

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	Smart Watch
Test Model:	NoiseFit Diva
Sample ID:	HC-C-202412-0014-01-01-2#
Environmental Conditions	
Temperature:	23.8℃
Relative Humidity:	48%
Test Voltage:	DC 3.8V
Test Engineer:	ZKN ZHOU
Note: For a more detailed features description, please refer to the report TBR-C-202412-0014-3 The report only show the worst case data.	

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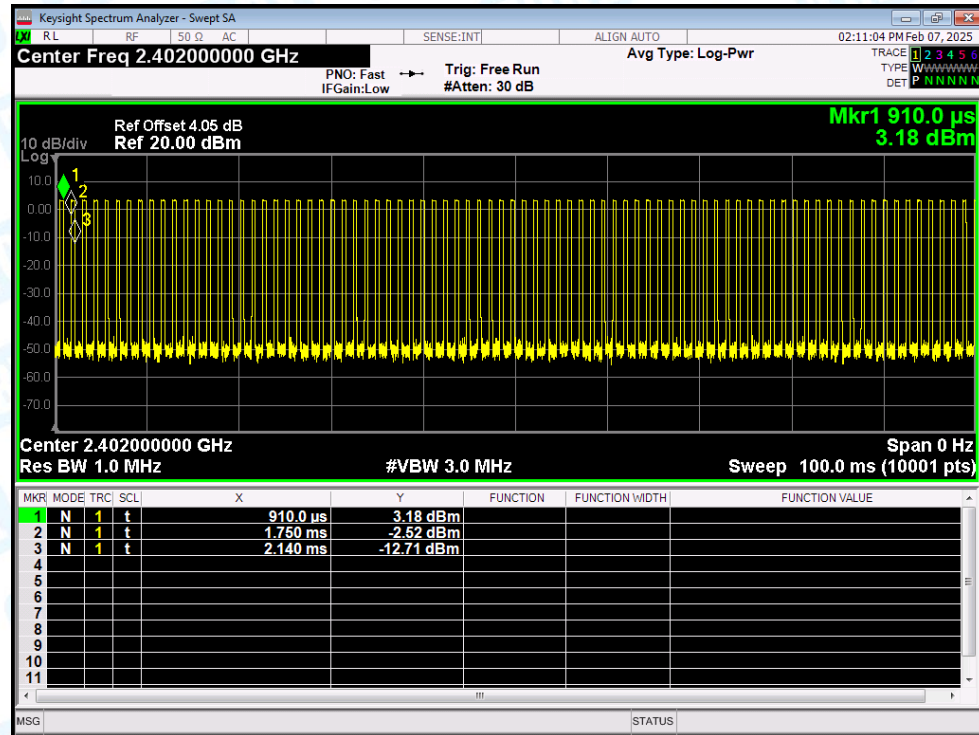
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1. Duty Cycle

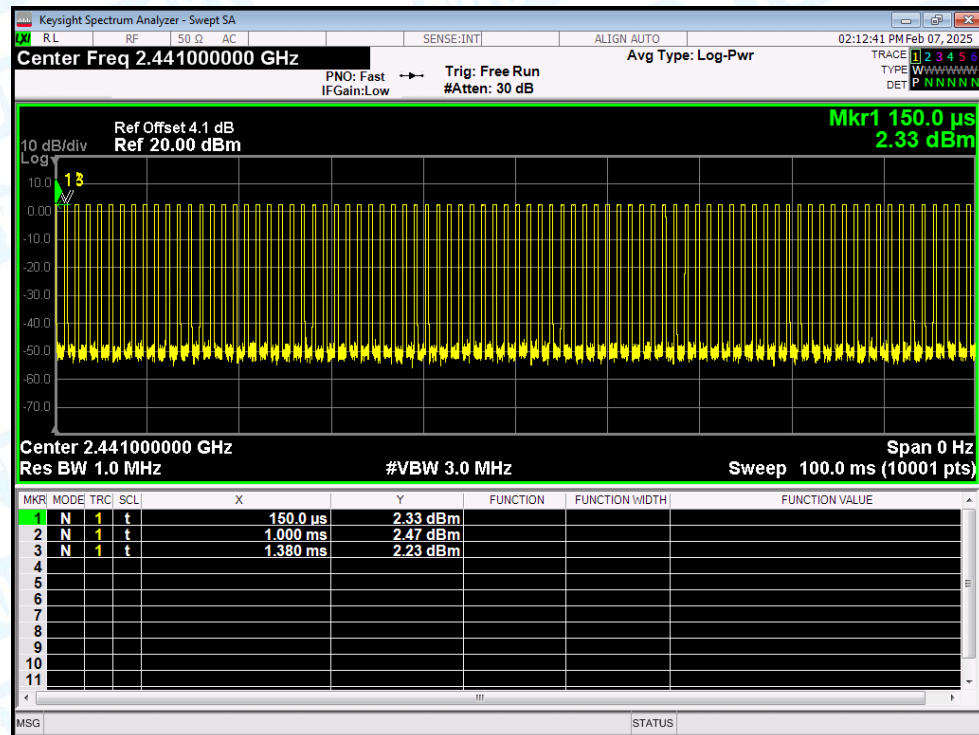
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	31.71	4.99	2.56
NVNT	1-DH1	2441	Ant1	30.89	5.1	2.63
NVNT	1-DH1	2480	Ant1	31.15	5.07	2.63
NVNT	2-DH1	2402	Ant1	31.45	5.02	2.56
NVNT	2-DH1	2441	Ant1	30.89	5.1	2.63
NVNT	2-DH1	2480	Ant1	31.45	5.02	2.56
NVNT	3-DH1	2402	Ant1	31.71	4.99	2.56
NVNT	3-DH1	2441	Ant1	31.71	4.99	2.56
NVNT	3-DH1	2480	Ant1	30.89	5.1	2.63

Test Graphs

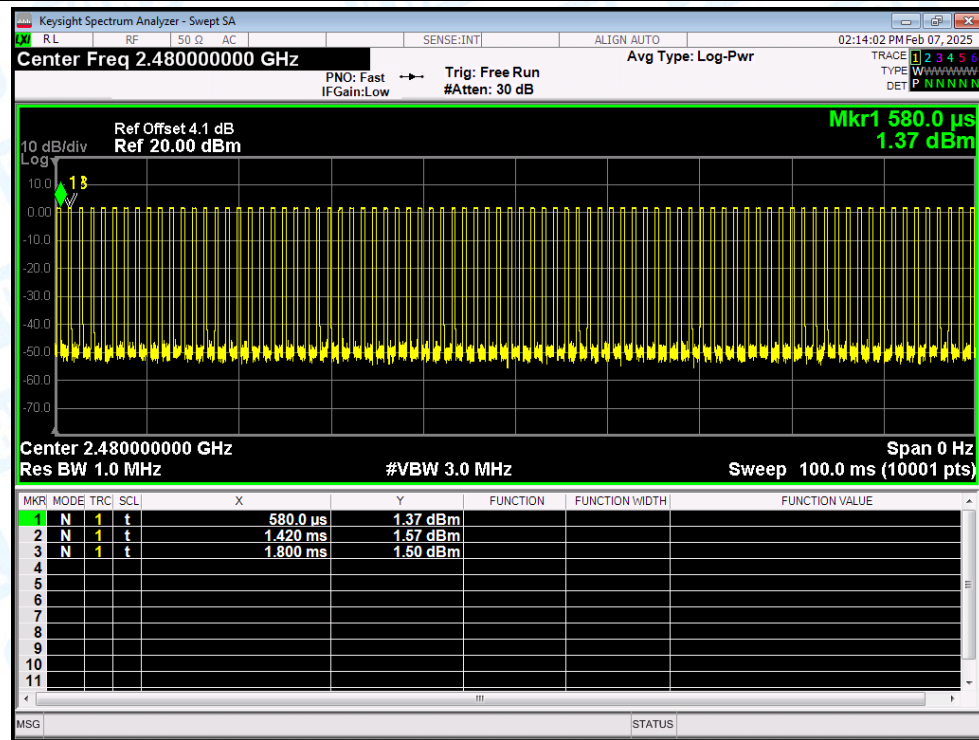
Duty Cycle NVNT 1-DH1 2402MHz Ant1



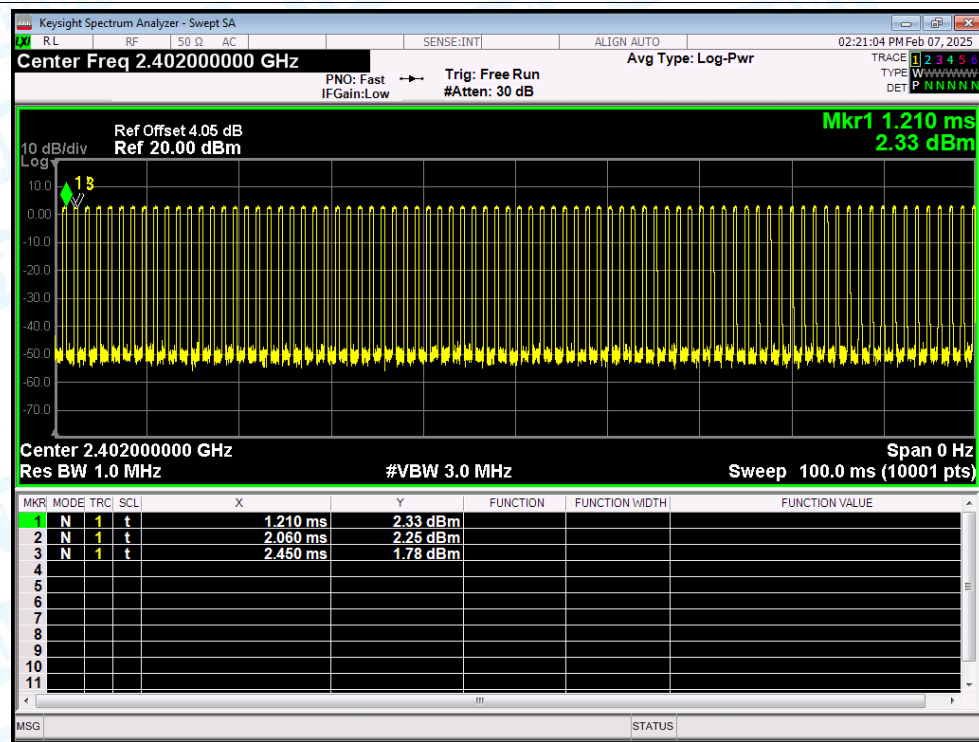
Duty Cycle NVNT 1-DH1 2441MHz Ant1



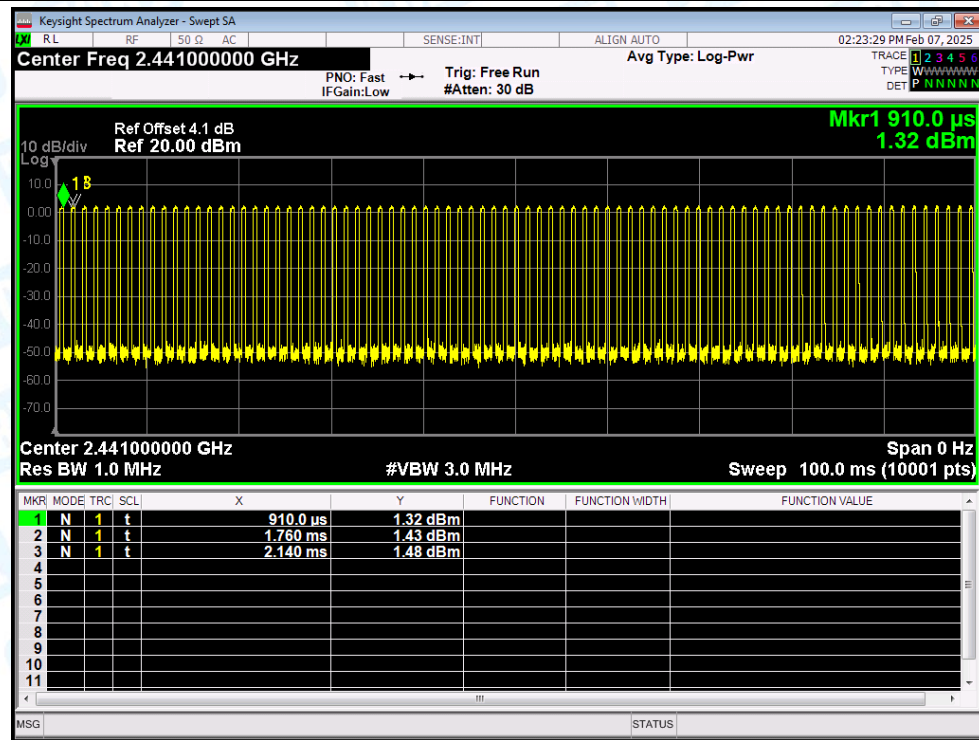
Duty Cycle NVNT 1-DH1 2480MHz Ant1



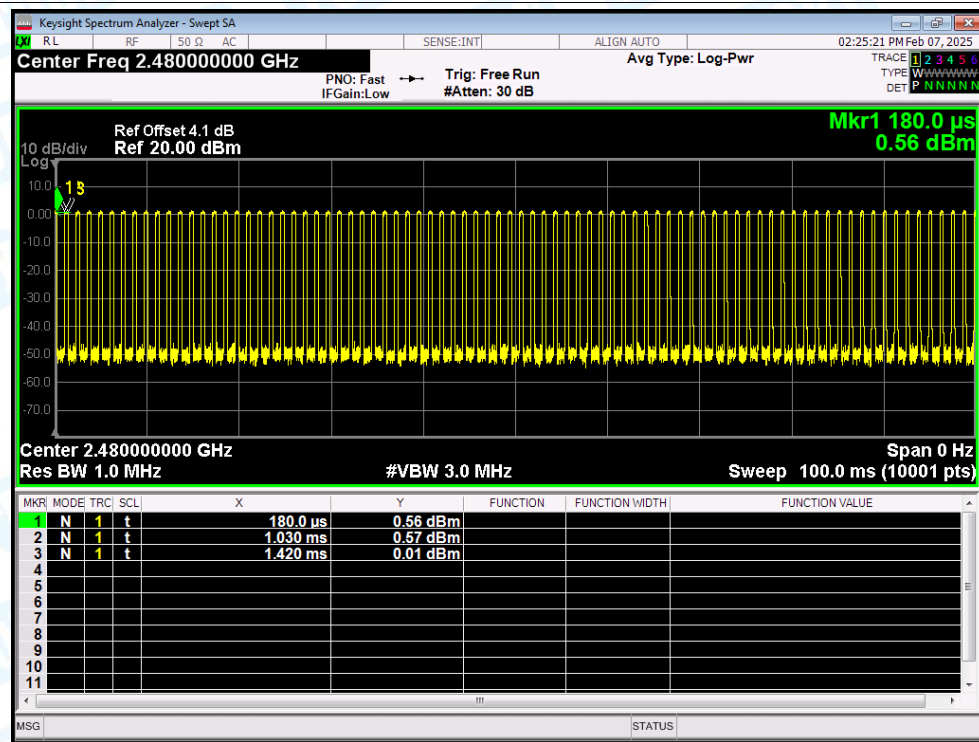
Duty Cycle NVNT 2-DH1 2402MHz Ant1



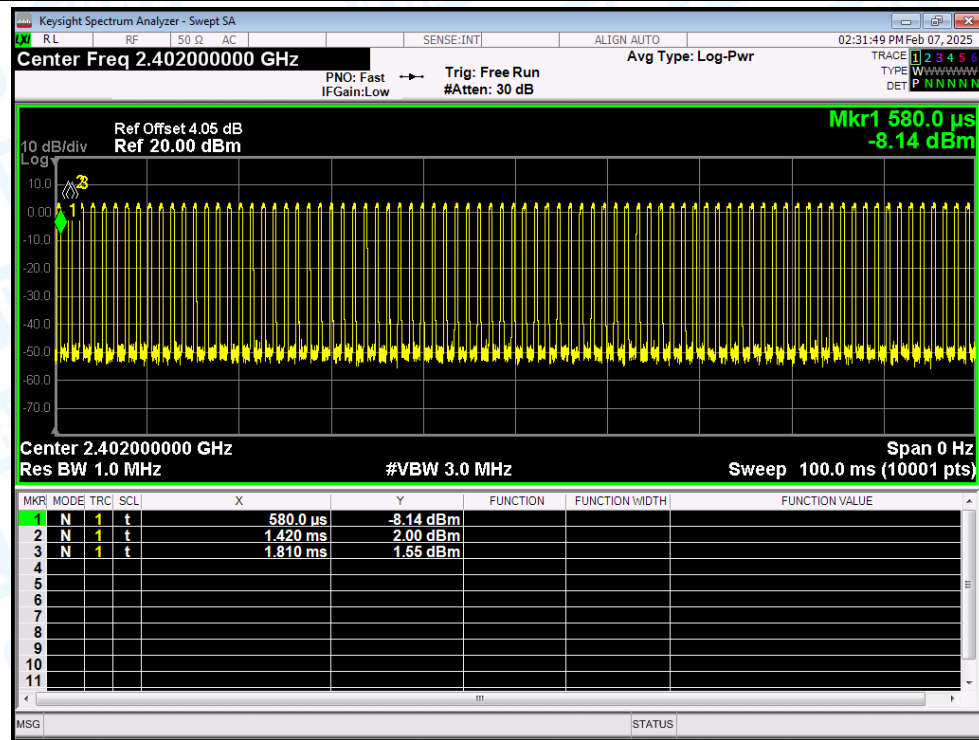
Duty Cycle NVNT 2-DH1 2441MHz Ant1



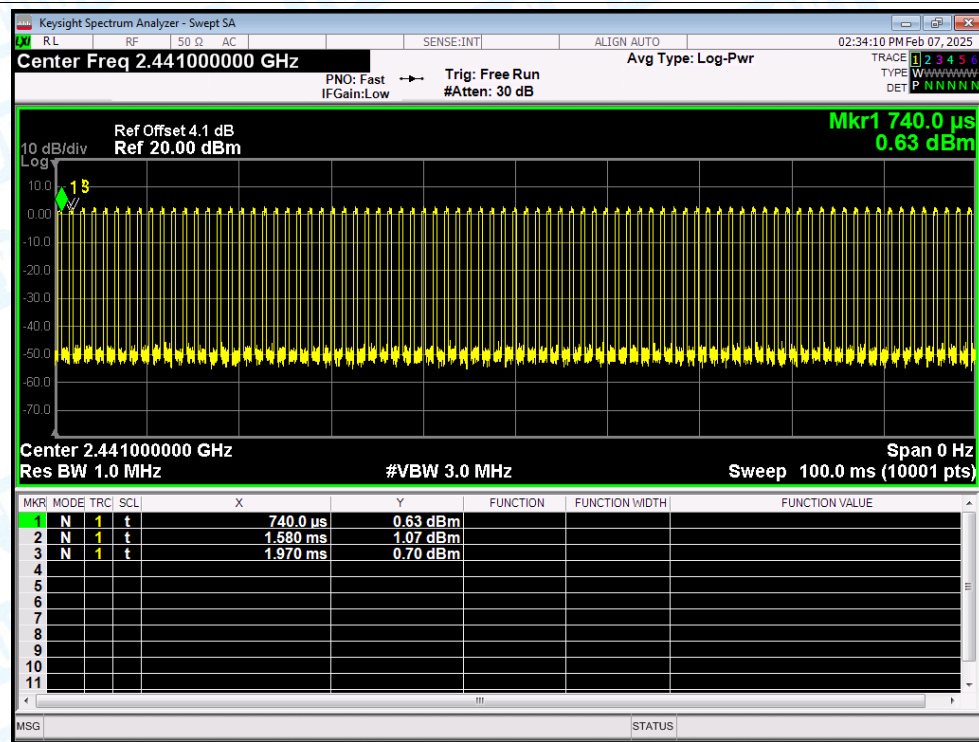
Duty Cycle NVNT 2-DH1 2480MHz Ant1

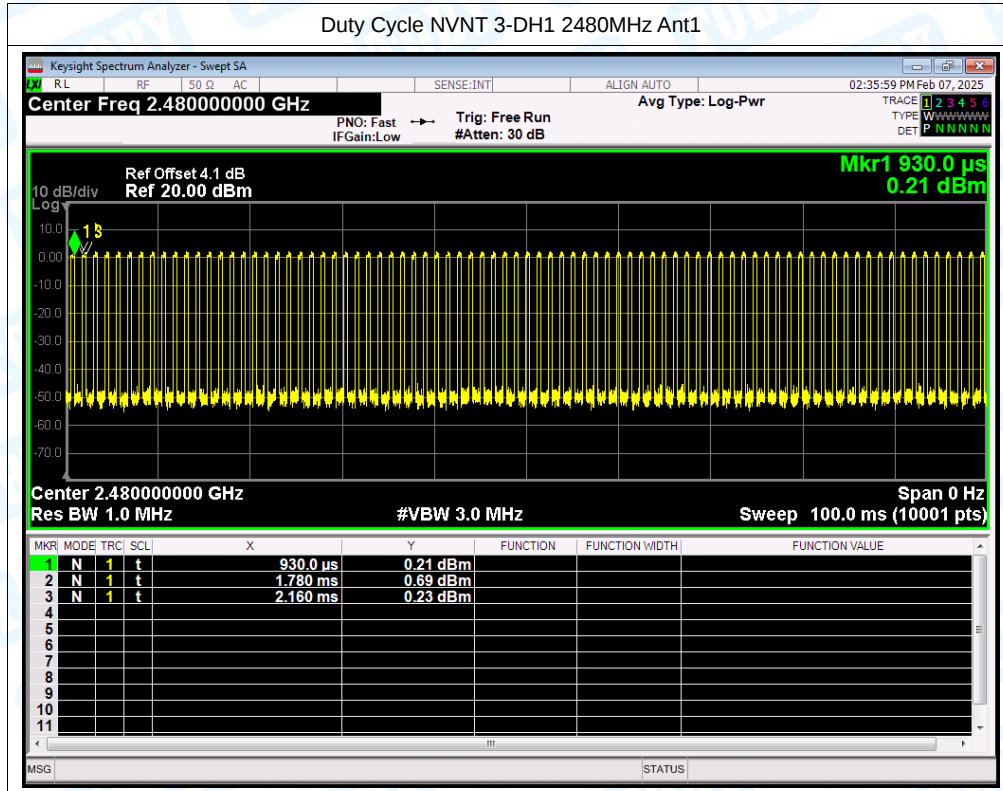


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



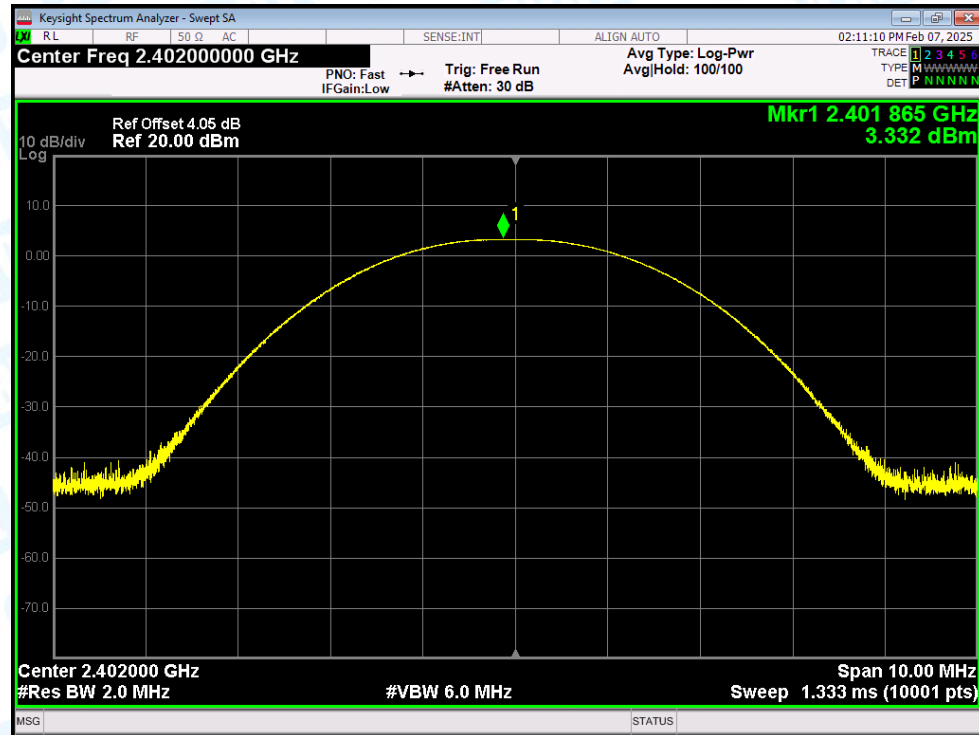


2. Maximum Conducted Peak Output Power

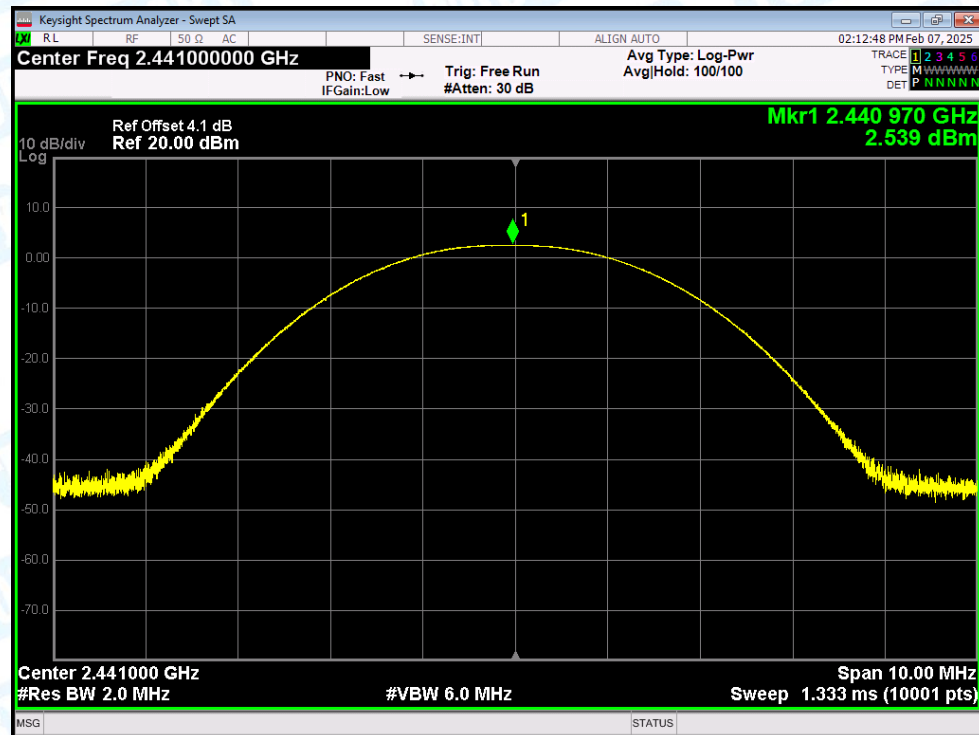
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	3.332	21	Pass
NVNT	1-DH1	2441	Ant1	2.539	21	Pass
NVNT	1-DH1	2480	Ant1	1.695	21	Pass
NVNT	2-DH1	2402	Ant1	3.529	21	Pass
NVNT	2-DH1	2441	Ant1	2.809	21	Pass
NVNT	2-DH1	2480	Ant1	1.905	21	Pass
NVNT	3-DH1	2402	Ant1	3.91	21	Pass
NVNT	3-DH1	2441	Ant1	3.1	21	Pass
NVNT	3-DH1	2480	Ant1	2.67	21	Pass

