

RF Test Data for Bluetooth(BR+EDR) (Conducted Measurements)

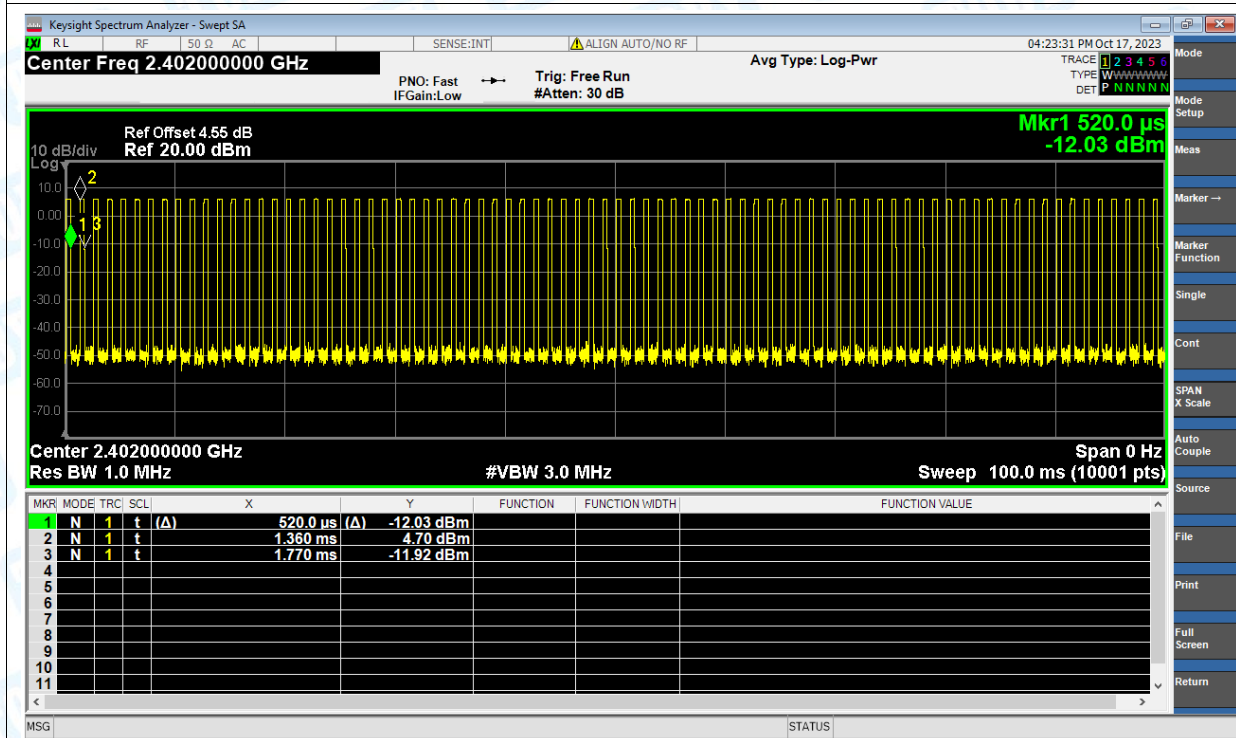
General Description of EUT	
Product Name:	smart watch
Test Model:	B1
Sample ID:	HC-C-202310-0049-01-01-2#
Environmental Conditions	
Temperature:	23.8℃
Relative Humidity:	48%
Test Voltage:	DC 3.8V
Test Engineer:	Zhang Chen Xi
Note: For a more detailed features description, please refer to the report TBR-C-202310-0049-6 The report only show the worst case data.	

1. Duty Cycle

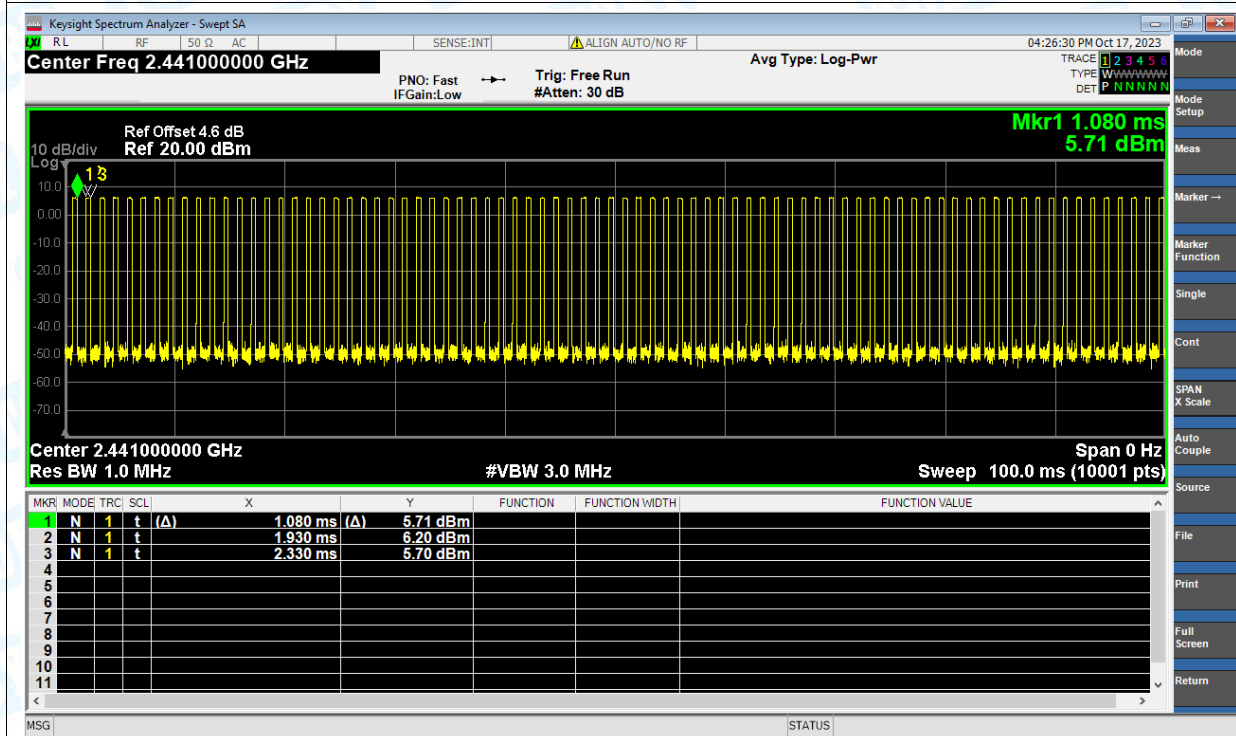
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	32.8	4.84	2.44
NVNT	1-DH1	2441	Ant1	32	4.95	2.5
NVNT	1-DH1	2480	Ant1	32	4.95	2.5
NVNT	2-DH1	2402	Ant1	32.8	4.84	2.44
NVNT	2-DH1	2441	Ant1	32.8	4.84	2.44
NVNT	2-DH1	2480	Ant1	32.8	4.84	2.44
NVNT	3-DH1	2402	Ant1	33.6	4.74	2.38
NVNT	3-DH1	2441	Ant1	32.8	4.84	2.44
NVNT	3-DH1	2480	Ant1	32.8	4.84	2.44

Test Graphs

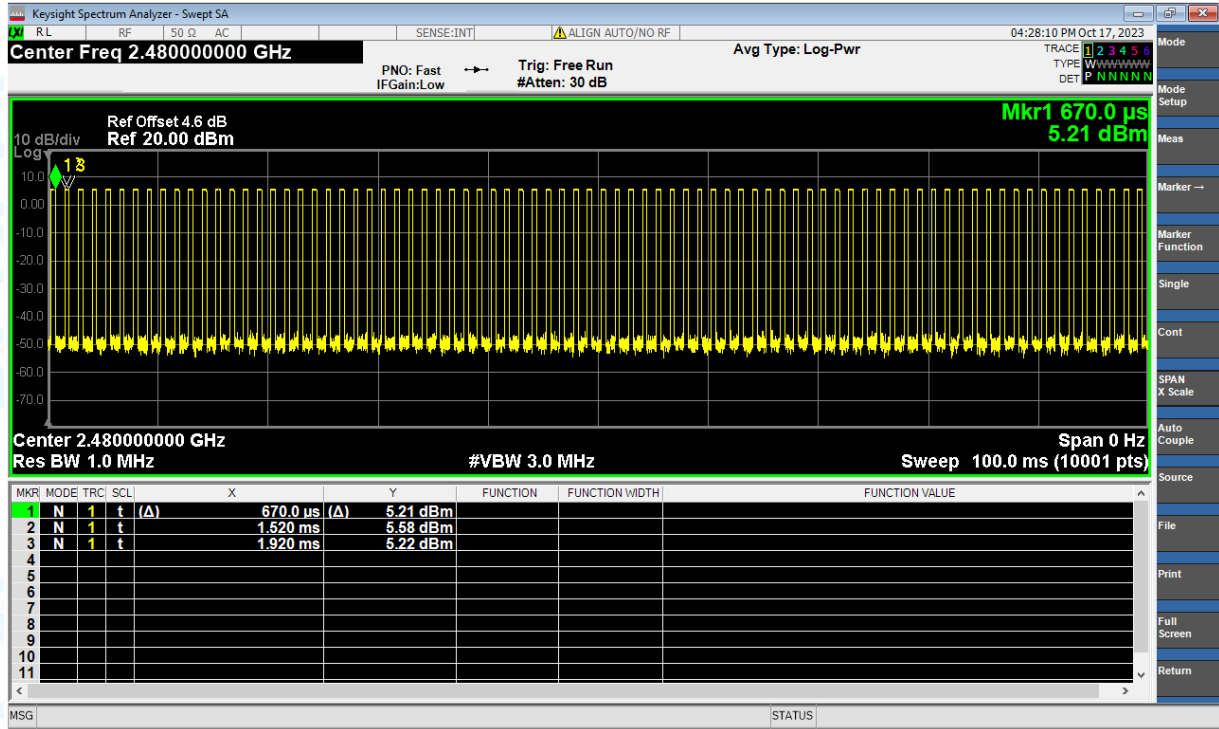
Duty Cycle NVNT 1-DH1 2402MHz Ant1



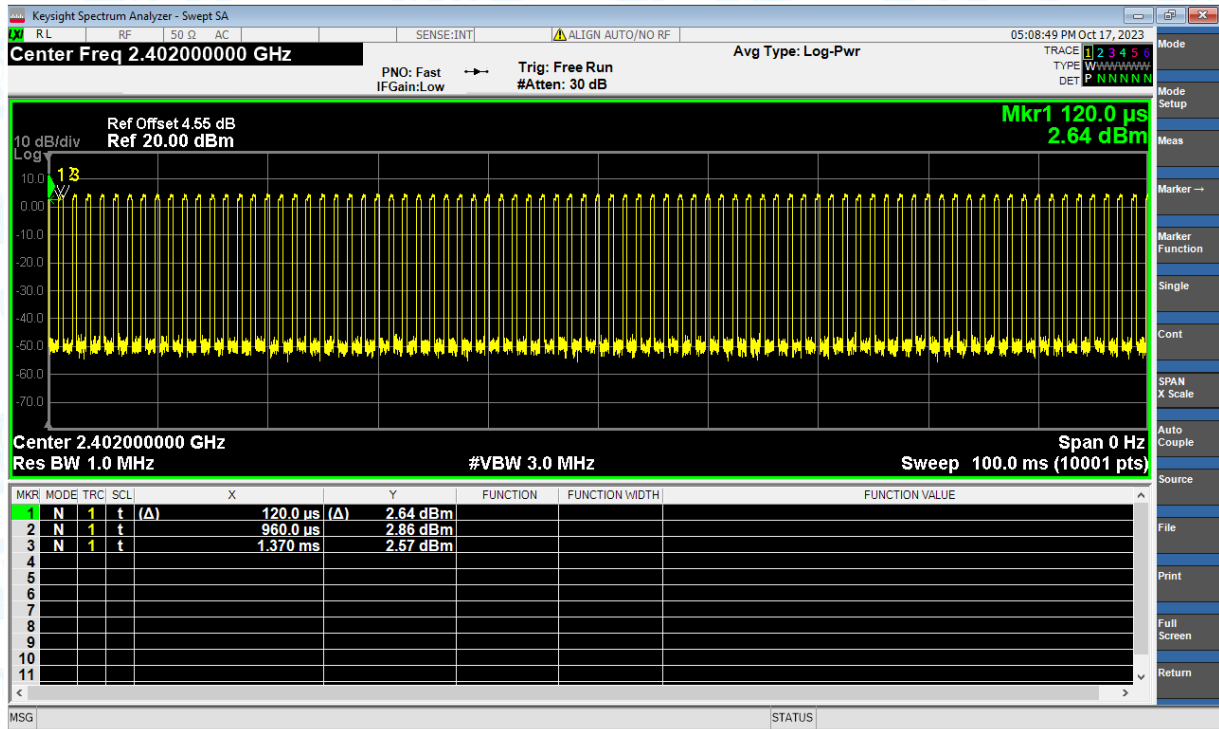
Duty Cycle NVNT 1-DH1 2441MHz Ant1



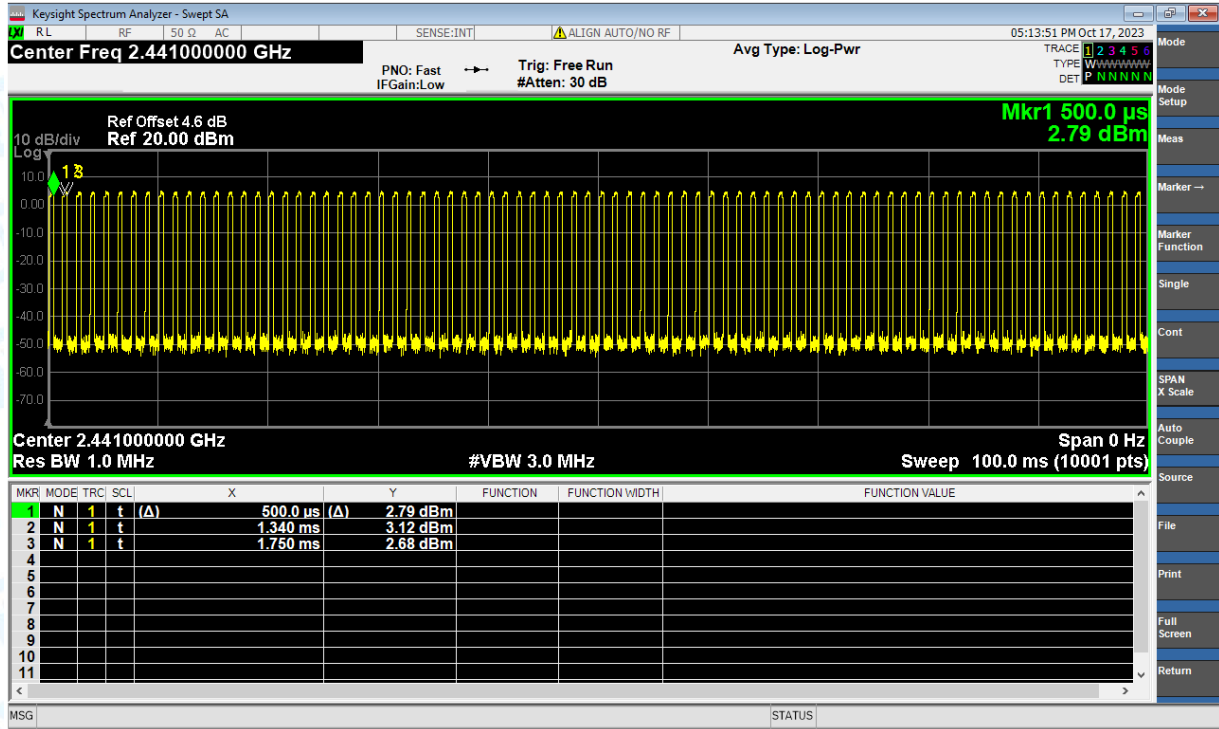
Duty Cycle NVNT 1-DH1 2480MHz Ant1



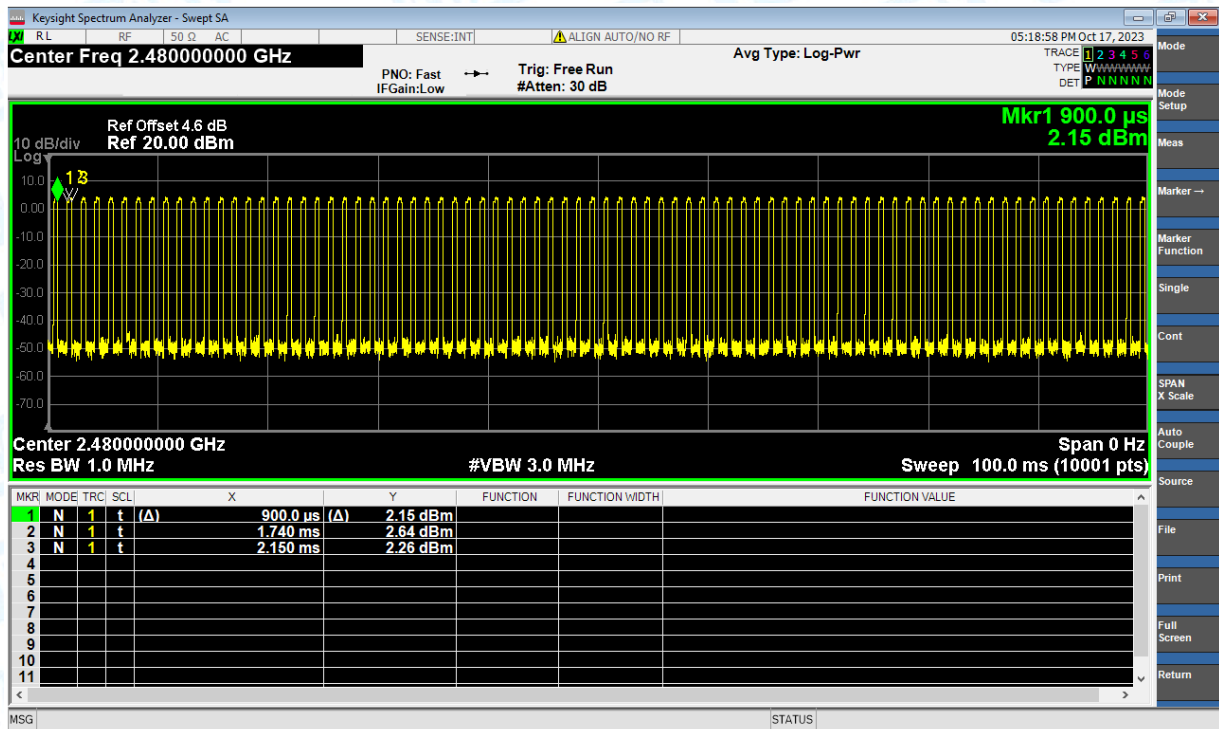
Duty Cycle NVNT 2-DH1 2402MHz Ant1



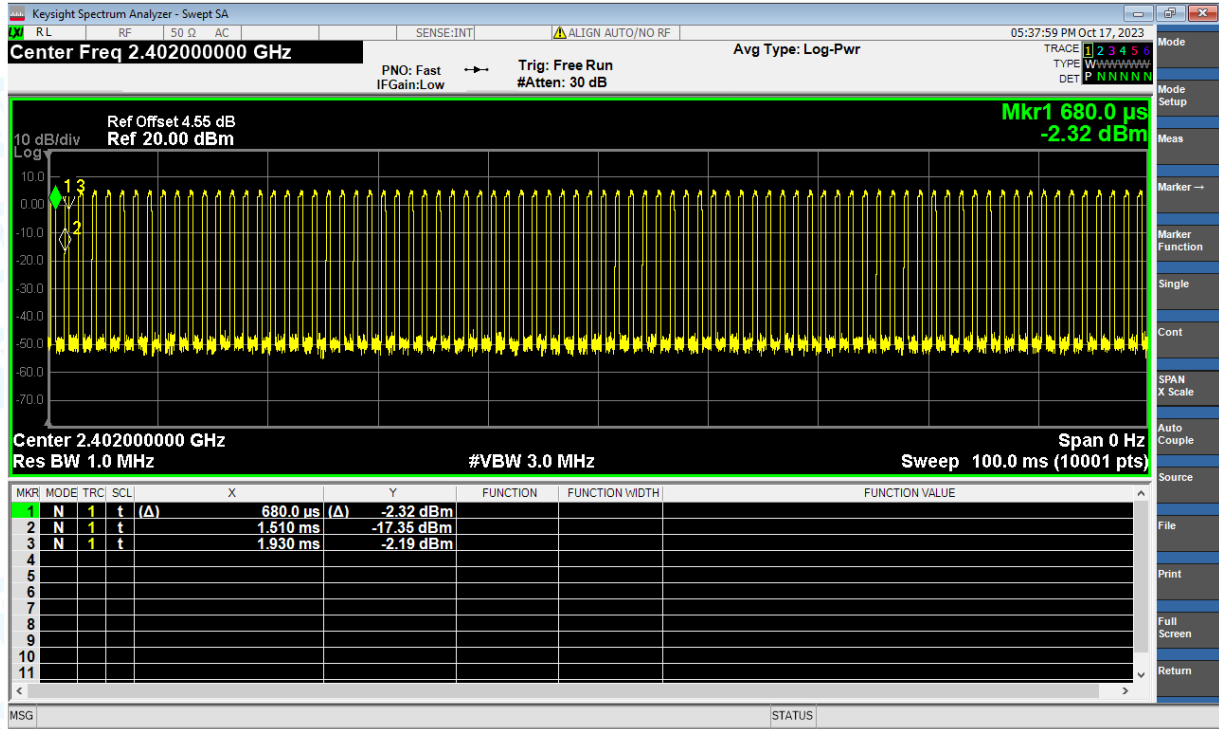
Duty Cycle NVNT 2-DH1 2441MHz Ant1



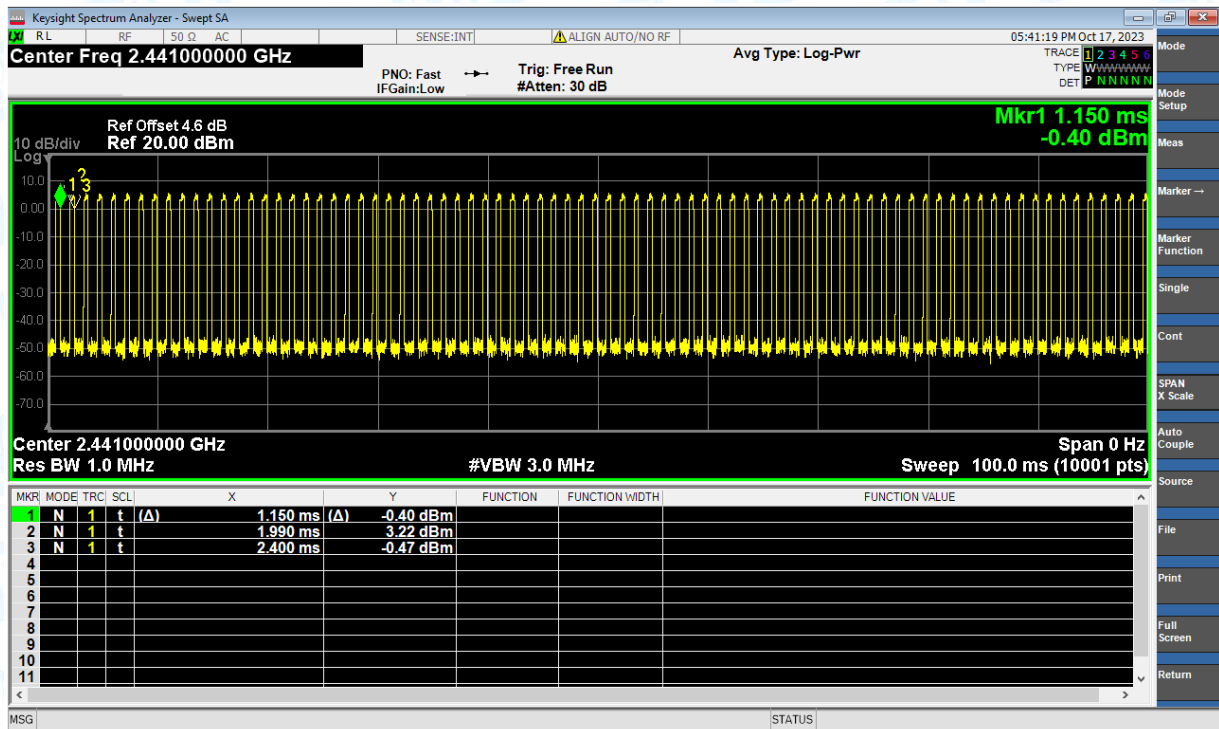
Duty Cycle NVNT 2-DH1 2480MHz Ant1

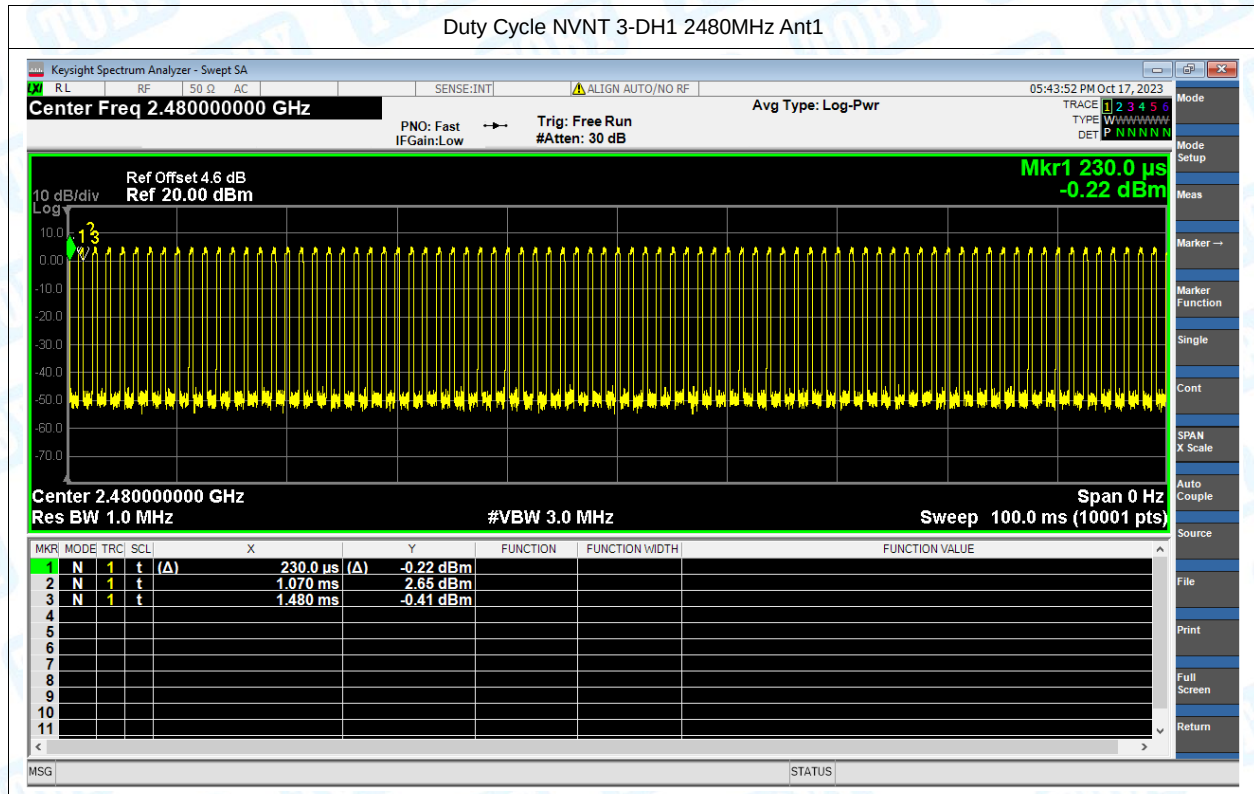


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



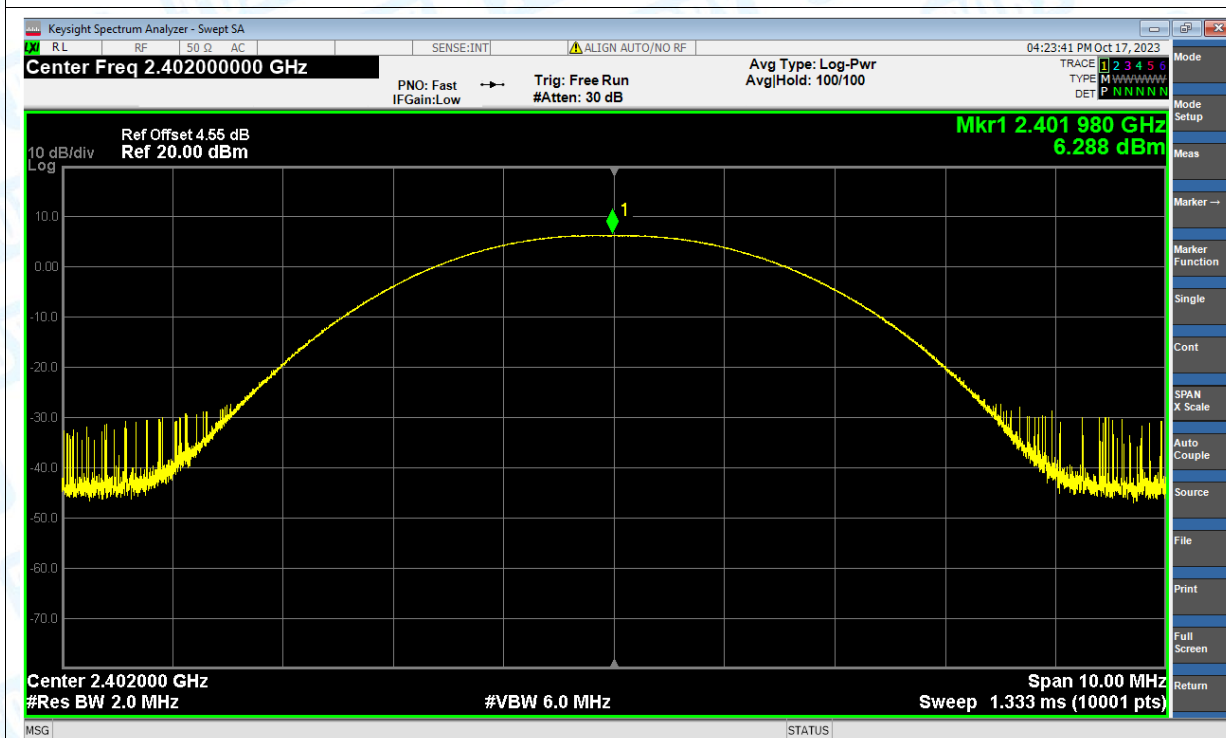


2. Maximum Conducted Output Power

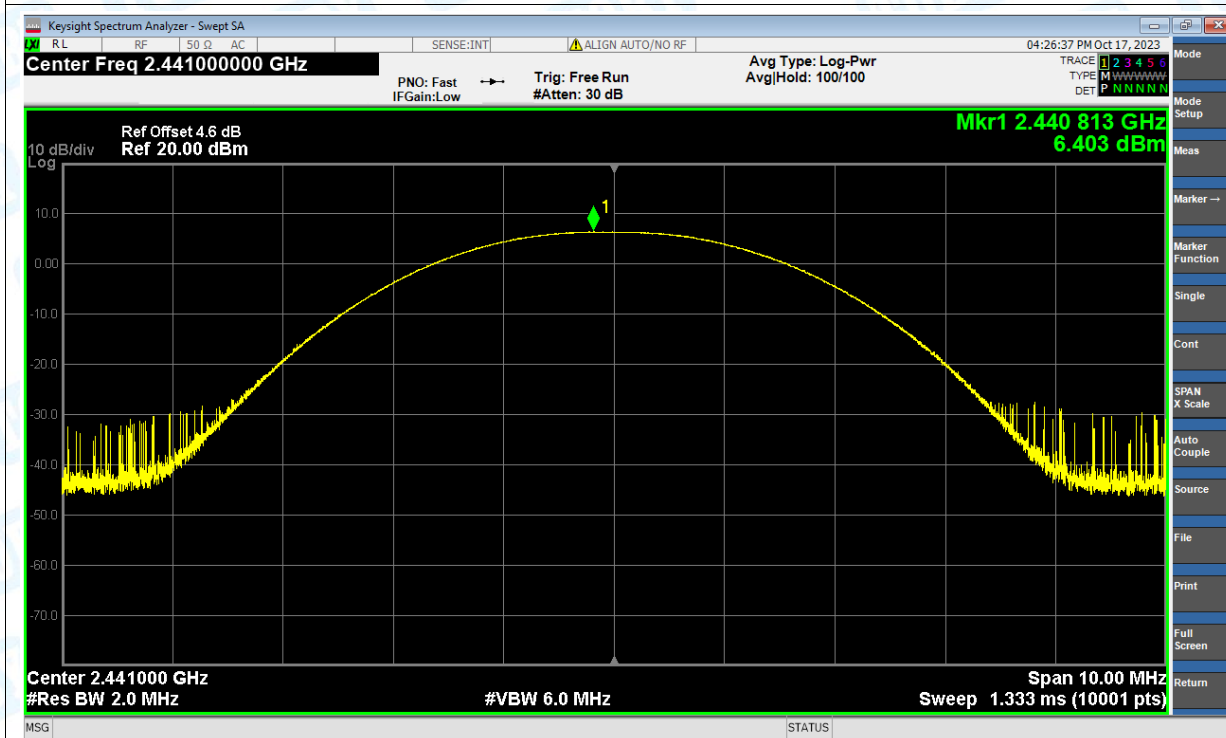
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	6.288	21	Pass
NVNT	1-DH1	2441	Ant1	6.403	21	Pass
NVNT	1-DH1	2480	Ant1	5.768	21	Pass
NVNT	2-DH1	2402	Ant1	5.231	21	Pass
NVNT	2-DH1	2441	Ant1	5.369	21	Pass
NVNT	2-DH1	2480	Ant1	4.811	21	Pass
NVNT	3-DH1	2402	Ant1	5.951	21	Pass
NVNT	3-DH1	2441	Ant1	6.034	21	Pass
NVNT	3-DH1	2480	Ant1	5.453	21	Pass

