

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	White Noise Machine
Test Model:	HFD-W28
Sample ID:	HC-C-202607-0097-01-01
Environmental Conditions	
Temperature:	24.3℃
Relative Humidity:	50%
Test Voltage:	DC 5V
Test Engineer:	Lily Zhang
Note: For a more detailed features description, please refer to the report TBR-C-202607-0097-2 The report only show the worst case data.	

Contents

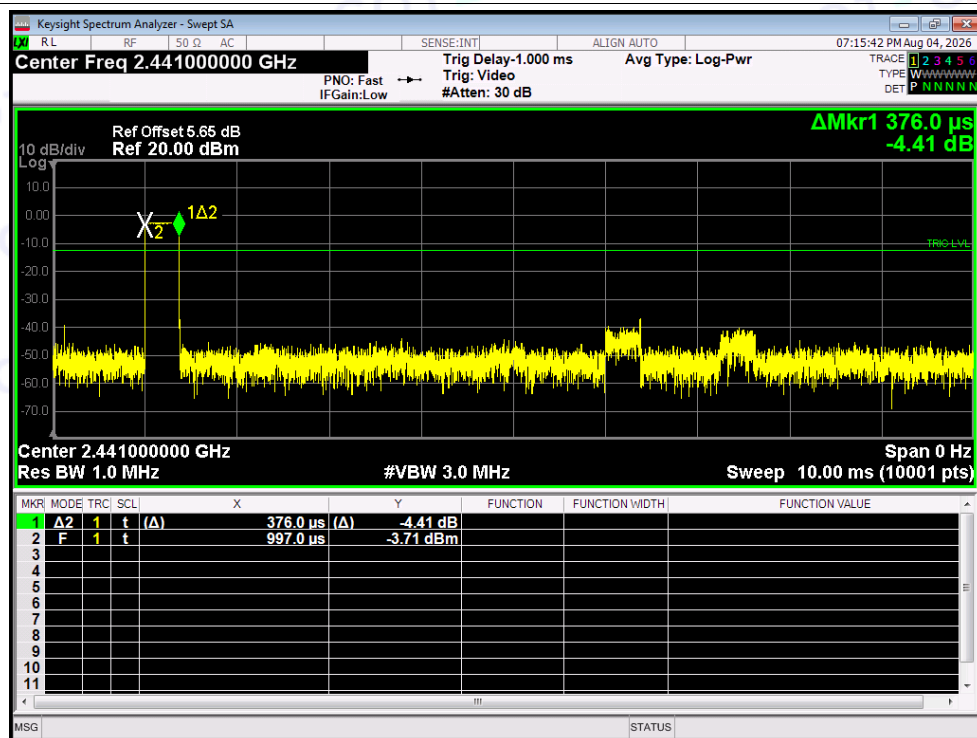
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Dwell Time

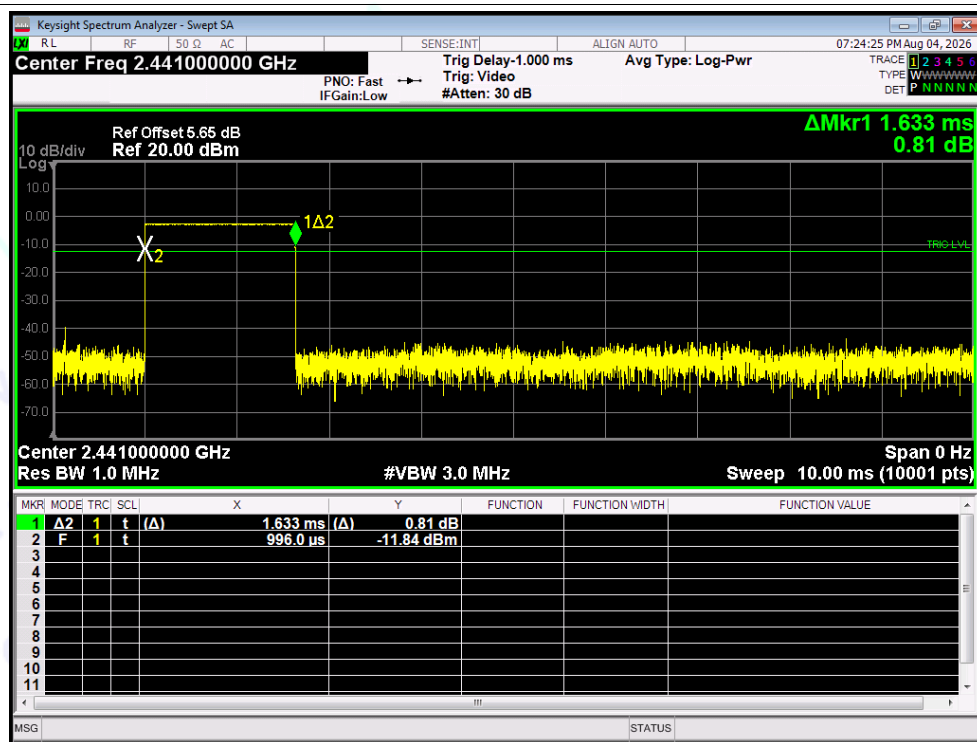
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.376	120.32	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.633	261.28	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.88	307.2	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.386	123.52	31600	400	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	0.387	123.84	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

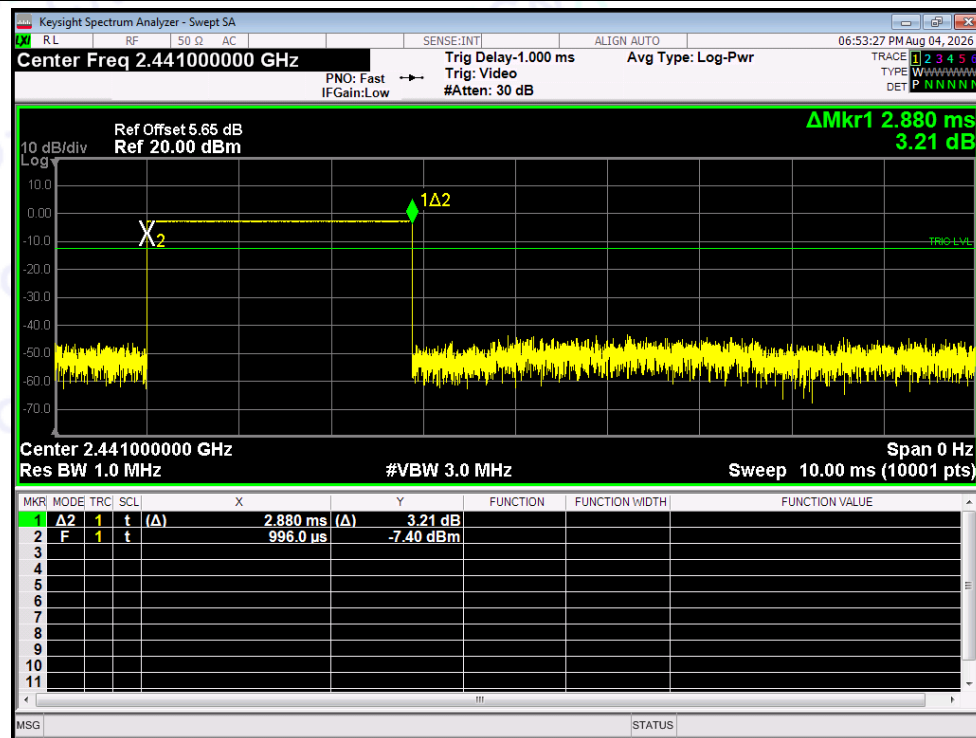
Dwell NVNT 1-DH1 2441MHz Ant1



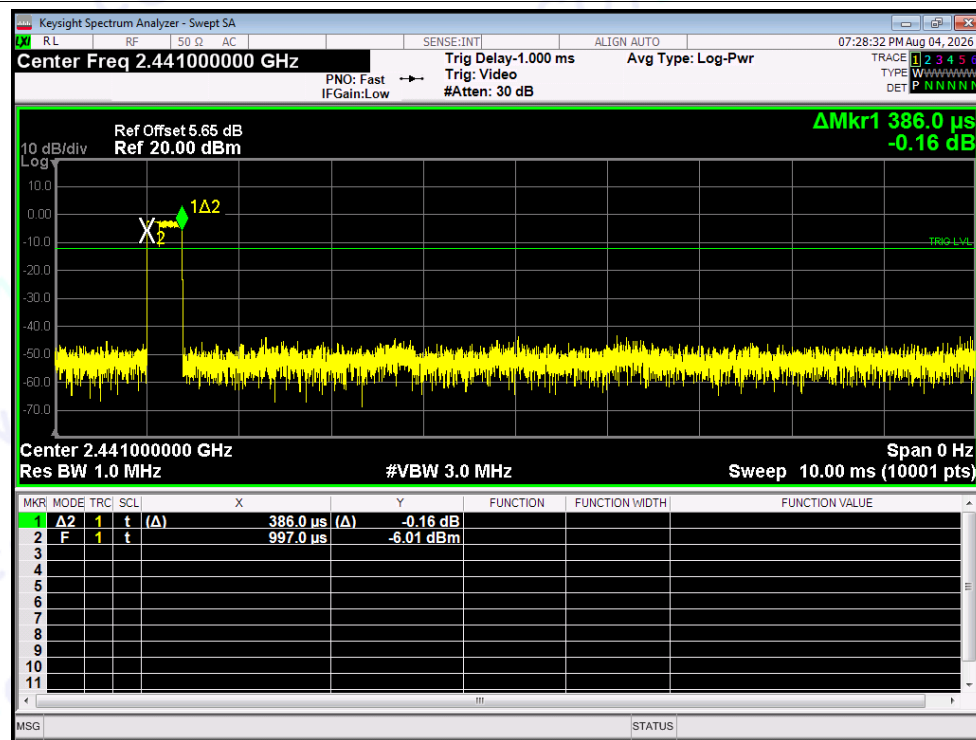
Dwell NVNT 1-DH3 2441MHz Ant1



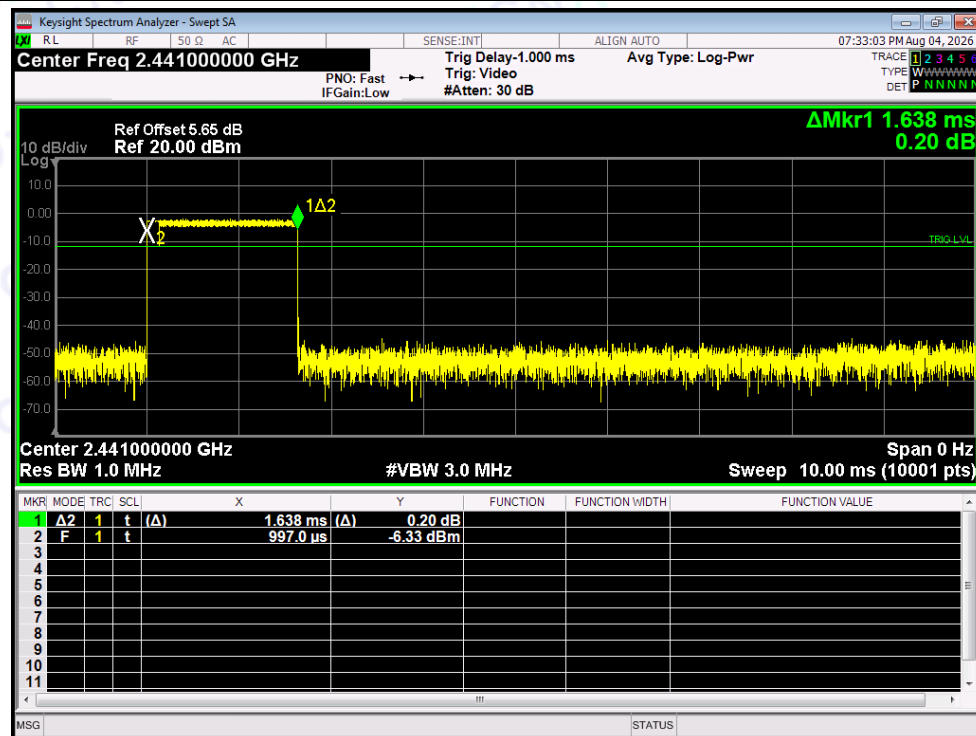
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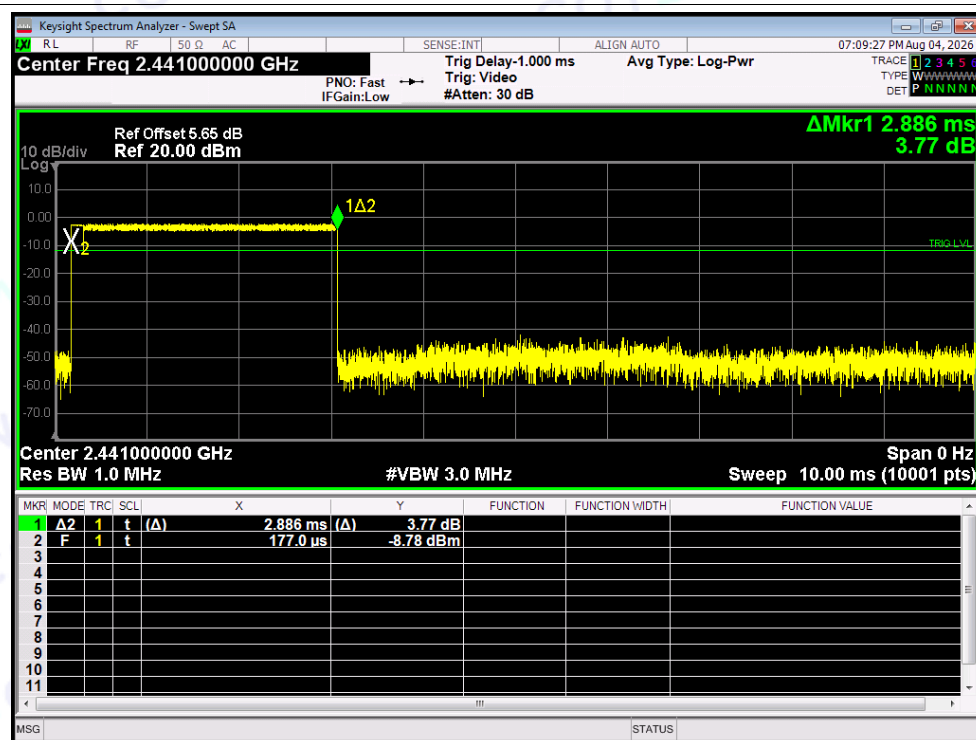
Dwell NVNT 2-DH1 2441MHz Ant1



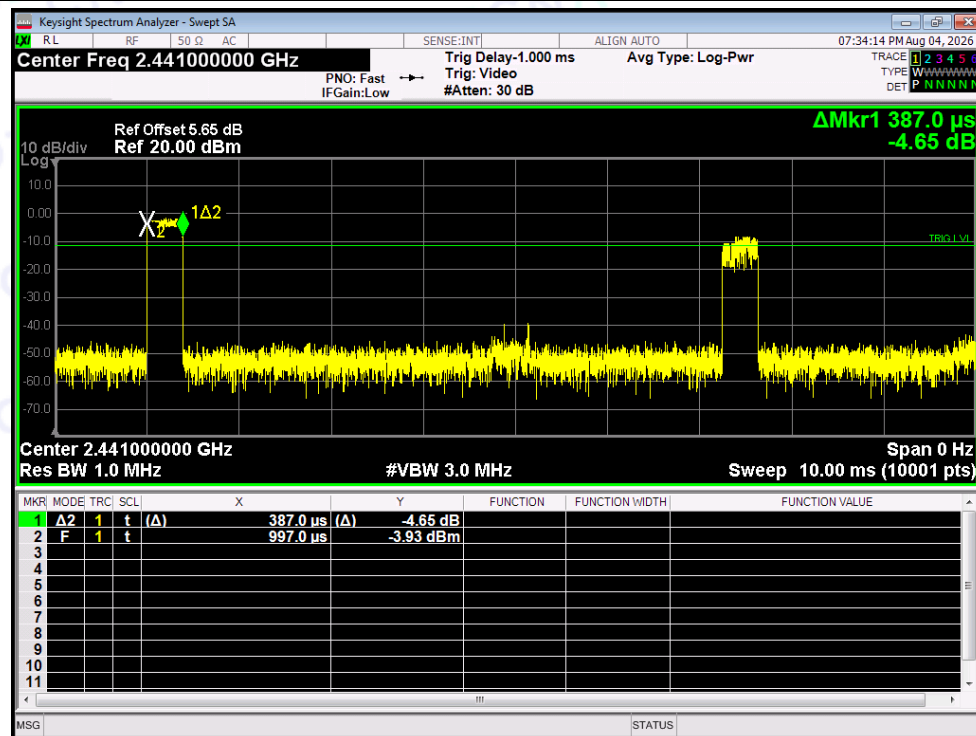
Dwell NVNT 2-DH3 2441MHz Ant1



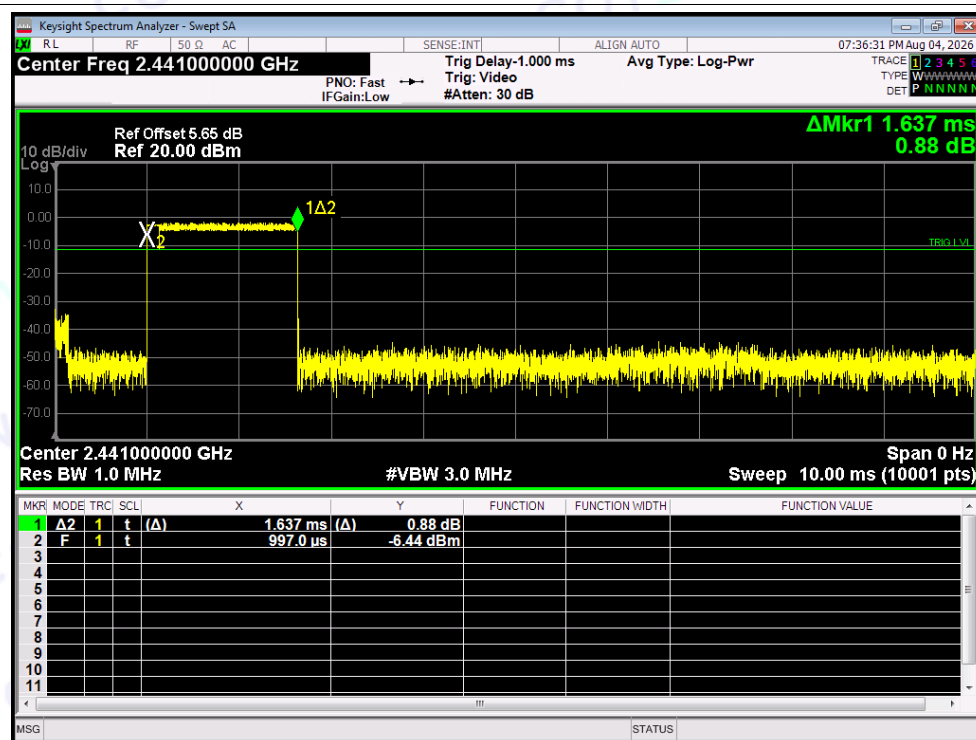
Dwell NVNT 2-DH5 2441MHz Ant1

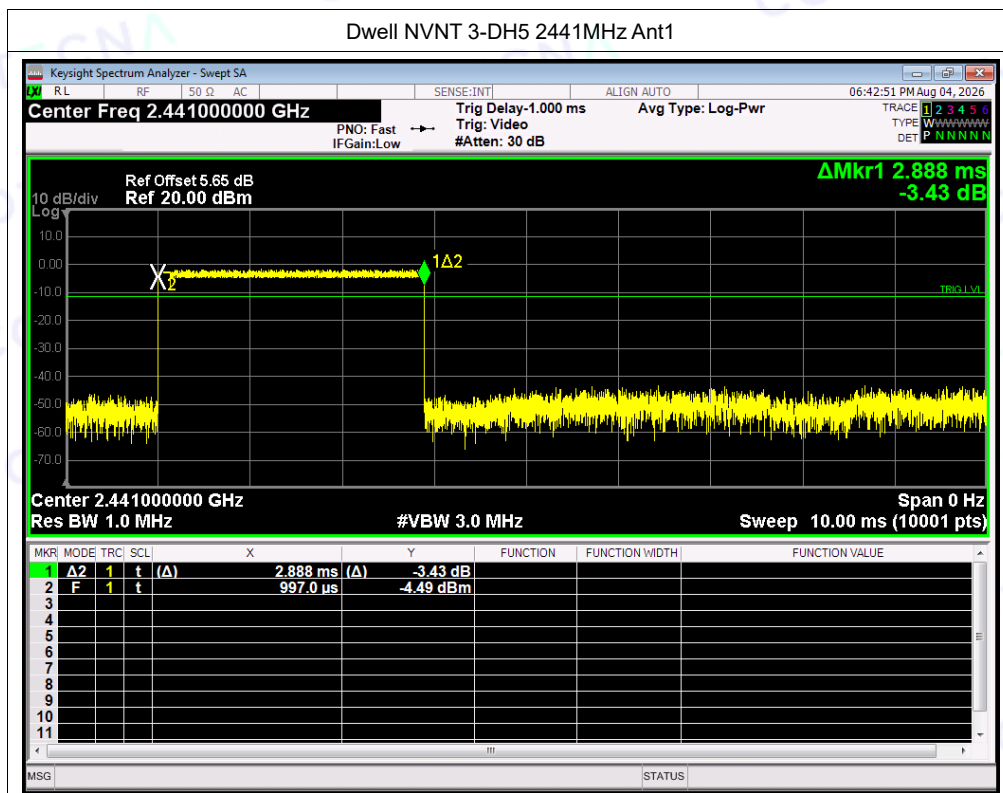


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1



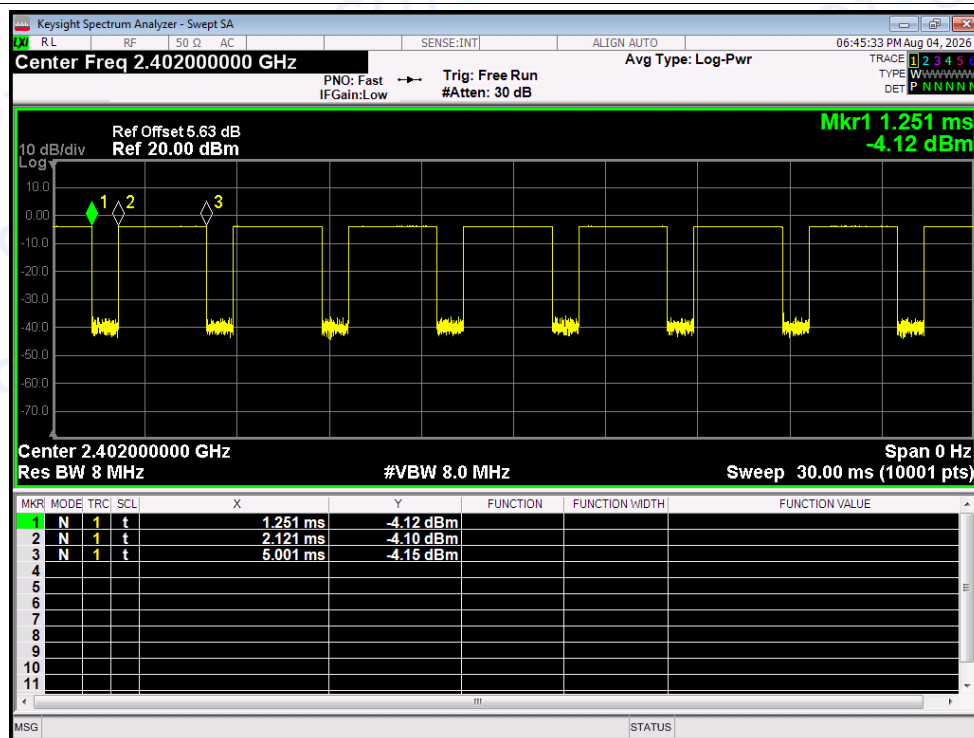


Duty Cycle

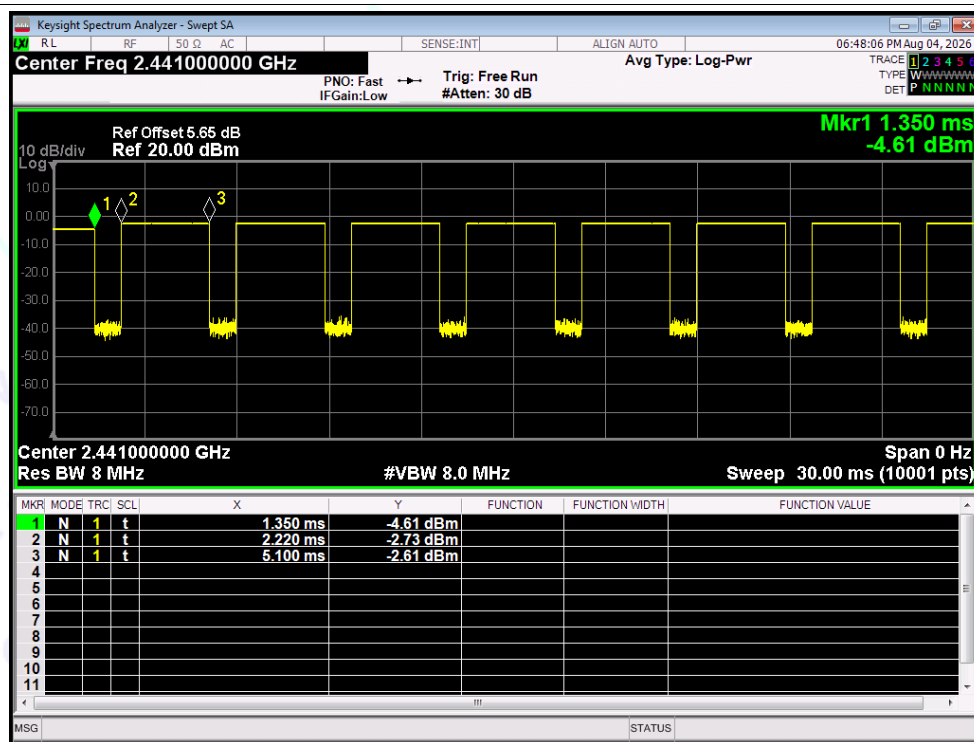
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	76.8	1.15	0.35
NVNT	1-DH5	2441	Ant1	76.8	1.15	0.35
NVNT	1-DH5	2480	Ant1	76.82	1.15	0.35
NVNT	2-DH5	2402	Ant1	76.96	1.14	0.35
NVNT	2-DH5	2441	Ant1	77.04	1.13	0.35
NVNT	2-DH5	2480	Ant1	77.04	1.13	0.35
NVNT	3-DH5	2402	Ant1	77.04	1.13	0.35
NVNT	3-DH5	2441	Ant1	77.04	1.13	0.35
NVNT	3-DH5	2480	Ant1	77.04	1.13	0.35