Test Graphs

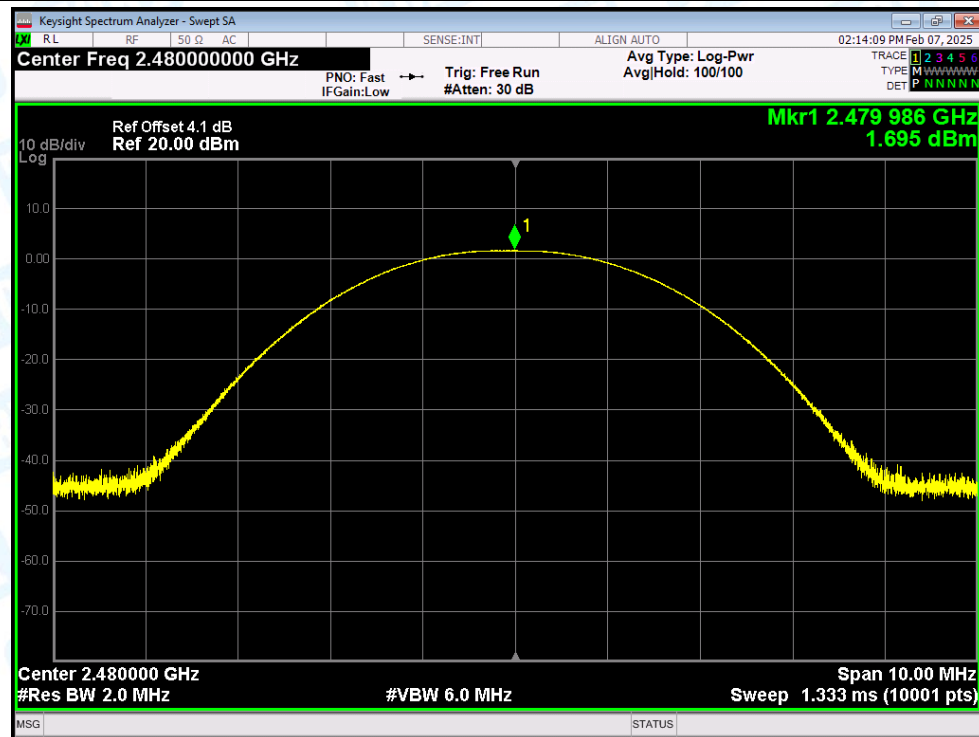
Power NVNT 1-DH1 2402MHz Ant1



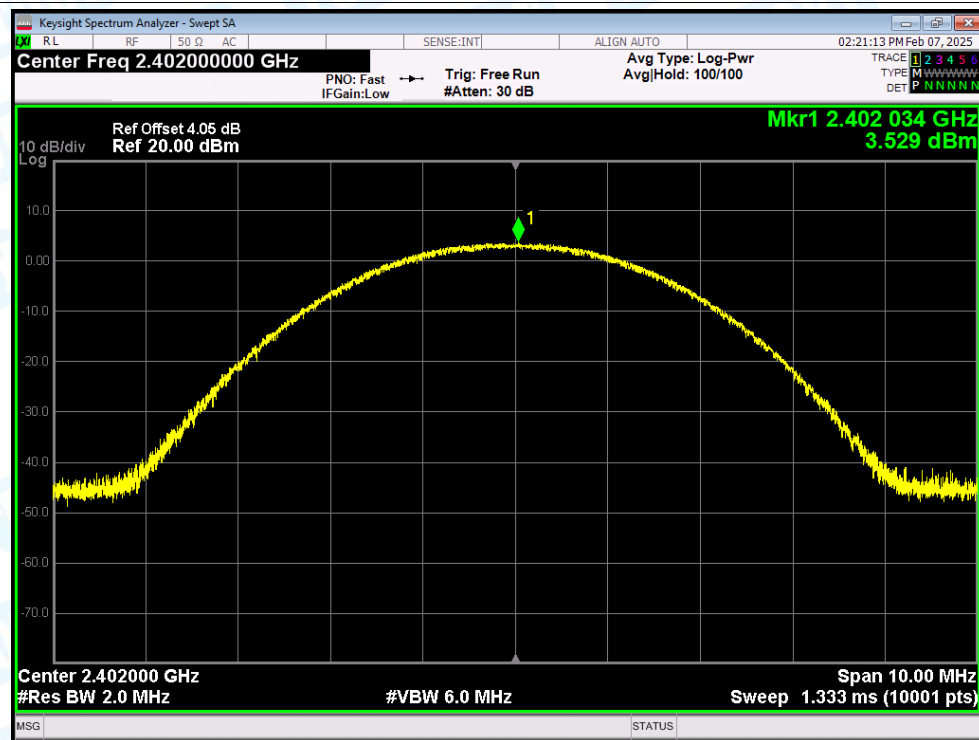
Power NVNT 1-DH1 2441MHz Ant1



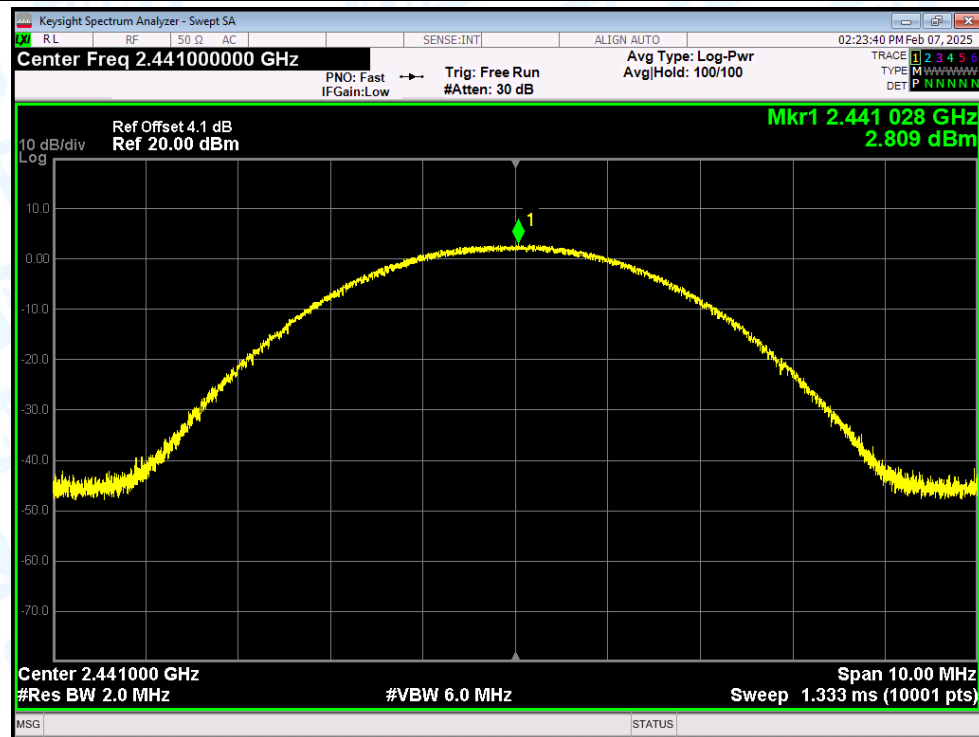
Power NVNT 1-DH1 2480MHz Ant1



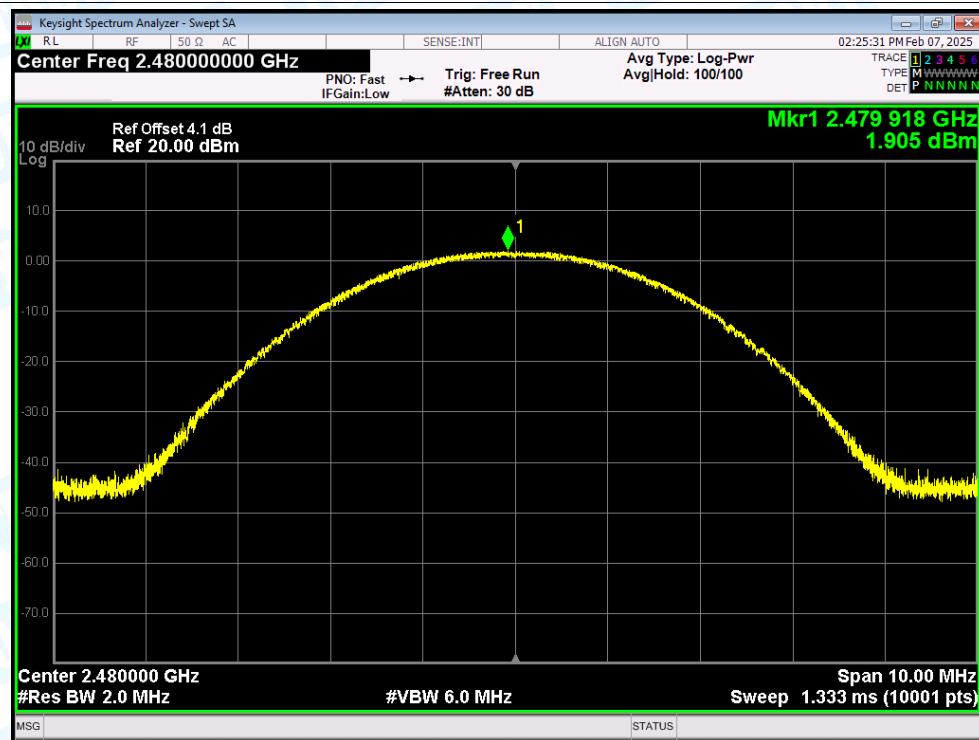
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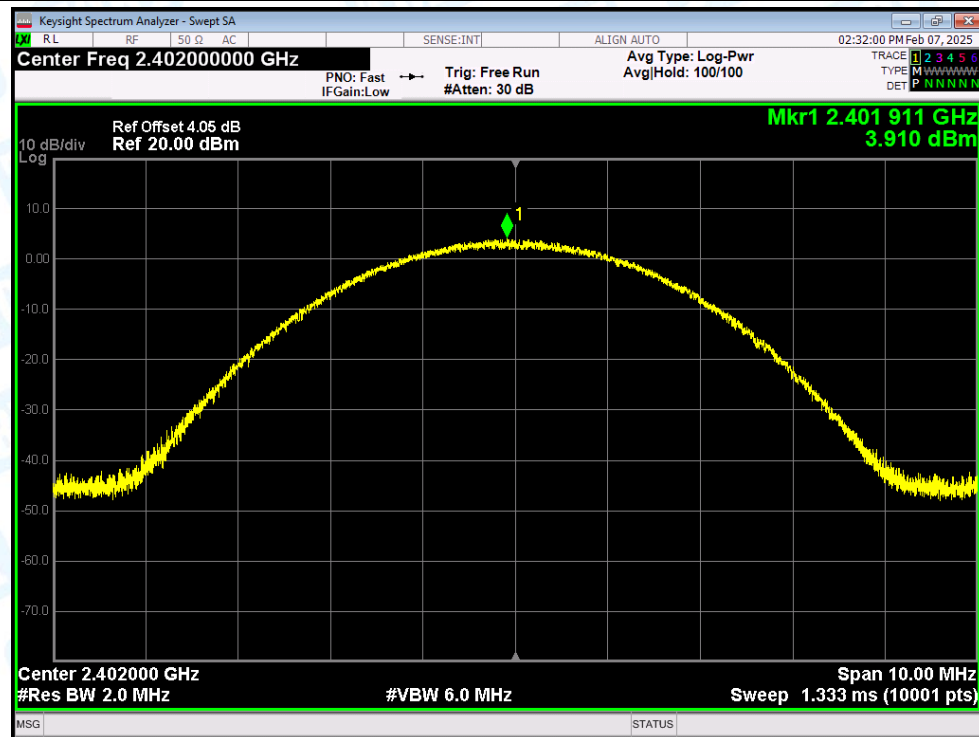
Power NVNT 2-DH1 2441MHz Ant1



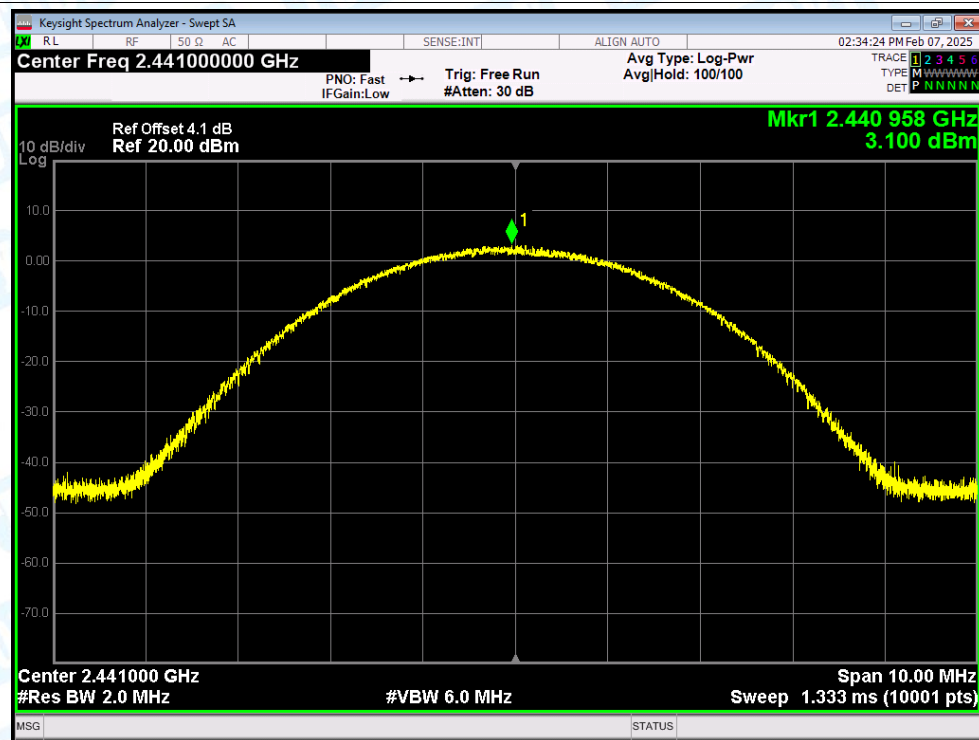
Power NVNT 2-DH1 2480MHz Ant1

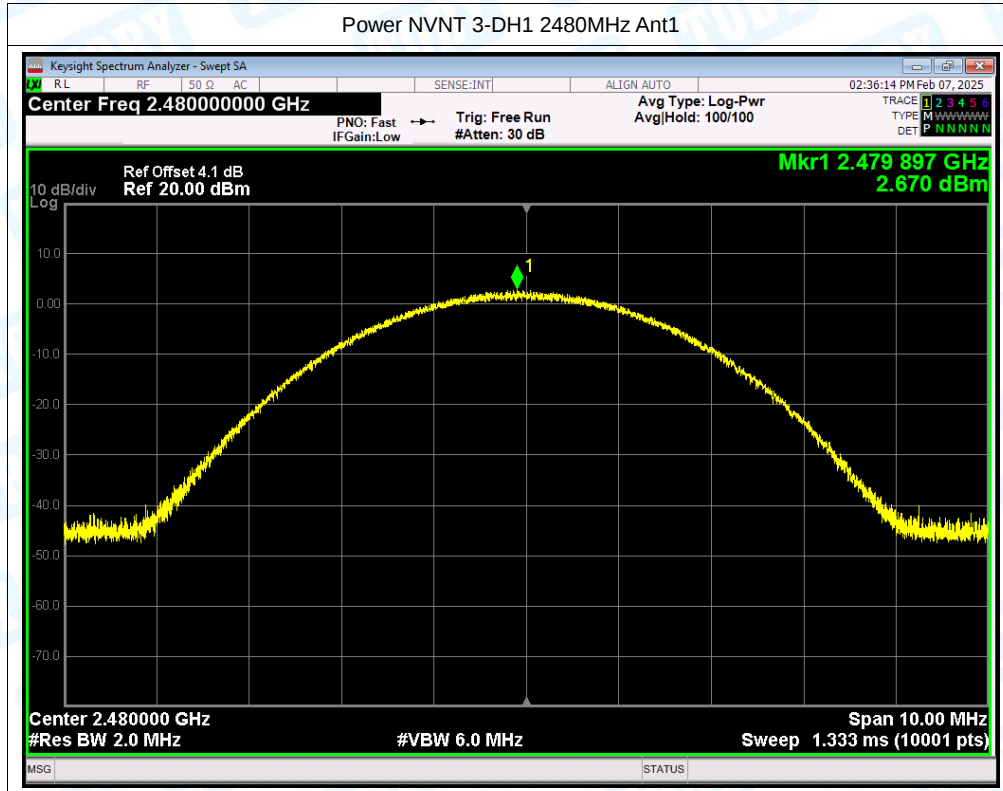


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



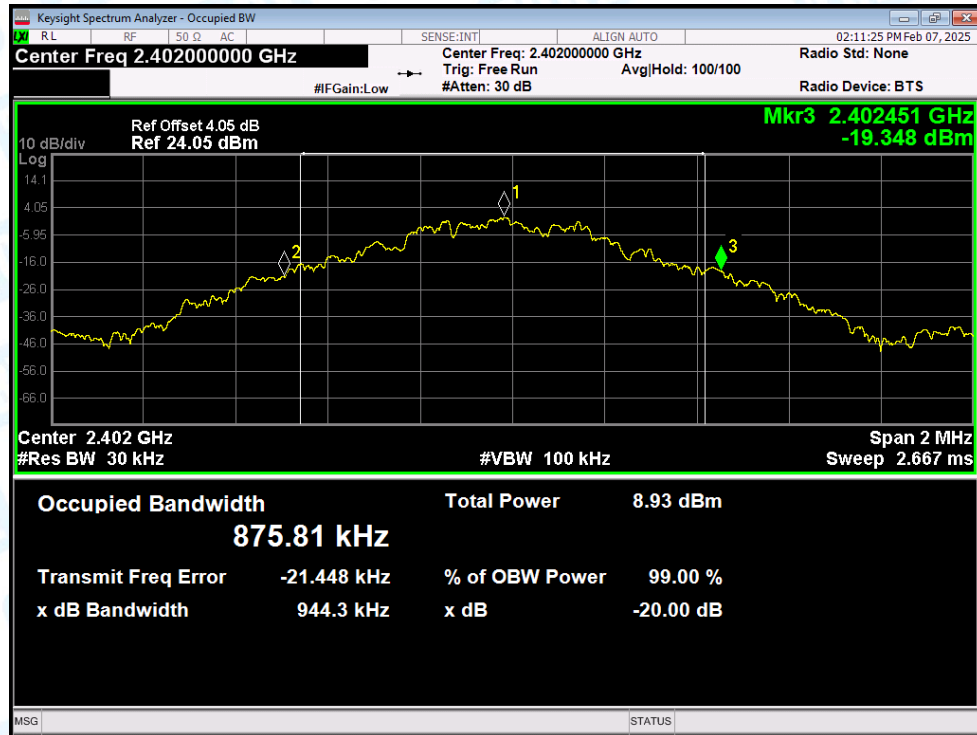


3. -20dB Bandwidth

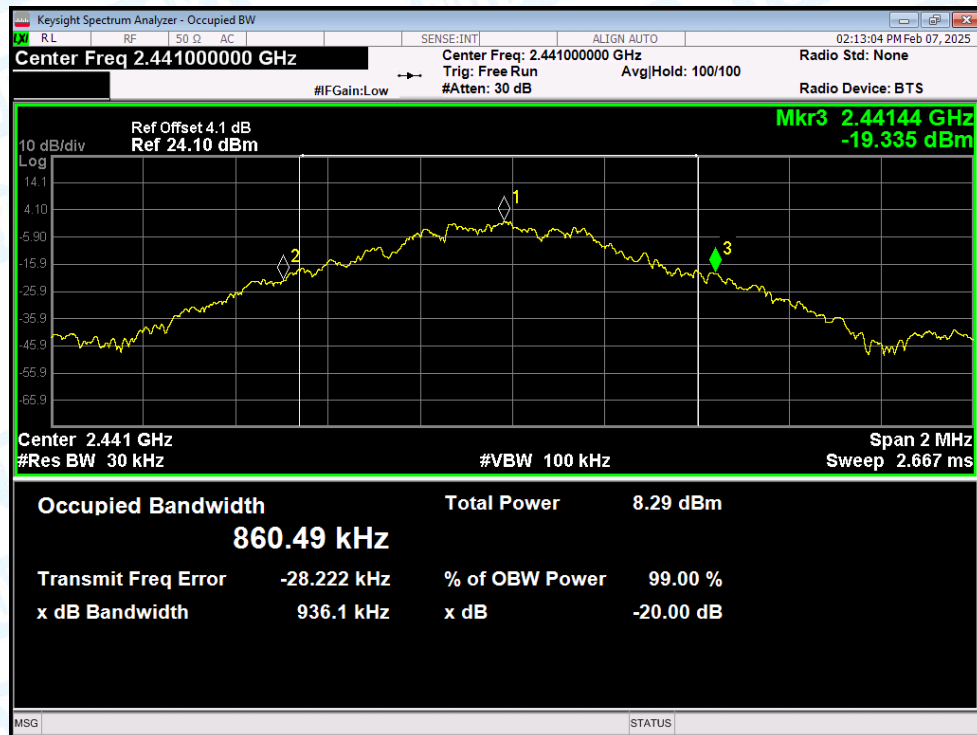
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.94	----	Pass
NVNT	1-DH1	2441	Ant1	0.94	----	Pass
NVNT	1-DH1	2480	Ant1	0.94	----	Pass
NVNT	2-DH1	2402	Ant1	1.26	----	Pass
NVNT	2-DH1	2441	Ant1	1.23	----	Pass
NVNT	2-DH1	2480	Ant1	1.26	----	Pass
NVNT	3-DH1	2402	Ant1	1.22	----	Pass
NVNT	3-DH1	2441	Ant1	1.21	----	Pass
NVNT	3-DH1	2480	Ant1	1.22	----	Pass

Test Graphs

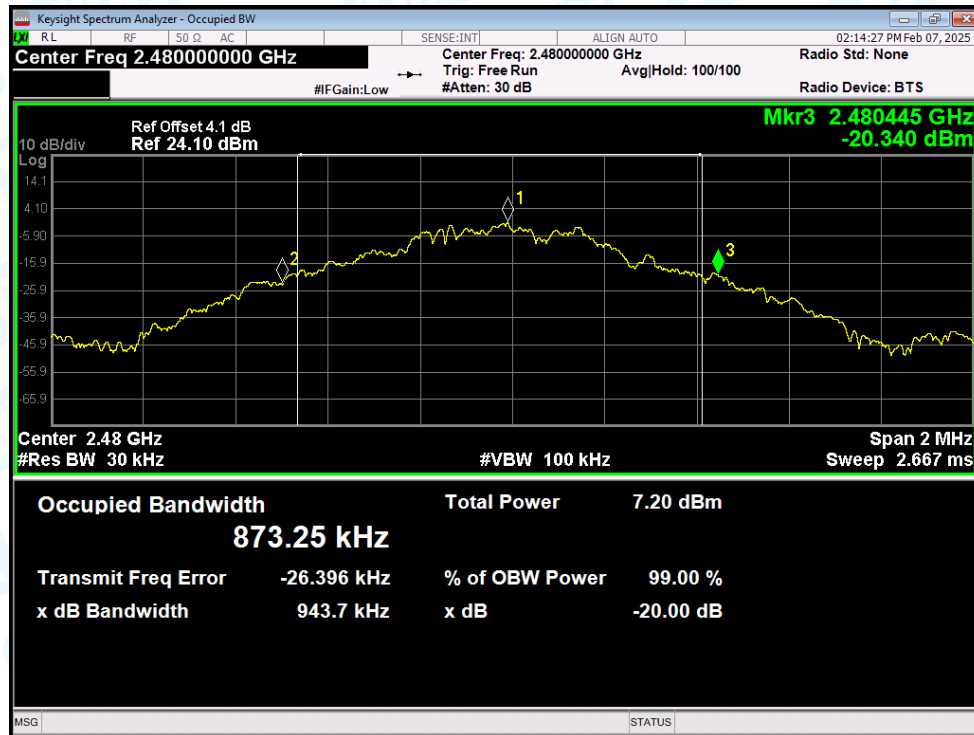
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



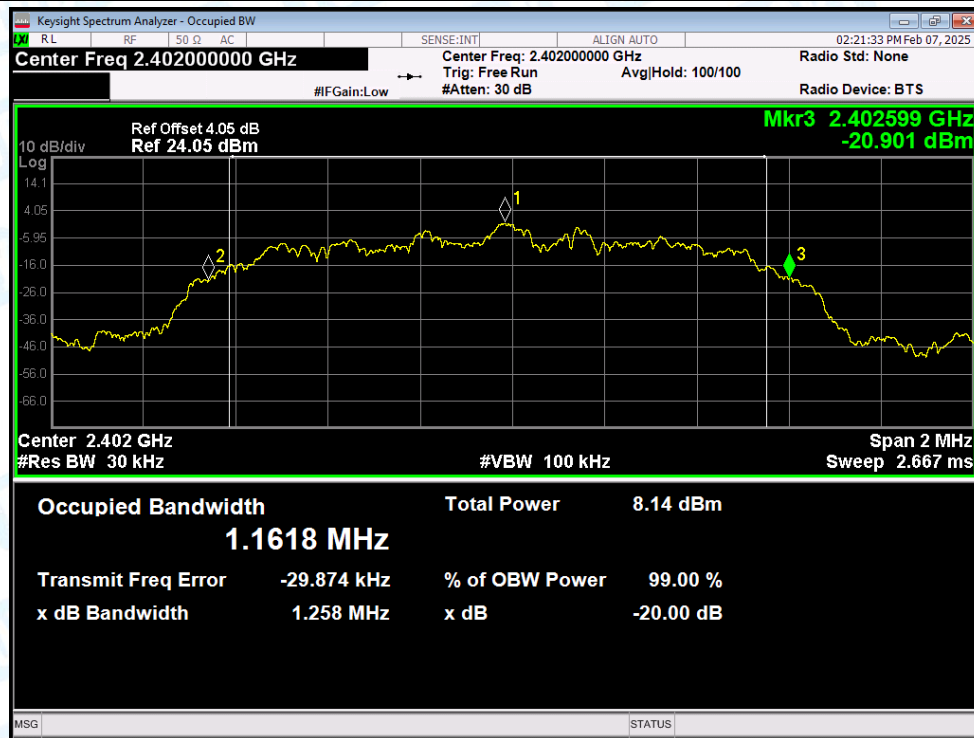
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



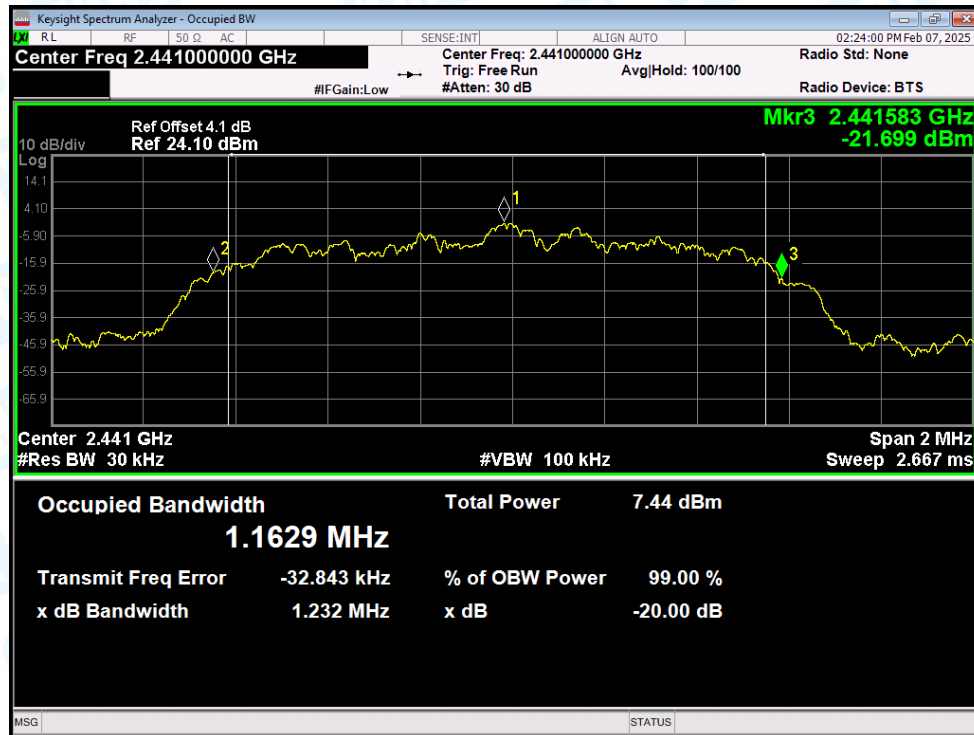
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



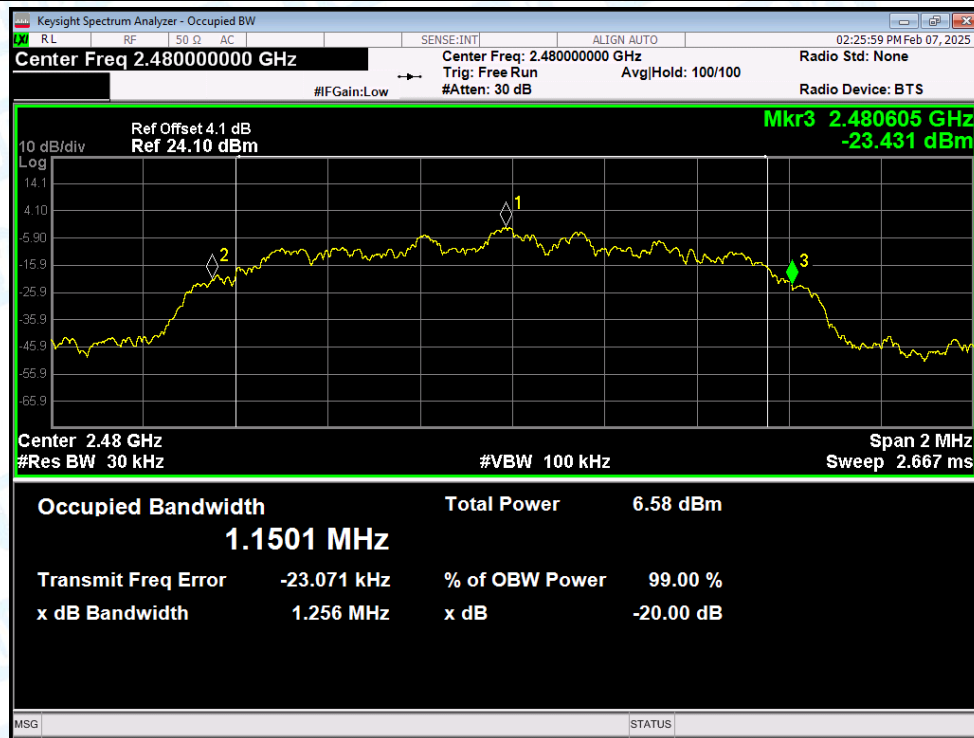
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



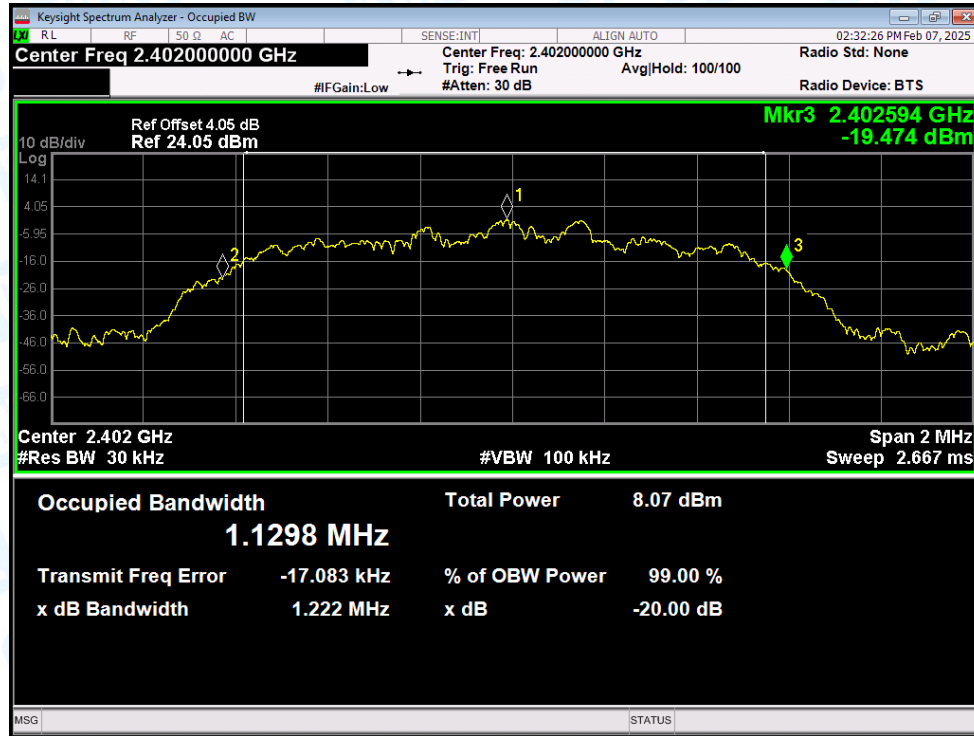
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



