

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	Wireless Remote Controller
Test Model:	CG546X
Sample ID:	HC-C-202508-0175-01-01
Environmental Conditions	
Temperature:	25.6℃
Relative Humidity:	52.6%
Test Voltage:	DC 3.7V
Test Engineer:	Gold zhang
Note: For a more detailed features description, please refer to the report TBR-C-202508-0175-22 The report only show the worst case data.	

Contents

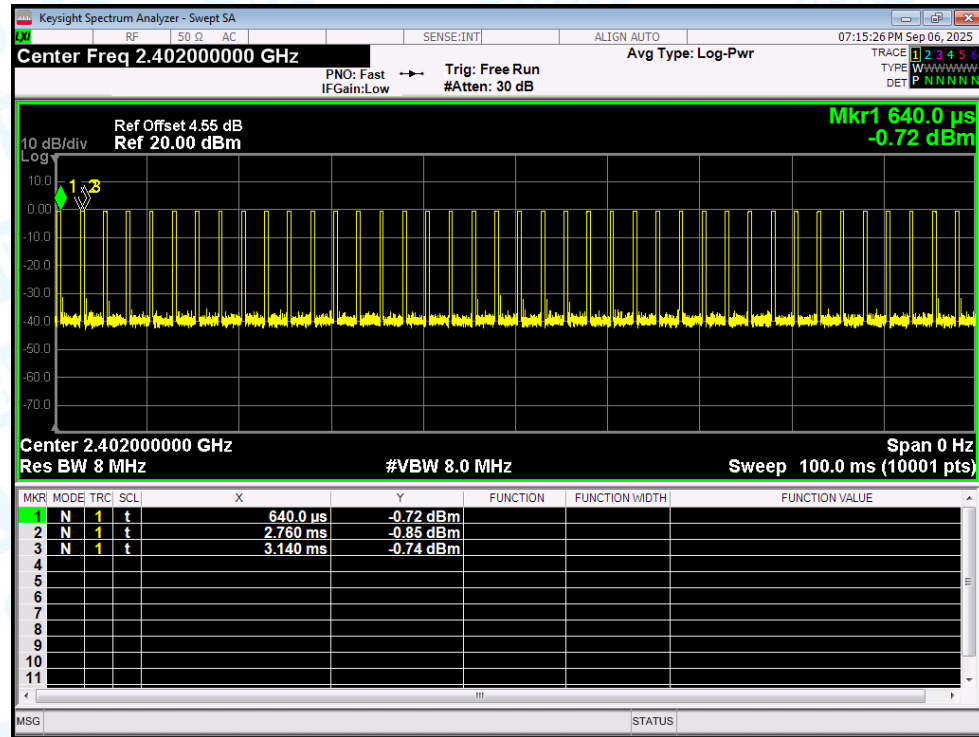
1.	Duty Cycle	3
2.	Maximum Conducted Output Power	9
3.	-20dB Bandwidth	15
4.	Occupied Channel Bandwidth	21
5.	Band Edge	27
6.	Band Edge(Hopping)	34
7.	Conducted RF Spurious Emission	41
8.	Carrier Frequencies Separation	51
9.	Number of Hopping Channel	54
10.	Dwell Time	57

1. Duty Cycle

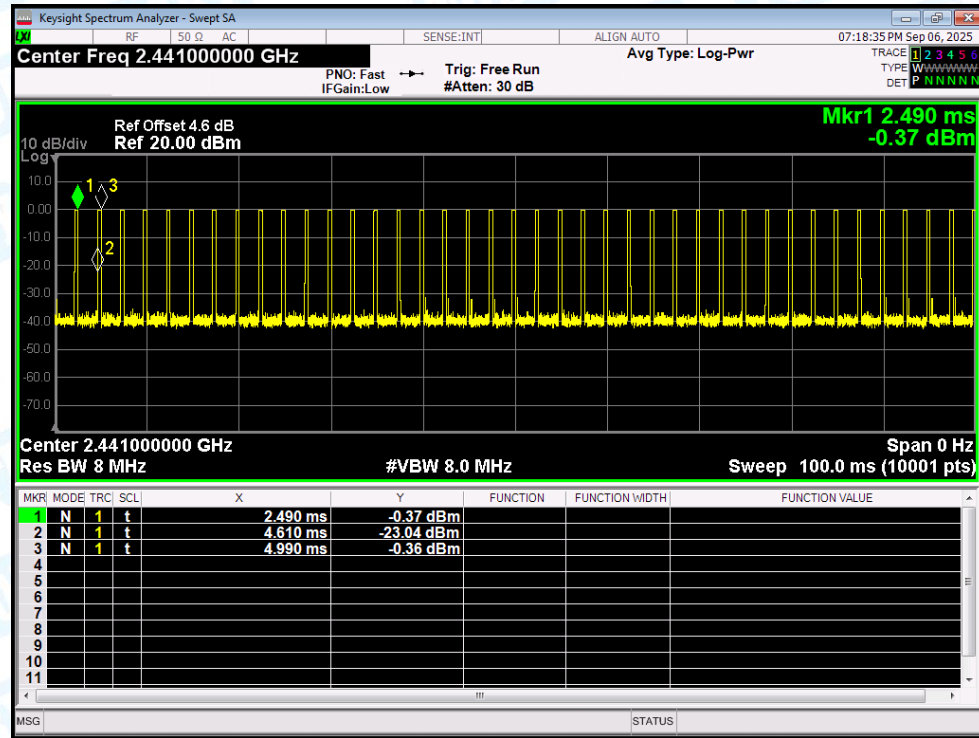
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	15.2	8.18	2.63
NVNT	1-DH1	2441	Ant1	15.2	8.18	2.63
NVNT	1-DH1	2480	Ant1	15.2	8.18	2.63
NVNT	2-DH1	2402	Ant1	15.6	8.07	2.56
NVNT	2-DH1	2441	Ant1	15.6	8.07	2.56
NVNT	2-DH1	2480	Ant1	15.6	8.07	2.56
NVNT	3-DH1	2402	Ant1	15.6	8.07	2.56
NVNT	3-DH1	2441	Ant1	15.6	8.07	2.56
NVNT	3-DH1	2480	Ant1	15.6	8.07	2.56

