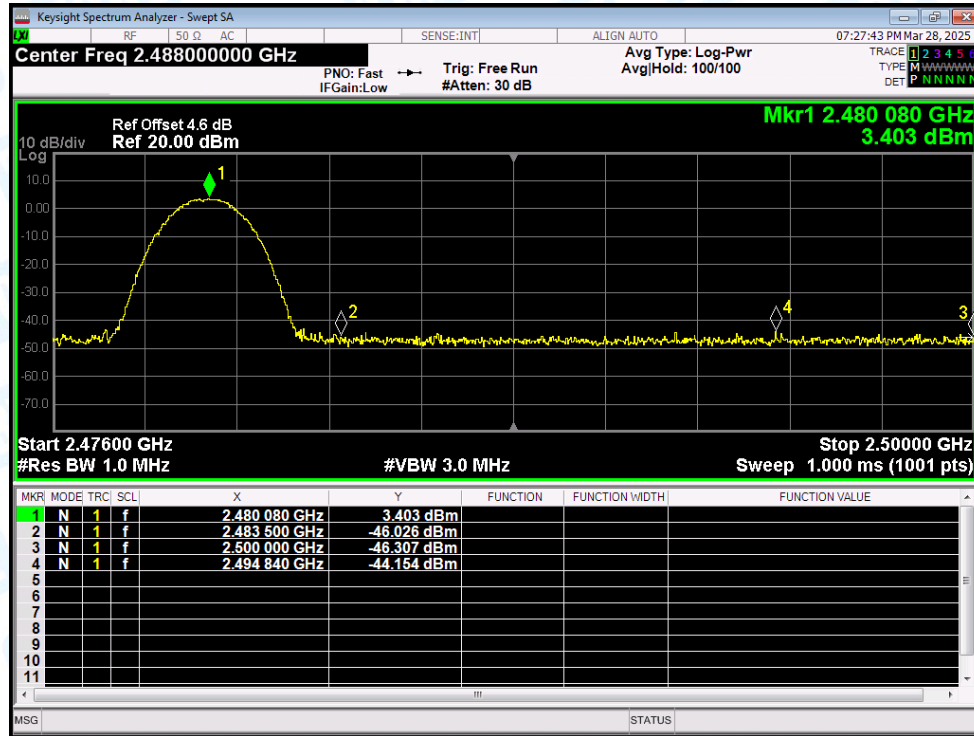
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



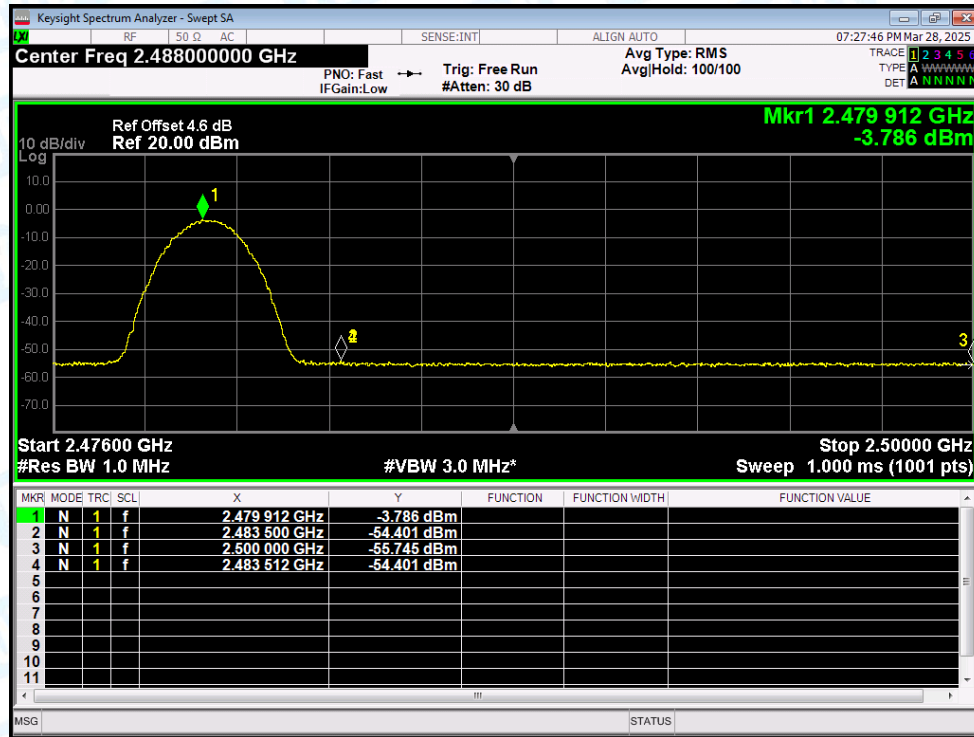
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



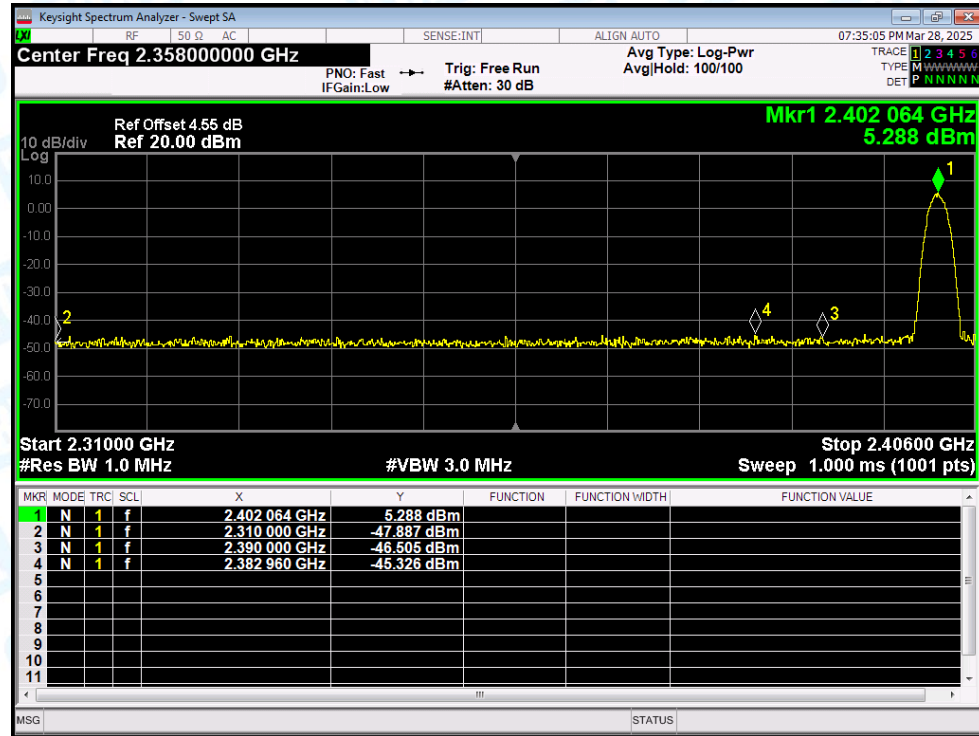
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



