

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	Smart watch
Test Model:	Y35
Sample ID:	HC-C-202504-0106-01-02#
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 3.8V
Test Engineer:	Lily Zhang
Note: For a more detailed features description, please refer to the report TBR-C-202504-0106-71 The report only show the worst case data.	

Contents

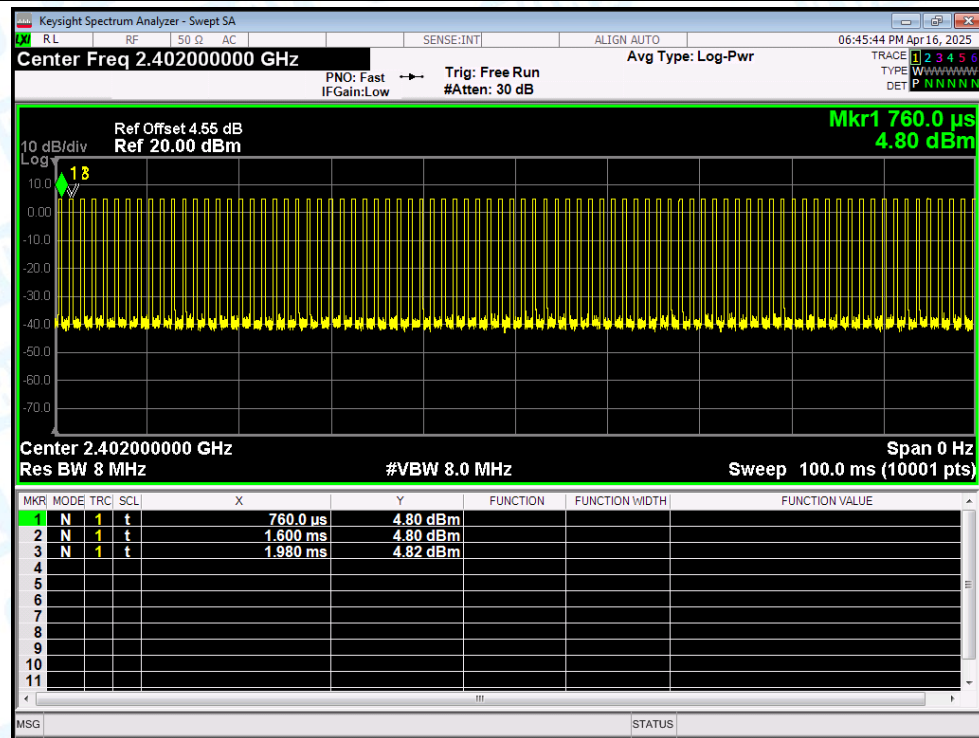
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1.Duty Cycle

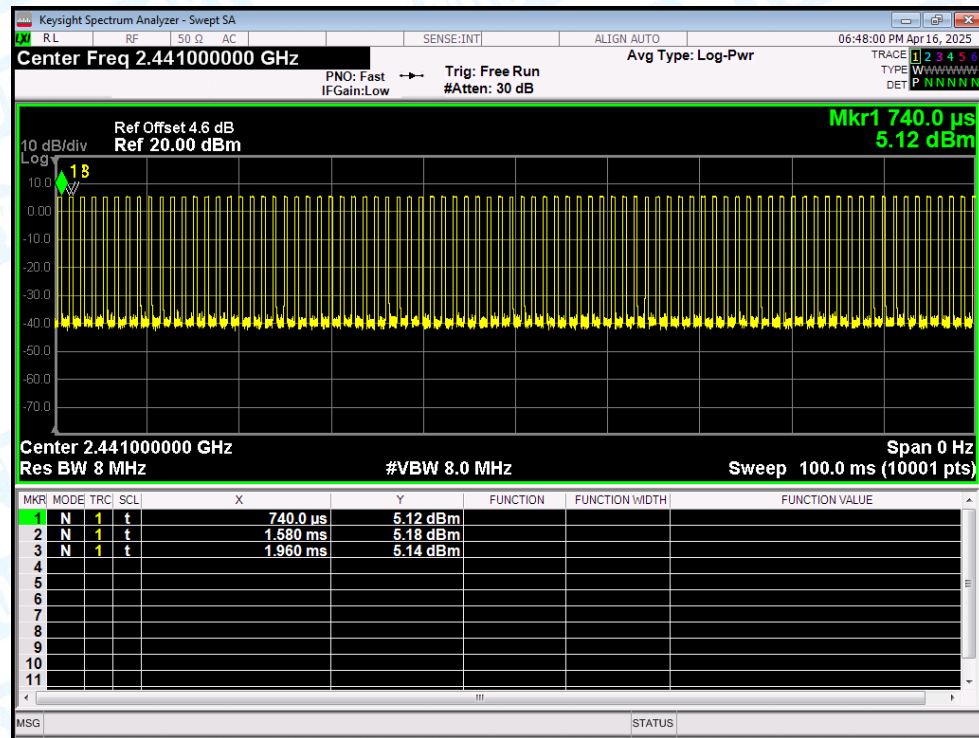
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	31.15	5.07	2.63
NVNT	1-DH1	2441	Ant1	31.15	5.07	2.63
NVNT	1-DH1	2480	Ant1	31.15	5.07	2.63
NVNT	2-DH1	2402	Ant1	31.45	5.02	2.56
NVNT	2-DH1	2441	Ant1	31.71	4.99	2.56
NVNT	2-DH1	2480	Ant1	32.26	4.91	2.5
NVNT	3-DH1	2402	Ant1	31.71	4.99	2.56
NVNT	3-DH1	2441	Ant1	31.71	4.99	2.56
NVNT	3-DH1	2480	Ant1	31.71	4.99	2.56

Test Graphs

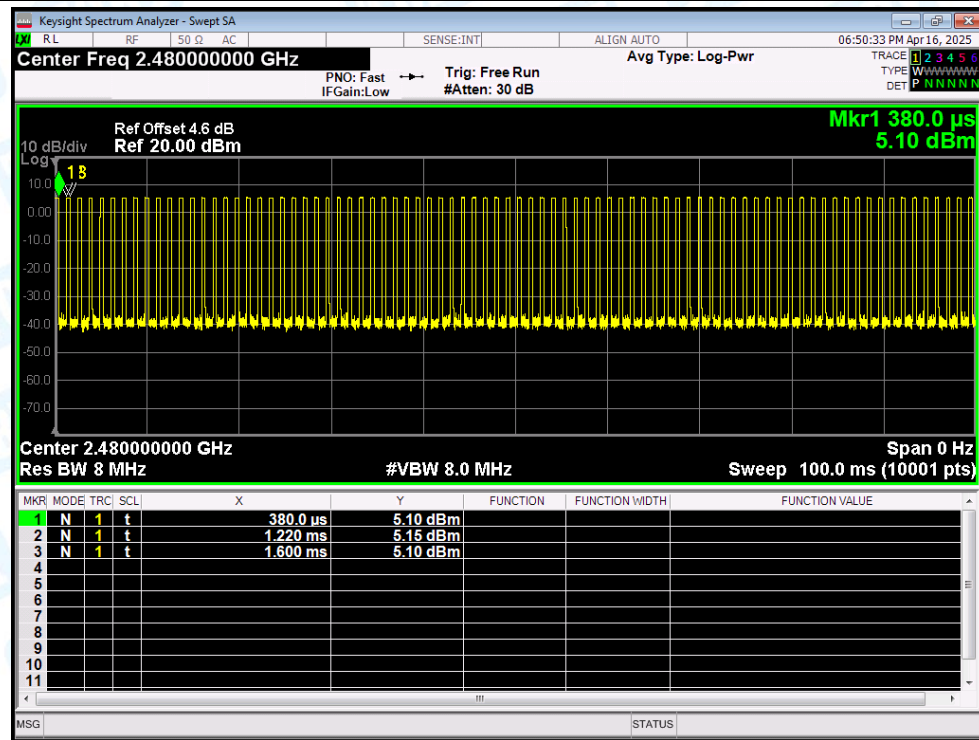
Duty Cycle NVNT 1-DH1 2402MHz Ant1



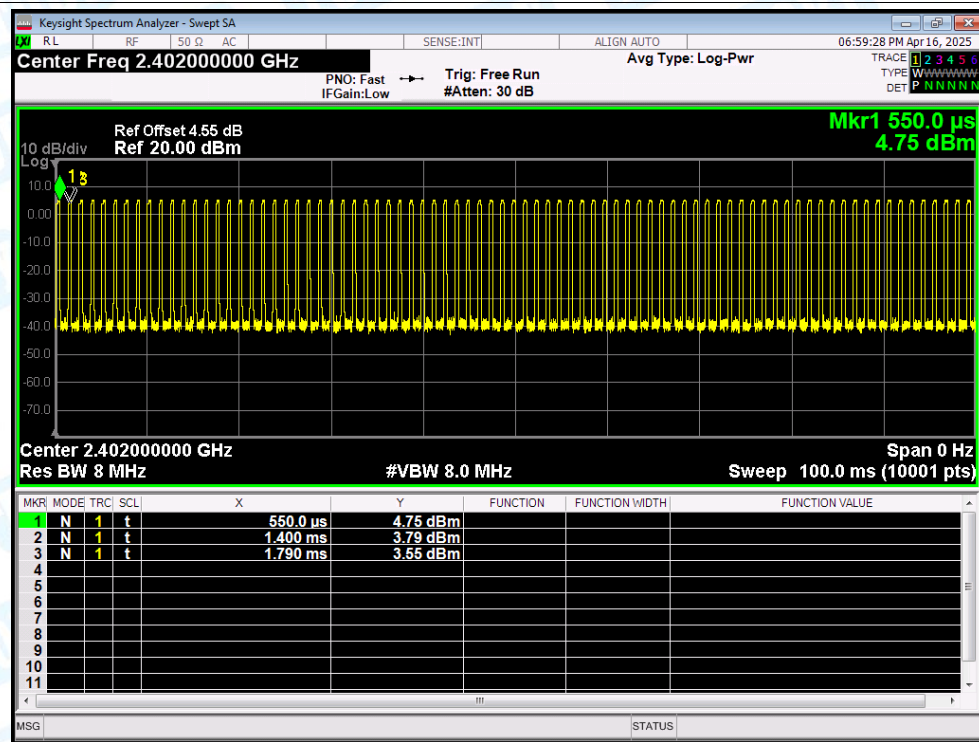
Duty Cycle NVNT 1-DH1 2441MHz Ant1



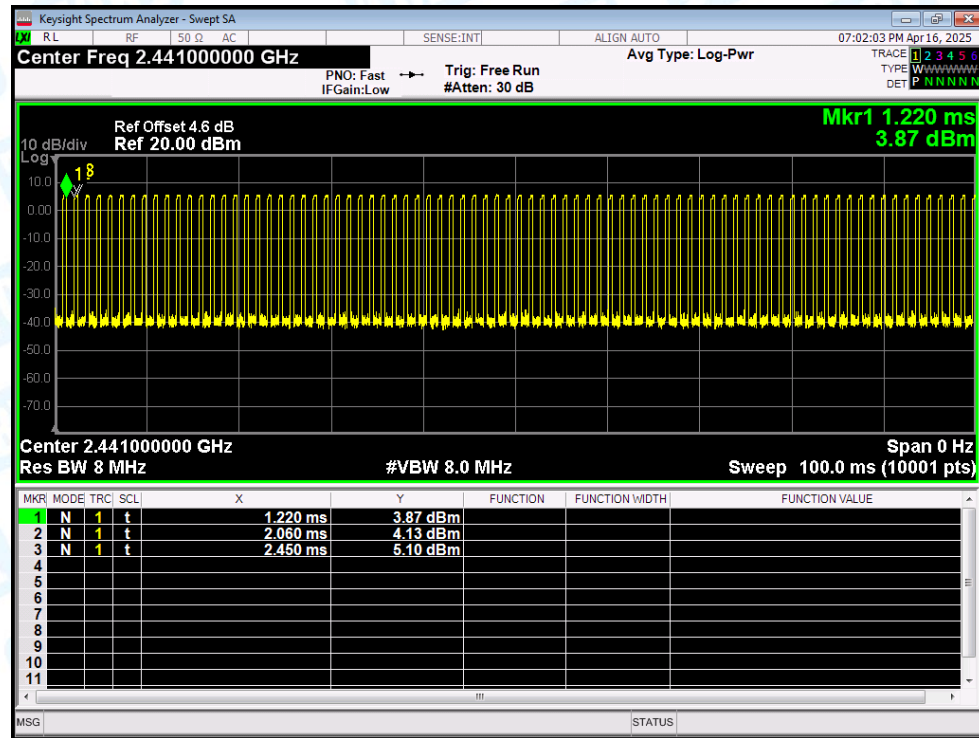
Duty Cycle NVNT 1-DH1 2480MHz Ant1



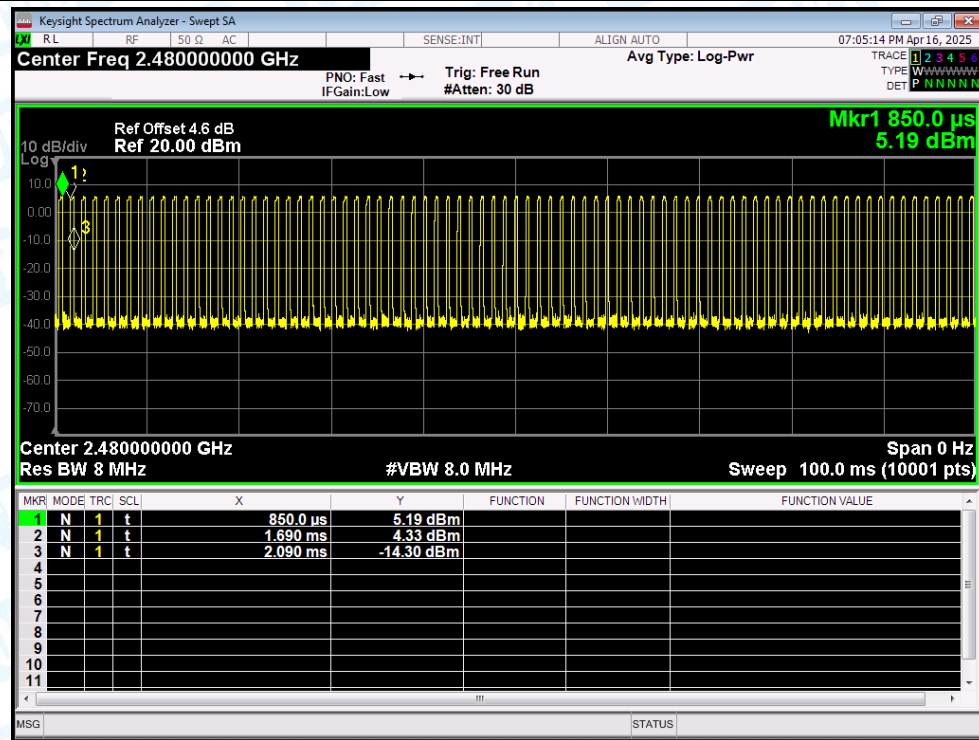
Duty Cycle NVNT 2-DH1 2402MHz Ant1



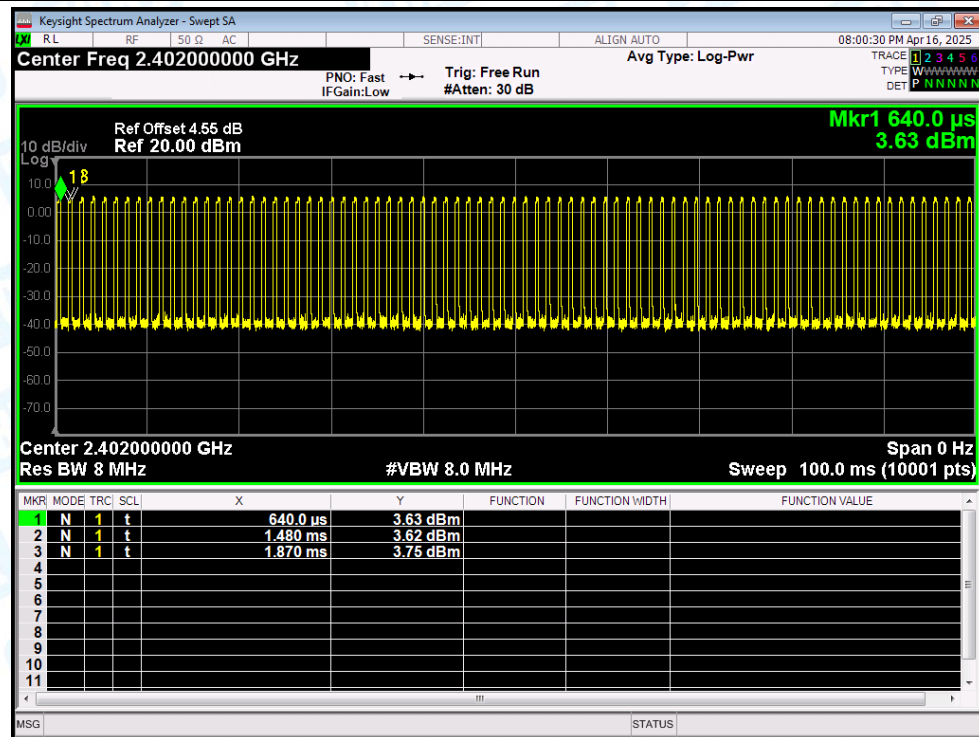
Duty Cycle NVNT 2-DH1 2441MHz Ant1



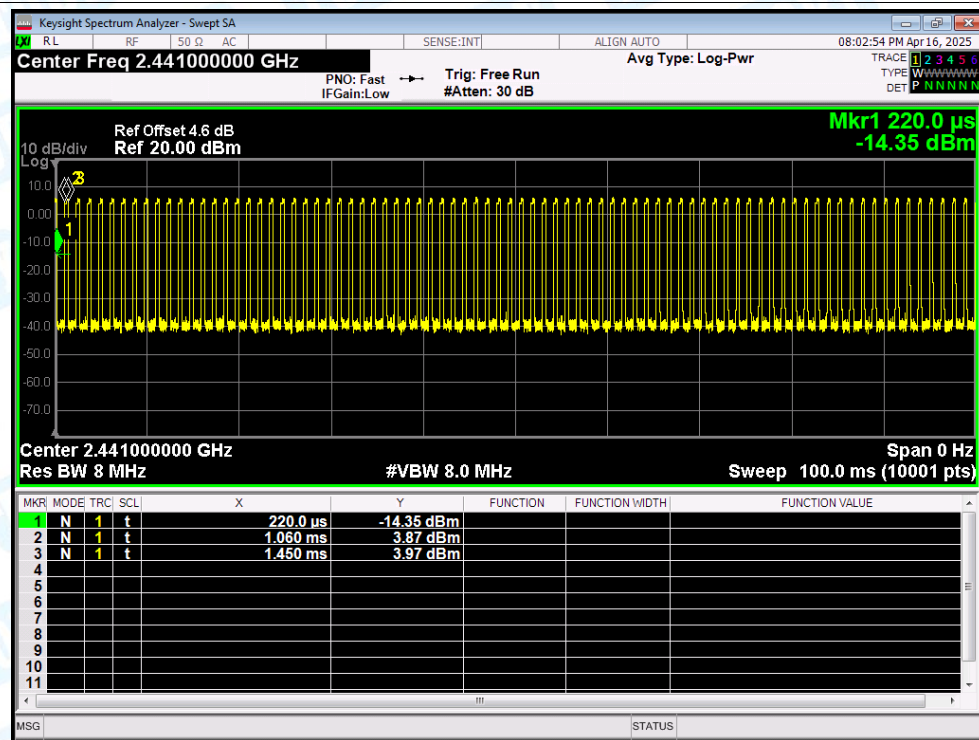
Duty Cycle NVNT 2-DH1 2480MHz Ant1

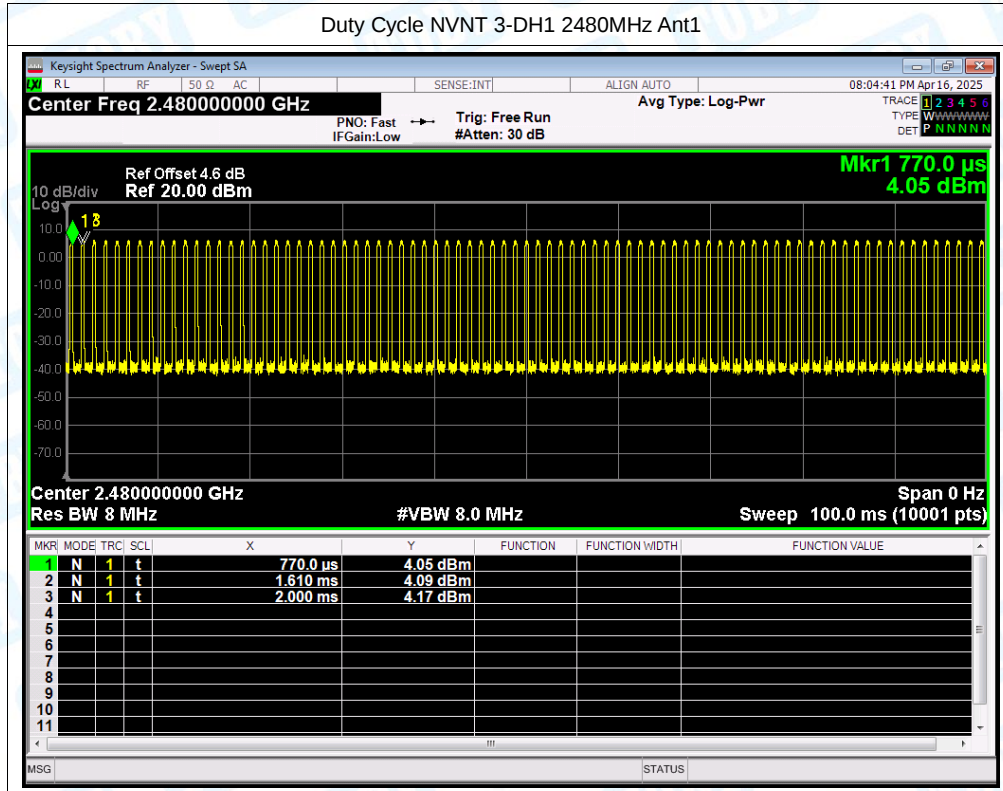


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



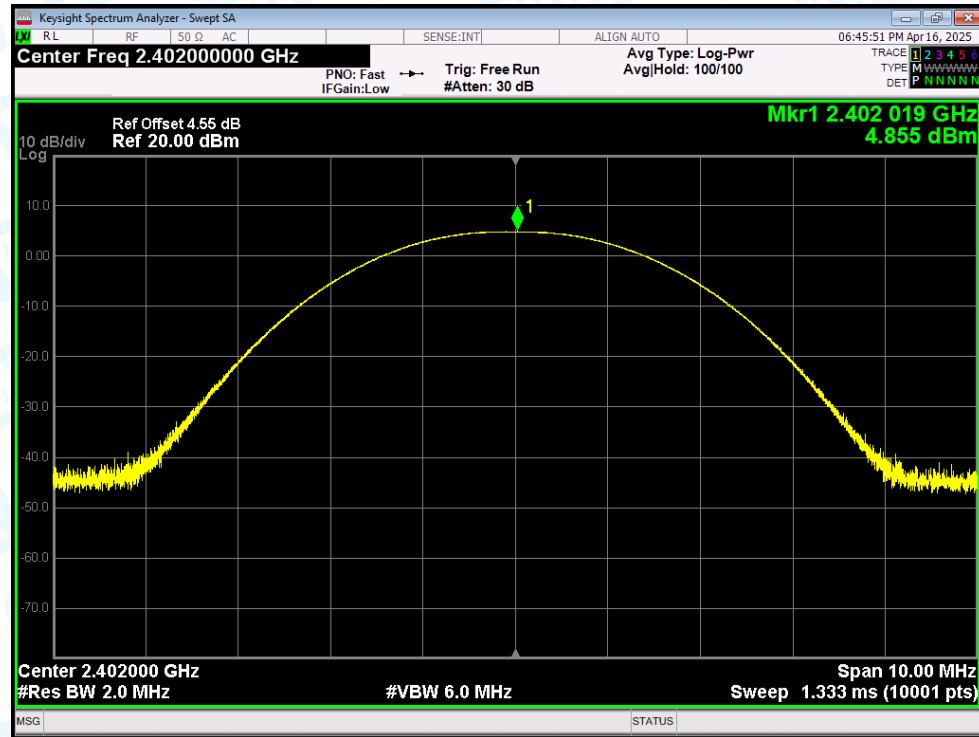


2.Maximum Conducted Output Power

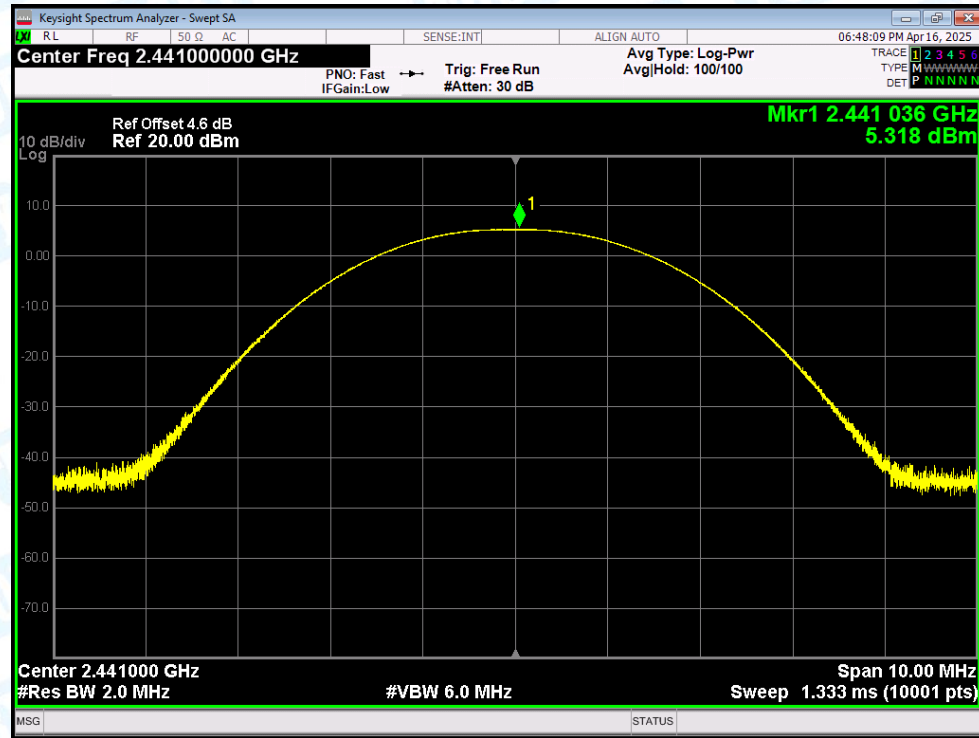
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	4.855	21	Pass
NVNT	1-DH1	2441	Ant1	5.318	21	Pass
NVNT	1-DH1	2480	Ant1	5.028	21	Pass
NVNT	2-DH1	2402	Ant1	5.087	21	Pass
NVNT	2-DH1	2441	Ant1	5.583	21	Pass
NVNT	2-DH1	2480	Ant1	5.672	21	Pass
NVNT	3-DH1	2402	Ant1	5.363	21	Pass
NVNT	3-DH1	2441	Ant1	5.859	21	Pass
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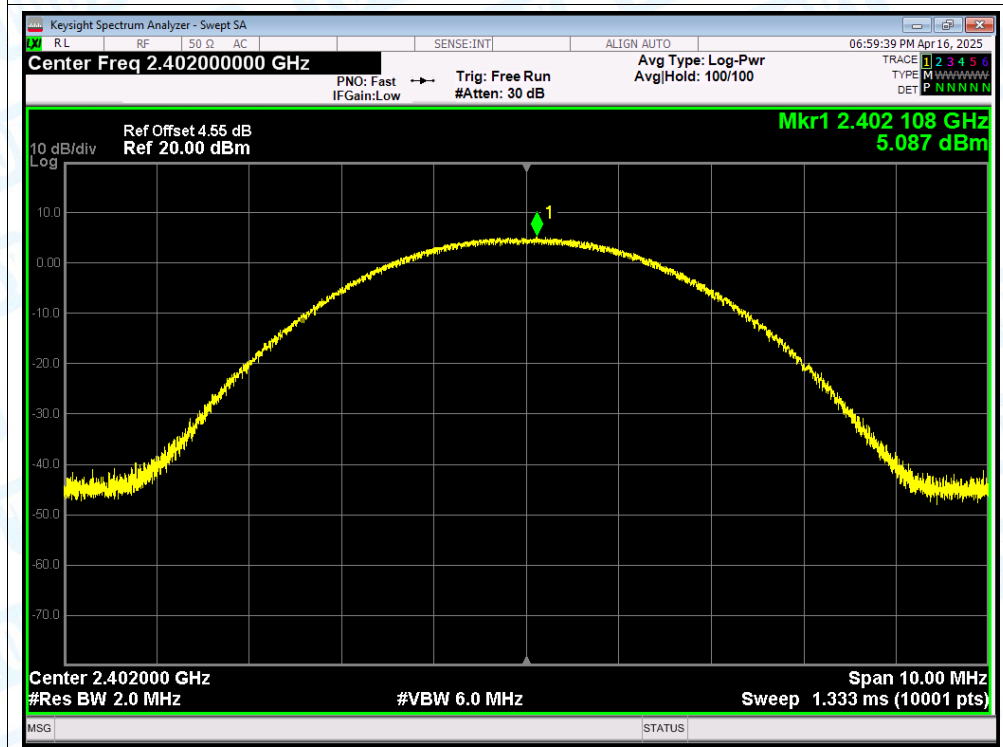
Test Graphs

