RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	**Tablet**
Test Model:	**P13**
Sample ID:	**HC-C-202503-0390-01-02#**
Environmental Conditions	
Temperature:	**25℃**
Relative Humidity:	**55%**
Test Voltage:	**DC 3.8V**
Test Engineer:	**Rick Chen**
Note: For a more detailed features description, please refer to the report TBR-C-202503-0390-31 The report only show the worst case data.	

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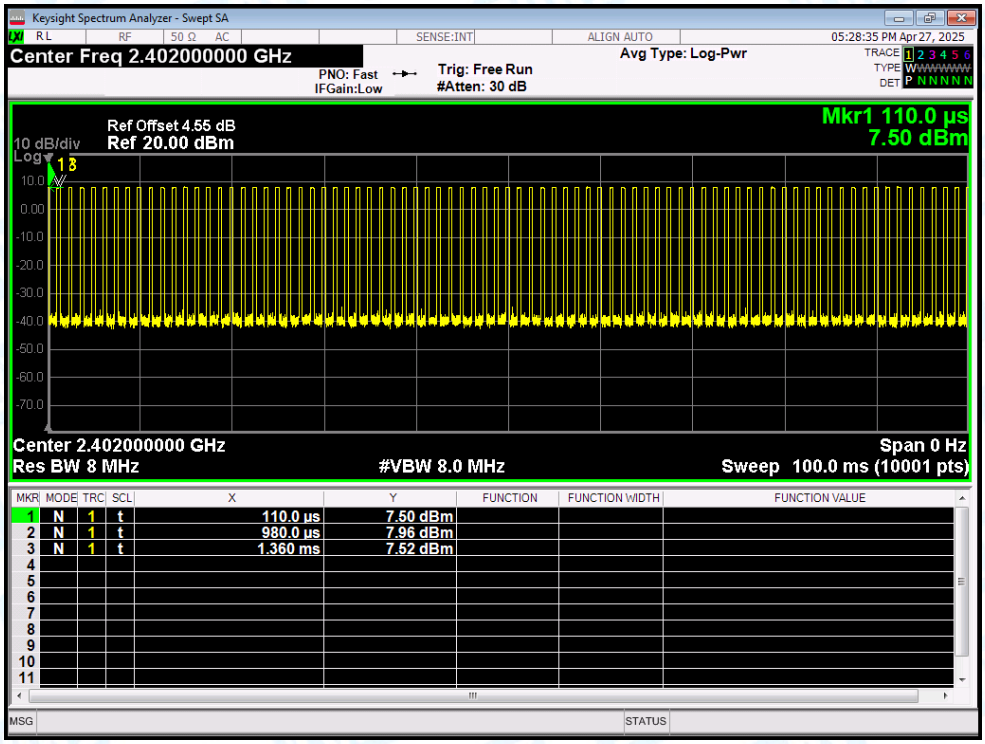
1.Duty Cycle

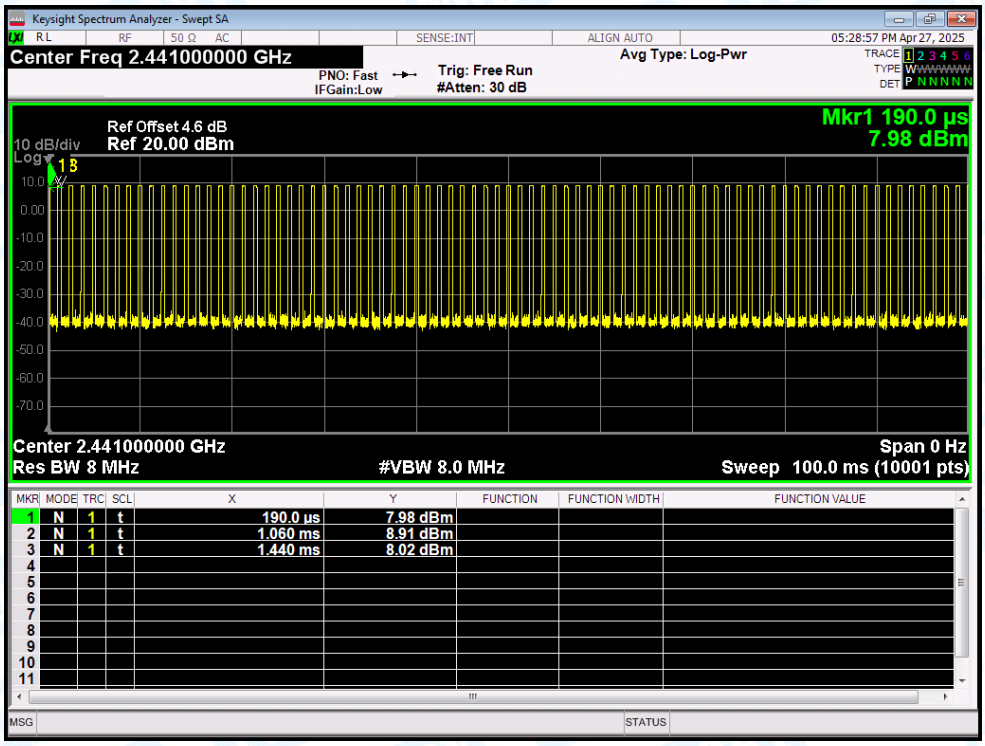
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2441	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	3-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2480	Ant1	30.4	5.17	2.63

Test Graphs

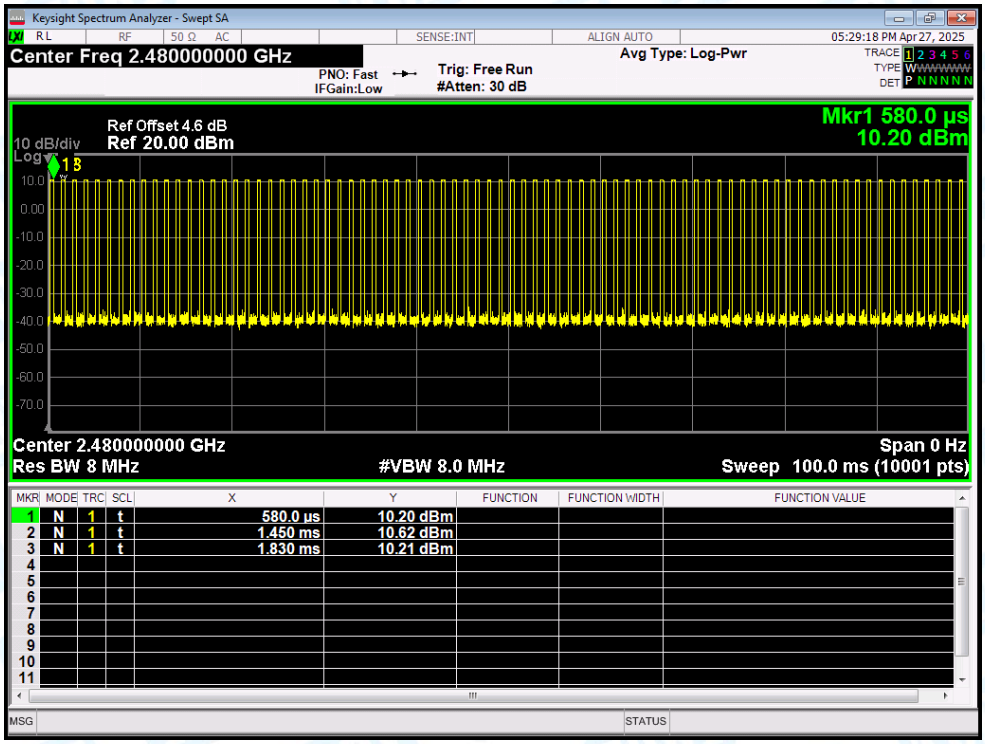
Duty Cycle NVNT 1-DH1 2402MHz Ant1



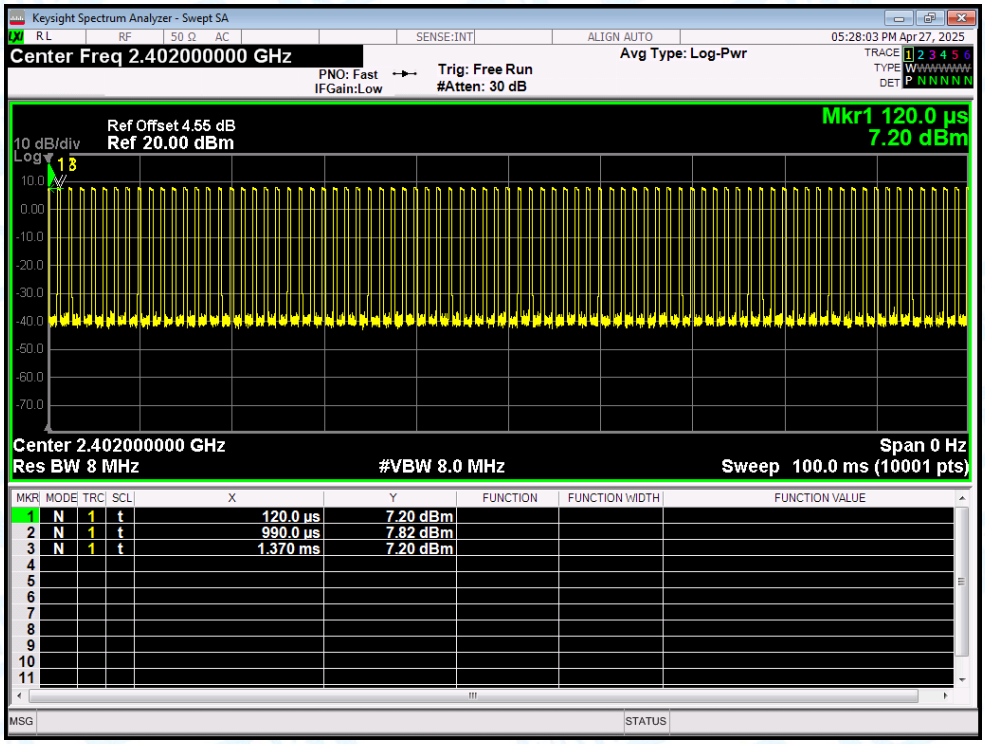
Duty Cycle NVNT 1-DH1 2441MHz Ant1



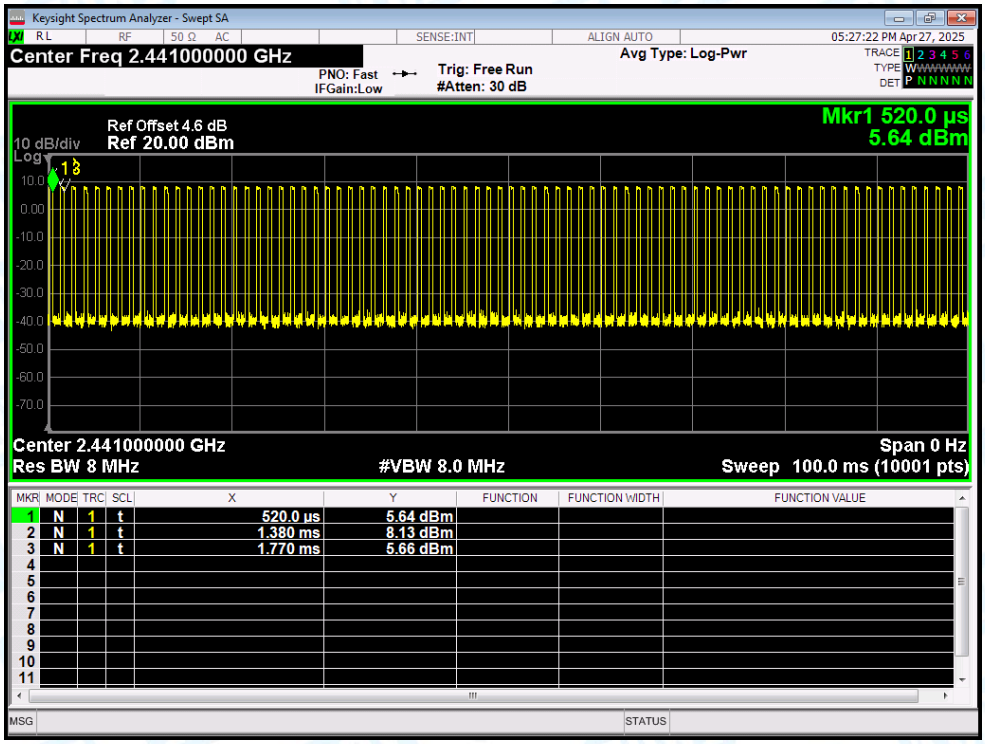
Duty Cycle NVNT 1-DH1 2480MHz Ant1



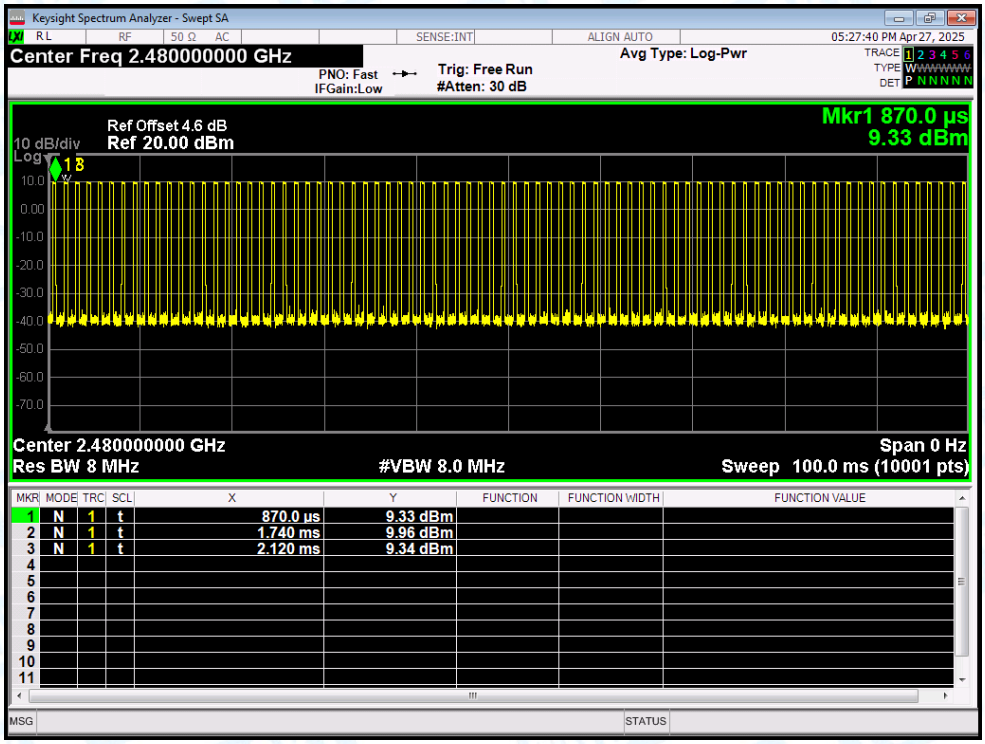
Duty Cycle NVNT 2-DH1 2402MHz Ant1



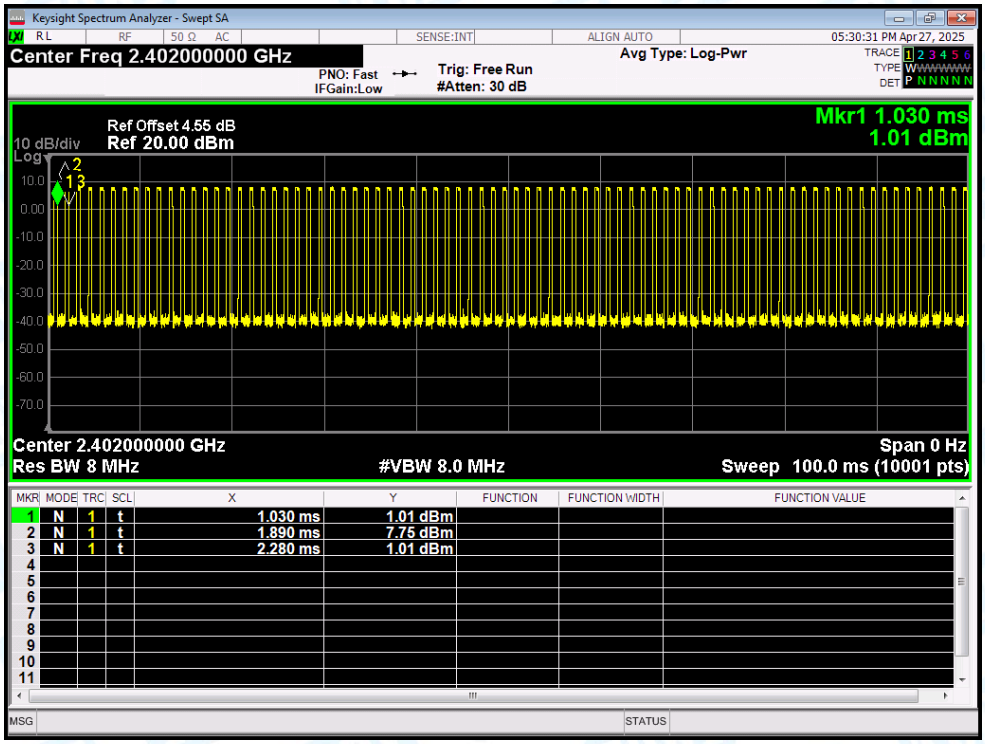
Duty Cycle NVNT 2-DH1 2441MHz Ant1



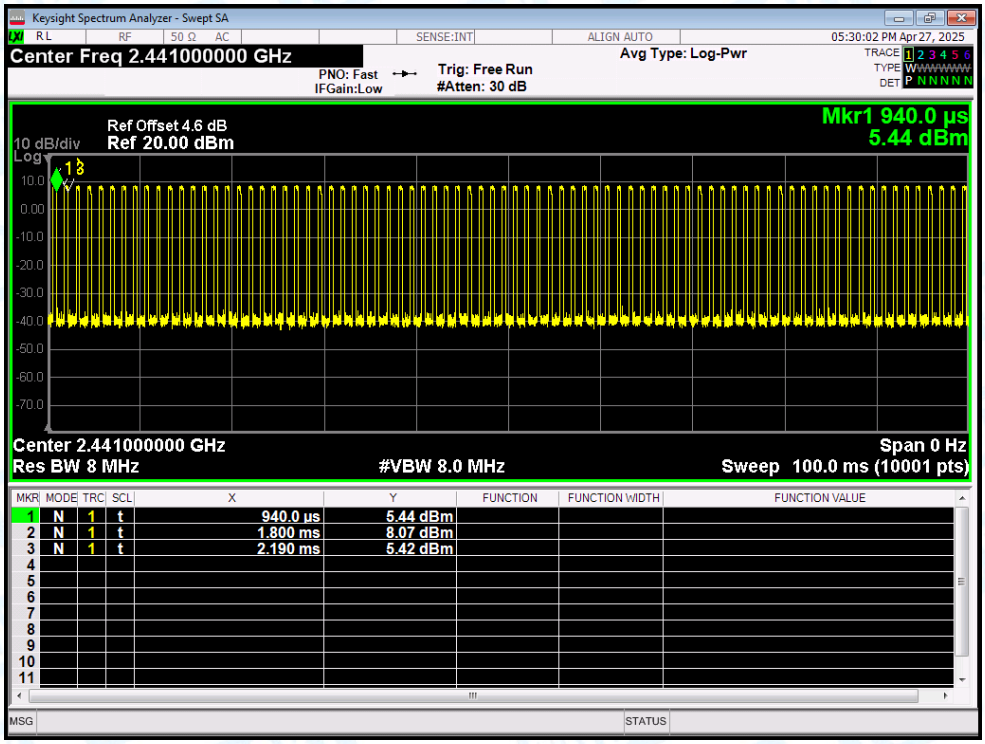
Duty Cycle NVNT 2-DH1 2480MHz Ant1



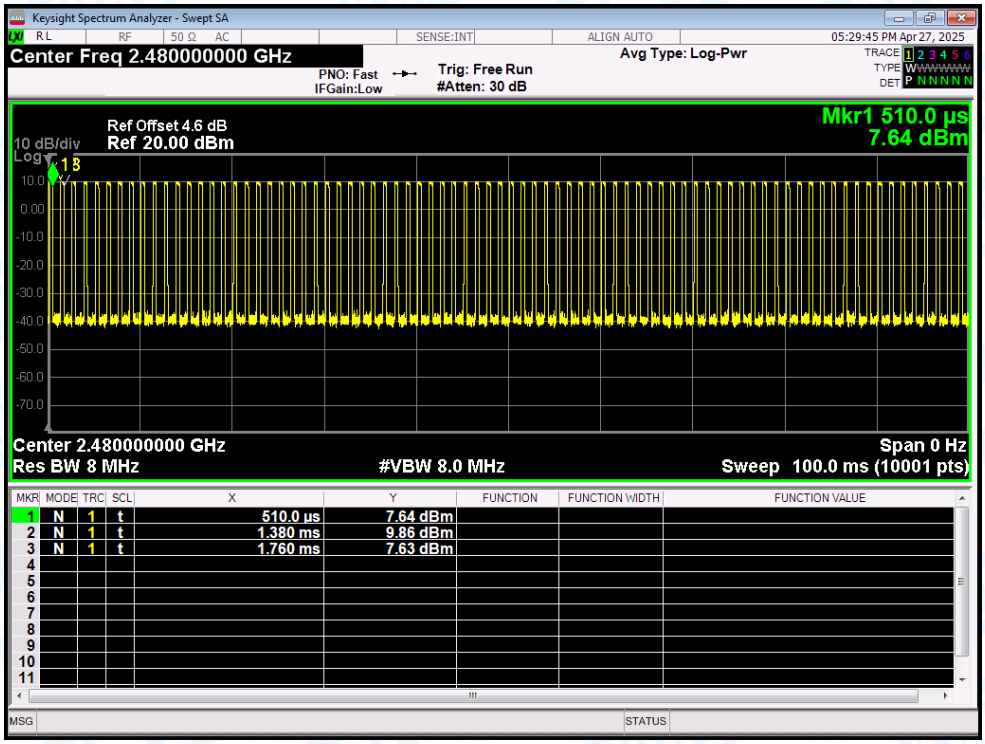
Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



Duty Cycle NVNT 3-DH1 2480MHz Ant1

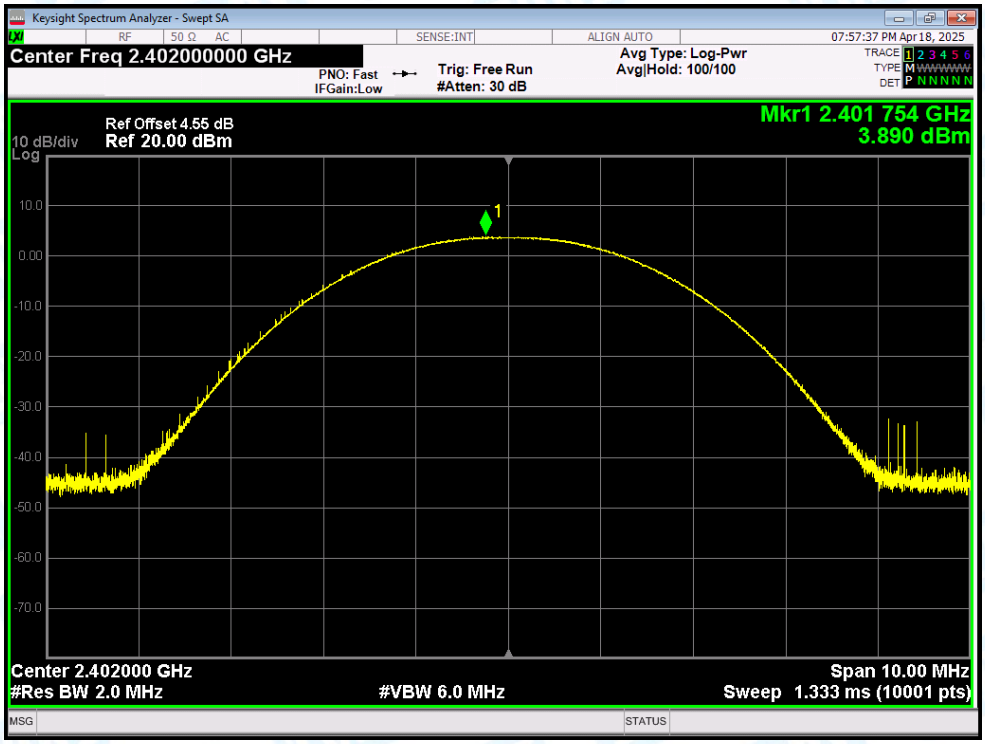


2.Maximum Conducted Output Power

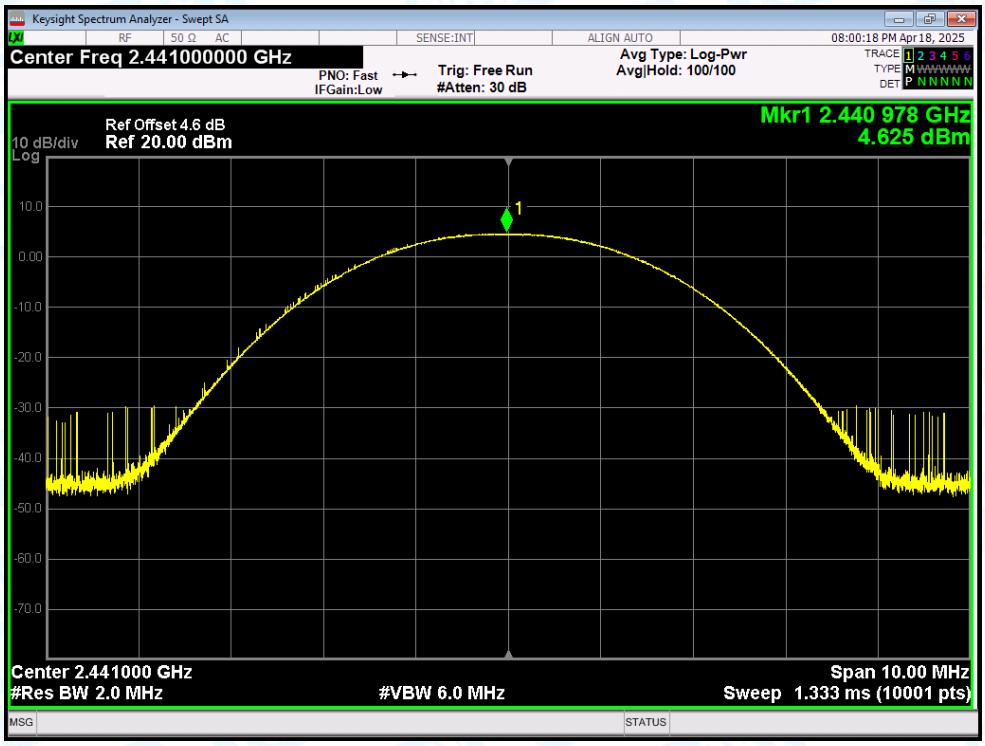
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	3.89	21	Pass
NVNT	1-DH1	2441	Ant1	4.625	21	Pass
NVNT	1-DH1	2480	Ant1	4.368	21	Pass
NVNT	2-DH1	2402	Ant1	3.932	21	Pass
NVNT	2-DH1	2441	Ant1	5.318	21	Pass
NVNT	2-DH1	2480	Ant1	4.531	21	Pass
NVNT	3-DH1	2402	Ant1	4.251	21	Pass
NVNT	3-DH1	2441	Ant1	5.639	21	Pass
NVNT	3-DH1	2480	Ant1	4.877	21	Pass

