

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	Smart Watch
Test Model:	AK106-EF26
Sample ID:	HC-C-202601-0396-01-01
Environmental Conditions	
Temperature:	25.6℃
Relative Humidity:	52.6%
Test Voltage:	DC 3.85
Test Engineer:	Kael Li
Note: For a more detailed features description, please refer to the report TBR-C-202601-0396-14 The report only show the worst case data.	

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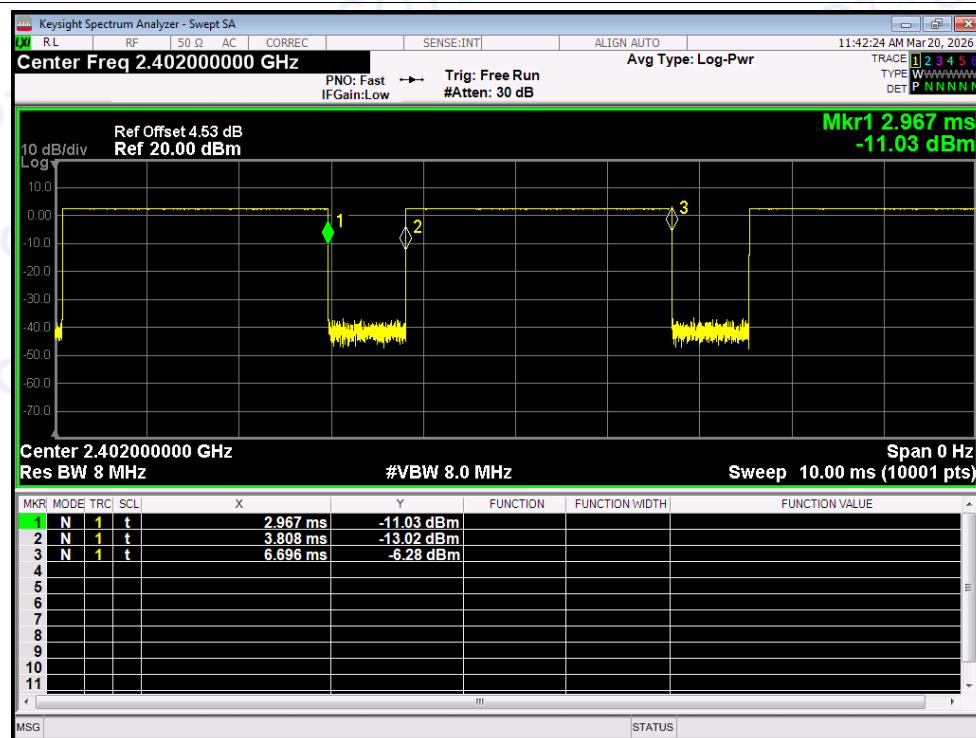
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1. Duty Cycle

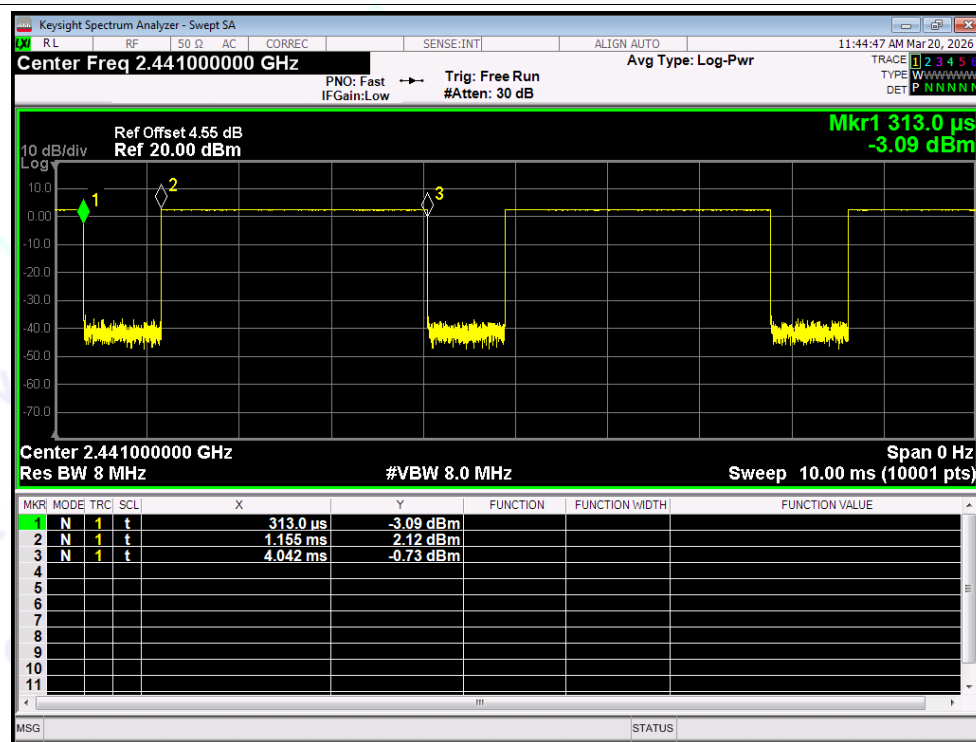
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	77.45	1.11	0.35
NVNT	1-DH5	2441	Ant1	77.42	1.11	0.35
NVNT	1-DH5	2480	Ant1	77.45	1.11	0.35
NVNT	2-DH5	2402	Ant1	77.46	1.11	0.35
NVNT	2-DH5	2441	Ant1	77.45	1.11	0.35
NVNT	2-DH5	2480	Ant1	77.46	1.11	0.35
NVNT	3-DH5	2402	Ant1	77.47	1.11	0.35
NVNT	3-DH5	2441	Ant1	77.47	1.11	0.35
NVNT	3-DH5	2480	Ant1	77.47	1.11	0.35

Test Graphs

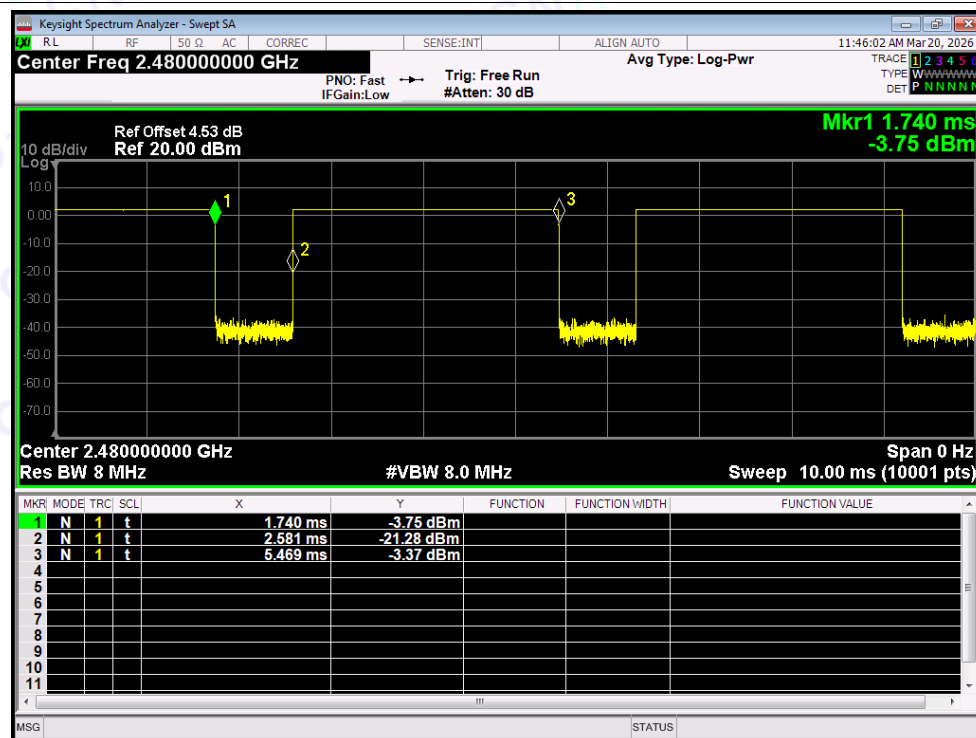
Duty Cycle NVNT 1-DH5 2402MHz Ant1



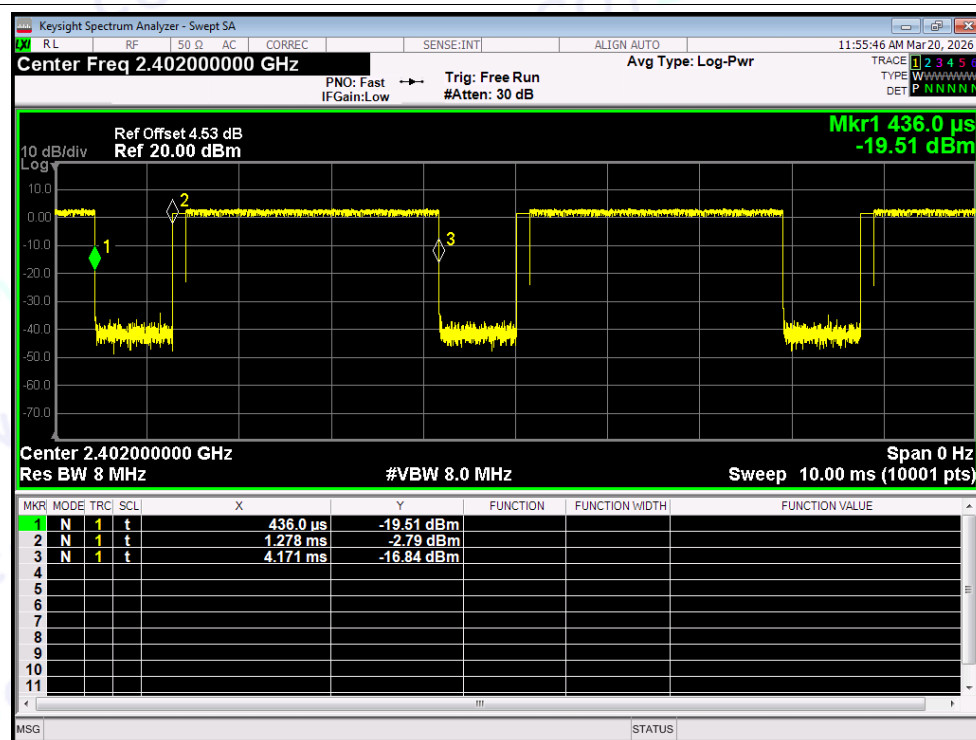
Duty Cycle NVNT 1-DH5 2441MHz Ant1



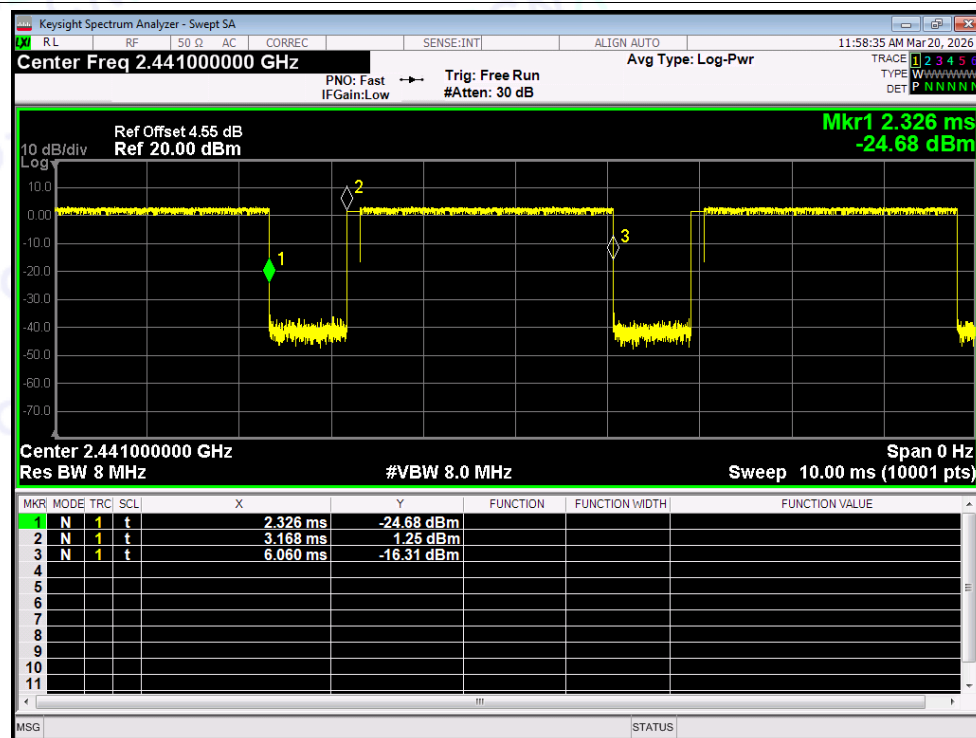
Duty Cycle NVNT 1-DH5 2480MHz Ant1



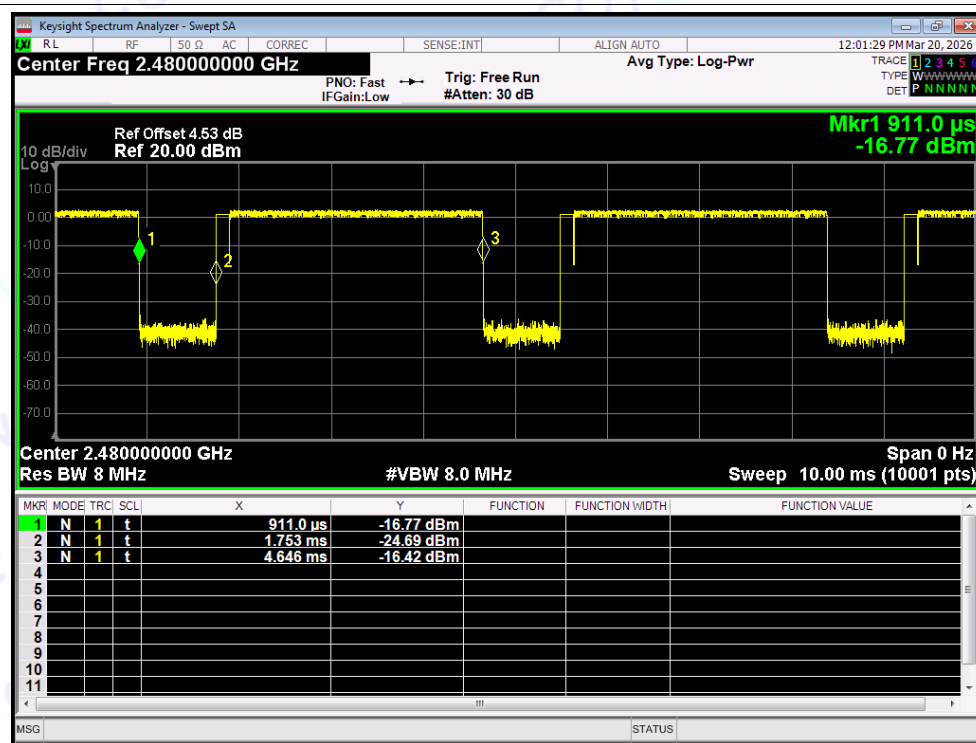
Duty Cycle NVNT 2-DH5 2402MHz Ant1



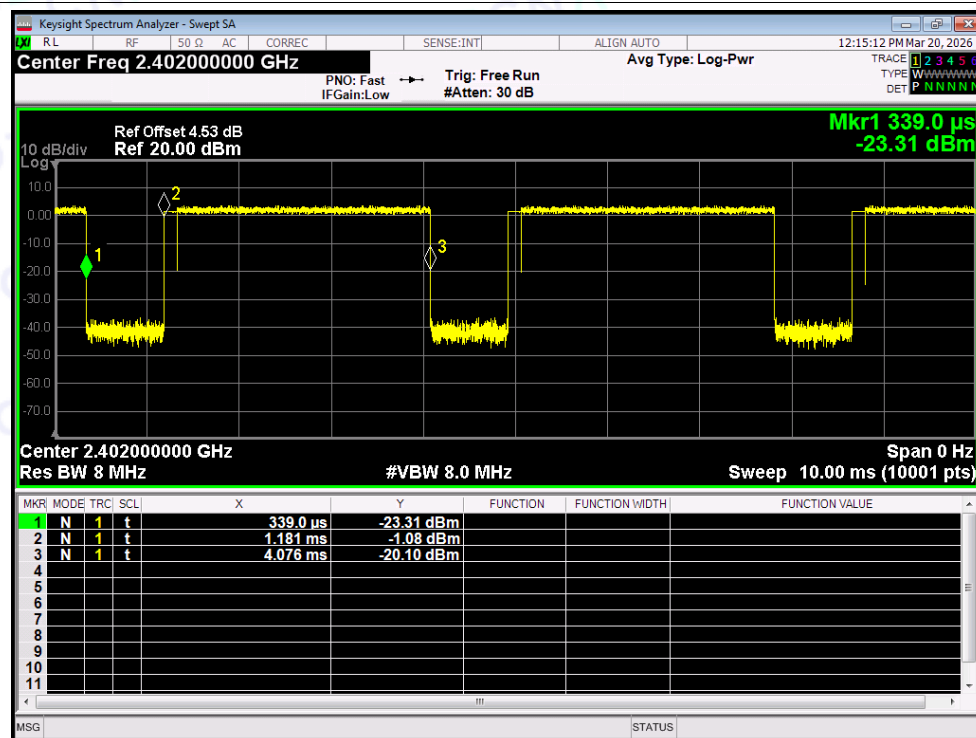
Duty Cycle NVNT 2-DH5 2441MHz Ant1



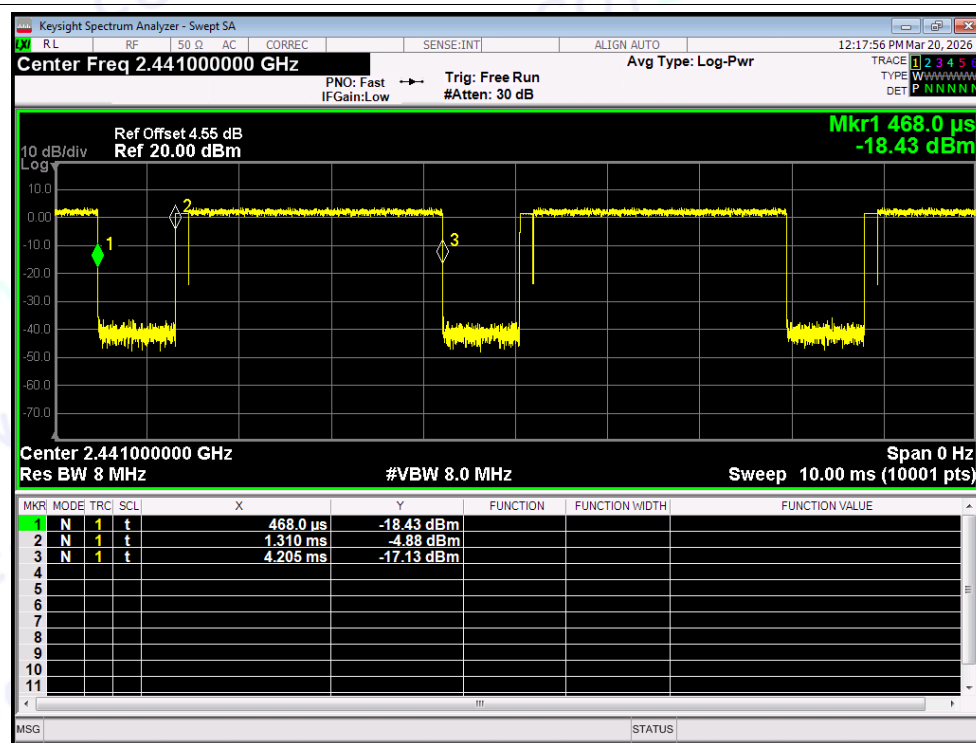
Duty Cycle NVNT 2-DH5 2480MHz Ant1

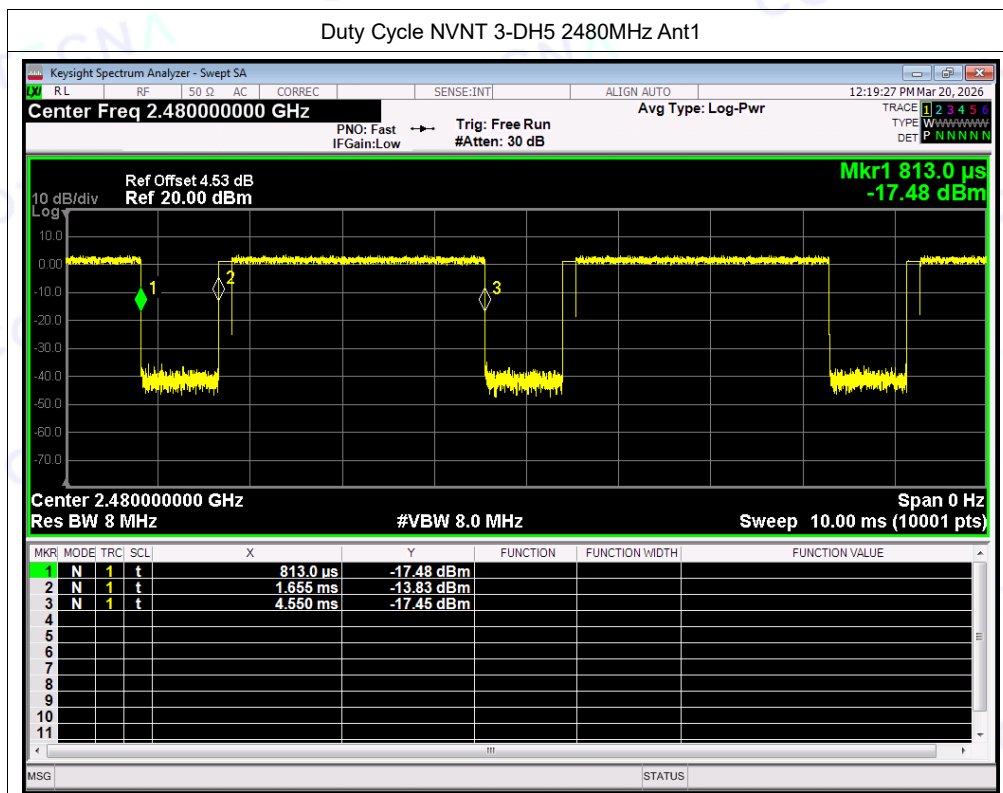


Duty Cycle NVNT 3-DH5 2402MHz Ant1



Duty Cycle NVNT 3-DH5 2441MHz Ant1



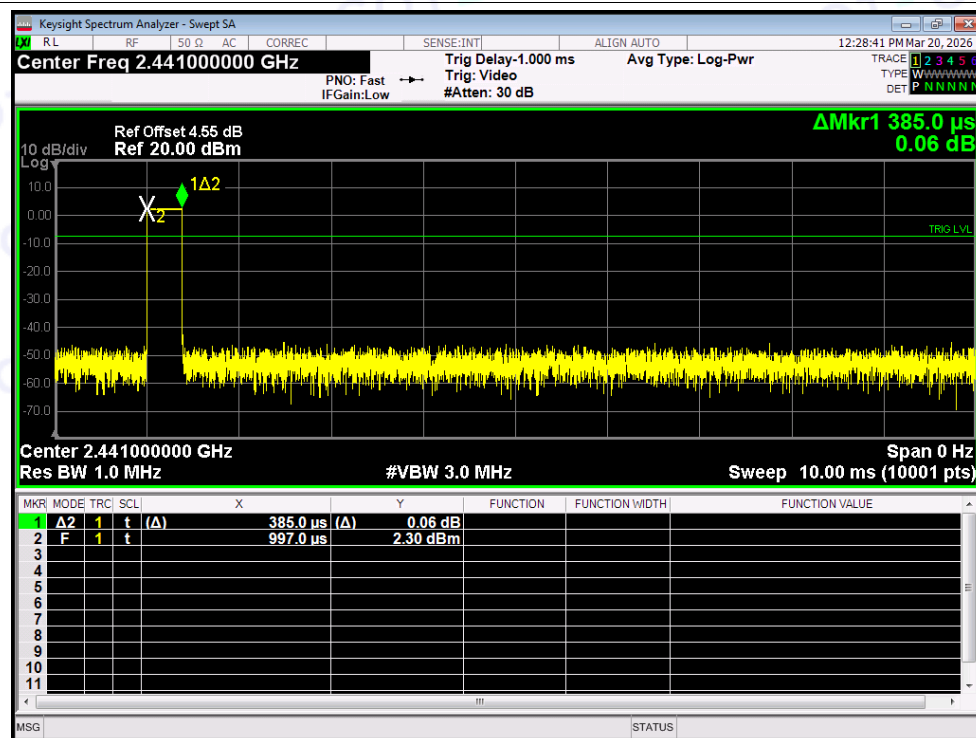


2. Dwell Time

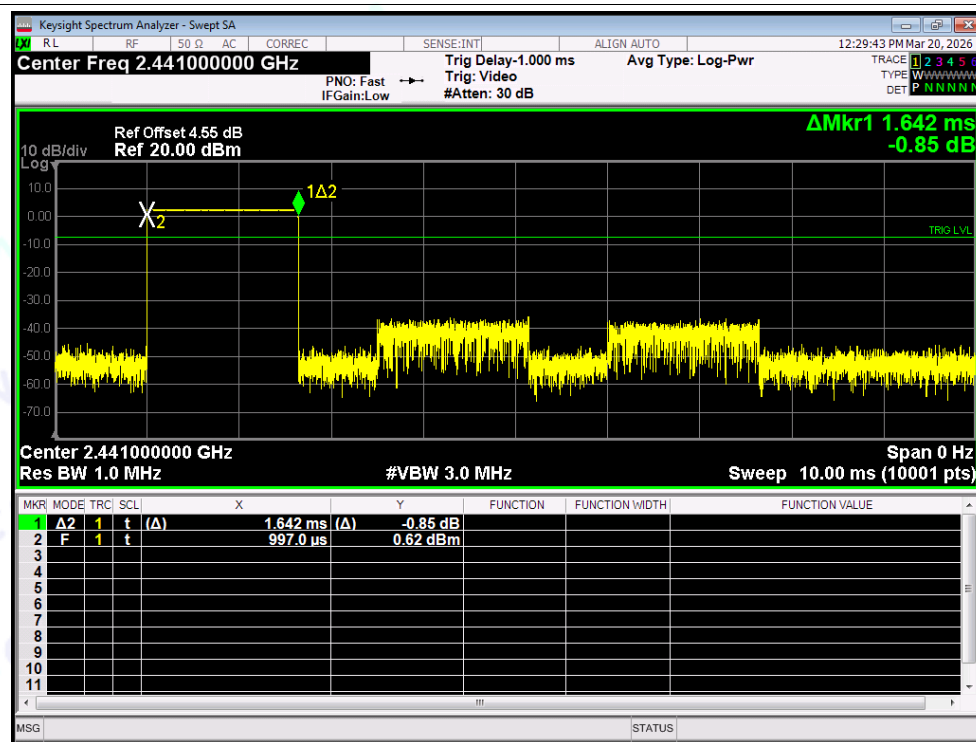
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.385	123.2	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.642	262.72	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.89	308.267	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.394	126.08	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.646	263.36	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.894	308.693	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.394	126.08	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.645	263.2	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.897	309.013	31600	400	Pass

