

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	Wireless over-ear Bluetooth headphones
Test Model:	Y02-ANC
Sample ID:	HC-C-202506-0084-01-03#
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 5V
Test Engineer:	Lily Zhang
Note: For a more detailed features description, please refer to the report TBR-C-202506-0084-24 The report only show the worst case data.	

Contents

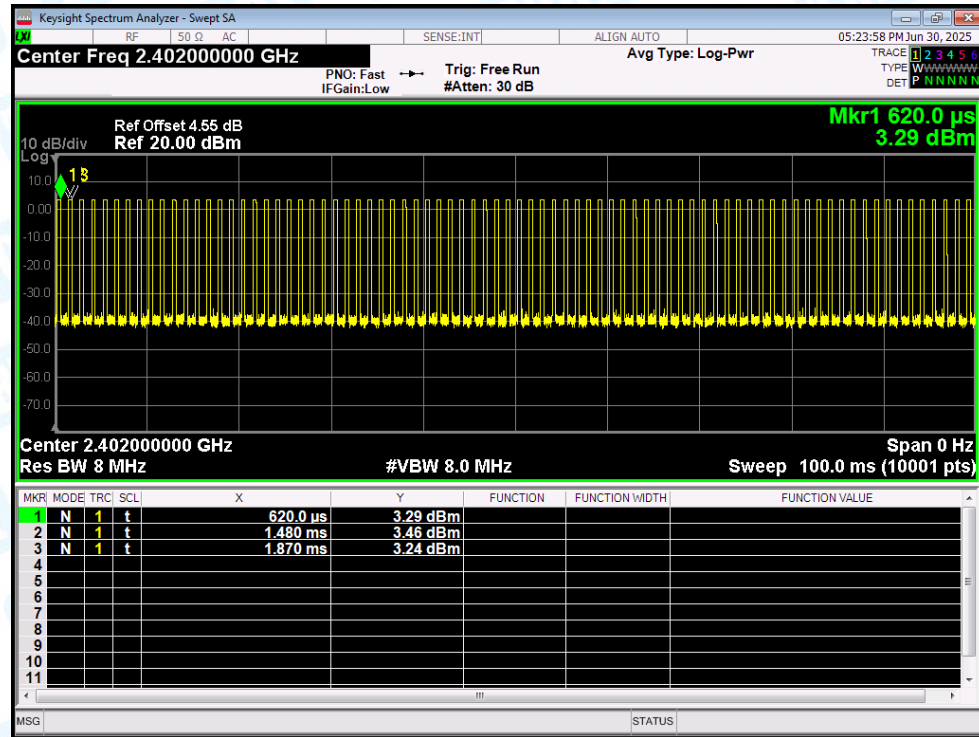
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1.Duty Cycle

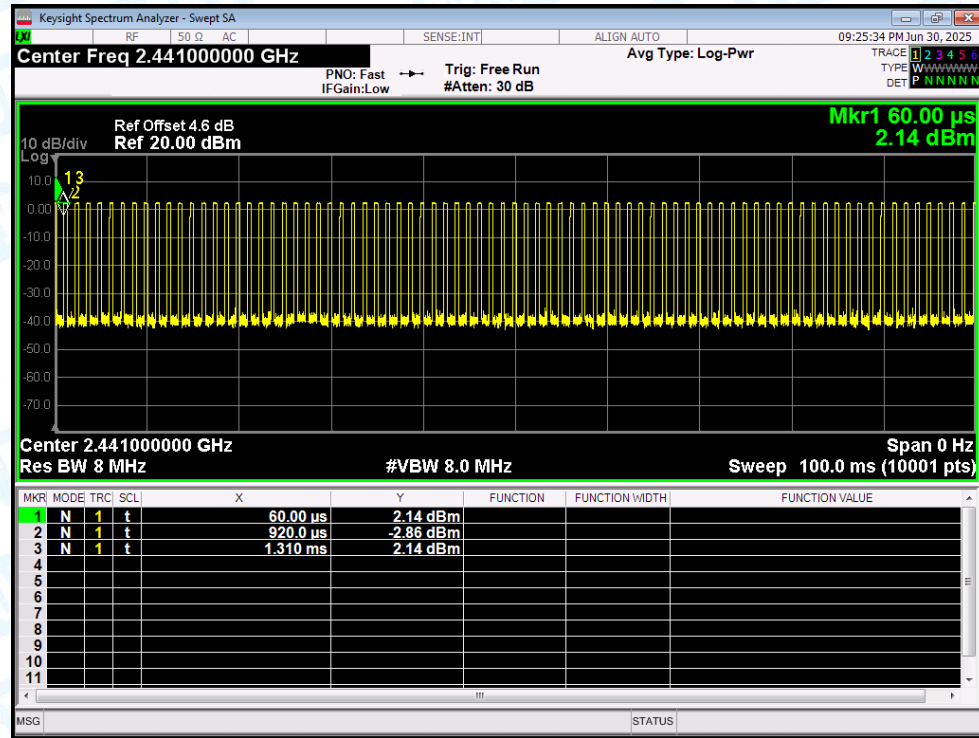
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	1-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	1-DH1	2480	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2402	Ant1	32	4.95	2.5
NVNT	2-DH1	2441	Ant1	32	4.95	2.5
NVNT	2-DH1	2480	Ant1	32	4.95	2.5
NVNT	3-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2441	Ant1	32	4.95	2.5
NVNT	3-DH1	2480	Ant1	31.45	5.02	2.56

Test Graphs

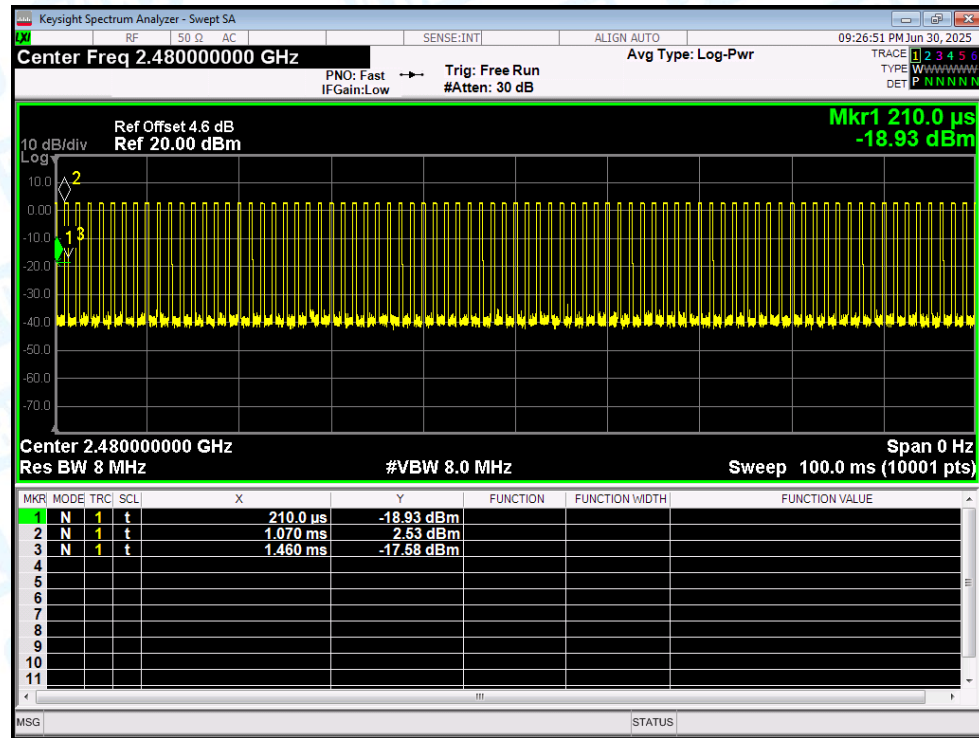
Duty Cycle NVNT 1-DH1 2402MHz Ant1



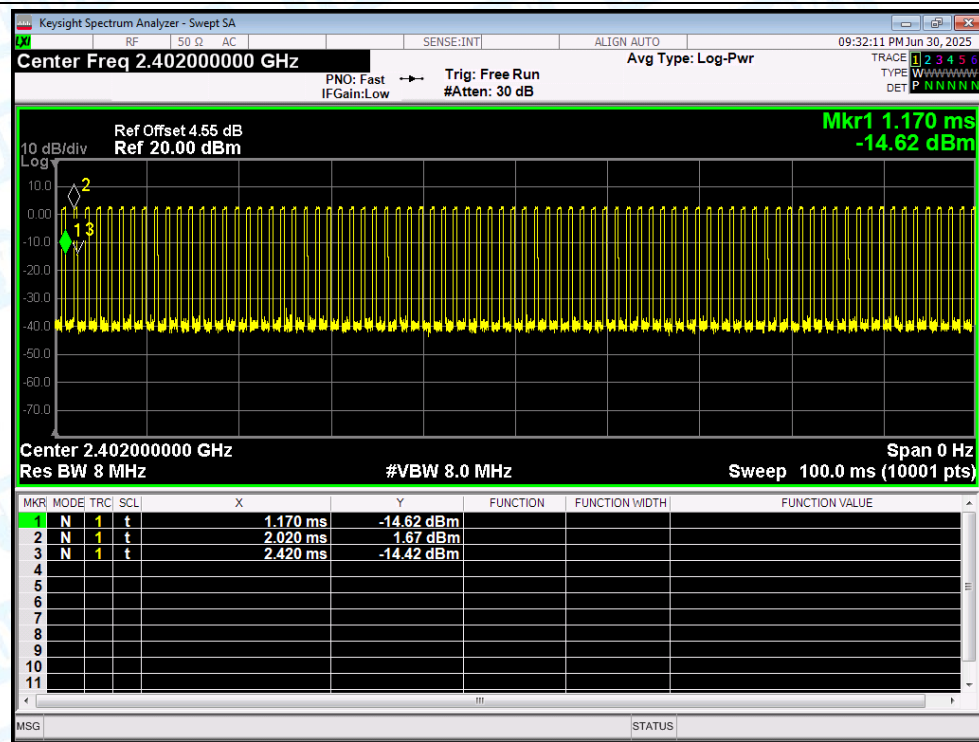
Duty Cycle NVNT 1-DH1 2441MHz Ant1



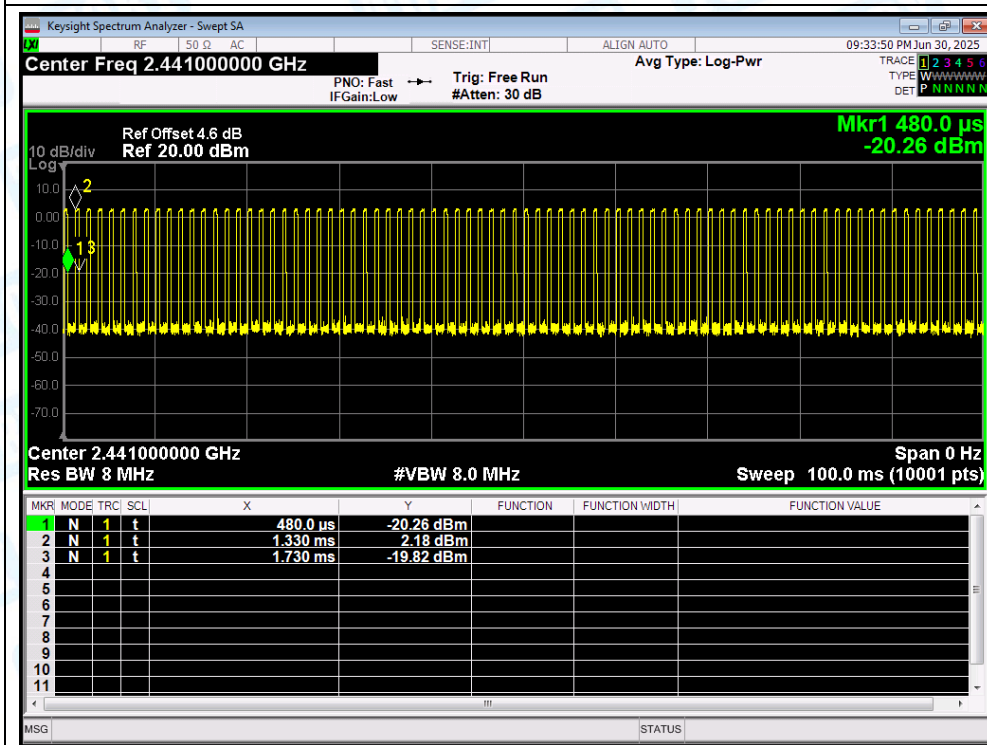
Duty Cycle NVNT 1-DH1 2480MHz Ant1



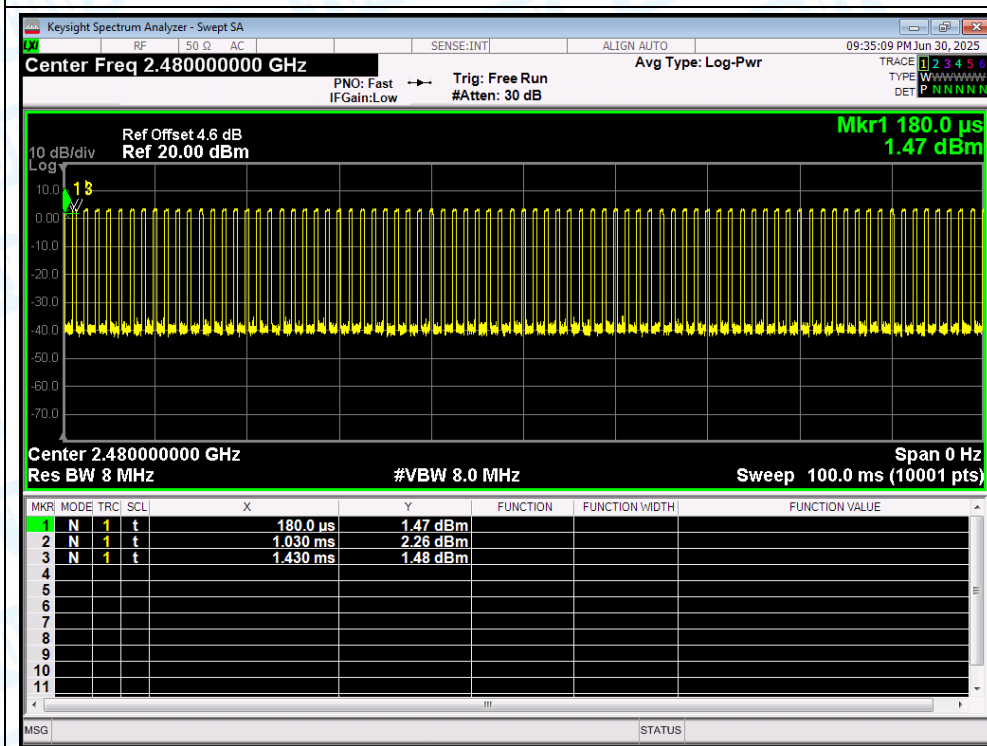
Duty Cycle NVNT 2-DH1 2402MHz Ant1



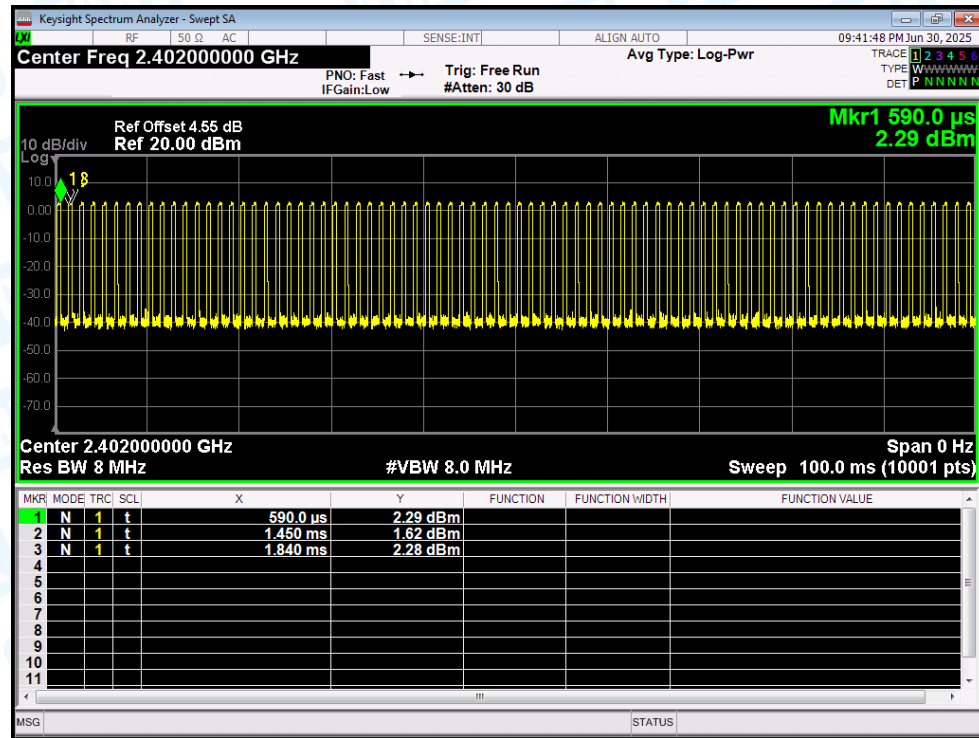
Duty Cycle NVNT 2-DH1 2441MHz Ant1



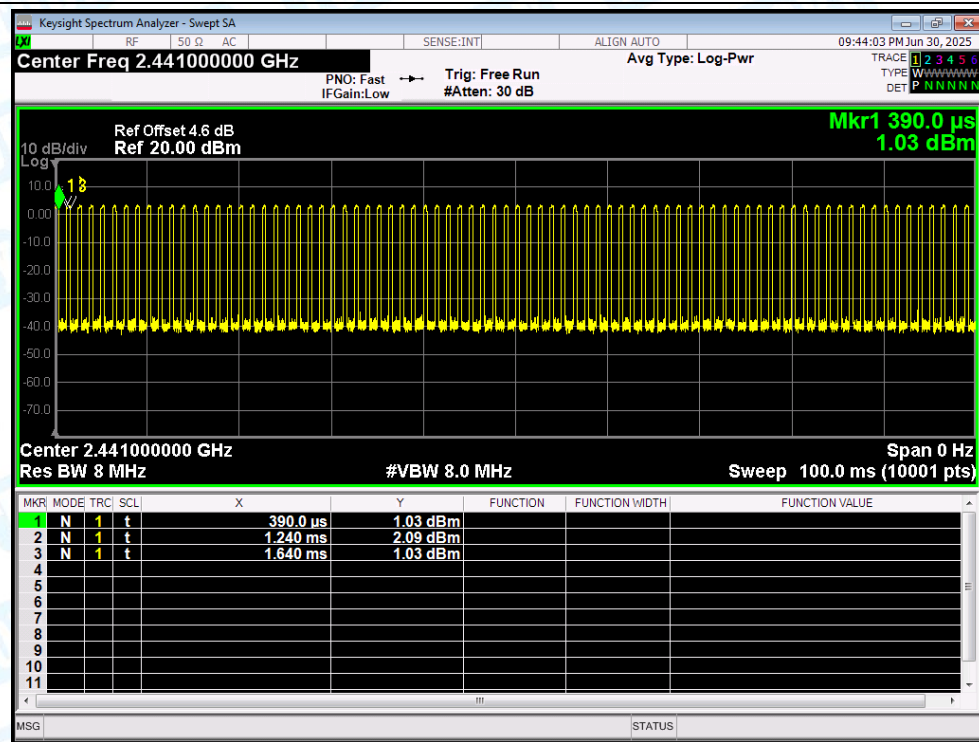
Duty Cycle NVNT 2-DH1 2480MHz Ant1

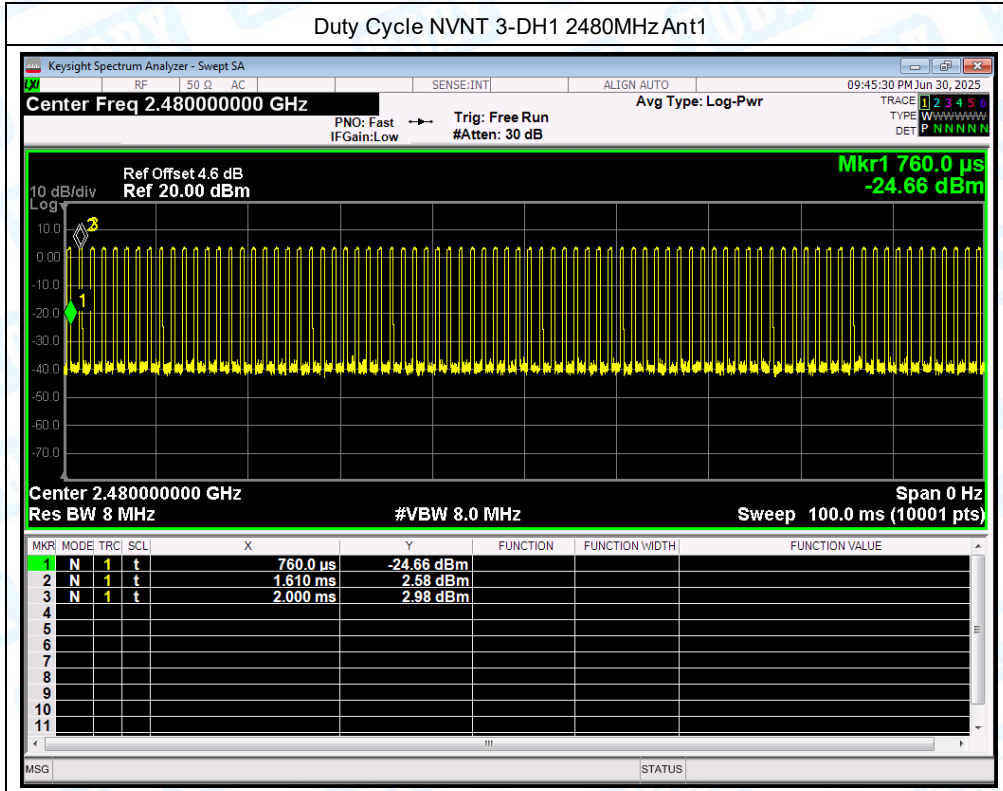


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



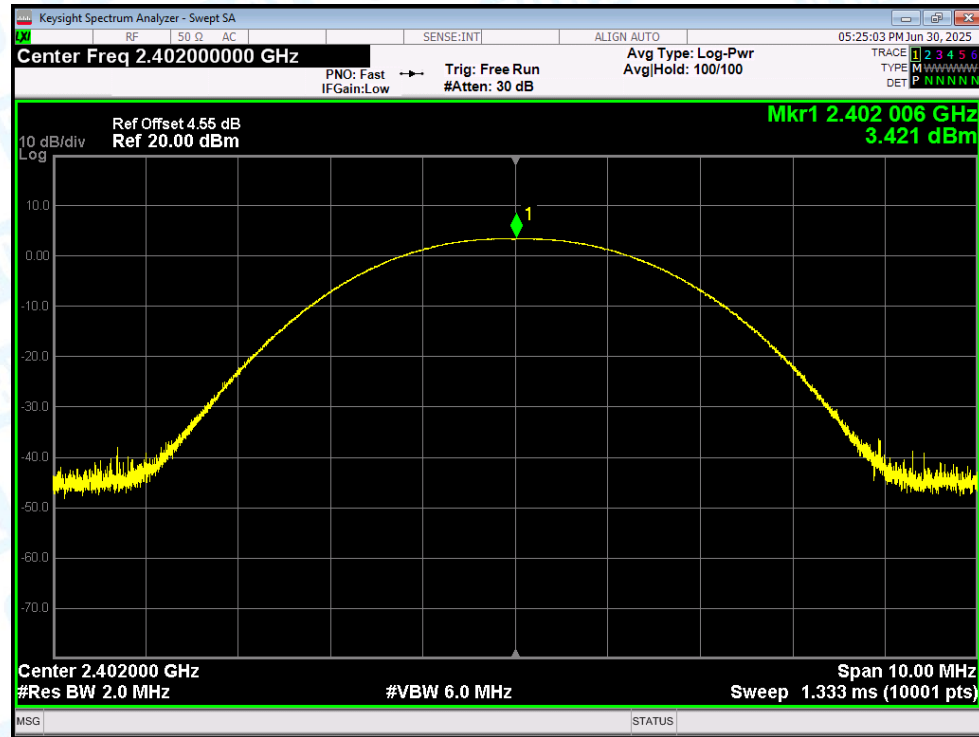


2. Maximum Conducted Output Power

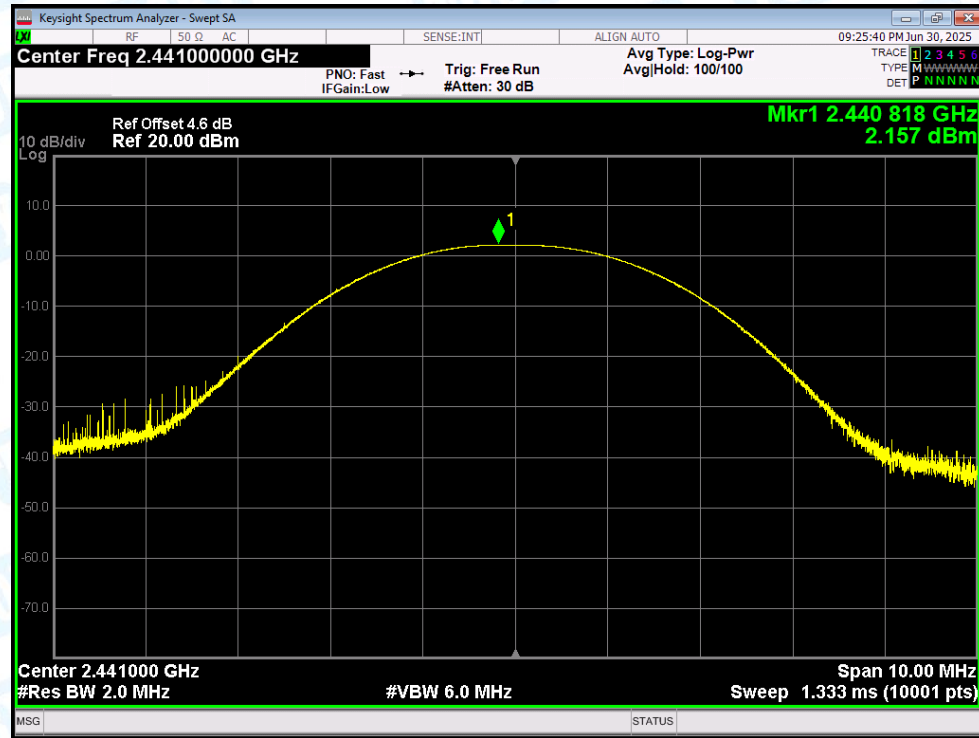
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	3.421	21	Pass
NVNT	1-DH1	2441	Ant1	2.157	21	Pass
NVNT	1-DH1	2480	Ant1	2.539	21	Pass
NVNT	2-DH1	2402	Ant1	2.333	21	Pass
NVNT	2-DH1	2441	Ant1	2.821	21	Pass
NVNT	2-DH1	2480	Ant1	3.138	21	Pass
NVNT	3-DH1	2402	Ant1	2.852	21	Pass
NVNT	3-DH1	2441	Ant1	3.232	21	Pass
NVNT	3-DH1	2480	Ant1	3.514	21	Pass

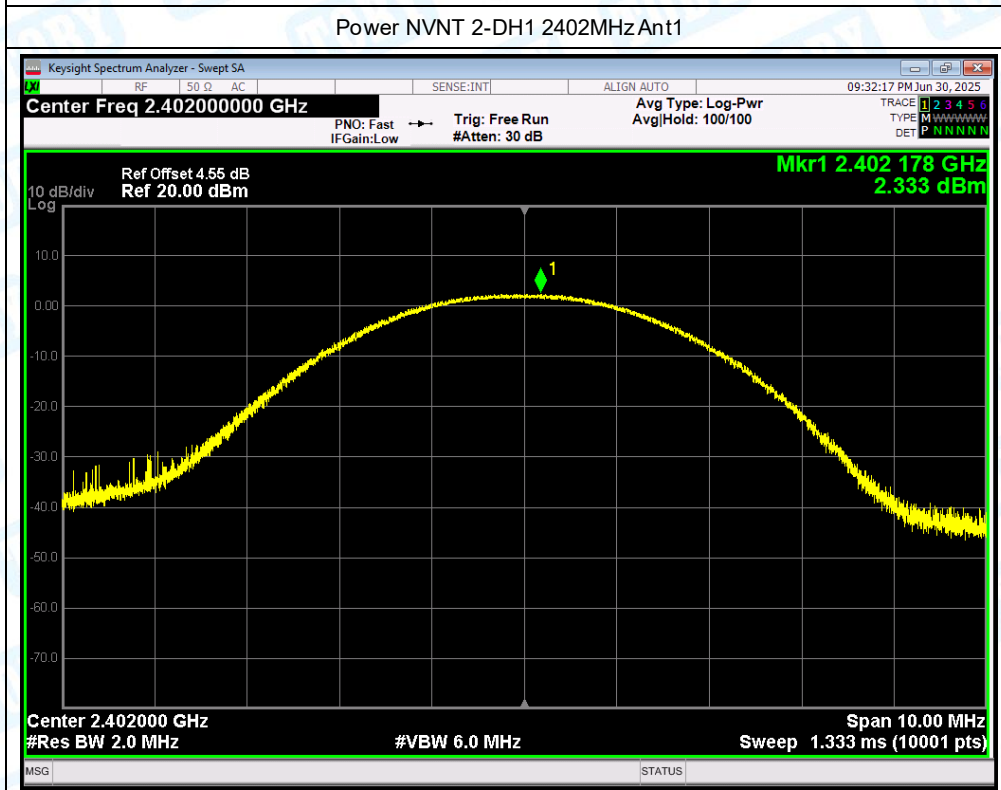
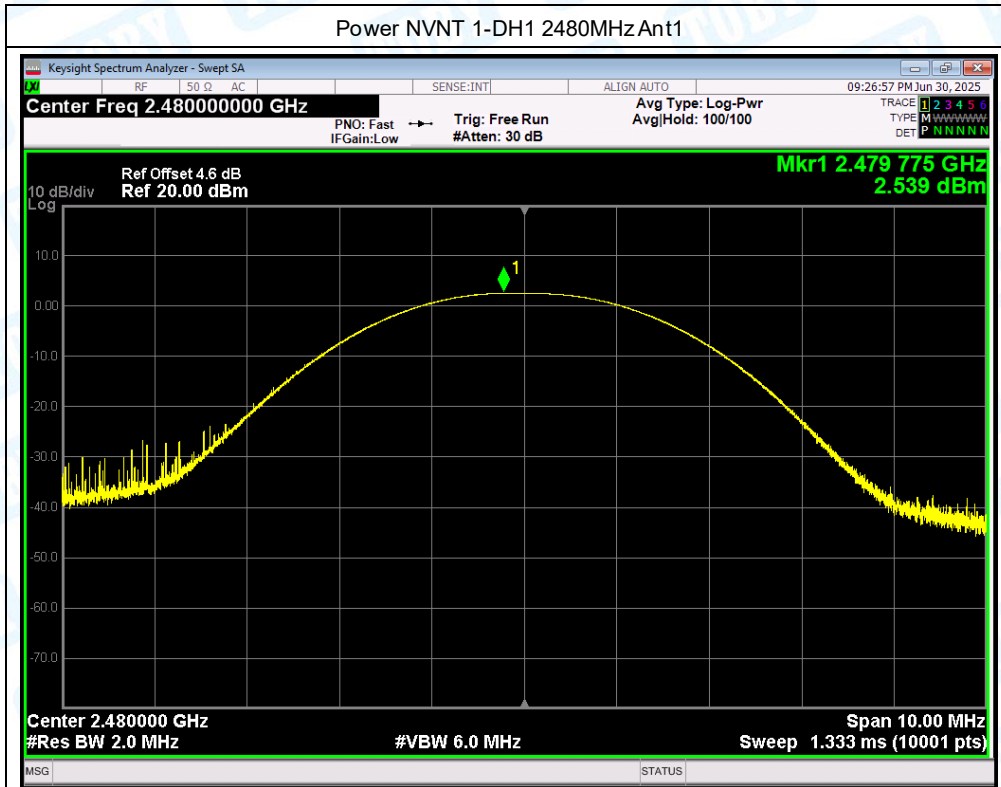
Test Graphs

