

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

General Description of EUT	
Product Name:	Retro Mini PC
Test Model:	AYANEO Retro Mini PC
Sample ID:	HC-C-202310-0170-01-01-2#
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 12V
Test Engineer:	Li ying jing
Note: For a more detailed features description, please refer to the report TBR-C-202310-0170-10 The report only show the worst case data.	

Contents

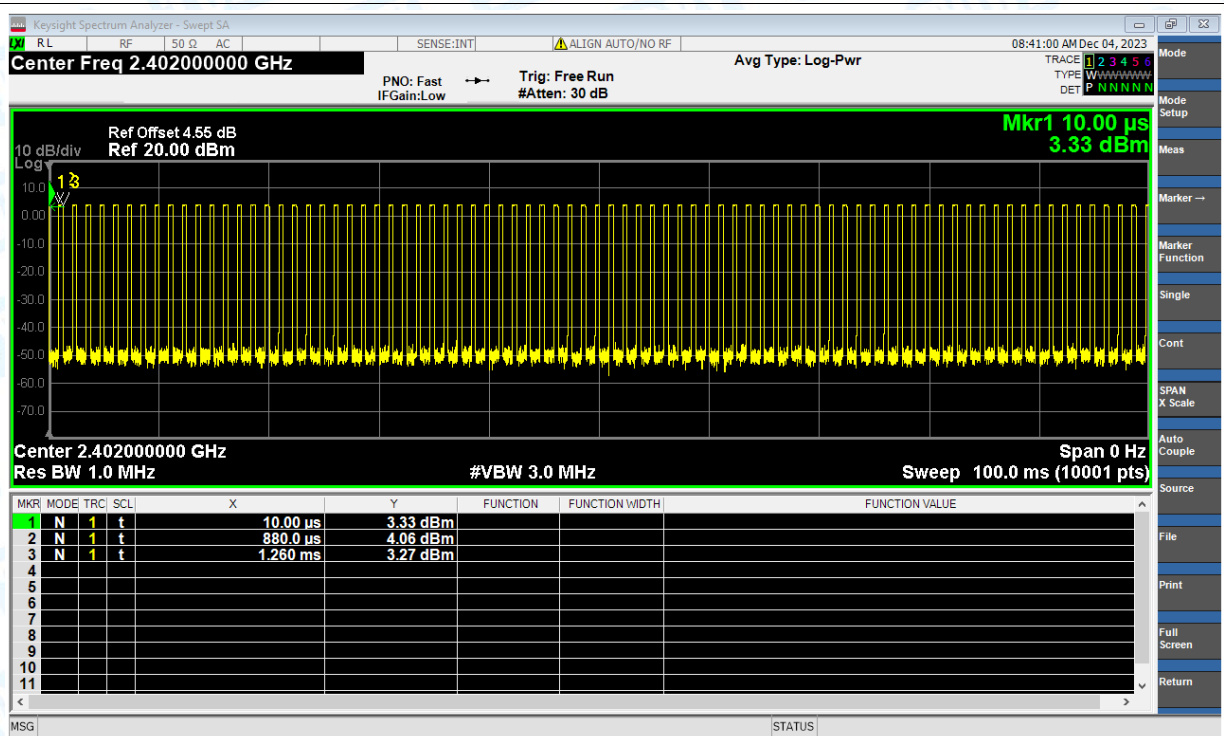
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1. Duty Cycle

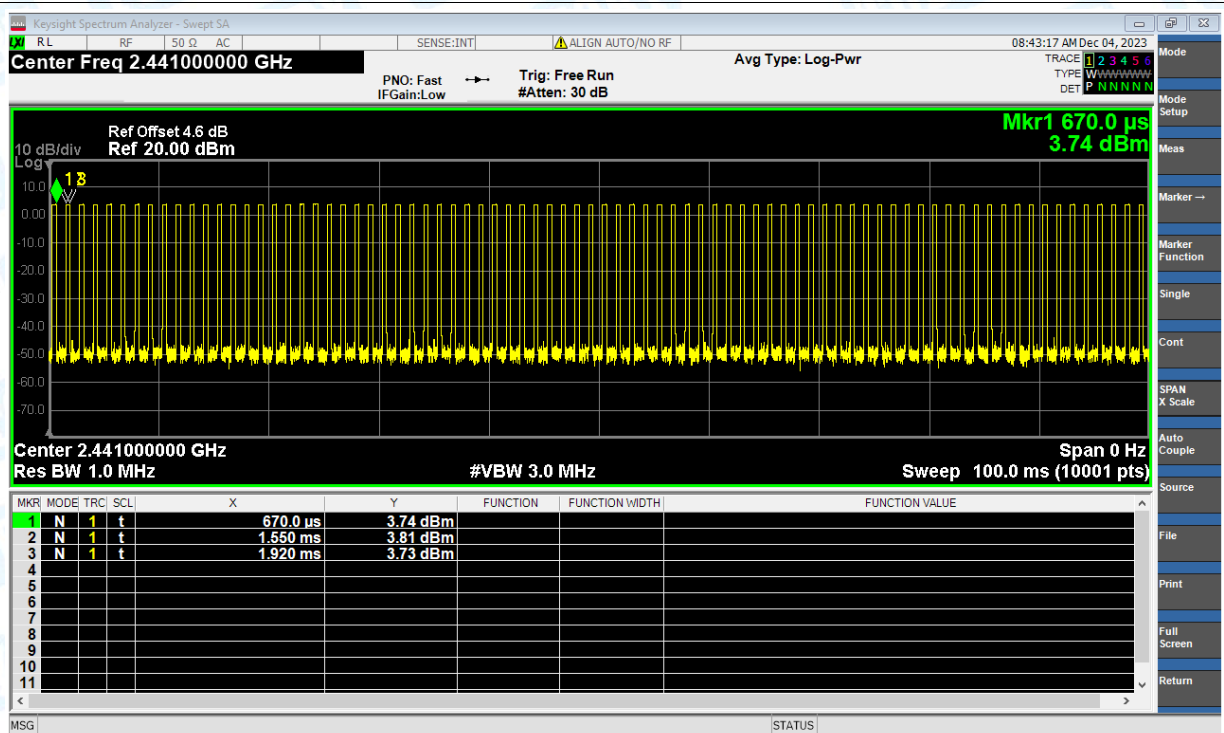
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2441	Ant1	29.6	5.29	2.7
NVNT	1-DH1	2480	Ant1	29.6	5.29	2.7
NVNT	2-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	3-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2441	Ant1	30.4	5.17	2.63
NVNT	3-DH1	2480	Ant1	31.2	5.06	2.56

Test Graphs

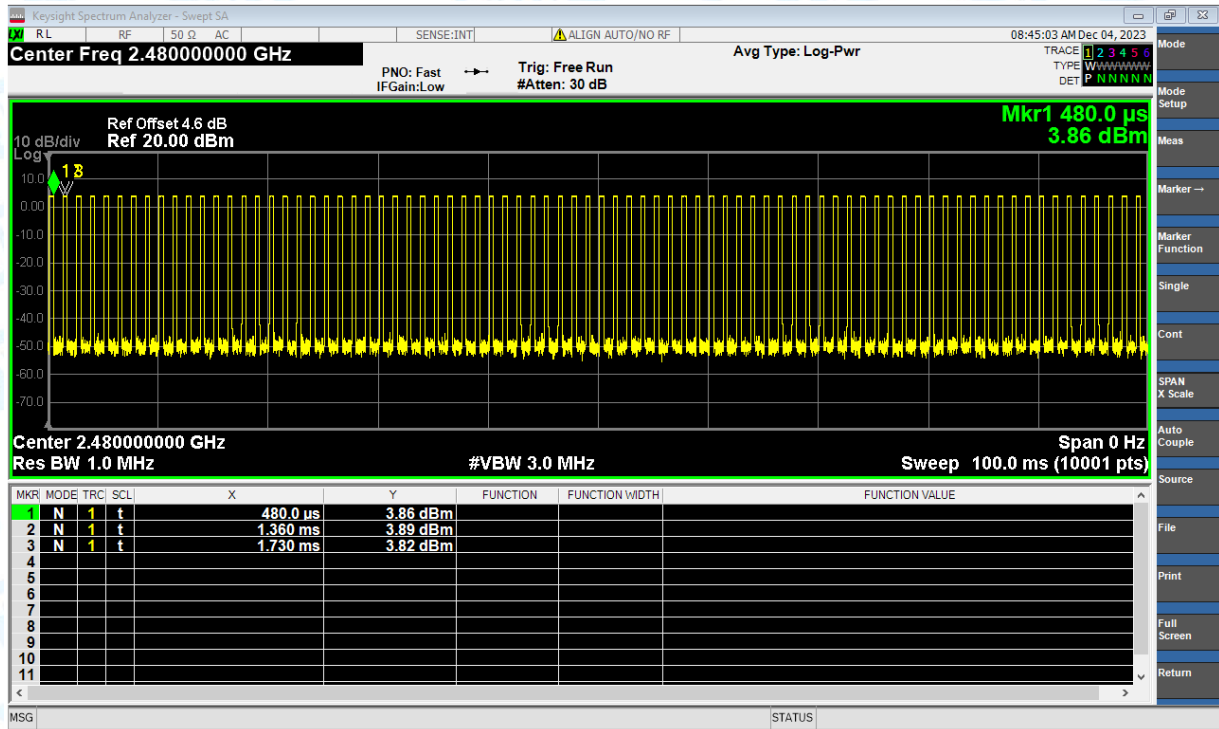
Duty Cycle NVNT 1-DH1 2402MHz Ant1



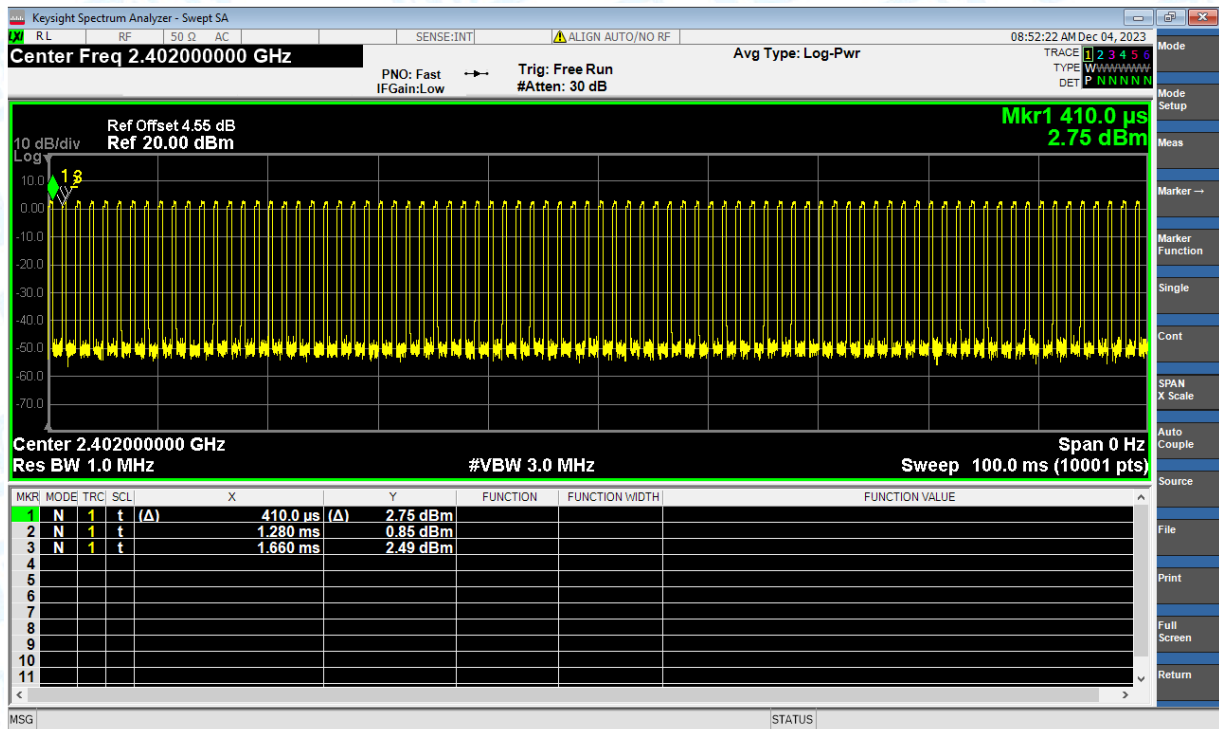
Duty Cycle NVNT 1-DH1 2441MHz Ant1



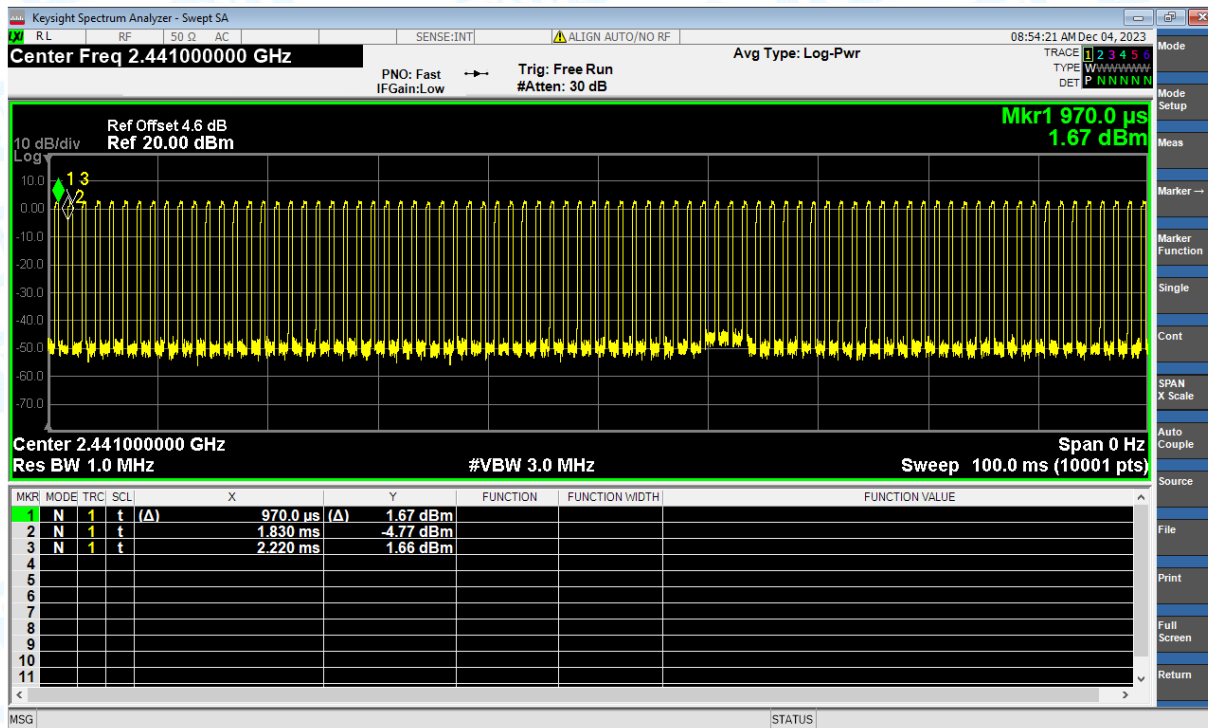
Duty Cycle NVNT 1-DH1 2480MHz Ant1



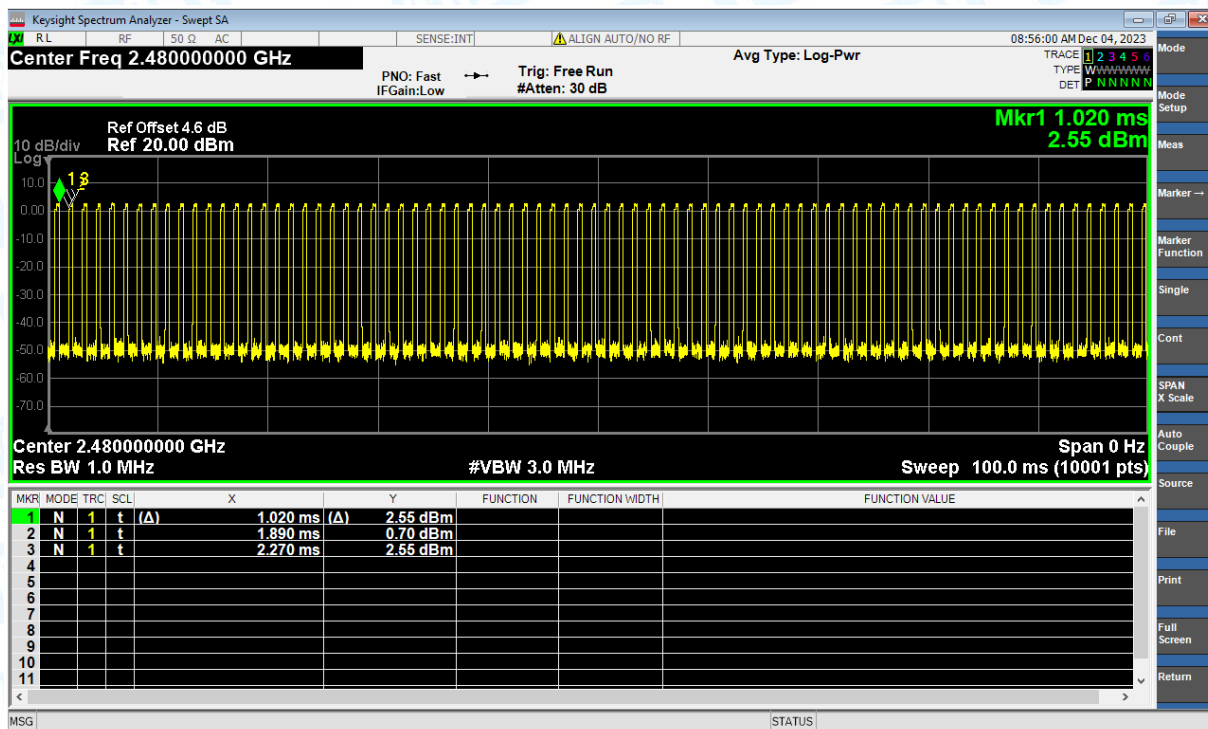
Duty Cycle NVNT 2-DH1 2402MHz Ant1



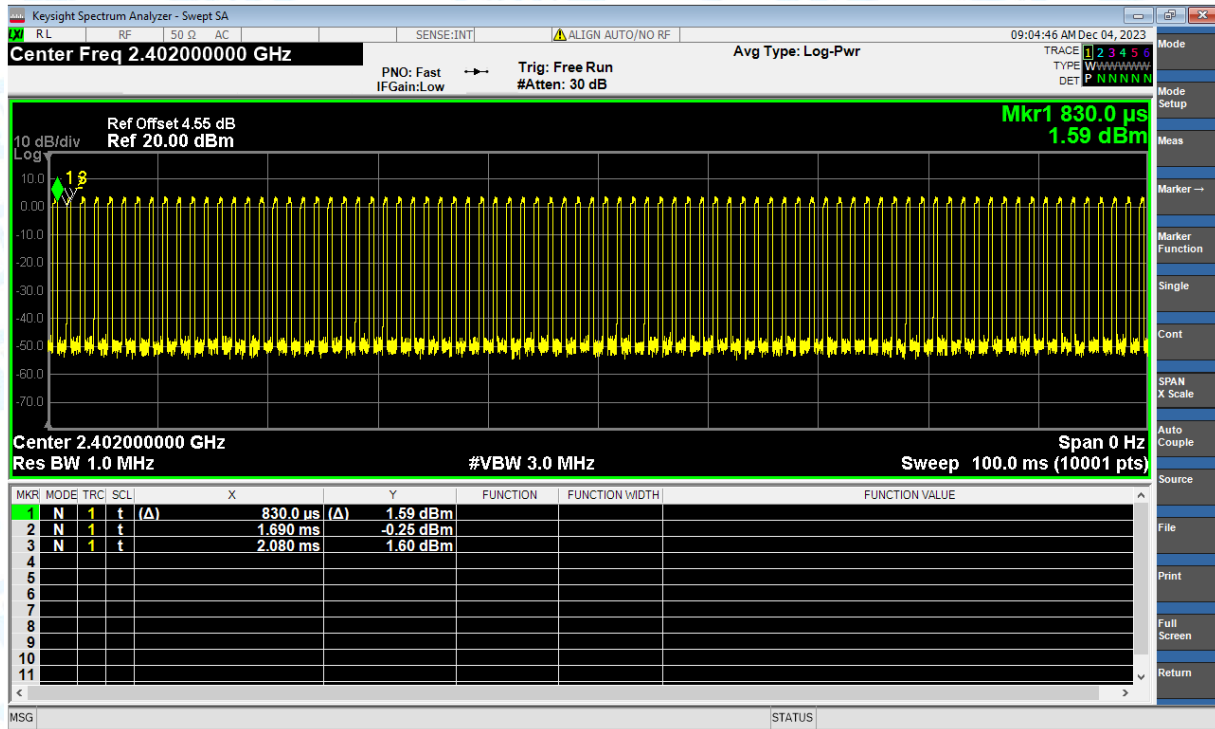
Duty Cycle NVNT 2-DH1 2441MHz Ant1



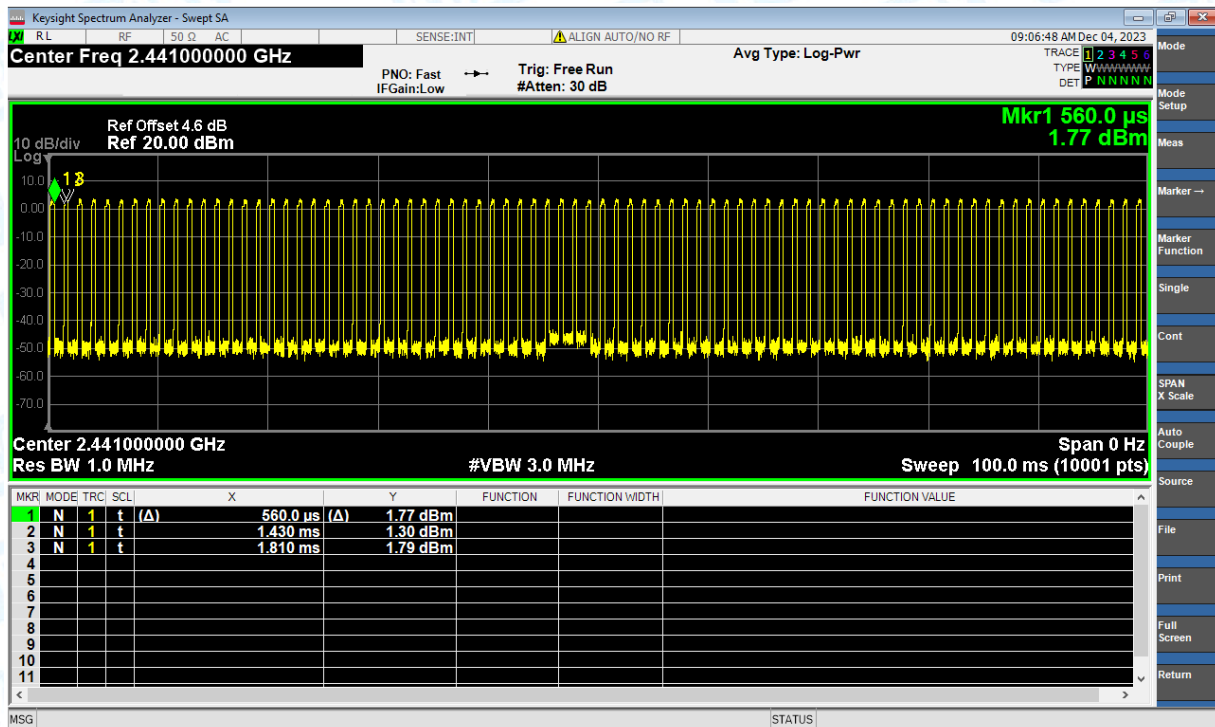
Duty Cycle NVNT 2-DH1 2480MHz Ant1

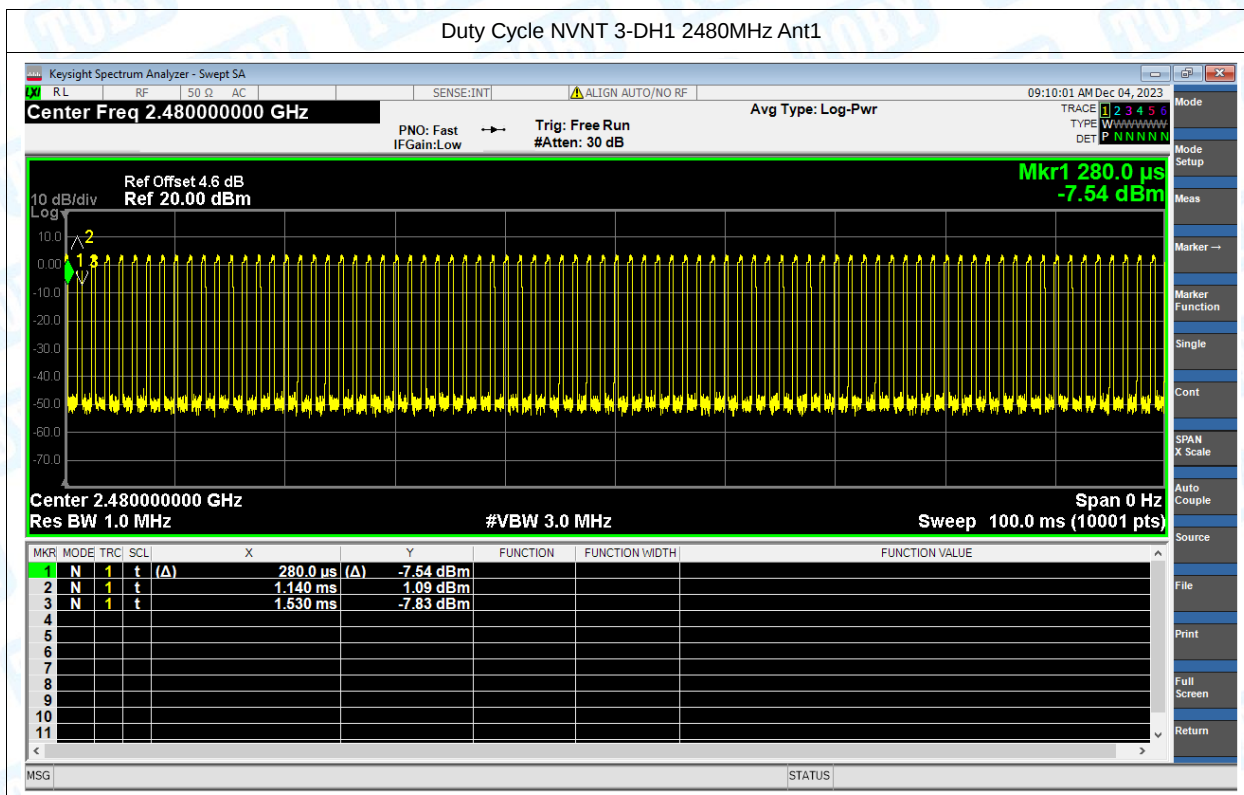


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



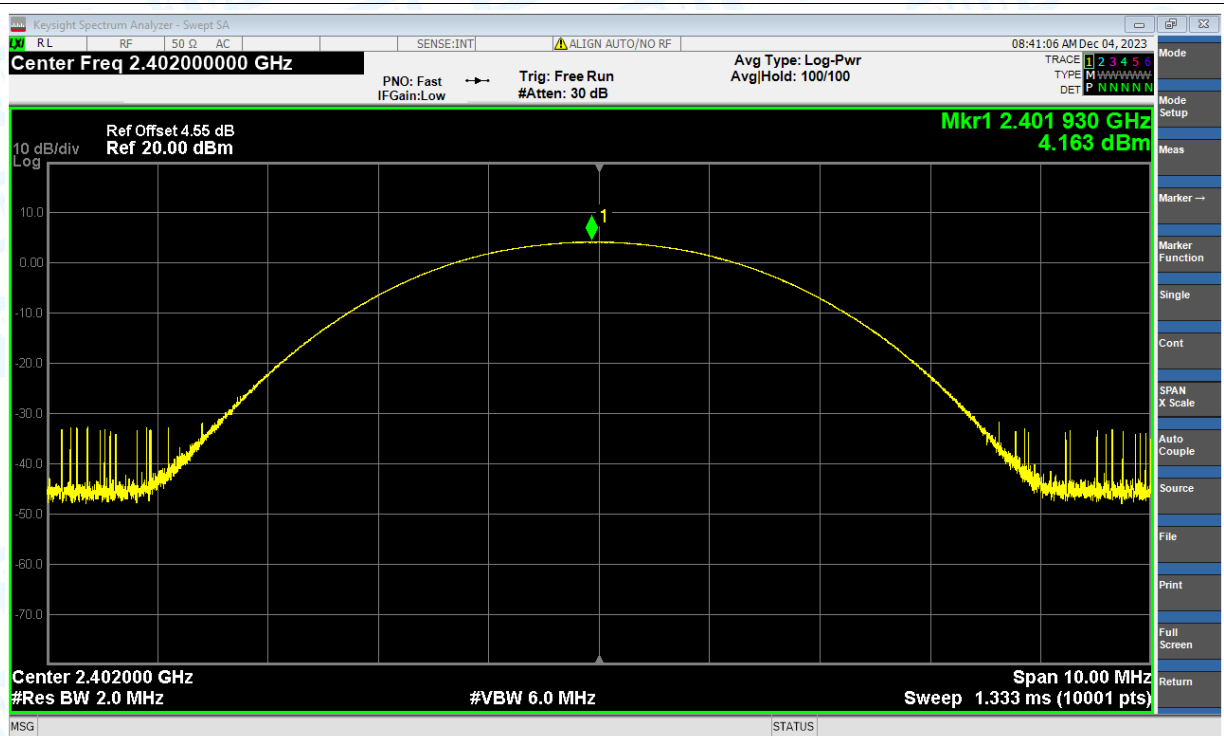


2. Maximum Conducted Output Power

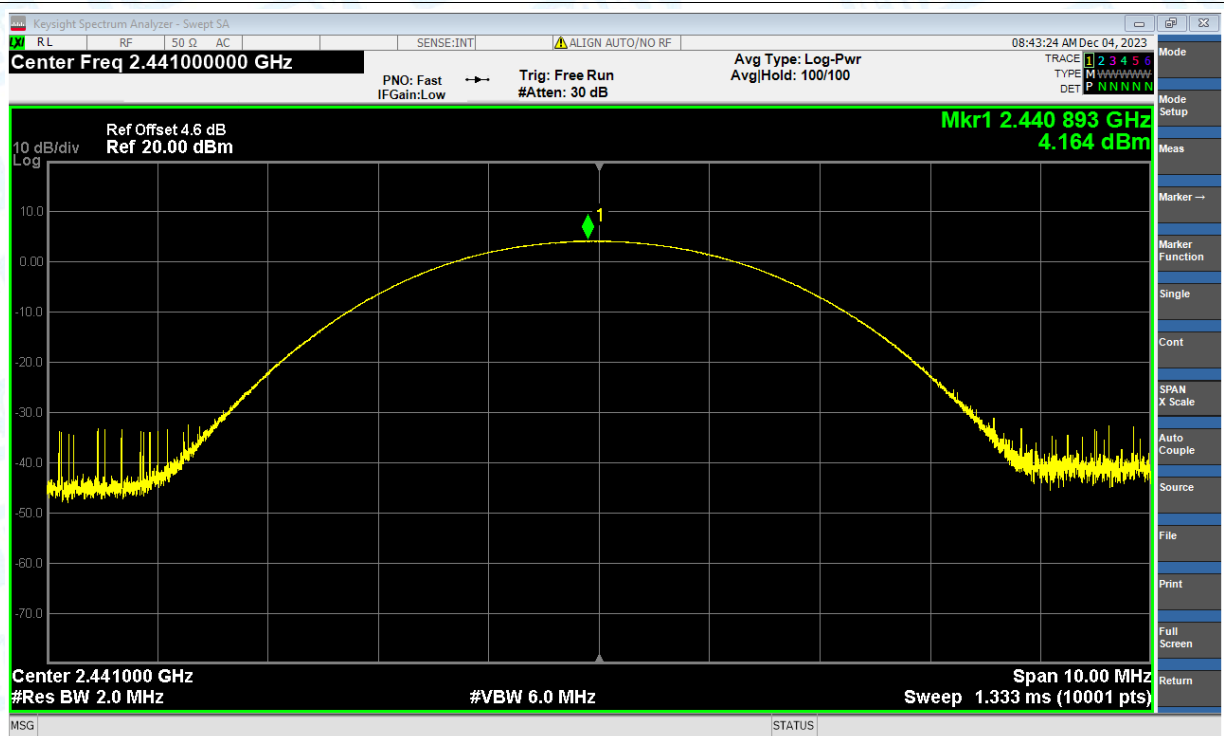
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	4.163	21	Pass
NVNT	1-DH1	2441	Ant1	4.164	21	Pass
NVNT	1-DH1	2480	Ant1	4.030	21	Pass
NVNT	2-DH1	2402	Ant1	3.522	21	Pass
NVNT	2-DH1	2441	Ant1	3.558	21	Pass
NVNT	2-DH1	2480	Ant1	3.350	21	Pass
NVNT	3-DH1	2402	Ant1	4.145	21	Pass
NVNT	3-DH1	2441	Ant1	4.227	21	Pass
NVNT	3-DH1	2480	Ant1	4.154	21	Pass