Power NVNT 1-DH1 2402MHz Ant1

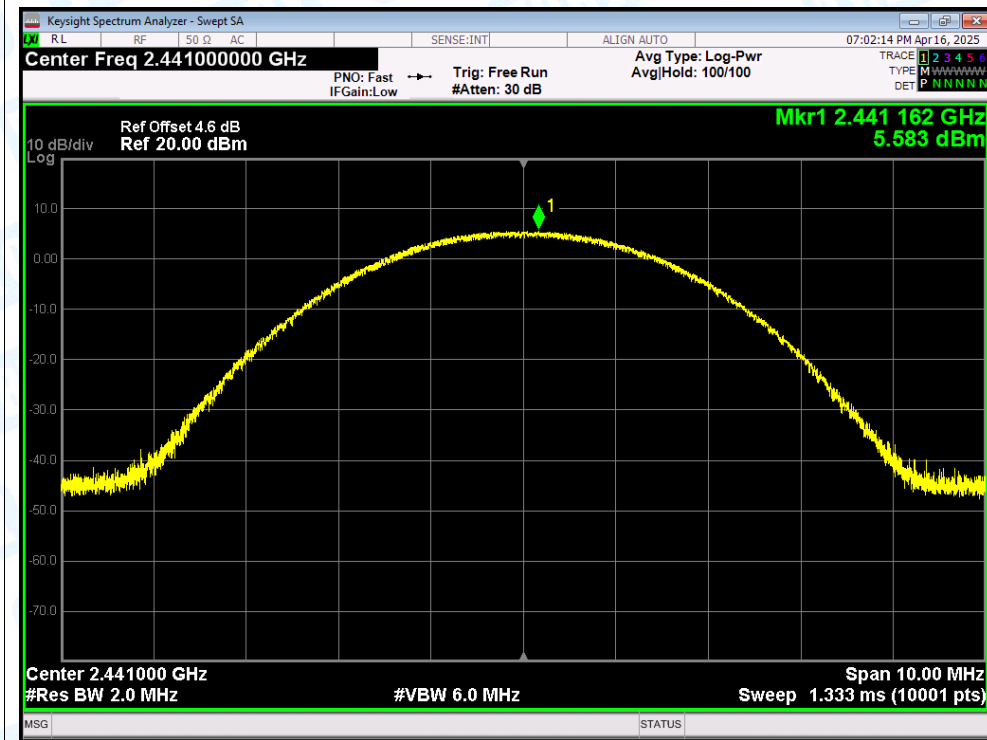


Power NVNT 1-DH1 2441MHz Ant1

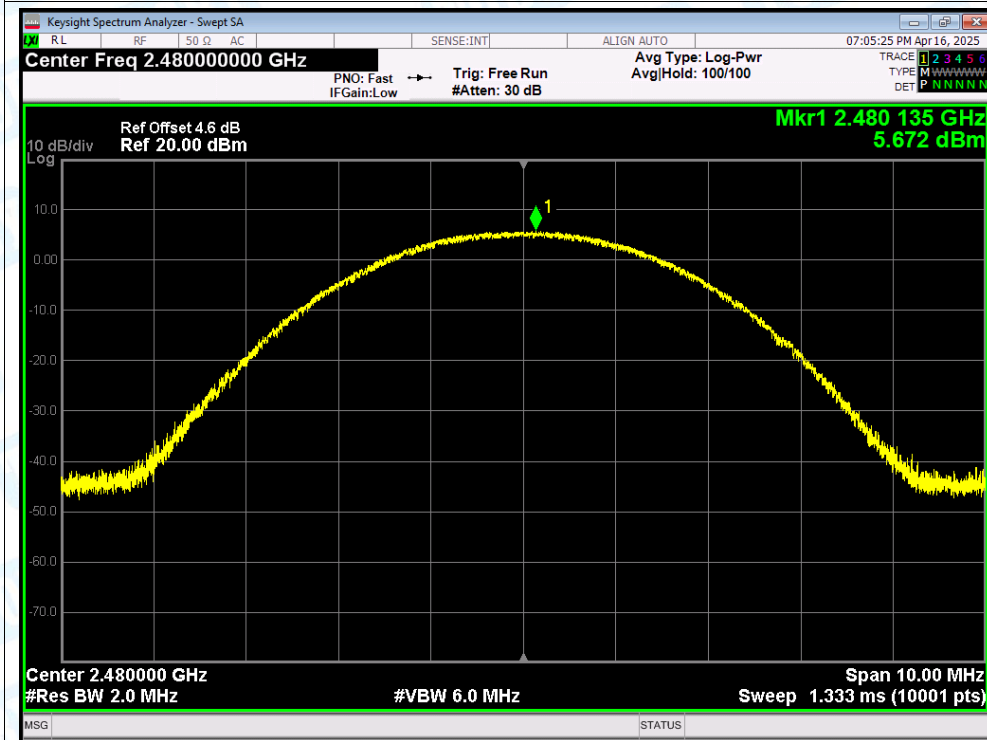




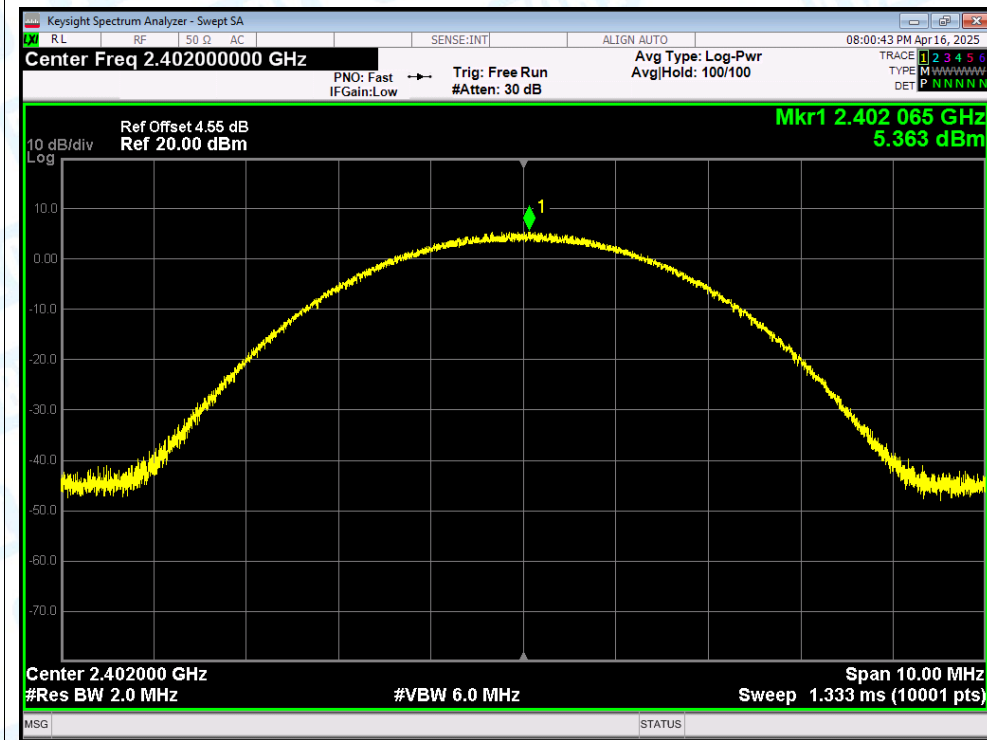
Power NVNT 2-DH1 2441MHz Ant1



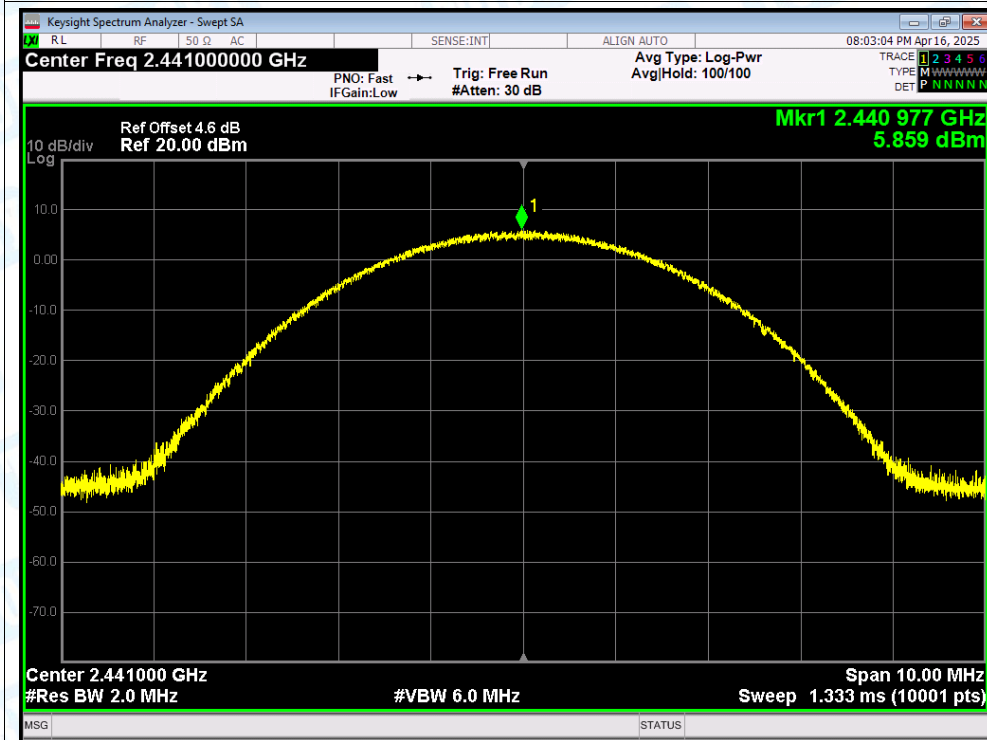
Power NVNT 2-DH1 2480MHz Ant1

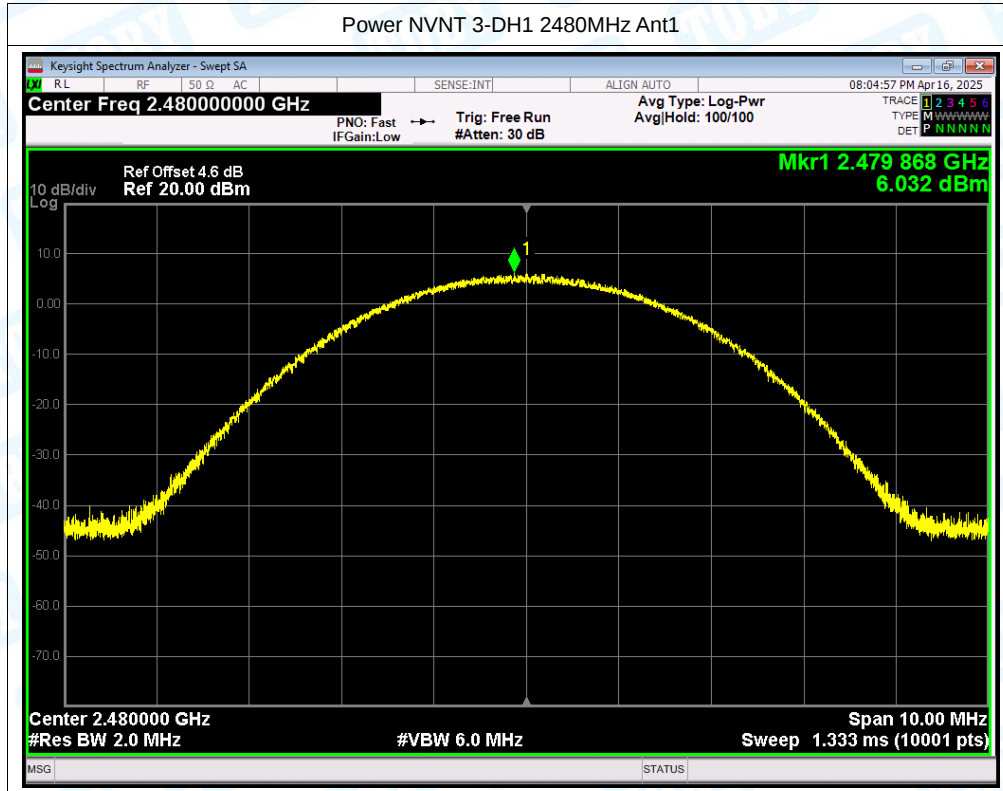


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



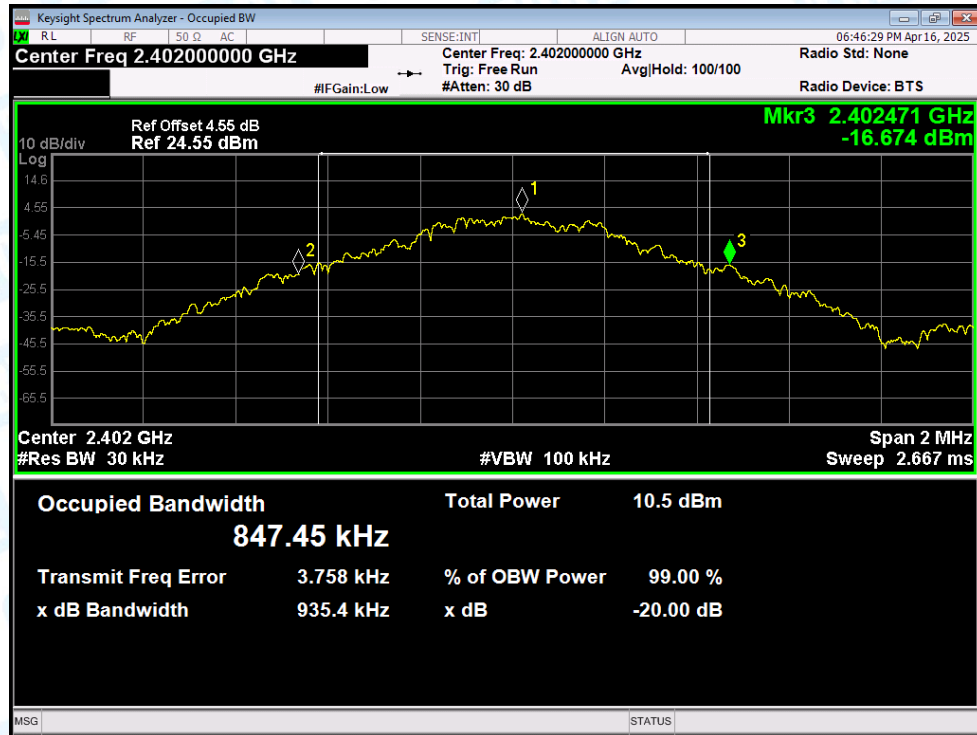


3.-20dB Bandwidth

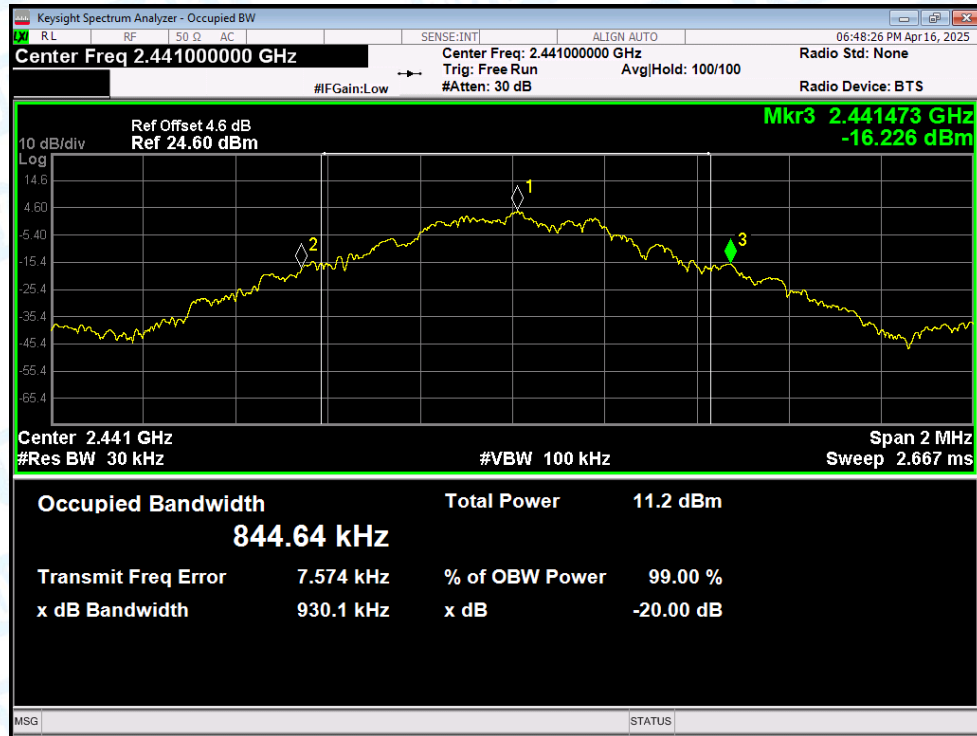
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.94	0	Pass
NVNT	1-DH1	2441	Ant1	0.93	0	Pass
NVNT	1-DH1	2480	Ant1	0.92	0	Pass
NVNT	2-DH1	2402	Ant1	1.24	0	Pass
NVNT	2-DH1	2441	Ant1	1.22	0	Pass
NVNT	2-DH1	2480	Ant1	1.25	0	Pass
NVNT	3-DH1	2402	Ant1	1.21	0	Pass
NVNT	3-DH1	2441	Ant1	1.21	0	Pass
NVNT	3-DH1	2480	Ant1	1.2	0	Pass

Test Graphs

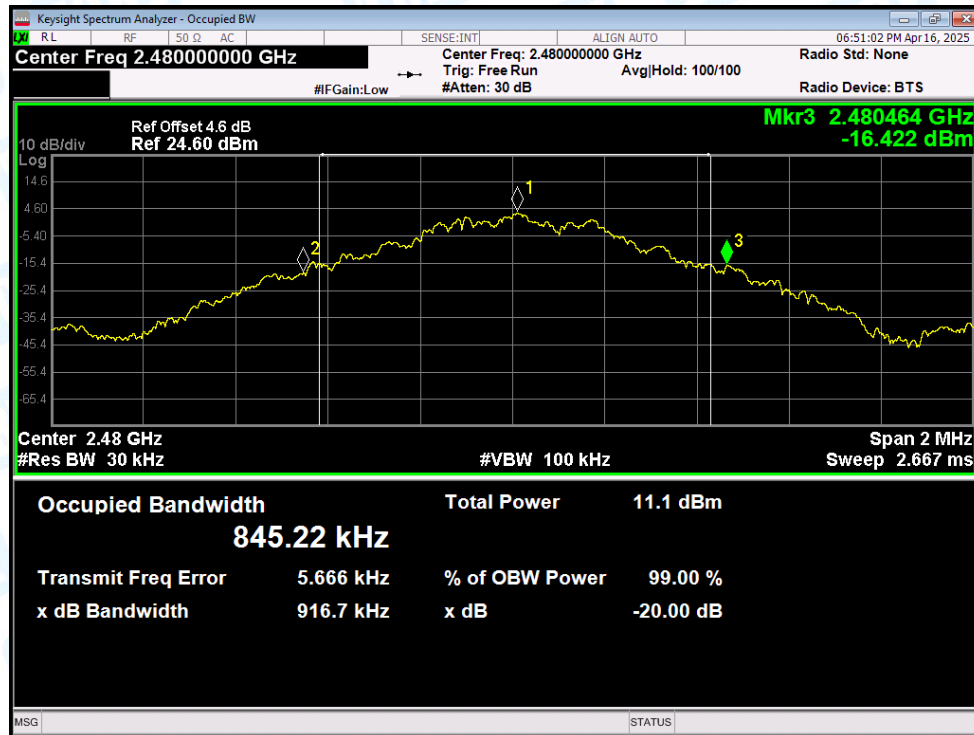
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



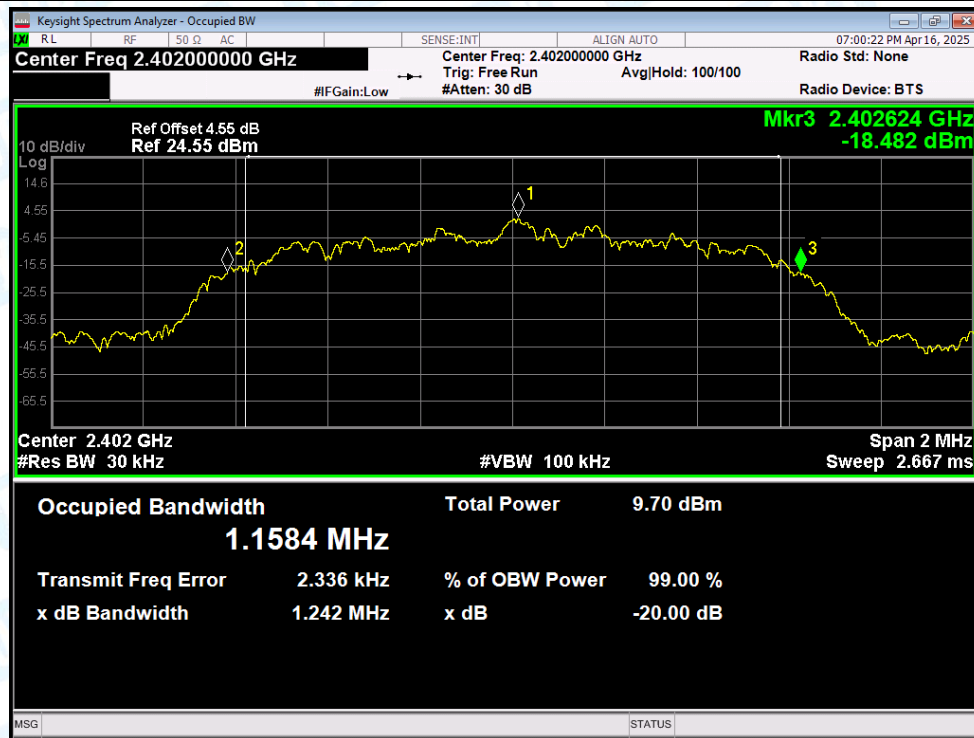
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



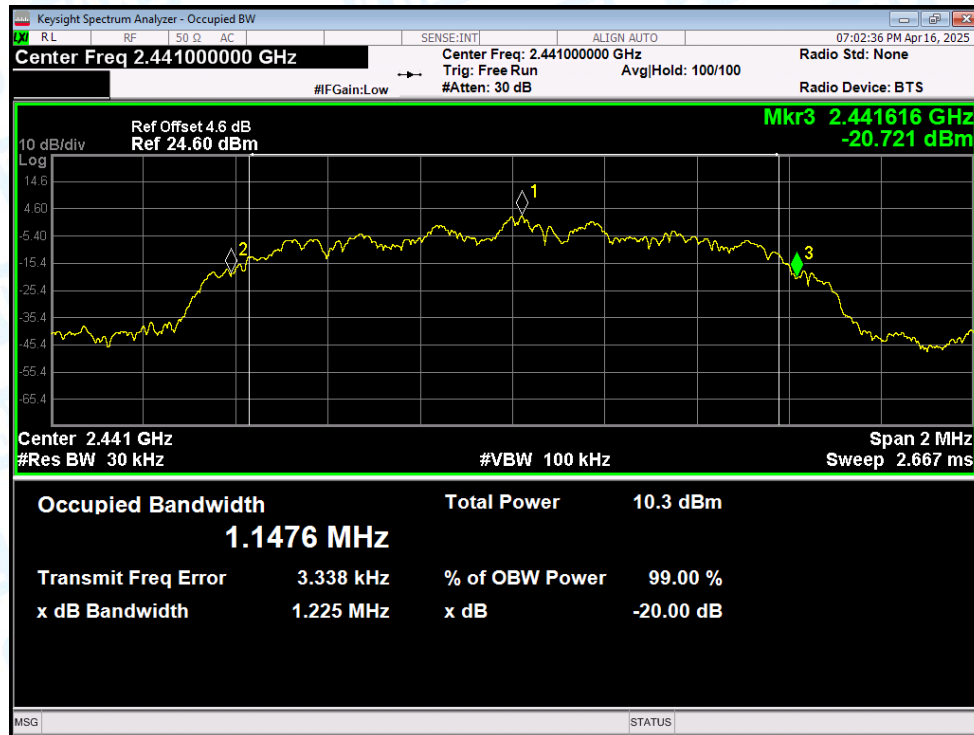
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



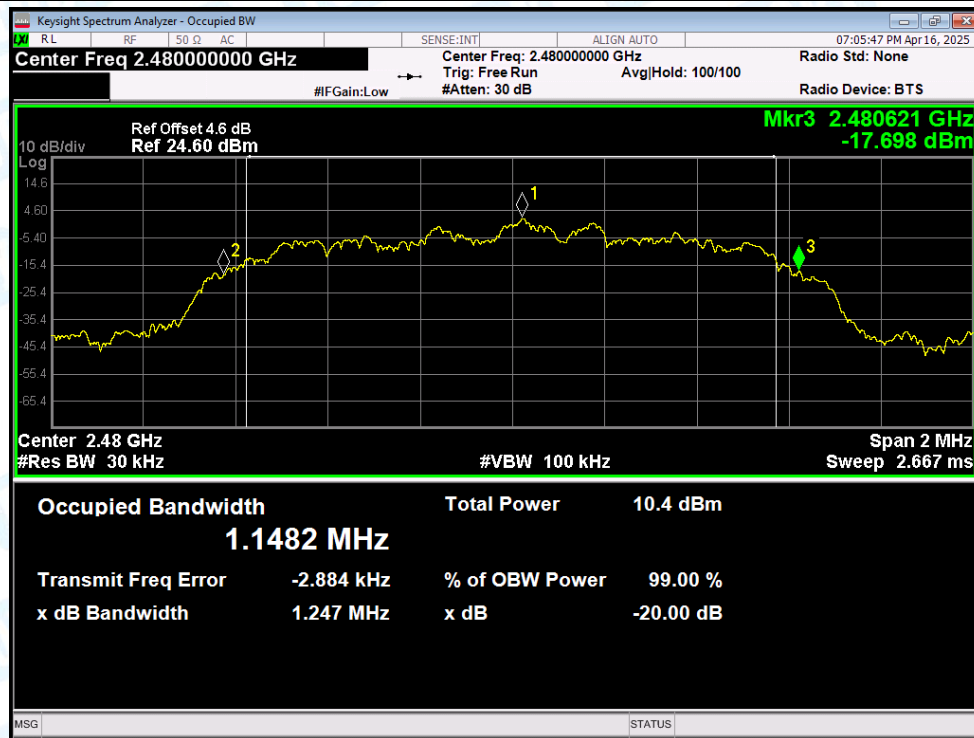
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



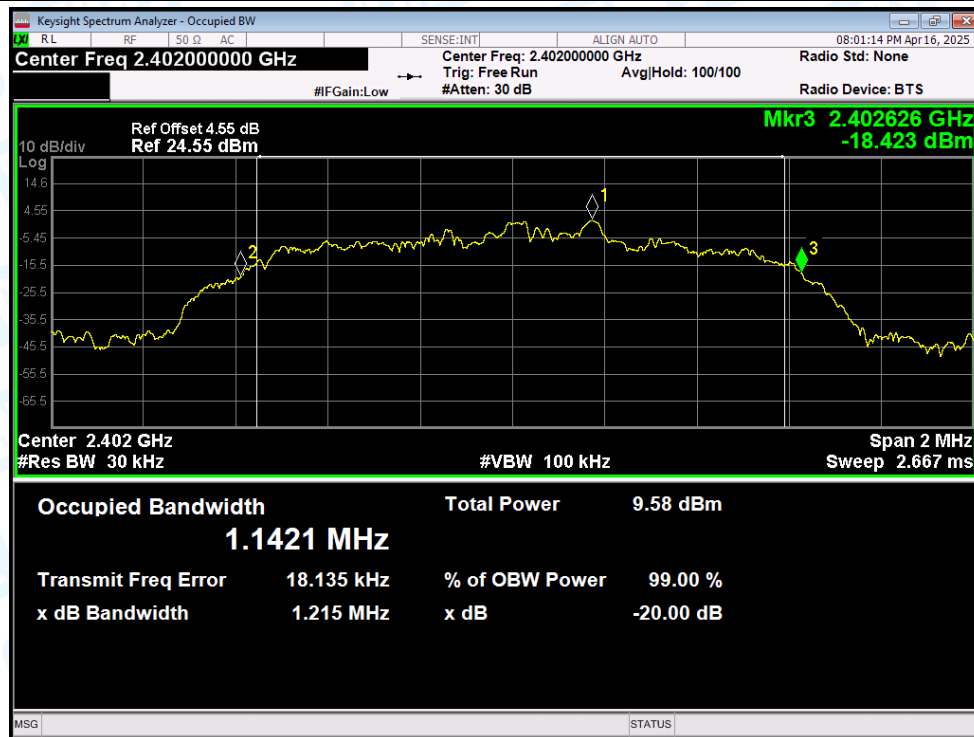
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



