

RF Test Data for Bluetooth

(Conducted Measurements)

General Description of EUT	
Product Name:	Intelligent separated call wristband
Test Model:	D9
Sample ID:	HC-C-202412-0181-01-01
Environmental Conditions	
Temperature:	24.6℃
Relative Humidity:	52.3%
Test Voltage:	DC 3.8V
Test Engineer:	Dawson
Note: For a more detailed features description, please refer to the report TBR-C-202412-0181-15 The report only show the worst case data.	

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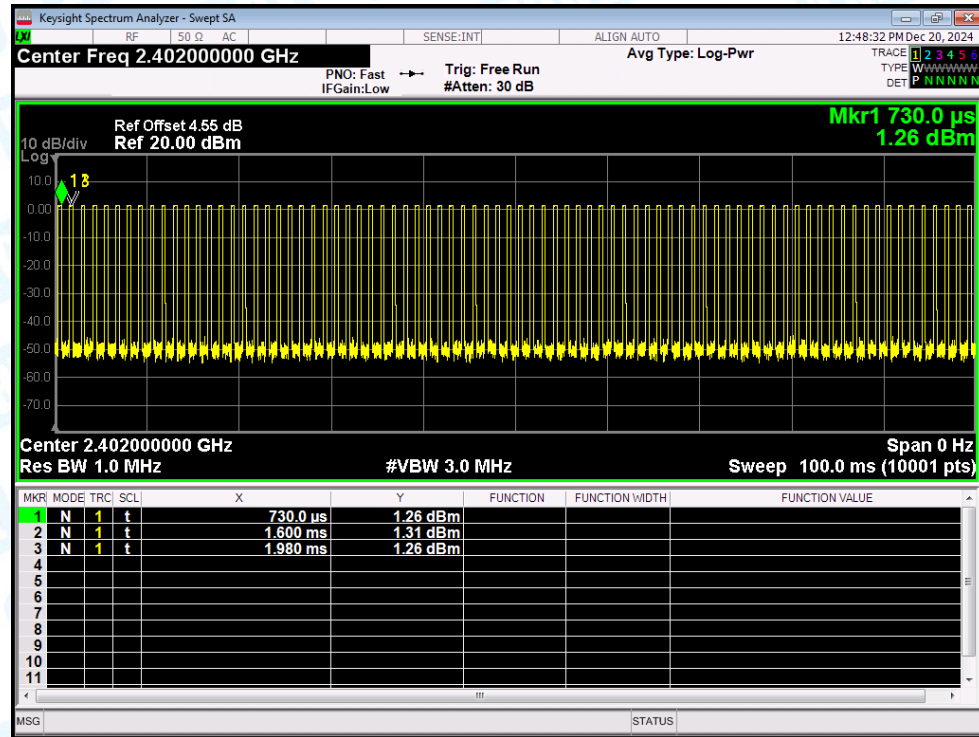
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1. Duty Cycle

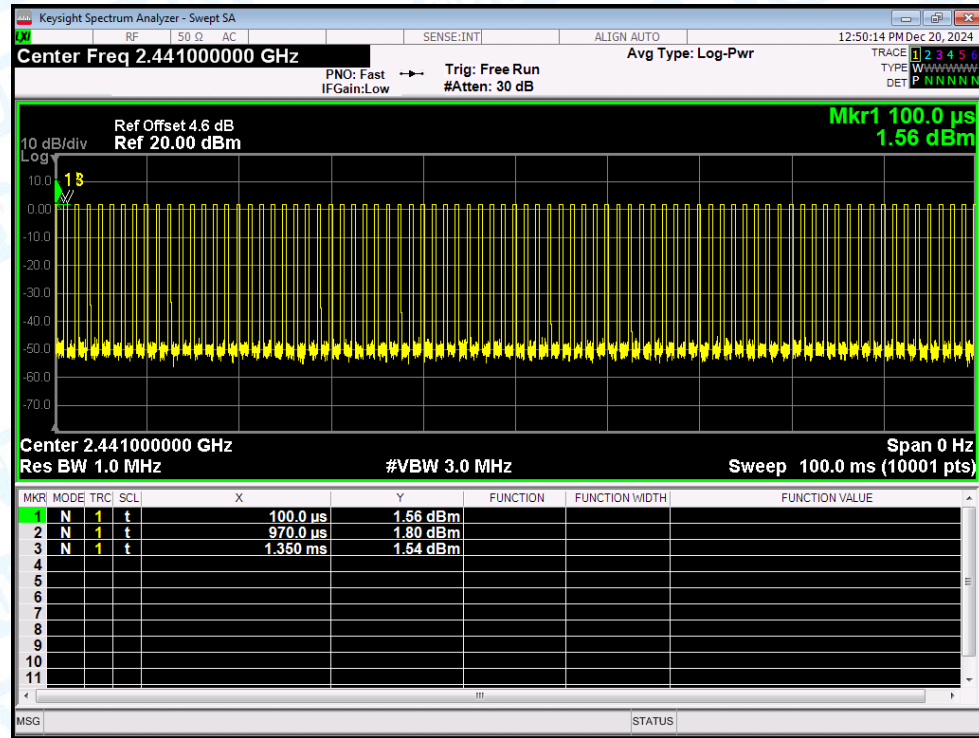
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2441	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2480	Ant1	32	4.95	2.5
NVNT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

Test Graphs

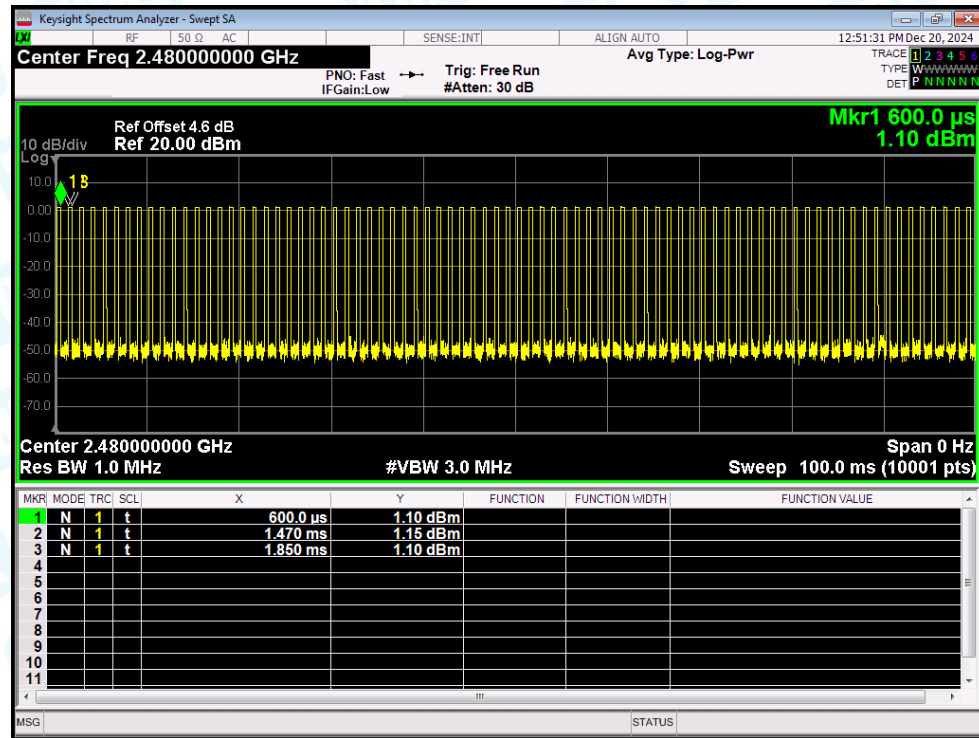
Duty Cycle NVNT 1-DH1 2402MHz Ant1



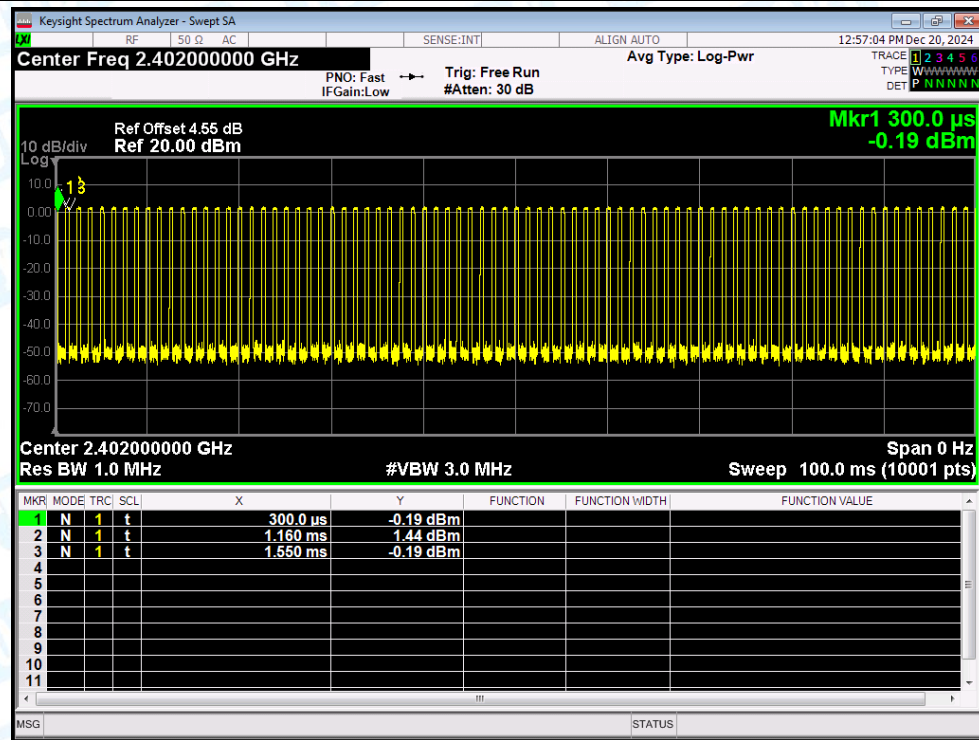
Duty Cycle NVNT 1-DH1 2441MHz Ant1



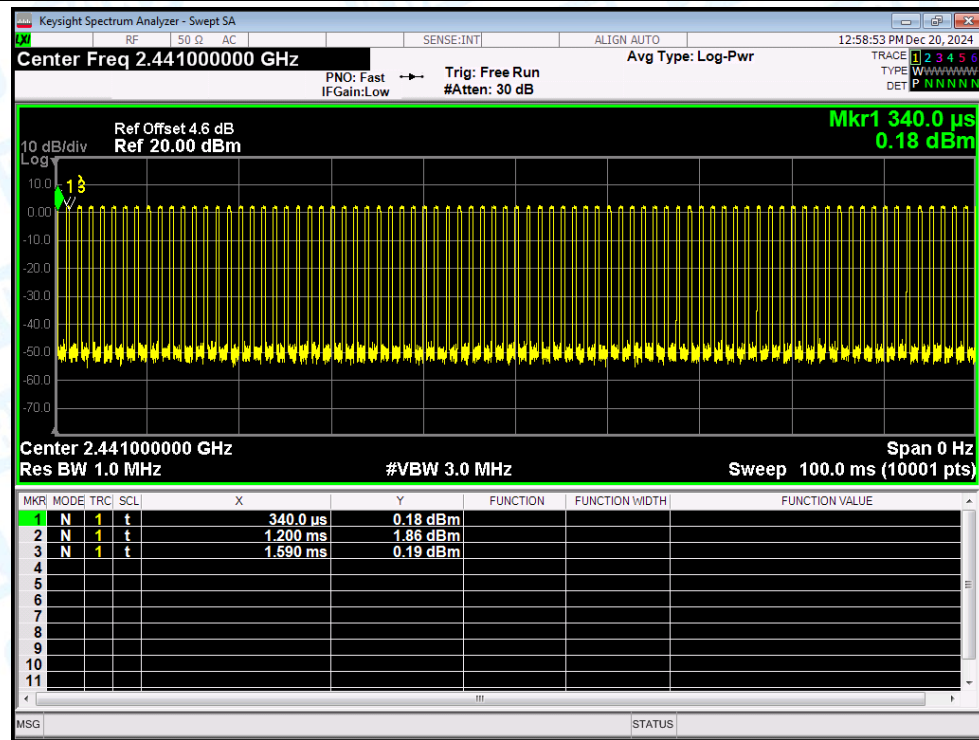
Duty Cycle NVNT 1-DH1 2480MHz Ant1



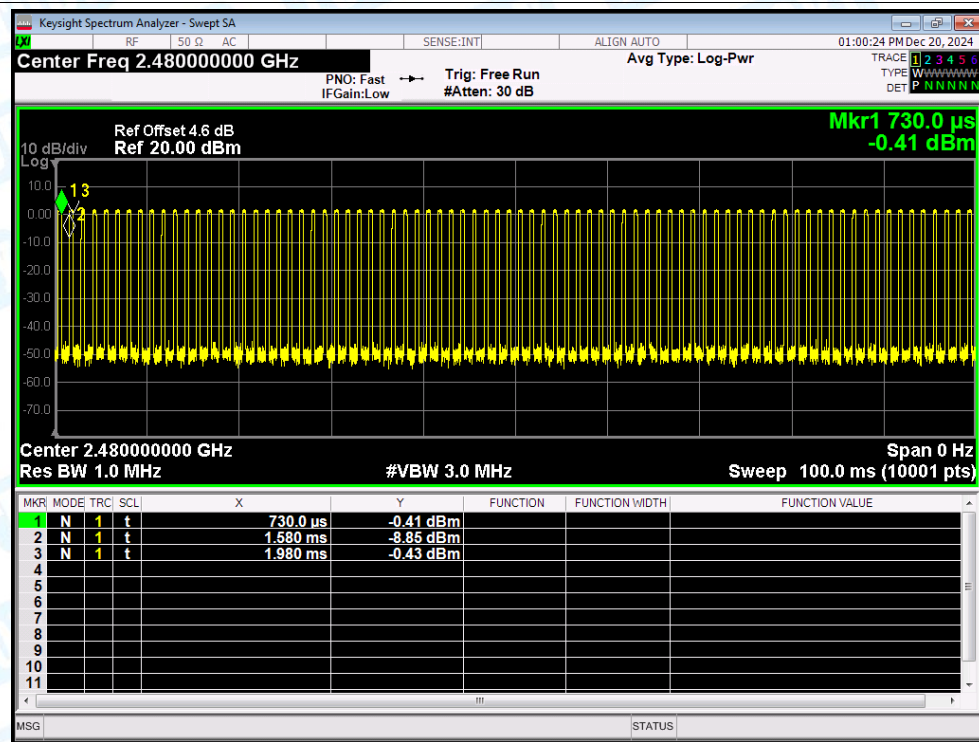
Duty Cycle NVNT 2-DH1 2402MHz Ant1



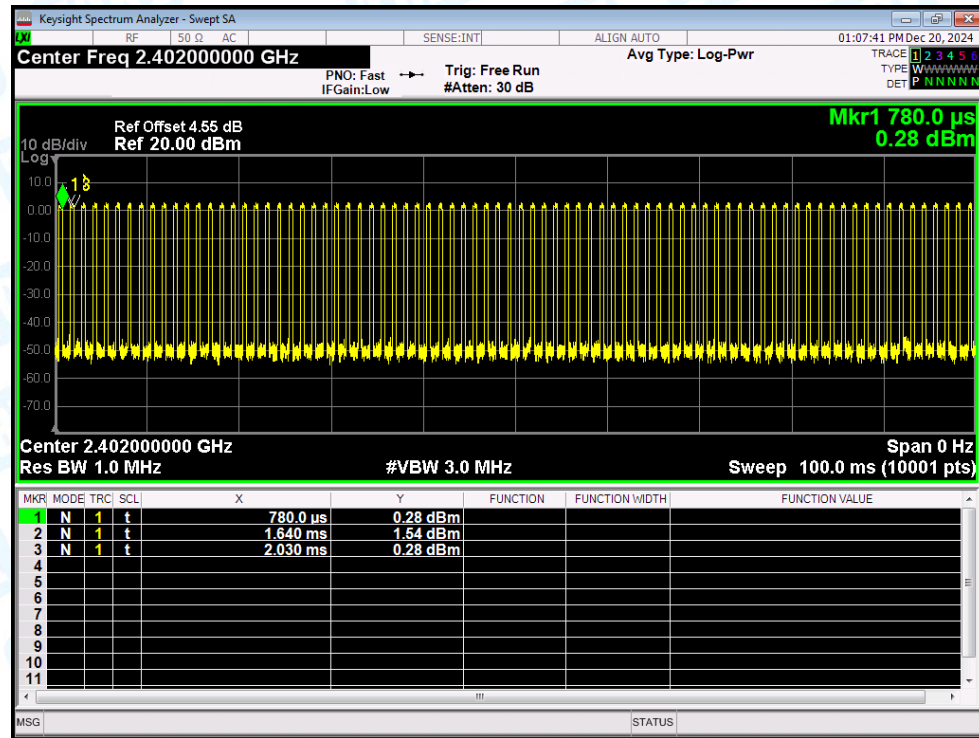
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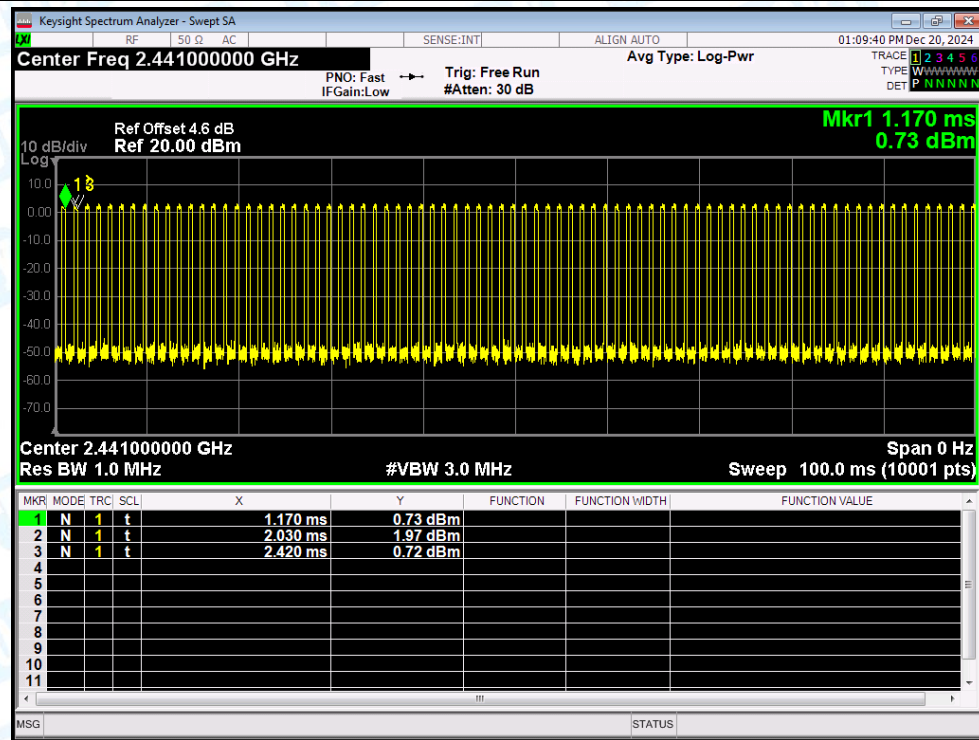
Duty Cycle NVNT 2-DH1 2480MHz Ant1

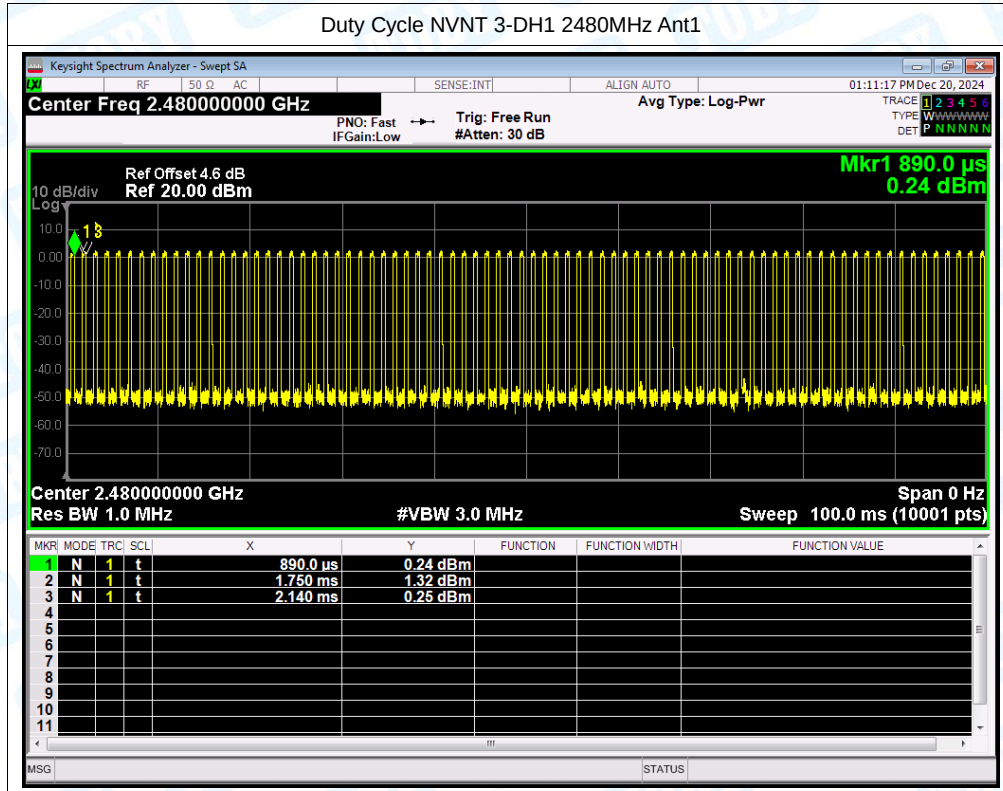


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



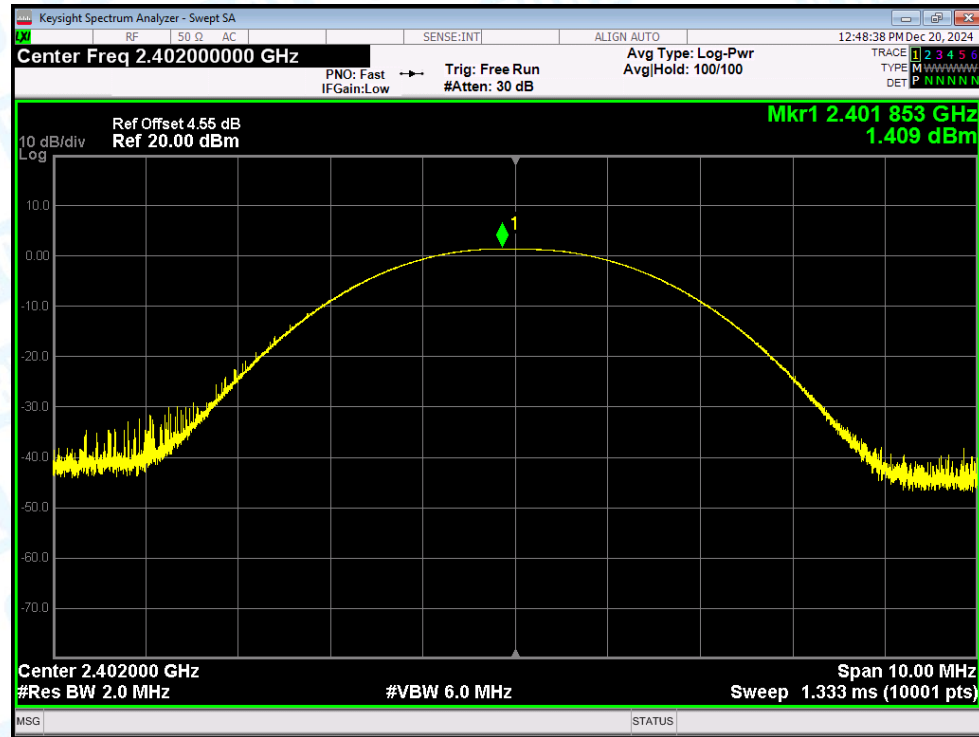


2. Maximum Conducted Output Power

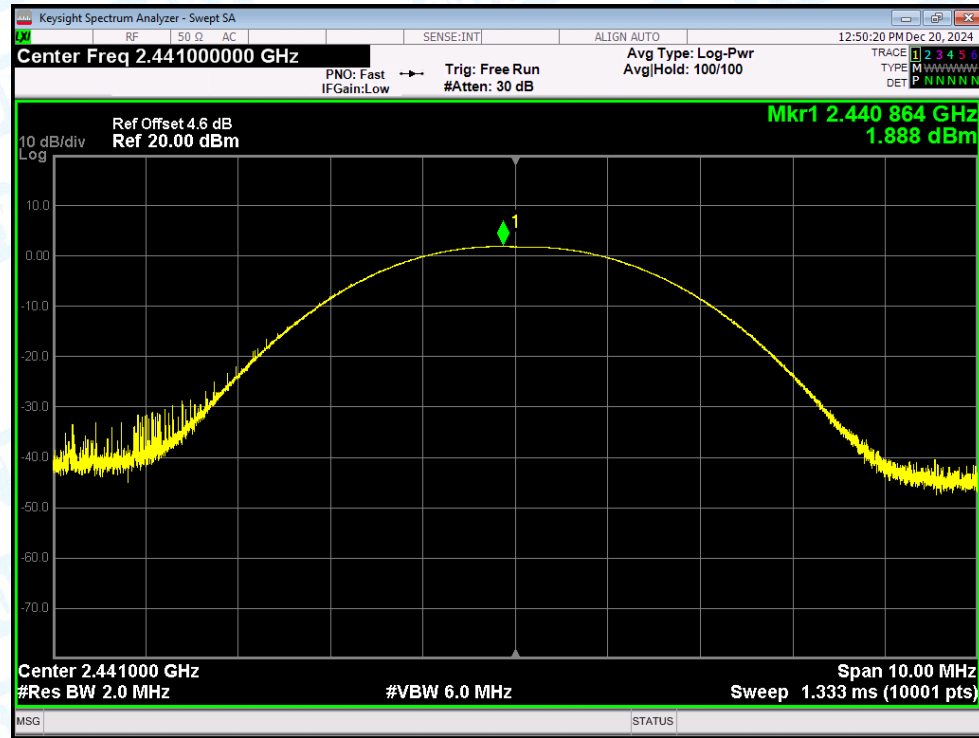
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	1.409	21	Pass
NVNT	1-DH1	2441	Ant1	1.888	21	Pass
NVNT	1-DH1	2480	Ant1	1.269	21	Pass
NVNT	2-DH1	2402	Ant1	2.334	21	Pass
NVNT	2-DH1	2441	Ant1	2.798	21	Pass
NVNT	2-DH1	2480	Ant1	2.2	21	Pass
NVNT	3-DH1	2402	Ant1	3.071	21	Pass
NVNT	3-DH1	2441	Ant1	3.498	21	Pass
NVNT	3-DH1	2480	Ant1	2.841	21	Pass

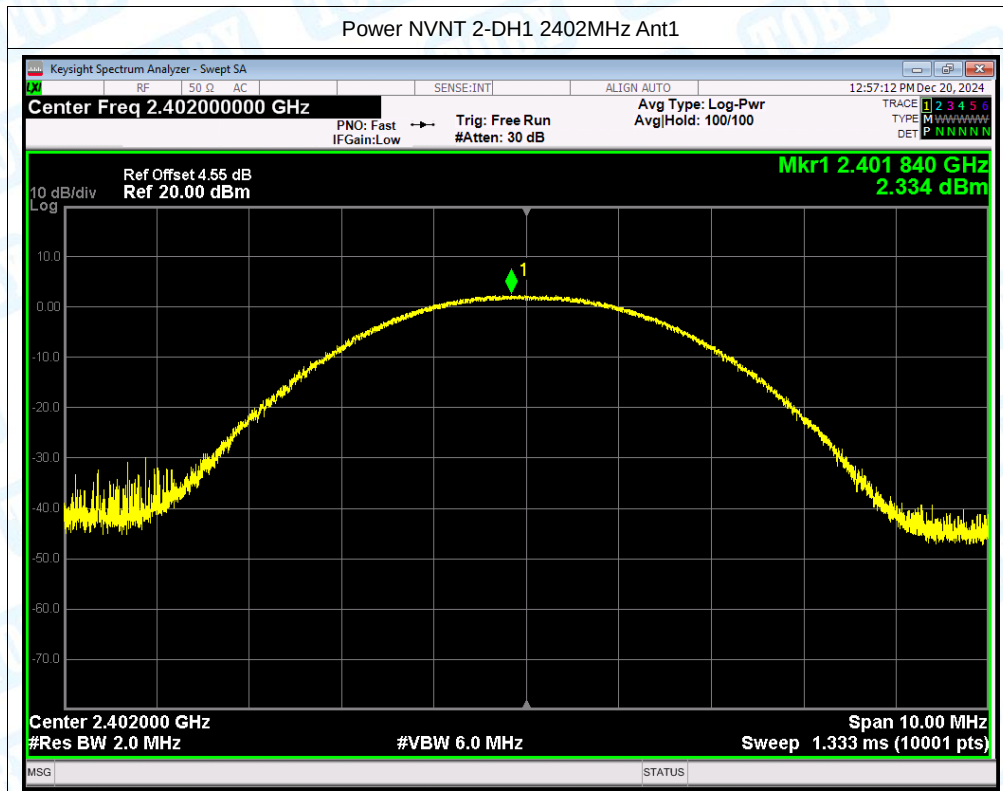
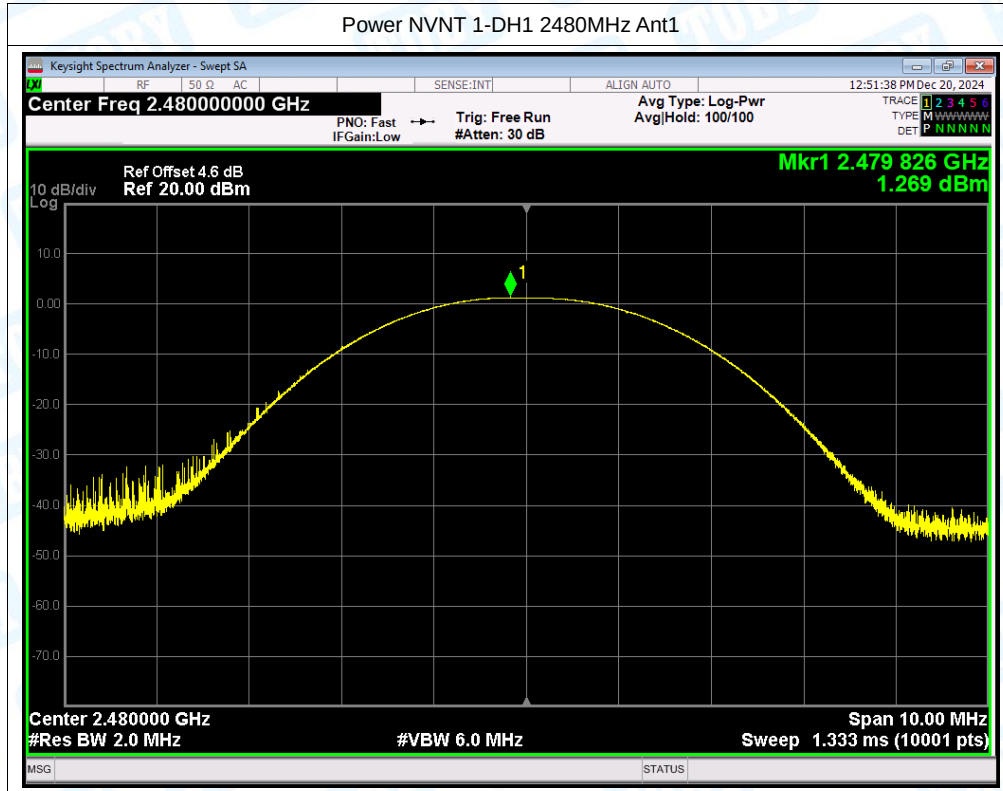
Test Graphs

