

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	Intelligent separated call wristband
Test Model:	D11
Sample ID:	HC-C-202412-0181-01-01
Environmental Conditions	
Temperature:	25.3℃
Relative Humidity:	48.2%
Test Voltage:	DC 3.8V
Test Engineer:	Dawson
Note: For a more detailed features description, please refer to the report TBR-C-202412-0181-17 The report only show the worst case data.	

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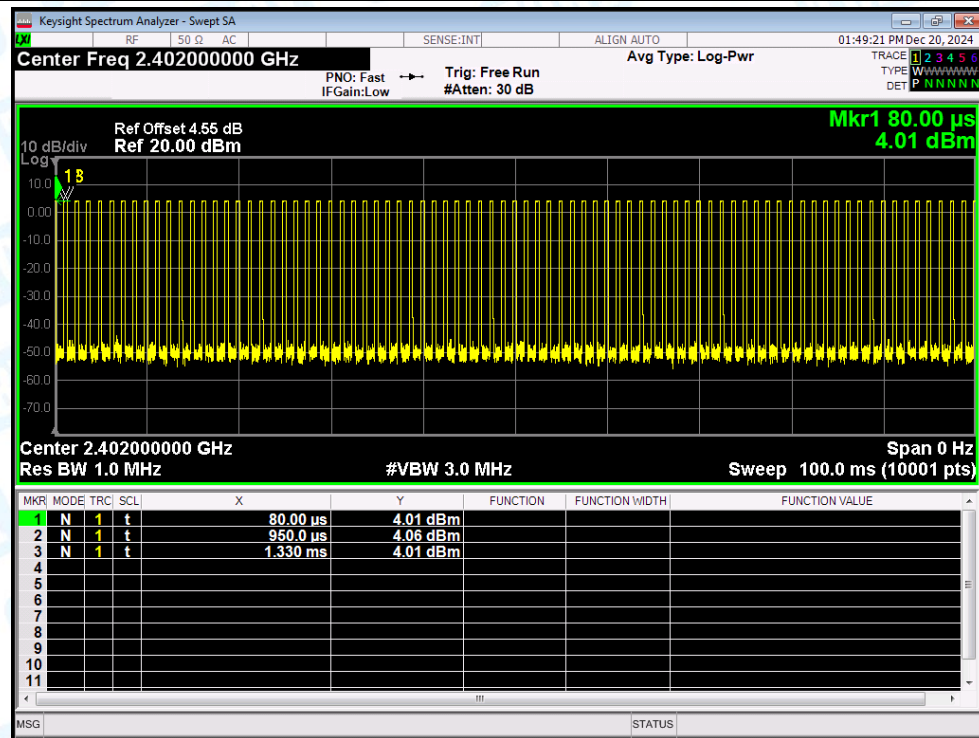
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1. Duty Cycle

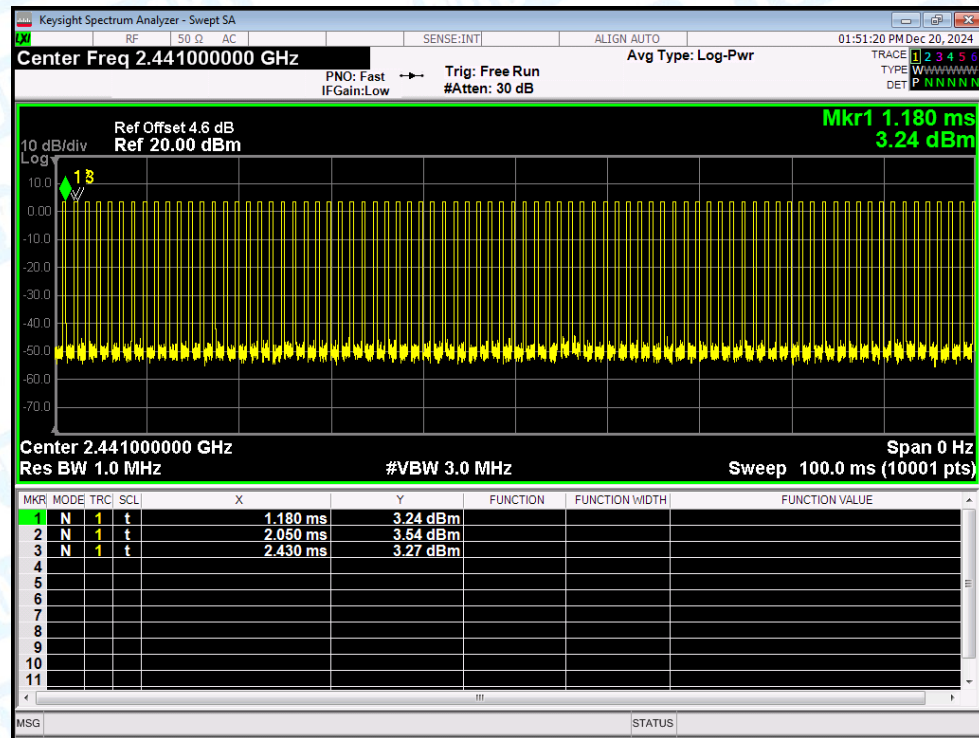
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2441	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2480	Ant1	32	4.95	2.5
NVNT	3-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2441	Ant1	32	4.95	2.5
NVNT	3-DH1	2480	Ant1	31.2	5.06	2.56

Test Graphs

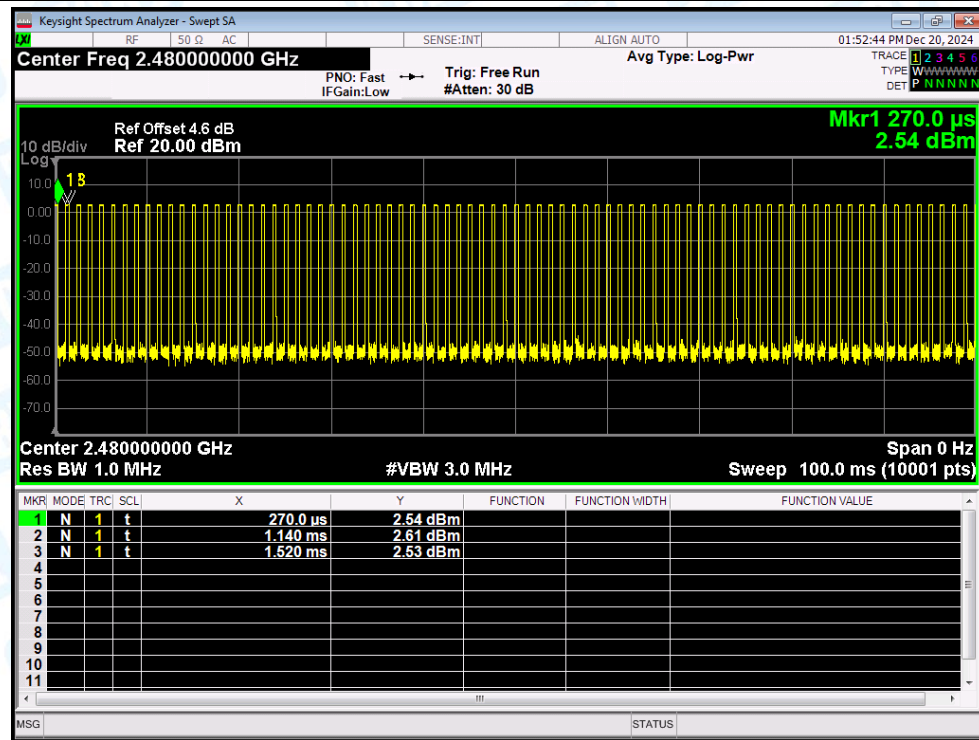
Duty Cycle NVNT 1-DH1 2402MHz Ant1



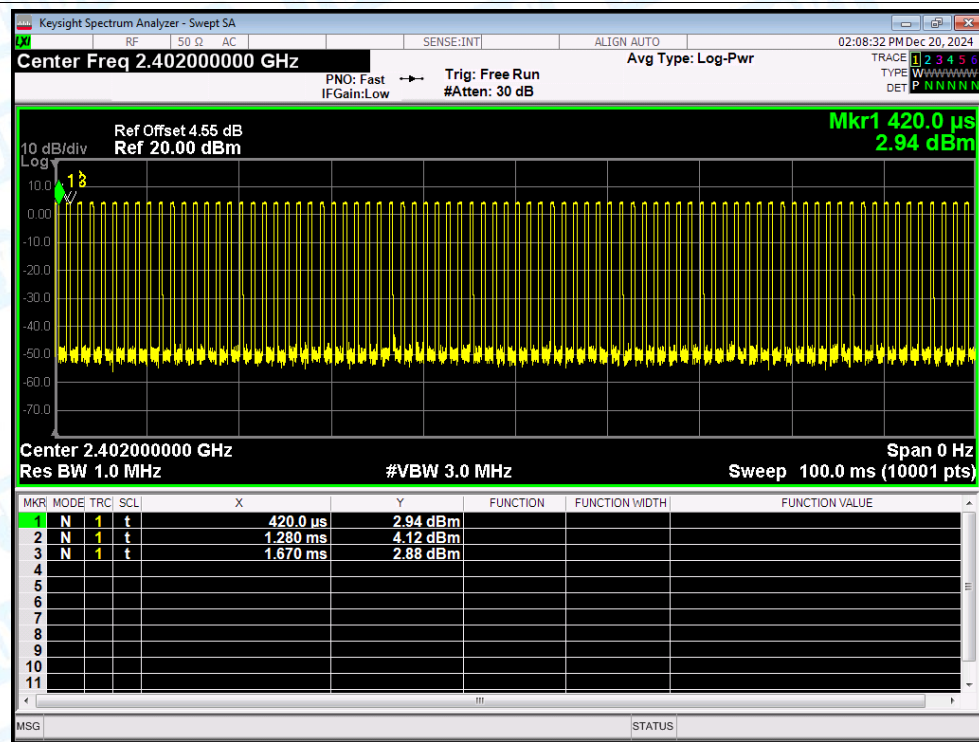
Duty Cycle NVNT 1-DH1 2441MHz Ant1



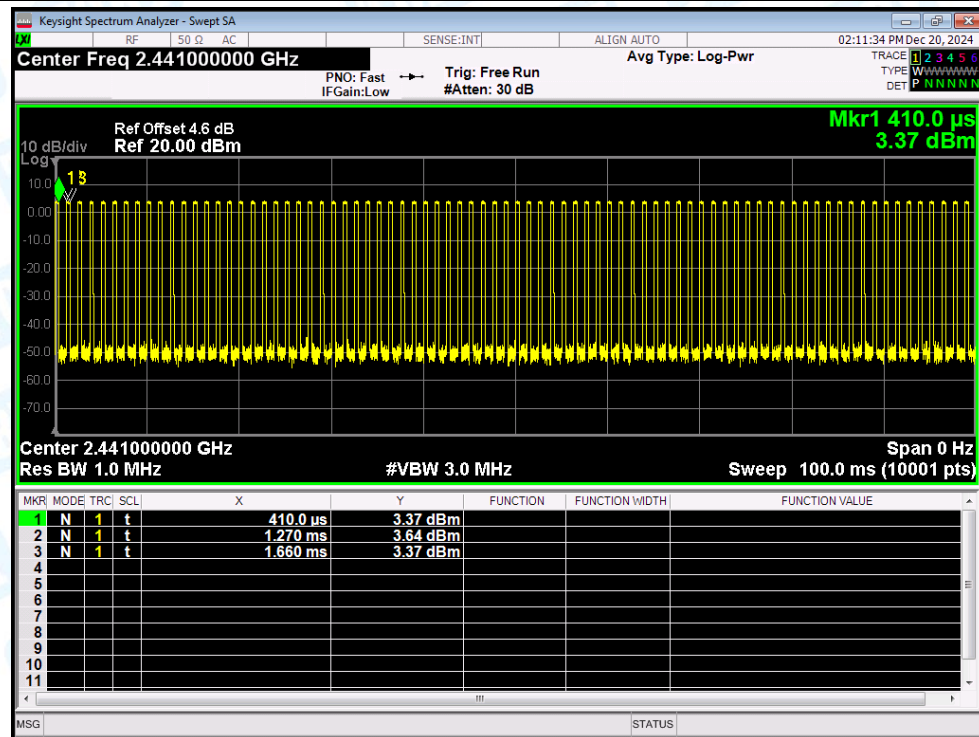
Duty Cycle NVNT 1-DH1 2480MHz Ant1



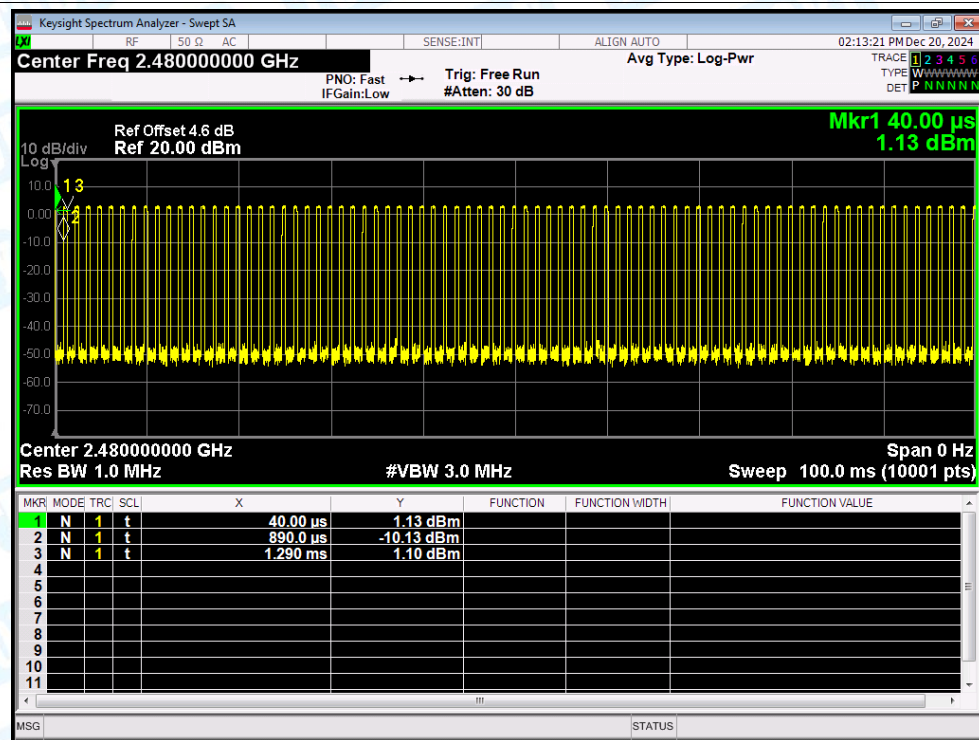
Duty Cycle NVNT 2-DH1 2402MHz Ant1



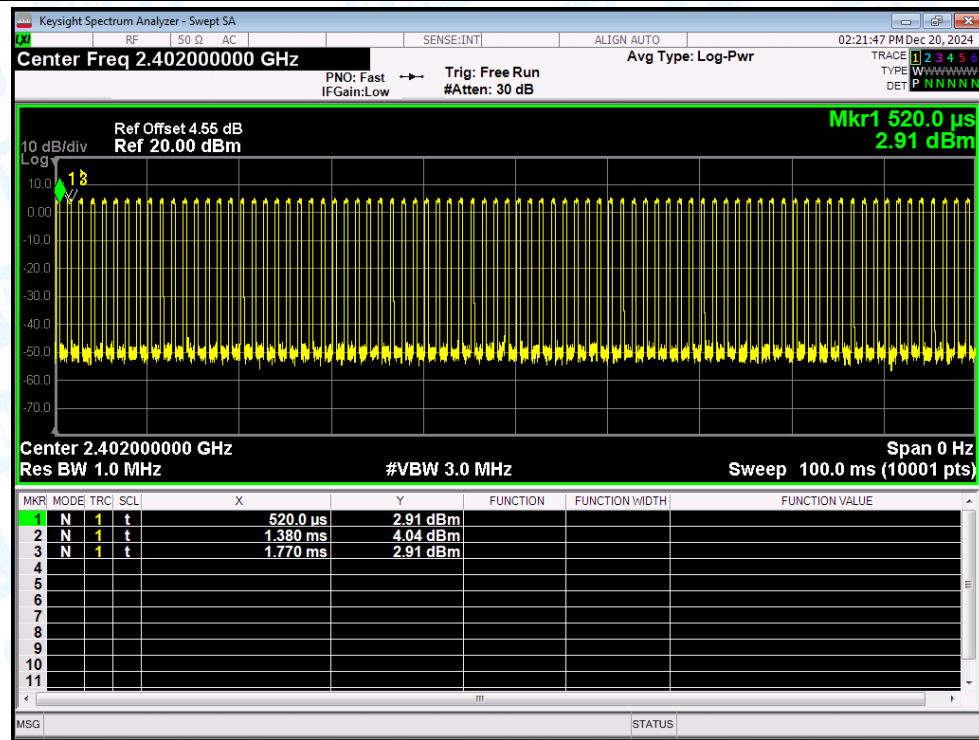
Duty Cycle NVNT 2-DH1 2441MHz Ant1



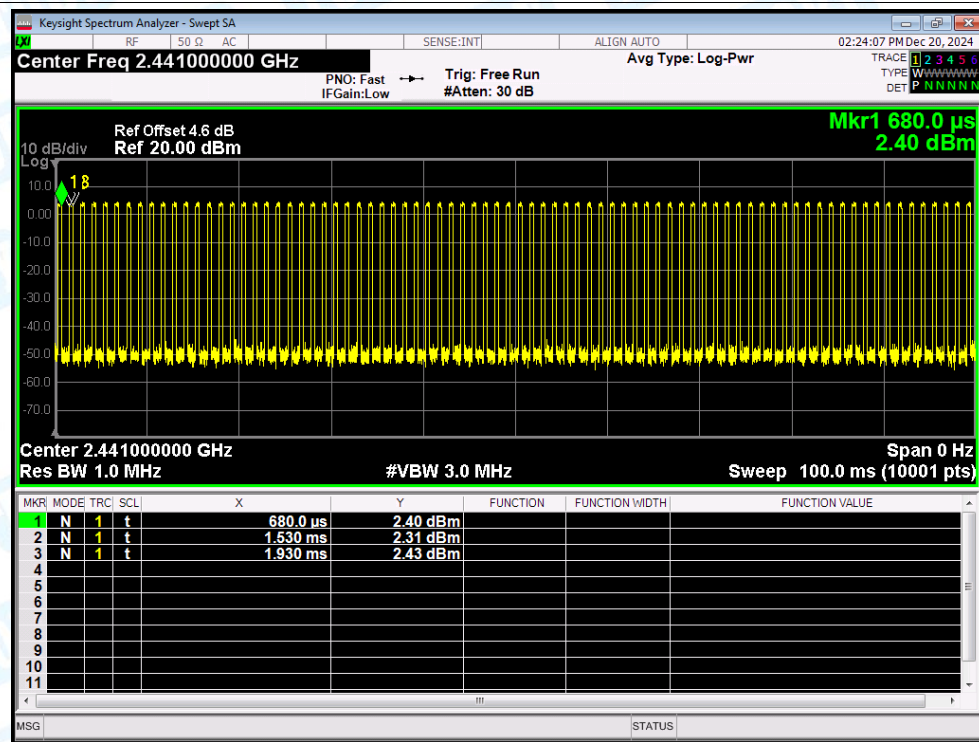
Duty Cycle NVNT 2-DH1 2480MHz Ant1

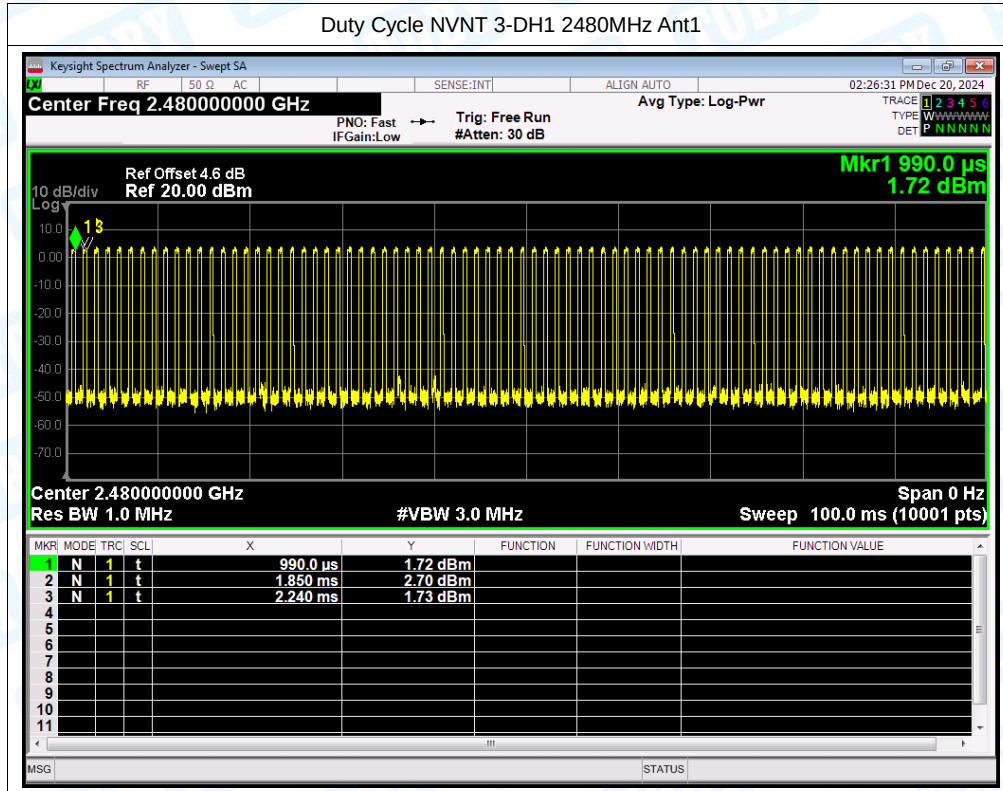


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



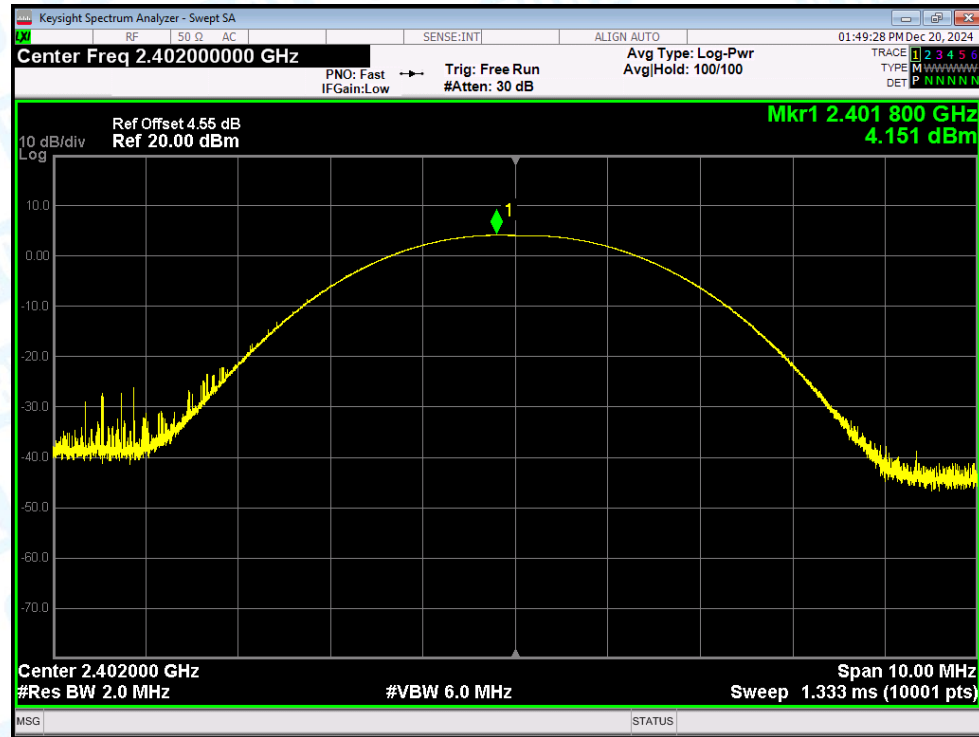


2. Maximum Conducted Output Power

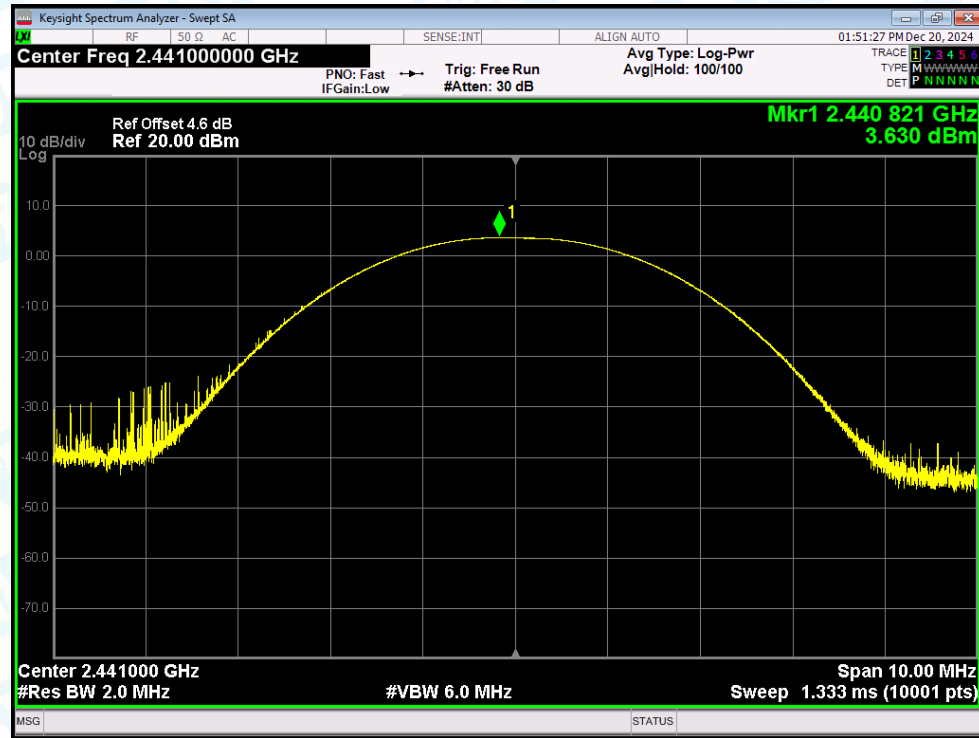
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	4.151	21	Pass
NVNT	1-DH1	2441	Ant1	3.63	21	Pass
NVNT	1-DH1	2480	Ant1	2.697	21	Pass
NVNT	2-DH1	2402	Ant1	4.941	21	Pass
NVNT	2-DH1	2441	Ant1	4.459	21	Pass
NVNT	2-DH1	2480	Ant1	3.526	21	Pass
NVNT	3-DH1	2402	Ant1	5.415	21	Pass
NVNT	3-DH1	2441	Ant1	4.91	21	Pass
NVNT	3-DH1	2480	Ant1	4.003	21	Pass