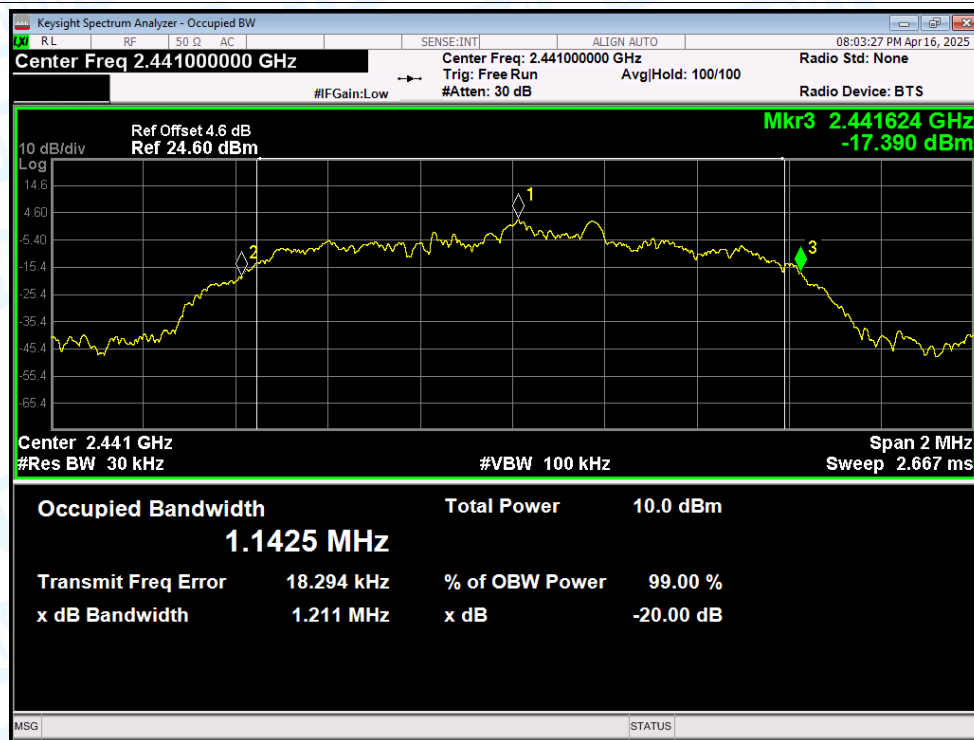
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

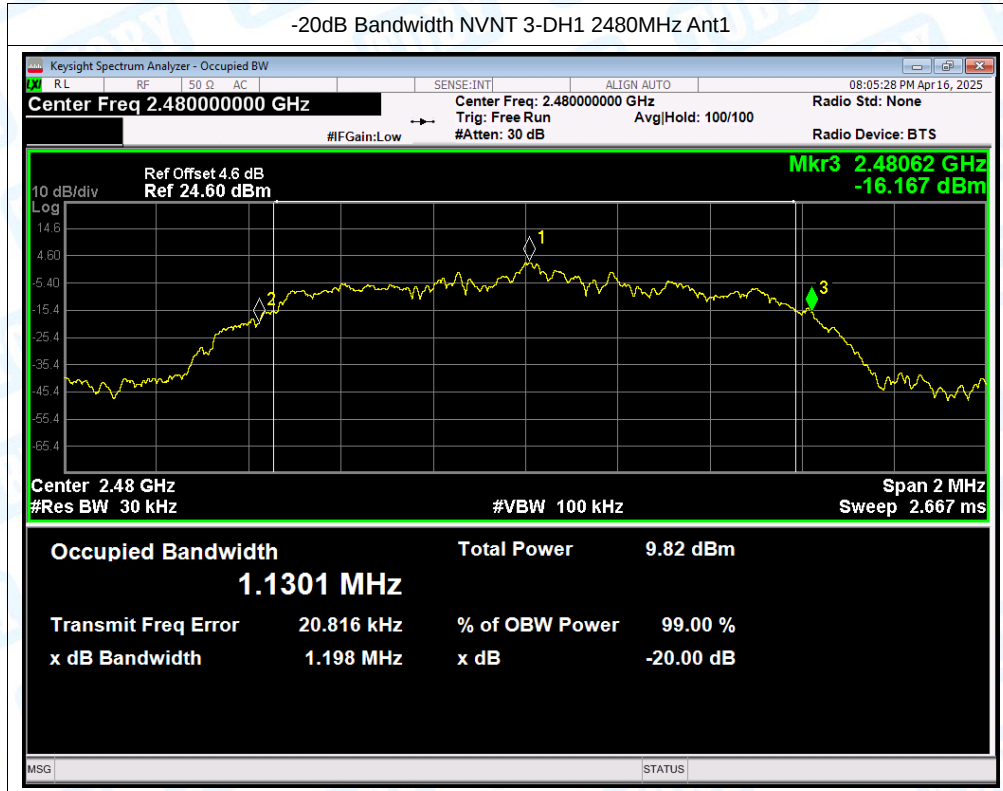


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



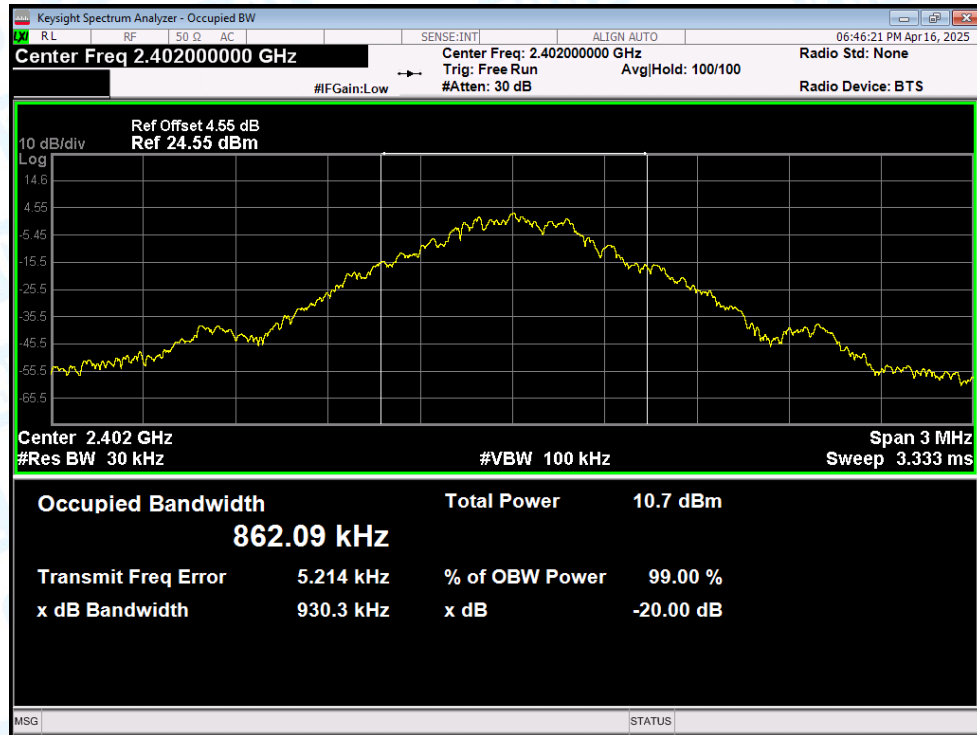


4.Occupied Channel Bandwidth

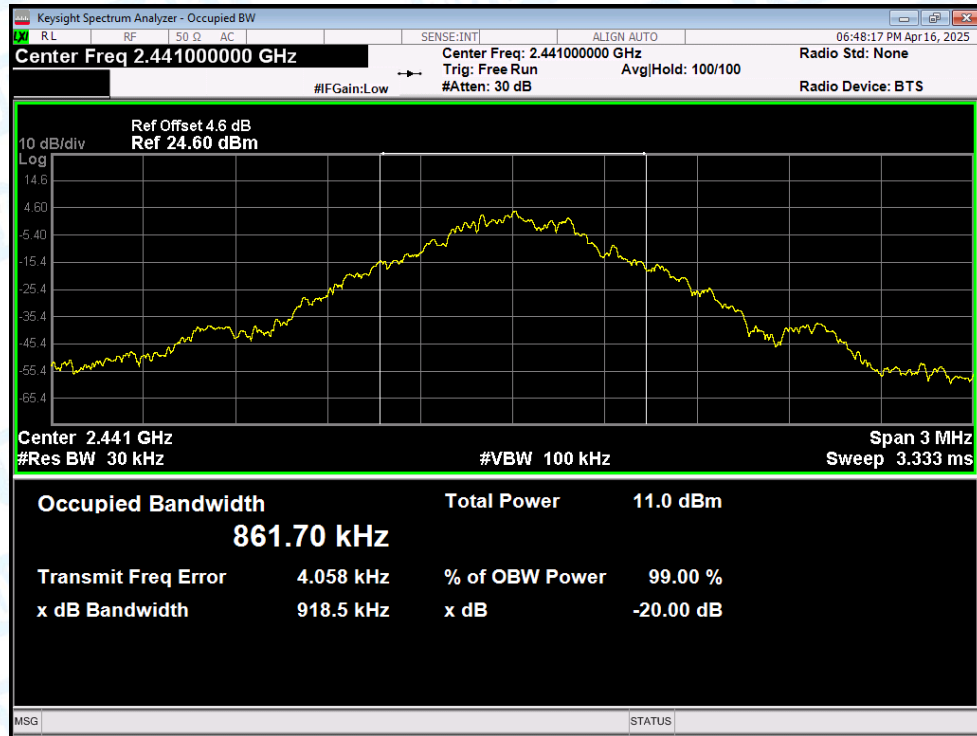
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.862
NVNT	1-DH1	2441	Ant1	0.862
NVNT	1-DH1	2480	Ant1	0.846
NVNT	2-DH1	2402	Ant1	1.162
NVNT	2-DH1	2441	Ant1	1.15
NVNT	2-DH1	2480	Ant1	1.156
NVNT	3-DH1	2402	Ant1	1.136
NVNT	3-DH1	2441	Ant1	1.141
NVNT	3-DH1	2480	Ant1	1.136

Test Graphs

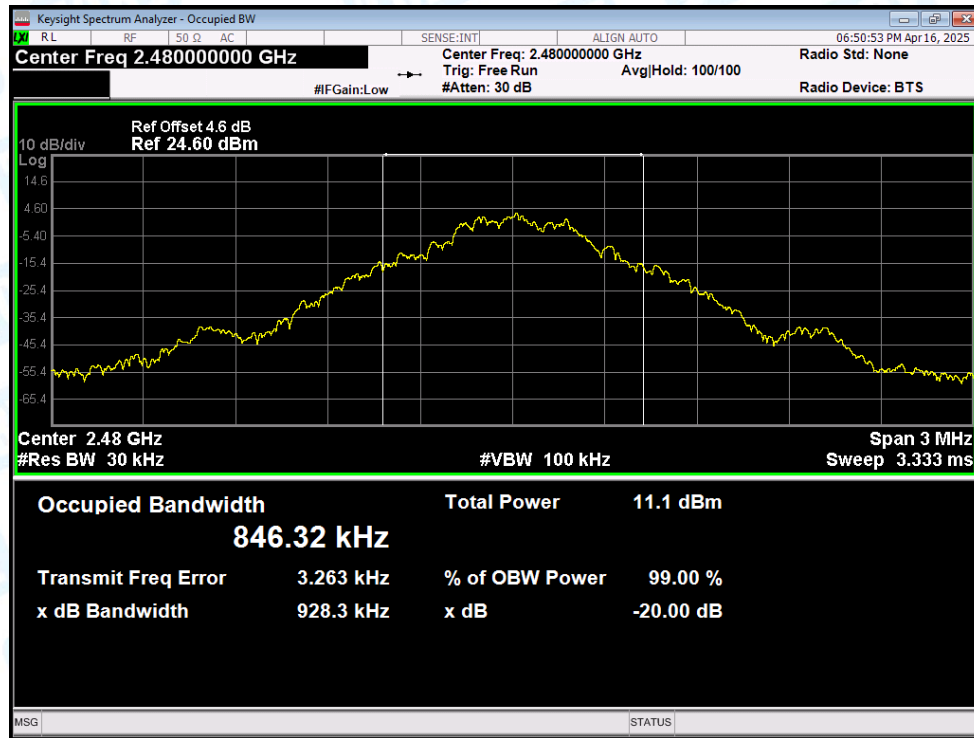
OBW NVNT 1-DH1 2402MHz Ant1



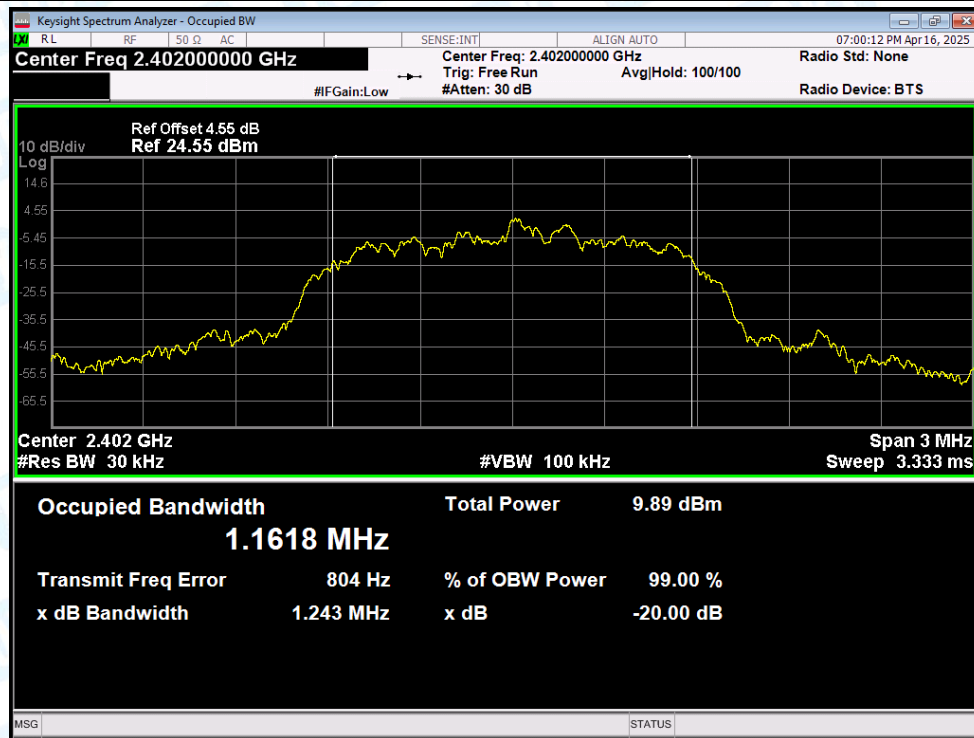
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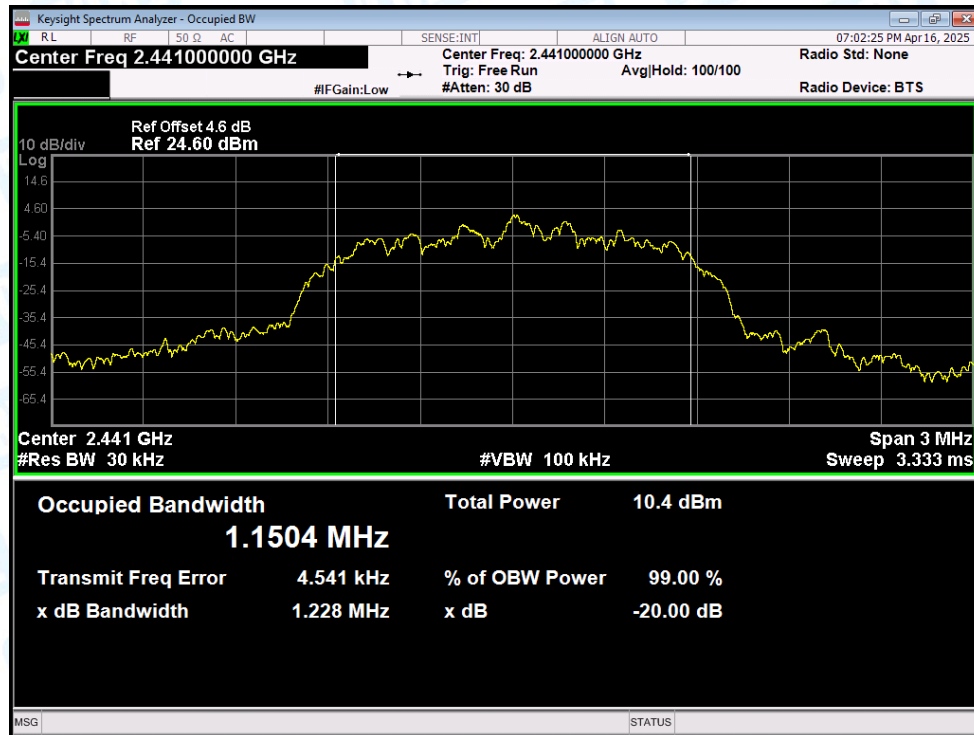
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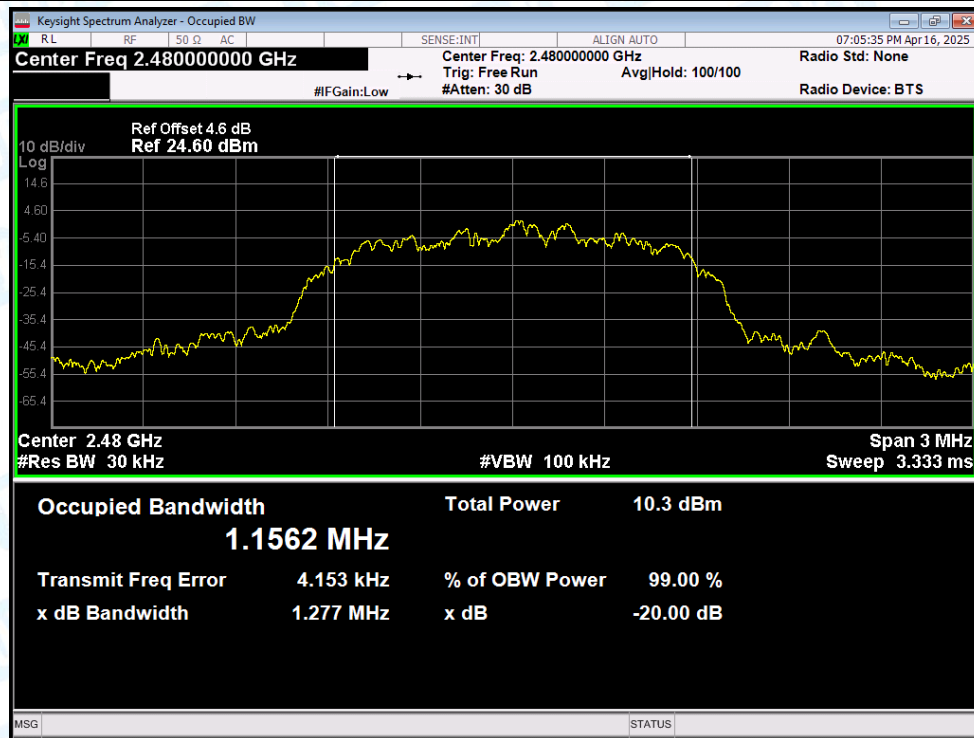
OBW NVNT 2-DH1 2402MHz Ant1



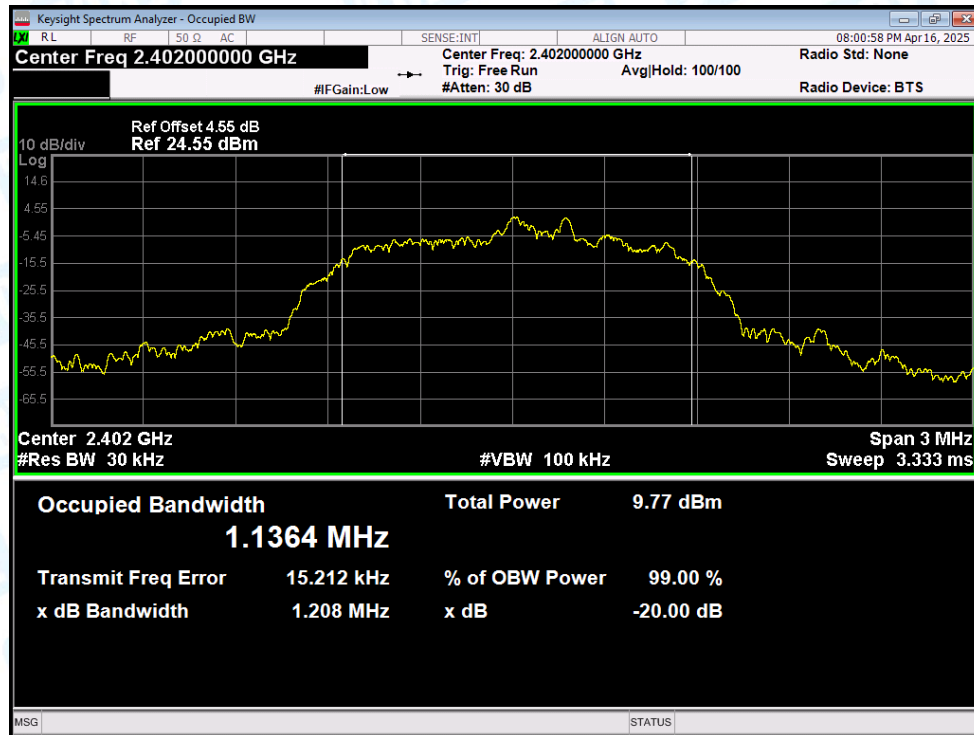
OBW NVNT 2-DH1 2441MHz Ant1



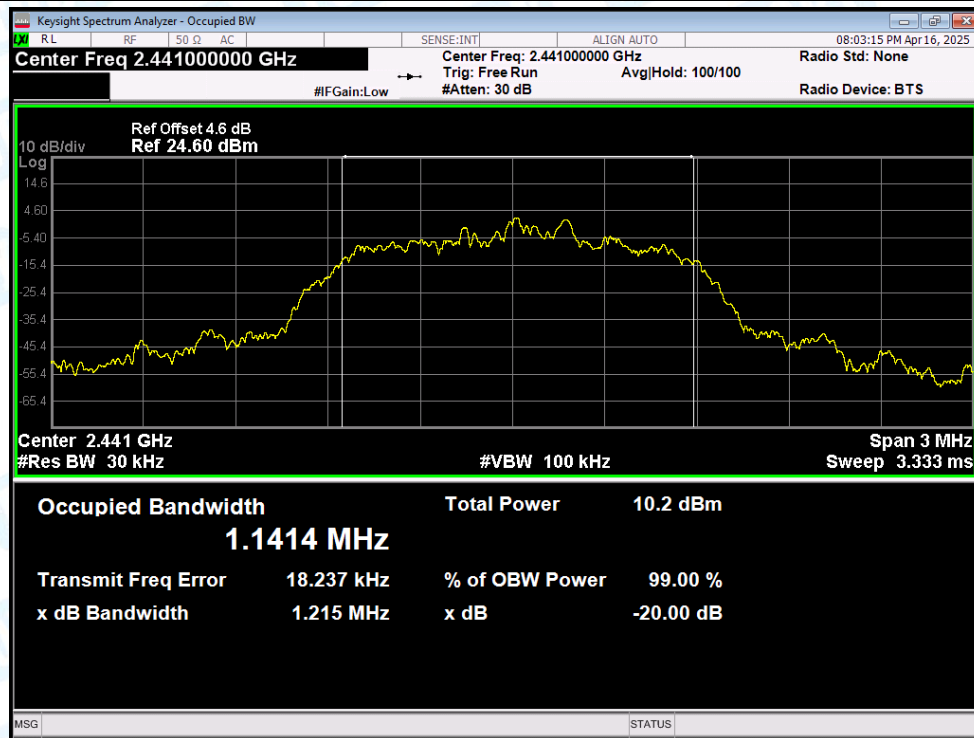
OBW NVNT 2-DH1 2480MHz Ant1



OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



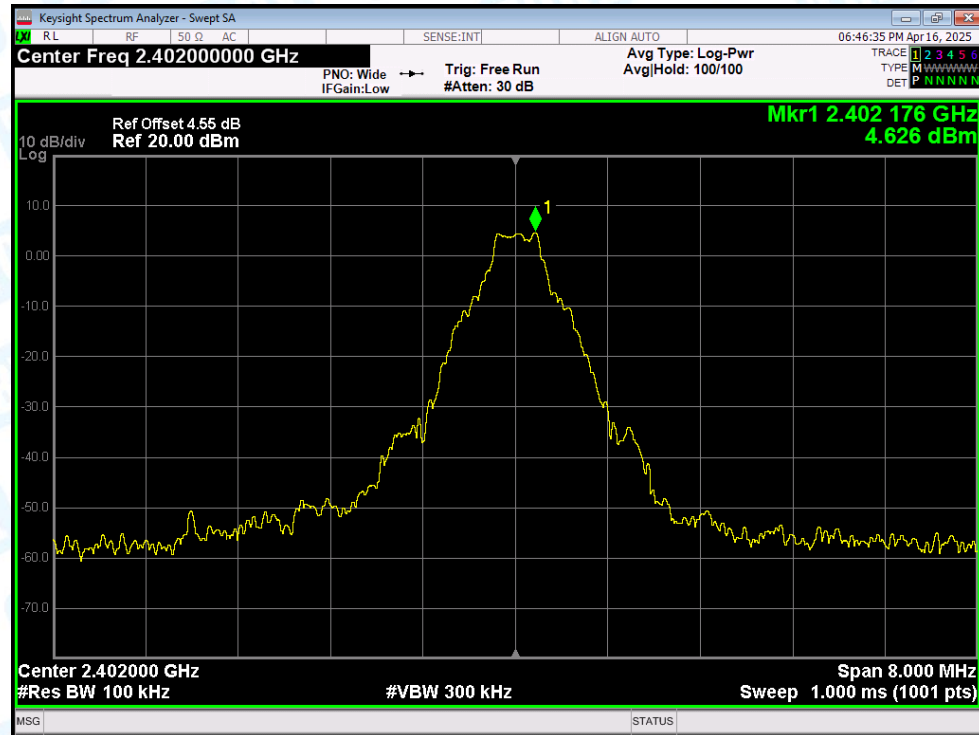


5.Band Edge

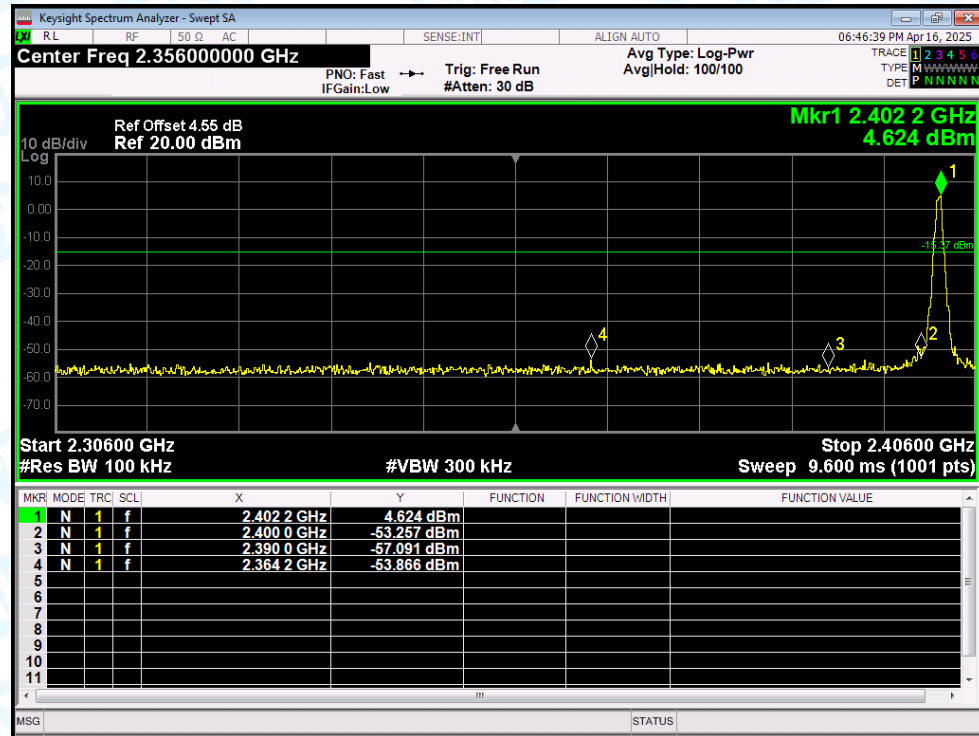
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-58.5	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-58.51	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-57.62	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-57.77	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-57.12	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-58.35	-20	Pass

Test Graphs

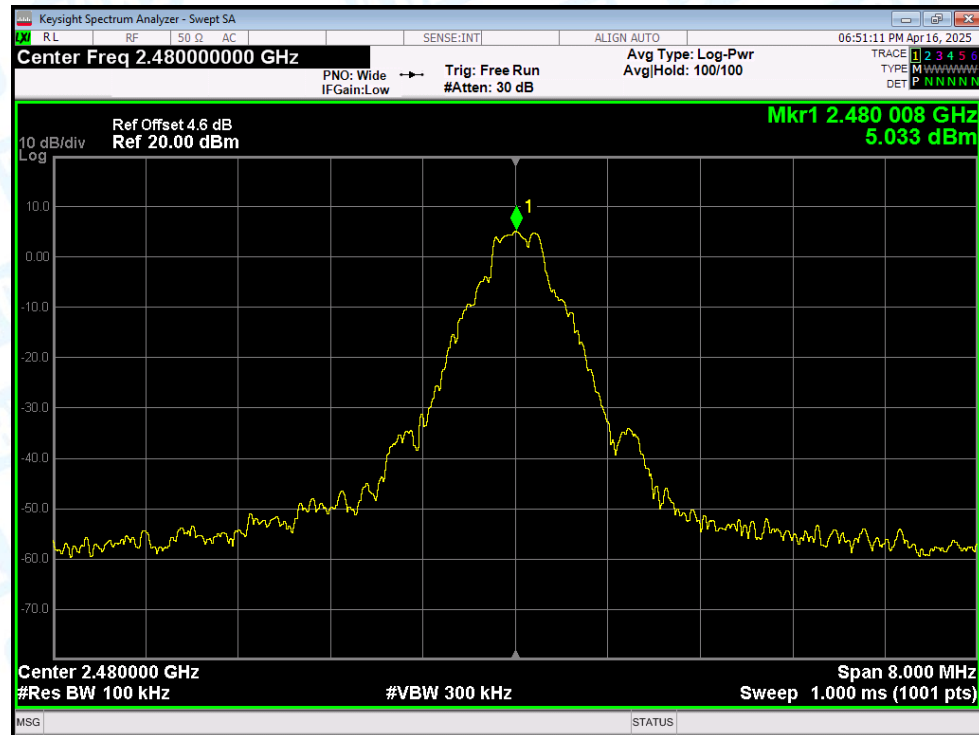
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