Power NVNT 1-DH1 2402MHz Ant1

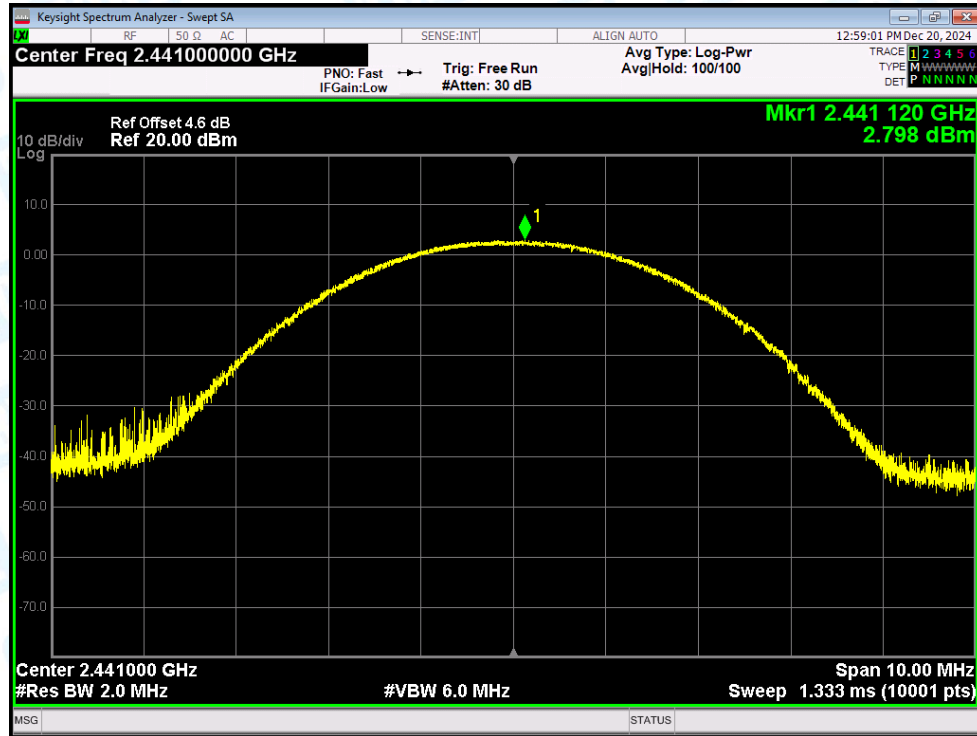


Power NVNT 1-DH1 2441MHz Ant1

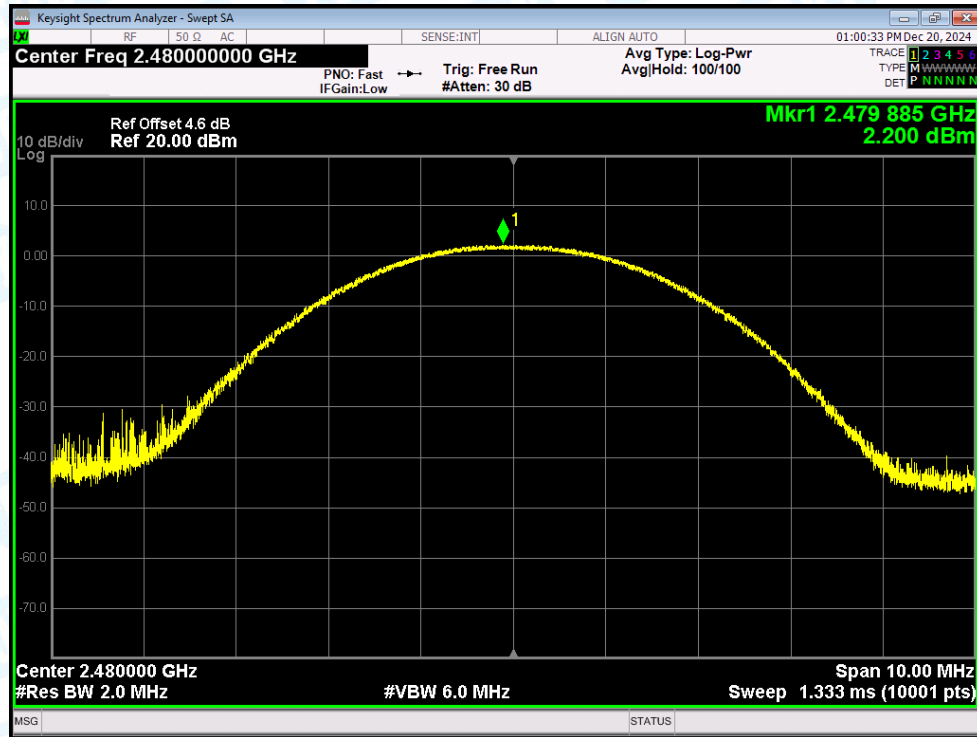




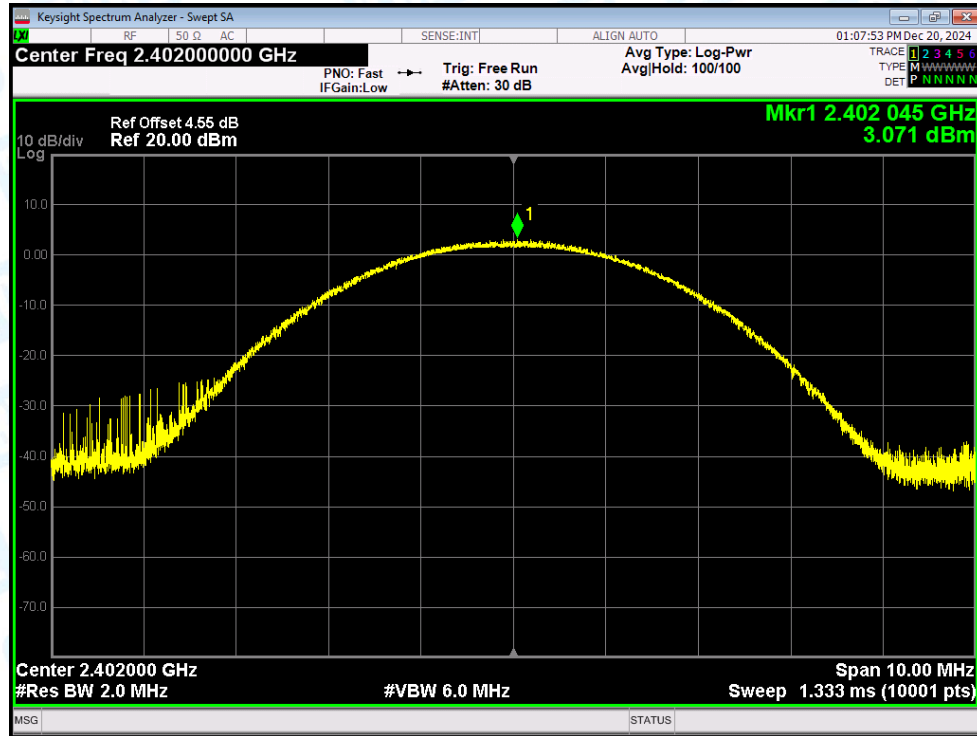
Power NVNT 2-DH1 2441MHz Ant1



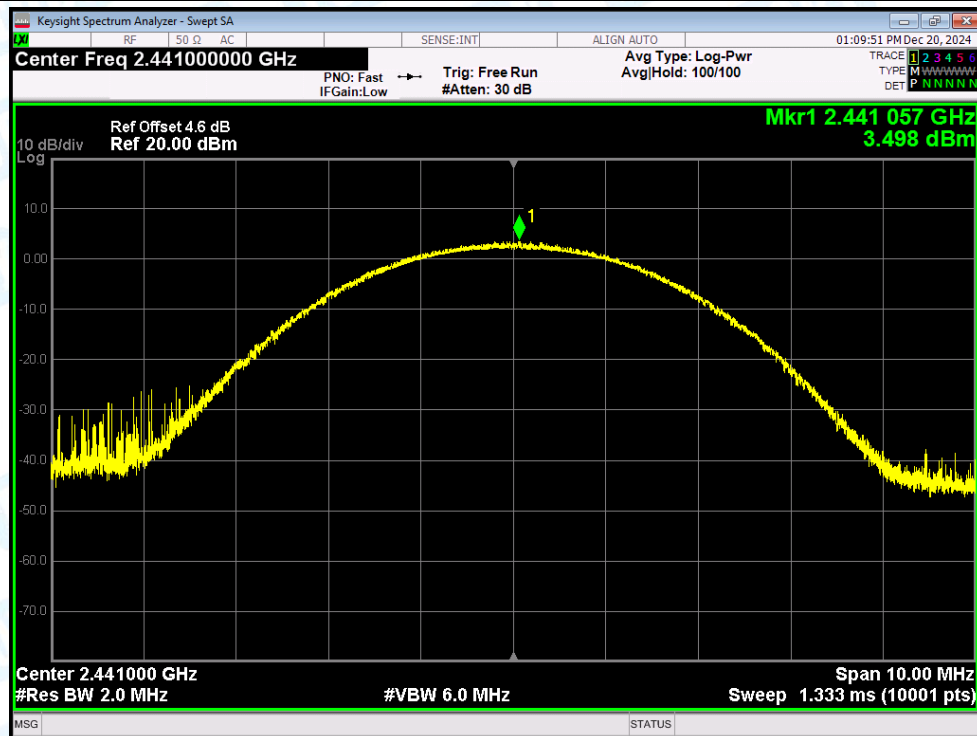
Power NVNT 2-DH1 2480MHz Ant1

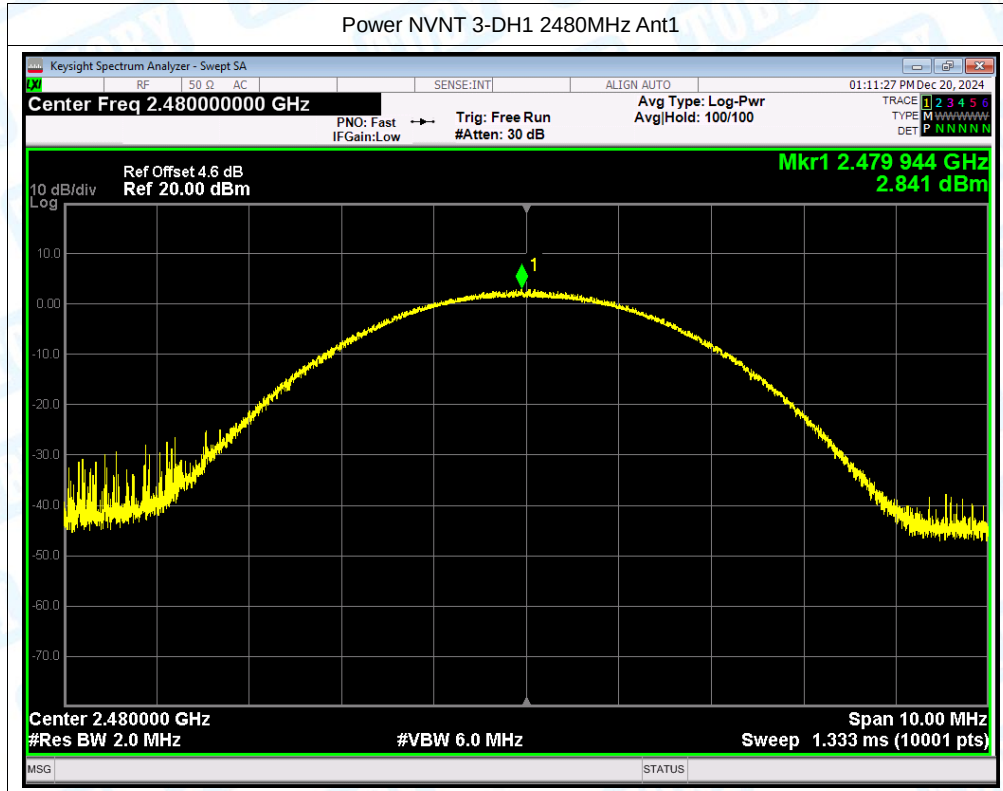


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



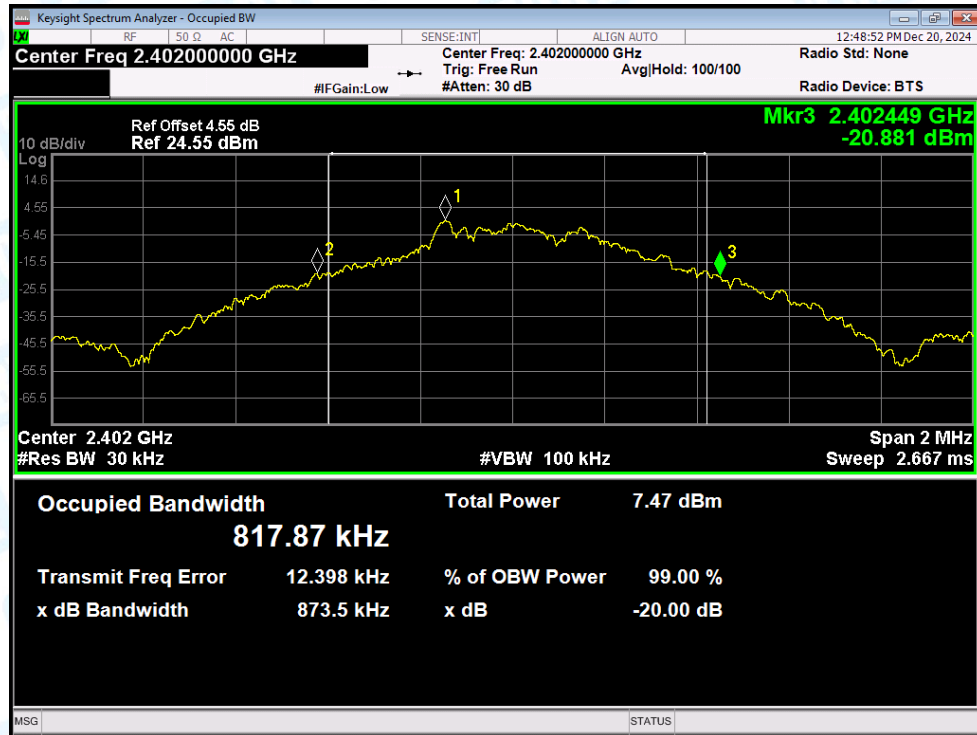


3. -20dB Bandwidth

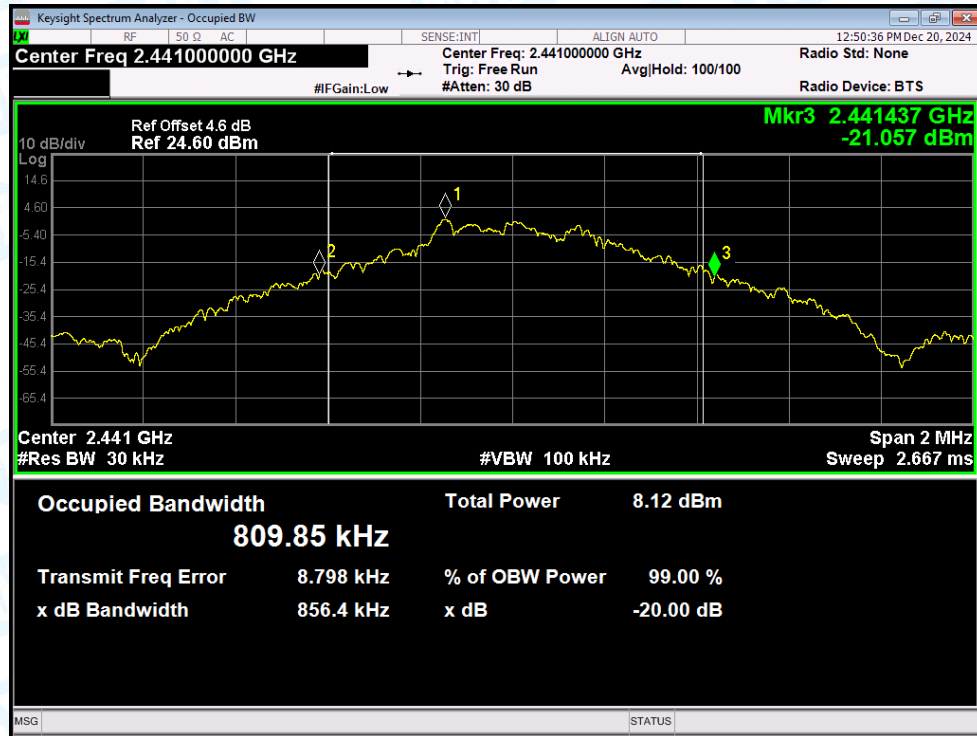
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.87	0	Pass
NVNT	1-DH1	2441	Ant1	0.86	0	Pass
NVNT	1-DH1	2480	Ant1	0.87	0	Pass
NVNT	2-DH1	2402	Ant1	1.24	0	Pass
NVNT	2-DH1	2441	Ant1	1.25	0	Pass
NVNT	2-DH1	2480	Ant1	1.24	0	Pass
NVNT	3-DH1	2402	Ant1	1.25	0	Pass
NVNT	3-DH1	2441	Ant1	1.21	0	Pass
NVNT	3-DH1	2480	Ant1	1.23	0	Pass

Test Graphs

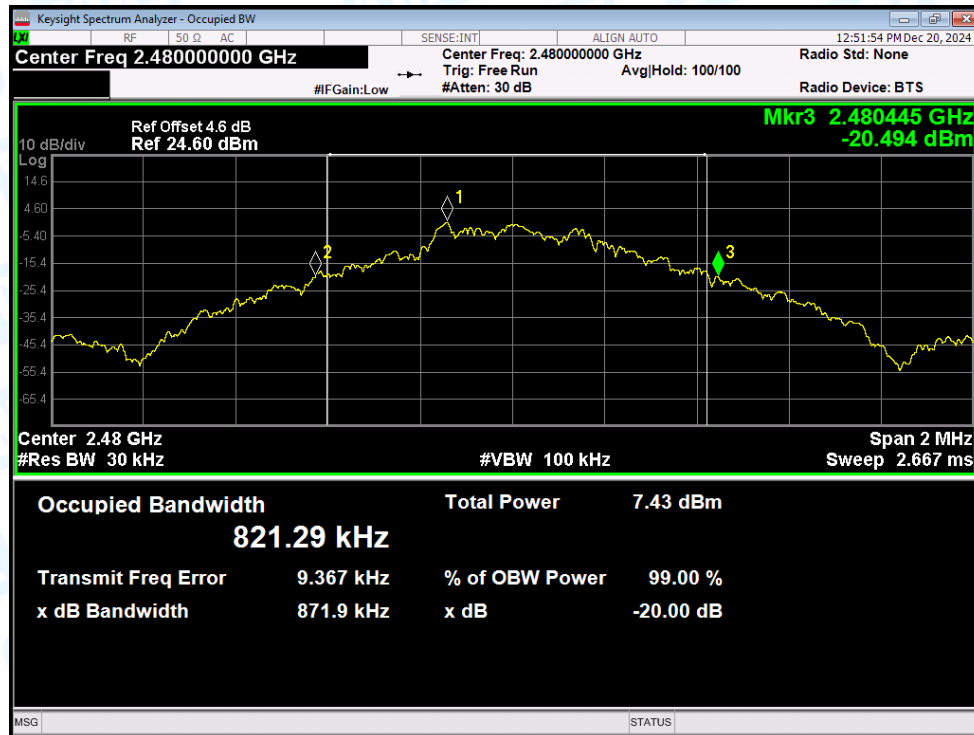
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



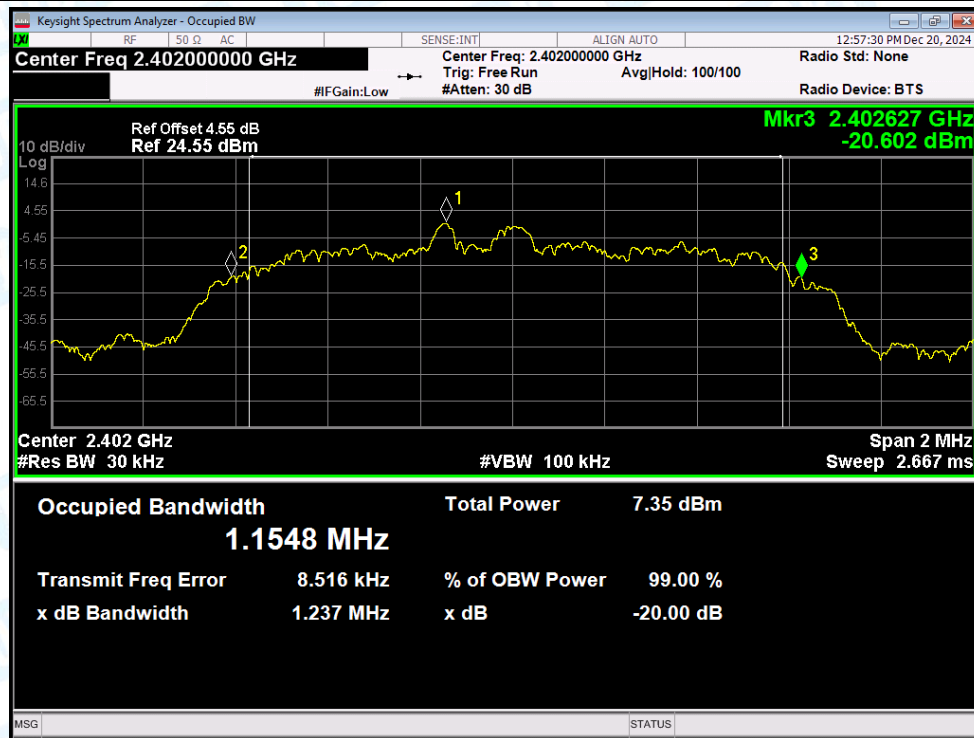
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



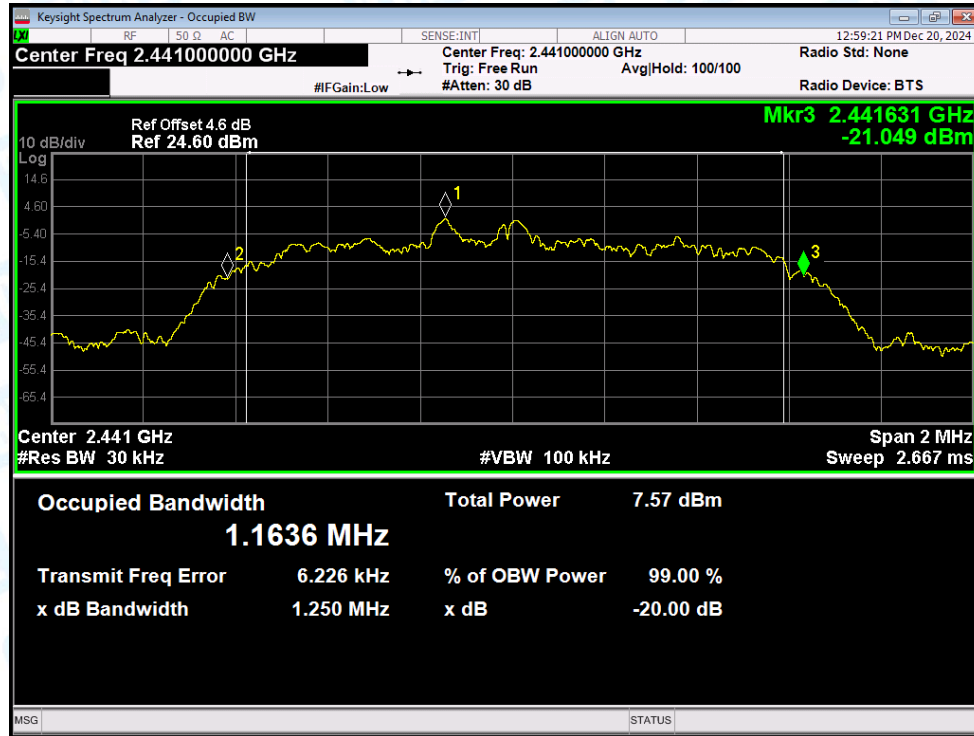
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



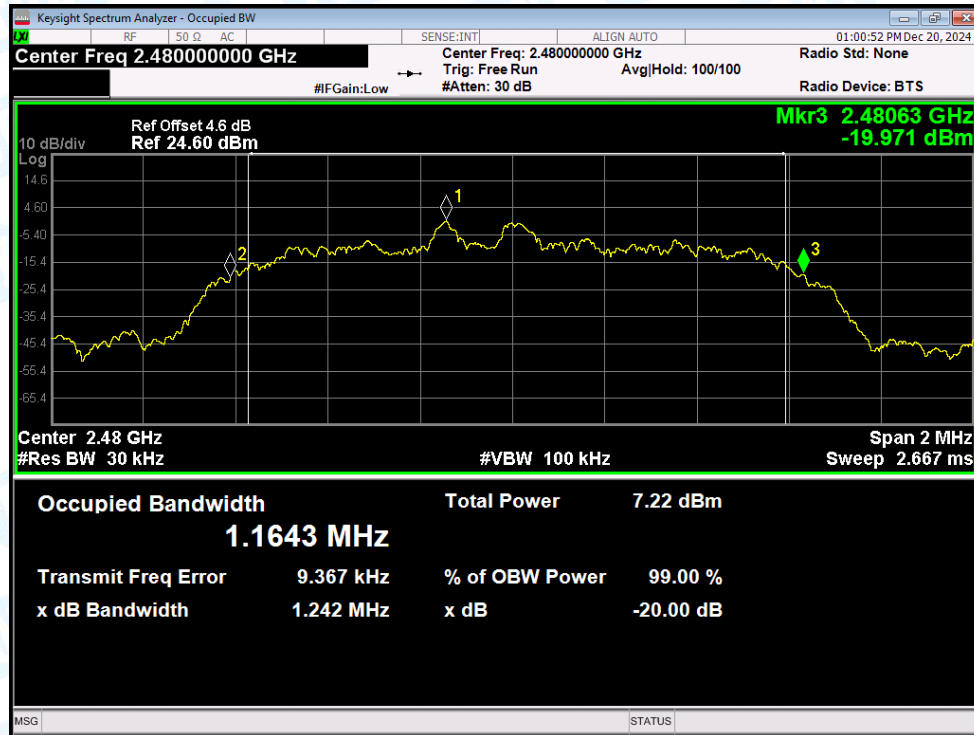
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



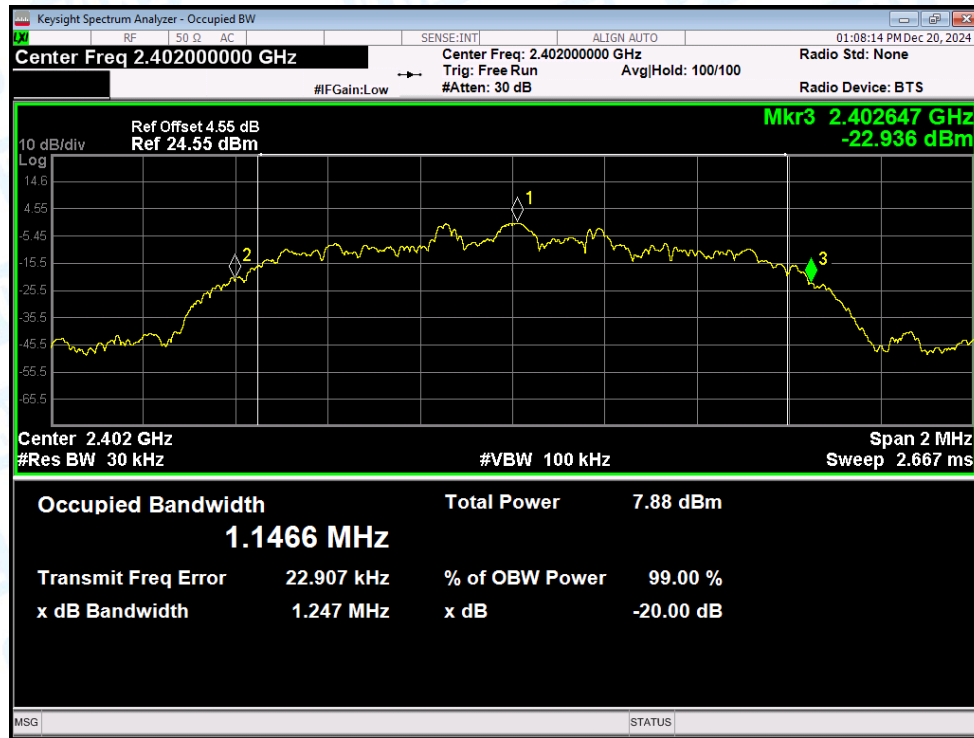
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