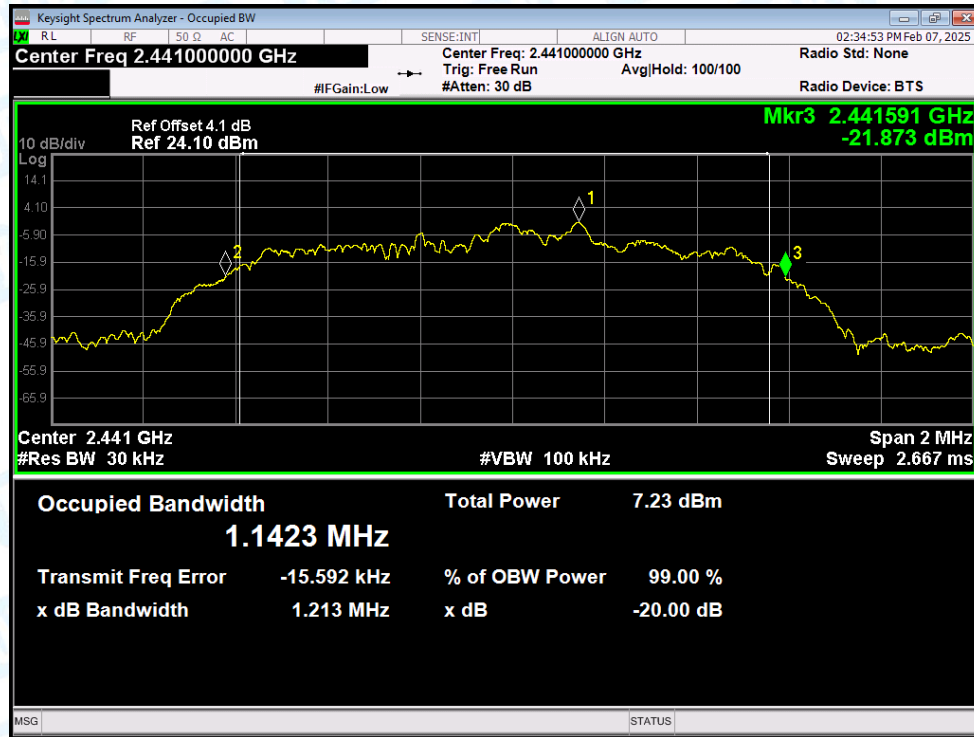
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

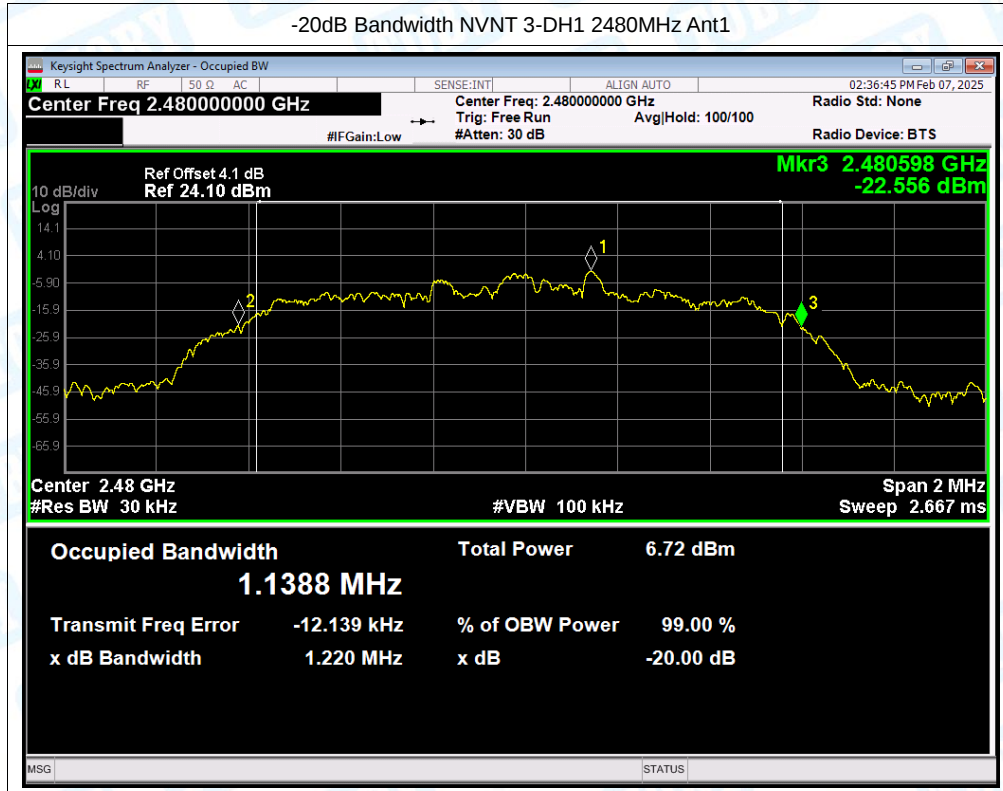


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



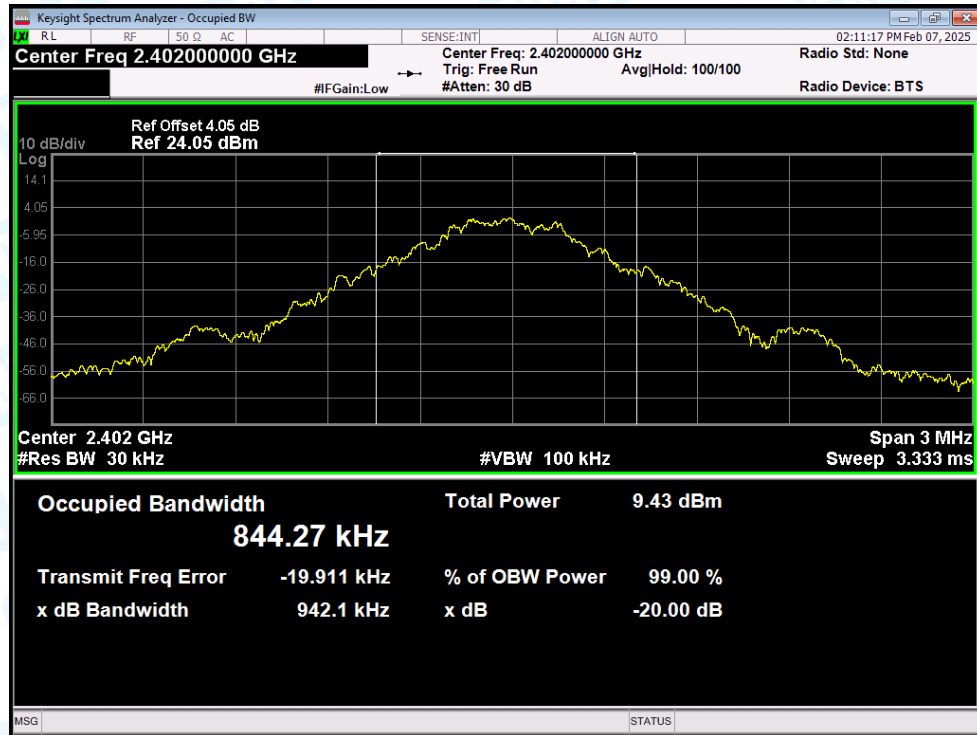


4. Occupied Channel Bandwidth

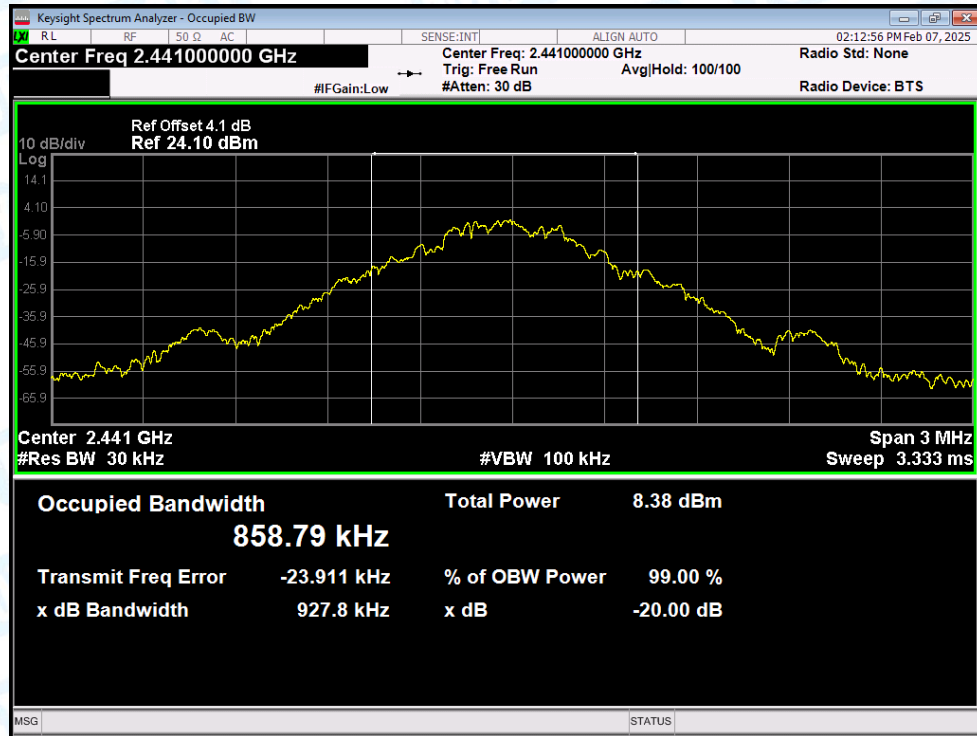
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.844
NVNT	1-DH1	2441	Ant1	0.859
NVNT	1-DH1	2480	Ant1	0.878
NVNT	2-DH1	2402	Ant1	1.161
NVNT	2-DH1	2441	Ant1	1.161
NVNT	2-DH1	2480	Ant1	1.155
NVNT	3-DH1	2402	Ant1	1.151
NVNT	3-DH1	2441	Ant1	1.138
NVNT	3-DH1	2480	Ant1	1.145

Test Graphs

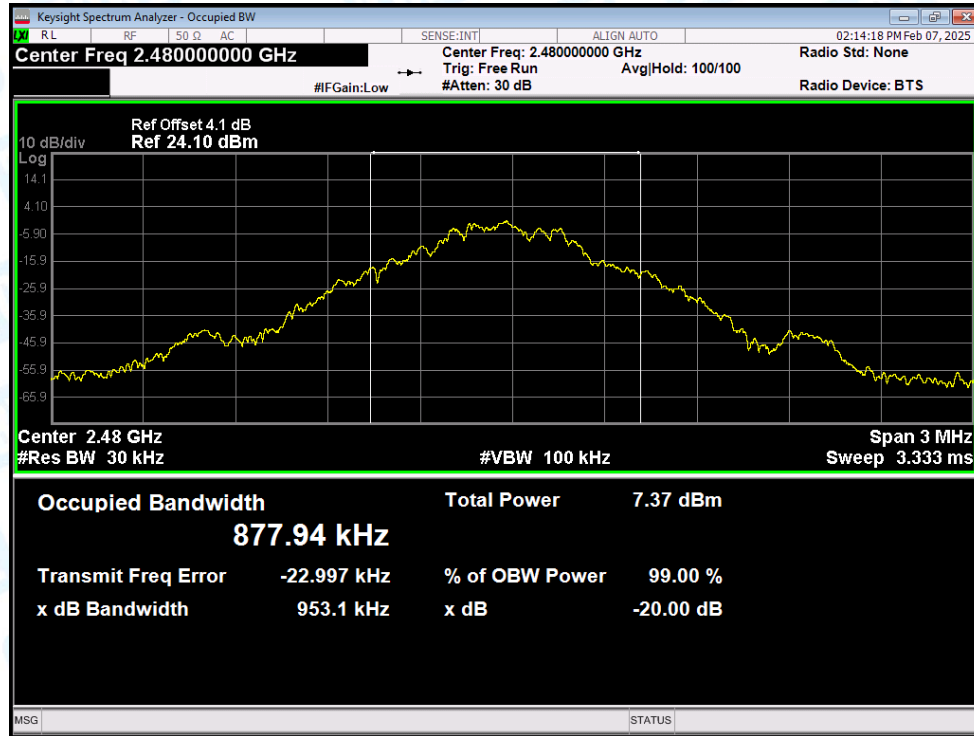
OBW NVNT 1-DH1 2402MHz Ant1



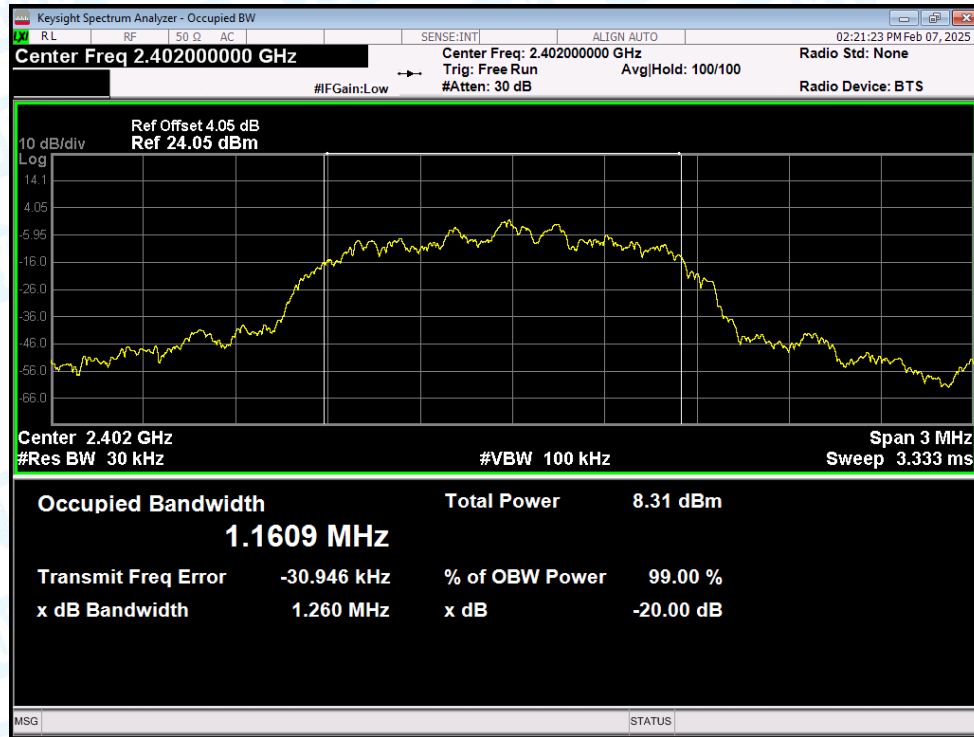
OBW NVNT 1-DH1 2441MHz Ant1



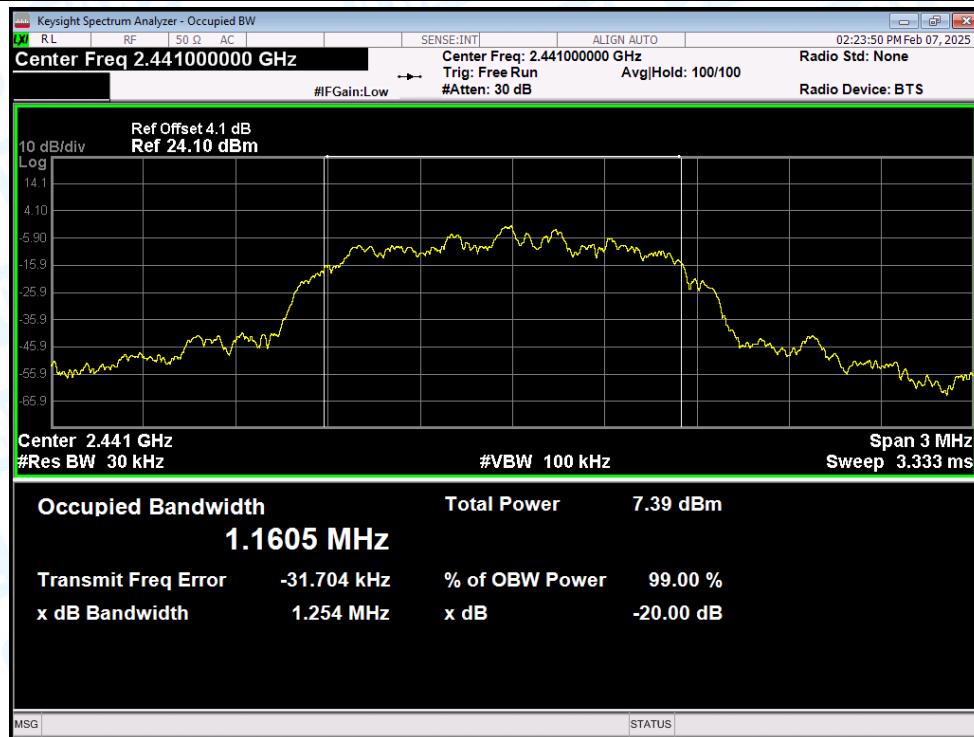
OBW NVNT 1-DH1 2480MHz Ant1



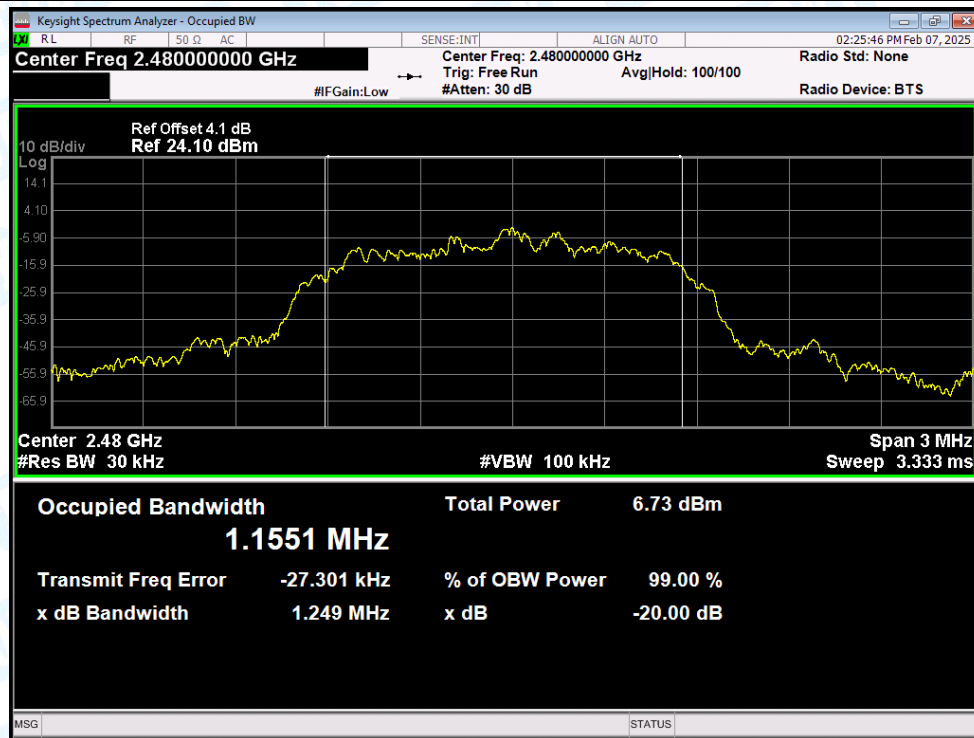
OBW NVNT 2-DH1 2402MHz Ant1



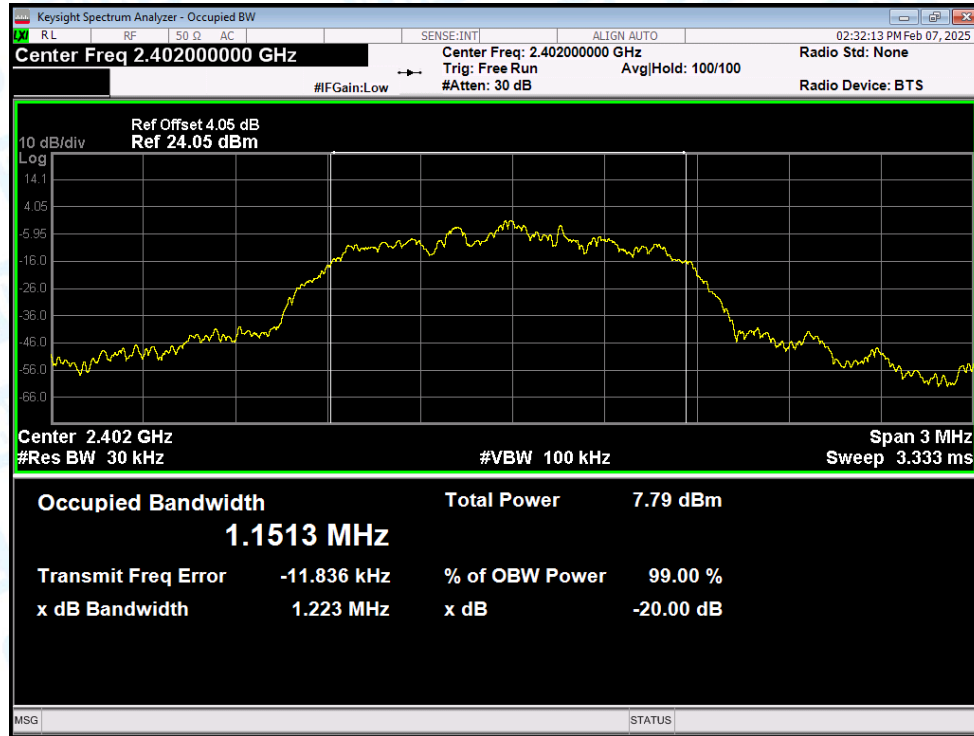
OBW NVNT 2-DH1 2441MHz Ant1



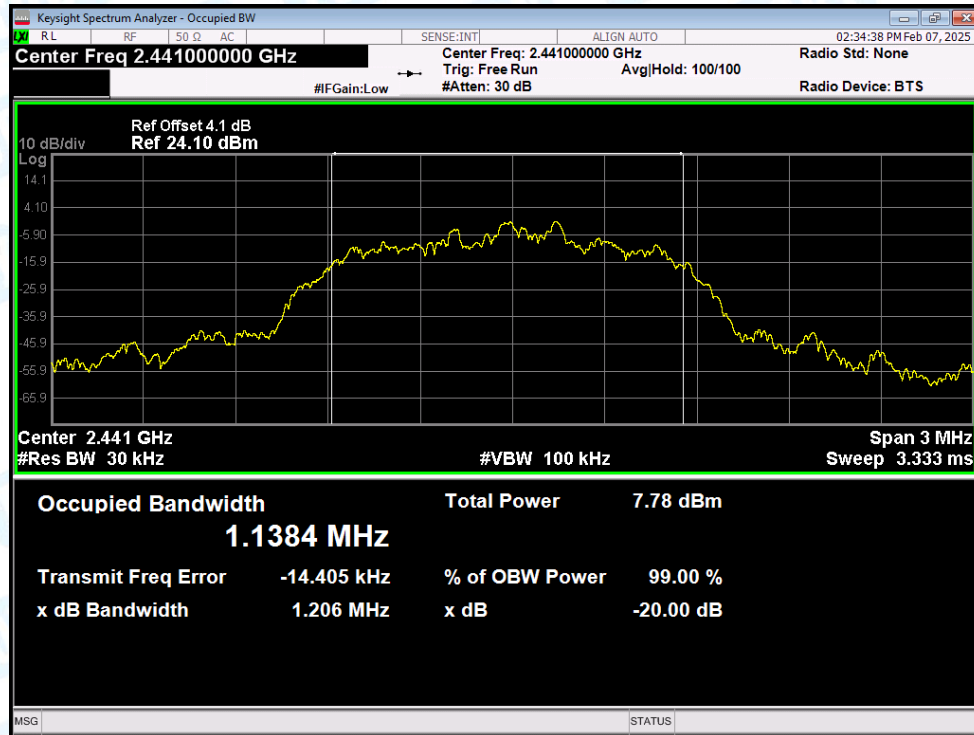
OBW NVNT 2-DH1 2480MHz Ant1

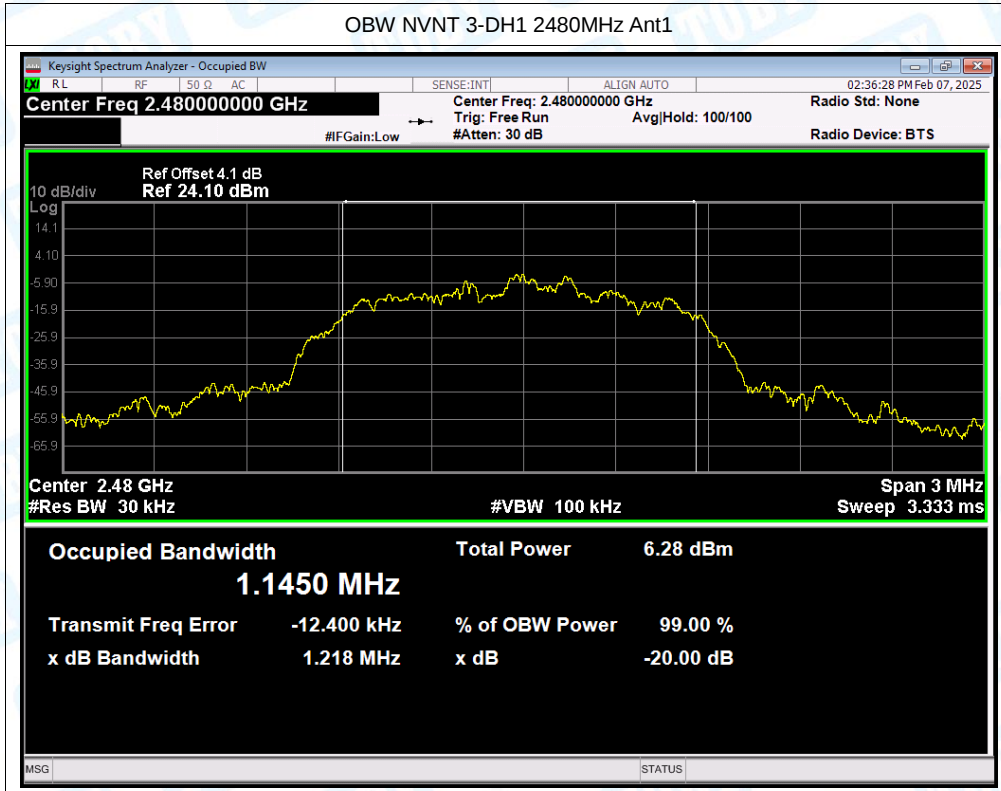


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



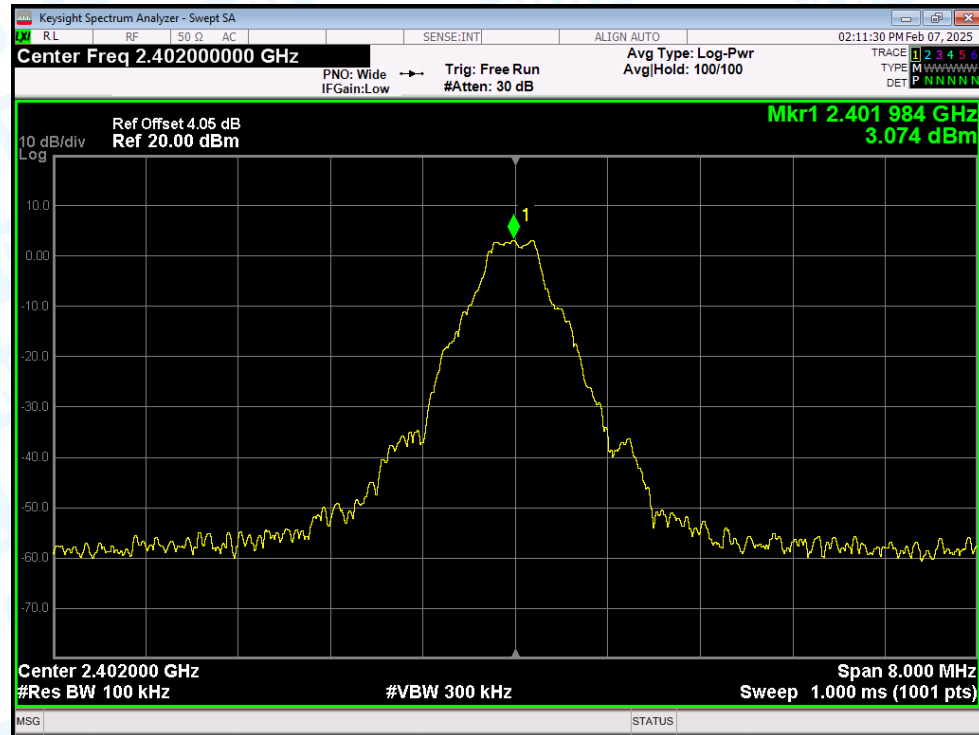


5. Band Edge

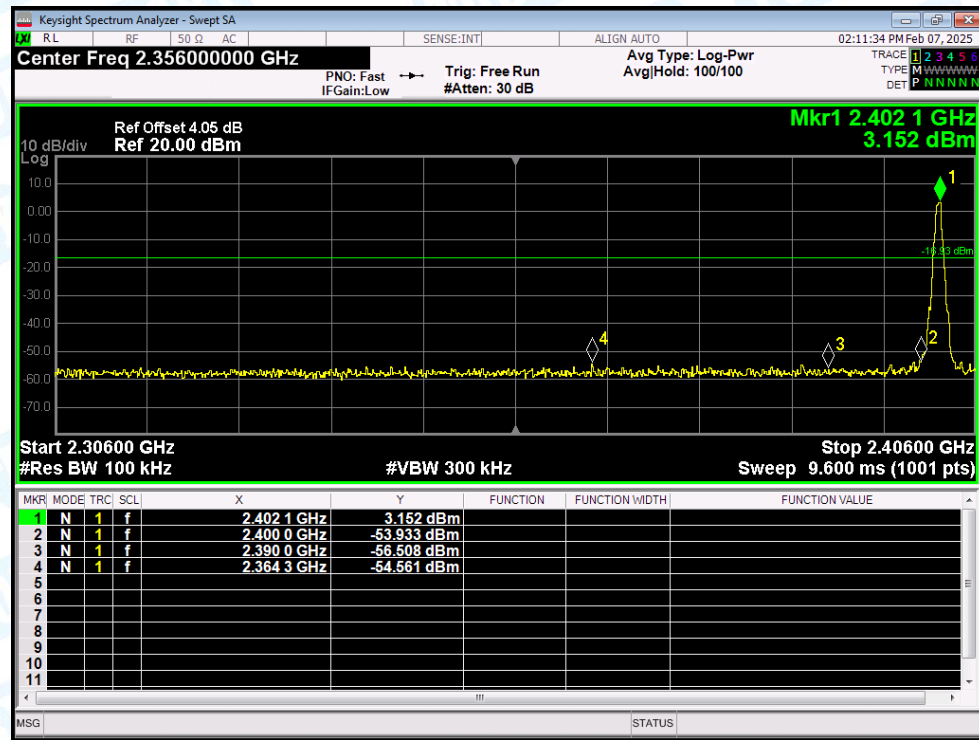
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-57.63	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-55.22	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-56.89	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-55.23	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-56.42	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-55.38	-20	Pass