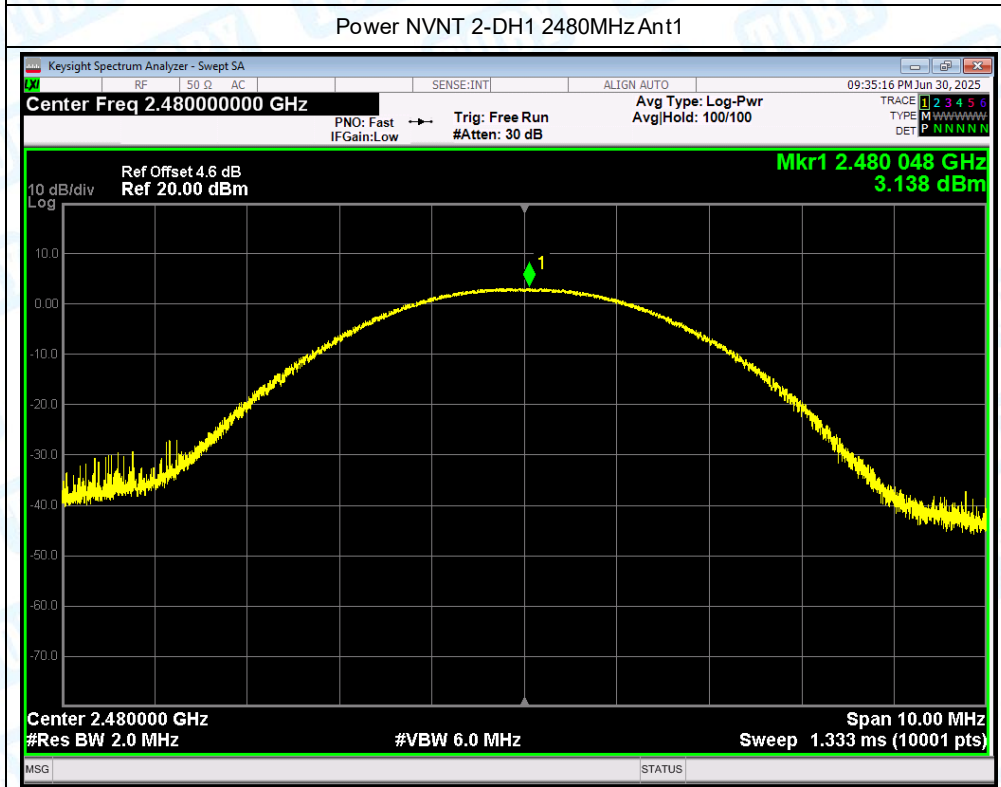
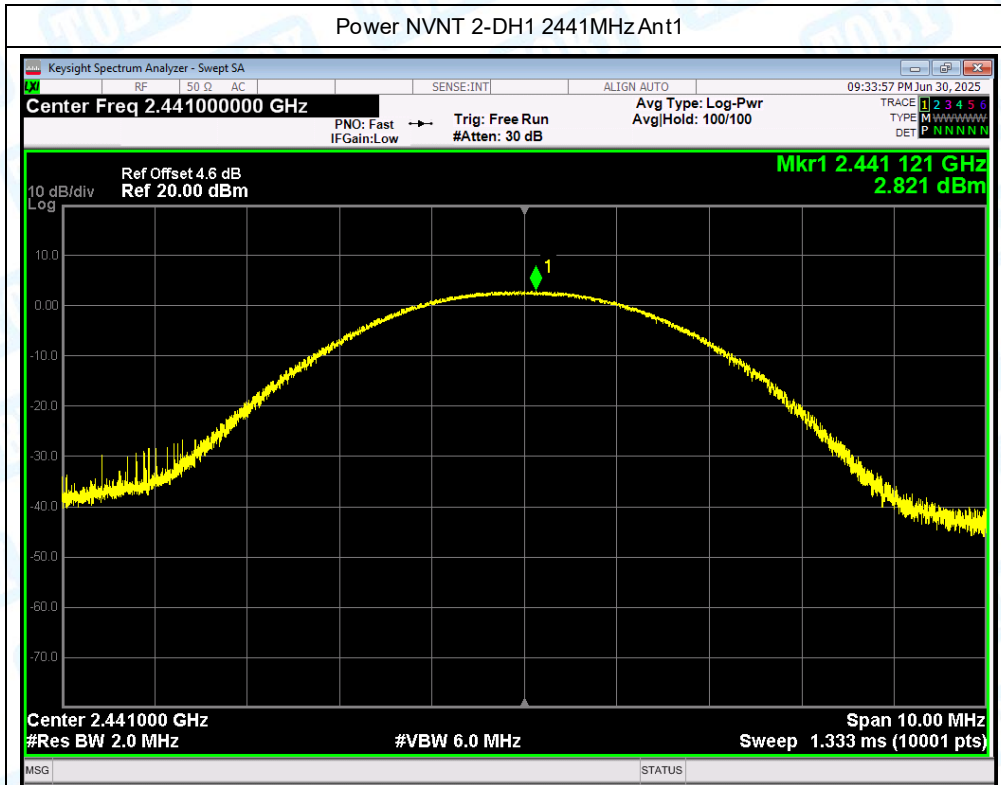
Power NVNT 1-DH1 2402MHz Ant1

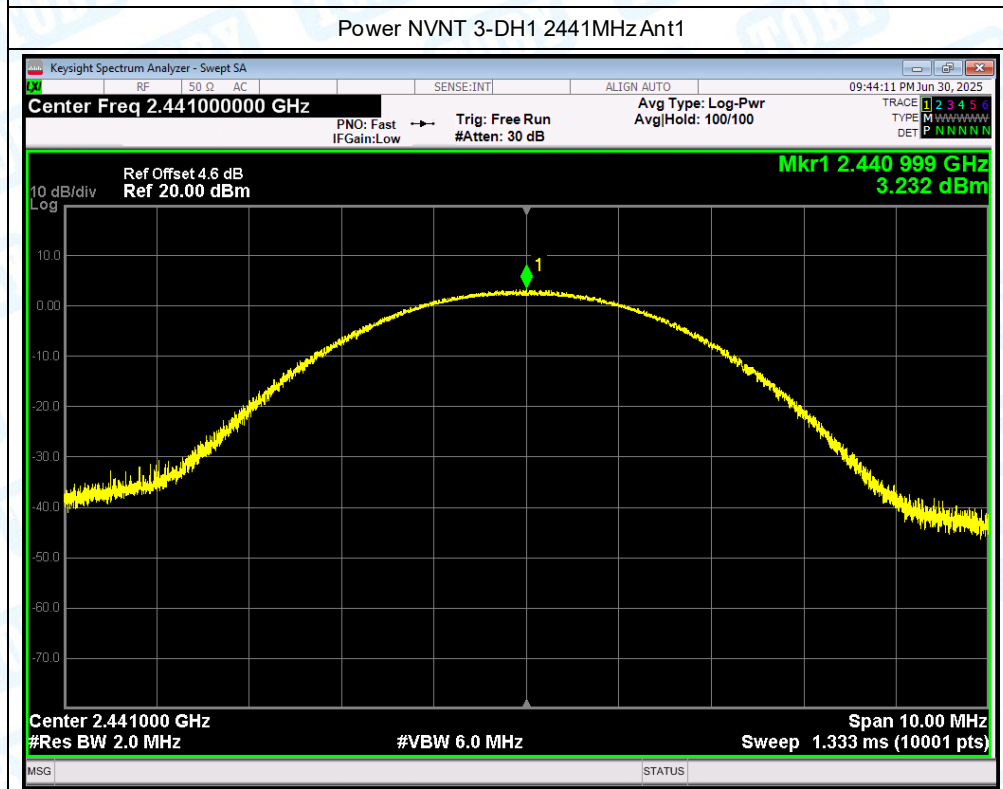
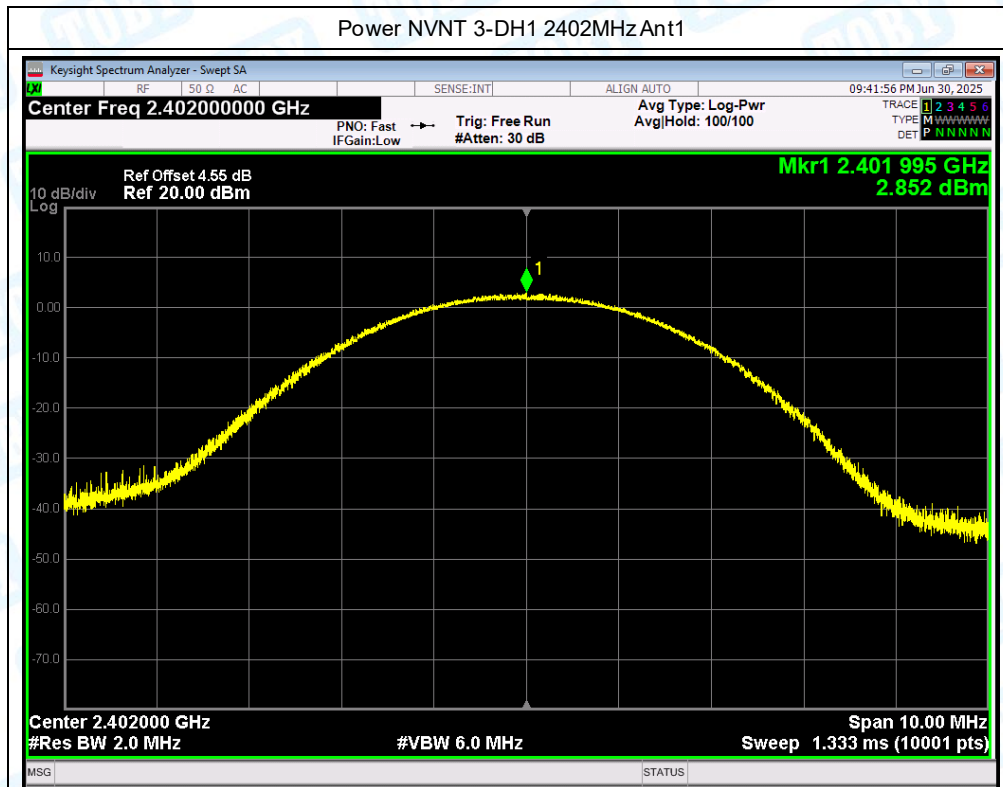


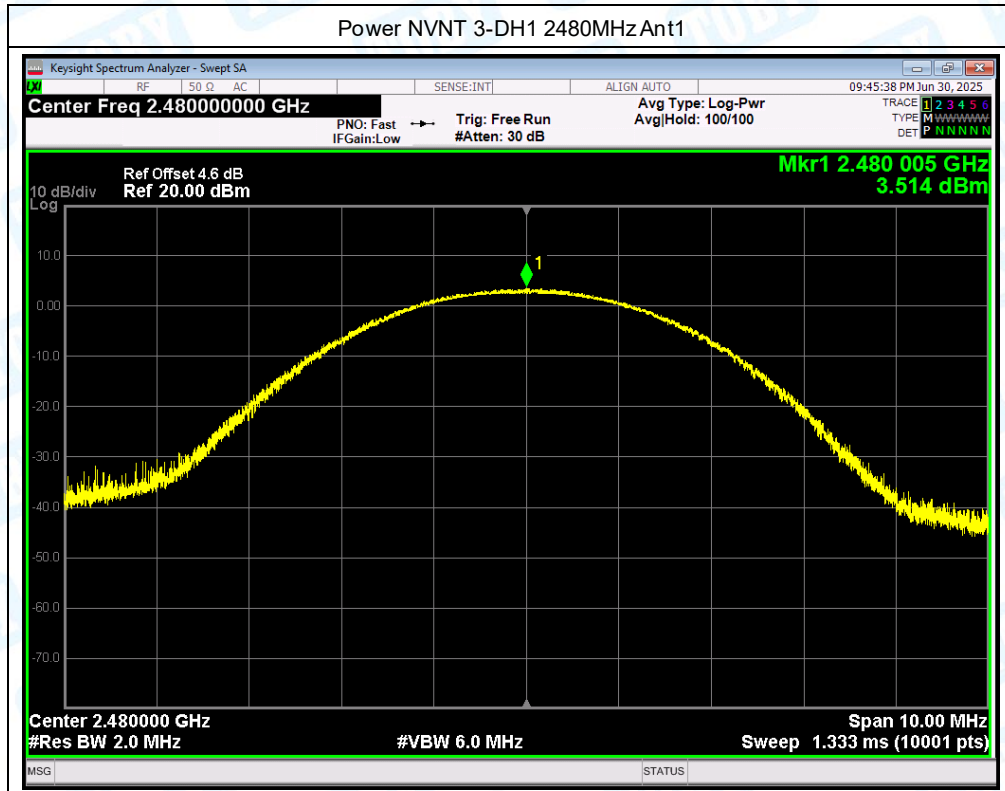
Power NVNT 1-DH1 2441MHz Ant1









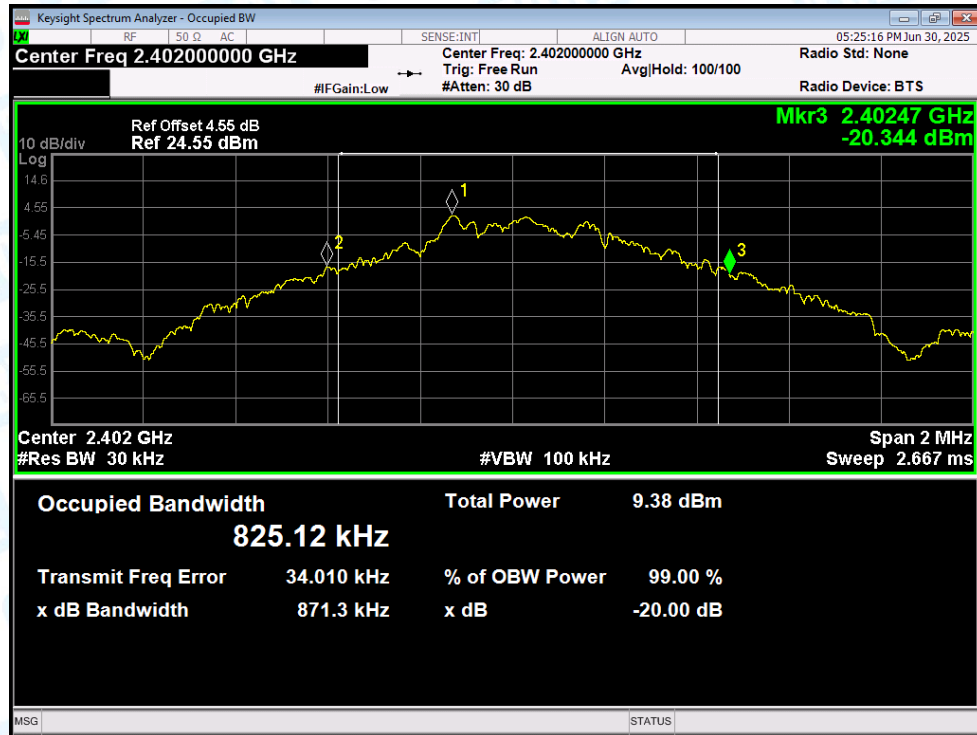


3.-20dB Bandwidth

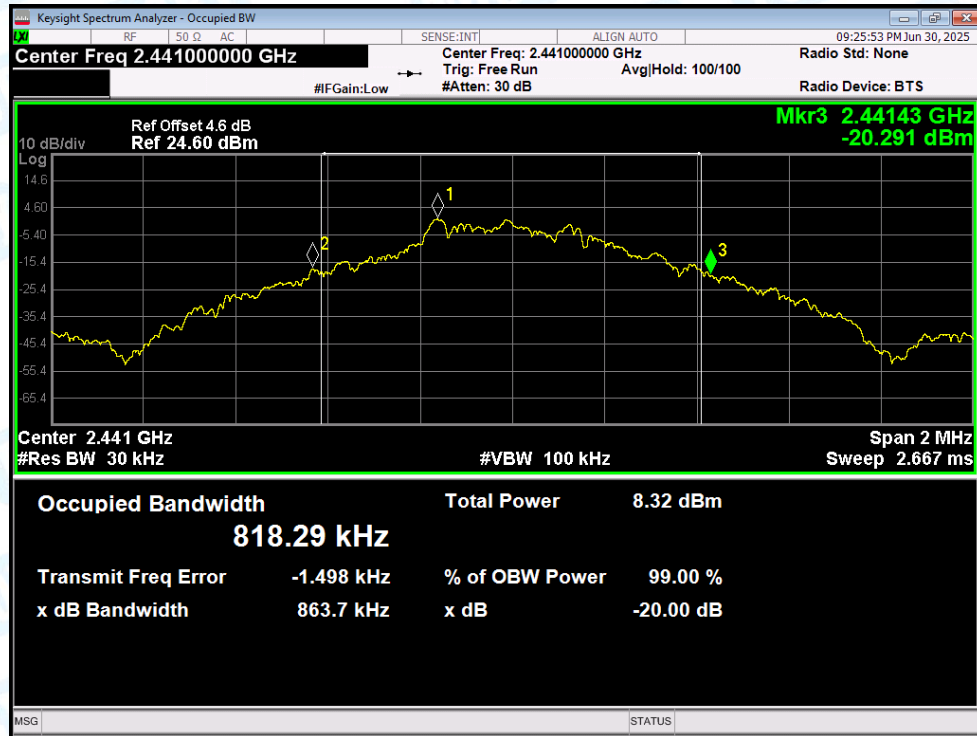
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.87	Pass
NVNT	1-DH1	2441	Ant1	0.86	Pass
NVNT	1-DH1	2480	Ant1	0.87	Pass
NVNT	2-DH1	2402	Ant1	1.22	Pass
NVNT	2-DH1	2441	Ant1	1.23	Pass
NVNT	2-DH1	2480	Ant1	1.23	Pass
NVNT	3-DH1	2402	Ant1	1.22	Pass
NVNT	3-DH1	2441	Ant1	1.24	Pass
NVNT	3-DH1	2480	Ant1	1.24	Pass

Test Graphs

-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



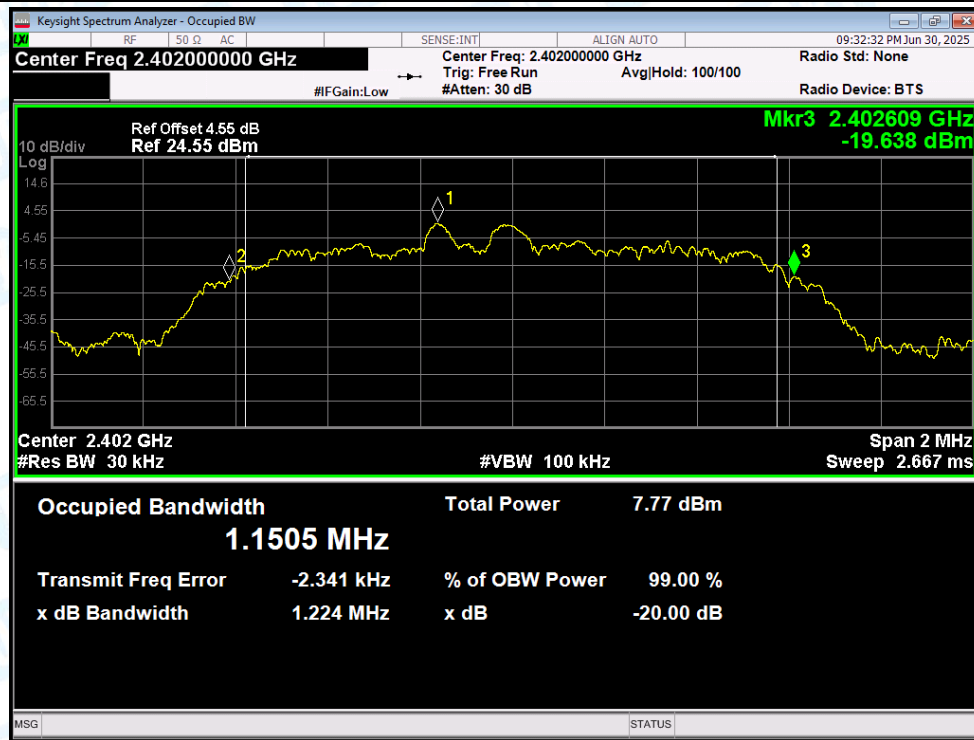
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



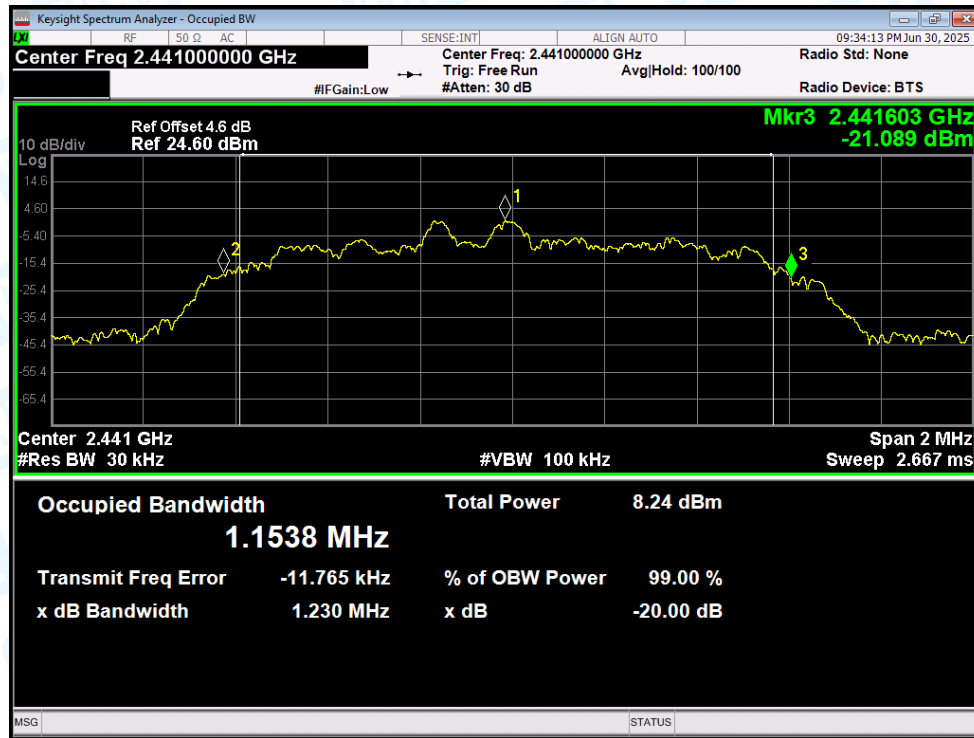
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



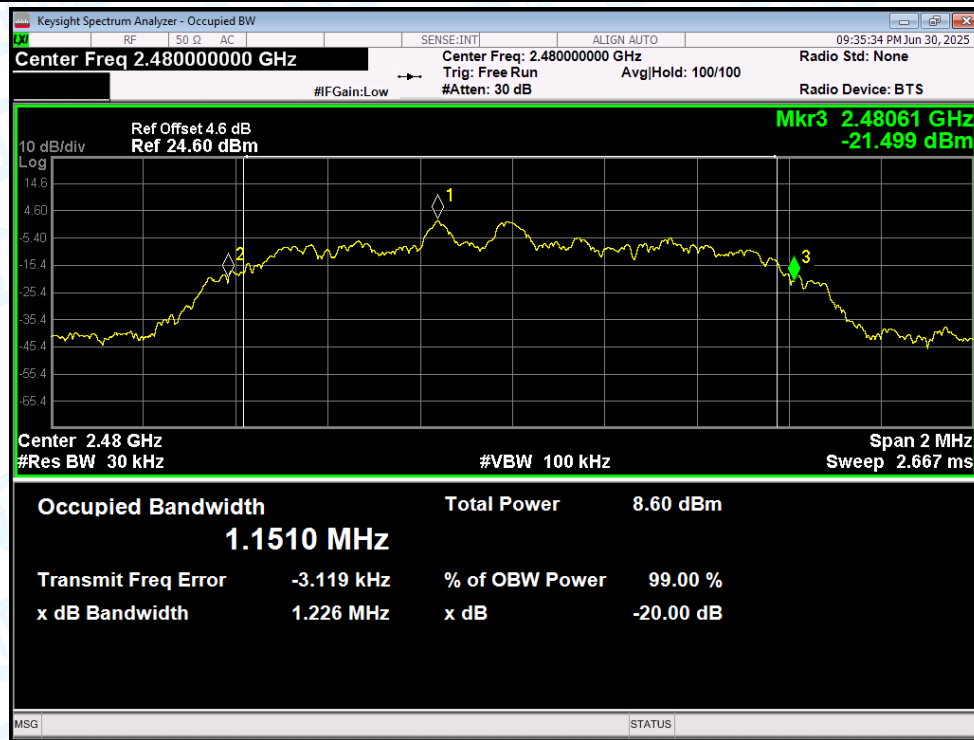
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



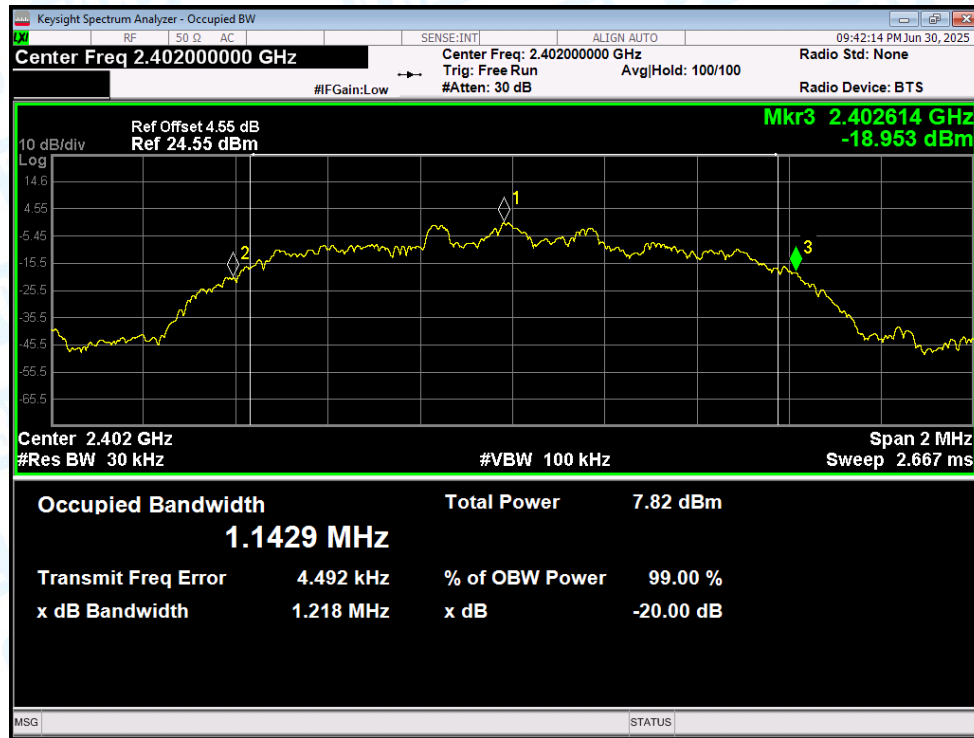
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



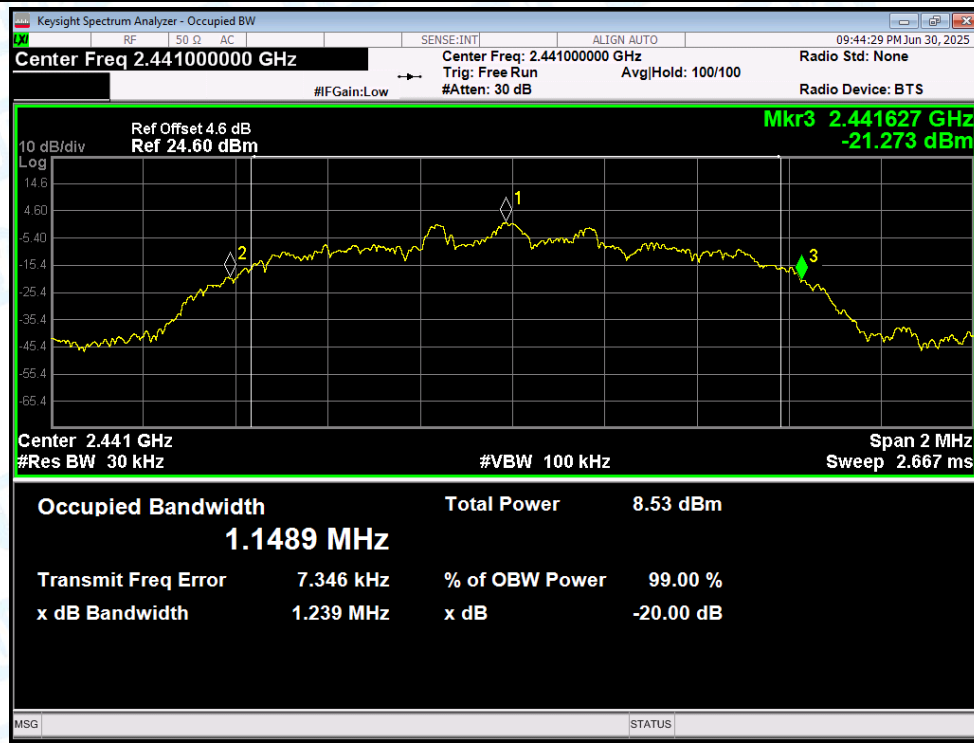
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

