

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	Mobile phone
Test Model:	RS1
Sample ID:	HC-C-202404-0014-01-02#
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 3.7V
Test Engineer:	Mike Yan
Note: For a more detailed features description, please refer to the report TBR-C-202404-0014-3 The report only show the worst case data.	

Contents

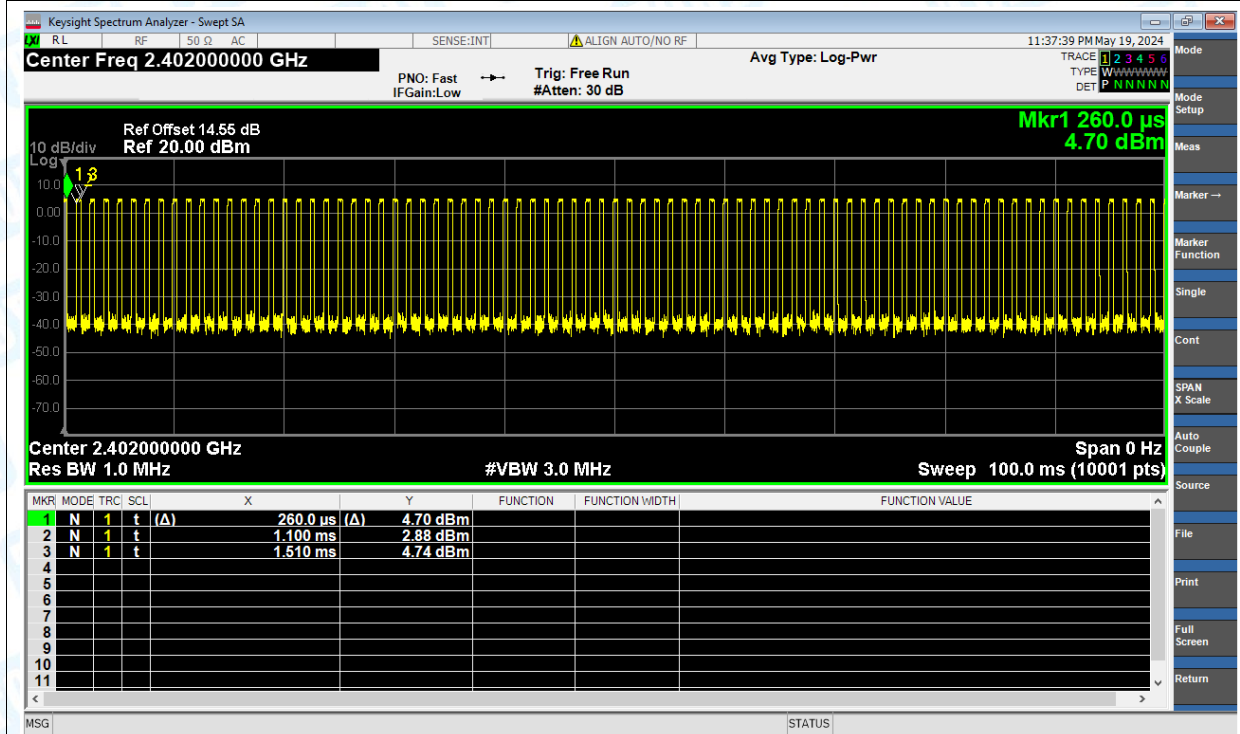
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1.Duty Cycle

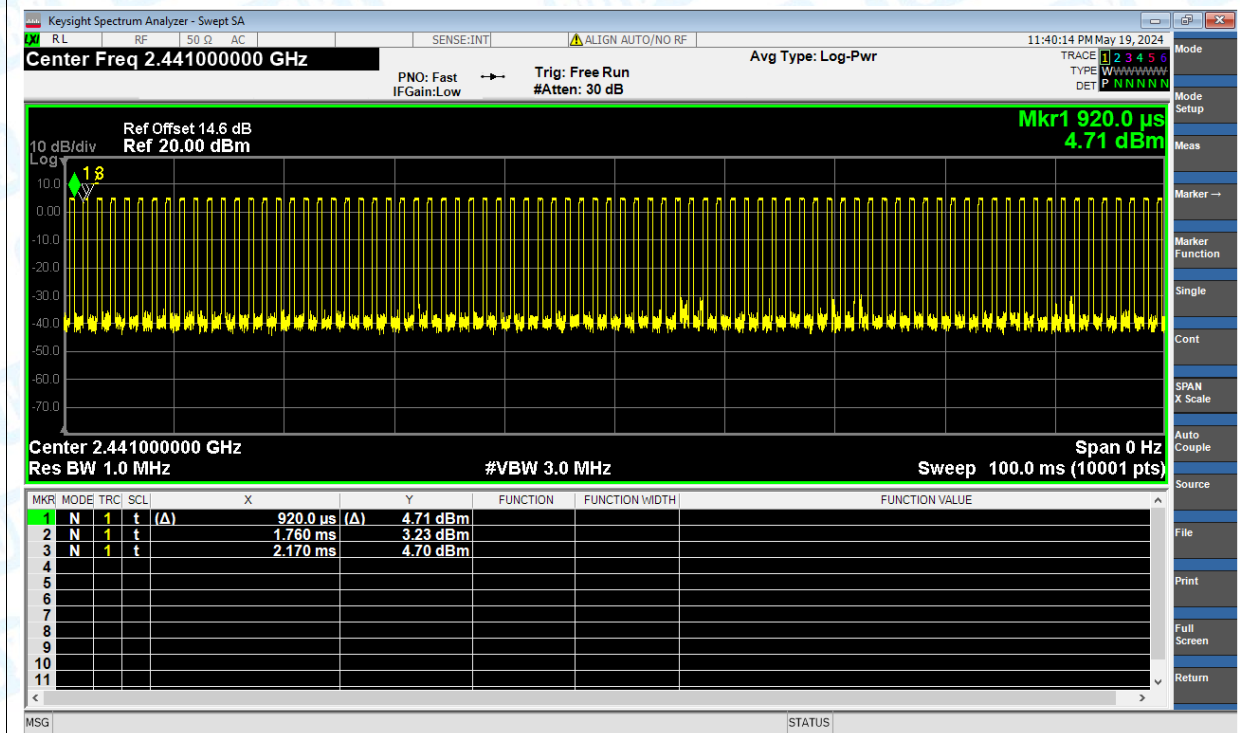
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	32.8	4.84	2.44
NVNT	1-DH1	2441	Ant1	32.8	4.84	2.44
NVNT	1-DH1	2480	Ant1	33.6	4.74	2.38
NVNT	2-DH1	2402	Ant1	34.4	4.63	2.33
NVNT	2-DH1	2441	Ant1	34.4	4.63	2.33
NVNT	2-DH1	2480	Ant1	33.6	4.74	2.38
NVNT	3-DH1	2402	Ant1	34.4	4.63	2.33
NVNT	3-DH1	2441	Ant1	33.6	4.74	2.38
NVNT	3-DH1	2480	Ant1	34.4	4.63	2.33

Test Graphs

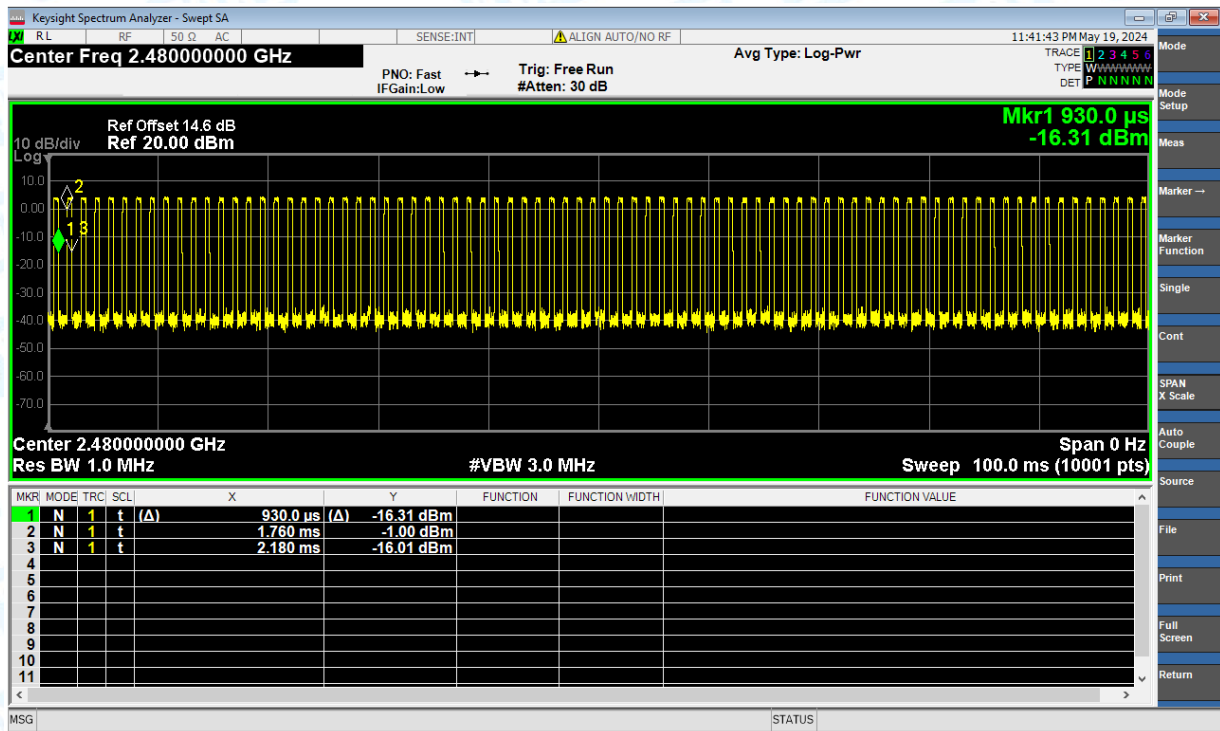
Duty Cycle NVNT 1-DH1 2402MHz Ant1



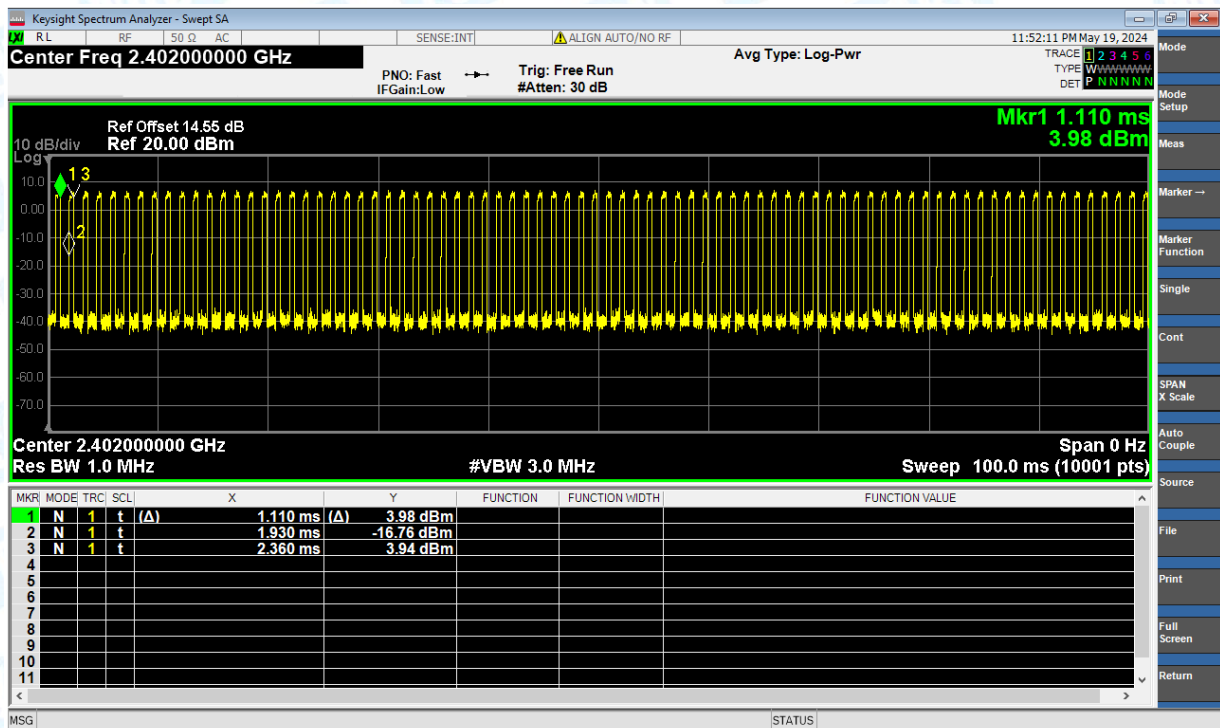
Duty Cycle NVNT 1-DH1 2441MHz Ant1



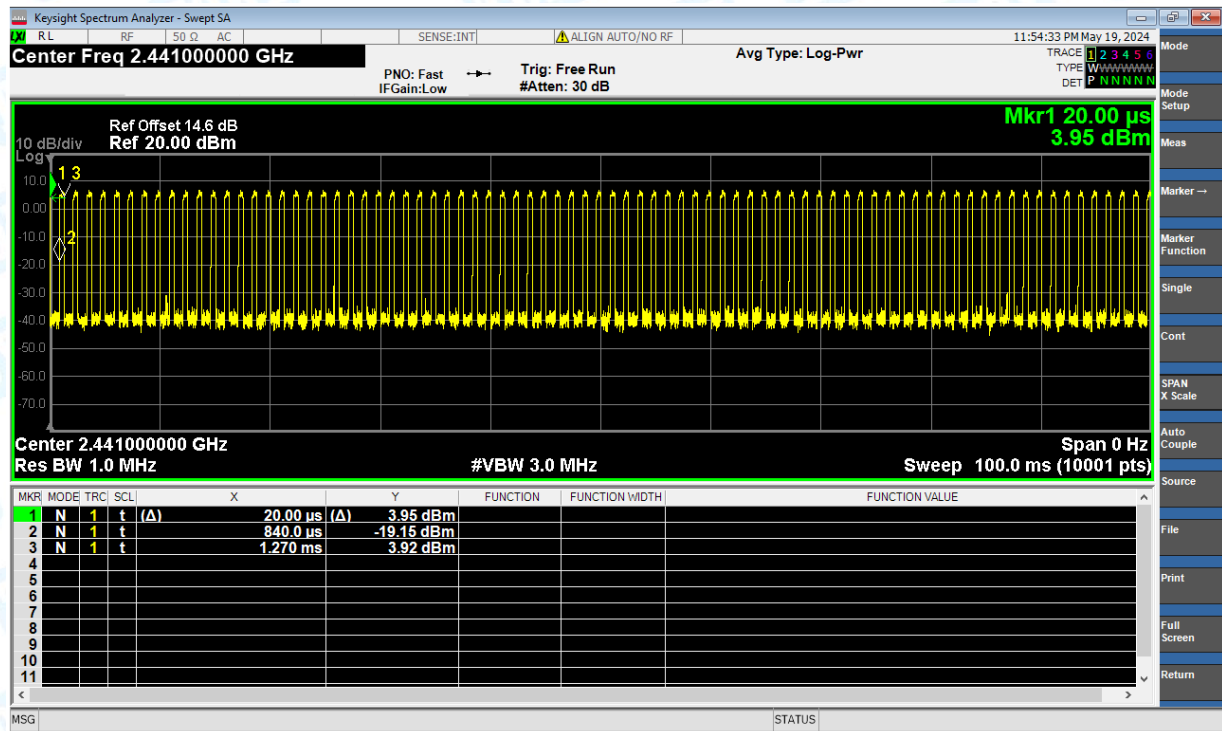
Duty Cycle NVNT 1-DH1 2480MHz Ant1



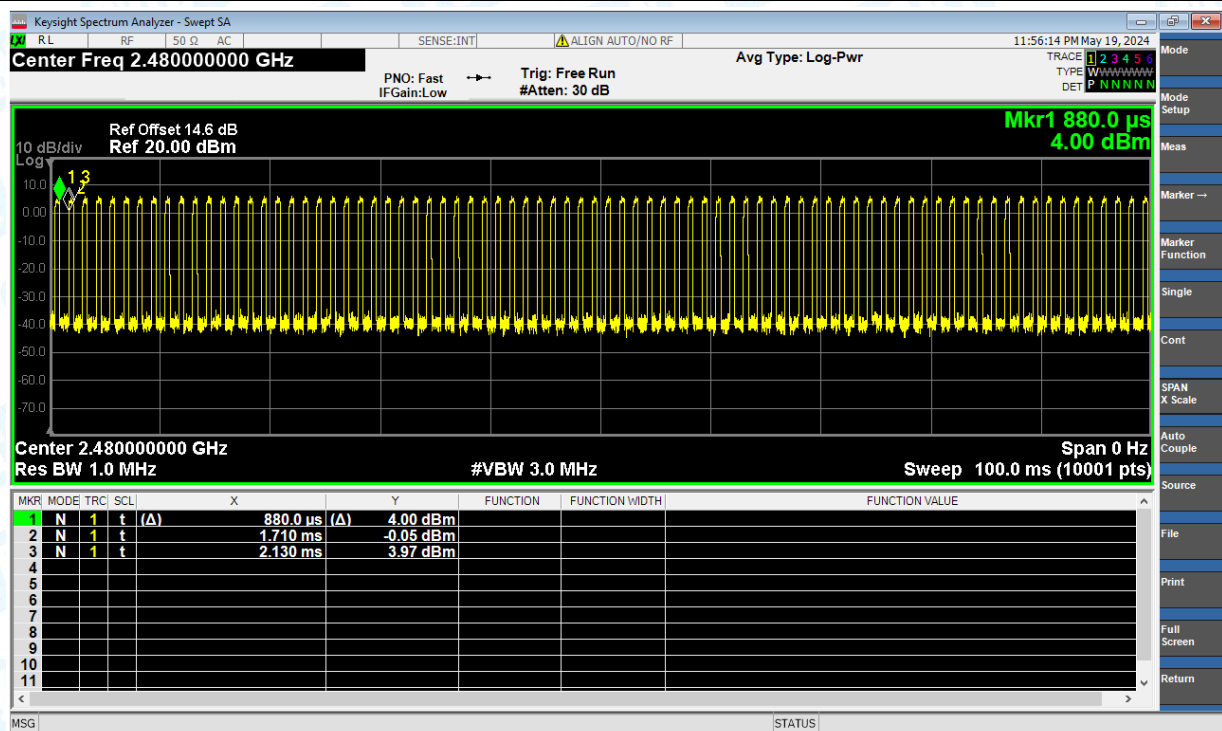
Duty Cycle NVNT 2-DH1 2402MHz Ant1



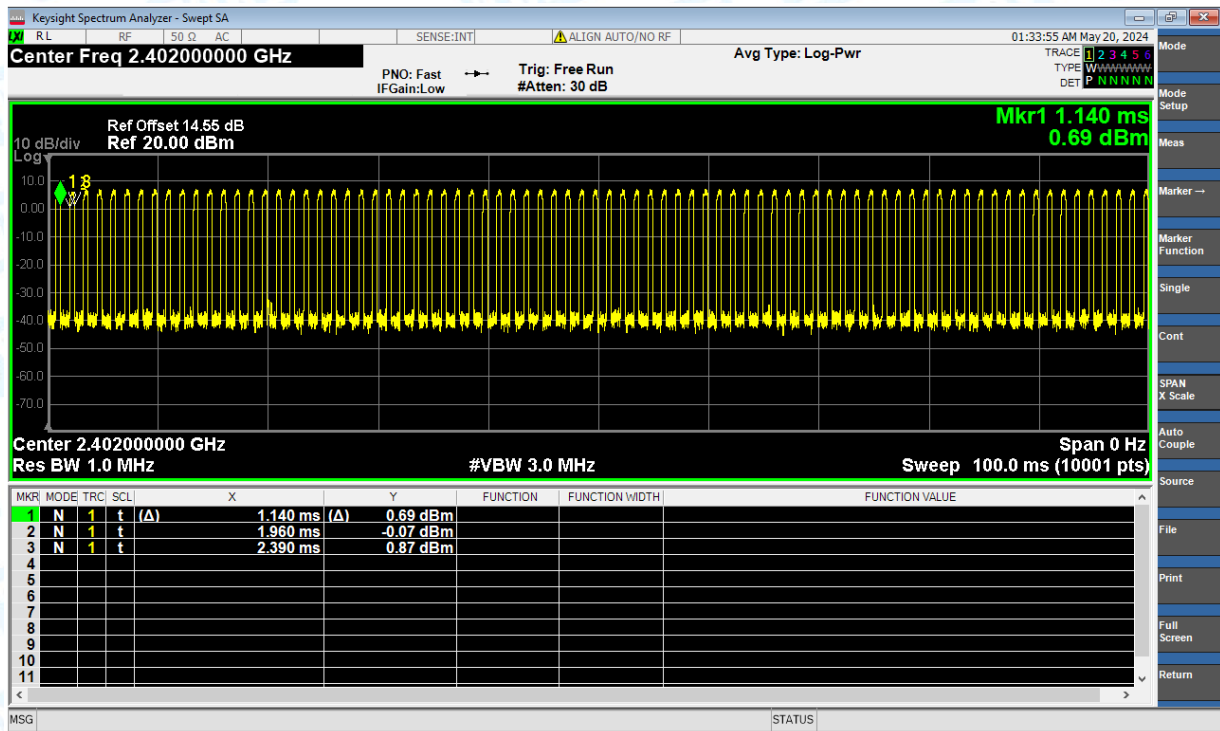
Duty Cycle NVNT 2-DH1 2441MHz Ant1



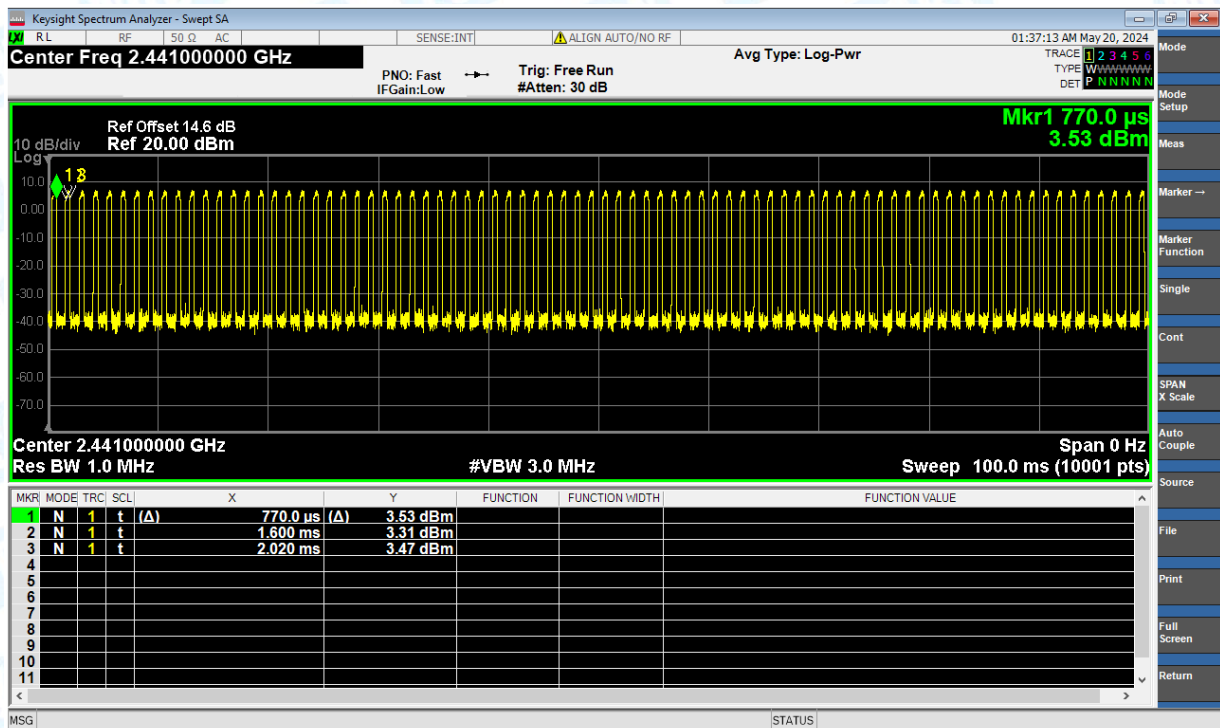
Duty Cycle NVNT 2-DH1 2480MHz Ant1

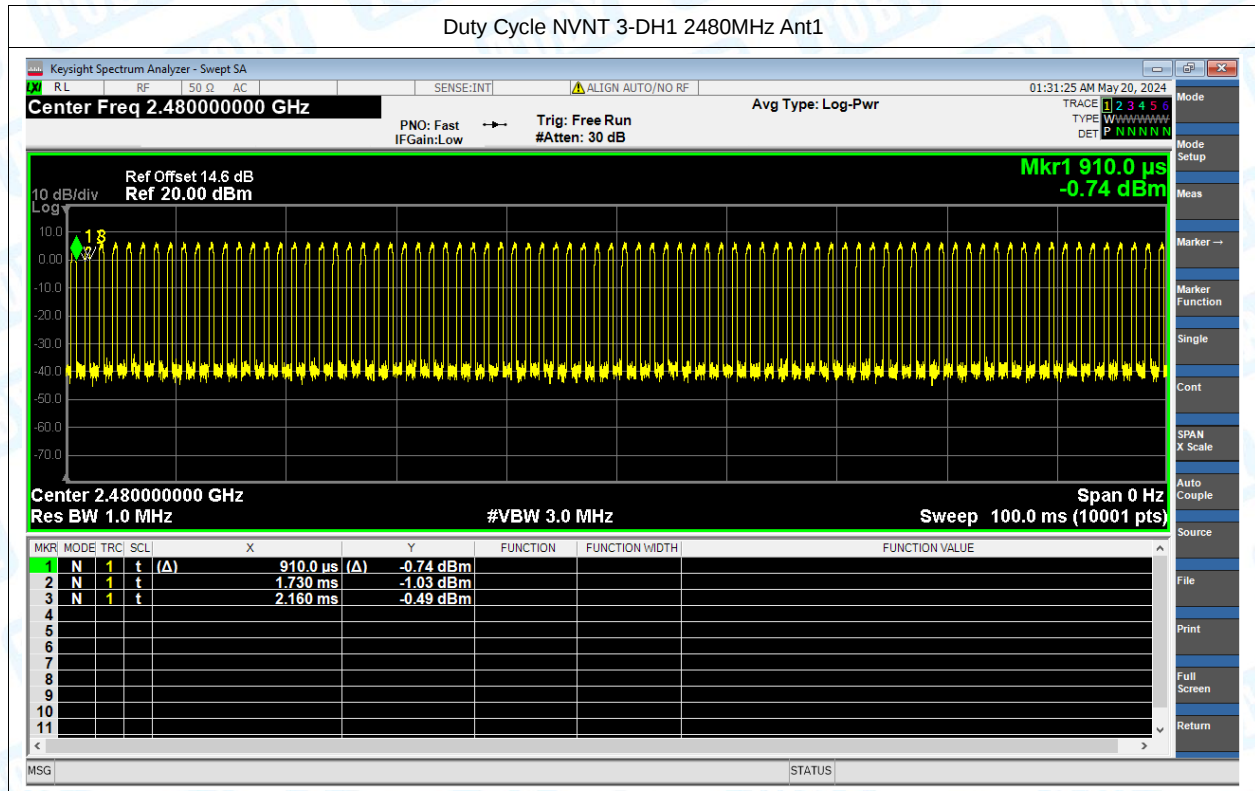


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1





2.Maximum Conducted Output Power

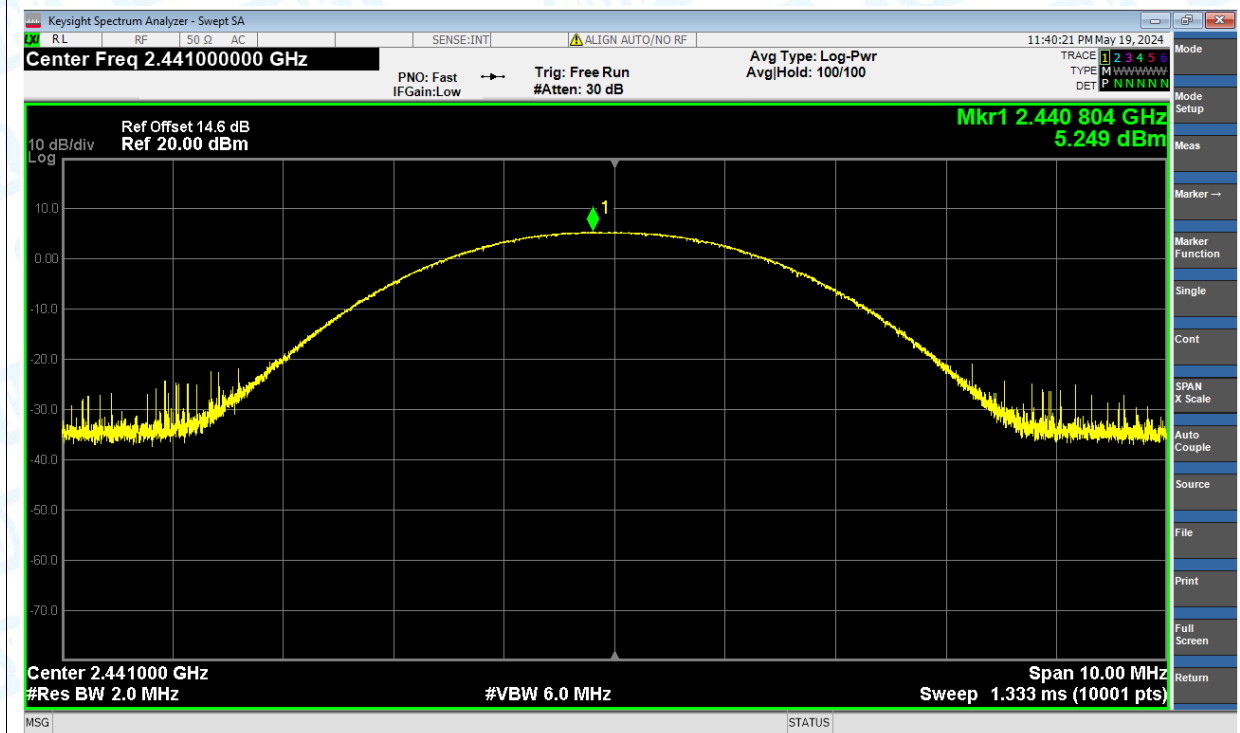
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	5.221	21	Pass
NVNT	1-DH1	2441	Ant1	5.249	21	Pass
NVNT	1-DH1	2480	Ant1	4.275	21	Pass
NVNT	2-DH1	2402	Ant1	4.681	21	Pass
NVNT	2-DH1	2441	Ant1	4.126	21	Pass
NVNT	2-DH1	2480	Ant1	6.323	21	Pass
NVNT	3-DH1	2402	Ant1	4.627	21	Pass
NVNT	3-DH1	2441	Ant1	4.073	21	Pass
NVNT	3-DH1	2480	Ant1	5.15	21	Pass