Test Graphs

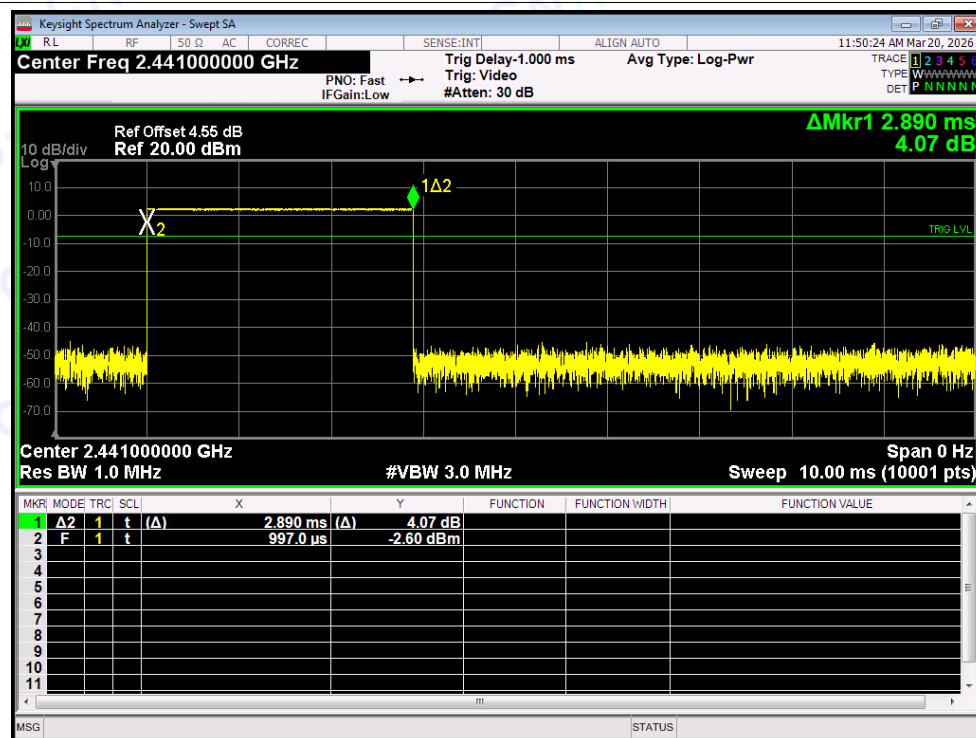
Dwell NVNT 1-DH1 2441MHz Ant1



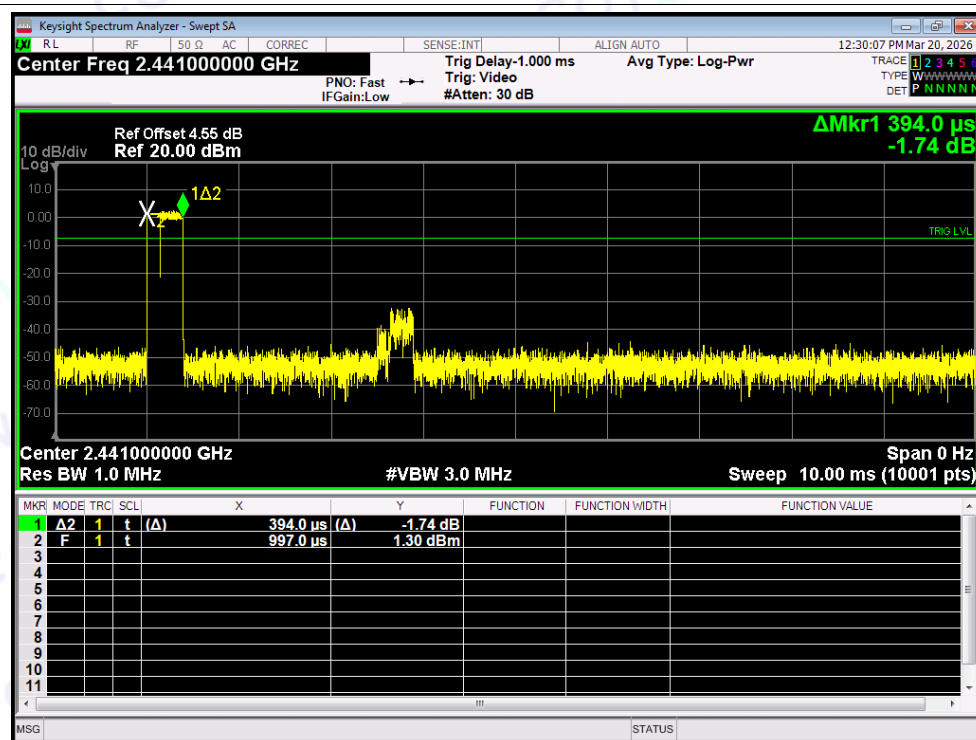
Dwell NVNT 1-DH3 2441MHz Ant1



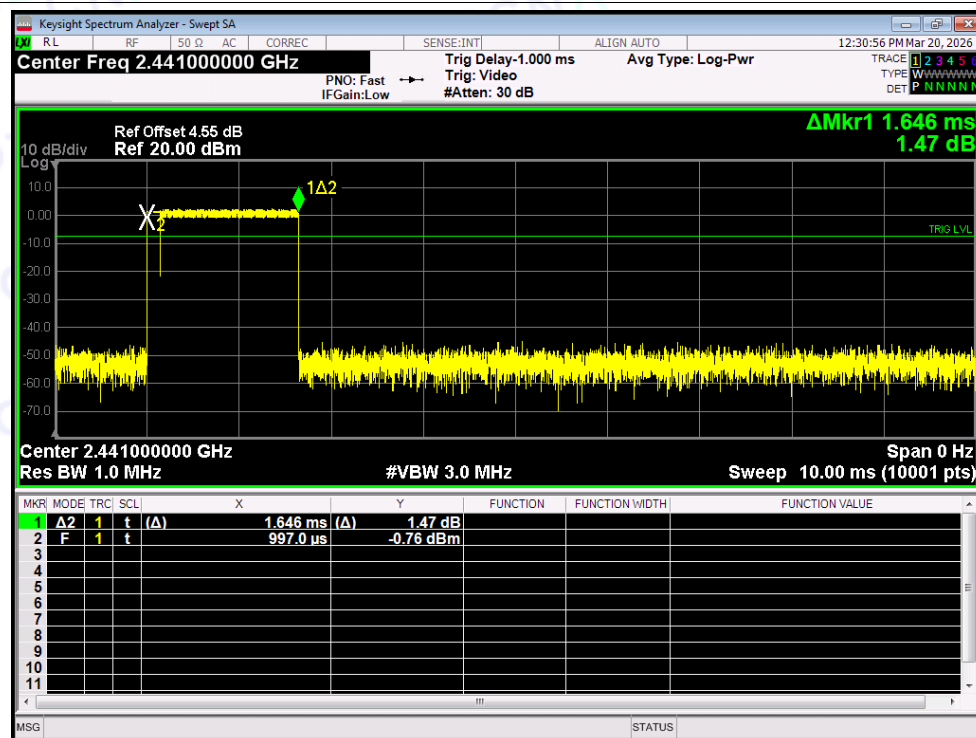
Dwell NVNT 1-DH5 2441MHz Ant1



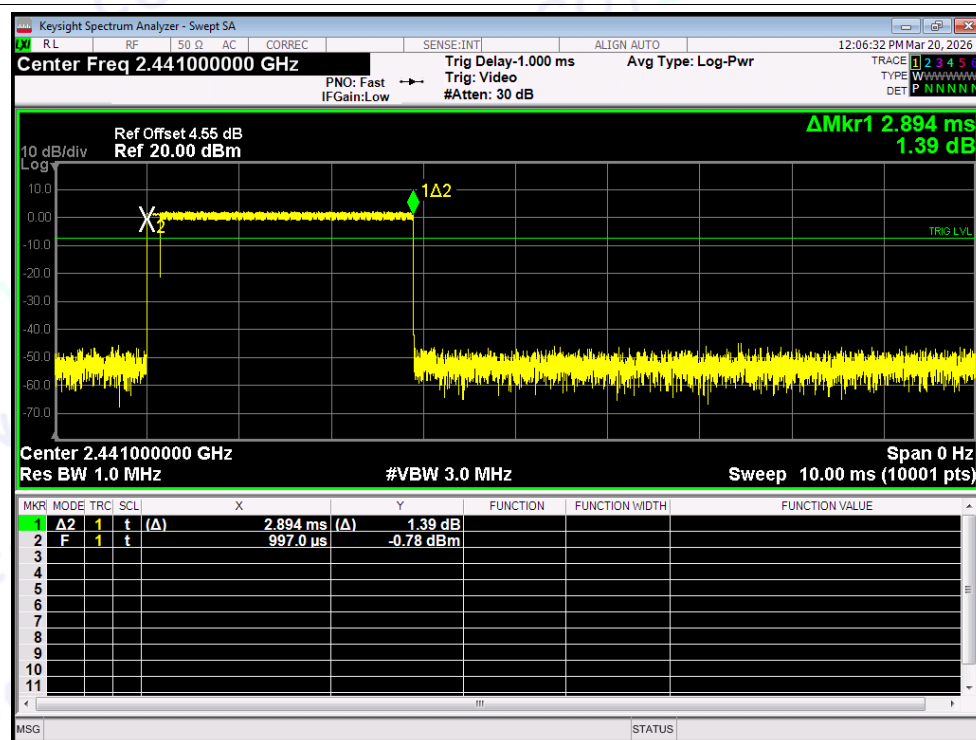
Dwell NVNT 2-DH1 2441MHz Ant1



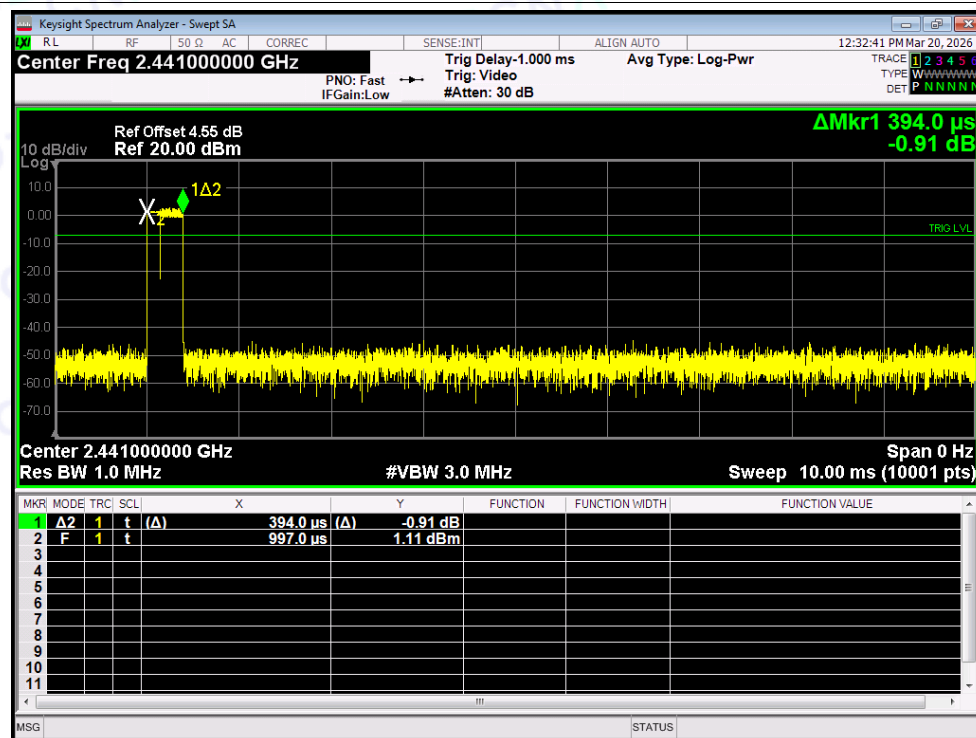
Dwell NVNT 2-DH3 2441MHz Ant1



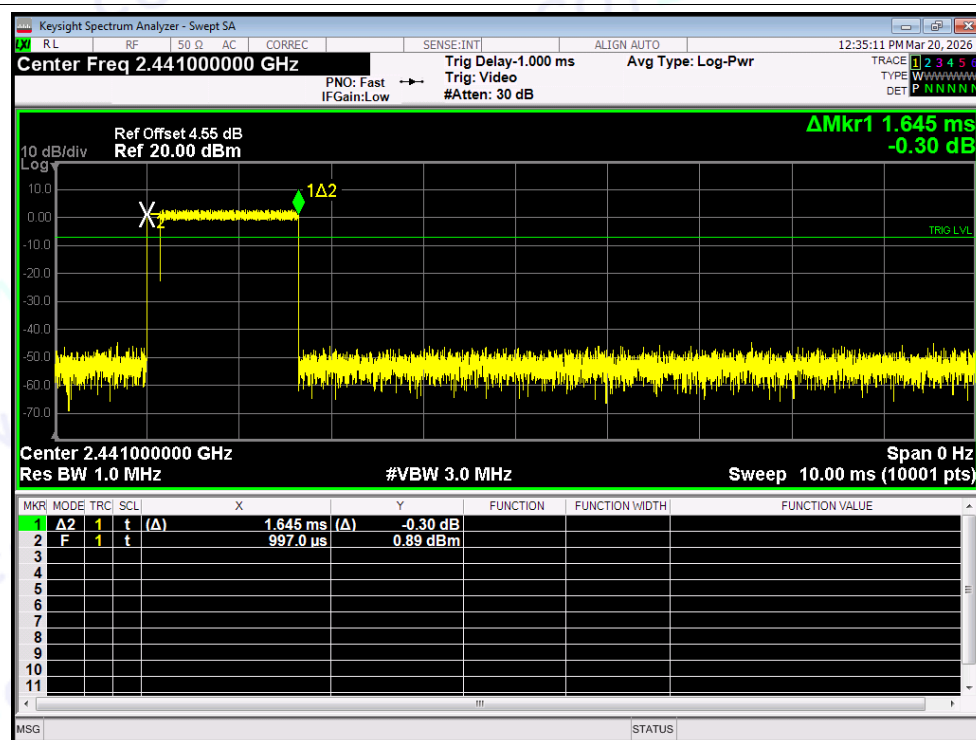
Dwell NVNT 2-DH5 2441MHz Ant1

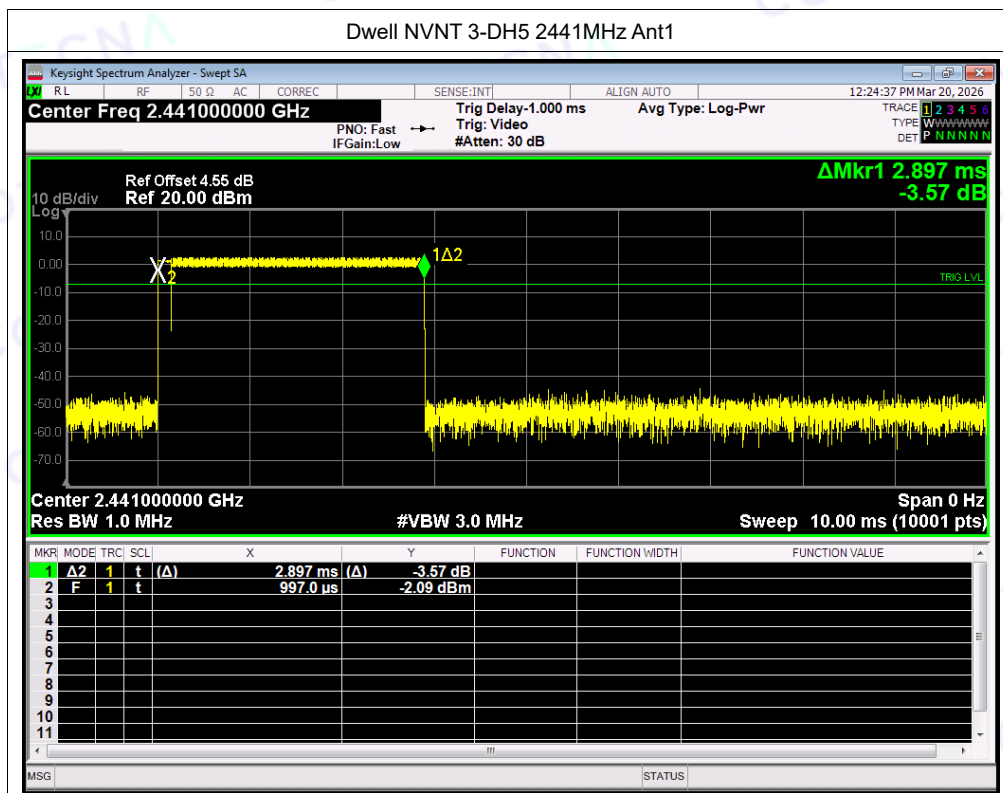


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1



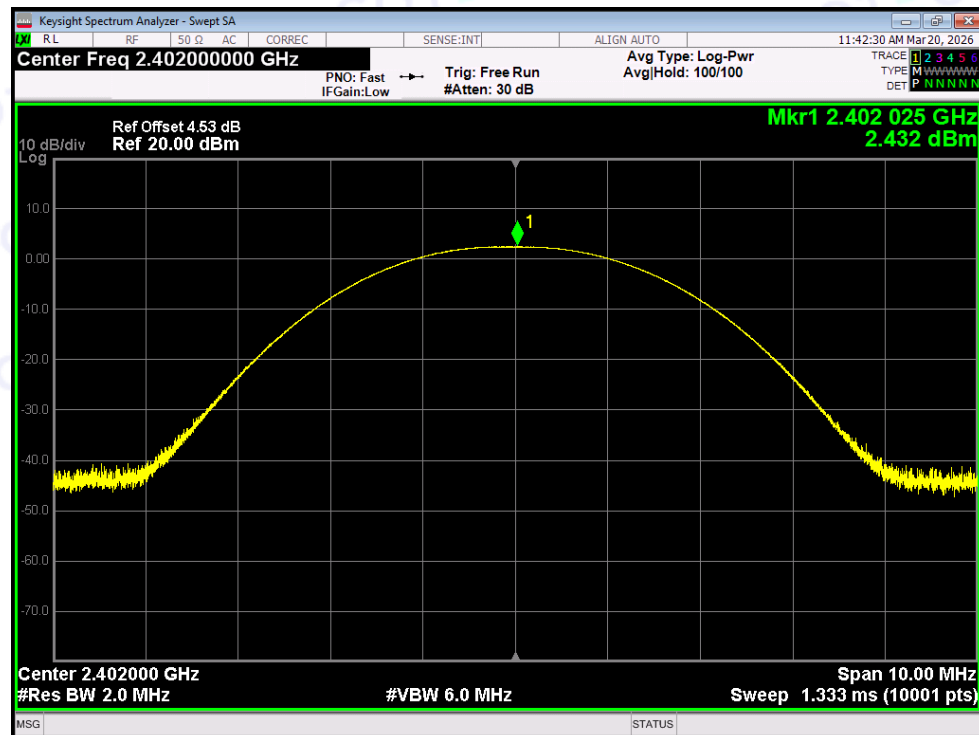


3. Maximum Conducted Output Power

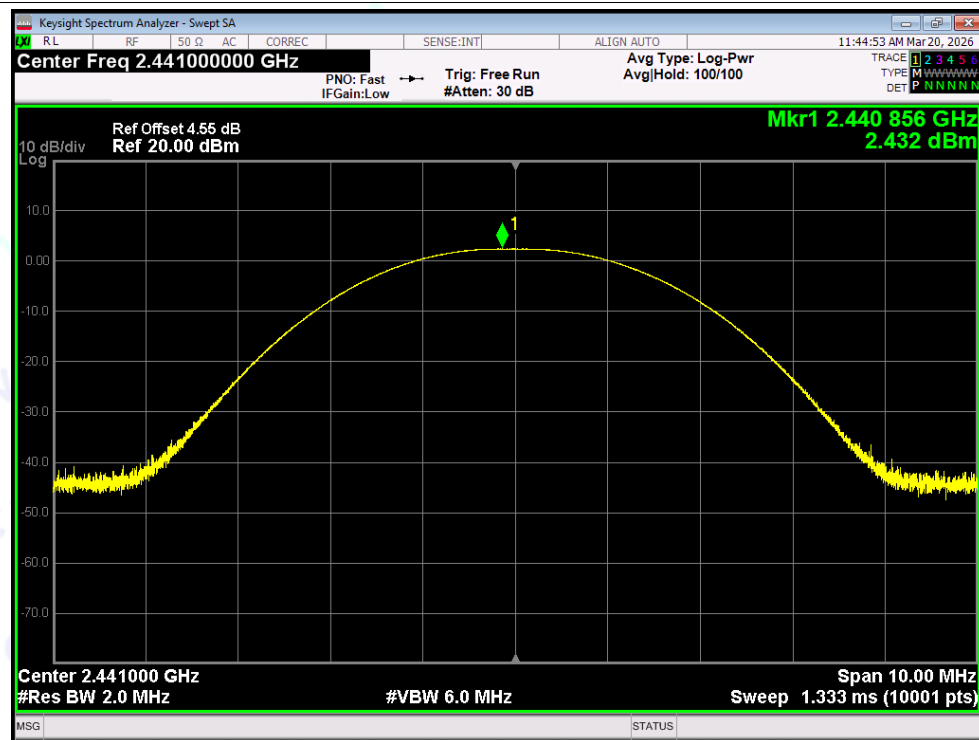
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	2.432	30	Pass
NVNT	1-DH5	2441	Ant1	2.432	30	Pass
NVNT	1-DH5	2480	Ant1	2.126	30	Pass
NVNT	2-DH5	2402	Ant1	2.89	30	Pass
NVNT	2-DH5	2441	Ant1	2.808	30	Pass
NVNT	2-DH5	2480	Ant1	2.493	30	Pass
NVNT	3-DH5	2402	Ant1	3.399	30	Pass
NVNT	3-DH5	2441	Ant1	3.328	30	Pass
NVNT	3-DH5	2480	Ant1	3.03	30	Pass