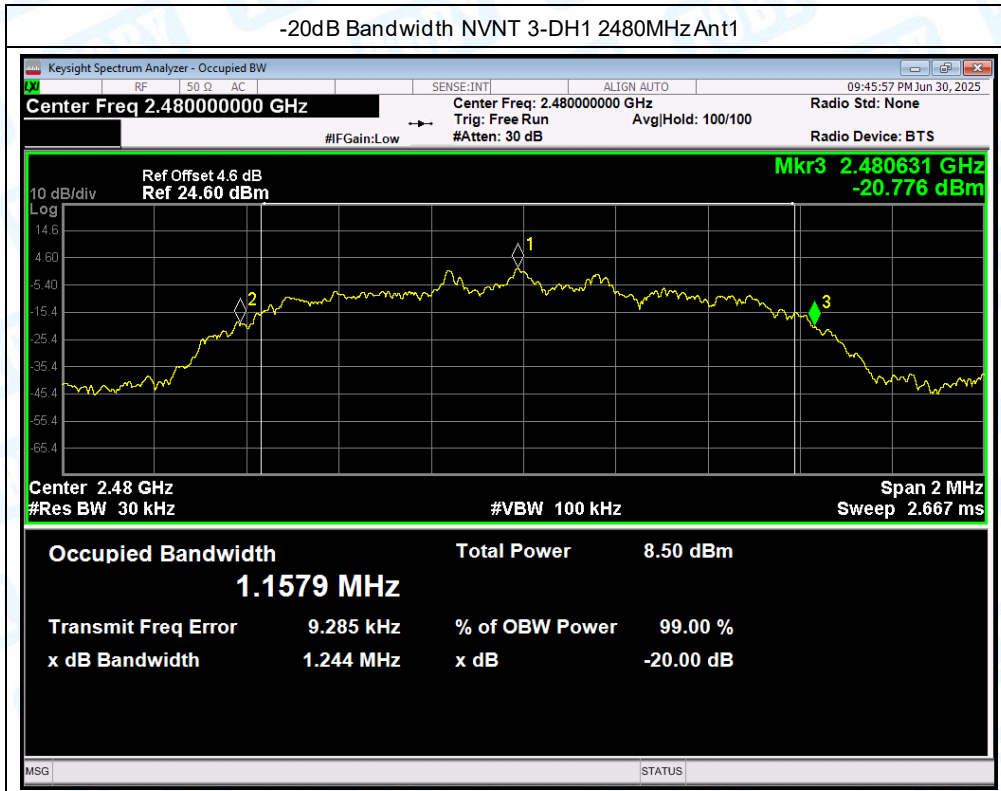


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



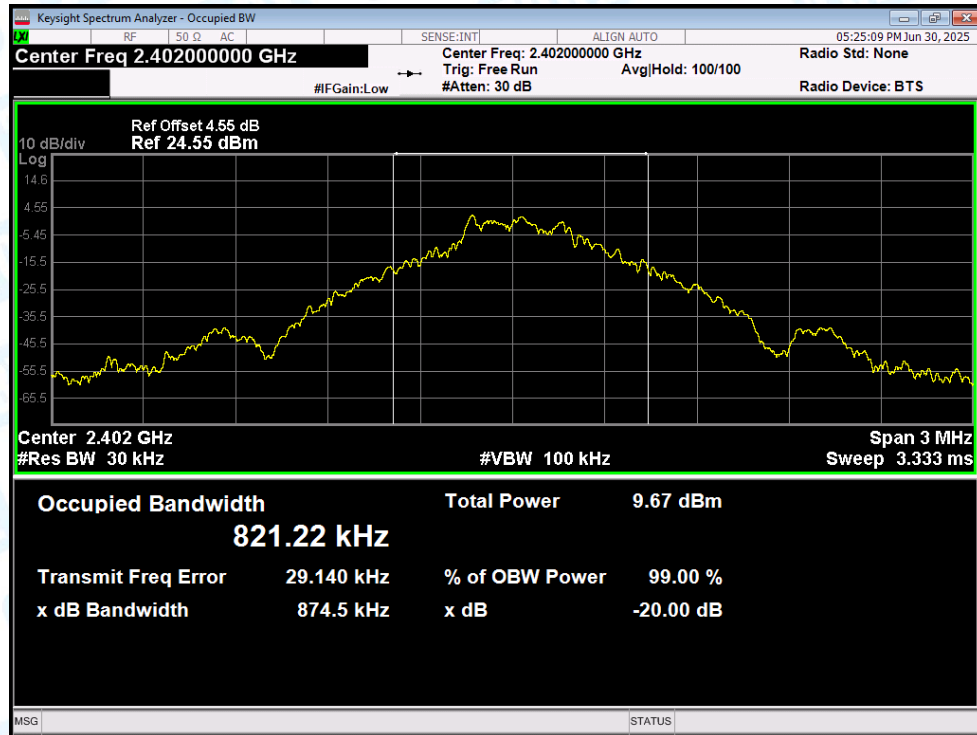


4.Occupied Channel Bandwidth

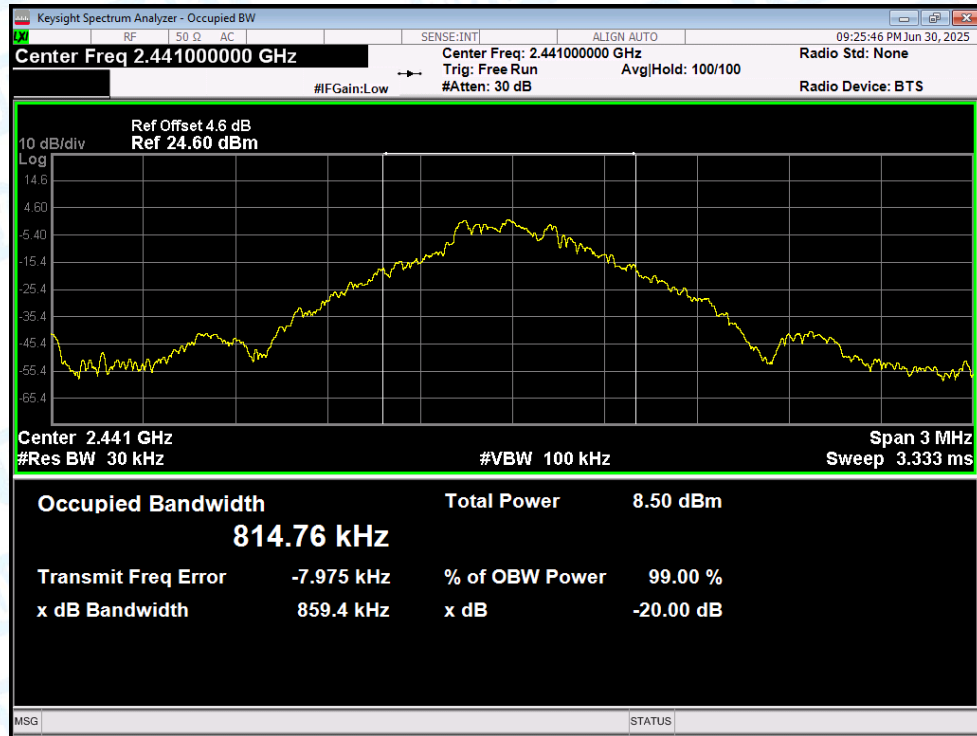
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.821
NVNT	1-DH1	2441	Ant1	0.815
NVNT	1-DH1	2480	Ant1	0.824
NVNT	2-DH1	2402	Ant1	1.169
NVNT	2-DH1	2441	Ant1	1.157
NVNT	2-DH1	2480	Ant1	1.166
NVNT	3-DH1	2402	Ant1	1.151
NVNT	3-DH1	2441	Ant1	1.159
NVNT	3-DH1	2480	Ant1	1.153

Test Graphs

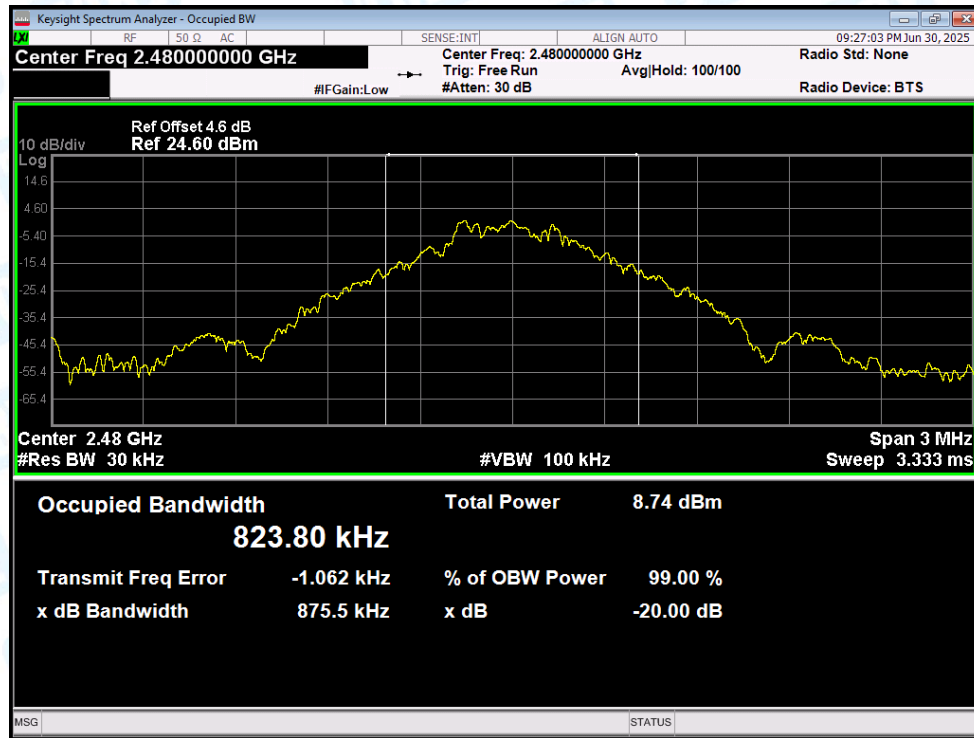
OBW NVNT 1-DH1 2402MHz Ant1



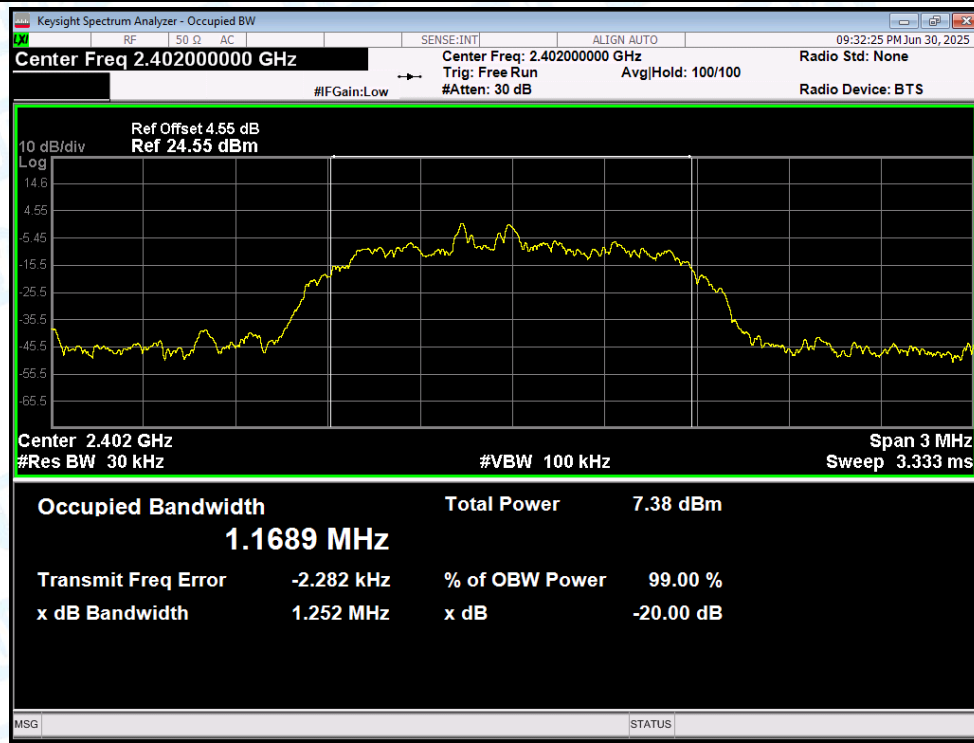
OBW NVNT 1-DH1 2441MHz Ant1



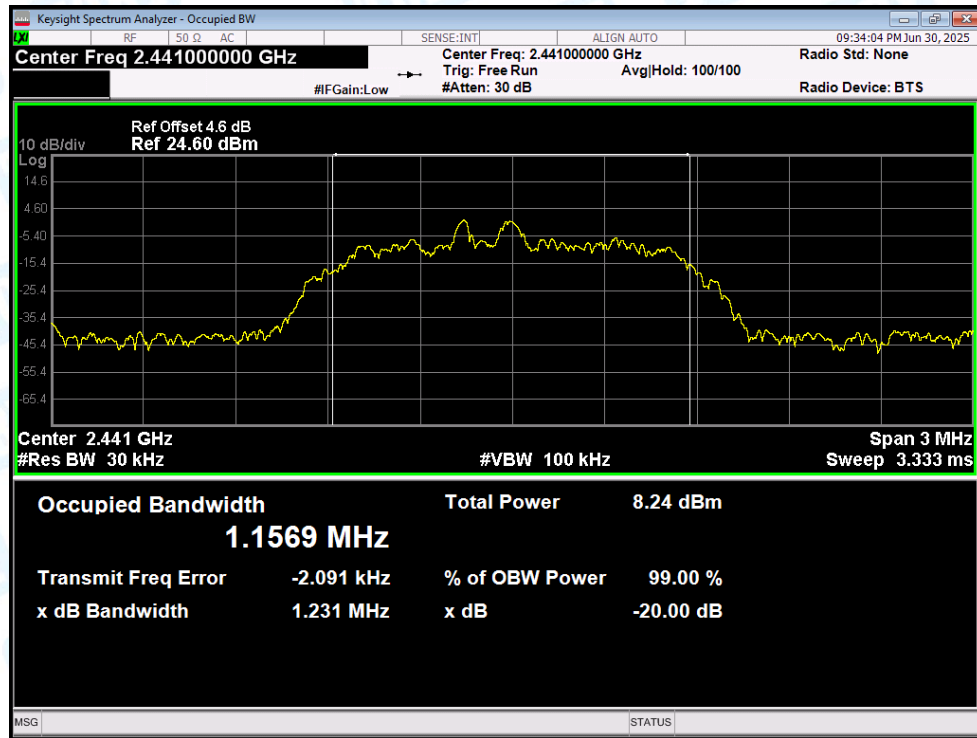
OBW NVNT 1-DH1 2480MHz Ant1



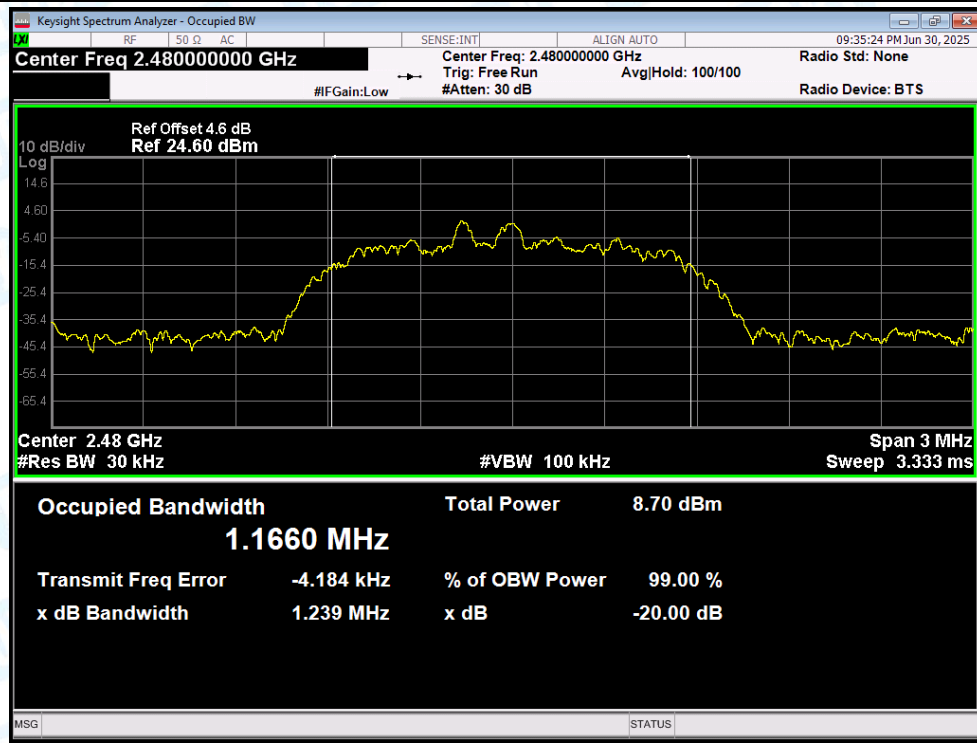
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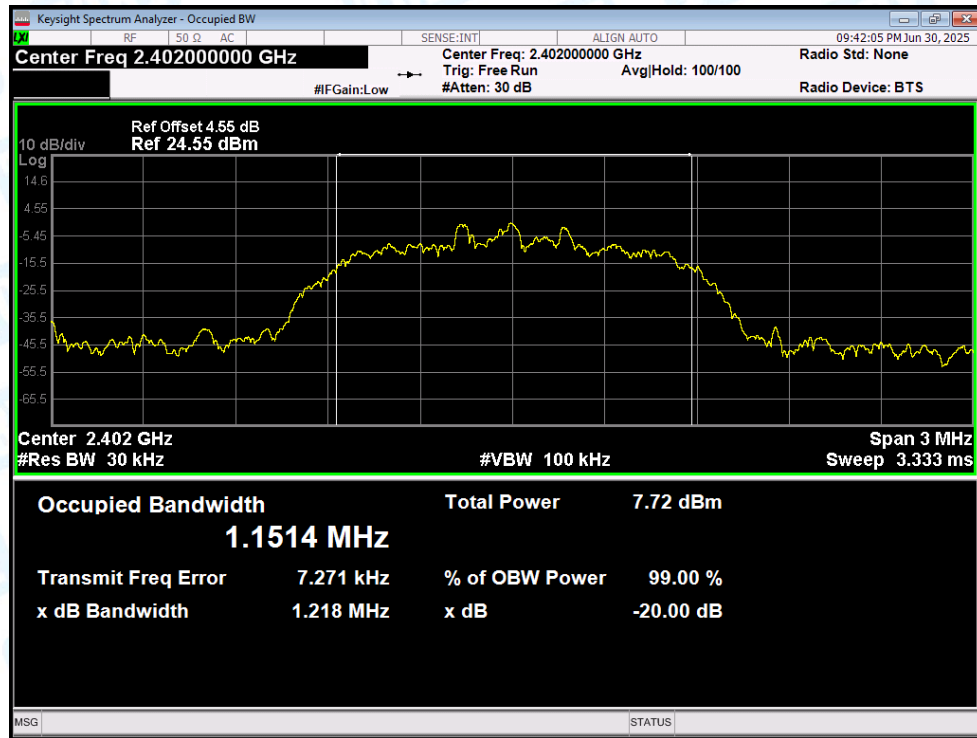
OBW NVNT 2-DH1 2441MHz Ant1



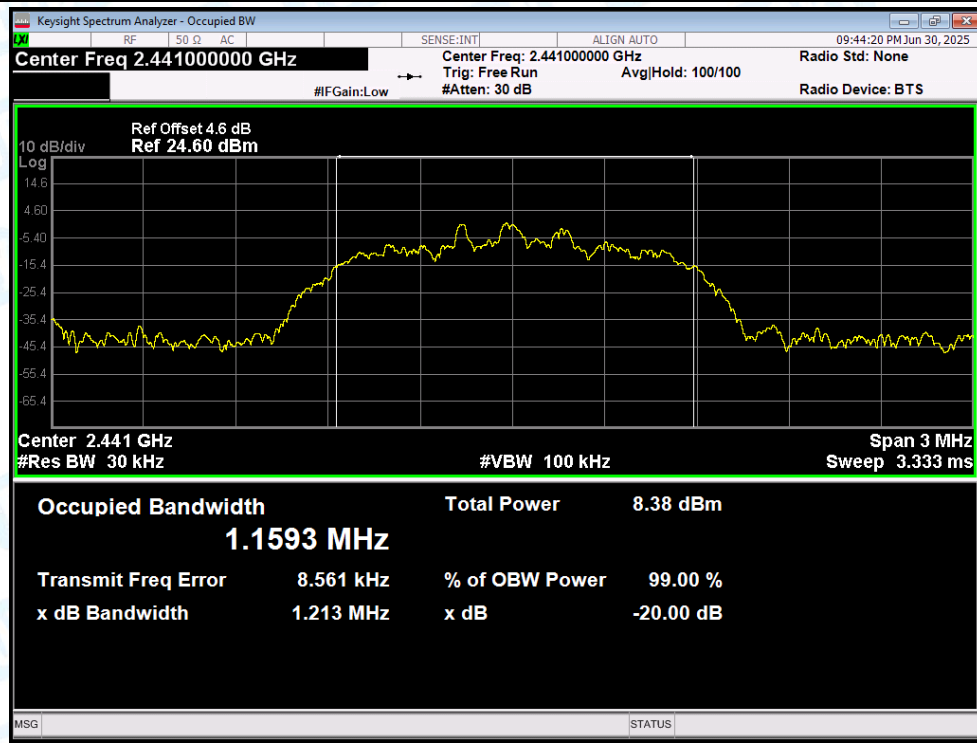
OBW NVNT 2-DH1 2480MHz Ant1

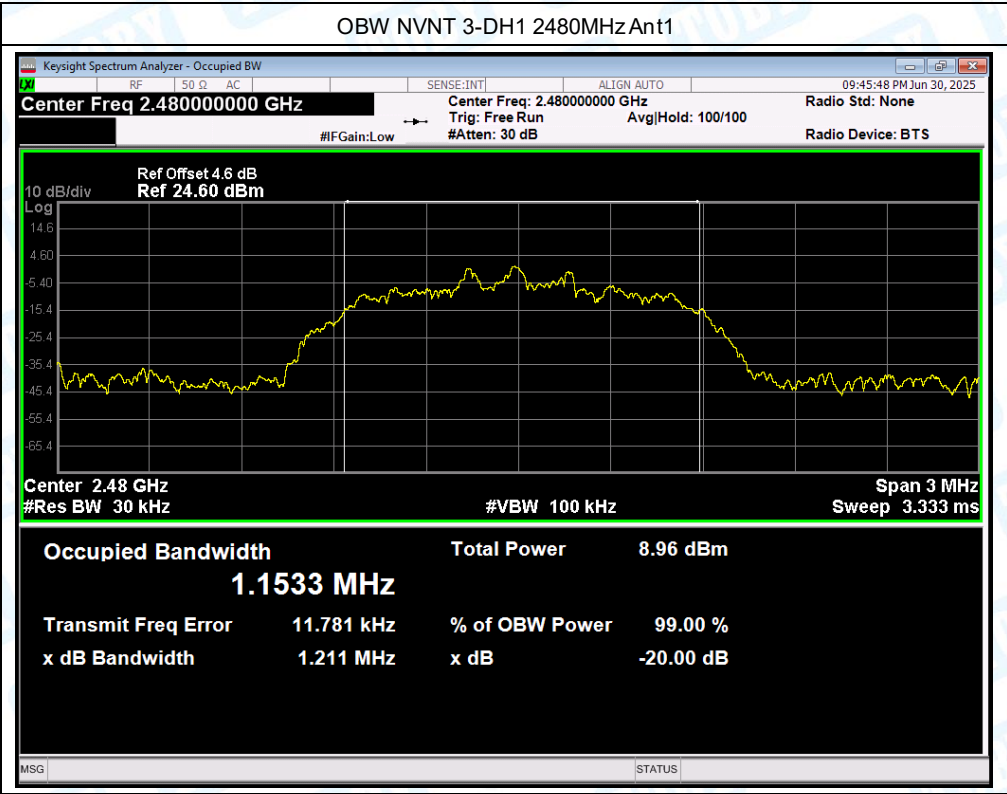


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



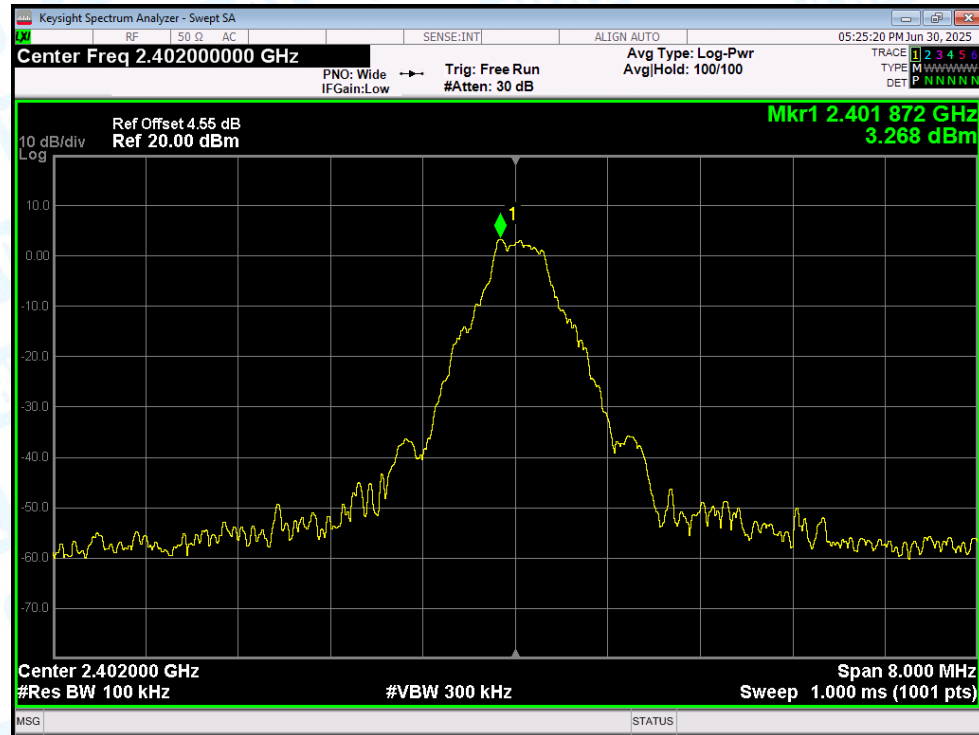


5.Band Edge

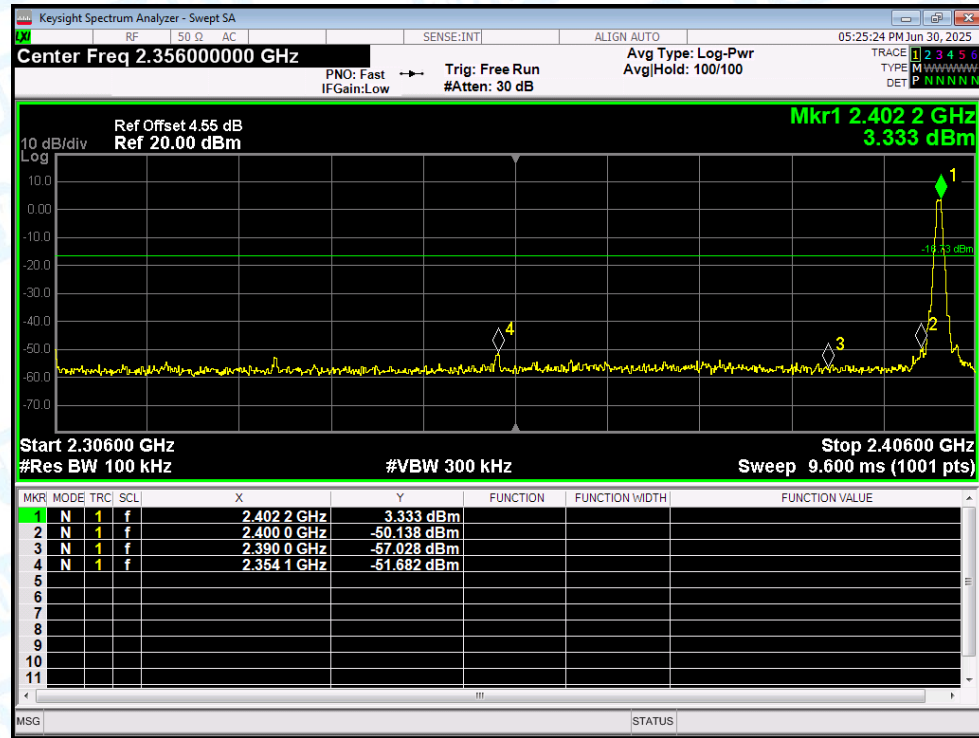
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-54.95	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-49.98	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-55.7	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-49.93	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-55.48	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-48.57	-20	Pass

Test Graphs

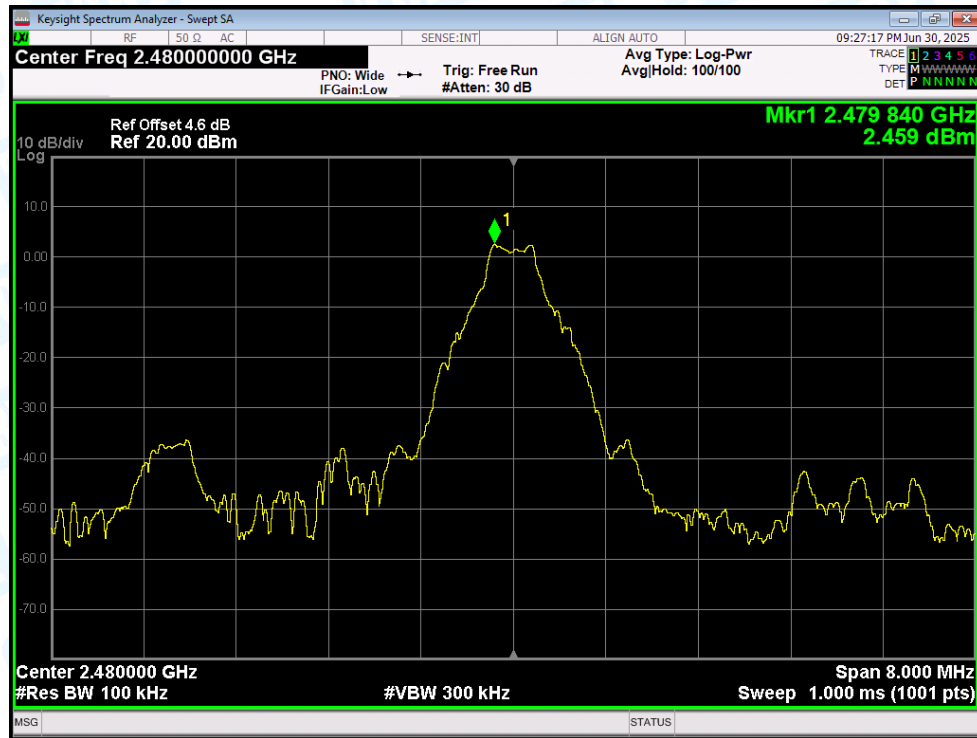
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