Test Graphs

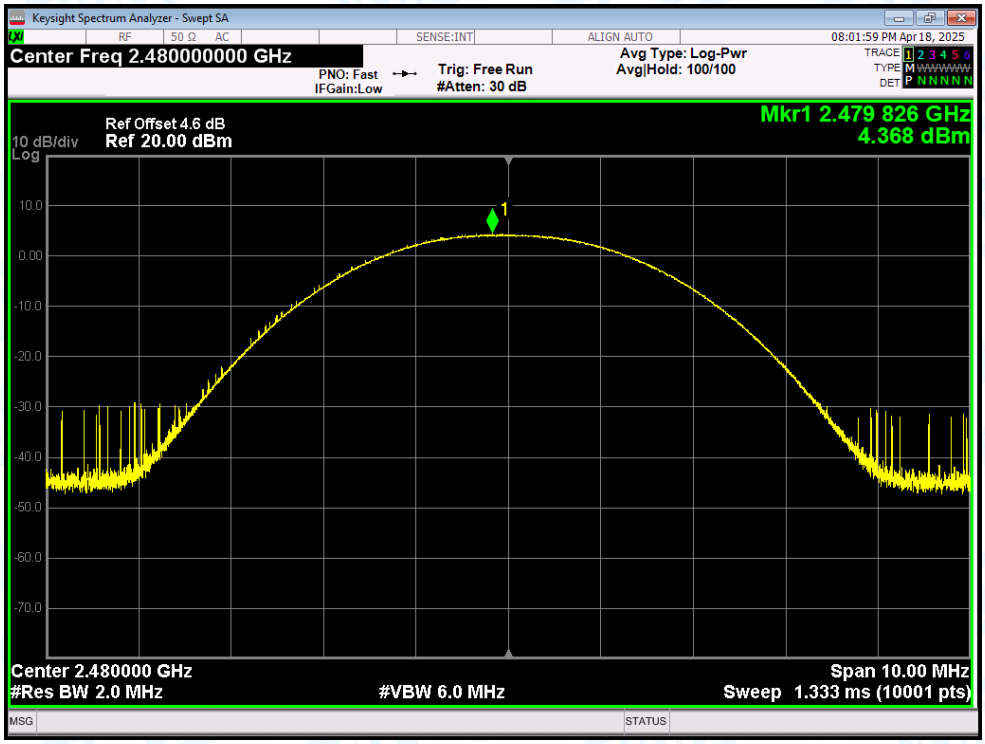
Power NVNT 1-DH1 2402MHz Ant1



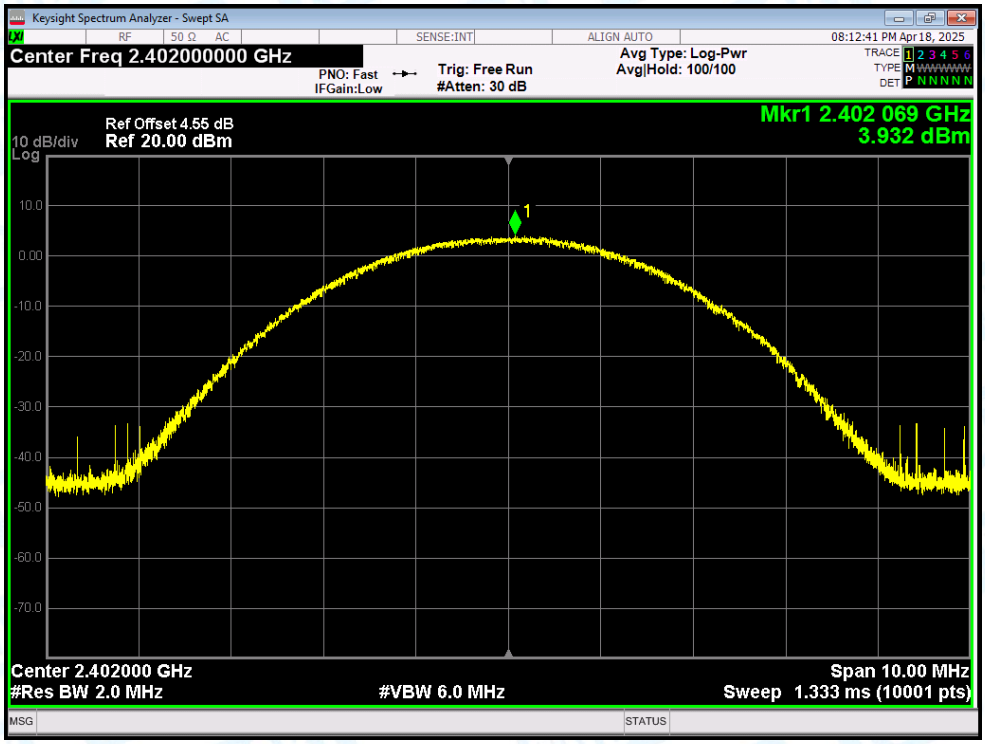
Power NVNT 1-DH1 2441MHz Ant1



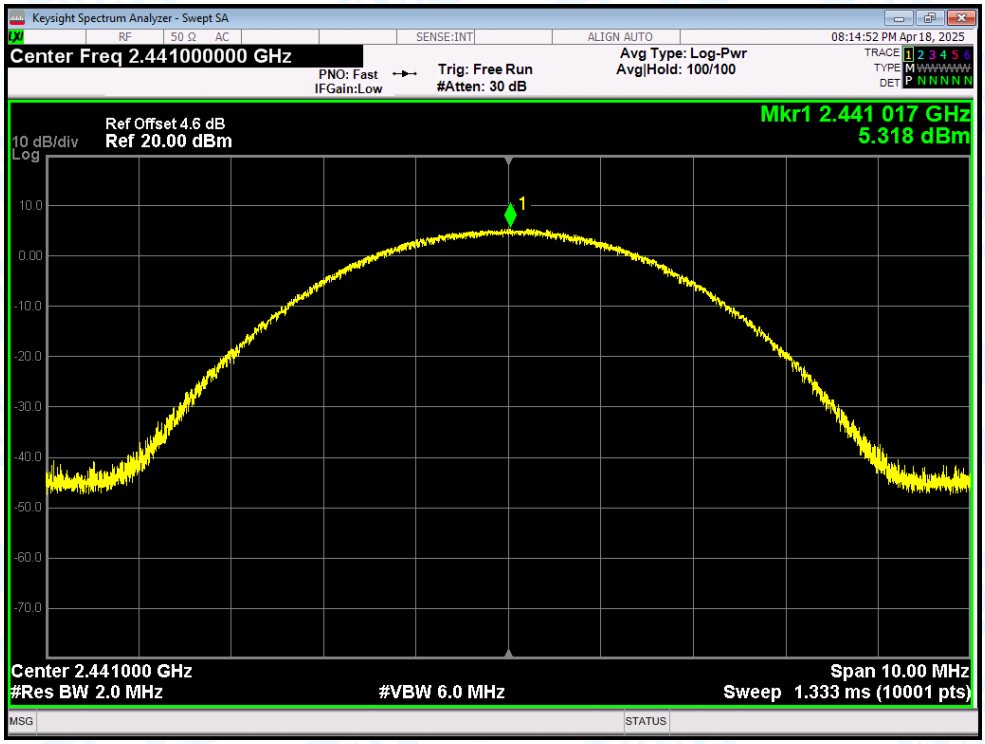
Power NVNT 1-DH1 2480MHz Ant1



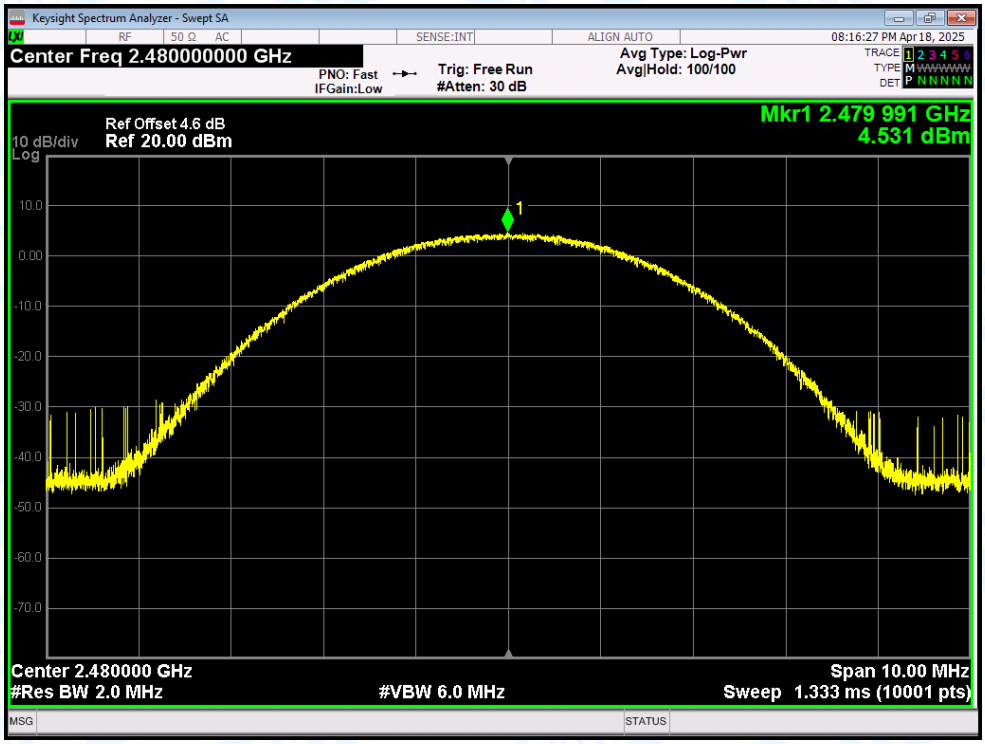
Power NVNT 2-DH1 2402MHz Ant1



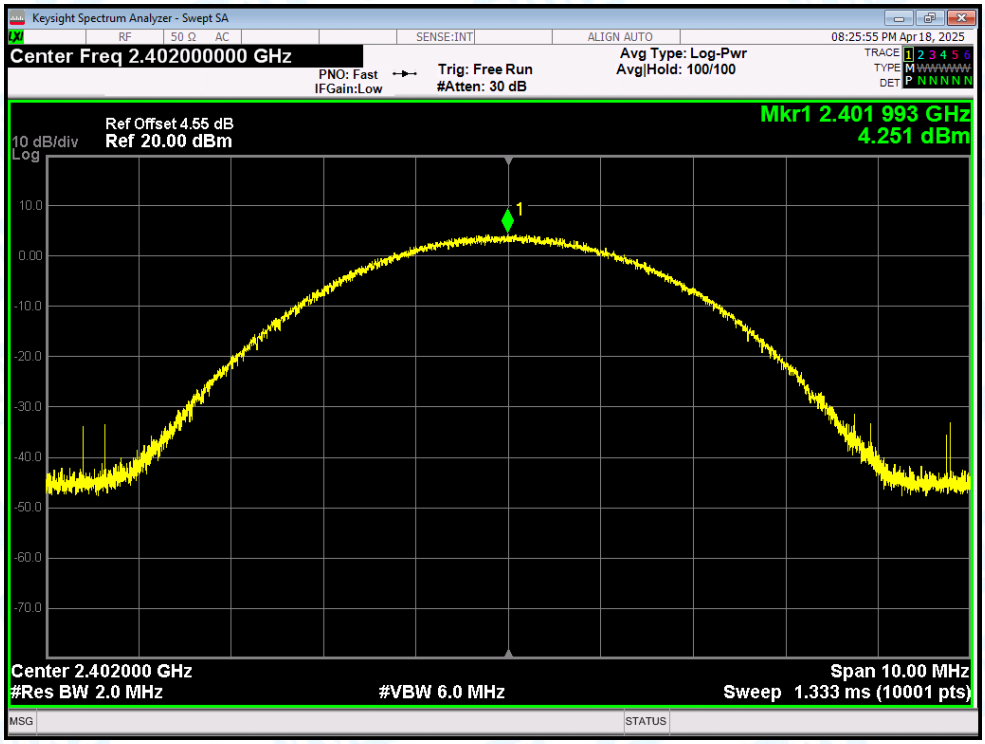
Power NVNT 2-DH1 2441MHz Ant1



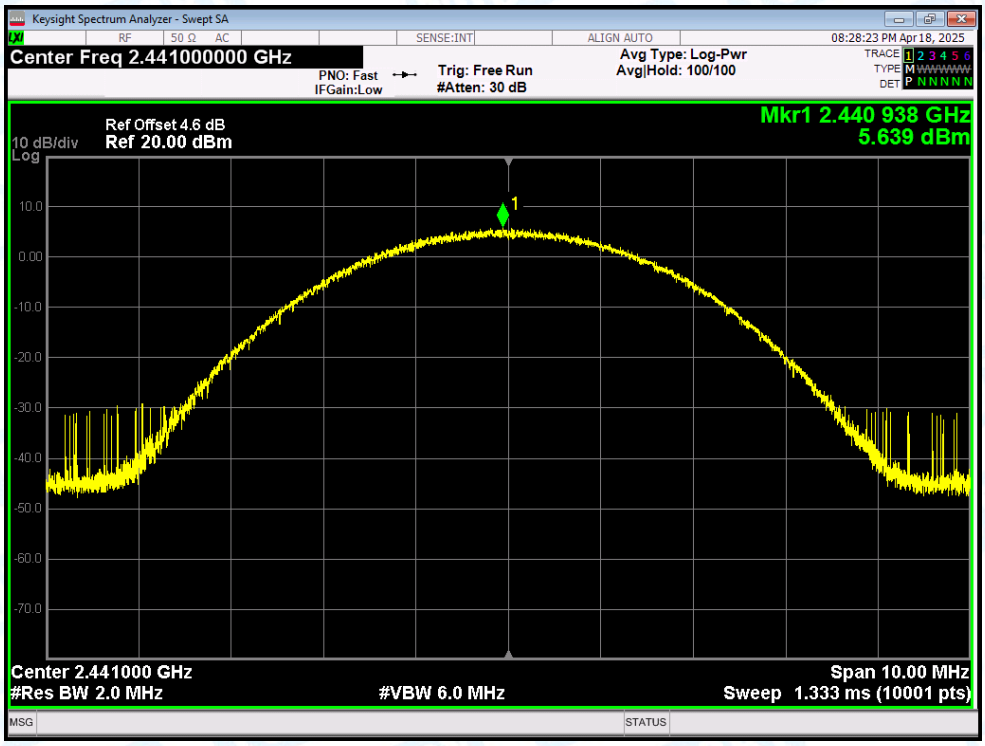
Power NVNT 2-DH1 2480MHz Ant1



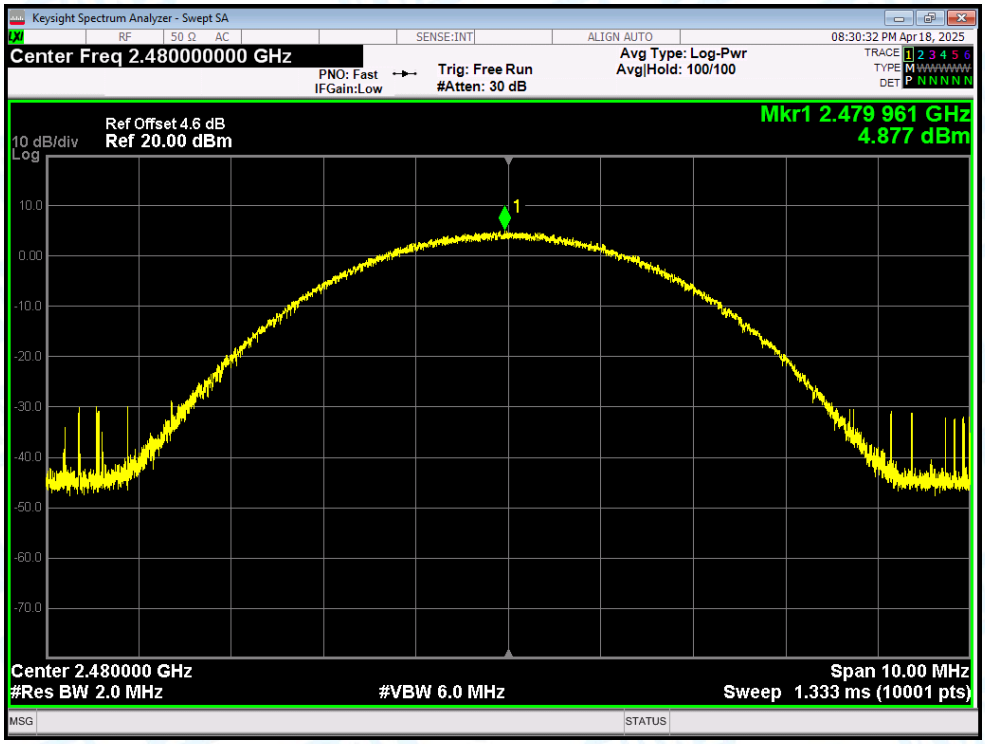
Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



Power NVNT 3-DH1 2480MHz Ant1

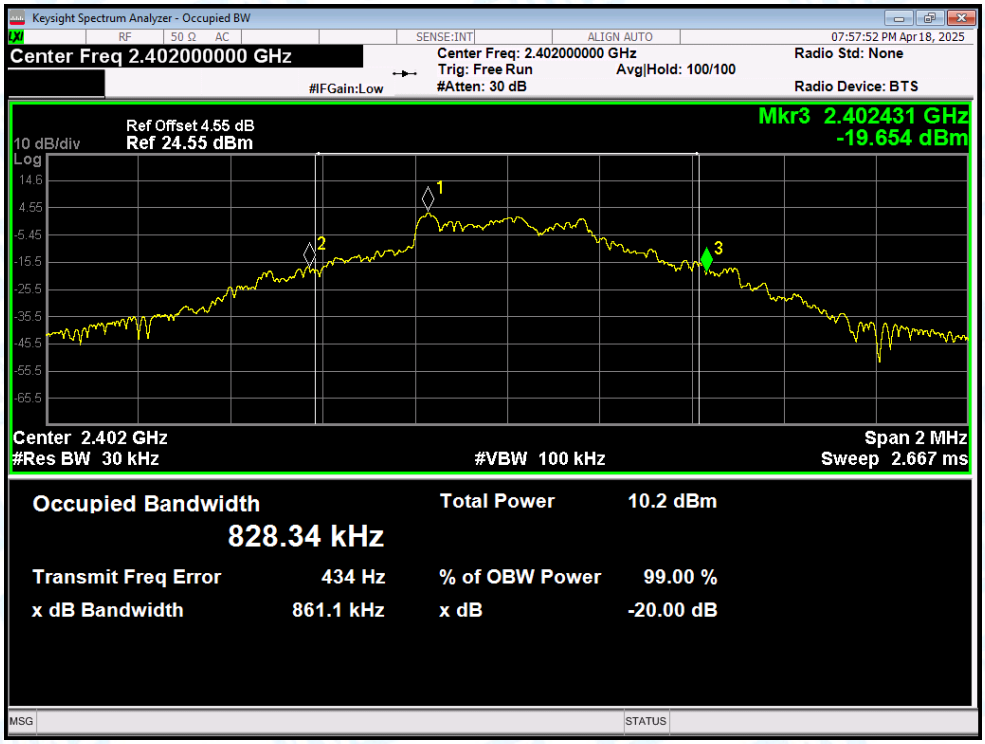


3.-20dB Bandwidth

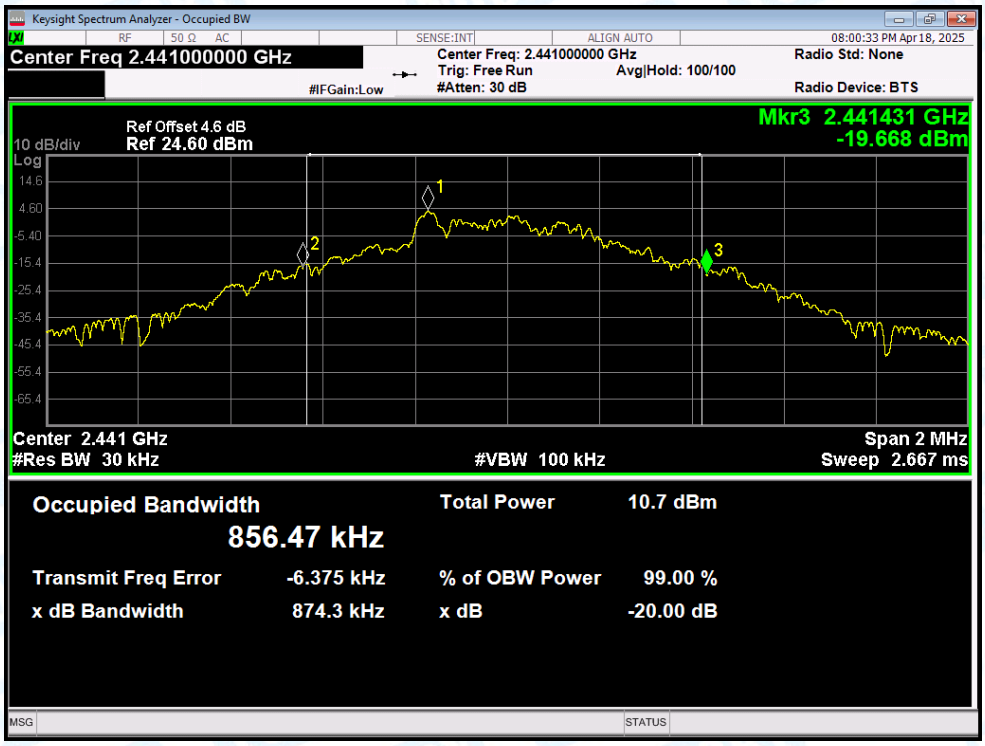
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.86	0	Pass
NVNT	1-DH1	2441	Ant1	0.87	0	Pass
NVNT	1-DH1	2480	Ant1	0.83	0	Pass
NVNT	2-DH1	2402	Ant1	1.27	0	Pass
NVNT	2-DH1	2441	Ant1	1.26	0	Pass
NVNT	2-DH1	2480	Ant1	1.25	0	Pass
NVNT	3-DH1	2402	Ant1	1.23	0	Pass
NVNT	3-DH1	2441	Ant1	1.24	0	Pass
NVNT	3-DH1	2480	Ant1	1.26	0	Pass

Test Graphs

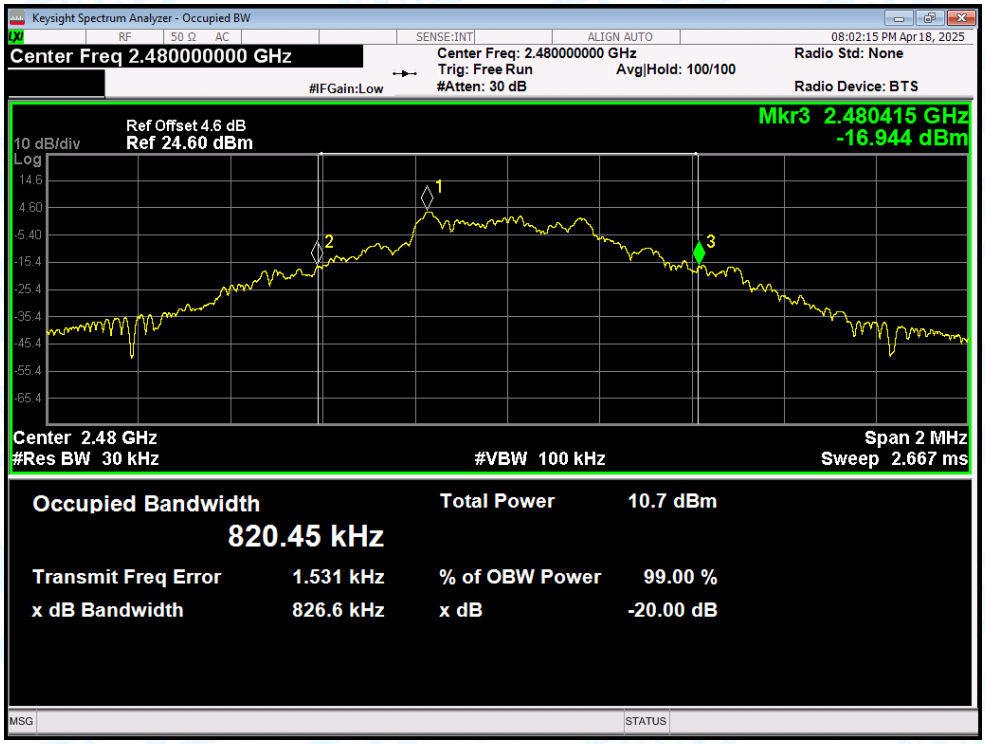
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



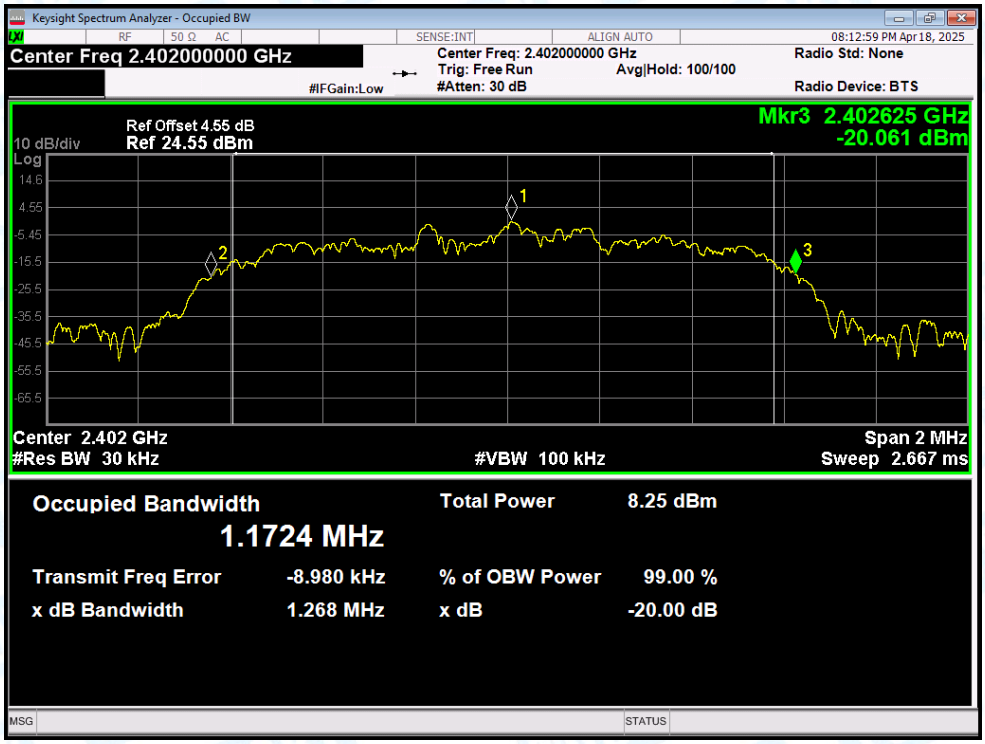
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



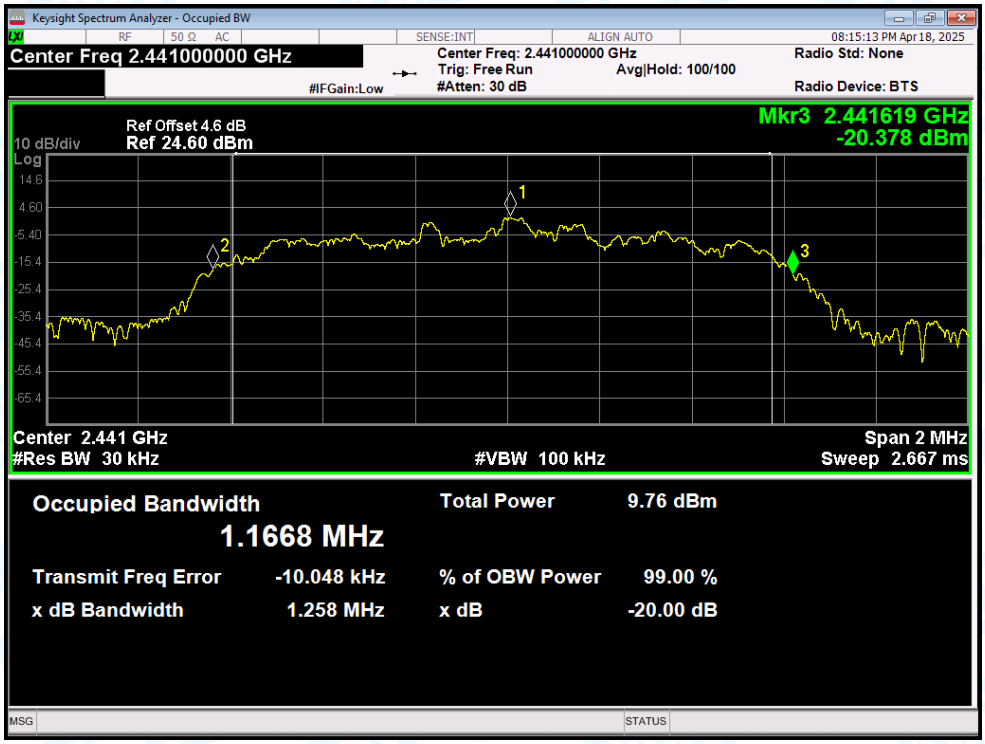
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



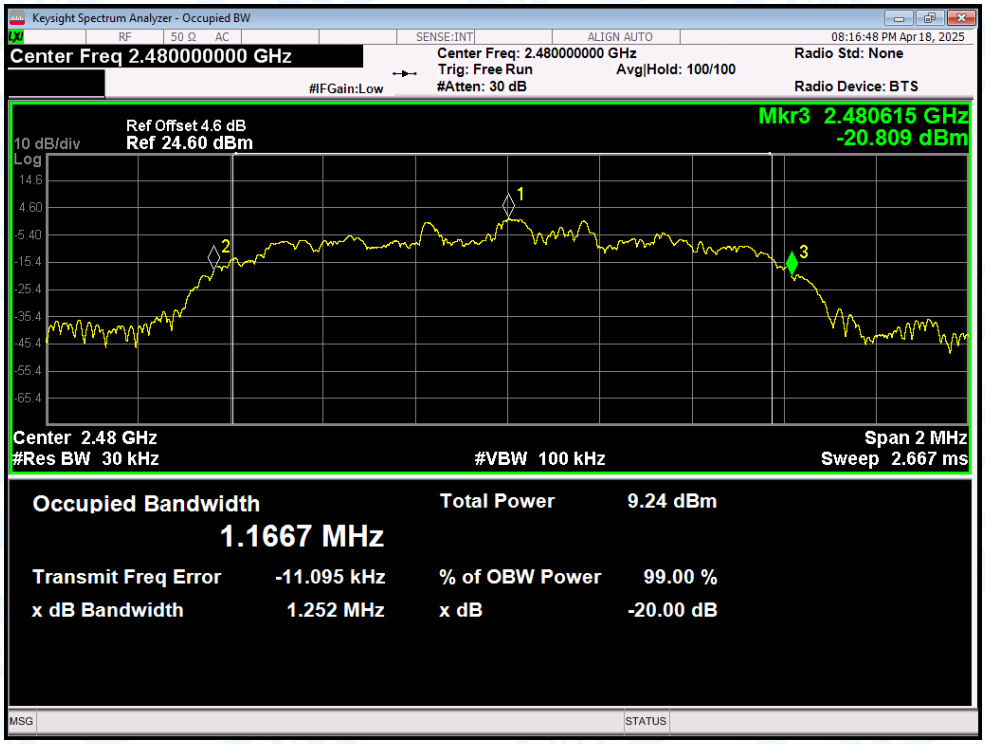
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



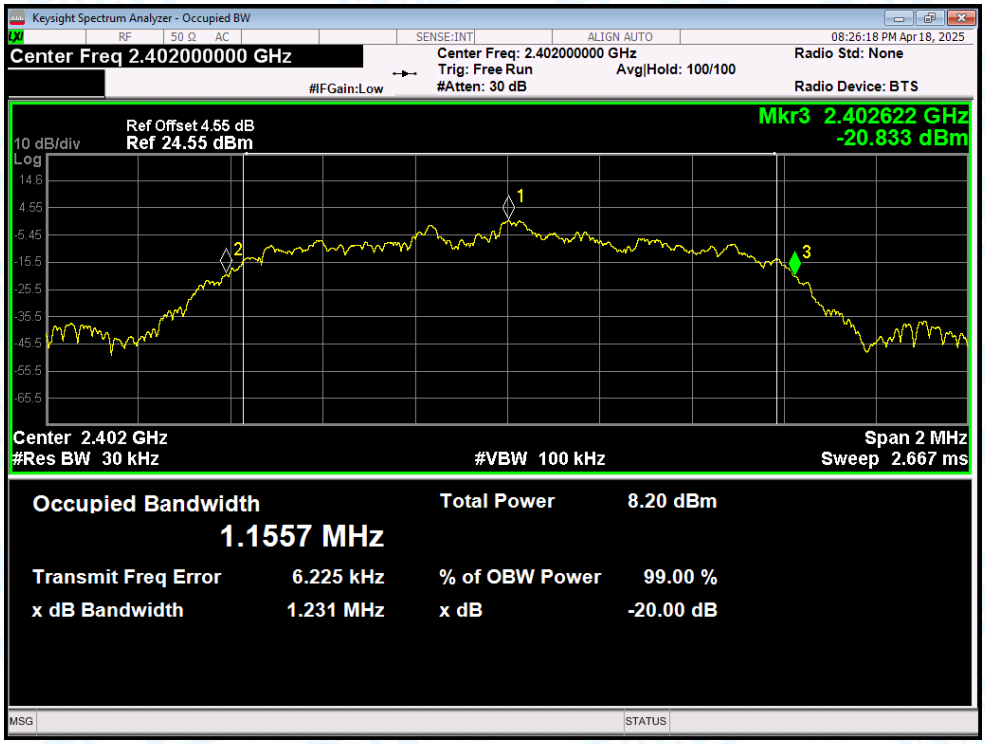
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



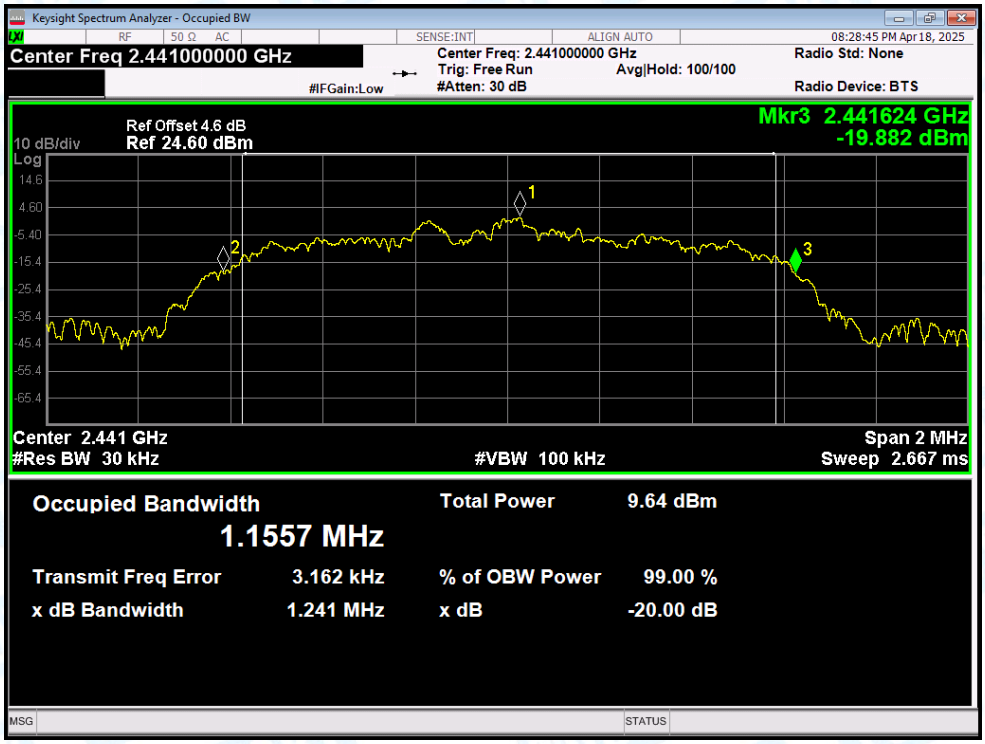
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1