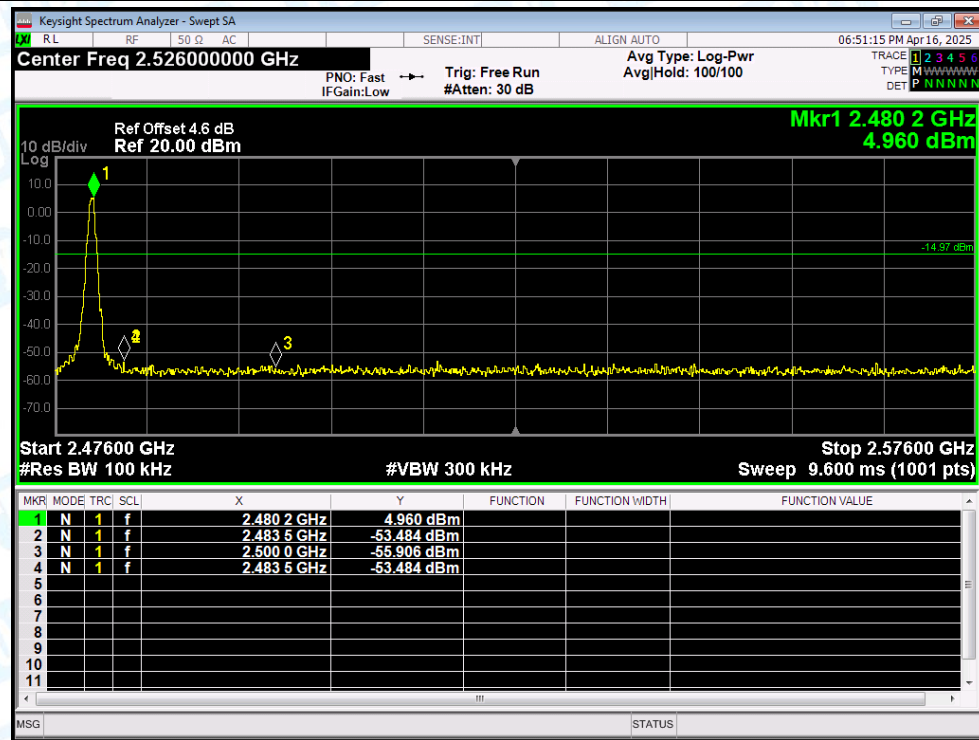
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



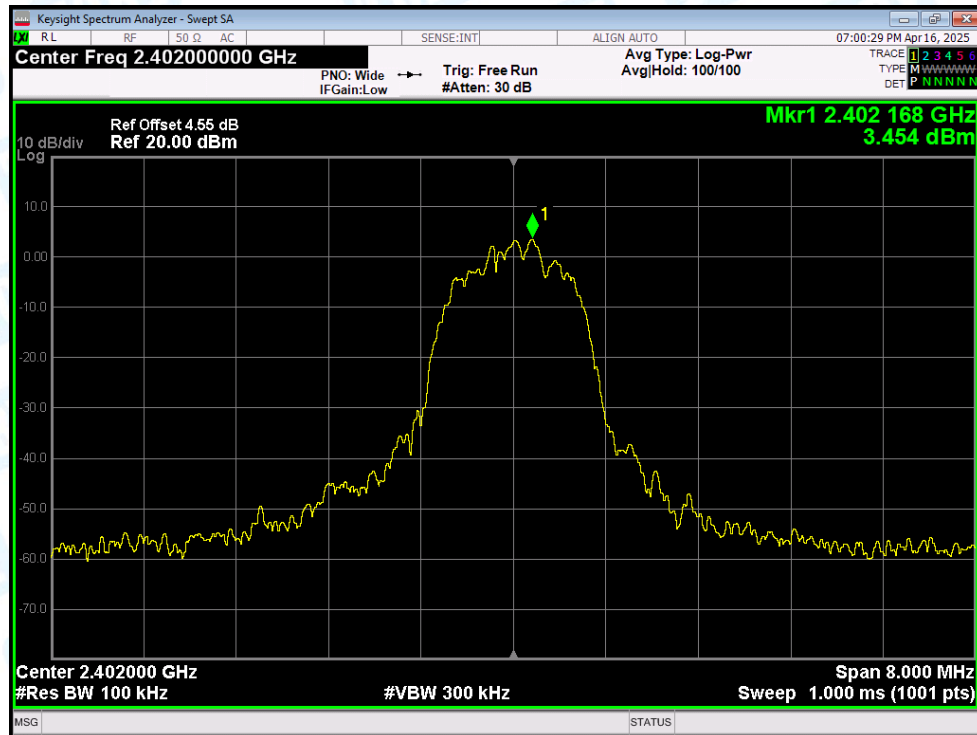
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



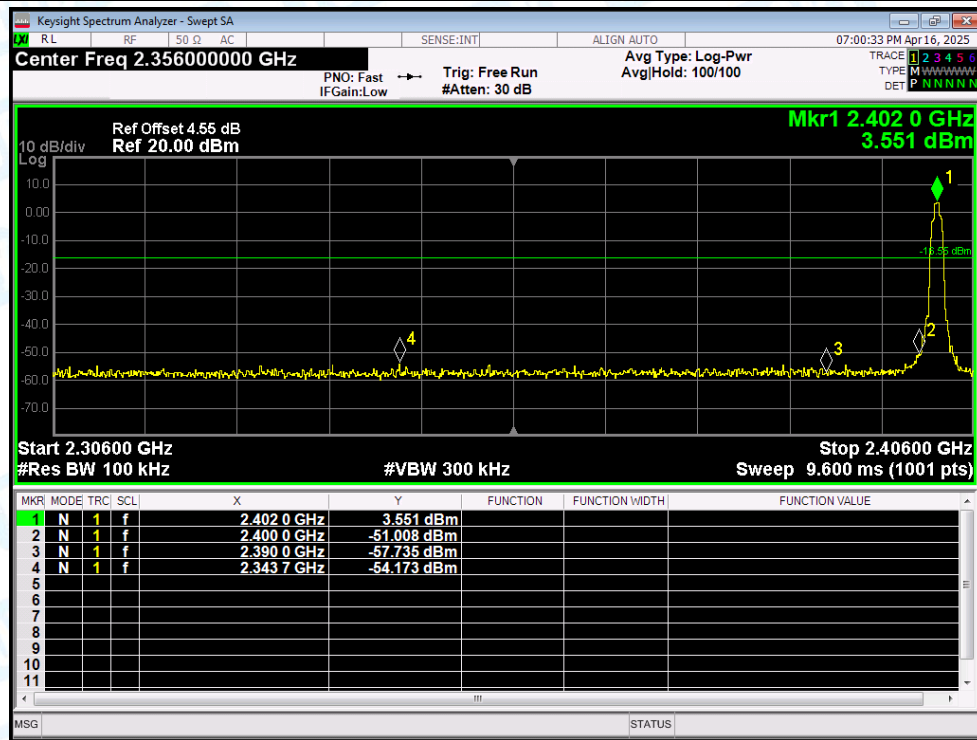
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



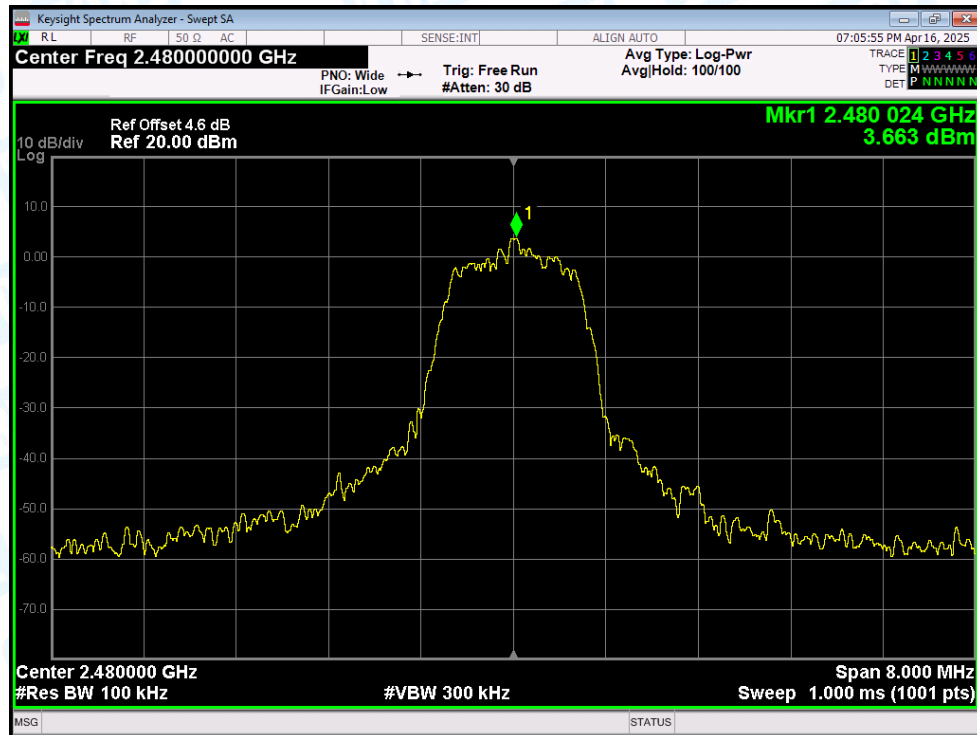
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



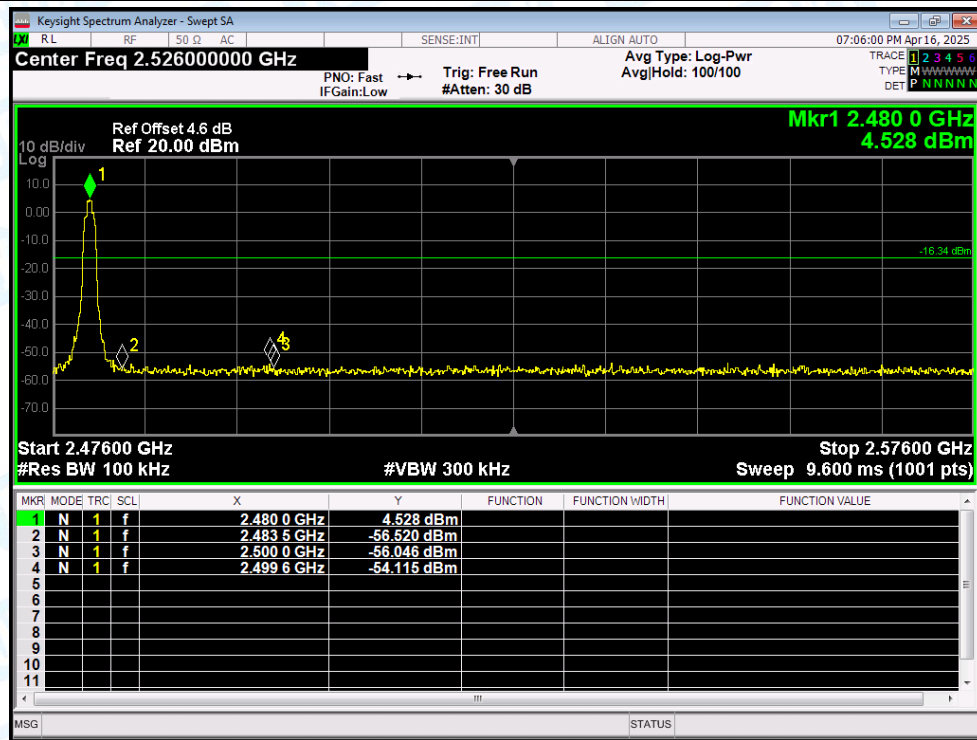
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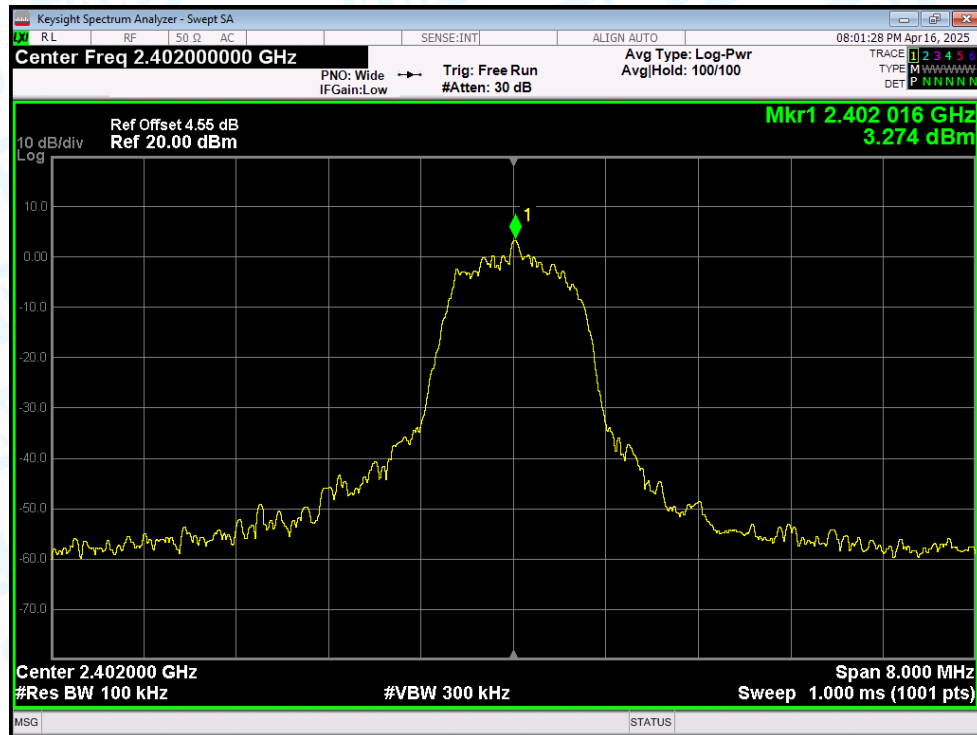
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



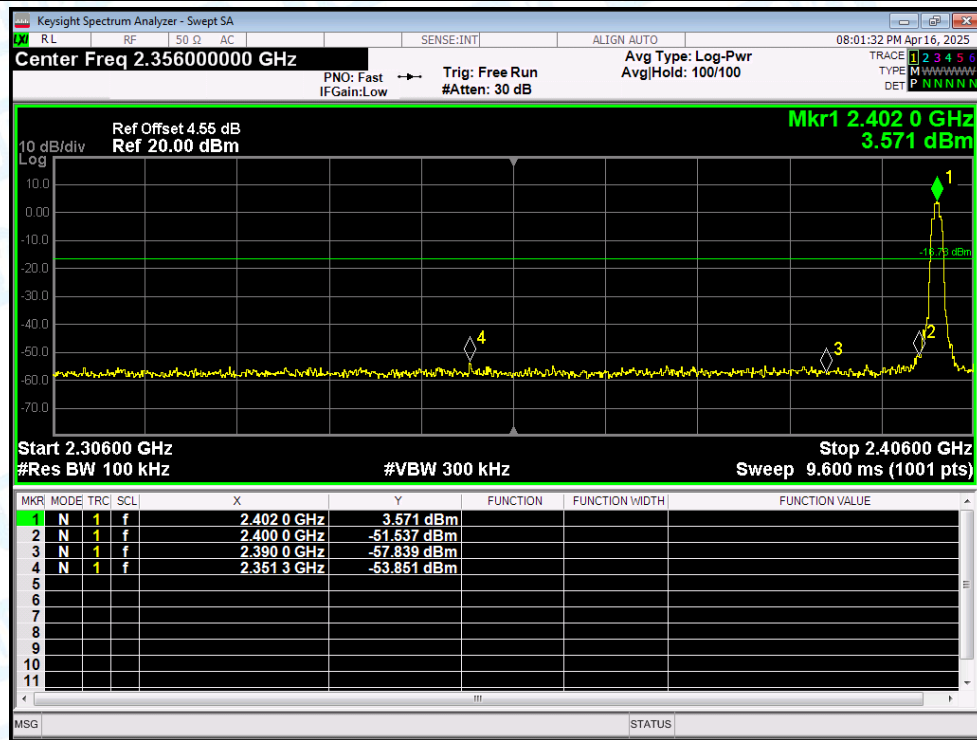
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



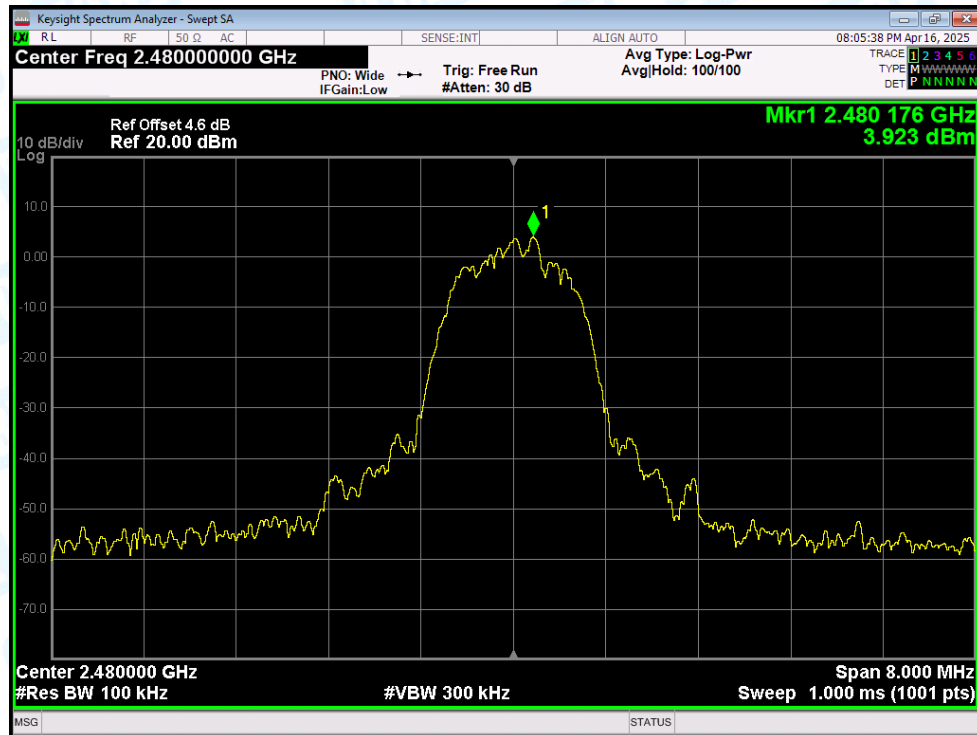
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



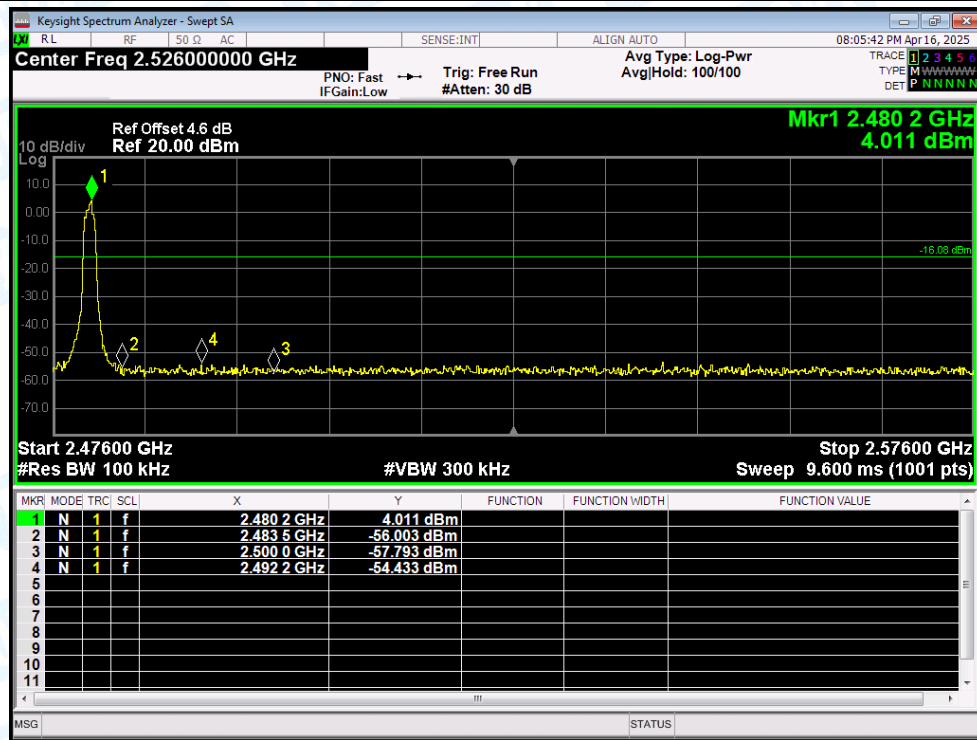
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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



6. Band Edge(Hopping)

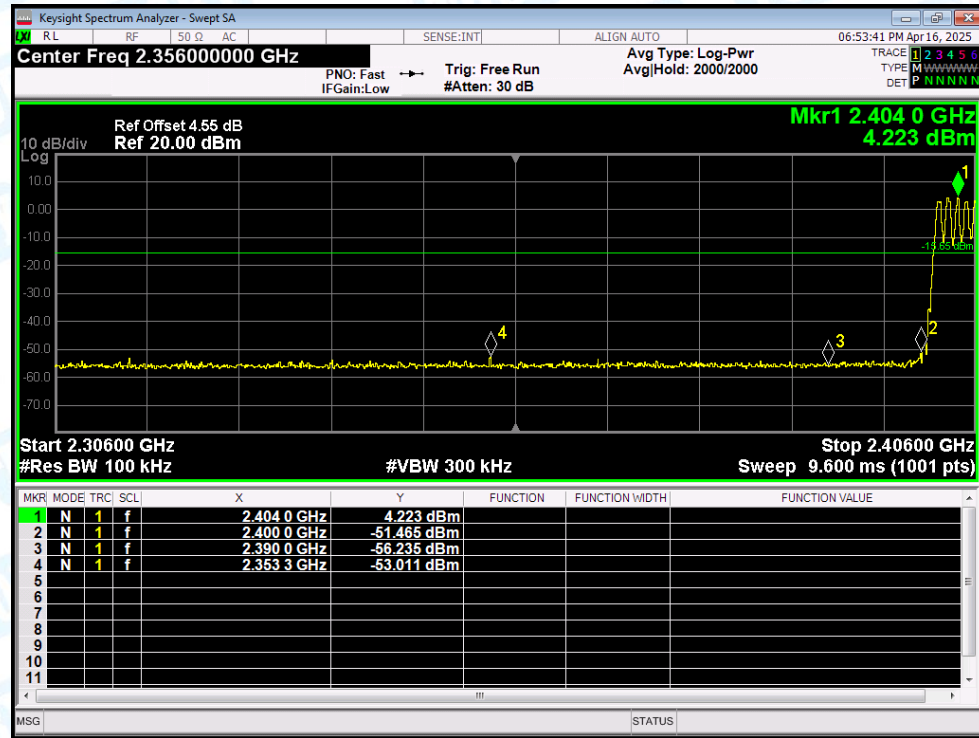
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-57.36	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-58.34	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-56.07	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-58.07	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-56.79	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-57.1	-20	Pass