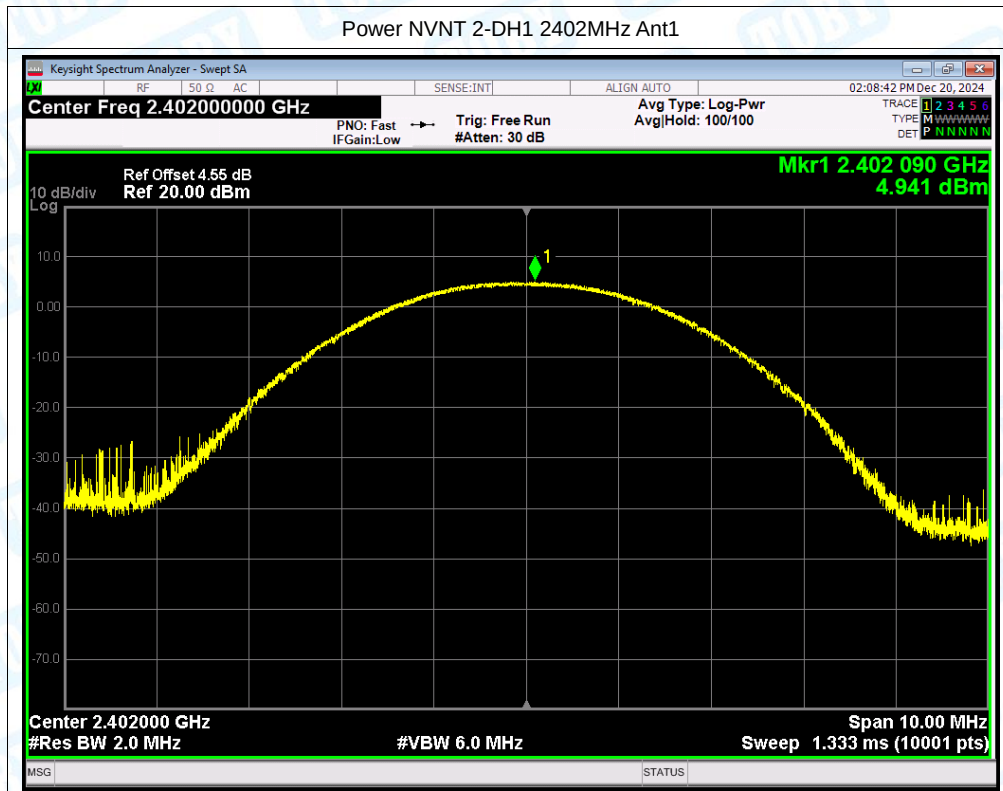
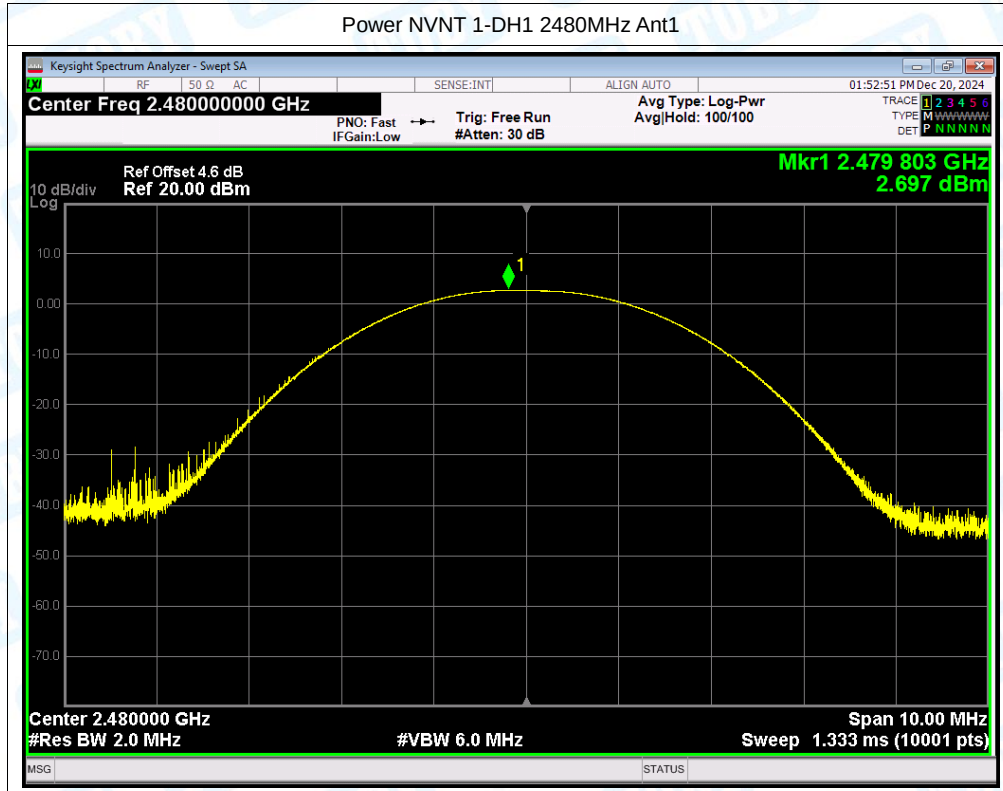
Test Graphs

Power NVNT 1-DH1 2402MHz Ant1

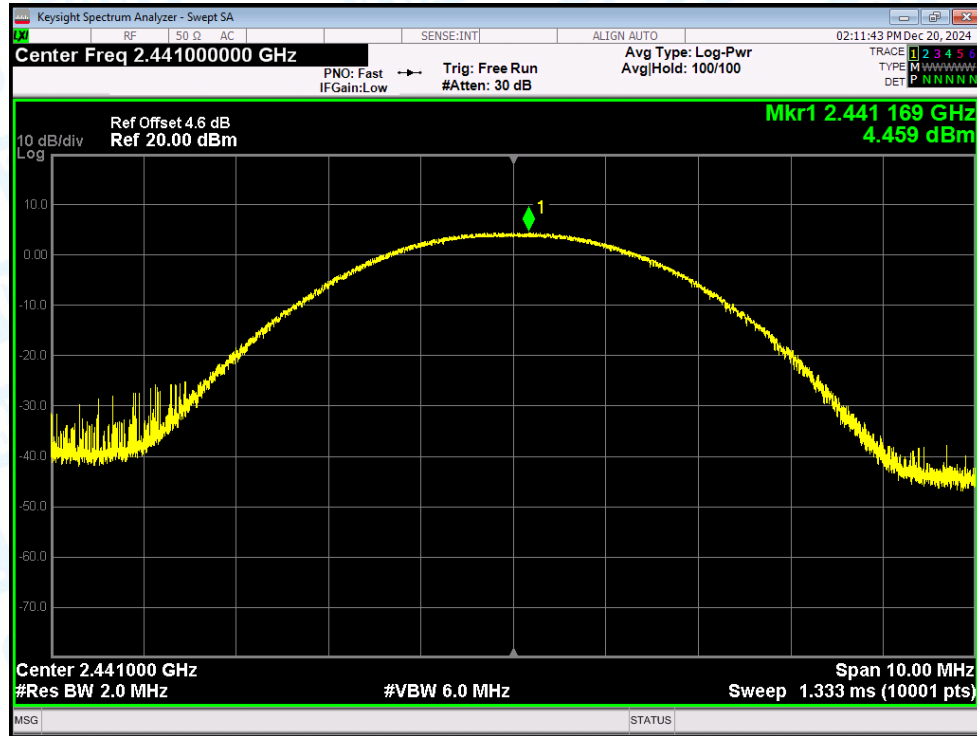


Power NVNT 1-DH1 2441MHz Ant1

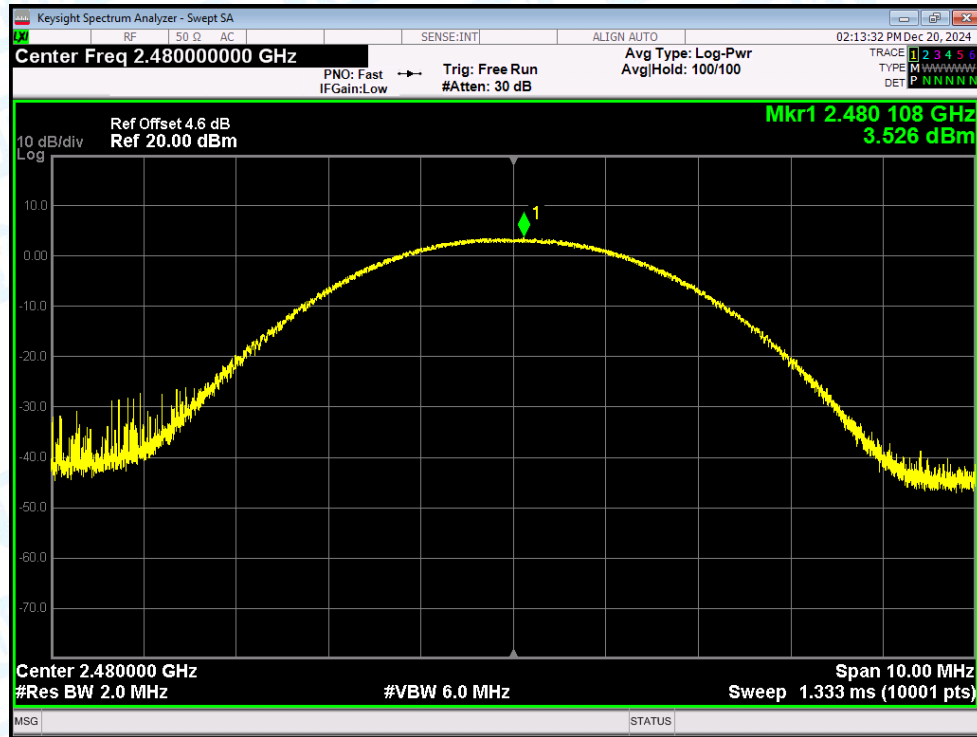




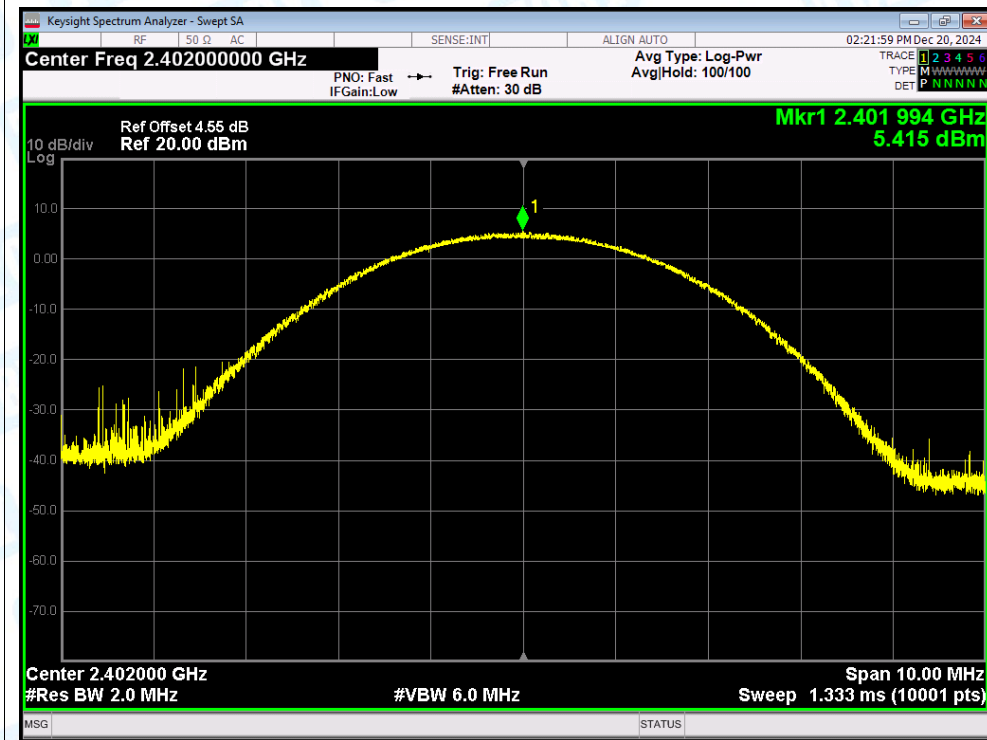
Power NVNT 2-DH1 2441MHz Ant1



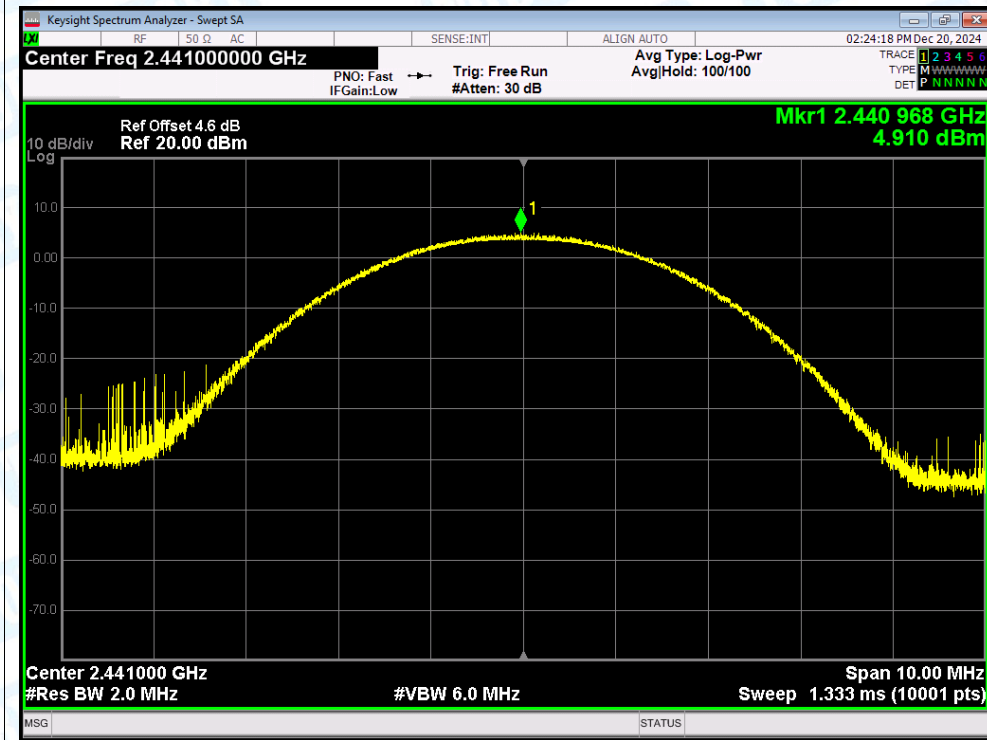
Power NVNT 2-DH1 2480MHz Ant1

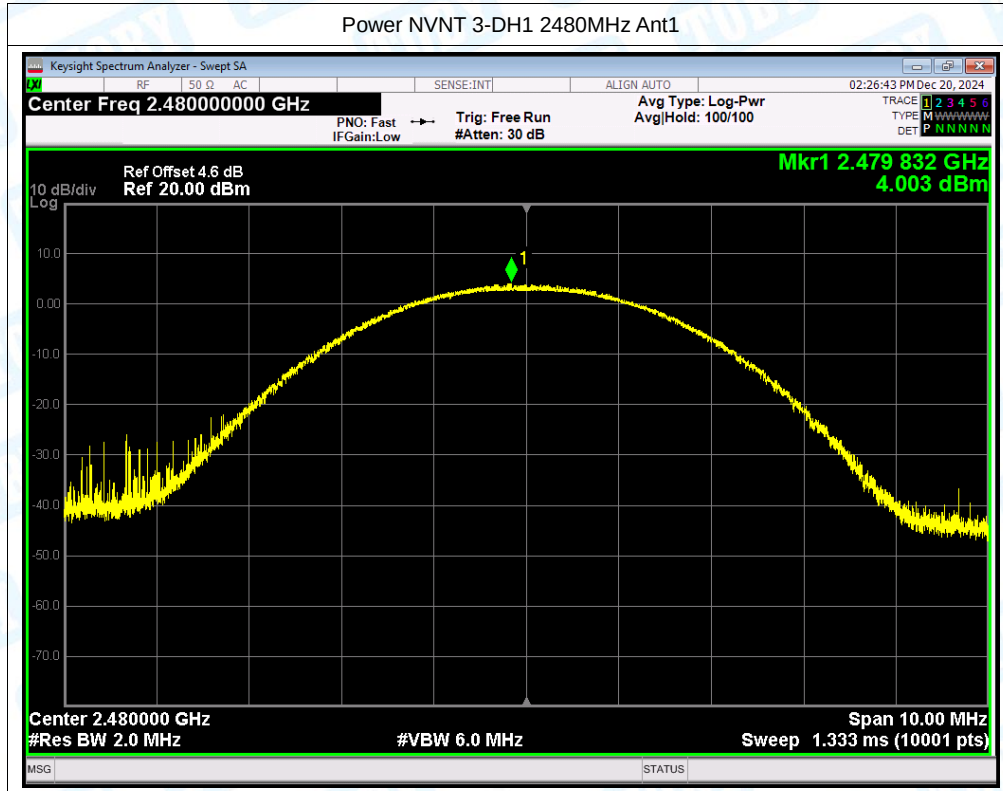


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



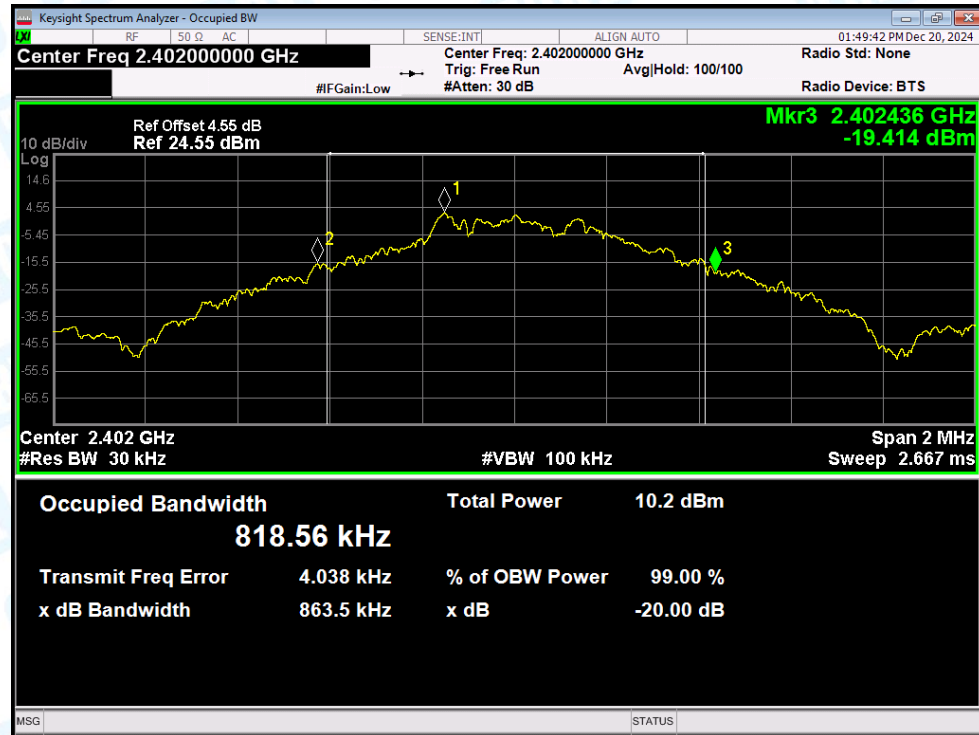


3. -20dB Bandwidth

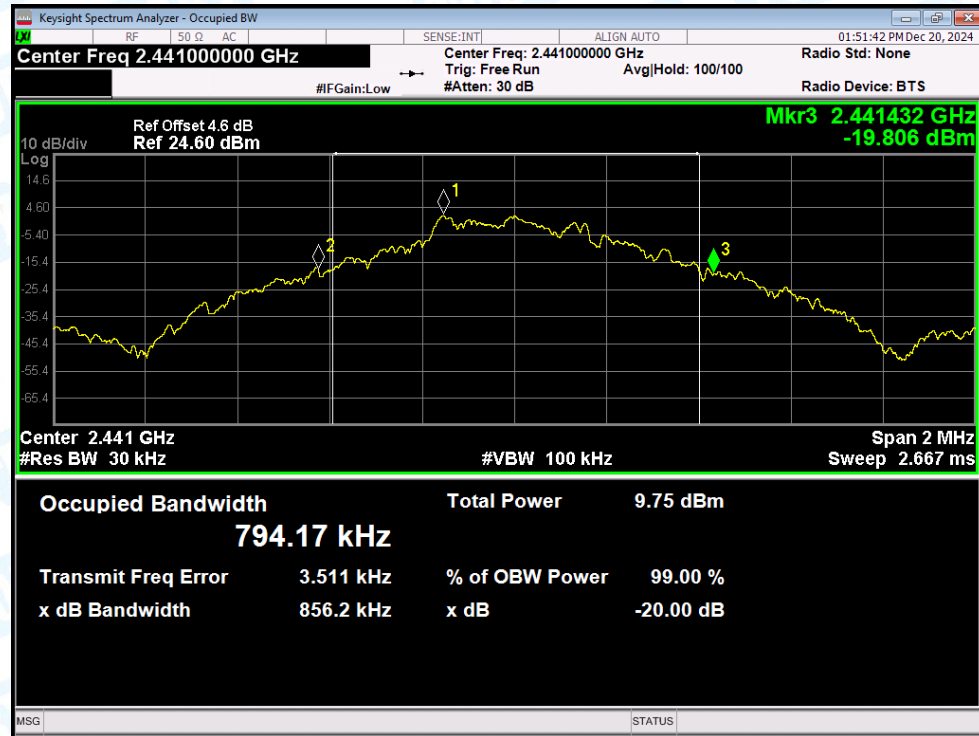
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.86	0	Pass
NVNT	1-DH1	2441	Ant1	0.86	0	Pass
NVNT	1-DH1	2480	Ant1	0.88	0	Pass
NVNT	2-DH1	2402	Ant1	1.24	0	Pass
NVNT	2-DH1	2441	Ant1	1.24	0	Pass
NVNT	2-DH1	2480	Ant1	1.2	0	Pass
NVNT	3-DH1	2402	Ant1	1.24	0	Pass
NVNT	3-DH1	2441	Ant1	1.22	0	Pass
NVNT	3-DH1	2480	Ant1	1.22	0	Pass

Test Graphs

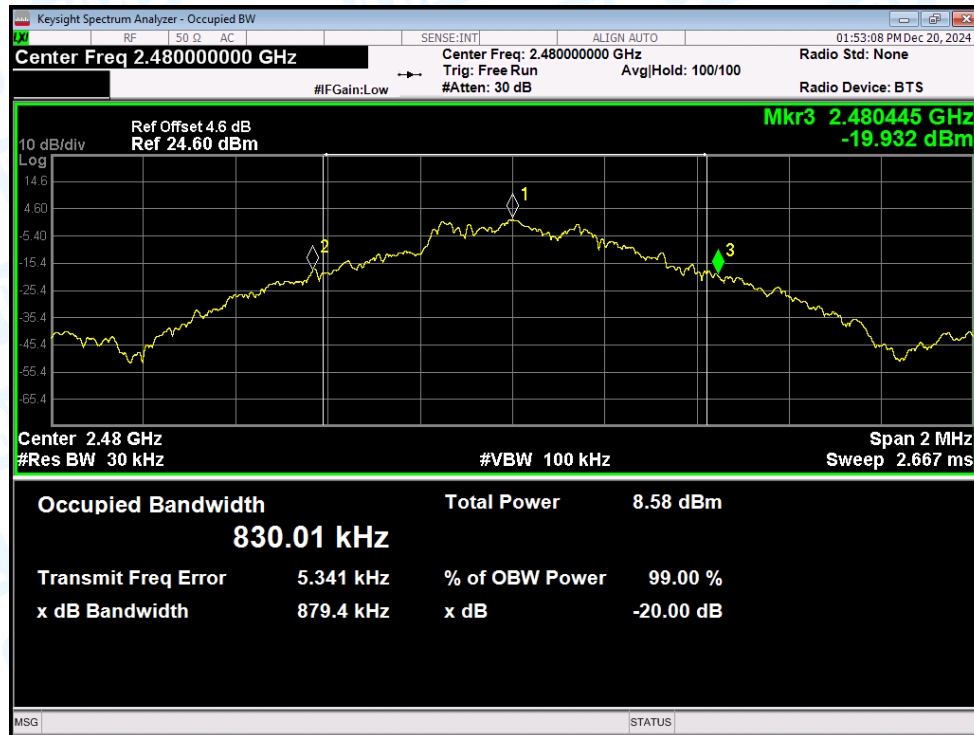
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



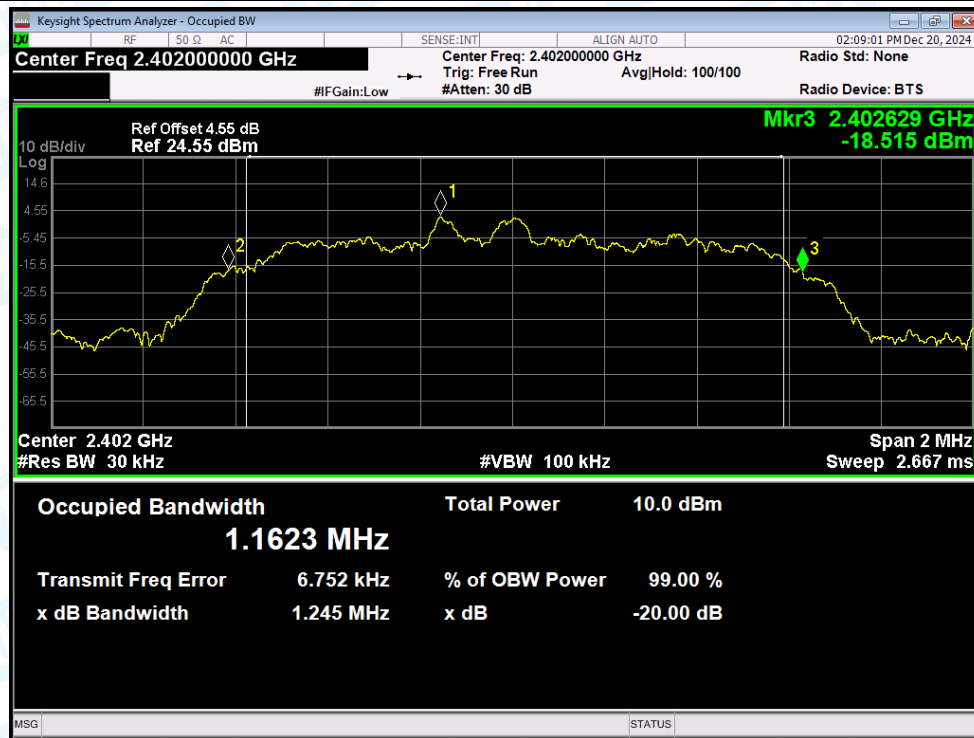
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



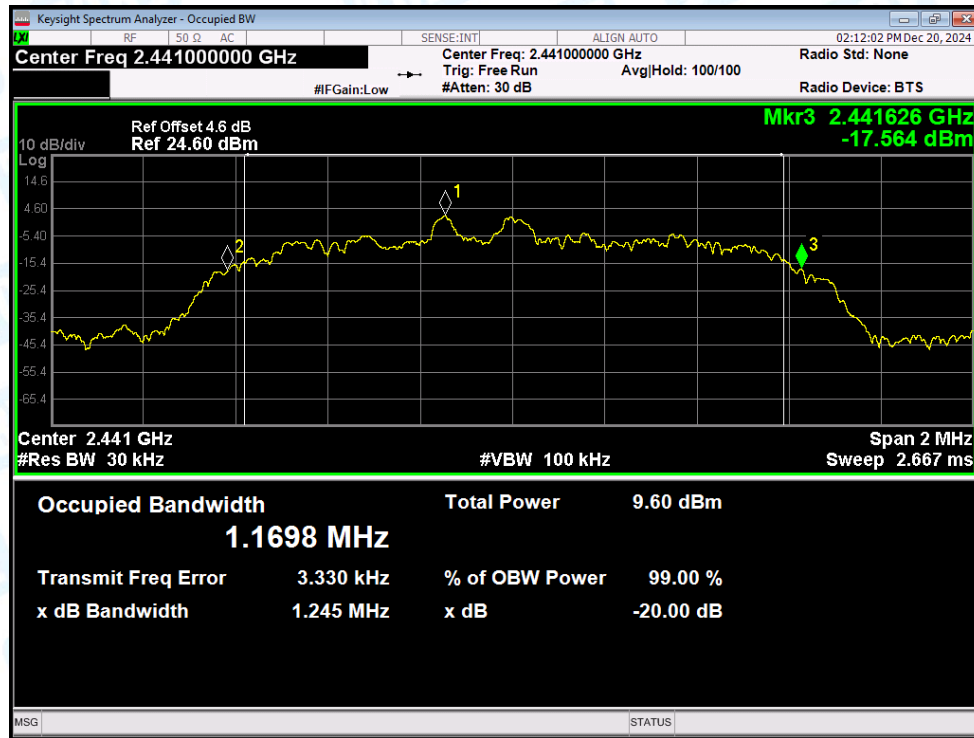
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