Test Graphs

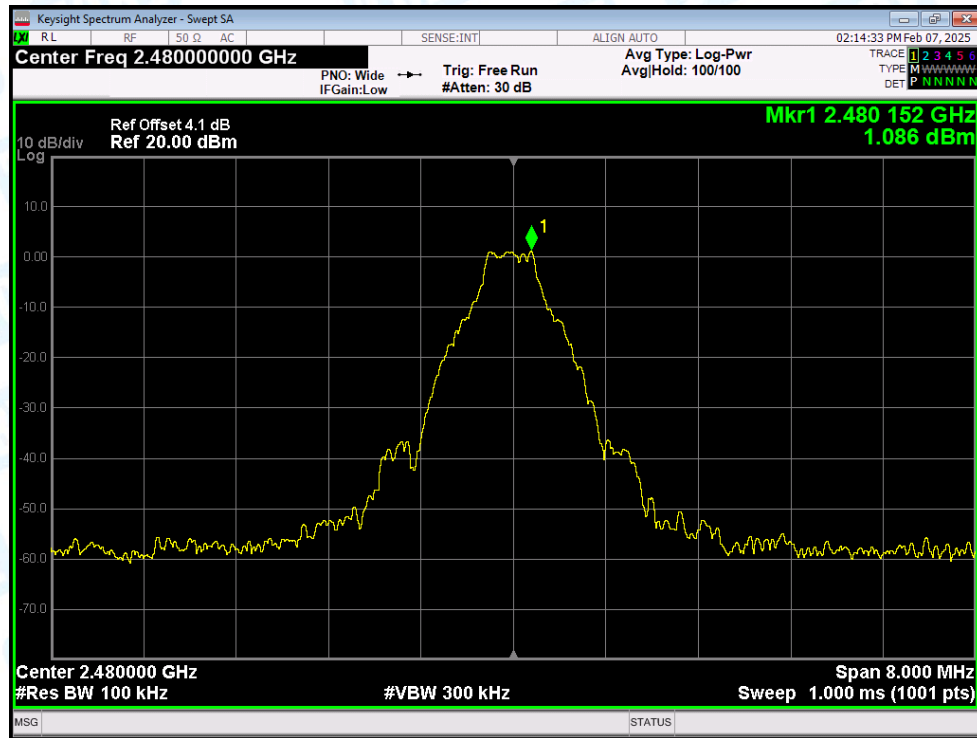
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



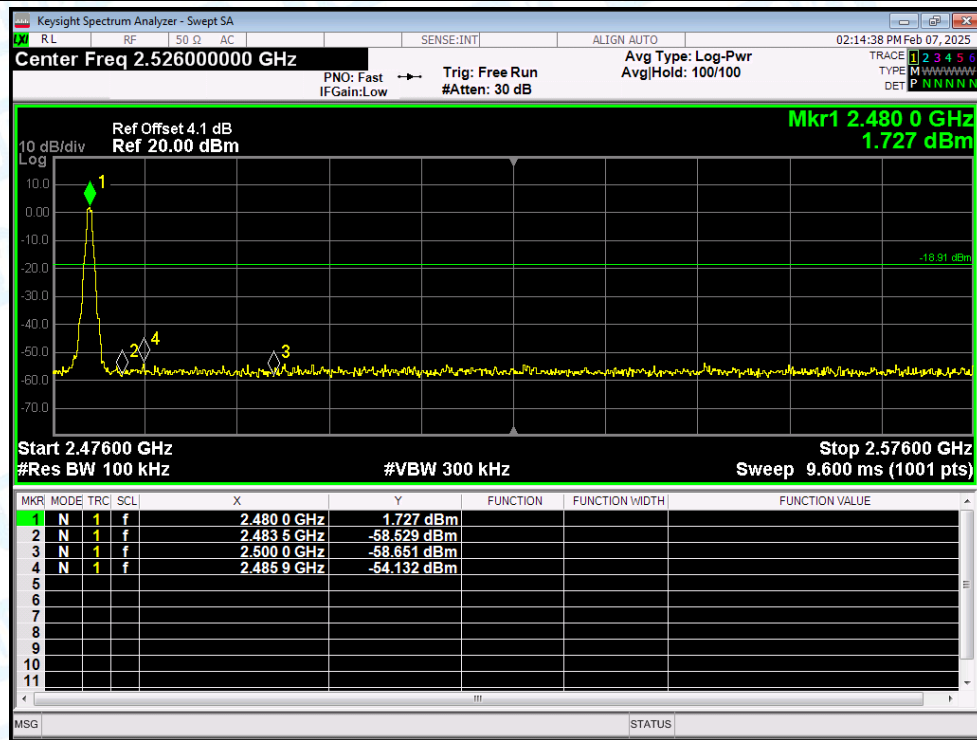
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



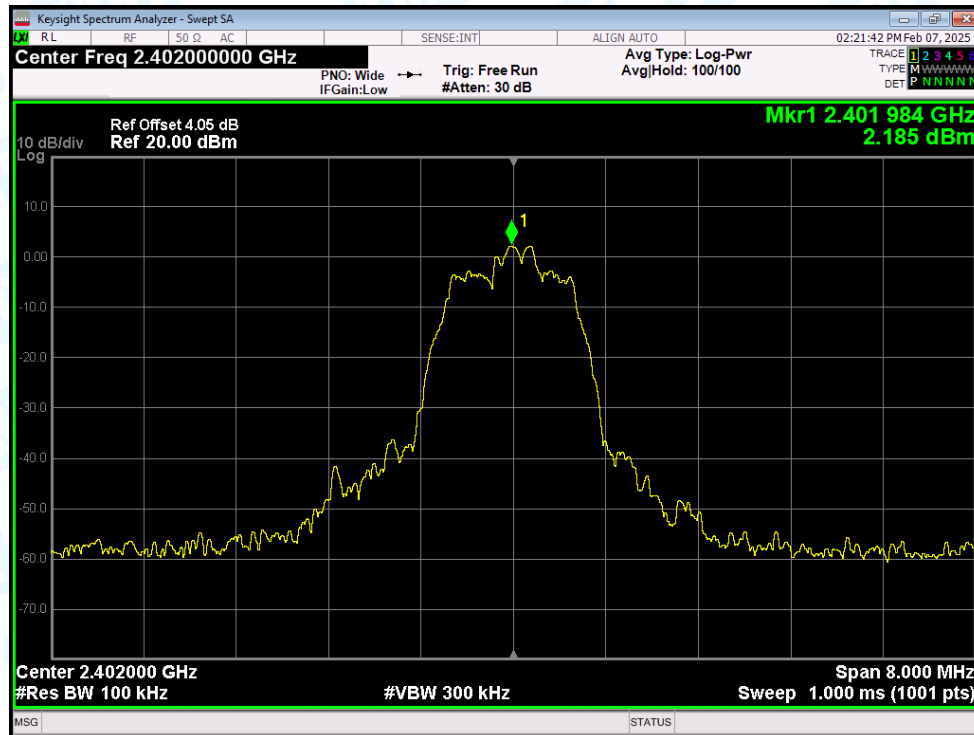
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



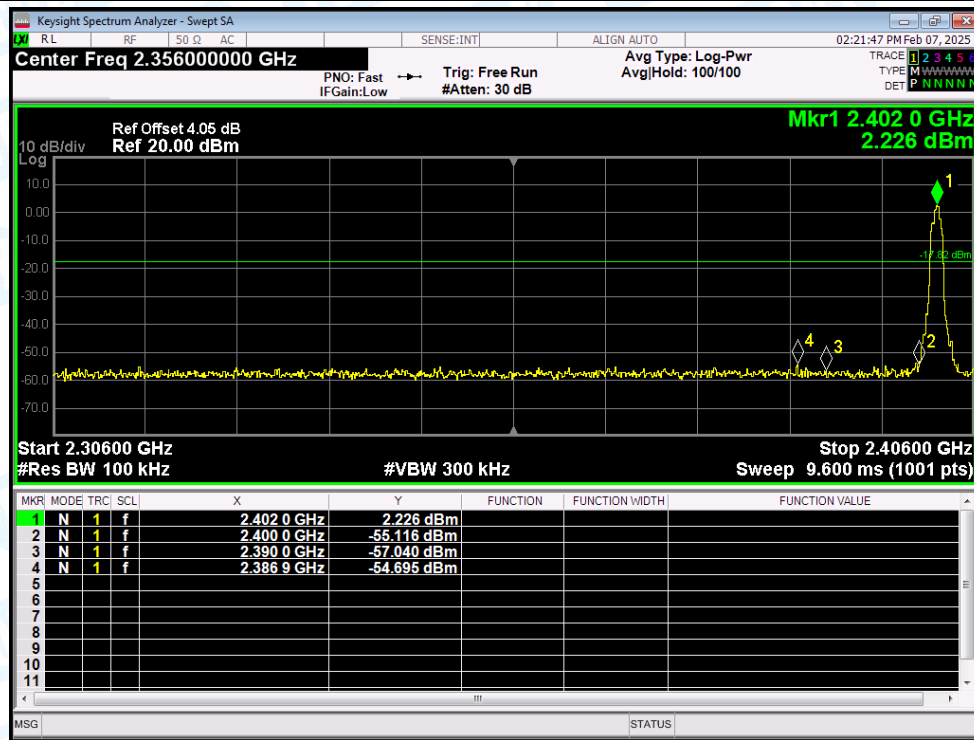
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



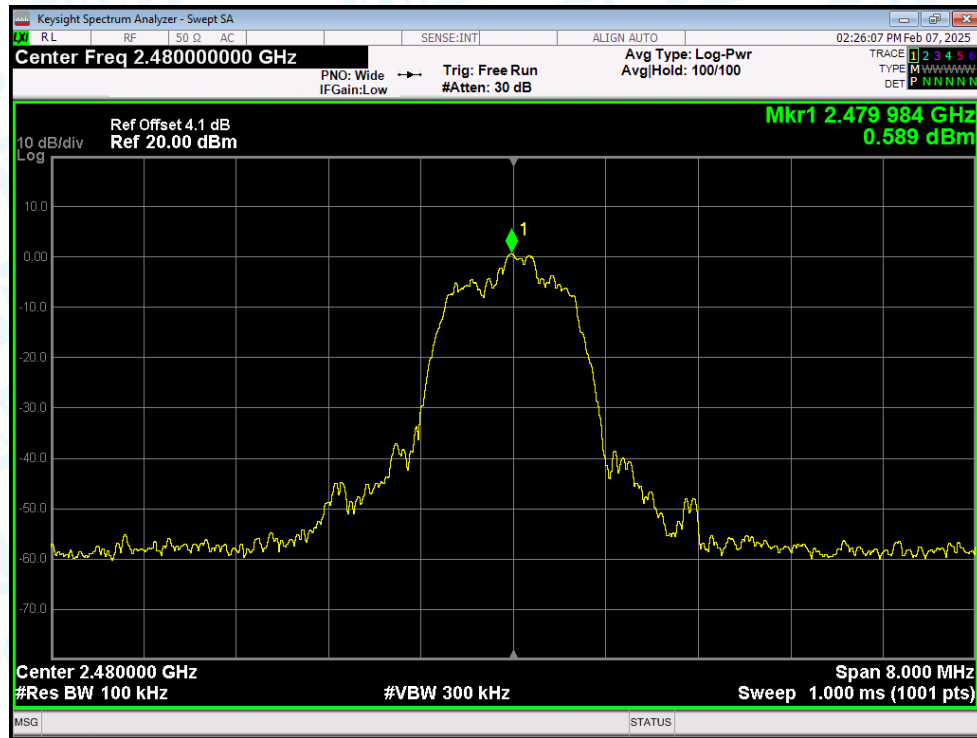
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



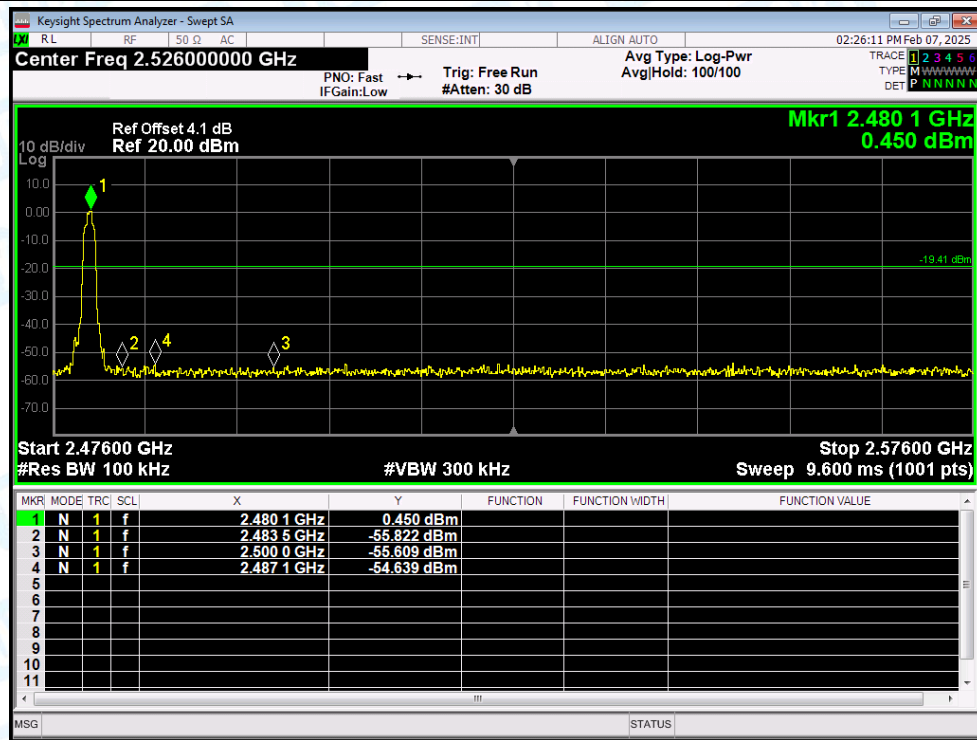
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



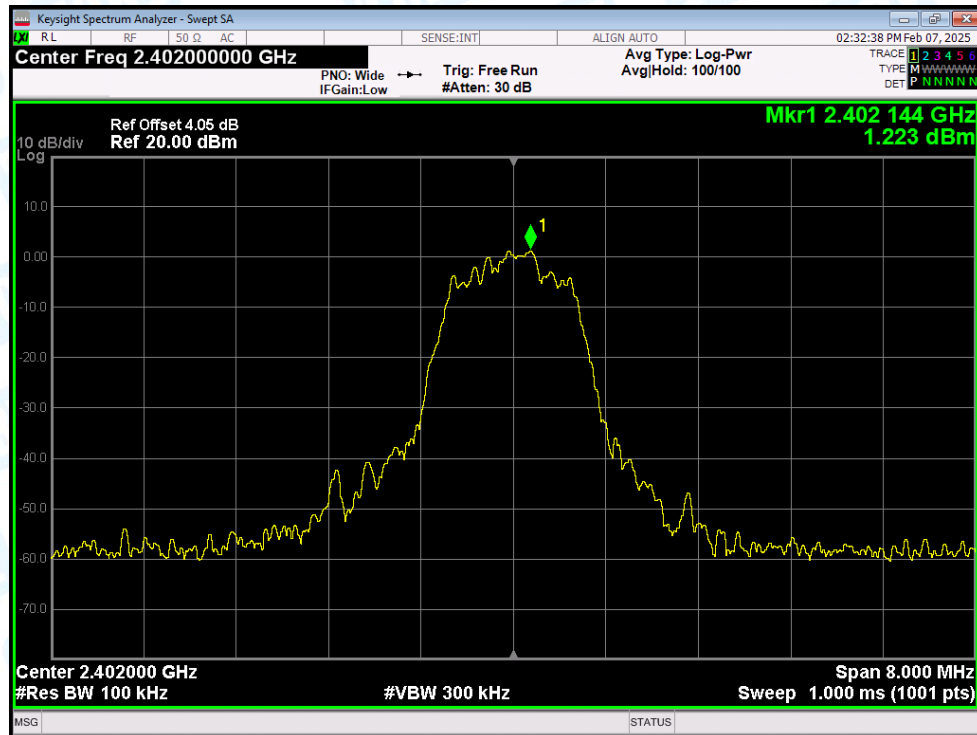
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



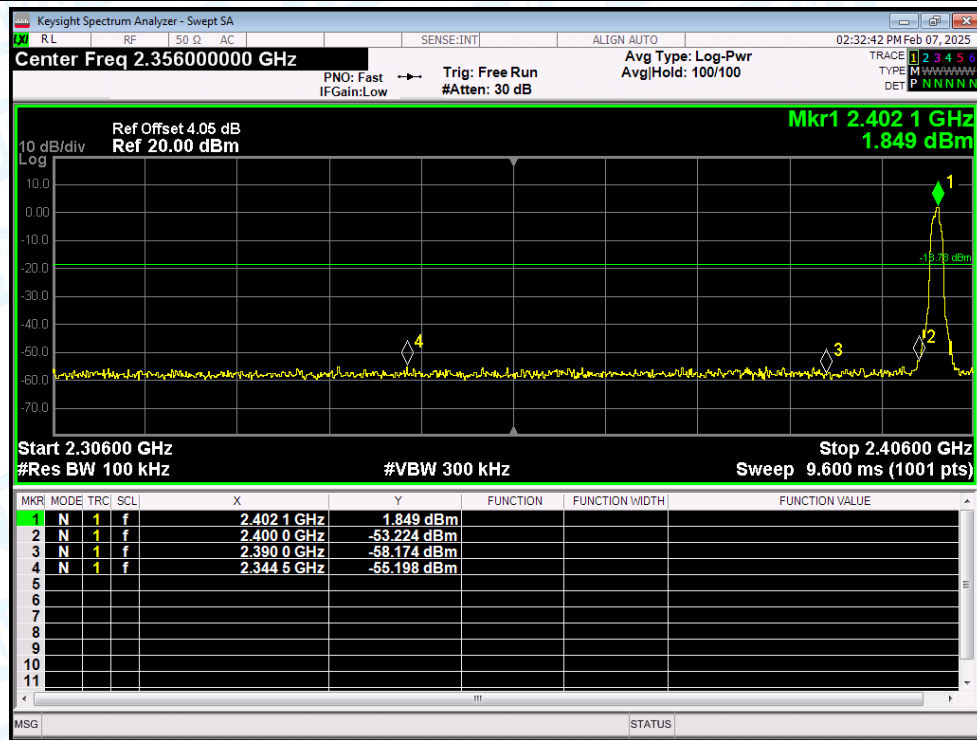
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



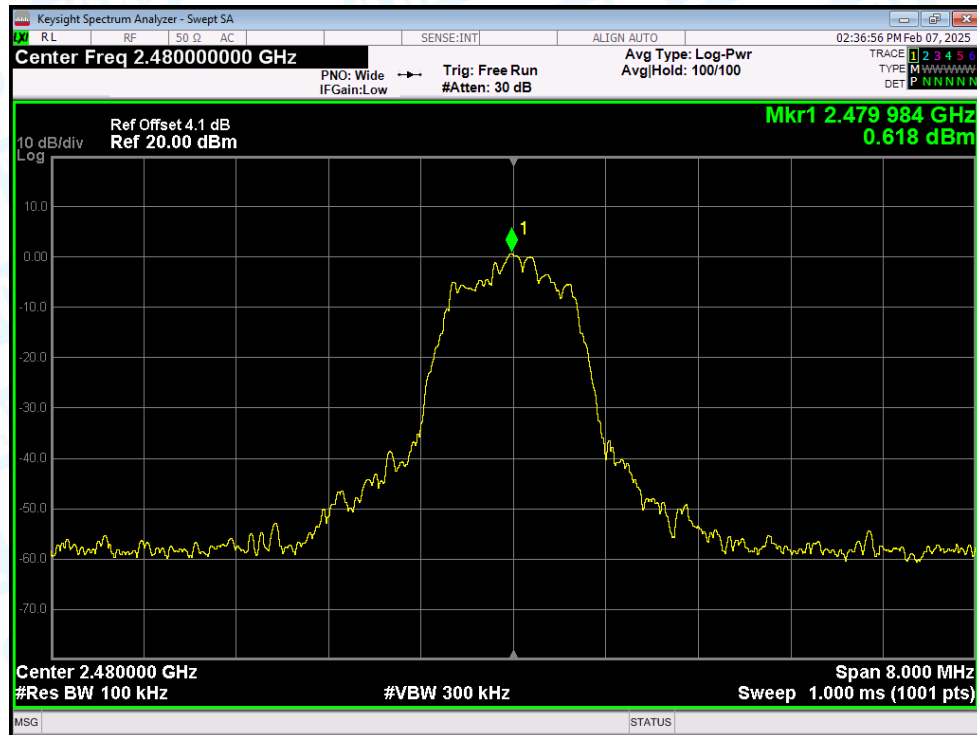
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



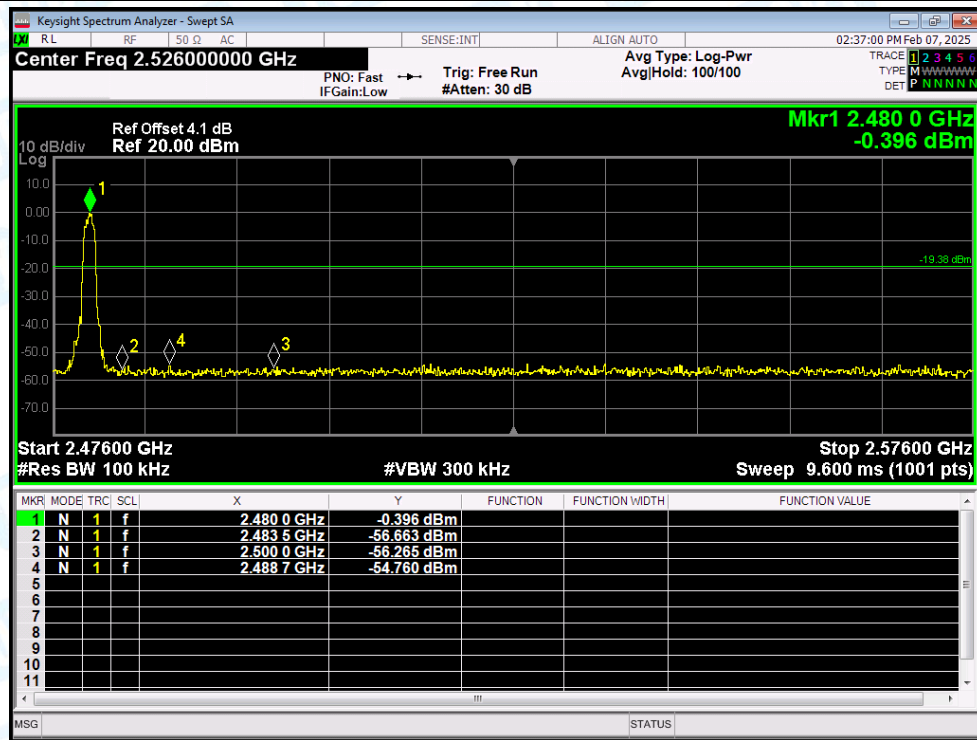
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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

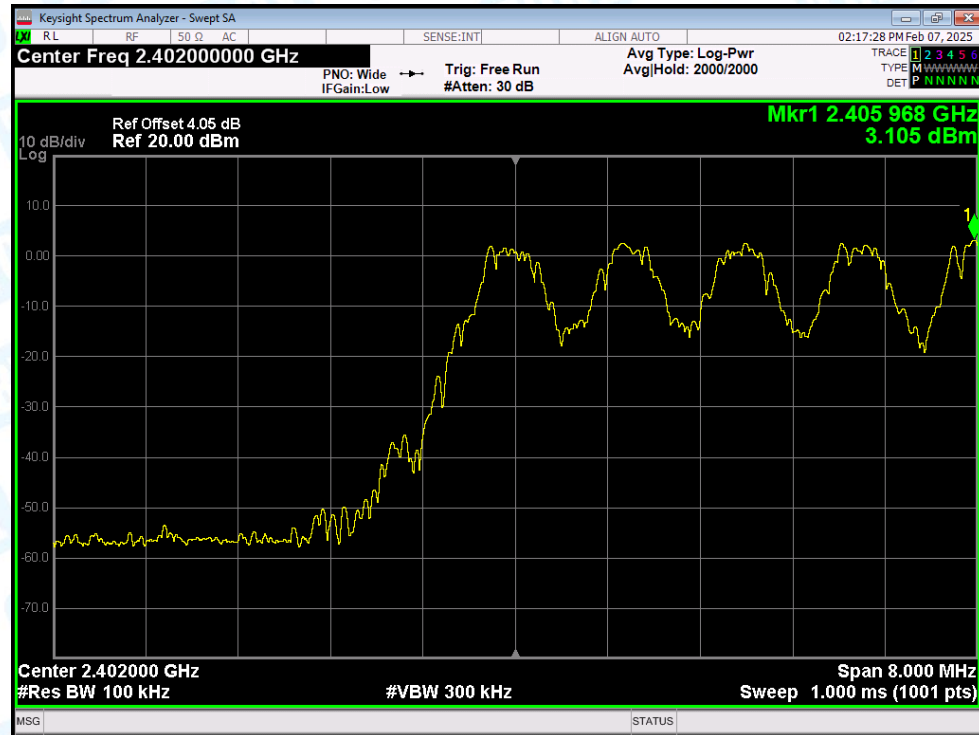


6. Band Edge(Hopping)

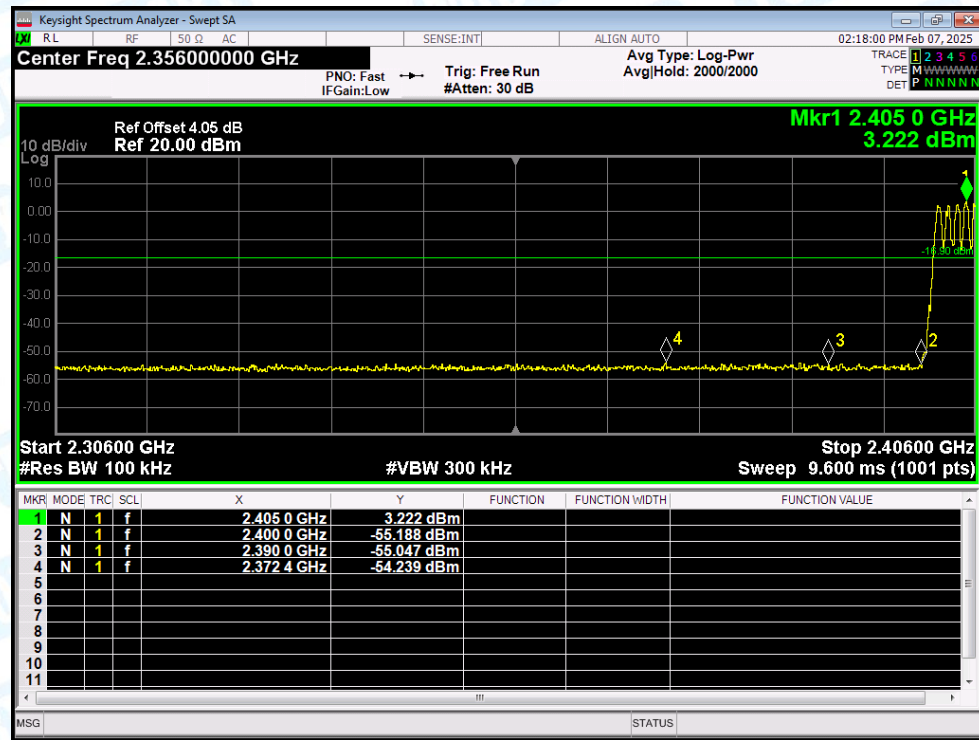
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-57.35	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-54.77	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-55.81	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-54	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-55.65	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-54.45	-20	Pass

Test Graphs

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



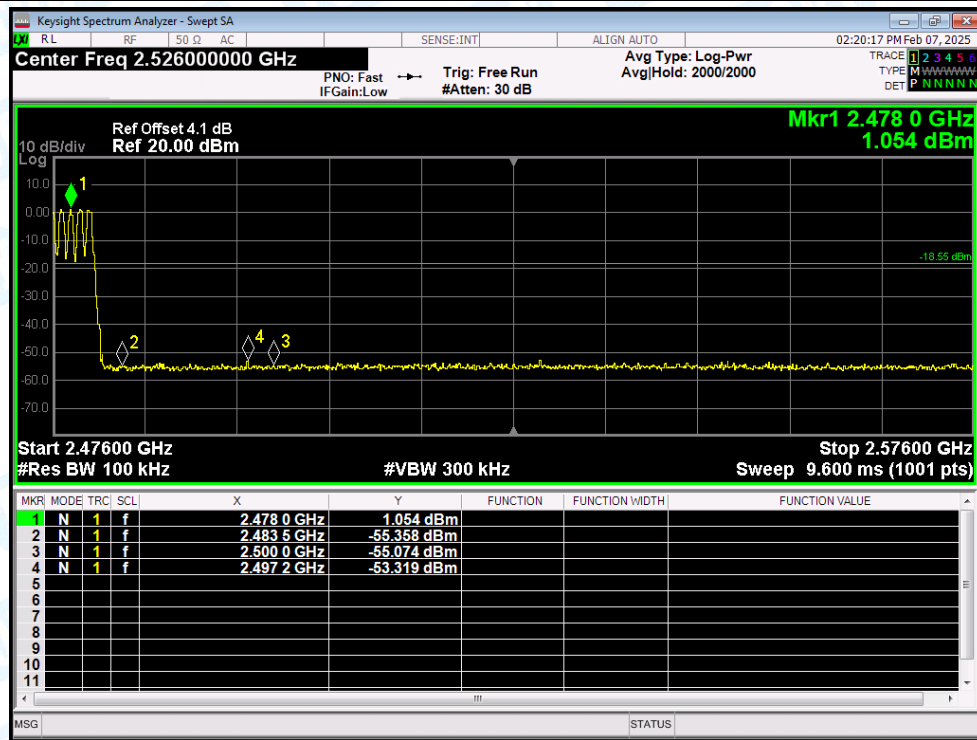
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