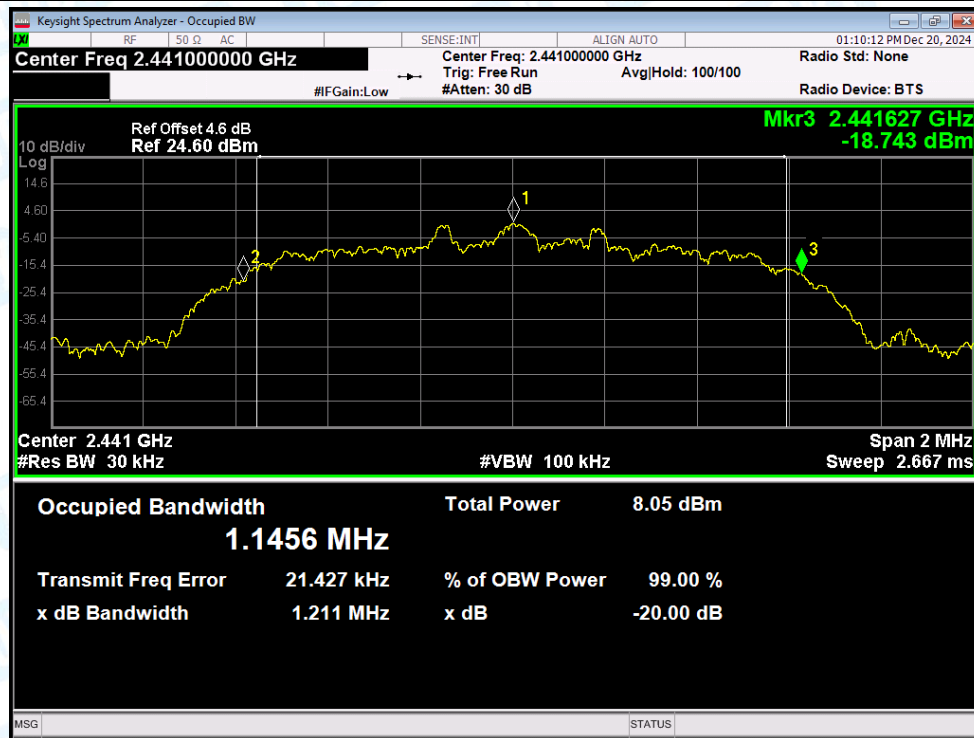
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

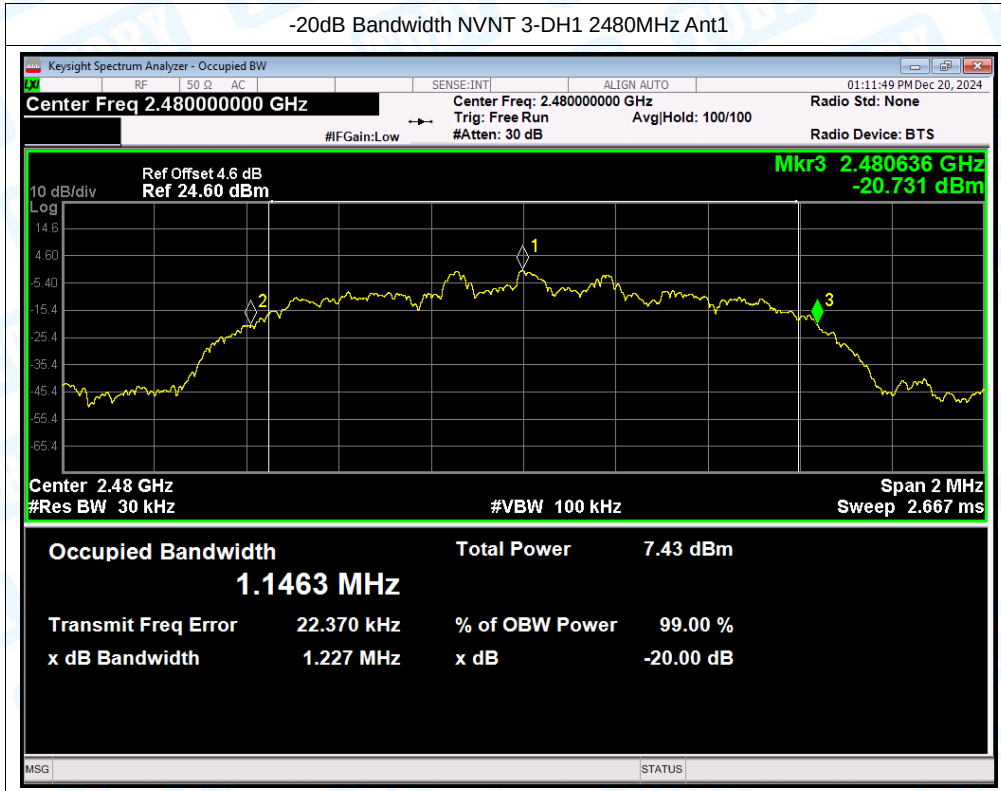


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



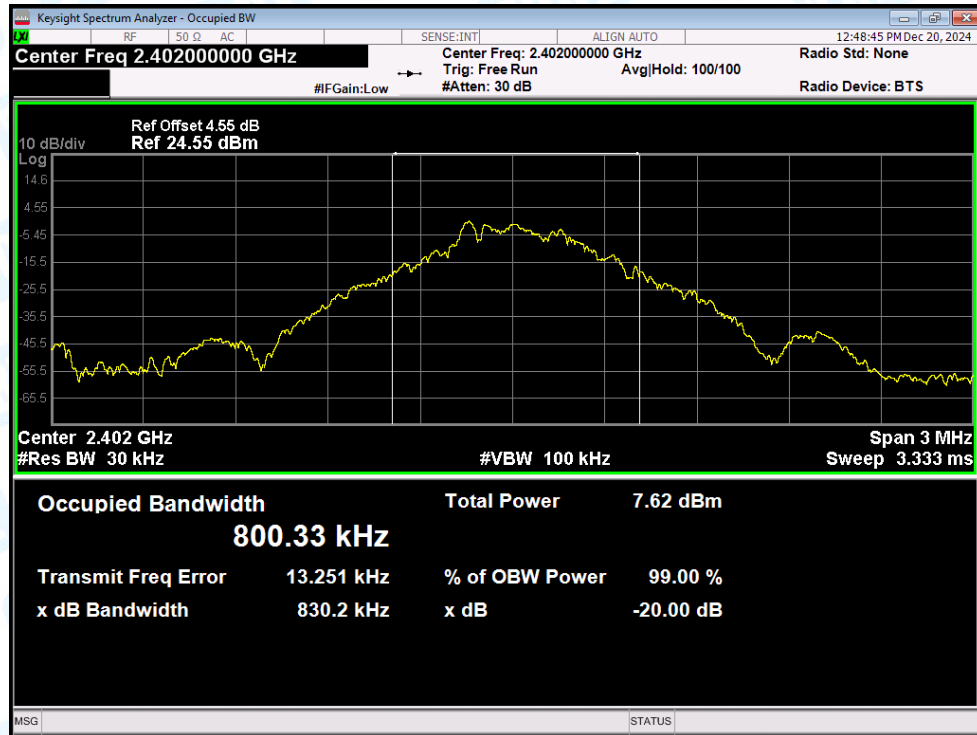


4. Occupied Channel Bandwidth

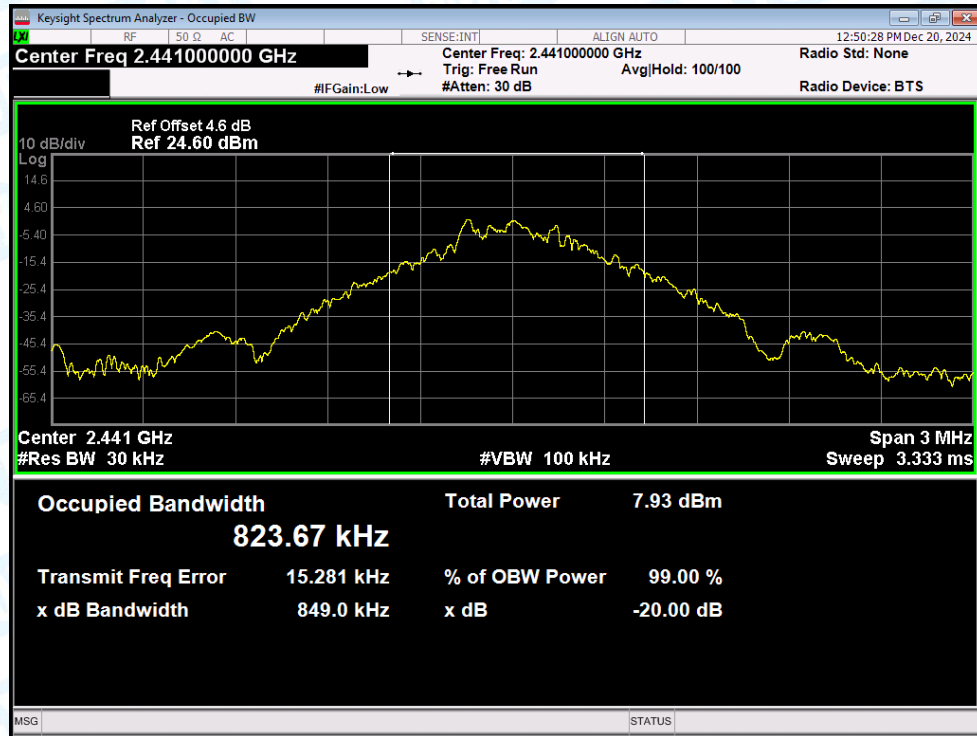
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.8
NVNT	1-DH1	2441	Ant1	0.824
NVNT	1-DH1	2480	Ant1	0.82
NVNT	2-DH1	2402	Ant1	1.168
NVNT	2-DH1	2441	Ant1	1.163
NVNT	2-DH1	2480	Ant1	1.169
NVNT	3-DH1	2402	Ant1	1.149
NVNT	3-DH1	2441	Ant1	1.144
NVNT	3-DH1	2480	Ant1	1.131

Test Graphs

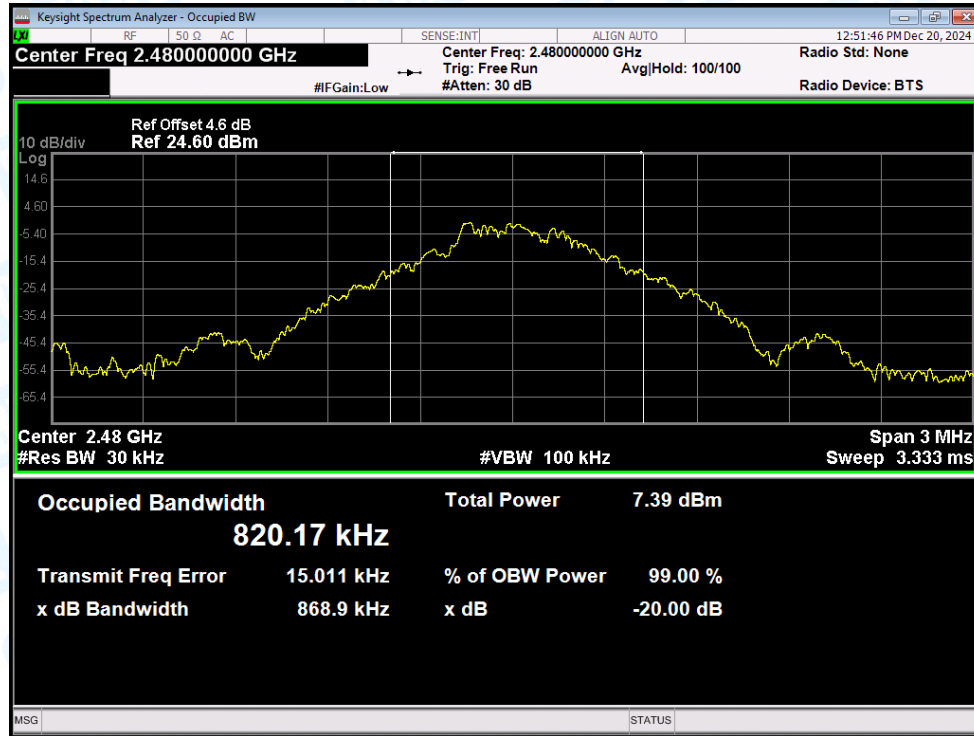
OBW NVNT 1-DH1 2402MHz Ant1



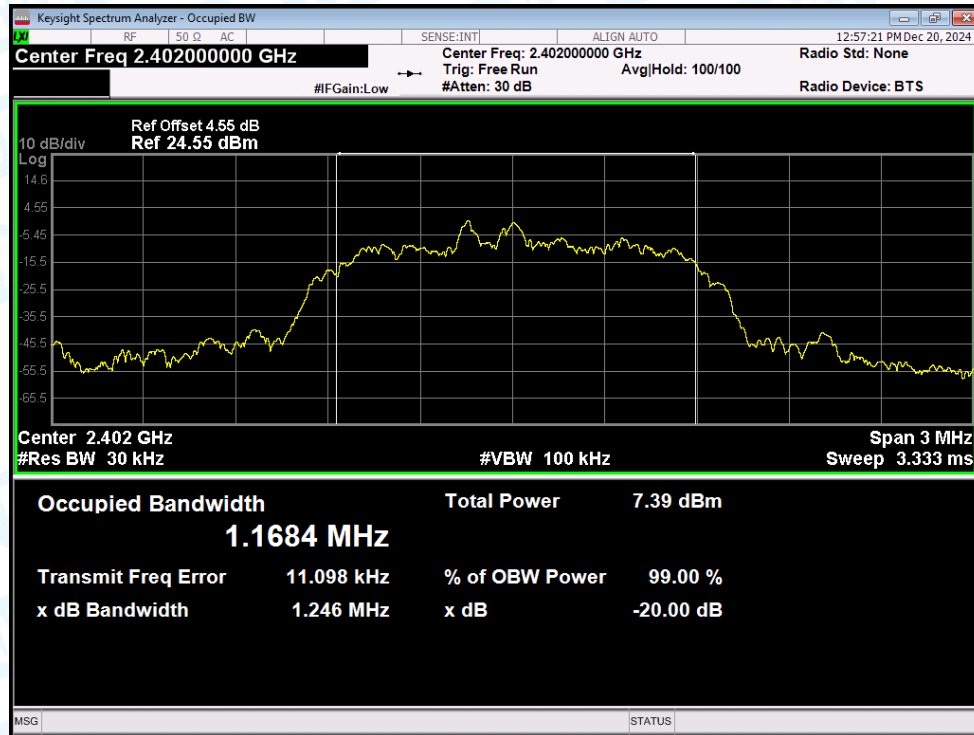
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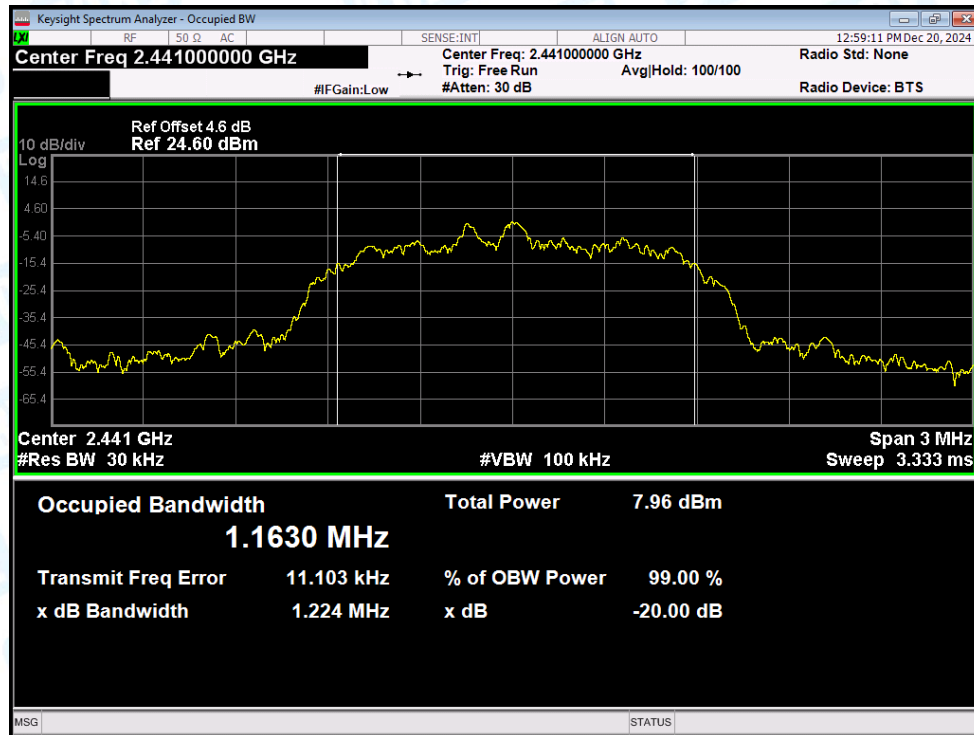
OBW NVNT 1-DH1 2480MHz Ant1



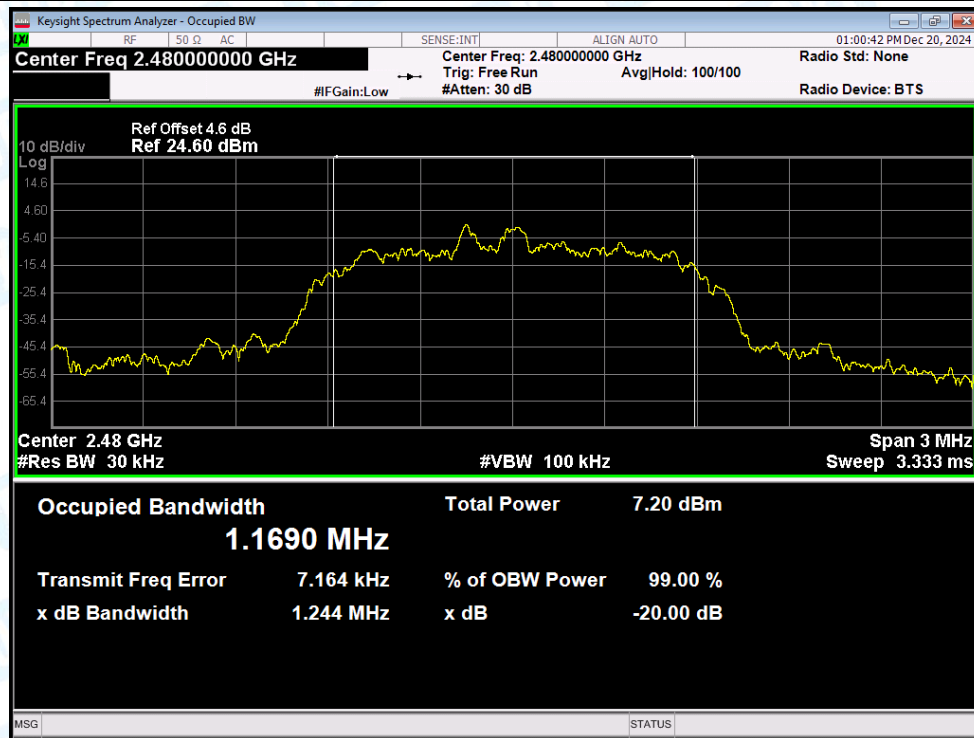
OBW NVNT 2-DH1 2402MHz Ant1



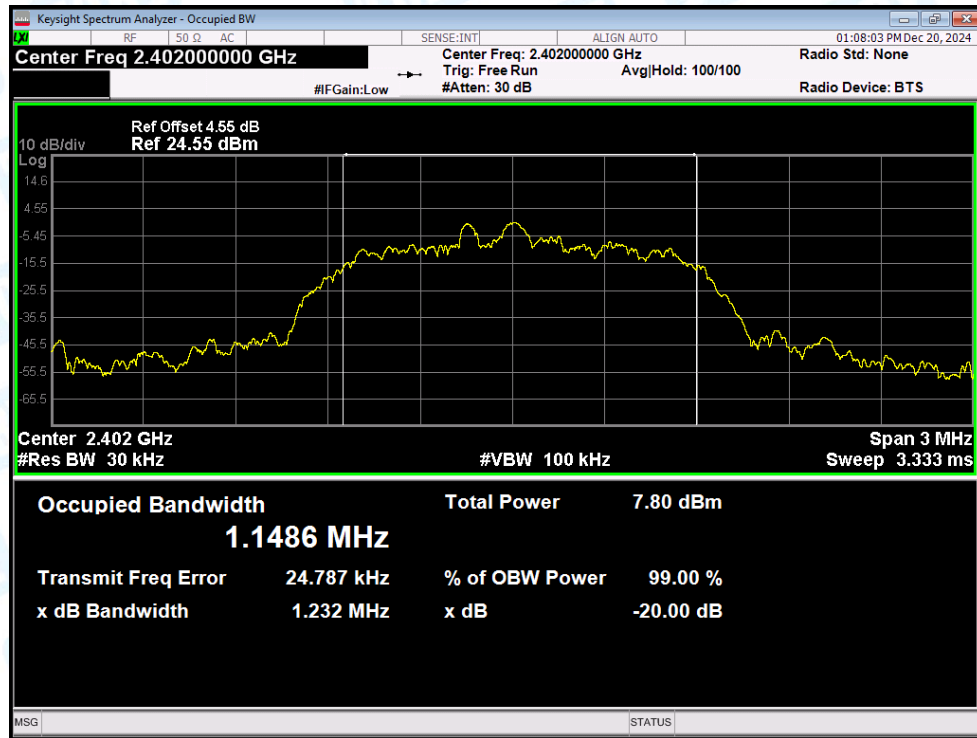
OBW NVNT 2-DH1 2441MHz Ant1



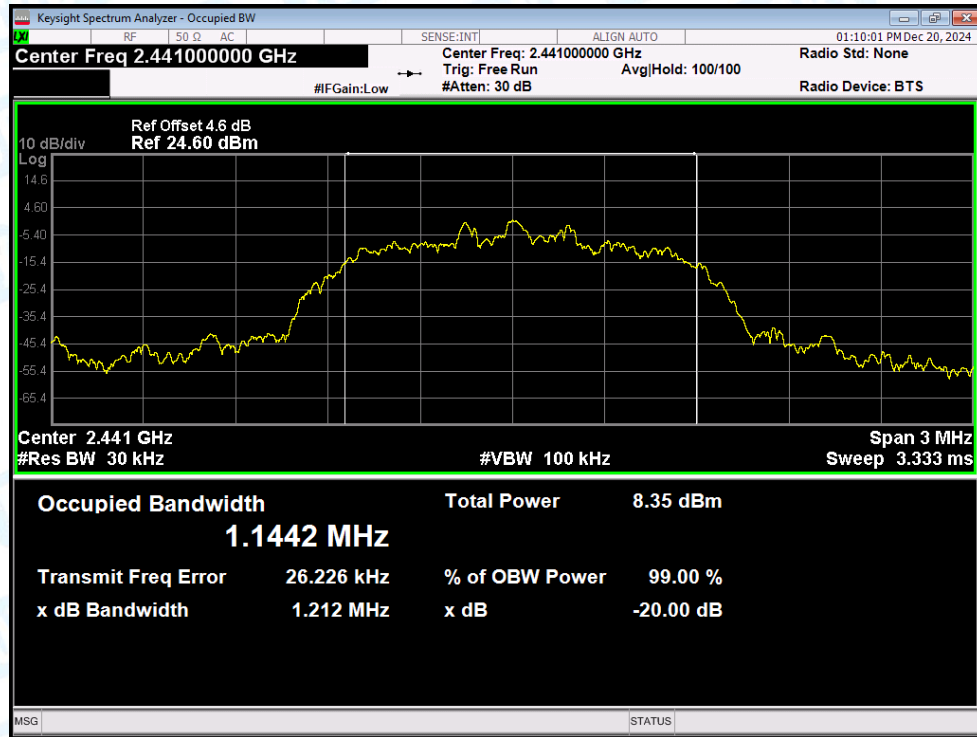
OBW NVNT 2-DH1 2480MHz Ant1

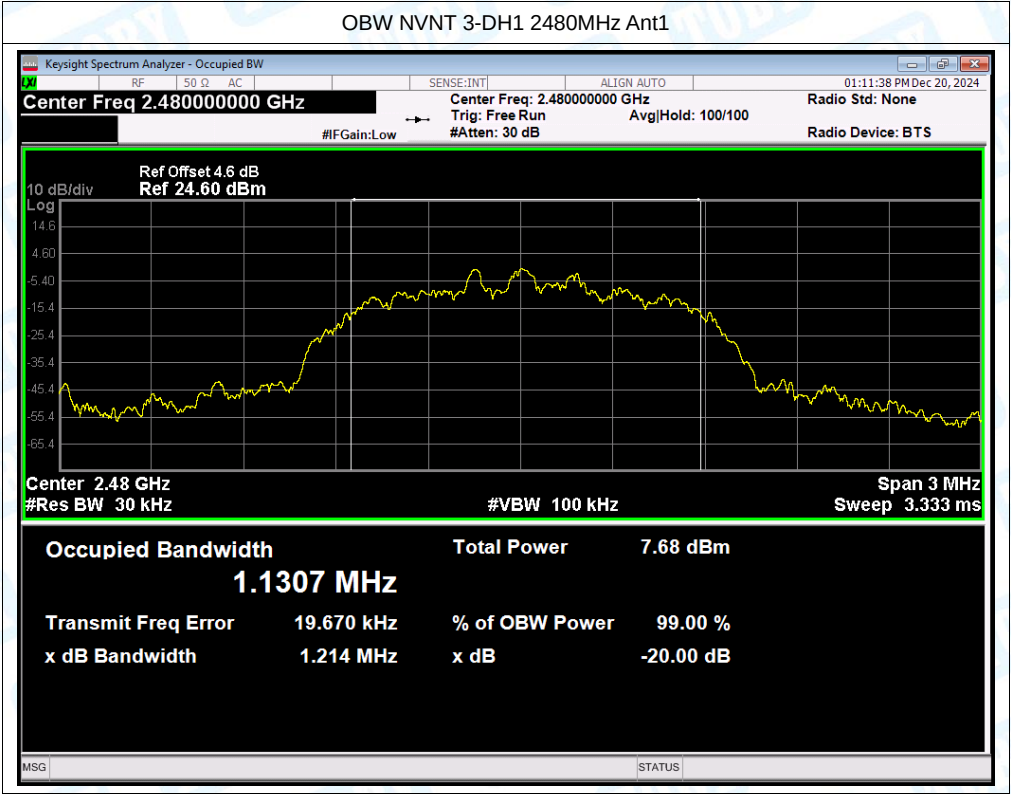


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



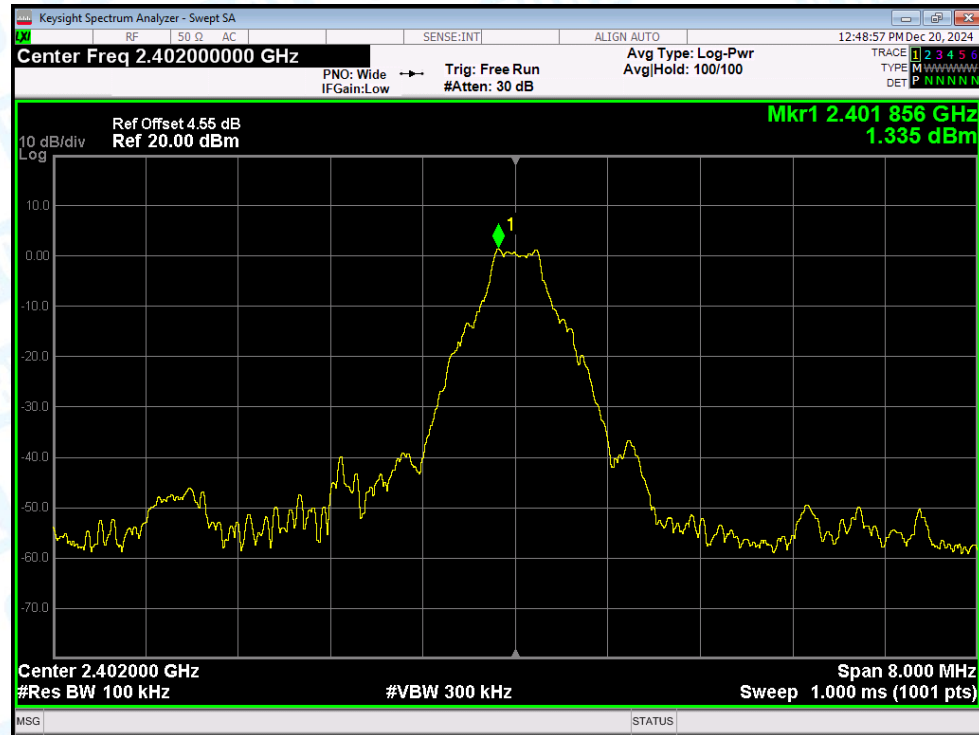


5. Band Edge

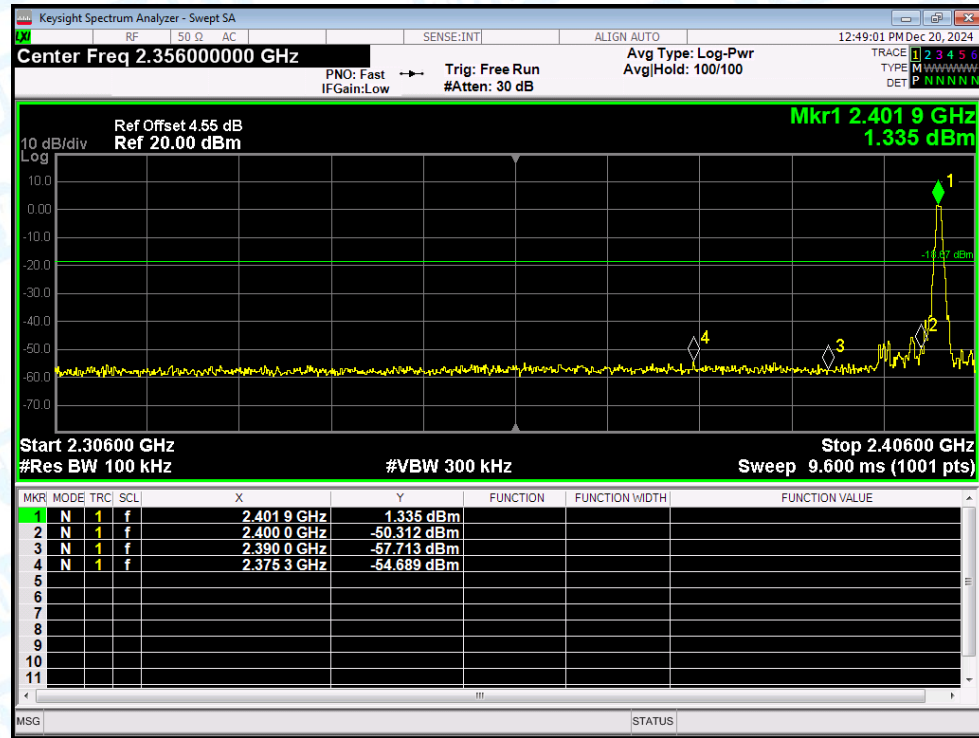
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-56.03	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-52.9	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-55.21	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-55.54	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-55.97	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-52.55	-20	Pass

