

RF Test Data for Bluetooth LE (Conducted Measurements)

General Description of EUT	
Product Name:	Smart glasses
Test Model:	A01
Sample ID:	HC-C-202504-0205-02-2#
Environmental Conditions	
Temperature:	24.4℃
Relative Humidity:	50%
Test Voltage:	DC 3.7V
Test Engineer:	Gold Zhang
Note: For a more detailed features description, please refer to the report TBR-C-202504-0205-5 The report only show the worst case data. (Left Data)	

Contents

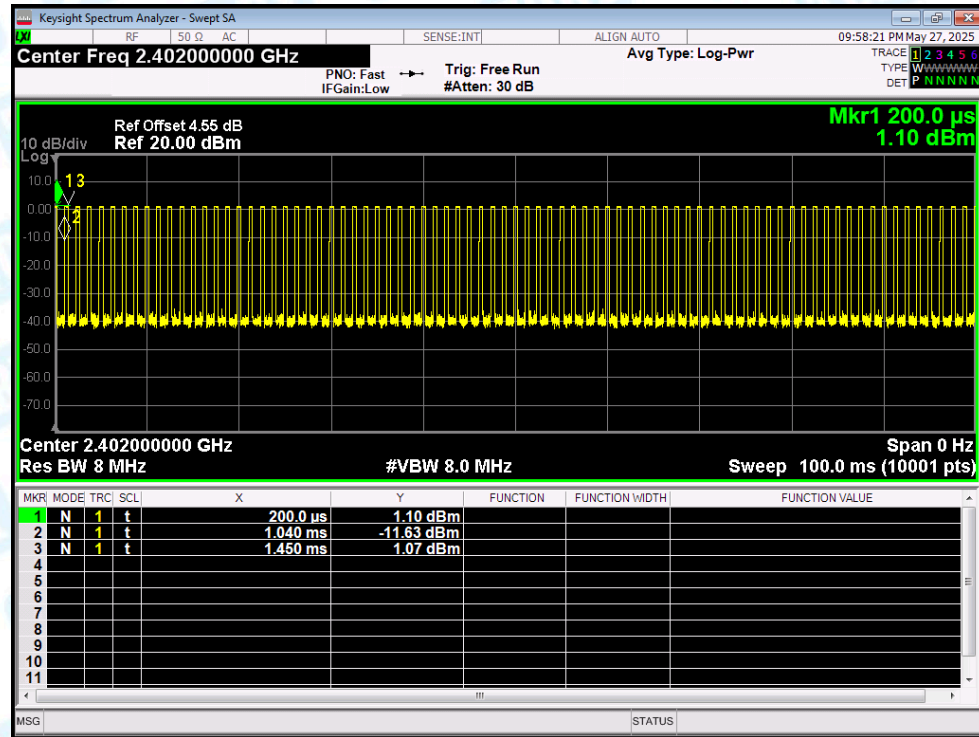
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1. Duty Cycle

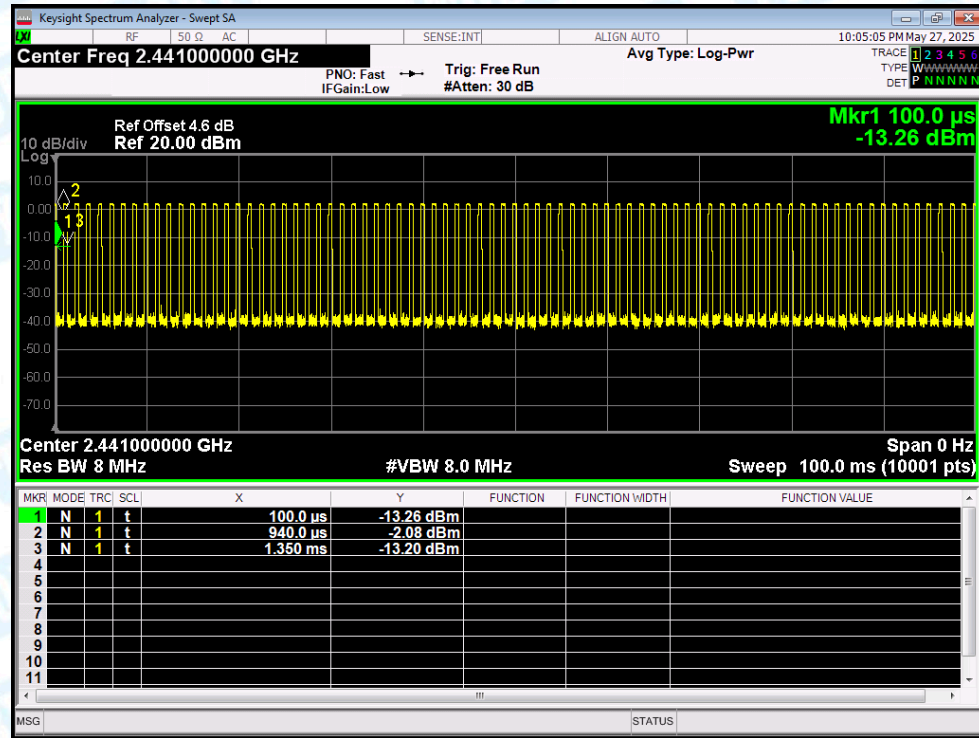
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	32.8	4.84	2.44
NVNT	1-DH1	2441	Ant1	32.8	4.84	2.44
NVNT	1-DH1	2480	Ant1	32.8	4.84	2.44
NVNT	2-DH1	2402	Ant1	33.6	4.74	2.38
NVNT	2-DH1	2441	Ant1	32.8	4.84	2.44
NVNT	2-DH1	2480	Ant1	32.8	4.84	2.44
NVNT	3-DH1	2402	Ant1	33.6	4.74	2.38
NVNT	3-DH1	2441	Ant1	33.6	4.74	2.38
NVNT	3-DH1	2480	Ant1	33.6	4.74	2.38

Test Graphs

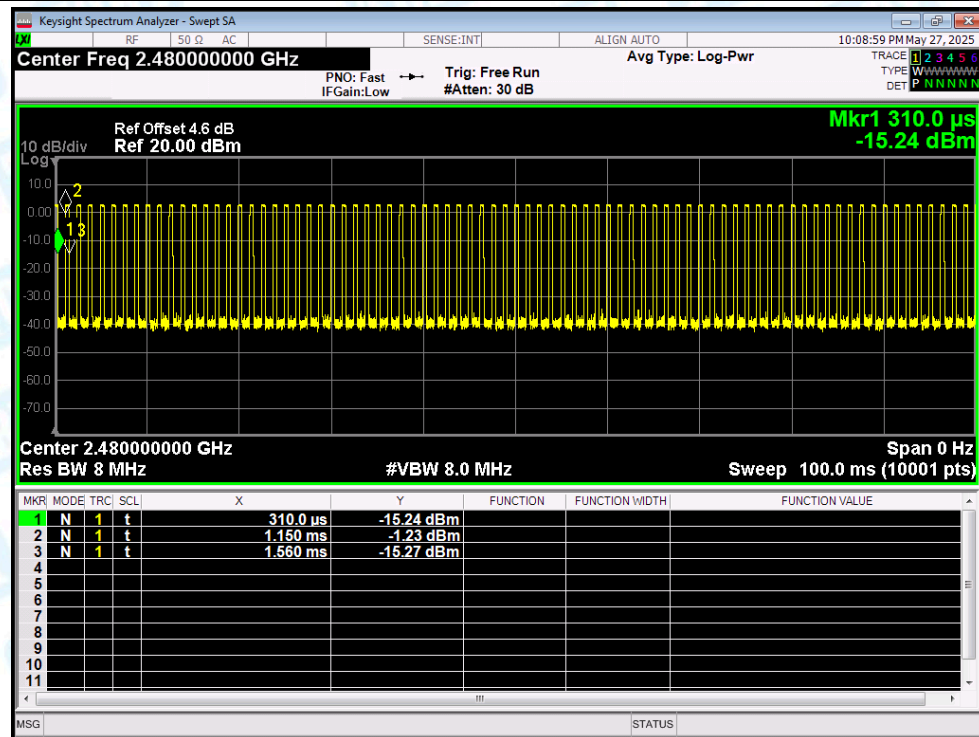
Duty Cycle NVNT 1-DH1 2402MHz Ant1



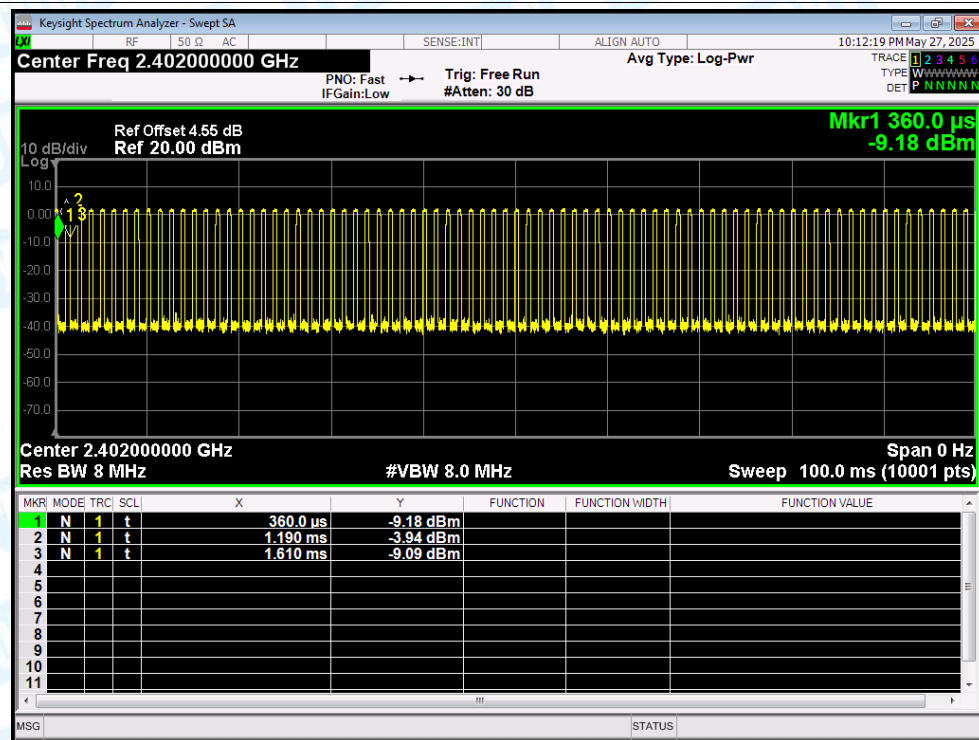
Duty Cycle NVNT 1-DH1 2441MHz Ant1



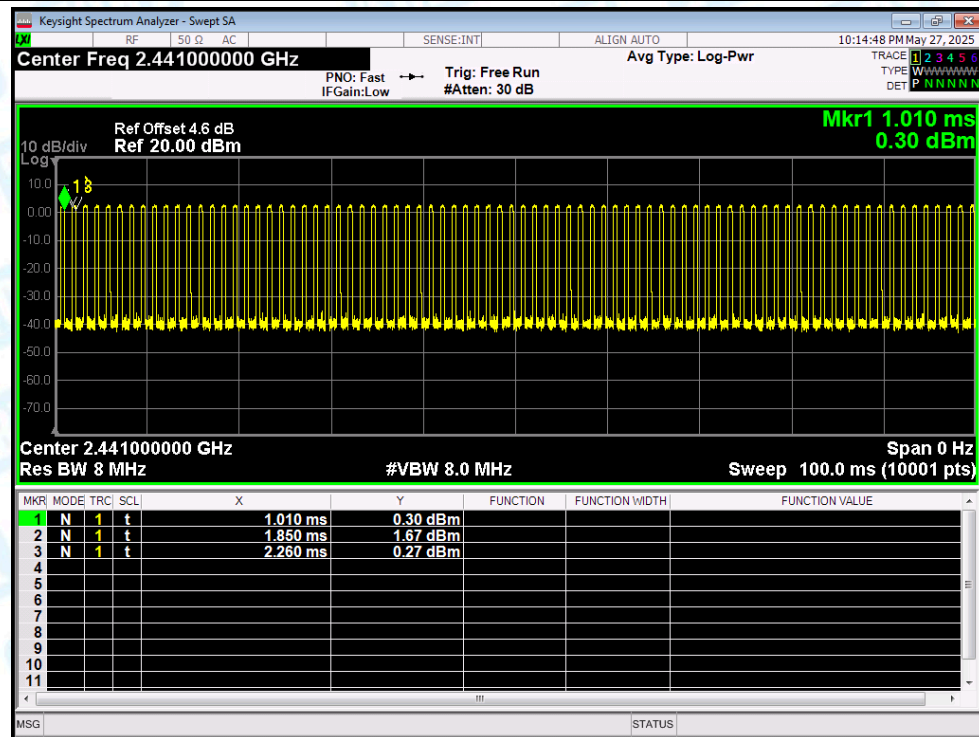
Duty Cycle NVNT 1-DH1 2480MHz Ant1



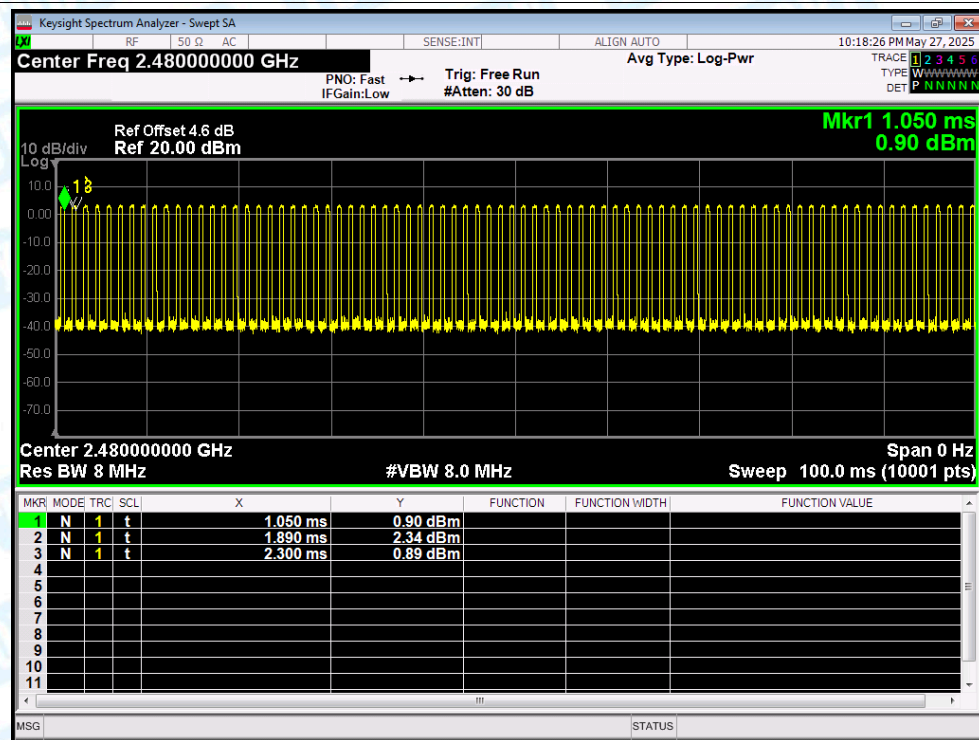
Duty Cycle NVNT 2-DH1 2402MHz Ant1



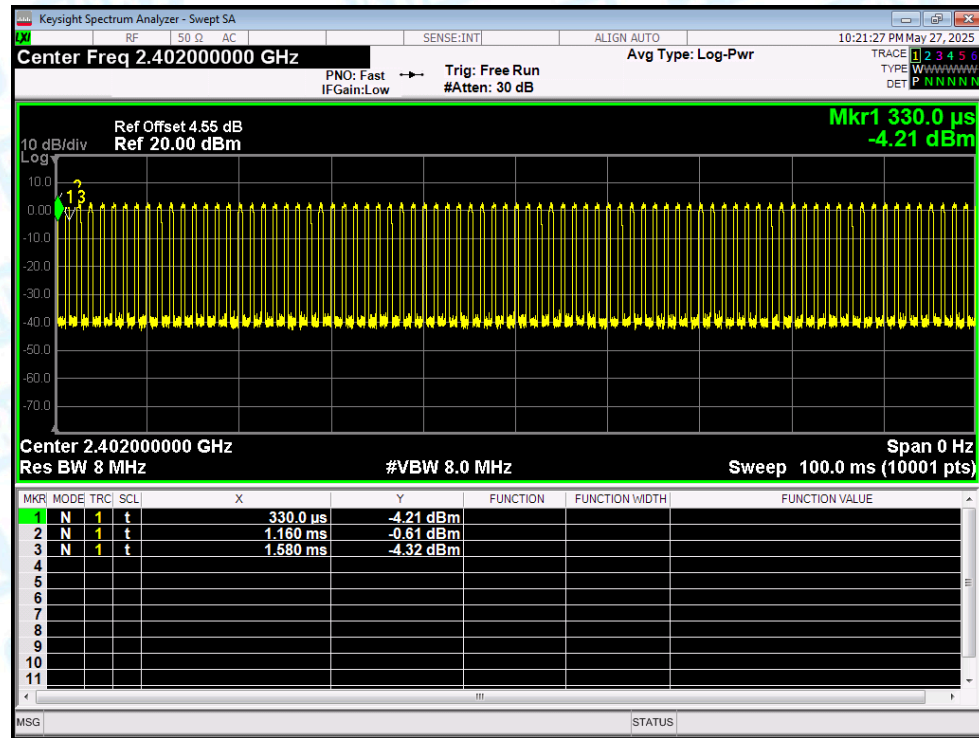
Duty Cycle NVNT 2-DH1 2441MHz Ant1



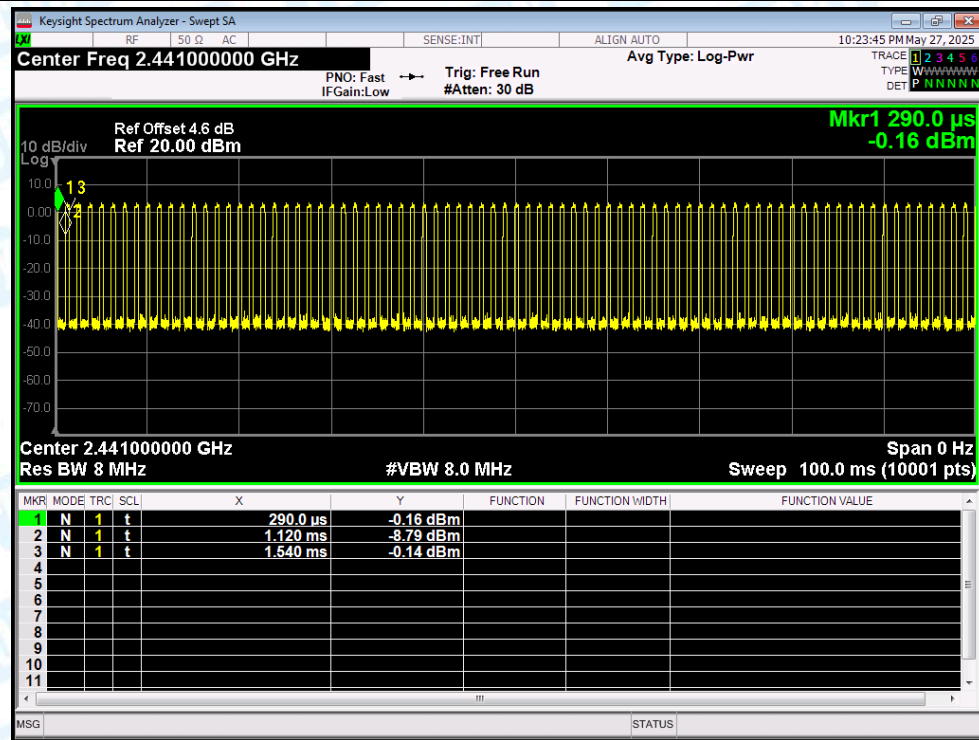
Duty Cycle NVNT 2-DH1 2480MHz Ant1

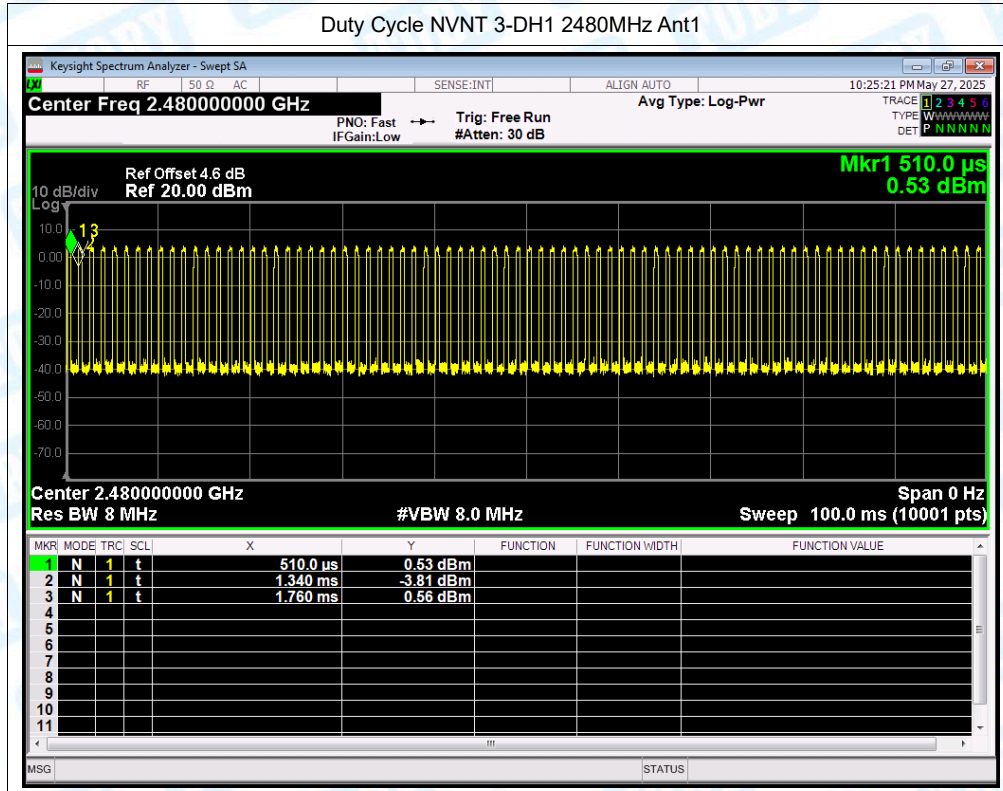


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1





2. Maximum Conducted Output Power

Left:

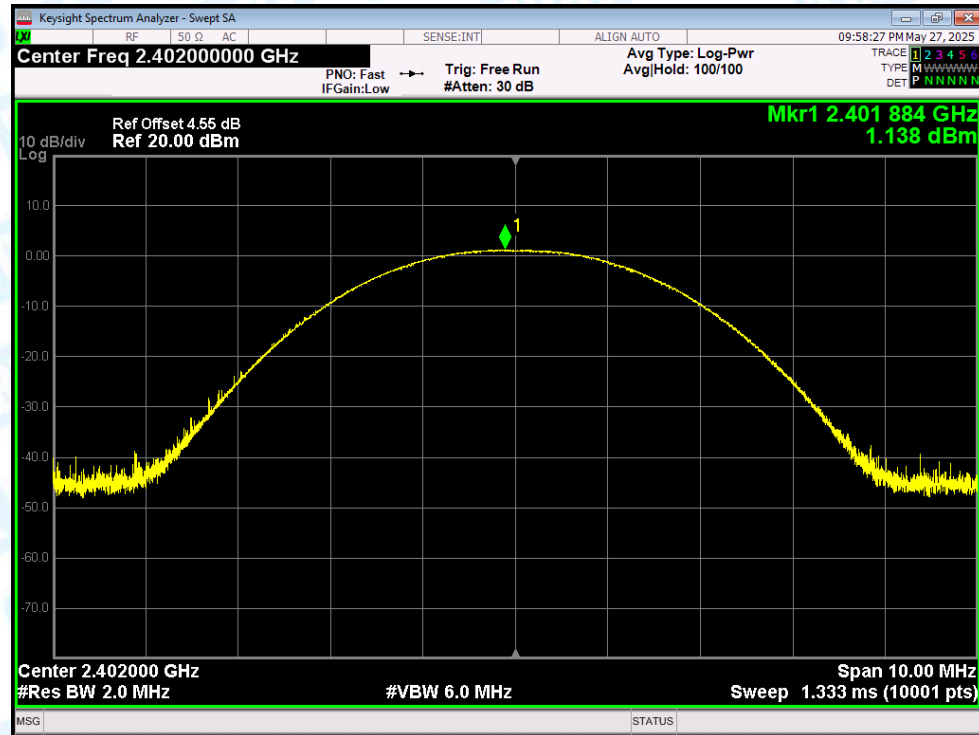
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	1.138	21	Pass
NVNT	1-DH1	2441	Ant1	1.875	21	Pass
NVNT	1-DH1	2480	Ant1	2.548	21	Pass
NVNT	1-DH3	2441	Ant1	1.811	21	Pass
NVNT	1-DH5	2441	Ant1	1.803	21	Pass
NVNT	2-DH1	2402	Ant1	1.984	21	Pass
NVNT	2-DH1	2441	Ant1	2.64	21	Pass
NVNT	2-DH1	2480	Ant1	3.296	21	Pass
NVNT	2-DH3	2441	Ant1	2.503	21	Pass
NVNT	2-DH5	2441	Ant1	2.535	21	Pass
NVNT	3-DH1	2402	Ant1	2.469	21	Pass
NVNT	3-DH1	2441	Ant1	3.134	21	Pass
NVNT	3-DH1	2480	Ant1	3.81	21	Pass
NVNT	3-DH3	2441	Ant1	3.023	21	Pass
NVNT	3-DH5	2441	Ant1	2.95	21	Pass

Right:

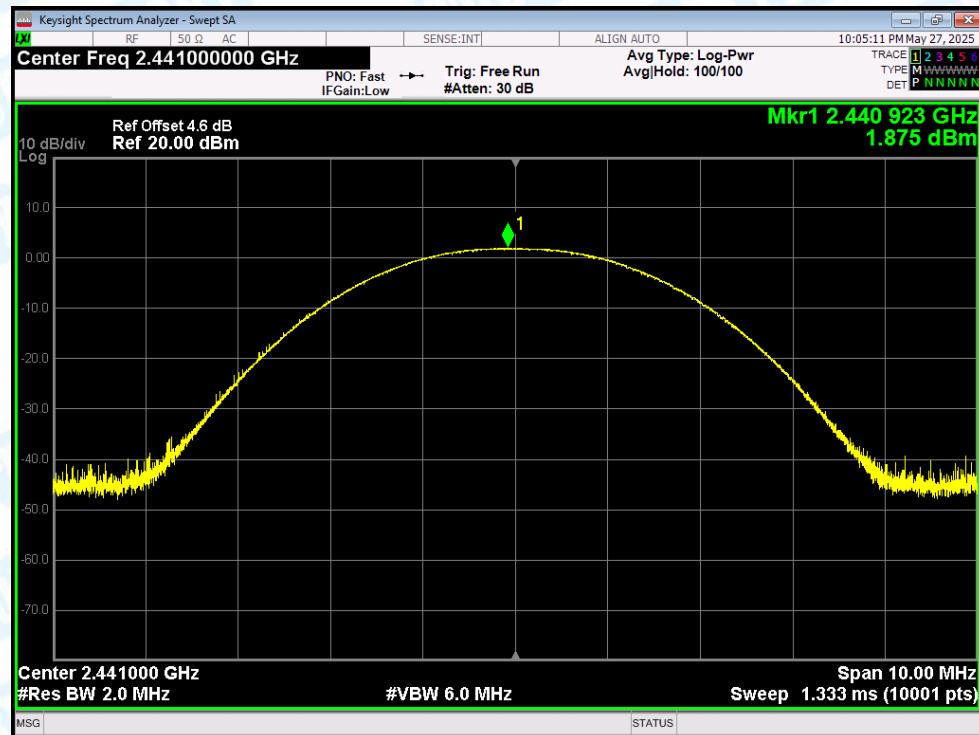
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	1.049	21	Pass
NVNT	1-DH1	2441	Ant1	1.678	21	Pass
NVNT	1-DH1	2480	Ant1	2.413	21	Pass
NVNT	1-DH3	2441	Ant1	1.79	21	Pass
NVNT	1-DH5	2441	Ant1	1.724	21	Pass
NVNT	2-DH1	2402	Ant1	1.847	21	Pass
NVNT	2-DH1	2441	Ant1	2.436	21	Pass
NVNT	2-DH1	2480	Ant1	3.199	21	Pass
NVNT	2-DH3	2441	Ant1	2.48	21	Pass
NVNT	2-DH5	2441	Ant1	2.483	21	Pass
NVNT	3-DH1	2402	Ant1	2.32	21	Pass
NVNT	3-DH1	2441	Ant1	2.952	21	Pass
NVNT	3-DH1	2480	Ant1	3.755	21	Pass
NVNT	3-DH3	2441	Ant1	2.977	21	Pass
NVNT	3-DH5	2441	Ant1	3.167	21	Pass