Test Graphs

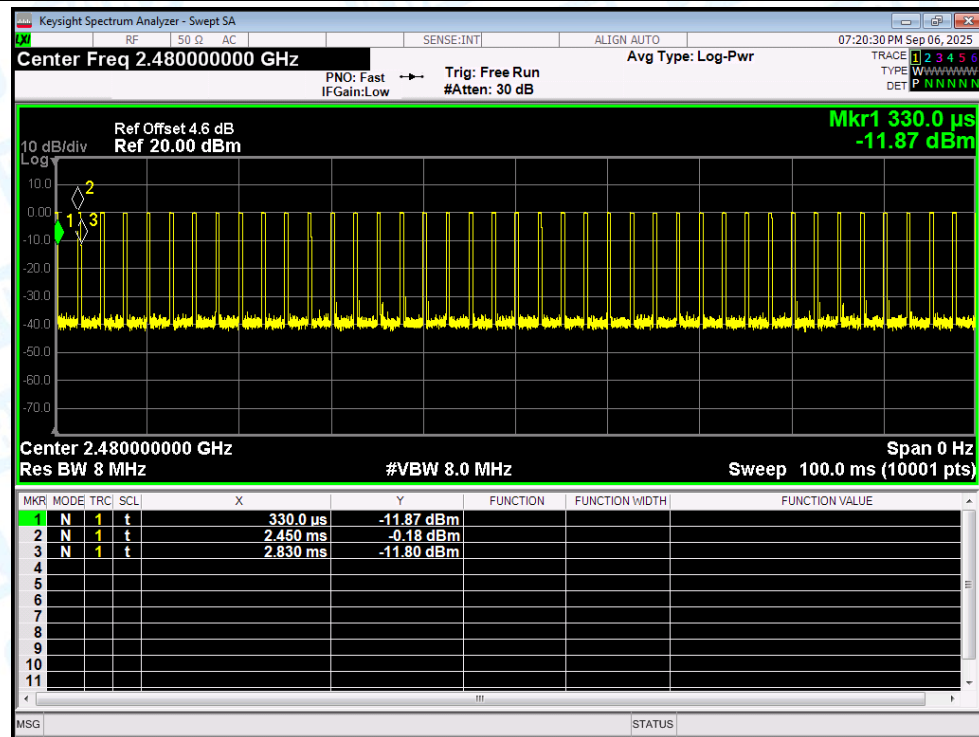
Duty Cycle NVNT 1-DH1 2402MHz Ant1



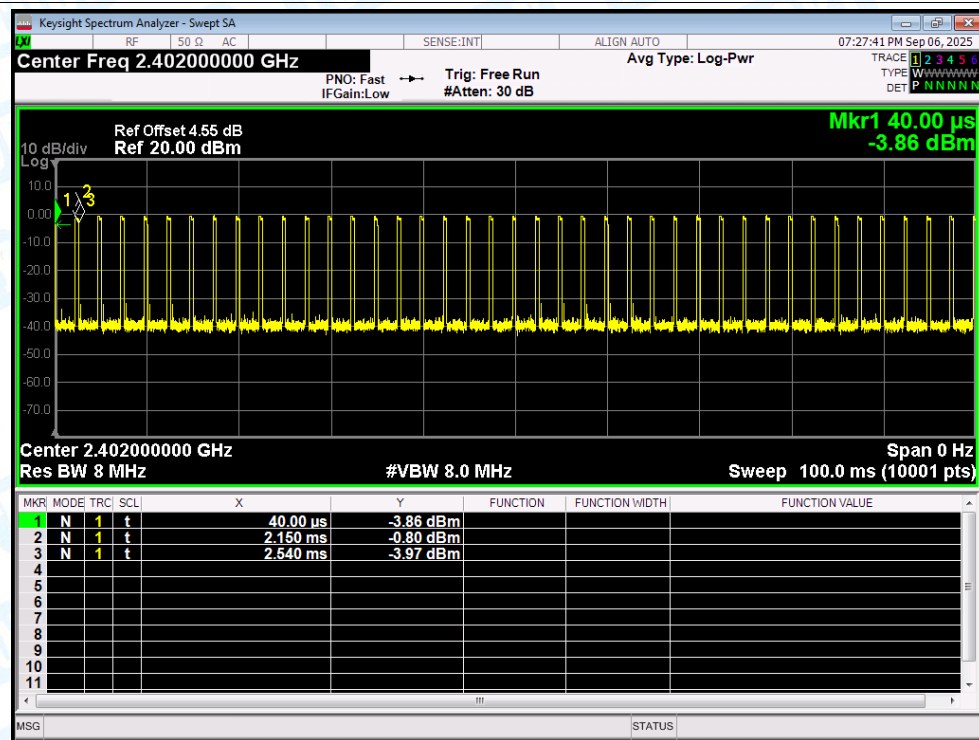
Duty Cycle NVNT 1-DH1 2441MHz Ant1



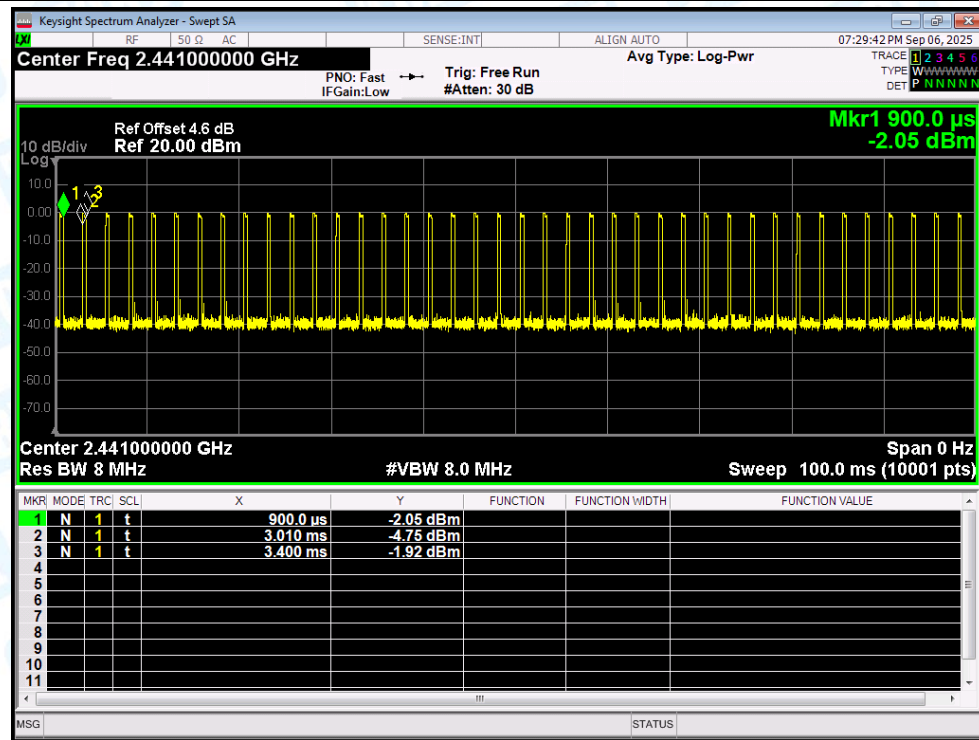
Duty Cycle NVNT 1-DH1 2480MHz Ant1



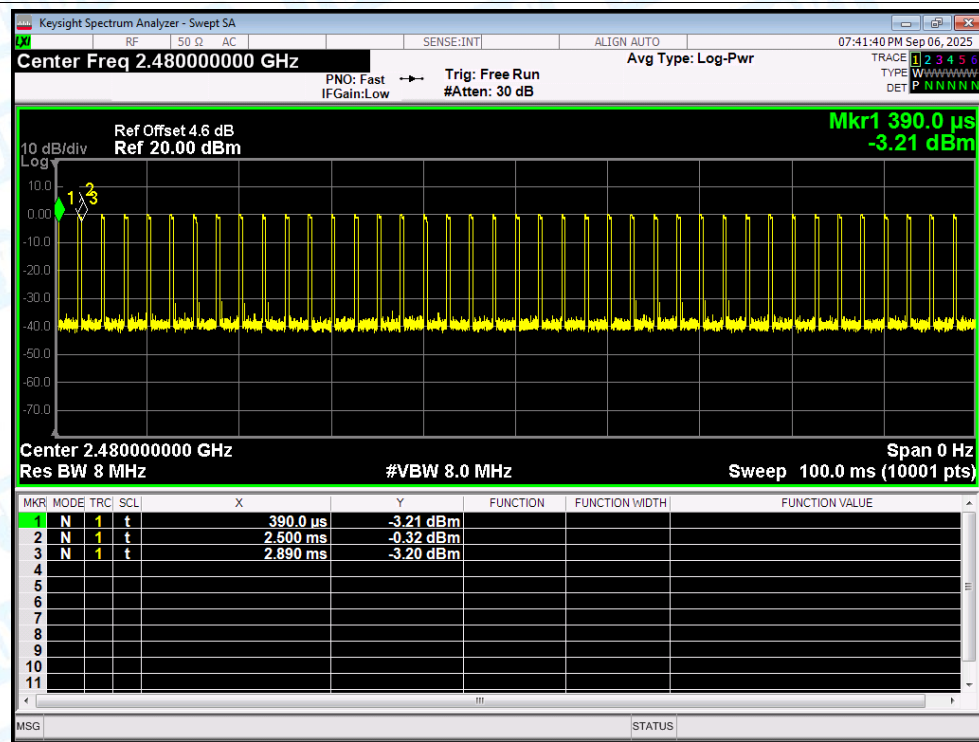
Duty Cycle NVNT 2-DH1 2402MHz Ant1



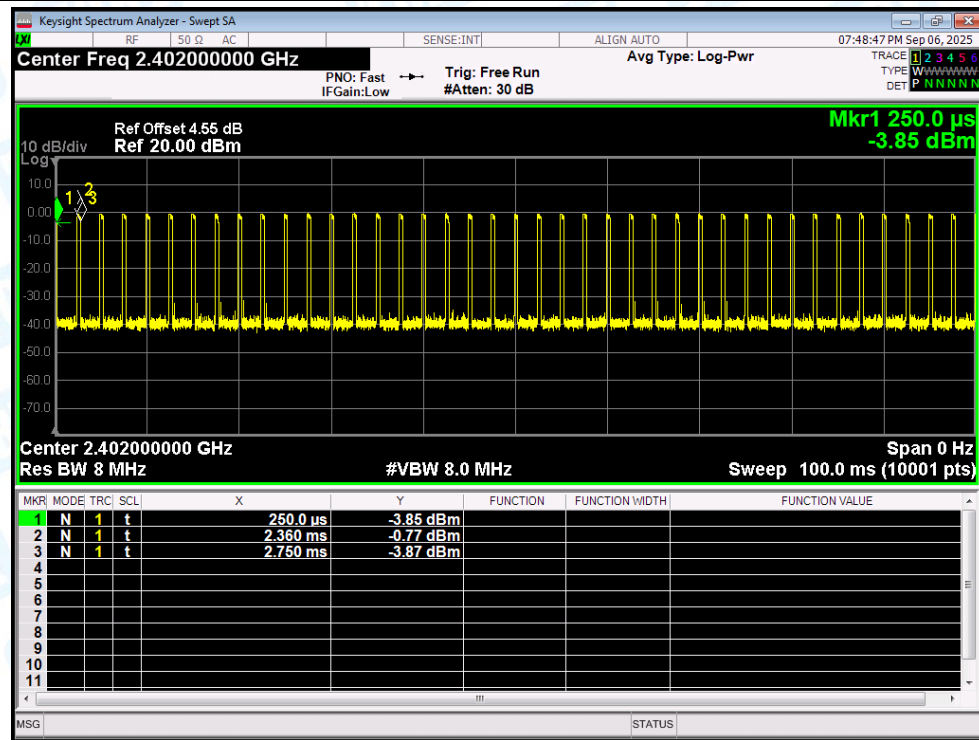
Duty Cycle NVNT 2-DH1 2441MHz Ant1



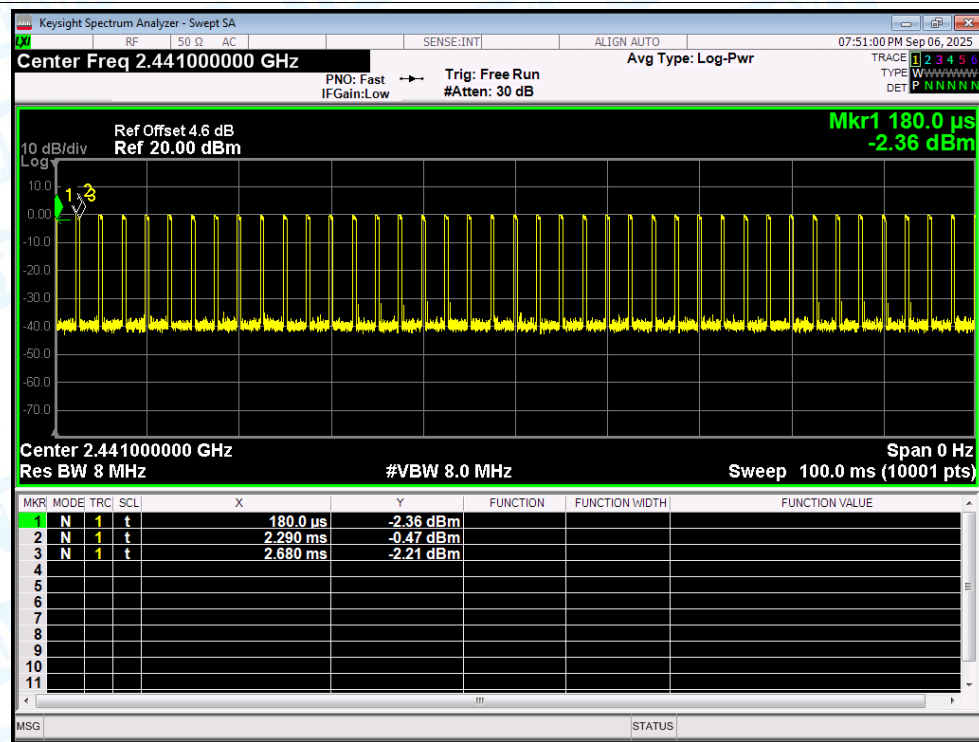
Duty Cycle NVNT 2-DH1 2480MHz Ant1

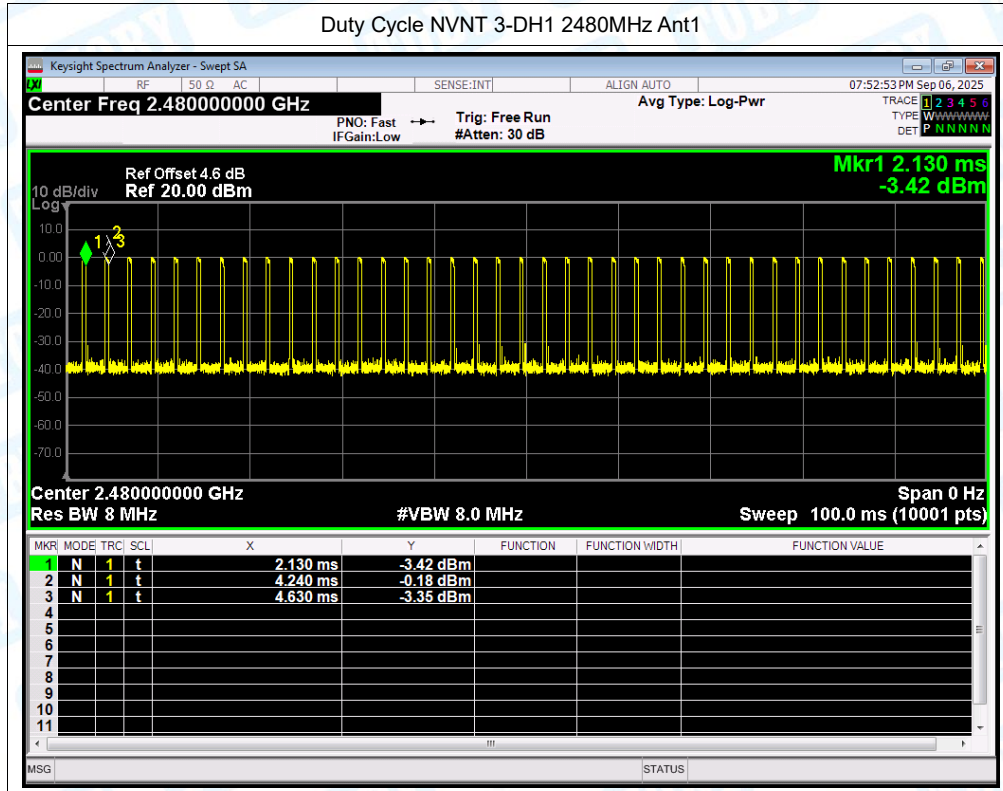