Test Graphs

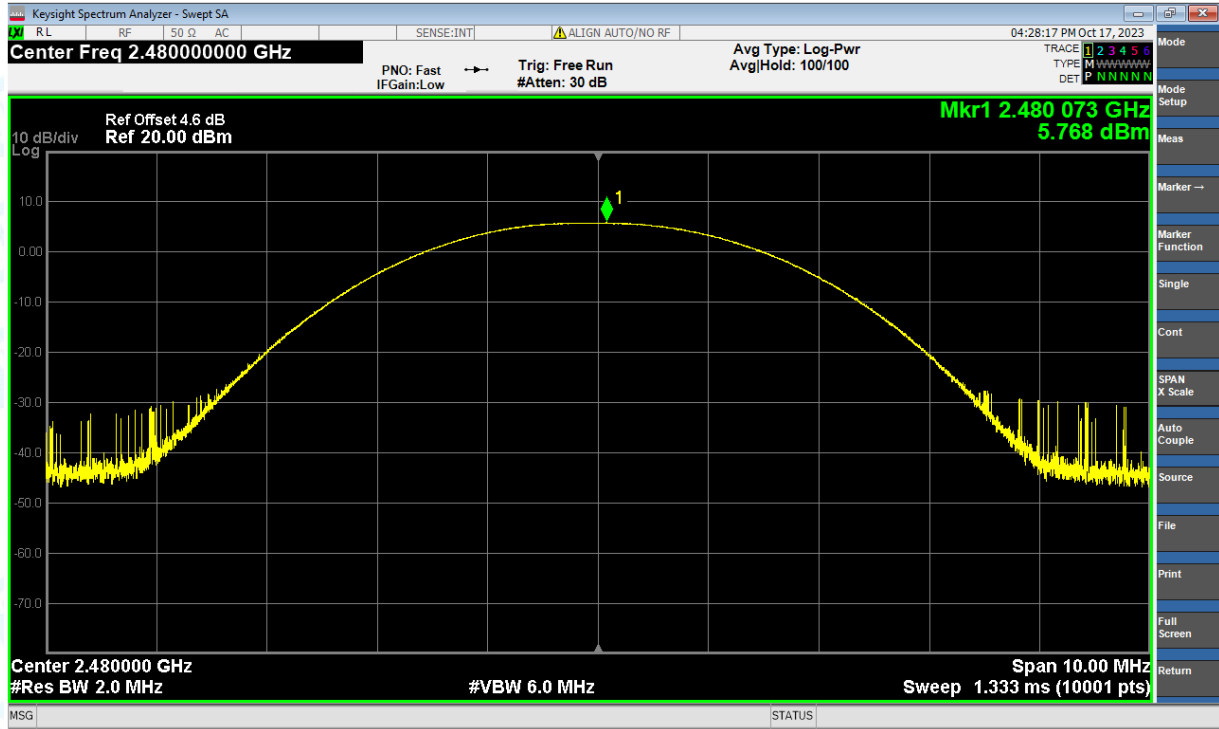
Power NVNT 1-DH1 2402MHz Ant1



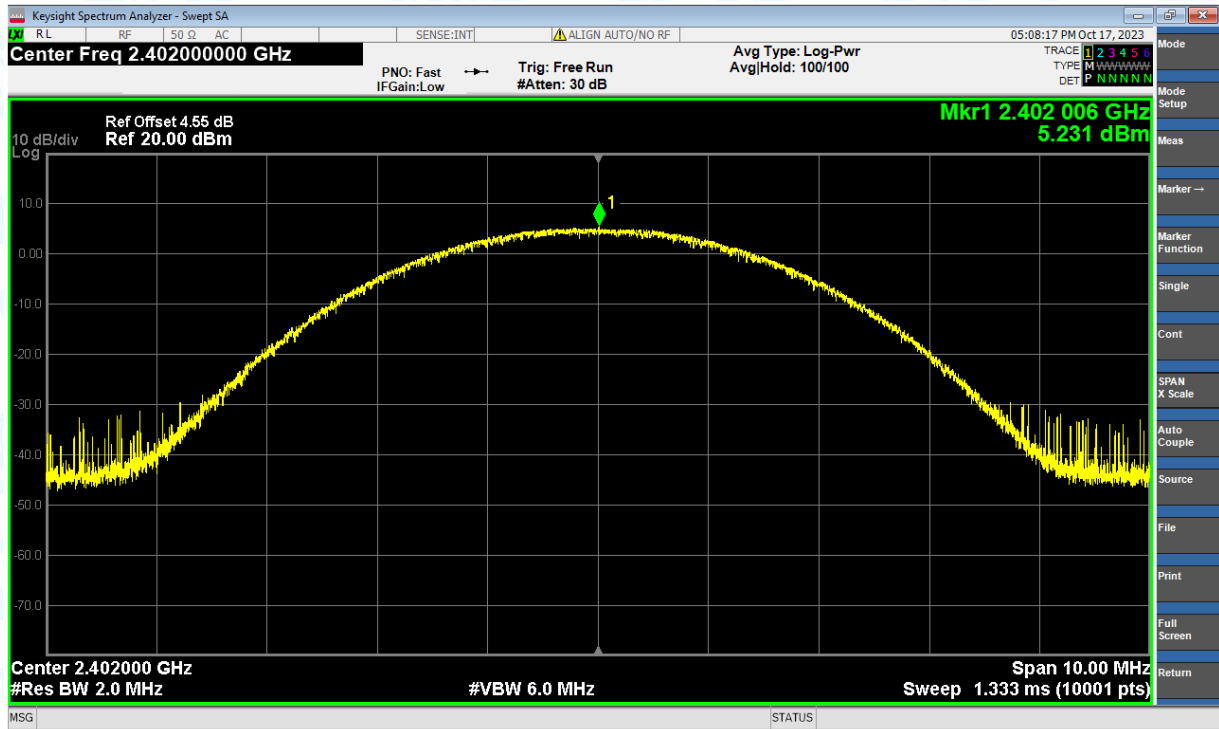
Power NVNT 1-DH1 2441MHz Ant1



Power NVNT 1-DH1 2480MHz Ant1



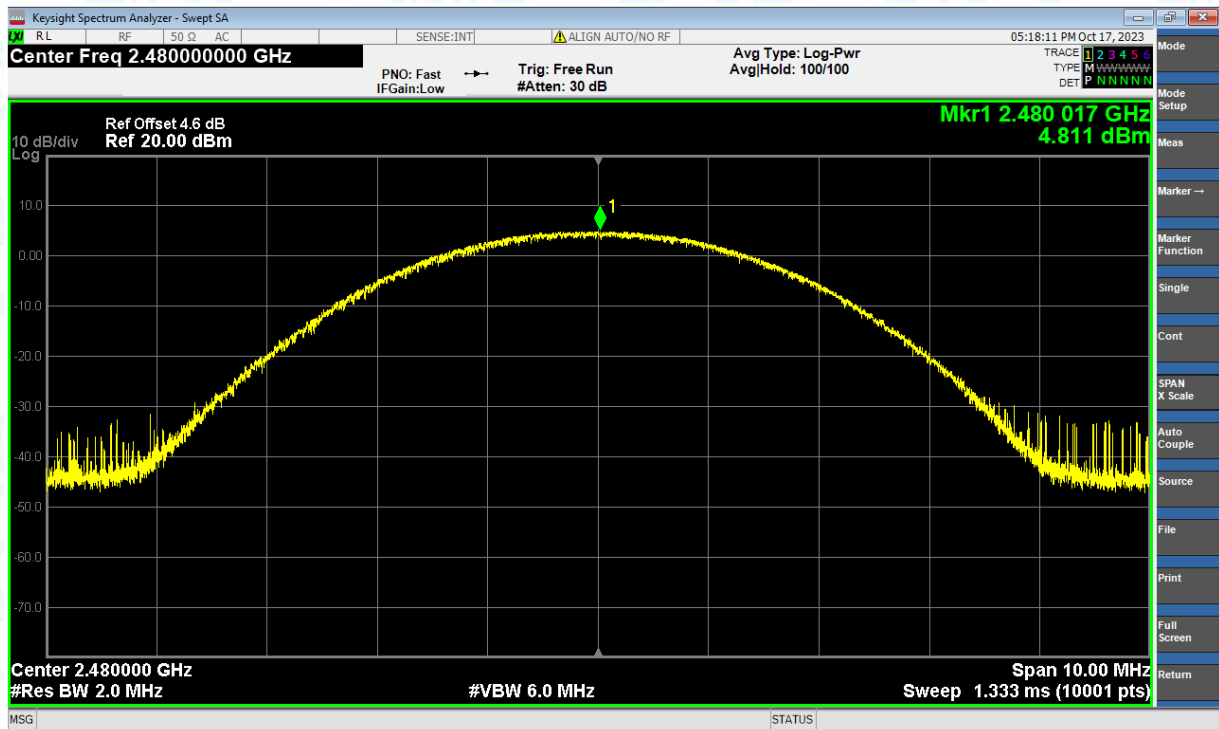
Power NVNT 2-DH1 2402MHz Ant1



Power NVNT 2-DH1 2441MHz Ant1



Power NVNT 2-DH1 2480MHz Ant1



Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



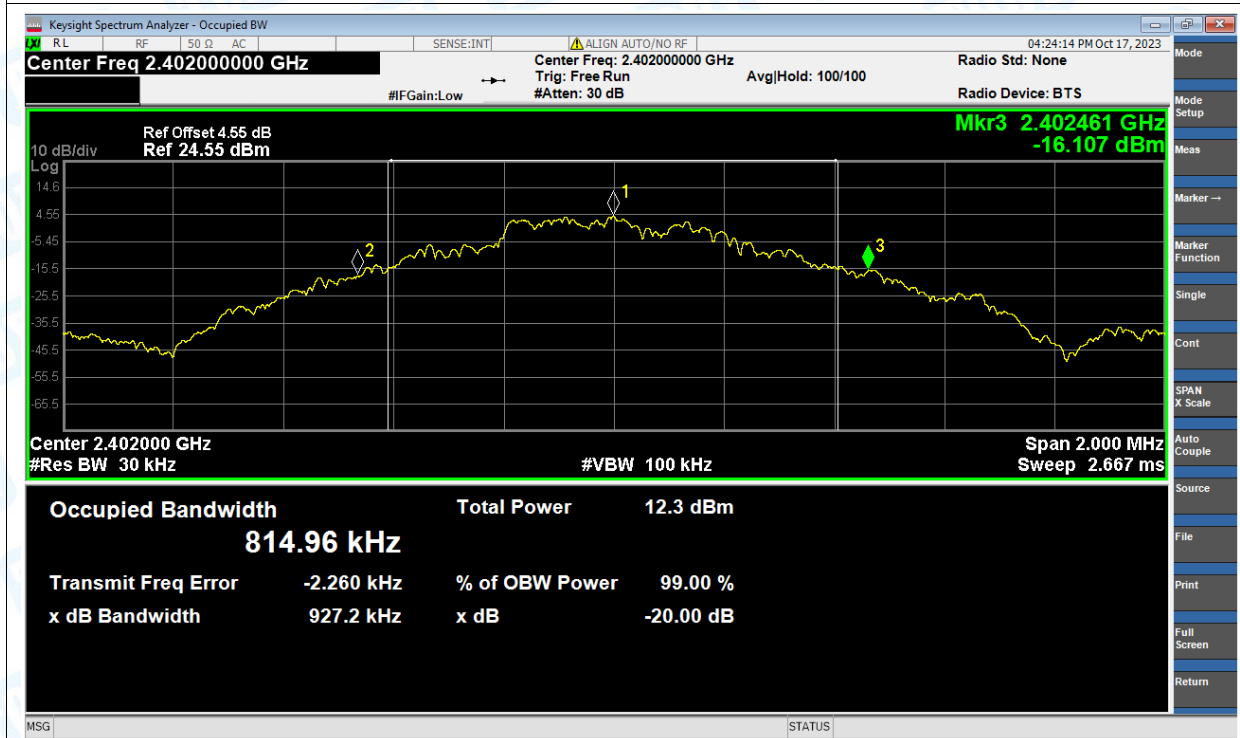


3. -20dB Bandwidth

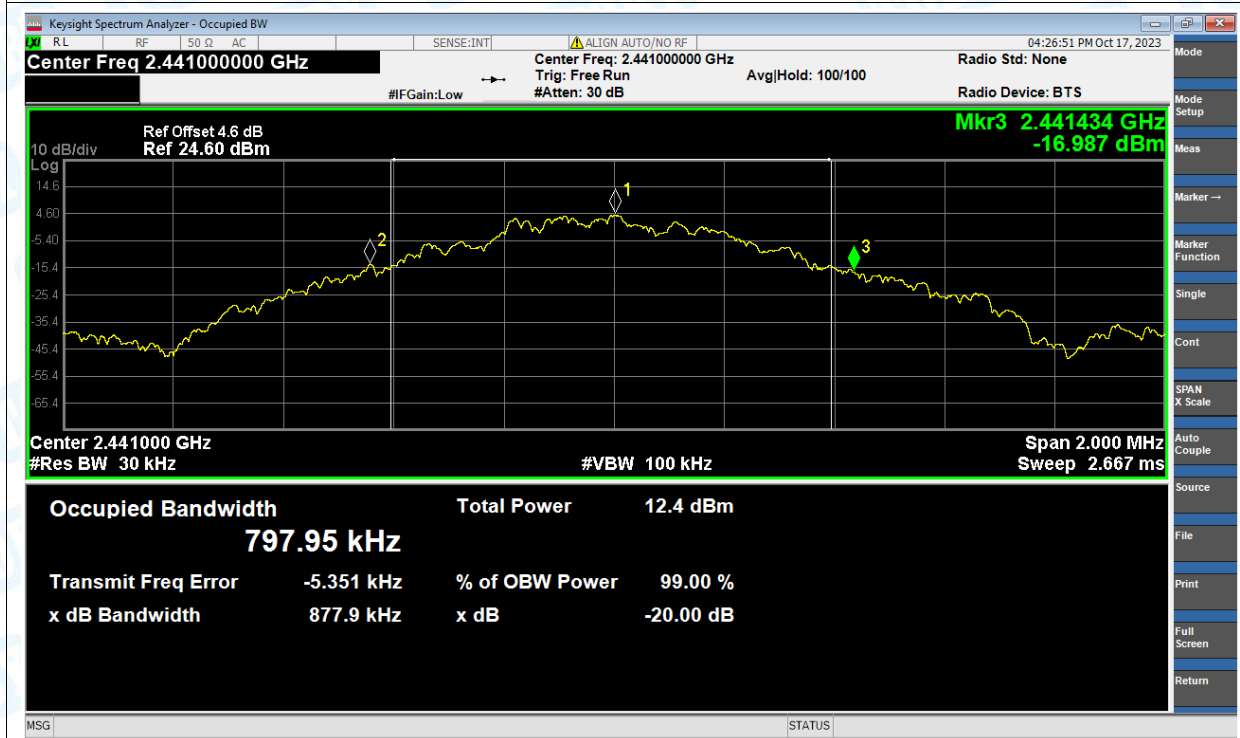
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.93	----	Pass
NVNT	1-DH1	2441	Ant1	0.88	----	Pass
NVNT	1-DH1	2480	Ant1	0.83	----	Pass
NVNT	2-DH1	2402	Ant1	1.27	----	Pass
NVNT	2-DH1	2441	Ant1	1.24	----	Pass
NVNT	2-DH1	2480	Ant1	1.25	----	Pass
NVNT	3-DH1	2402	Ant1	1.23	----	Pass
NVNT	3-DH1	2441	Ant1	1.23	----	Pass
NVNT	3-DH1	2480	Ant1	1.23	----	Pass

Test Graphs

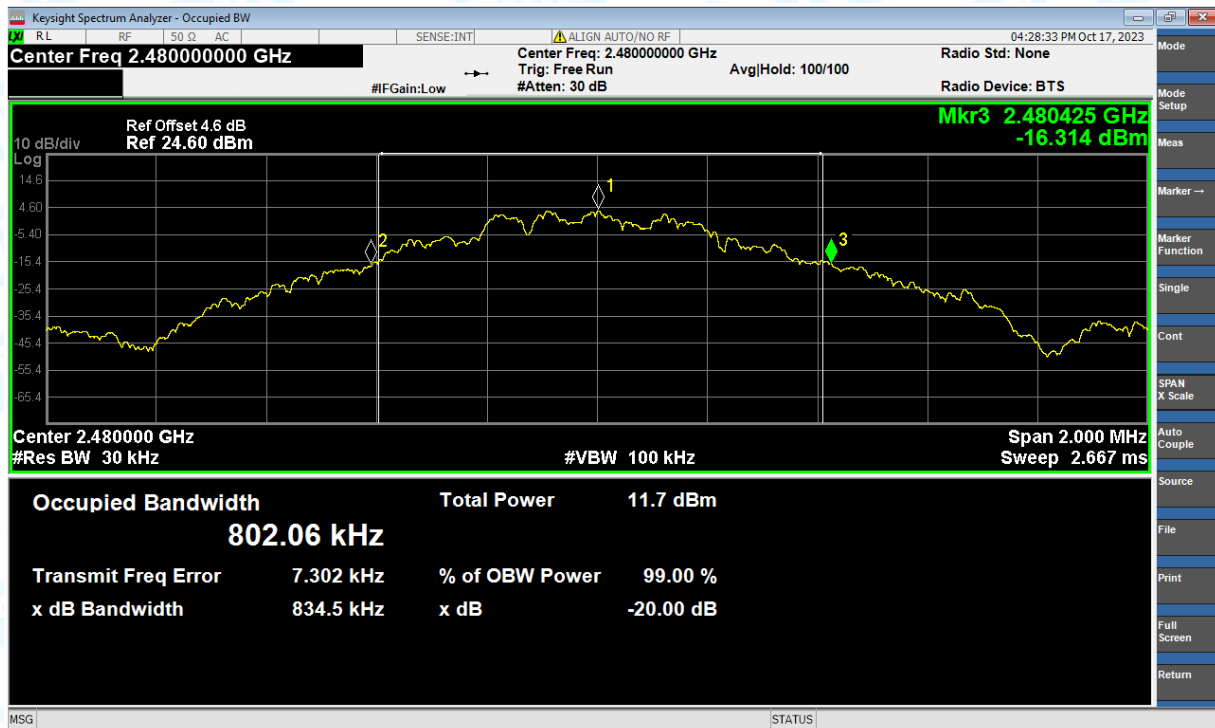
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



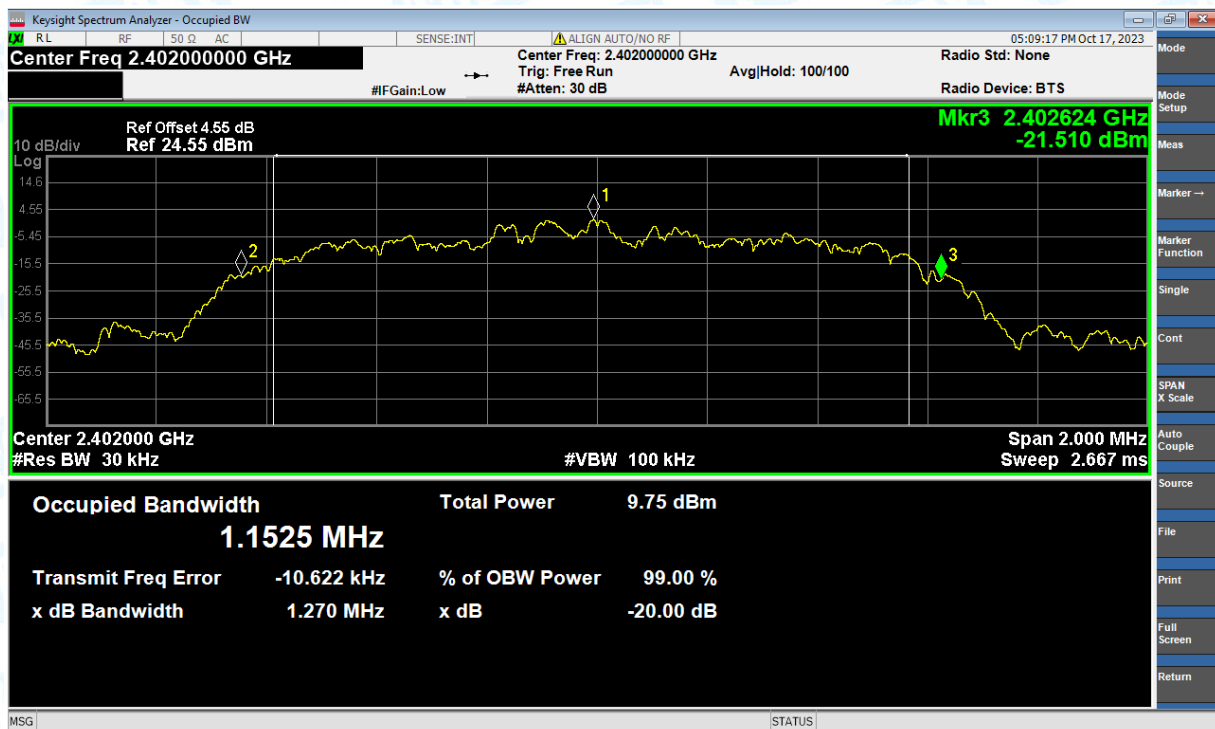
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



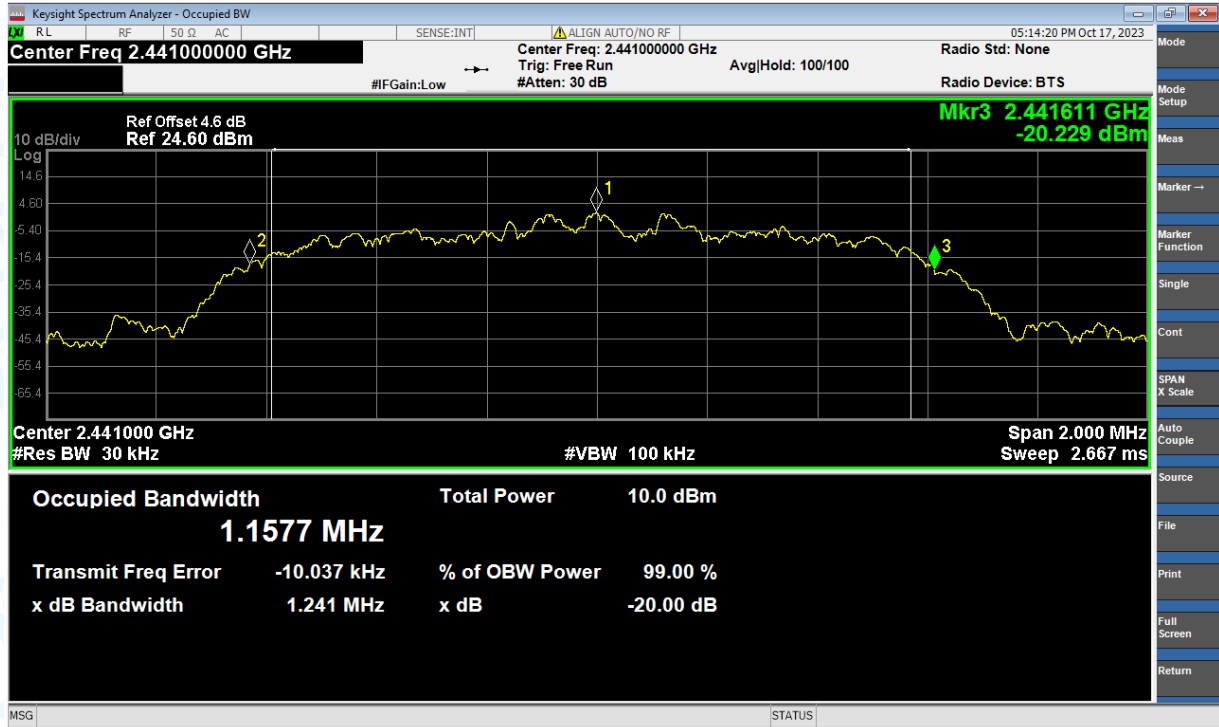
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



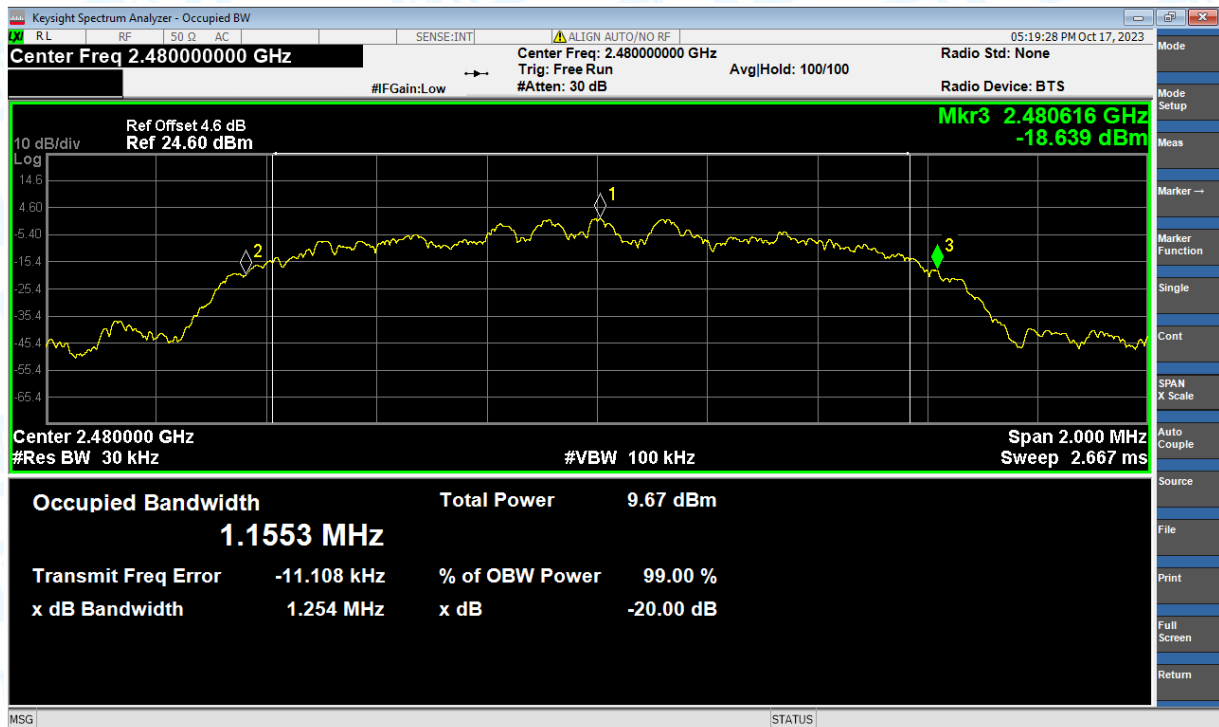
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



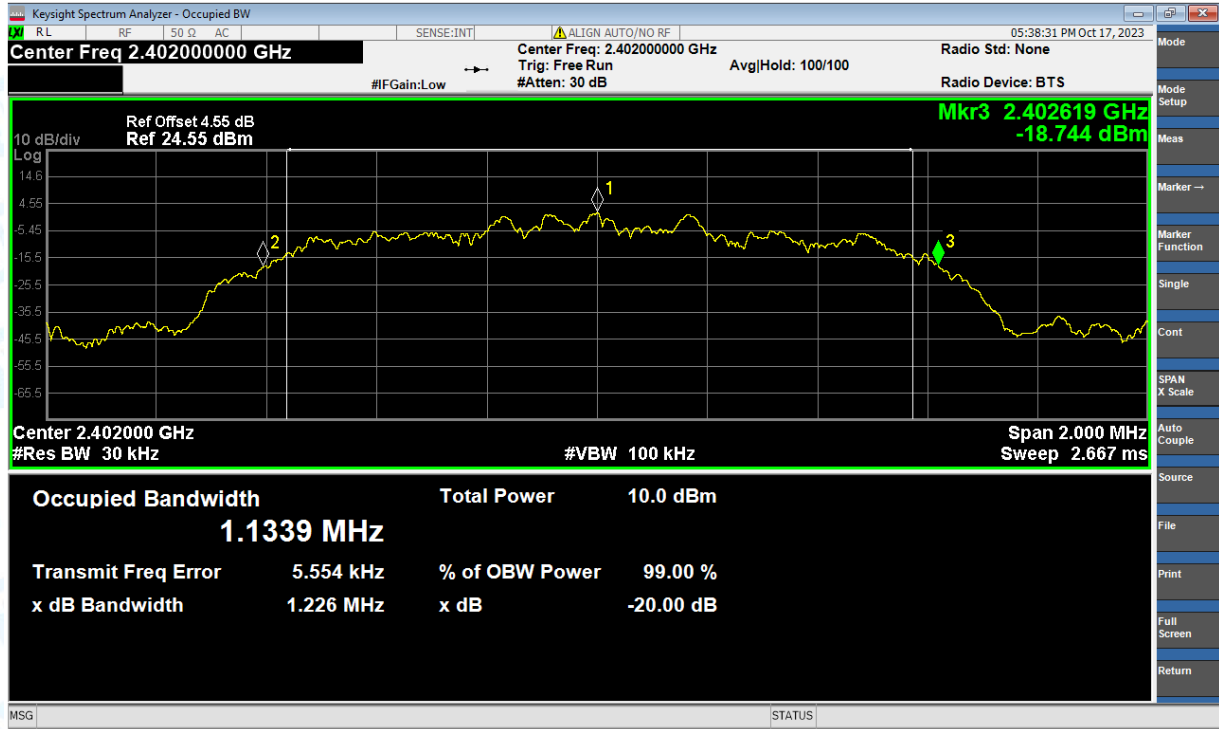
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



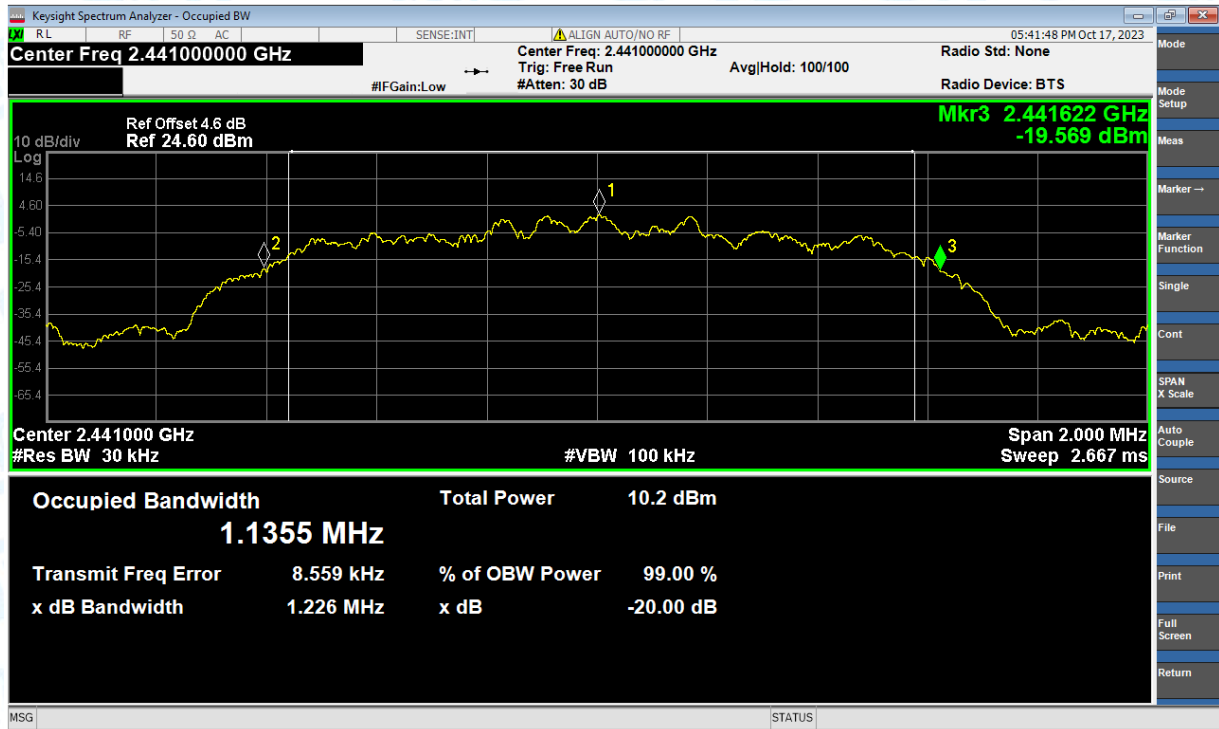
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