Test Graphs

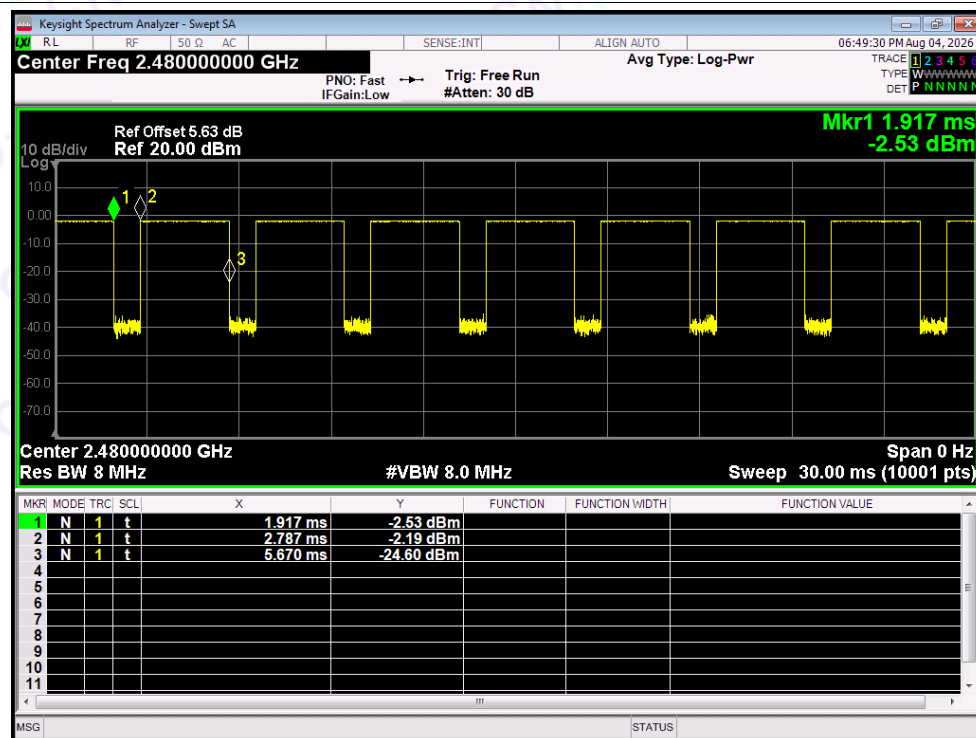
Duty Cycle NVNT 1-DH5 2402MHz Ant1



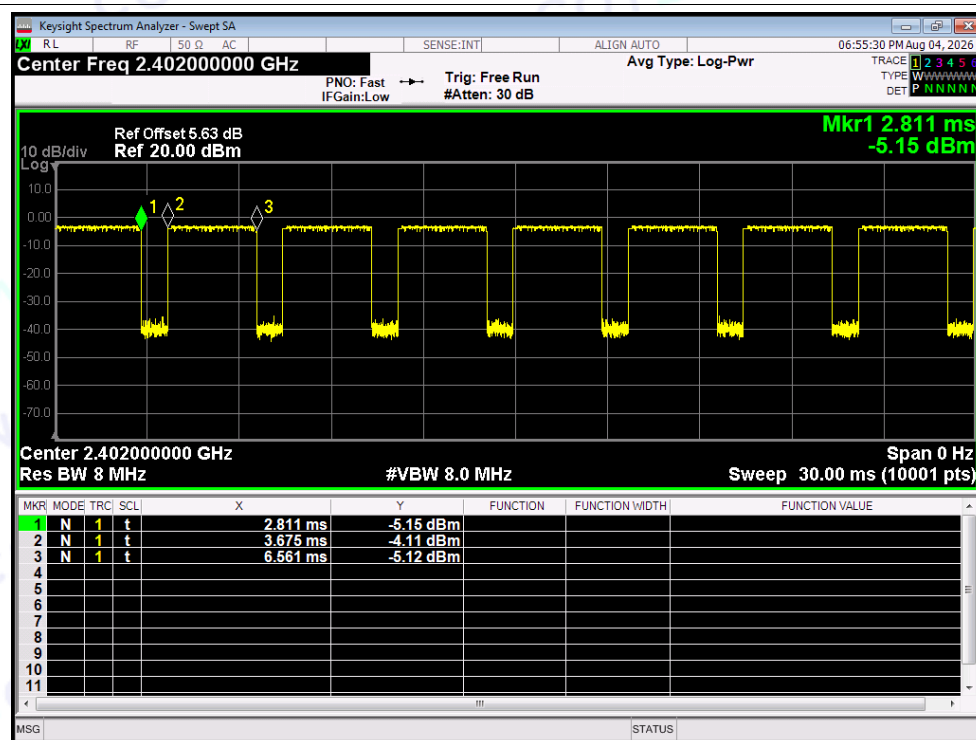
Duty Cycle NVNT 1-DH5 2441MHz Ant1



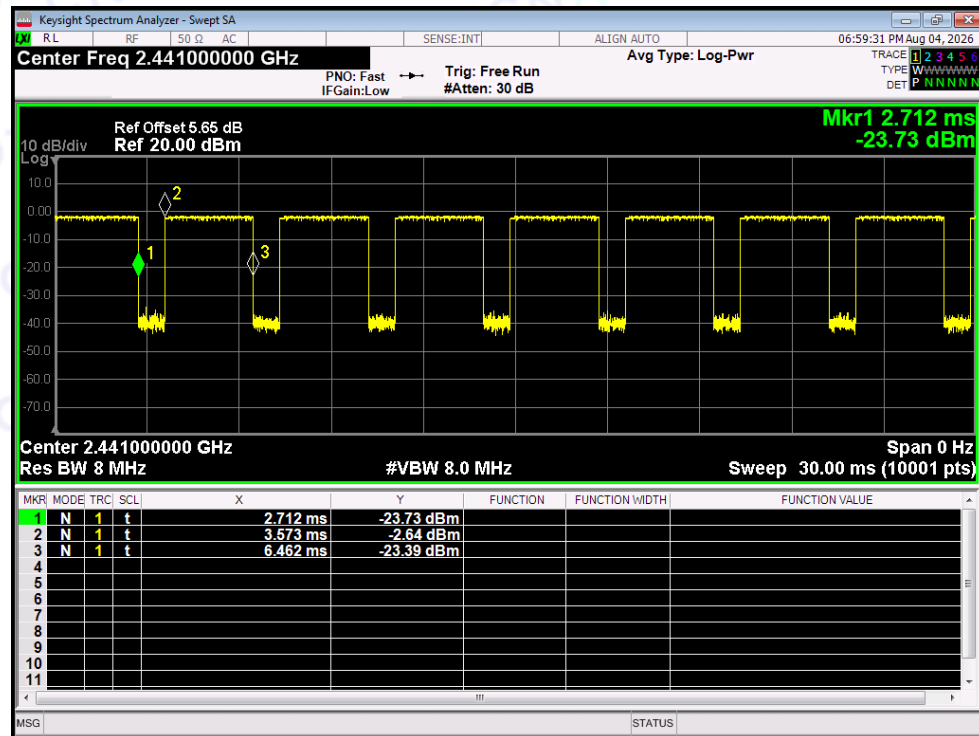
Duty Cycle NVNT 1-DH5 2480MHz Ant1



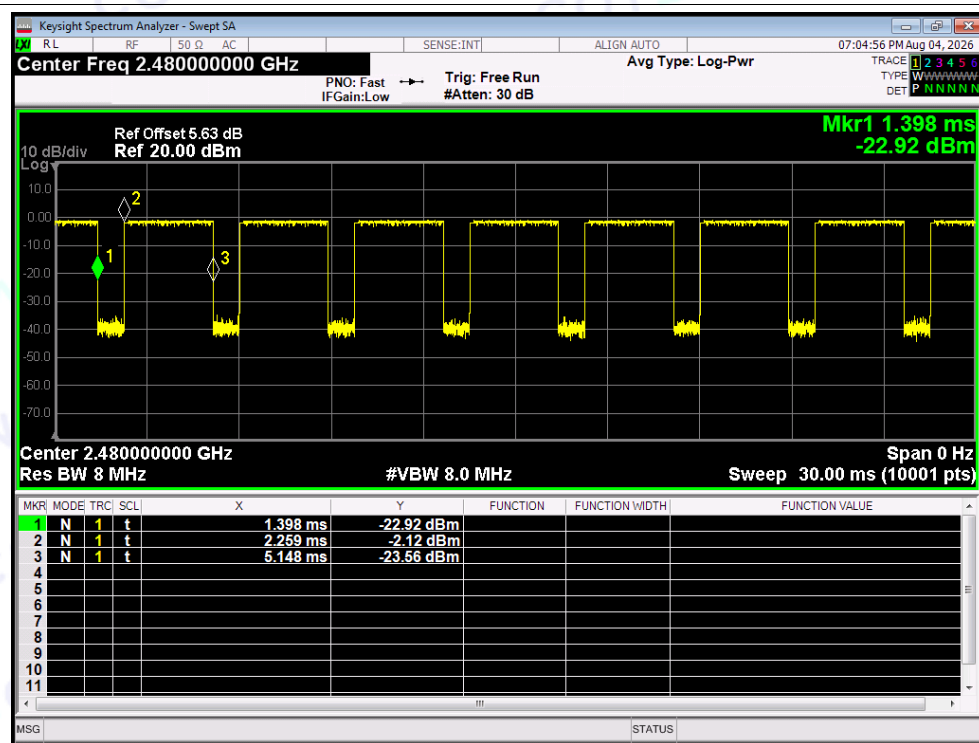
Duty Cycle NVNT 2-DH5 2402MHz Ant1



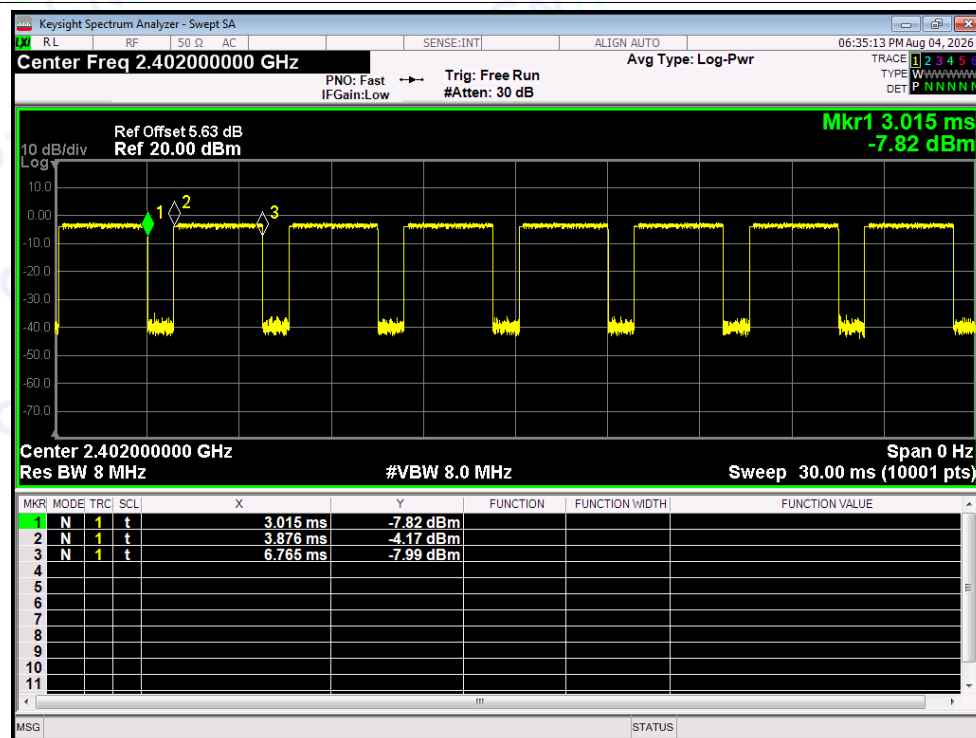
Duty Cycle NVNT 2-DH5 2441MHz Ant1



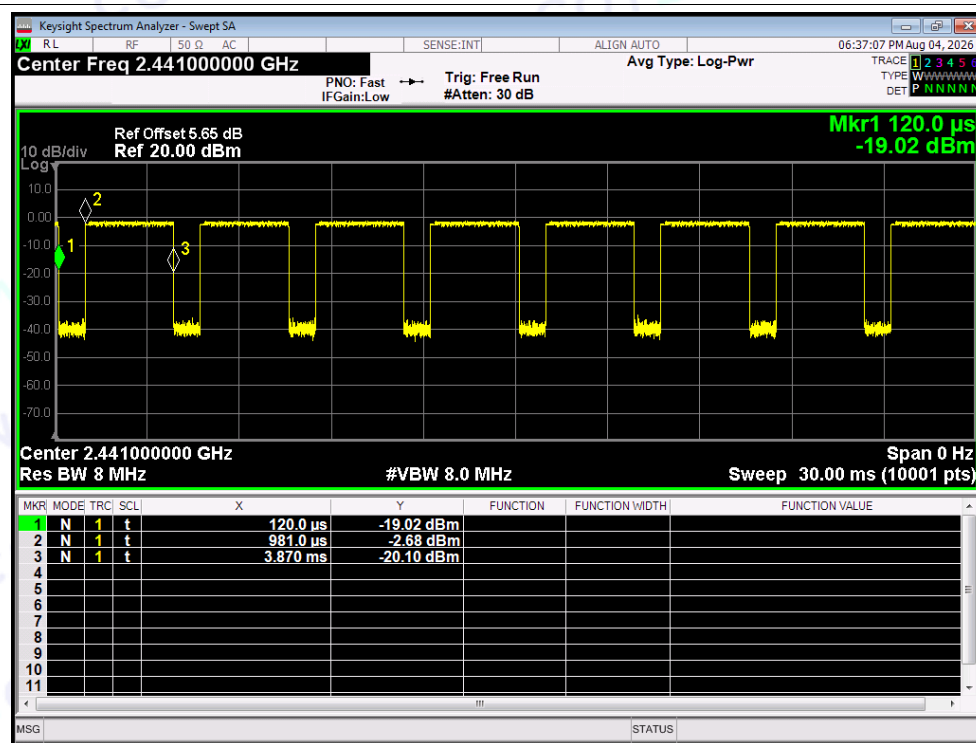
Duty Cycle NVNT 2-DH5 2480MHz Ant1

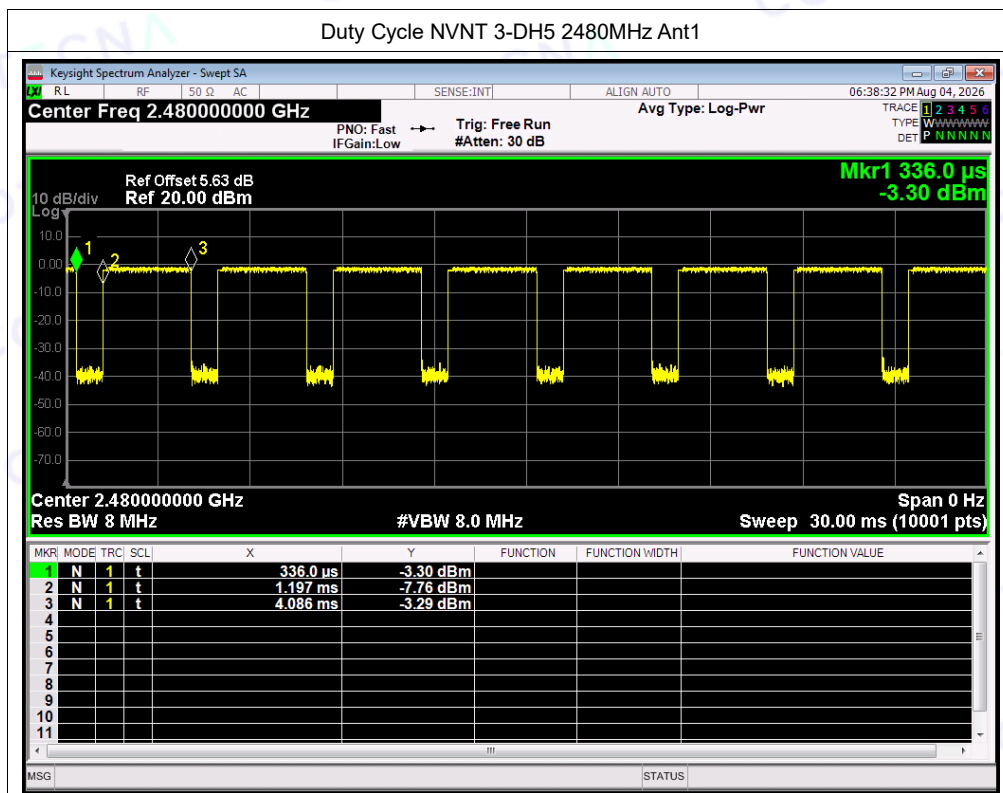


Duty Cycle NVNT 3-DH5 2402MHz Ant1



Duty Cycle NVNT 3-DH5 2441MHz Ant1



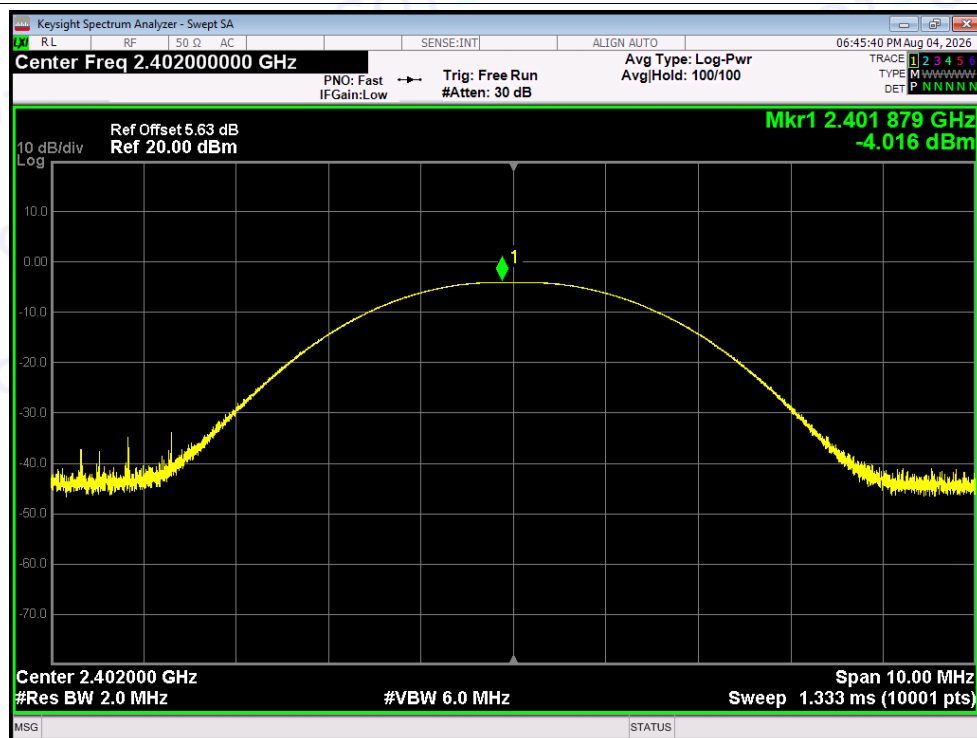


Maximum Conducted Output Power

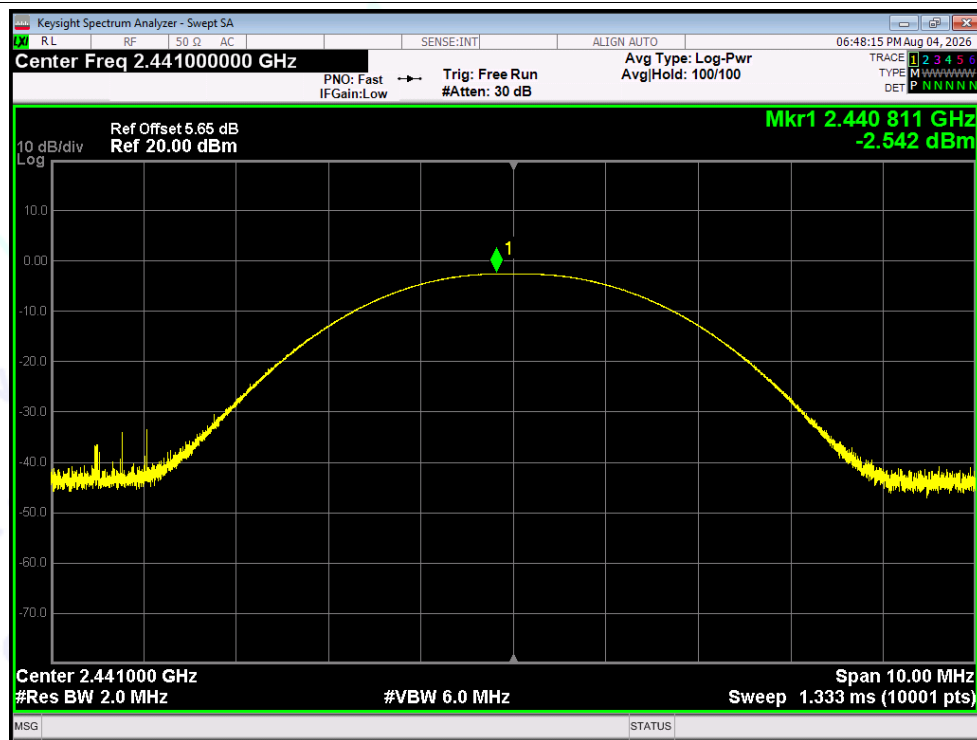
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	-4.016	-4.016	21	Pass
NVNT	1-DH5	2441	Ant1	-2.542	-2.542	21	Pass
NVNT	1-DH5	2480	Ant1	-2.16	-2.16	21	Pass
NVNT	2-DH5	2402	Ant1	-3.28	-3.28	21	Pass
NVNT	2-DH5	2441	Ant1	-1.786	-1.786	21	Pass
NVNT	2-DH5	2480	Ant1	-1.356	-1.356	21	Pass
NVNT	3-DH5	2402	Ant1	-2.952	-2.952	21	Pass
NVNT	3-DH5	2441	Ant1	-1.561	-1.561	21	Pass
NVNT	3-DH5	2480	Ant1	-1.014	-1.014	21	Pass