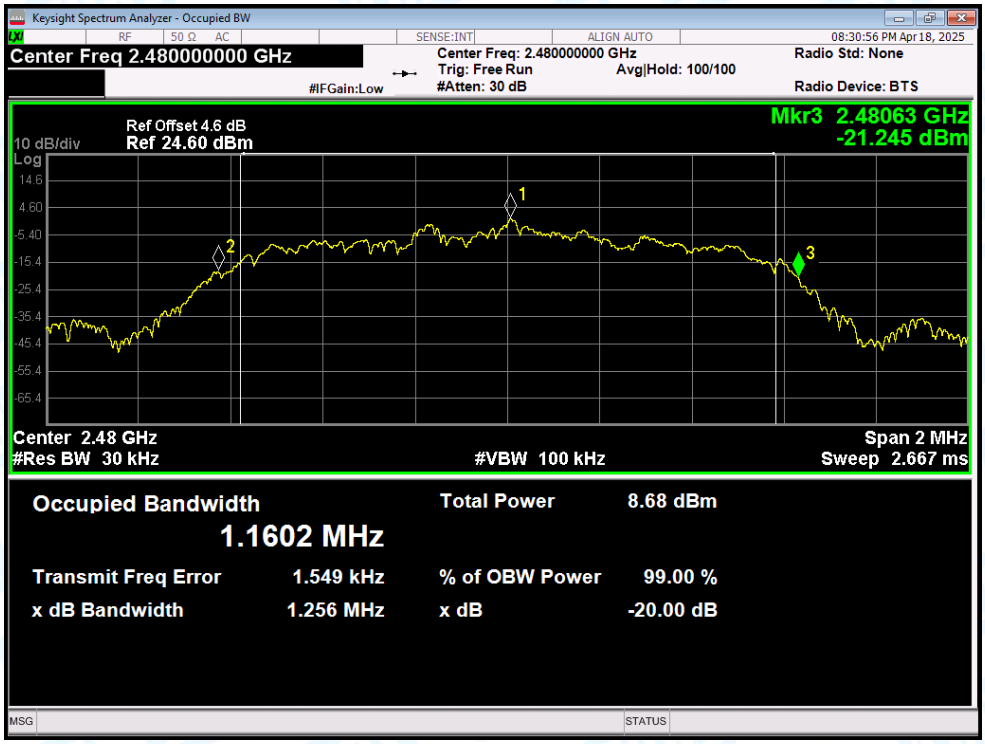
-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2480MHz Ant1

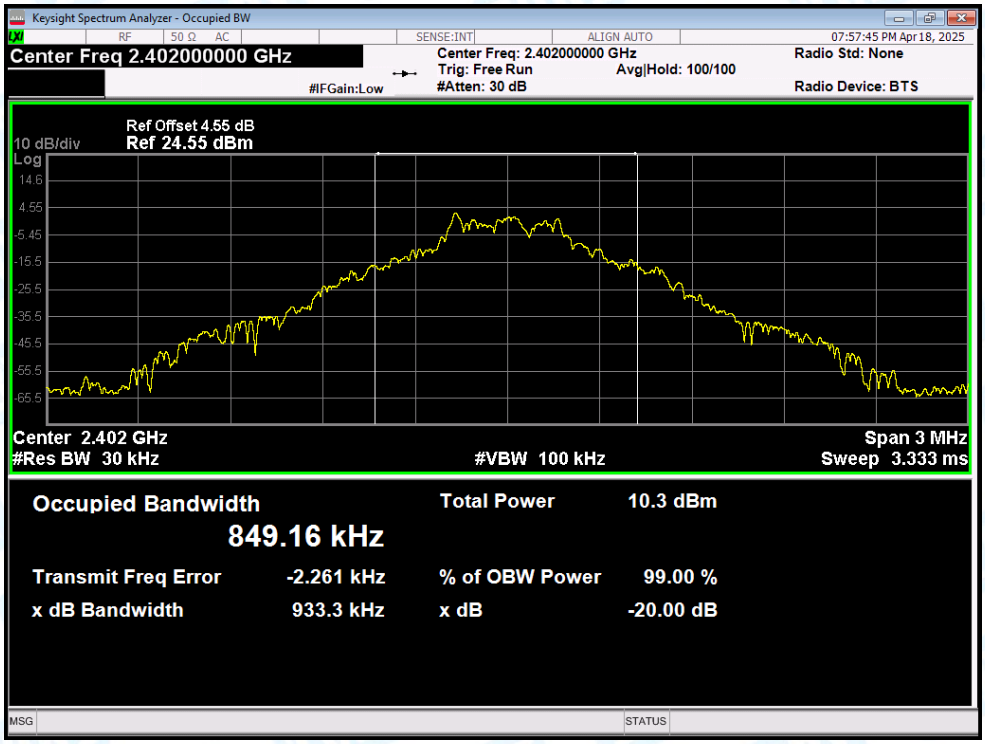


4.Occupied Channel Bandwidth

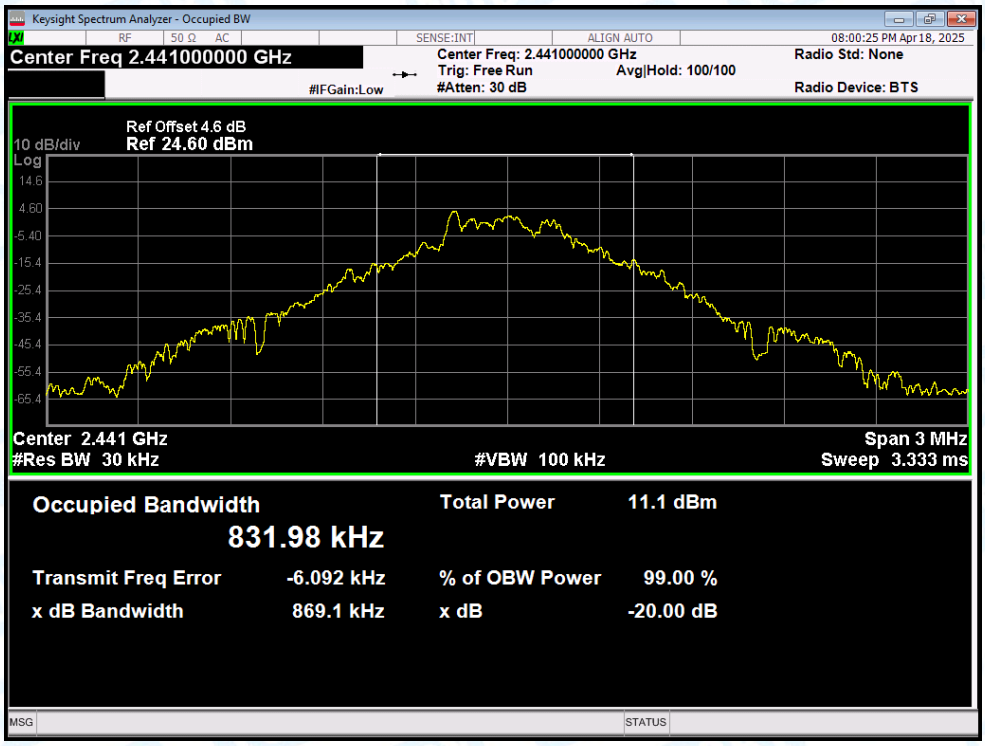
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.849
NVNT	1-DH1	2441	Ant1	0.832
NVNT	1-DH1	2480	Ant1	0.848
NVNT	2-DH1	2402	Ant1	1.157
NVNT	2-DH1	2441	Ant1	1.17
NVNT	2-DH1	2480	Ant1	1.172
NVNT	3-DH1	2402	Ant1	1.158
NVNT	3-DH1	2441	Ant1	1.168
NVNT	3-DH1	2480	Ant1	1.153

Test Graphs

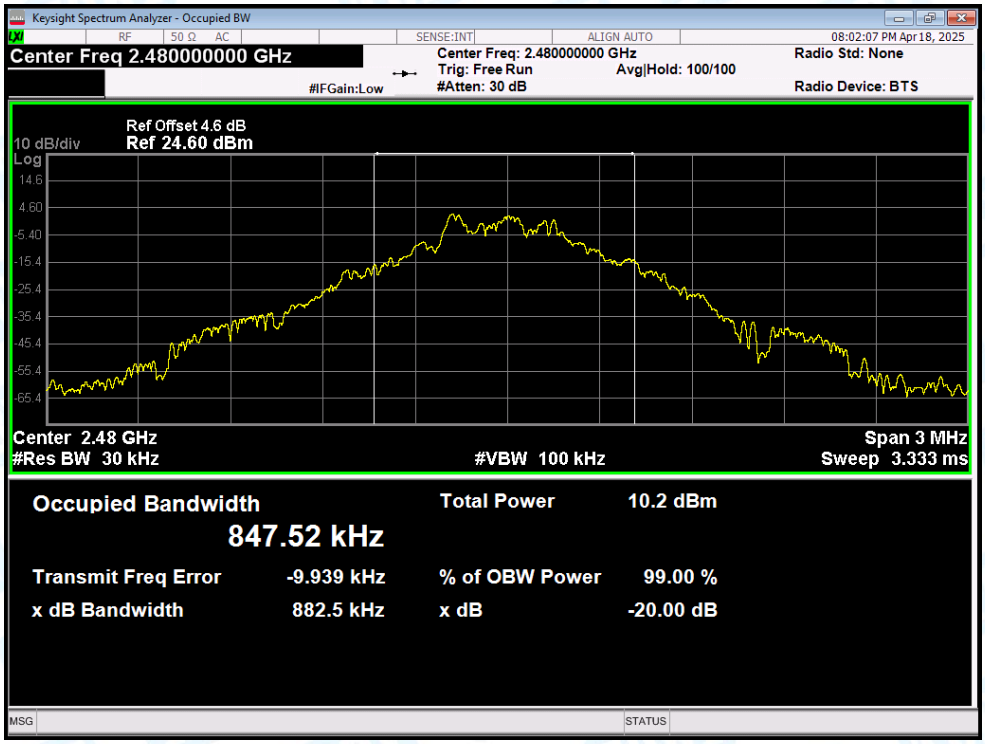
OBW NVNT 1-DH1 2402MHz Ant1



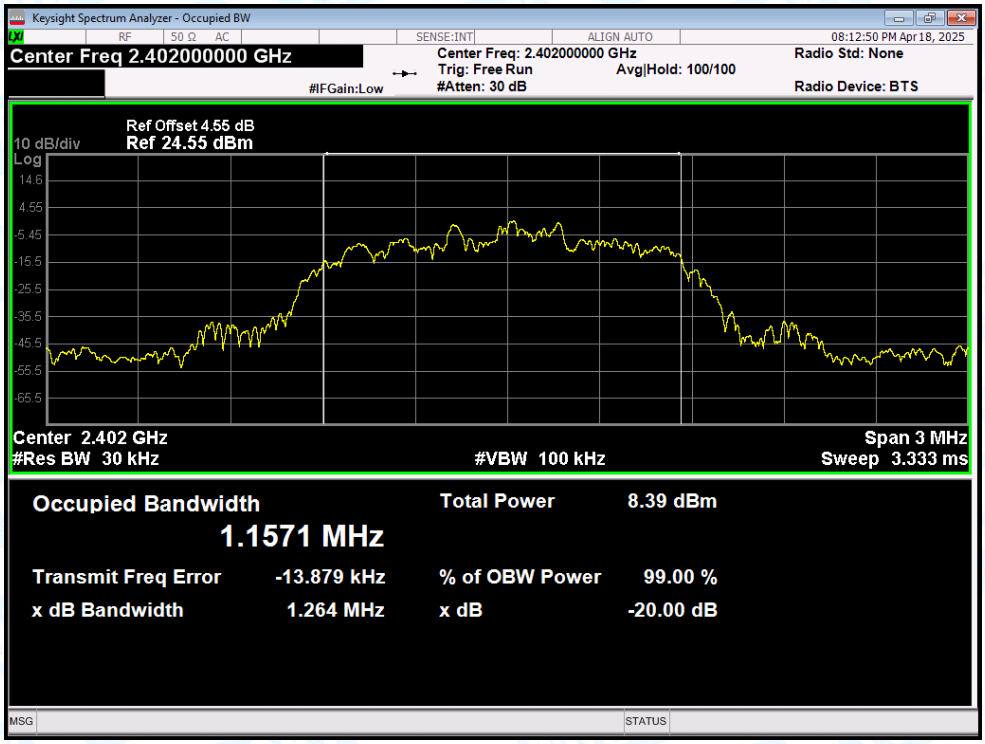
OBW NVNT 1-DH1 2441MHz Ant1



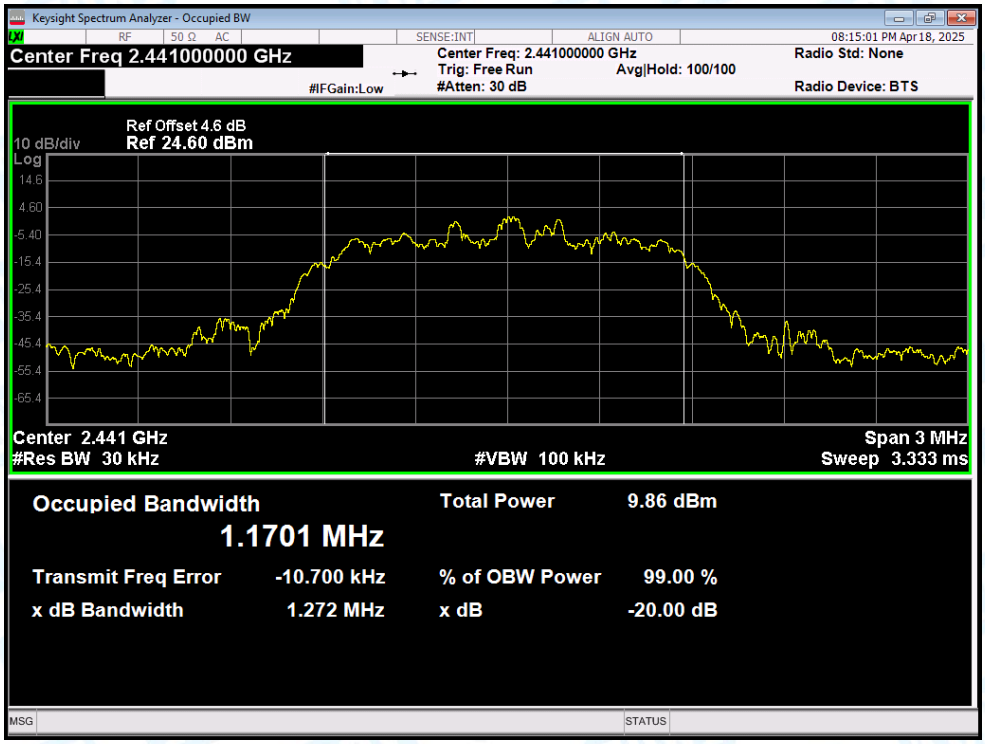
OBW NVNT 1-DH1 2480MHz Ant1



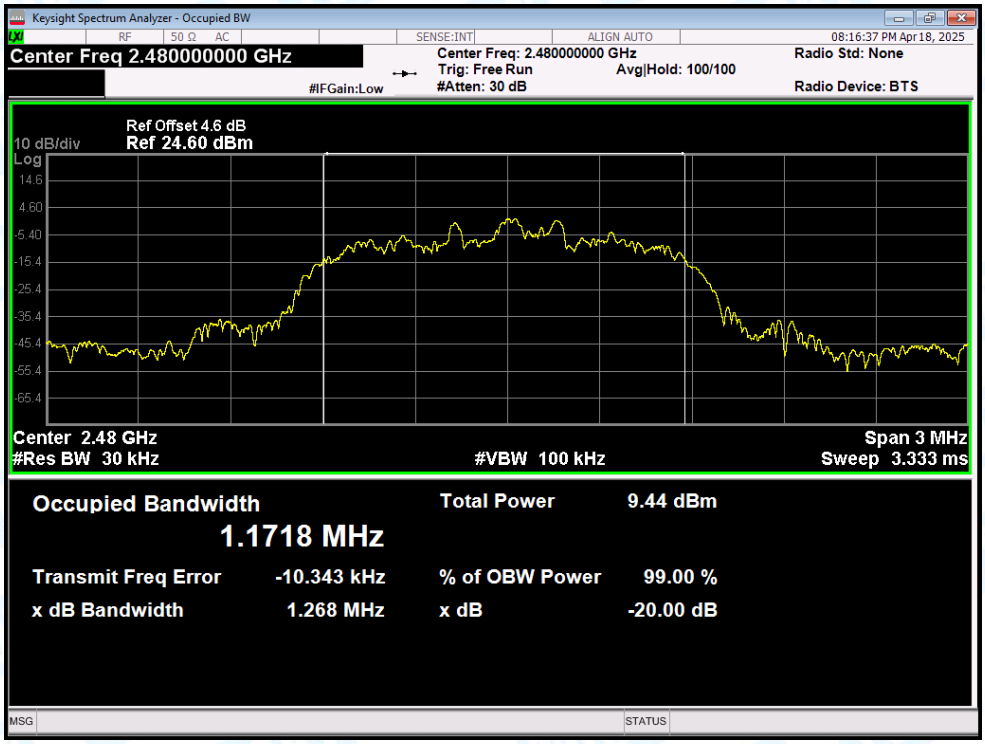
OBW NVNT 2-DH1 2402MHz Ant1



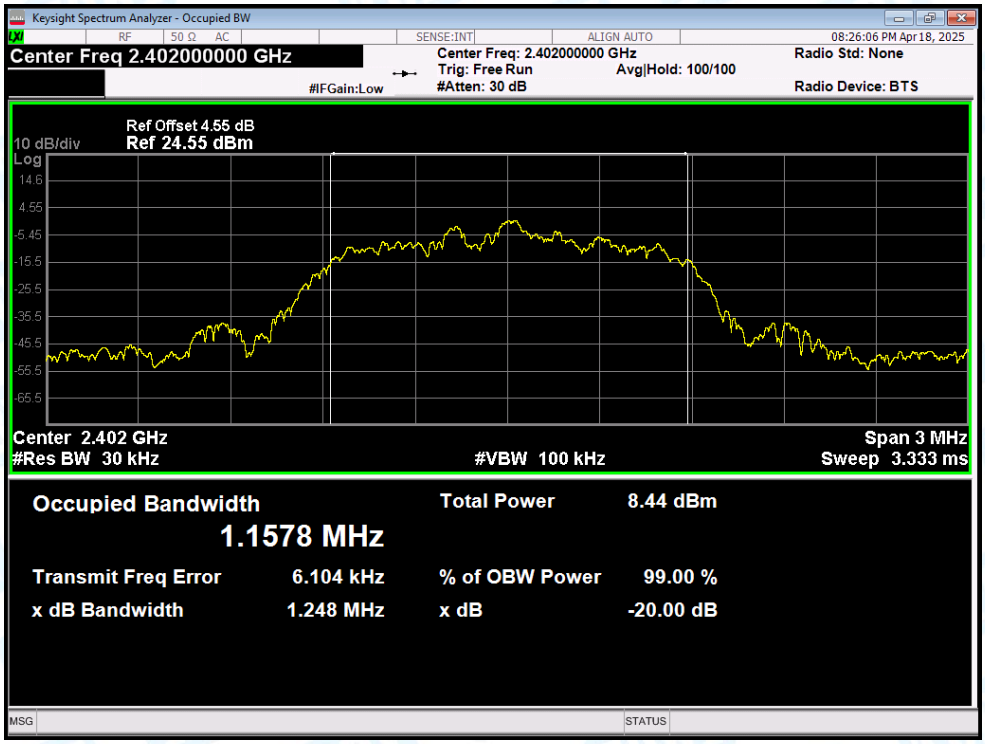
OBW NVNT 2-DH1 2441MHz Ant1



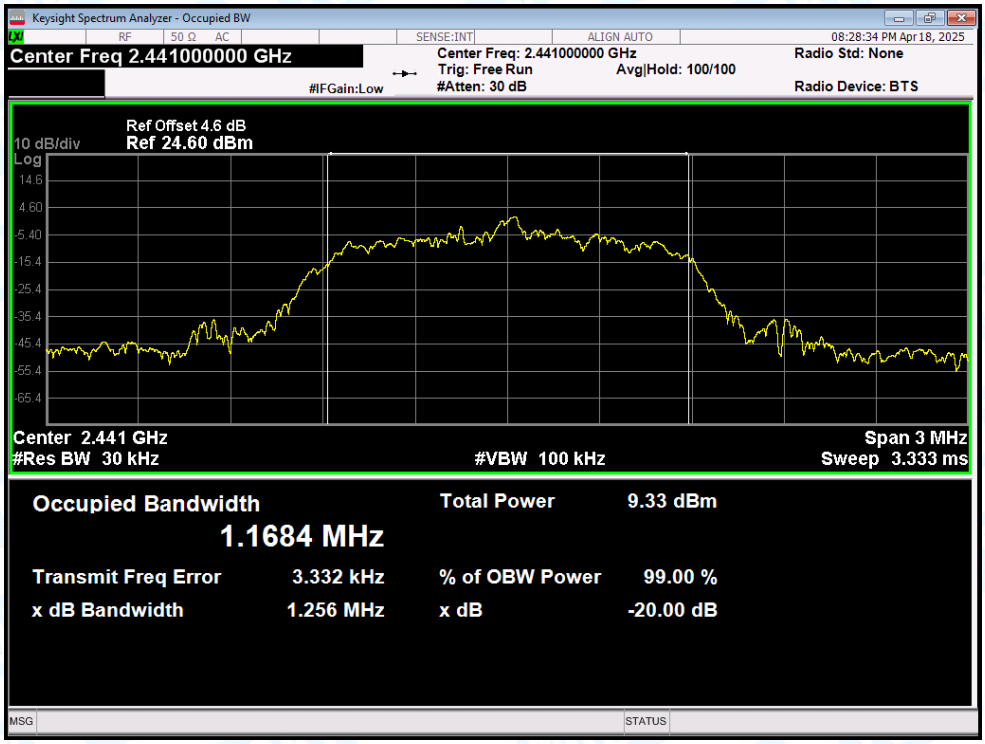
OBW NVNT 2-DH1 2480MHz Ant1



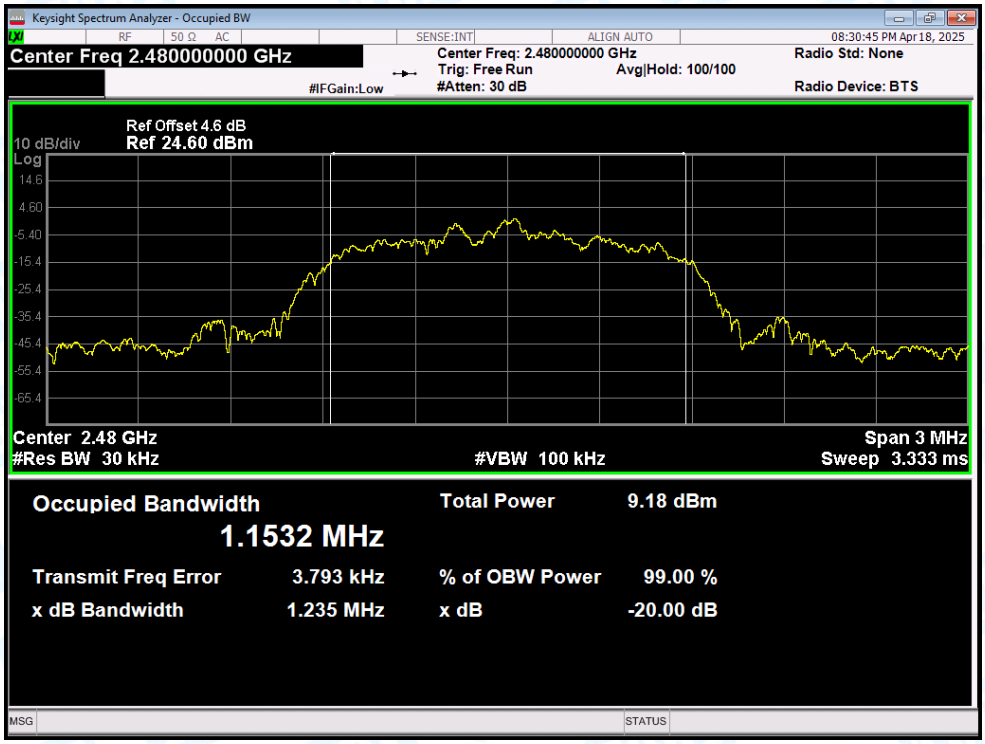
OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



OBW NVNT 3-DH1 2480MHz Ant1

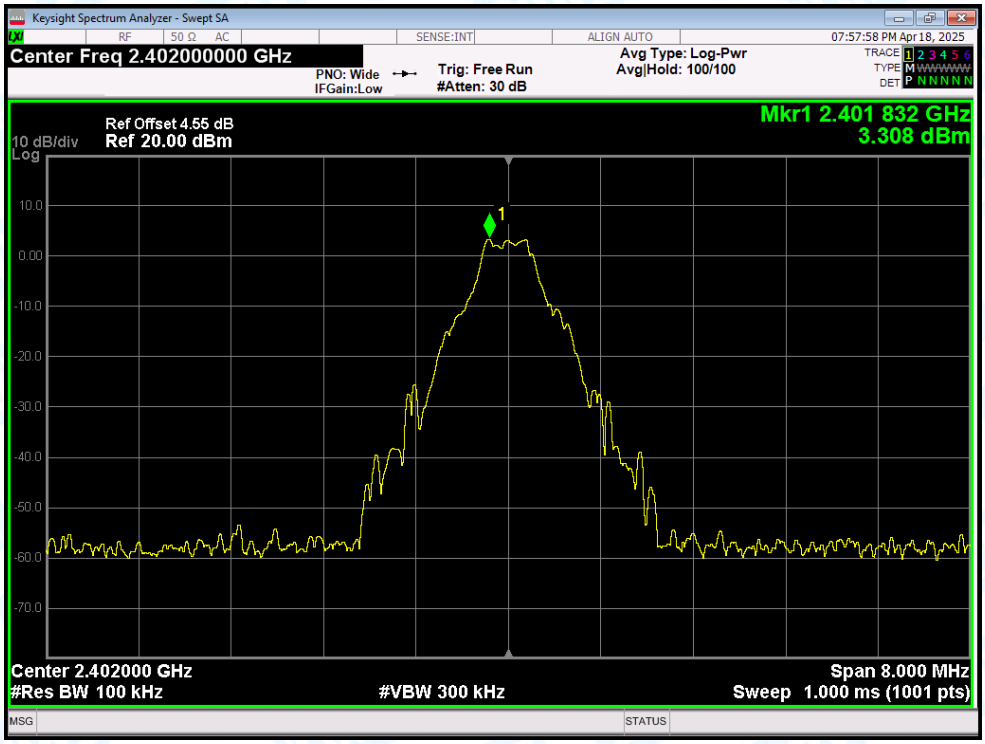


5.Band Edge

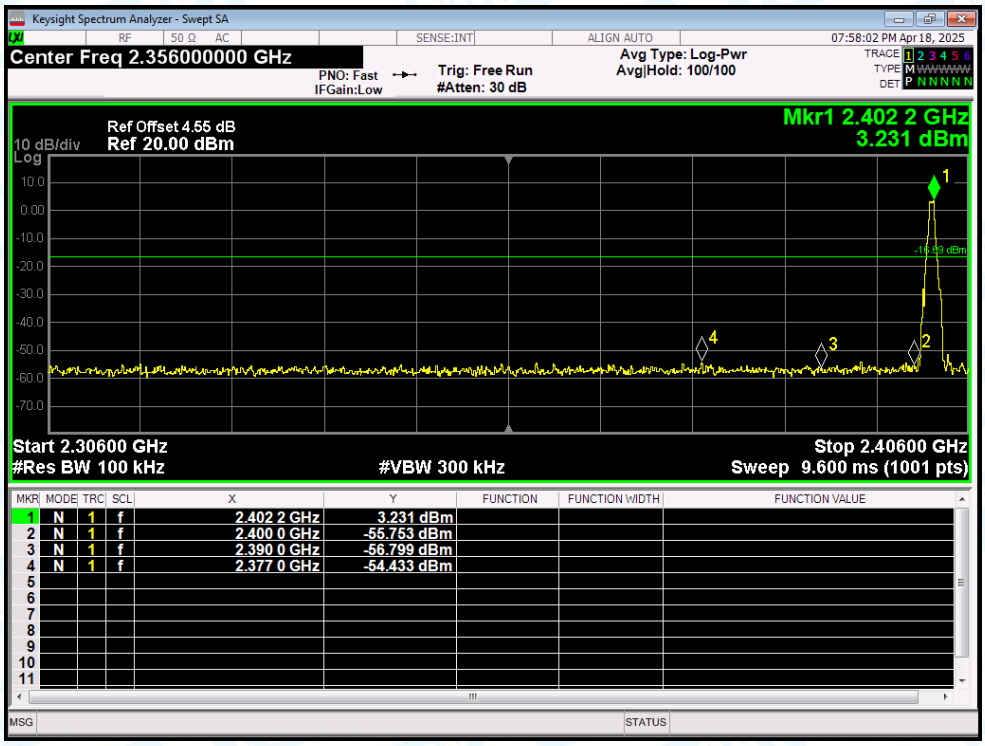
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-57.74	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-56.87	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-56.62	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-55.82	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-56.31	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-55.94	-20	Pass