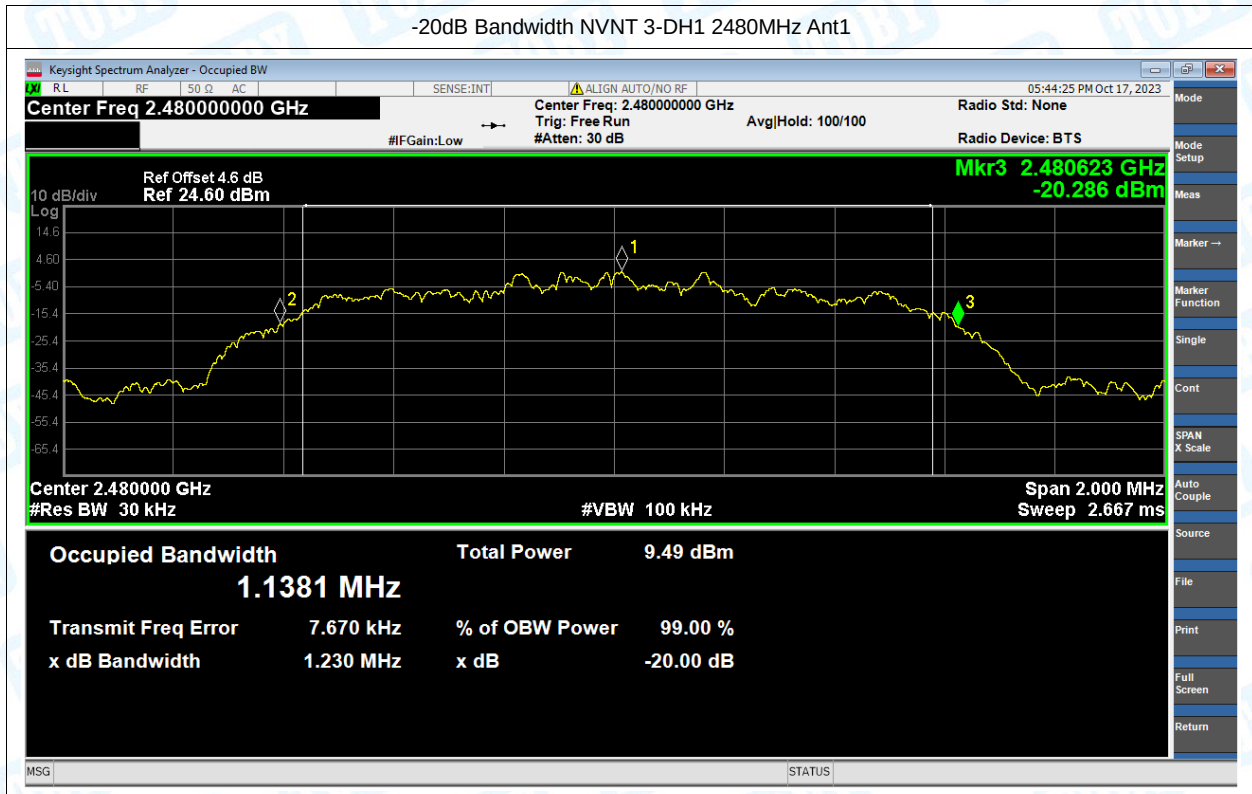


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



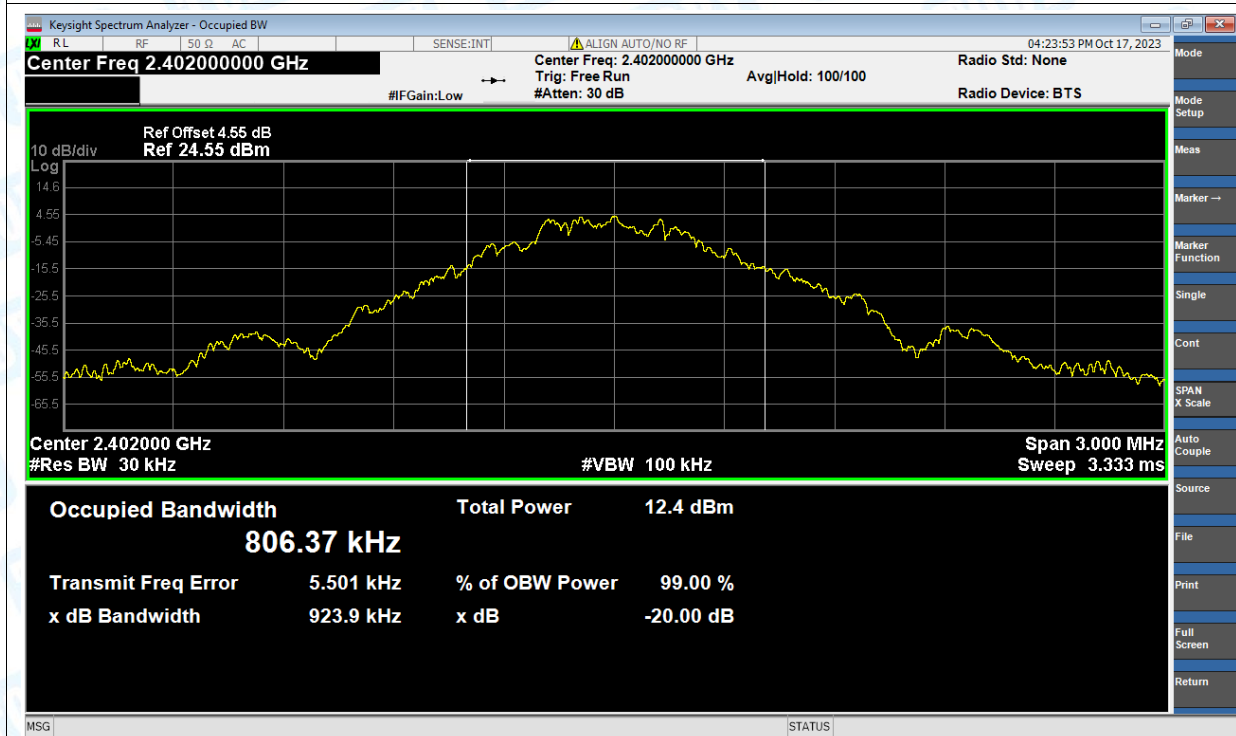


4. Occupied Channel Bandwidth

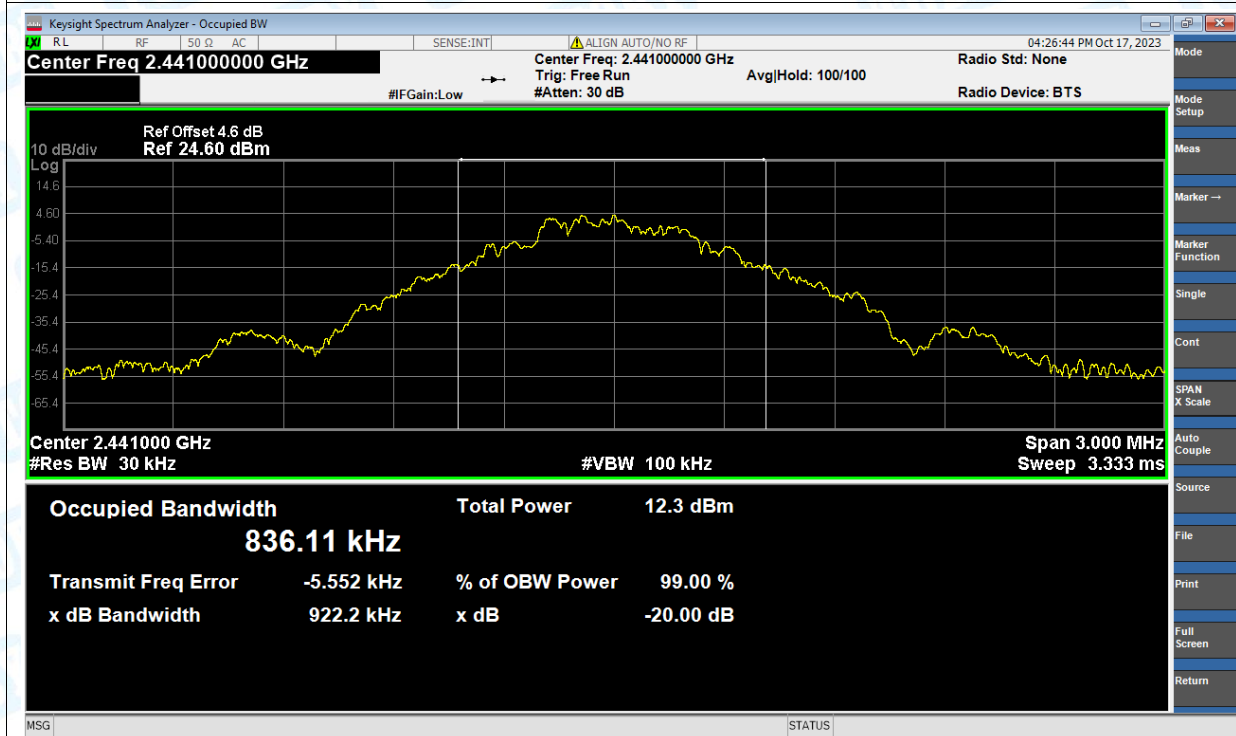
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.806
NVNT	1-DH1	2441	Ant1	0.836
NVNT	1-DH1	2480	Ant1	0.835
NVNT	2-DH1	2402	Ant1	1.152
NVNT	2-DH1	2441	Ant1	1.143
NVNT	2-DH1	2480	Ant1	1.147
NVNT	3-DH1	2402	Ant1	1.136
NVNT	3-DH1	2441	Ant1	1.147
NVNT	3-DH1	2480	Ant1	1.133

Test Graphs

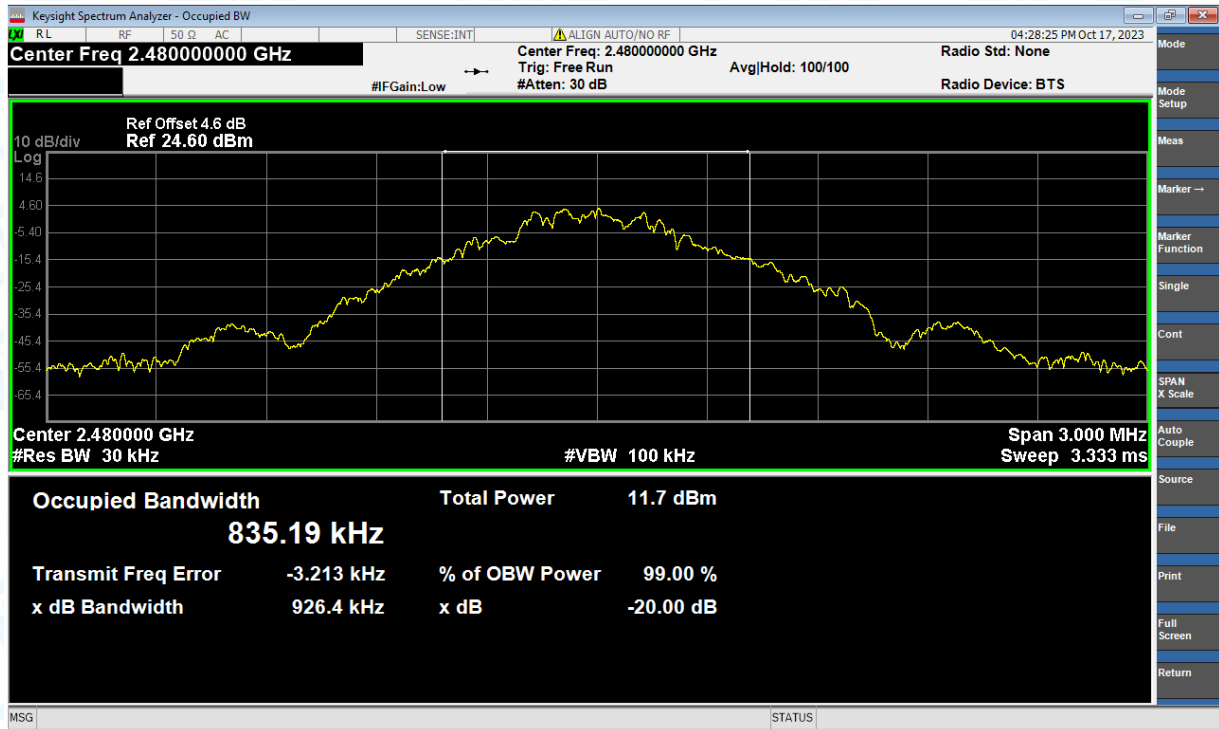
OBW NVNT 1-DH1 2402MHz Ant1



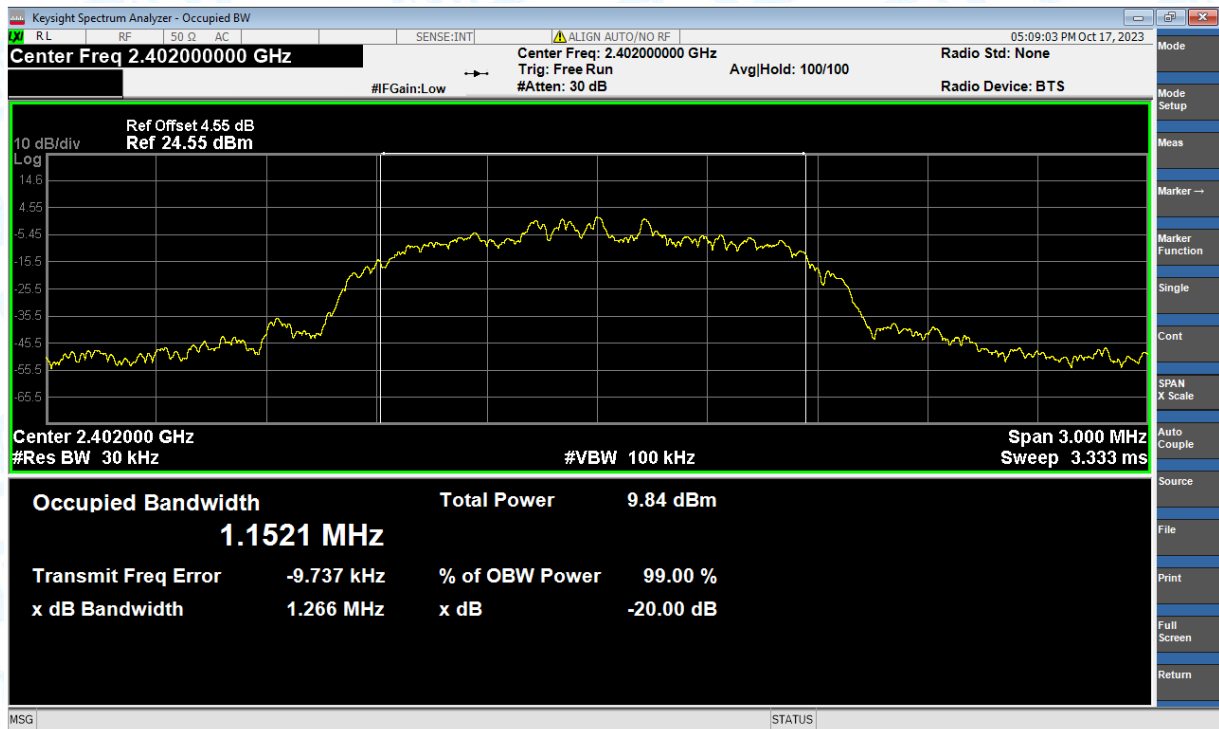
OBW NVNT 1-DH1 2441MHz Ant1



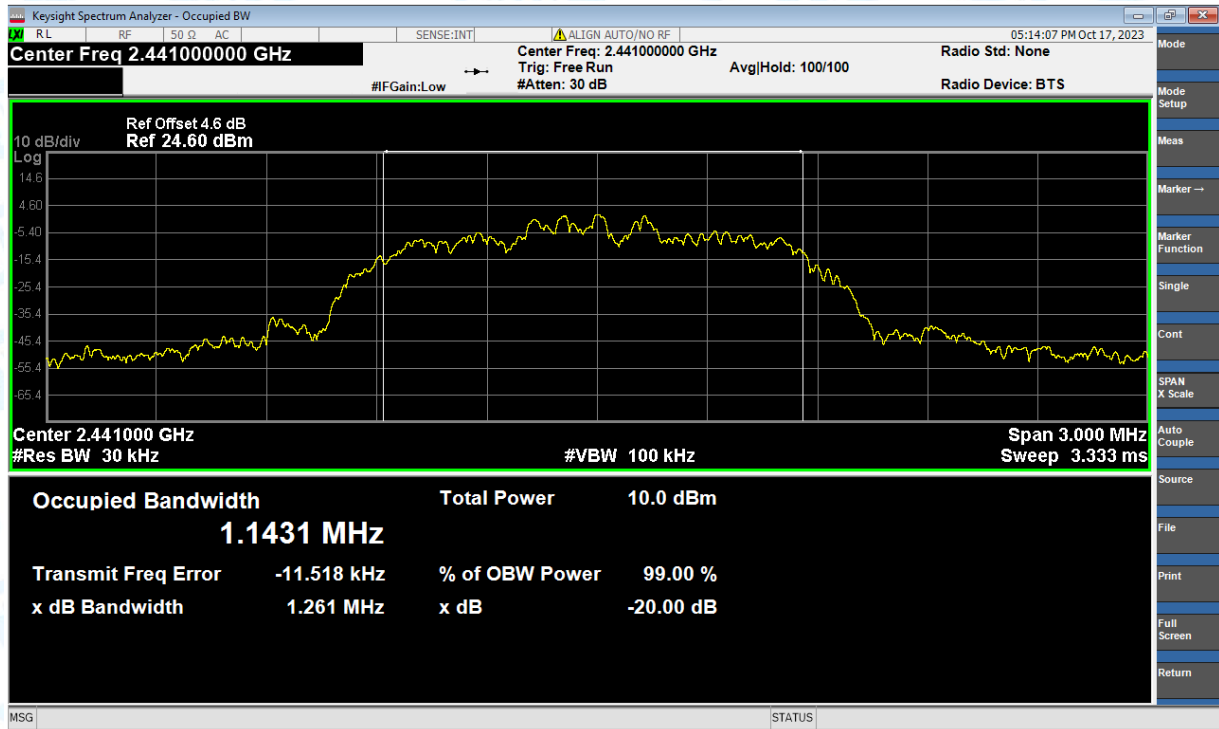
OBW NVNT 1-DH1 2480MHz Ant1



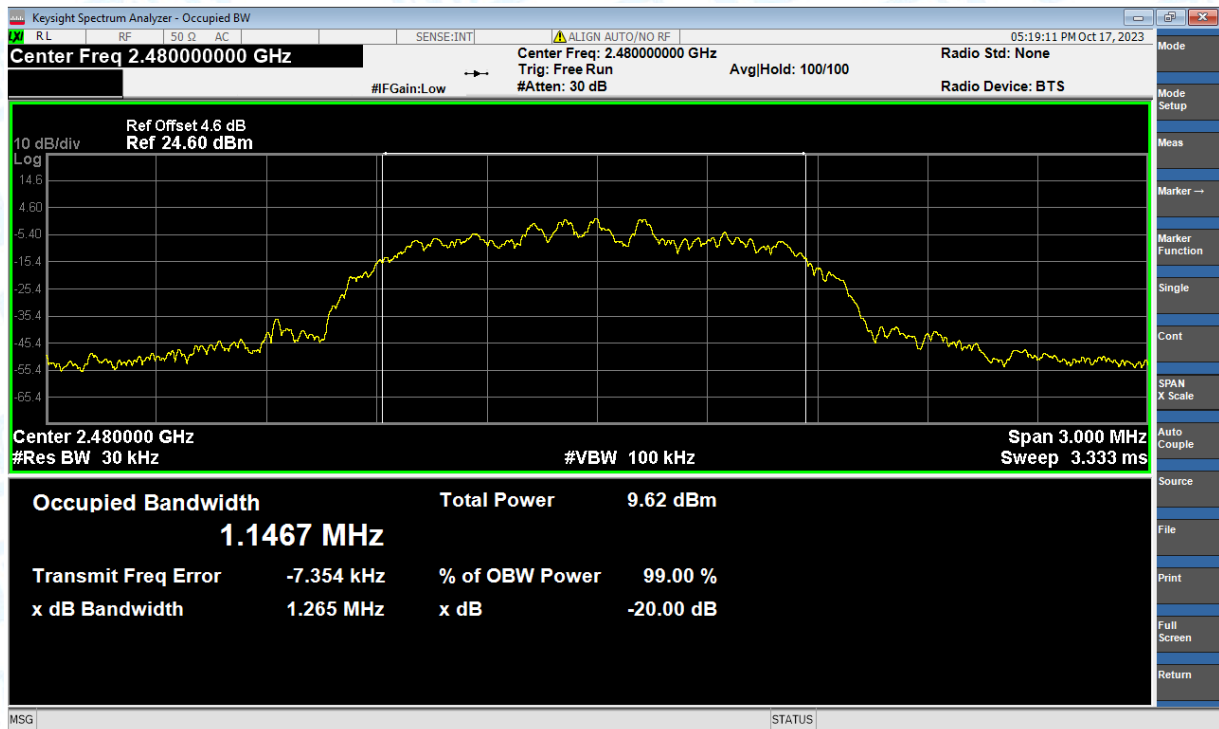
OBW NVNT 2-DH1 2402MHz Ant1



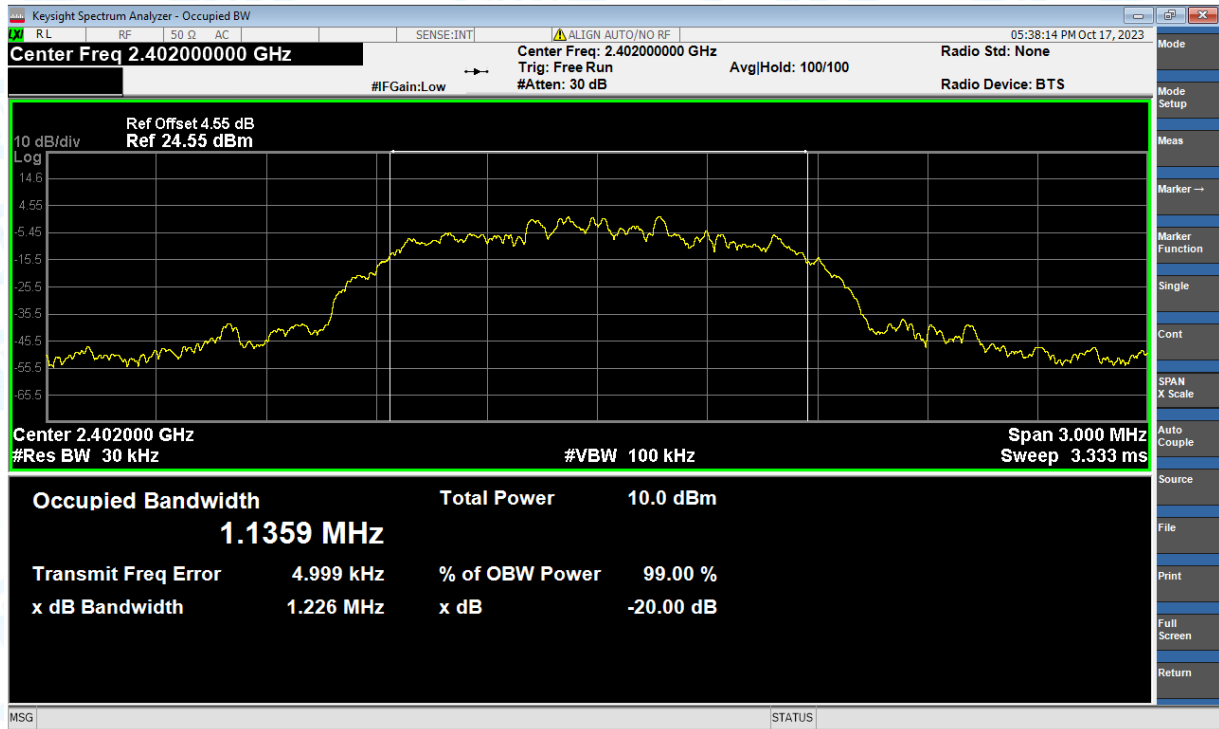
OBW NVNT 2-DH1 2441MHz Ant1



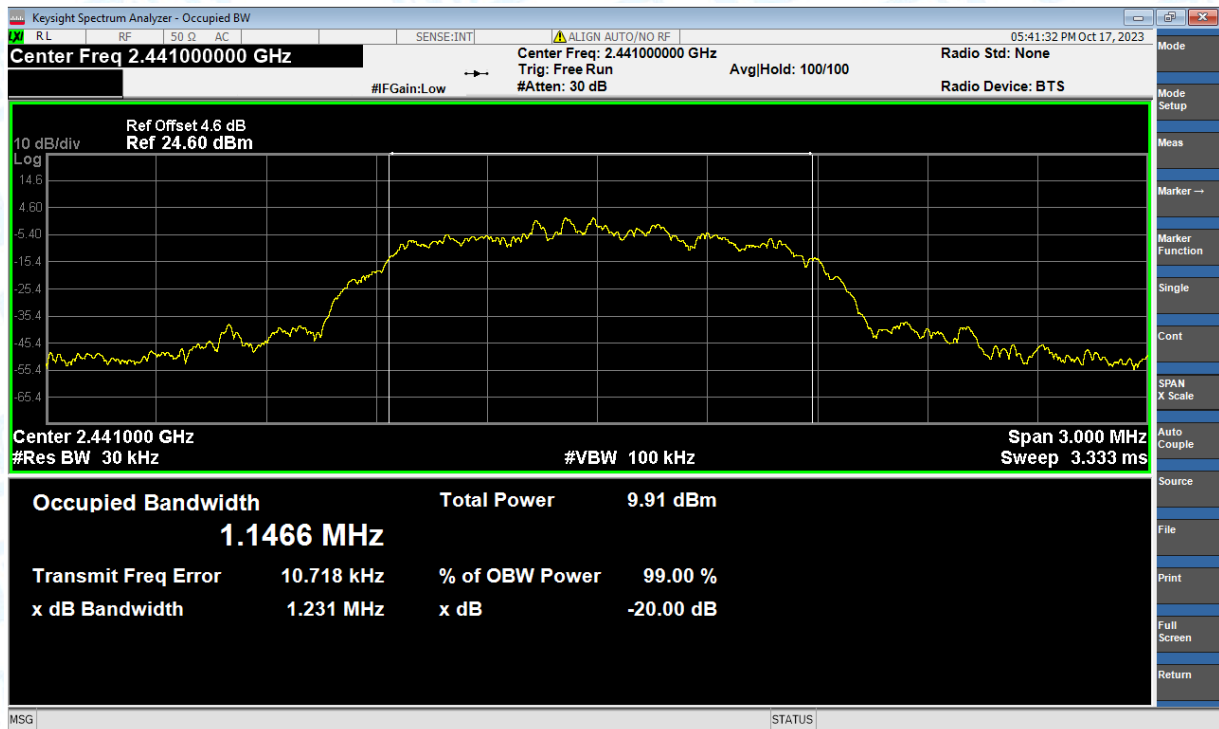
OBW NVNT 2-DH1 2480MHz Ant1

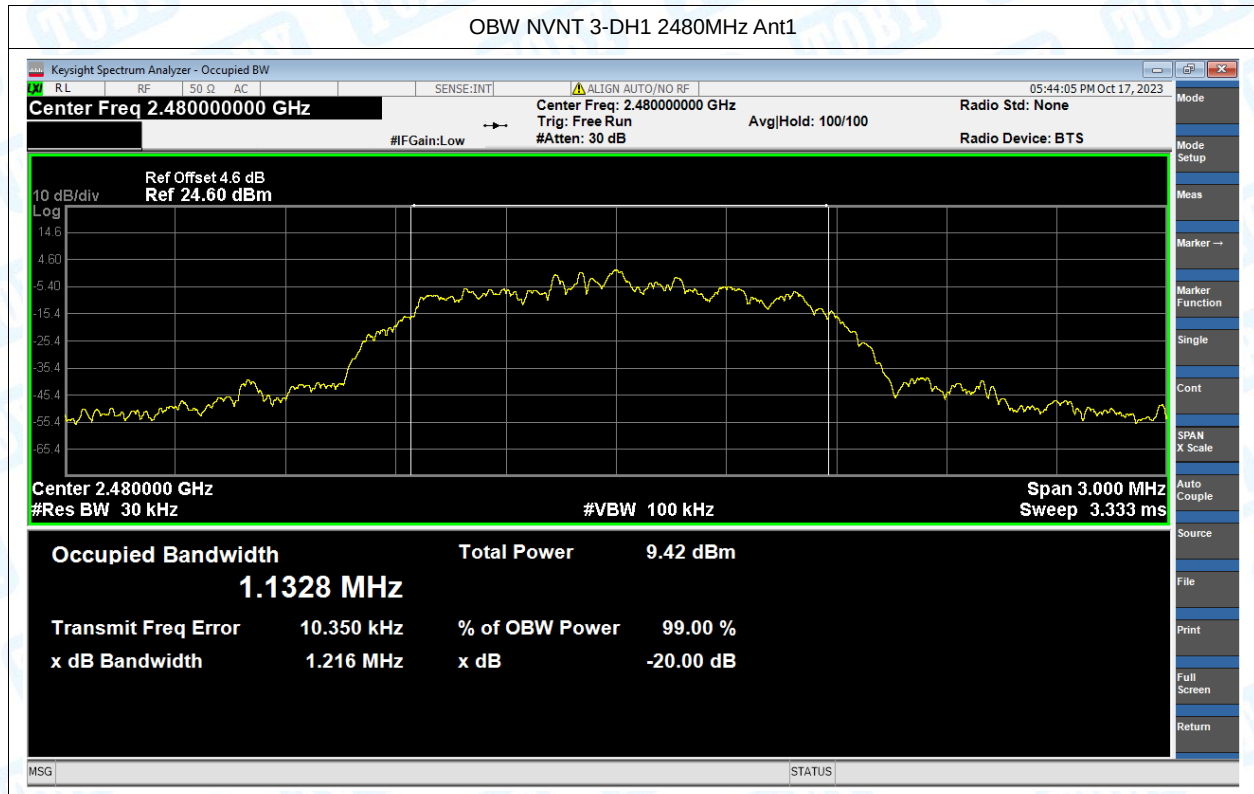


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1





5. Band Edge

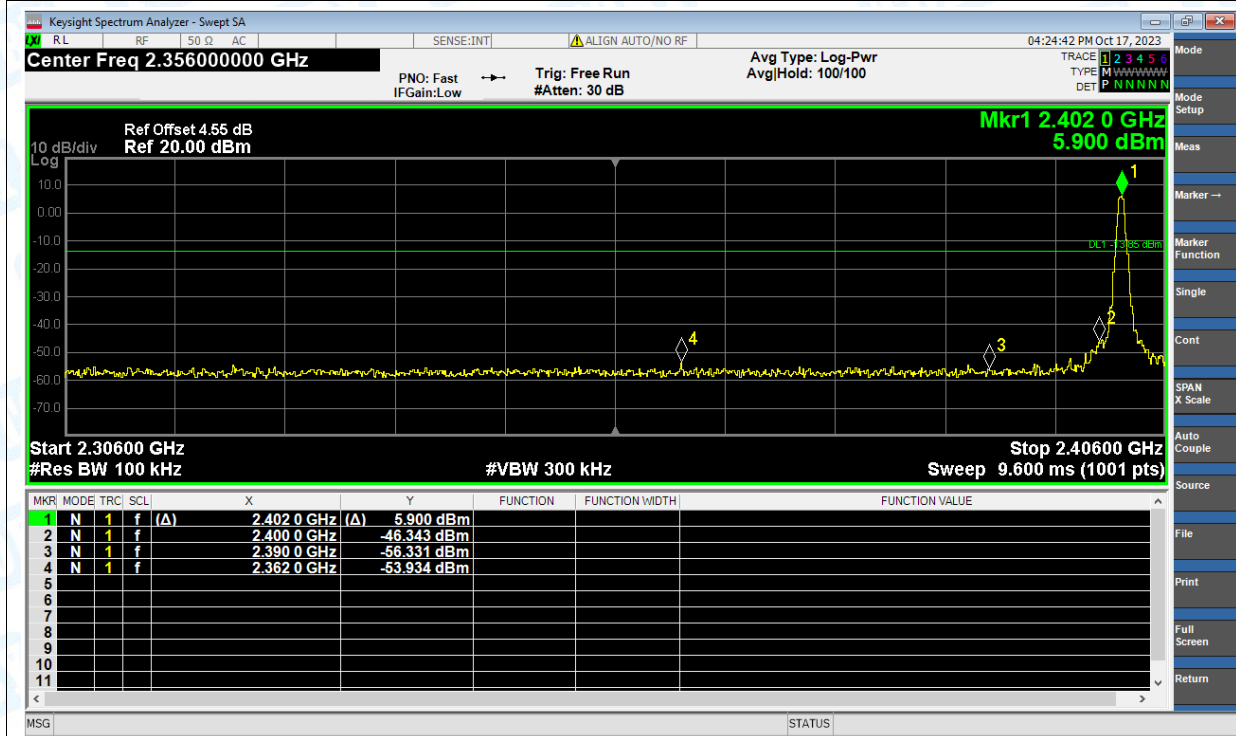
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-60.09	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-58.18	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-57.30	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-56.55	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-57.27	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-56.15	-20	Pass

Test Graphs

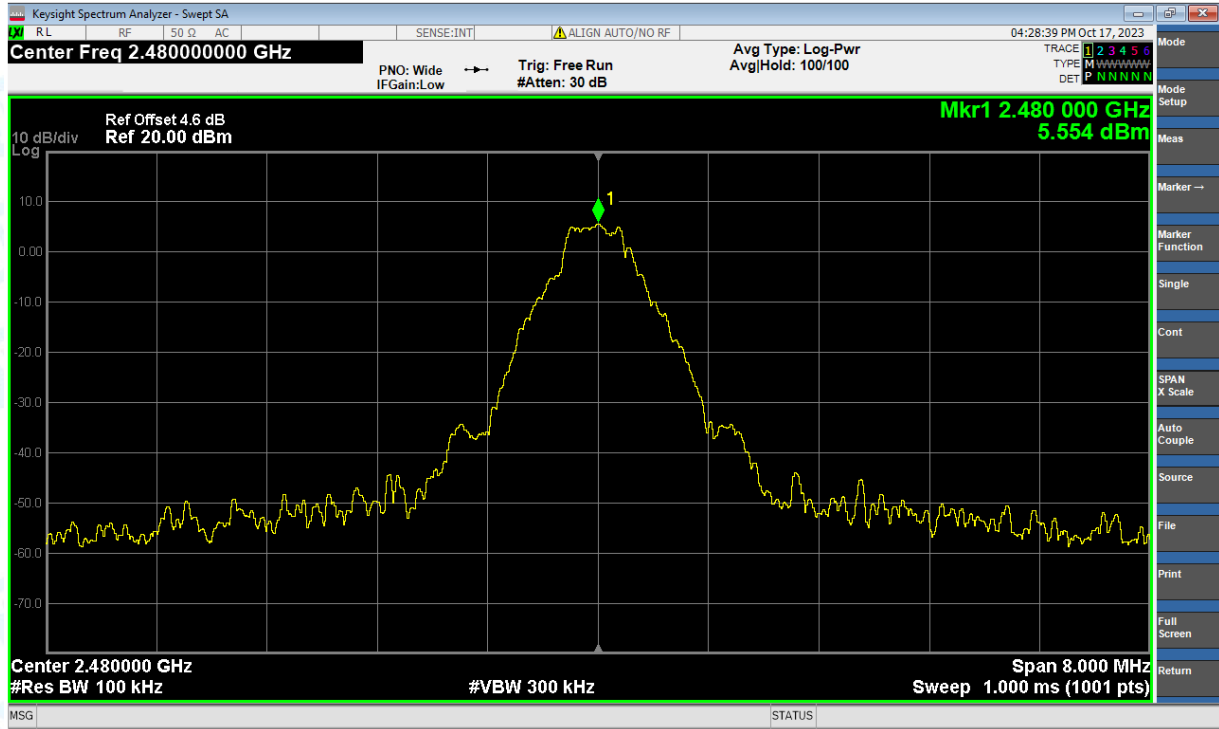
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



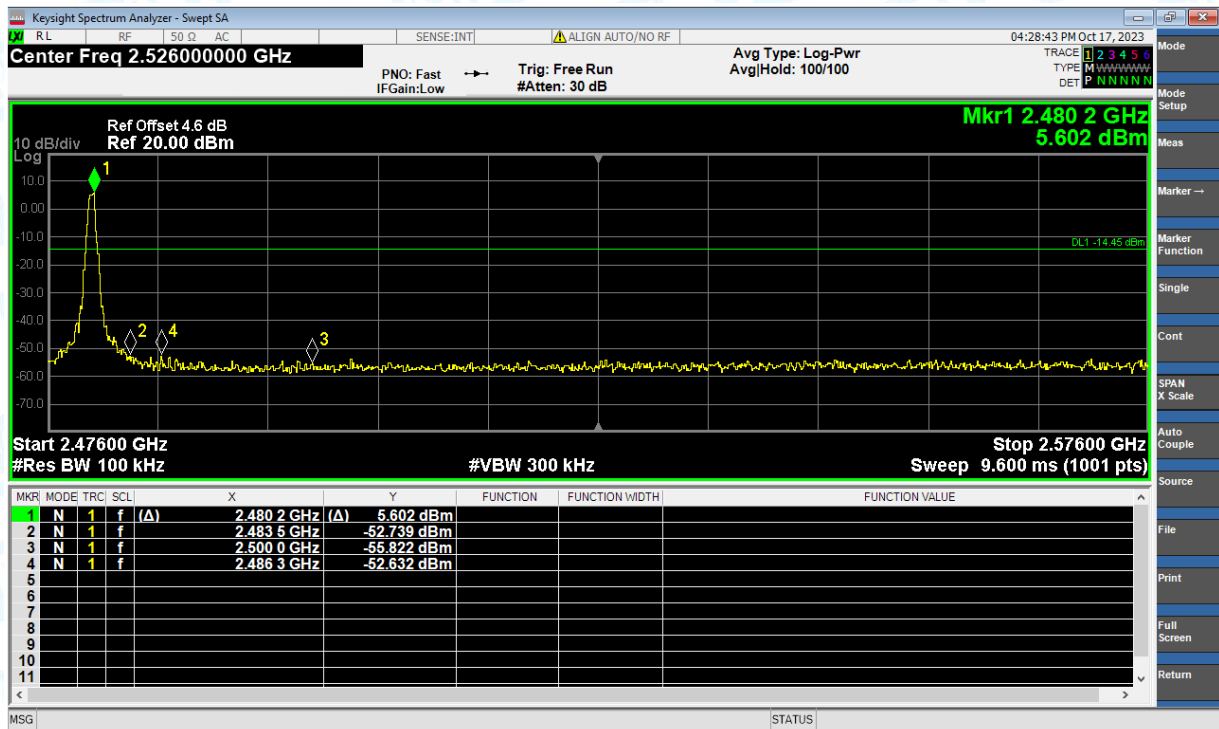
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