Test Graphs

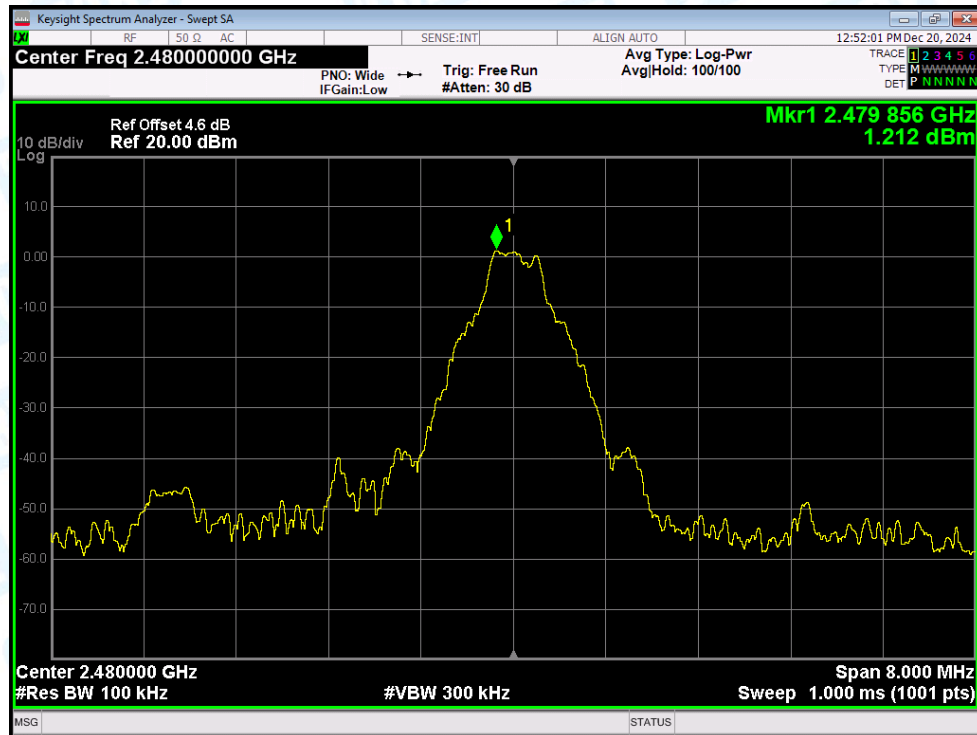
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



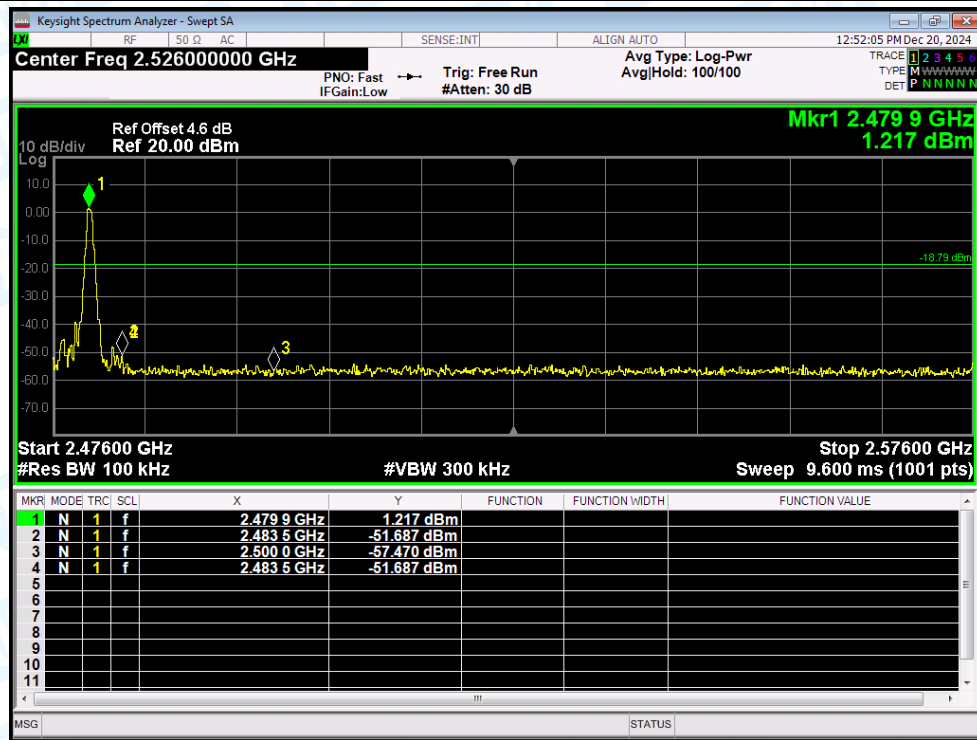
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



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



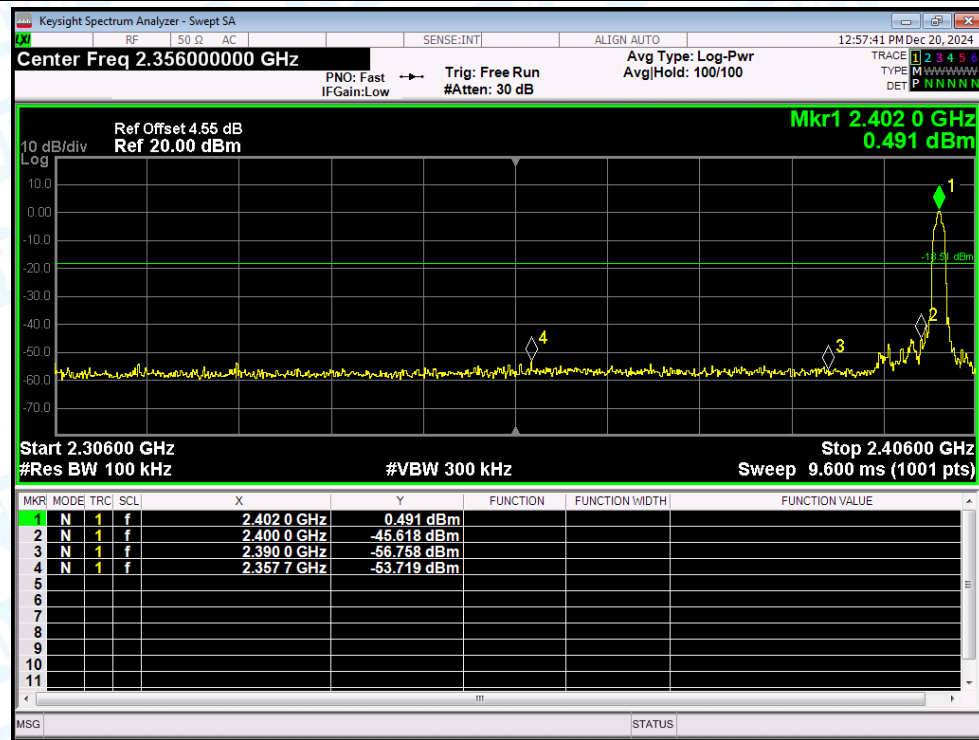
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



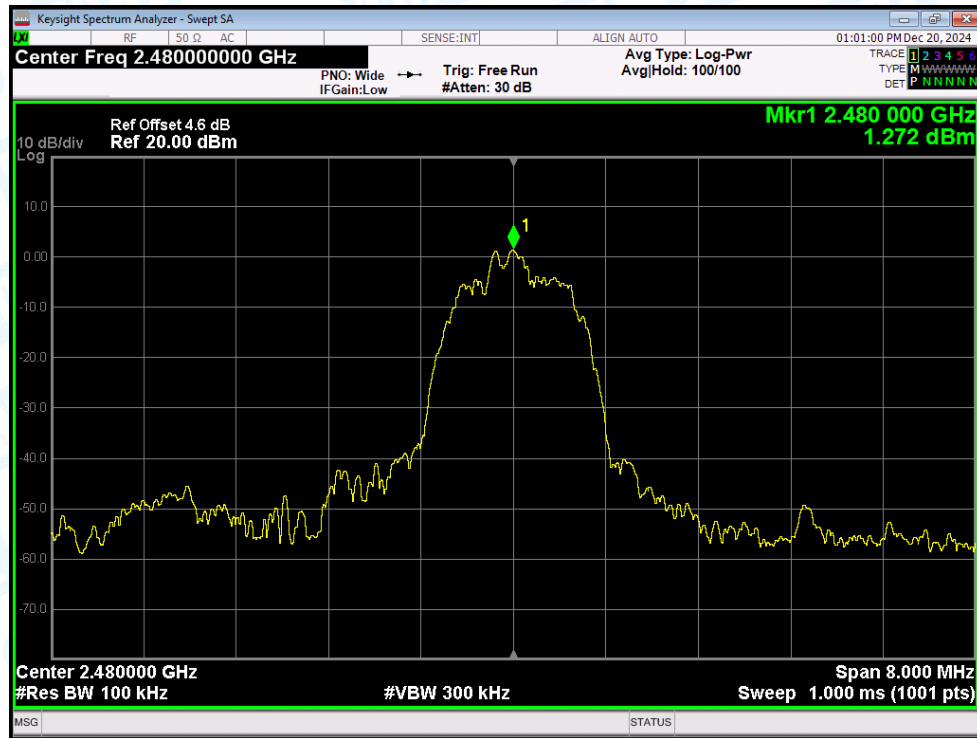
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



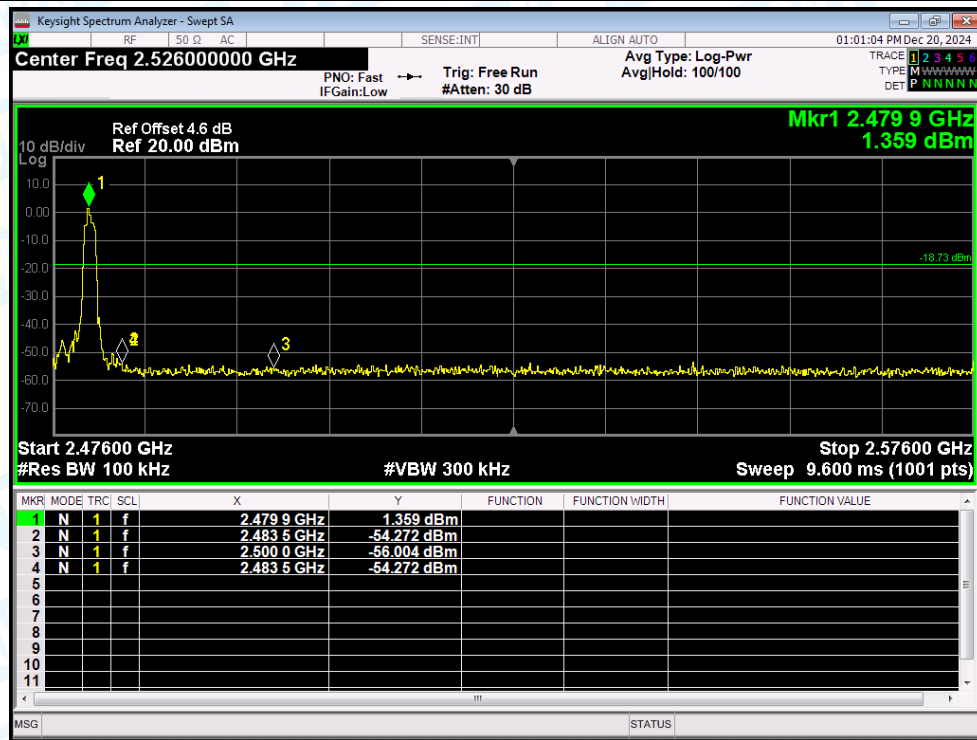
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission

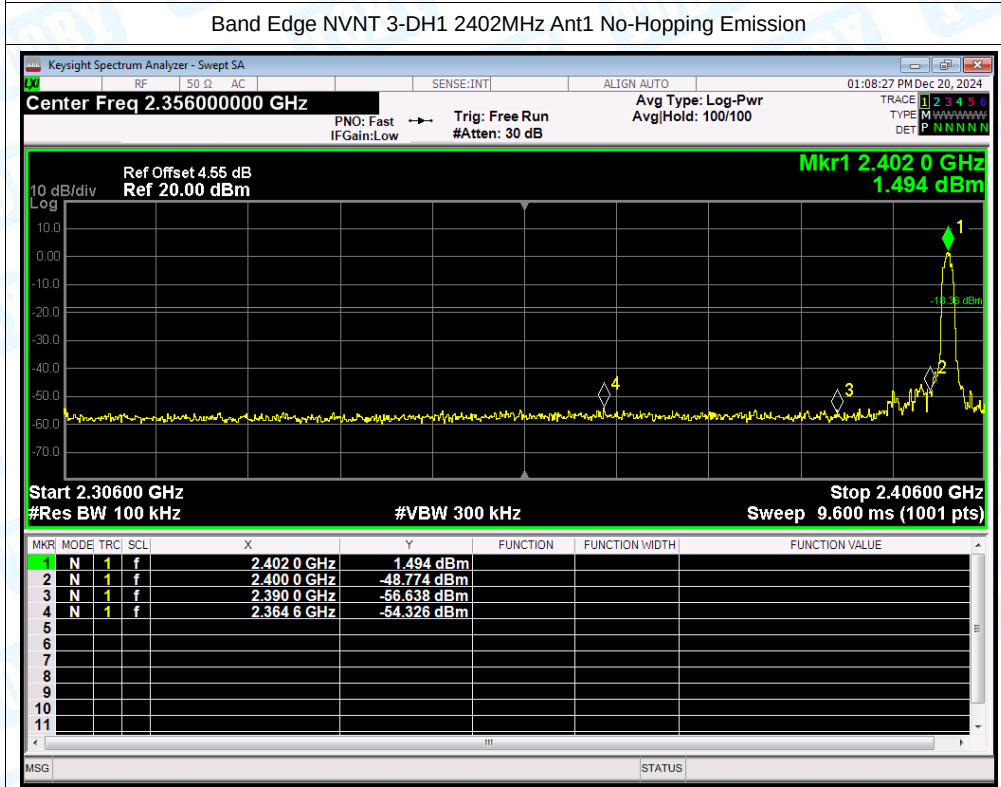
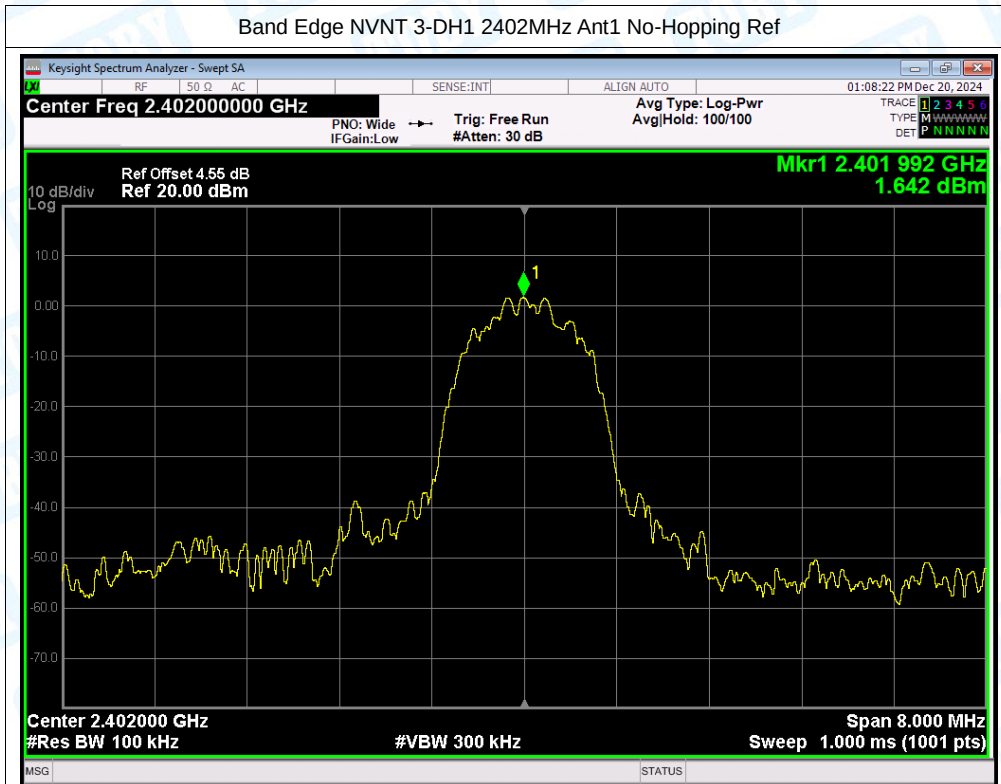


Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref

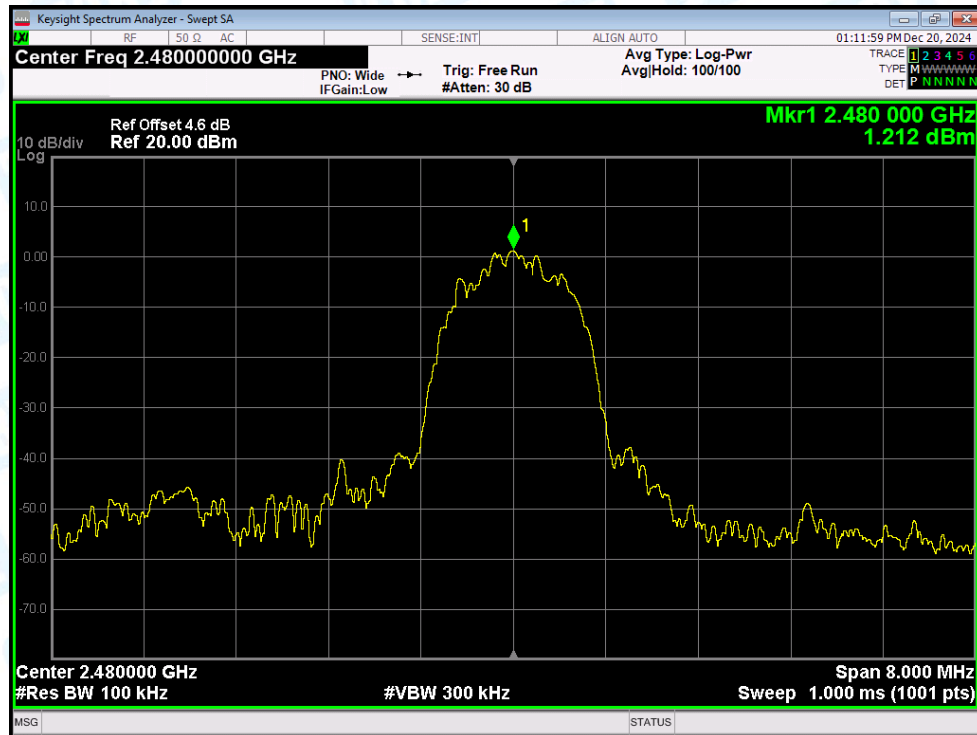


Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission

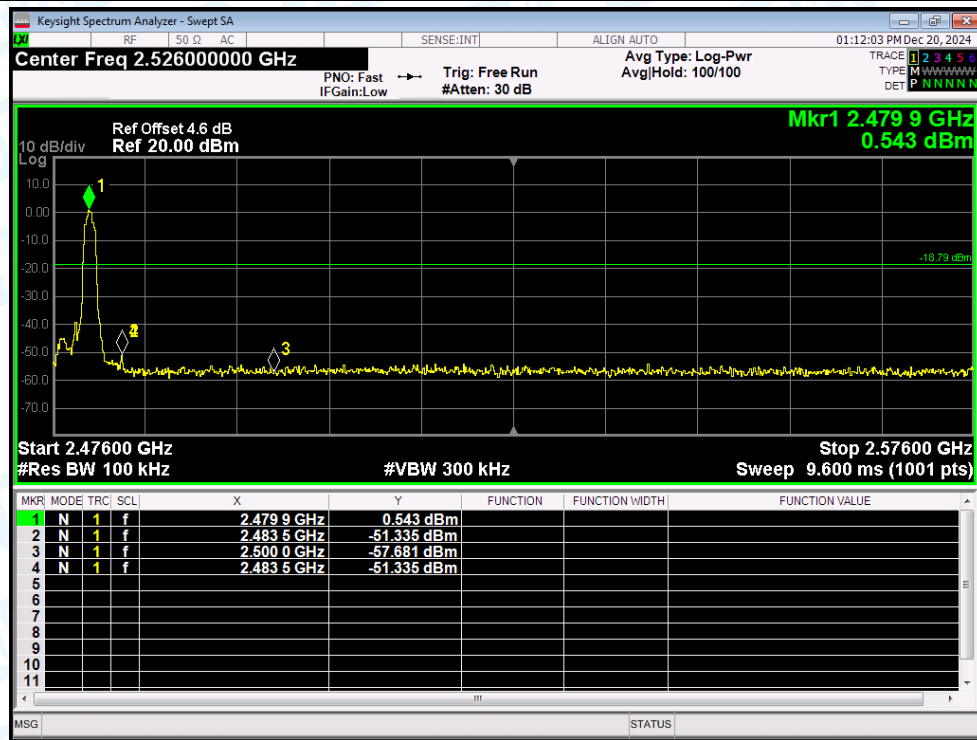




Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Ref



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

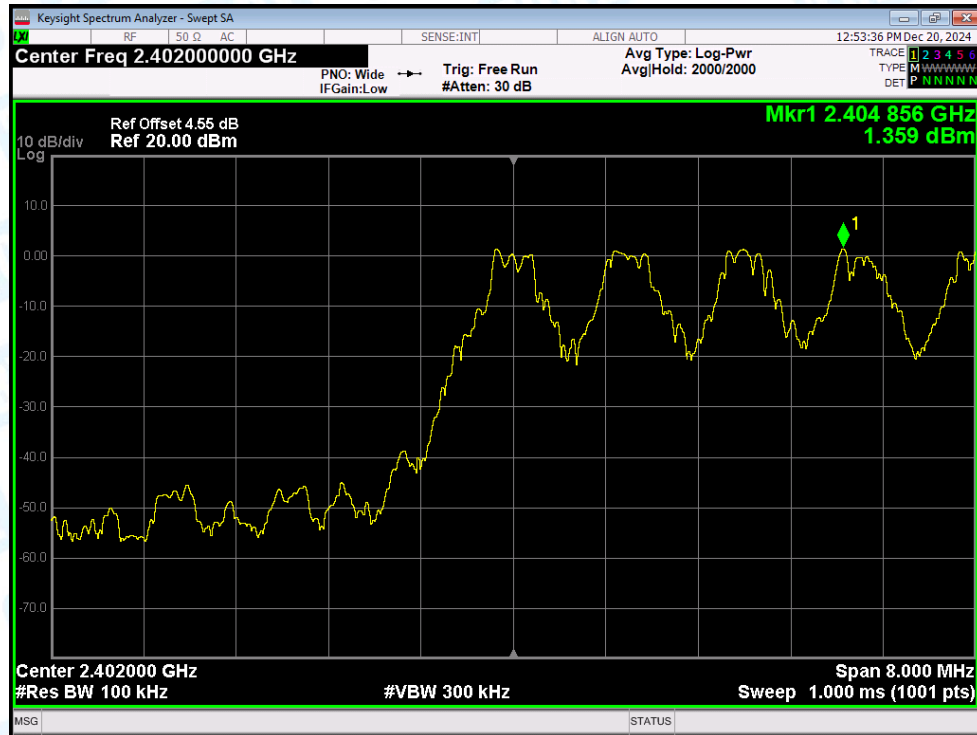


6. Band Edge(Hopping)

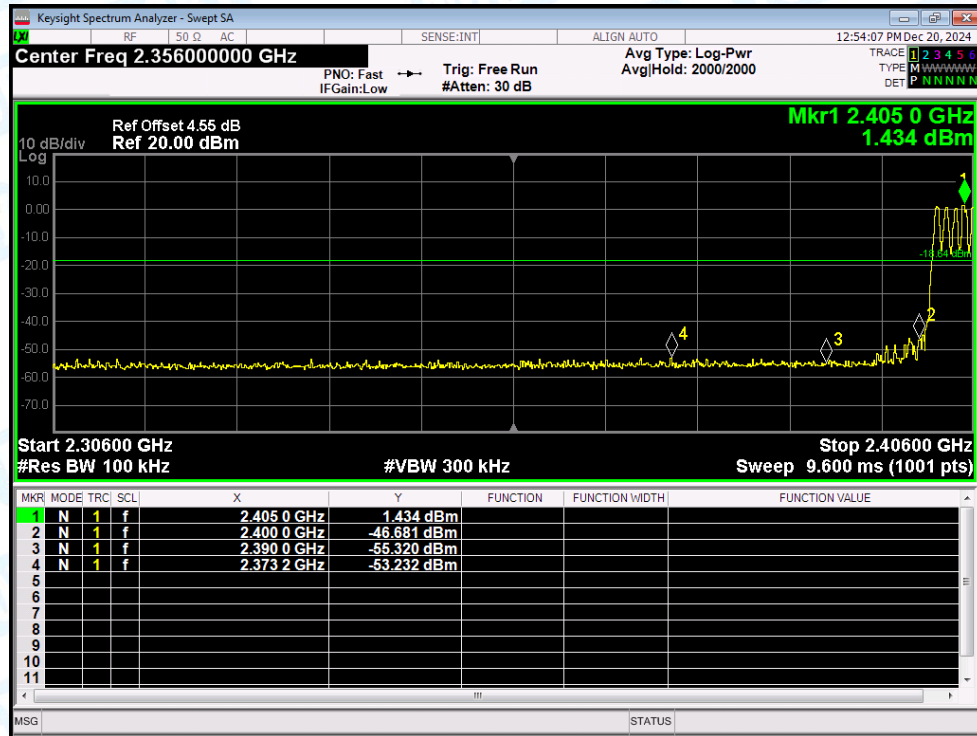
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-54.59	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-54.24	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-54.64	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-53	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-53.55	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-53.38	-20	Pass