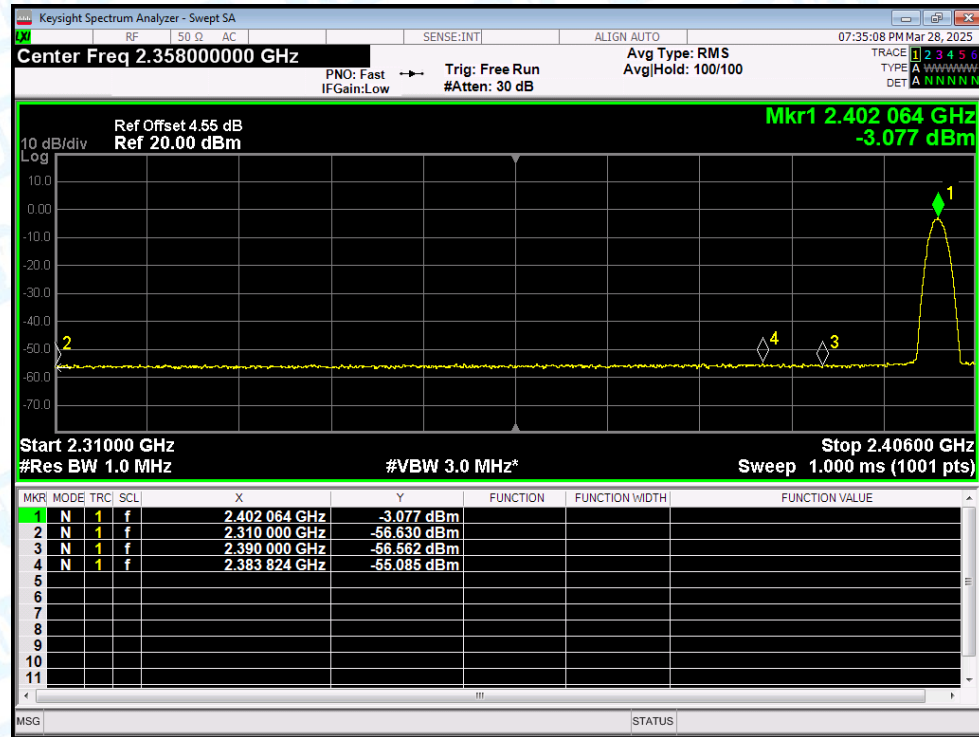
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



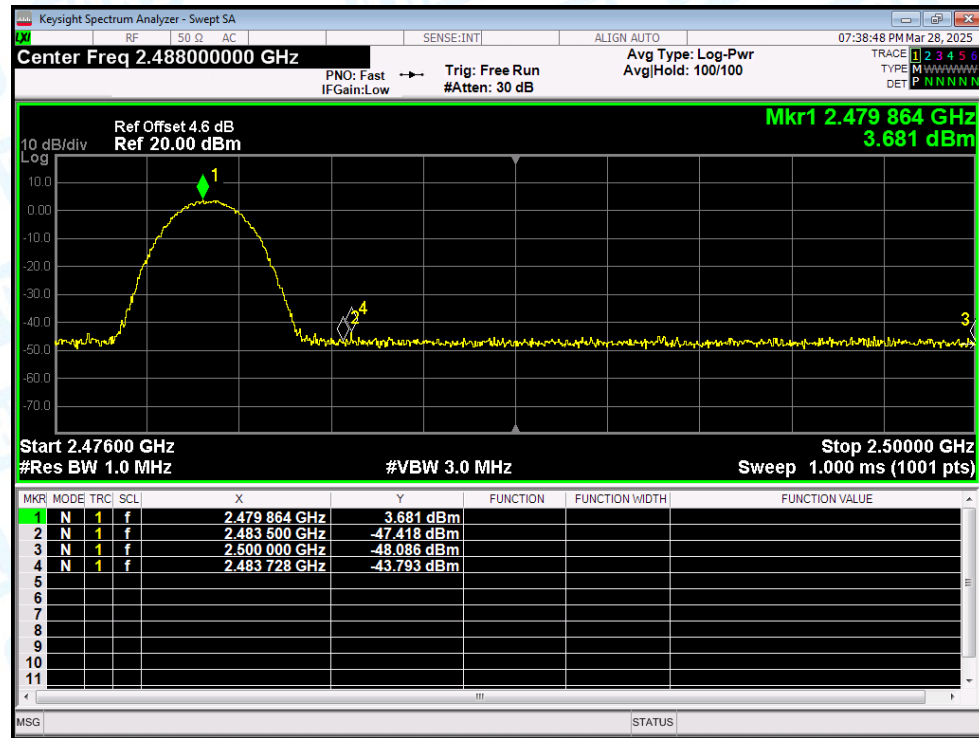
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