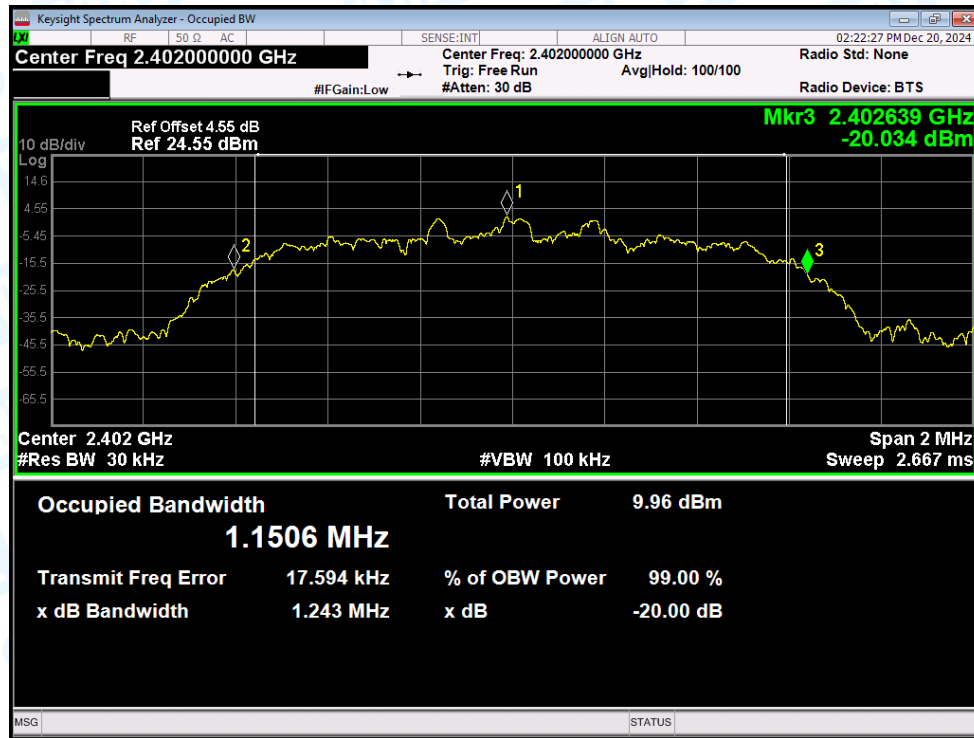
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



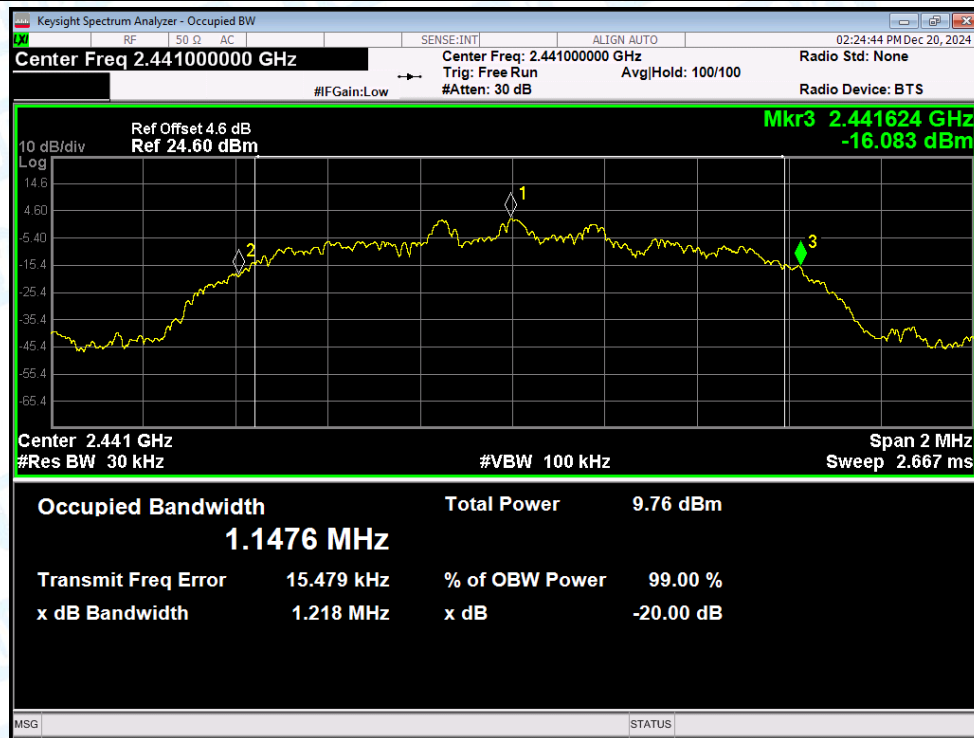
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

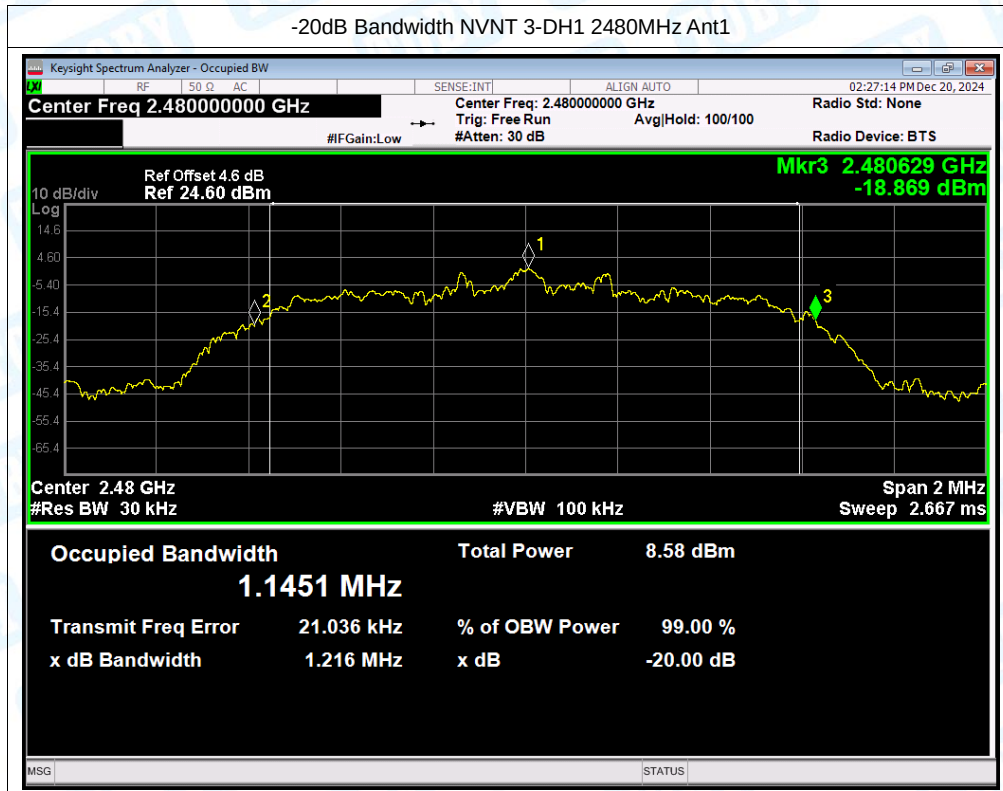


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



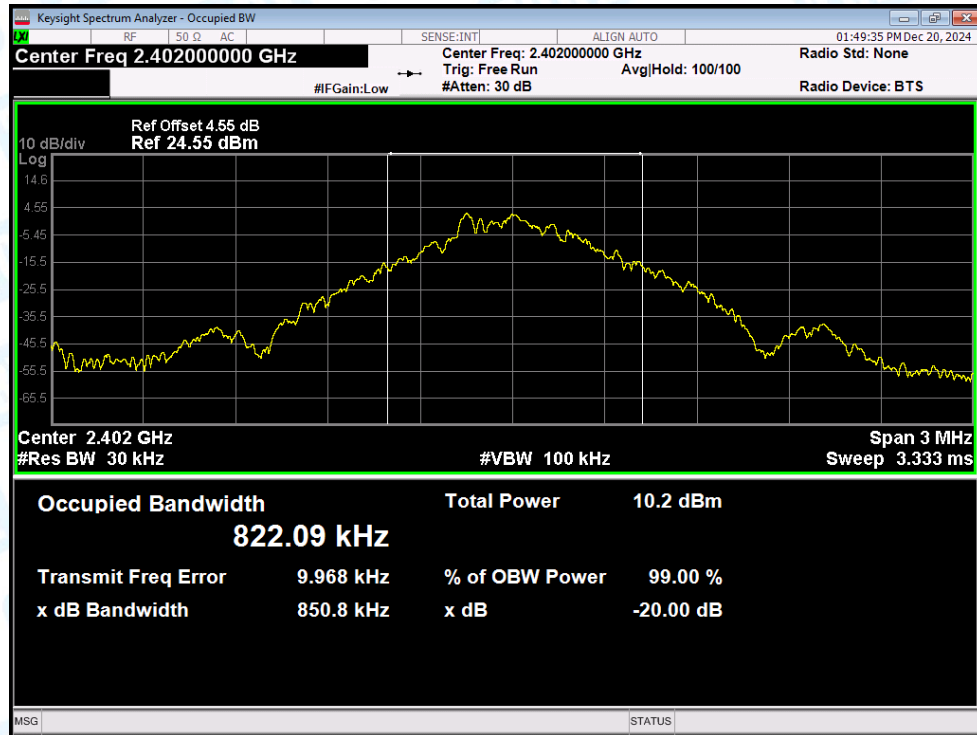


4. Occupied Channel Bandwidth

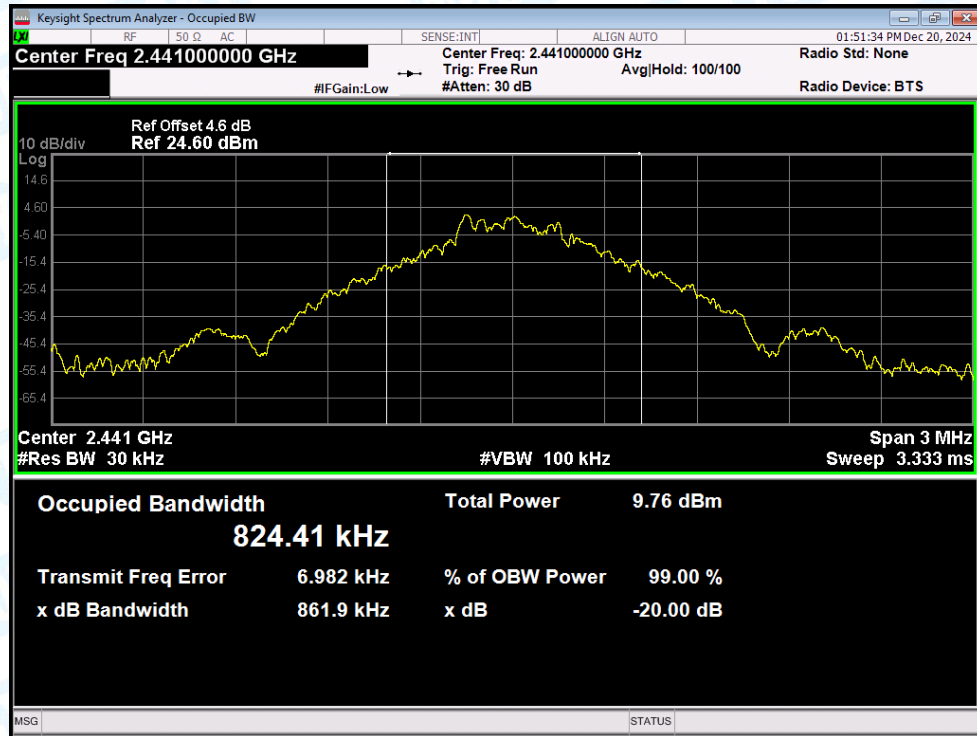
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.822
NVNT	1-DH1	2441	Ant1	0.824
NVNT	1-DH1	2480	Ant1	0.833
NVNT	2-DH1	2402	Ant1	1.166
NVNT	2-DH1	2441	Ant1	1.164
NVNT	2-DH1	2480	Ant1	1.161
NVNT	3-DH1	2402	Ant1	1.15
NVNT	3-DH1	2441	Ant1	1.15
NVNT	3-DH1	2480	Ant1	1.153