Test Graphs

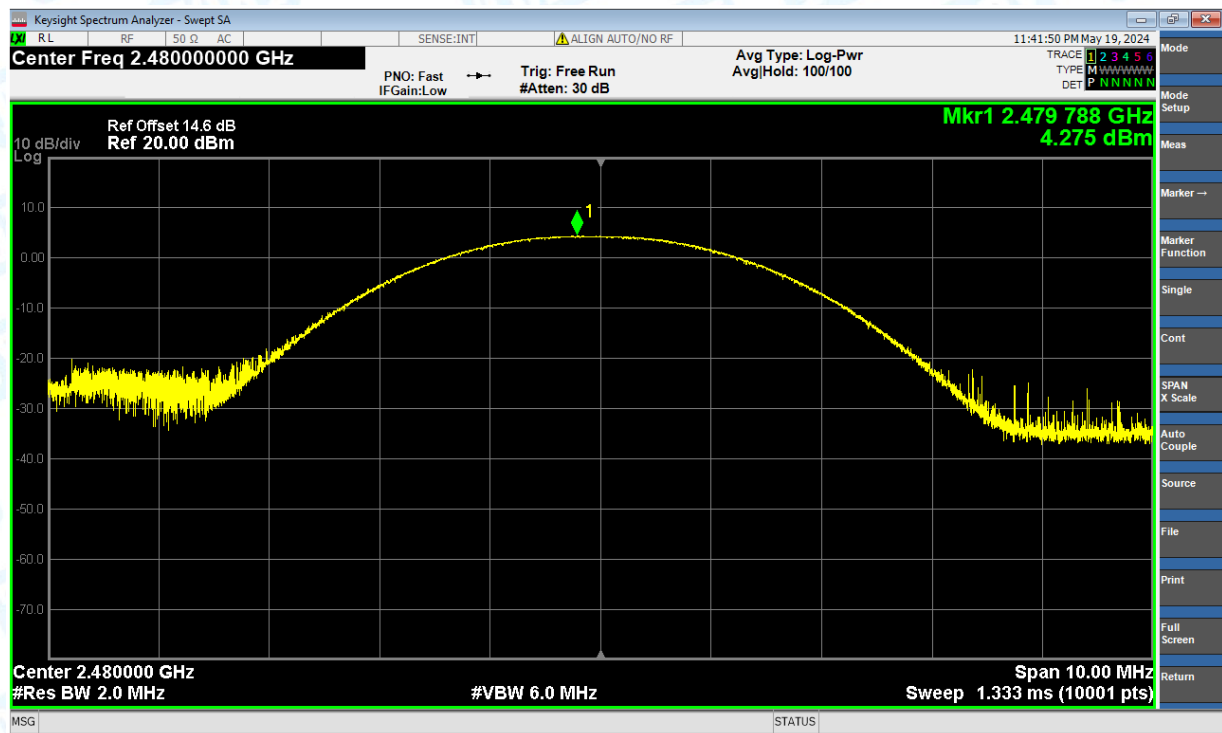
Power NVNT 1-DH1 2402MHz Ant1



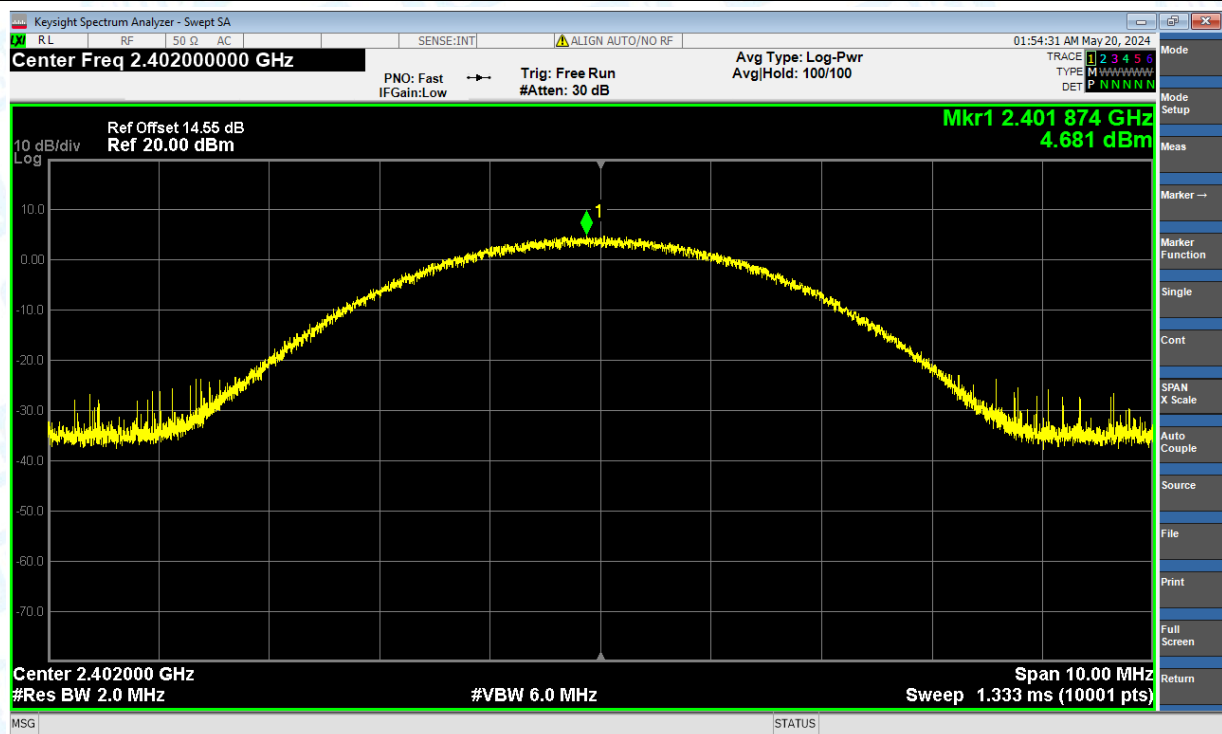
Power NVNT 1-DH1 2441MHz Ant1



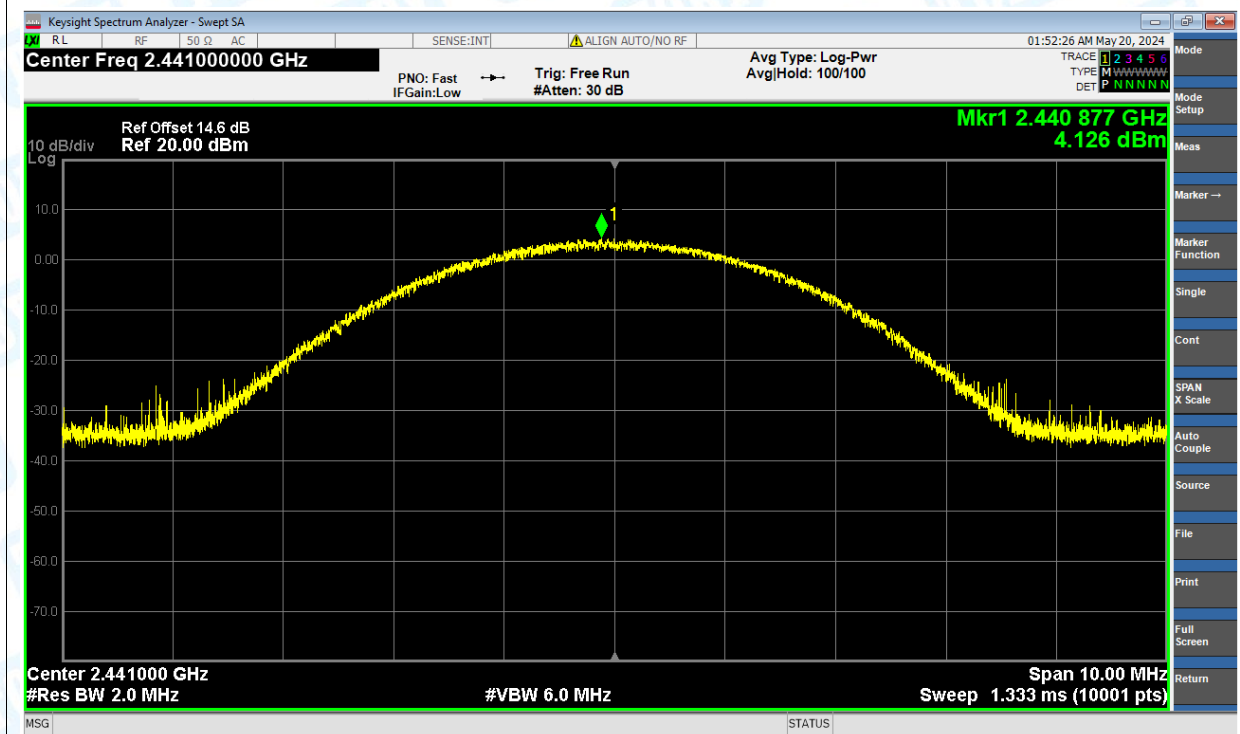
Power NVNT 1-DH1 2480MHz Ant1



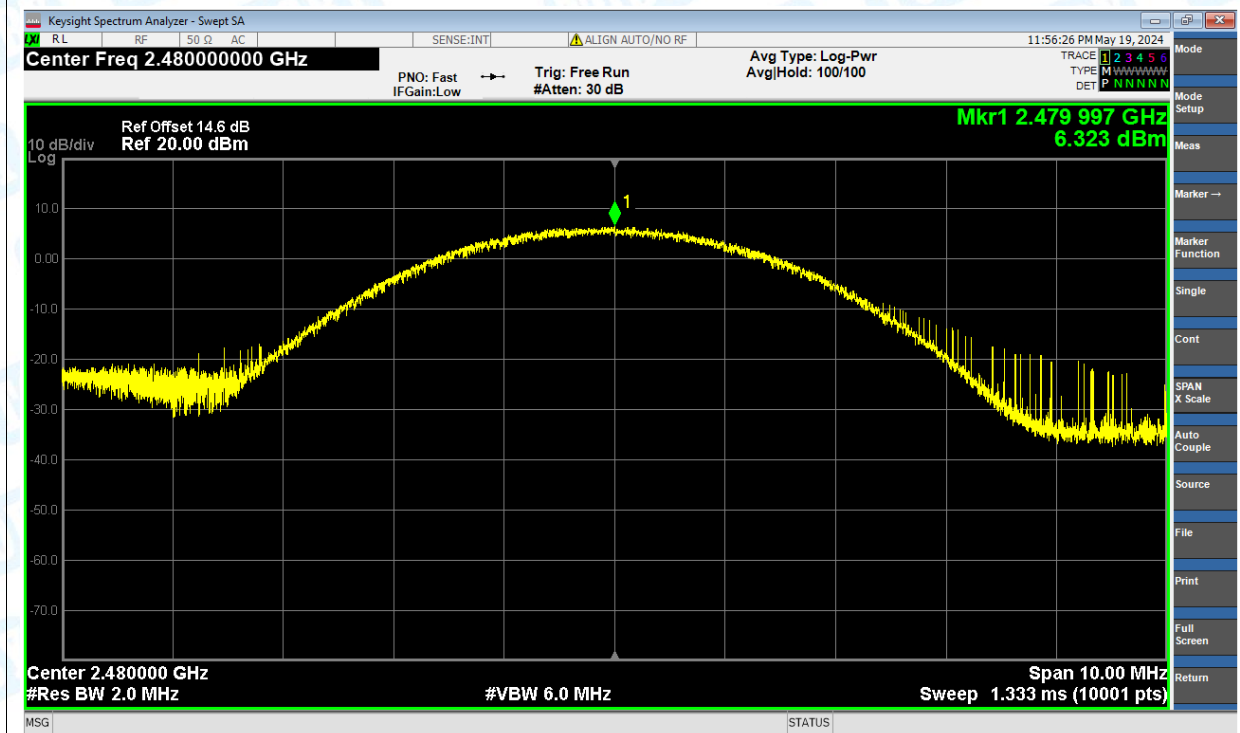
Power NVNT 2-DH1 2402MHz Ant1



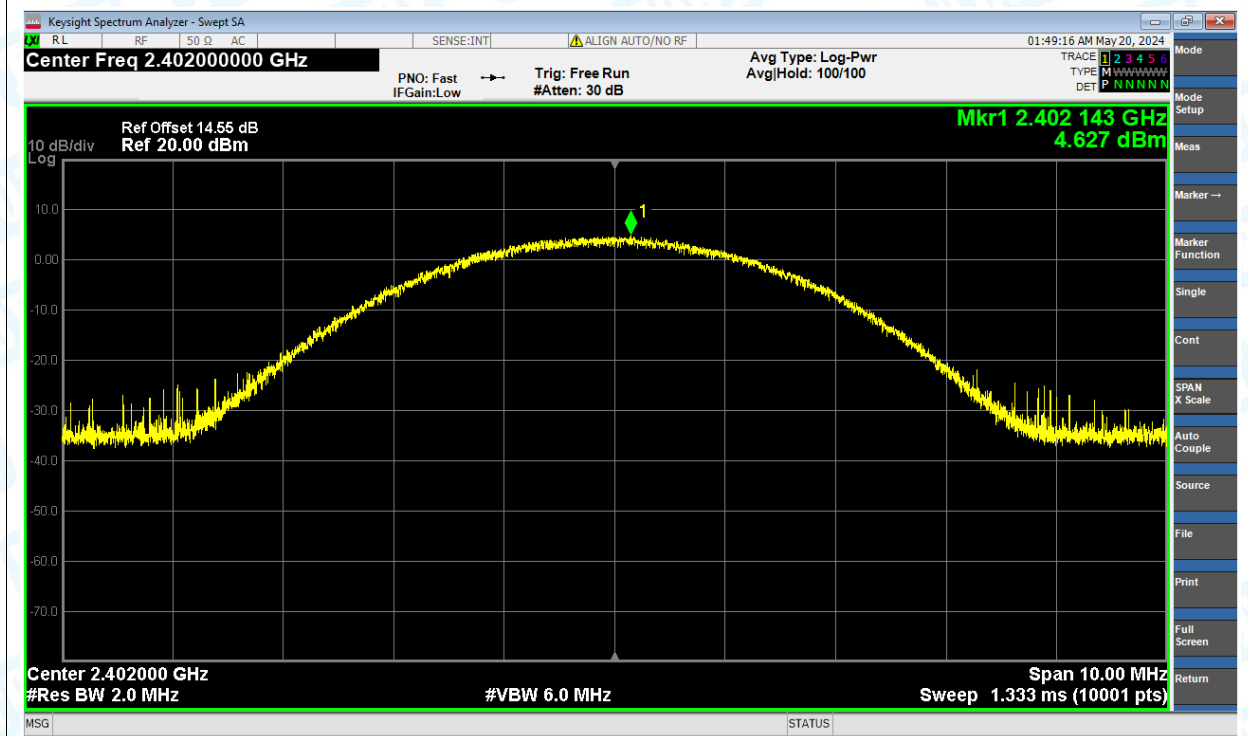
Power NVNT 2-DH1 2441MHz Ant1



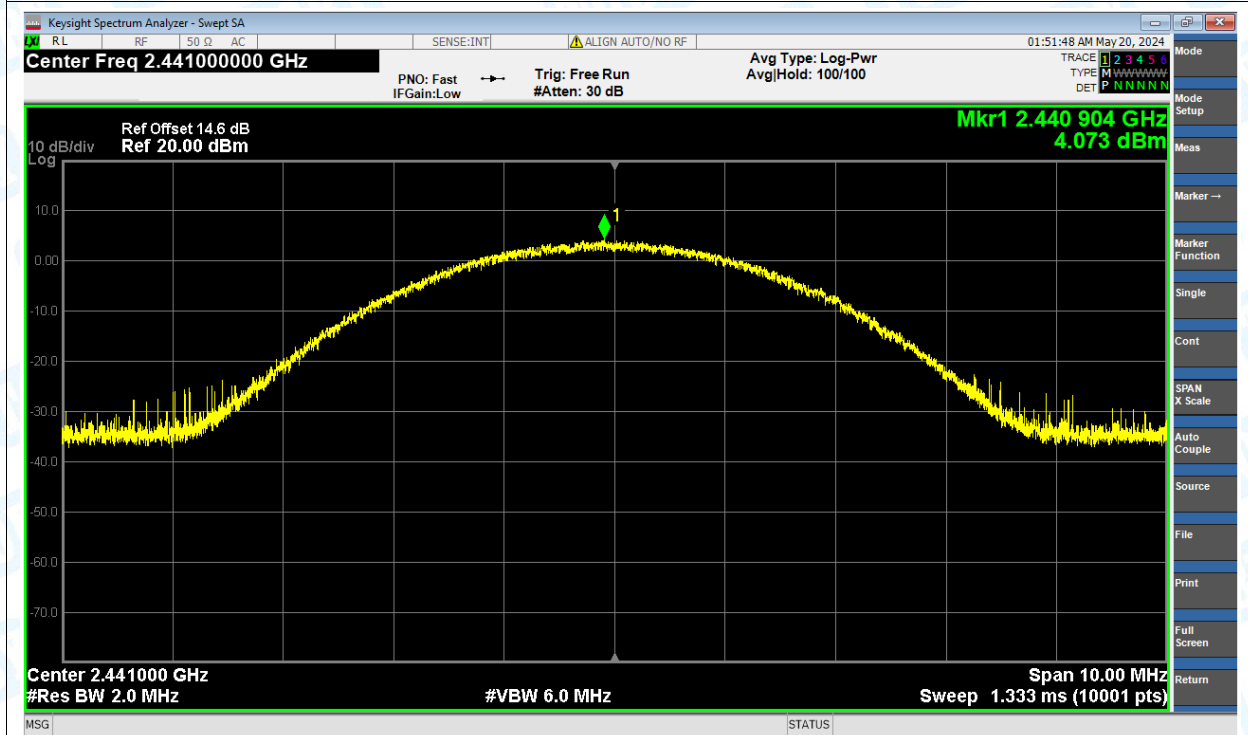
Power NVNT 2-DH1 2480MHz Ant1

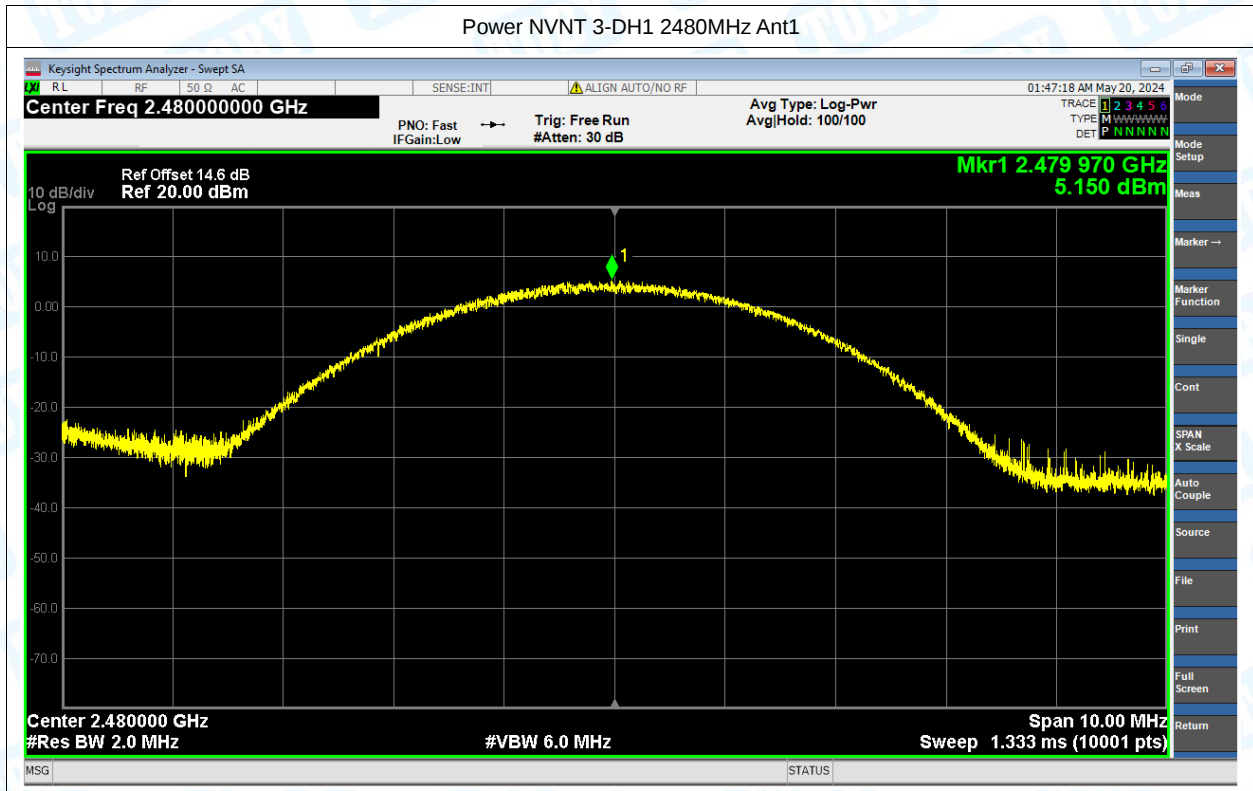


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



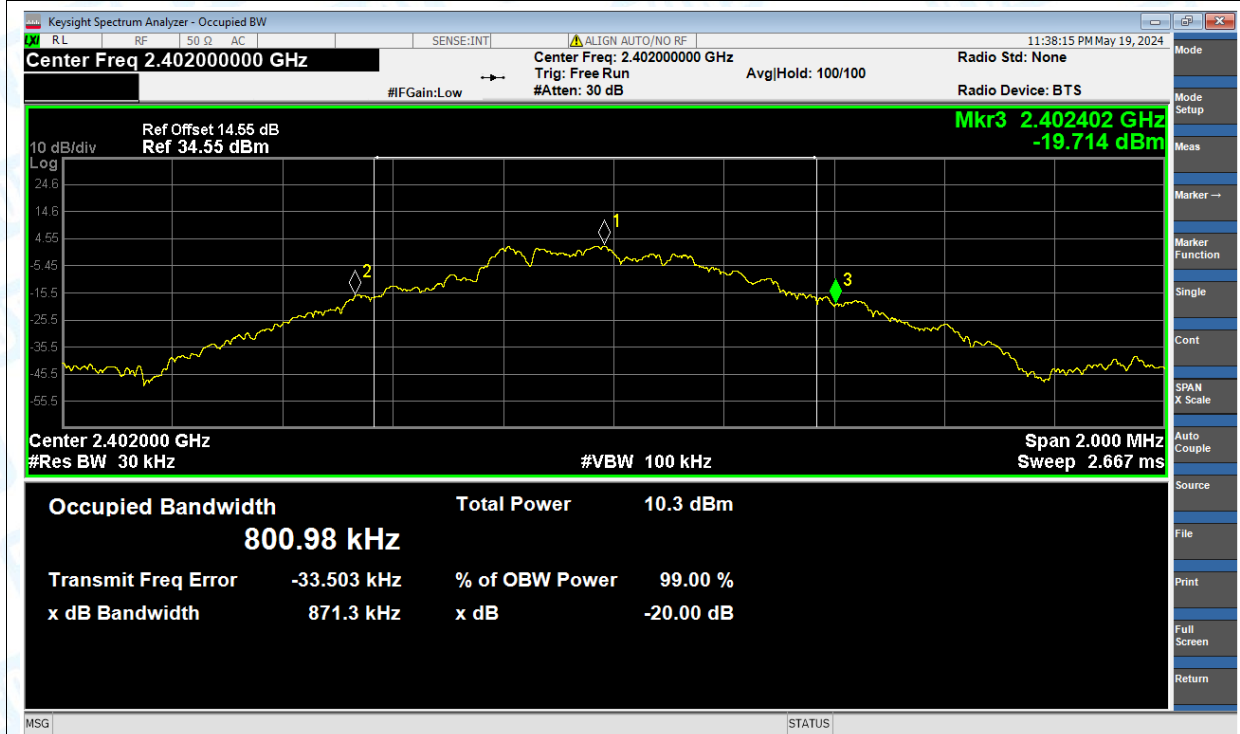


3.-20dB Bandwidth

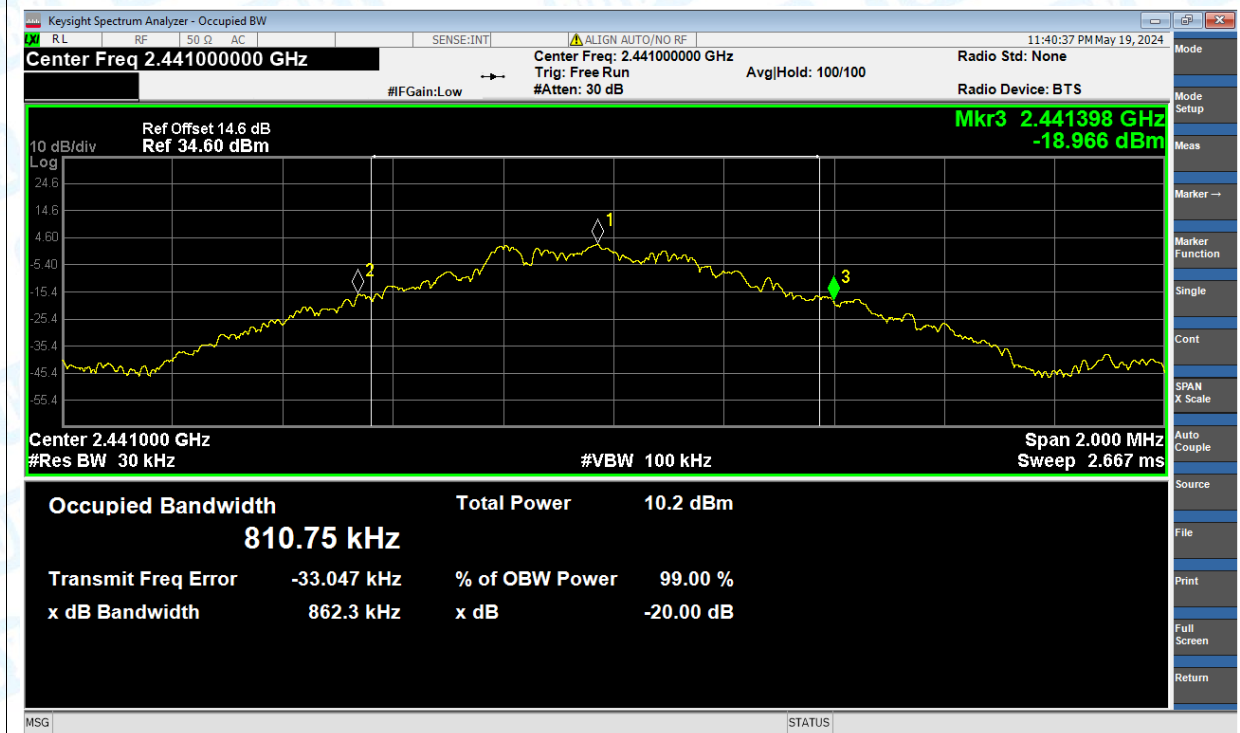
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.87	0	Pass
NVNT	1-DH1	2441	Ant1	0.86	0	Pass
NVNT	1-DH1	2480	Ant1	0.86	0	Pass
NVNT	2-DH1	2402	Ant1	1.27	0	Pass
NVNT	2-DH1	2441	Ant1	1.25	0	Pass
NVNT	2-DH1	2480	Ant1	1.26	0	Pass
NVNT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

Test Graphs

-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



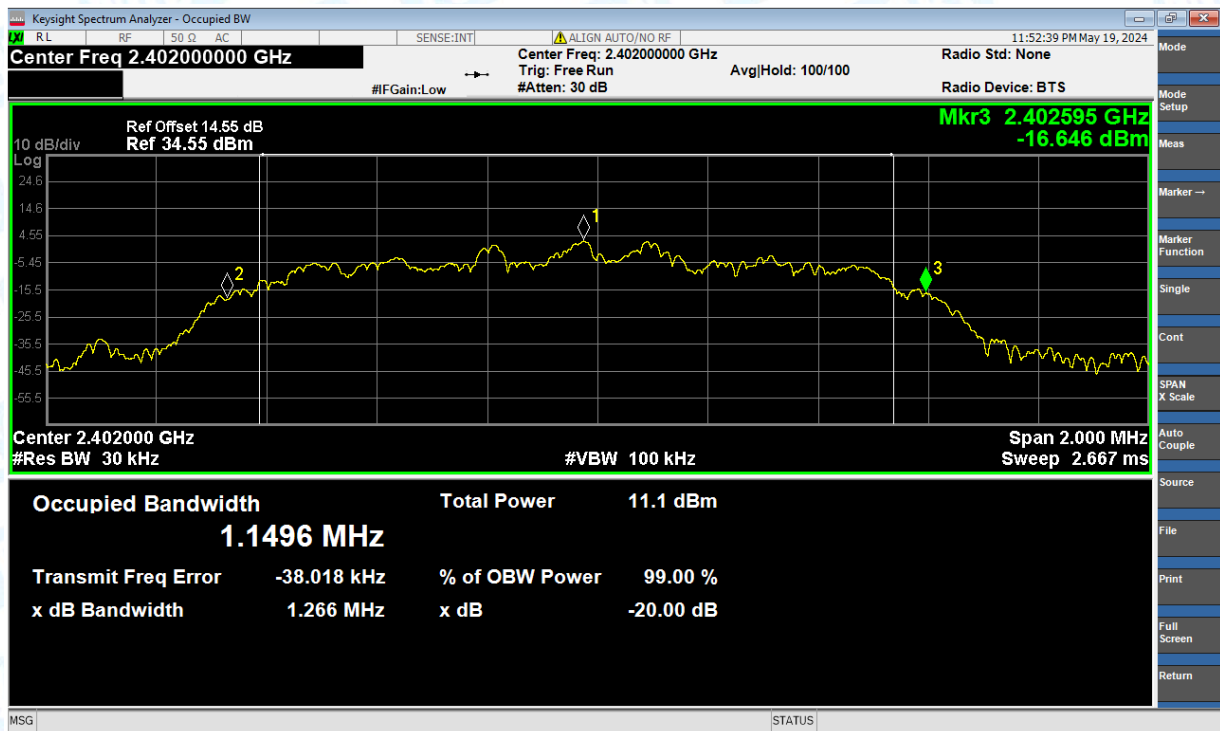
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



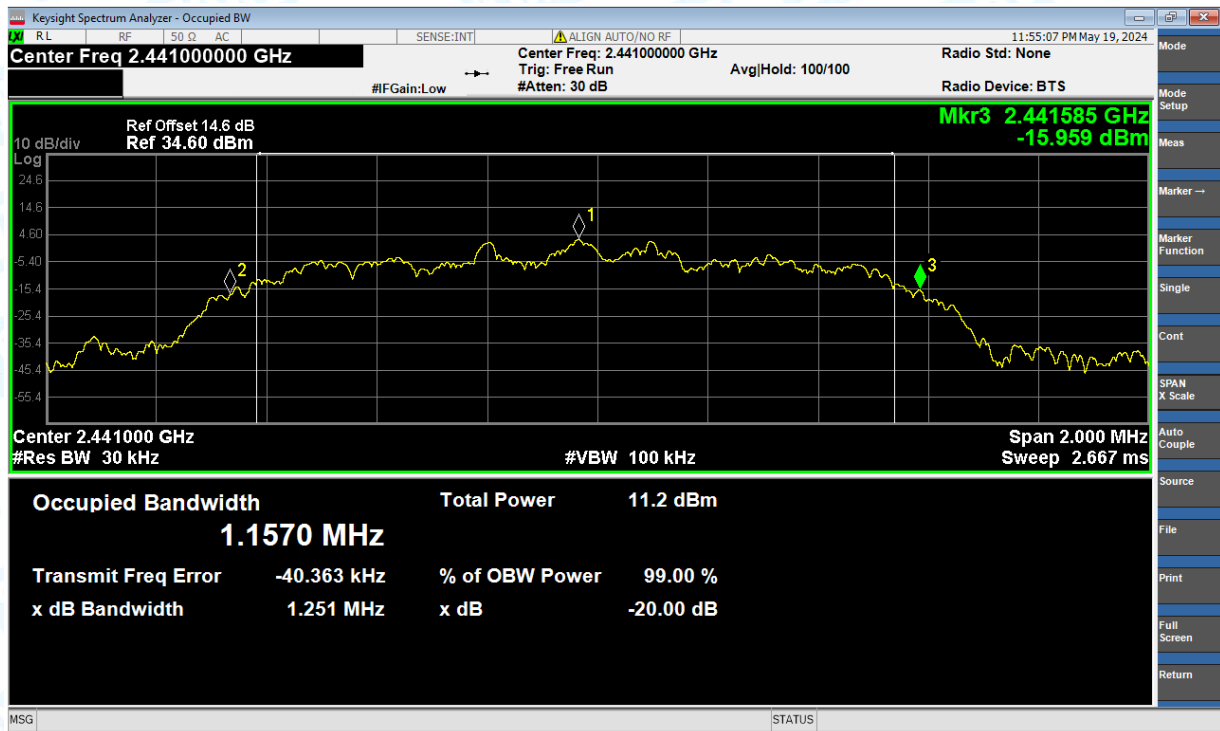
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



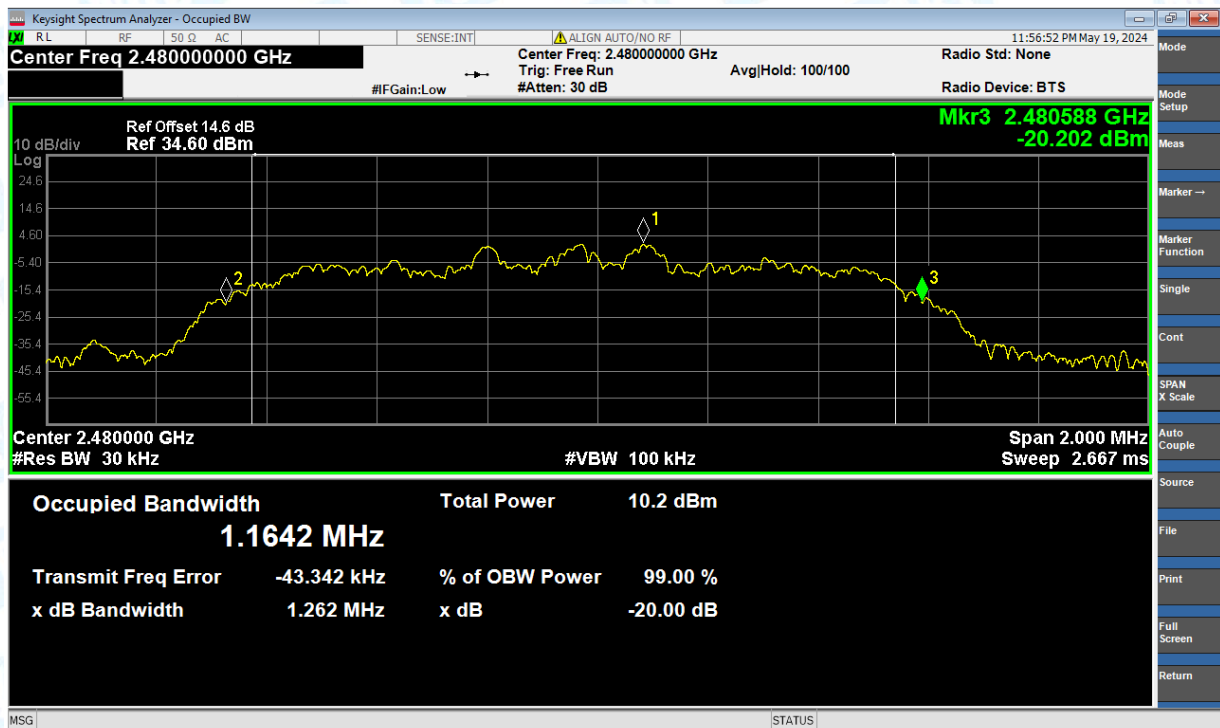
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



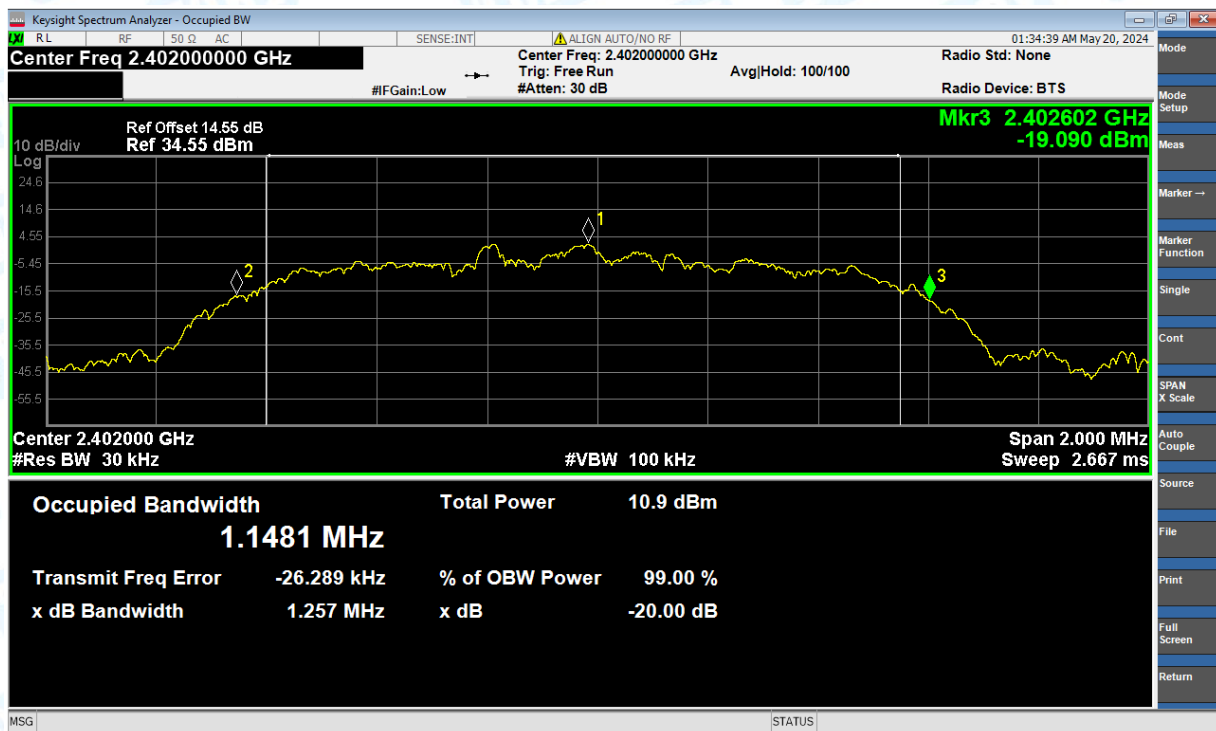
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