Test Graphs

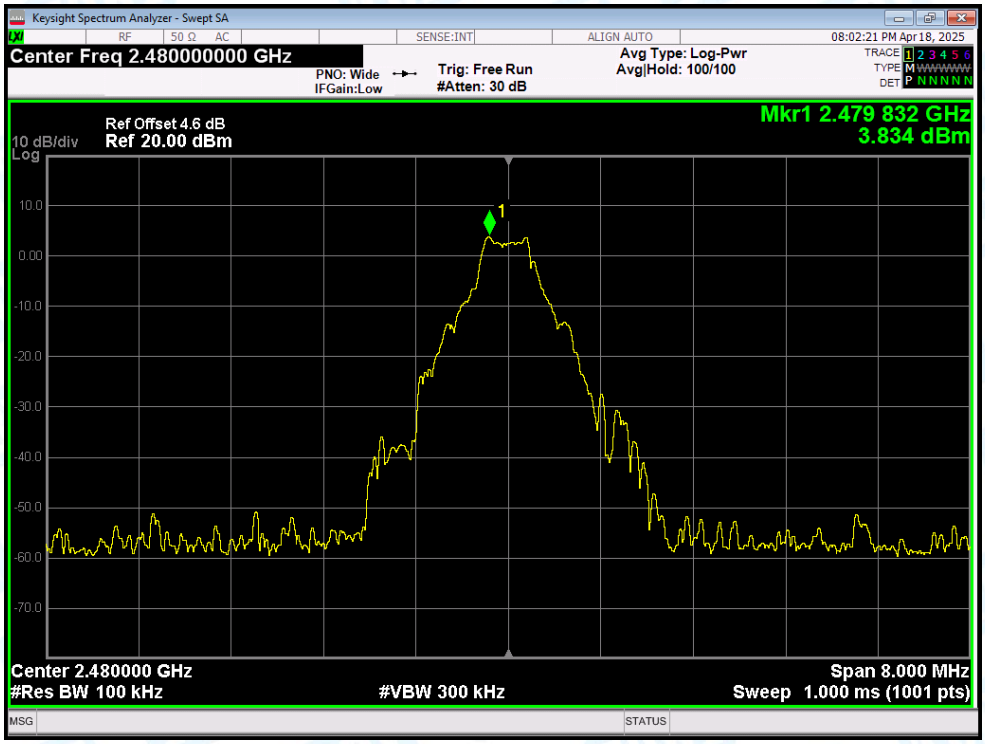
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



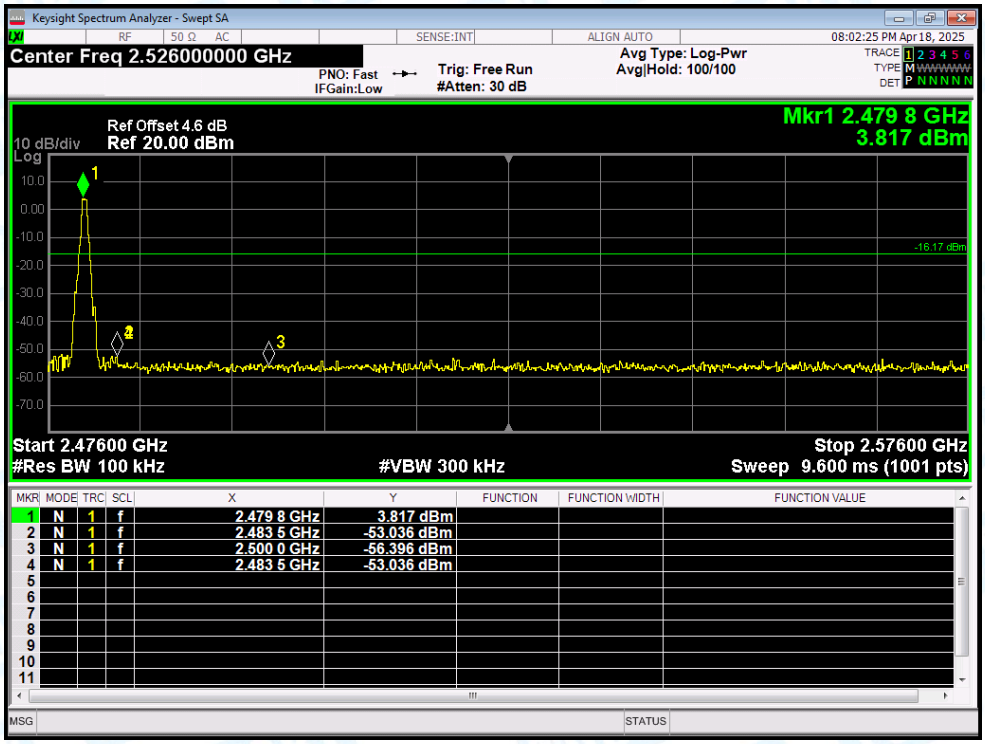
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



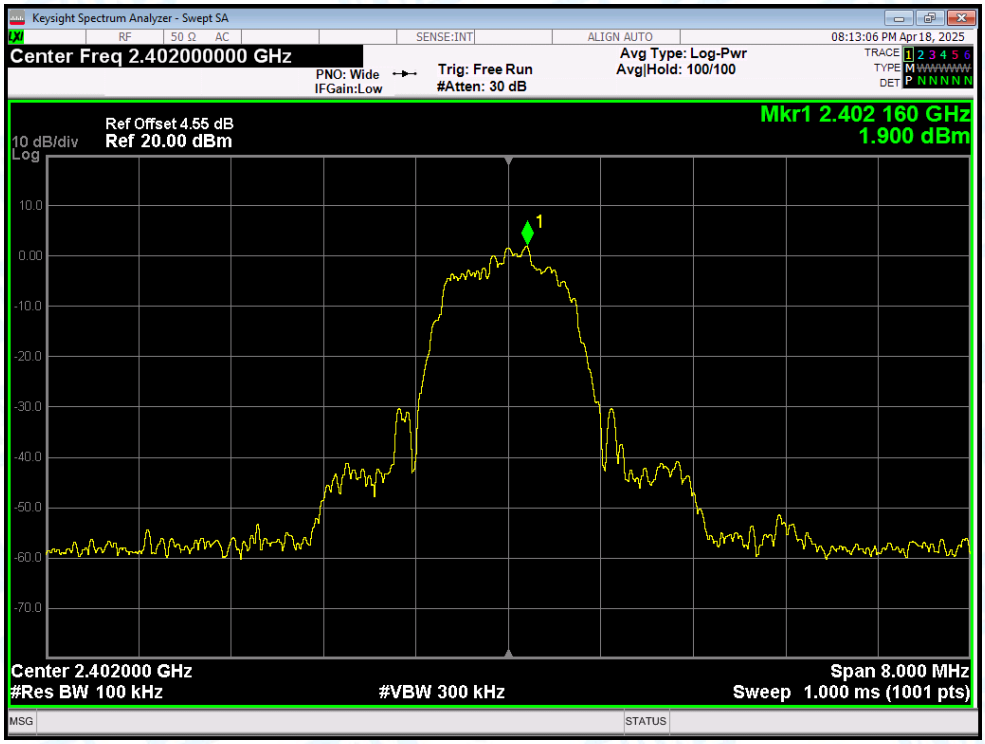
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



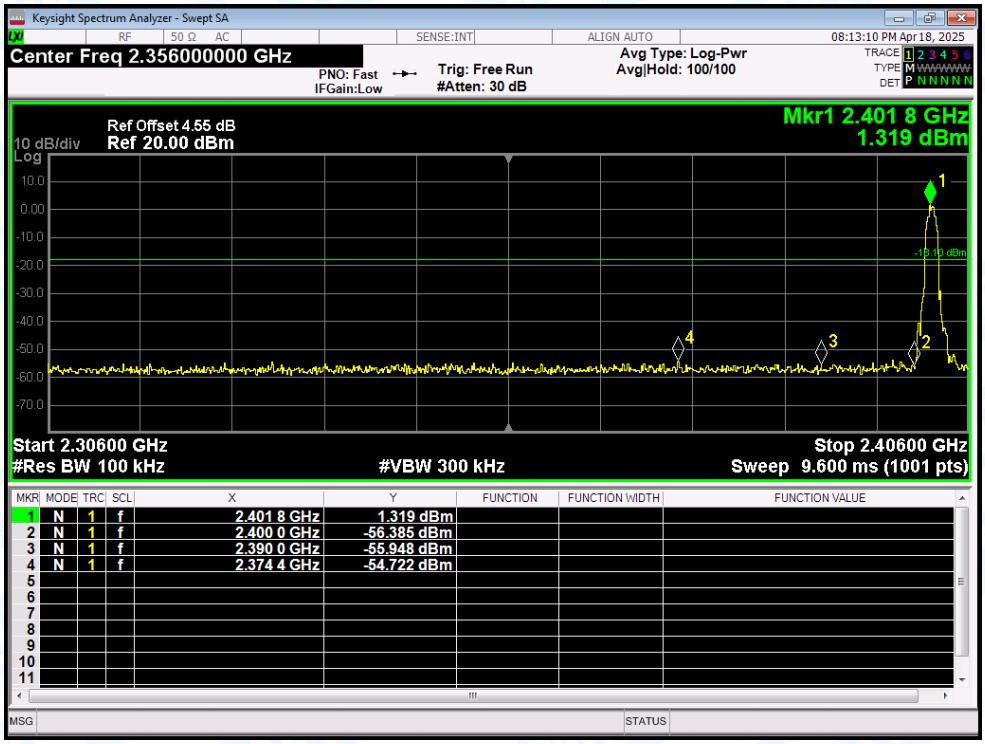
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



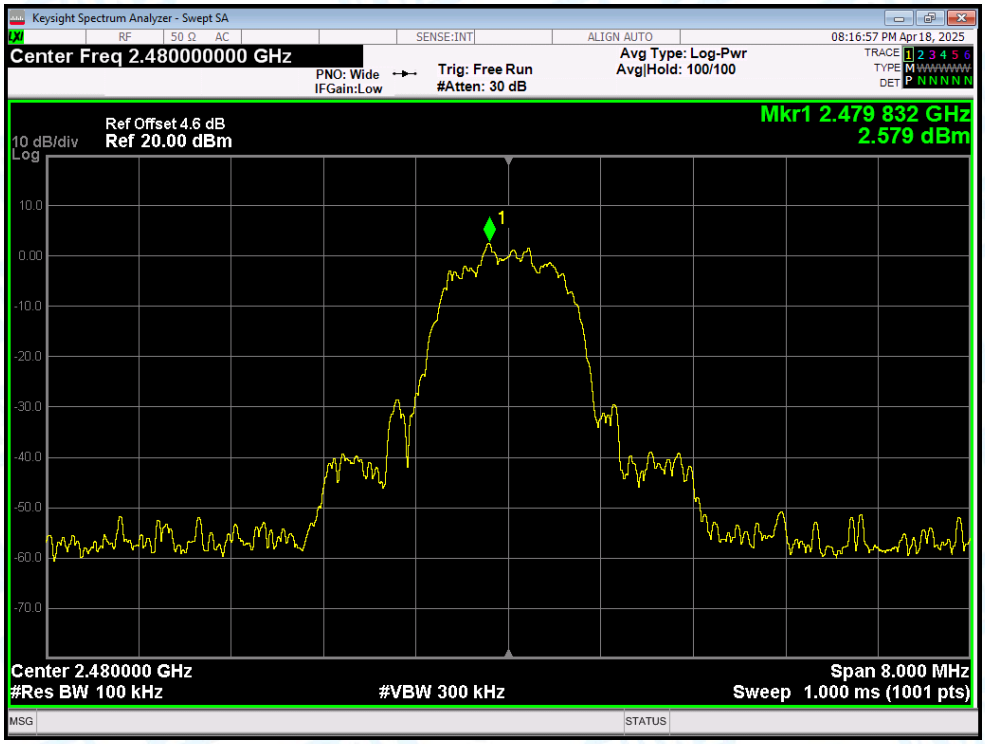
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



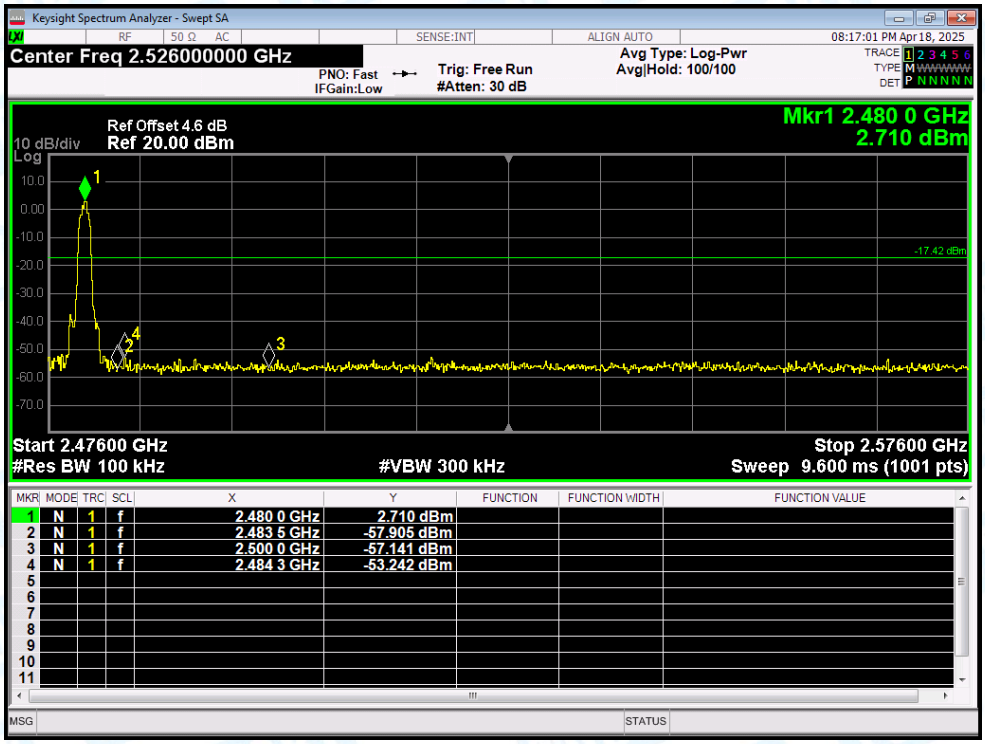
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



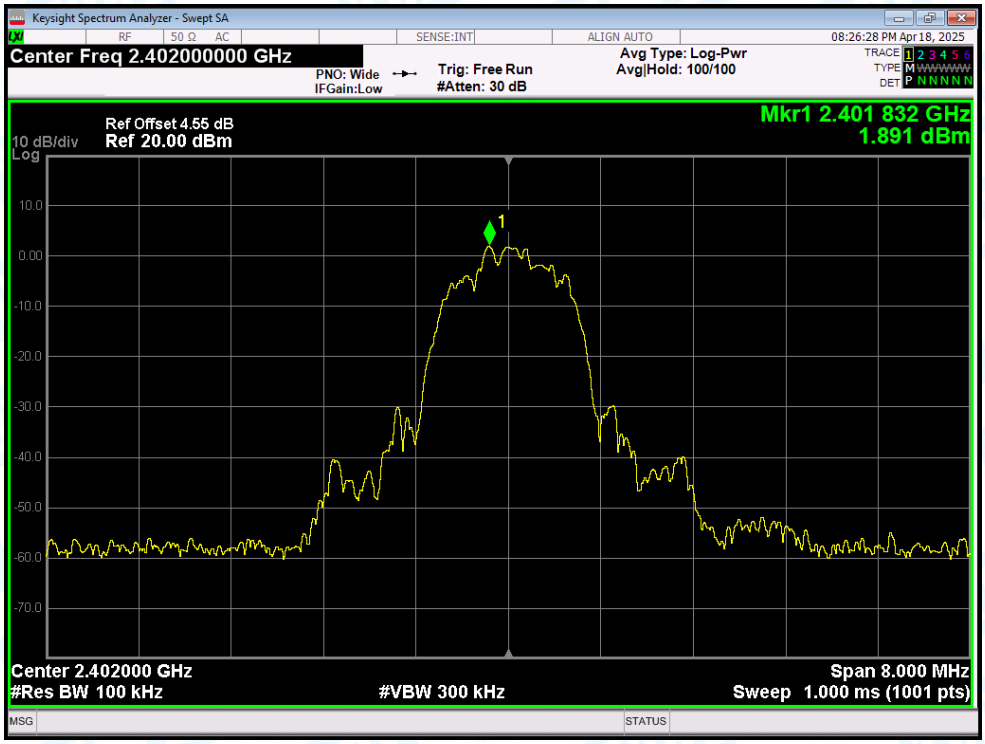
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



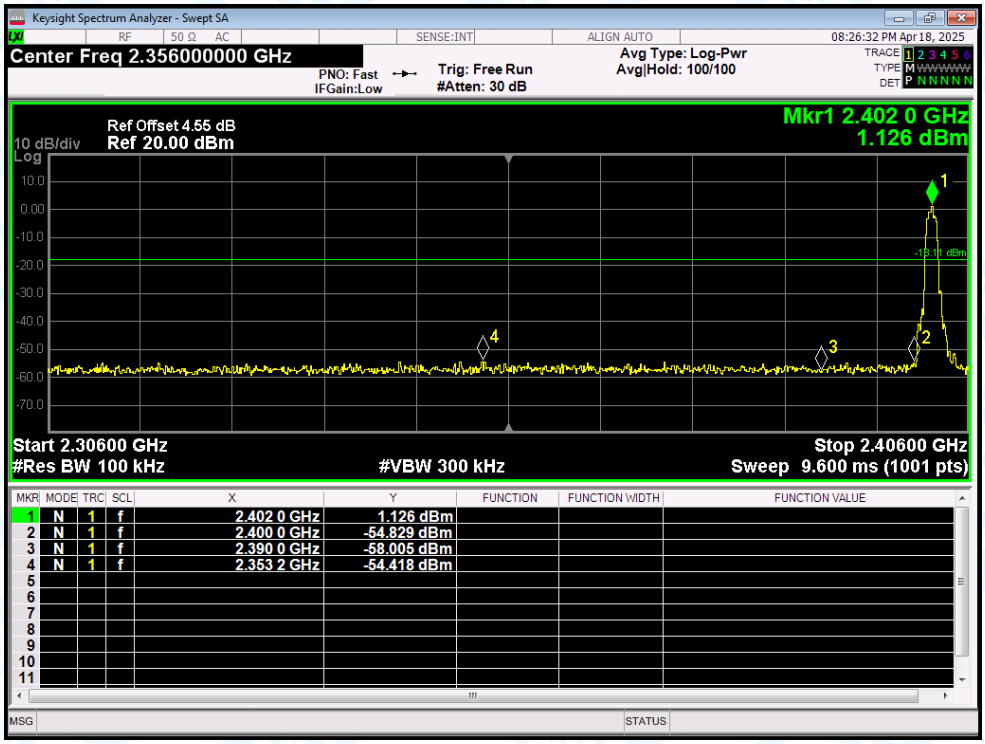
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



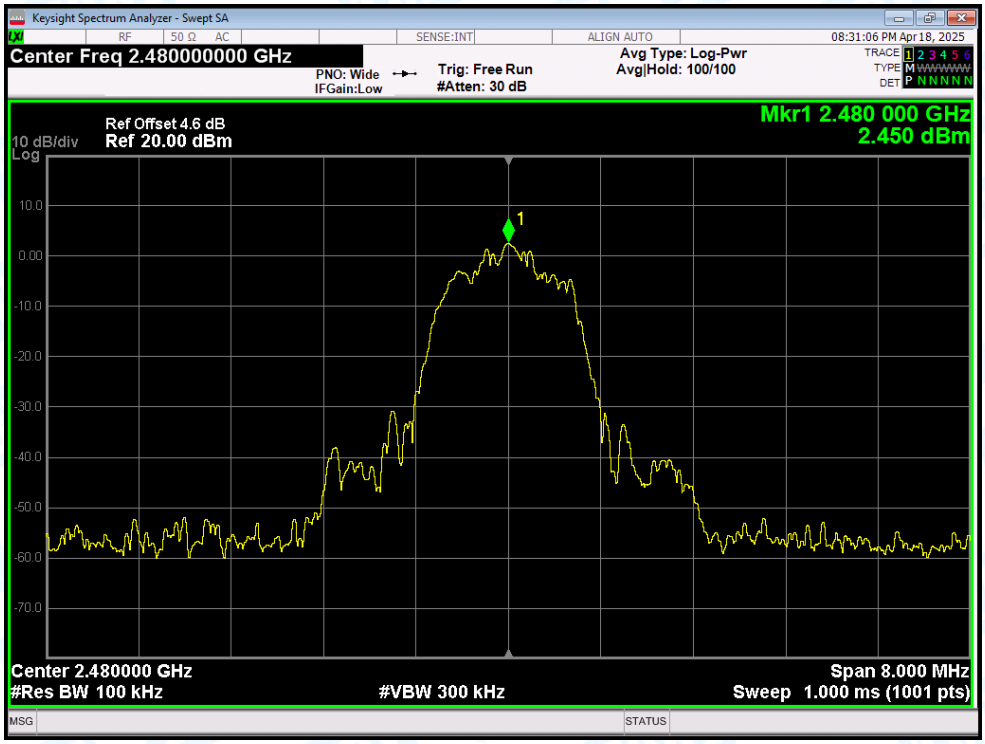
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



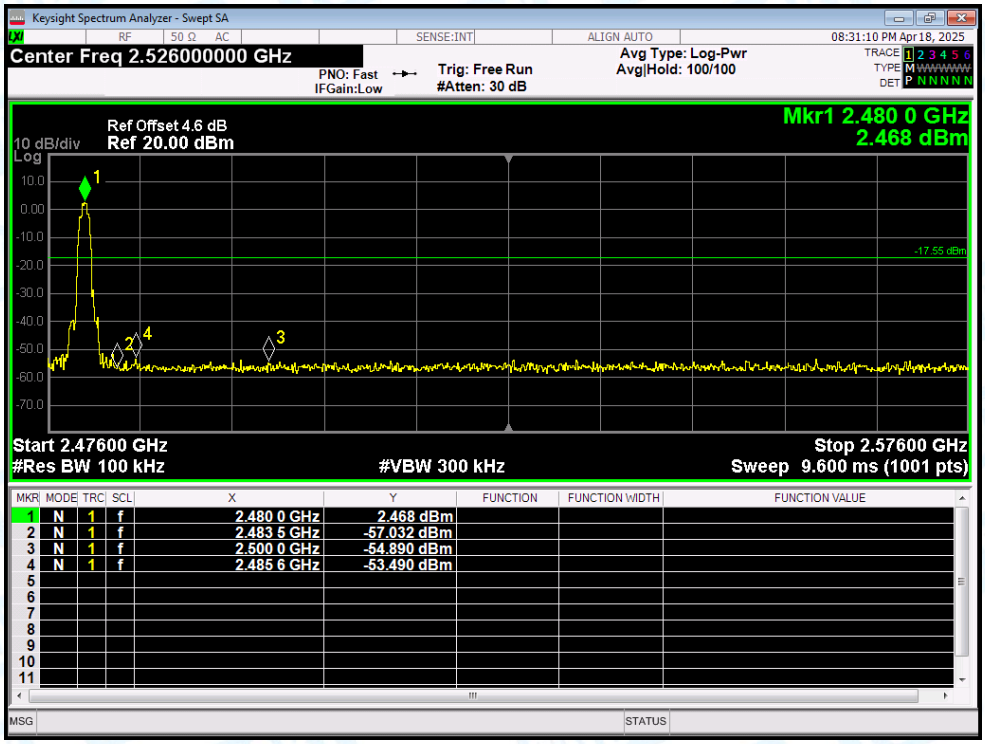
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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

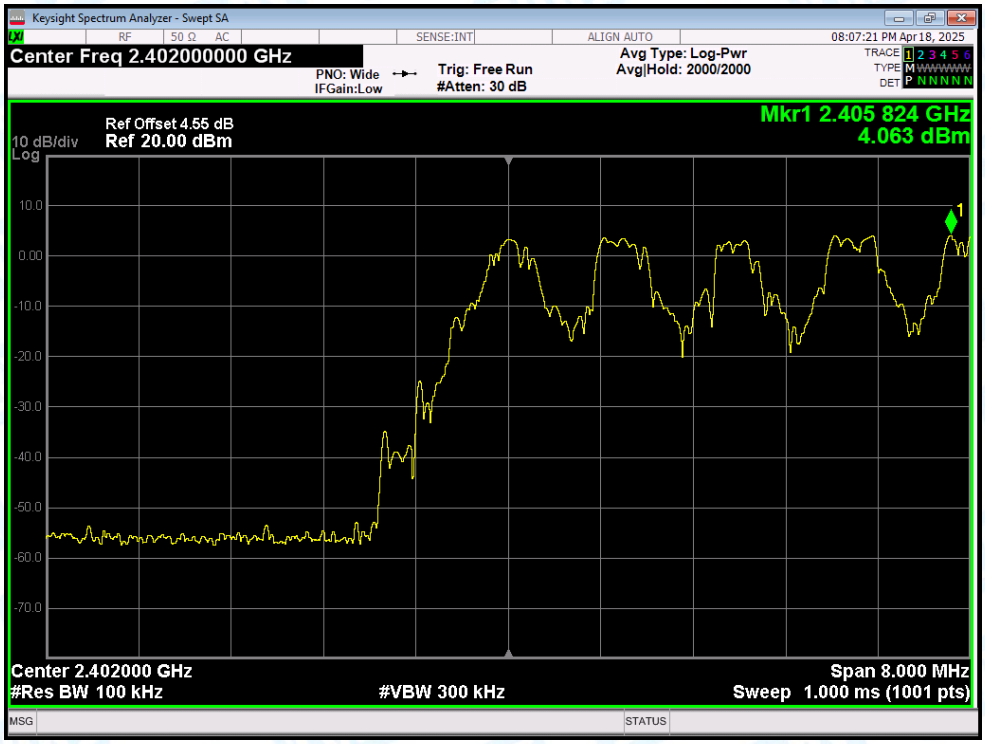


6.Band Edge(Hopping)

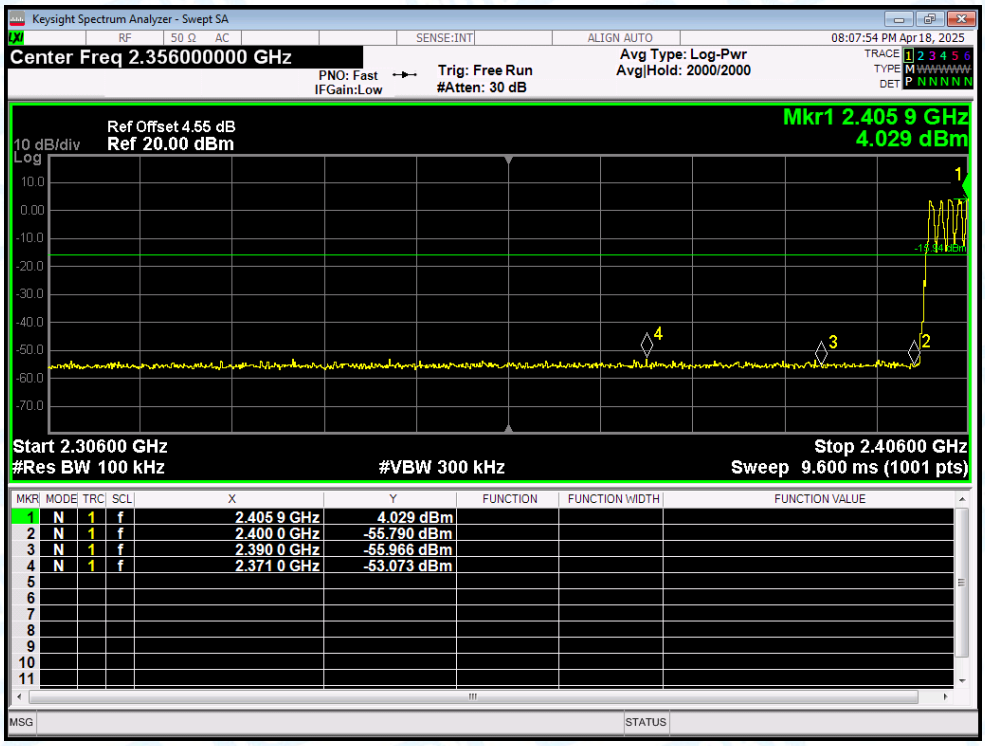
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-57.13	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-57.57	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-54.65	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-55.76	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-56.11	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-55.96	-20	Pass

Test Graphs

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

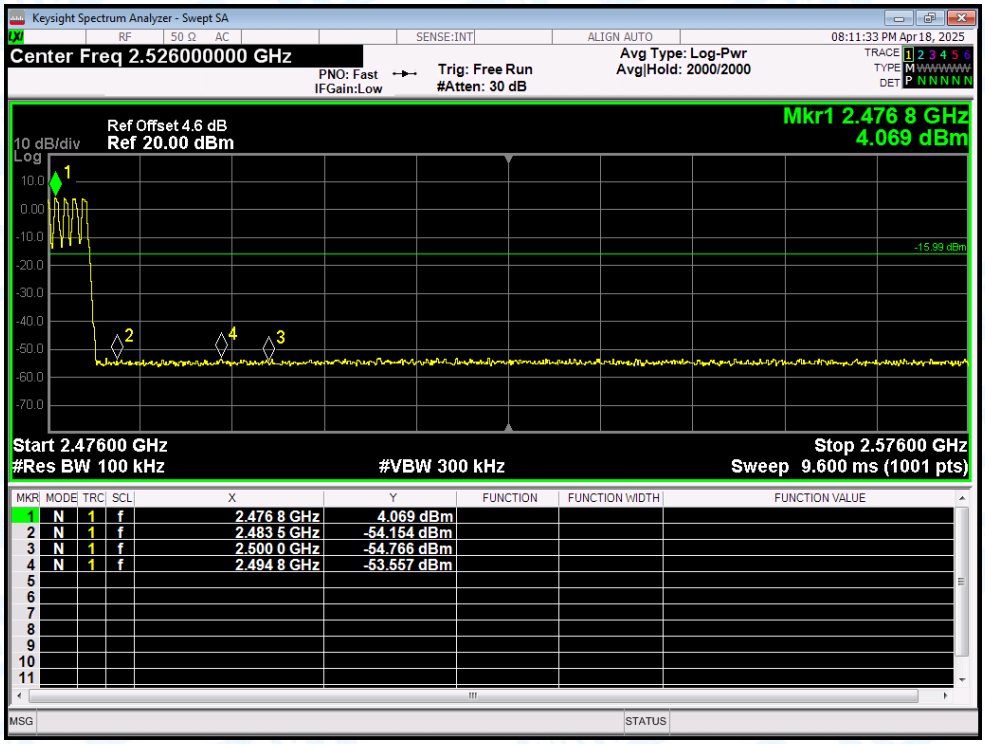


Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission

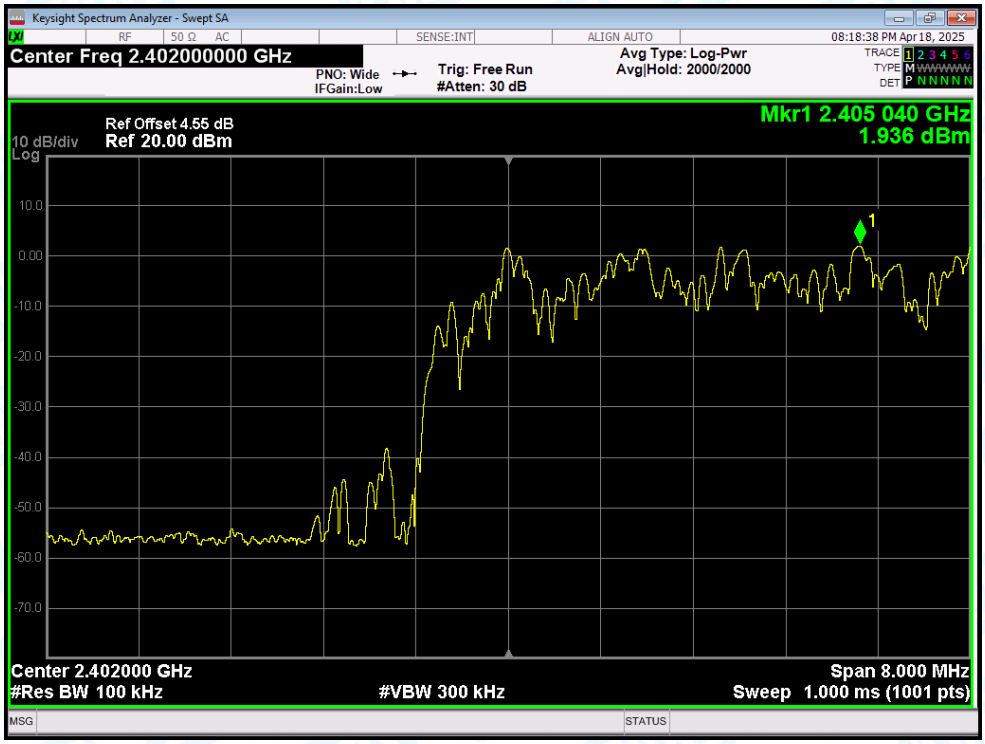


Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref

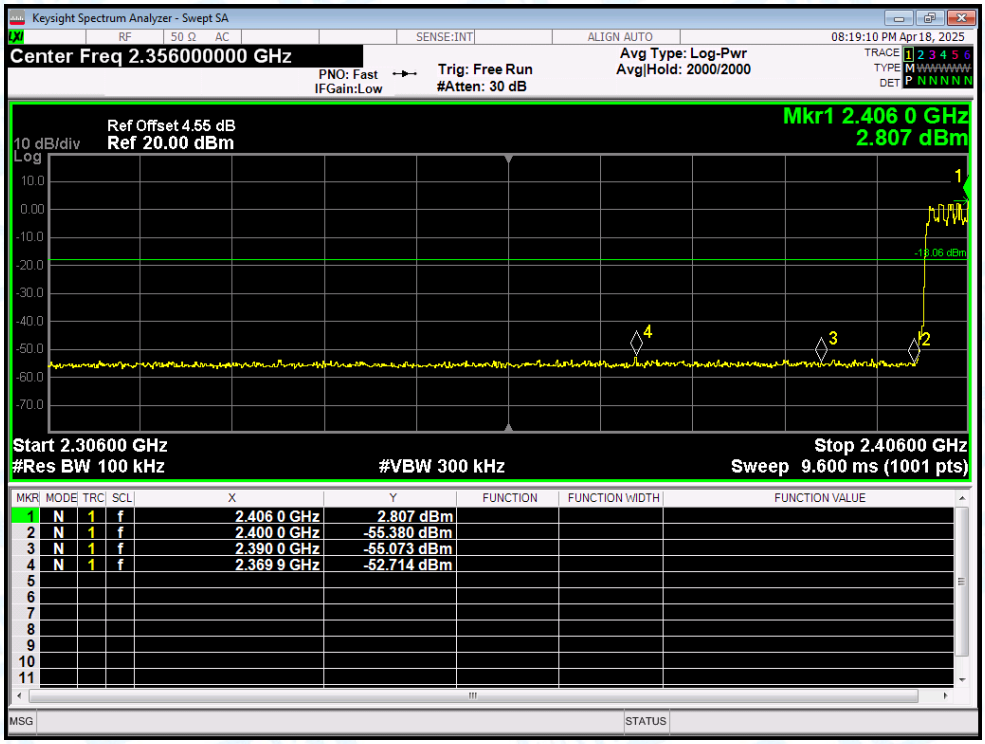
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