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



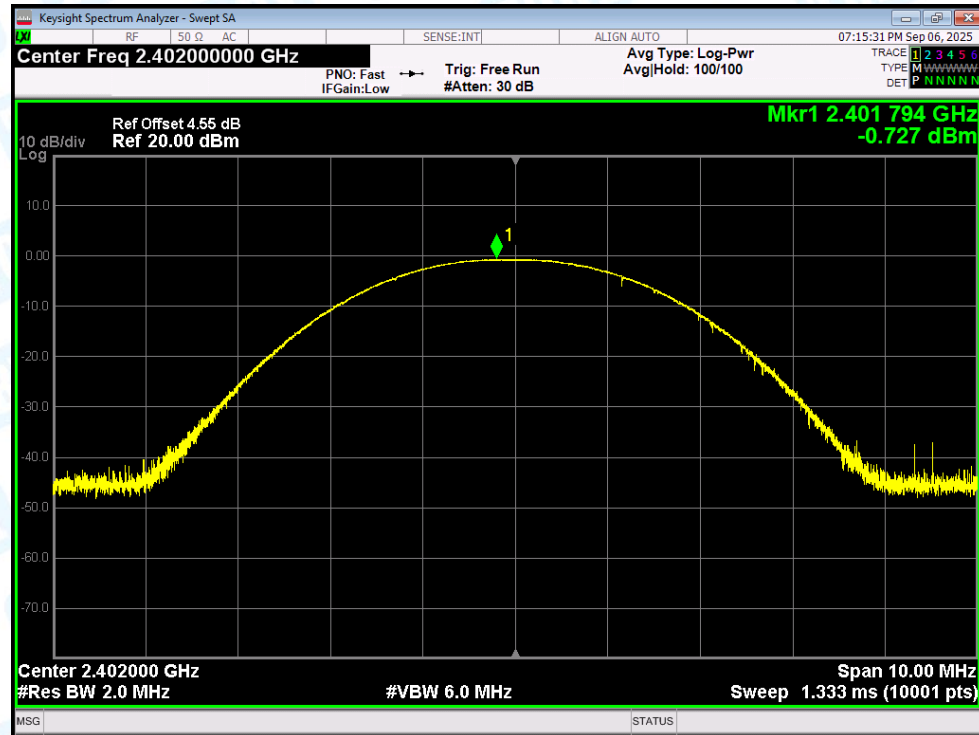


2. Maximum Conducted Output Power

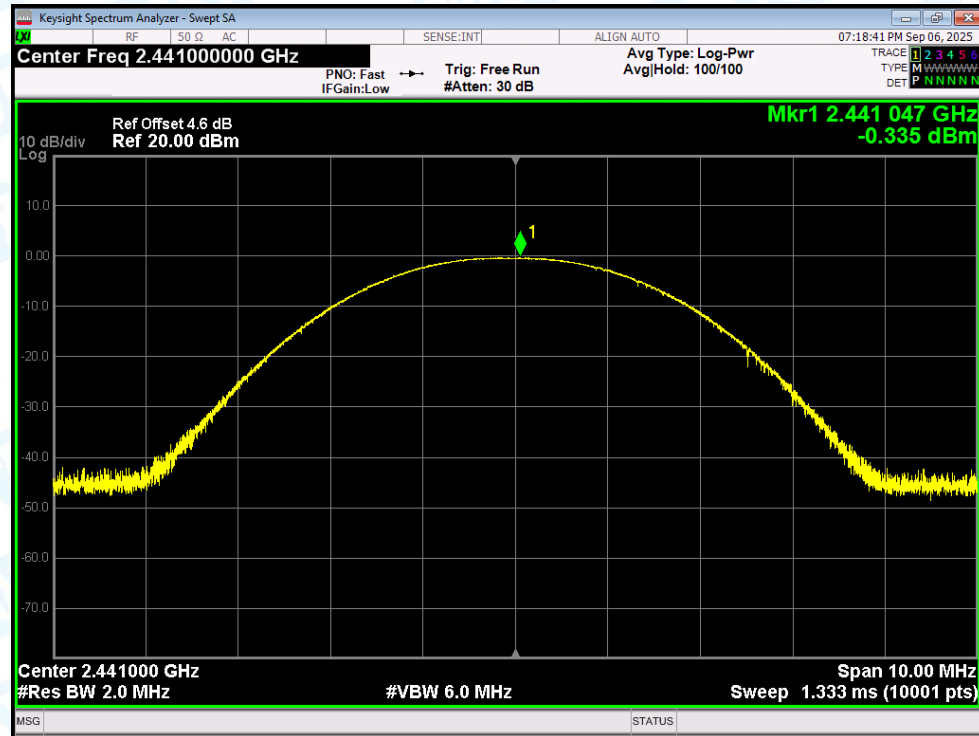
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	-0.727	30	Pass
NVNT	1-DH1	2441	Ant1	-0.335	30	Pass
NVNT	1-DH1	2480	Ant1	-0.248	30	Pass
NVNT	2-DH1	2402	Ant1	-0.63	30	Pass
NVNT	2-DH1	2441	Ant1	-0.379	30	Pass
NVNT	2-DH1	2480	Ant1	-0.185	30	Pass
NVNT	3-DH1	2402	Ant1	-0.649	30	Pass
NVNT	3-DH1	2441	Ant1	-0.293	30	Pass
NVNT	3-DH1	2480	Ant1	-0.172	30	Pass

