

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	Indoor/Outdoor Battery Camera
Test Model:	SF-BC22
Sample ID:	HC-C-202506-0048-01-01#
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-202506-0048-31 The report only show the worst case data.	

Contents

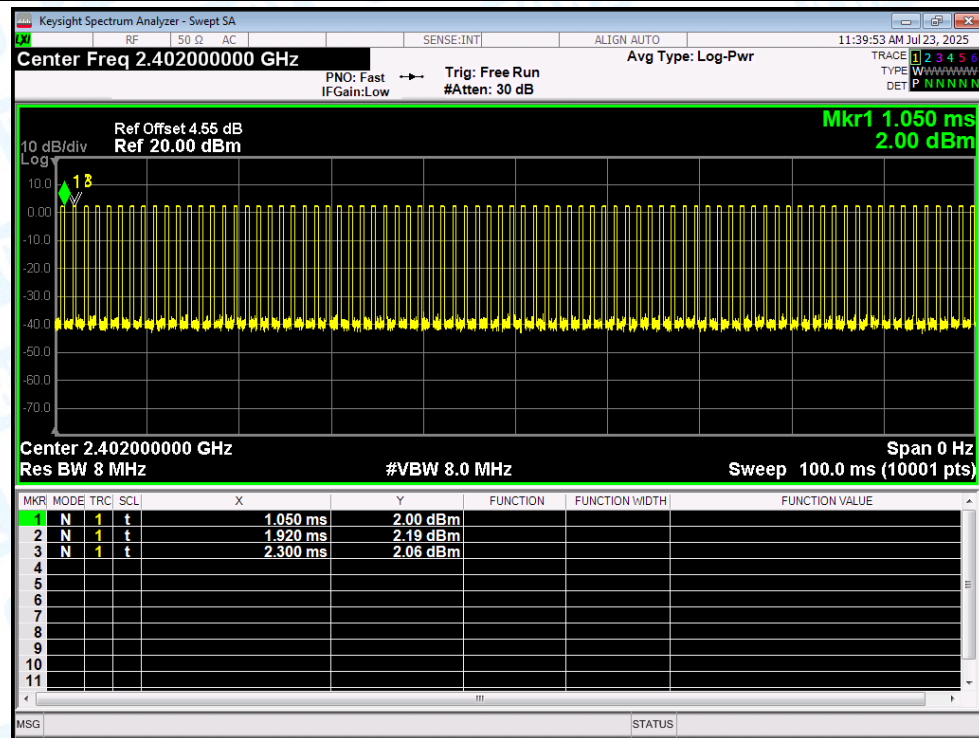
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1.Duty Cycle

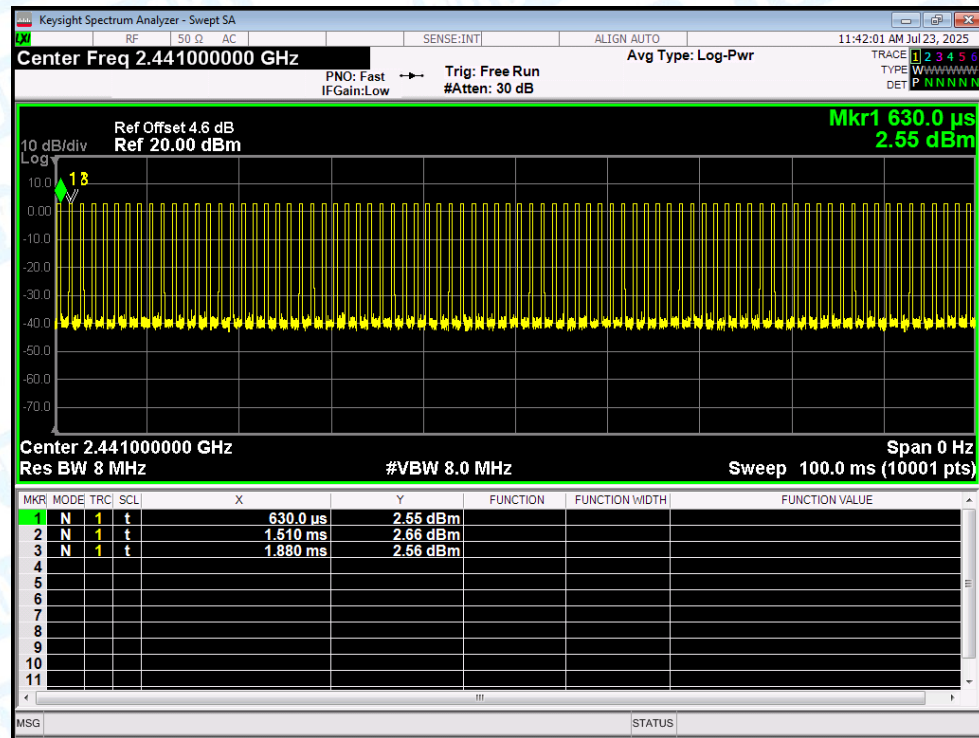
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2441	Ant1	29.6	5.29	2.7
NVNT	1-DH1	2480	Ant1	29.6	5.29	2.7
NVNT	2-DH1	2402	Ant1	32	4.95	2.5
NVNT	2-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2480	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2480	Ant1	31.2	5.06	2.56

Test Graphs

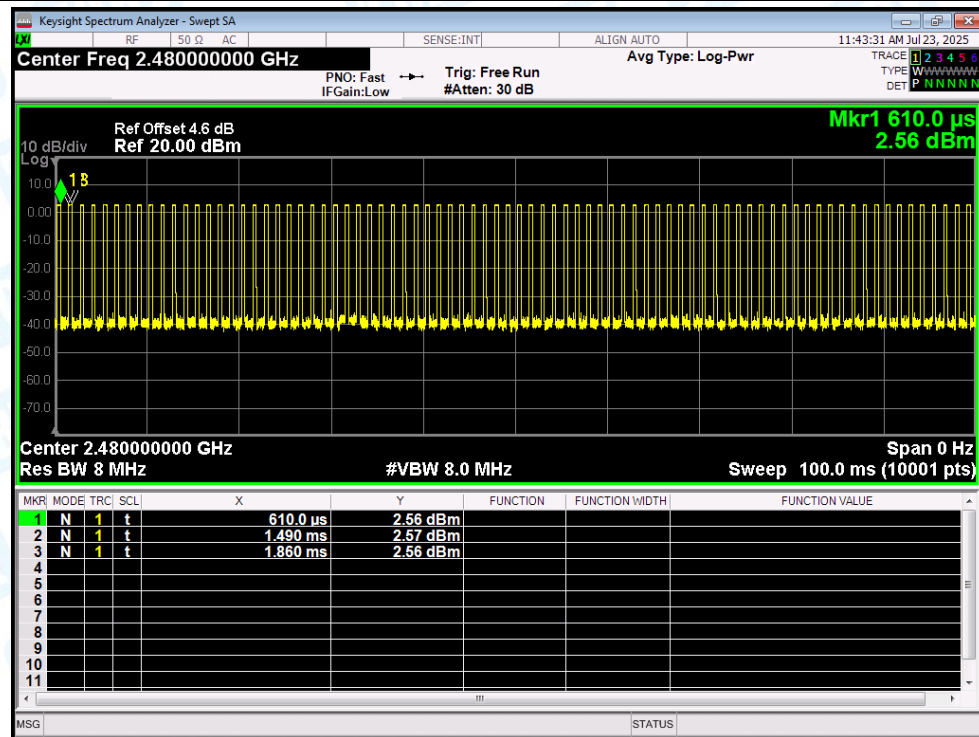
Duty Cycle NVNT 1-DH1 2402MHz Ant1



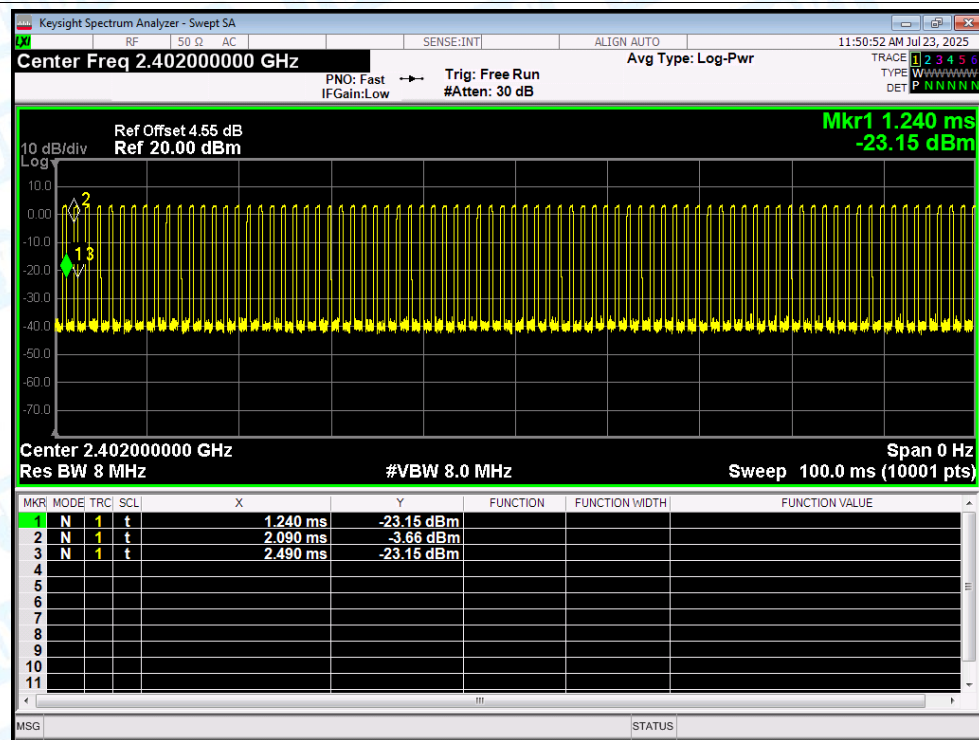
Duty Cycle NVNT 1-DH1 2441MHz Ant1



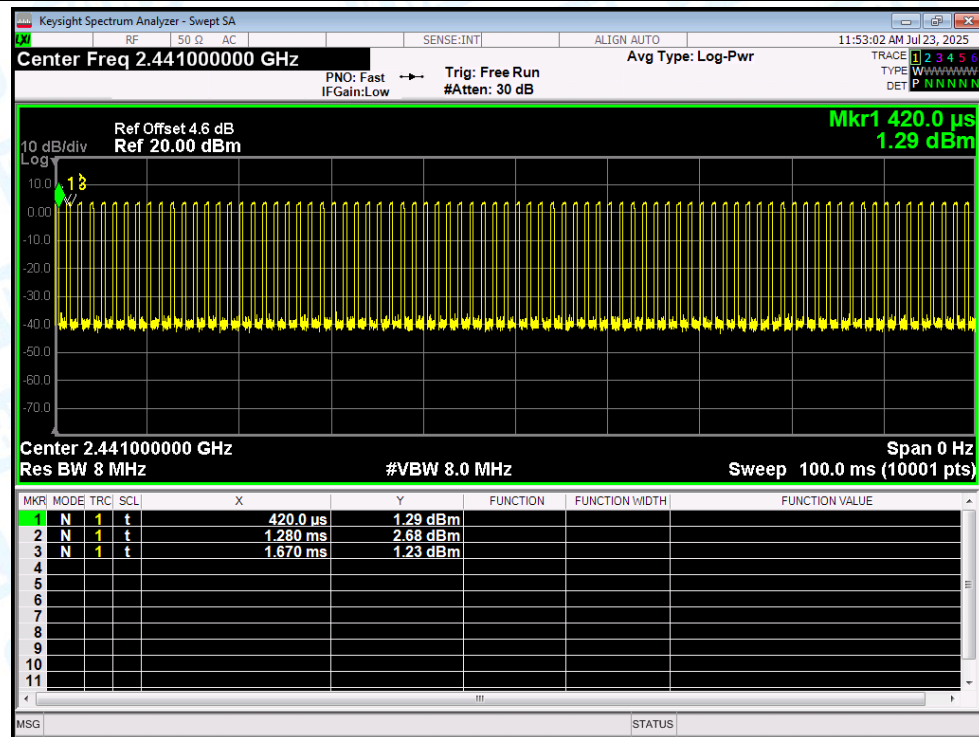
Duty Cycle NVNT 1-DH1 2480MHz Ant1



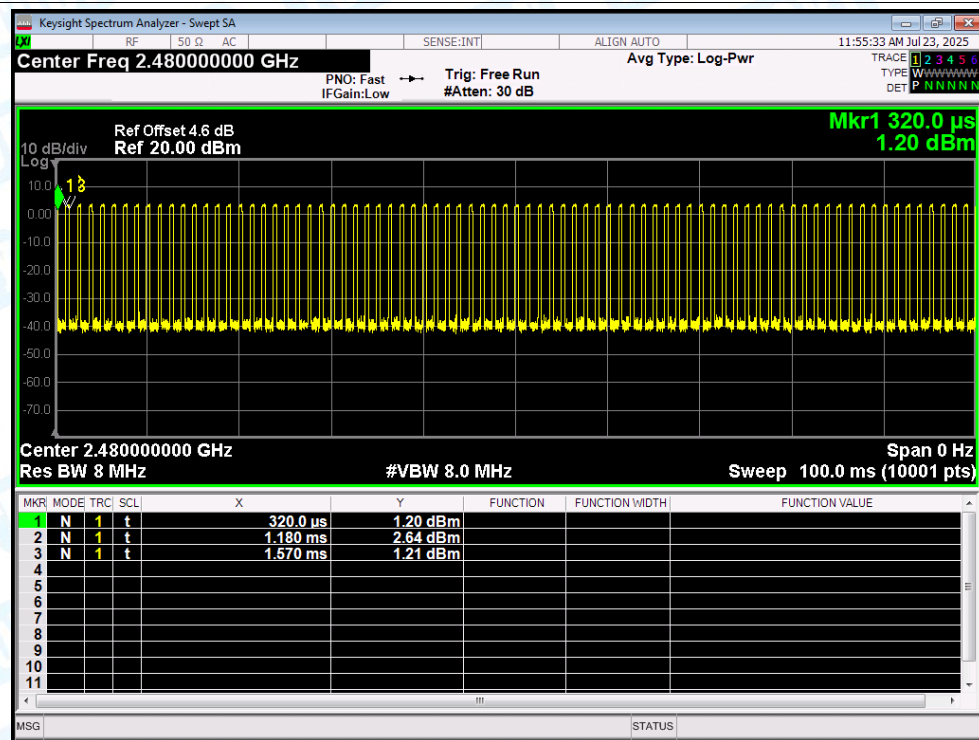
Duty Cycle NVNT 2-DH1 2402MHz Ant1



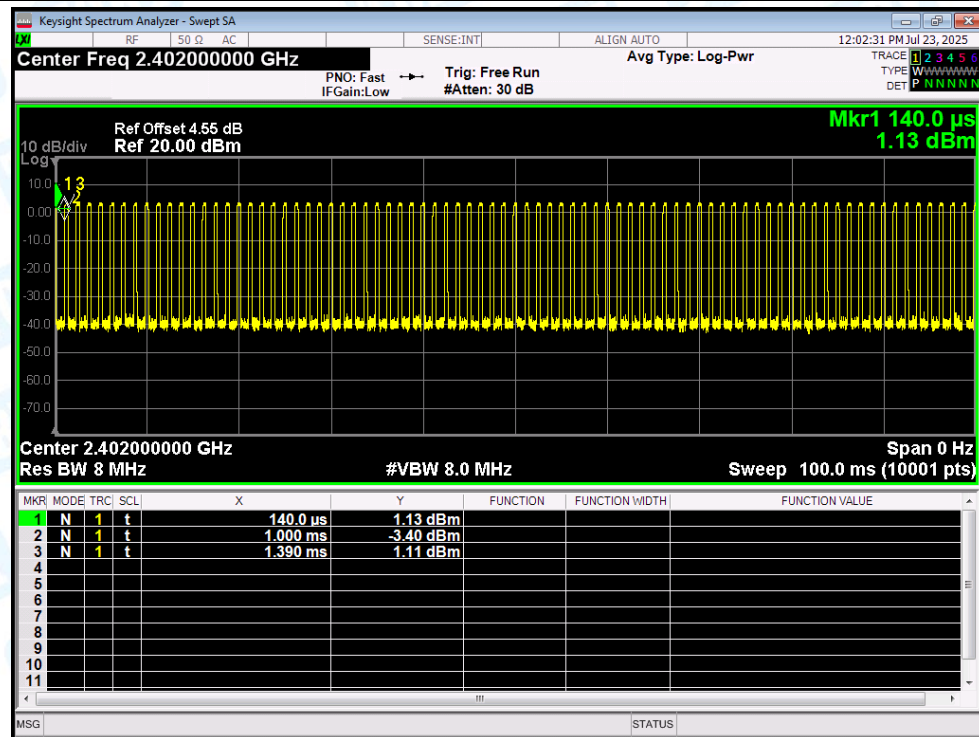
Duty Cycle NVNT 2-DH1 2441MHz Ant1



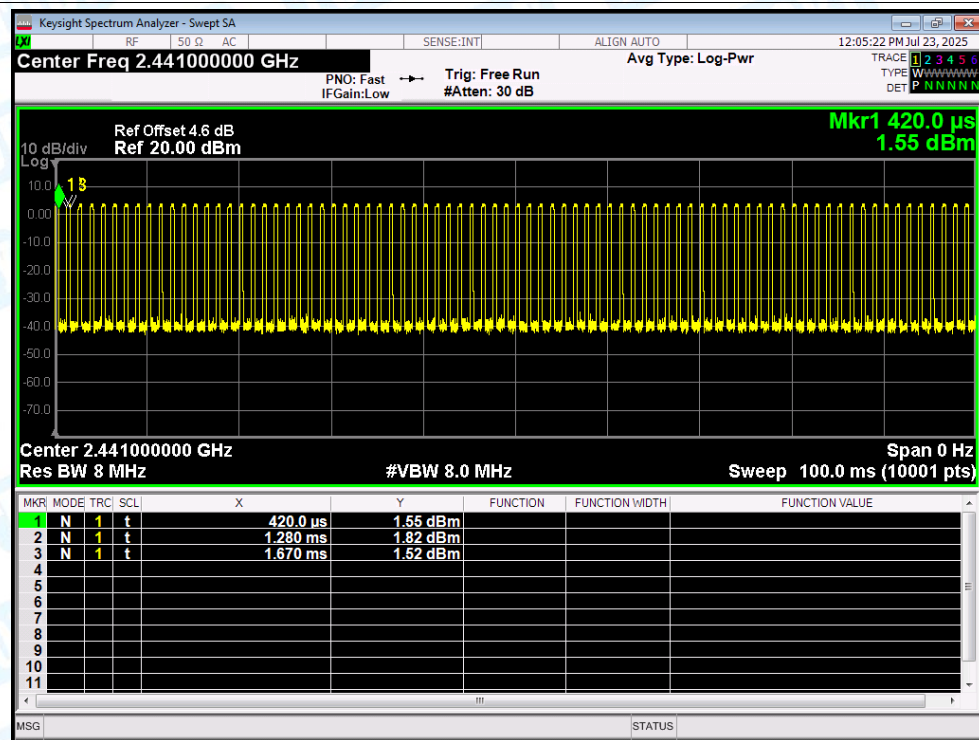
Duty Cycle NVNT 2-DH1 2480MHz Ant1

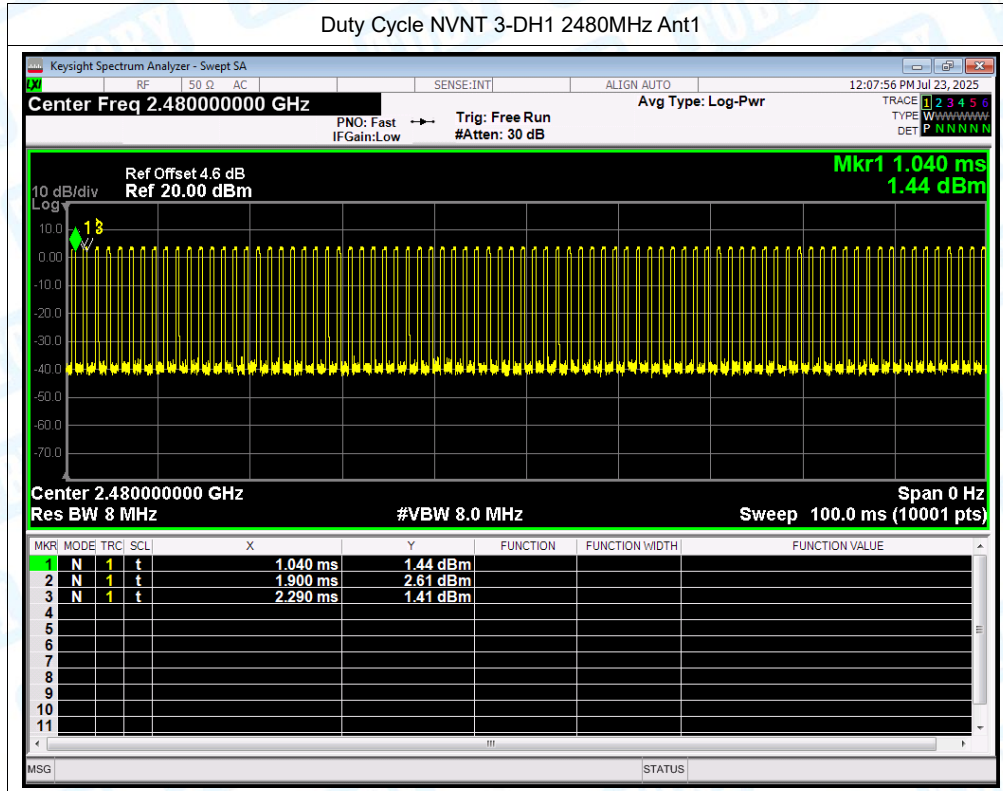


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



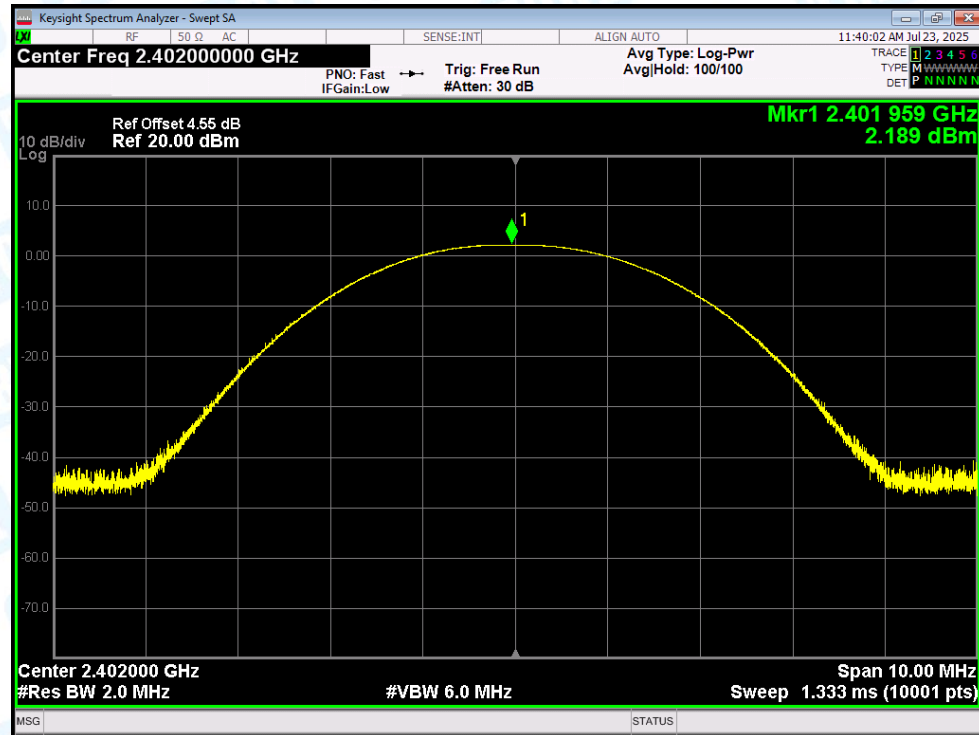


2.Maximum Conducted Output Power

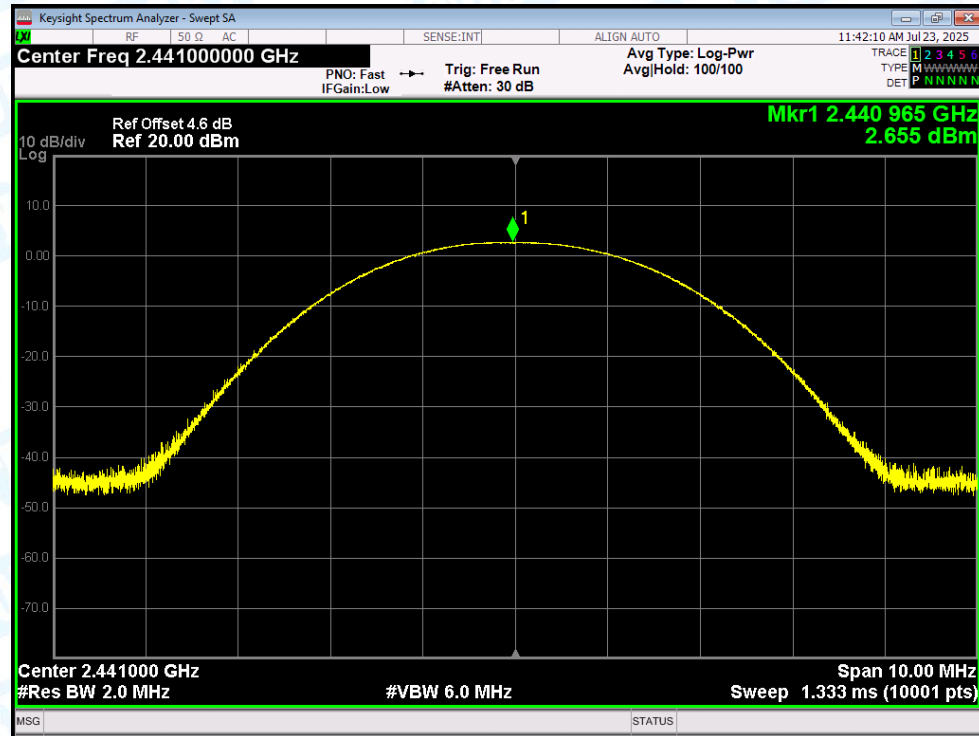
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	2.189	21	Pass
NVNT	1-DH1	2441	Ant1	2.655	21	Pass
NVNT	1-DH1	2480	Ant1	2.608	21	Pass
NVNT	2-DH1	2402	Ant1	2.966	21	Pass
NVNT	2-DH1	2441	Ant1	3.411	21	Pass
NVNT	2-DH1	2480	Ant1	3.34	21	Pass
NVNT	3-DH1	2402	Ant1	3.327	21	Pass
NVNT	3-DH1	2441	Ant1	3.734	21	Pass
NVNT	3-DH1	2480	Ant1	3.691	21	Pass