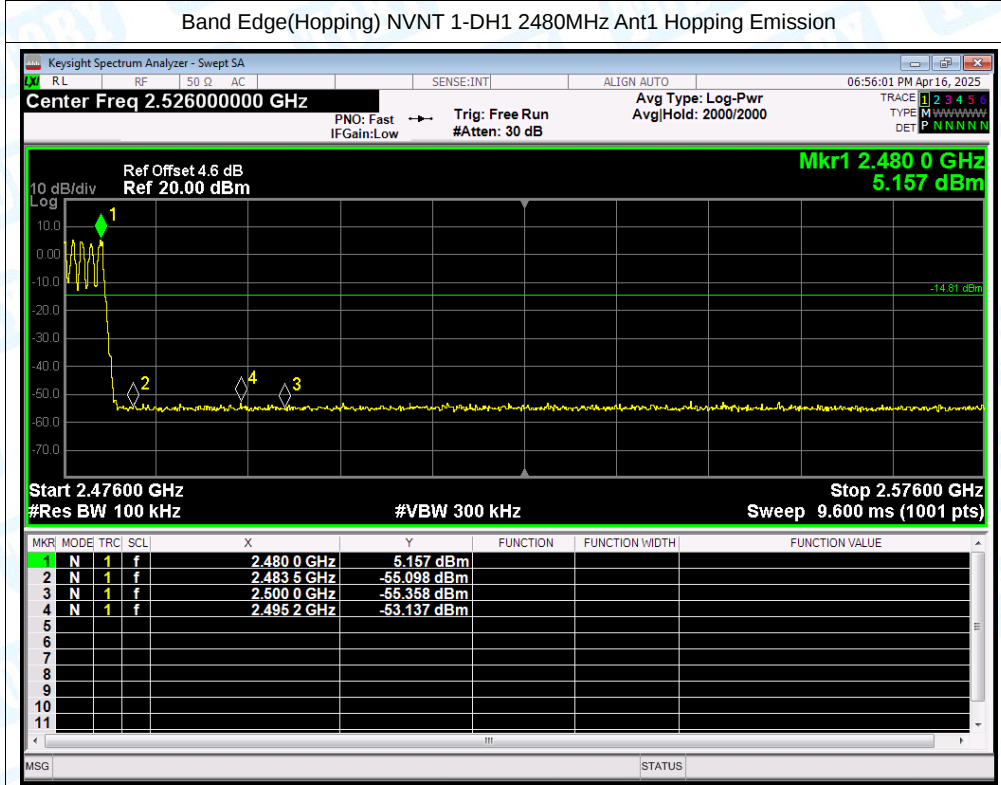
Test Graphs

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

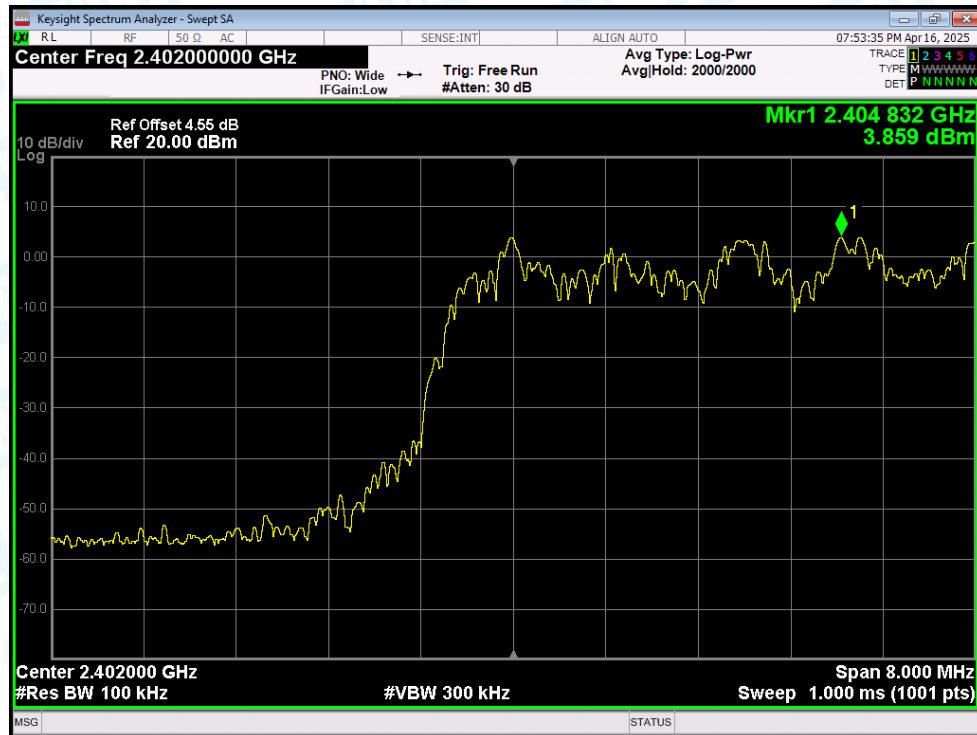


Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission

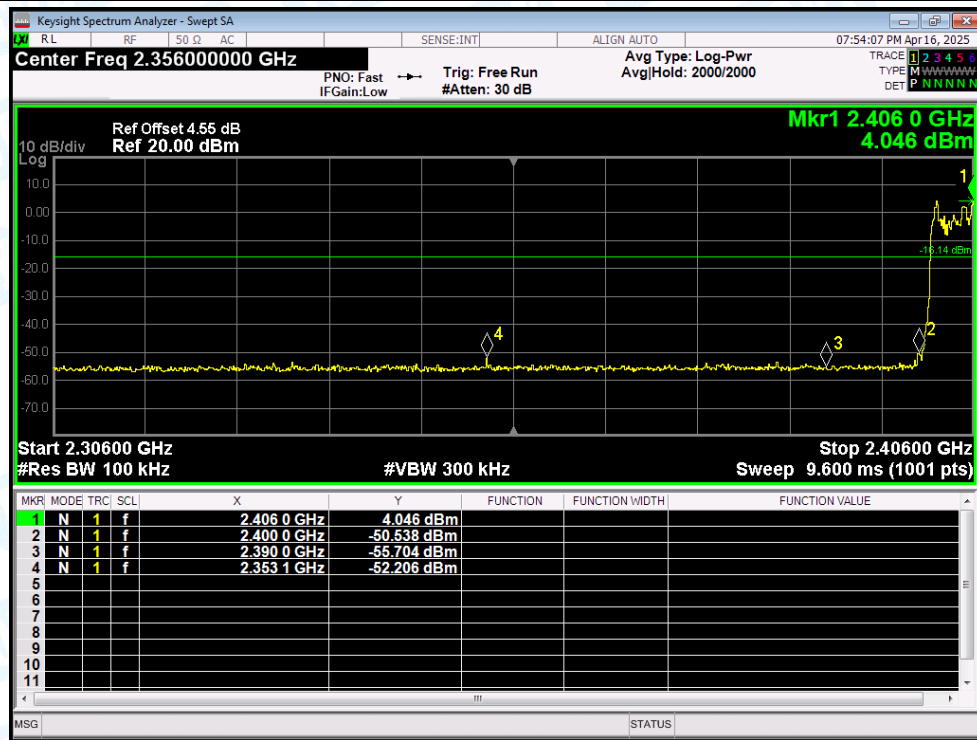


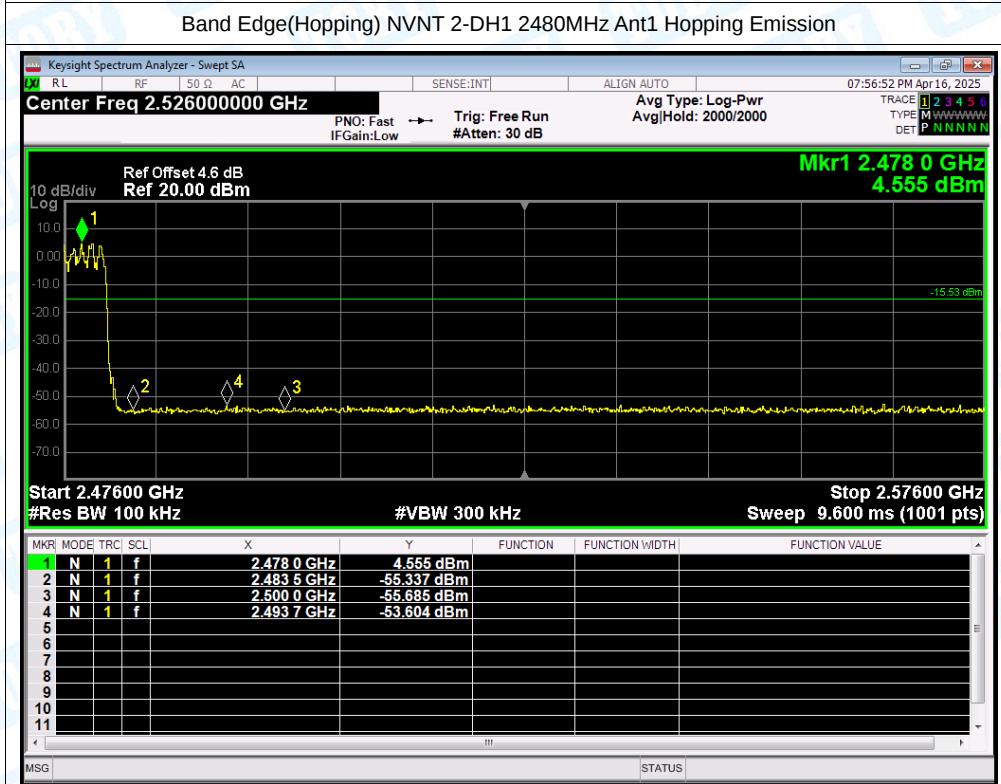


Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref

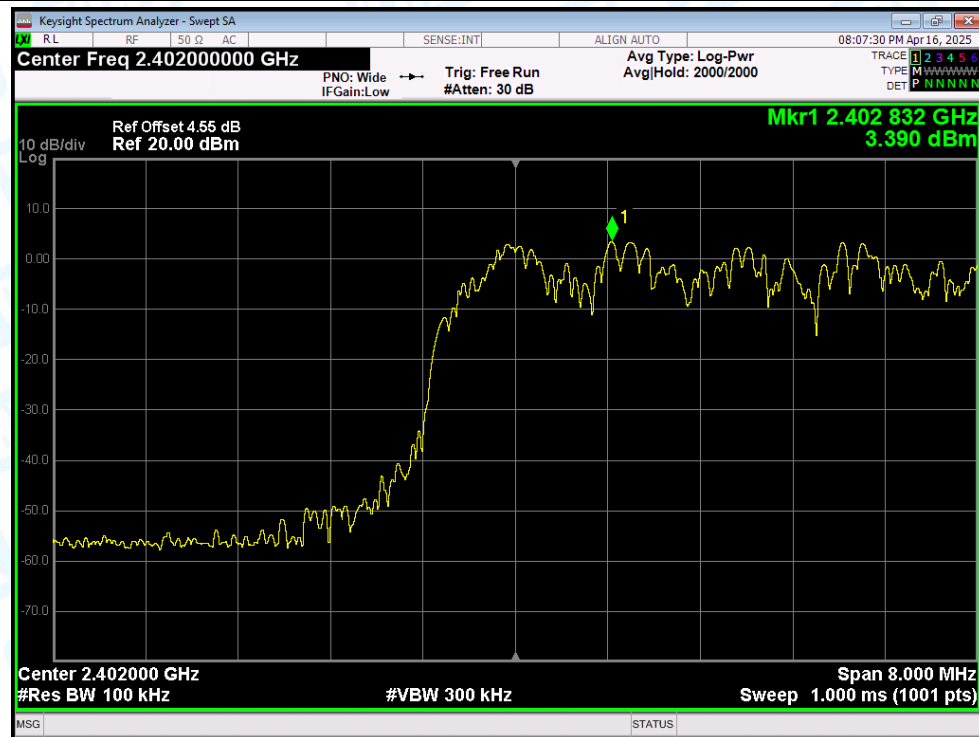


Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission

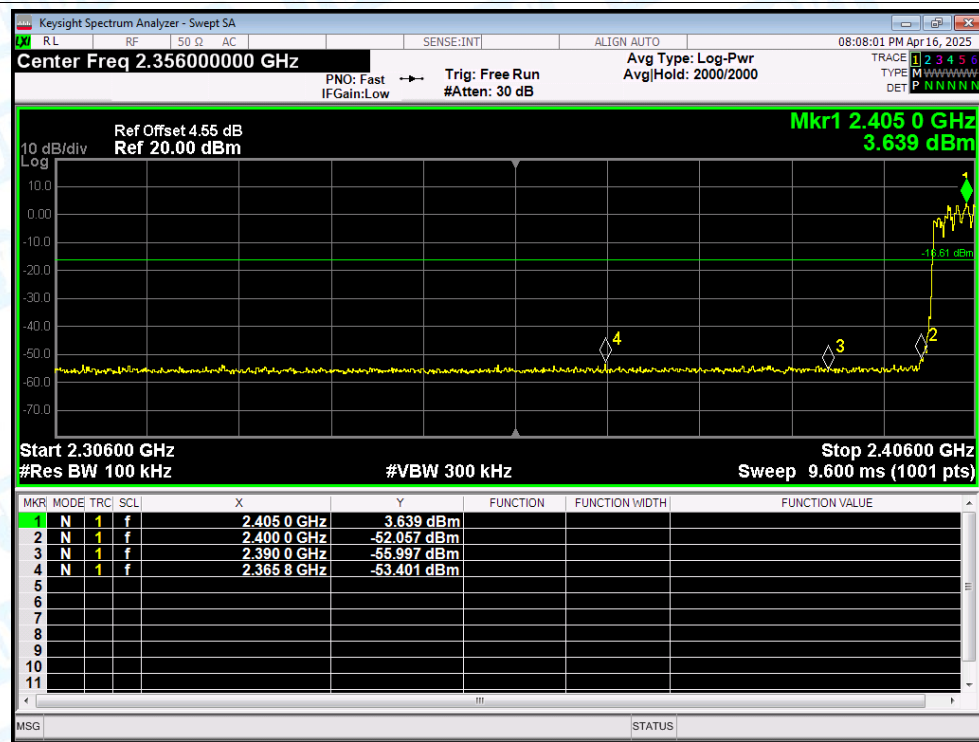


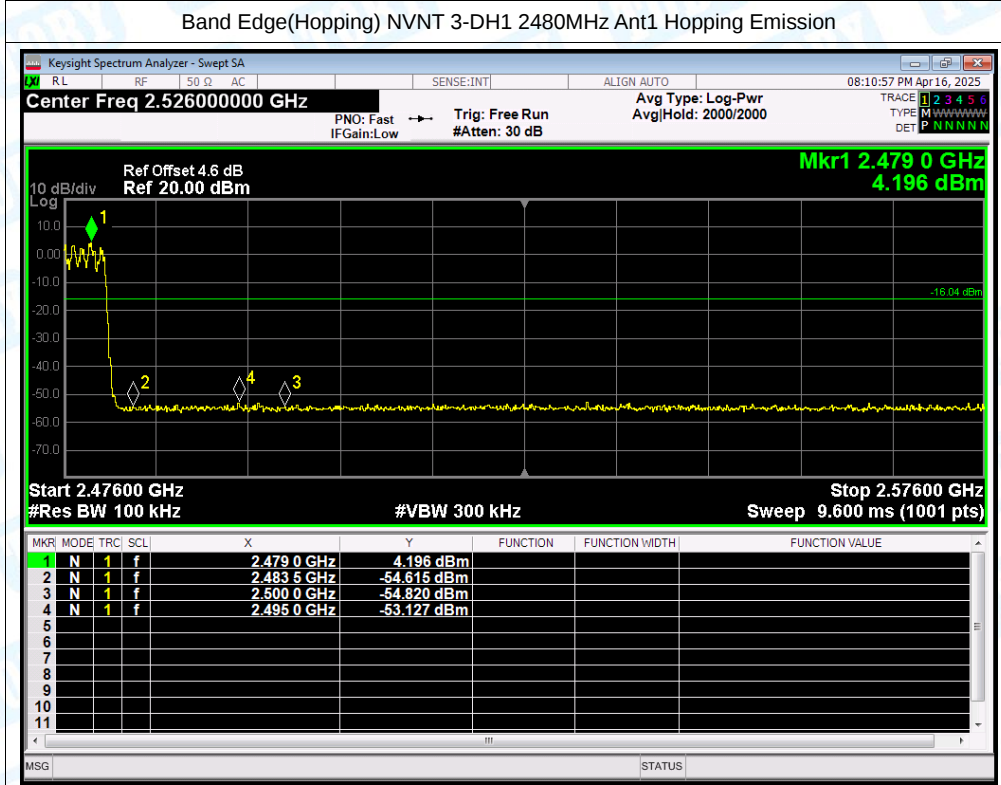


Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



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



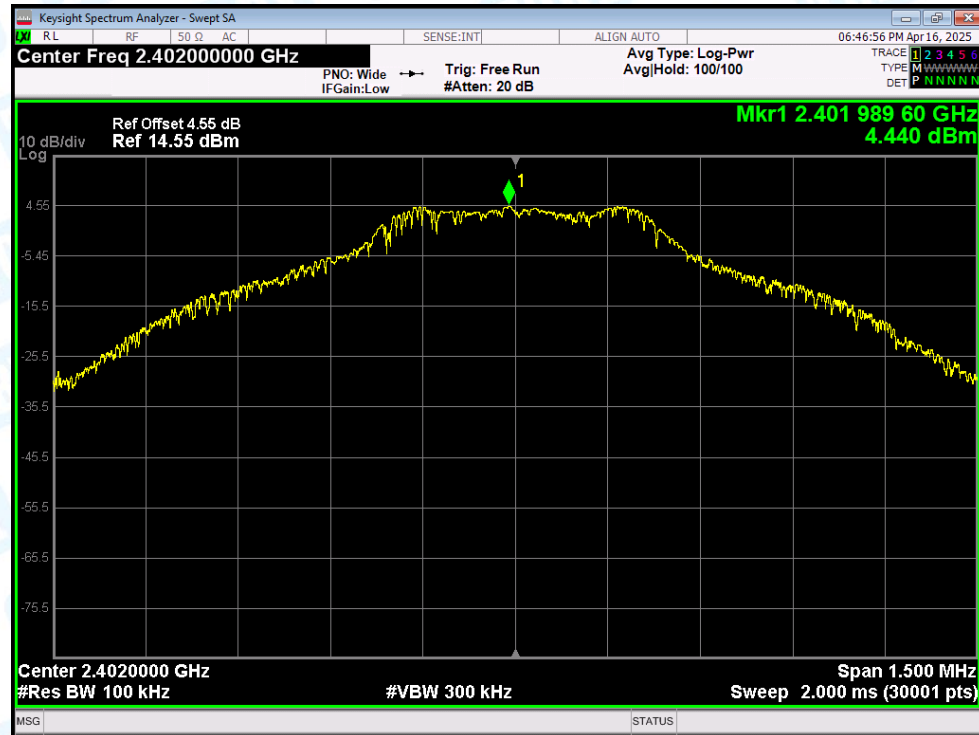


7. Conducted RF Spurious Emission

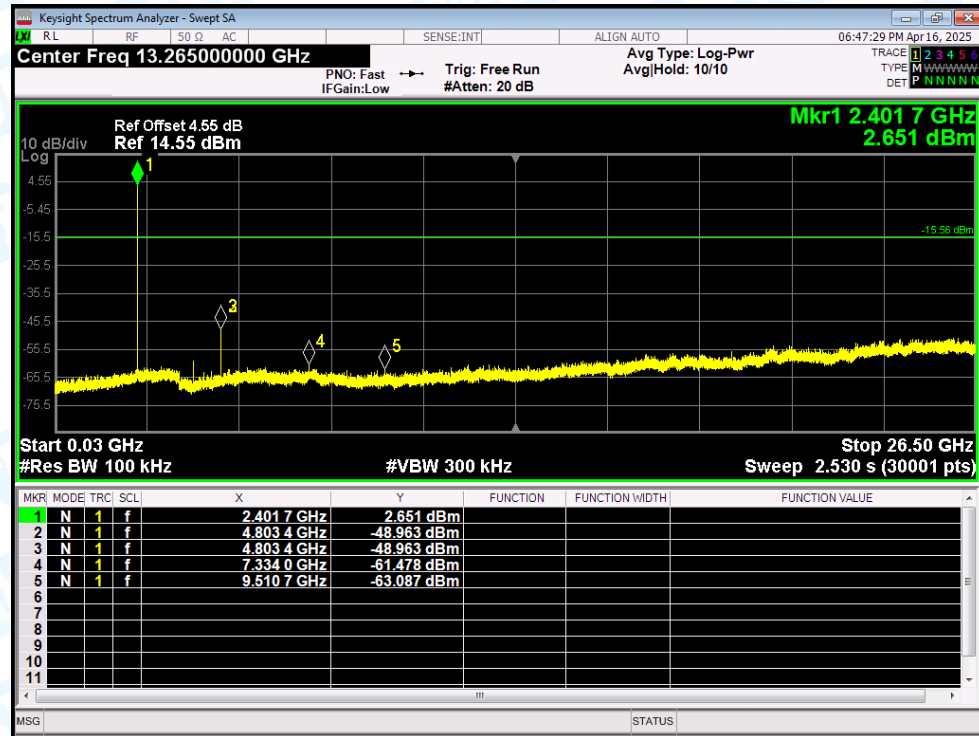
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-53.4	-20	Pass
NVNT	1-DH1	2441	Ant1	-48.6	-20	Pass
NVNT	1-DH1	2480	Ant1	-51.42	-20	Pass
NVNT	2-DH1	2402	Ant1	-50.41	-20	Pass
NVNT	2-DH1	2441	Ant1	-53.95	-20	Pass
NVNT	2-DH1	2480	Ant1	-50.93	-20	Pass
NVNT	3-DH1	2402	Ant1	-53.9	-20	Pass
NVNT	3-DH1	2441	Ant1	-50.18	-20	Pass
NVNT	3-DH1	2480	Ant1	-49.92	-20	Pass

Test Graphs

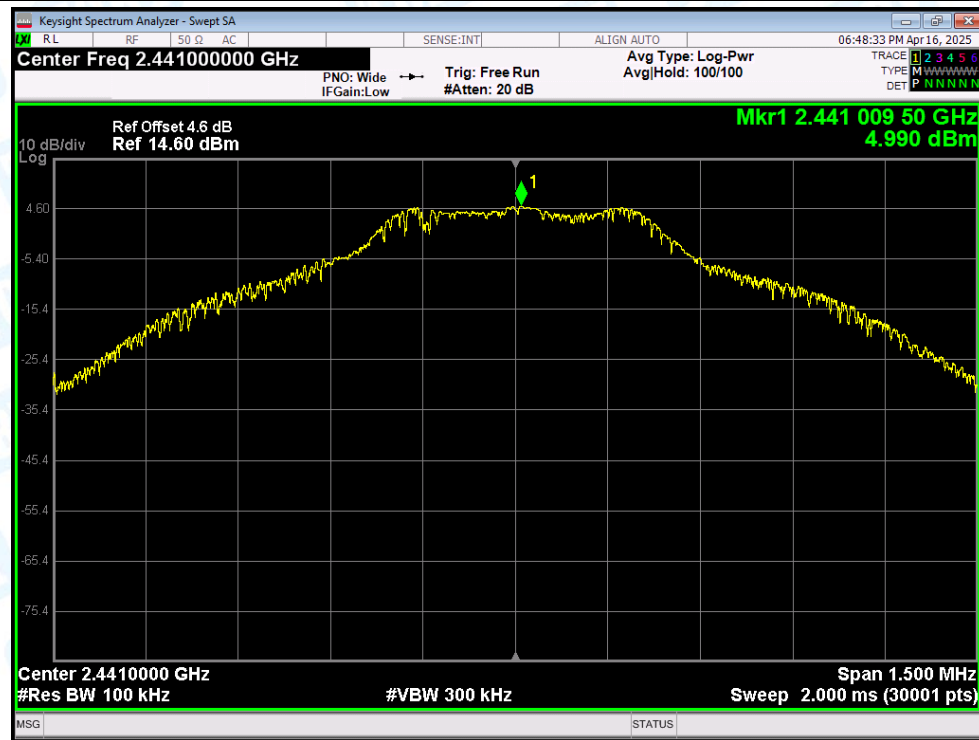
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



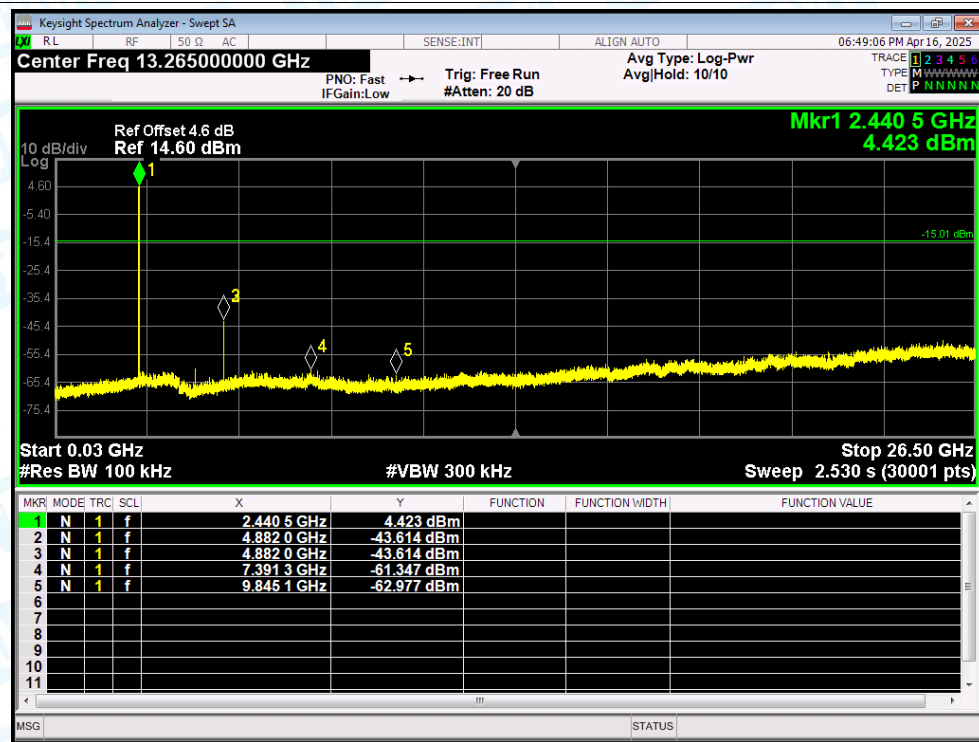
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



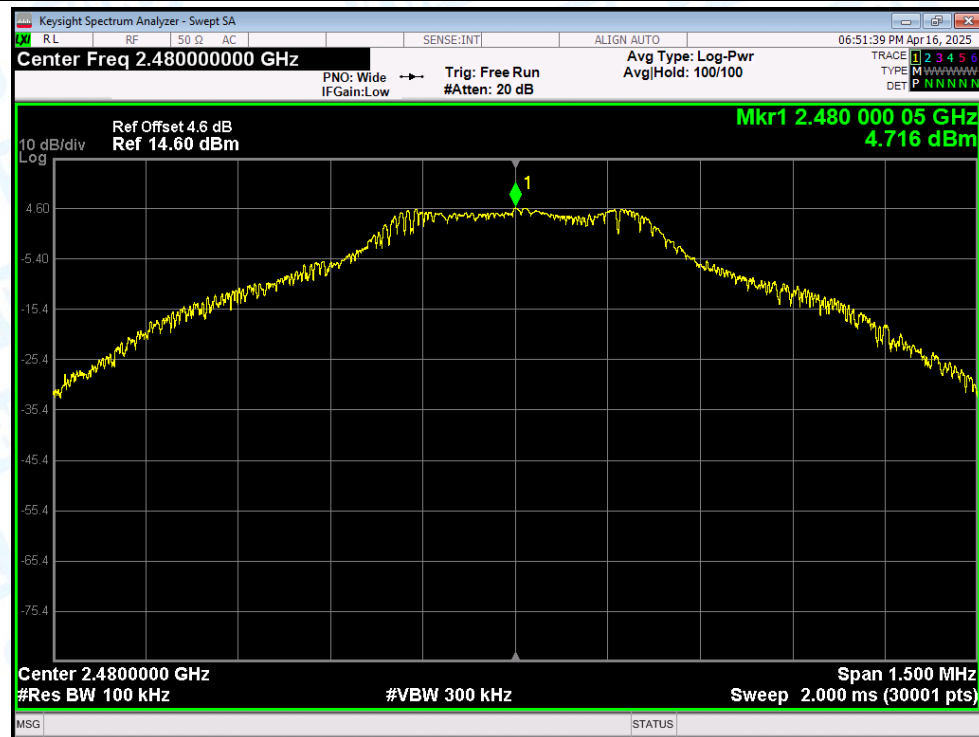
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



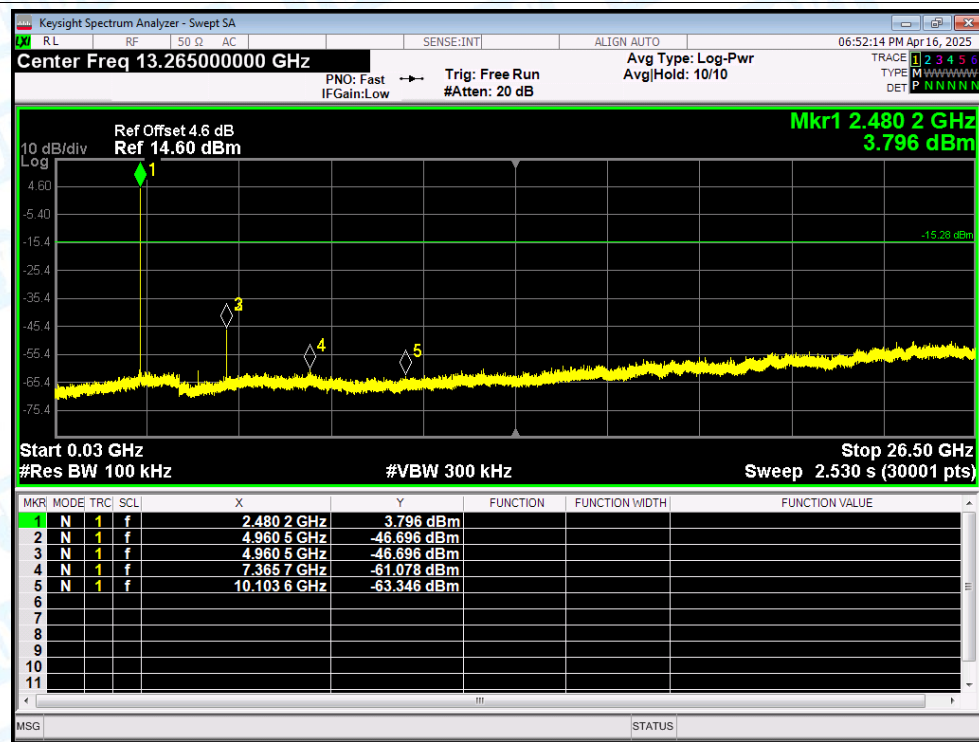
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



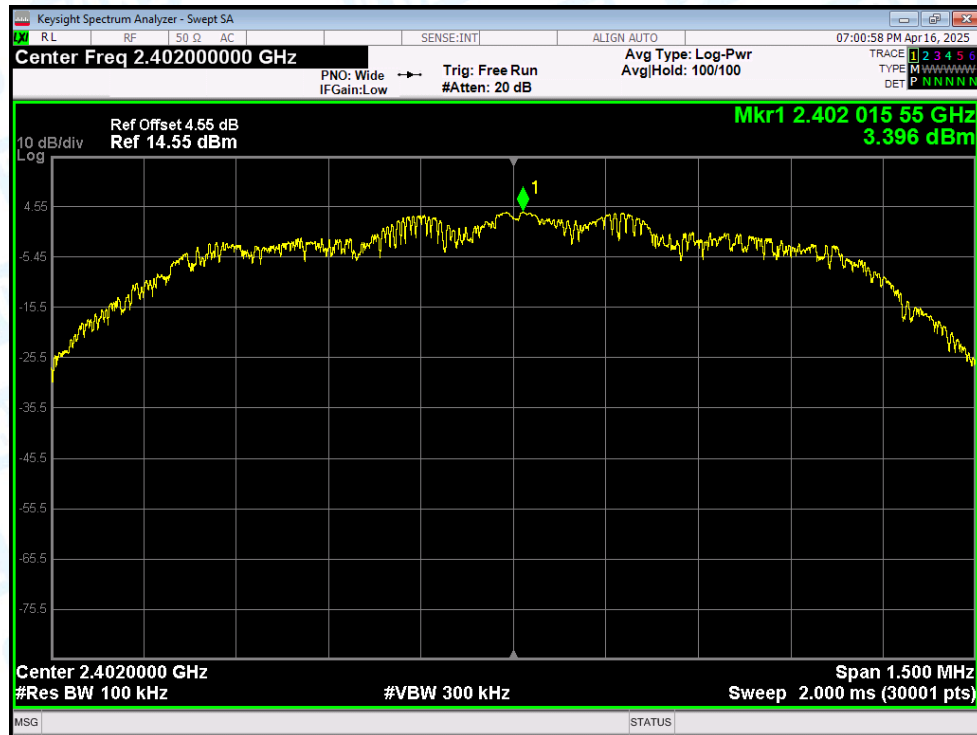
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