Test Graphs

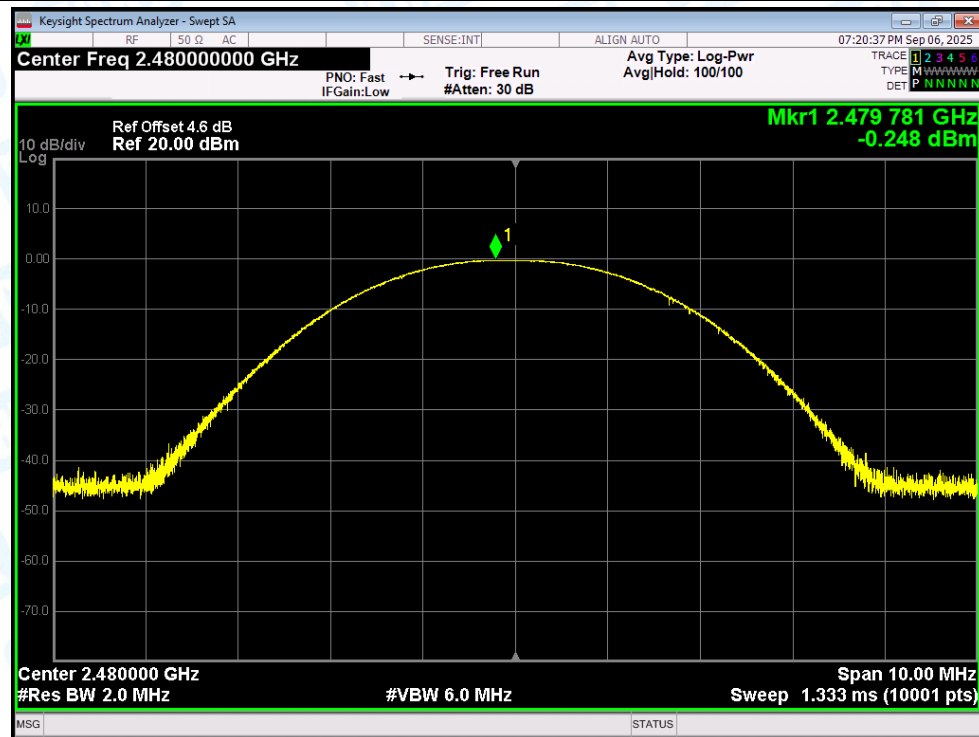
Power NVNT 1-DH1 2402MHz Ant1



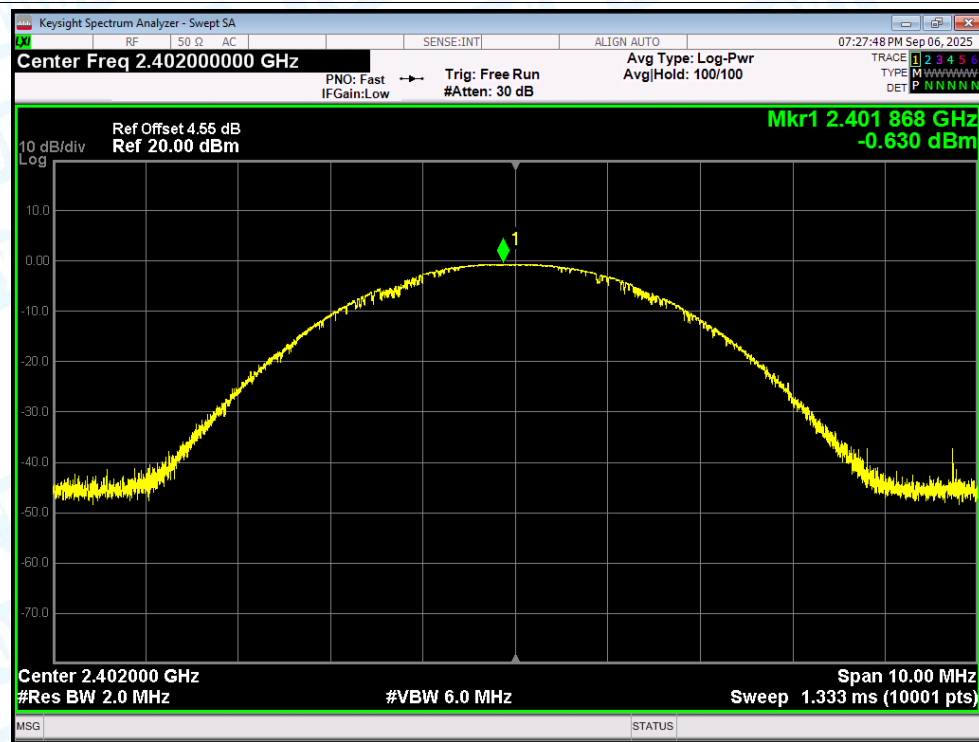
Power NVNT 1-DH1 2441MHz Ant1



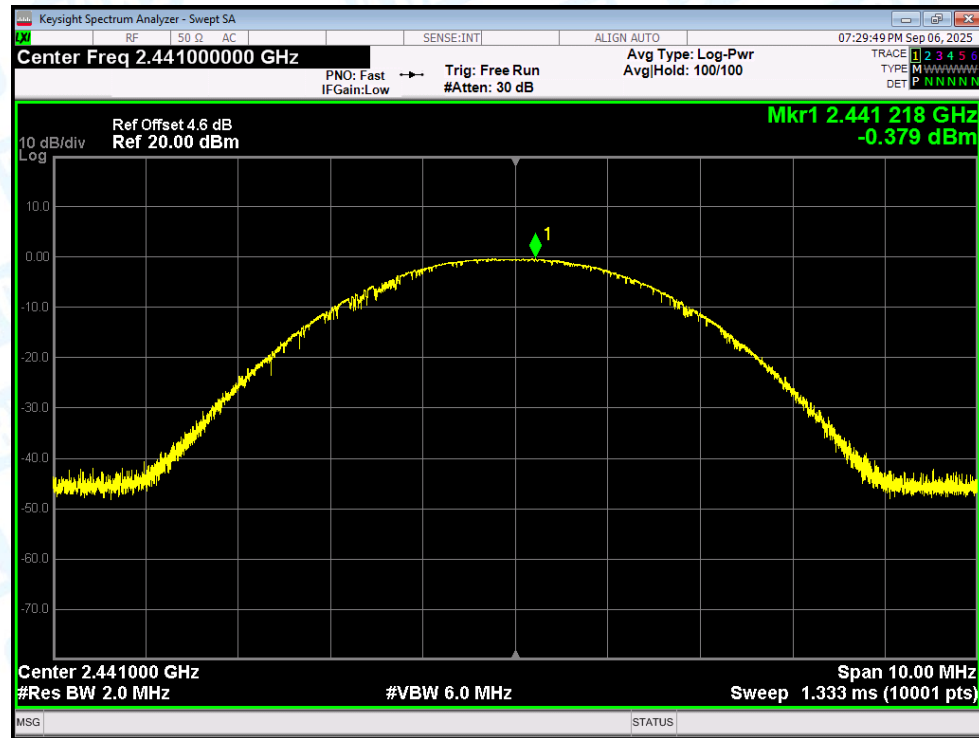
Power NVNT 1-DH1 2480MHz Ant1



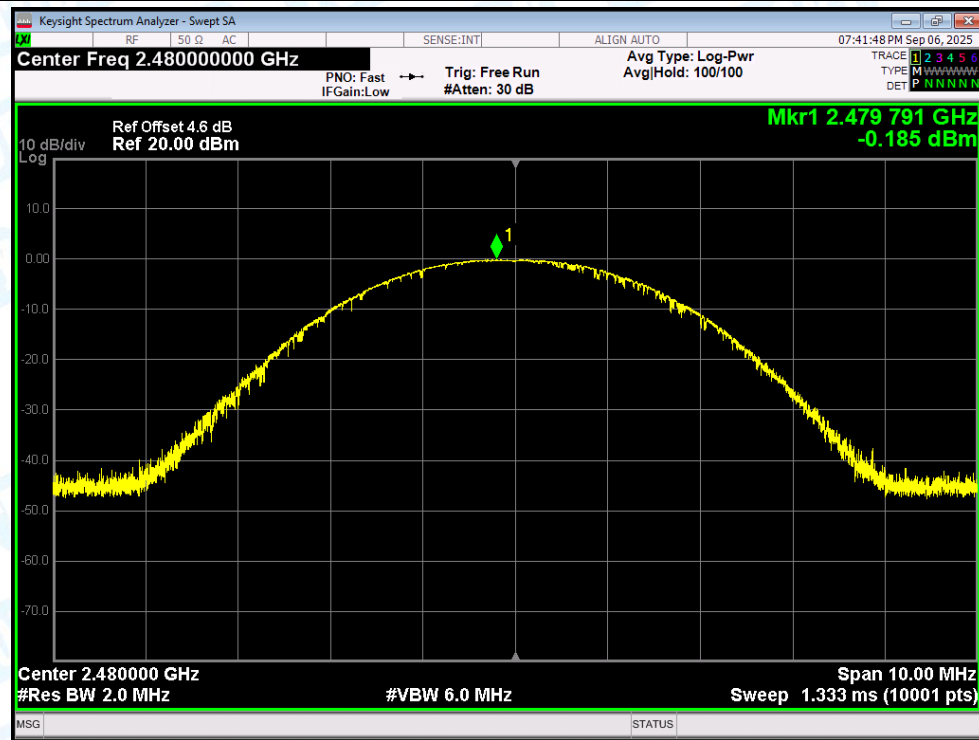
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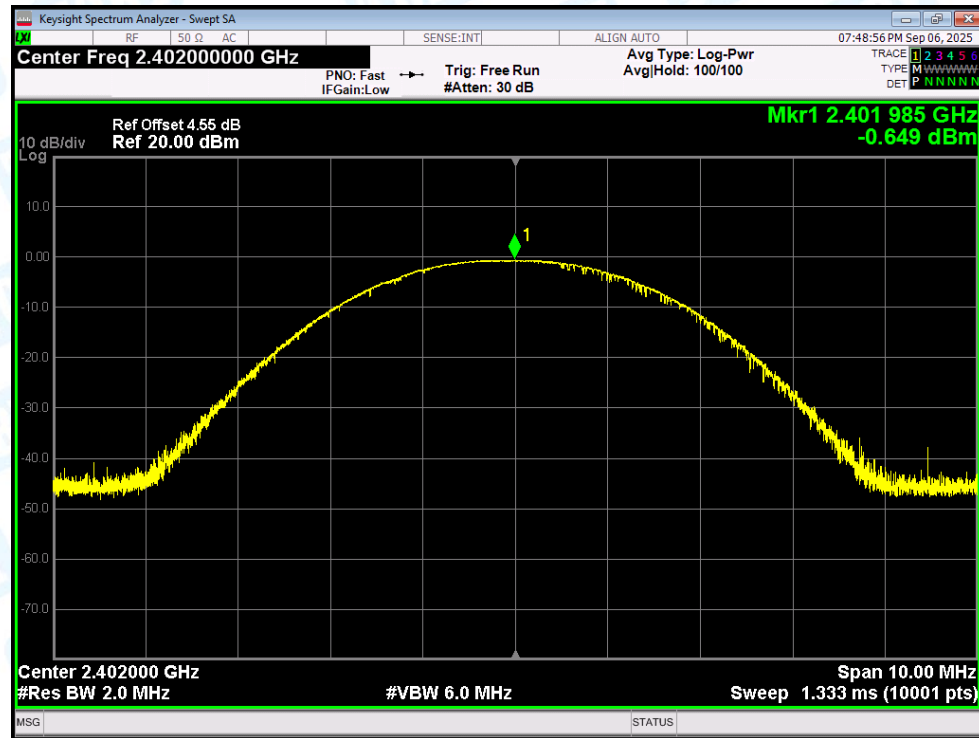
Power NVNT 2-DH1 2441MHz Ant1