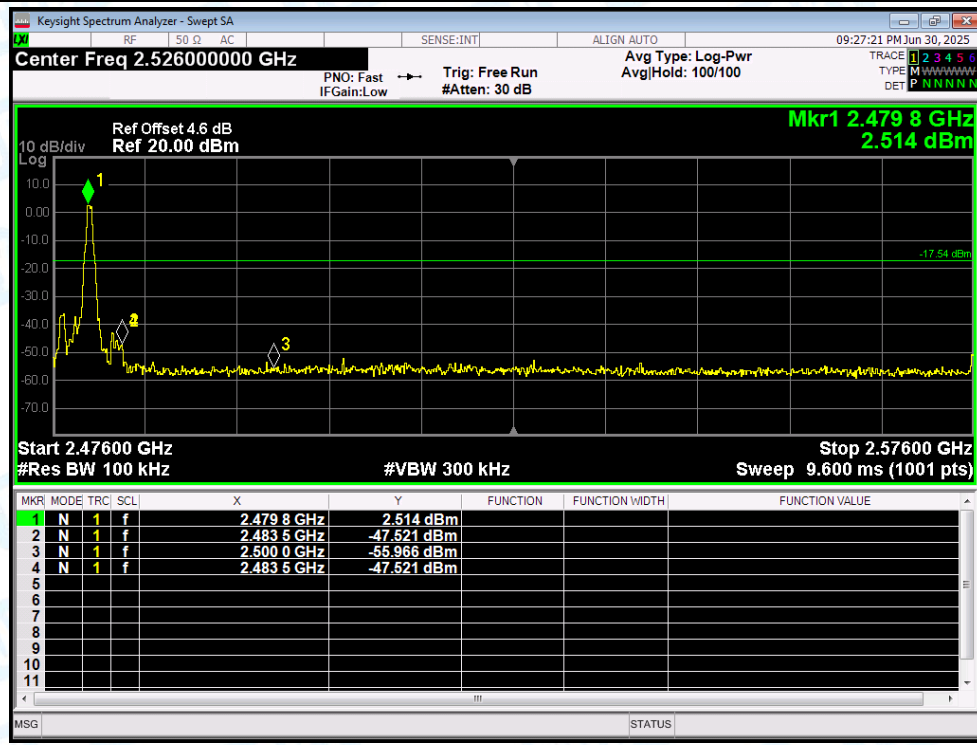
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



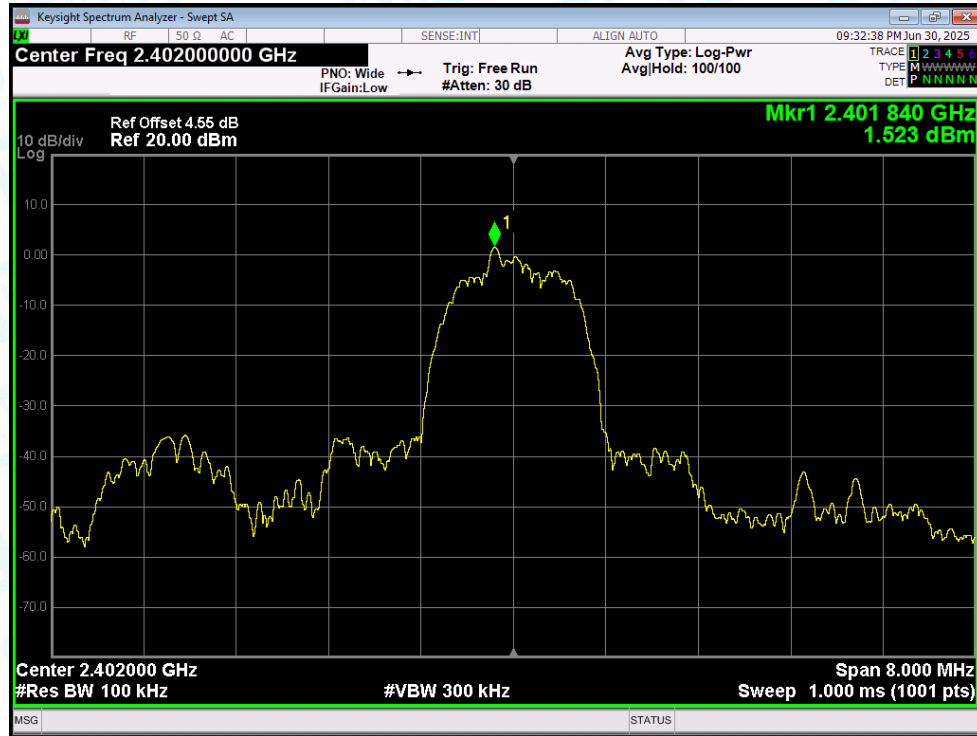
Band Edge NVNT 1-DH1 2480MHzAnt1 No-Hopping Ref



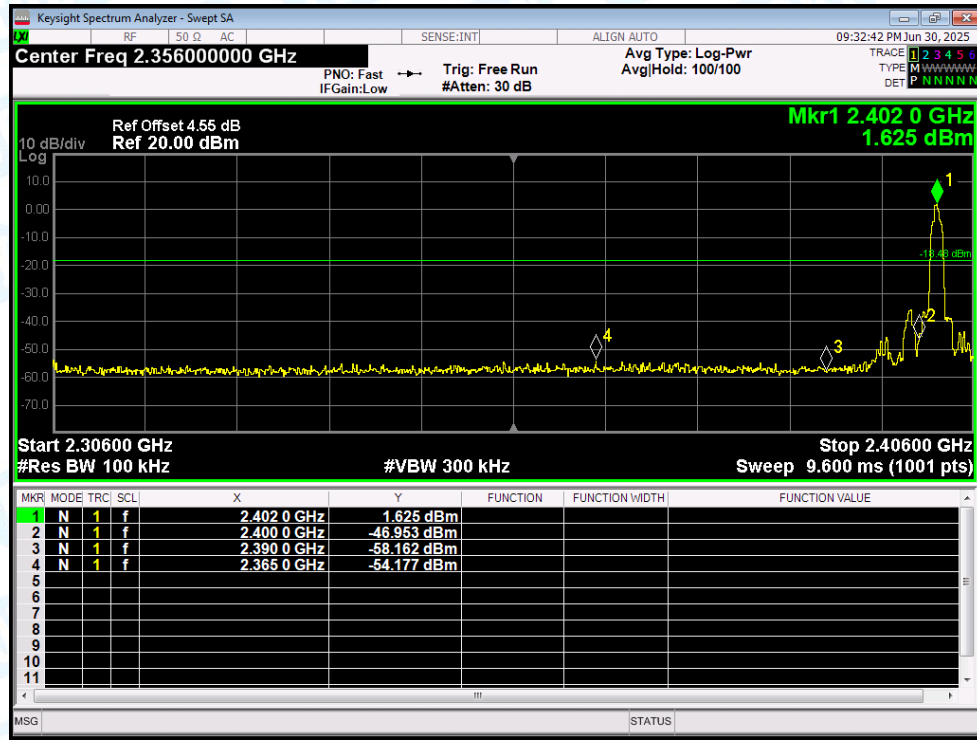
Band Edge NVNT 1-DH1 2480MHzAnt1 No-Hopping Emission



Band Edge NVNT 2-DH1 2402MHzAnt1 No-Hopping Ref



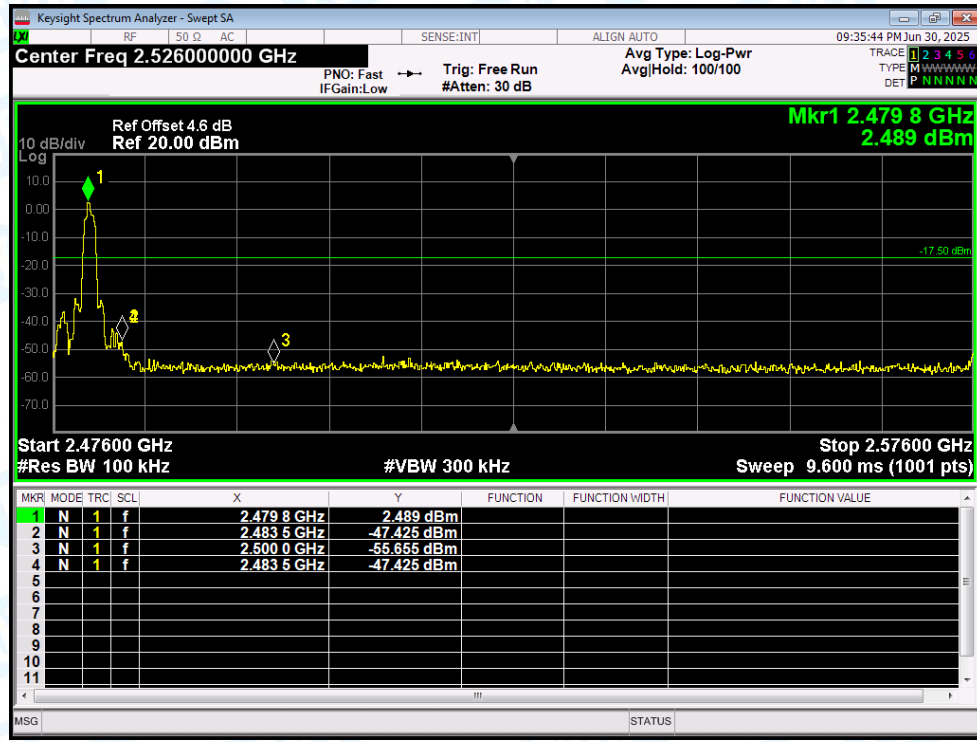
Band Edge NVNT 2-DH1 2402MHzAnt1 No-Hopping Emission



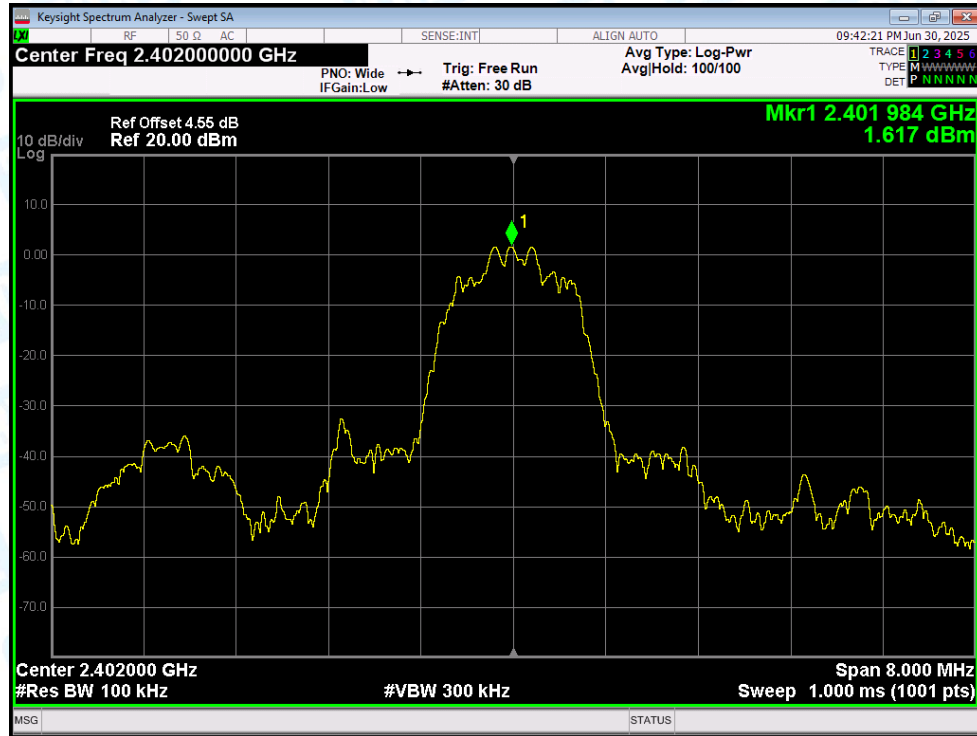
Band Edge NVNT 2-DH1 2480MHzAnt1 No-Hopping Ref



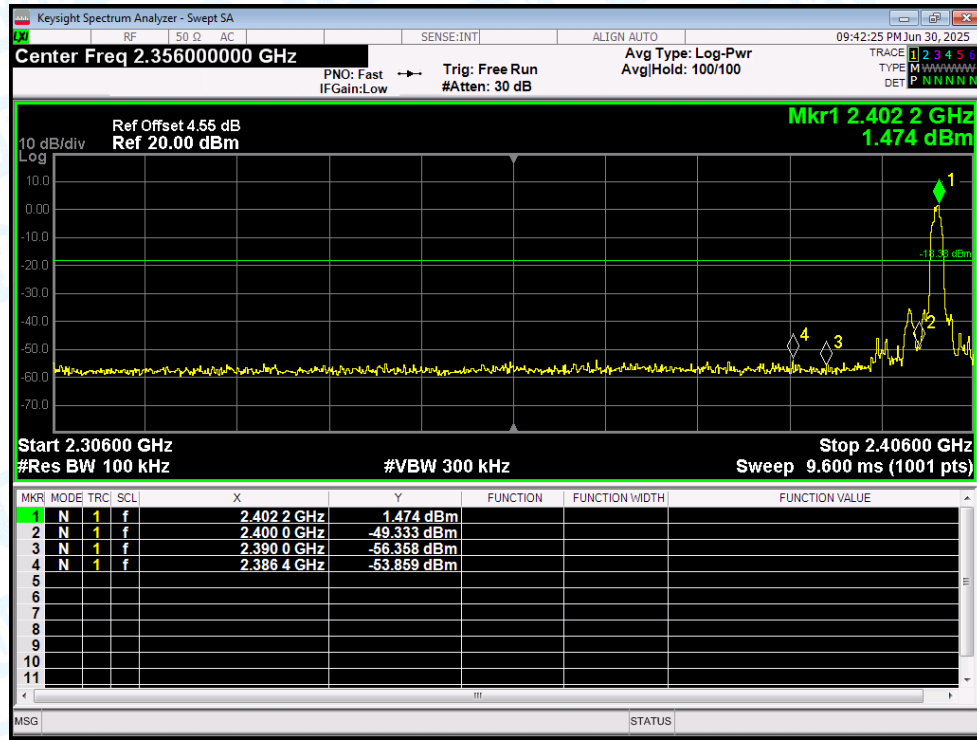
Band Edge NVNT 2-DH1 2480MHzAnt1 No-Hopping Emission



Band Edge NVNT 3-DH1 2402MHzAnt1 No-Hopping Ref



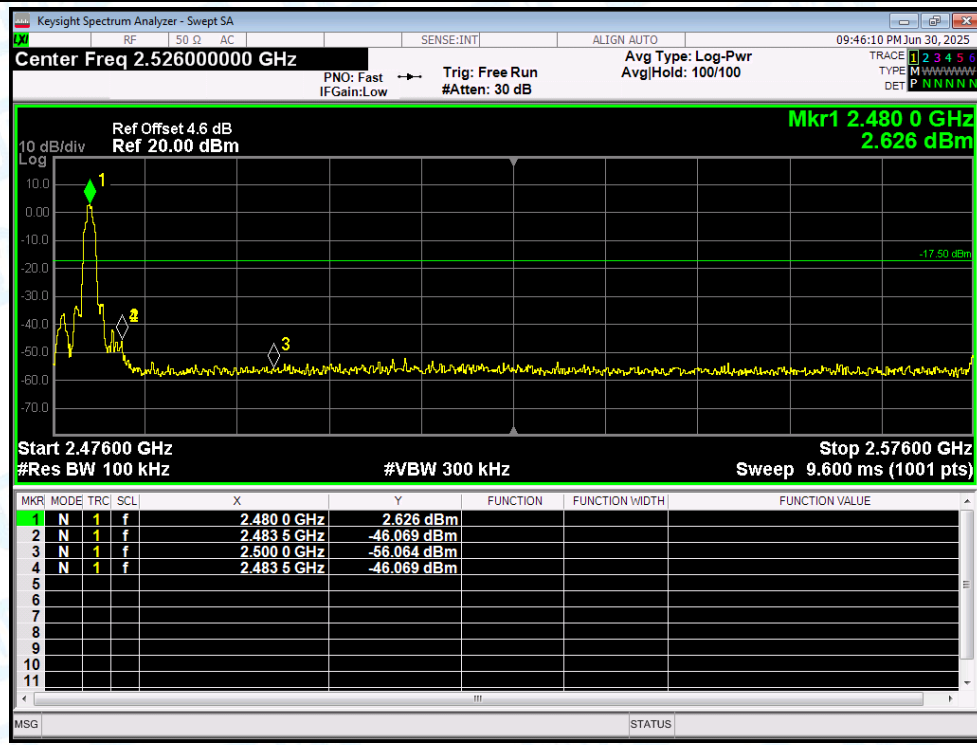
Band Edge NVNT 3-DH1 2402MHzAnt1 No-Hopping Emission



Band Edge NVNT 3-DH1 2480MHzAnt1 No-Hopping Ref



Band Edge NVNT 3-DH1 2480MHzAnt1 No-Hopping Emission

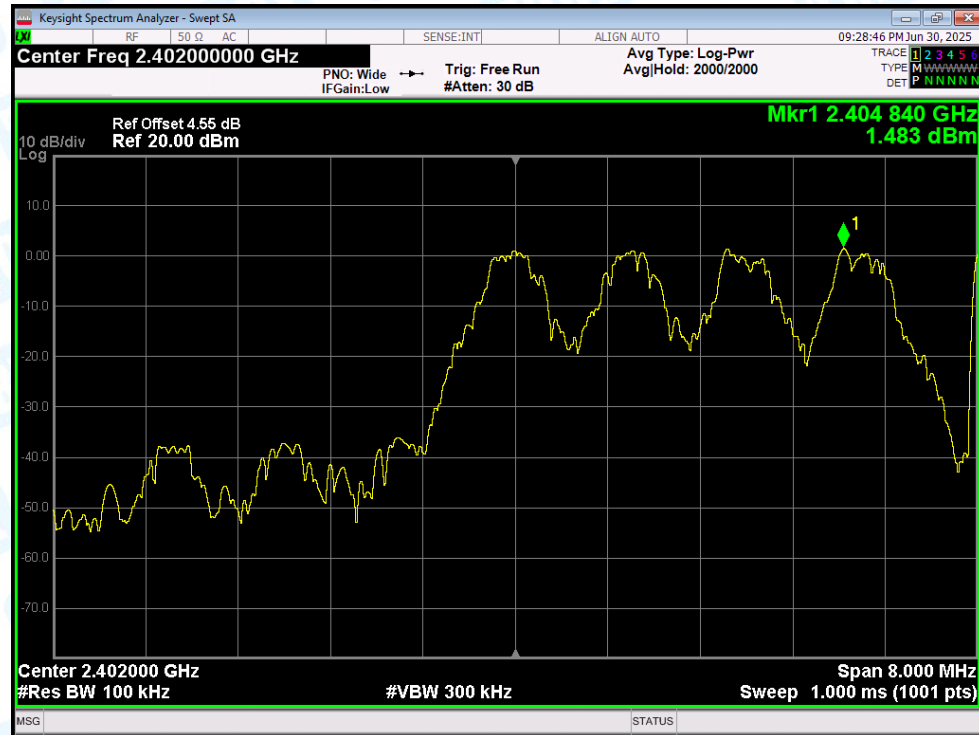


6. Band Edge(Hopping)

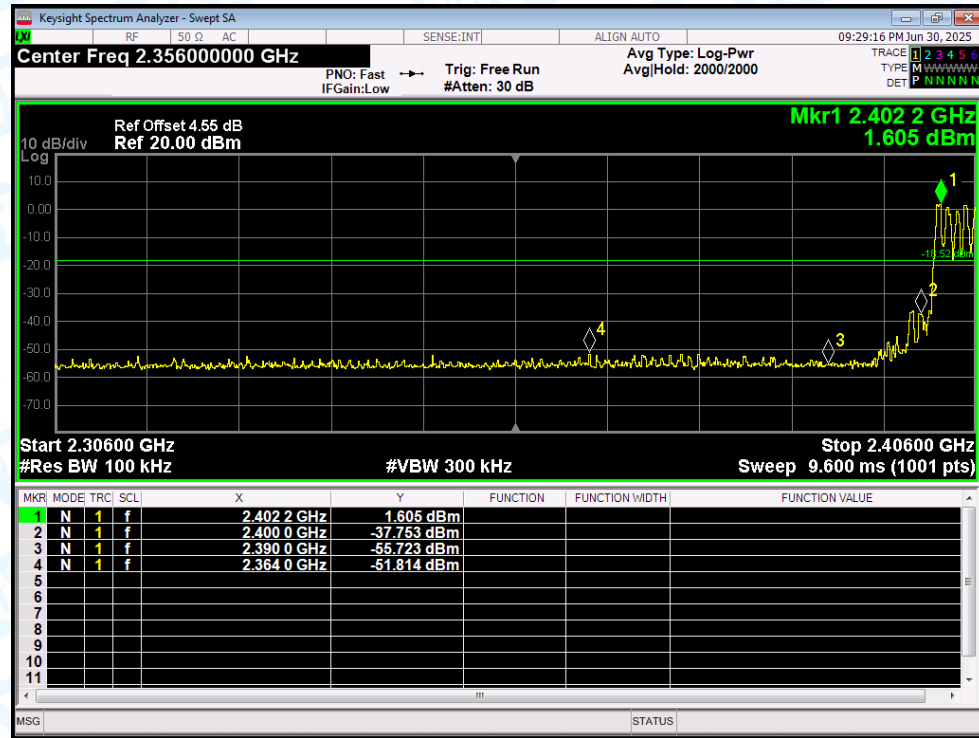
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-53.29	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-51.18	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-53.39	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-50.11	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-52.49	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-52.65	-20	Pass

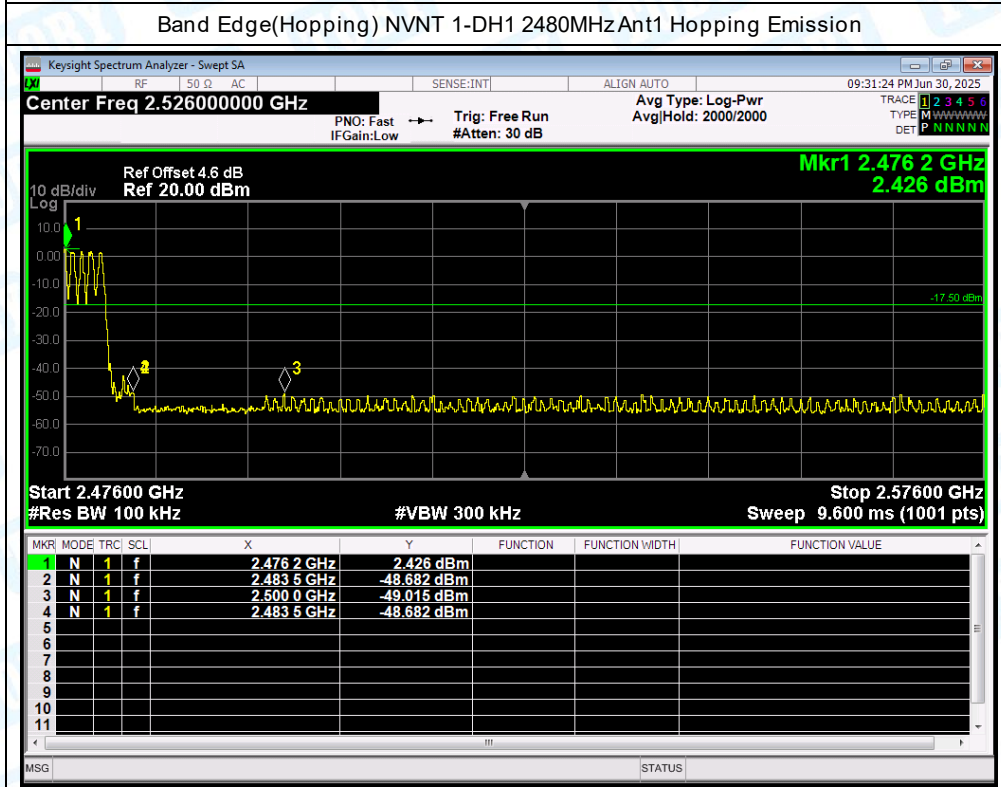
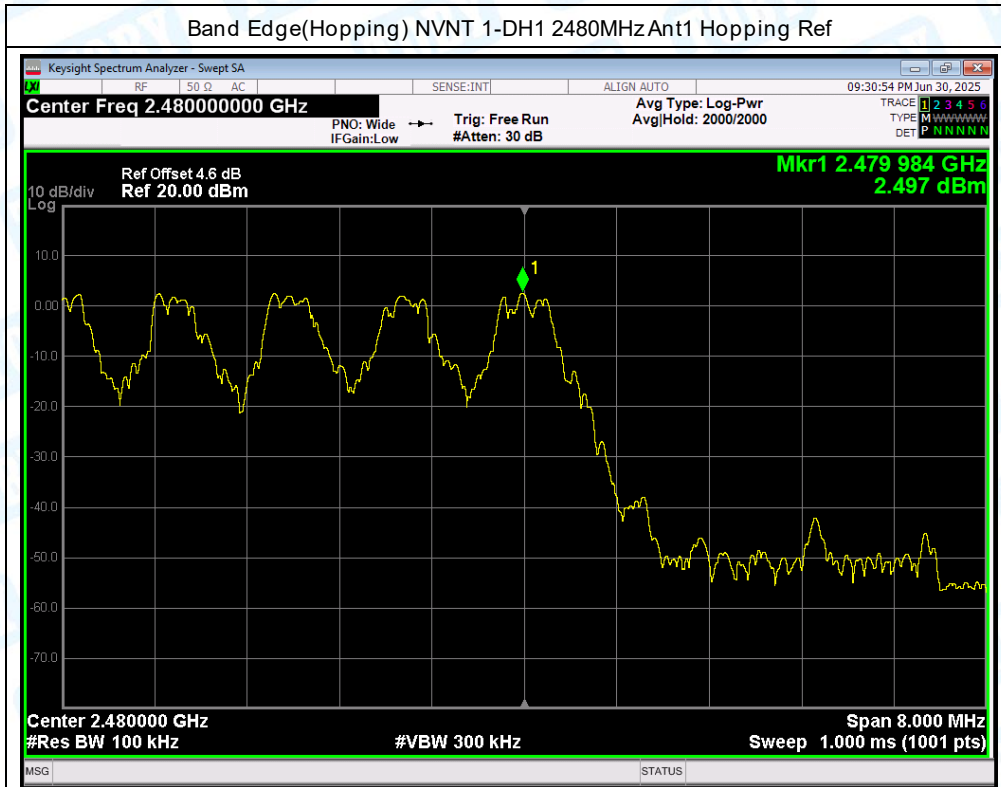
Test Graphs

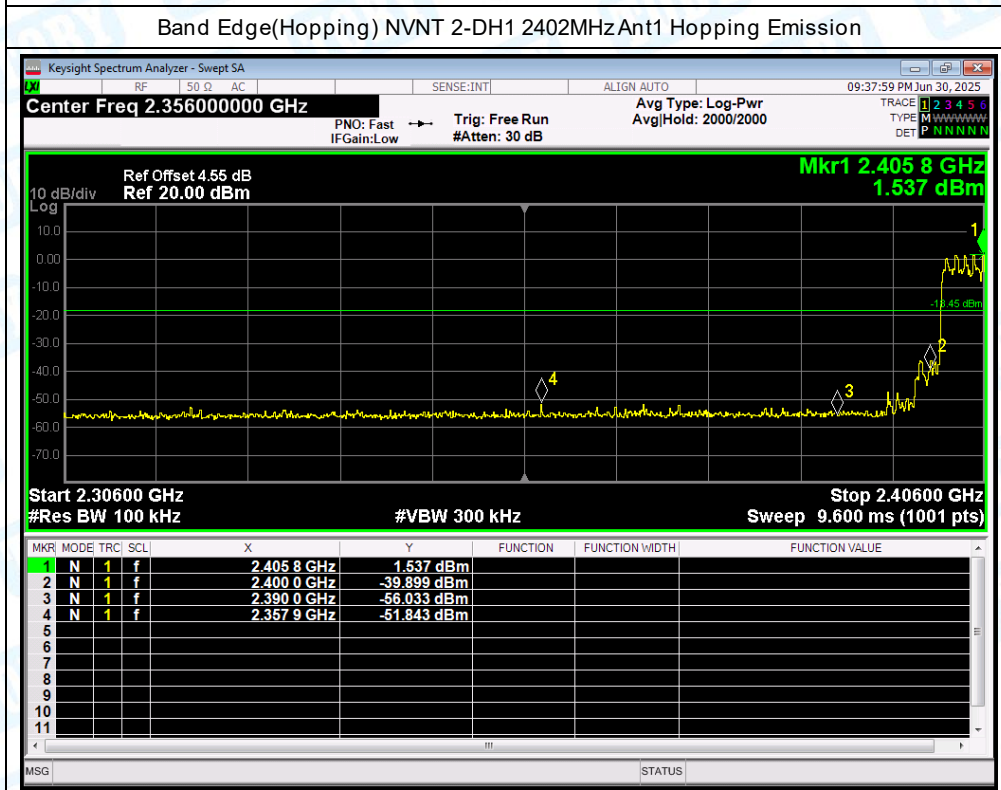
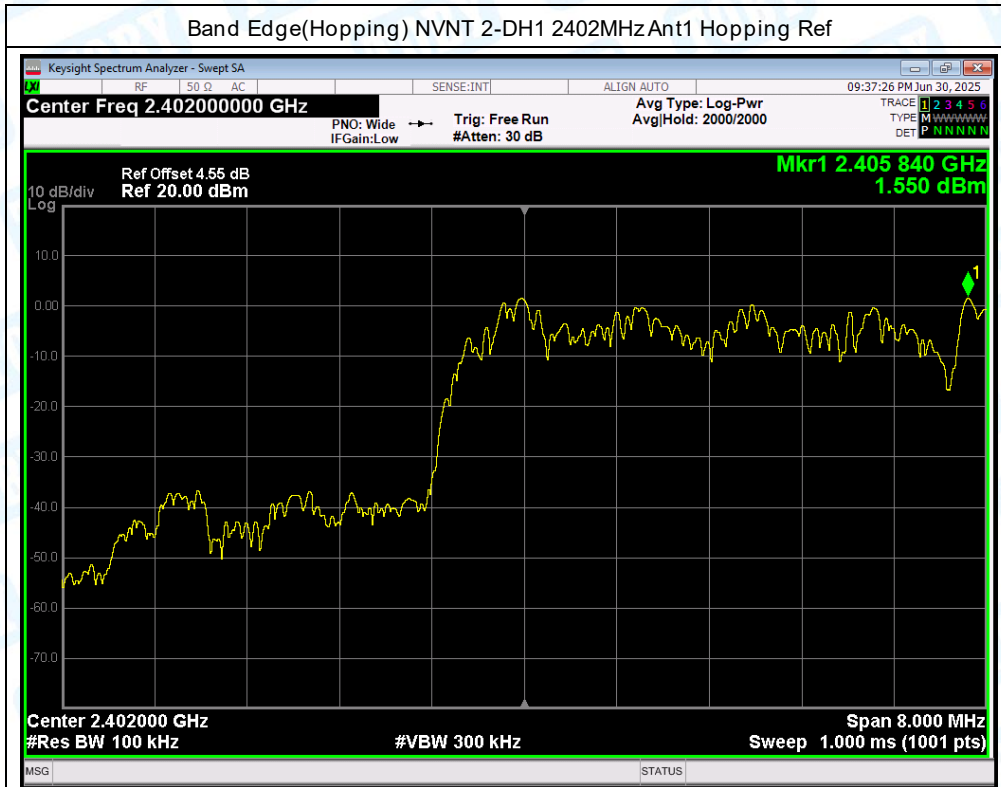
Band Edge(Hopping) NVNT 1-DH1 2402MHzAnt1 Hopping Ref