Test Graphs

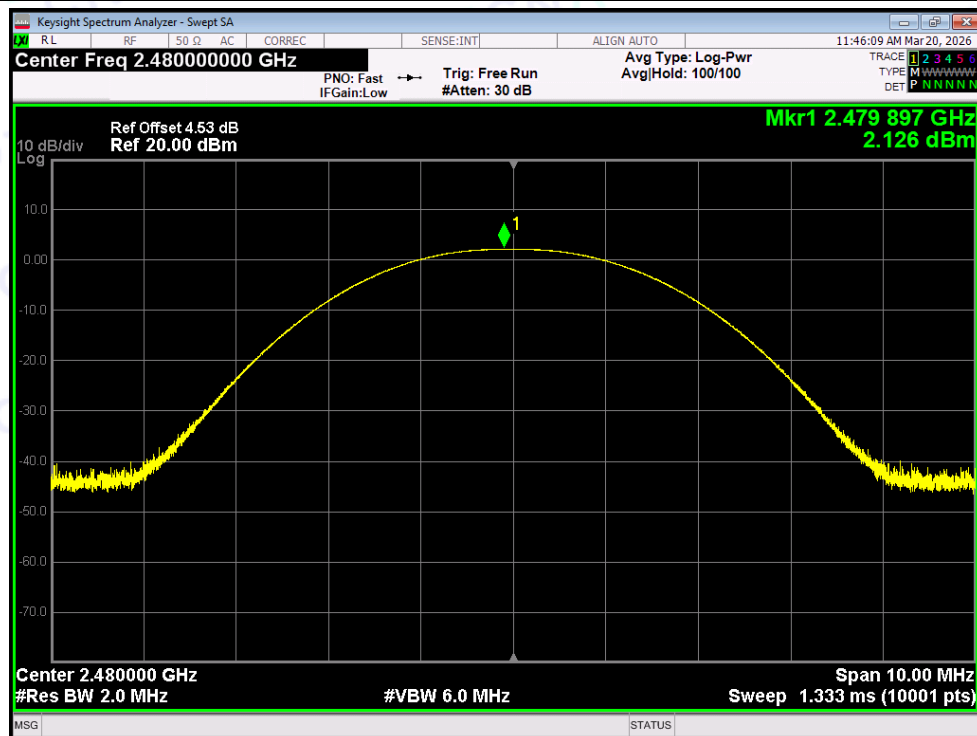
Power NVNT 1-DH5 2402MHz Ant1



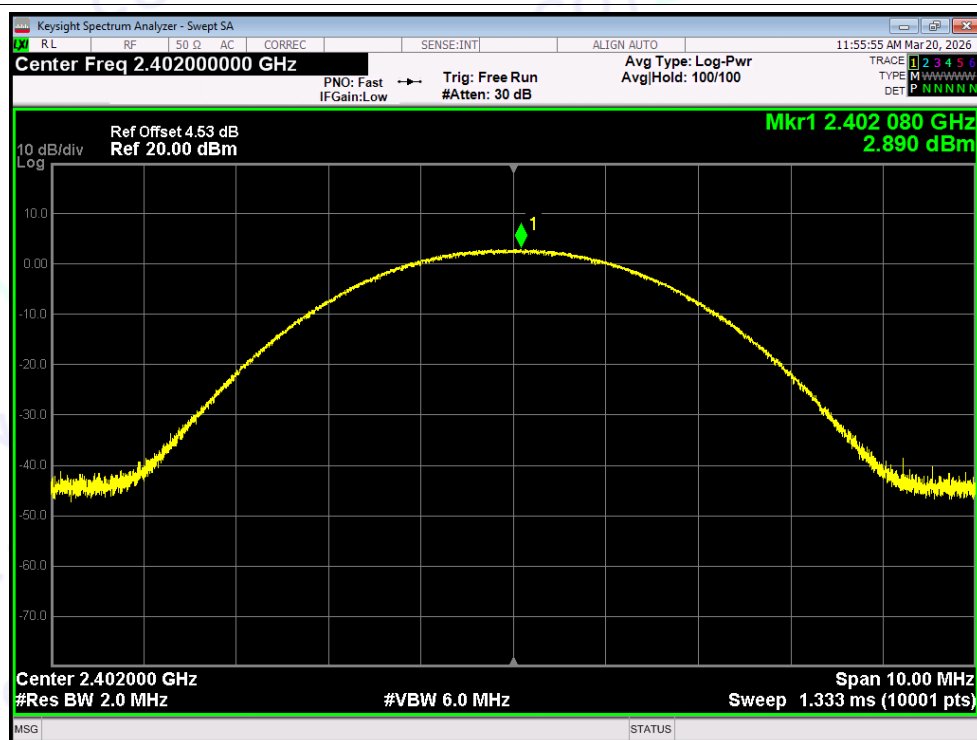
Power NVNT 1-DH5 2441MHz Ant1



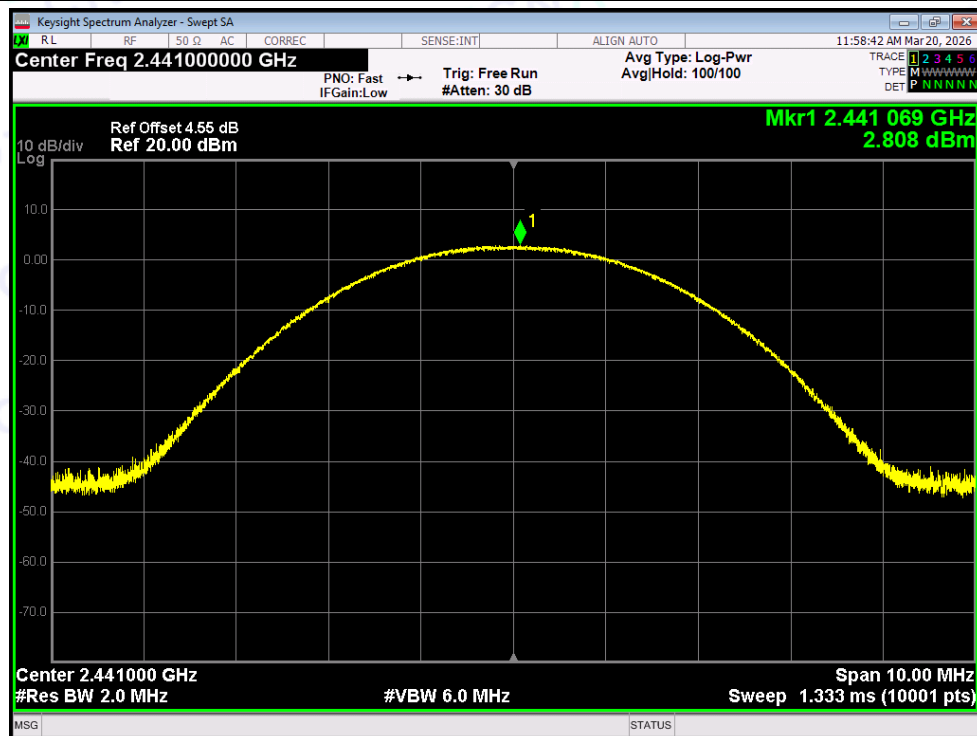
Power NVNT 1-DH5 2480MHz Ant1



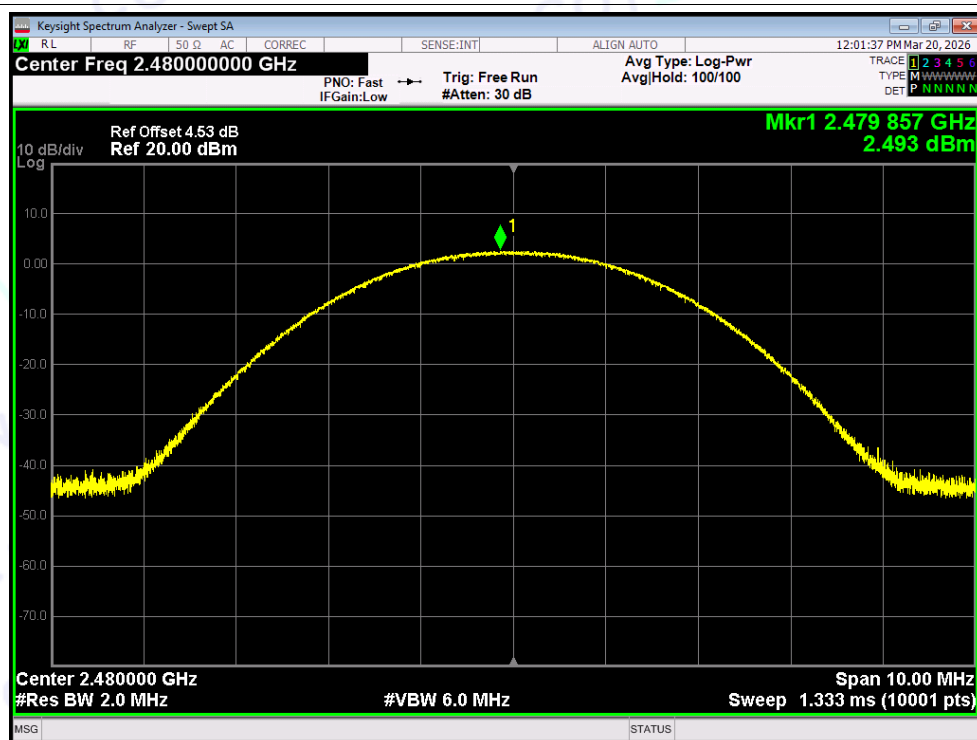
Power NVNT 2-DH5 2402MHz Ant1



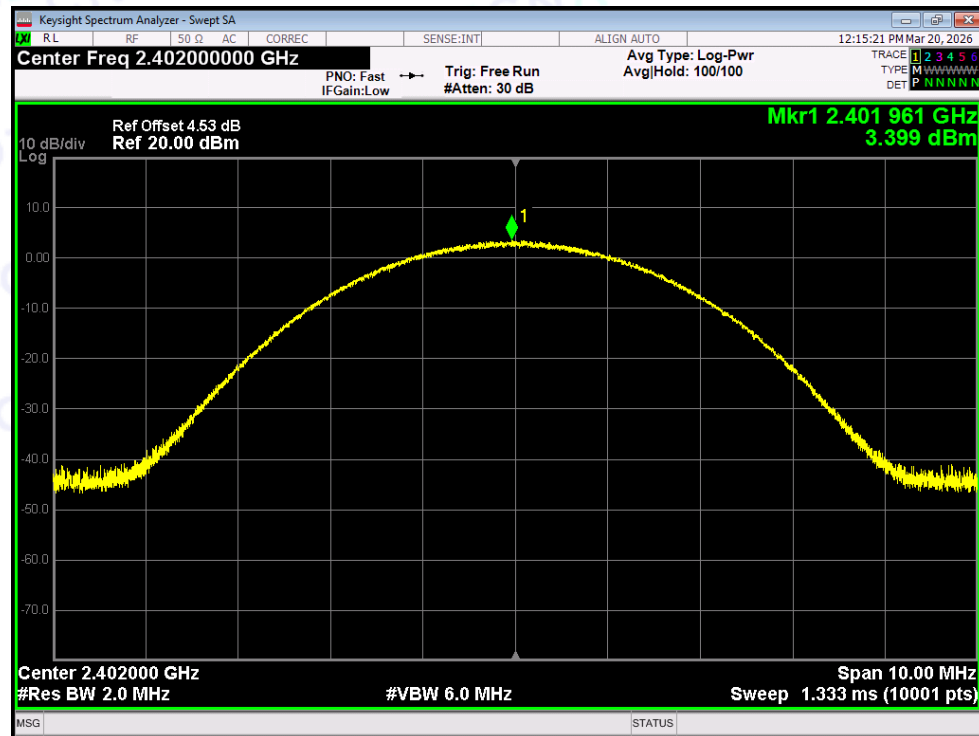
Power NVNT 2-DH5 2441MHz Ant1



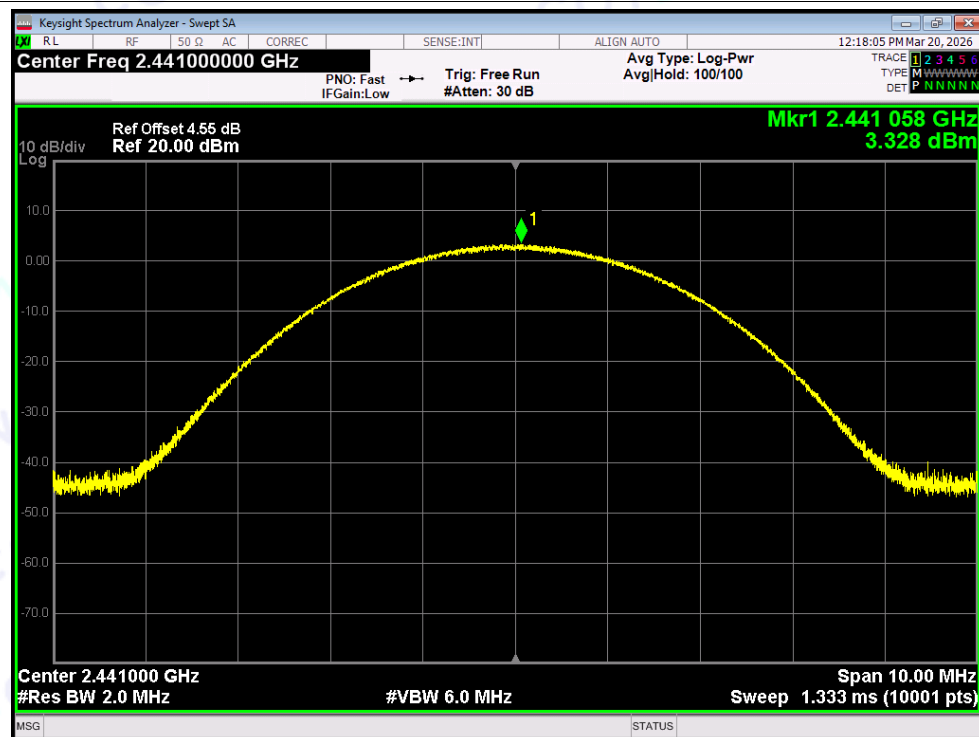
Power NVNT 2-DH5 2480MHz Ant1

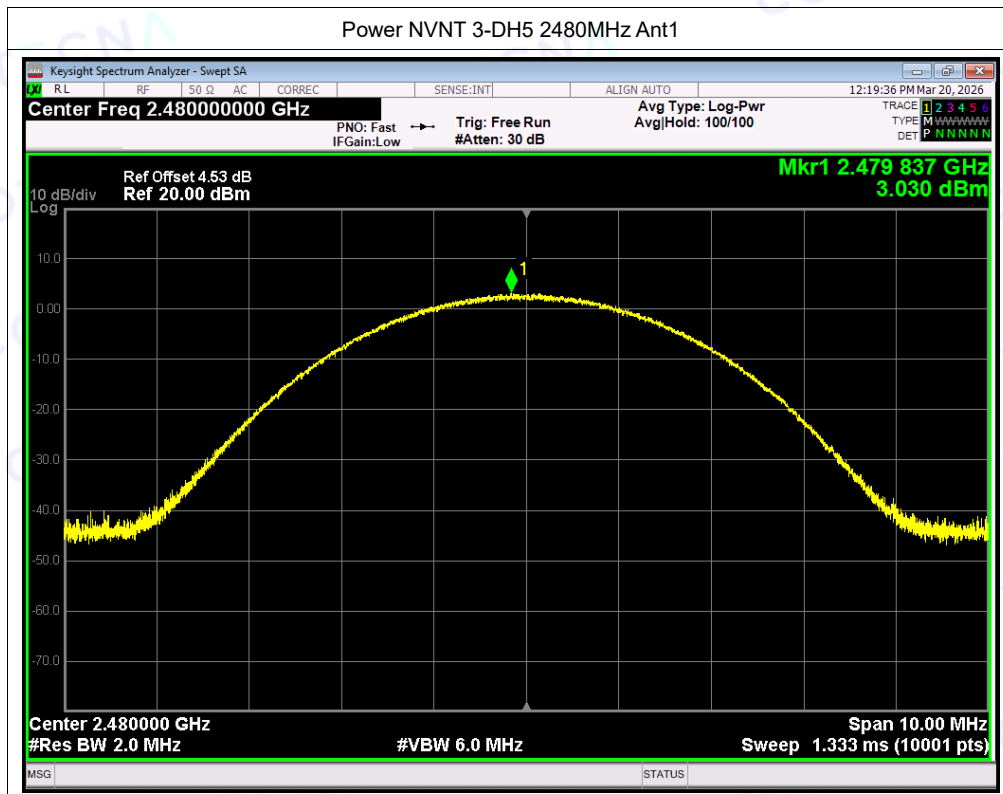


Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1



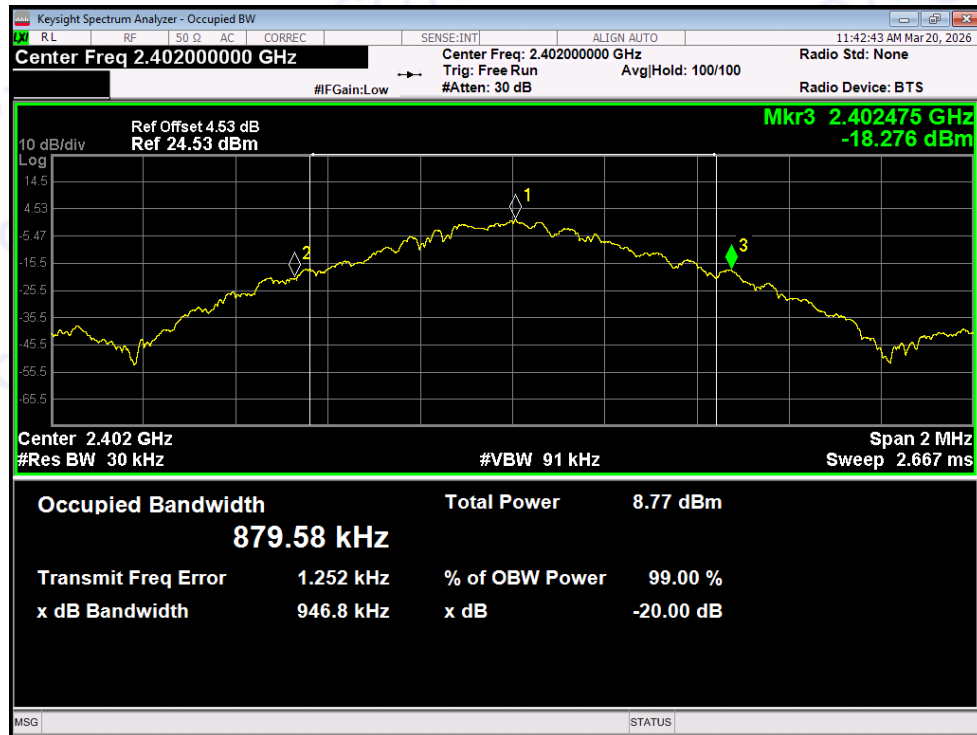


4. -20dB Bandwidth

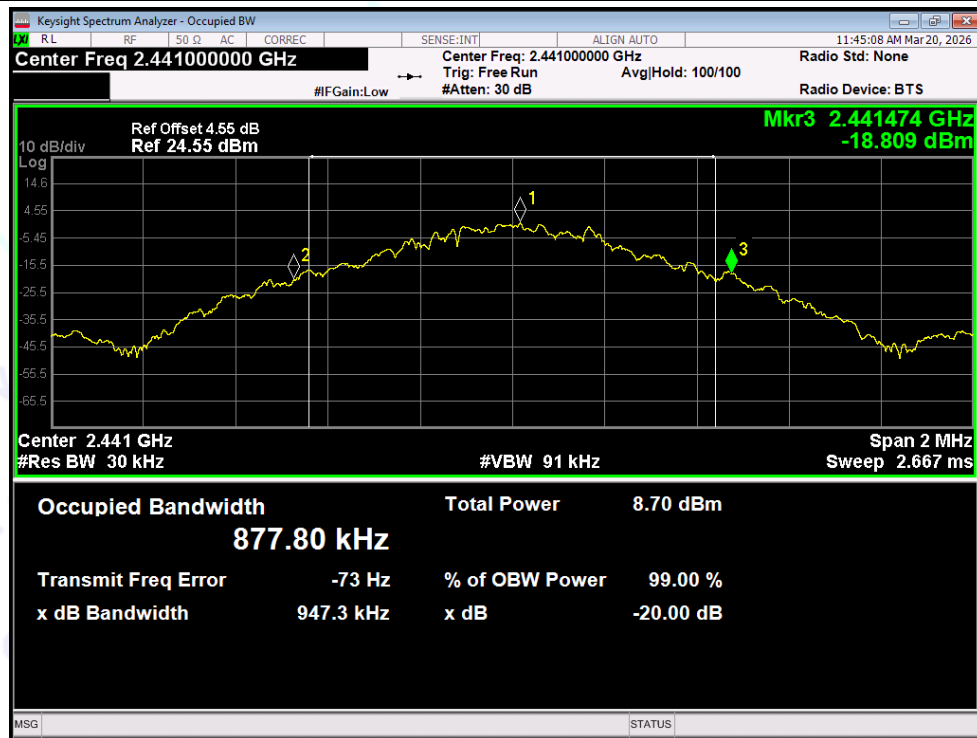
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.95	/	Pass
NVNT	1-DH5	2441	Ant1	0.95	/	Pass
NVNT	1-DH5	2480	Ant1	0.96	/	Pass
NVNT	2-DH5	2402	Ant1	1.28	/	Pass
NVNT	2-DH5	2441	Ant1	1.28	/	Pass
NVNT	2-DH5	2480	Ant1	1.27	/	Pass
NVNT	3-DH5	2402	Ant1	1.3	/	Pass
NVNT	3-DH5	2441	Ant1	1.3	/	Pass
NVNT	3-DH5	2480	Ant1	1.29	/	Pass

Test Graphs

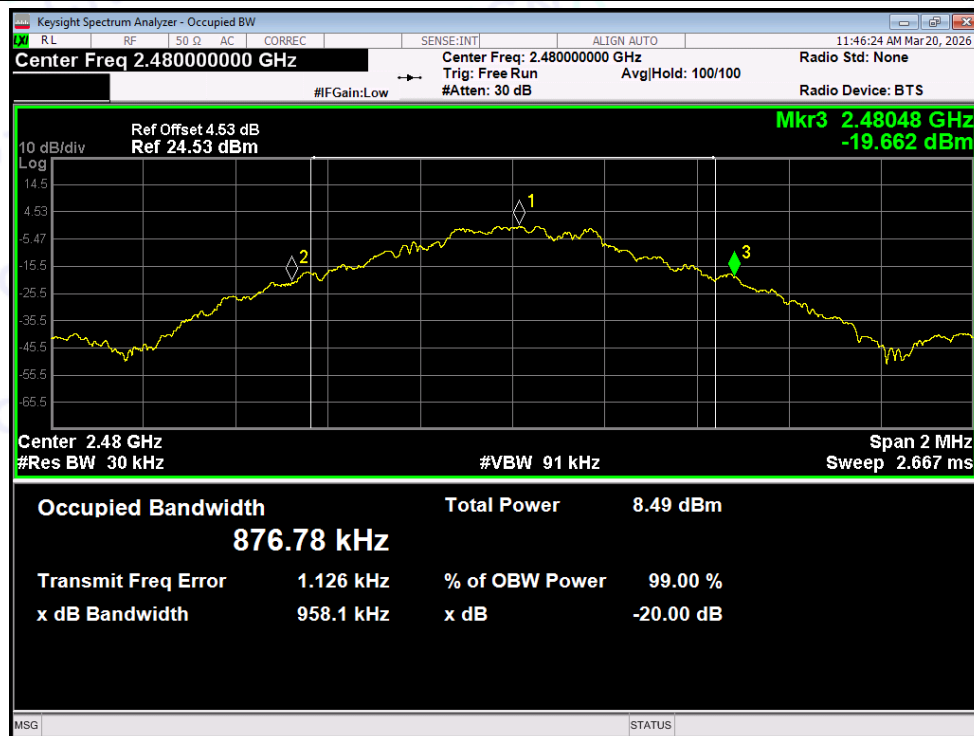
-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1



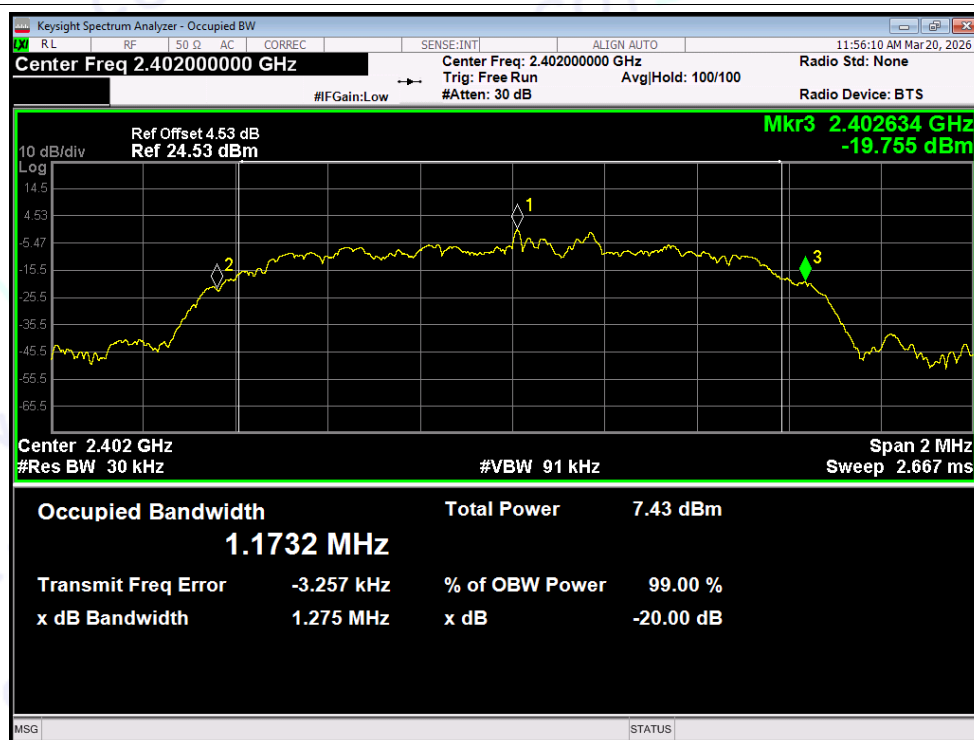
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



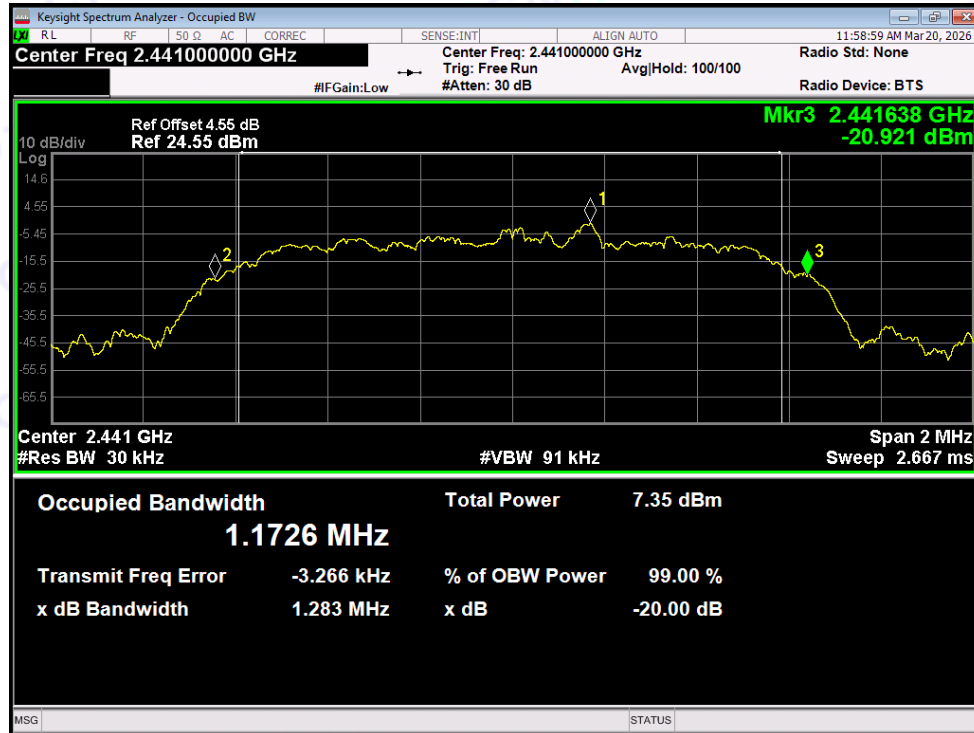
-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1



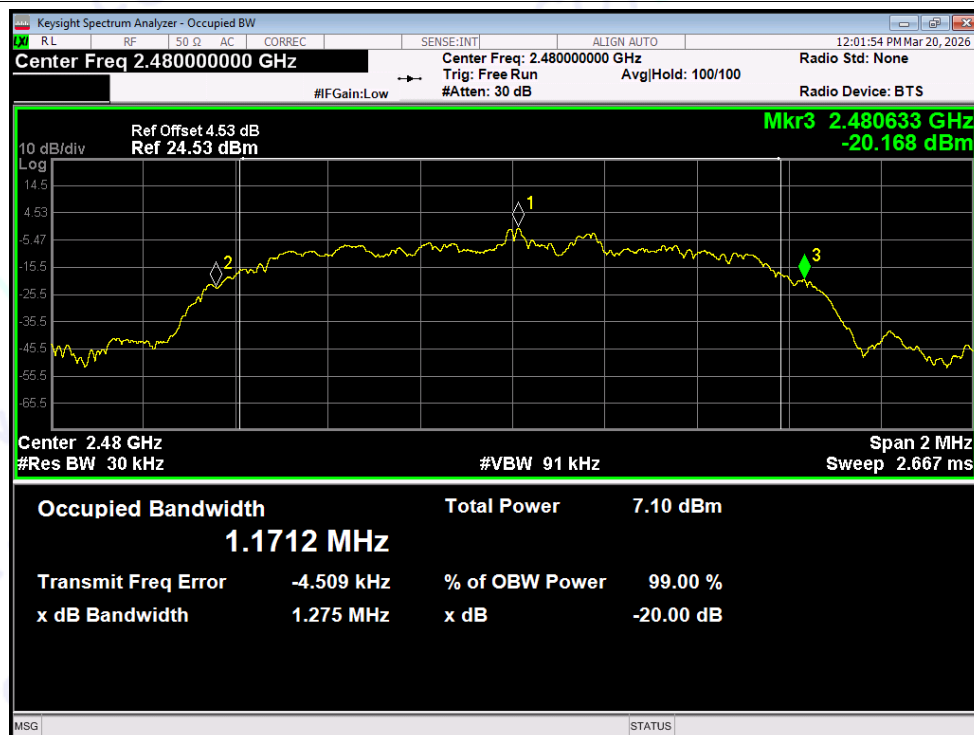
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



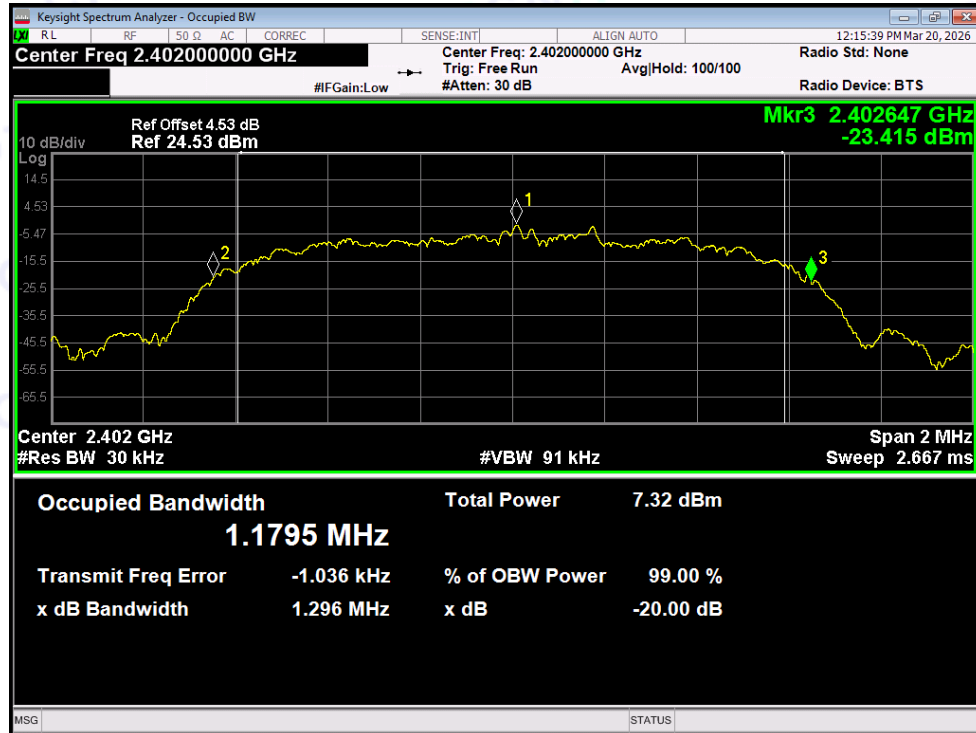
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



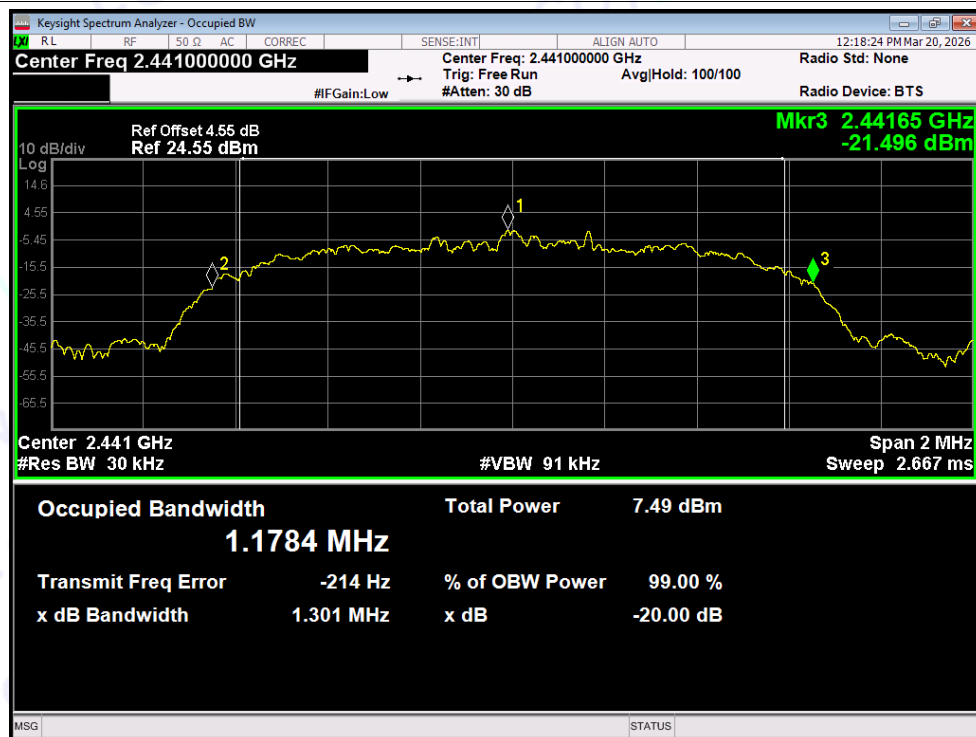
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

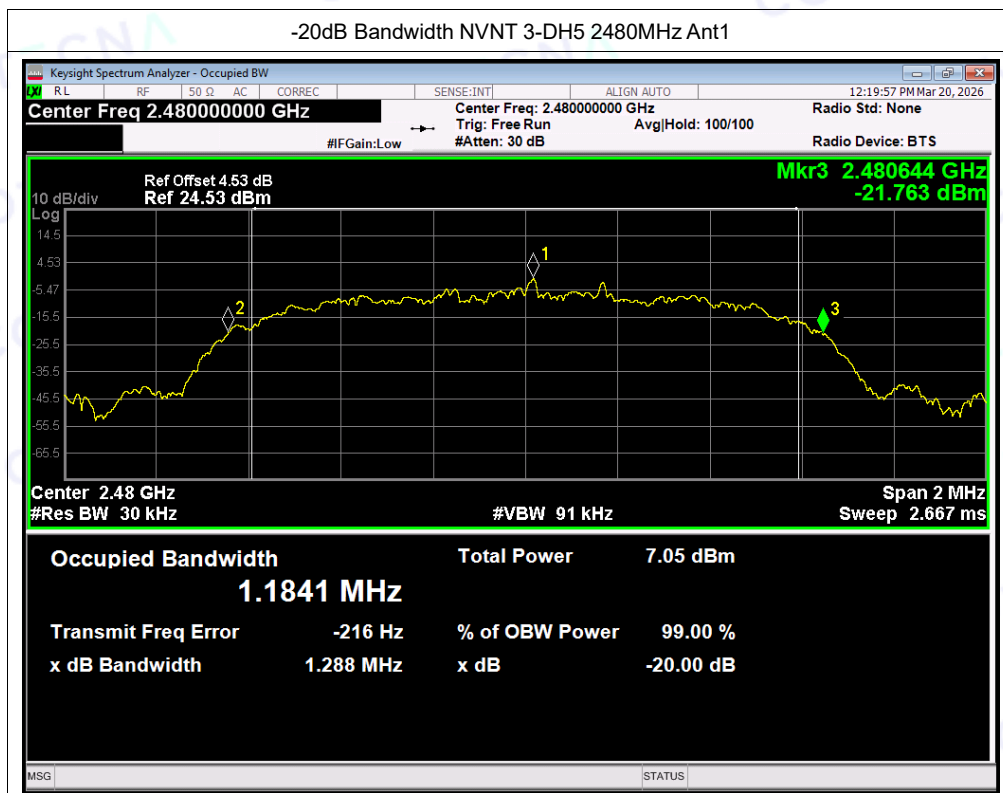


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



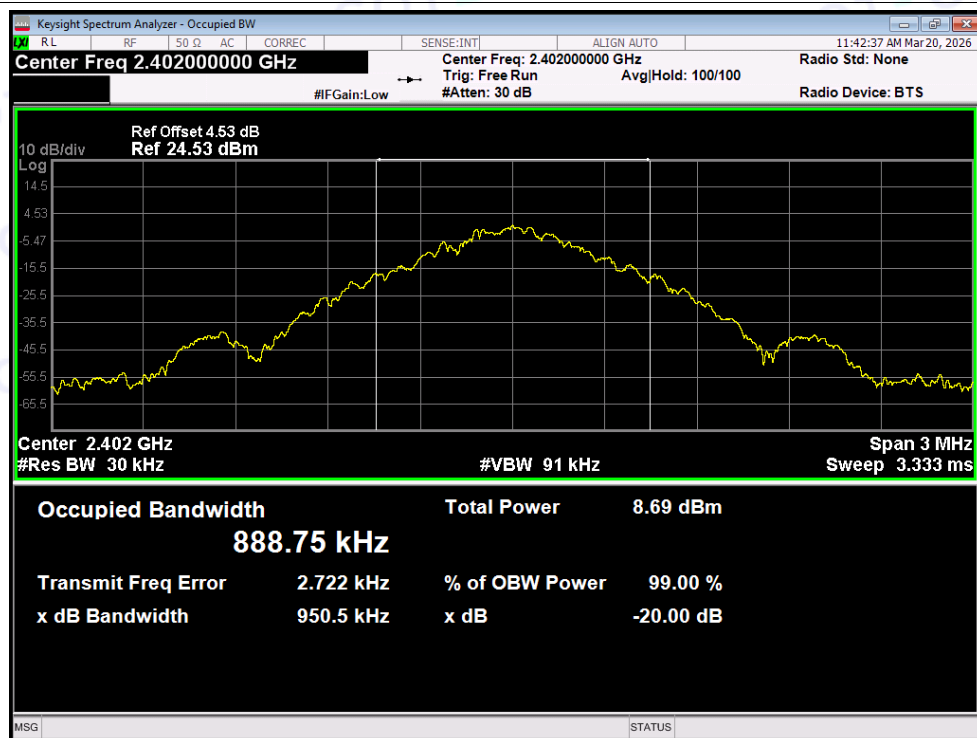


5. Occupied Channel Bandwidth

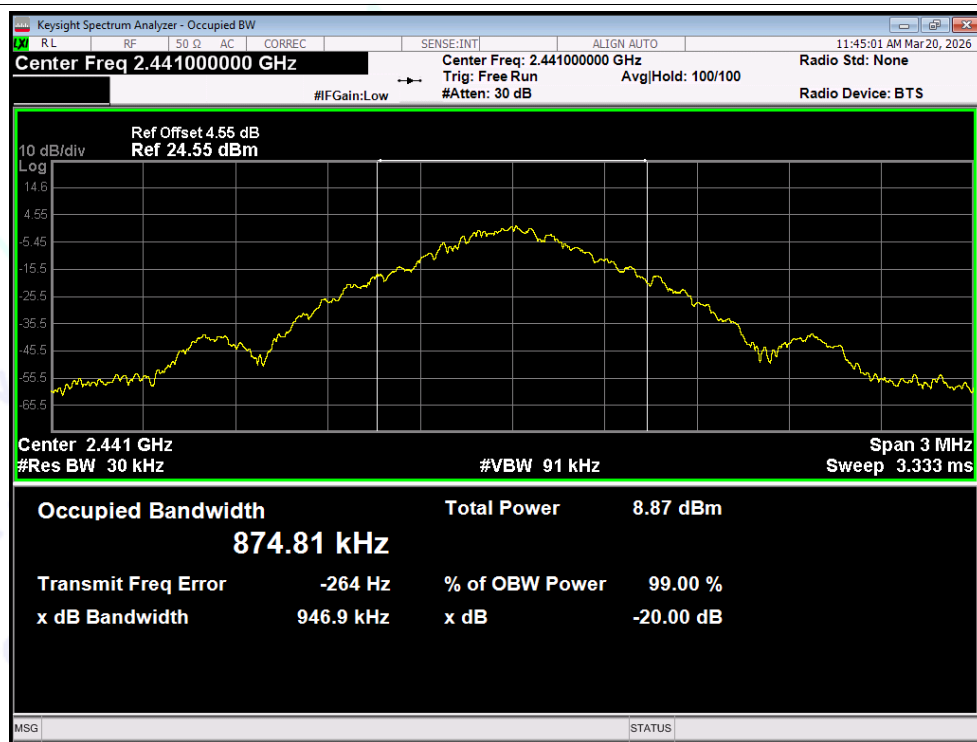
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH5	2402	Ant1	0.889
NVNT	1-DH5	2441	Ant1	0.875
NVNT	1-DH5	2480	Ant1	0.873
NVNT	2-DH5	2402	Ant1	1.18
NVNT	2-DH5	2441	Ant1	1.177
NVNT	2-DH5	2480	Ant1	1.184
NVNT	3-DH5	2402	Ant1	1.182
NVNT	3-DH5	2441	Ant1	1.167
NVNT	3-DH5	2480	Ant1	1.164

