

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	SMART WATCH
Test Model:	J126
Sample ID:	HC-C-202503-0216-01-01
Environmental Conditions	
Temperature:	25.6℃
Relative Humidity:	48.6%
Test Voltage:	DC 3.7V
Test Engineer:	Gold zhang
Note: For a more detailed features description, please refer to the report TBR-C-202503-0216-15 The report only show the worst case data.	

Contents

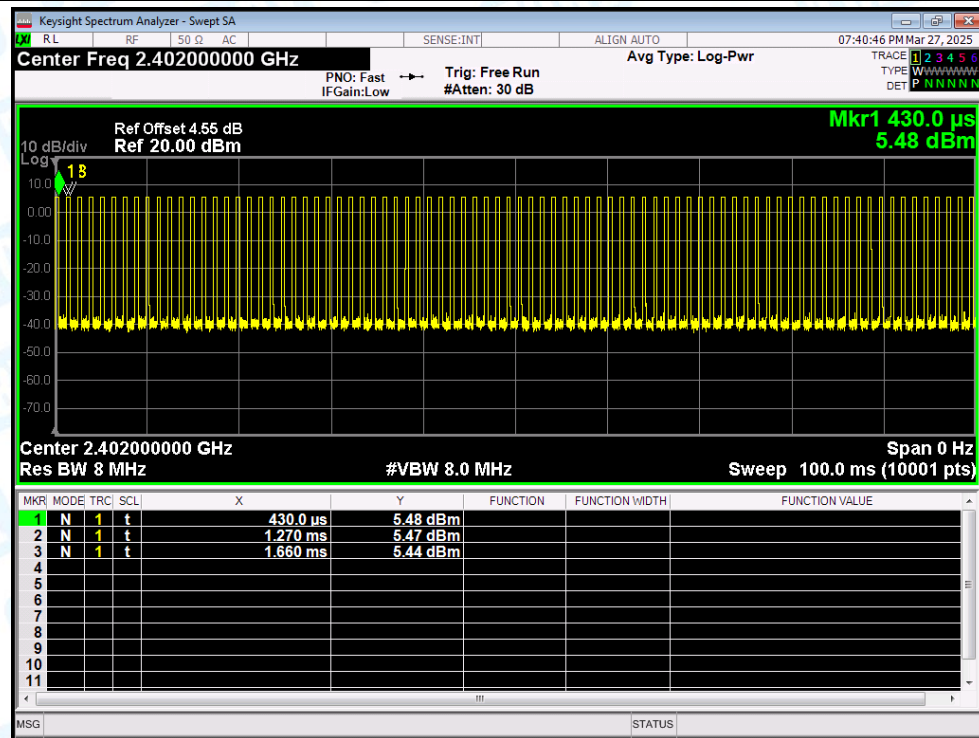
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1. Duty Cycle

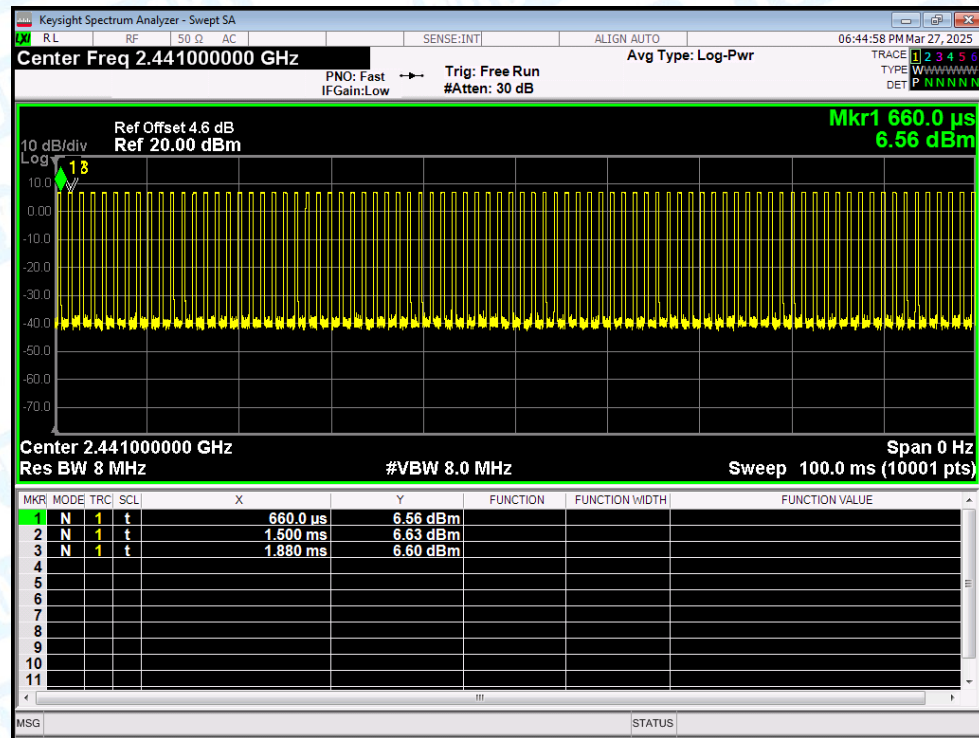
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	31.71	4.99	2.56
NVNT	1-DH1	2441	Ant1	31.15	5.07	2.63
NVNT	1-DH1	2480	Ant1	31.71	4.99	2.56
NVNT	2-DH1	2402	Ant1	31.71	4.99	2.56
NVNT	2-DH1	2441	Ant1	31.71	4.99	2.56
NVNT	2-DH1	2480	Ant1	31.71	4.99	2.56
NVNT	3-DH1	2402	Ant1	32.26	4.91	2.5
NVNT	3-DH1	2441	Ant1	31.71	4.99	2.56
NVNT	3-DH1	2480	Ant1	31.71	4.99	2.56

Test Graphs

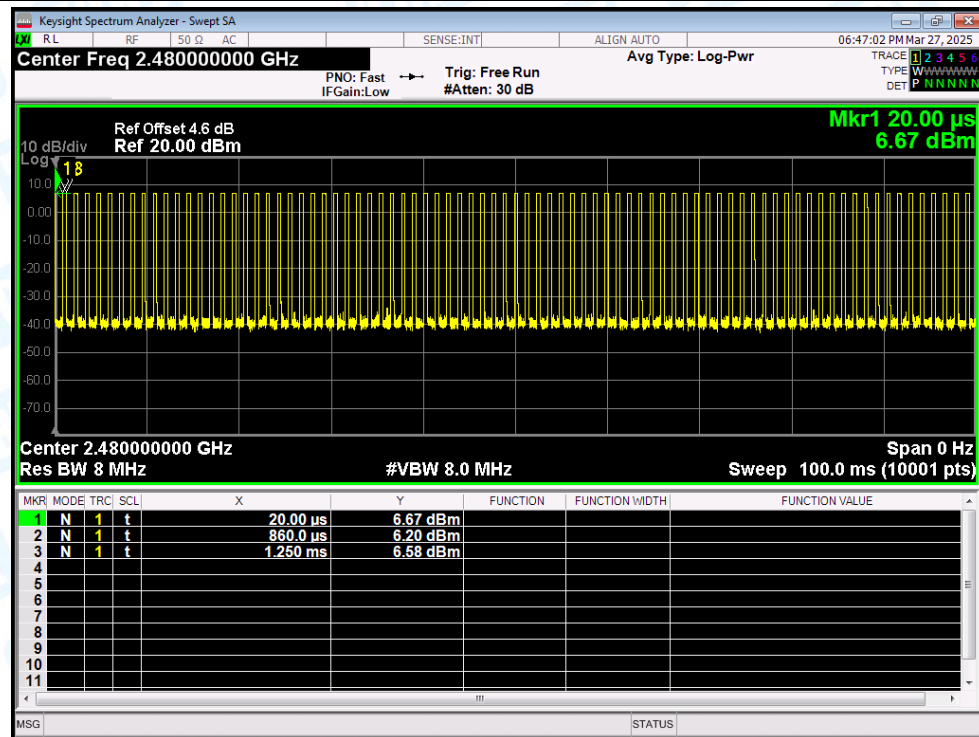
Duty Cycle NVNT 1-DH1 2402MHz Ant1



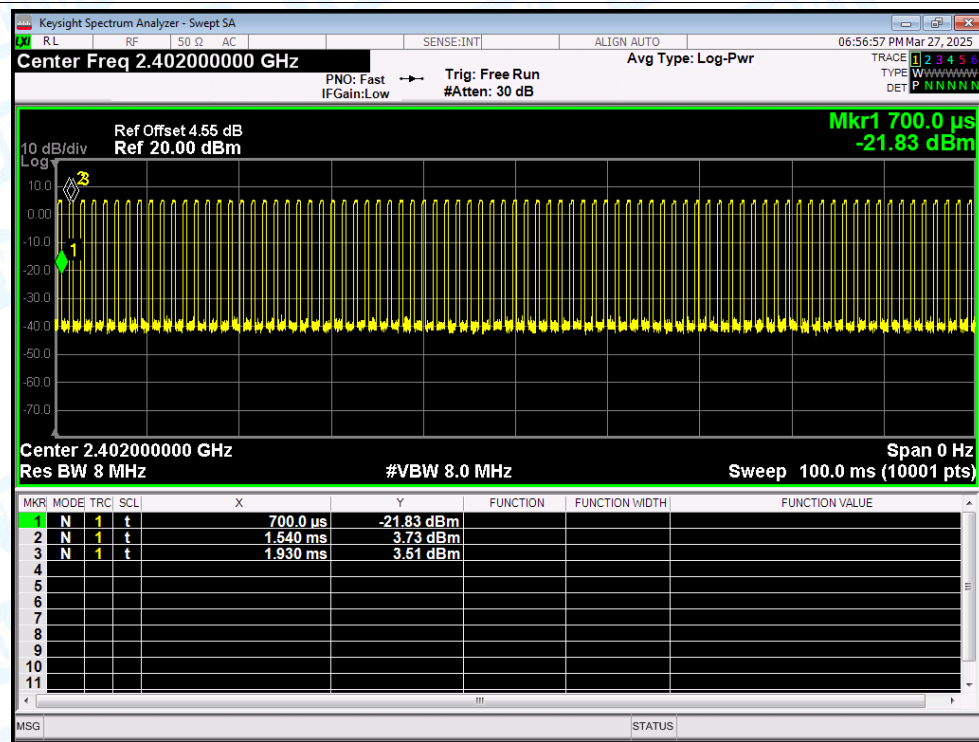
Duty Cycle NVNT 1-DH1 2441MHz Ant1



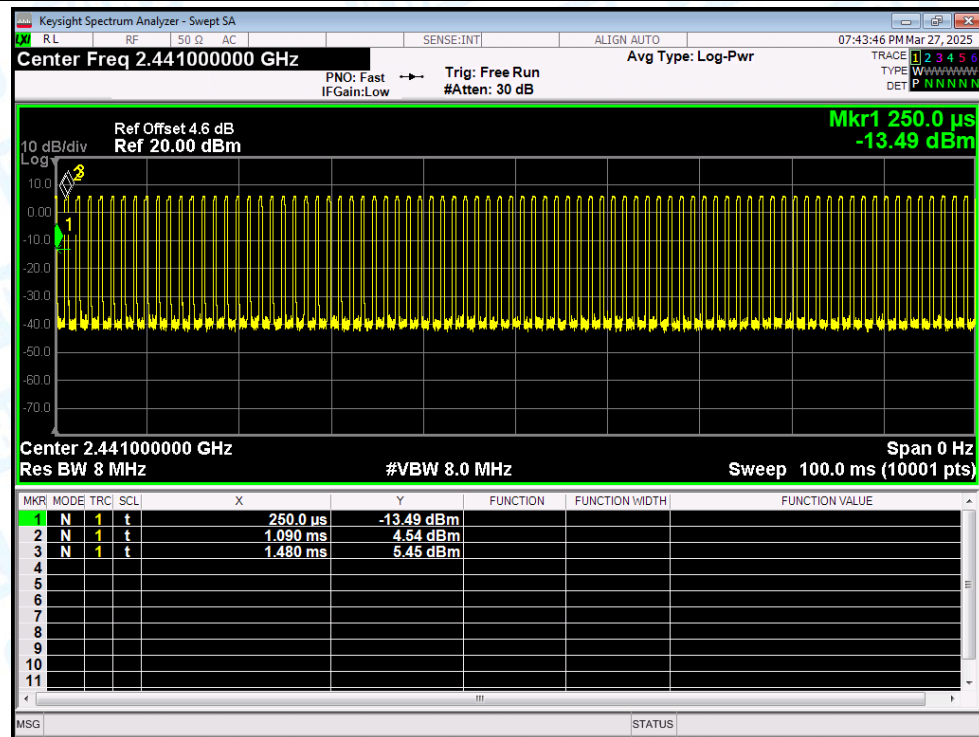
Duty Cycle NVNT 1-DH1 2480MHz Ant1



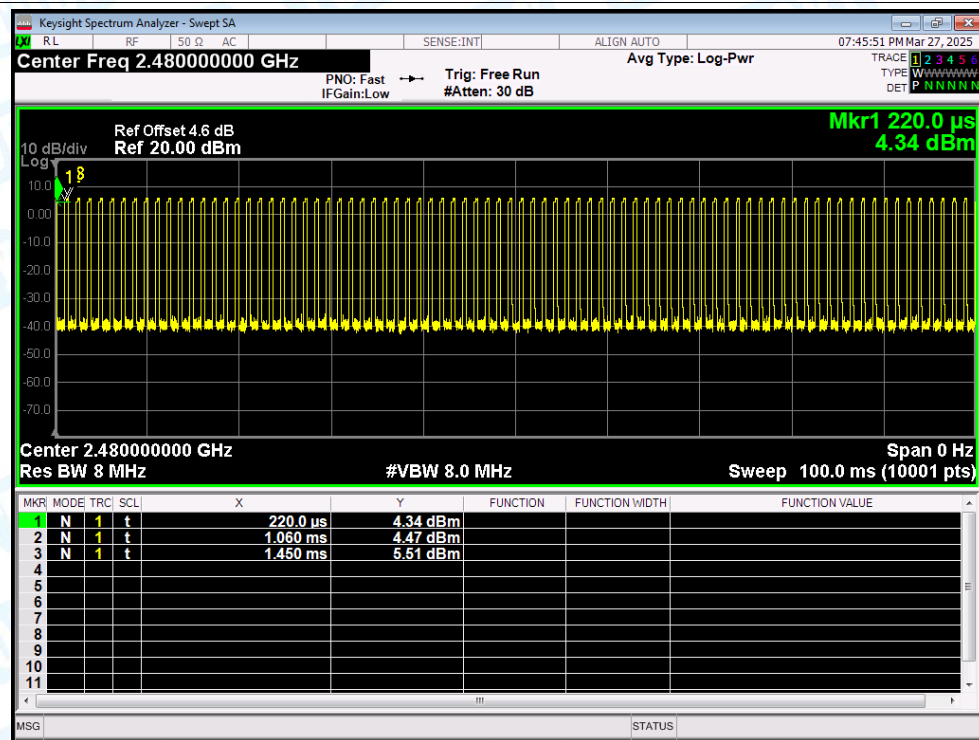
Duty Cycle NVNT 2-DH1 2402MHz Ant1



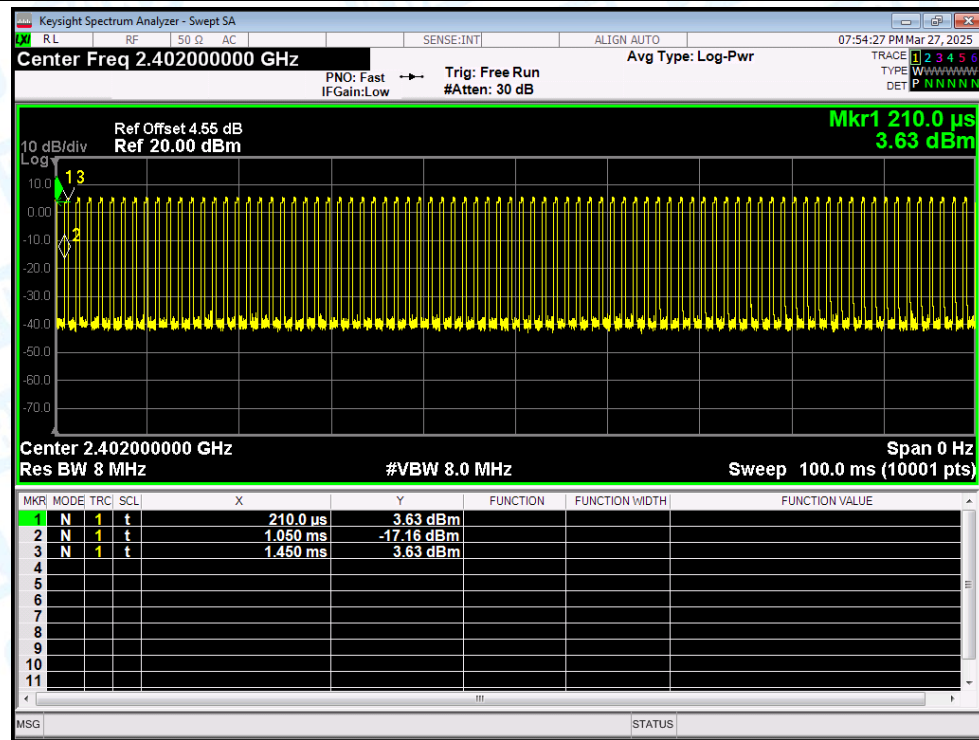
Duty Cycle NVNT 2-DH1 2441MHz Ant1



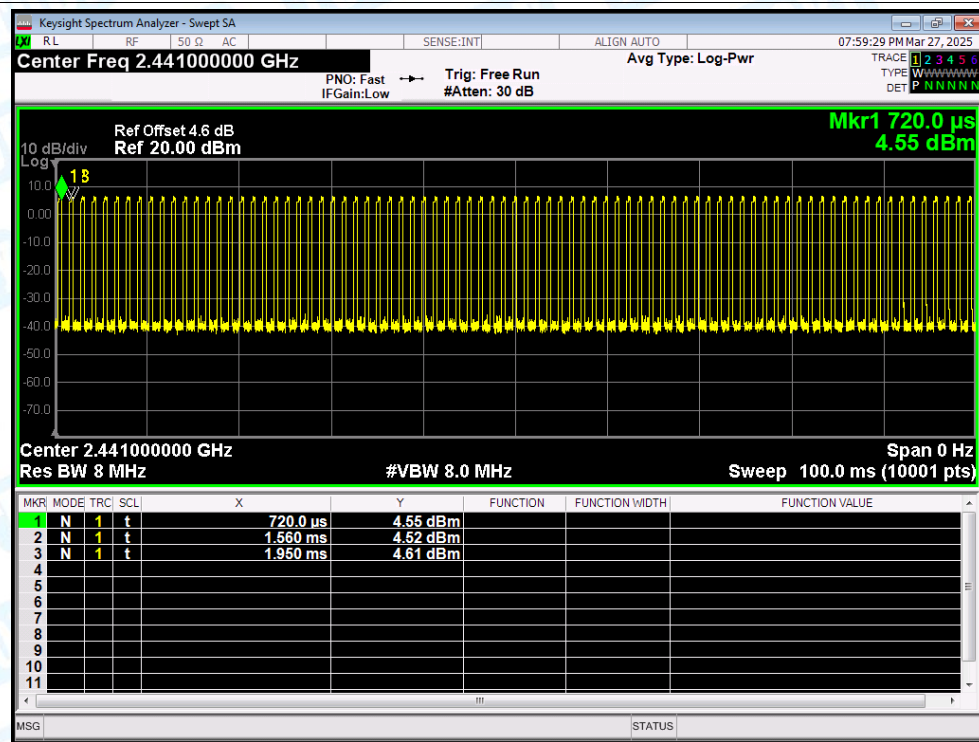
Duty Cycle NVNT 2-DH1 2480MHz Ant1

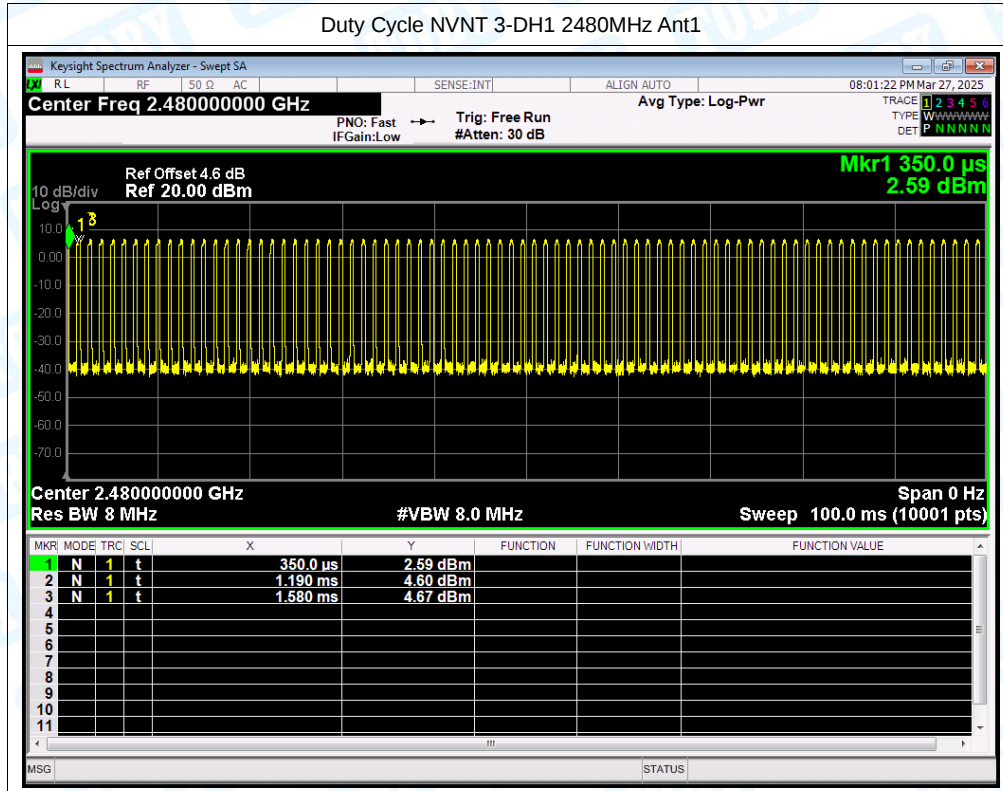


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



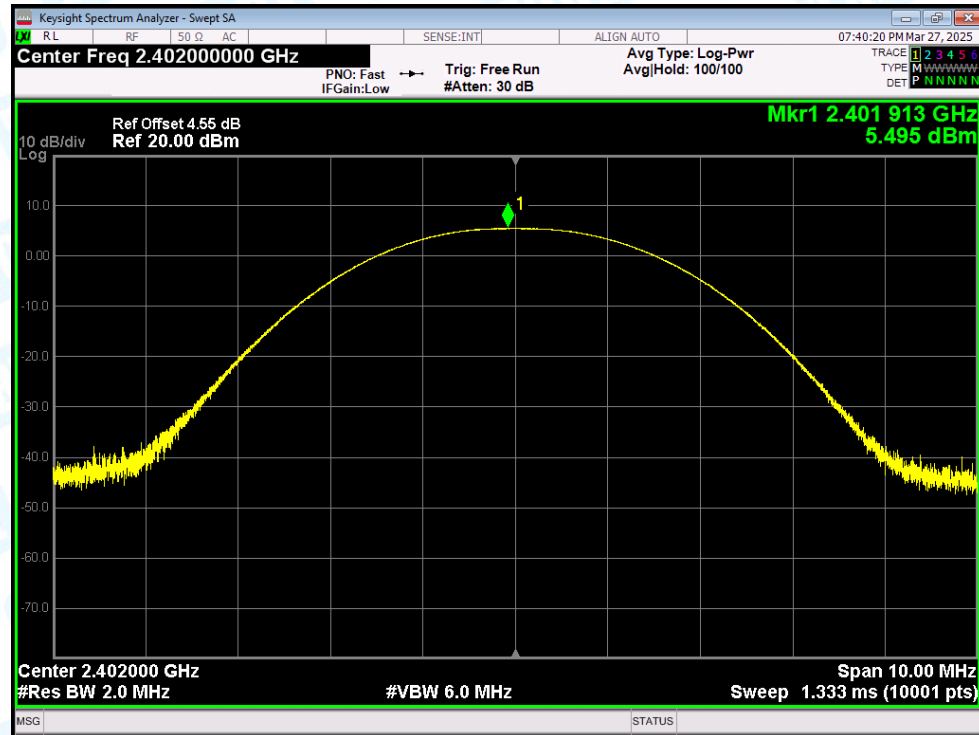


2. Maximum Conducted Output Power

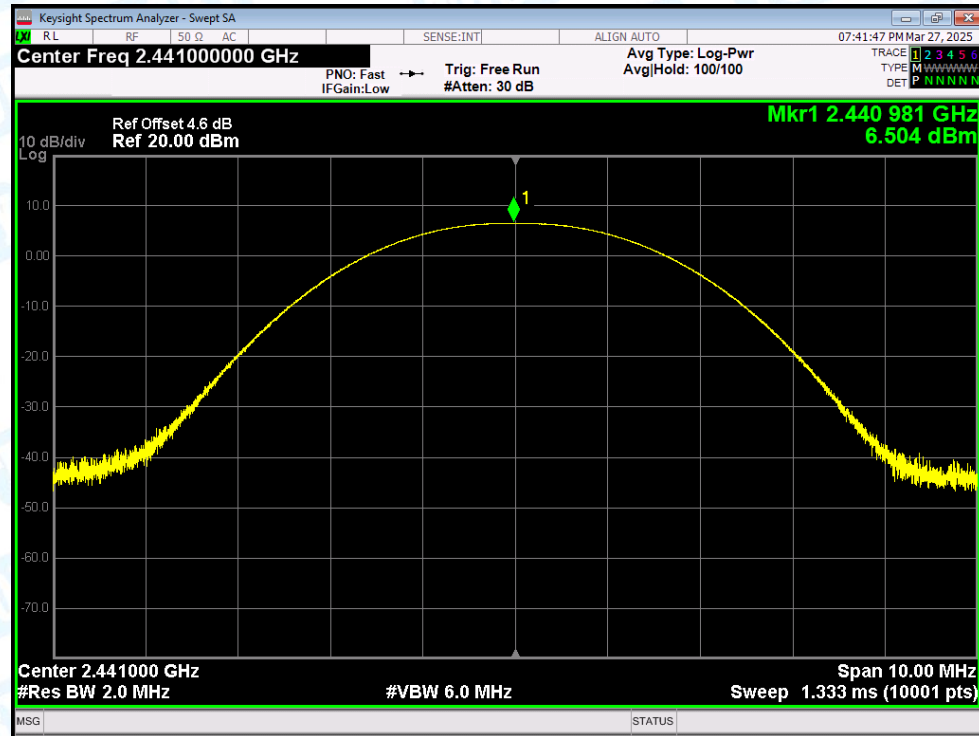
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	5.495	21	Pass
NVNT	1-DH1	2441	Ant1	6.504	21	Pass
NVNT	1-DH1	2480	Ant1	6.709	21	Pass
NVNT	2-DH1	2402	Ant1	4.961	21	Pass
NVNT	2-DH1	2441	Ant1	5.702	21	Pass
NVNT	2-DH1	2480	Ant1	5.729	21	Pass
NVNT	3-DH1	2402	Ant1	5.349	21	Pass
NVNT	3-DH1	2441	Ant1	6.262	21	Pass
NVNT	3-DH1	2480	Ant1	6.304	21	Pass