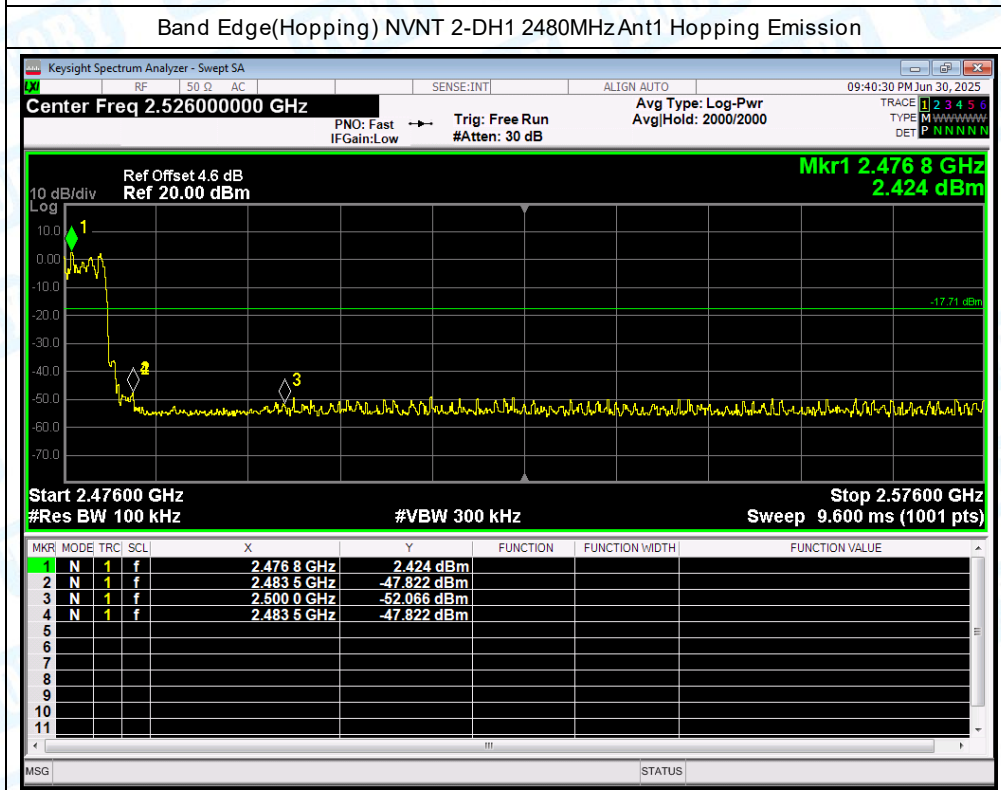
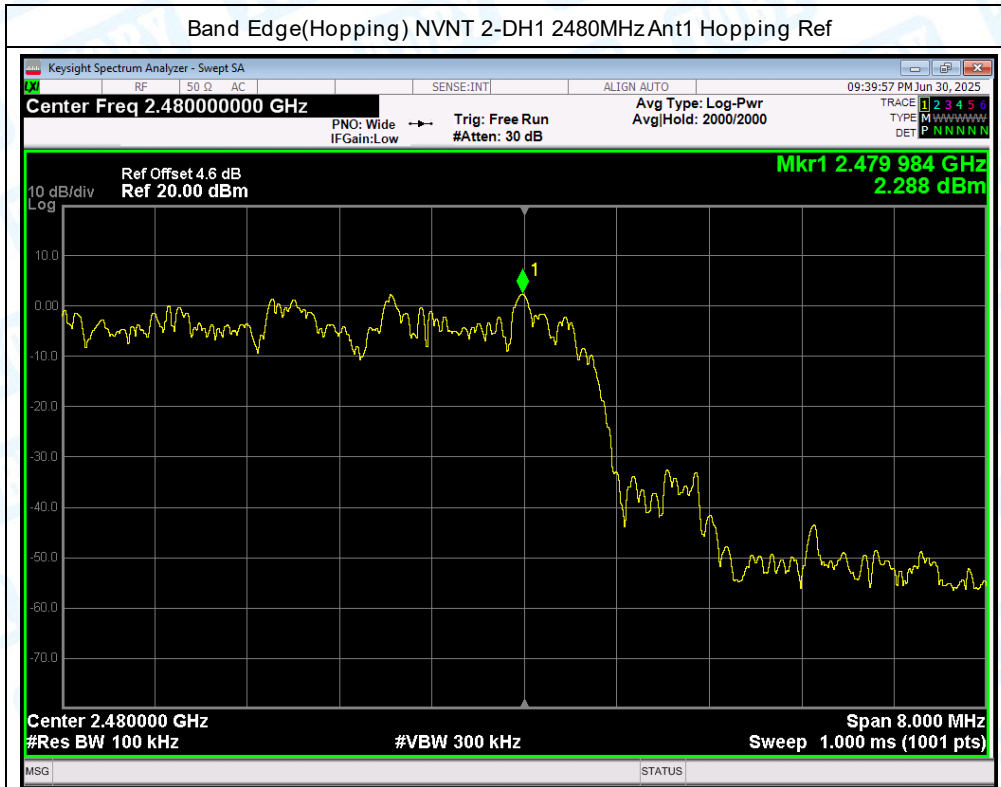


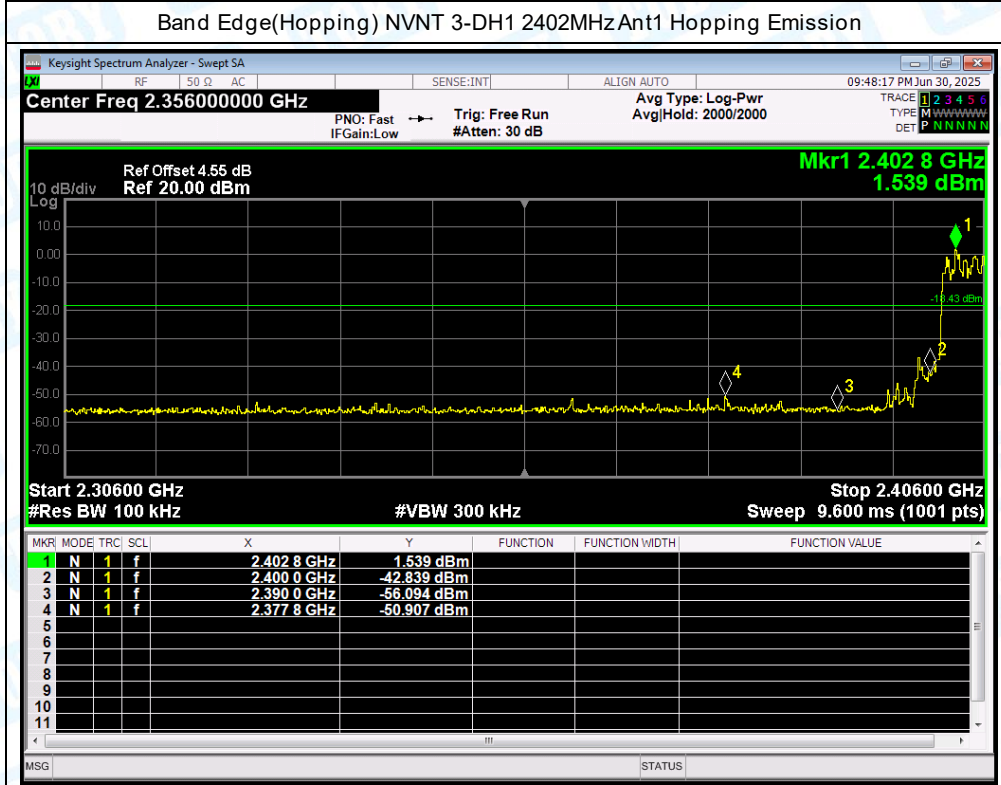
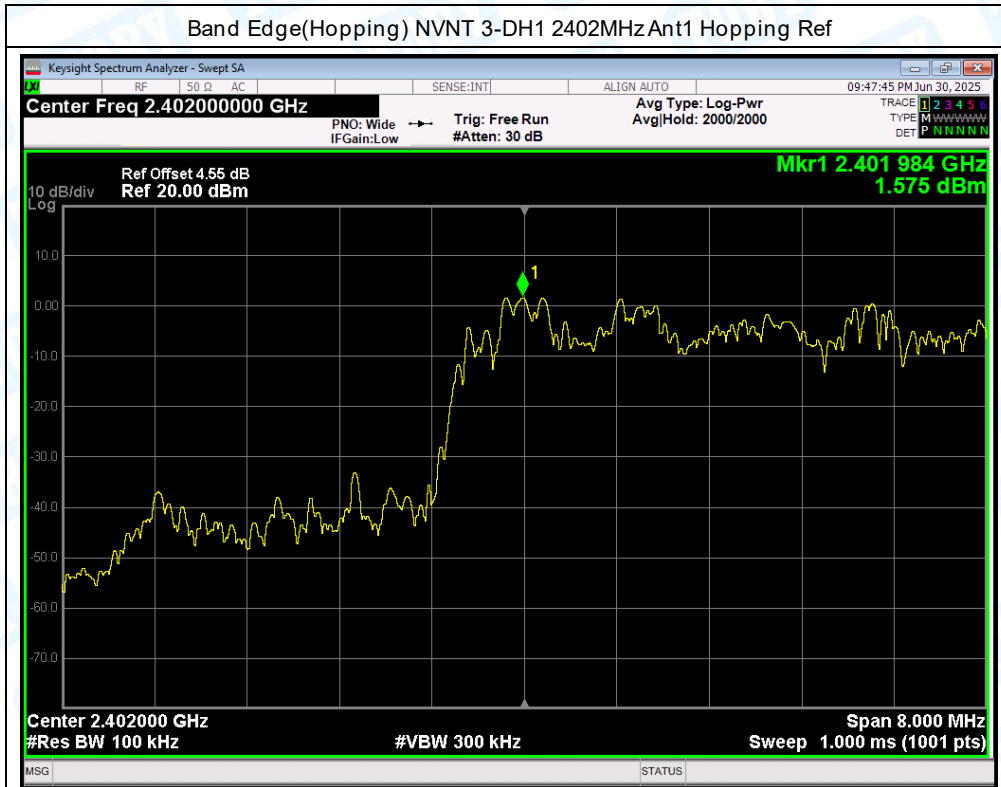
Band Edge(Hopping) NVNT 1-DH1 2402MHzAnt1 Hopping Emission

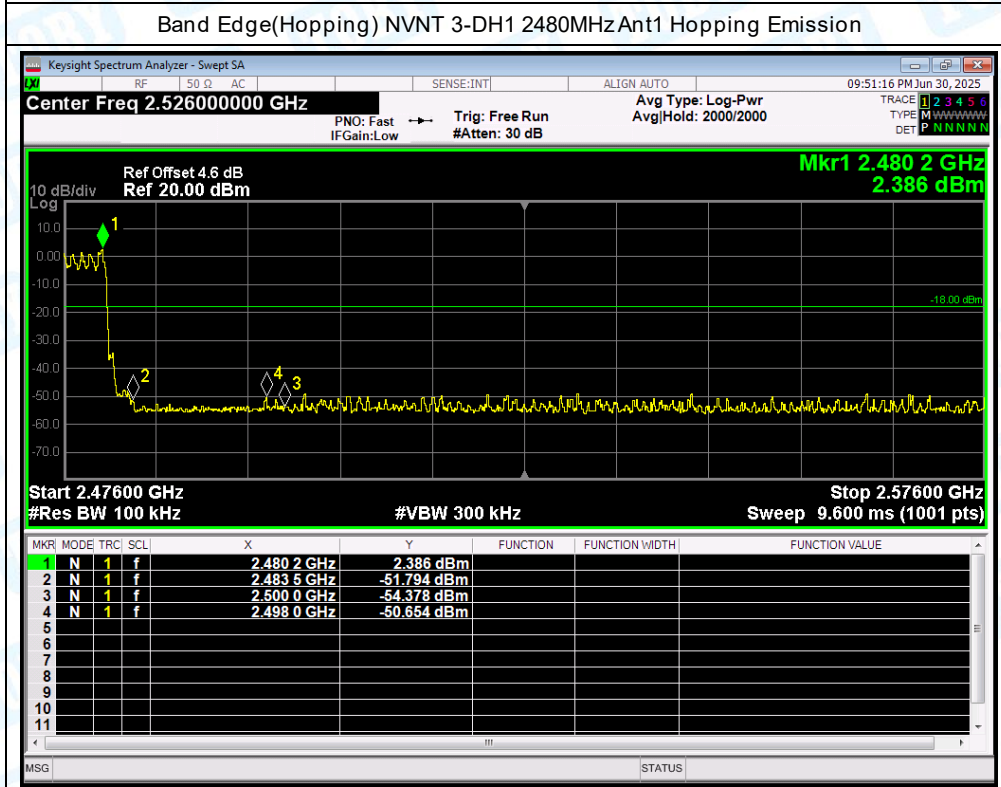










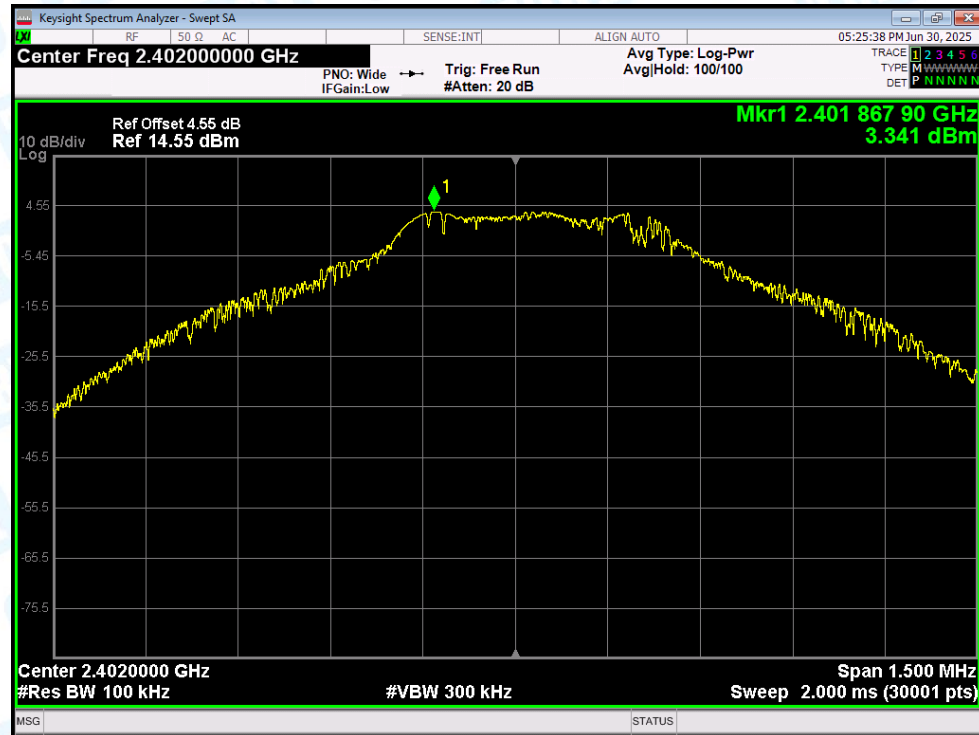


7. Conducted RF Spurious Emission

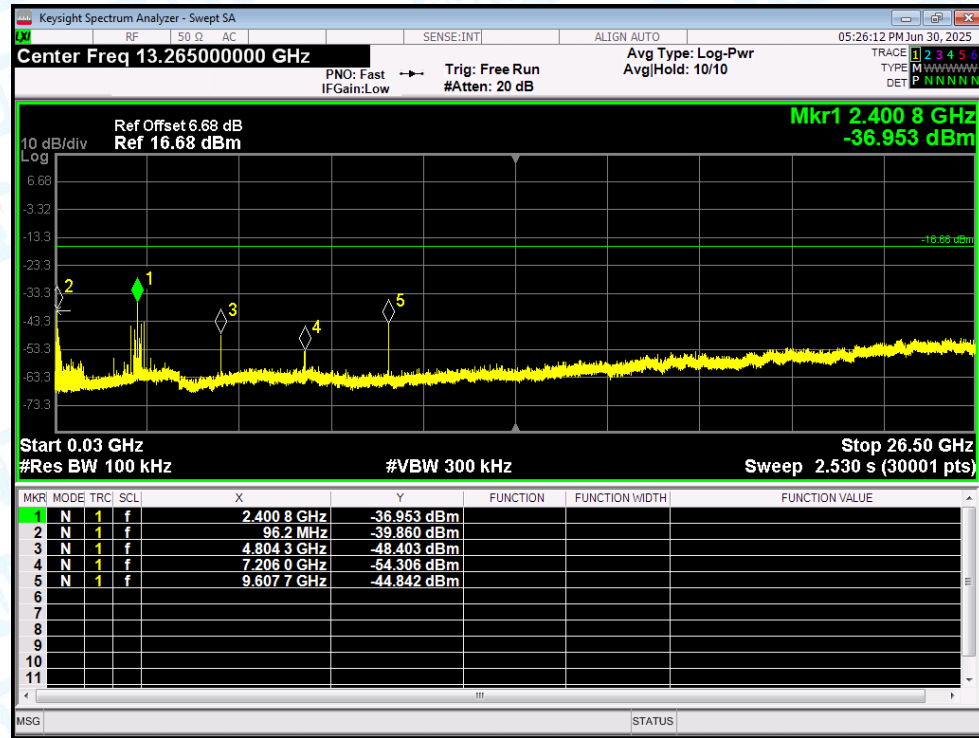
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-43.2	-20	Pass
NVNT	1-DH1	2441	Ant1	-45.31	-20	Pass
NVNT	1-DH1	2480	Ant1	-45.19	-20	Pass
NVNT	2-DH1	2402	Ant1	-43.89	-20	Pass
NVNT	2-DH1	2441	Ant1	-46.79	-20	Pass
NVNT	2-DH1	2480	Ant1	-45.28	-20	Pass
NVNT	3-DH1	2402	Ant1	-42.81	-20	Pass
NVNT	3-DH1	2441	Ant1	-47.38	-20	Pass
NVNT	3-DH1	2480	Ant1	-45.55	-20	Pass

Test Graphs

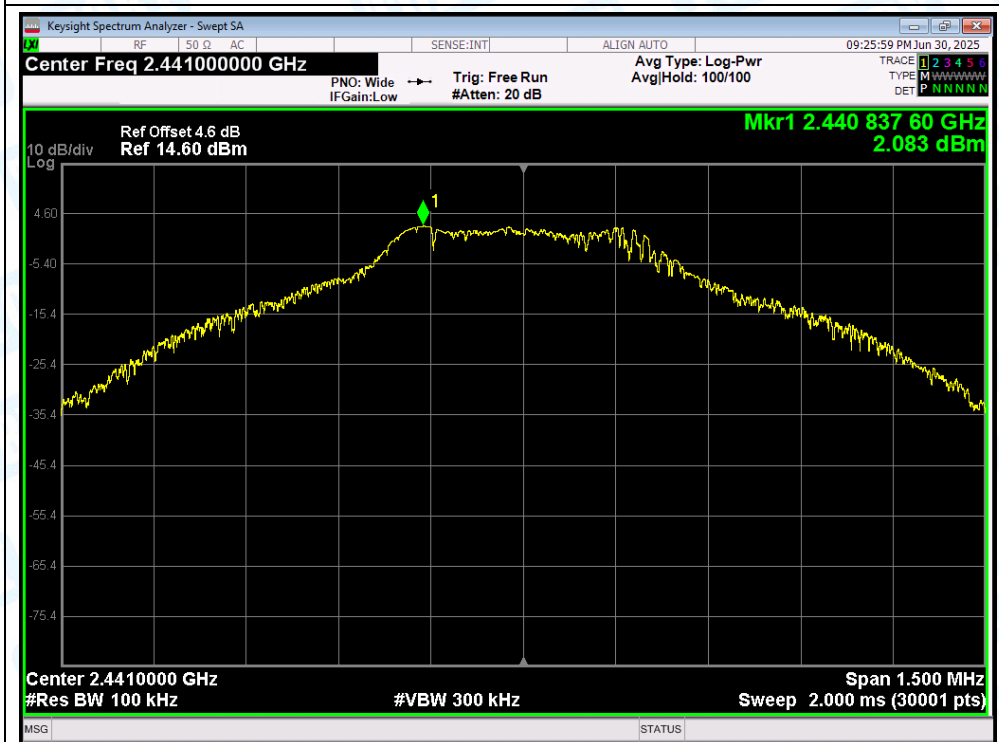
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



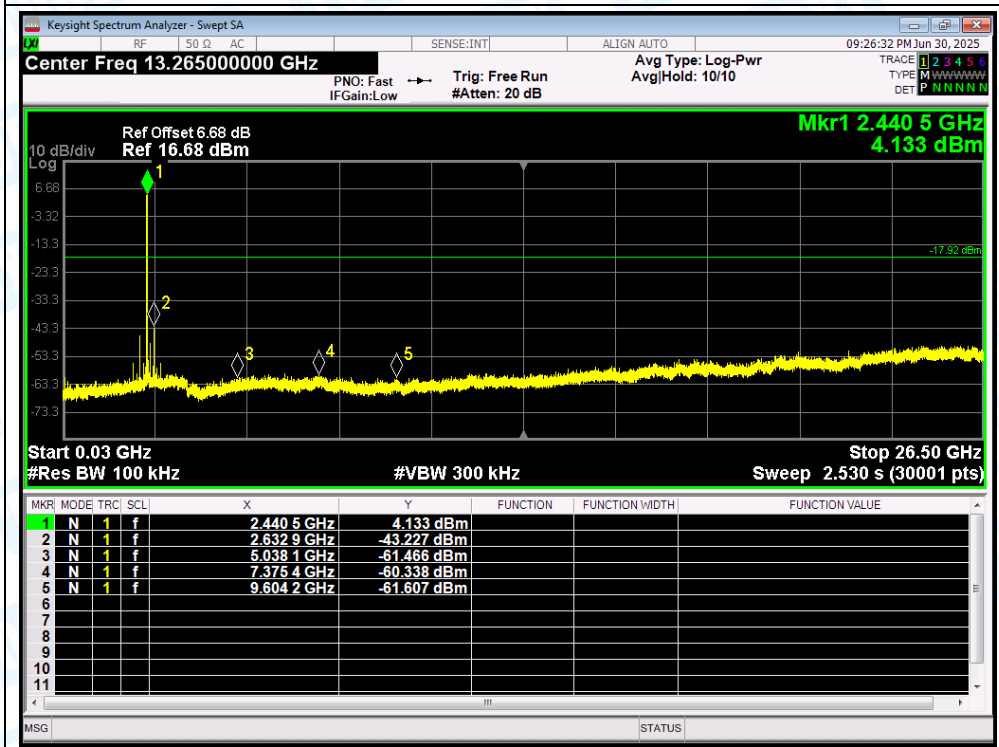
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 1-DH1 2441MHzAnt1 Ref



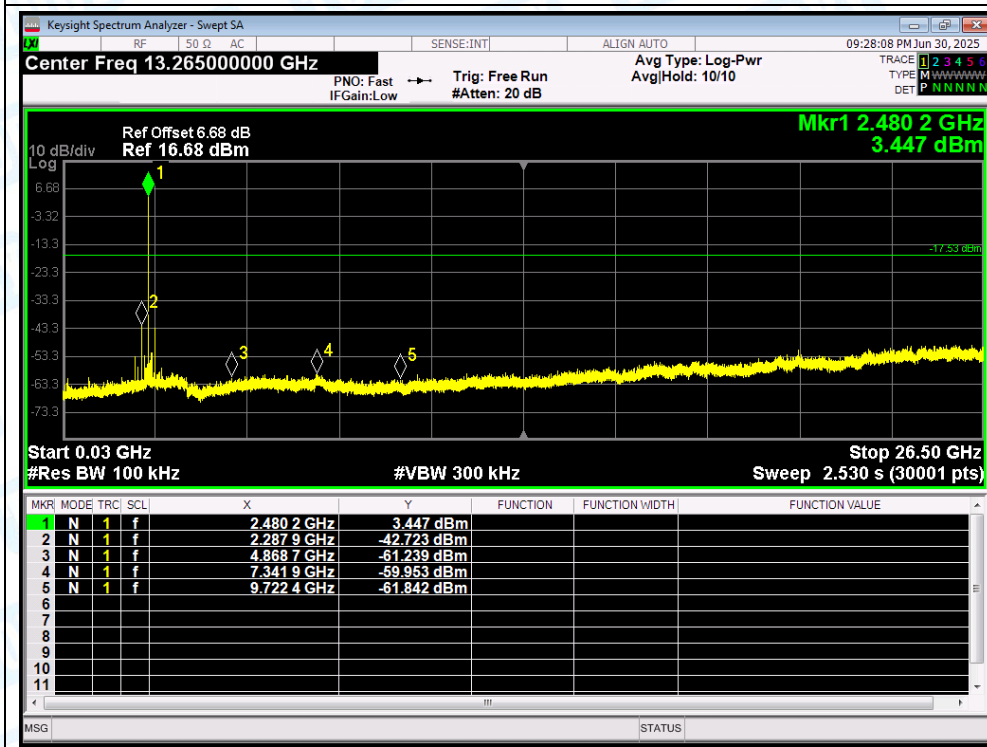
Tx. Spurious NVNT 1-DH1 2441MHzAnt1 Emission



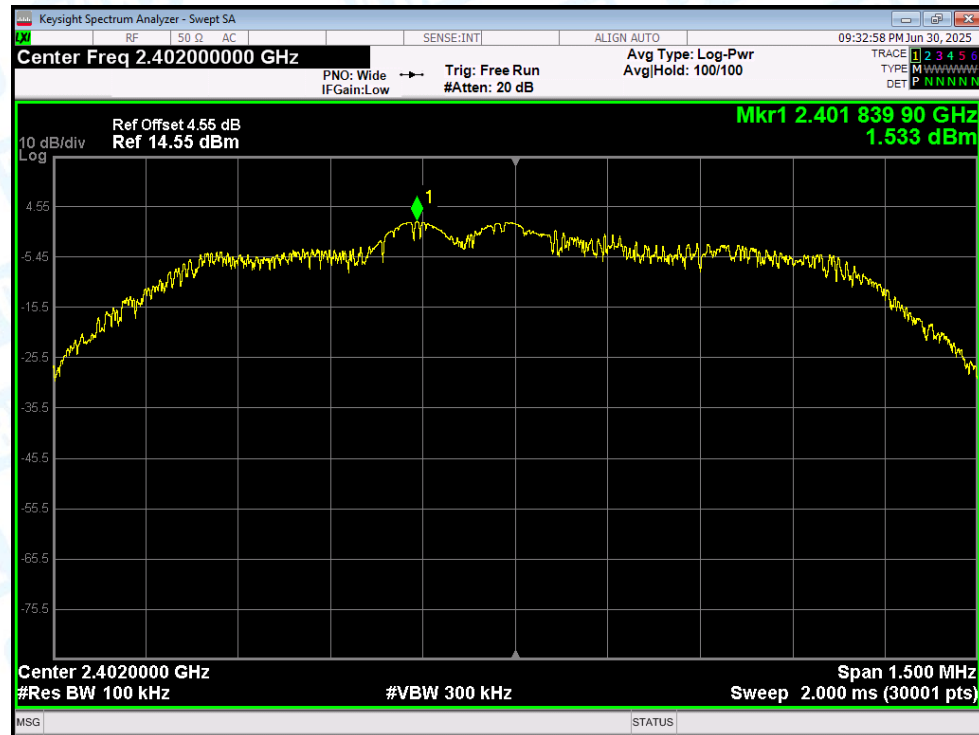
Tx. Spurious NVNT 1-DH1 2480MHzAnt1 Ref



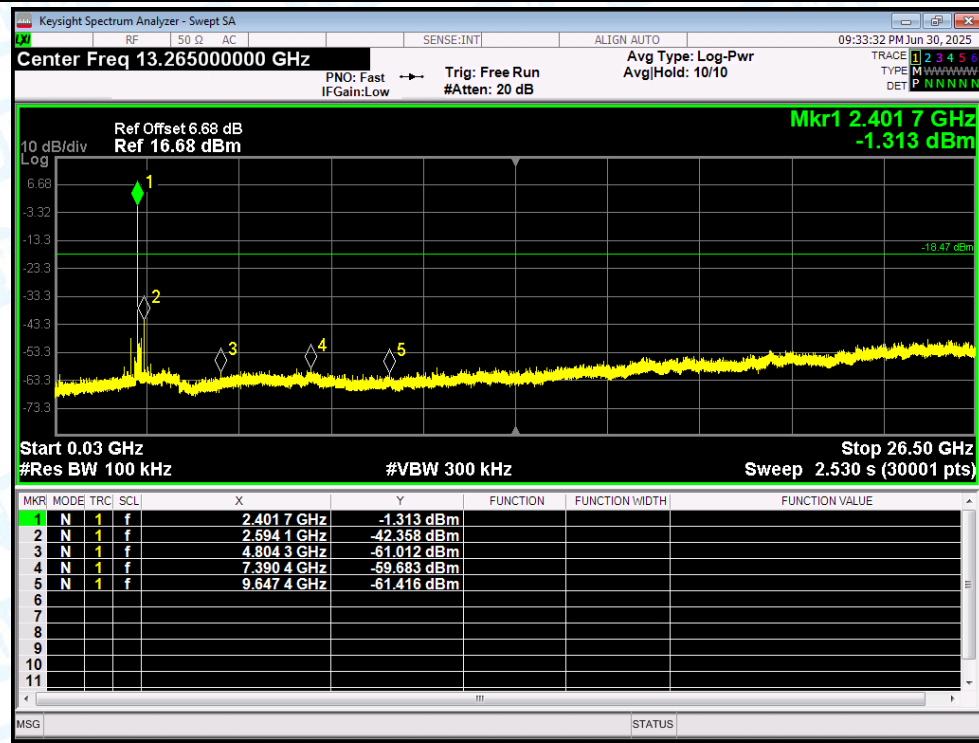
Tx. Spurious NVNT 1-DH1 2480MHzAnt1 Emission