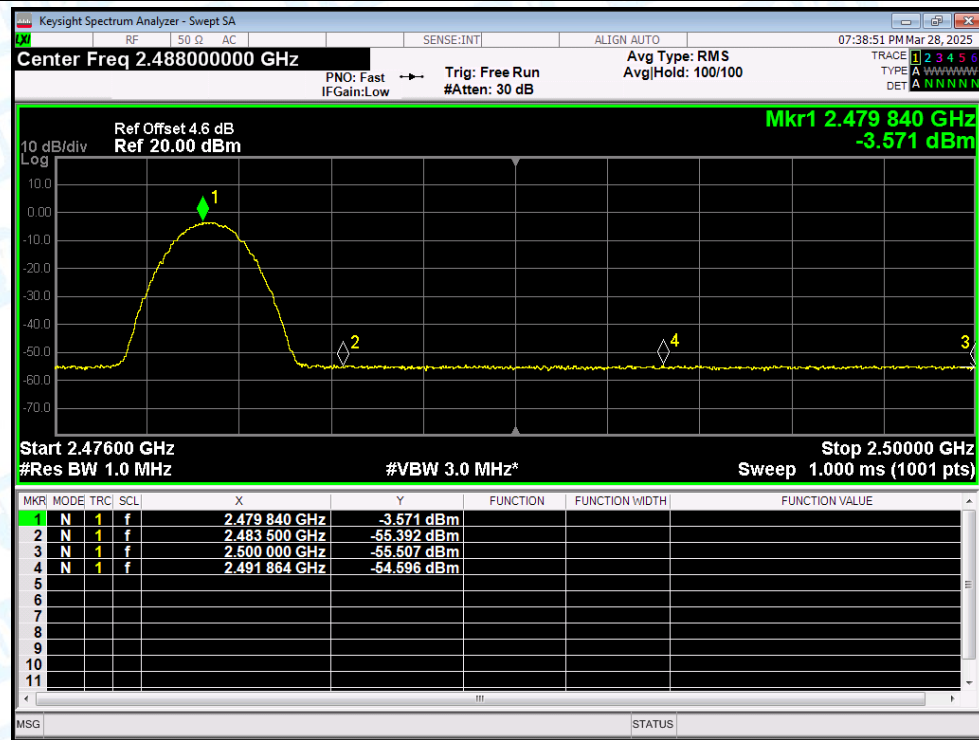
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

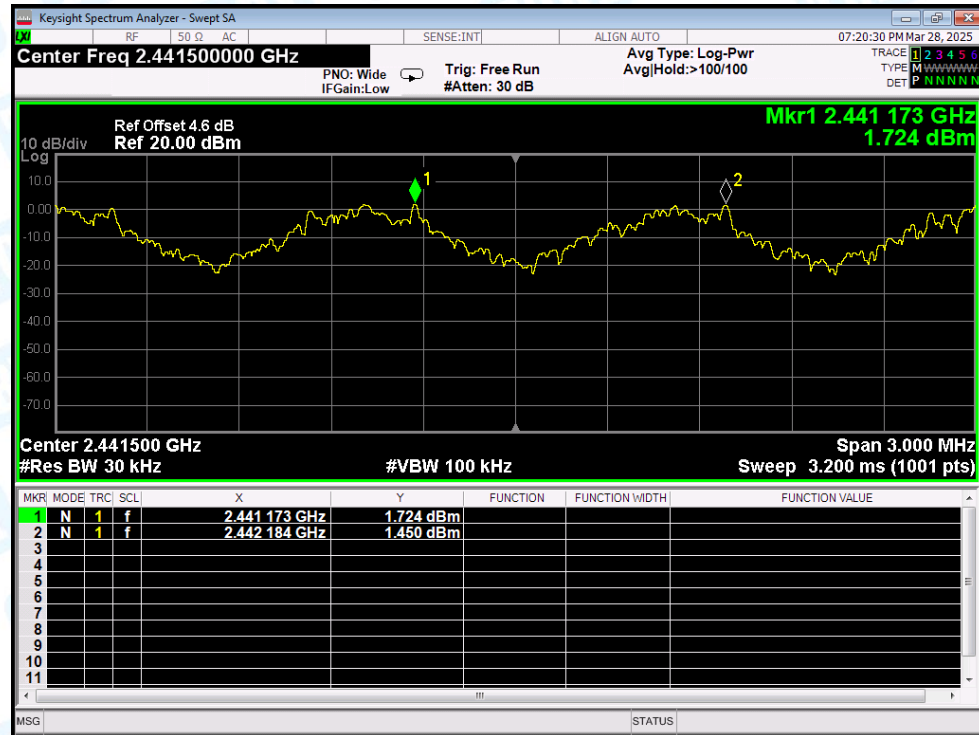


9. Carrier Frequencies Separation

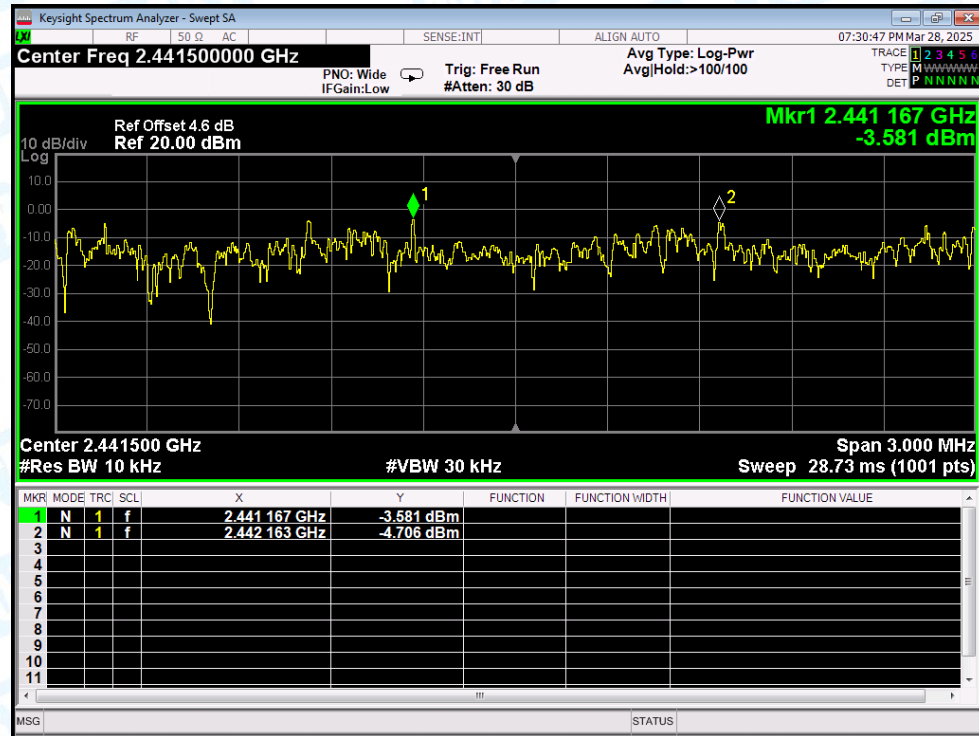
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2441.173	2442.184	1.011	0.62	Pass
NVNT	2-DH1	Ant1	2441.167	2442.163	0.996	0.86	Pass
NVNT	3-DH1	Ant1	2440.834	2441.956	1.122	0.8	Pass