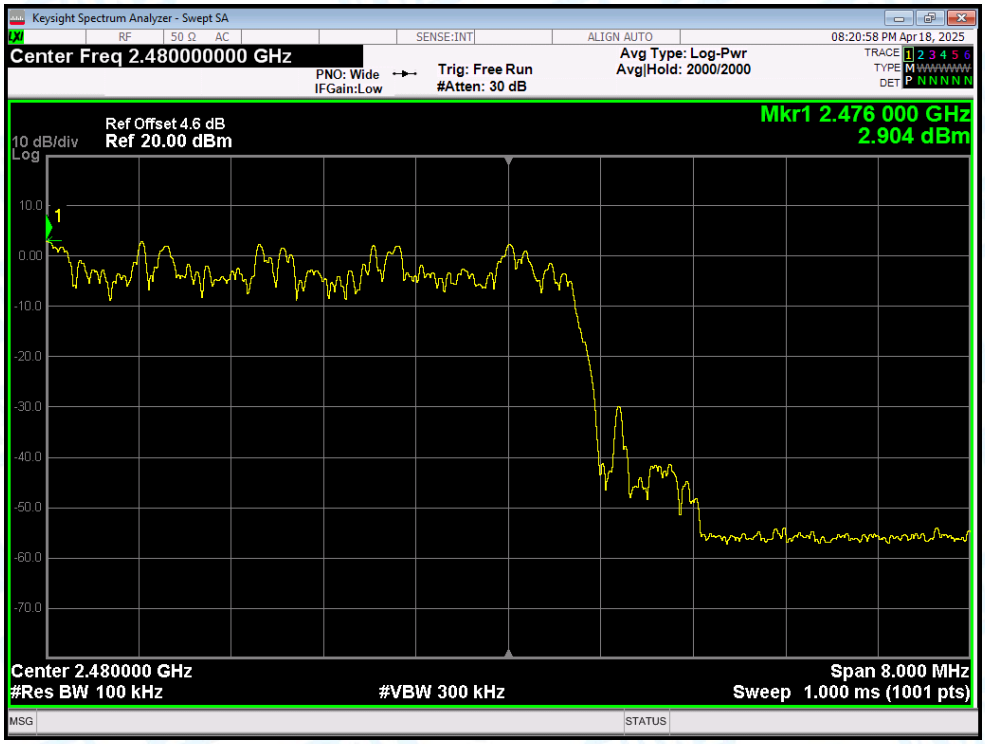
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



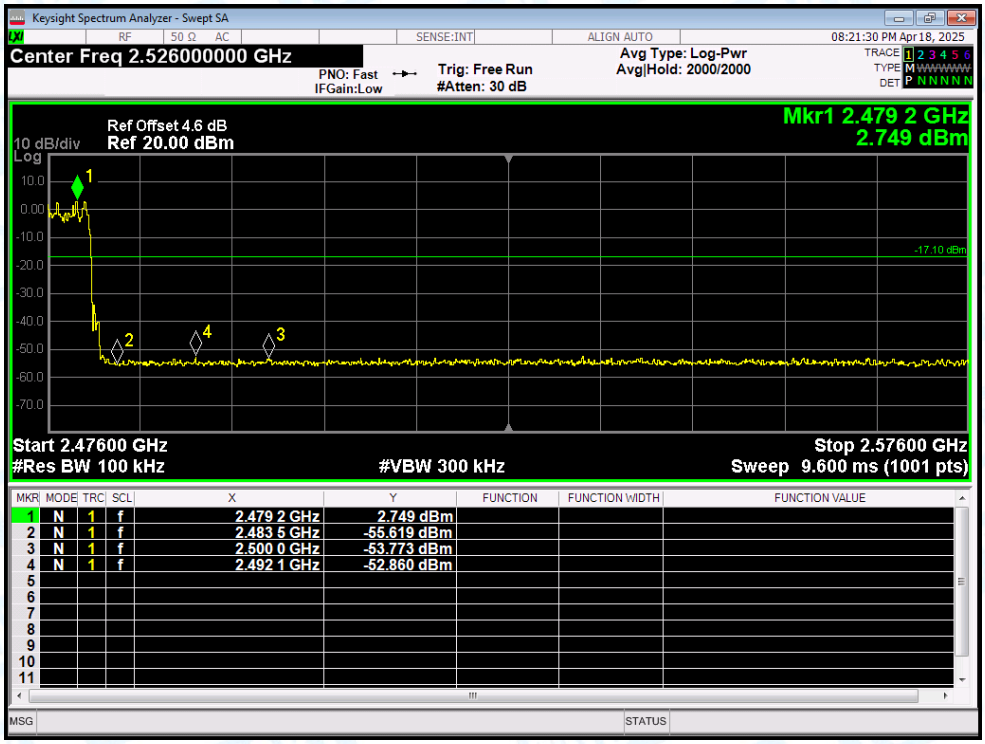
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Ref

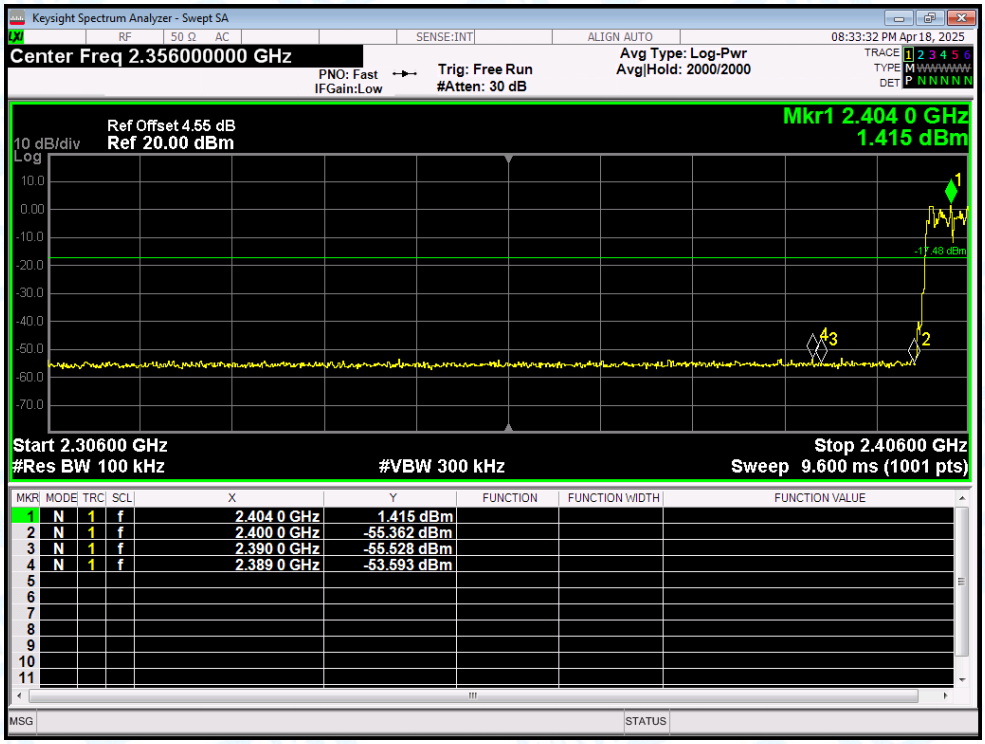


Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission

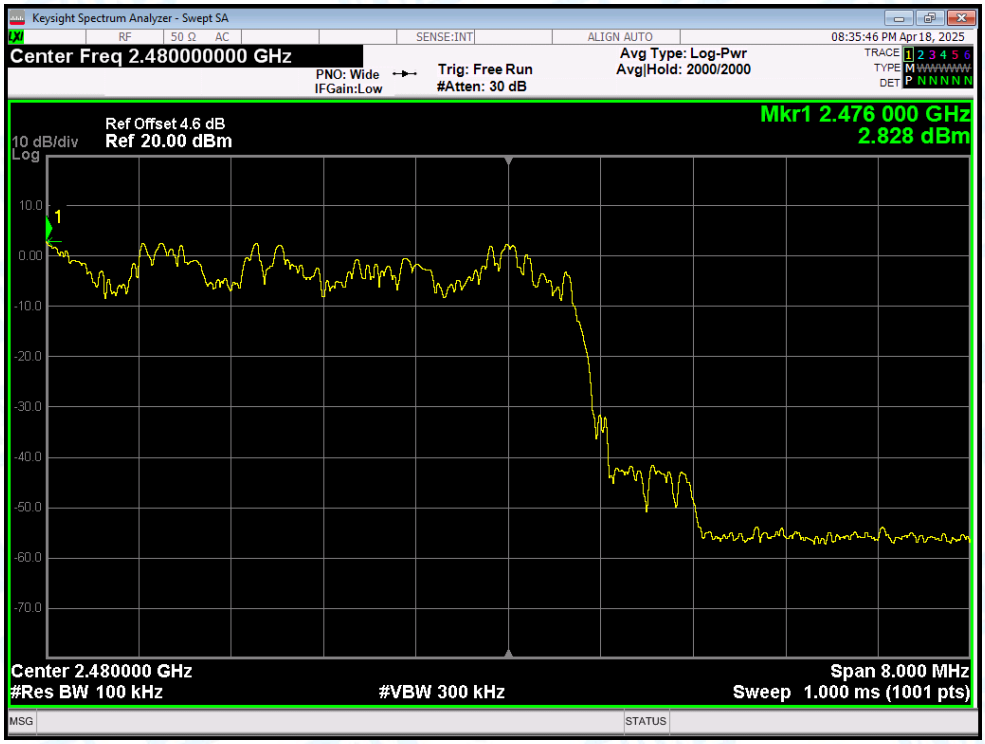


Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref

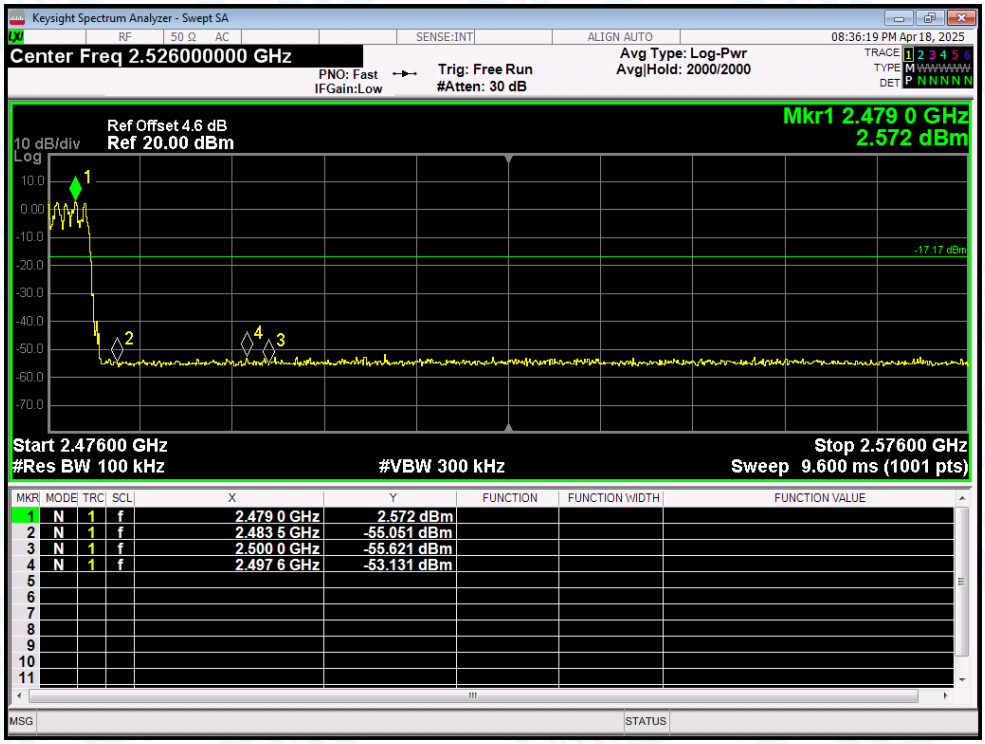
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 3-DH1 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 3-DH1 2480MHz Ant1 Hopping Emission

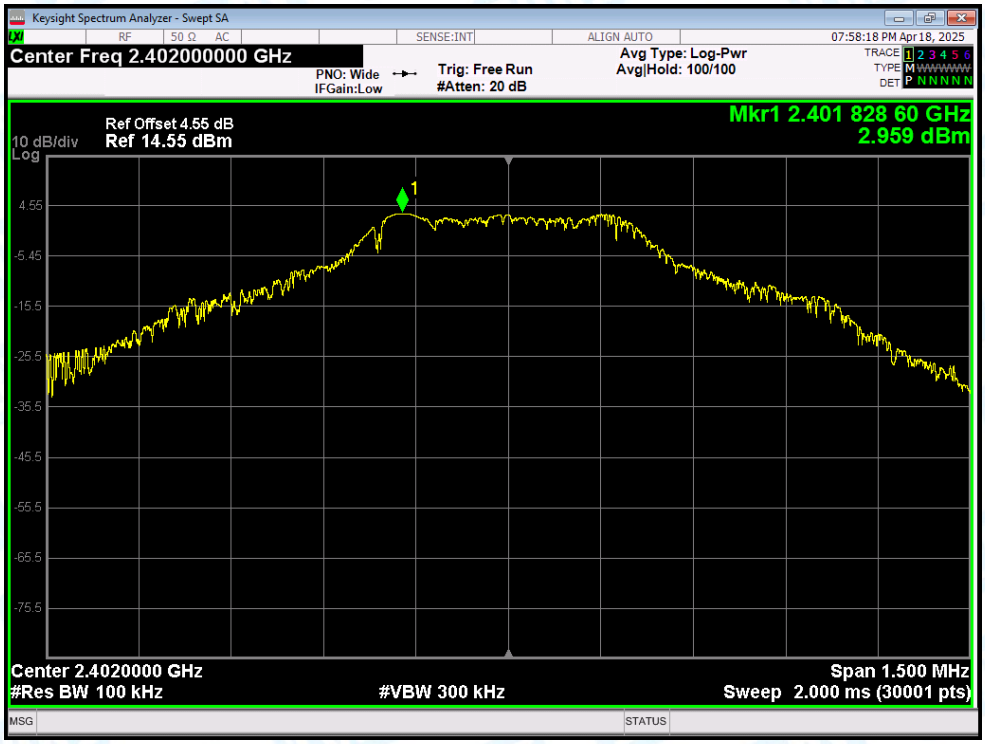


7.Conducted RF Spurious Emission

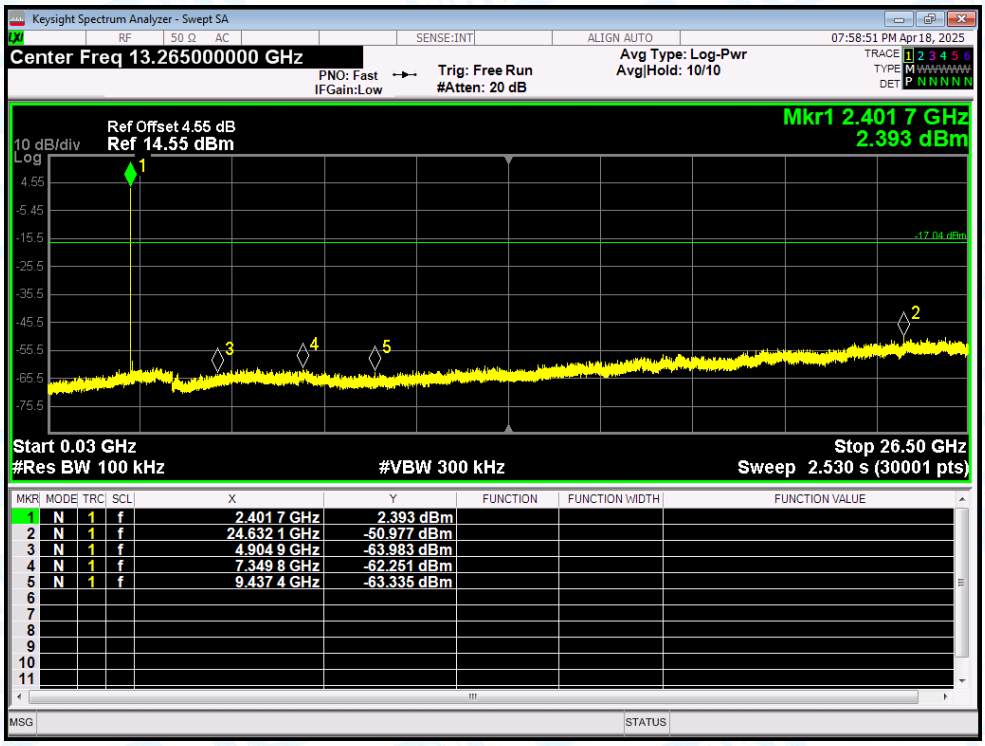
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-53.94	-20	Pass
NVNT	1-DH1	2441	Ant1	-54.69	-20	Pass
NVNT	1-DH1	2480	Ant1	-53.98	-20	Pass
NVNT	2-DH1	2402	Ant1	-51.49	-20	Pass
NVNT	2-DH1	2441	Ant1	-53.97	-20	Pass
NVNT	2-DH1	2480	Ant1	-53.03	-20	Pass
NVNT	3-DH1	2402	Ant1	-52.42	-20	Pass
NVNT	3-DH1	2441	Ant1	-54.72	-20	Pass
NVNT	3-DH1	2480	Ant1	-53.51	-20	Pass

Test Graphs

Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref

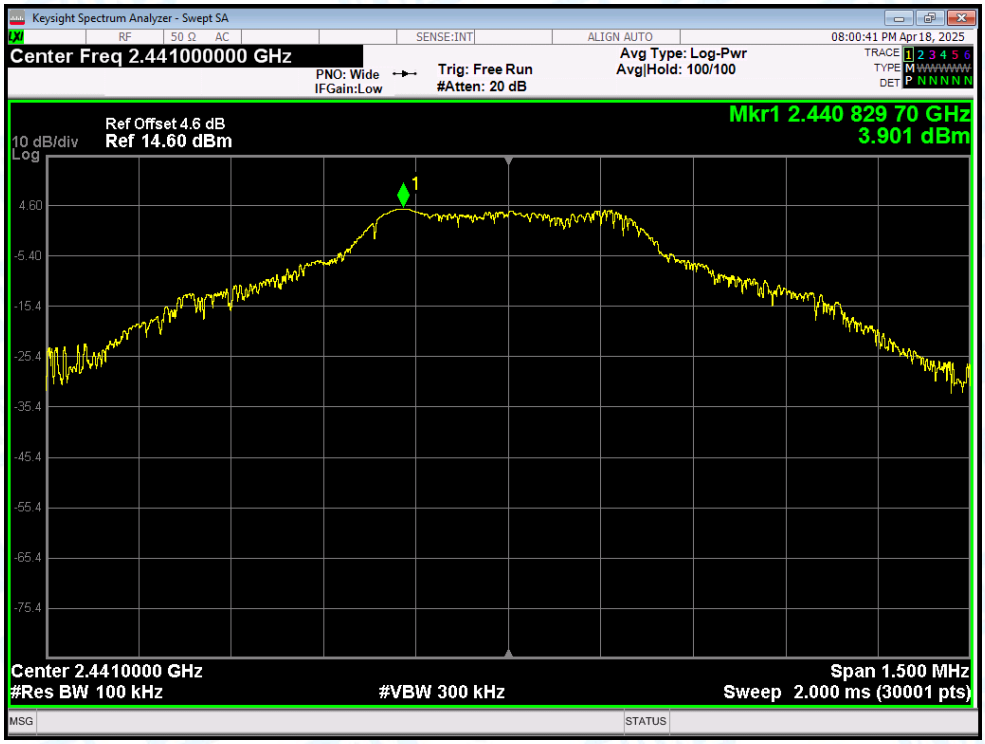


Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission

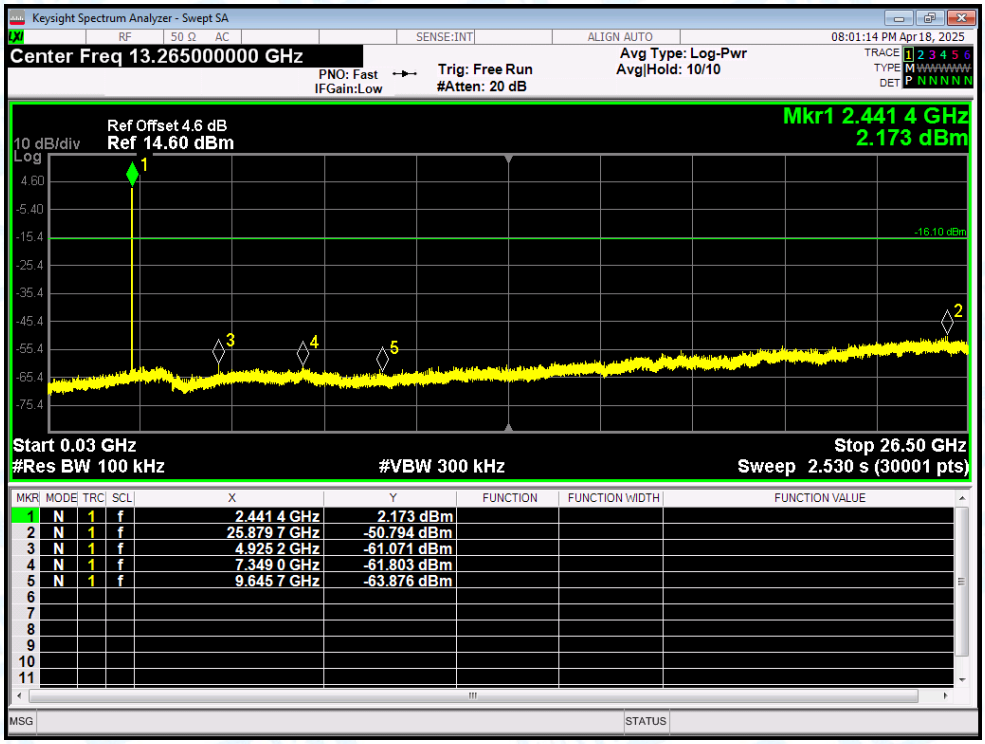


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.401 7 GHz	2.393 dBm			
2	N	1	f	24.632 1 GHz	-50.977 dBm			
3	N	1	f	4.904 9 GHz	-63.983 dBm			
4	N	1	f	7.349 8 GHz	-62.251 dBm			
5	N	1	f	9.437 4 GHz	-63.335 dBm			
6								
7								
8								
9								
10								
11								

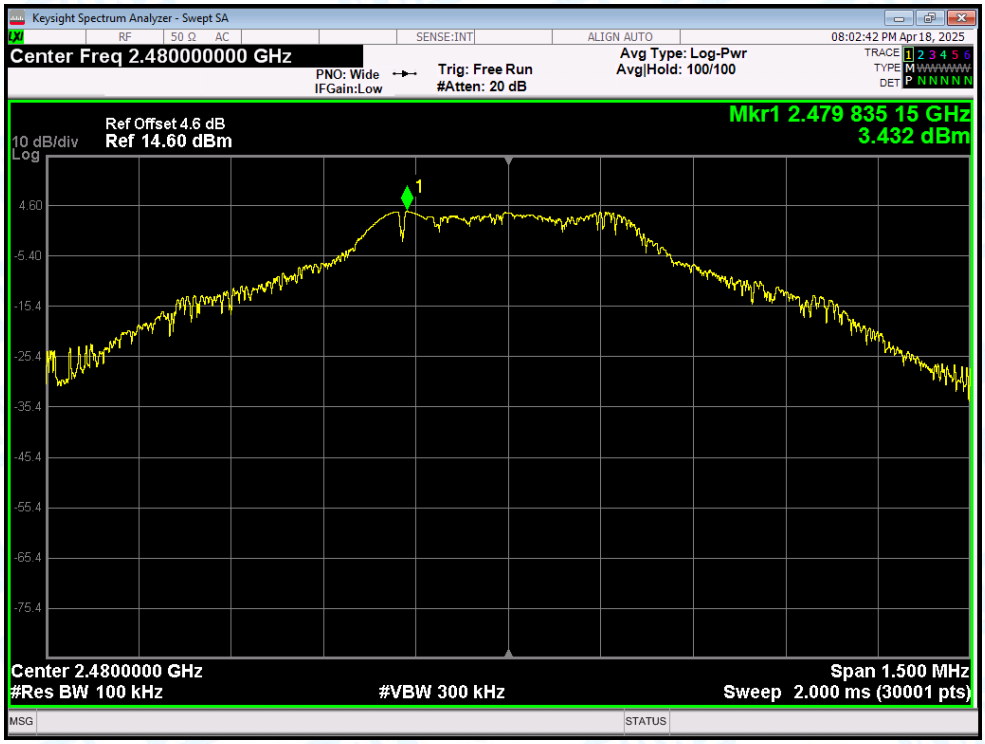
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



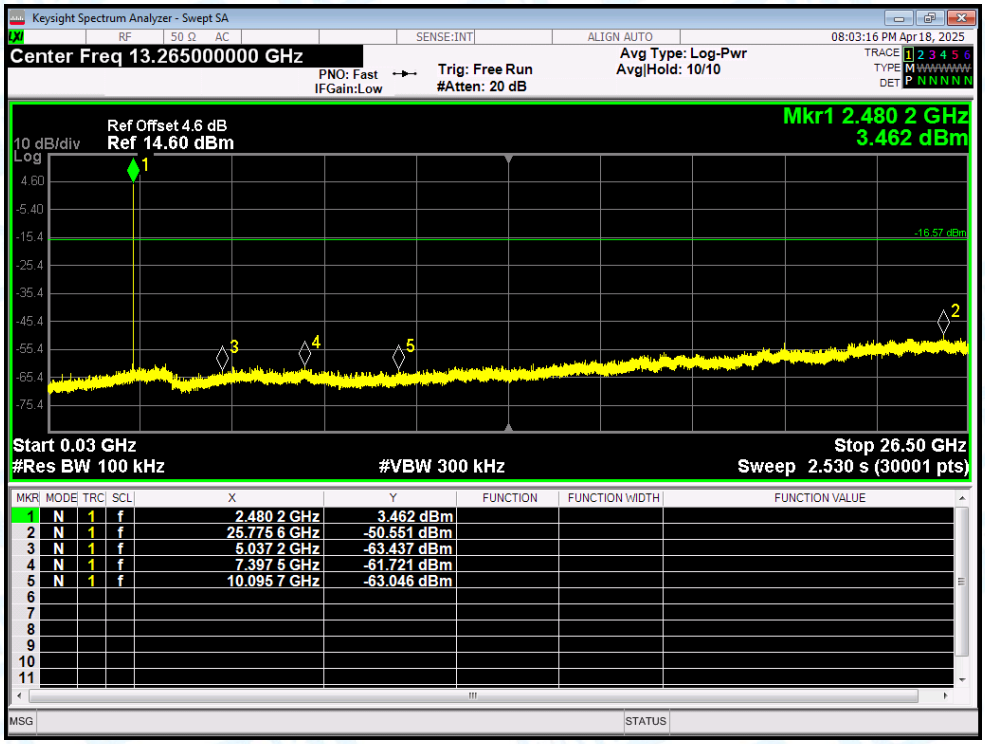
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