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



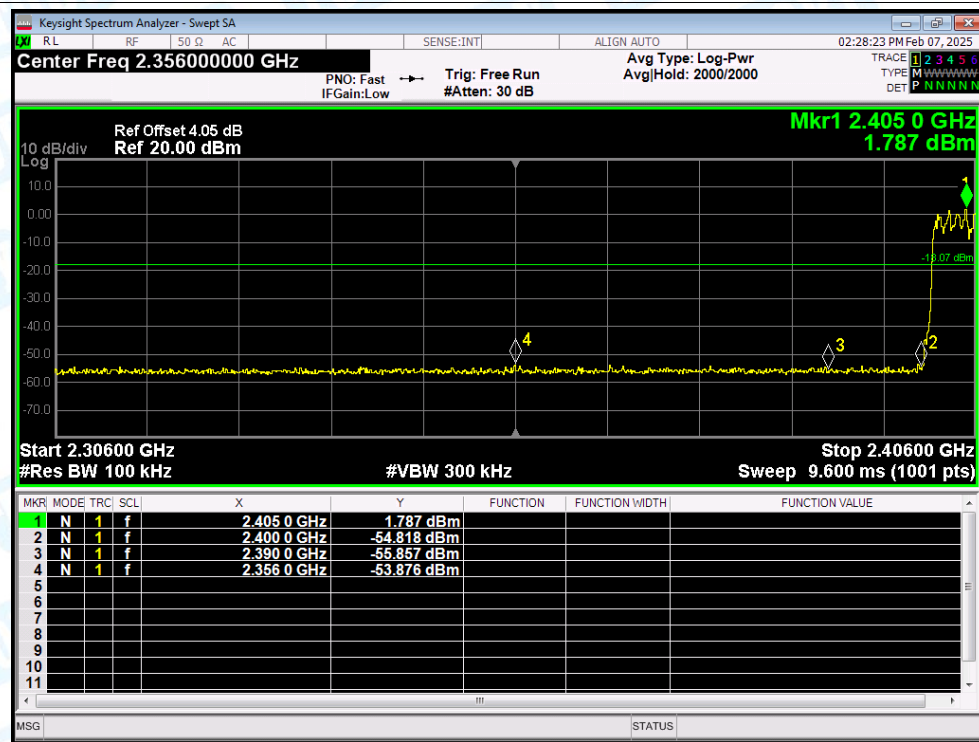
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



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



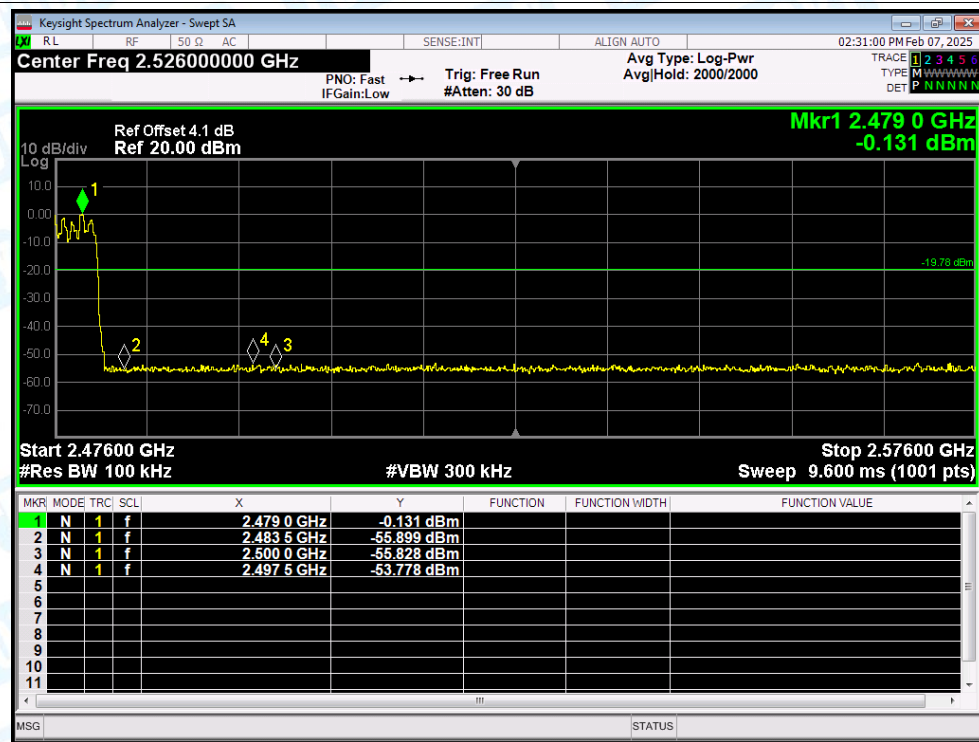
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission

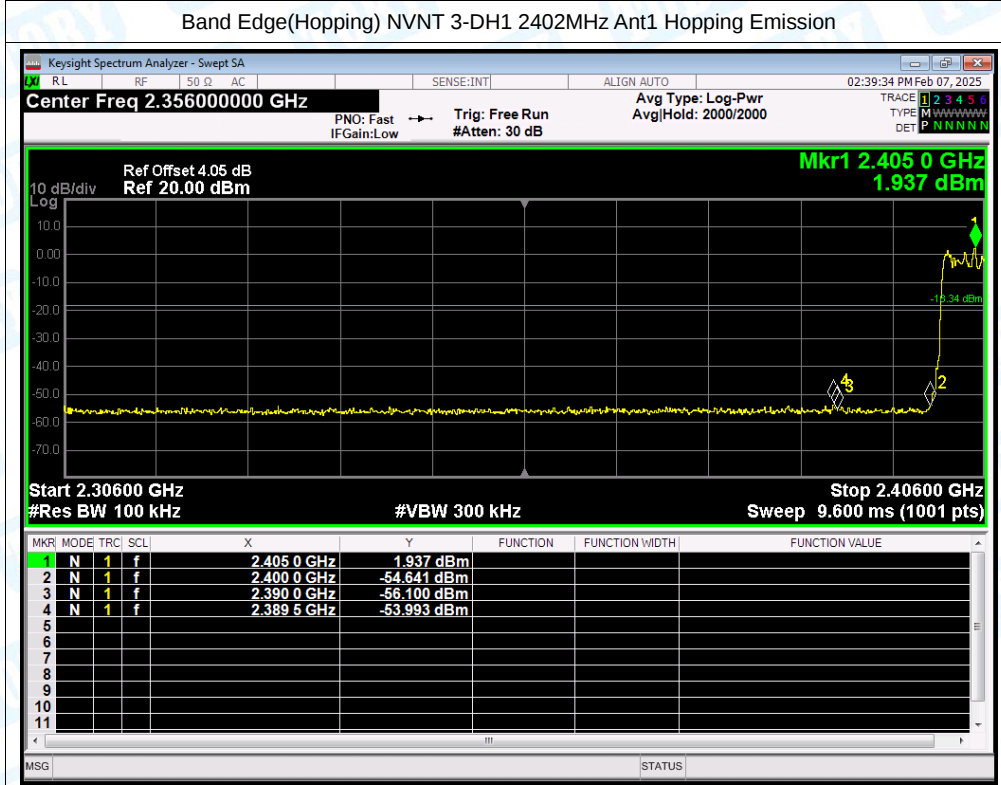
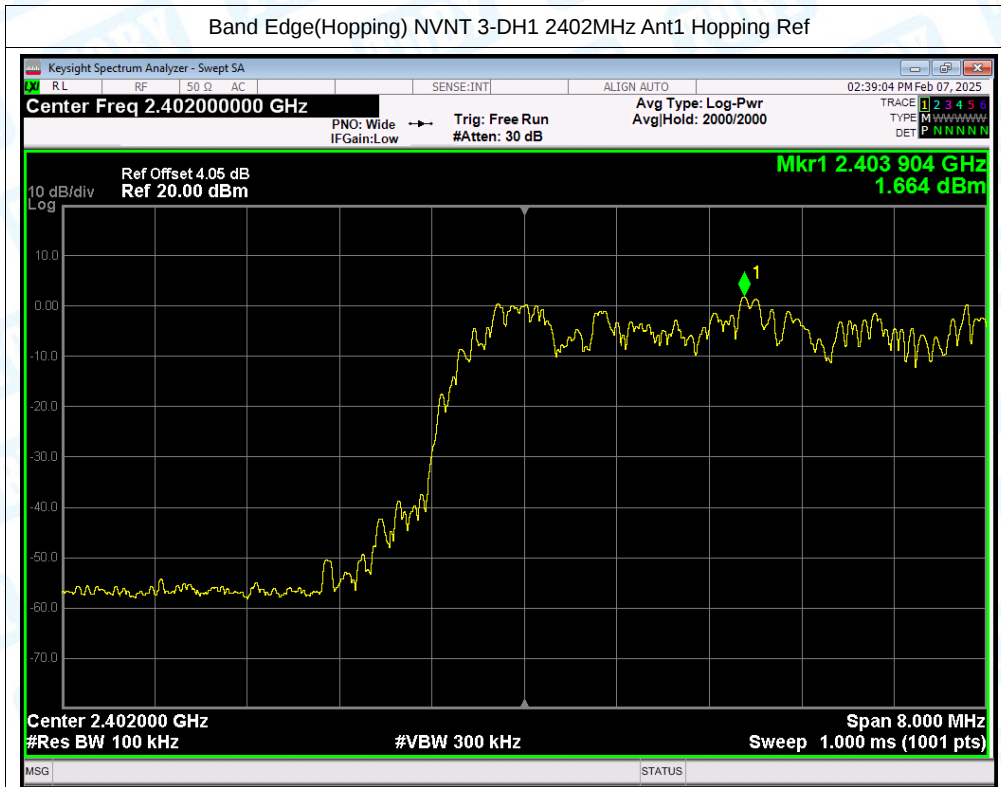


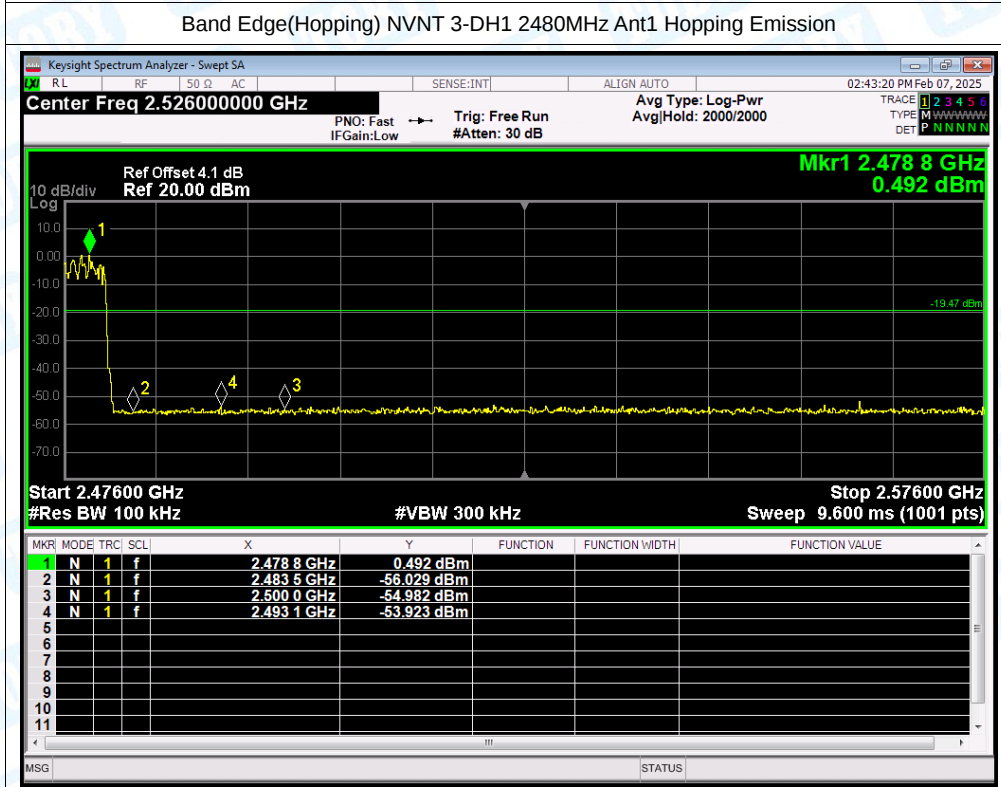
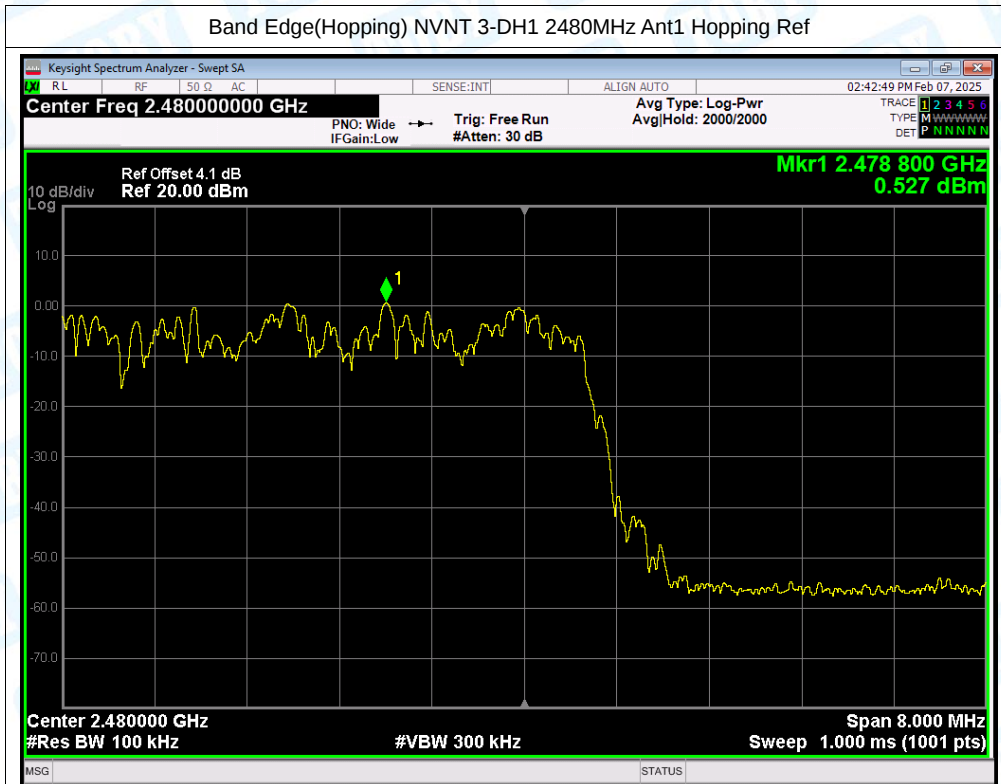
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Ref



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





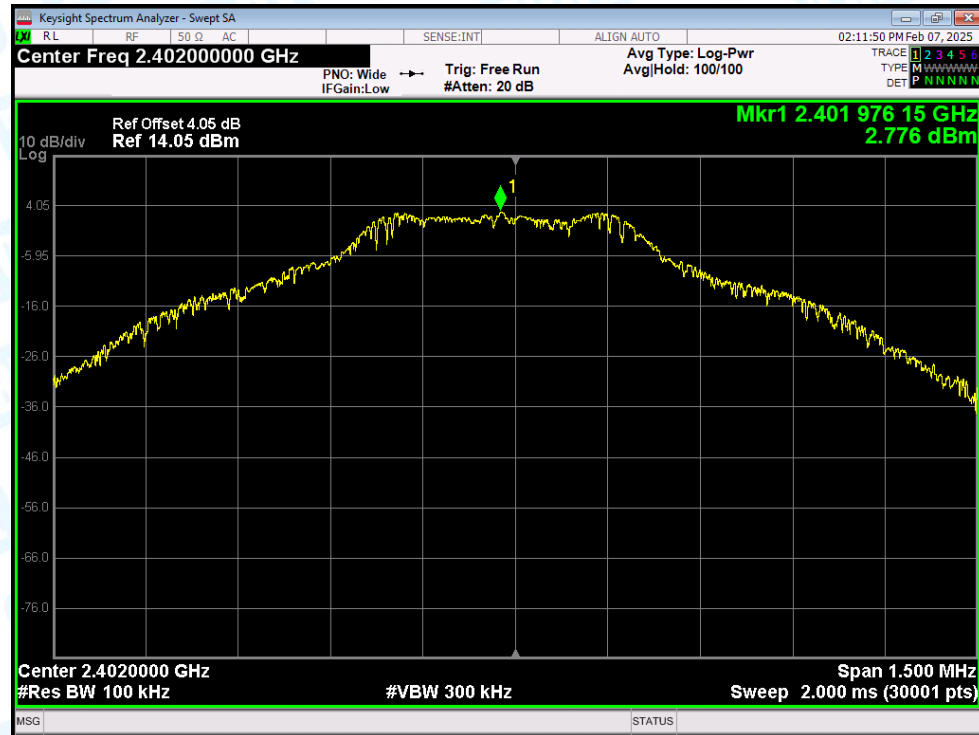


7. Conducted RF Spurious Emission

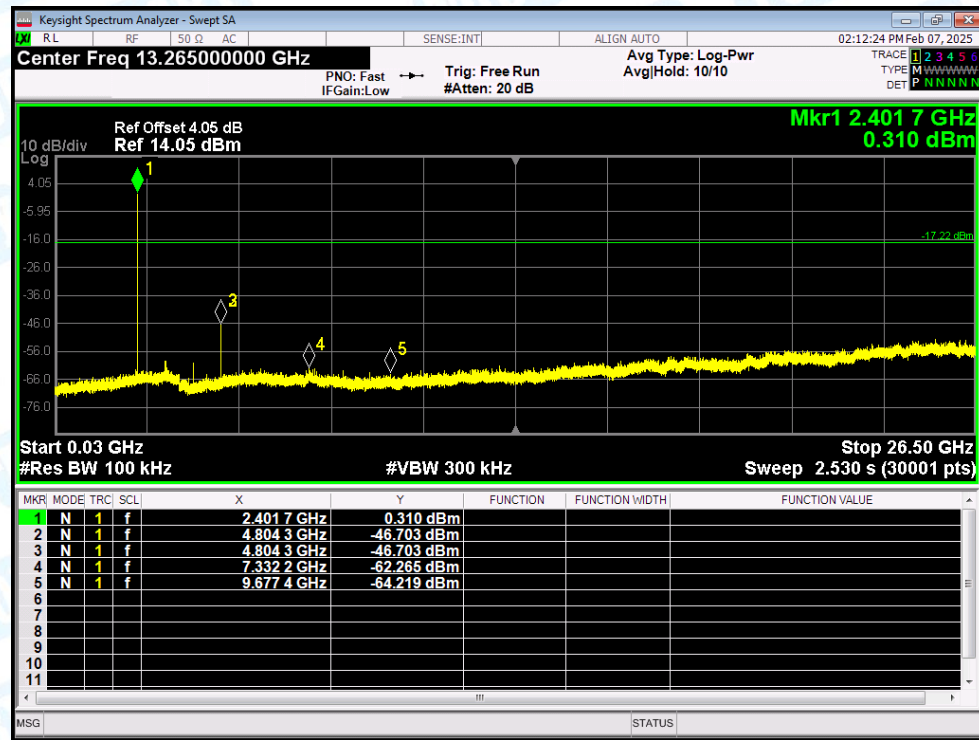
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-49.48	-20	Pass
NVNT	1-DH1	2441	Ant1	-50.67	-20	Pass
NVNT	1-DH1	2480	Ant1	-51.9	-20	Pass
NVNT	2-DH1	2402	Ant1	-53.22	-20	Pass
NVNT	2-DH1	2441	Ant1	-49.22	-20	Pass
NVNT	2-DH1	2480	Ant1	-51.04	-20	Pass
NVNT	3-DH1	2402	Ant1	-48.87	-20	Pass
NVNT	3-DH1	2441	Ant1	-49.34	-20	Pass
NVNT	3-DH1	2480	Ant1	-49.5	-20	Pass

Test Graphs

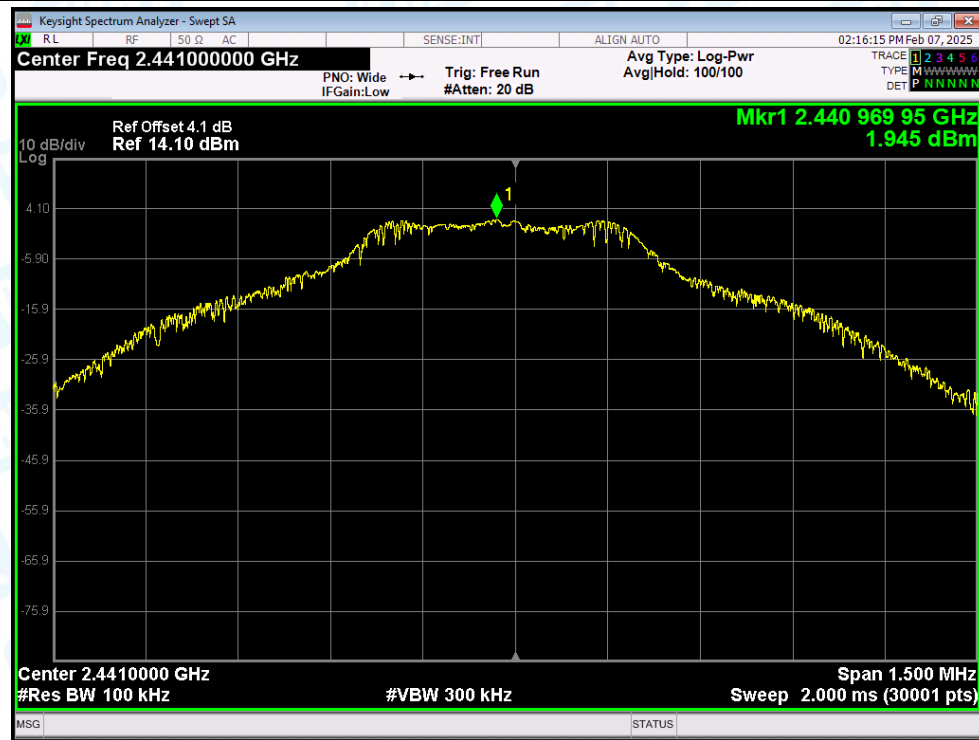
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



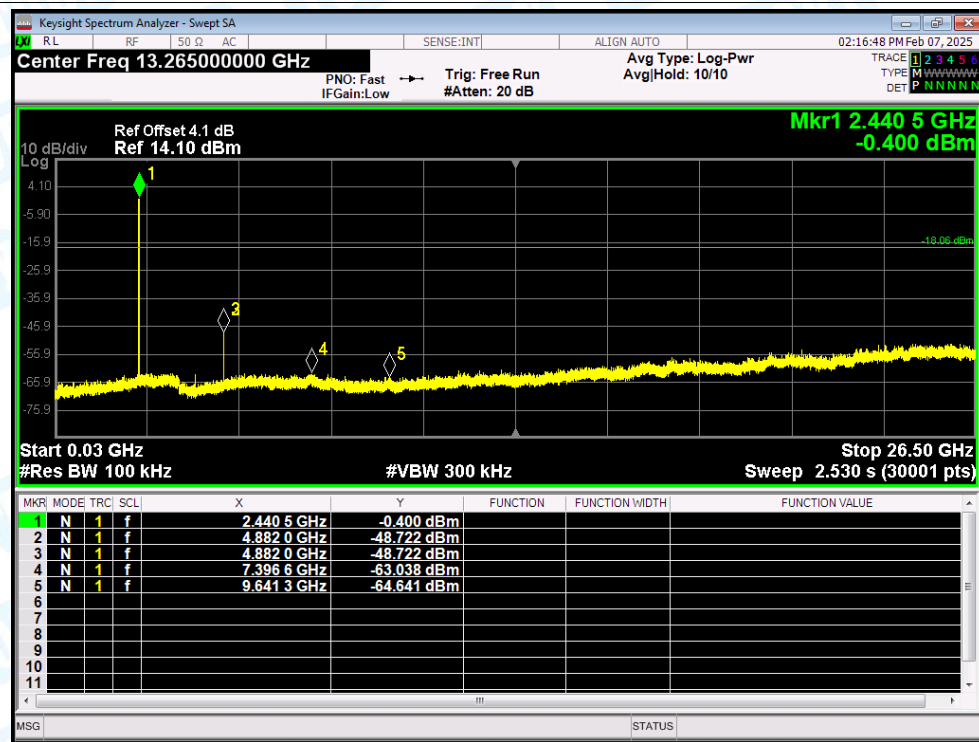
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



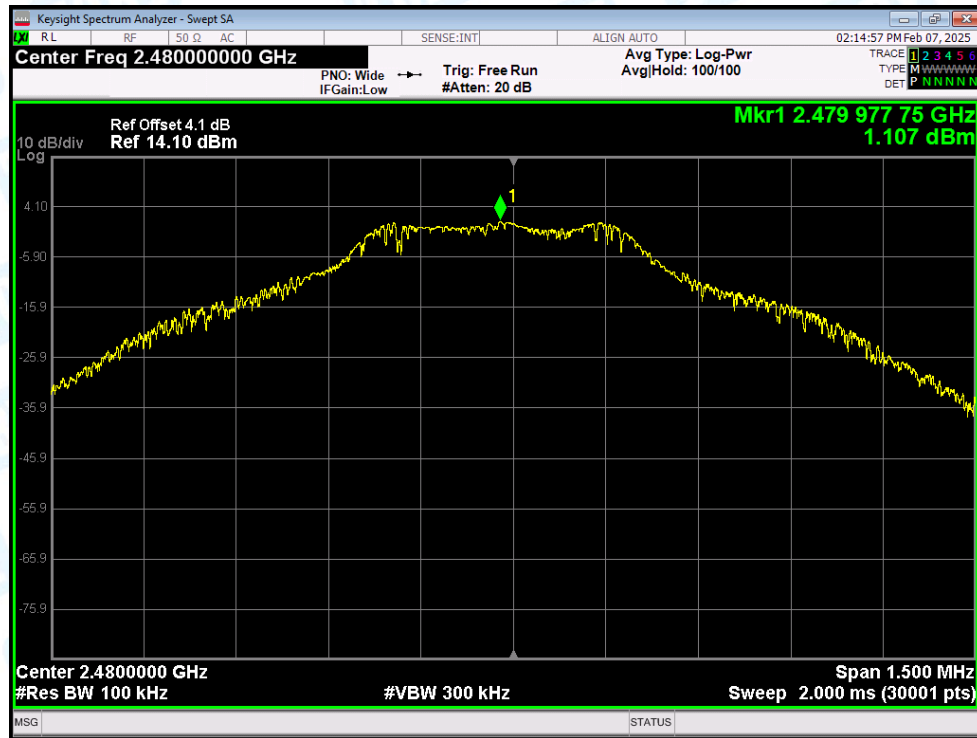
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



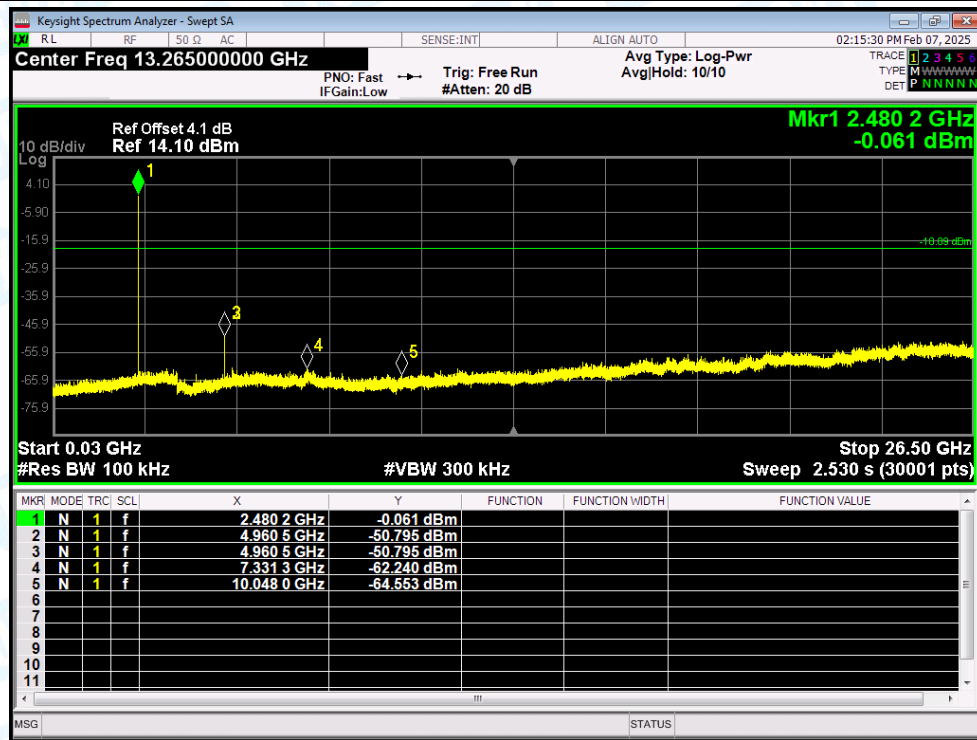
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