Test Graphs

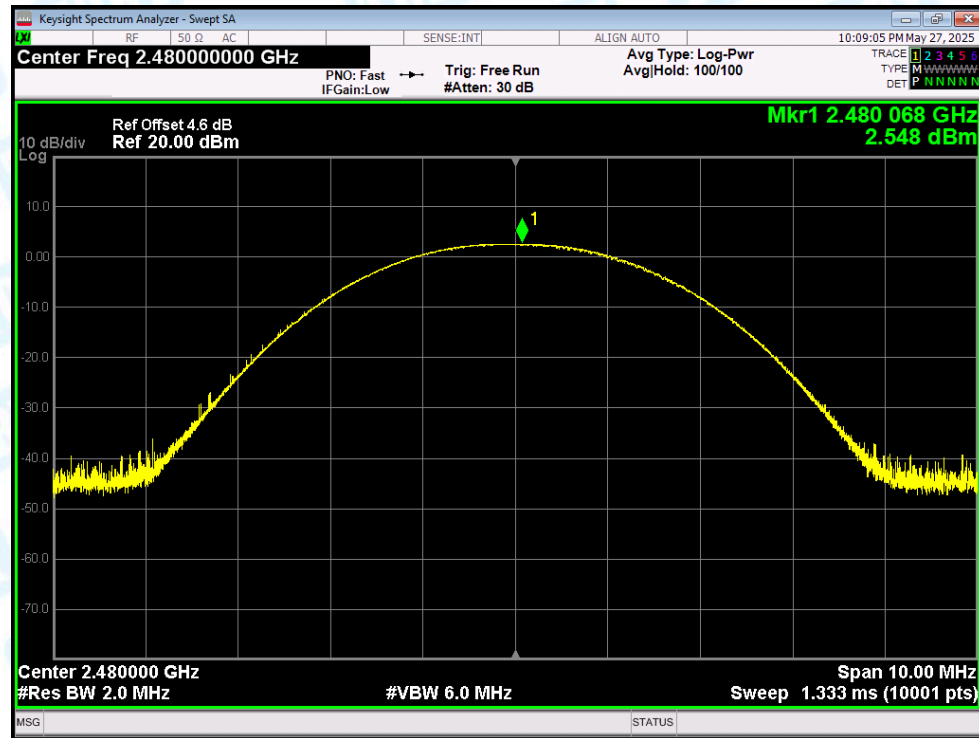
Power NVNT 1-DH1 2402MHz Ant1



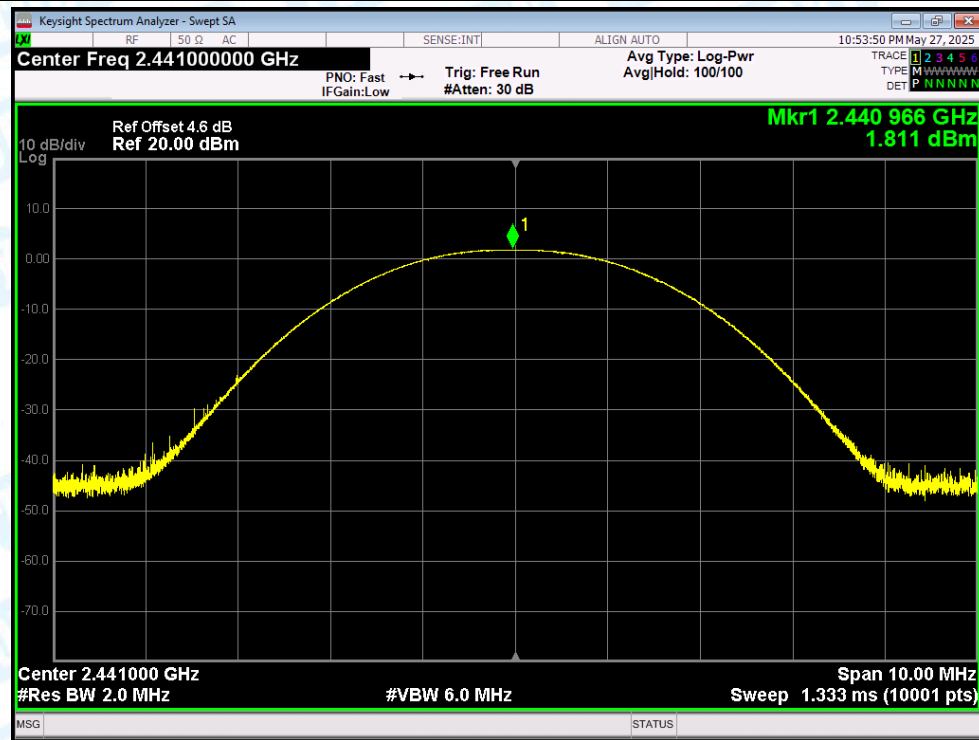
Power NVNT 1-DH1 2441MHz Ant1



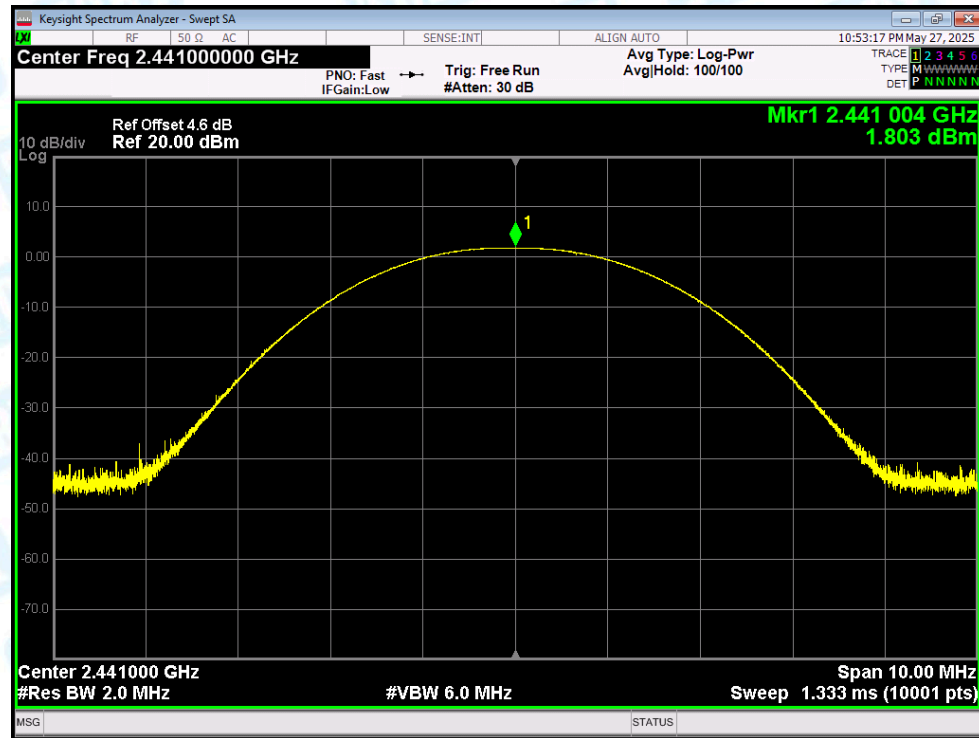
Power NVNT 1-DH1 2480MHz Ant1



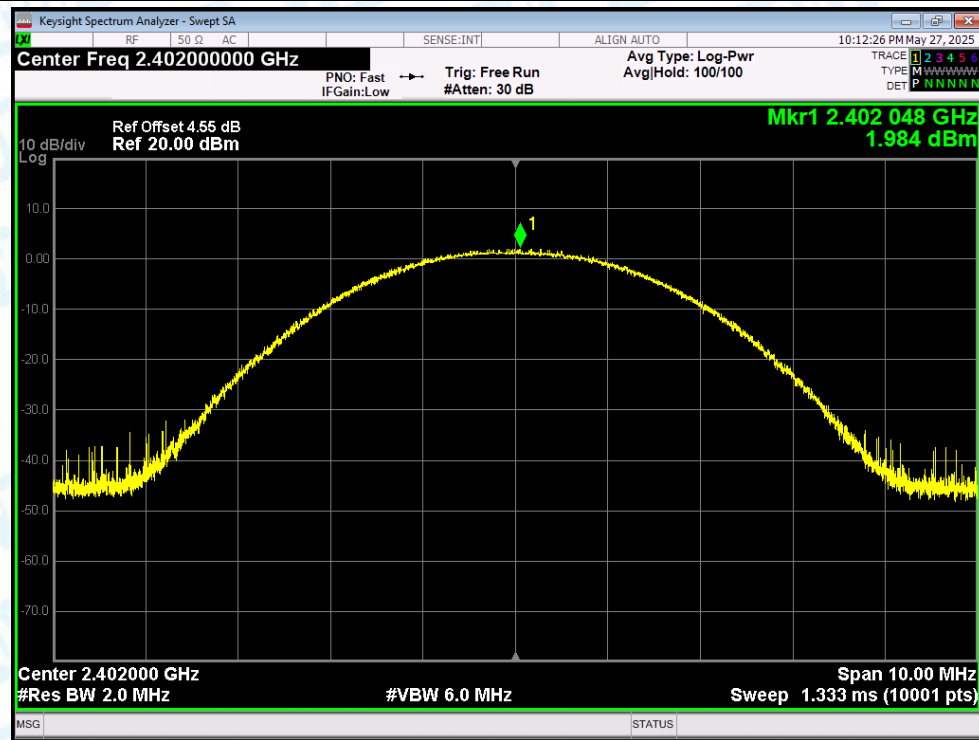
Power NVNT 1-DH3 2441MHz Ant1



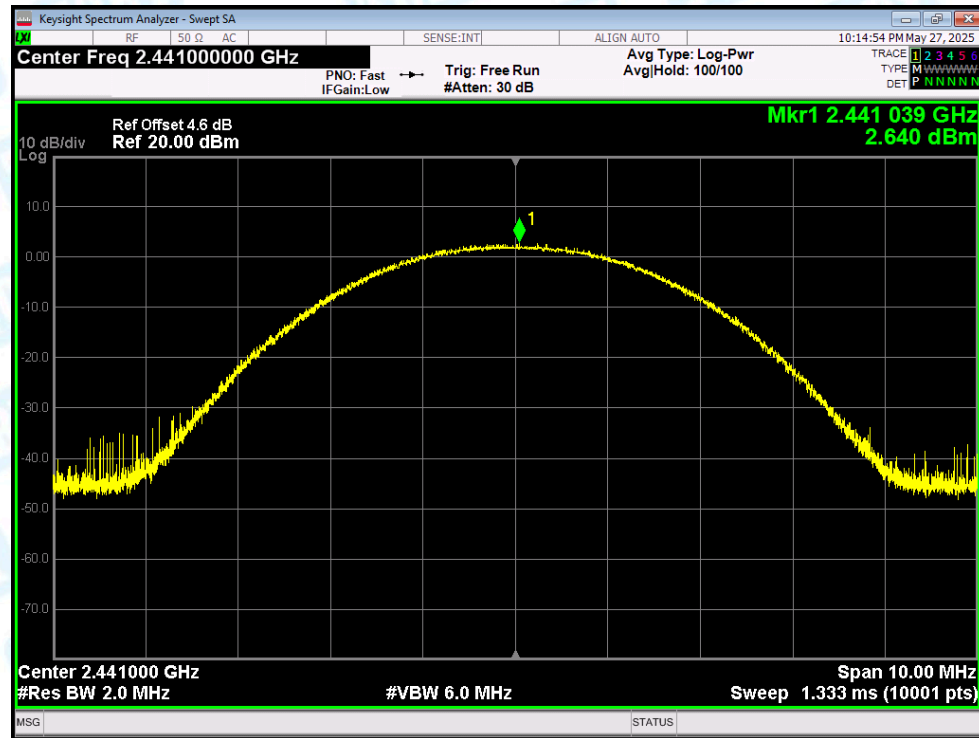
Power NVNT 1-DH5 2441MHz Ant1



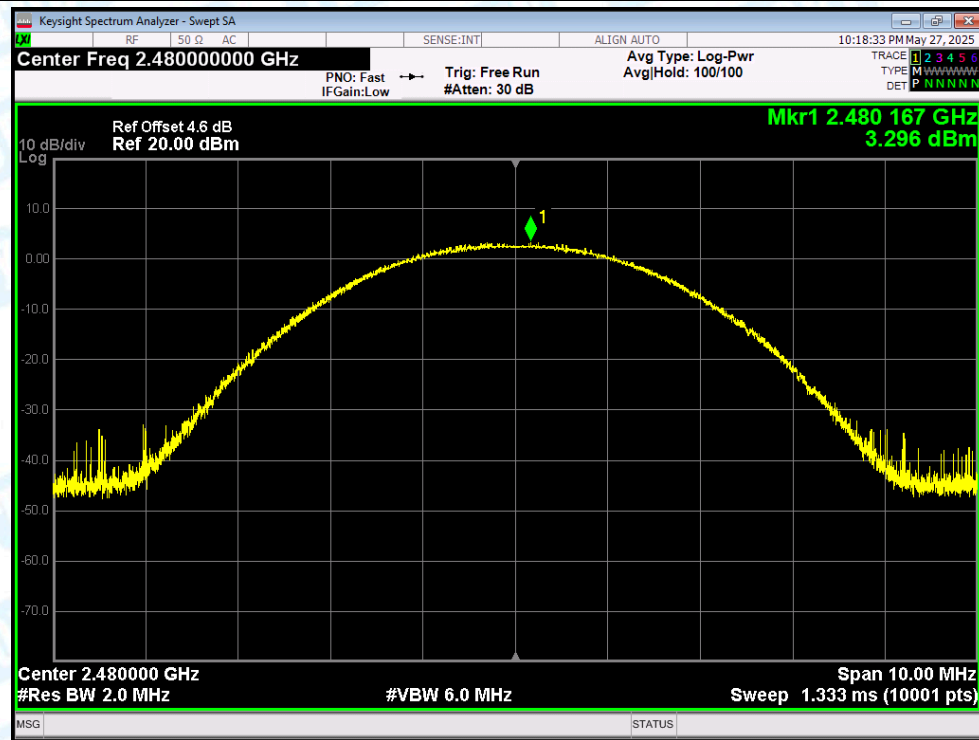
Power NVNT 2-DH1 2402MHz Ant1



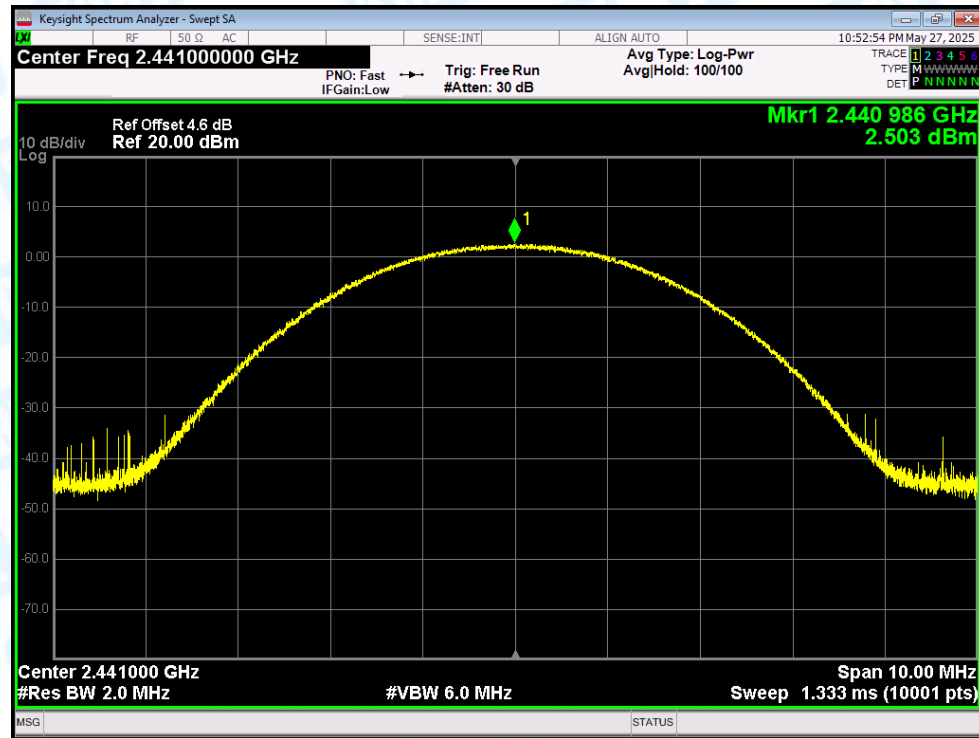
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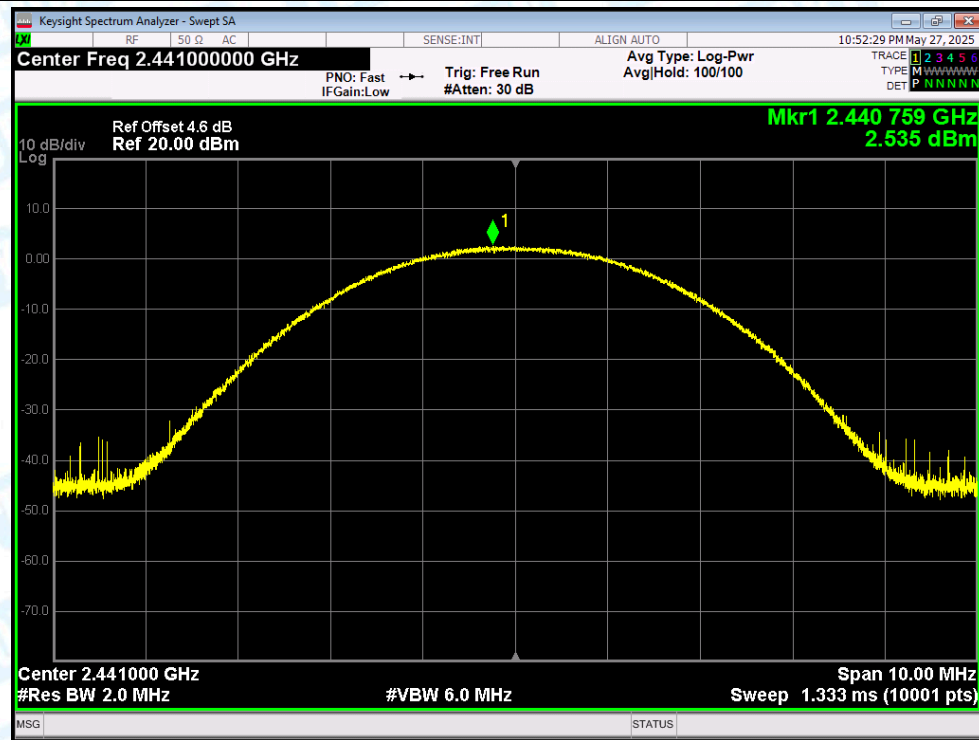
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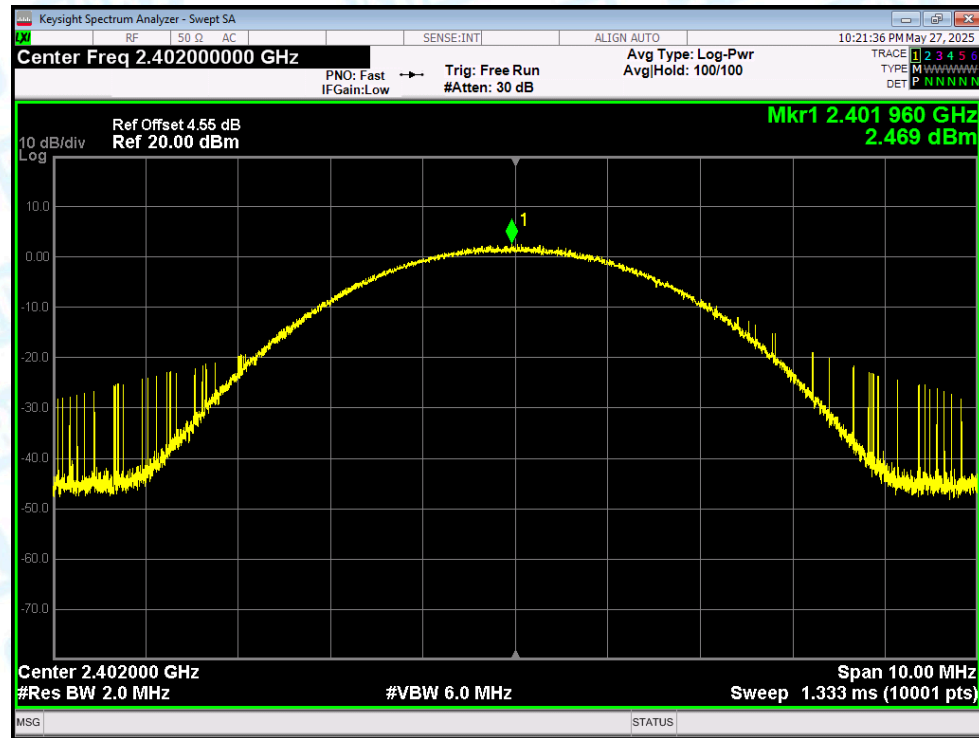
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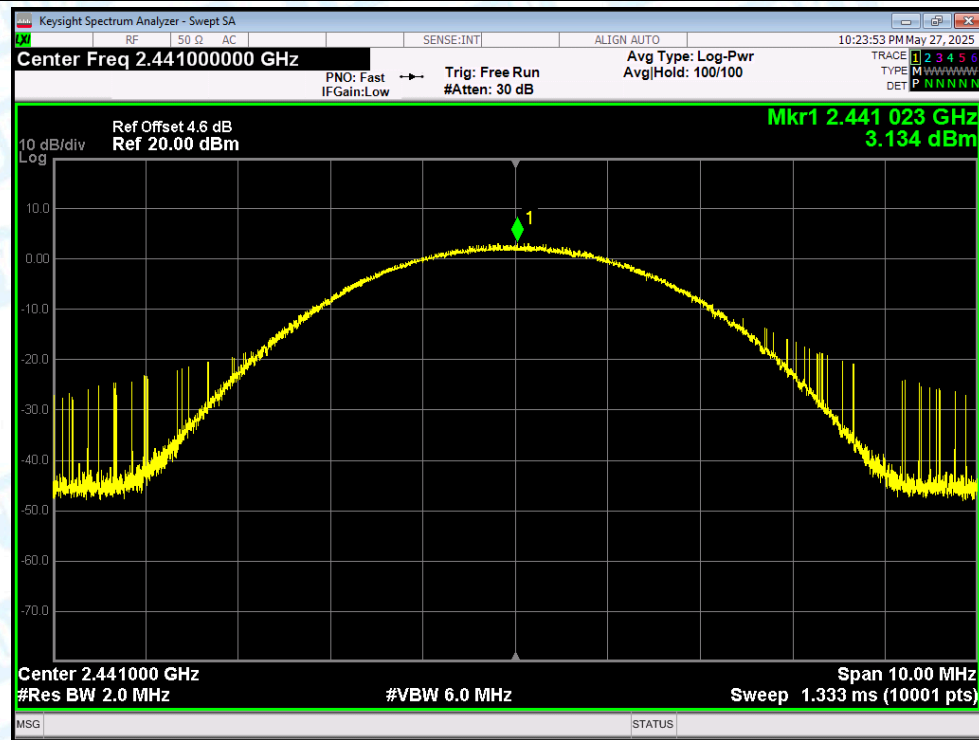
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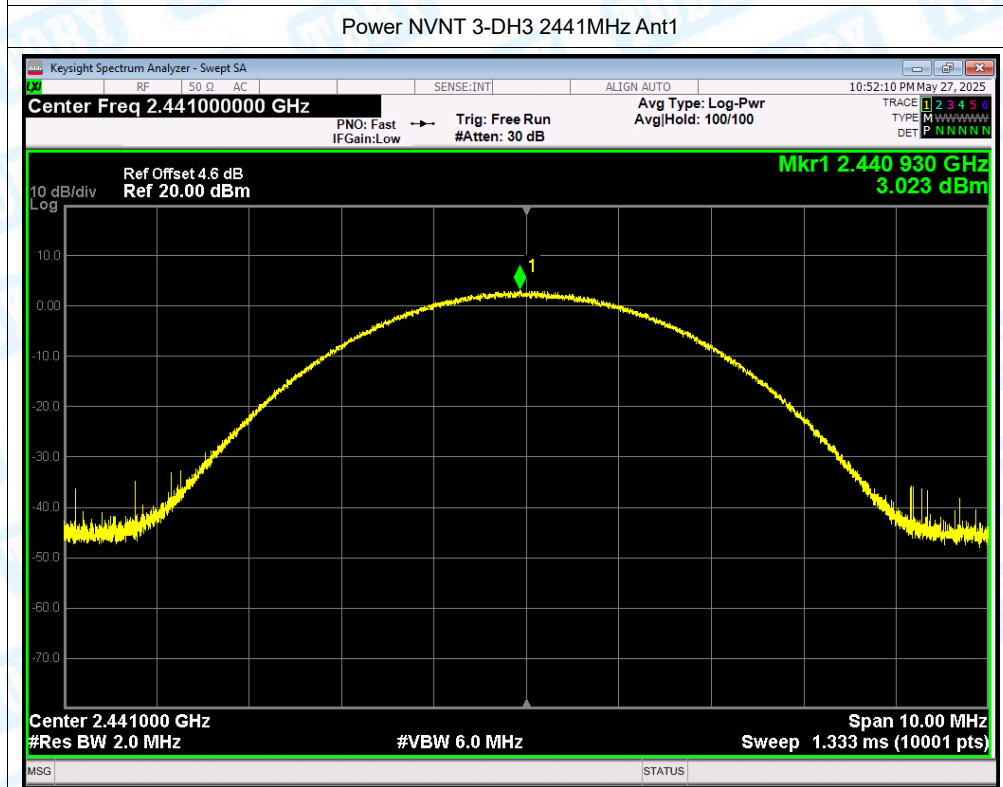
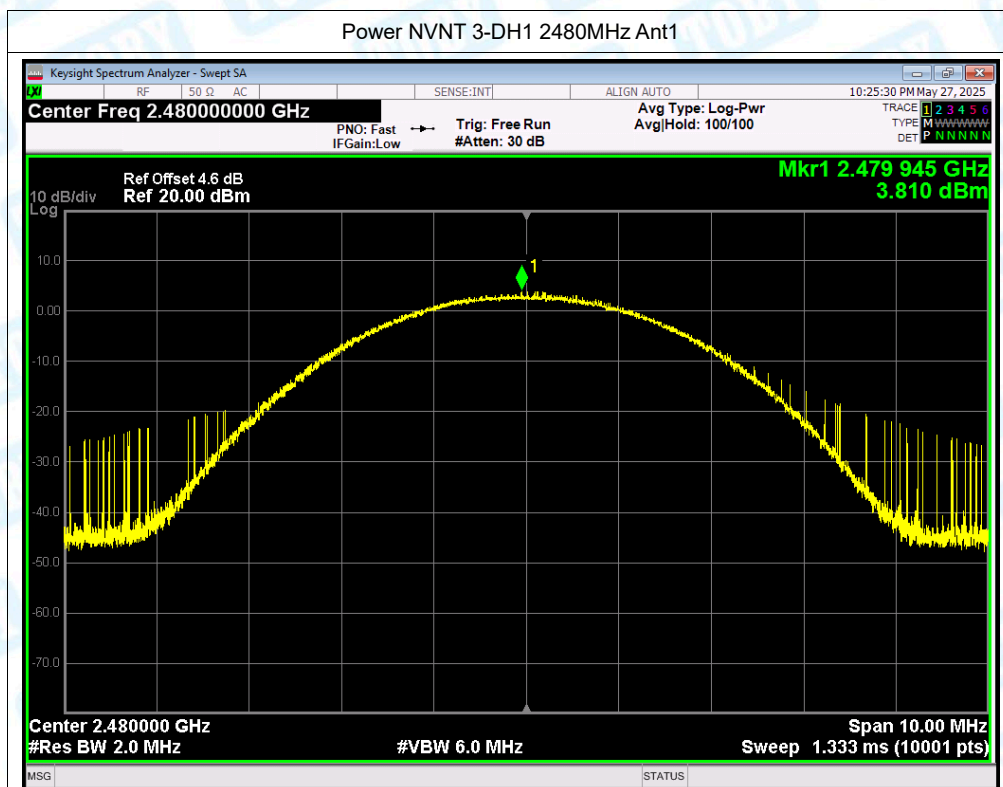