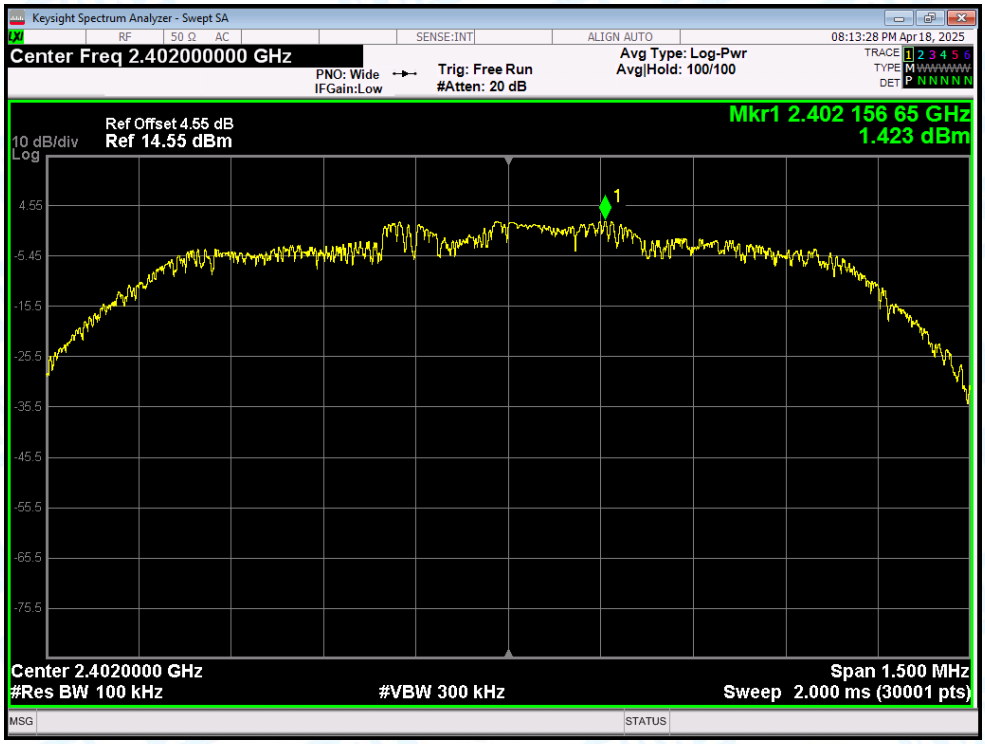
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



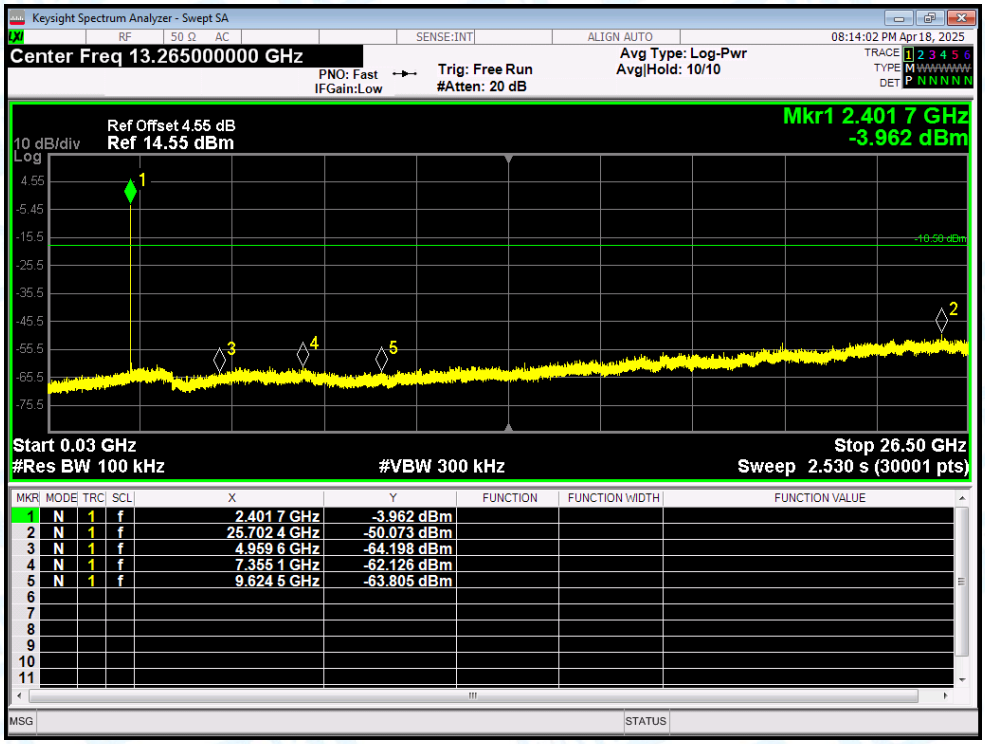
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref

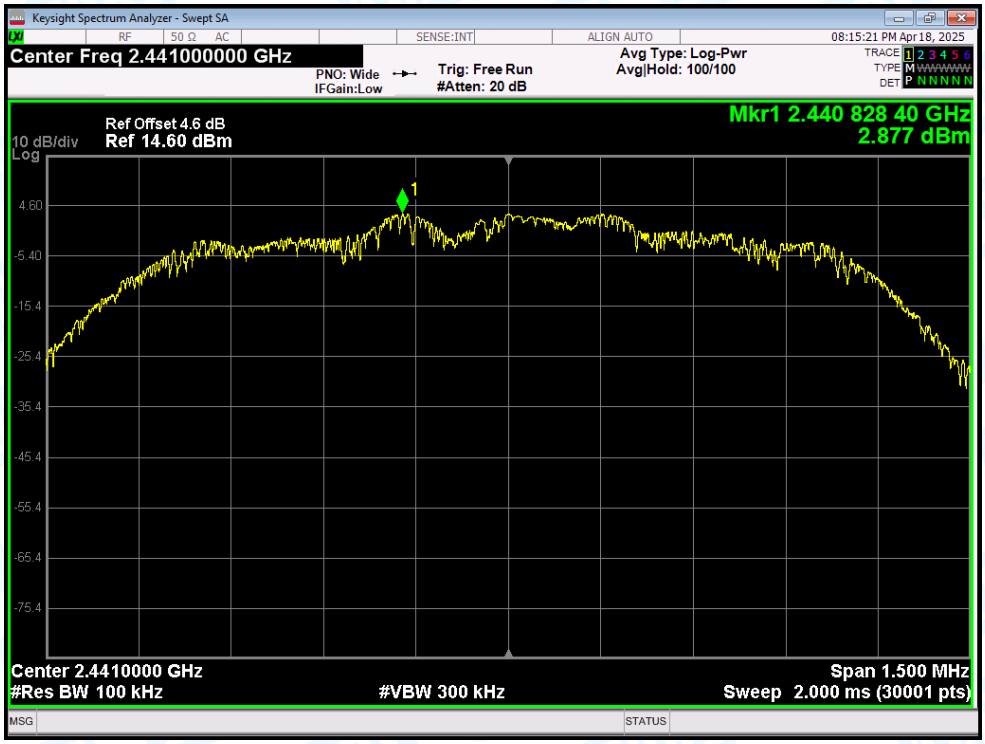


Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission

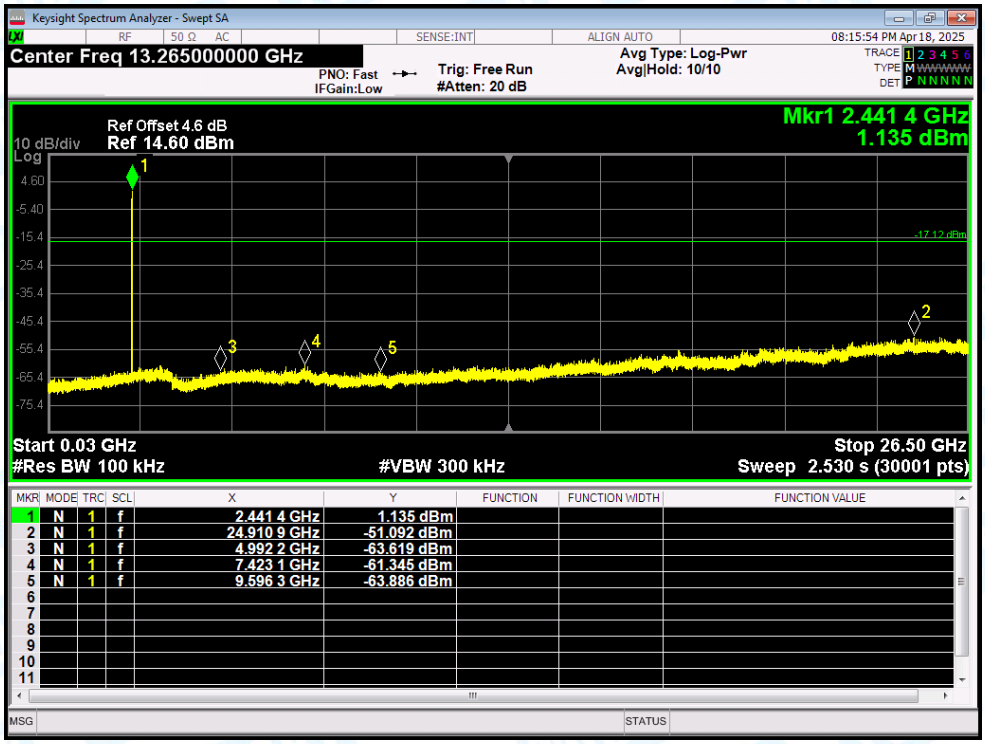


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.401 7 GHz	-3.962 dBm			
2	N	1	f	25.702 4 GHz	-50.073 dBm			
3	N	1	f	4.959 6 GHz	-64.198 dBm			
4	N	1	f	7.355 1 GHz	-62.126 dBm			
5	N	1	f	9.624 5 GHz	-63.805 dBm			
6								
7								
8								
9								
10								
11								

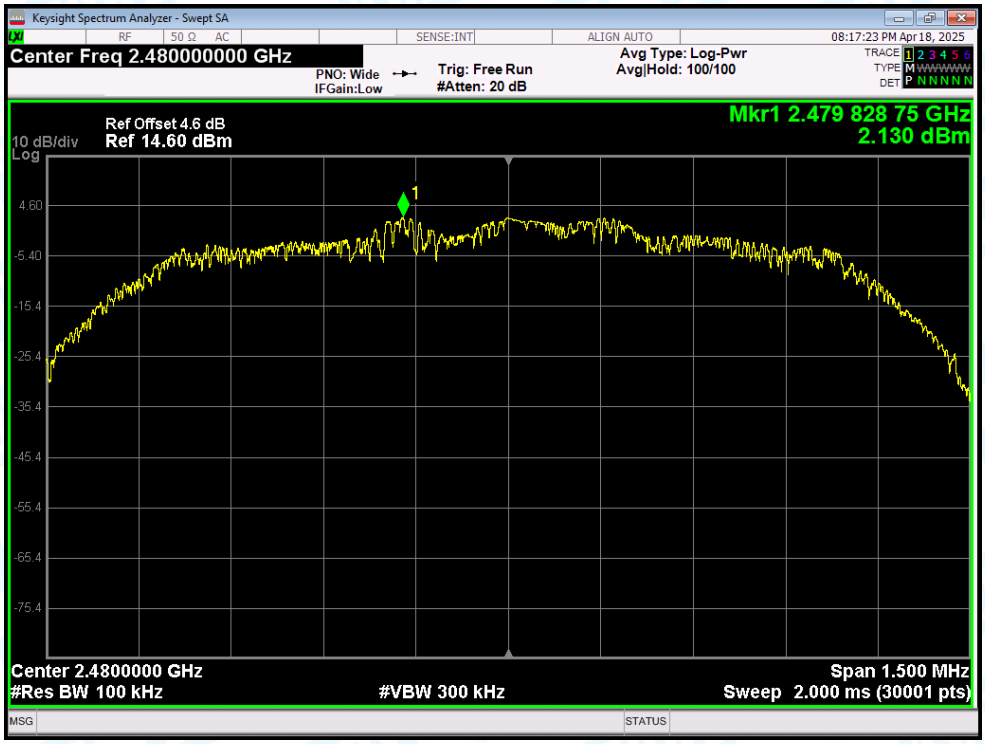
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



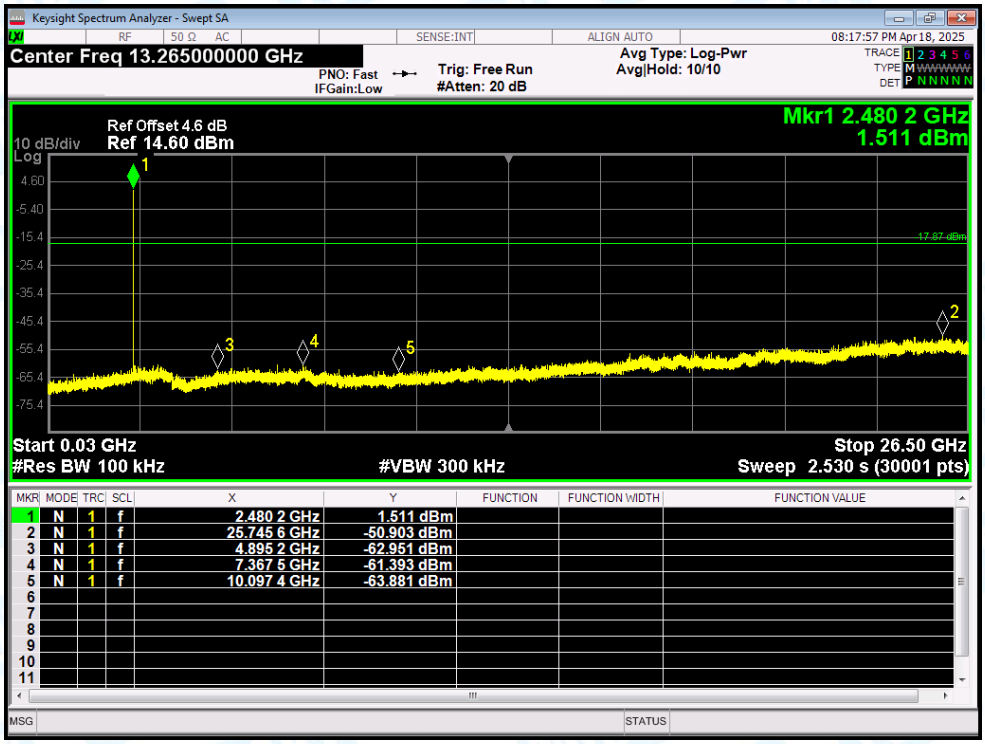
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



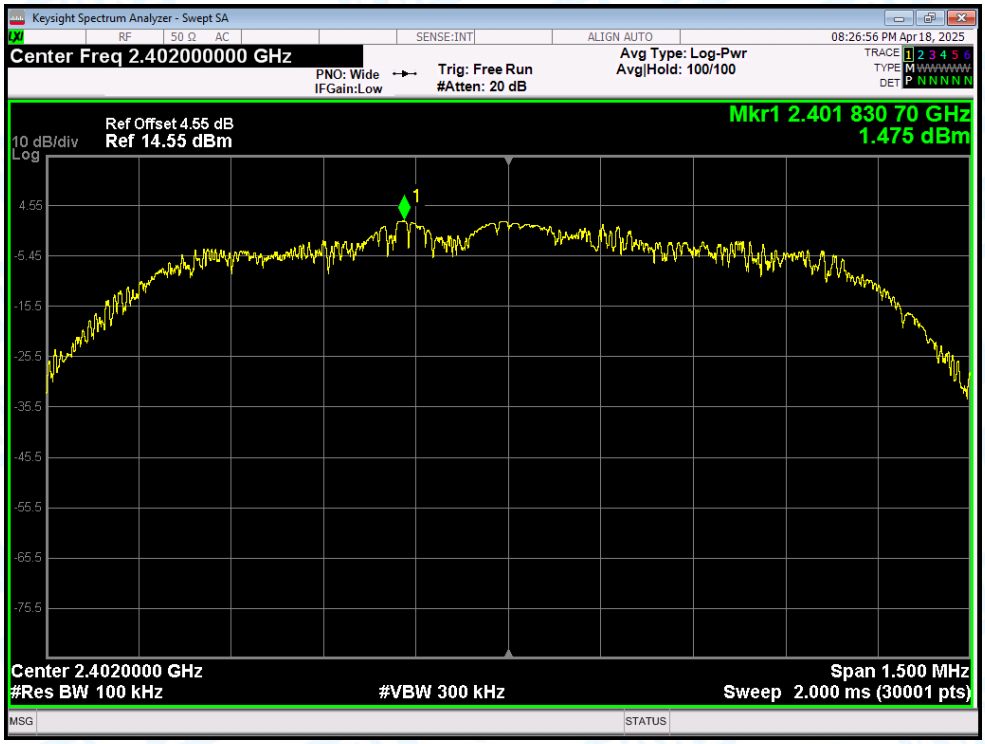
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



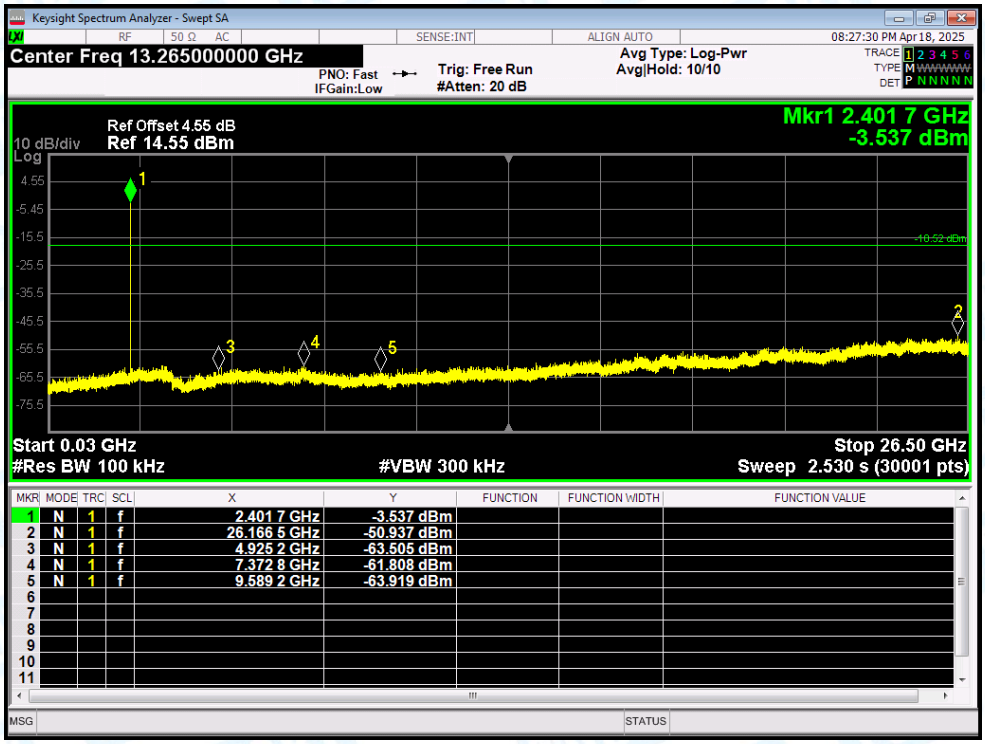
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref

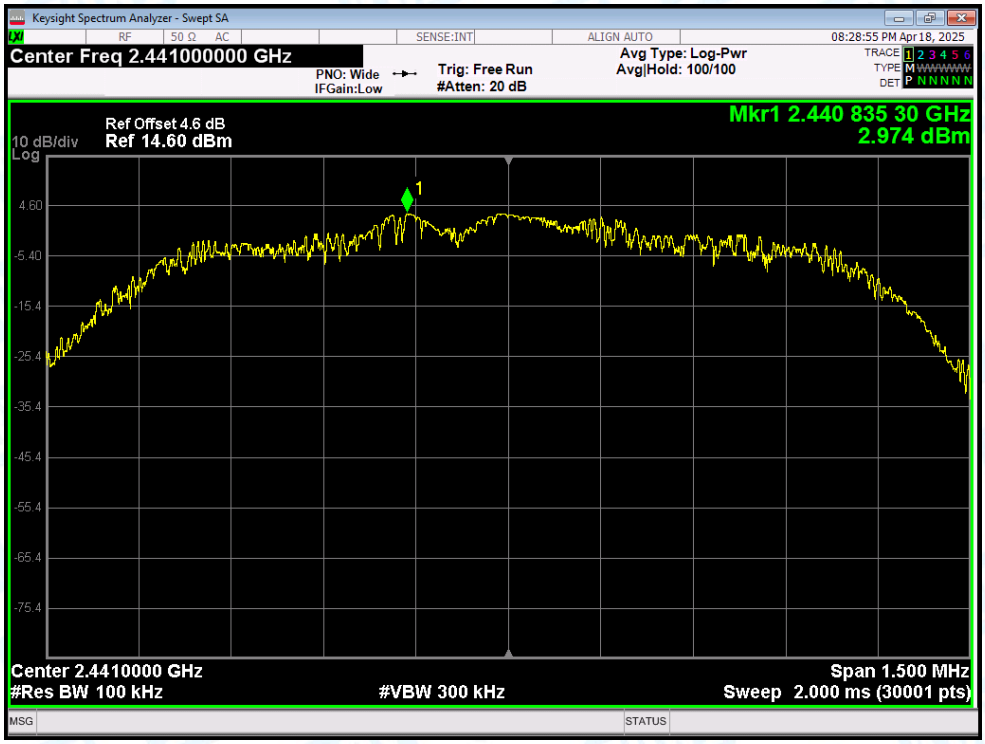


Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission

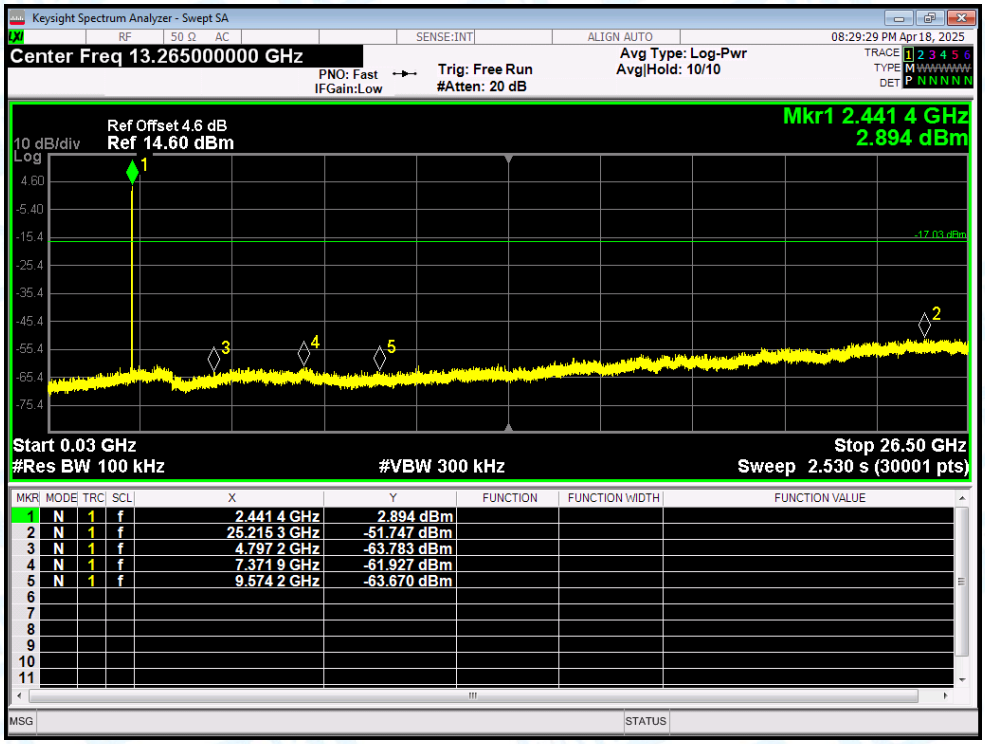


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.401 7 GHz	-3.537 dBm			
2	N	1	f	26.166 5 GHz	-50.937 dBm			
3	N	1	f	4.925 2 GHz	-63.505 dBm			
4	N	1	f	7.372 8 GHz	-61.808 dBm			
5	N	1	f	9.589 2 GHz	-63.919 dBm			
6								
7								
8								
9								
10								
11								

Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



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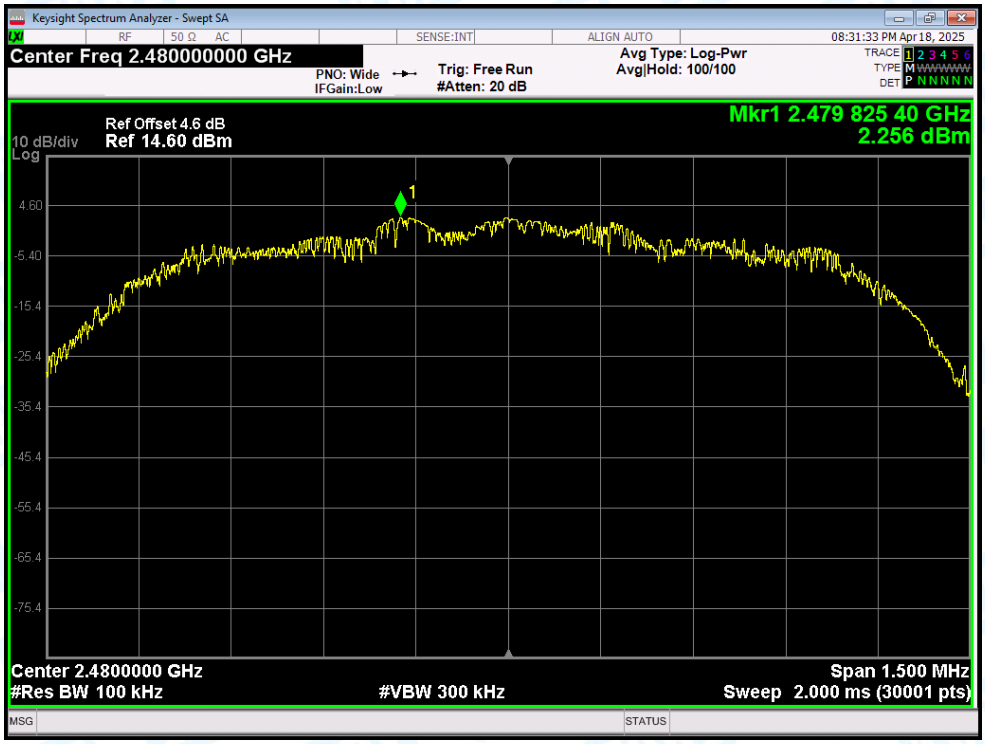
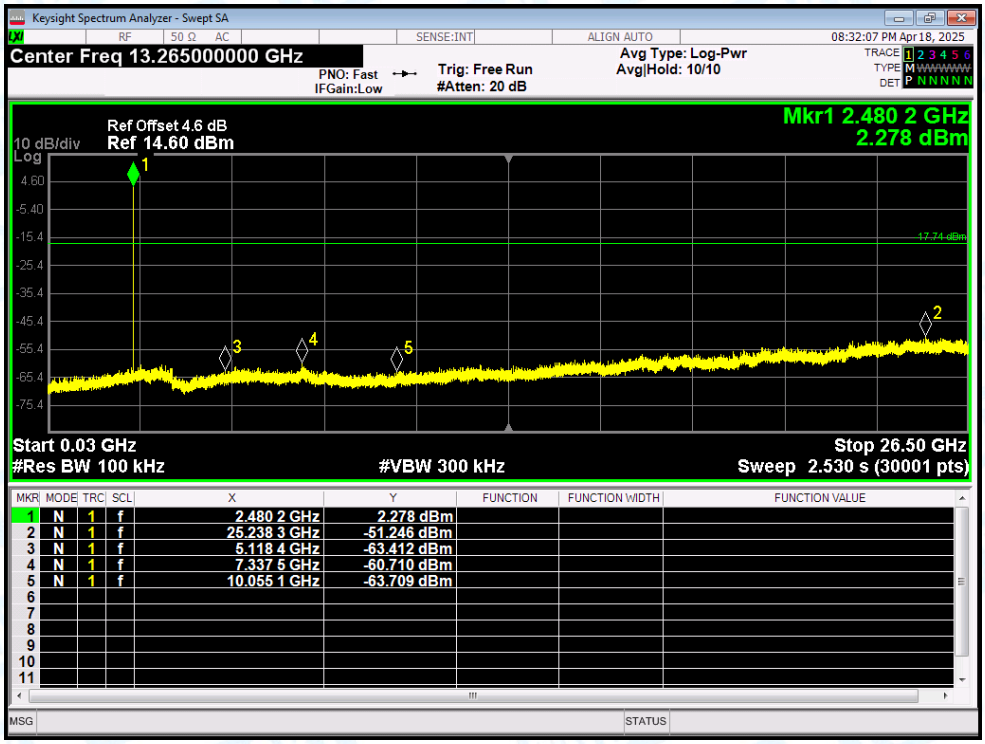


Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

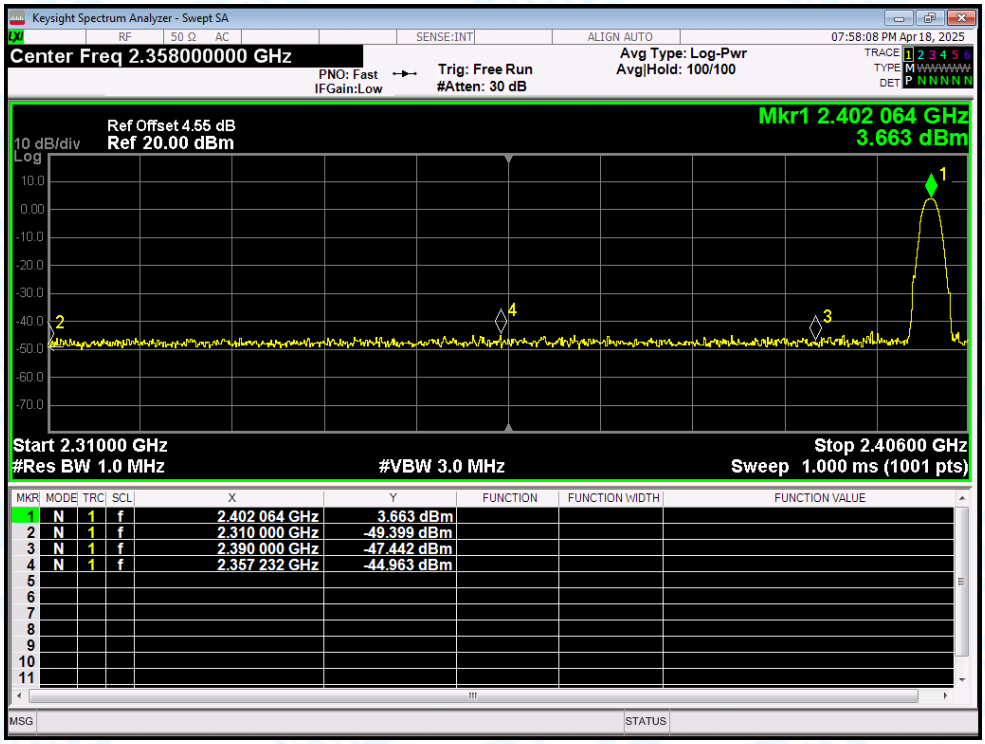


8.Restrict Band

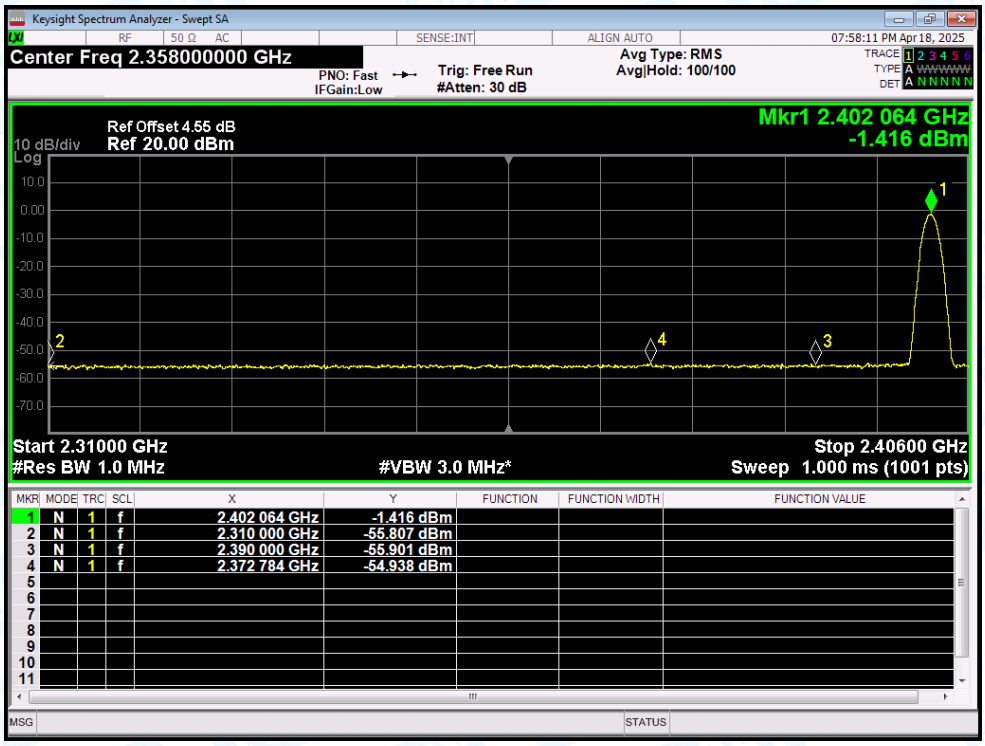
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-49.4	2	-	47.86	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-55.81	2	2.63	44.08	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2357.232	-44.96	2	-	52.30	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2372.784	-54.94	2	2.63	44.95	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-47.44	2	-	49.82	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-55.9	2	2.63	43.99	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-47.85	2	-	49.41	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-54.93	2	2.63	44.96	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2484.544	-36.25	2	-	61.01	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.824	-53.27	2	2.63	46.62	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-47.76	2	-	49.50	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.25	2	2.63	44.64	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-48	2	-	49.26	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.03	2	2.63	43.86	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2374.224	-44.94	2	-	52.32	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2367.408	-54.93	2	2.63	44.96	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-48.56	2	-	48.70	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-55.39	2	2.63	44.50	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-47.18	2	-	50.08	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-55.26	2	2.63	44.63	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.632	-37.35	2	-	59.91	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2484.52	-53.93	2	2.63	45.96	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-46.49	2	-	50.77	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.06	2	2.63	44.83	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-48.78	2	-	48.48	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-55.82	2	2.56	44.00	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2385.744	-44.55	2	-	52.71	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2373.072	-54.97	2	2.56	44.85	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-48.06	2	-	49.20	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-55.79	2	2.56	44.03	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-47.19	2	-	50.07	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-55.58	2	2.63	44.31	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.776	-36.29	2	-	60.97	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2484.568	-53.89	2	2.63	46.00	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-46.49	2	-	50.77	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.33	2	2.63	44.56	Average	54	Pass