Test Graphs

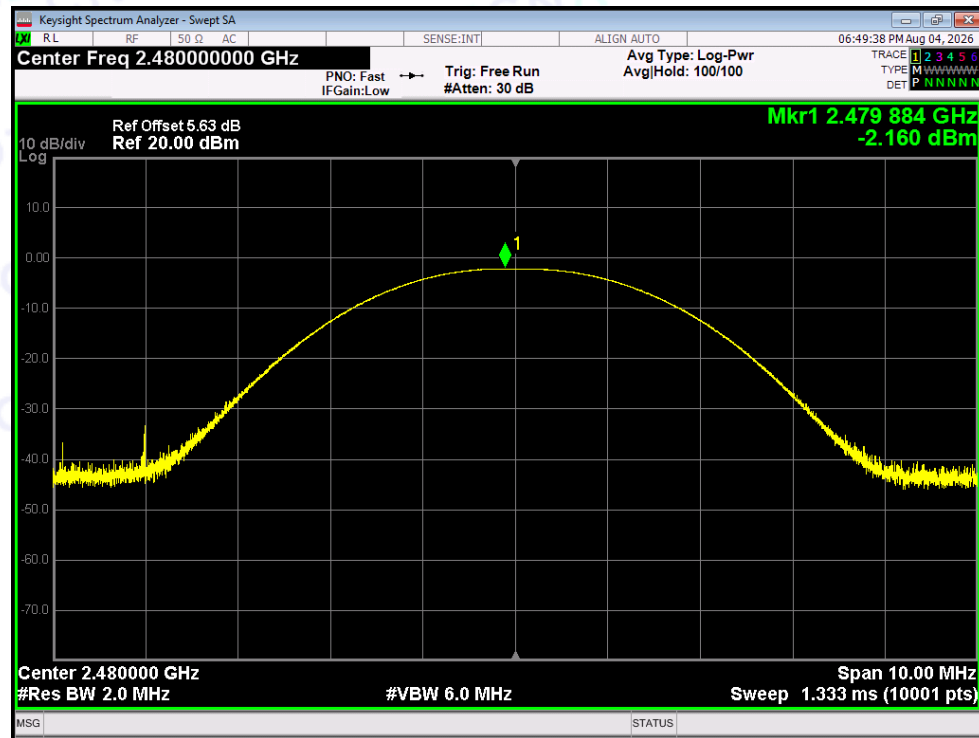
Power NVNT 1-DH5 2402MHz Ant1



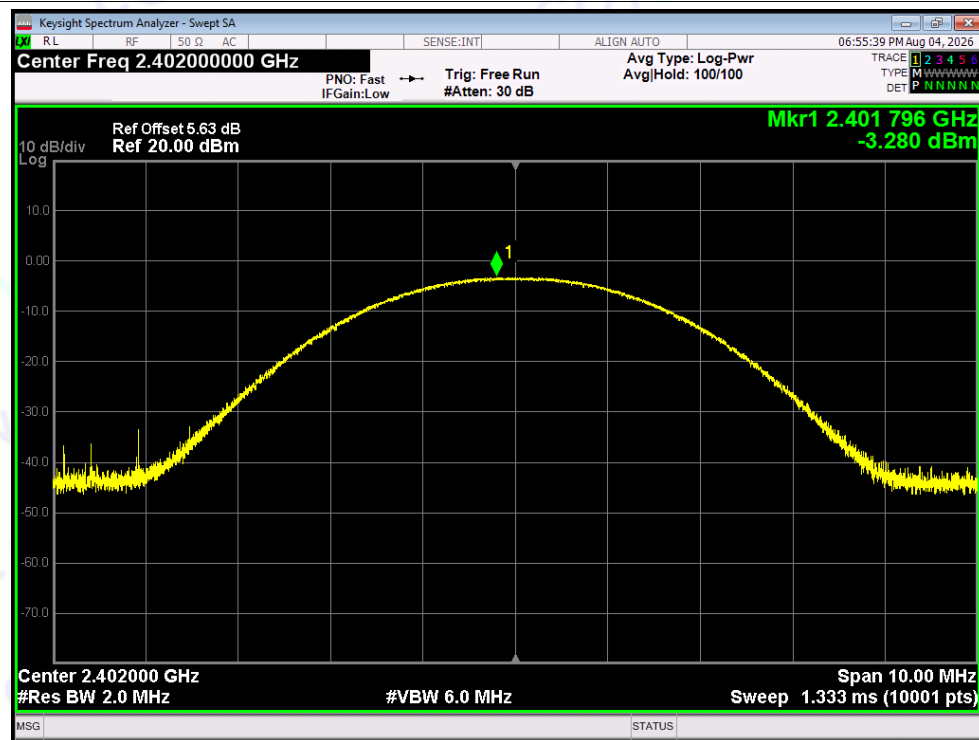
Power NVNT 1-DH5 2441MHz Ant1



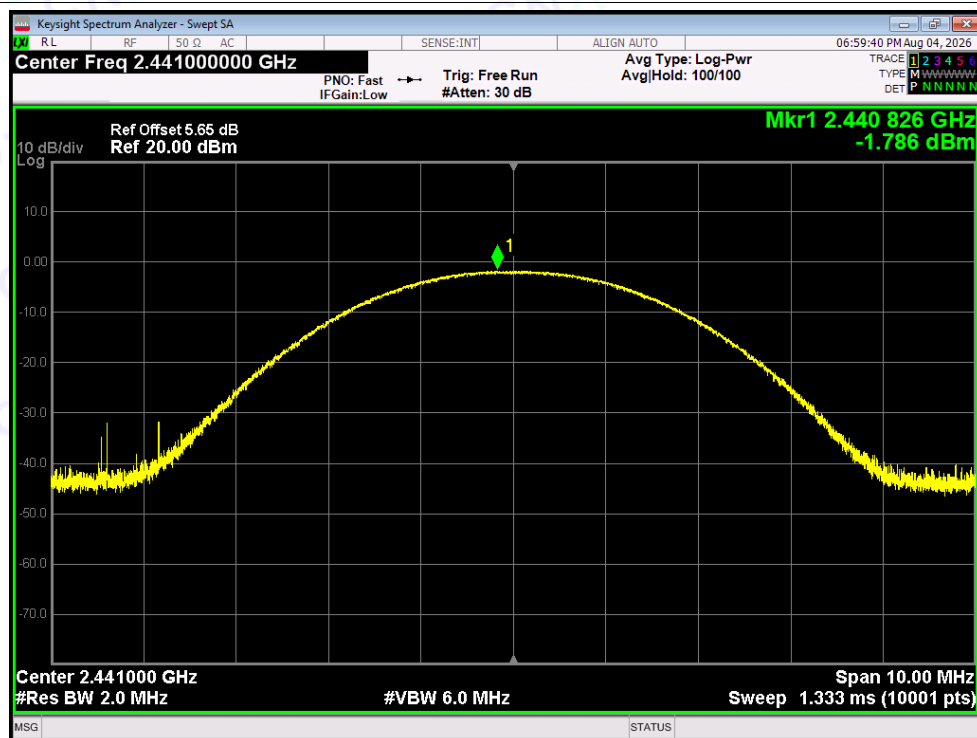
Power NVNT 1-DH5 2480MHz Ant1



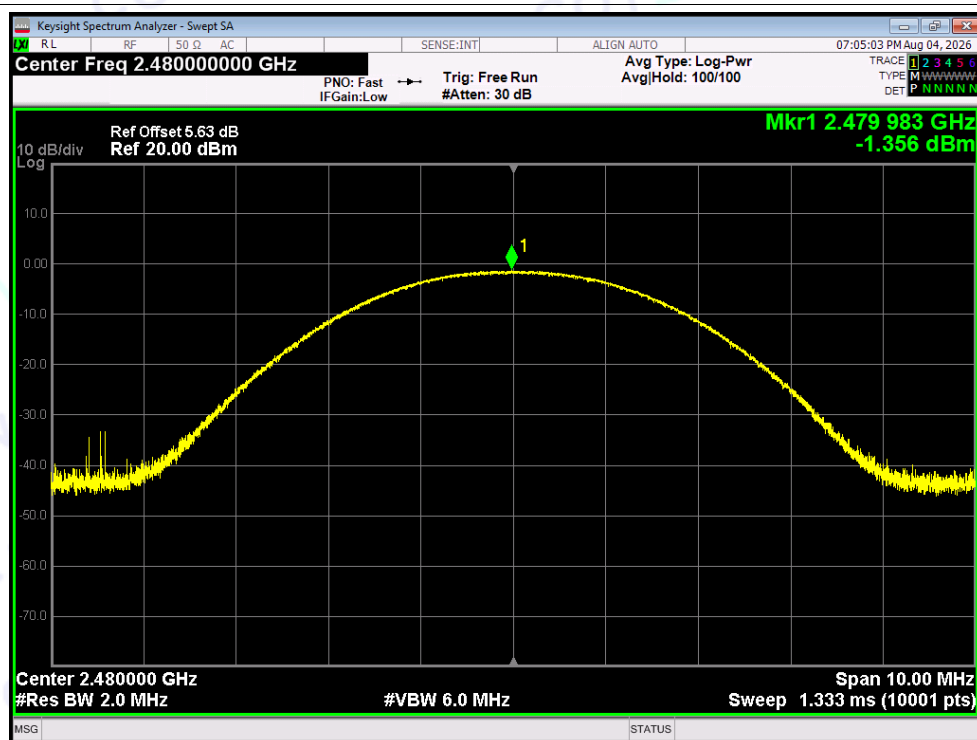
Power NVNT 2-DH5 2402MHz Ant1



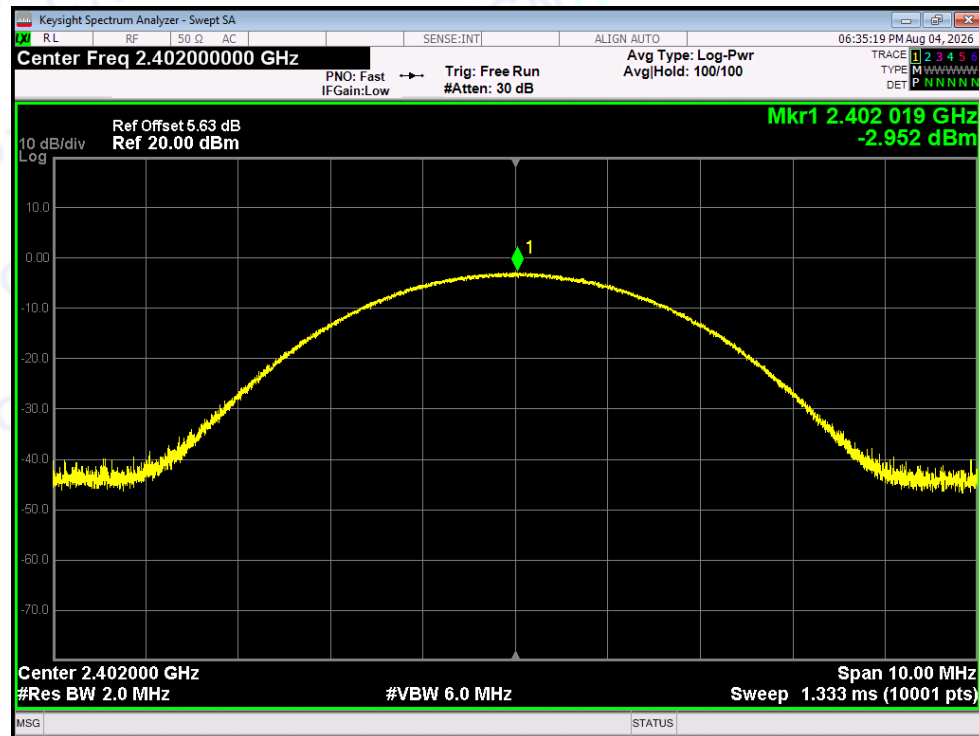
Power NVNT 2-DH5 2441MHz Ant1



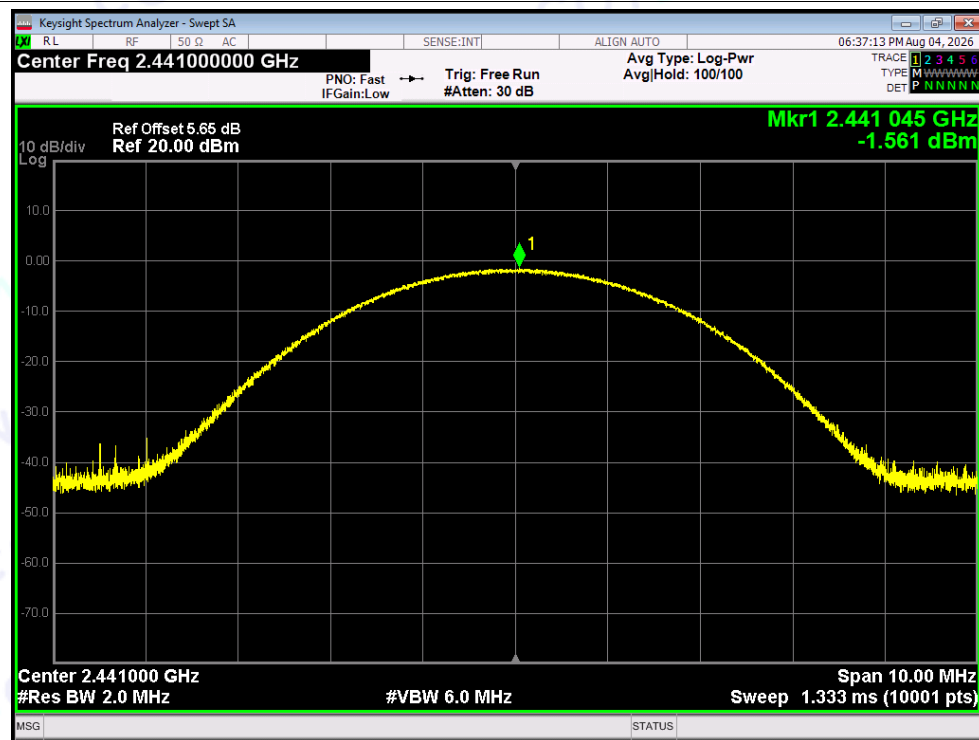
Power NVNT 2-DH5 2480MHz Ant1

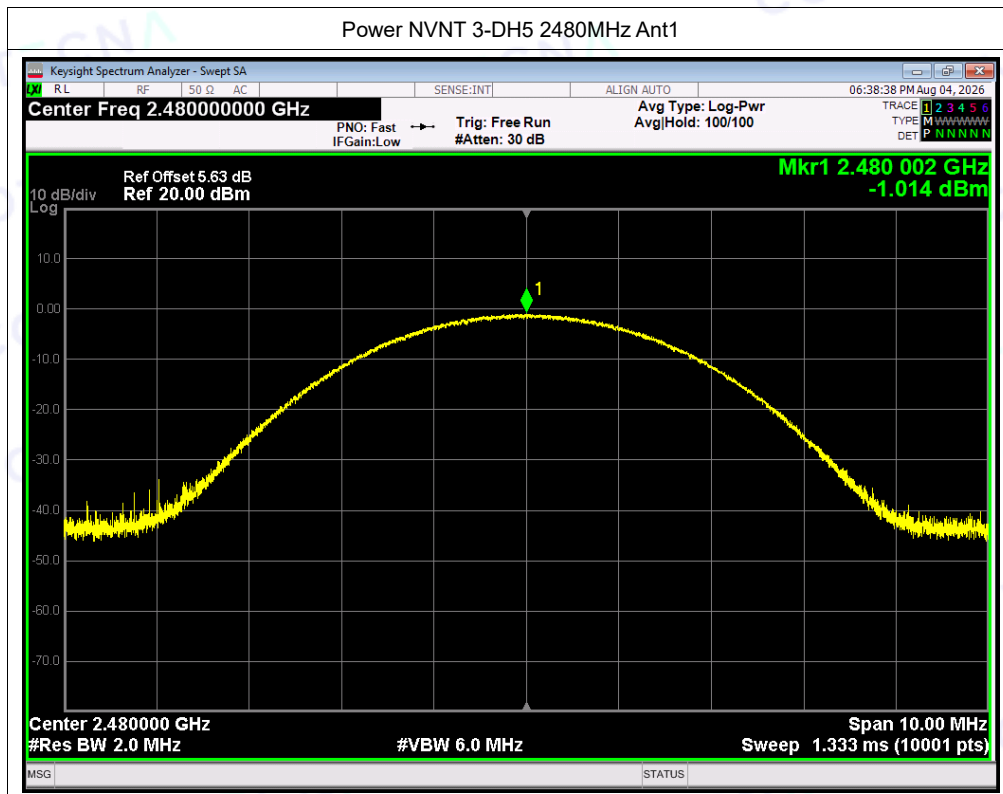


Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1



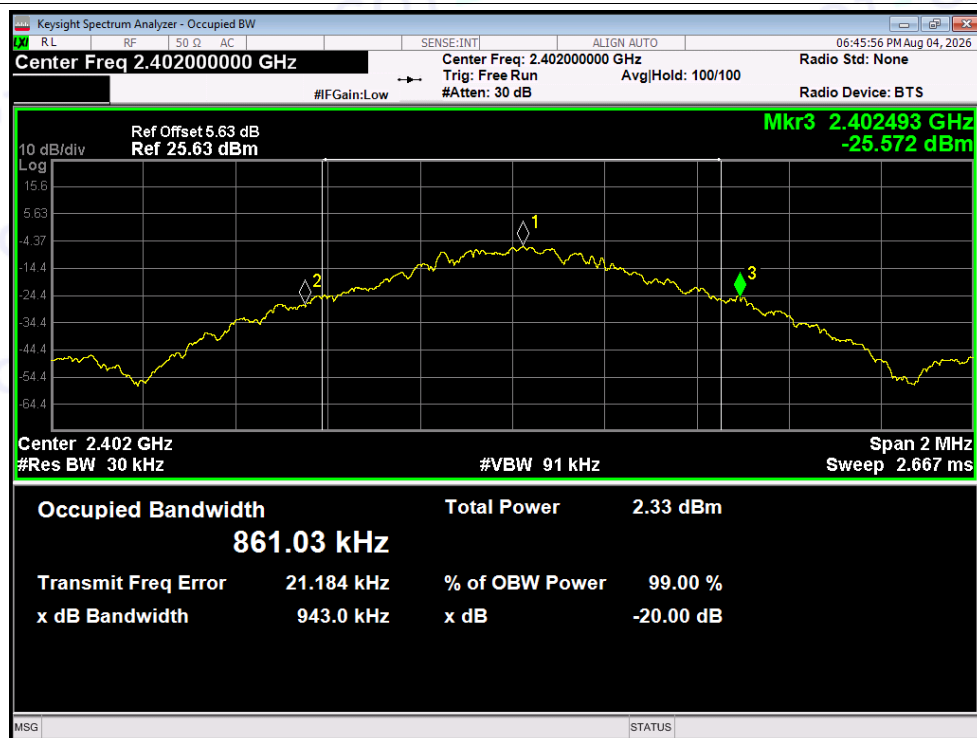


-20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.94	/	Pass
NVNT	1-DH5	2441	Ant1	0.95	/	Pass
NVNT	1-DH5	2480	Ant1	0.94	/	Pass
NVNT	2-DH5	2402	Ant1	1.35	/	Pass
NVNT	2-DH5	2441	Ant1	1.31	/	Pass
NVNT	2-DH5	2480	Ant1	1.31	/	Pass
NVNT	3-DH5	2402	Ant1	1.29	/	Pass
NVNT	3-DH5	2441	Ant1	1.3	/	Pass
NVNT	3-DH5	2480	Ant1	1.29	/	Pass

Test Graphs

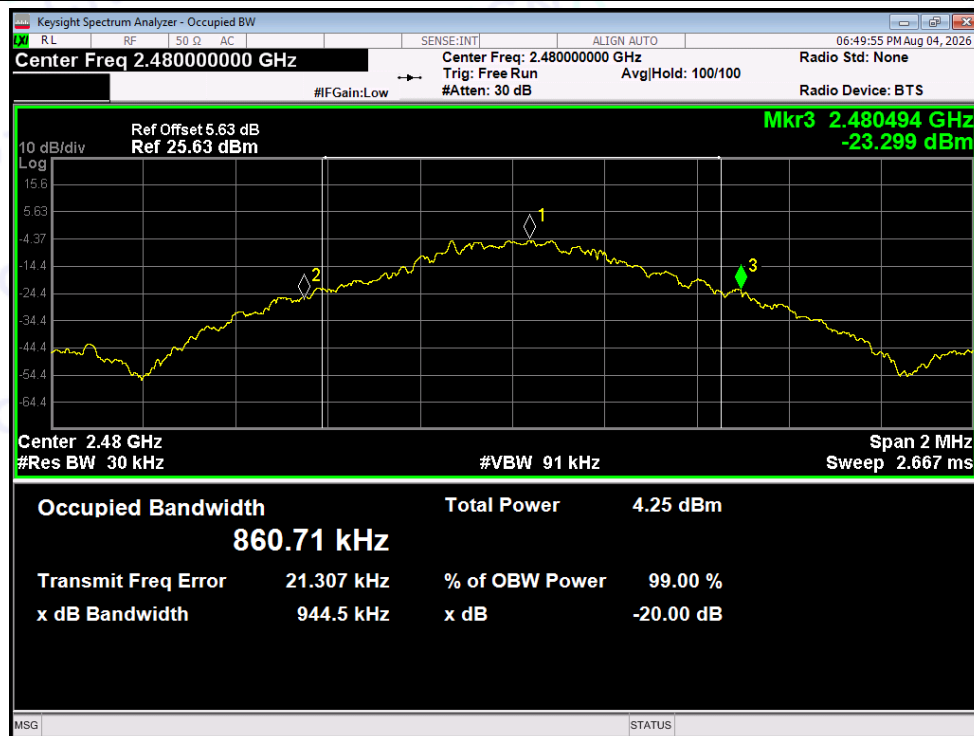
-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



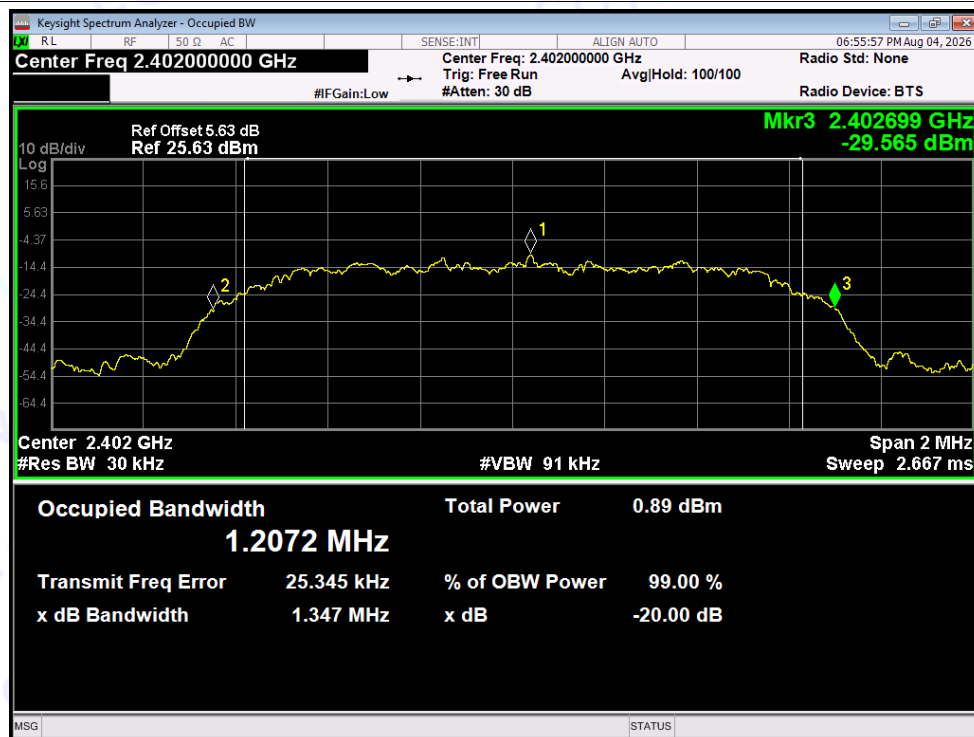
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



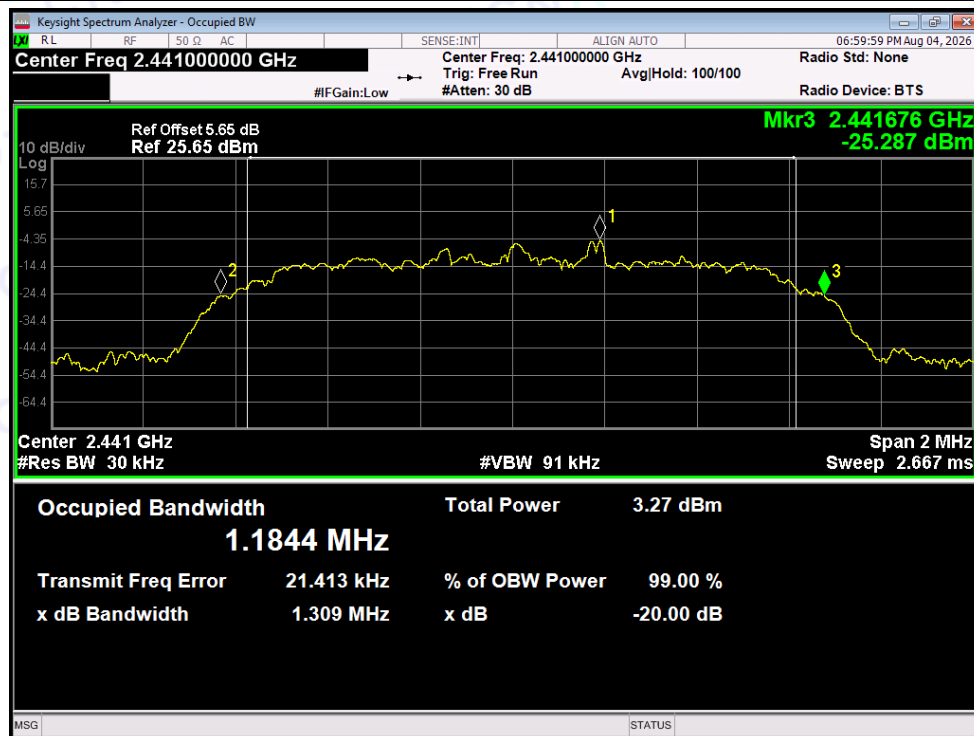
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



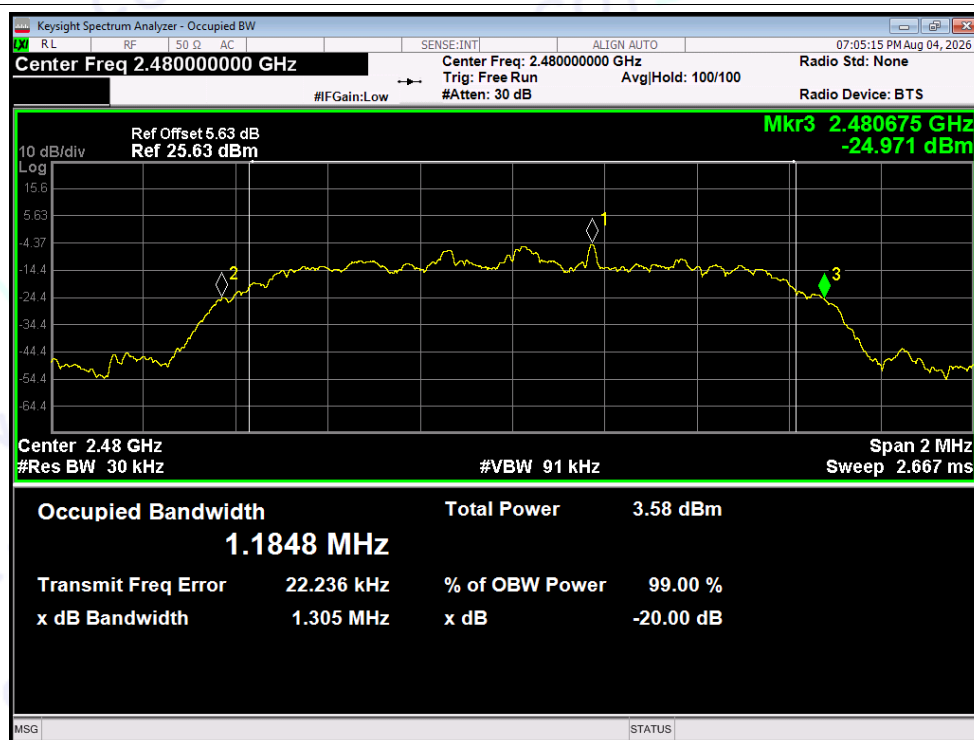
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



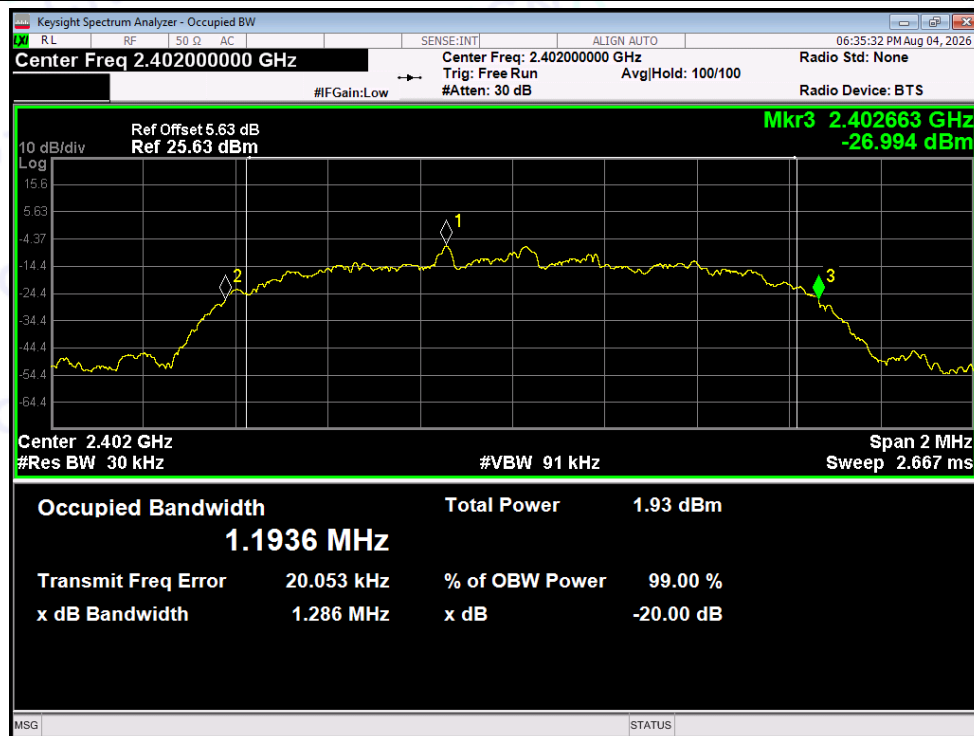
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



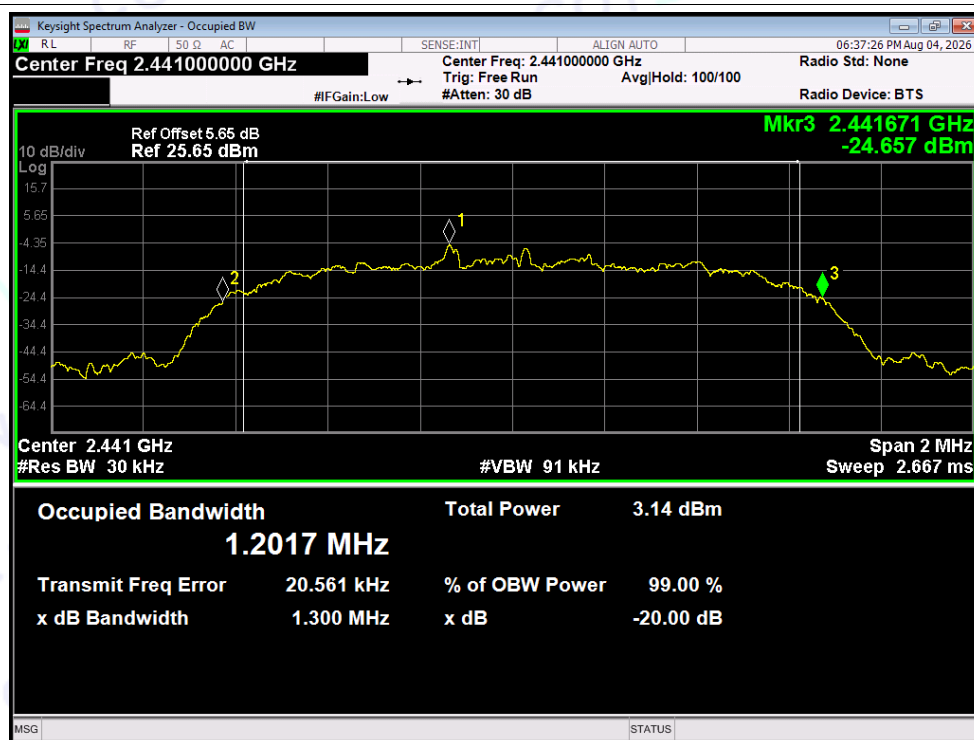
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

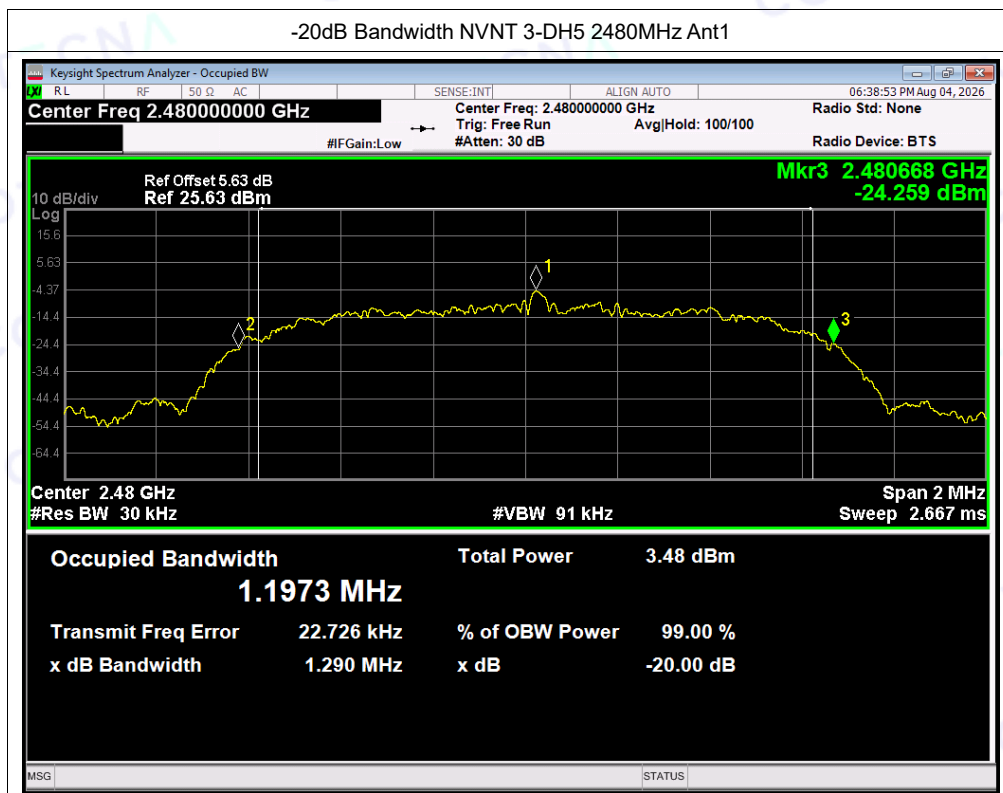


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



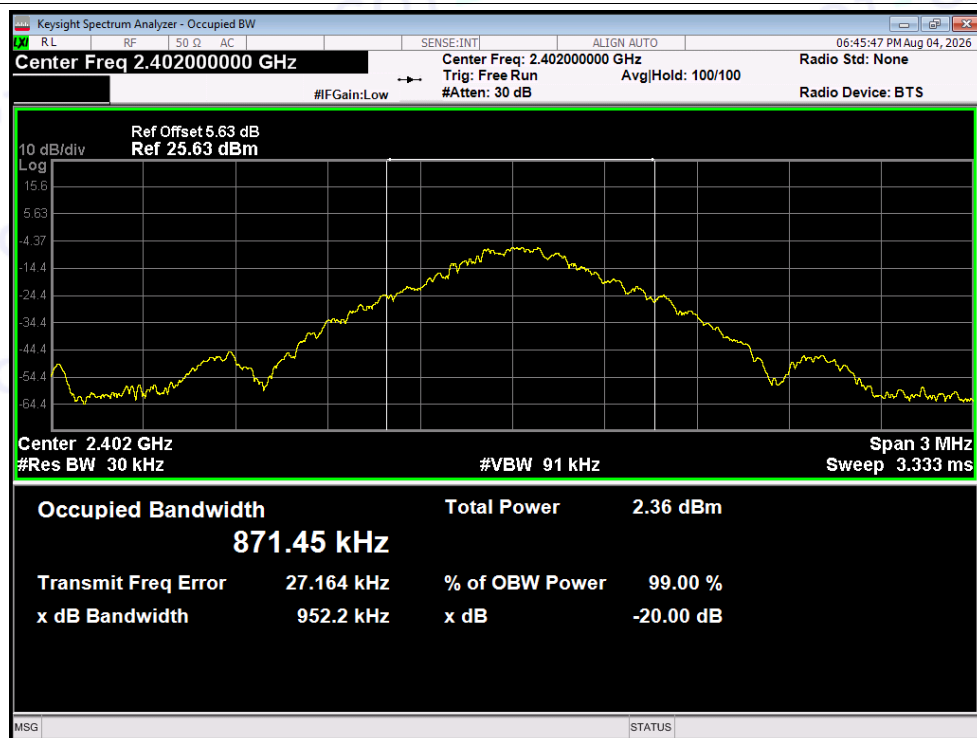


Occupied Channel Bandwidth

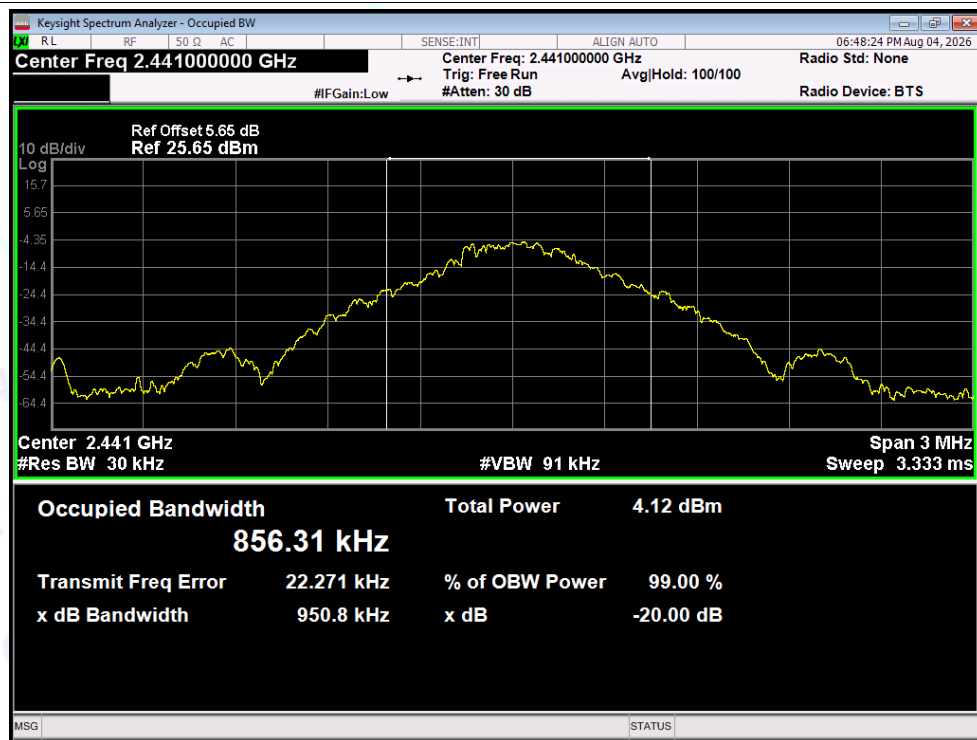
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH5	2402	Ant1	0.871
NVNT	1-DH5	2441	Ant1	0.856
NVNT	1-DH5	2480	Ant1	0.868
NVNT	2-DH5	2402	Ant1	1.182
NVNT	2-DH5	2441	Ant1	1.189
NVNT	2-DH5	2480	Ant1	1.178
NVNT	3-DH5	2402	Ant1	1.196
NVNT	3-DH5	2441	Ant1	1.193
NVNT	3-DH5	2480	Ant1	1.213