Test Graphs

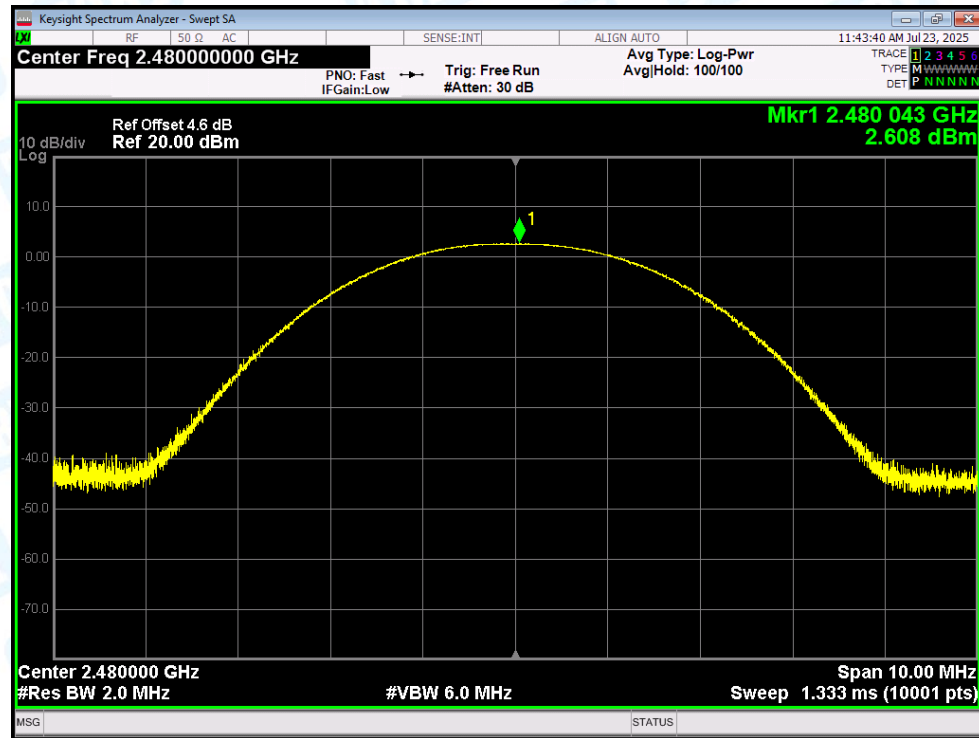
Power NVNT 1-DH1 2402MHz Ant1



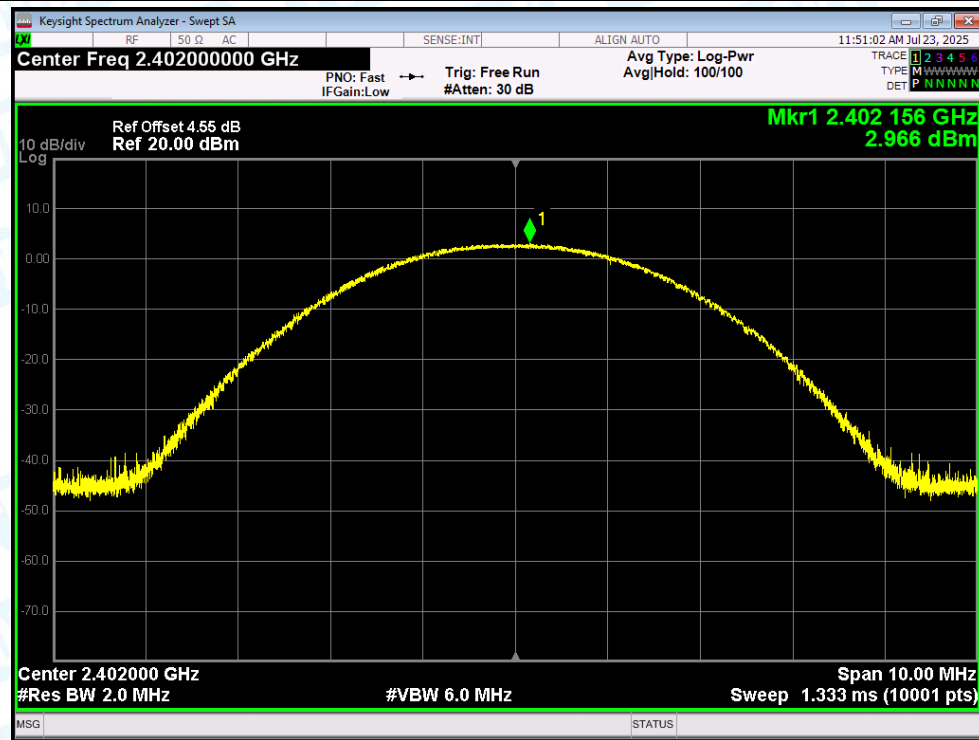
Power NVNT 1-DH1 2441MHz Ant1



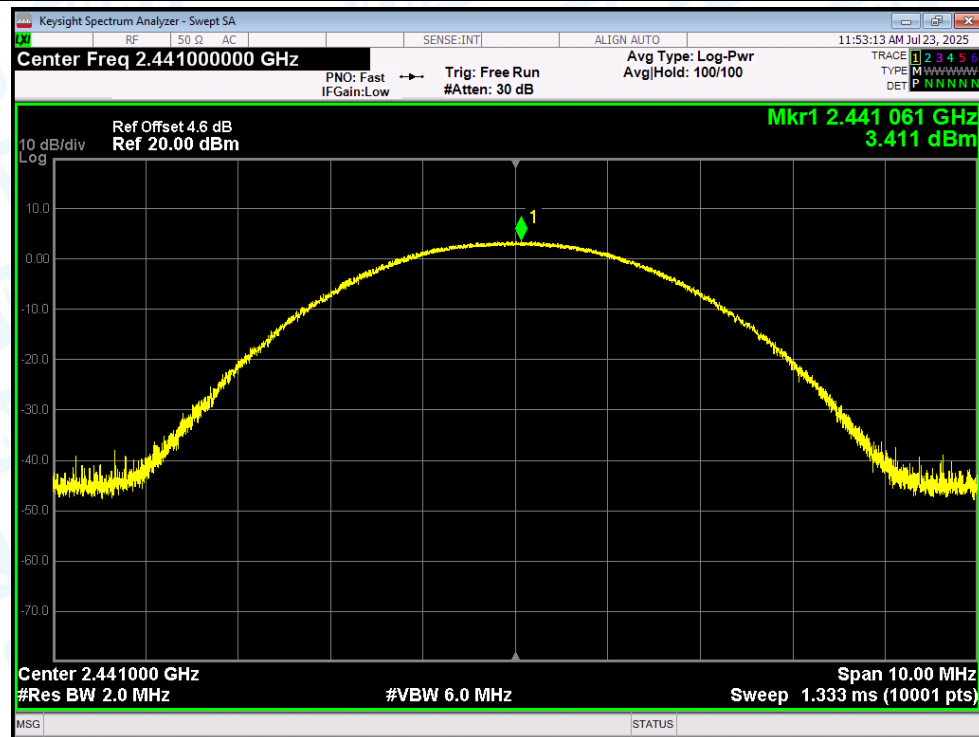
Power NVNT 1-DH1 2480MHz Ant1



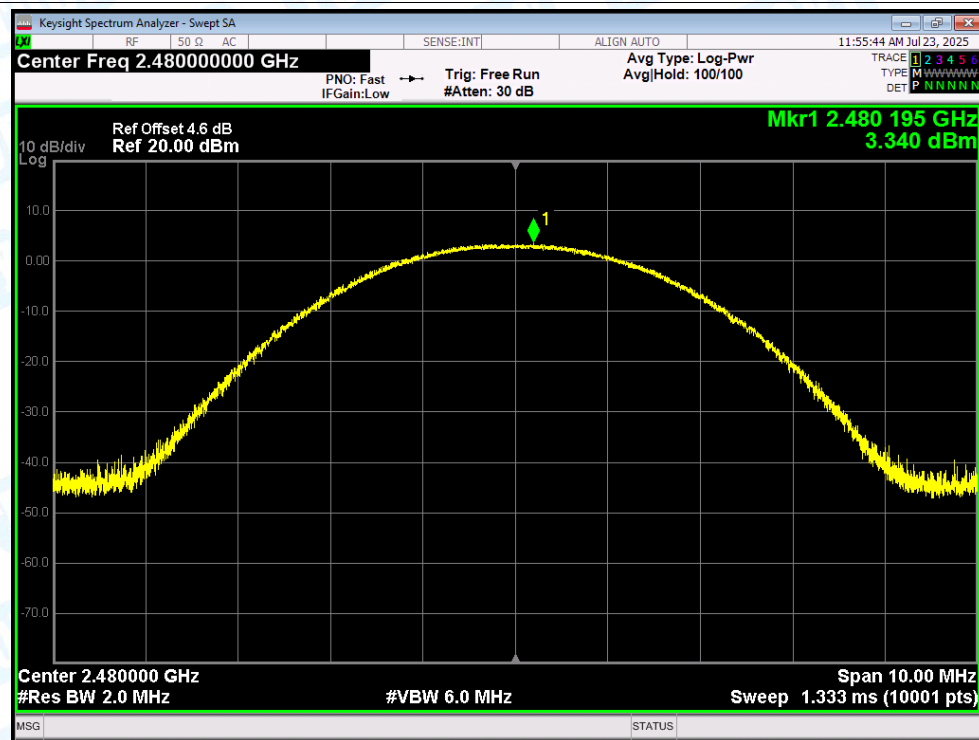
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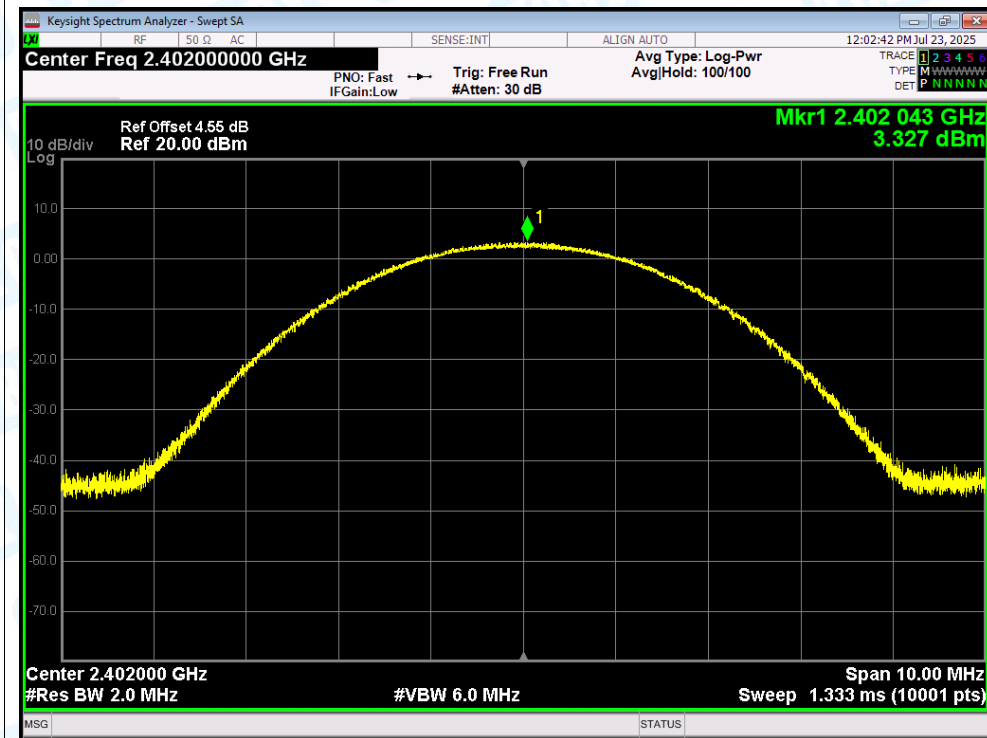
Power NVNT 2-DH1 2441MHz Ant1



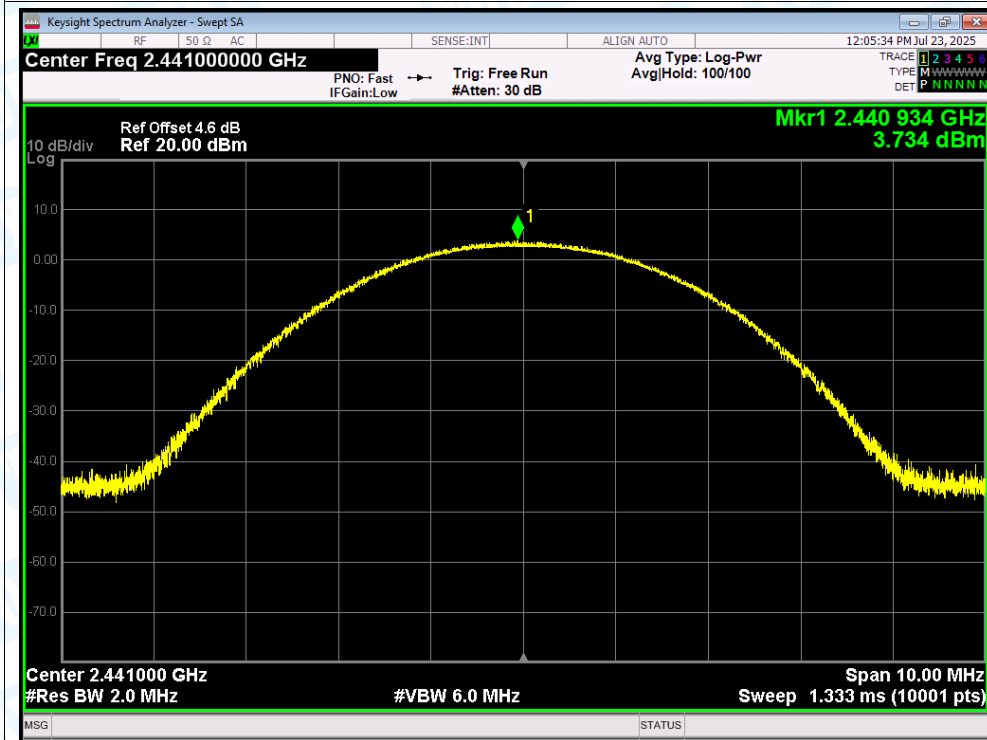
Power NVNT 2-DH1 2480MHz Ant1

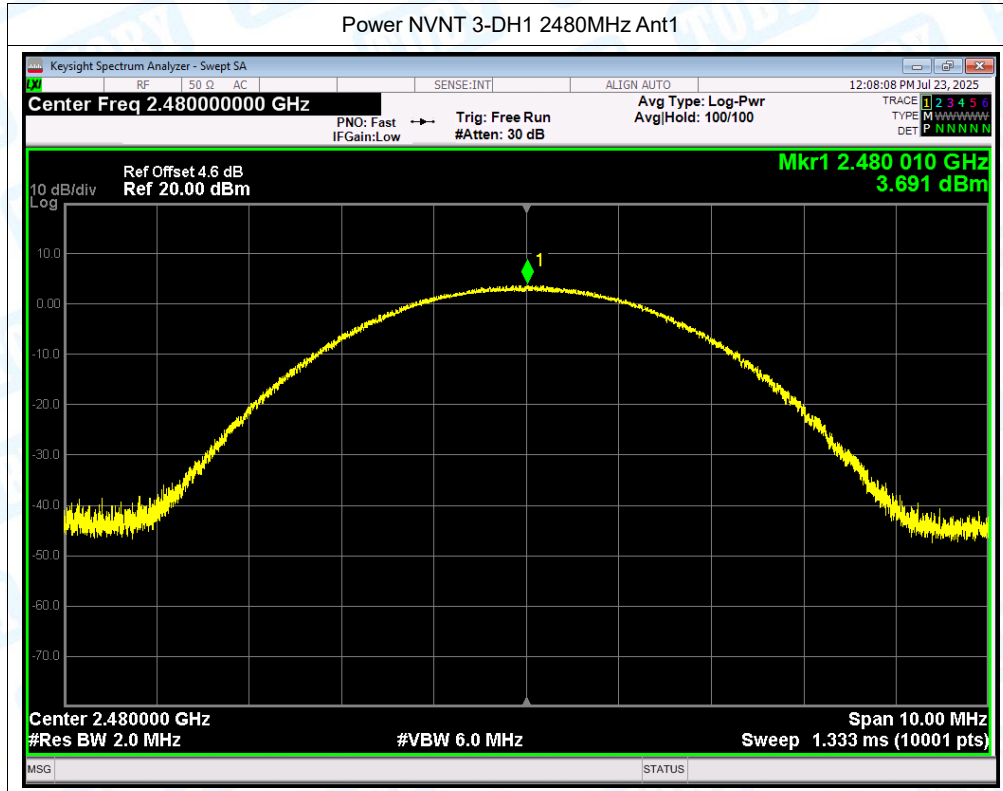


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



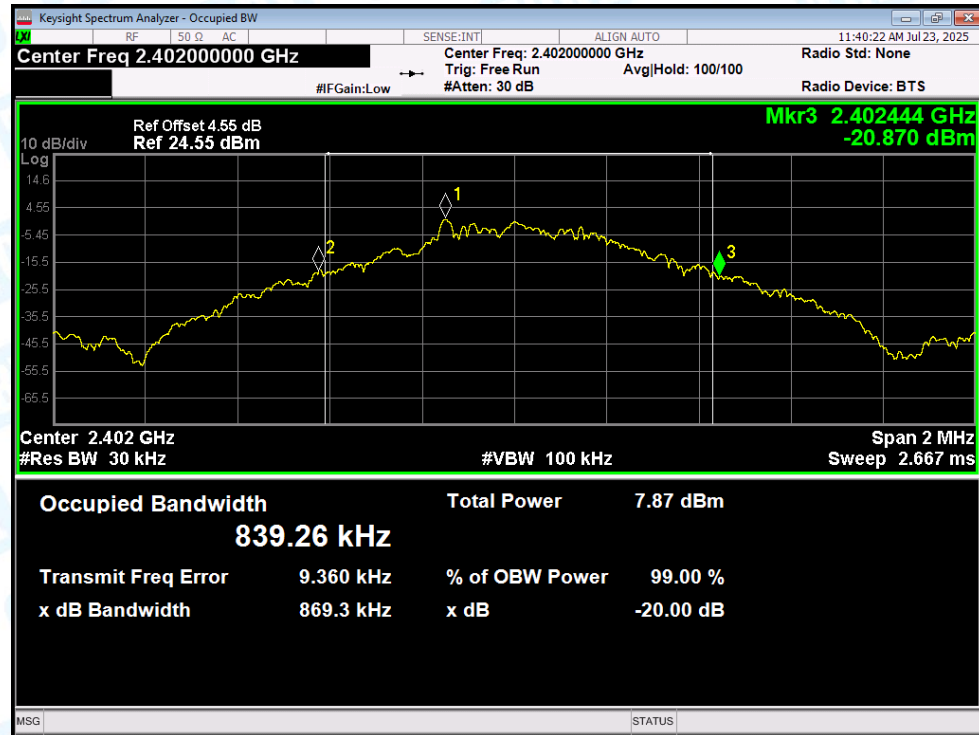


3.-20dB Bandwidth

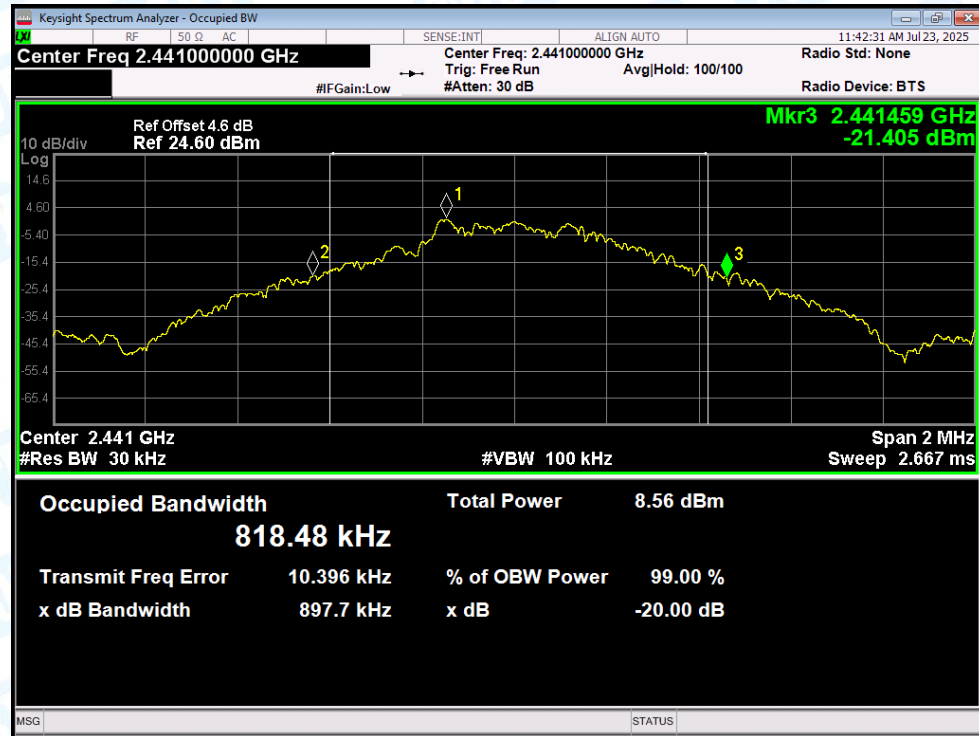
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.87	0	Pass
NVNT	1-DH1	2441	Ant1	0.9	0	Pass
NVNT	1-DH1	2480	Ant1	0.85	0	Pass
NVNT	2-DH1	2402	Ant1	1.24	0	Pass
NVNT	2-DH1	2441	Ant1	1.28	0	Pass
NVNT	2-DH1	2480	Ant1	1.28	0	Pass
NVNT	3-DH1	2402	Ant1	1.21	0	Pass
NVNT	3-DH1	2441	Ant1	1.21	0	Pass
NVNT	3-DH1	2480	Ant1	1.21	0	Pass

Test Graphs

-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



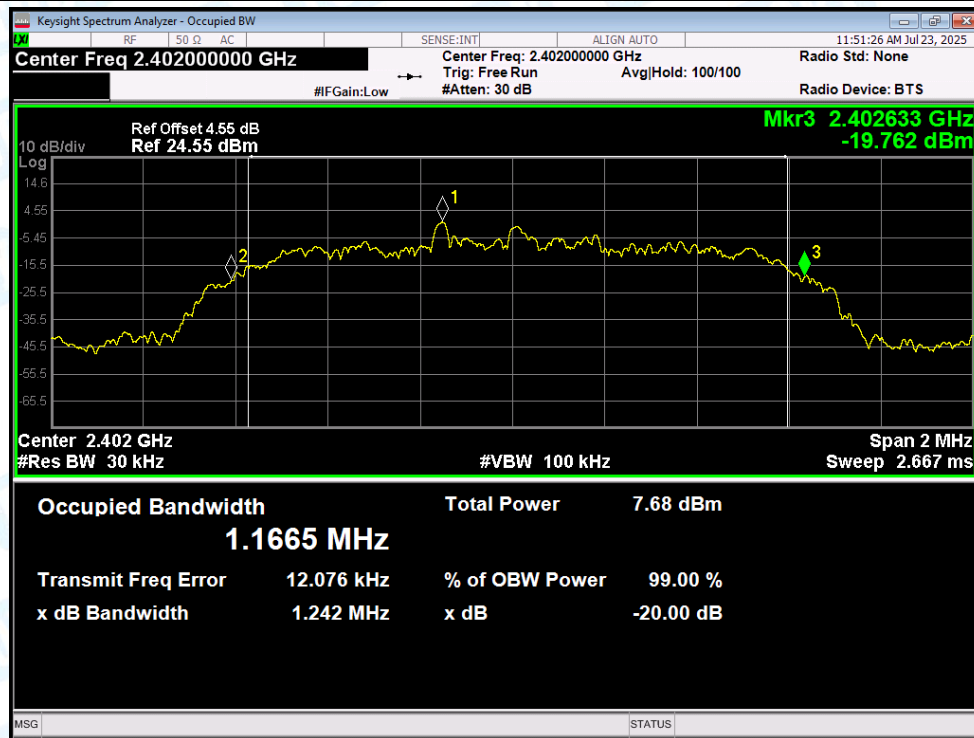
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



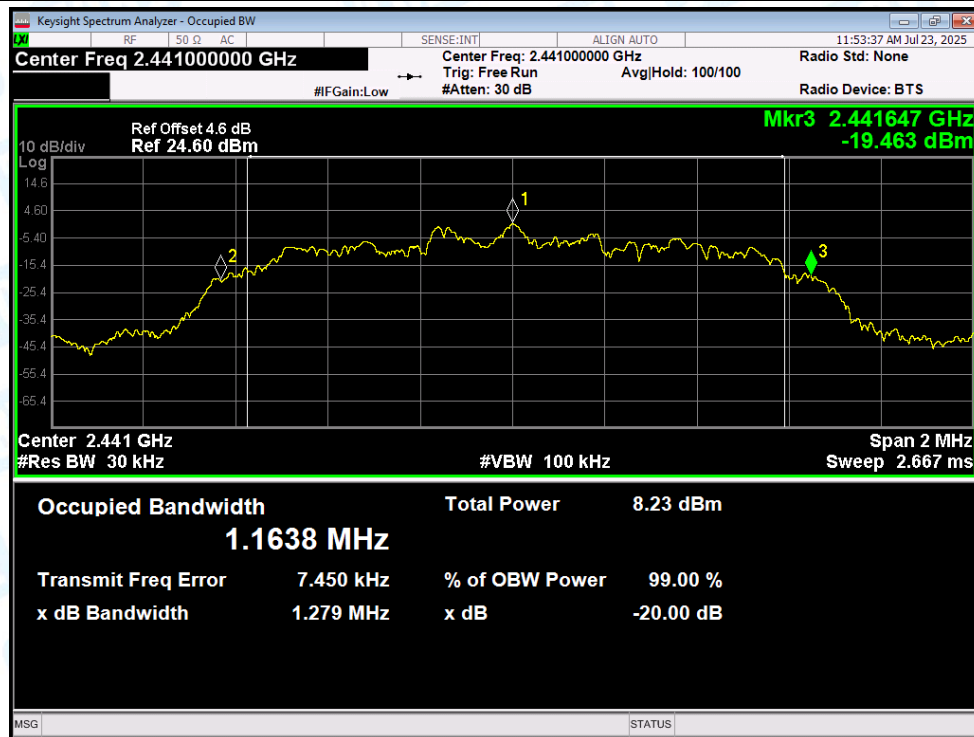
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



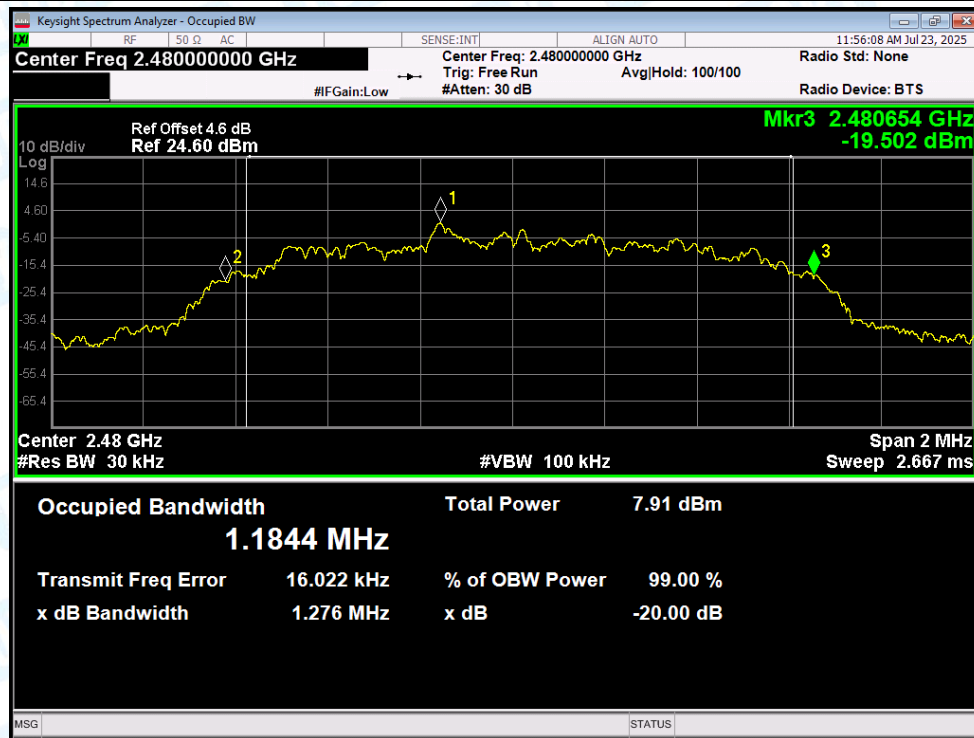
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



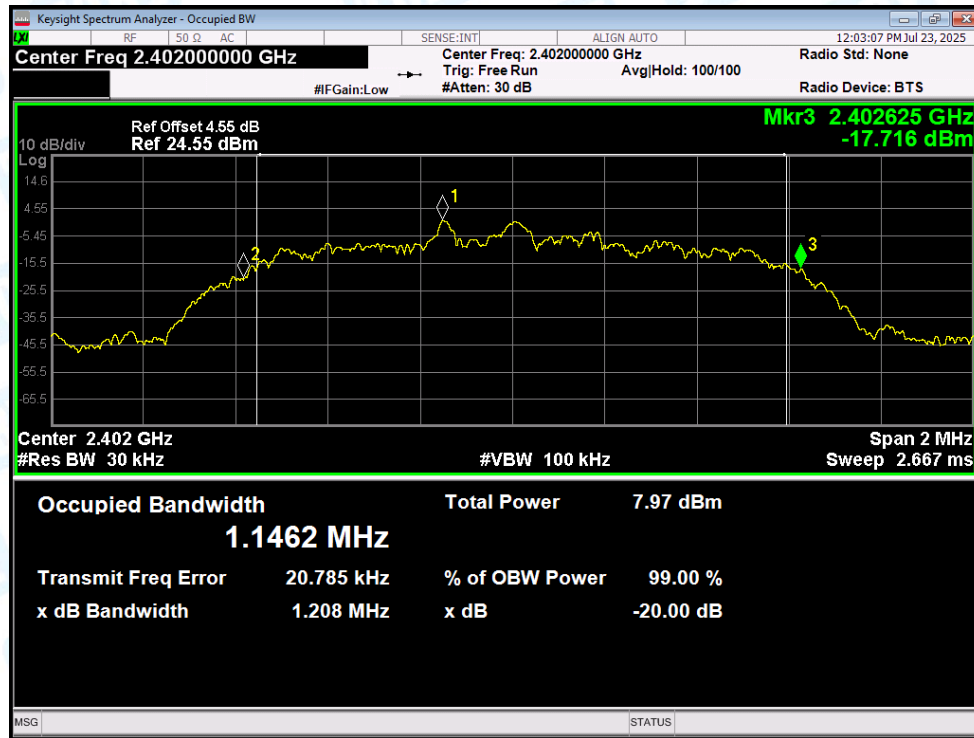
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



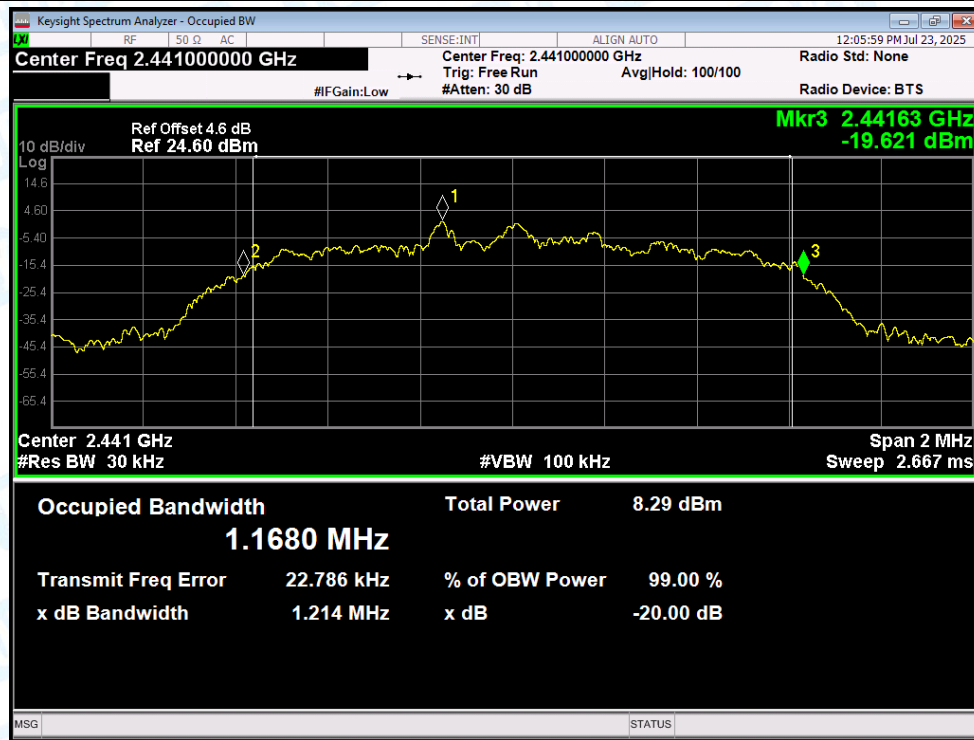
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