Test Graphs

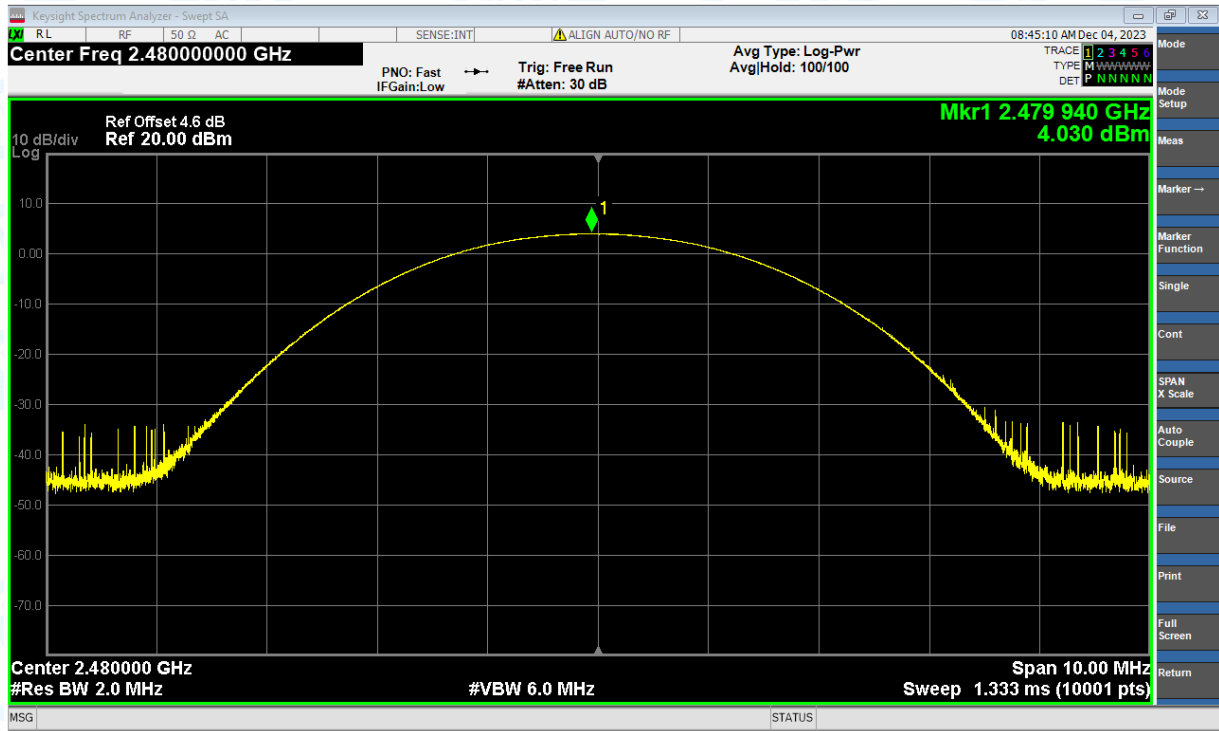
Power NVNT 1-DH1 2402MHz Ant1



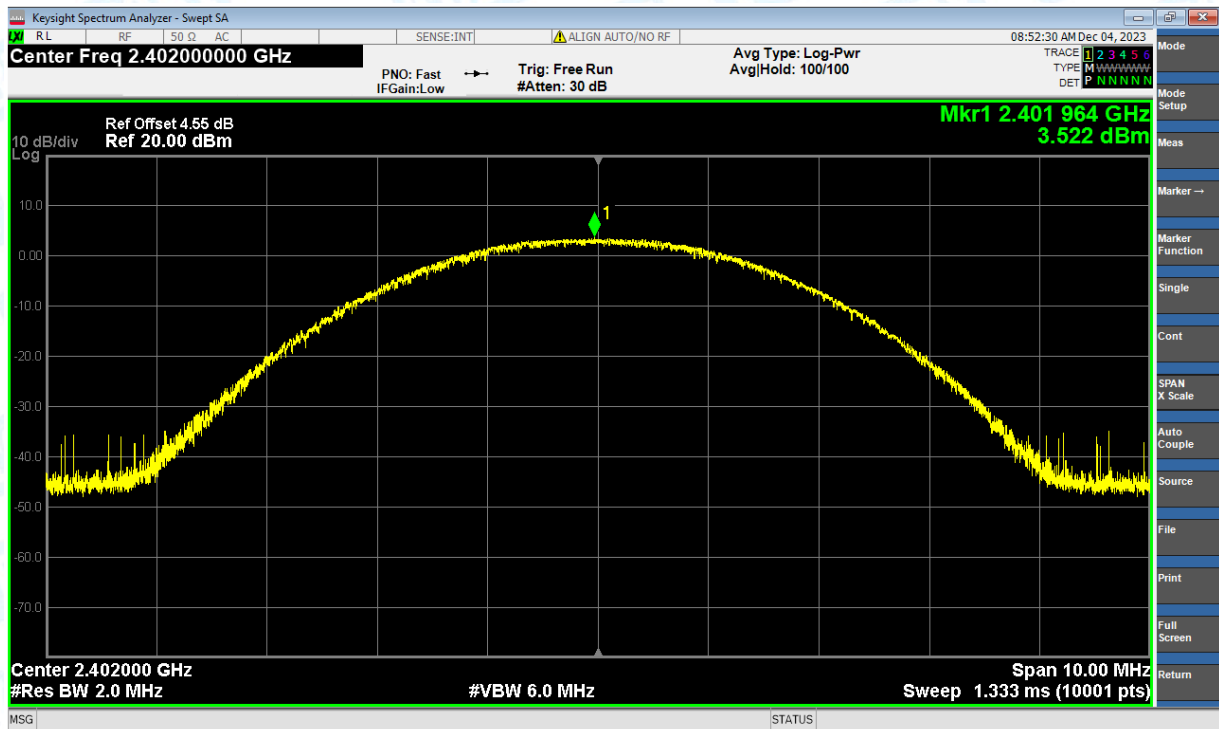
Power NVNT 1-DH1 2441MHz Ant1



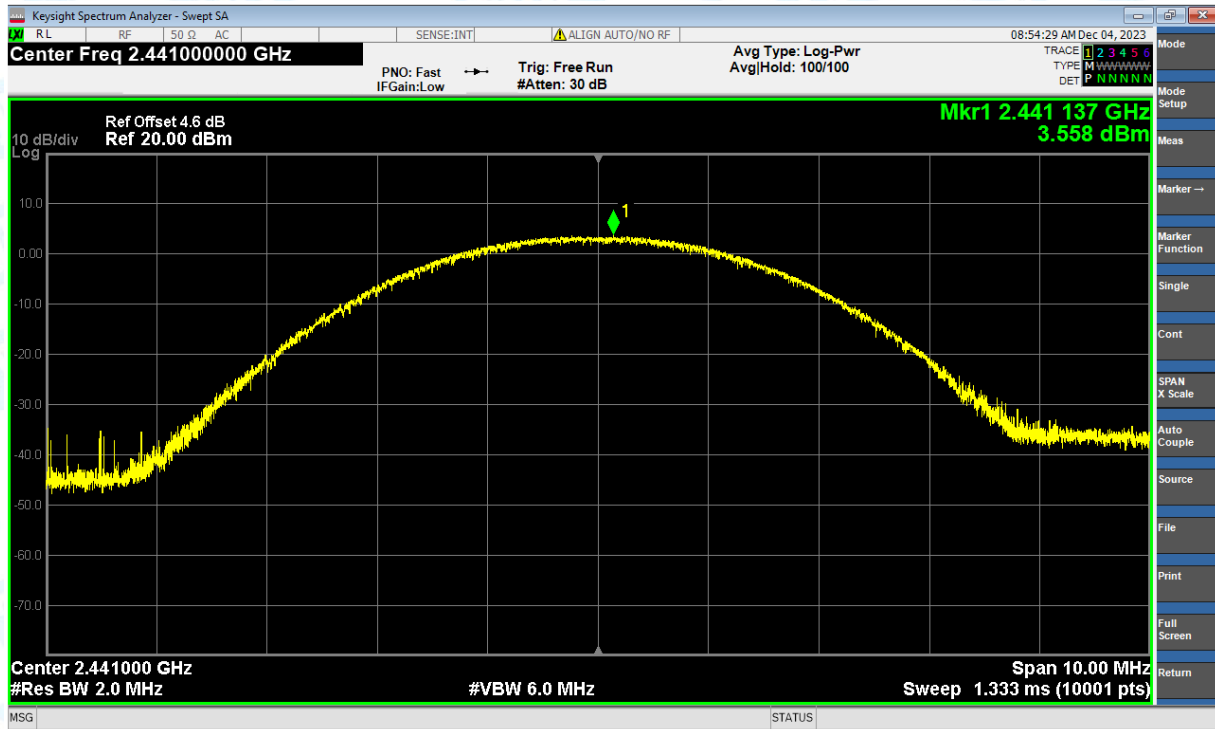
Power NVNT 1-DH1 2480MHz Ant1



Power NVNT 2-DH1 2402MHz Ant1



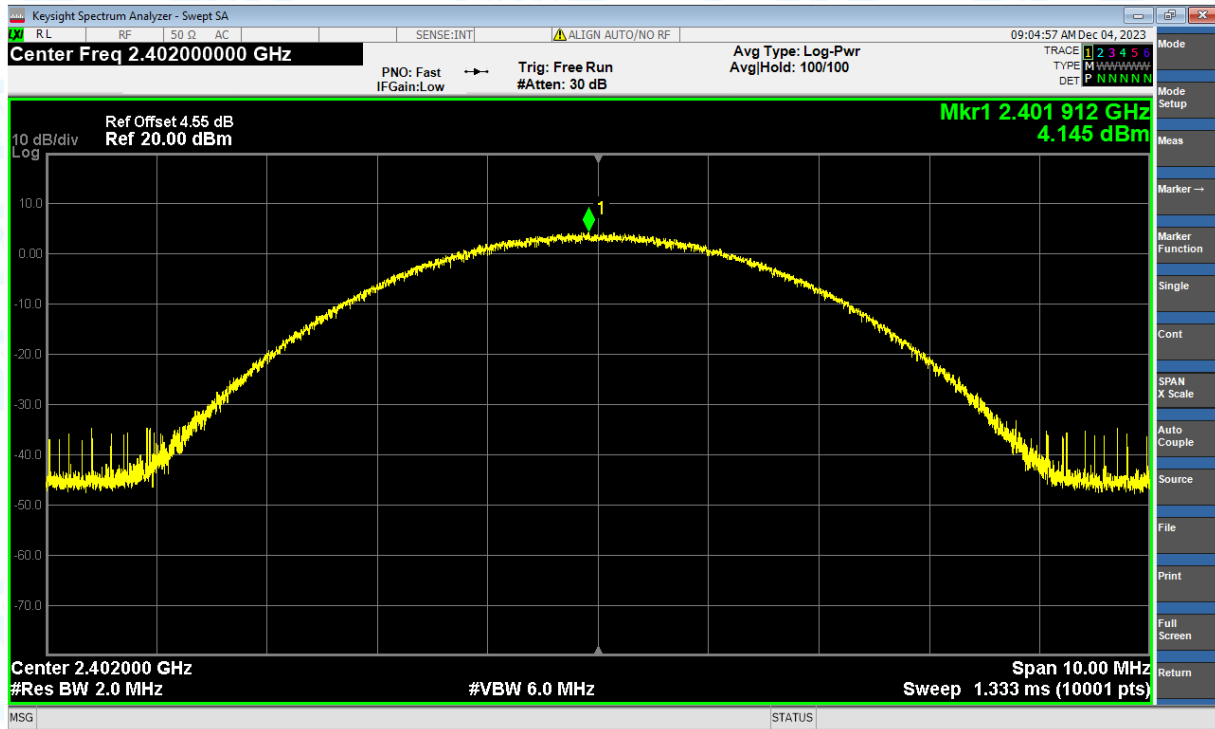
Power NVNT 2-DH1 2441MHz Ant1



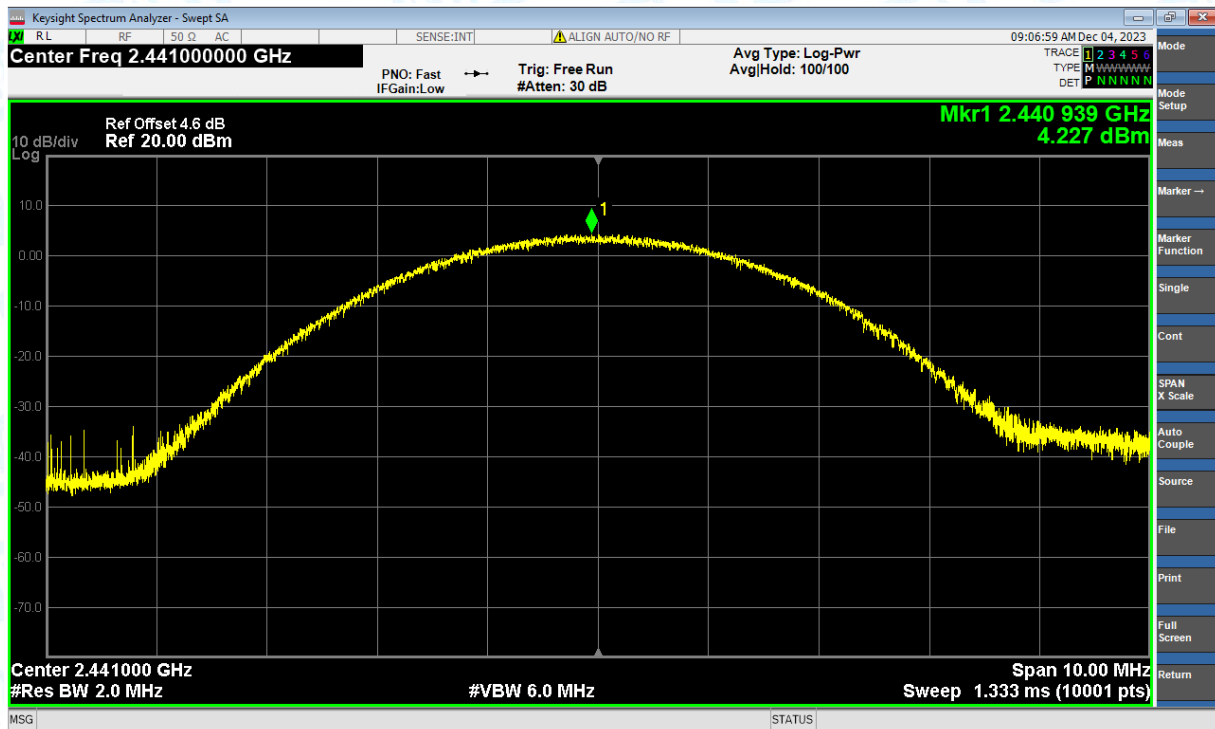
Power NVNT 2-DH1 2480MHz Ant1

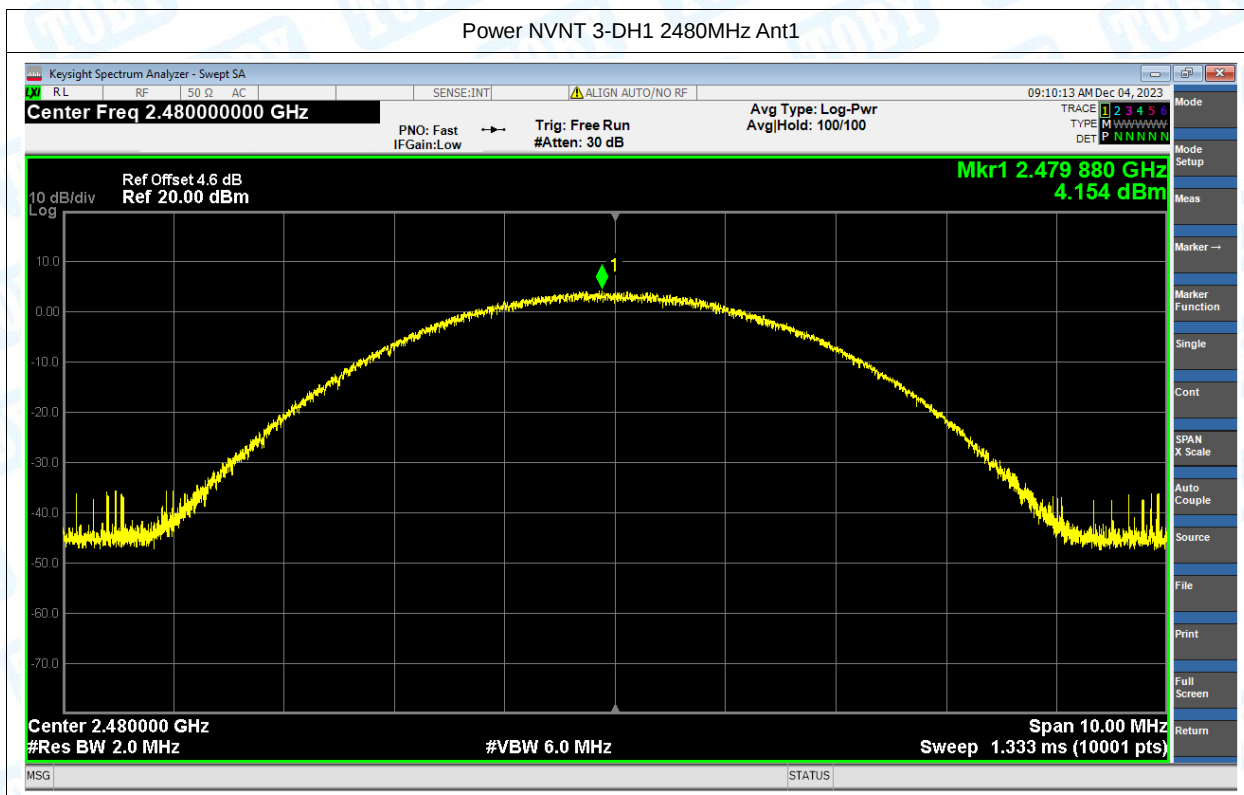


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



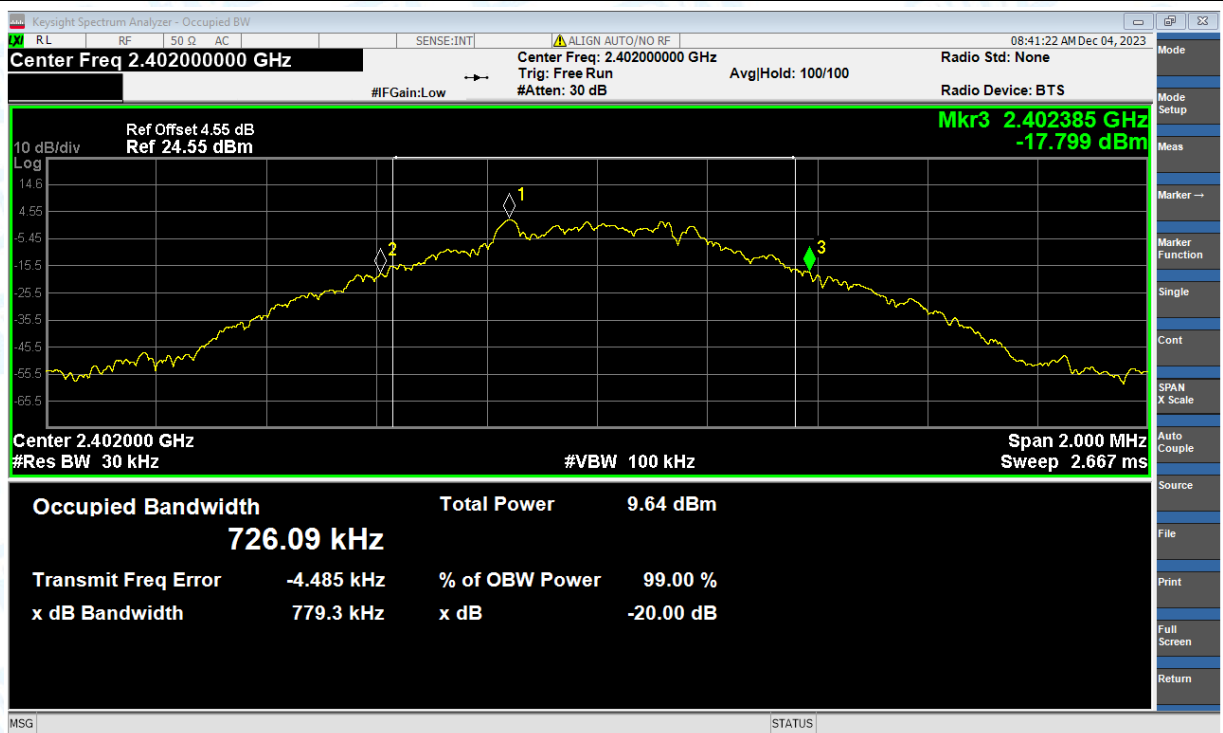


3. -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.78	----	Pass
NVNT	1-DH1	2441	Ant1	0.83	----	Pass
NVNT	1-DH1	2480	Ant1	0.78	----	Pass
NVNT	2-DH1	2402	Ant1	1.24	----	Pass
NVNT	2-DH1	2441	Ant1	1.26	----	Pass
NVNT	2-DH1	2480	Ant1	1.28	----	Pass
NVNT	3-DH1	2402	Ant1	1.25	----	Pass
NVNT	3-DH1	2441	Ant1	1.27	----	Pass
NVNT	3-DH1	2480	Ant1	1.27	----	Pass

Test Graphs

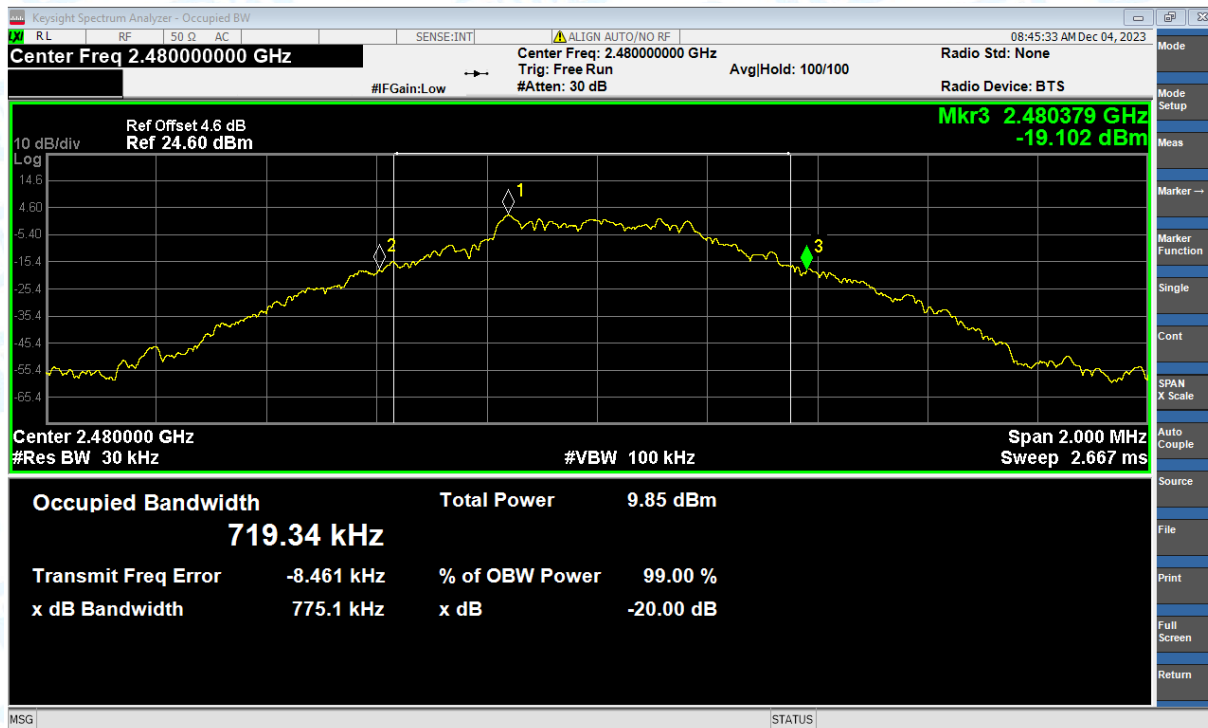
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



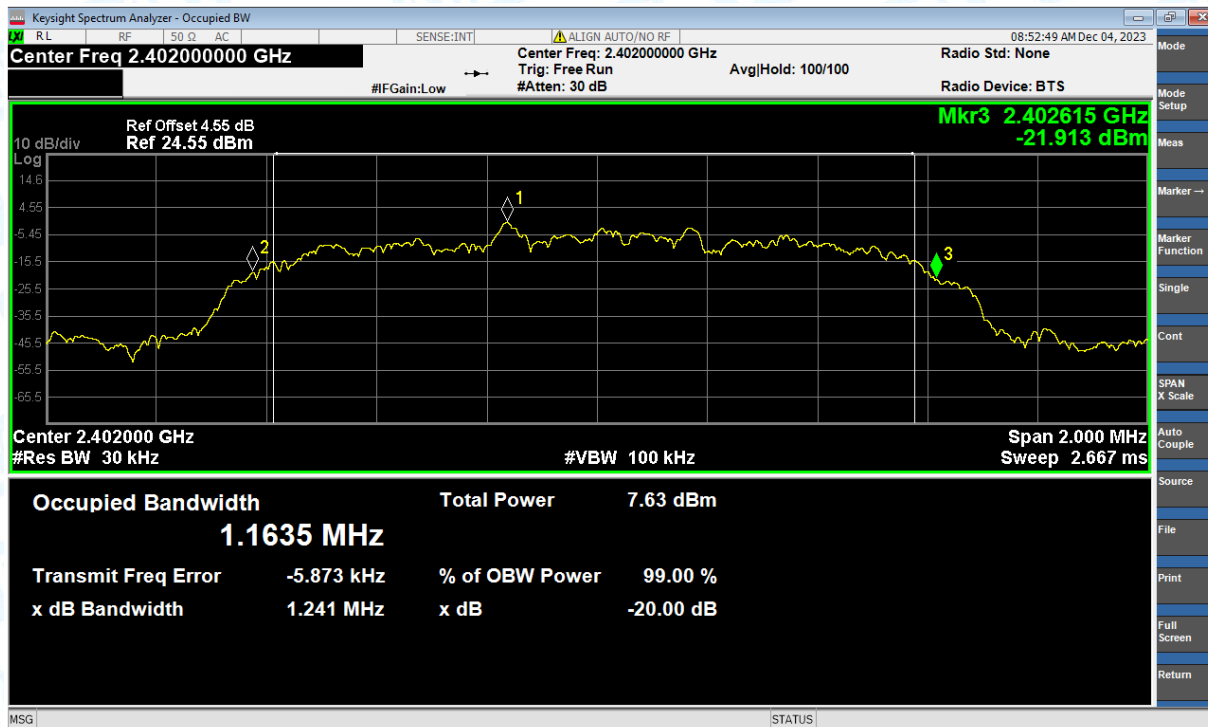
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



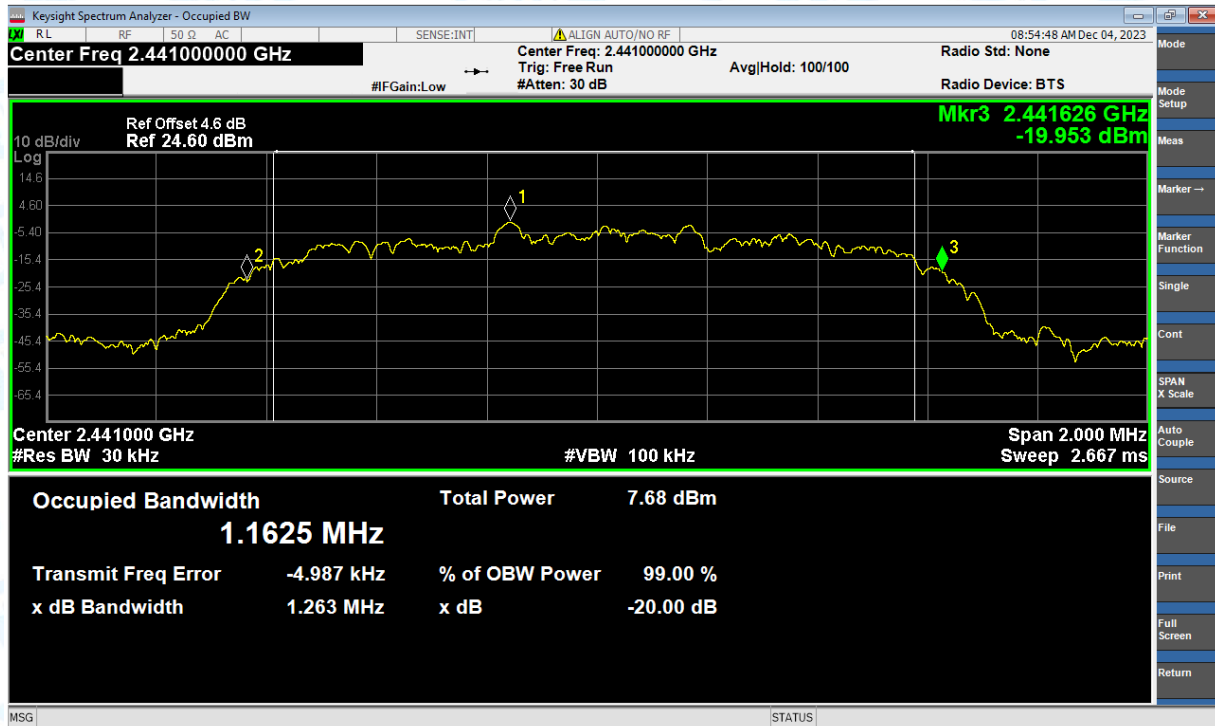
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



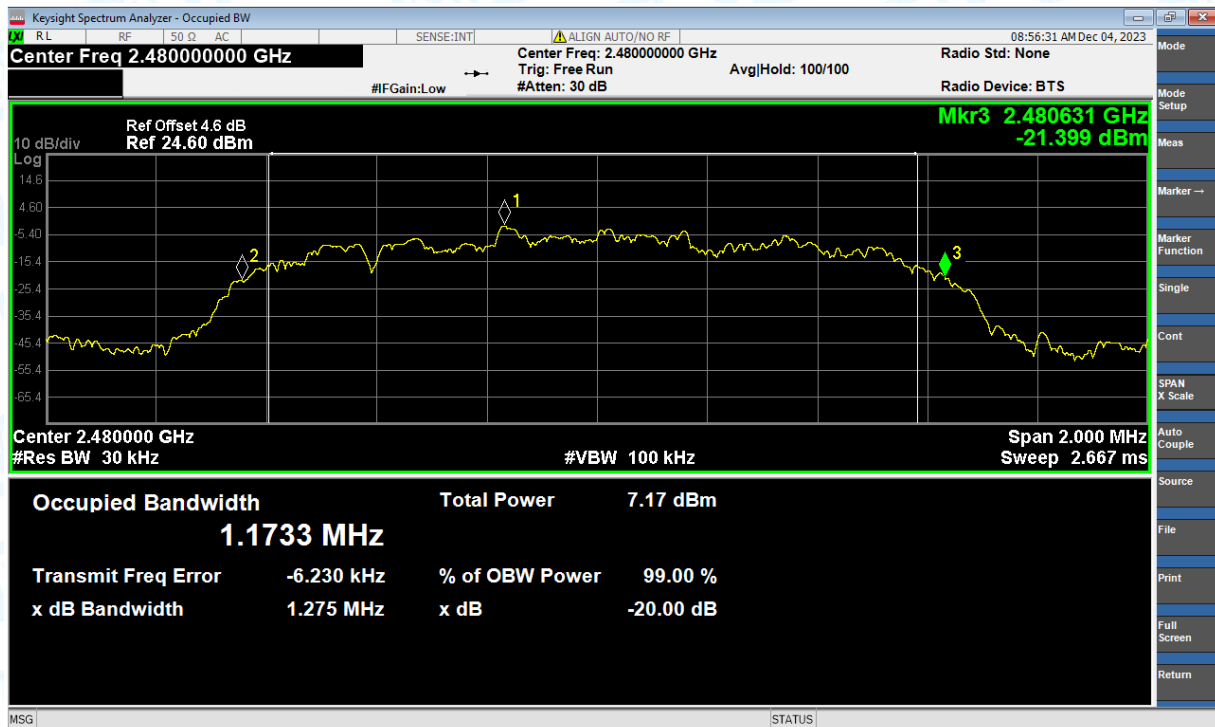
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



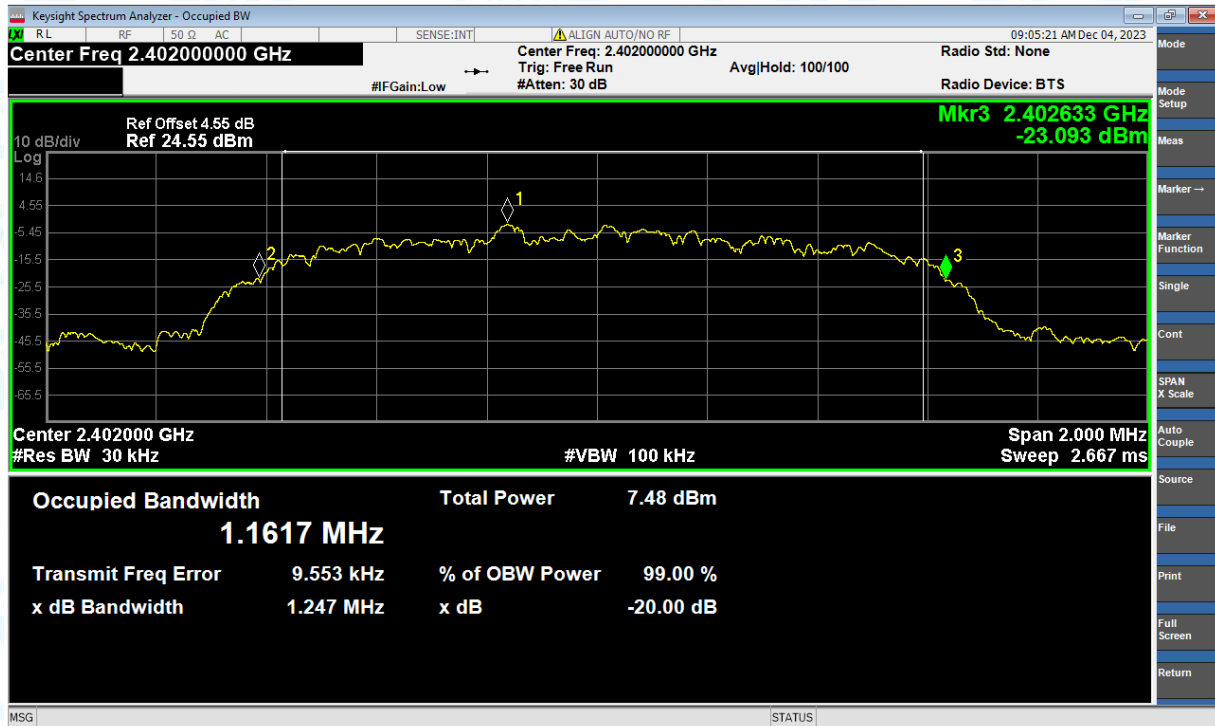
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



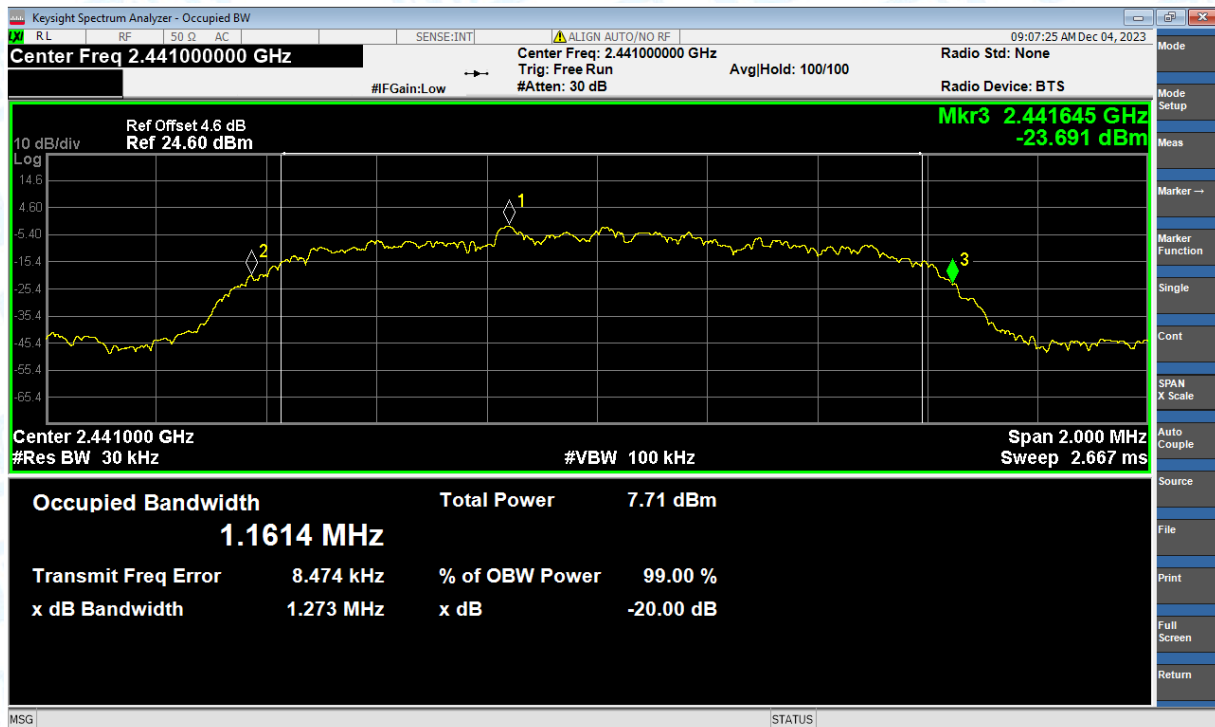
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