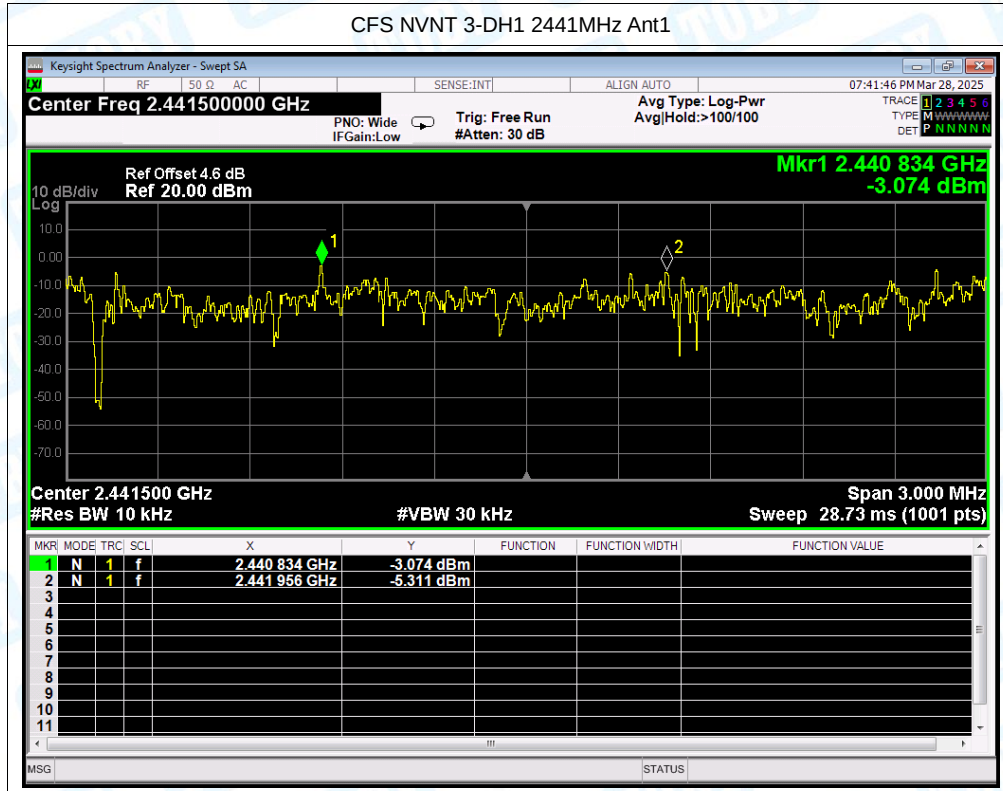
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



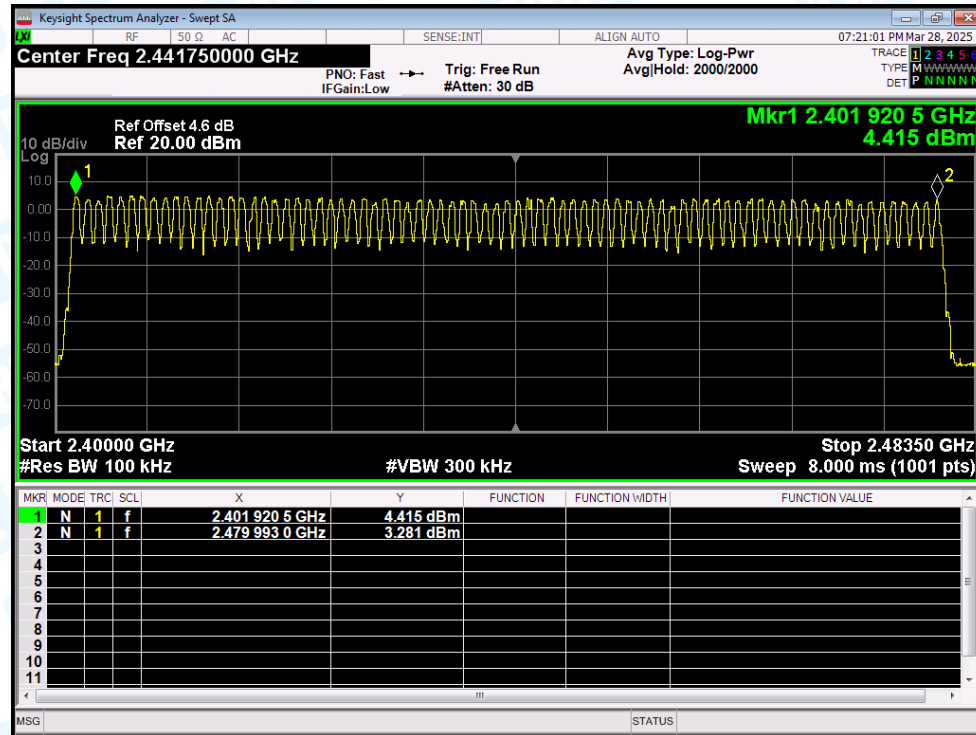


10. Number of Hopping Channel

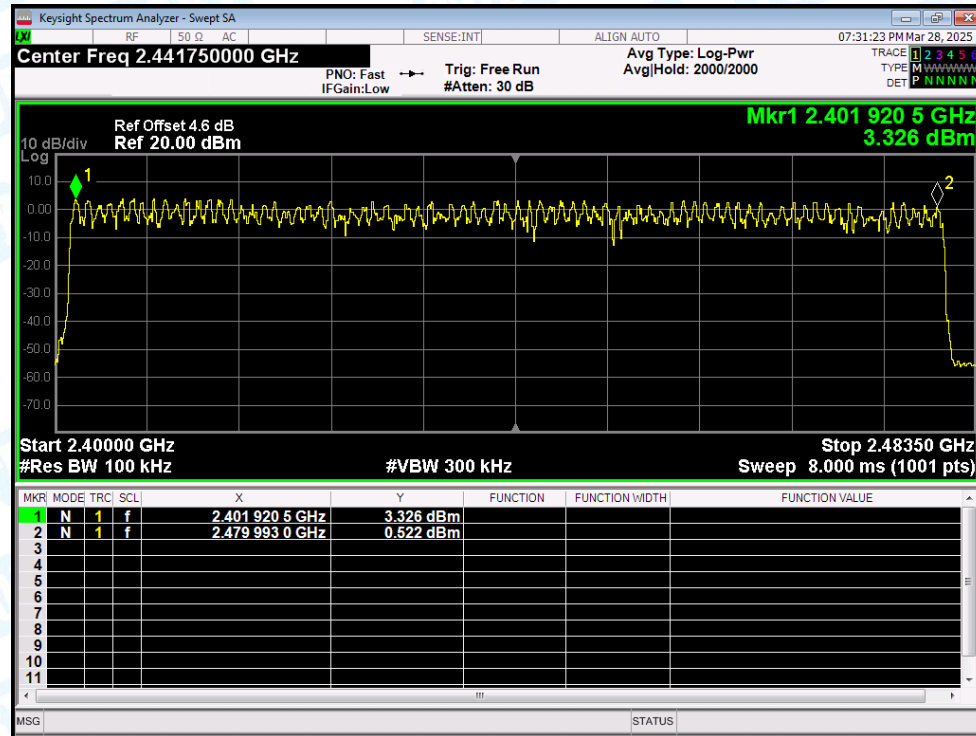
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