Test Graphs

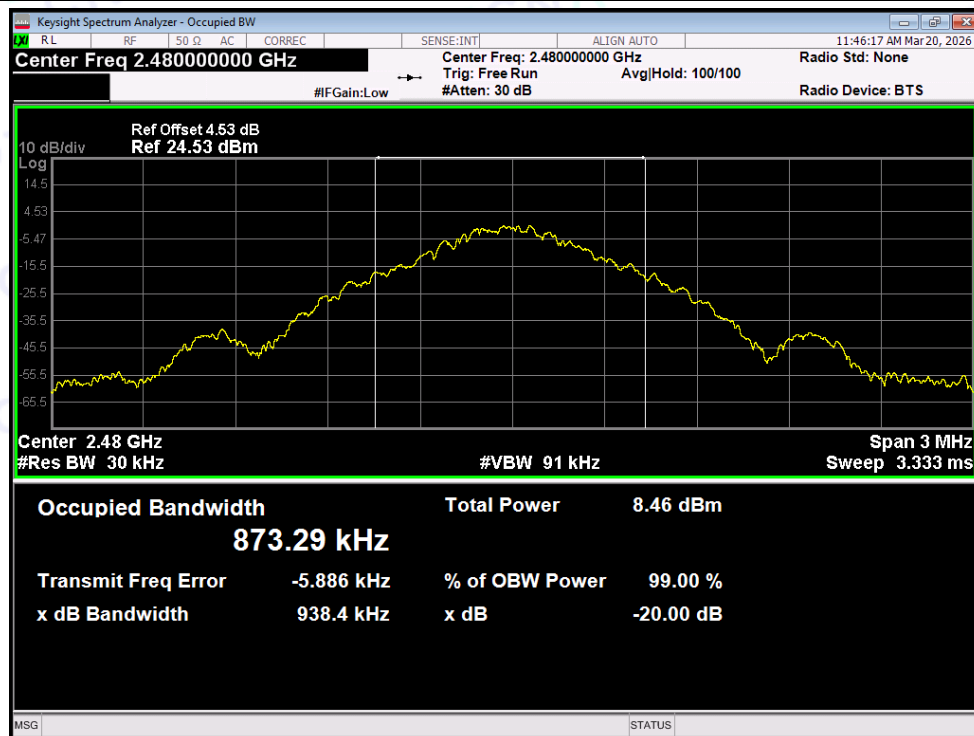
OBW NVNT 1-DH5 2402MHz Ant1



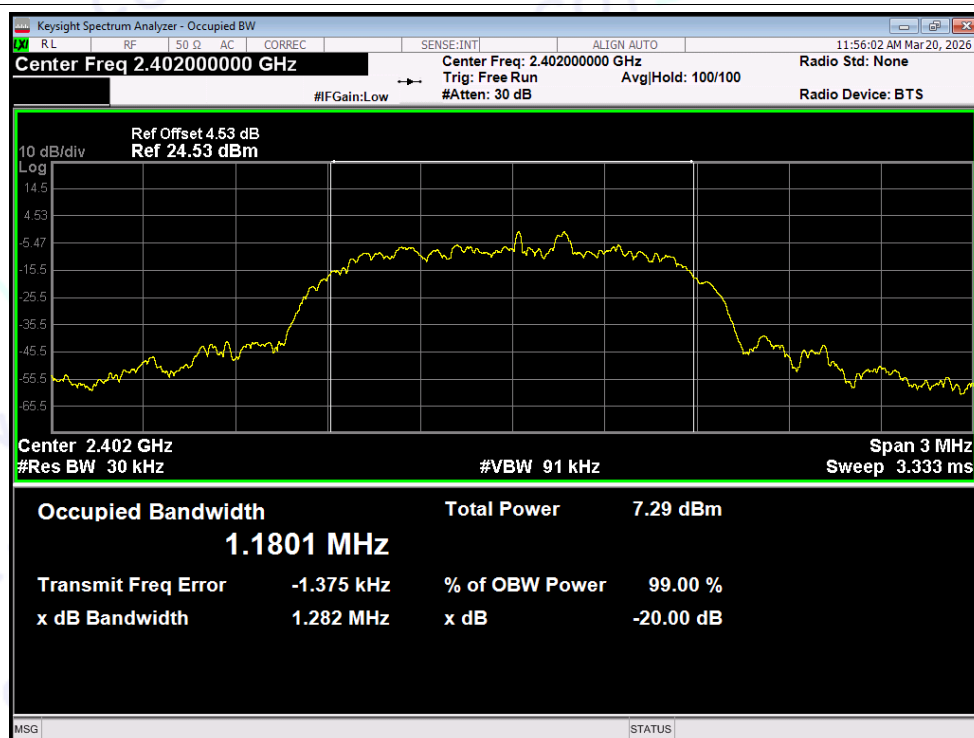
OBW NVNT 1-DH5 2441MHz Ant1



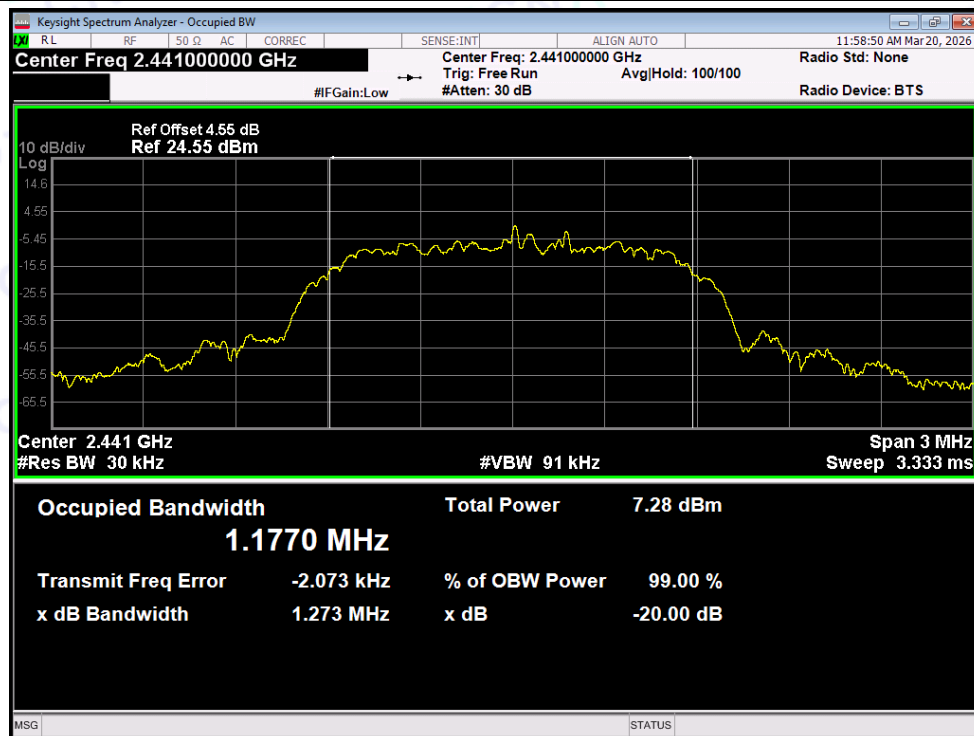
OBW NVNT 1-DH5 2480MHz Ant1



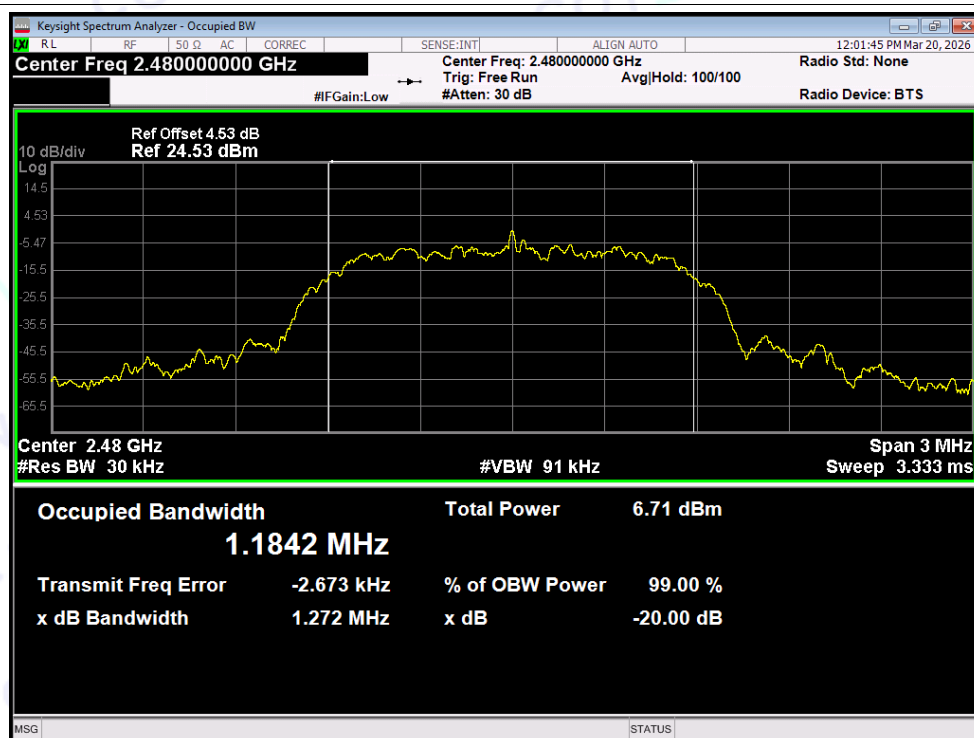
OBW NVNT 2-DH5 2402MHz Ant1



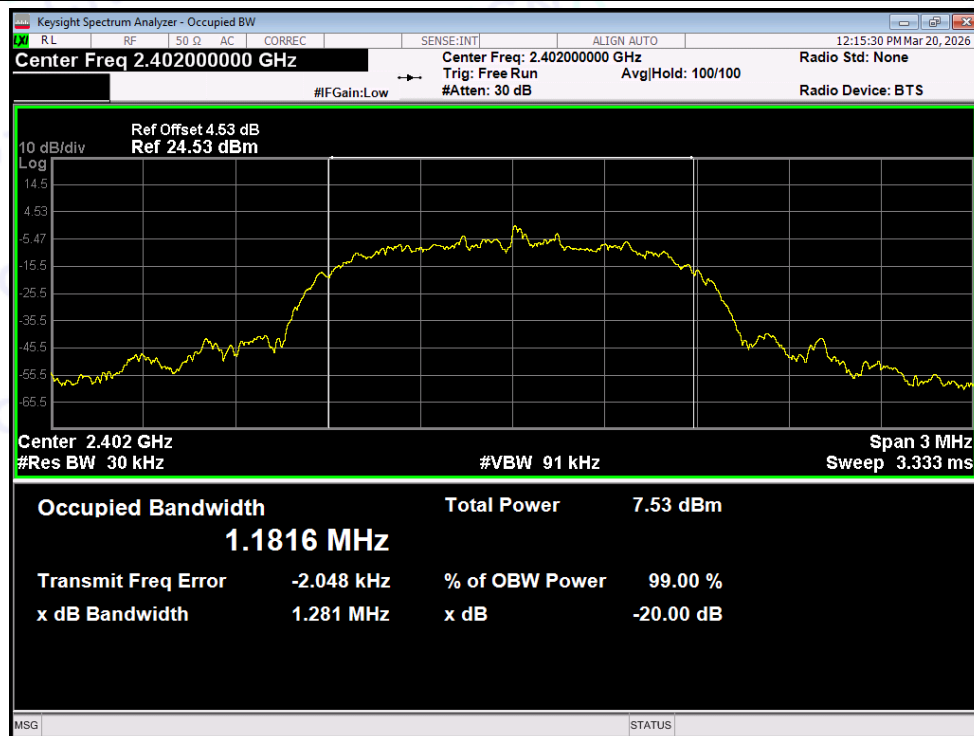
OBW NVNT 2-DH5 2441MHz Ant1



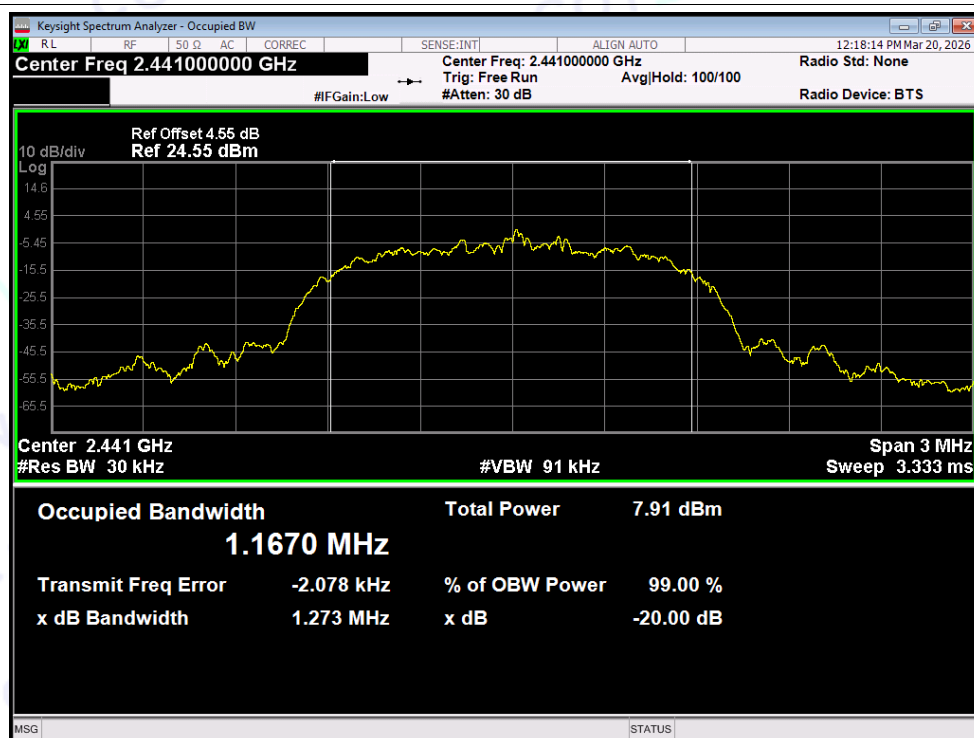
OBW NVNT 2-DH5 2480MHz Ant1

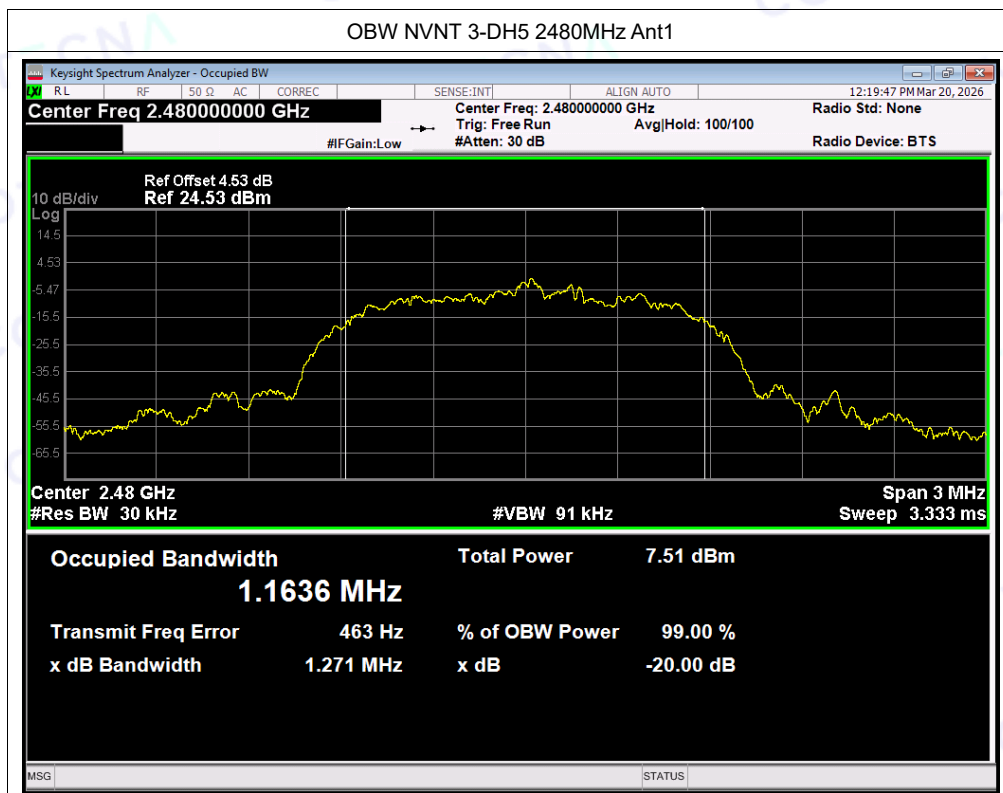


OBW NVNT 3-DH5 2402MHz Ant1



OBW NVNT 3-DH5 2441MHz Ant1



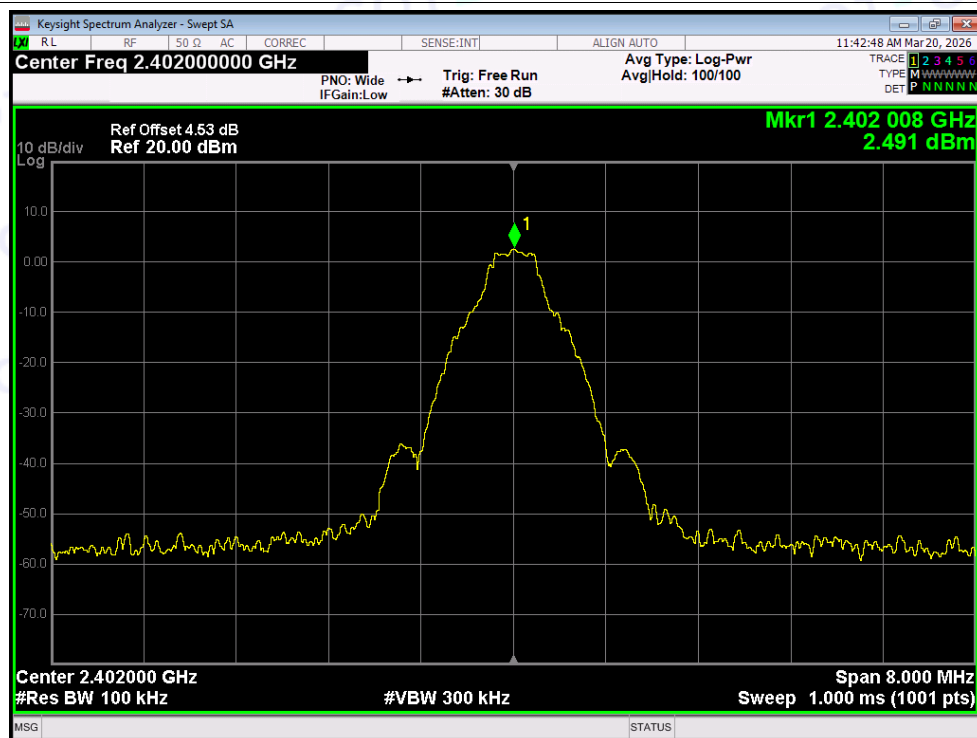


6. Band Edge

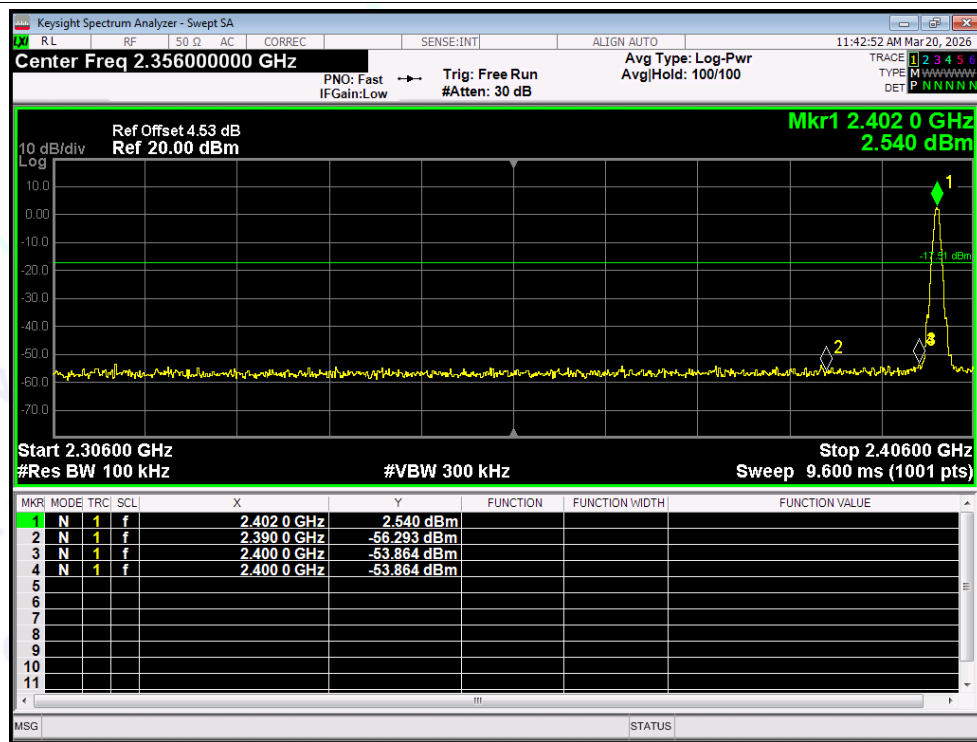
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-56.35	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-54.99	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-53.95	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-55.15	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-53.19	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-54.74	-20	Pass

Test Graphs

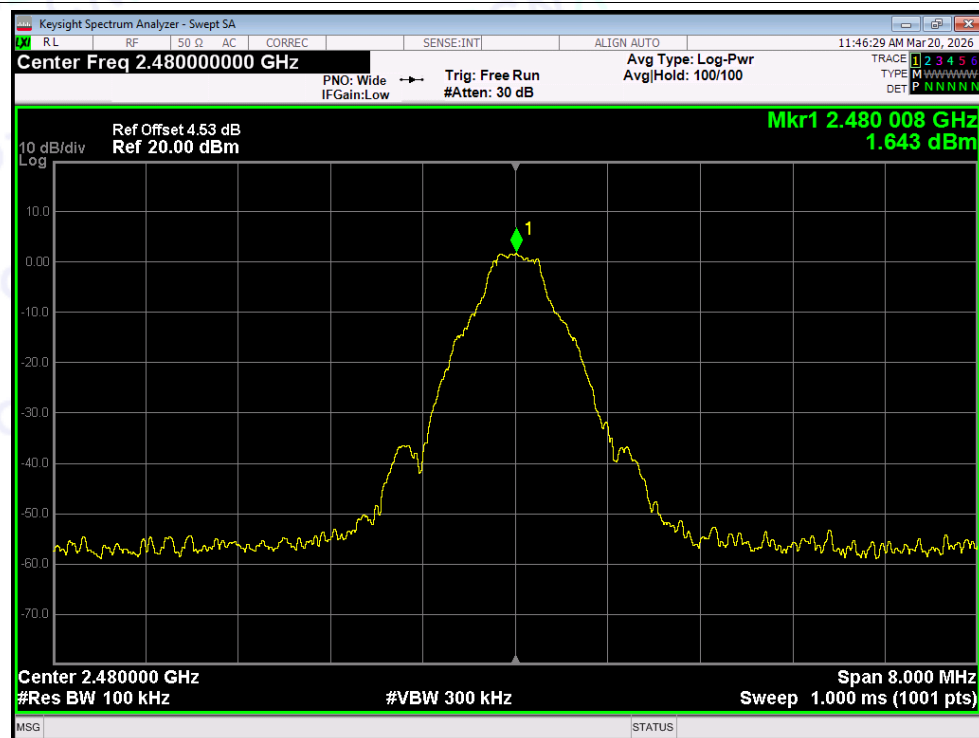
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



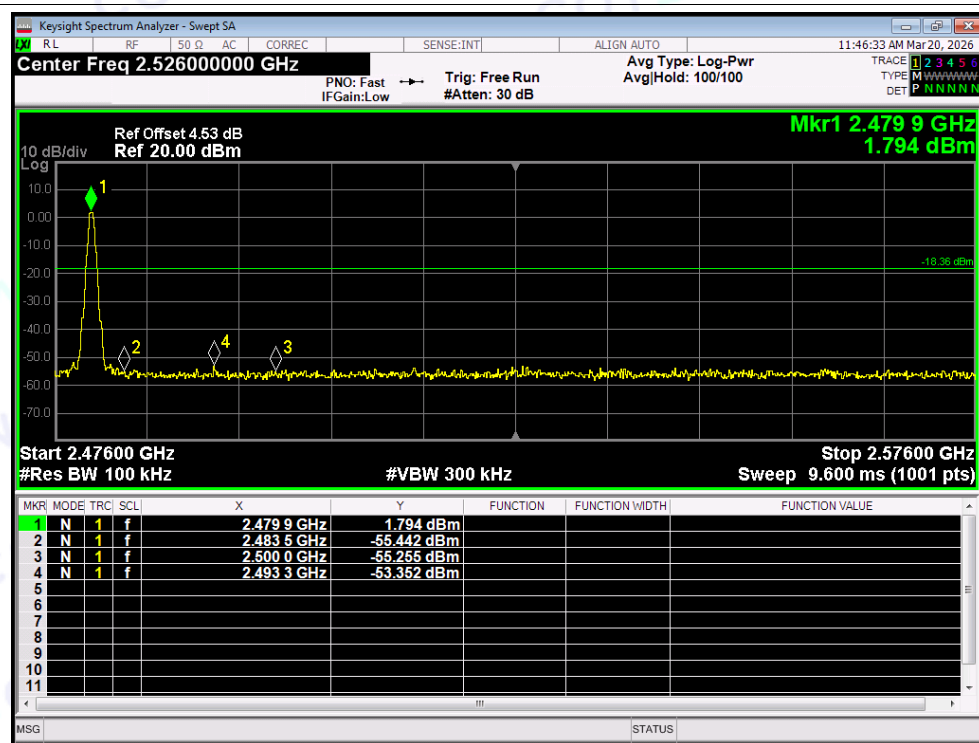
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



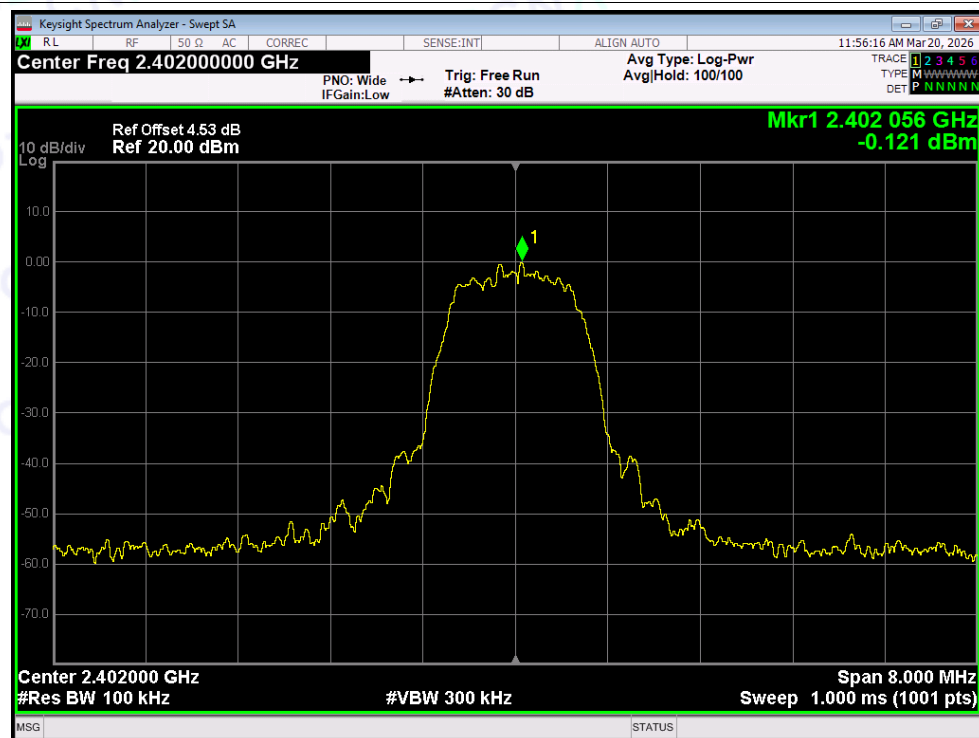
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref