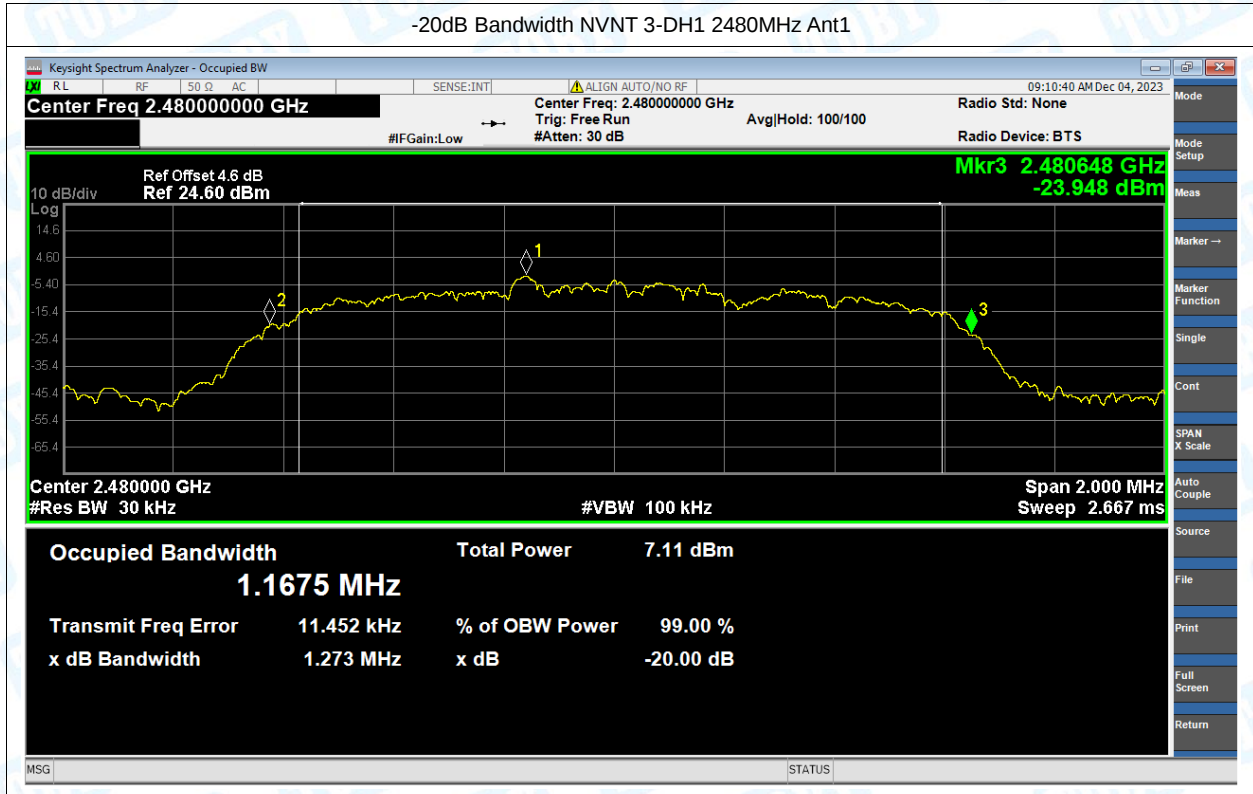


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



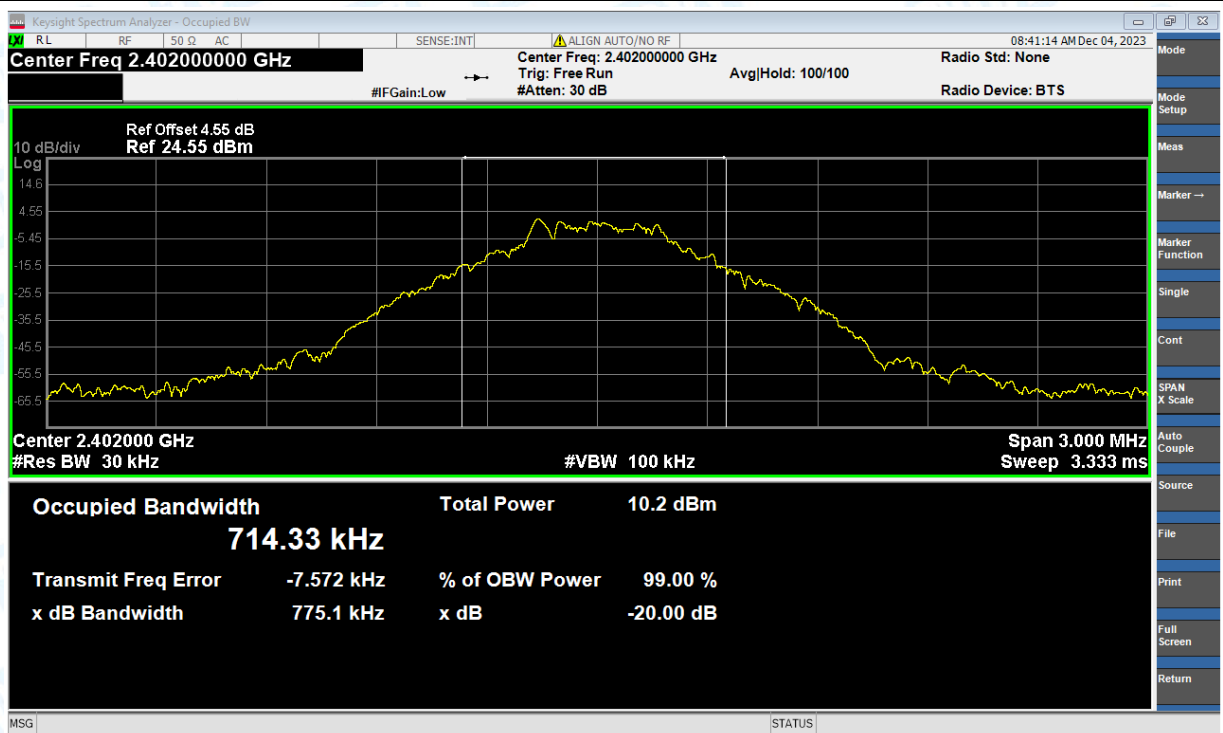


4. Occupied Channel Bandwidth

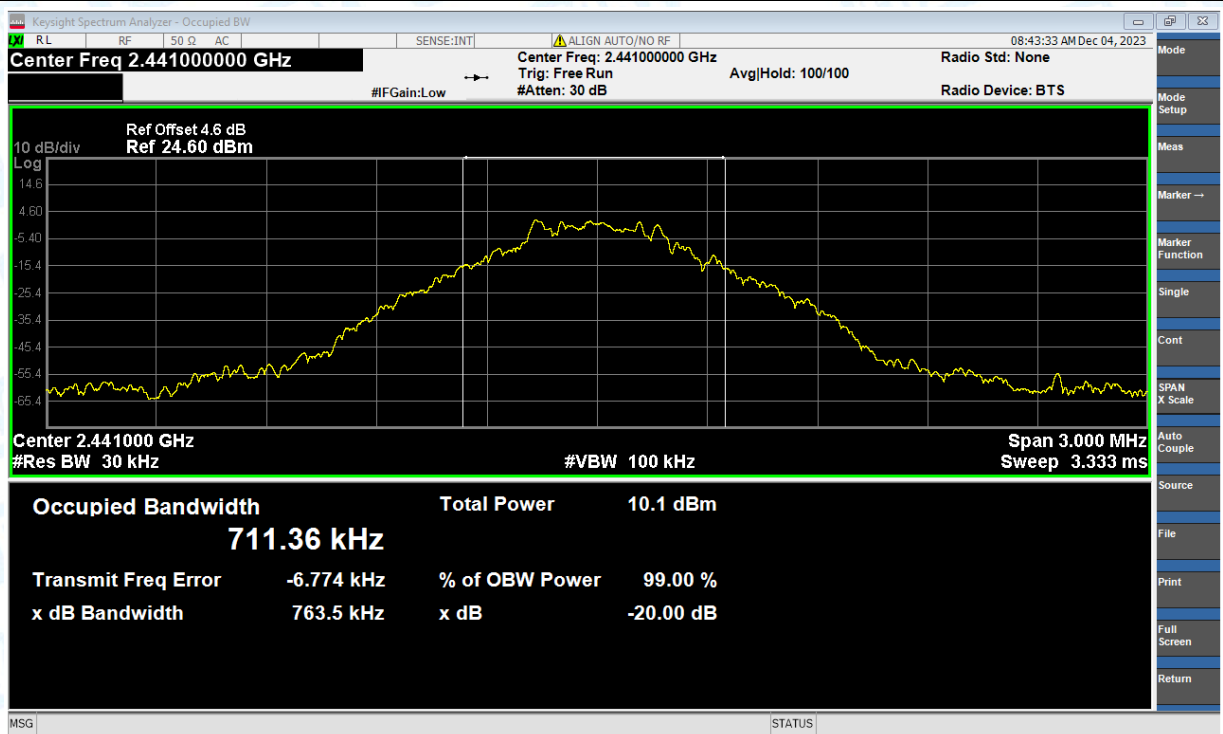
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.714
NVNT	1-DH1	2441	Ant1	0.711
NVNT	1-DH1	2480	Ant1	0.734
NVNT	2-DH1	2402	Ant1	1.167
NVNT	2-DH1	2441	Ant1	1.173
NVNT	2-DH1	2480	Ant1	1.156
NVNT	3-DH1	2402	Ant1	1.163
NVNT	3-DH1	2441	Ant1	1.171
NVNT	3-DH1	2480	Ant1	1.171

Test Graphs

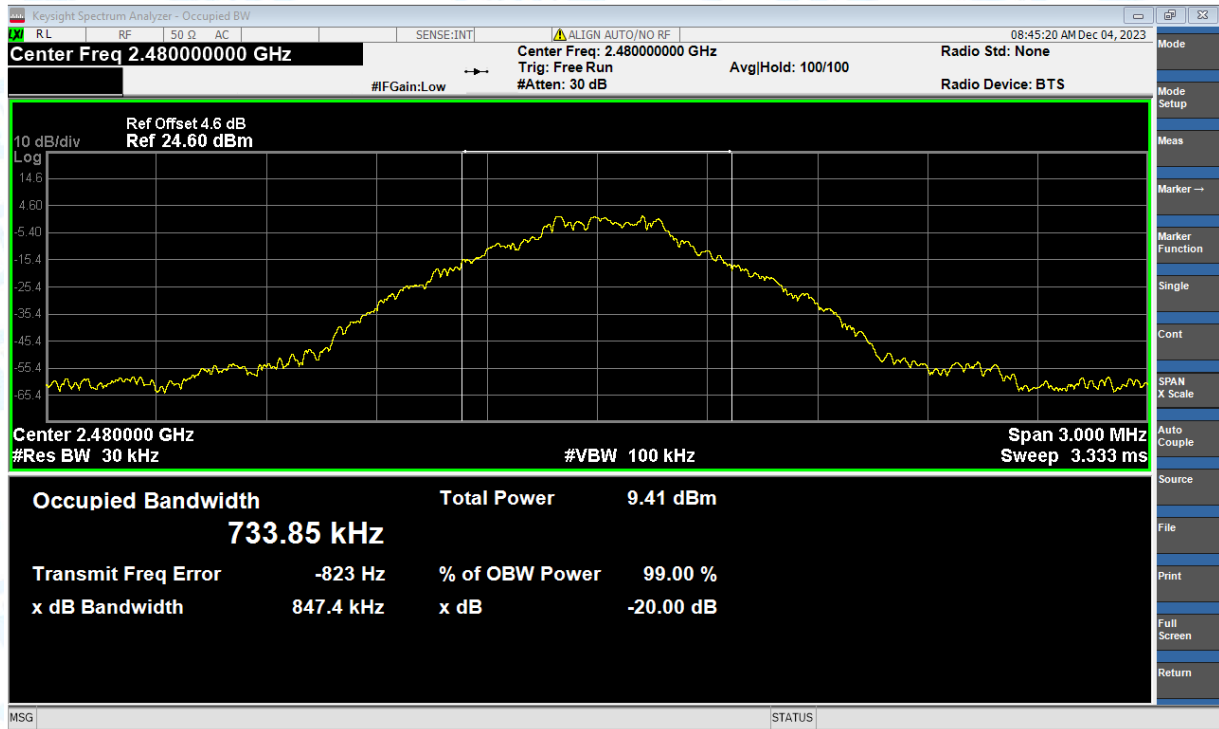
OBW NVNT 1-DH1 2402MHz Ant1



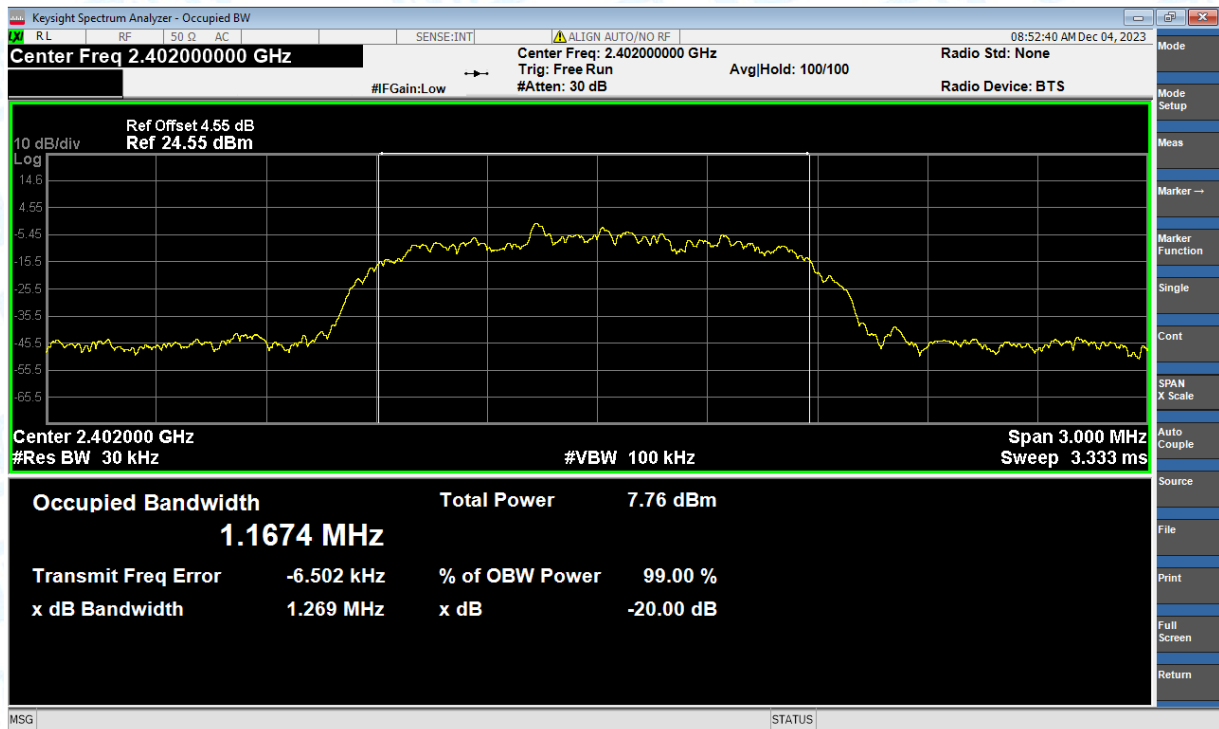
OBW NVNT 1-DH1 2441MHz Ant1



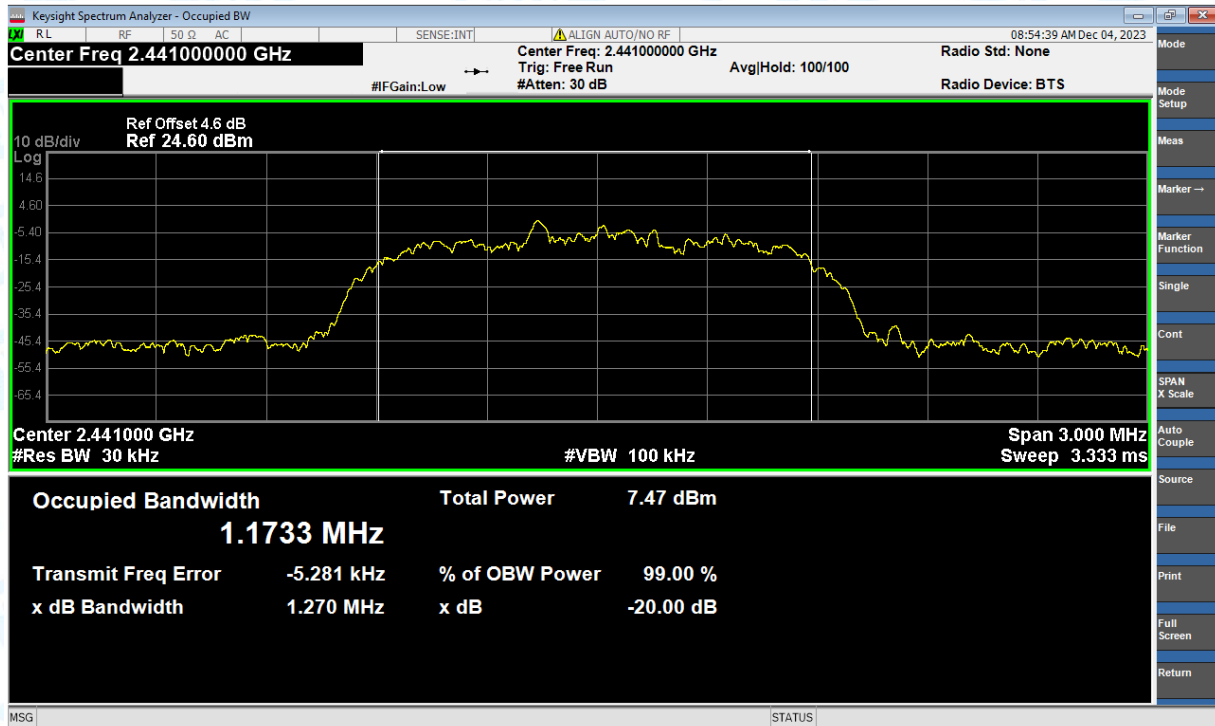
OBW NVNT 1-DH1 2480MHz Ant1



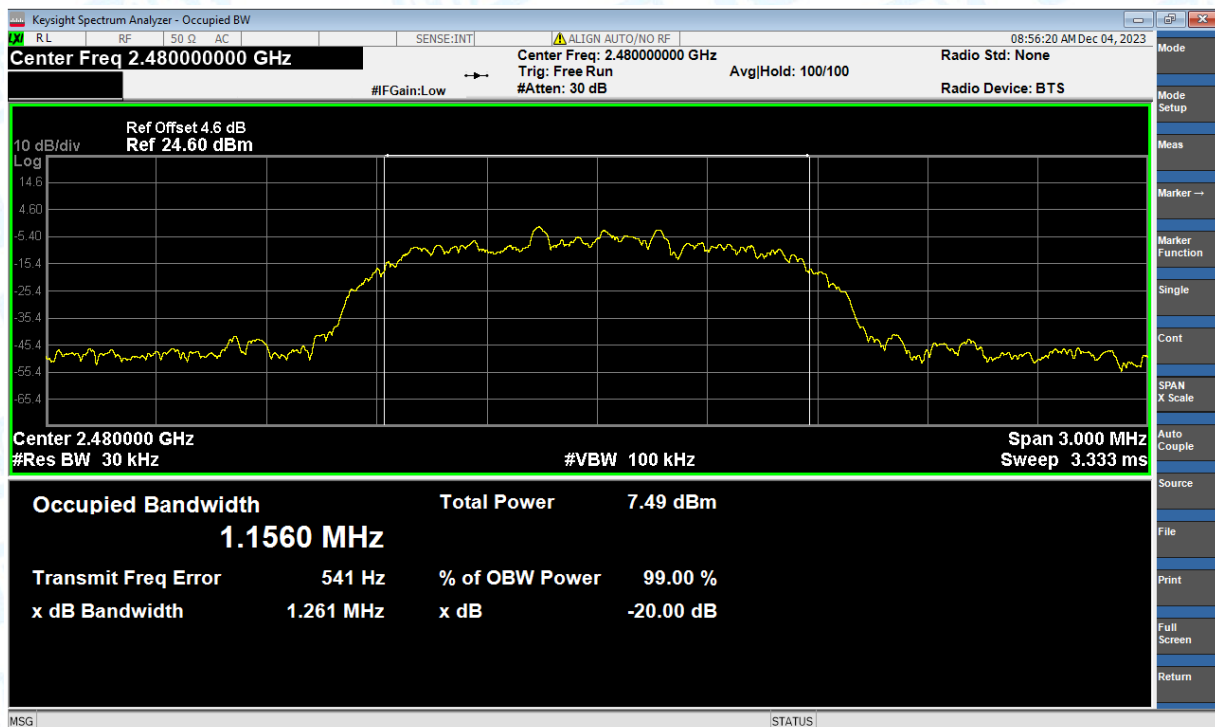
OBW NVNT 2-DH1 2402MHz Ant1



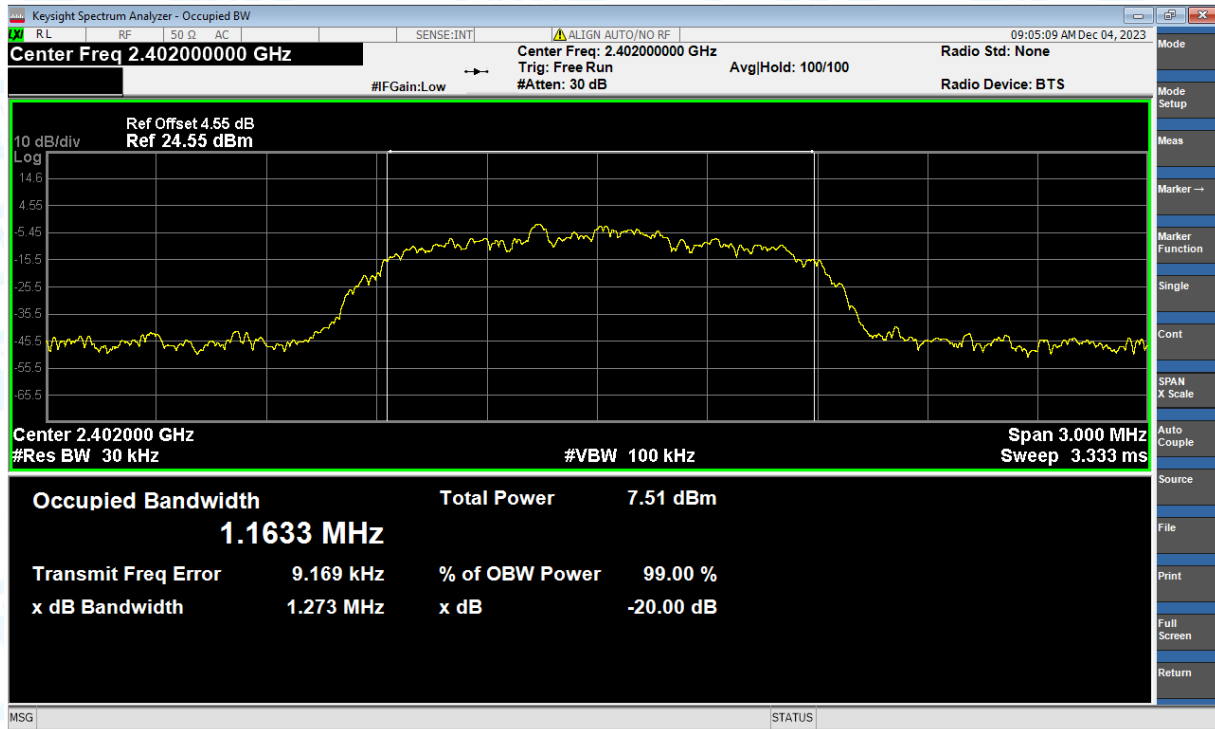
OBW NVNT 2-DH1 2441MHz Ant1



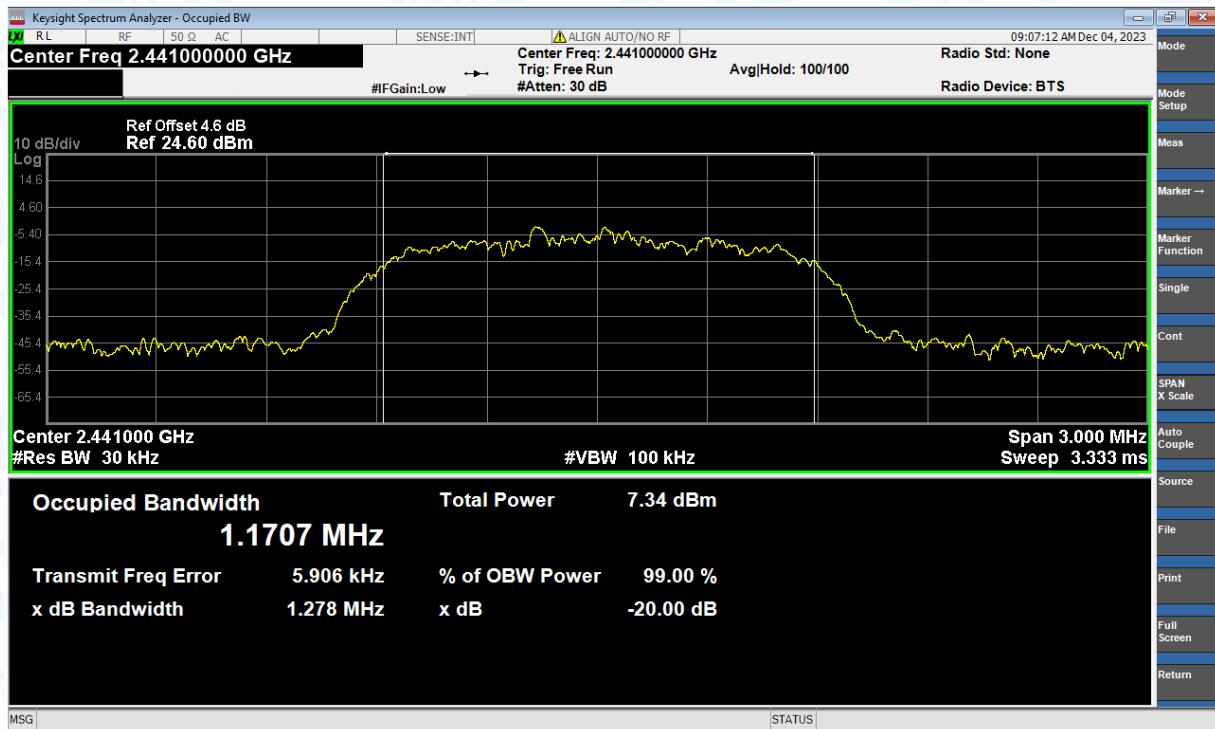
OBW NVNT 2-DH1 2480MHz Ant1

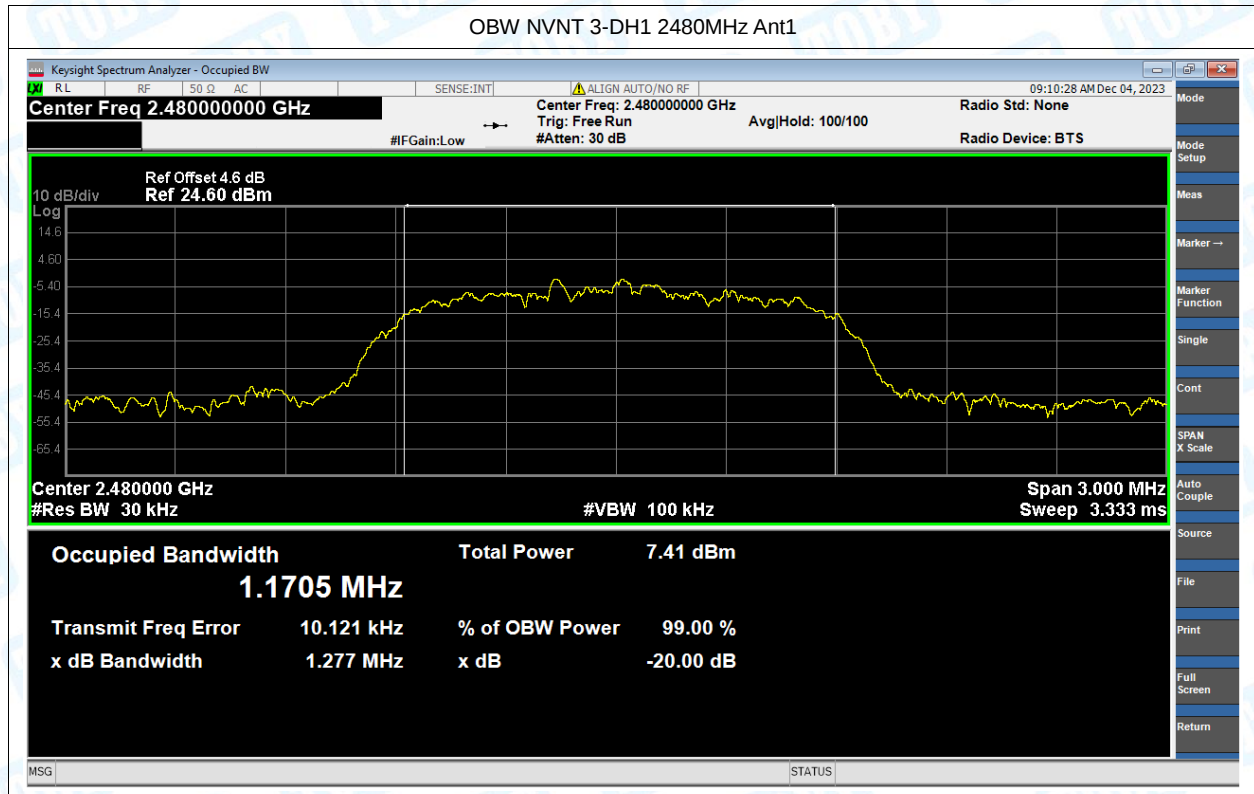


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



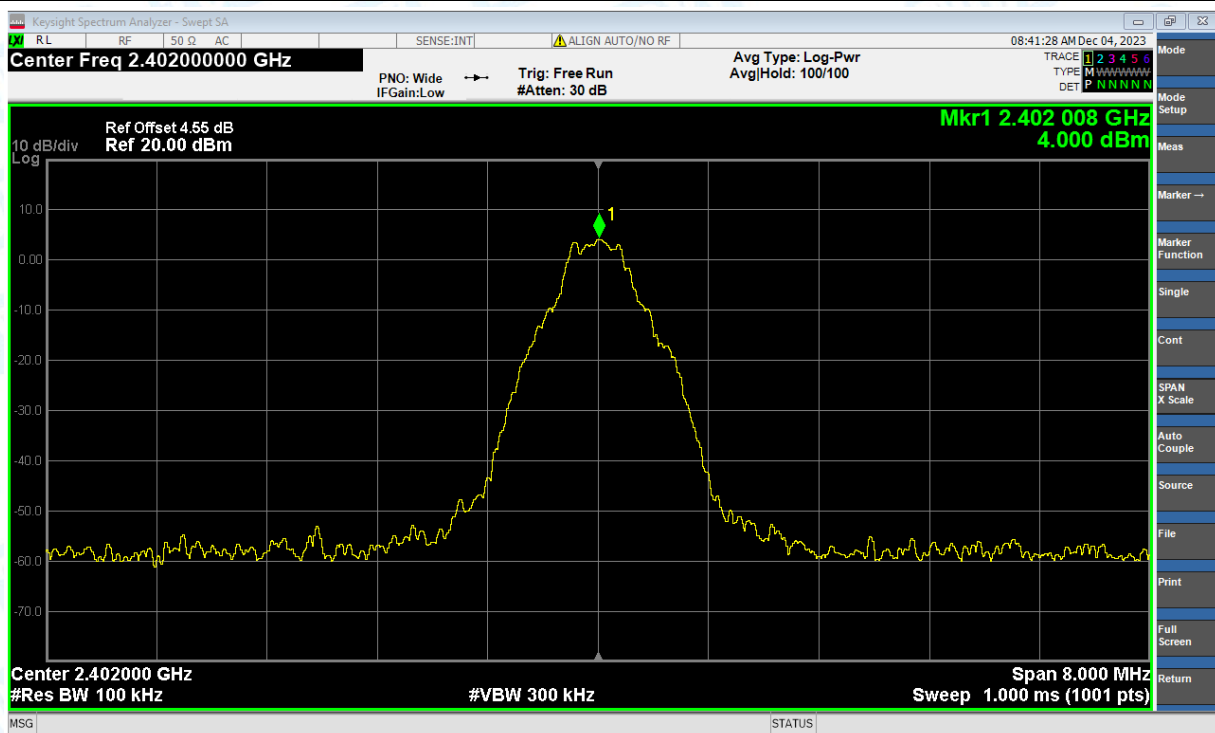


5. Band Edge

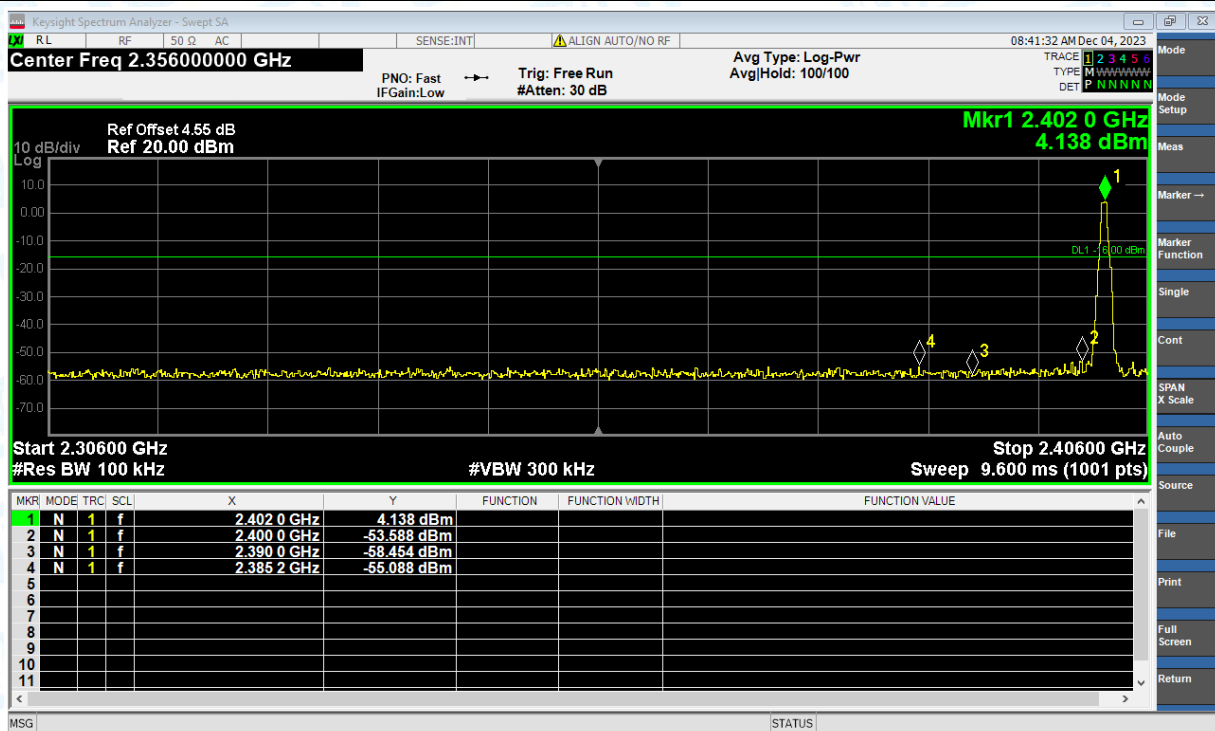
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-59.09	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-58.13	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-54.99	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-55.13	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-55.29	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-54.54	-20	Pass

Test Graphs

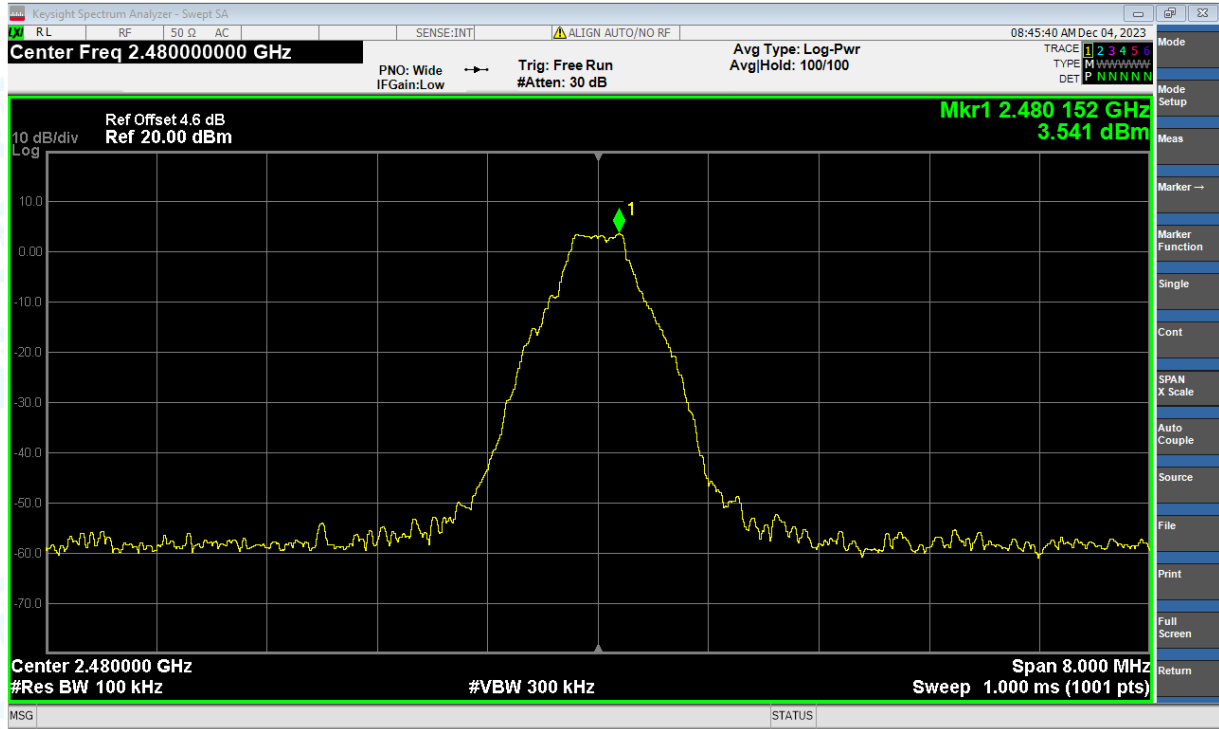
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