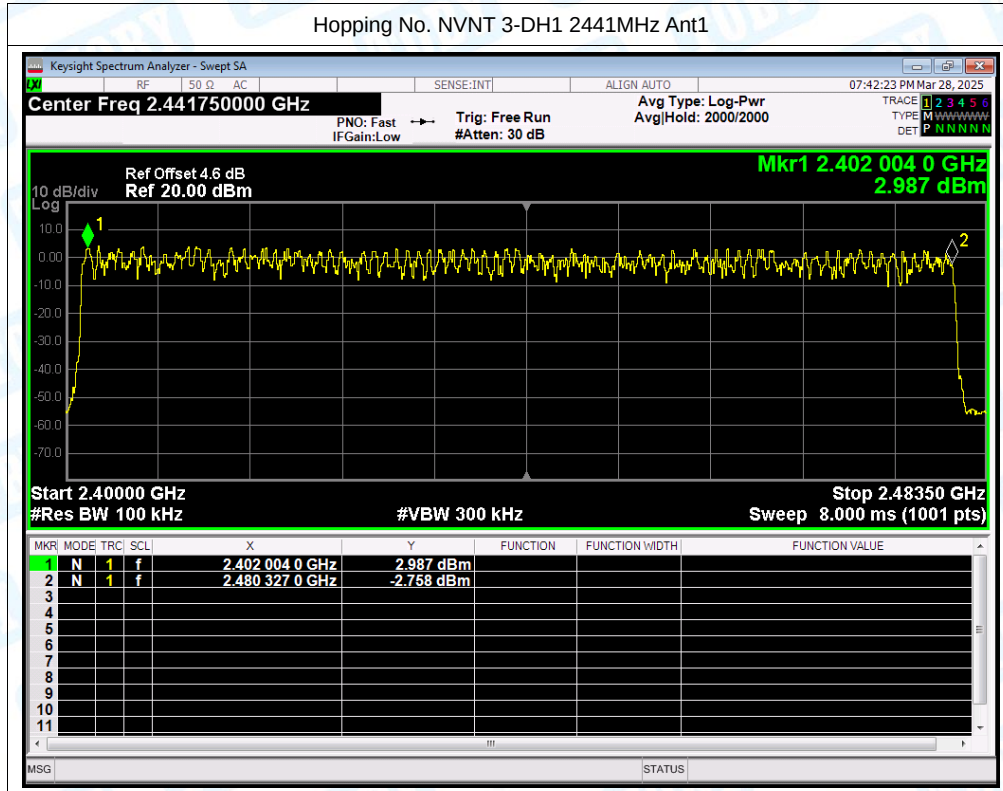
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