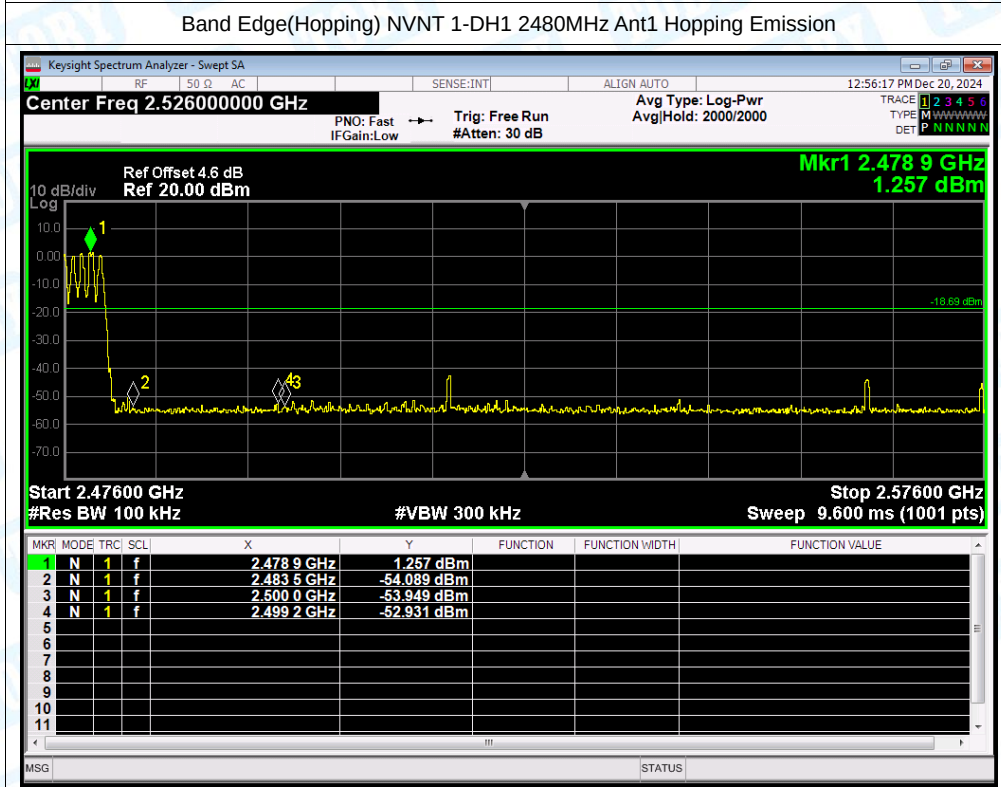
Test Graphs

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



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

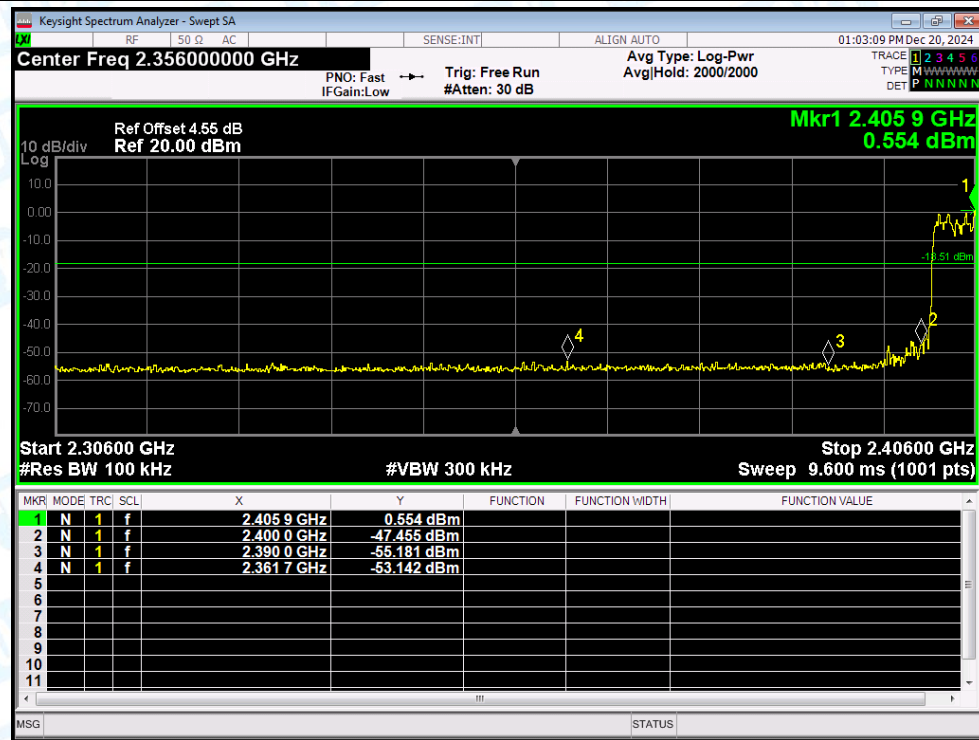


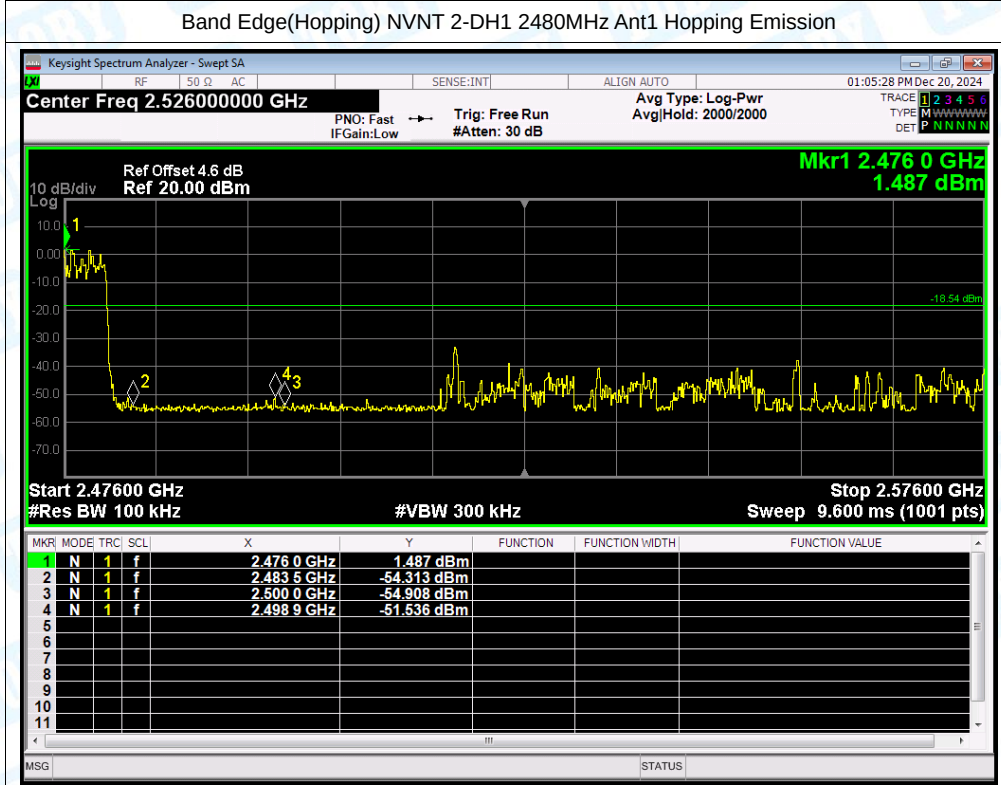


Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



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

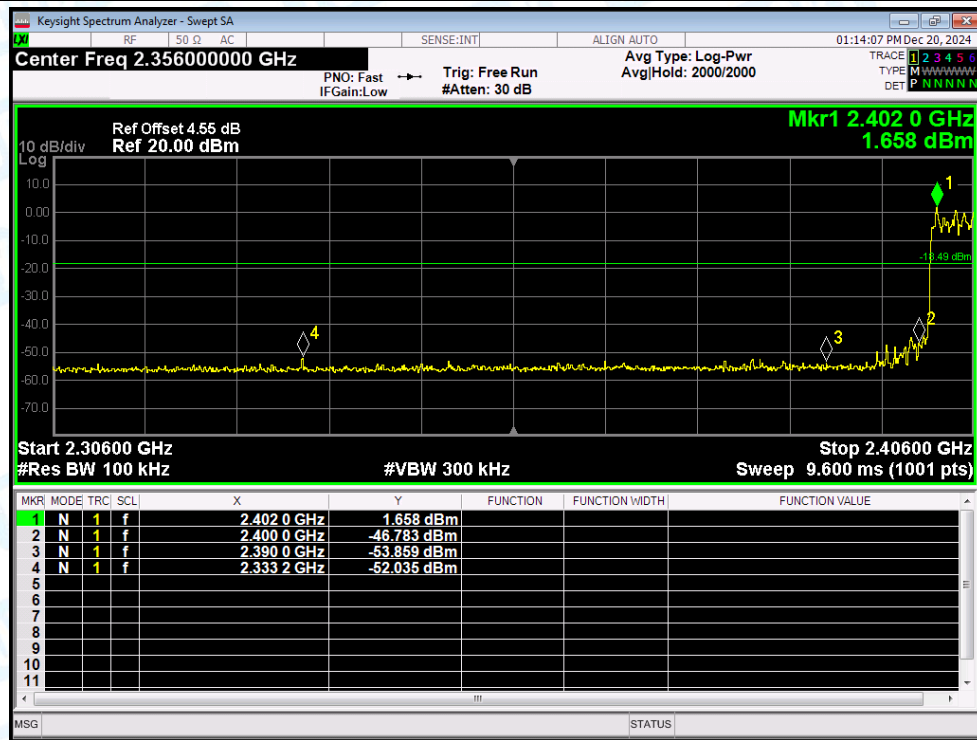


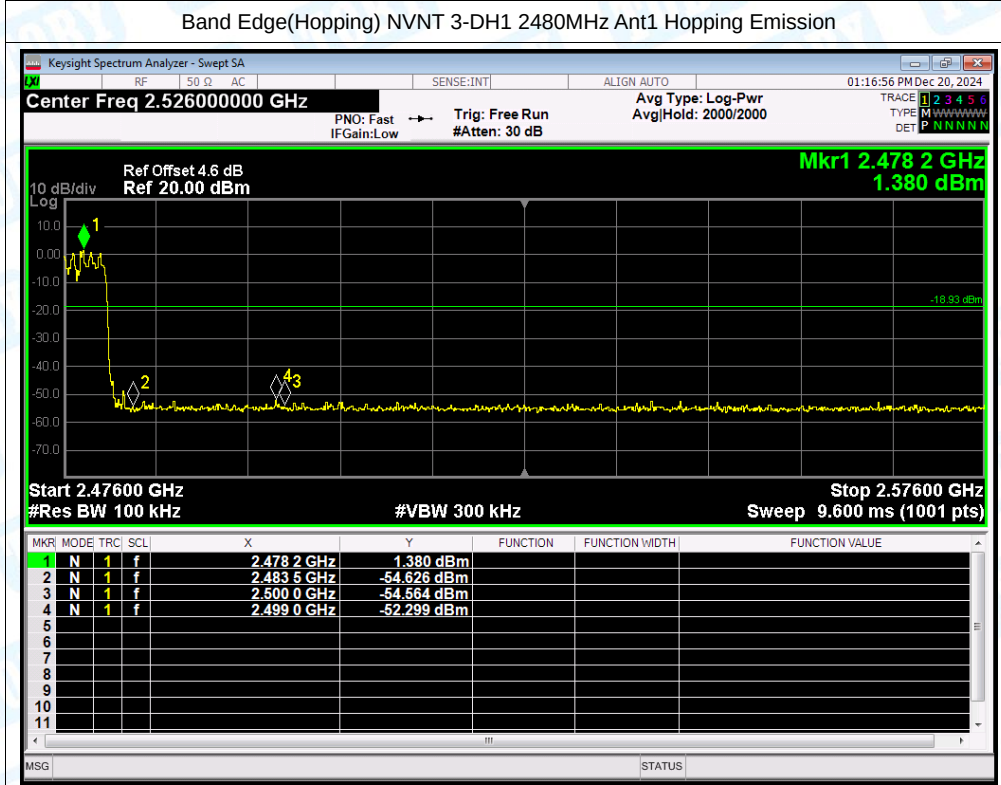
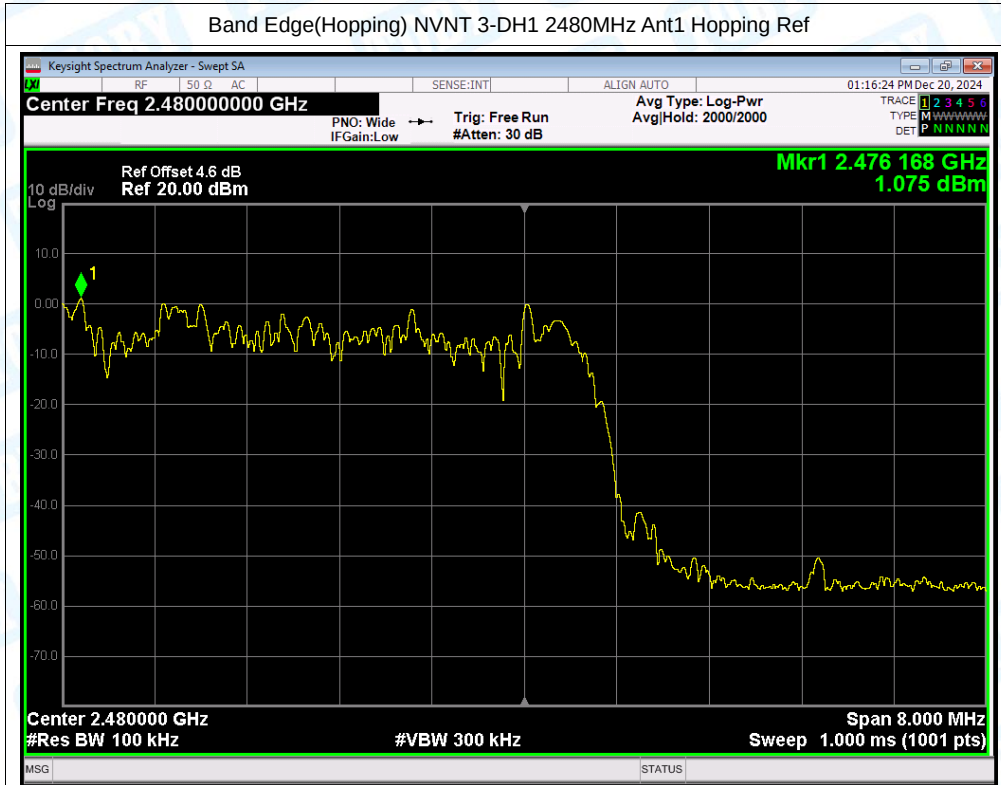


Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



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



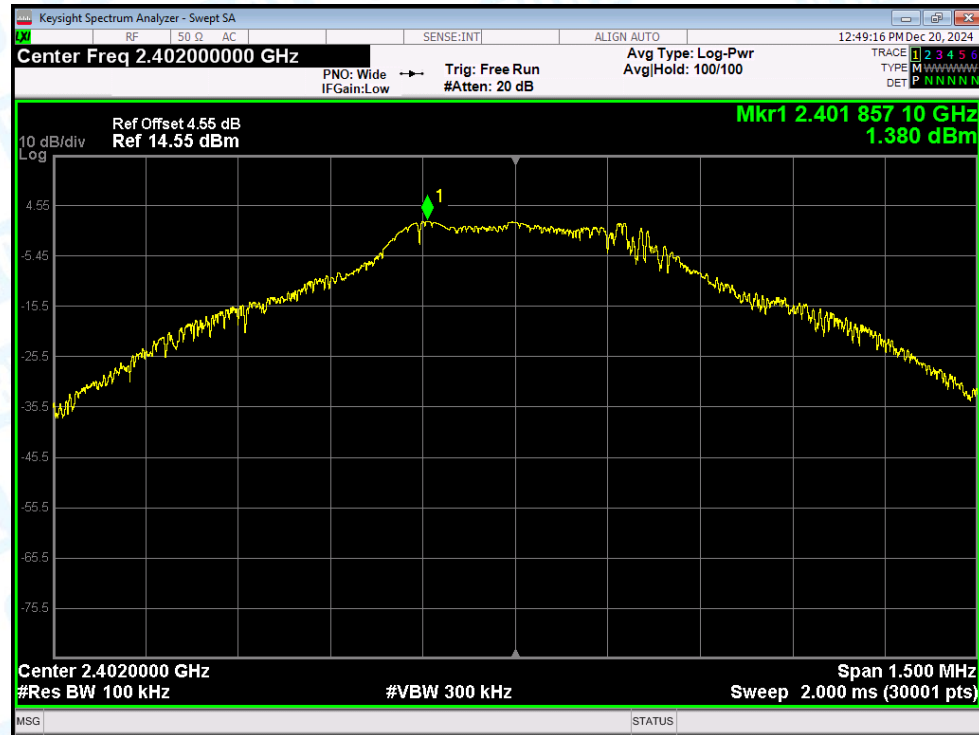


7. Conducted RF Spurious Emission

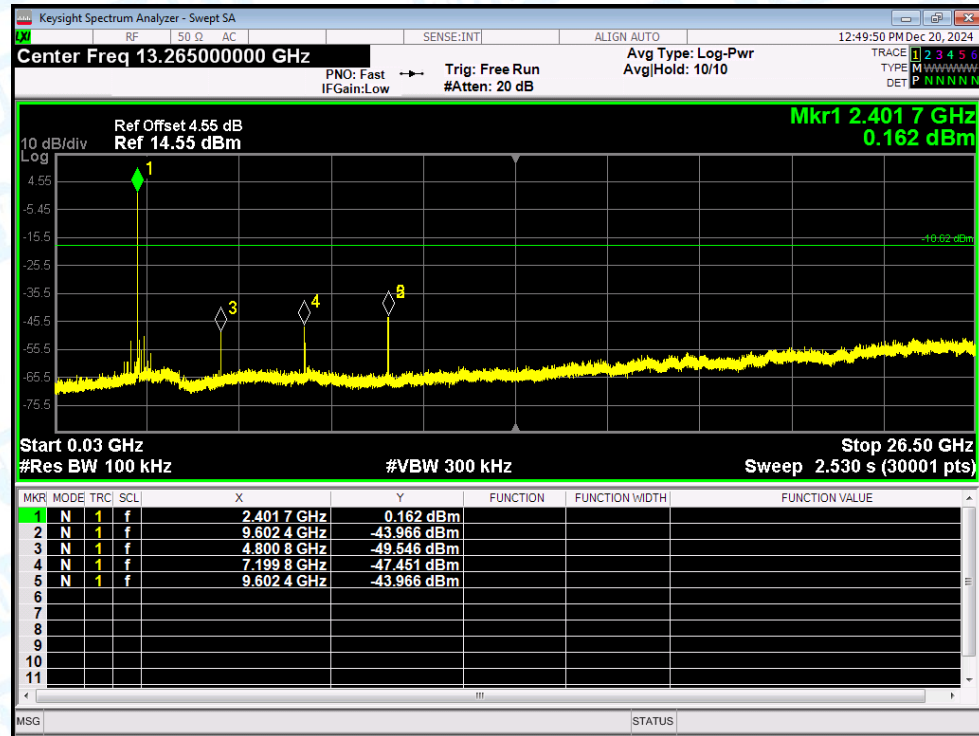
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-45.35	-20	Pass
NVNT	1-DH1	2441	Ant1	-46.73	-20	Pass
NVNT	1-DH1	2480	Ant1	-45.03	-20	Pass
NVNT	2-DH1	2402	Ant1	-45.24	-20	Pass
NVNT	2-DH1	2441	Ant1	-46.4	-20	Pass
NVNT	2-DH1	2480	Ant1	-45.29	-20	Pass
NVNT	3-DH1	2402	Ant1	-45.48	-20	Pass
NVNT	3-DH1	2441	Ant1	-46.1	-20	Pass
NVNT	3-DH1	2480	Ant1	-45.51	-20	Pass

Test Graphs

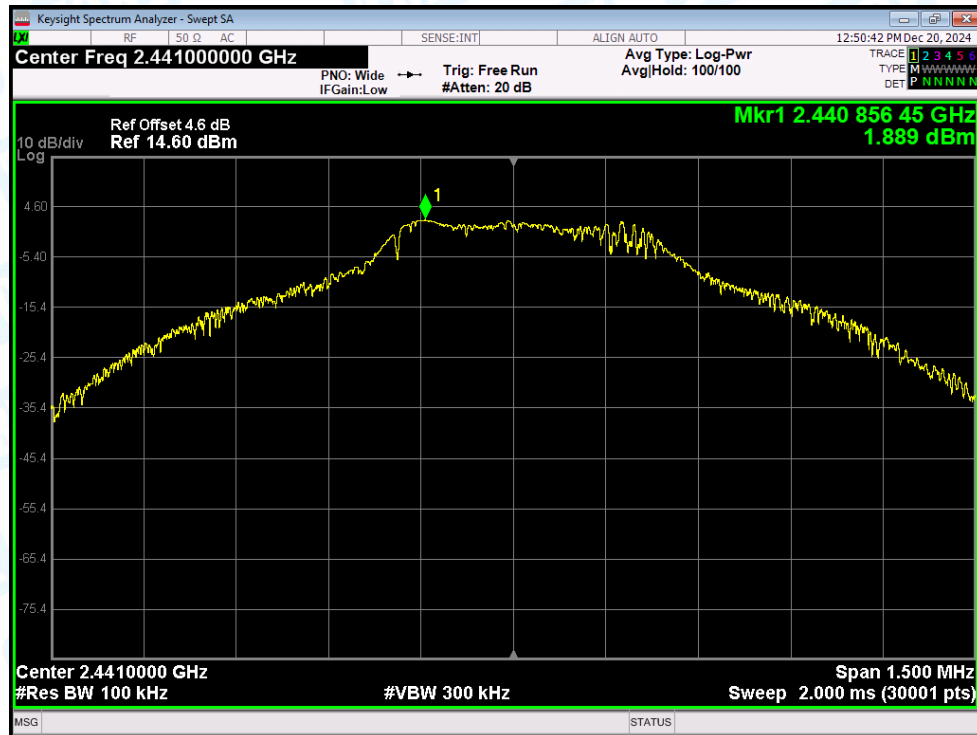
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



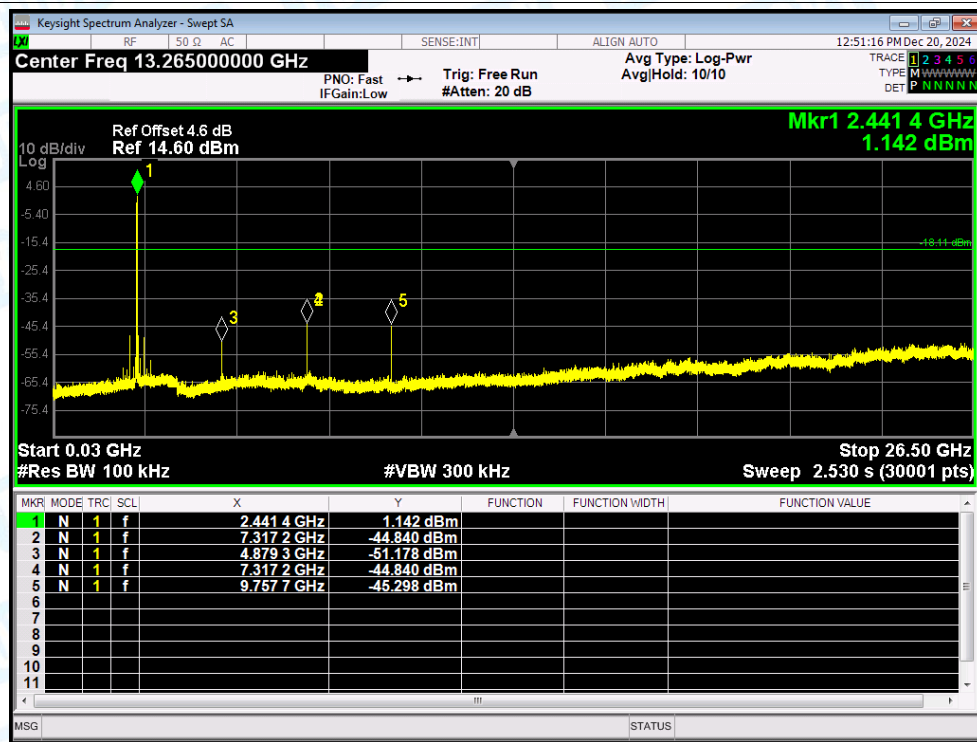
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



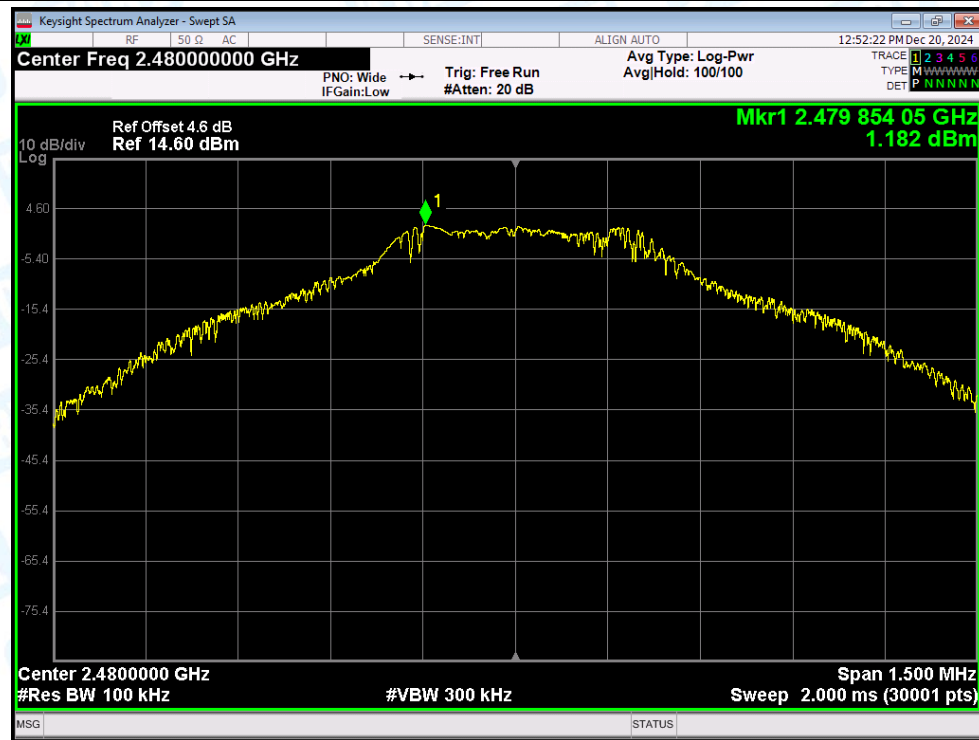
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



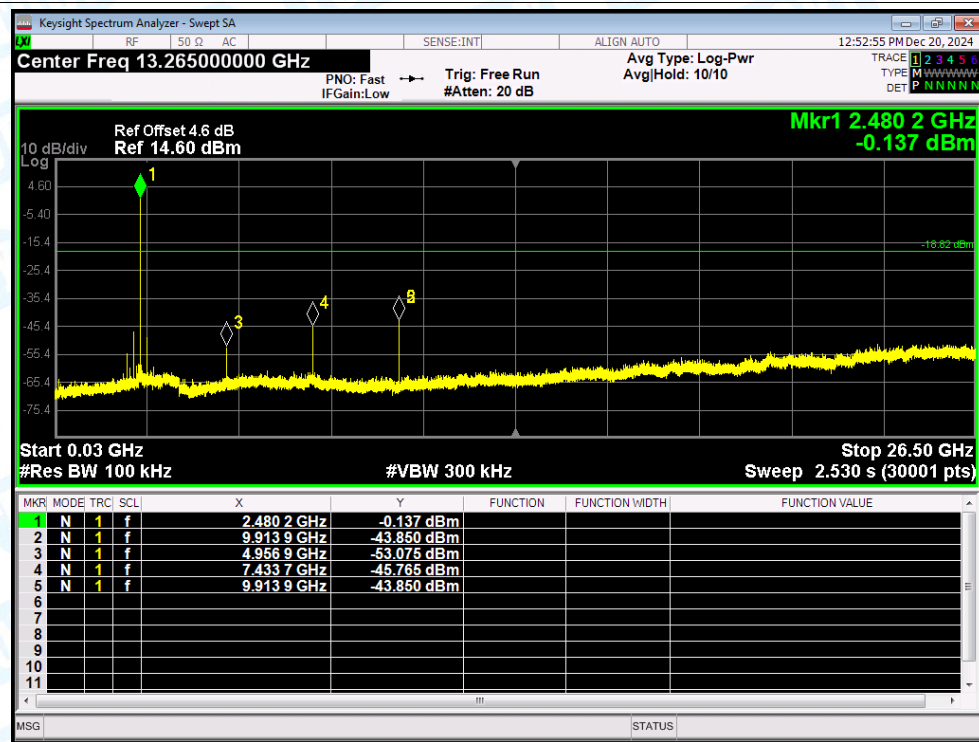
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



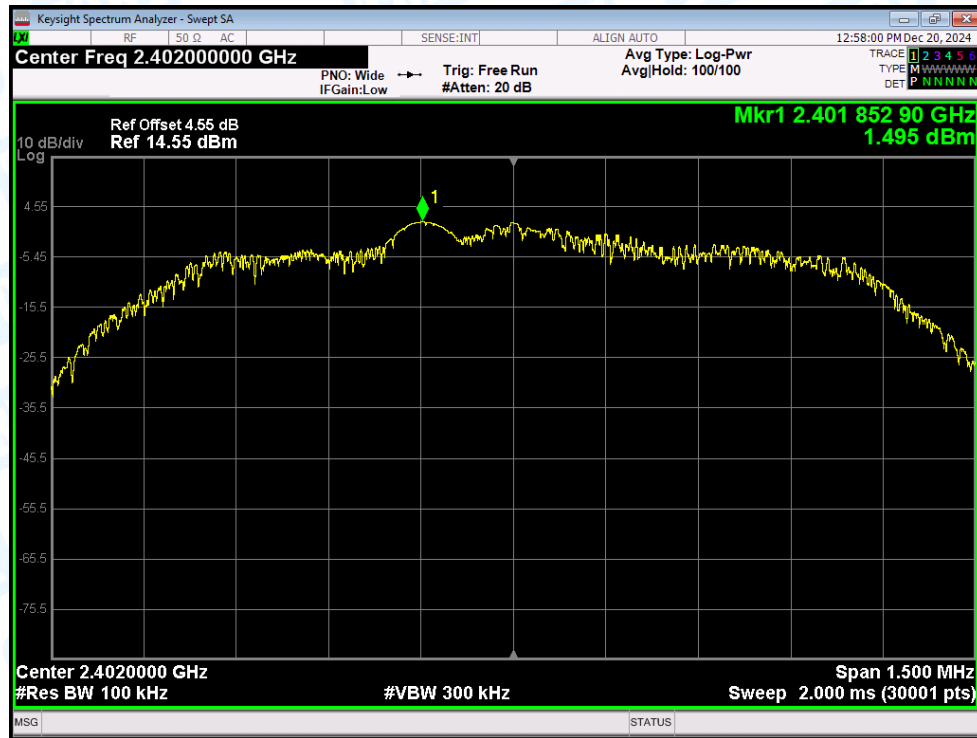
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