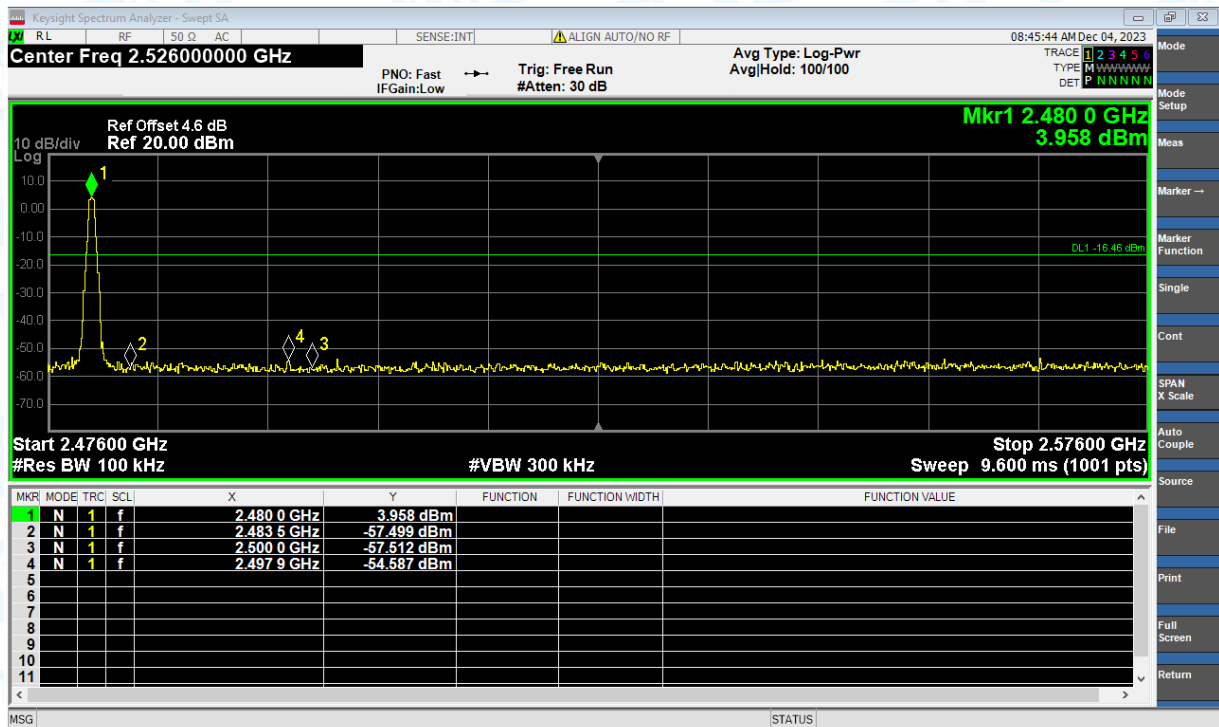
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



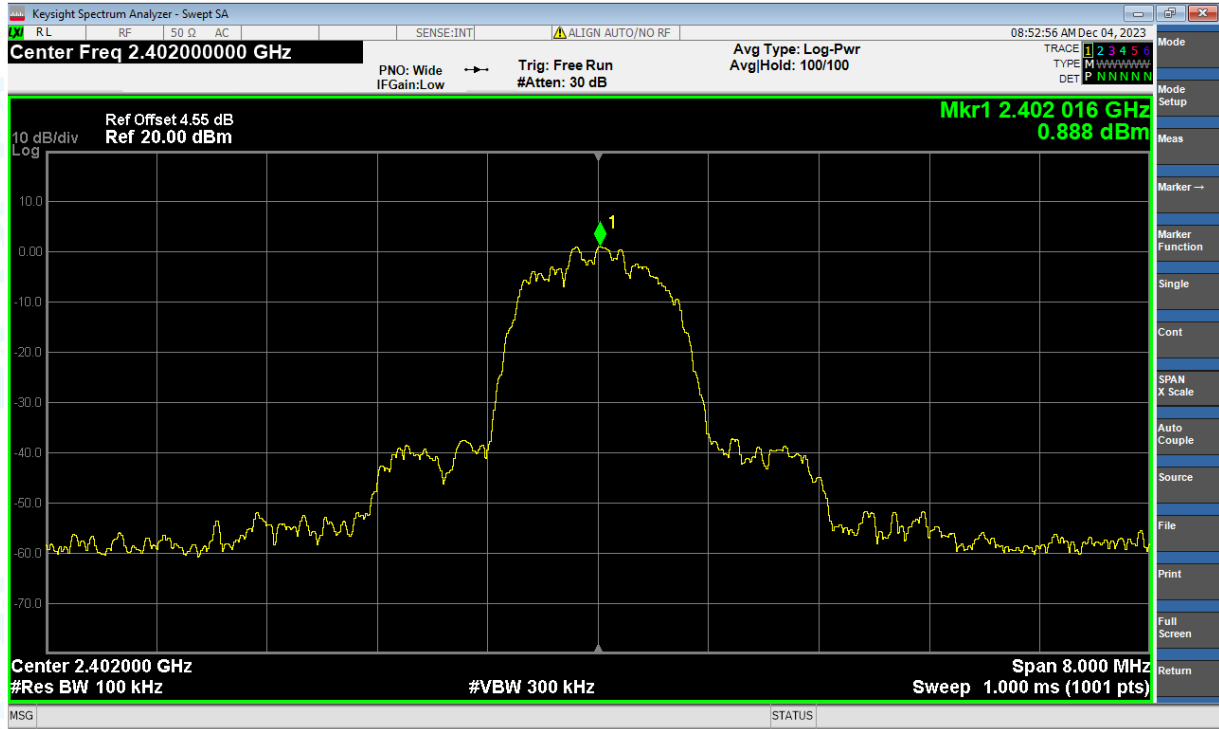
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



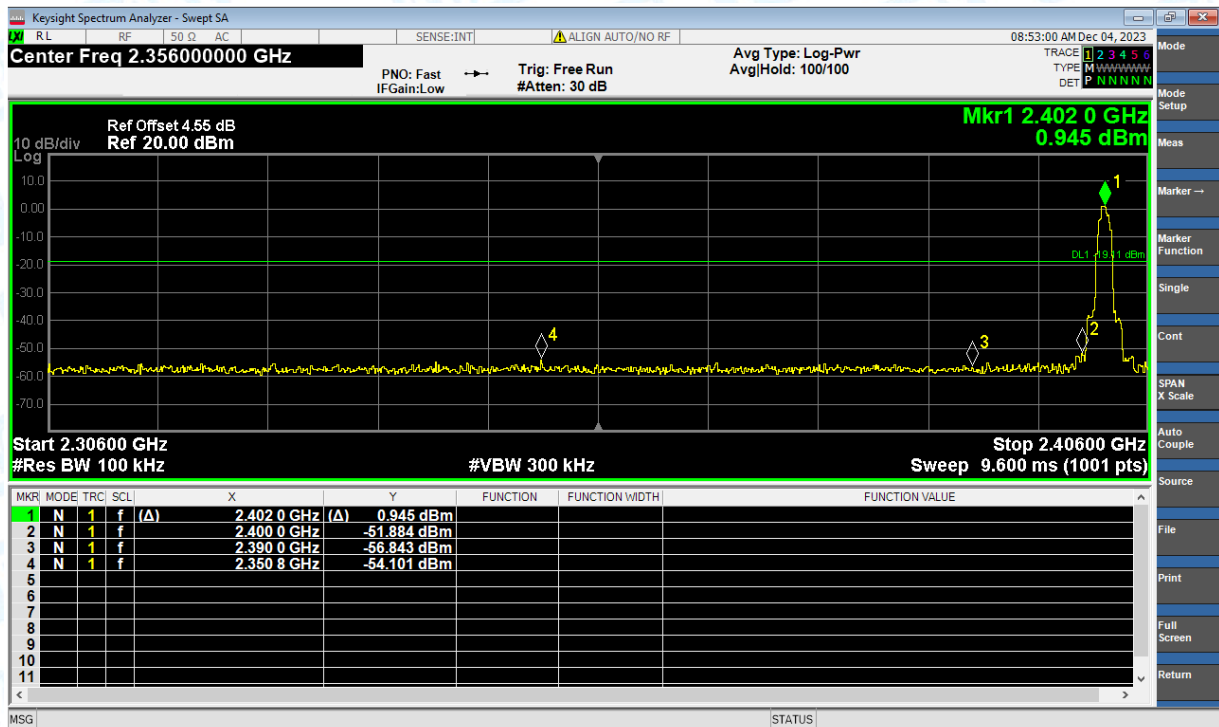
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



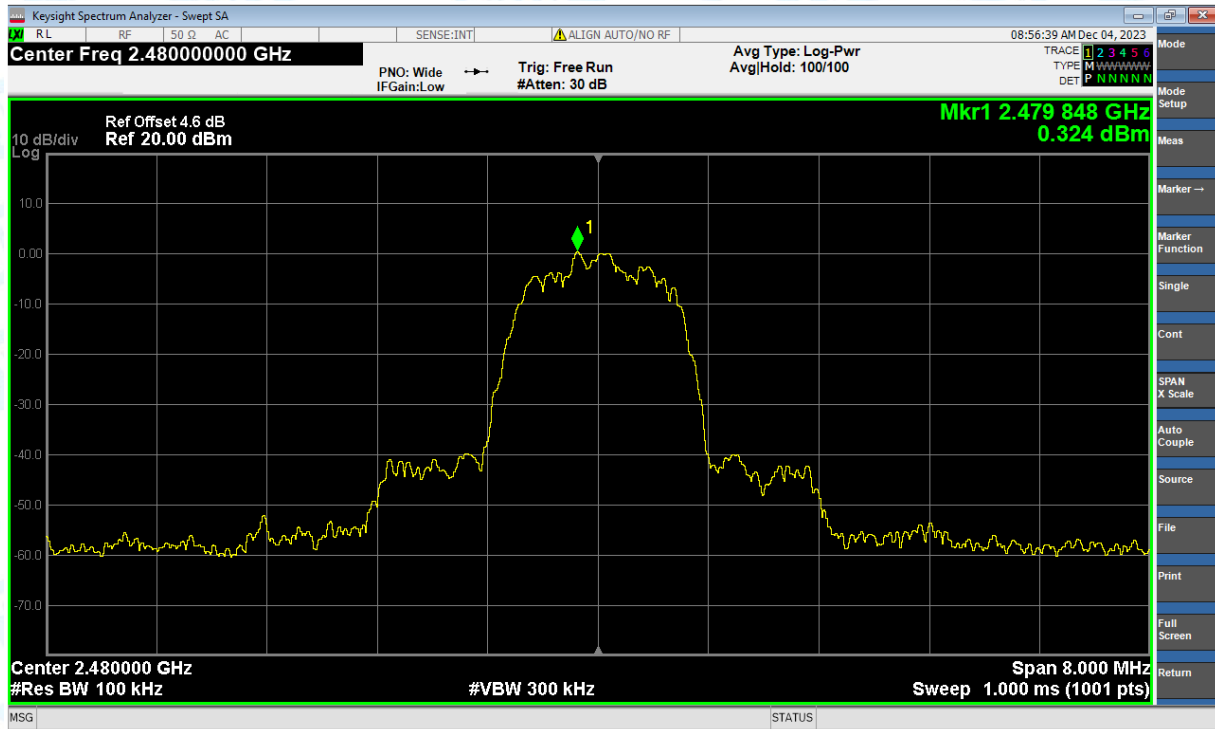
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



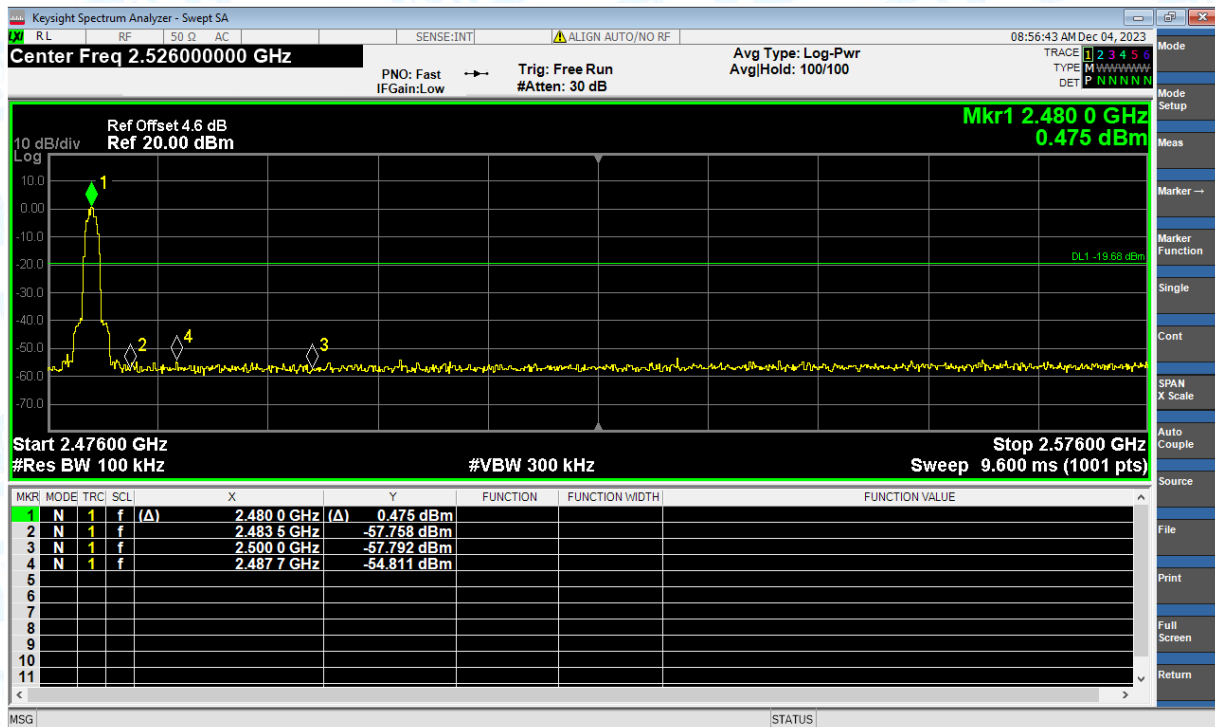
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



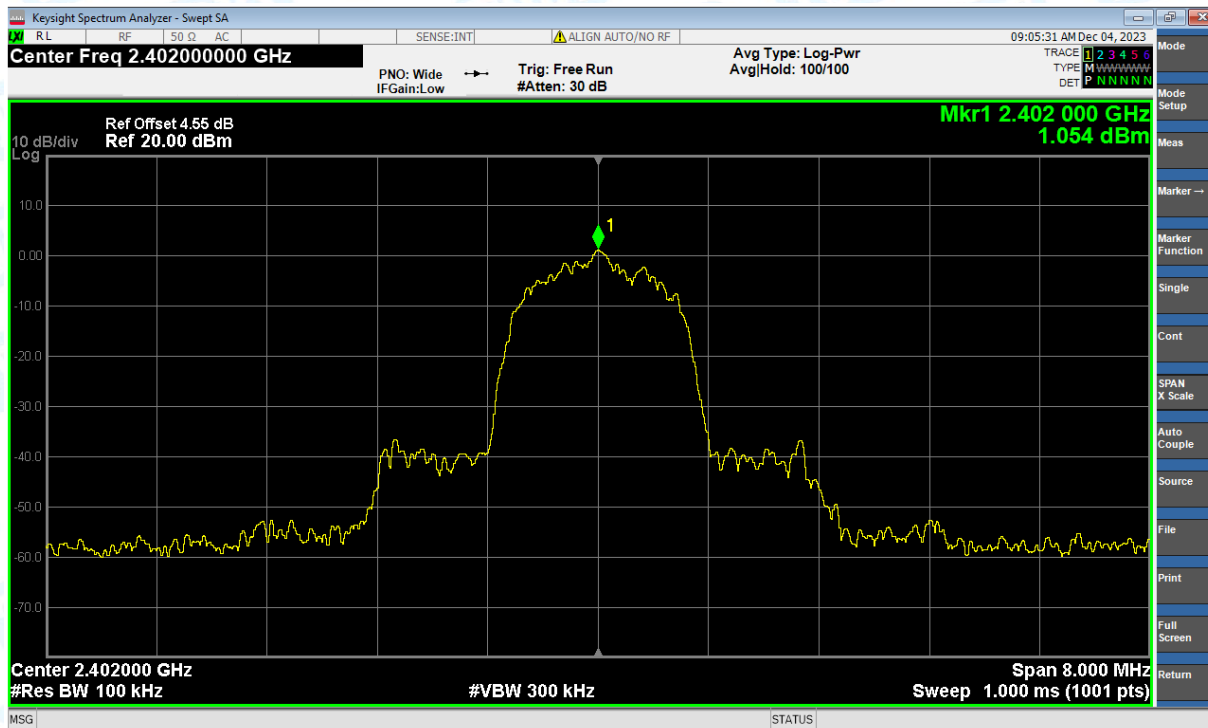
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



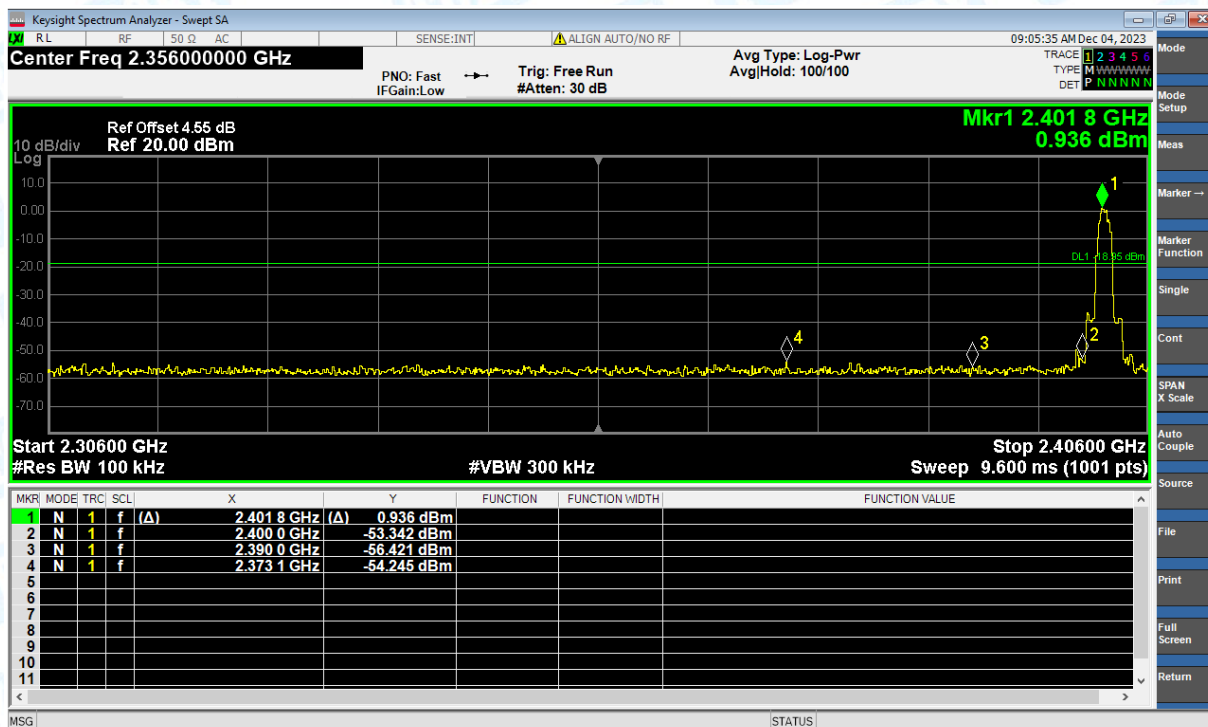
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



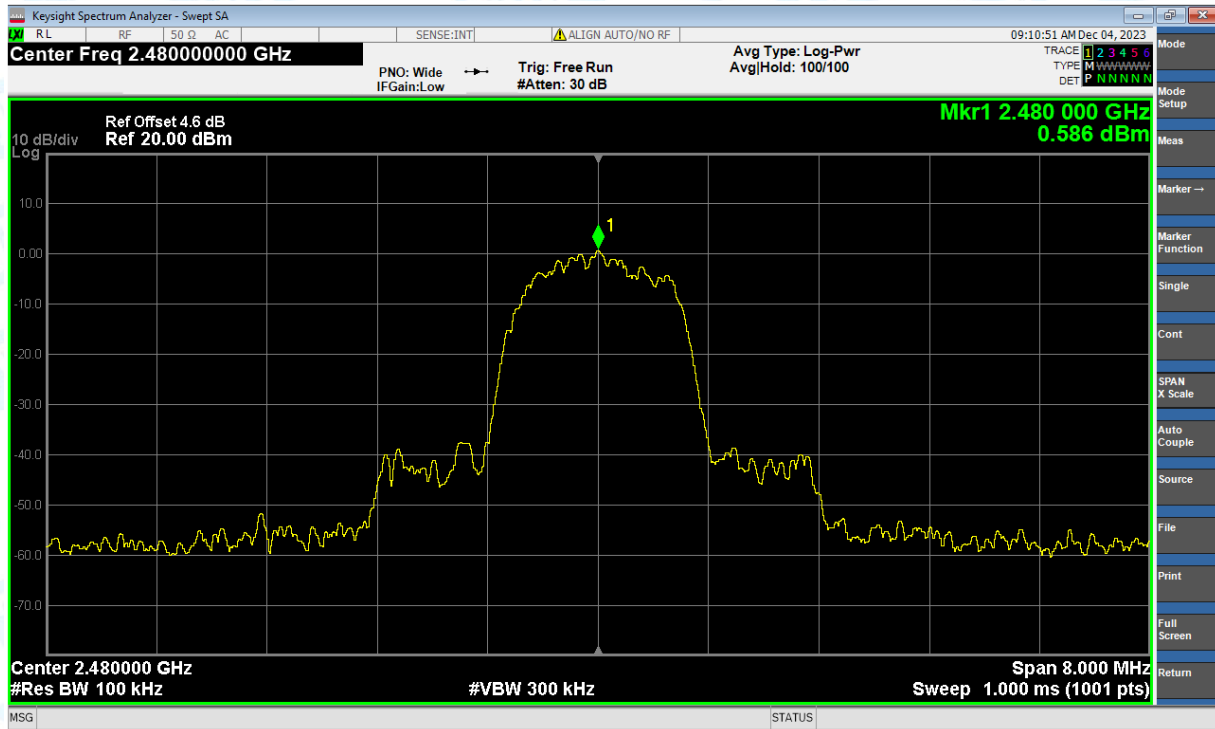
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



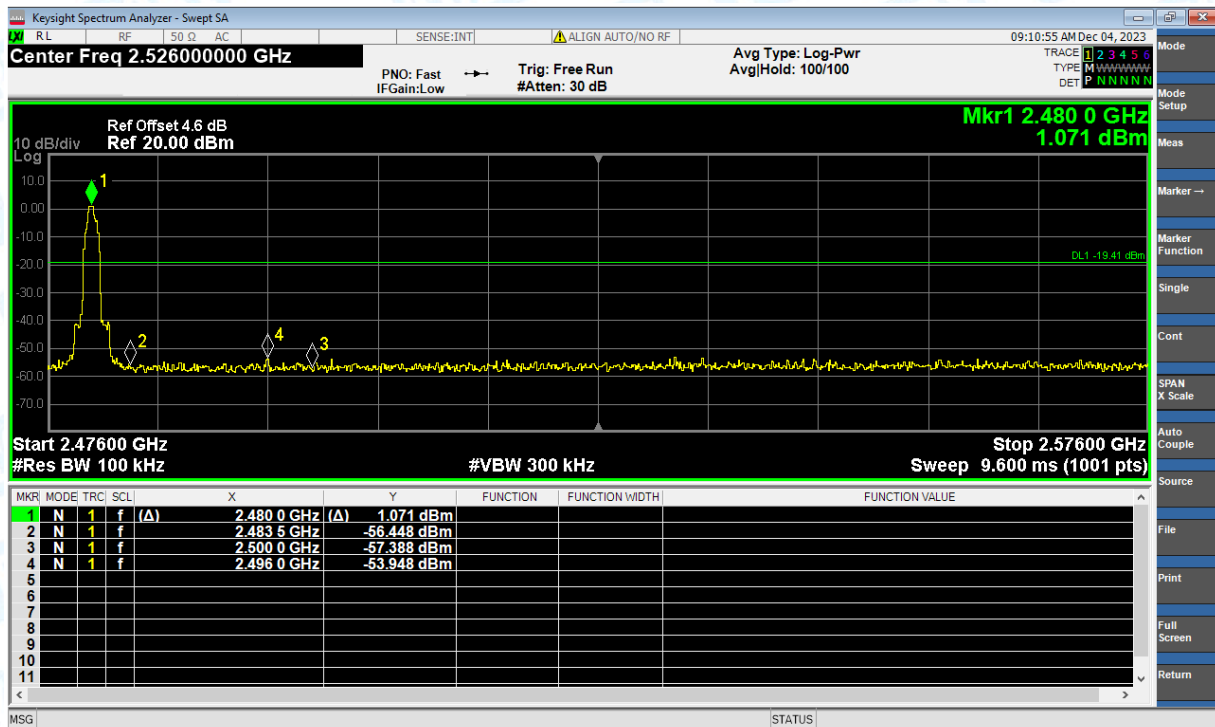
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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



6. Band Edge(Hopping)

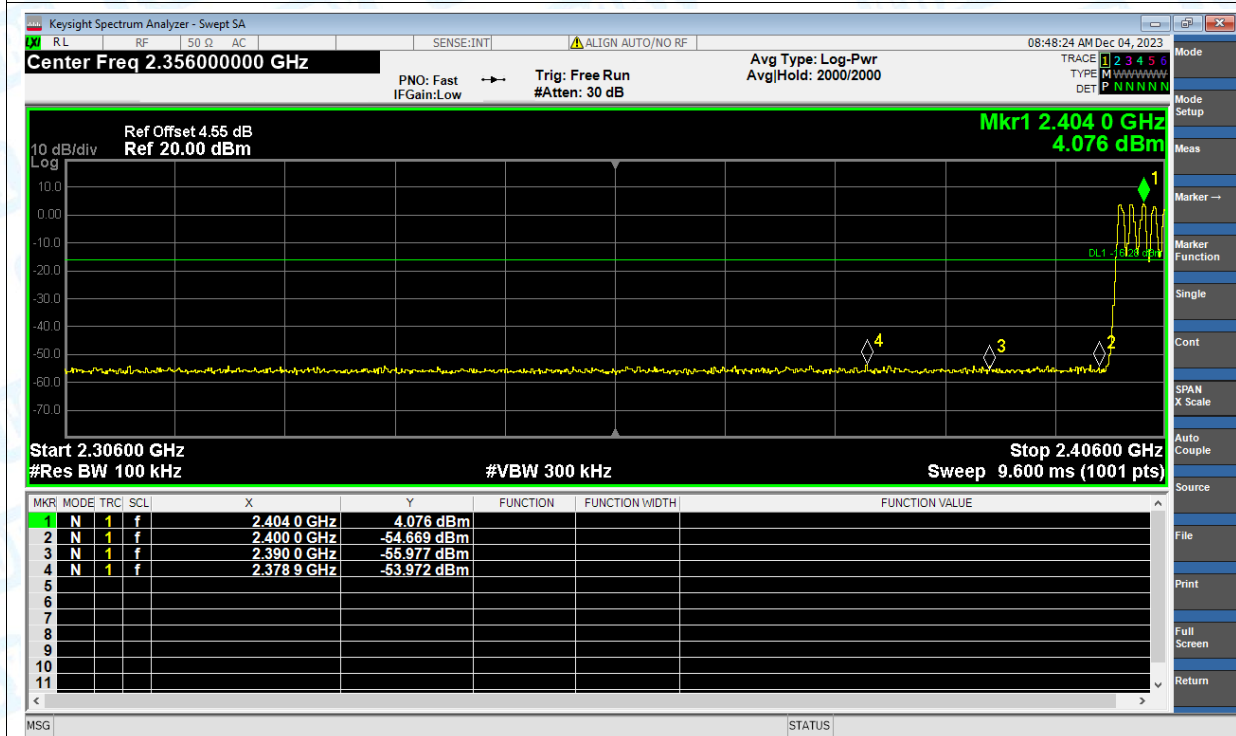
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-57.69	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-57.55	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-54.07	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-54.31	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-52.18	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-54.50	-20	Pass

Test Graphs

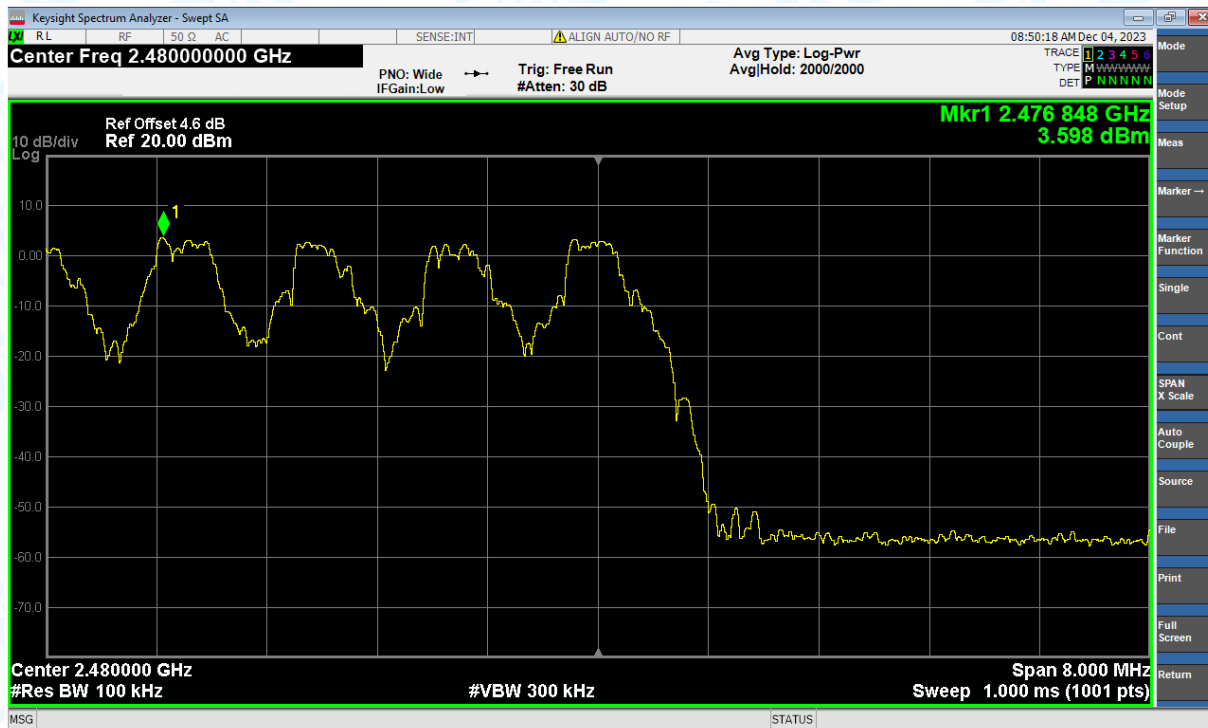
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref



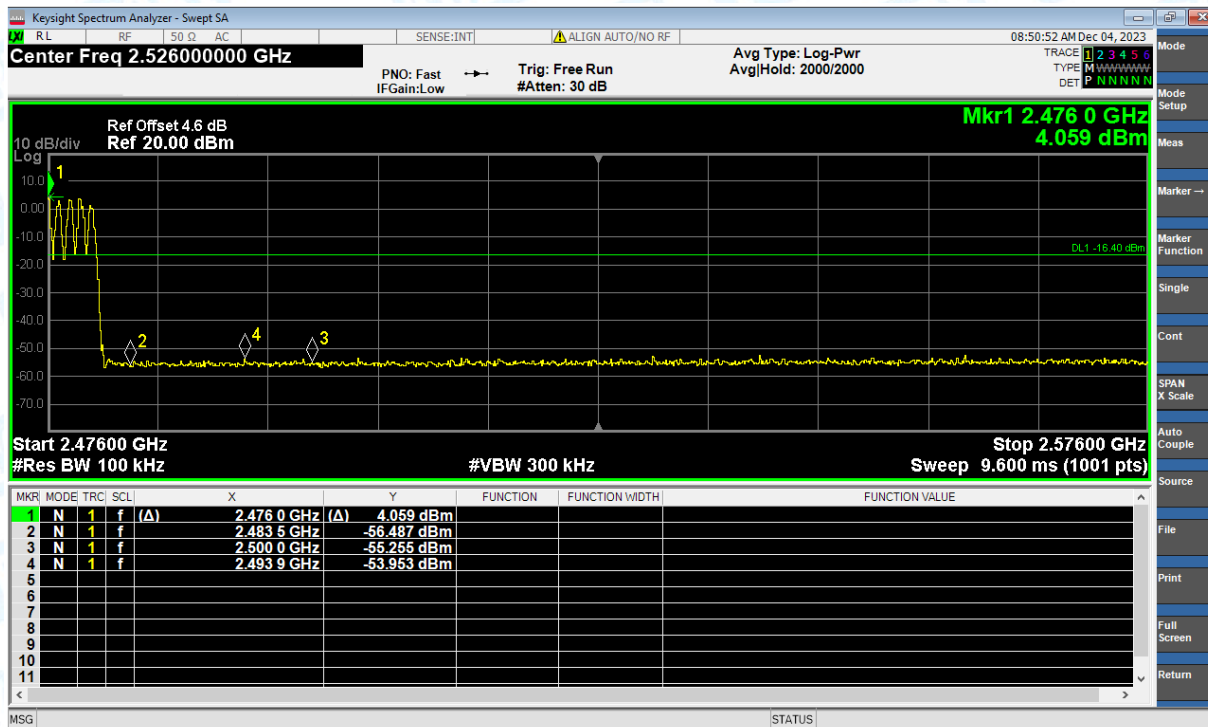
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



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



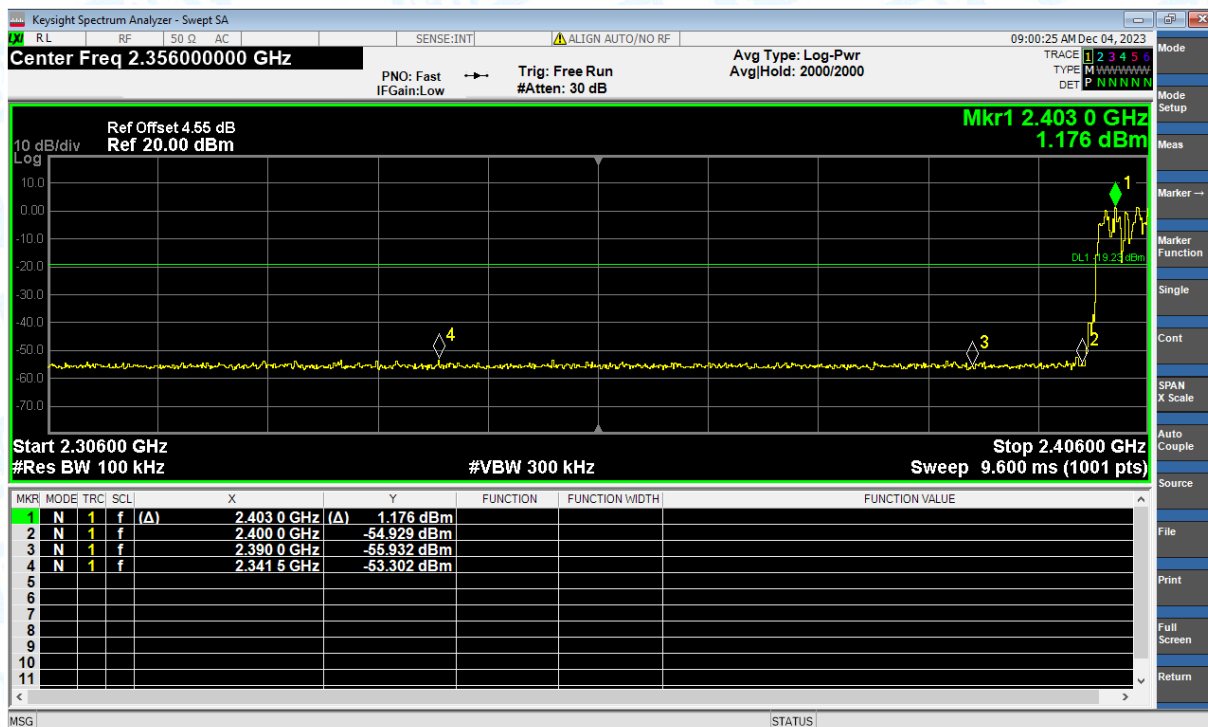
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