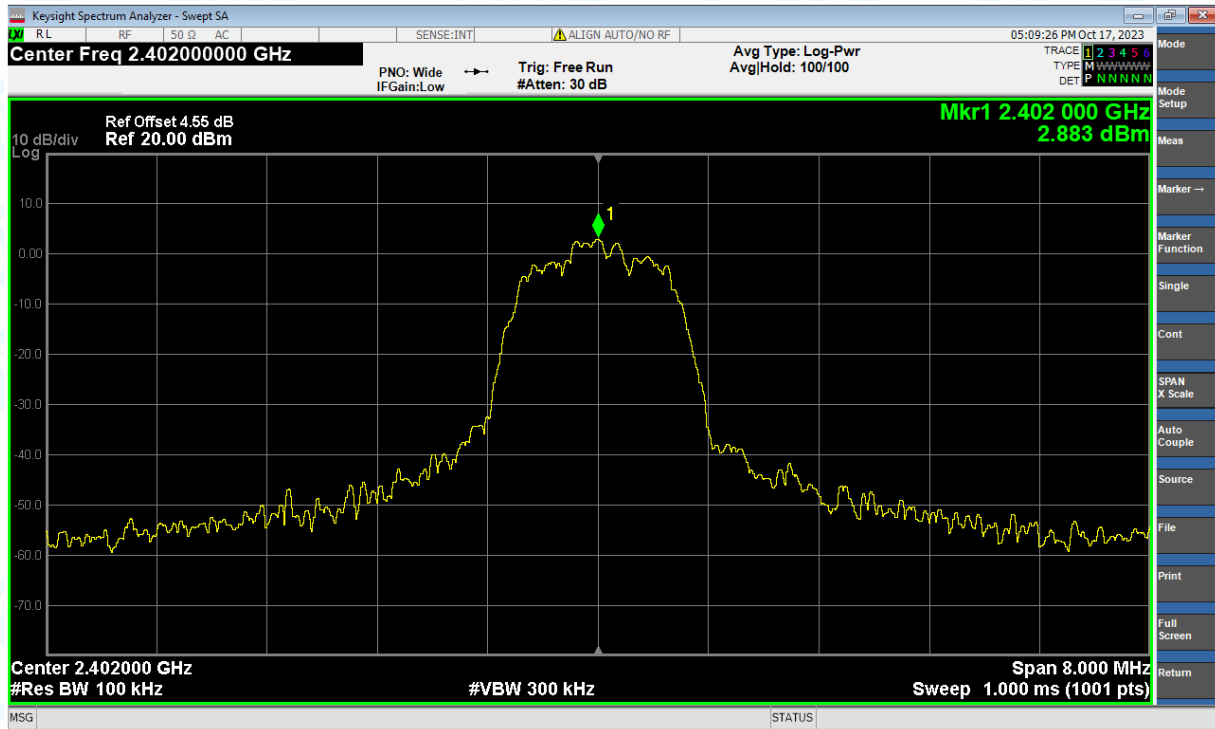
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



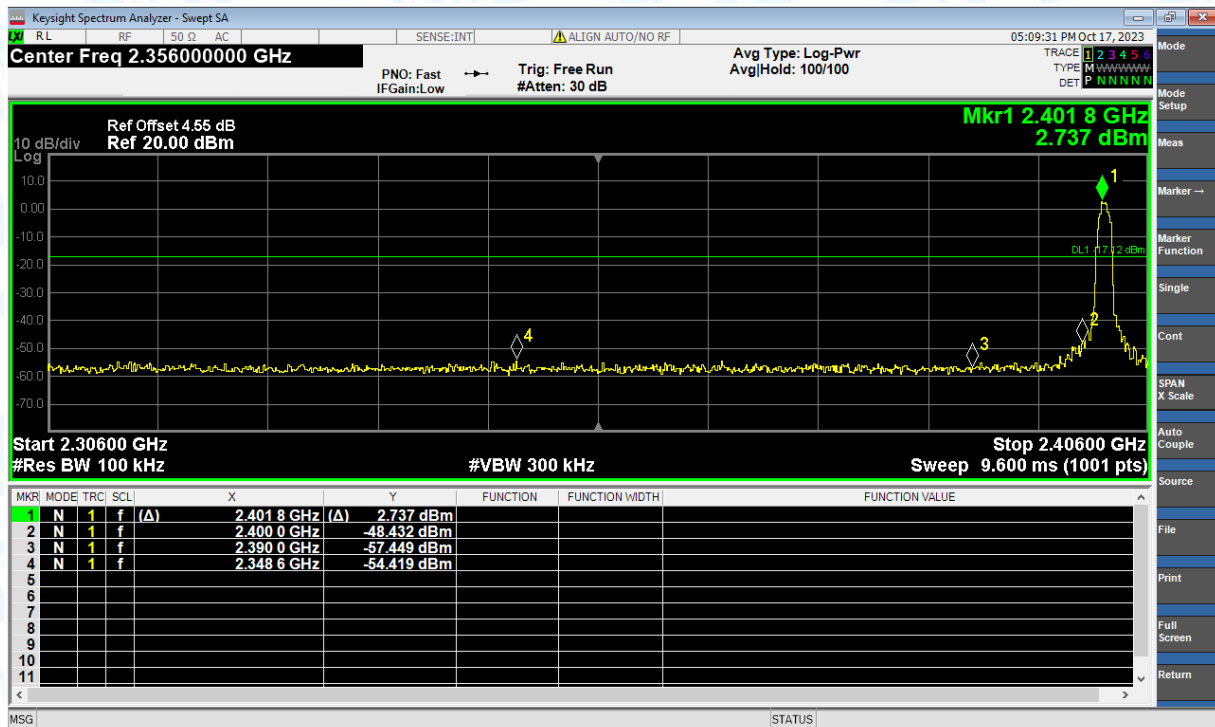
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



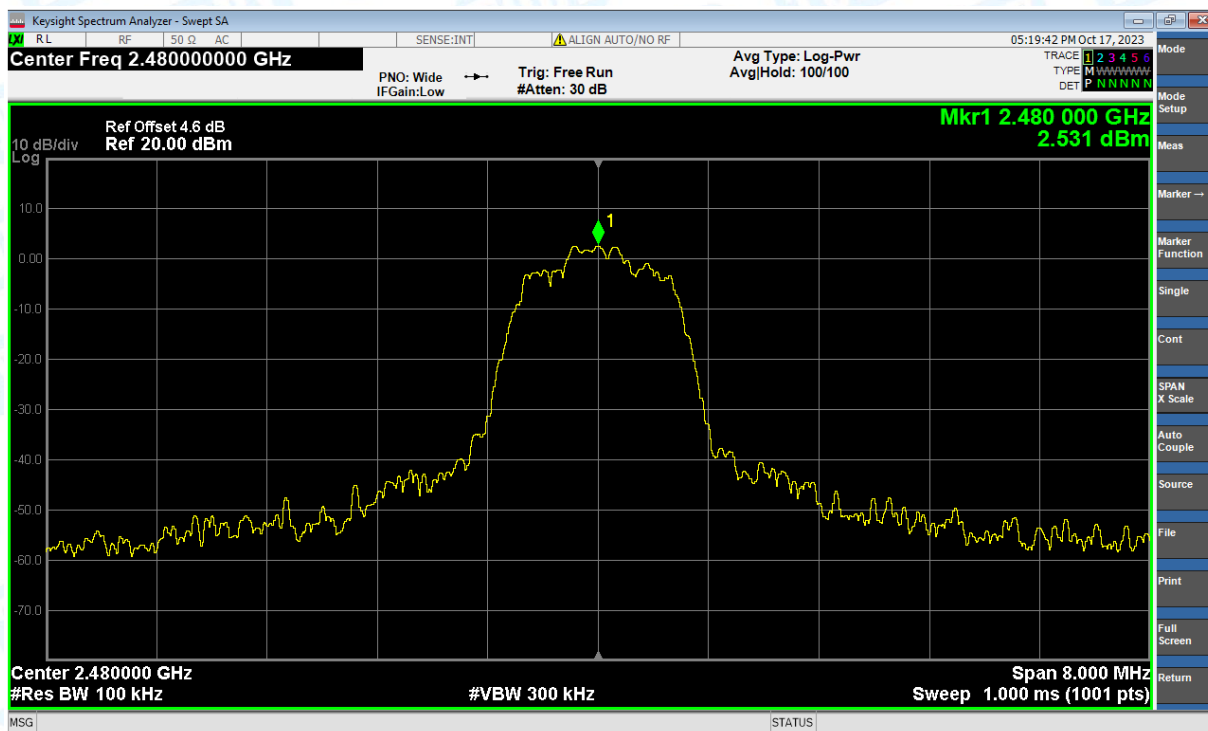
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



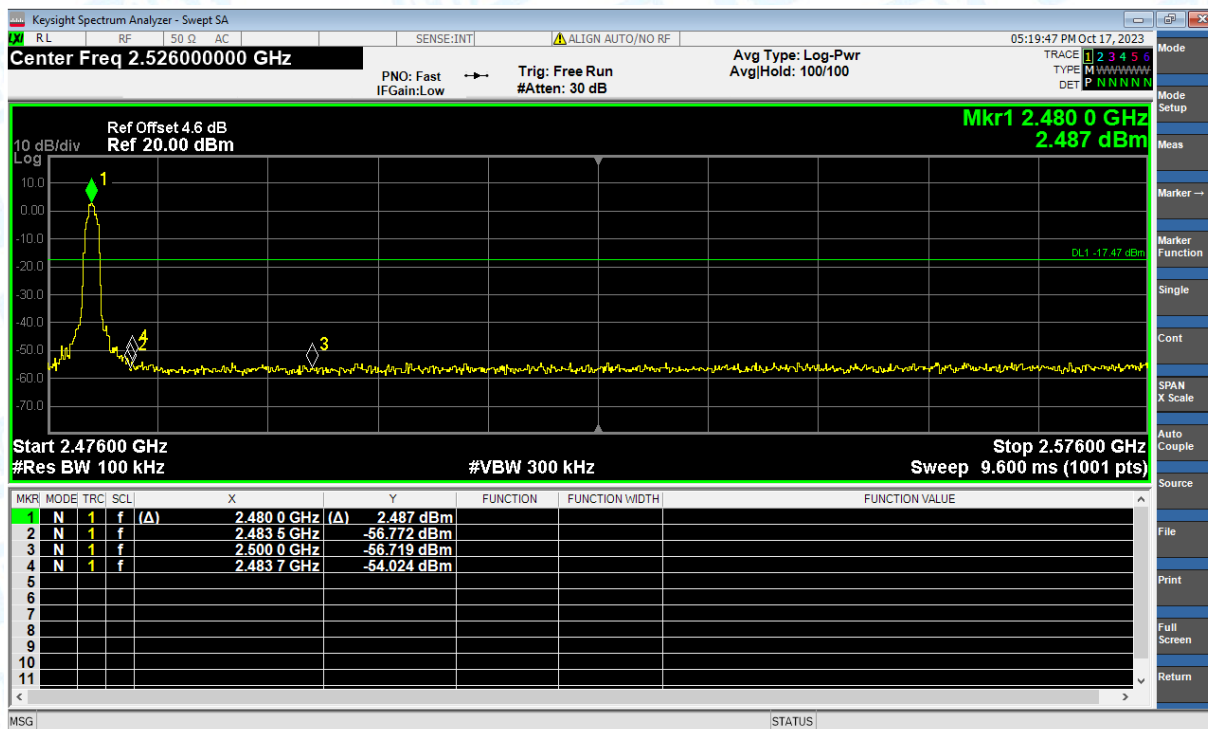
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



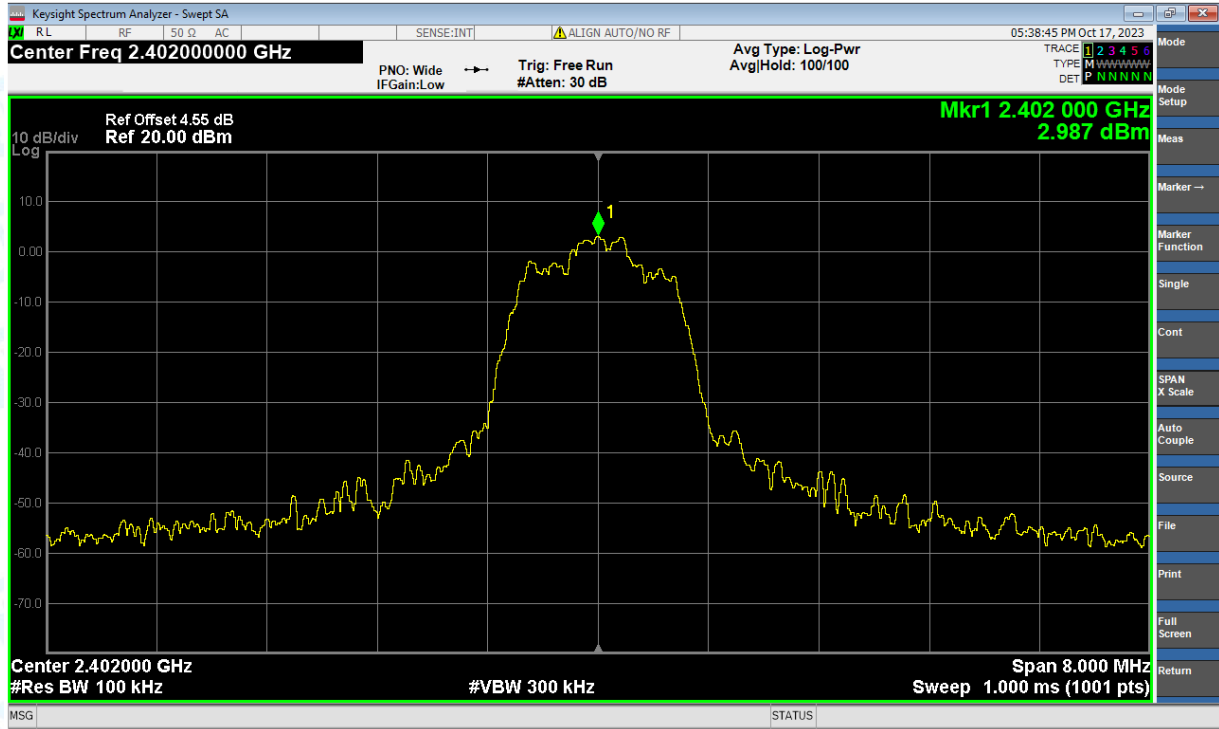
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



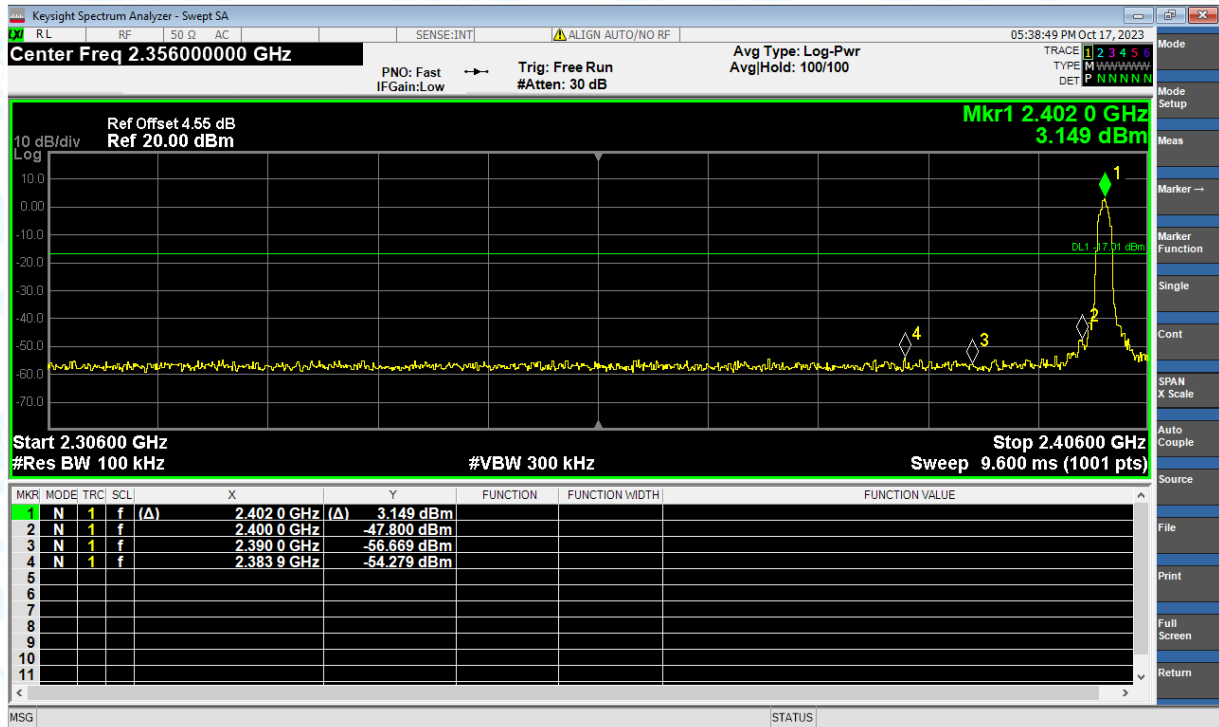
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



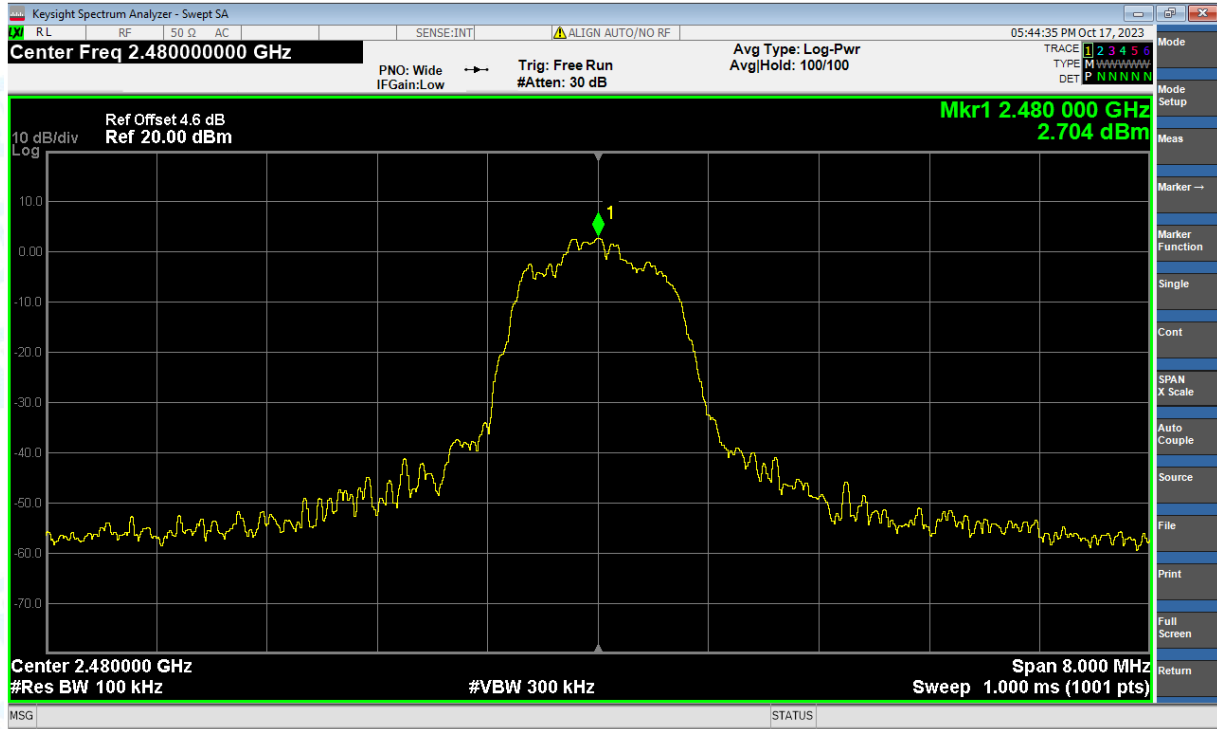
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



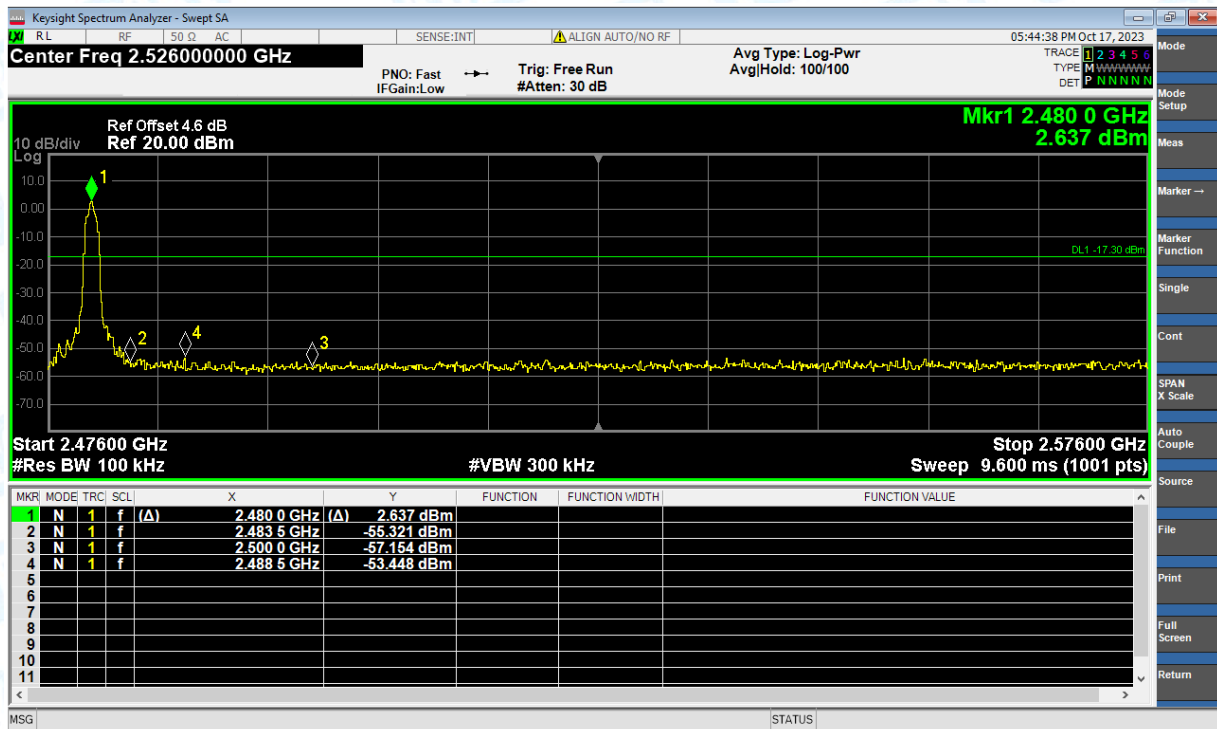
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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

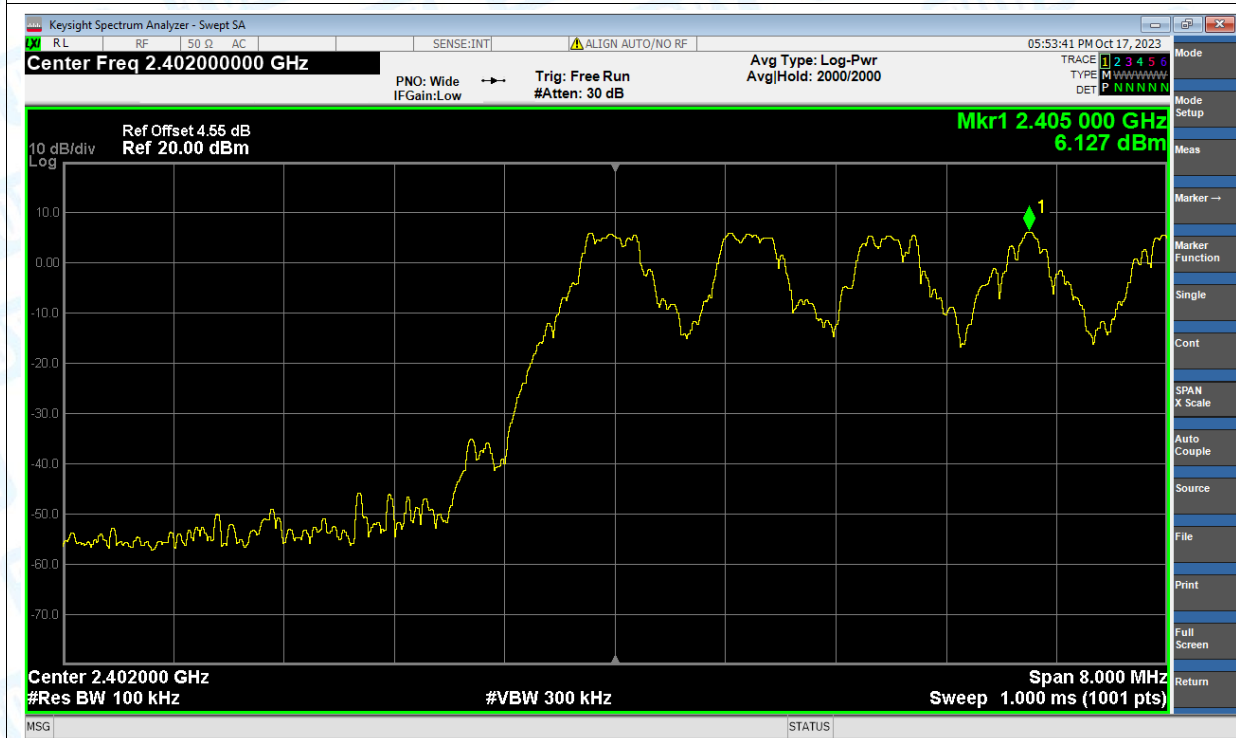


6. Band Edge(Hopping)

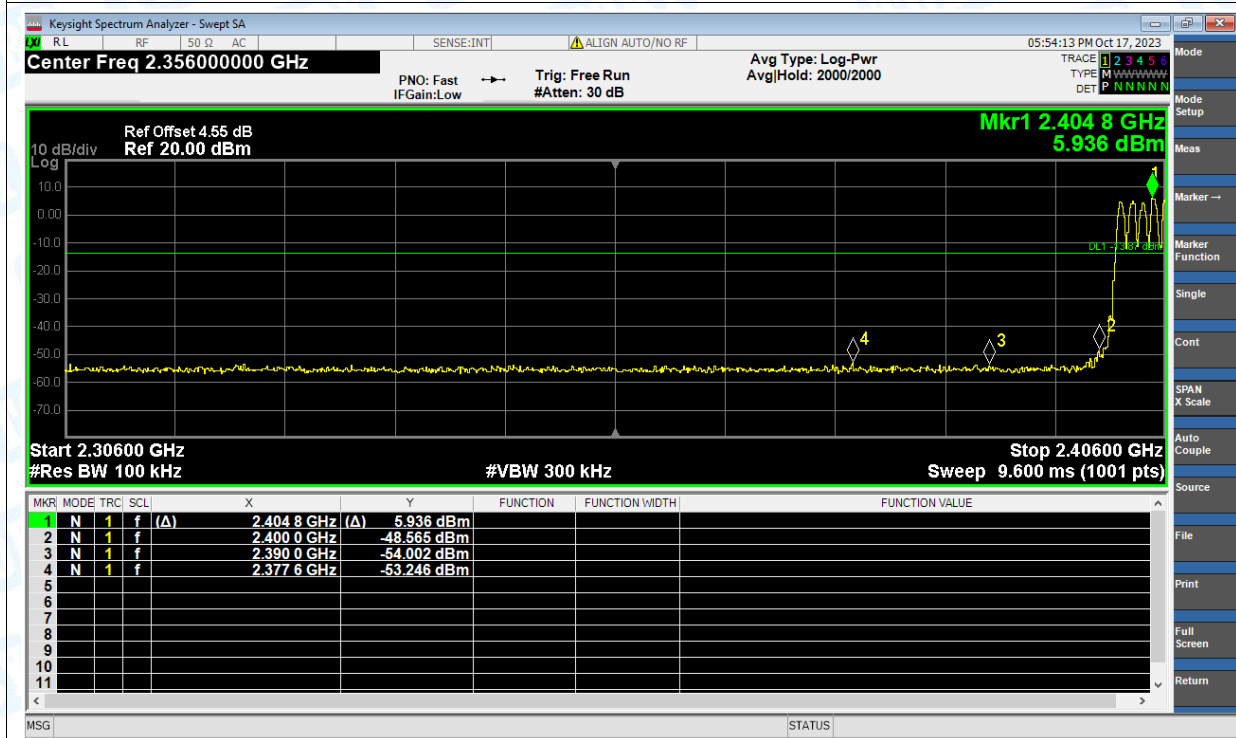
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-59.38	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-58.68	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-56.25	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-56.53	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-55.49	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-55.14	-20	Pass

Test Graphs

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



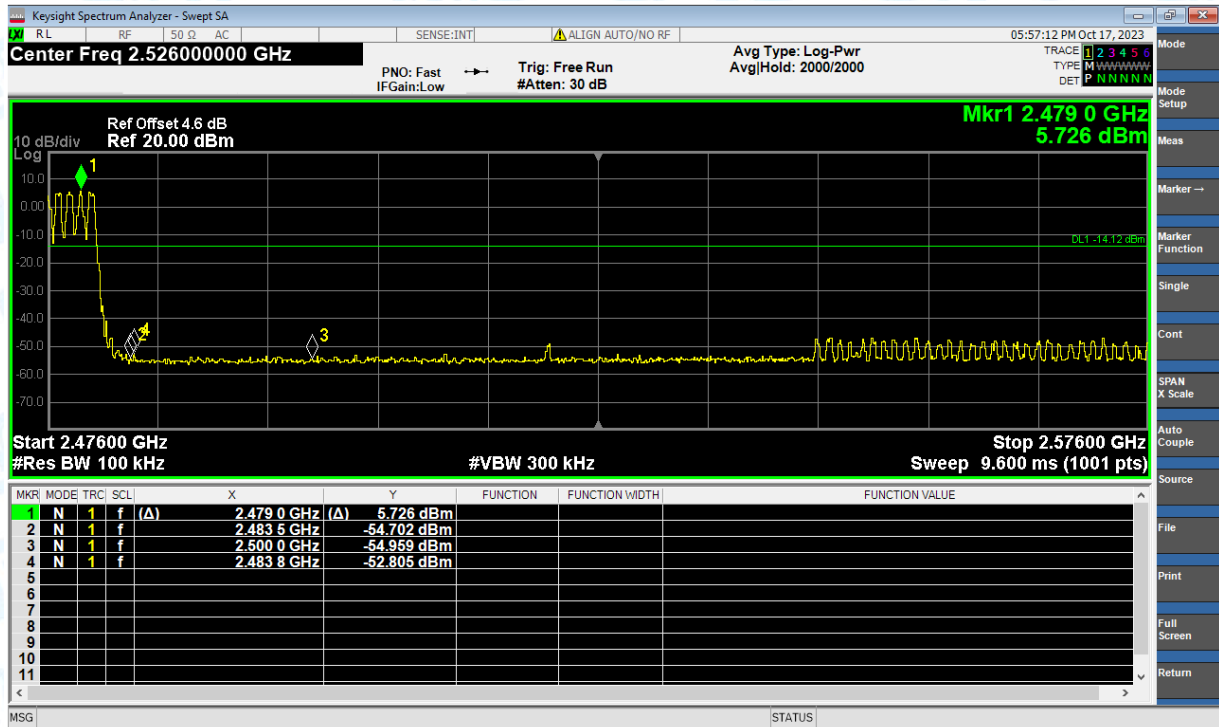
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



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



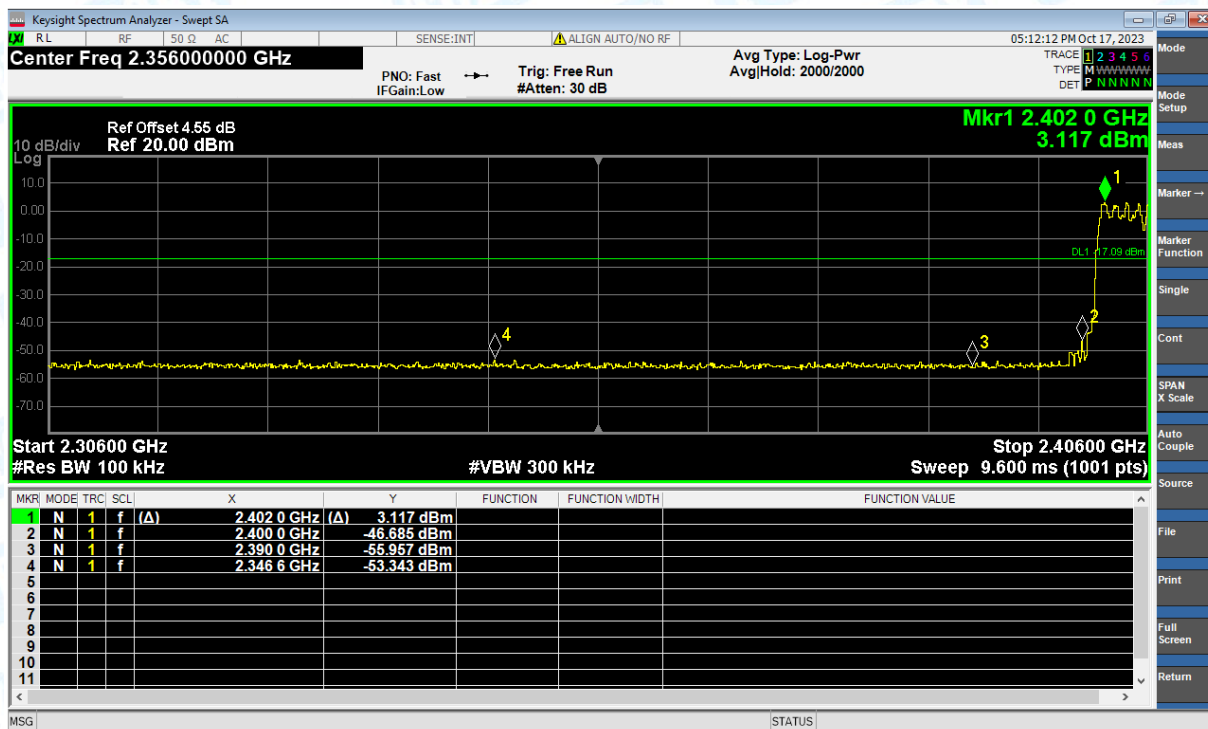
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