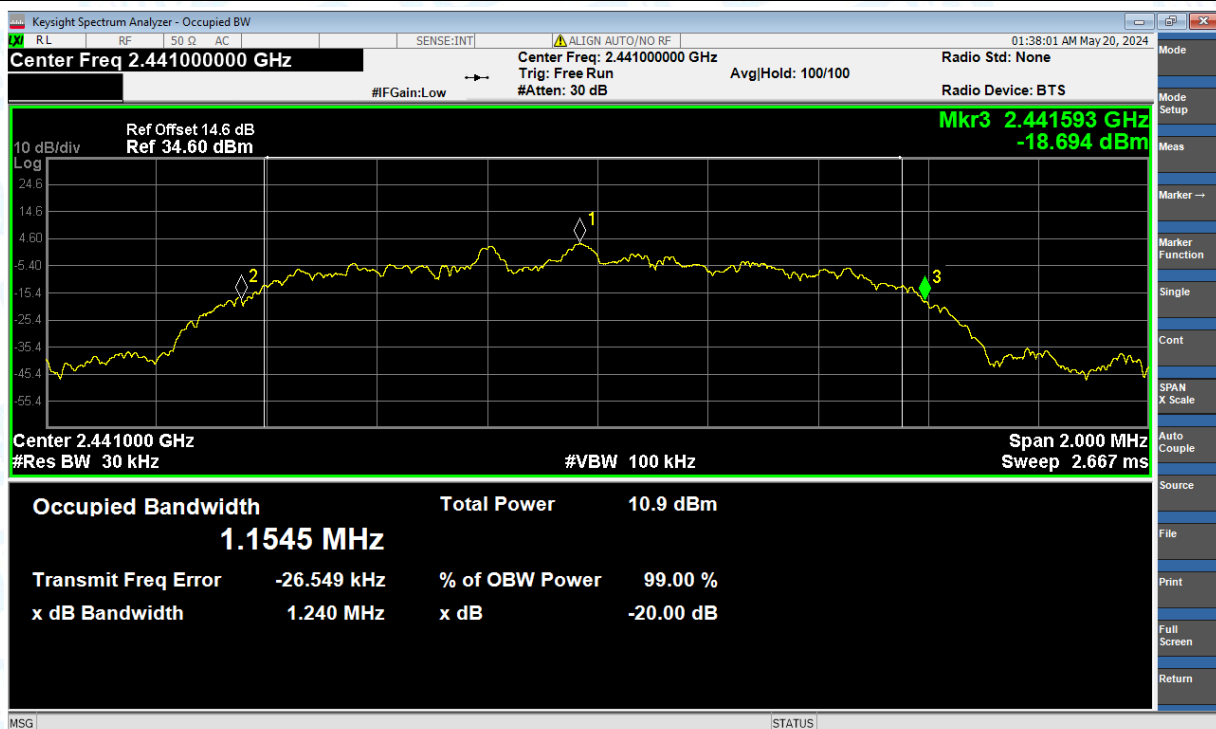
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

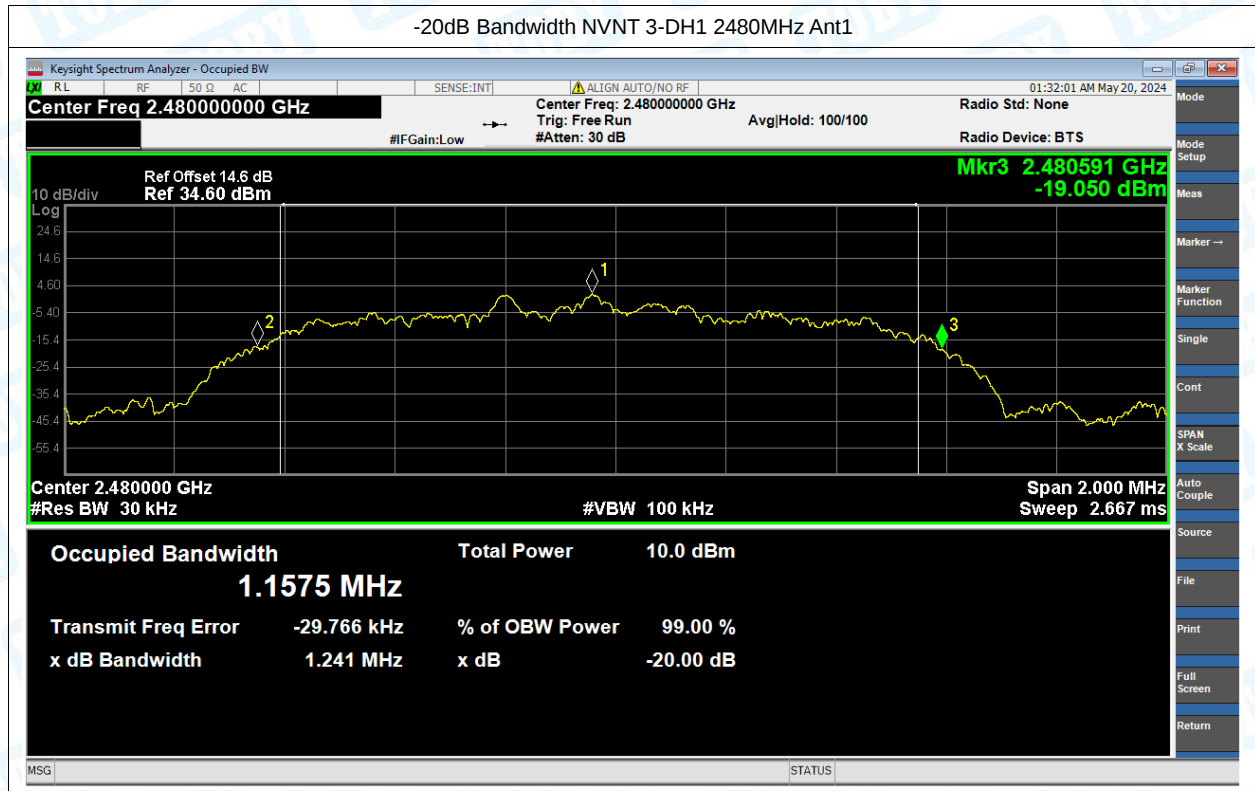


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



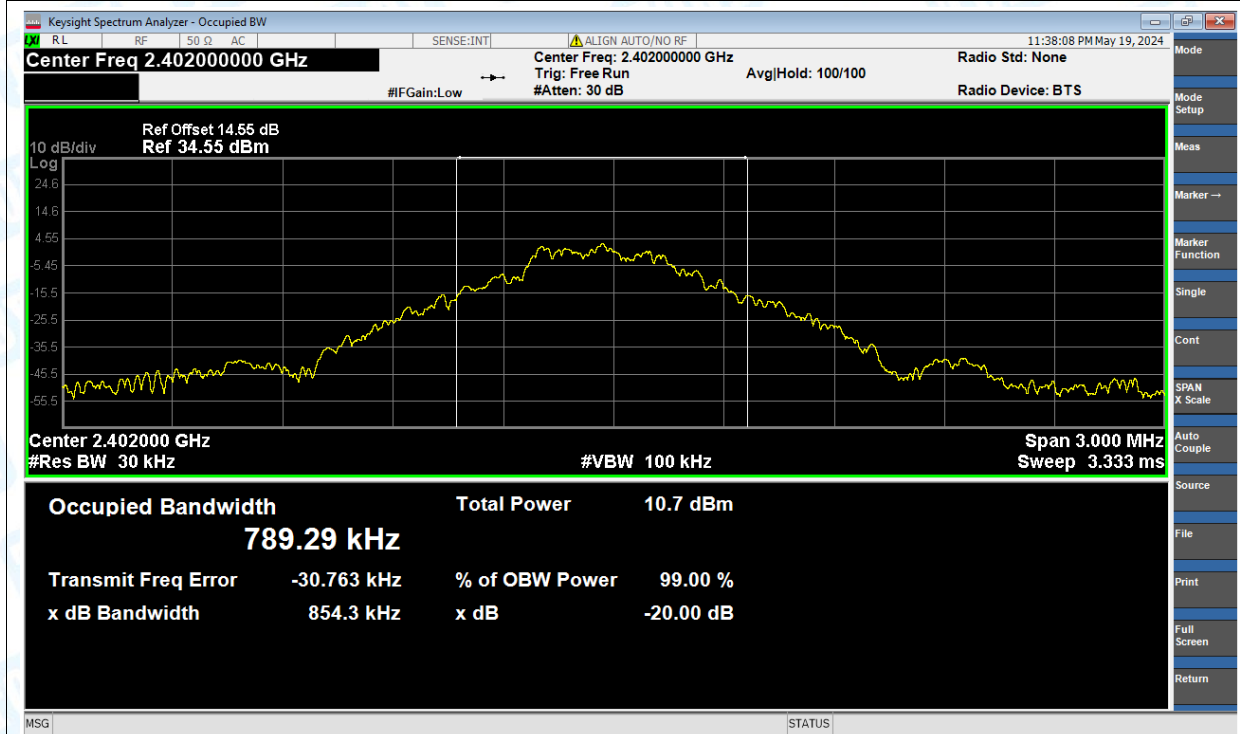


4.Occupied Channel Bandwidth

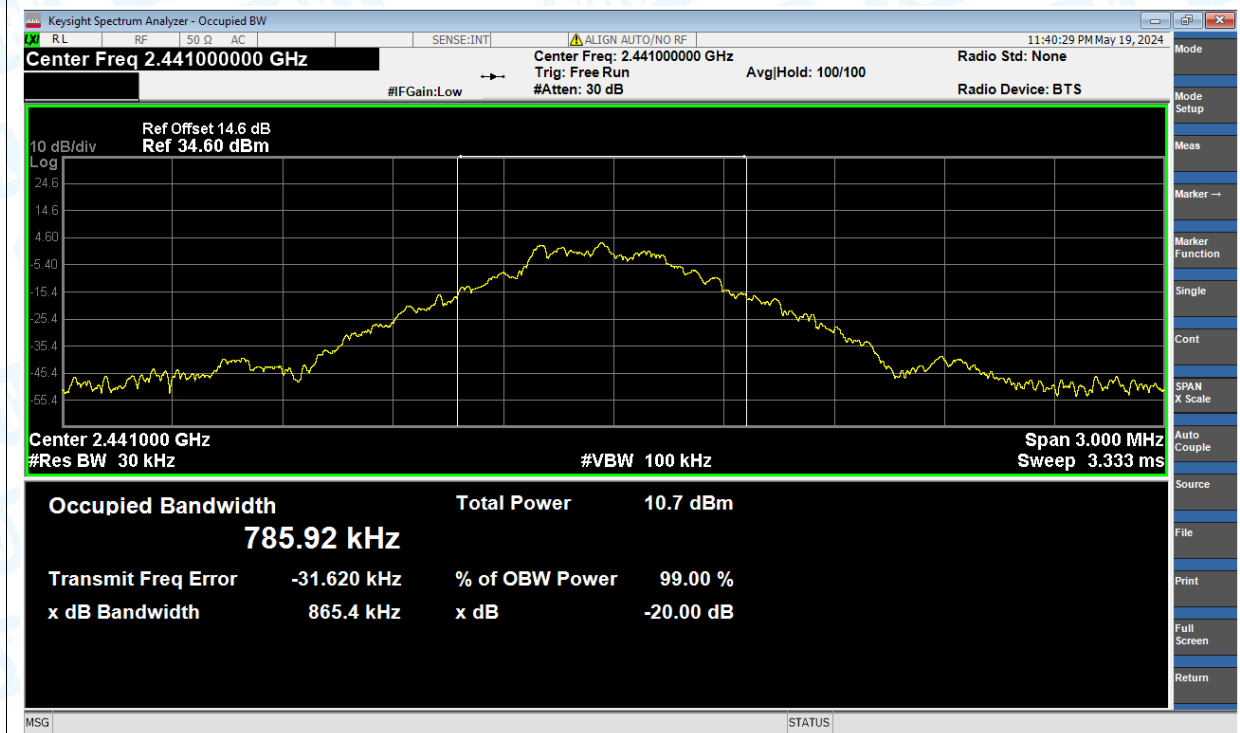
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.789
NVNT	1-DH1	2441	Ant1	0.786
NVNT	1-DH1	2480	Ant1	0.813
NVNT	2-DH1	2402	Ant1	1.165
NVNT	2-DH1	2441	Ant1	1.18
NVNT	2-DH1	2480	Ant1	1.157
NVNT	3-DH1	2402	Ant1	1.152
NVNT	3-DH1	2441	Ant1	1.153
NVNT	3-DH1	2480	Ant1	1.159

Test Graphs

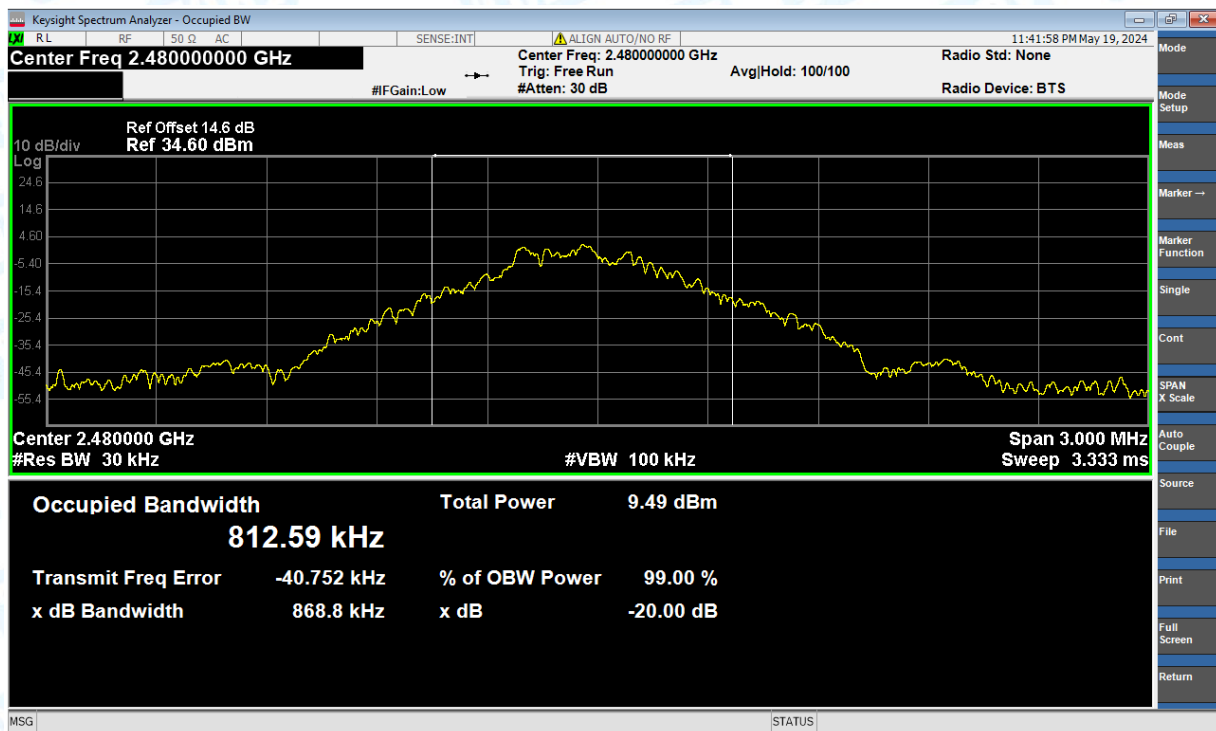
OBW NVNT 1-DH1 2402MHz Ant1



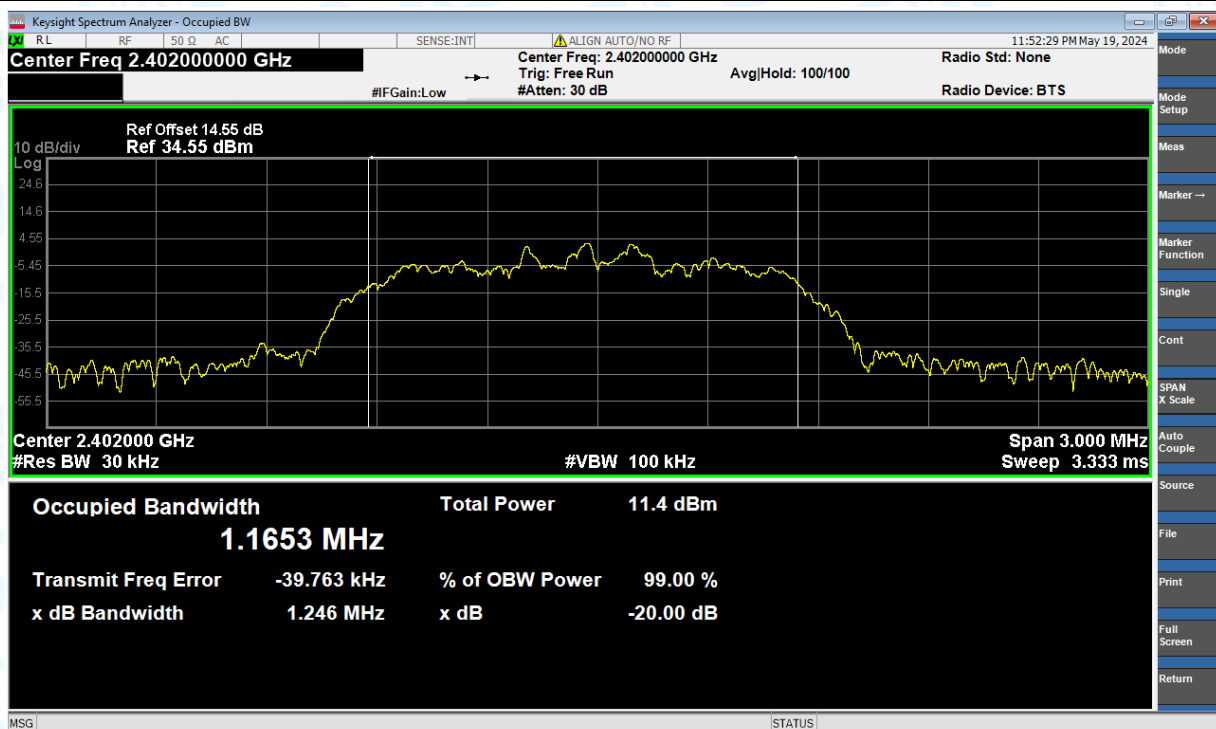
OBW NVNT 1-DH1 2441MHz Ant1



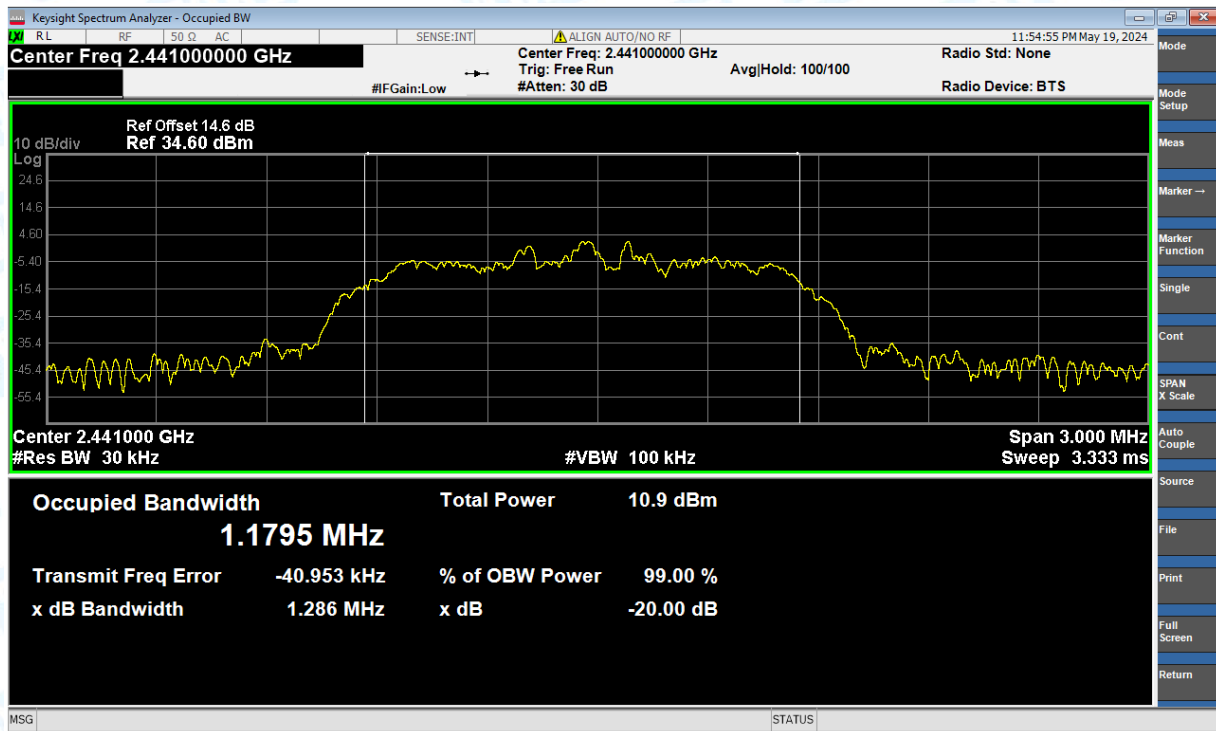
OBW NVNT 1-DH1 2480MHz Ant1



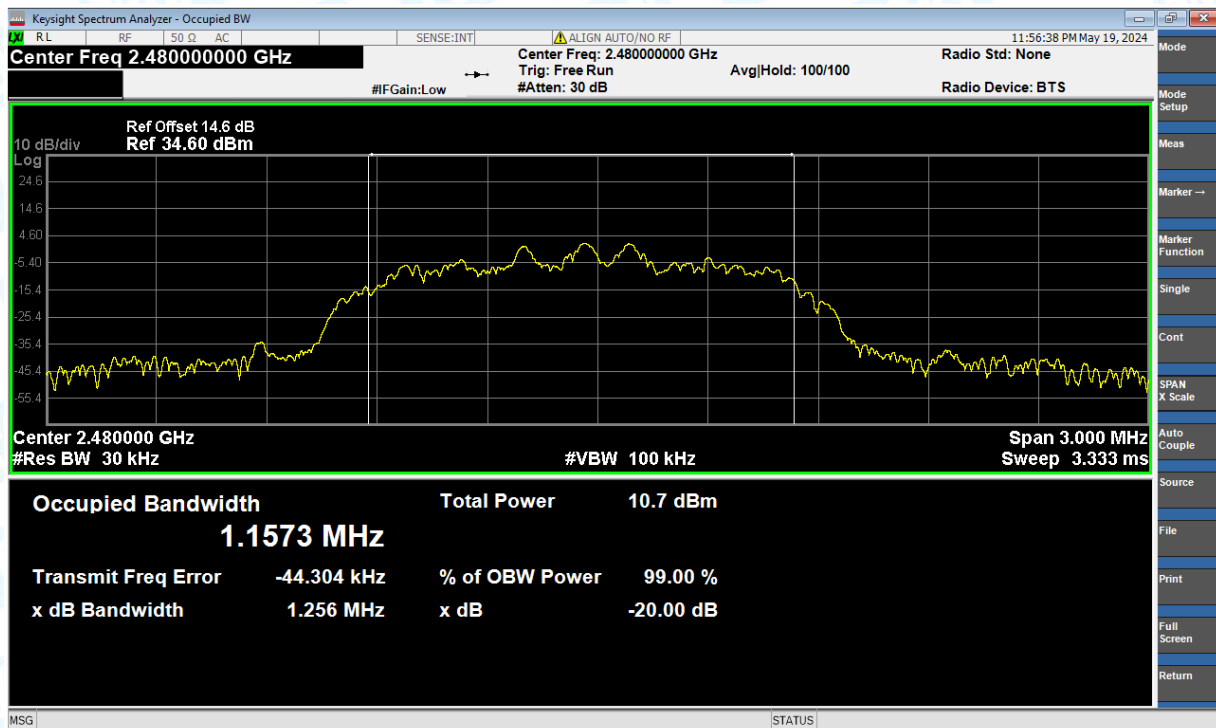
OBW NVNT 2-DH1 2402MHz Ant1



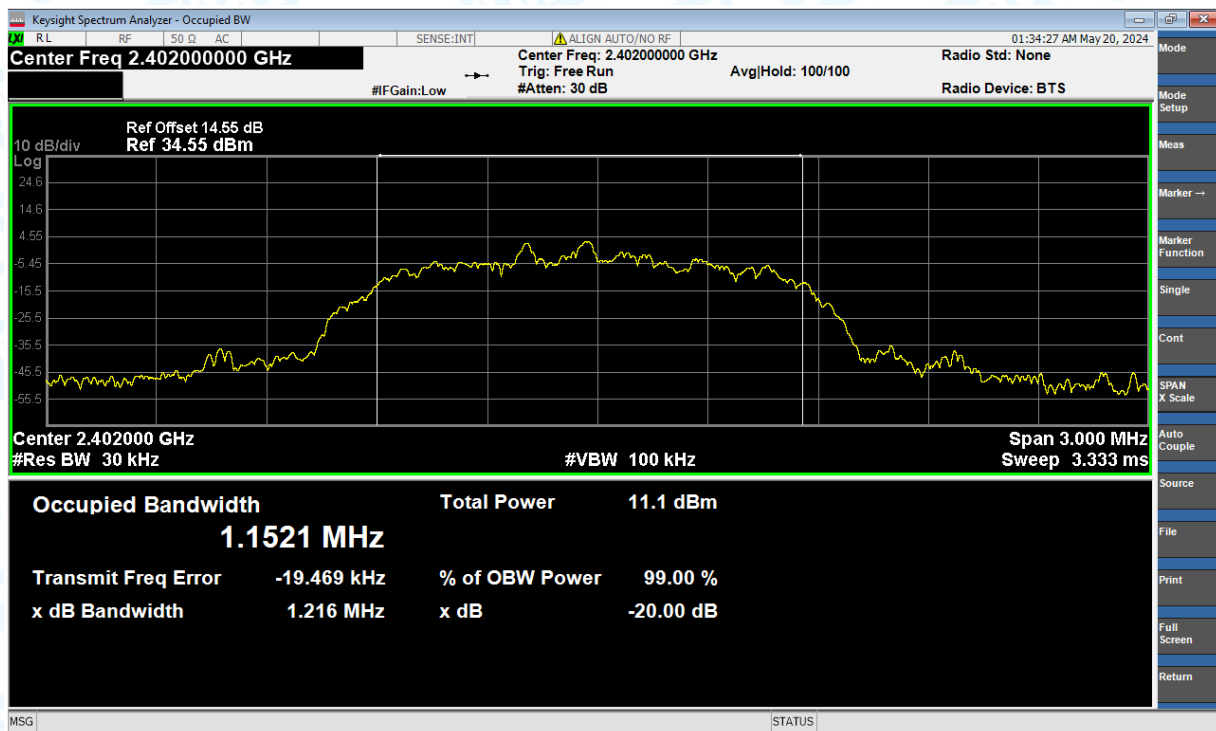
OBW NVNT 2-DH1 2441MHz Ant1



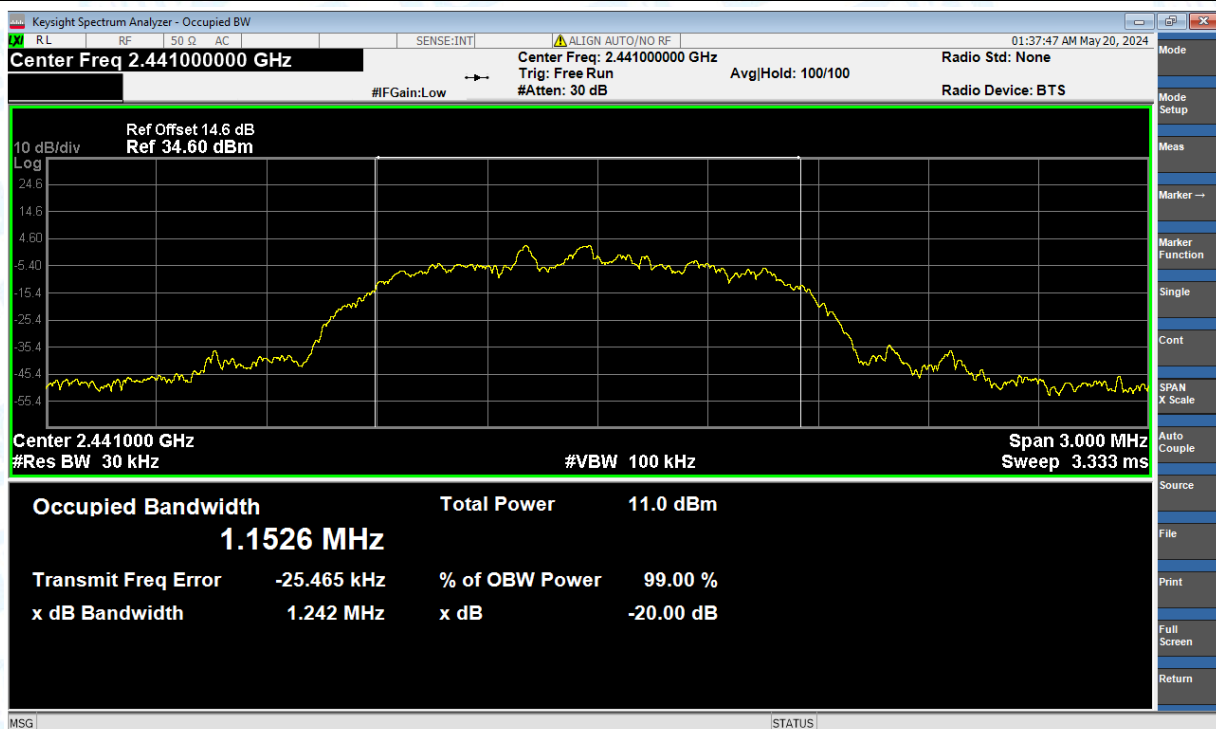
OBW NVNT 2-DH1 2480MHz Ant1

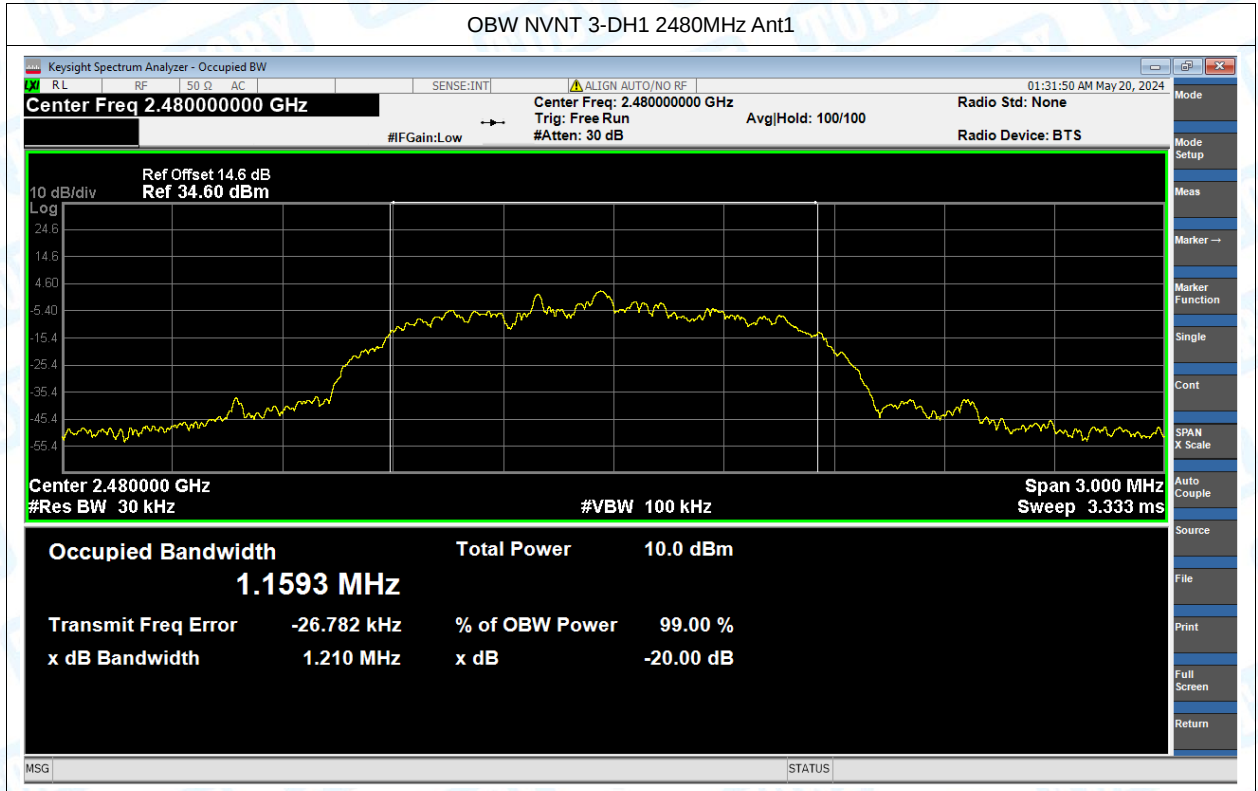


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



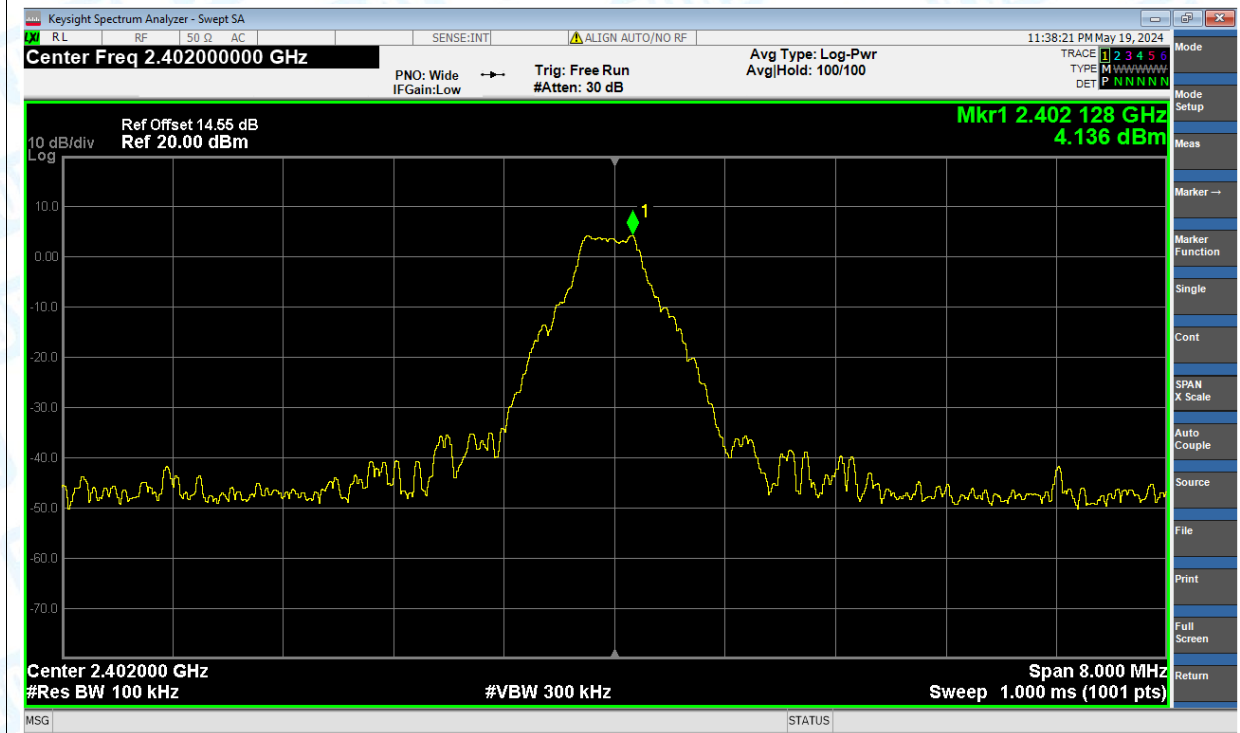


5.Band Edge

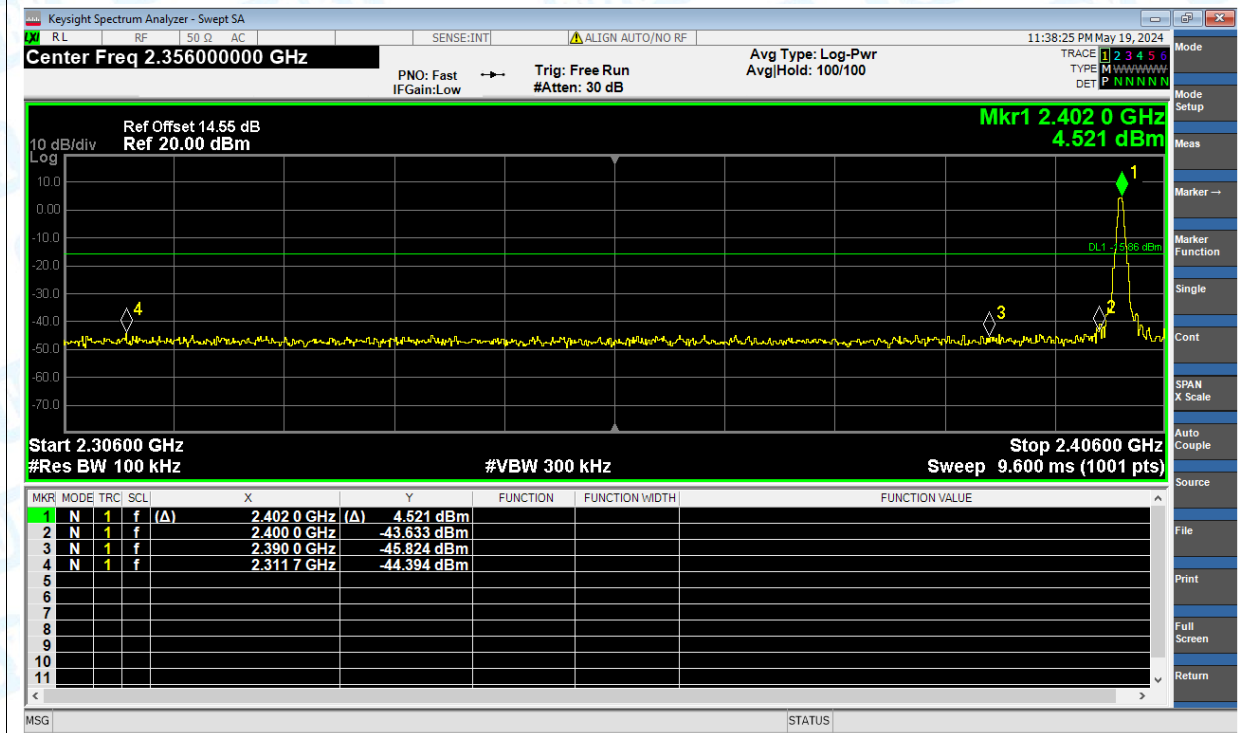
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-48.53	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-47.47	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-48.75	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-47.58	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-49.16	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-48.11	-20	Pass