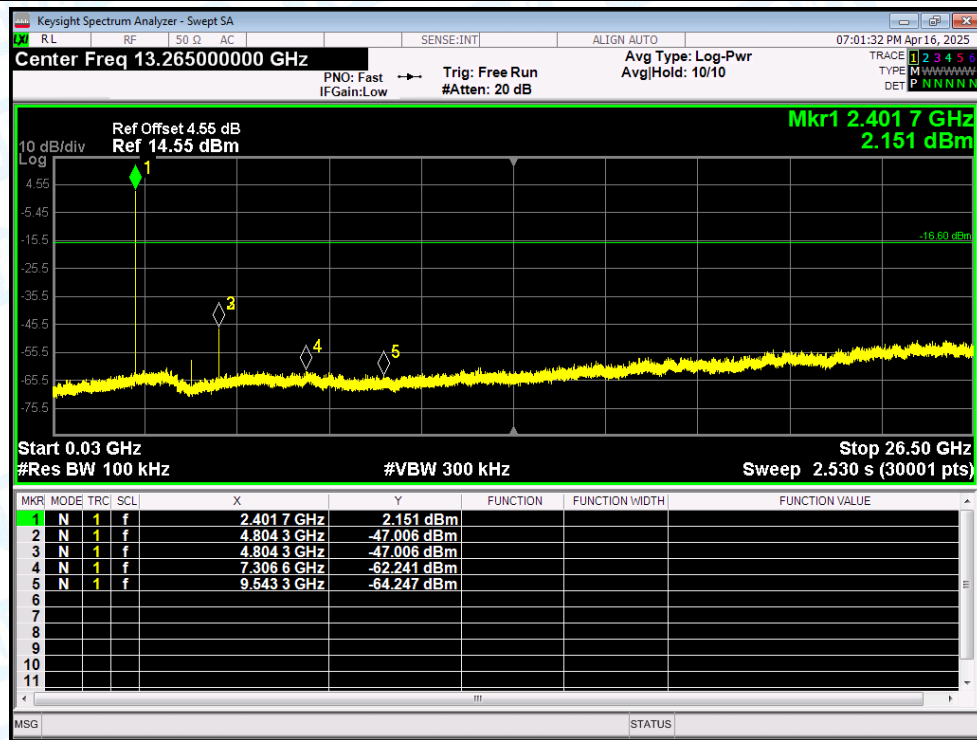
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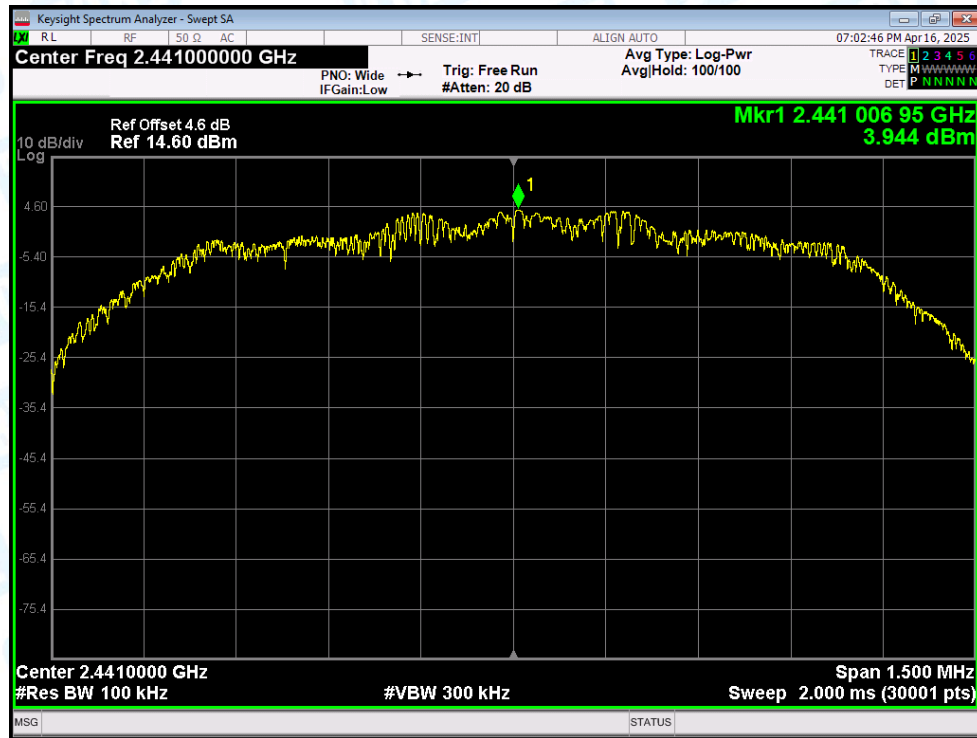
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



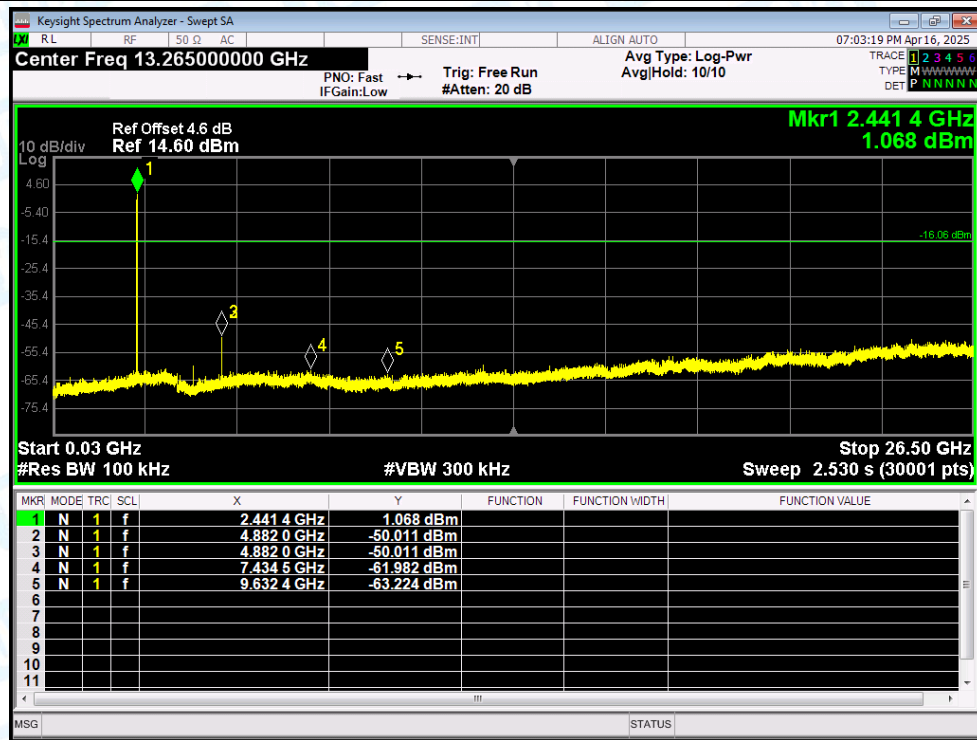
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



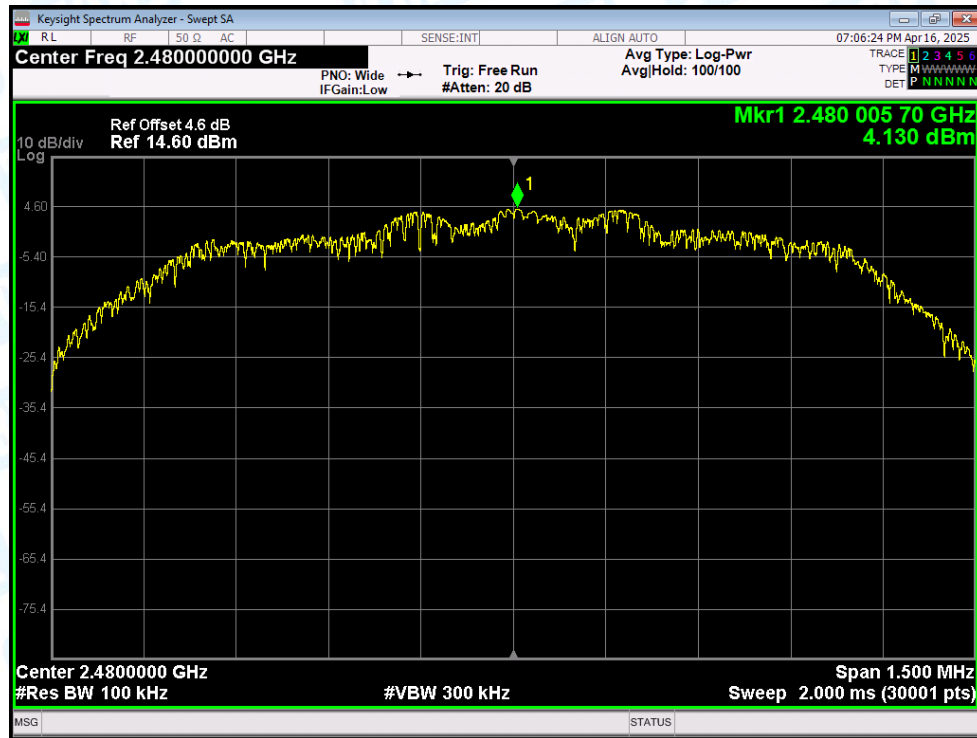
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



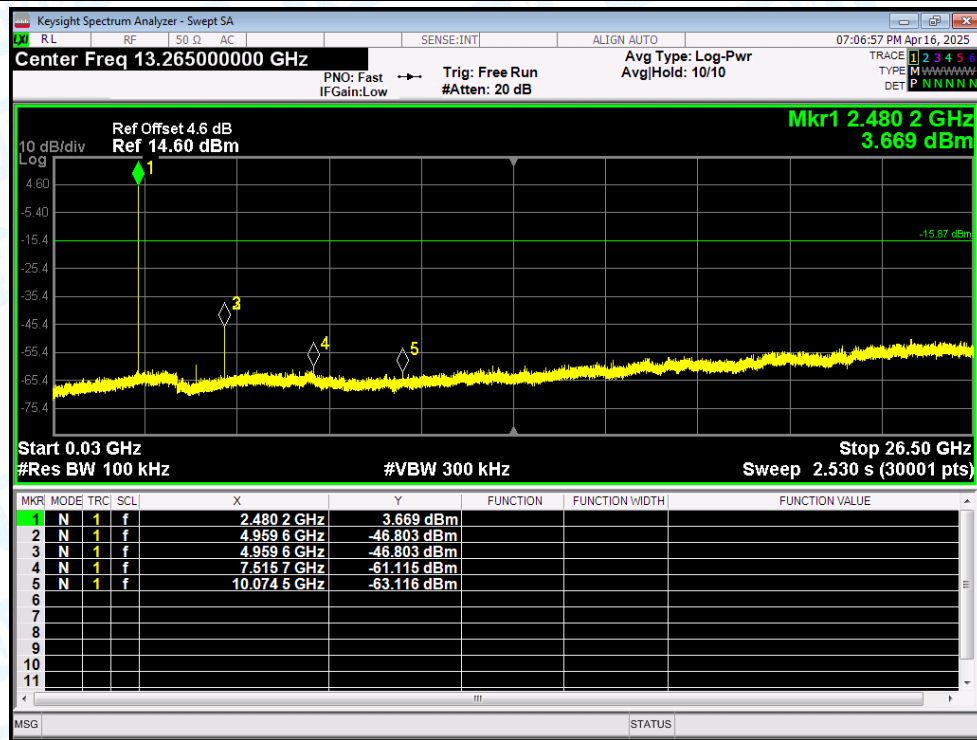
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



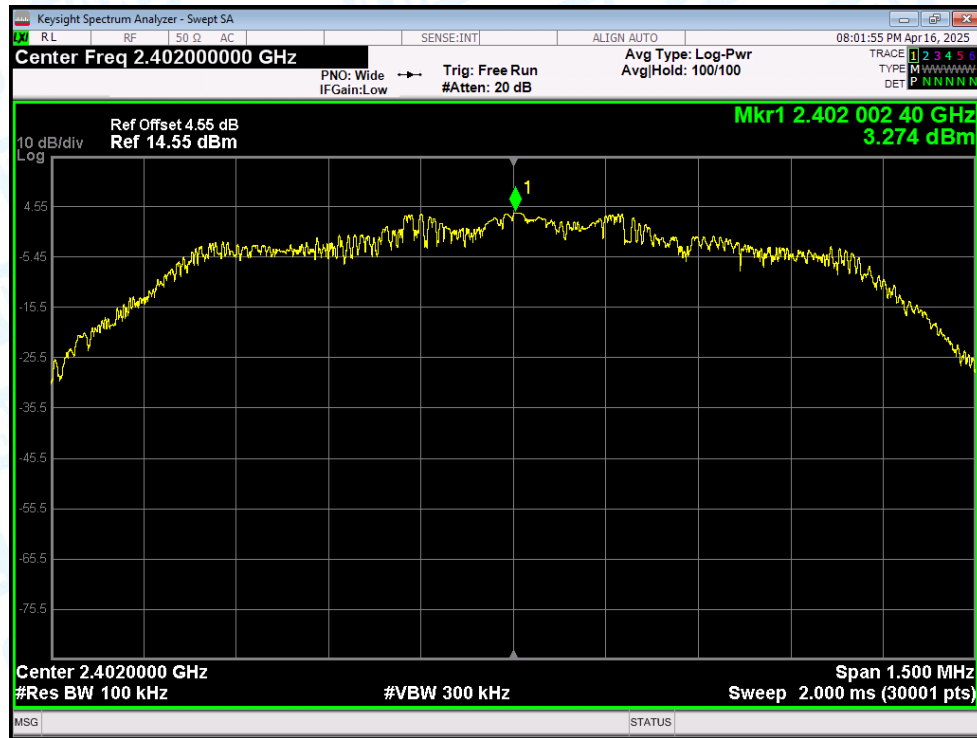
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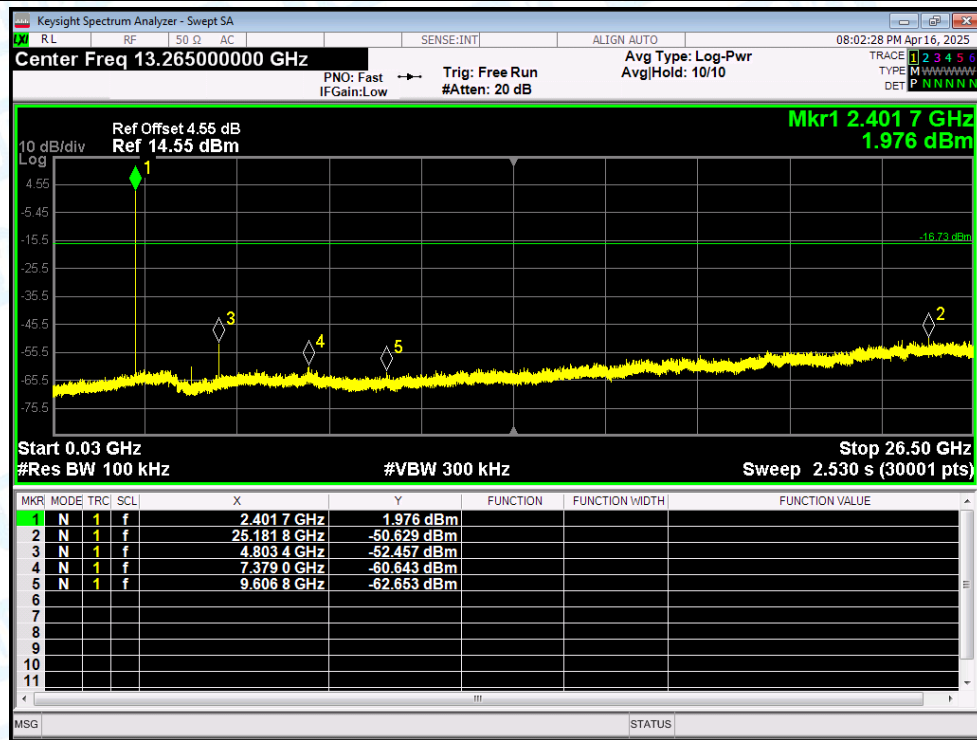
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



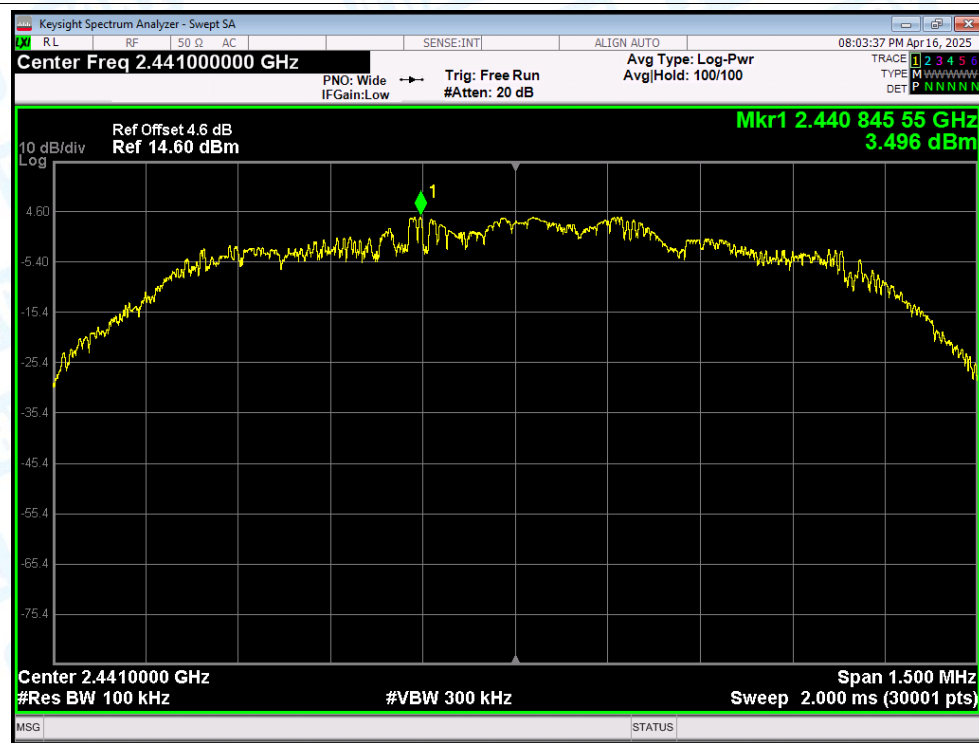
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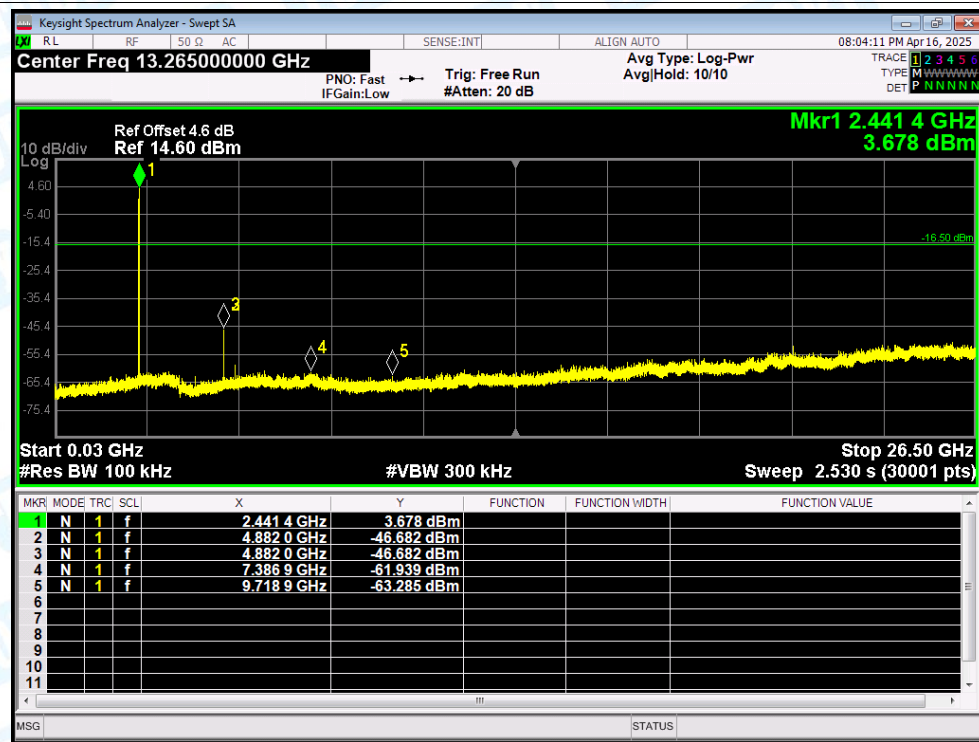
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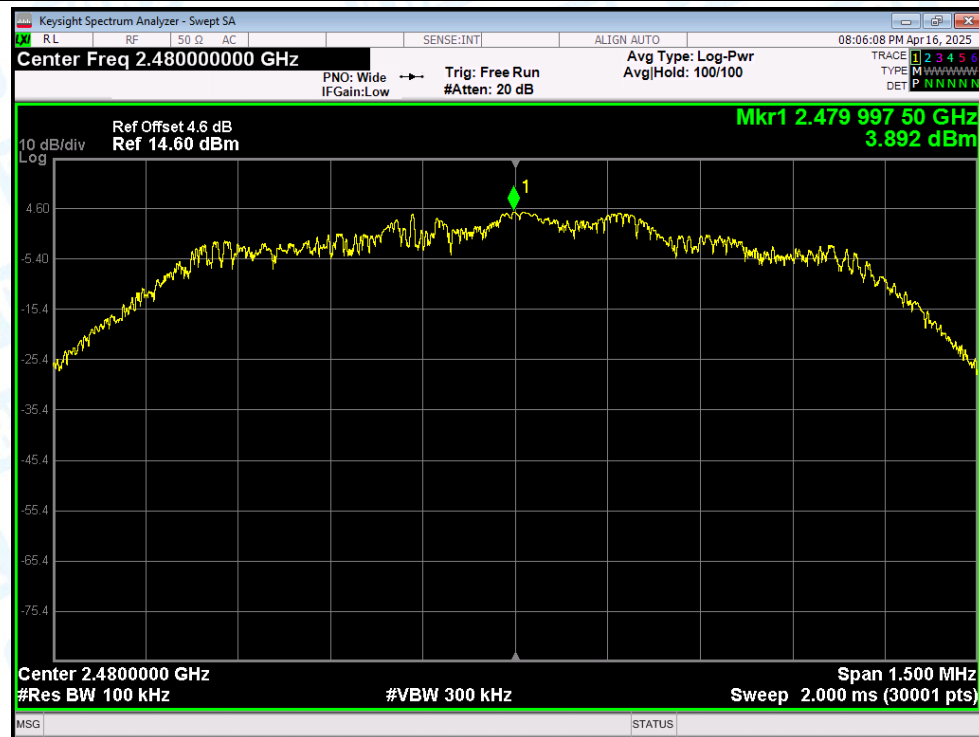
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



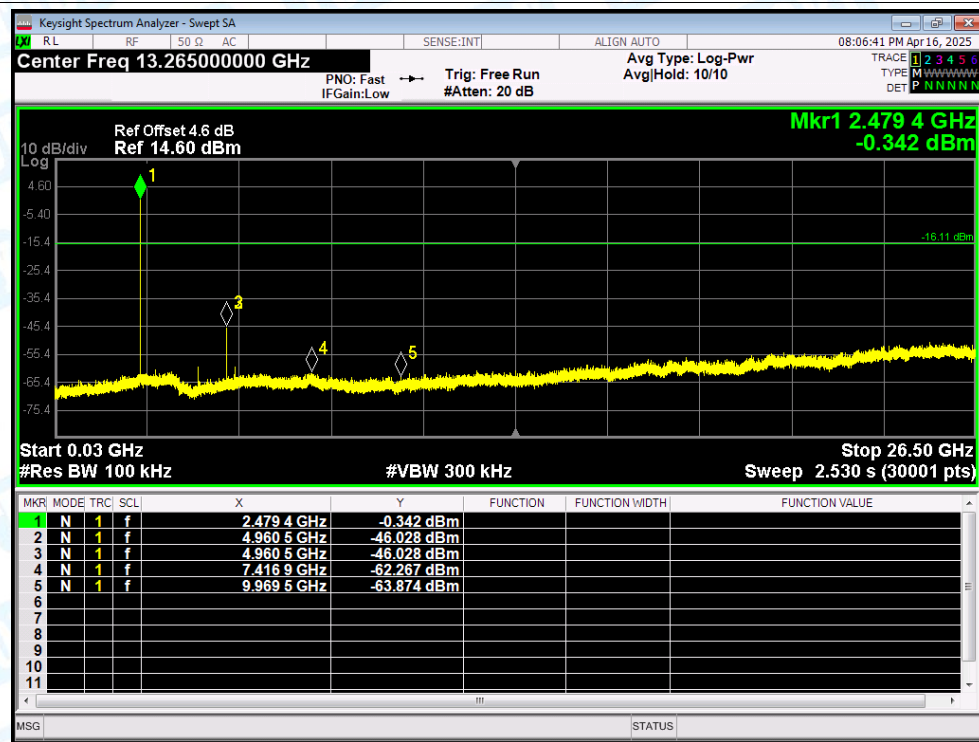
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

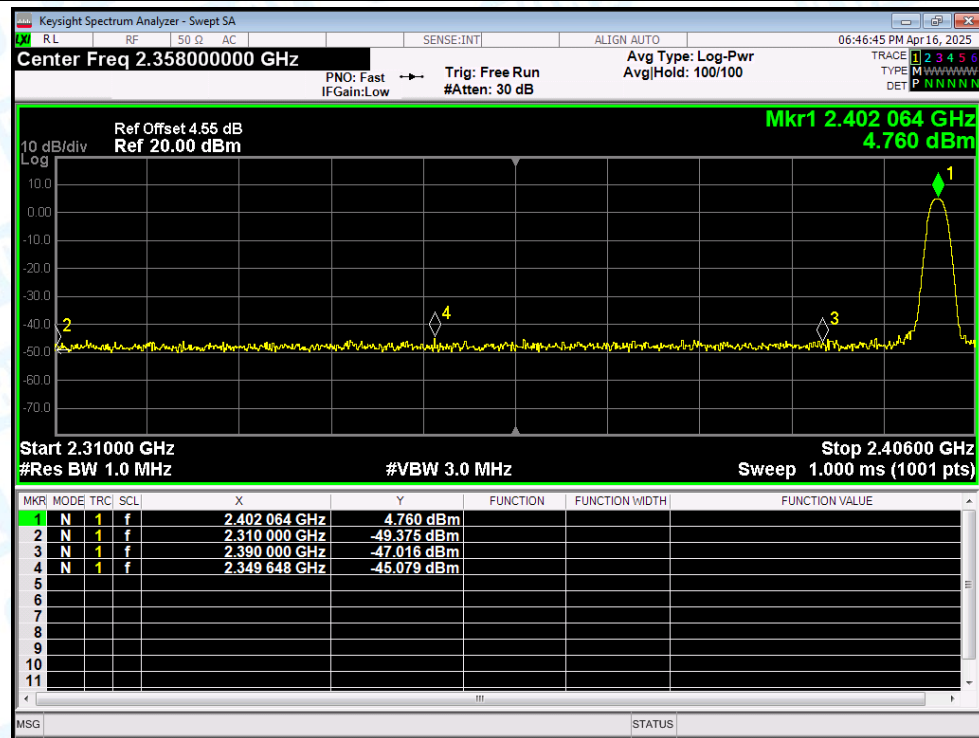


8.Restrict Band

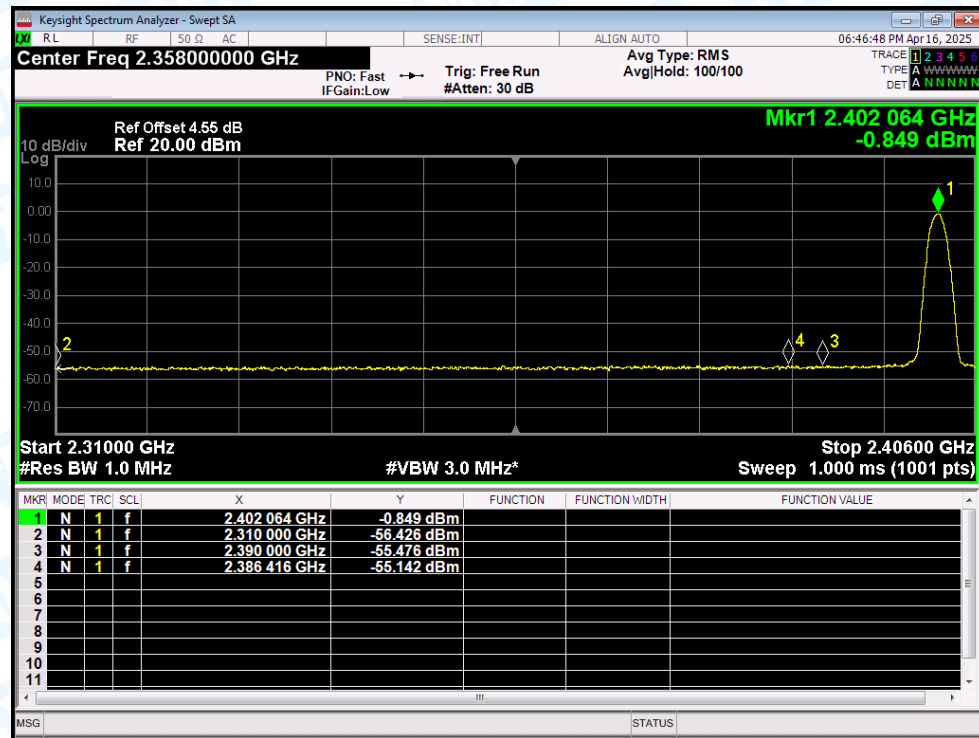
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-49.38	2	-	47.88	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.43	2	5.07	45.9	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2349.648	-45.08	2	-	52.18	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2386.416	-55.14	2	5.07	47.19	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-47.02	2	-	50.24	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-55.48	2	5.07	46.85	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-47.14	2	-	50.12	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-54.43	2	5.07	47.9	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2484.136	-43.41	2	-	53.85	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.56	-54.4	2	5.07	47.93	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-47.3	2	-	49.96	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.42	2	5.07	46.91	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-47.31	2	-	49.95	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.32	2	5.02	45.96	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2375.952	-45.23	2	-	52.03	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2385.36	-55.08	2	5.02	47.2	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-45.43	2	-	51.83	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-56.34	2	5.02	45.94	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-47.02	2	-	50.24	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-54.99	2	4.91	47.18	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2485	-44.2	2	-	53.06	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.656	-54.4	2	4.91	47.77	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-46.86	2	-	50.4	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.48	2	4.91	46.69	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-47.87	2	-	49.39	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.66	2	4.99	45.59	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2334.864	-45	2	-	52.26	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2367.792	-55.07	2	4.99	47.18	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-47.06	2	-	50.2	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-55.75	2	4.99	46.5	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-47.62	2	-	49.64	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-55.09	2	4.99	47.16	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.56	-44.49	2	-	52.77	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.8	-54.38	2	4.99	47.87	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-48.26	2	-	49	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.29	2	4.99	46.96	Average	54	Pass