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



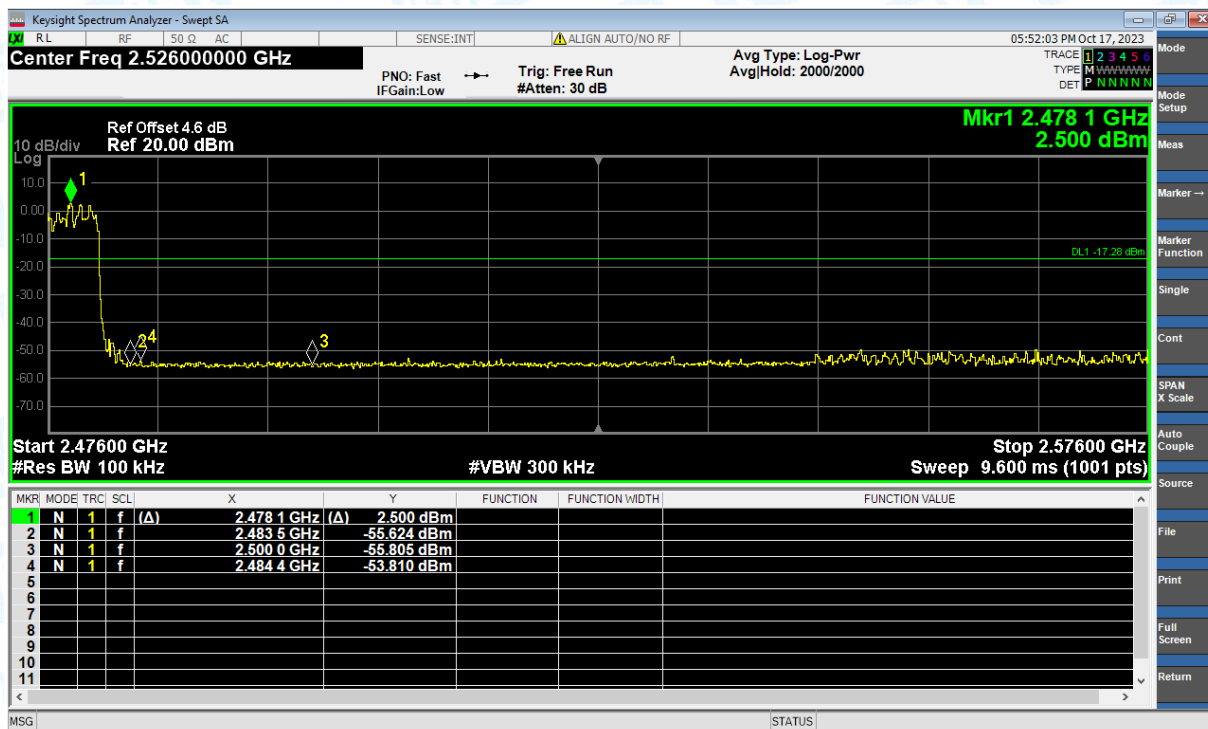
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



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



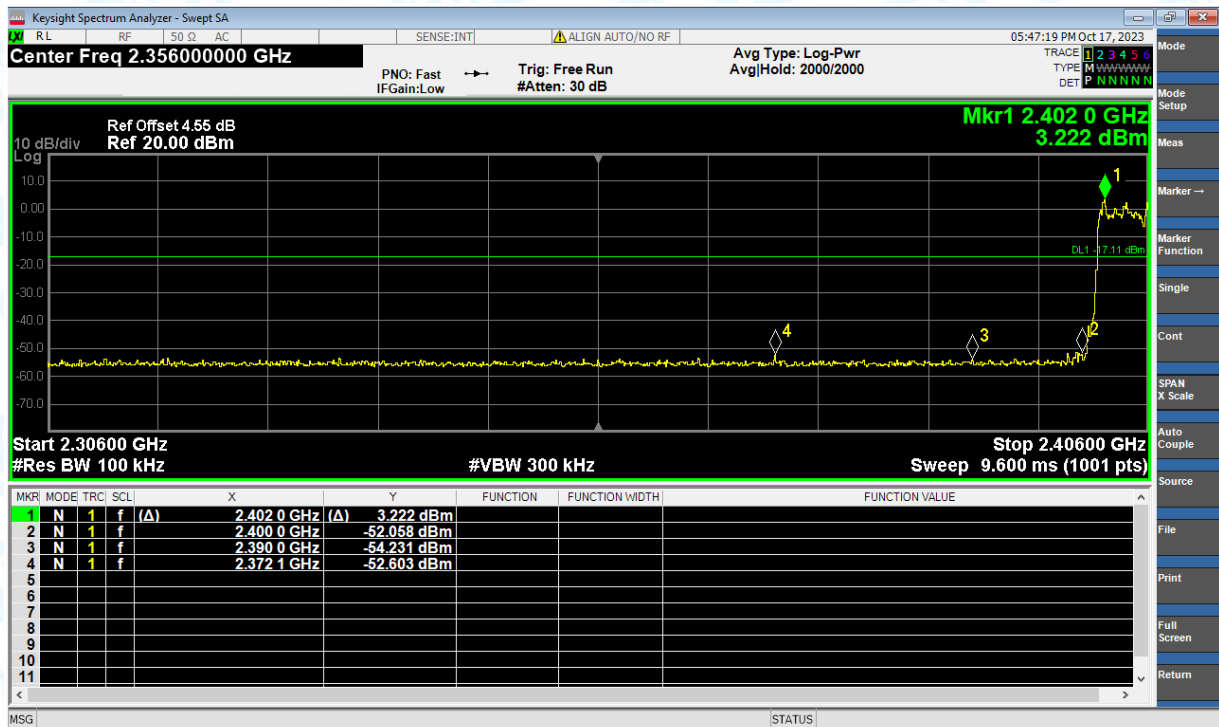
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



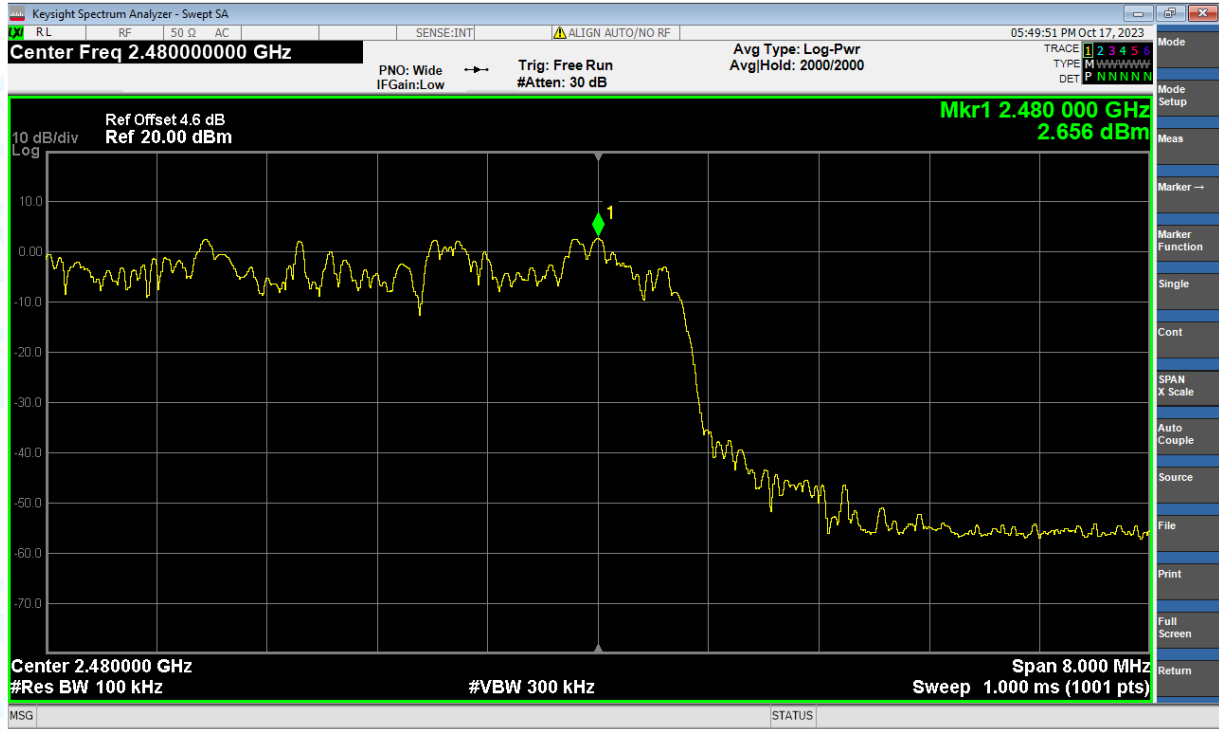
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



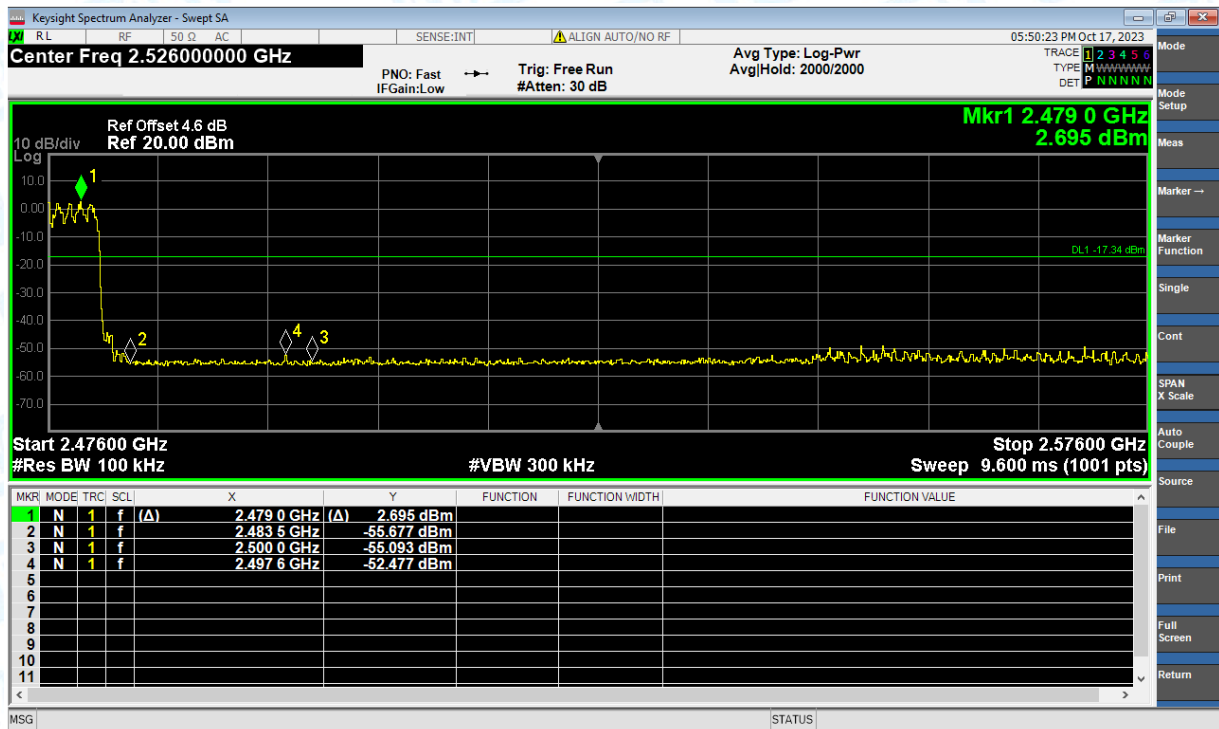
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



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



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

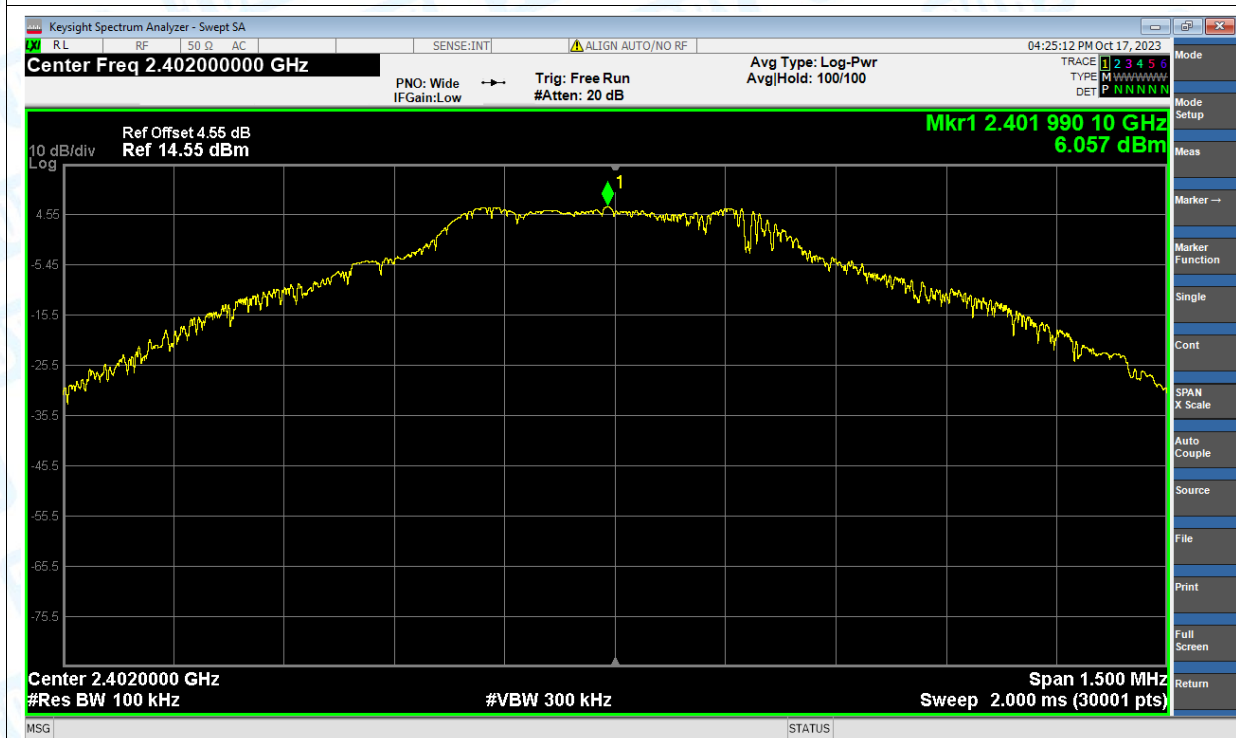


7. Conducted RF Spurious Emission

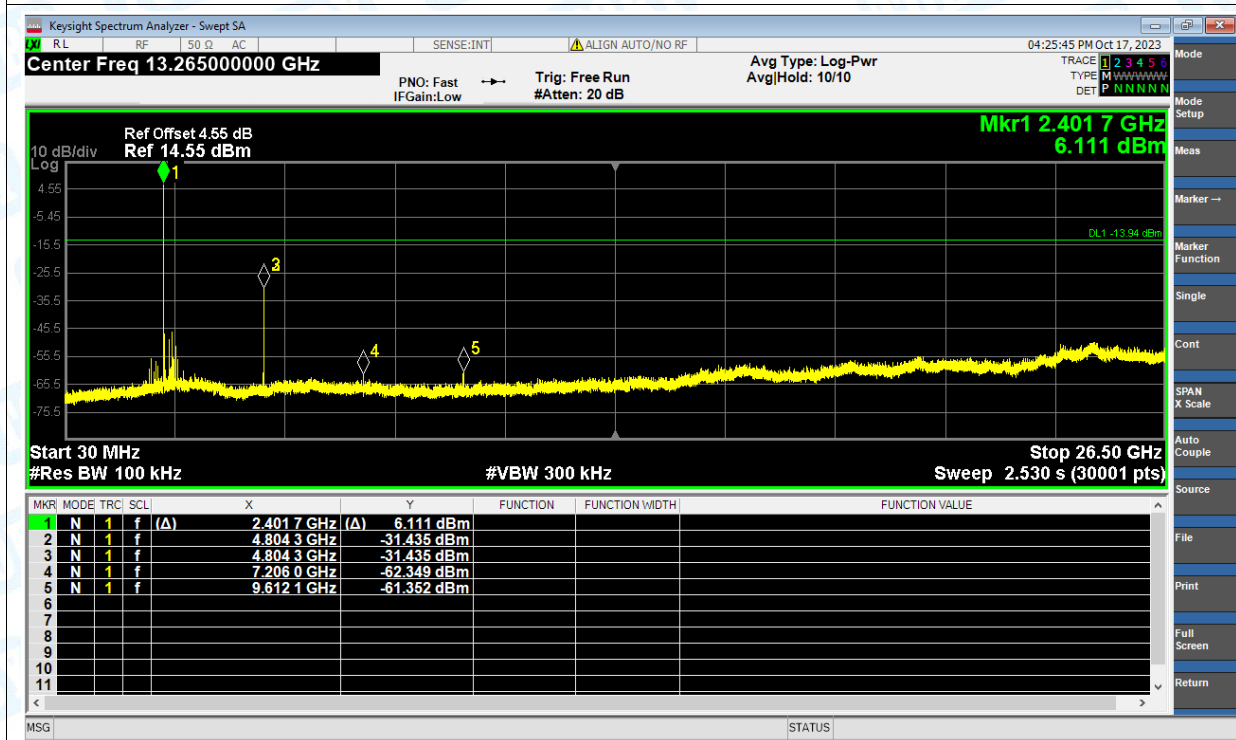
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-37.50	-20	Pass
NVNT	1-DH1	2441	Ant1	-36.77	-20	Pass
NVNT	1-DH1	2480	Ant1	-42.46	-20	Pass
NVNT	2-DH1	2402	Ant1	-42.60	-20	Pass
NVNT	2-DH1	2441	Ant1	-43.85	-20	Pass
NVNT	2-DH1	2480	Ant1	-46.44	-20	Pass
NVNT	3-DH1	2402	Ant1	-40.15	-20	Pass
NVNT	3-DH1	2441	Ant1	-43.12	-20	Pass
NVNT	3-DH1	2480	Ant1	-44.51	-20	Pass

Test Graphs

Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



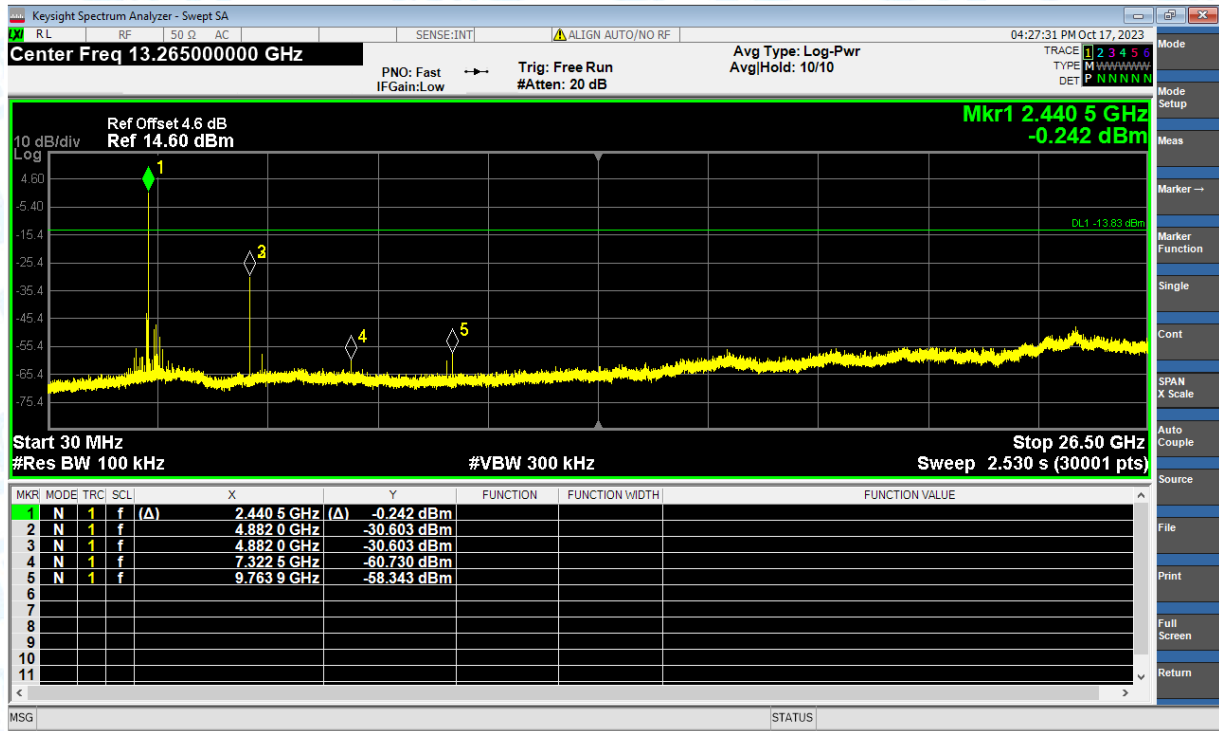
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



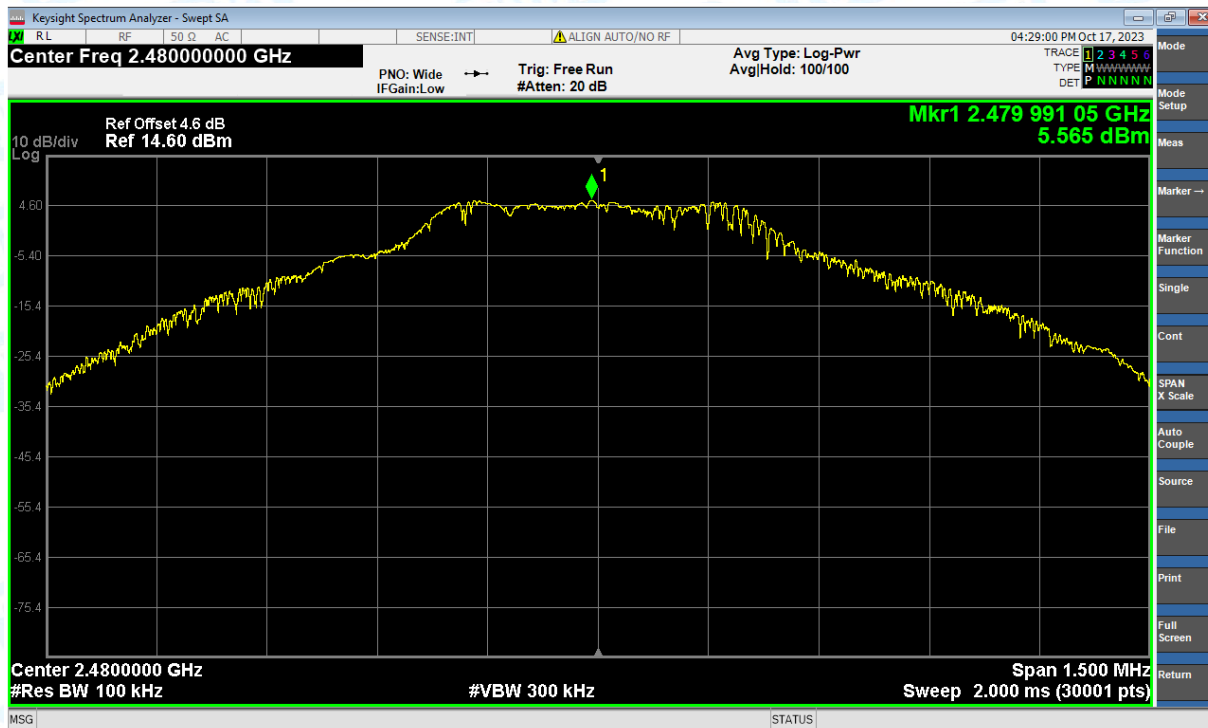
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



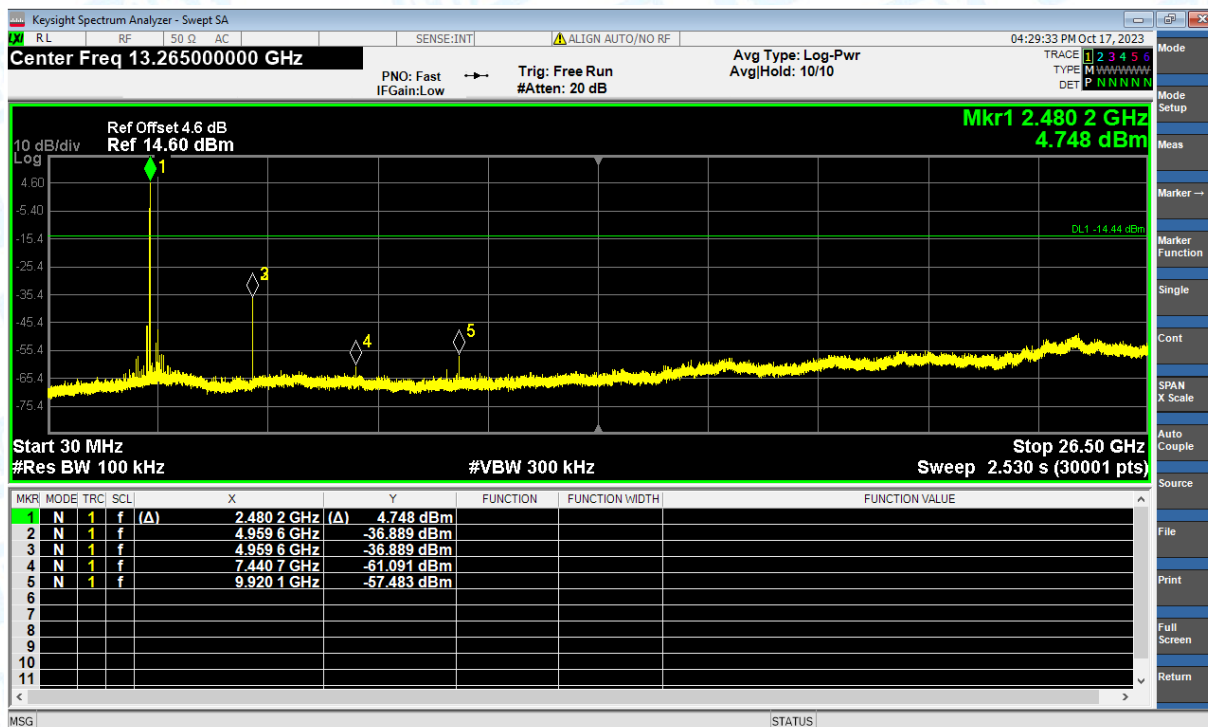
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



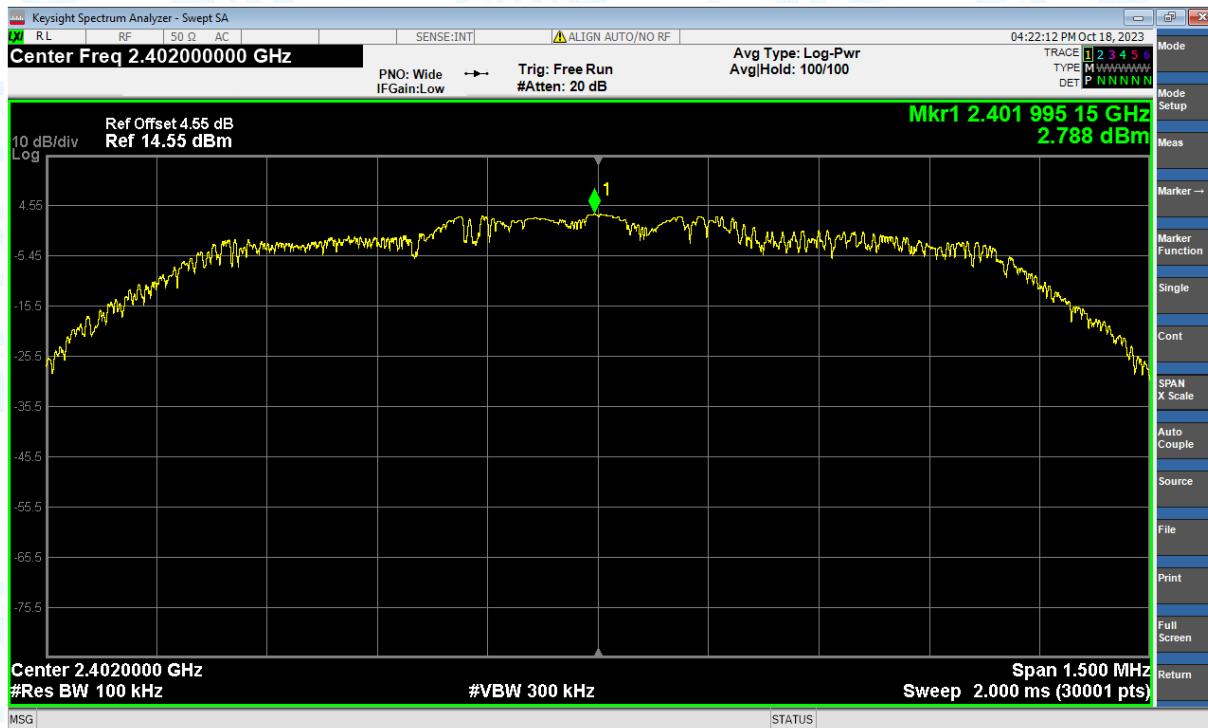
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



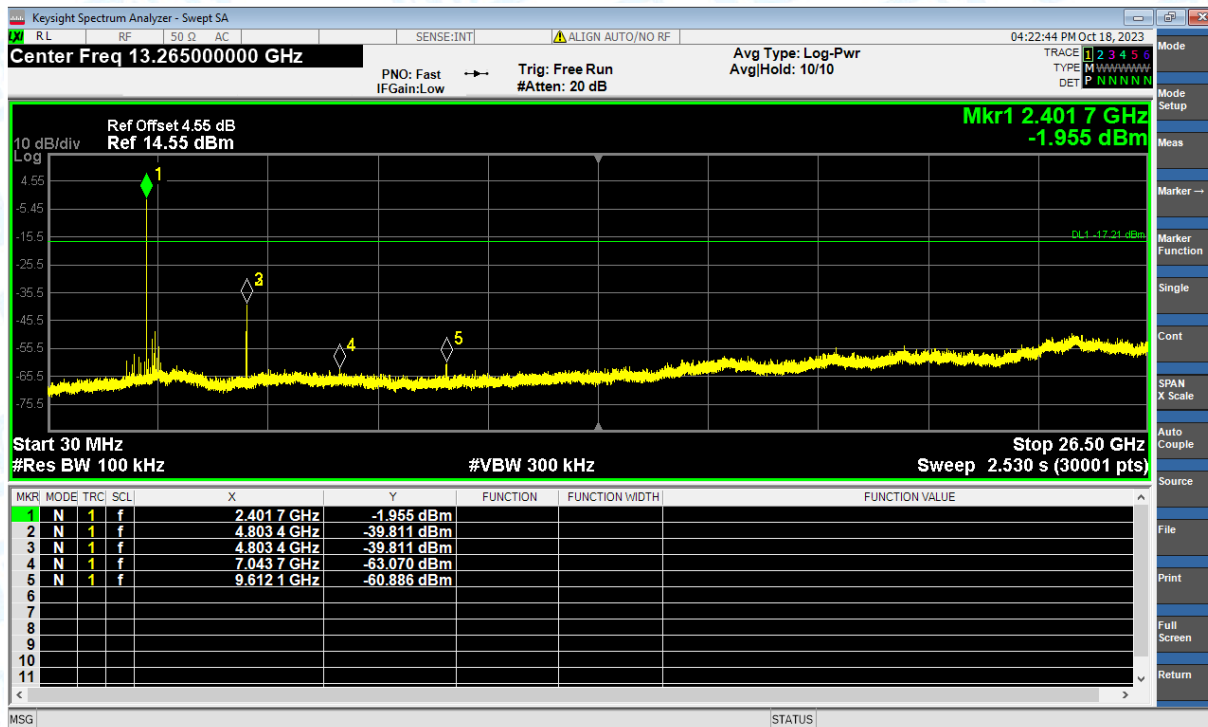
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



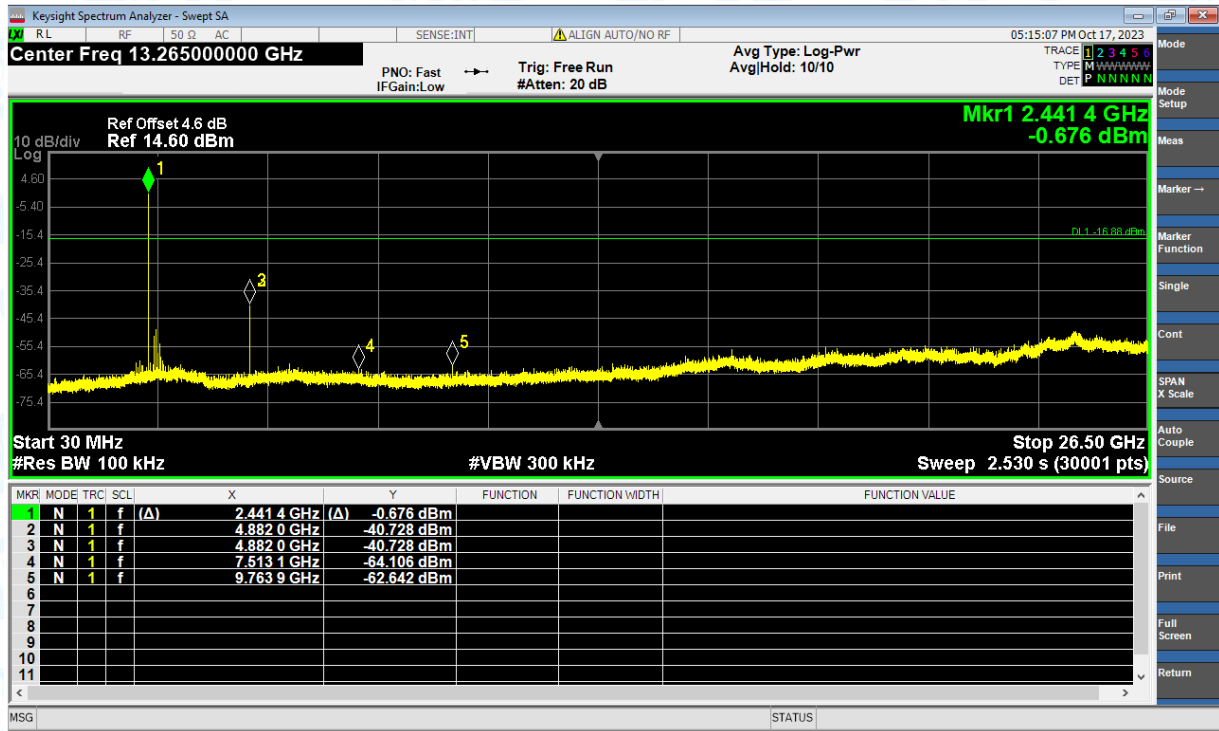
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