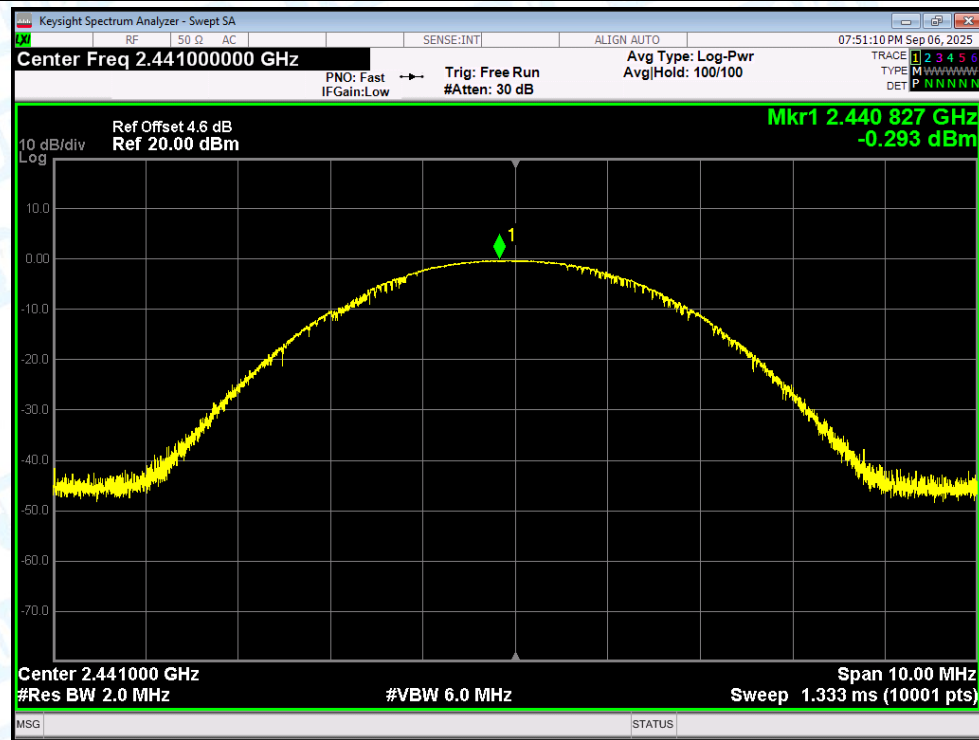
Power NVNT 2-DH1 2480MHz Ant1

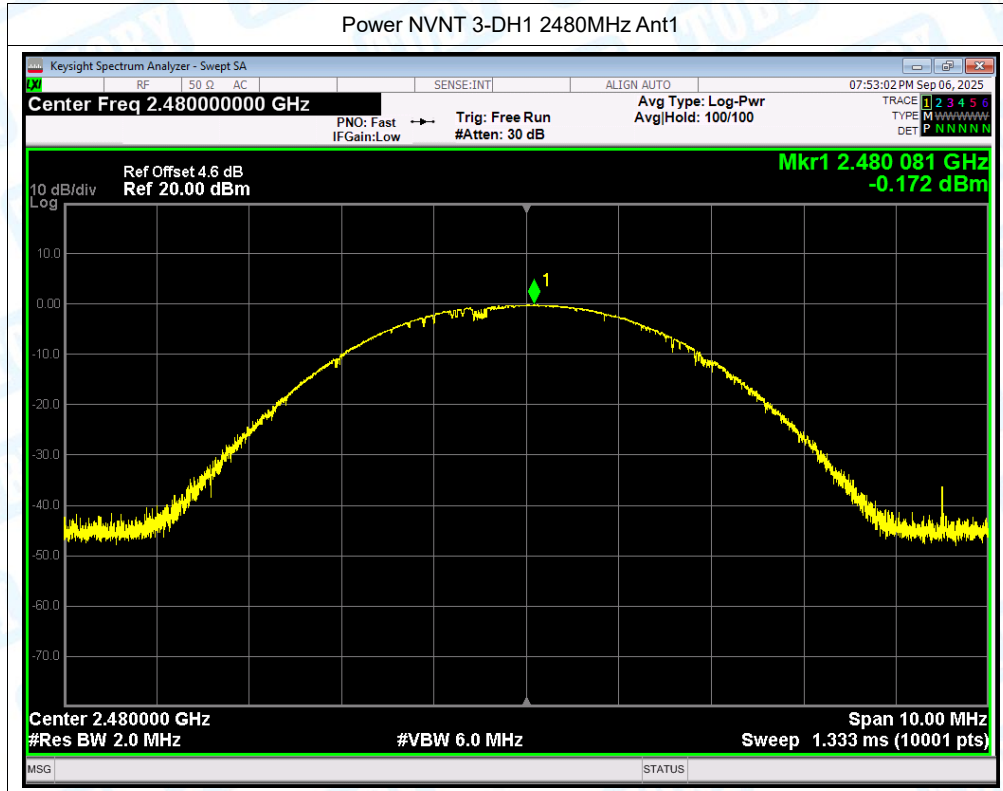


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



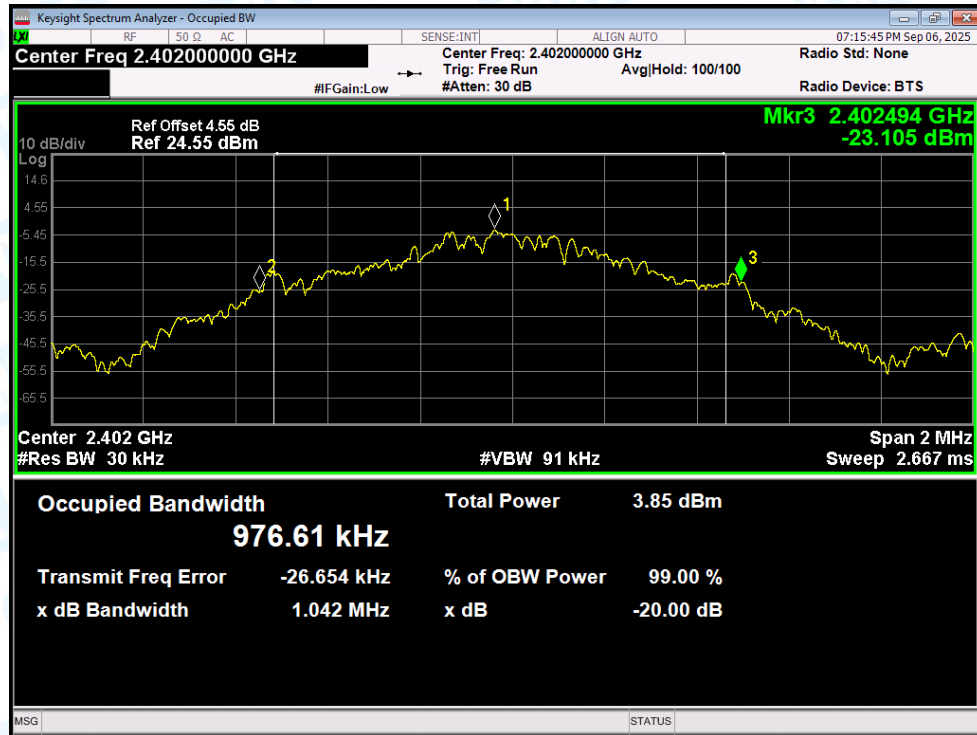


3. -20dB Bandwidth

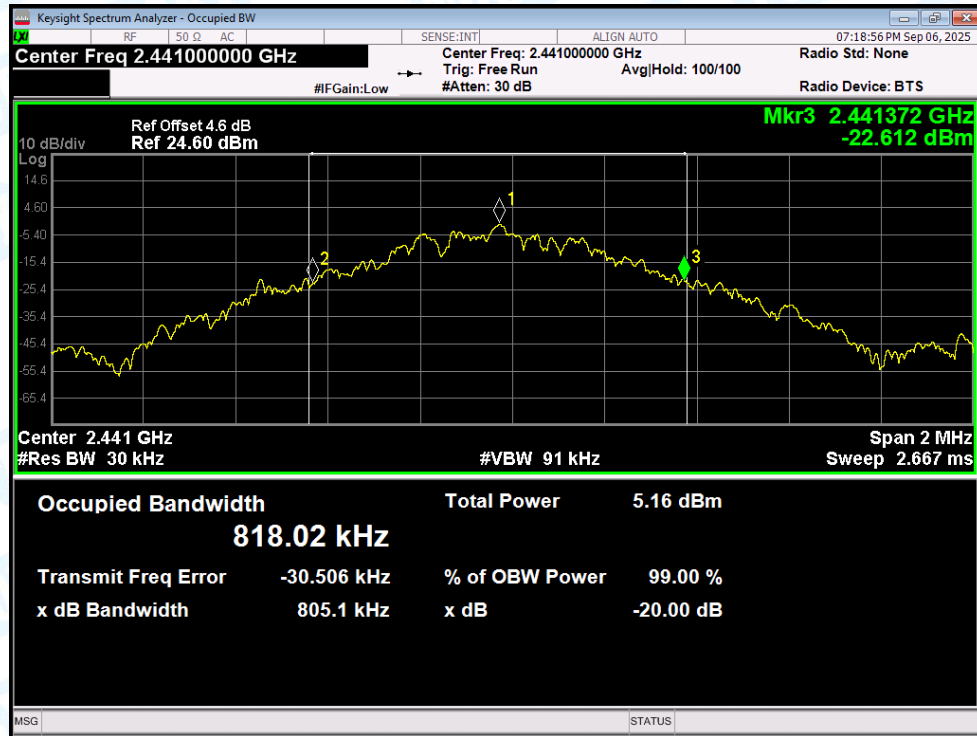
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	1.04	/	Pass
NVNT	1-DH1	2441	Ant1	0.81	/	Pass
NVNT	1-DH1	2480	Ant1	1	/	Pass
NVNT	2-DH1	2402	Ant1	1.1	/	Pass
NVNT	2-DH1	2441	Ant1	1.16	/	Pass
NVNT	2-DH1	2480	Ant1	1.16	/	Pass
NVNT	3-DH1	2402	Ant1	1.18	/	Pass
NVNT	3-DH1	2441	Ant1	1.15	/	Pass
NVNT	3-DH1	2480	Ant1	1.15	/	Pass

Test Graphs

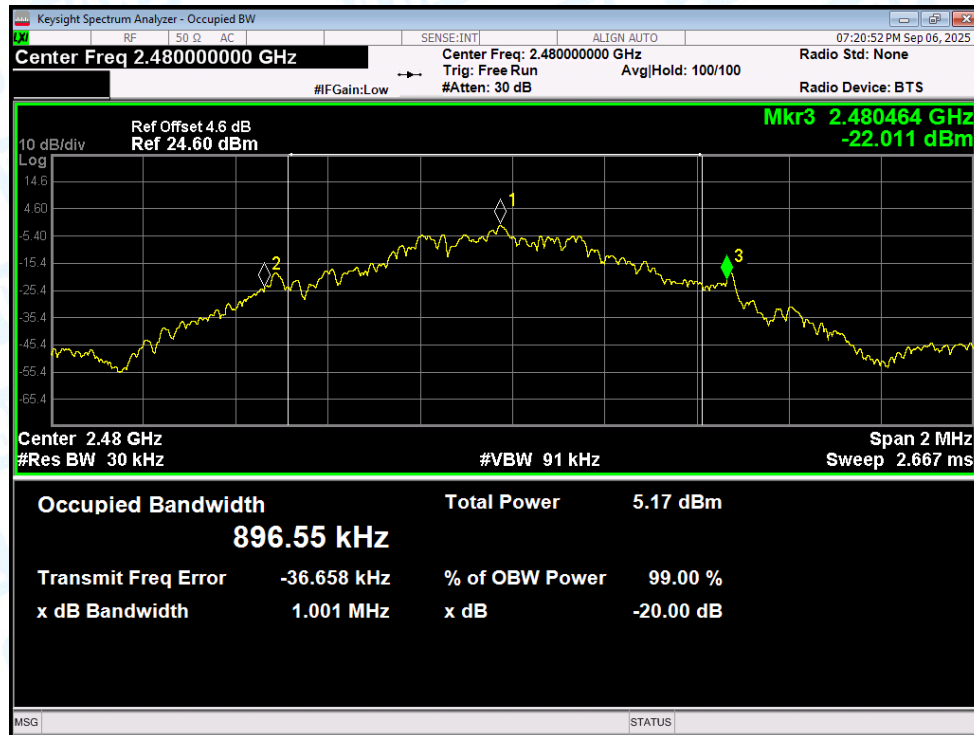
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



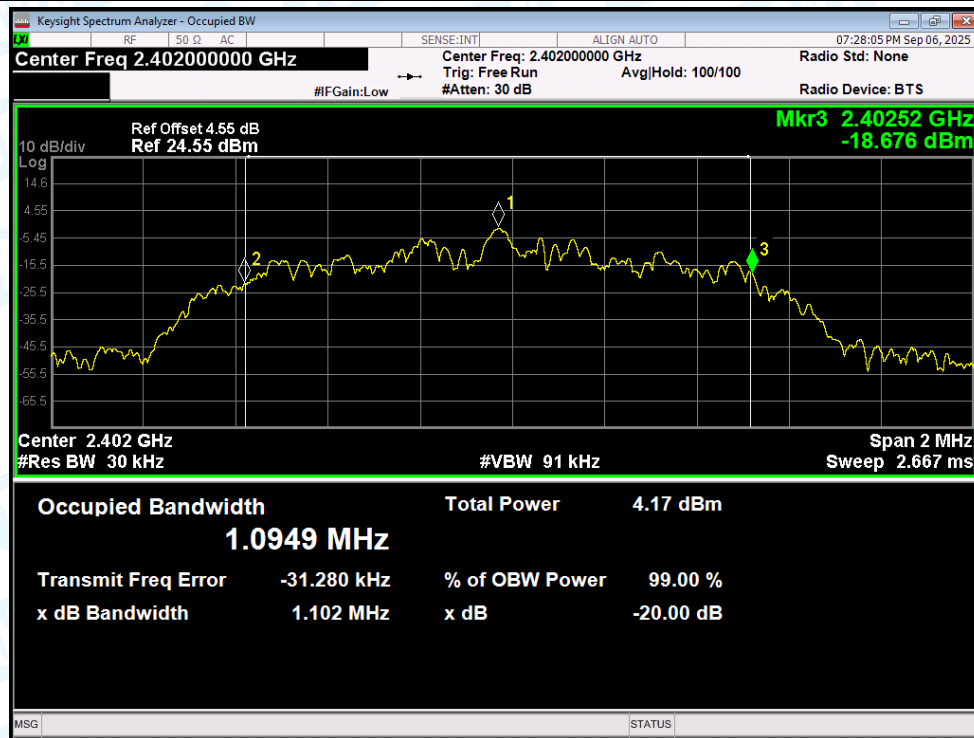
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