Test Graphs

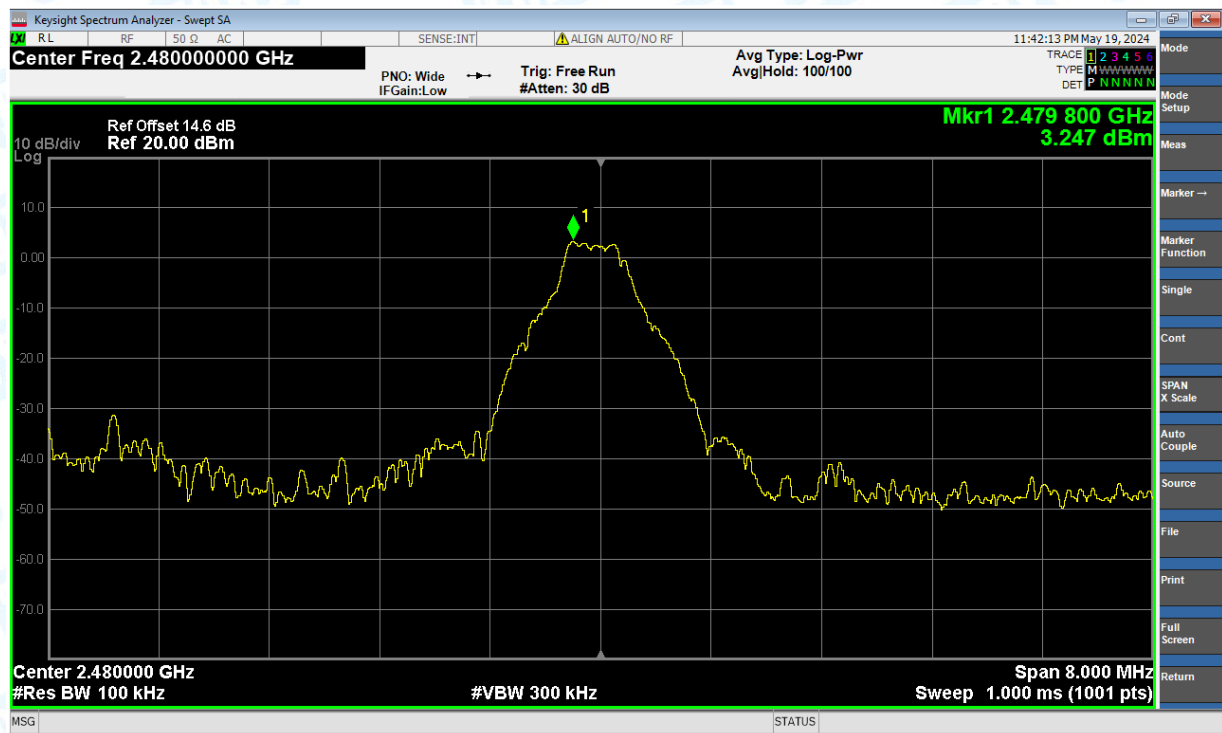
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



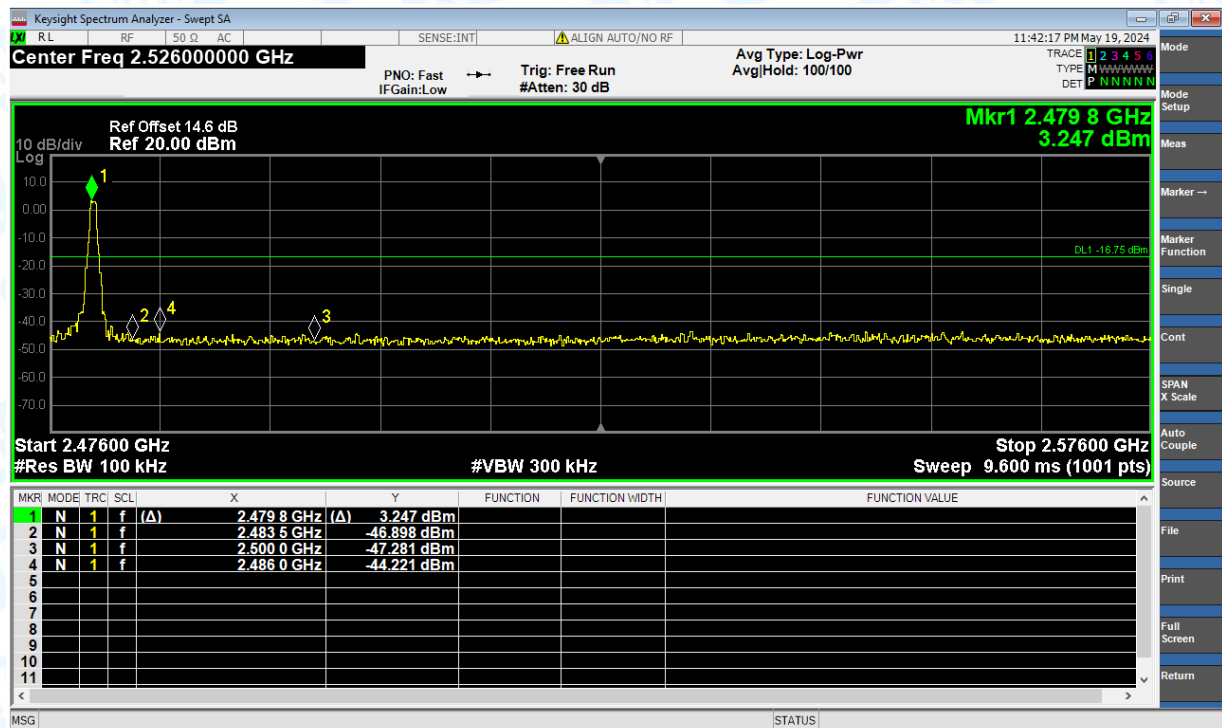
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



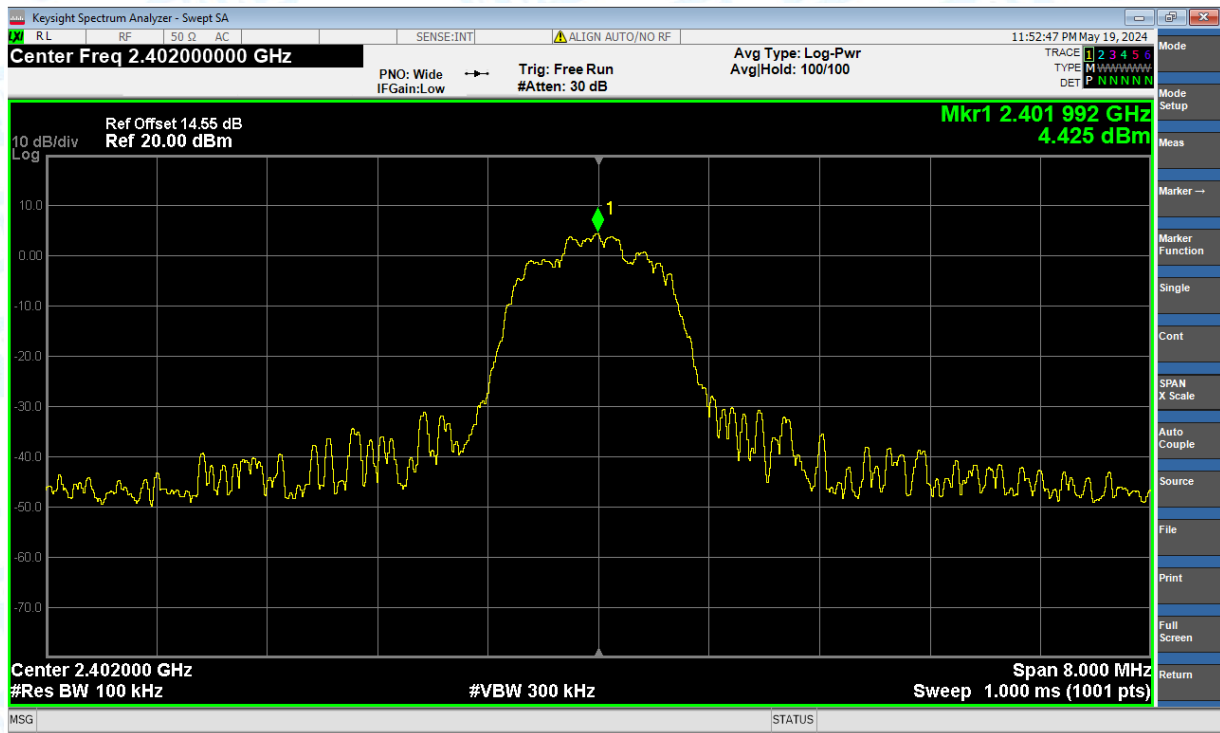
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



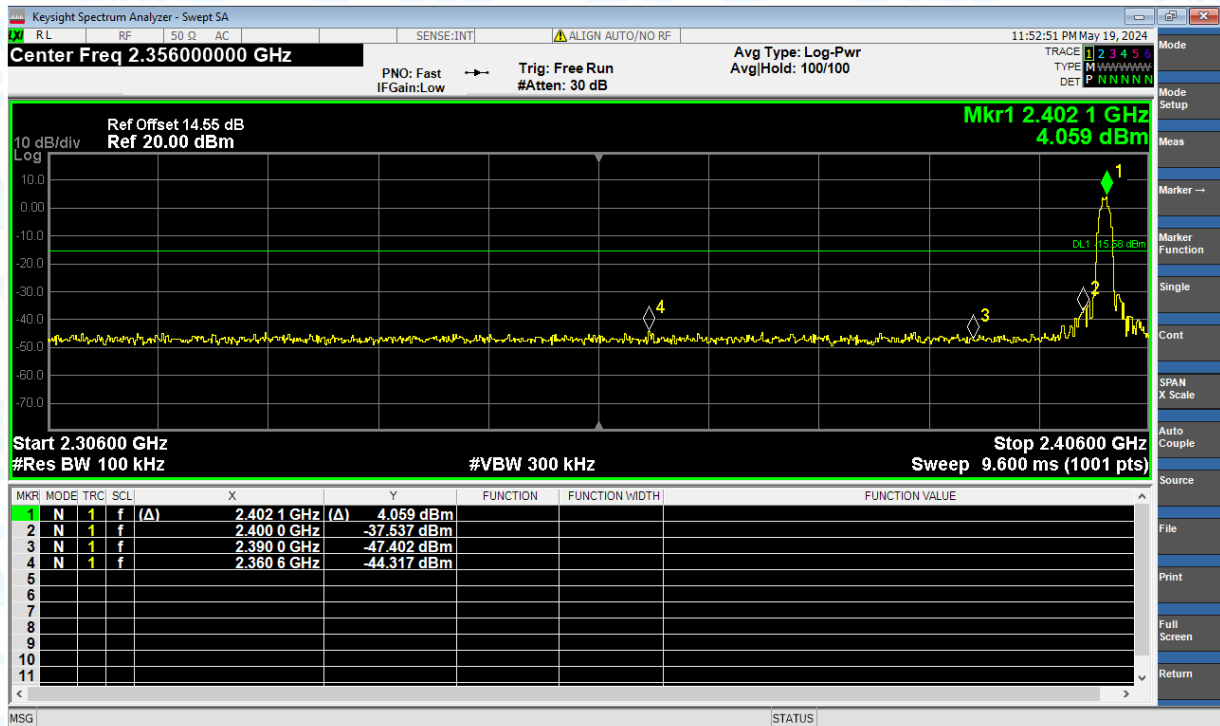
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



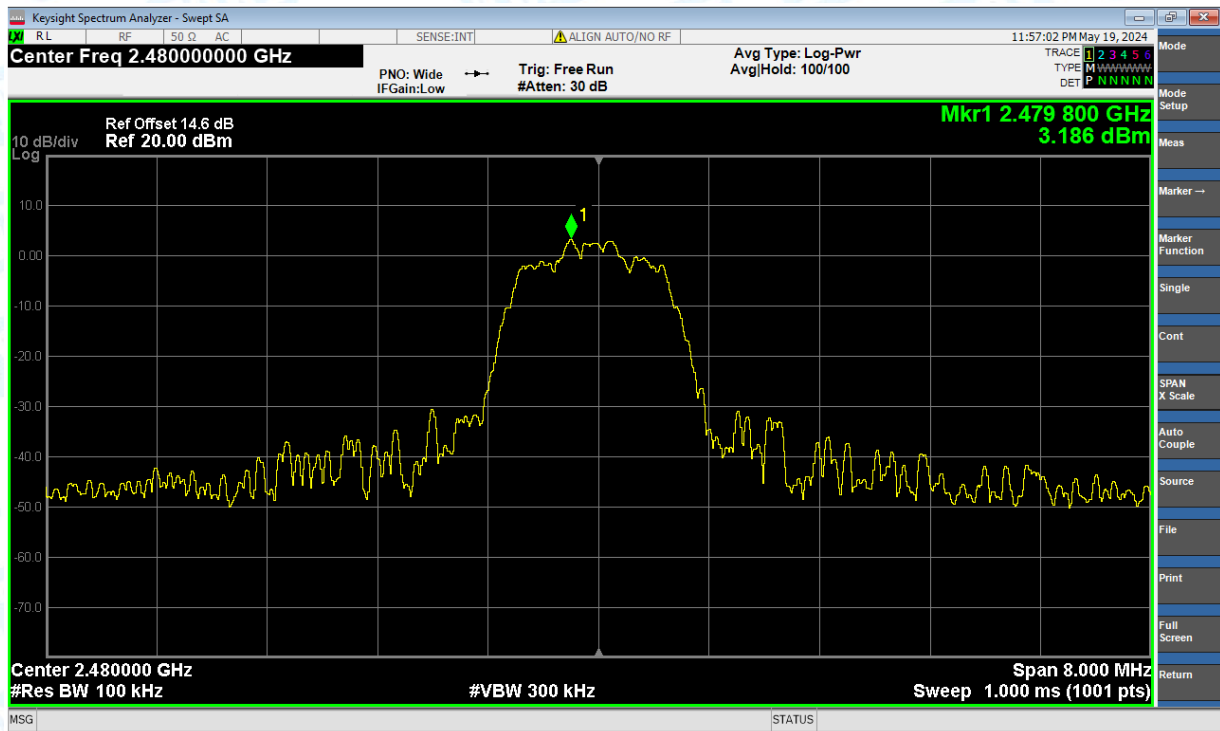
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



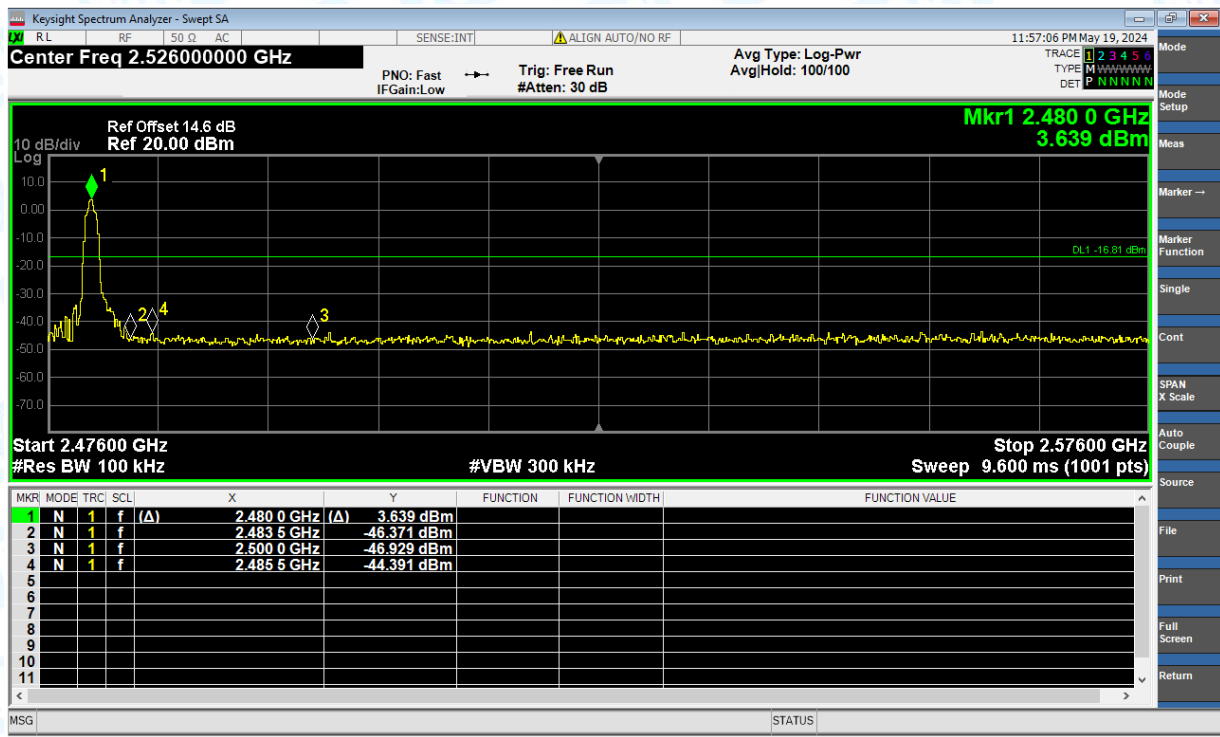
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



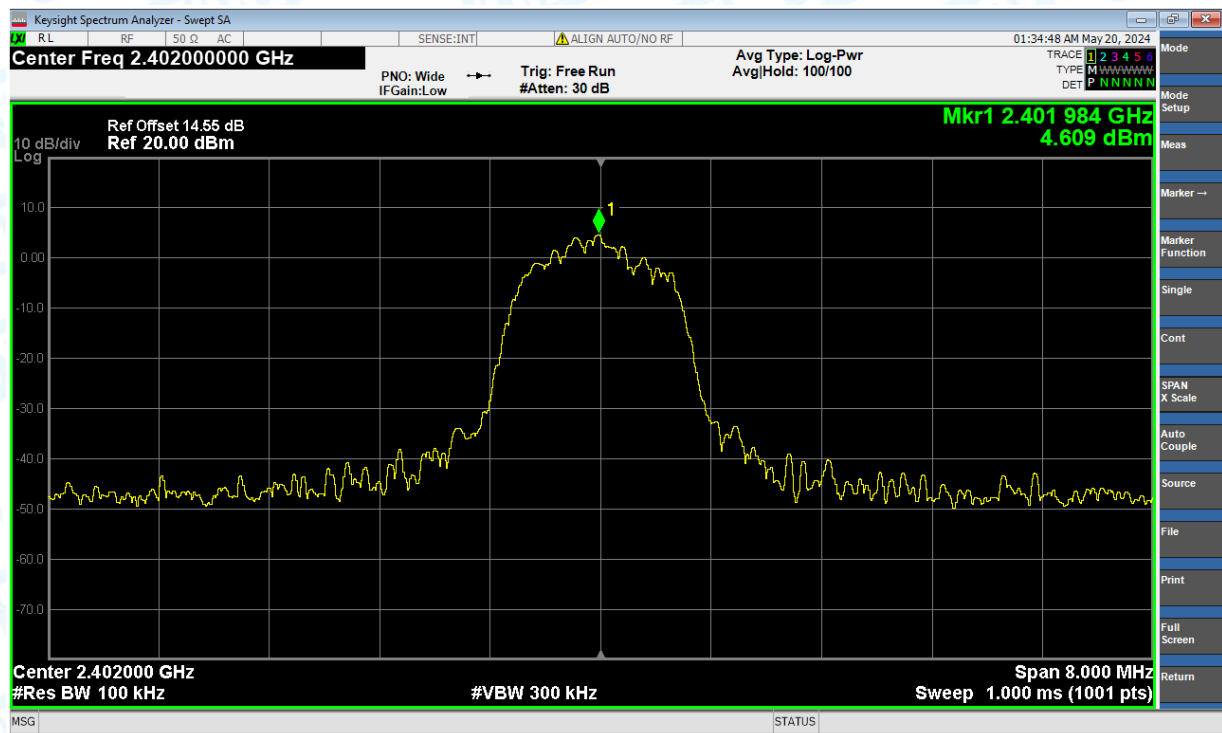
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



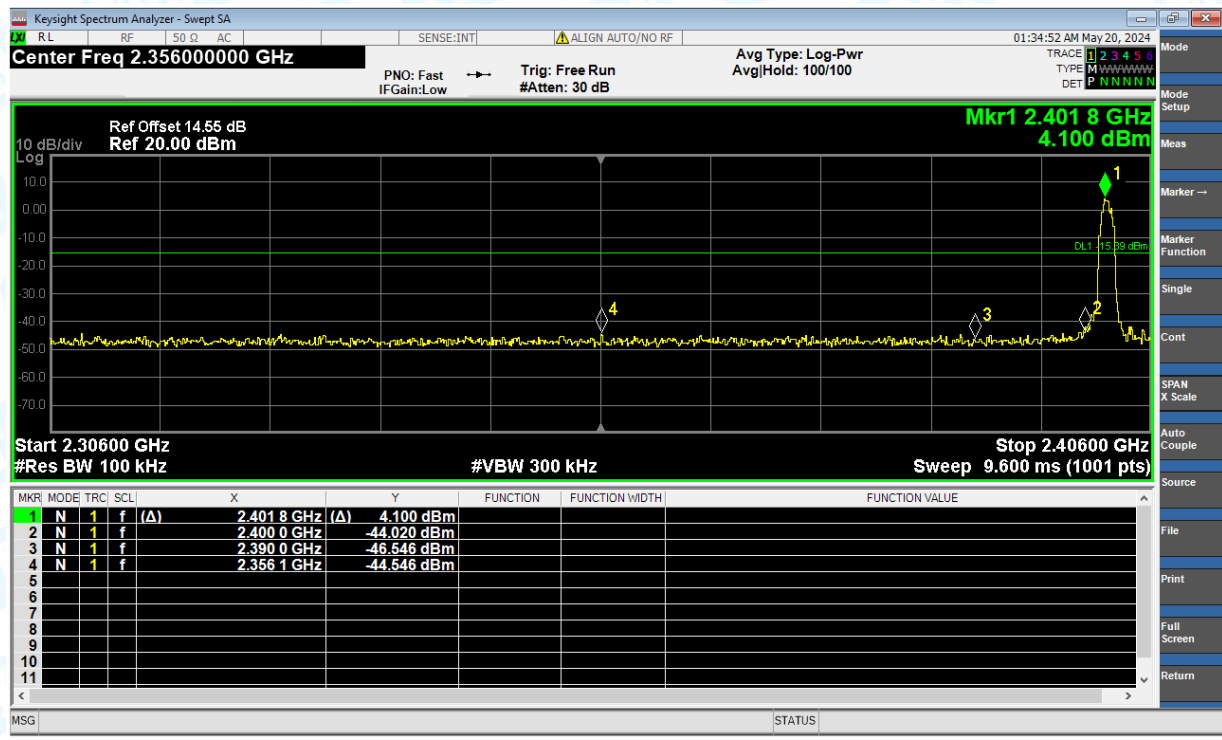
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



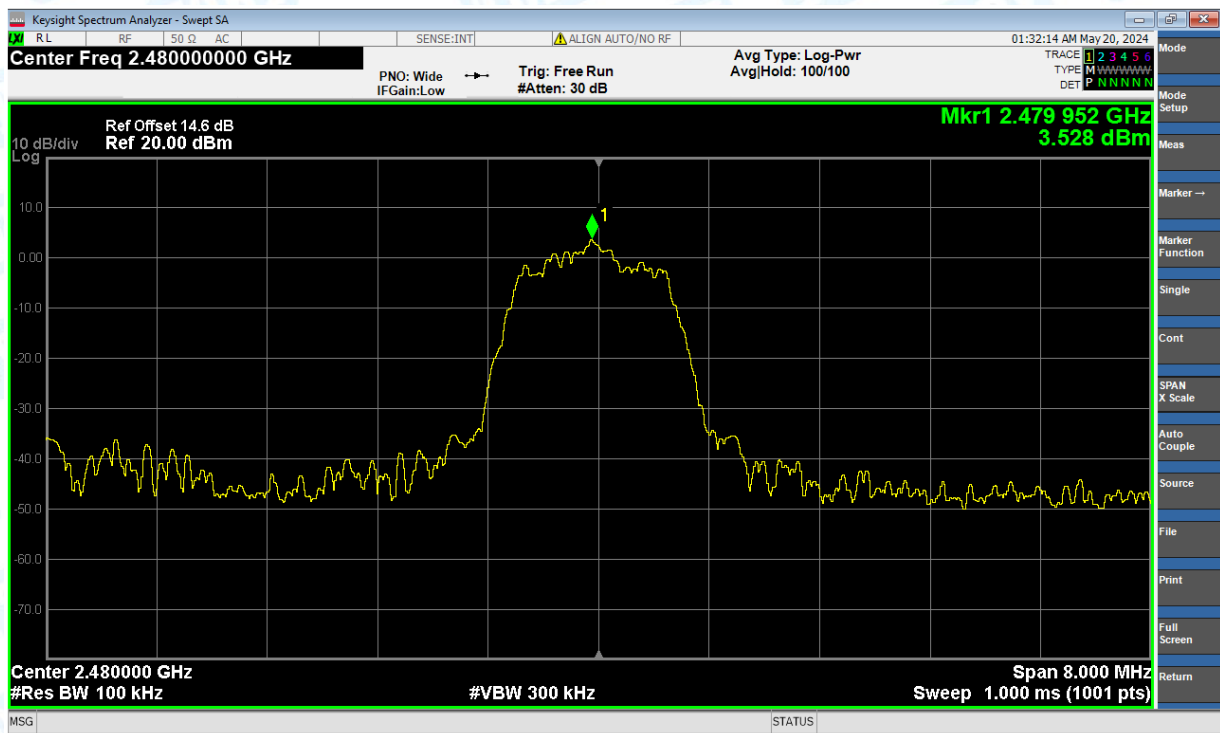
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



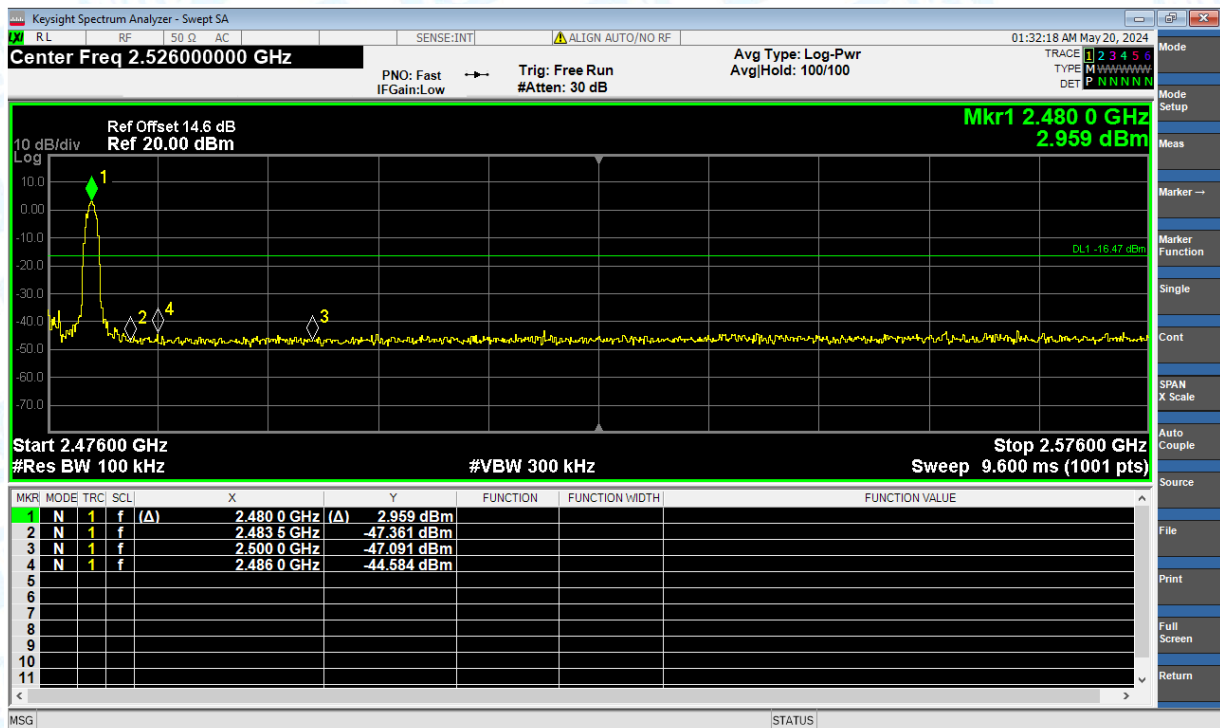
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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