Test Graphs

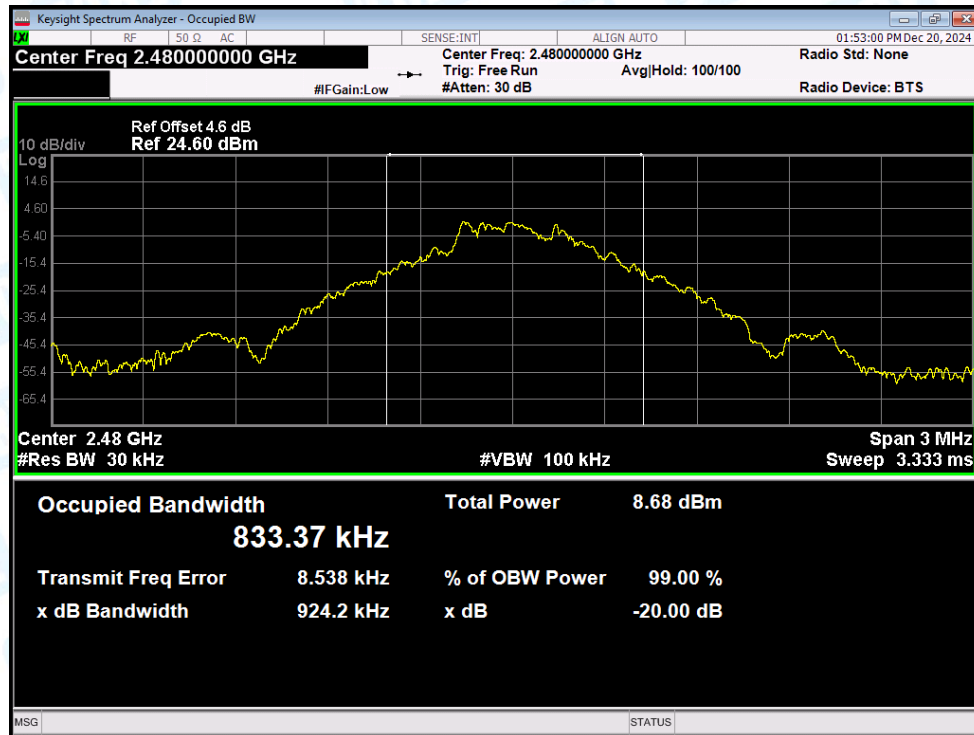
OBW NVNT 1-DH1 2402MHz Ant1



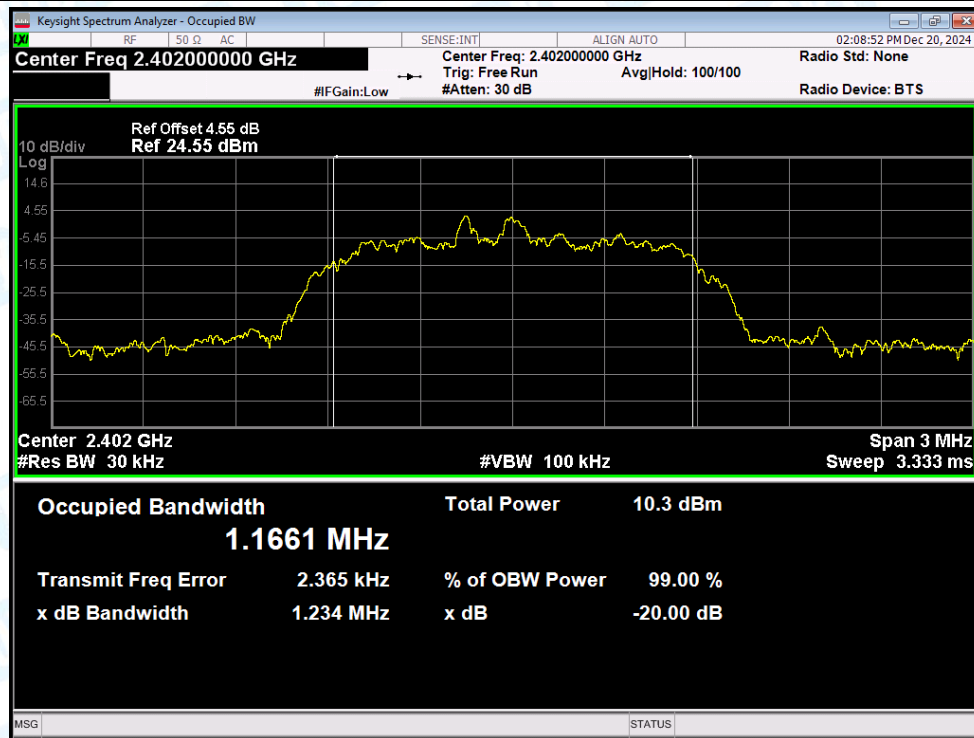
OBW NVNT 1-DH1 2441MHz Ant1



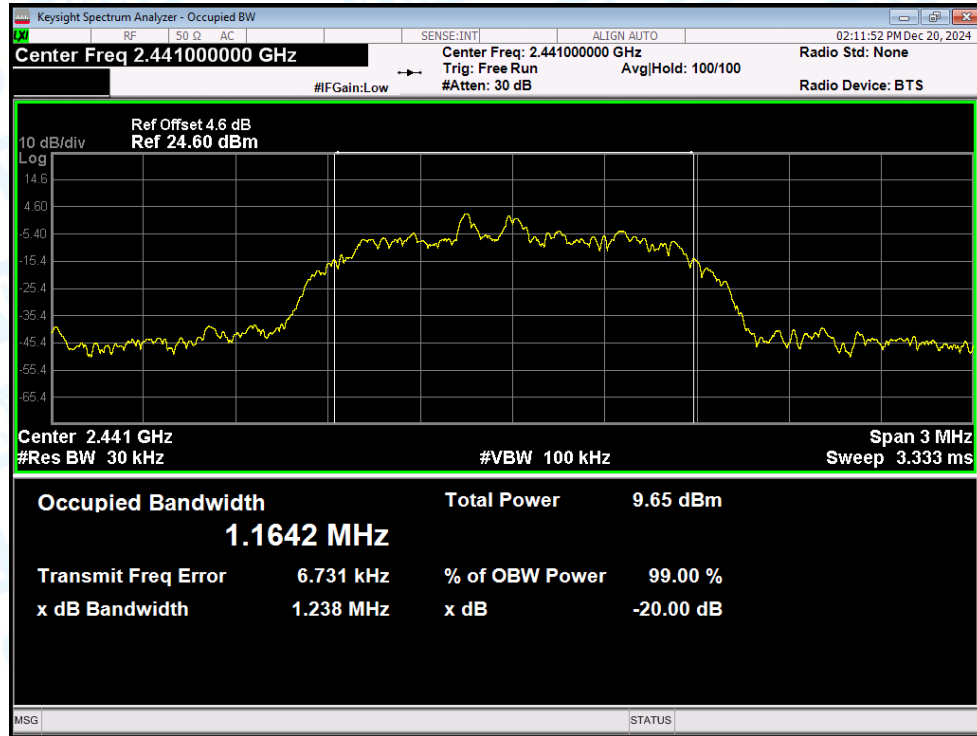
OBW NVNT 1-DH1 2480MHz Ant1



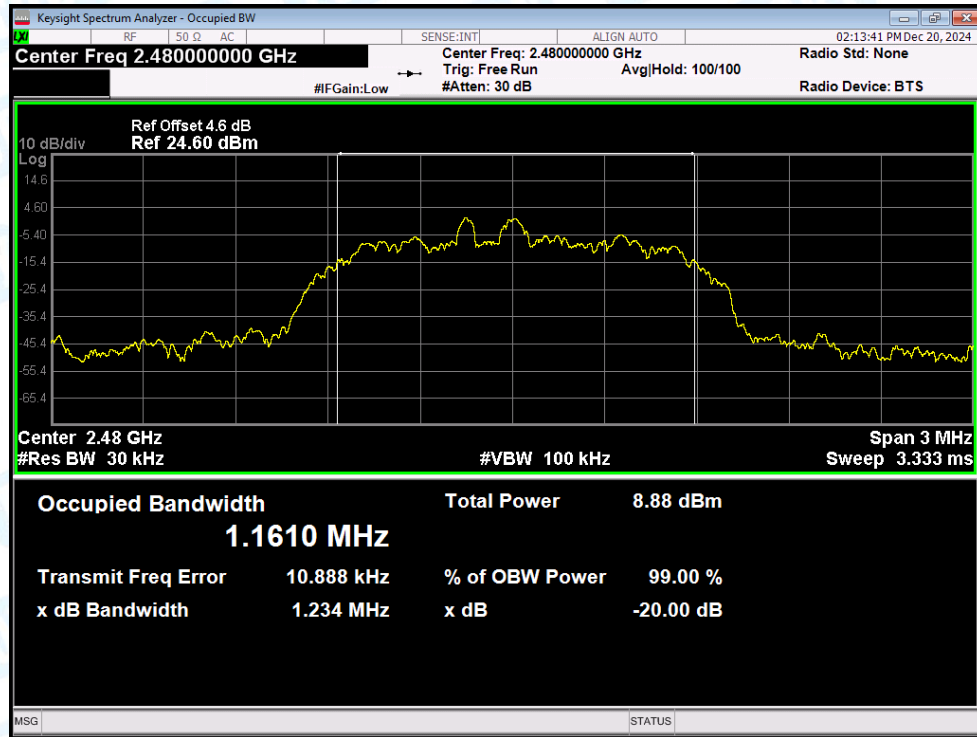
OBW NVNT 2-DH1 2402MHz Ant1



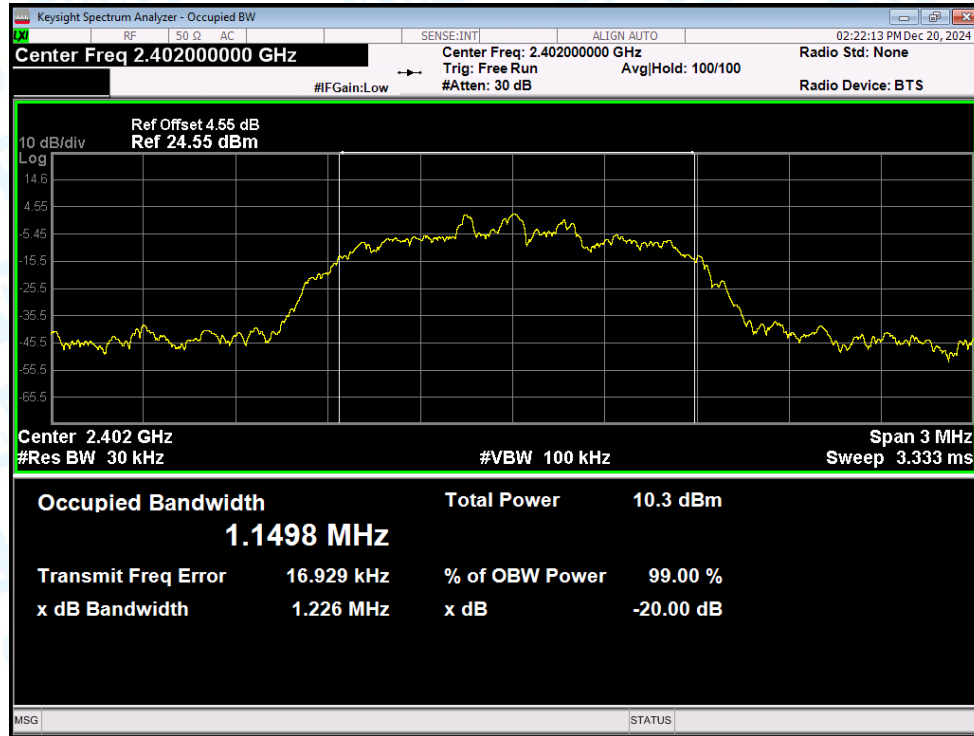
OBW NVNT 2-DH1 2441MHz Ant1



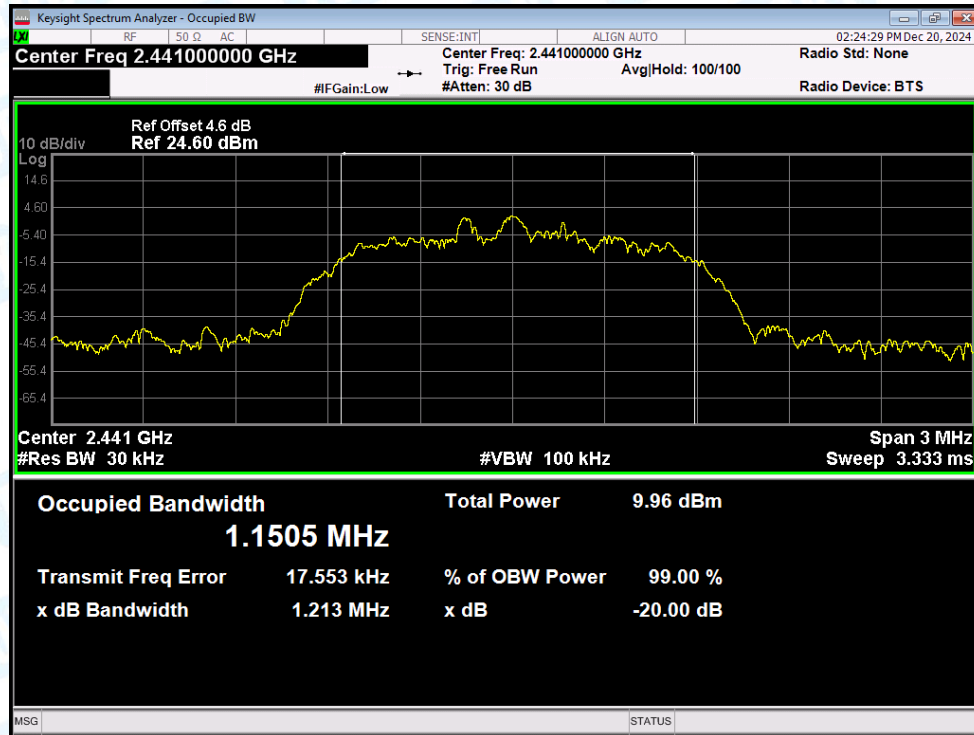
OBW NVNT 2-DH1 2480MHz Ant1

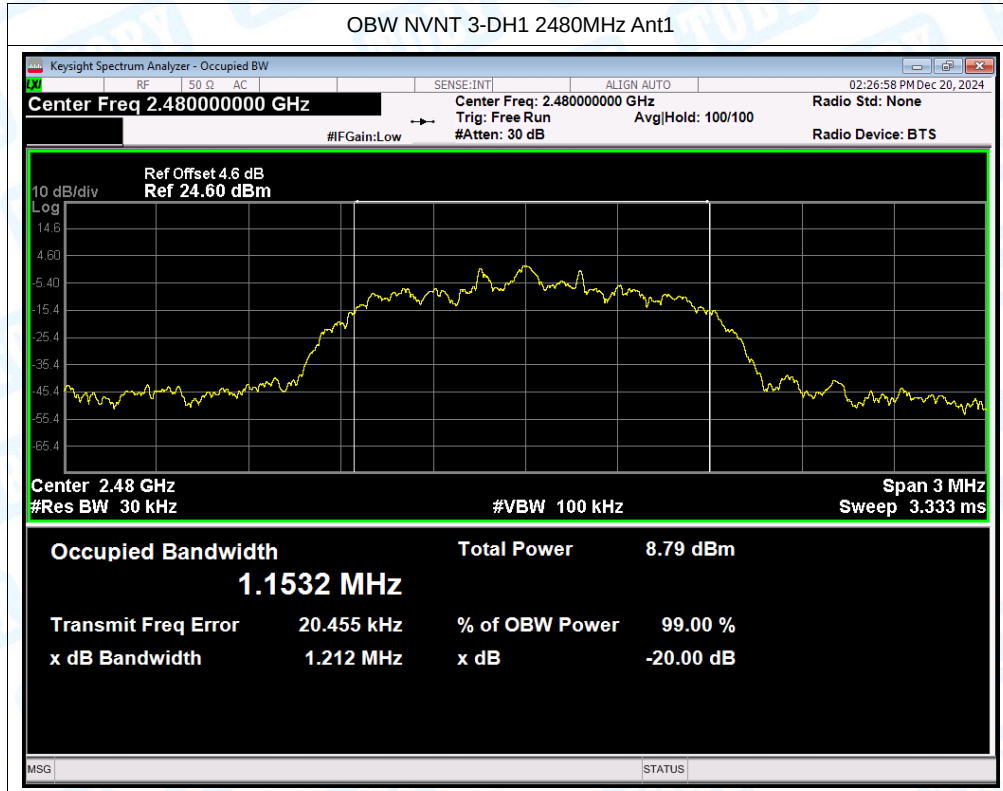


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



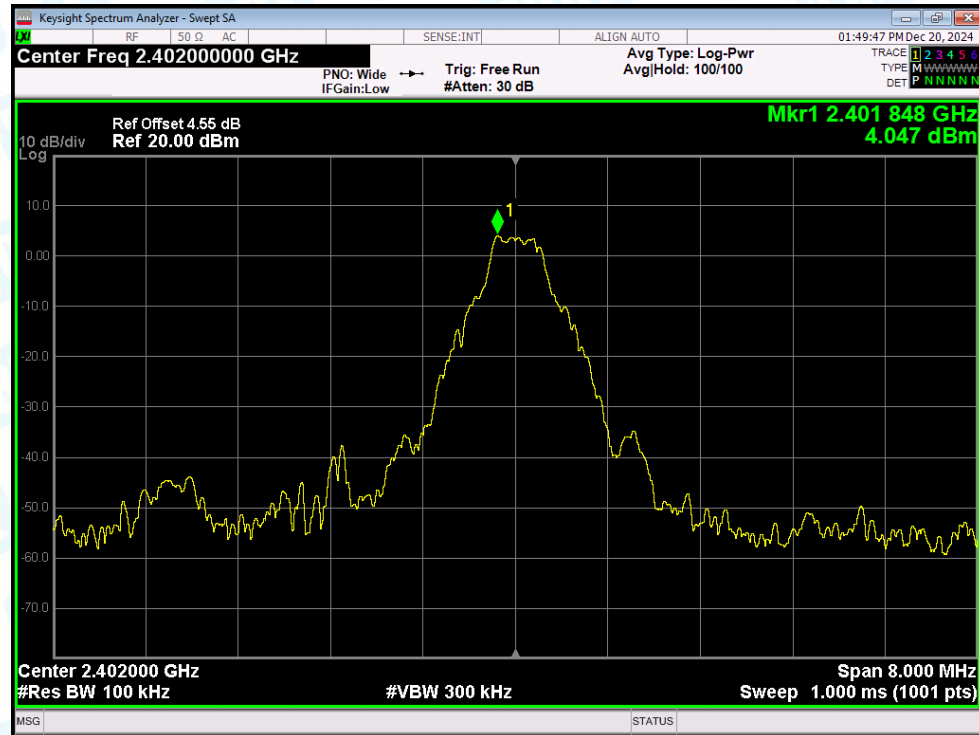


5. Band Edge

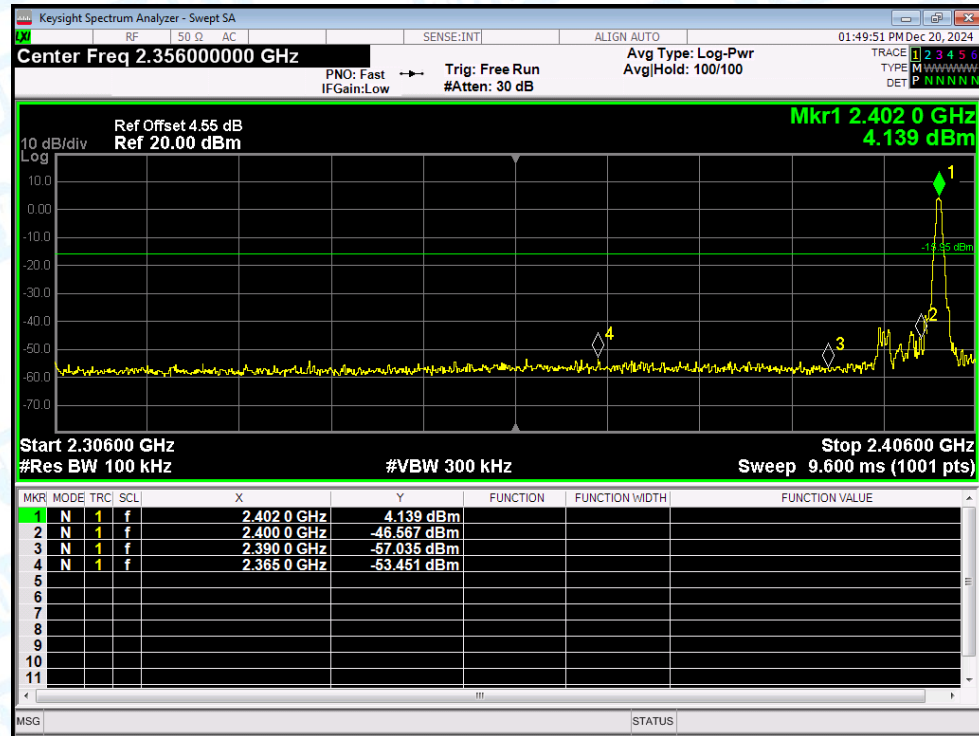
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-57.5	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-54.01	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-57.25	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-56.06	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-56.83	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-52.94	-20	Pass

Test Graphs

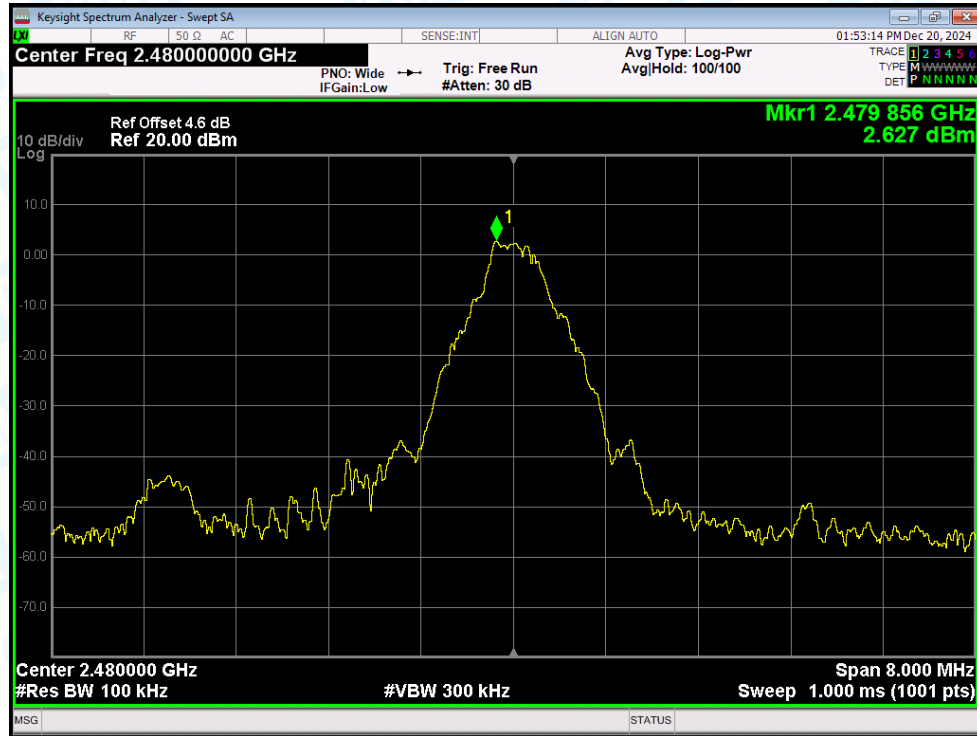
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



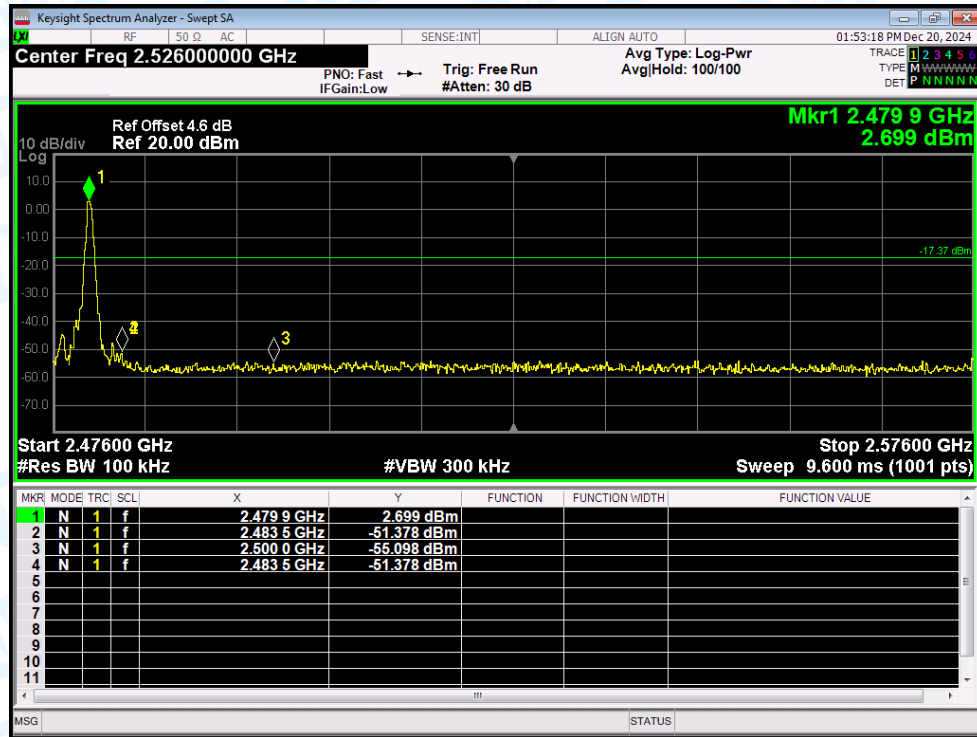
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



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



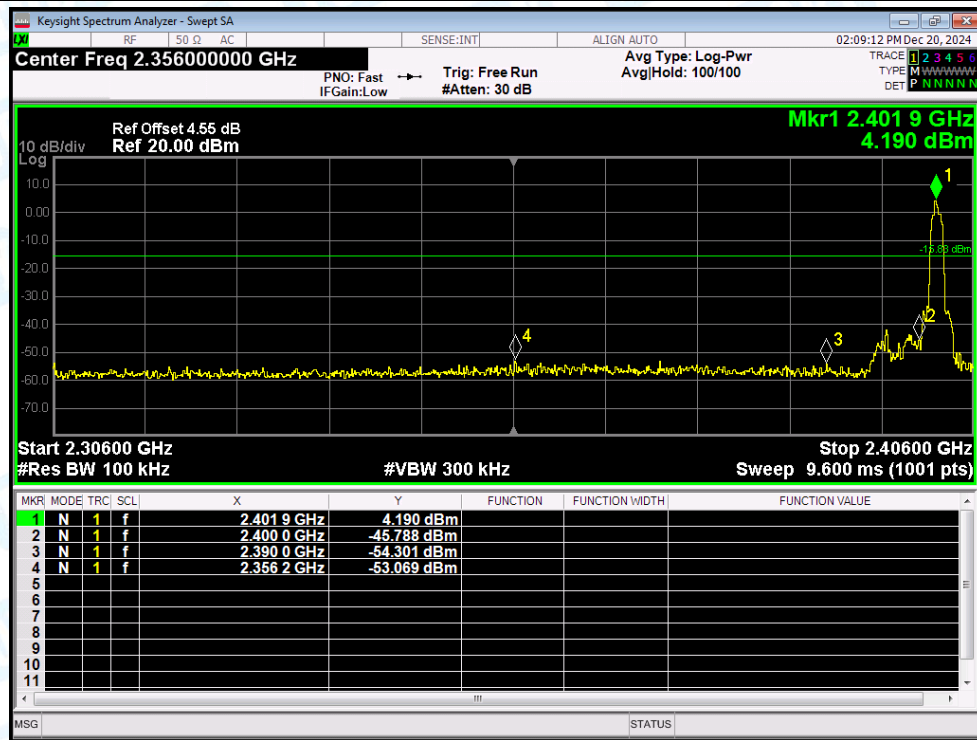
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



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



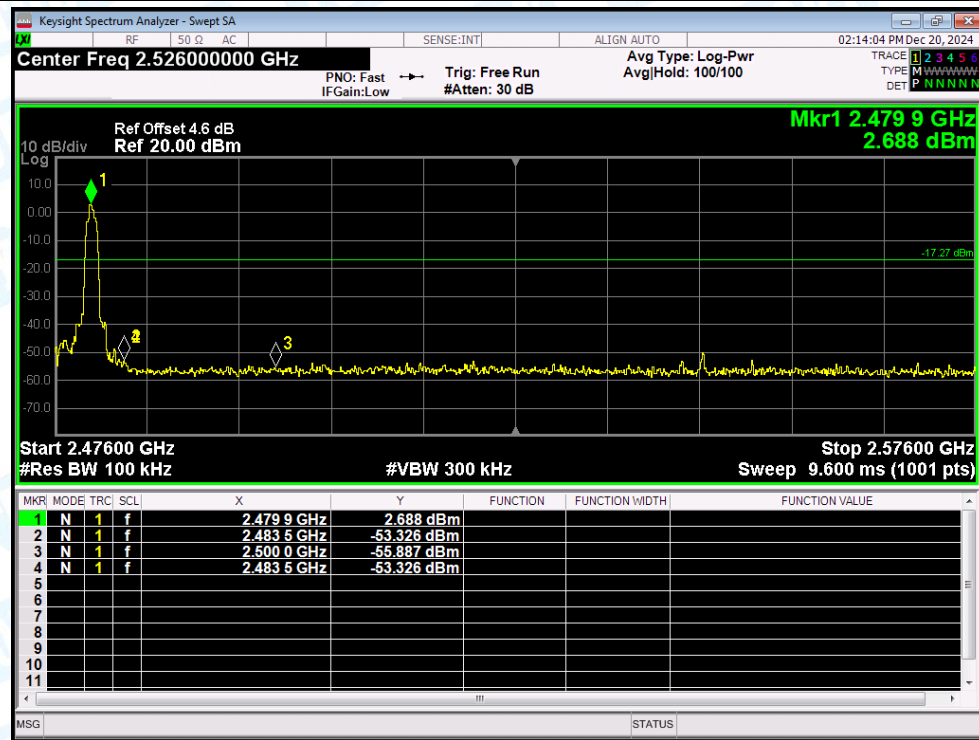
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



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



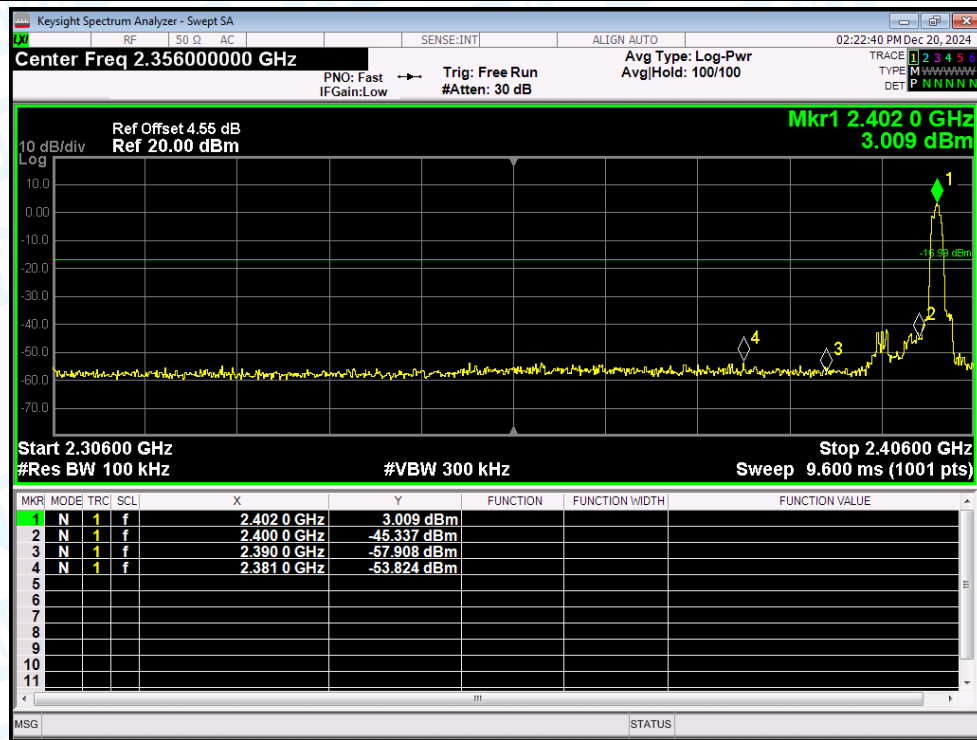
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



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



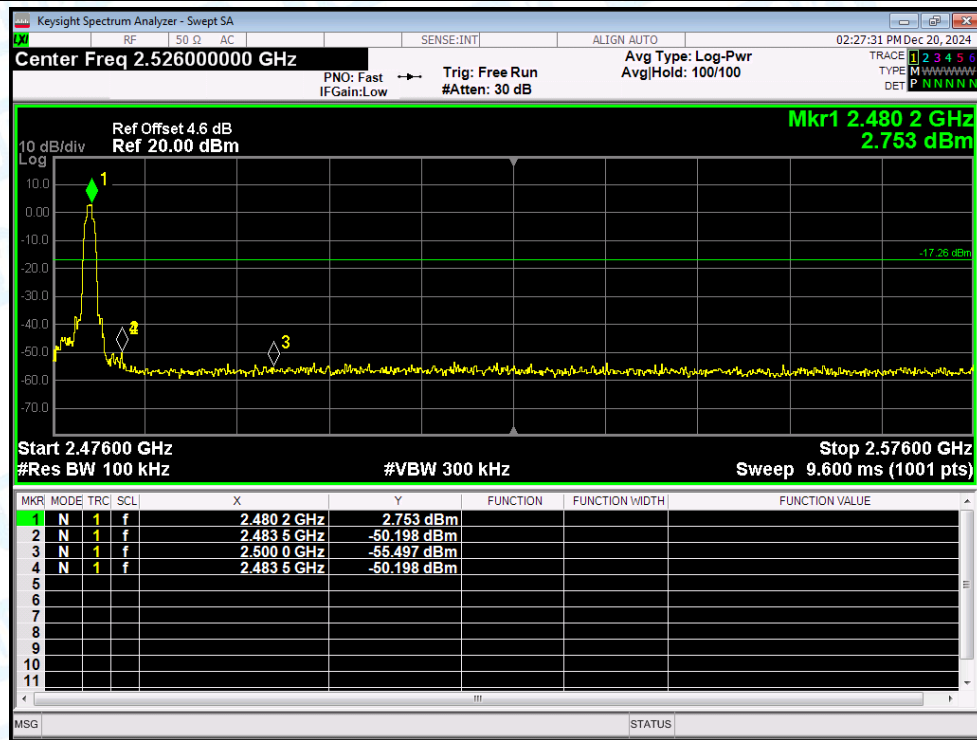
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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

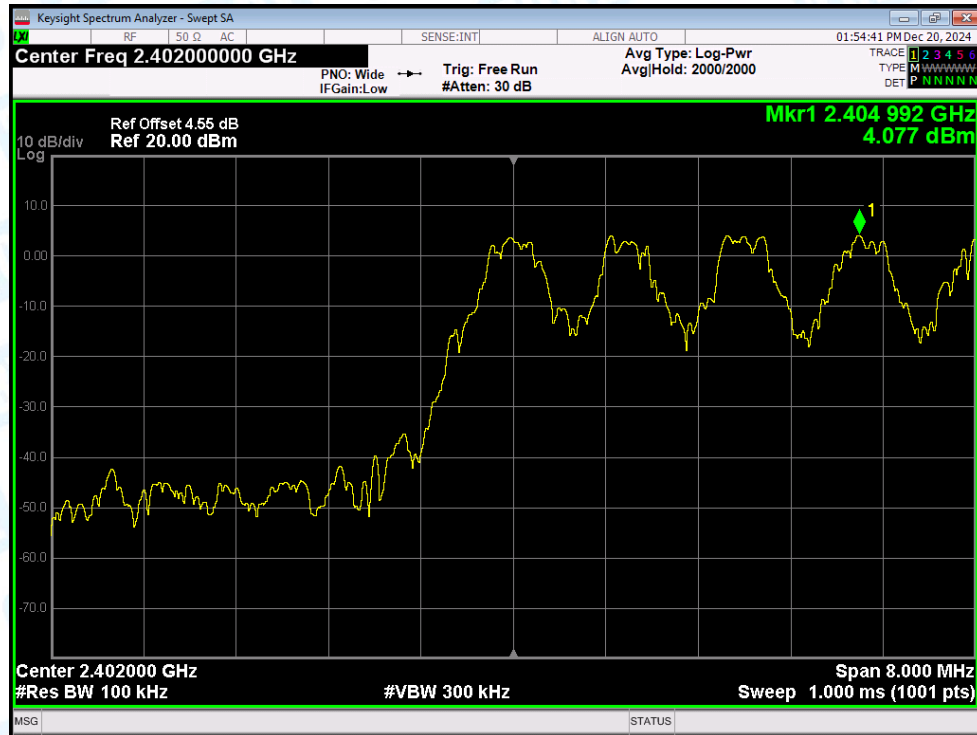


6. Band Edge(Hopping)

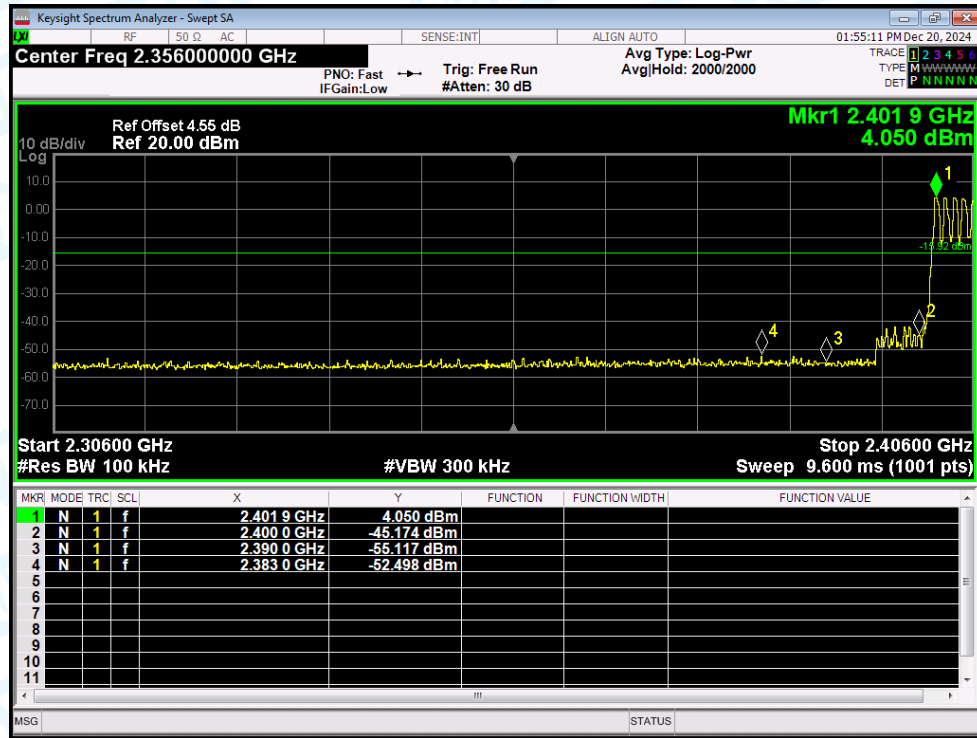
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-56.58	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-54.66	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-56.43	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-55.97	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-56.75	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-55.76	-20	Pass