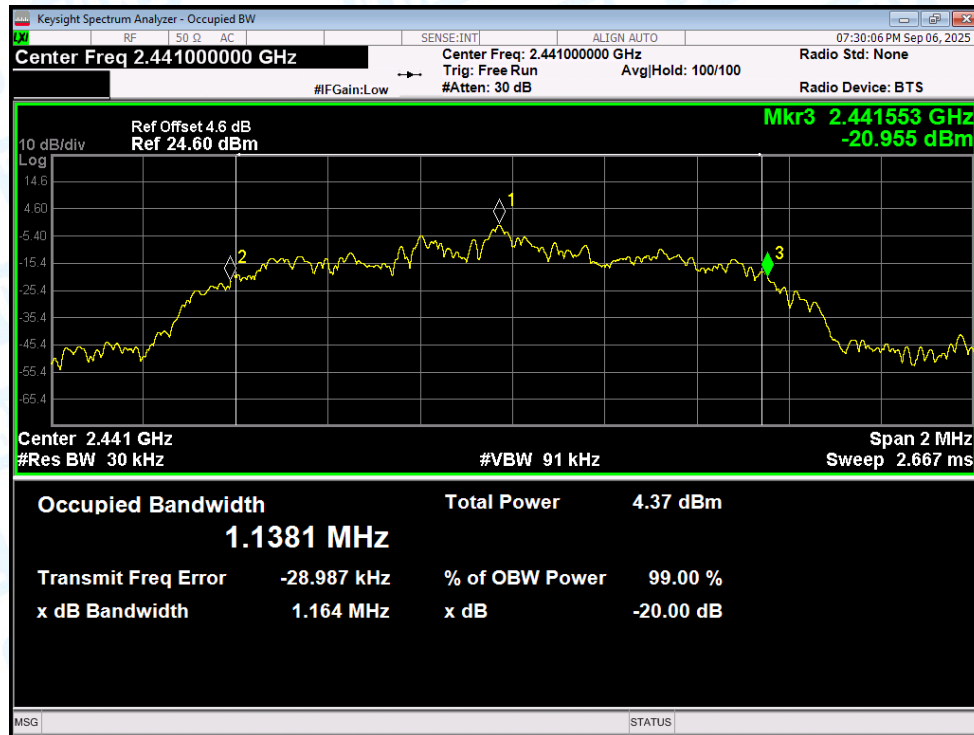
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



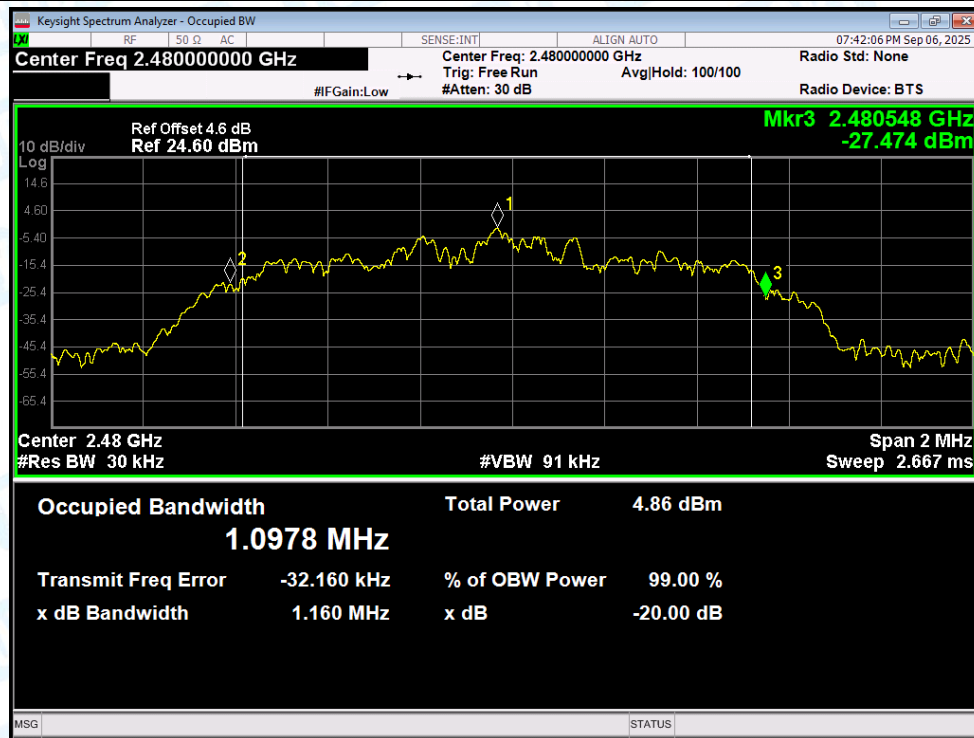
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



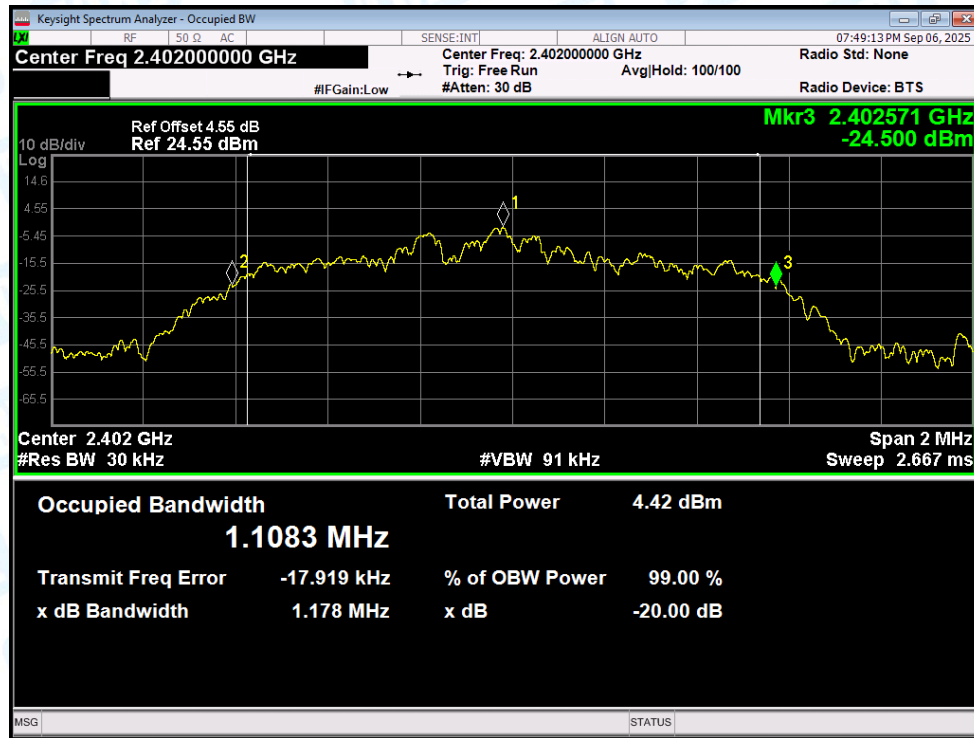
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



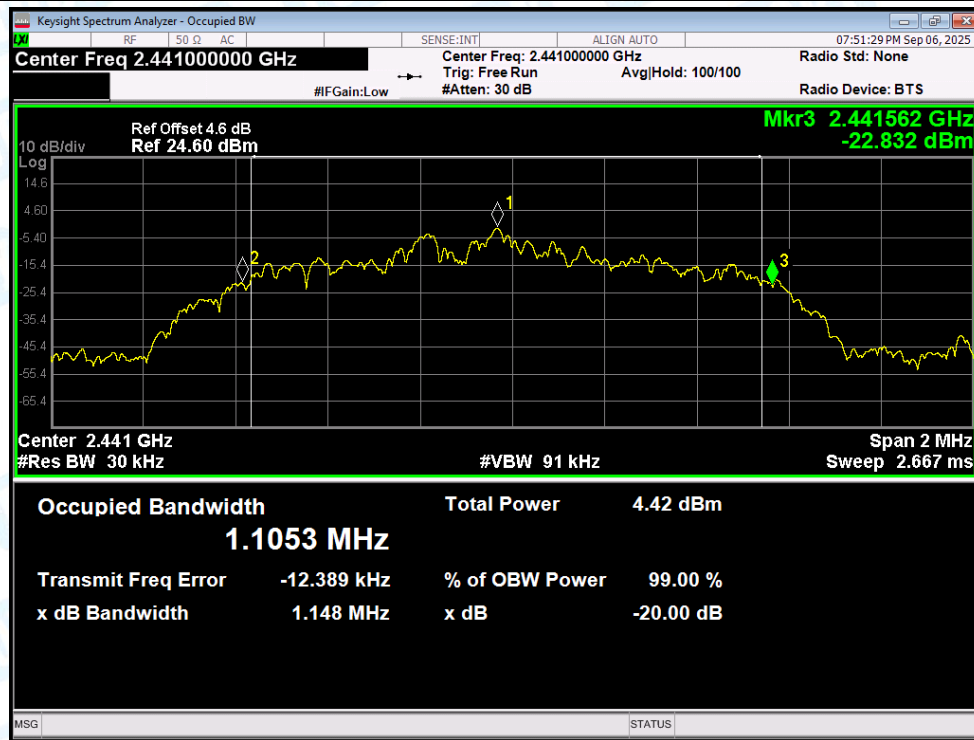
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