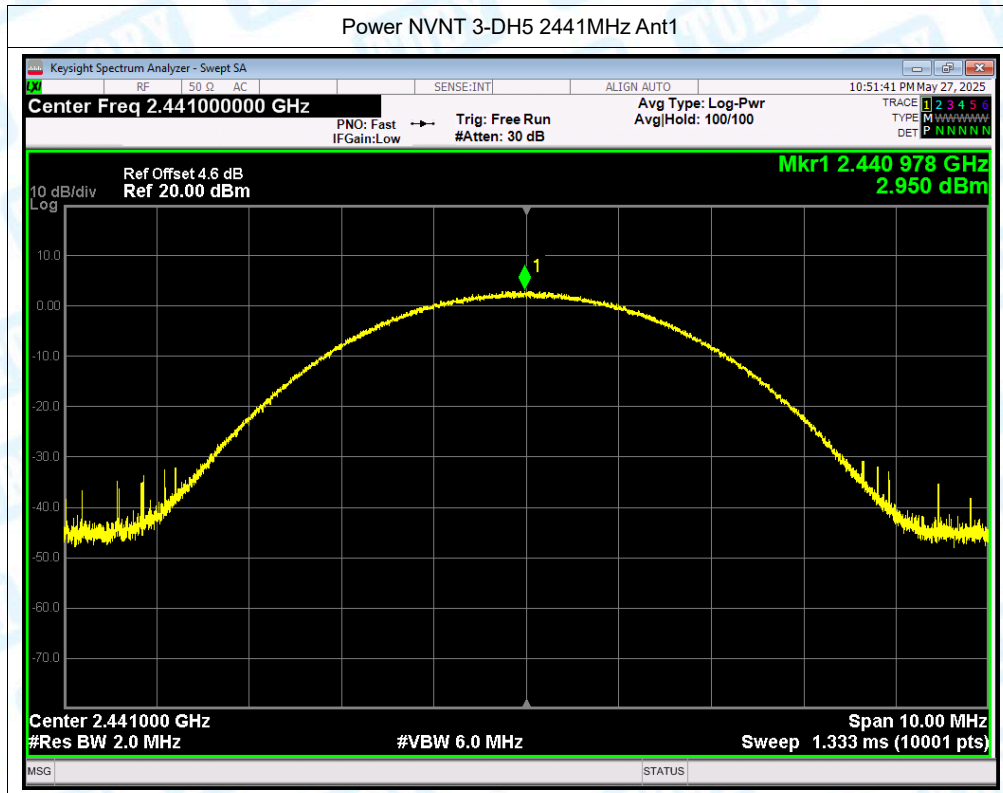
Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1

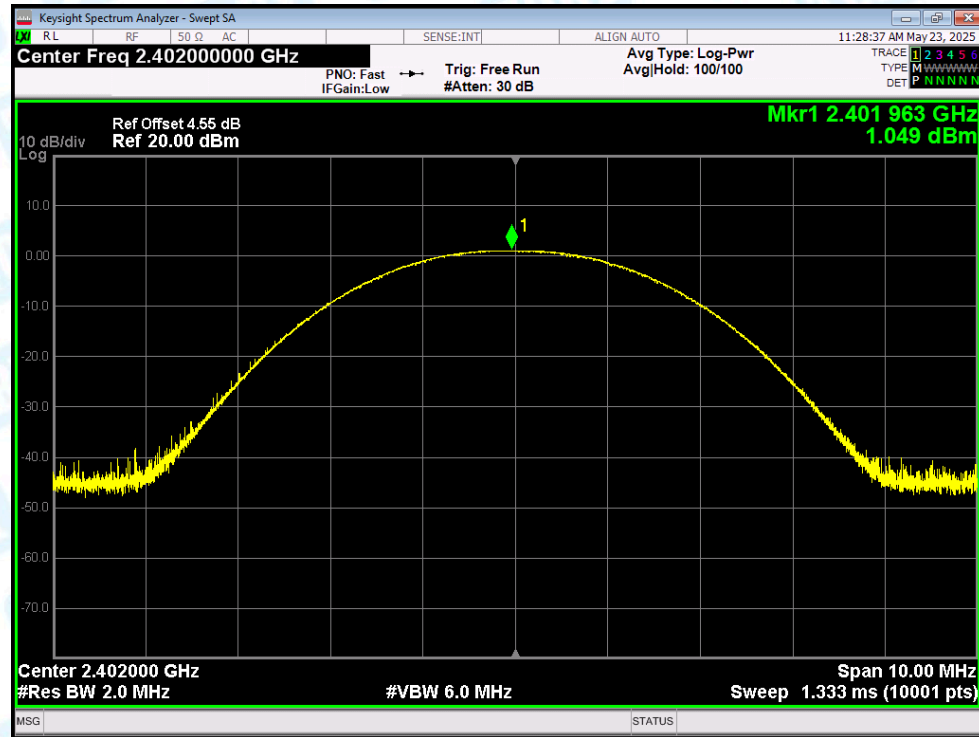




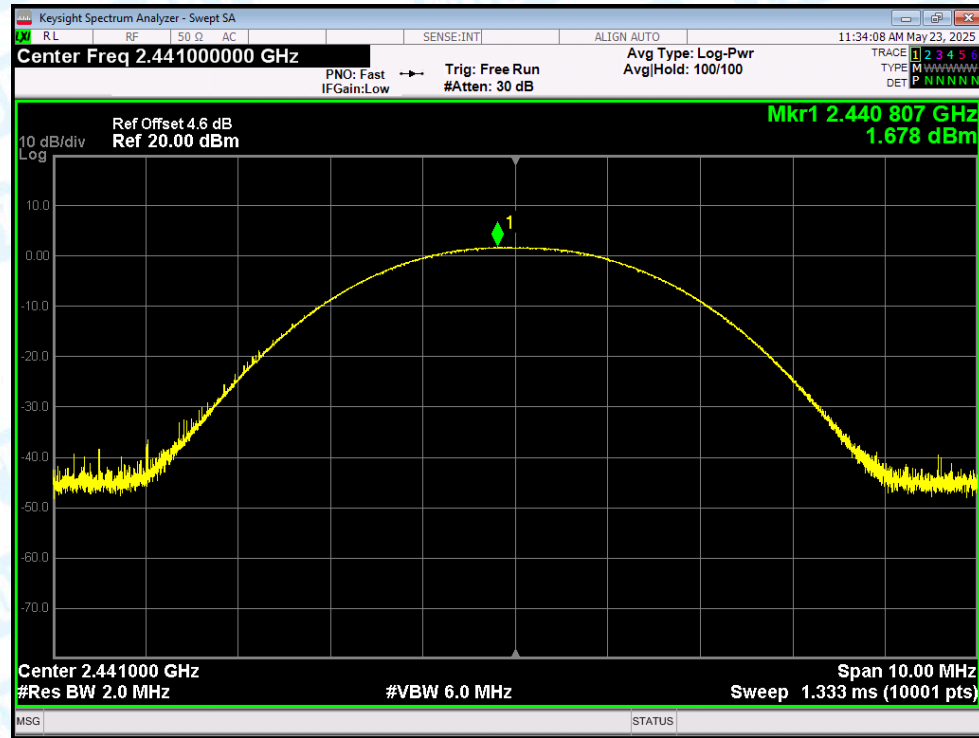


Test Graphs

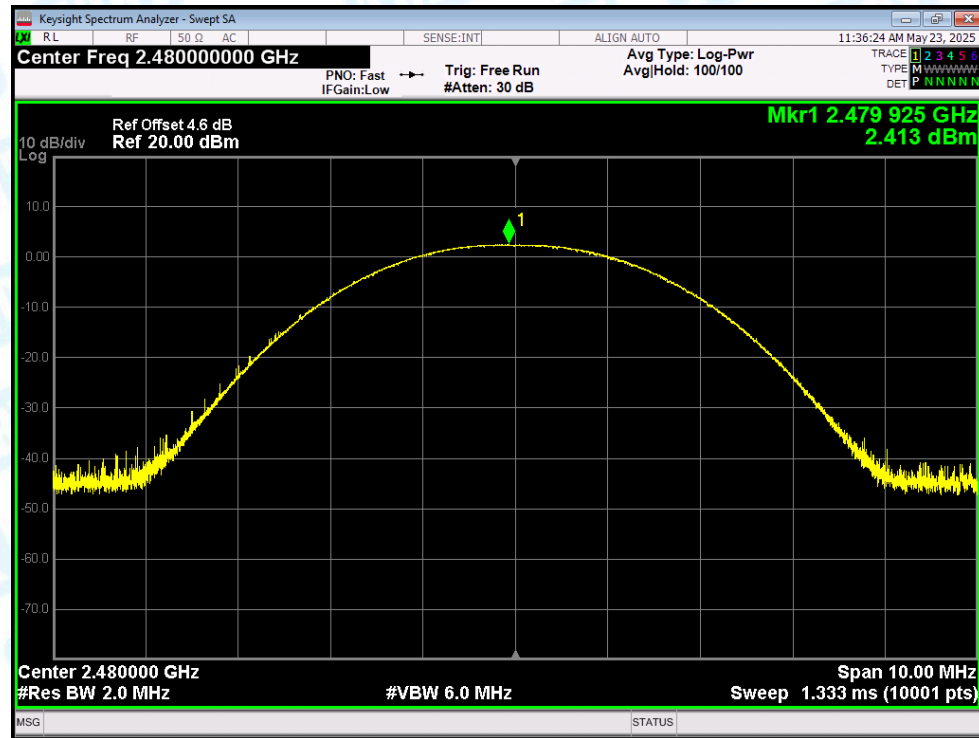
Power NVNT 1-DH1 2402MHz Ant1



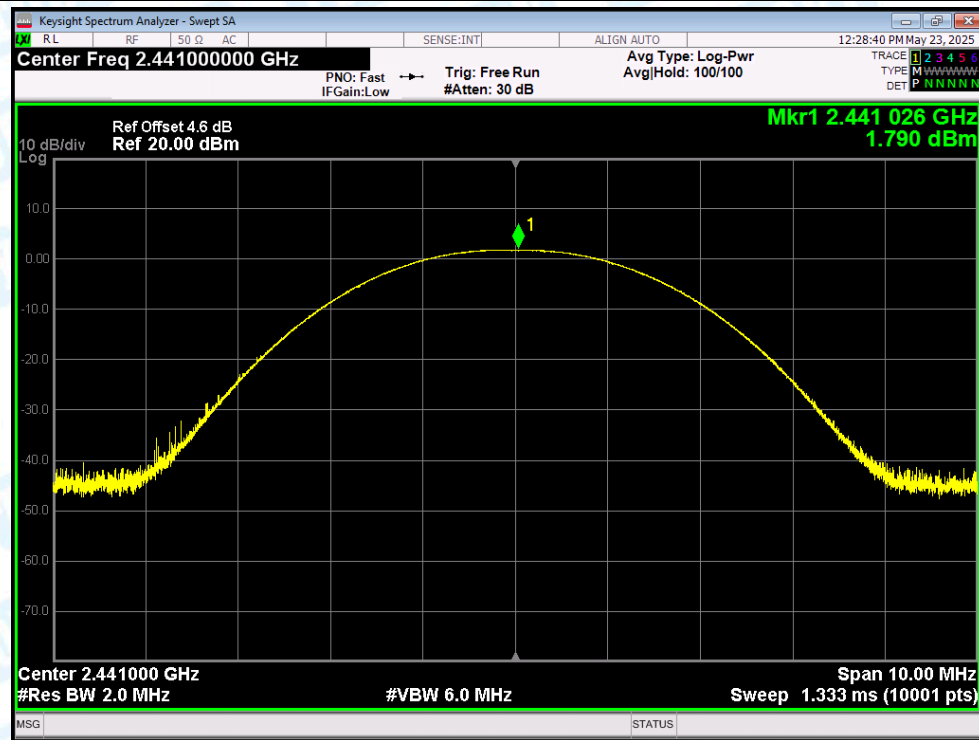
Power NVNT 1-DH1 2441MHz Ant1



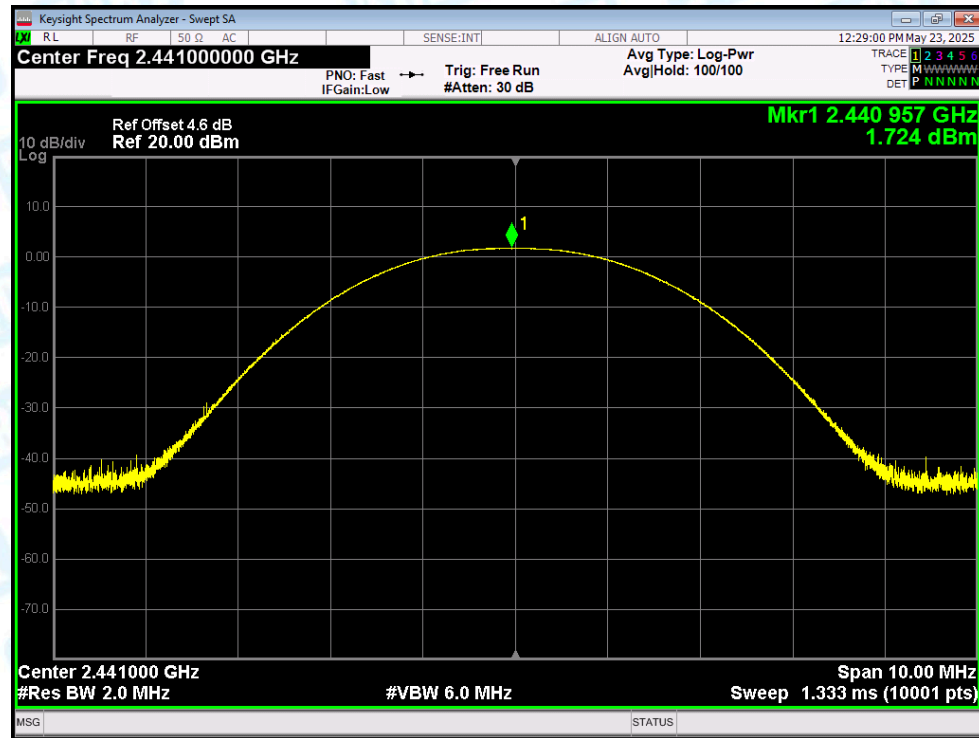
Power NVNT 1-DH1 2480MHz Ant1



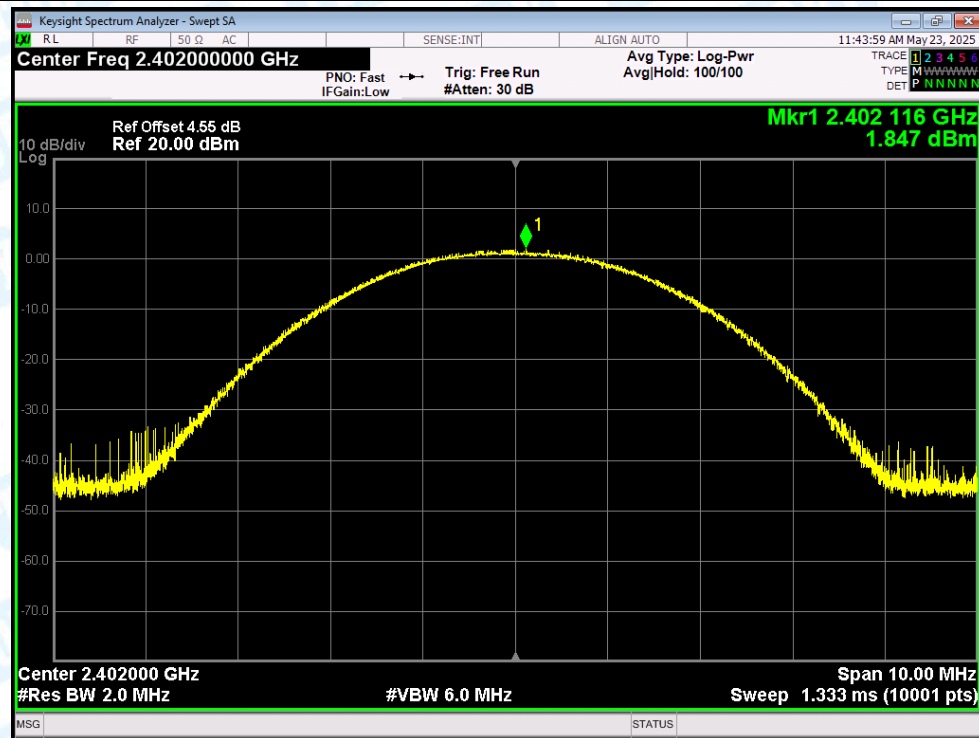
Power NVNT 1-DH3 2441MHz Ant1



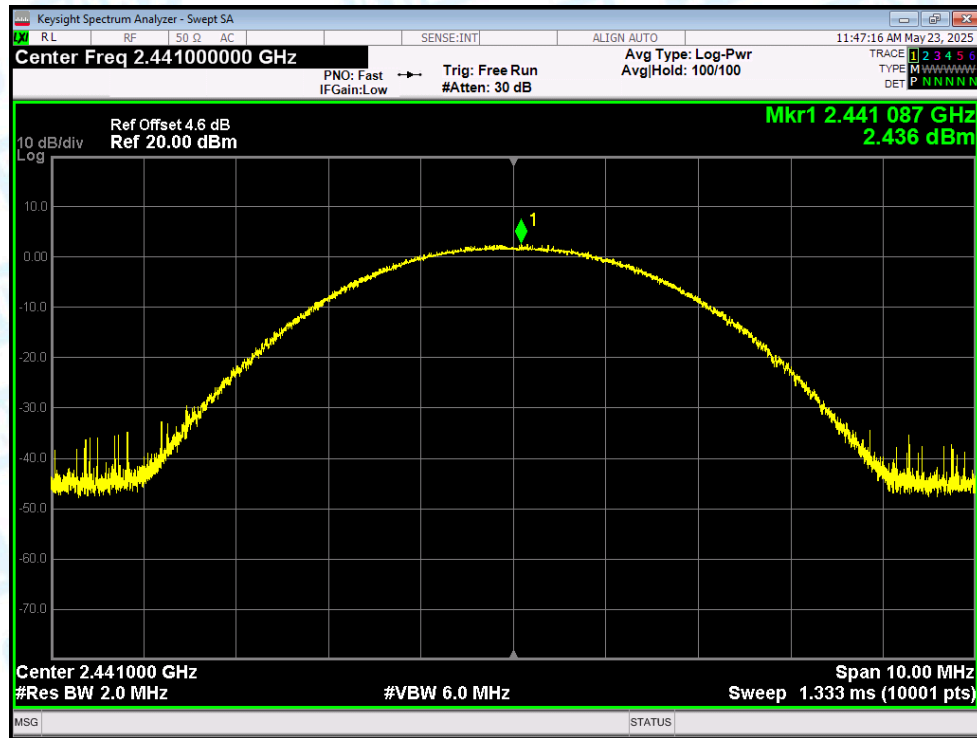
Power NVNT 1-DH5 2441MHz Ant1



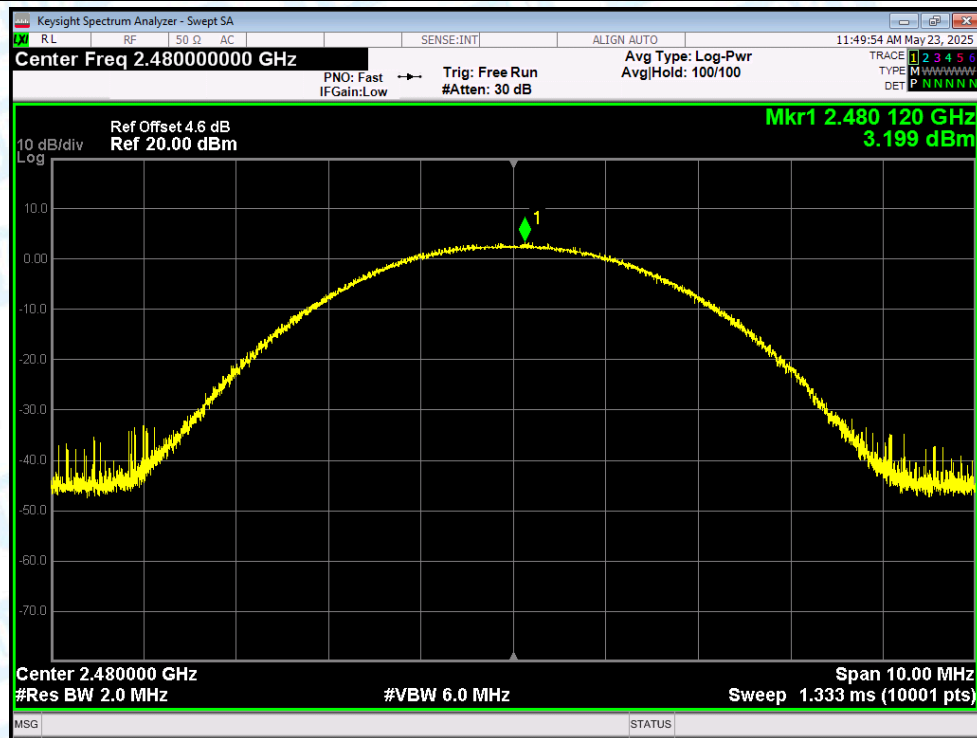
Power NVNT 2-DH1 2402MHz Ant1



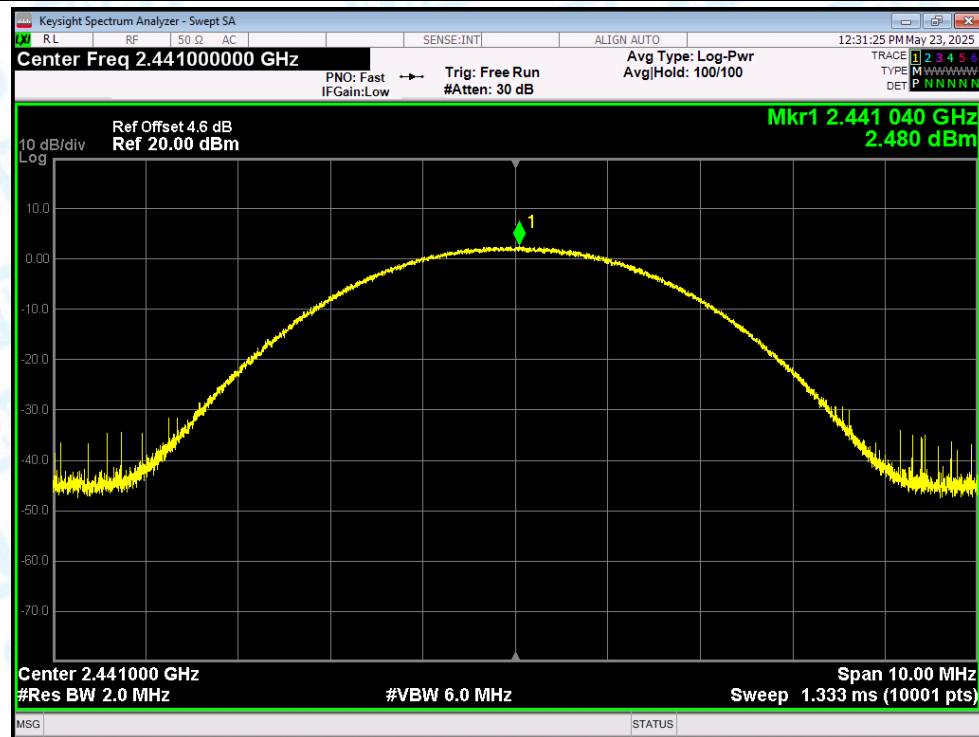
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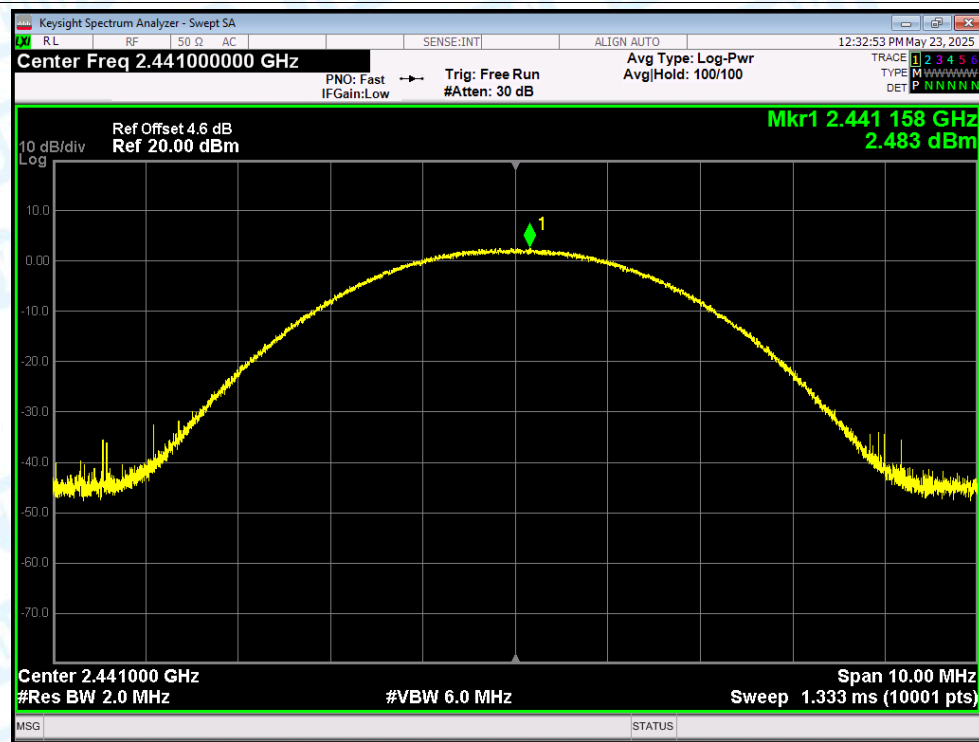
Power NVNT 2-DH1 2480MHz Ant1