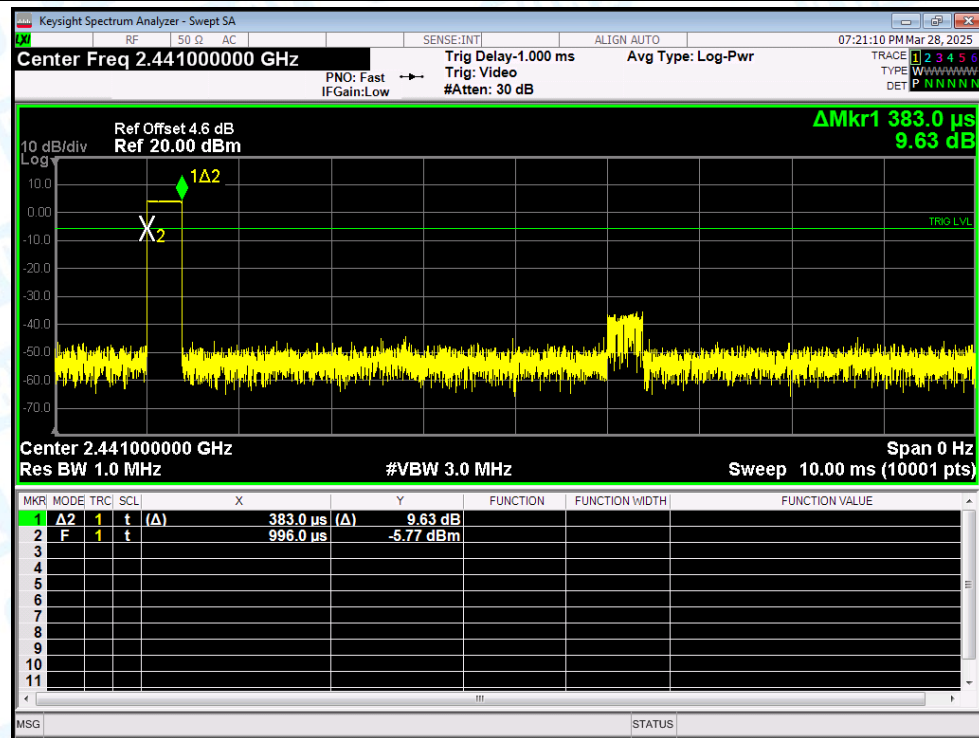


11. Dwell Time

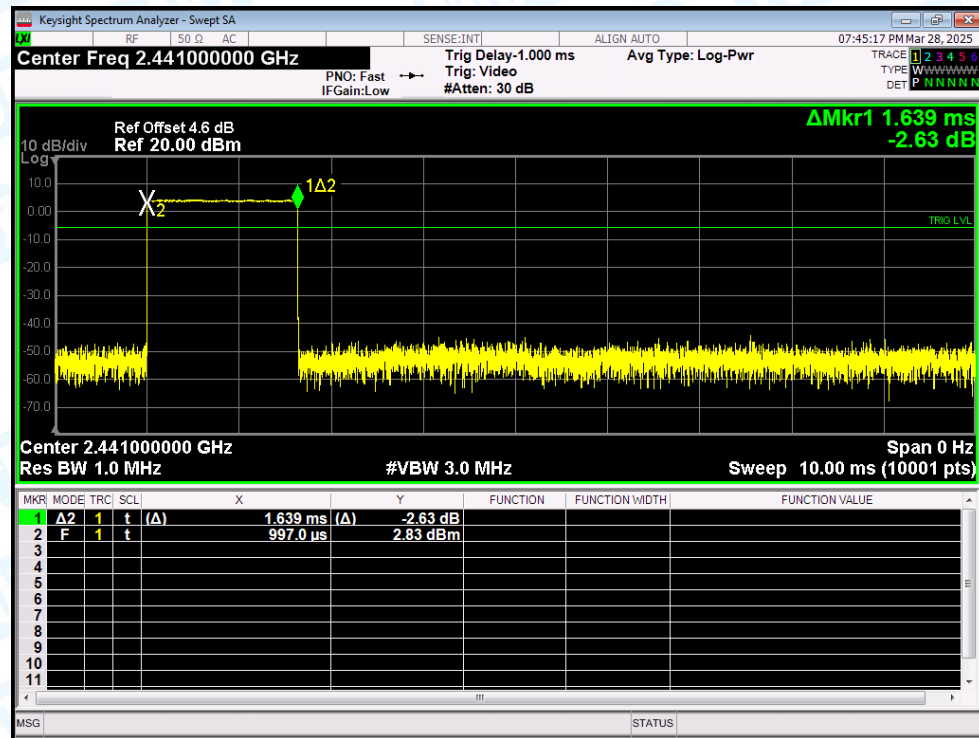
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.383	122.56	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.639	262.24	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.886	307.84	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.391	125.12	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.643	262.88	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.892	308.48	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.392	125.44	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.643	262.88	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.893	308.587	31600	400	Pass