Test Graphs

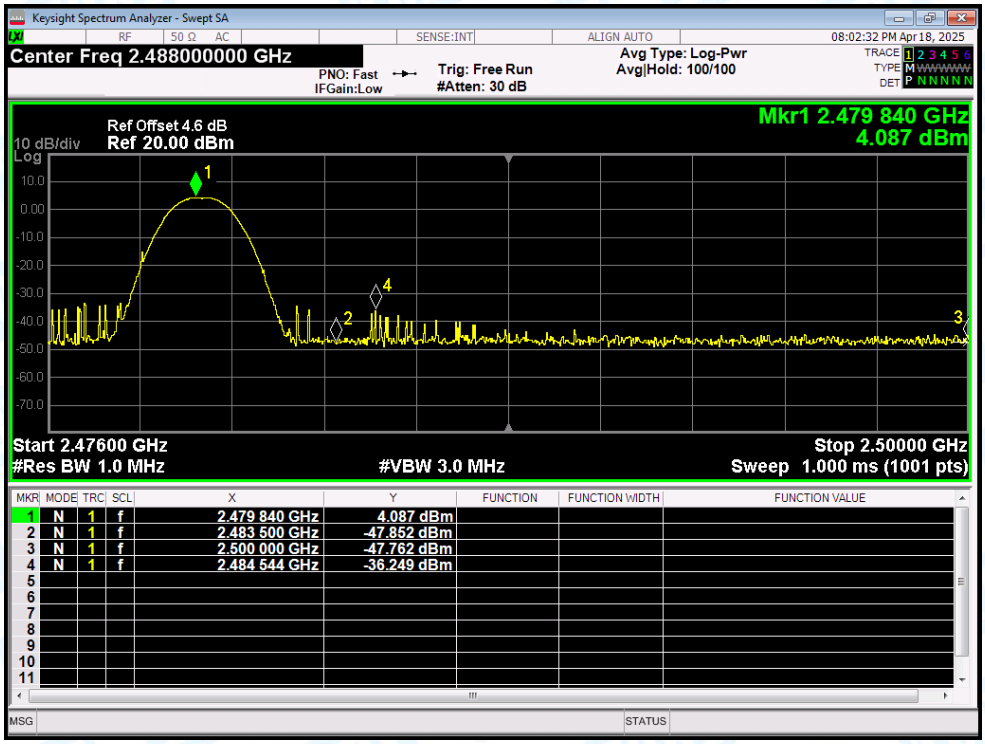
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



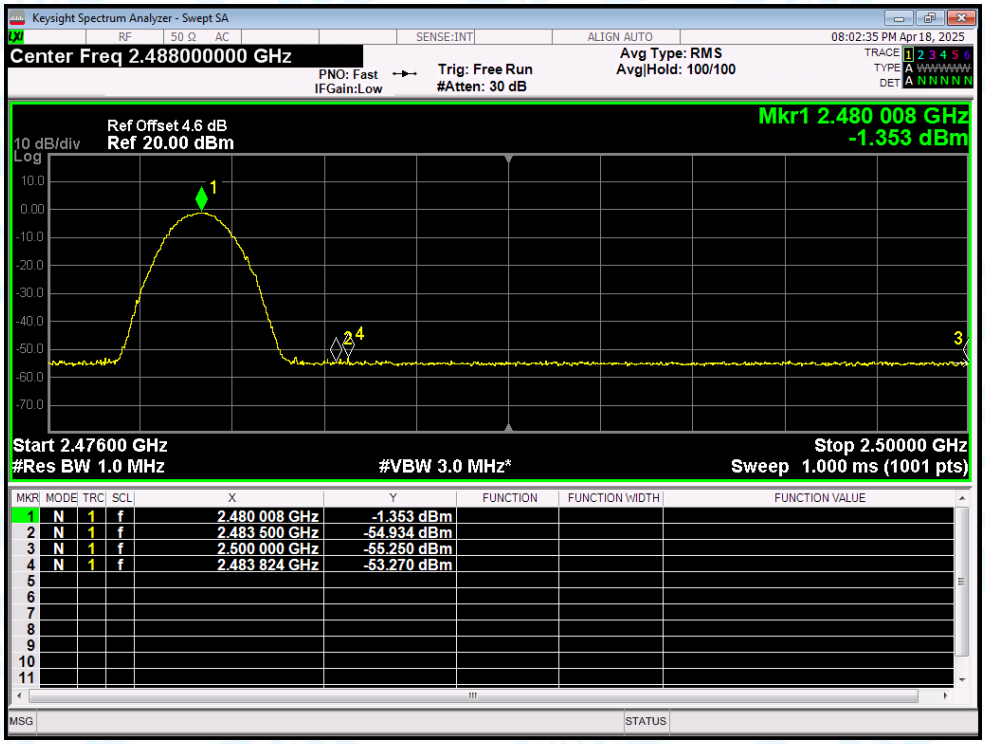
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



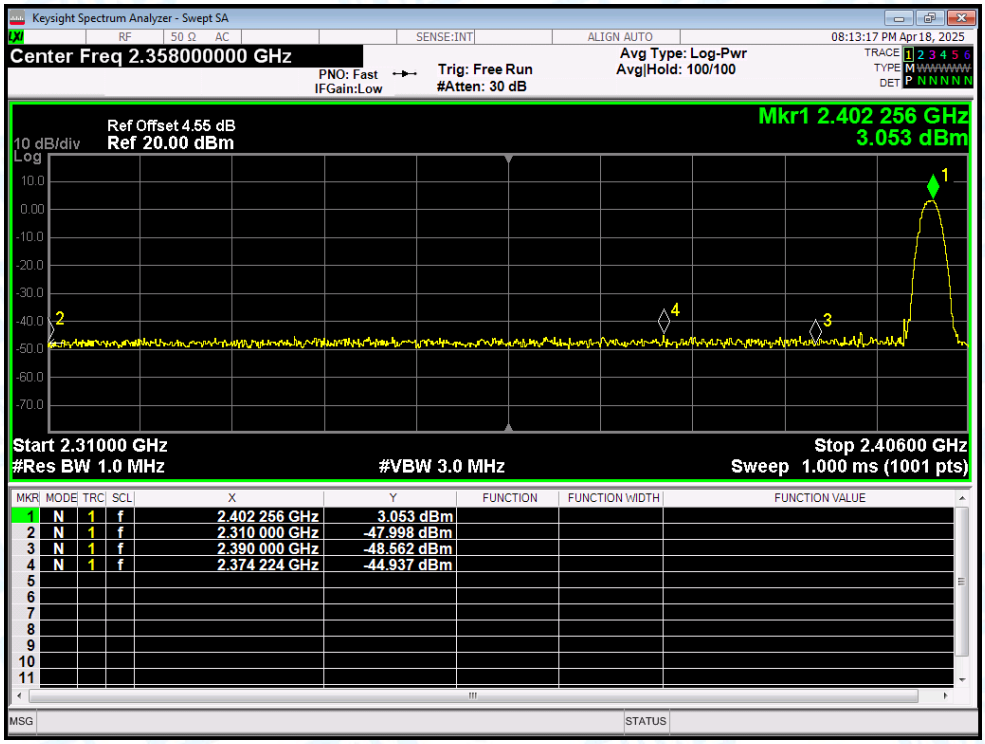
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



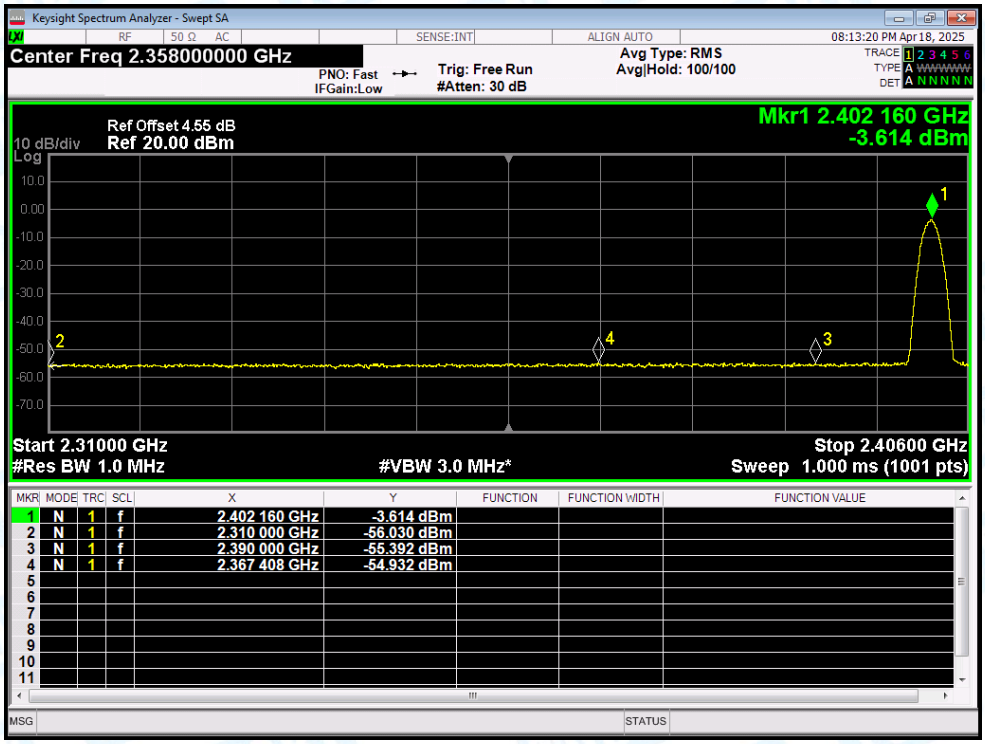
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



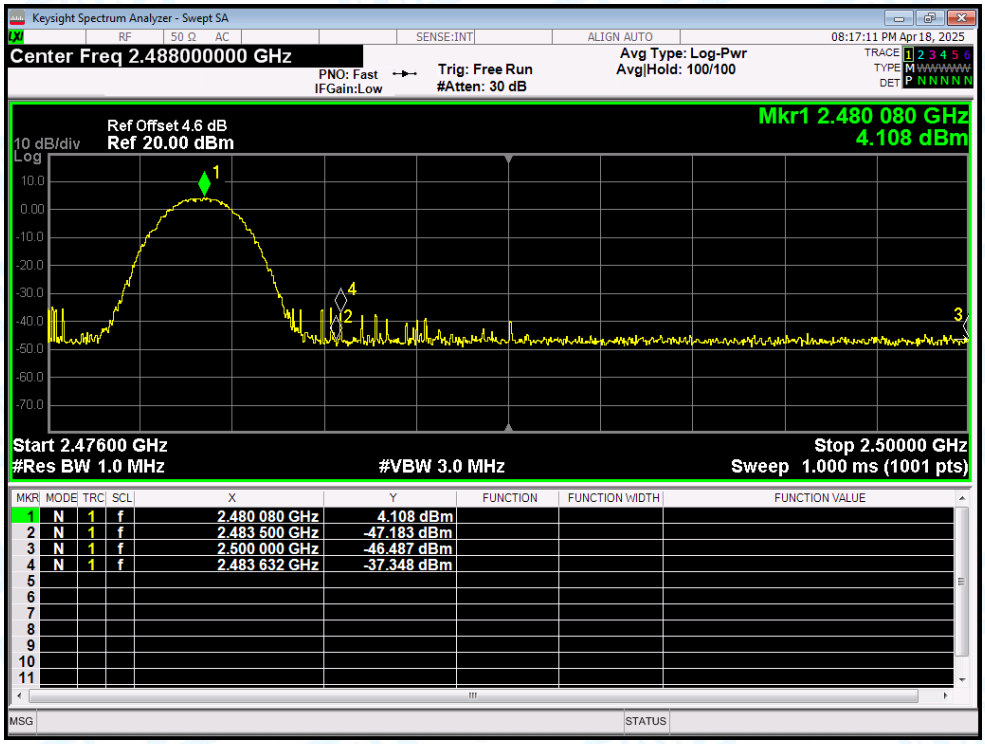
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



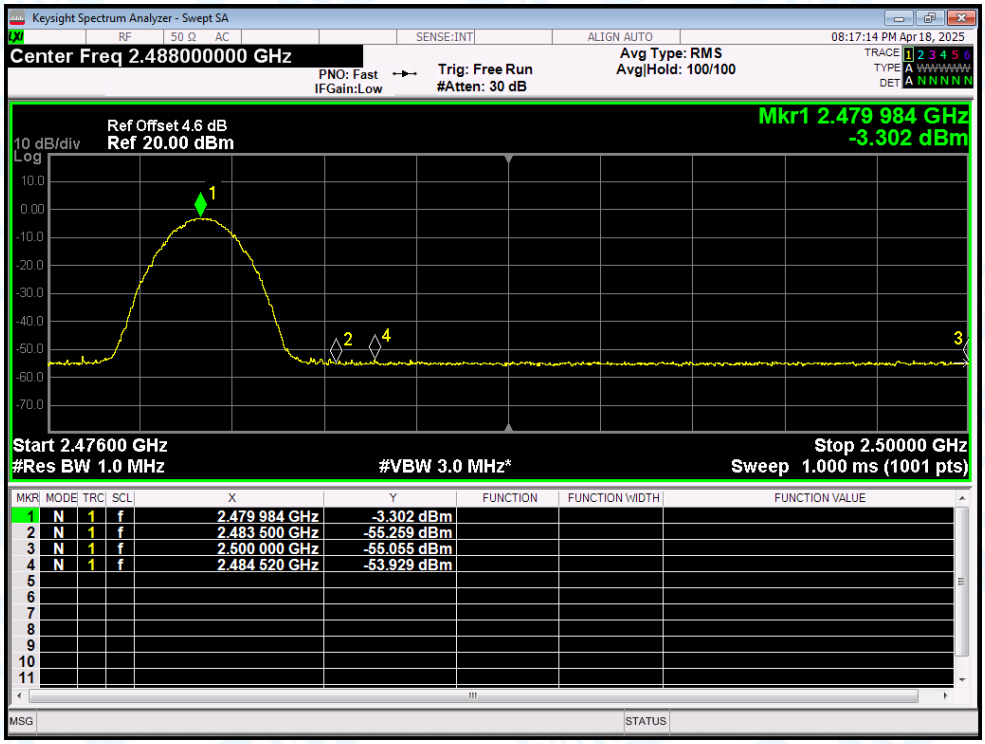
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



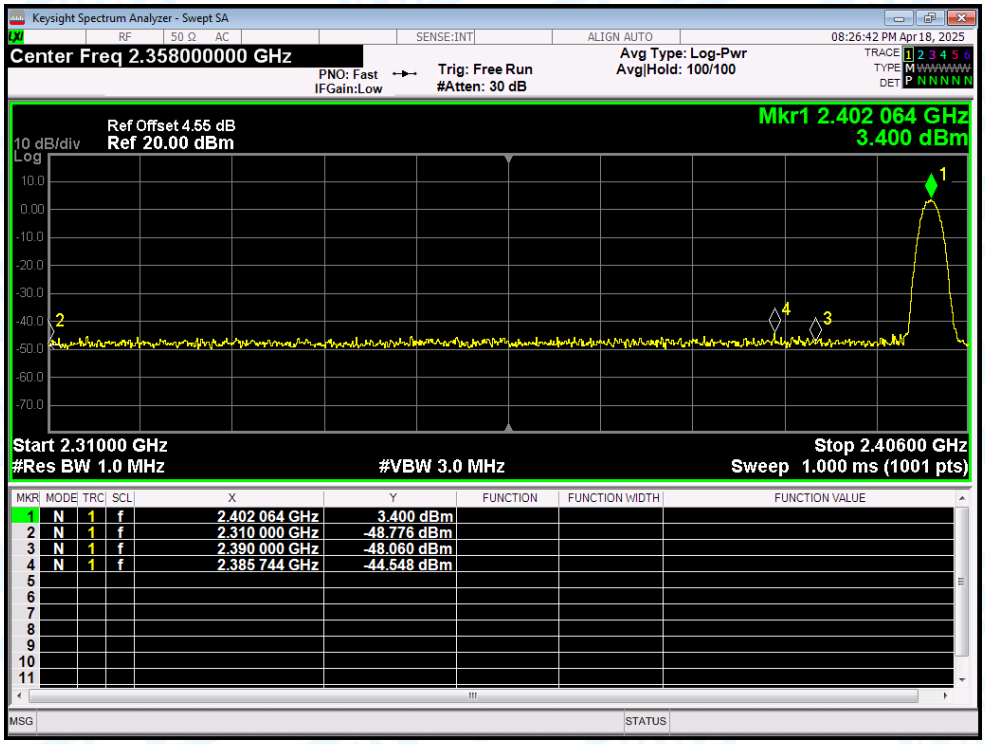
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



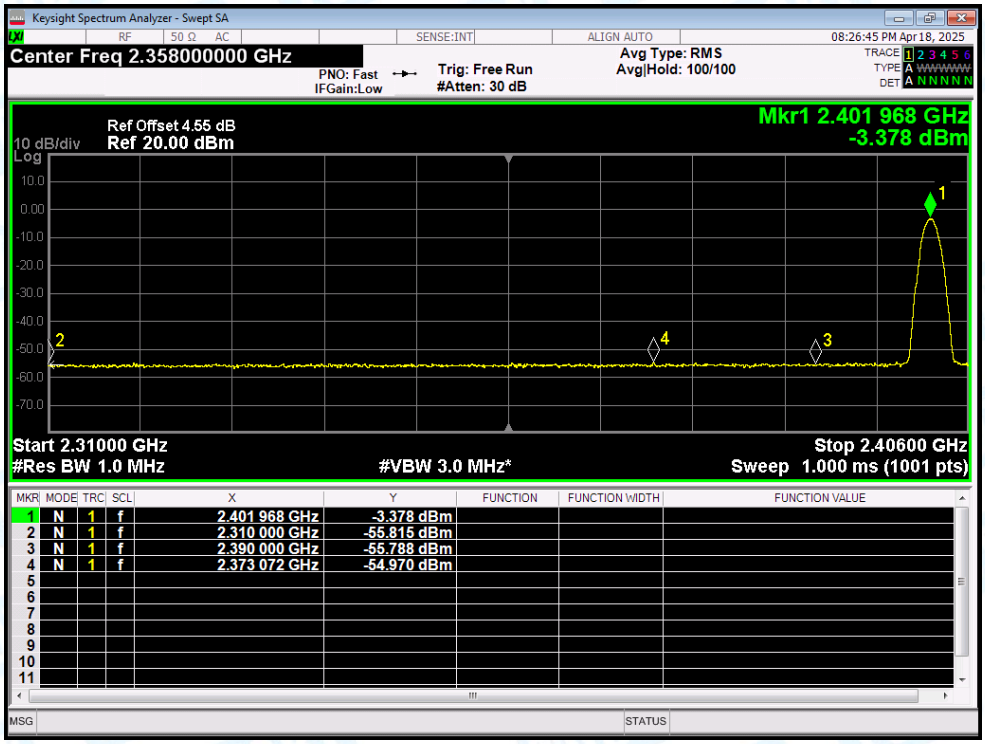
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



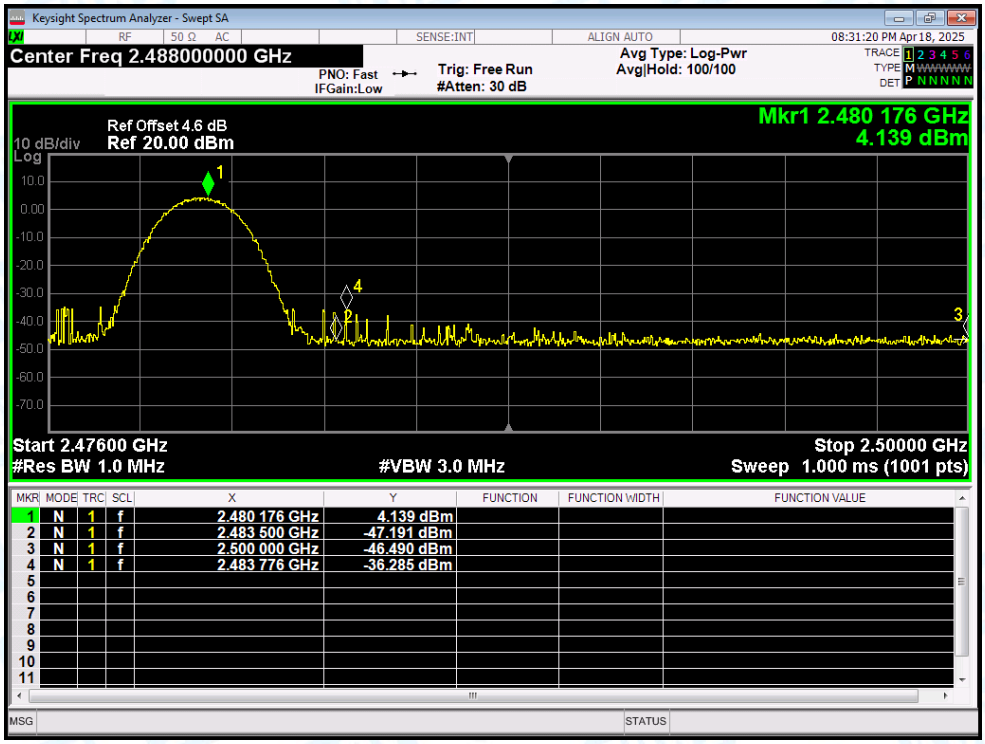
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



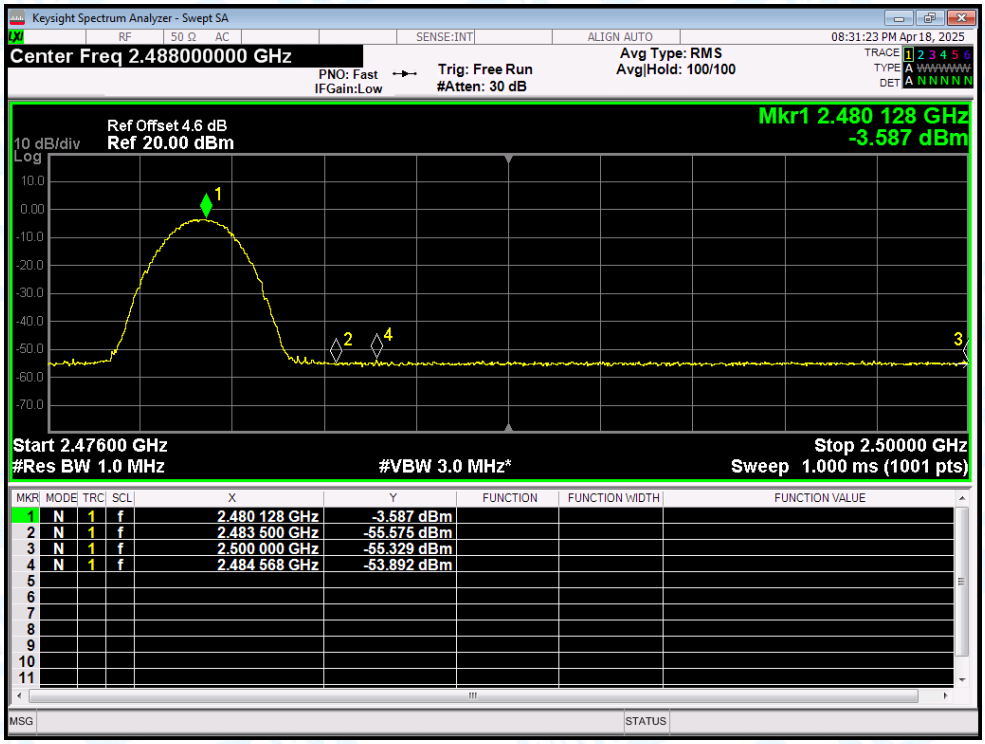
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

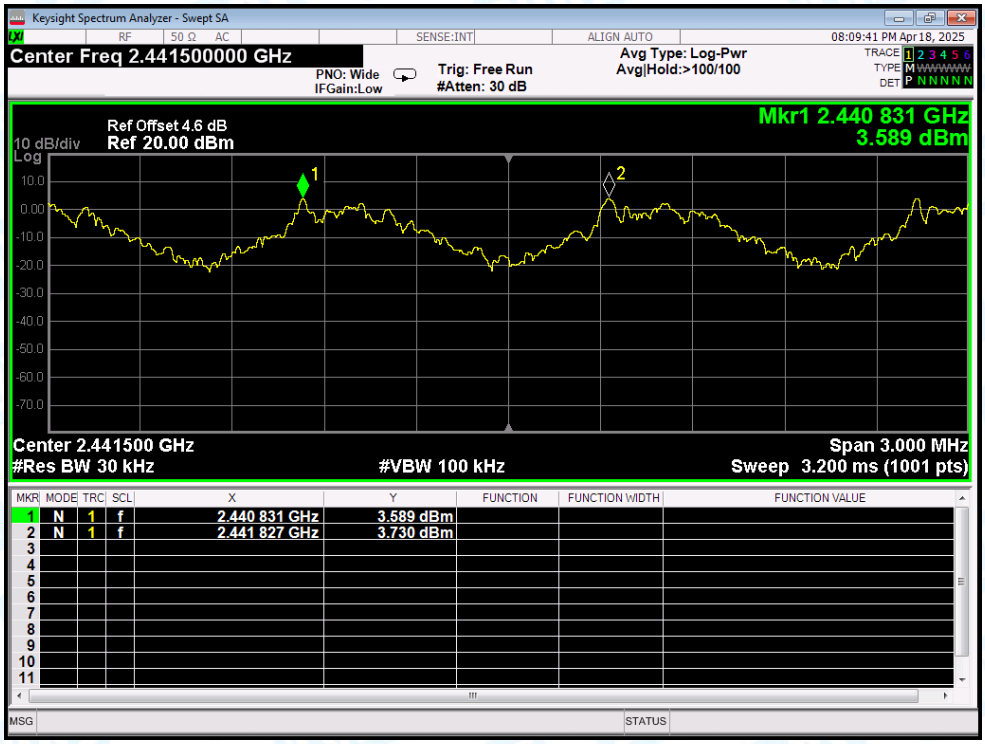


9.Carrier Frequencies Separation

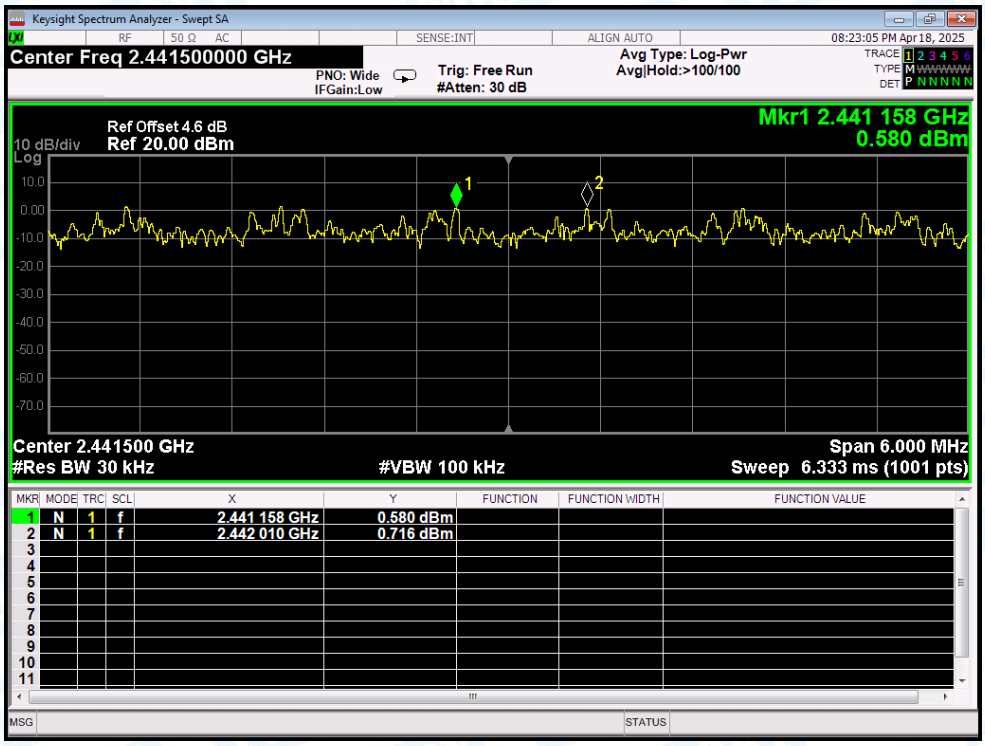
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.831	2441.827	0.996	0.58	Pass
NVNT	2-DH1	Ant1	2441.158	2442.01	0.852	0.84	Pass
NVNT	3-DH1	Ant1	2441.005	2442.025	1.02	0.827	Pass