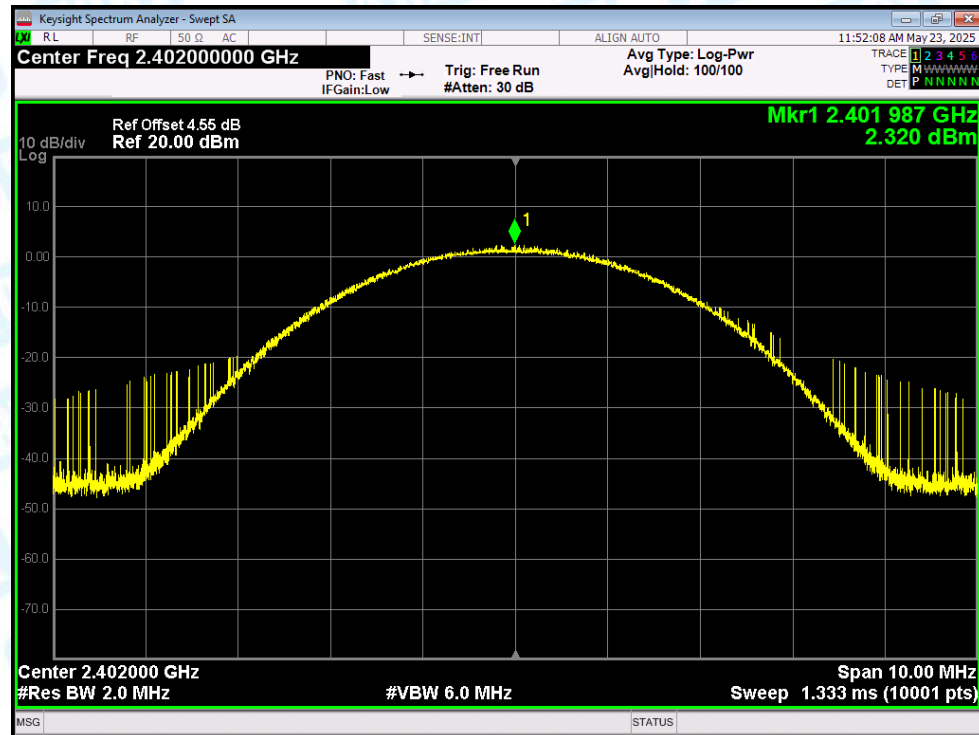
Power NVNT 2-DH3 2441MHz Ant1



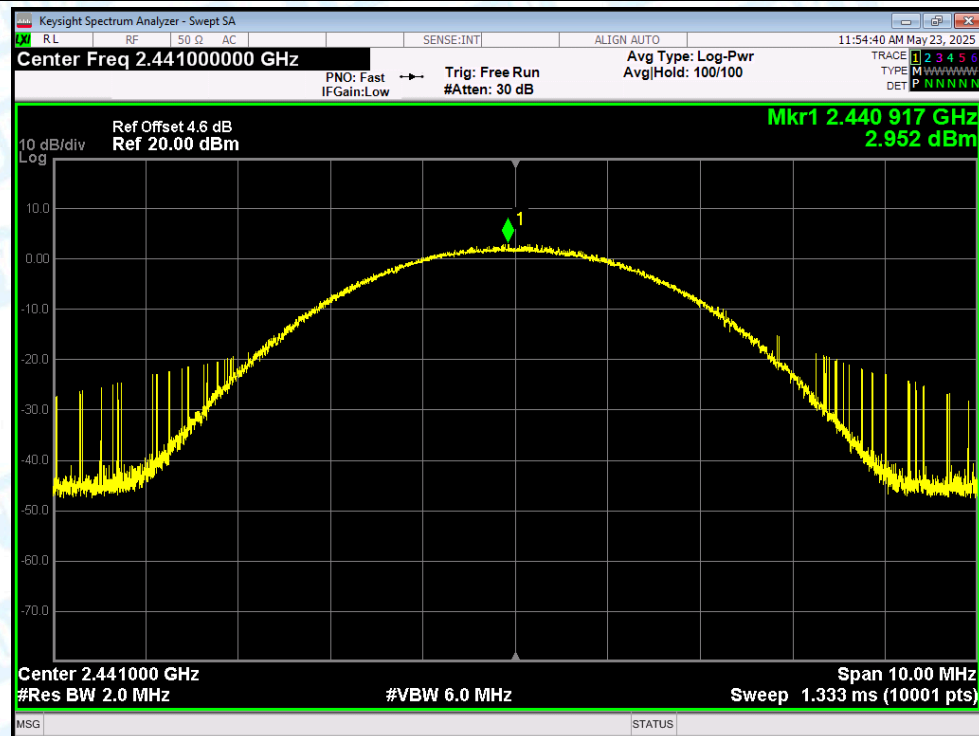
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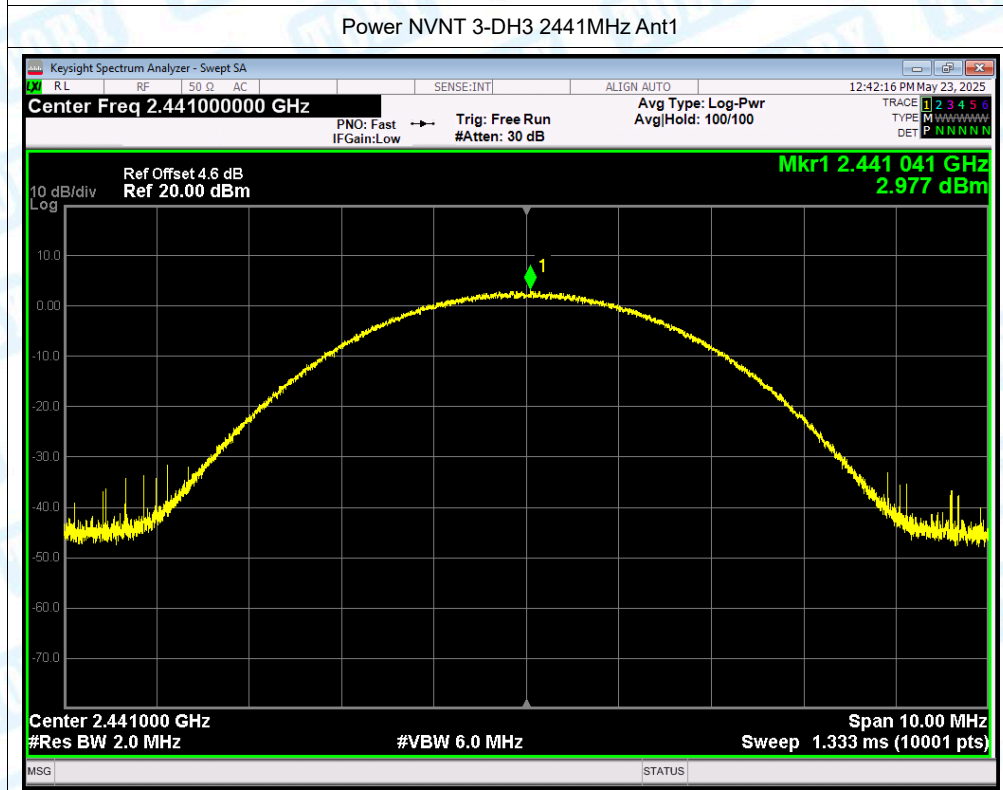
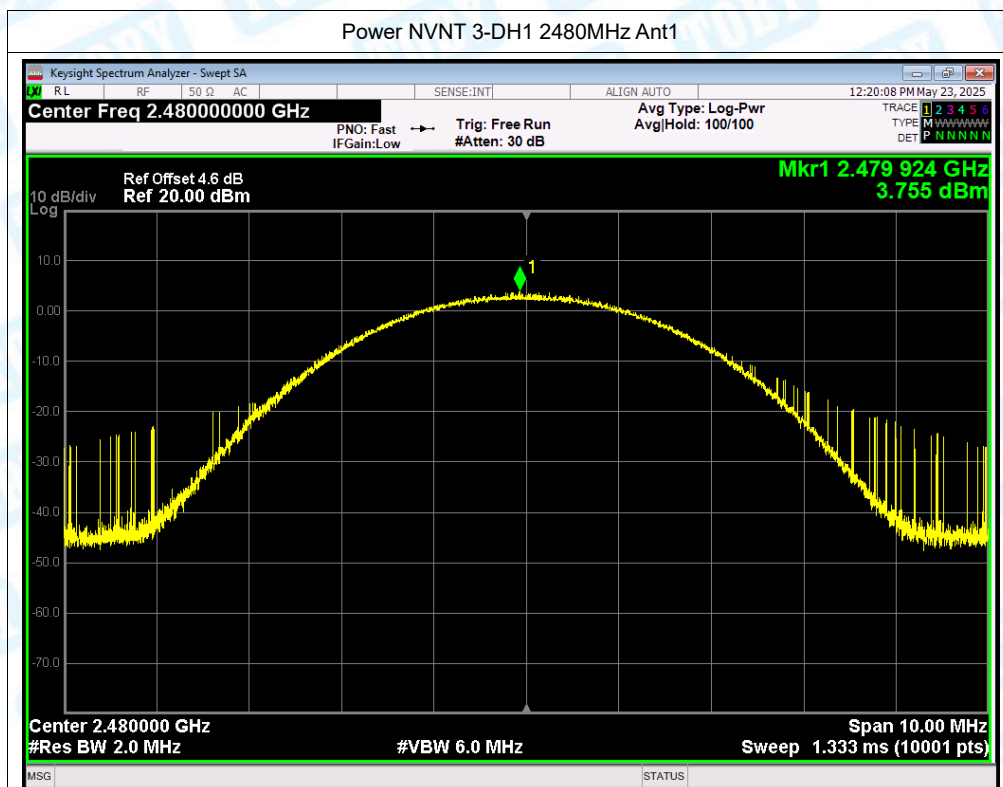


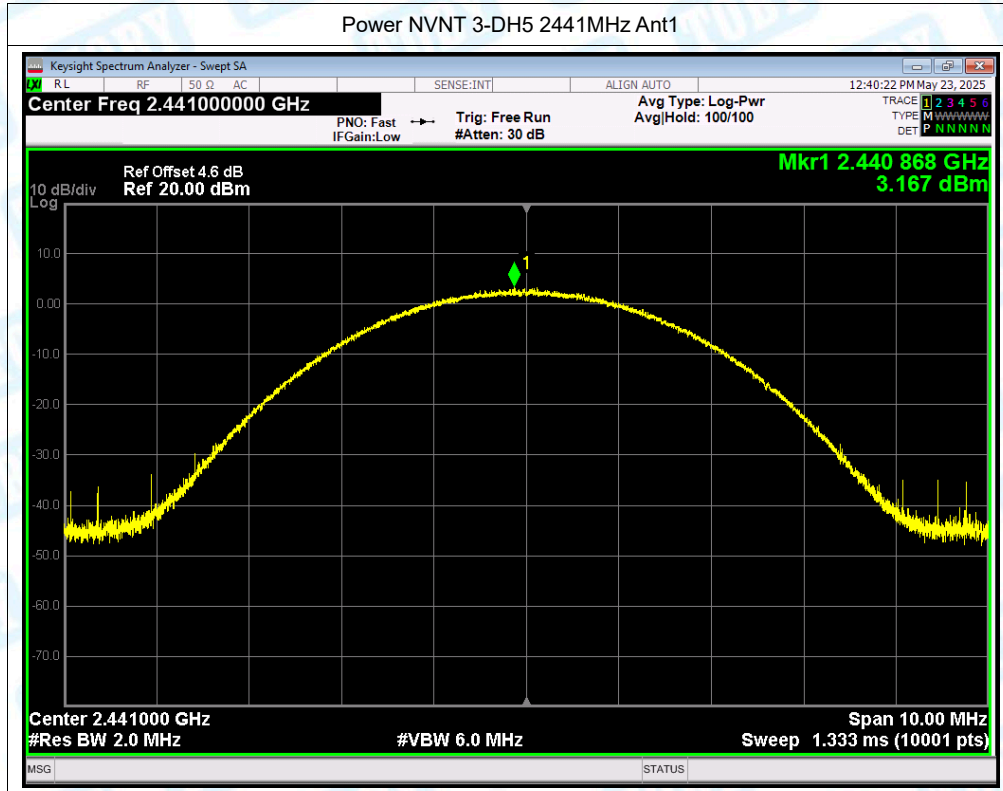
Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1







3. -20dB Bandwidth

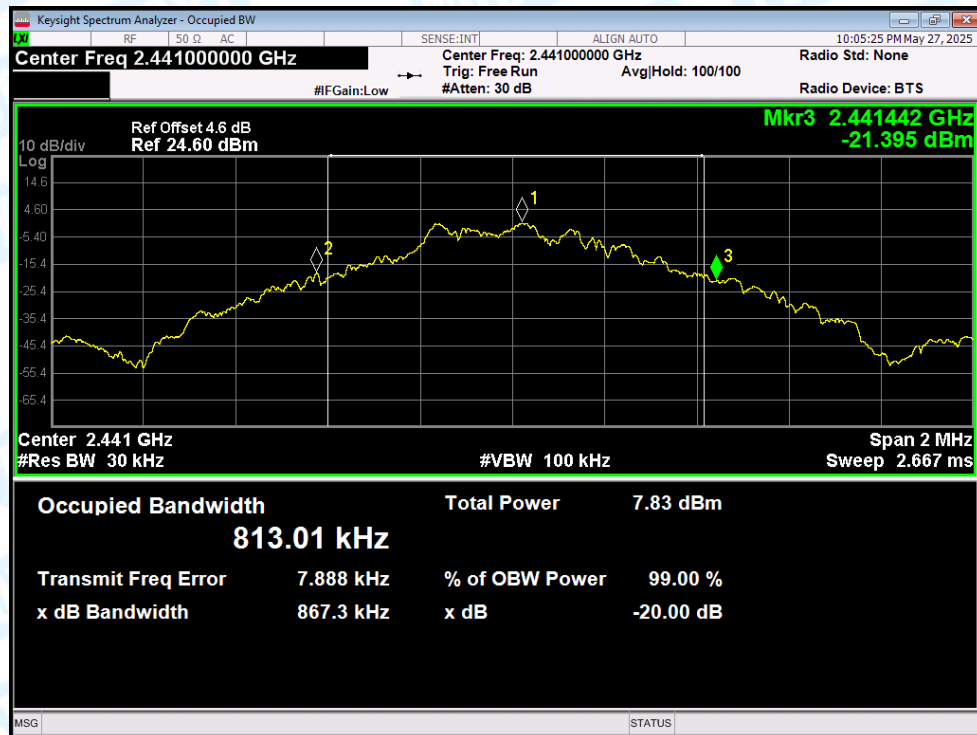
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.86	0	Pass
NVNT	1-DH1	2441	Ant1	0.87	0	Pass
NVNT	1-DH1	2480	Ant1	0.88	0	Pass
NVNT	2-DH1	2402	Ant1	1.23	0	Pass
NVNT	2-DH1	2441	Ant1	1.2	0	Pass
NVNT	2-DH1	2480	Ant1	1.24	0	Pass
NVNT	3-DH1	2402	Ant1	1.2	0	Pass
NVNT	3-DH1	2441	Ant1	1.21	0	Pass
NVNT	3-DH1	2480	Ant1	1.21	0	Pass

Test Graphs

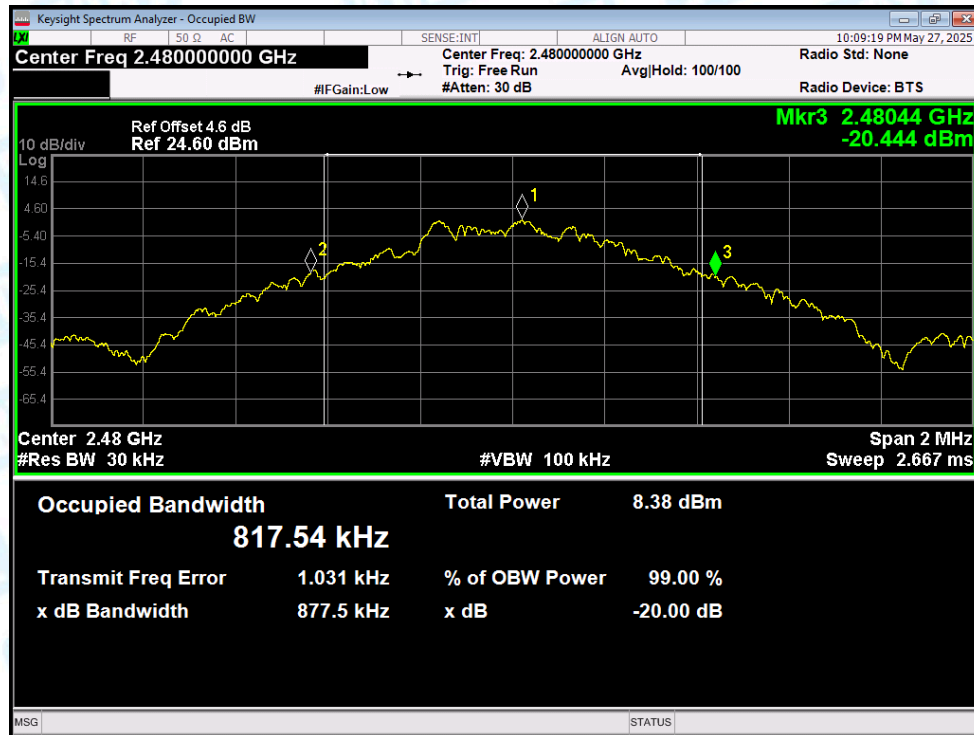
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



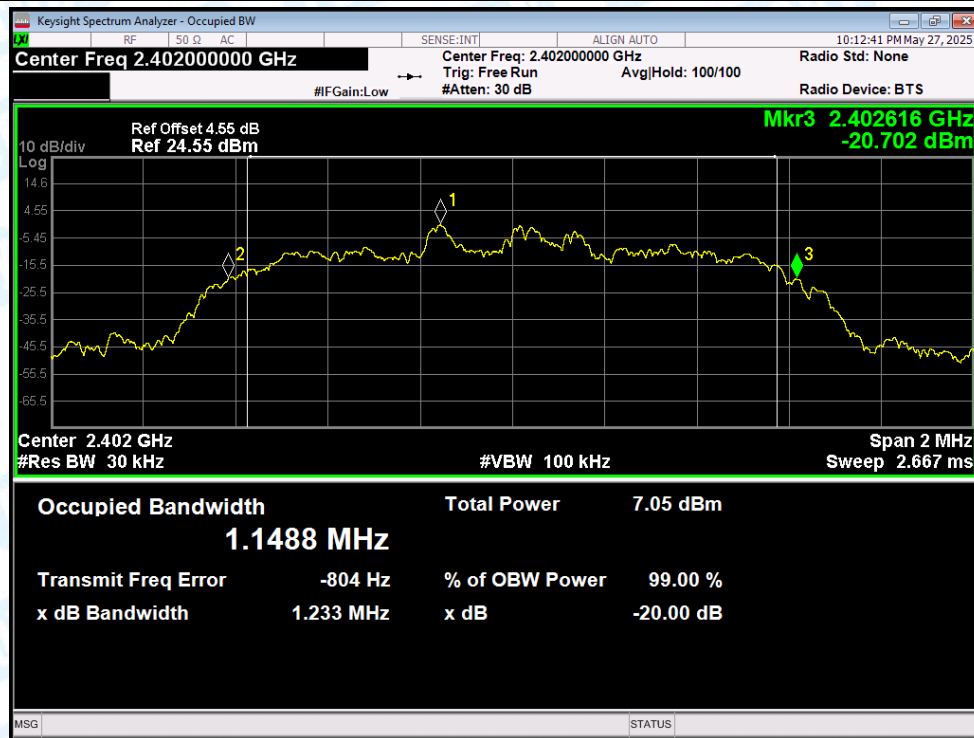
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



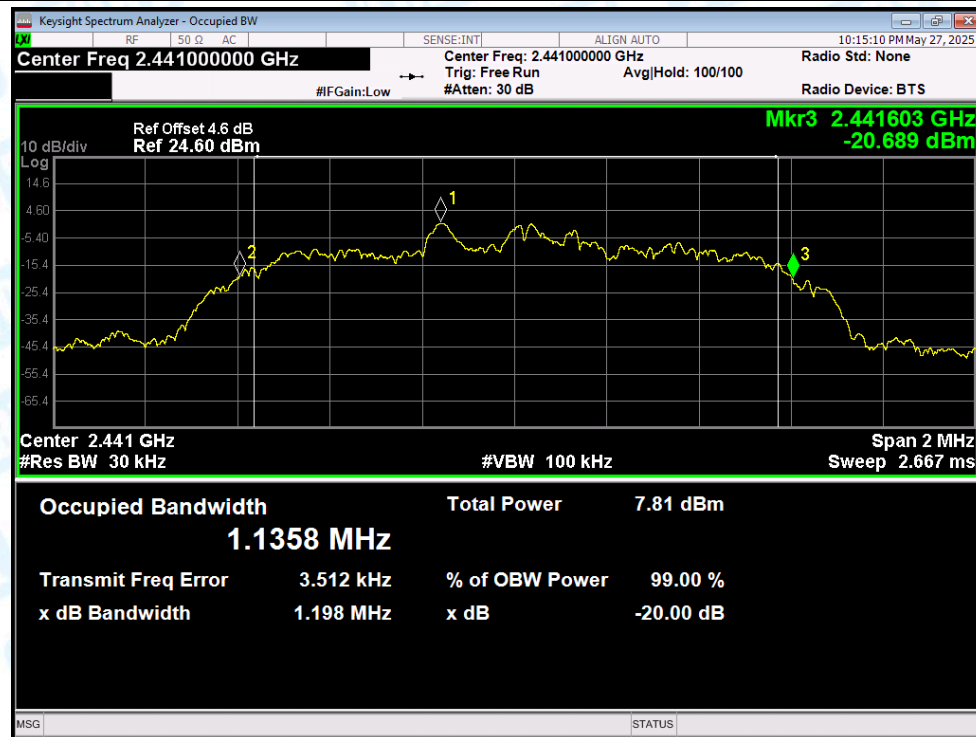
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



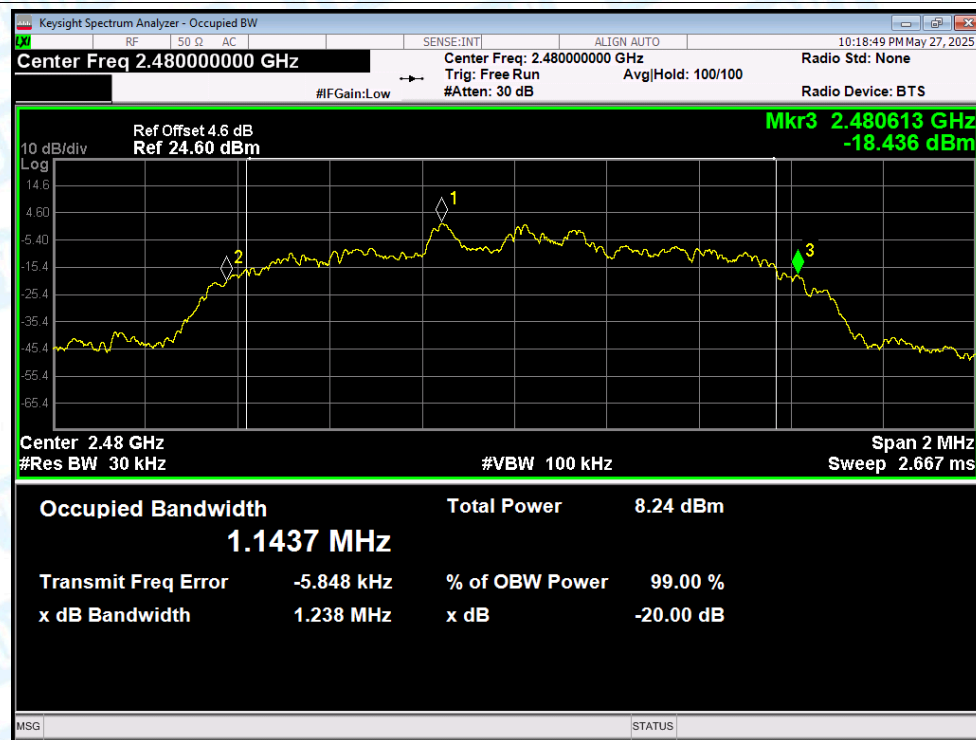
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



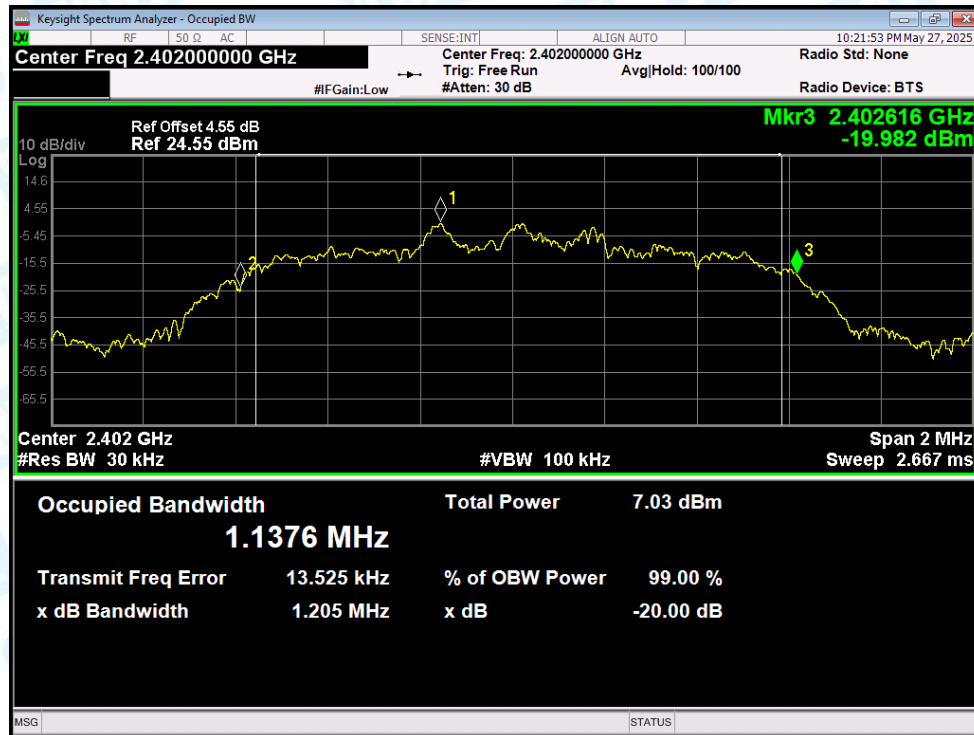
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



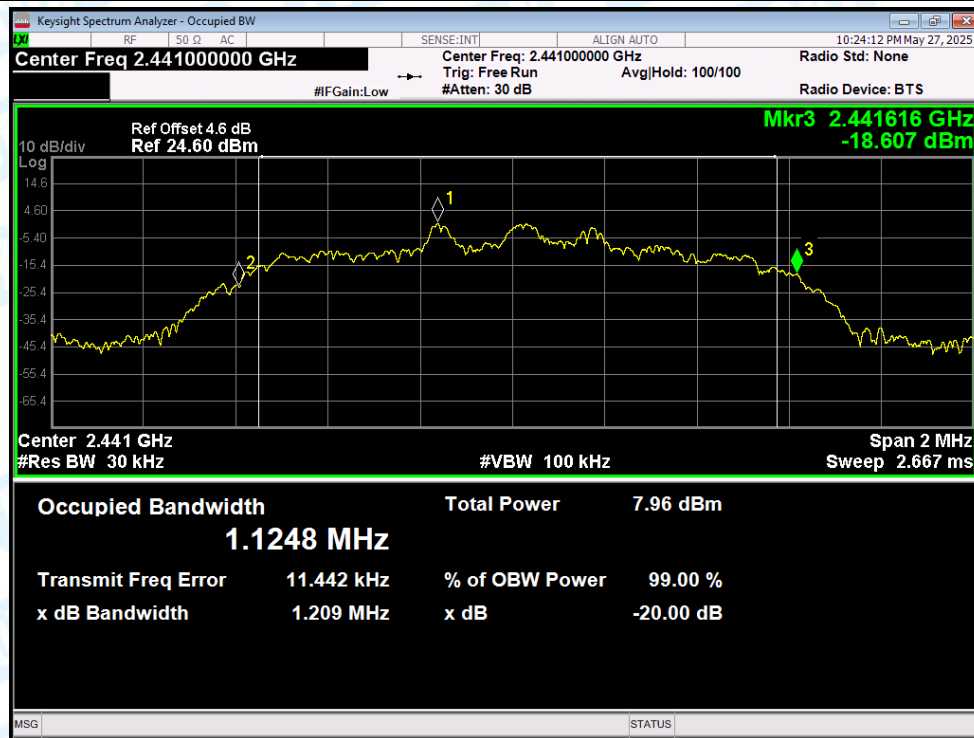
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