Test Graphs

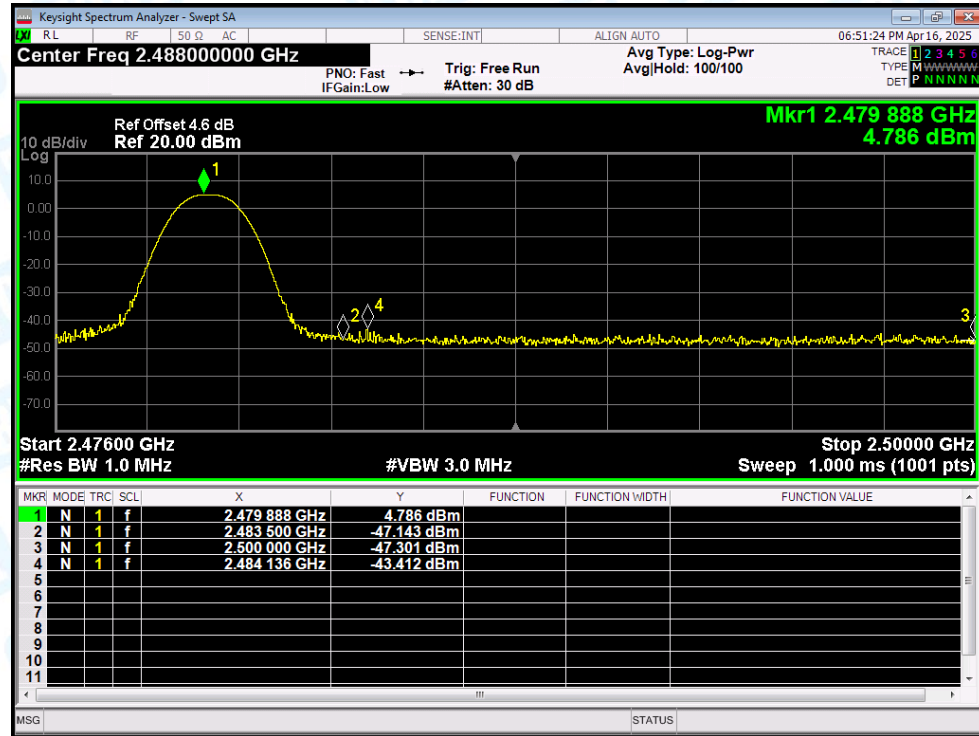
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



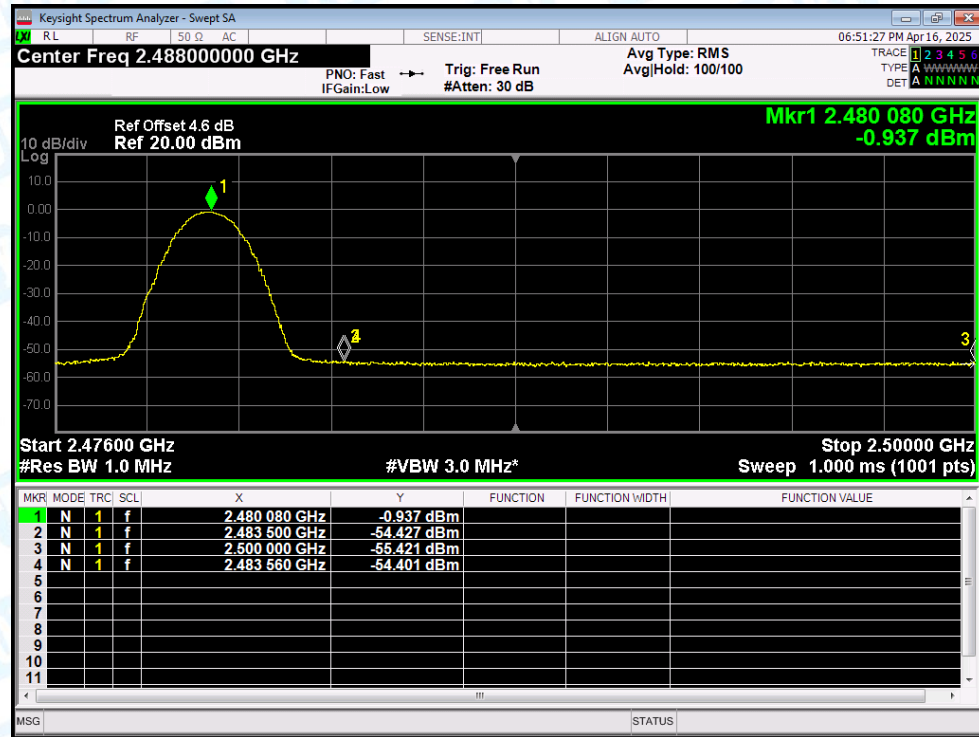
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



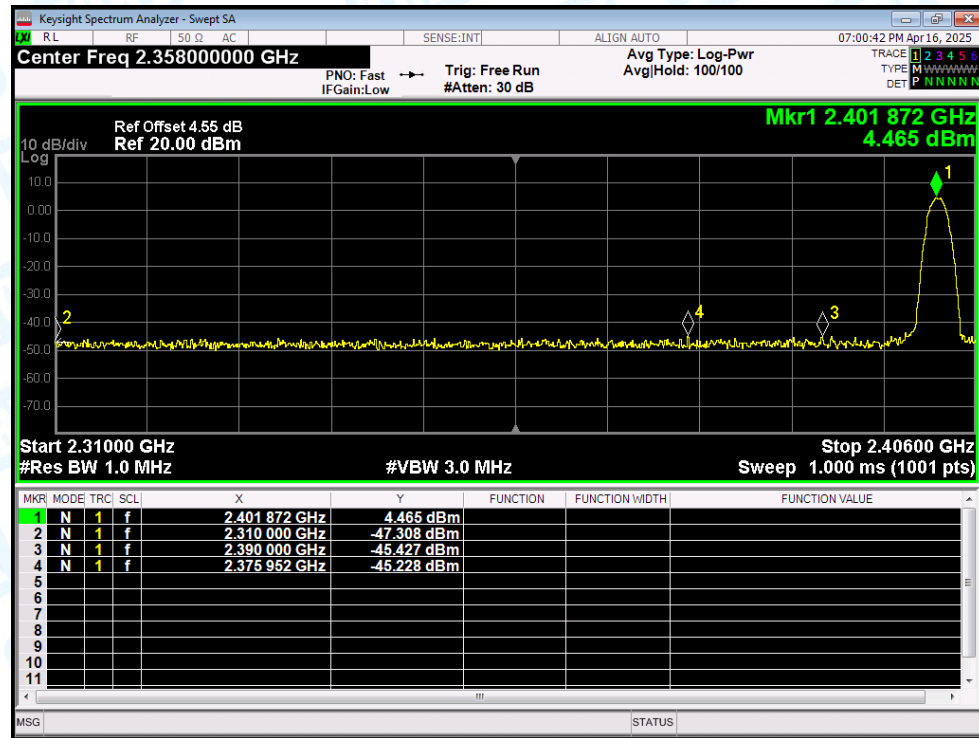
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



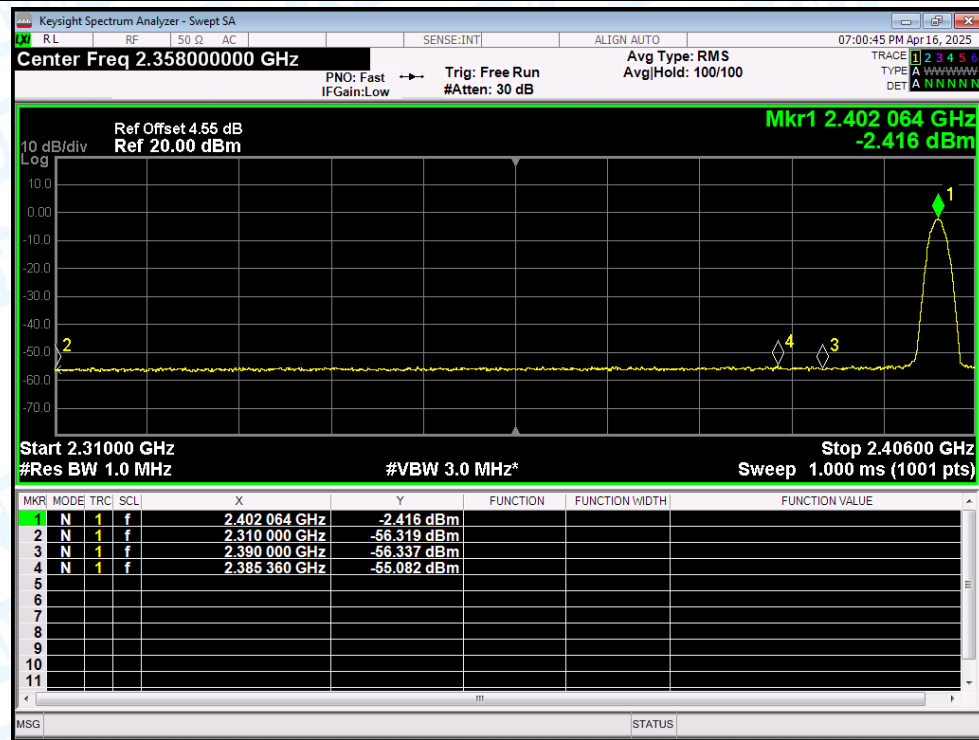
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



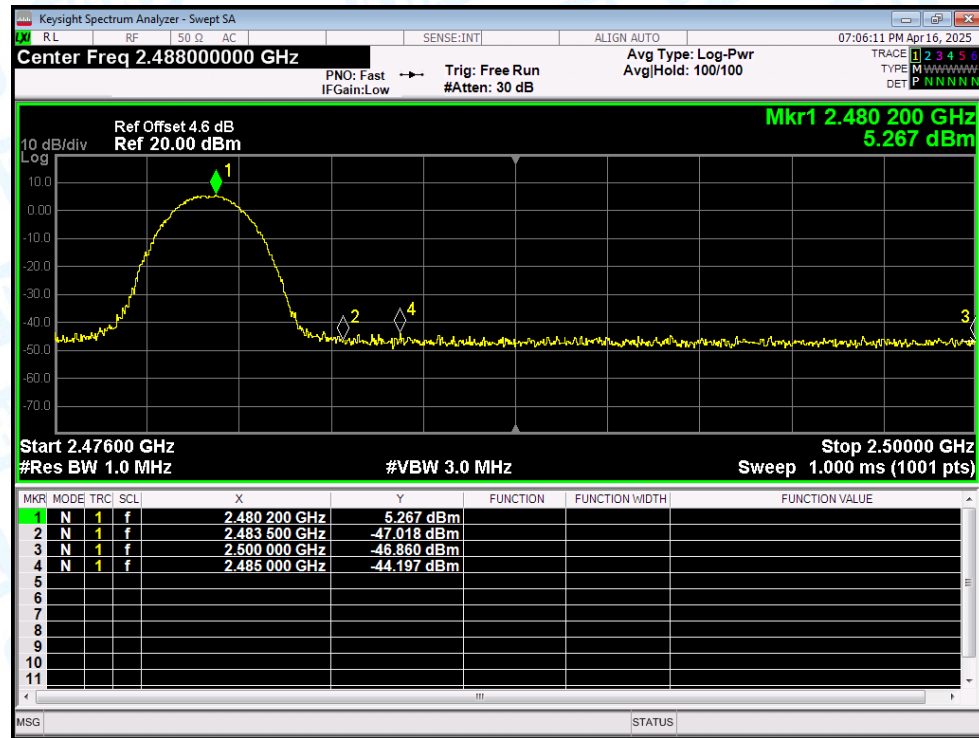
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



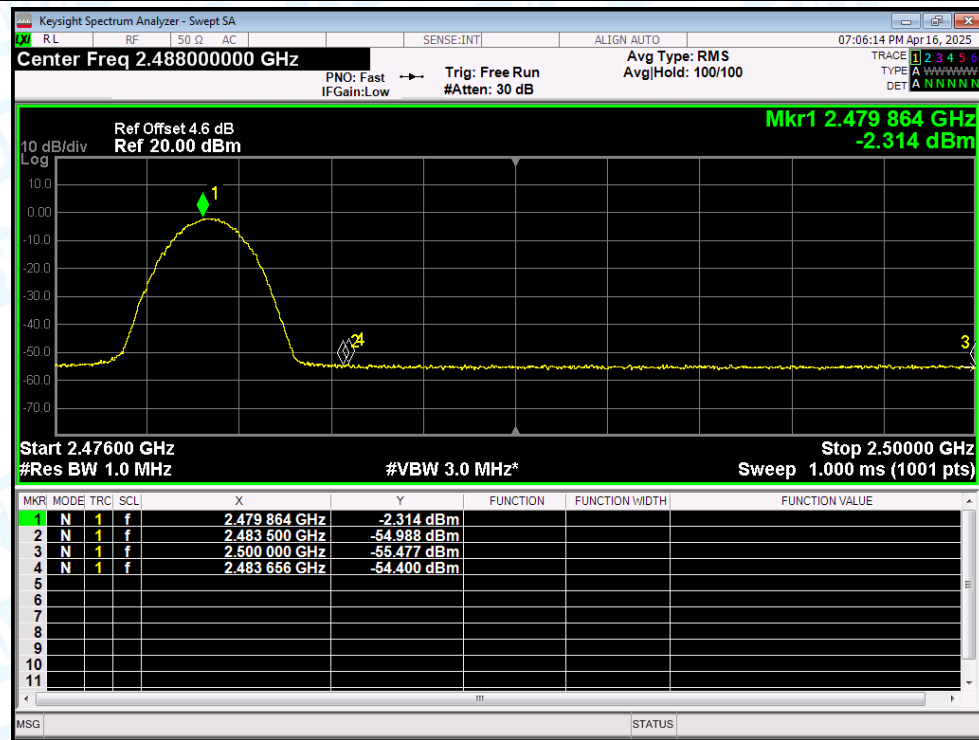
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



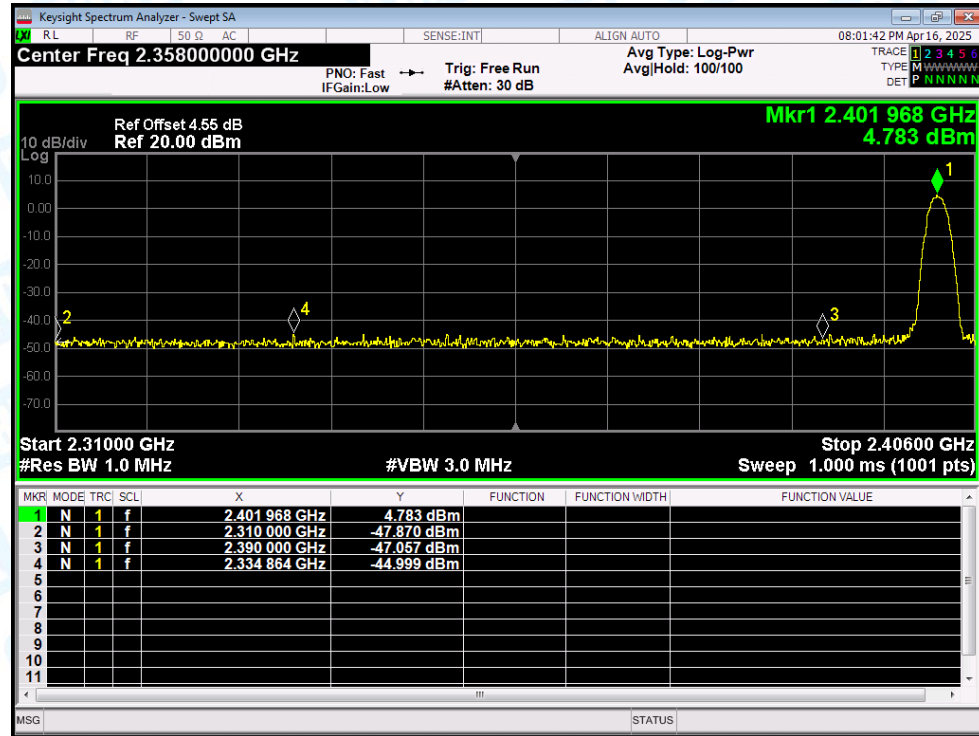
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



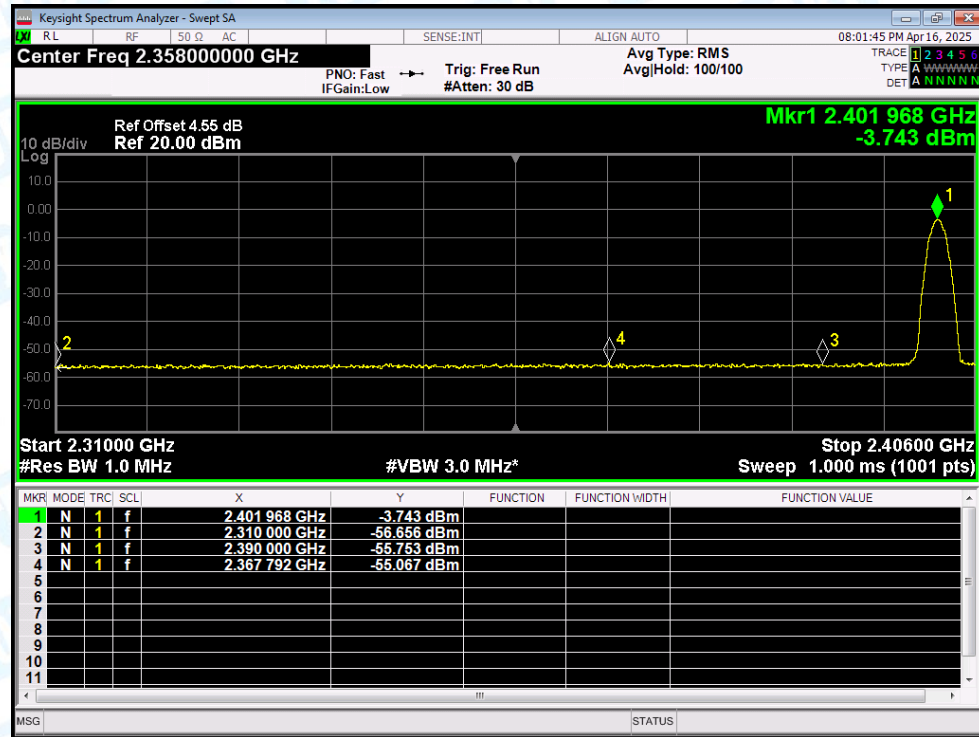
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



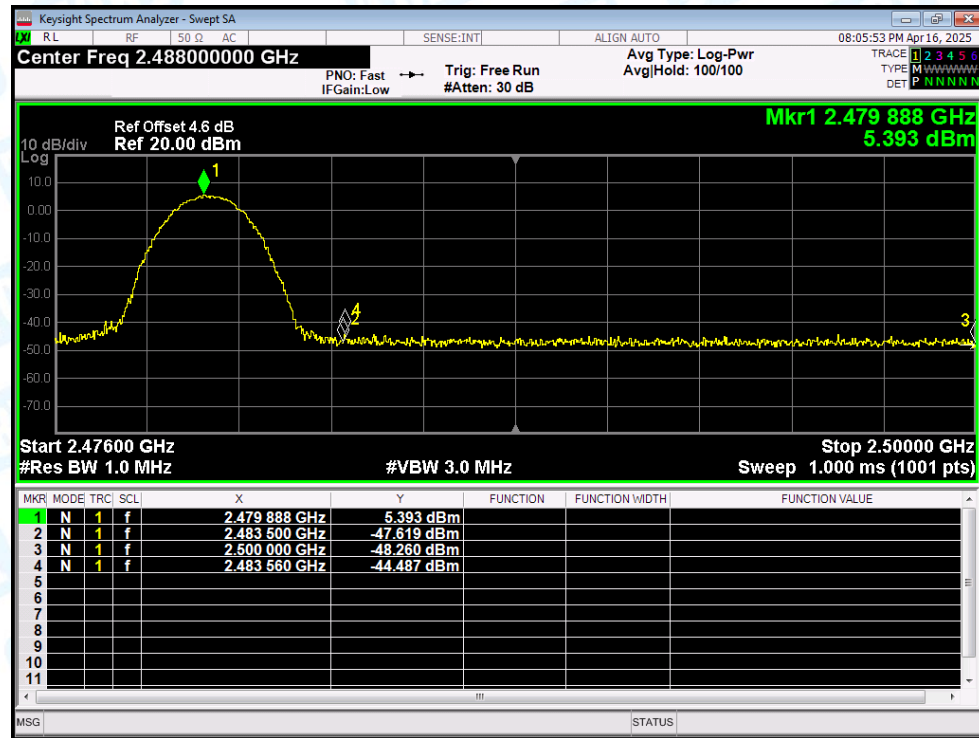
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



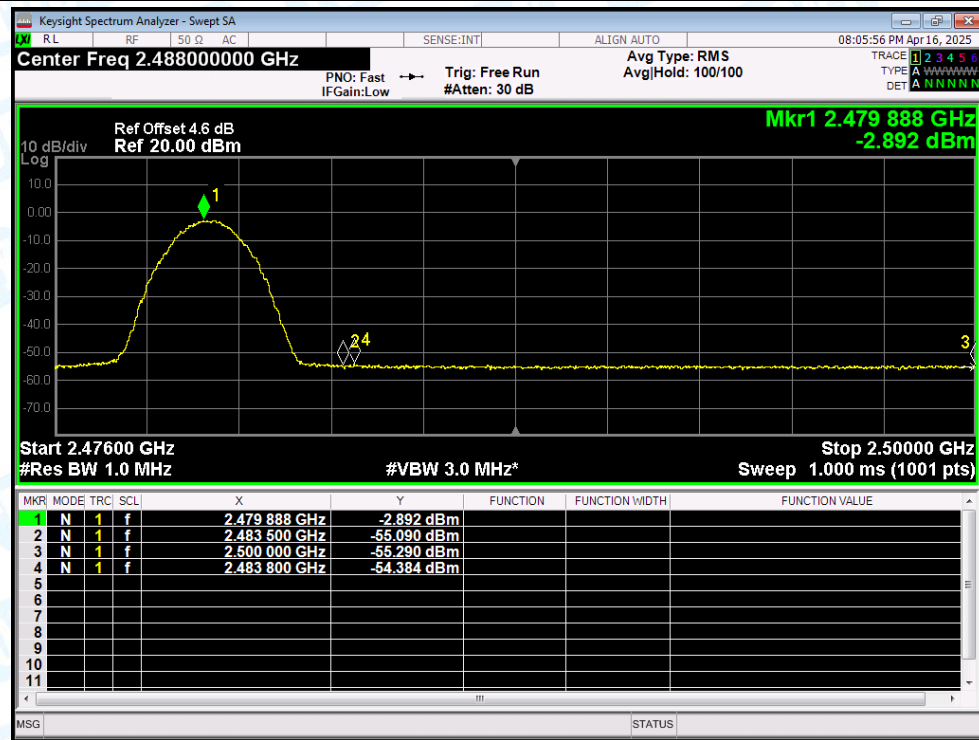
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

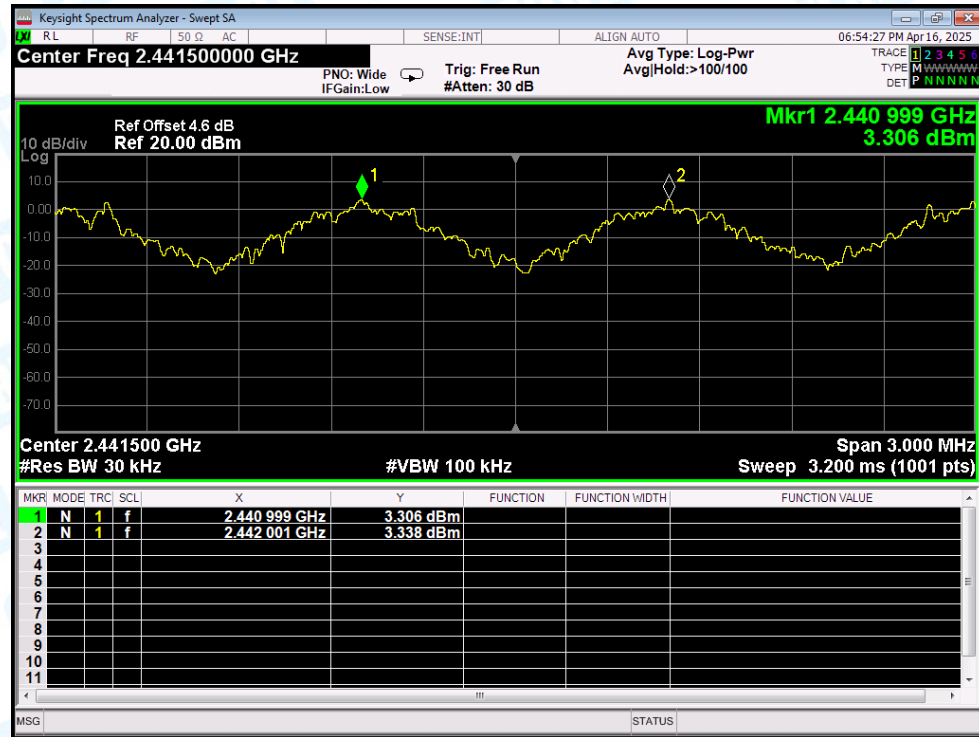


9.Carrier Frequencies Separation

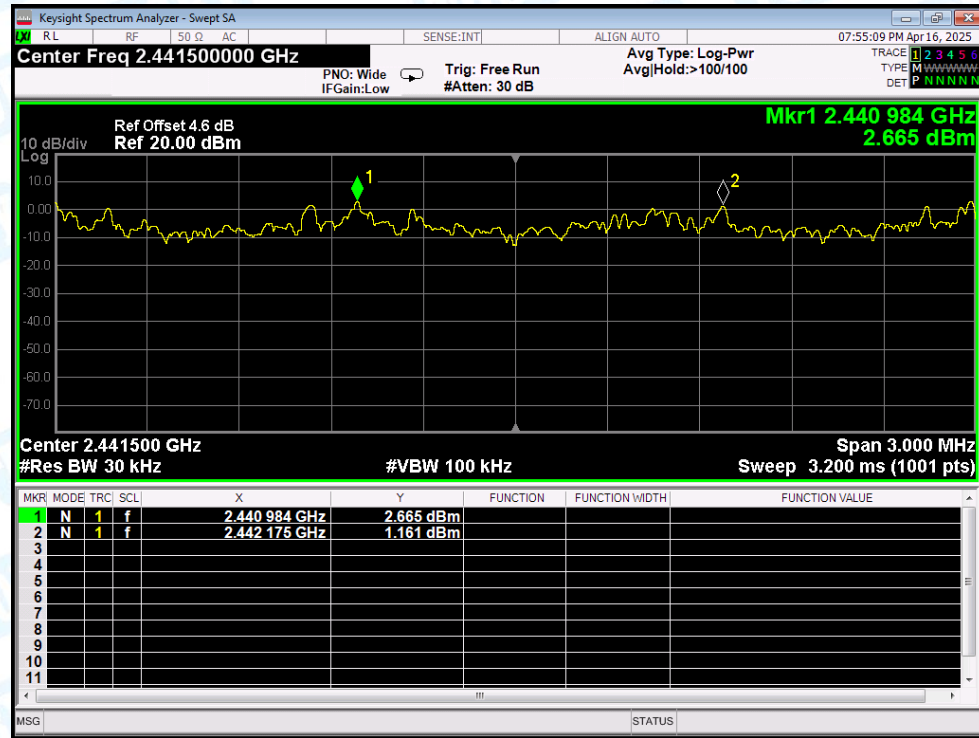
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.999	2442.001	1.002	0.62	Pass
NVNT	2-DH1	Ant1	2440.984	2442.175	1.191	0.813	Pass
NVNT	3-DH1	Ant1	2440.993	2441.824	0.831	0.807	Pass

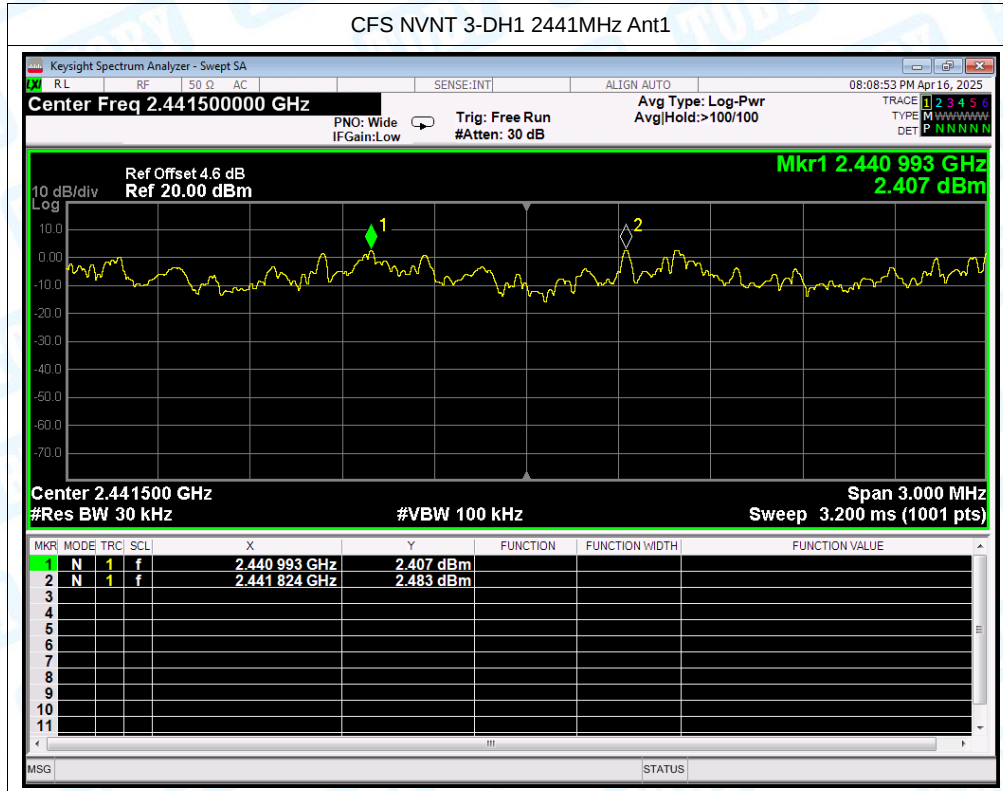
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