Test Graphs

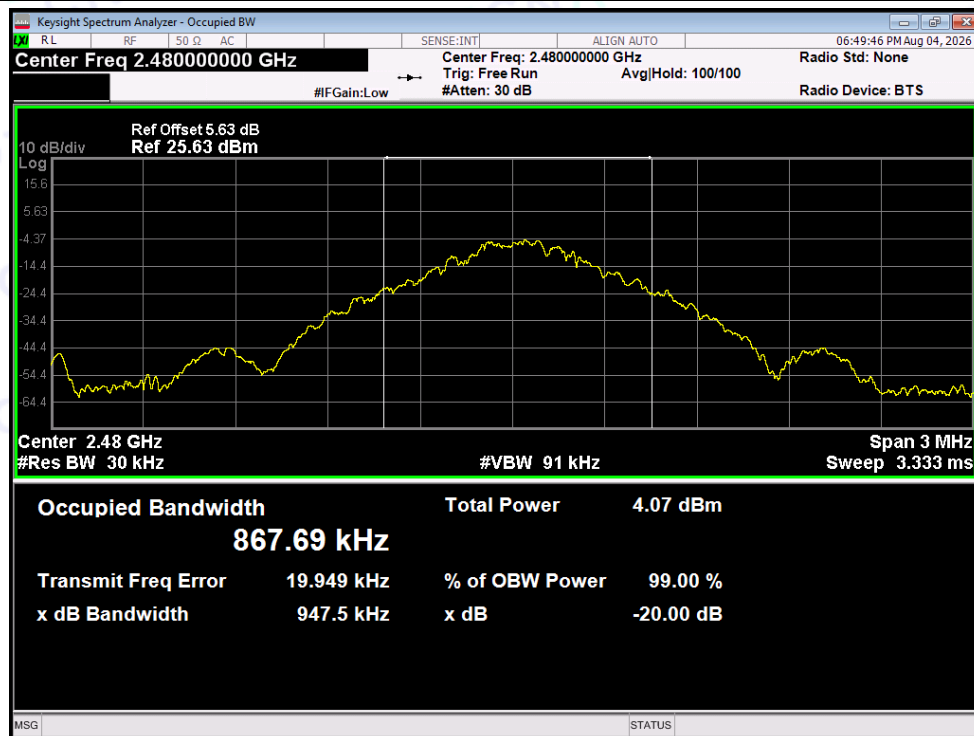
OBW NVNT 1-DH5 2402MHz Ant1



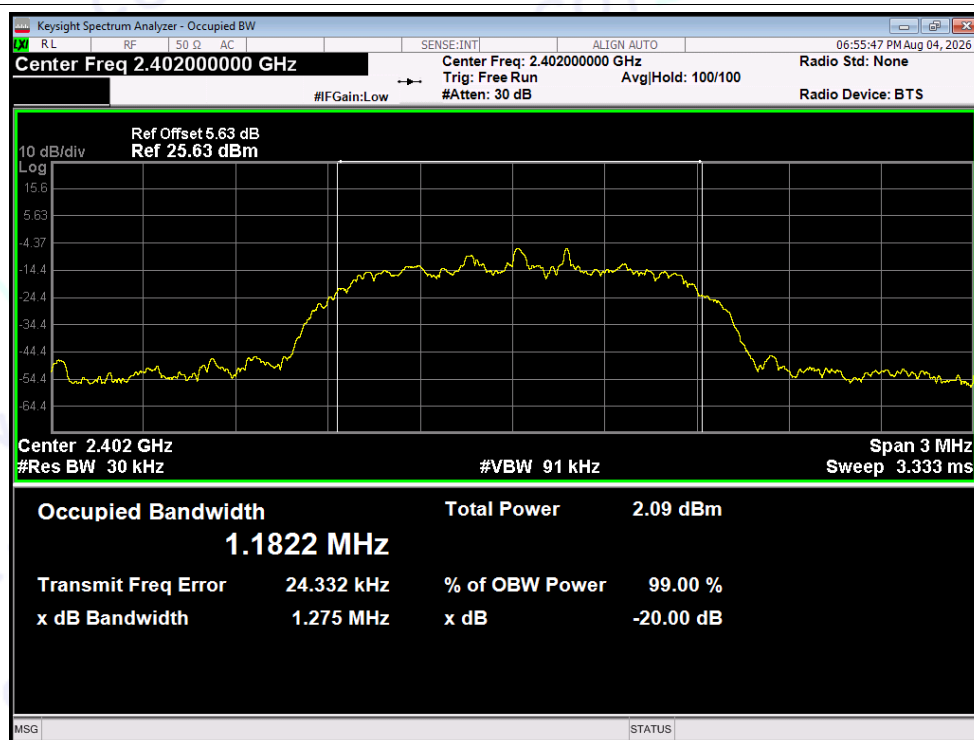
OBW NVNT 1-DH5 2441MHz Ant1



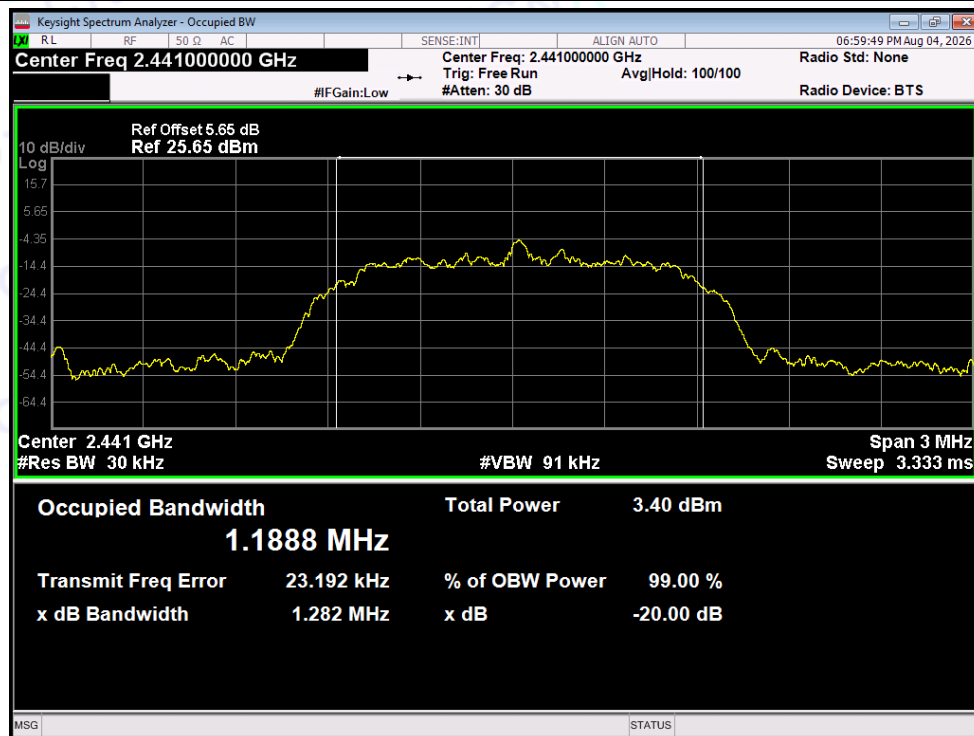
OBW NVNT 1-DH5 2480MHz Ant1



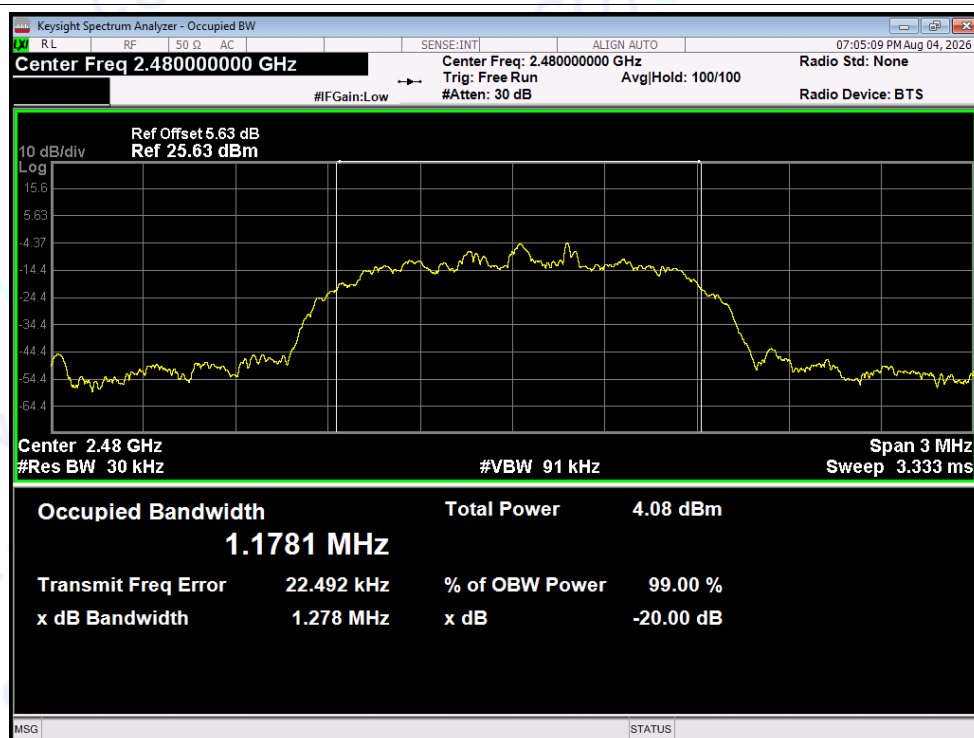
OBW NVNT 2-DH5 2402MHz Ant1



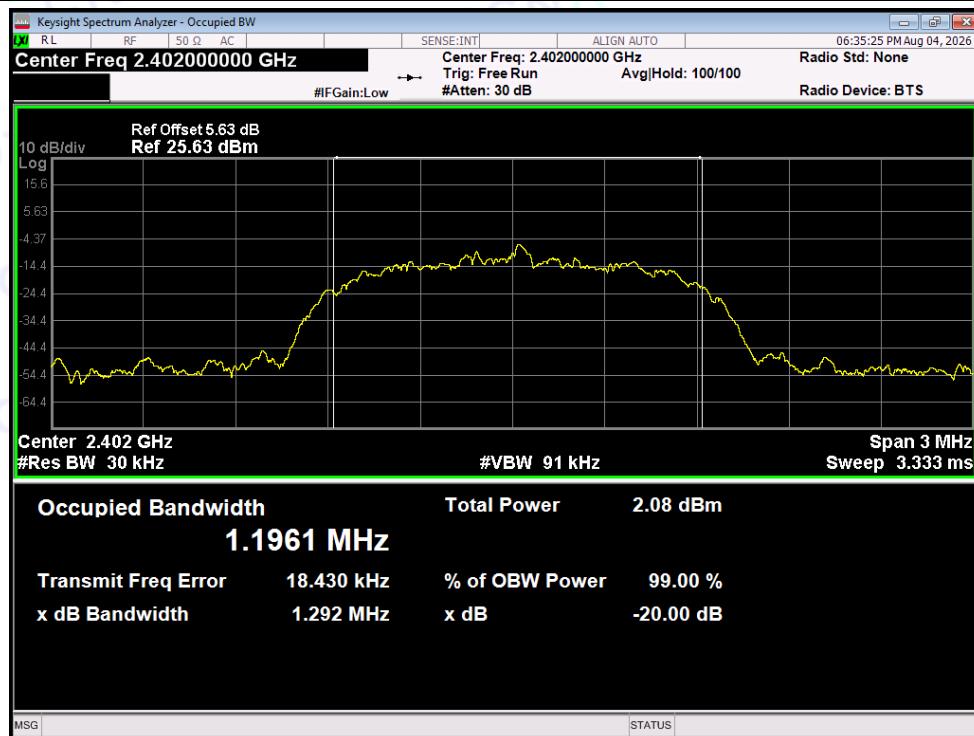
OBW NVNT 2-DH5 2441MHz Ant1



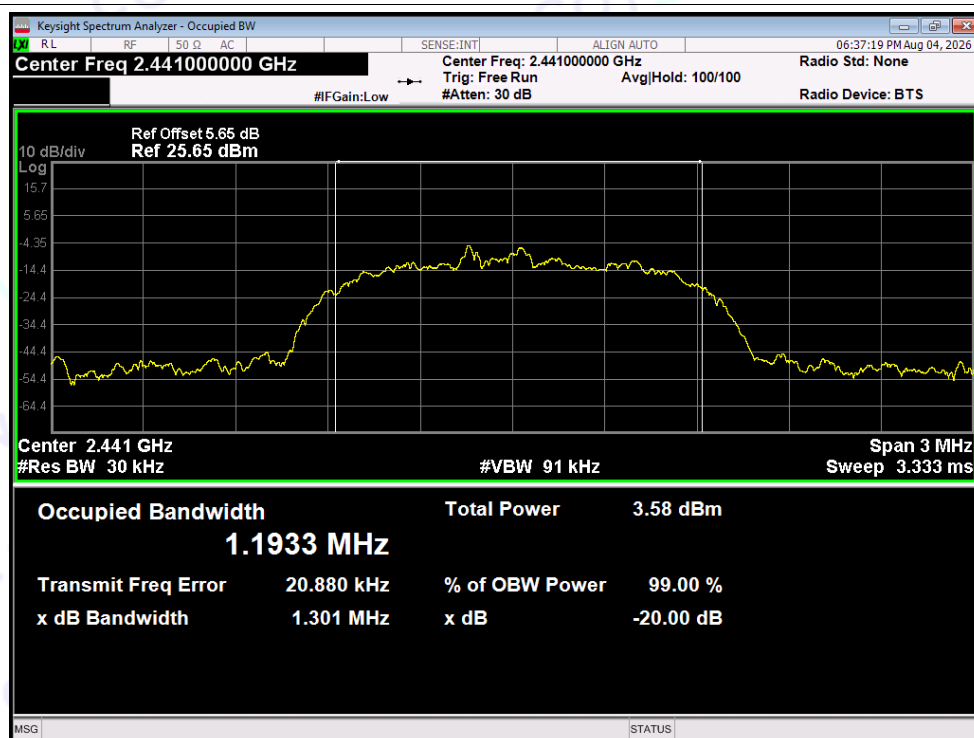
OBW NVNT 2-DH5 2480MHz Ant1

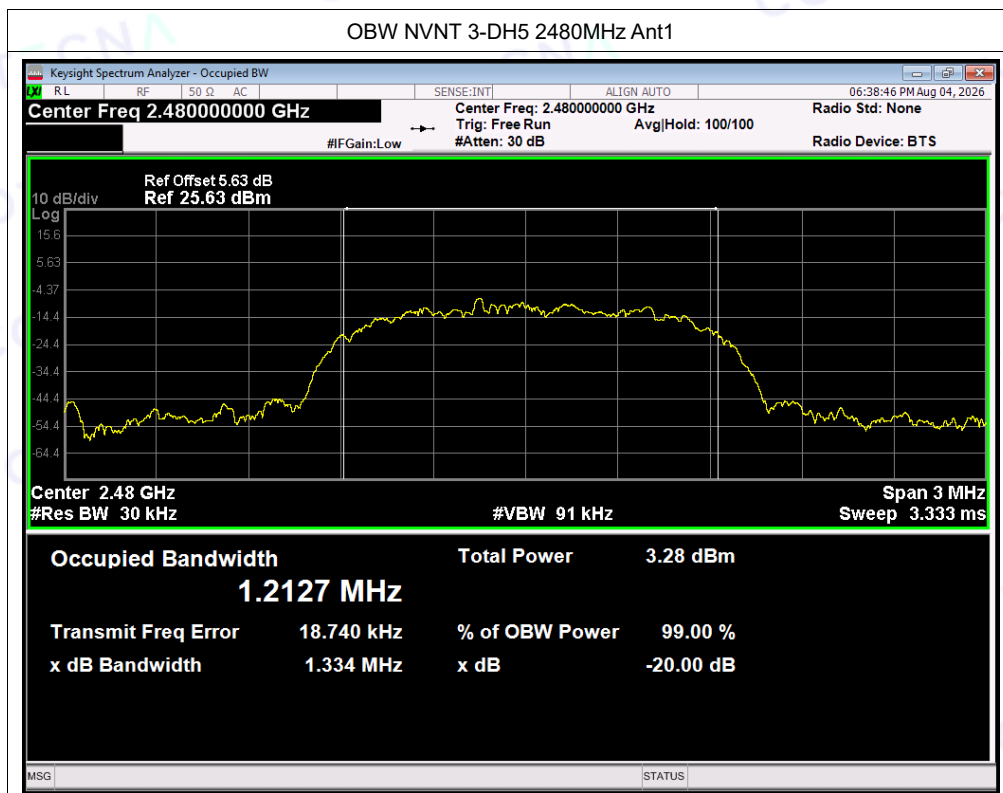


OBW NVNT 3-DH5 2402MHz Ant1



OBW NVNT 3-DH5 2441MHz Ant1



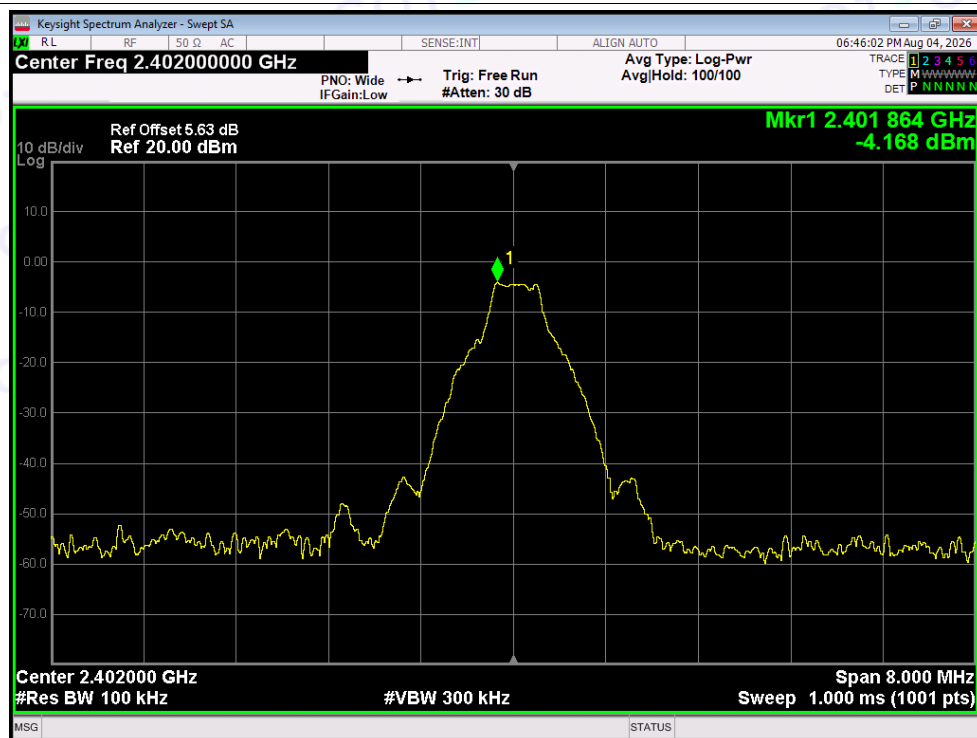


Band Edge

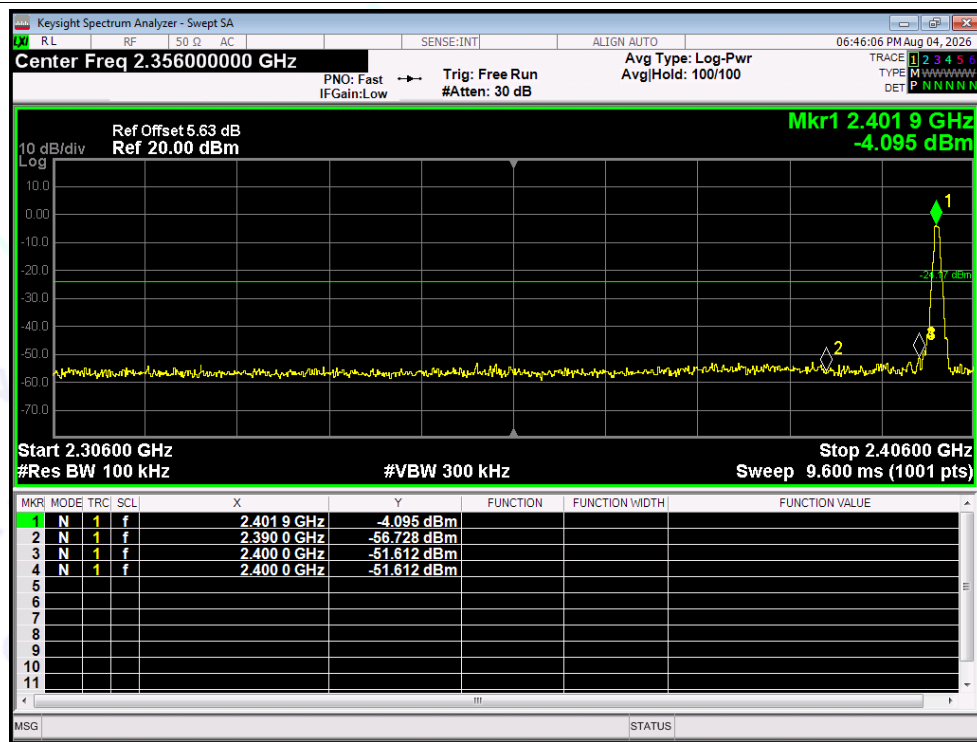
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-47.44	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-46.79	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-46.57	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-48.17	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-46.3	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-46.44	-20	Pass

Test Graphs

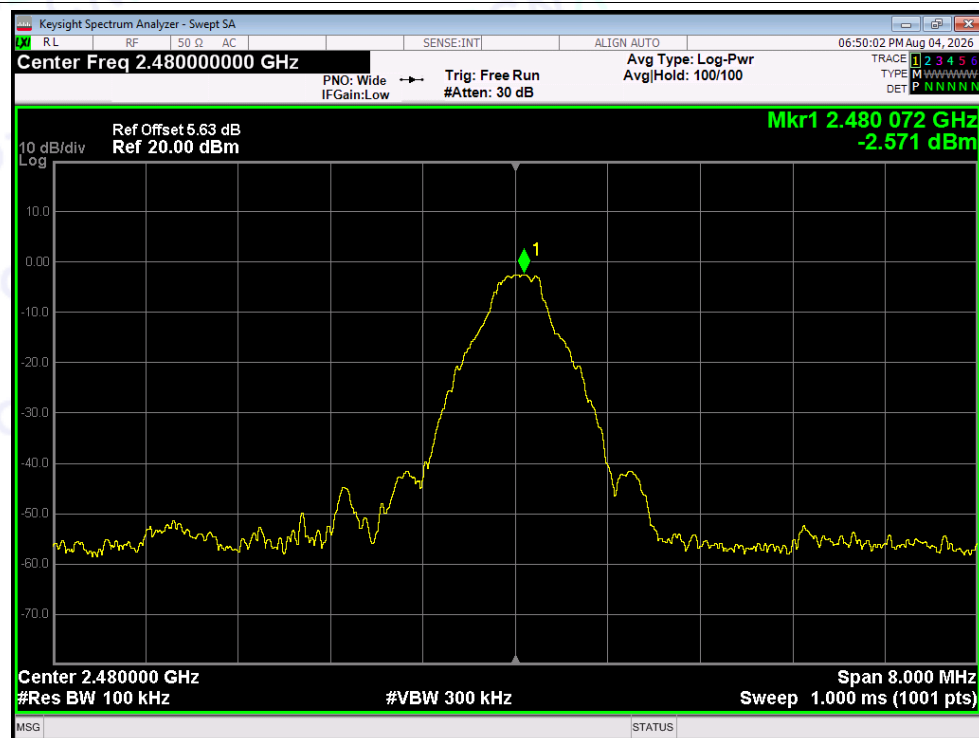
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



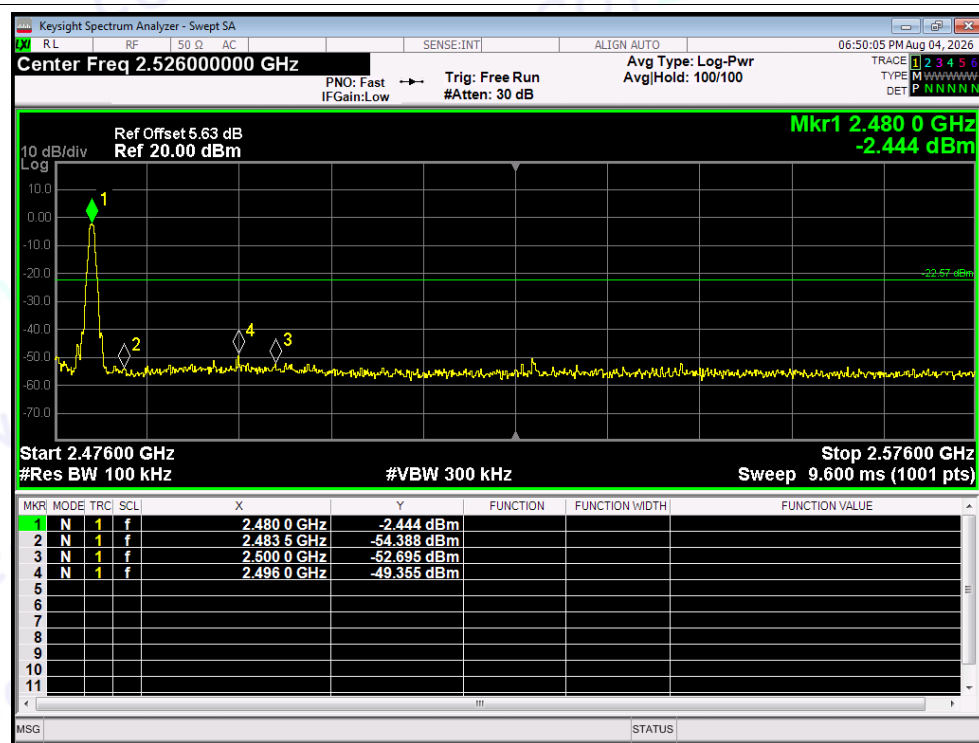
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