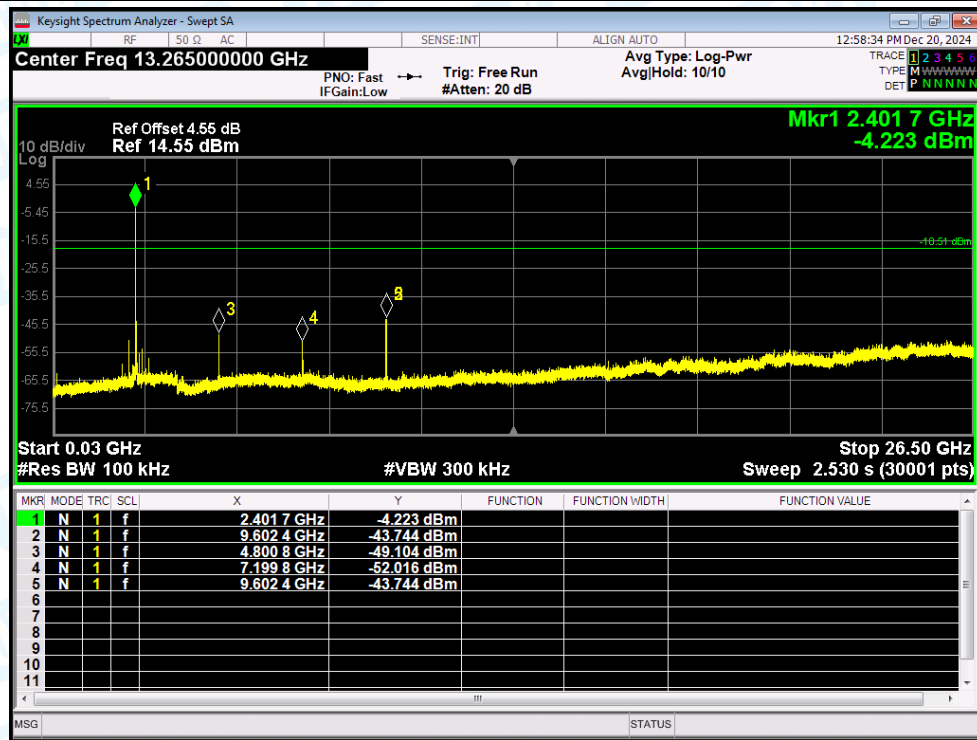
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



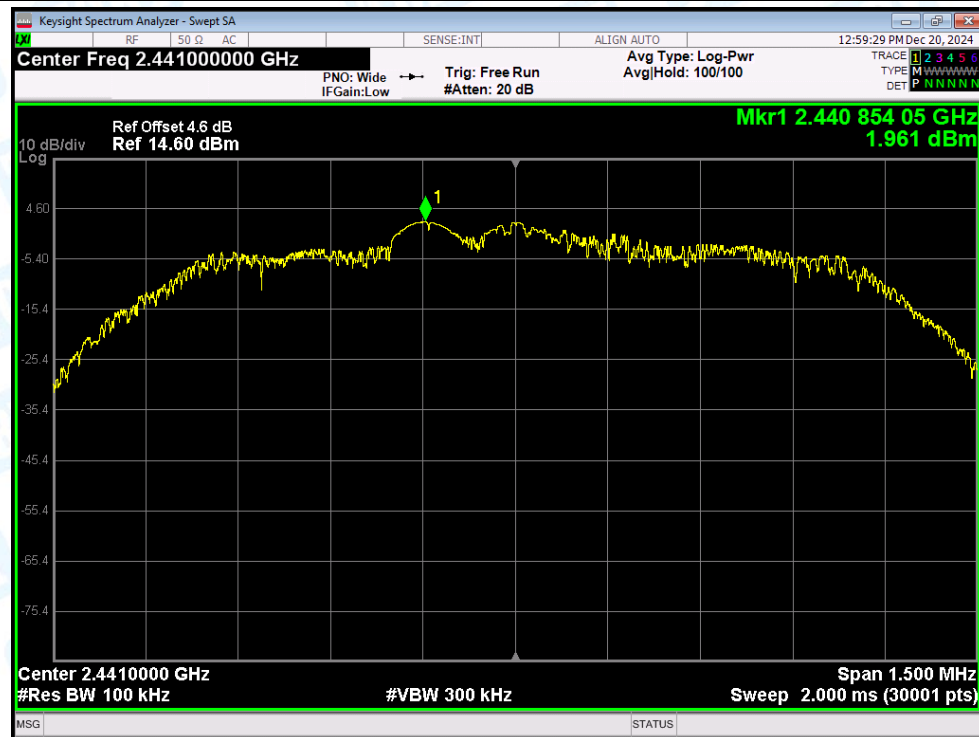
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



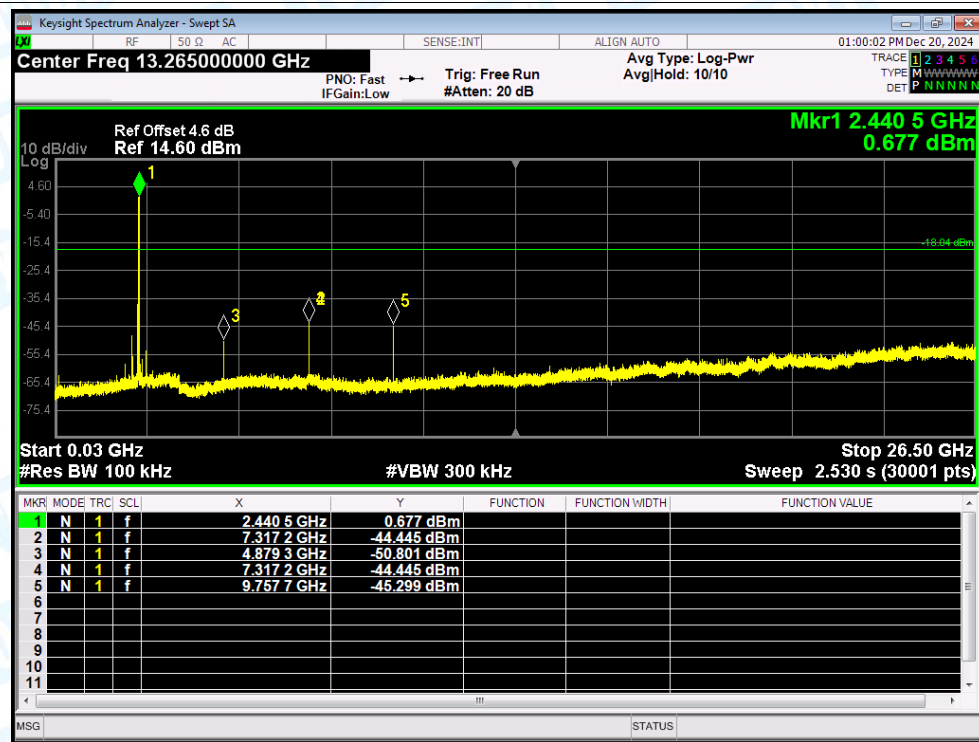
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



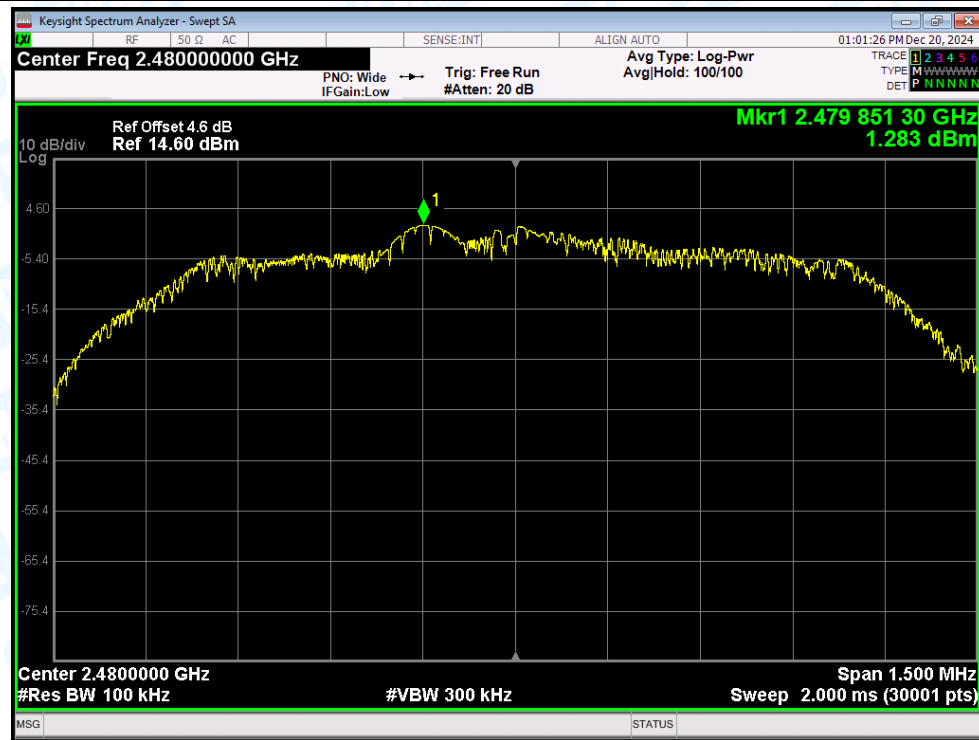
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



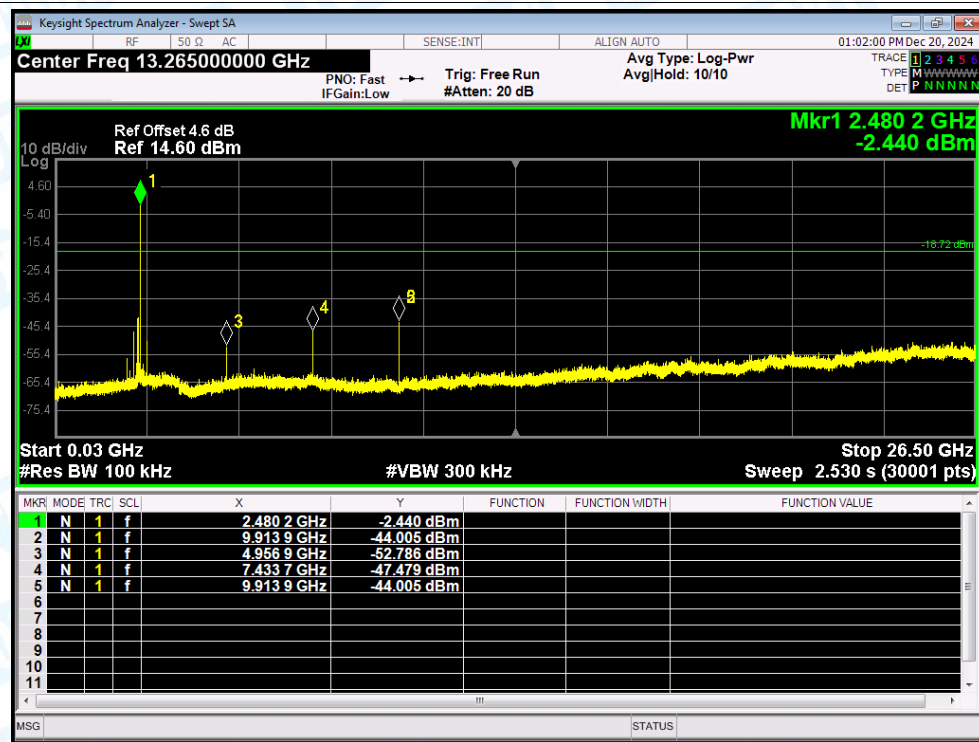
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



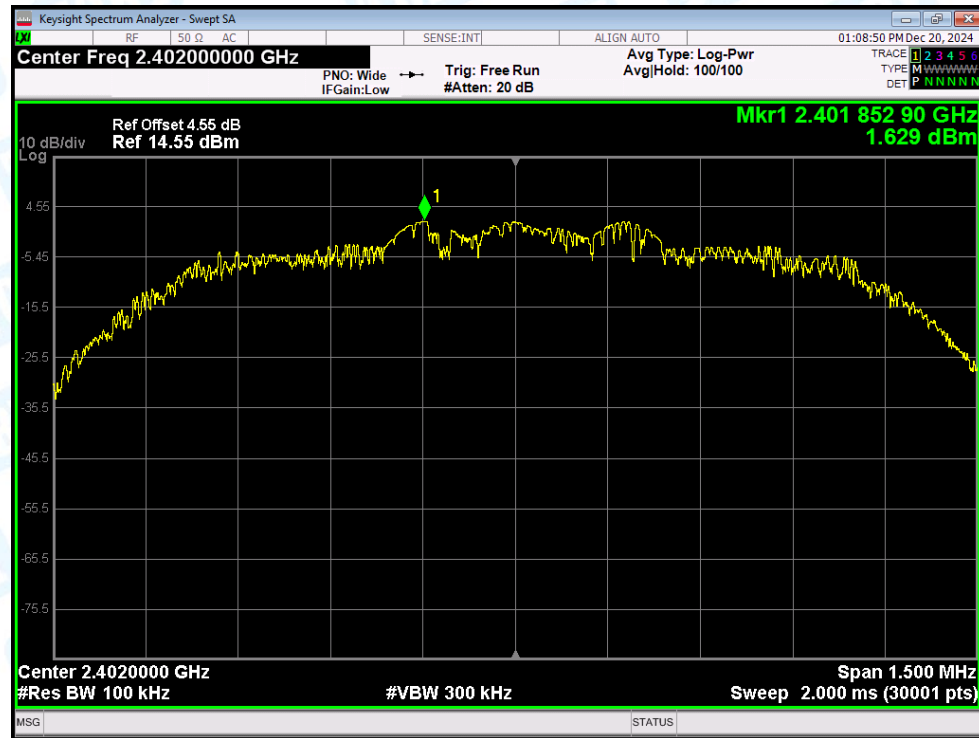
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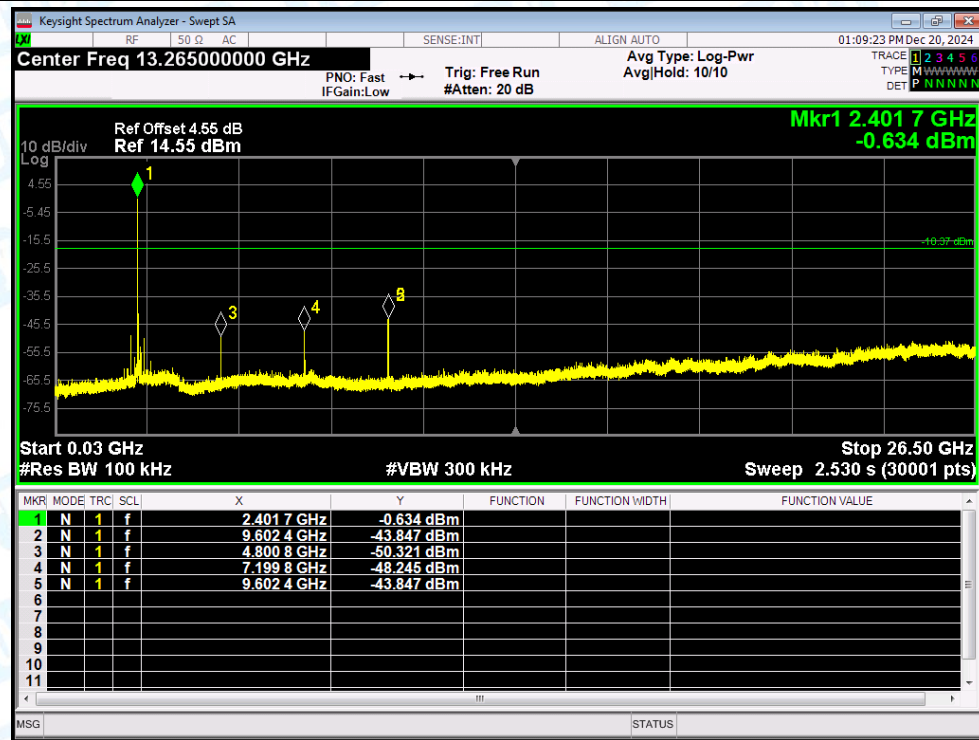
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



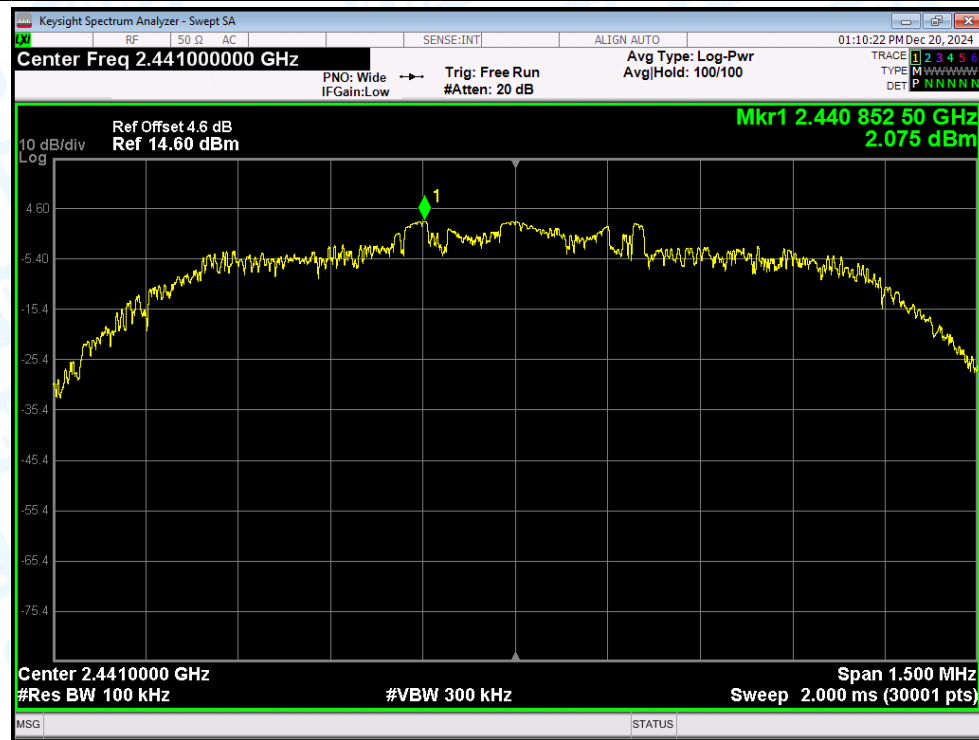
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



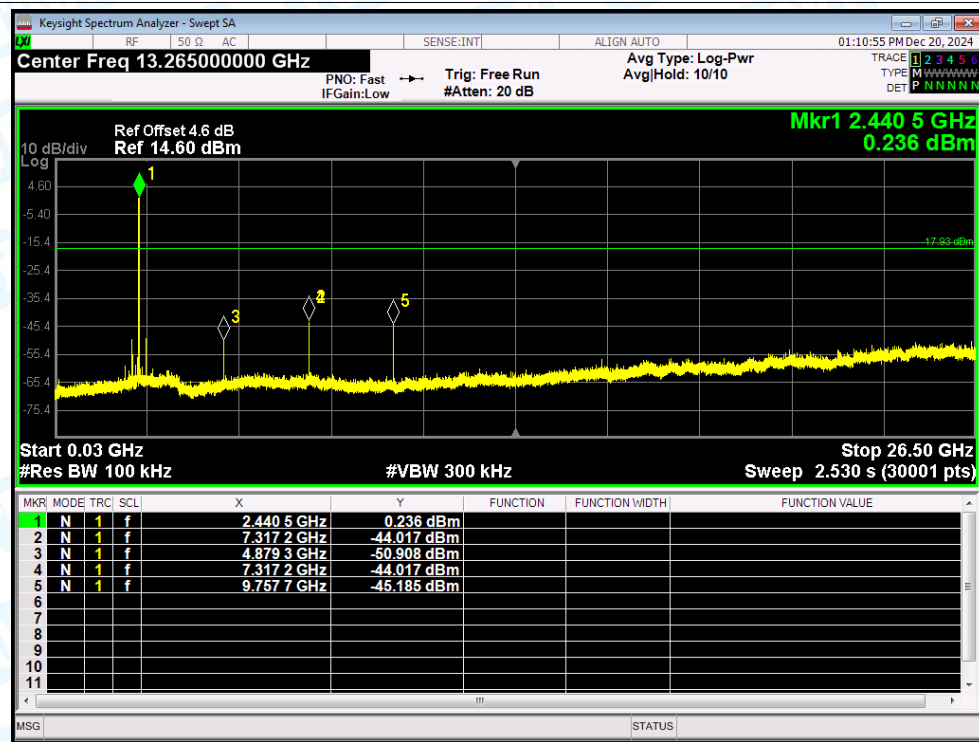
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



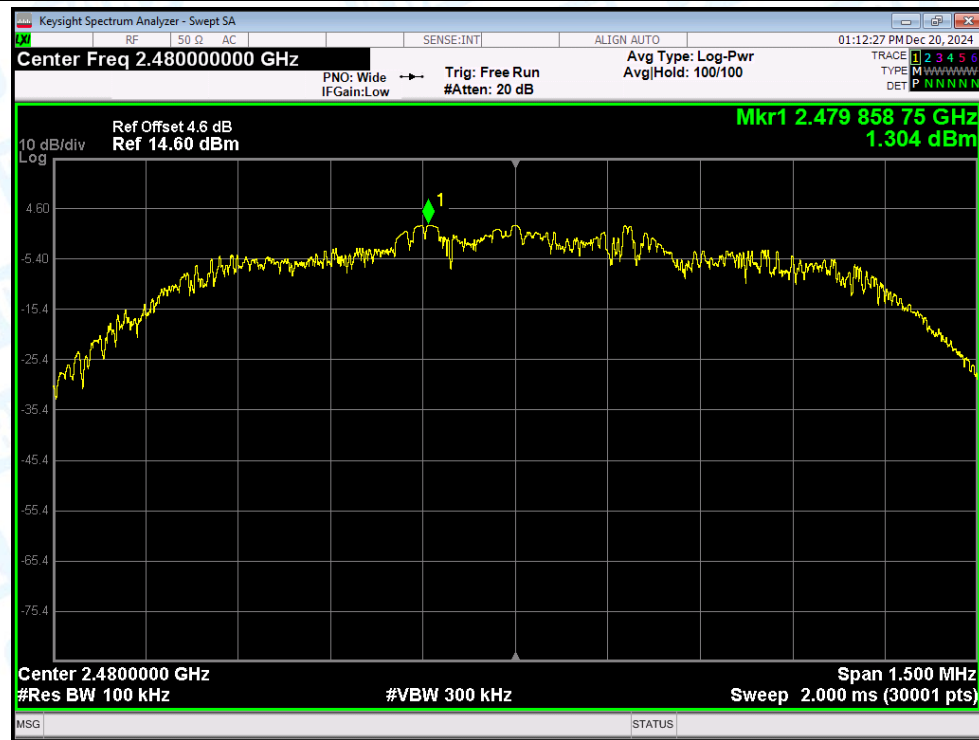
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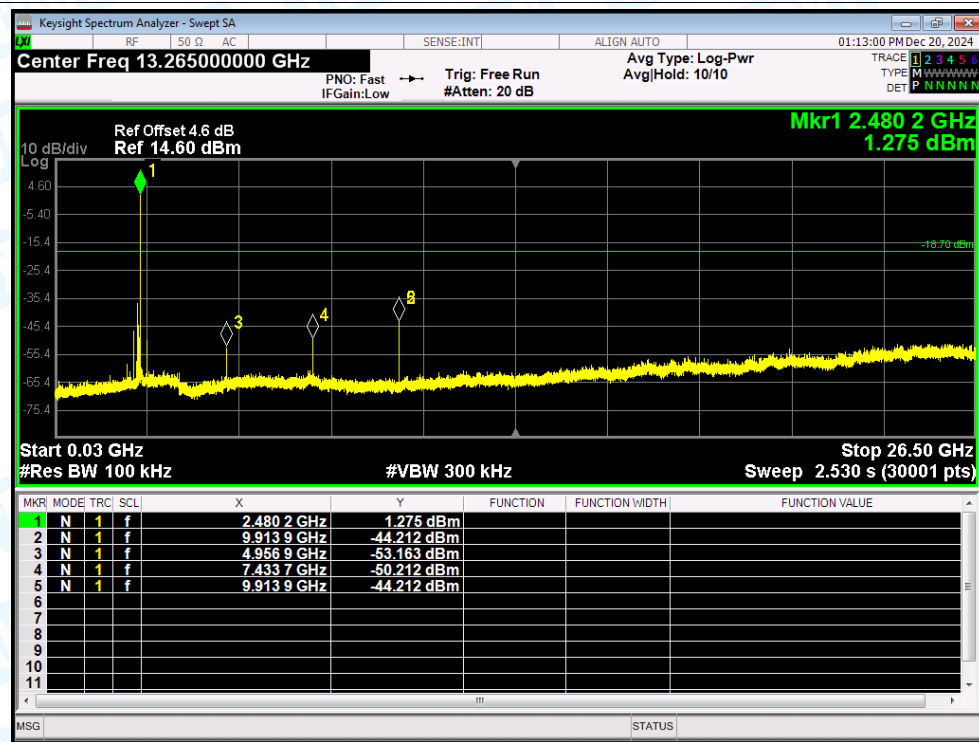
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

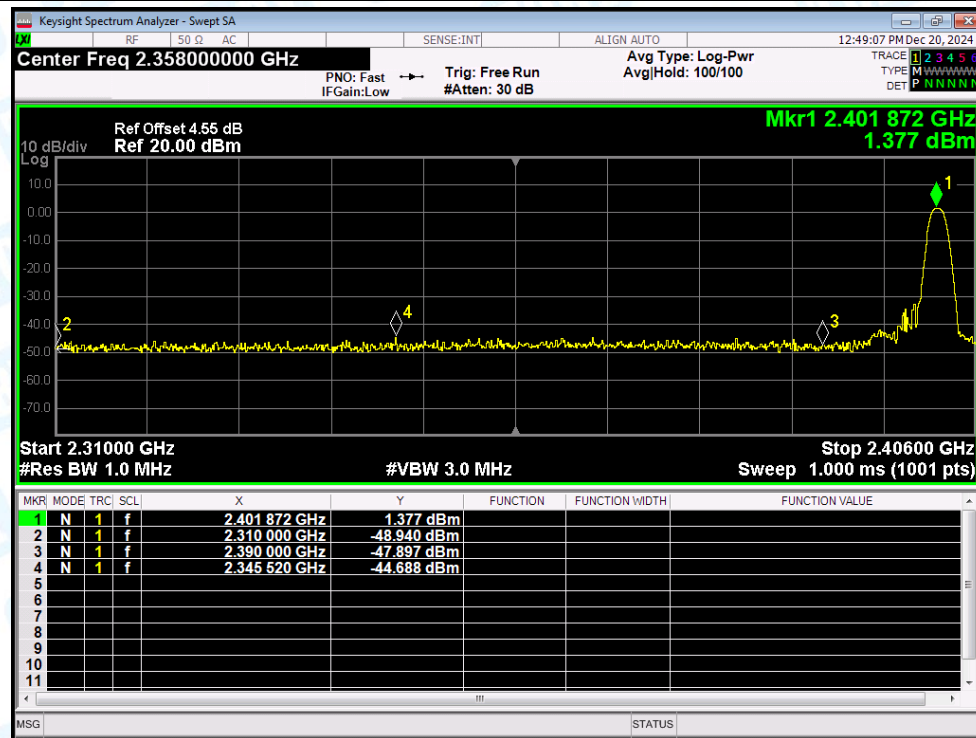


8. Restrict Band

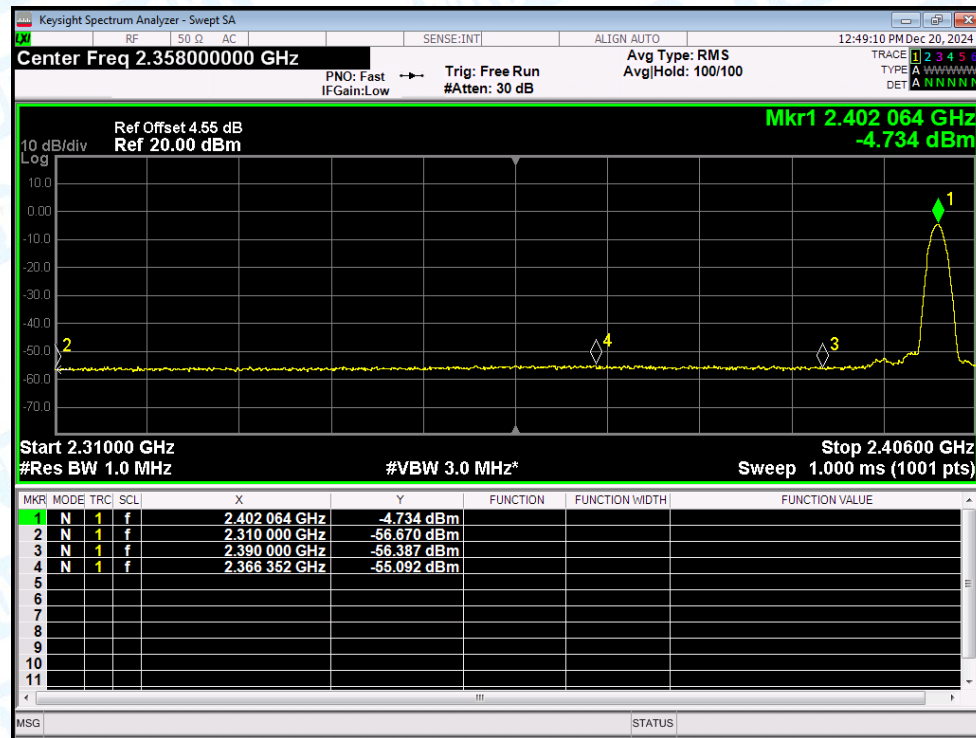
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-48.94	2.7	-	49.02	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.67	2.7	5.17	46.46	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2345.52	-44.69	2.7	-	53.27	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2366.352	-55.09	2.7	5.17	48.04	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-47.9	2.7	-	50.06	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-56.39	2.7	5.17	46.74	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-44.45	2.7	-	53.51	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-54.53	2.7	5.17	48.6	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.656	-43.64	2.7	-	54.32	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.584	-54.11	2.7	5.17	49.02	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-46.49	2.7	-	51.47	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.39	2.7	5.17	47.74	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-49.87	2.7	-	48.09	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-55.97	2.7	5.06	47.05	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2372.976	-43.89	2.7	-	54.07	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2389.968	-55.05	2.7	5.06	47.97	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-46.87	2.7	-	51.09	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-55.05	2.7	5.06	47.97	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-44.53	2.7	-	53.43	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-54.5	2.7	4.95	48.41	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2484.4	-44.06	2.7	-	53.9	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2491.84	-54.11	2.7	4.95	48.8	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-48.23	2.7	-	49.73	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.72	2.7	4.95	47.19	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-48.73	2.7	-	49.23	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.55	2.7	5.06	46.47	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2347.536	-44.57	2.7	-	53.39	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2358.288	-54.75	2.7	5.06	48.27	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-48.08	2.7	-	49.88	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-55.96	2.7	5.06	47.06	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-45.9	2.7	-	52.06	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-54.64	2.7	5.06	48.38	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2485.456	-42.35	2.7	-	55.61	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.704	-53.67	2.7	5.06	49.35	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-48.29	2.7	-	49.67	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-56.05	2.7	5.06	46.97	Average	54	Pass