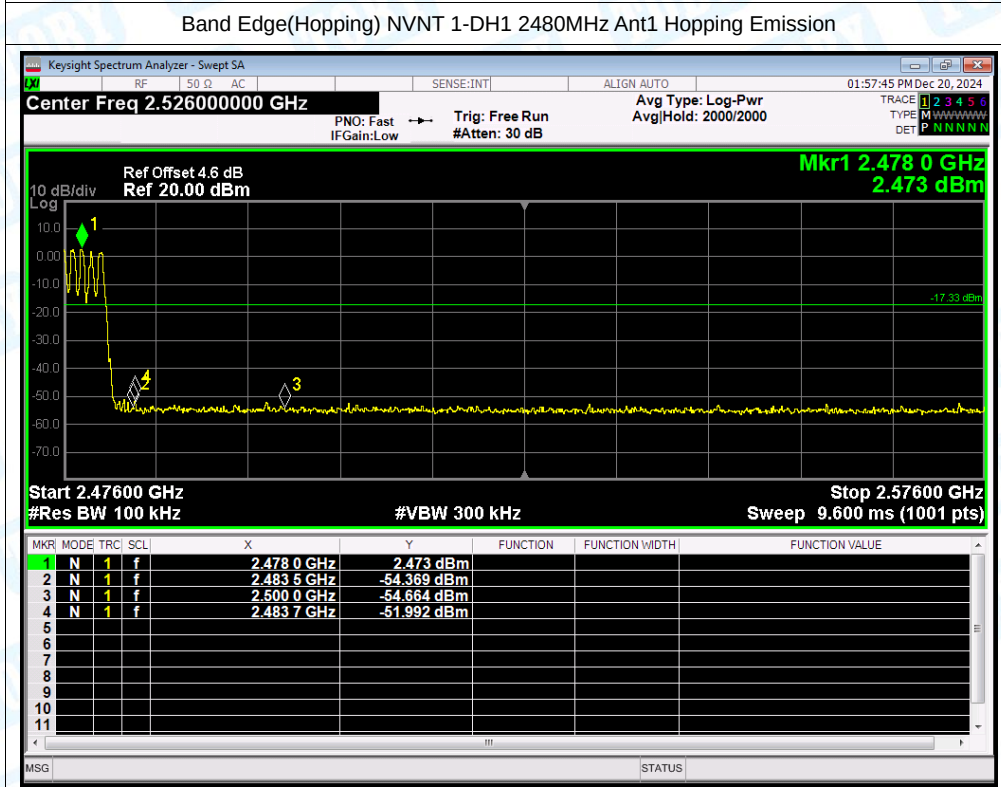
Test Graphs

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



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

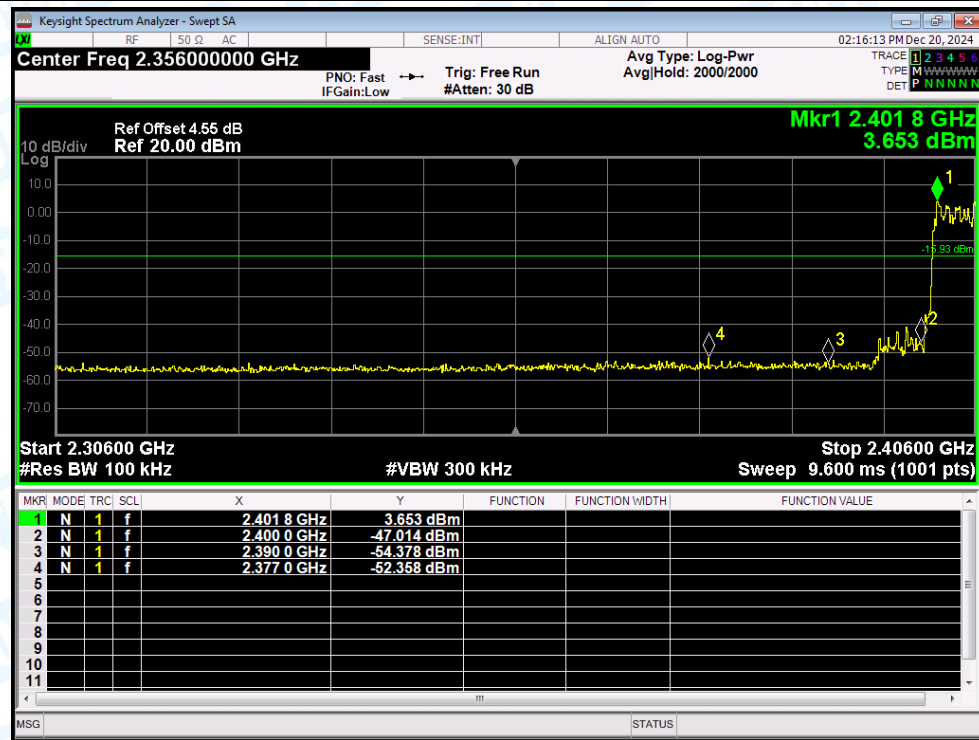




Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



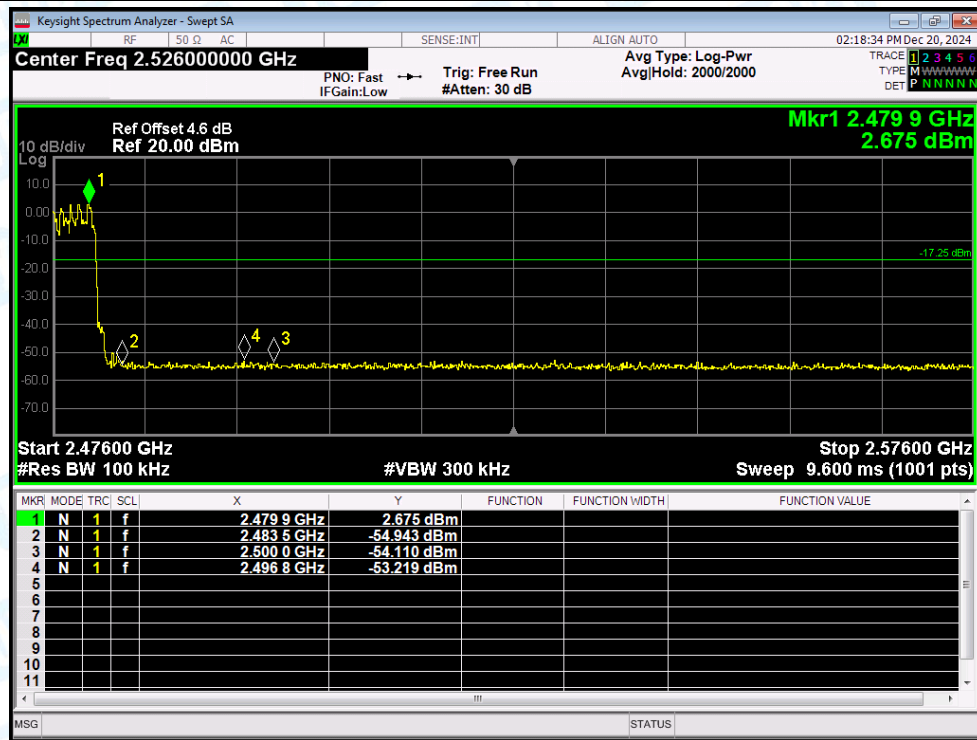
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



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



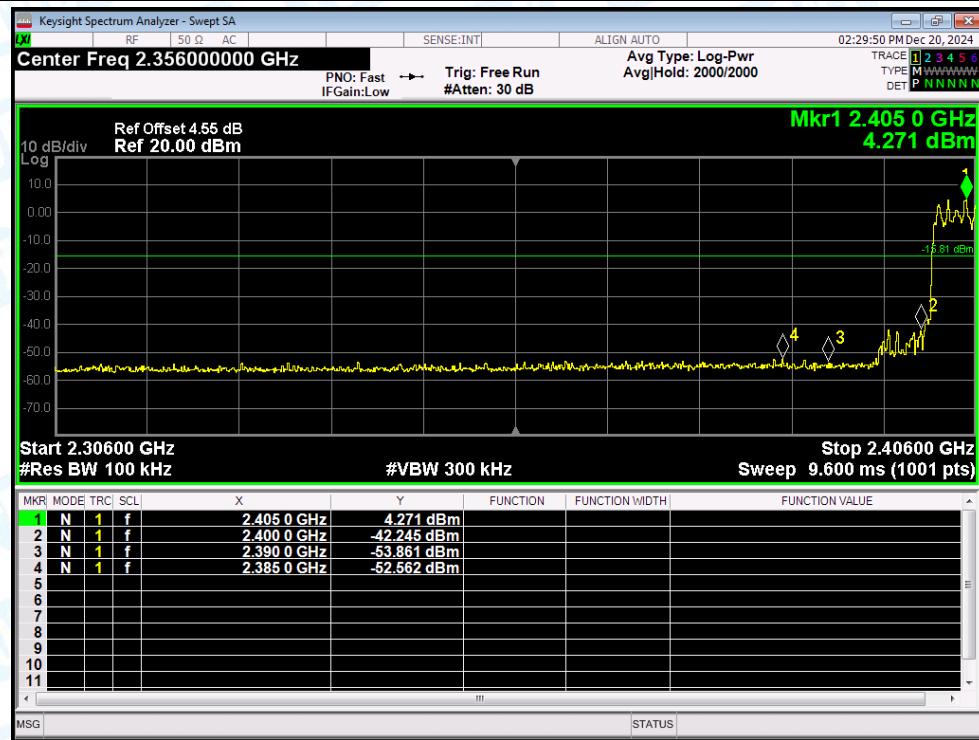
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



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



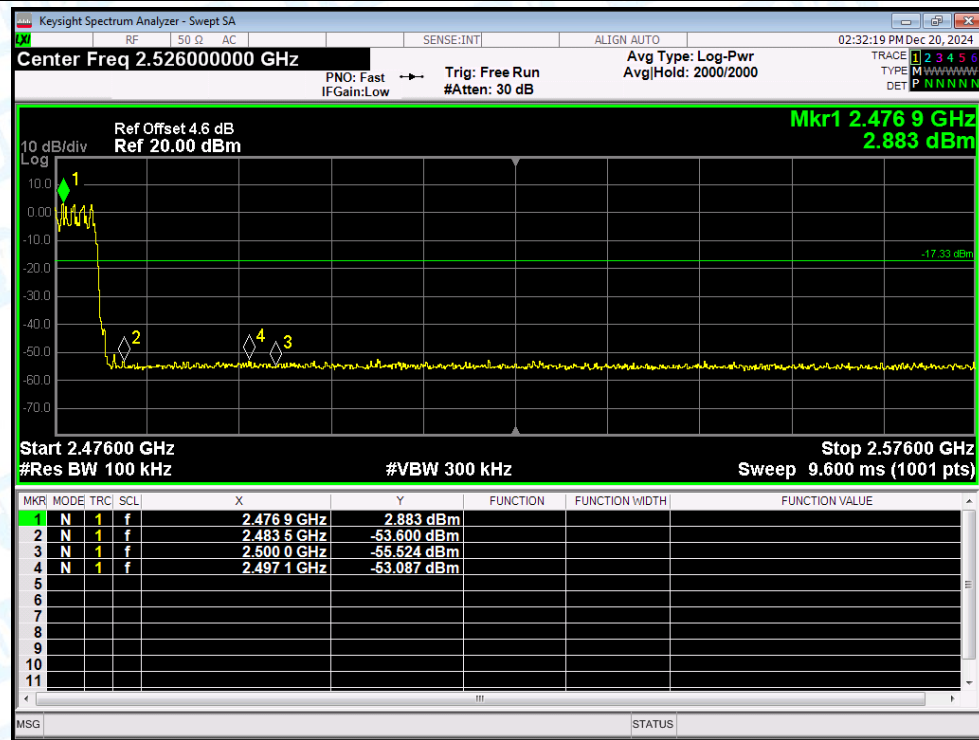
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



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

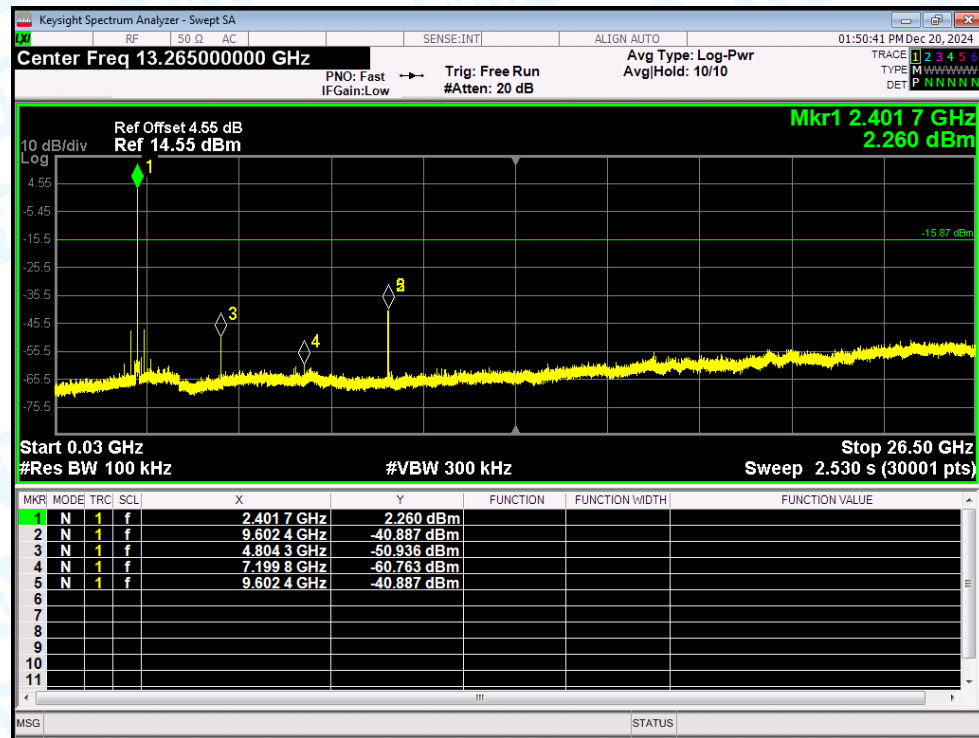
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-45.02	-20	Pass
NVNT	1-DH1	2441	Ant1	-45.31	-20	Pass
NVNT	1-DH1	2480	Ant1	-43.44	-20	Pass
NVNT	2-DH1	2402	Ant1	-44.47	-20	Pass
NVNT	2-DH1	2441	Ant1	-44.66	-20	Pass
NVNT	2-DH1	2480	Ant1	-43.31	-20	Pass
NVNT	3-DH1	2402	Ant1	-44.79	-20	Pass
NVNT	3-DH1	2441	Ant1	-44.39	-20	Pass
NVNT	3-DH1	2480	Ant1	-43.26	-20	Pass

Test Graphs

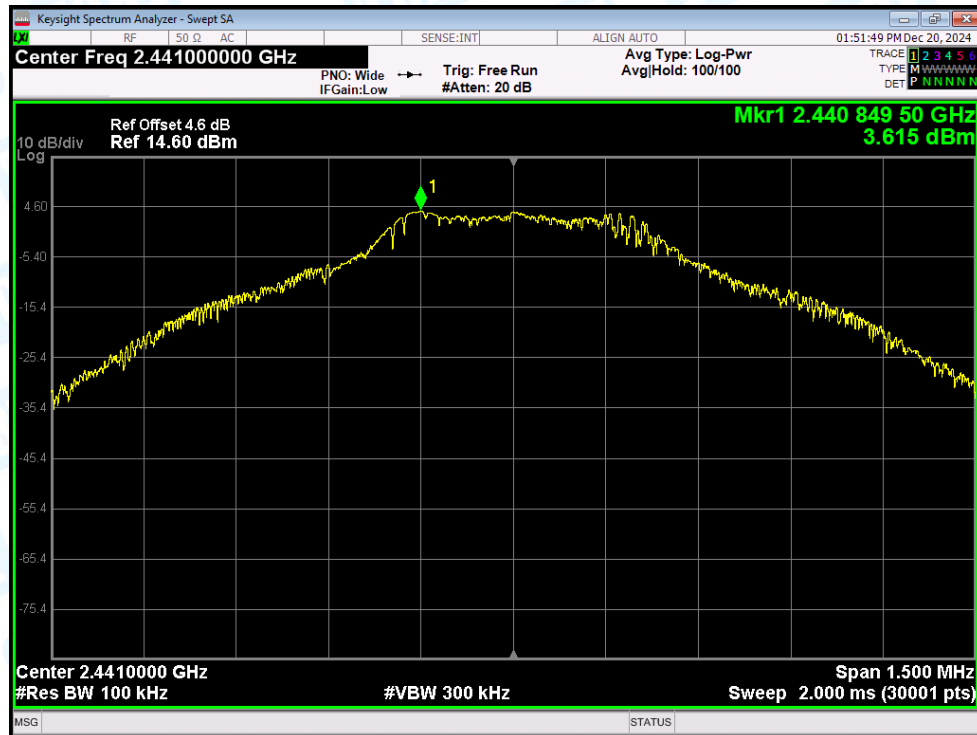
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



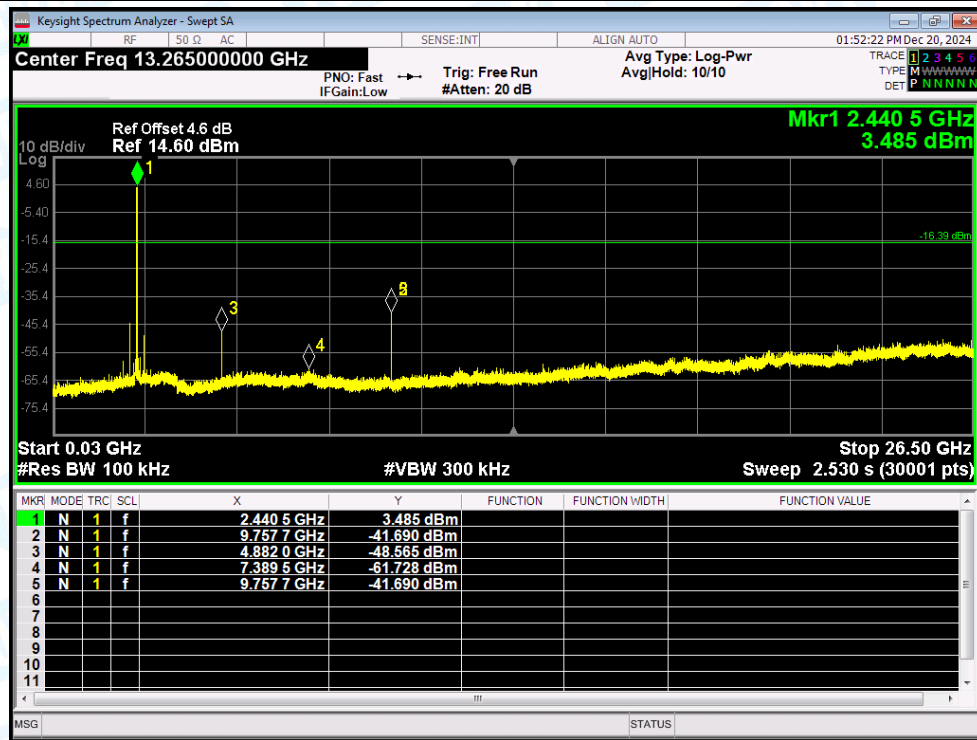
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



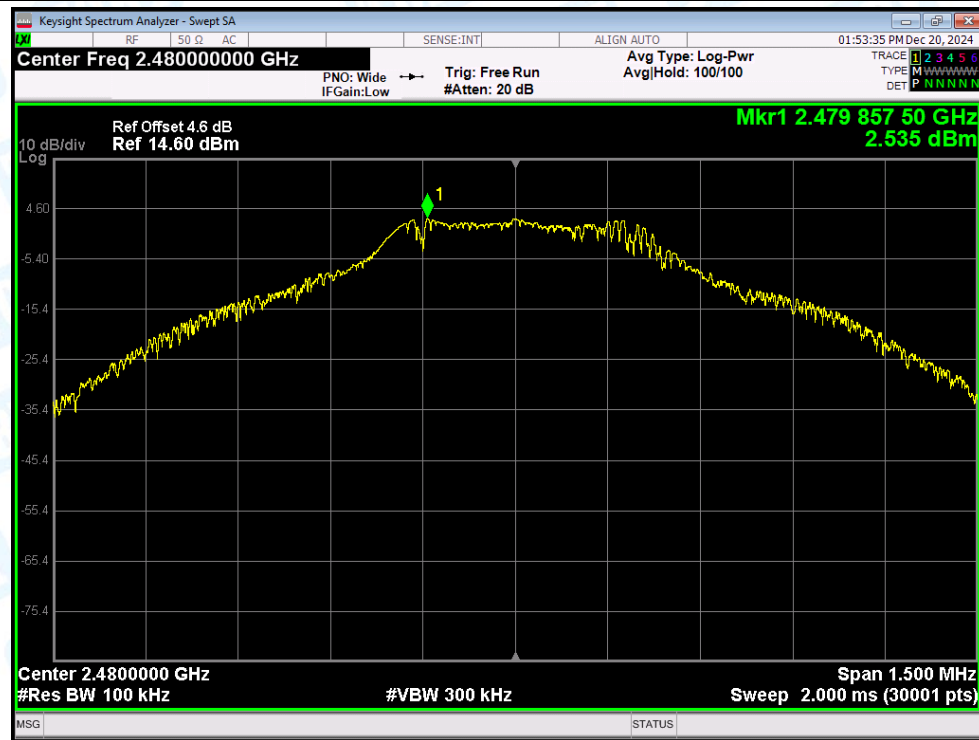
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



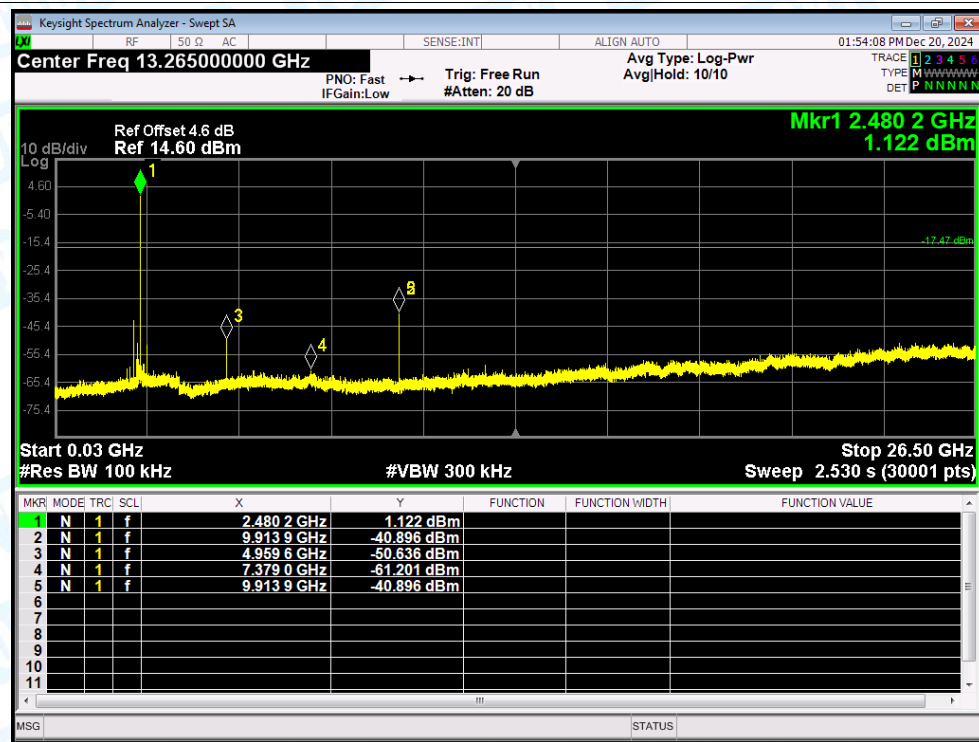
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



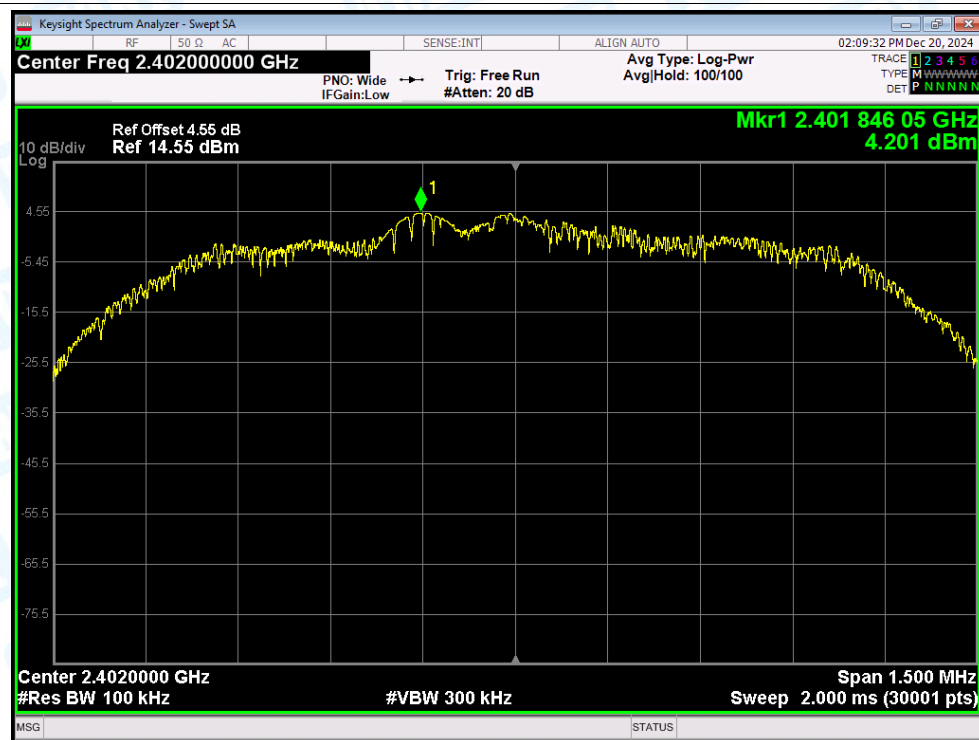
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



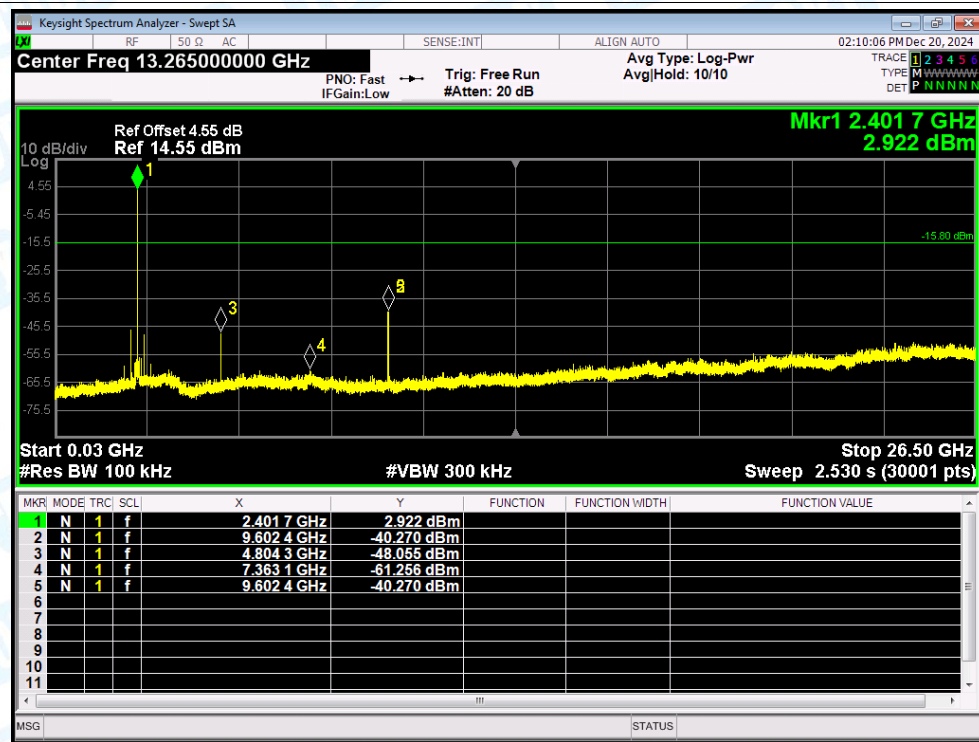
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



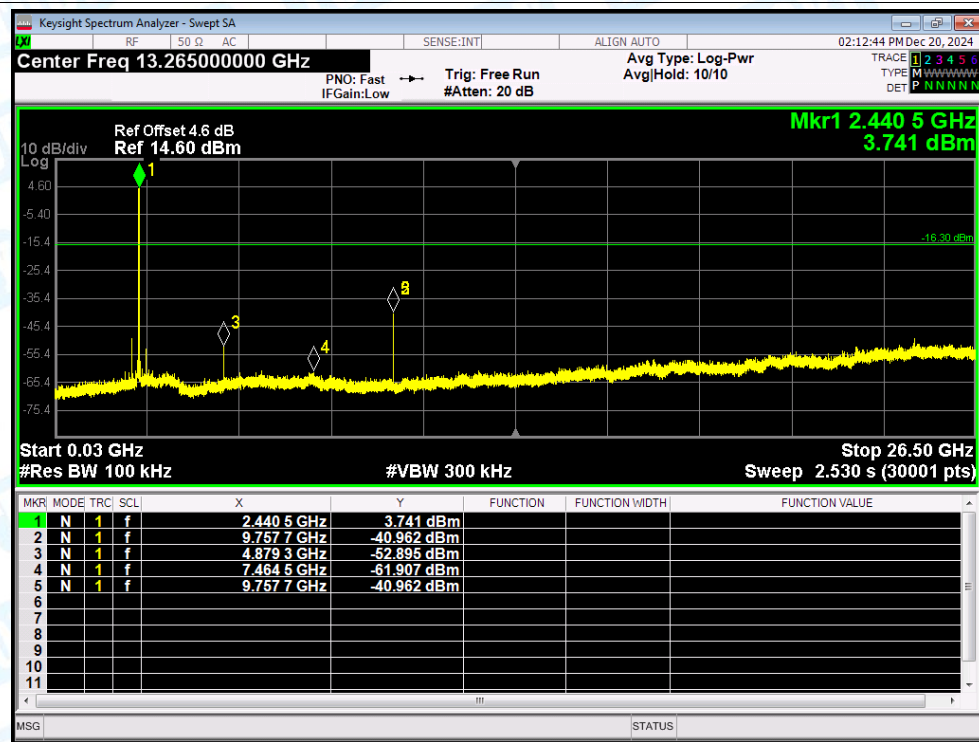
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