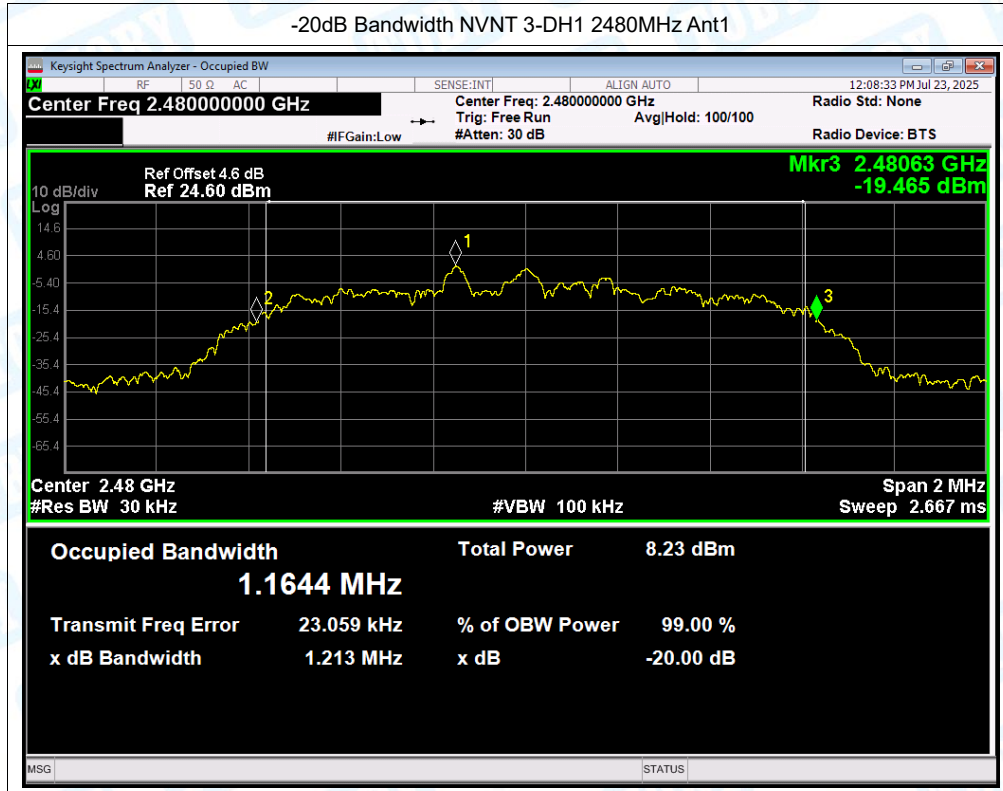


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



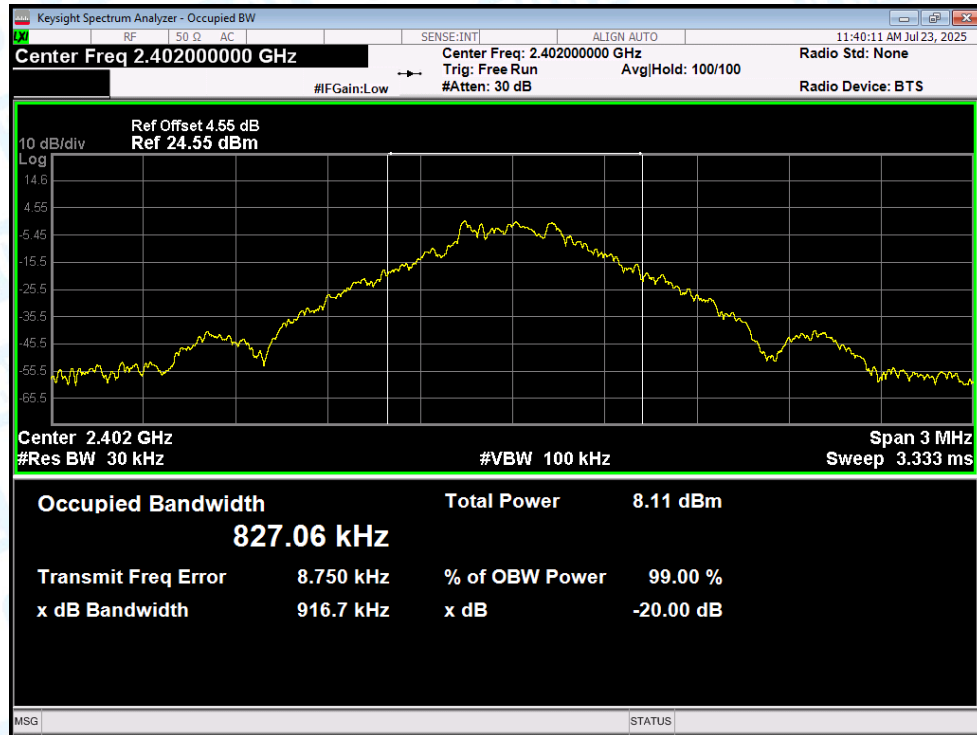


4.Occupied Channel Bandwidth

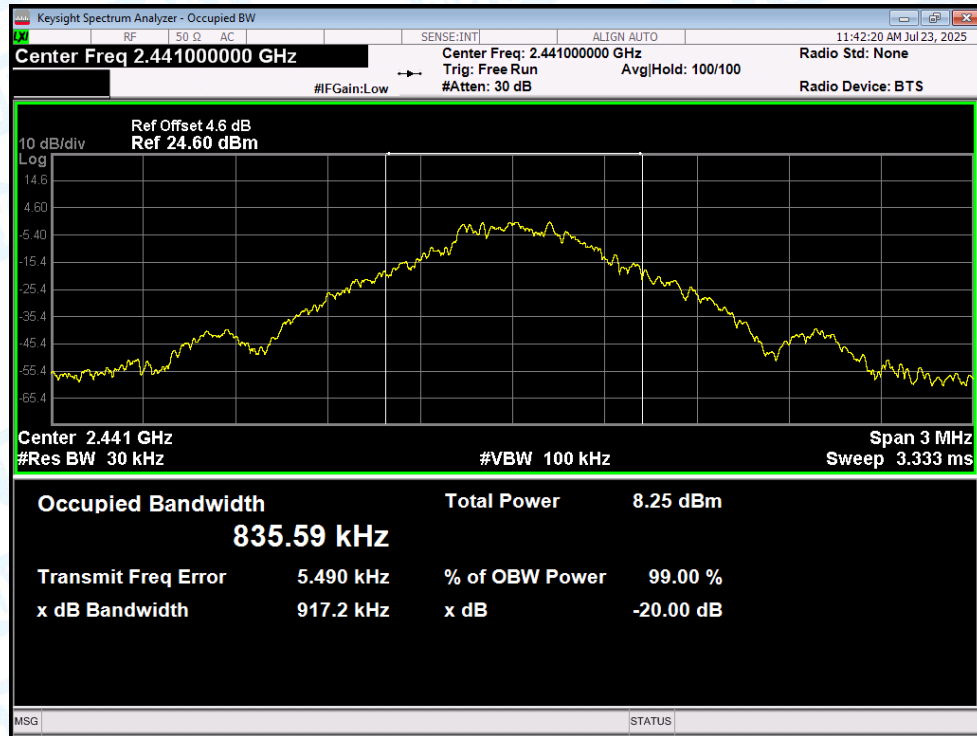
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.827
NVNT	1-DH1	2441	Ant1	0.836
NVNT	1-DH1	2480	Ant1	0.805
NVNT	2-DH1	2402	Ant1	1.166
NVNT	2-DH1	2441	Ant1	1.181
NVNT	2-DH1	2480	Ant1	1.169
NVNT	3-DH1	2402	Ant1	1.16
NVNT	3-DH1	2441	Ant1	1.156
NVNT	3-DH1	2480	Ant1	1.163

Test Graphs

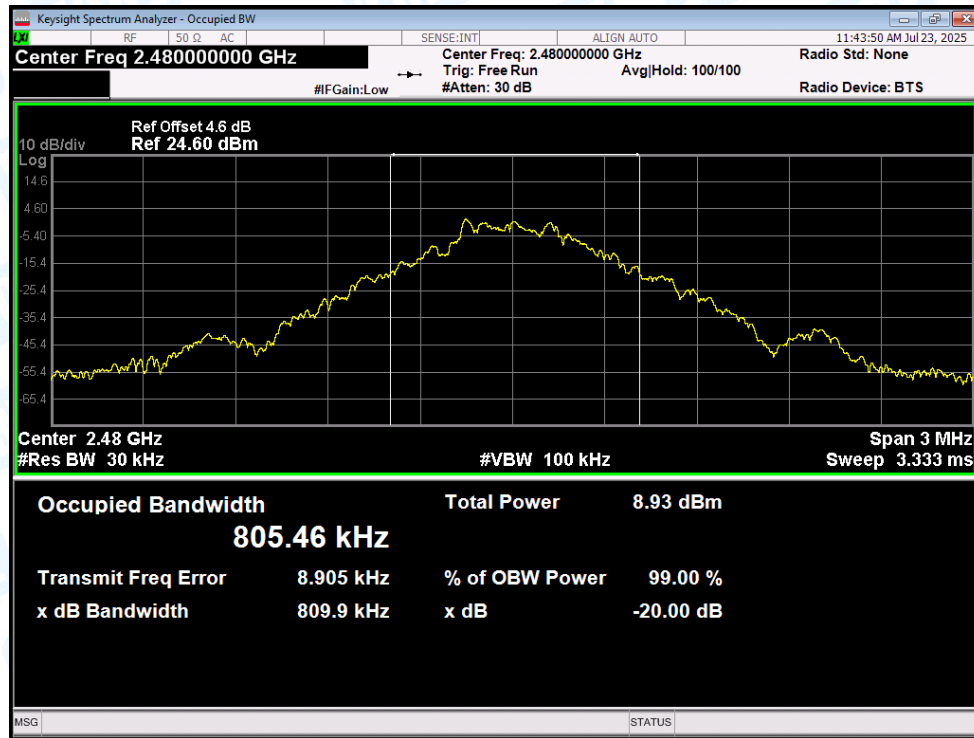
OBW NVNT 1-DH1 2402MHz Ant1



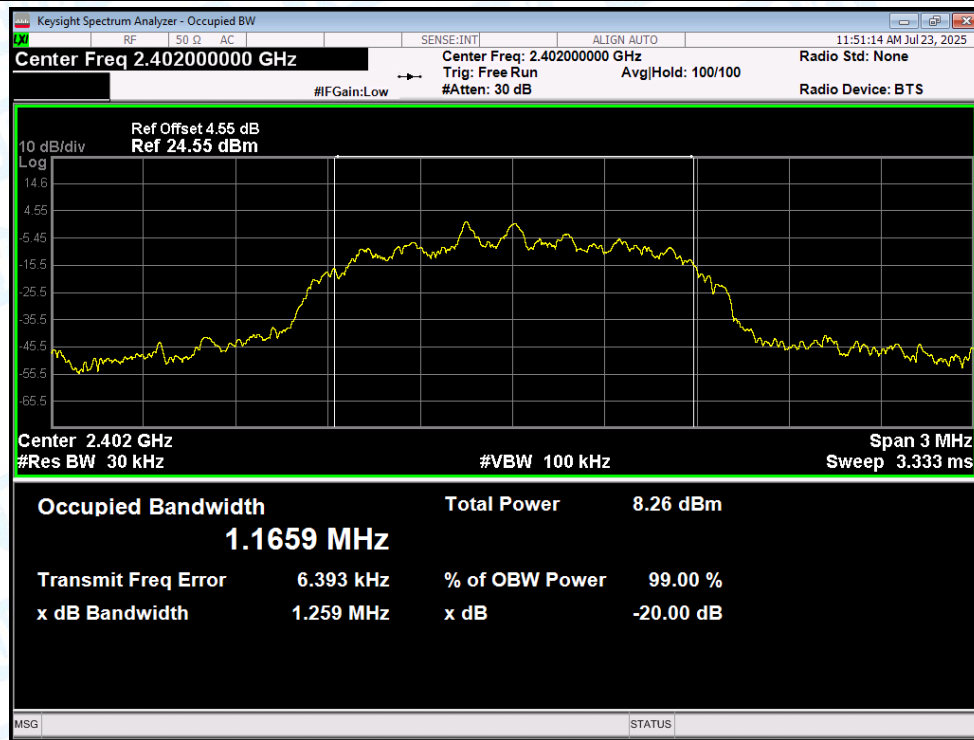
OBW NVNT 1-DH1 2441MHz Ant1



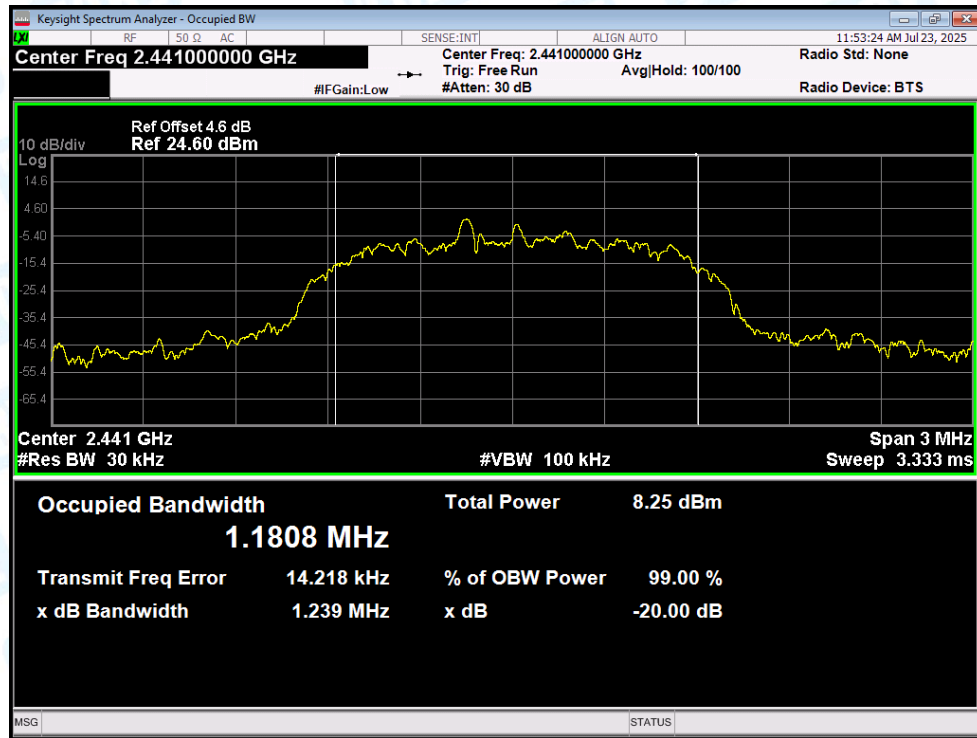
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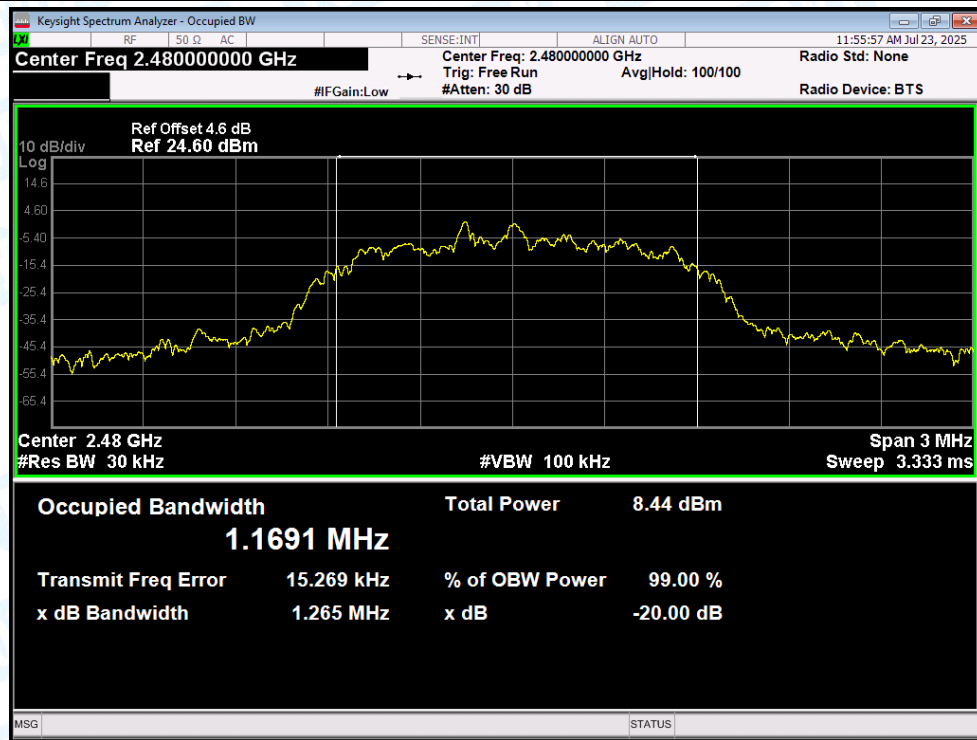
OBW NVNT 2-DH1 2402MHz Ant1



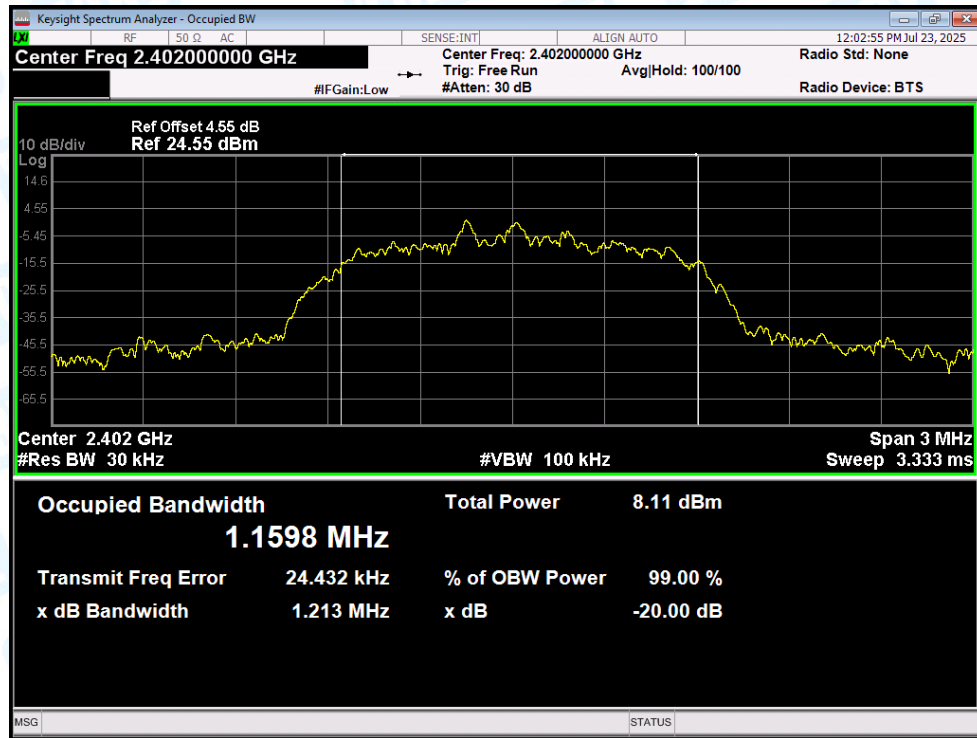
OBW NVNT 2-DH1 2441MHz Ant1



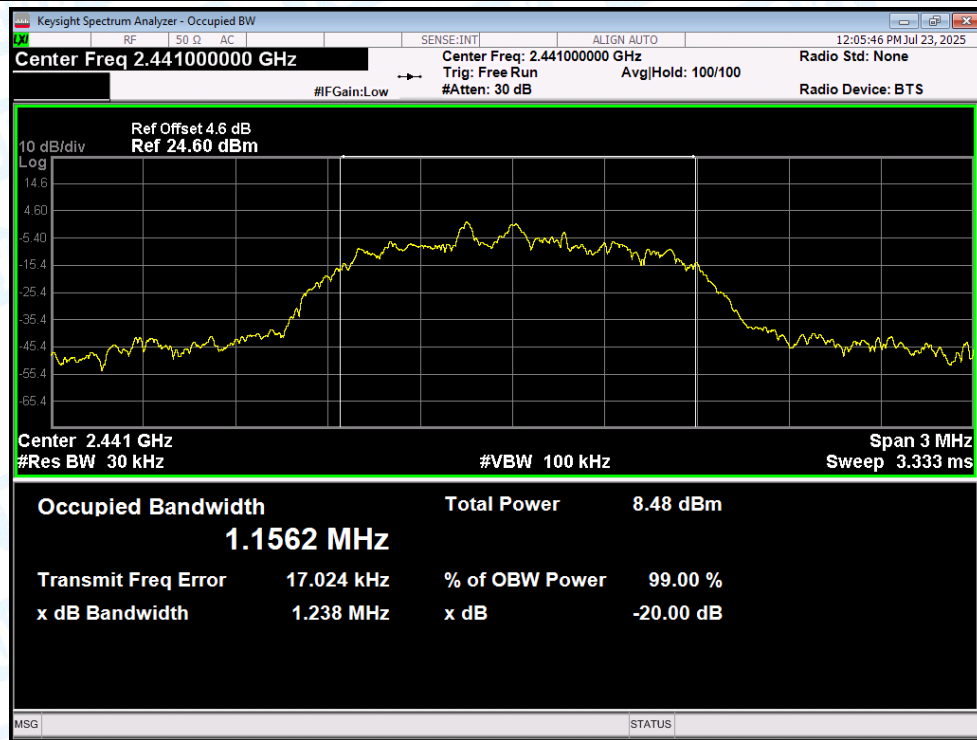
OBW NVNT 2-DH1 2480MHz Ant1

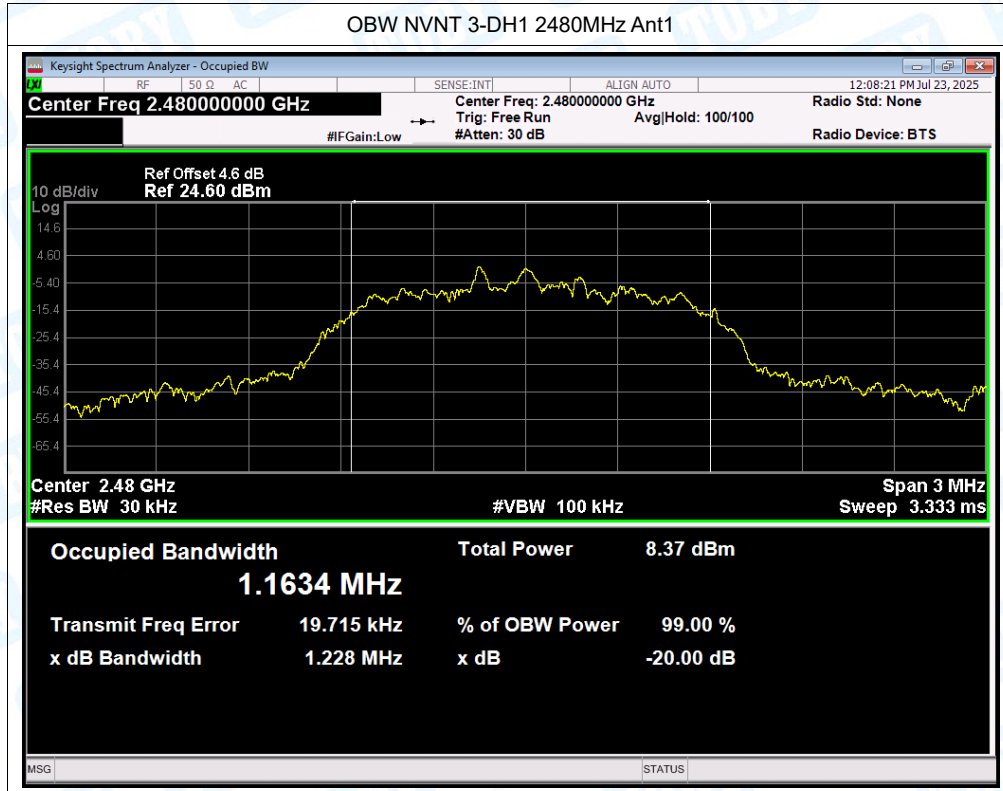


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



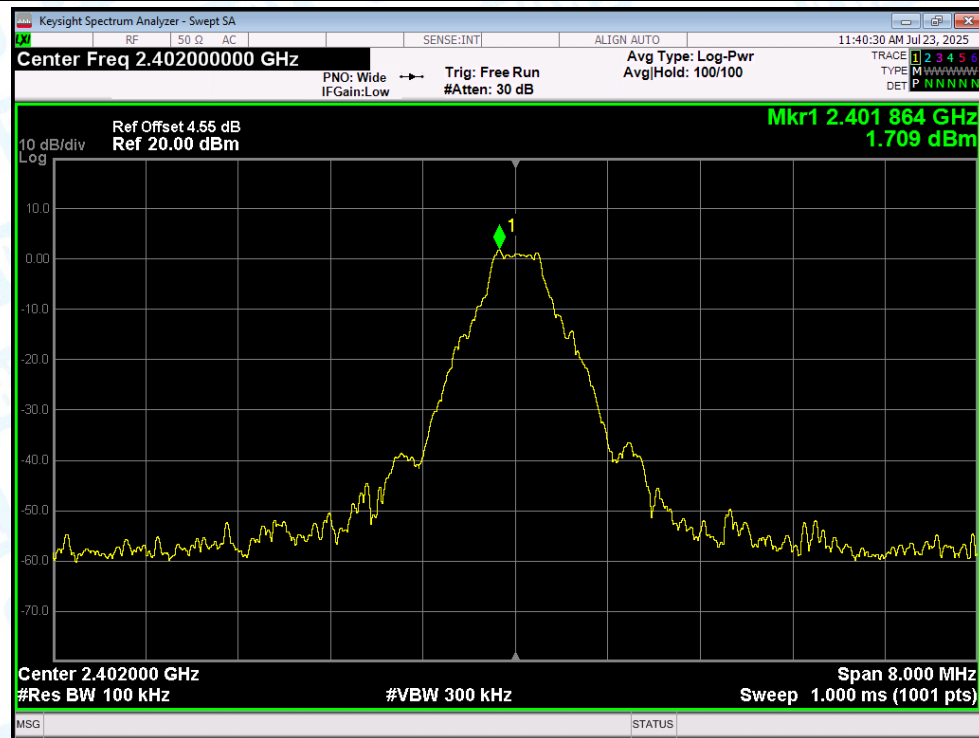


5.Band Edge

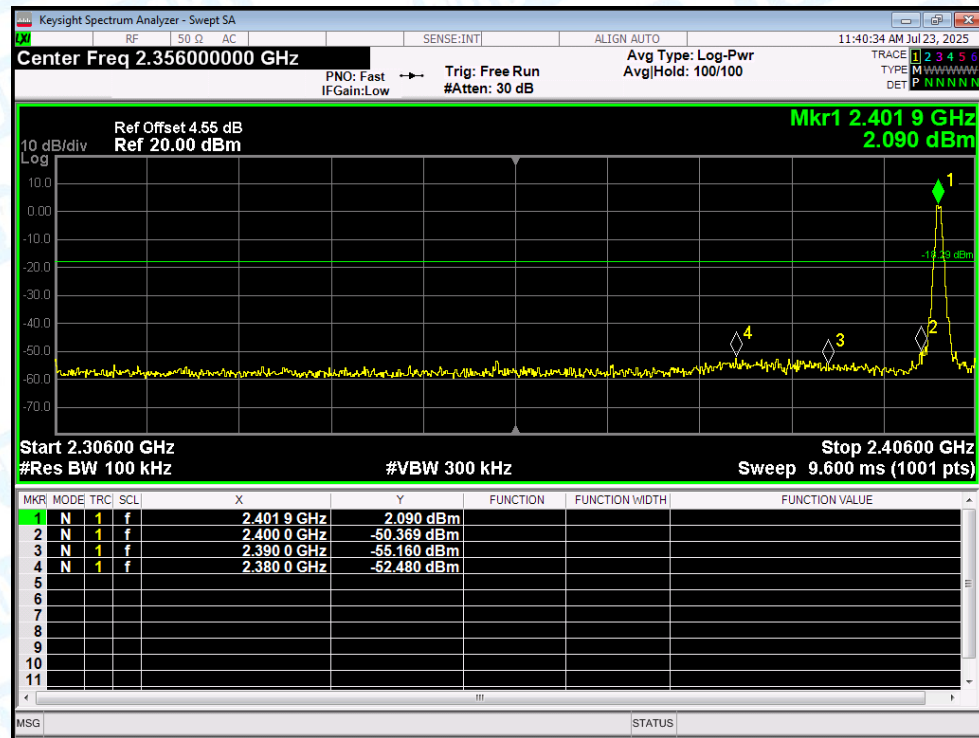
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-54.19	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-54.49	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-53.4	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-52.42	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-53.66	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-54.24	-20	Pass

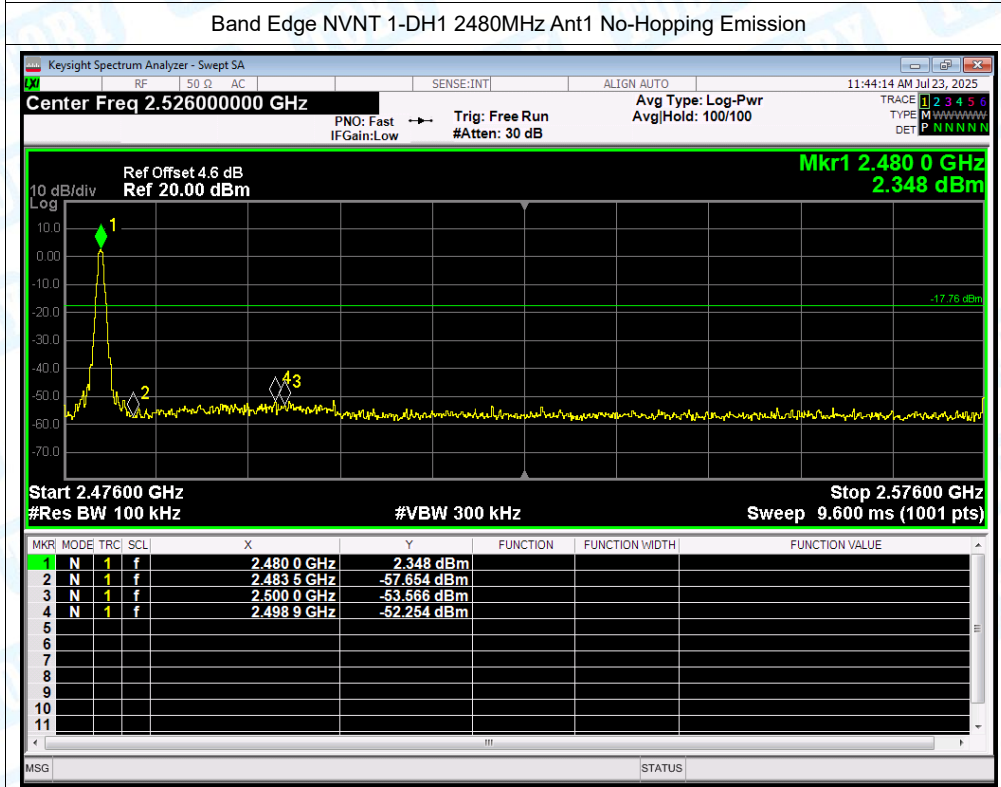
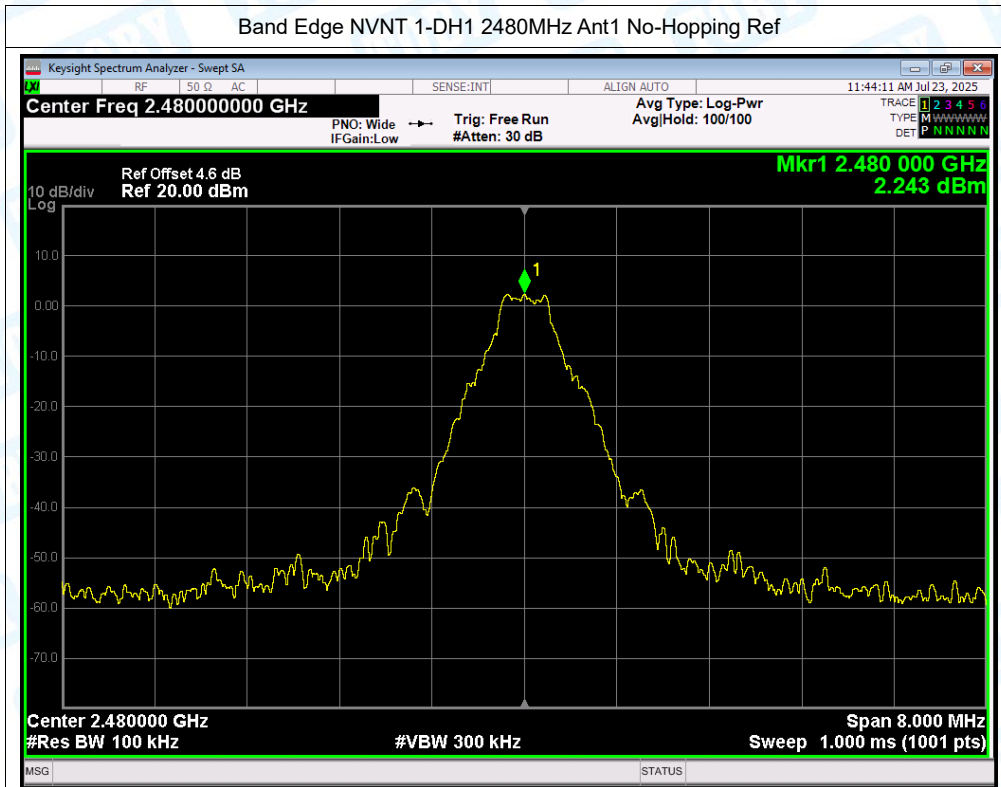
Test Graphs