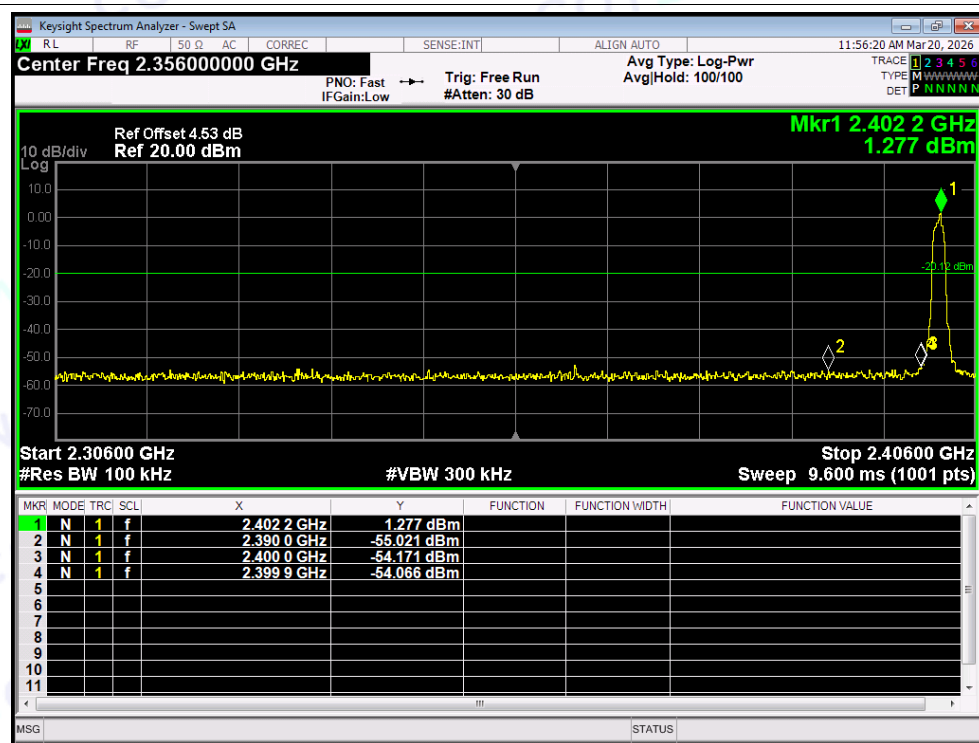
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



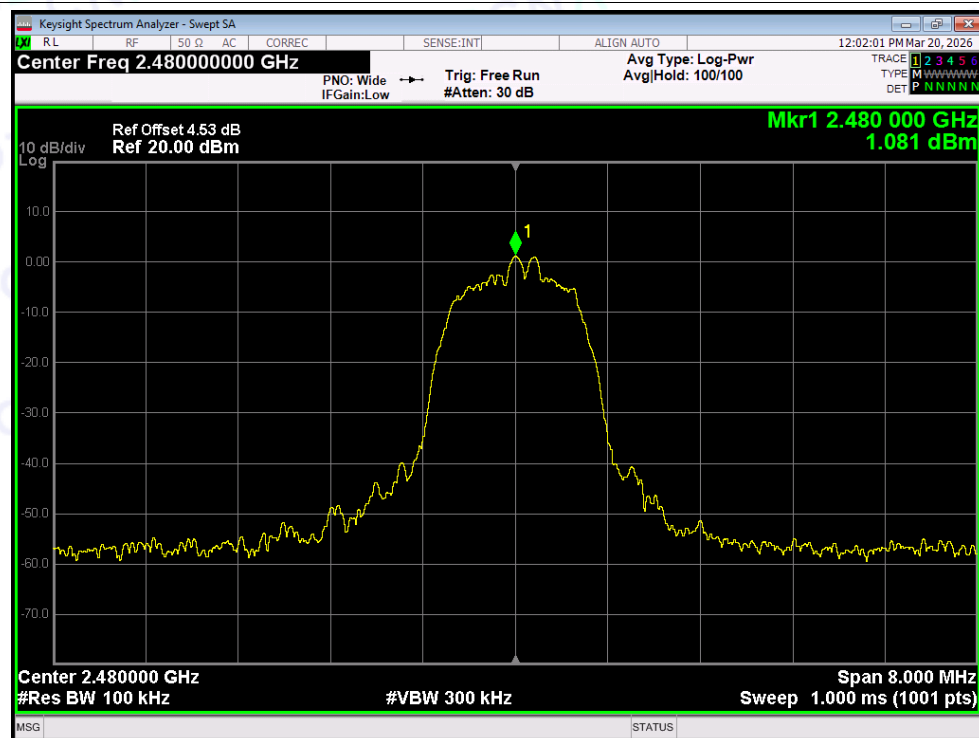
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref



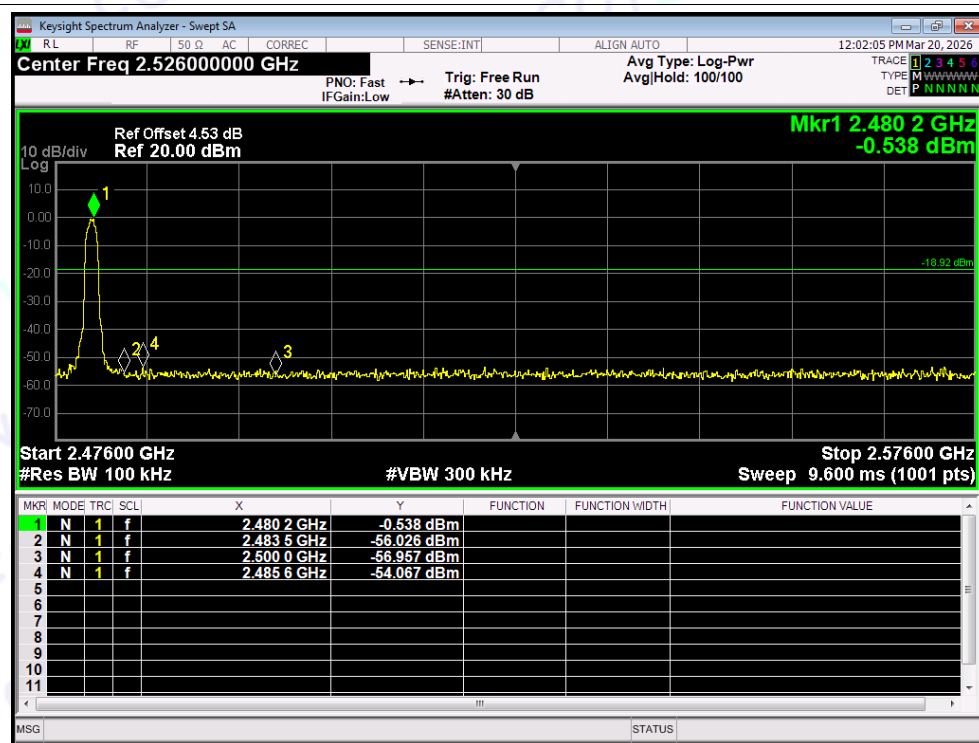
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



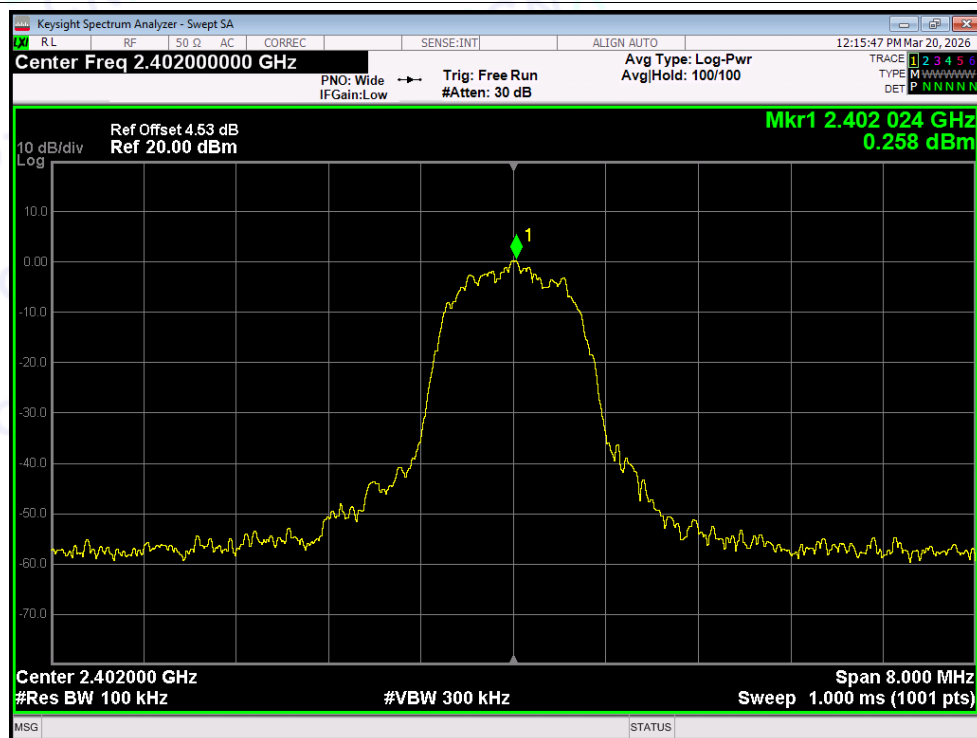
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref



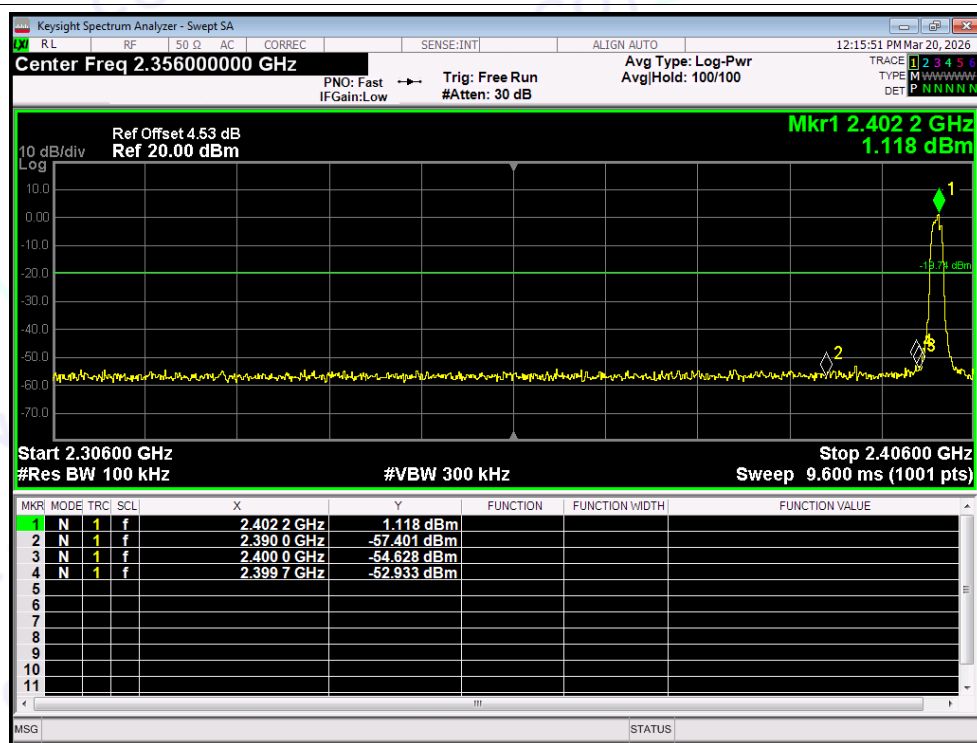
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



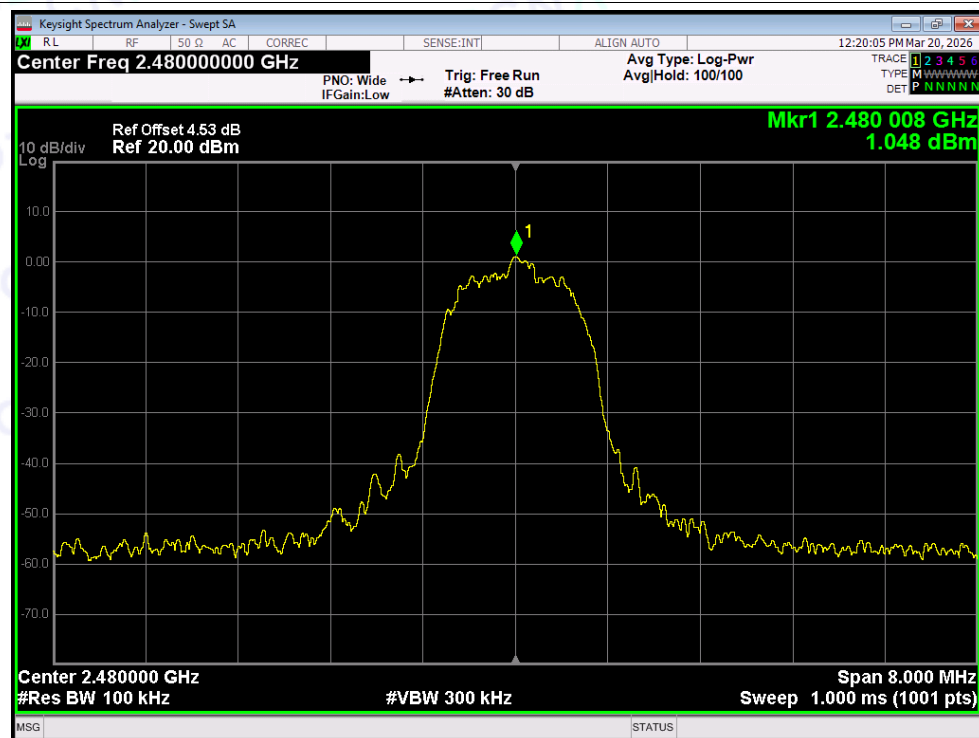
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref



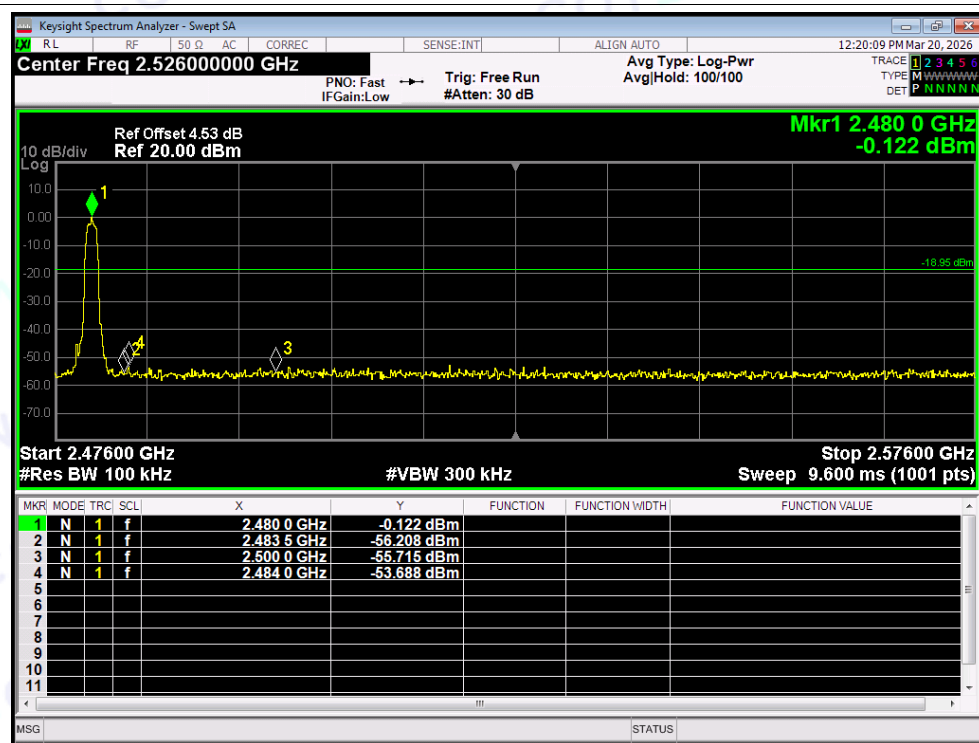
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



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



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

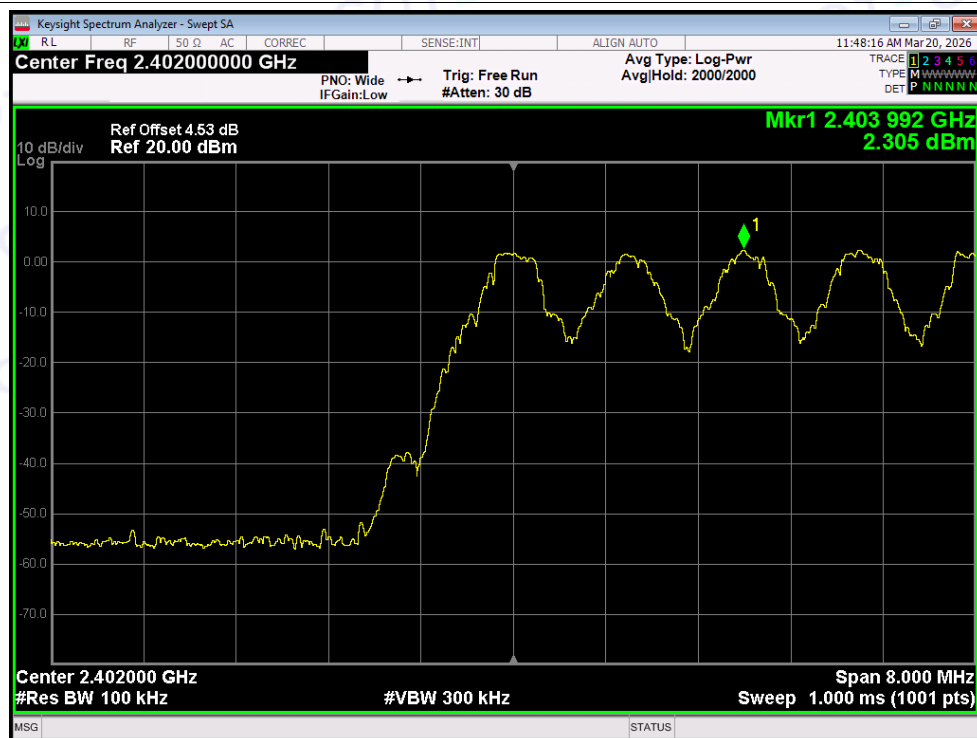


7. Band Edge(Hopping)

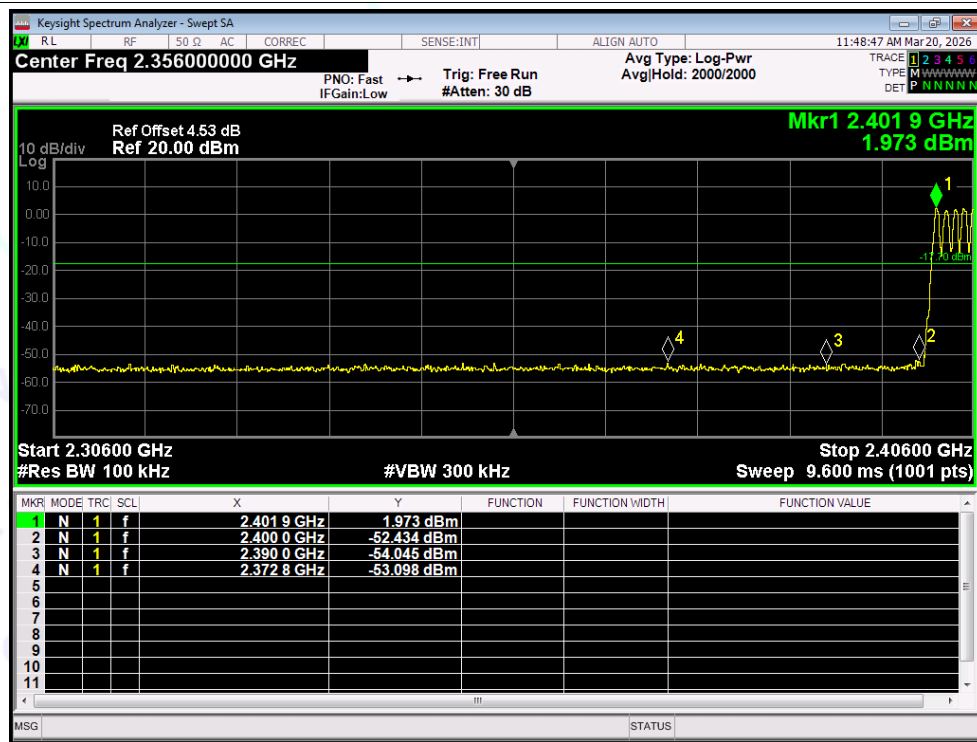
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-55.41	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-54.27	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-52.35	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-53.14	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-54.71	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-54.18	-20	Pass

Test Graphs

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



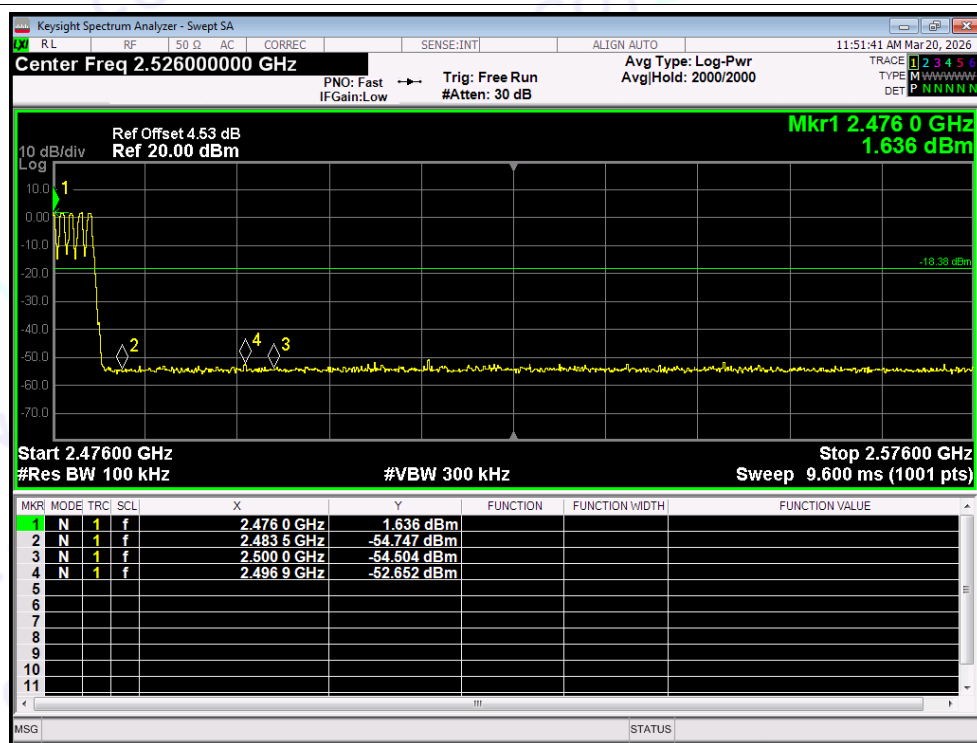
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



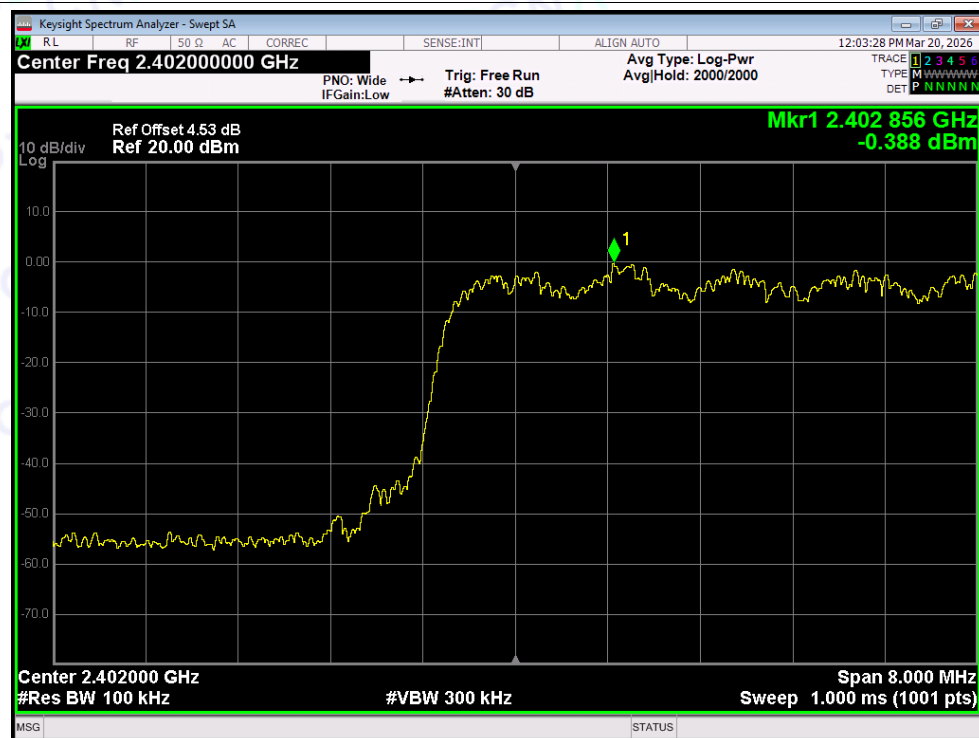
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref



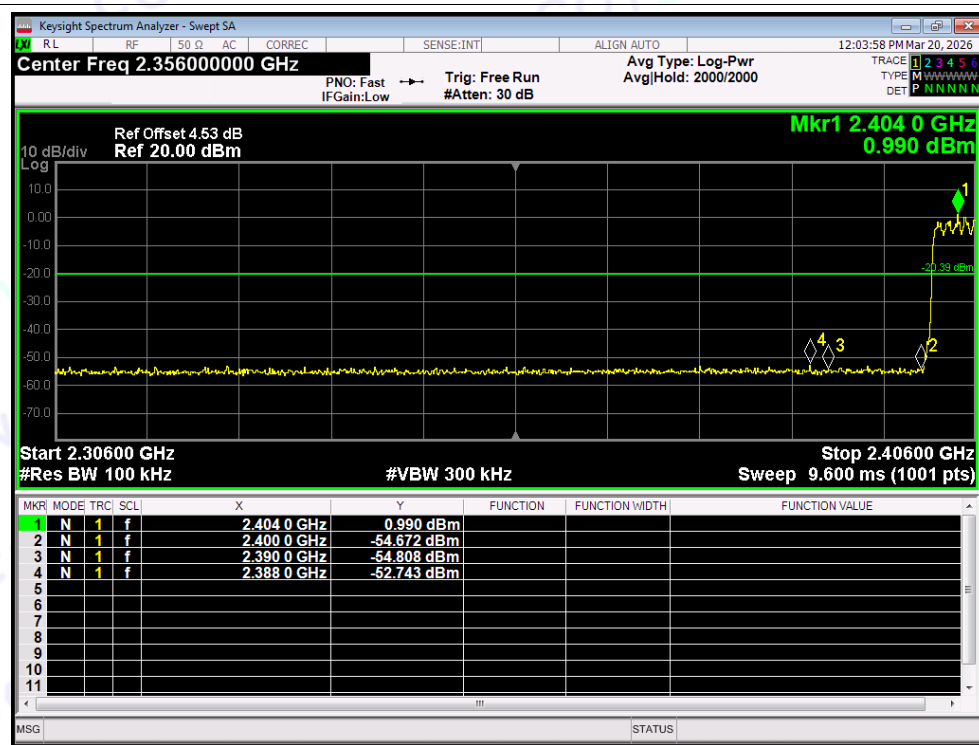
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



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



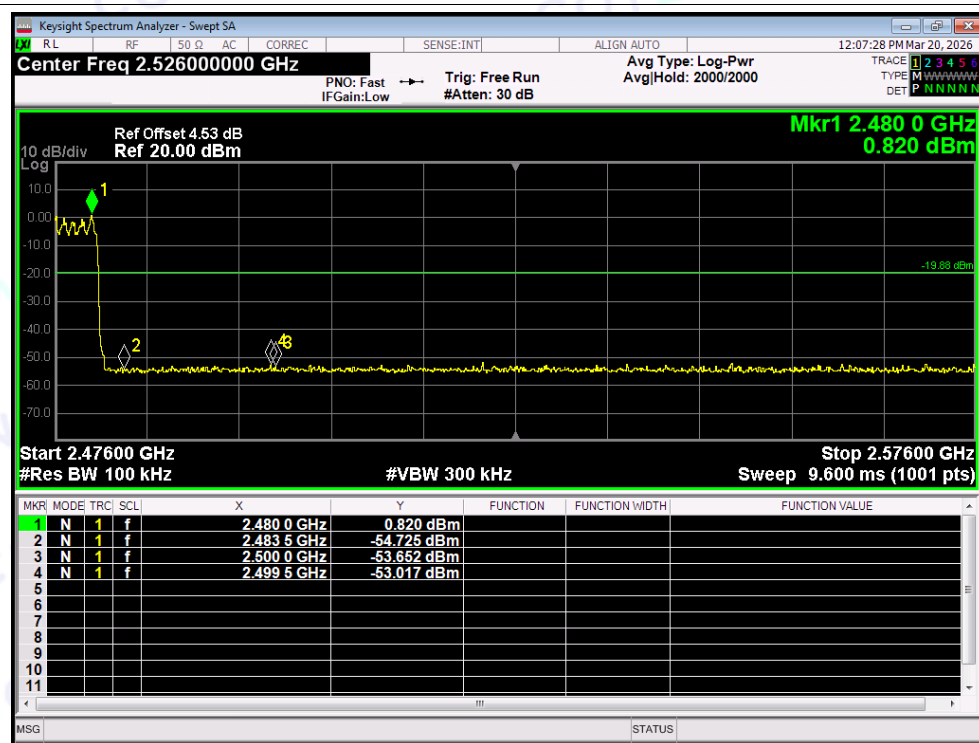
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



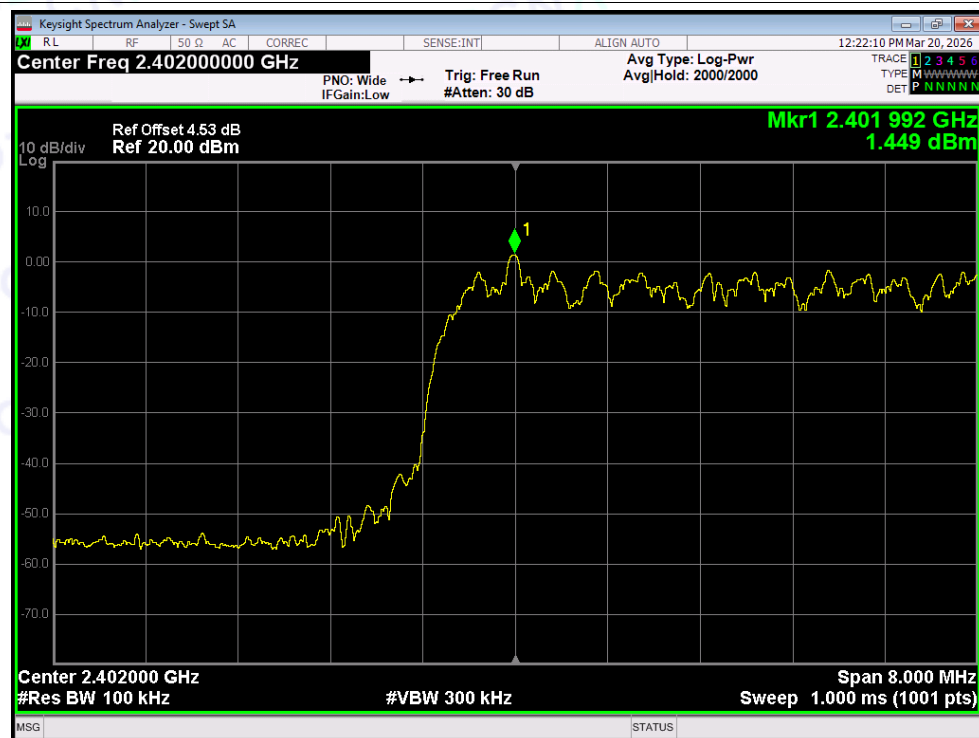
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