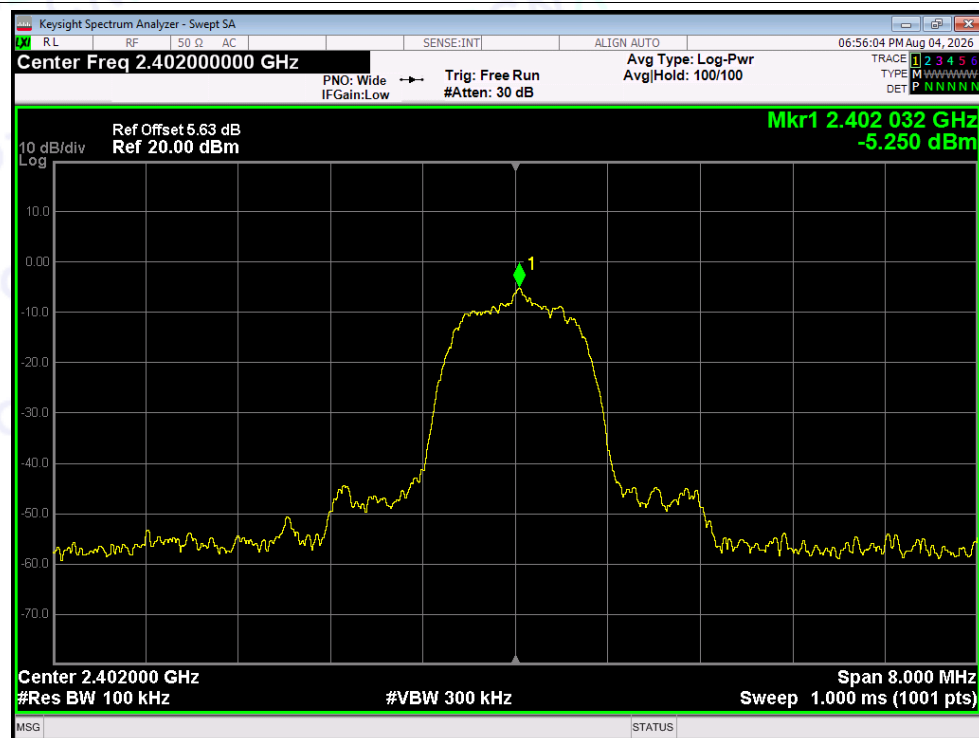
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



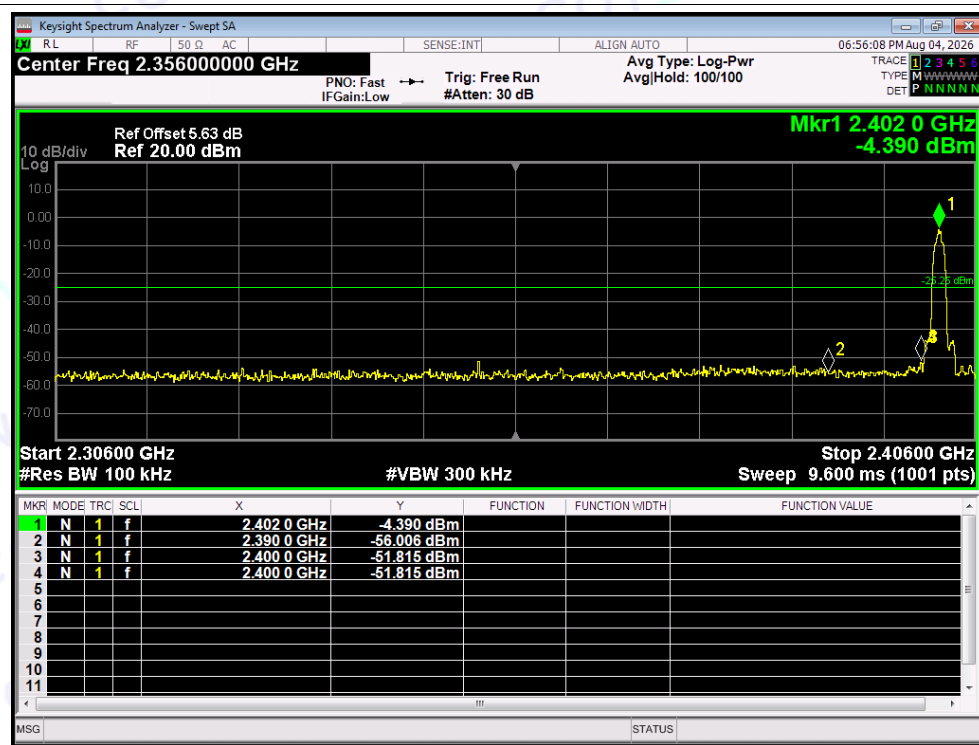
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



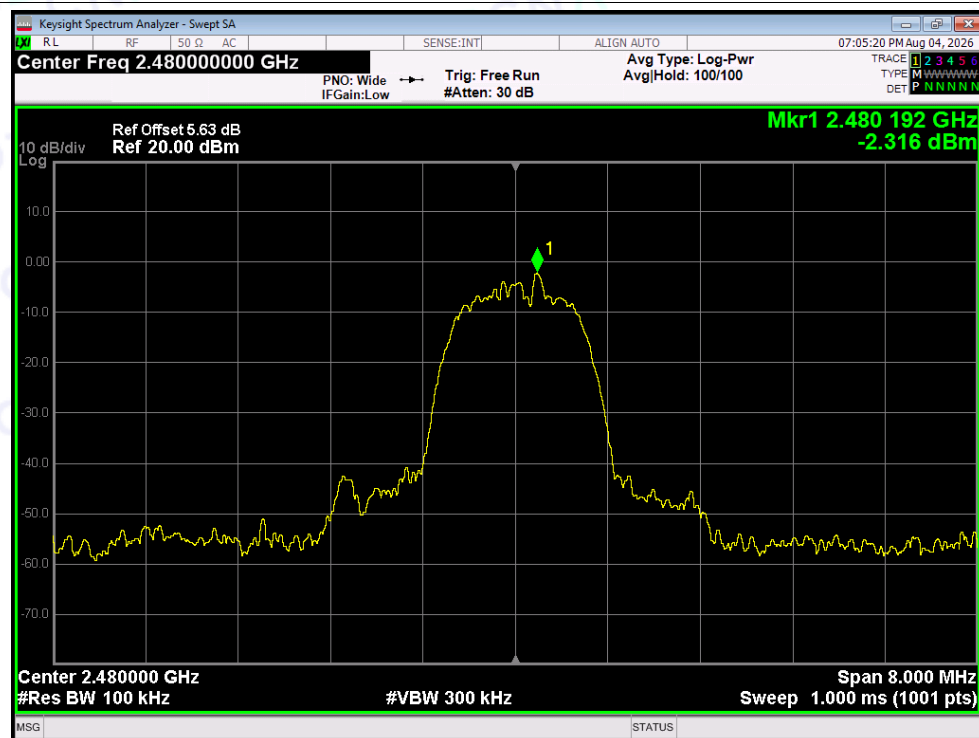
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



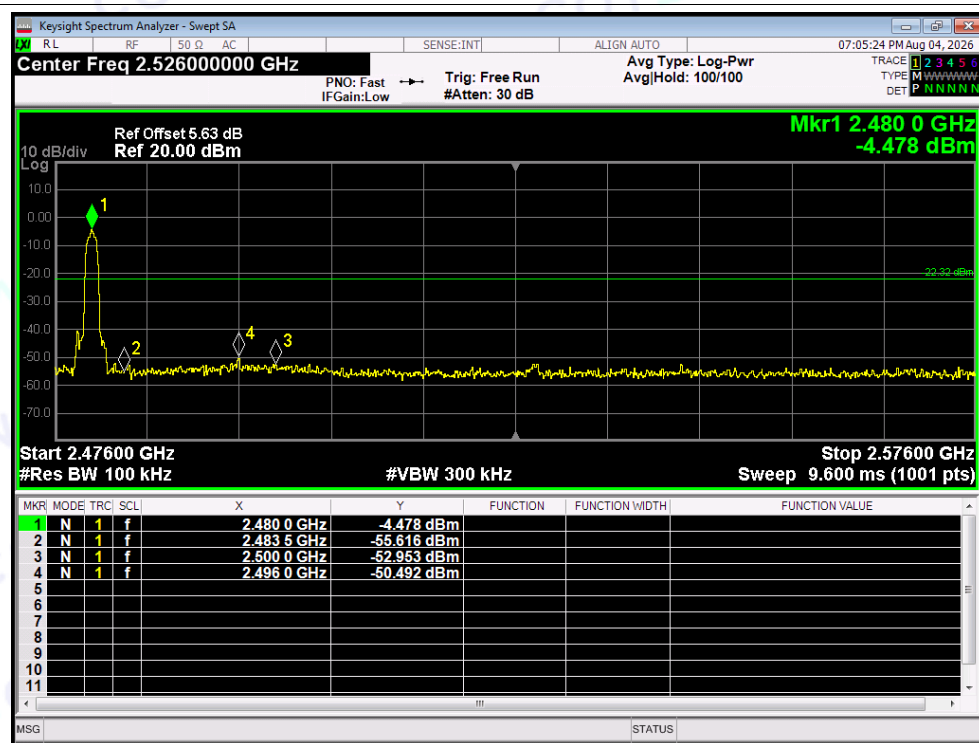
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



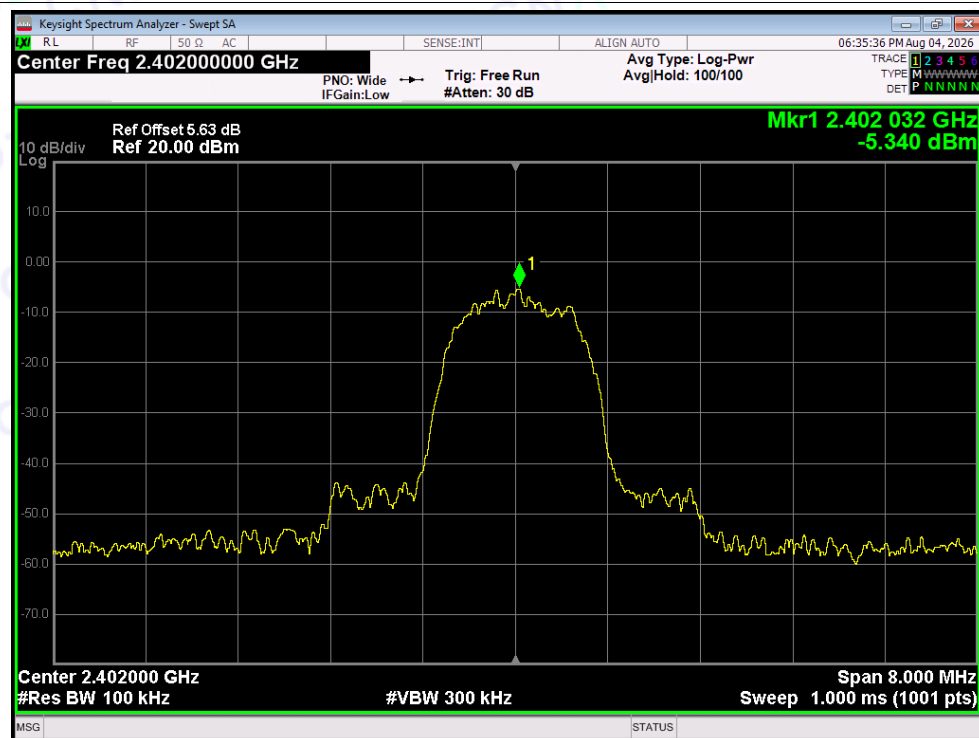
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



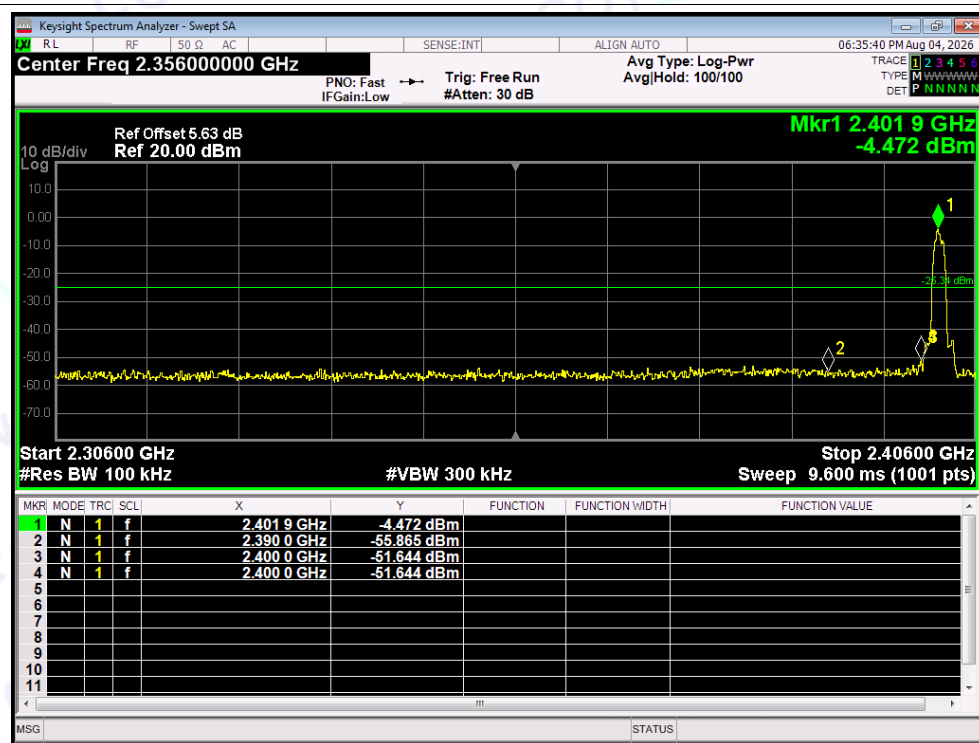
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



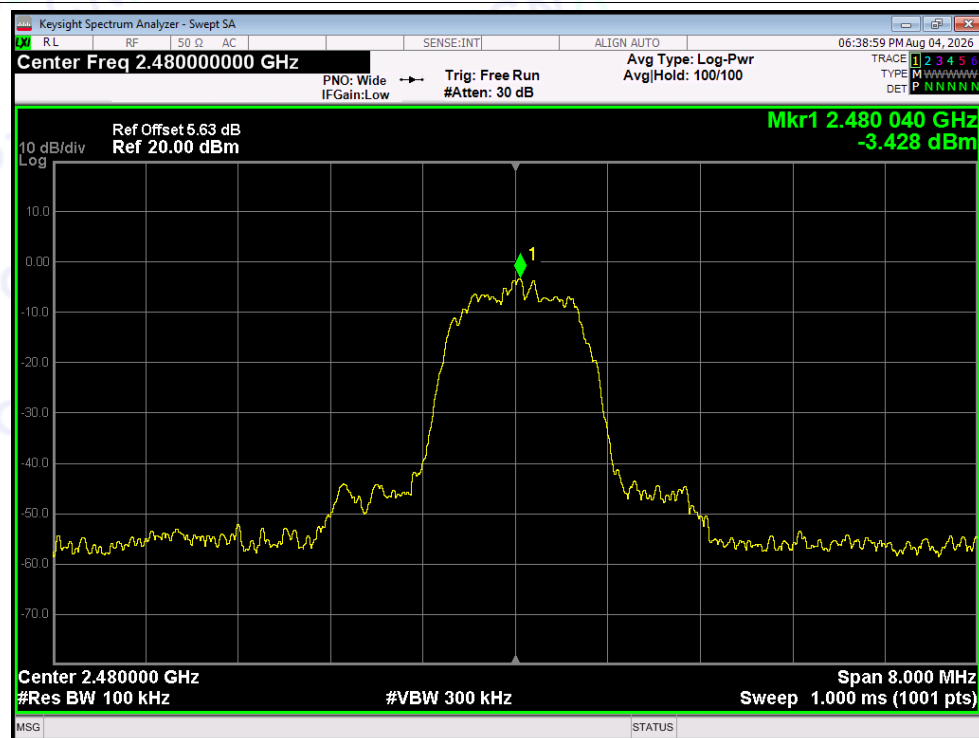
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



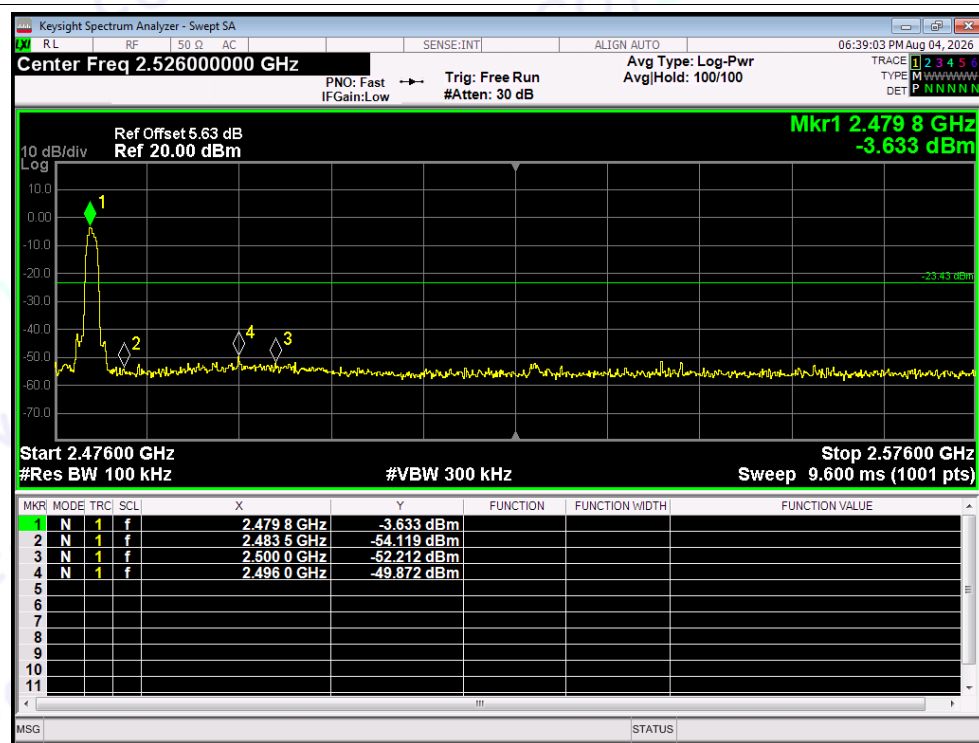
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Emission

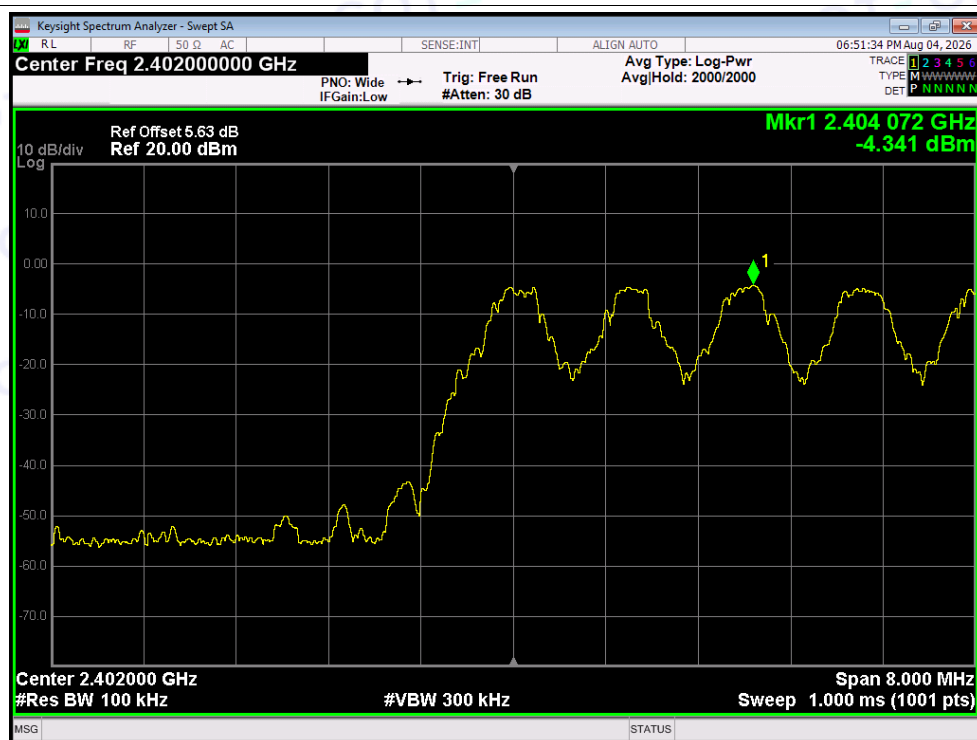


Band Edge(Hopping)

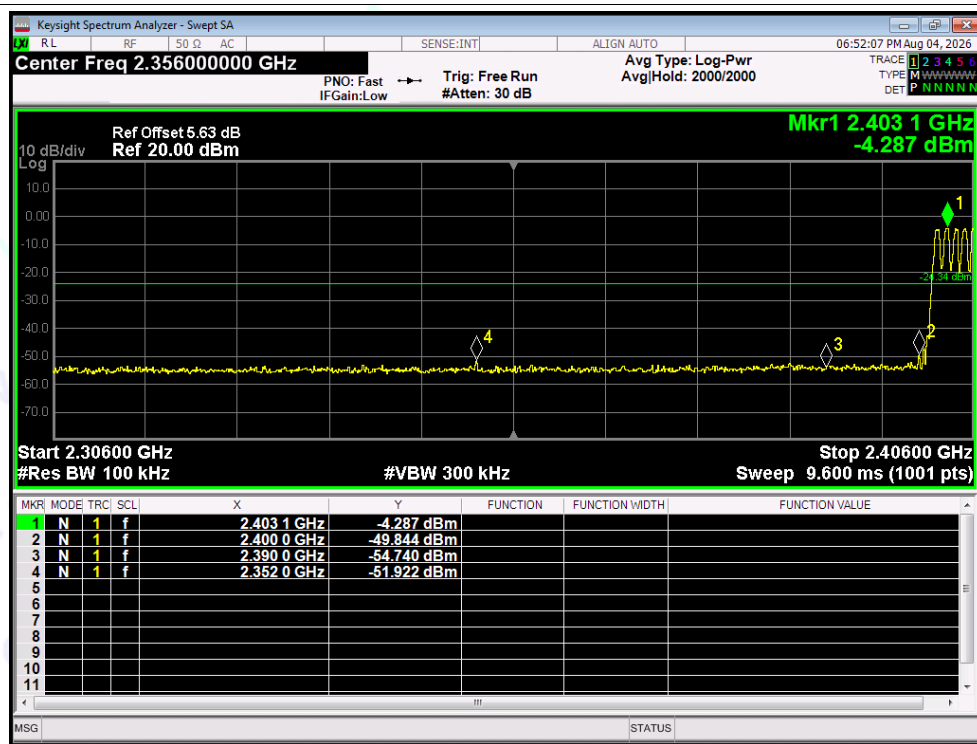
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-47.58	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-47.62	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-47.58	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-47.19	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-48.02	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-47.14	-20	Pass

Test Graphs

Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref



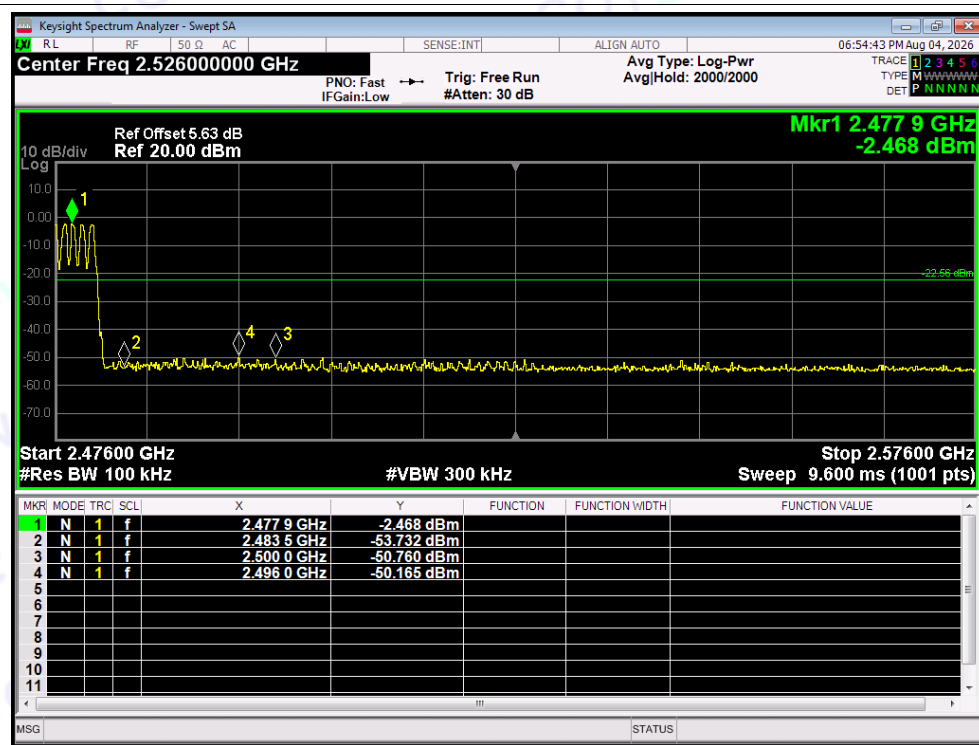
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



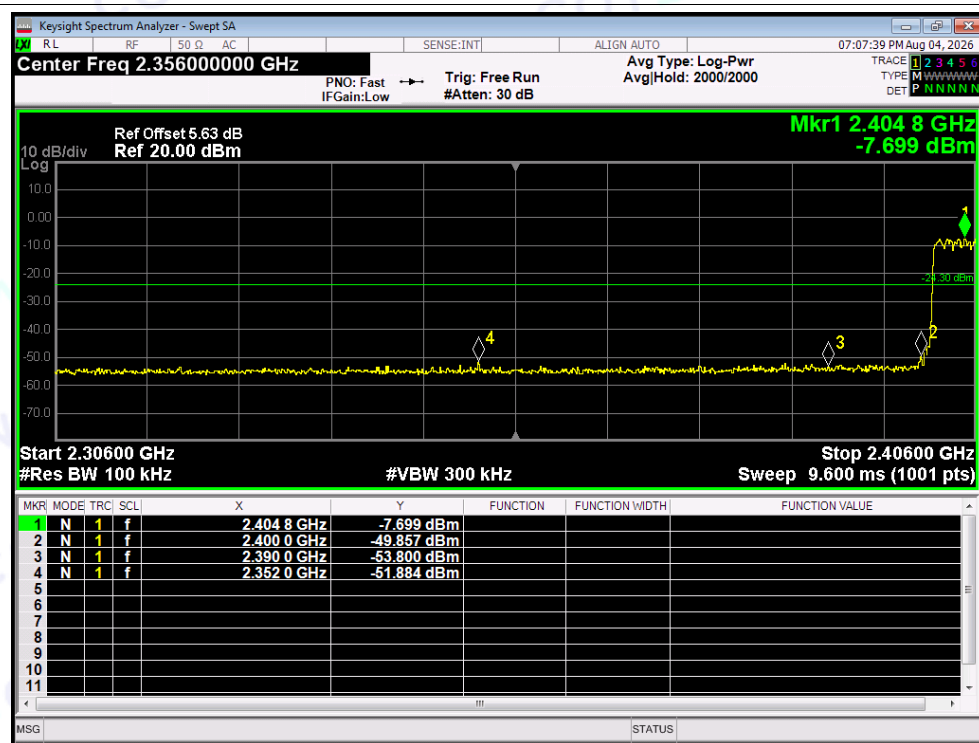
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref



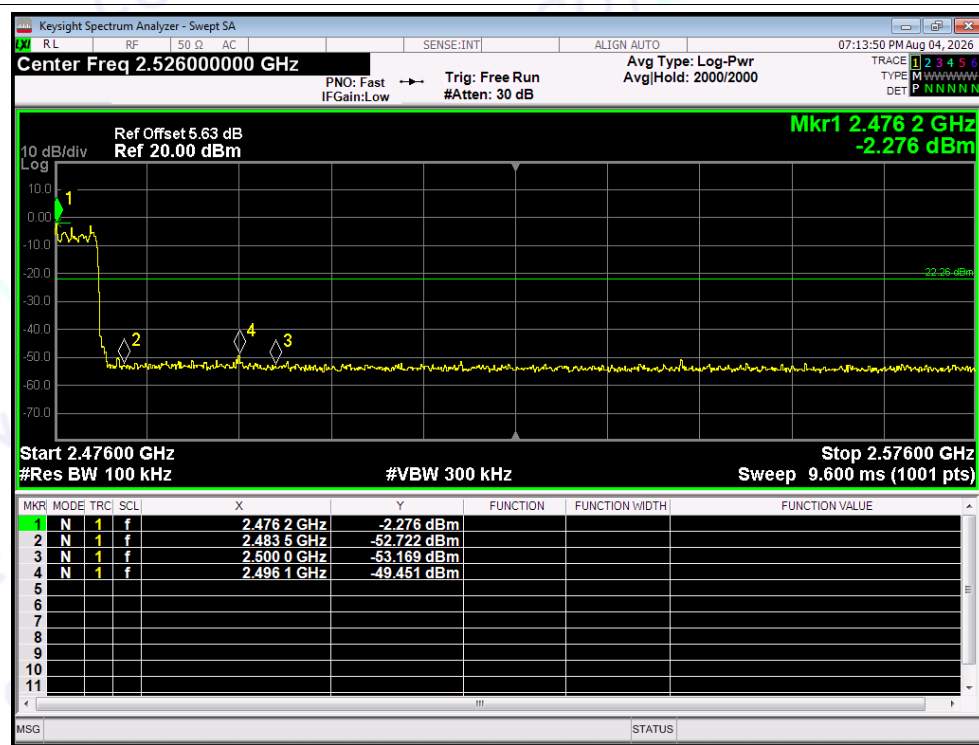
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