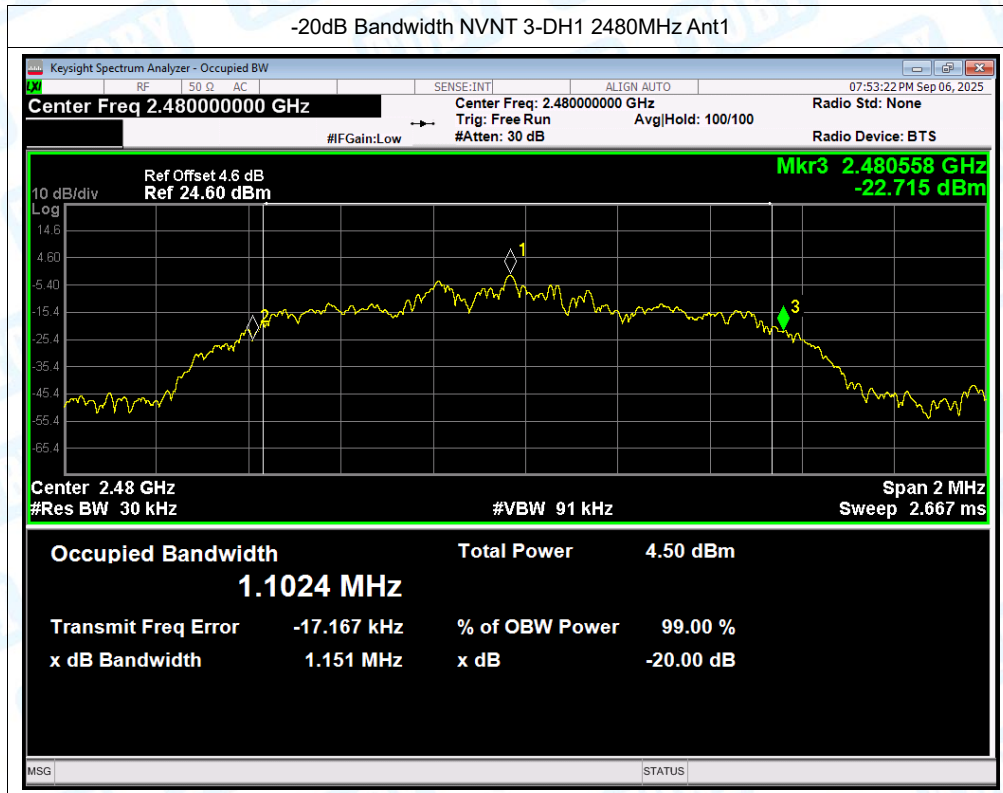


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



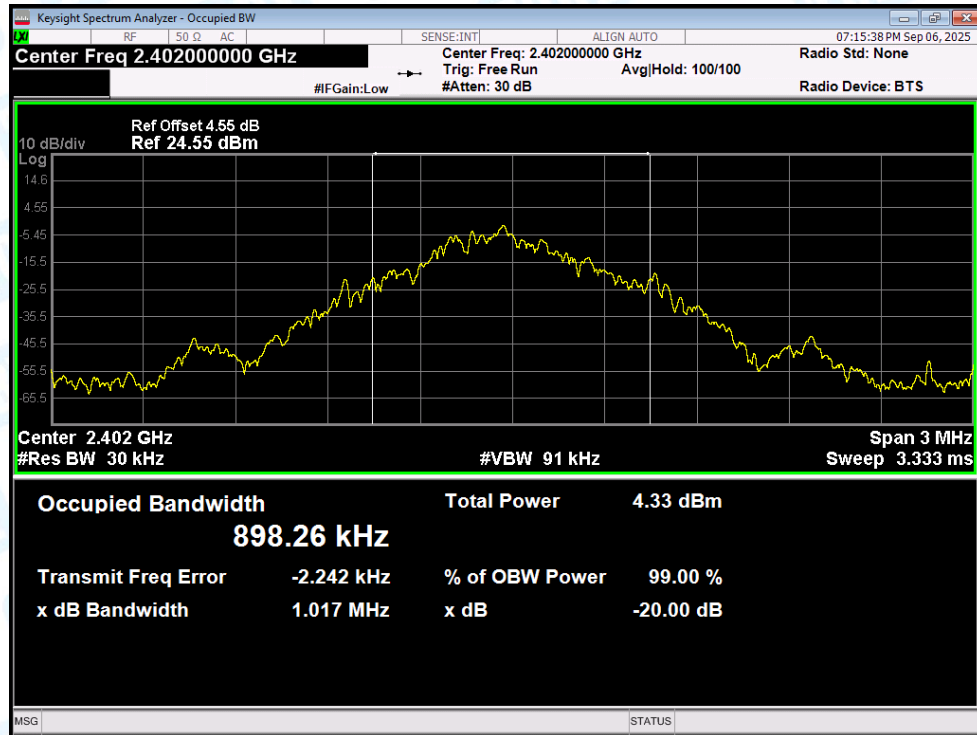


4. Occupied Channel Bandwidth

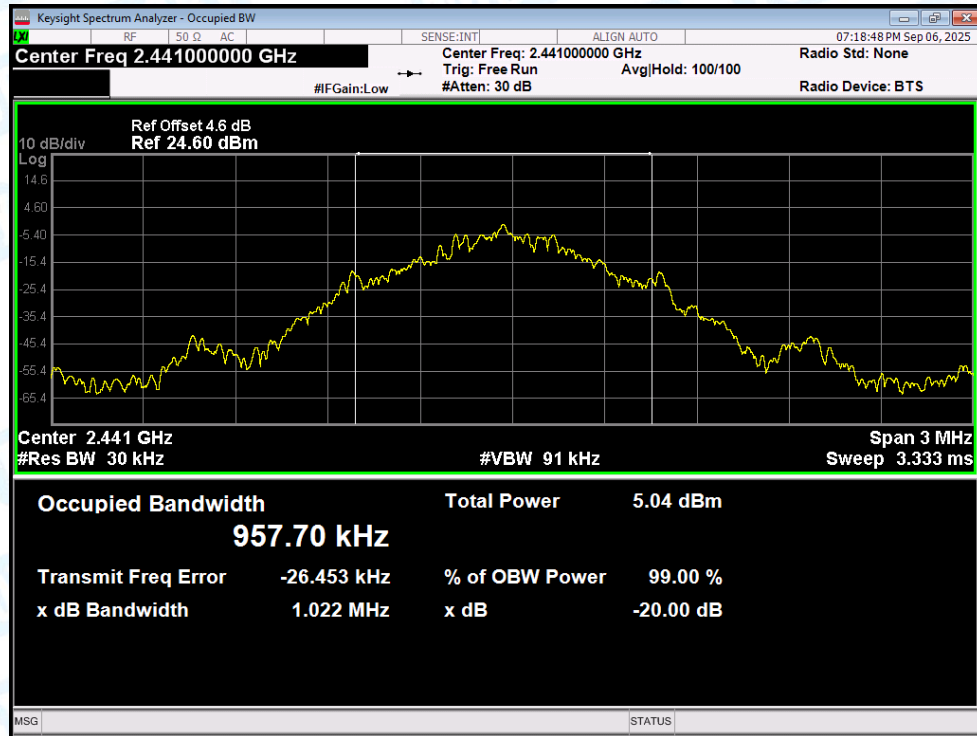
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.898
NVNT	1-DH1	2441	Ant1	0.958
NVNT	1-DH1	2480	Ant1	0.948
NVNT	2-DH1	2402	Ant1	1.127
NVNT	2-DH1	2441	Ant1	1.113
NVNT	2-DH1	2480	Ant1	1.105
NVNT	3-DH1	2402	Ant1	1.13
NVNT	3-DH1	2441	Ant1	1.134
NVNT	3-DH1	2480	Ant1	1.094