Test Graphs

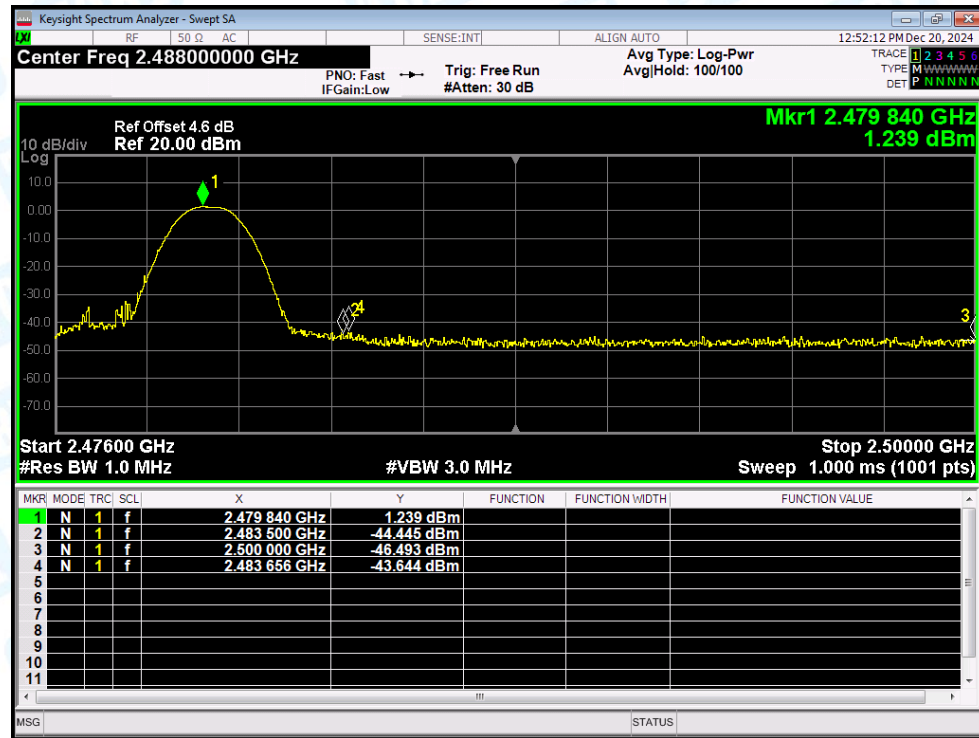
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



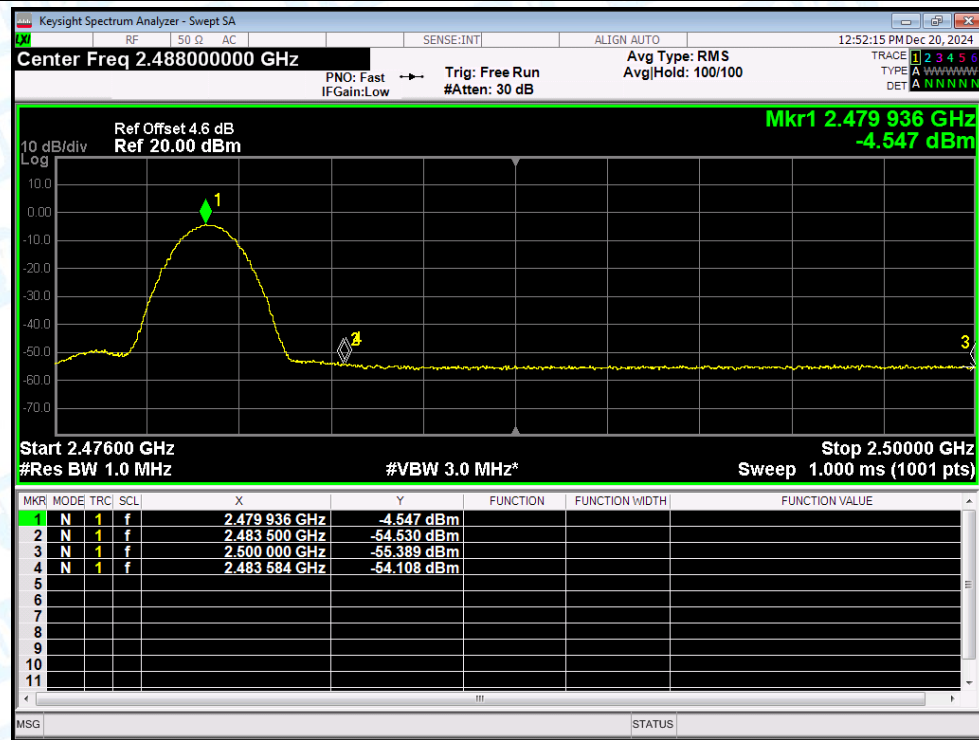
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



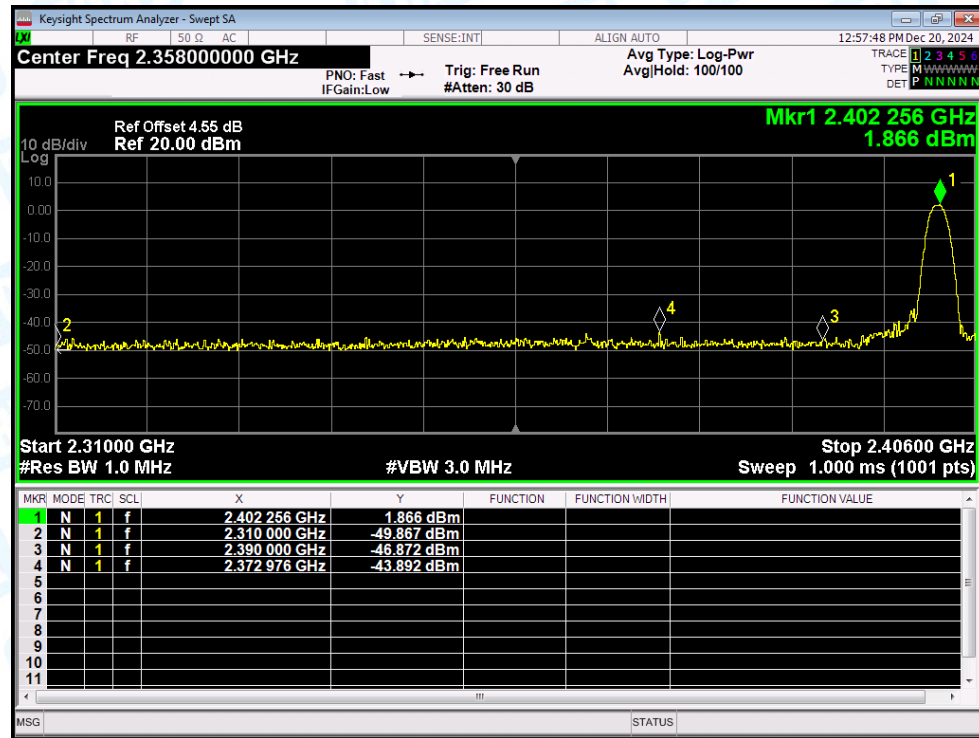
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



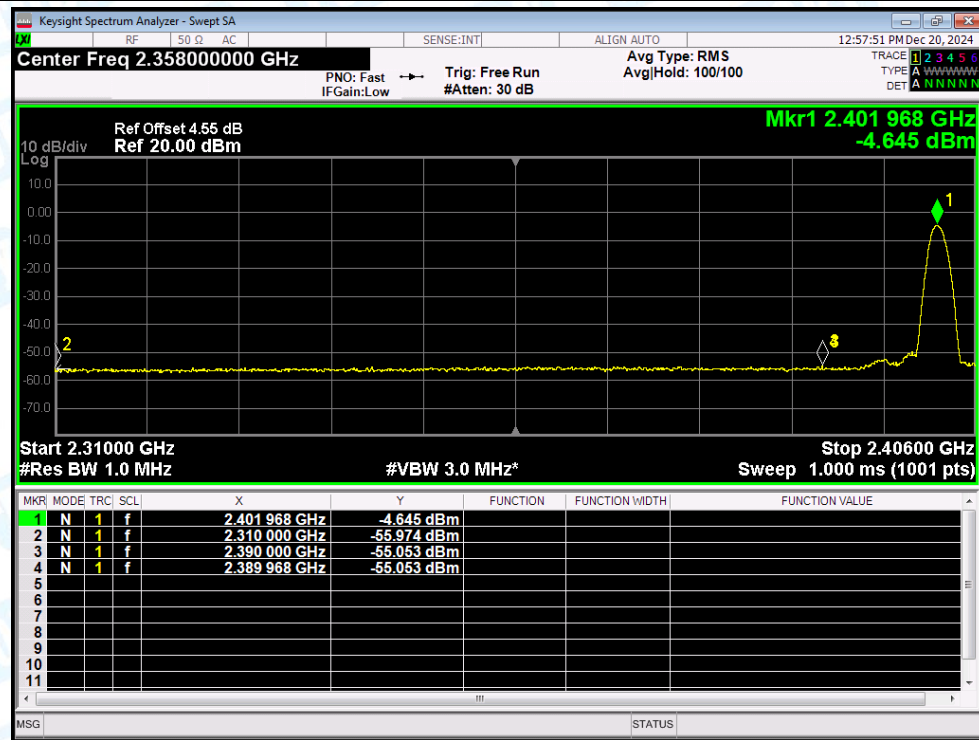
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



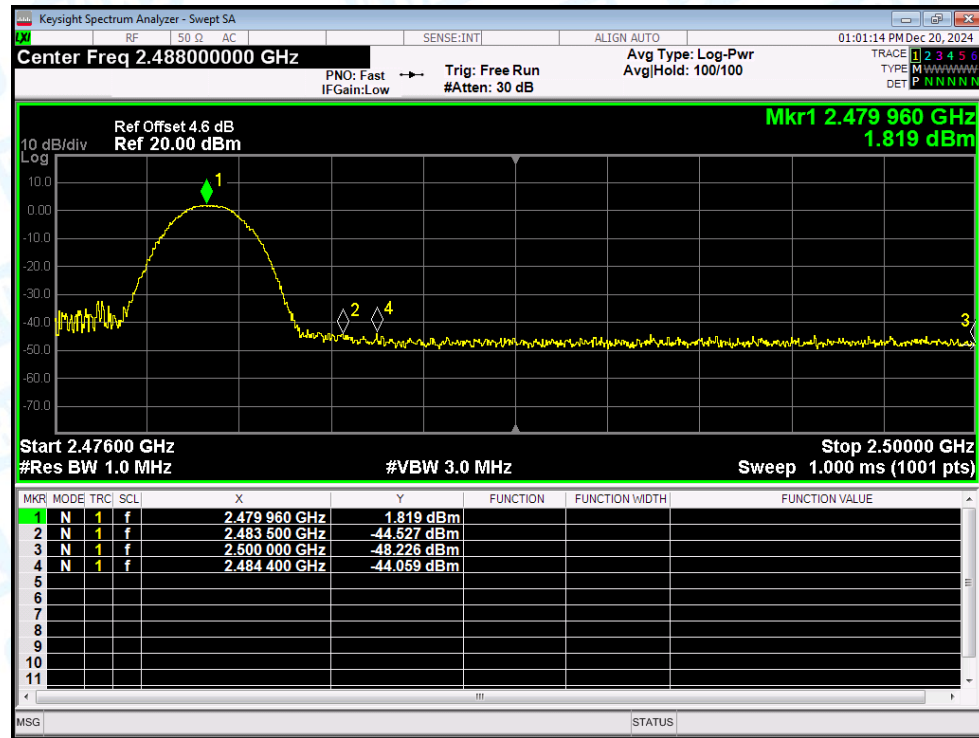
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



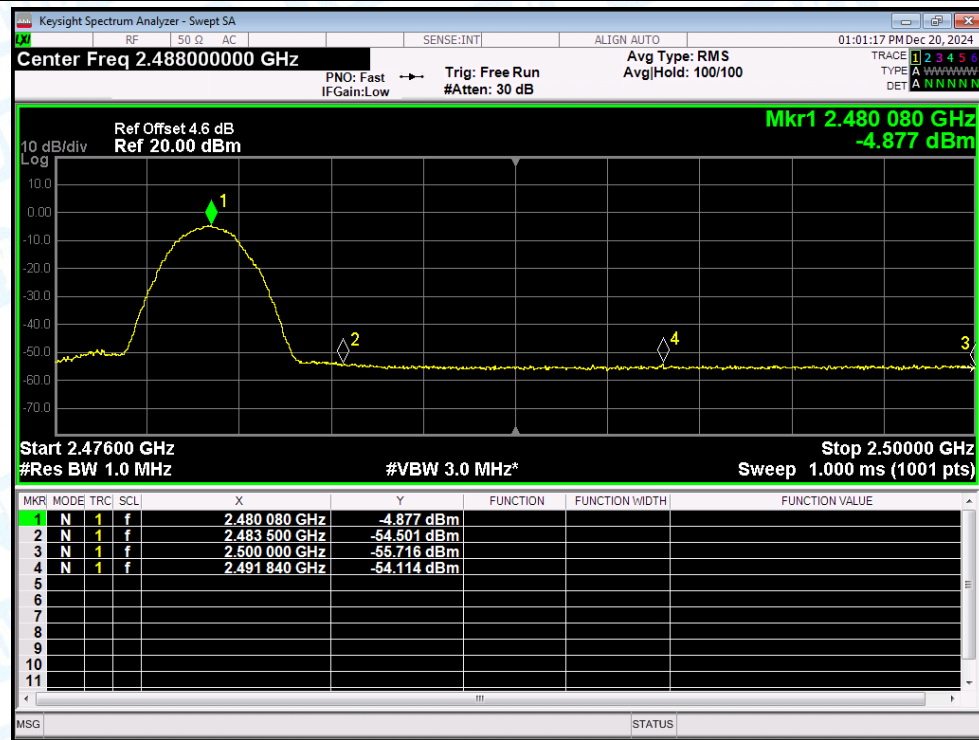
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



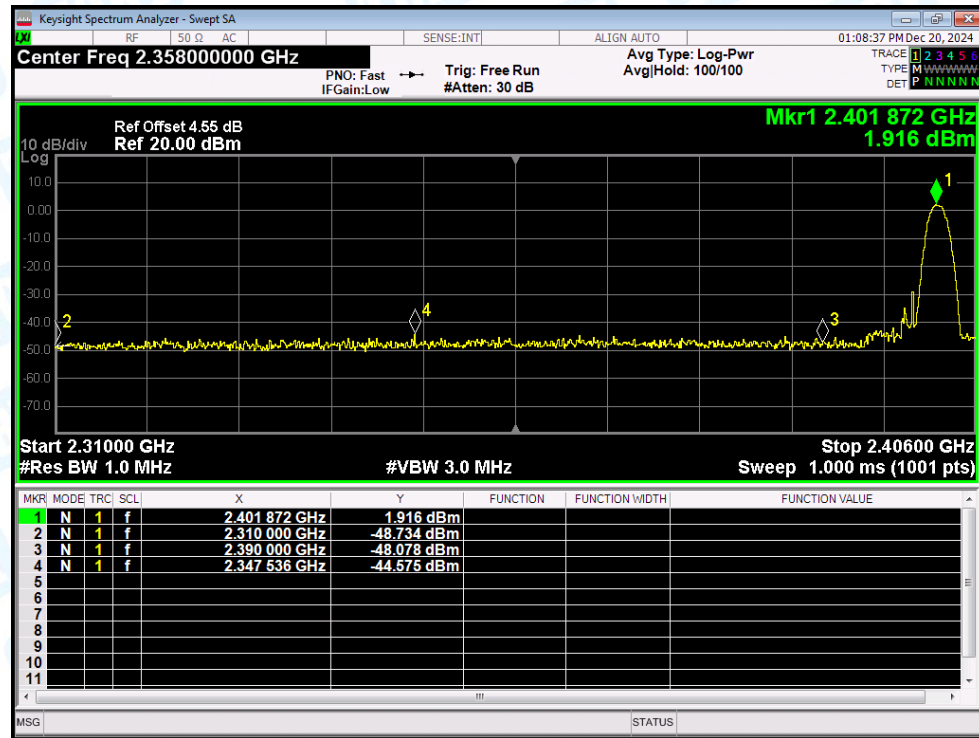
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



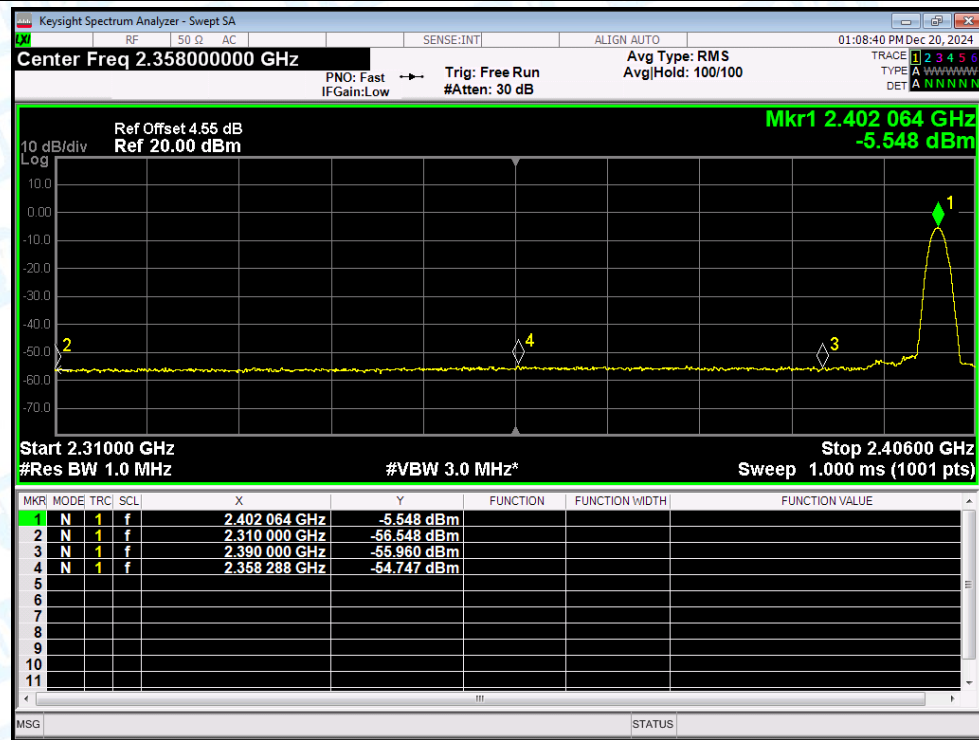
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



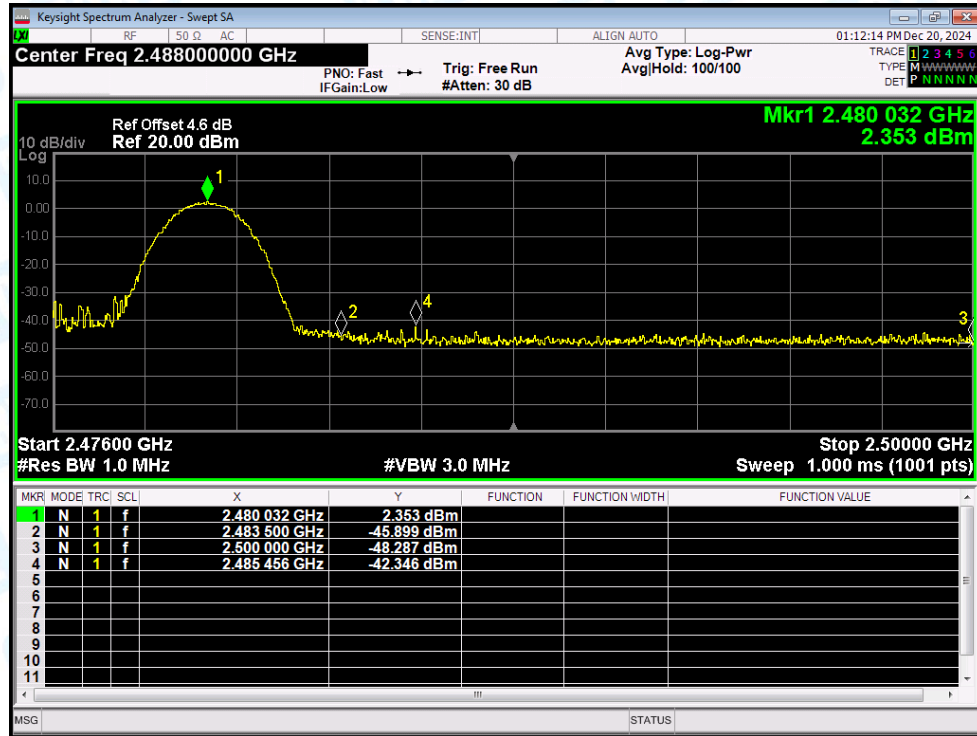
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



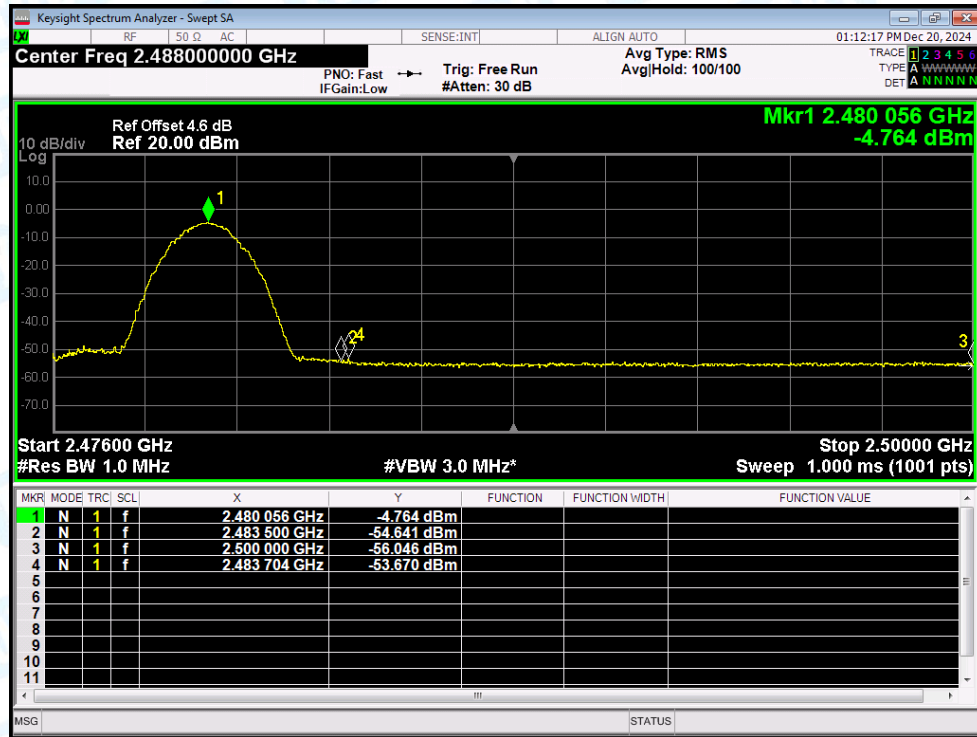
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

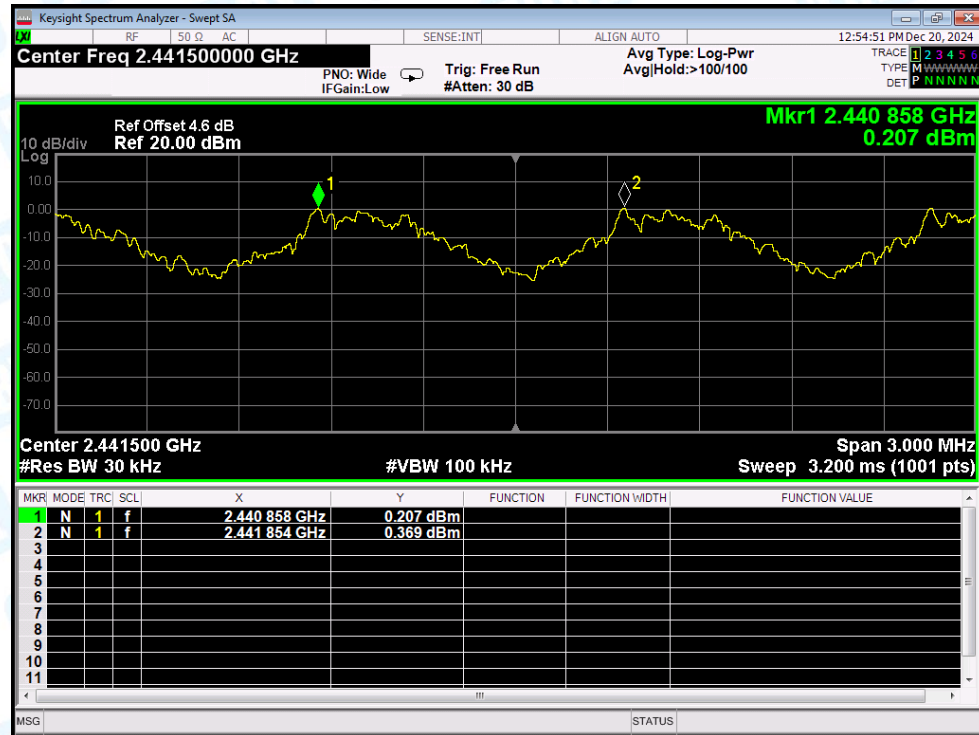


9. Carrier Frequencies Separation

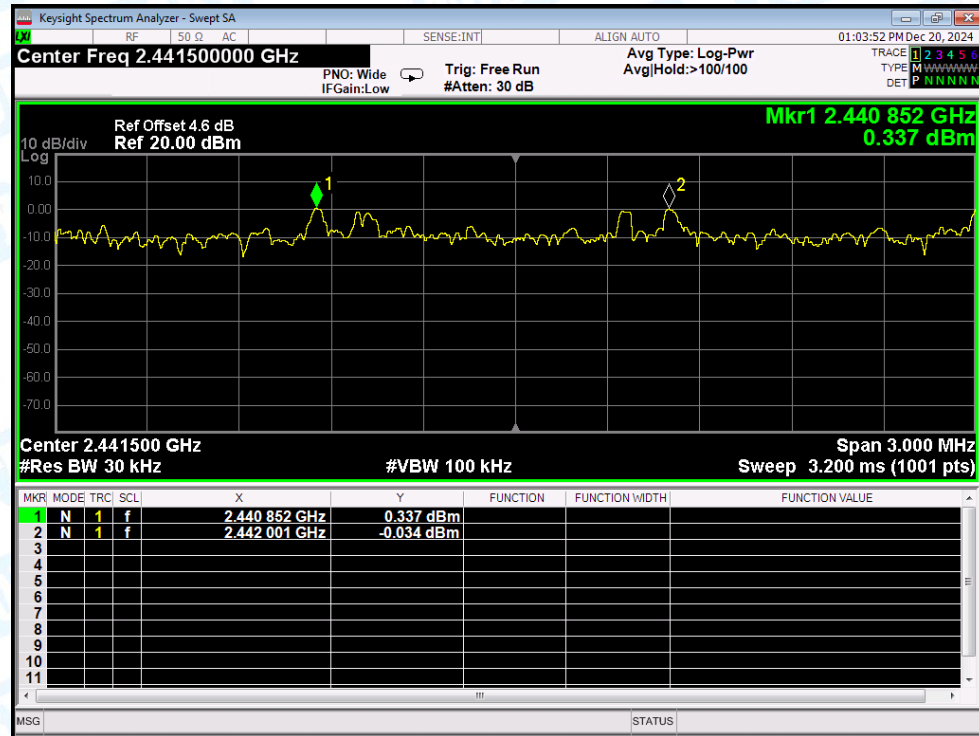
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.858	2441.854	0.996	0.573	Pass
NVNT	2-DH1	Ant1	2440.852	2442.001	1.149	0.833	Pass
NVNT	3-DH1	Ant1	2441.158	2442.01	0.852	0.807	Pass