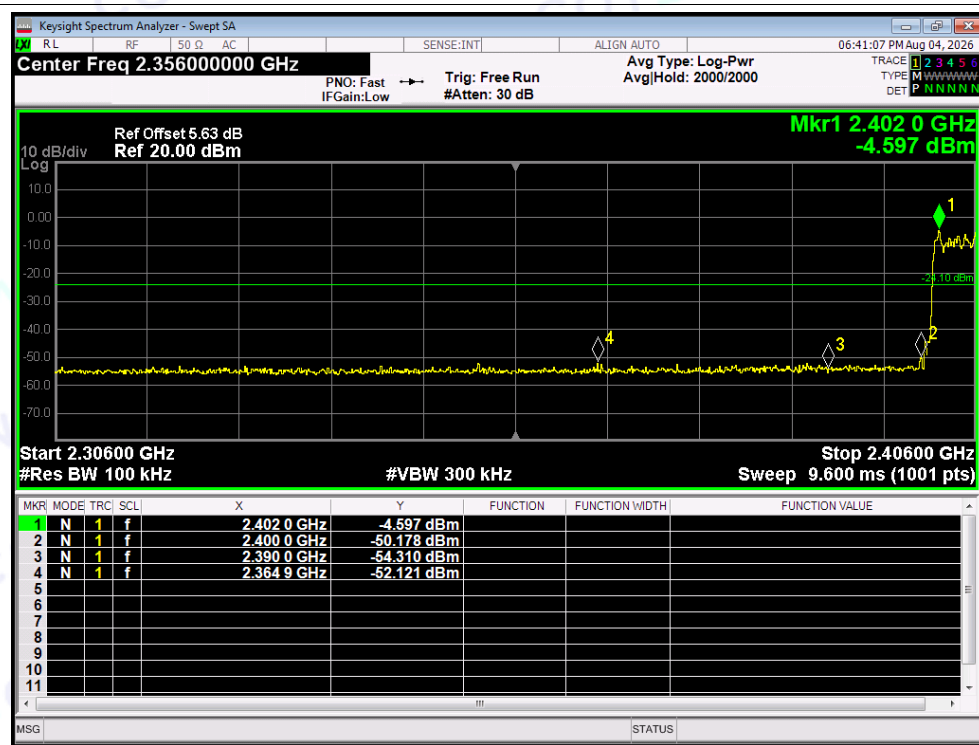
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref



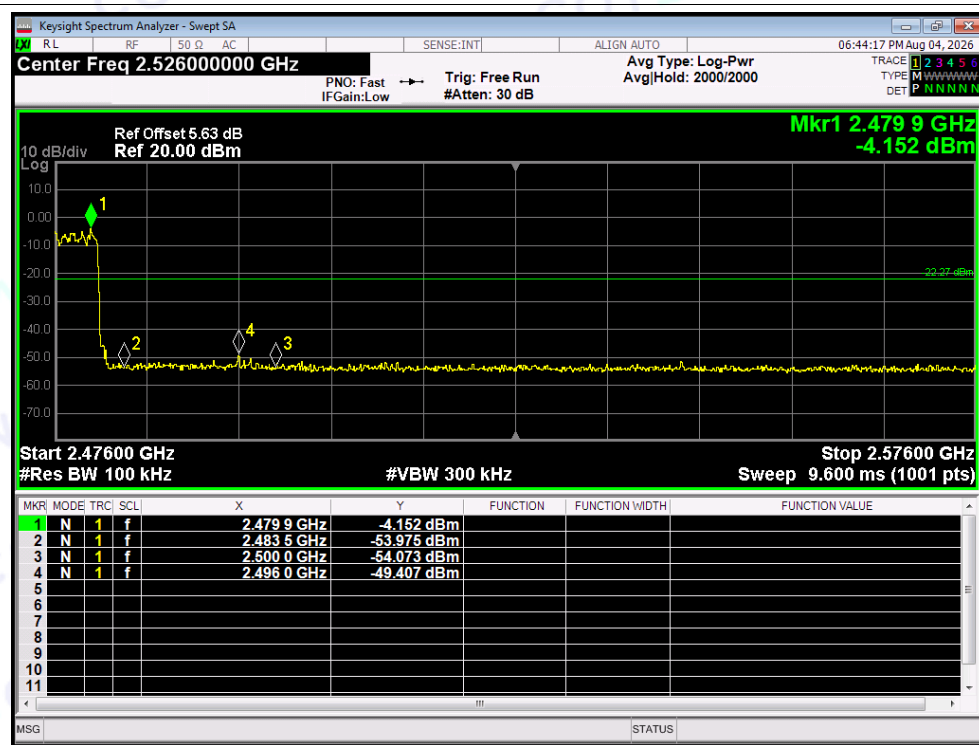
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Emission

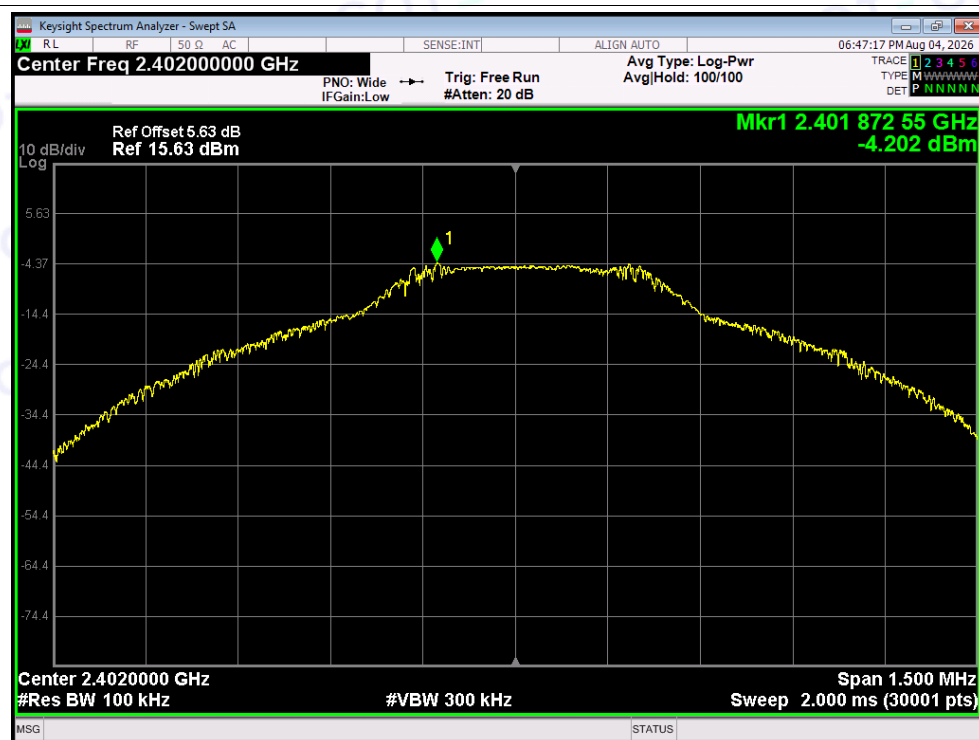


Conducted RF Spurious Emission

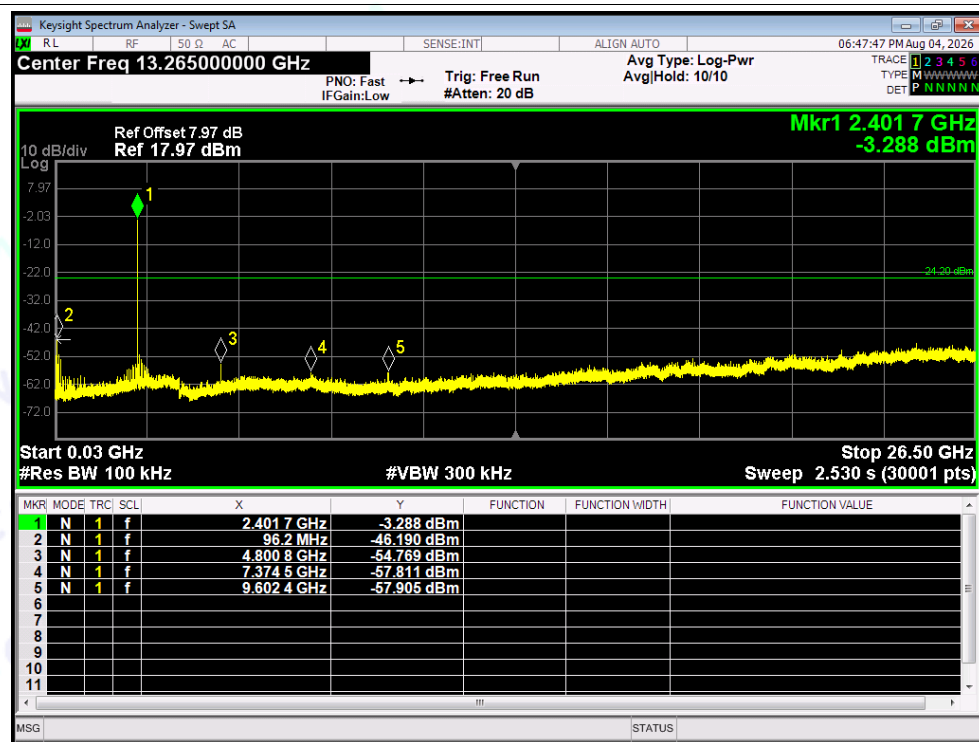
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-41.99	-20	Pass
NVNT	1-DH5	2441	Ant1	-43.79	-20	Pass
NVNT	1-DH5	2480	Ant1	-26.14	-20	Pass
NVNT	2-DH5	2402	Ant1	-24.31	-20	Pass
NVNT	2-DH5	2441	Ant1	-45.21	-20	Pass
NVNT	2-DH5	2480	Ant1	-45.59	-20	Pass
NVNT	3-DH5	2402	Ant1	-44.29	-20	Pass
NVNT	3-DH5	2441	Ant1	-25.96	-20	Pass
NVNT	3-DH5	2480	Ant1	-45.48	-20	Pass

Test Graphs

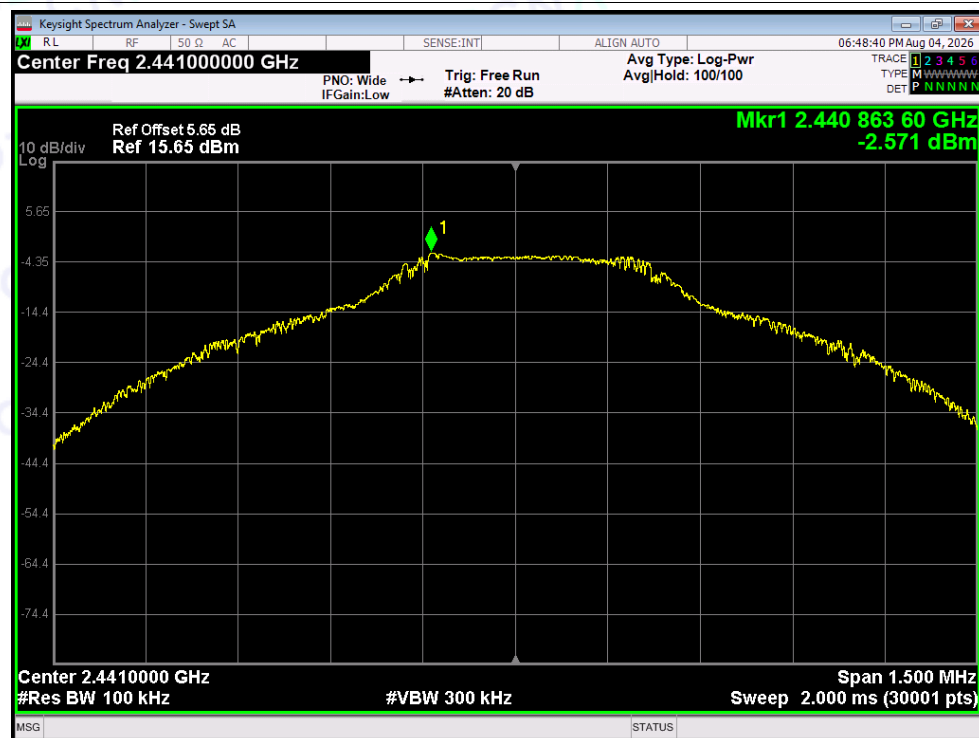
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



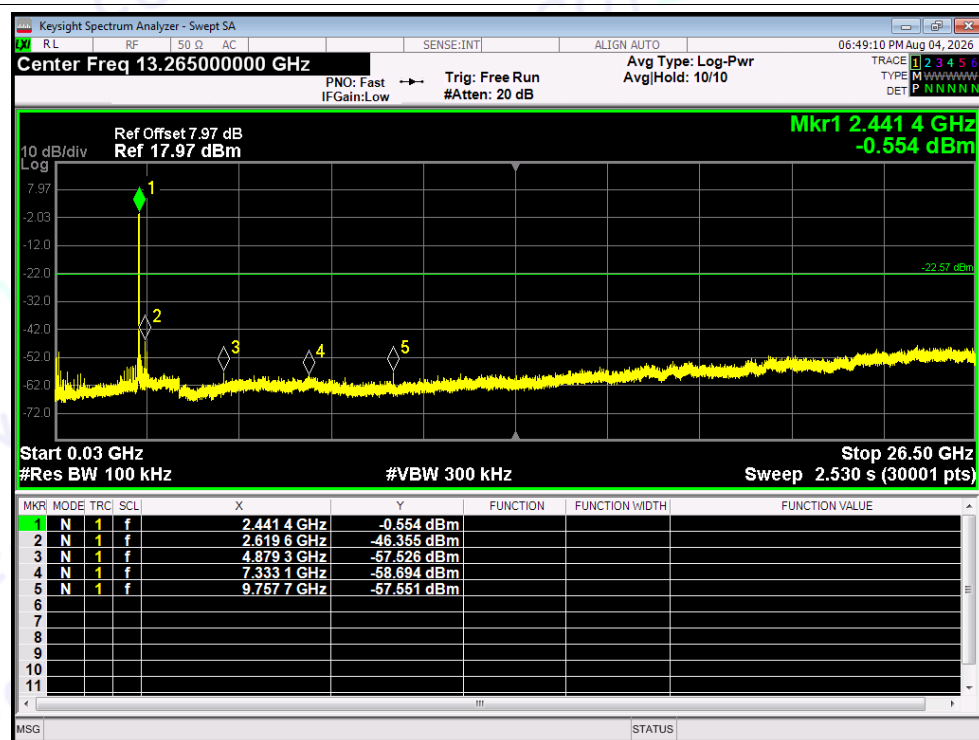
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



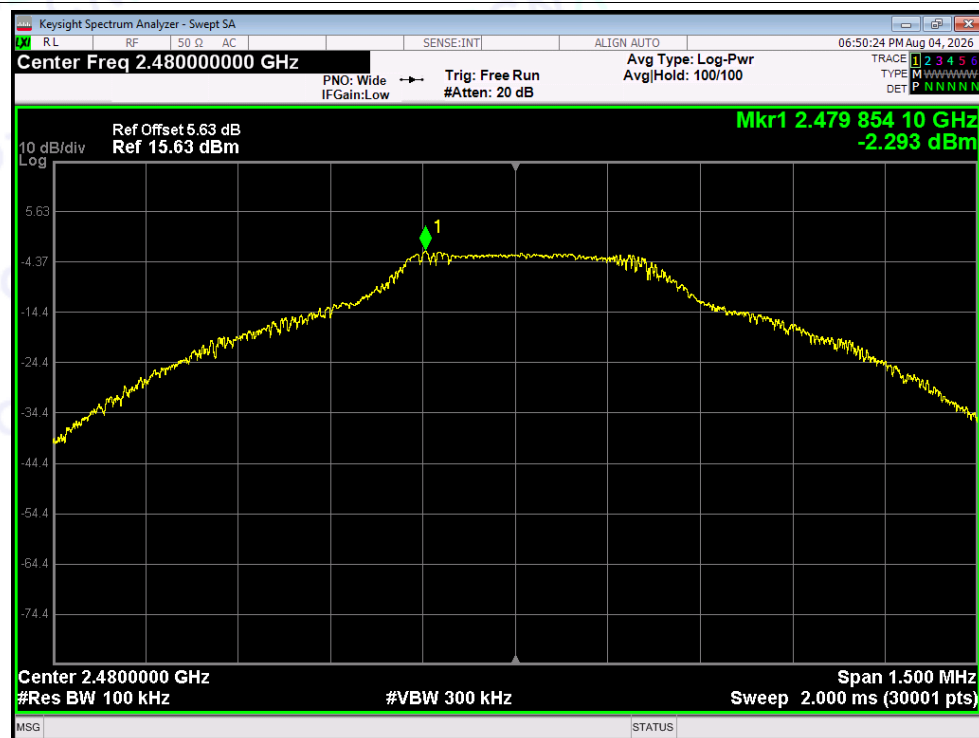
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



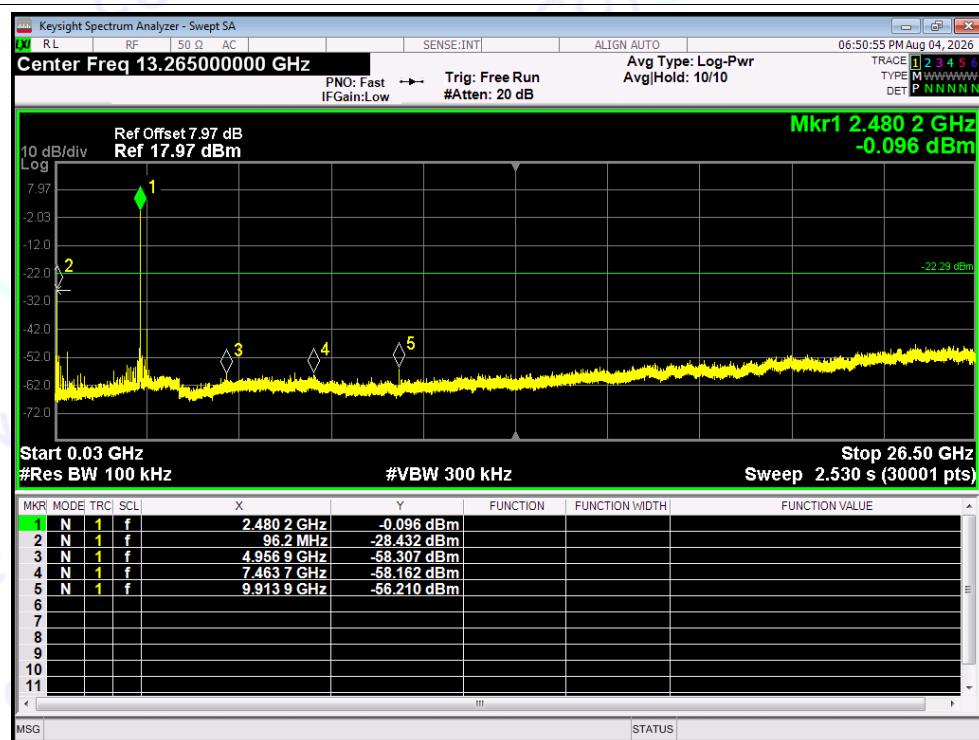
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



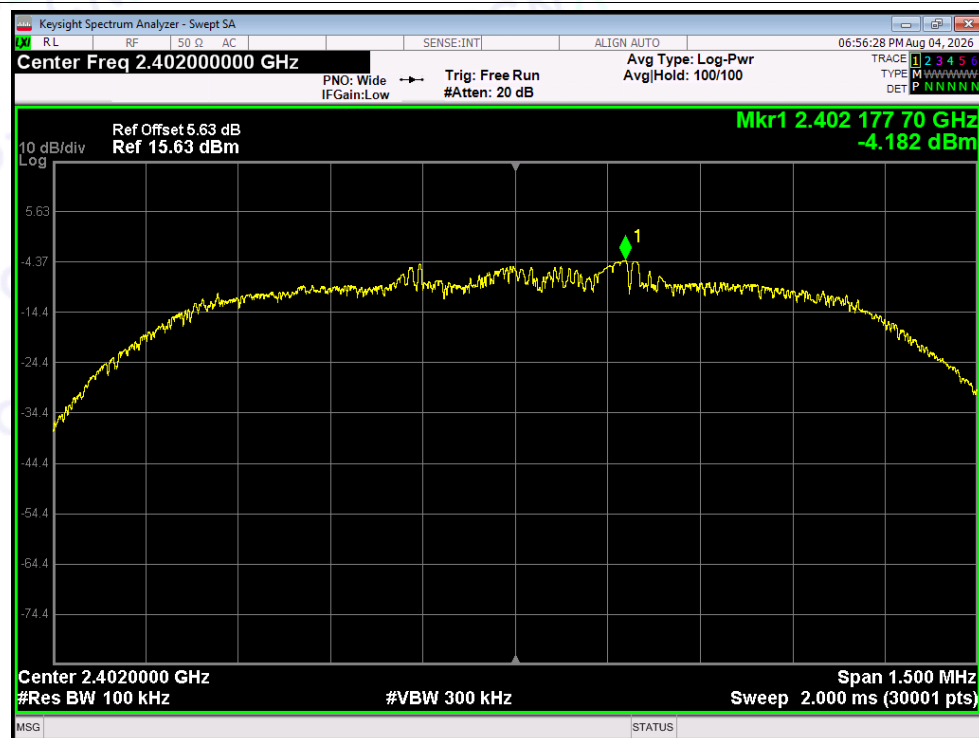
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



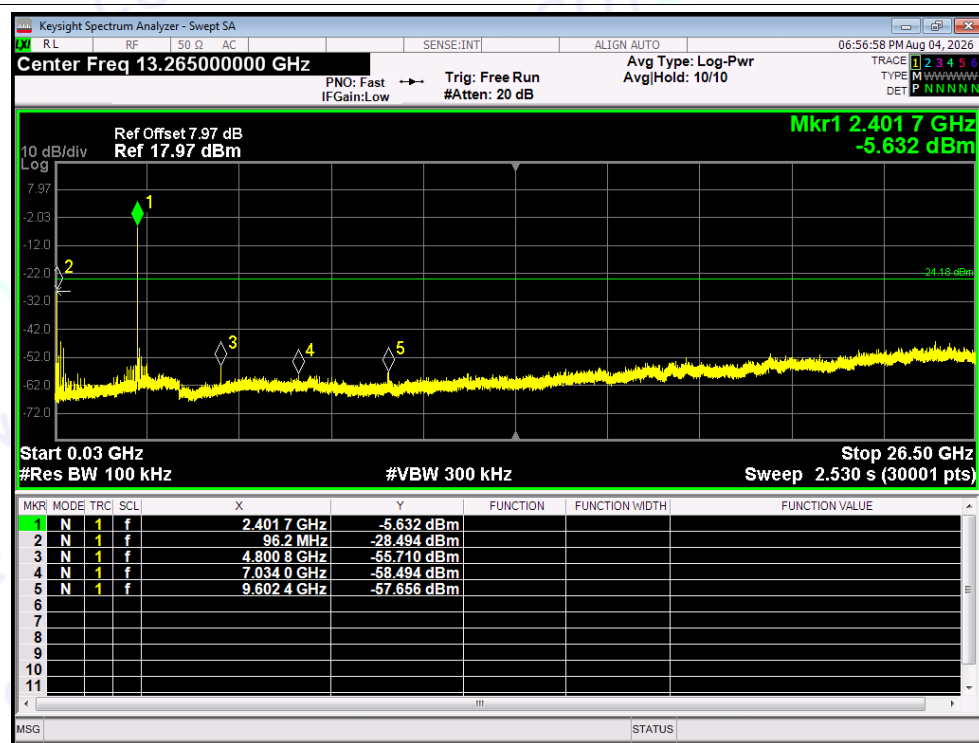
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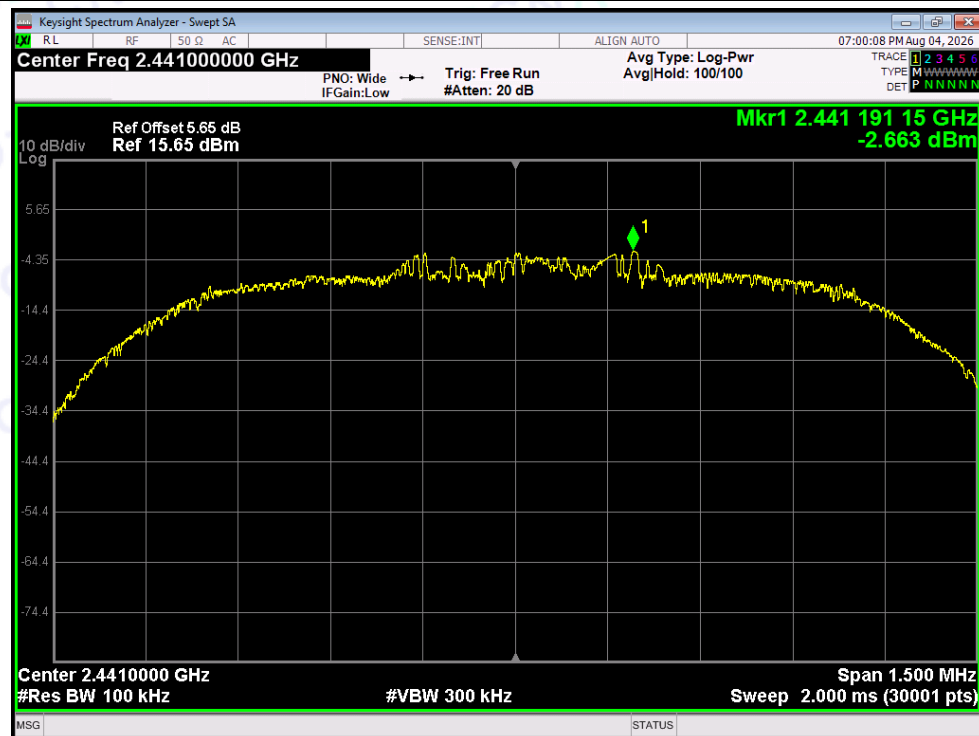
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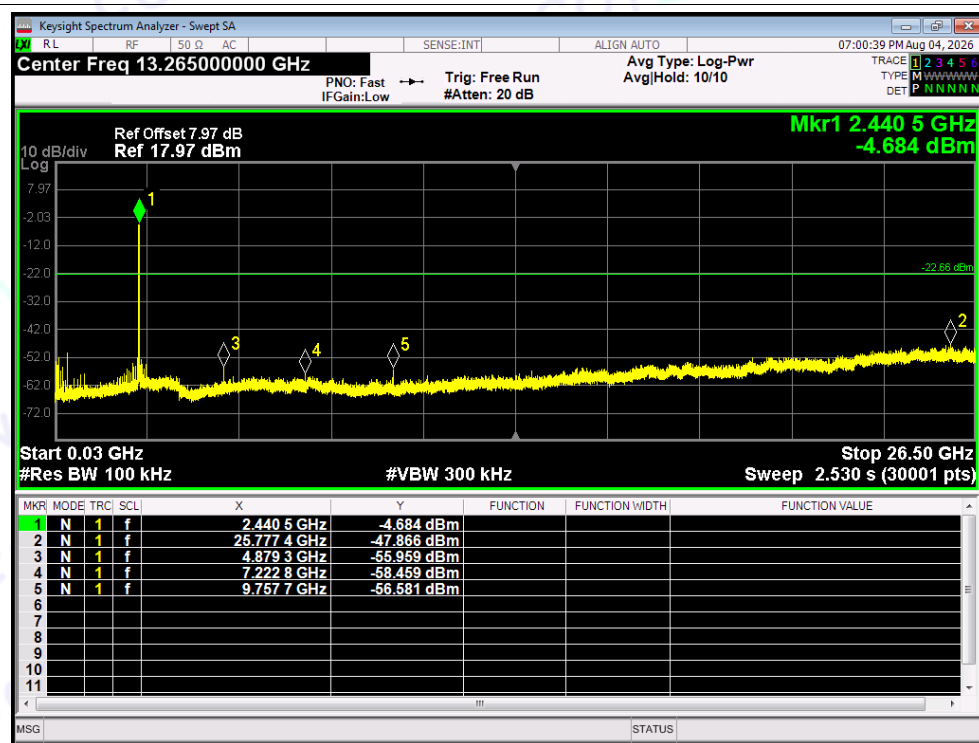
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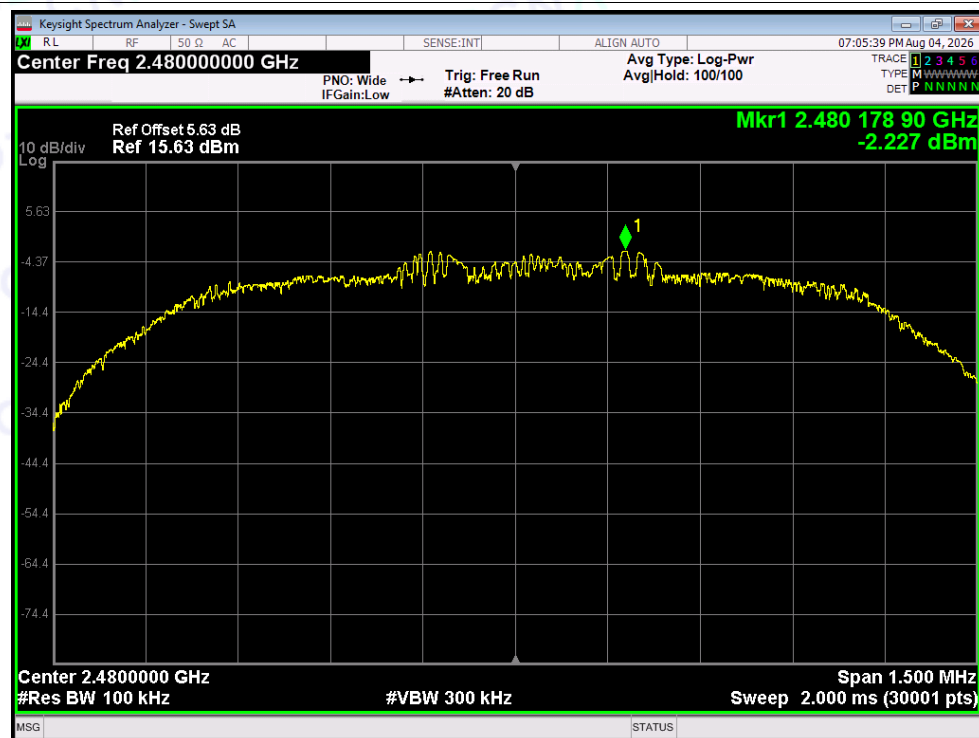
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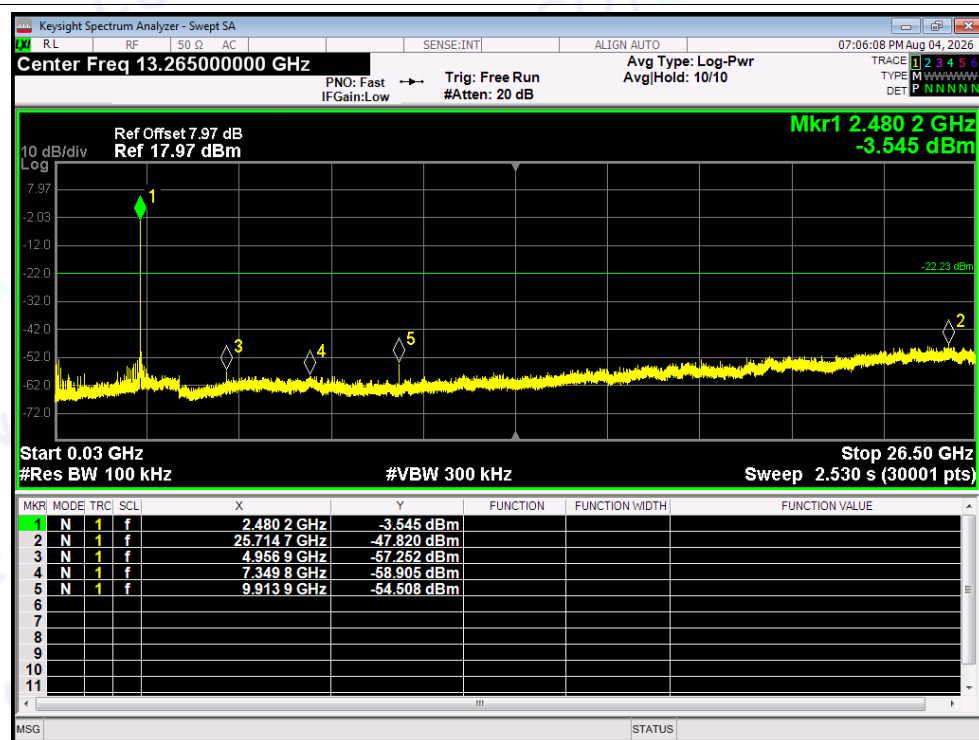
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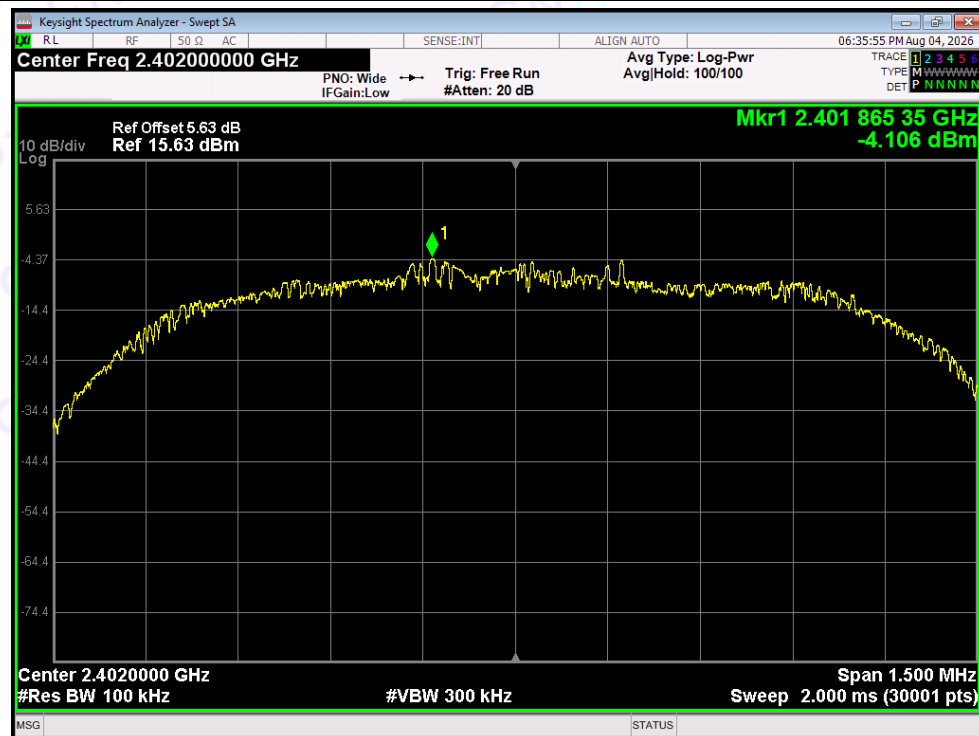
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