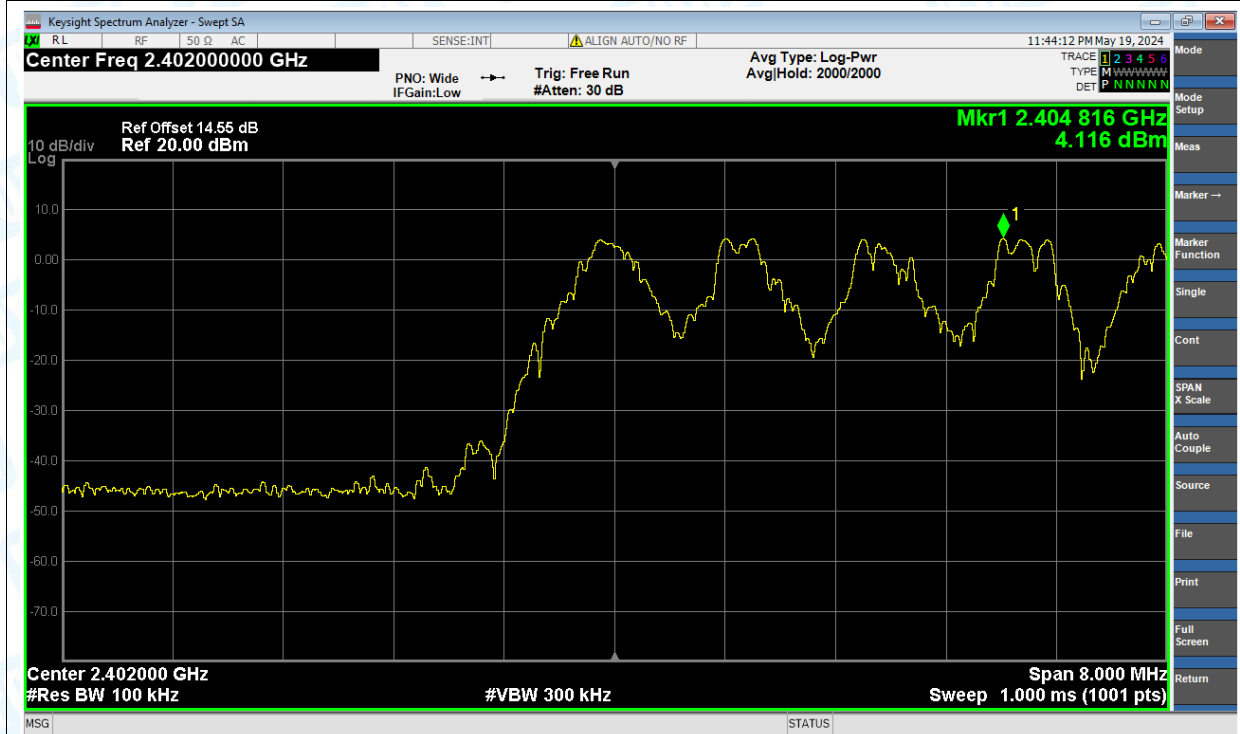


6.Band Edge(Hopping)

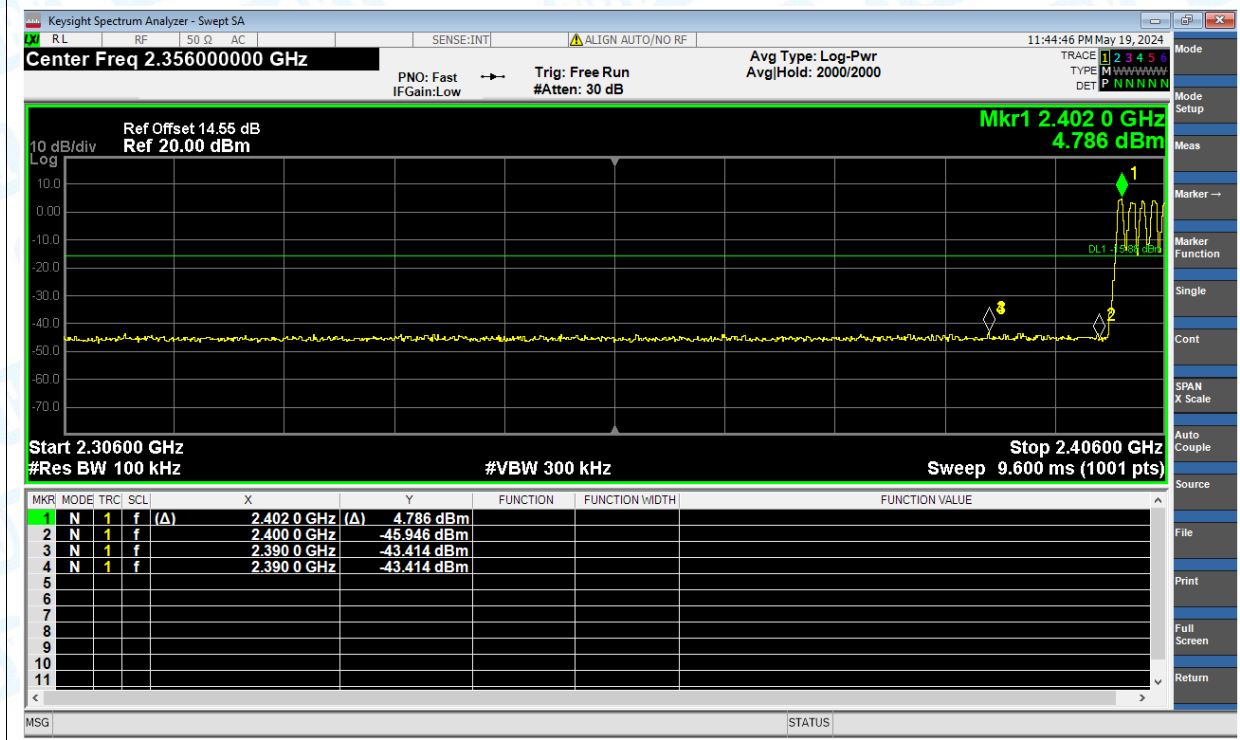
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-47.53	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-46.9	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-46.85	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-46.76	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-46.58	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-46.3	-20	Pass

Test Graphs

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



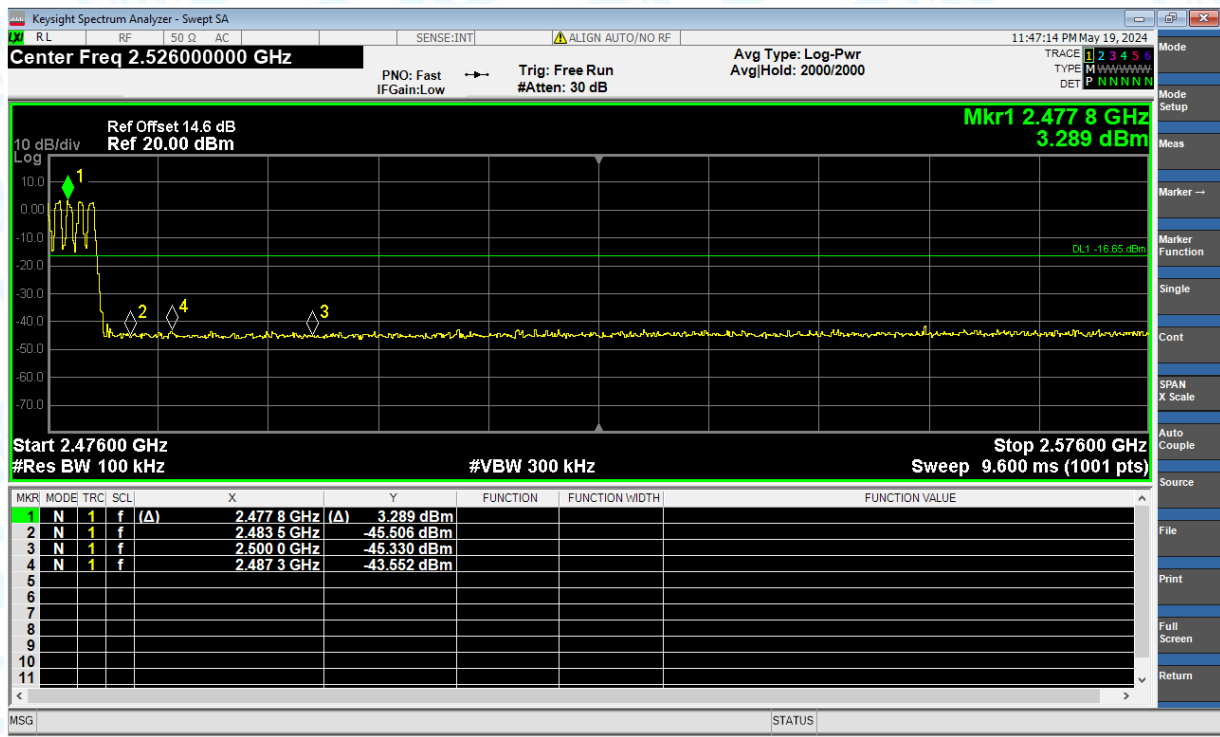
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



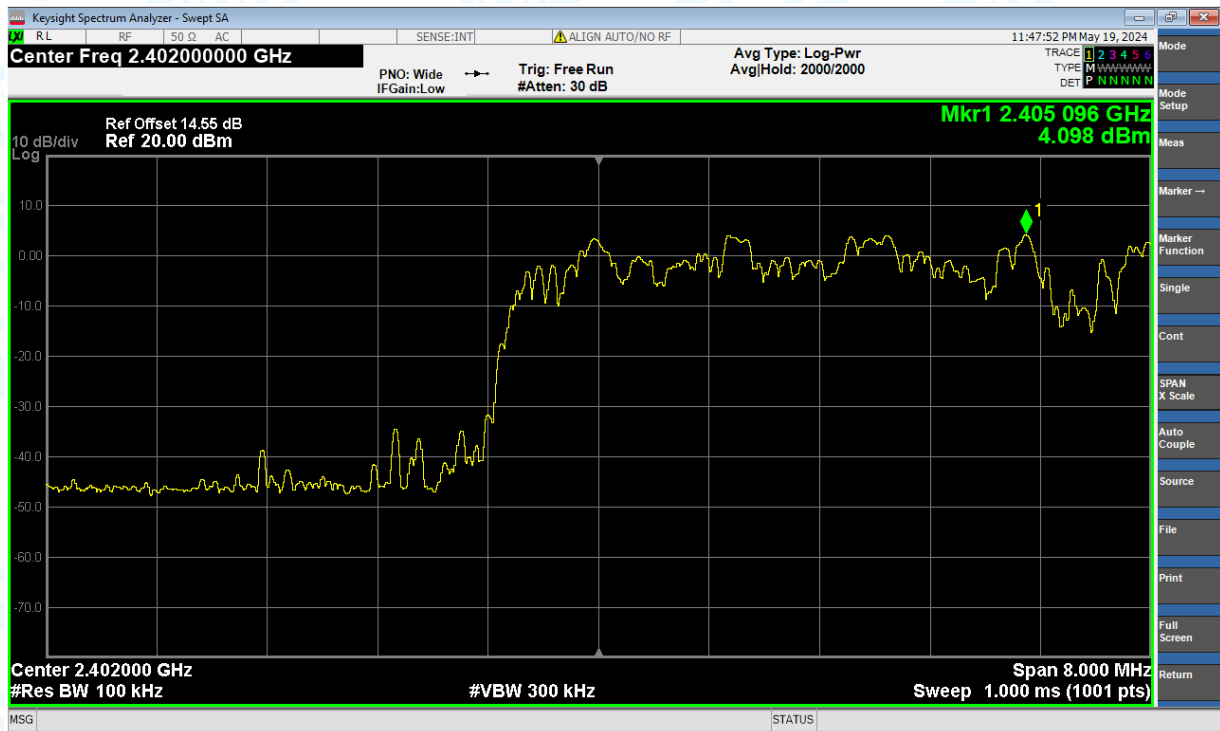
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref



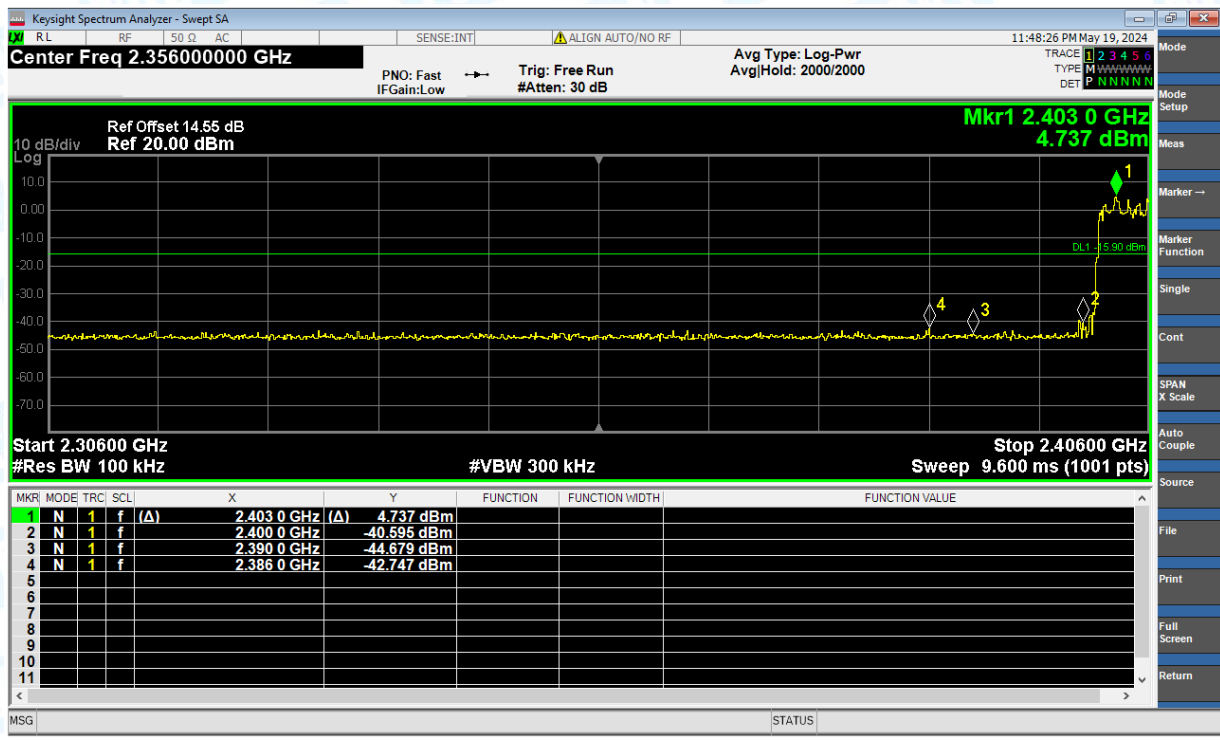
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



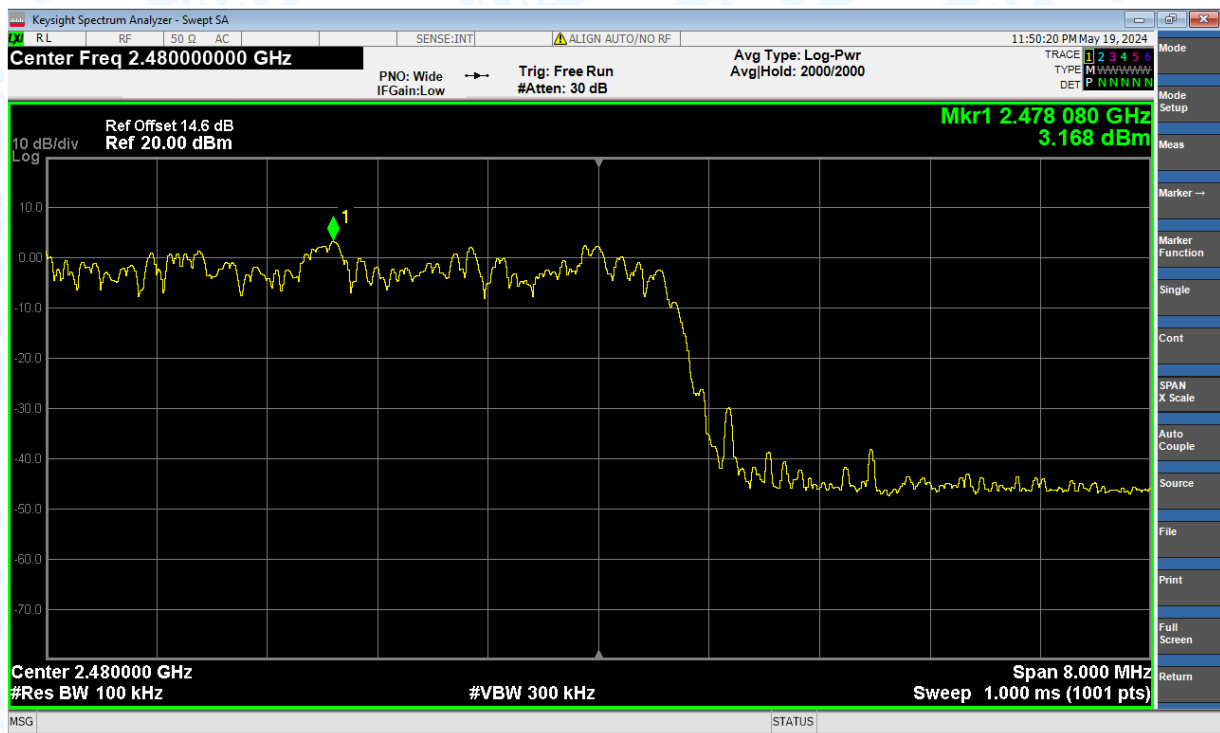
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



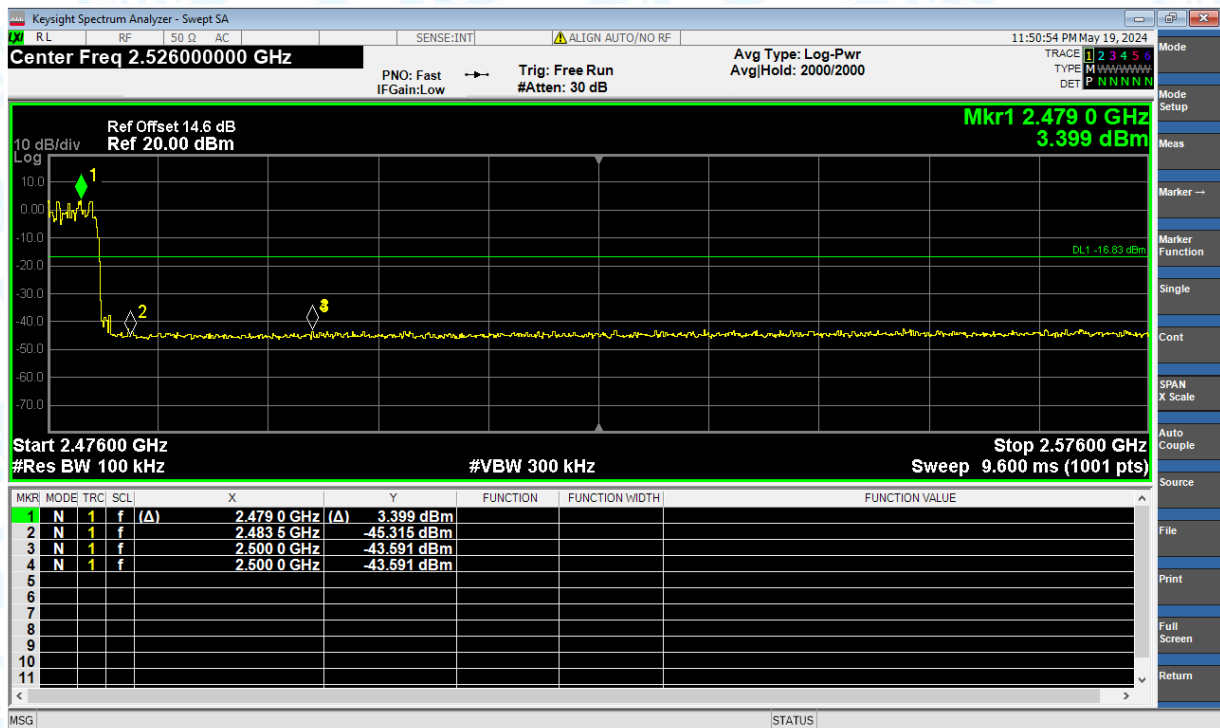
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



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



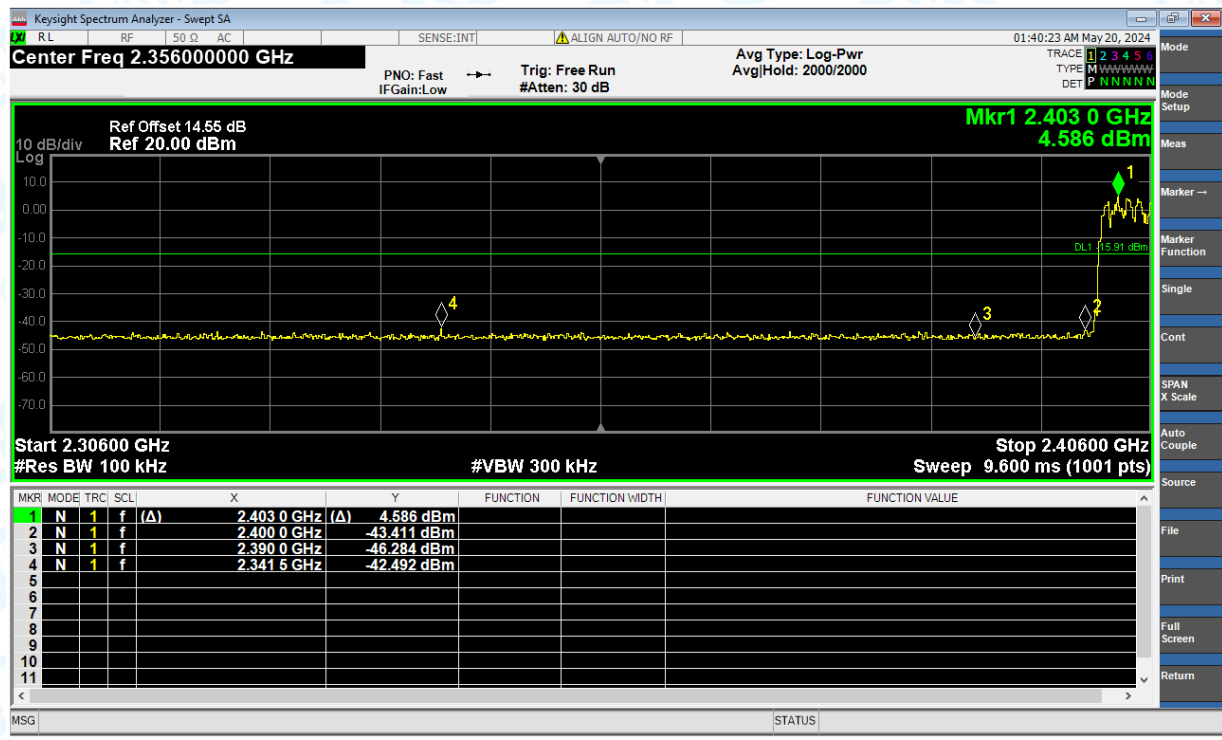
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



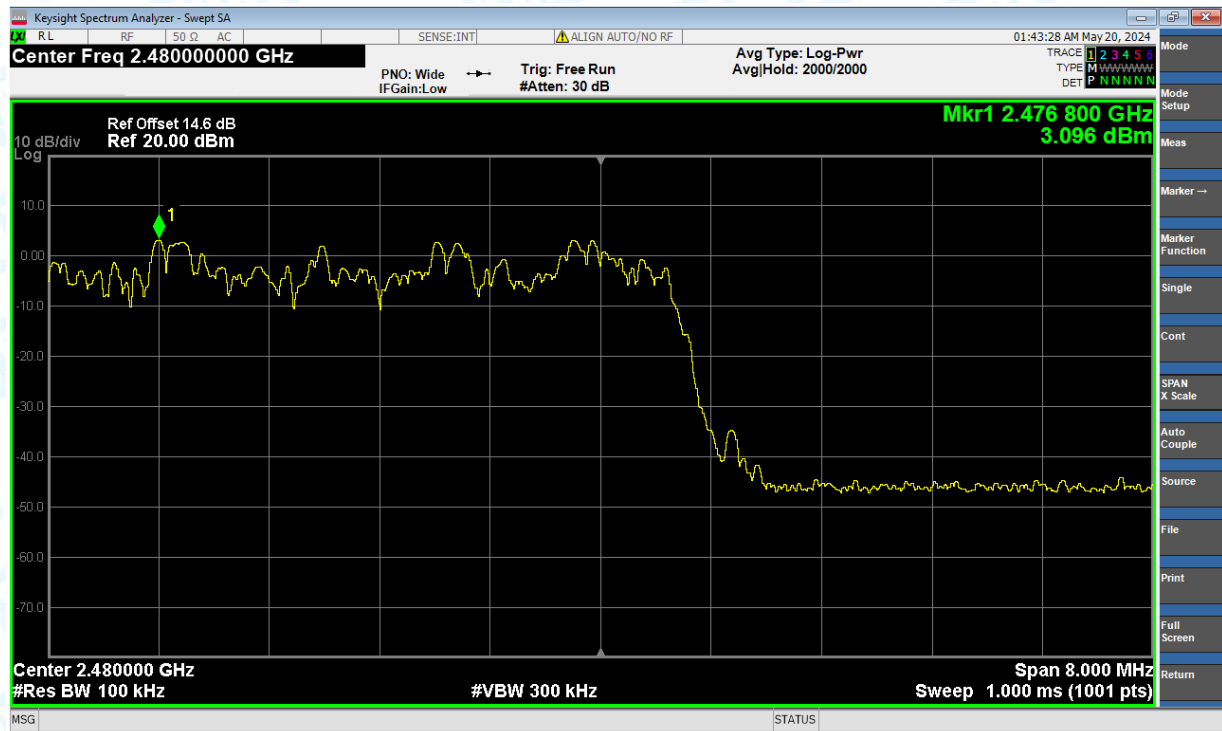
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



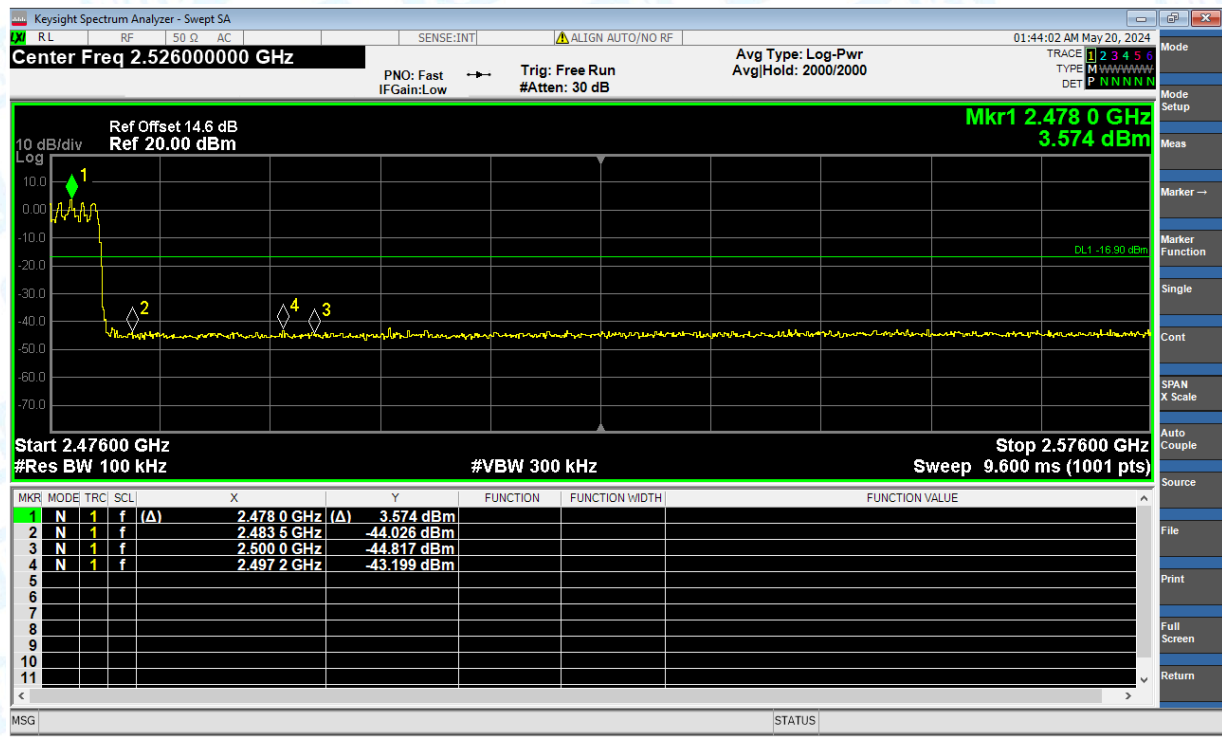
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



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



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

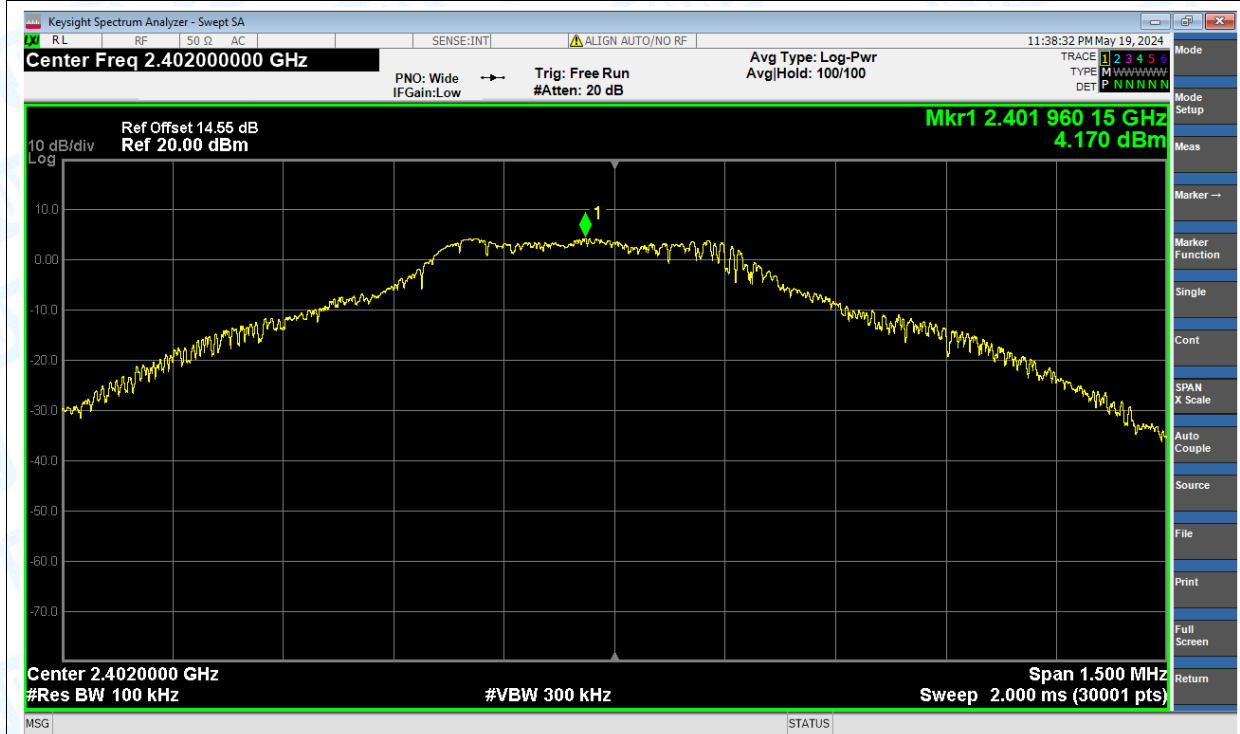


7. Conducted RF Spurious Emission

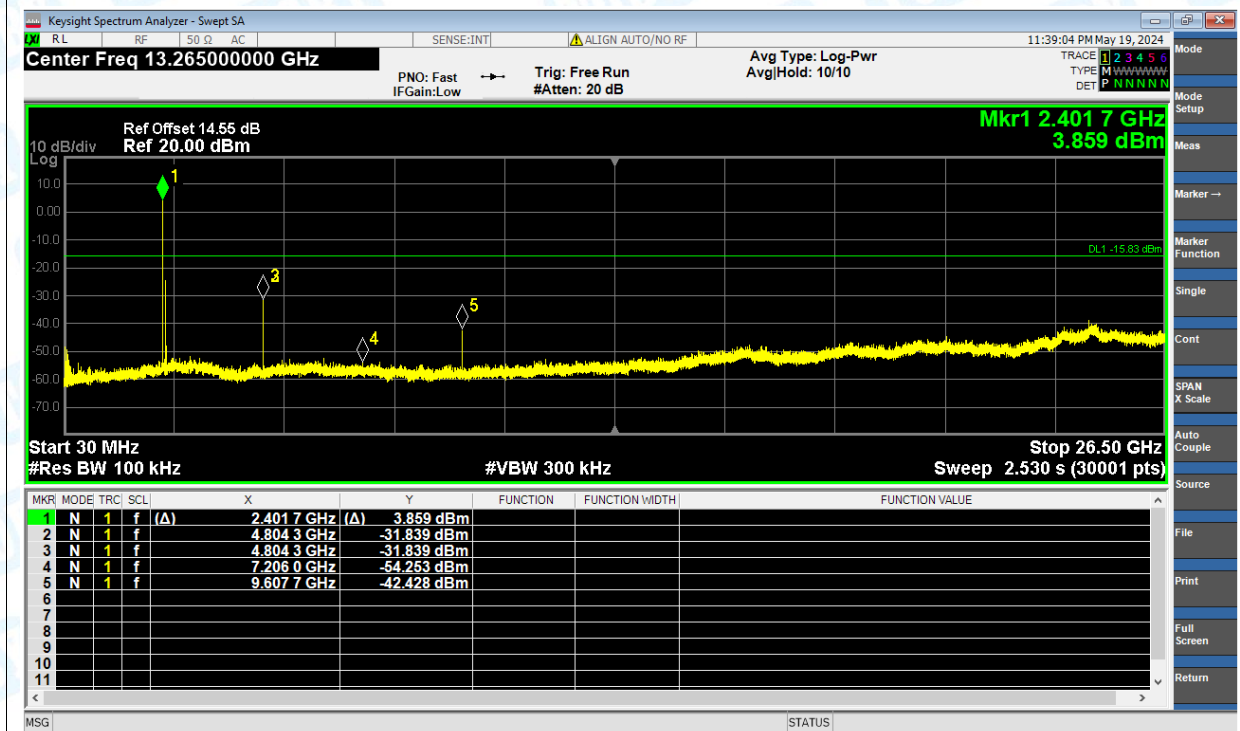
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-36.01	-20	Pass
NVNT	1-DH1	2441	Ant1	-37.06	-20	Pass
NVNT	1-DH1	2480	Ant1	-40.08	-20	Pass
NVNT	2-DH1	2402	Ant1	-39.86	-20	Pass
NVNT	2-DH1	2441	Ant1	-38.26	-20	Pass
NVNT	2-DH1	2480	Ant1	-41.21	-20	Pass
NVNT	3-DH1	2402	Ant1	-39.77	-20	Pass
NVNT	3-DH1	2441	Ant1	-38.38	-20	Pass
NVNT	3-DH1	2480	Ant1	-31.15	-20	Pass