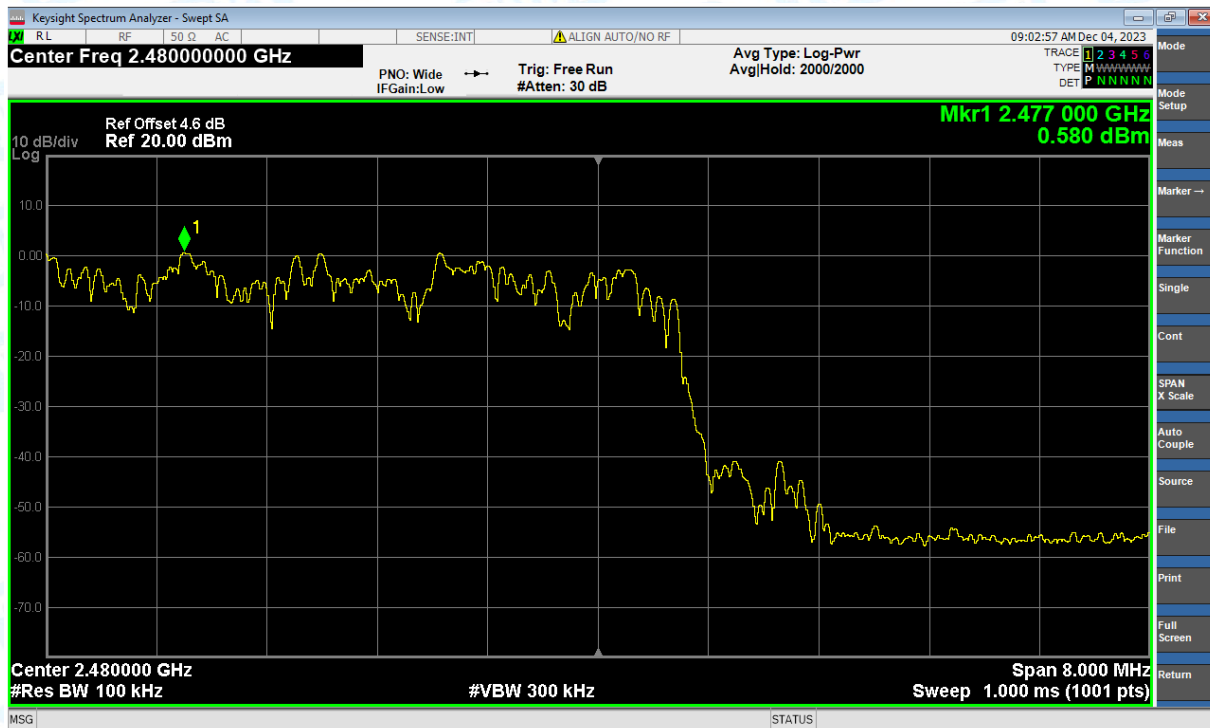
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



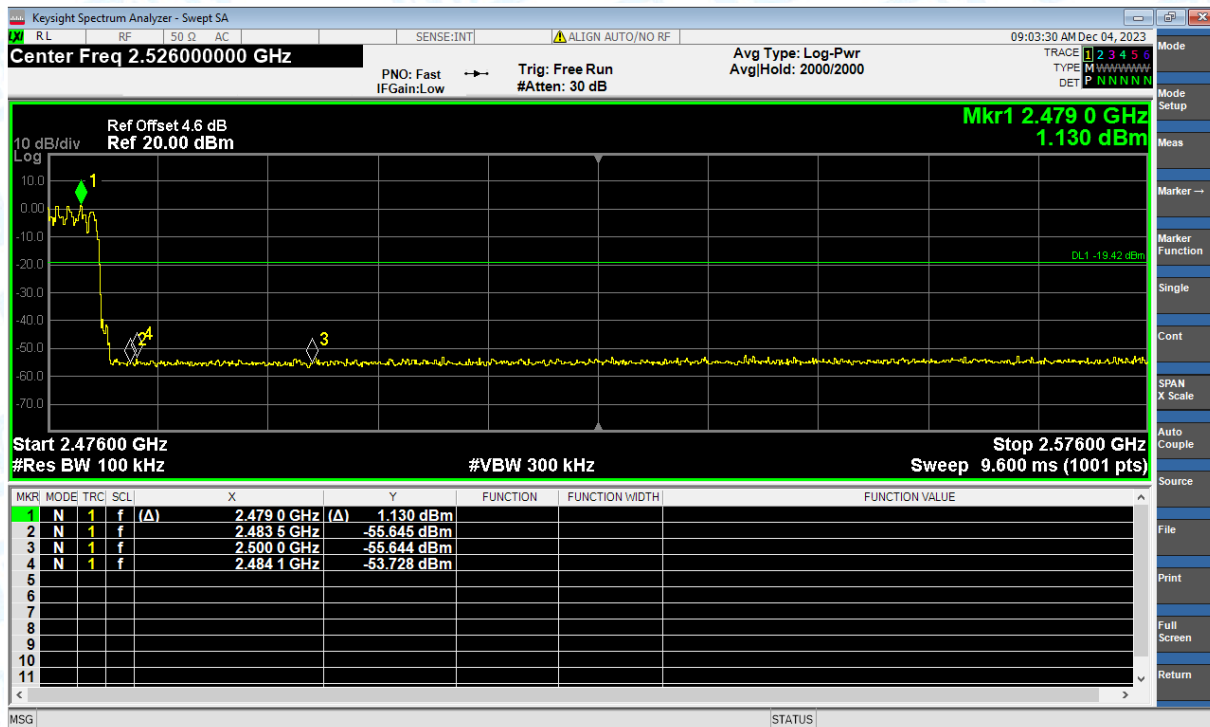
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



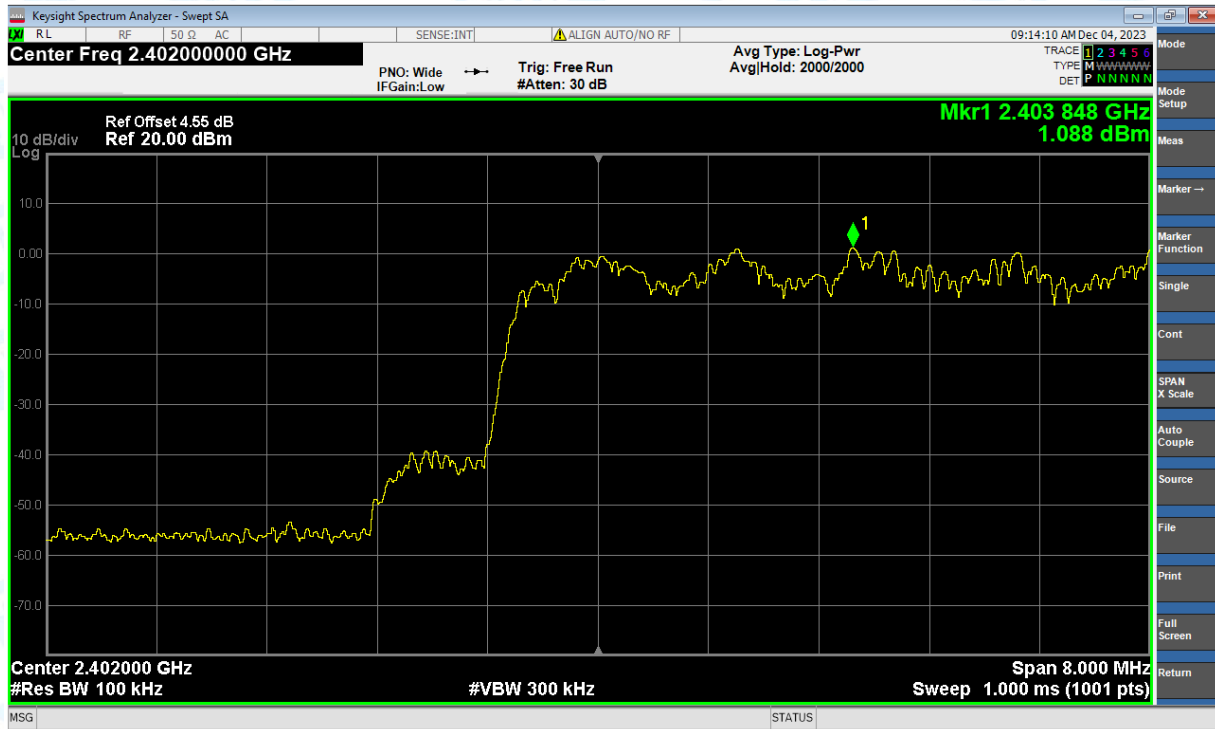
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Ref



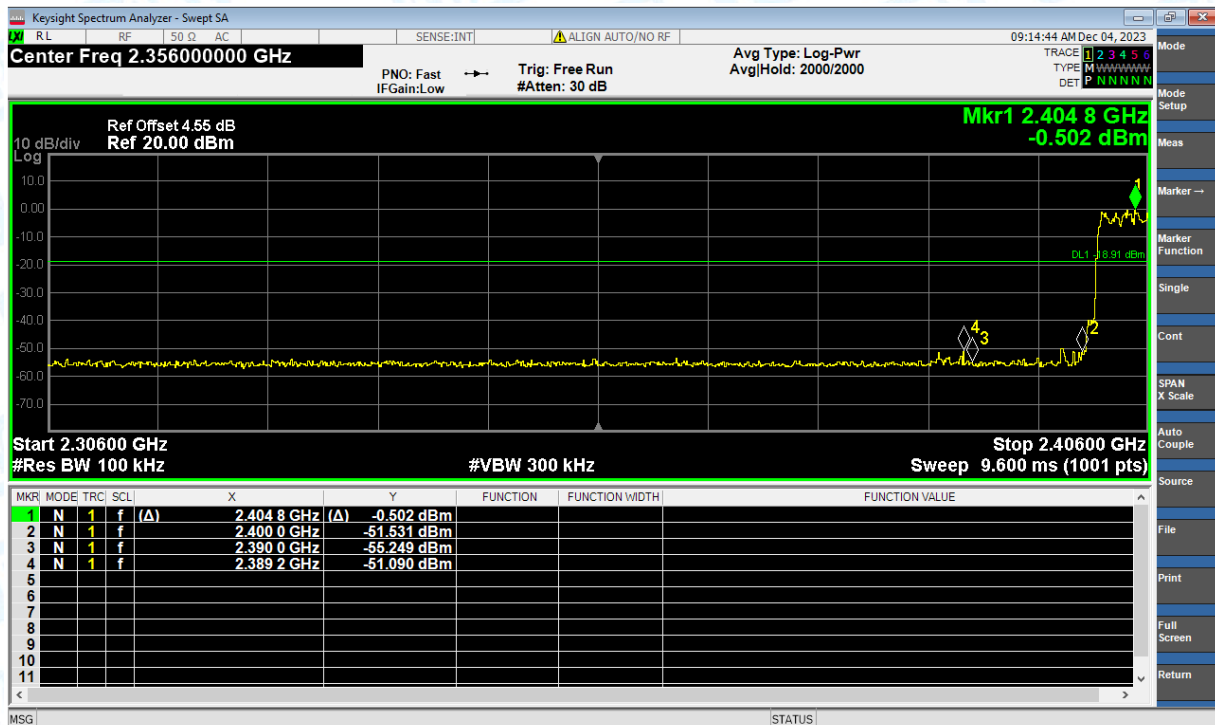
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



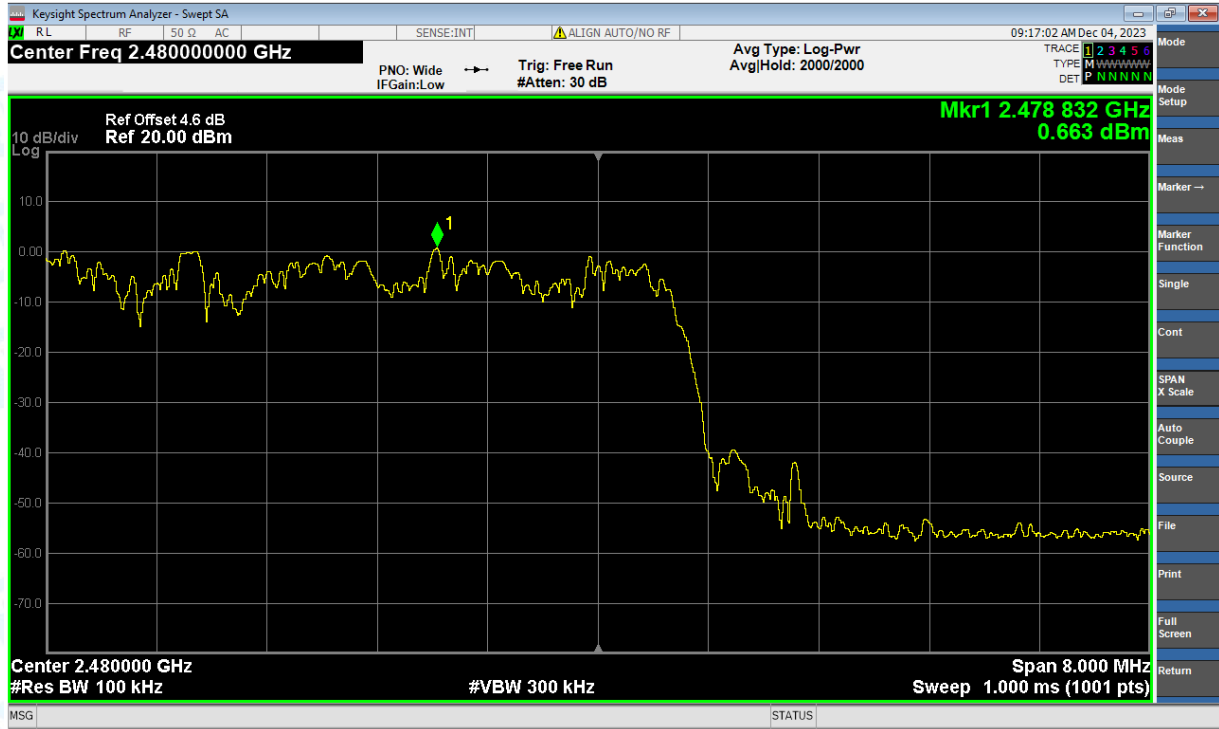
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



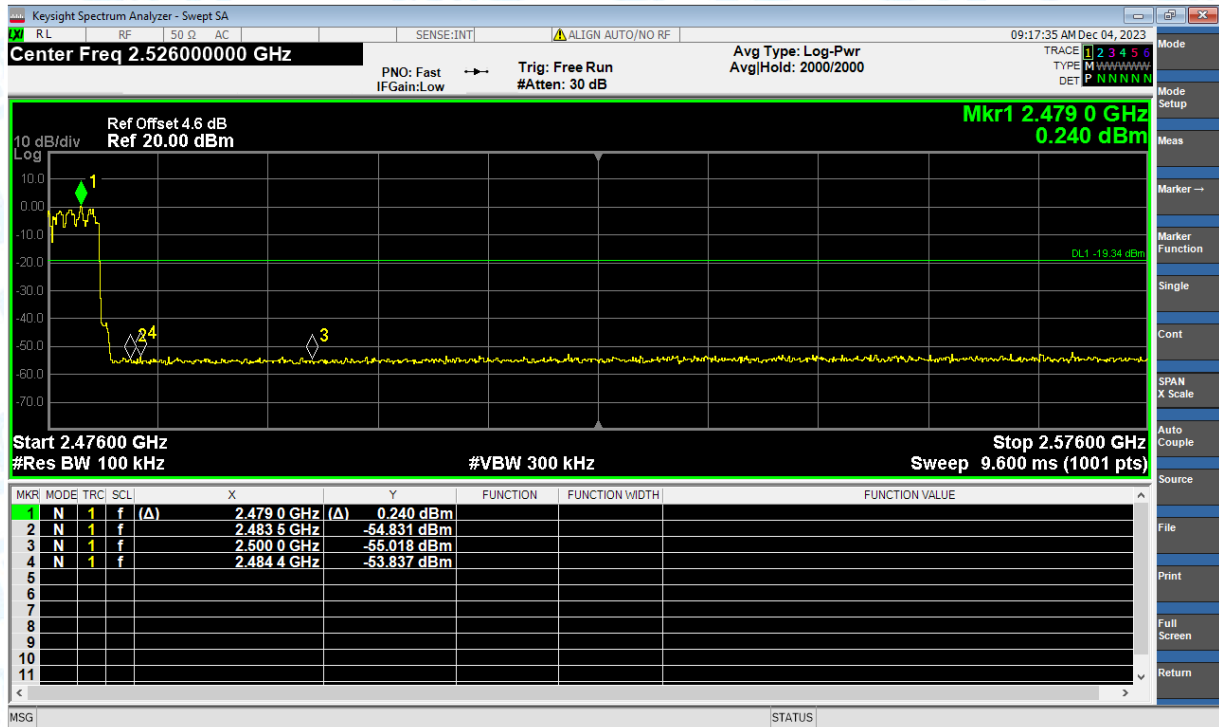
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



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



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

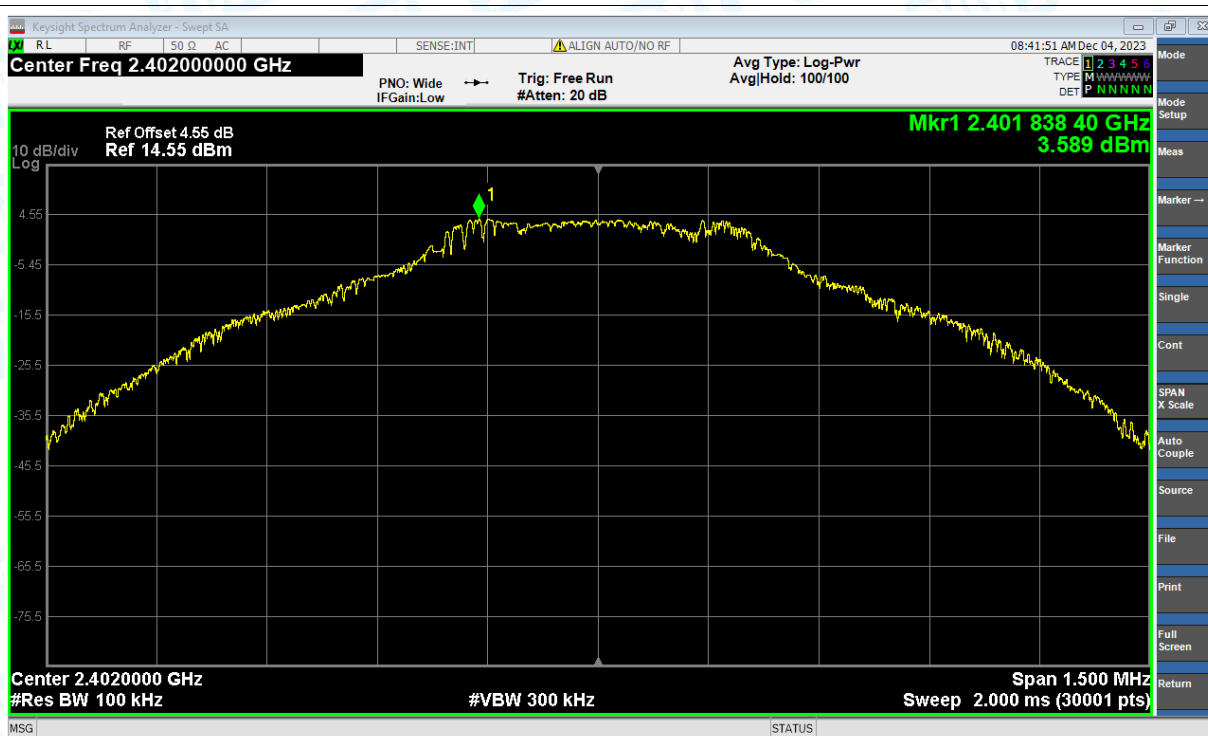


7. Conducted RF Spurious Emission

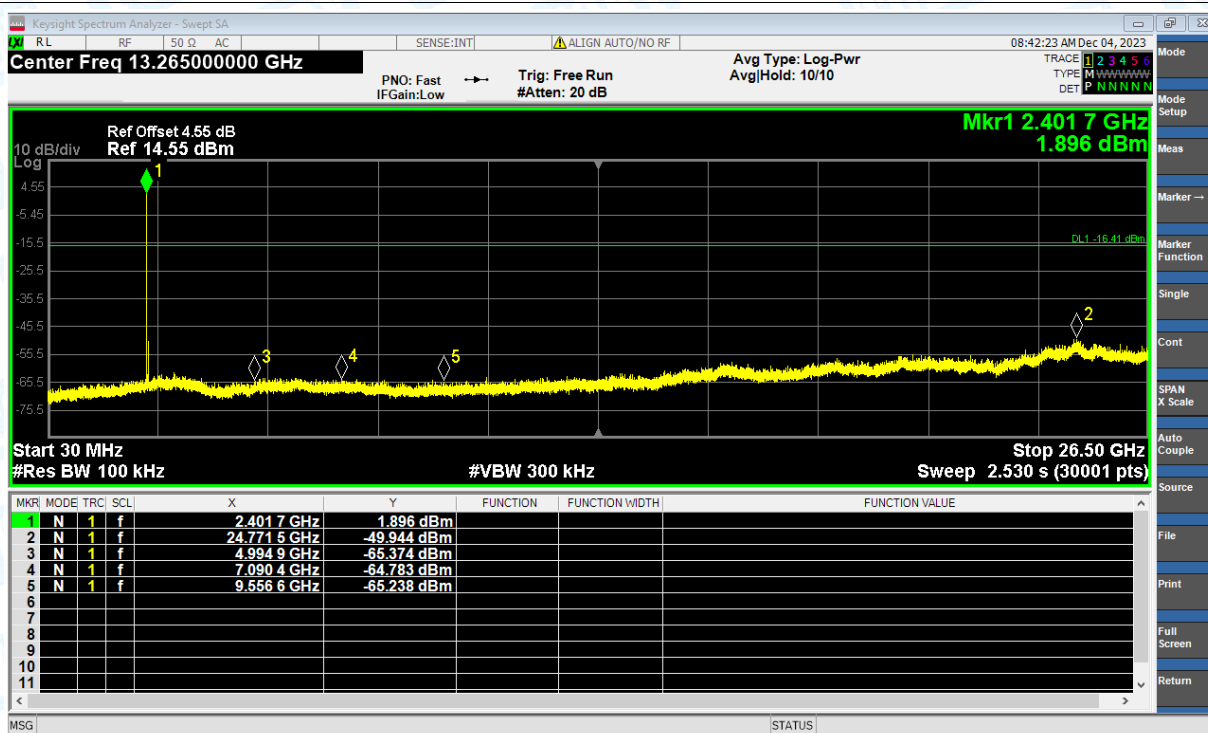
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-53.53	-20	Pass
NVNT	1-DH1	2441	Ant1	-53.93	-20	Pass
NVNT	1-DH1	2480	Ant1	-53.62	-20	Pass
NVNT	2-DH1	2402	Ant1	-51.65	-20	Pass
NVNT	2-DH1	2441	Ant1	-52.04	-20	Pass
NVNT	2-DH1	2480	Ant1	-50.96	-20	Pass
NVNT	3-DH1	2402	Ant1	-49.99	-20	Pass
NVNT	3-DH1	2441	Ant1	-49.98	-20	Pass
NVNT	3-DH1	2480	Ant1	-50.95	-20	Pass

Test Graphs

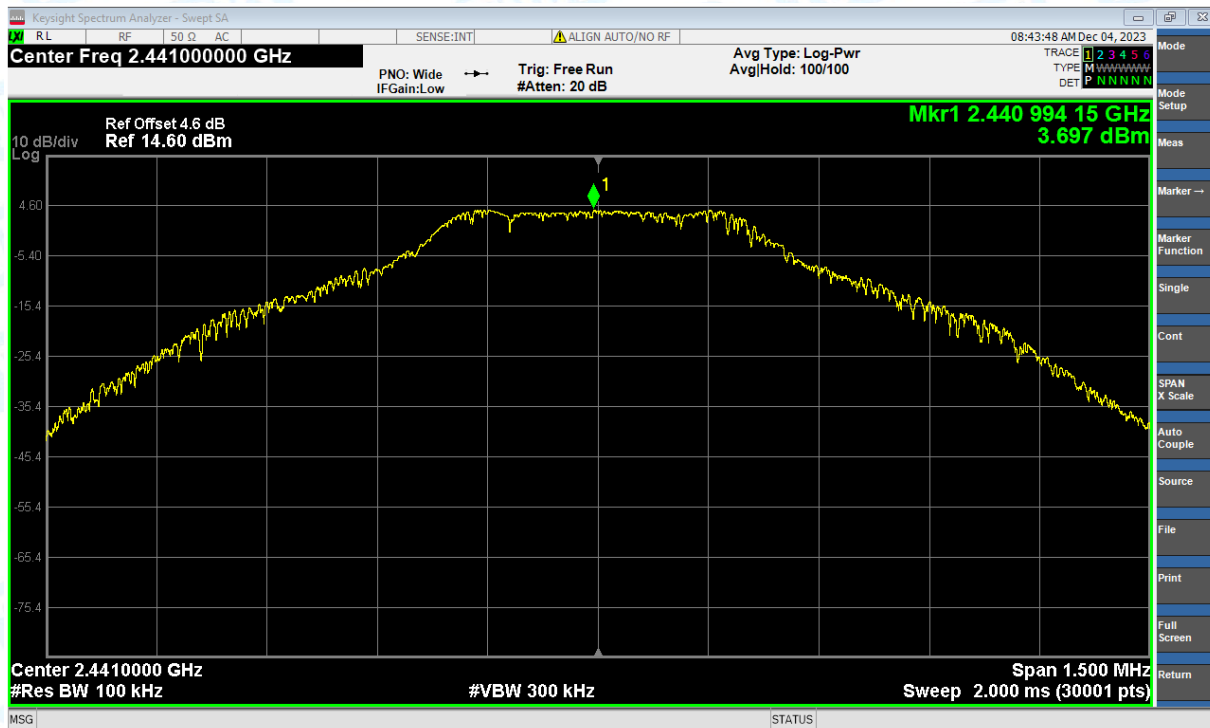
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



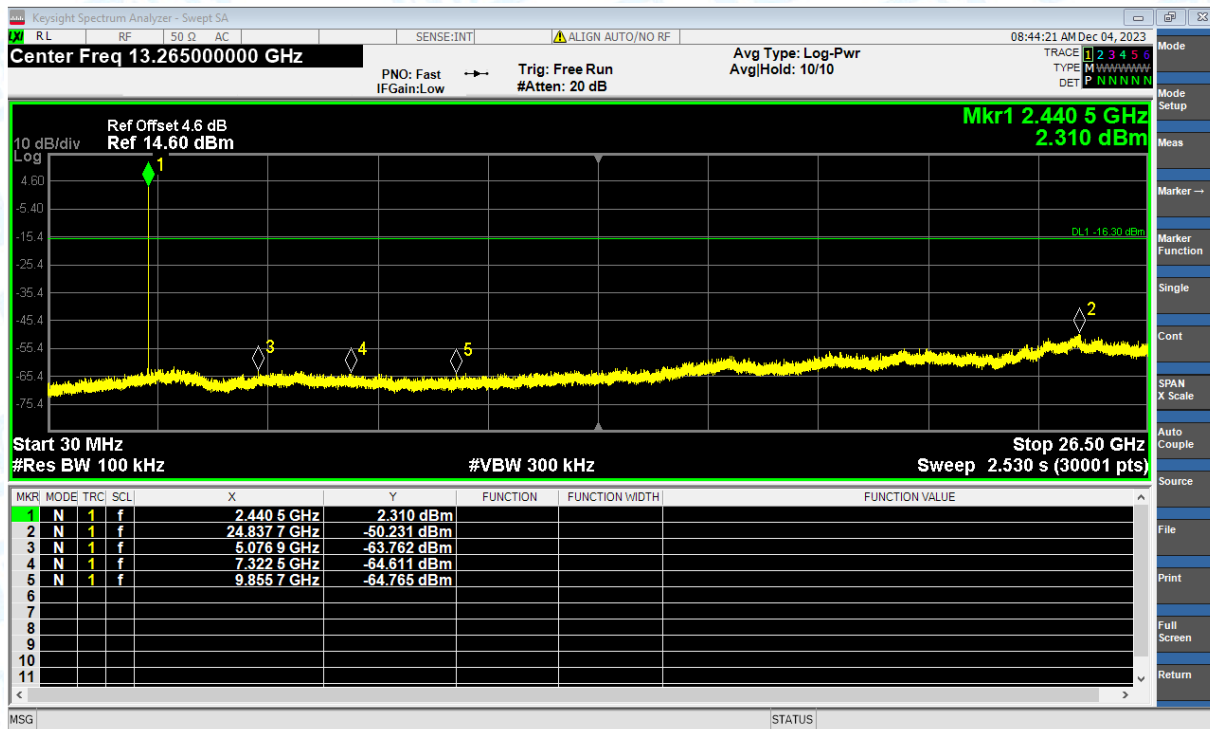
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



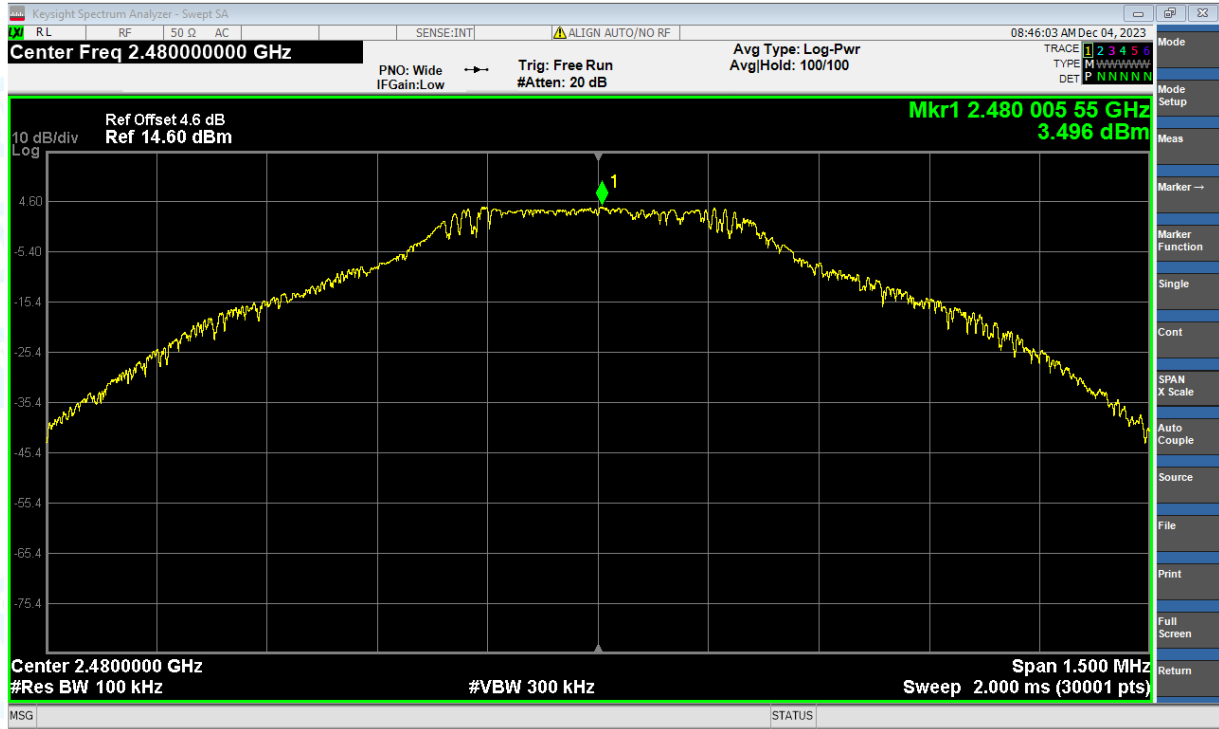
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



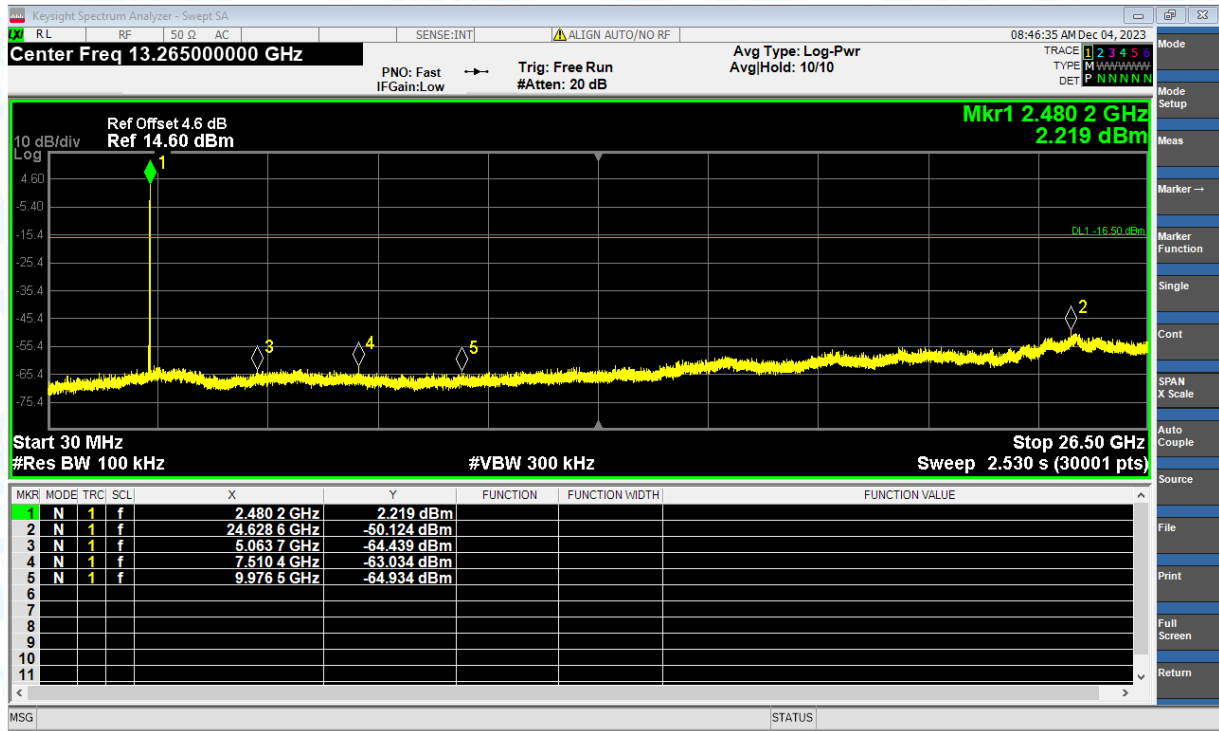
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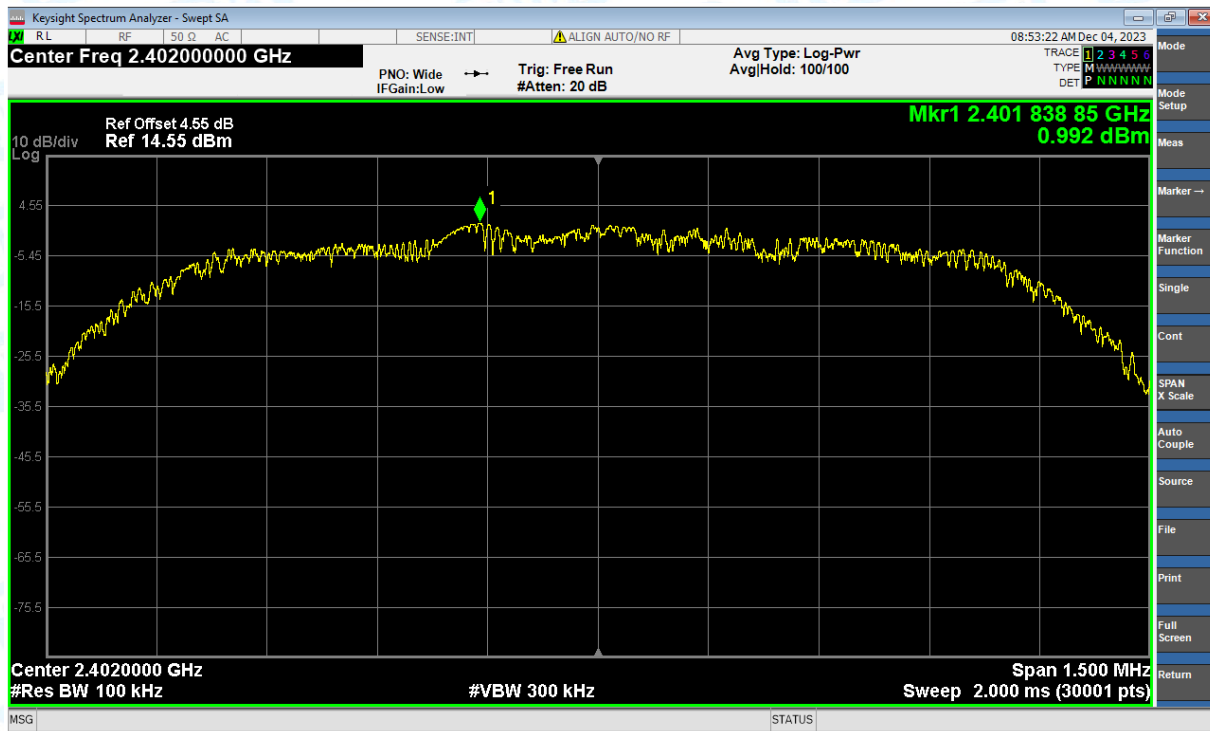
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