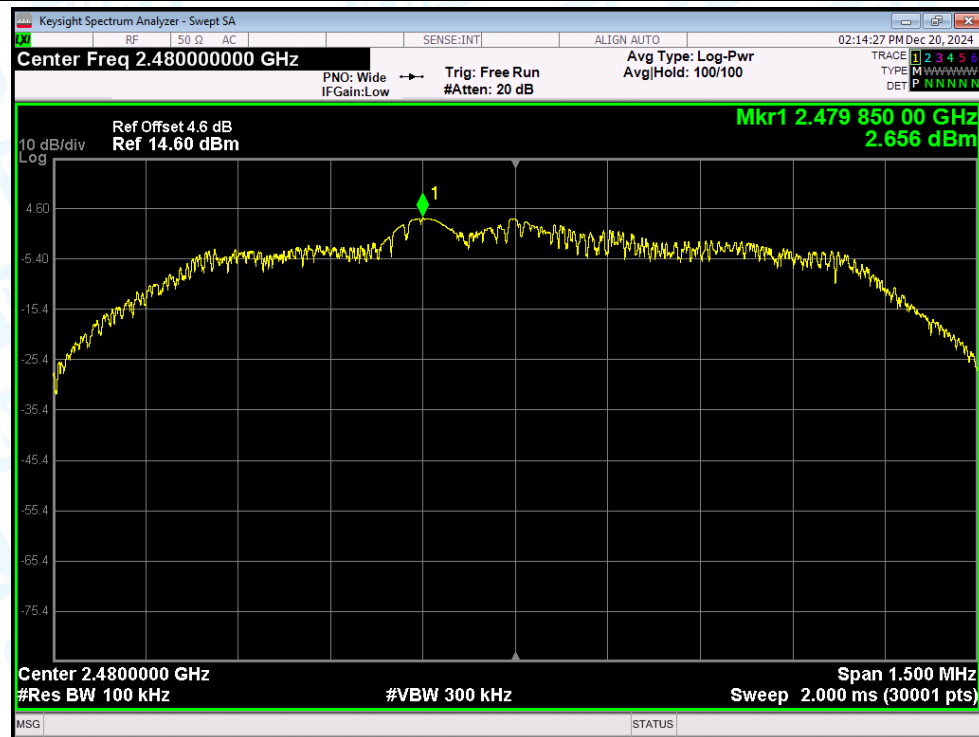
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



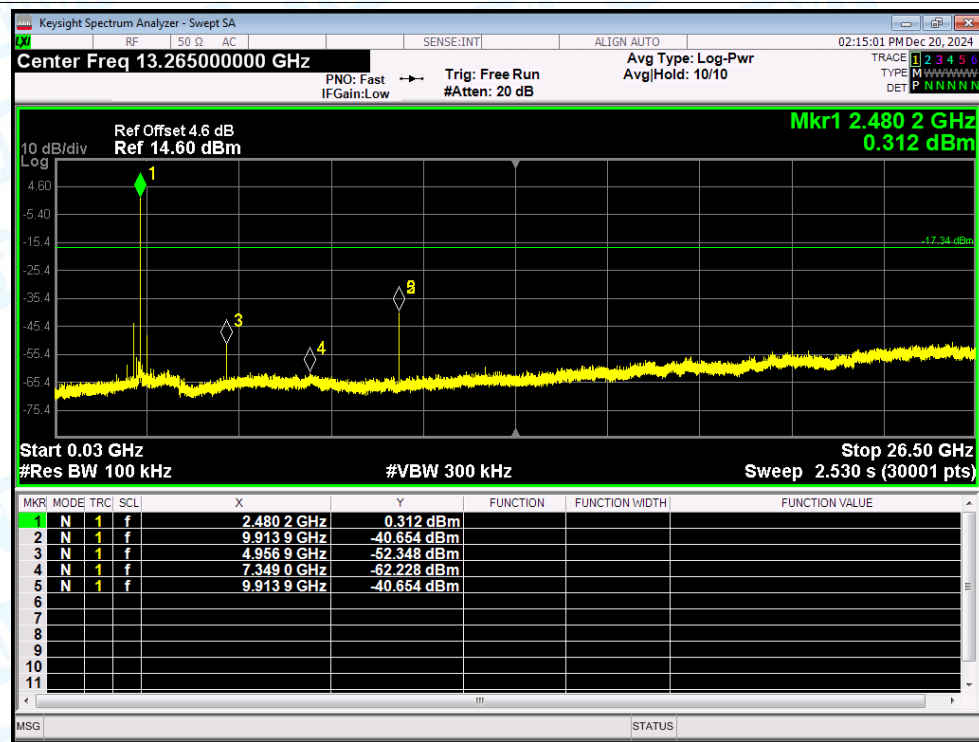
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



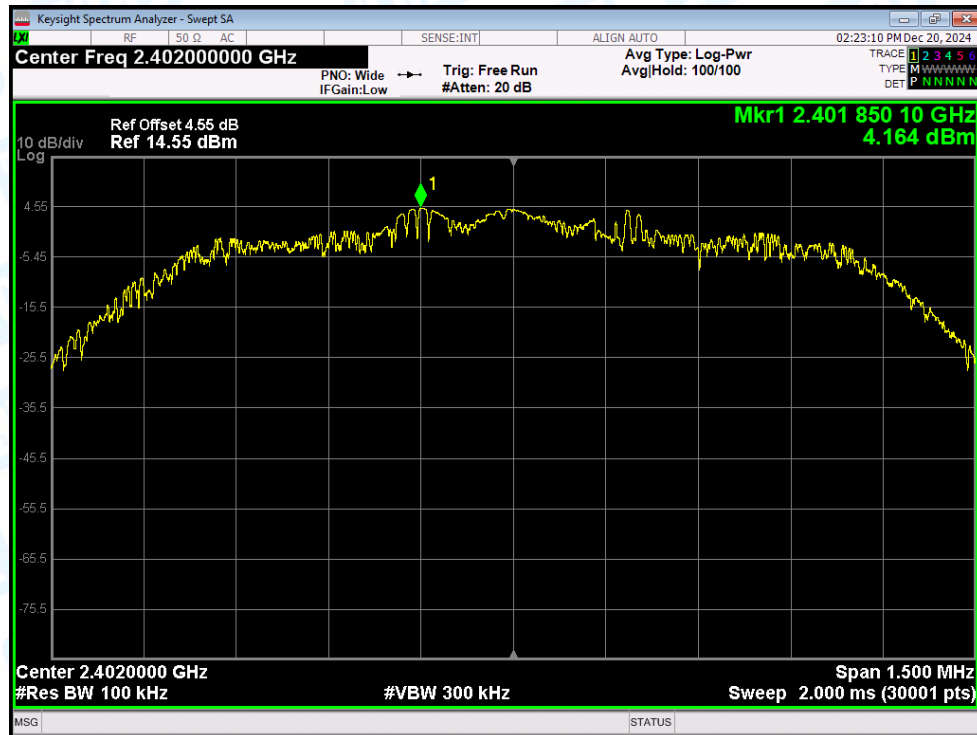
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



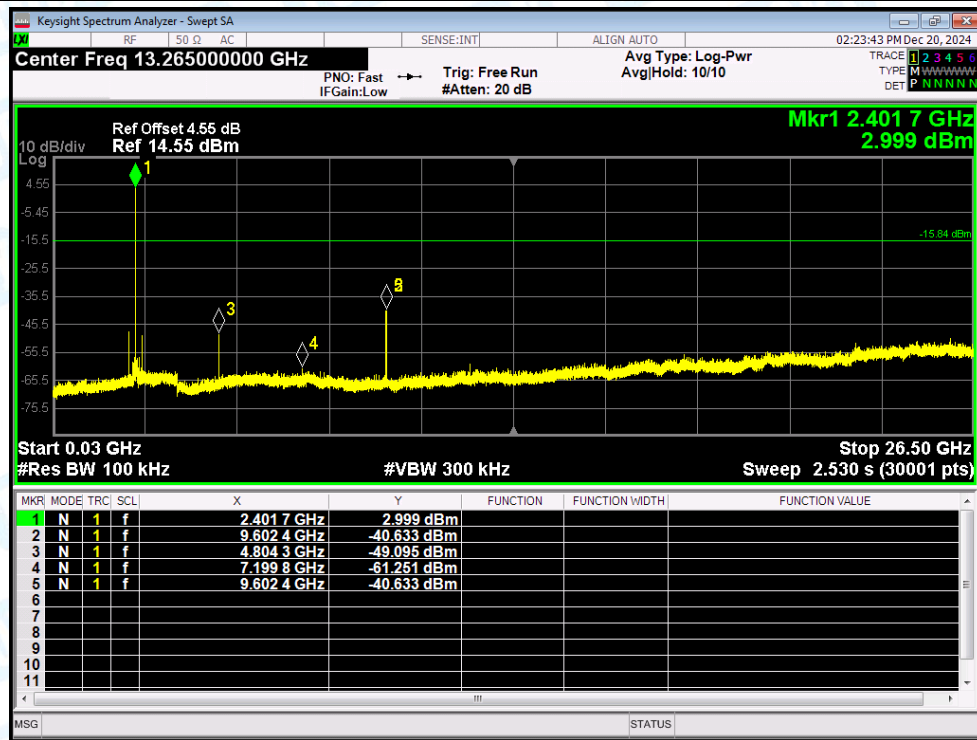
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



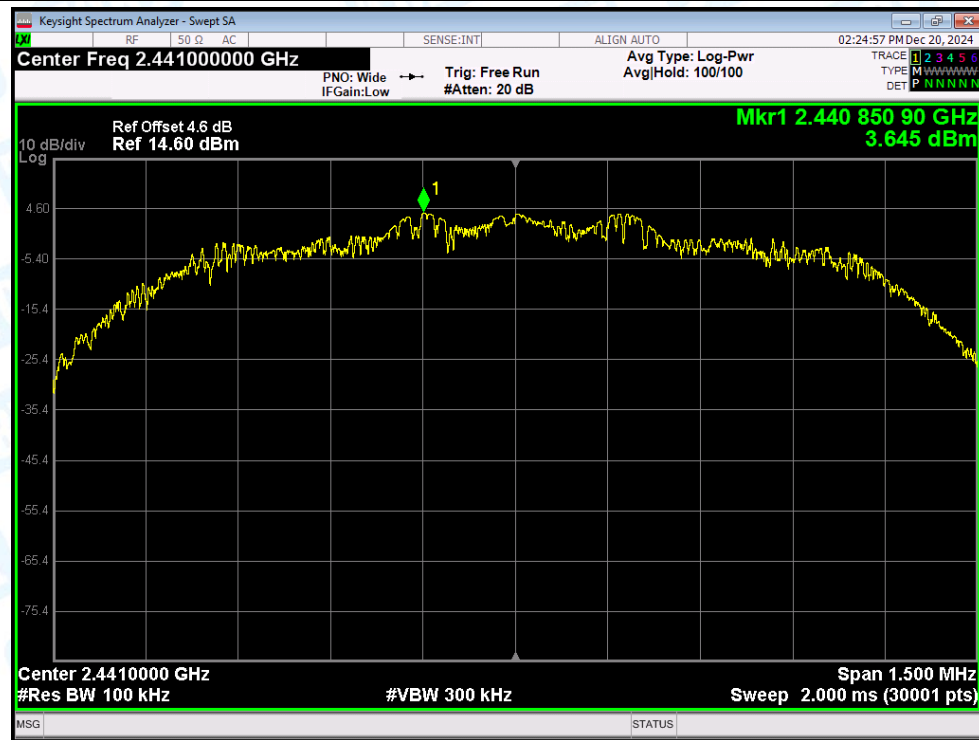
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



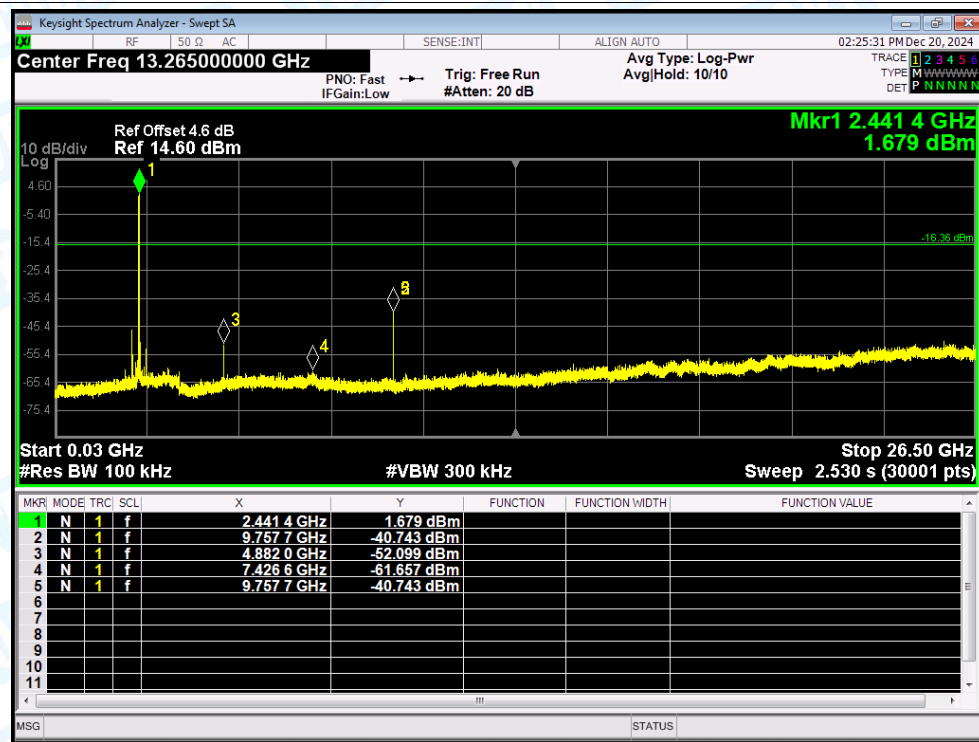
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



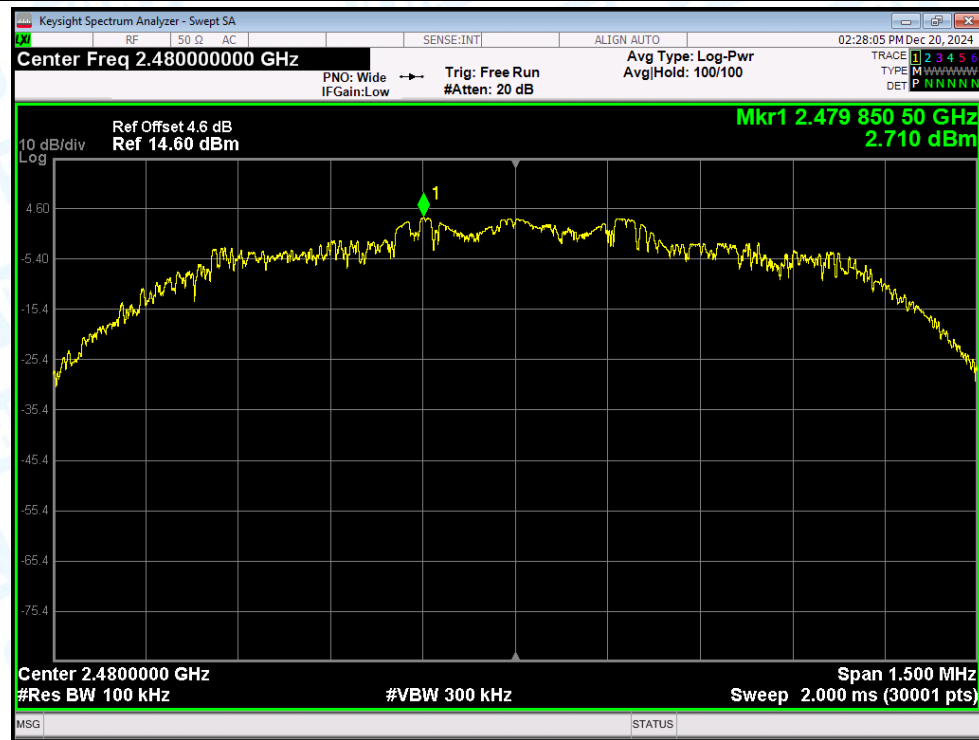
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



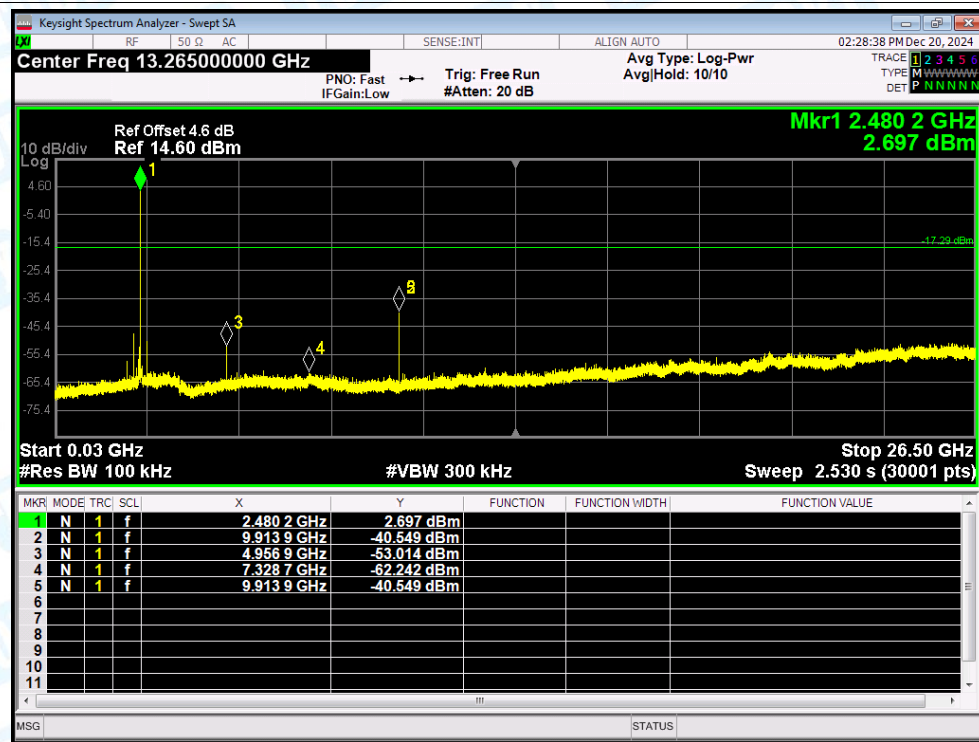
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

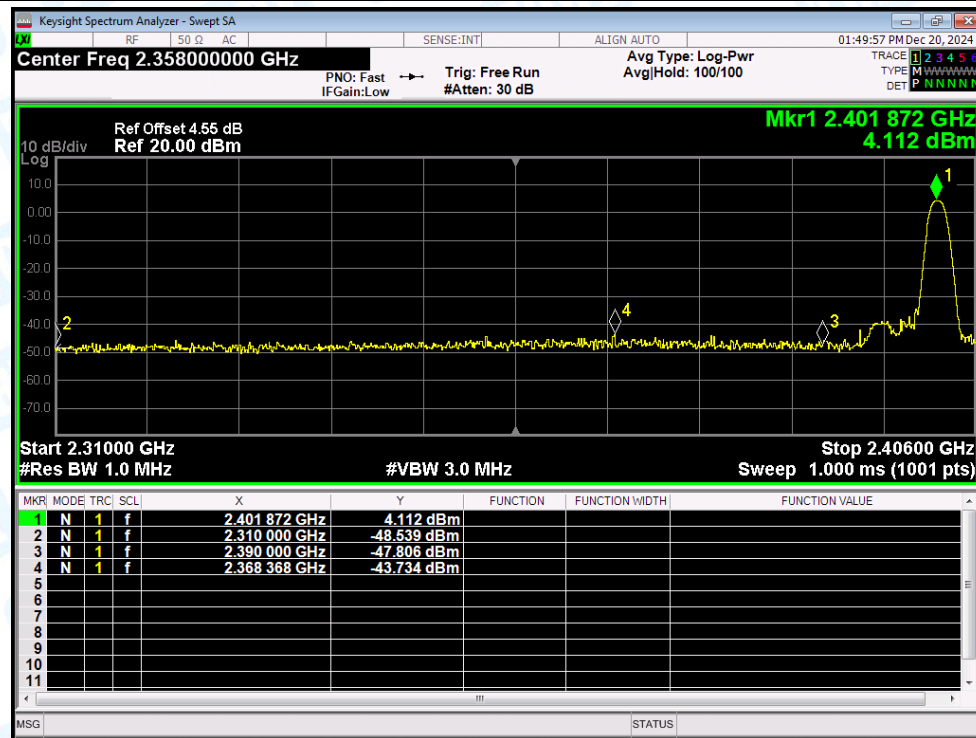


8. Restrict Band

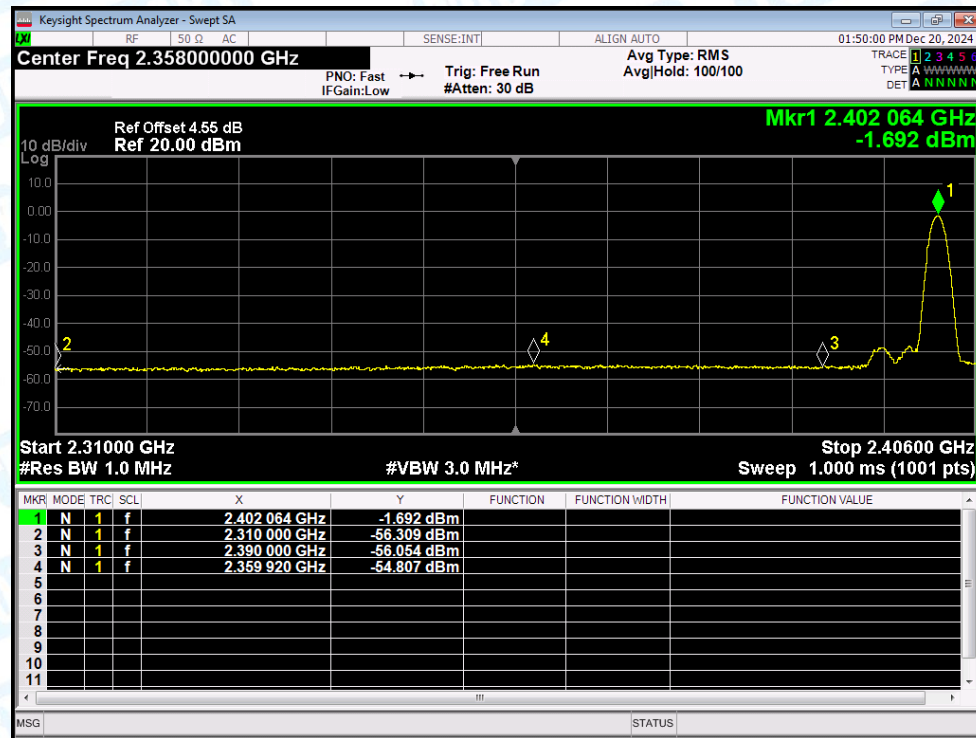
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-48.54	2.7	-	49.42	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.31	2.7	5.17	46.82	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2368.368	-43.73	2.7	-	54.23	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2359.92	-54.81	2.7	5.17	48.32	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-47.81	2.7	-	50.15	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-56.05	2.7	5.17	47.08	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-45.14	2.7	-	52.82	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-54.03	2.7	5.17	49.1	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.656	-43.19	2.7	-	54.77	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.584	-53.62	2.7	5.17	49.51	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-45.21	2.7	-	52.75	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-54.91	2.7	5.17	48.22	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-48.37	2.7	-	49.59	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.71	2.7	5.06	46.31	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2365.008	-43.78	2.7	-	54.18	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2359.248	-54.58	2.7	5.06	48.44	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-46.62	2.7	-	51.34	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-55.65	2.7	5.06	47.37	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-44.78	2.7	-	53.18	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-54.21	2.7	4.95	48.7	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.56	-42.95	2.7	-	55.01	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.656	-54.13	2.7	4.95	48.78	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-47.29	2.7	-	50.67	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.93	2.7	4.95	46.98	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-48.61	2.7	-	49.35	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.7	2.7	5.06	46.32	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2358.288	-43.62	2.7	-	54.34	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2371.824	-54.78	2.7	5.06	48.24	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-46.5	2.7	-	51.46	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-55.95	2.7	5.06	47.07	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-45.79	2.7	-	52.17	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-54.57	2.7	5.06	48.45	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2484.784	-38.62	2.7	-	59.34	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2484.544	-54.22	2.7	5.06	48.8	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-47.62	2.7	-	50.34	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.38	2.7	5.06	47.64	Average	54	Pass

Test Graphs

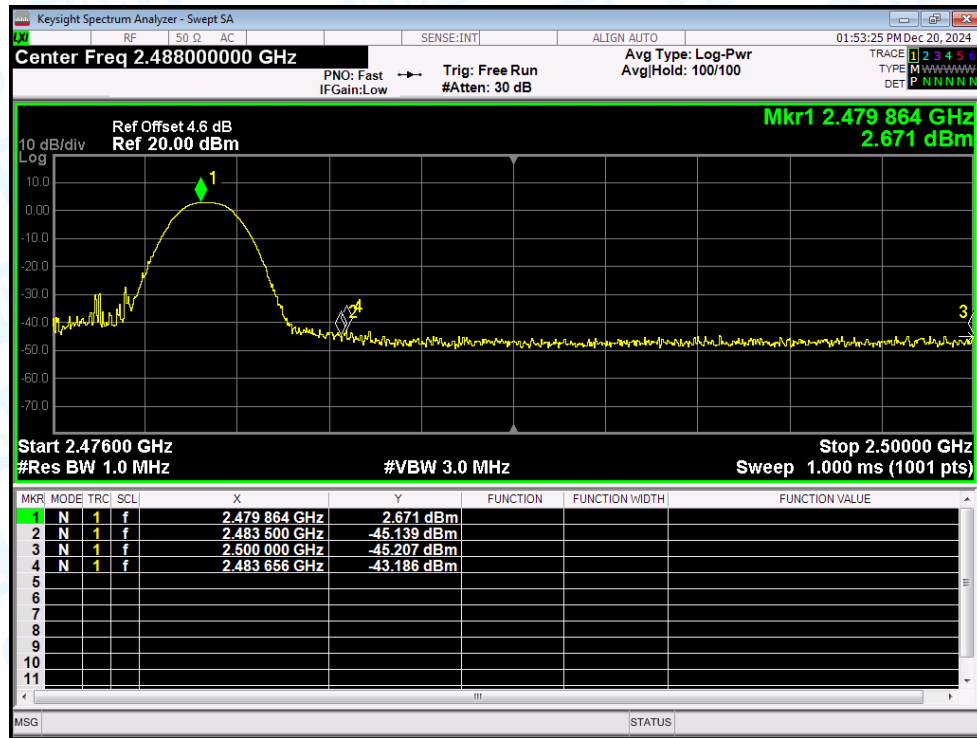
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