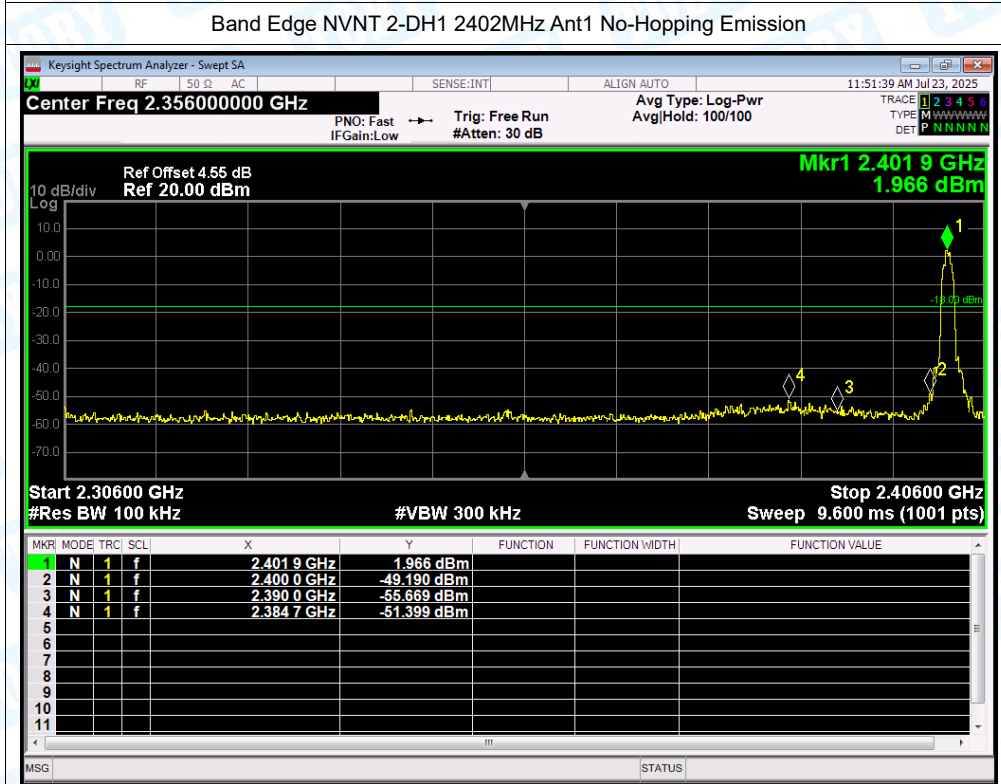
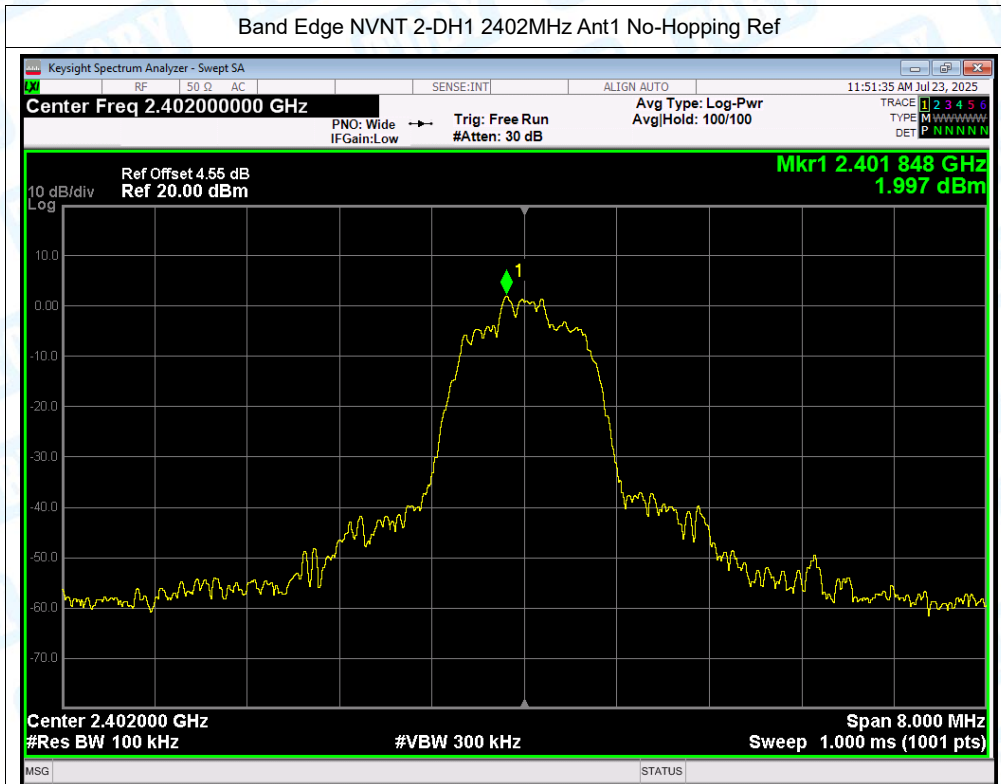
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref

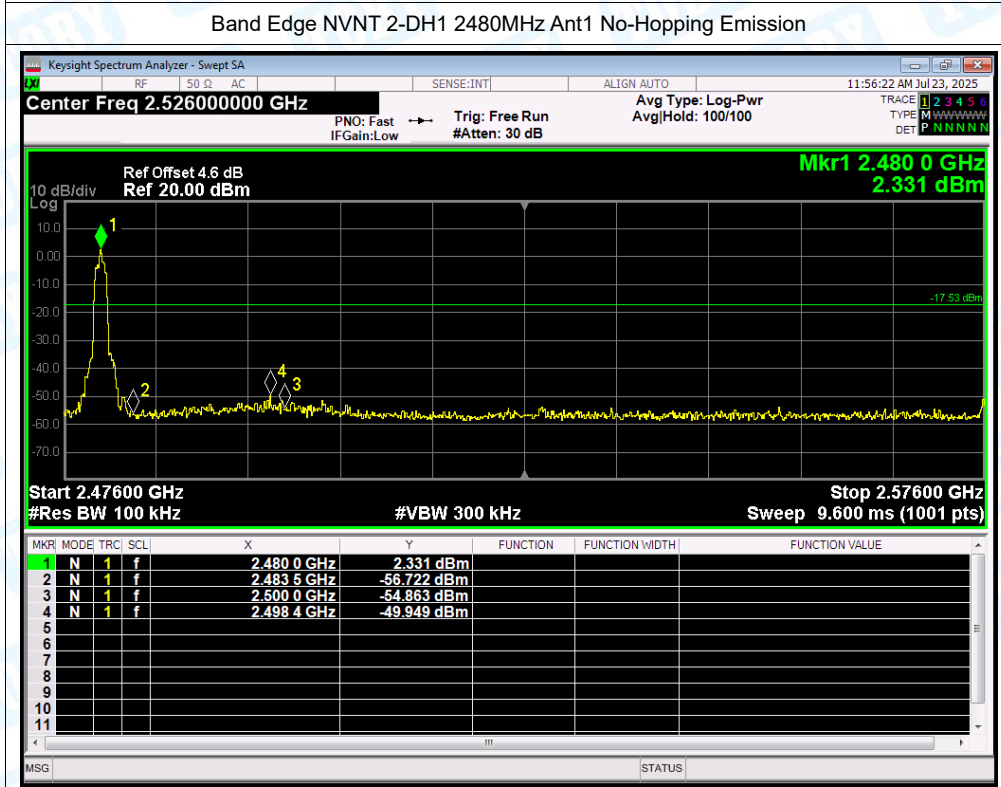
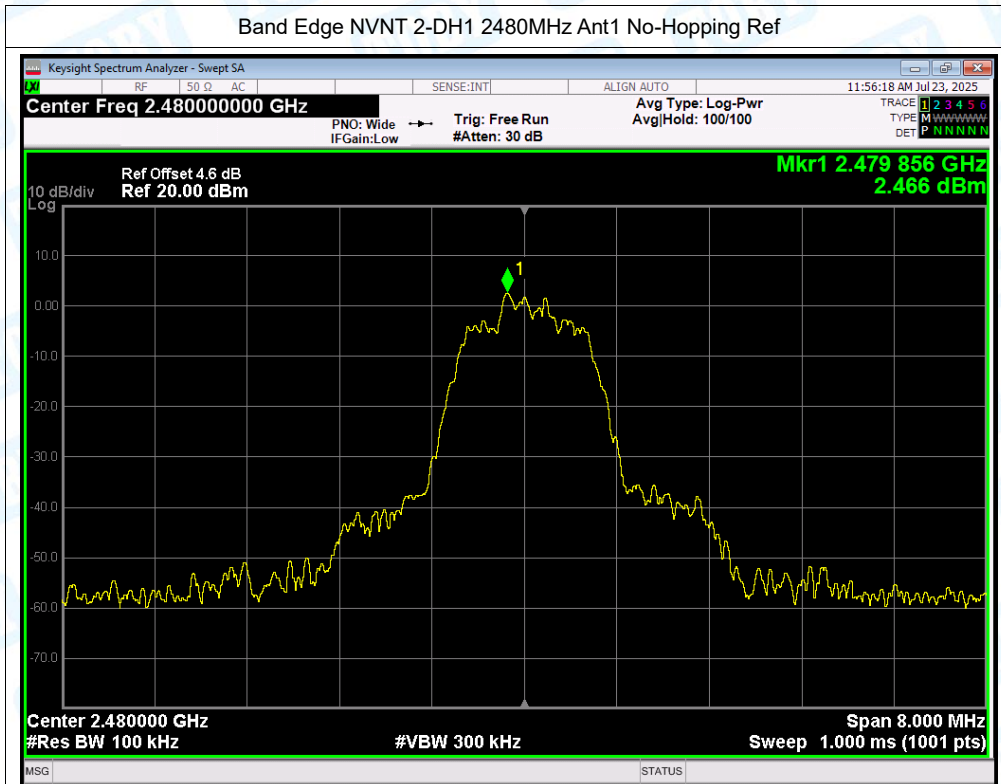


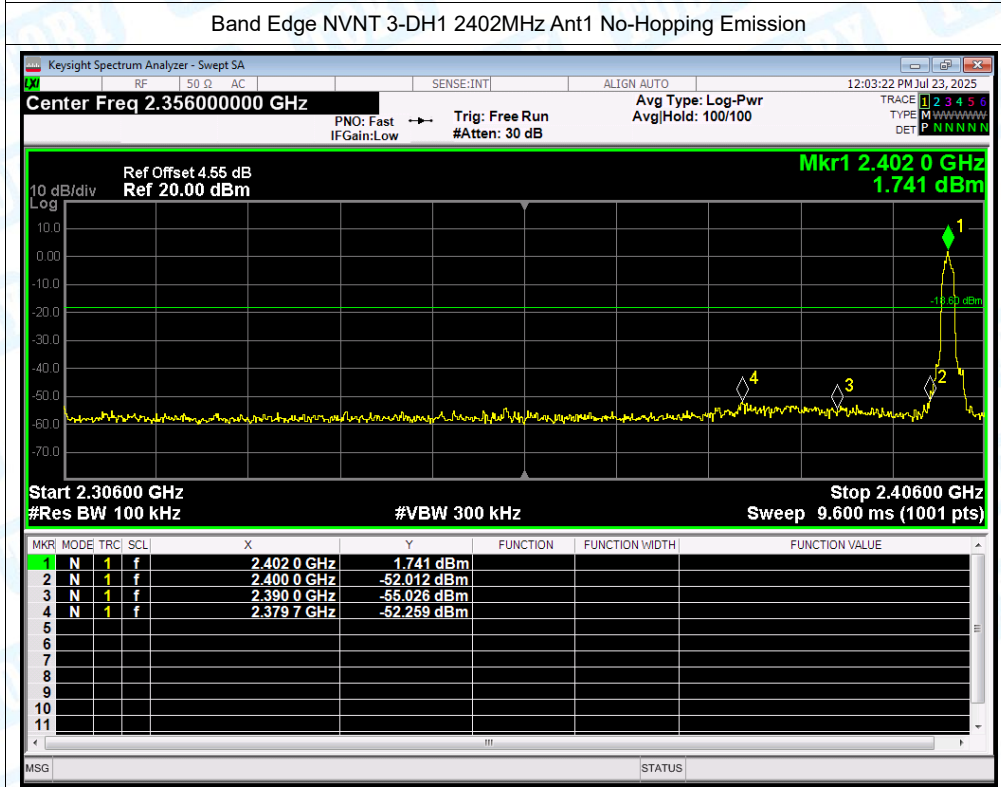
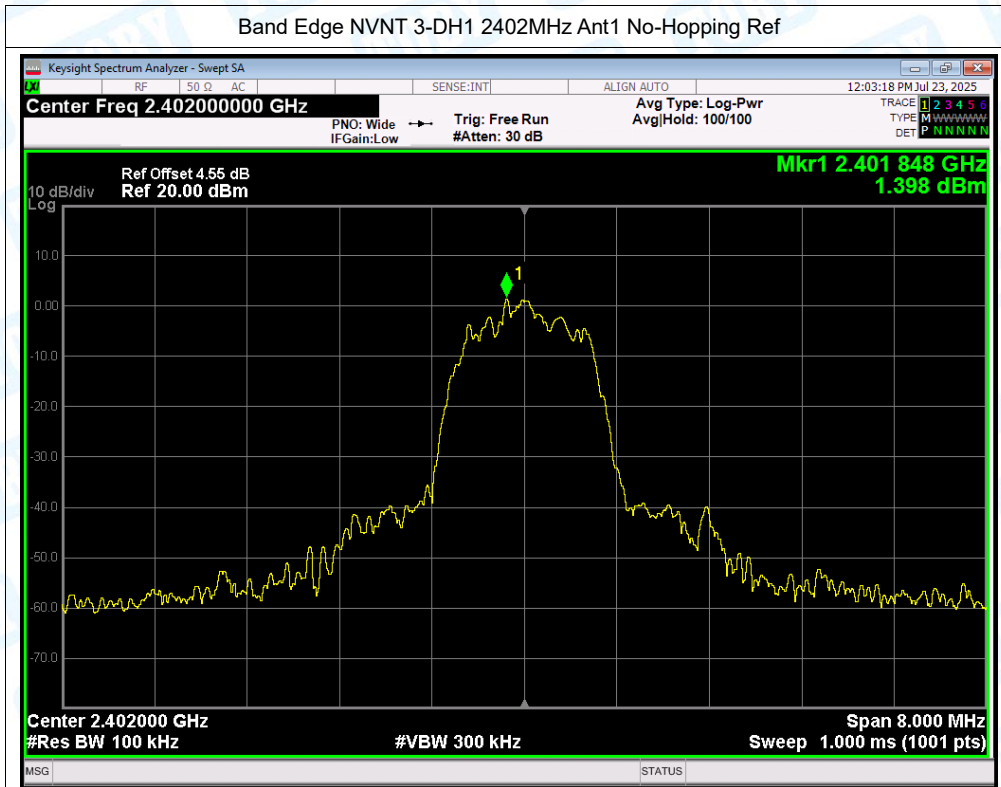
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



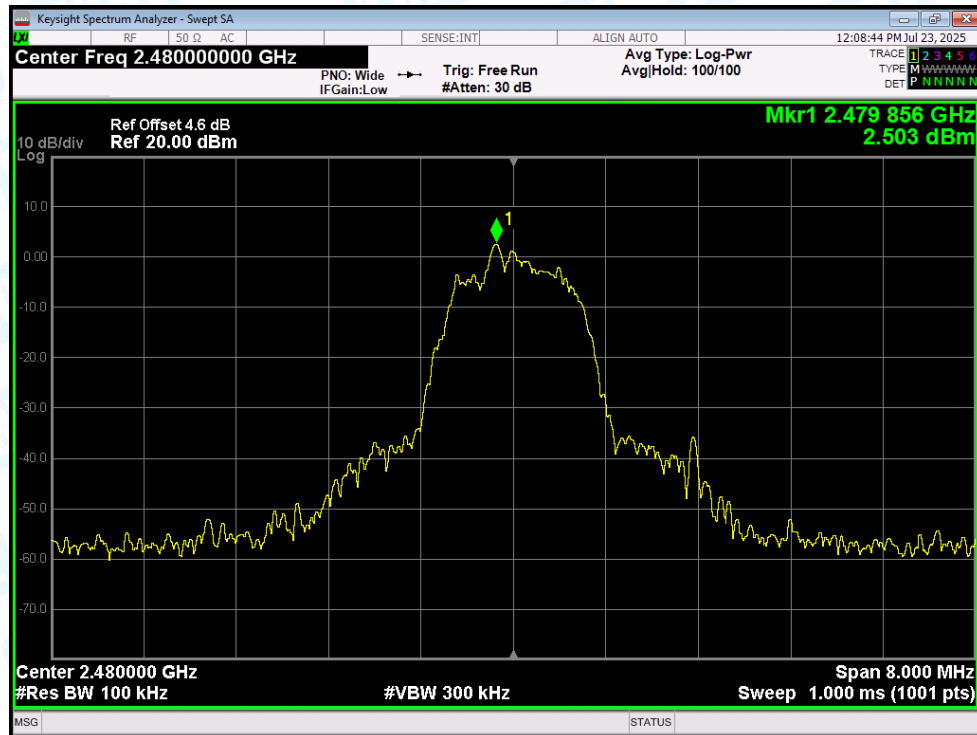




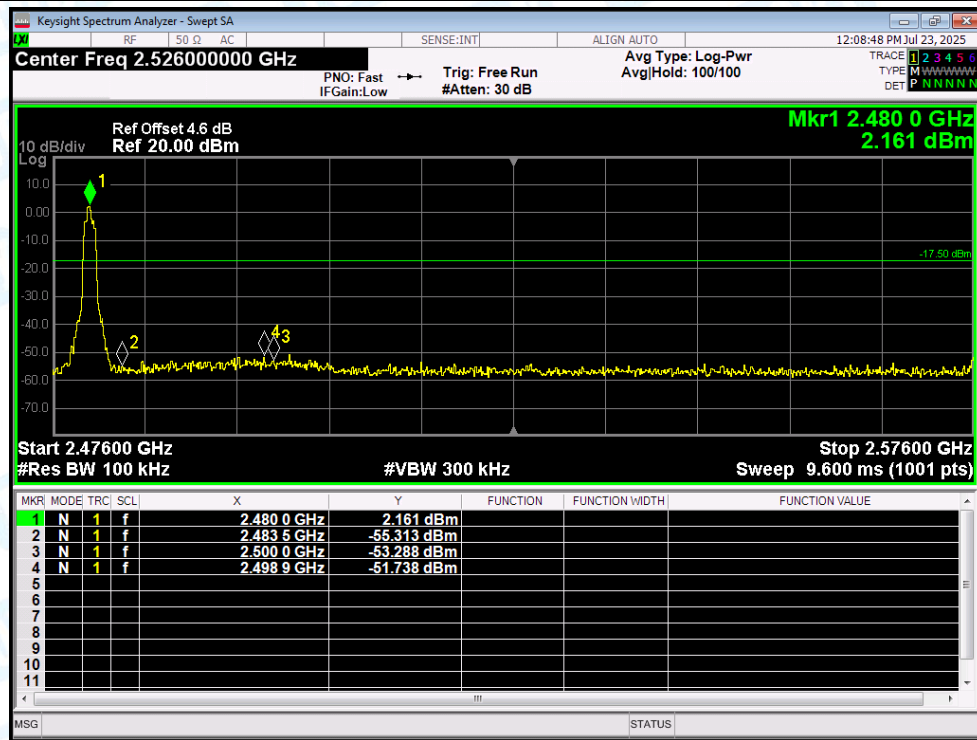




Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Ref



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

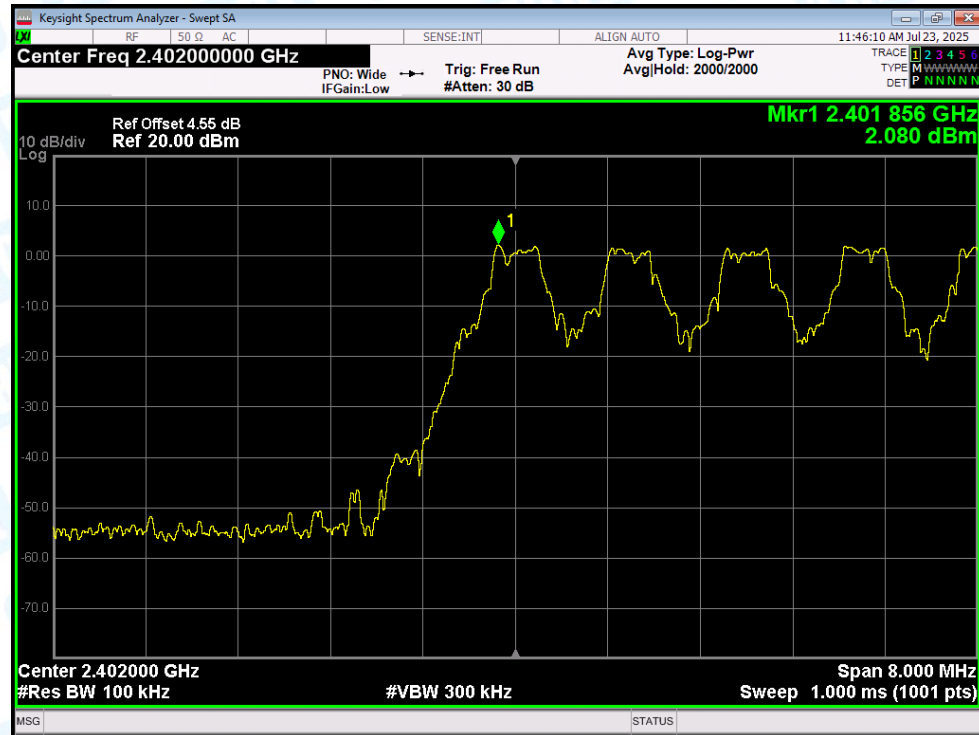


6. Band Edge(Hopping)

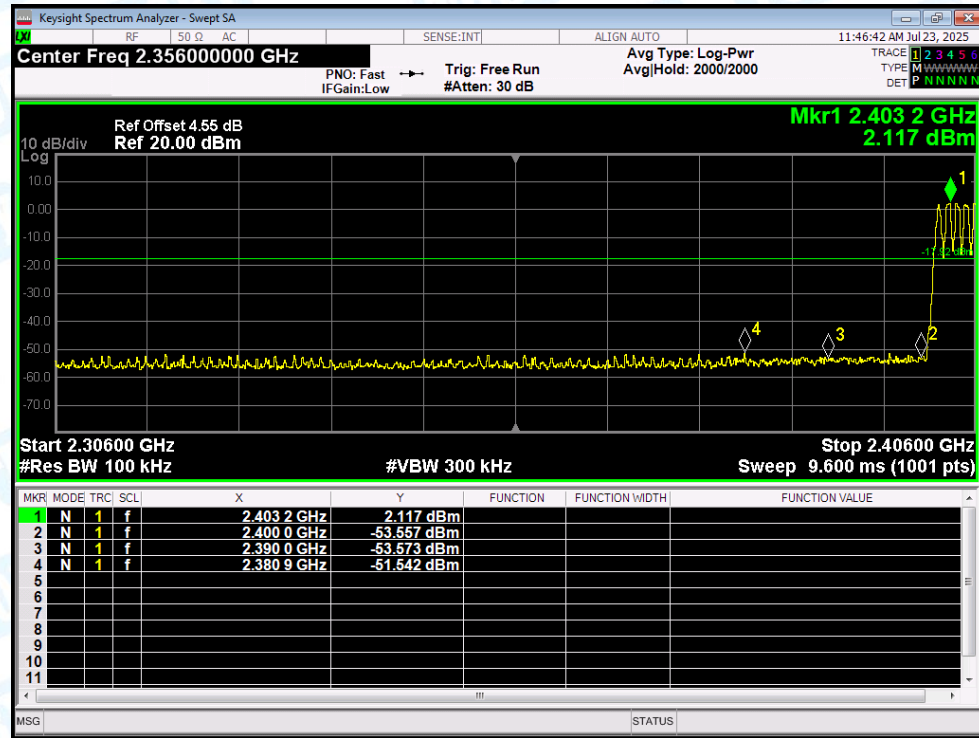
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-53.62	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-53.43	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-53.42	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-53.22	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-53.11	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-52.8	-20	Pass

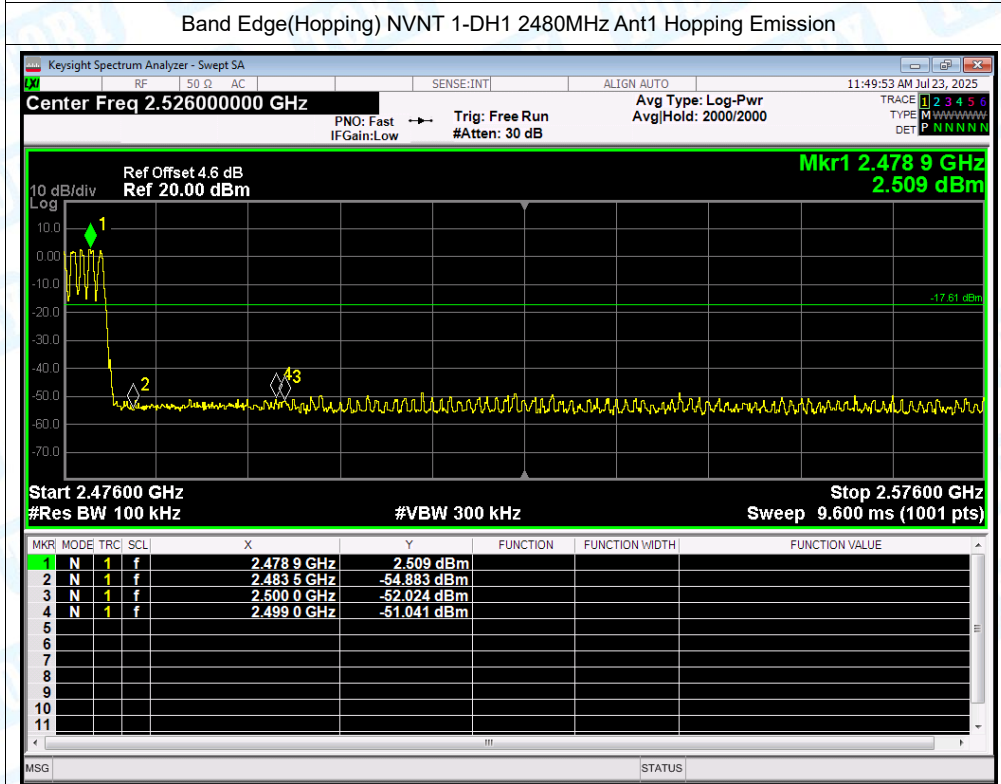
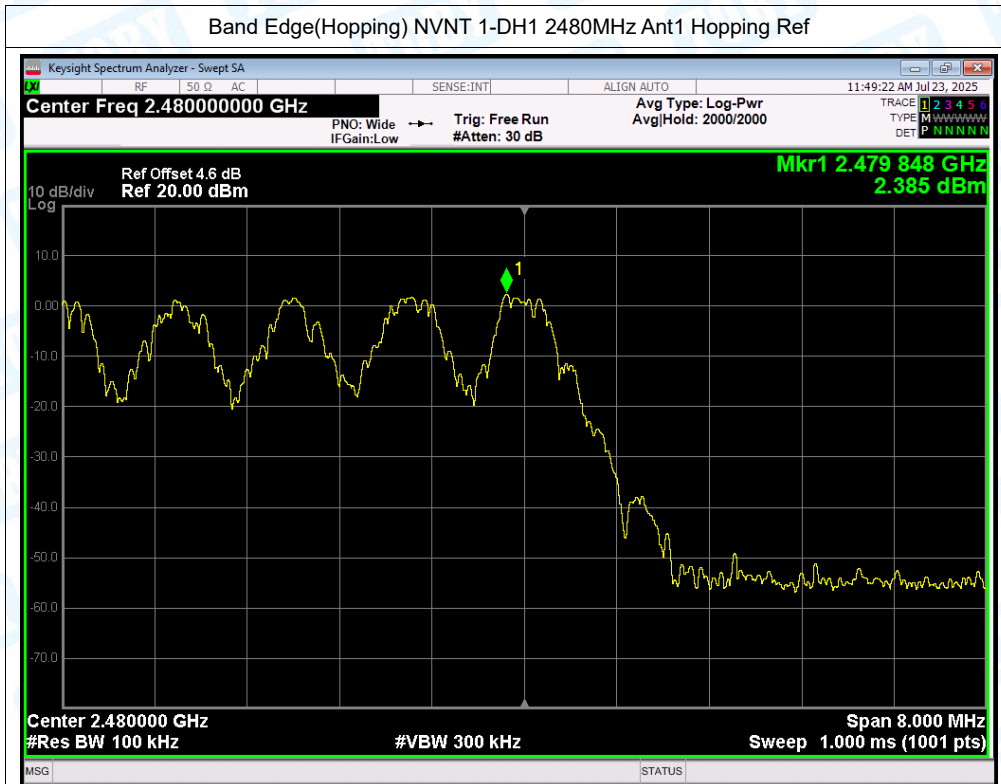
Test Graphs