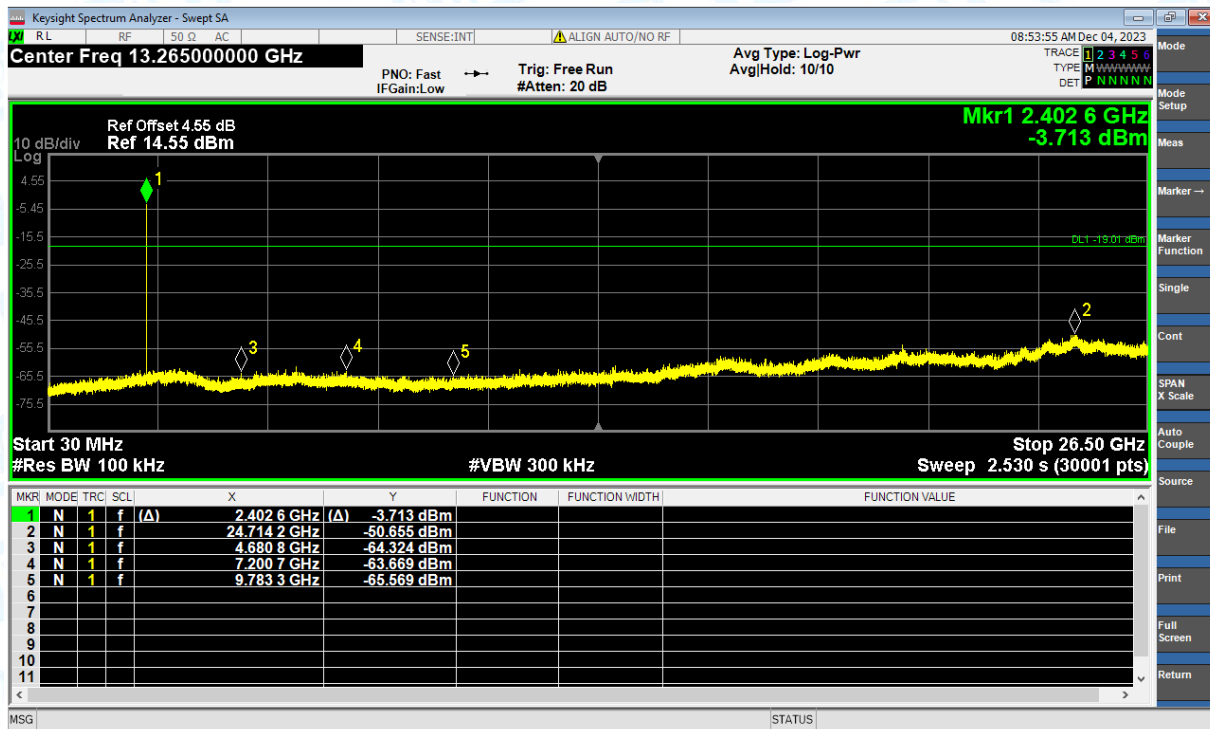
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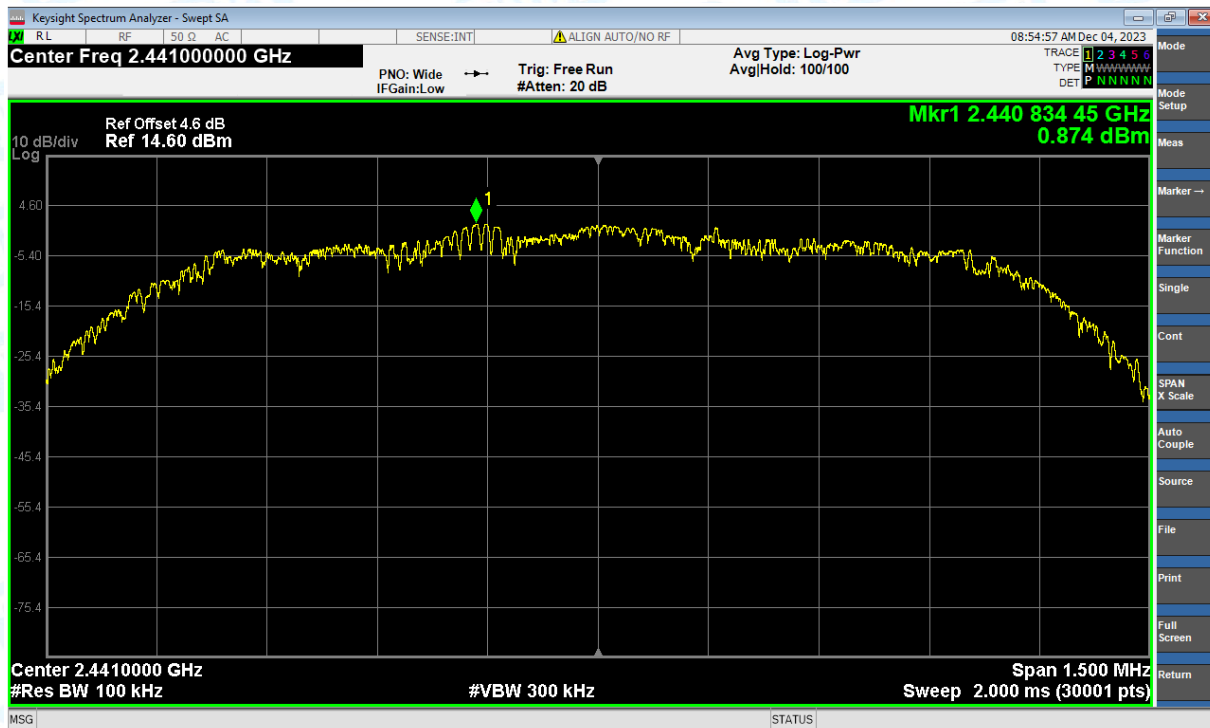
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



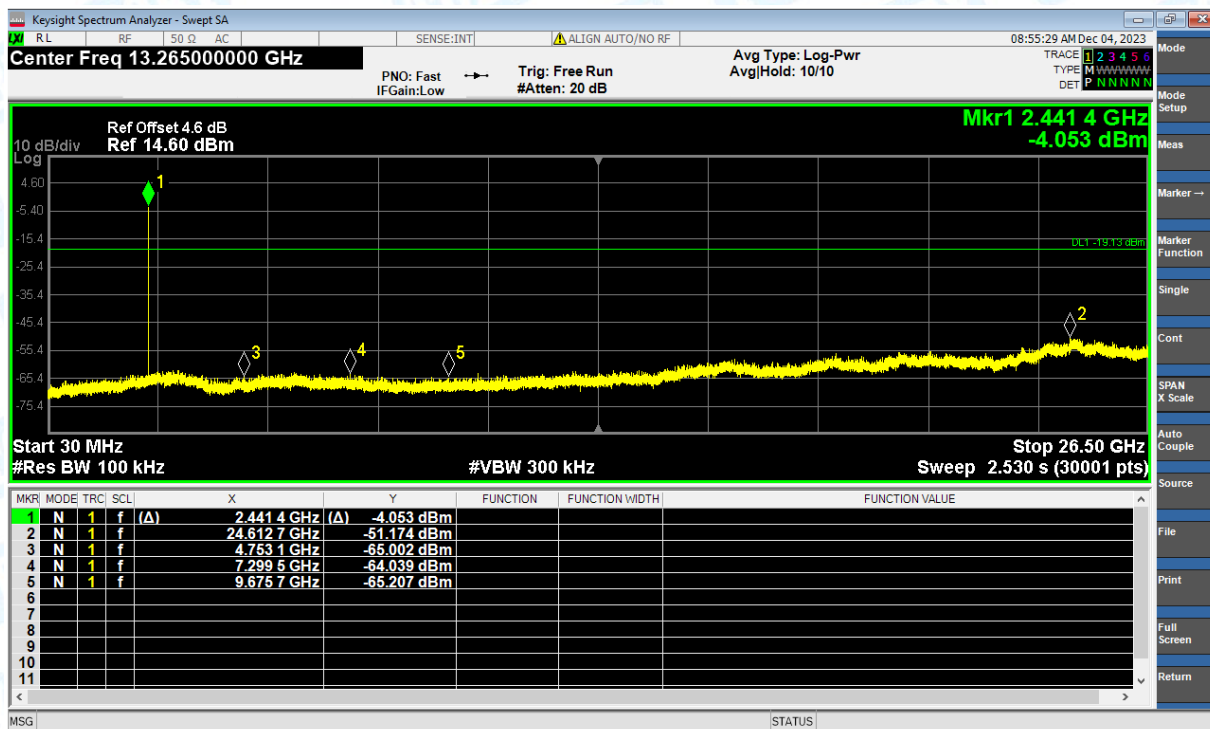
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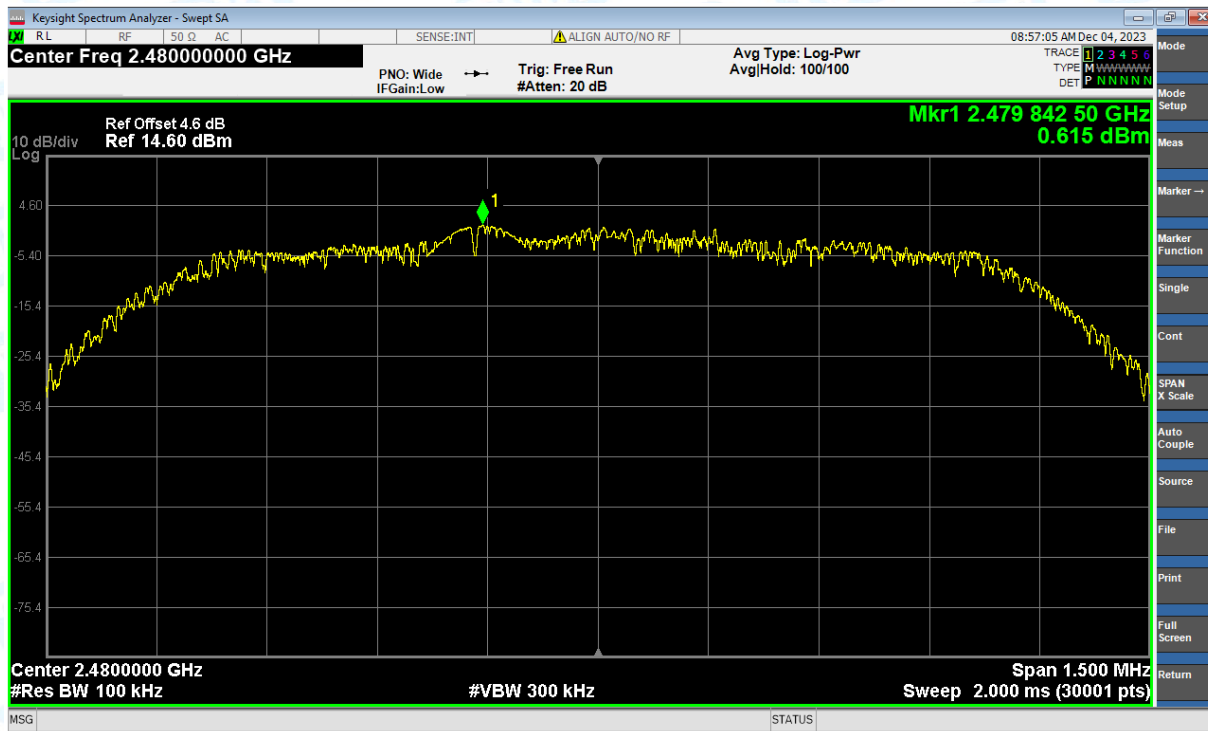
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



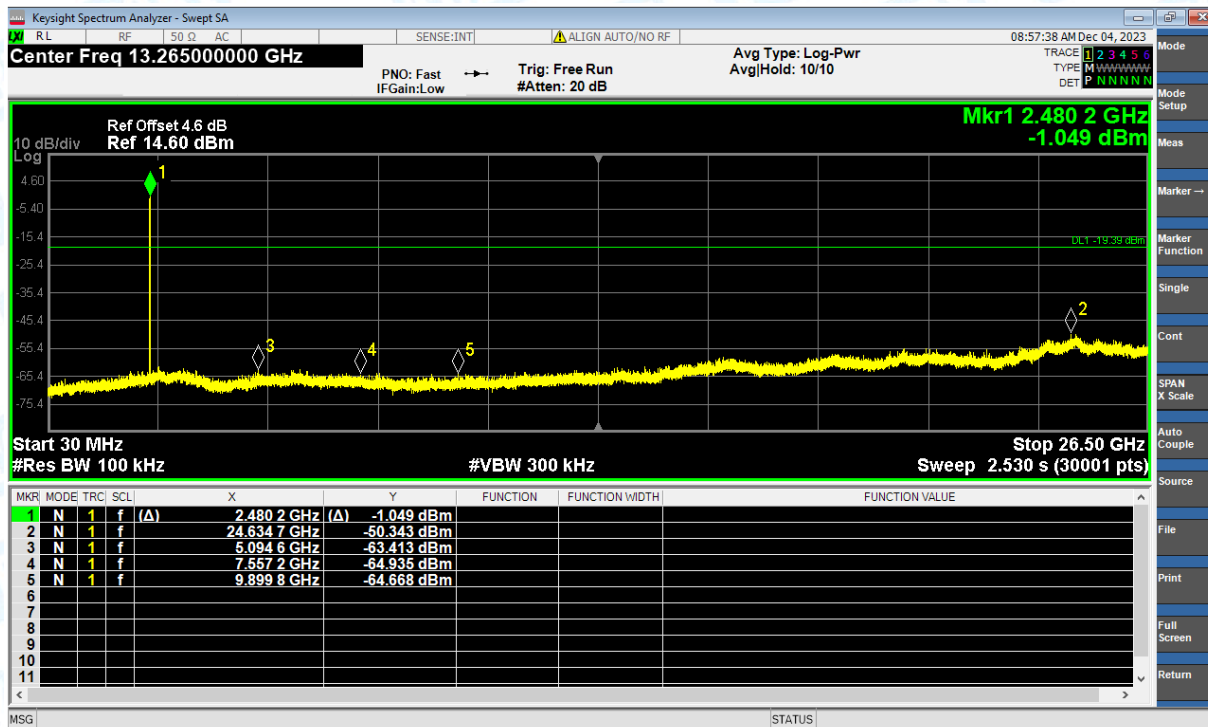
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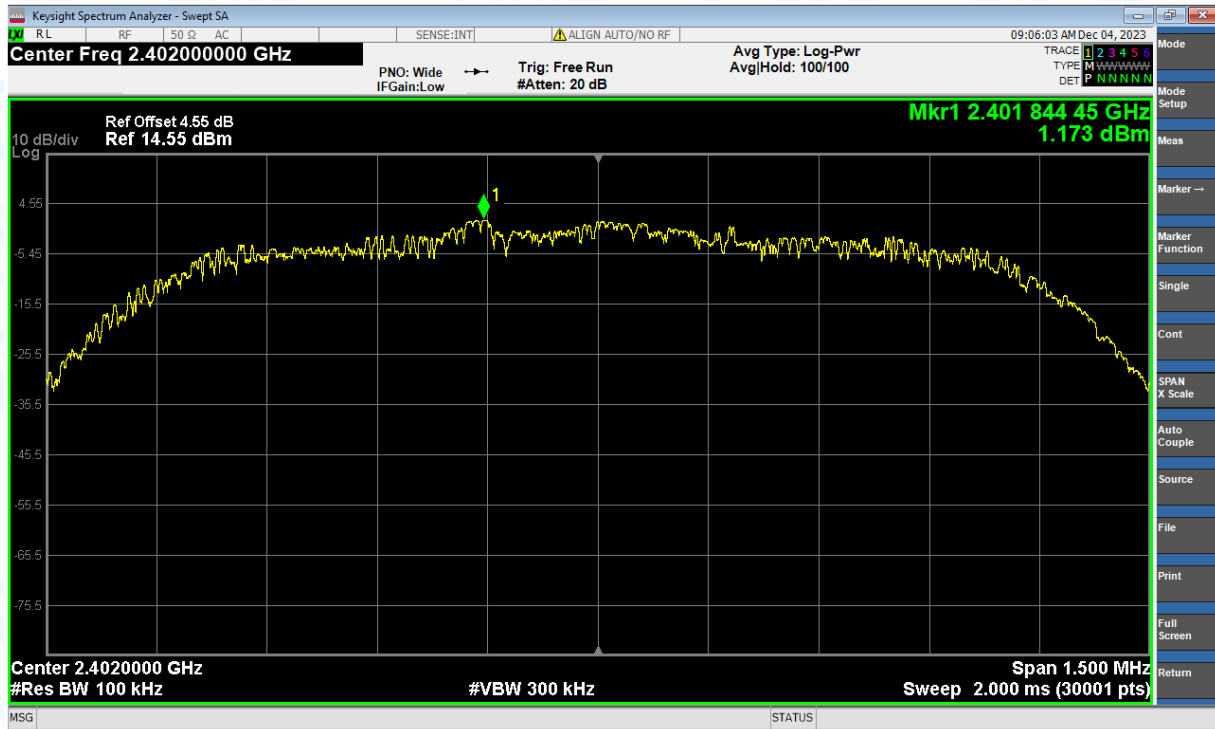
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



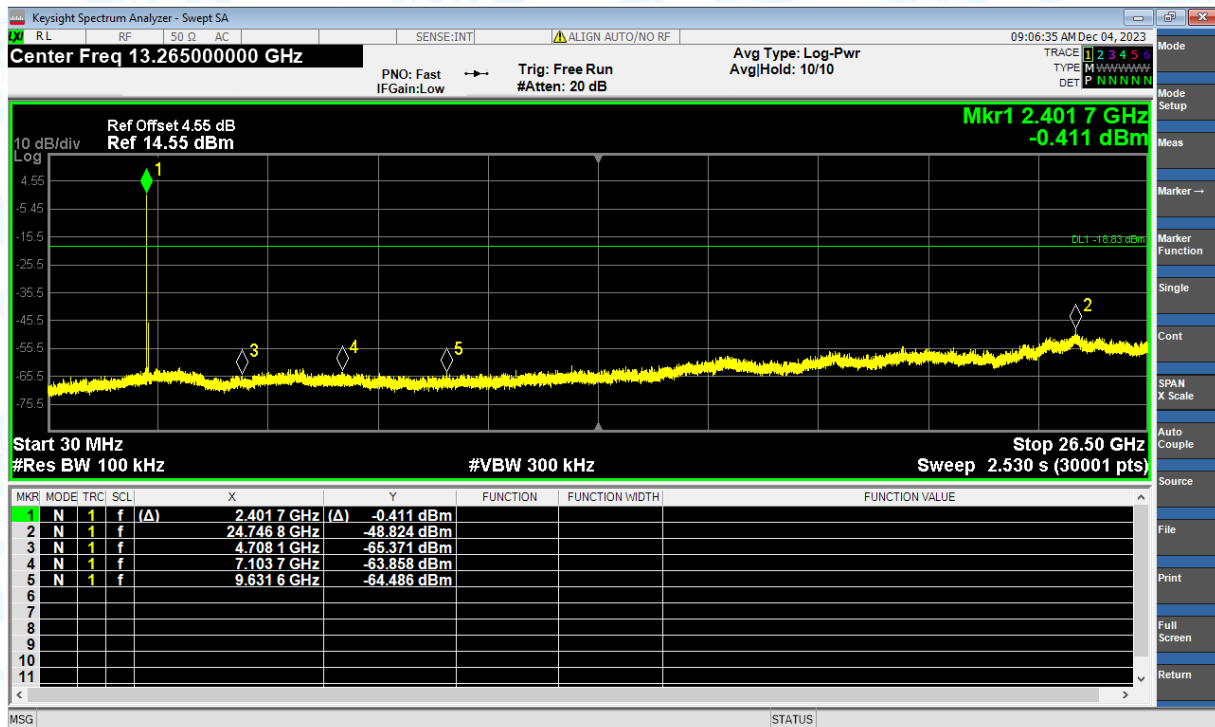
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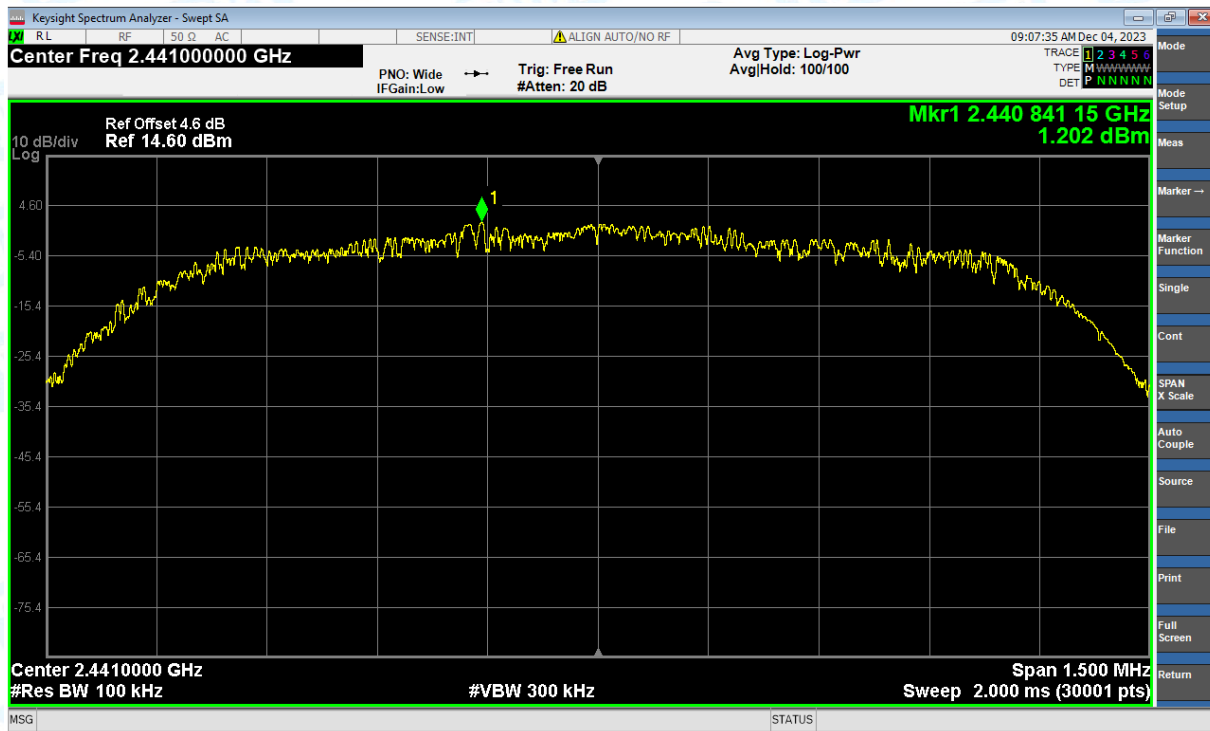
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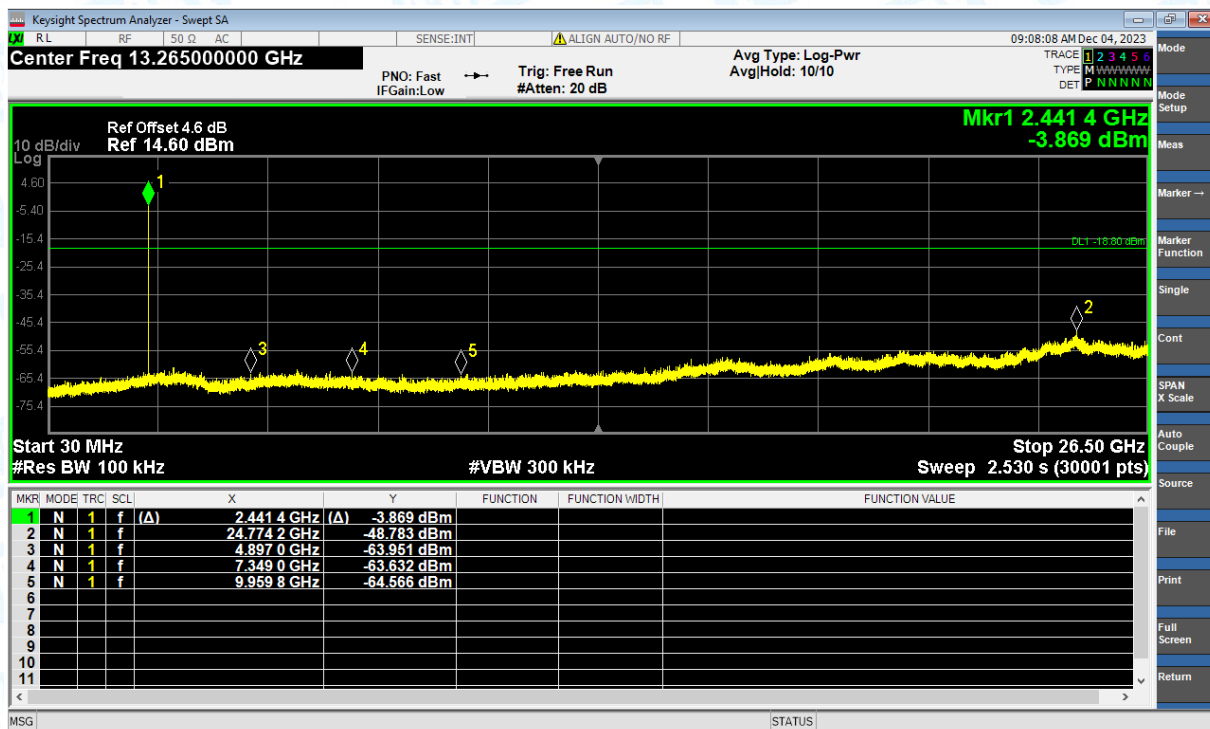
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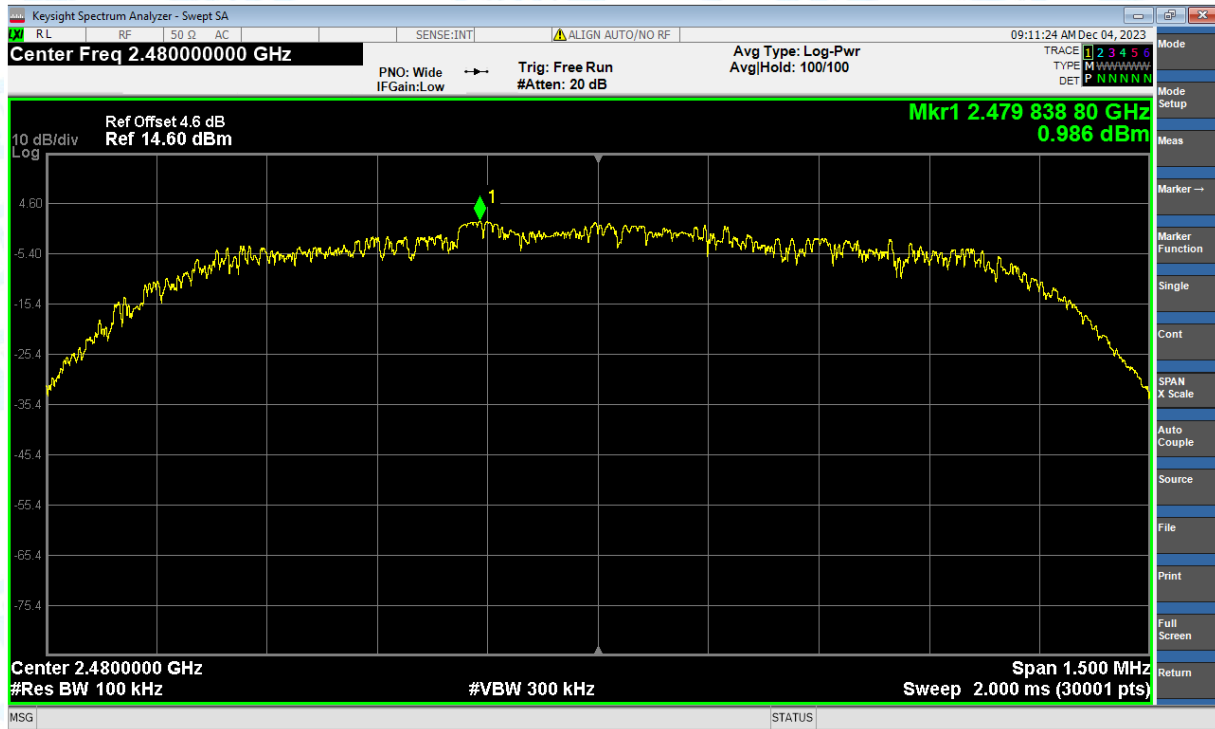
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



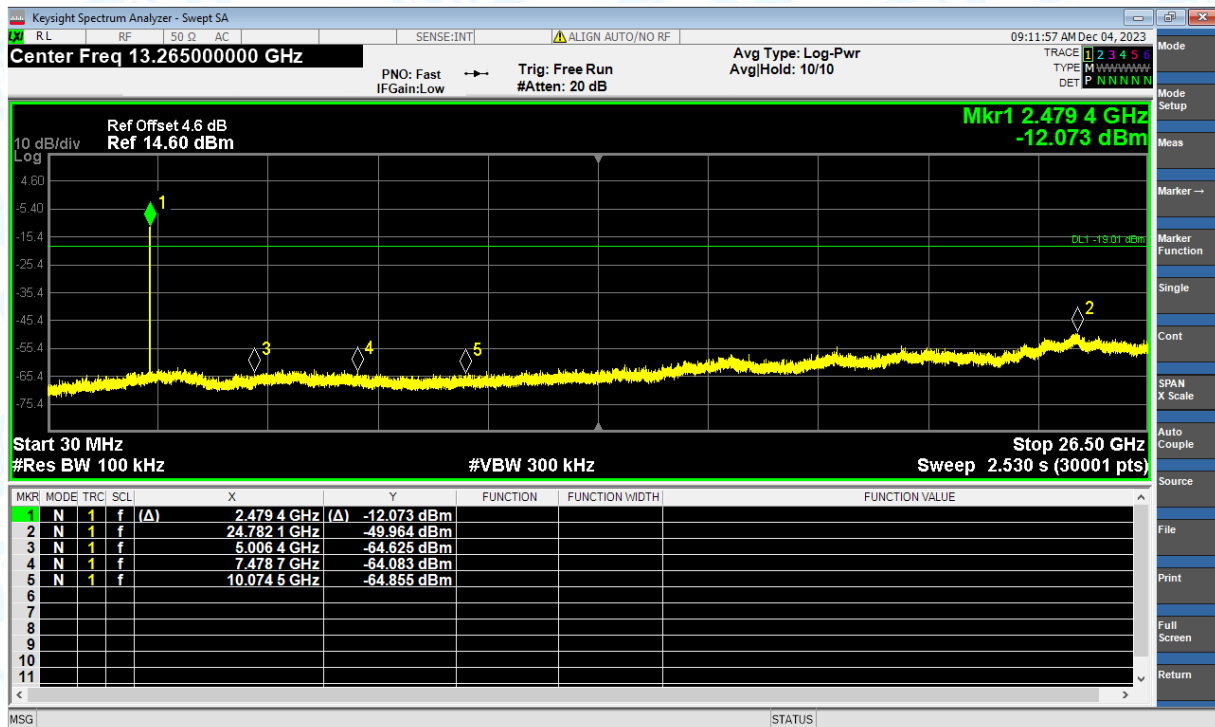
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

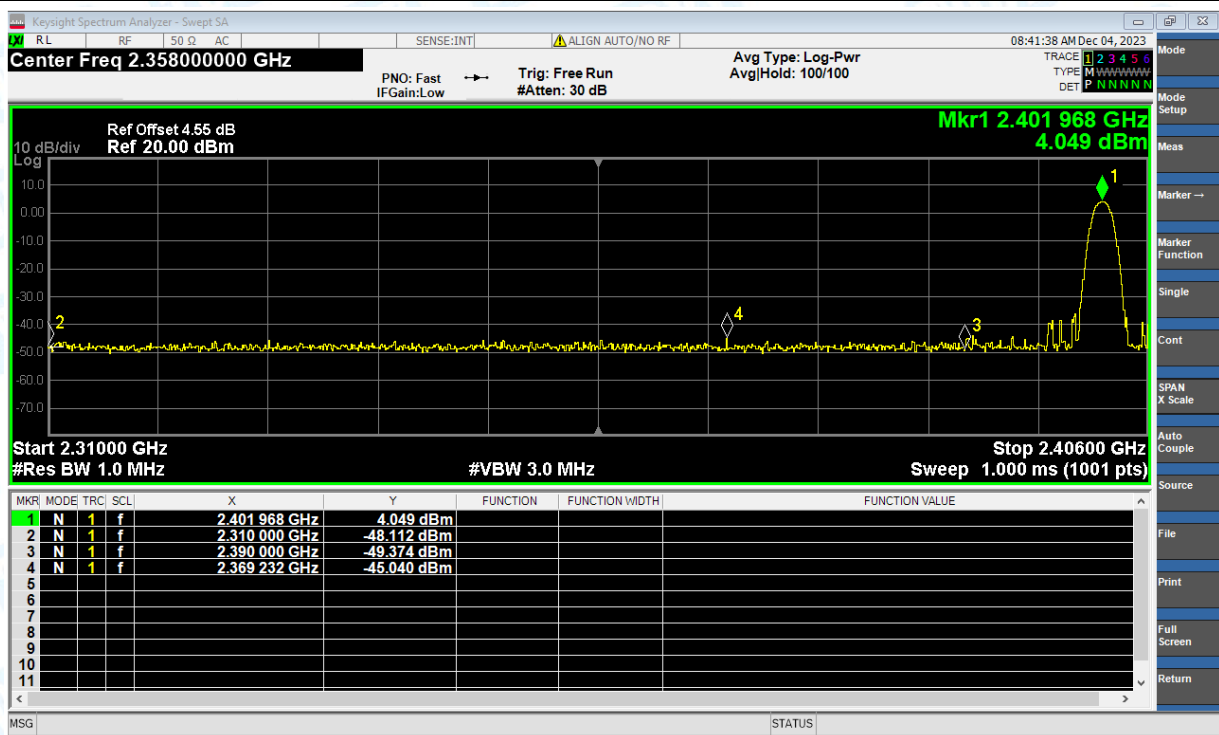


8. Restrict Band

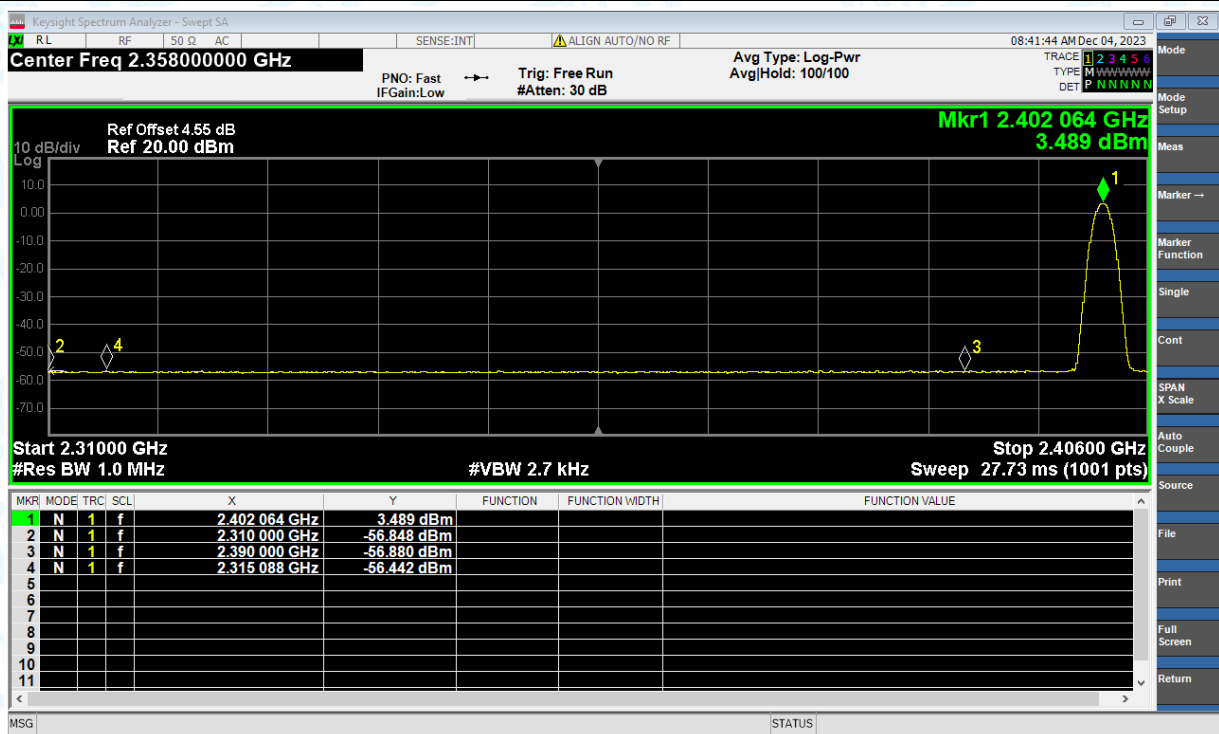
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-48.11	3.55	50.7	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.85	3.55	41.96	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2369.232	-45.04	3.55	53.77	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2315.088	-56.44	3.55	42.37	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-48.21	3.55	50.6	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-56.99	3.55	41.82	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-47.78	3.55	51.03	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-56.82	3.55	41.99	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2485.36	-40.64	3.55	58.17	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2493.304	-56.12	3.55	42.69	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-46.4	3.55	52.41	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-56.99	3.55	41.82	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-48.52	3.55	50.29	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-57.12	3.55	41.69	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310.864	-44.58	3.55	54.23	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2316.144	-56.52	3.55	42.29	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-47.88	3.55	50.93	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-57.19	3.55	41.62	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-46.79	3.55	52.02	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-56.92	3.55	41.89	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2484.352	-41.71	3.55	57.1	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2486.368	-56.2	3.55	42.61	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-48.08	3.55	50.73	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-56.8	3.55	42.01	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-47.97	3.55	50.84	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.92	3.55	41.89	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2389.584	-44.23	3.55	54.58	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2359.44	-56.31	3.55	42.5	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-47.25	3.55	51.56	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-56.68	3.55	42.13	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-46.86	3.55	51.95	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-55.91	3.55	42.9	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2486.152	-42.08	3.55	56.73	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2484.4	-55.76	3.55	43.05	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-47.4	3.55	51.41	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-56.71	3.55	42.1	Average	54	Pass