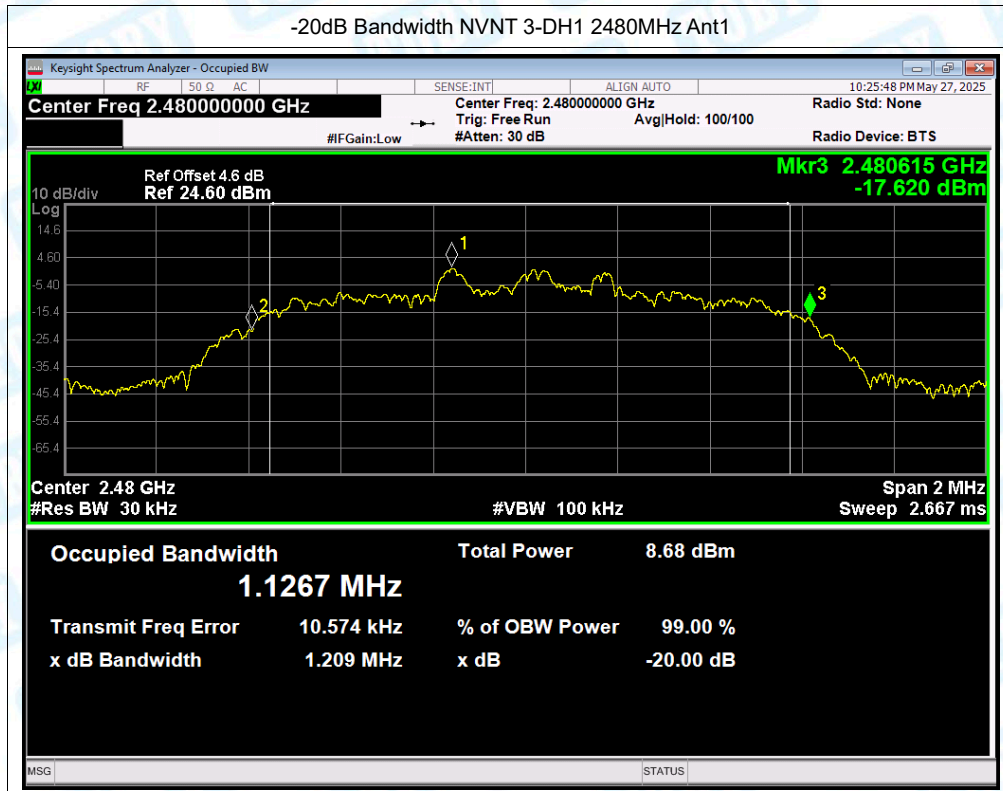


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



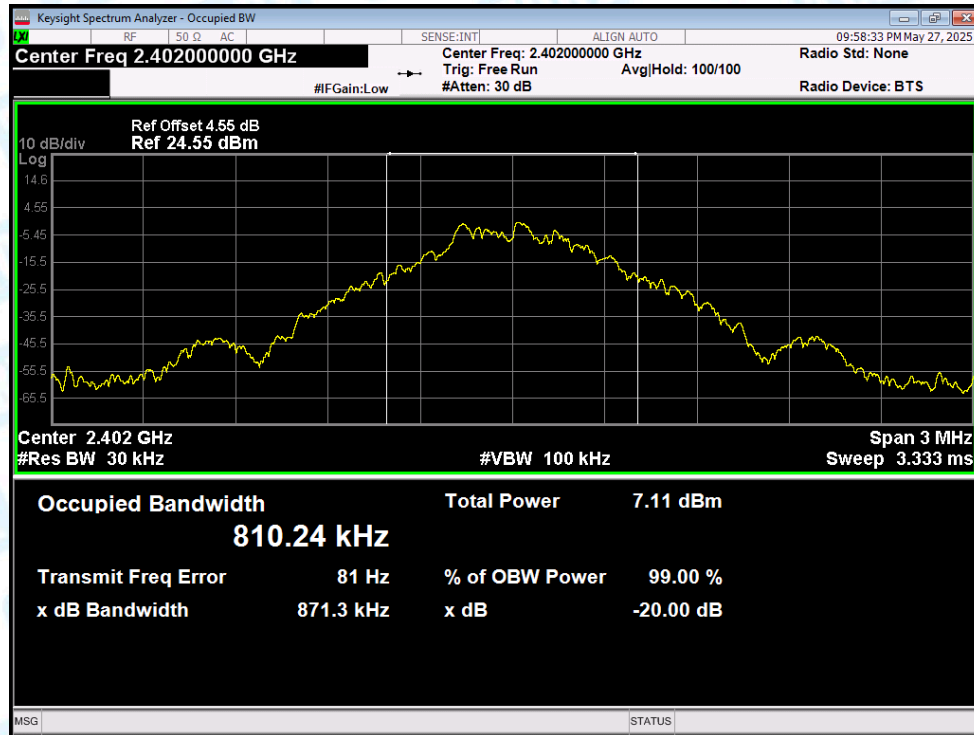


4. Occupied Channel Bandwidth

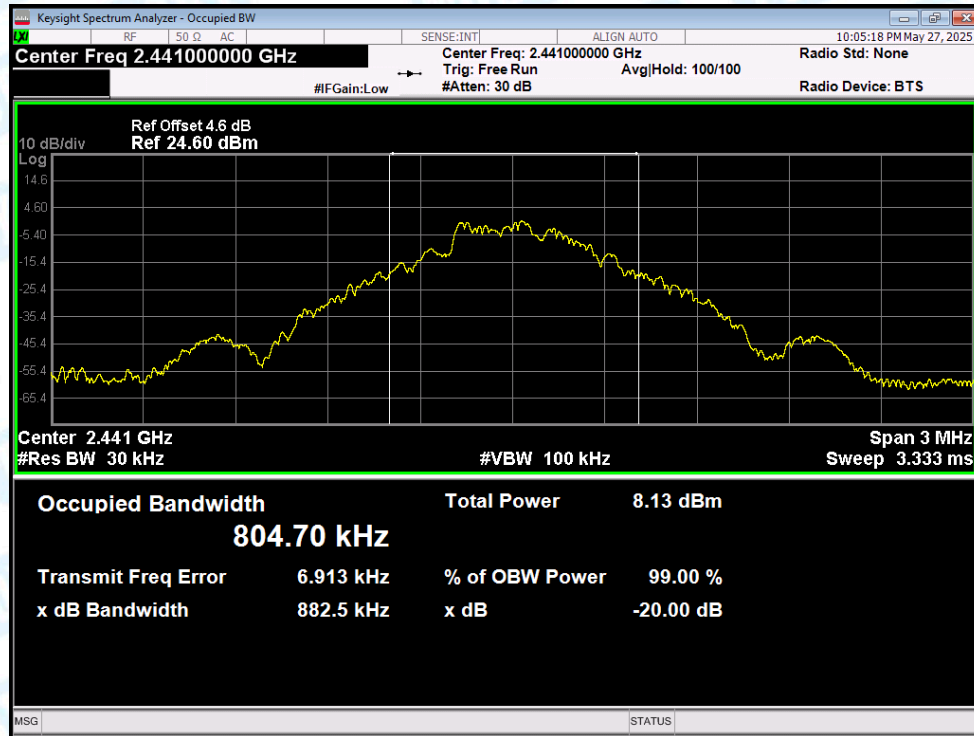
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.81
NVNT	1-DH1	2441	Ant1	0.805
NVNT	1-DH1	2480	Ant1	0.808
NVNT	2-DH1	2402	Ant1	1.138
NVNT	2-DH1	2441	Ant1	1.143
NVNT	2-DH1	2480	Ant1	1.14
NVNT	3-DH1	2402	Ant1	1.132
NVNT	3-DH1	2441	Ant1	1.139
NVNT	3-DH1	2480	Ant1	1.127

Test Graphs

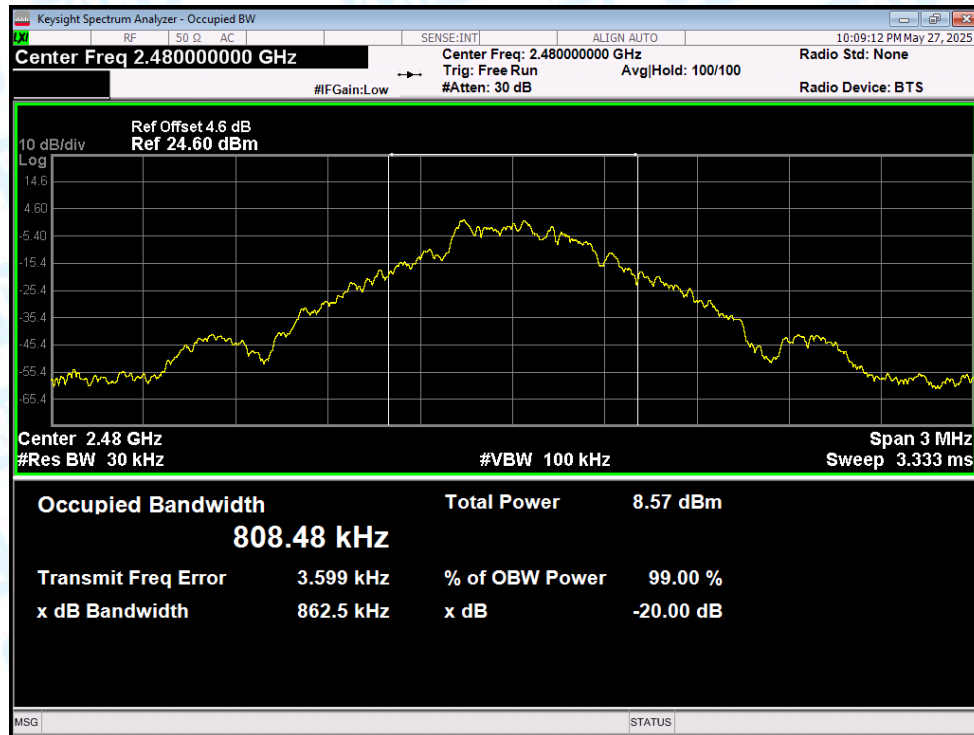
OBW NVNT 1-DH1 2402MHz Ant1



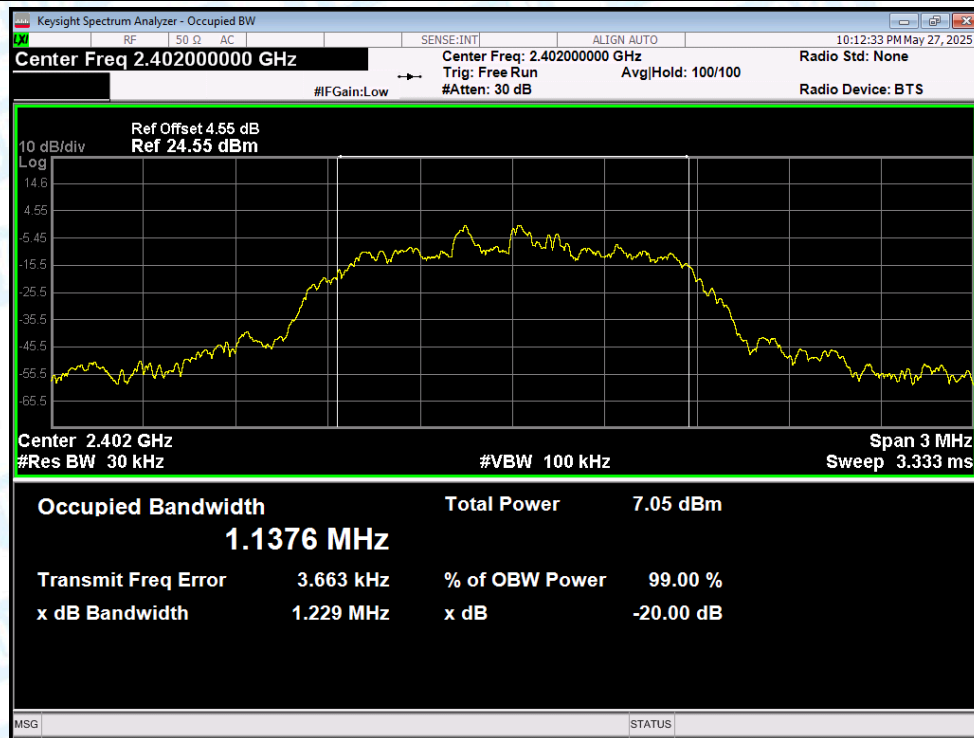
OBW NVNT 1-DH1 2441MHz Ant1



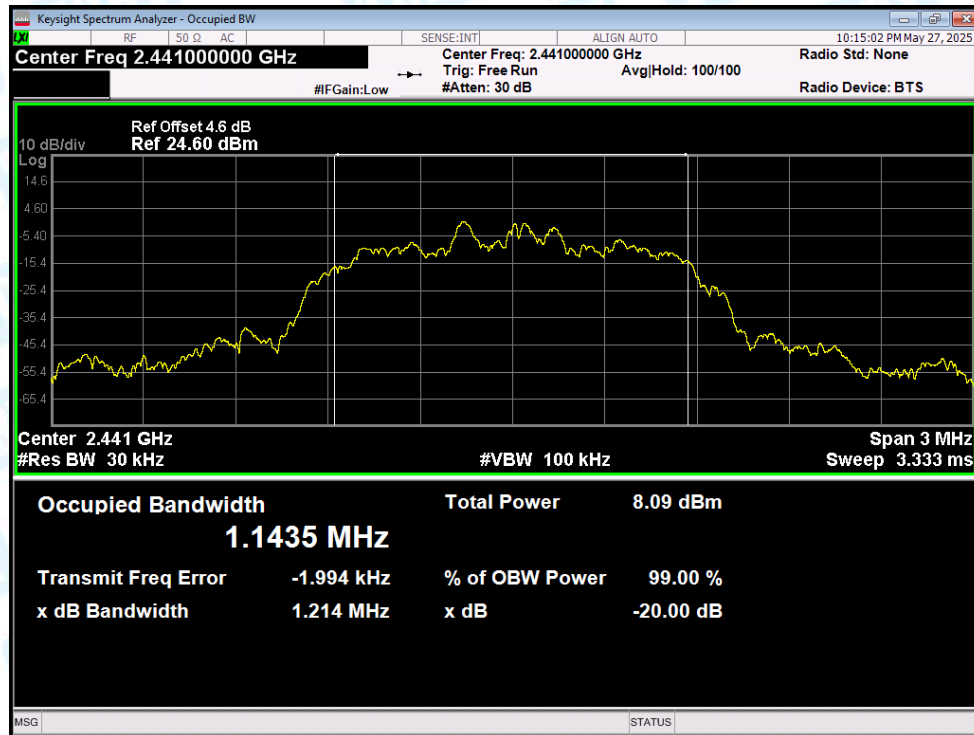
OBW NVNT 1-DH1 2480MHz Ant1



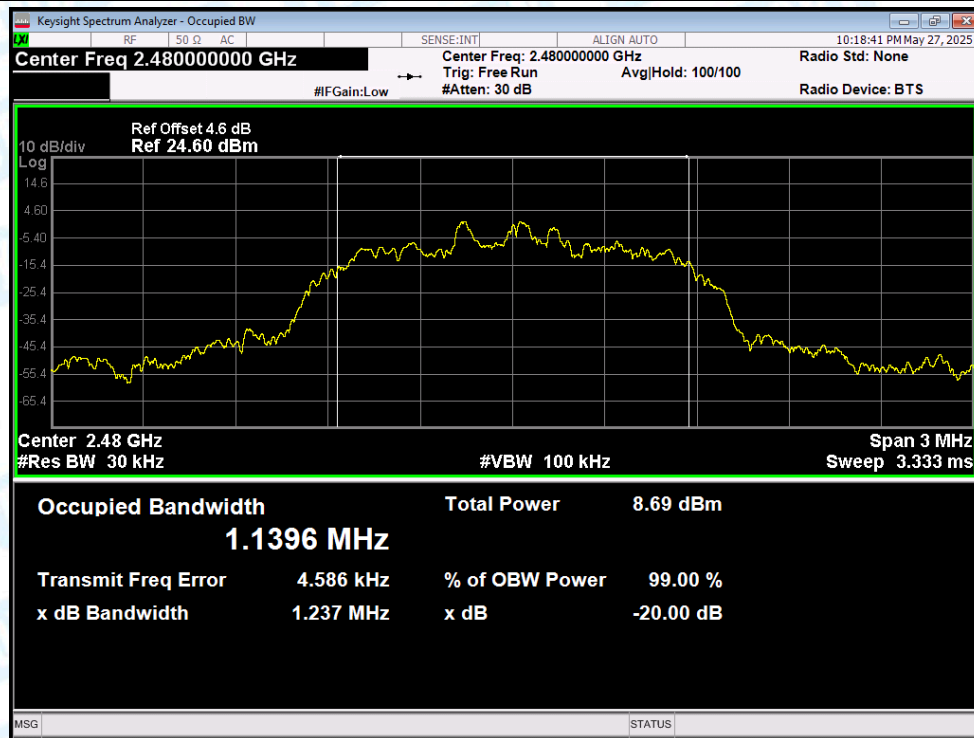
OBW NVNT 2-DH1 2402MHz Ant1



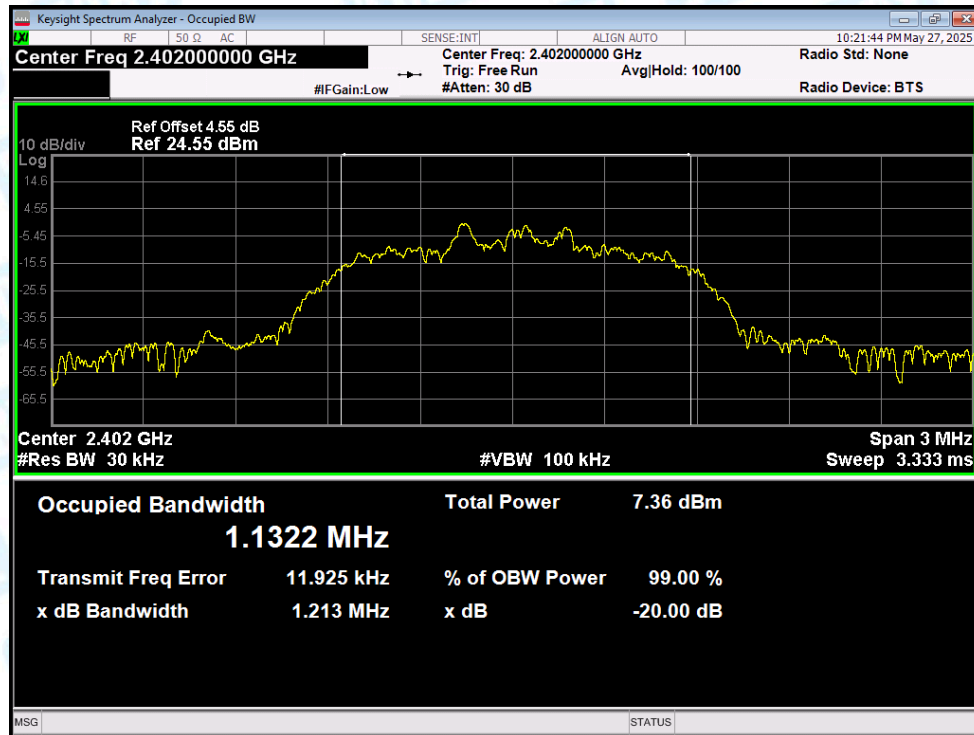
OBW NVNT 2-DH1 2441MHz Ant1



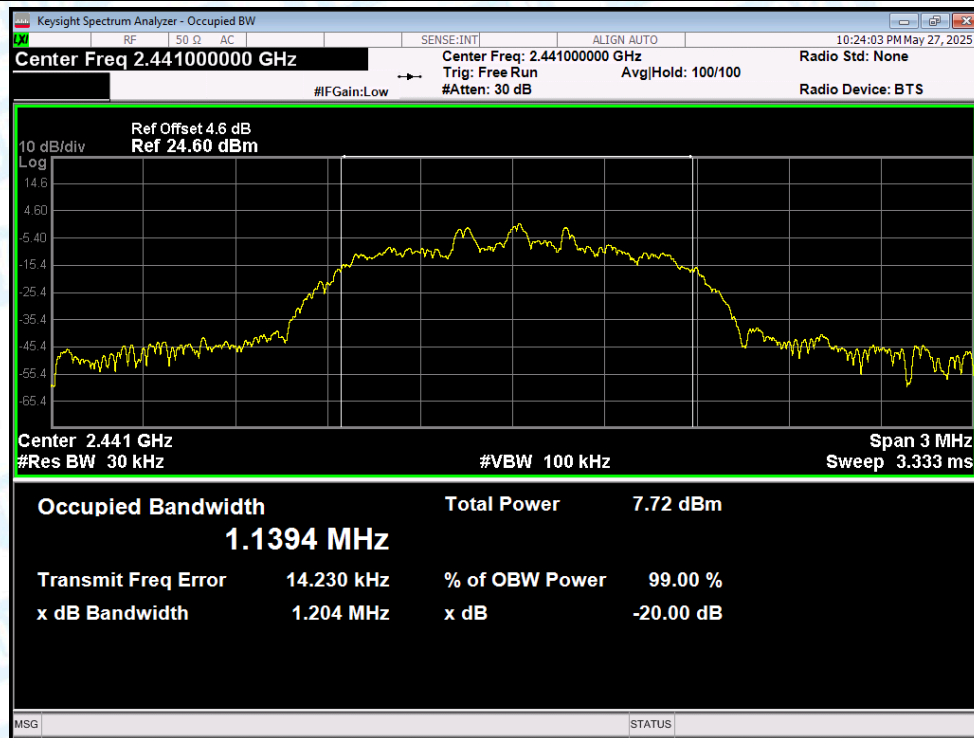
OBW NVNT 2-DH1 2480MHz Ant1

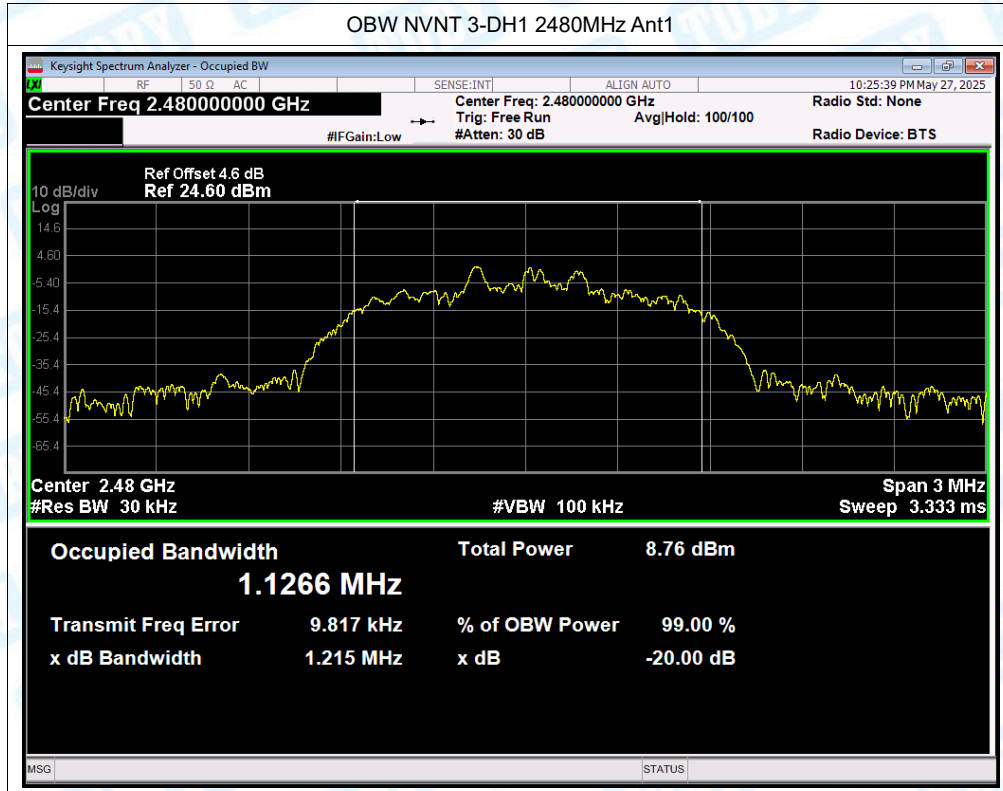


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



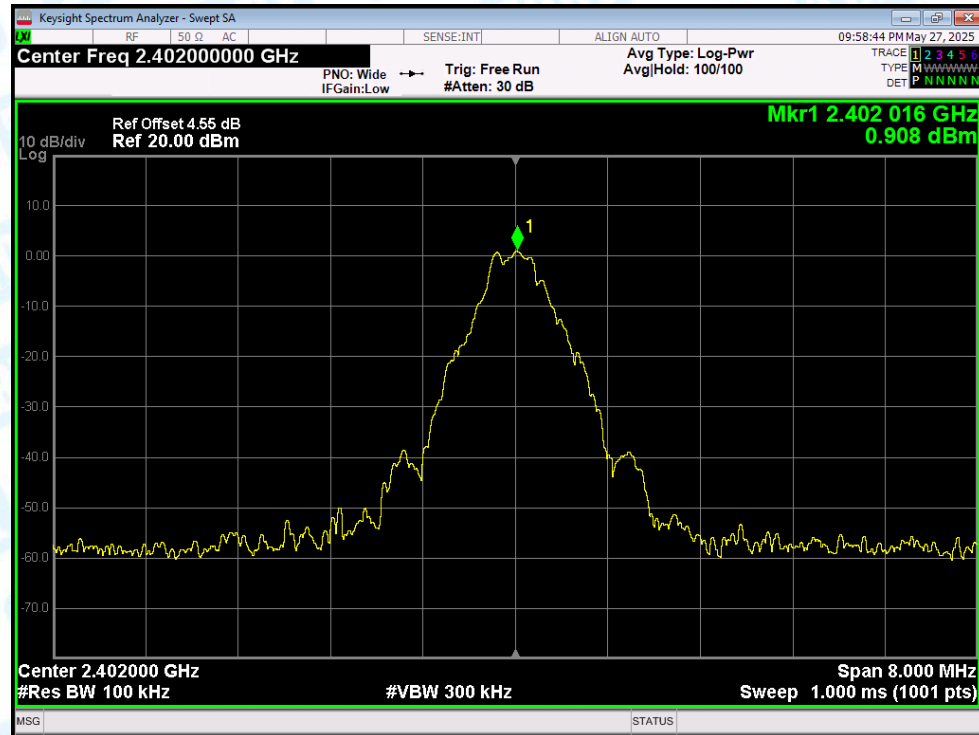


5. Band Edge

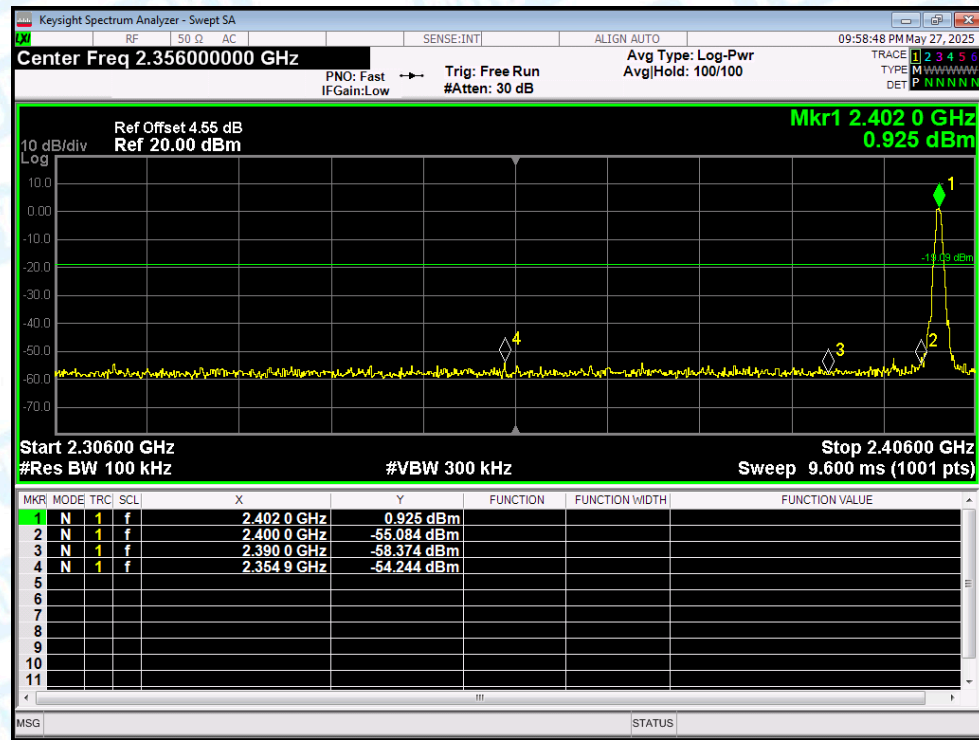
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-55.15	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-53.89	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-56.19	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-57.44	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-55.04	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-49.67	-20	Pass