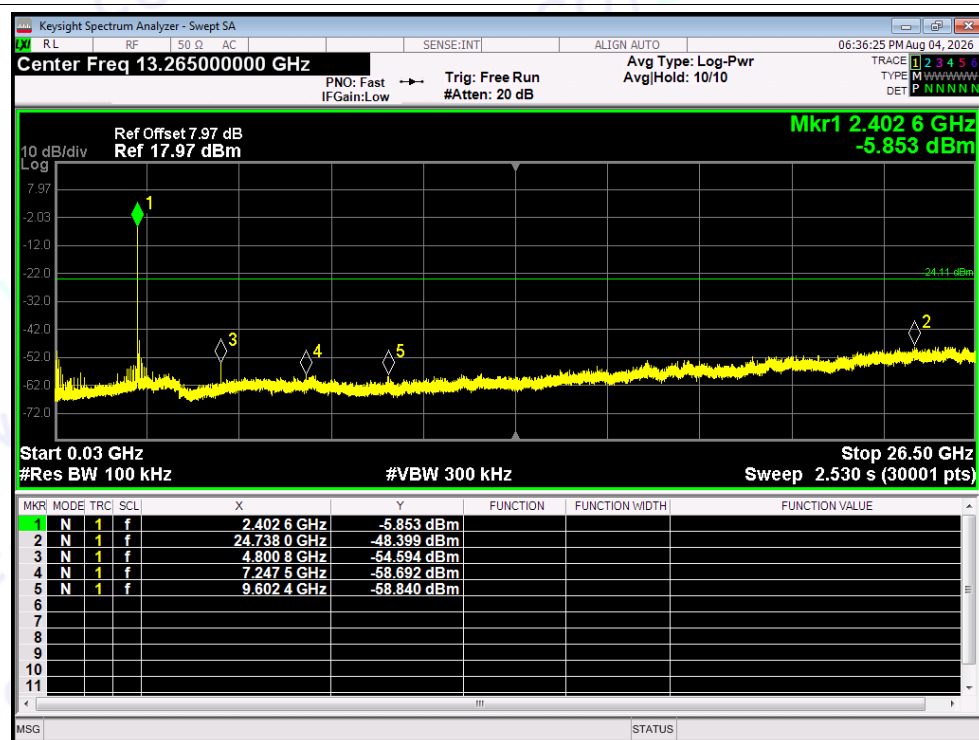
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



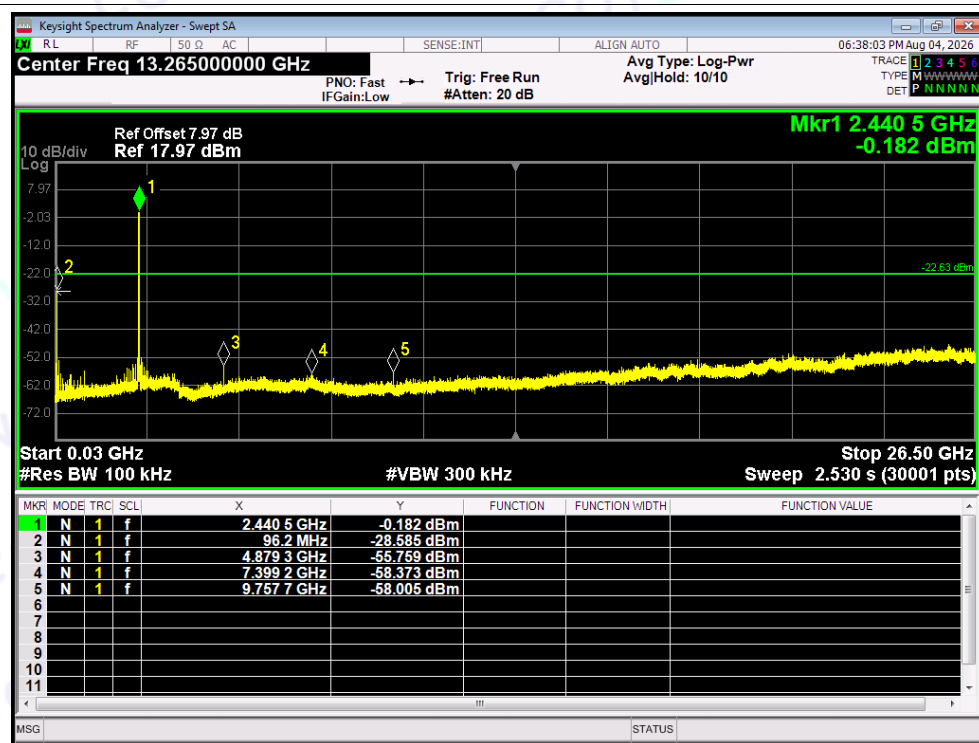
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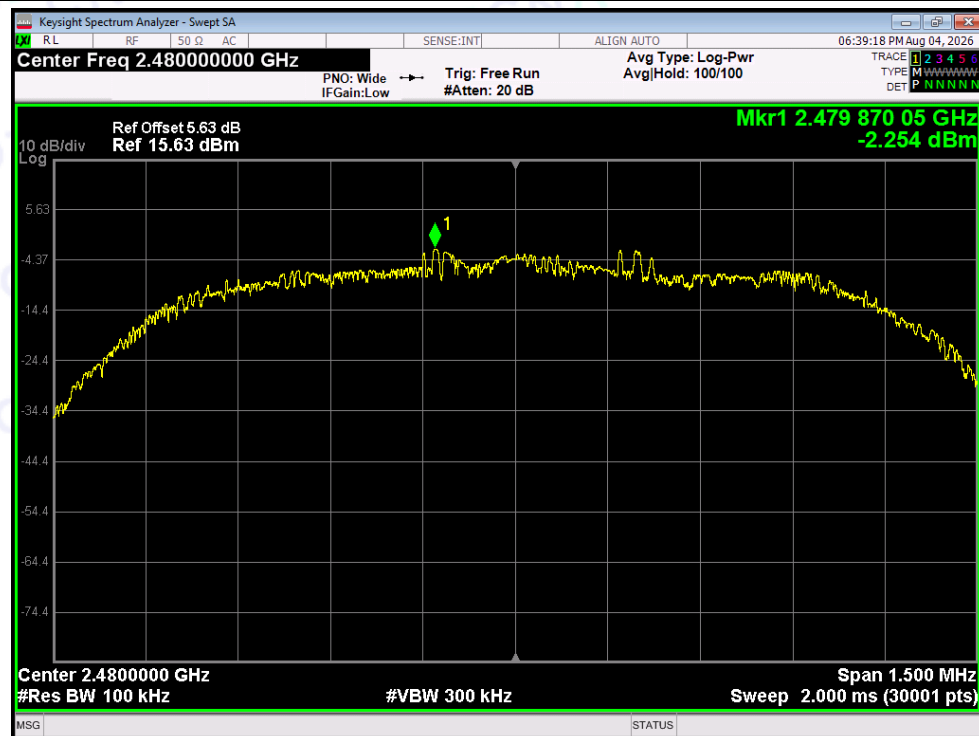
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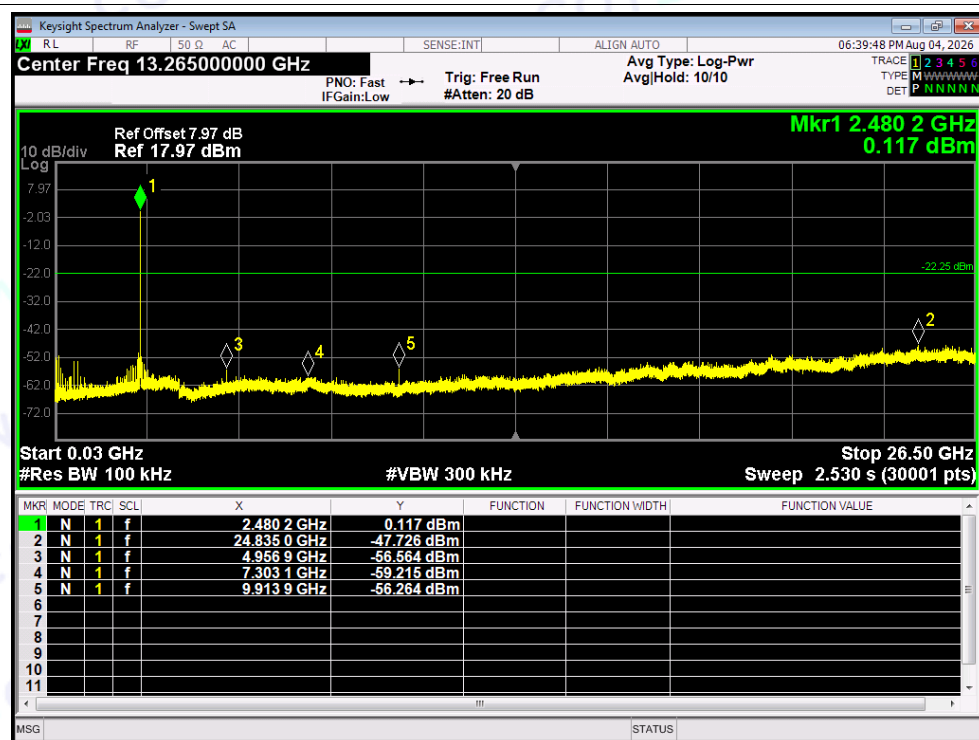
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

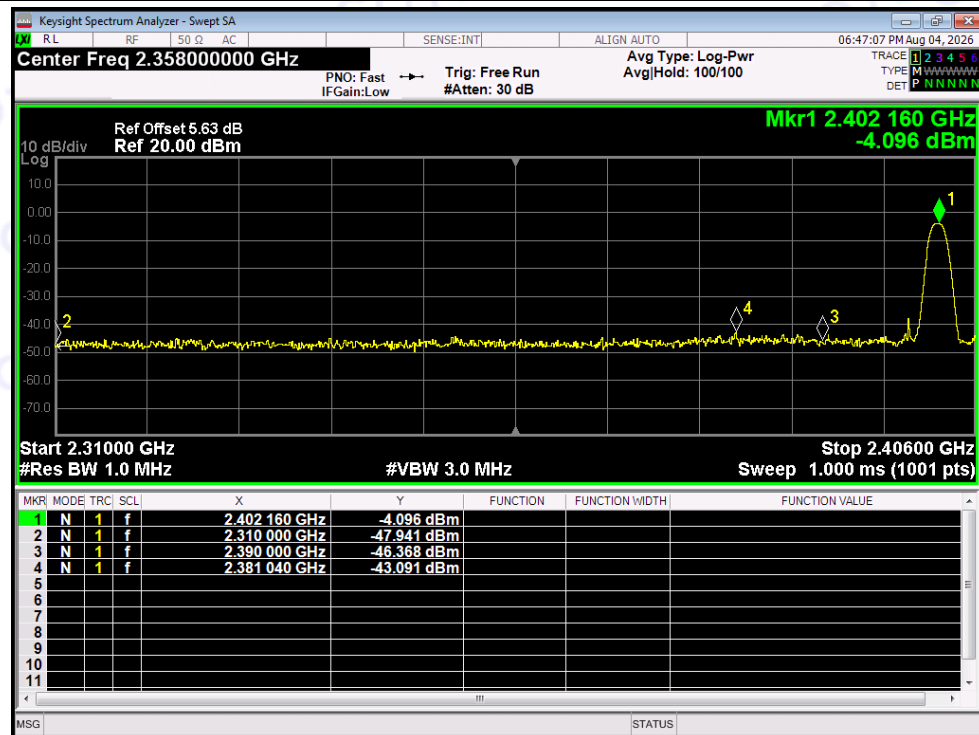


Restrict Band

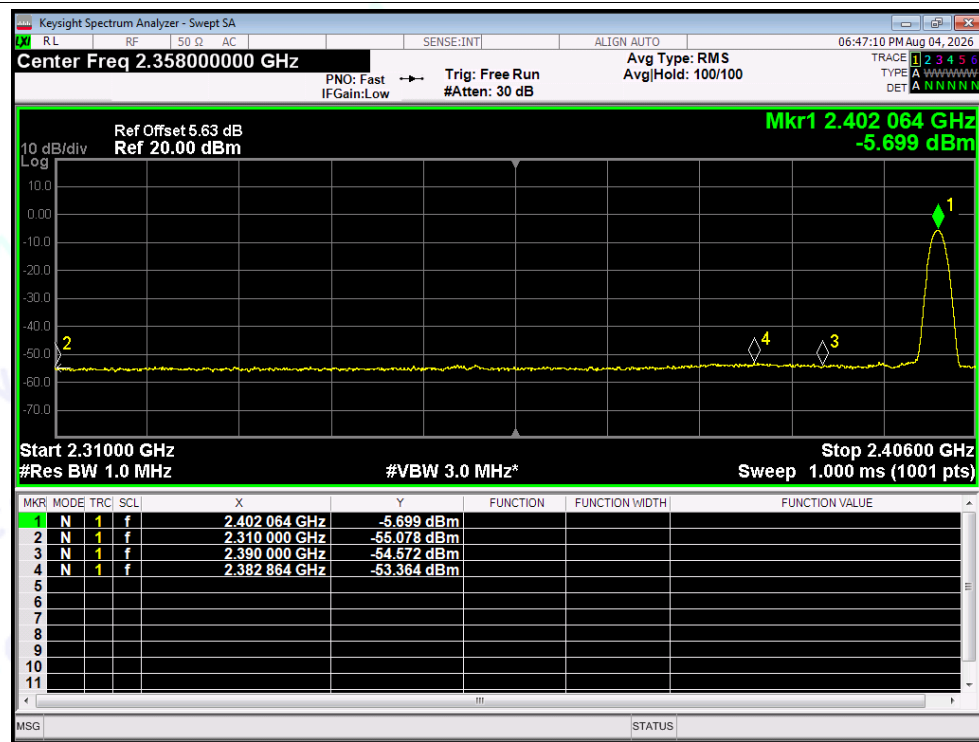
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBUV/m)	Detector	Limit (dBUV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-47.94	2	-	49.32	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-55.08	2	1.15	43.33	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2381.04	-43.09	2	-	54.17	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2382.864	-53.36	2	1.15	45.05	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-46.37	2	-	50.89	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-54.57	2	1.15	43.84	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-46.95	2	-	50.31	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-53.1	2	1.15	45.31	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2497.648	-41.44	2	-	55.82	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2495.752	-51.26	2	1.15	47.15	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-45.2	2	-	52.06	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-52.5	2	1.15	45.91	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-49.13	2	-	48.13	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-55.83	2	1.14	42.57	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2379.696	-43.44	2	-	53.82	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2382.48	-53.25	2	1.14	45.15	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-45.75	2	-	51.51	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-54.25	2	1.14	44.15	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-45.24	2	-	52.02	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-54.09	2	1.13	44.3	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2496.16	-40.37	2	-	56.89	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2495.992	-50.63	2	1.13	47.76	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-44.64	2	-	52.62	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-52.61	2	1.13	45.78	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-47.76	2	-	49.5	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-55.59	2	1.13	42.8	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2386.032	-42.67	2	-	54.59	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2377.104	-53	2	1.13	45.39	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-47	2	-	50.26	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-53.71	2	1.13	44.68	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-44.59	2	-	52.67	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-53.65	2	1.13	44.74	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2499.208	-40.95	2	-	56.31	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2495.848	-50.93	2	1.13	47.46	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-44.48	2	-	52.78	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-52.45	2	1.13	45.94	Average	54	Pass

Test Graphs

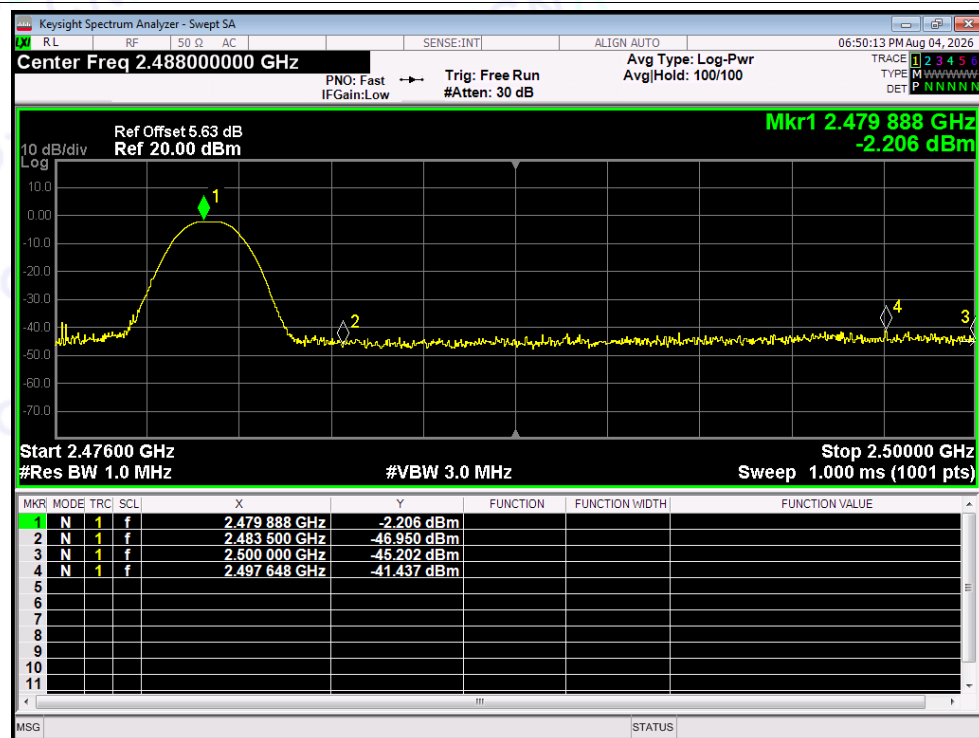
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



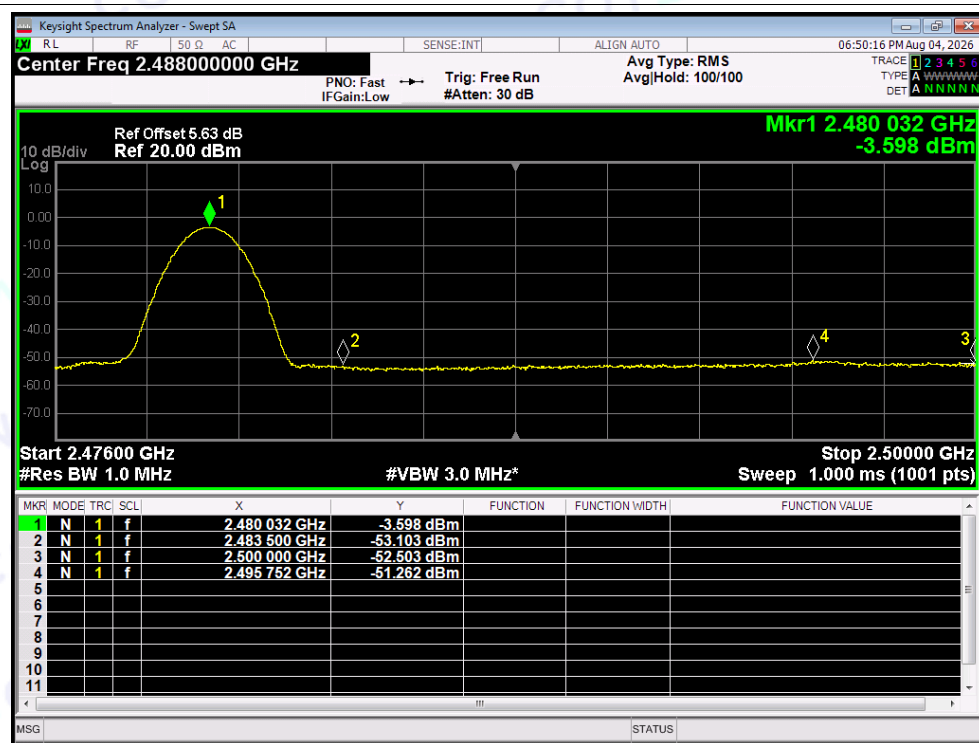
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



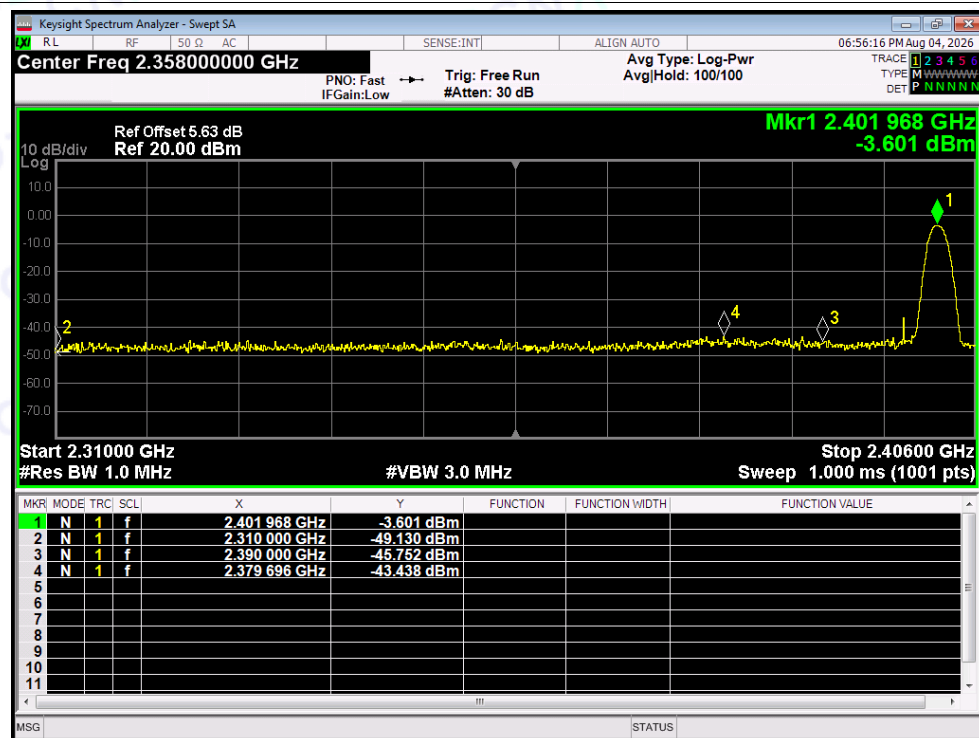
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



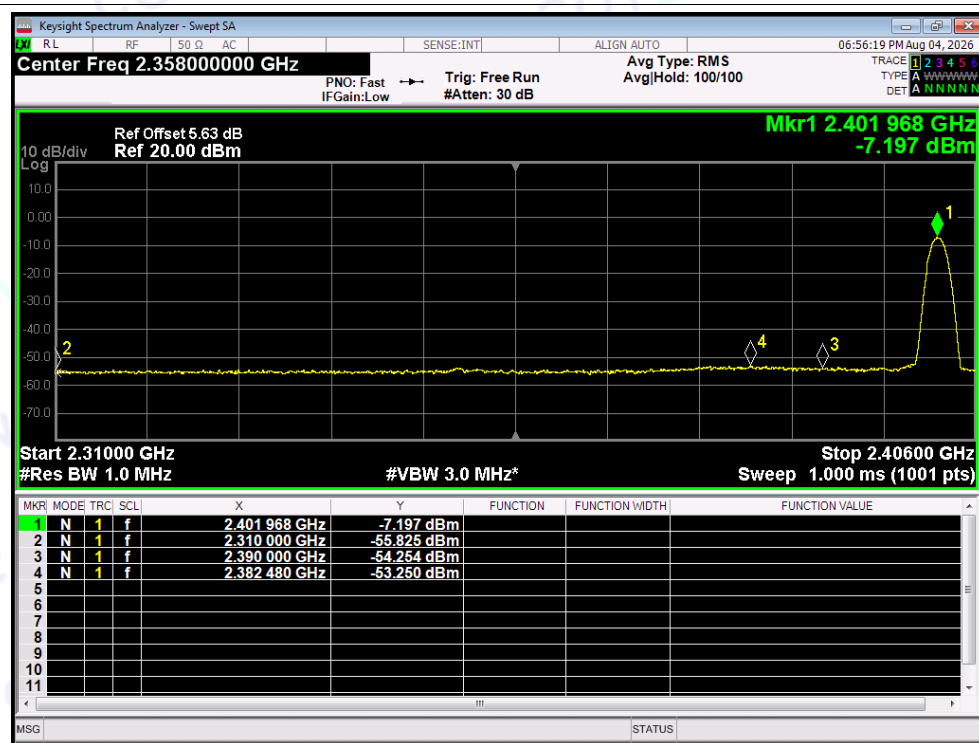
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