Test Graphs

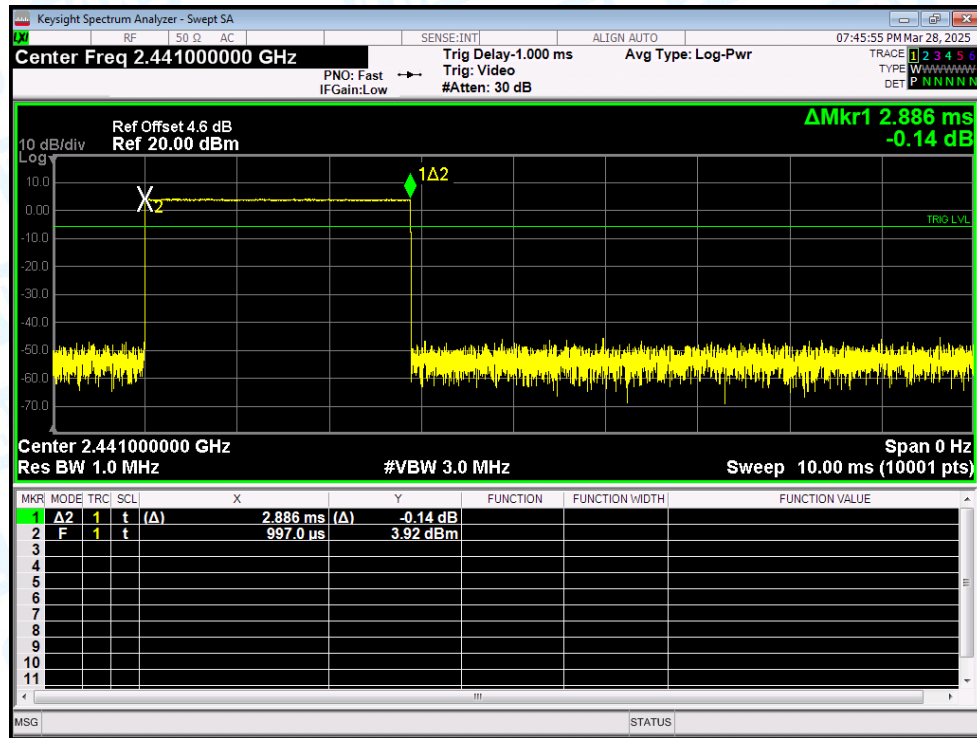
Dwell NVNT 1-DH1 2441MHz Ant1



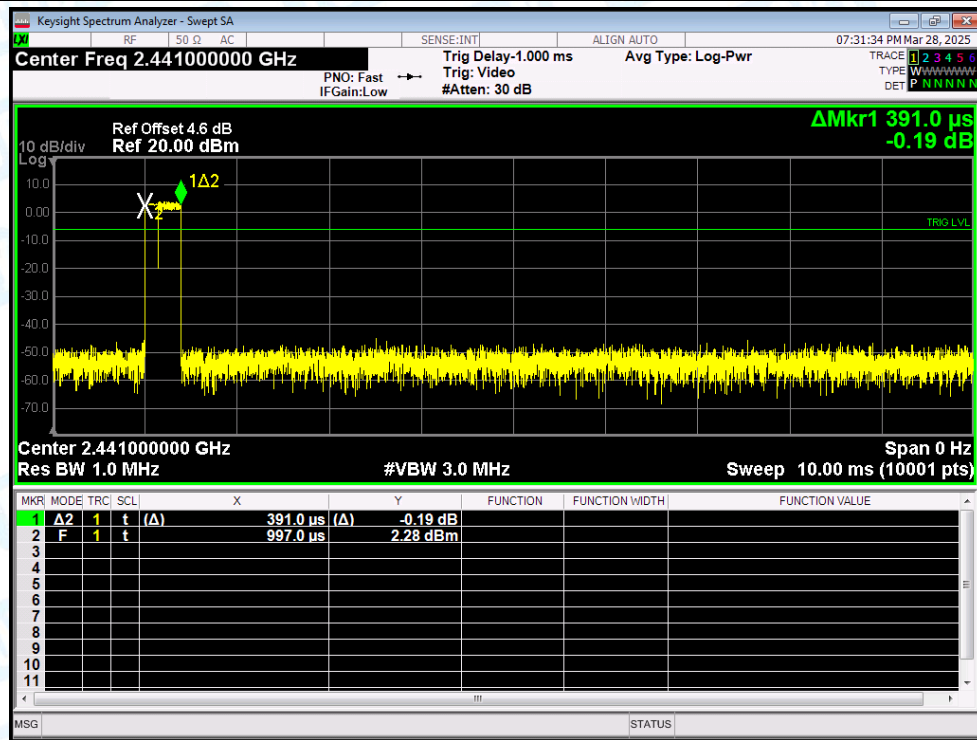
Dwell NVNT 1-DH3 2441MHz Ant1



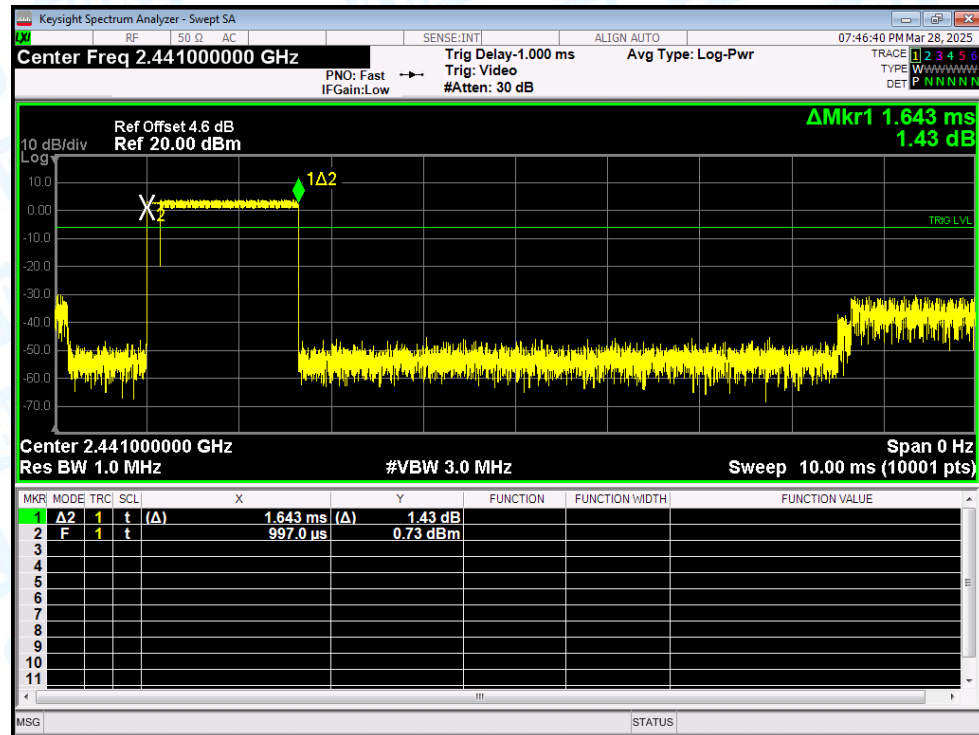
Dwell NVNT 1-DH5 2441MHz Ant1



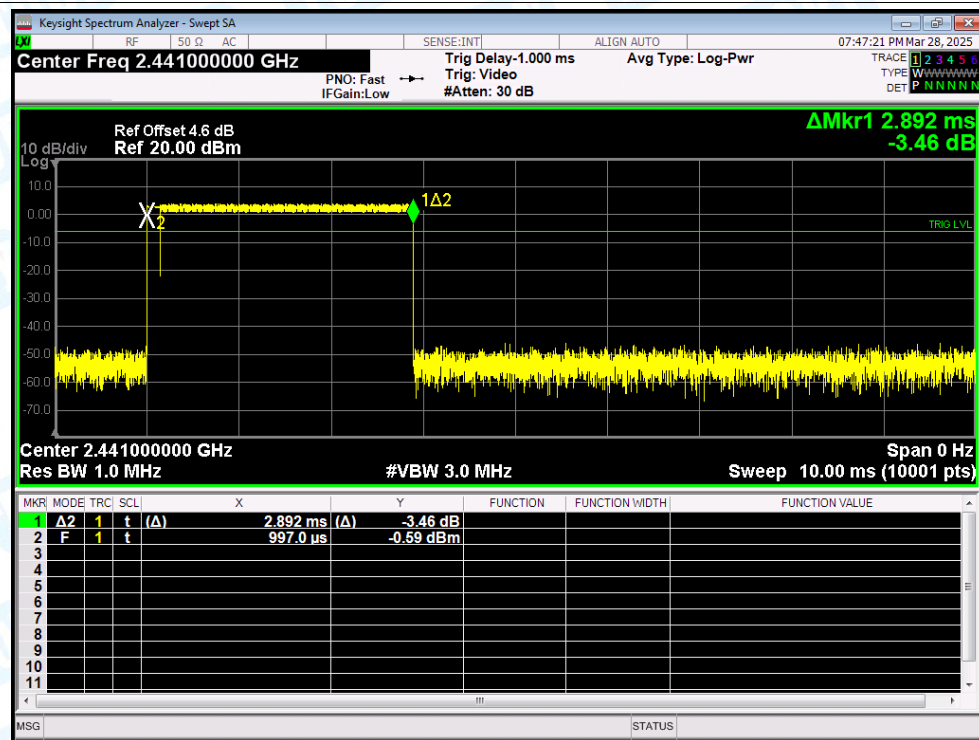