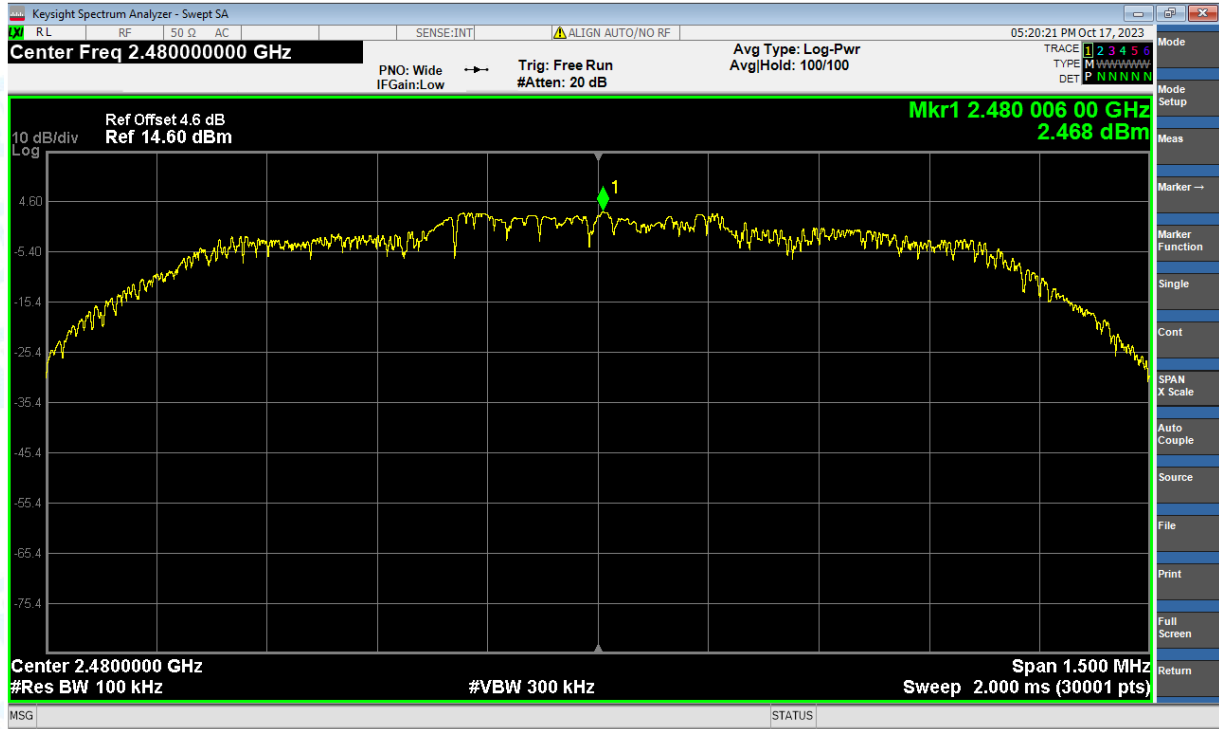
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



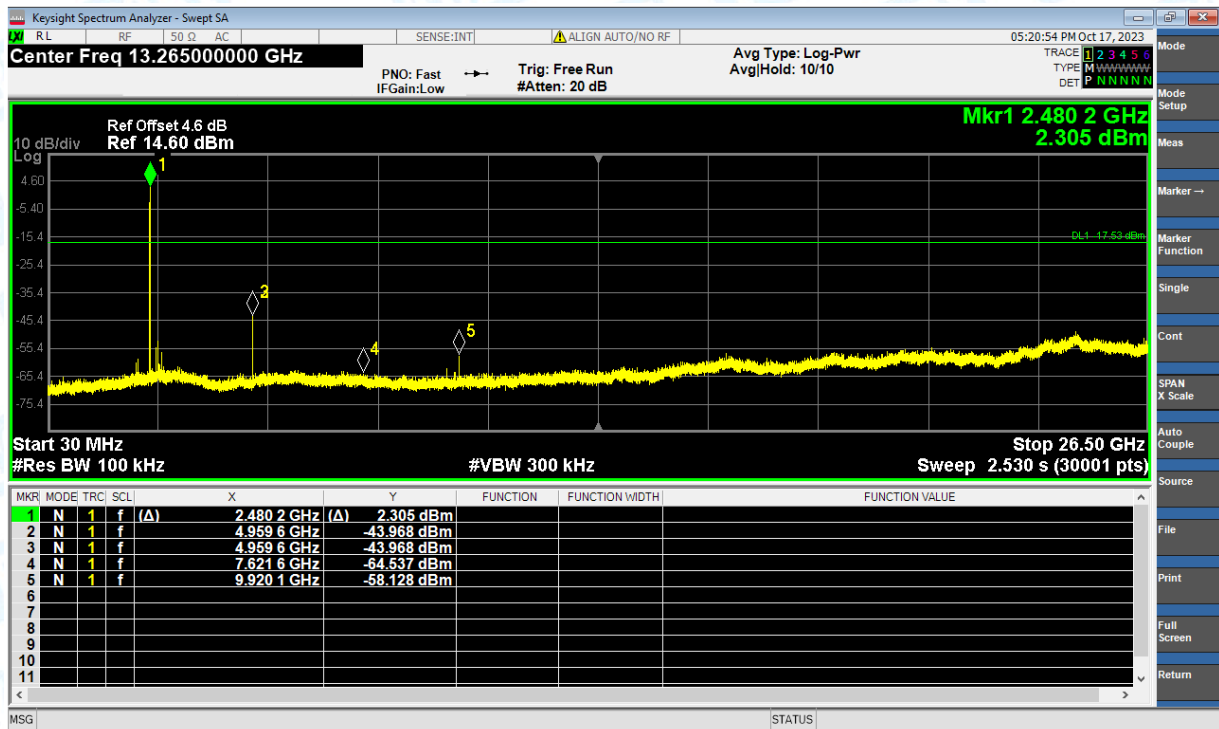
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



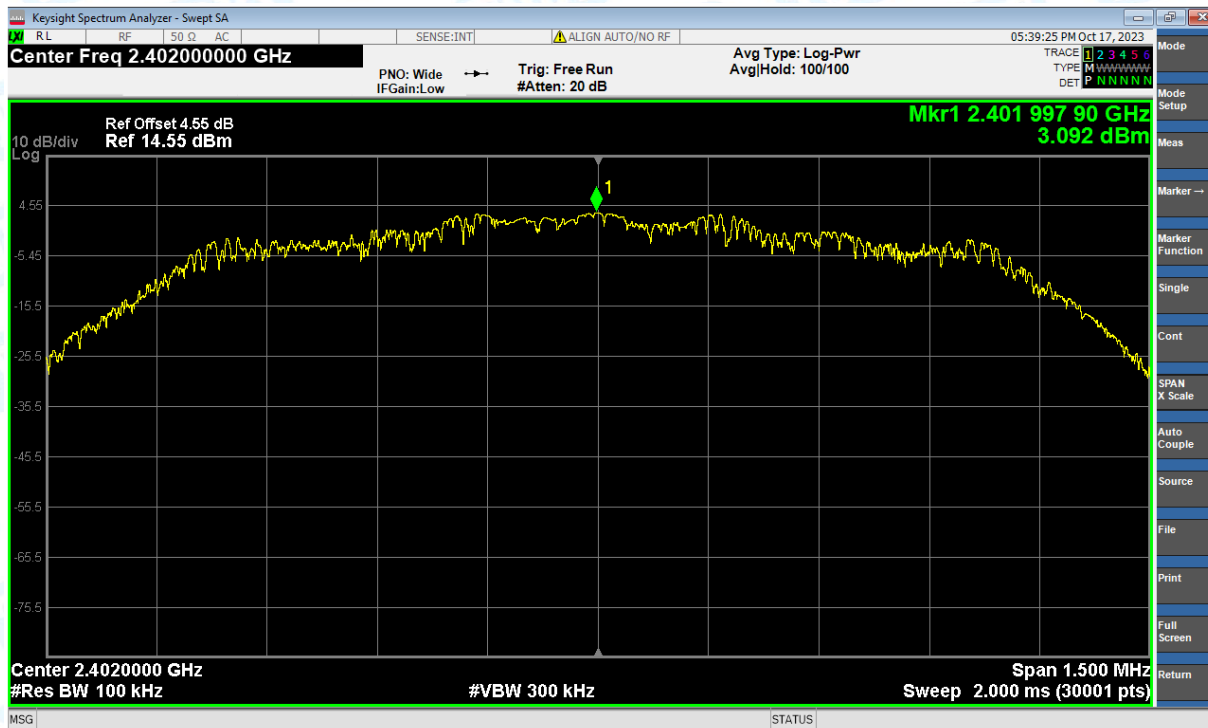
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



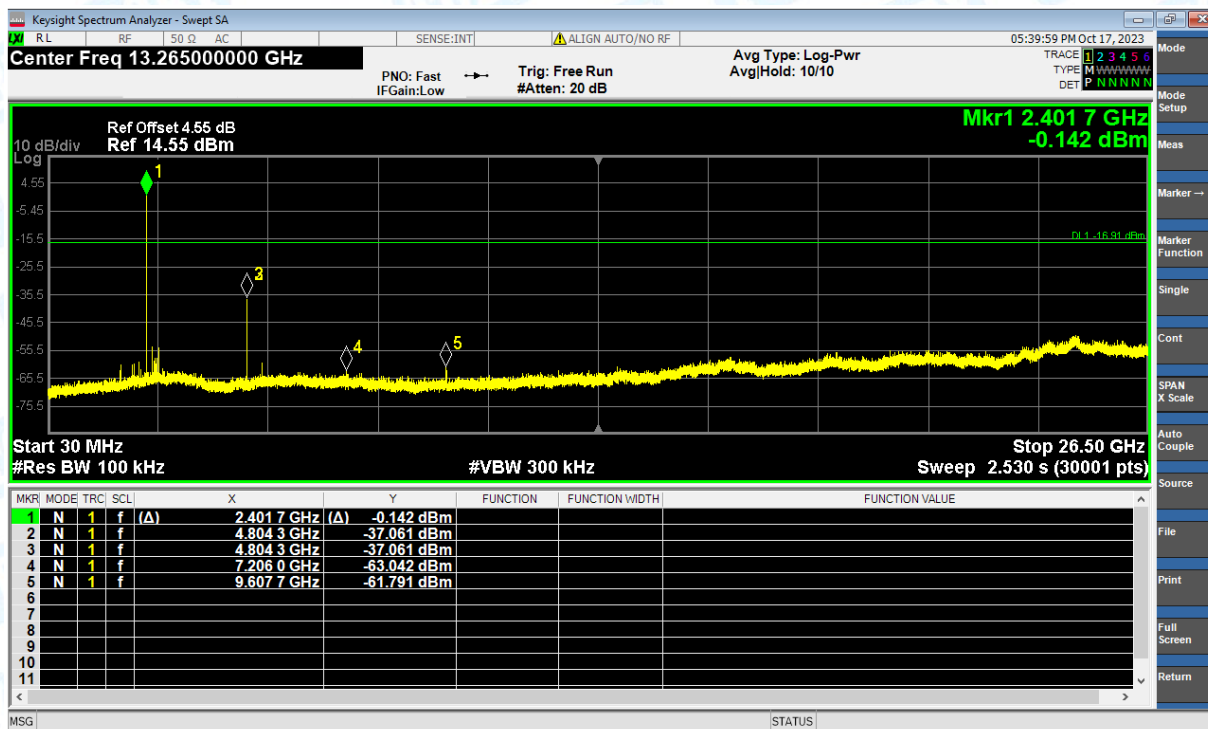
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



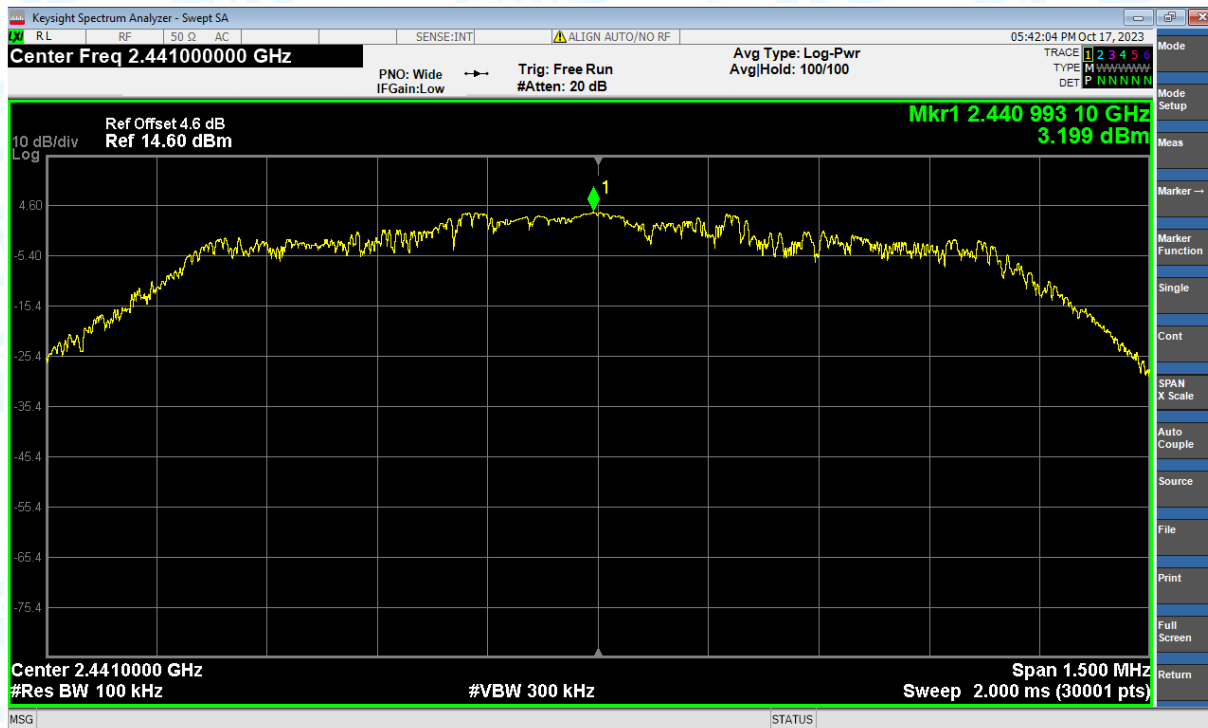
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



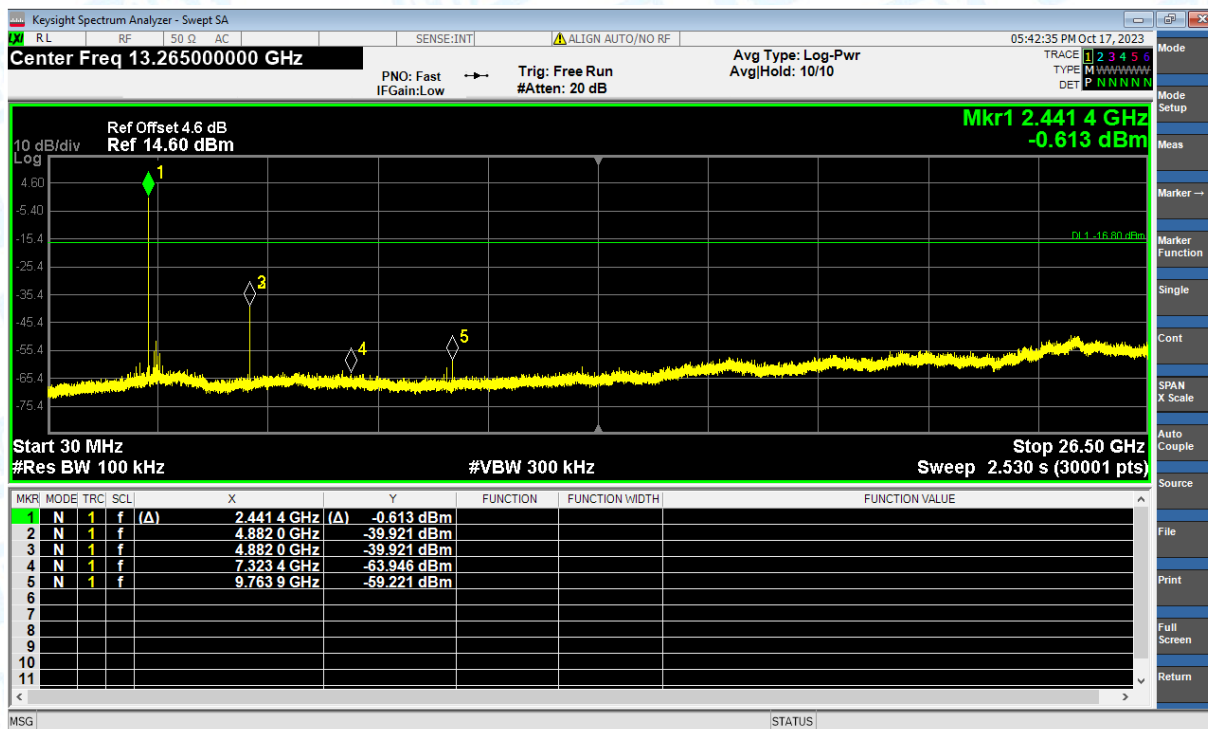
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



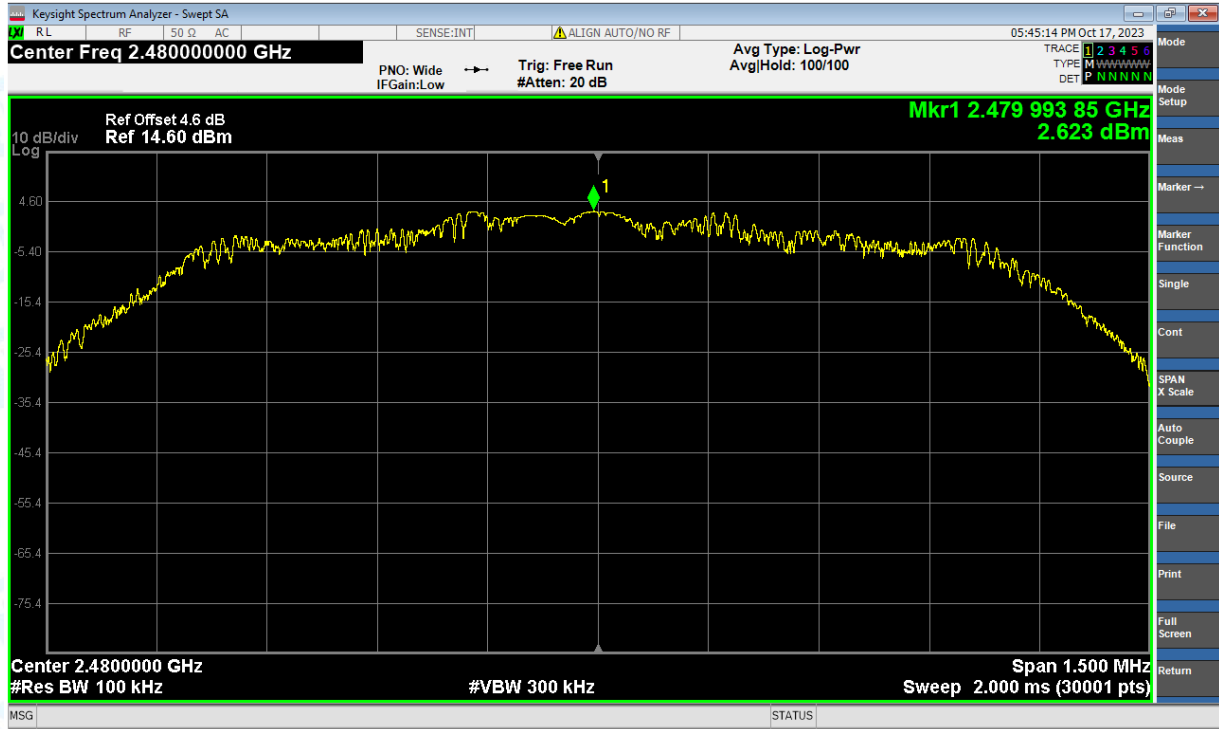
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



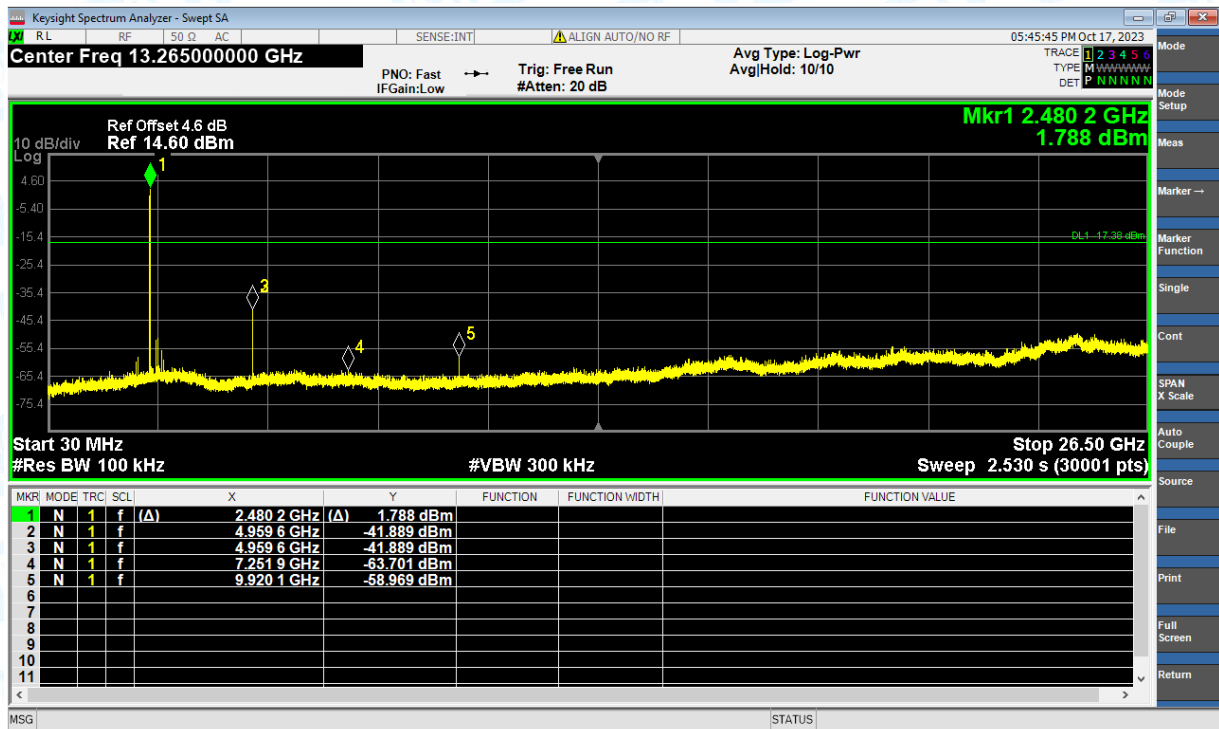
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

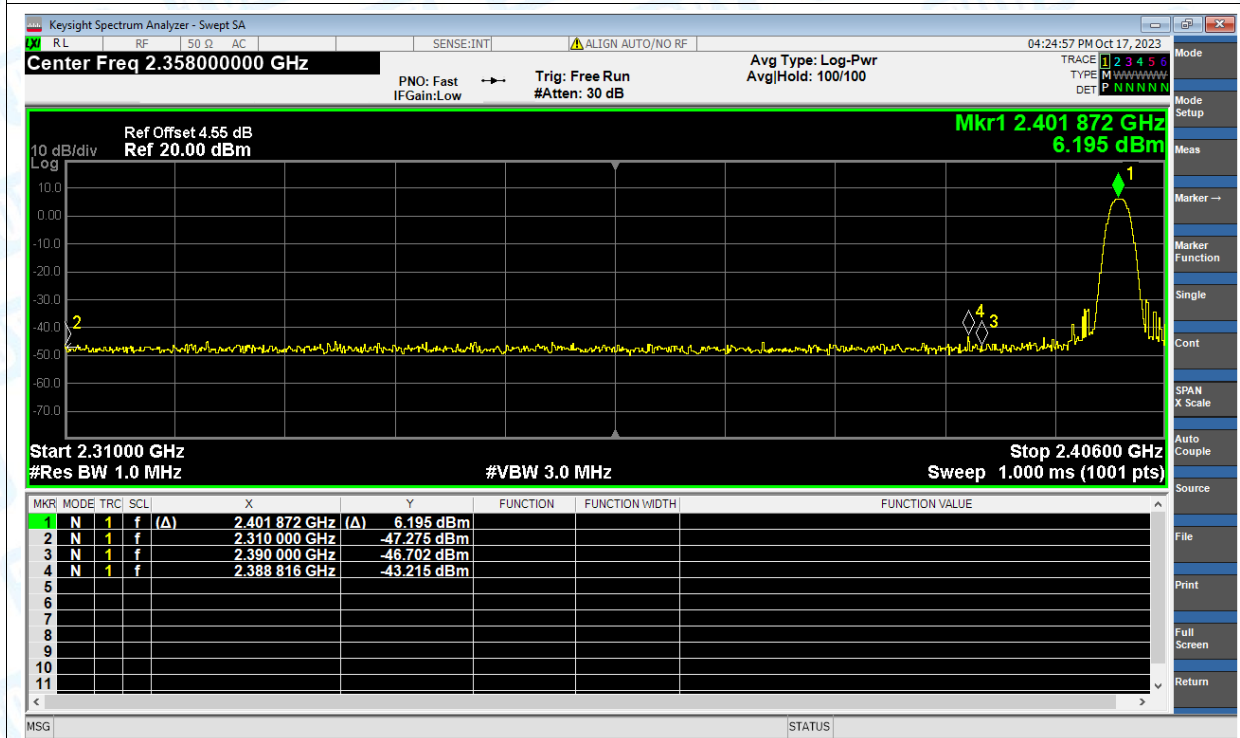


8. Restrict Band

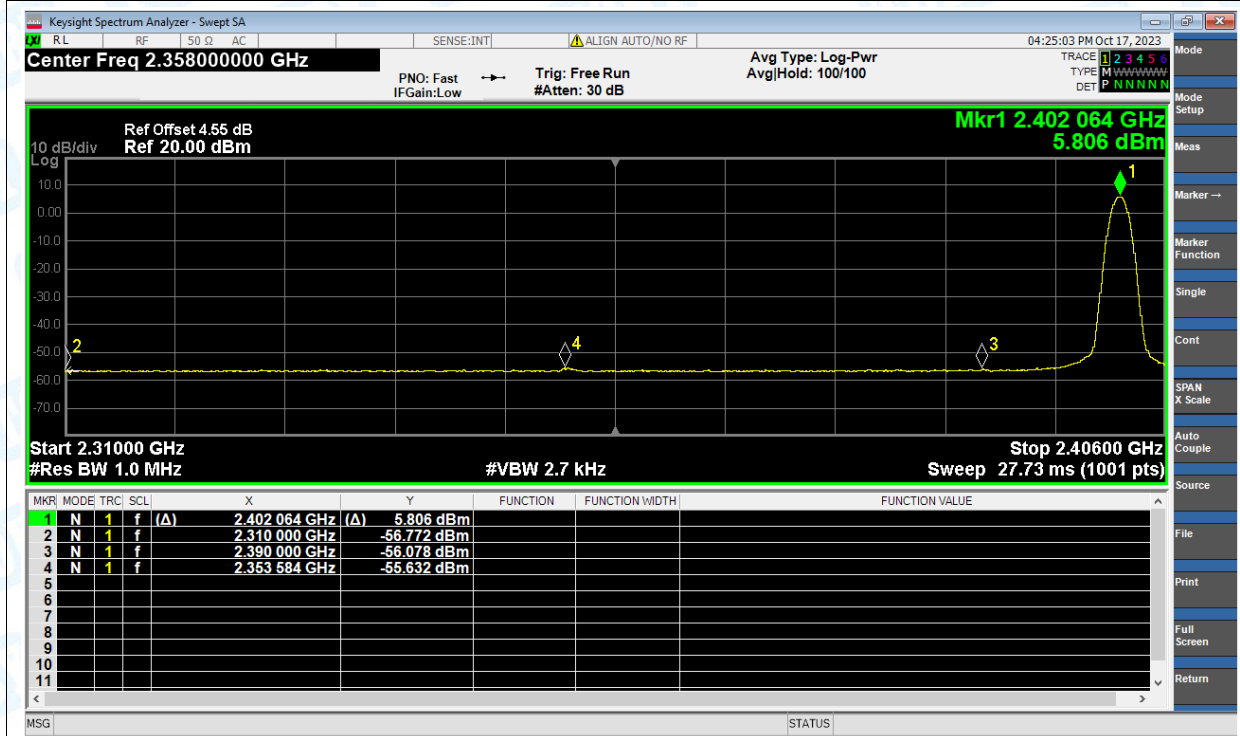
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-47.27	2	49.99	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.77	2	40.49	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2388.816	-43.21	2	54.05	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2353.584	-55.63	2	41.63	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-48.29	2	48.97	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-56.02	2	41.24	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-45.49	2	51.77	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-53.83	2	43.43	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.776	-34.72	2	62.54	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.512	-53.83	2	43.43	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-46.44	2	50.82	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-56.19	2	41.07	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-47.96	2	49.3	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.75	2	40.51	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2354.448	-45.02	2	52.24	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2386.896	-56.12	2	41.14	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-48.45	2	48.81	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-56.41	2	40.85	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-38.51	2	58.75	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-54.64	2	42.62	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.512	-38.51	2	58.75	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.632	-54.45	2	42.81	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-48.55	2	48.71	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-56.44	2	40.82	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-47.23	2	50.03	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.64	2	40.62	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2385.36	-42.75	2	54.51	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2333.424	-56.1	2	41.16	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-48.31	2	48.95	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-56.51	2	40.75	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-47.07	2	50.19	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-54.59	2	42.67	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.728	-37.7	2	59.56	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.752	-54.54	2	42.72	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-46.94	2	50.32	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-56.57	2	40.69	Average	54	Pass

Test Graphs

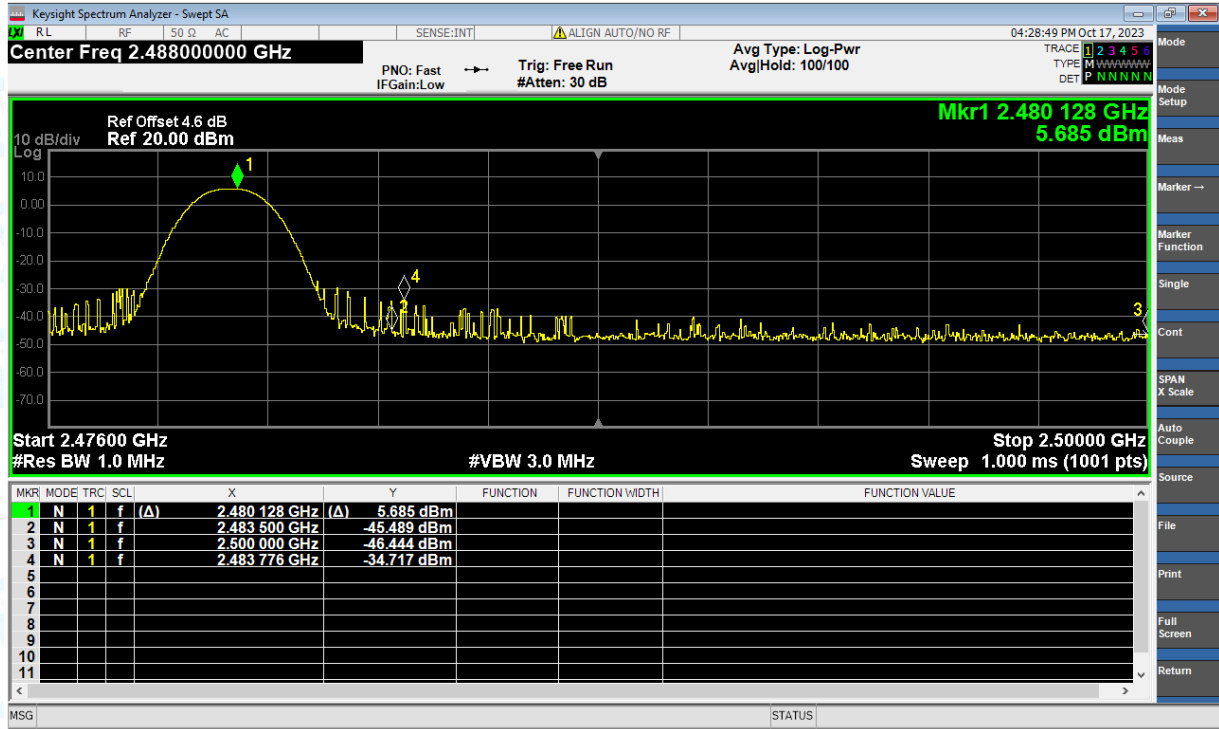
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