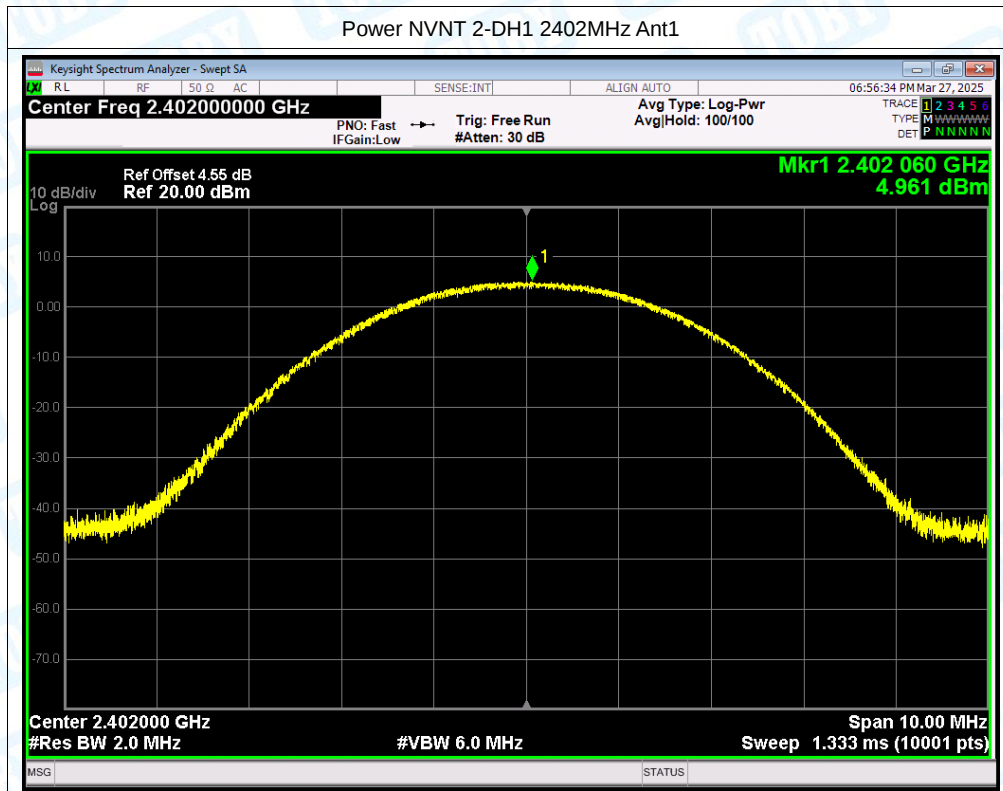
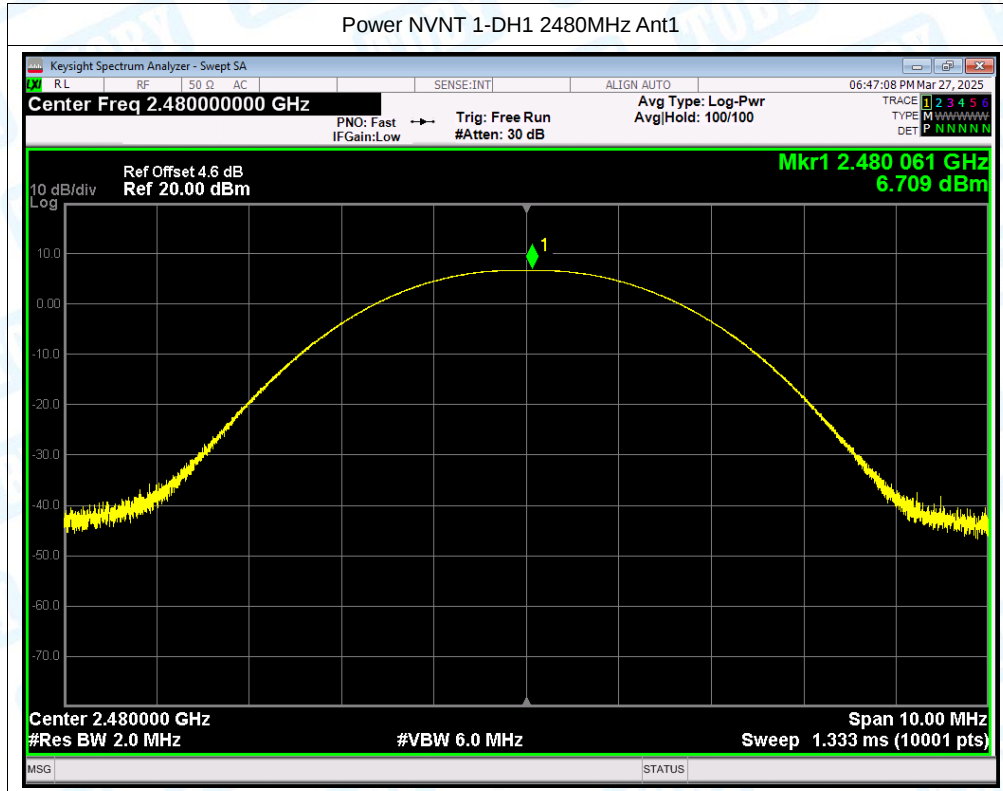
Test Graphs

Power NVNT 1-DH1 2402MHz Ant1

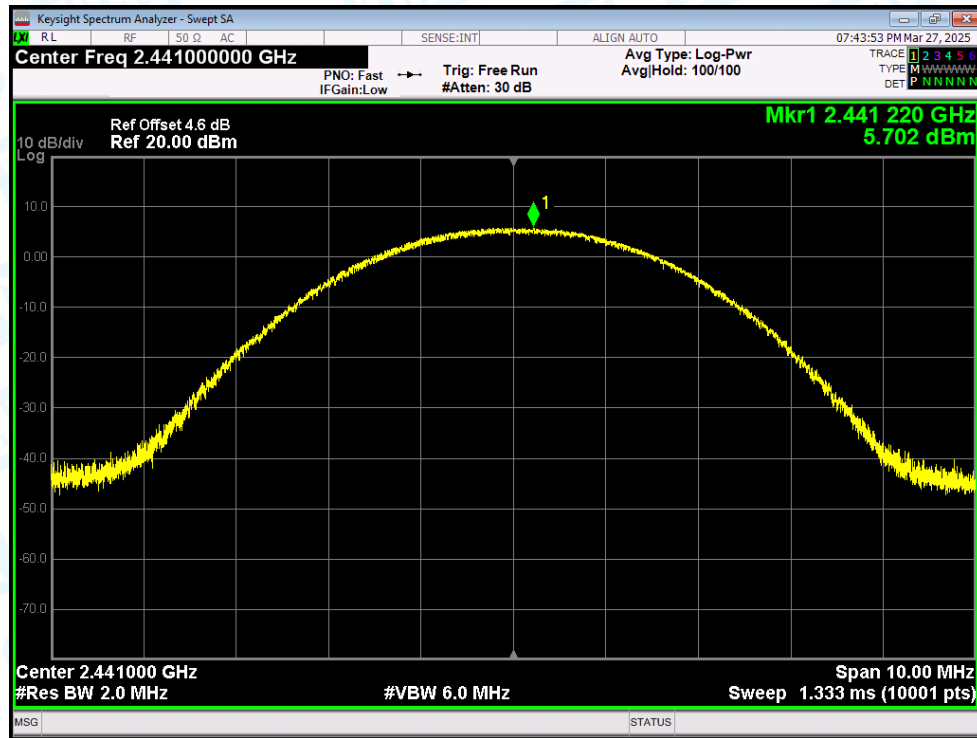


Power NVNT 1-DH1 2441MHz Ant1

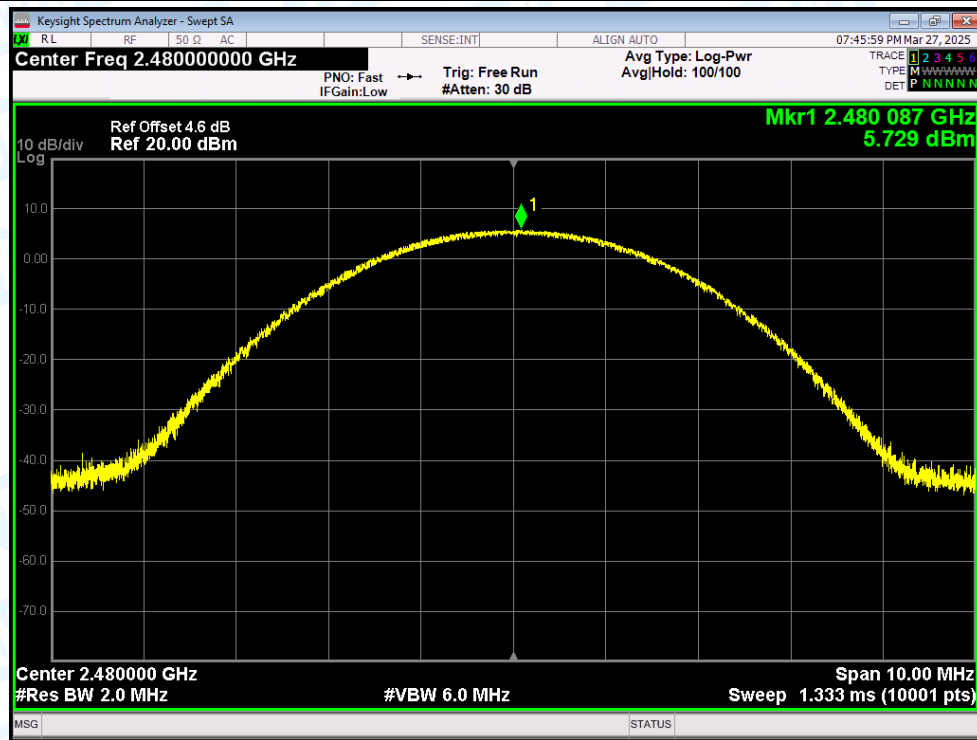




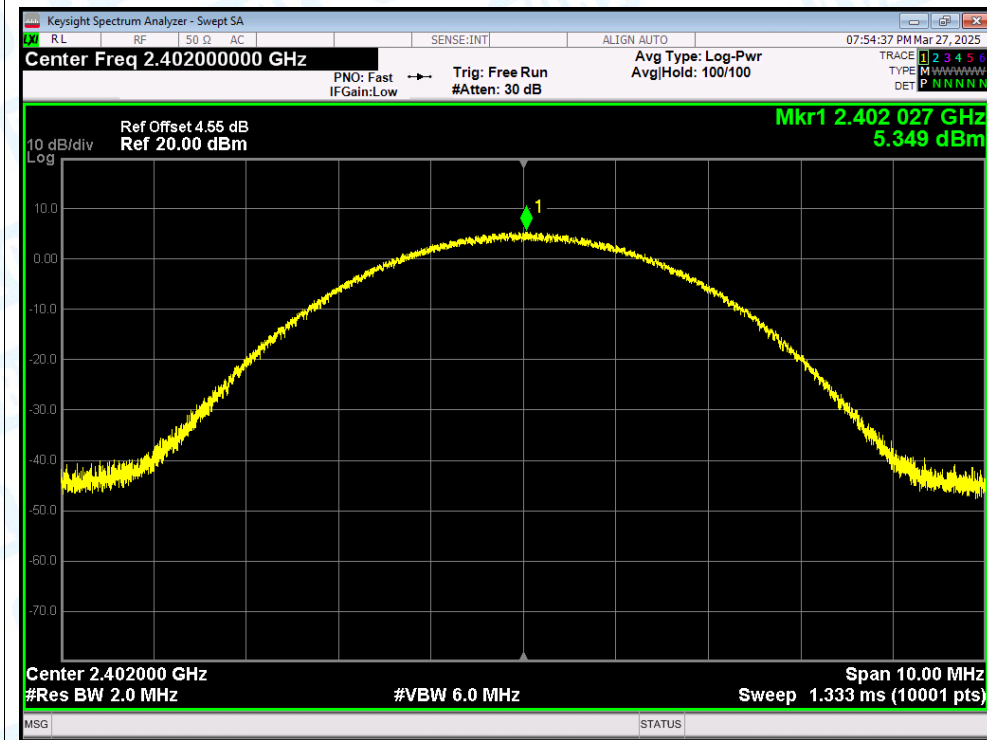
Power NVNT 2-DH1 2441MHz Ant1



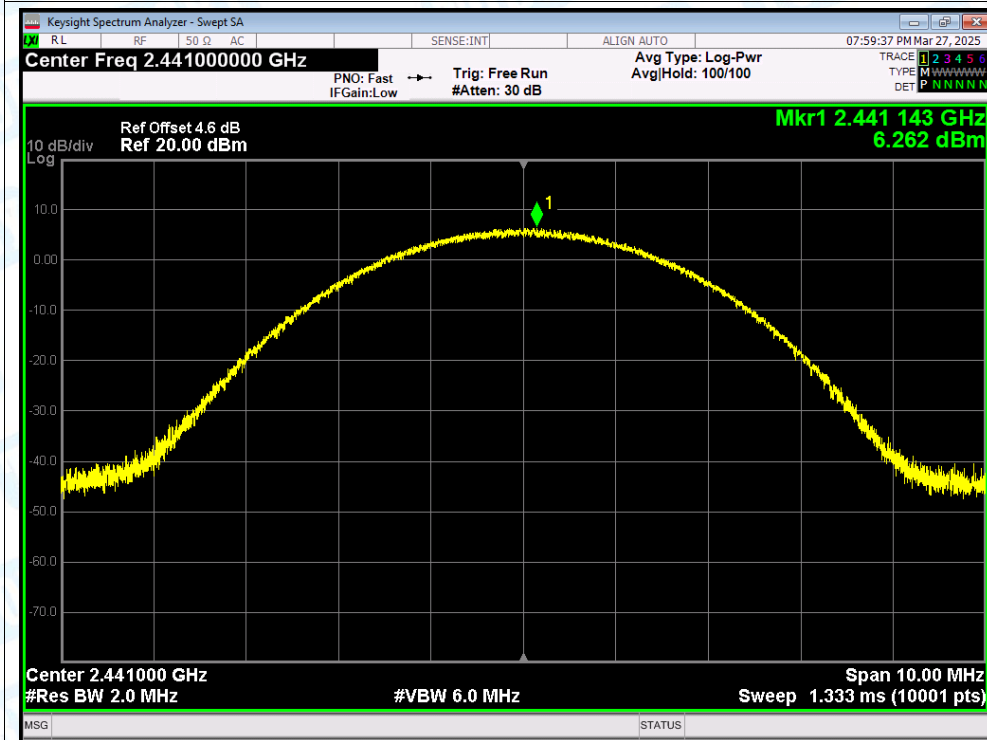
Power NVNT 2-DH1 2480MHz Ant1

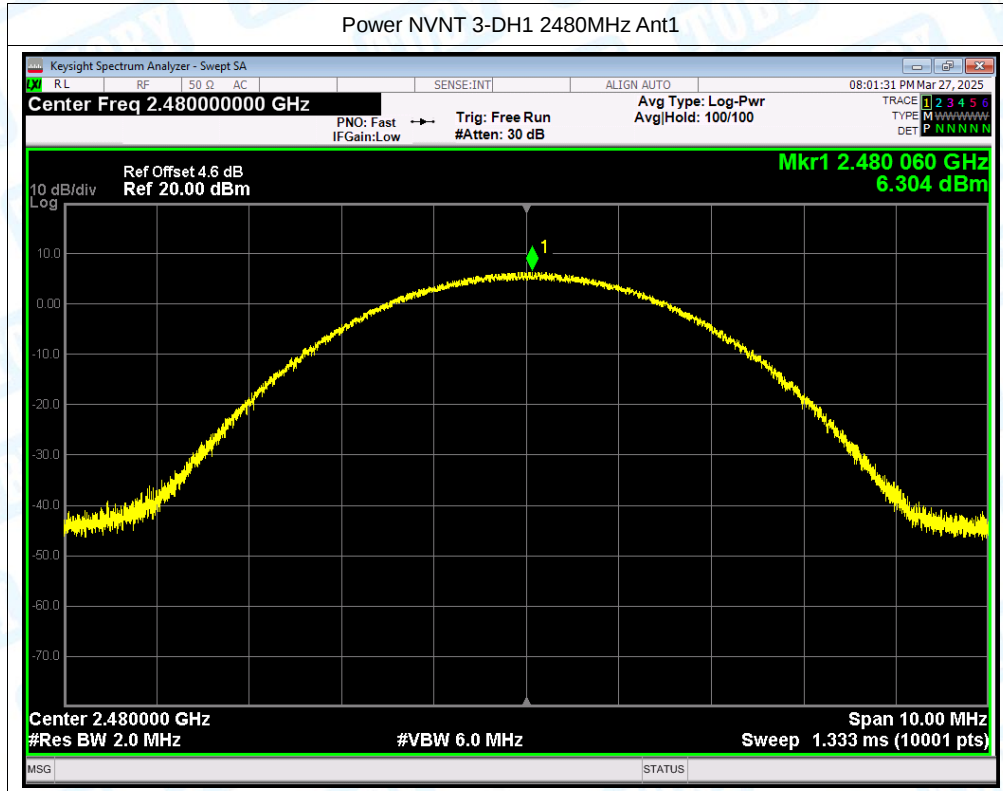


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



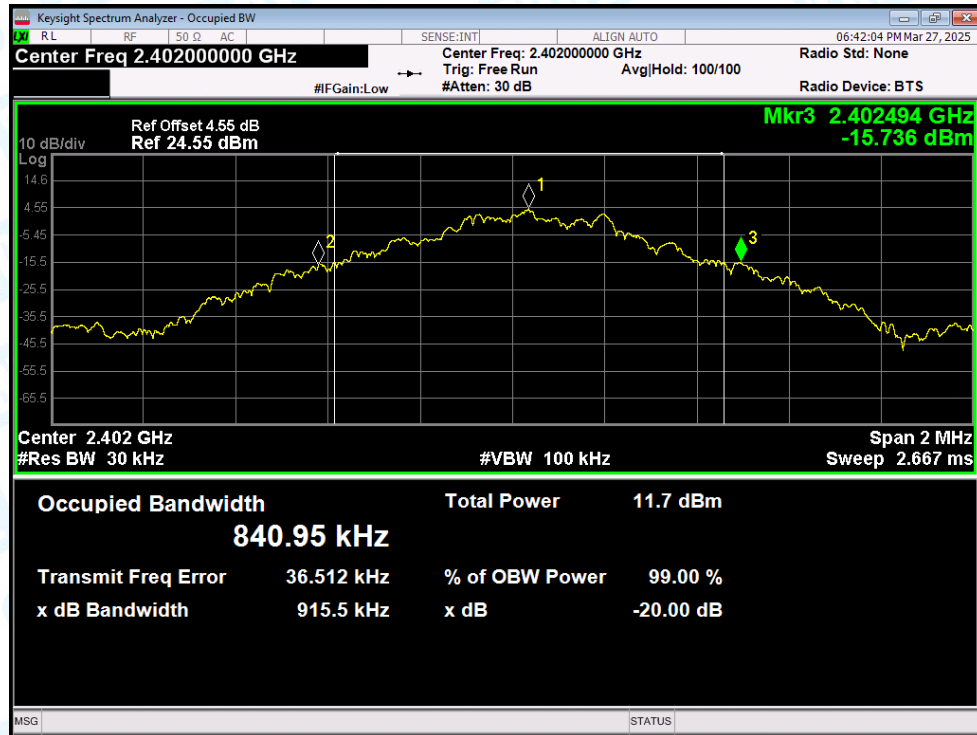


3. -20dB Bandwidth

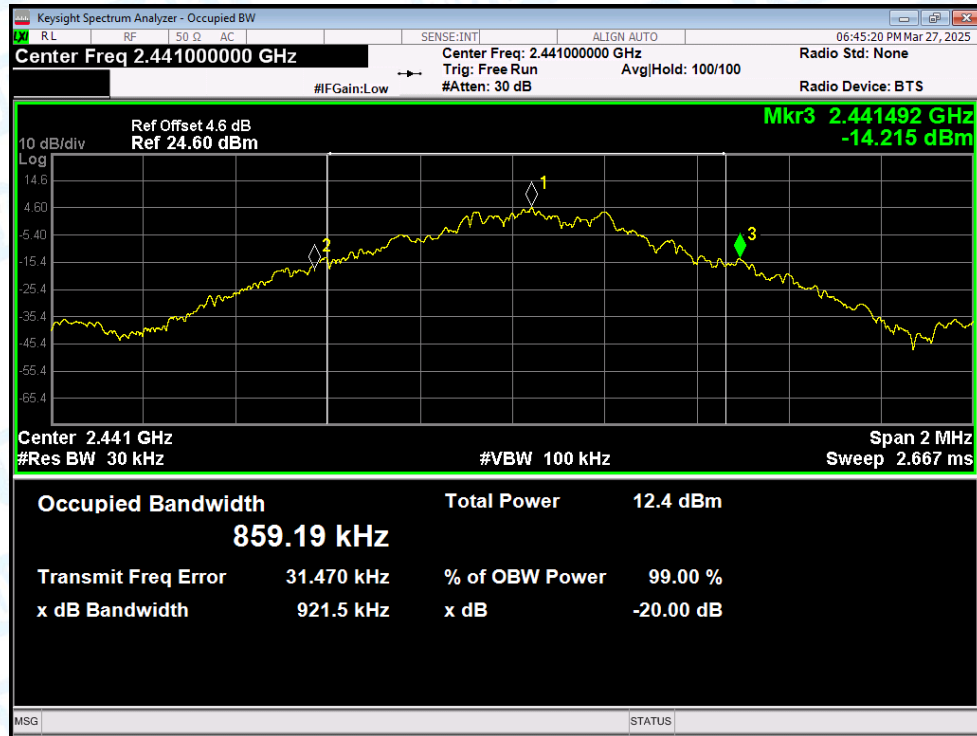
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.92	0	Pass
NVNT	1-DH1	2441	Ant1	0.92	0	Pass
NVNT	1-DH1	2480	Ant1	0.92	0	Pass
NVNT	2-DH1	2402	Ant1	1.23	0	Pass
NVNT	2-DH1	2441	Ant1	1.24	0	Pass
NVNT	2-DH1	2480	Ant1	1.21	0	Pass
NVNT	3-DH1	2402	Ant1	1.2	0	Pass
NVNT	3-DH1	2441	Ant1	1.2	0	Pass
NVNT	3-DH1	2480	Ant1	1.21	0	Pass

Test Graphs

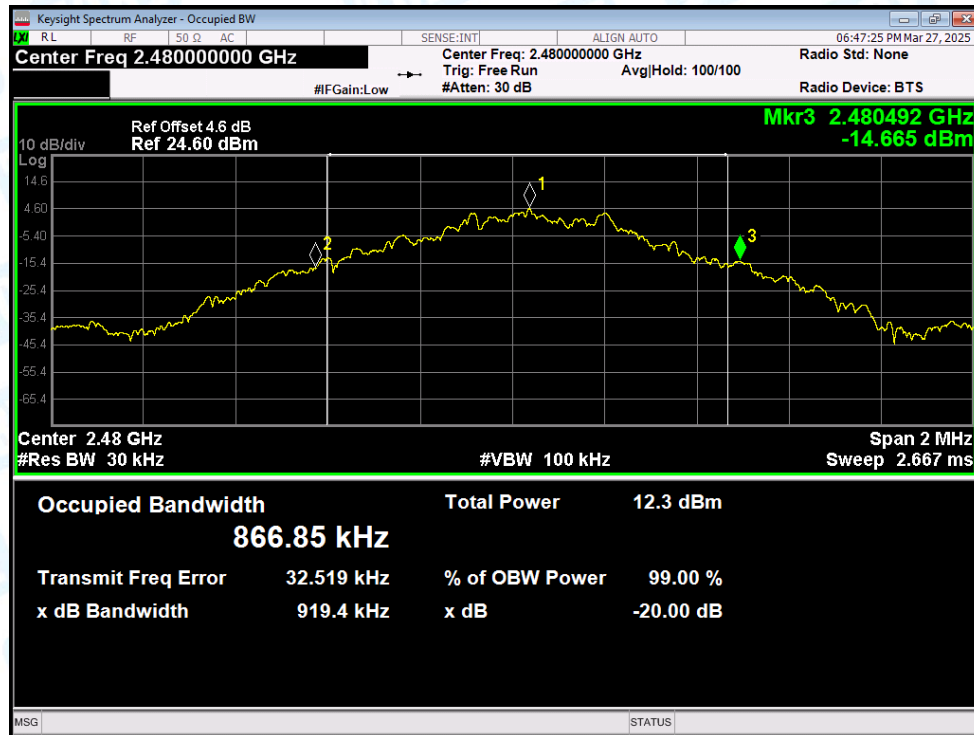
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



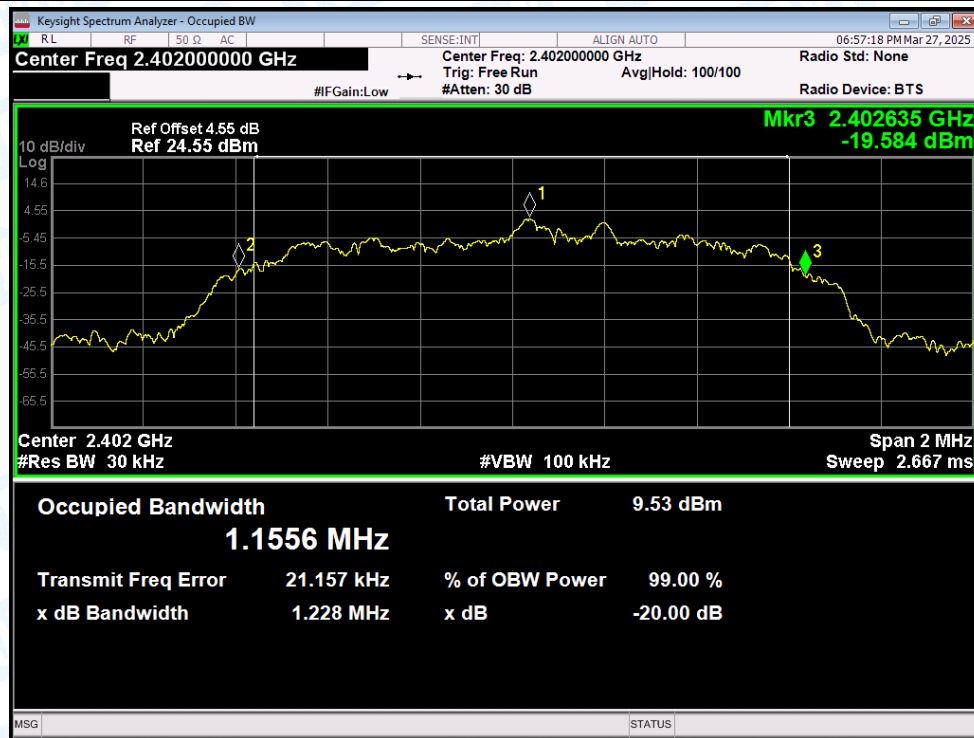
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



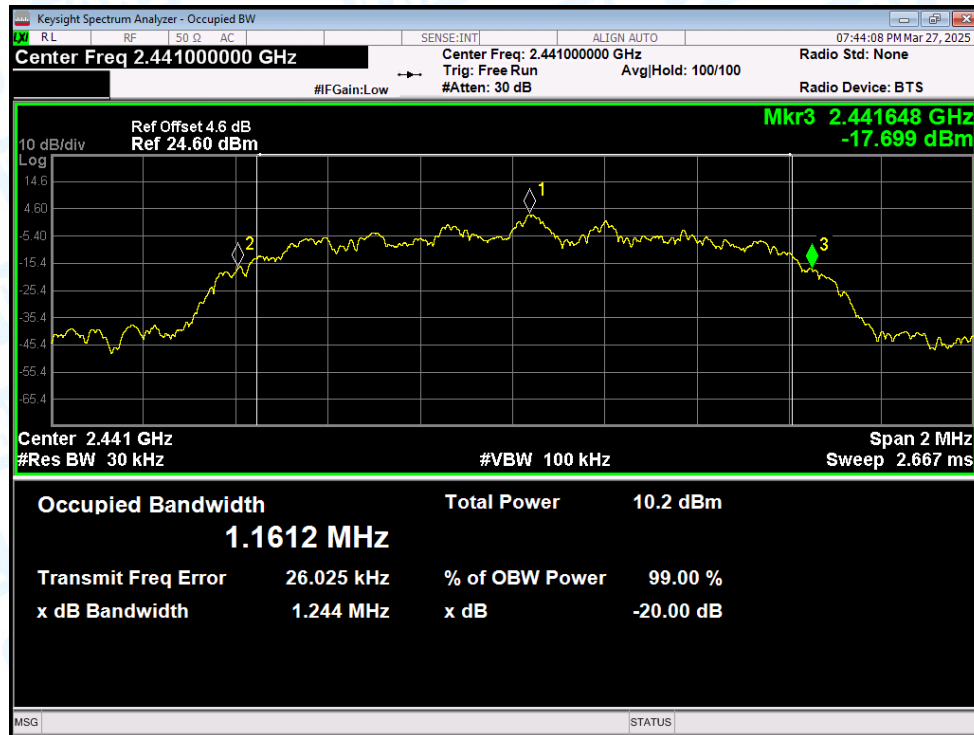
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



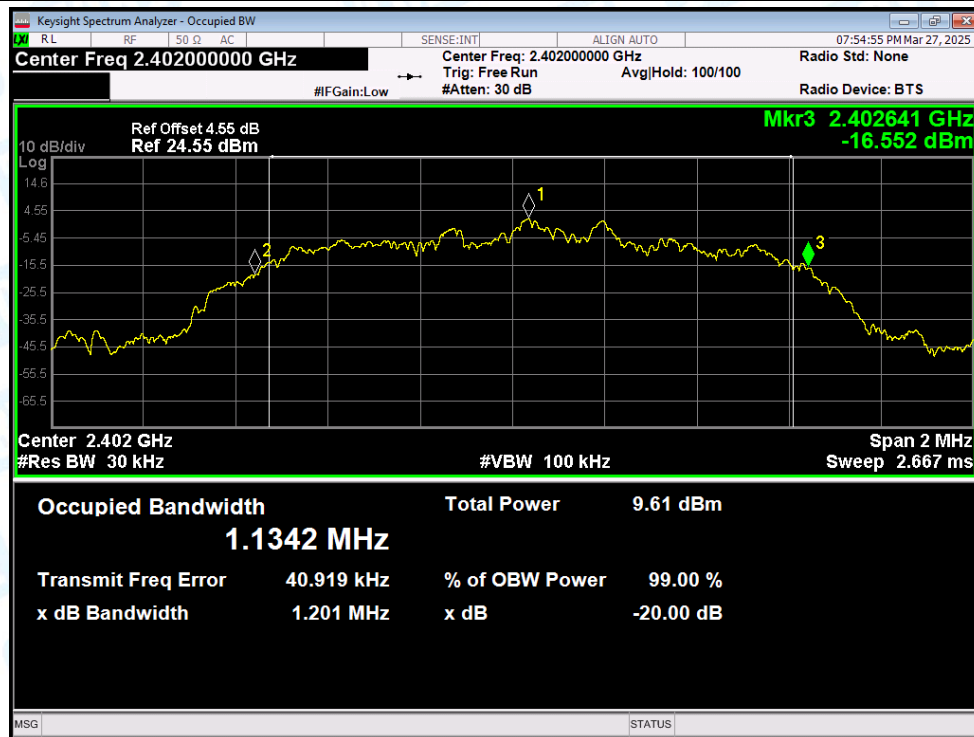
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