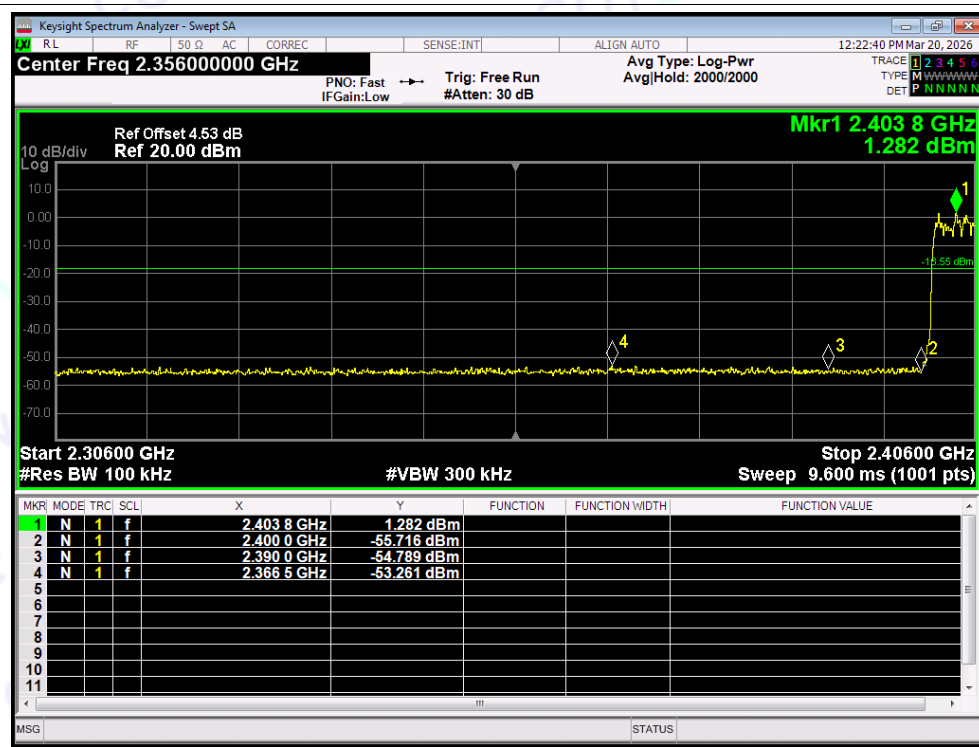
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission



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



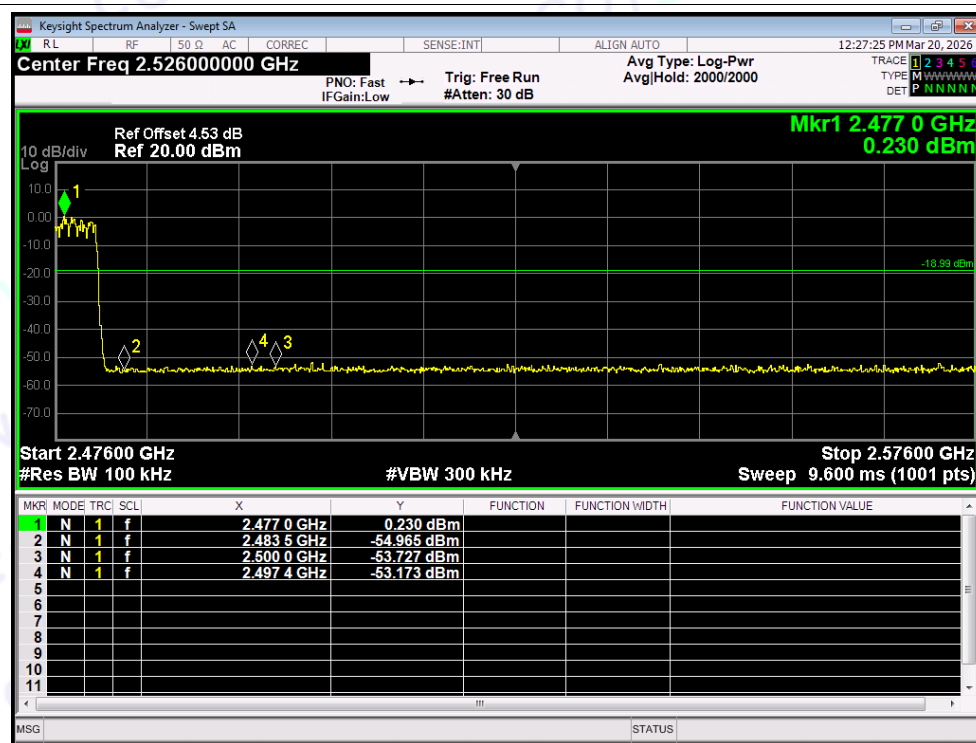
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission



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



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

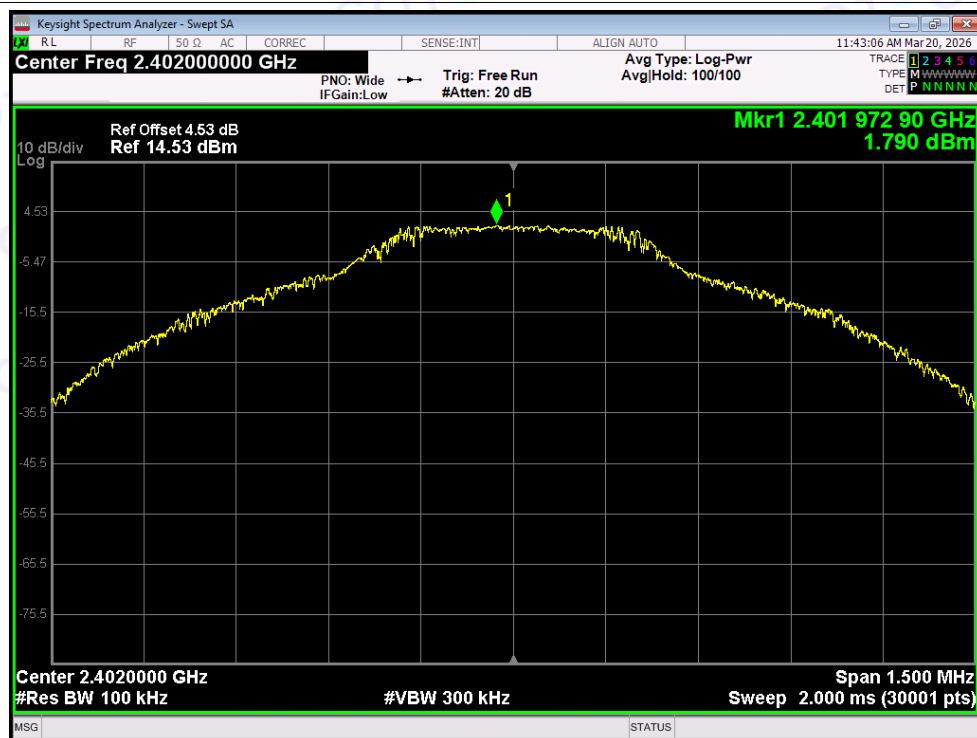


8. Conducted RF Spurious Emission

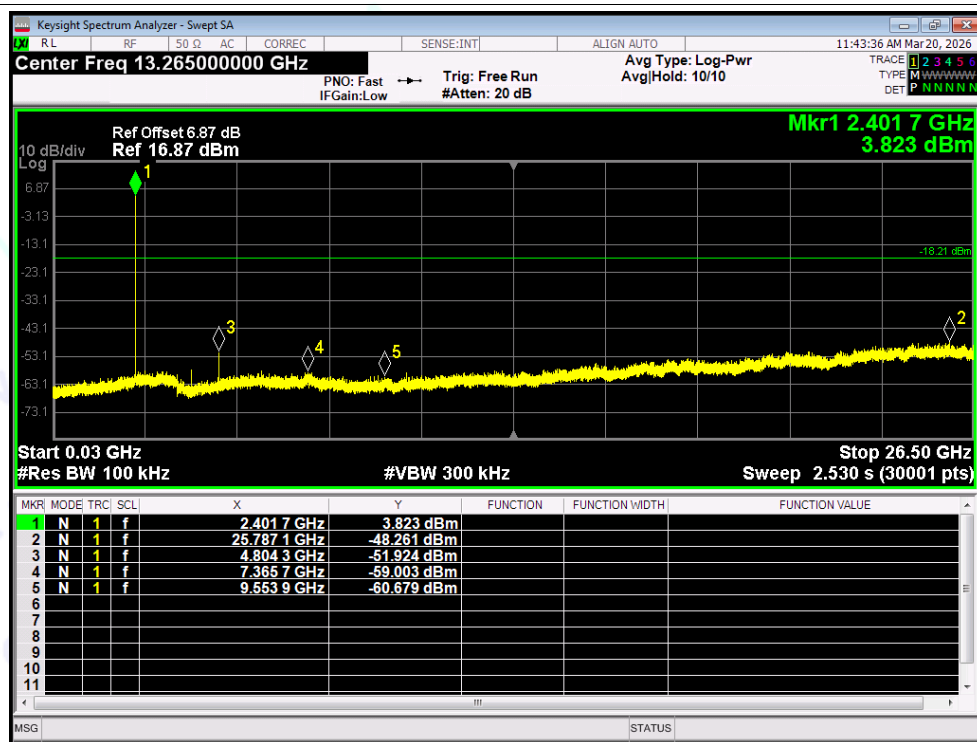
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-50.05	-20	Pass
NVNT	1-DH5	2441	Ant1	-49.72	-20	Pass
NVNT	1-DH5	2480	Ant1	-50.59	-20	Pass
NVNT	2-DH5	2402	Ant1	-49.18	-20	Pass
NVNT	2-DH5	2441	Ant1	-49.42	-20	Pass
NVNT	2-DH5	2480	Ant1	-48.74	-20	Pass
NVNT	3-DH5	2402	Ant1	-48.29	-20	Pass
NVNT	3-DH5	2441	Ant1	-49.61	-20	Pass
NVNT	3-DH5	2480	Ant1	-48.52	-20	Pass

Test Graphs

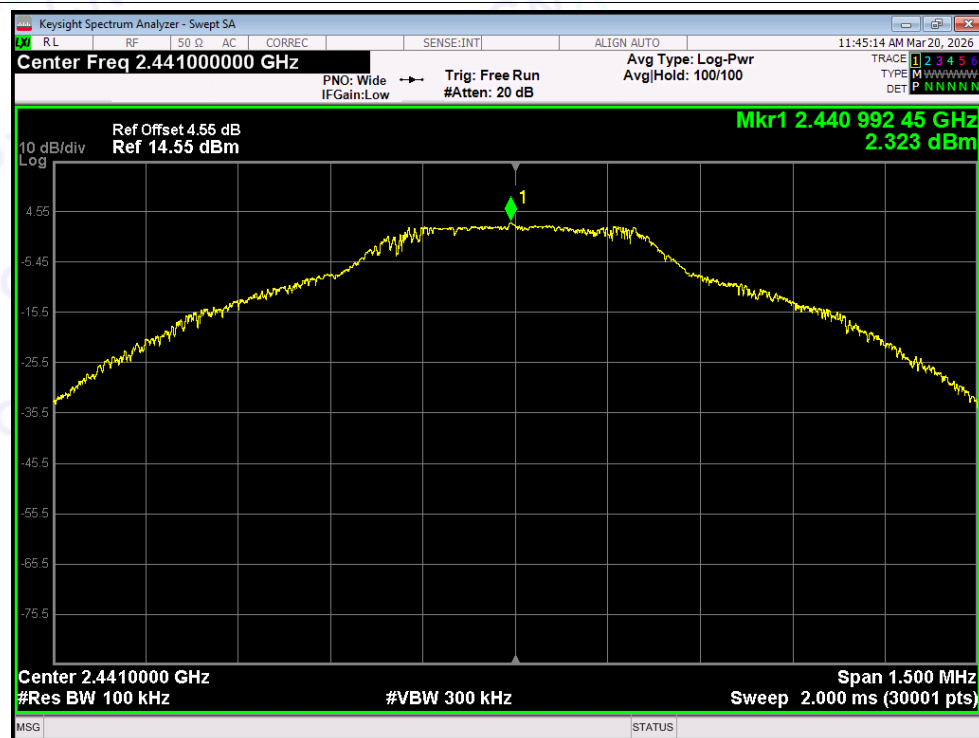
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref



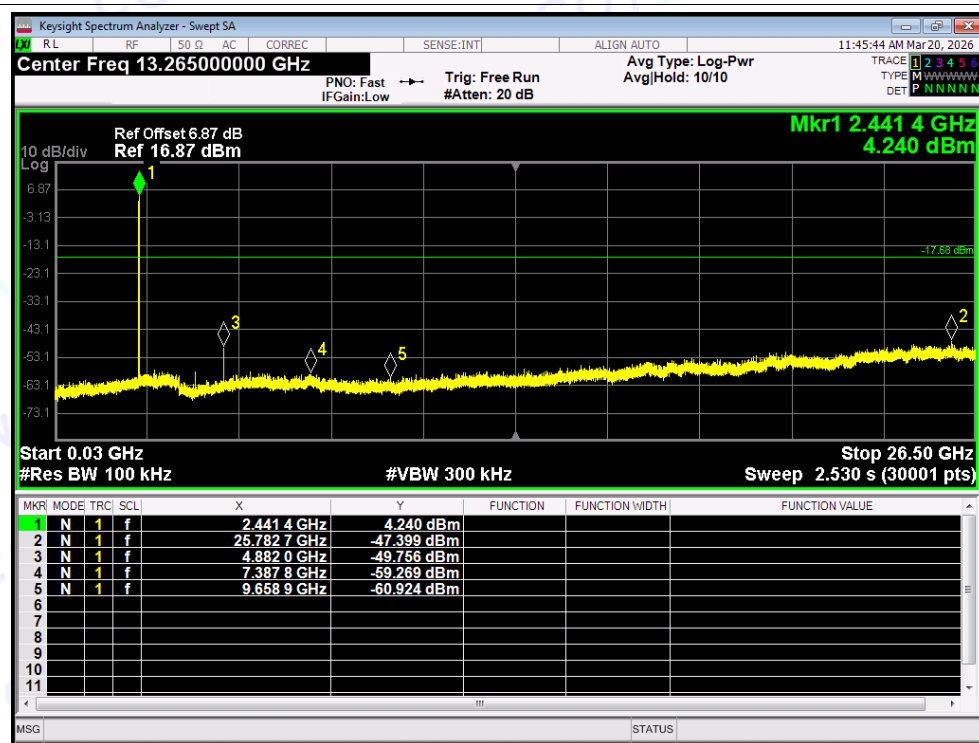
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



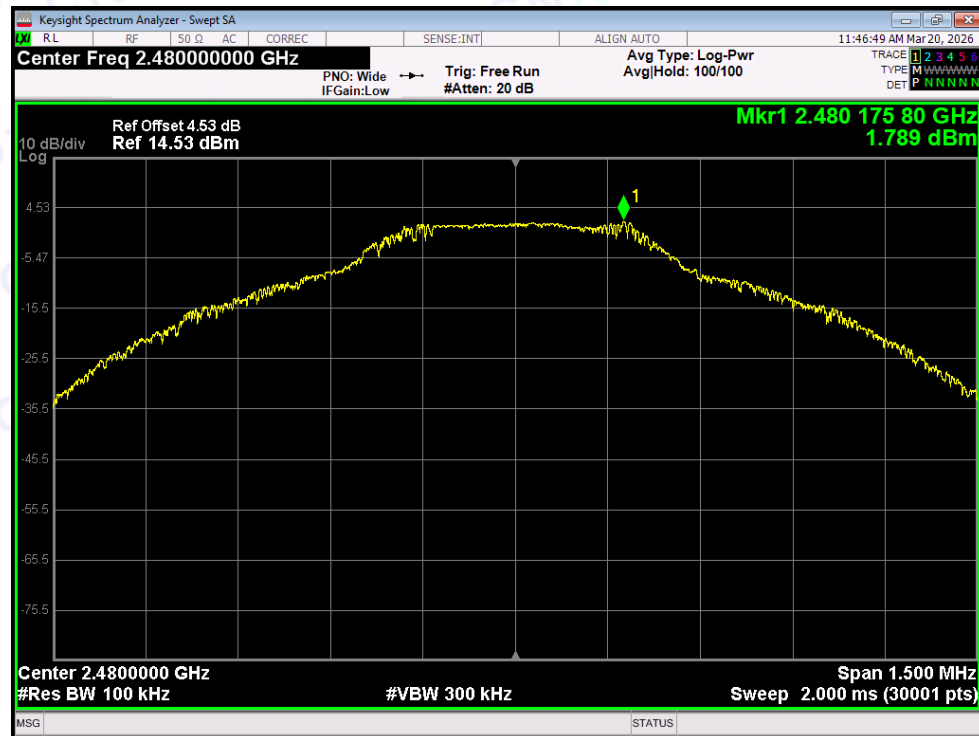
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref



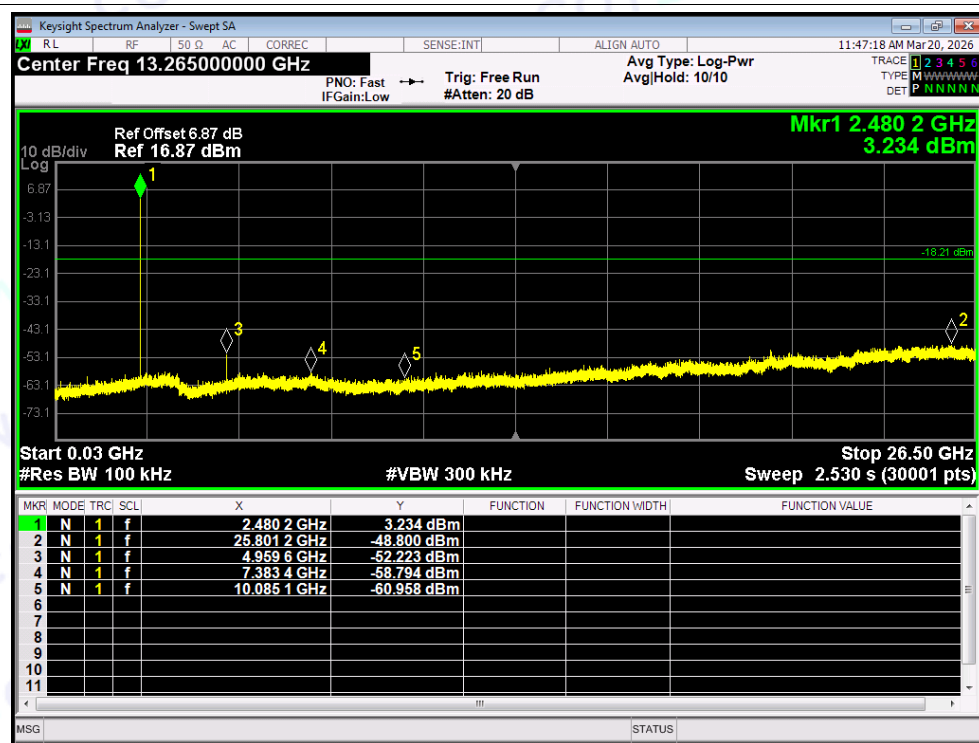
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



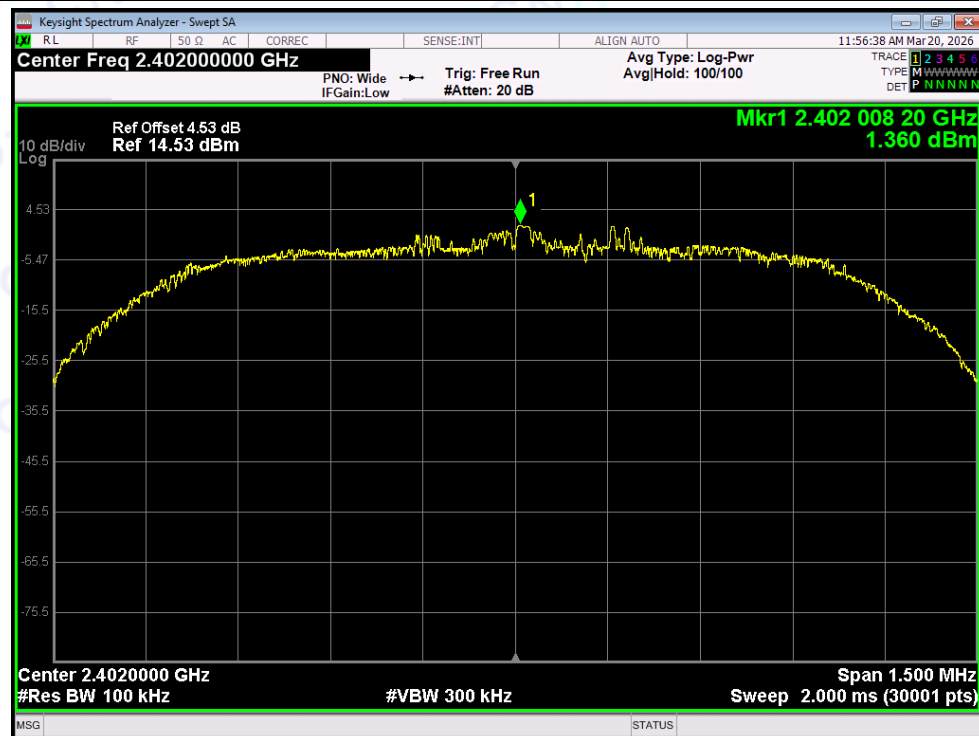
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref



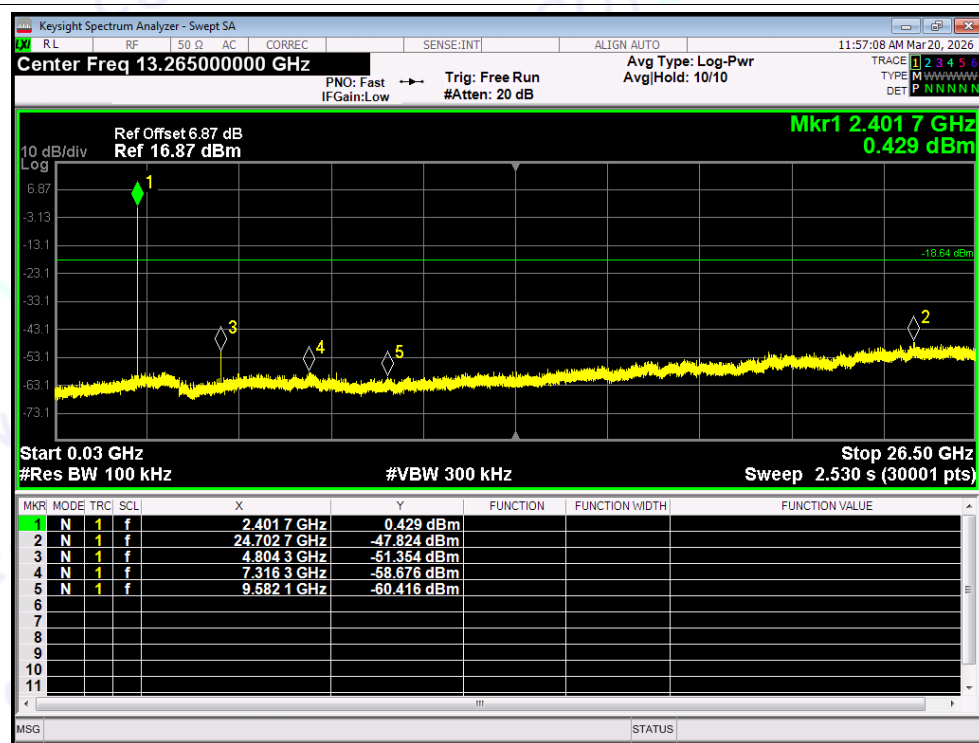
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



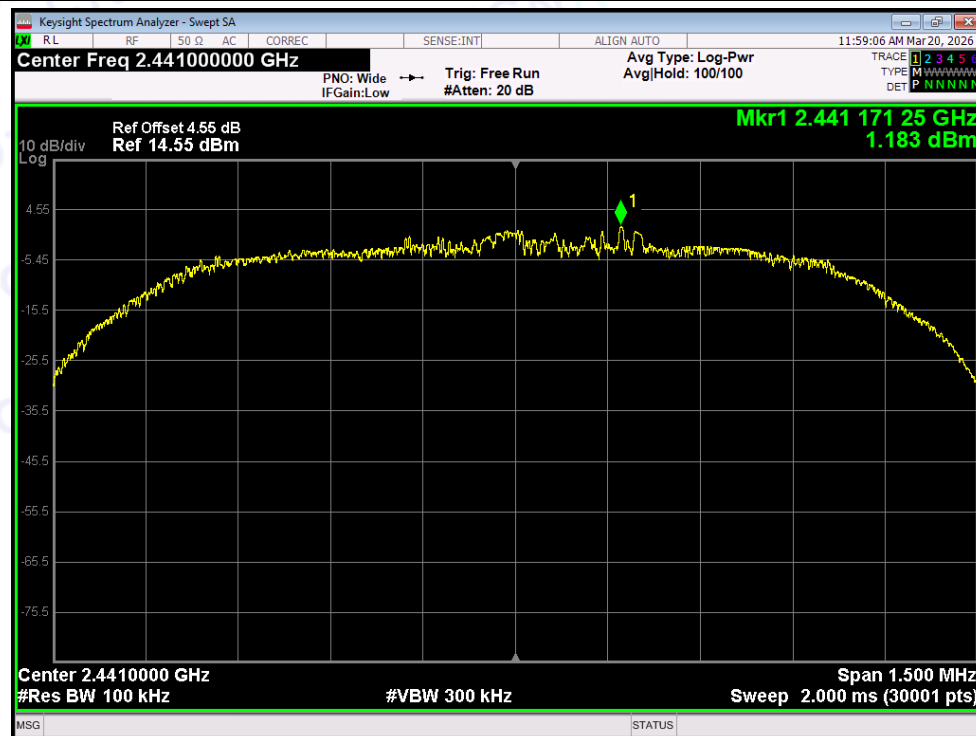
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref



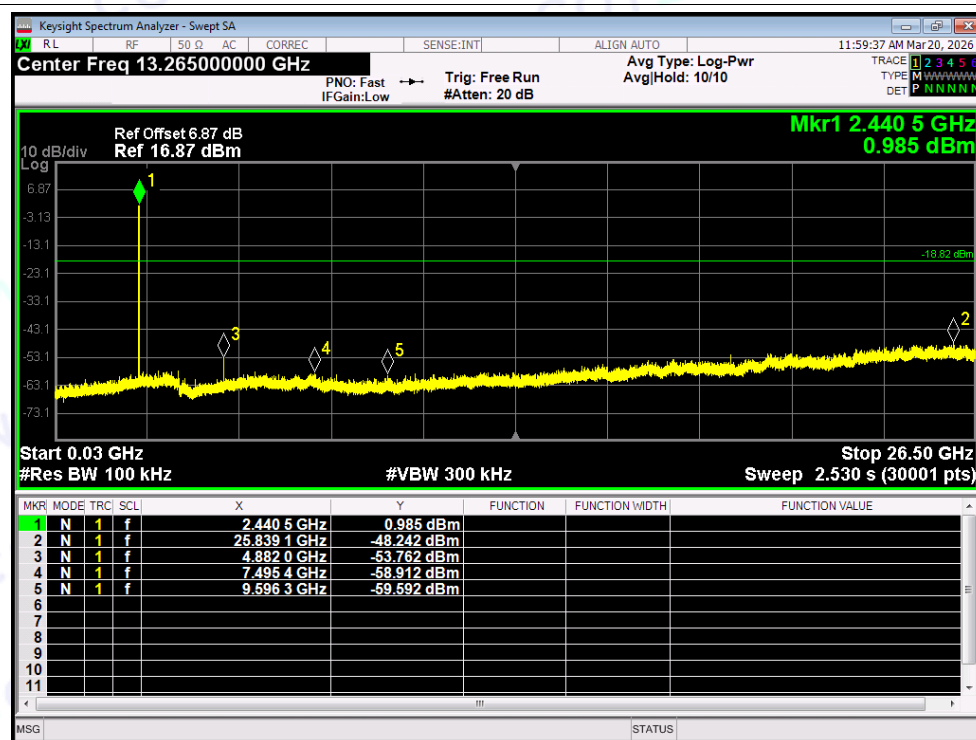
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



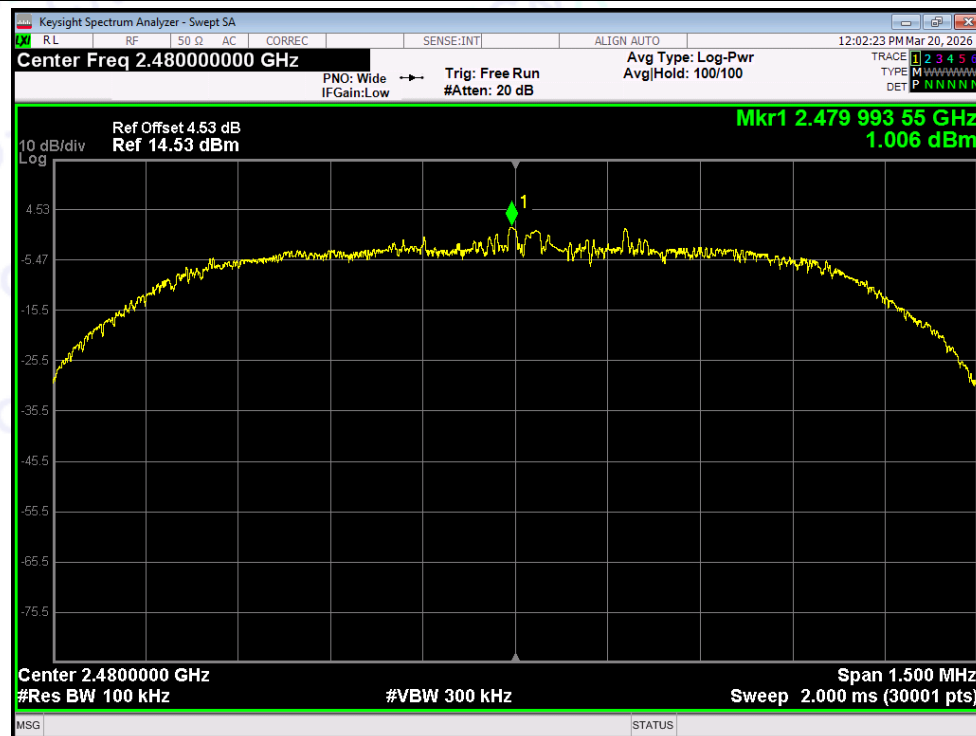
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref



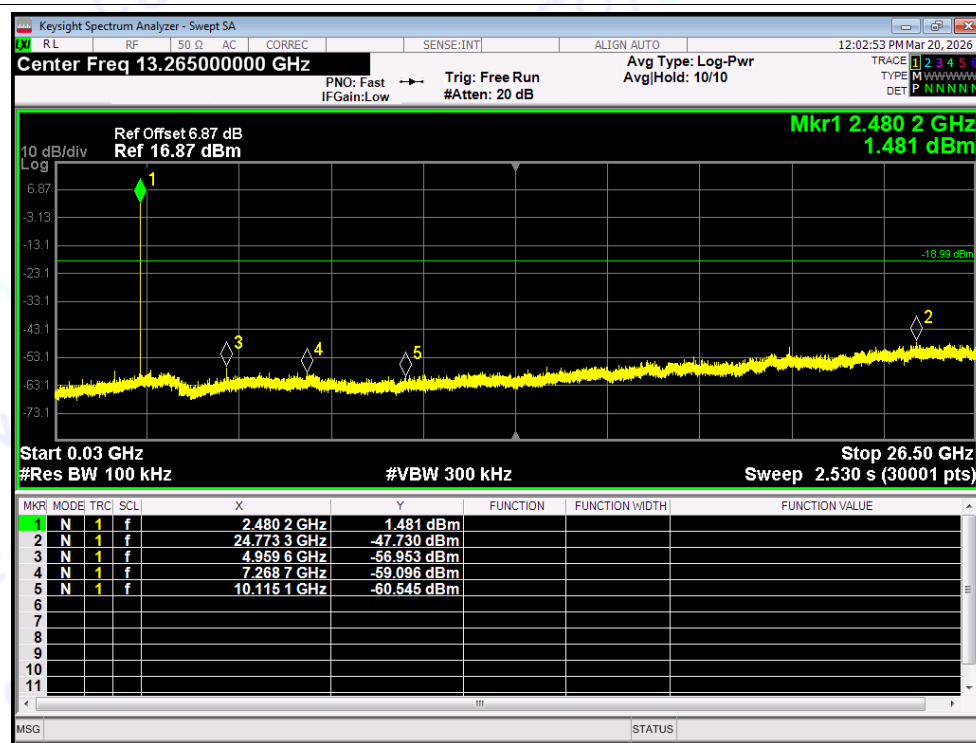
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



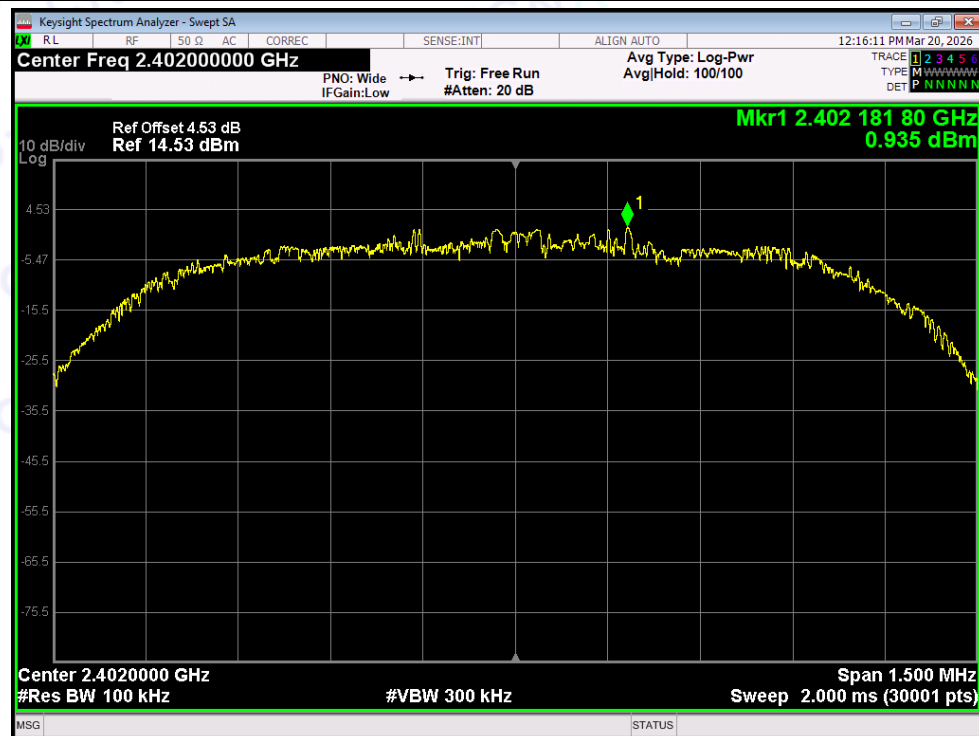
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref



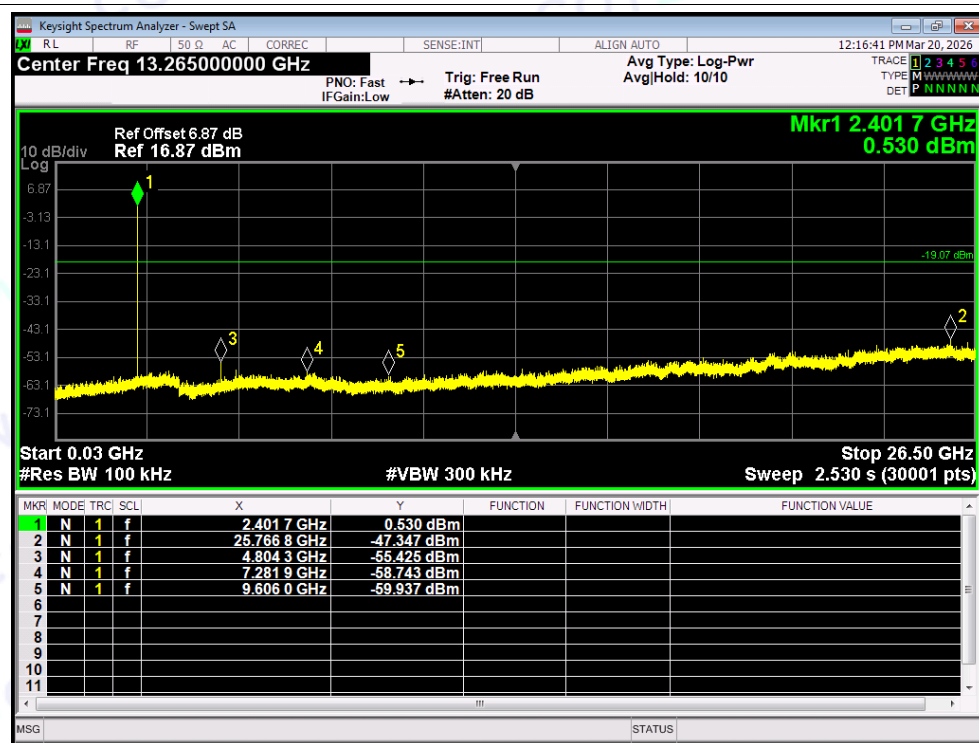
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



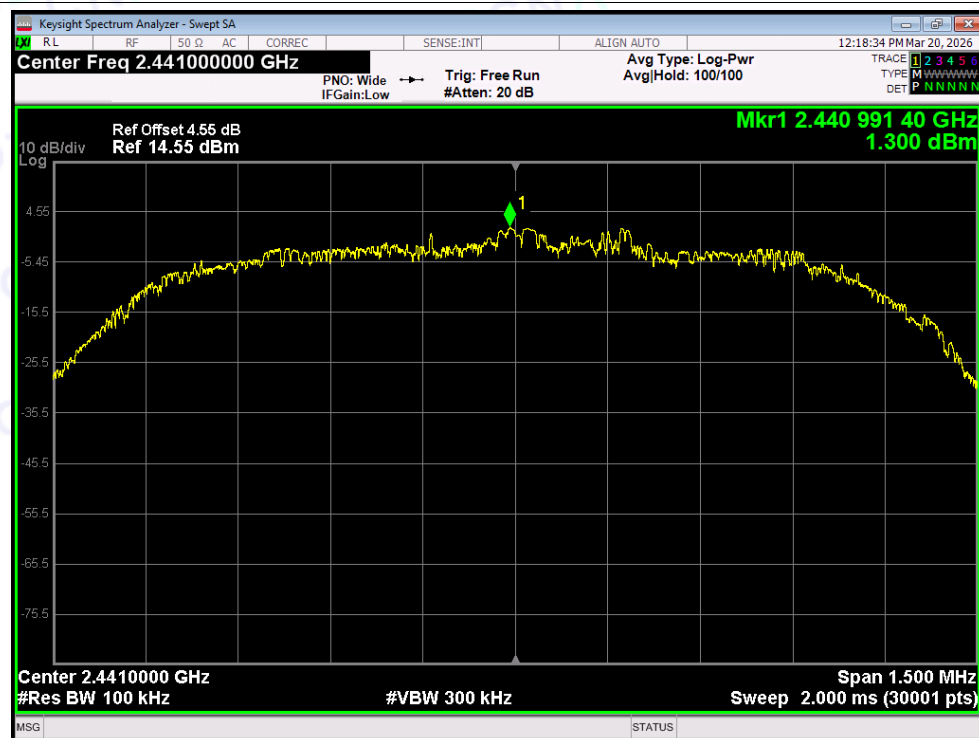
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref



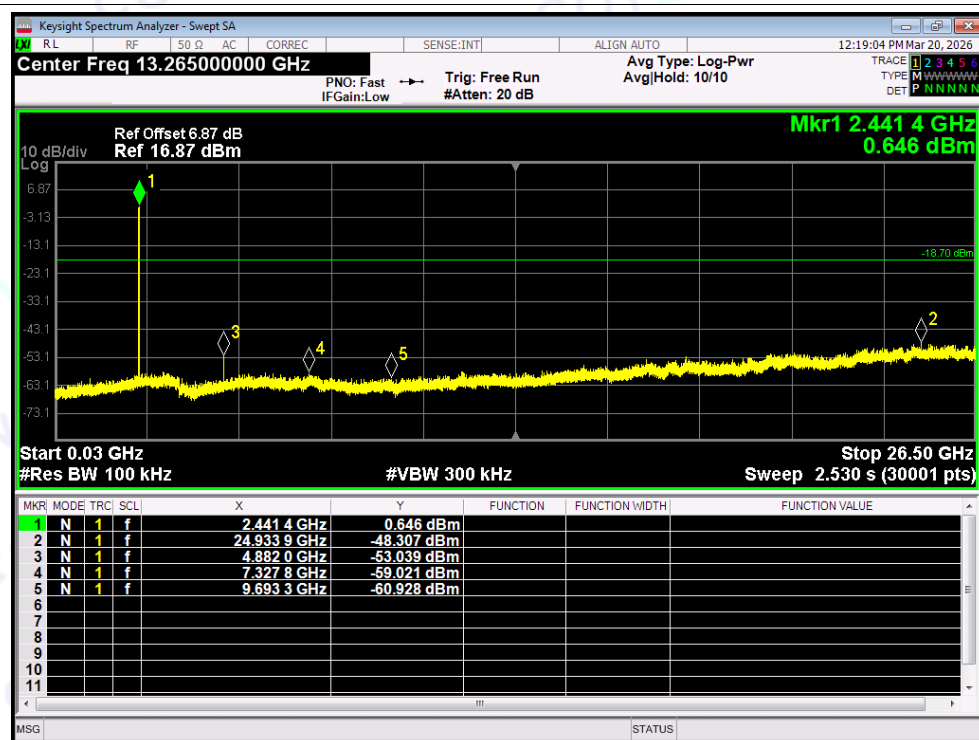
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



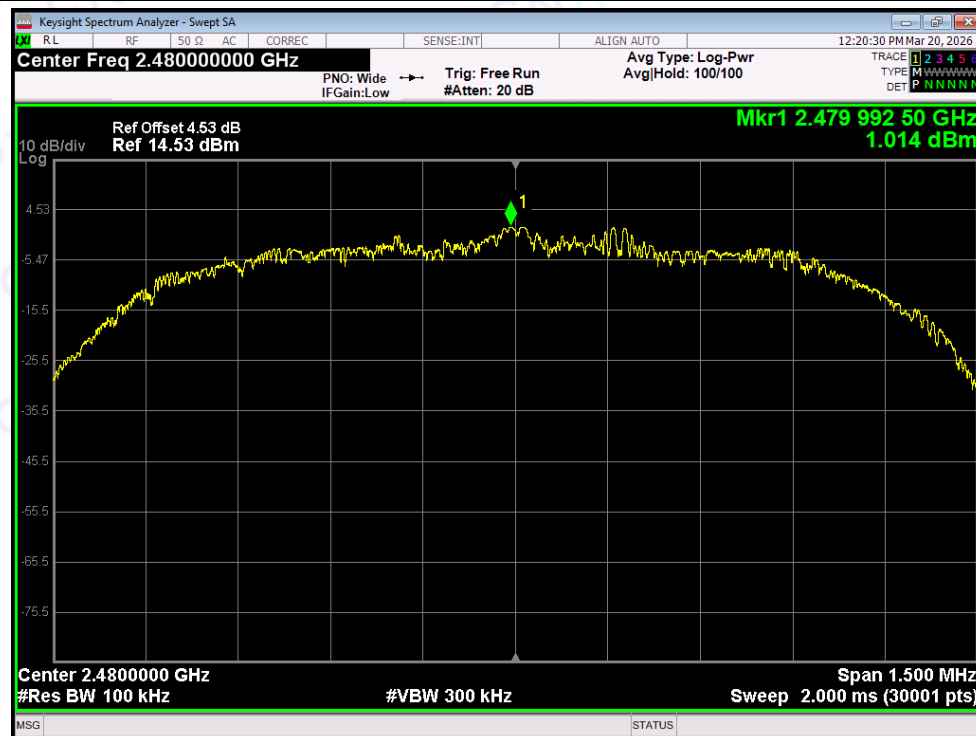
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref



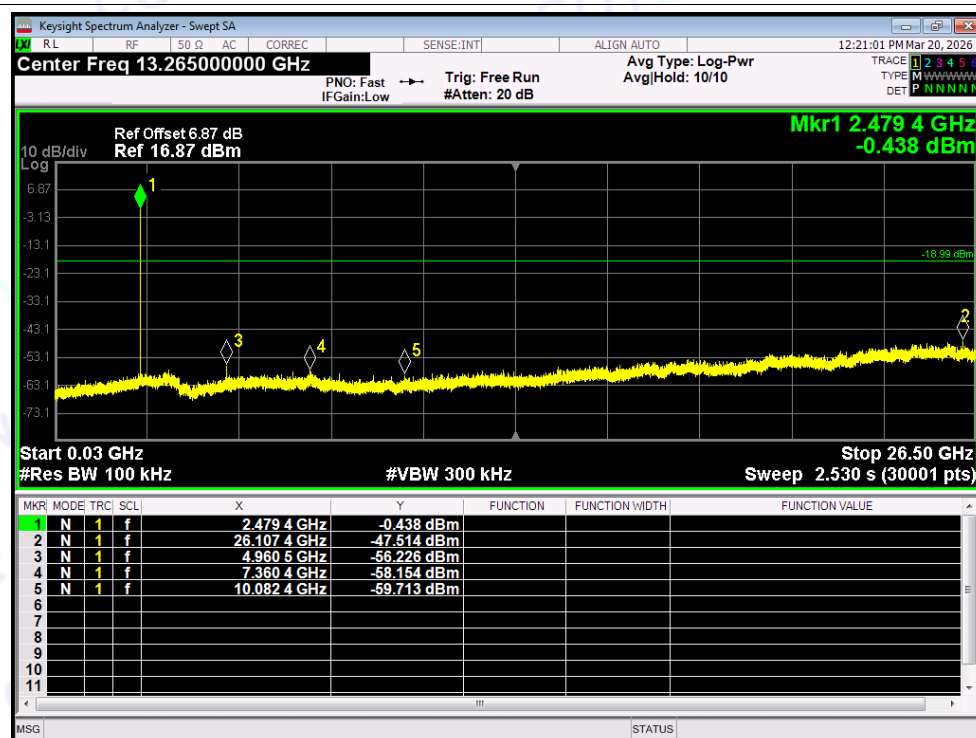
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

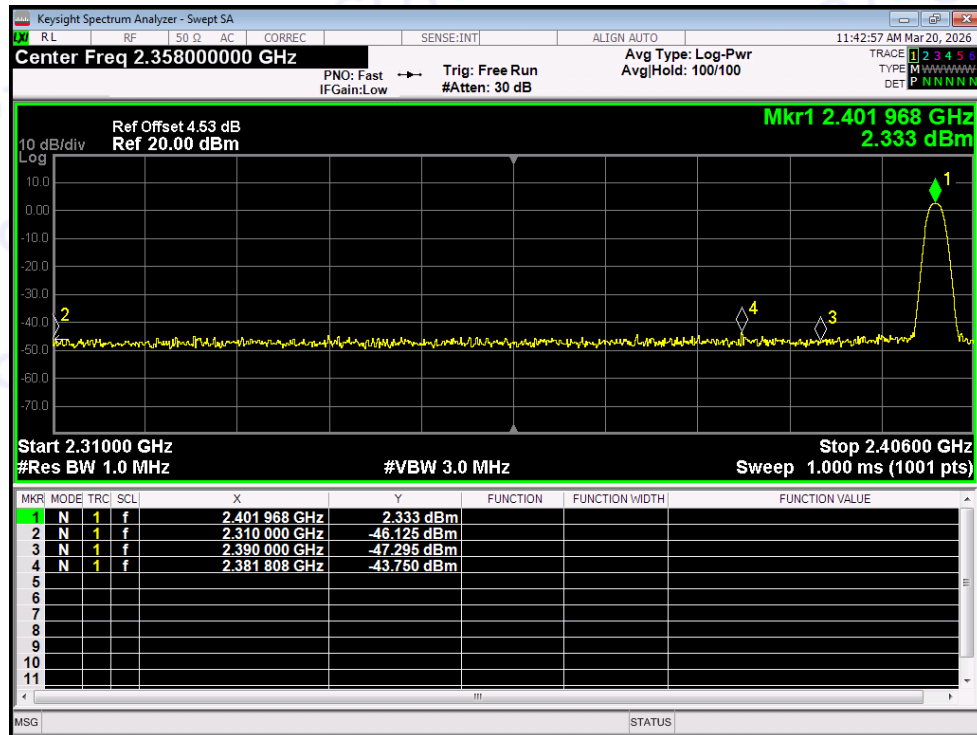


9. Restrict Band

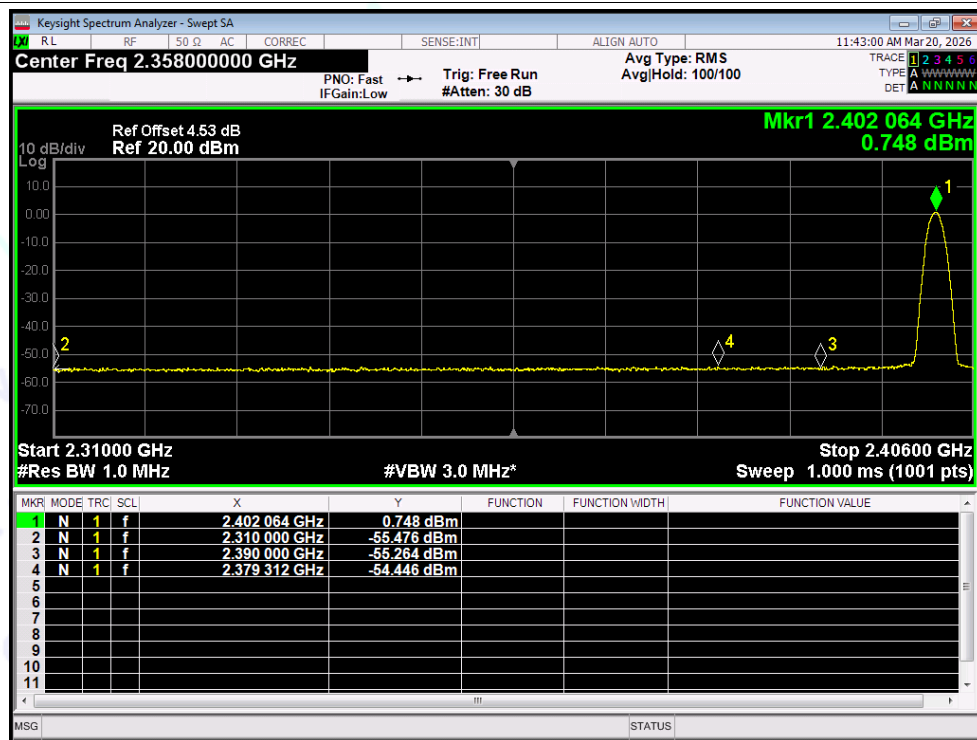
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-46.13	2	-	51.13	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-55.48	2	1.11	42.89	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2381.808	-43.75	2	-	53.51	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2379.312	-54.45	2	1.11	43.92	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-47.3	2	-	49.96	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-55.26	2	1.11	43.11	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-46.12	2	-	51.14	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-54.44	2	1.11	43.93	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2497.912	-43.72	2	-	53.54	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2484.424	-53.67	2	1.11	44.7	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-46.13	2	-	51.13	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-55.11	2	1.11	43.26	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-46.54	2	-	50.72	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-55.32	2	1.11	43.05	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2364.624	-44.3	2	-	52.96	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2388.432	-54.4	2	1.11	43.97	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-47.39	2	-	49.87	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-54.87	2	1.11	43.5	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-45.78	2	-	51.48	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-54.17	2	1.11	44.2	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2488.816	-44.44	2	-	52.82	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2484.712	-53.89	2	1.11	44.48	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-47.1	2	-	50.16	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-55.24	2	1.11	43.13	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-49.03	2	-	48.23	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-55.91	2	1.11	42.46	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2385.84	-44.1	2	-	53.16	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2389.584	-54.01	2	1.11	44.36	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-46.78	2	-	50.48	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-55.96	2	1.11	42.41	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-47.88	2	-	49.38	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-54.07	2	1.11	44.3	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.728	-43.47	2	-	53.79	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2491.384	-53.94	2	1.11	44.43	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-47.3	2	-	49.96	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-53.99	2	1.11	44.38	Average	54	Pass

Test Graphs

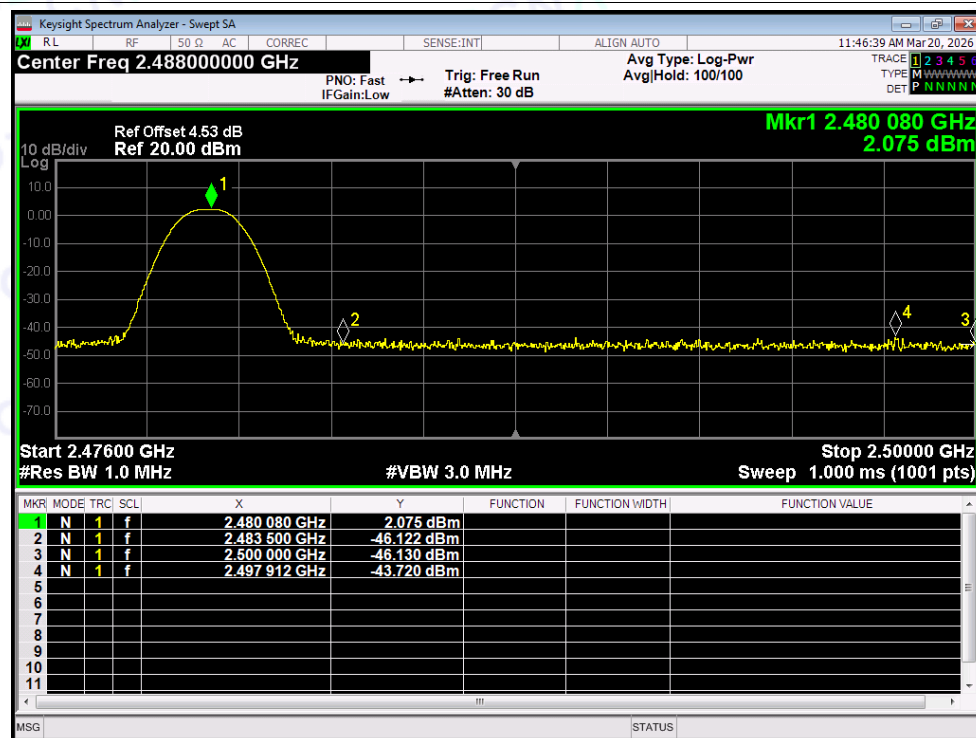
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



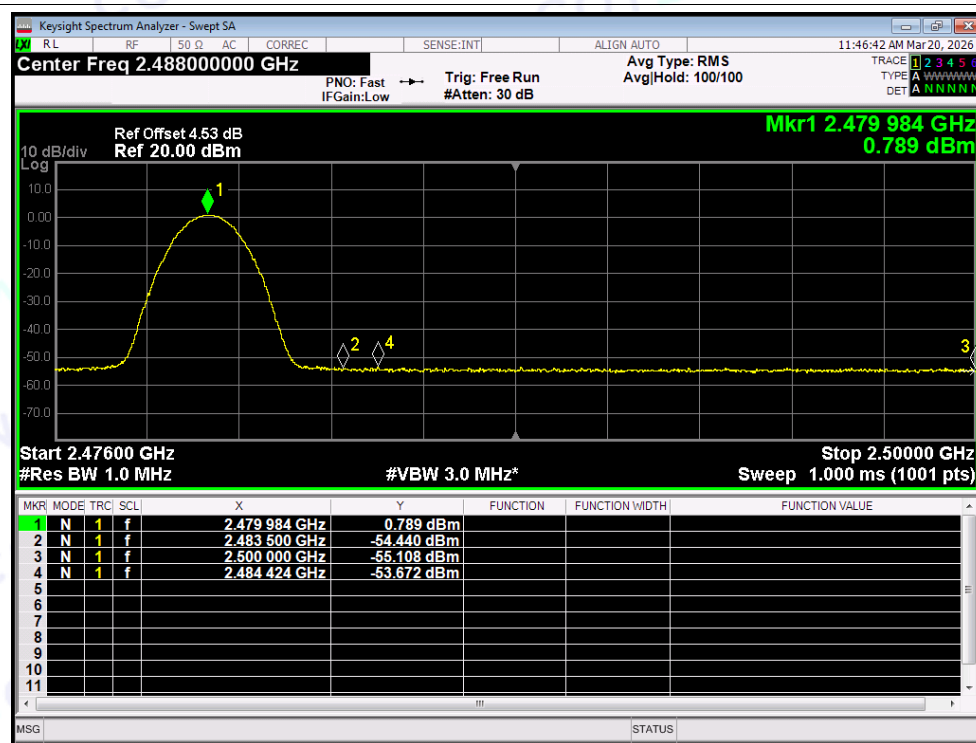
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



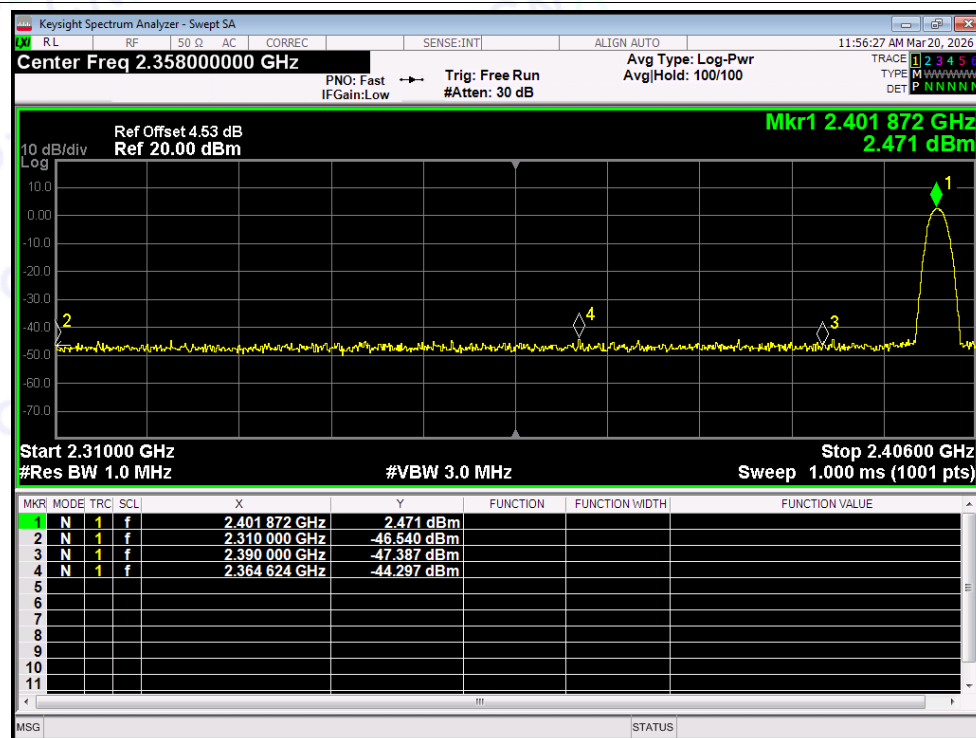
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