Test Graphs

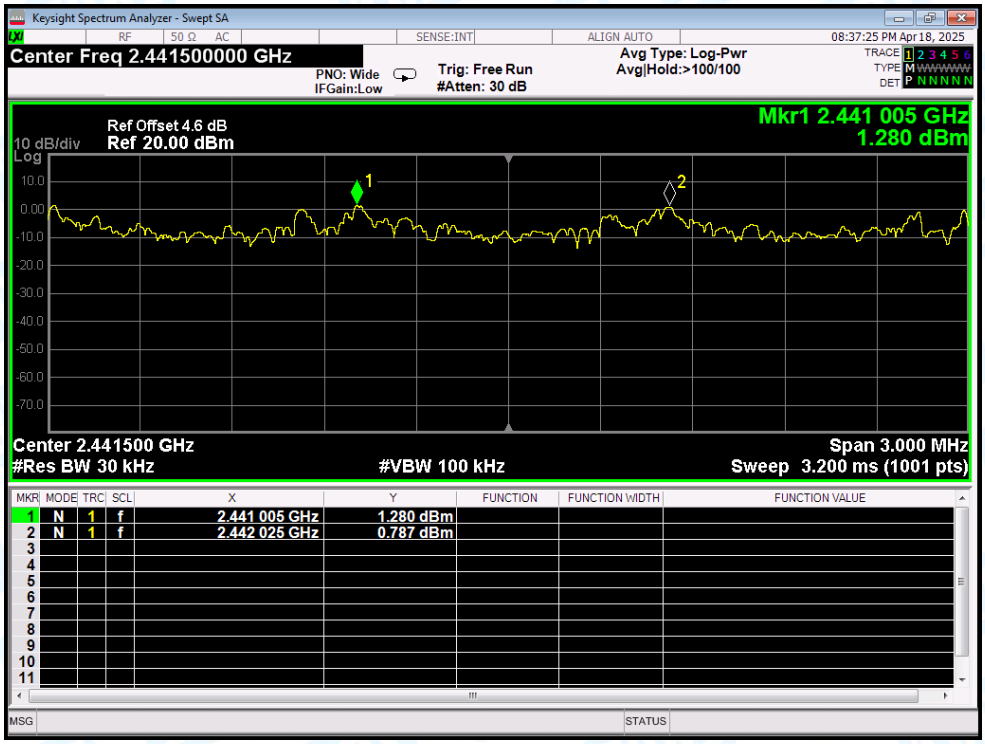
CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



CFS NVNT 3-DH1 2441MHz Ant1

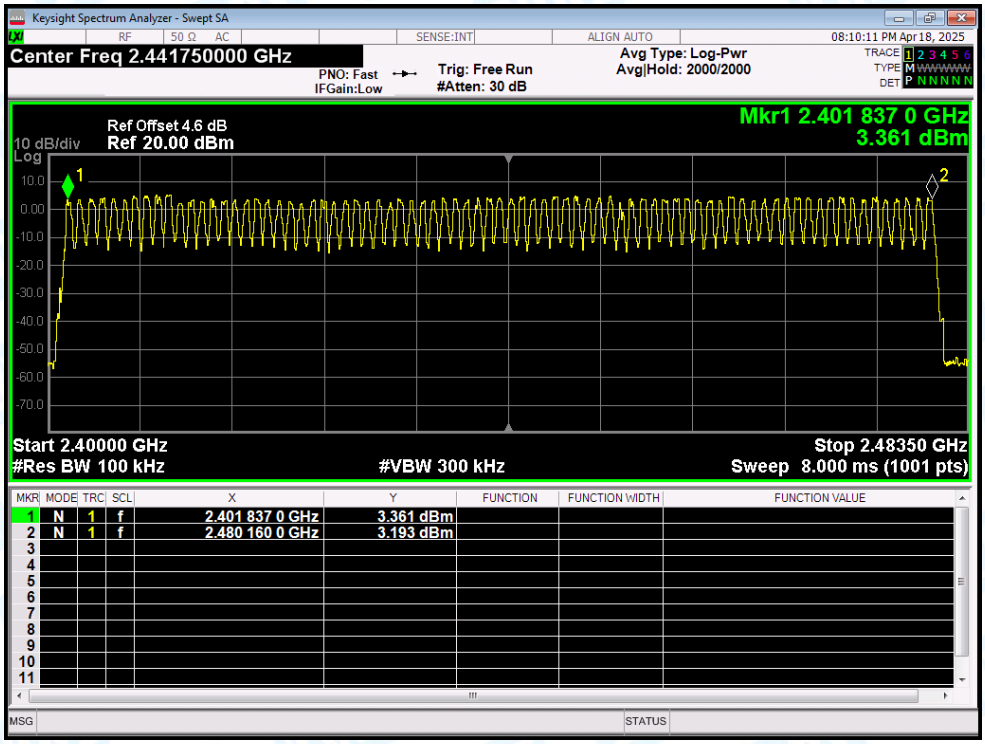


10.Number of Hopping Channel

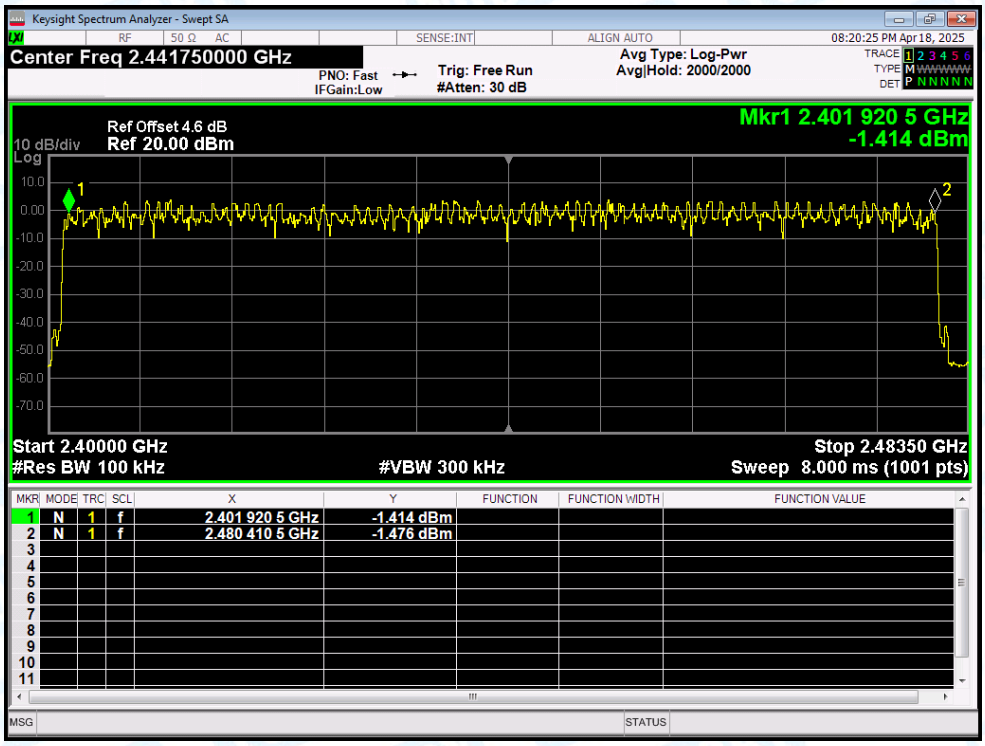
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

Test Graphs

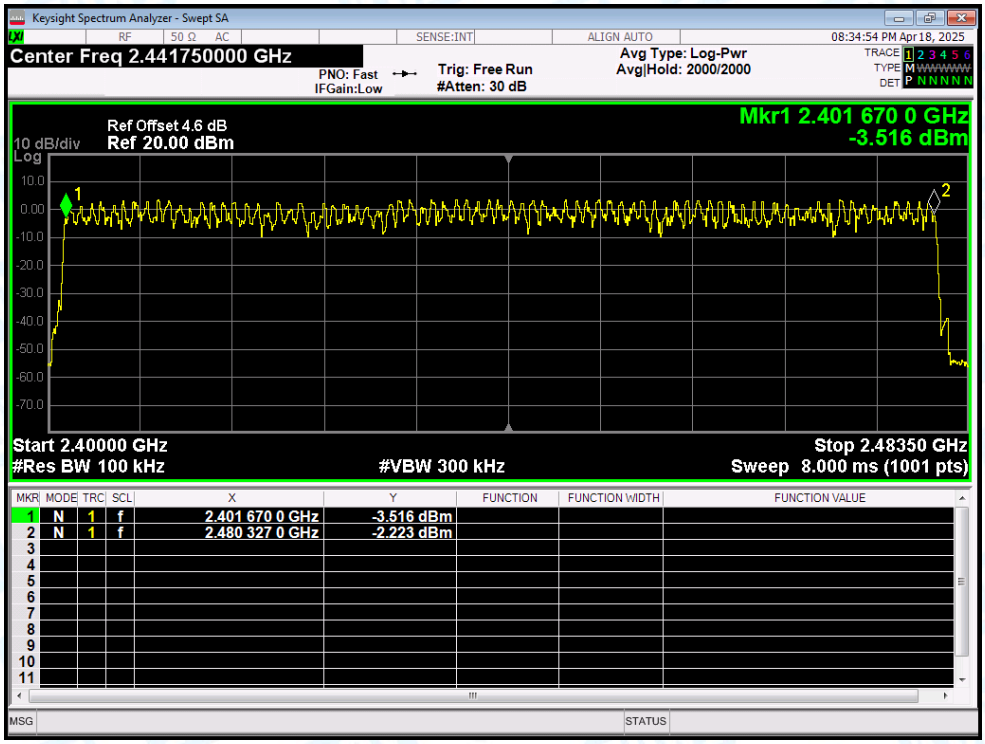
Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



Hopping No. NVNT 3-DH1 2441MHz Ant1

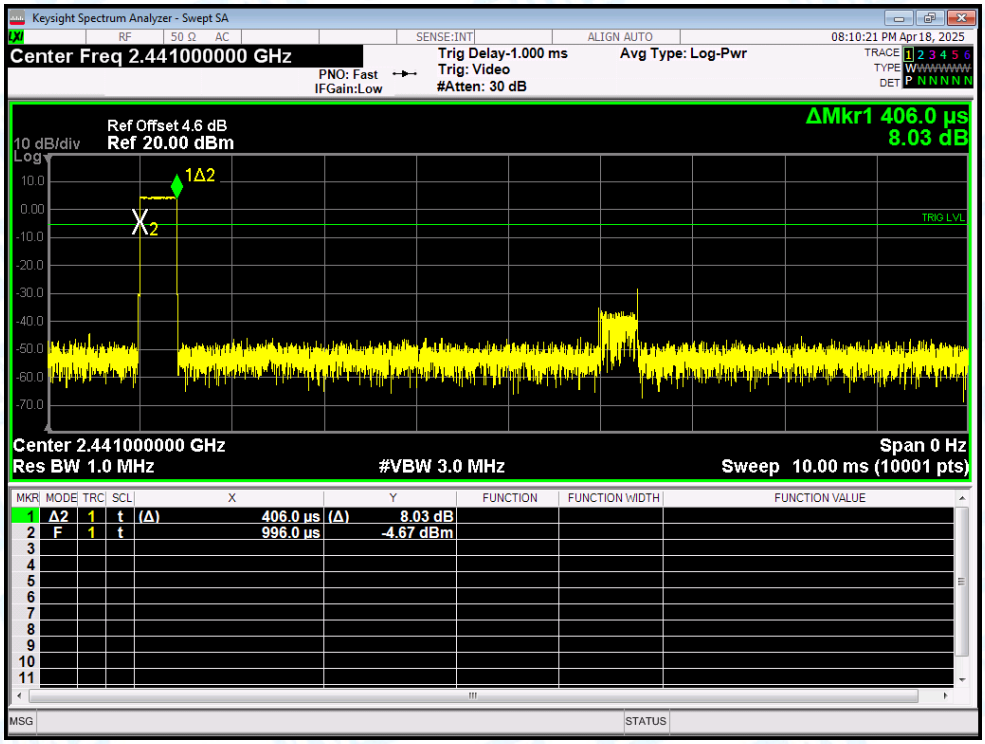


11.Dwell Time

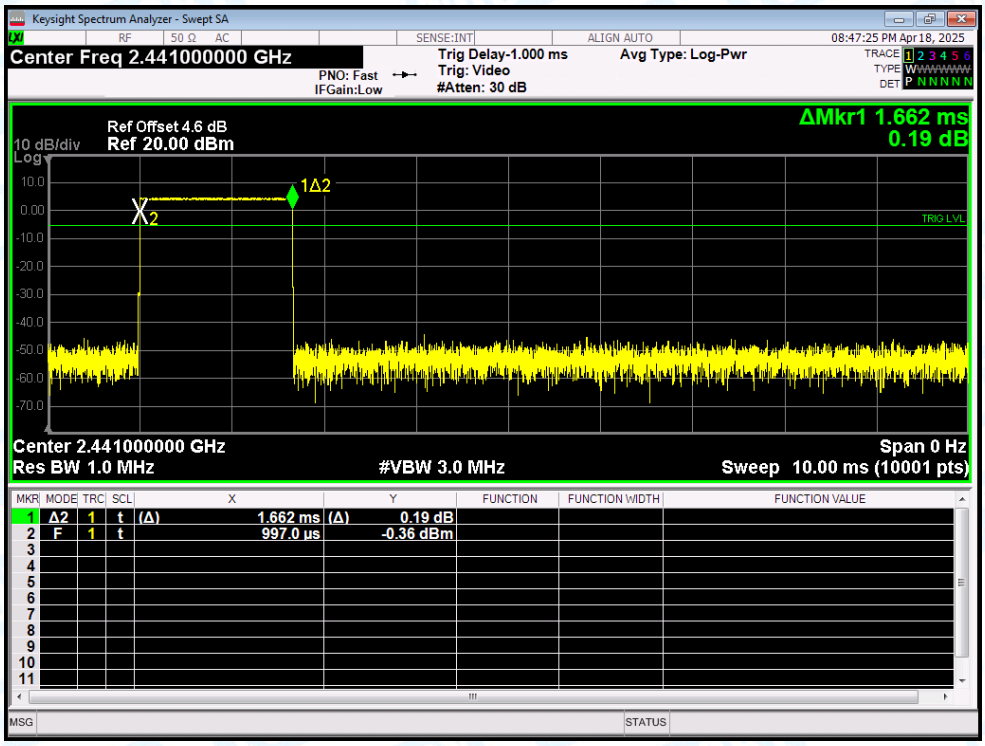
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.406	129.92	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.662	265.92	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.91	310.4	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.399	127.68	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.651	264.16	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.898	309.12	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.397	127.04	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.646	263.36	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.898	309.12	31600	400	Pass

Test Graphs

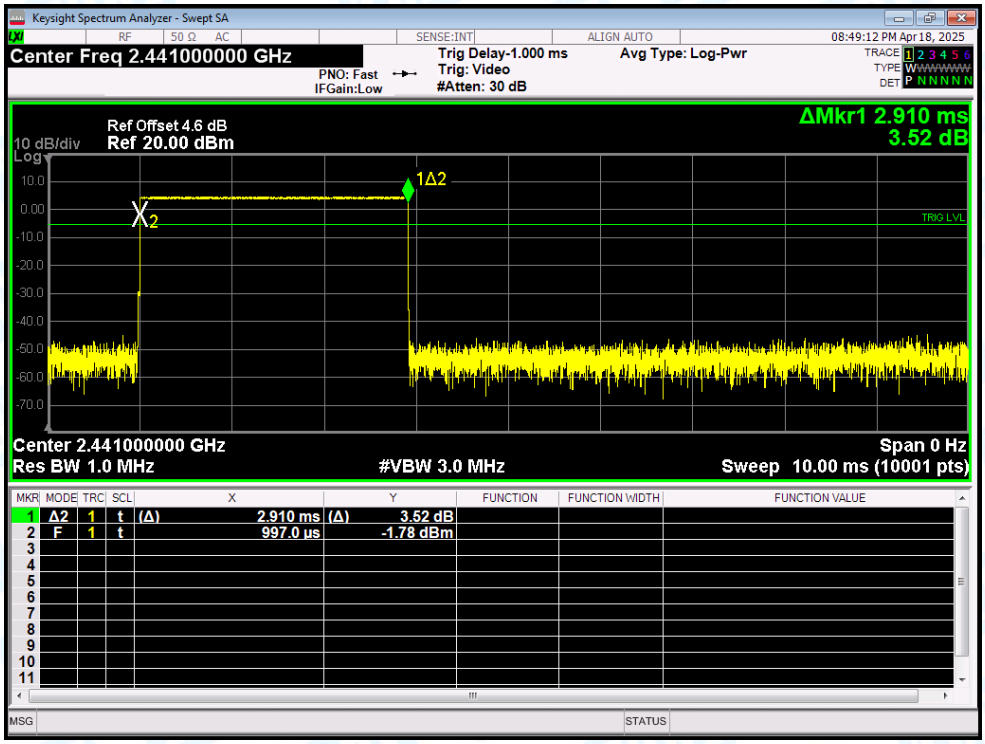
Dwell NVNT 1-DH1 2441MHz Ant1



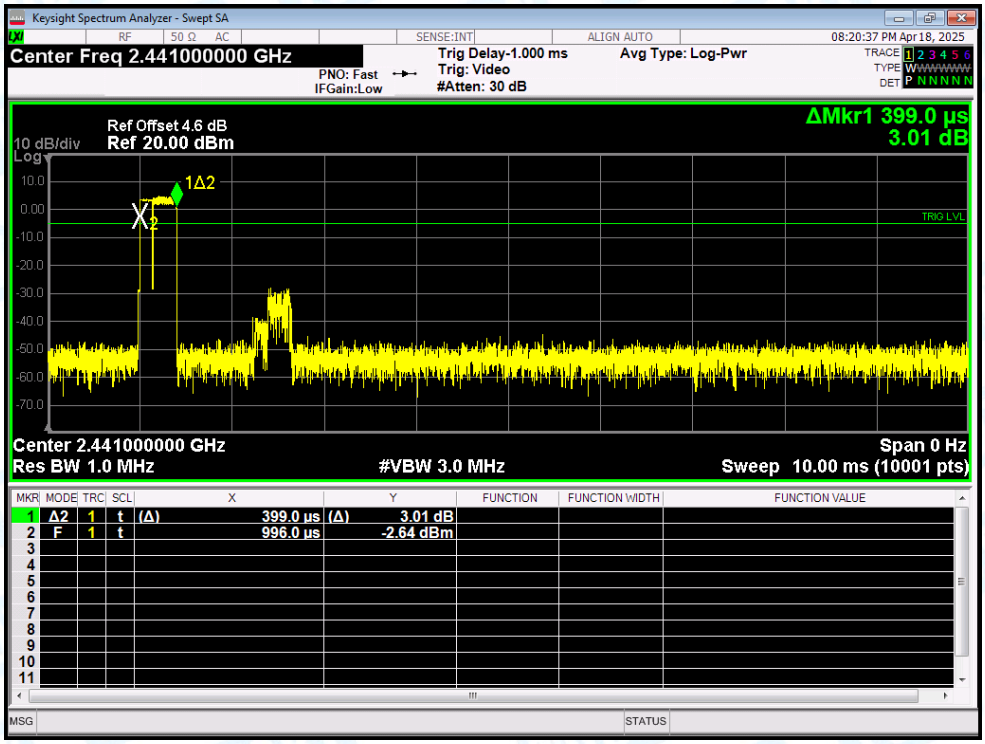
Dwell NVNT 1-DH3 2441MHz Ant1



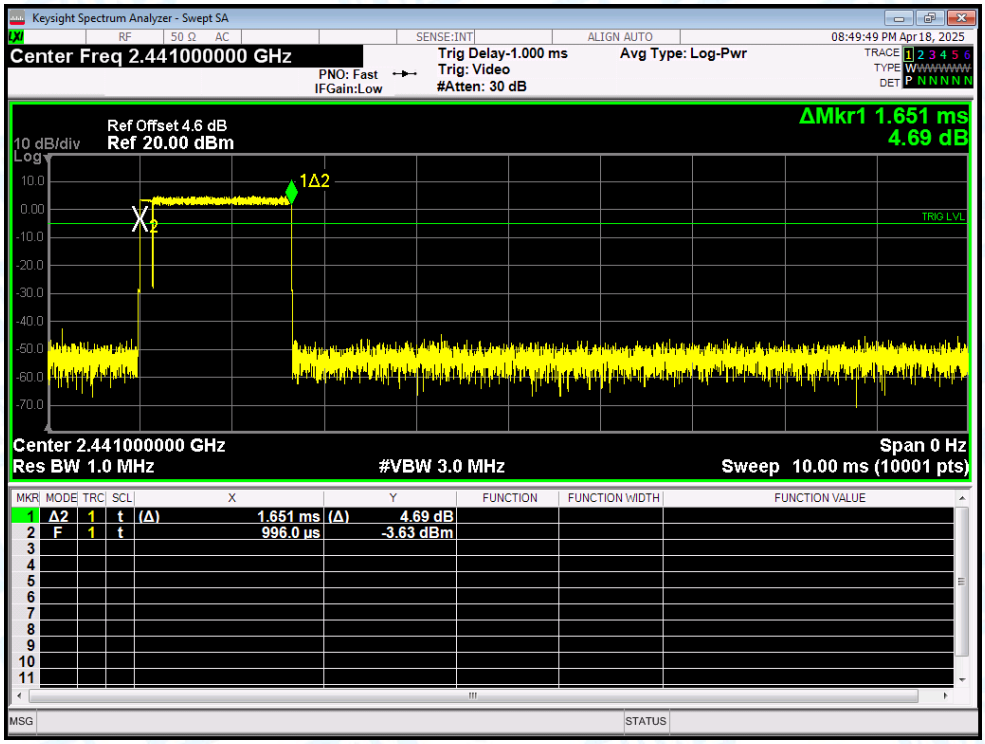
Dwell NVNT 1-DH5 2441MHz Ant1



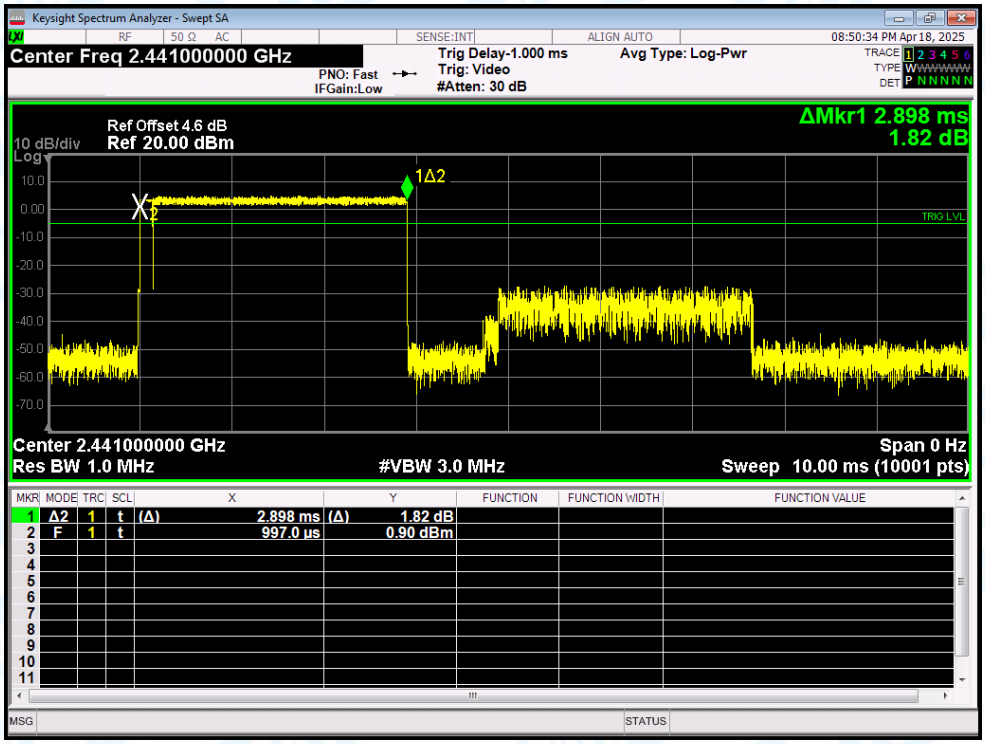
Dwell NVNT 2-DH1 2441MHz Ant1



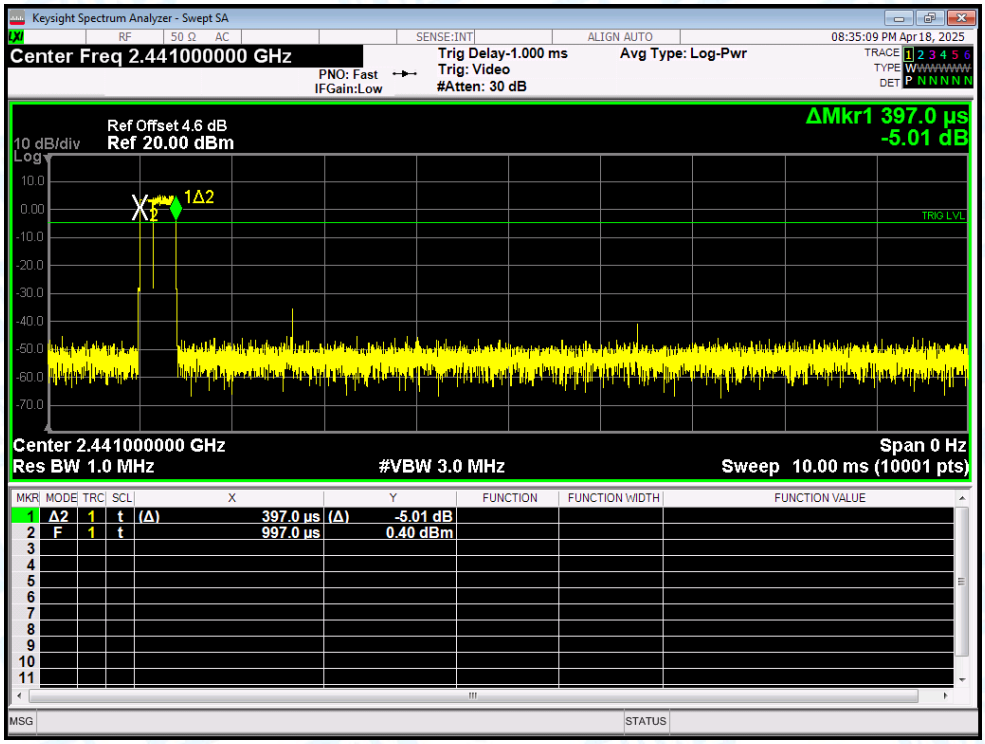
Dwell NVNT 2-DH3 2441MHz Ant1



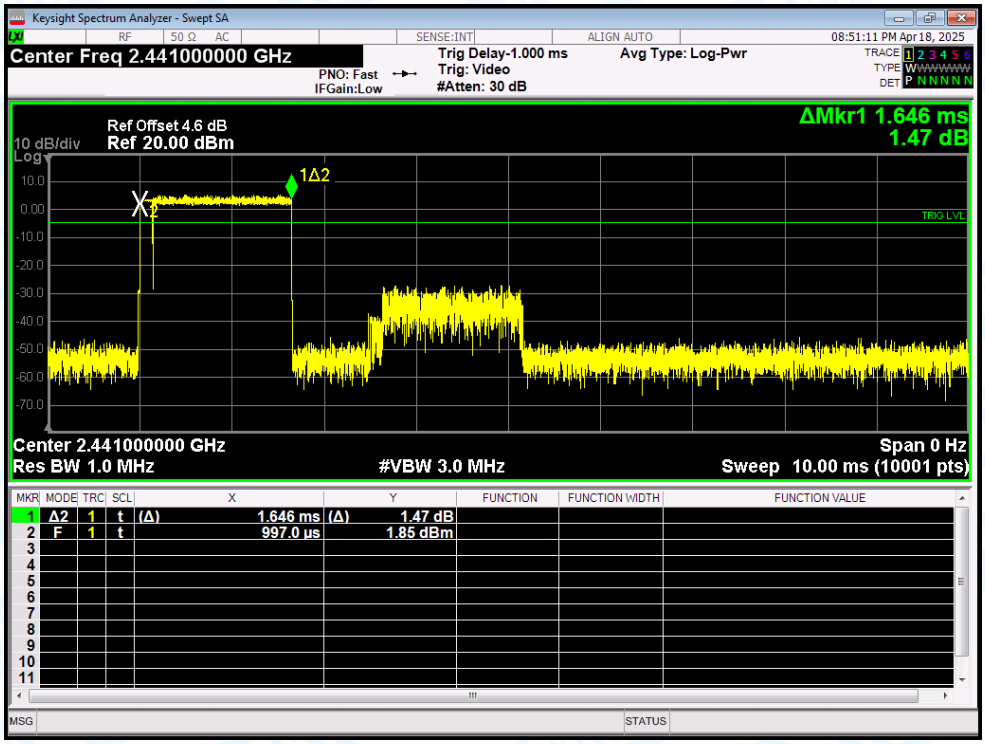
Dwell NVNT 2-DH5 2441MHz Ant1



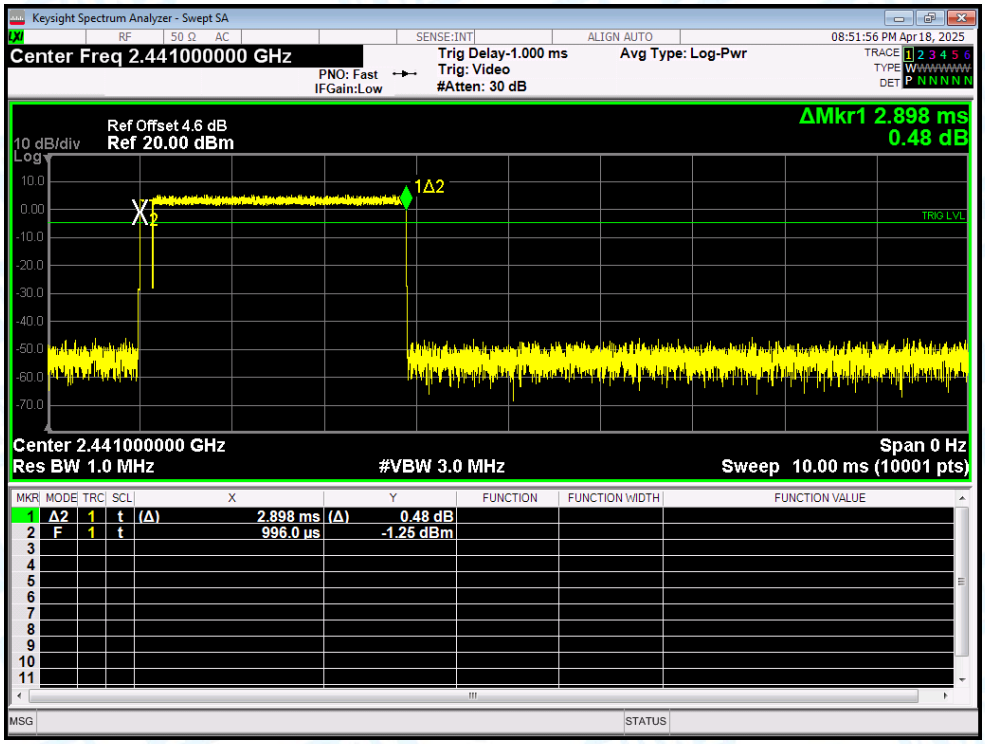
Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1



Dwell NVNT 3-DH5 2441MHz Ant1



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