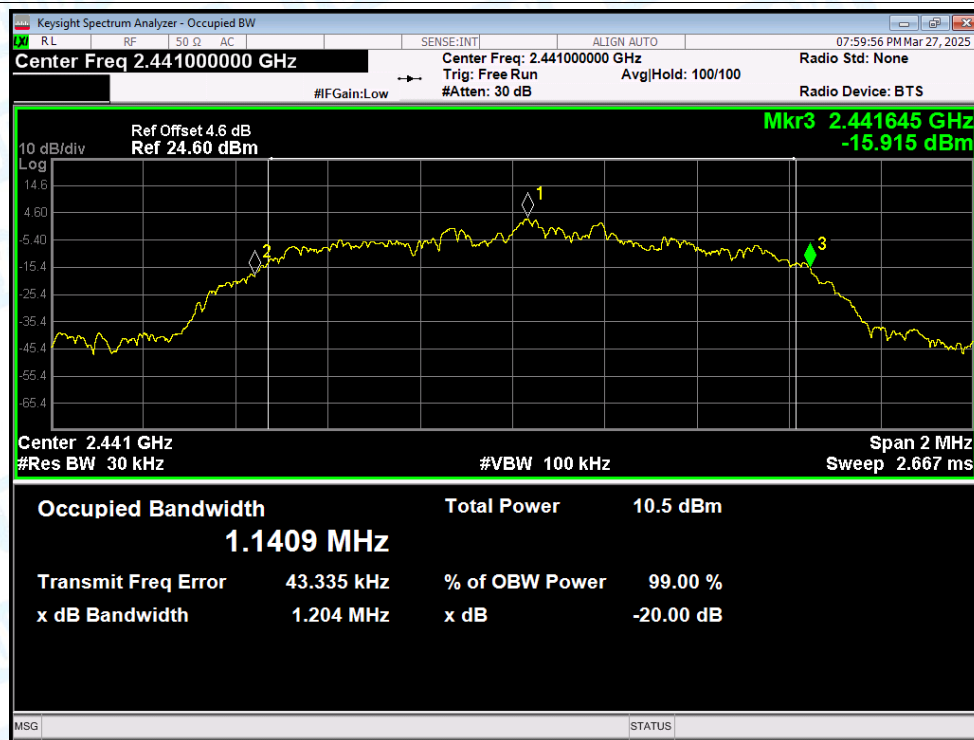
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

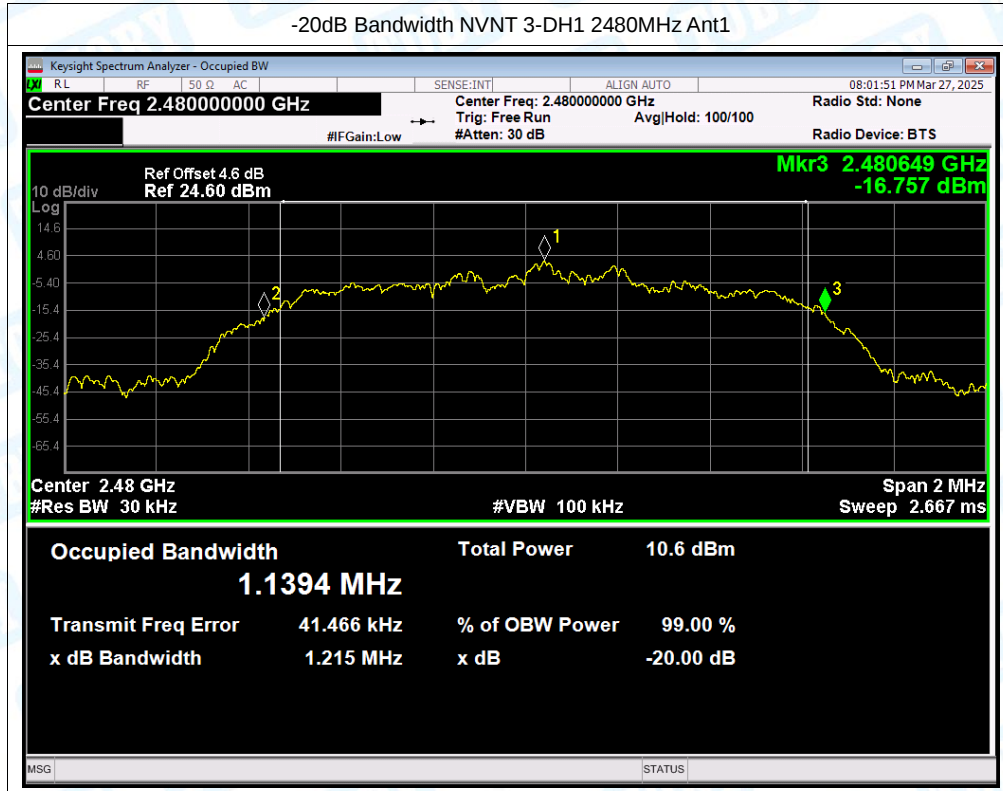


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



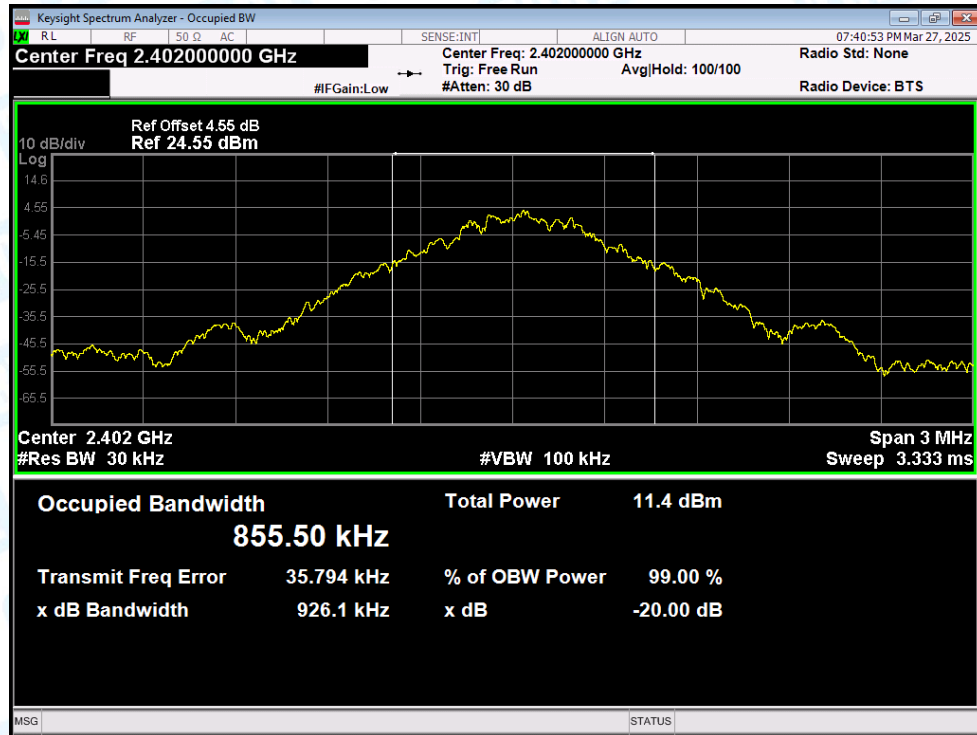


4. Occupied Channel Bandwidth

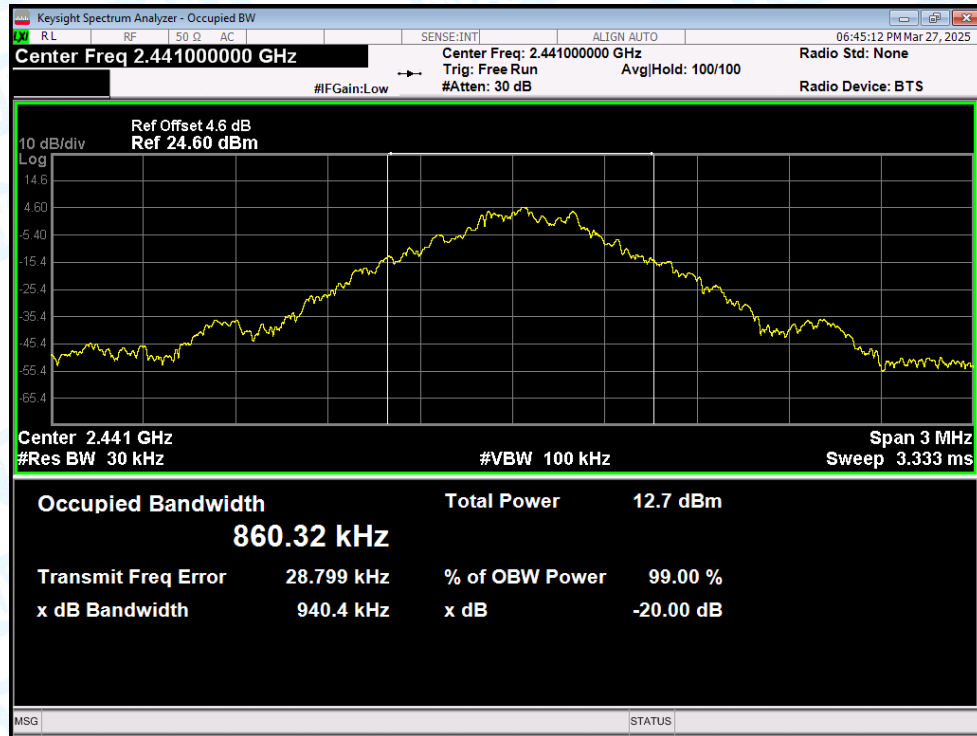
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.856
NVNT	1-DH1	2441	Ant1	0.86
NVNT	1-DH1	2480	Ant1	0.878
NVNT	2-DH1	2402	Ant1	1.151
NVNT	2-DH1	2441	Ant1	1.139
NVNT	2-DH1	2480	Ant1	1.157
NVNT	3-DH1	2402	Ant1	1.131
NVNT	3-DH1	2441	Ant1	1.135
NVNT	3-DH1	2480	Ant1	1.14

Test Graphs

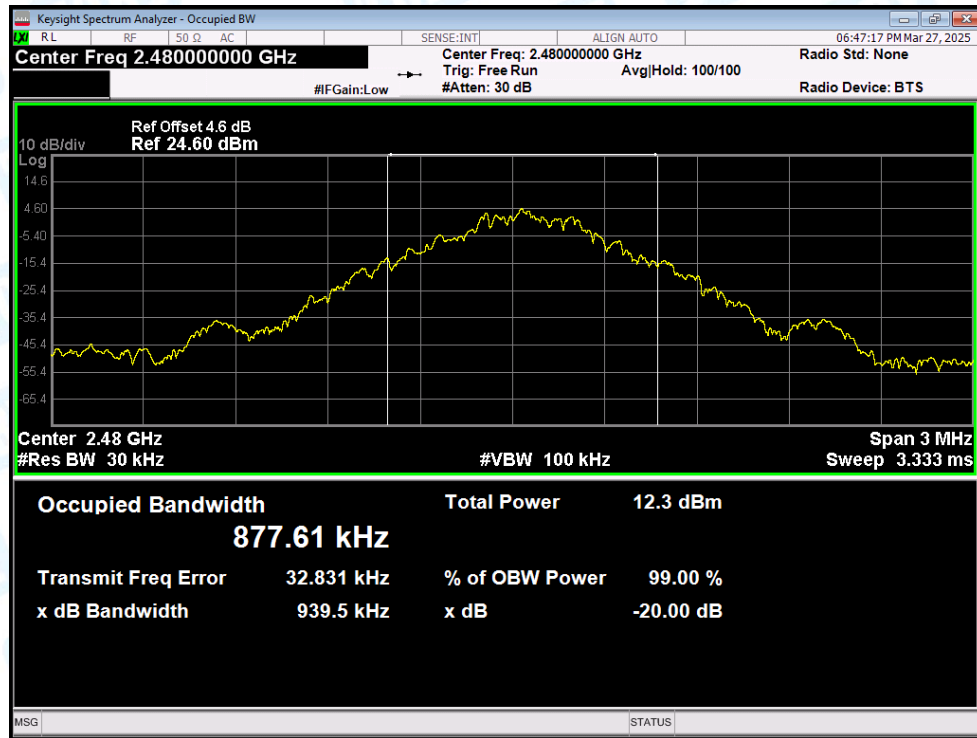
OBW NVNT 1-DH1 2402MHz Ant1



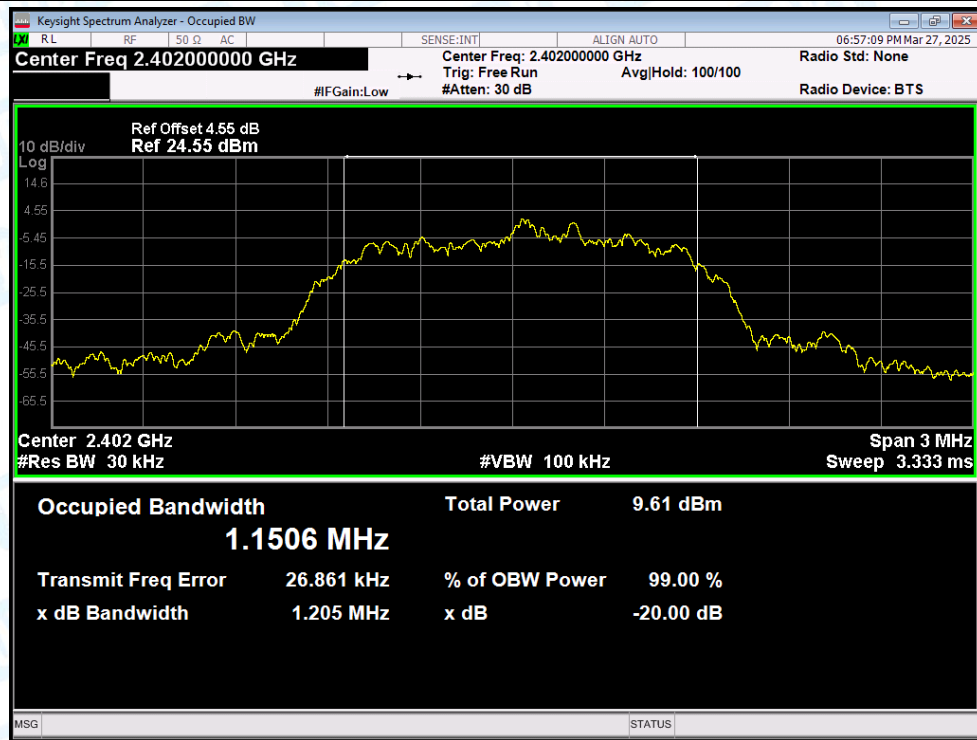
OBW NVNT 1-DH1 2441MHz Ant1



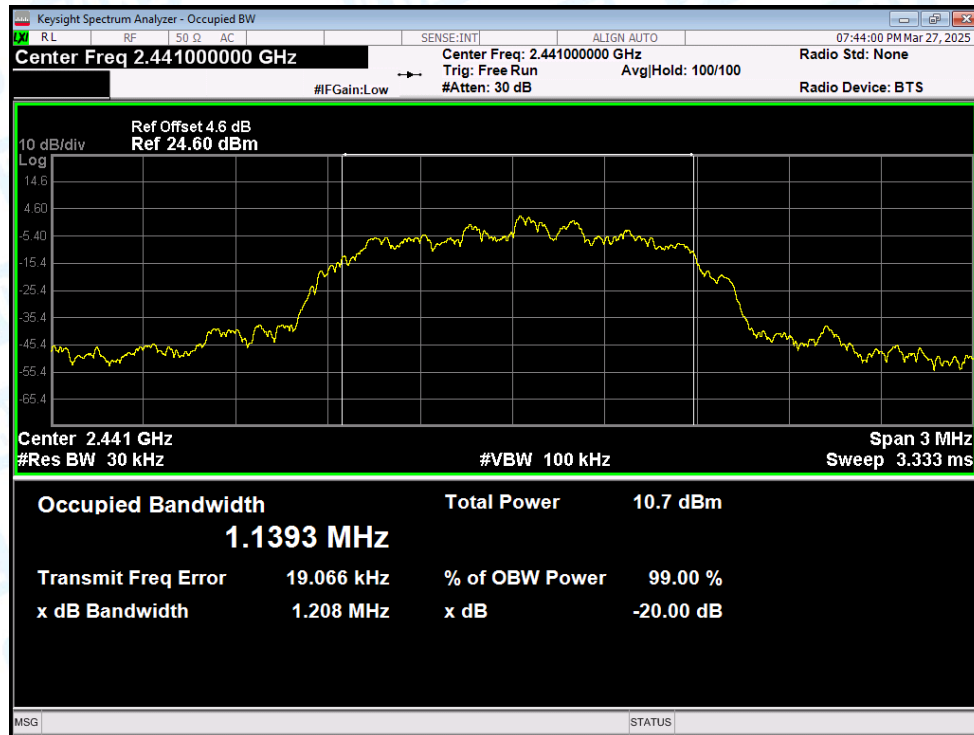
OBW NVNT 1-DH1 2480MHz Ant1



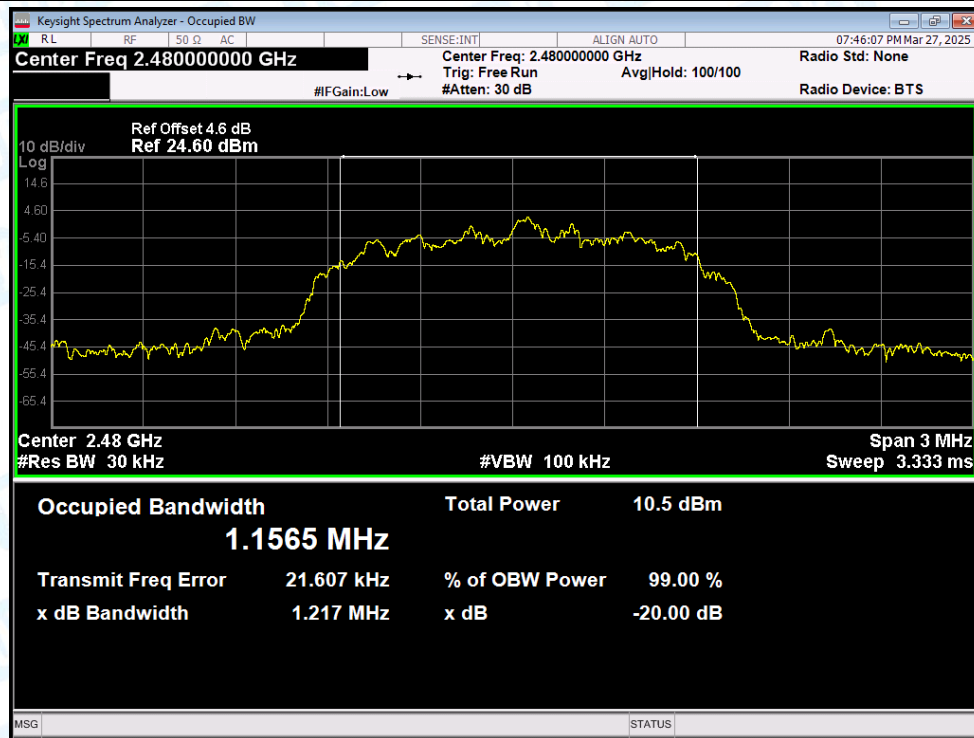
OBW NVNT 2-DH1 2402MHz Ant1



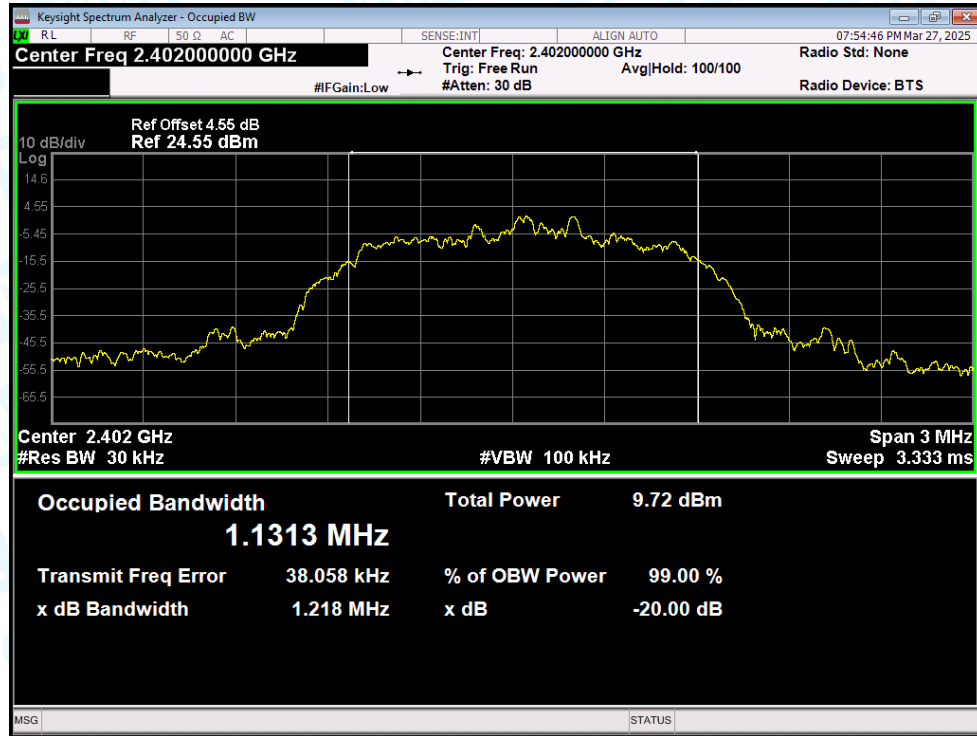
OBW NVNT 2-DH1 2441MHz Ant1



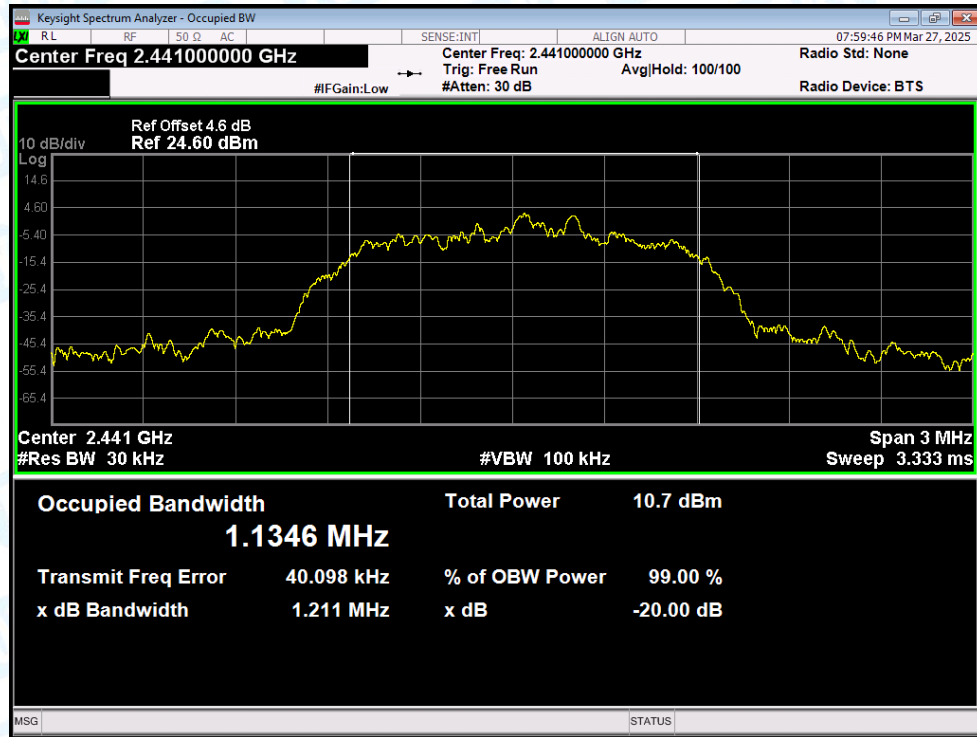
OBW NVNT 2-DH1 2480MHz Ant1

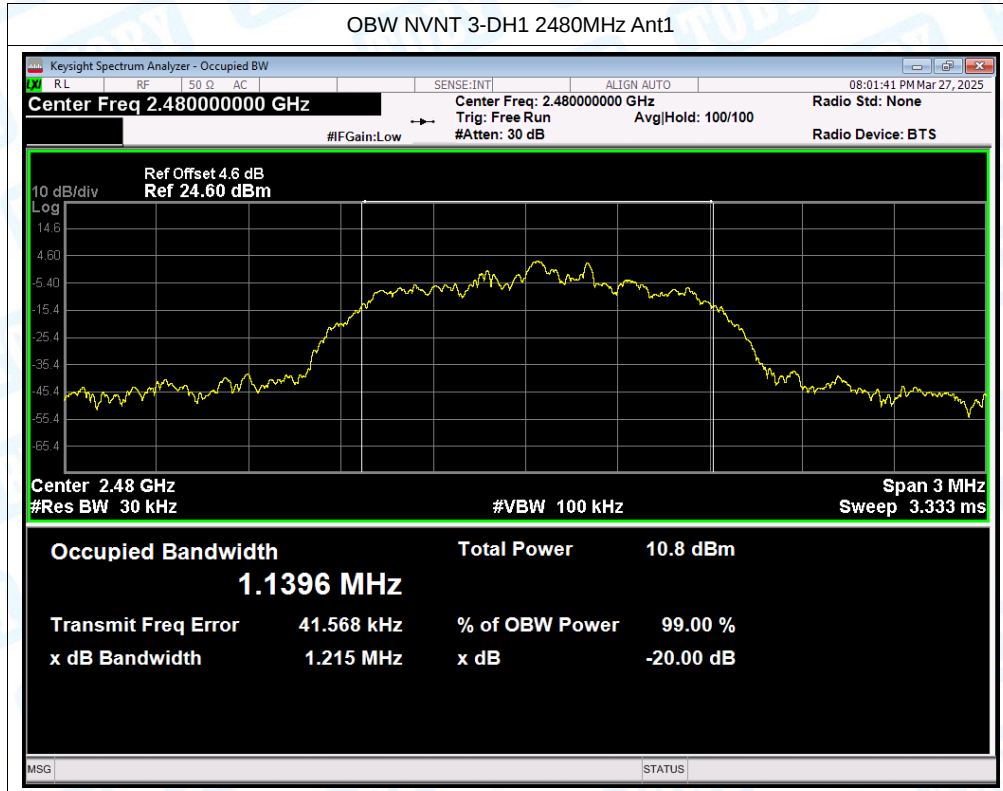


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



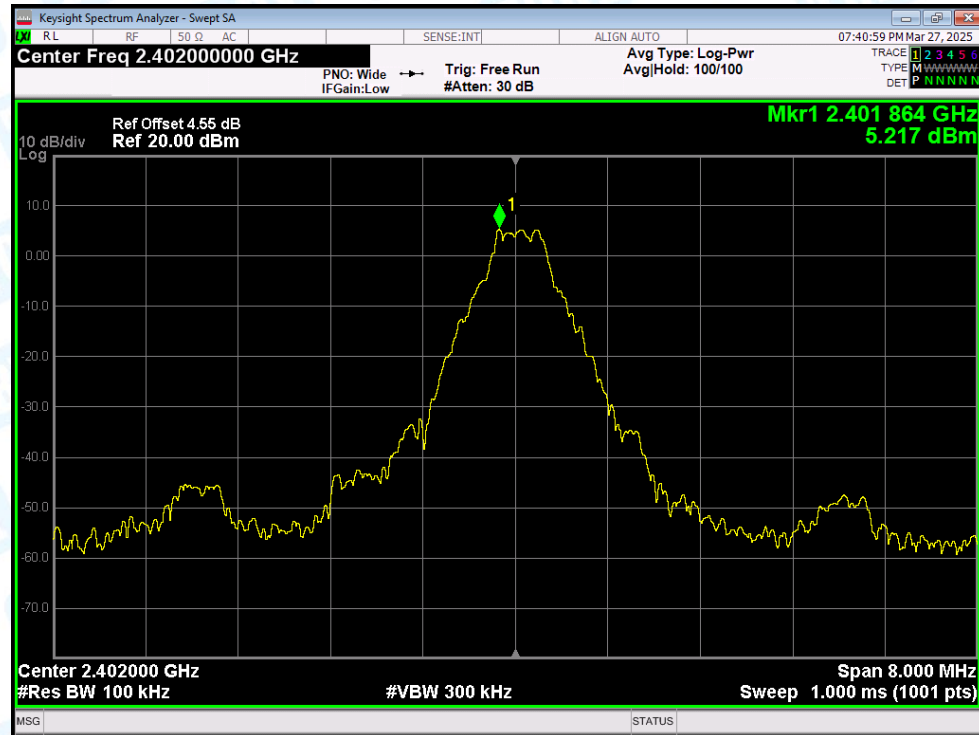


5. Band Edge

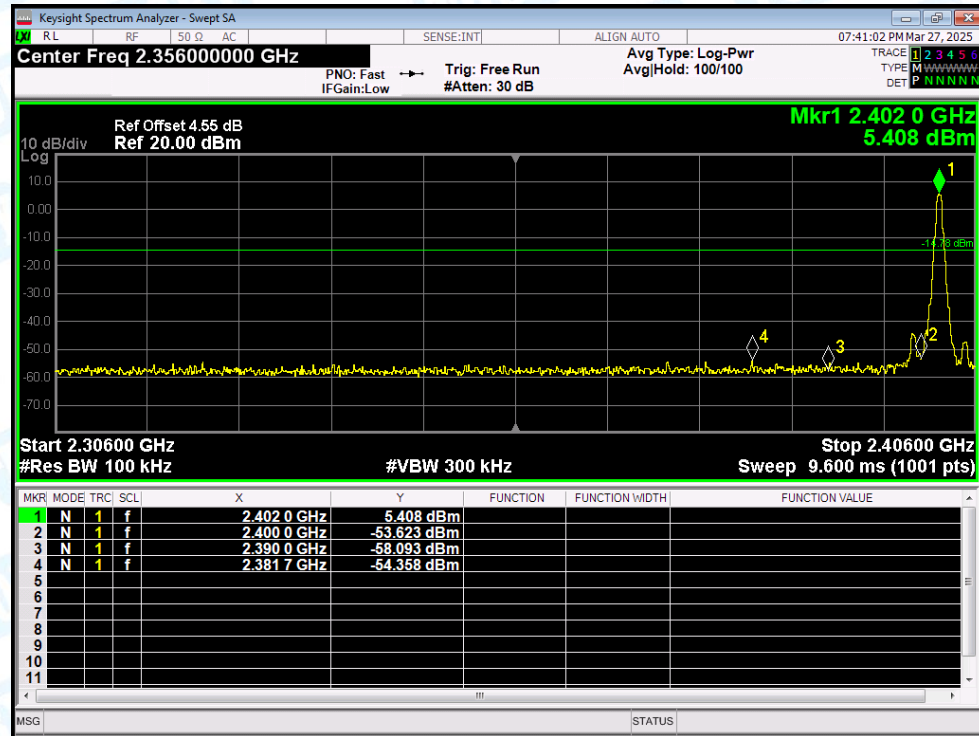
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-59.58	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-58.95	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-58.26	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-58.4	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-58.44	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-57.31	-20	Pass