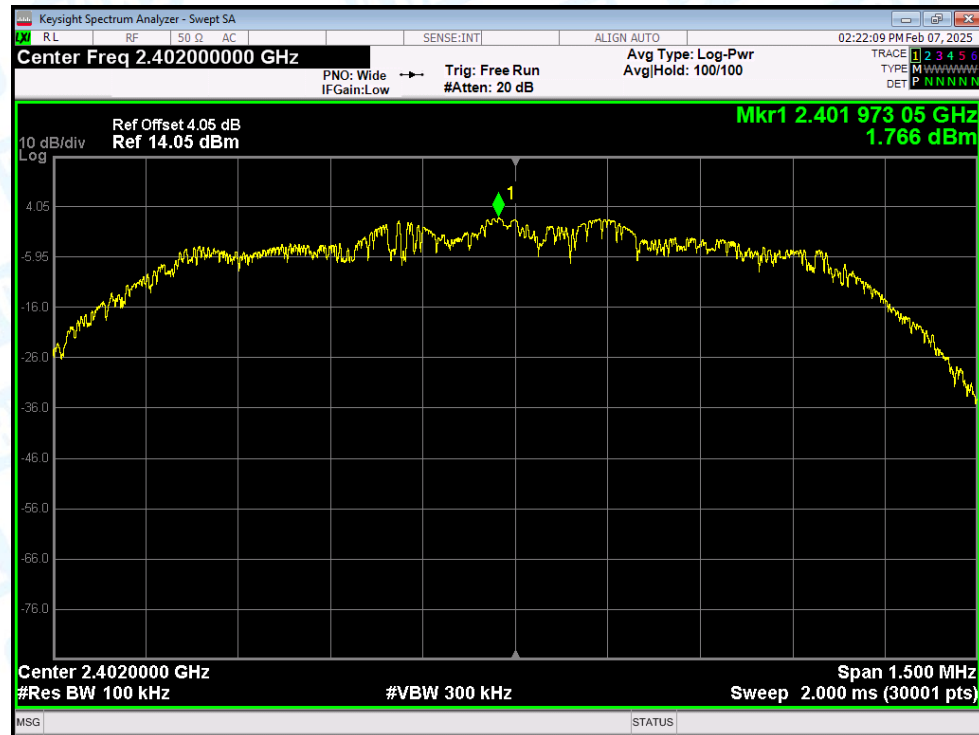
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



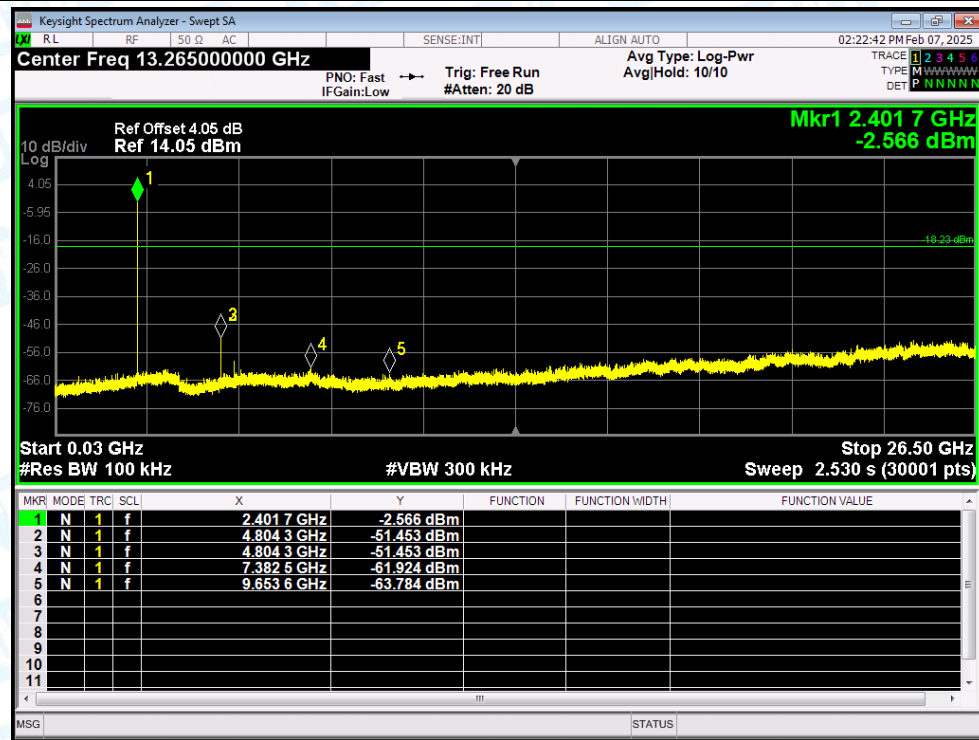
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



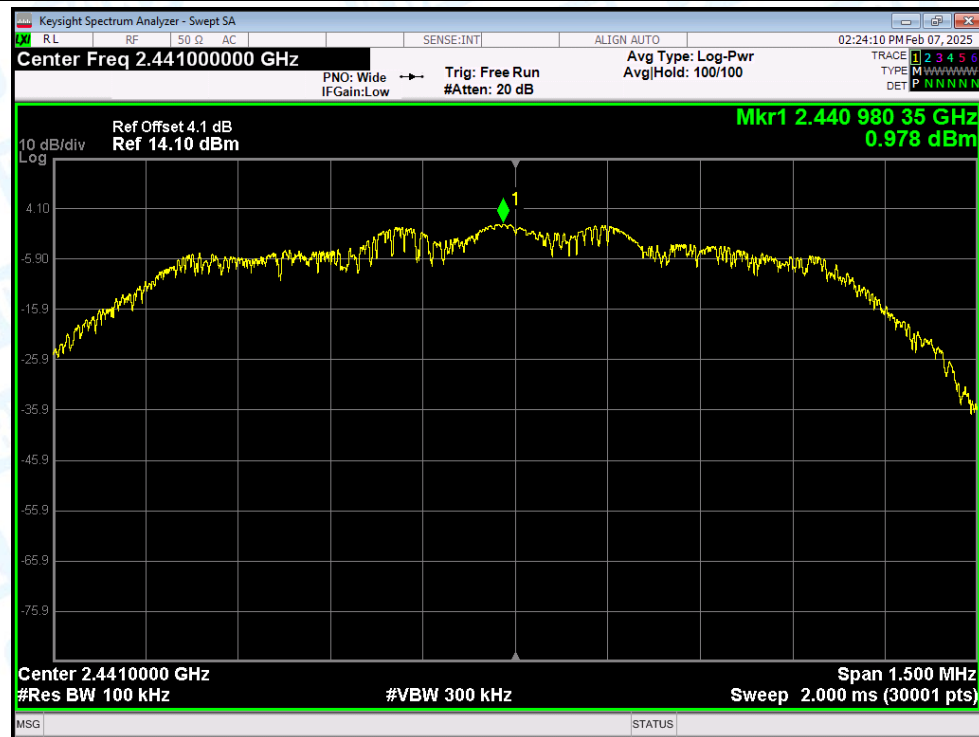
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



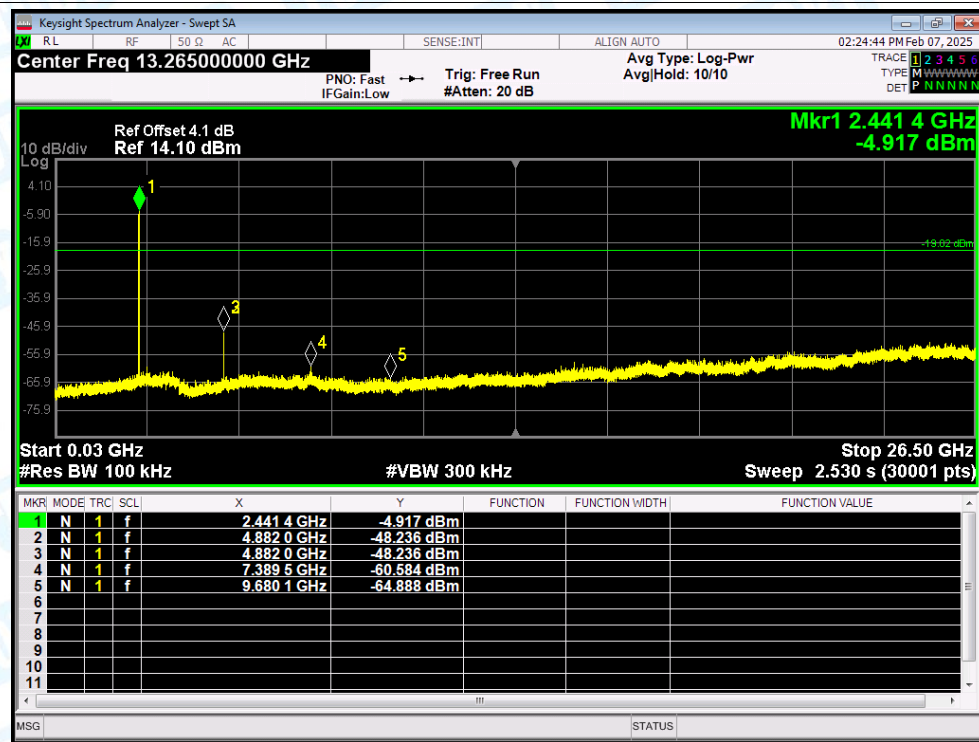
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



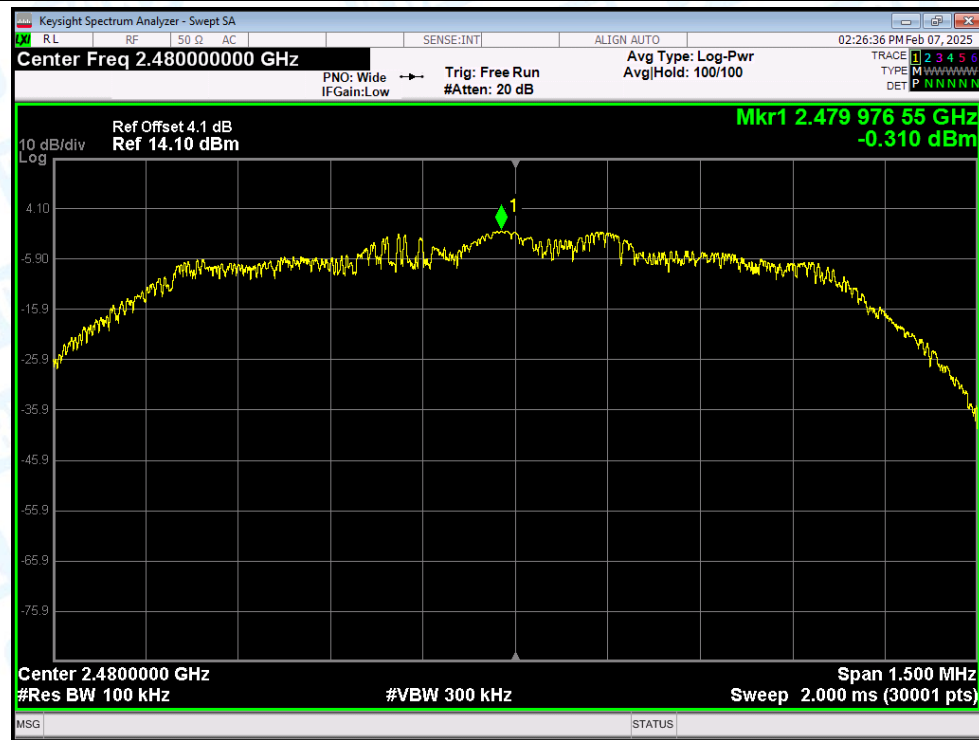
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



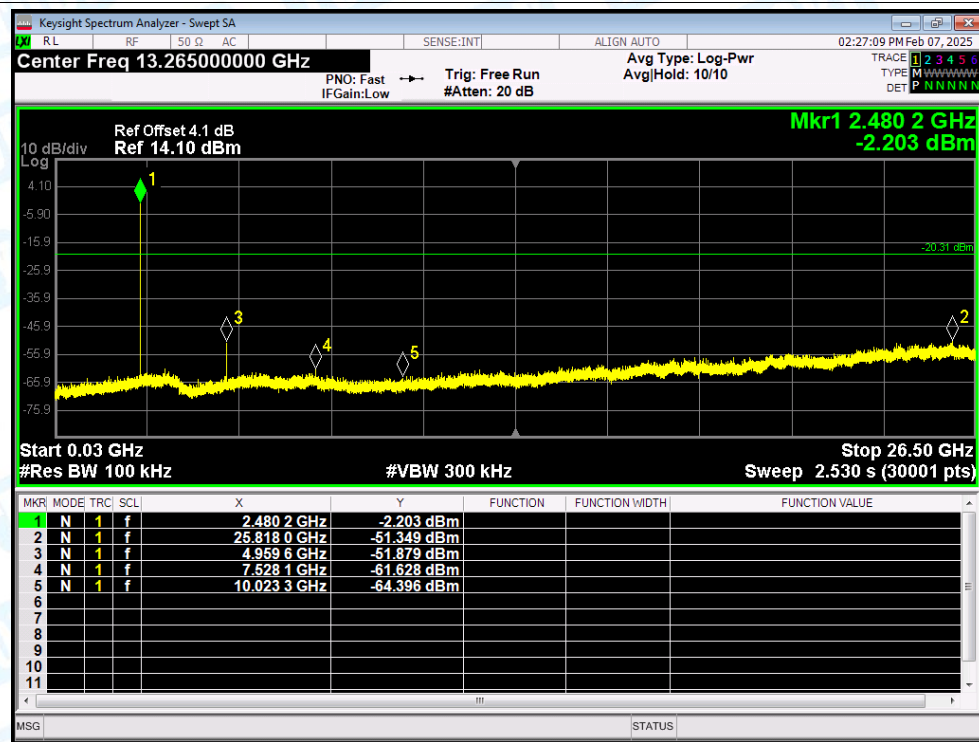
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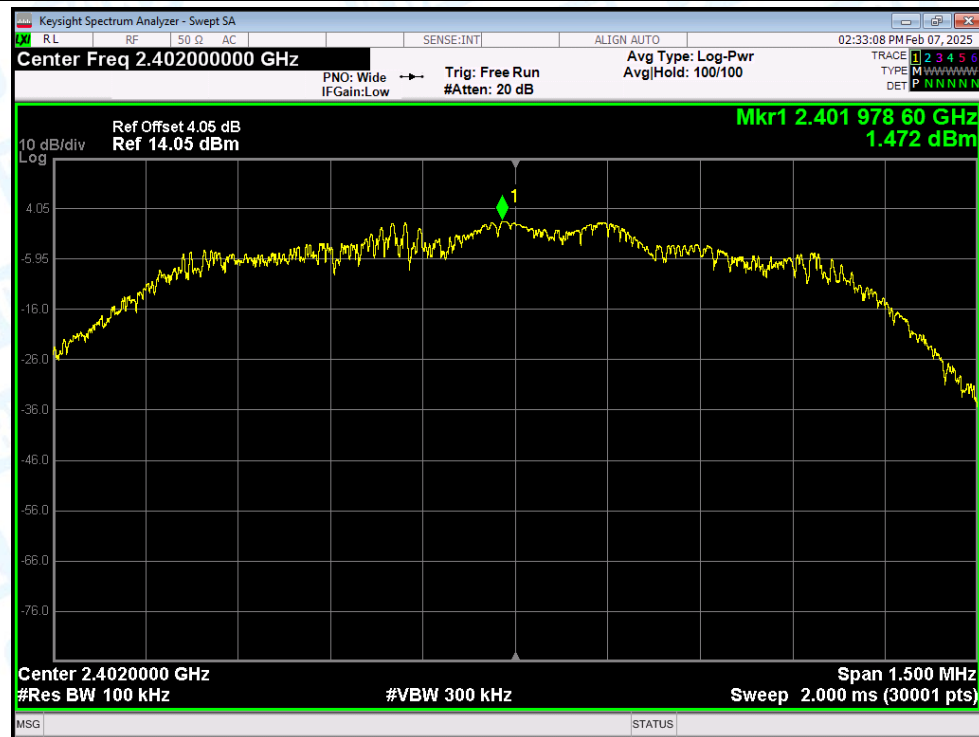
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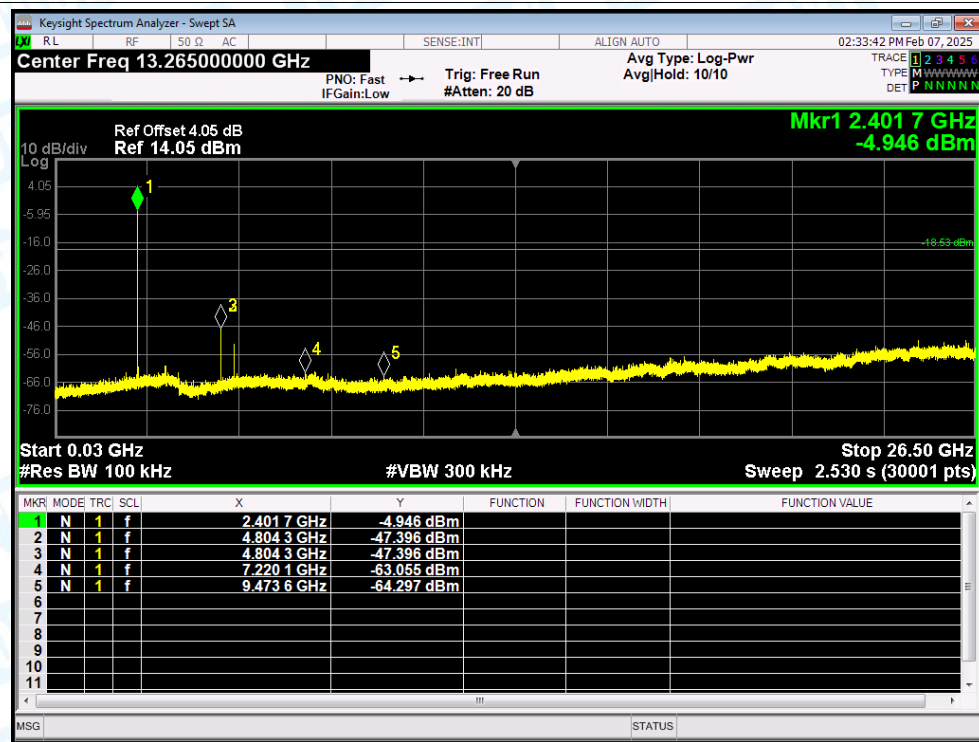
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



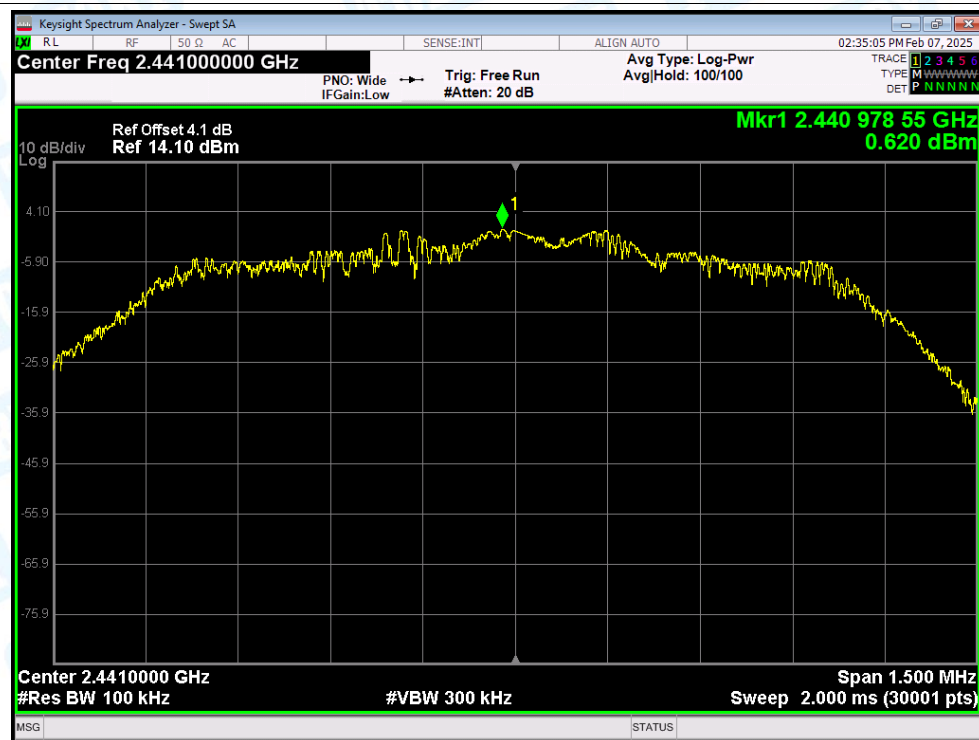
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



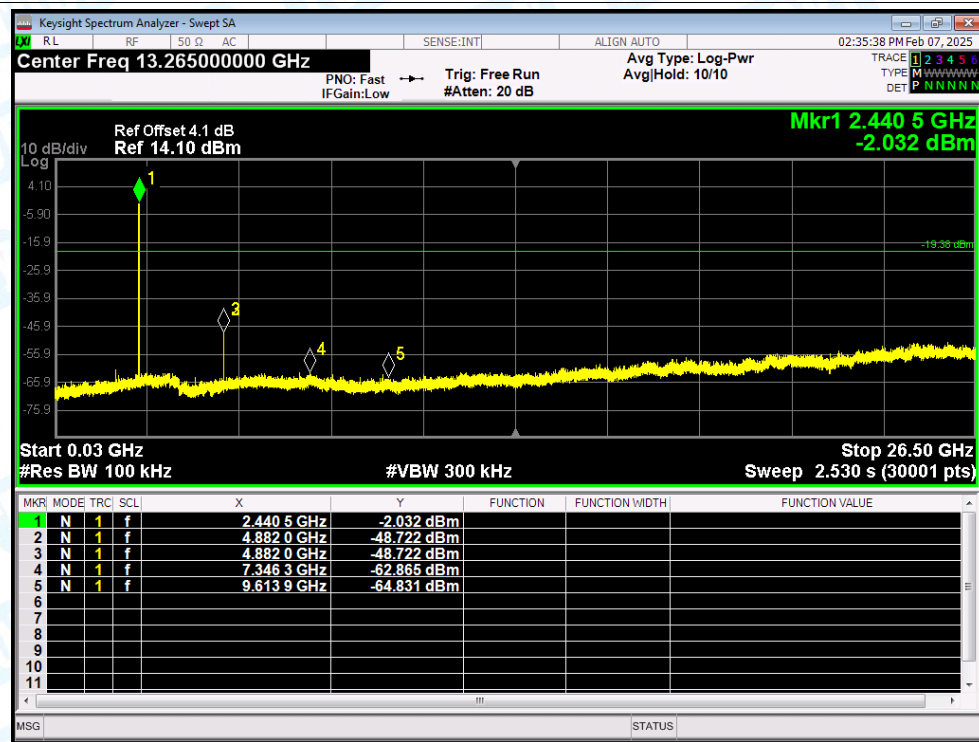
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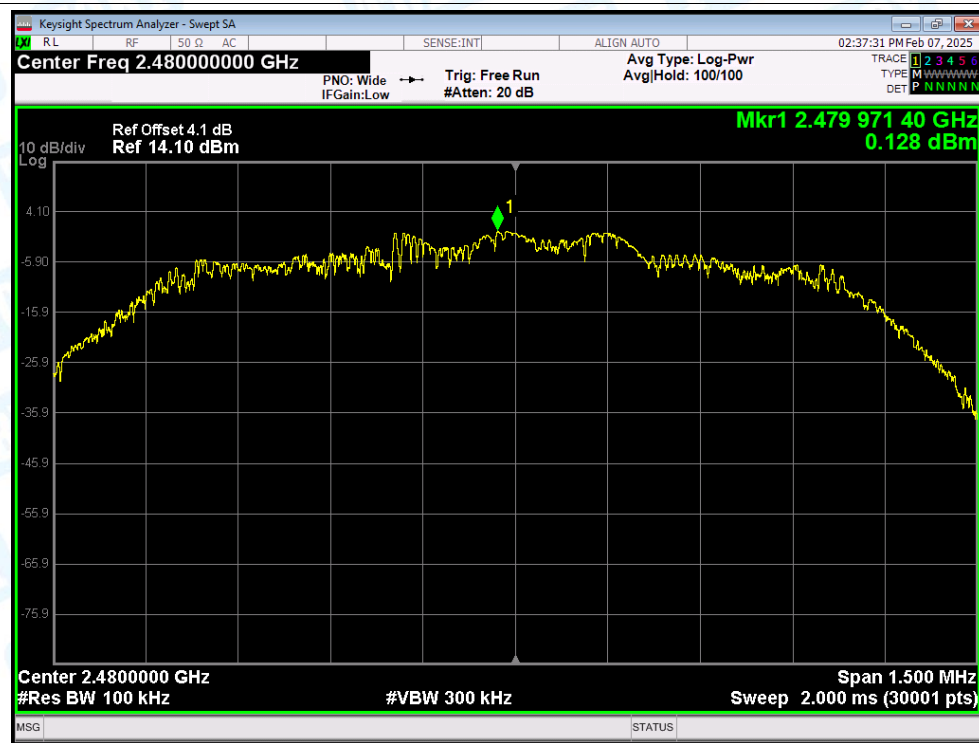
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



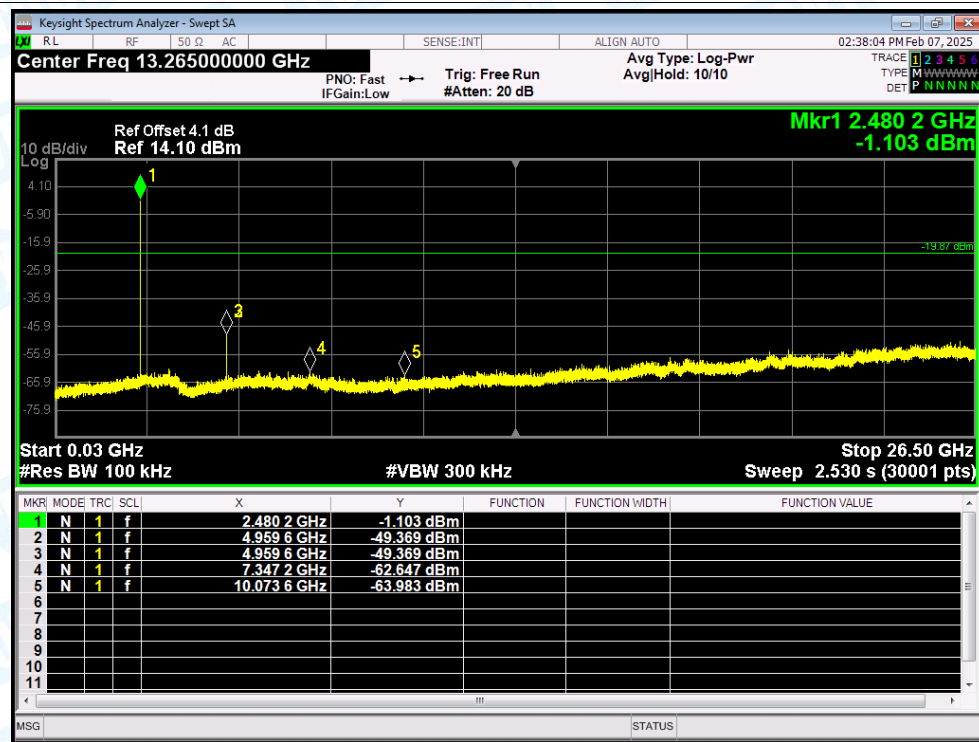
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

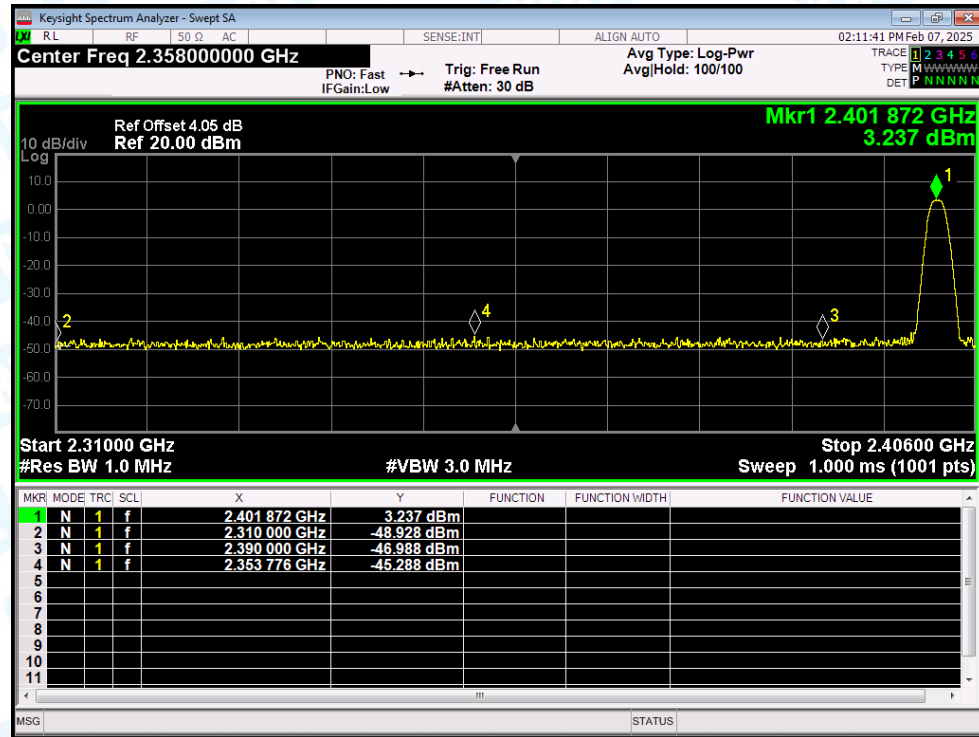


8. Restrict Band

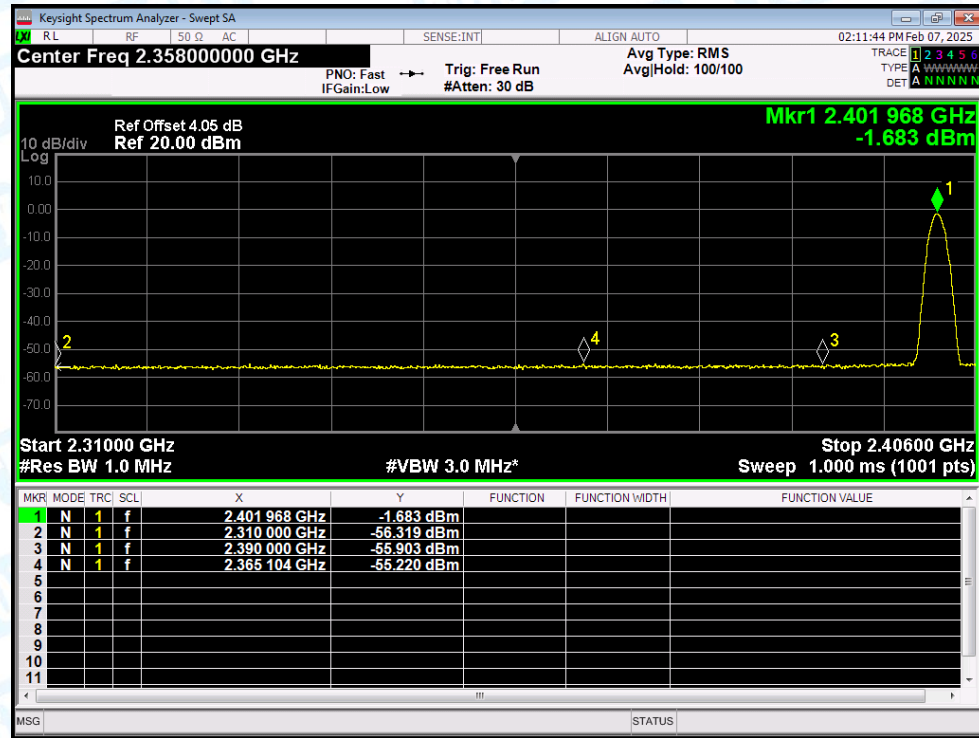
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-48.93	2	-	48.33	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.32	2	4.99	45.93	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2353.776	-45.29	2	-	51.97	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2365.104	-55.22	2	4.99	47.03	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-46.99	2	-	50.27	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-55.9	2	4.99	46.35	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-49.21	2	-	48.05	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-55.64	2	5.07	46.69	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2493.4	-44.33	2	-	52.93	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.824	-54.82	2	5.07	47.51	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-47.41	2	-	49.85	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.92	2	5.07	46.41	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-48.75	2	-	48.51	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.3	2	5.02	45.98	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2377.872	-45.2	2	-	52.06	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2387.376	-55.47	2	5.02	46.81	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-47.56	2	-	49.7	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-55.75	2	5.02	46.53	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-47.5	2	-	49.76	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-55.54	2	5.02	46.74	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2485.96	-44.07	2	-	53.19	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2492.632	-54.92	2	5.02	47.36	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-47.59	2	-	49.67	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.45	2	5.02	46.83	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-49.03	2	-	48.23	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.16	2	4.99	46.09	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2329.104	-44.99	2	-	52.27	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2381.04	-55.42	2	4.99	46.83	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-47.65	2	-	49.61	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-56.61	2	4.99	45.64	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	-55.47	2	5.1	46.89	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2494.384	-44.55	2	-	52.71	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2484.784	-54.96	2	5.1	47.4	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-47.47	2	-	49.79	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.39	2	5.1	46.97	Average	54	Pass