Test Graphs

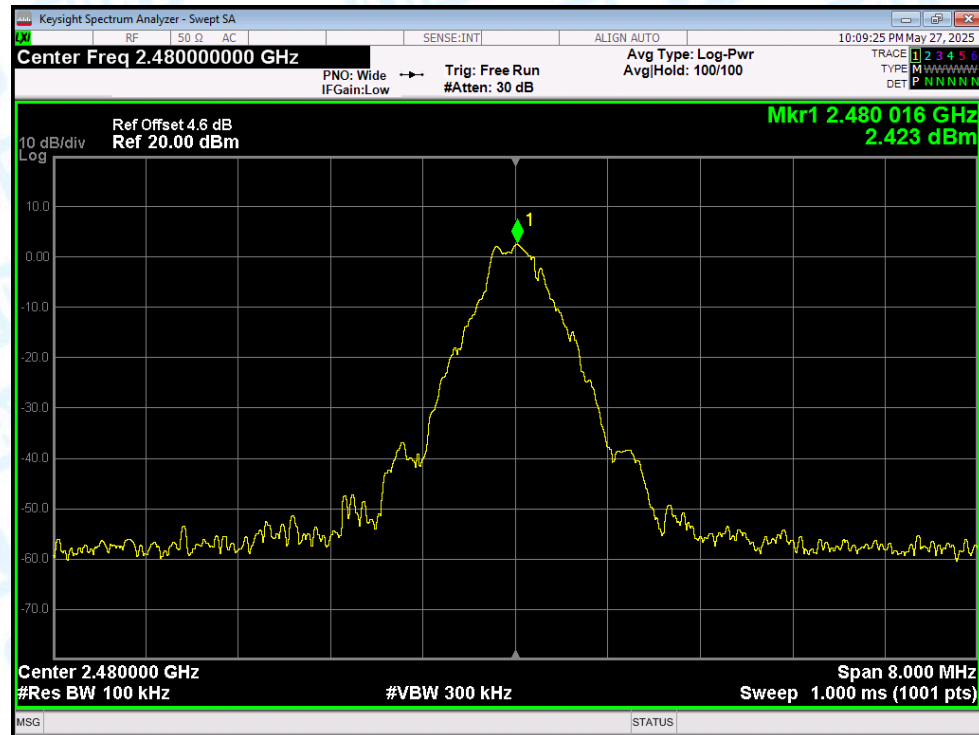
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



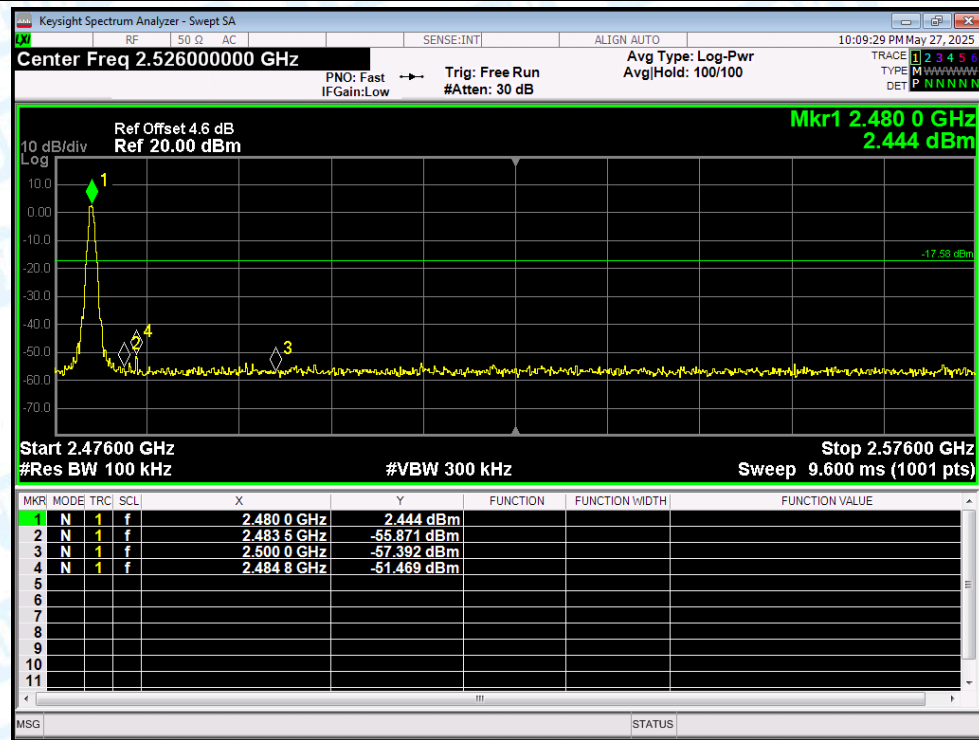
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



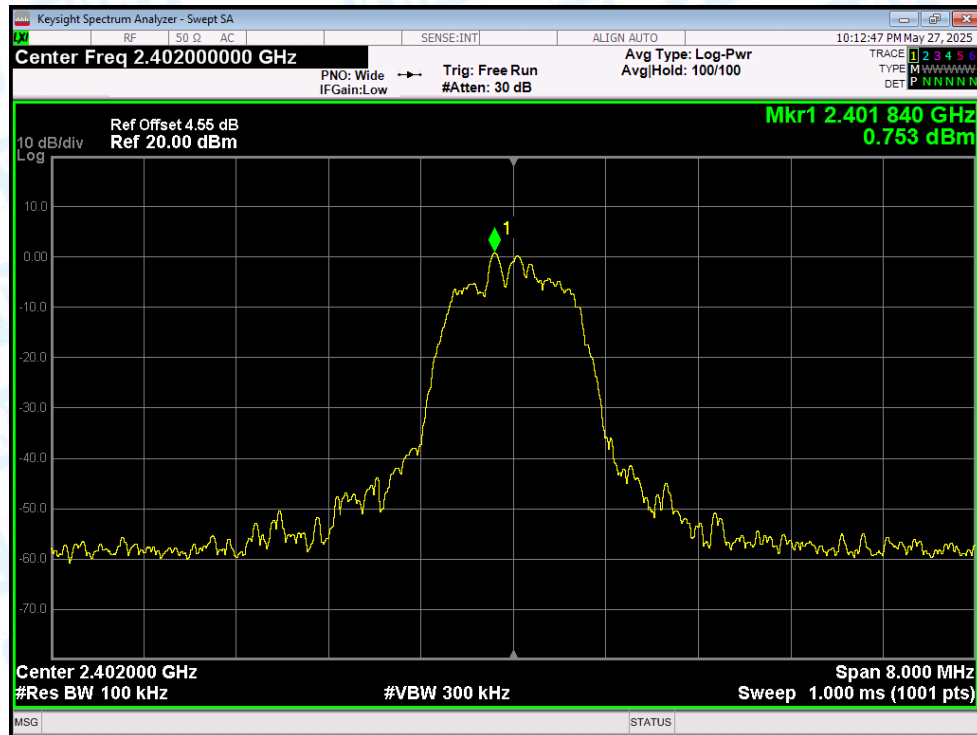
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



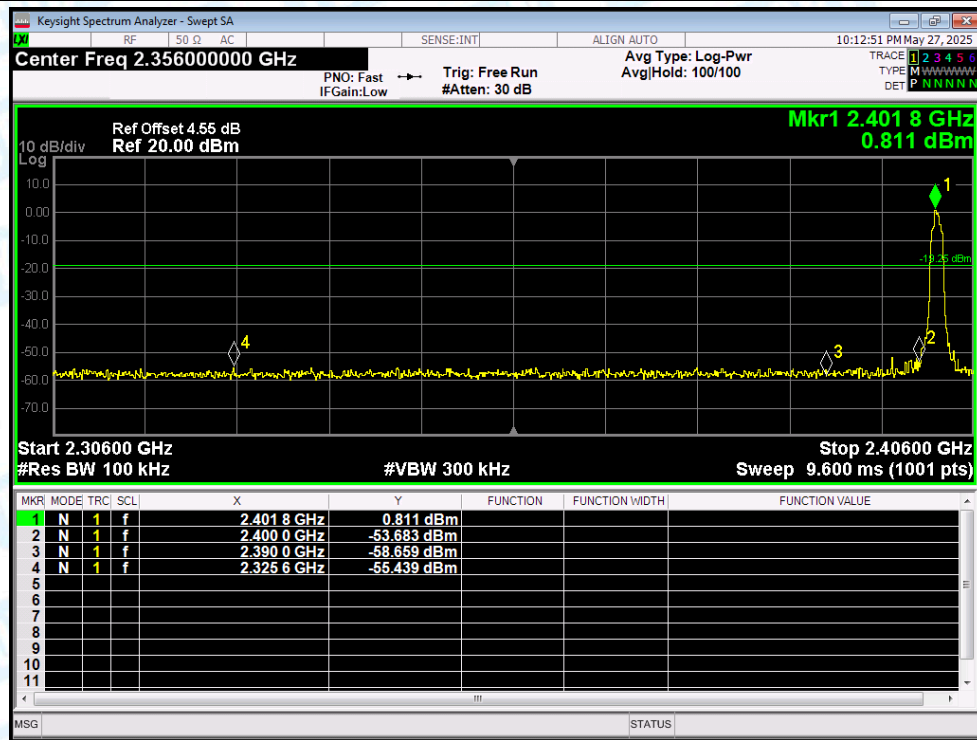
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



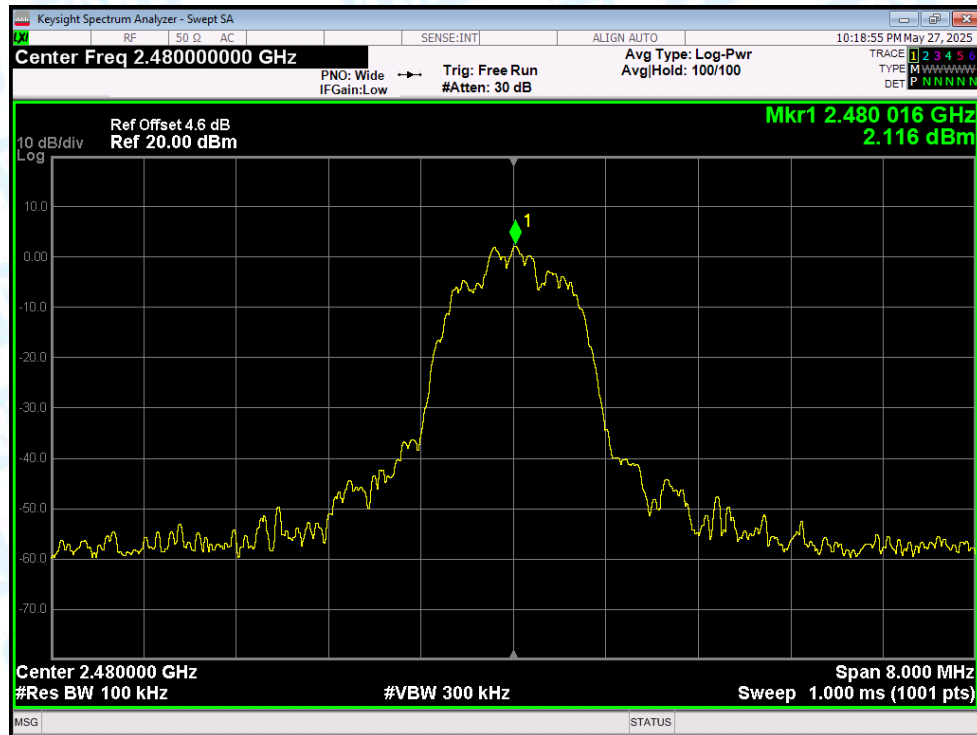
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



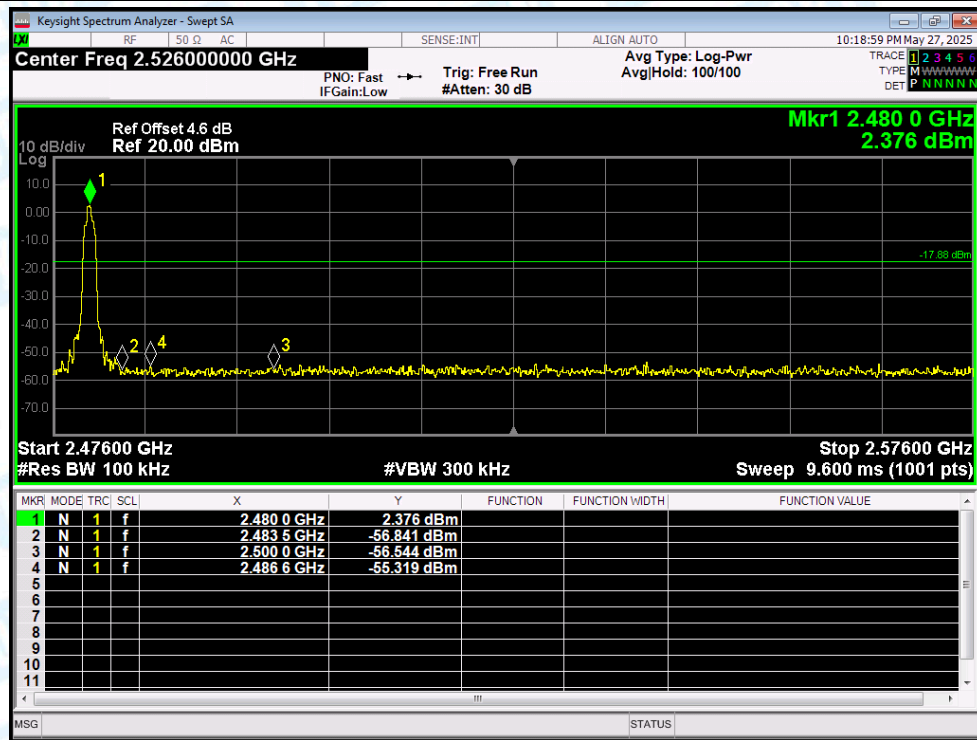
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



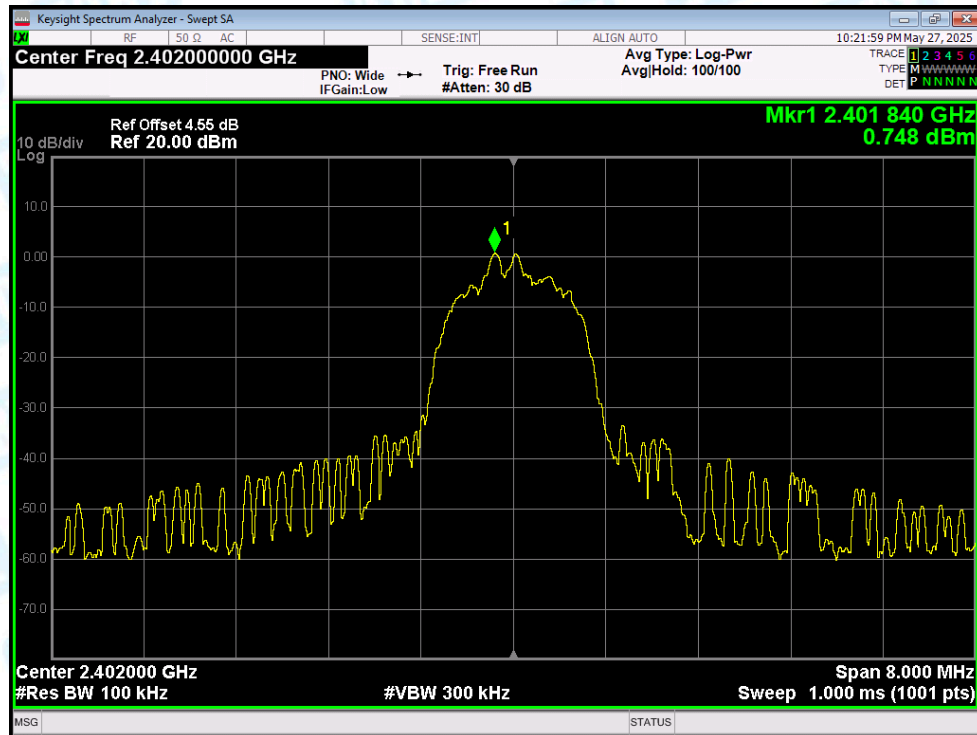
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



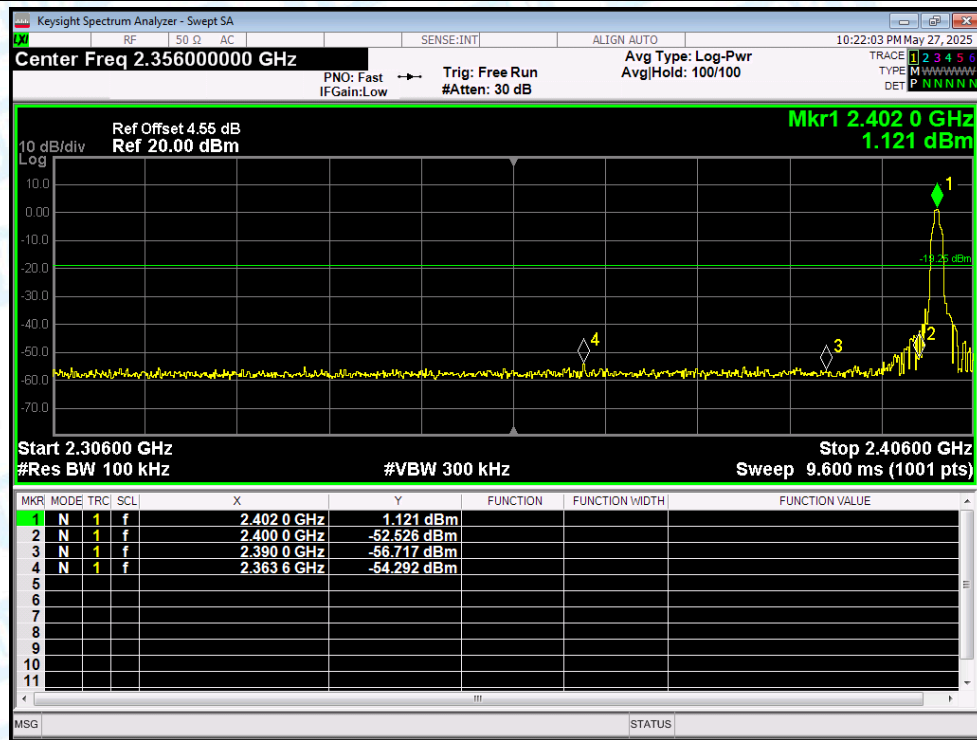
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



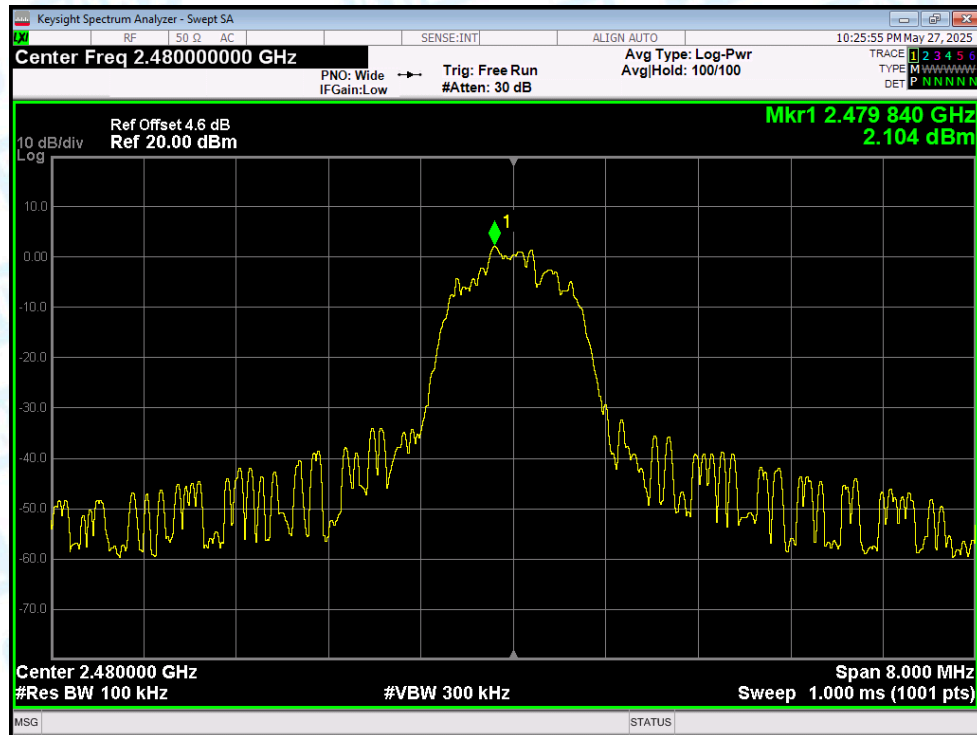
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



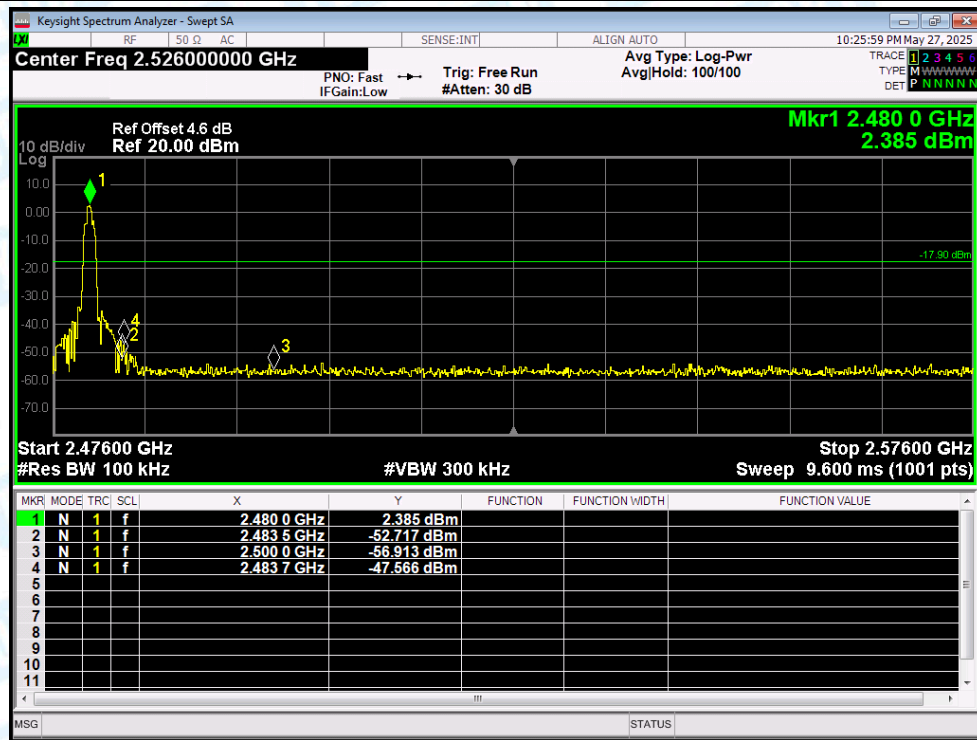
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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



6. Band Edge(Hopping)

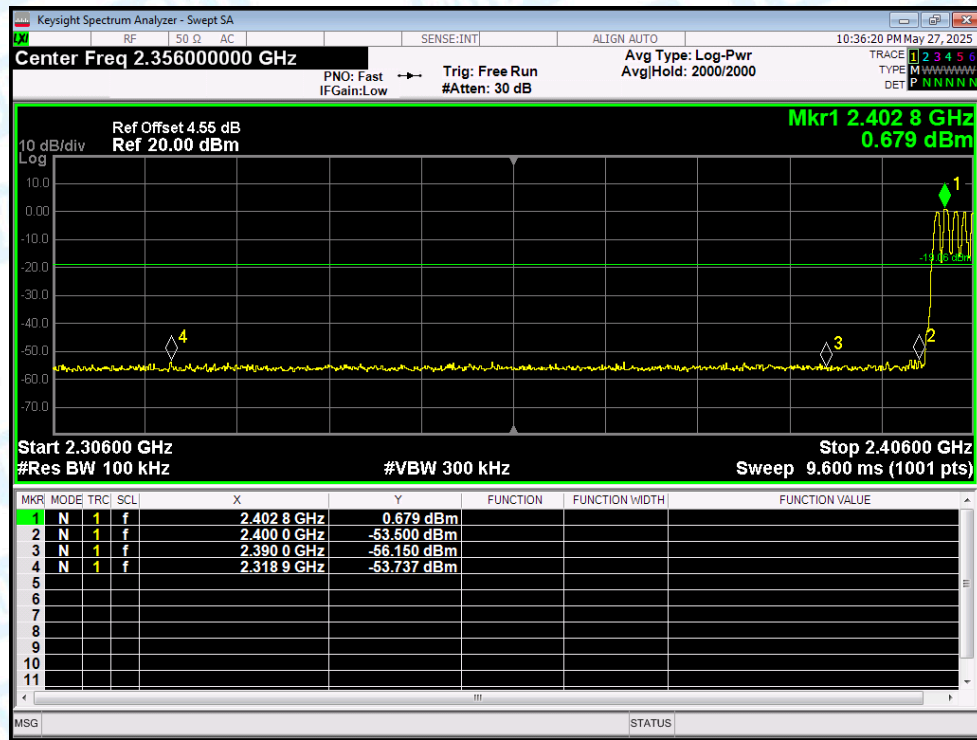
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-54.68	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-52.87	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-54.06	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-54.98	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-54.91	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-51.52	-20	Pass

Test Graphs

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



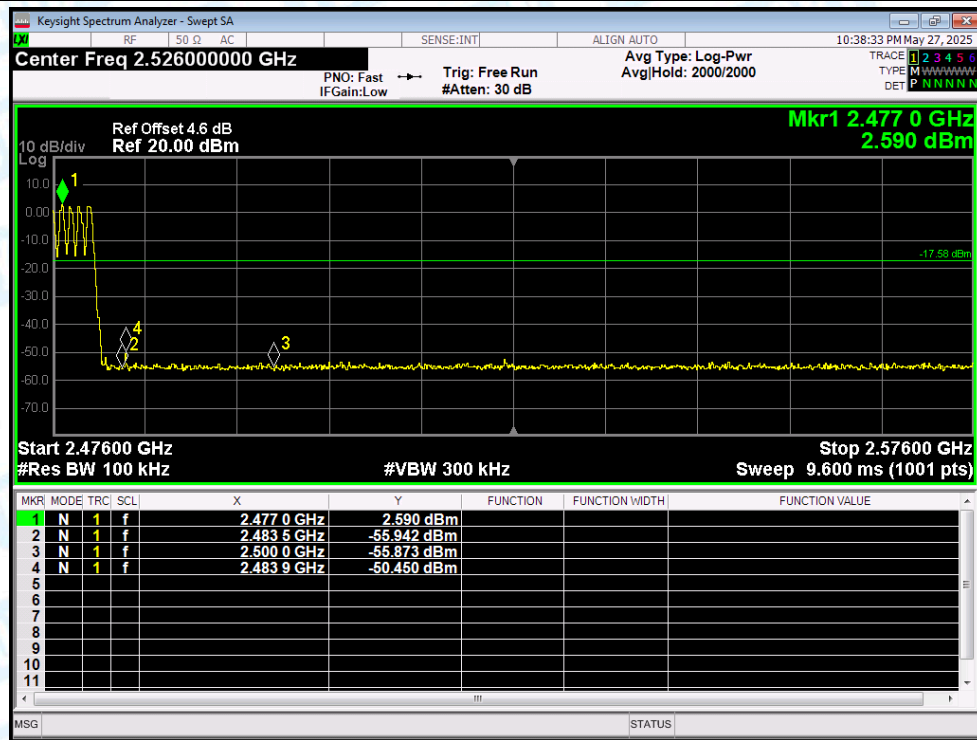
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