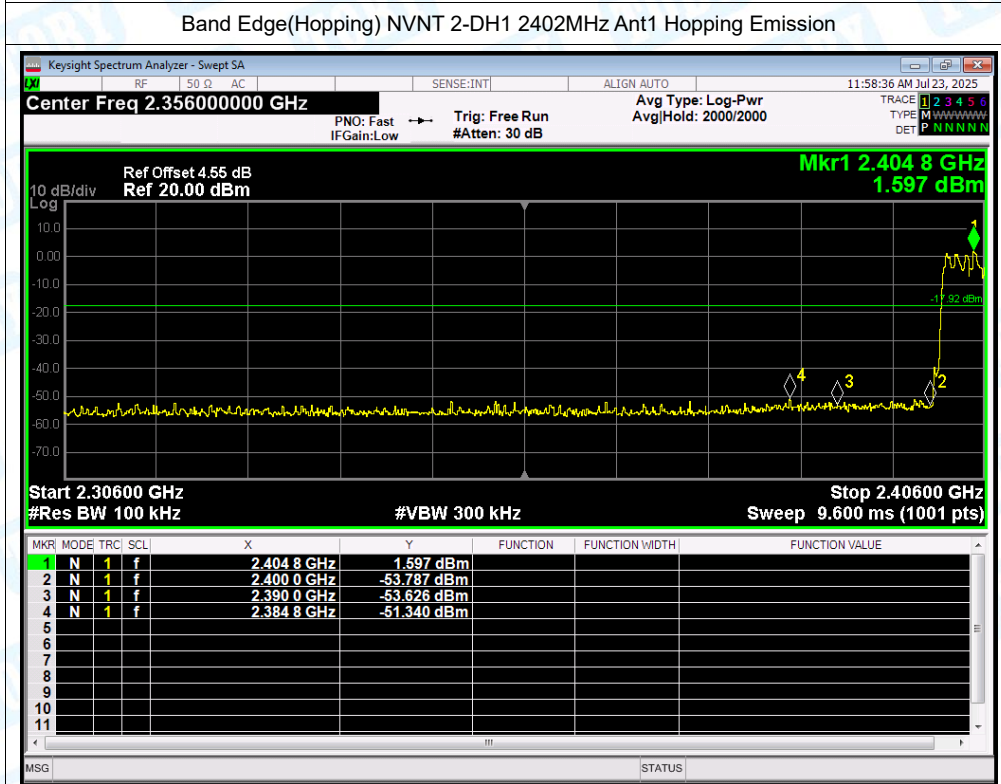
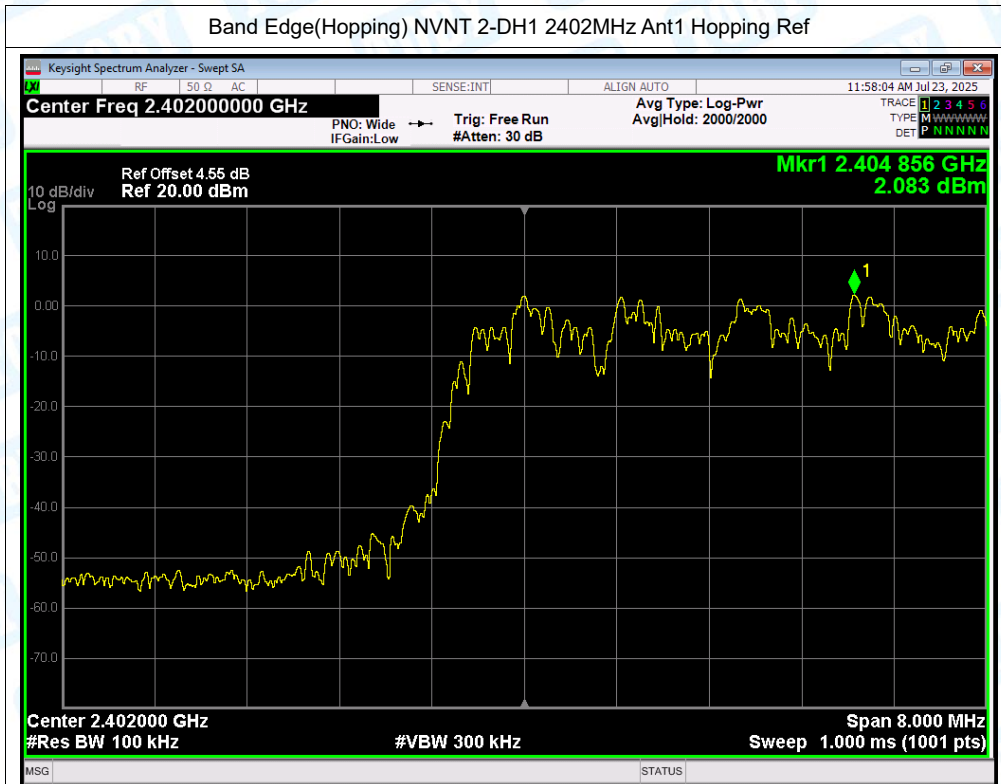
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref

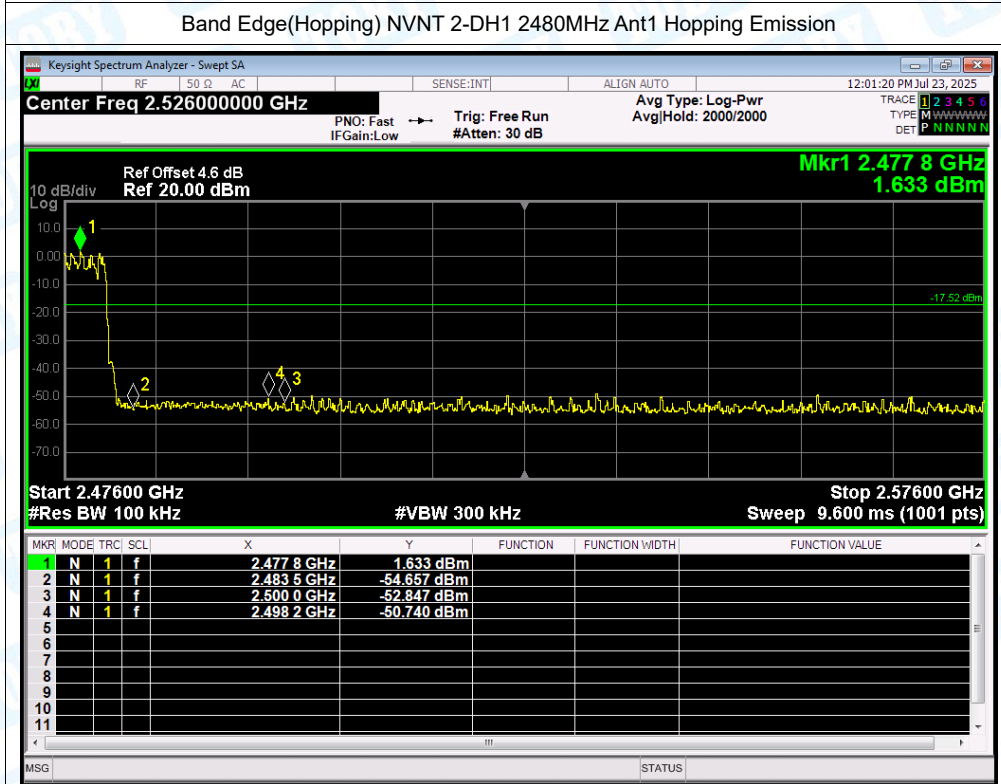
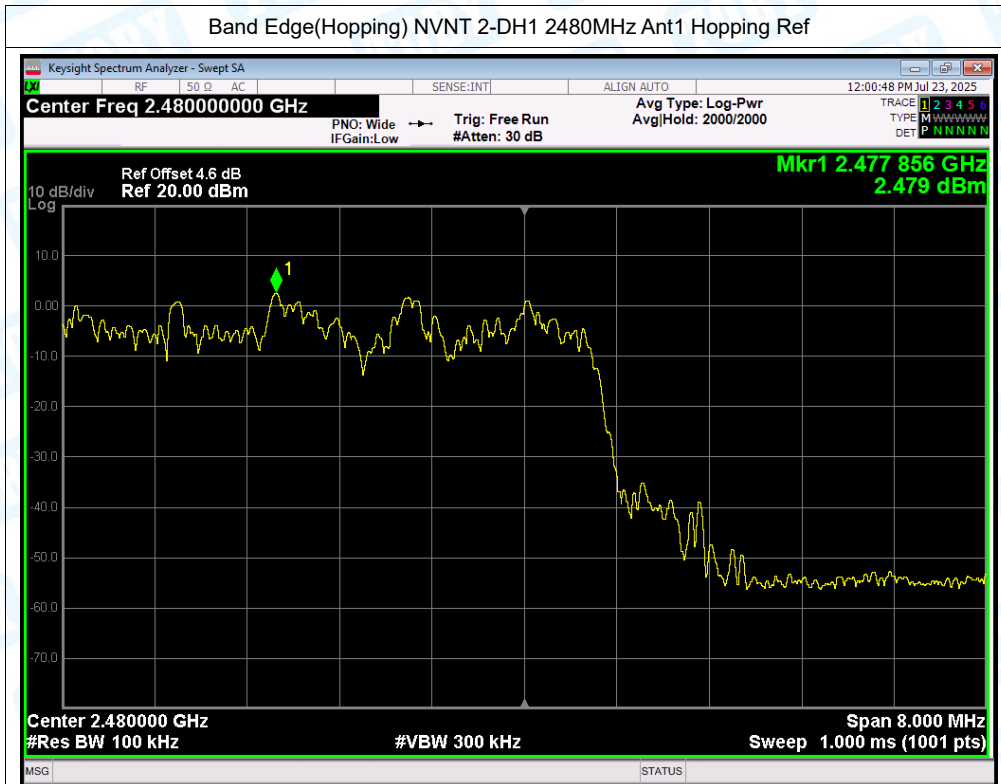


Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission

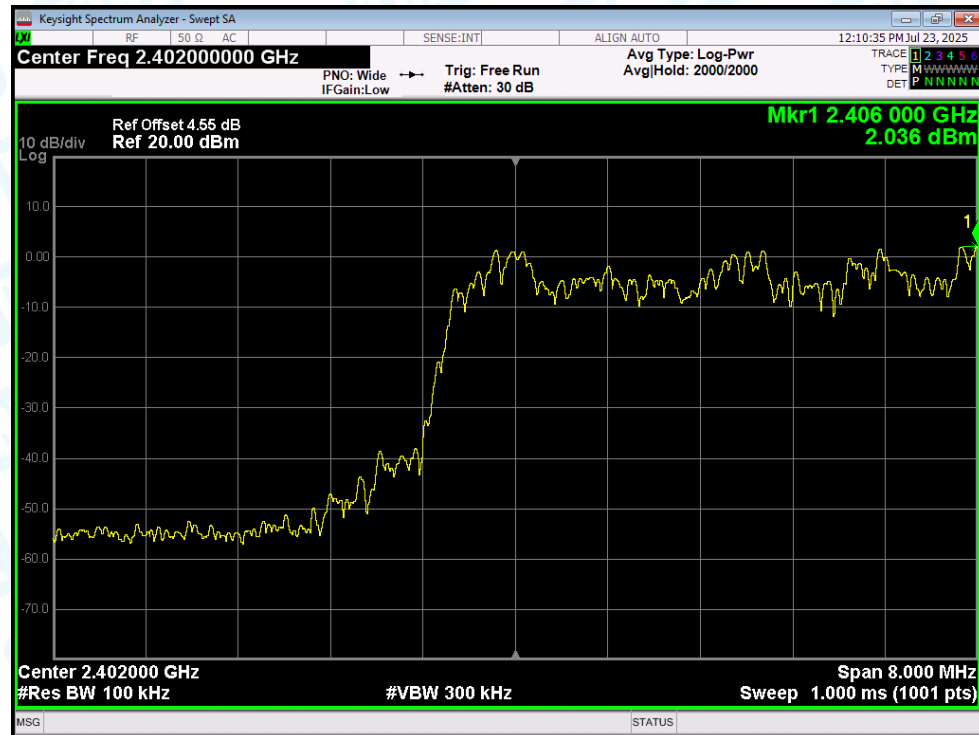




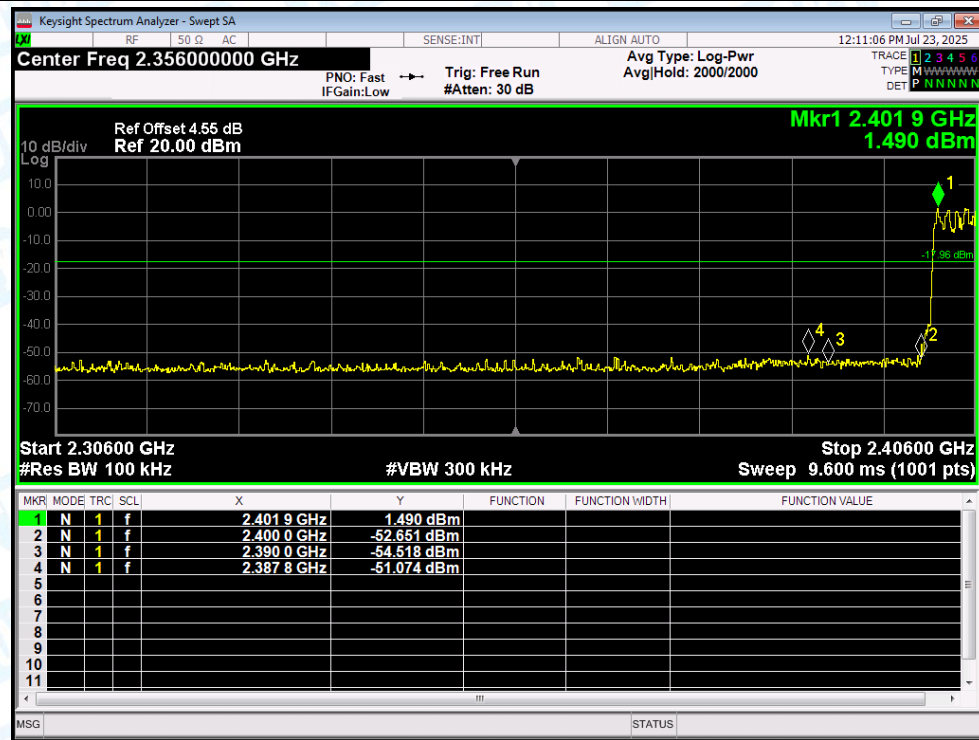


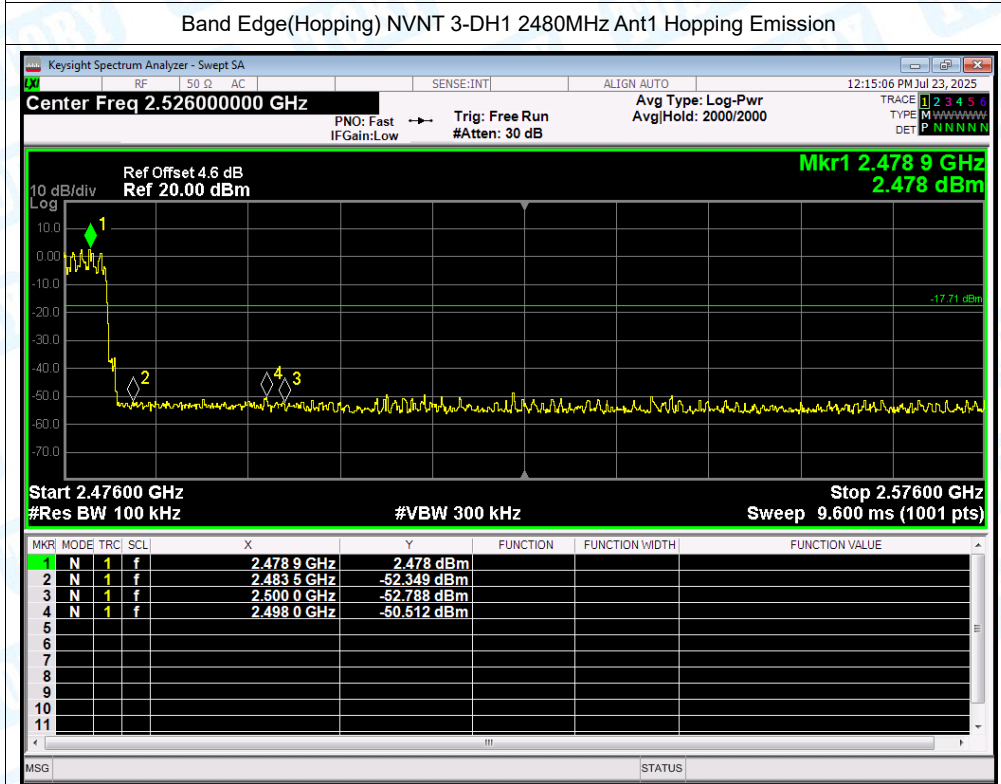


Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



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



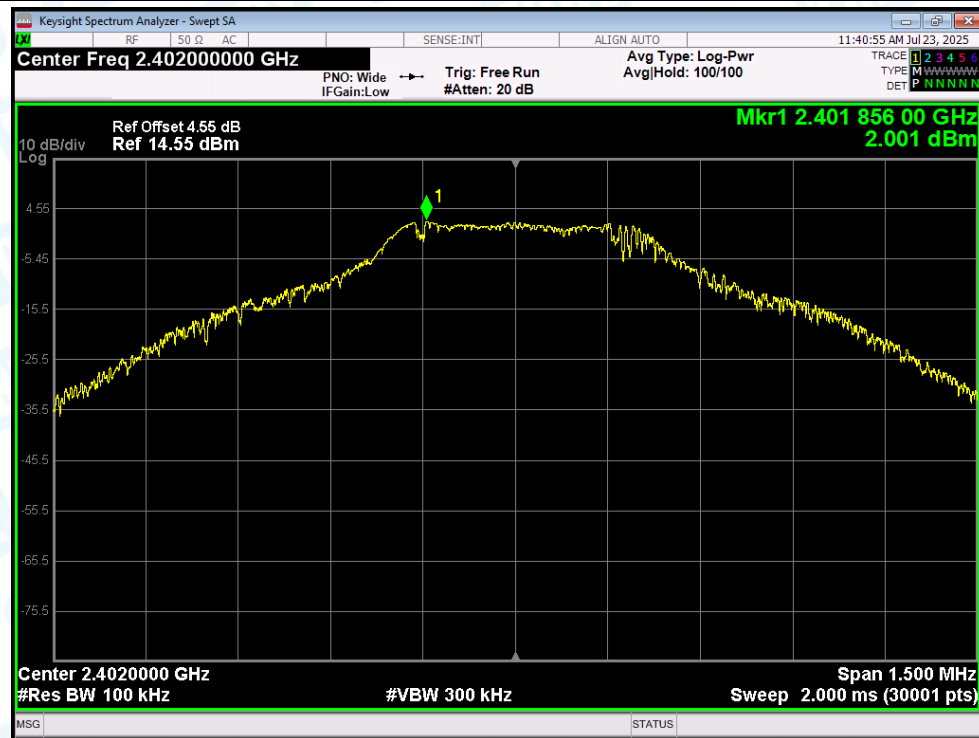


7. Conducted RF Spurious Emission

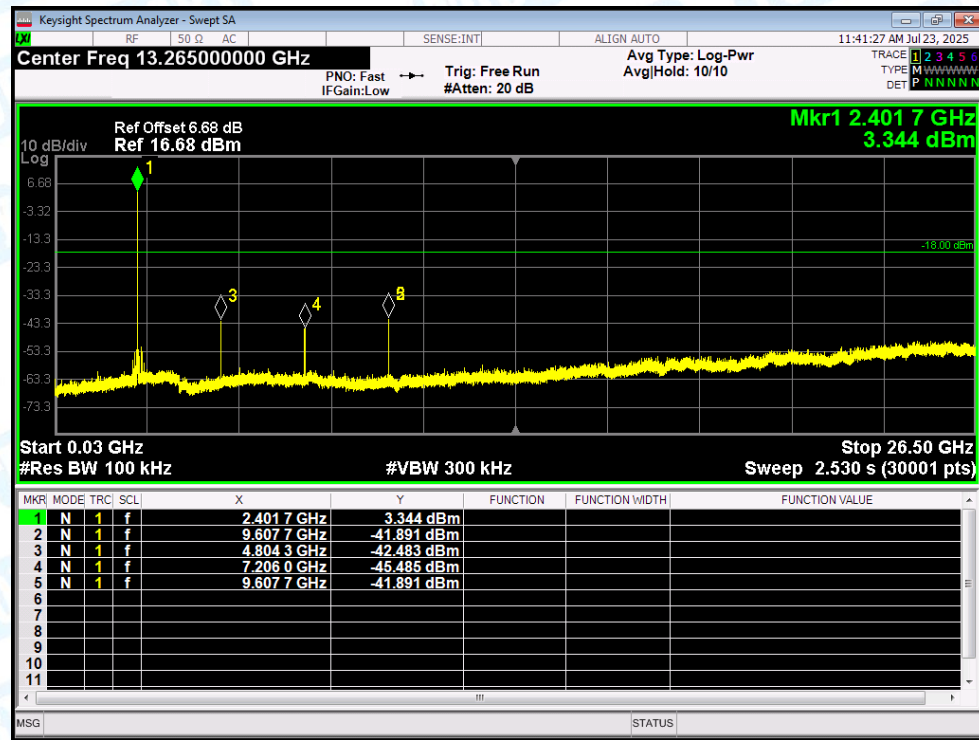
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-43.89	-20	Pass
NVNT	1-DH1	2441	Ant1	-44.44	-20	Pass
NVNT	1-DH1	2480	Ant1	-43.78	-20	Pass
NVNT	2-DH1	2402	Ant1	-44.49	-20	Pass
NVNT	2-DH1	2441	Ant1	-44.86	-20	Pass
NVNT	2-DH1	2480	Ant1	-44.92	-20	Pass
NVNT	3-DH1	2402	Ant1	-44.25	-20	Pass
NVNT	3-DH1	2441	Ant1	-45.1	-20	Pass
NVNT	3-DH1	2480	Ant1	-44.01	-20	Pass

Test Graphs

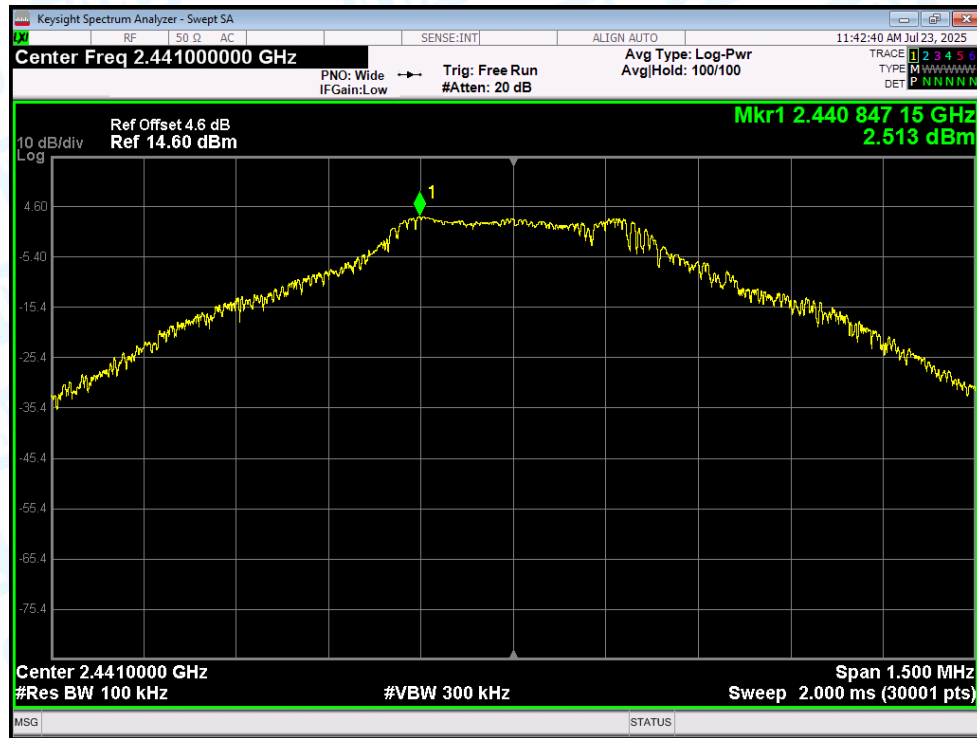
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



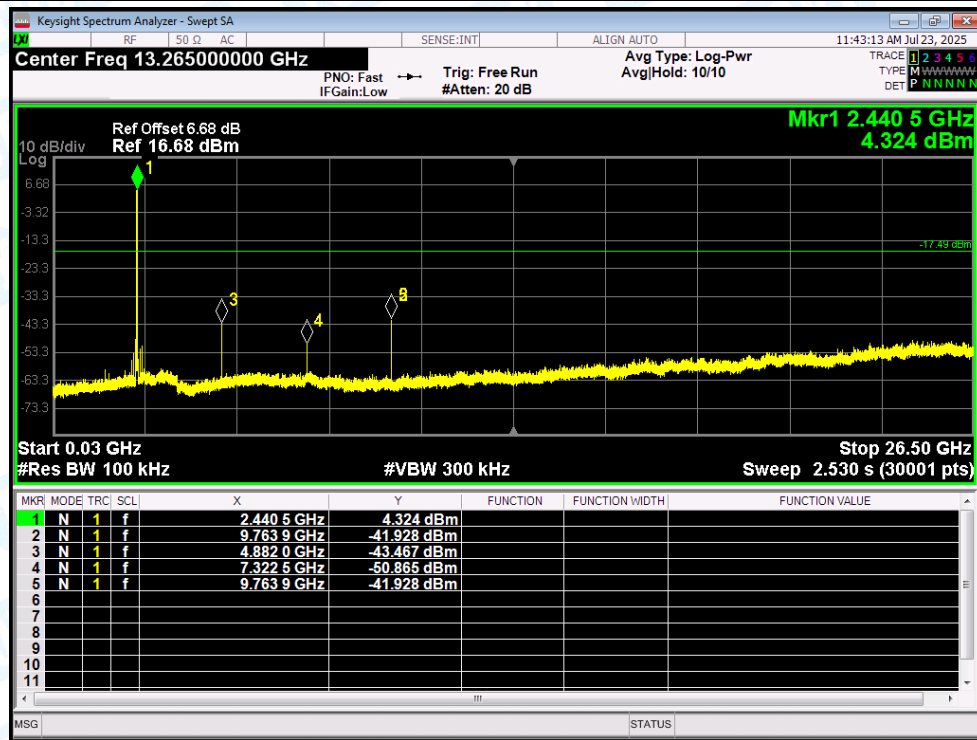
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



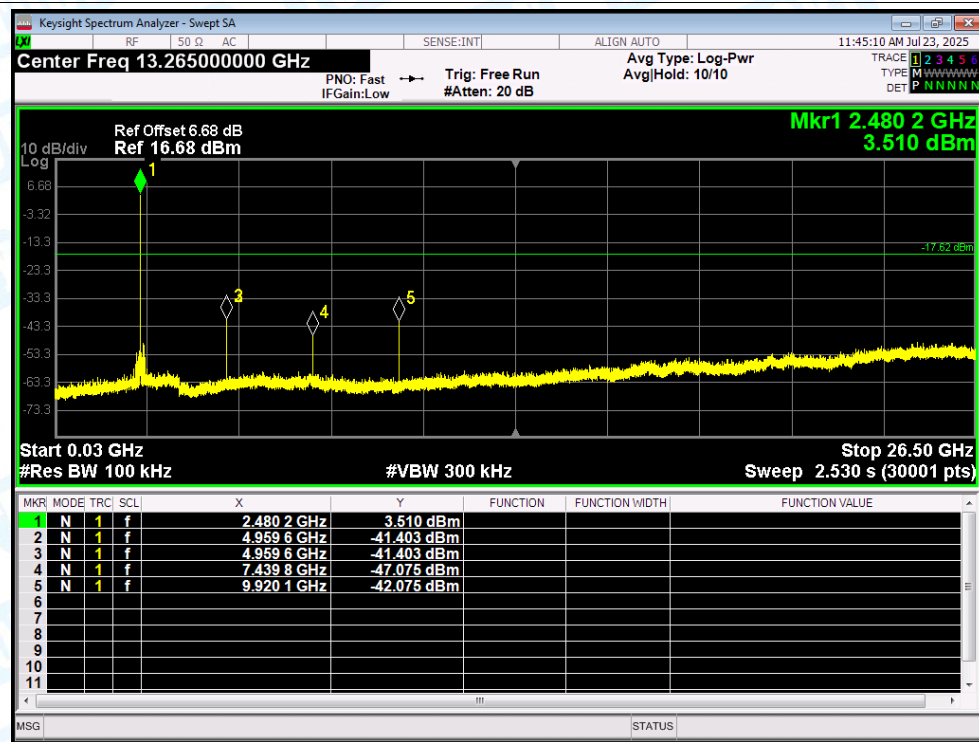
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