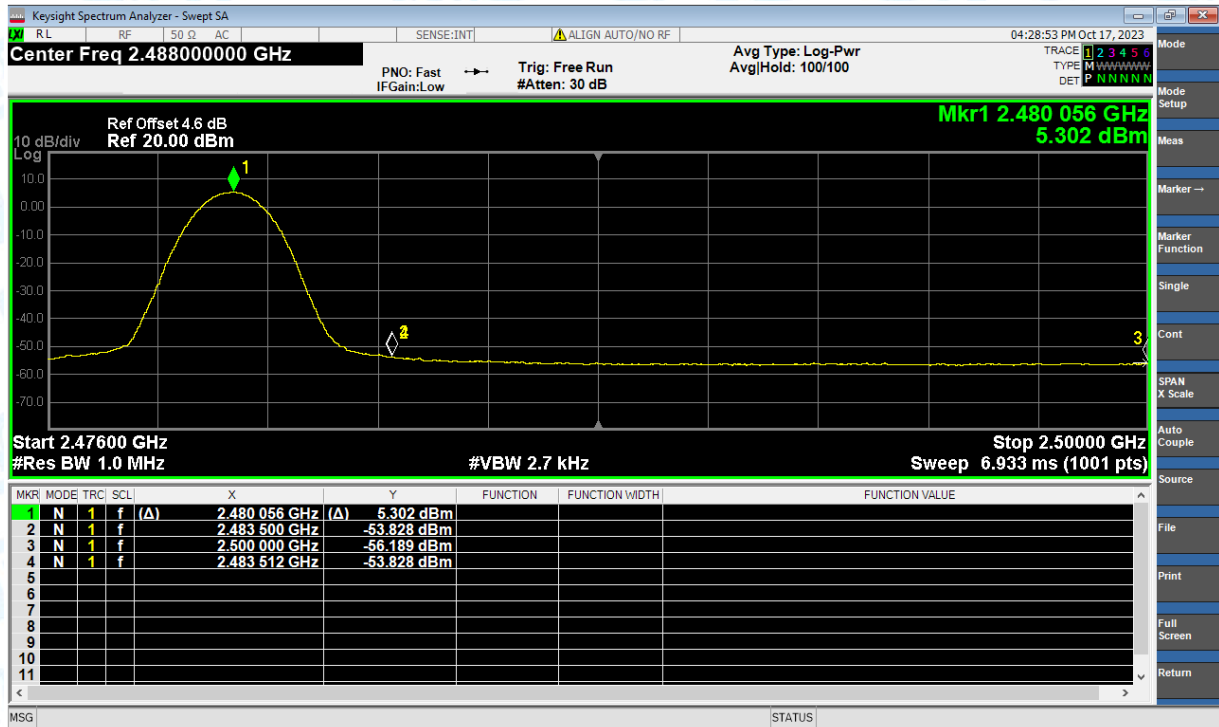
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



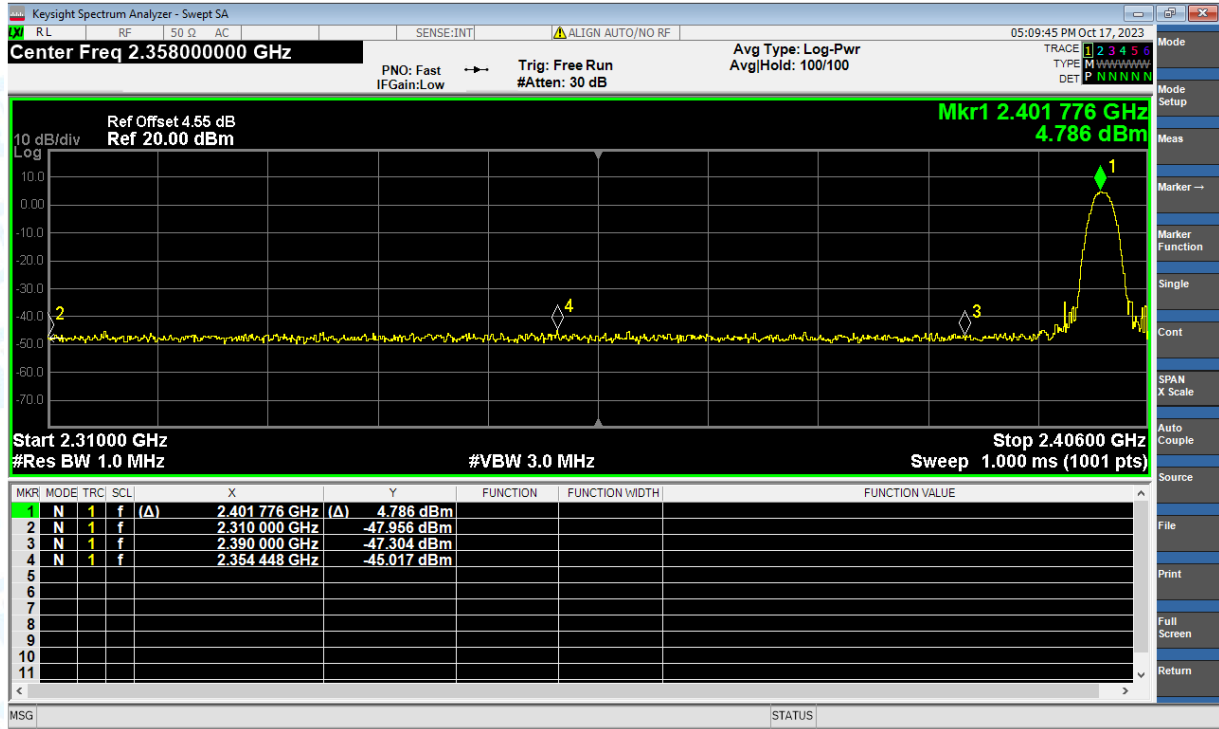
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



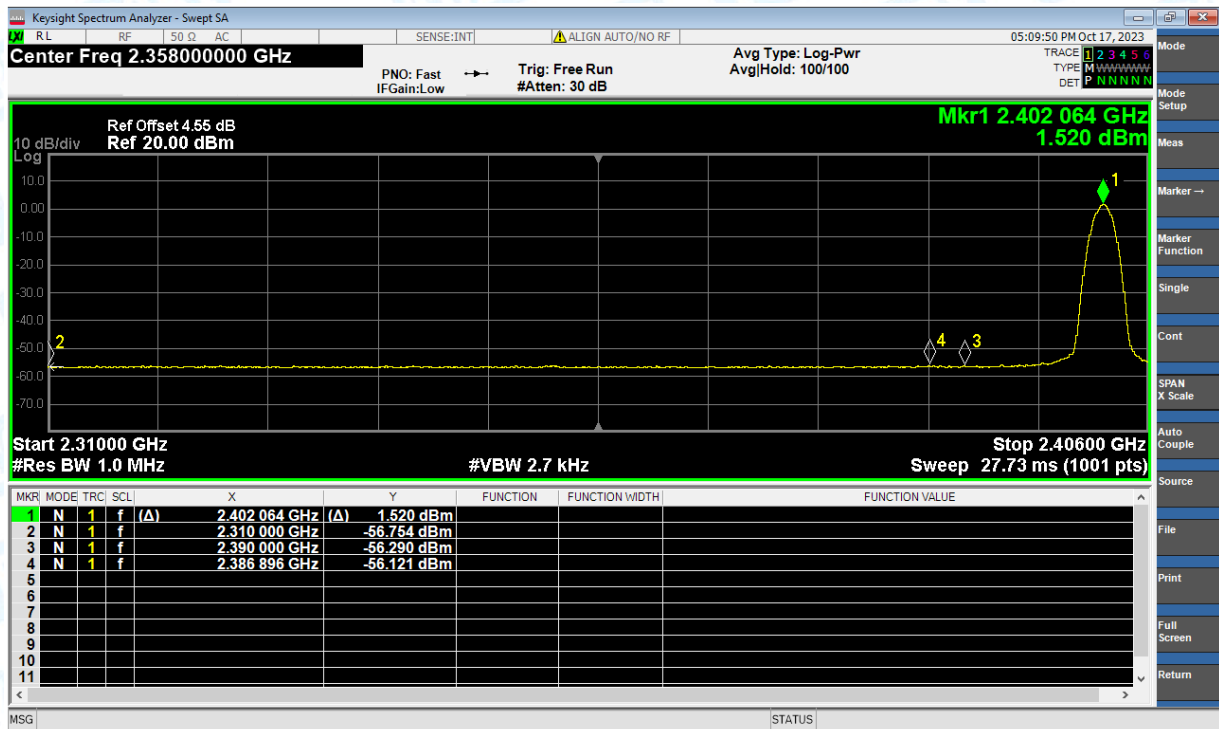
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



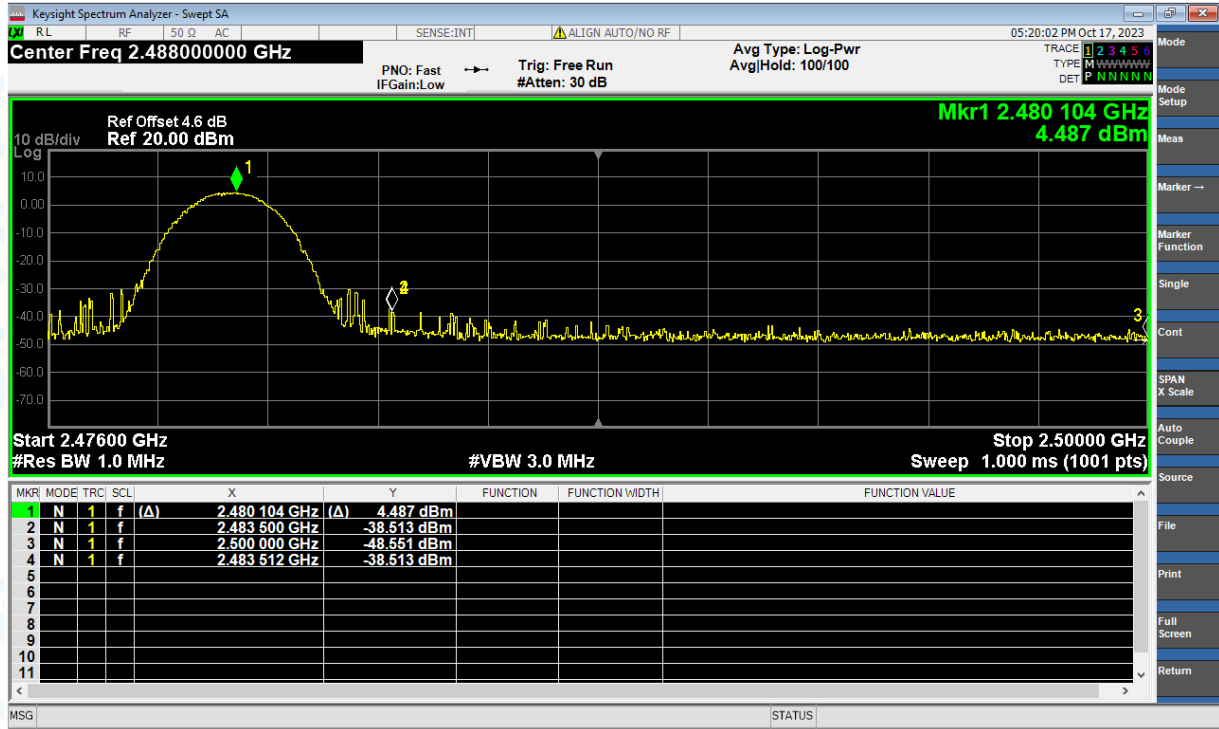
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



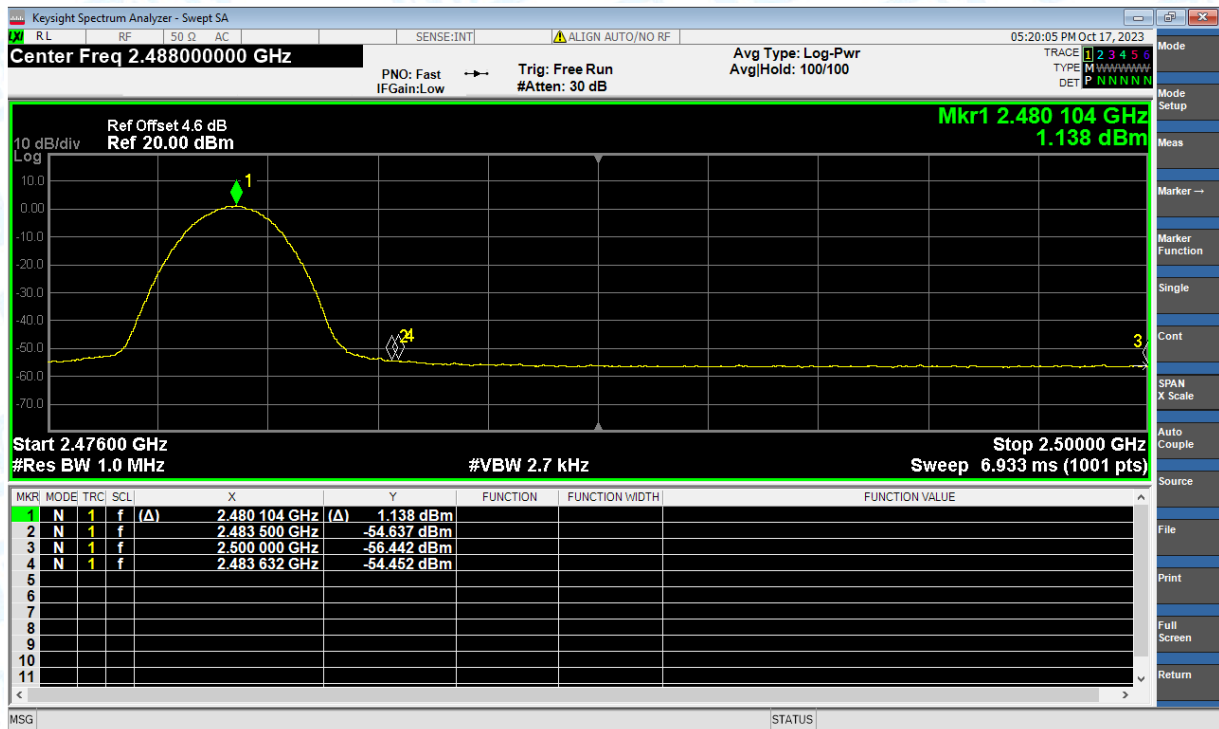
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



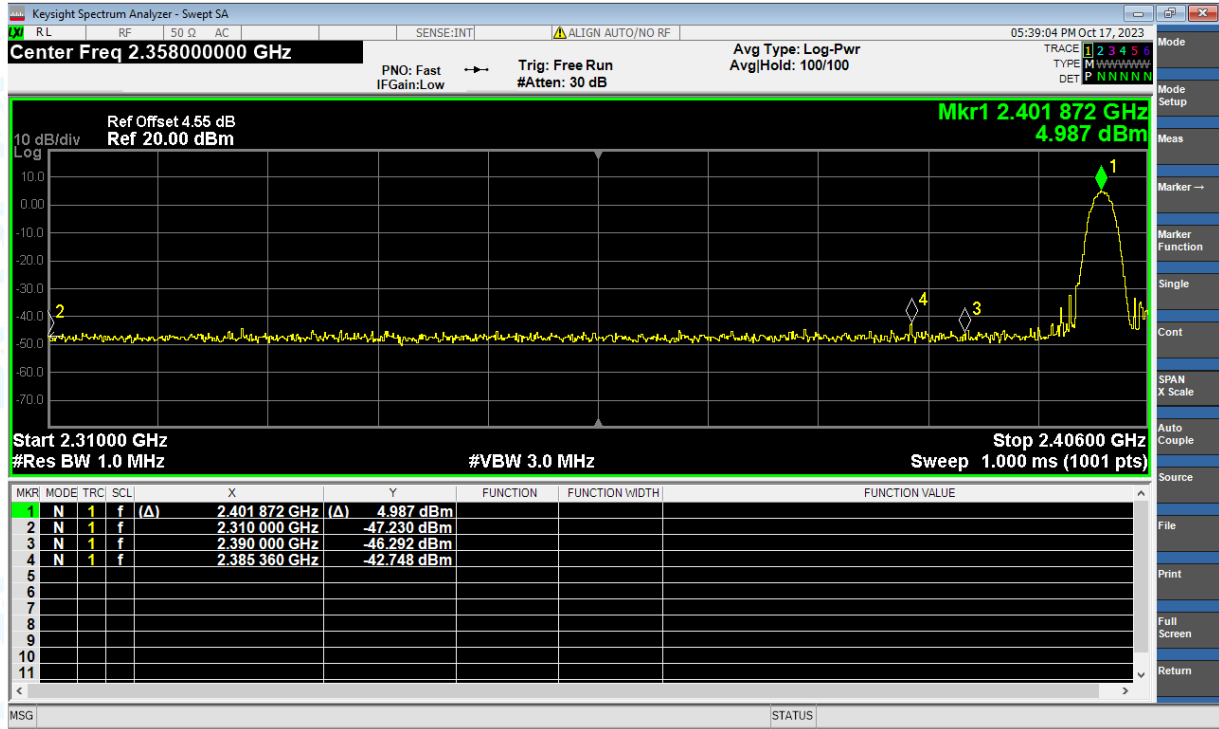
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



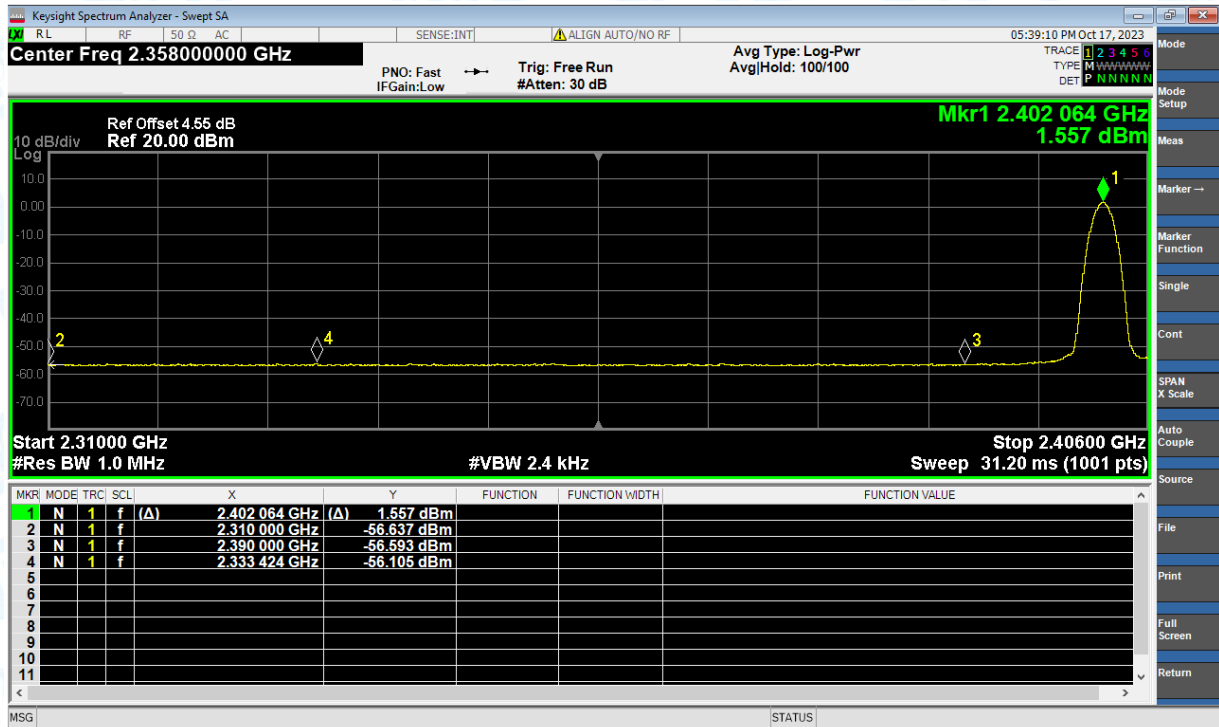
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



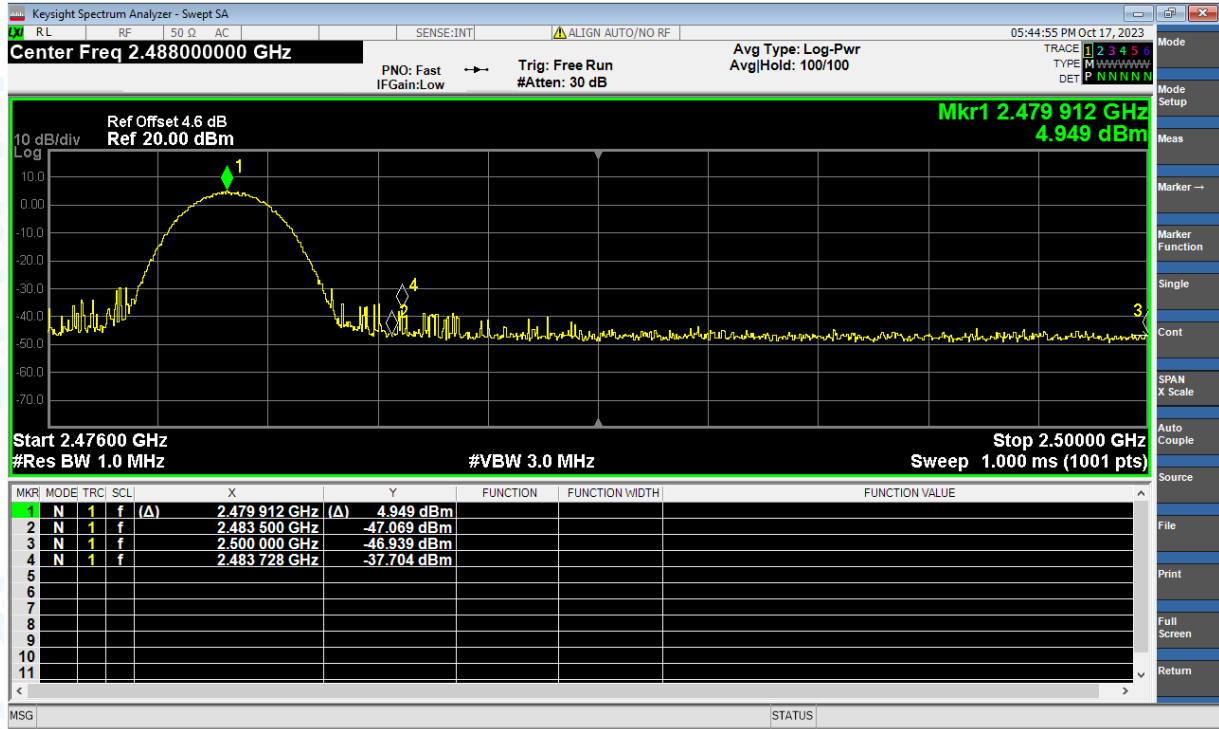
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



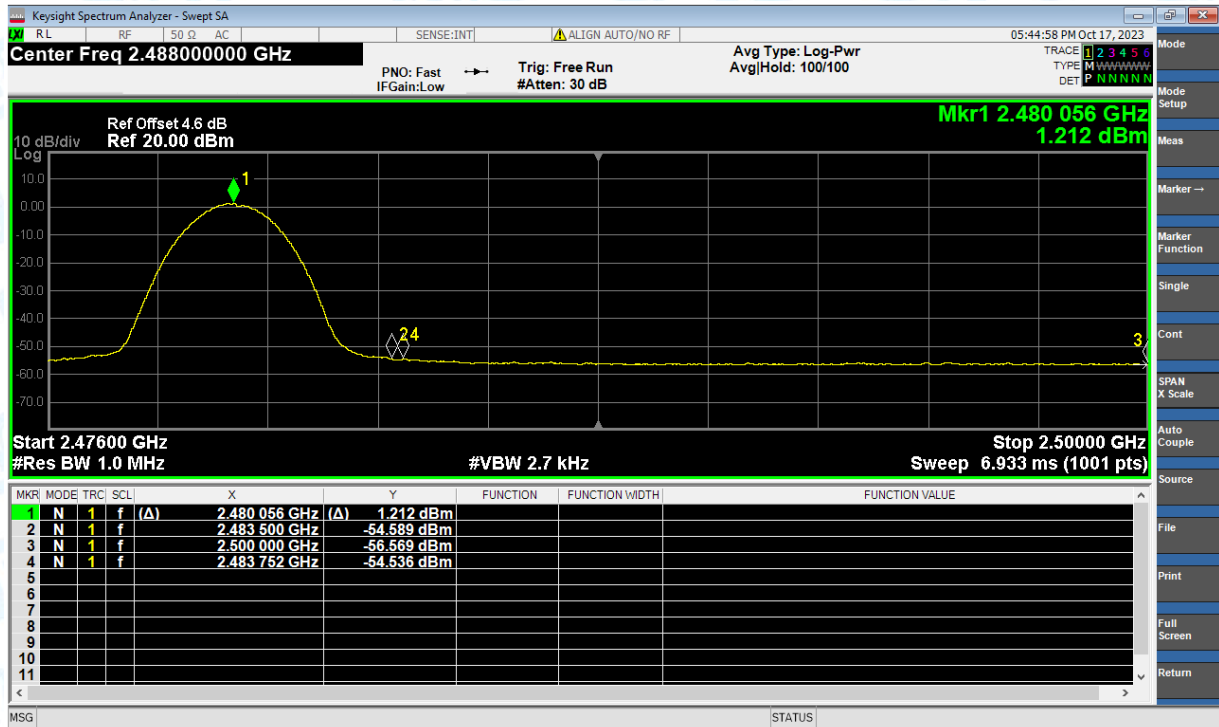
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

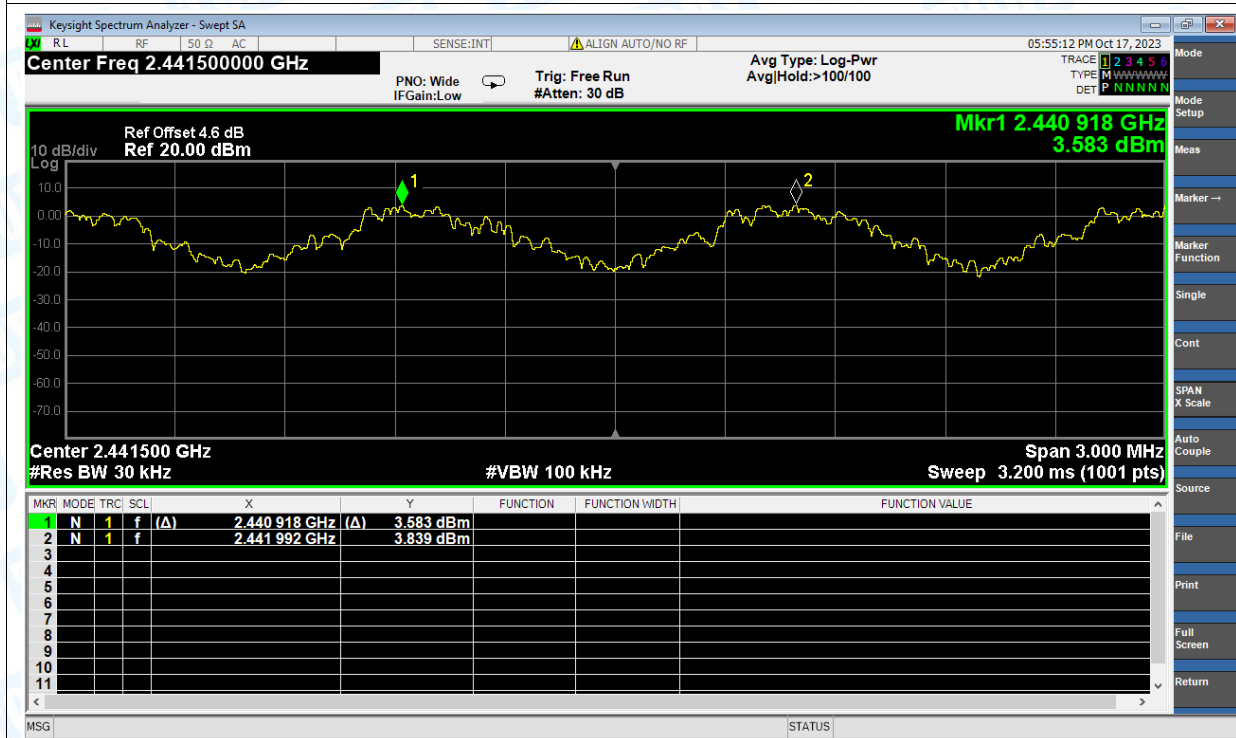


9. Carrier Frequencies Separation

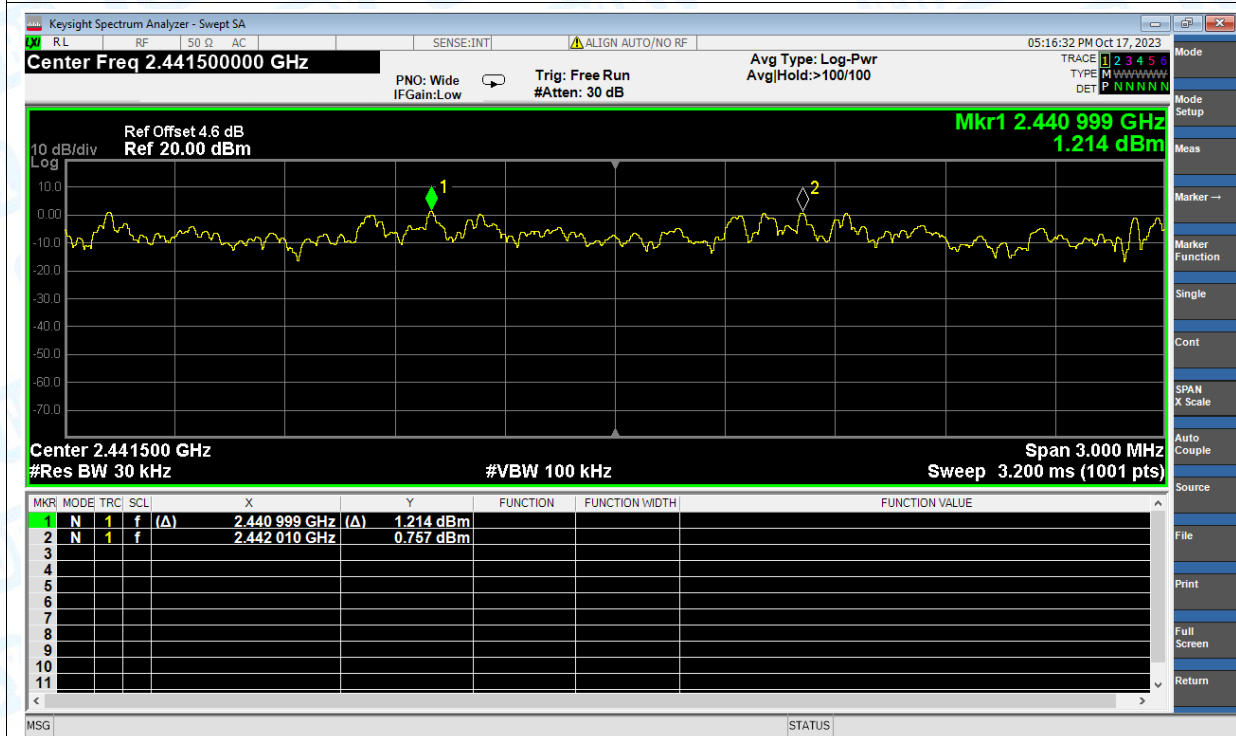
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.918	2441.992	1.074	0.620	Pass
NVNT	2-DH1	Ant1	2440.999	2442.01	1.011	0.847	Pass
NVNT	3-DH1	Ant1	2440.99	2441.998	1.008	0.820	Pass

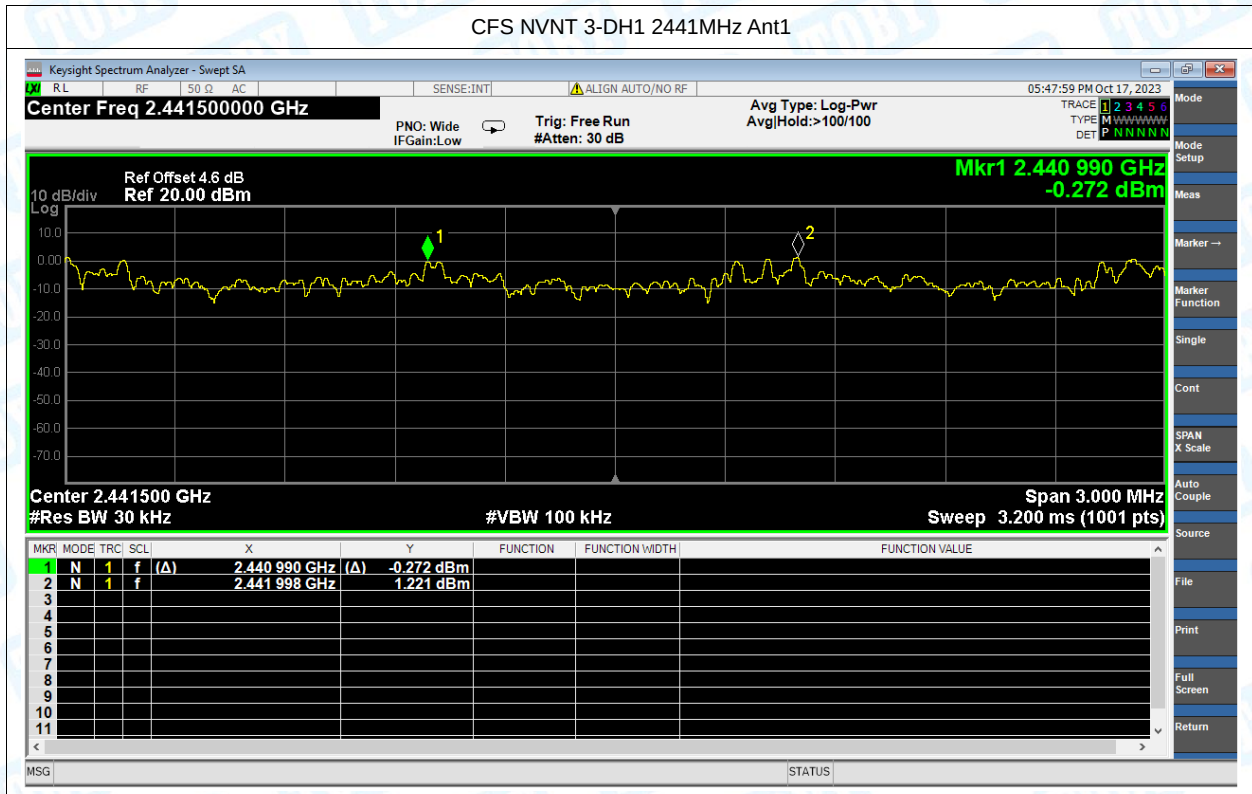
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