Test Graphs

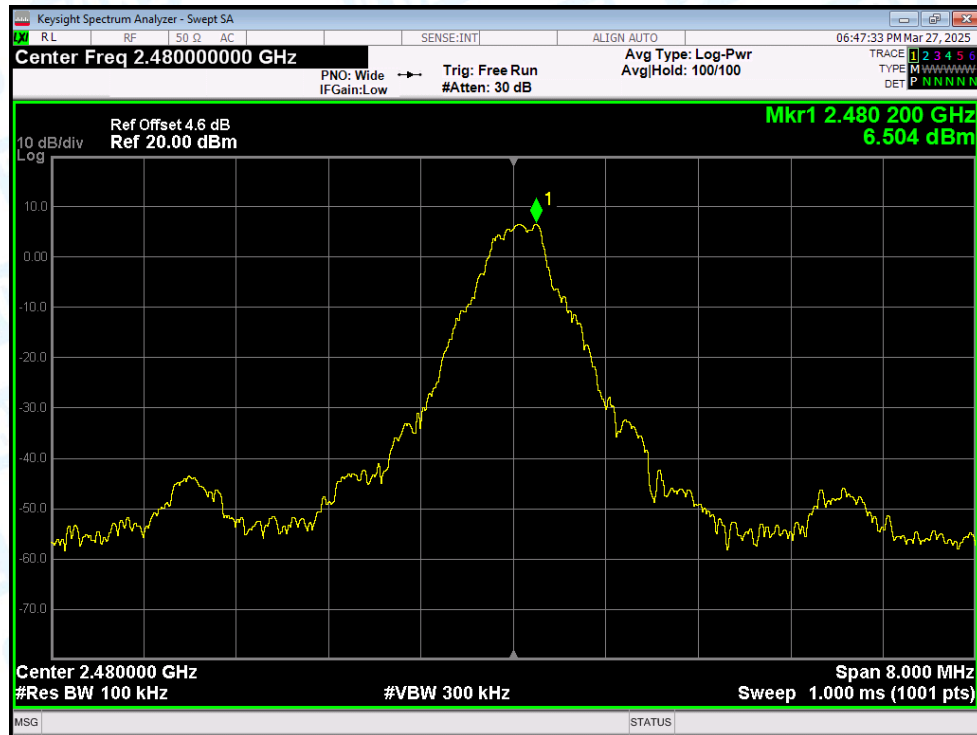
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



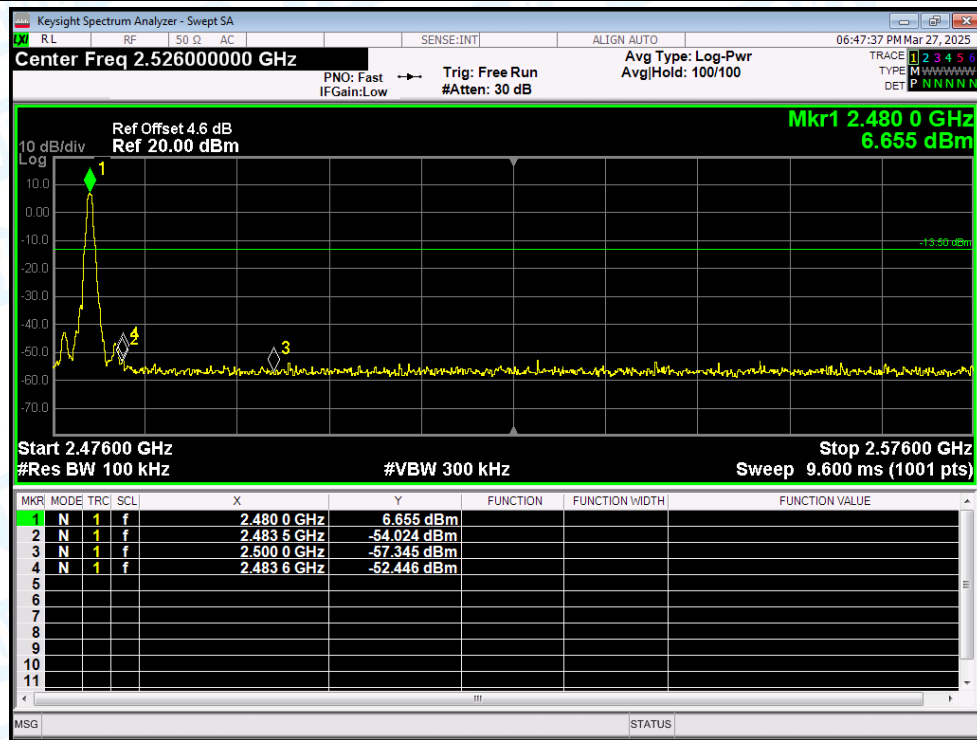
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



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



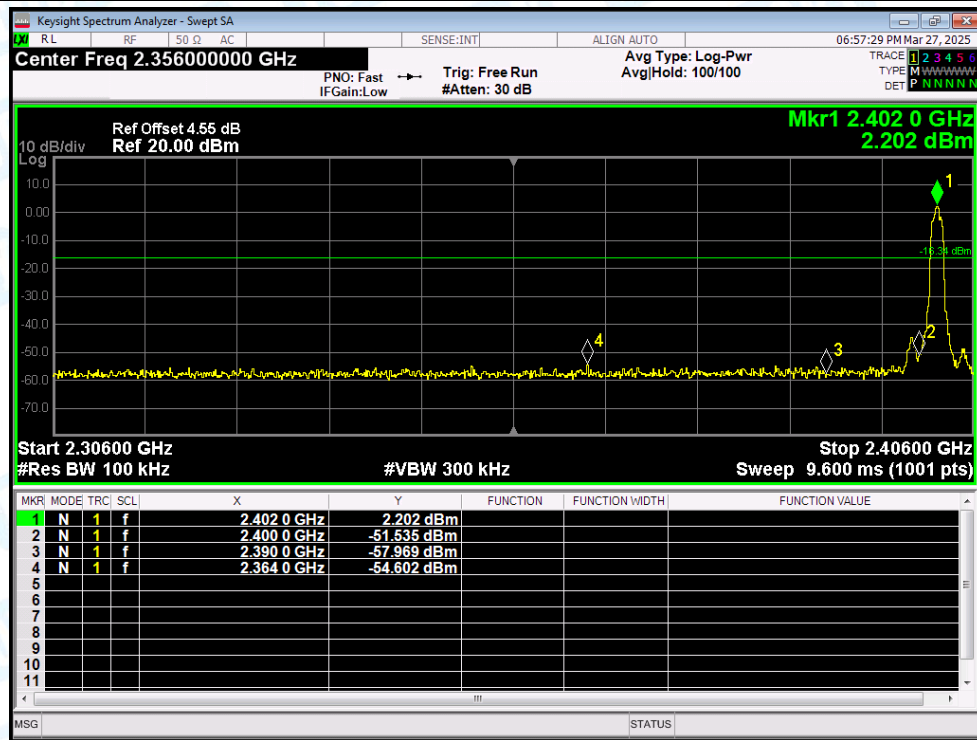
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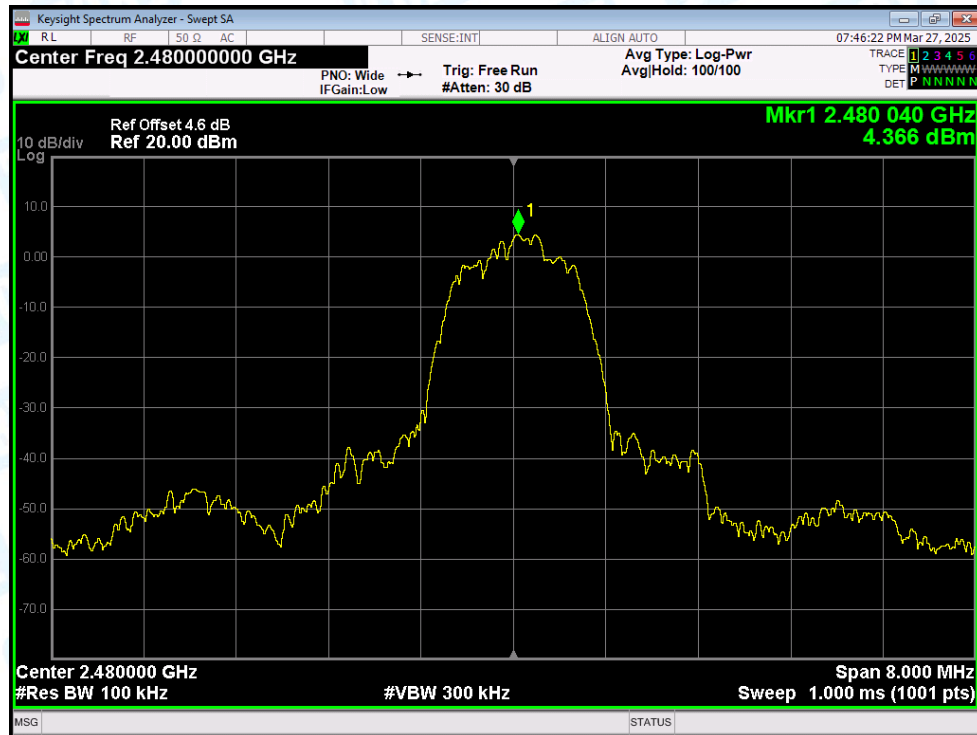
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



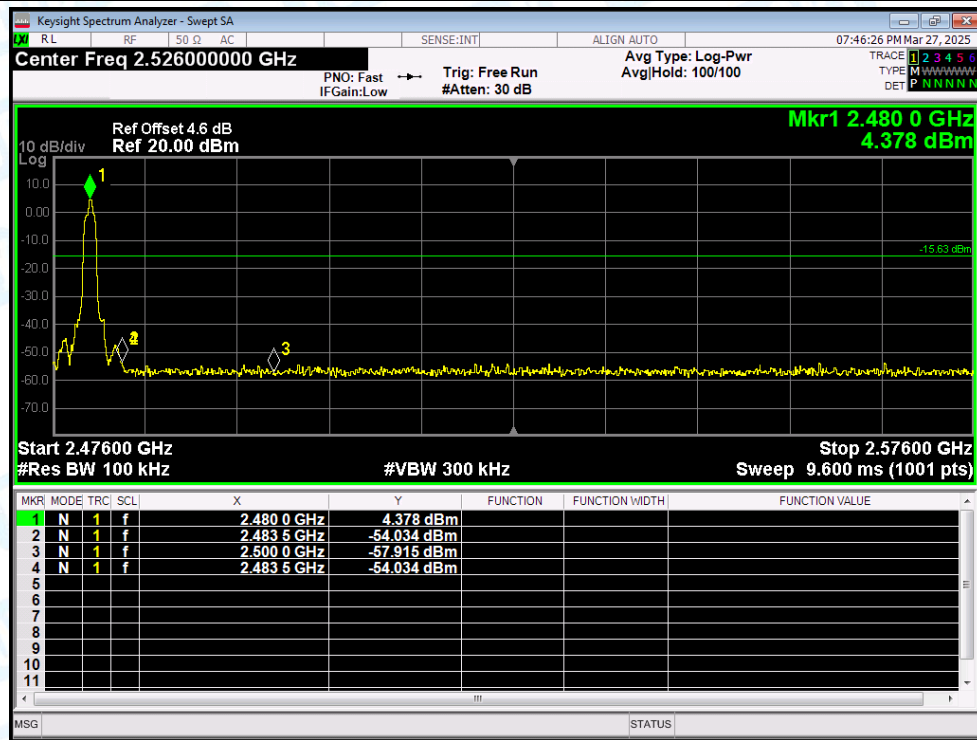
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



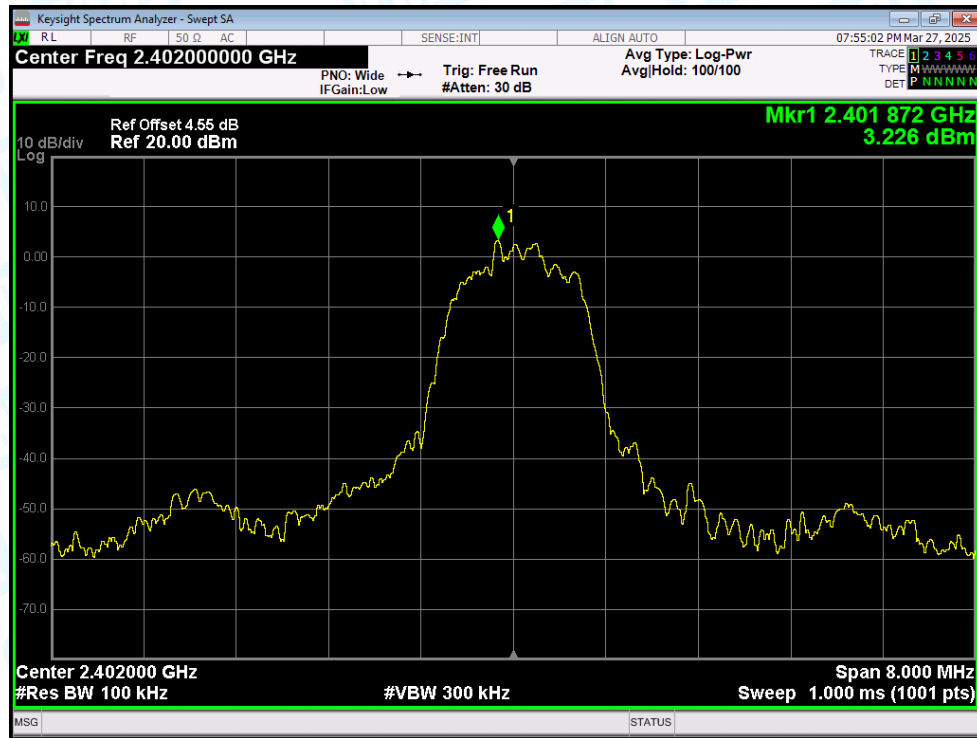
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



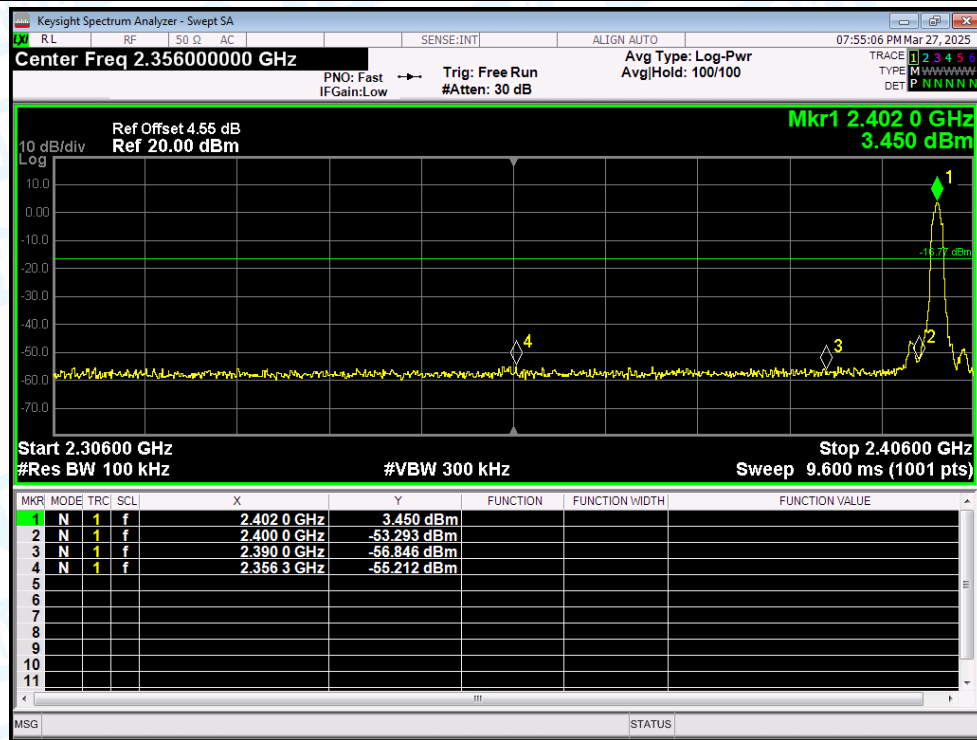
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



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



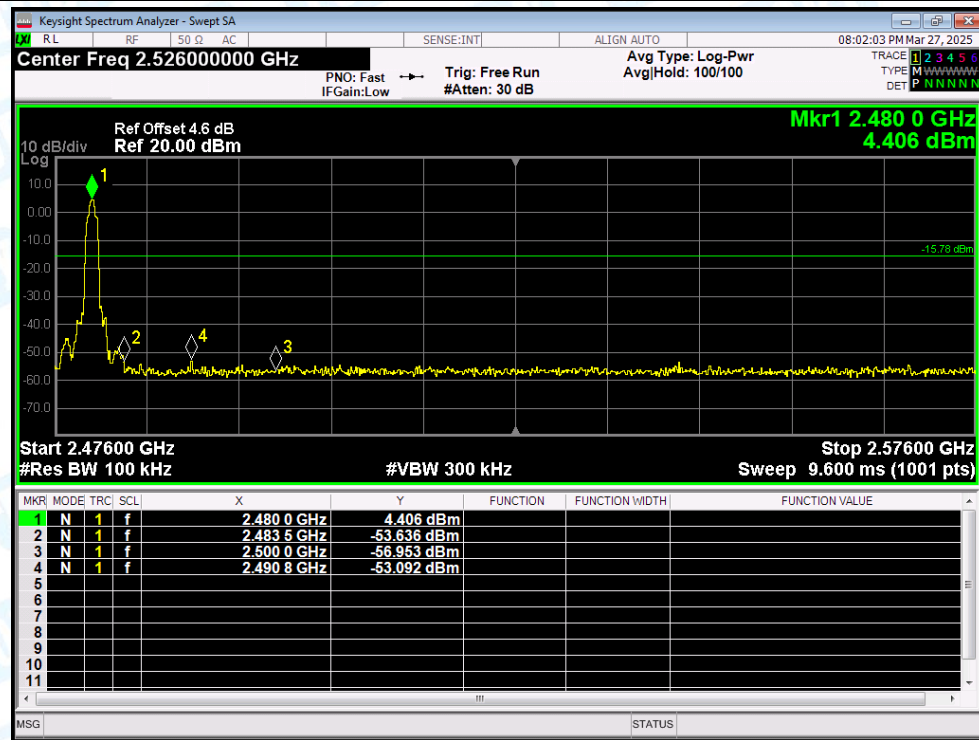
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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



6. Band Edge(Hopping)

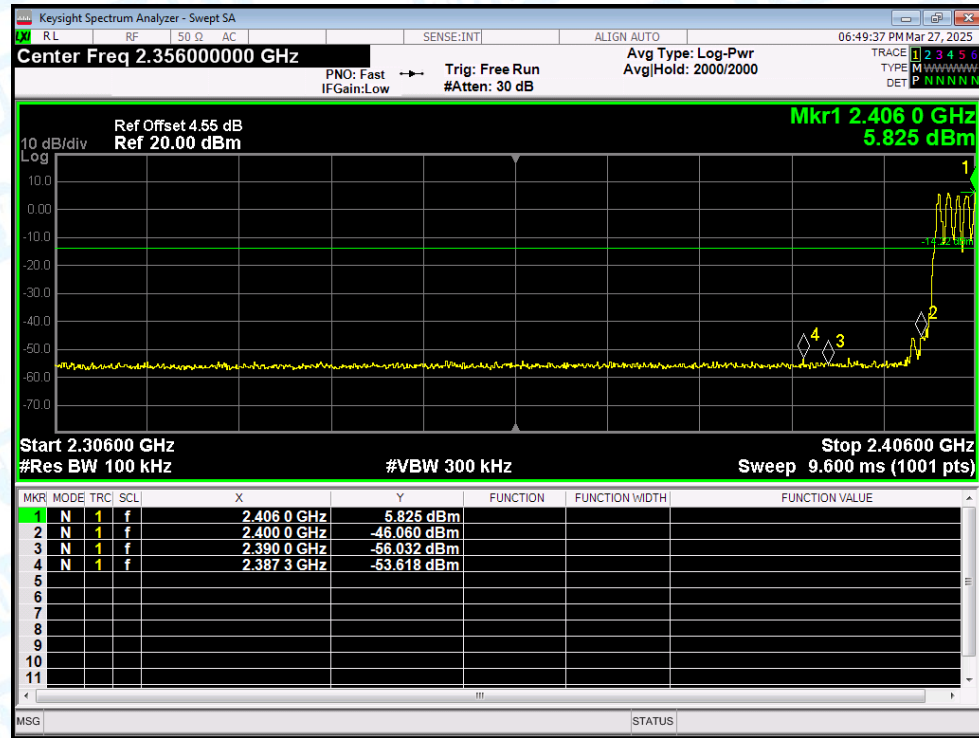
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-59.4	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-60.45	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-57	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-57.27	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-57.28	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-58.07	-20	Pass

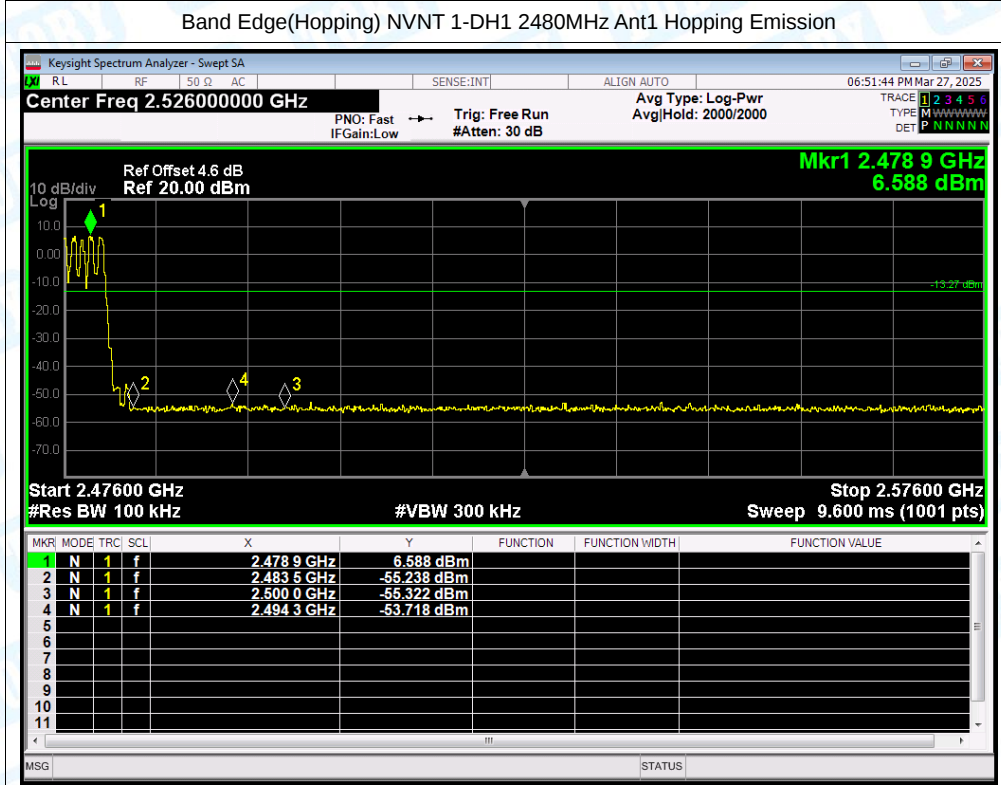
Test Graphs

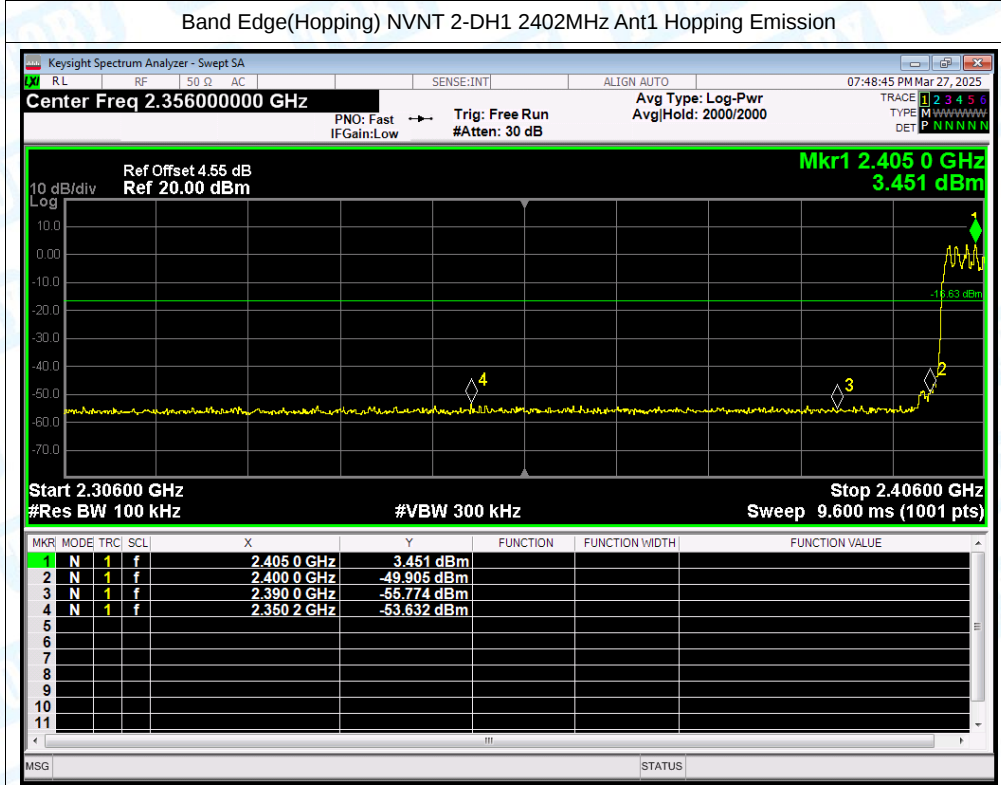
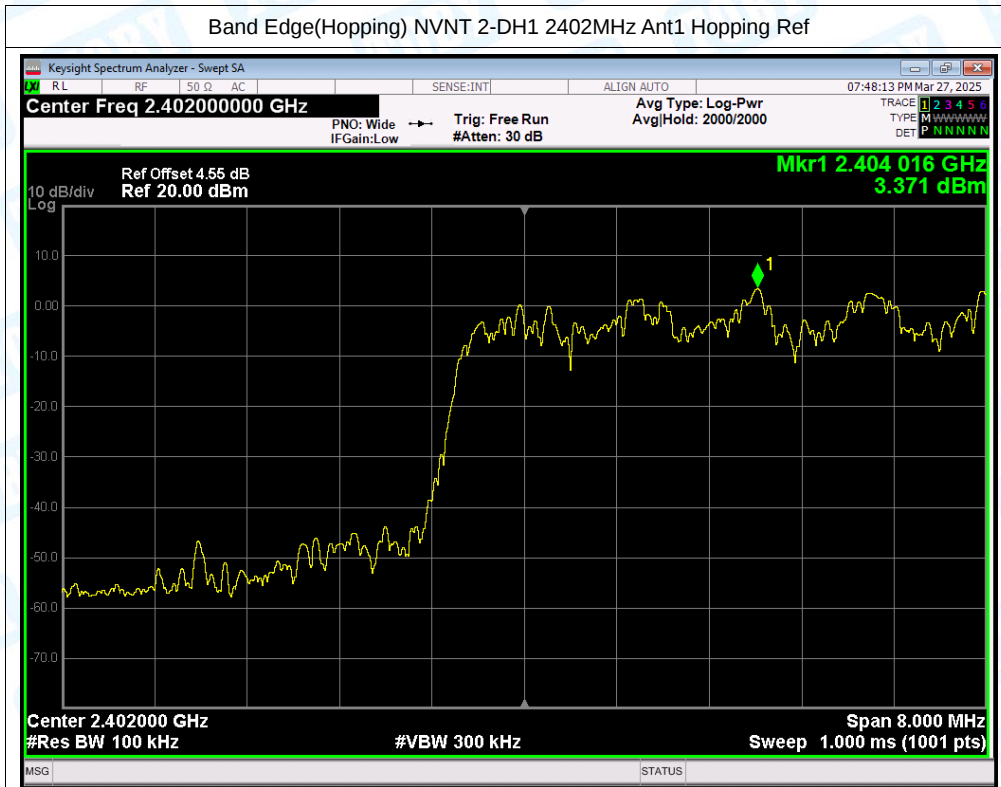
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref