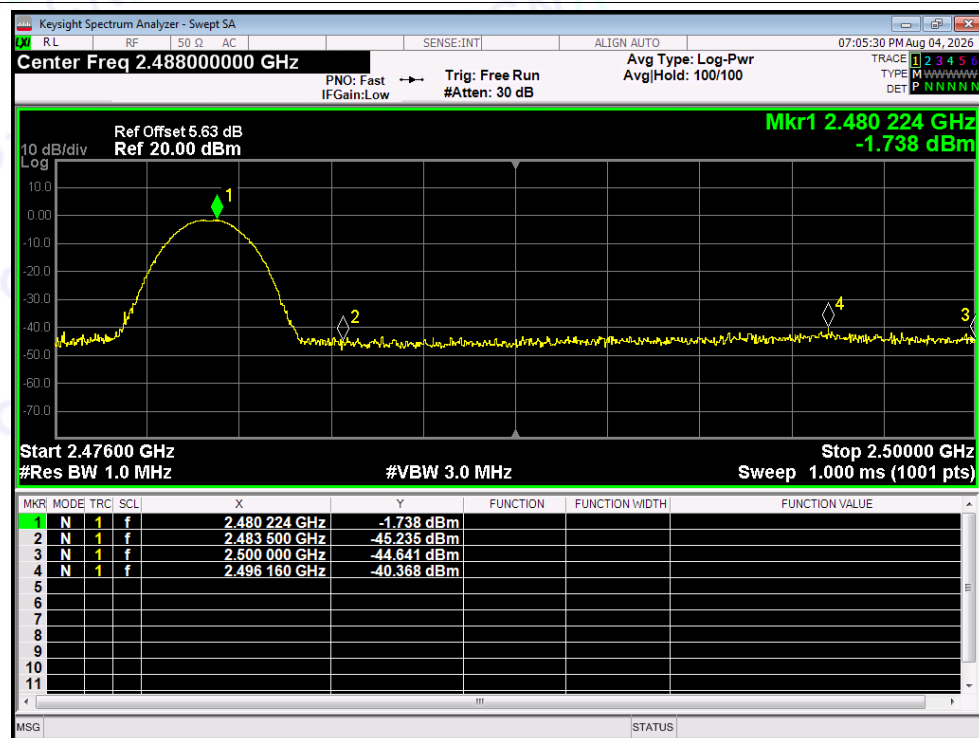
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak



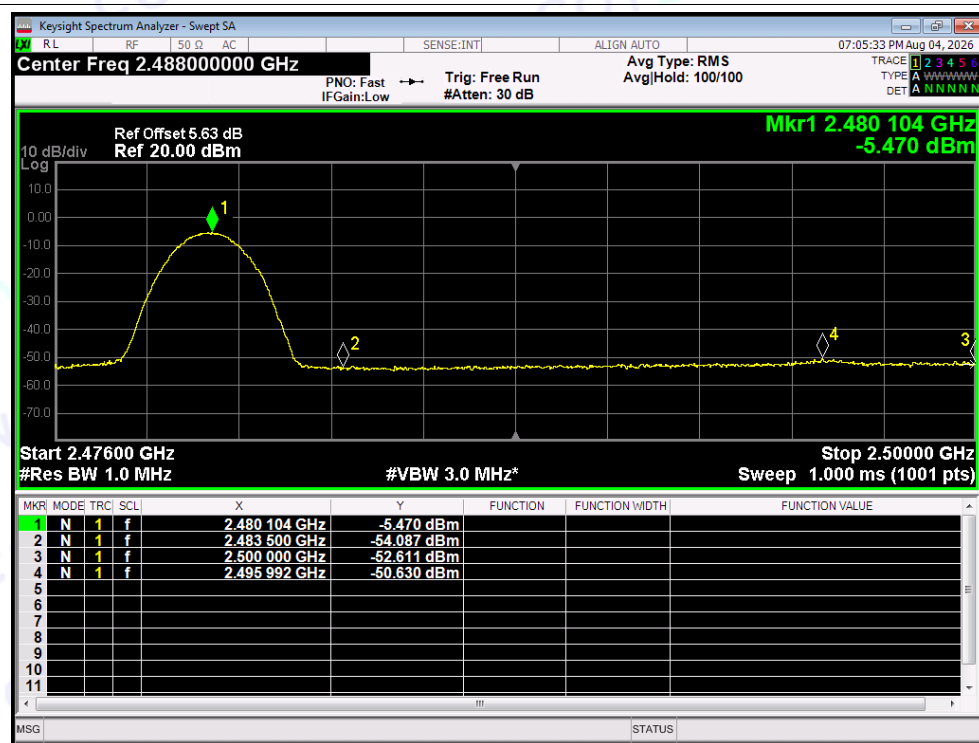
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average



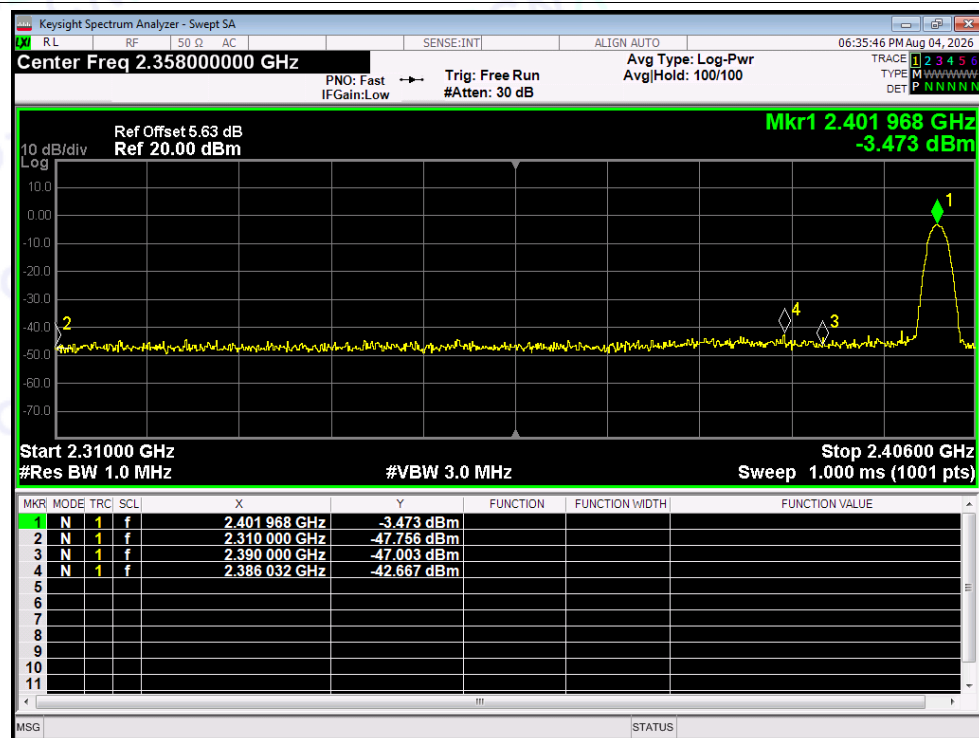
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak



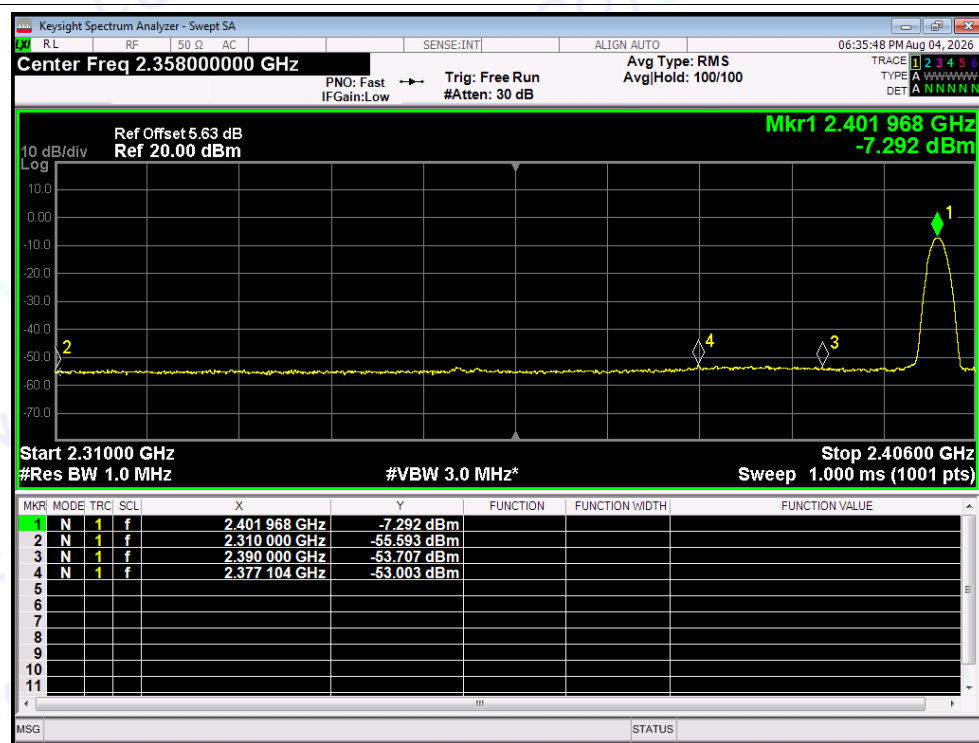
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average



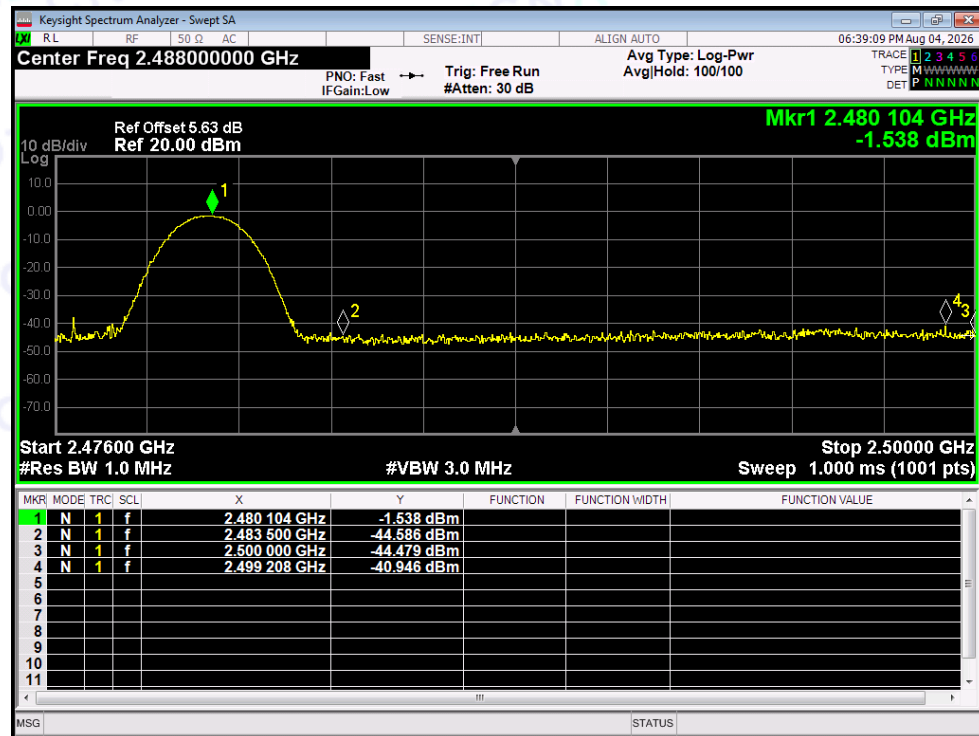
Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak



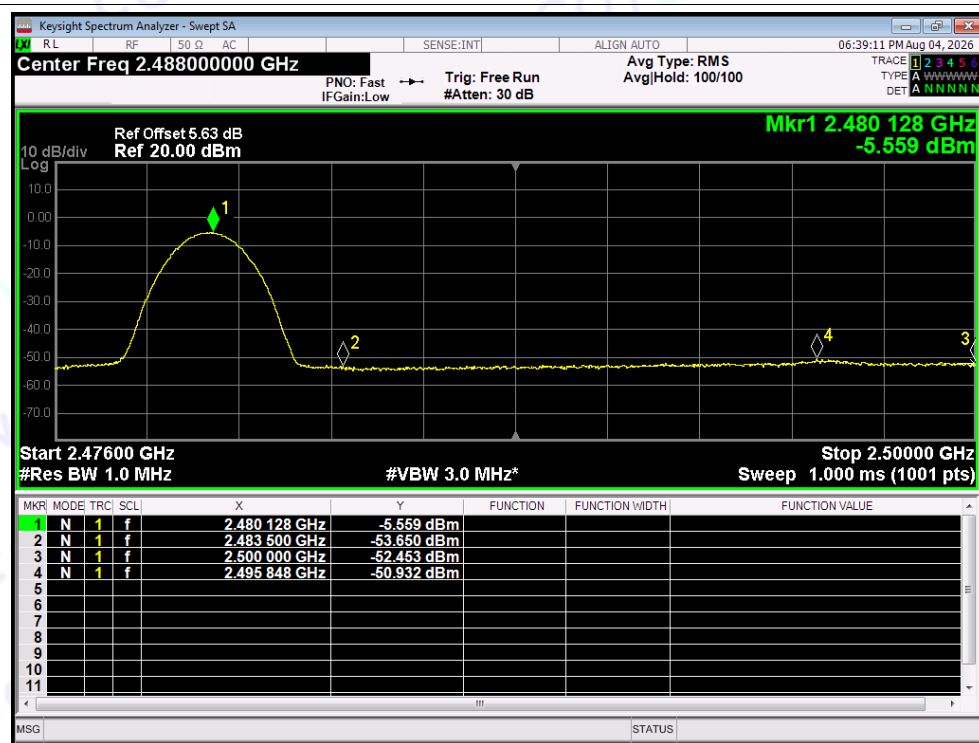
Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Average



Restrict Band NVNT 3-DH5 2480MHz Ant1 No-Hopping Peak



Restrict Band NVNT 3-DH5 2480MHz Ant1 No-Hopping Average

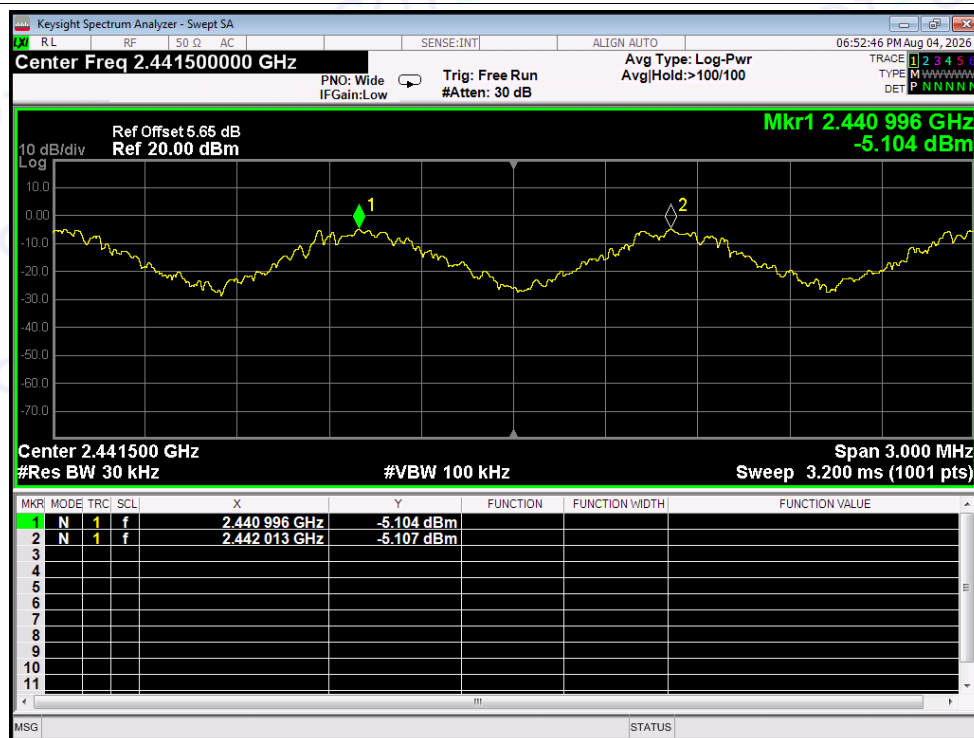


Carrier Frequencies Separation

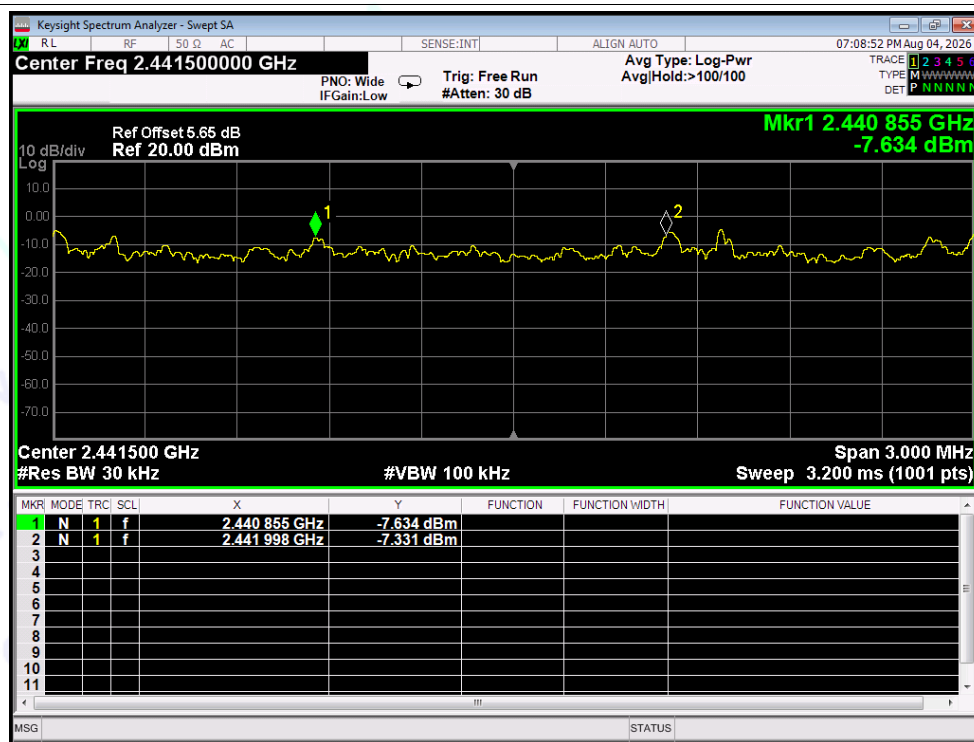
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2440.996	2442.013	1.017	0.633	Pass
NVNT	2-DH5	Ant1	2440.855	2441.998	1.143	0.025	Pass
NVNT	3-DH5	Ant1	2440.867	2442.019	1.152	0.867	Pass

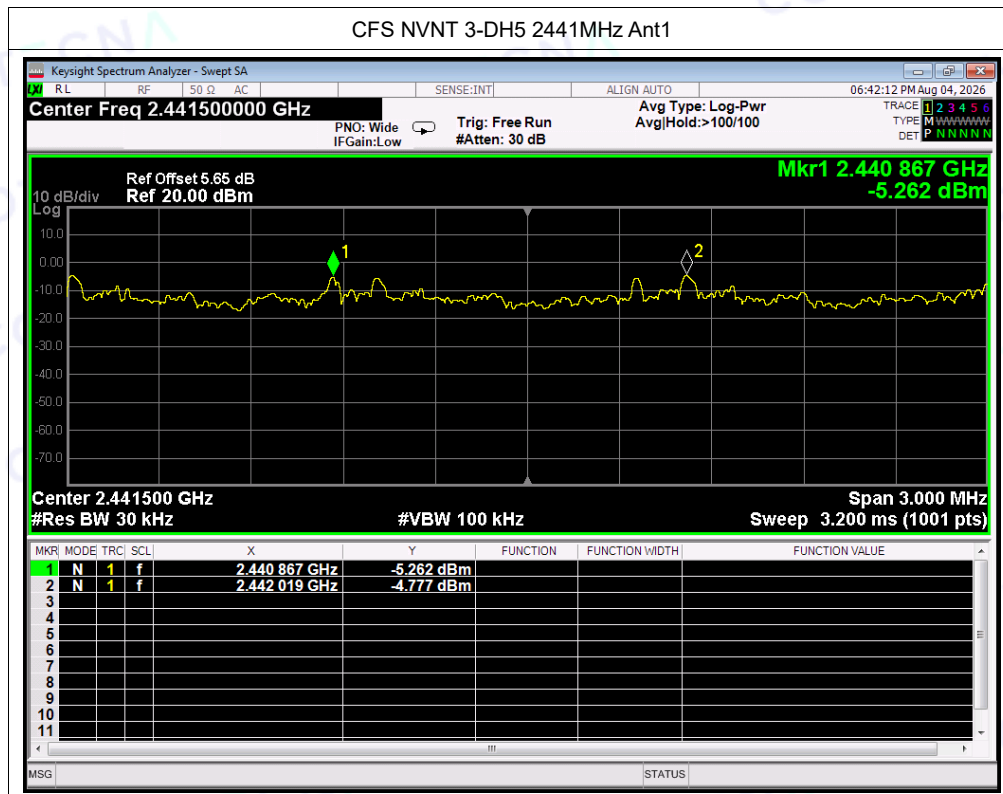
Test Graphs

CFS NVNT 1-DH5 2441MHz Ant1



CFS NVNT 2-DH5 2441MHz Ant1



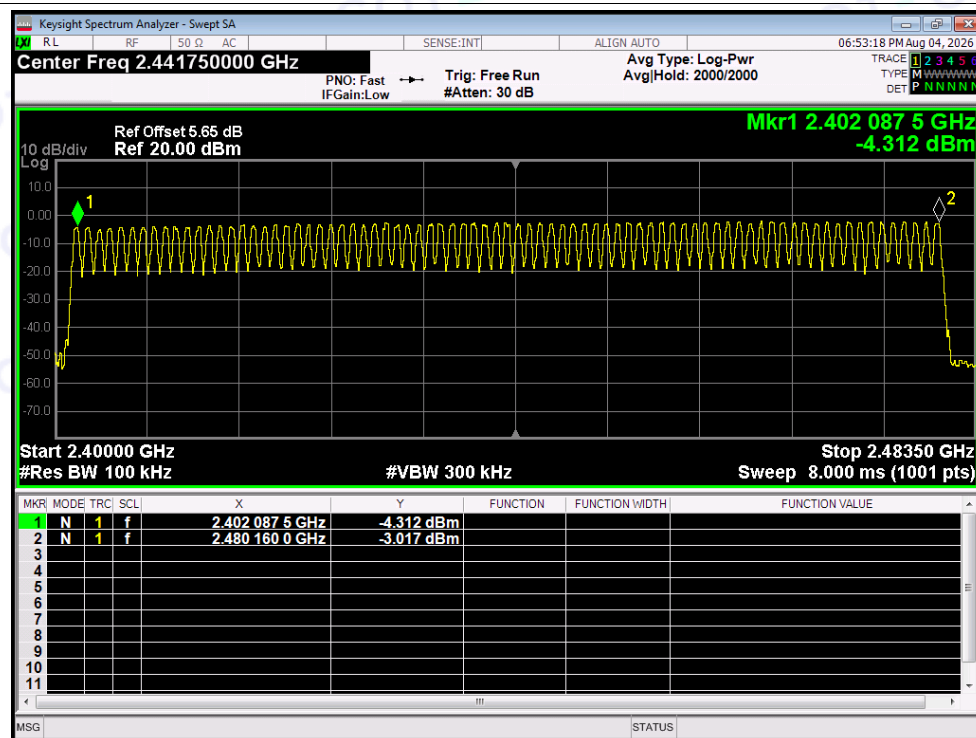


Number of Hopping Channel

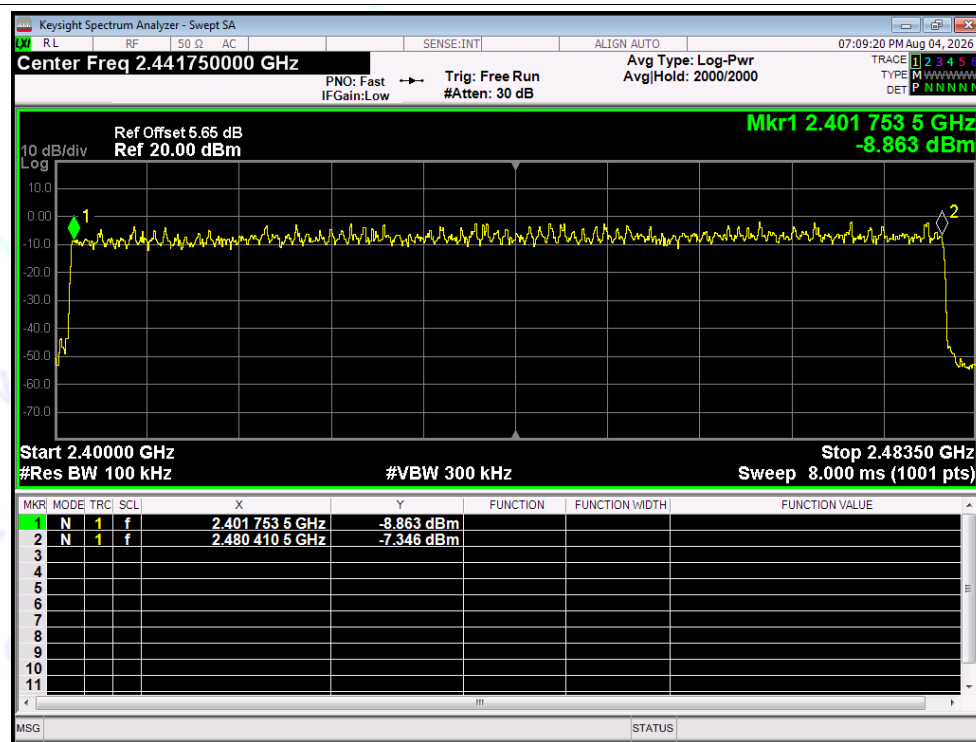
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

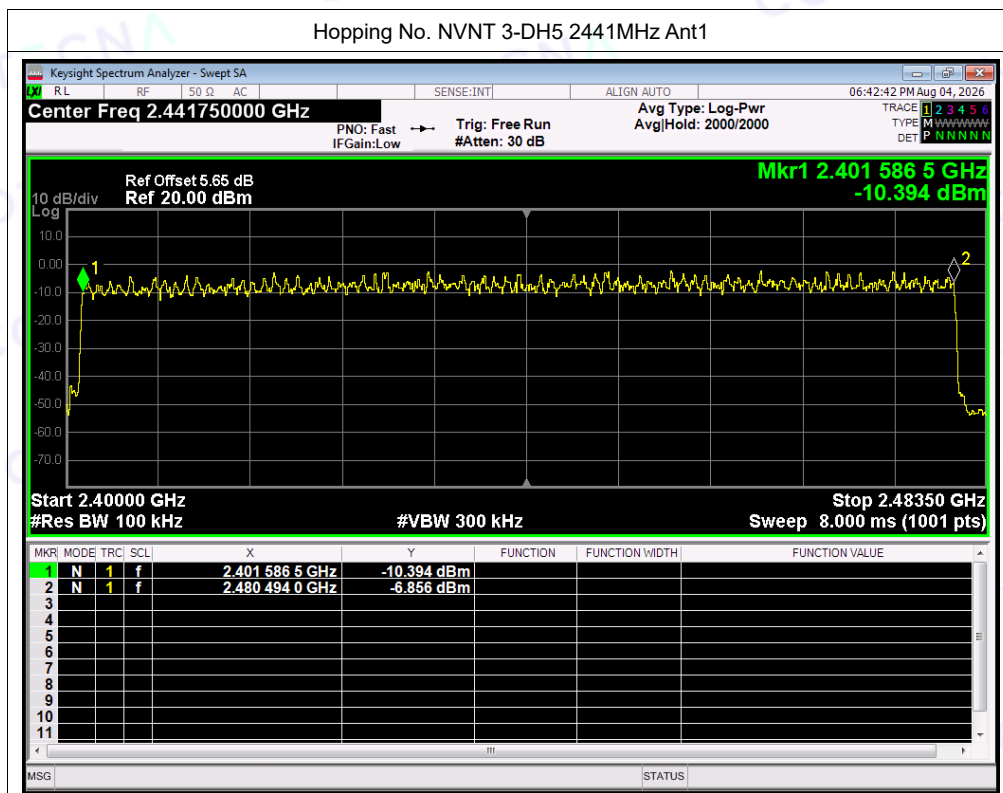
Test Graphs

Hopping No. NVNT 1-DH5 2441MHz Ant1



Hopping No. NVNT 2-DH5 2441MHz Ant1





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