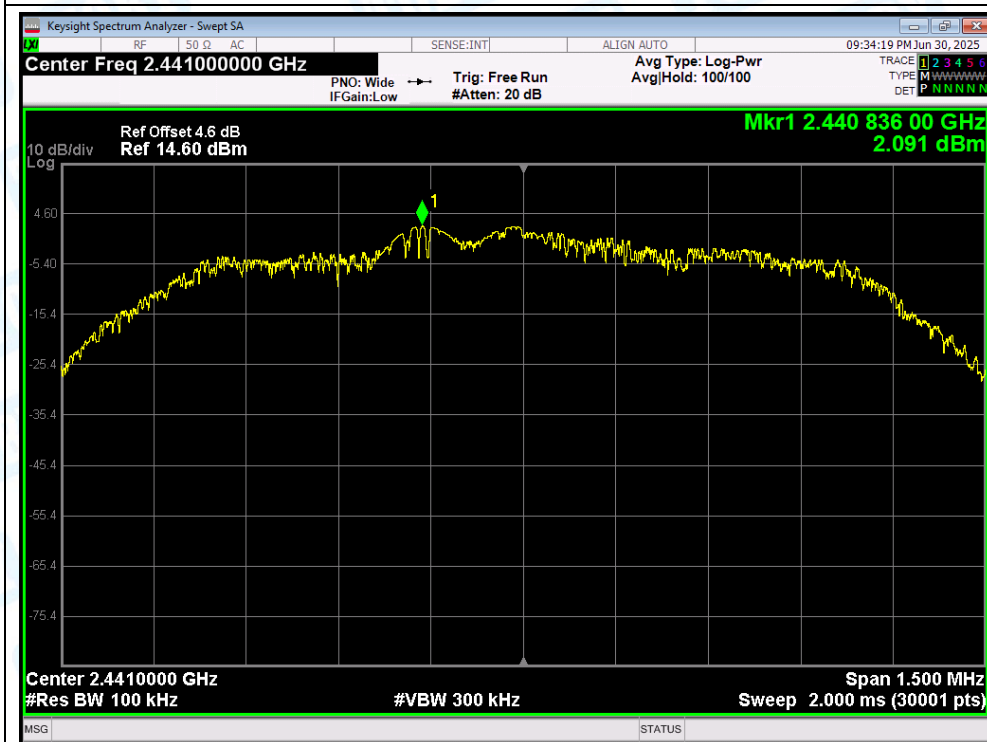
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



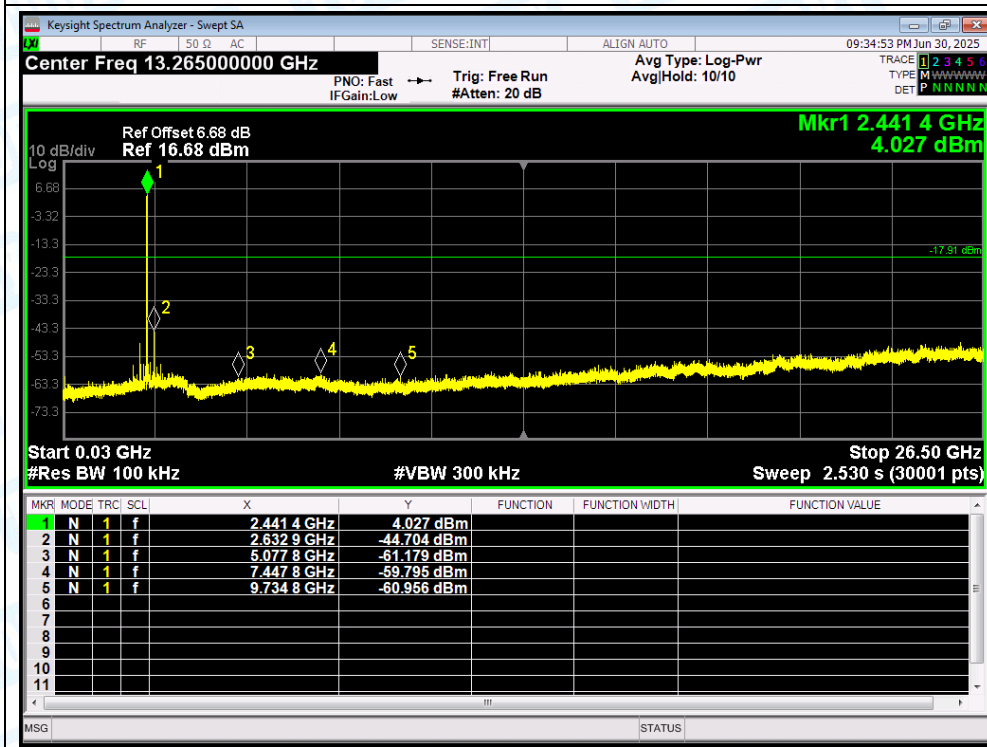
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



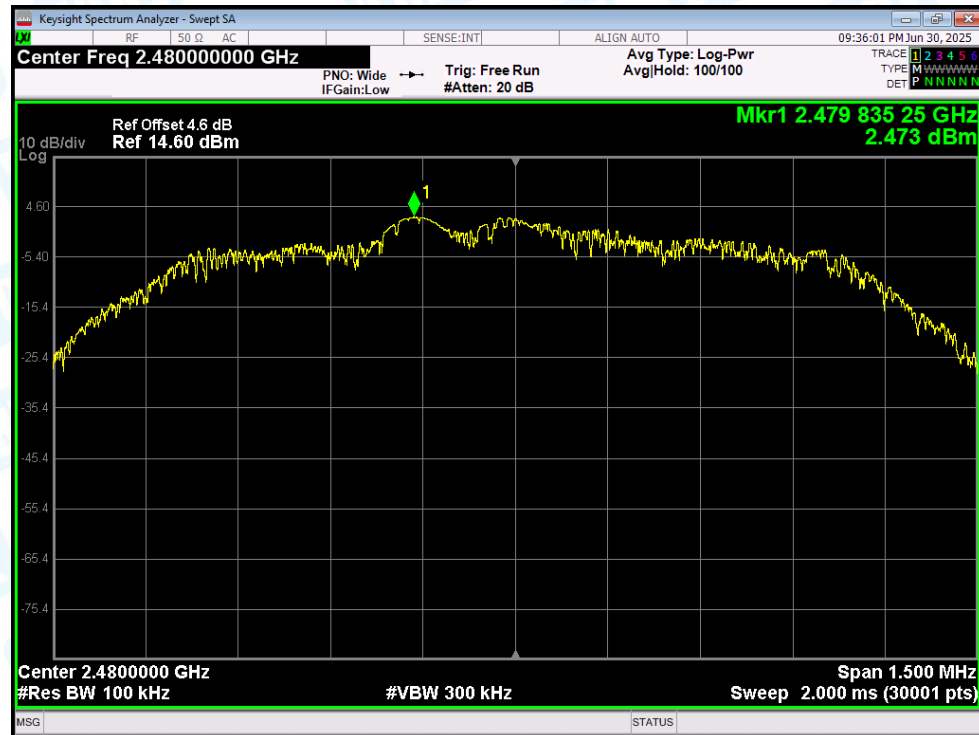
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



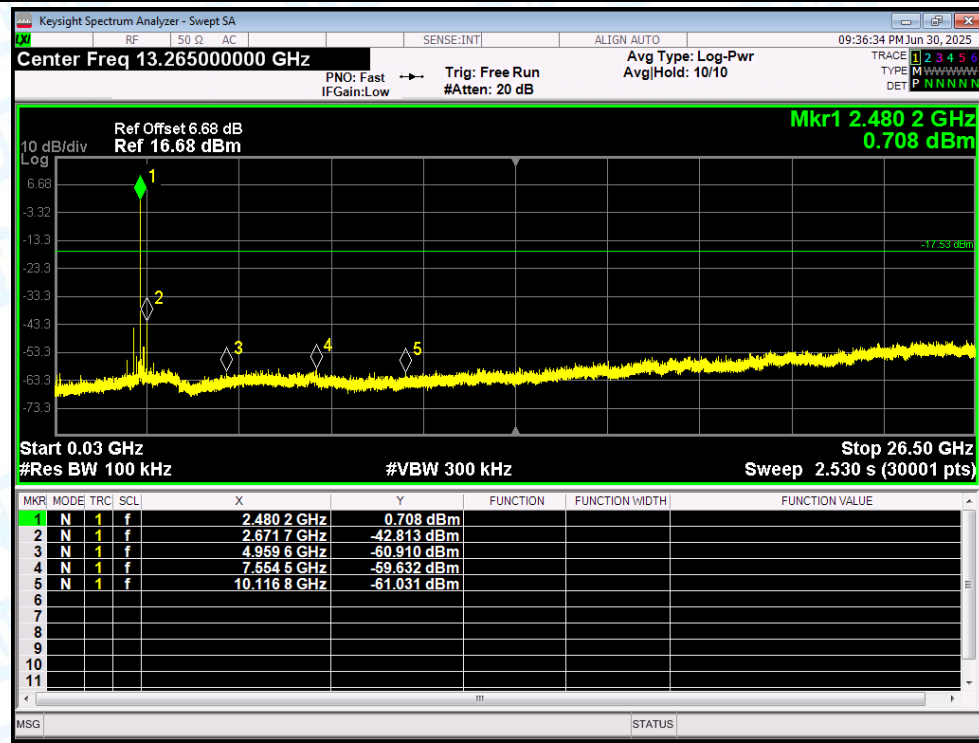
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



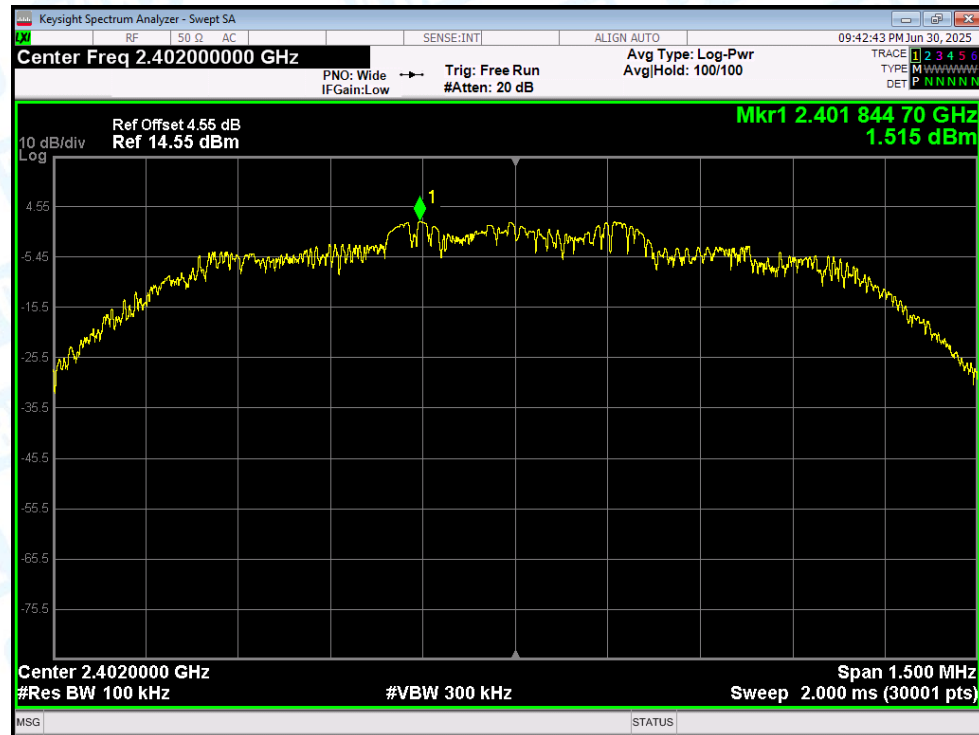
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



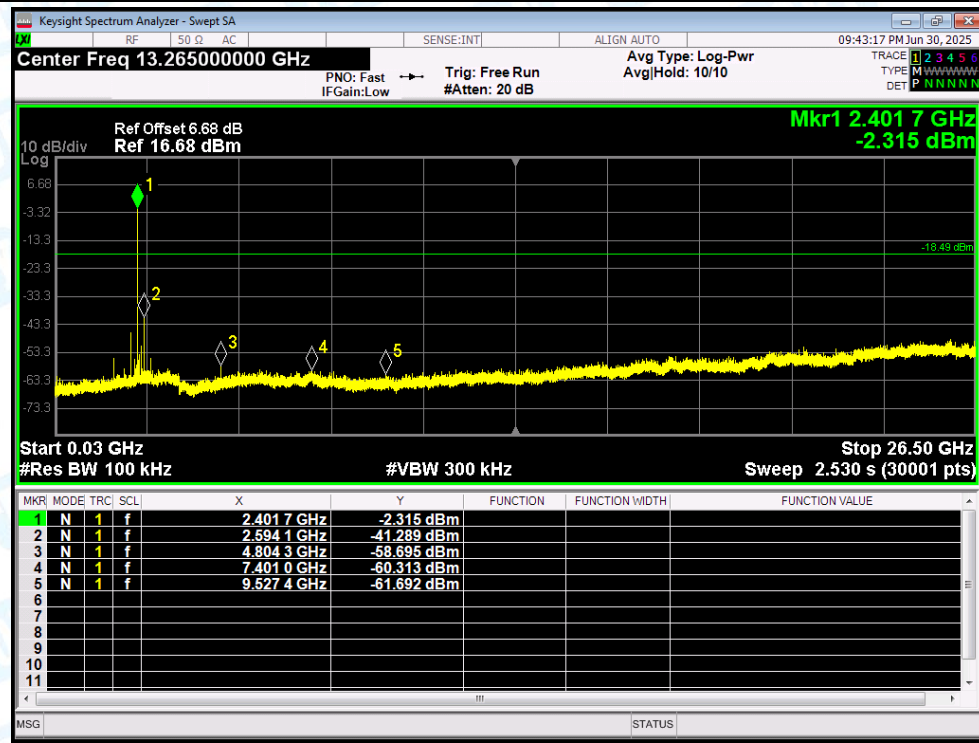
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



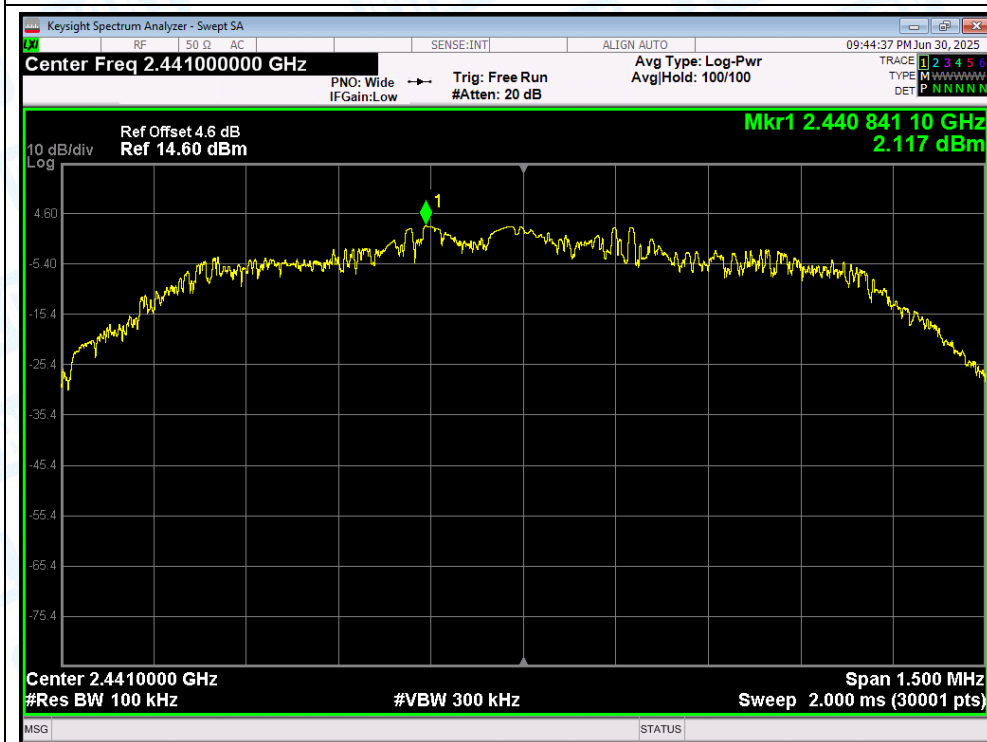
Tx. Spurious NVNT 3-DH1 2402MHzAnt1 Ref



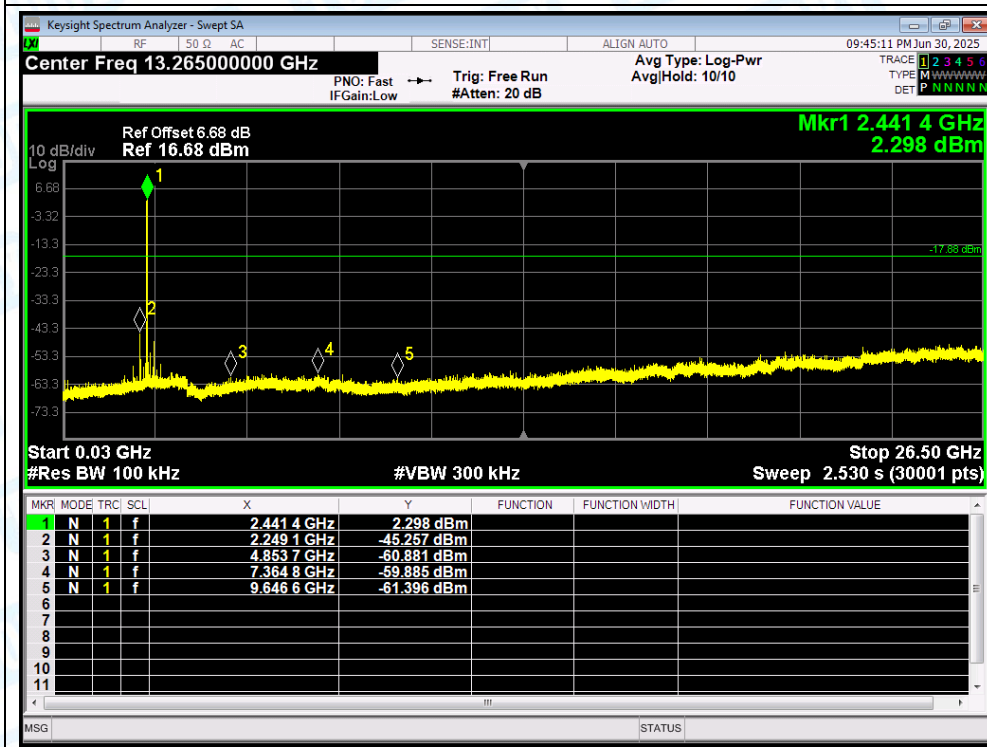
Tx. Spurious NVNT 3-DH1 2402MHzAnt1 Emission



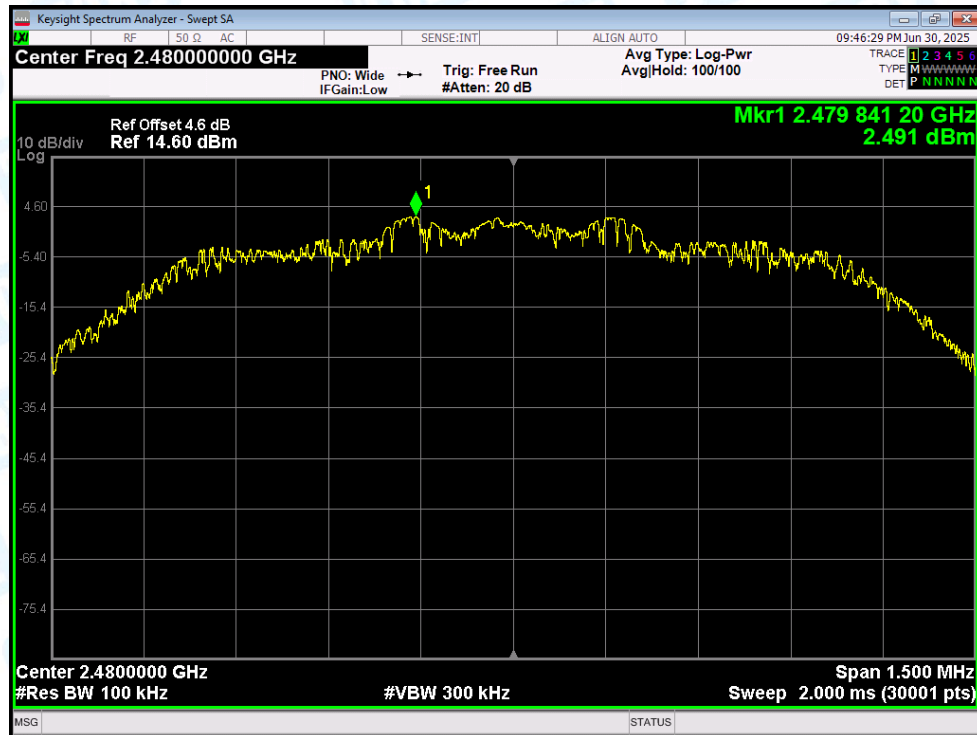
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



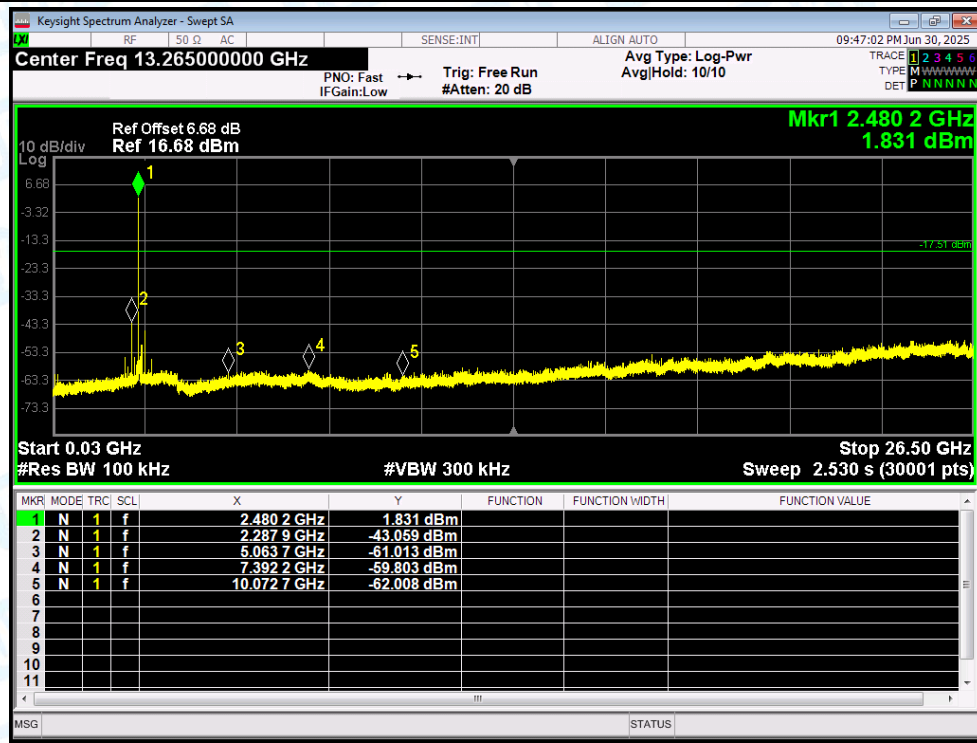
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

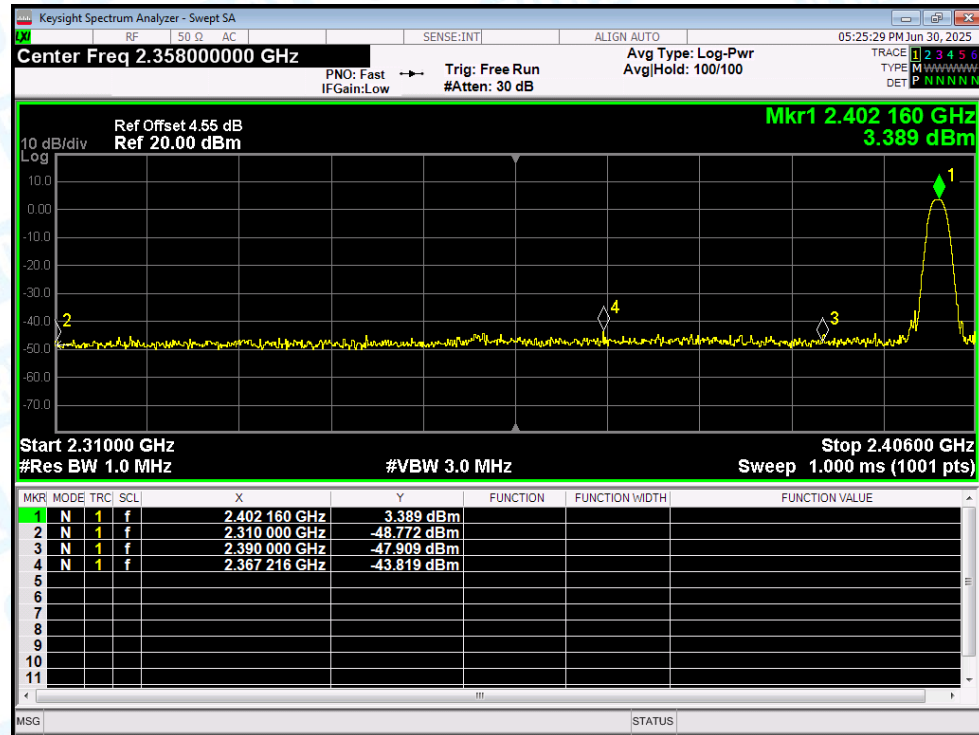


8.Restrict Band

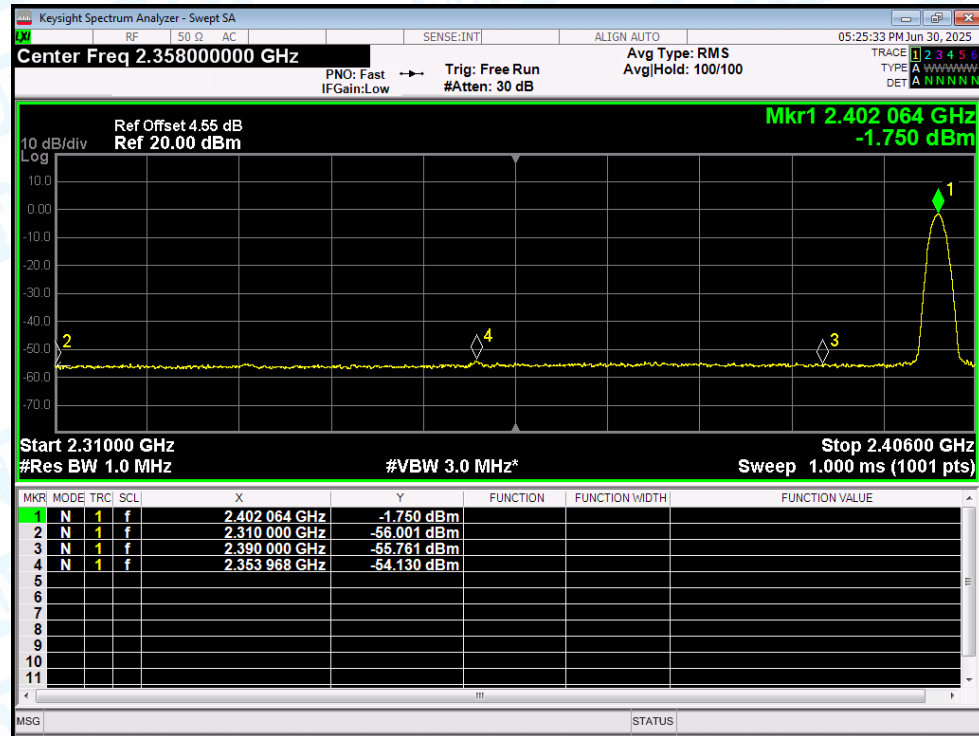
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-48.77	2	-	48.49	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56	2	5.06	46.32	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2367.216	-43.82	2	-	53.44	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2353.968	-54.13	2	5.06	48.19	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-47.91	2	-	49.35	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-55.76	2	5.06	46.56	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-40.6	2	-	56.66	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-50.56	2	5.06	51.76	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.8	-39.09	2	-	58.17	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.512	-50.56	2	5.06	51.76	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-46.25	2	-	51.01	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-54.91	2	5.06	47.41	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-48.01	2	-	49.25	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.55	2	4.95	45.66	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2367.504	-44.27	2	-	52.99	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2374.032	-55	2	4.95	47.21	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-48.06	2	-	49.2	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-55.74	2	4.95	46.47	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-42.19	2	-	55.07	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-51.69	2	4.95	50.52	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.68	-40.73	2	-	56.53	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.56	-50.78	2	4.95	51.43	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-47.42	2	-	49.84	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.27	2	4.95	46.94	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-46.47	2	-	50.79	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.12	2	5.06	46.2	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2331.888	-44.6	2	-	52.66	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2385.648	-55.06	2	5.06	47.26	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-48.61	2	-	48.65	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-56.23	2	5.06	46.09	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-42.21	2	-	55.05	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-51.46	2	5.02	50.82	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.68	-39.97	2	-	57.29	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.56	-50.93	2	5.02	51.35	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-47.66	2	-	49.6	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.45	2	5.02	46.83	Average	54	Pass