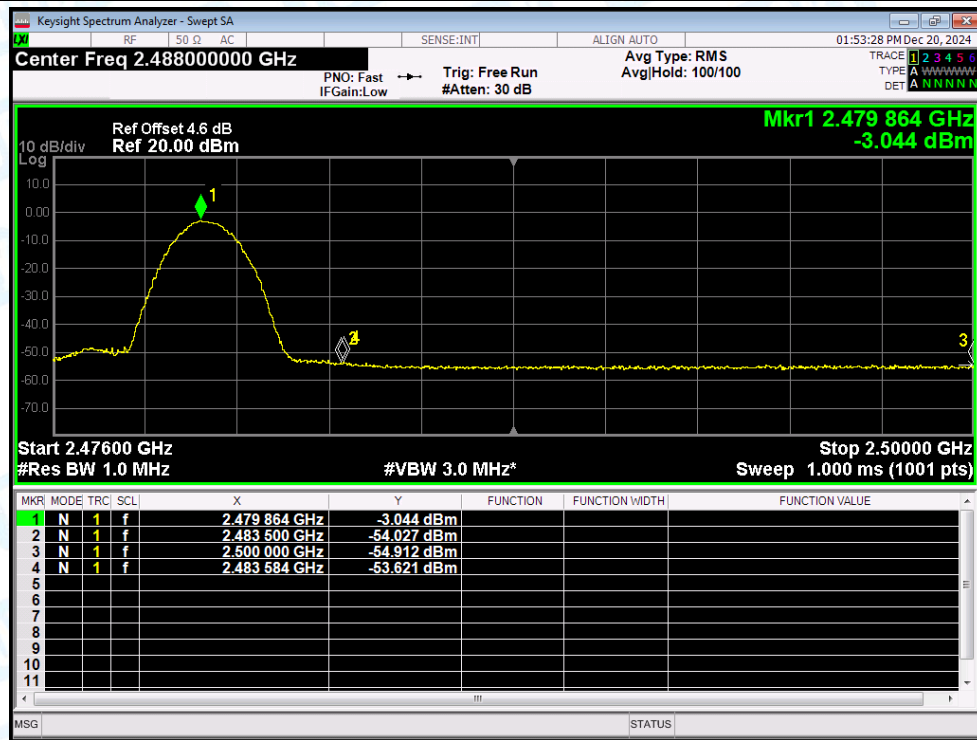
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



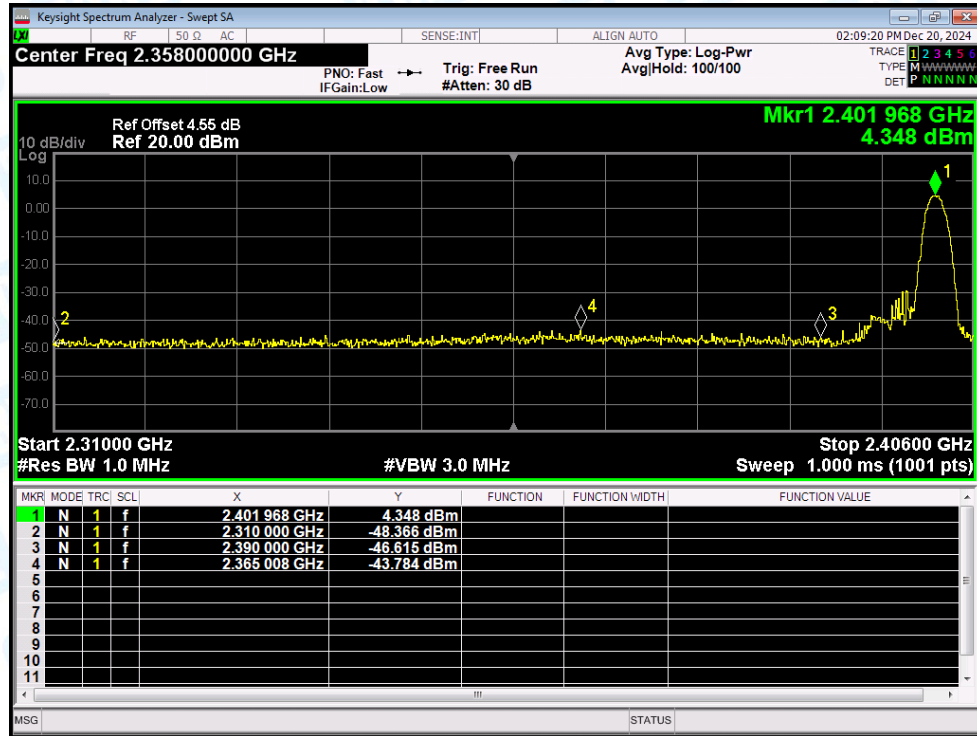
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



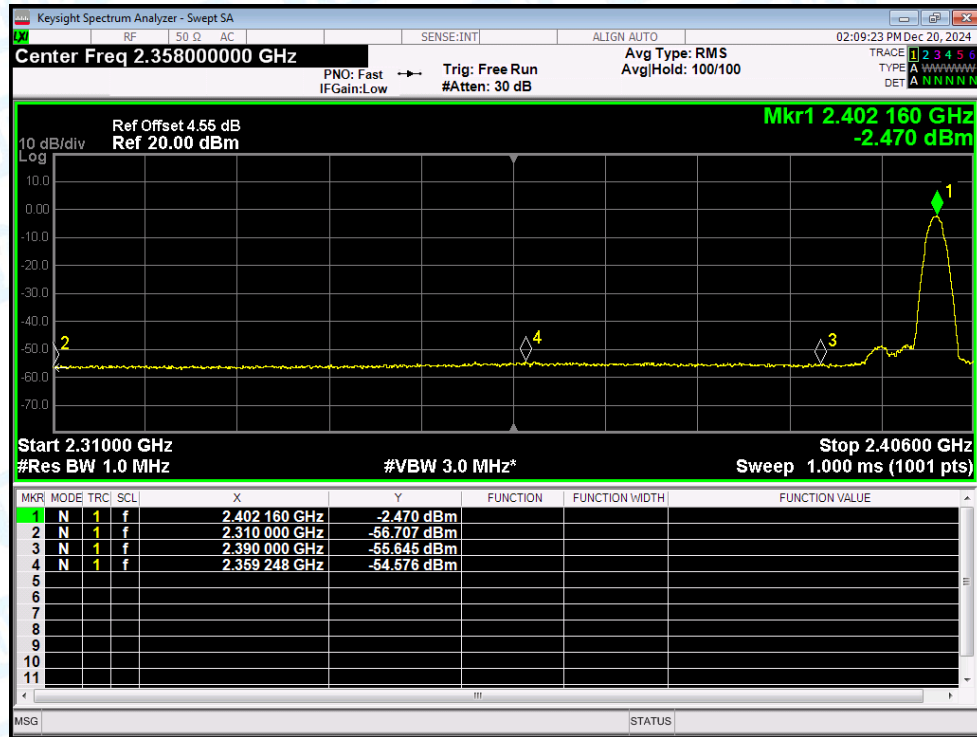
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



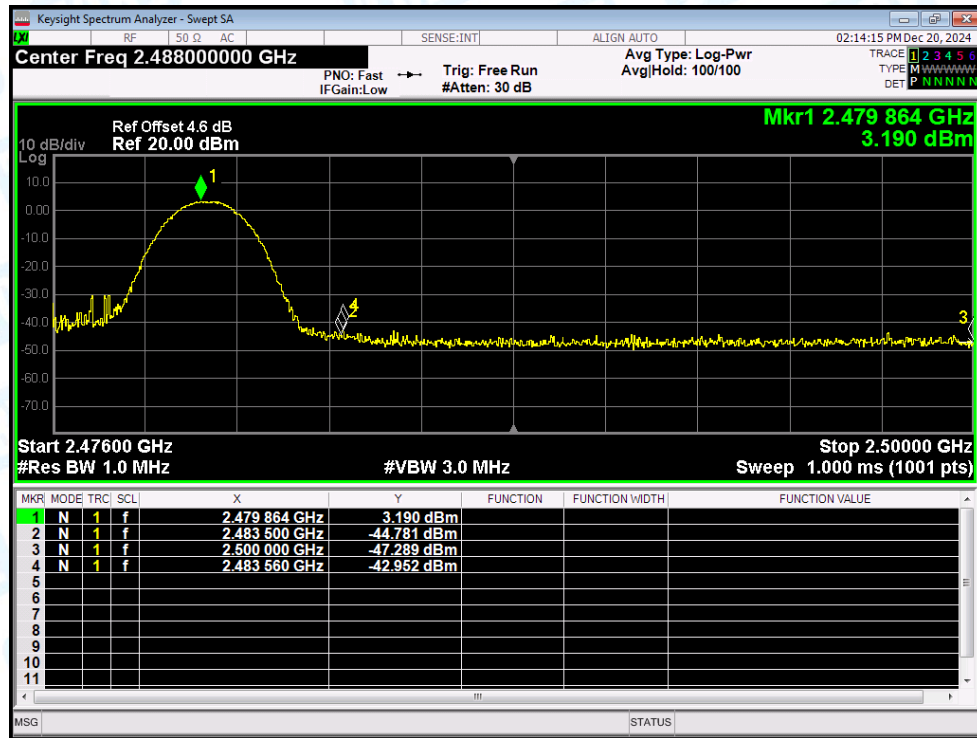
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



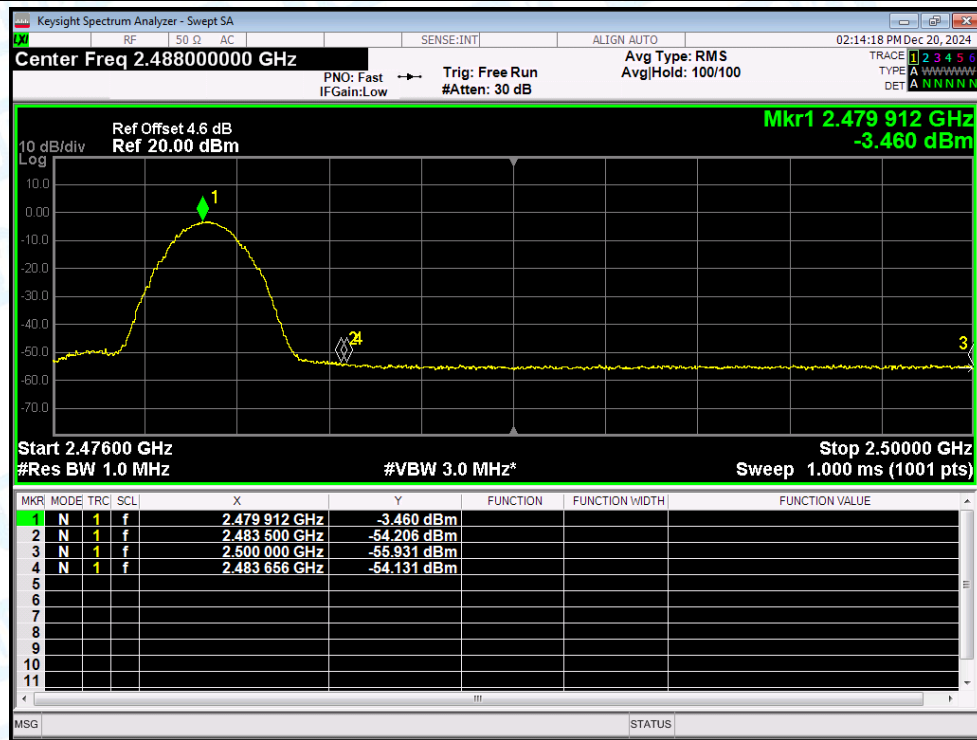
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



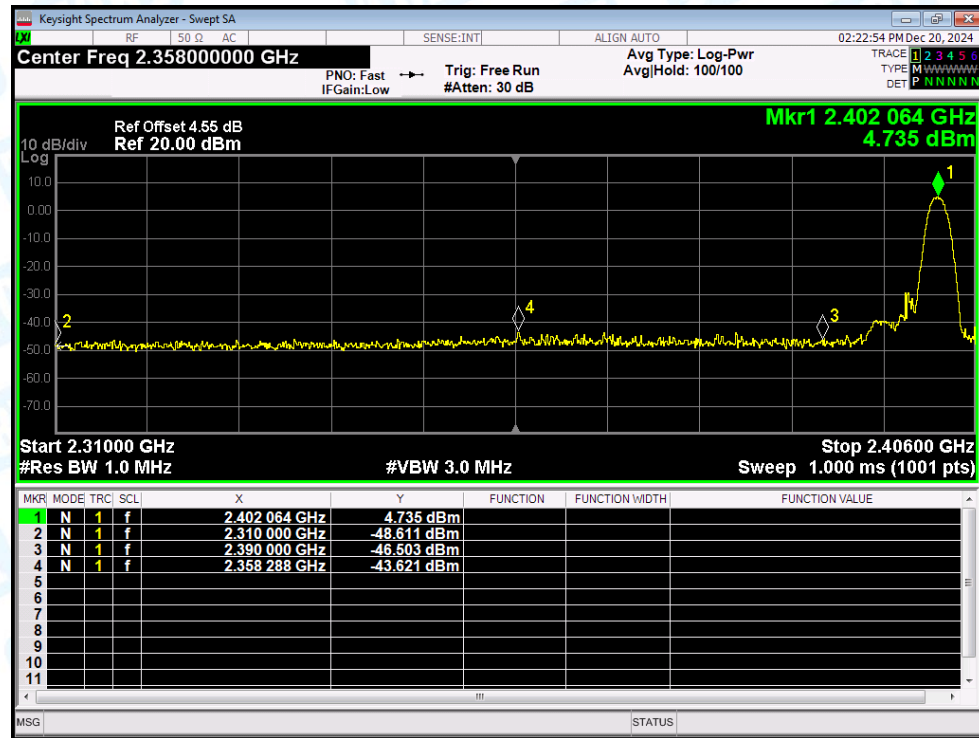
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



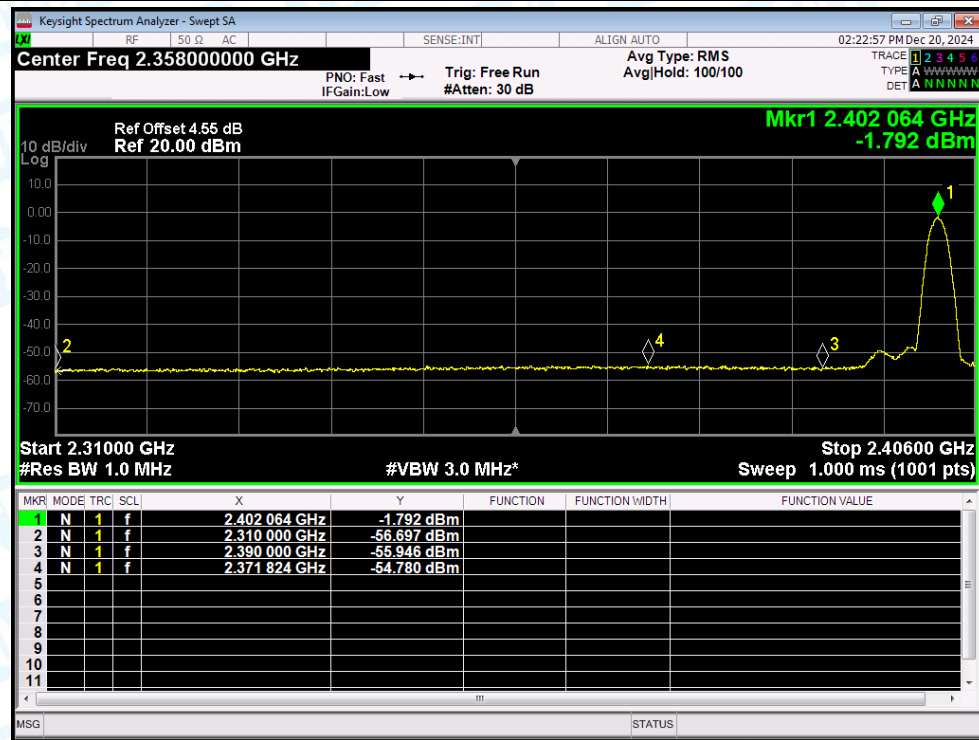
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



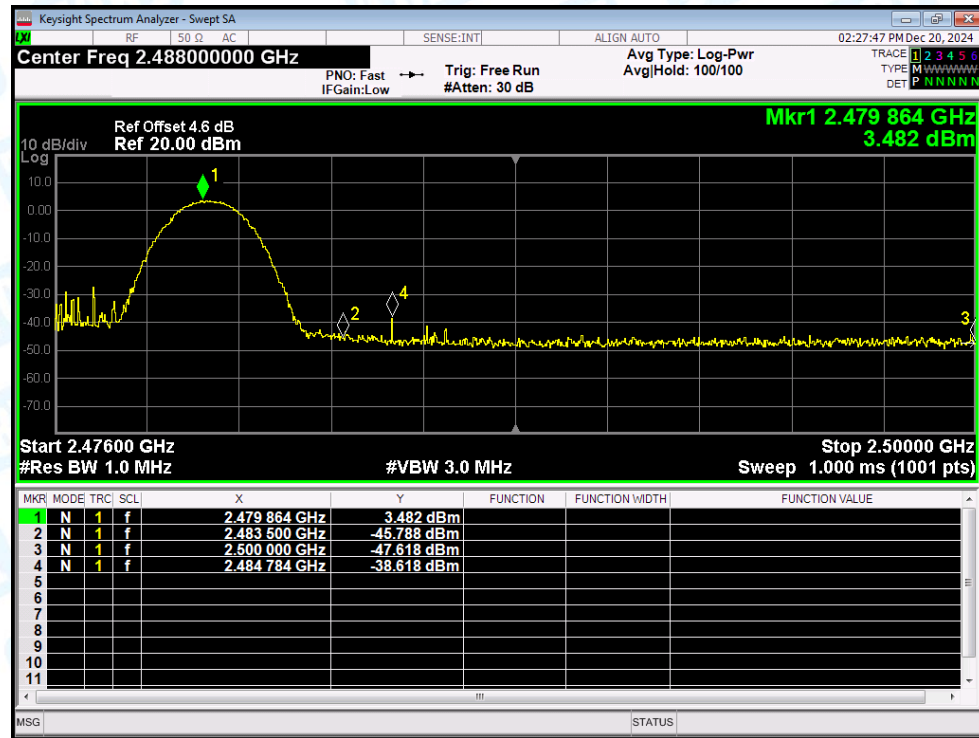
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



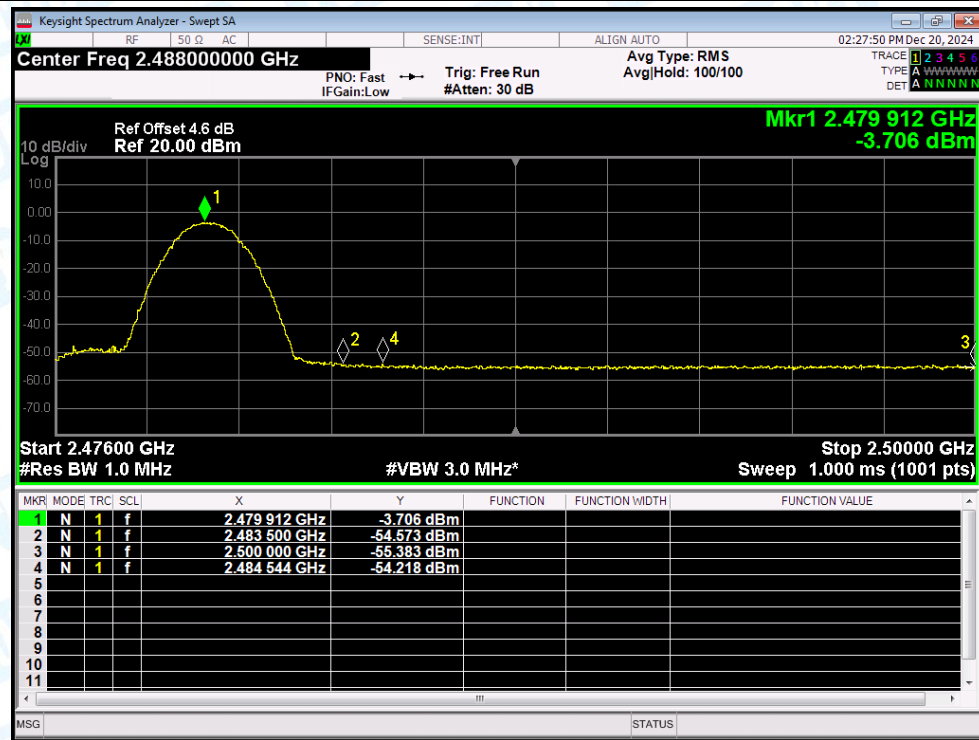
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

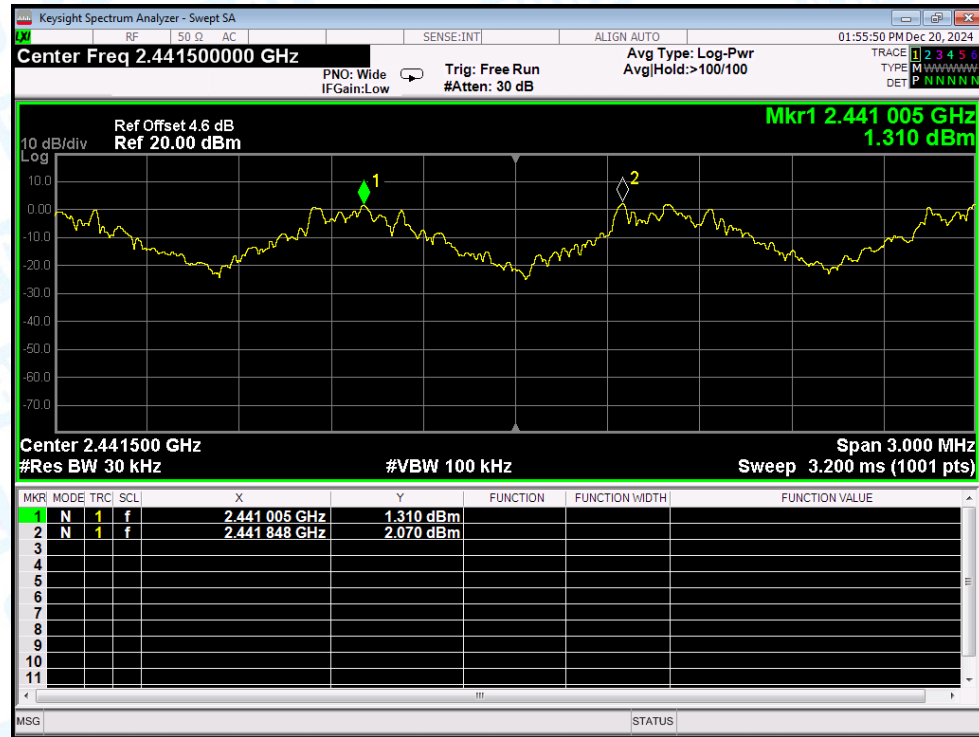


9. Carrier Frequencies Separation

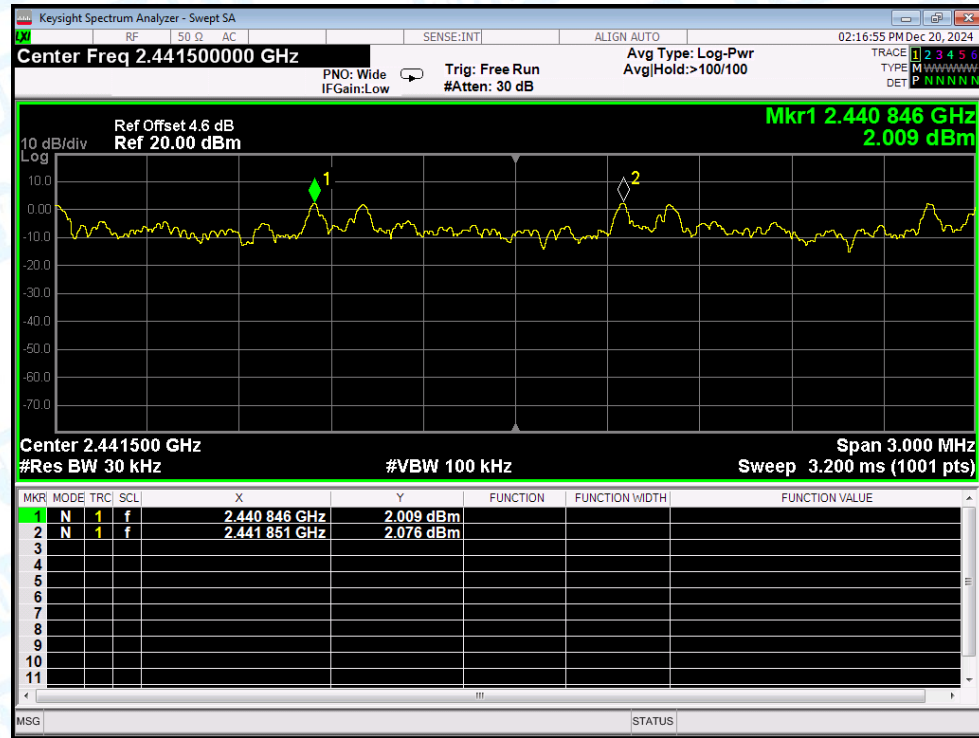
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2441.005	2441.848	0.843	0.573	Pass
NVNT	2-DH1	Ant1	2440.846	2441.851	1.005	0.827	Pass
NVNT	3-DH1	Ant1	2440.996	2442.004	1.008	0.813	Pass

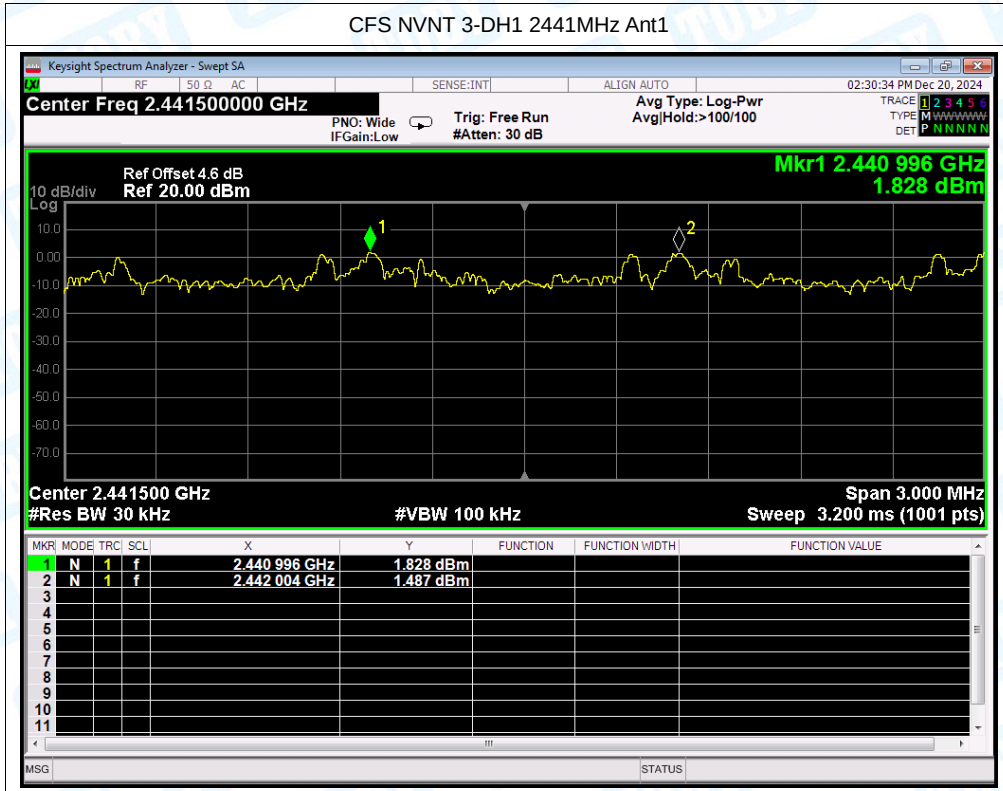
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