Test Graphs

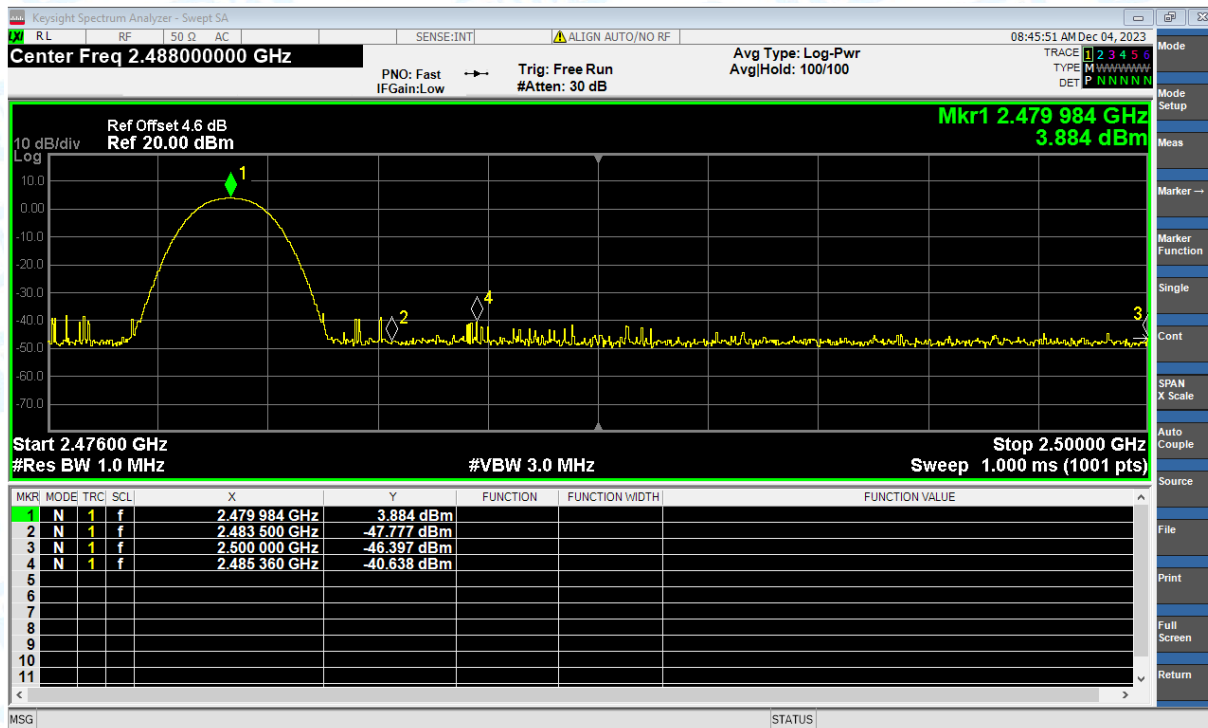
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



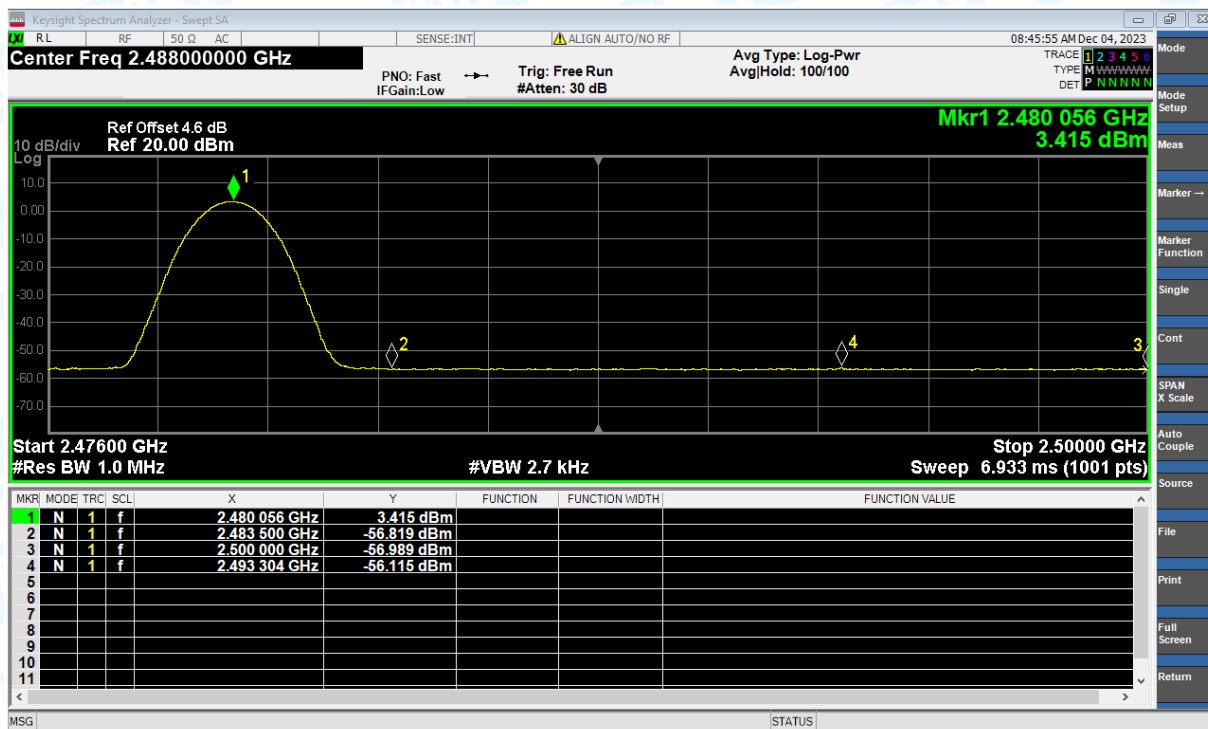
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



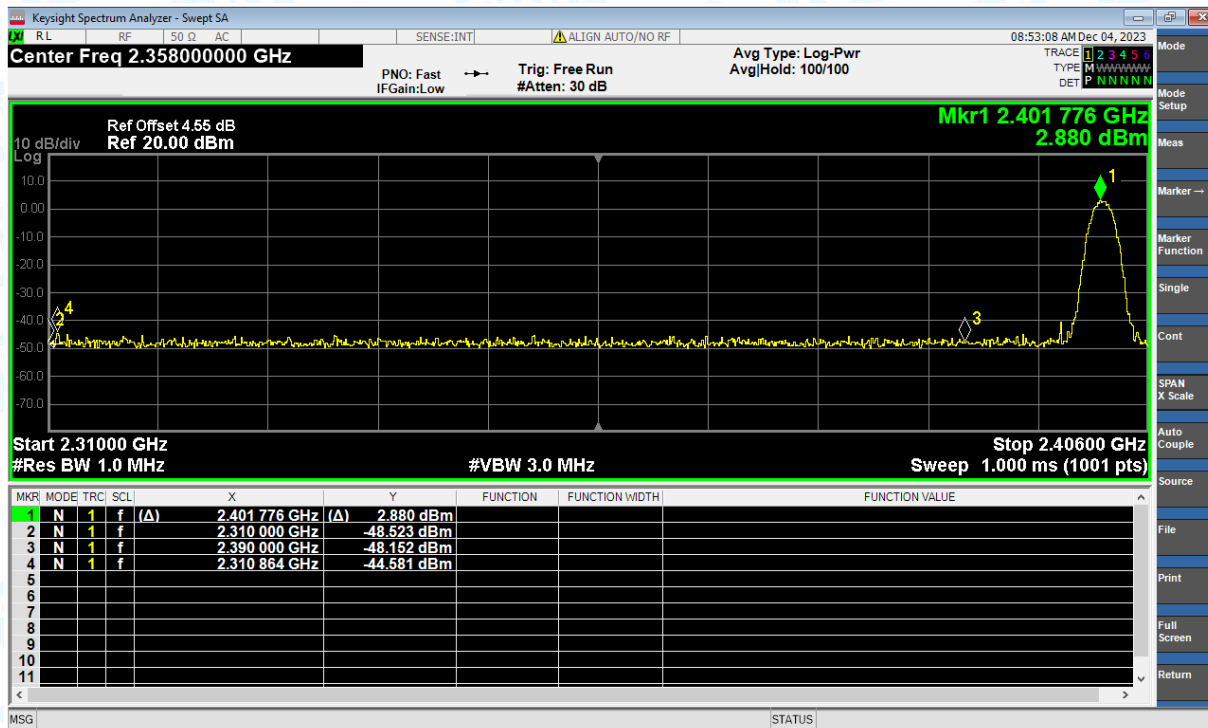
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



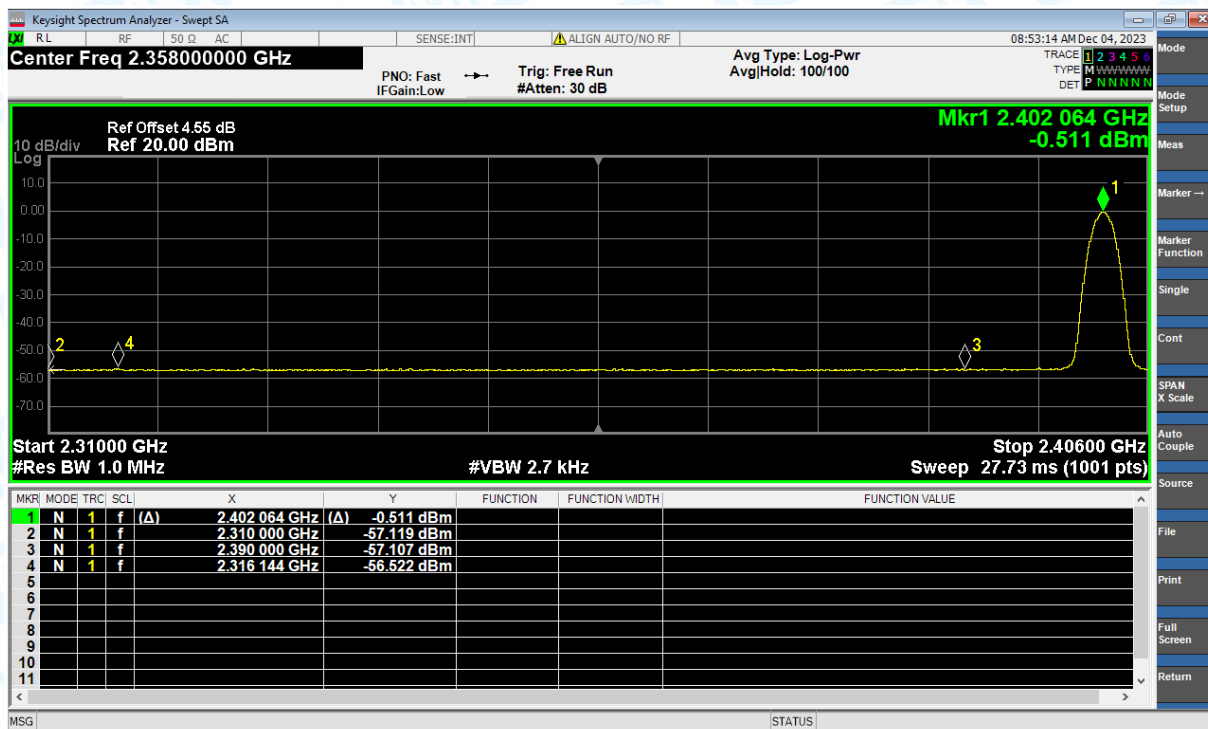
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



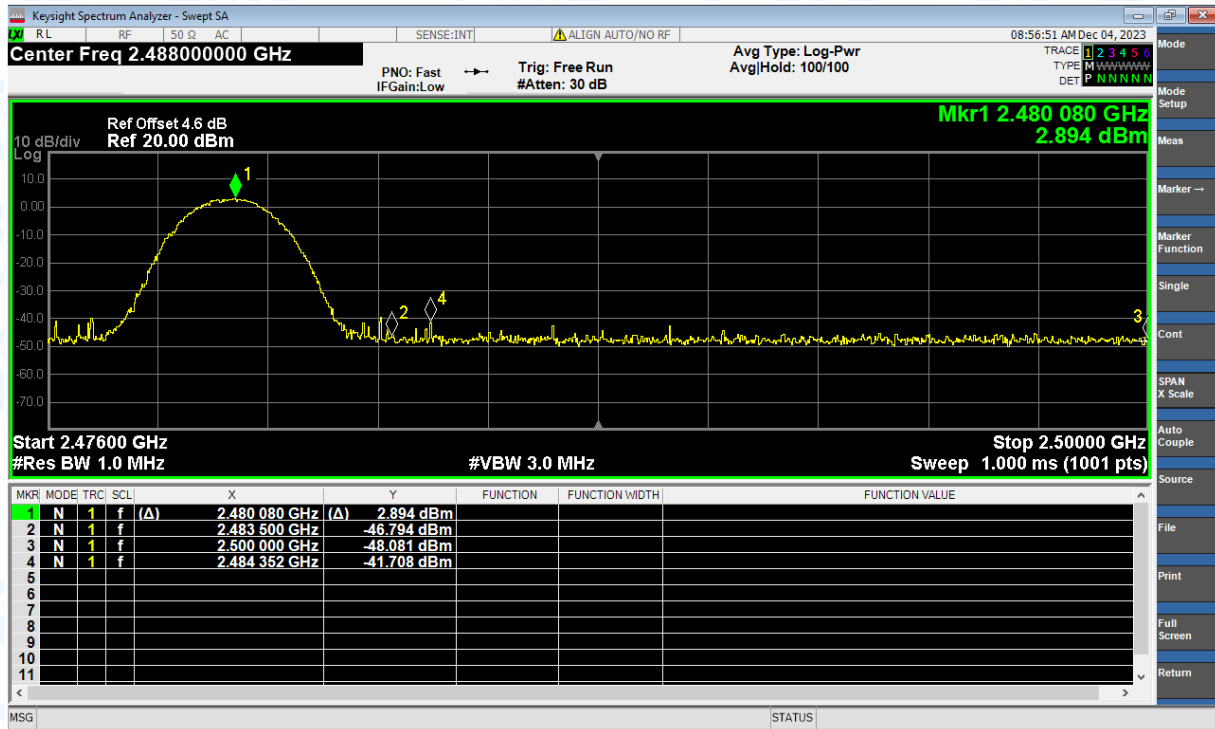
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



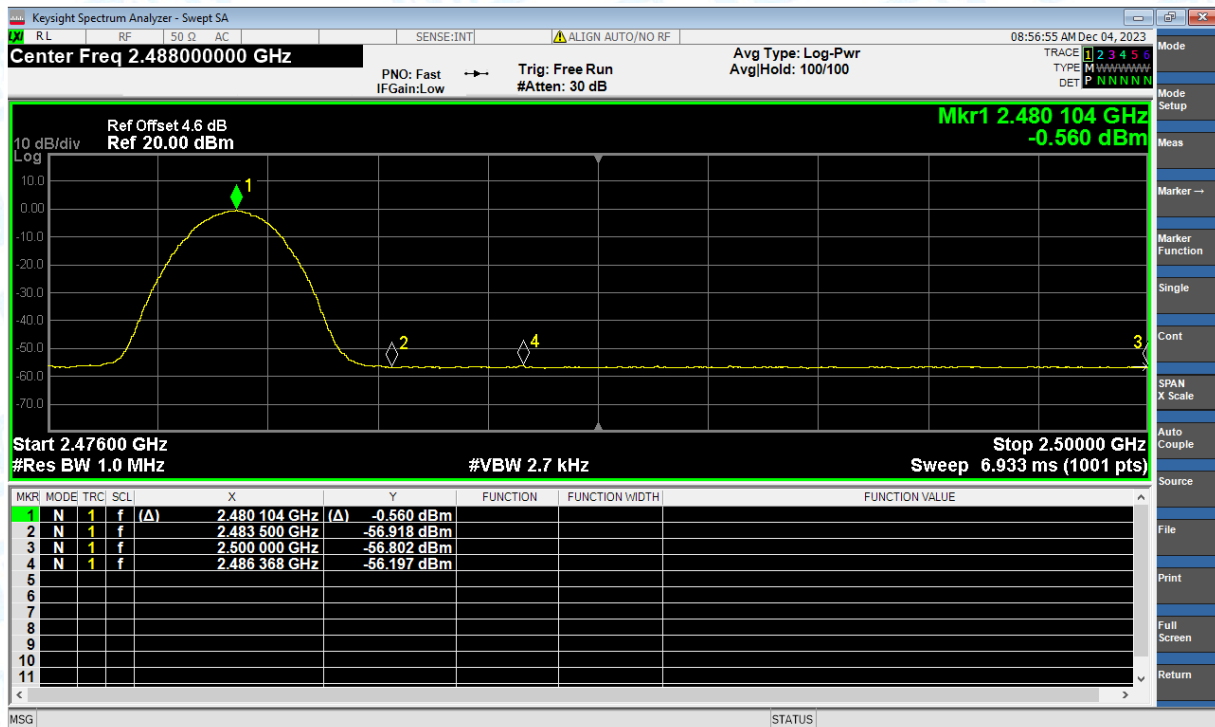
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



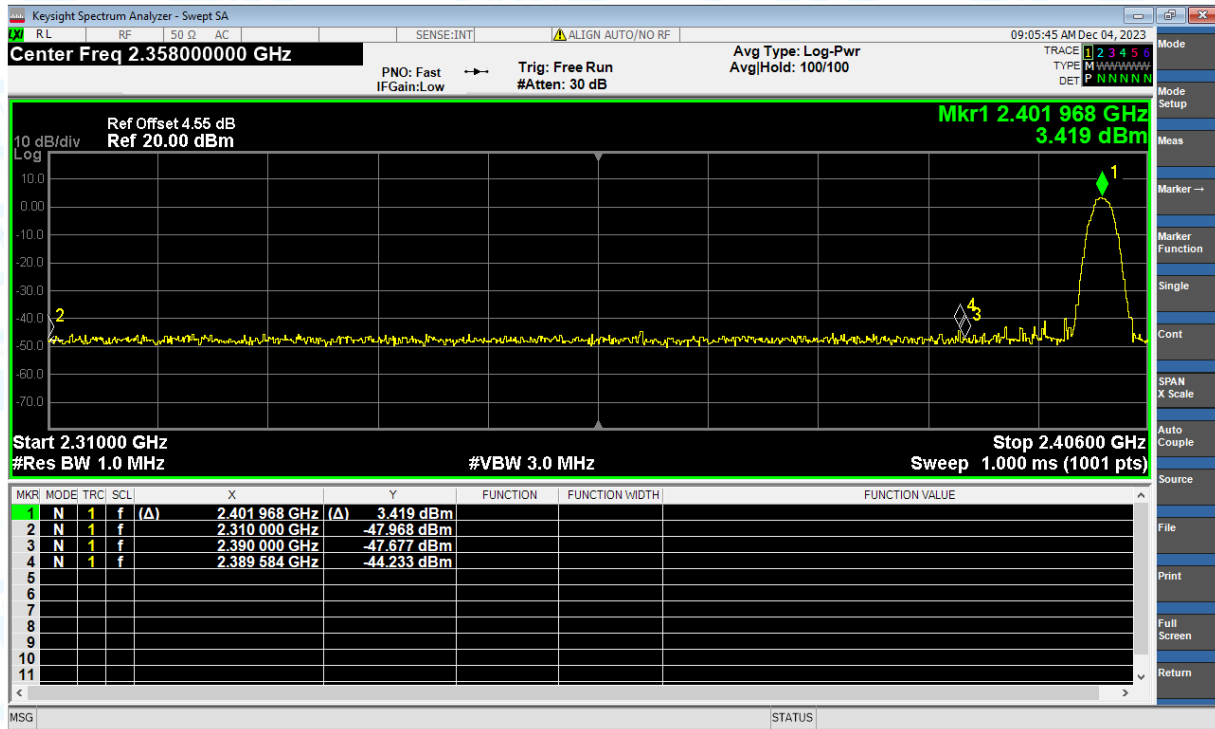
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



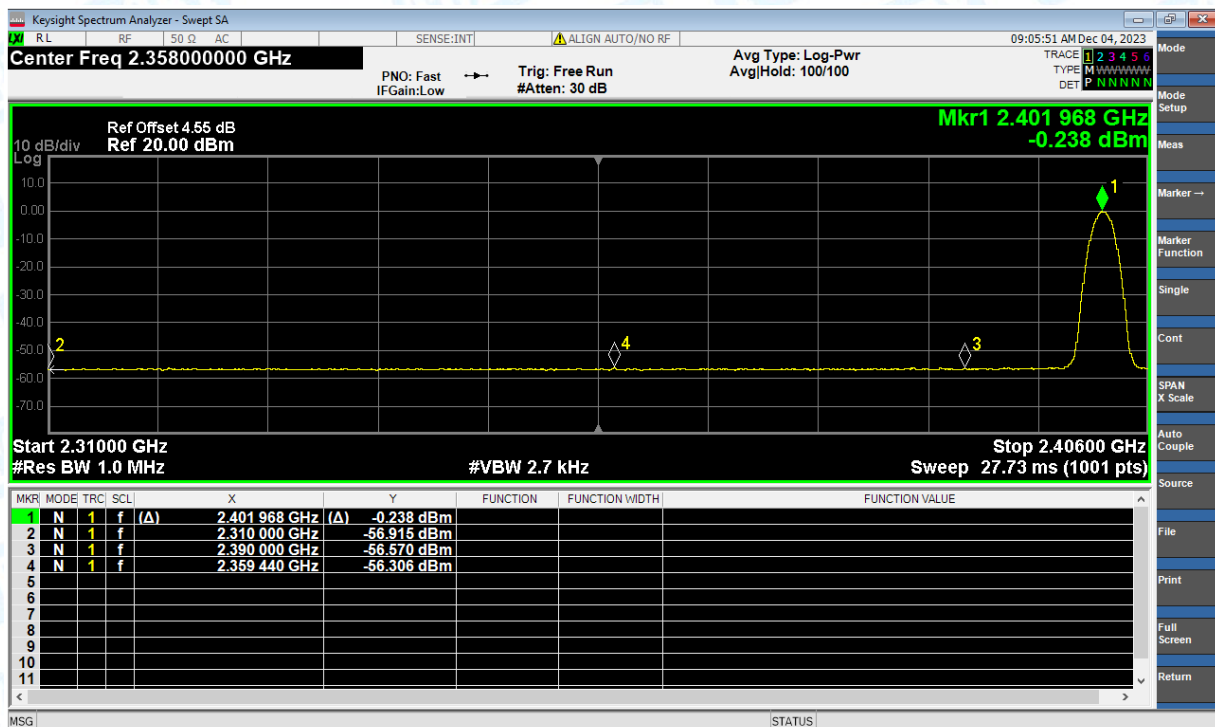
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



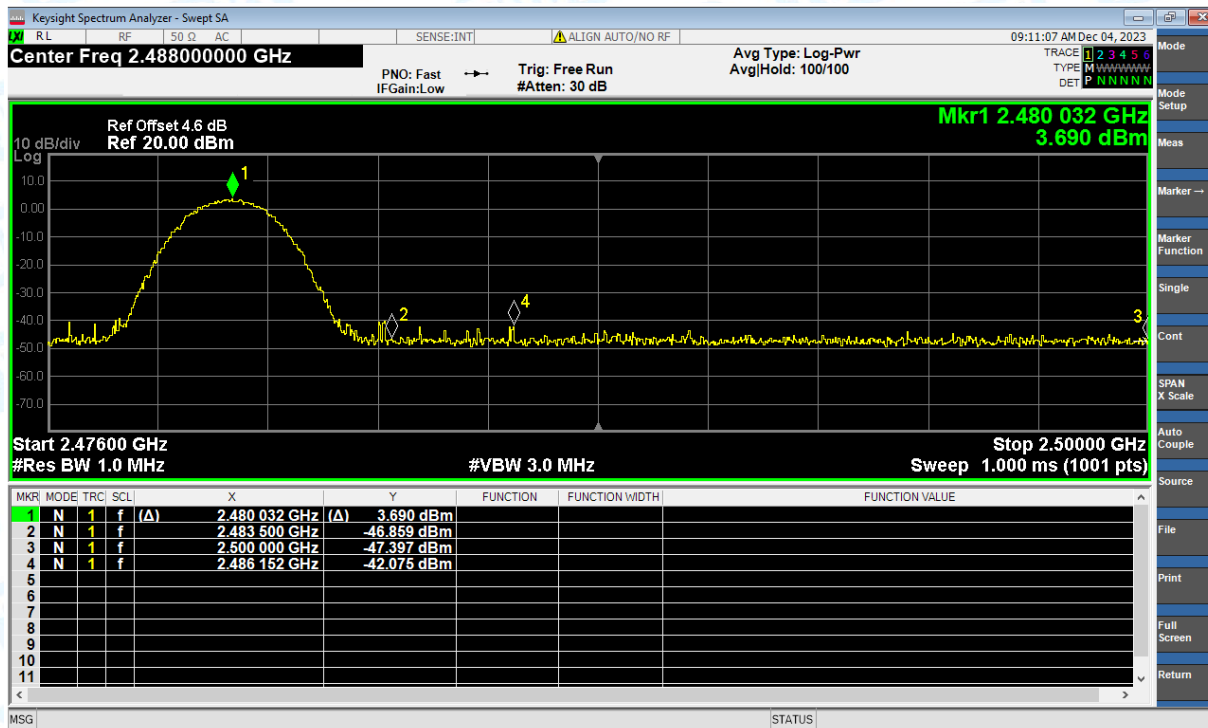
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



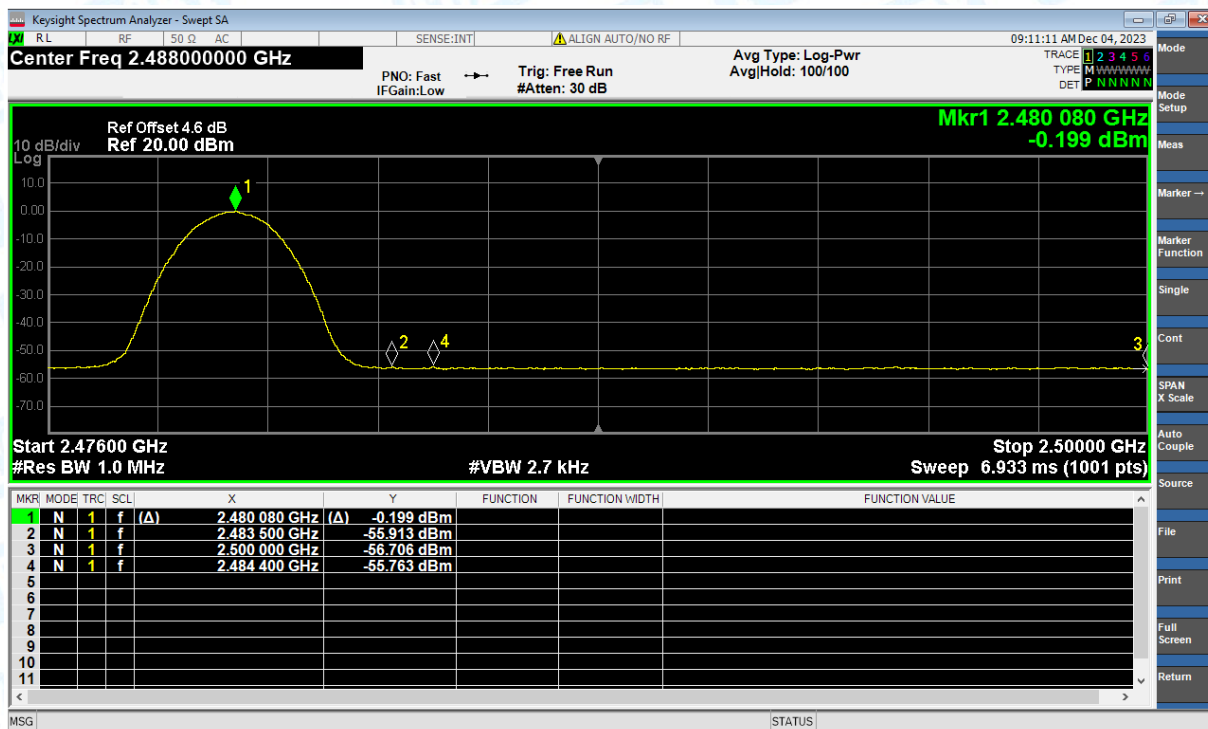
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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



9. Carrier Frequencies Separation

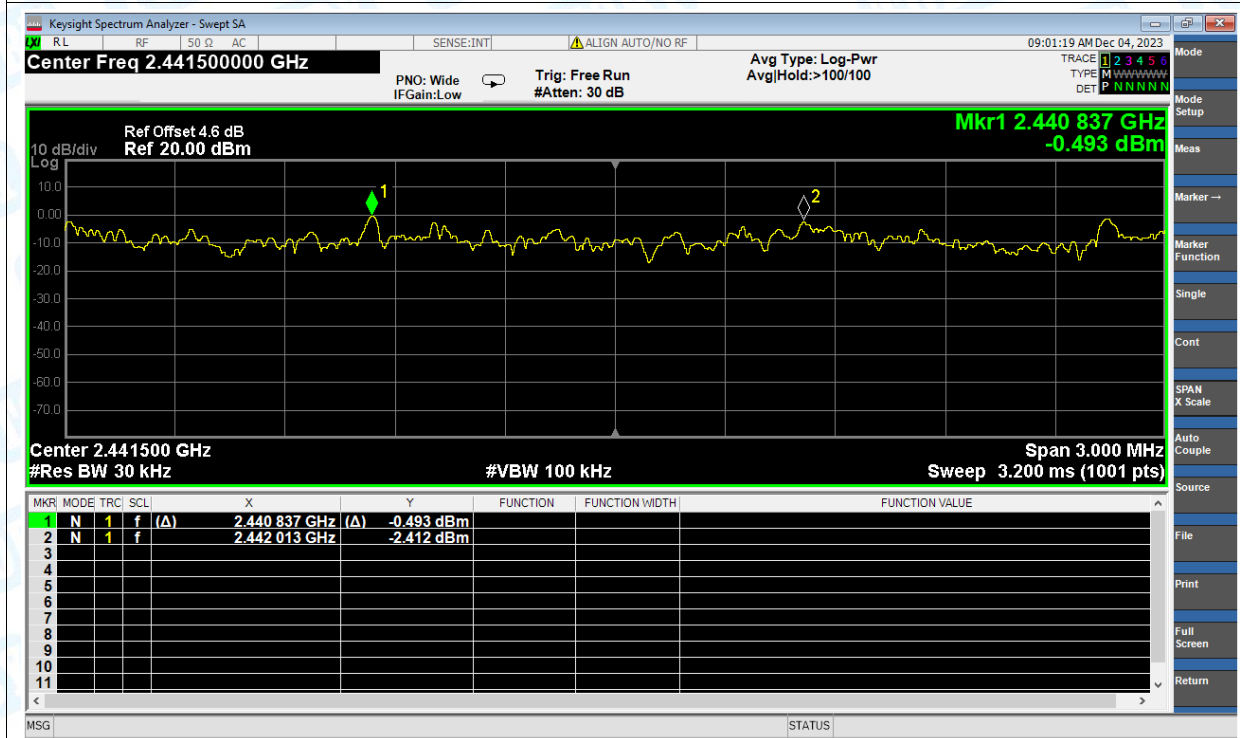
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.981	2441.902	0.921	0.553	Pass
NVNT	2-DH1	Ant1	2440.837	2442.013	1.176	0.853	Pass
NVNT	3-DH1	Ant1	2440.852	2442.169	1.317	0.847	Pass

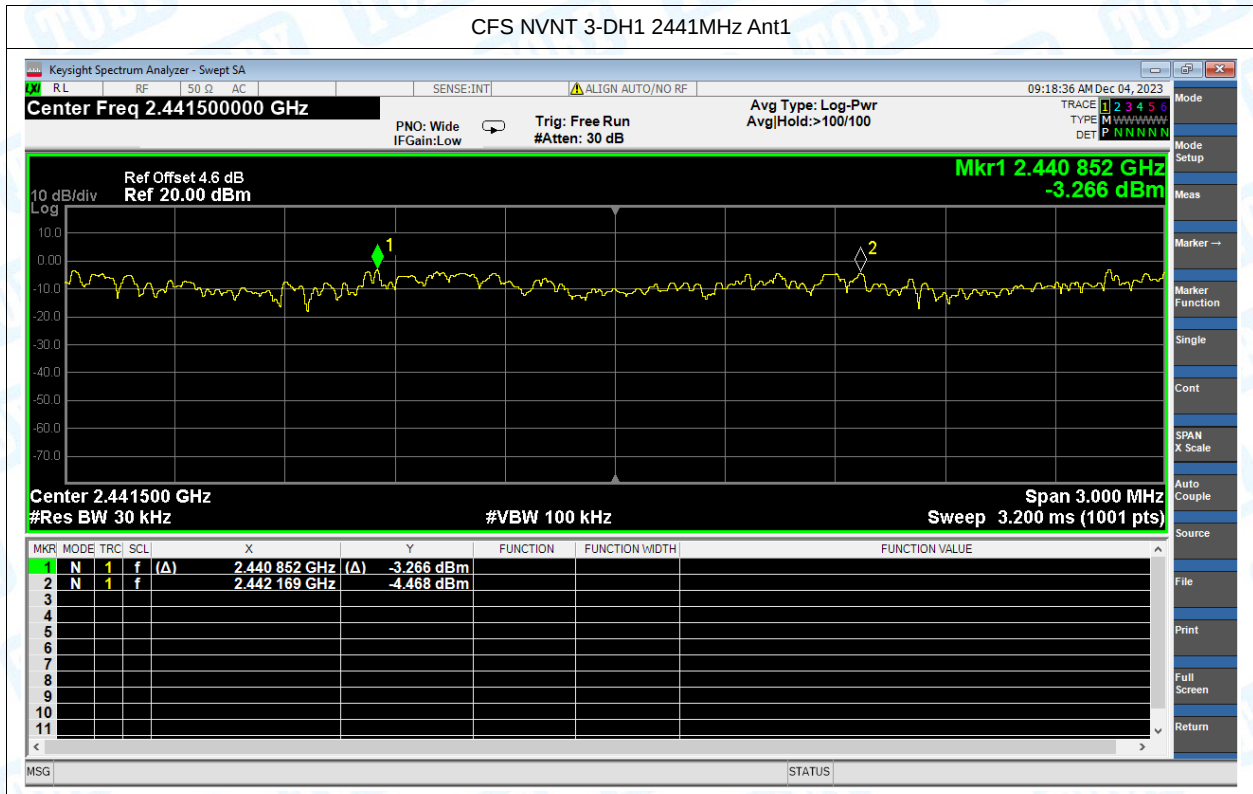
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