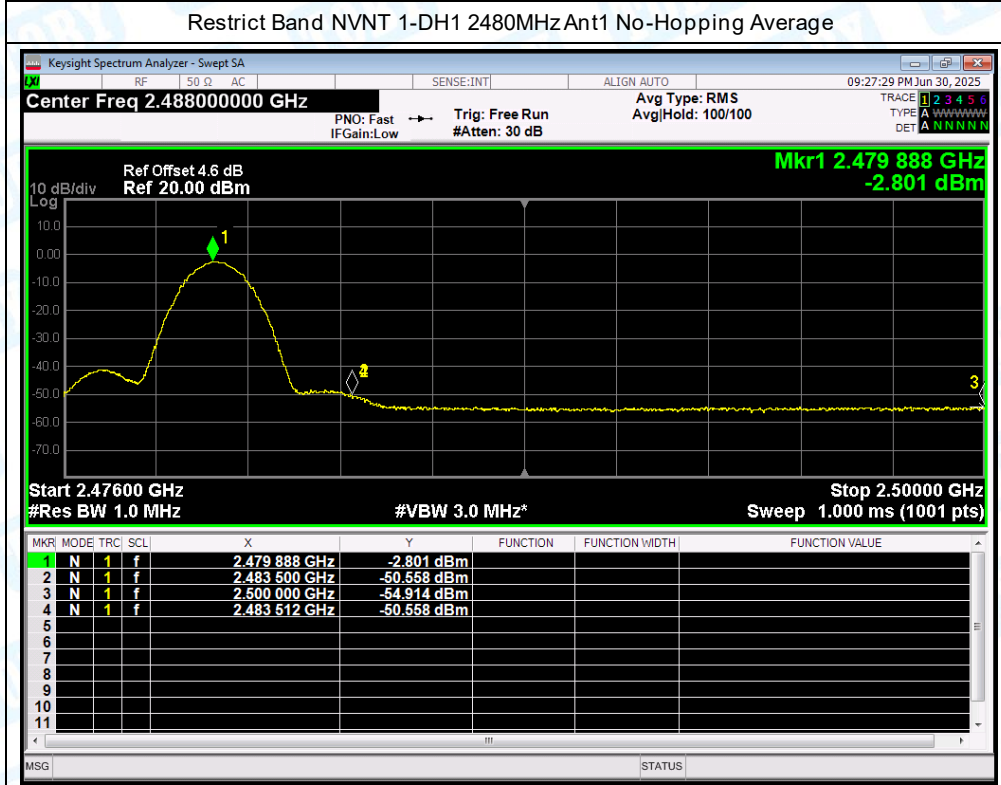
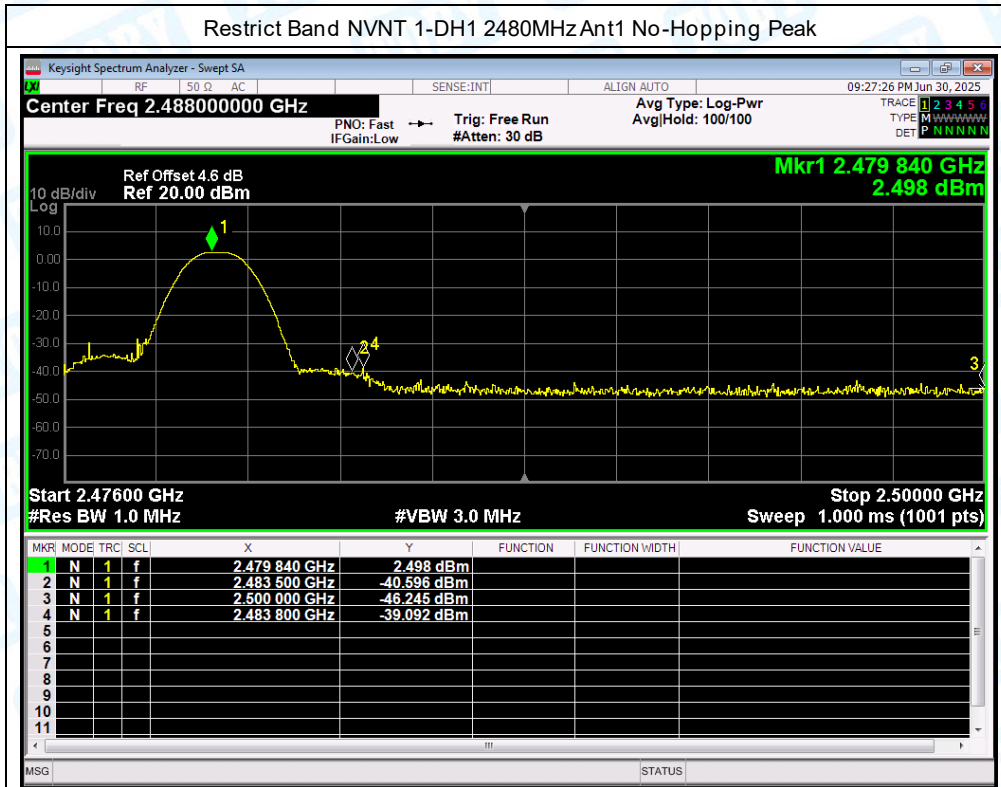
Test Graphs

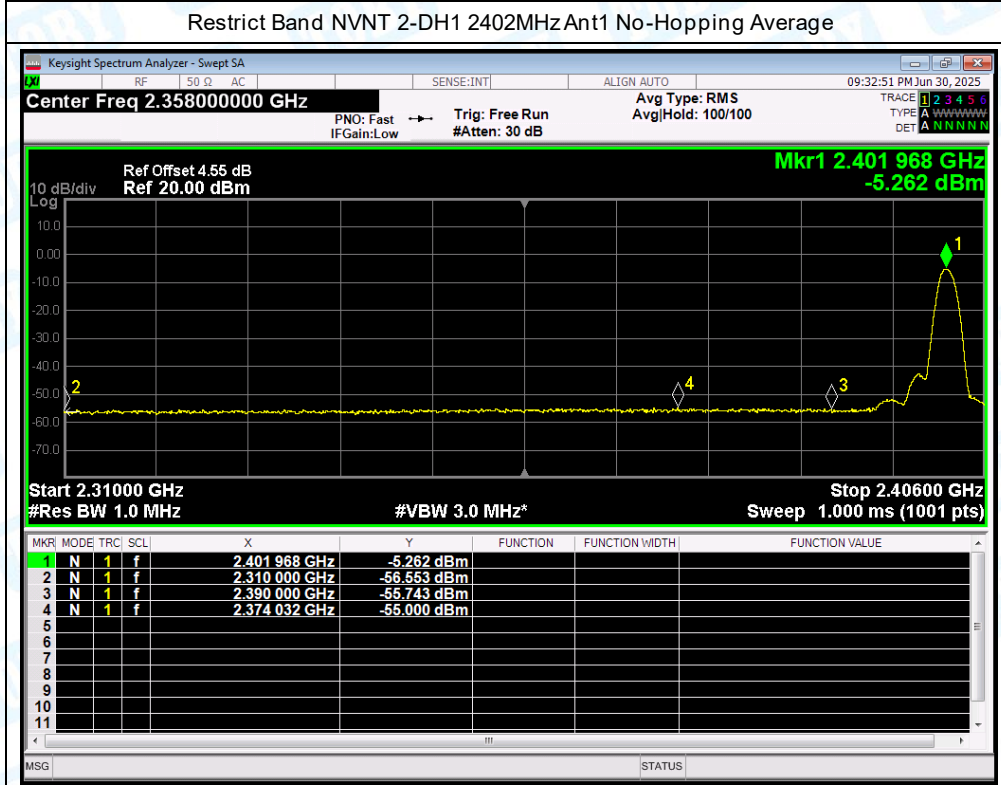
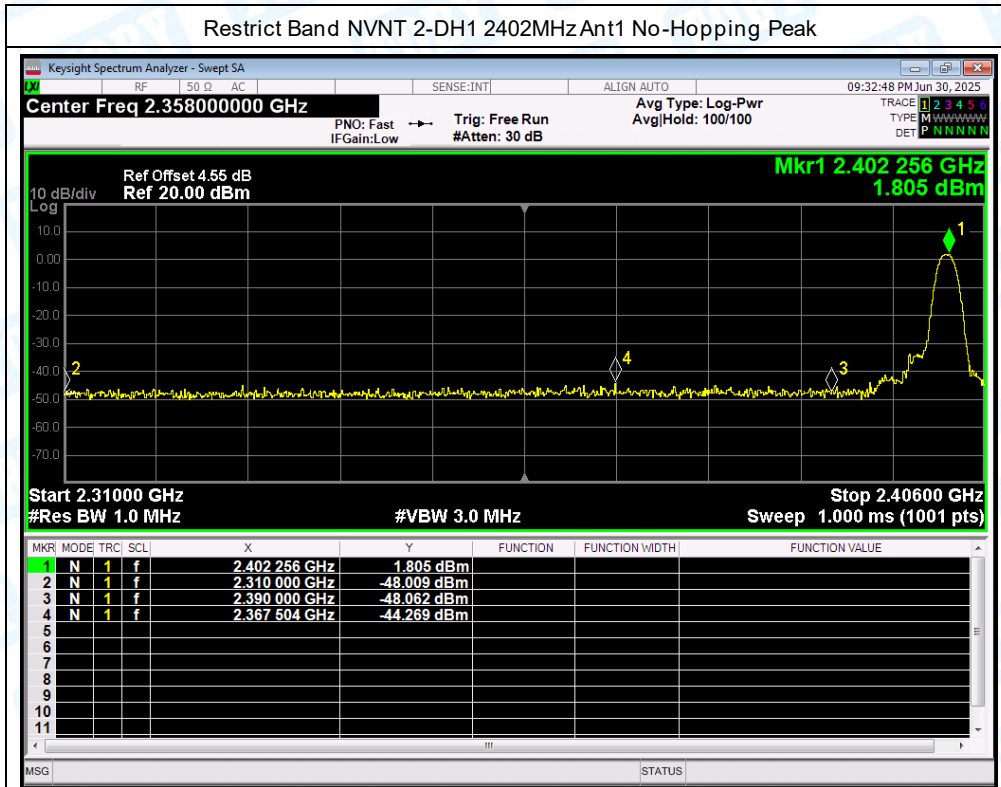
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak

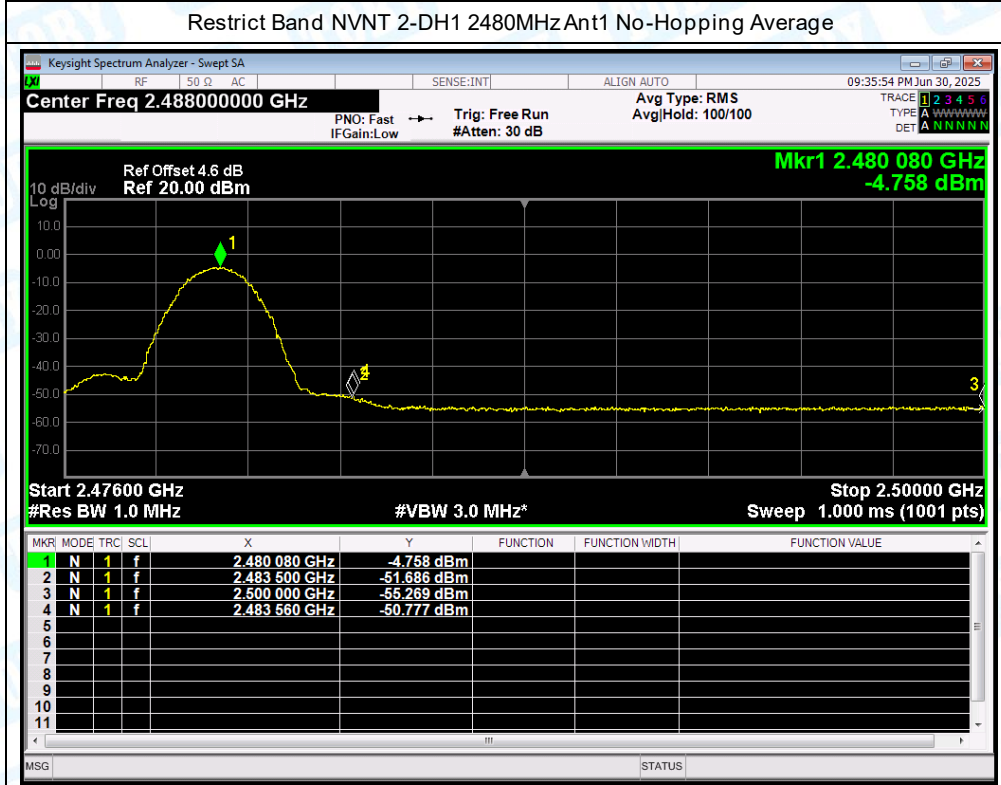
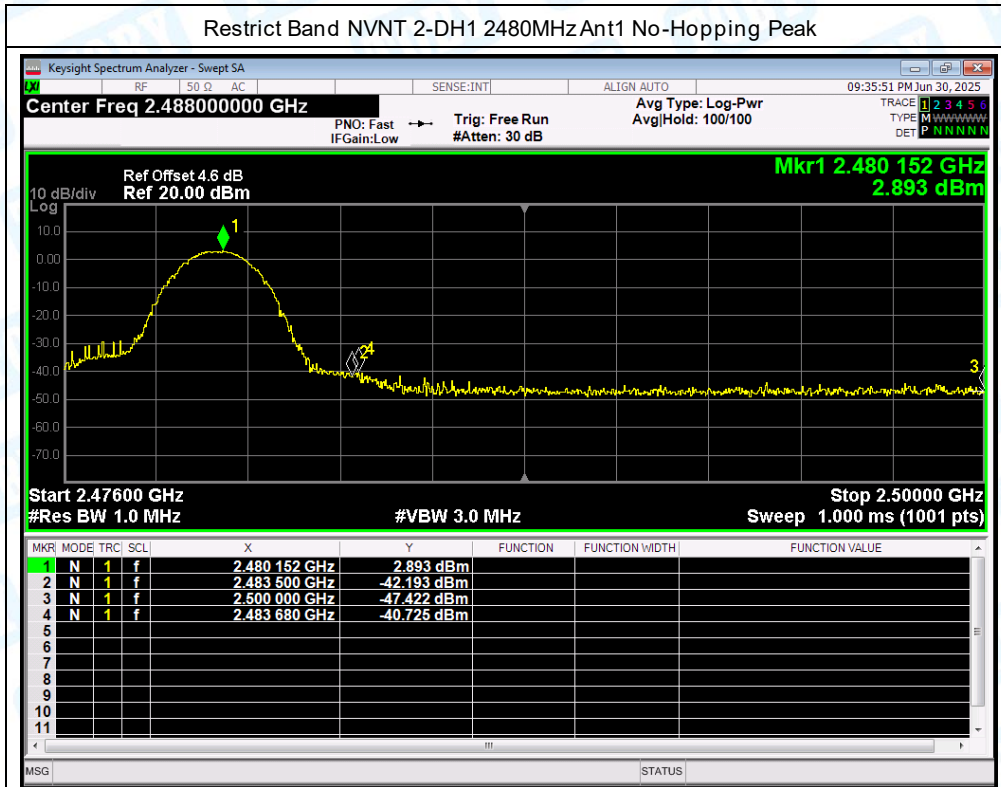


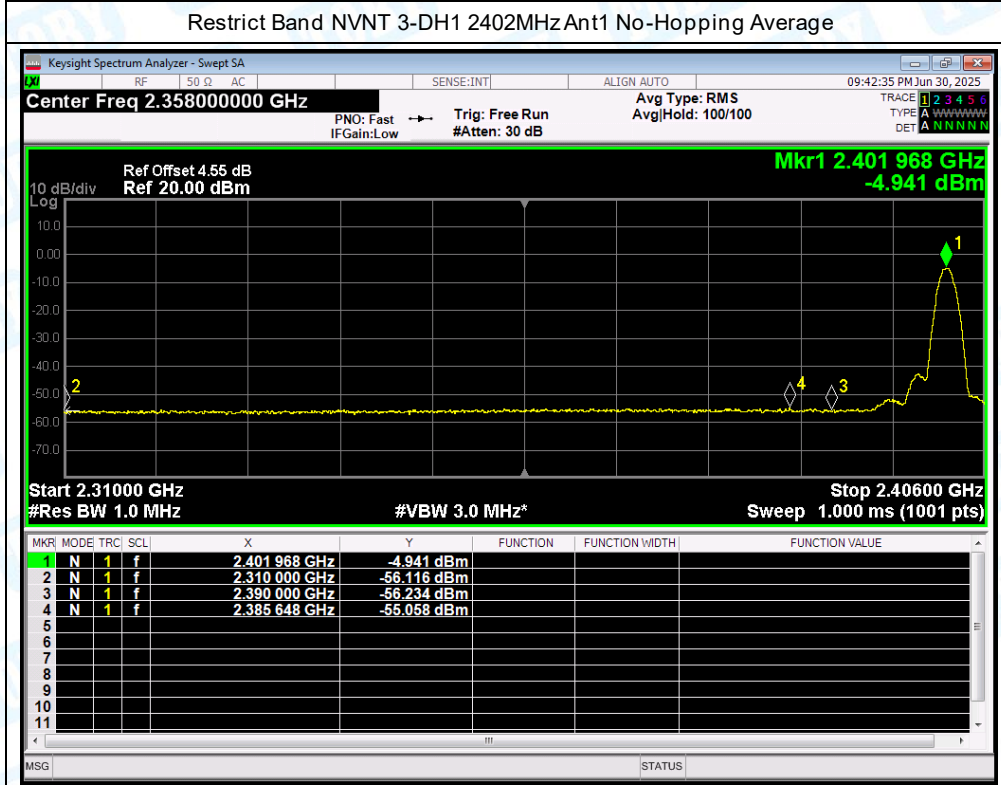
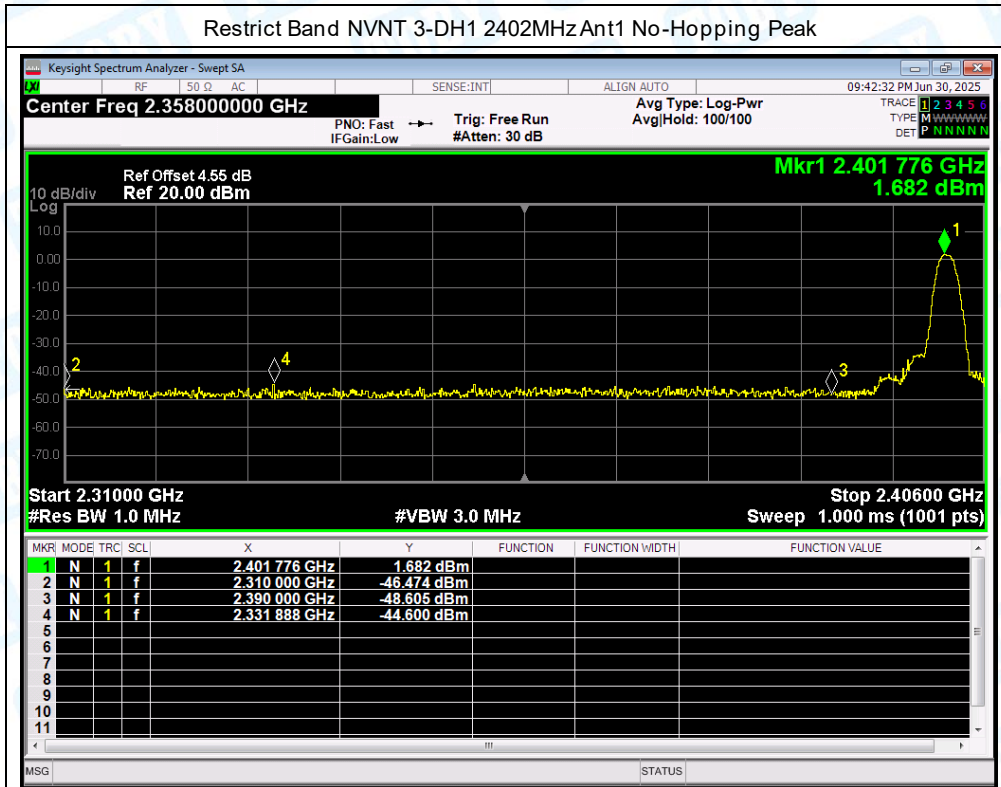
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average

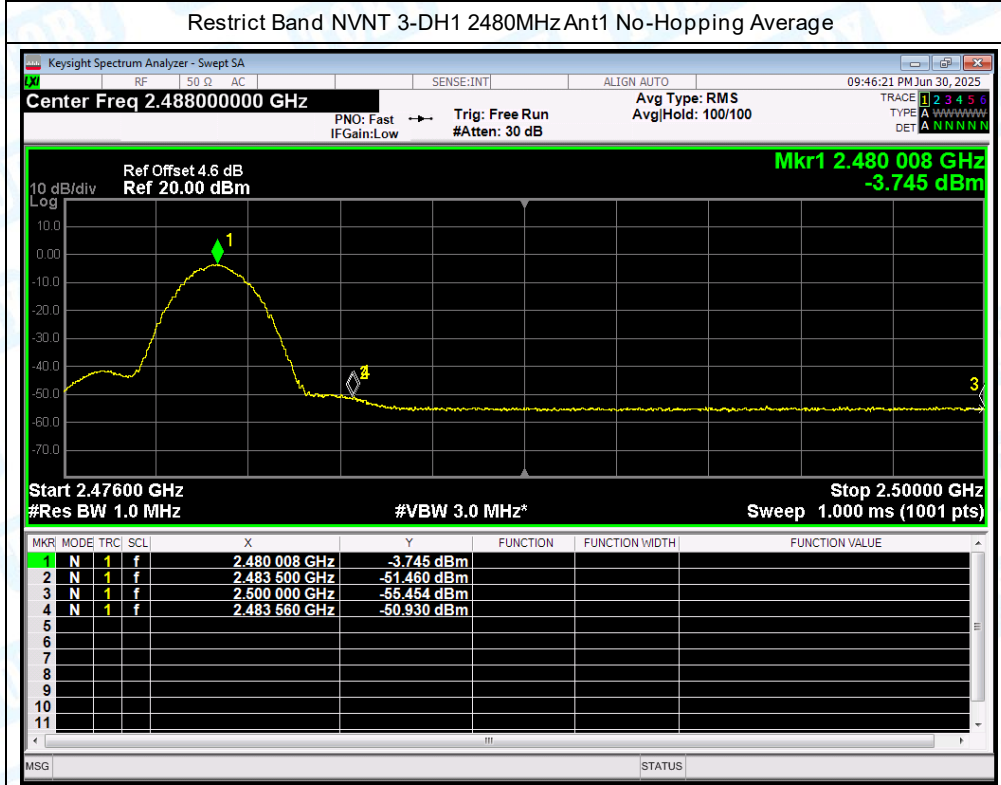
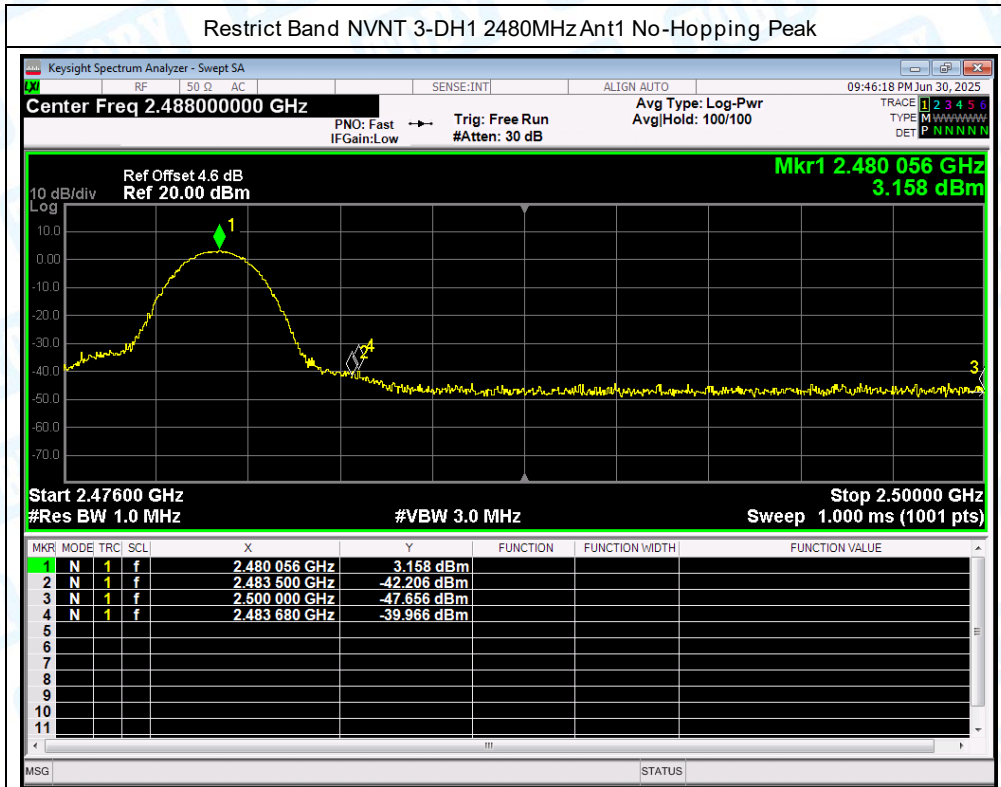










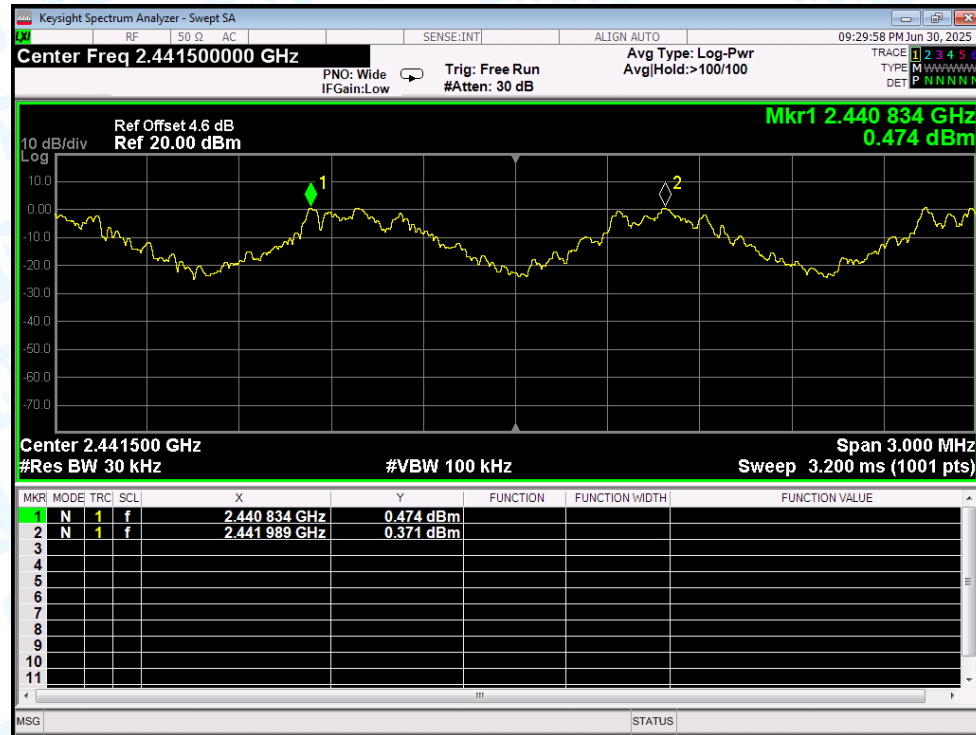


9. Carrier Frequencies Separation

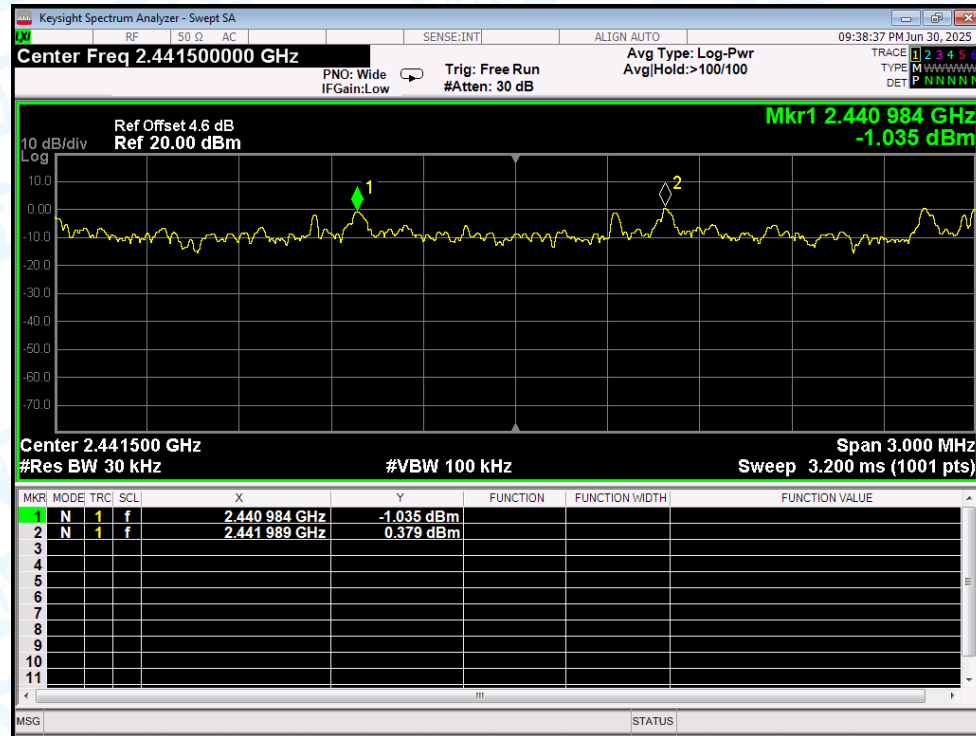
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.834	2441.989	1.155	0.573	Pass
NVNT	2-DH1	Ant1	2440.984	2441.989	1.005	0.82	Pass
NVNT	3-DH1	Ant1	2440.981	2441.995	1.014	0.827	Pass

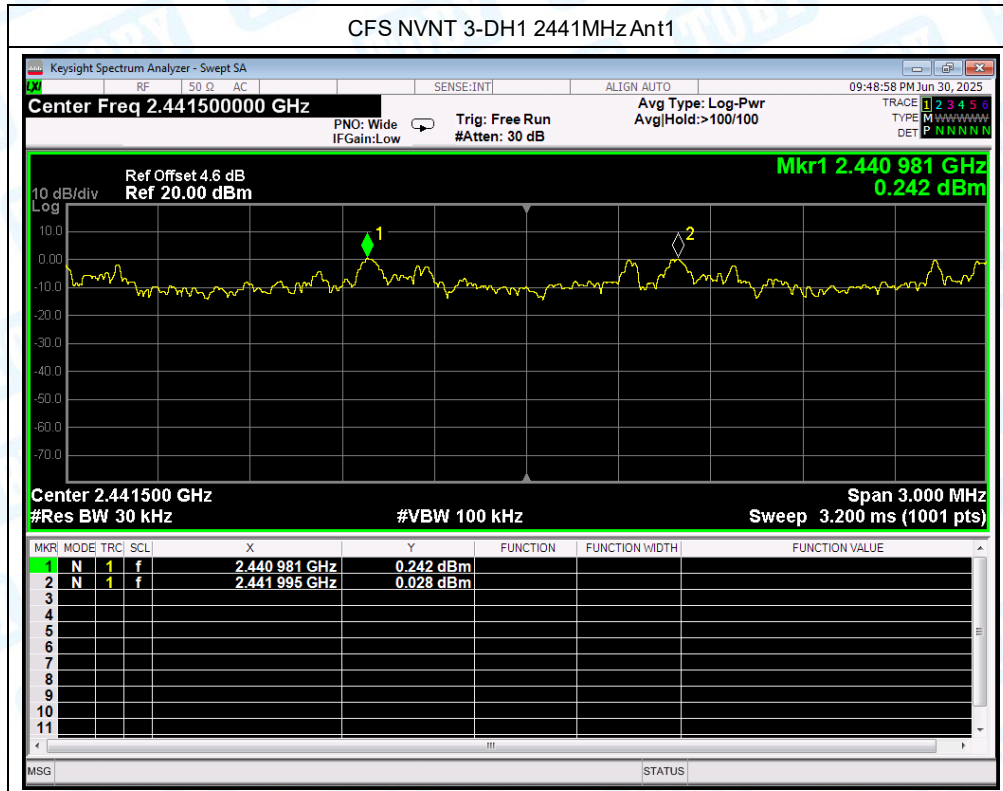
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