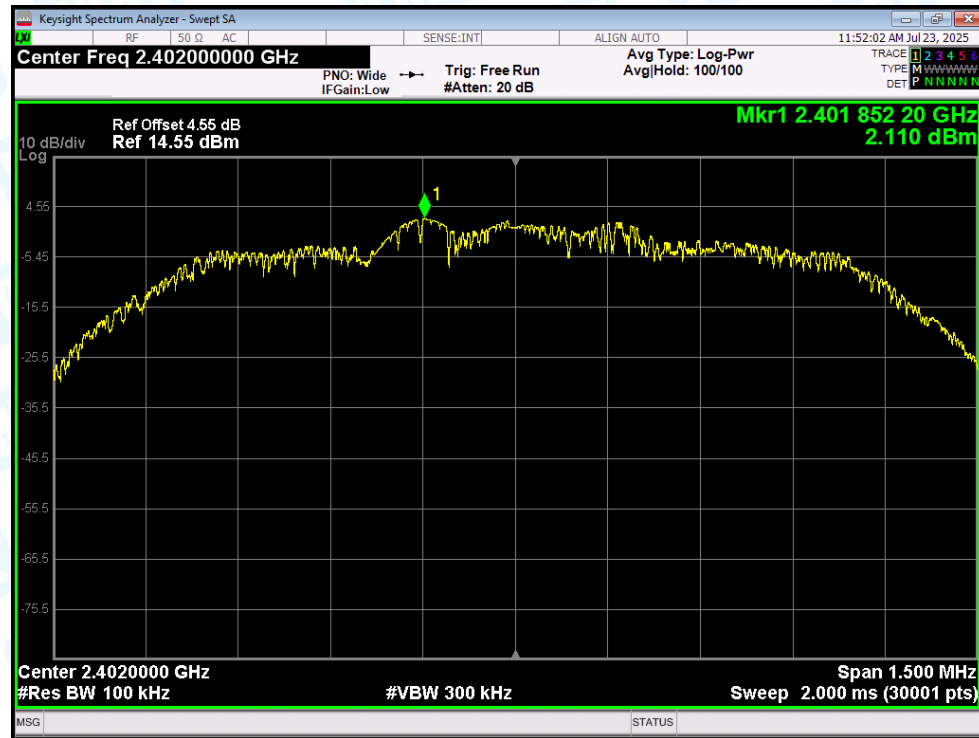
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



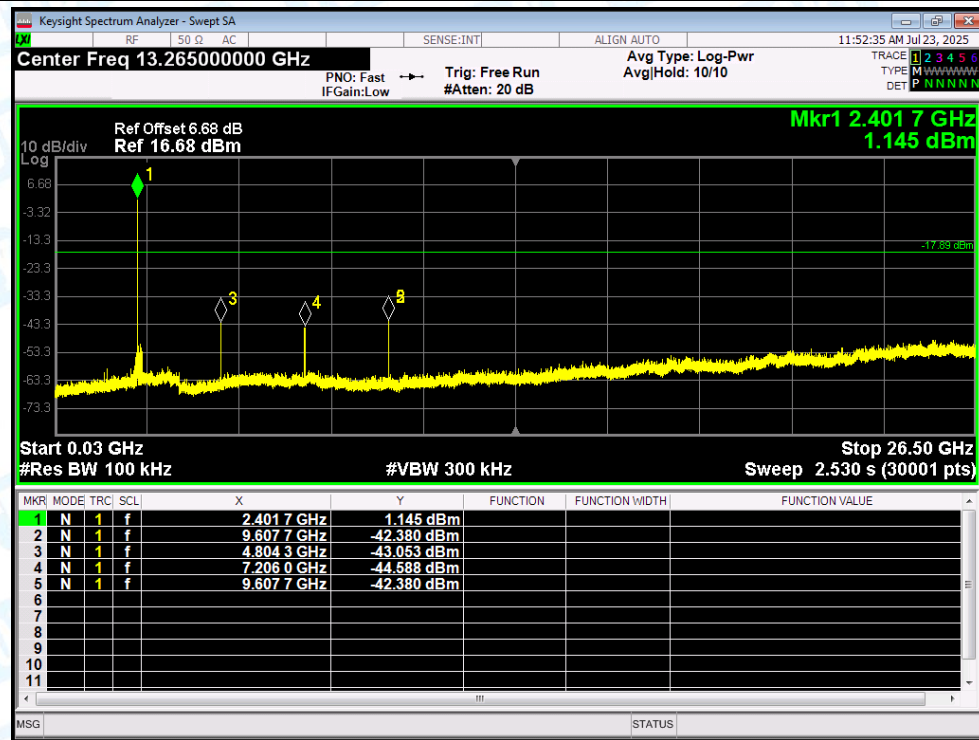
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



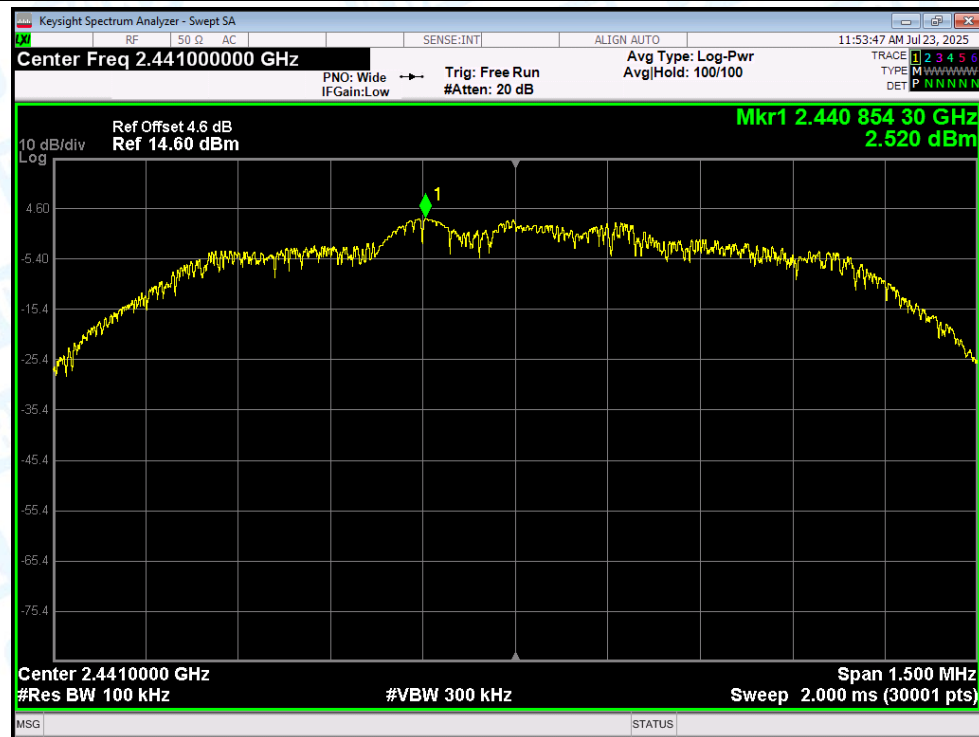
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



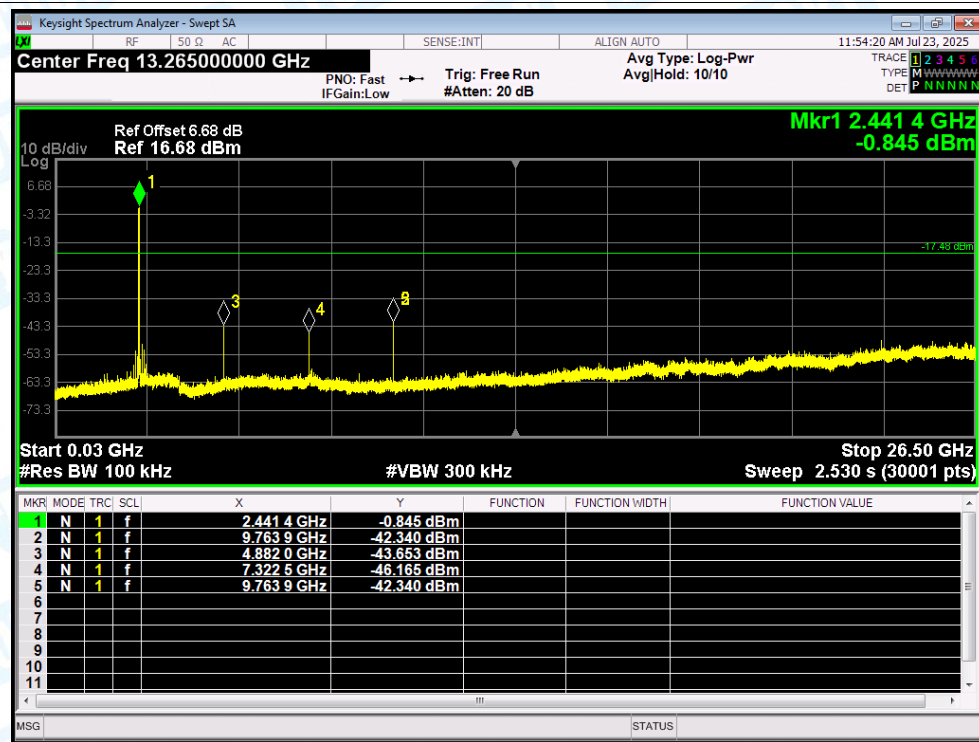
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



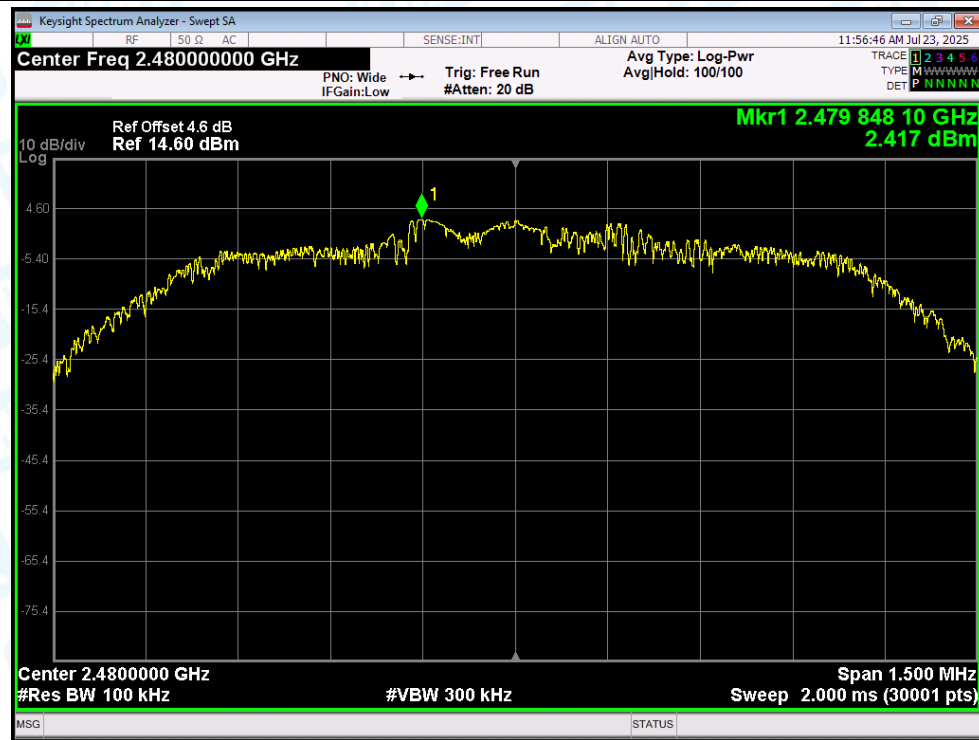
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



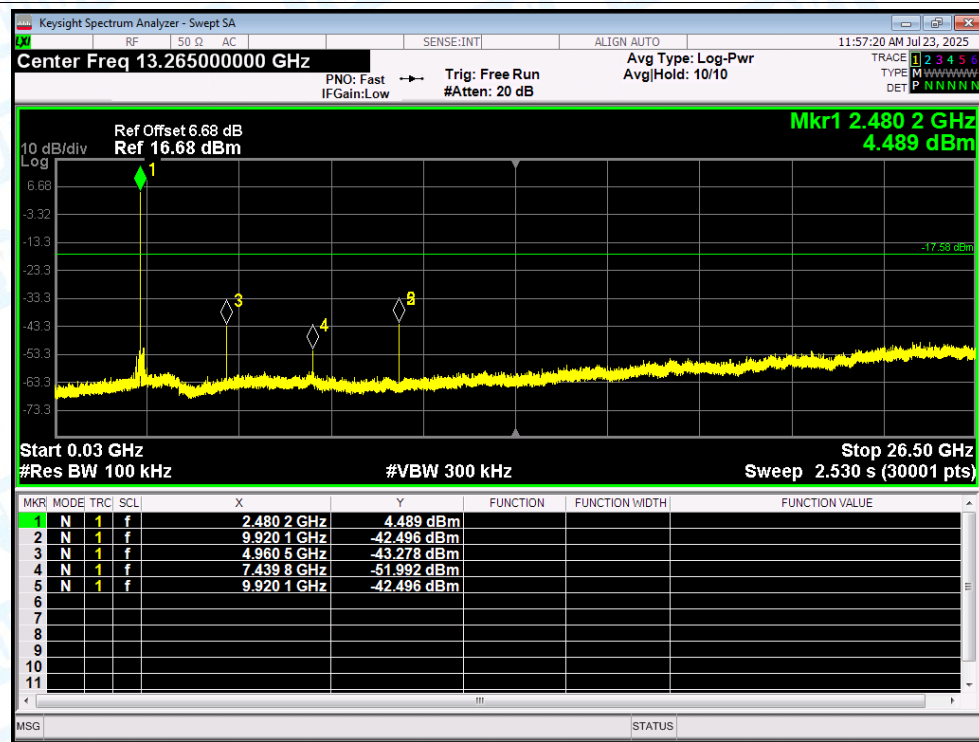
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



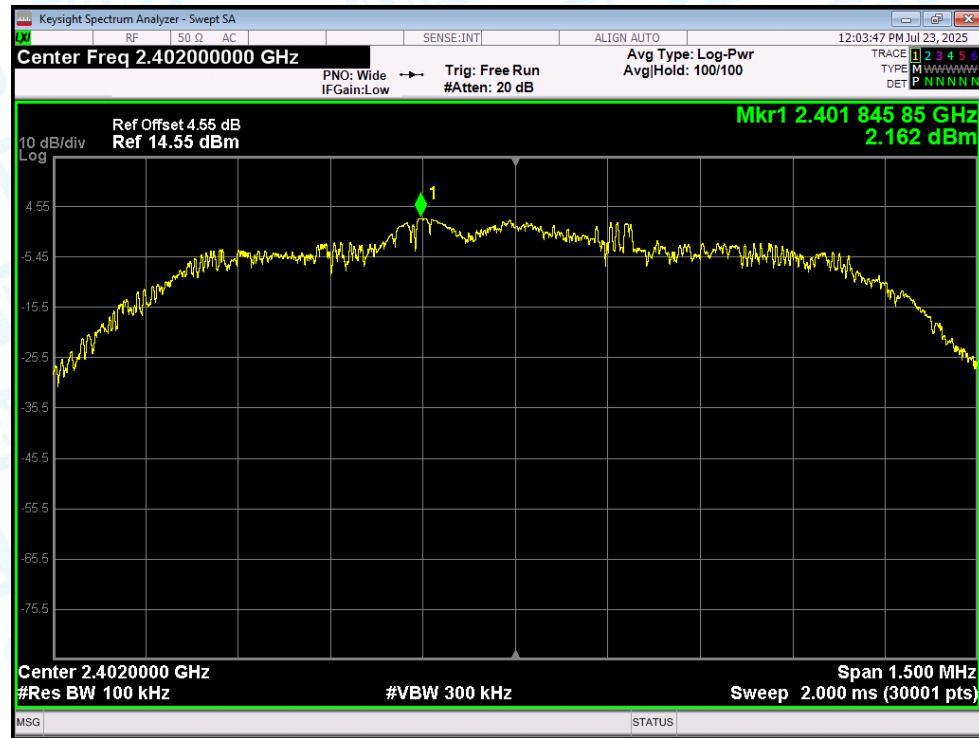
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



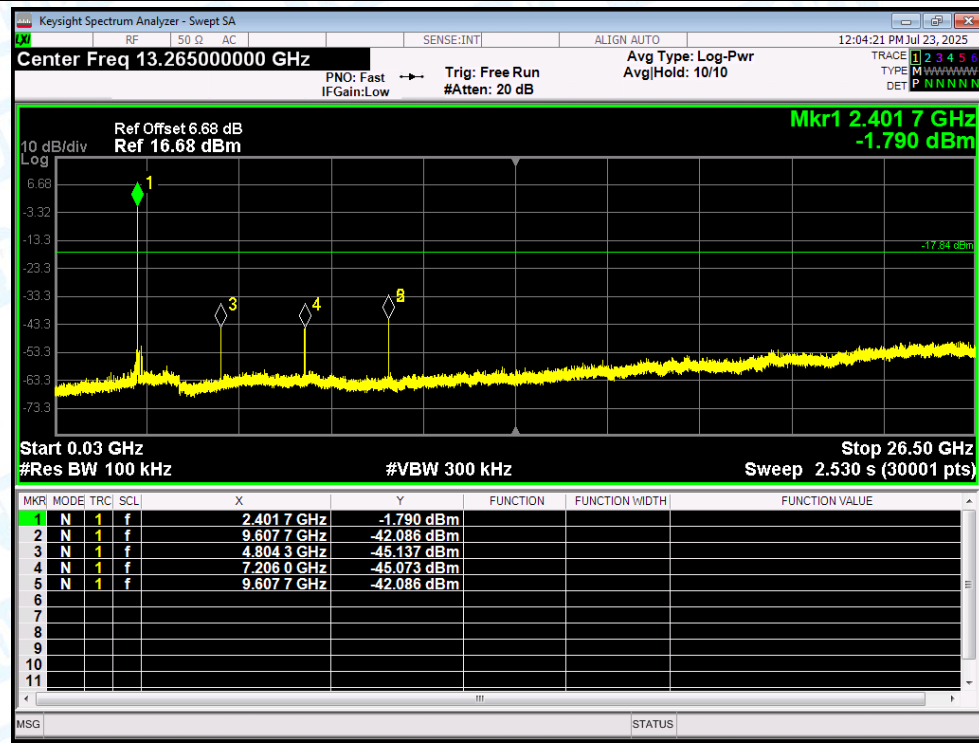
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



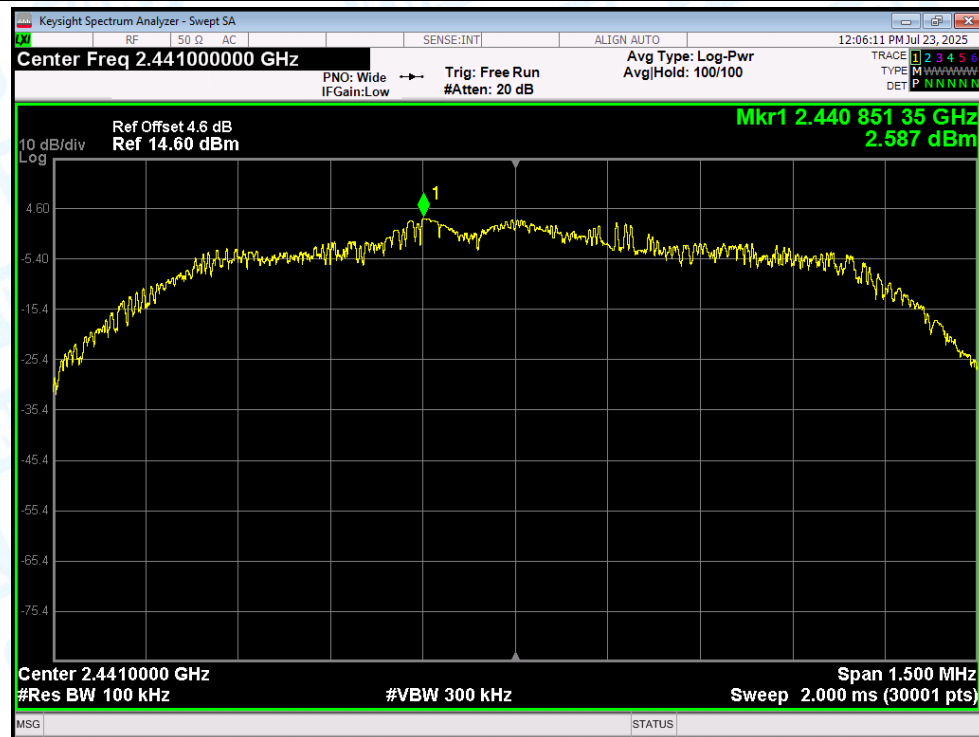
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



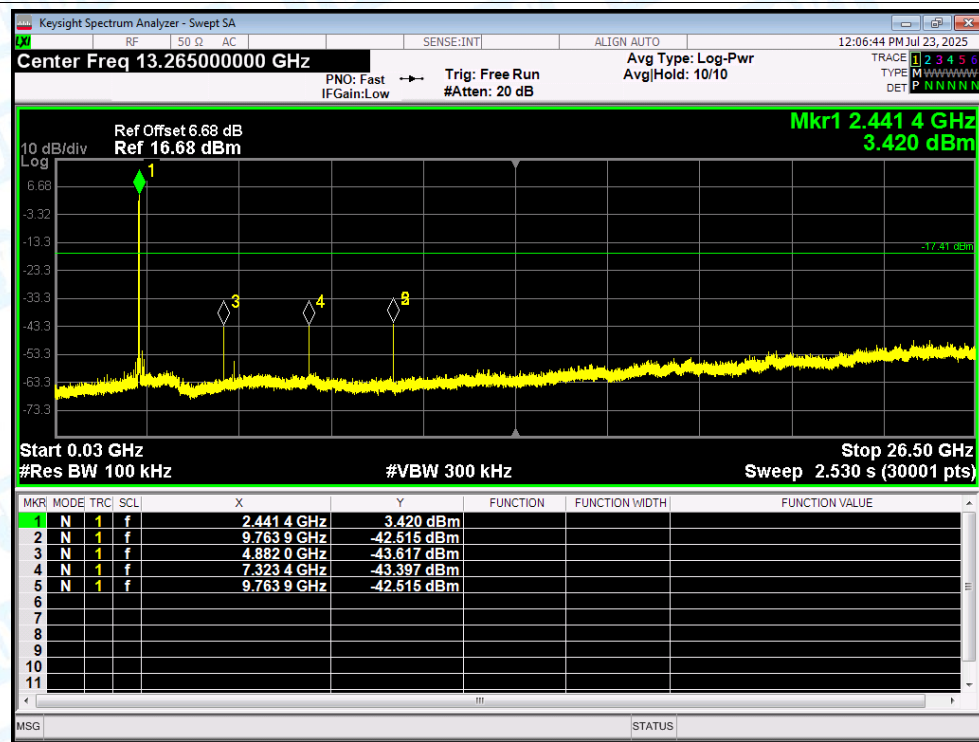
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



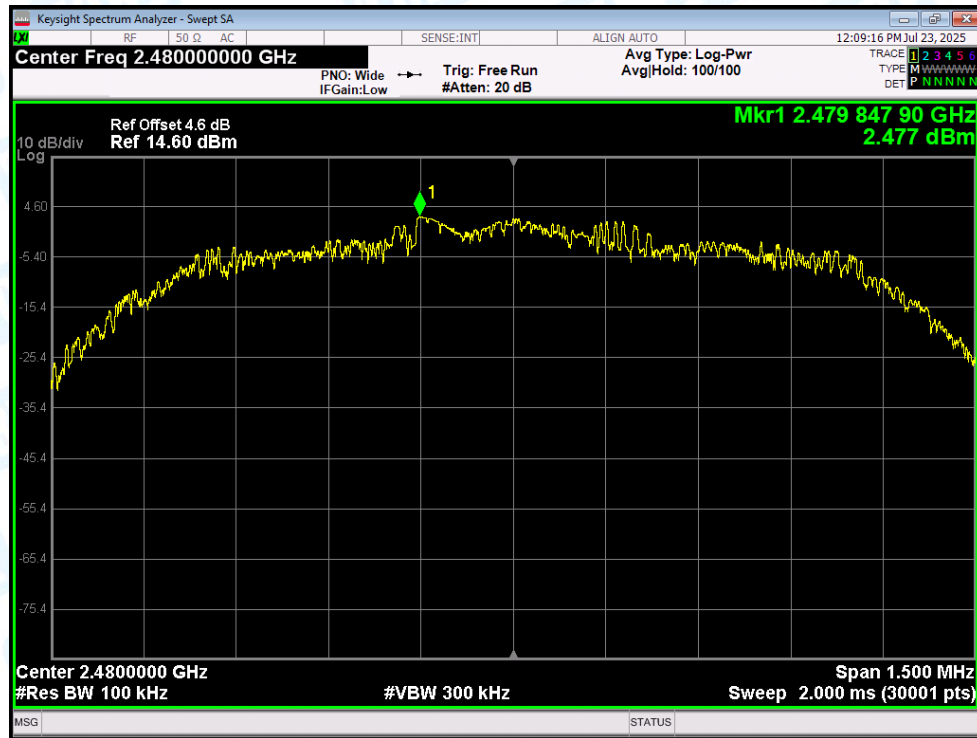
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



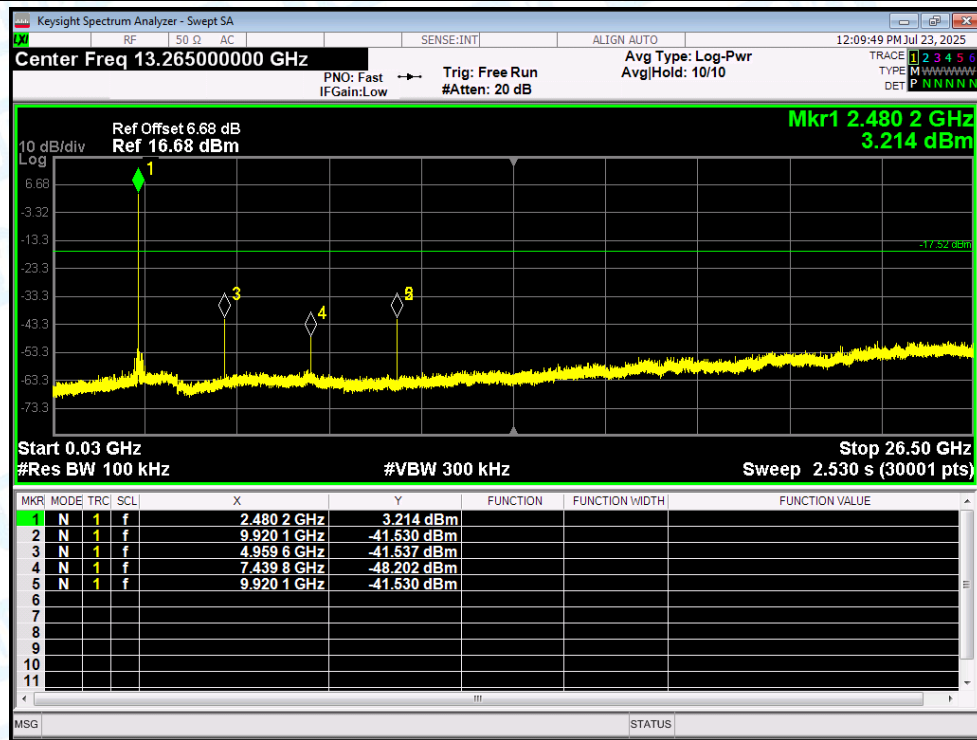
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

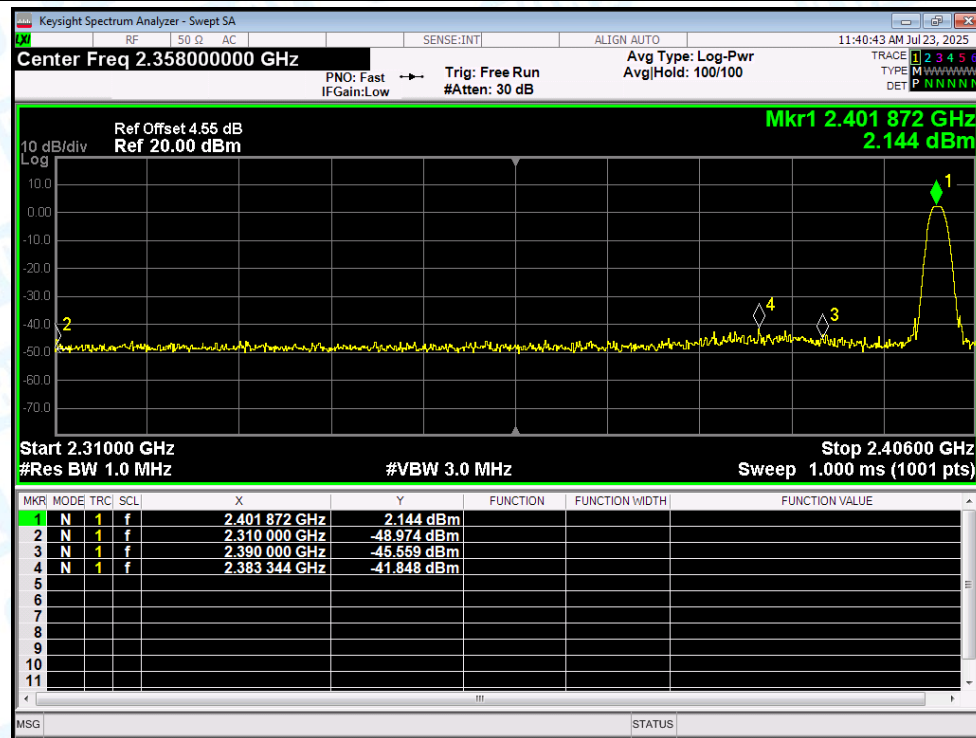


8.Restrict Band

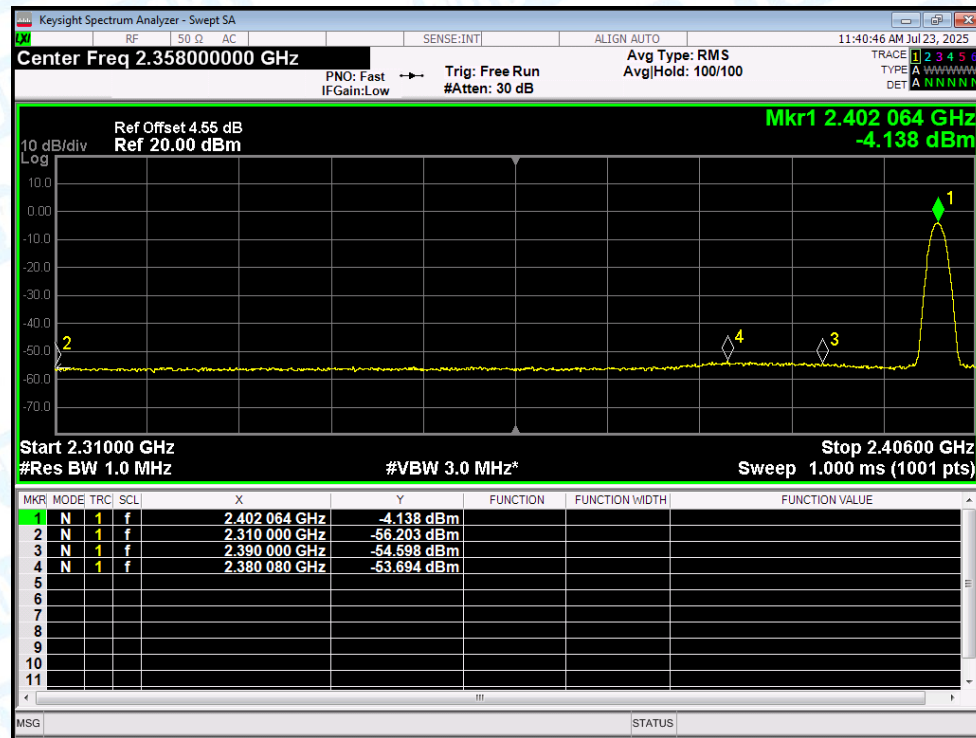
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-48.97	2	-	48.29	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.2	2	5.17	46.23	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2383.344	-41.85	2	-	55.41	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2380.08	-53.69	2	5.17	48.74	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-45.56	2	-	51.7	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-54.6	2	5.17	47.83	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-47.8	2	-	49.46	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-55.36	2	5.29	47.19	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2495.392	-42.23	2	-	55.03	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2499.736	-53.05	2	5.29	49.5	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-43.47	2	-	53.79	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-53.64	2	5.29	48.91	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-48.19	2	-	49.07	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-57.01	2	4.95	45.2	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2383.44	-42.75	2	-	54.51	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2382.576	-53.78	2	4.95	48.43	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-44.16	2	-	53.1	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-54.87	2	4.95	47.34	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-45.89	2	-	51.37	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-55.22	2	5.06	47.1	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.752	-41.98	2	-	55.28	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2490.184	-53.1	2	5.06	49.22	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-42.77	2	-	54.49	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-53.92	2	5.06	48.4	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-49.07	2	-	48.19	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.36	2	5.06	45.96	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2386.704	-42.74	2	-	54.52	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2386.032	-53.52	2	5.06	48.8	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-45.95	2	-	51.31	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-54.88	2	5.06	47.44	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-47.64	2	-	49.62	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-54.81	2	5.06	47.51	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2494.84	-41.89	2	-	55.37	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2497.432	-53.22	2	5.06	49.1	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-44.33	2	-	52.93	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-53.97	2	5.06	48.35	Average	54	Pass