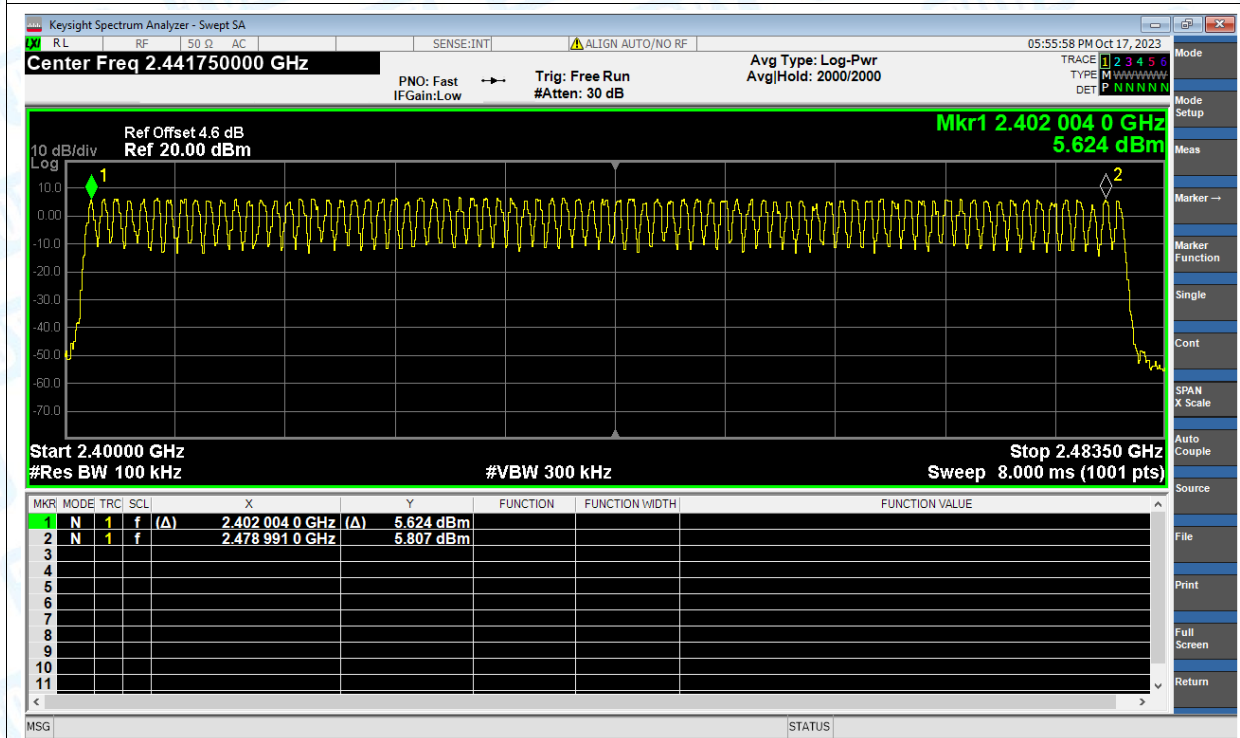


10. Number of Hopping Channel

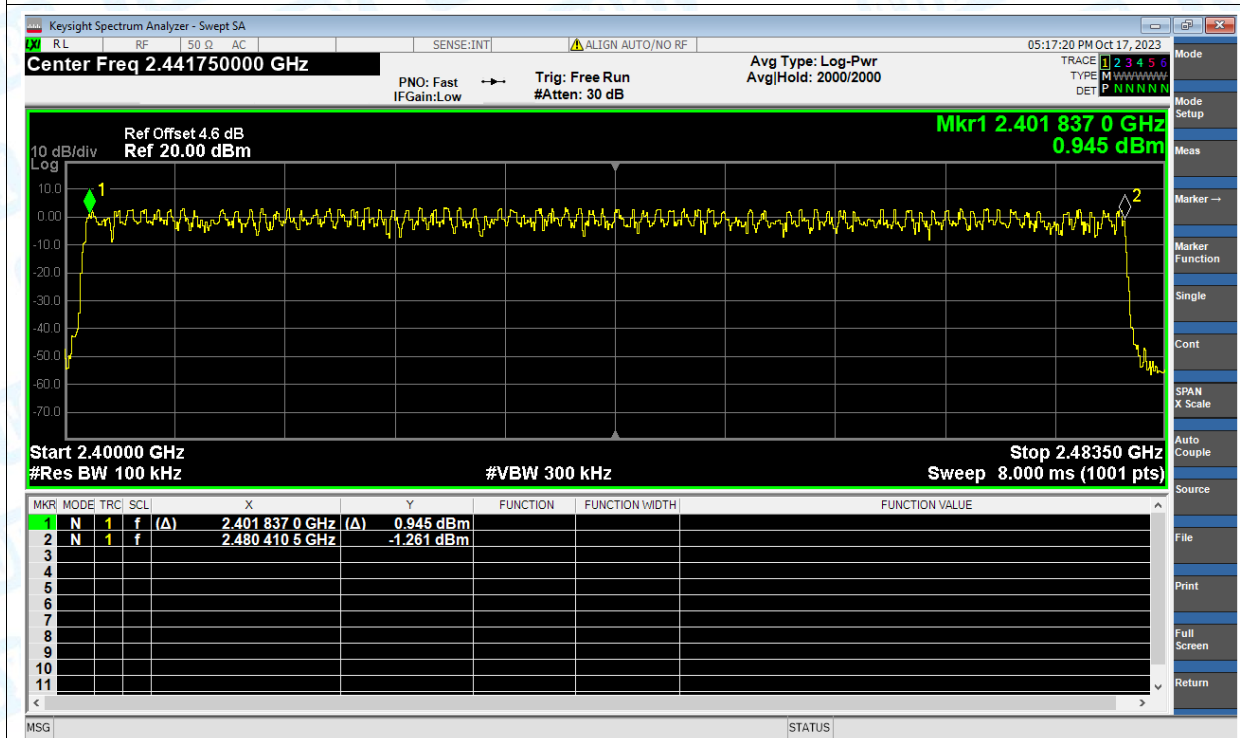
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

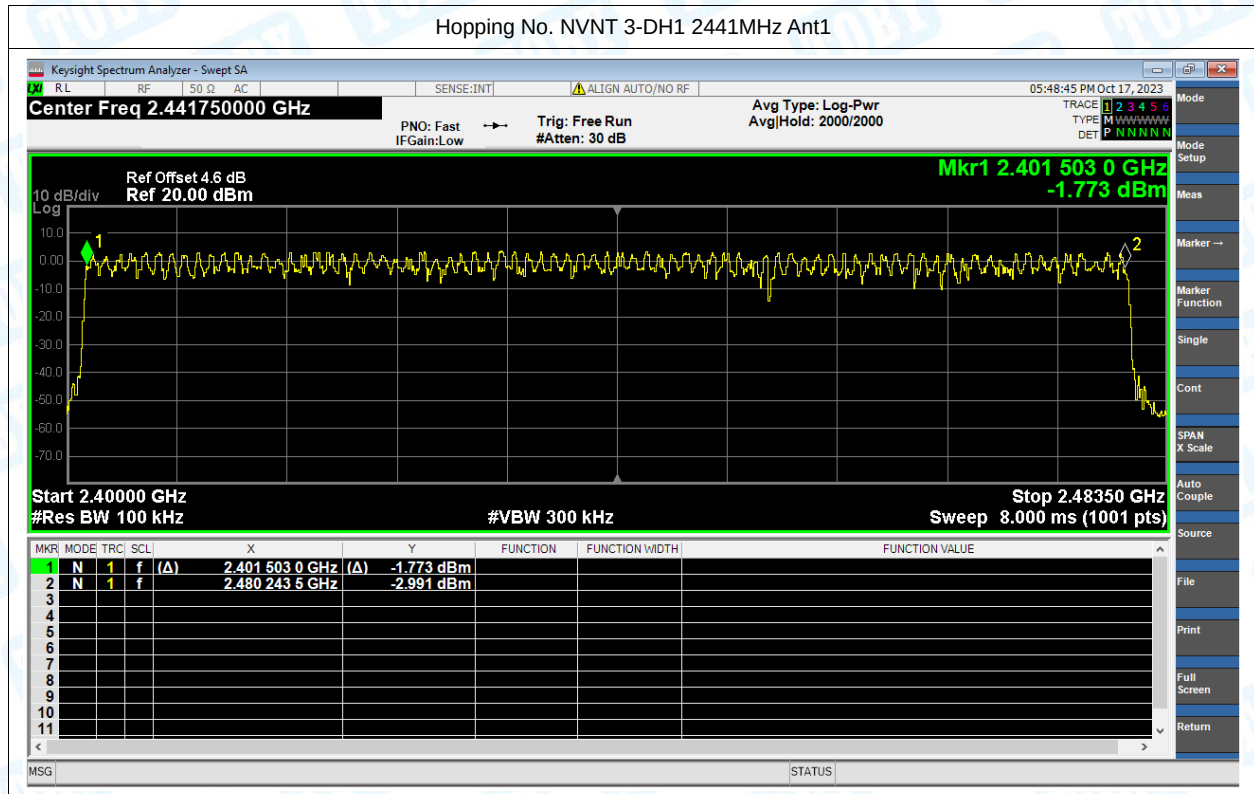
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



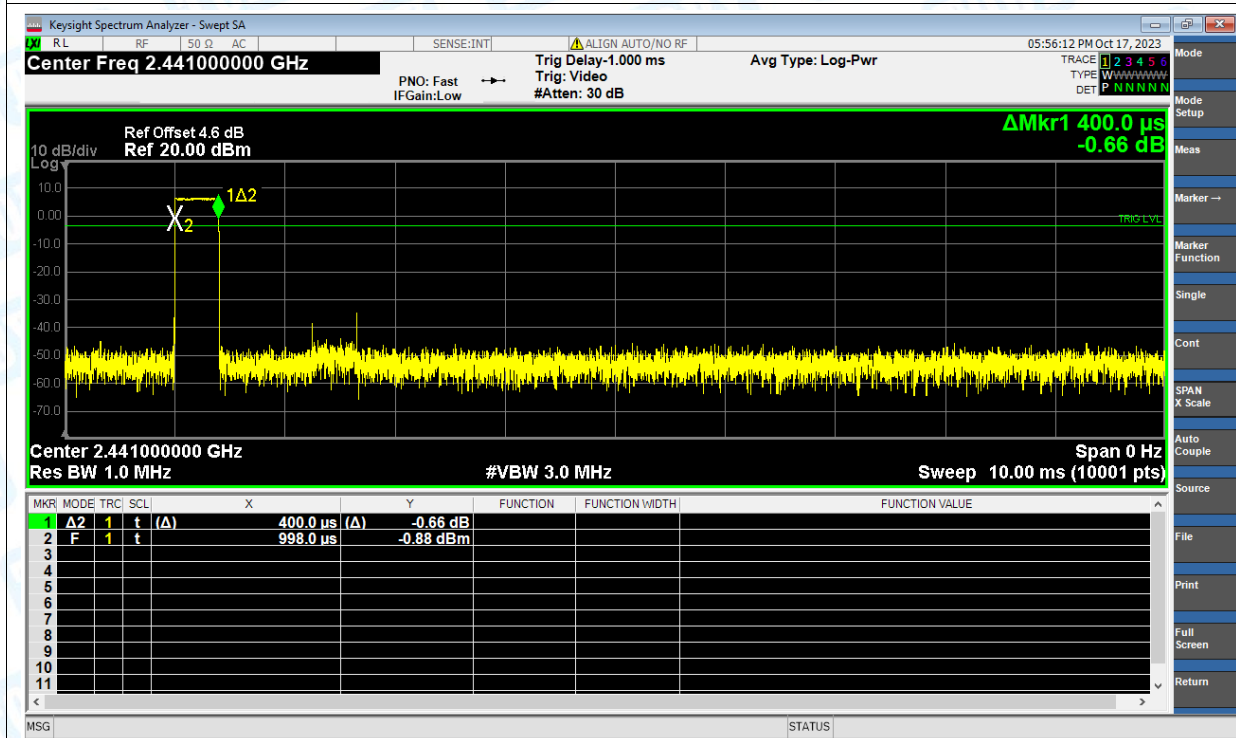


11. Dwell Time

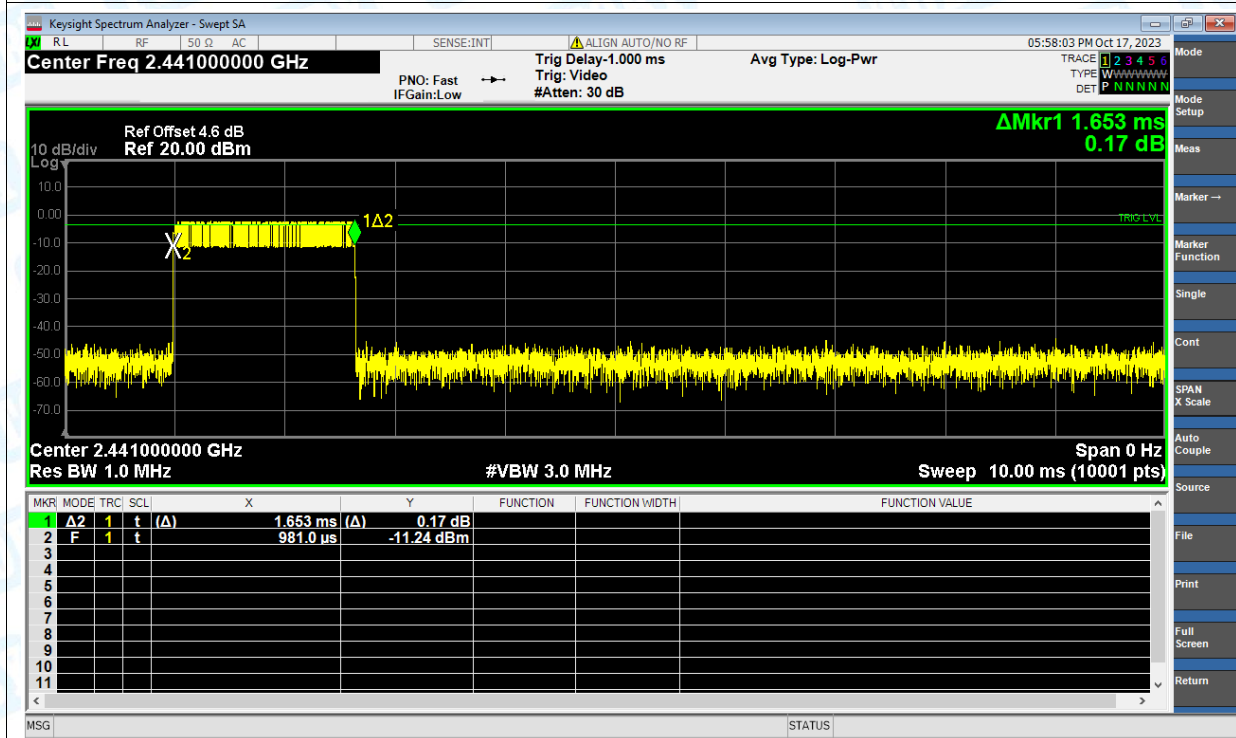
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.4	128	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.653	264.48	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.903	309.653	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.391	125.12	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.662	265.92	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.91	310.4	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.407	130.24	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.66	265.6	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.908	310.187	31600	400	Pass

Test Graphs

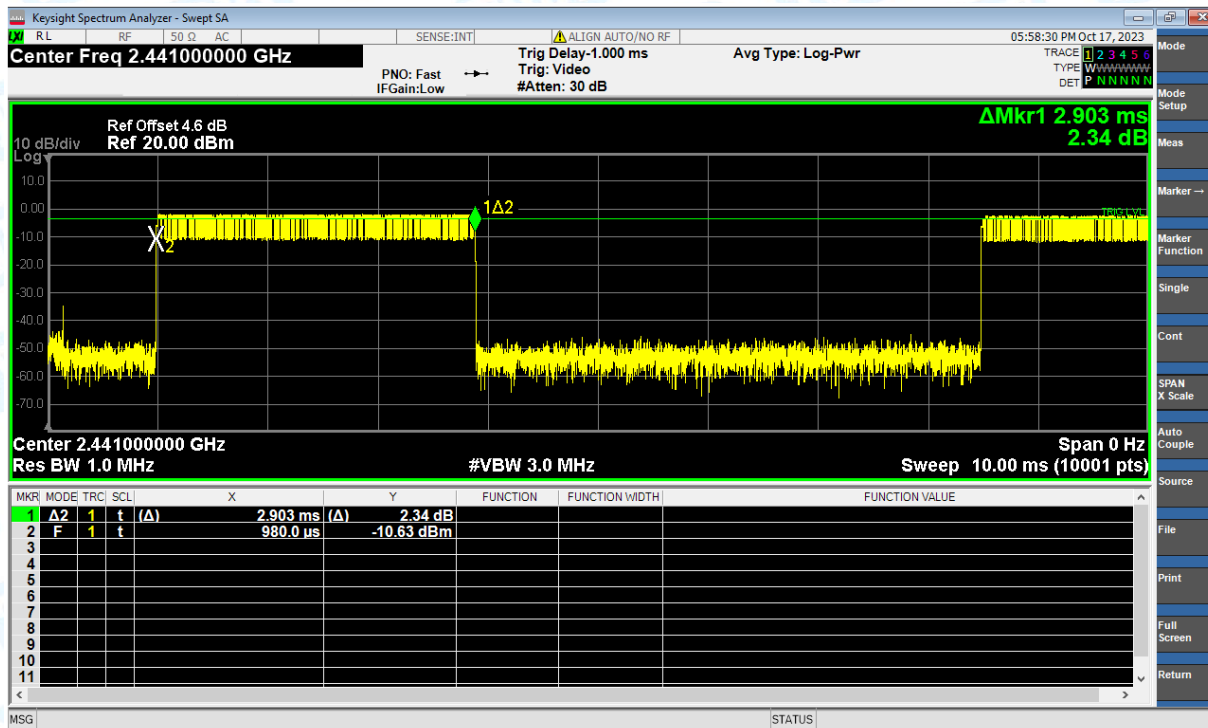
Dwell NVNT 1-DH1 2441MHz Ant1



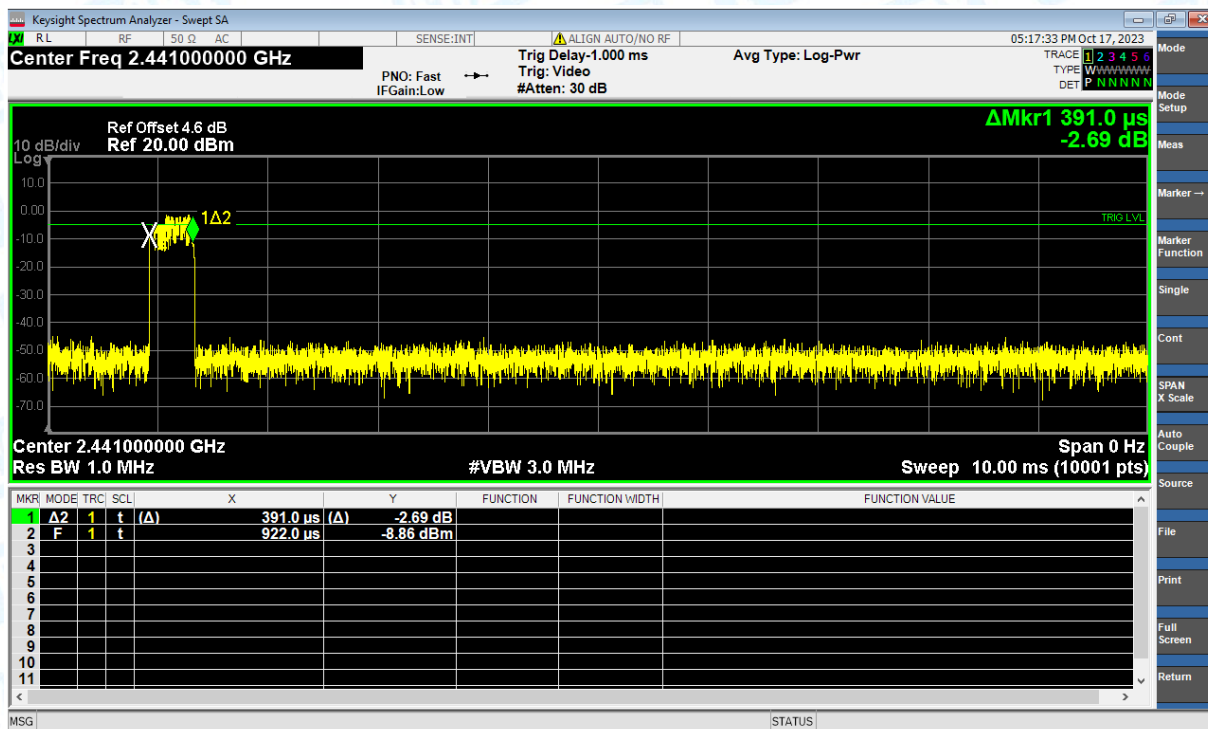
Dwell NVNT 1-DH3 2441MHz Ant1



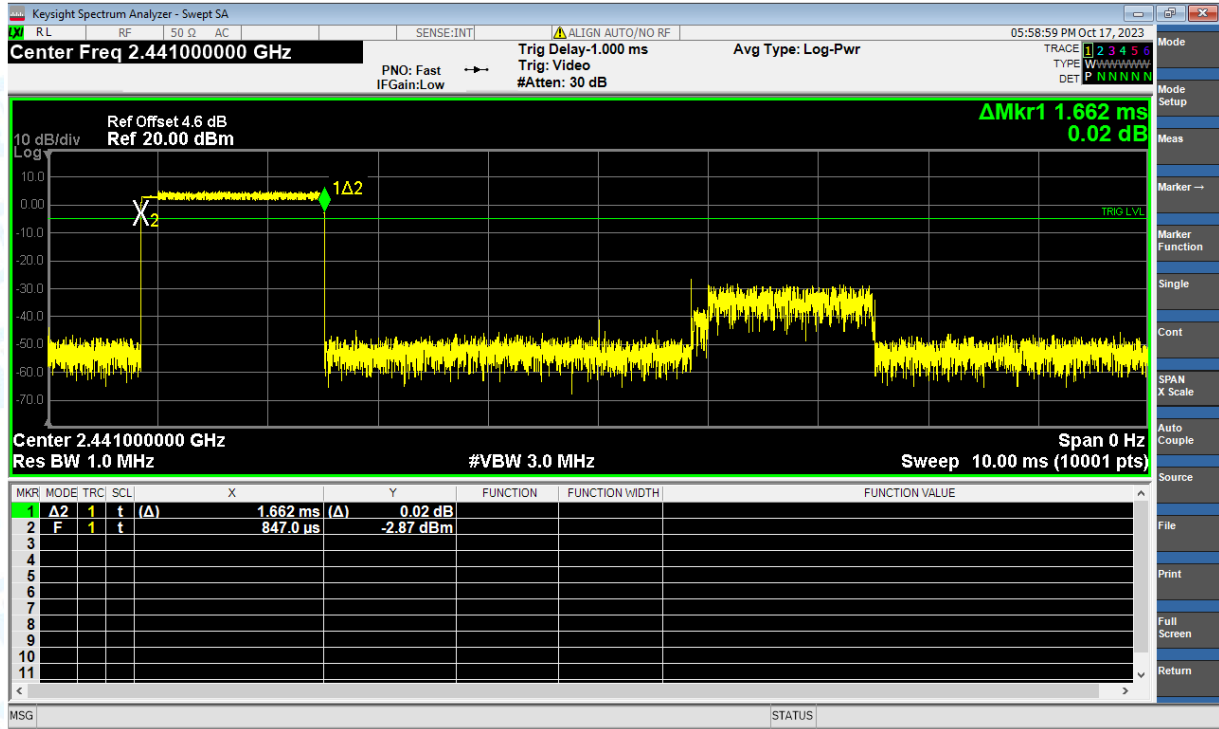
Dwell NVNT 1-DH5 2441MHz Ant1



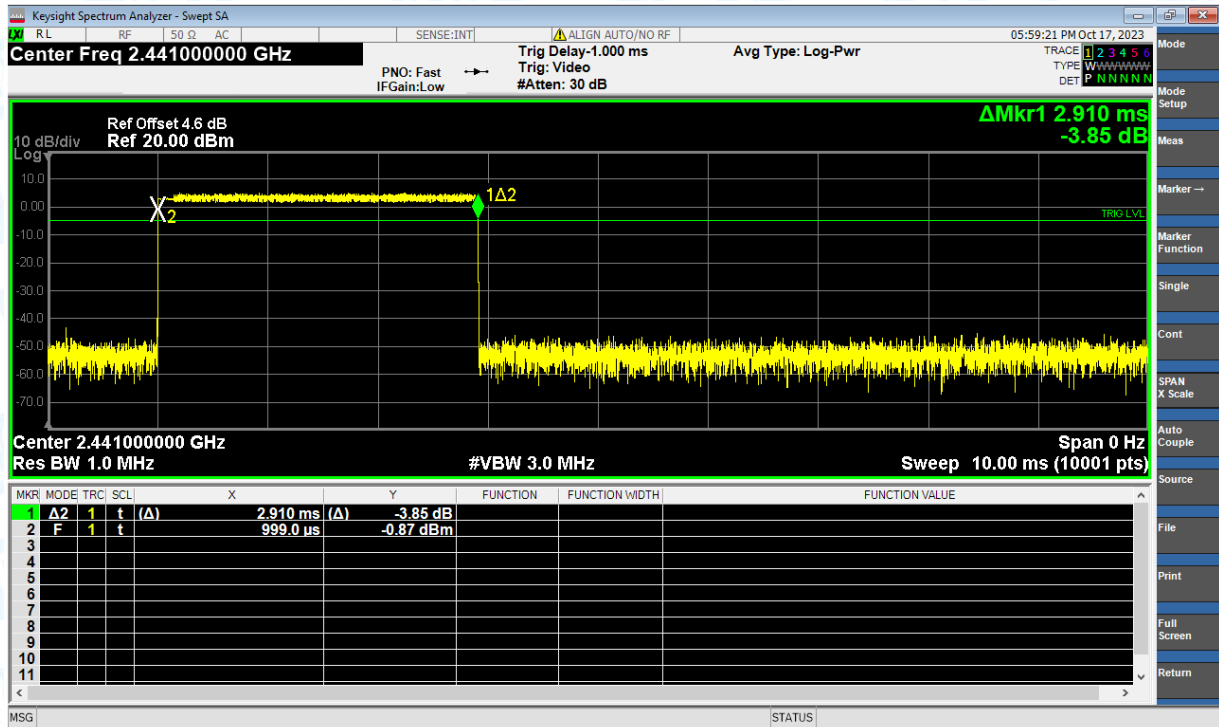
Dwell NVNT 2-DH1 2441MHz Ant1



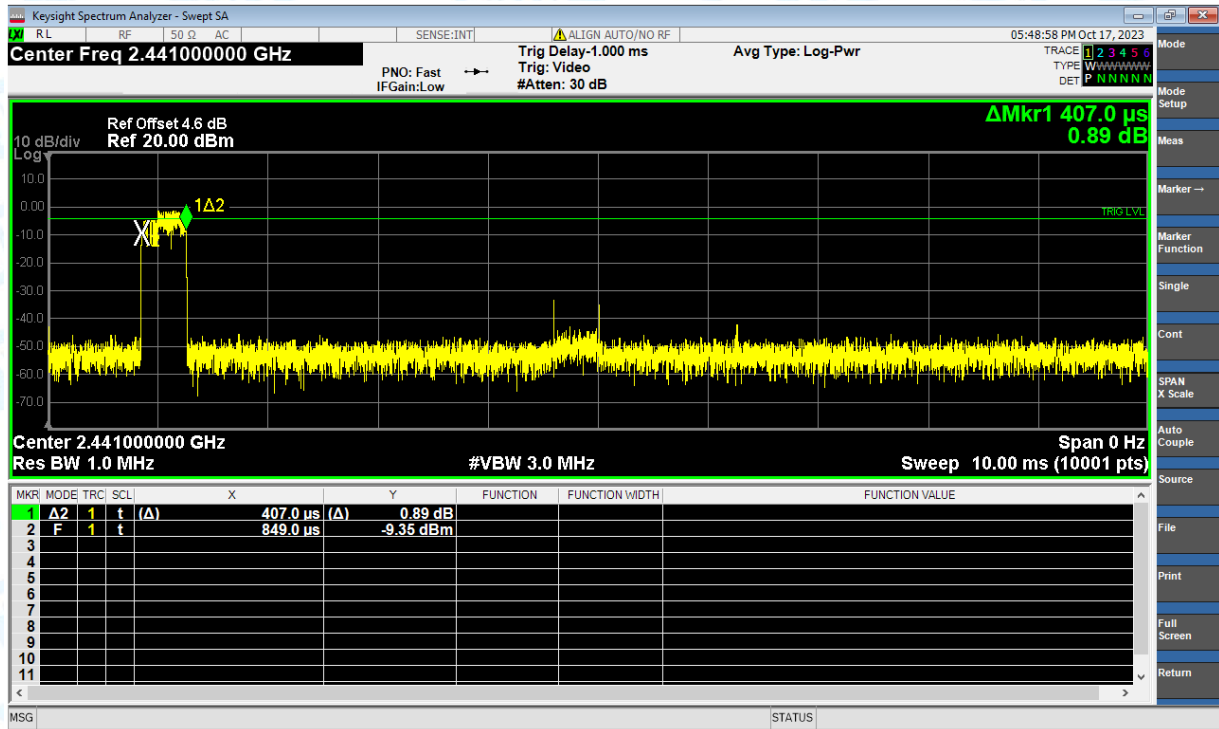
Dwell NVNT 2-DH3 2441MHz Ant1



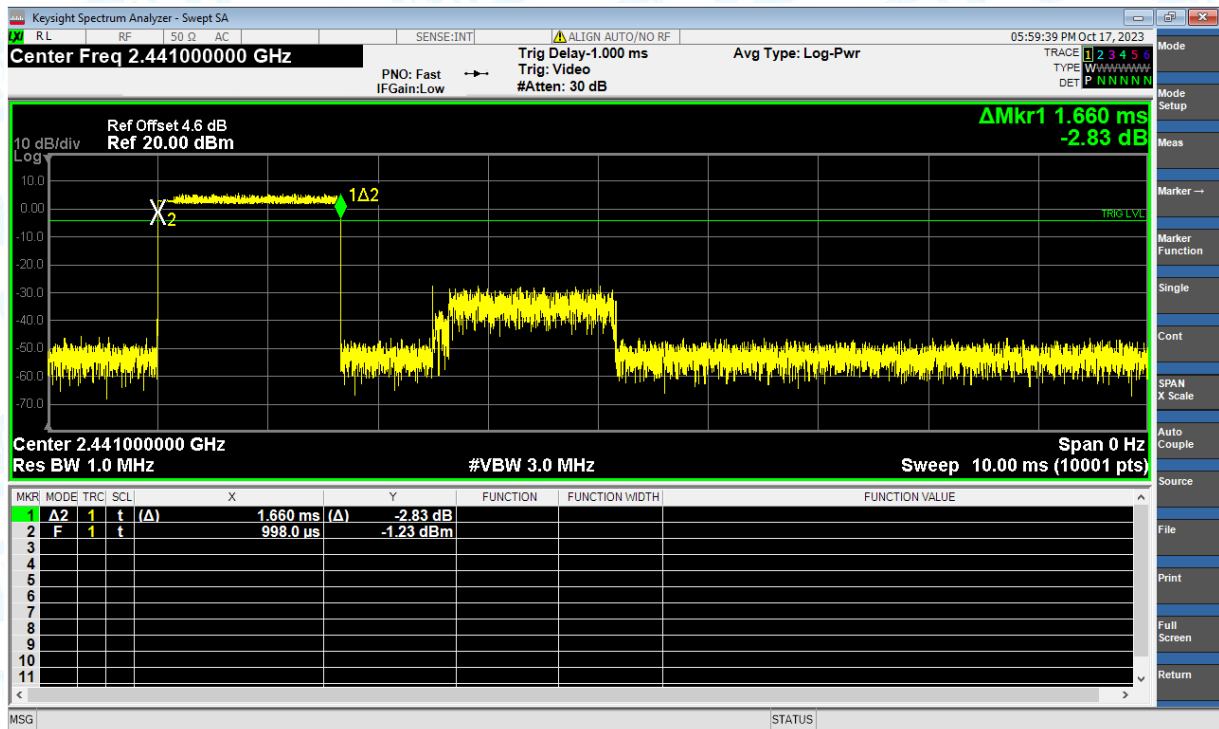
Dwell NVNT 2-DH5 2441MHz Ant1

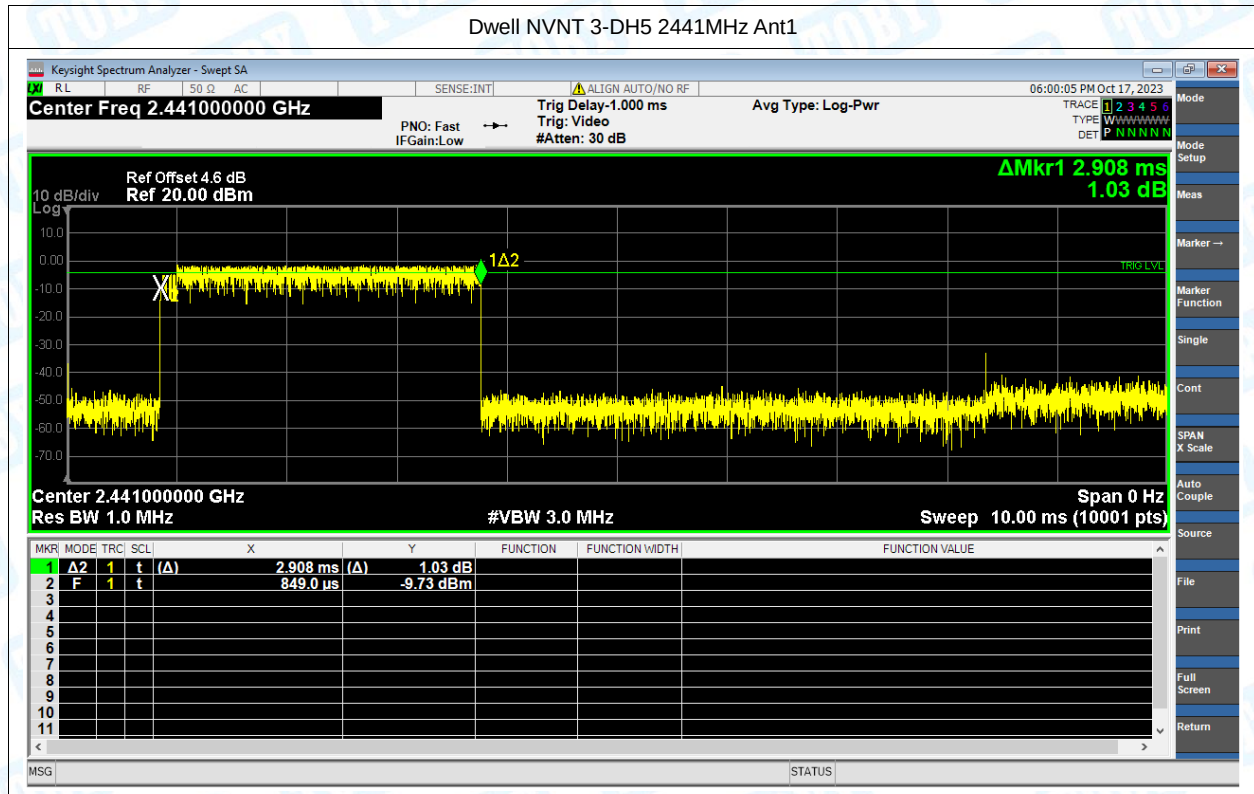


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





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