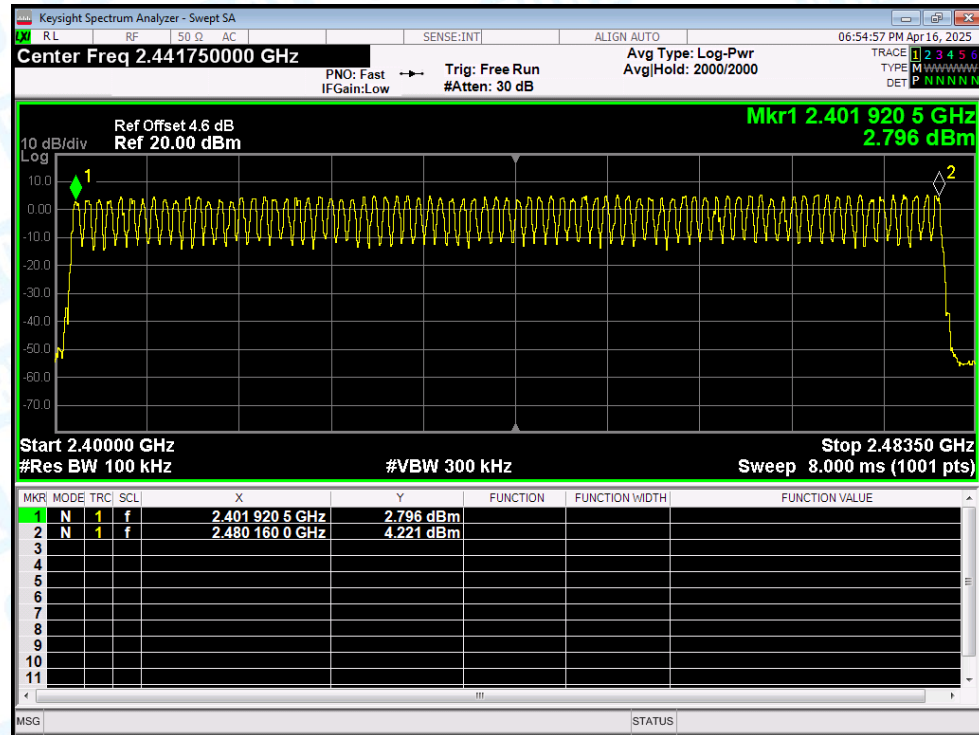


10.Number of Hopping Channel

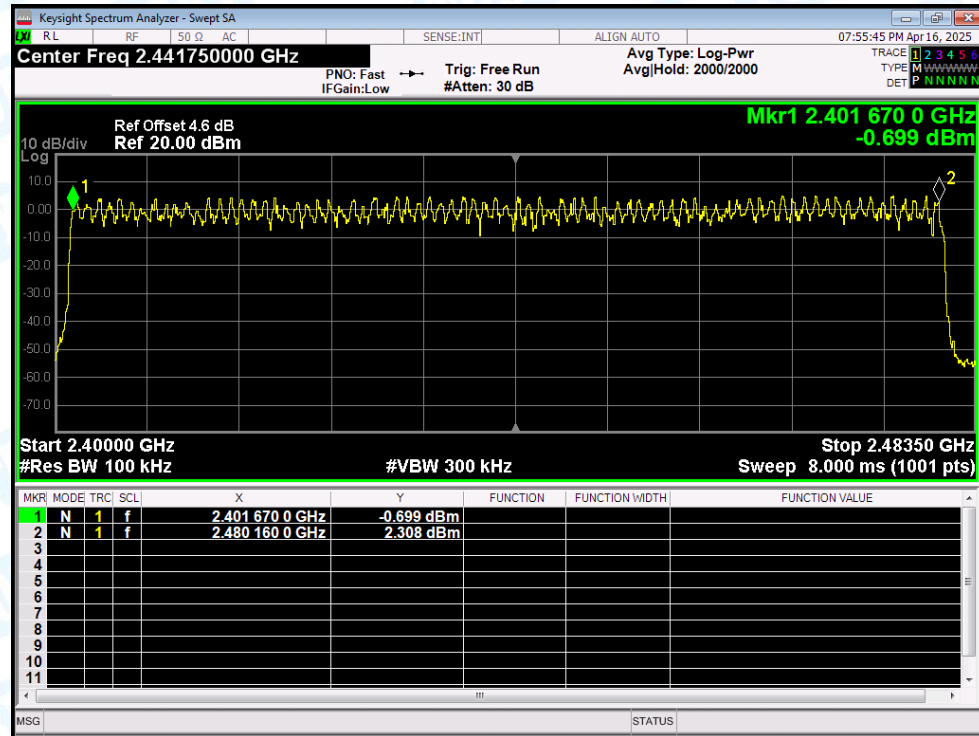
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

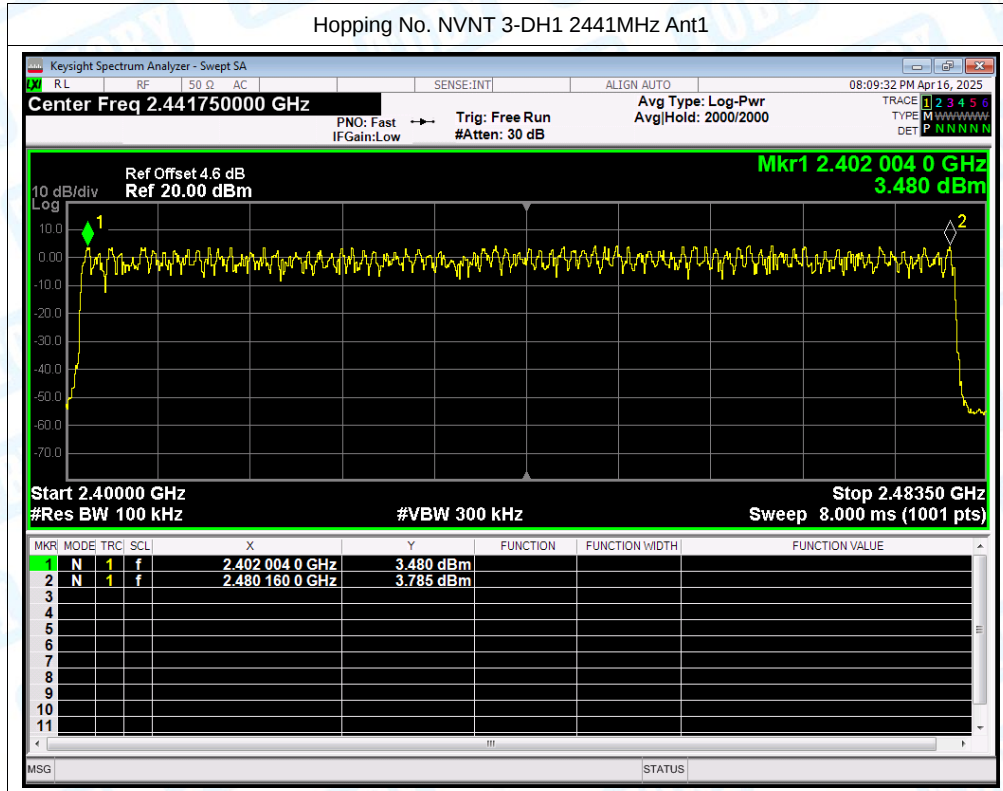
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



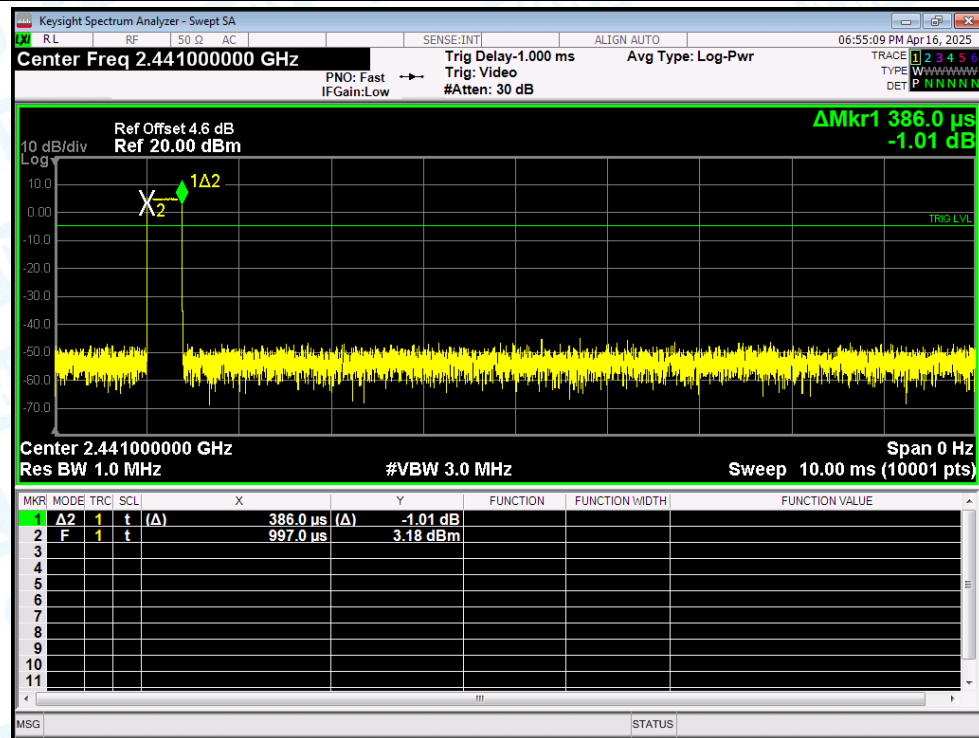


11.Dwell Time

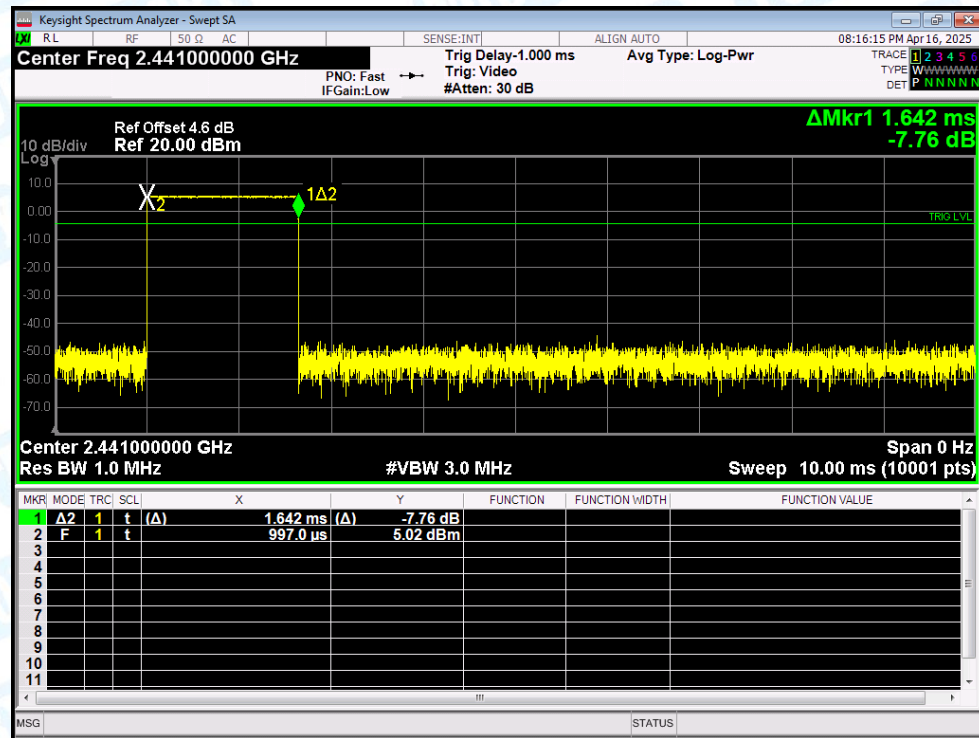
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.386	123.52	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.642	262.72	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.89	308.267	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.395	126.4	31600	400	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	0.395	126.4	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.646	263.36	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.896	308.907	31600	400	Pass

Test Graphs

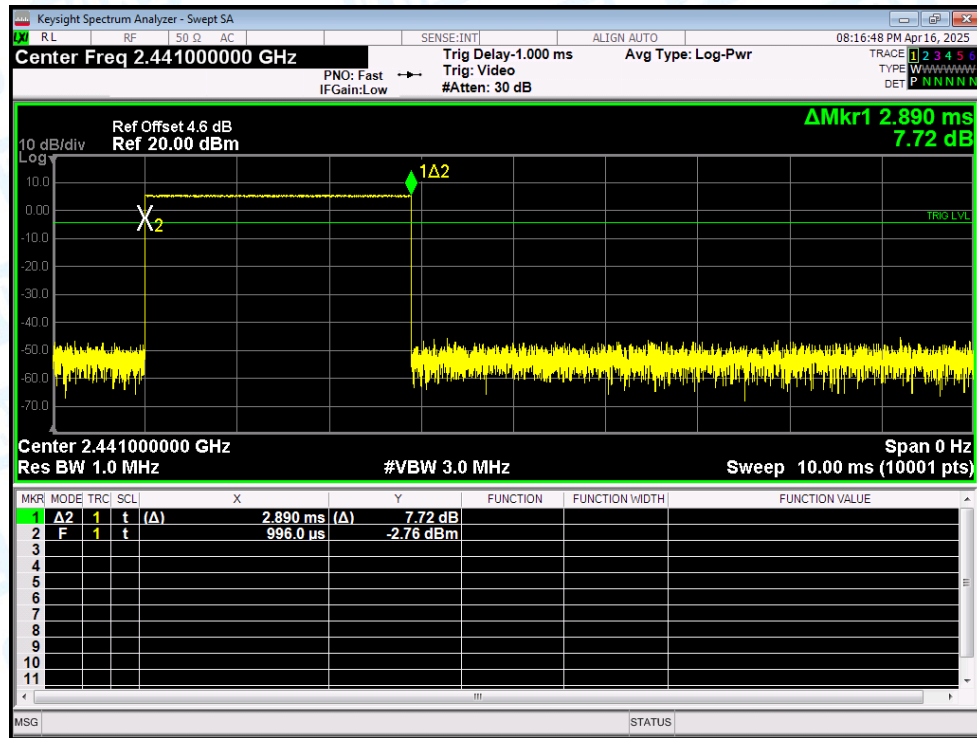
Dwell NVNT 1-DH1 2441MHz Ant1



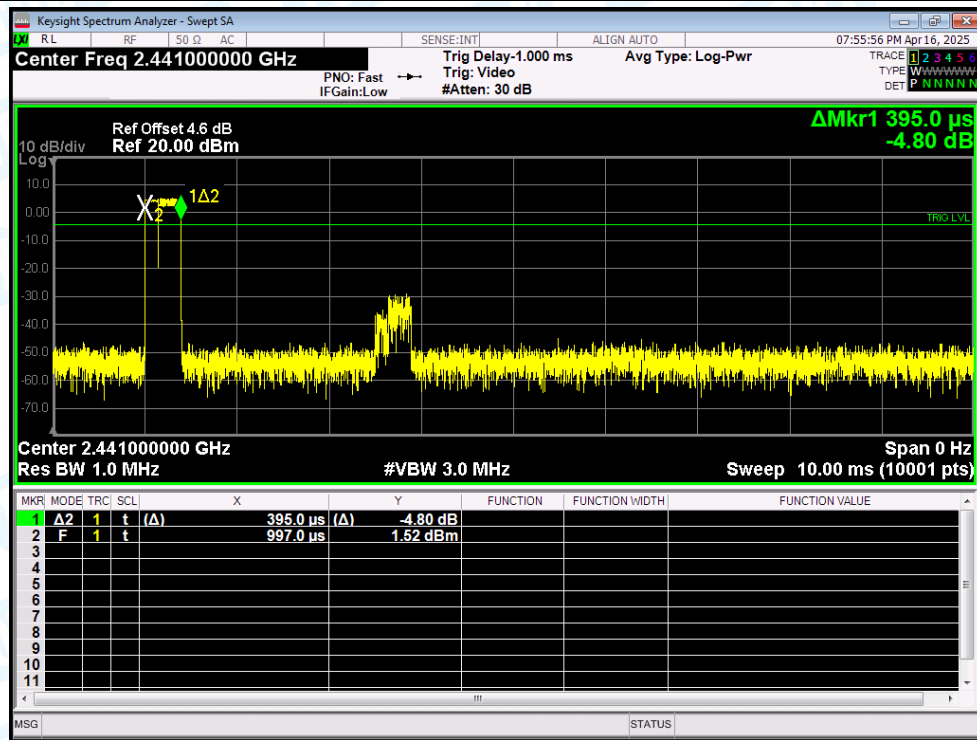
Dwell NVNT 1-DH3 2441MHz Ant1



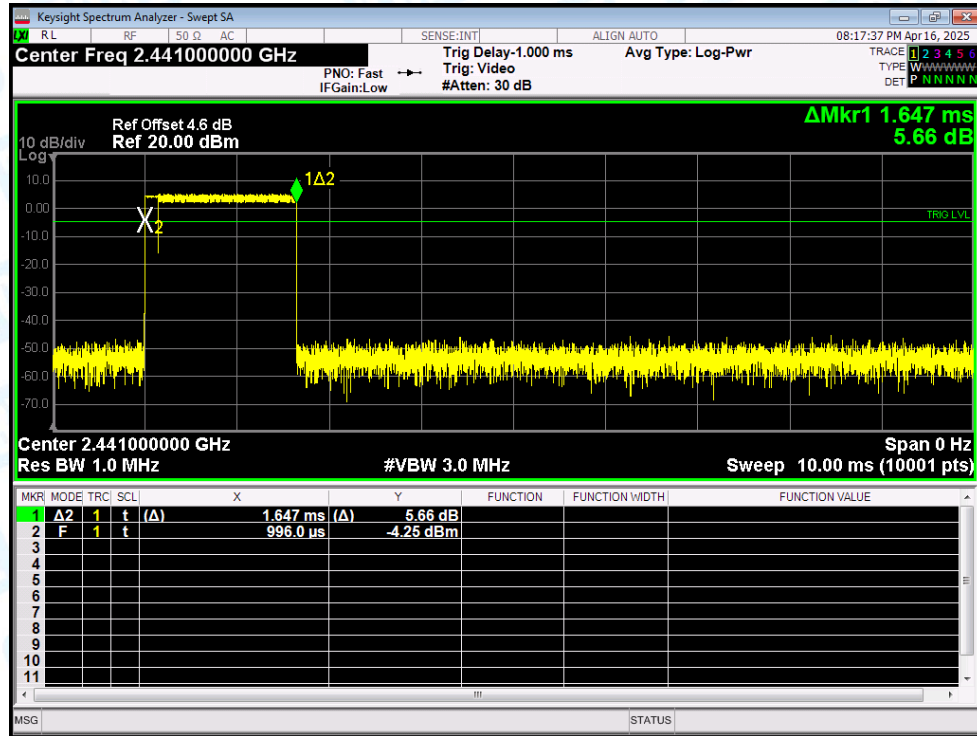
Dwell NVNT 1-DH5 2441MHz Ant1



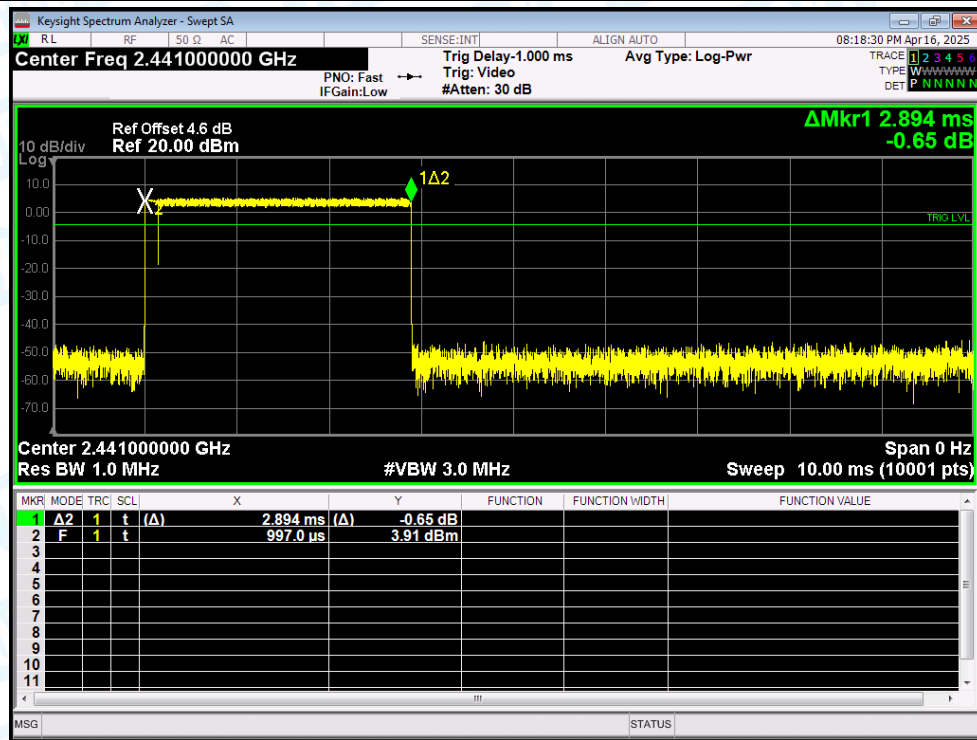
Dwell NVNT 2-DH1 2441MHz Ant1



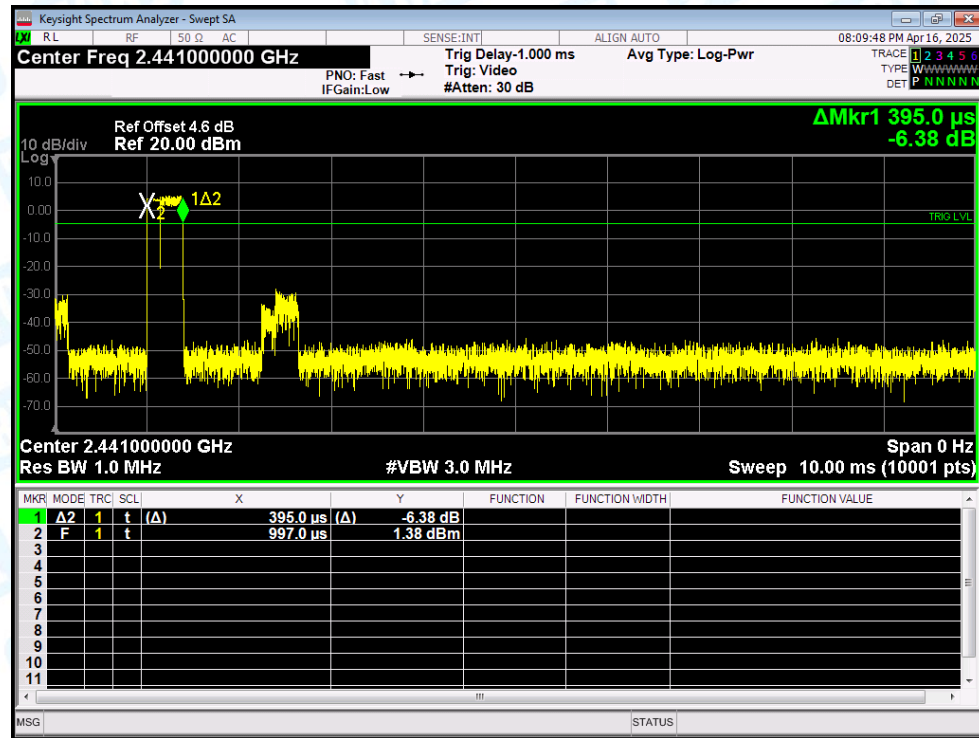
Dwell NVNT 2-DH3 2441MHz Ant1



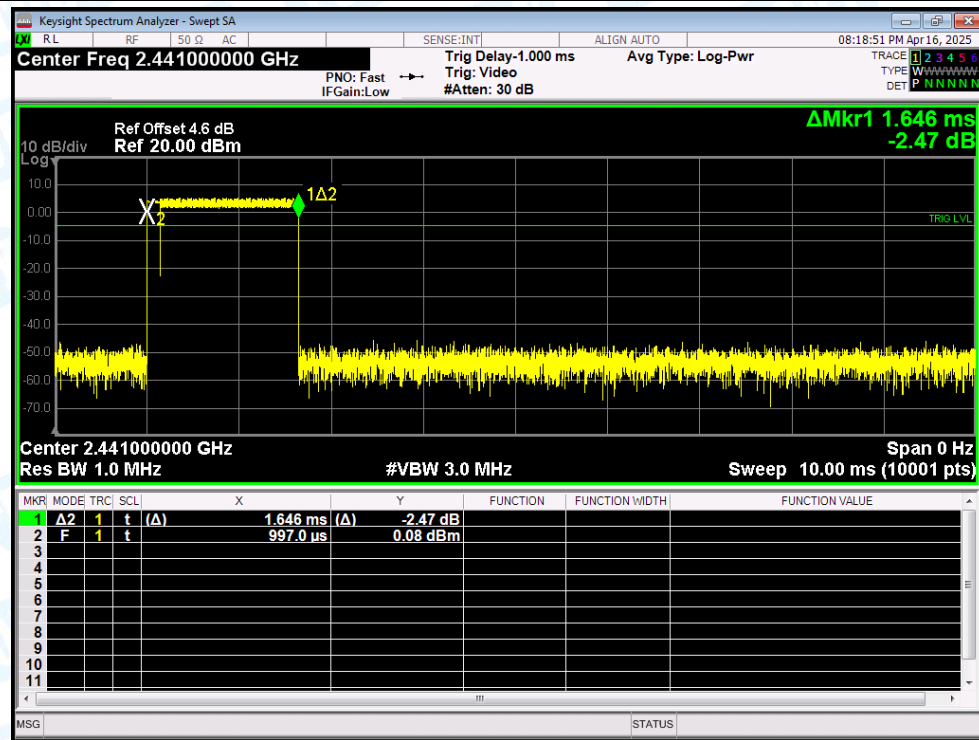
Dwell NVNT 2-DH5 2441MHz Ant1

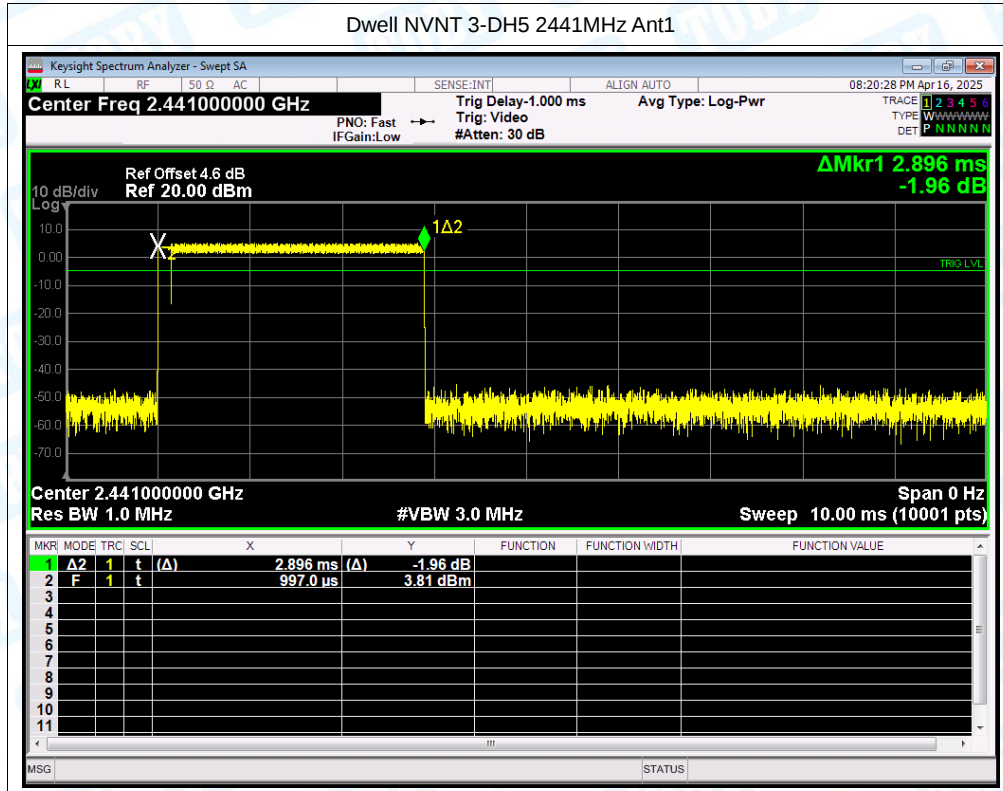


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





-----END OF REPORT-----