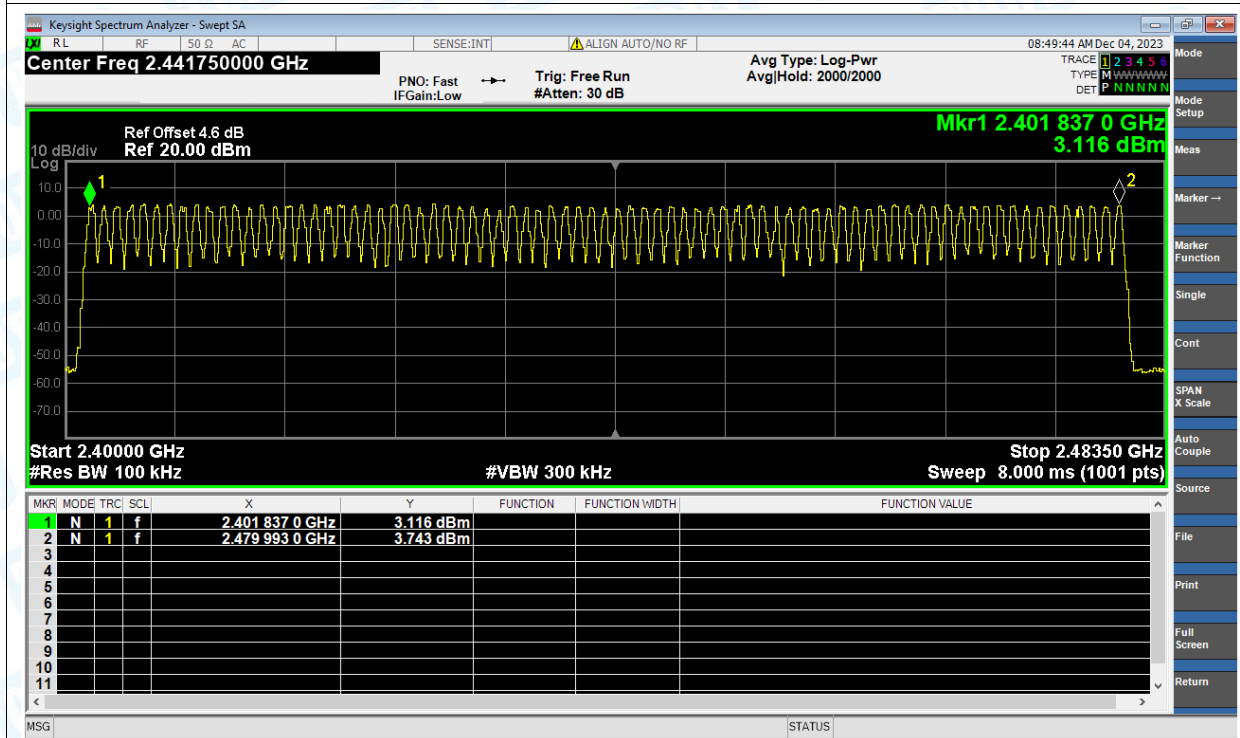


10. Number of Hopping Channel

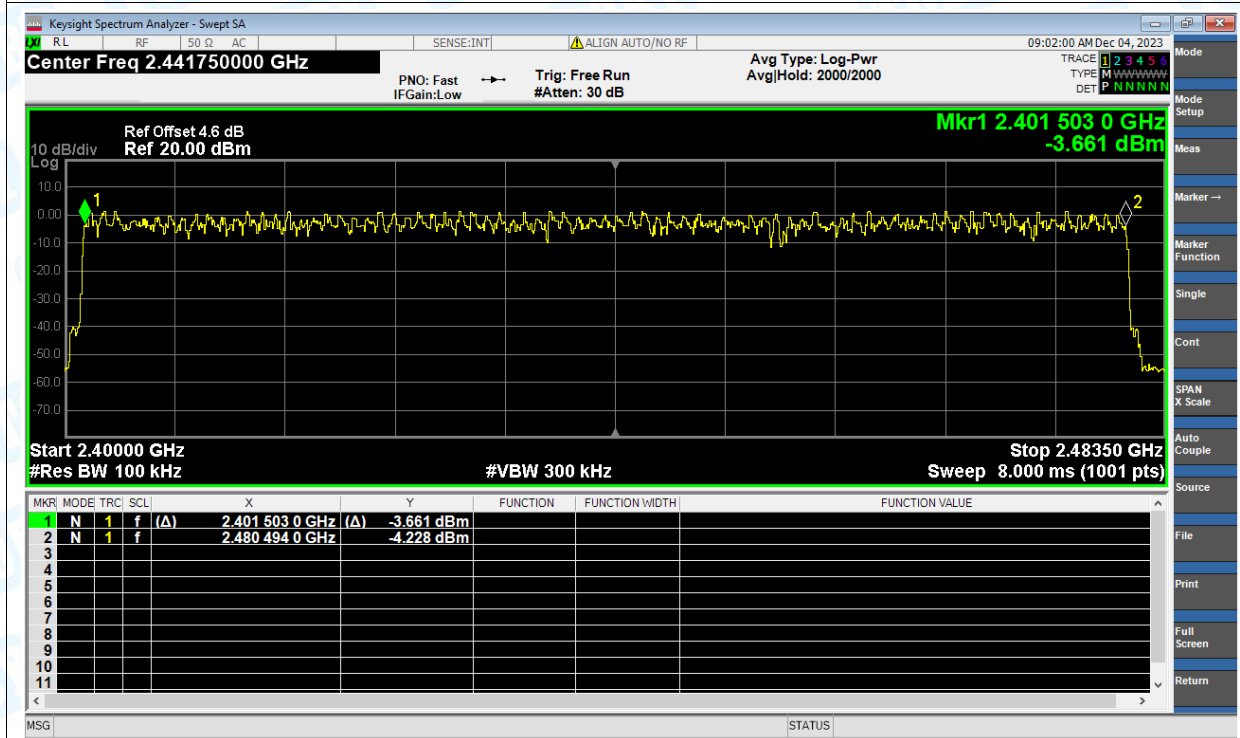
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

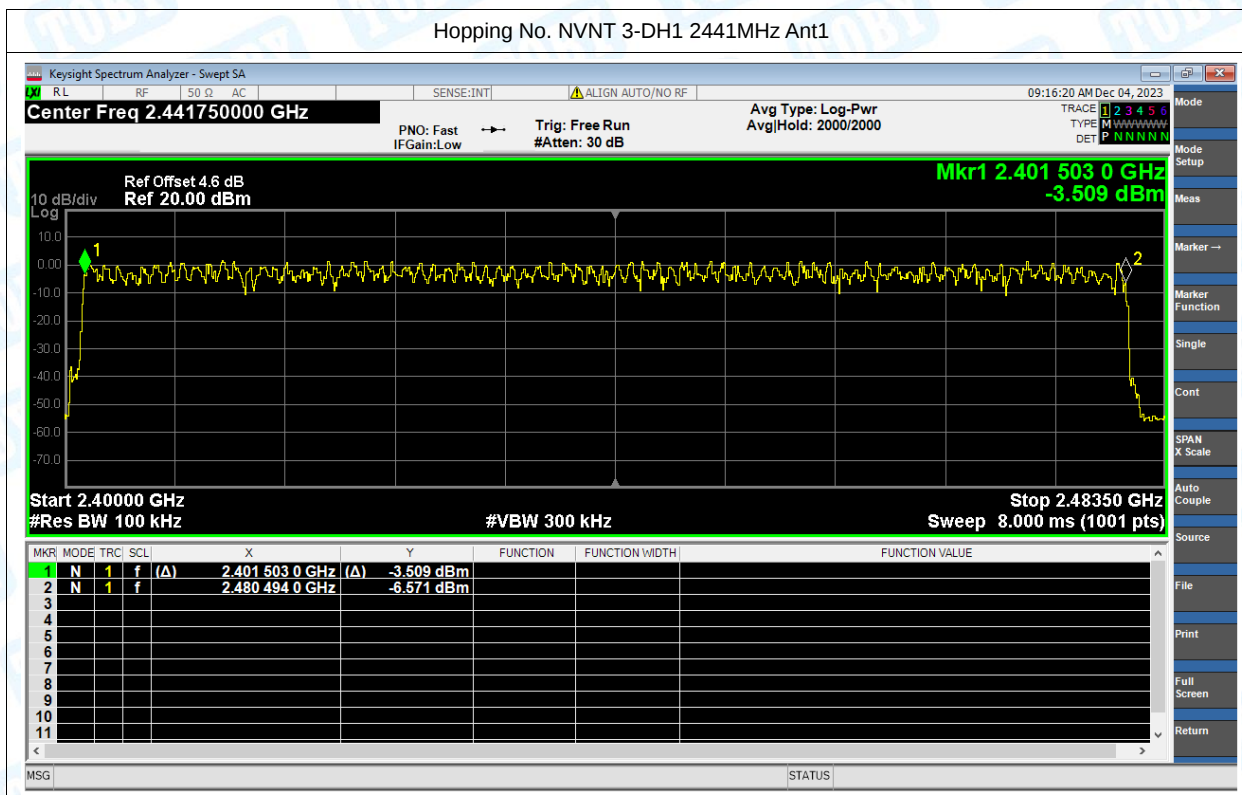
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



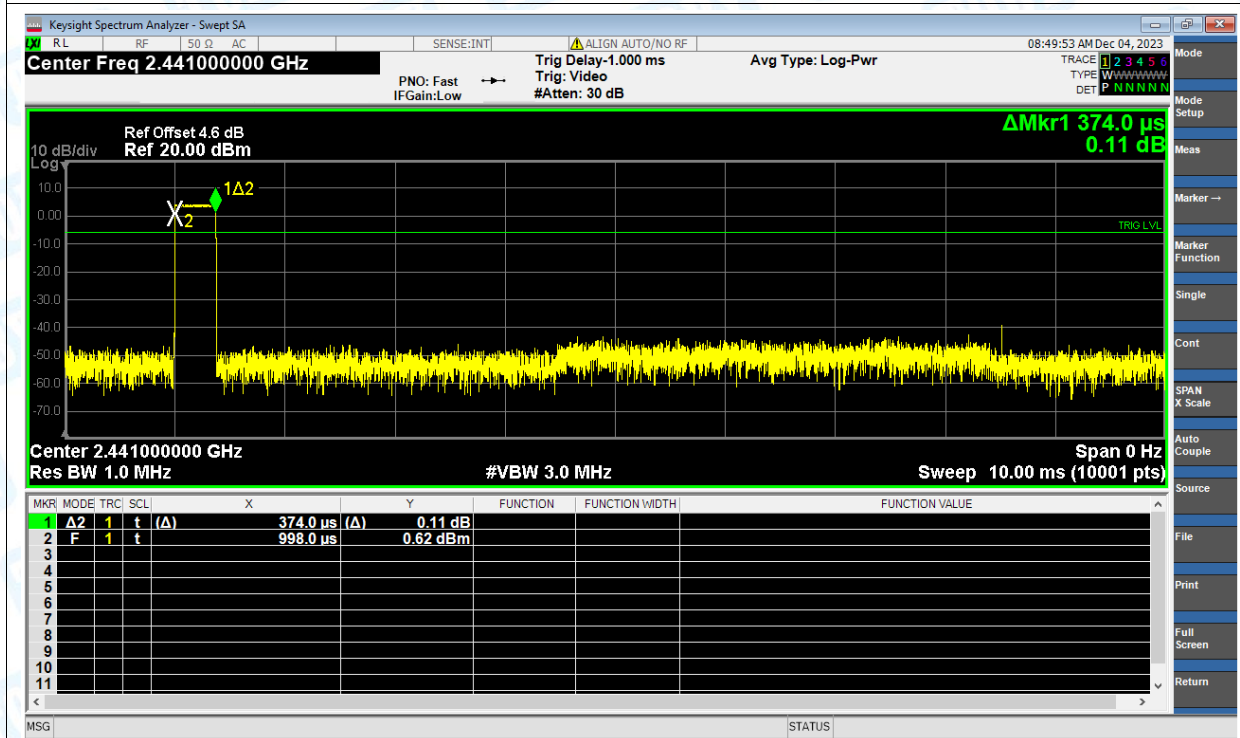


11. Dwell Time

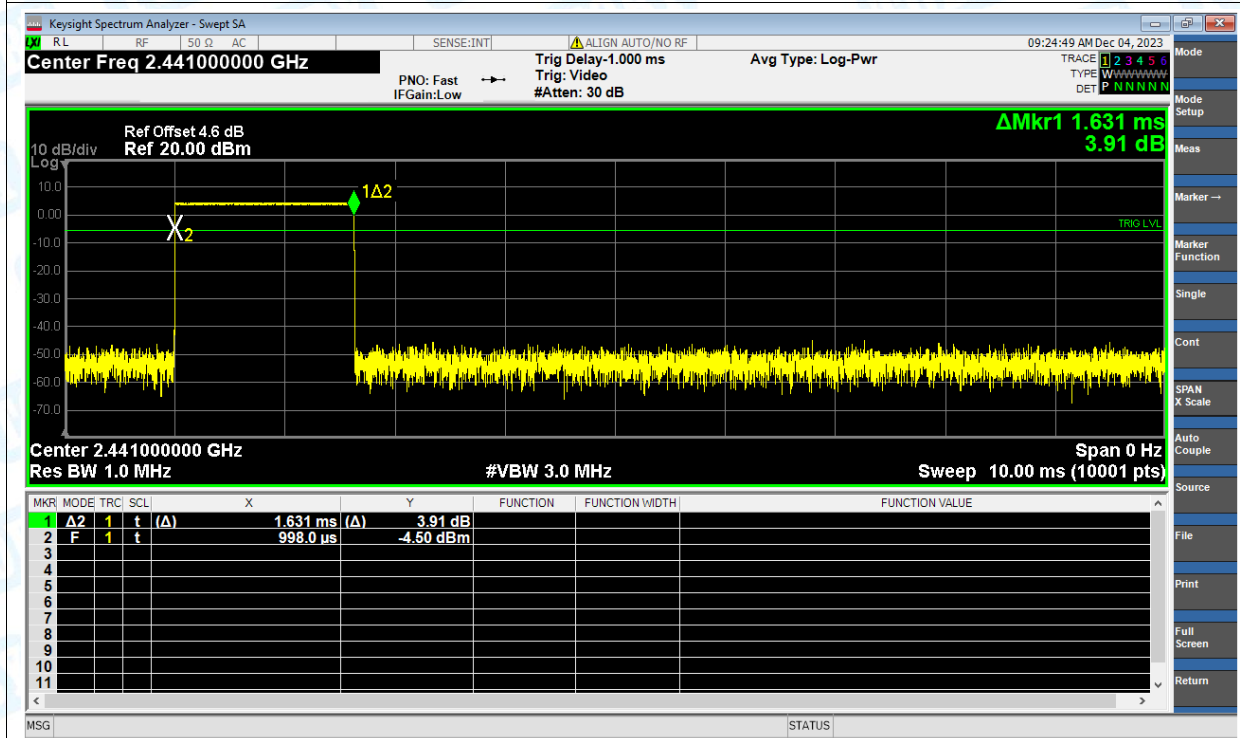
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.374	119.68	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.631	260.96	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.879	307.093	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.383	122.56	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.635	261.6	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.883	307.52	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.383	122.56	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.634	261.44	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.885	307.733	31600	400	Pass

Test Graphs

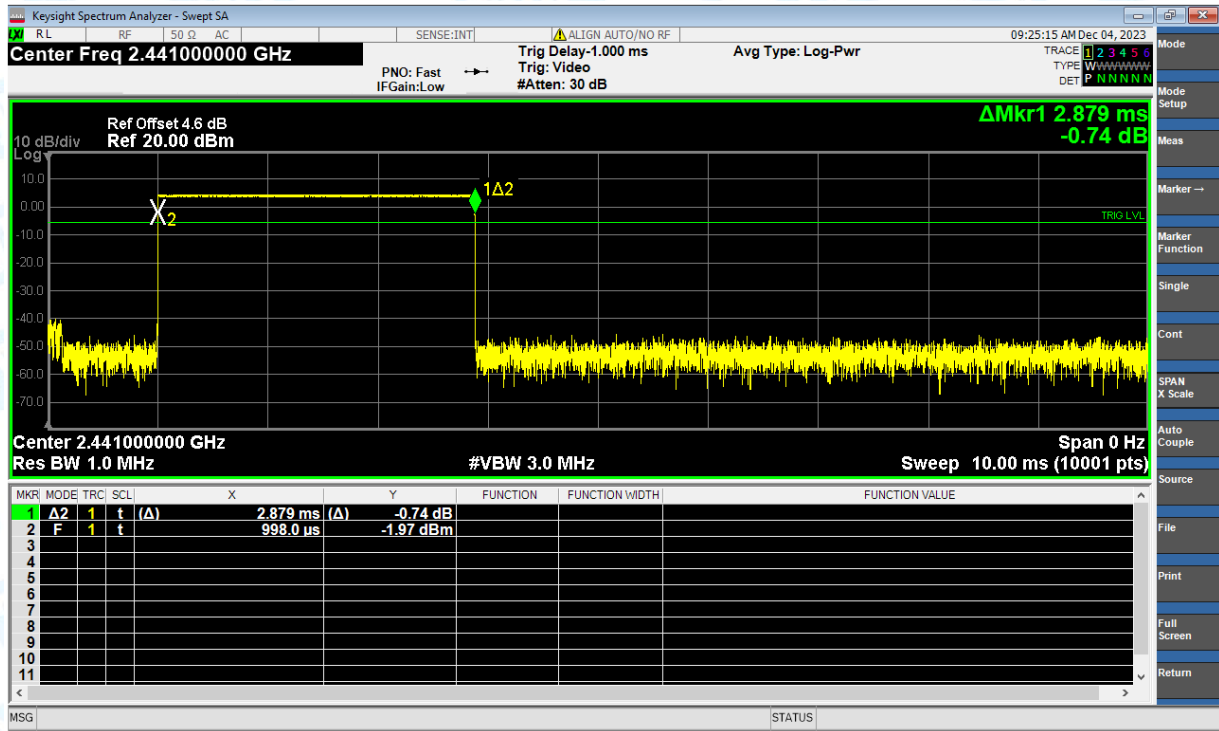
Dwell NVNT 1-DH1 2441MHz Ant1



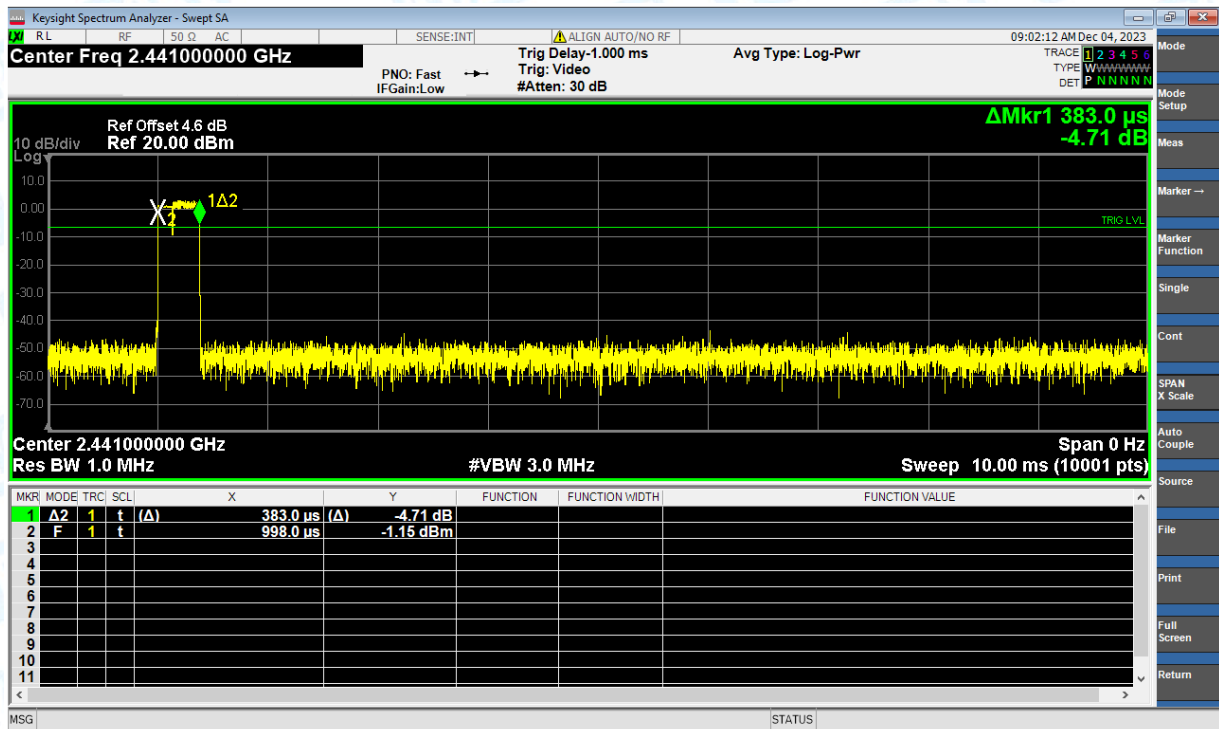
Dwell NVNT 1-DH3 2441MHz Ant1



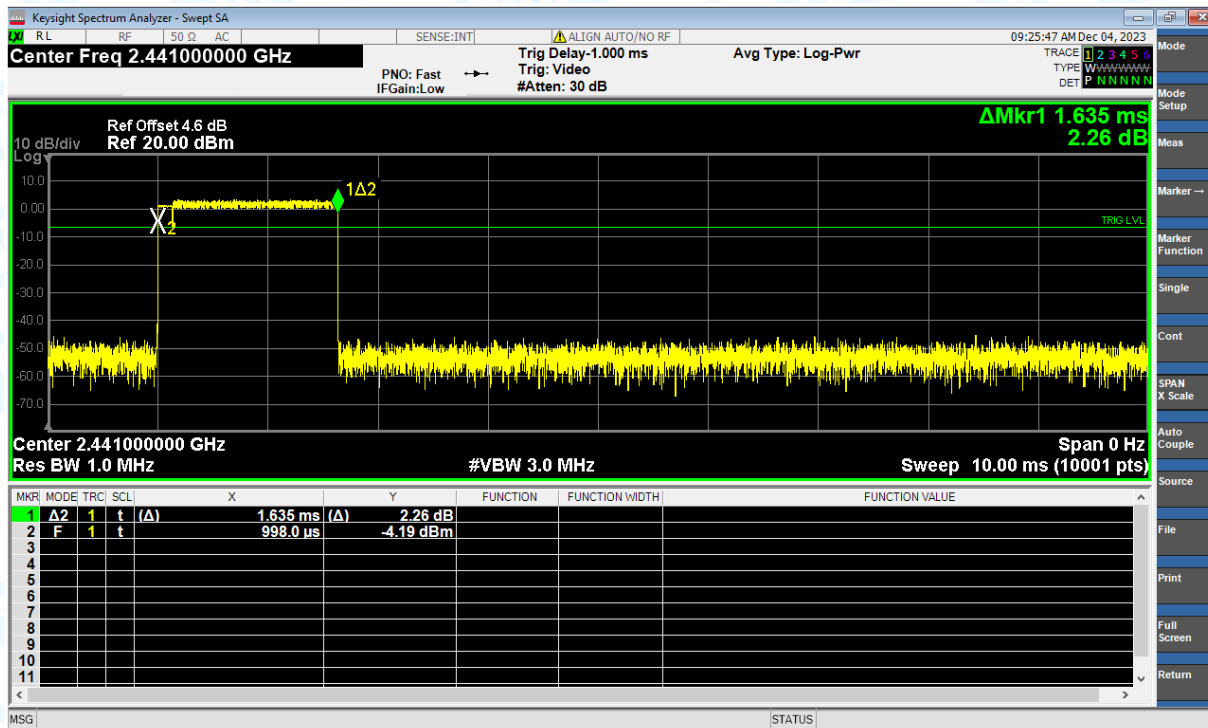
Dwell NVNT 1-DH5 2441MHz Ant1



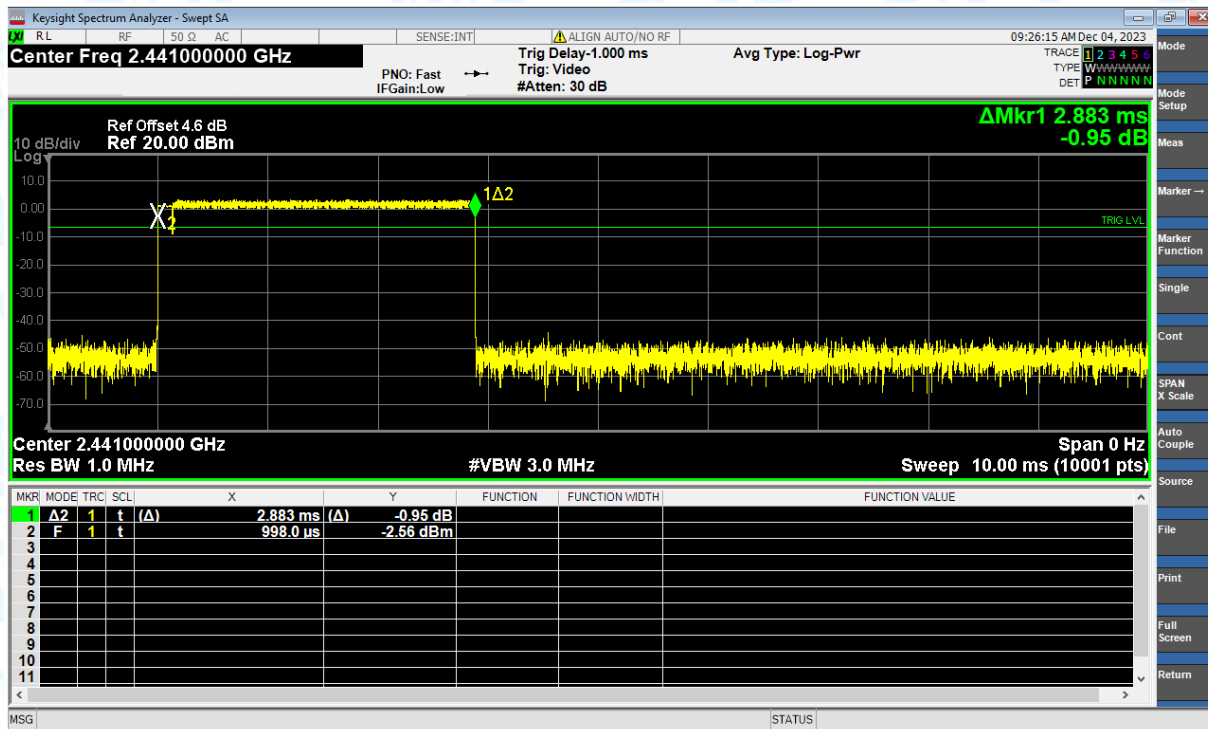
Dwell NVNT 2-DH1 2441MHz Ant1



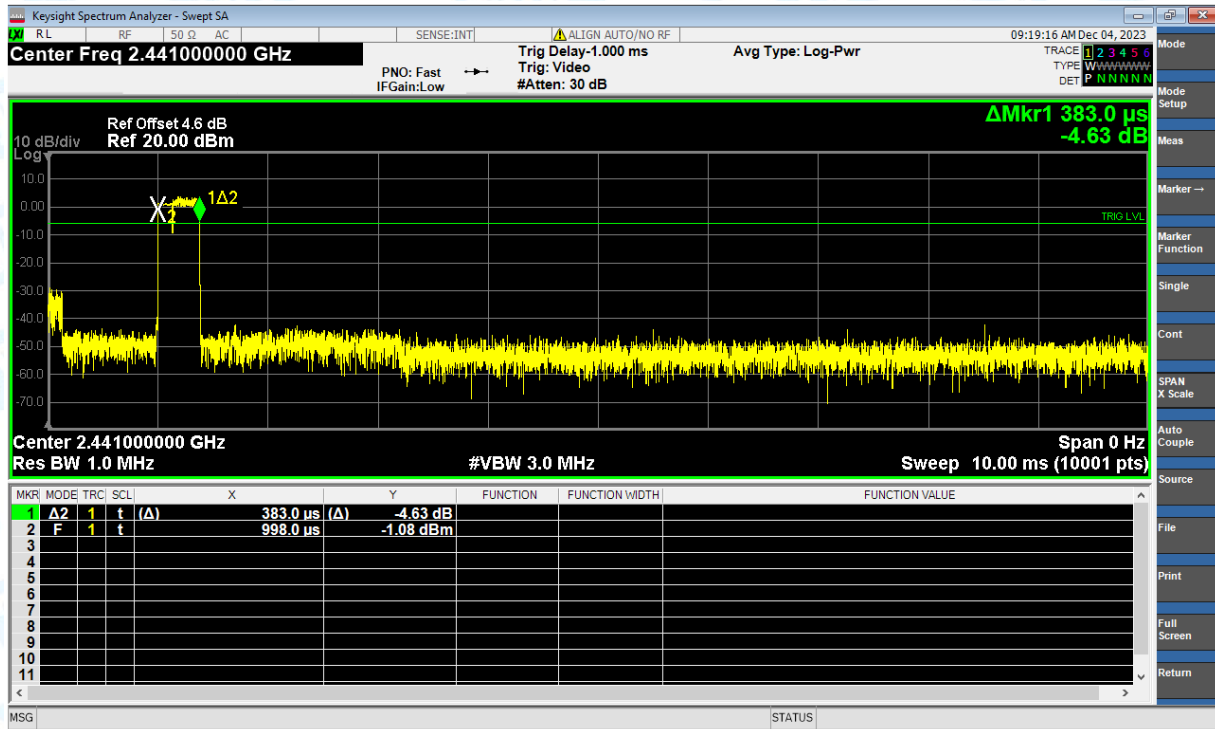
Dwell NVNT 2-DH3 2441MHz Ant1



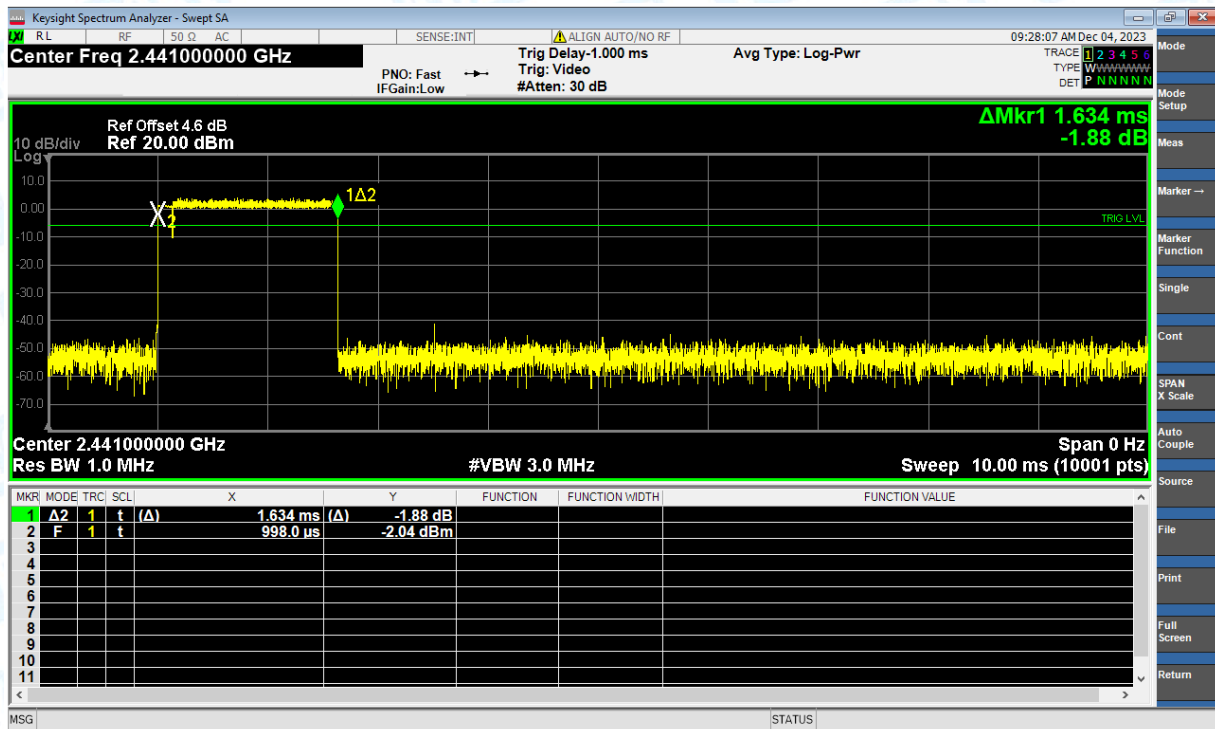
Dwell NVNT 2-DH5 2441MHz Ant1

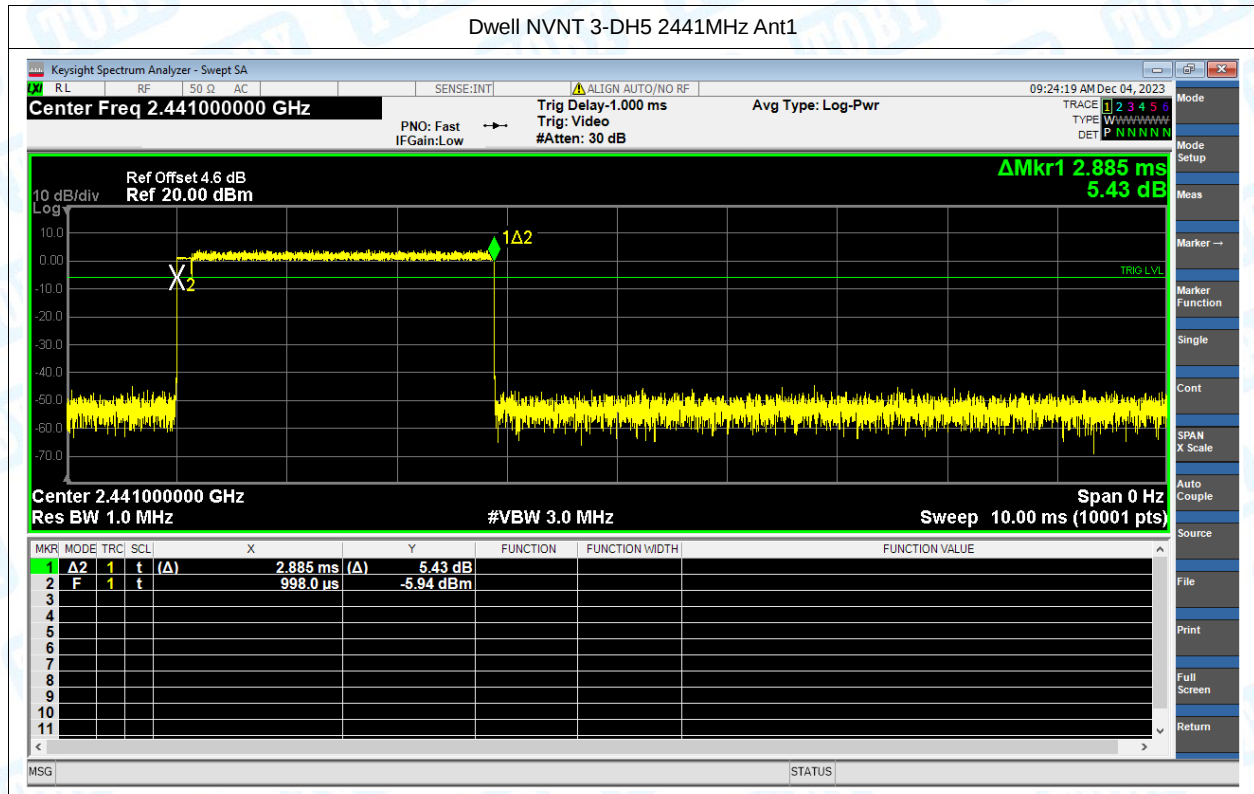


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





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