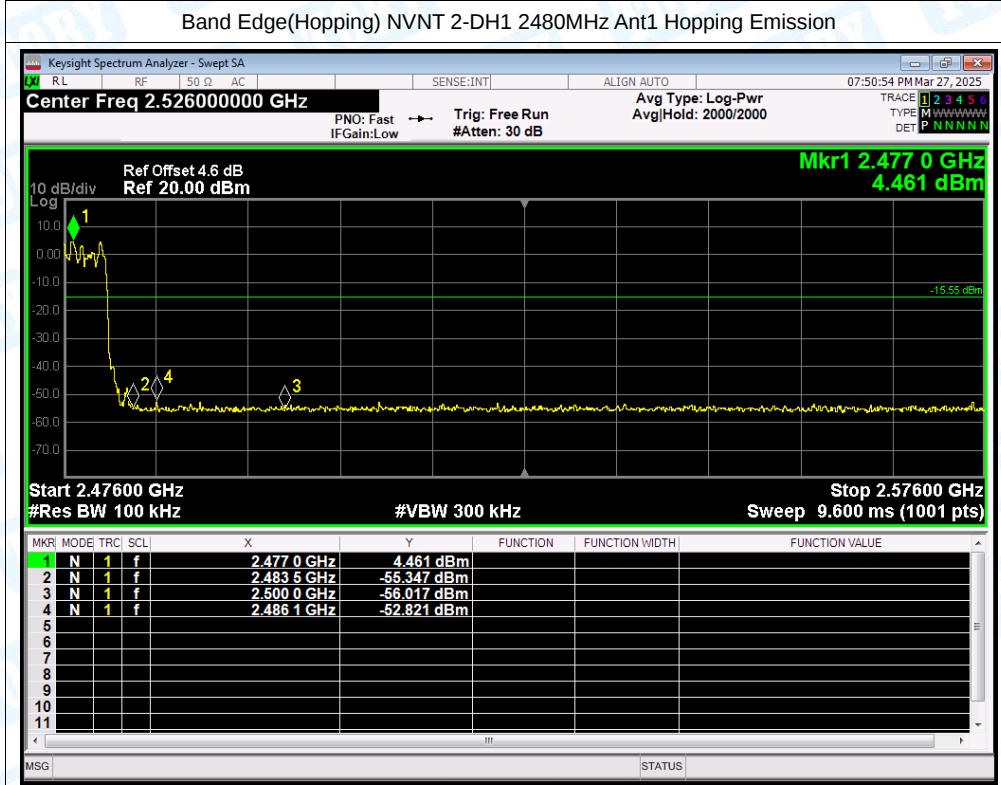


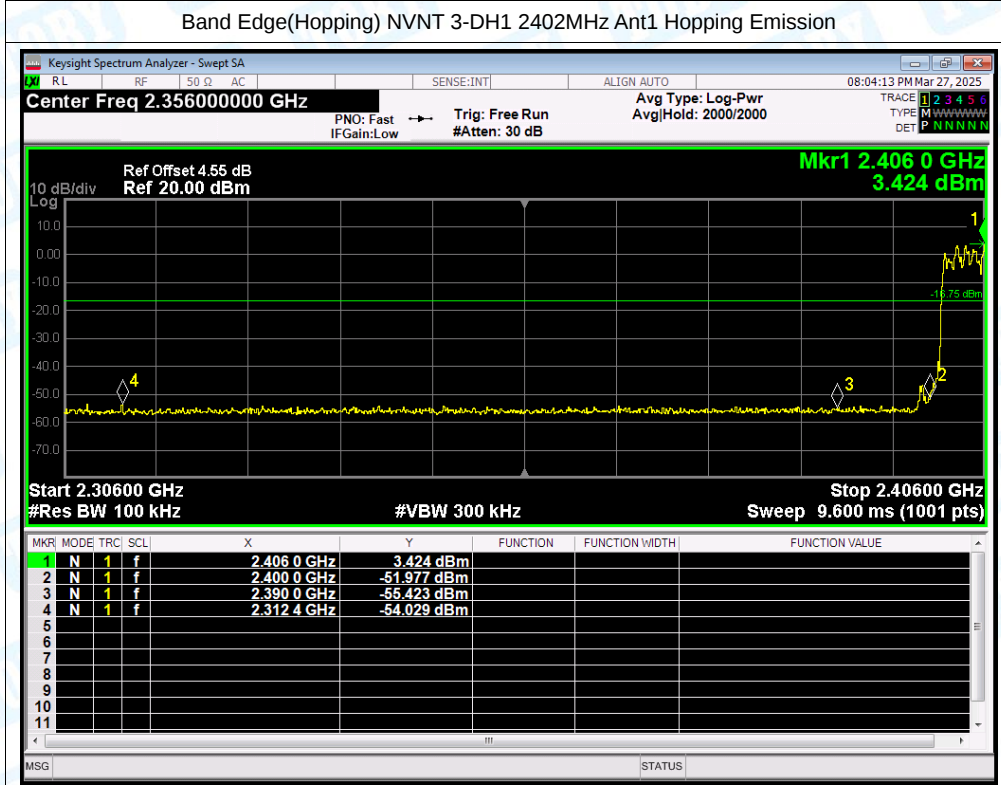
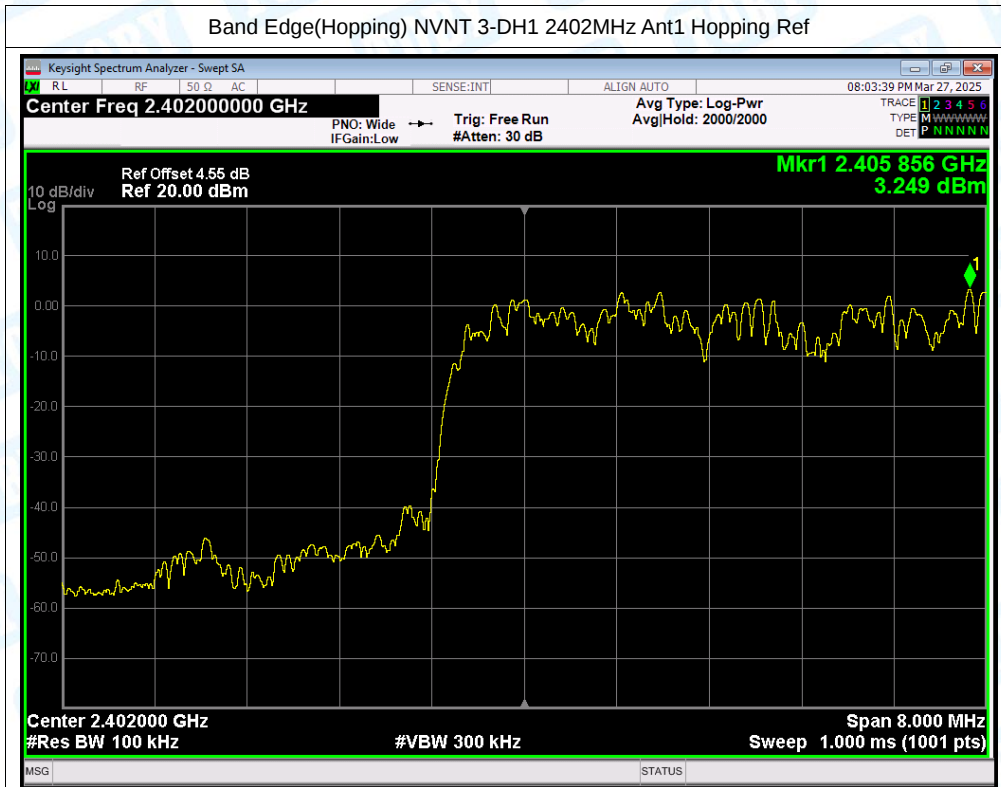
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission

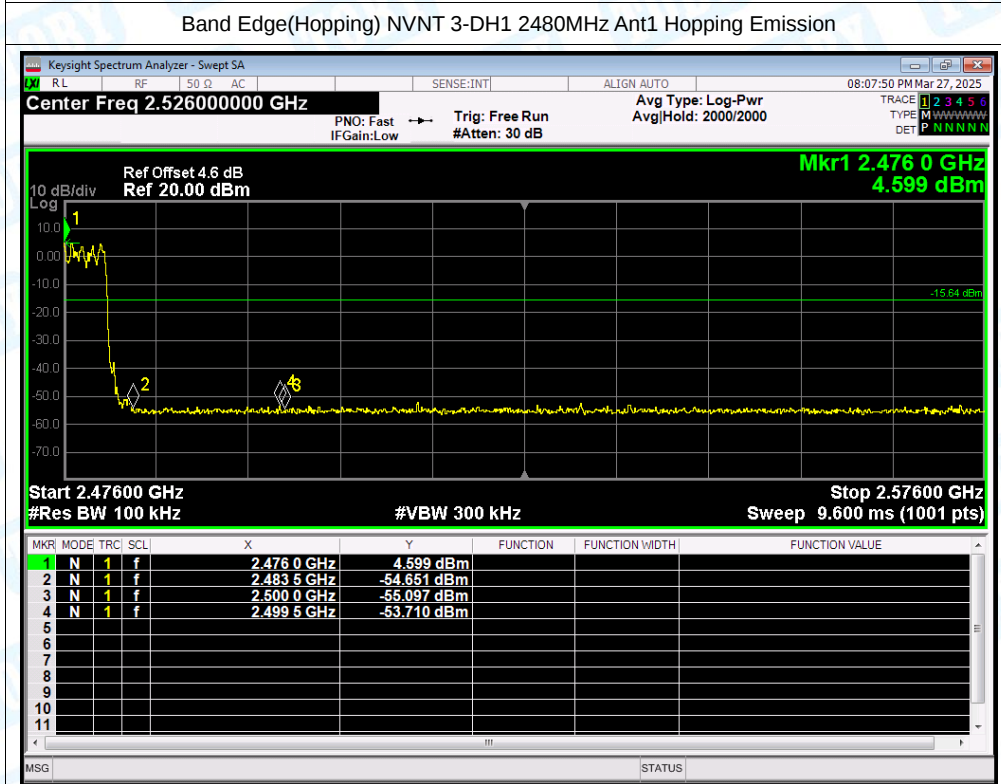










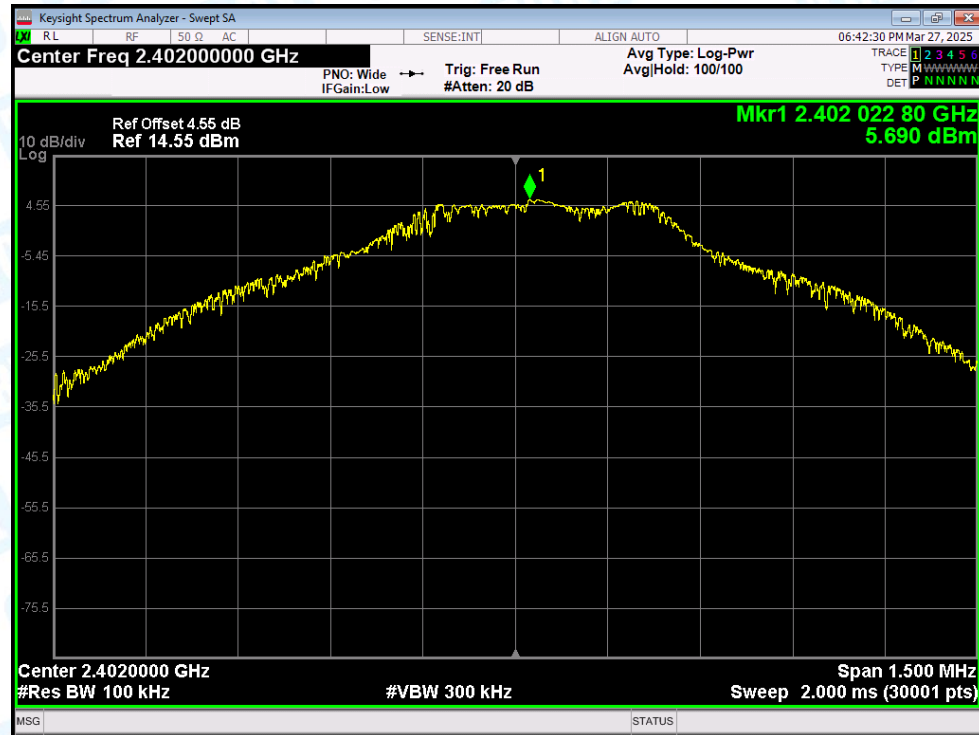


7 Conducted RF Spurious Emission

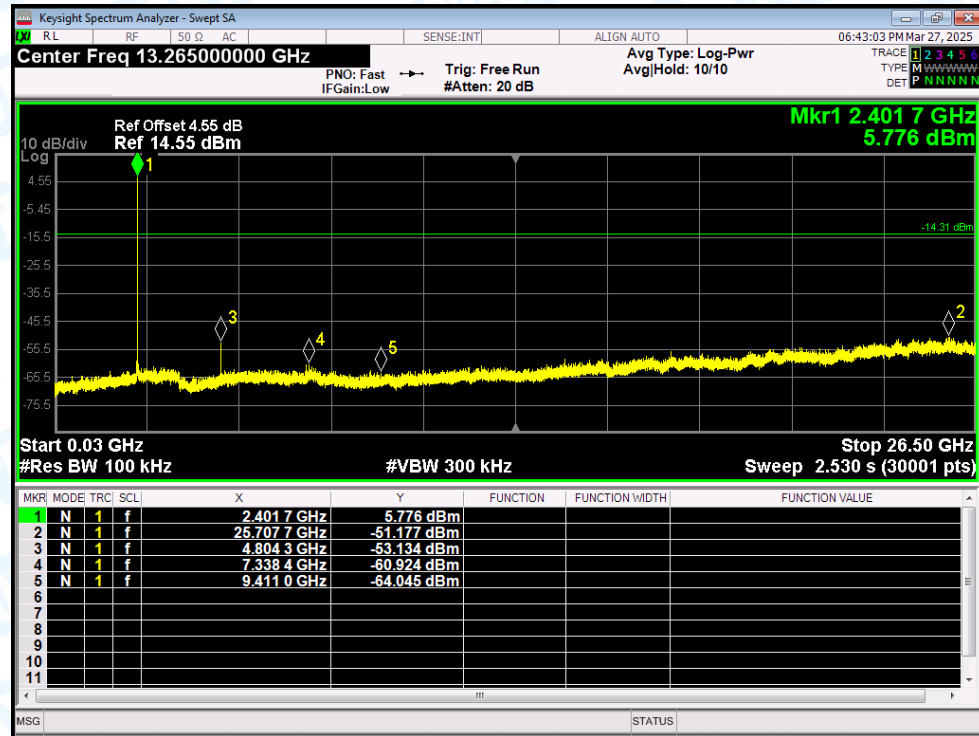
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-56.87	-20	Pass
NVNT	1-DH1	2441	Ant1	-57.31	-20	Pass
NVNT	1-DH1	2480	Ant1	-57.56	-20	Pass
NVNT	2-DH1	2402	Ant1	-54.92	-20	Pass
NVNT	2-DH1	2441	Ant1	-55.53	-20	Pass
NVNT	2-DH1	2480	Ant1	-55.44	-20	Pass
NVNT	3-DH1	2402	Ant1	-54.65	-20	Pass
NVNT	3-DH1	2441	Ant1	-55.42	-20	Pass
NVNT	3-DH1	2480	Ant1	-55.98	-20	Pass

Test Graphs

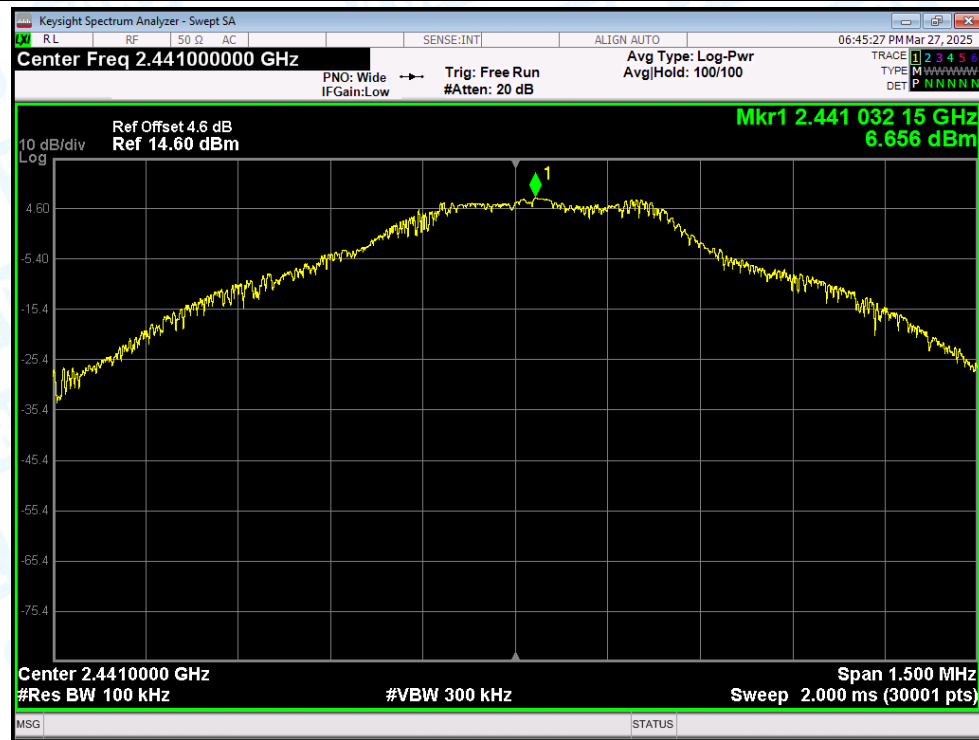
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



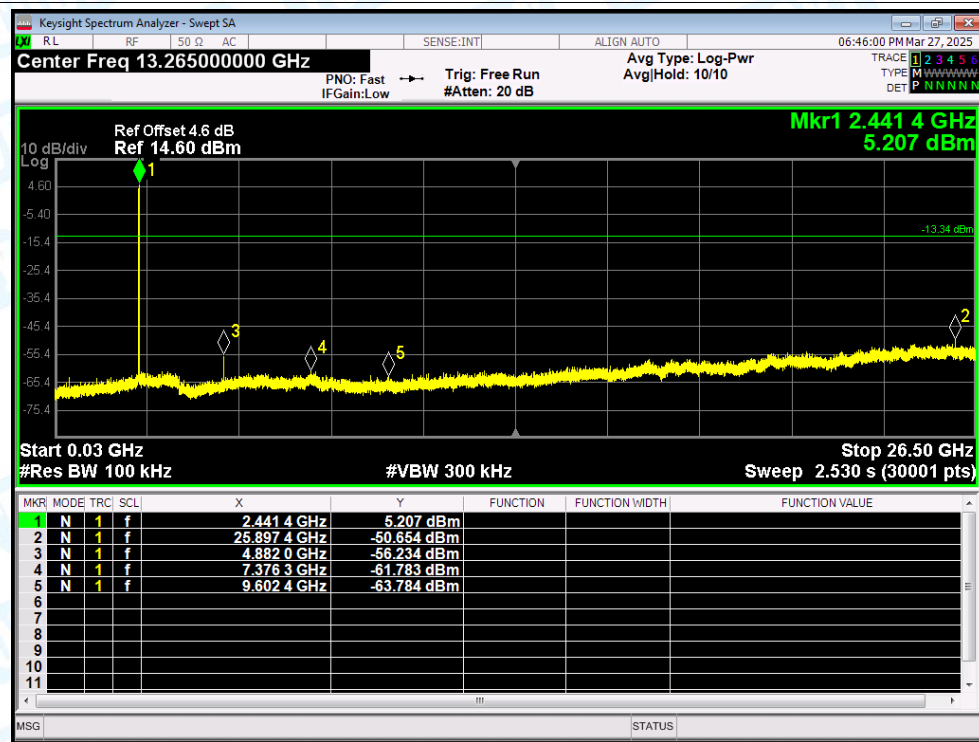
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



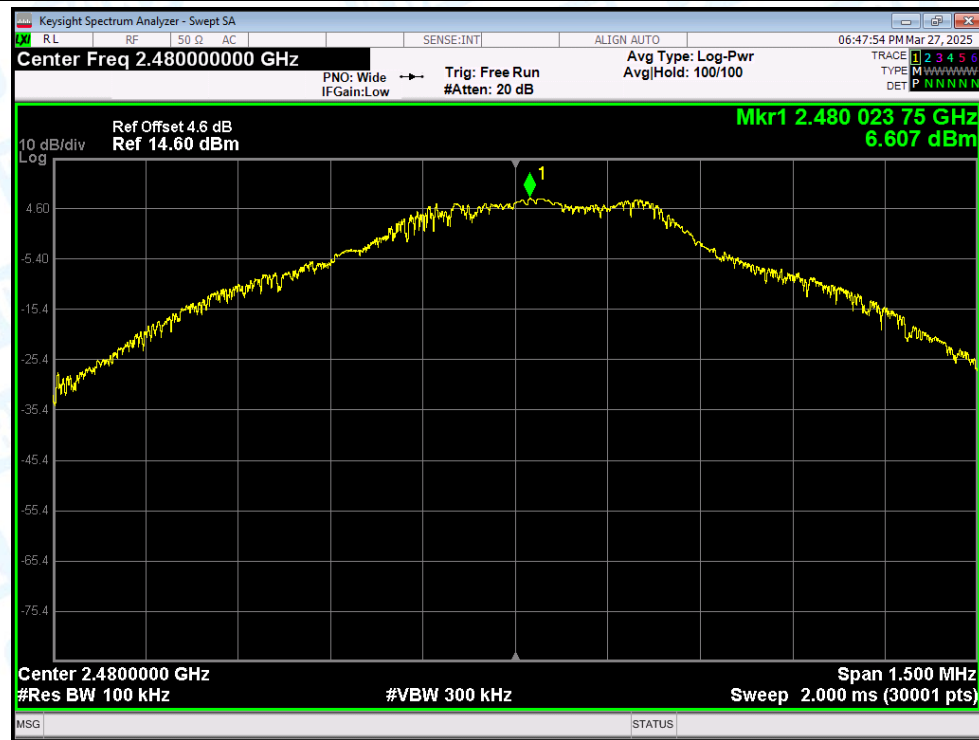
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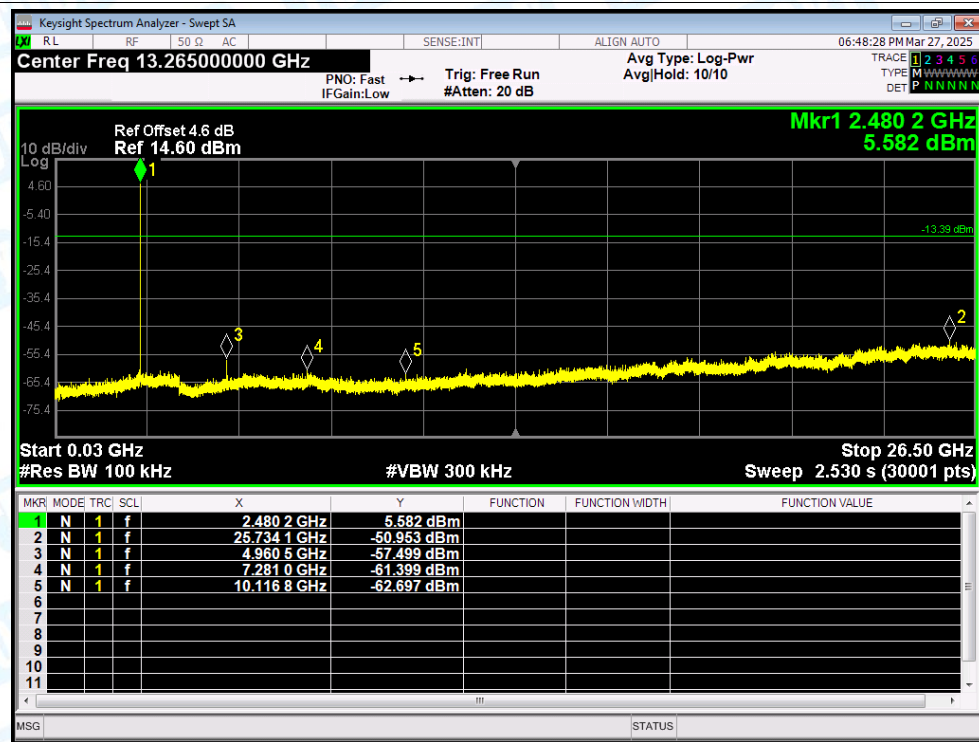
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



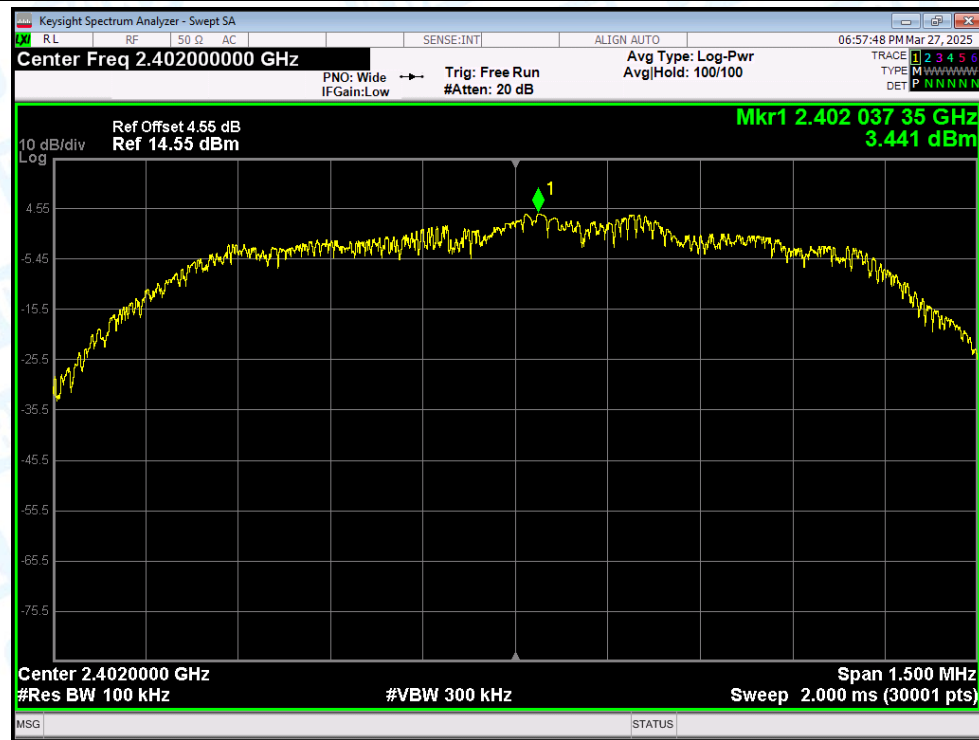
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



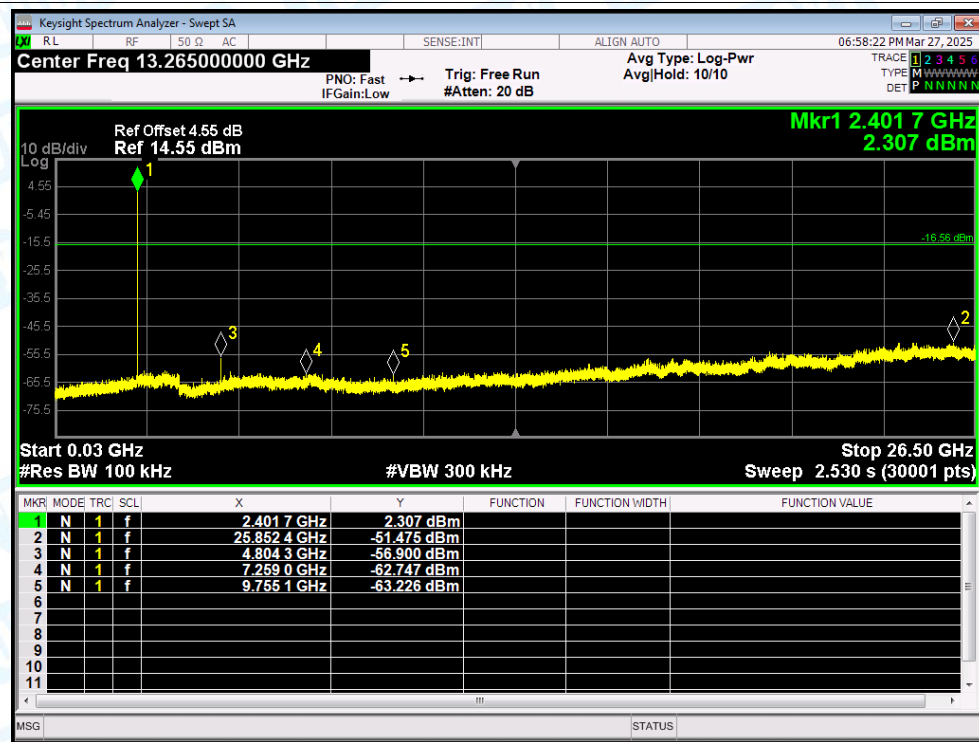
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