Dwell NVNT 2-DH1 2441MHz Ant1



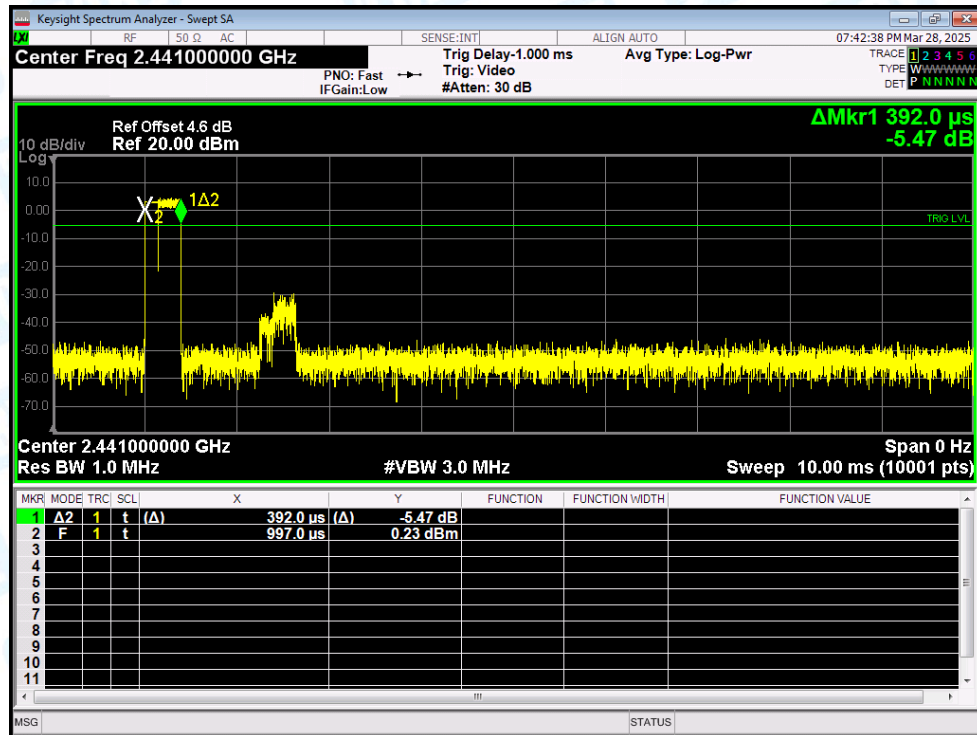
Dwell NVNT 2-DH3 2441MHz Ant1



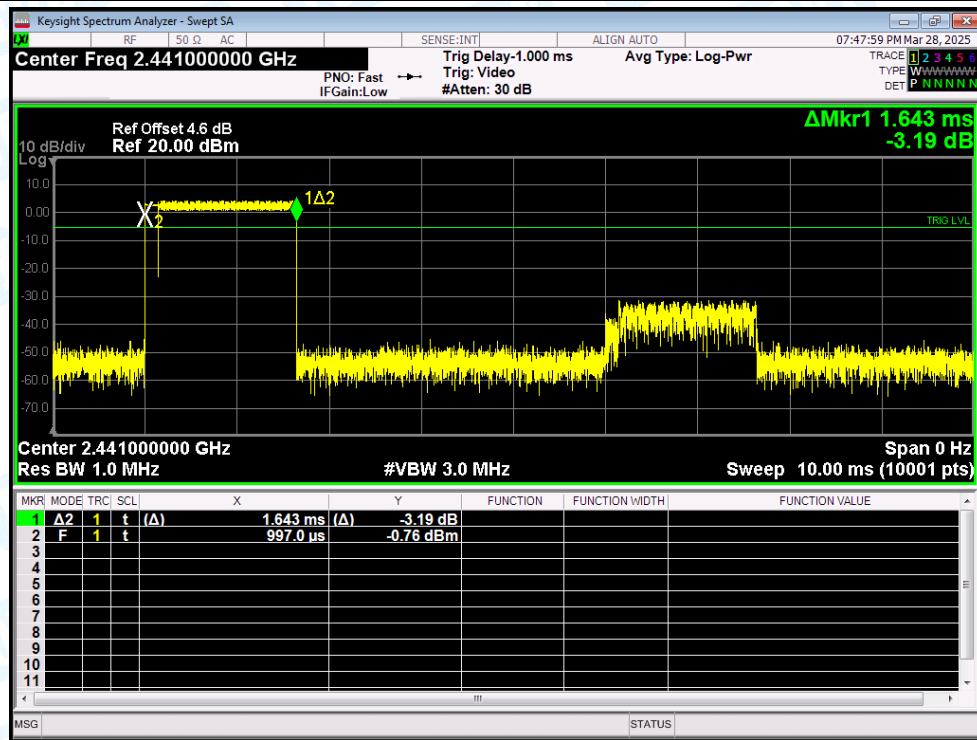
Dwell NVNT 2-DH5 2441MHz Ant1

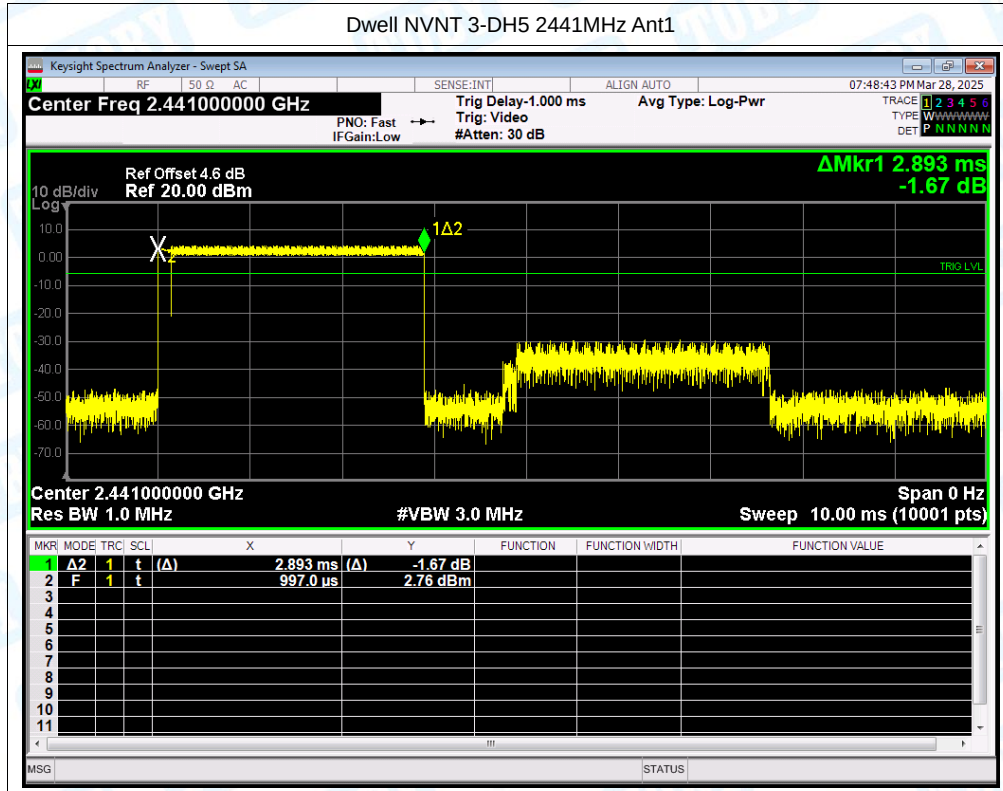


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





--- END OF REPORT ---