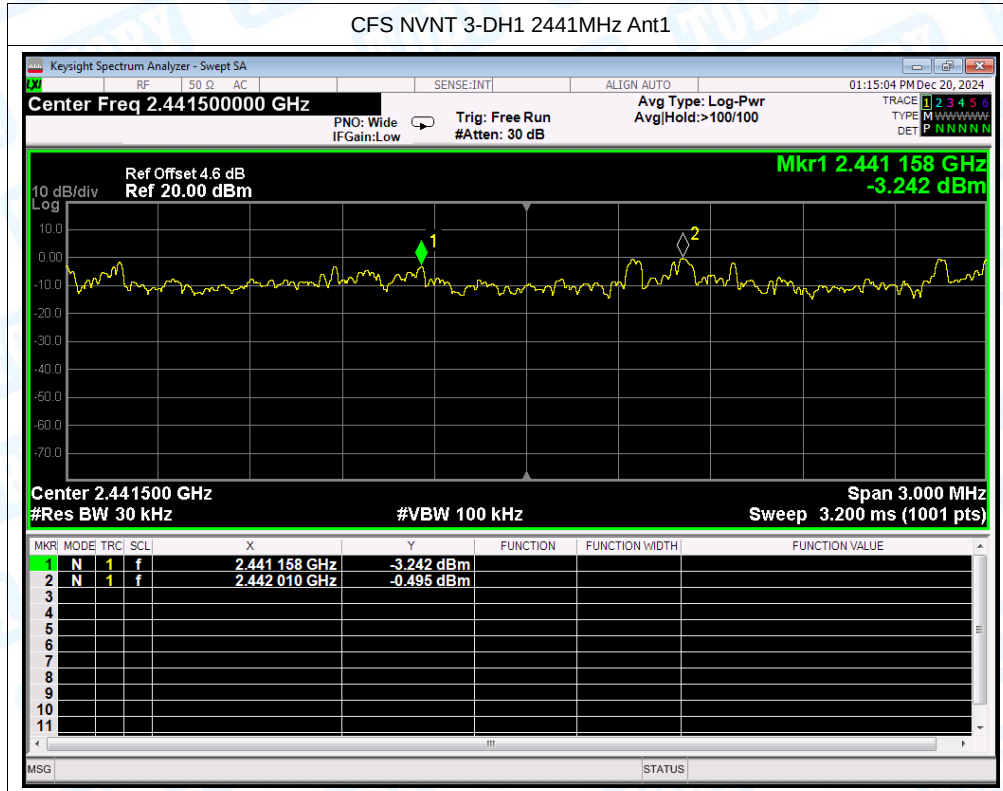
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



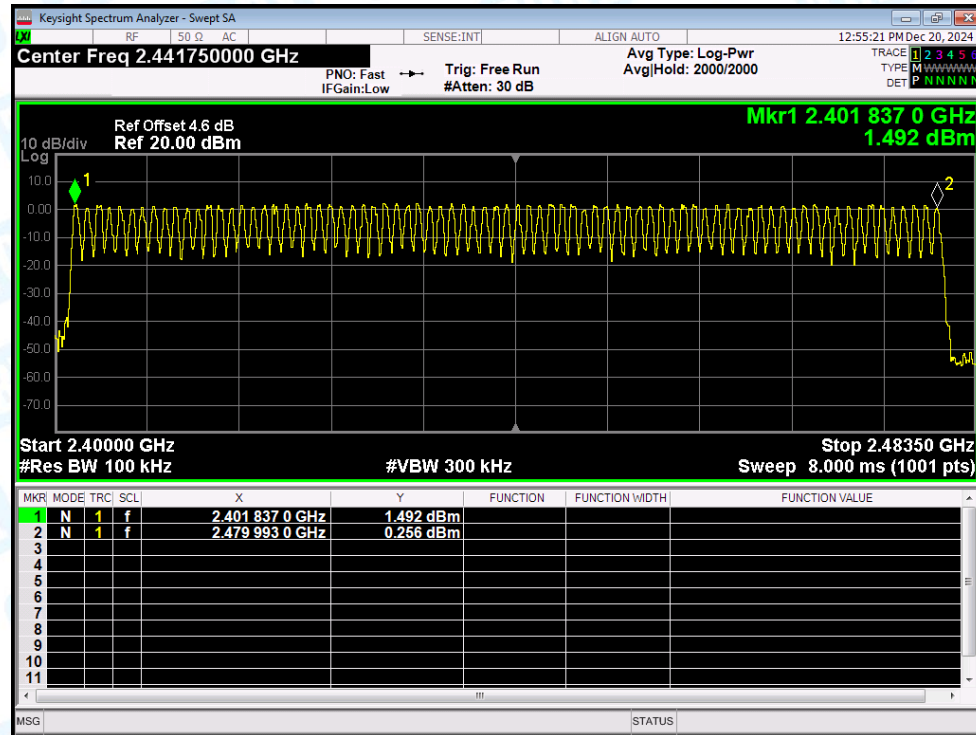


10. Number of Hopping Channel

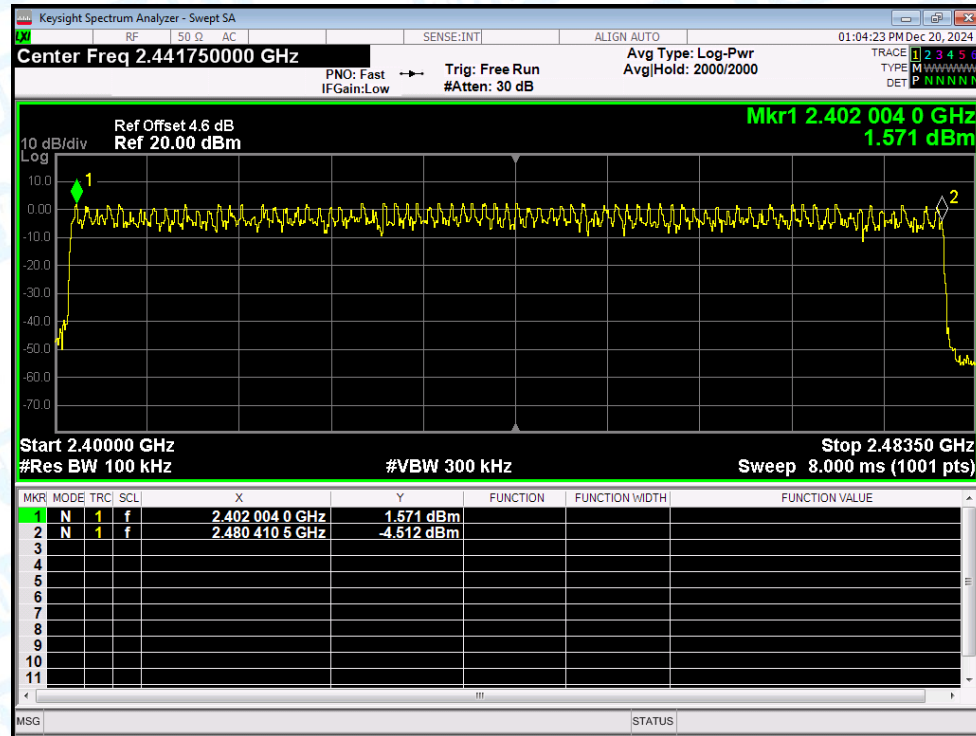
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

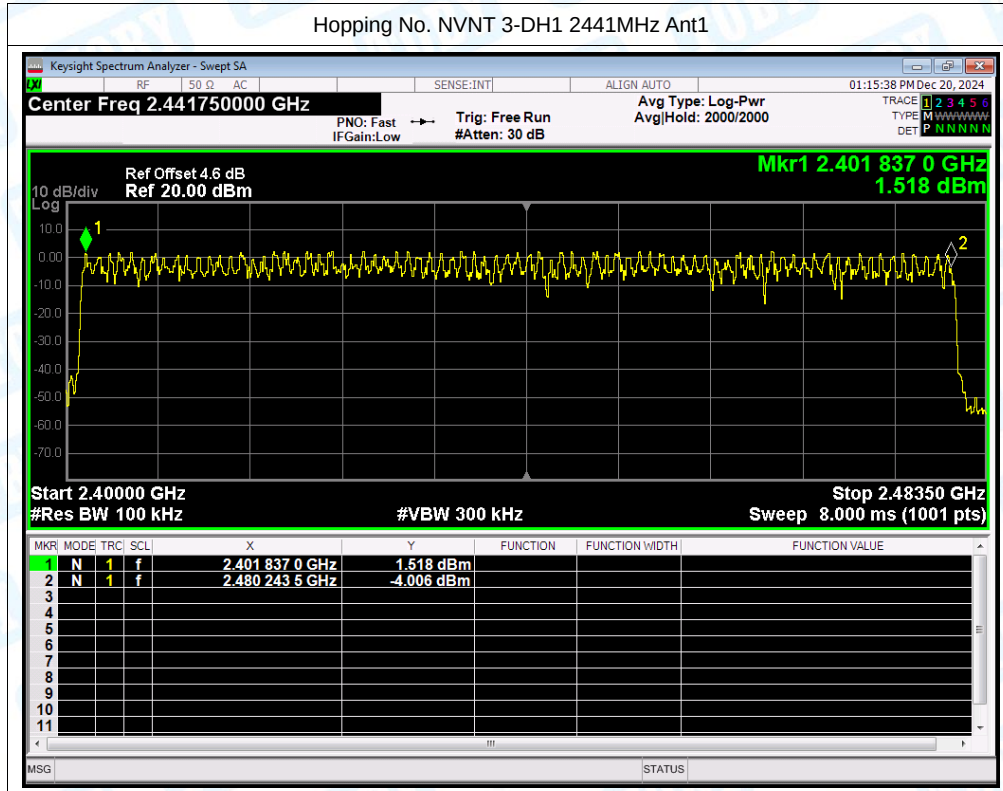
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



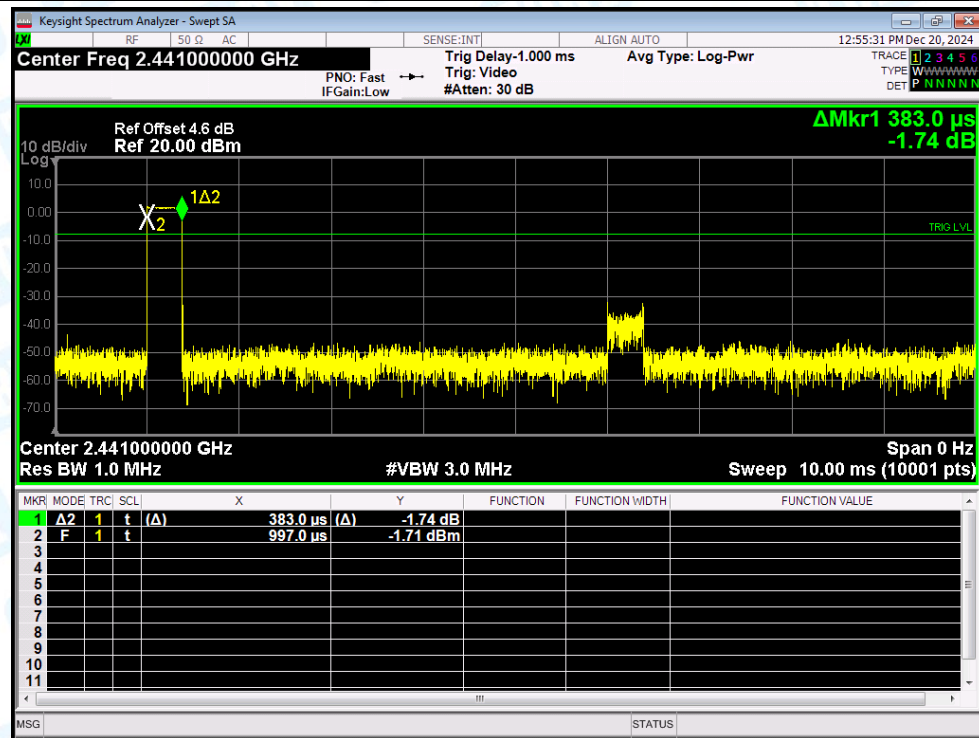


11. Dwell Time

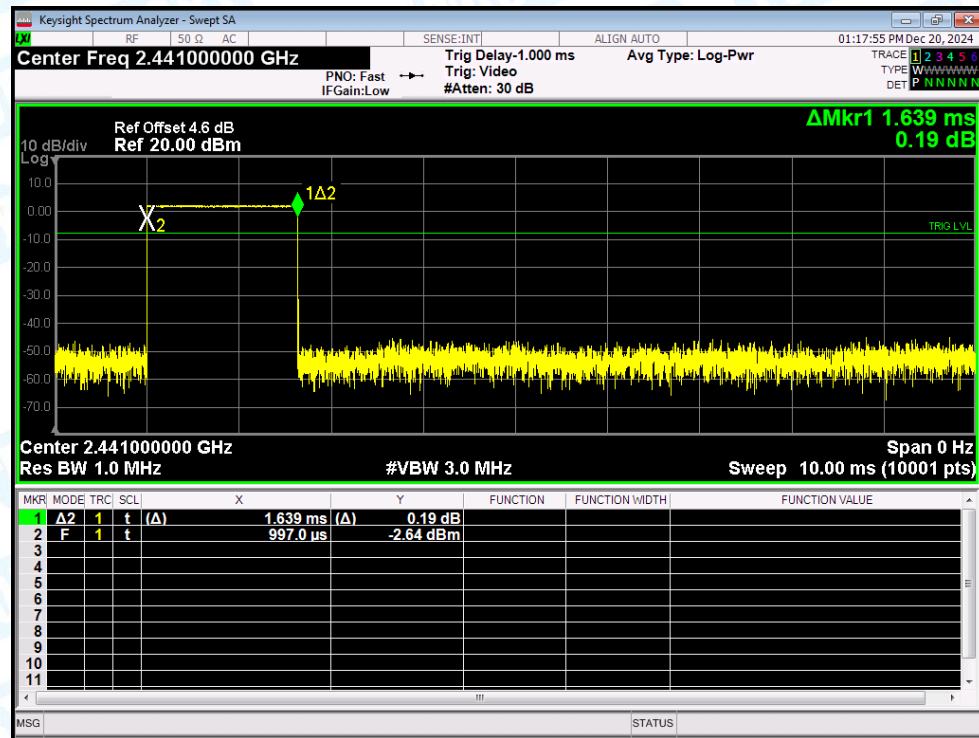
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.383	122.56	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.639	262.24	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.887	307.947	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.392	125.44	31600	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	0.391	125.12	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.643	262.88	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.893	308.587	31600	400	Pass

Test Graphs

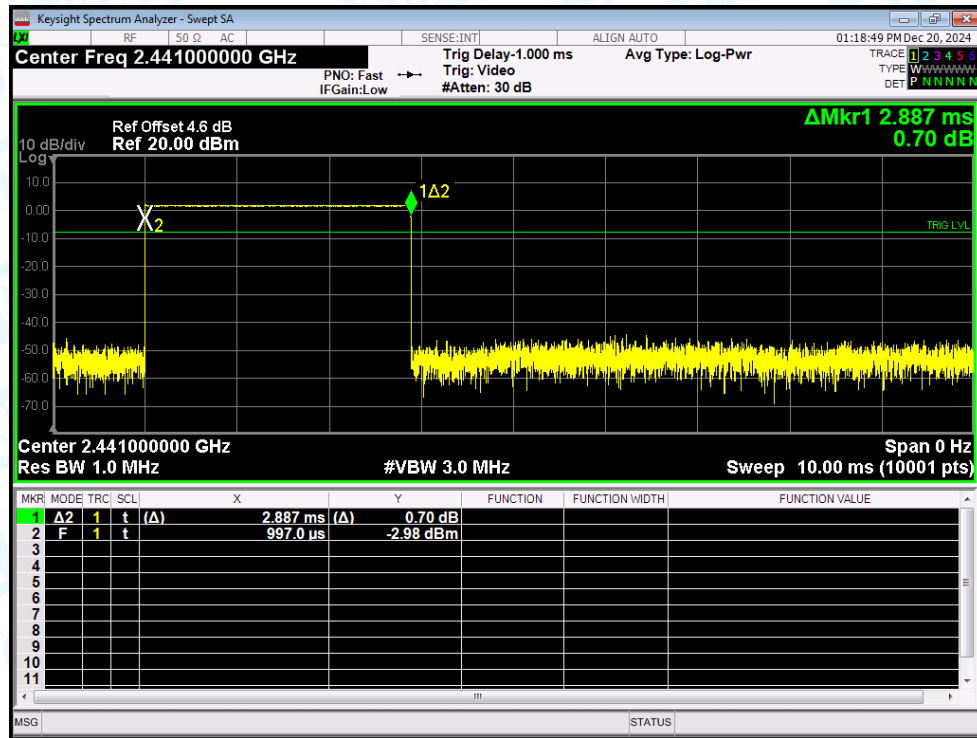
Dwell NVNT 1-DH1 2441MHz Ant1



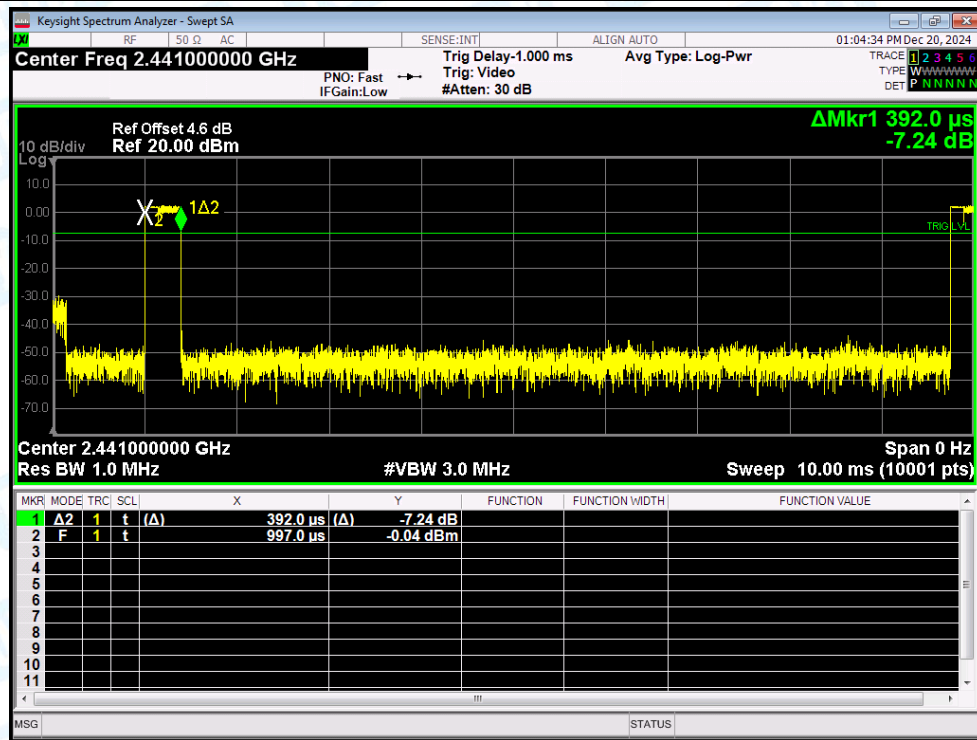
Dwell NVNT 1-DH3 2441MHz Ant1



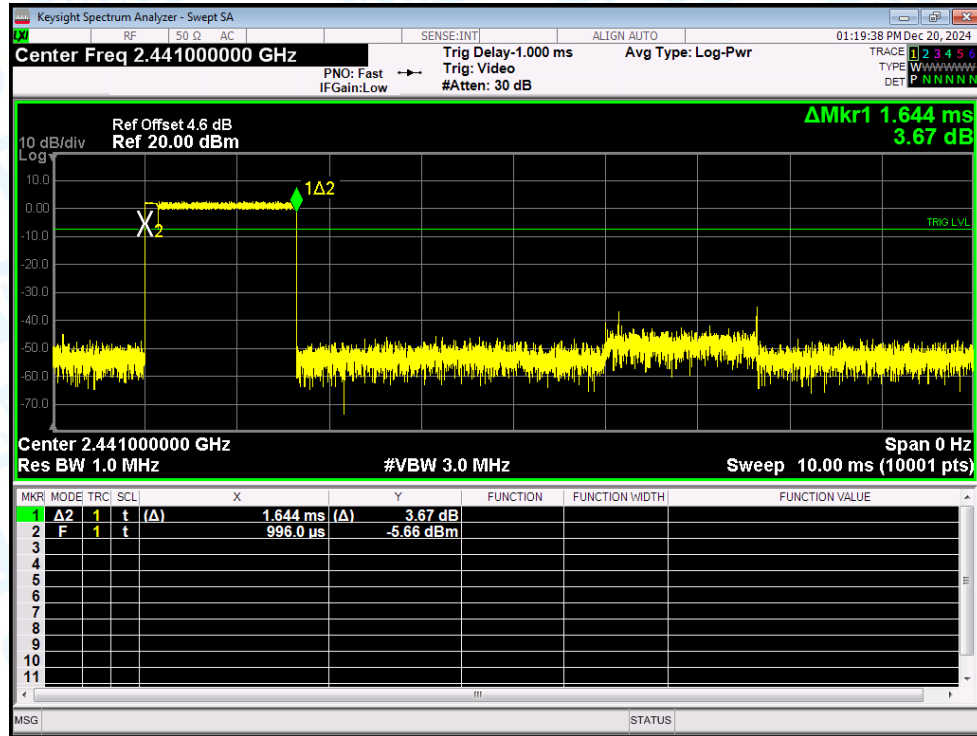
Dwell NVNT 1-DH5 2441MHz Ant1



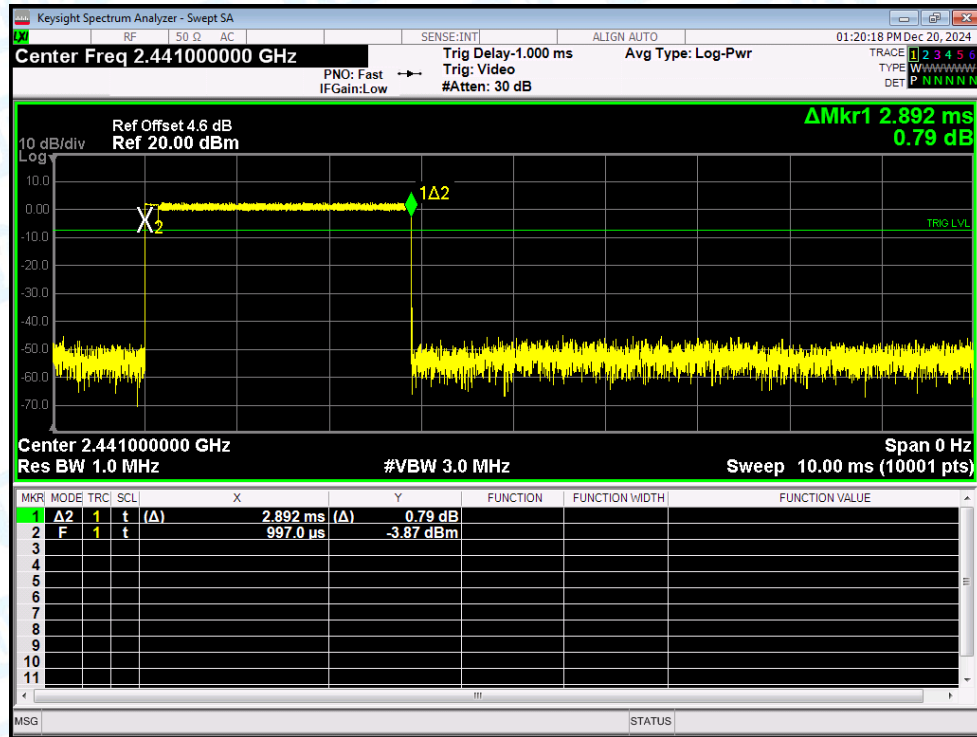
Dwell NVNT 2-DH1 2441MHz Ant1



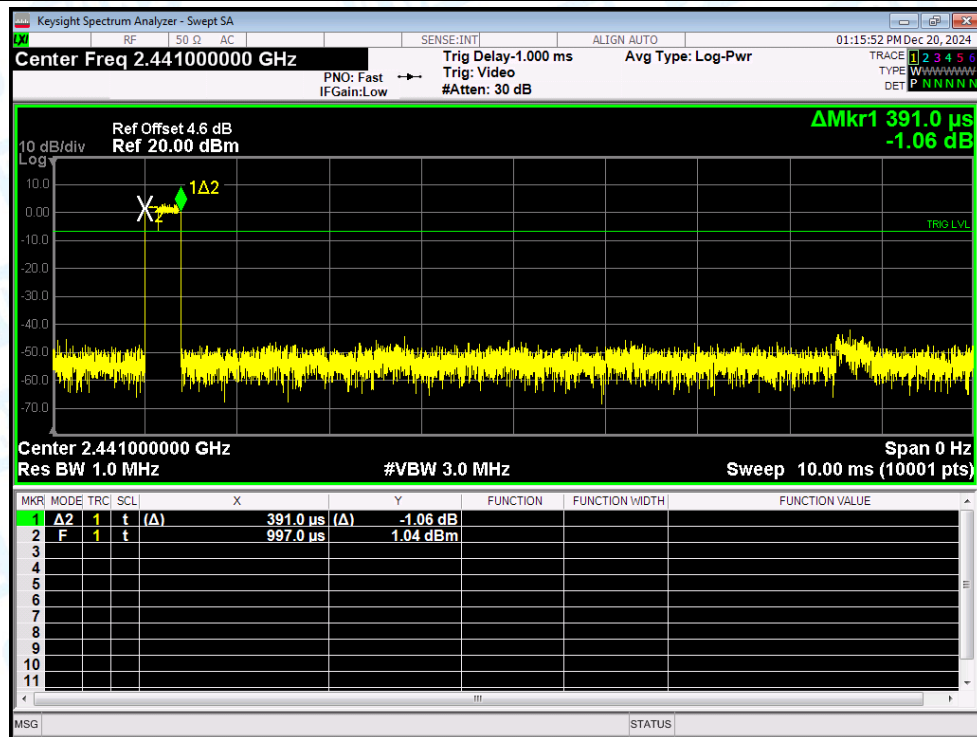
Dwell NVNT 2-DH3 2441MHz Ant1



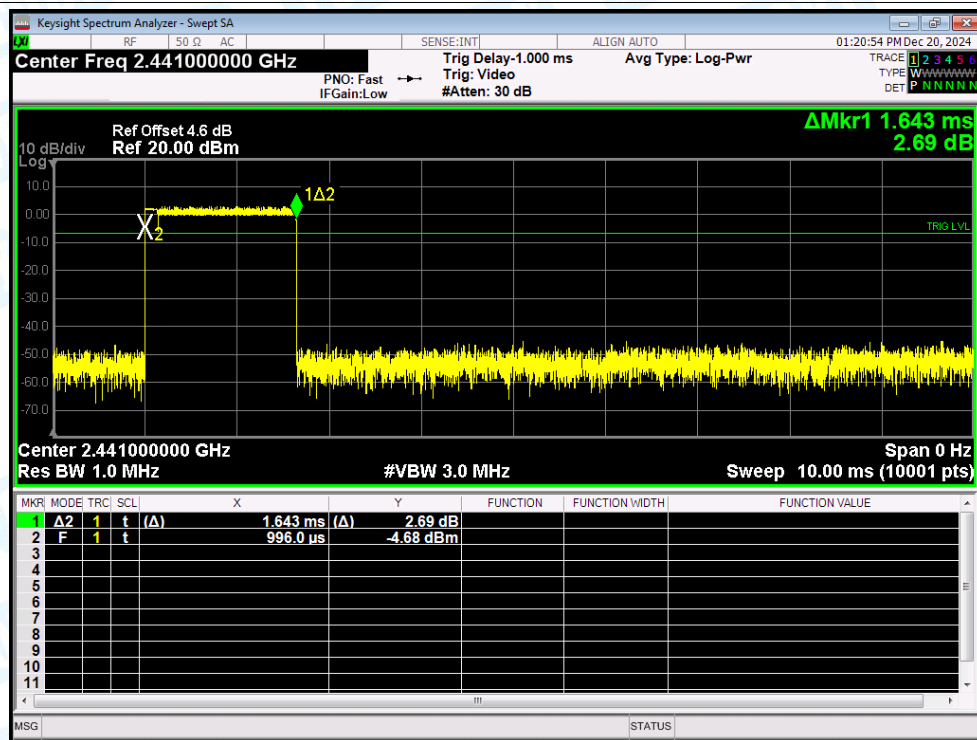
Dwell NVNT 2-DH5 2441MHz Ant1

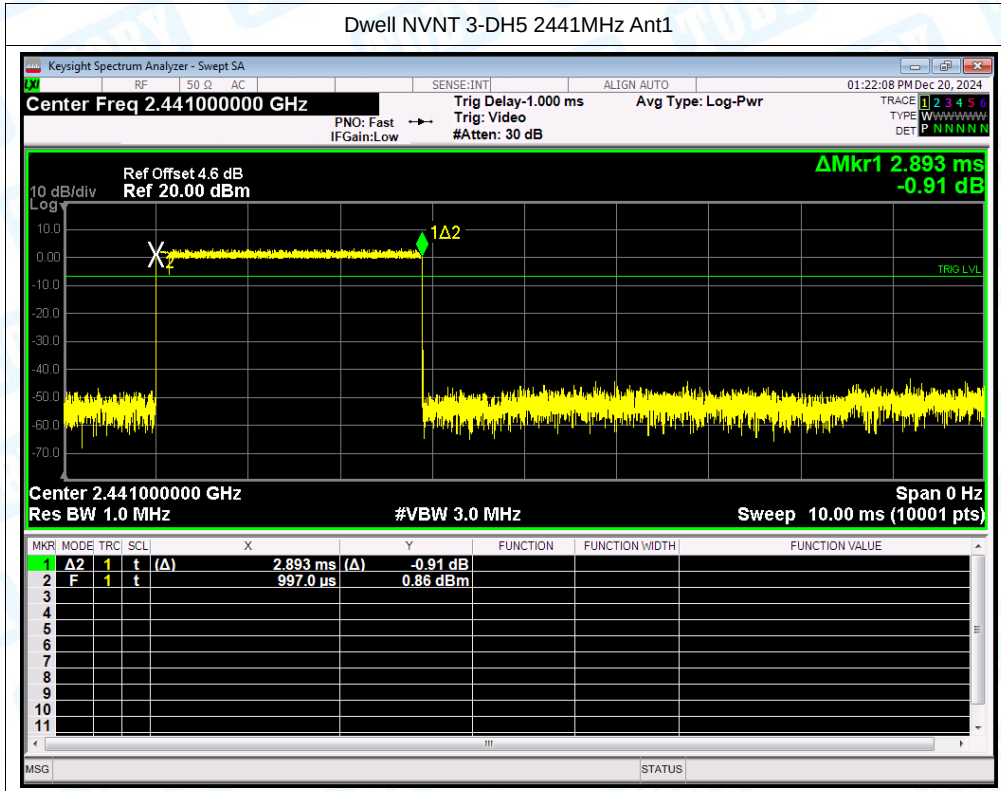


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





--- END OF REPORT ---