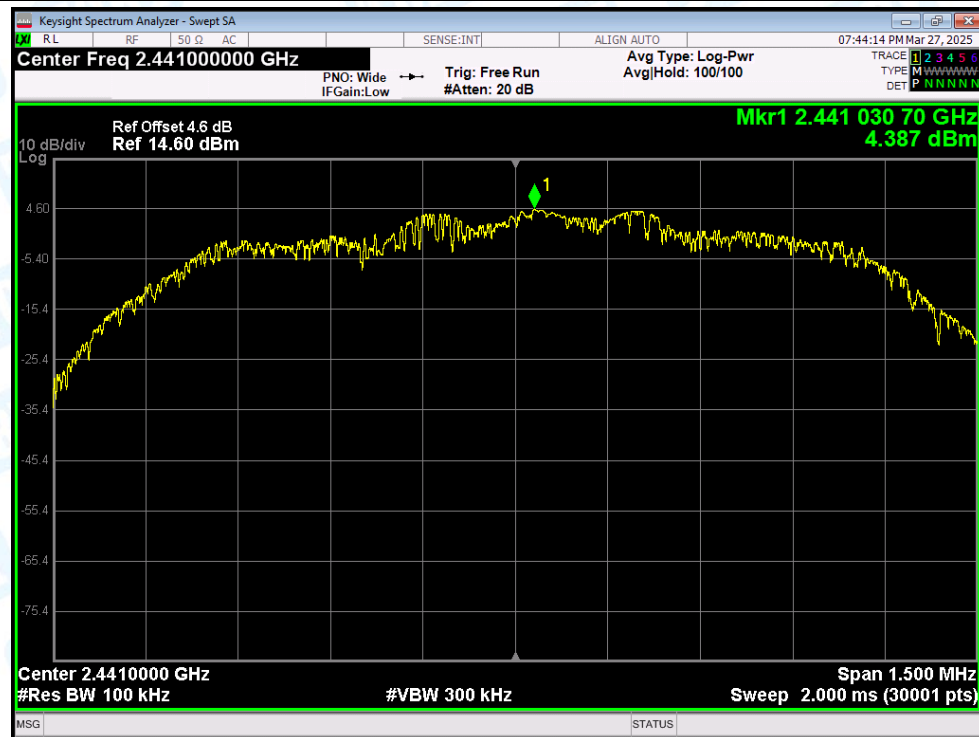
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



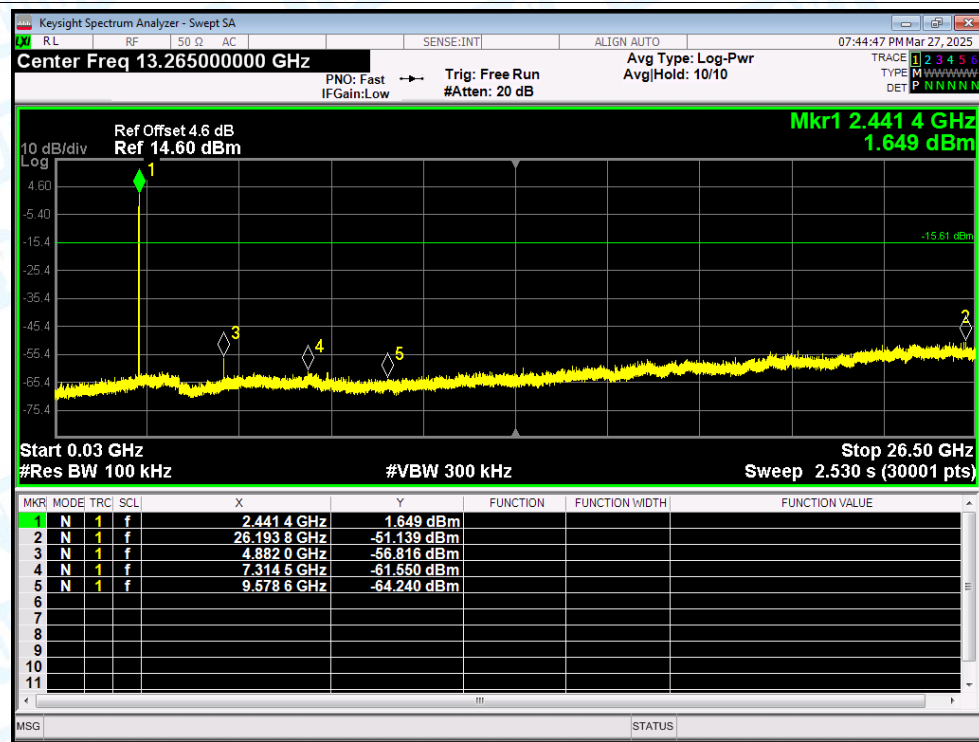
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



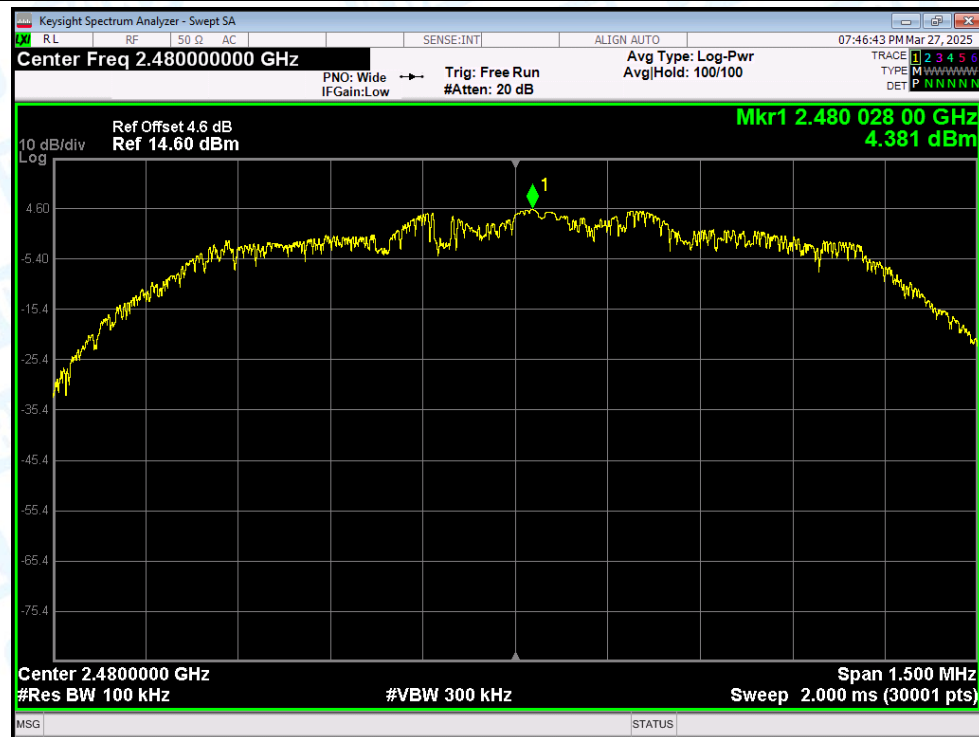
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



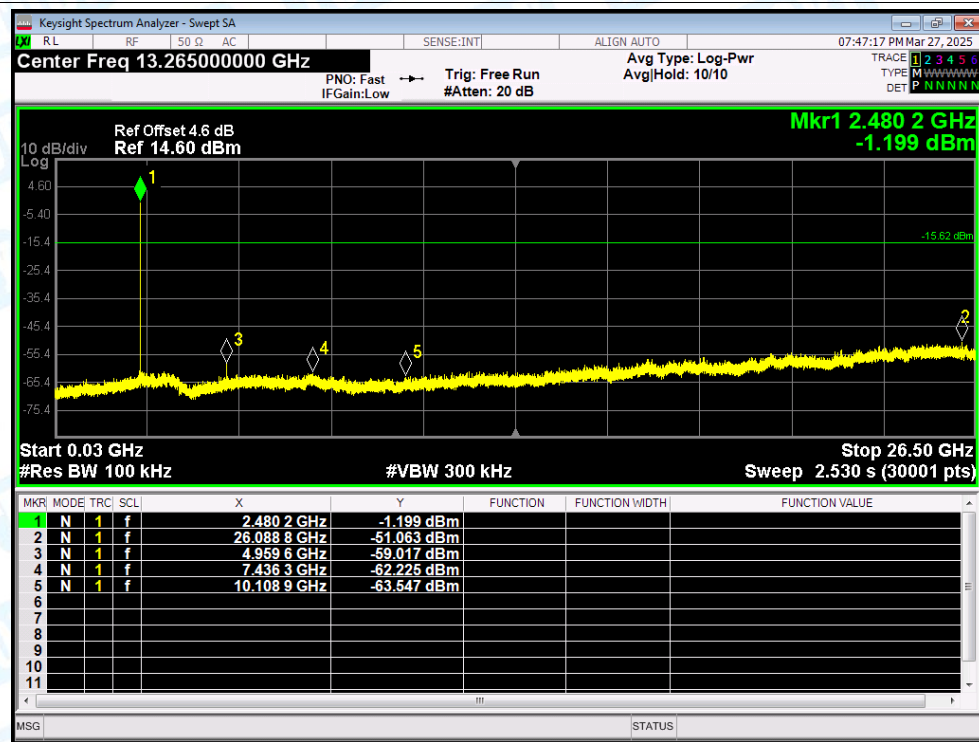
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



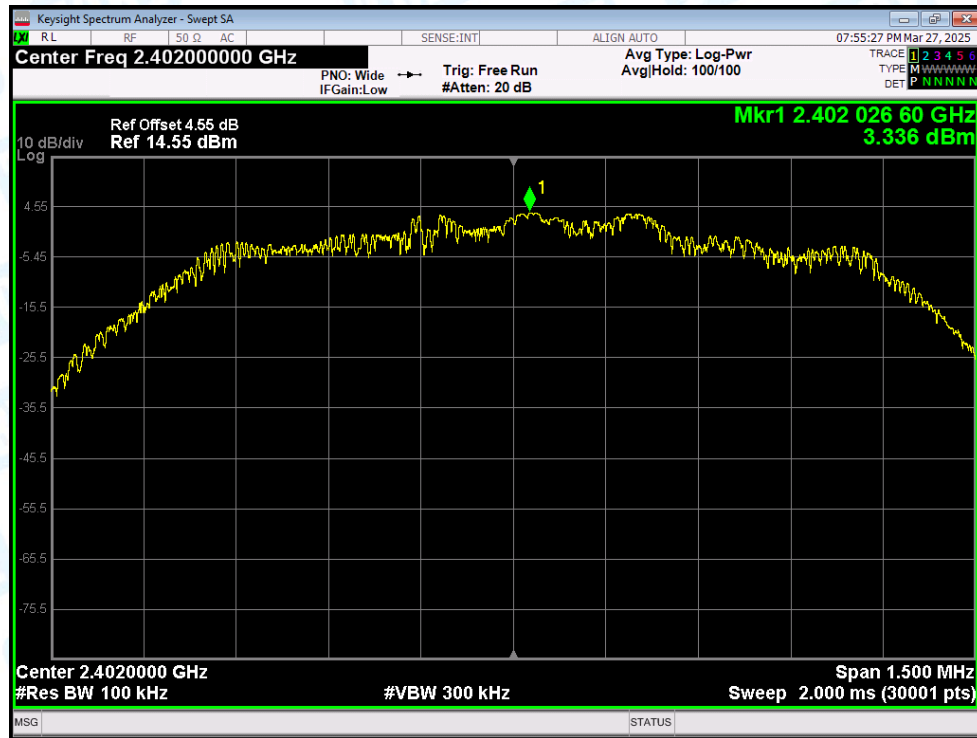
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



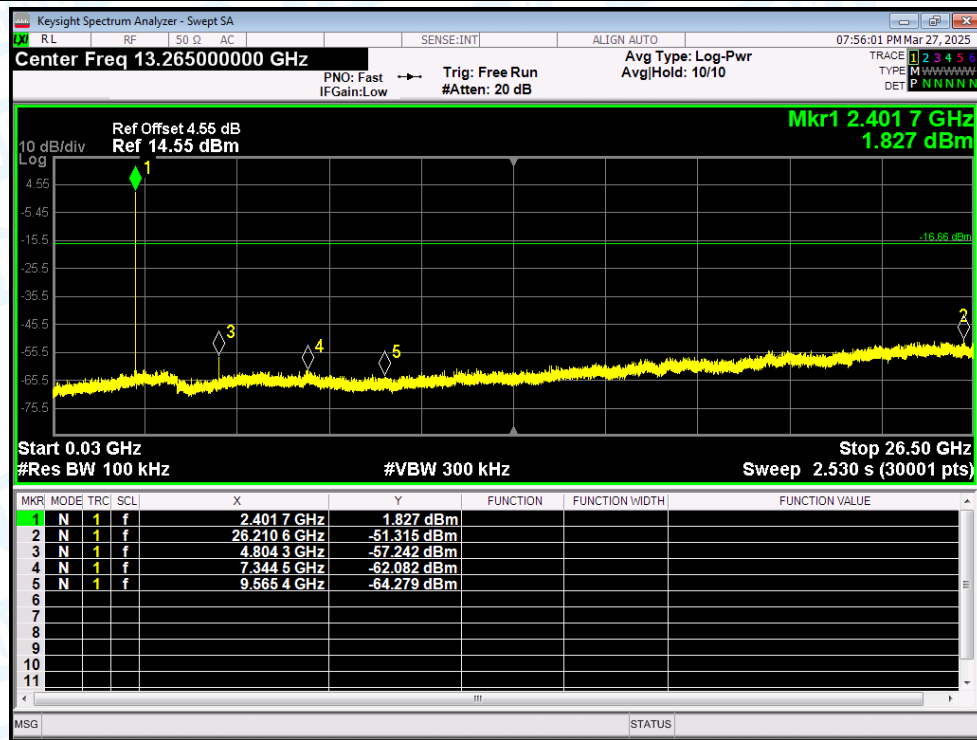
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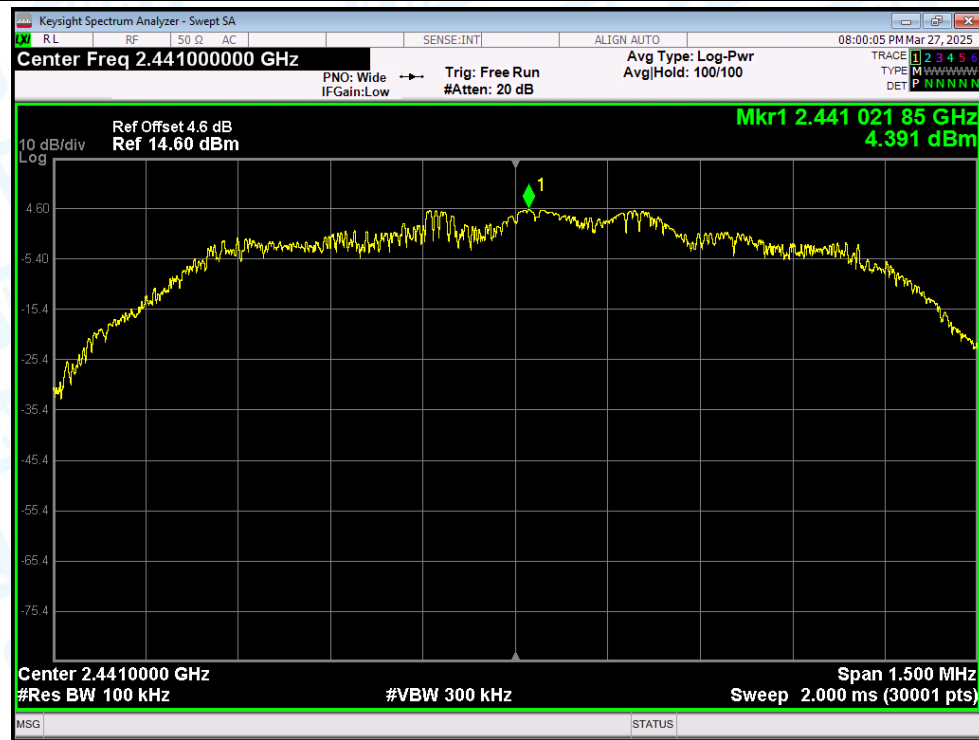
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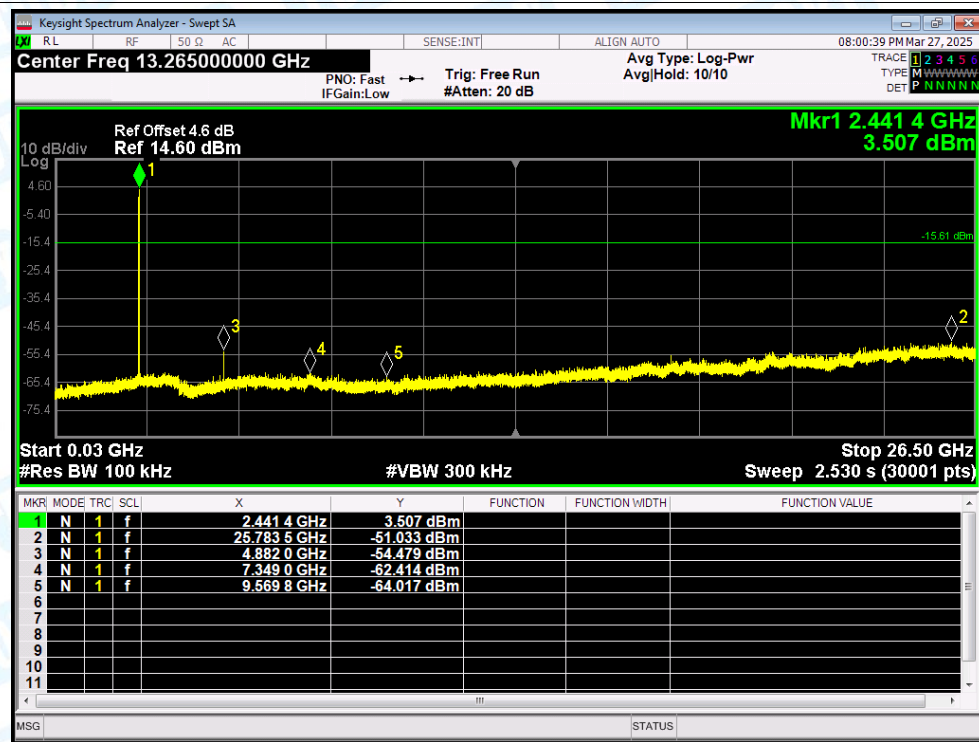
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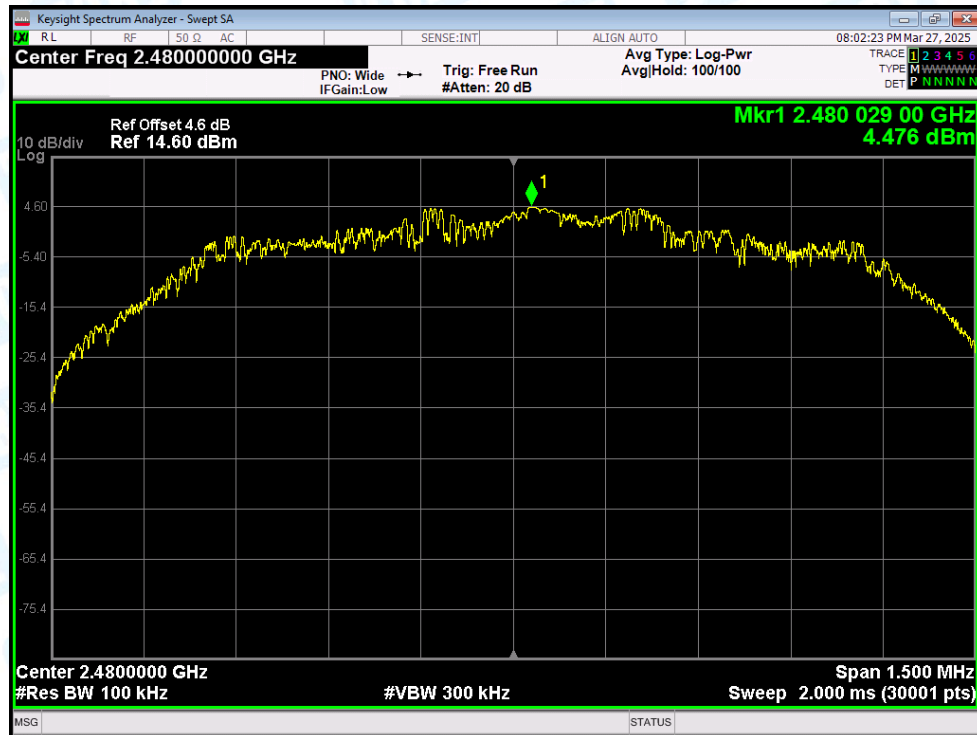
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



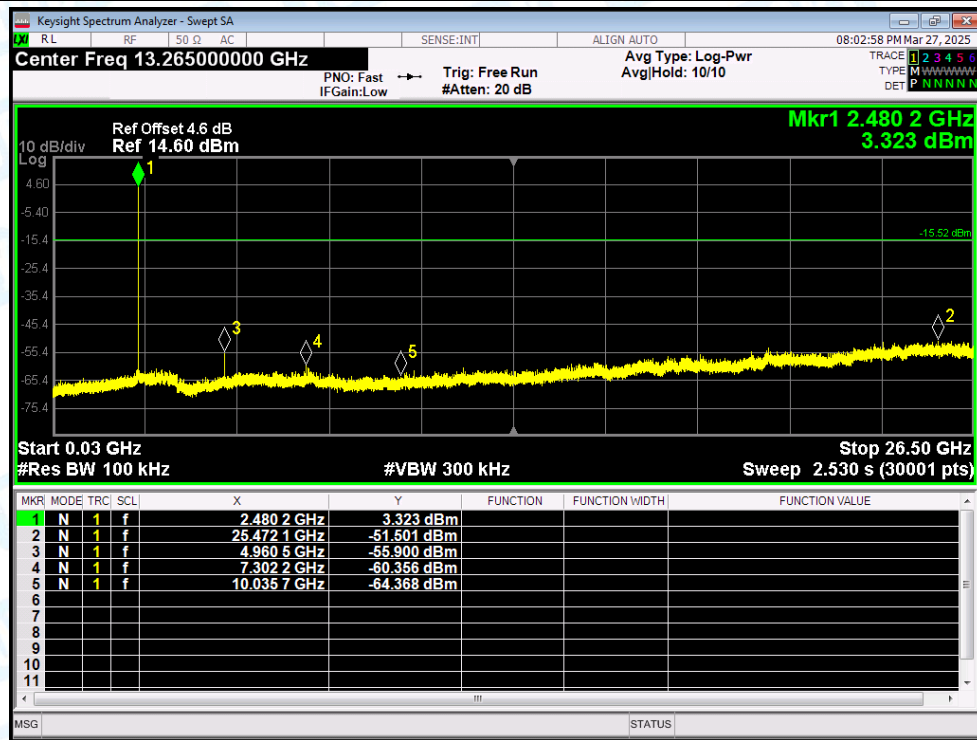
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

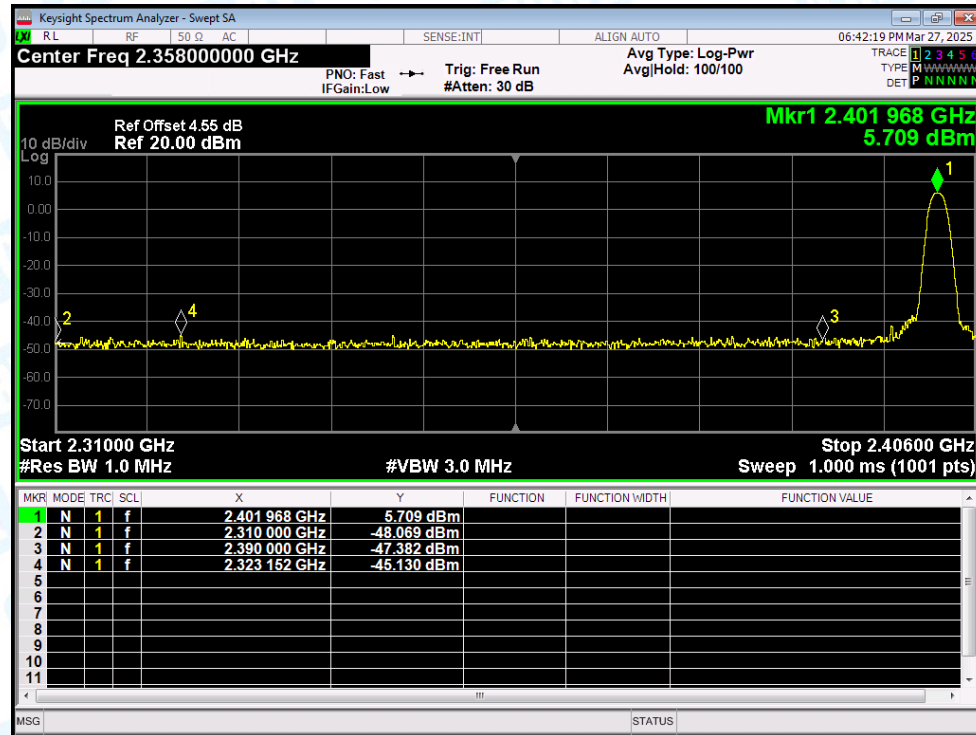


8. Restrict Band

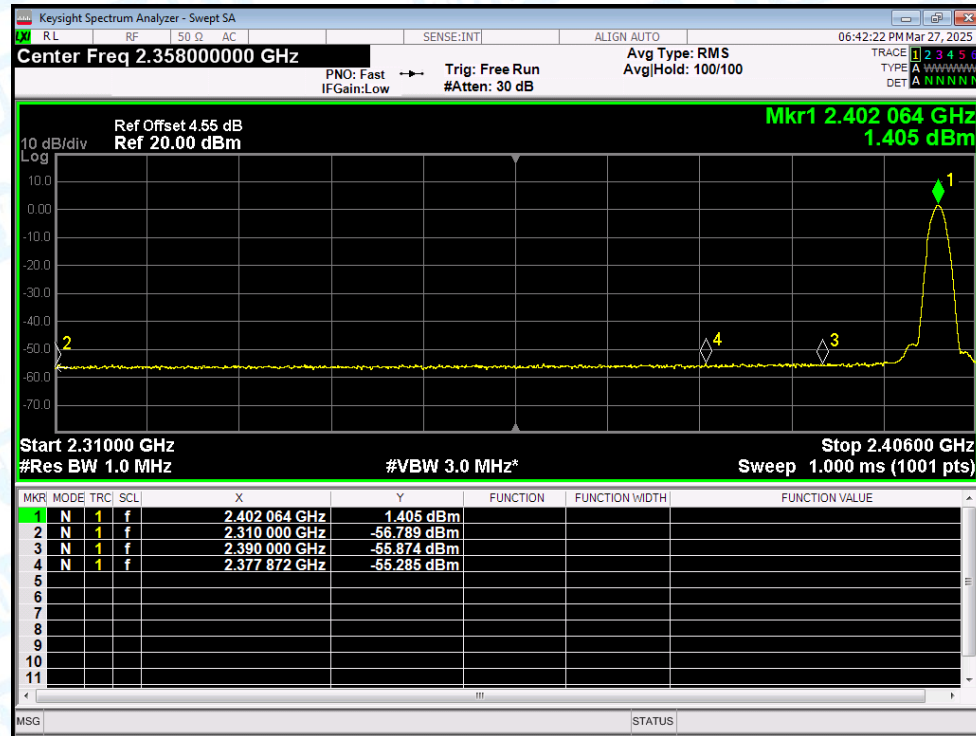
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-48.07	2	-	49.19	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.79	2	5.07	45.54	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2323.152	-45.13	2	-	52.13	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2377.872	-55.28	2	5.07	47.05	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-47.38	2	-	49.88	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-55.87	2	5.07	46.46	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-44.21	2	-	53.05	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-53.1	2	4.99	49.15	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.536	-43.17	2	-	54.09	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.536	-52.76	2	4.99	49.49	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-47.6	2	-	49.66	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.69	2	4.99	46.56	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-47.48	2	-	49.78	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-55.94	2	4.99	46.31	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2331.312	-44.79	2	-	52.47	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2364.432	-55.39	2	4.99	46.86	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	-55.58	2	4.99	46.67	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-44.45	2	-	52.81	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-53.65	2	4.99	48.6	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.68	-43.07	2	-	54.19	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.536	-53.35	2	4.99	48.9	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-48.75	2	-	48.51	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.1	2	4.99	47.15	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-49.61	2	-	47.65	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.28	2	4.91	45.89	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2383.344	-45.16	2	-	52.1	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2389.392	-55.34	2	4.91	46.83	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-46.93	2	-	50.33	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-56.04	2	4.91	46.13	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-44.08	2	-	53.18	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-53.17	2	4.99	49.08	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.536	-42.93	2	-	54.33	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.512	-53.17	2	4.99	49.08	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-47.28	2	-	49.98	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.14	2	4.99	47.11	Average	54	Pass