Test Graphs

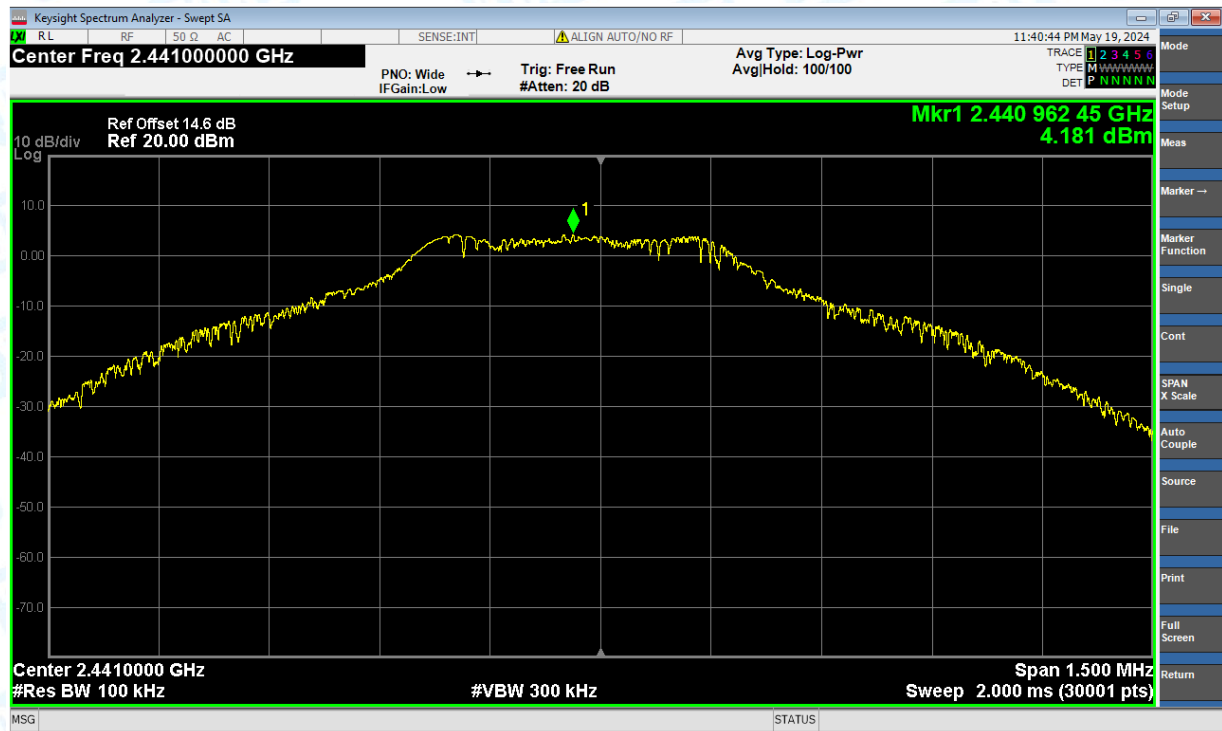
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



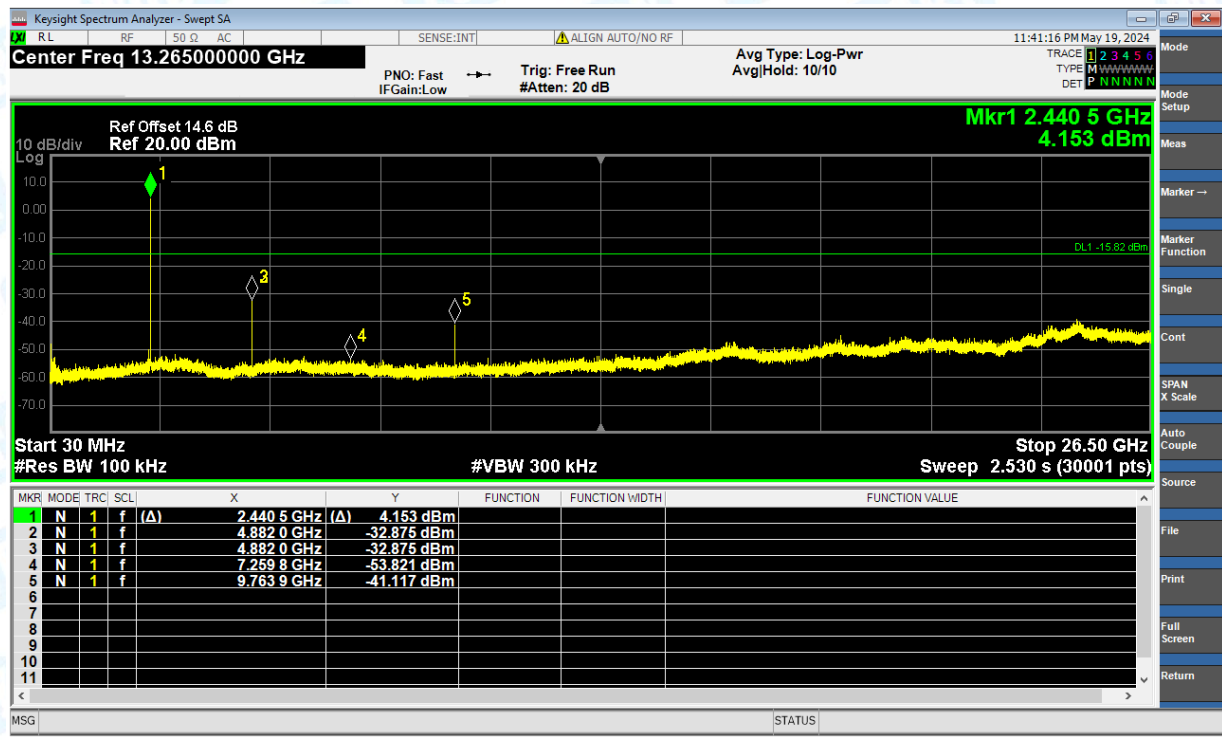
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



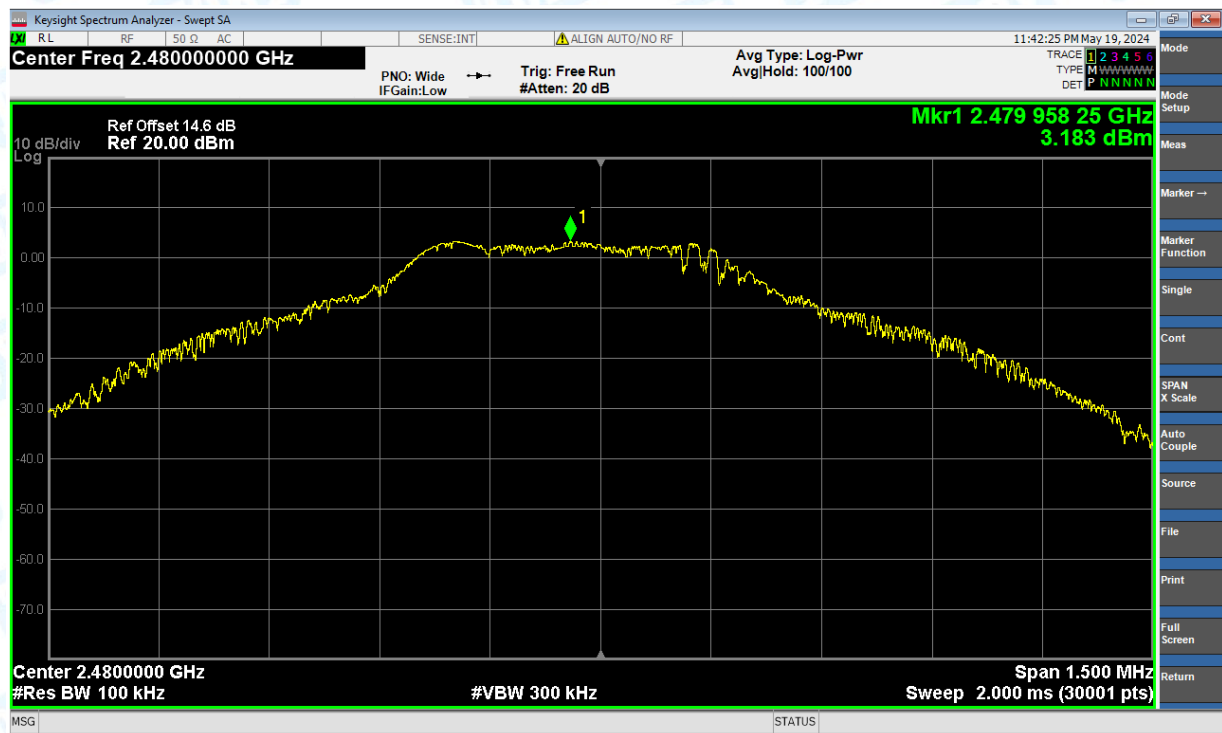
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



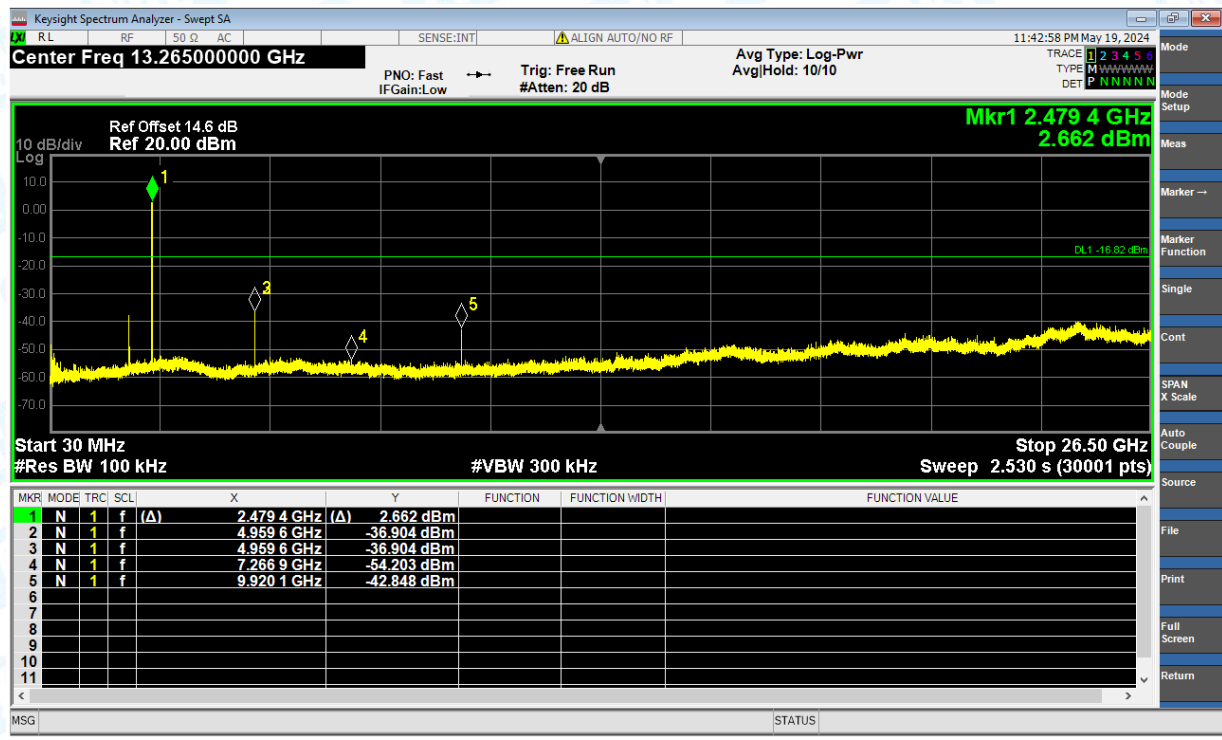
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



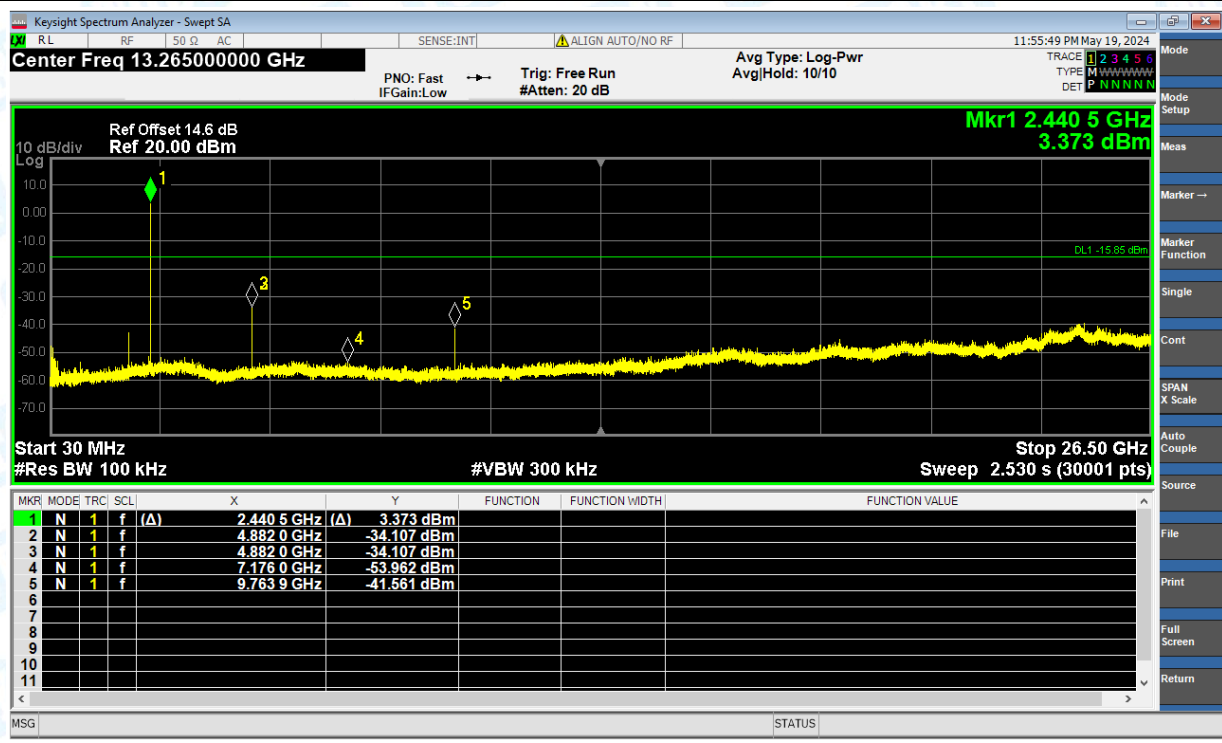
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



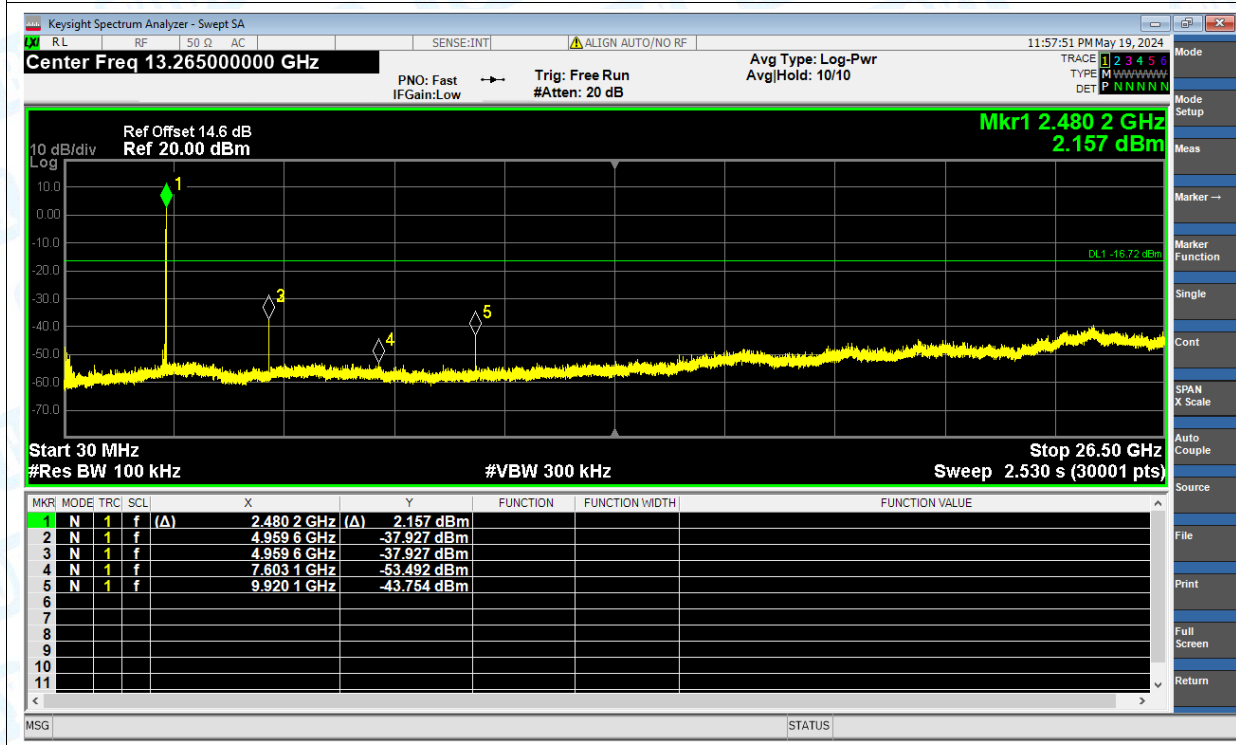
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



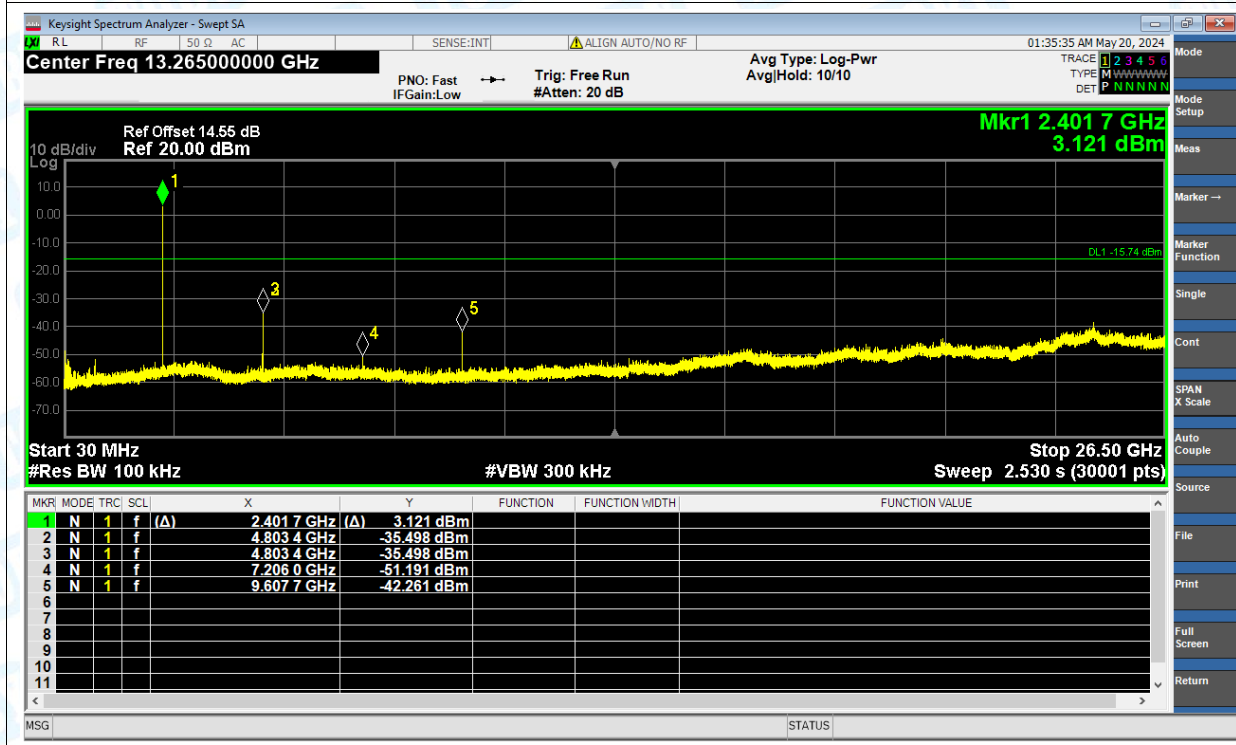
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



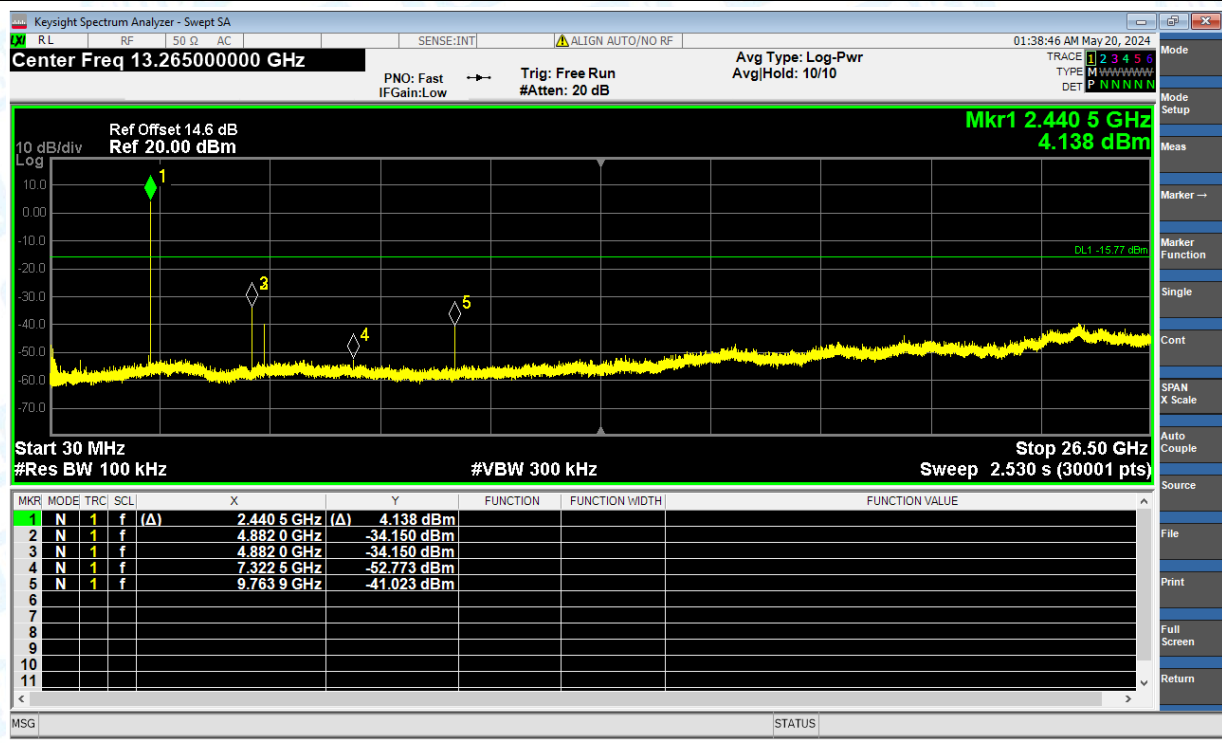
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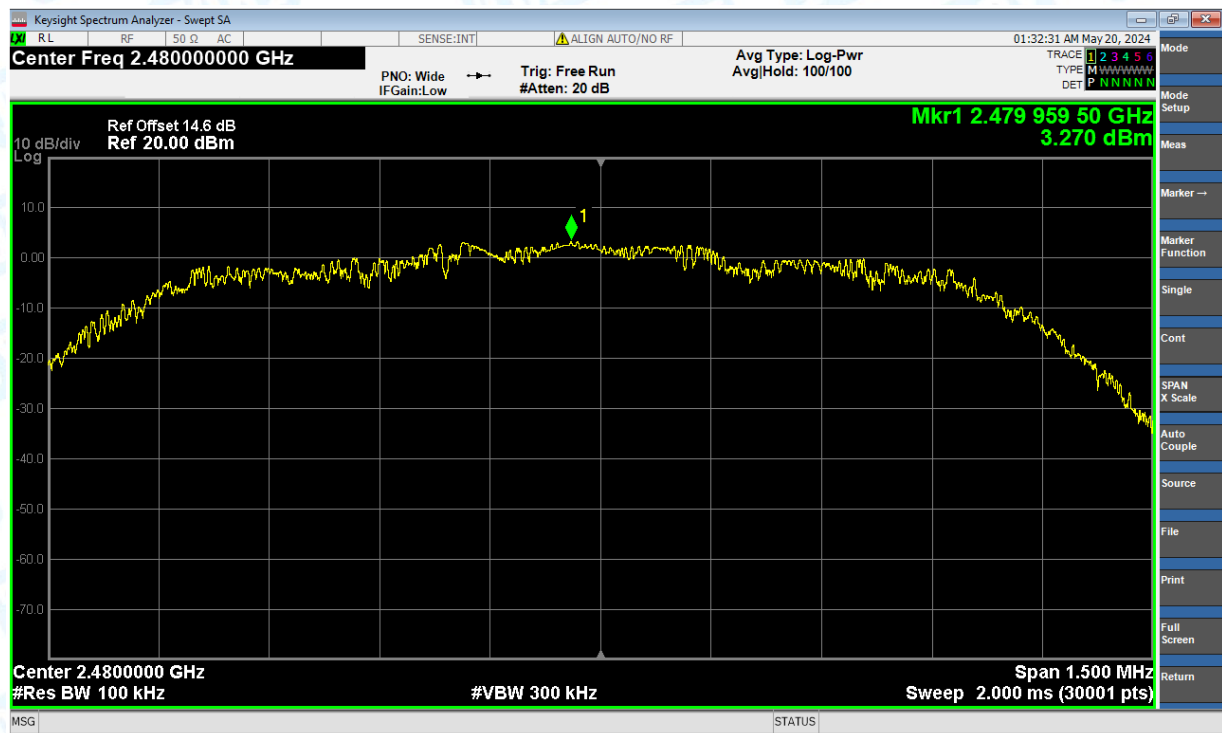
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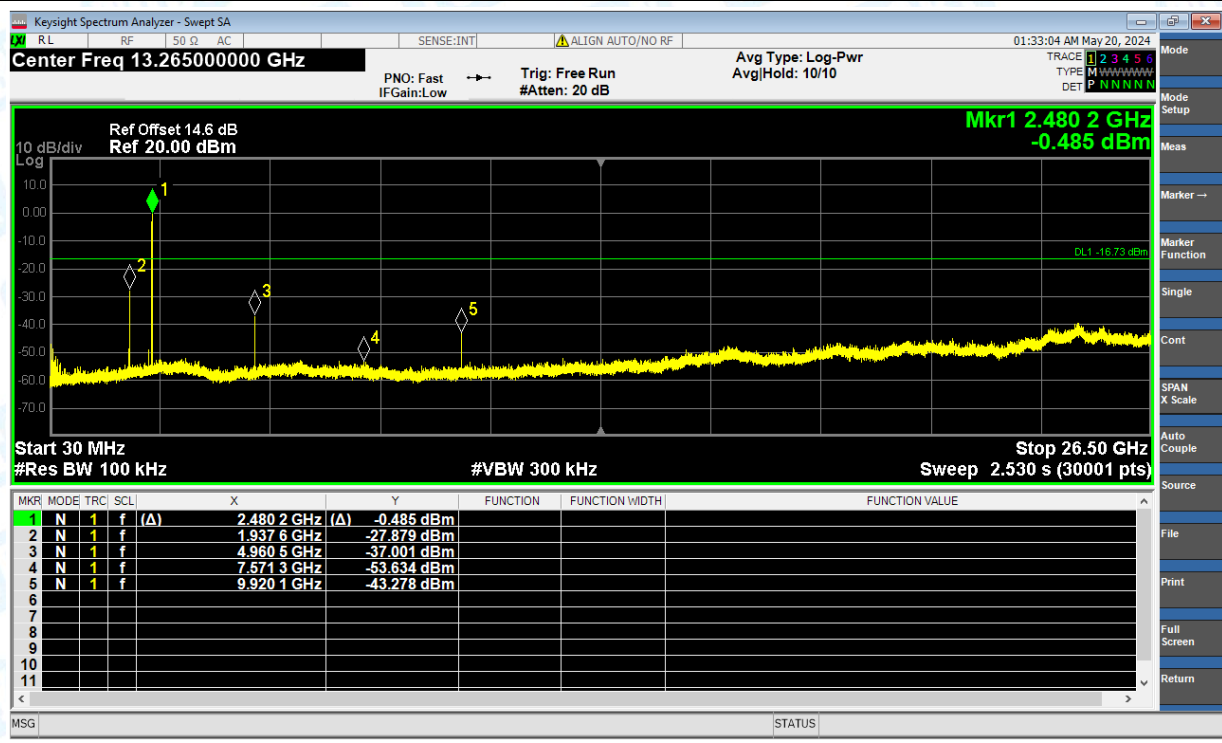
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

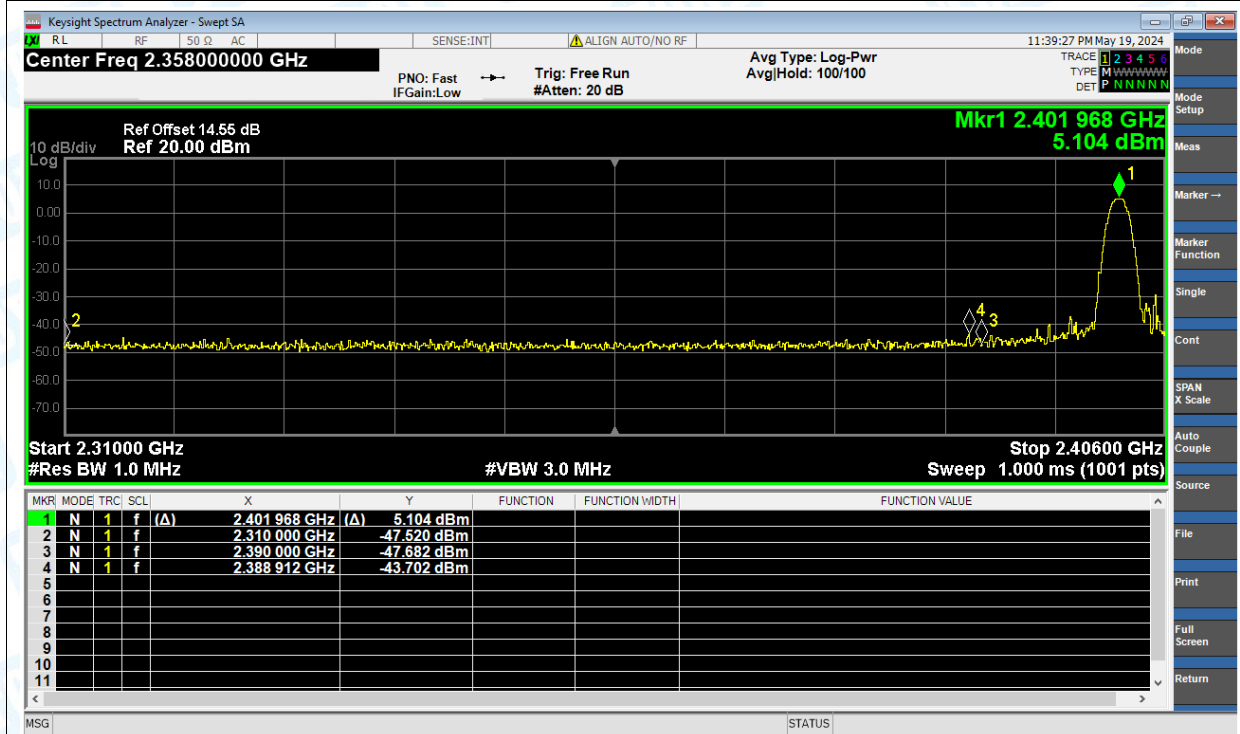


8.Restrict Band

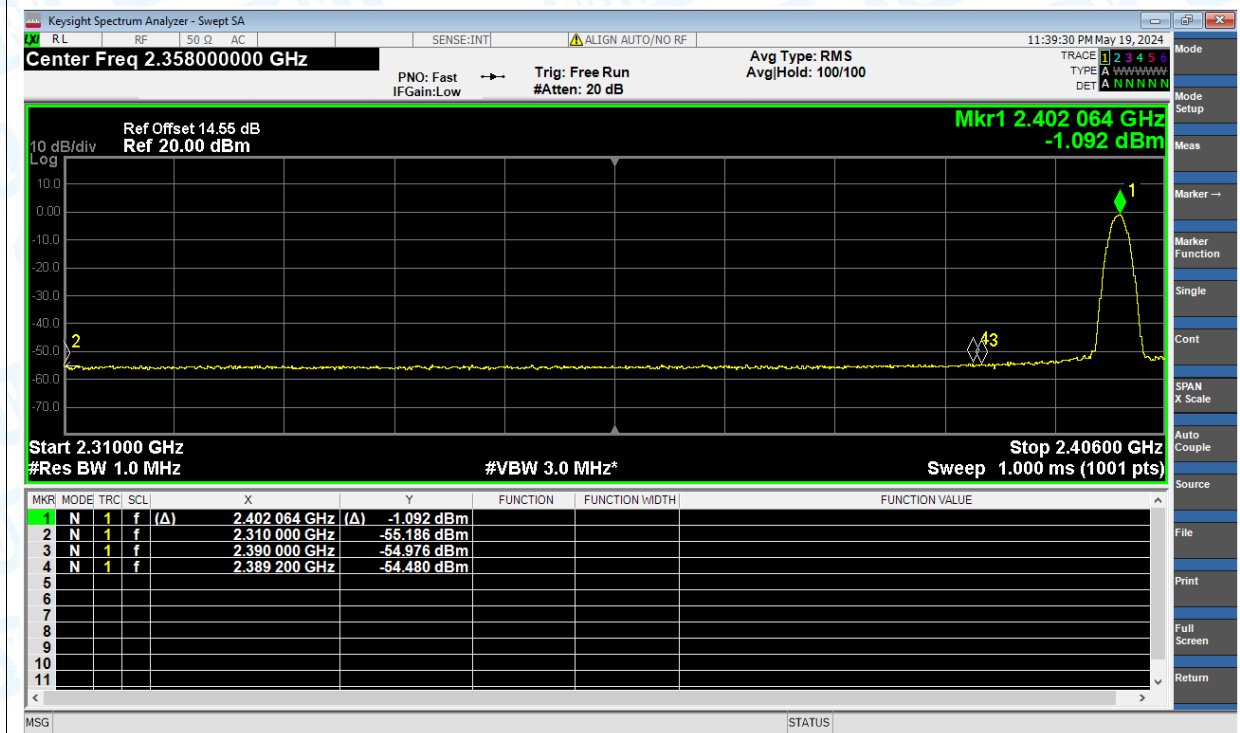
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-47.52	2	-	49.74	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-55.19	2	4.84	46.91	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2388.912	-43.7	2	-	53.56	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2389.2	-54.48	2	4.84	47.62	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-47.68	2	-	49.58	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-54.98	2	4.84	47.12	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-43.33	2	-	53.93	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-53.03	2	4.74	48.97	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2484.04	-34.35	2	-	62.91	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.704	-51.76	2	4.74	50.24	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-48.01	2	-	49.25	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.39	2	4.74	46.61	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-47.81	2	-	49.45	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-55.27	2	4.63	46.62	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2339.088	-44.47	2	-	52.79	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2386.32	-54.58	2	4.63	47.31	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-47.51	2	-	49.75	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-55.17	2	4.63	46.72	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-46.65	2	-	50.61	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-54.94	2	4.74	47.06	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.728	-26.96	2	-	70.3	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.824	-49.34	2	4.74	52.66	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-50.78	2	-	46.48	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-59	2	4.74	43	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-47.48	2	-	49.78	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-55.61	2	4.63	46.28	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2386.608	-44.51	2	-	52.75	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2388.432	-54.63	2	4.63	47.26	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-47.75	2	-	49.51	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-55.62	2	4.63	46.27	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-33.65	2	-	63.61	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-52.4	2	4.63	49.49	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.512	-33.65	2	-	63.61	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.632	-51.17	2	4.63	50.72	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-46.27	2	-	50.99	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.43	2	4.63	46.46	Average	54	Pass