Test Graphs

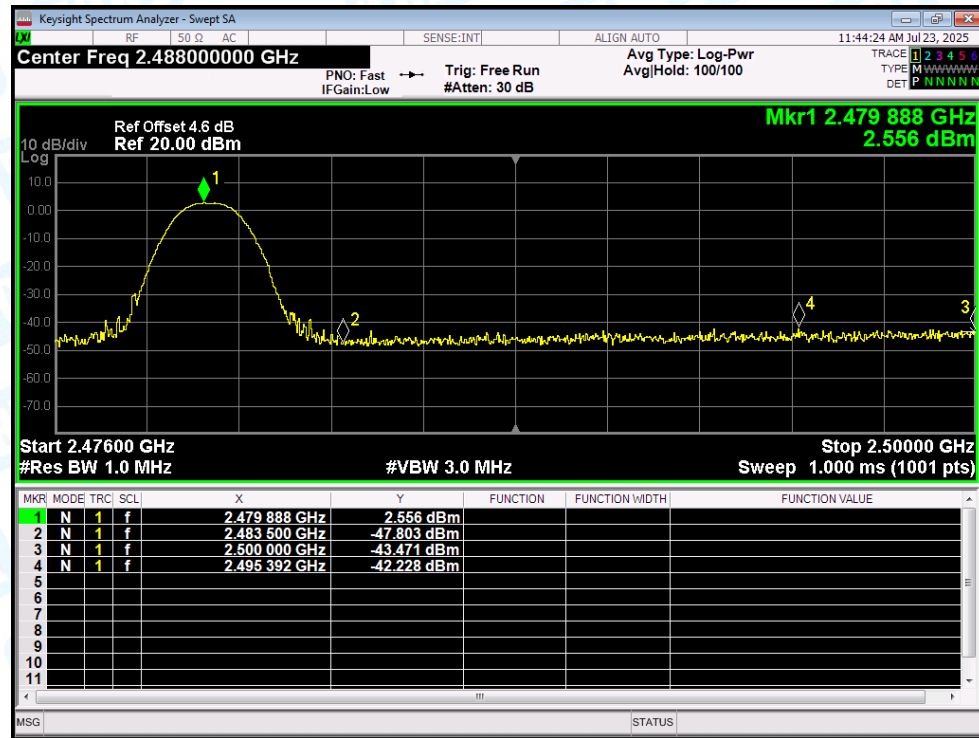
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



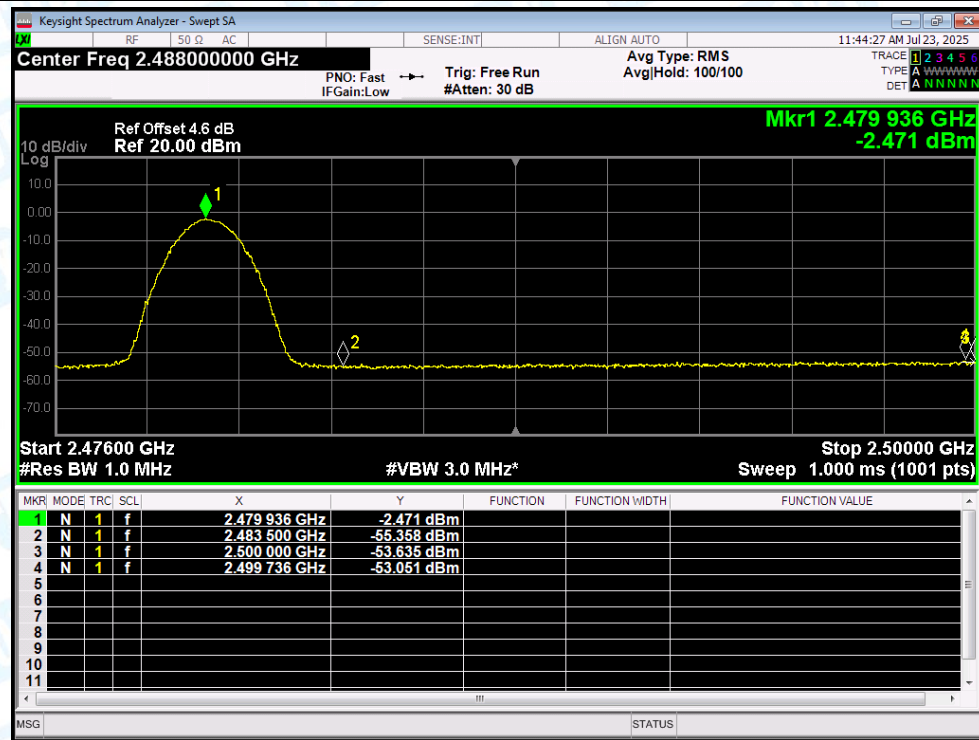
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



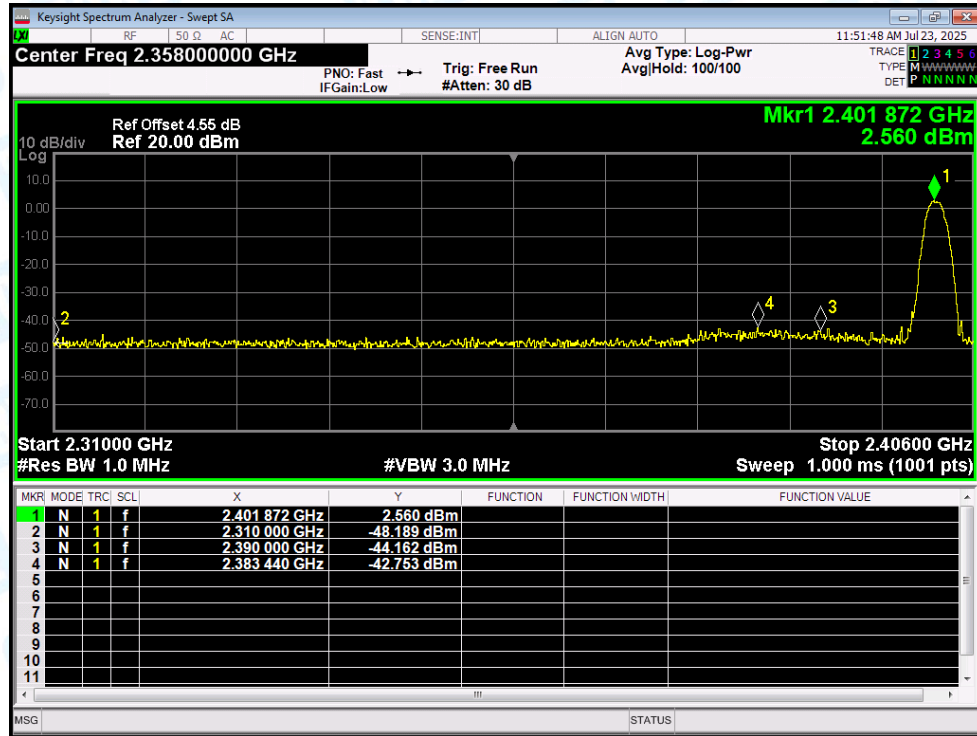
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



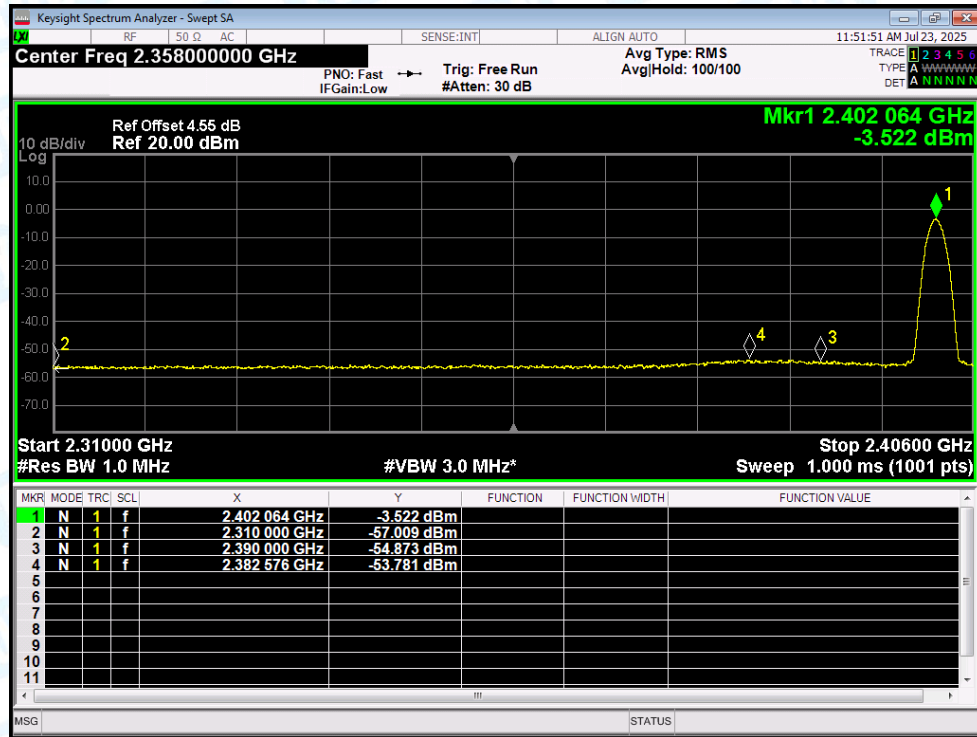
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



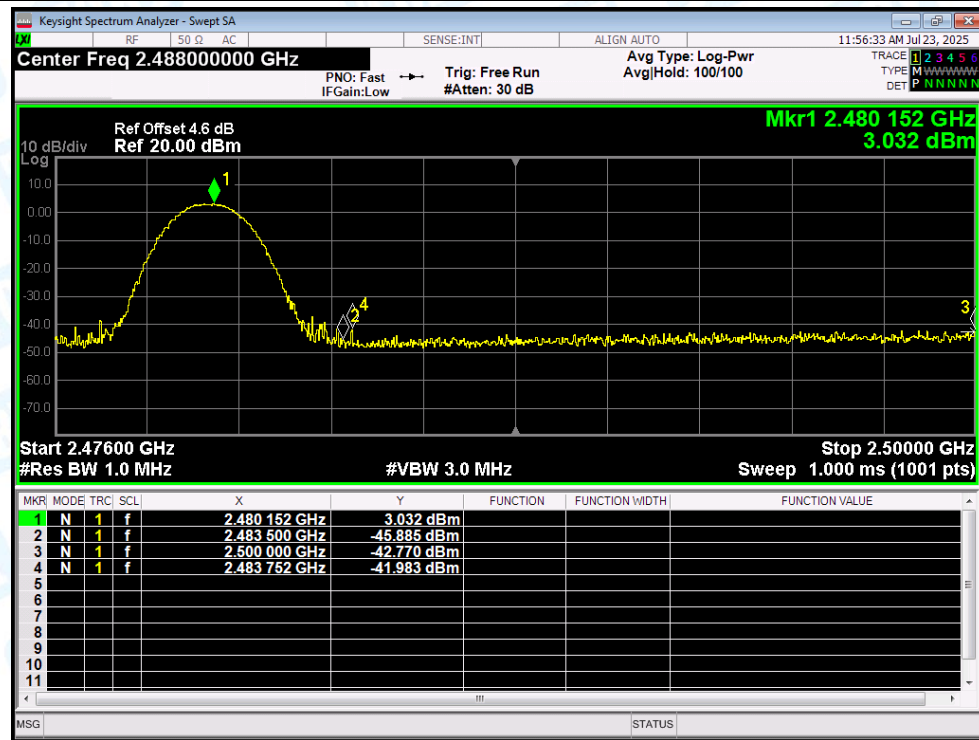
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



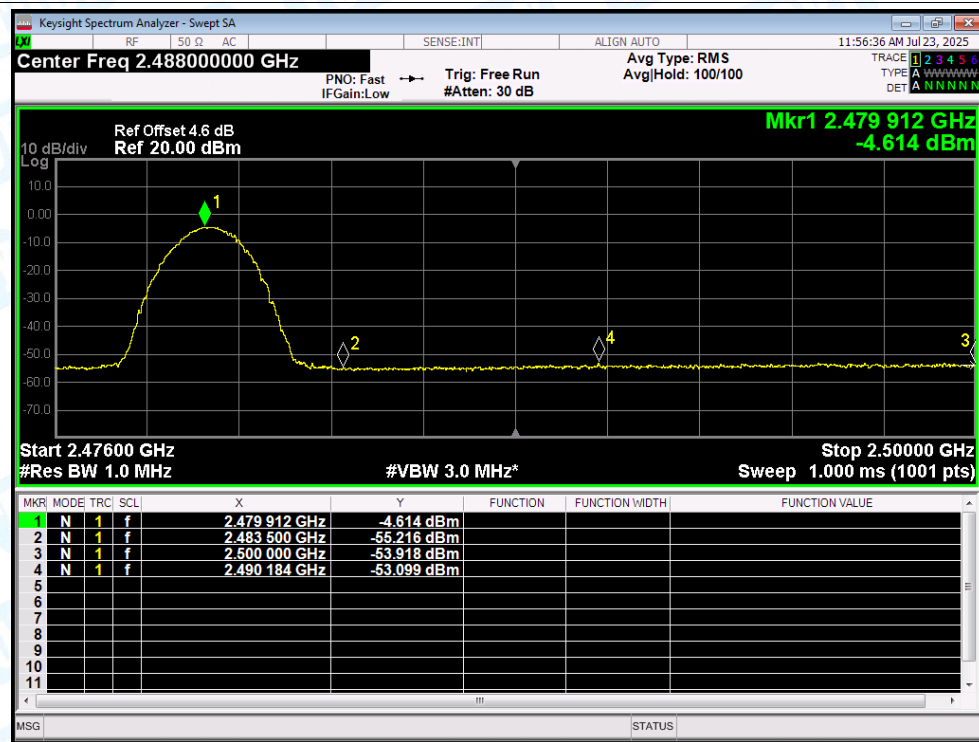
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



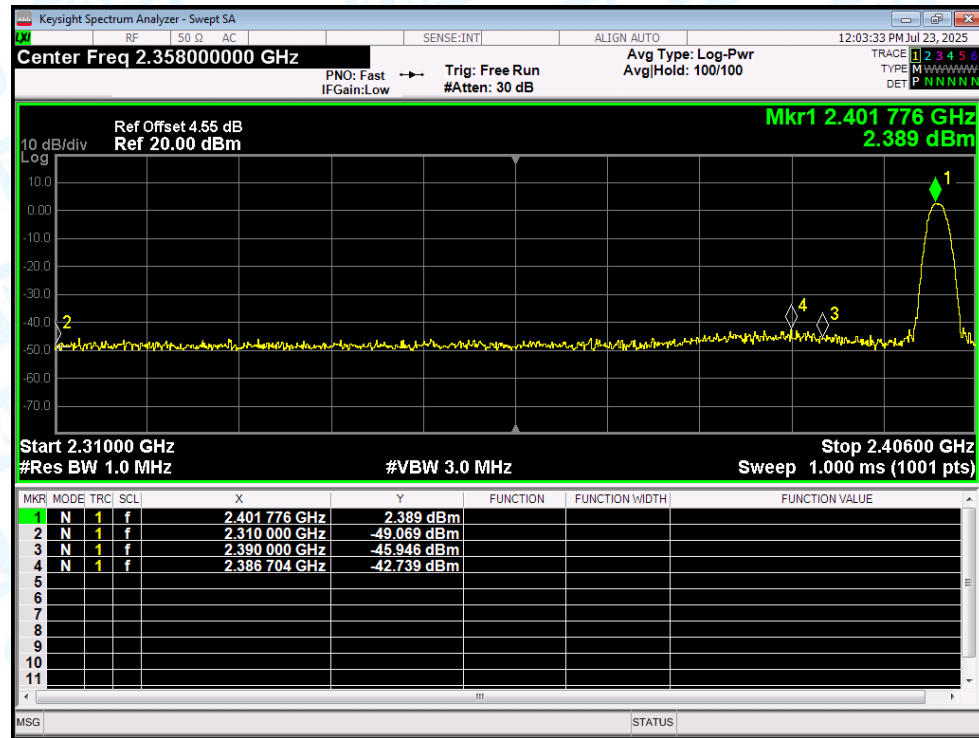
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



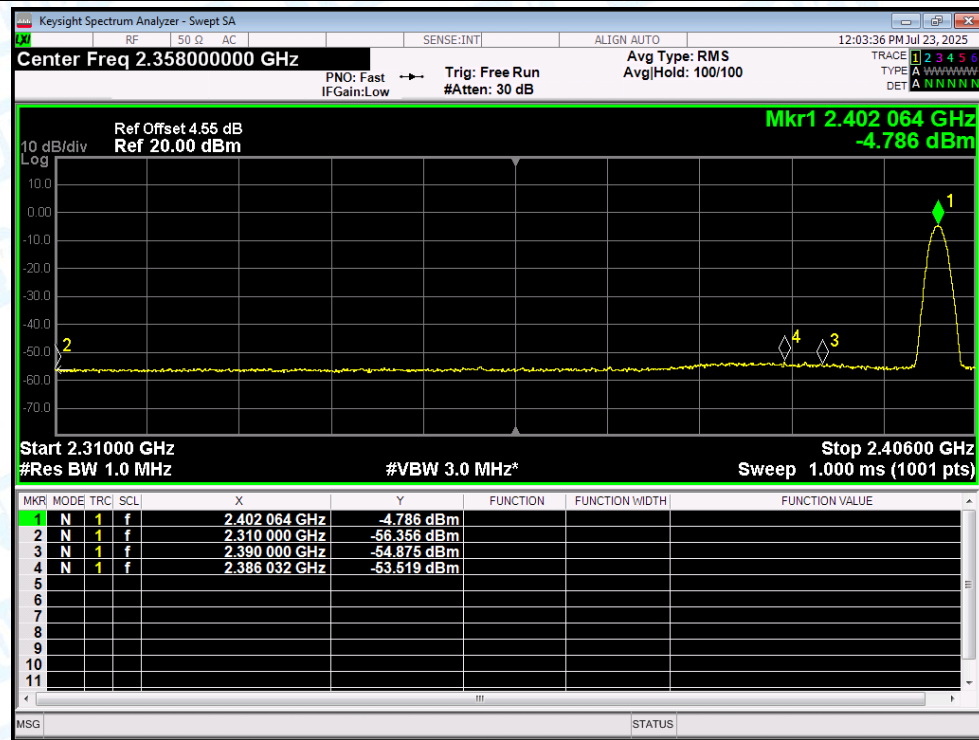
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



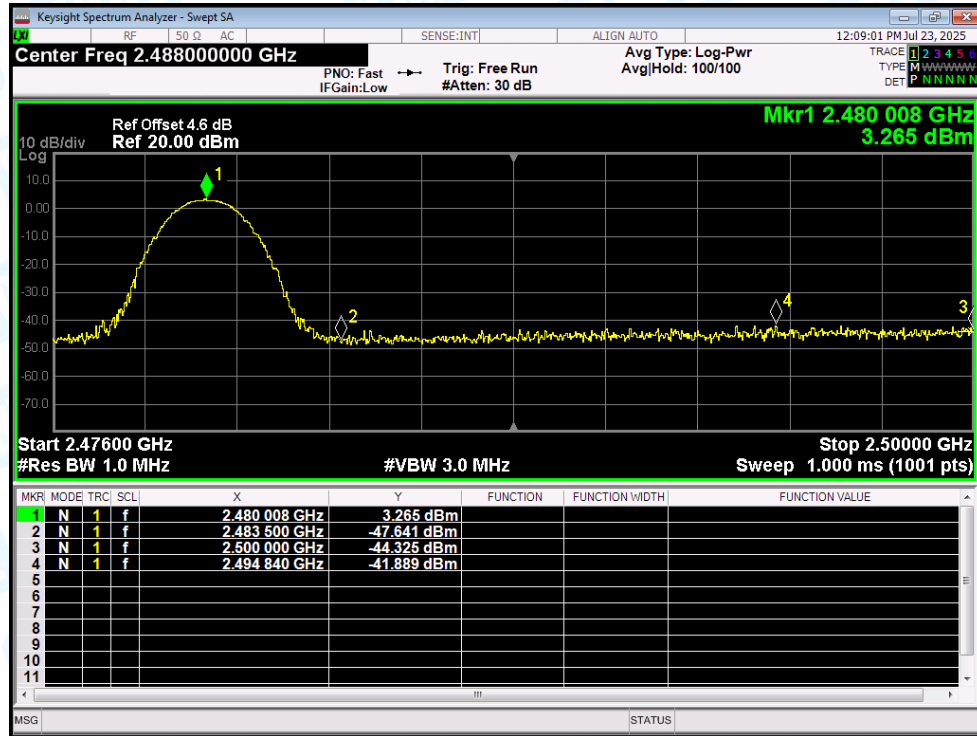
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



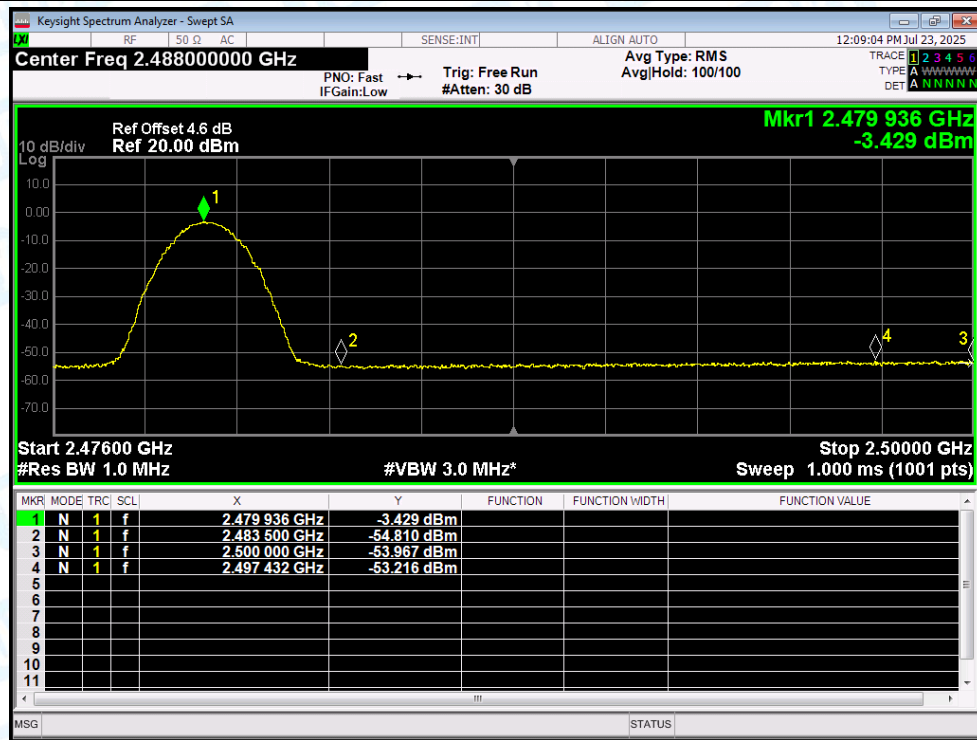
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

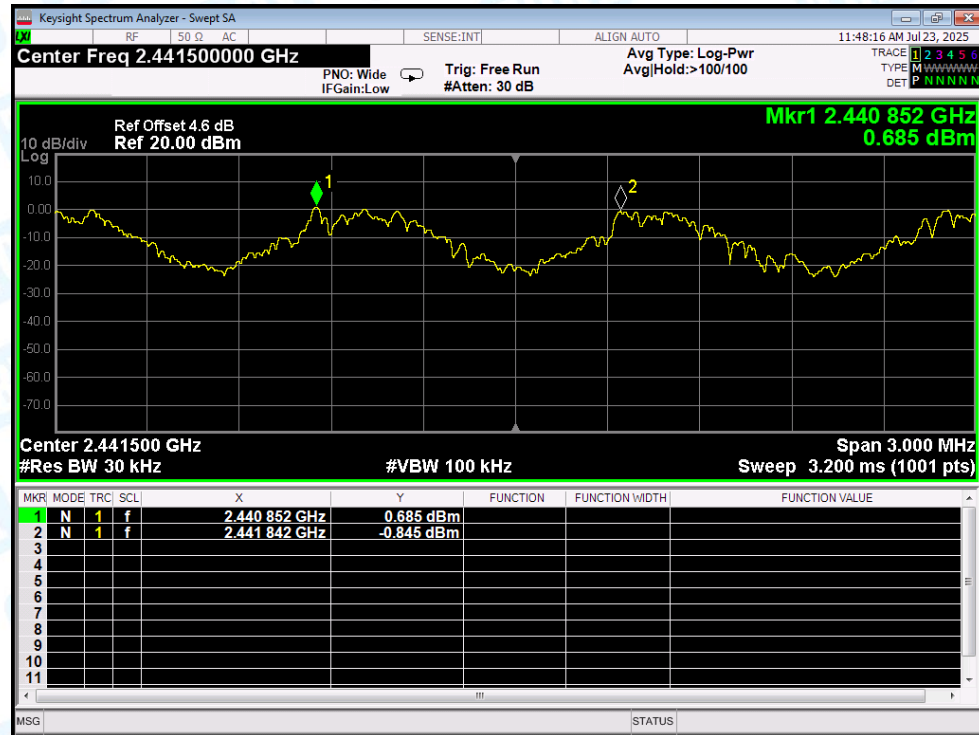


9.Carrier Frequencies Separation

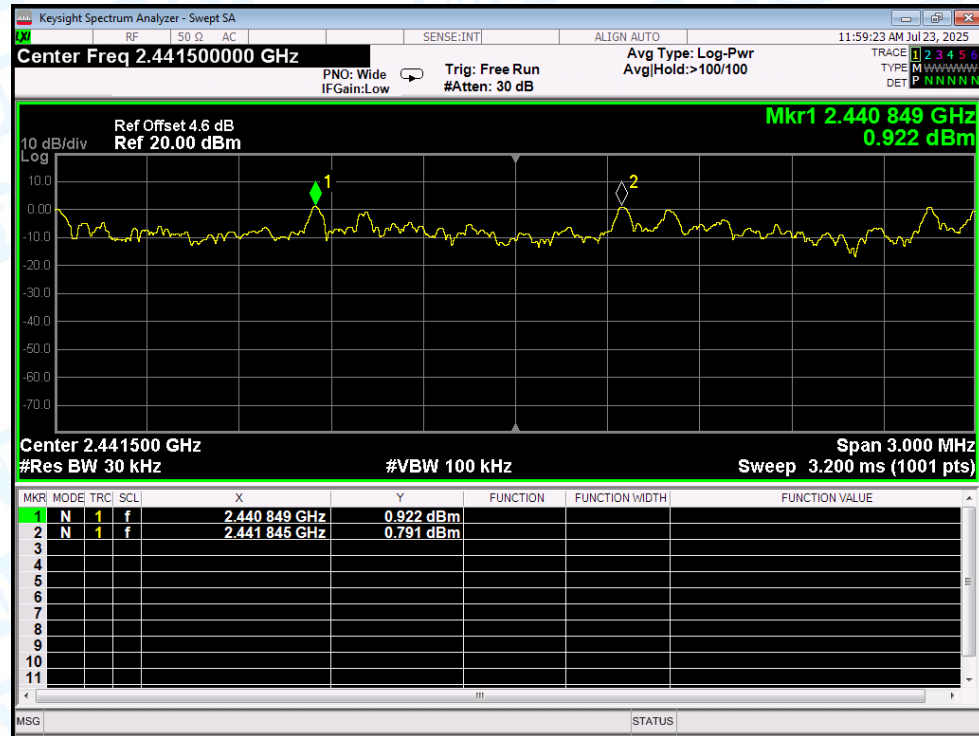
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.852	2441.842	0.99	0.6	Pass
NVNT	2-DH1	Ant1	2440.849	2441.845	0.996	0.853	Pass
NVNT	3-DH1	Ant1	2441.008	2442.004	0.996	0.807	Pass