Test Graphs

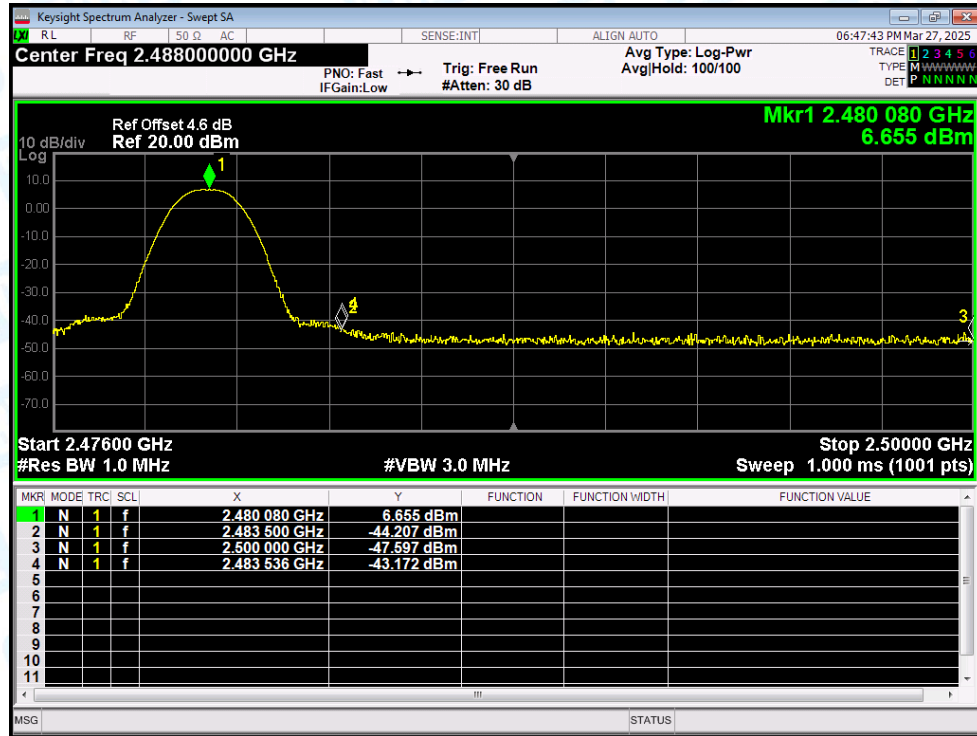
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



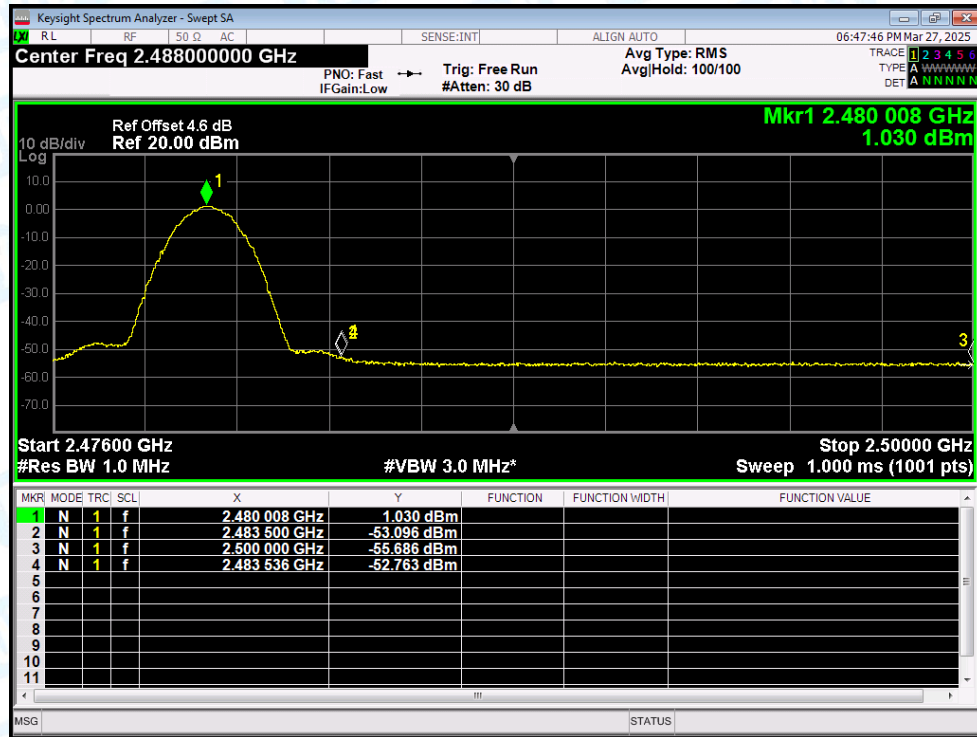
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



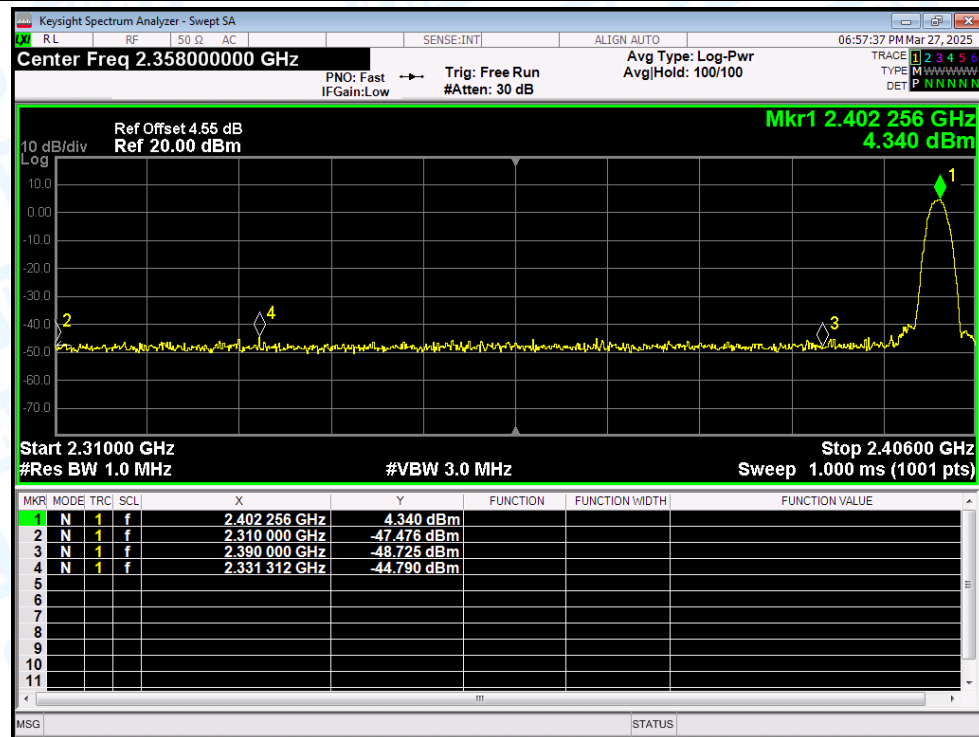
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



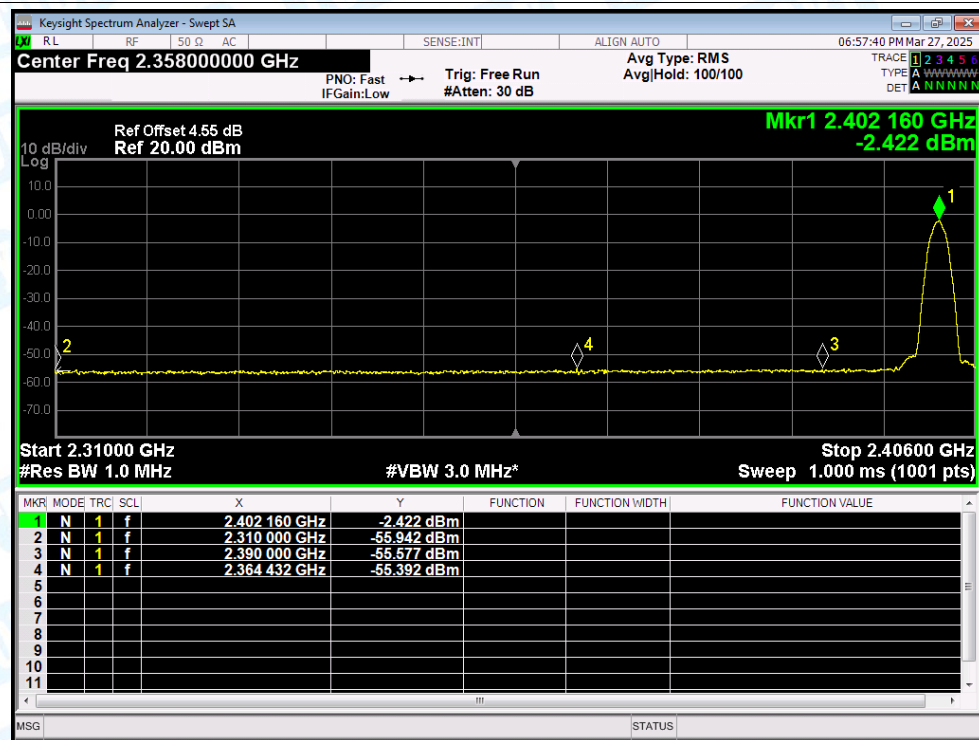
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



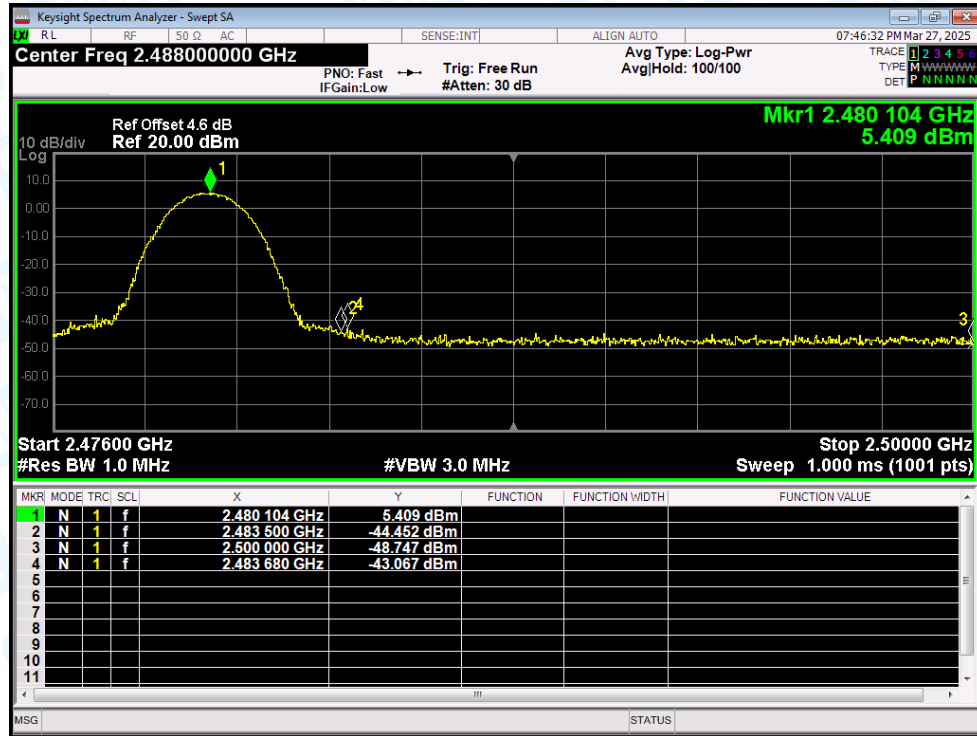
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



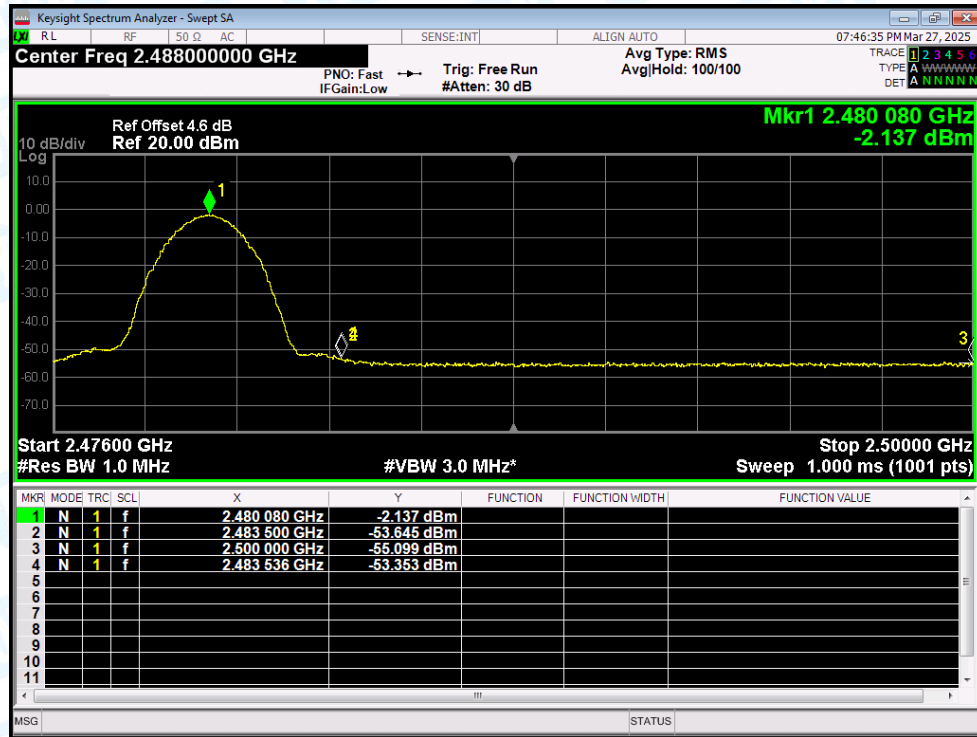
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



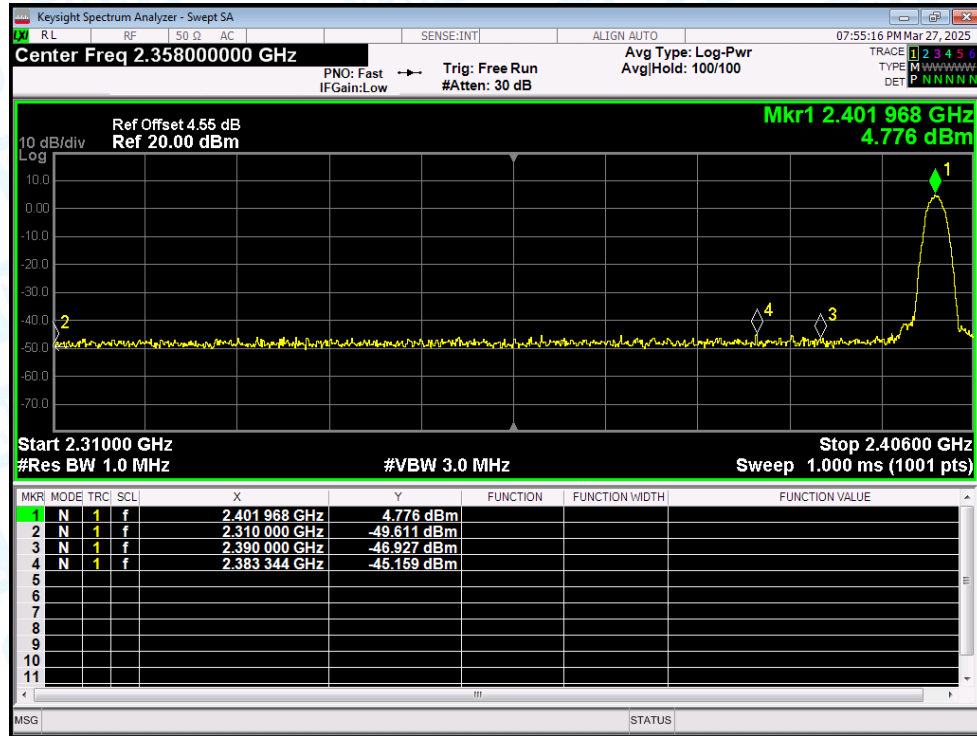
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



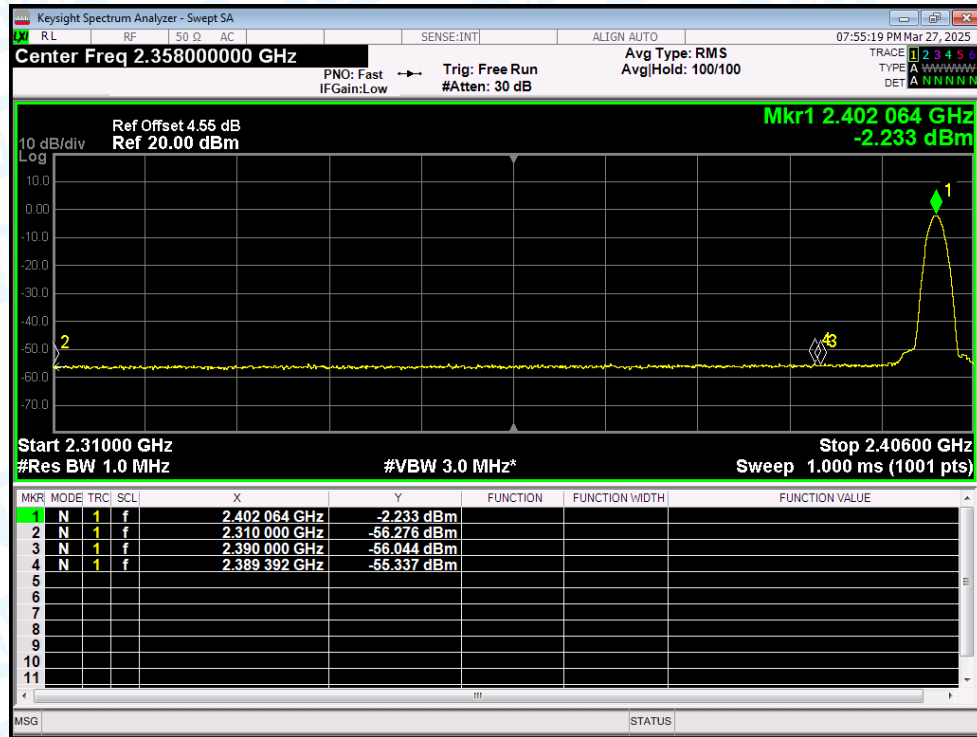
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



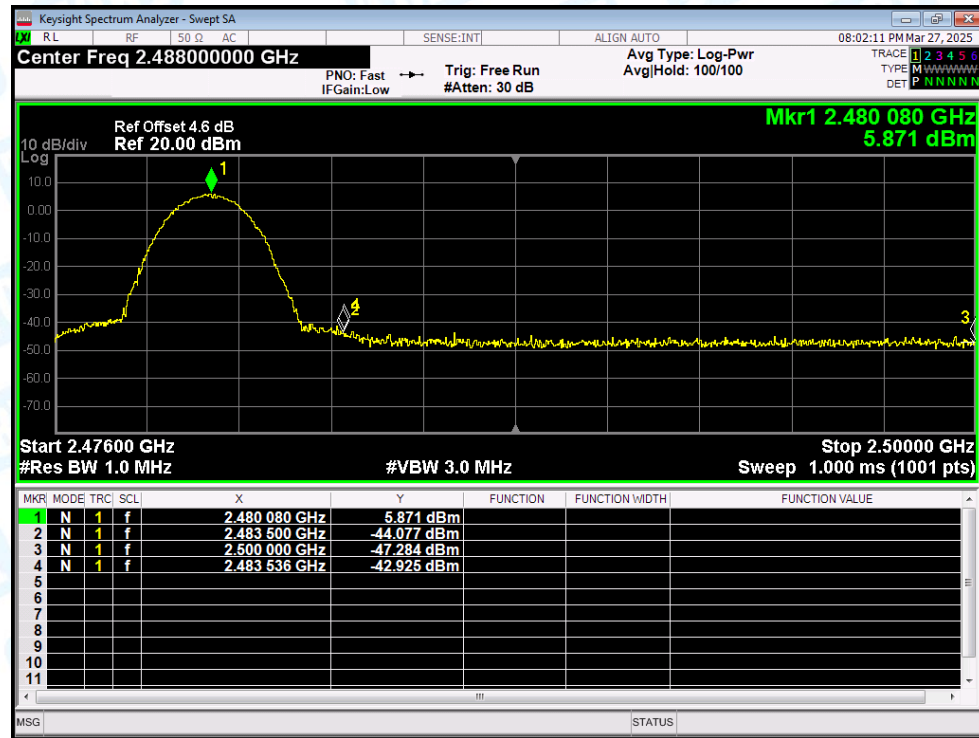
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



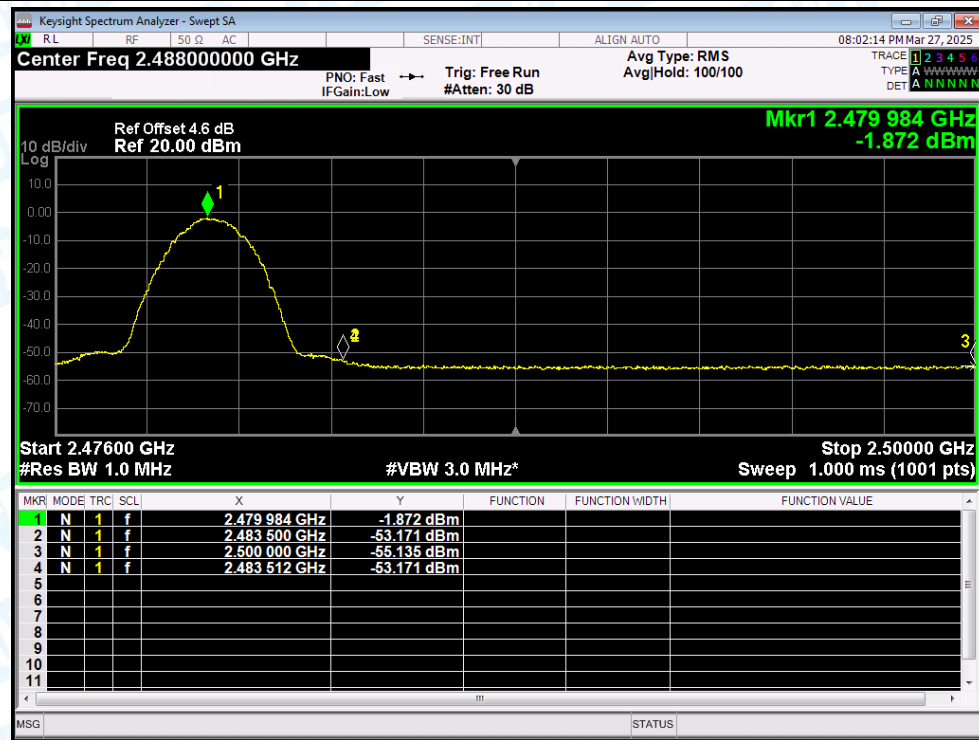
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

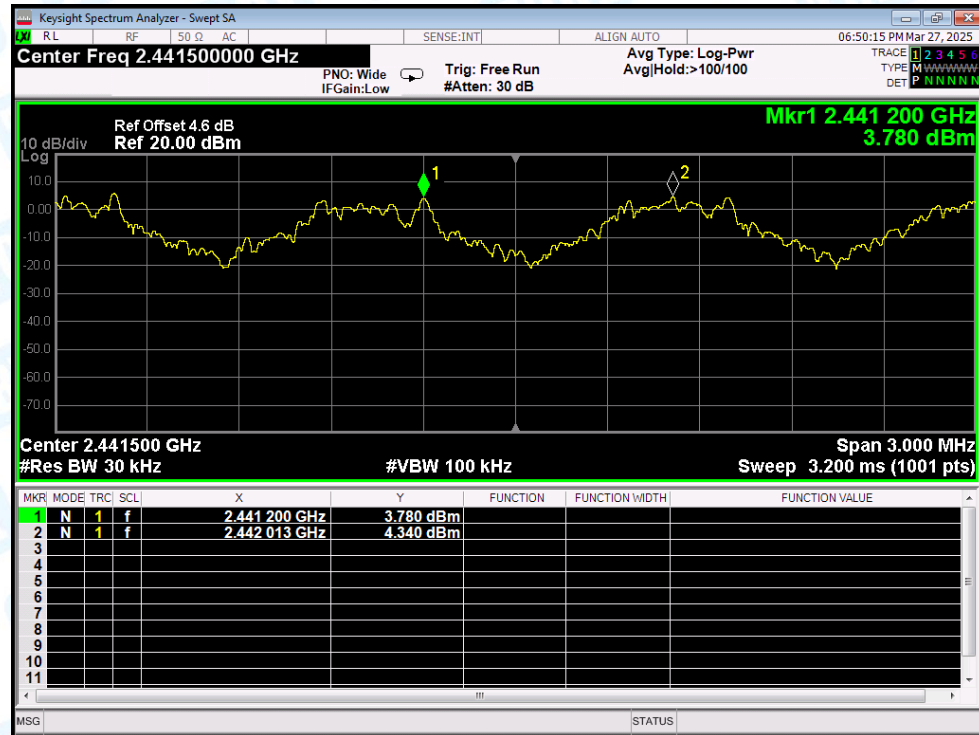


9. Carrier Frequencies Separation

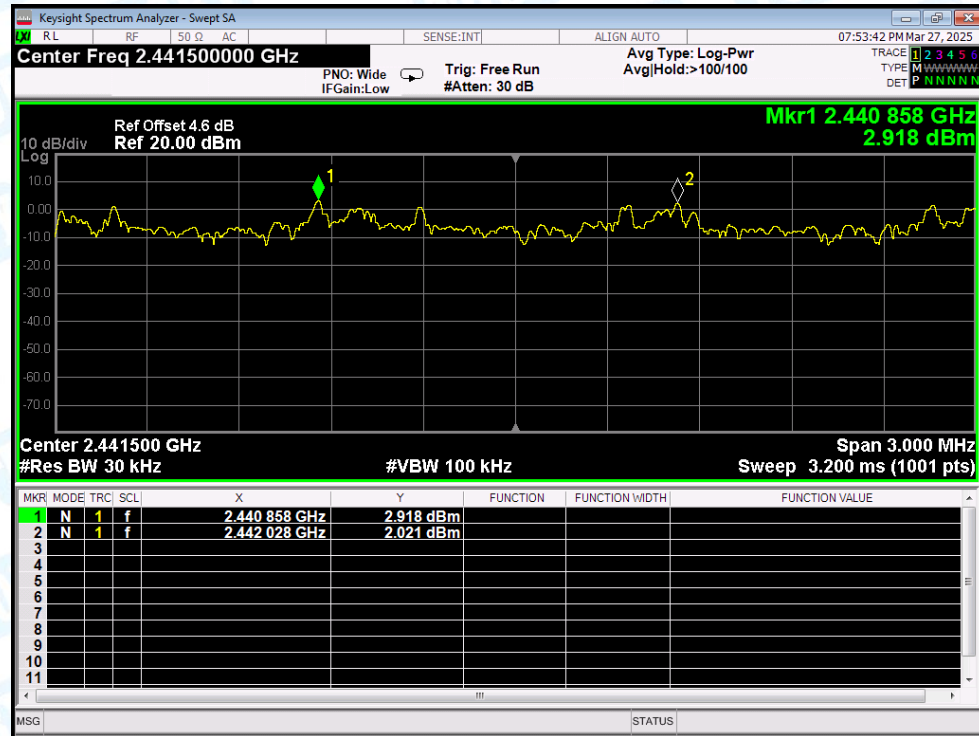
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2441.2	2442.013	0.813	0.613	Pass
NVNT	2-DH1	Ant1	2440.858	2442.028	1.17	0.827	Pass
NVNT	3-DH1	Ant1	2440.852	2442.019	1.167	0.8	Pass

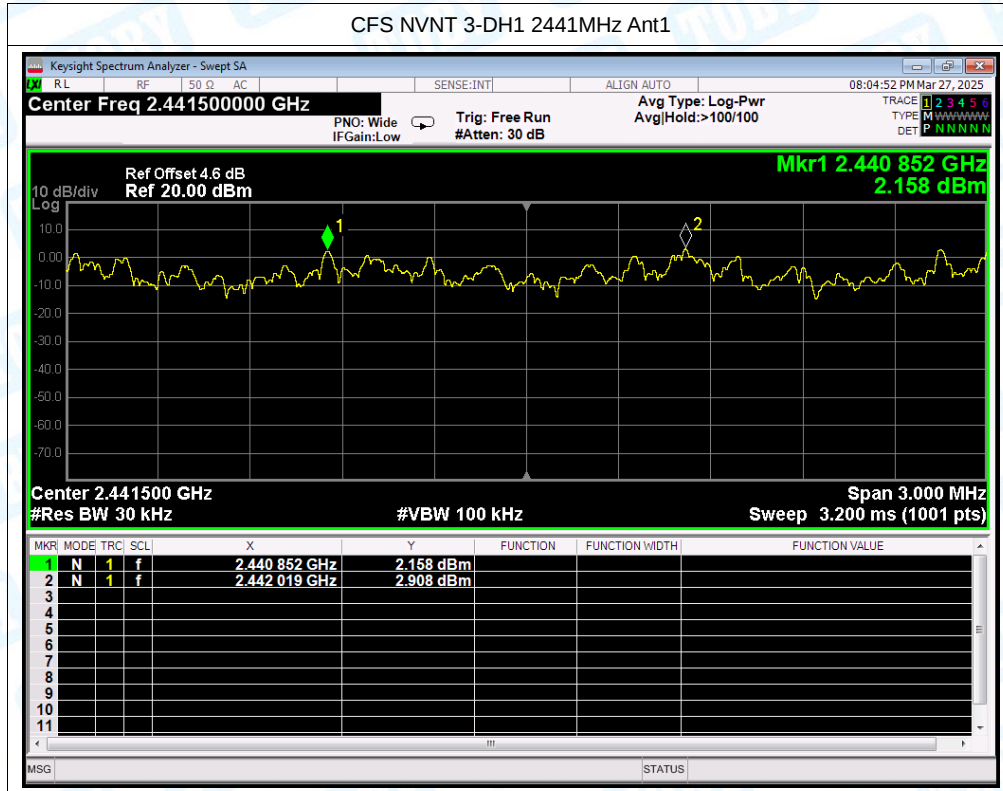
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