Test Graphs

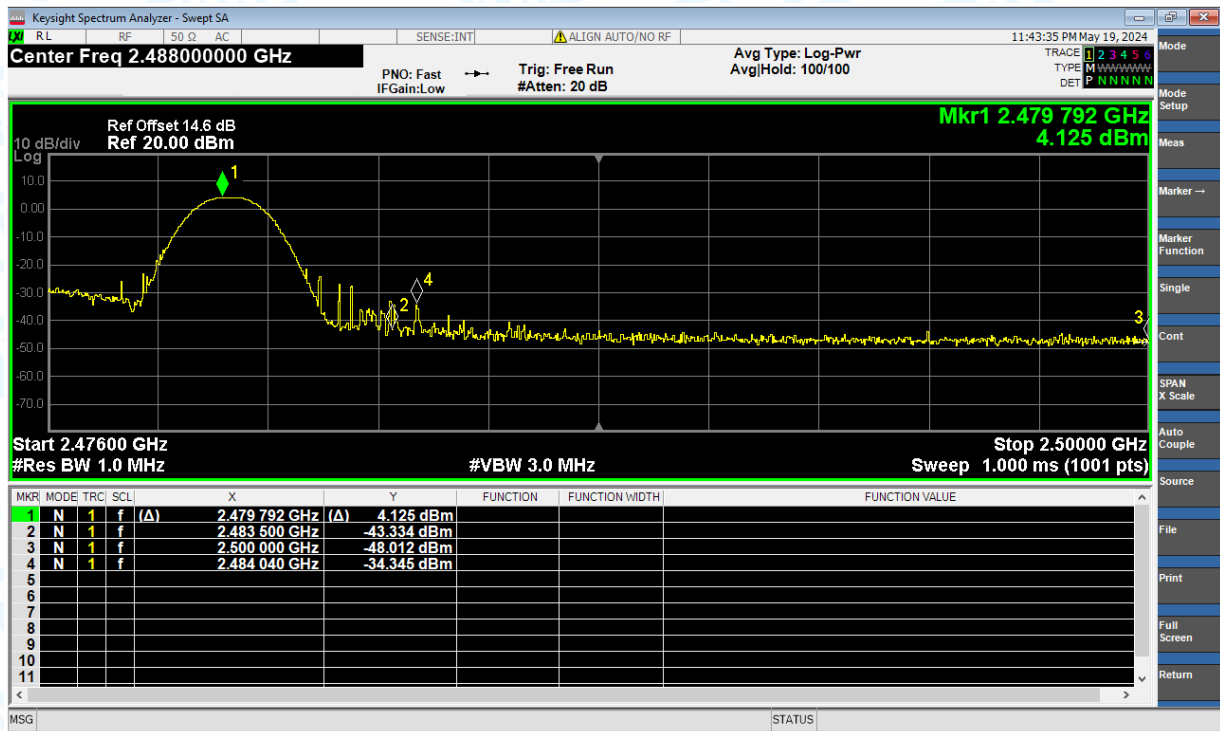
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



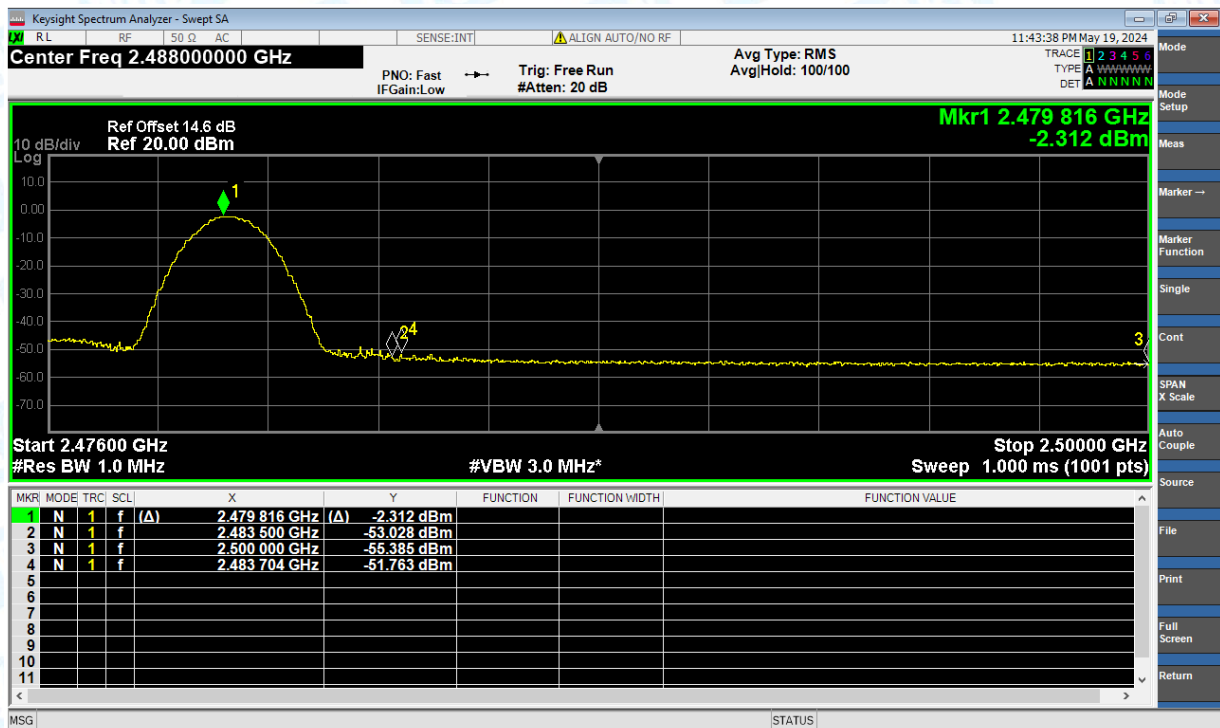
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



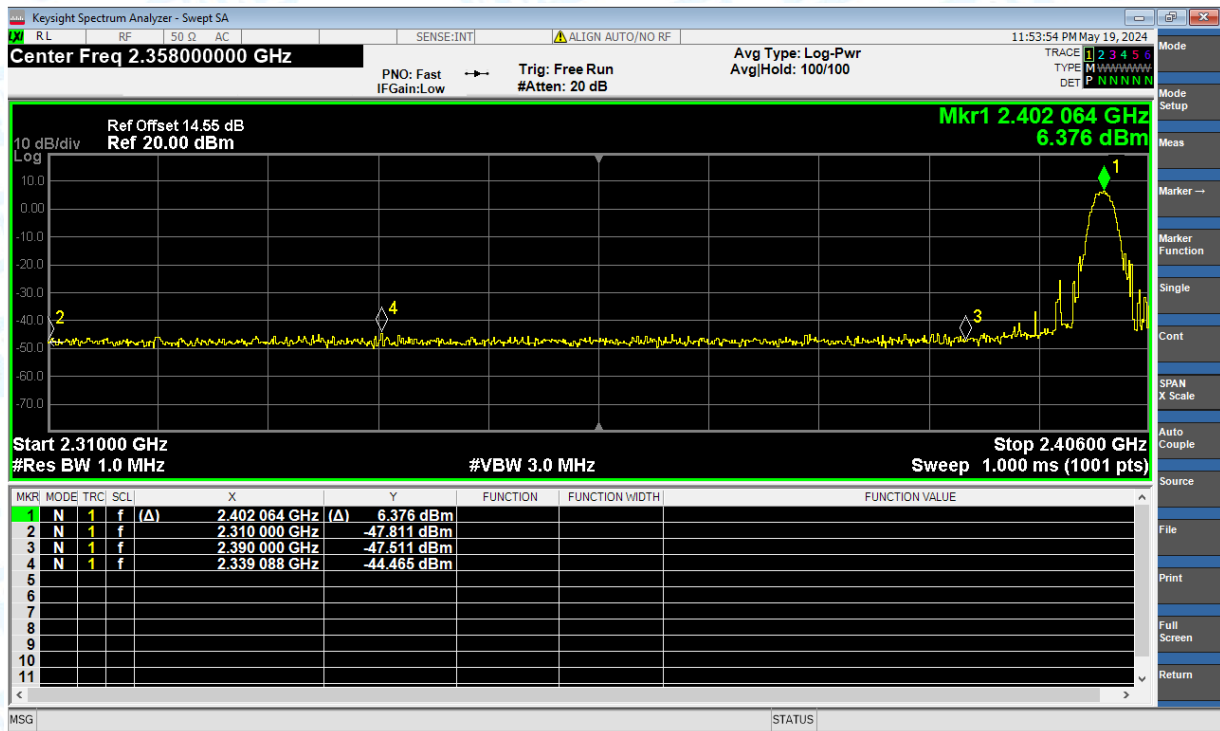
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



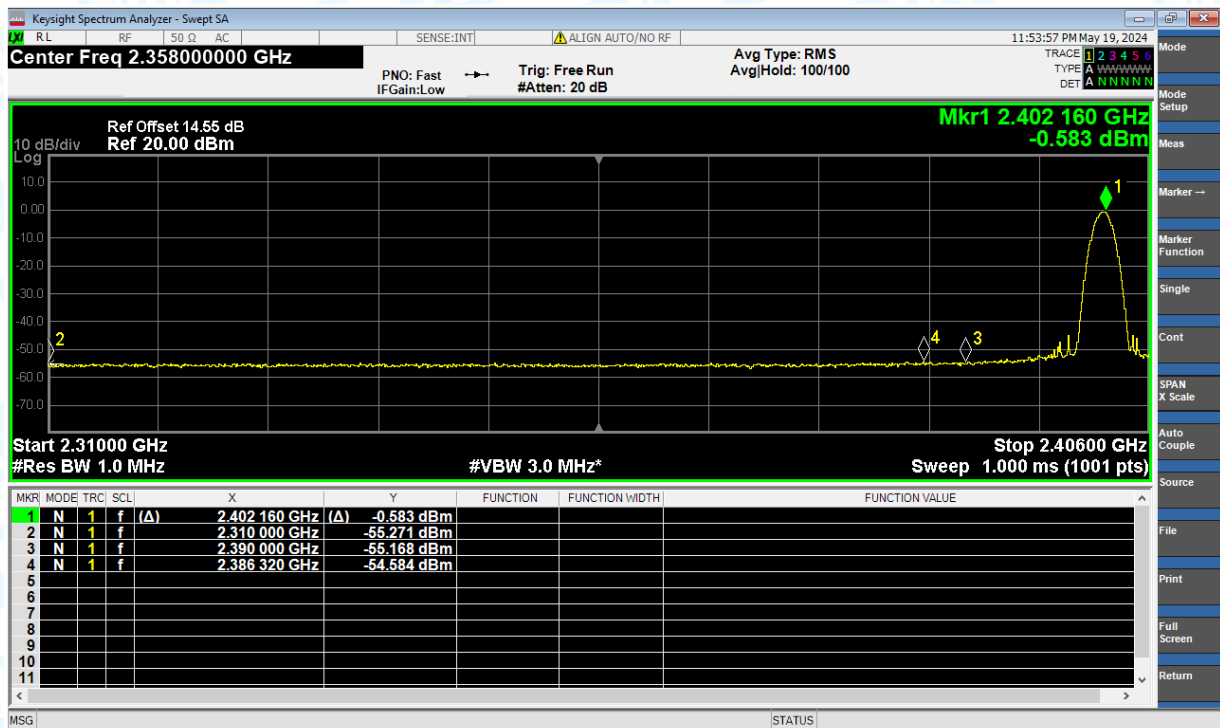
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



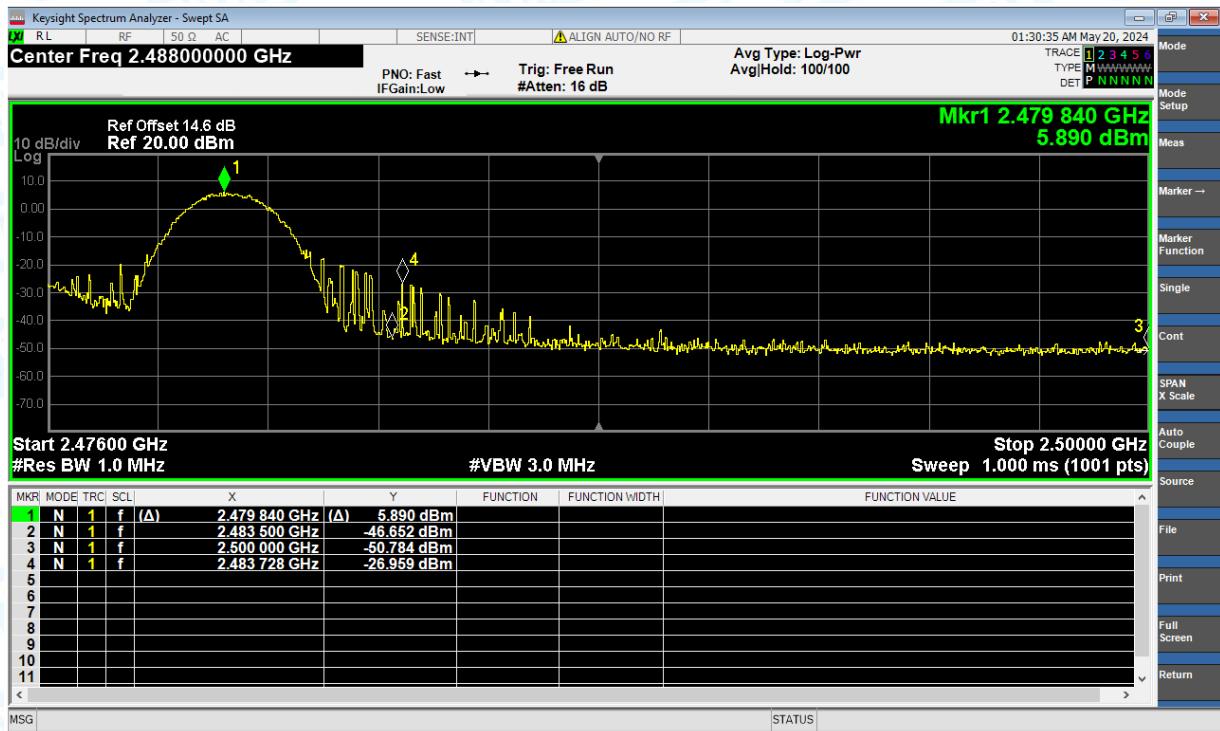
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



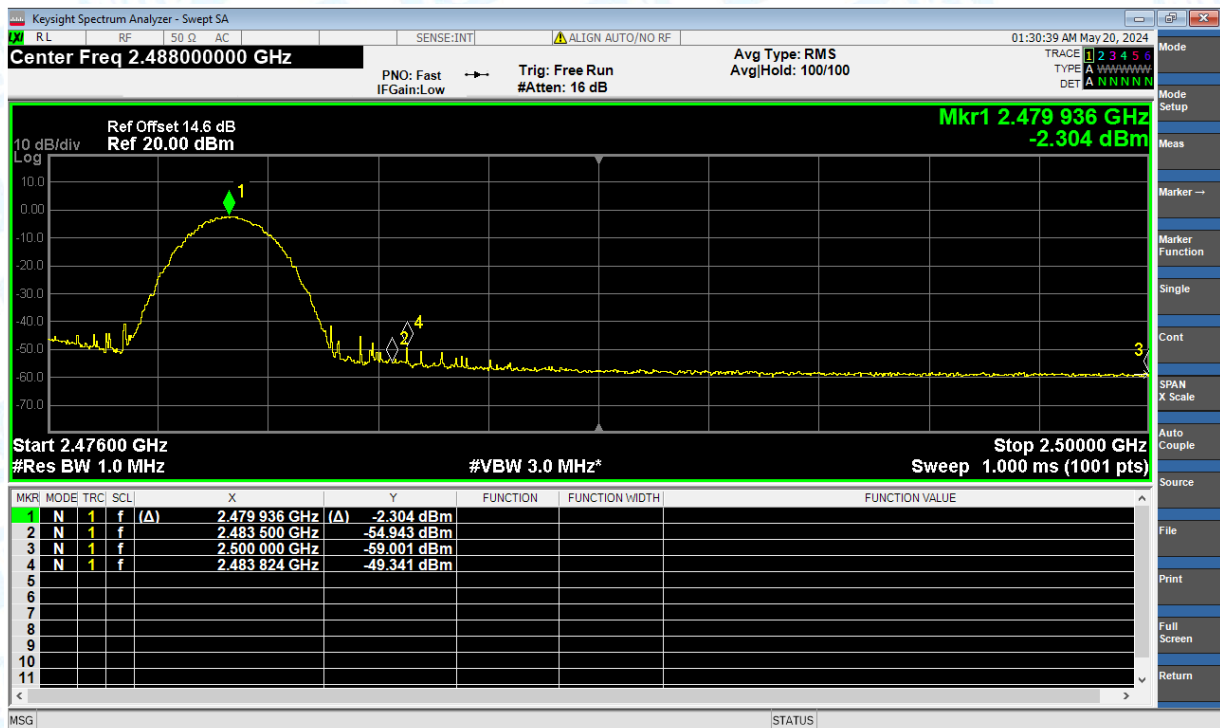
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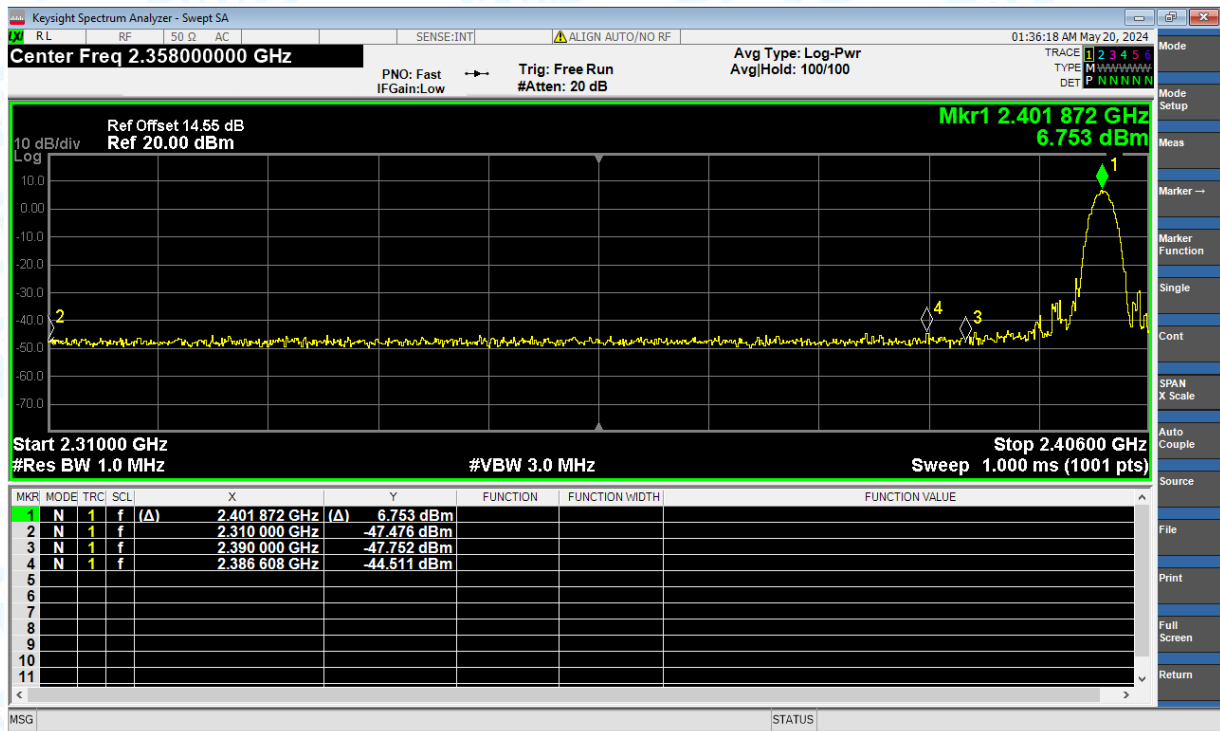
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



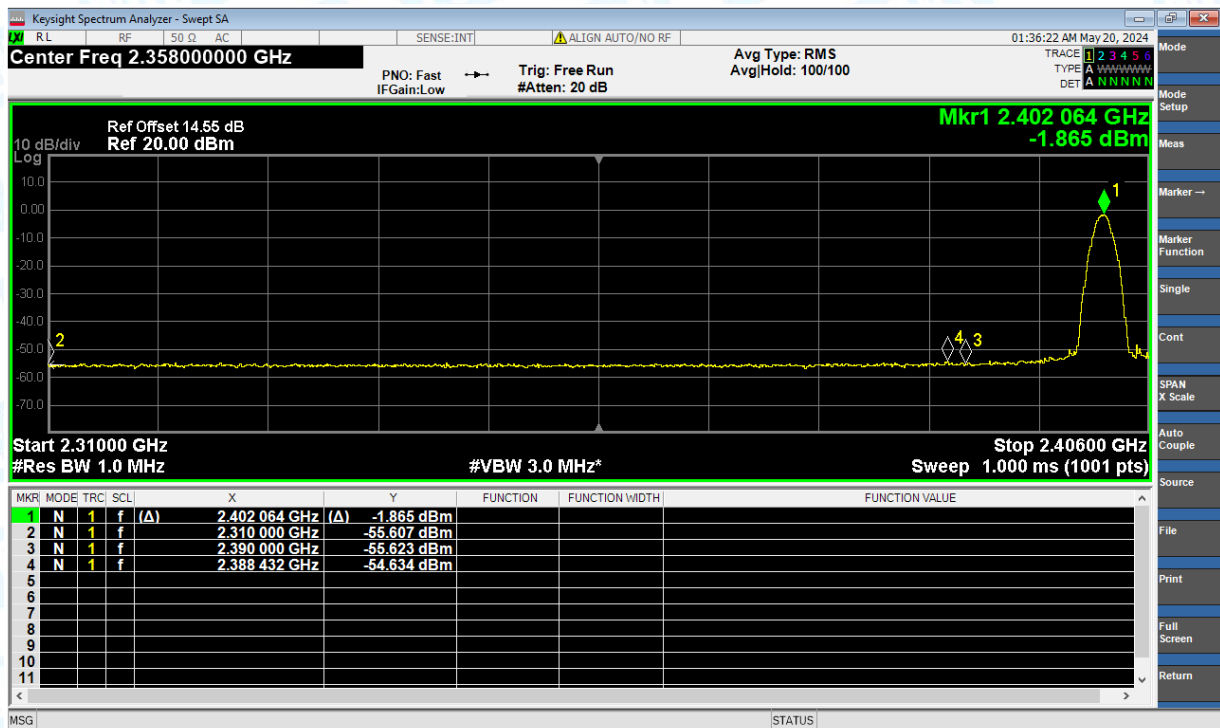
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



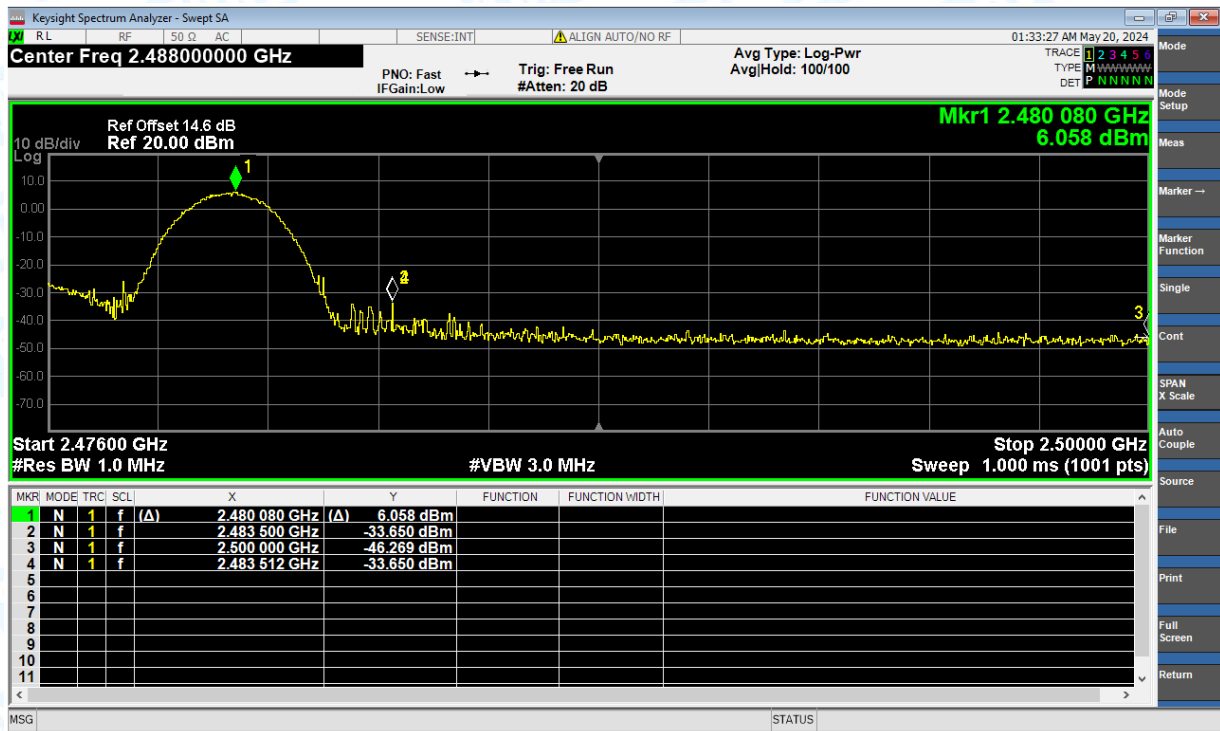
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



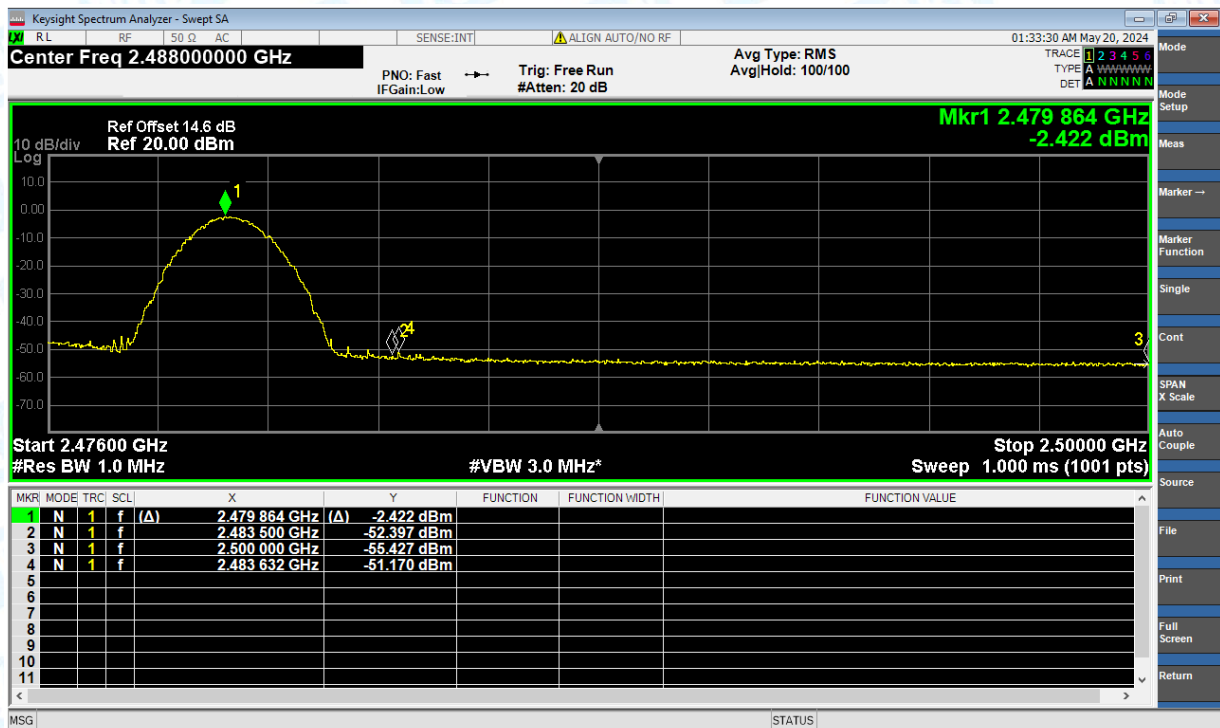
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

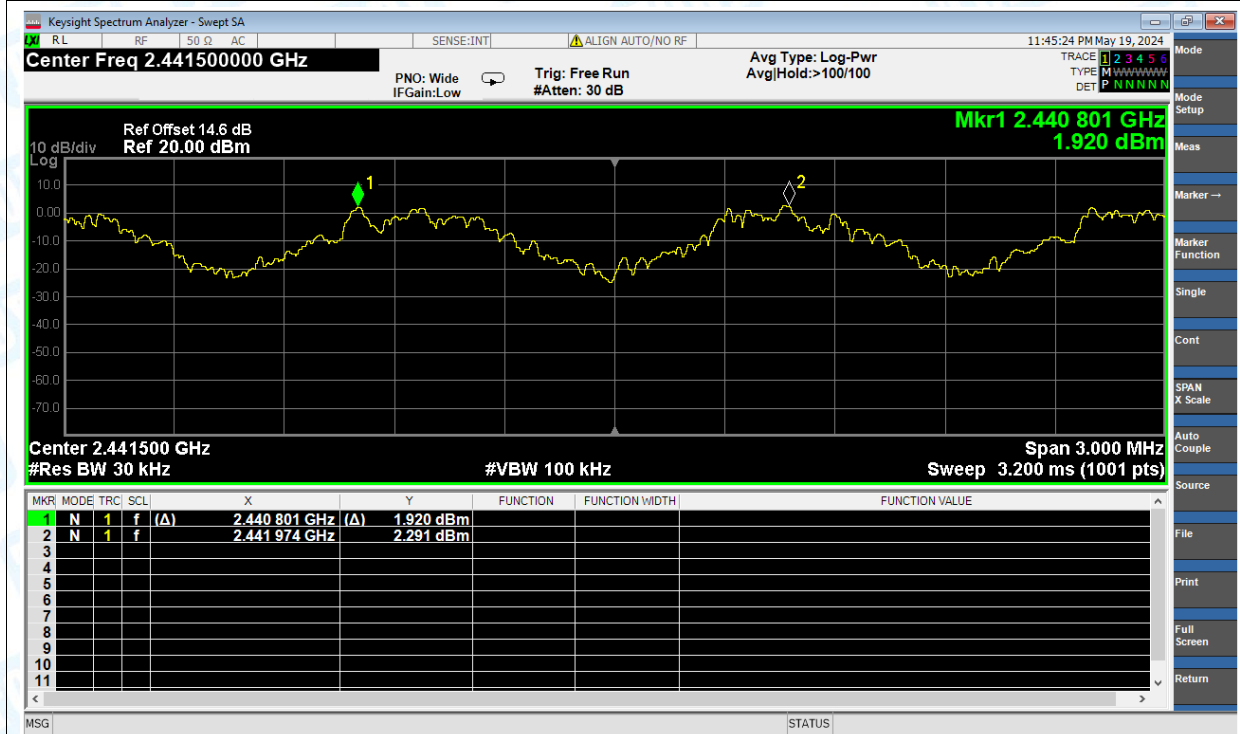


9.Carrier Frequencies Separation

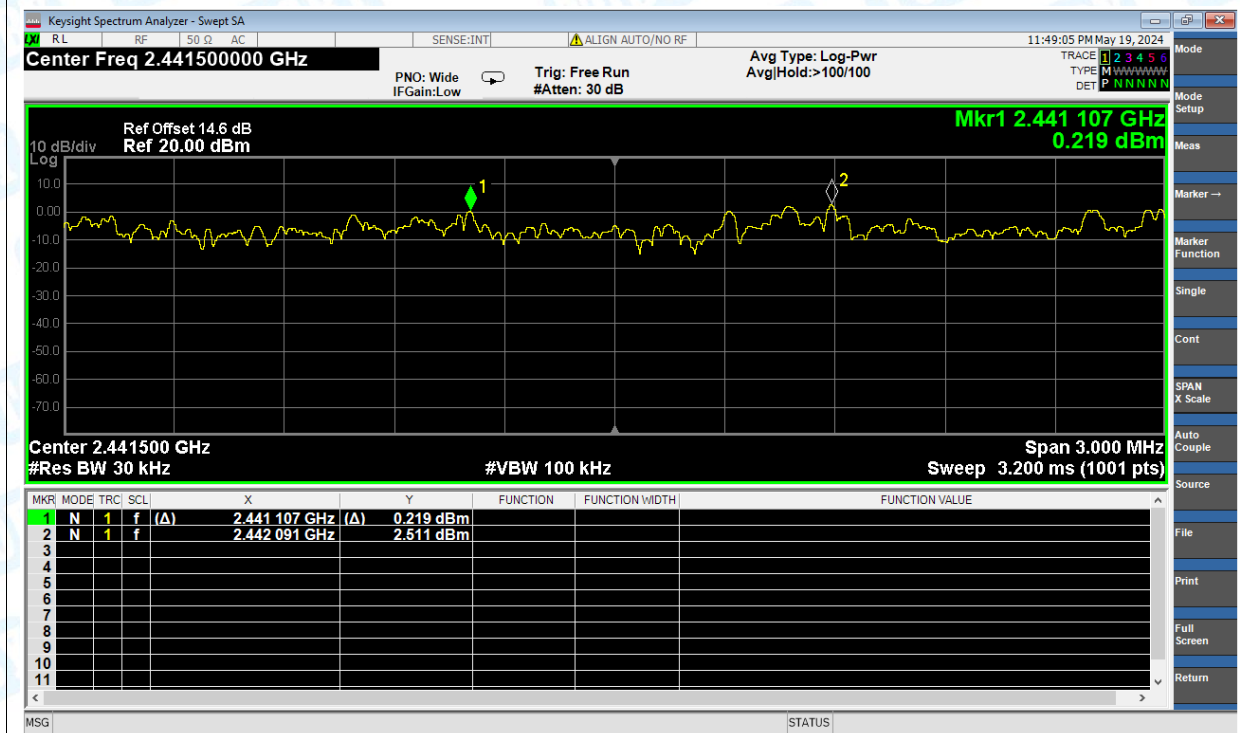
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.801	2441.974	1.173	0.573	Pass
NVNT	2-DH1	Ant1	2441.107	2442.091	0.984	0.025	Pass
NVNT	3-DH1	Ant1	2440.972	2441.803	0.831	0.827	Pass