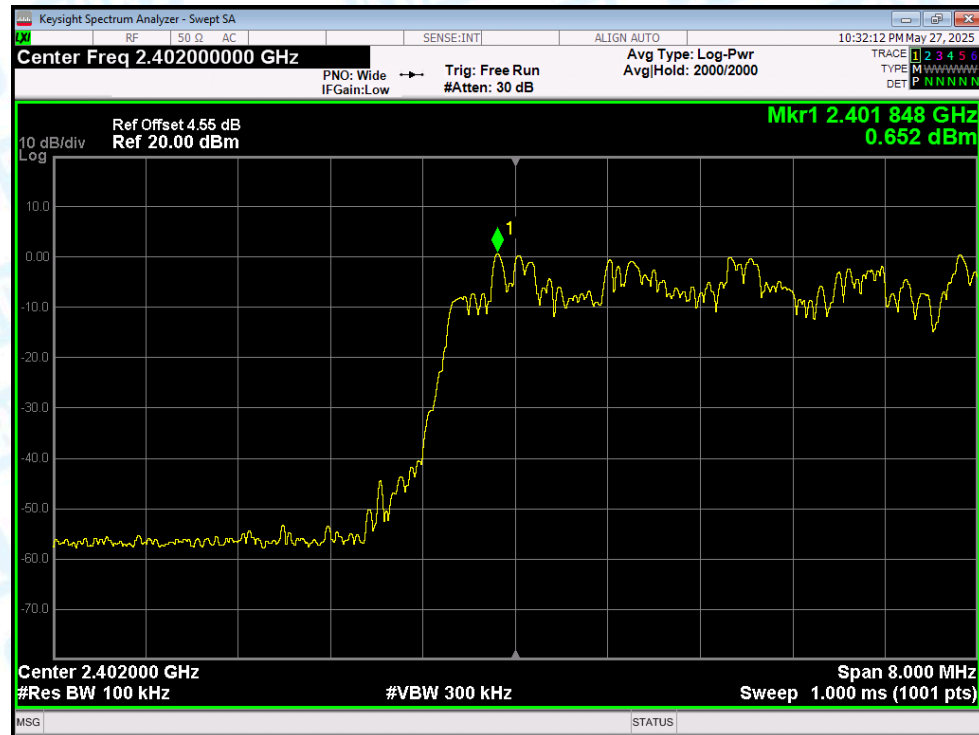
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref



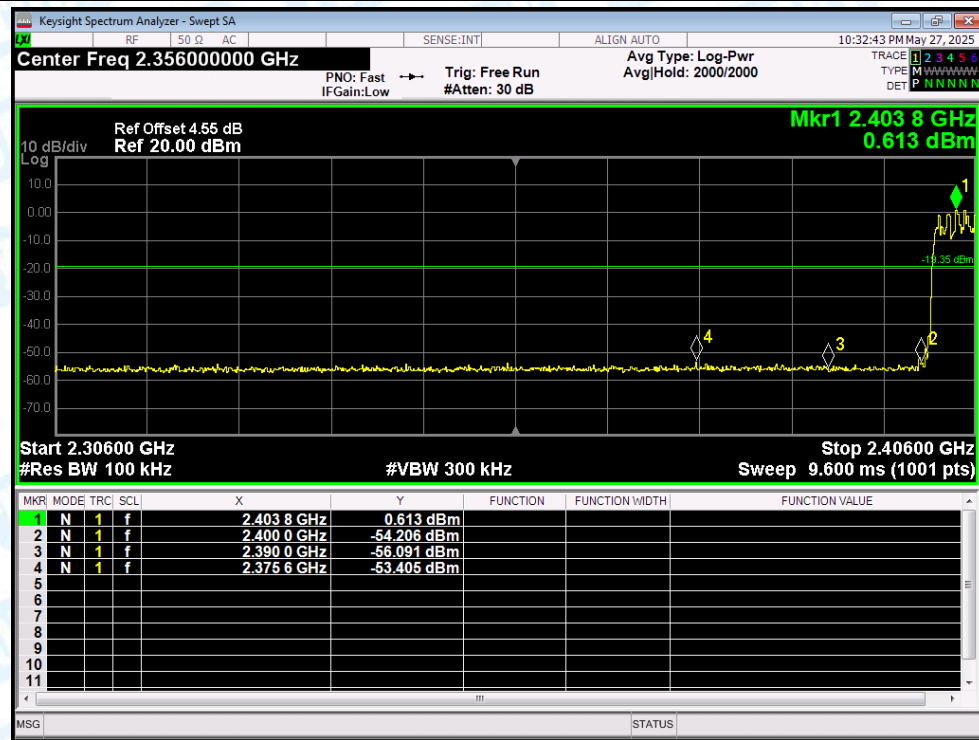
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



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



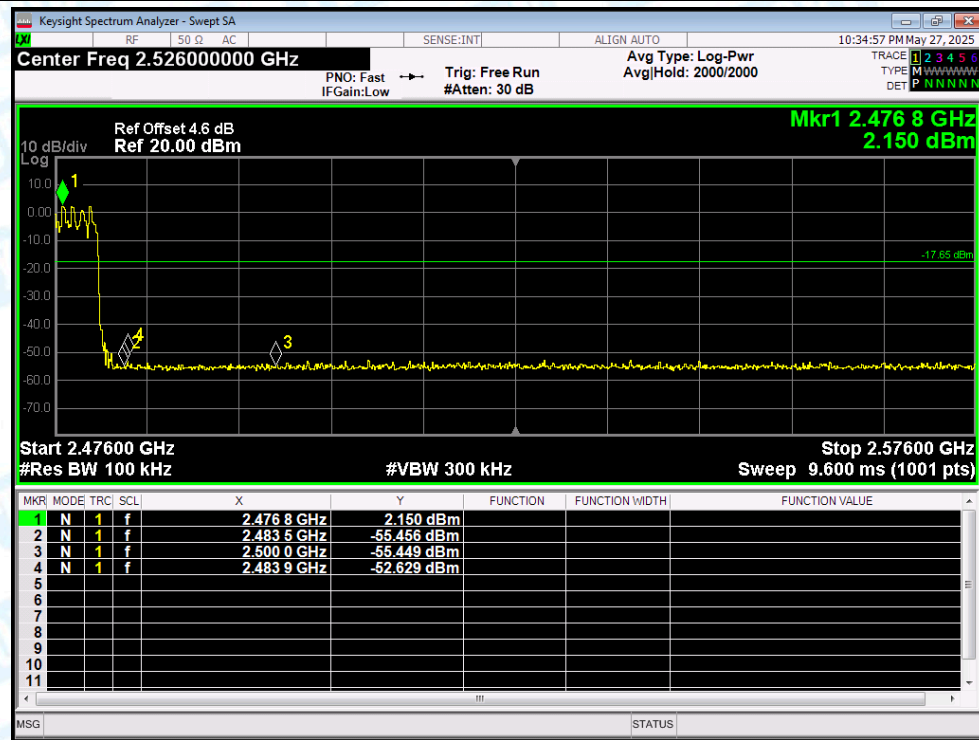
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



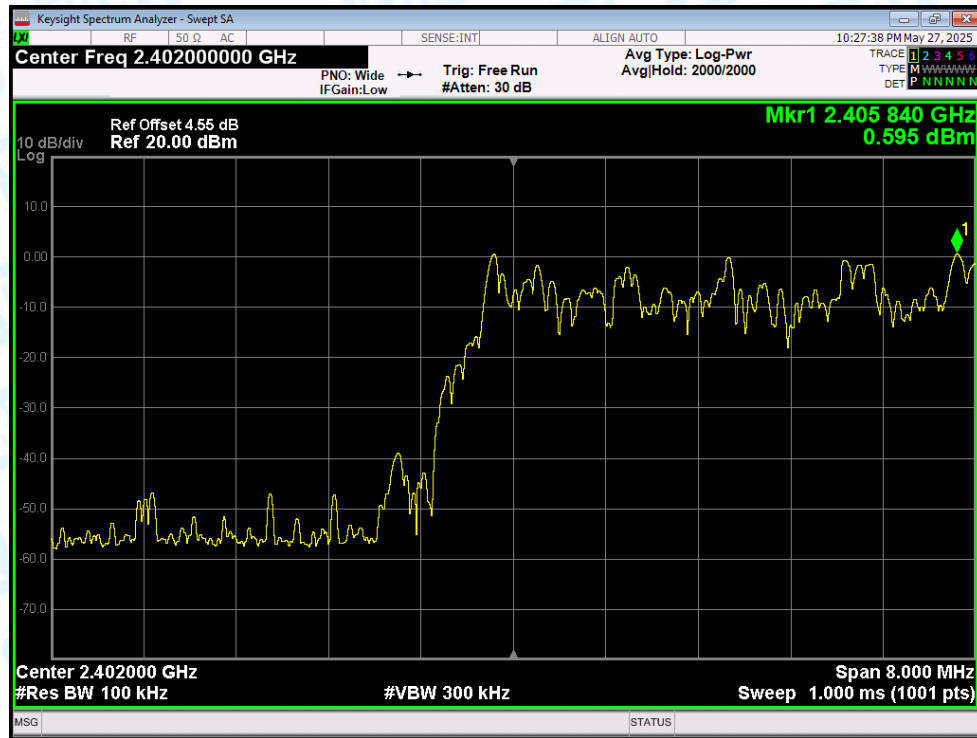
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Ref



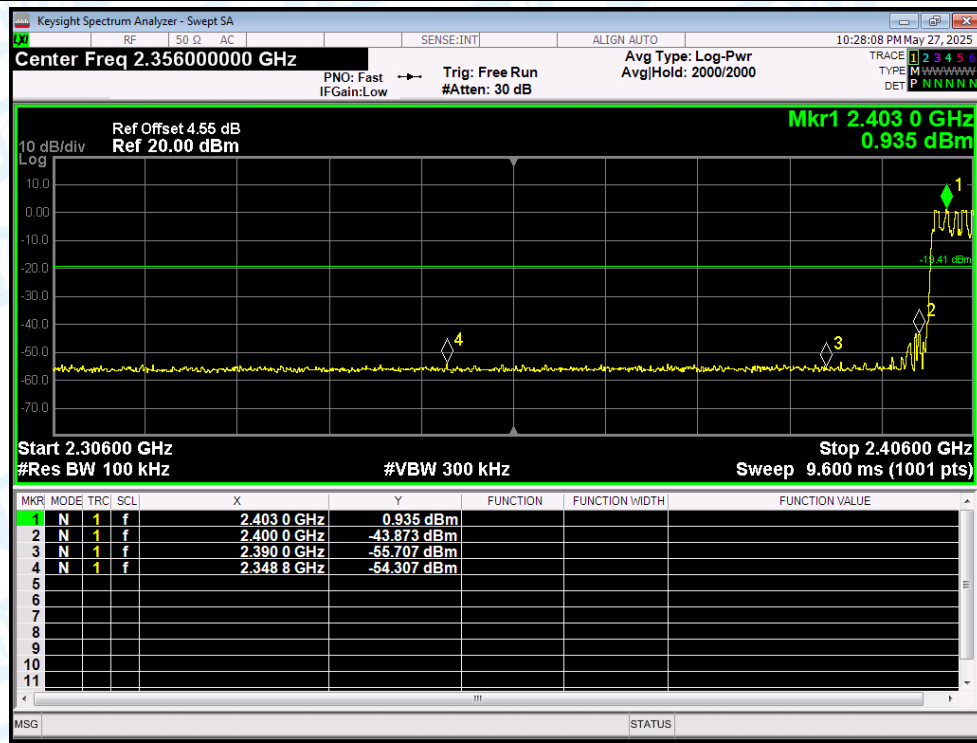
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



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



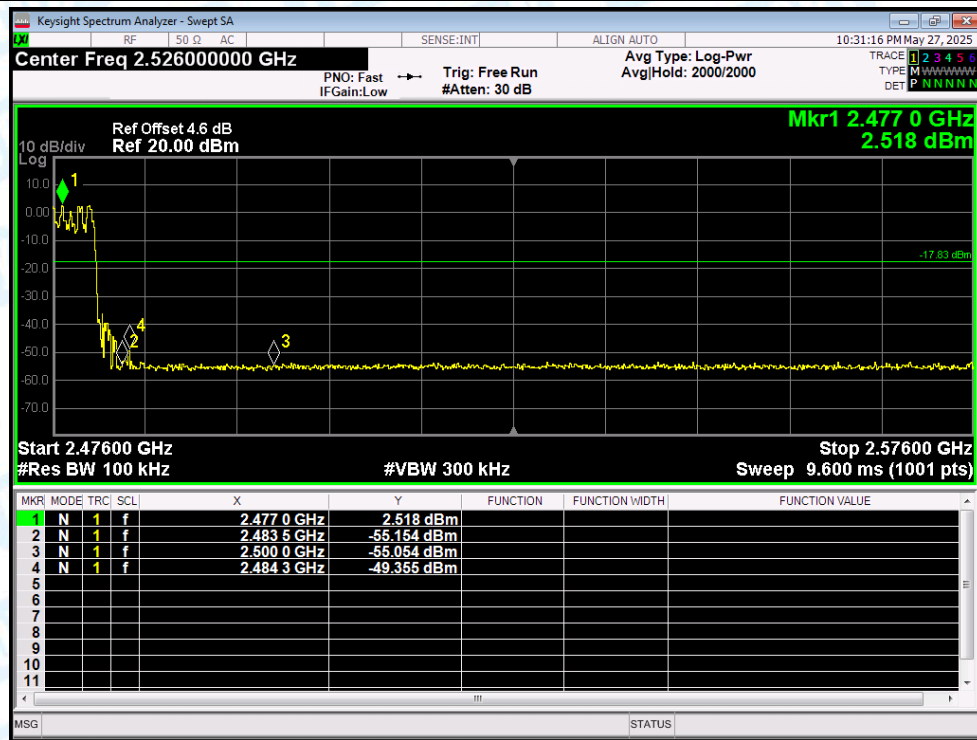
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



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



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

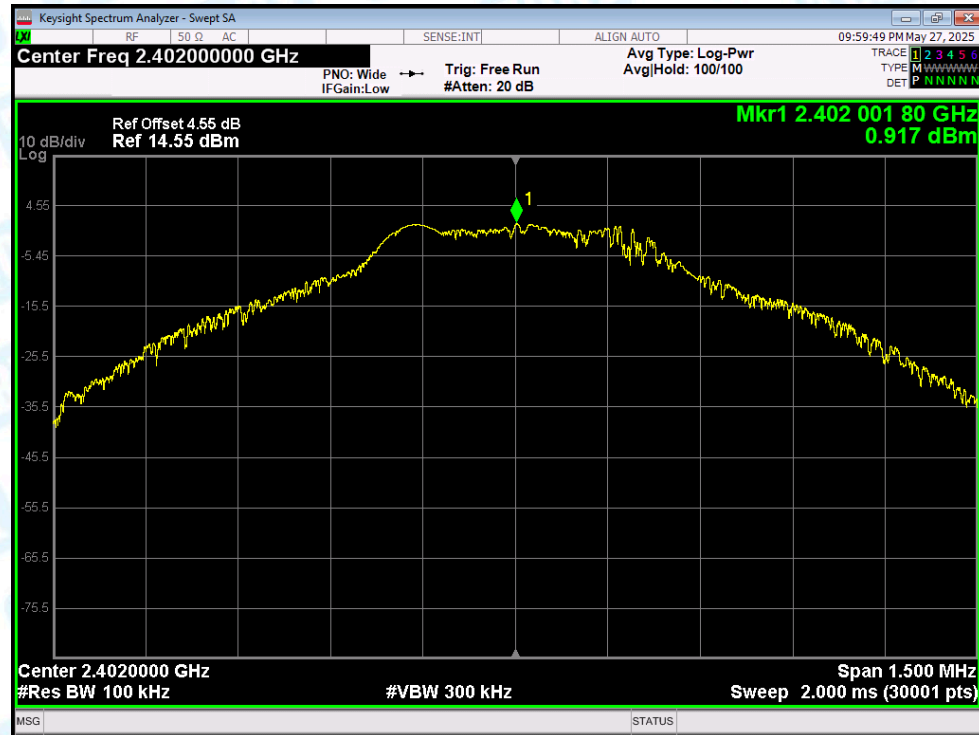


7. Conducted RF Spurious Emission

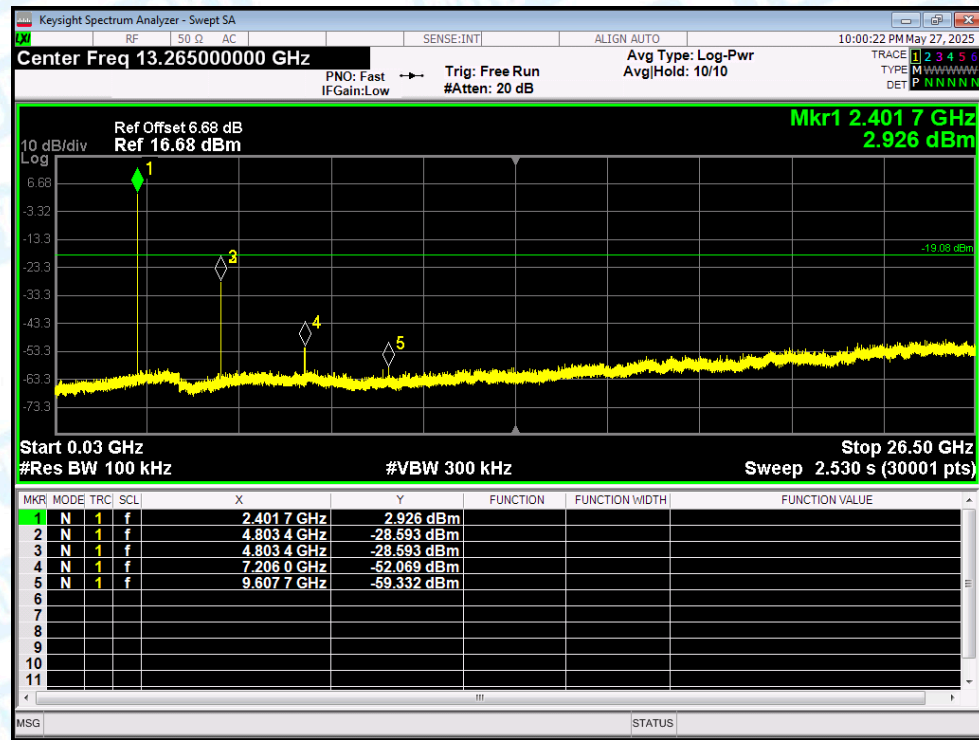
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-29.51	-20	Pass
NVNT	1-DH1	2441	Ant1	-25.08	-20	Pass
NVNT	1-DH1	2480	Ant1	-24.35	-20	Pass
NVNT	2-DH1	2402	Ant1	-25.65	-20	Pass
NVNT	2-DH1	2441	Ant1	-31.38	-20	Pass
NVNT	2-DH1	2480	Ant1	-24.73	-20	Pass
NVNT	3-DH1	2402	Ant1	-25.25	-20	Pass
NVNT	3-DH1	2441	Ant1	-30.94	-20	Pass
NVNT	3-DH1	2480	Ant1	-24.49	-20	Pass

Test Graphs

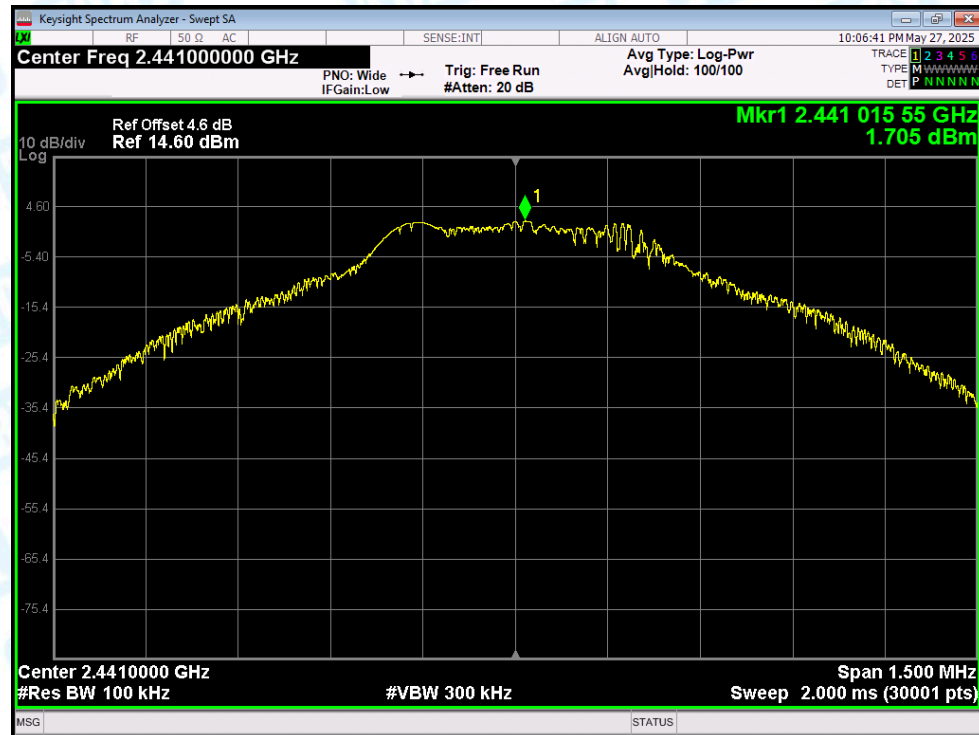
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



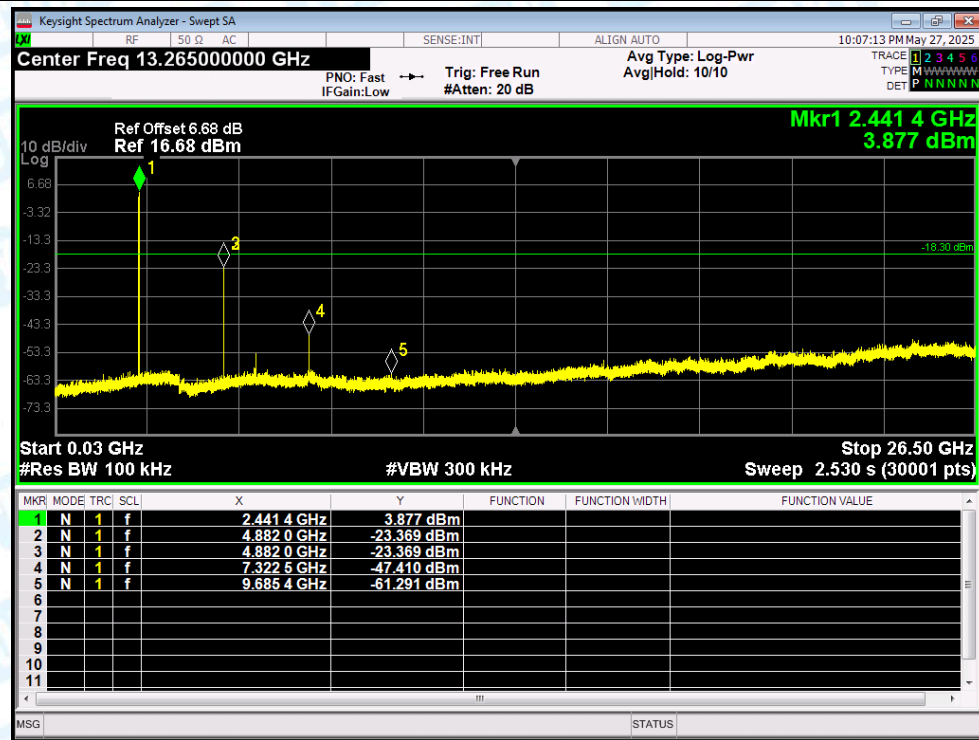
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



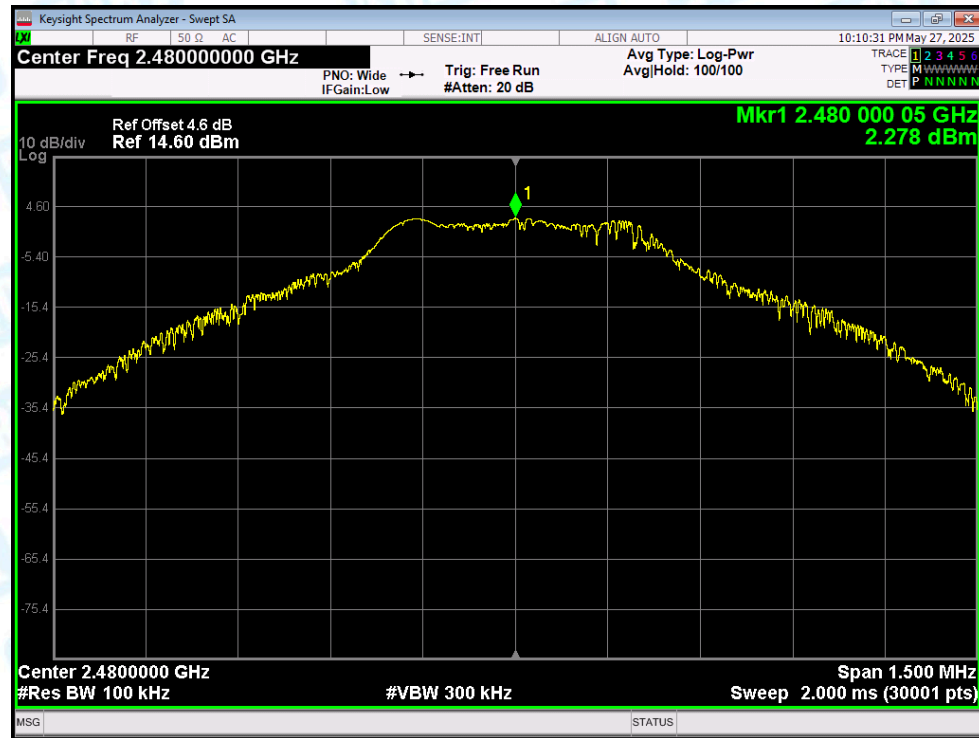
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