Test Graphs

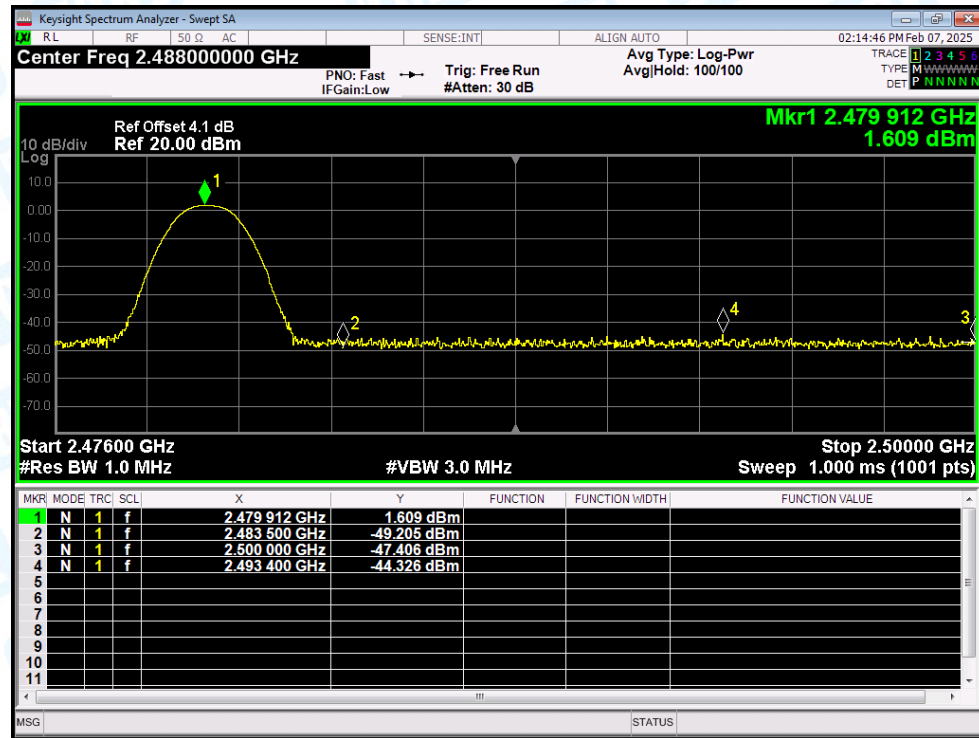
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



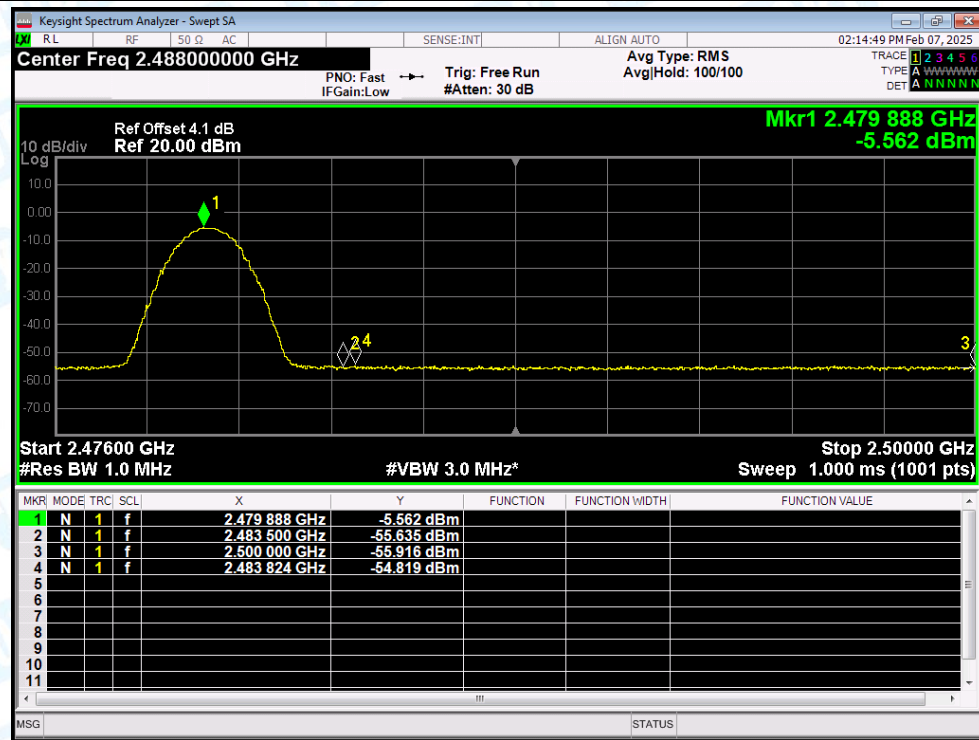
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



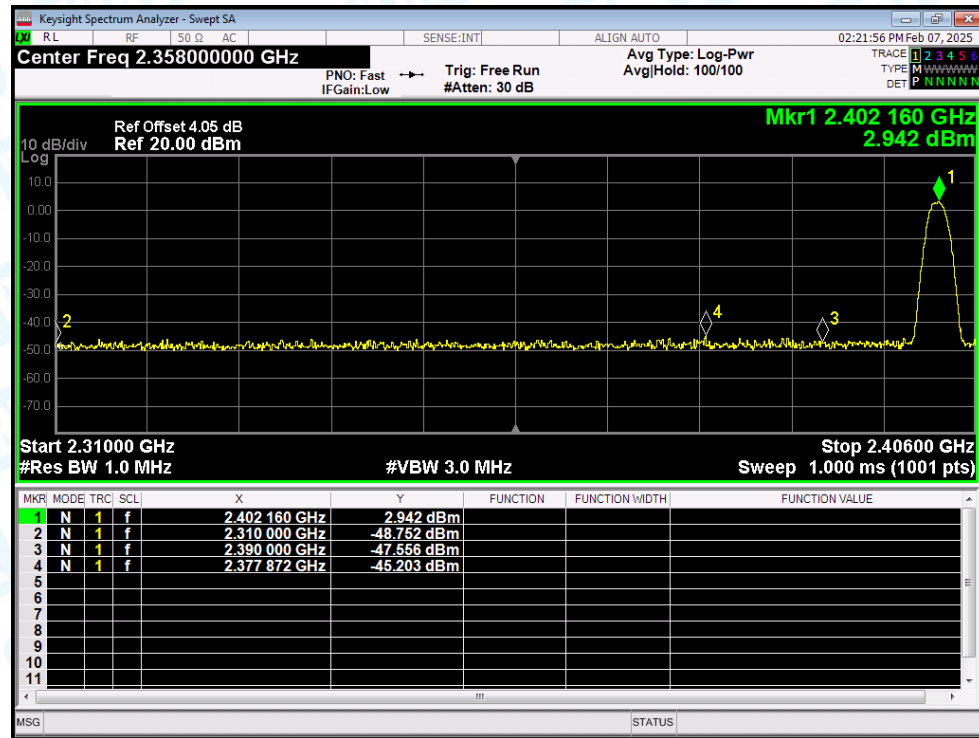
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



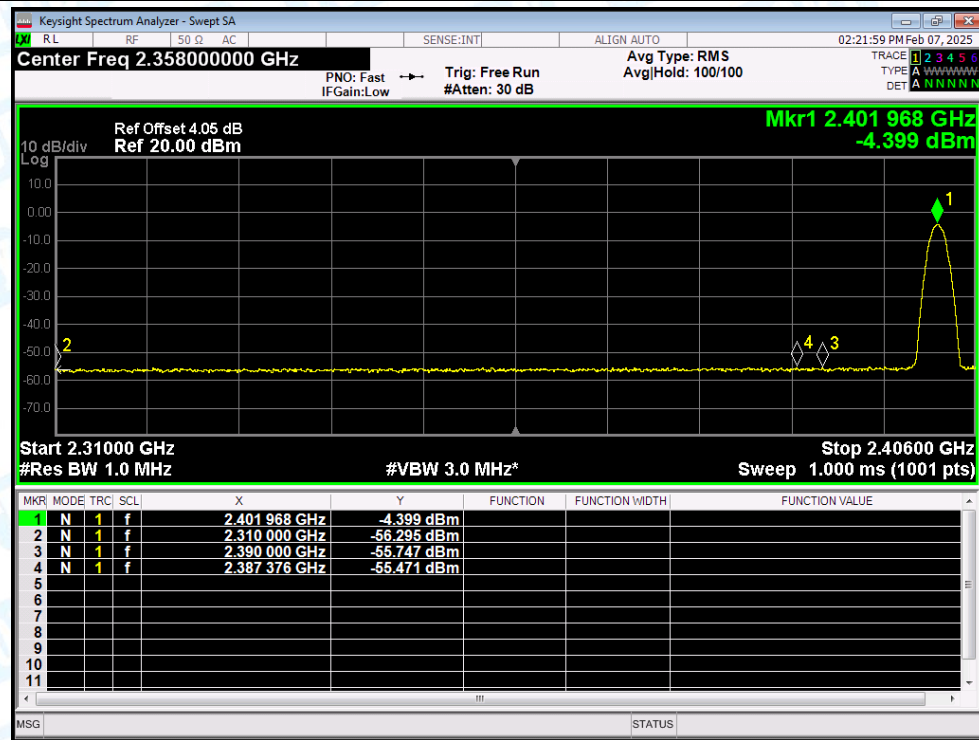
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



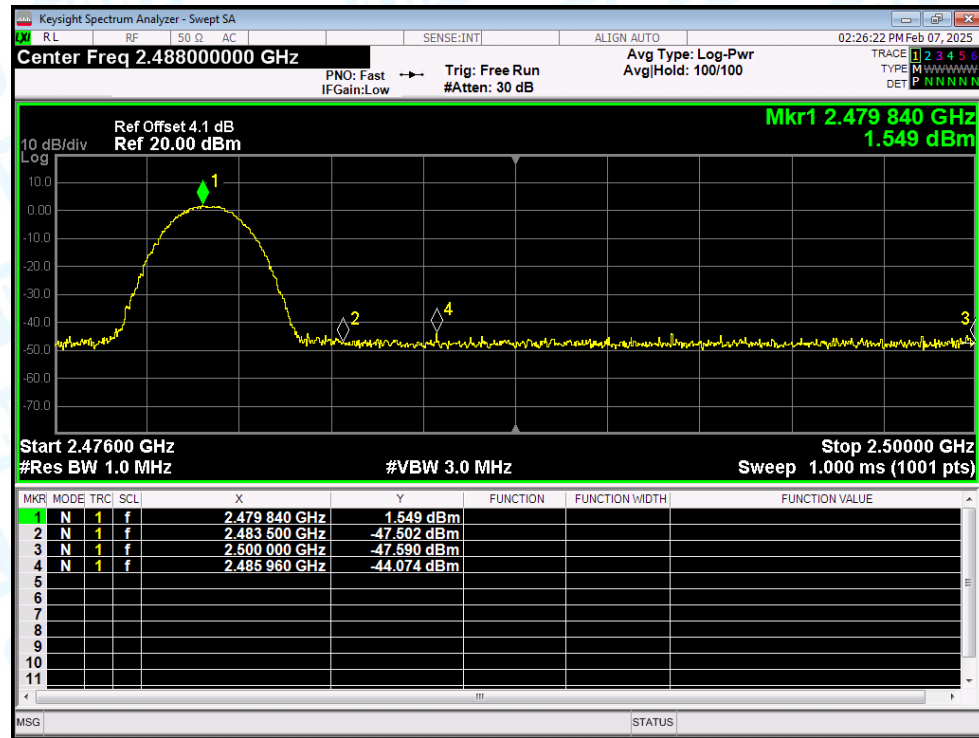
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



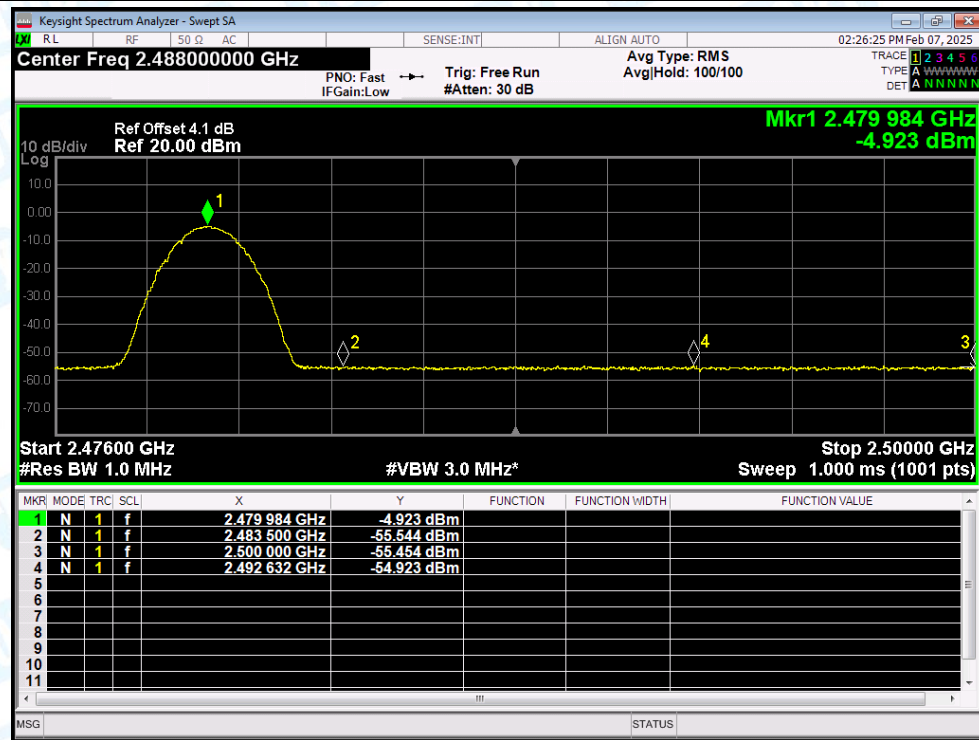
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



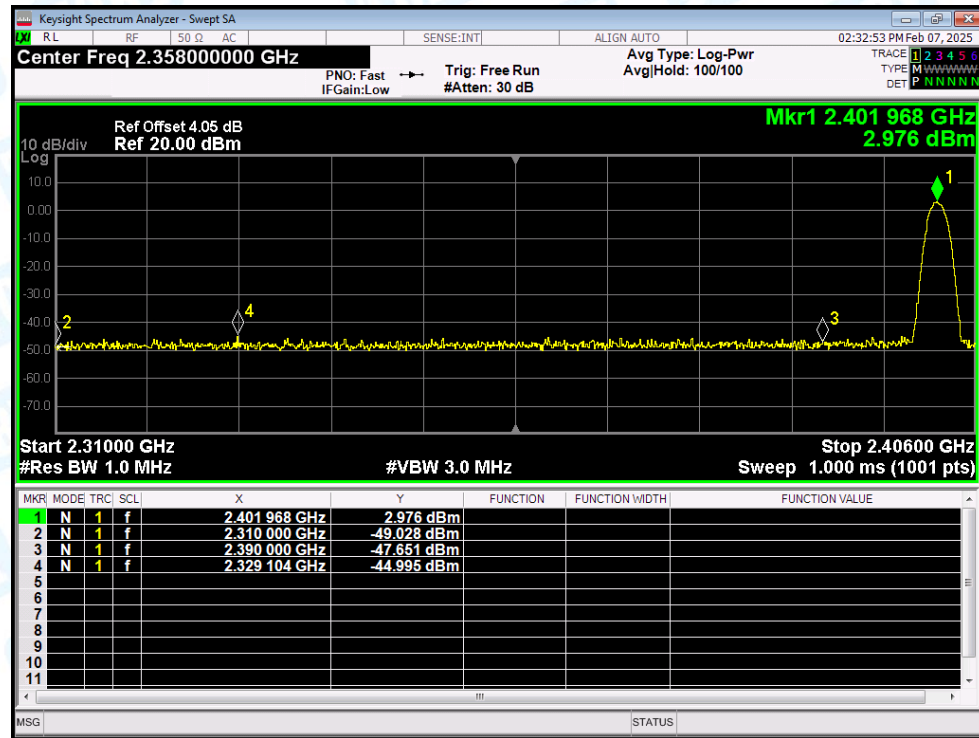
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



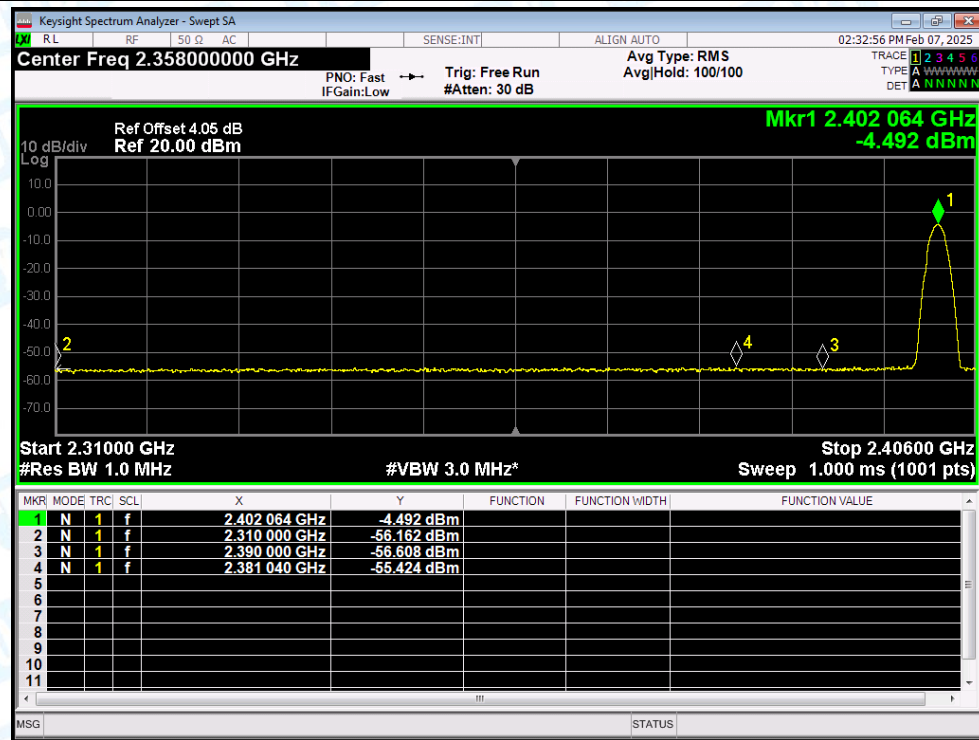
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



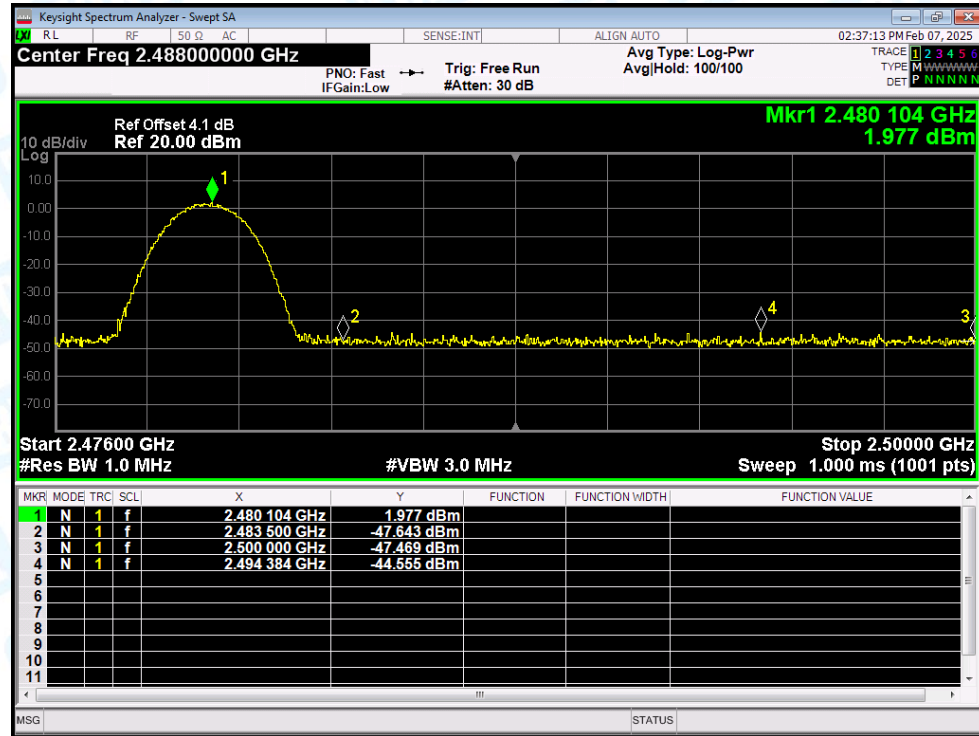
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



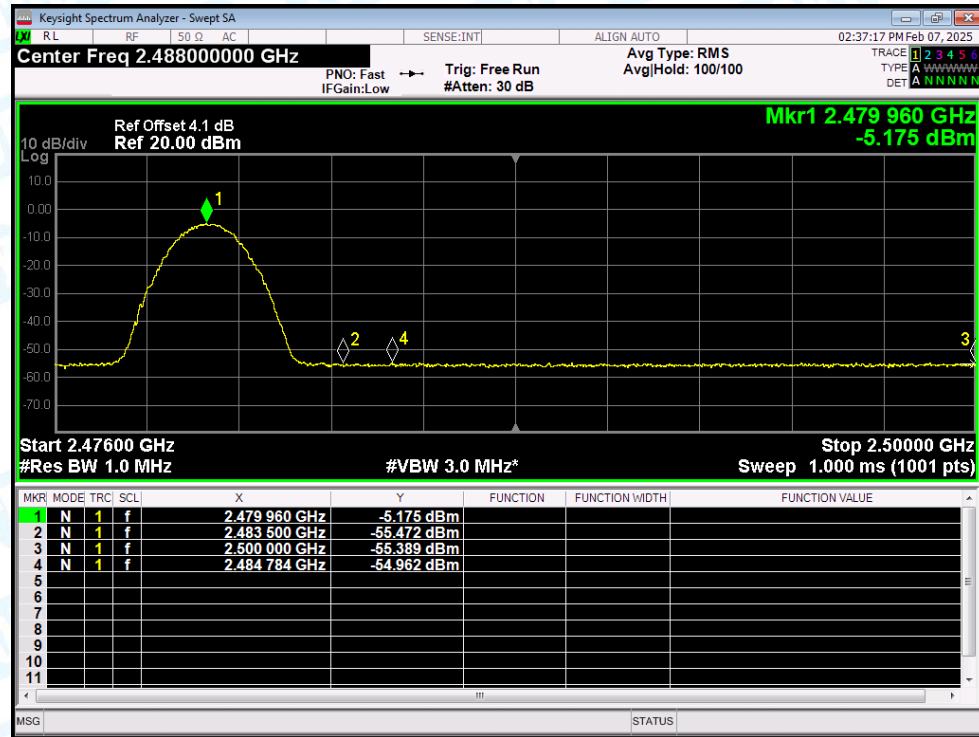
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

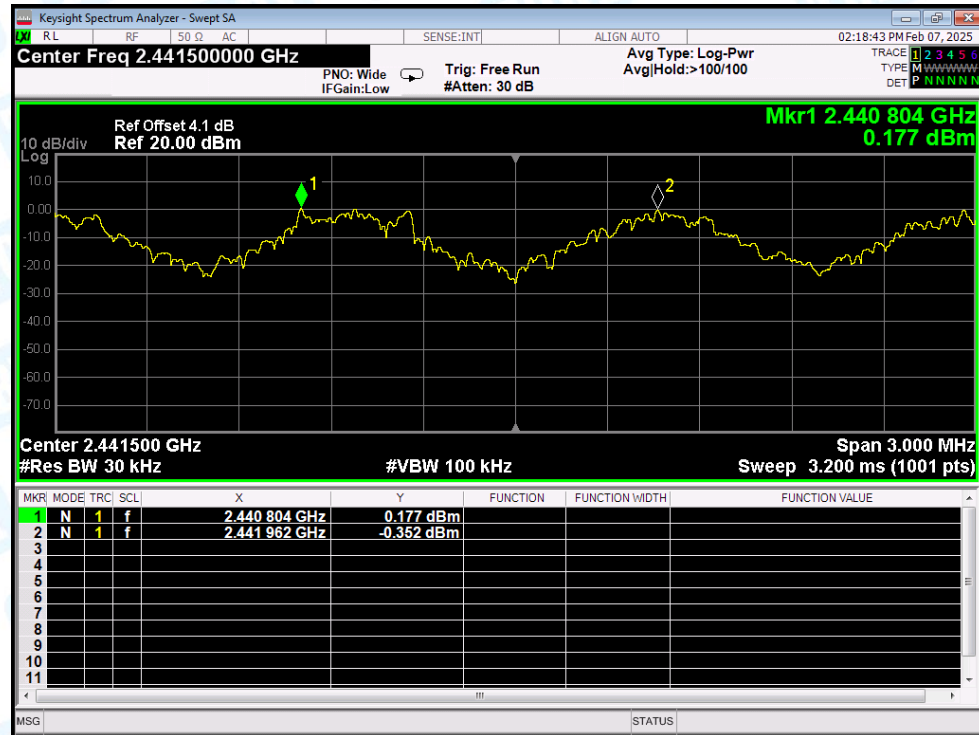


9. Carrier Frequencies Separation

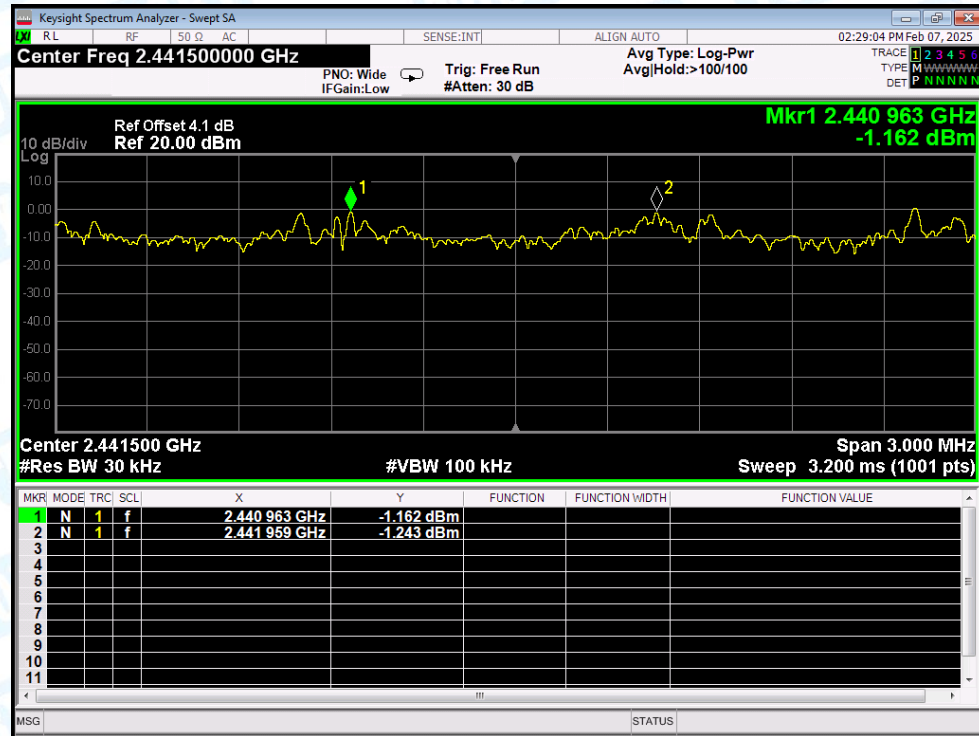
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.804	2441.962	1.158	0.627	Pass
NVNT	2-DH1	Ant1	2440.963	2441.959	0.996	0.84	Pass
NVNT	3-DH1	Ant1	2440.963	2442.133	1.17	0.813	Pass