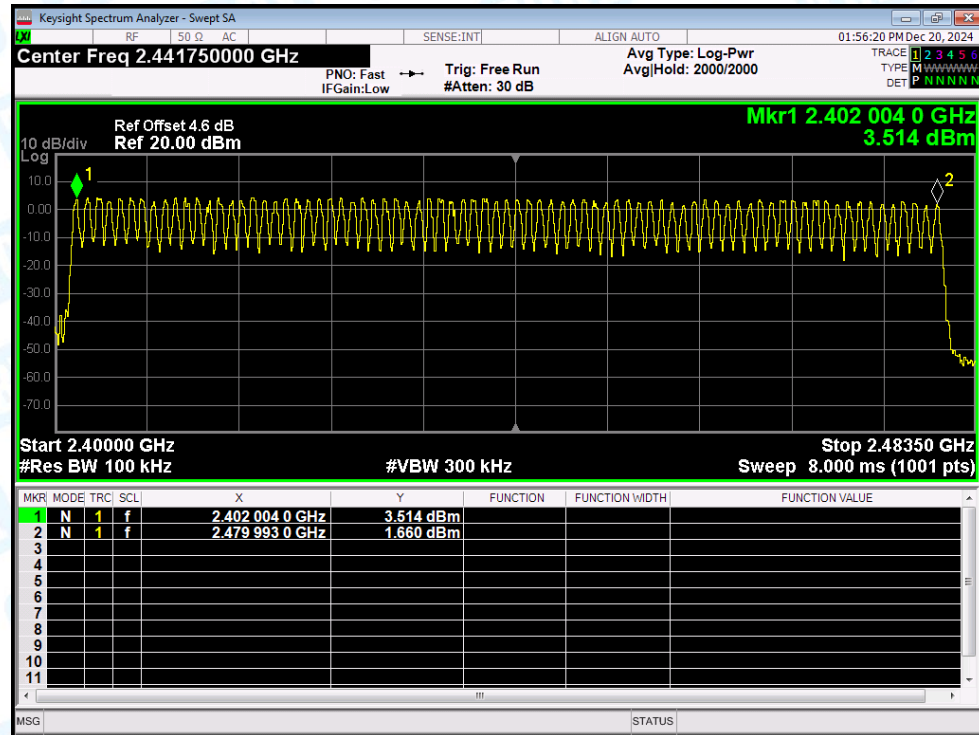


10. Number of Hopping Channel

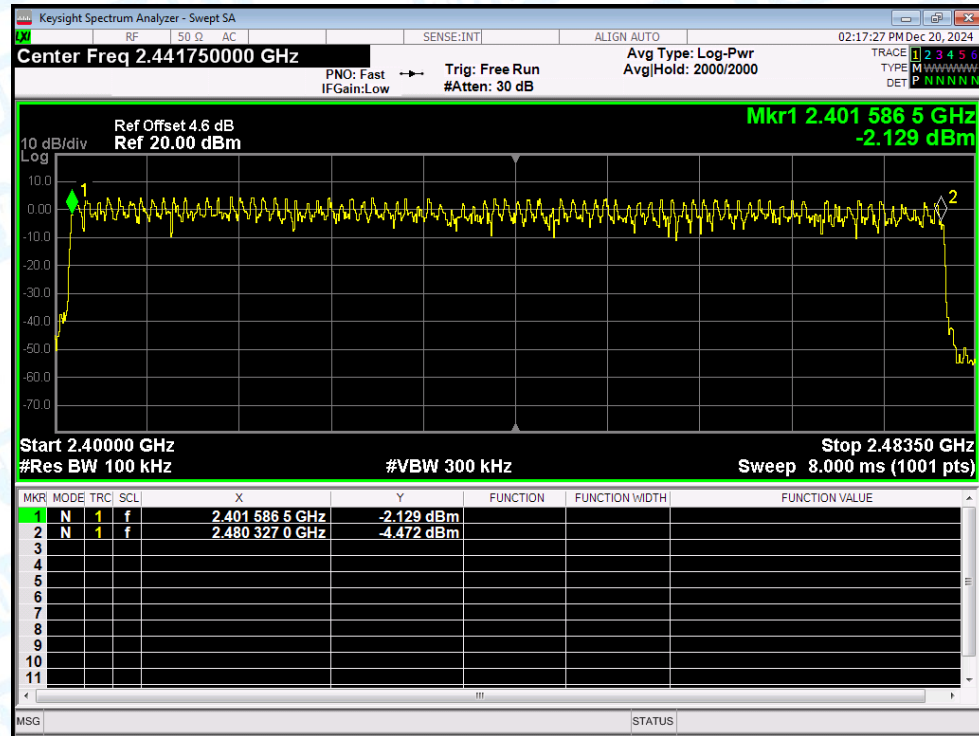
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

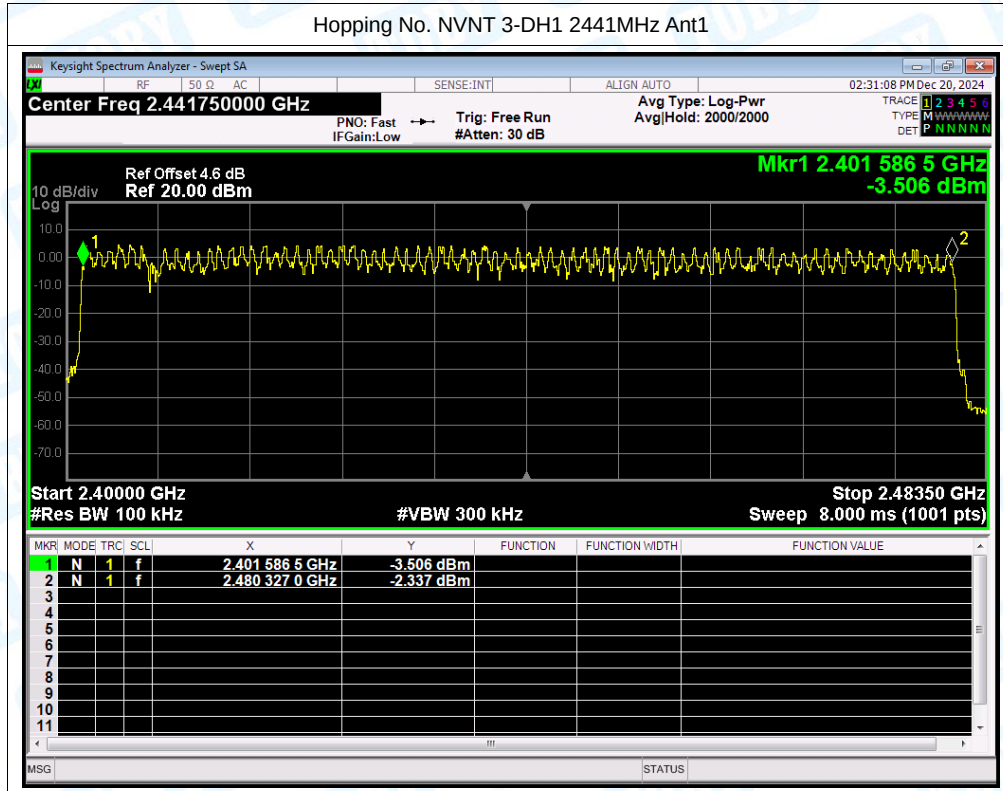
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



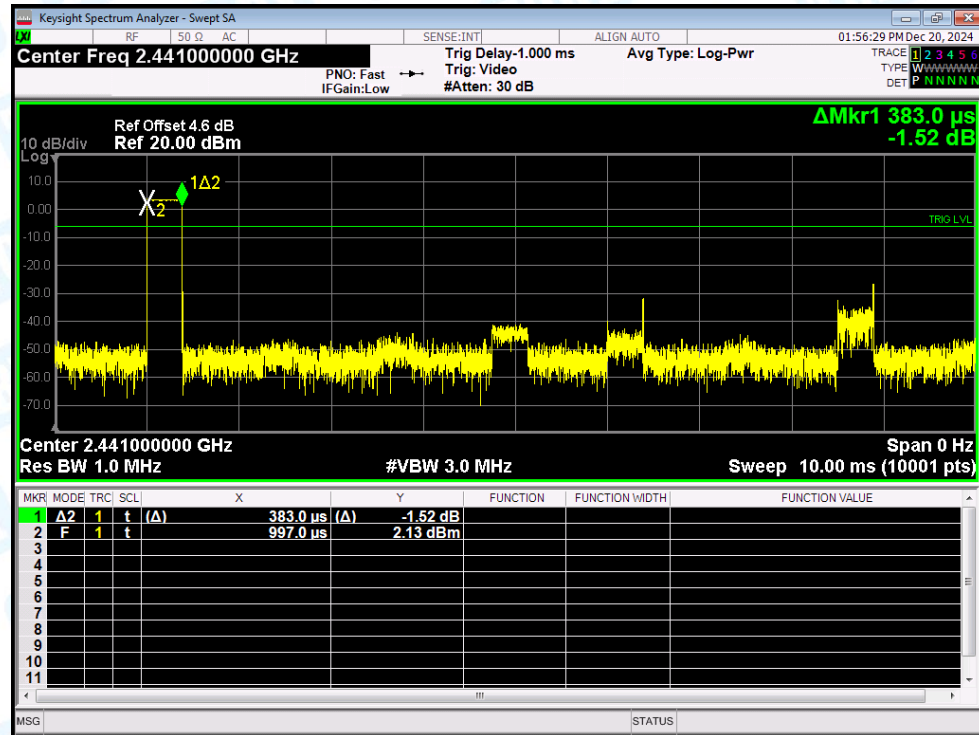


11. Dwell Time

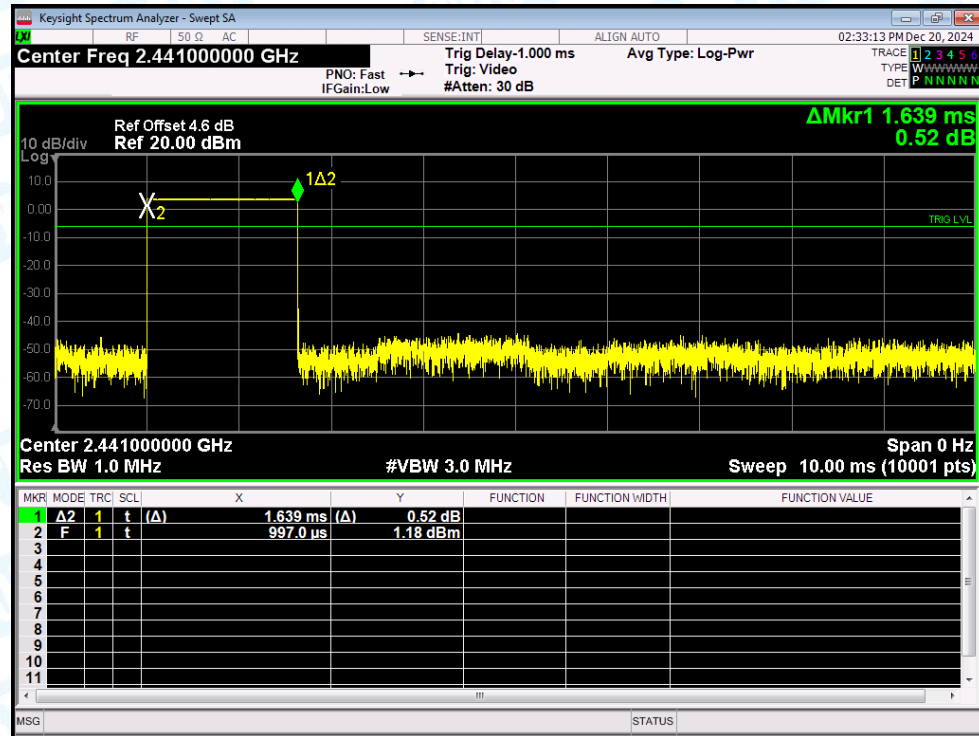
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.383	122.56	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.639	262.24	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.887	307.947	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.393	125.76	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.645	263.2	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.893	308.587	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.392	125.44	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.644	263.04	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.894	308.693	31600	400	Pass

Test Graphs

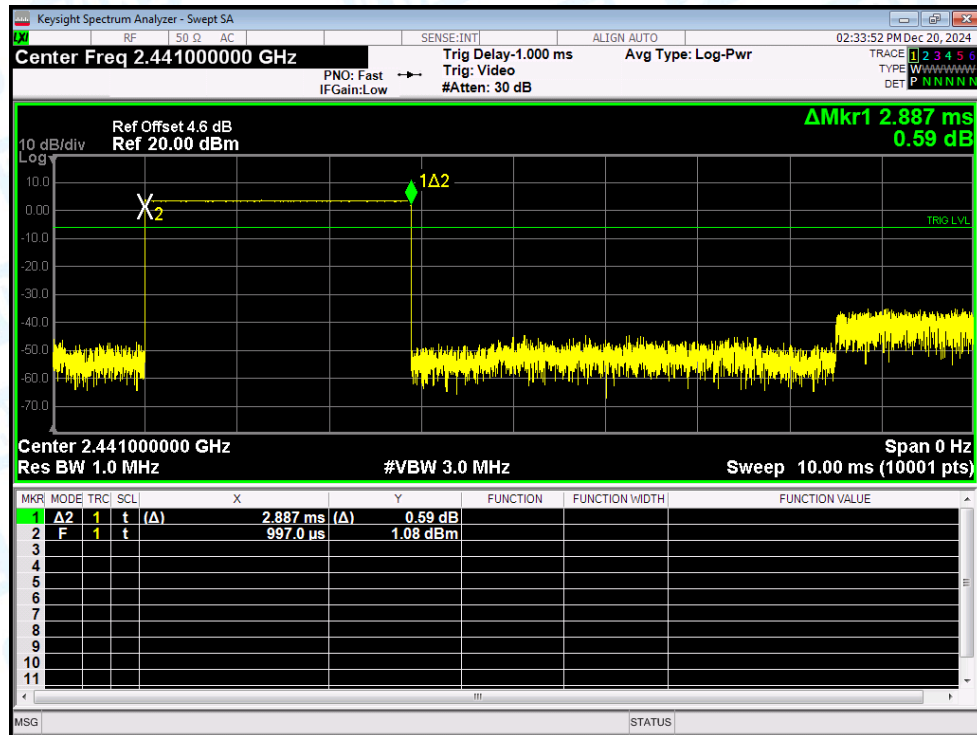
Dwell NVNT 1-DH1 2441MHz Ant1



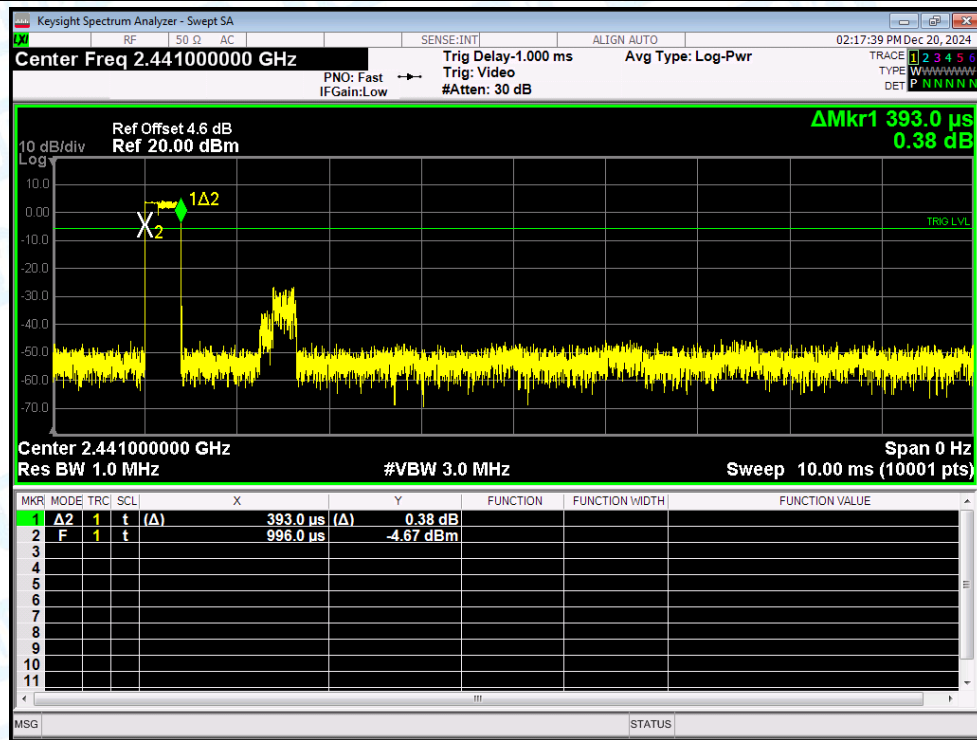
Dwell NVNT 1-DH3 2441MHz Ant1



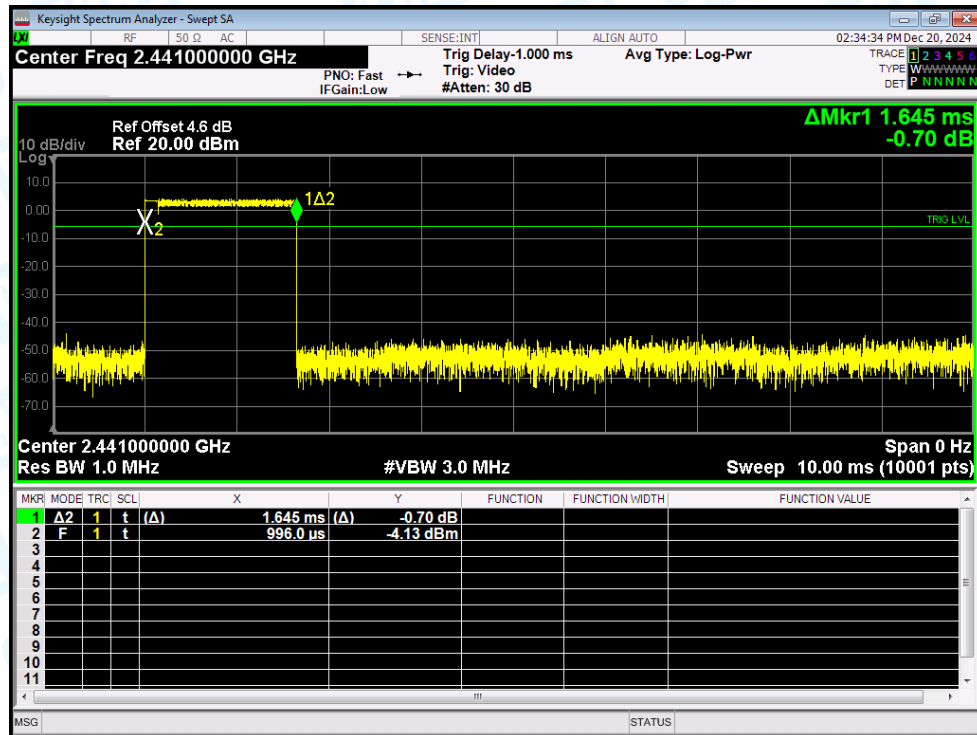
Dwell NVNT 1-DH5 2441MHz Ant1



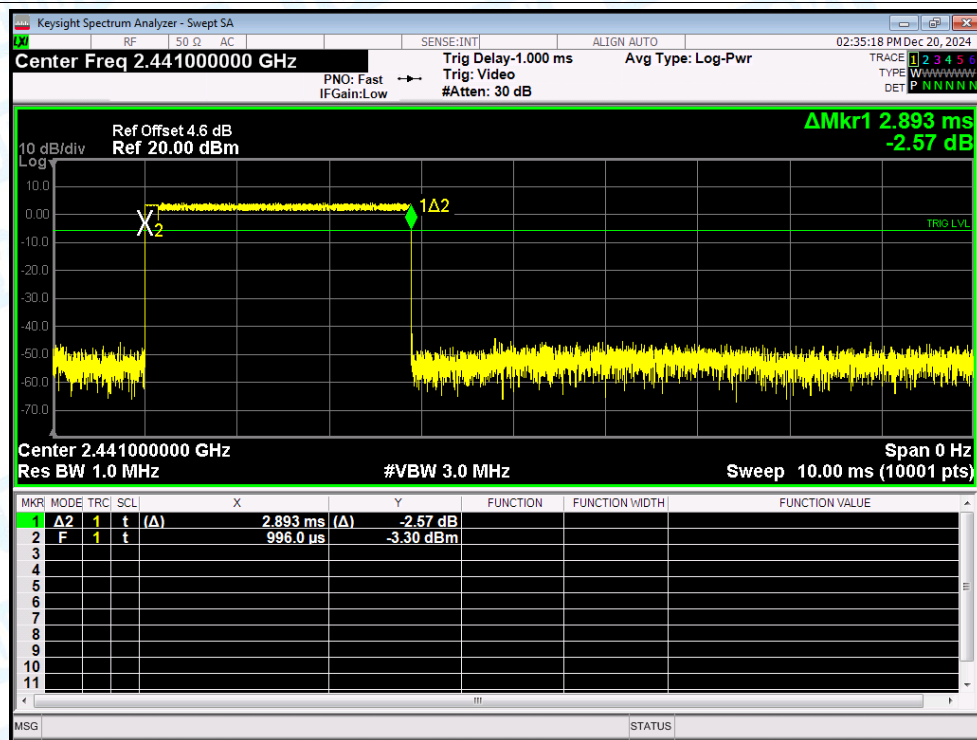
Dwell NVNT 2-DH1 2441MHz Ant1



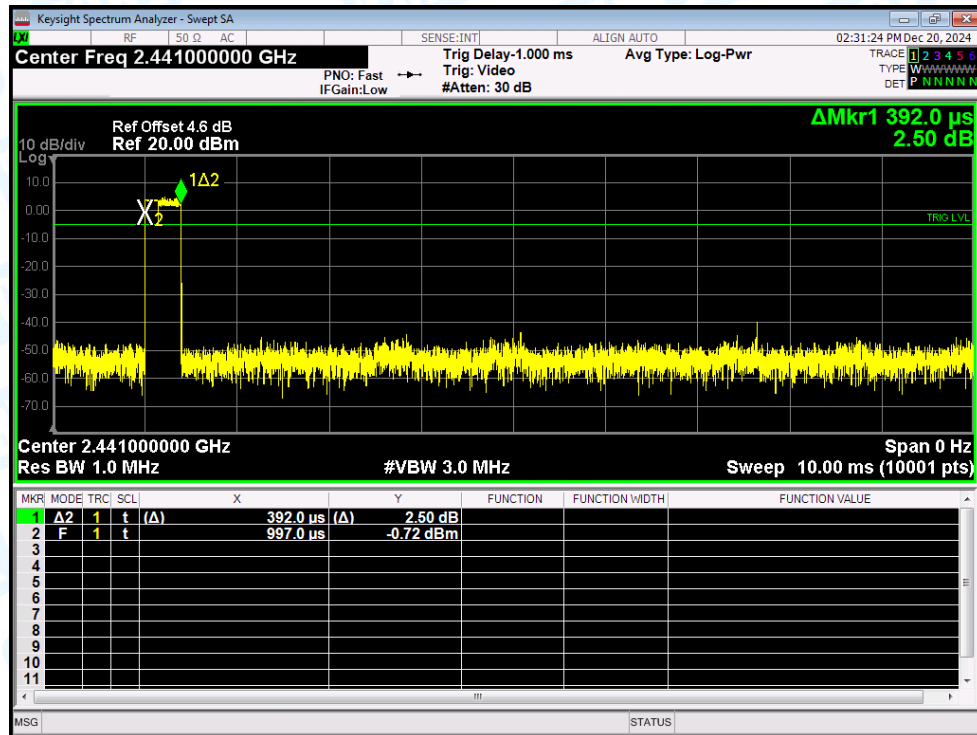
Dwell NVNT 2-DH3 2441MHz Ant1



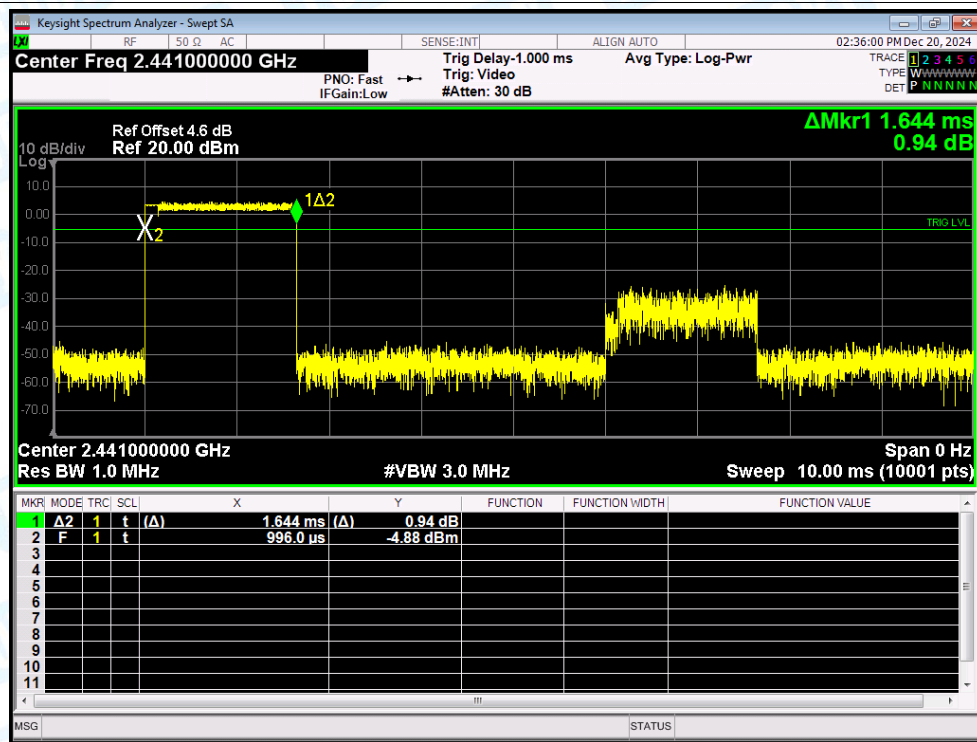
Dwell NVNT 2-DH5 2441MHz Ant1

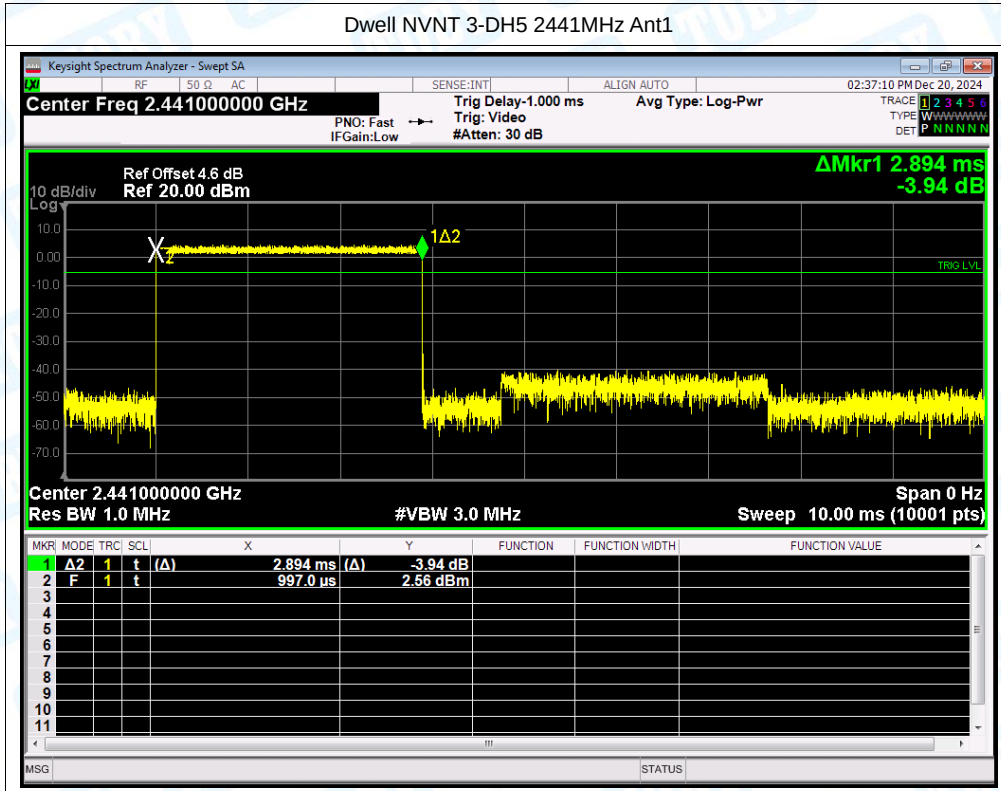


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





--- END OF REPORT ---