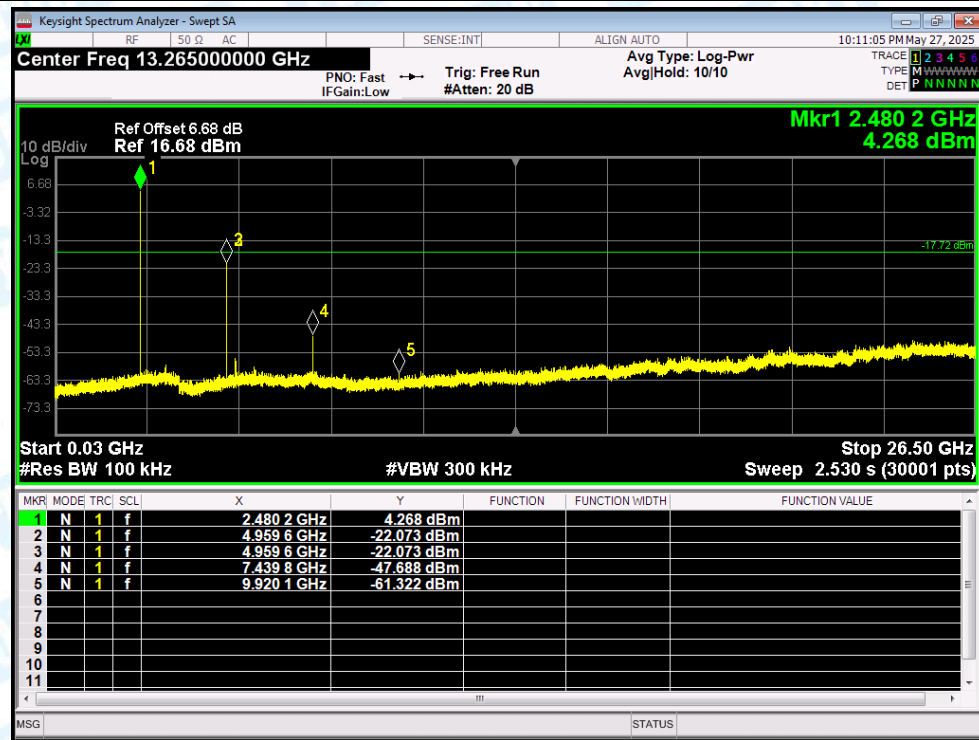
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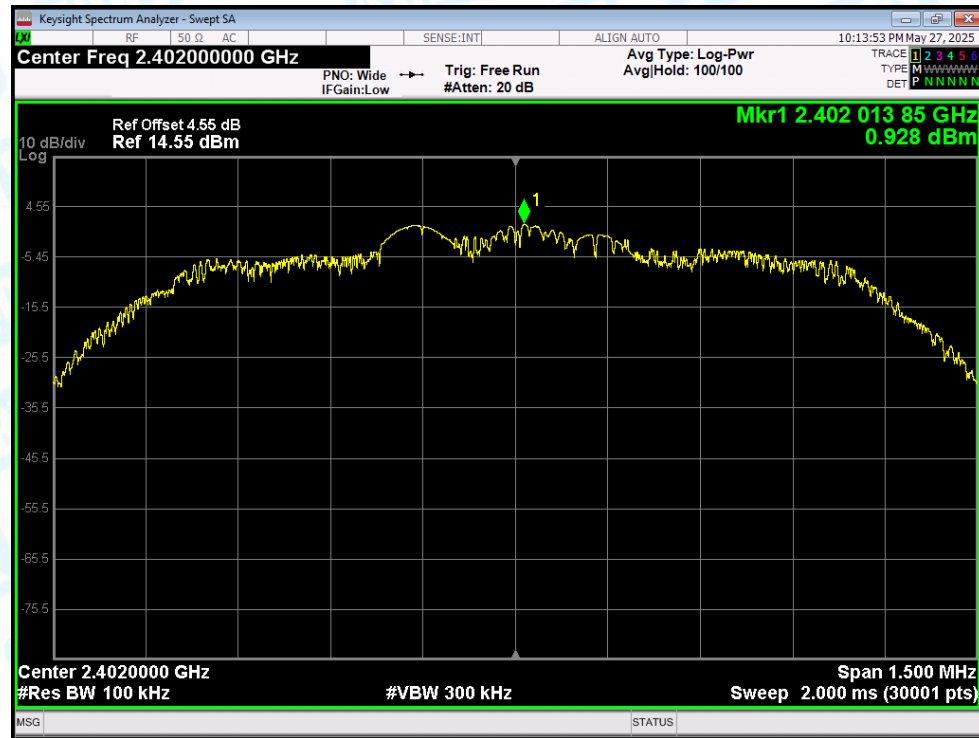
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



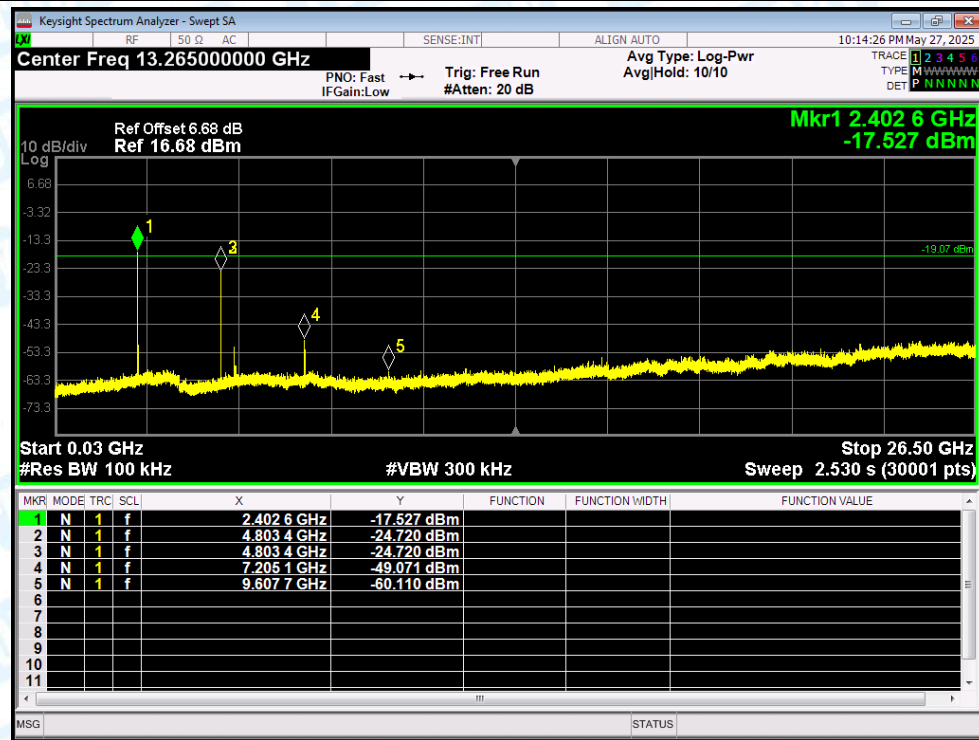
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



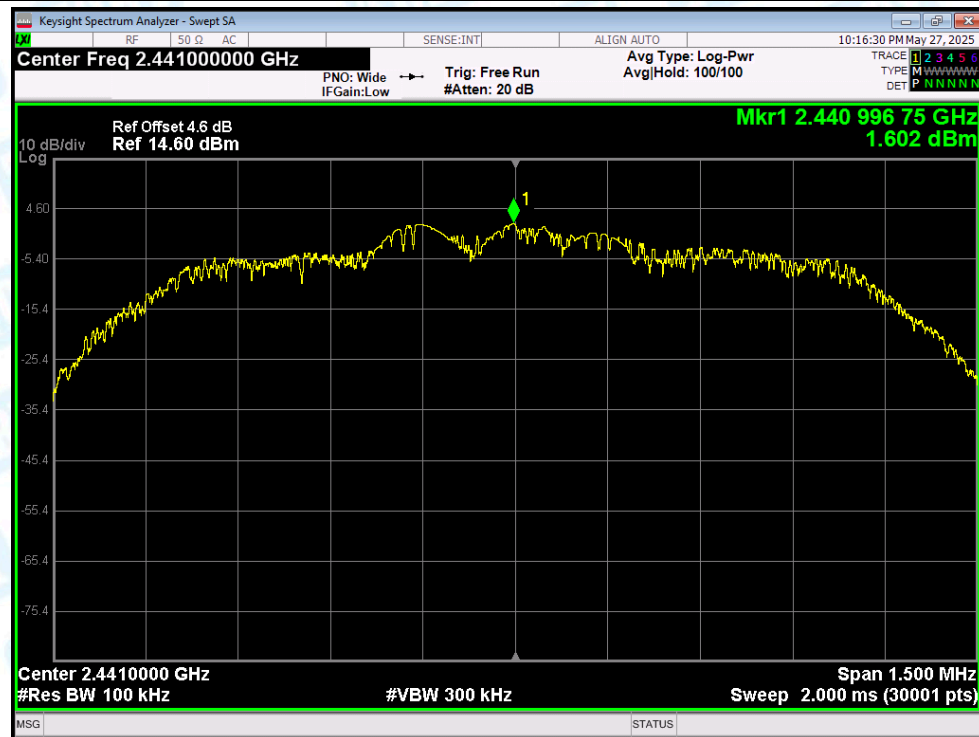
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



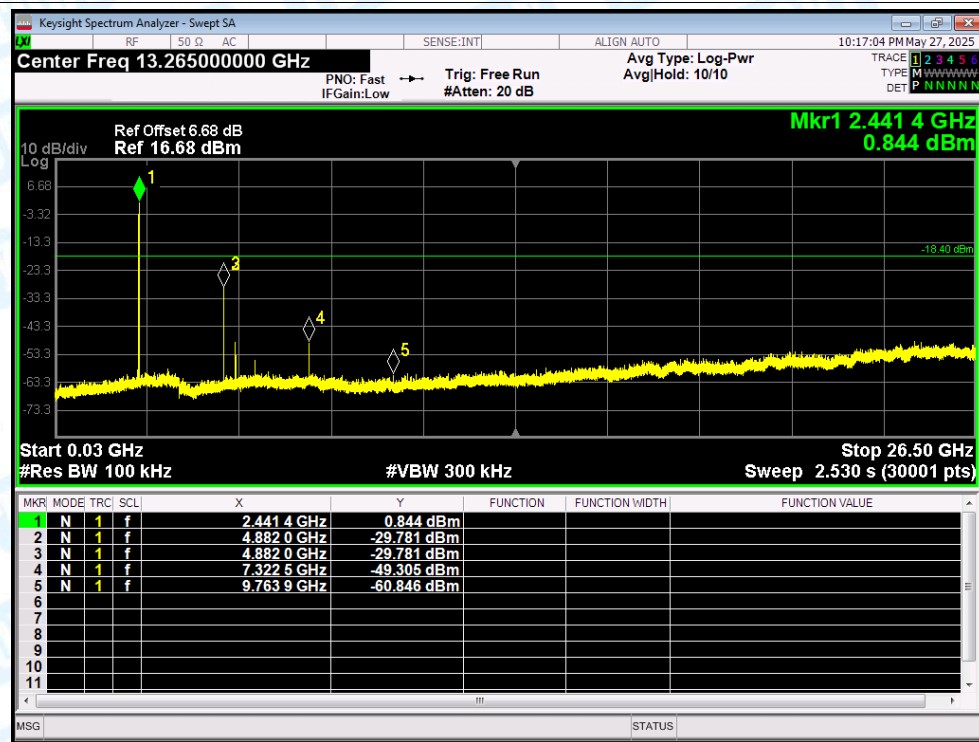
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



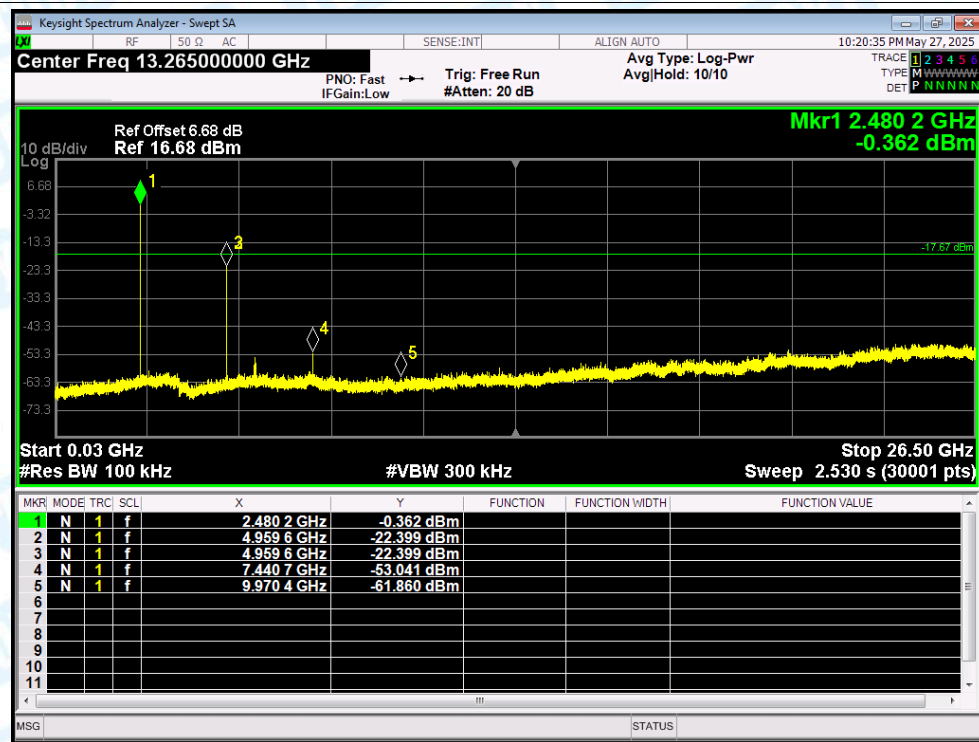
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



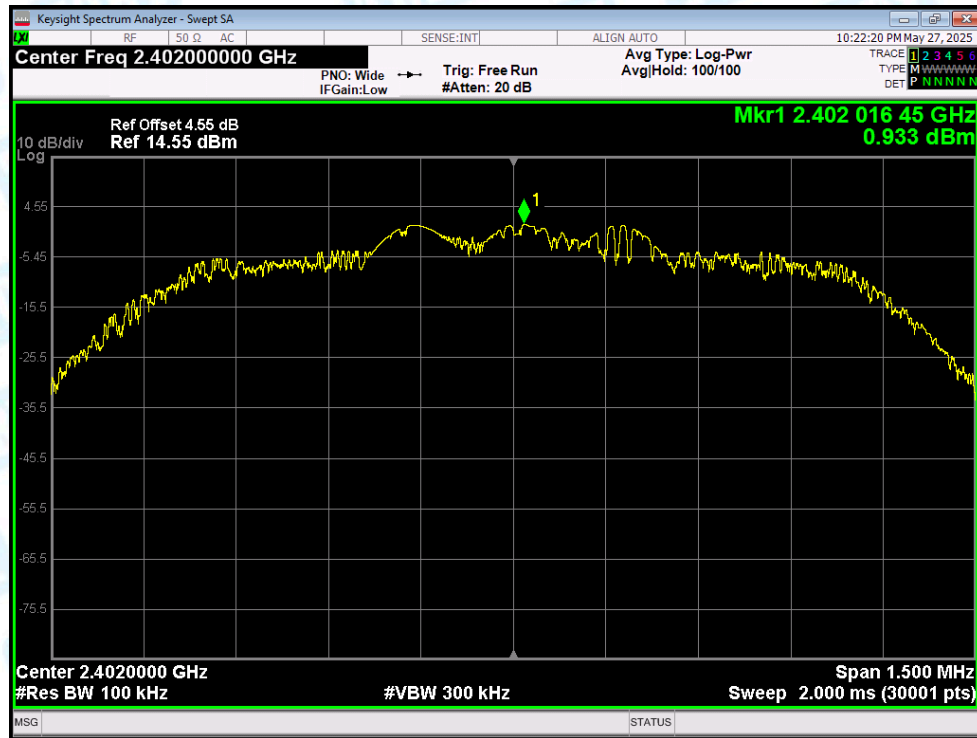
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



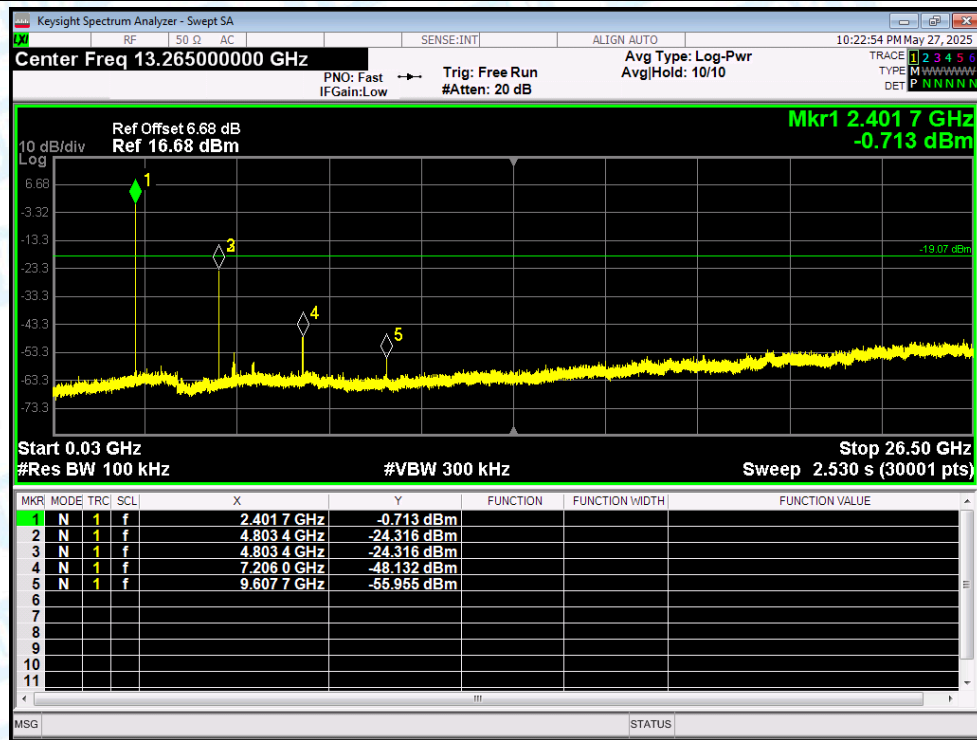
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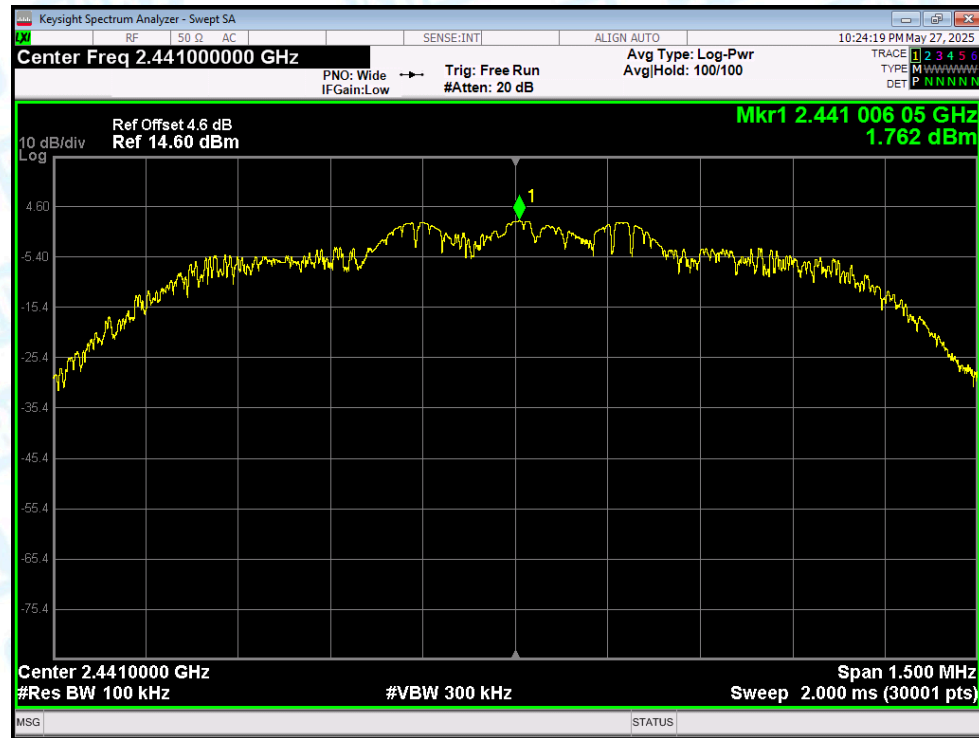
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



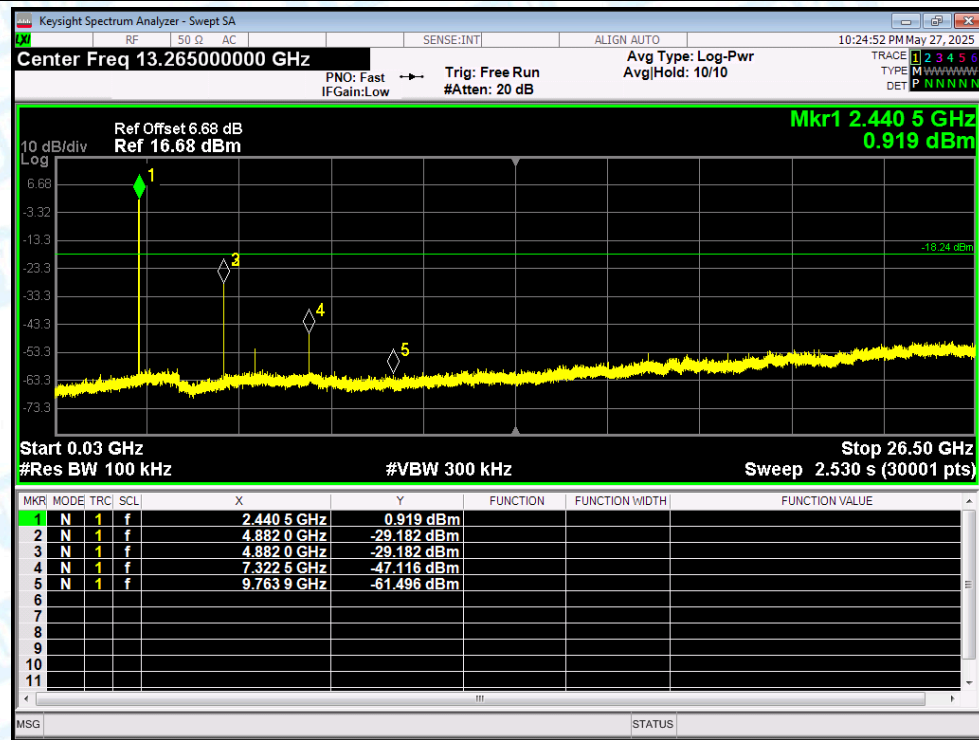
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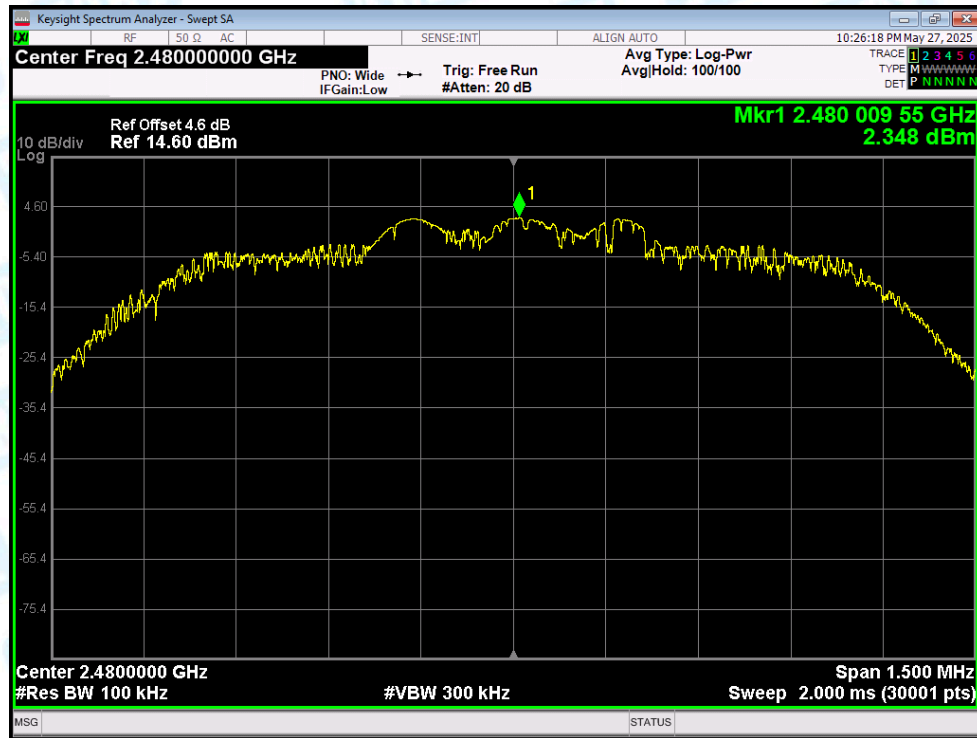
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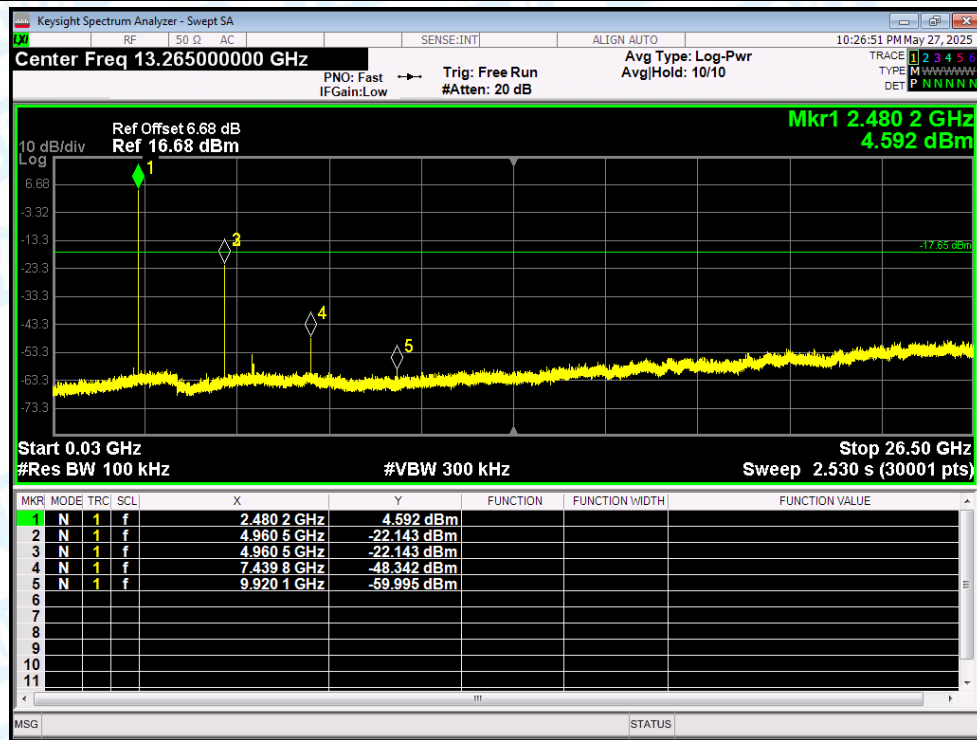
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



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	-48.3	2.78	-	49.74	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.51	2.78	4.84	46.37	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2359.824	-45.76	2.78	-	52.28	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2376.336	-55.52	2.78	4.84	47.36	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-46.6	2.78	-	51.44	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-56.03	2.78	4.84	46.85	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-45.85	2.78	-	52.19	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-55.5	2.78	4.84	47.38	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2488.816	-43.08	2.78	-	54.96	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2485.144	-54.57	2.78	4.84	48.31	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-46.55	2.78	-	51.49	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.41	2.78	4.84	47.47	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-48.82	2.78	-	49.22	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.18	2.78	4.74	46.6	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2381.328	-45.42	2.78	-	52.62	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2380.08	-55.32	2.78	4.74	47.46	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-48.17	2.78	-	49.87	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-55.96	2.78	4.74	46.82	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-44.86	2.78	-	53.18	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-55.42	2.78	4.84	47.46	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.608	-39.67	2.78	-	58.37	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2499.616	-54.42	2.78	4.84	48.46	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-46.89	2.78	-	51.15	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.97	2.78	4.84	46.91	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-48.19	2.78	-	49.85	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.16	2.78	4.74	46.62	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2345.808	-44.08	2.78	-	53.96	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2358	-55.32	2.78	4.74	47.46	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-48.73	2.78	-	49.31	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-56.39	2.78	4.74	46.39	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-47.79	2.78	-	50.25	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-53.25	2.78	4.74	49.53	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2484.28	-30.26	2.78	-	67.78	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2484.712	-52.34	2.78	4.74	50.44	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-47.37	2.78	-	50.67	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.4	2.78	4.74	47.38	Average	54	Pass