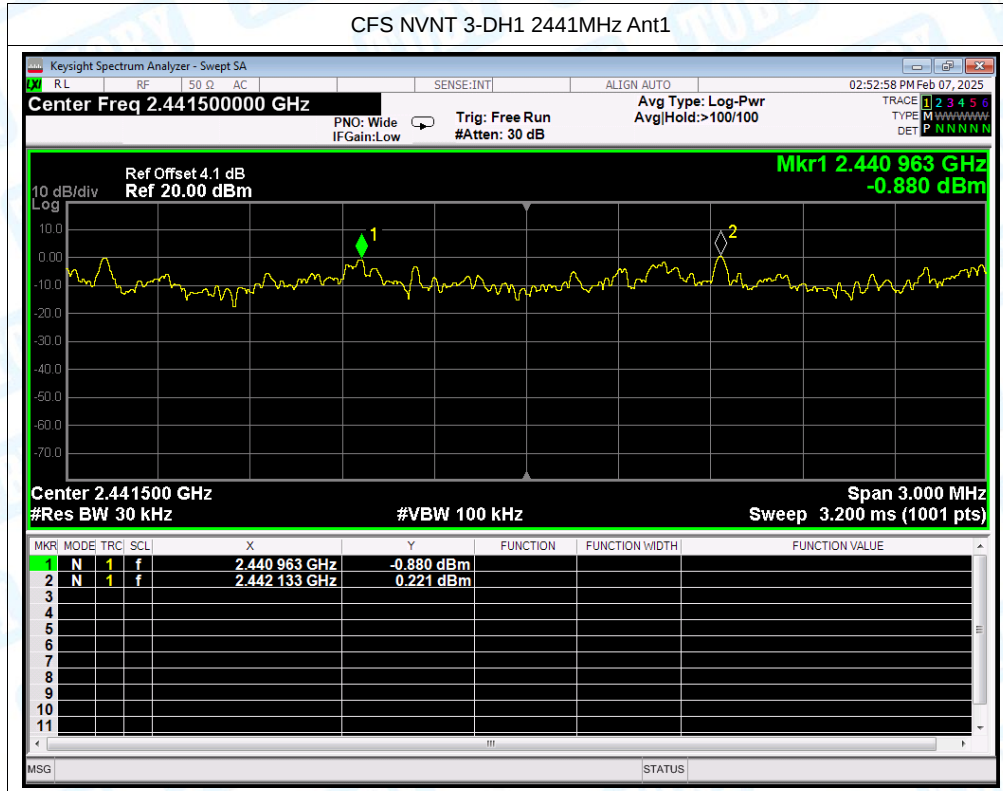
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



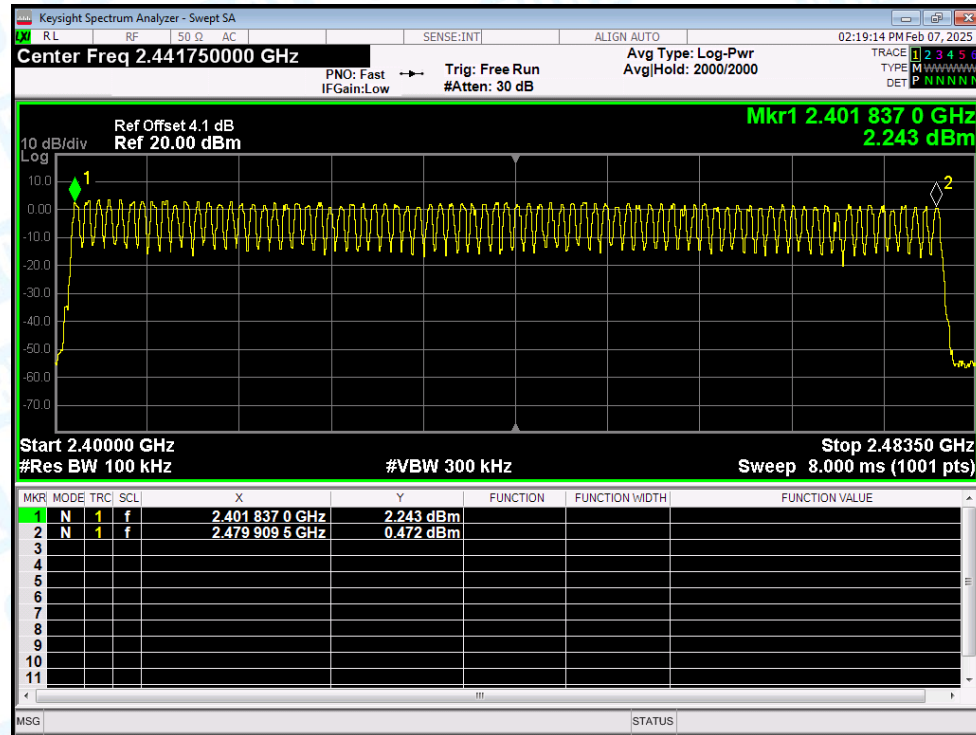


10. Number of Hopping Channel

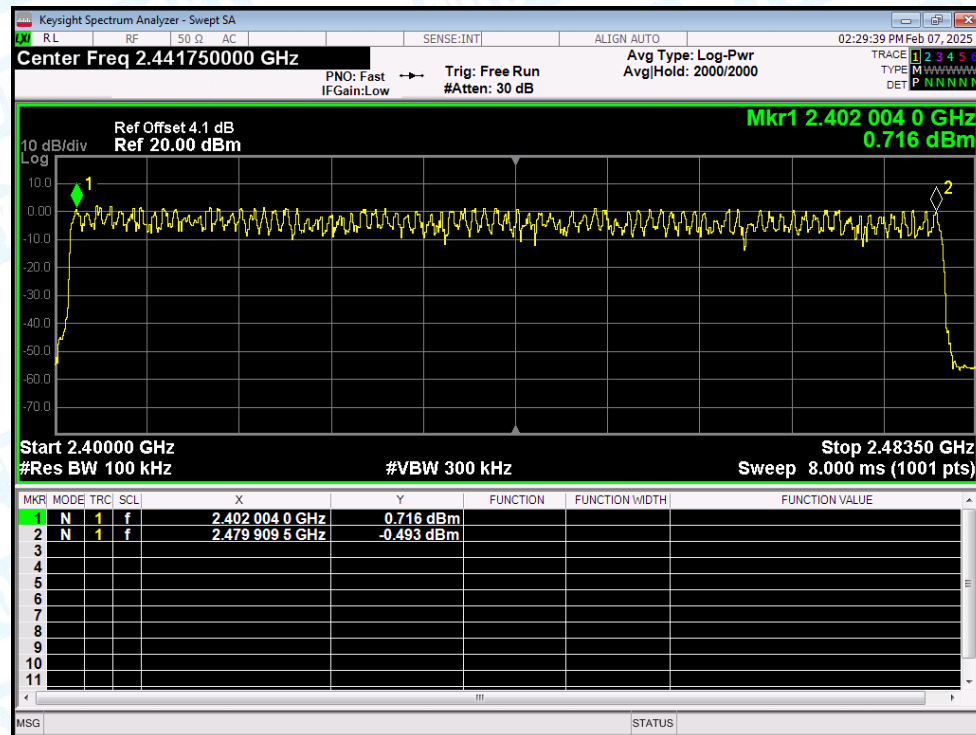
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

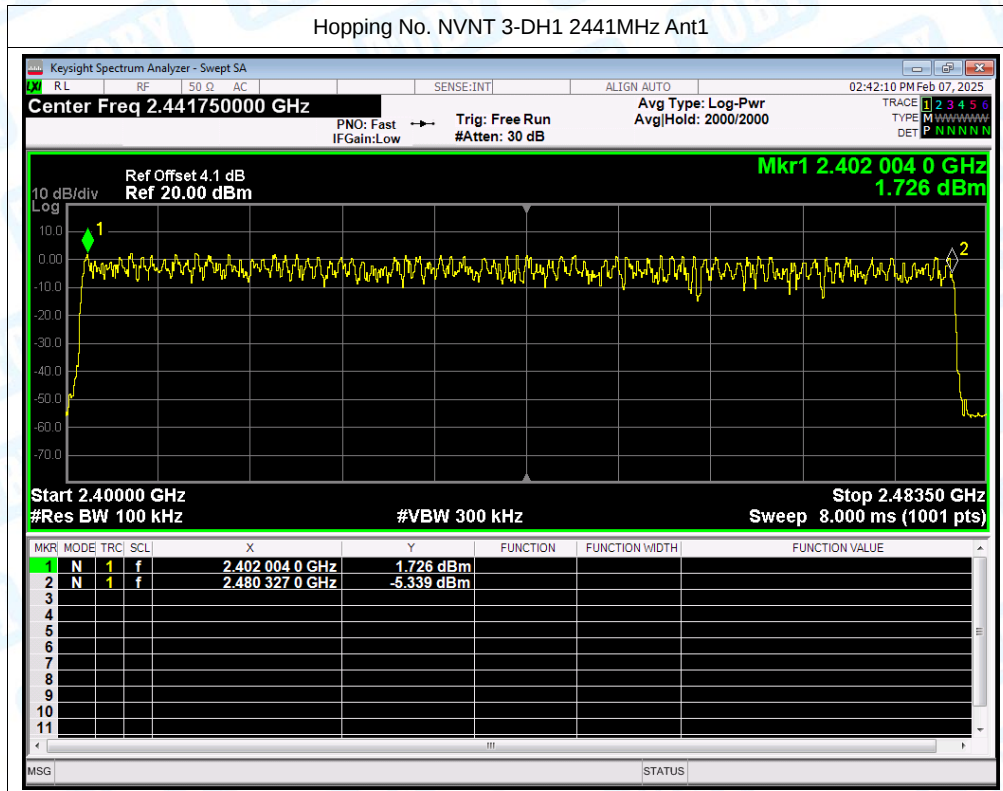
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



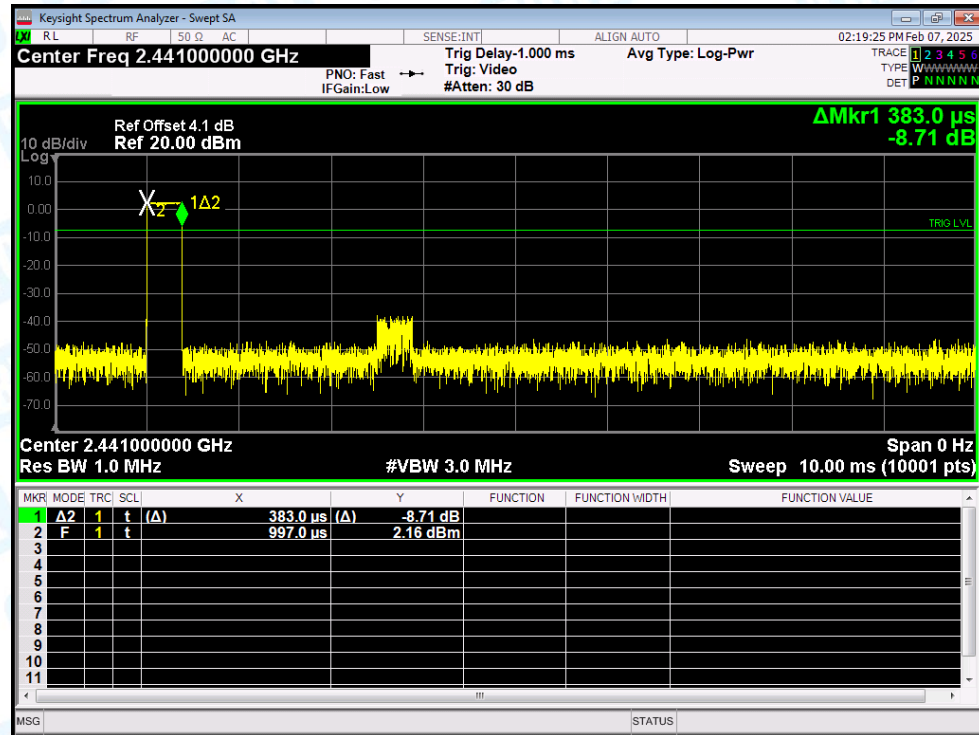


11. Dwell Time

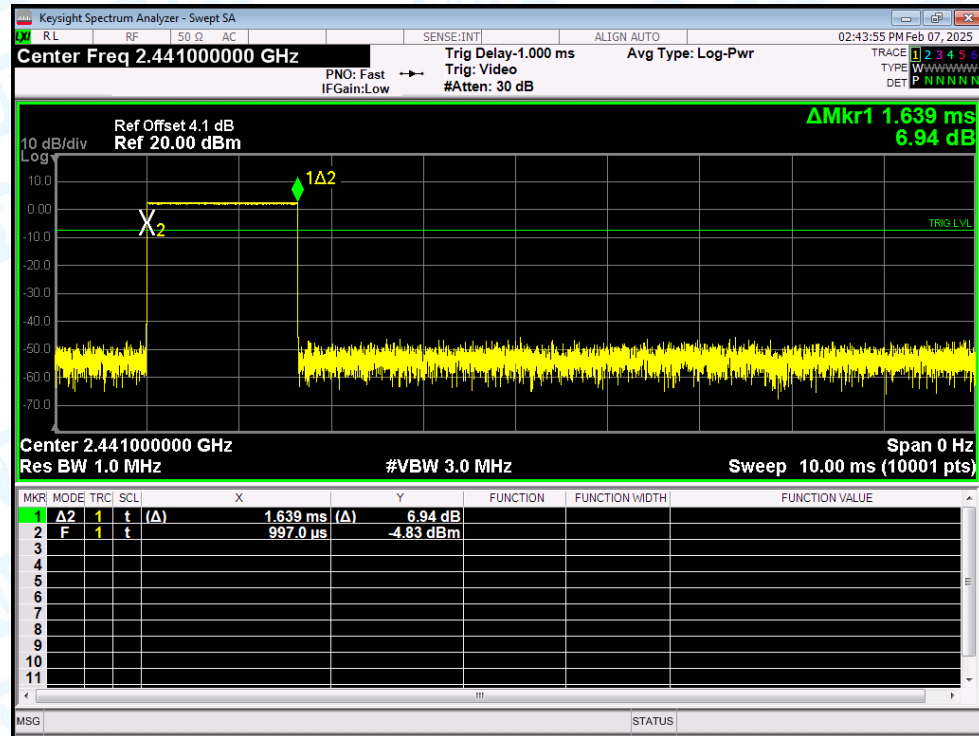
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.383	122.56	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.639	262.24	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.886	307.84	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.391	125.12	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.643	262.88	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.892	308.48	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.392	125.44	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.642	262.72	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.893	308.587	31600	400	Pass

Test Graphs

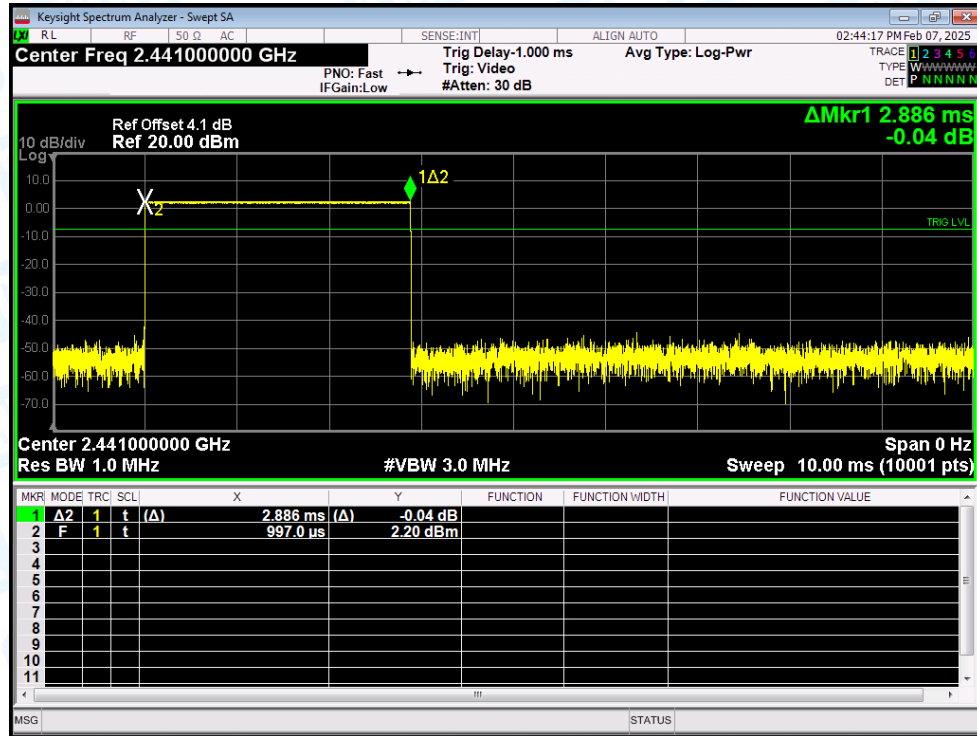
Dwell NVNT 1-DH1 2441MHz Ant1



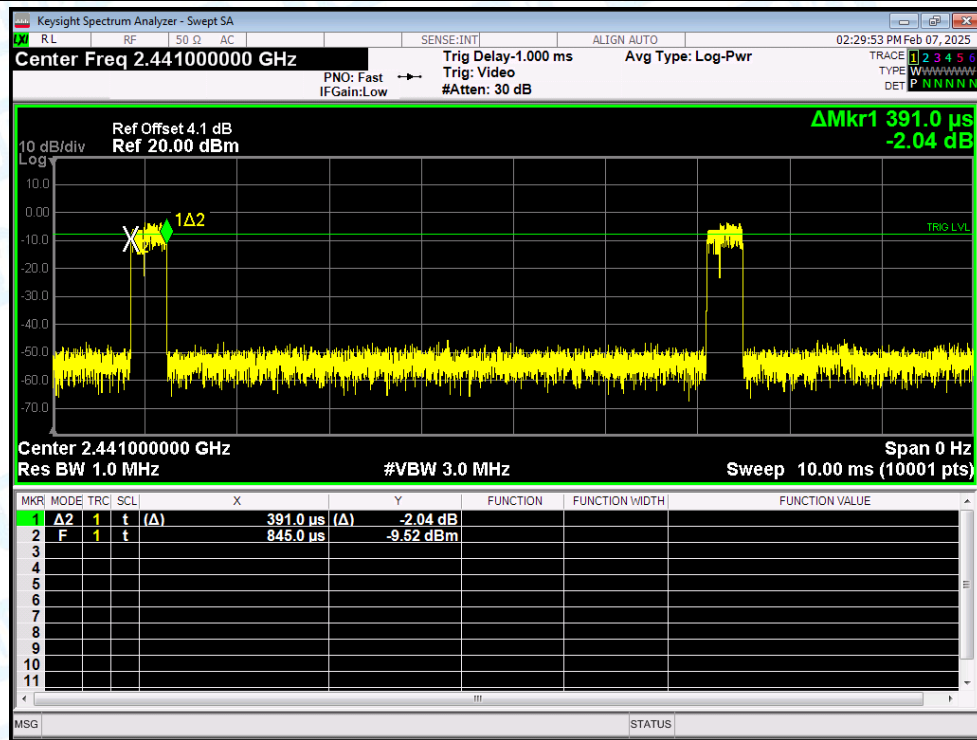
Dwell NVNT 1-DH3 2441MHz Ant1



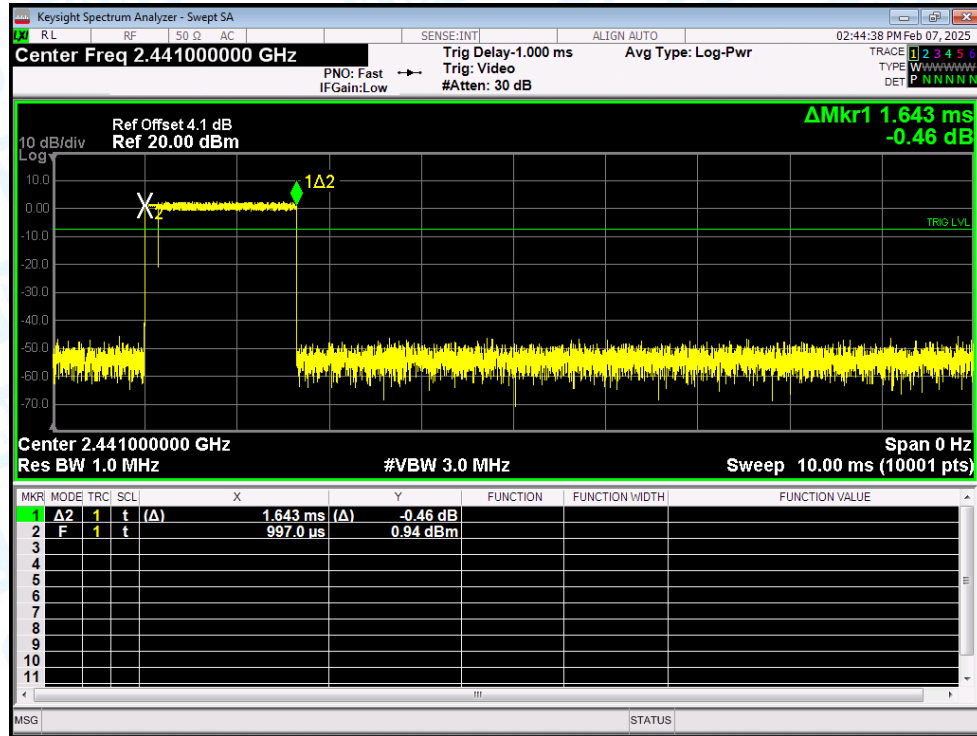
Dwell NVNT 1-DH5 2441MHz Ant1



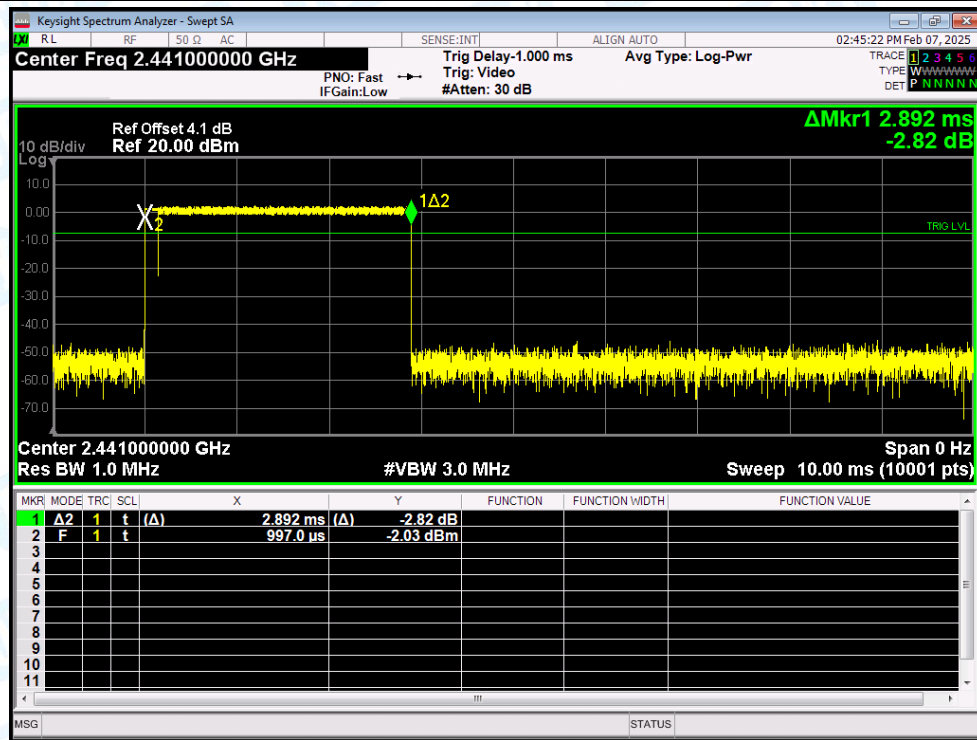
Dwell NVNT 2-DH1 2441MHz Ant1



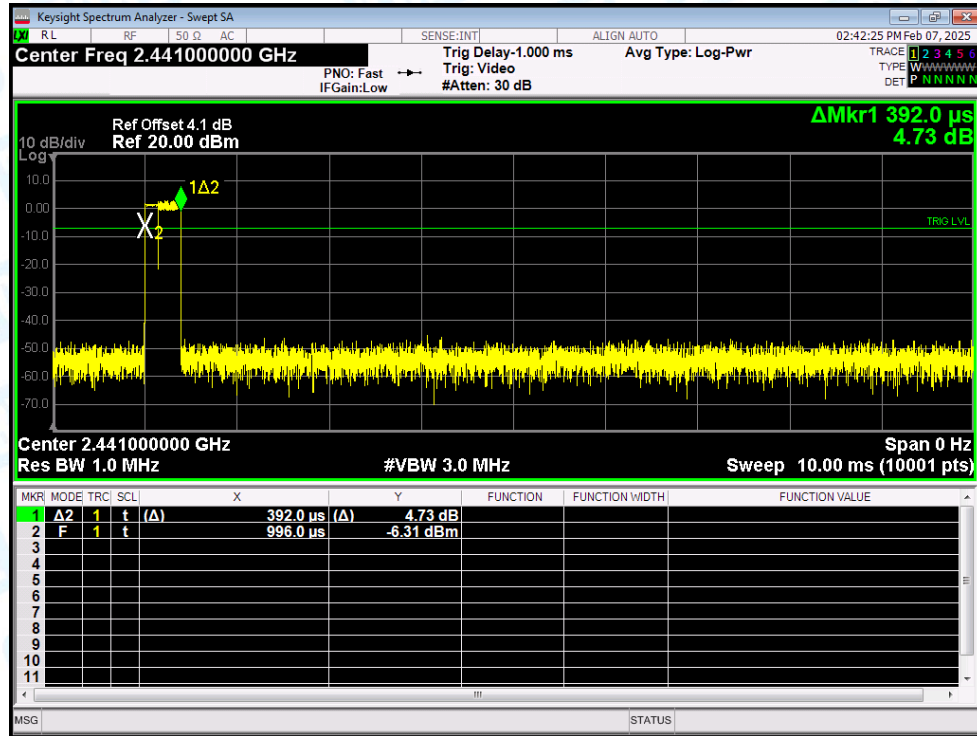
Dwell NVNT 2-DH3 2441MHz Ant1



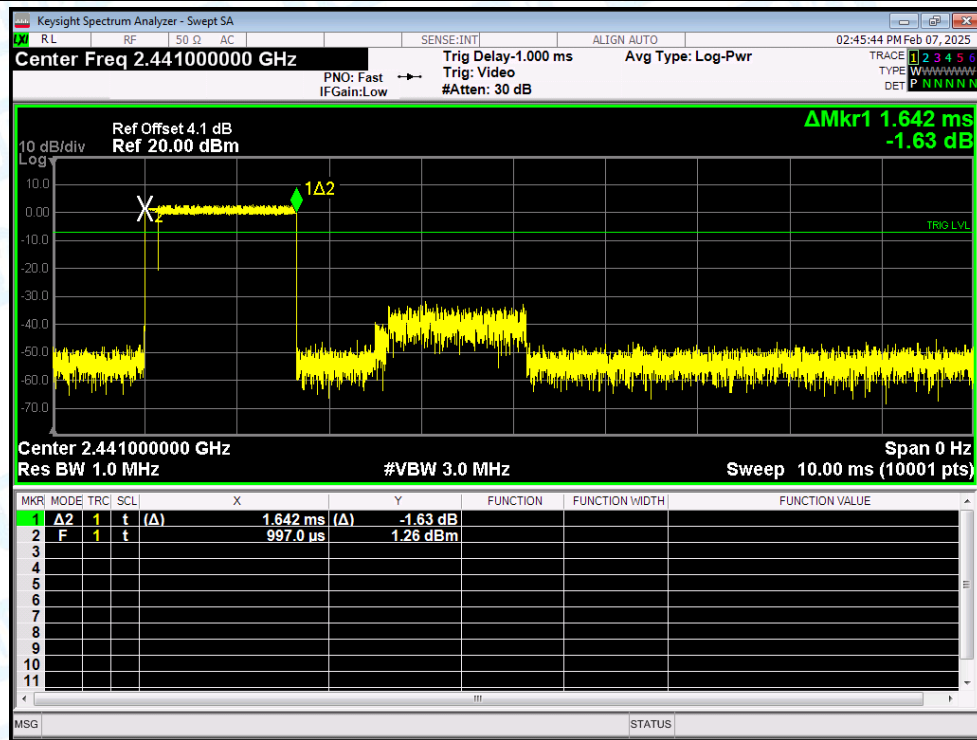
Dwell NVNT 2-DH5 2441MHz Ant1

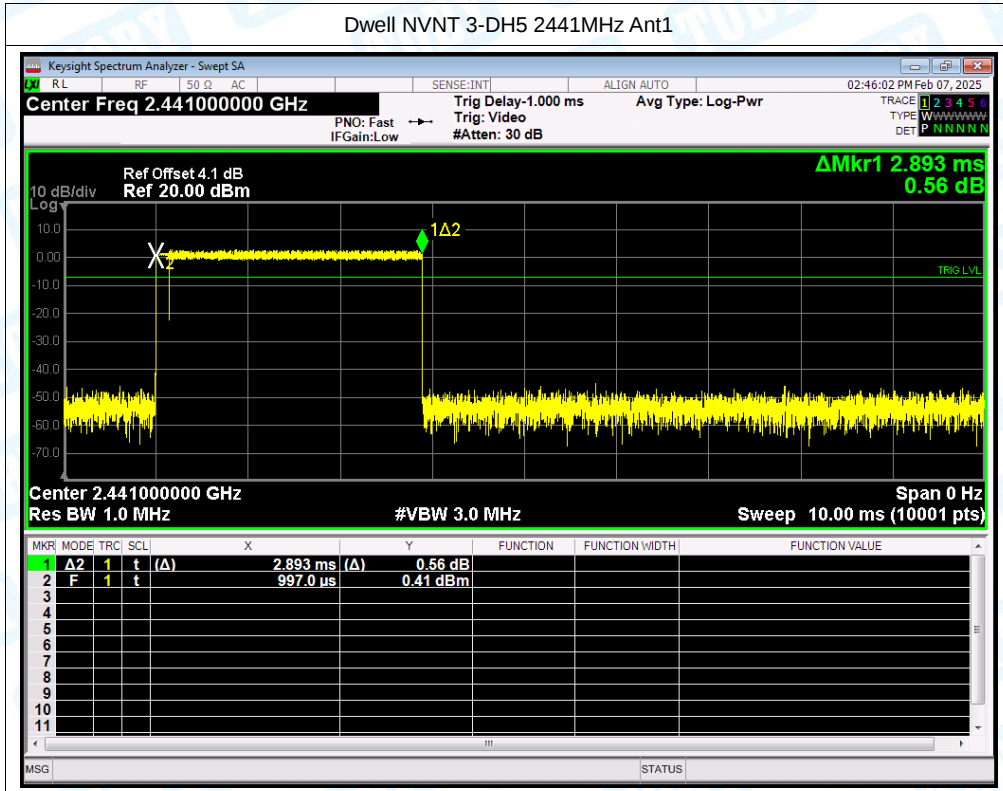


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





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