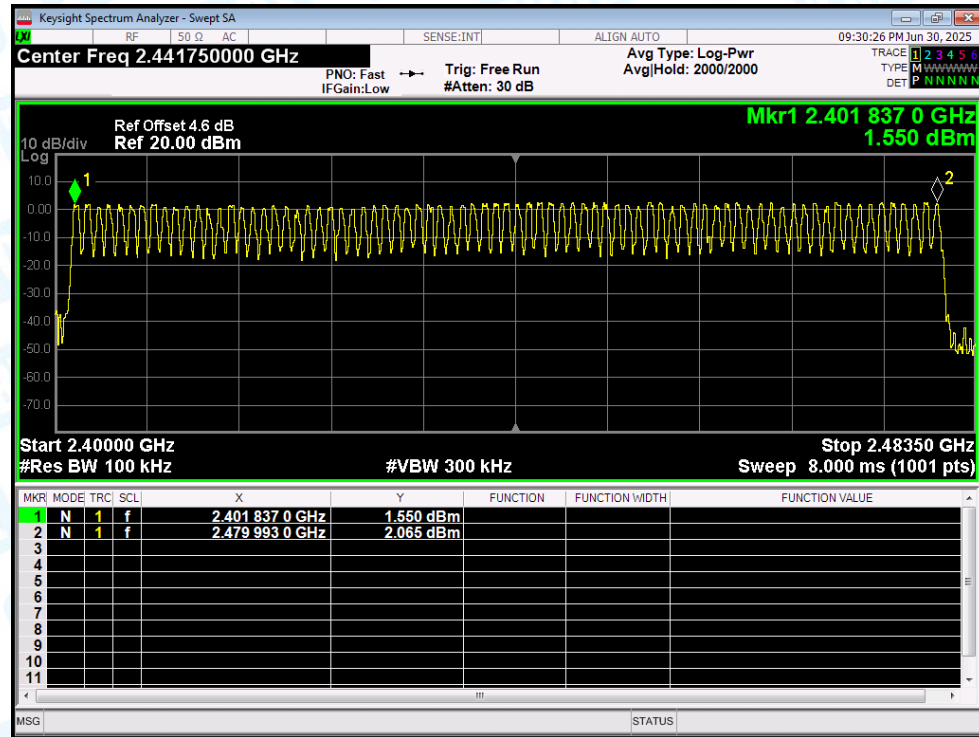


10.Number of Hopping Channel

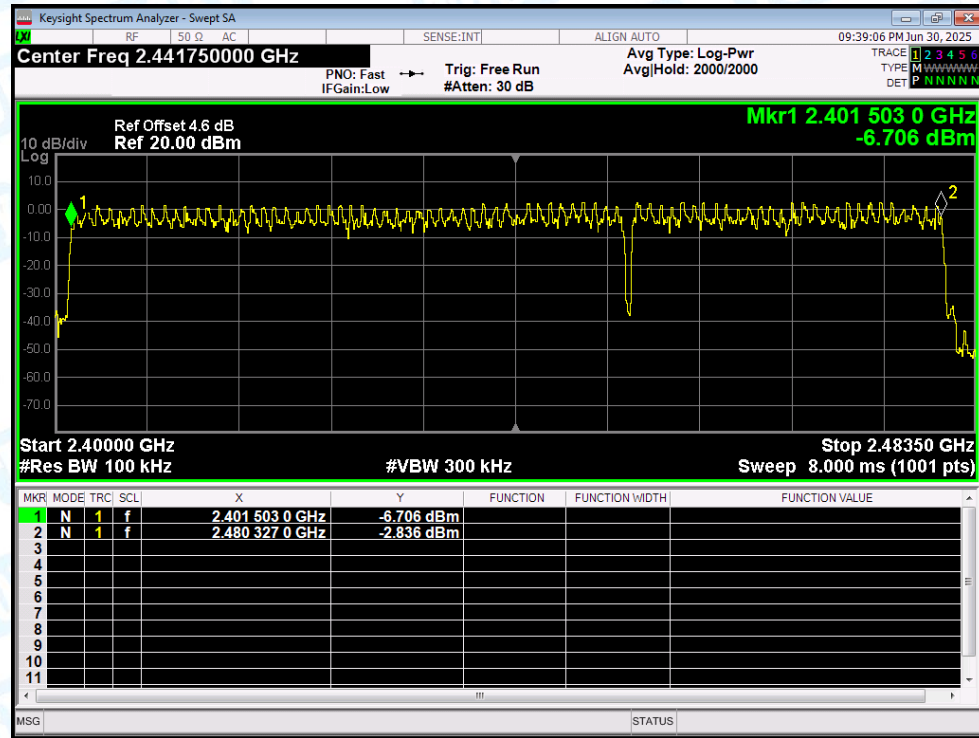
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

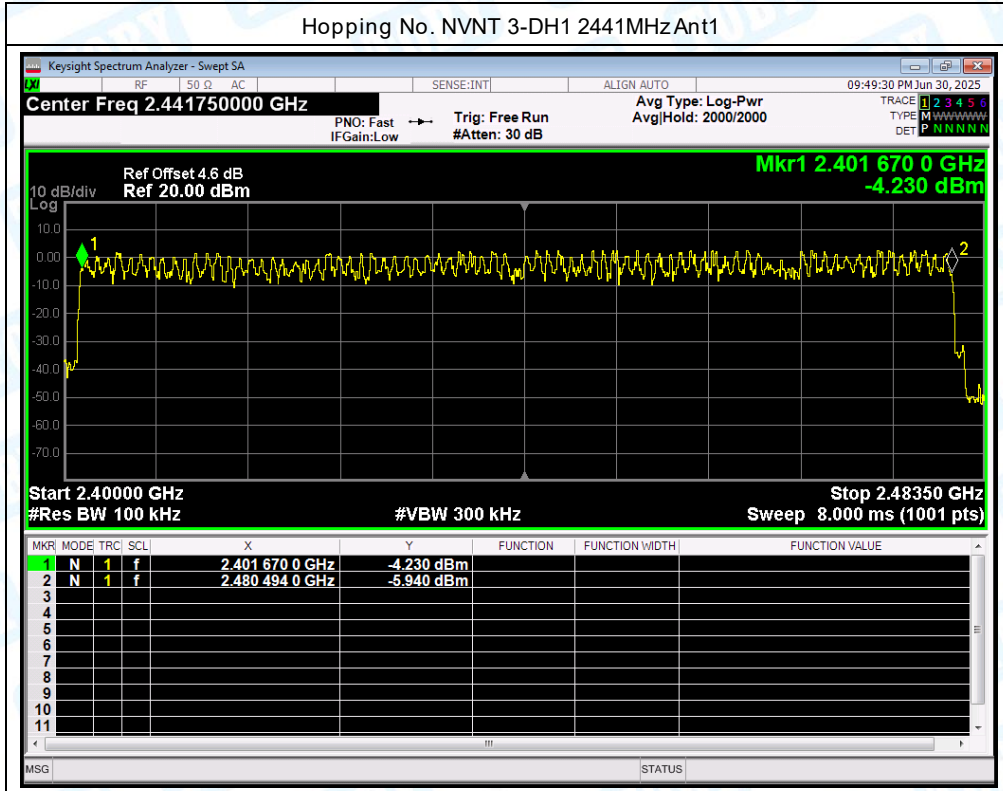
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



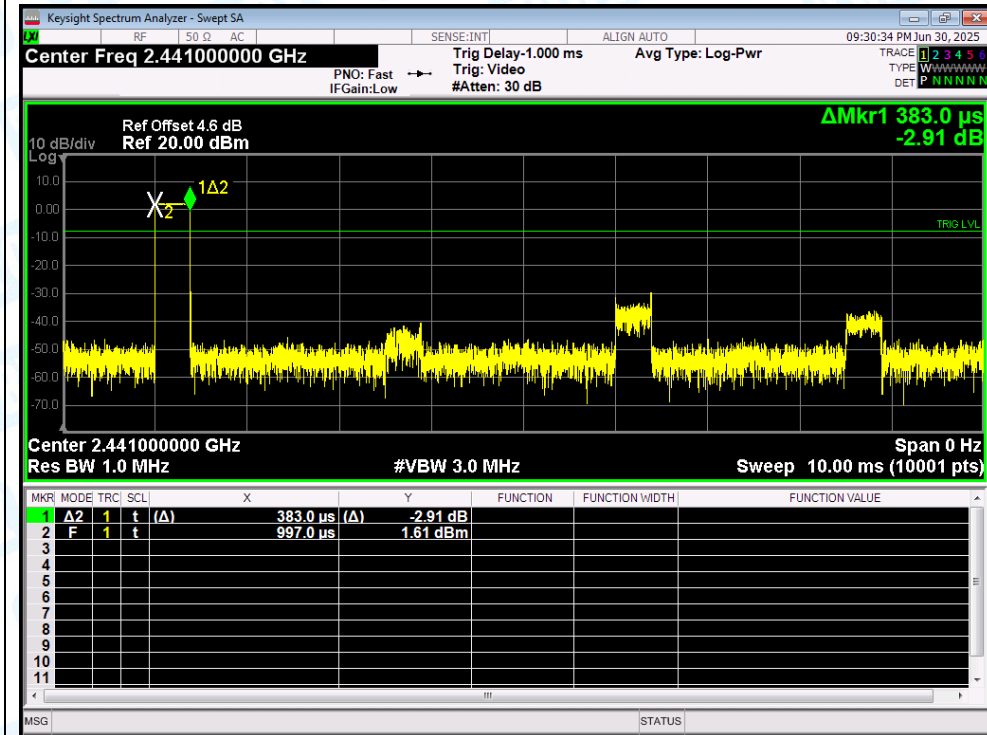


11.Dwell Time

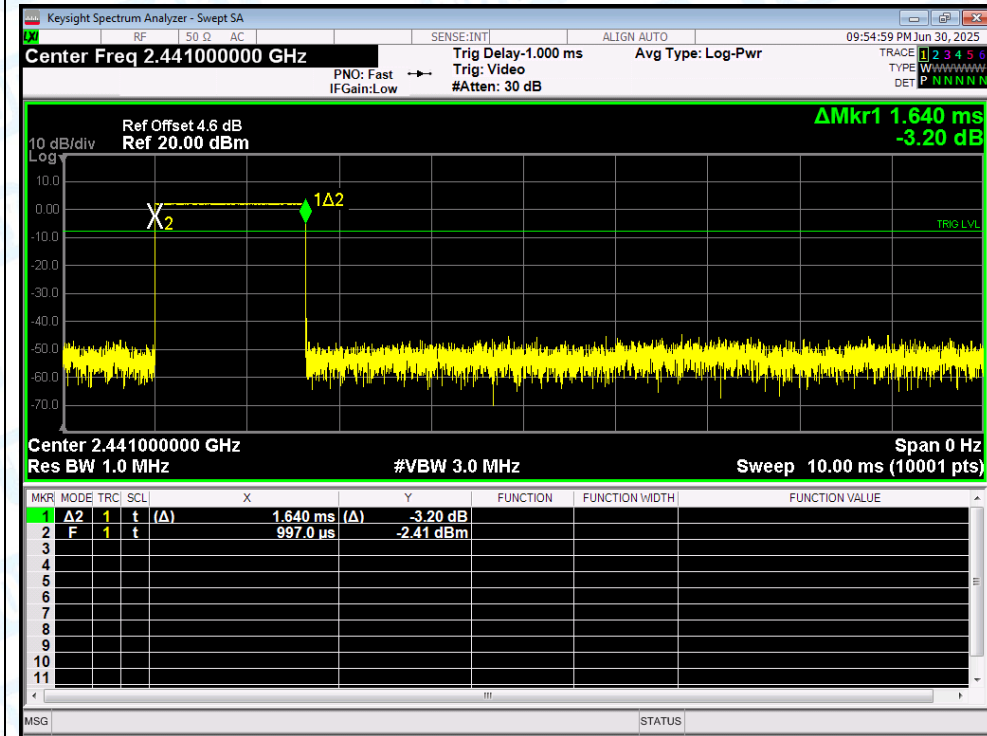
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.383	122.56	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.64	262.4	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.888	308.053	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.392	125.44	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.644	263.04	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.892	308.48	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.393	125.76	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.643	262.88	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.895	308.8	31600	400	Pass

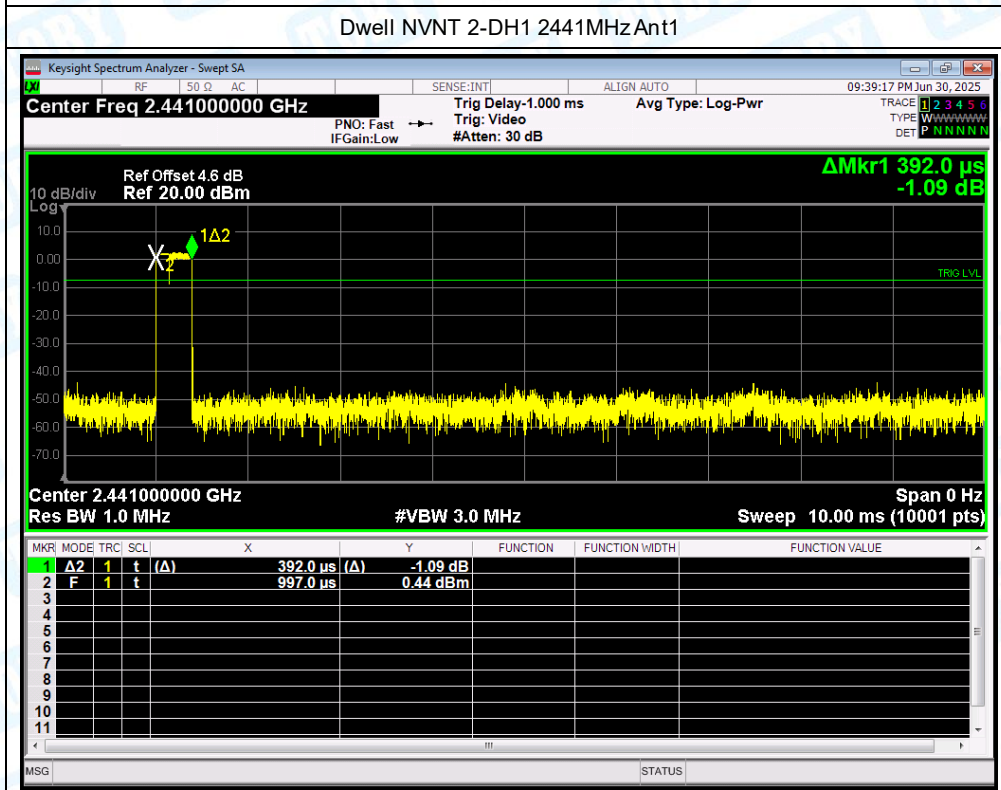
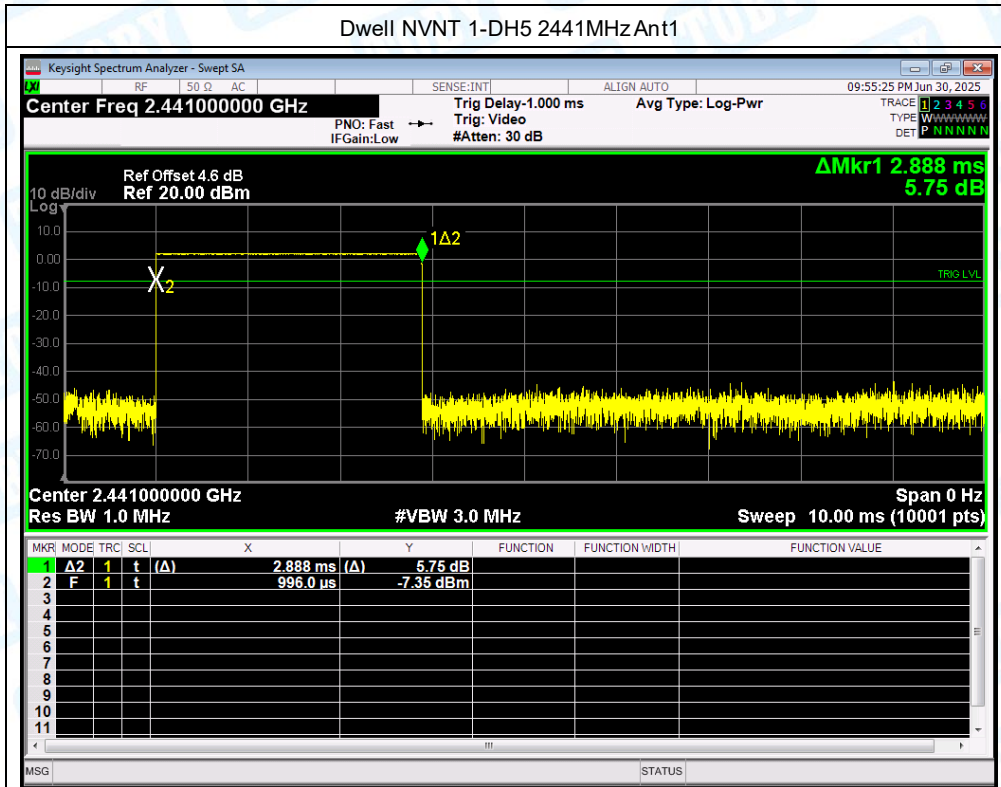
Test Graphs

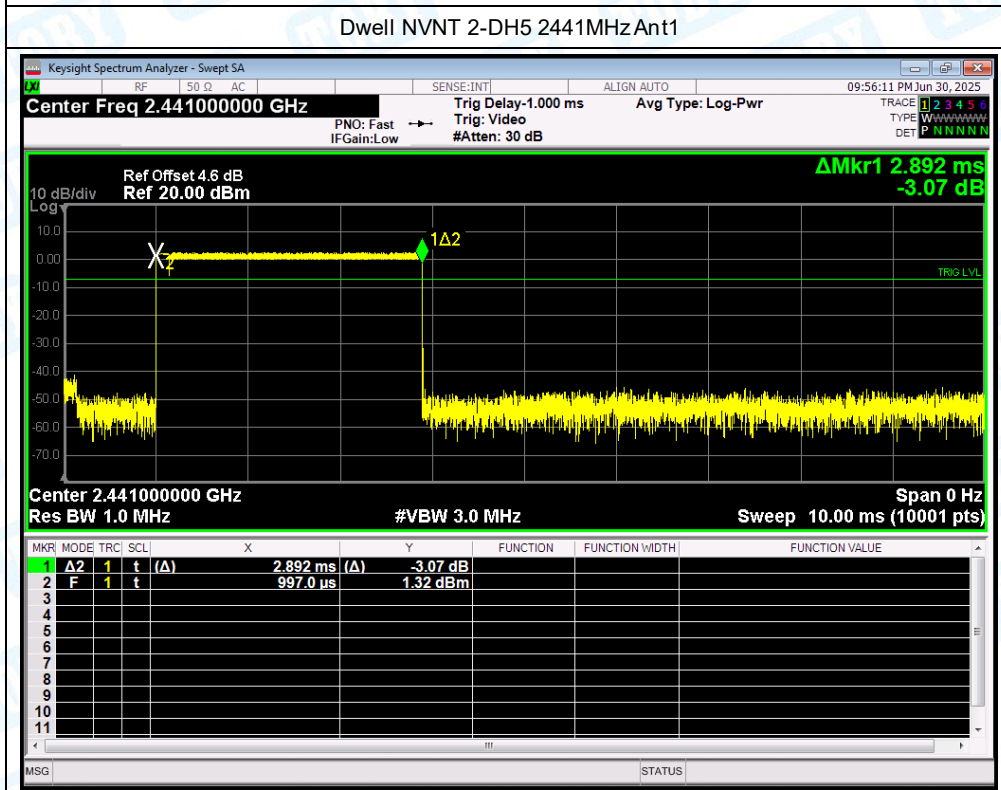
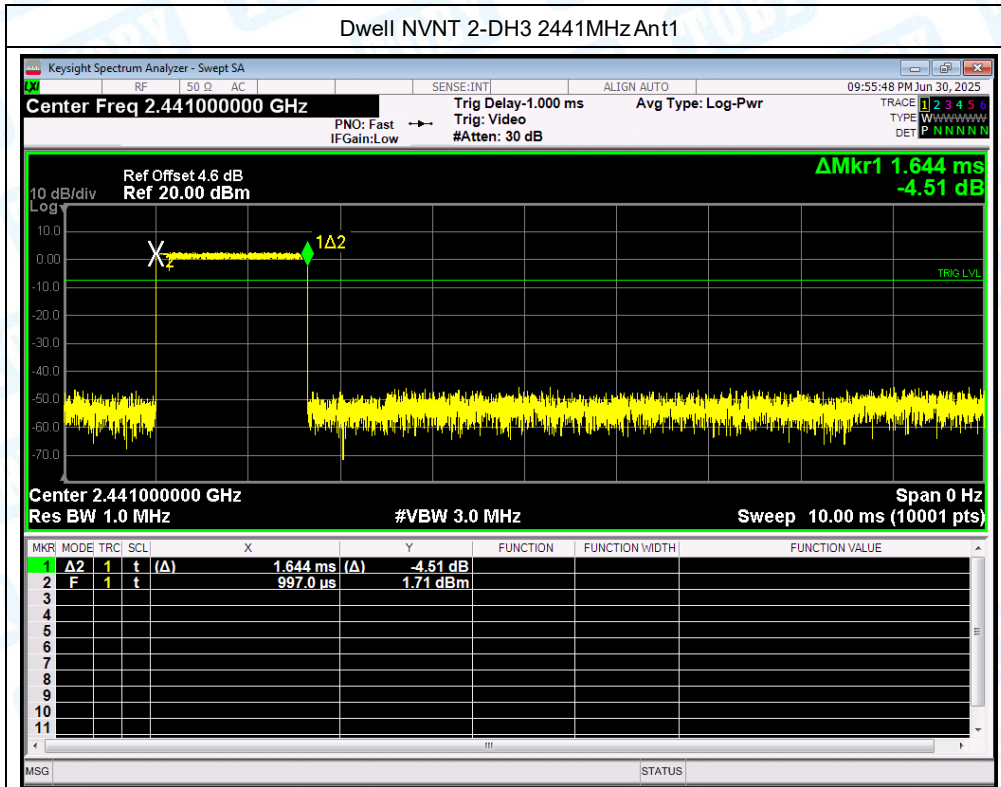
Dwell NVNT 1-DH1 2441MHz Ant1

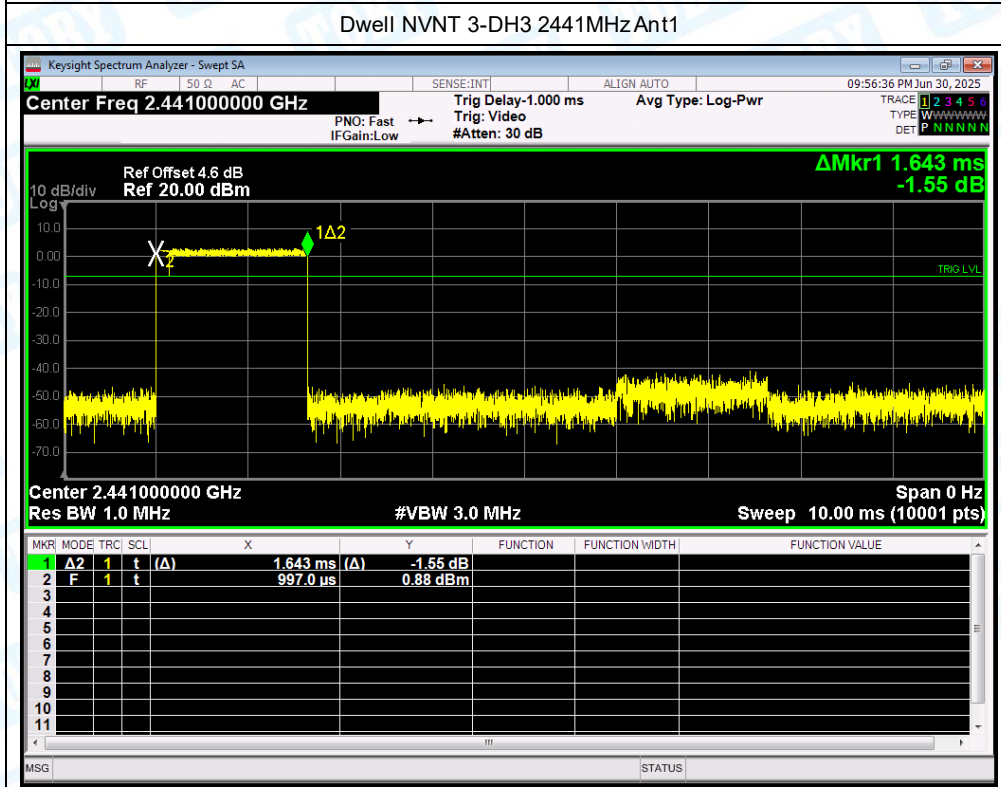
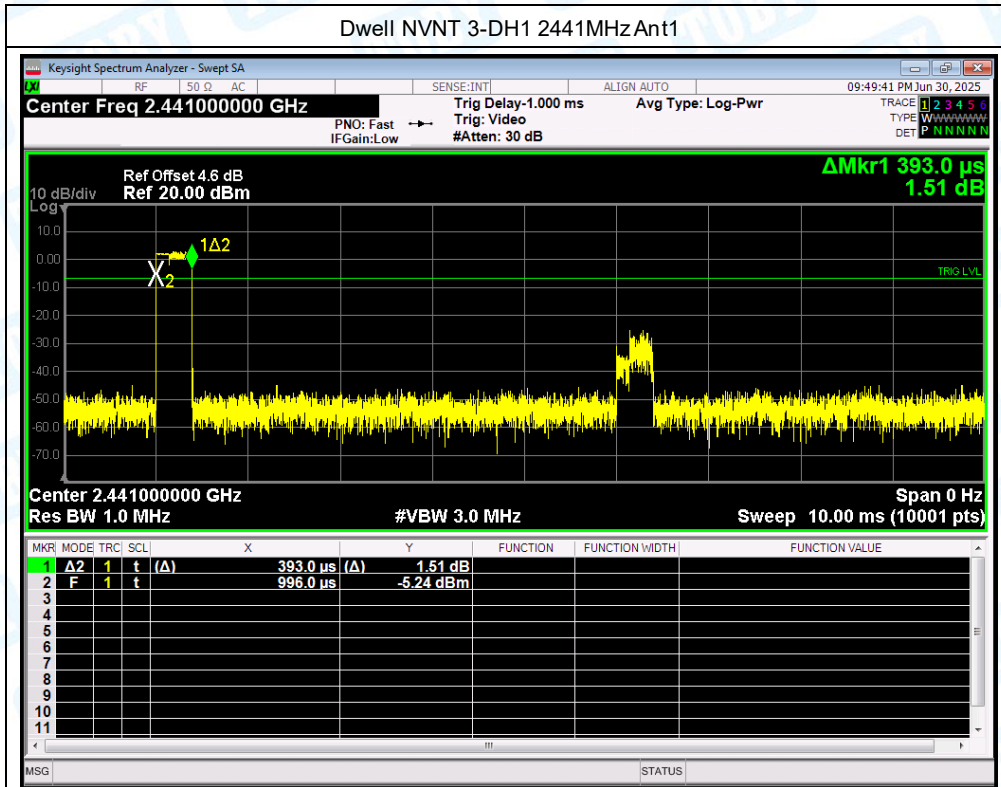


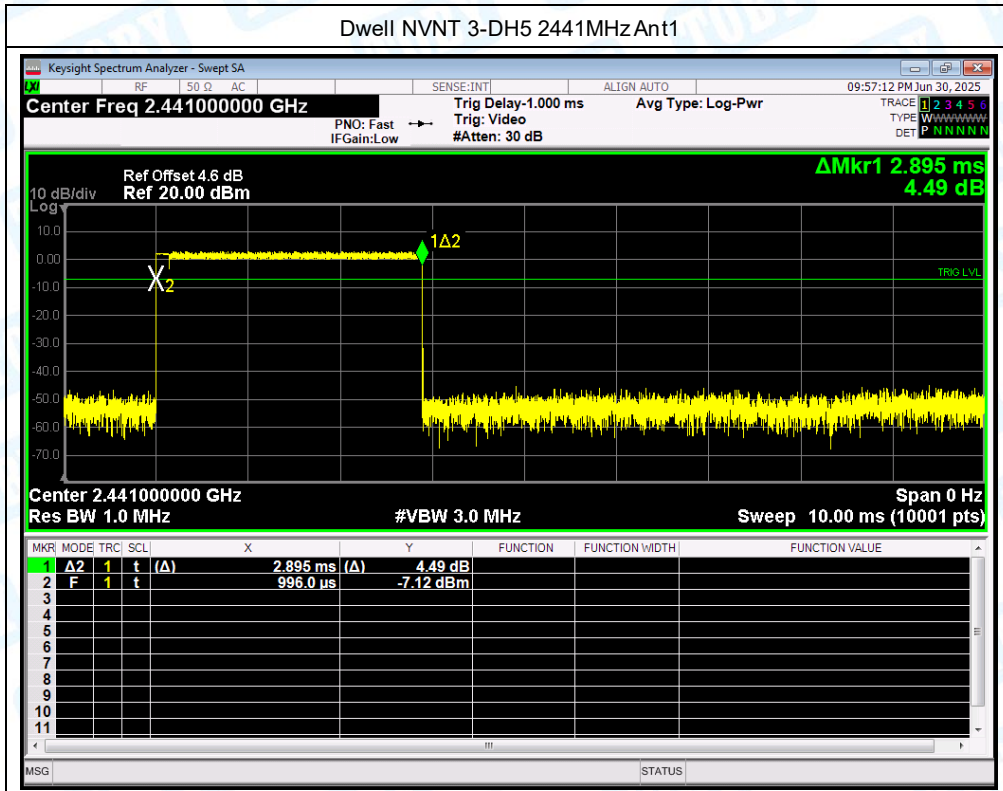
Dwell NVNT 1-DH3 2441MHz Ant1











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