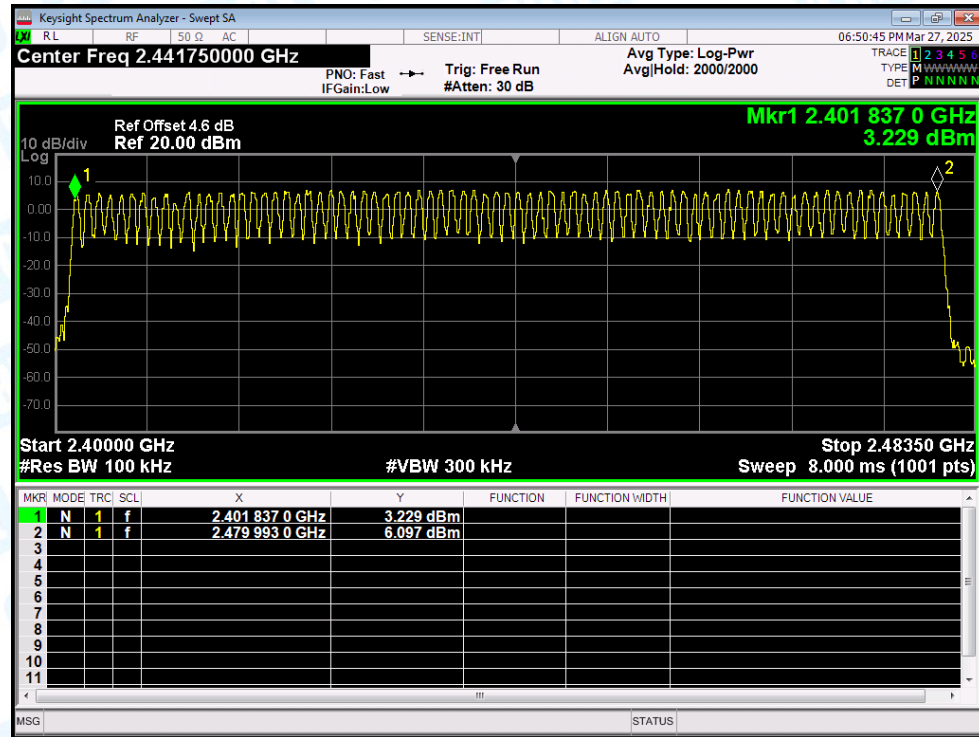


10. Number of Hopping Channel

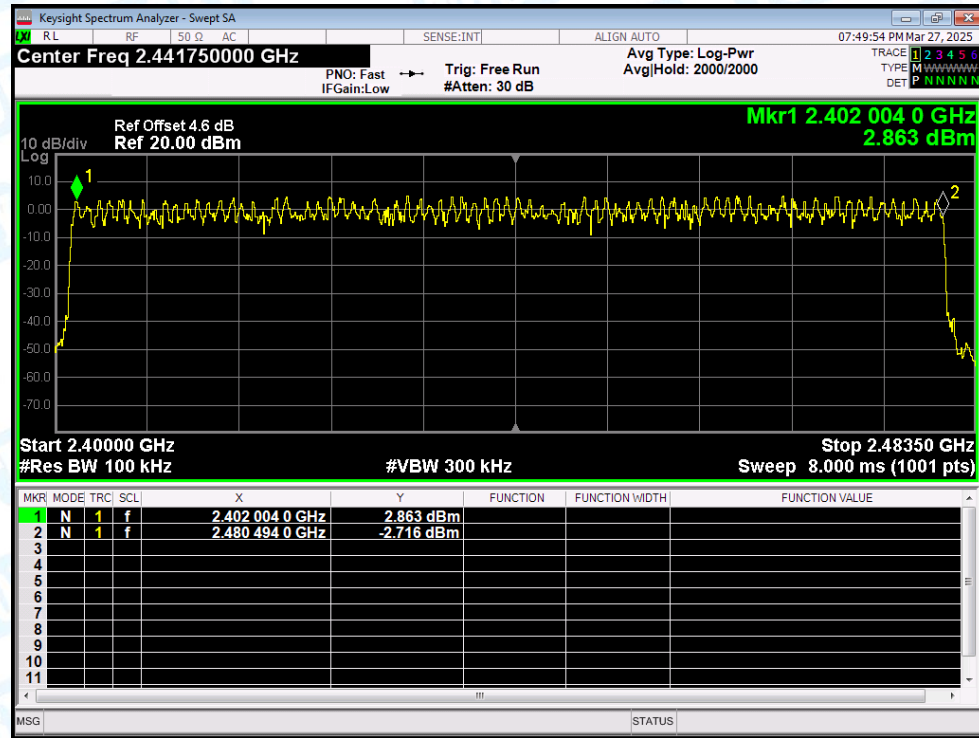
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

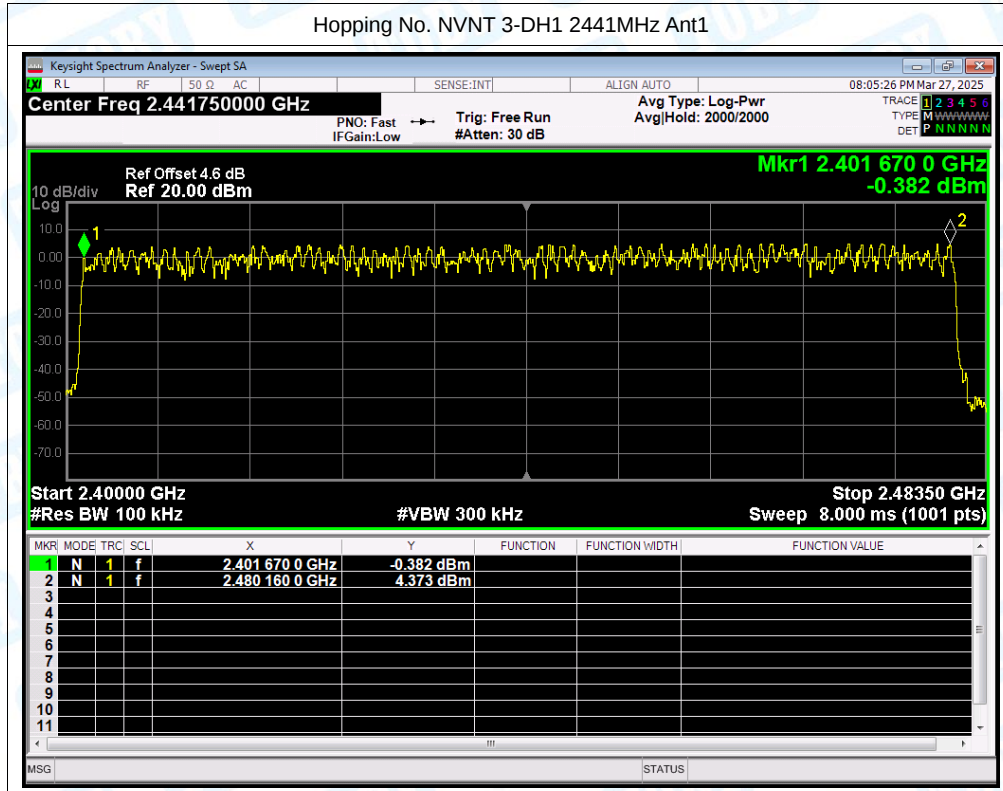
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



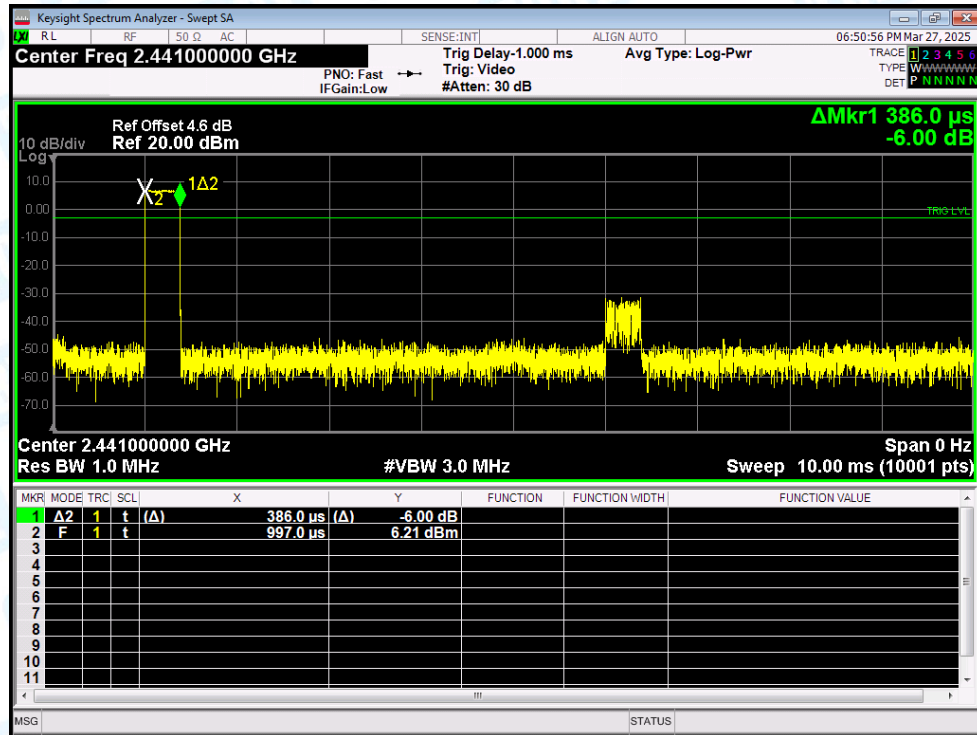


11. Dwell Time

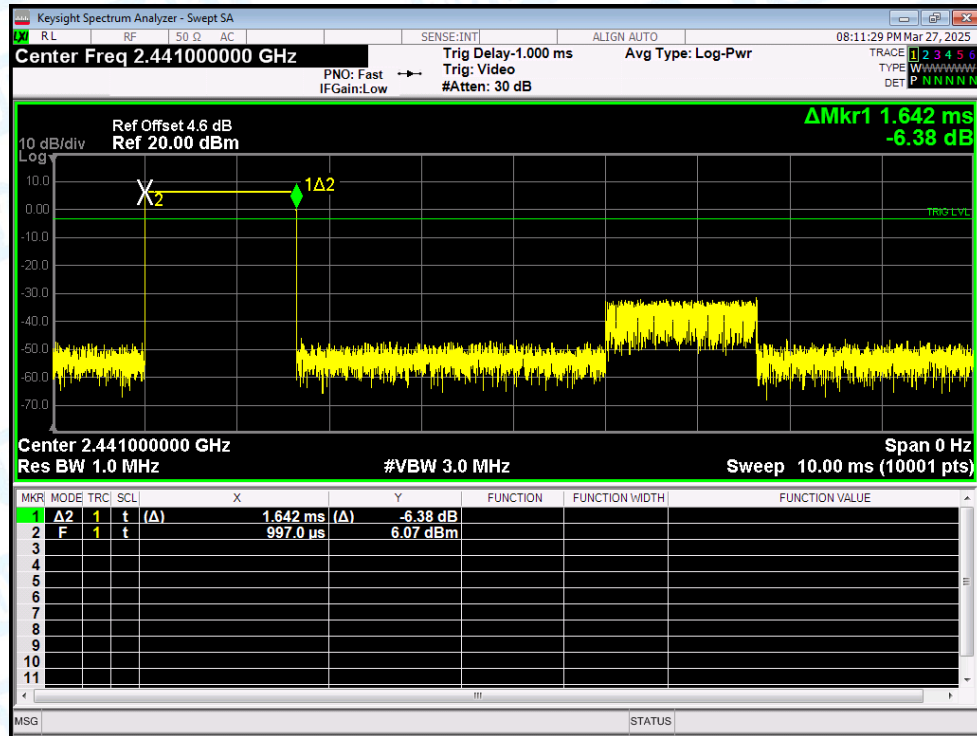
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.386	123.52	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.642	262.72	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.89	308.267	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.394	126.08	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.647	263.52	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.894	308.693	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.394	126.08	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.645	263.2	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.896	308.907	31600	400	Pass

Test Graphs

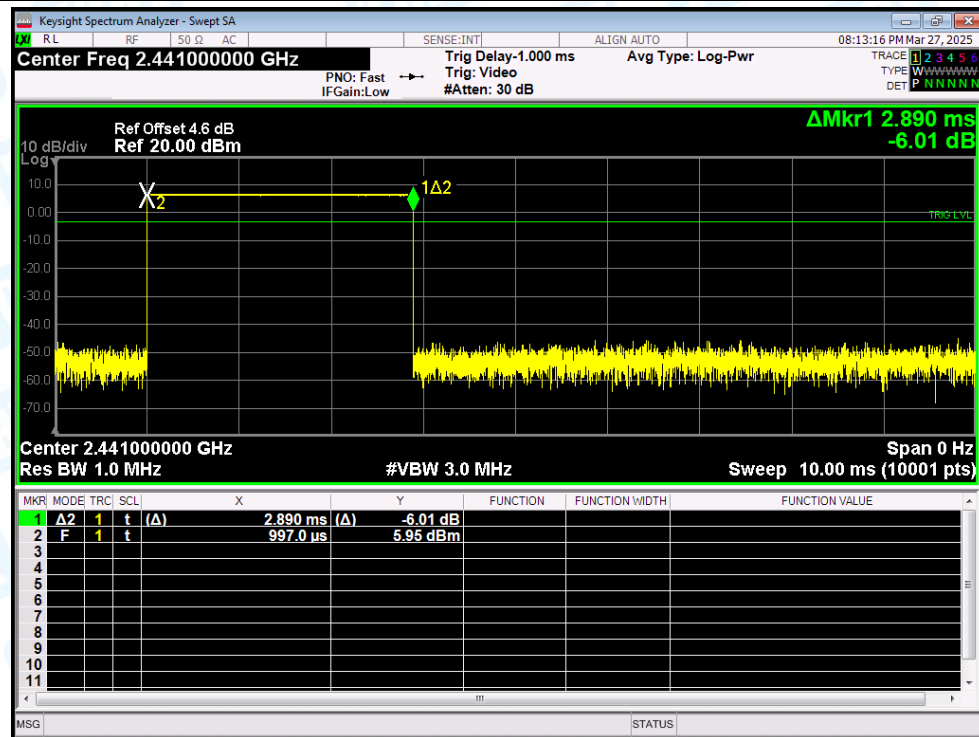
Dwell NVNT 1-DH1 2441MHz Ant1



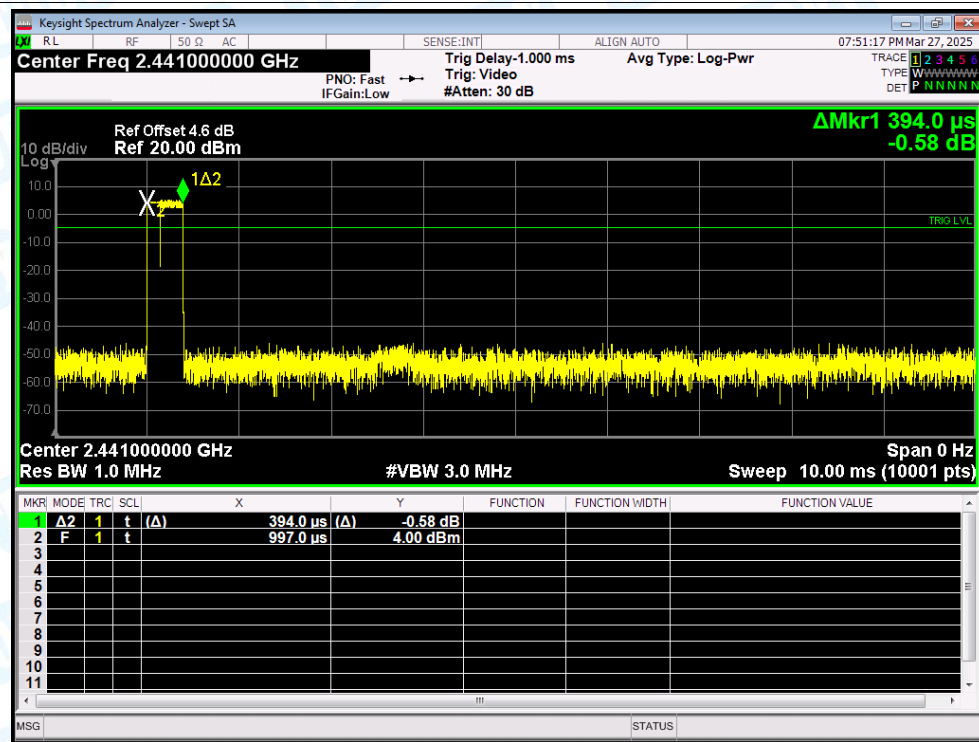
Dwell NVNT 1-DH3 2441MHz Ant1



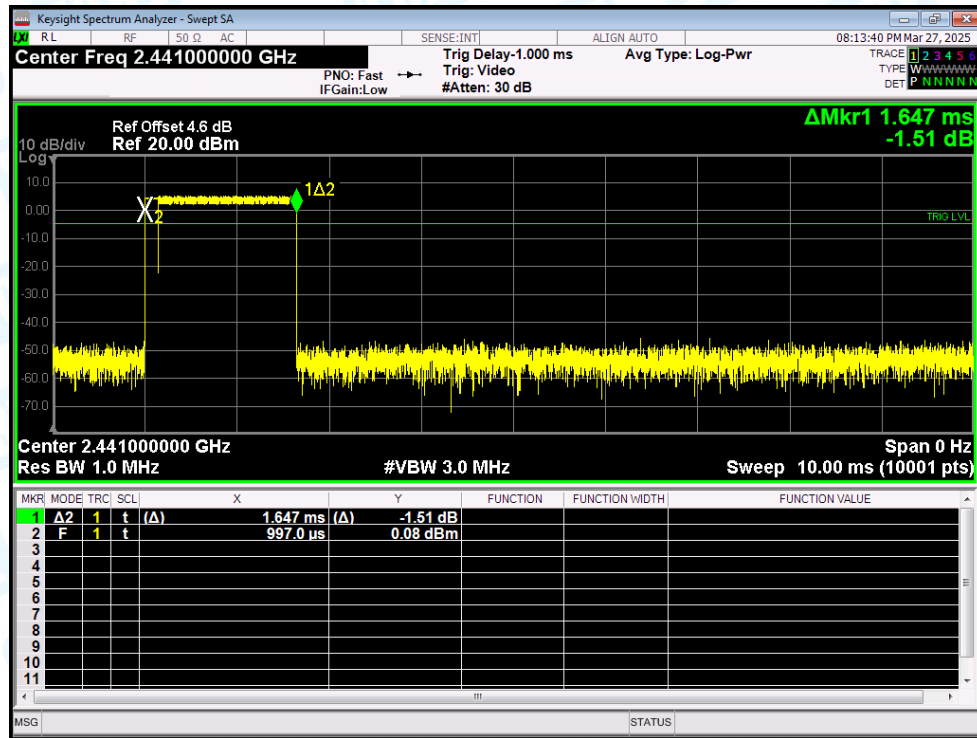
Dwell NVNT 1-DH5 2441MHz Ant1



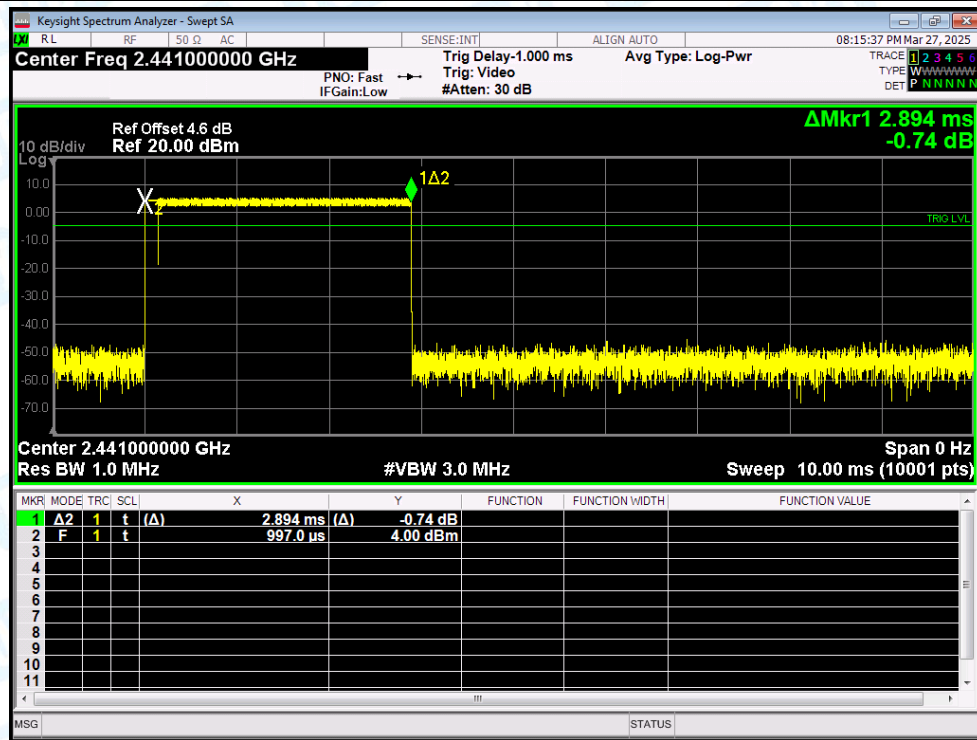
Dwell NVNT 2-DH1 2441MHz Ant1



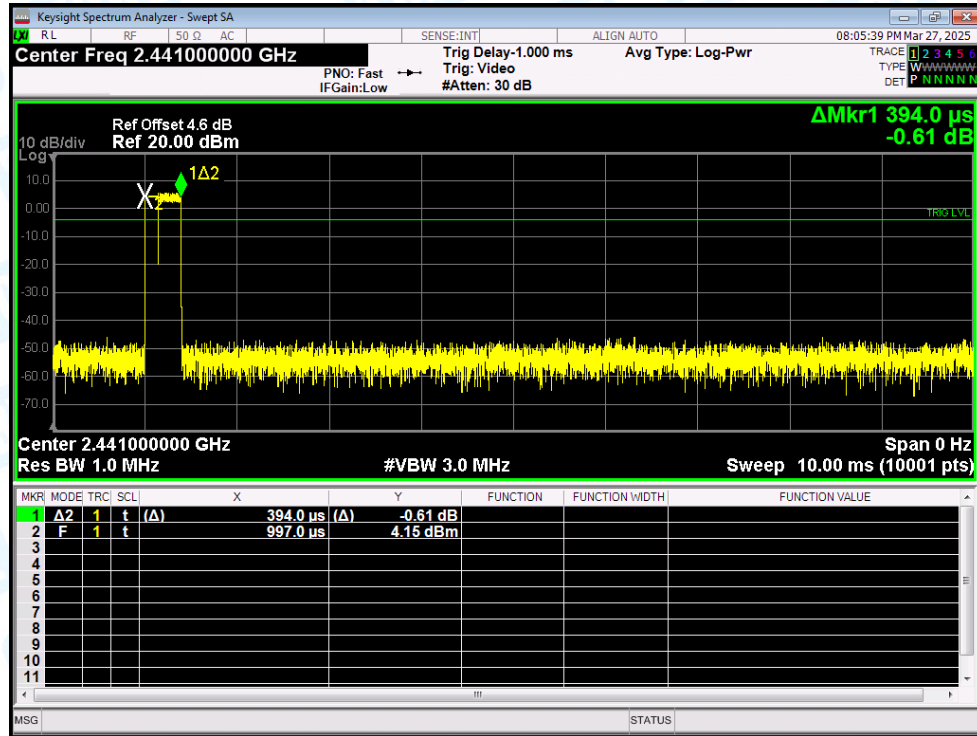
Dwell NVNT 2-DH3 2441MHz Ant1



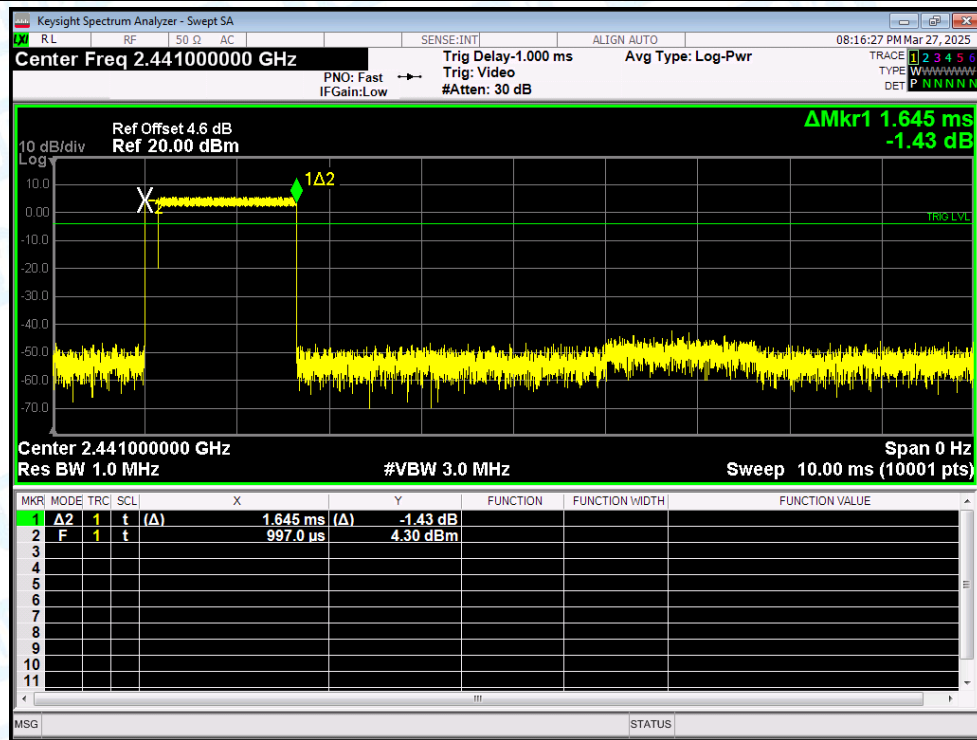
Dwell NVNT 2-DH5 2441MHz Ant1

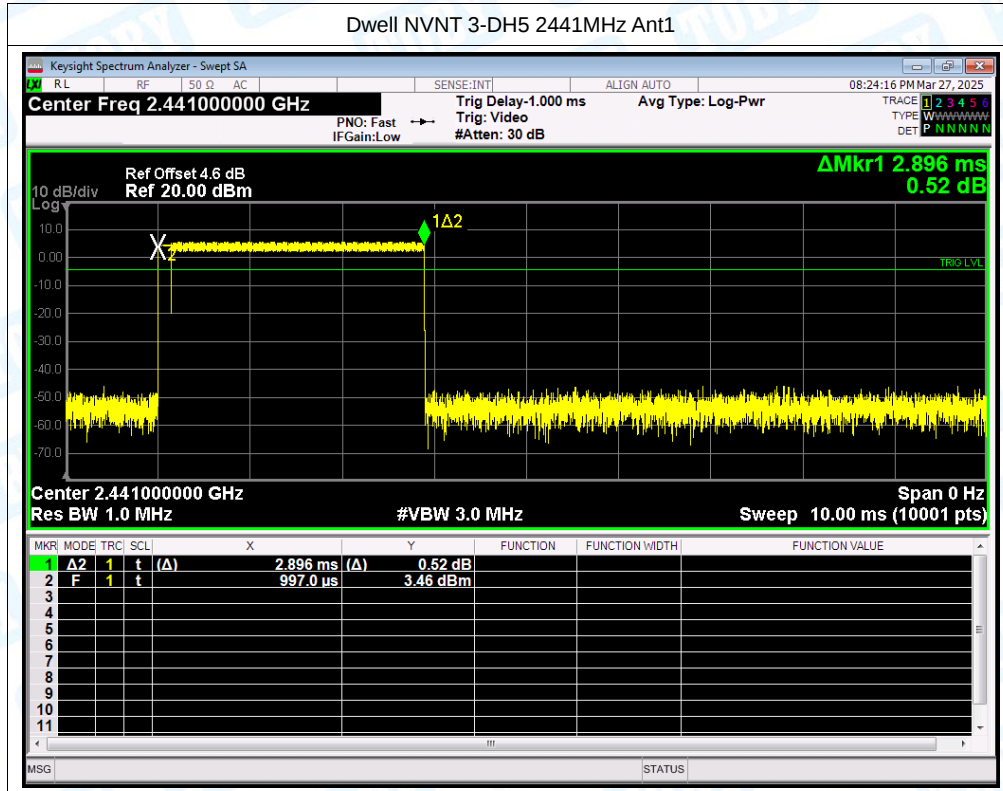


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





--- END OF REPORT ---