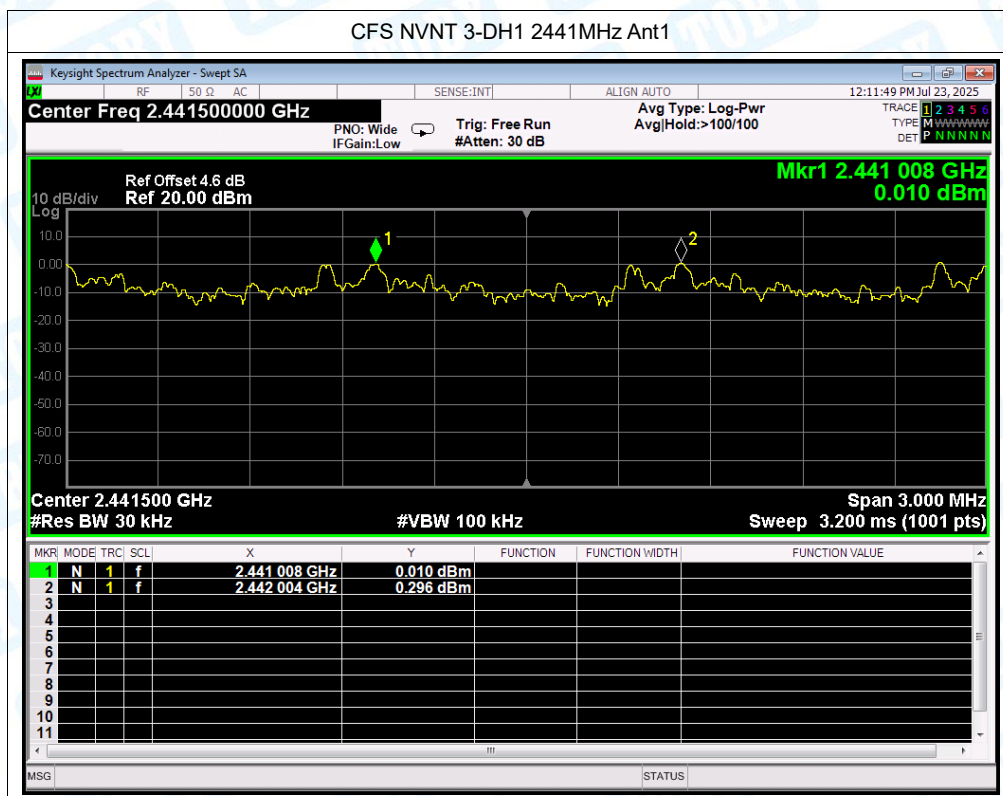
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



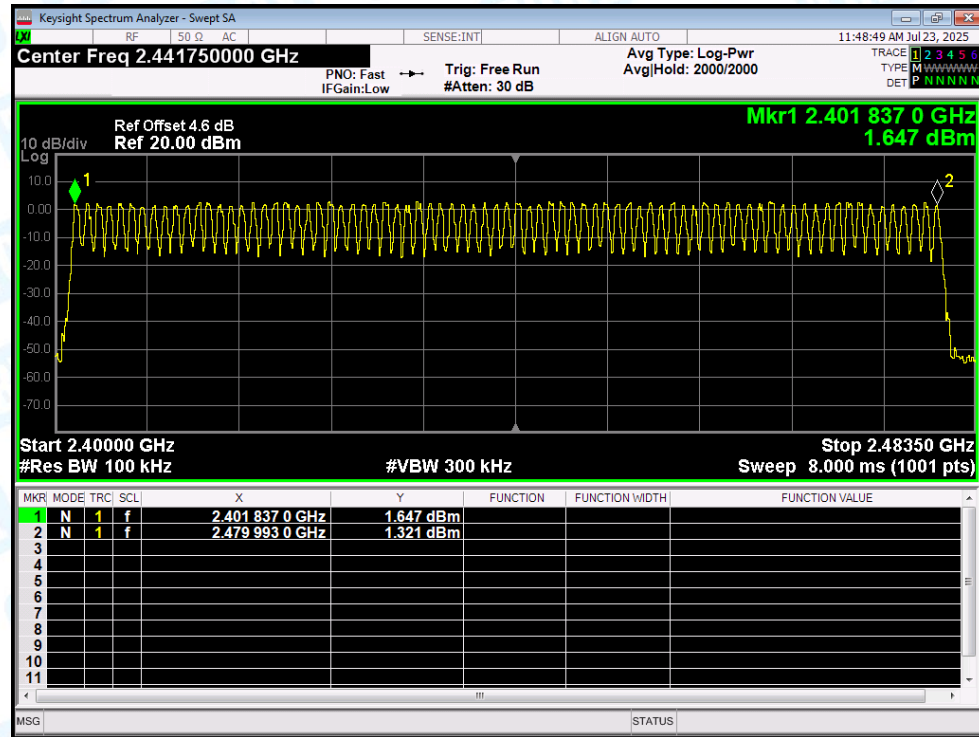


10.Number of Hopping Channel

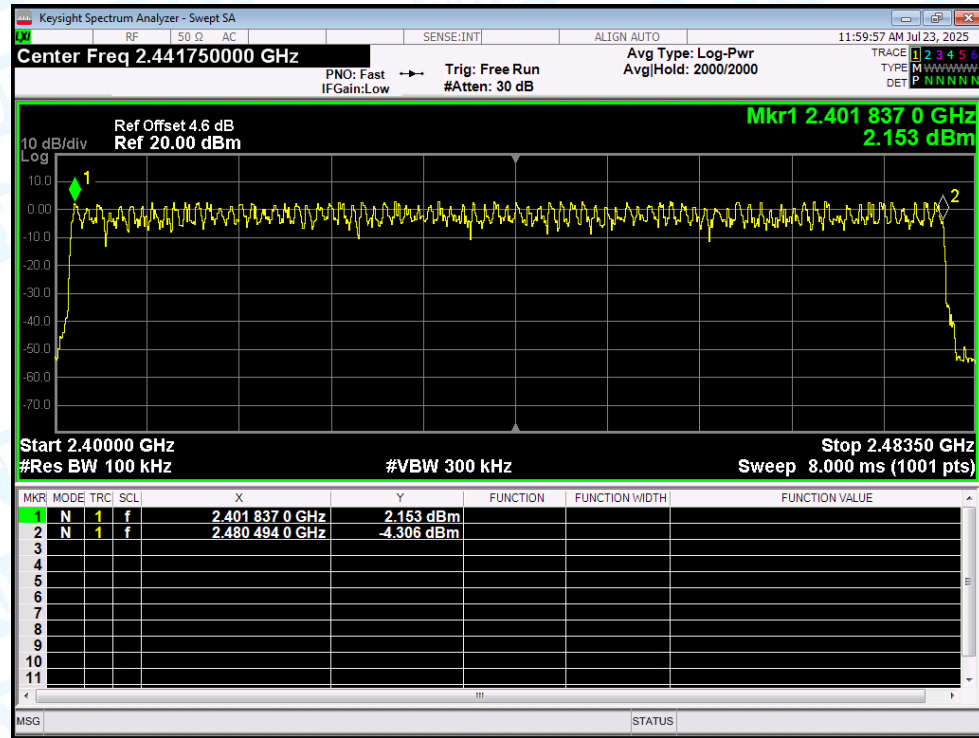
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

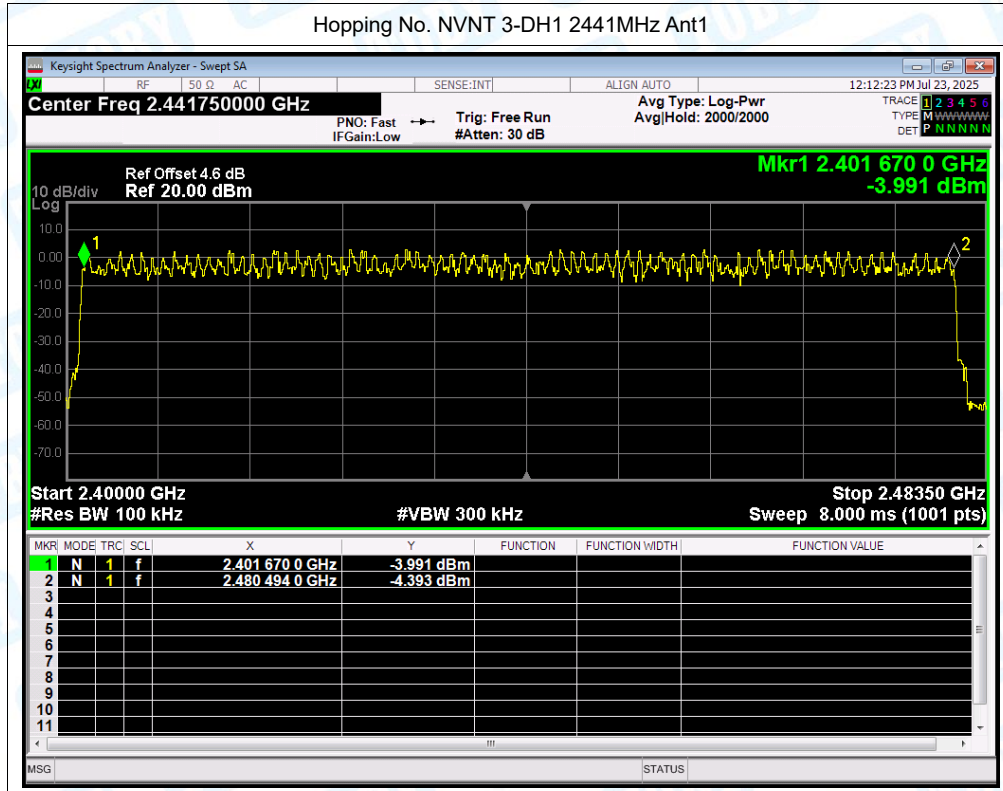
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



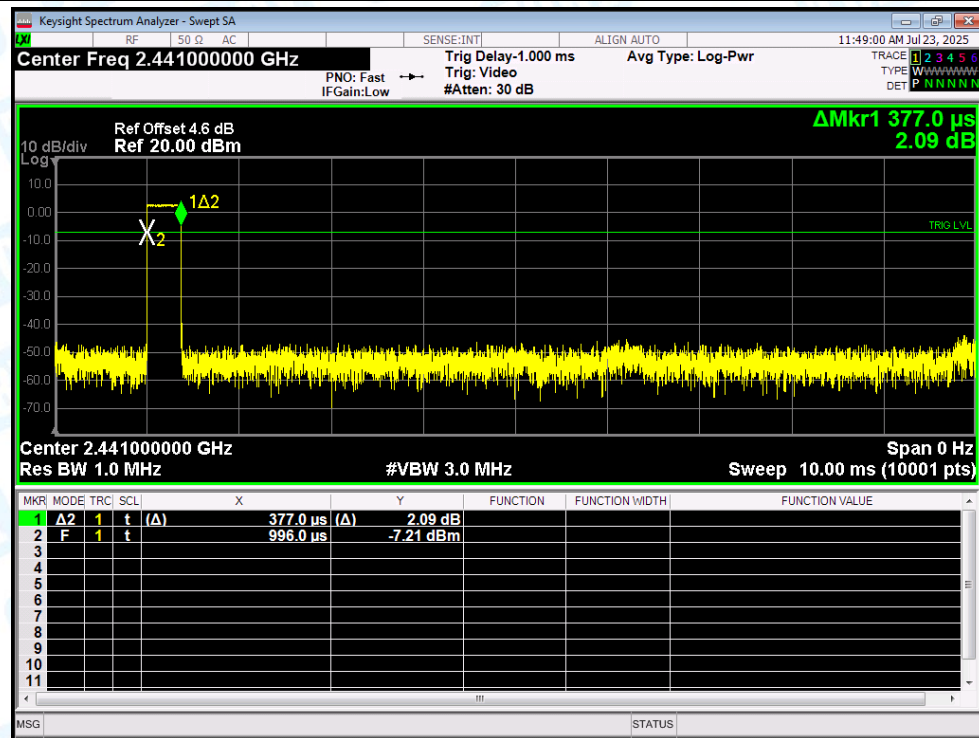


11.Dwell Time

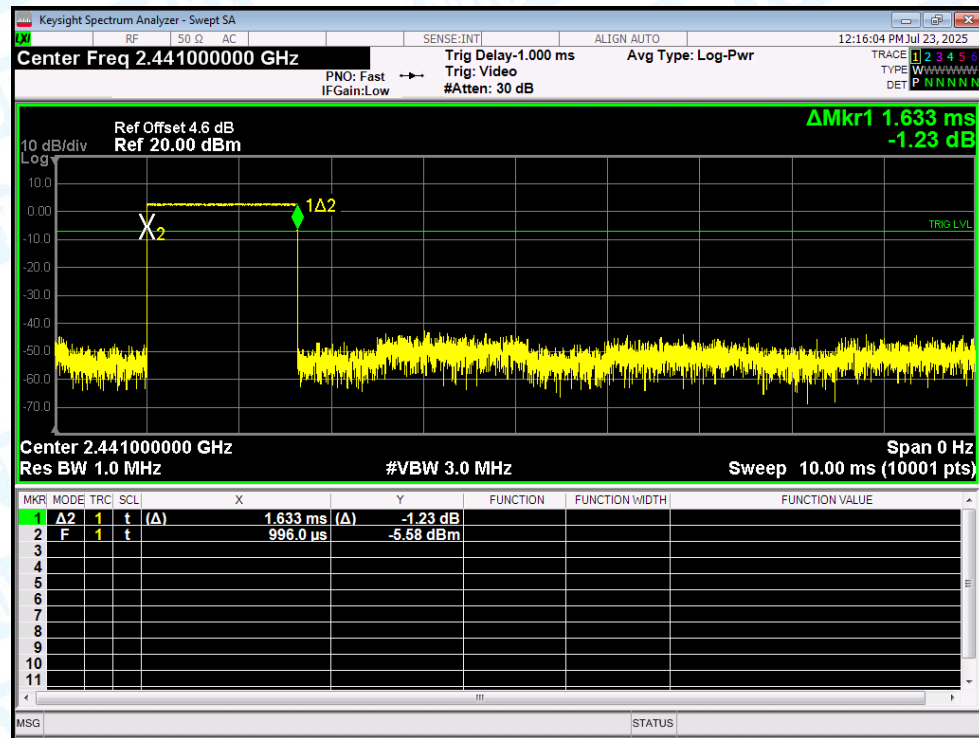
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.377	120.64	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.633	261.28	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.88	307.2	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.386	123.52	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.638	262.08	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.886	307.84	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.386	123.52	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.637	261.92	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.888	308.053	31600	400	Pass

Test Graphs

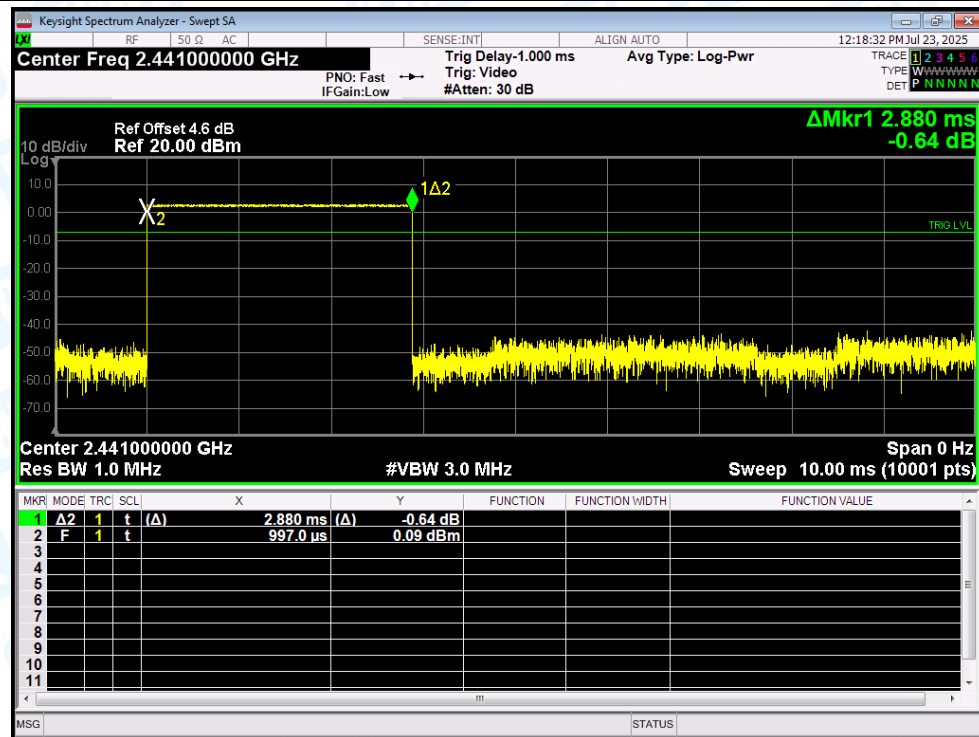
Dwell NVNT 1-DH1 2441MHz Ant1



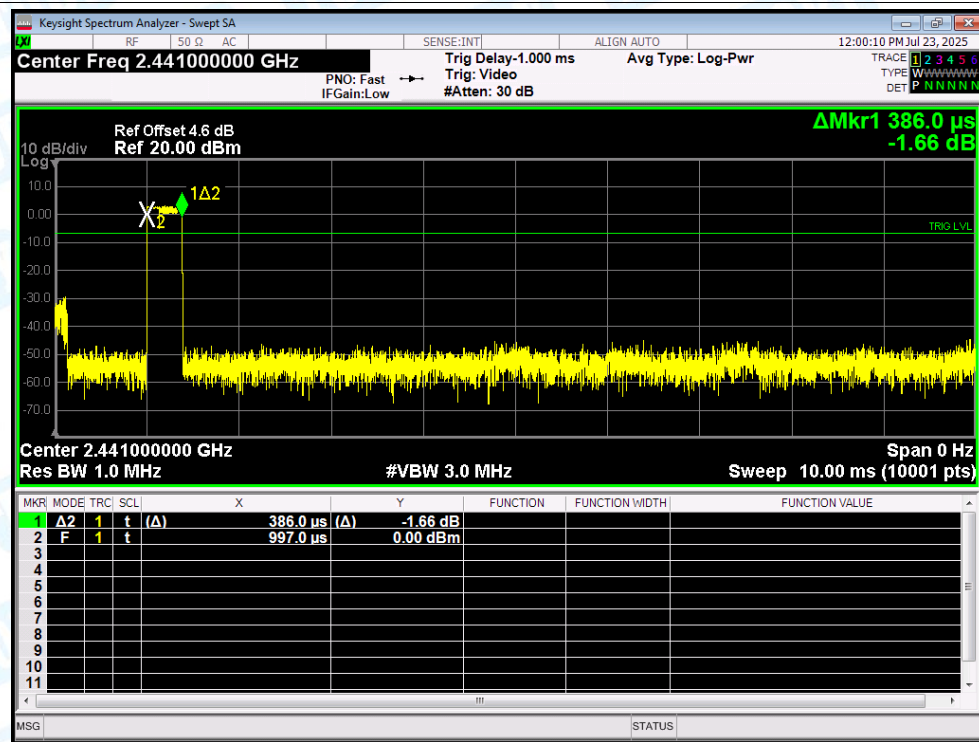
Dwell NVNT 1-DH3 2441MHz Ant1



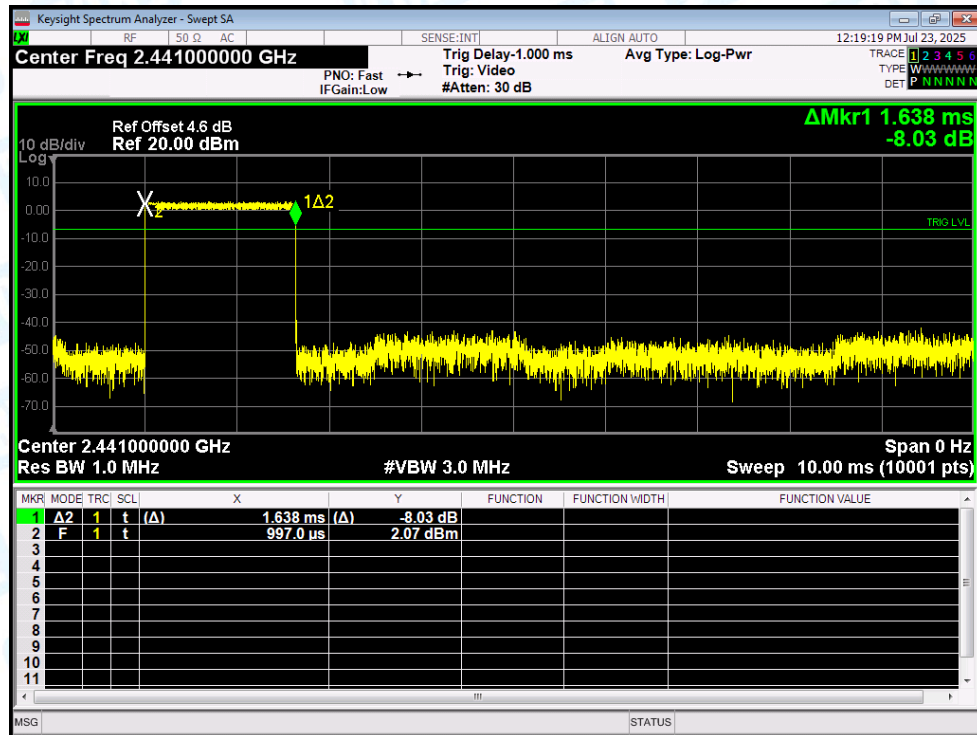
Dwell NVNT 1-DH5 2441MHz Ant1



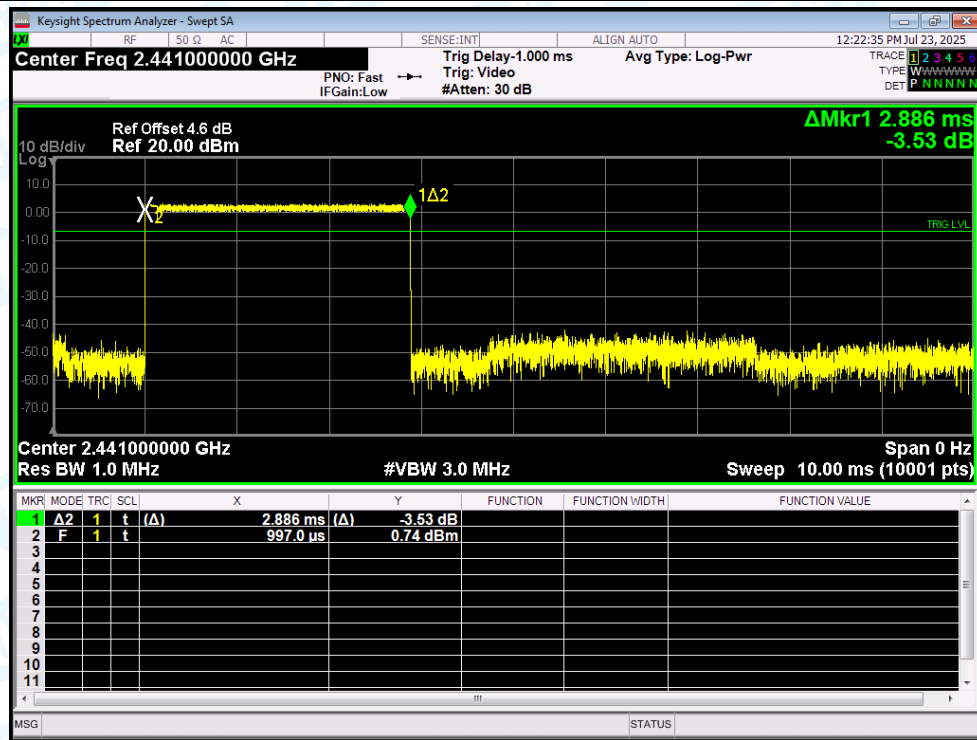
Dwell NVNT 2-DH1 2441MHz Ant1



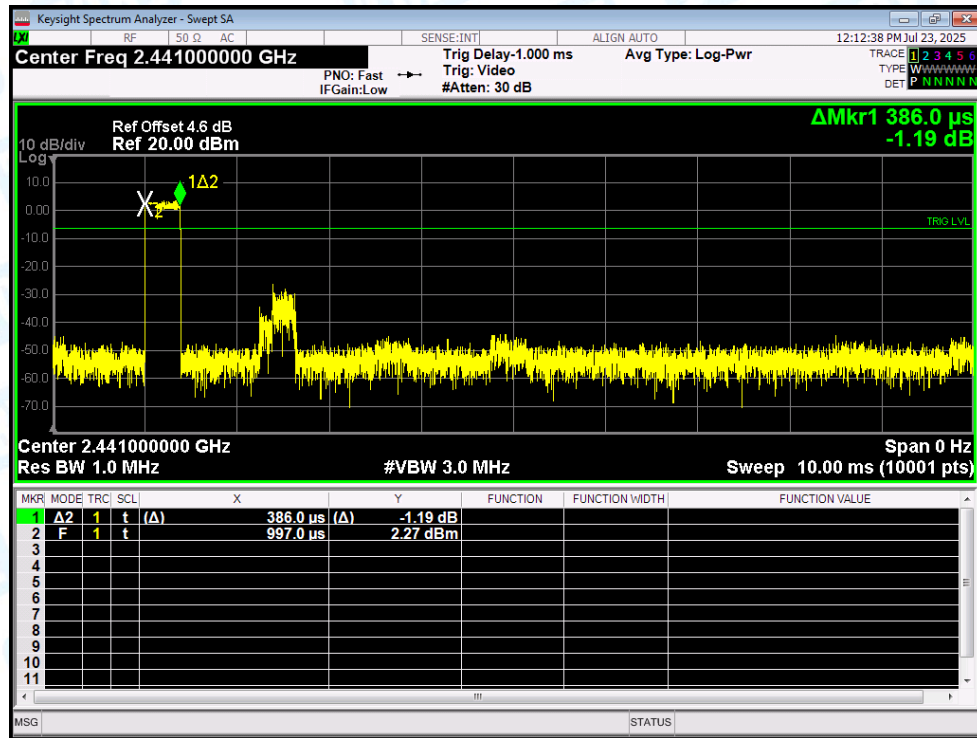
Dwell NVNT 2-DH3 2441MHz Ant1



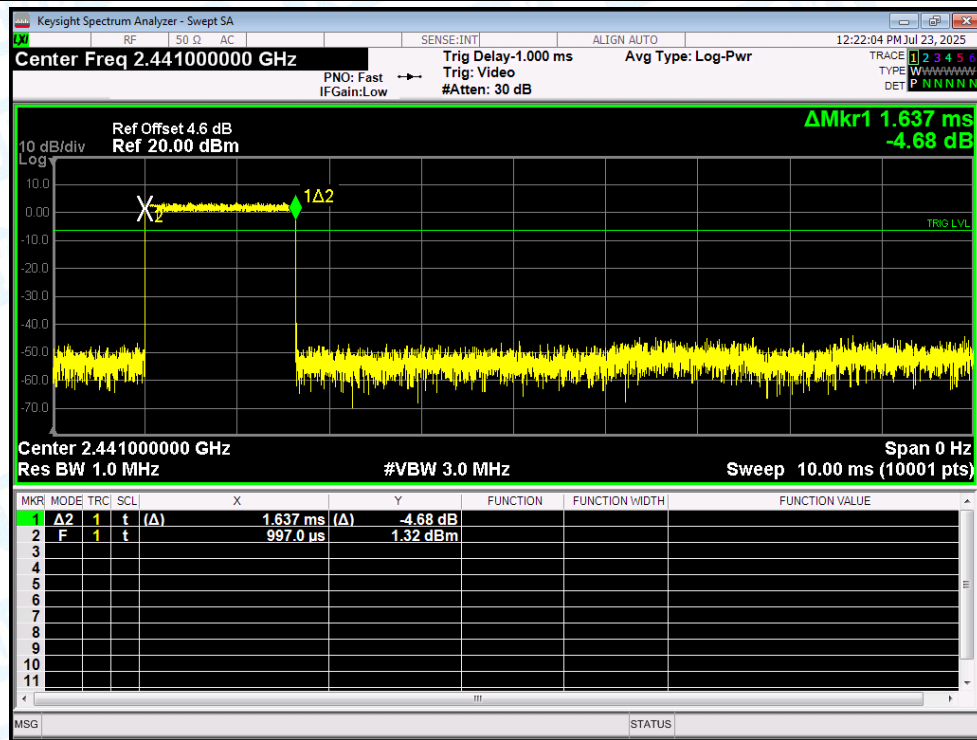
Dwell NVNT 2-DH5 2441MHz Ant1

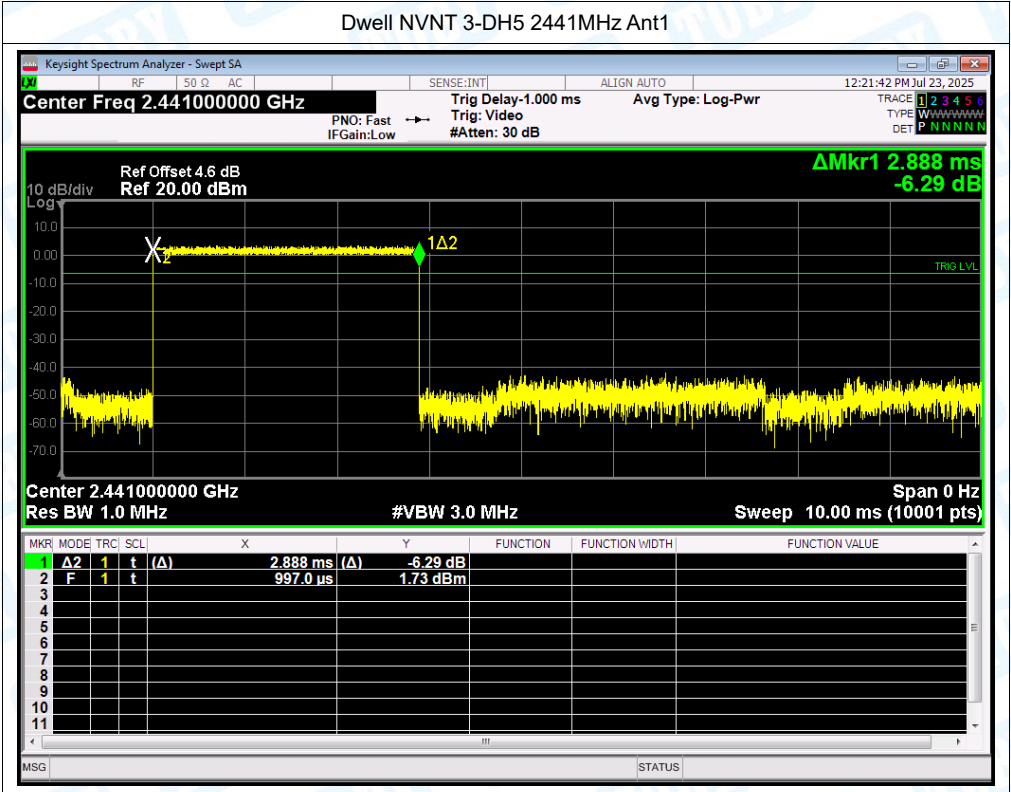


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





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