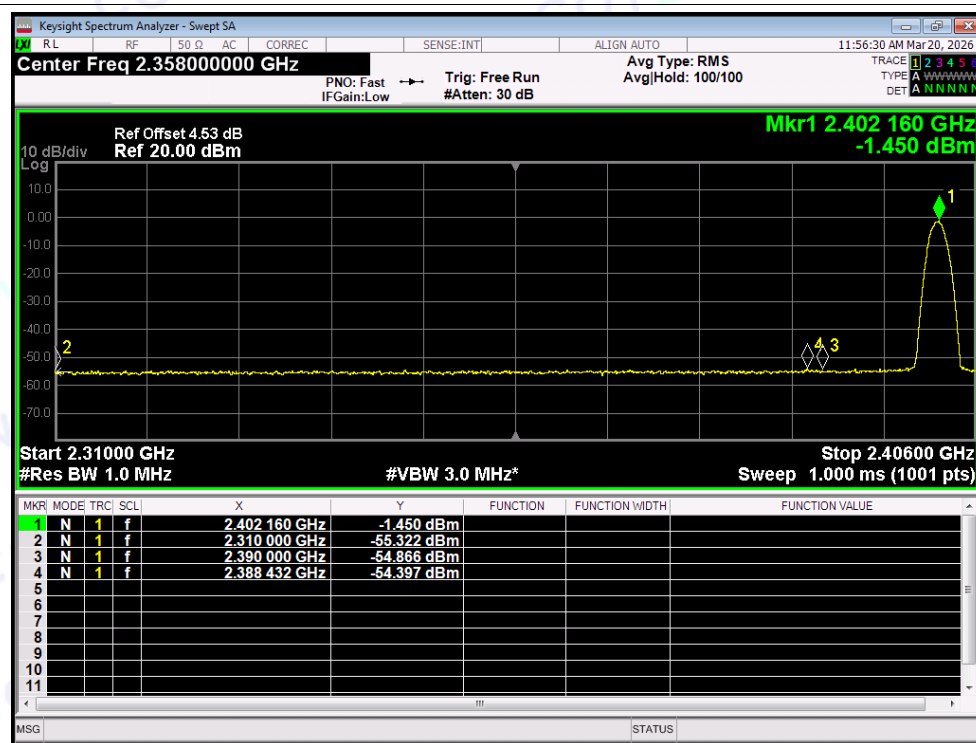
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



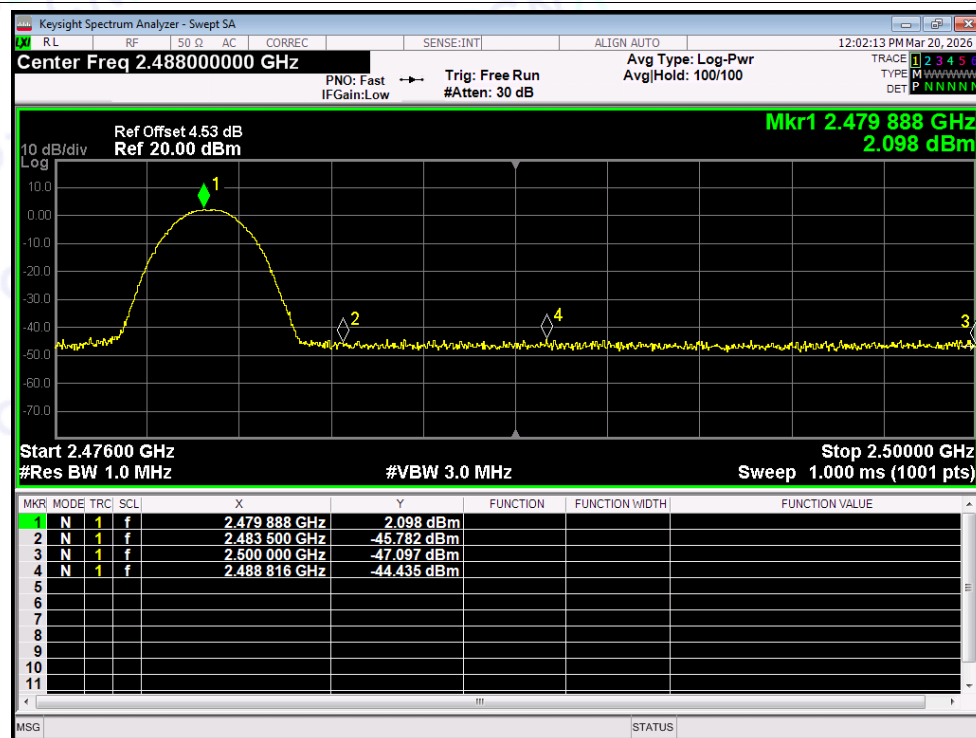
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak



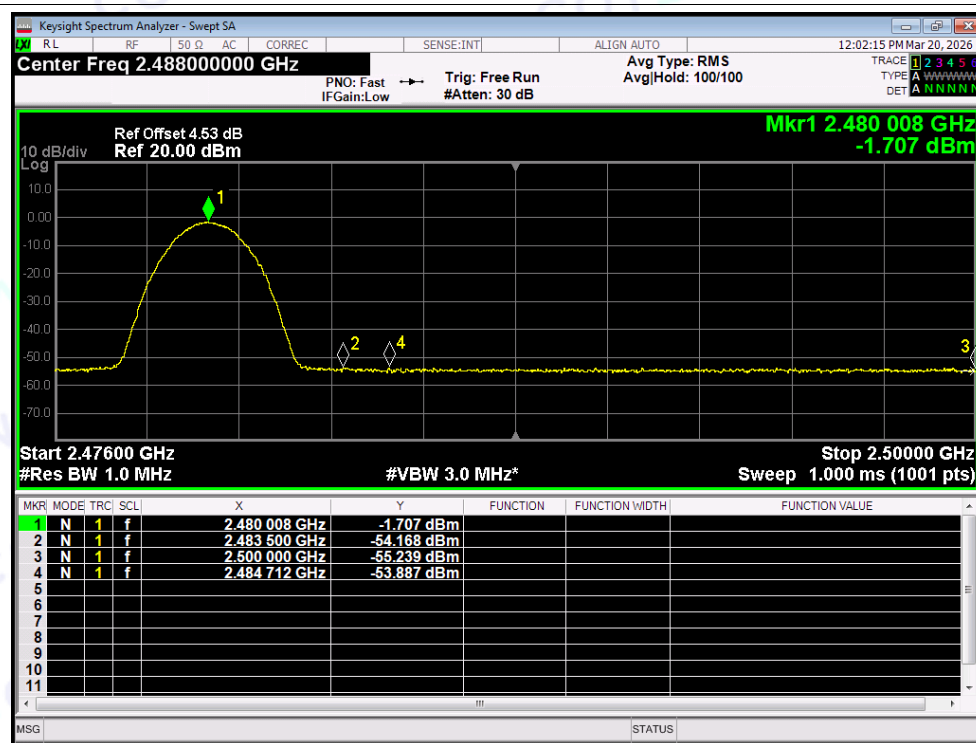
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average



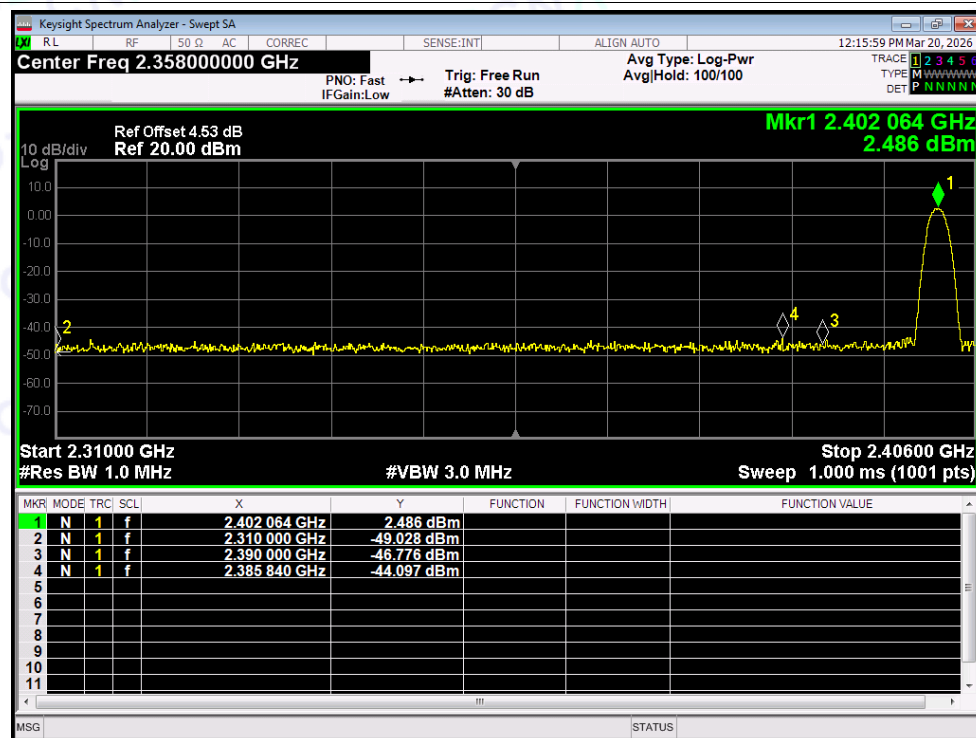
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak



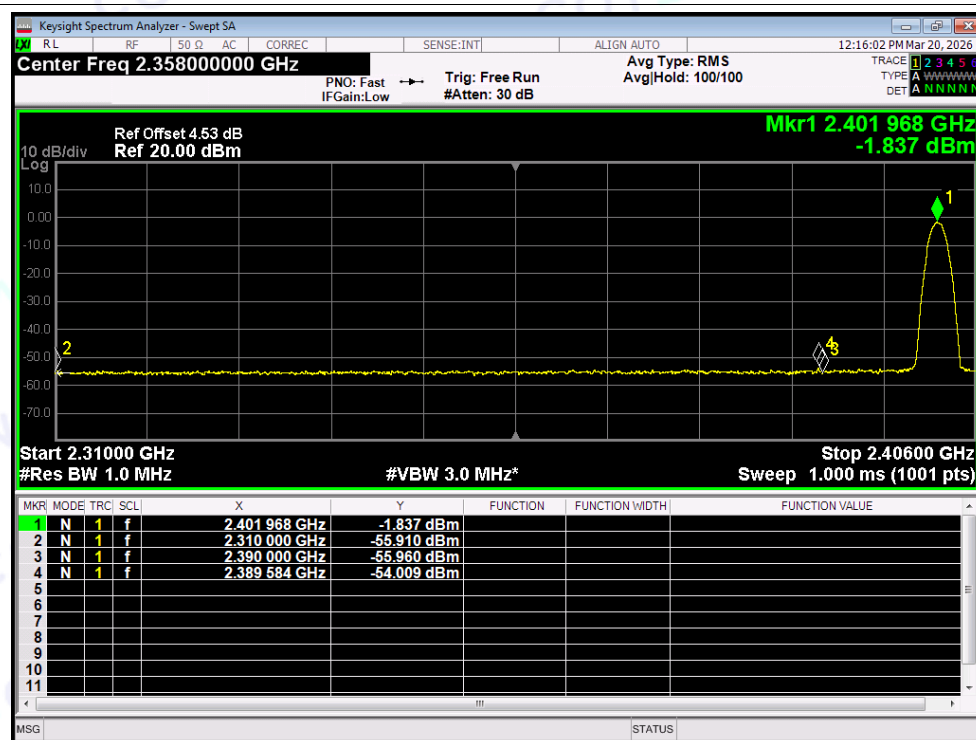
Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average



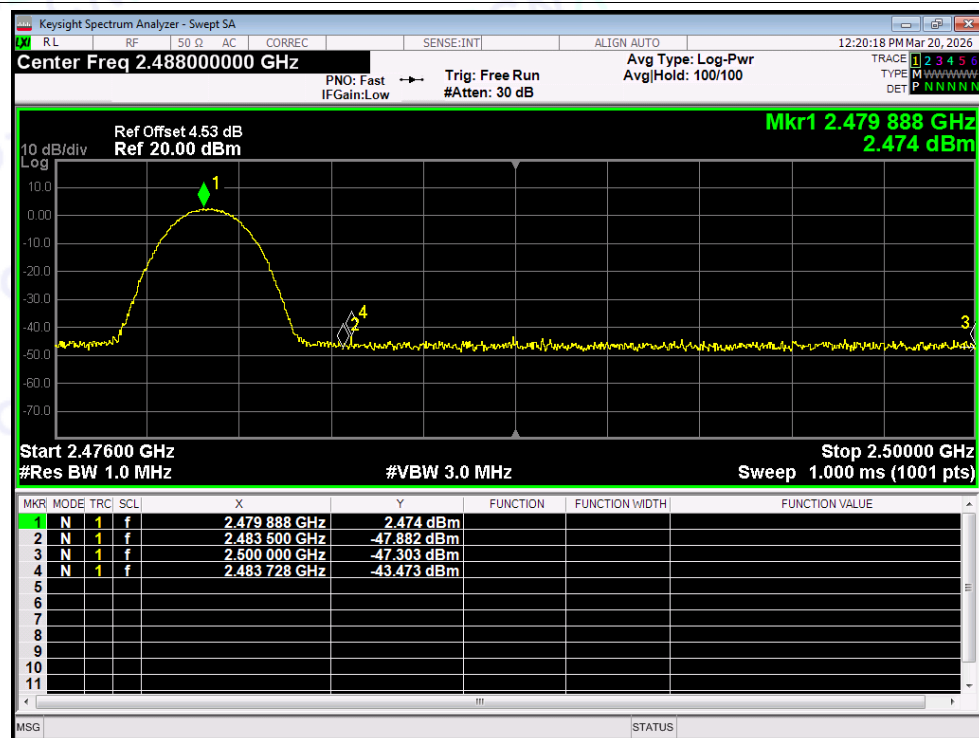
Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak



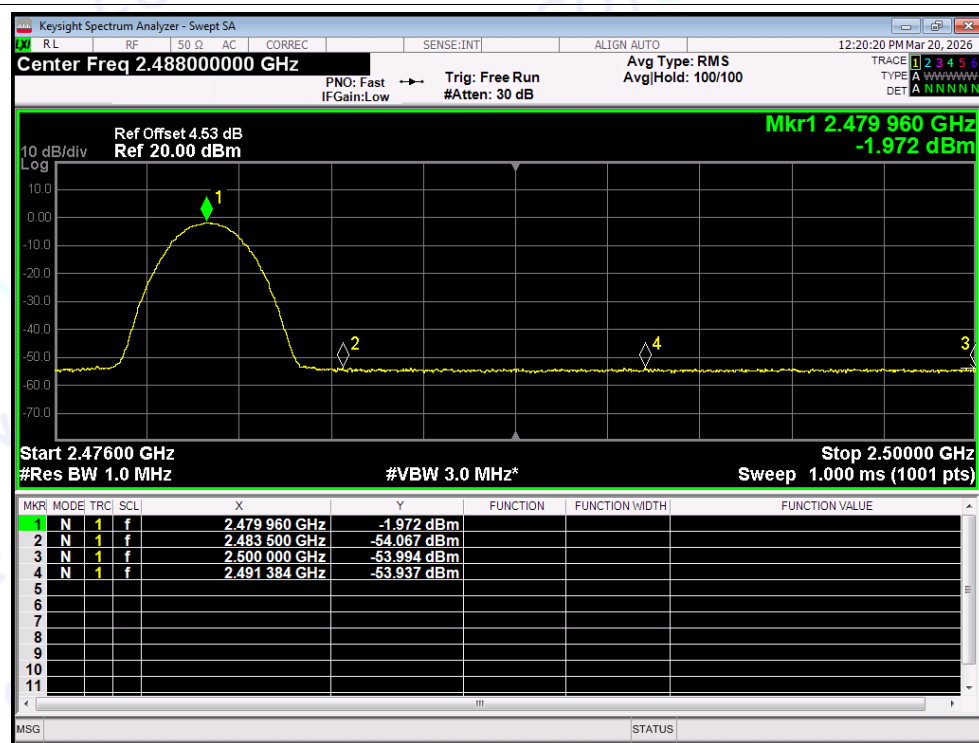
Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Average



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



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

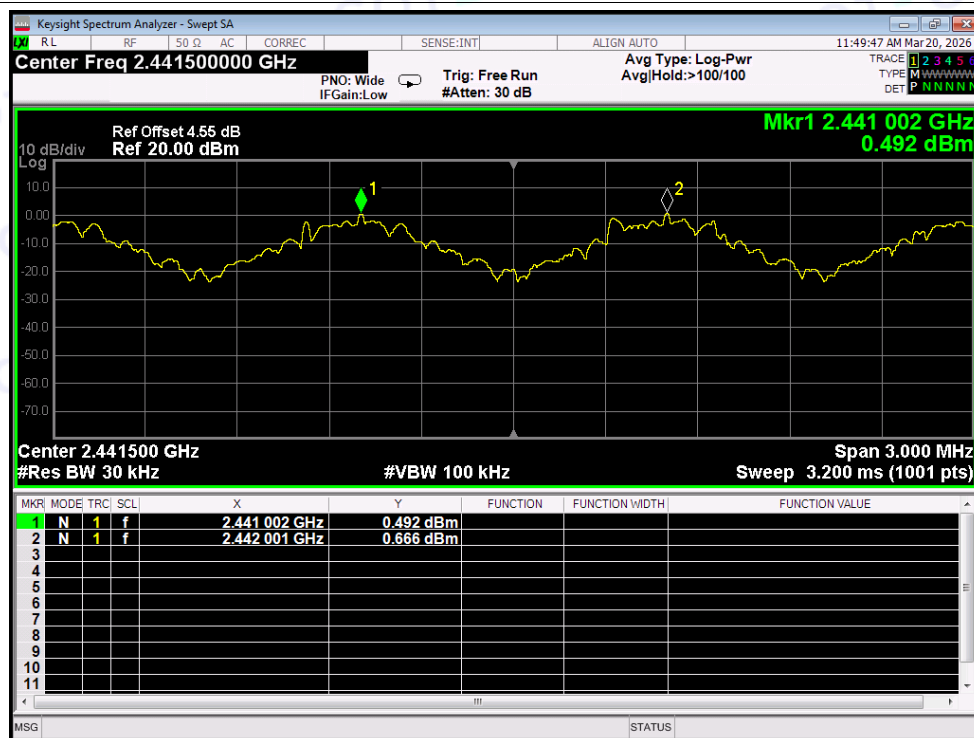


10. Carrier Frequencies Separation

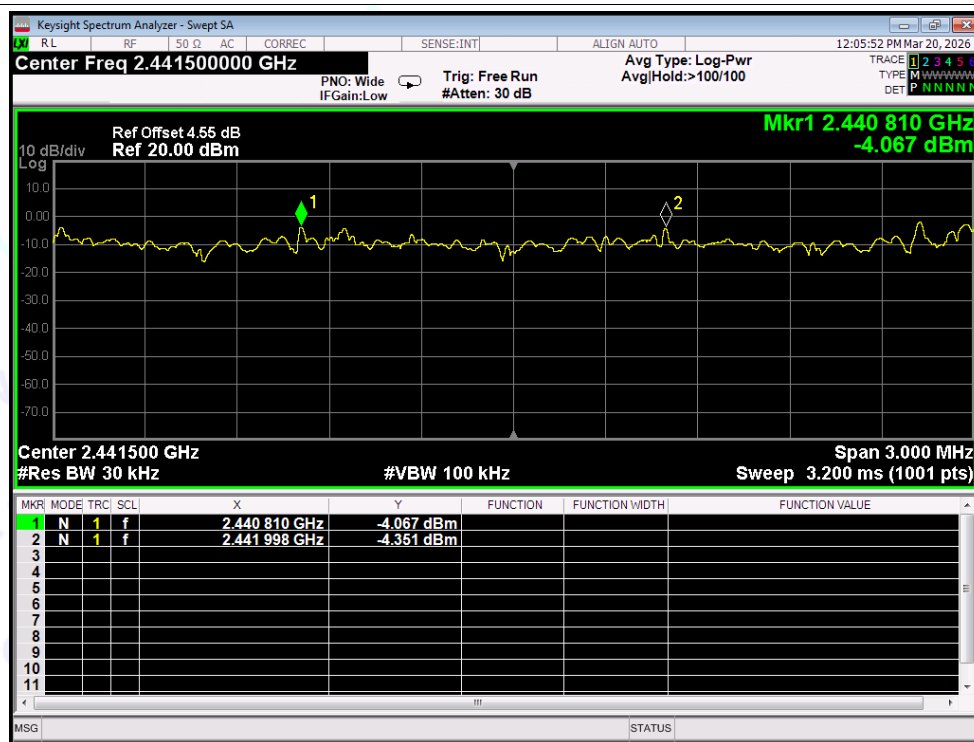
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2441.002	2442.001	0.999	0.633	Pass
NVNT	2-DH5	Ant1	2440.81	2441.998	1.188	0.853	Pass
NVNT	3-DH5	Ant1	2441.005	2441.938	0.933	0.867	Pass

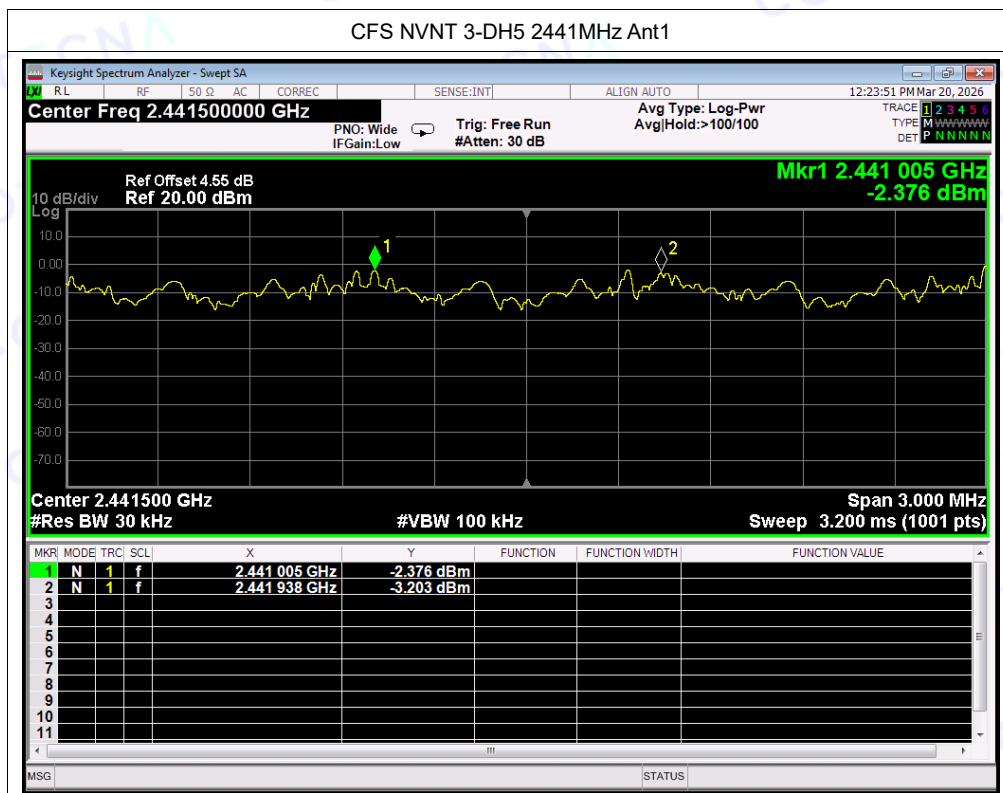
Test Graphs

CFS NVNT 1-DH5 2441MHz Ant1



CFS NVNT 2-DH5 2441MHz Ant1



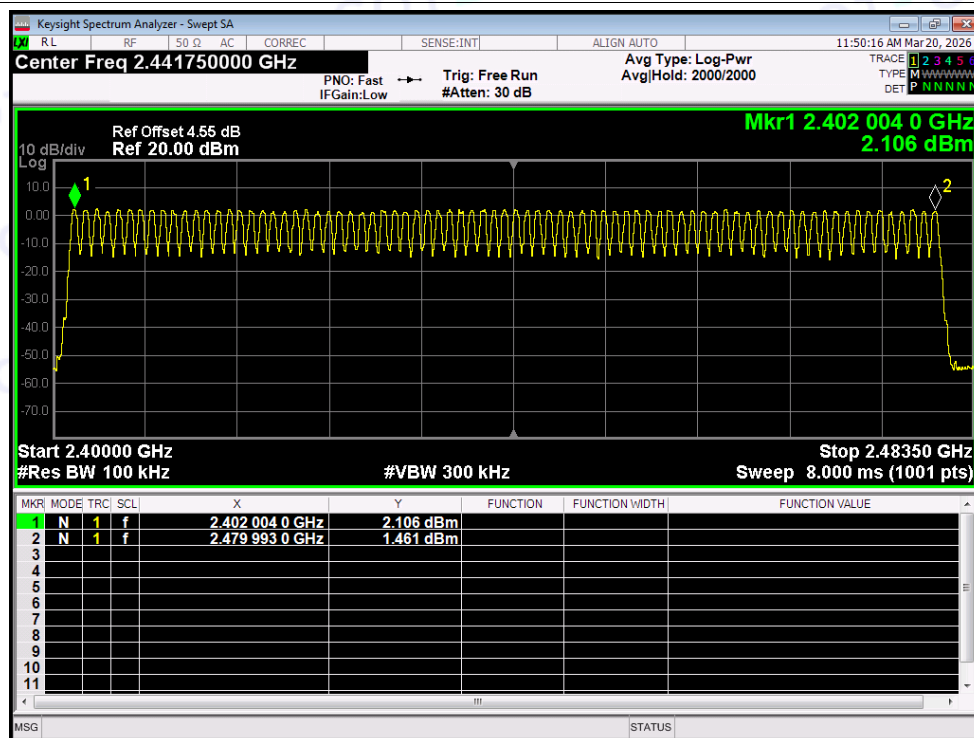


11. Number of Hopping Channel

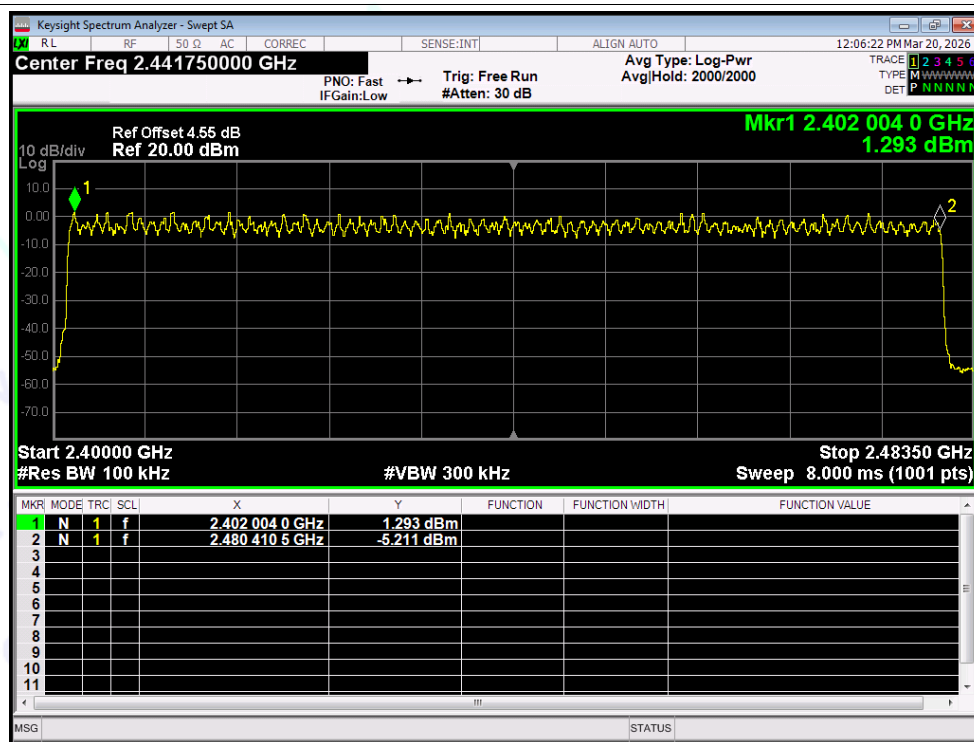
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

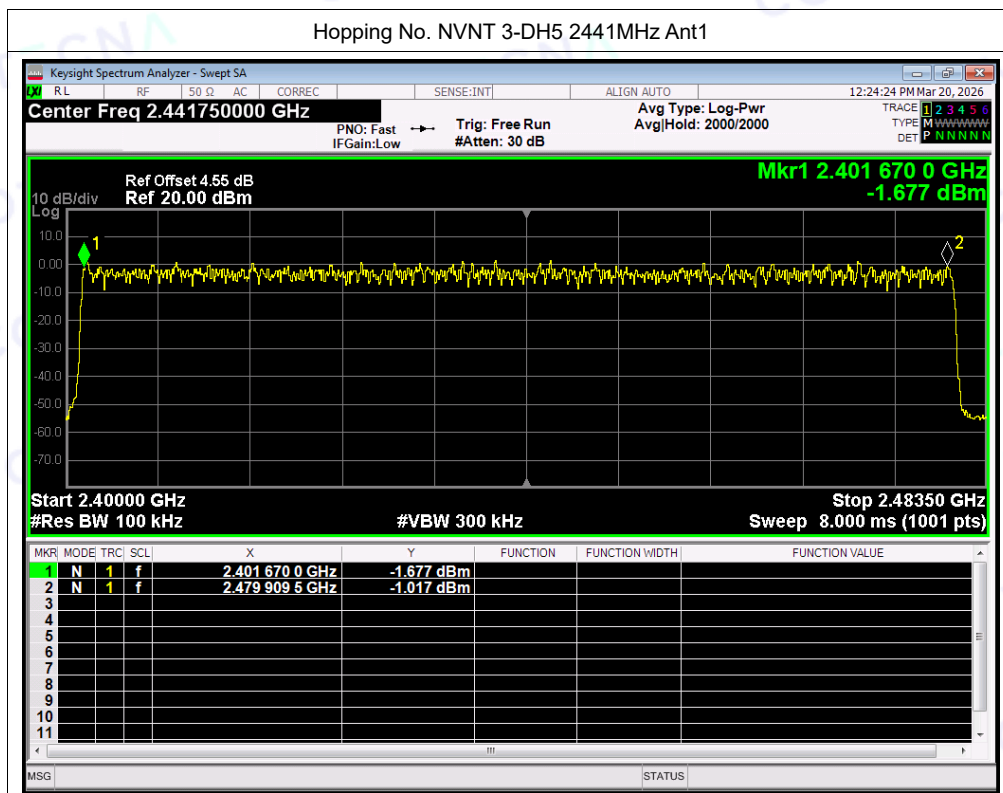
Test Graphs

Hopping No. NVNT 1-DH5 2441MHz Ant1



Hopping No. NVNT 2-DH5 2441MHz Ant1





--- END OF REPORT ---