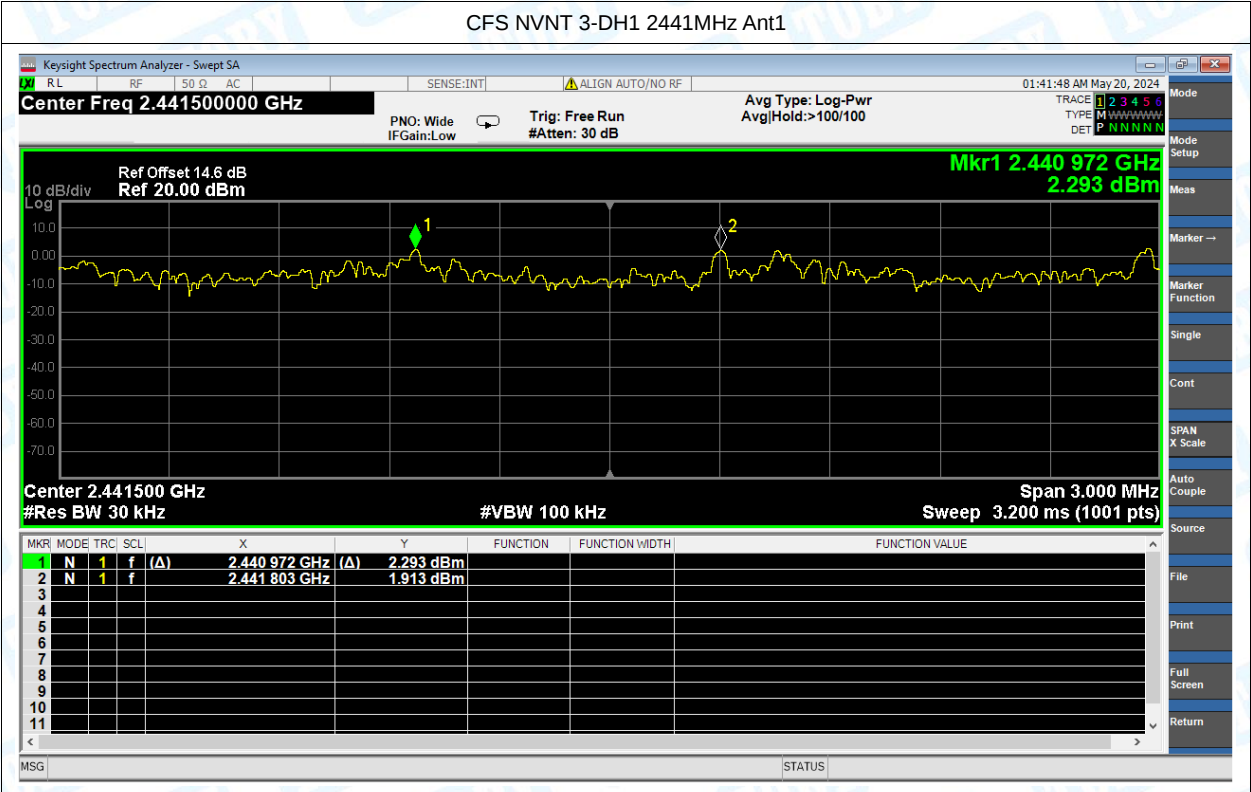
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



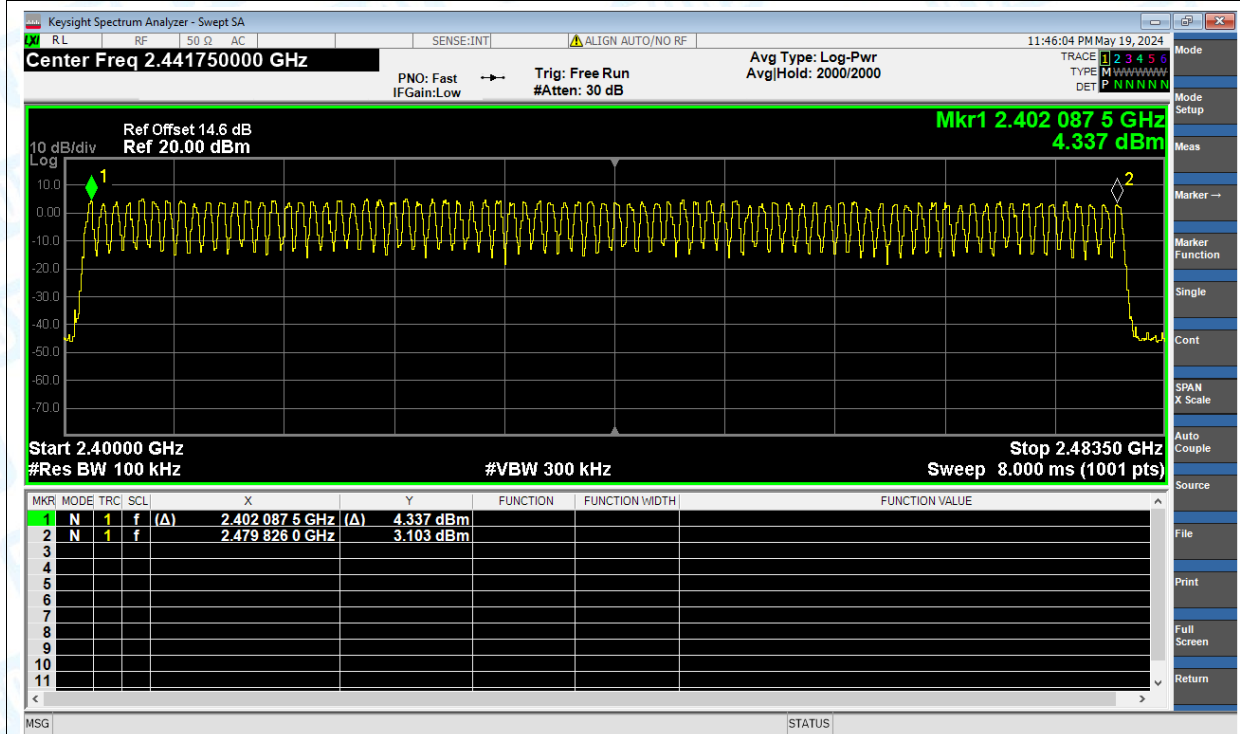


10.Number of Hopping Channel

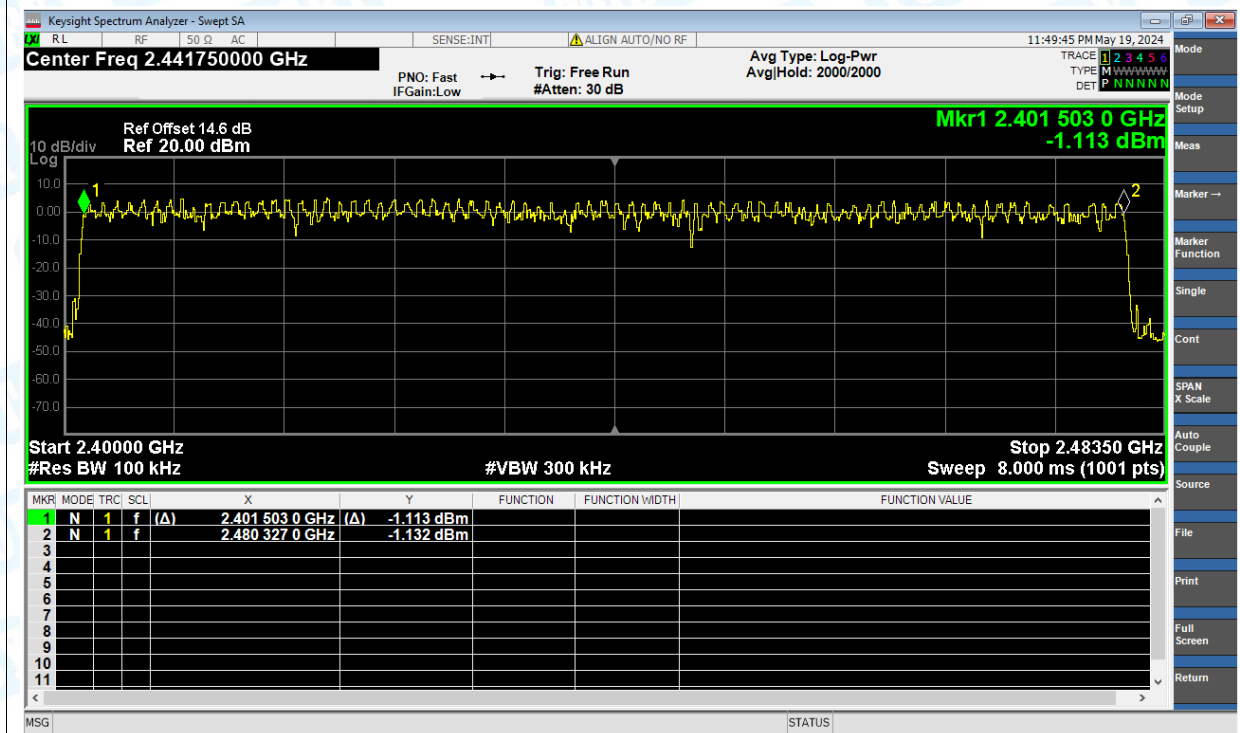
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

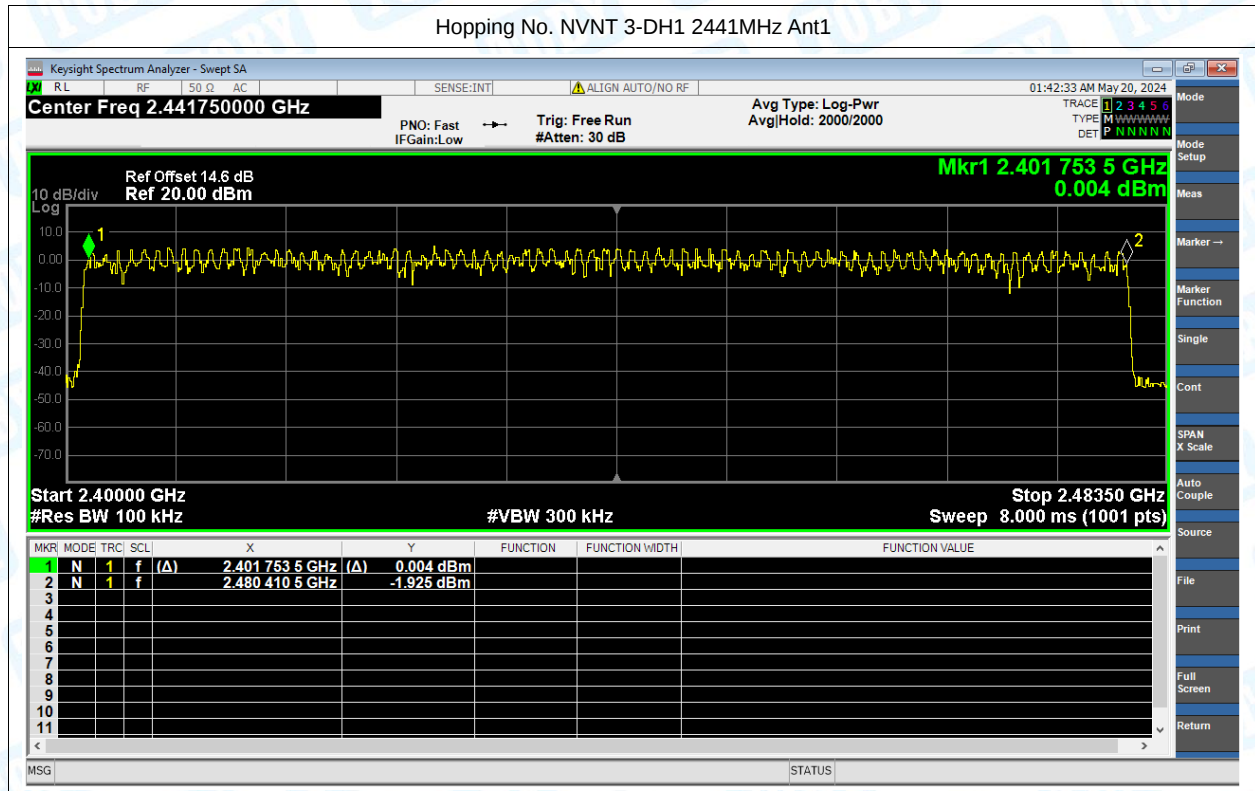
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



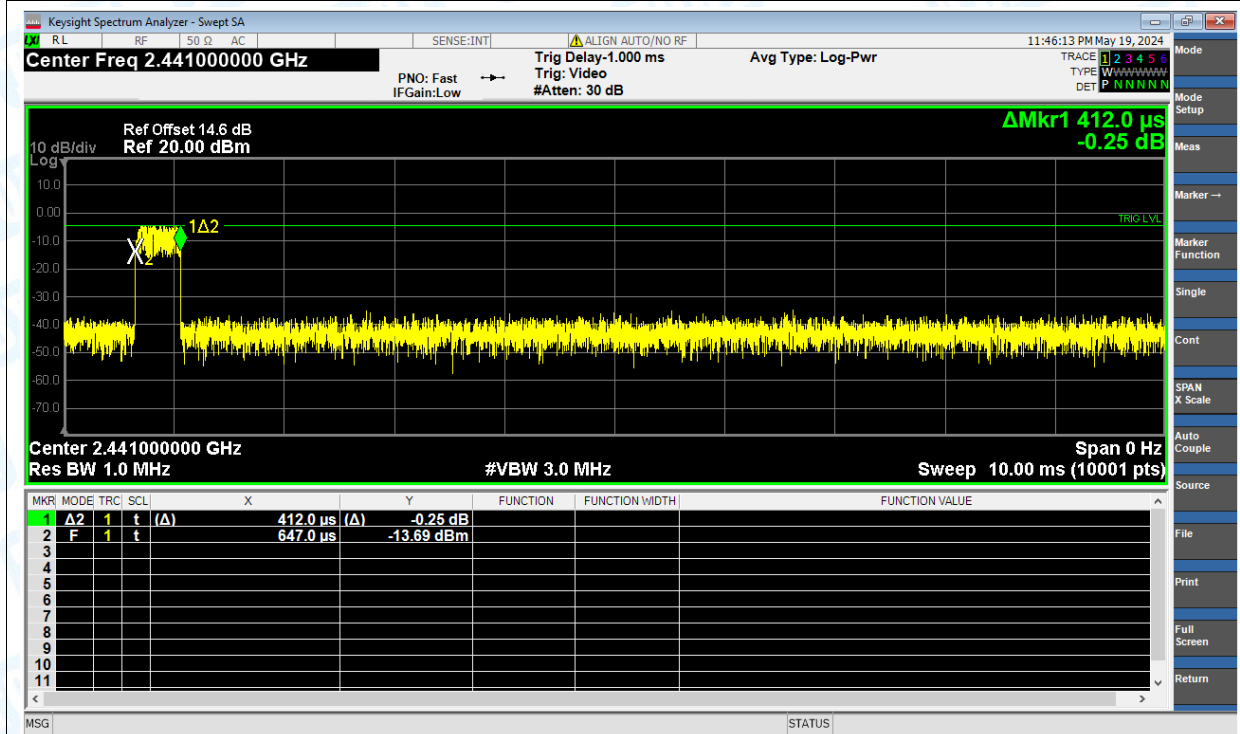


11.Dwell Time

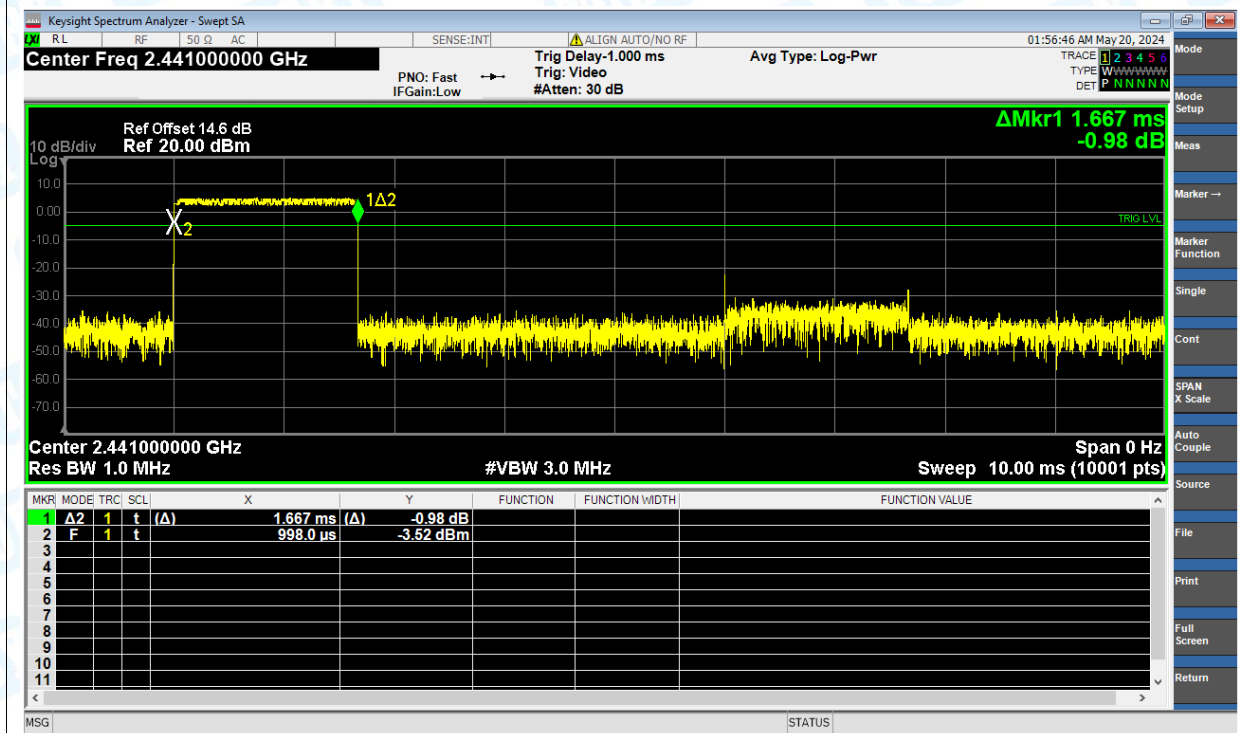
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.412	131.84	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.667	266.72	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.915	310.933	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.42	134.4	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.673	267.68	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.917	311.147	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.422	135.04	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.673	267.68	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.921	311.573	31600	400	Pass

Test Graphs

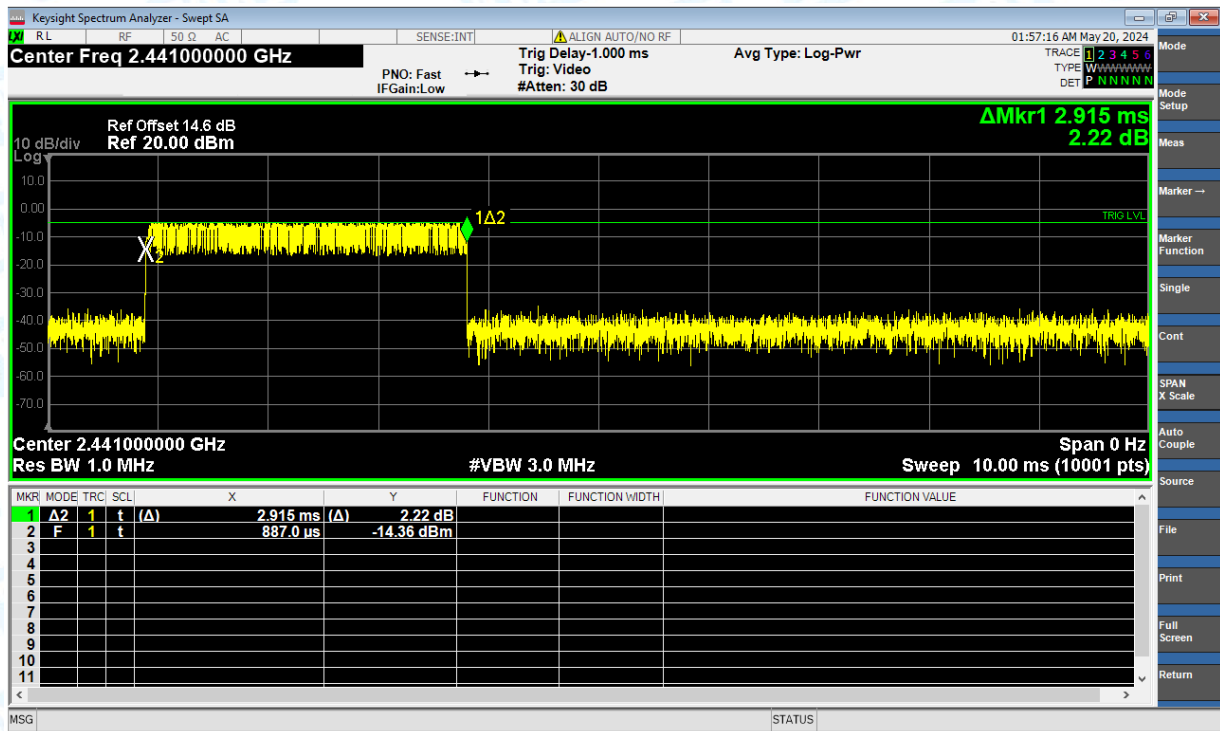
Dwell NVNT 1-DH1 2441MHz Ant1



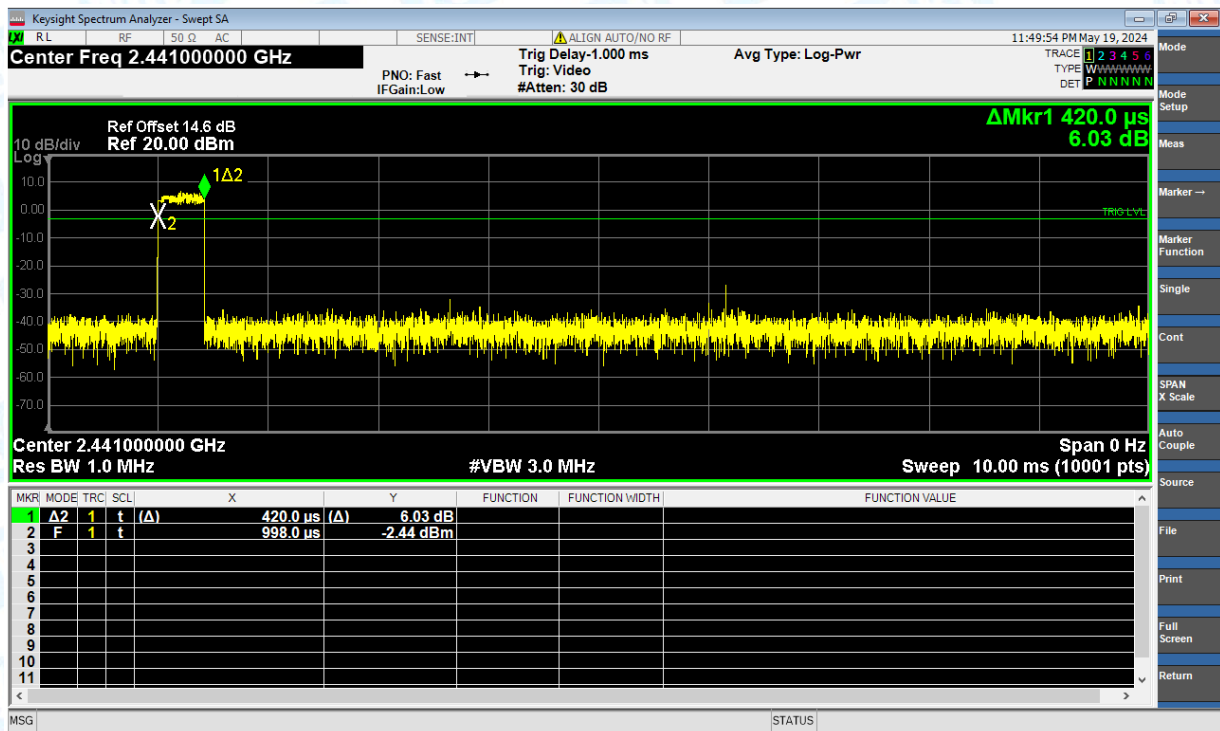
Dwell NVNT 1-DH3 2441MHz Ant1



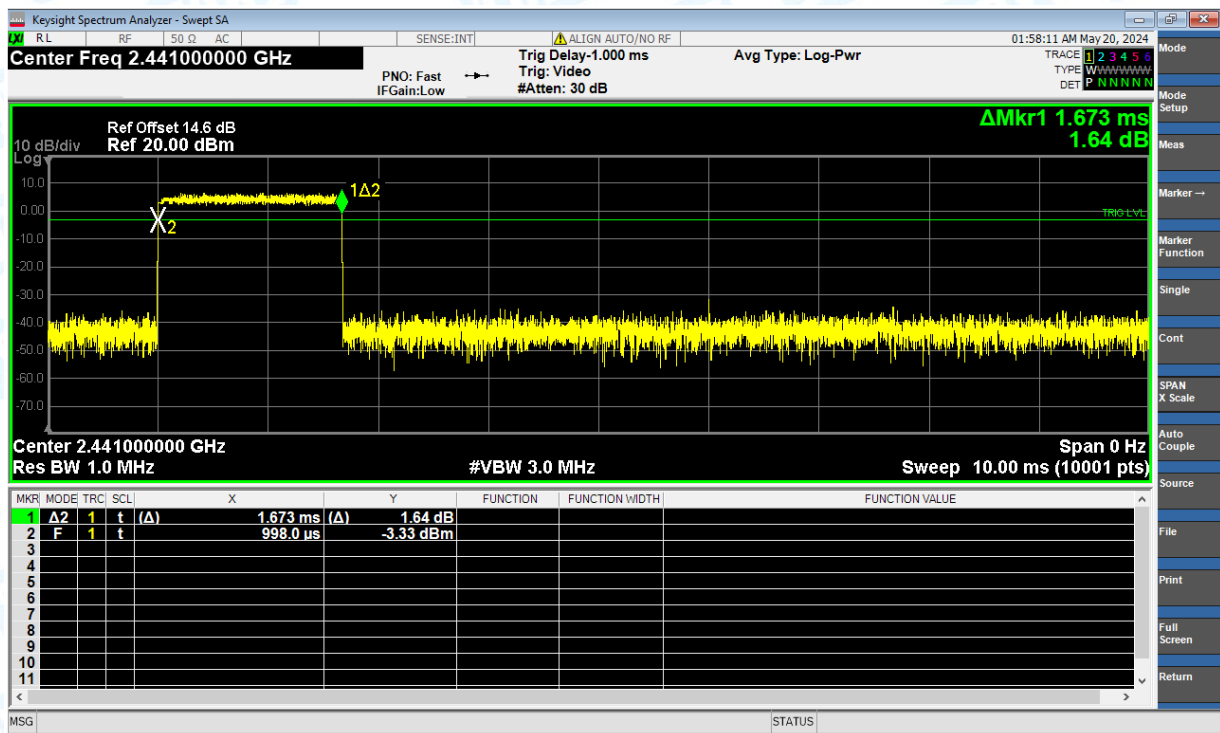
Dwell NVNT 1-DH5 2441MHz Ant1



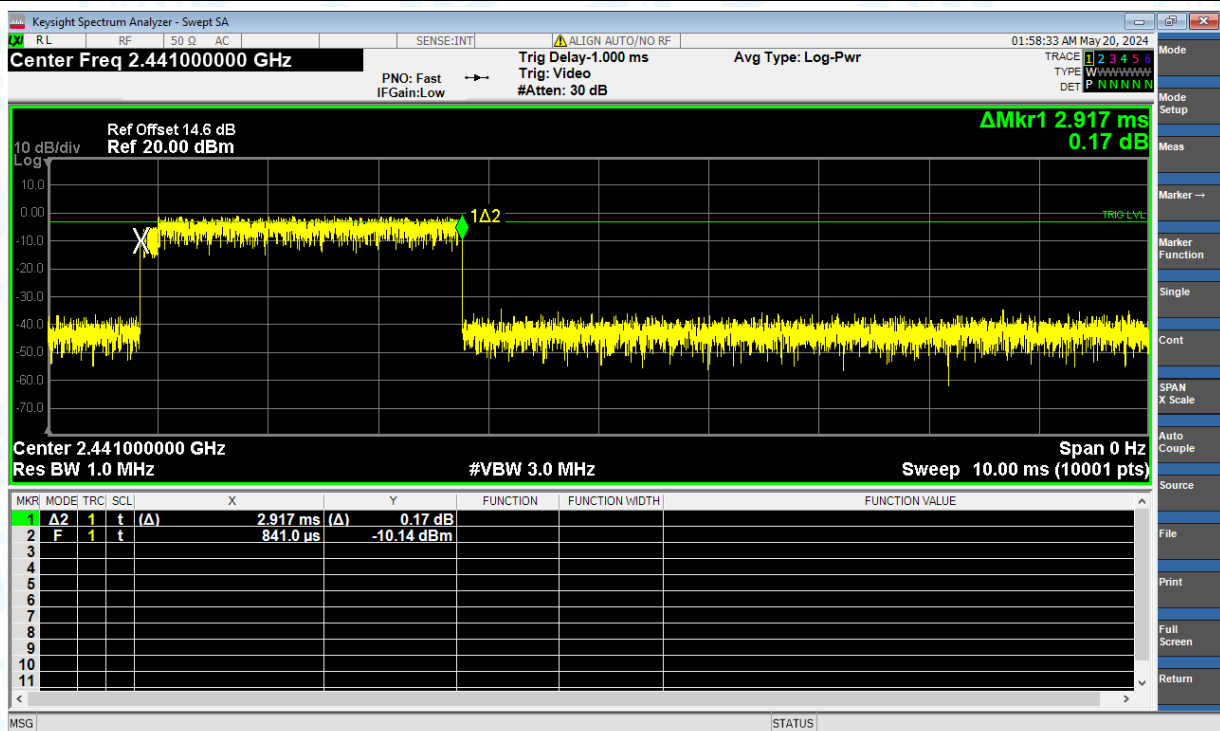
Dwell NVNT 2-DH1 2441MHz Ant1



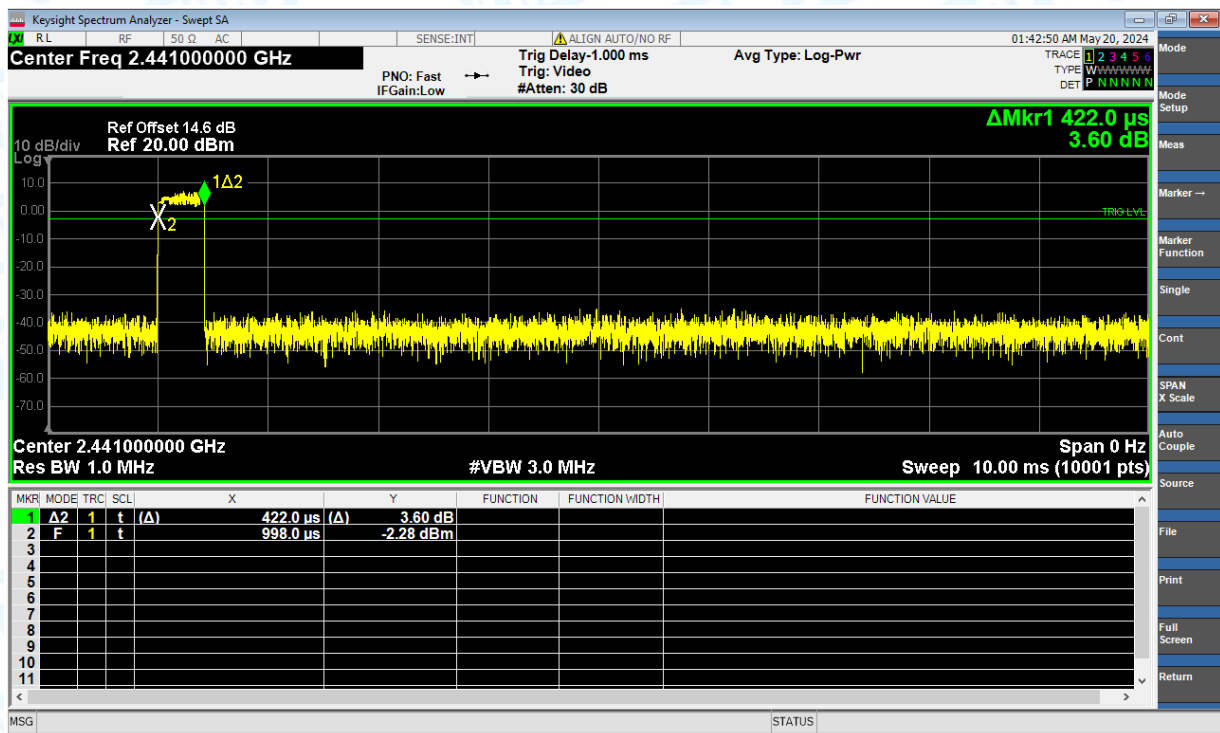
Dwell NVNT 2-DH3 2441MHz Ant1



Dwell NVNT 2-DH5 2441MHz Ant1



Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1