Test Graphs

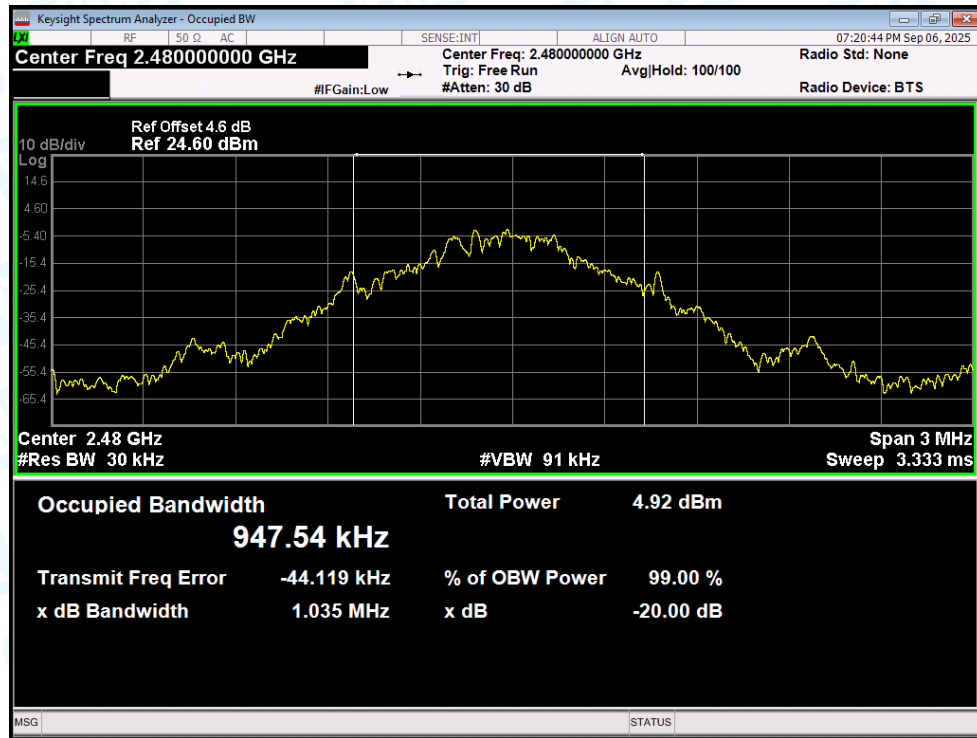
OBW NVNT 1-DH1 2402MHz Ant1



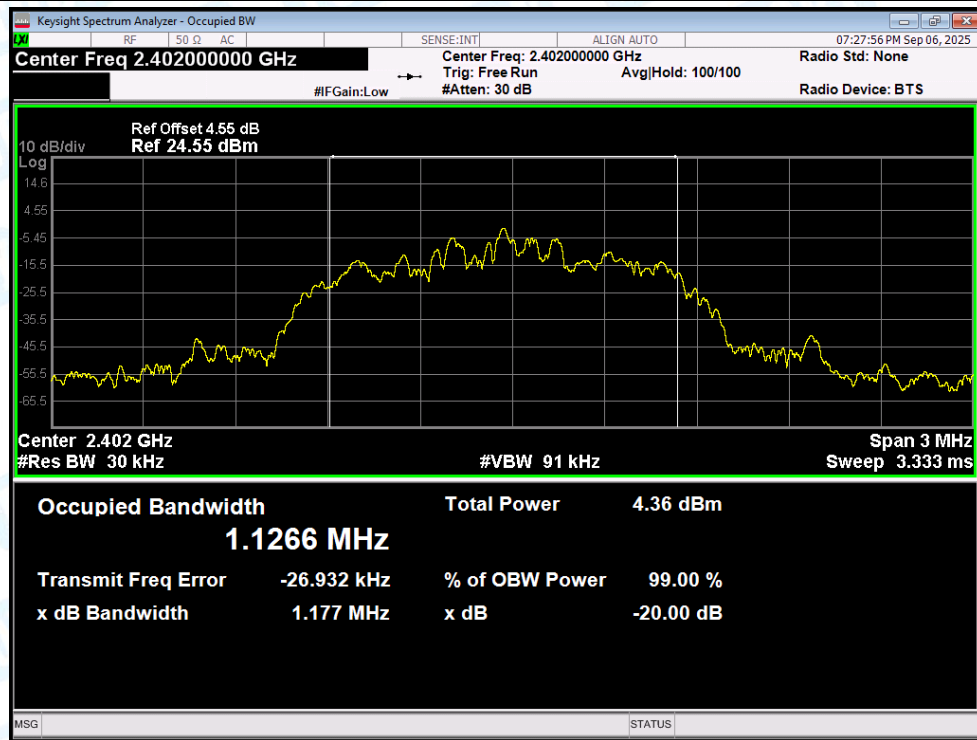
OBW NVNT 1-DH1 2441MHz Ant1



OBW NVNT 1-DH1 2480MHz Ant1



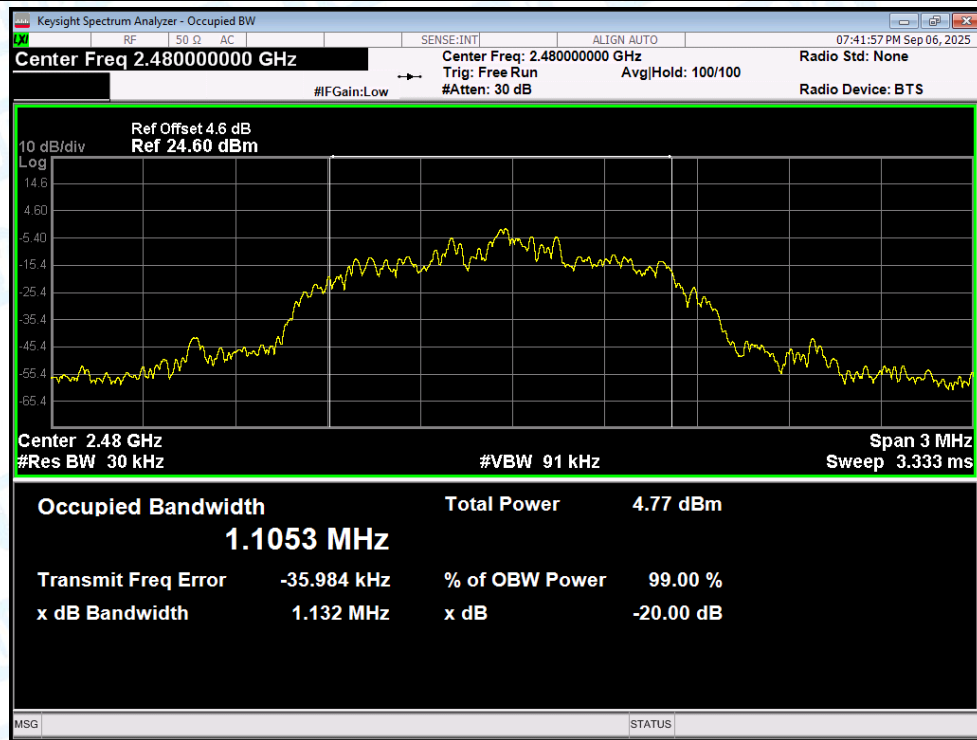
OBW NVNT 2-DH1 2402MHz Ant1



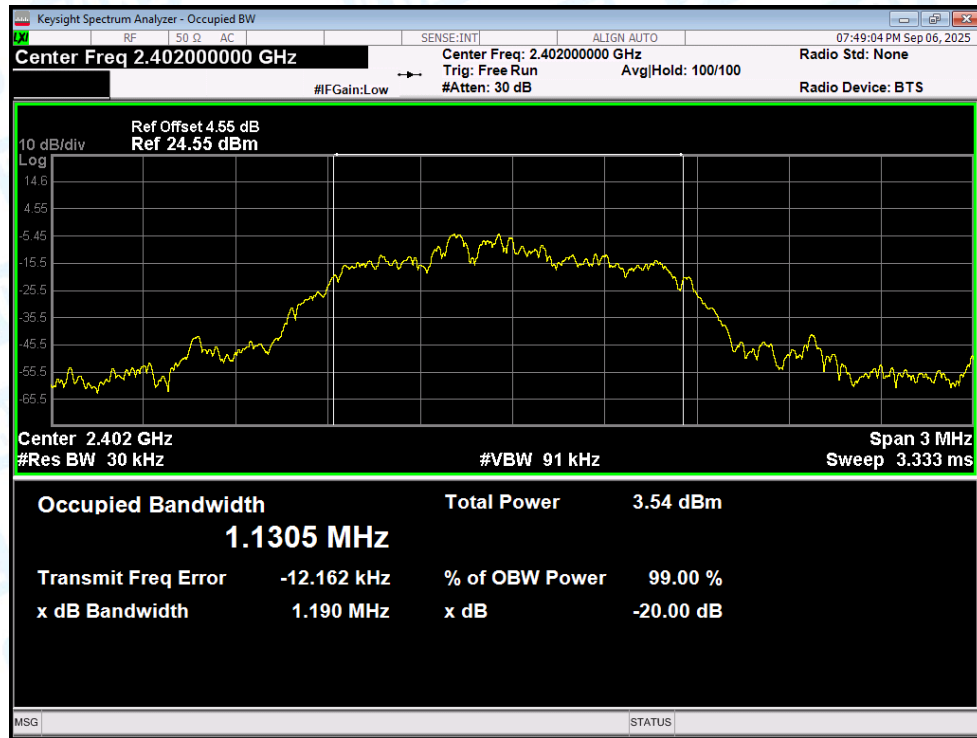
OBW NVNT 2-DH1 2441MHz Ant1



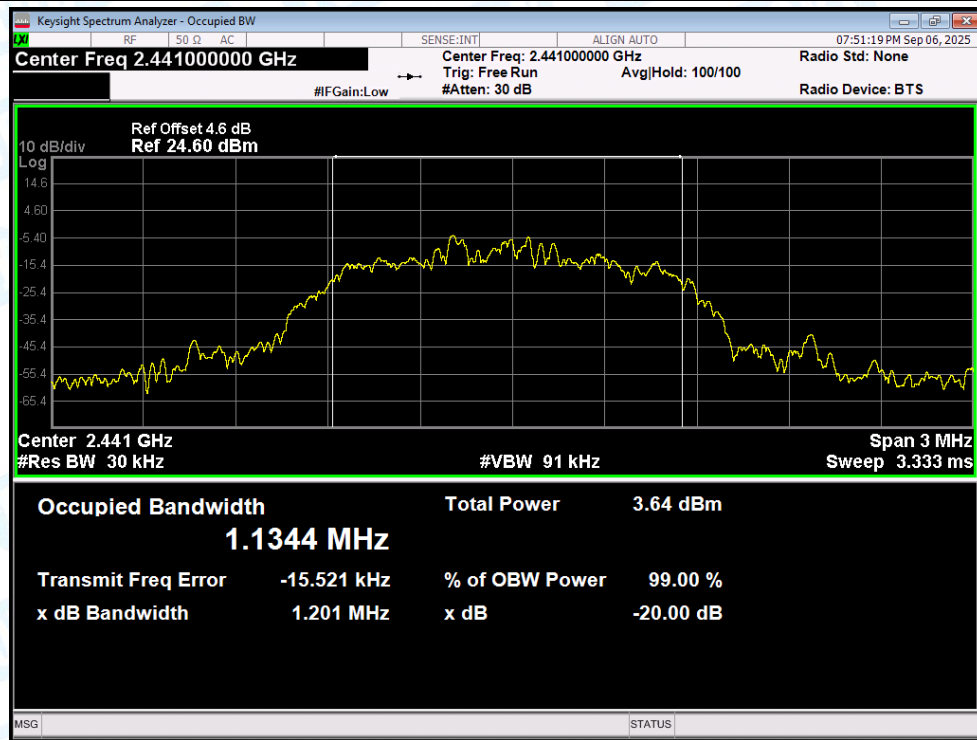
OBW NVNT 2-DH1 2480MHz Ant1

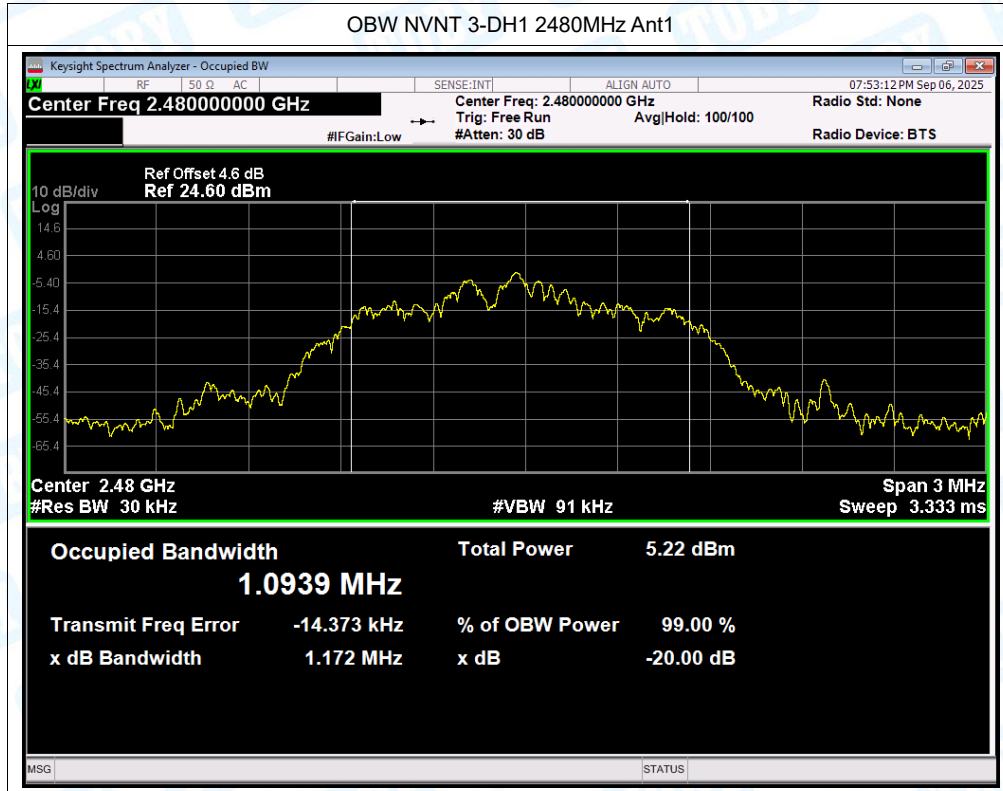


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



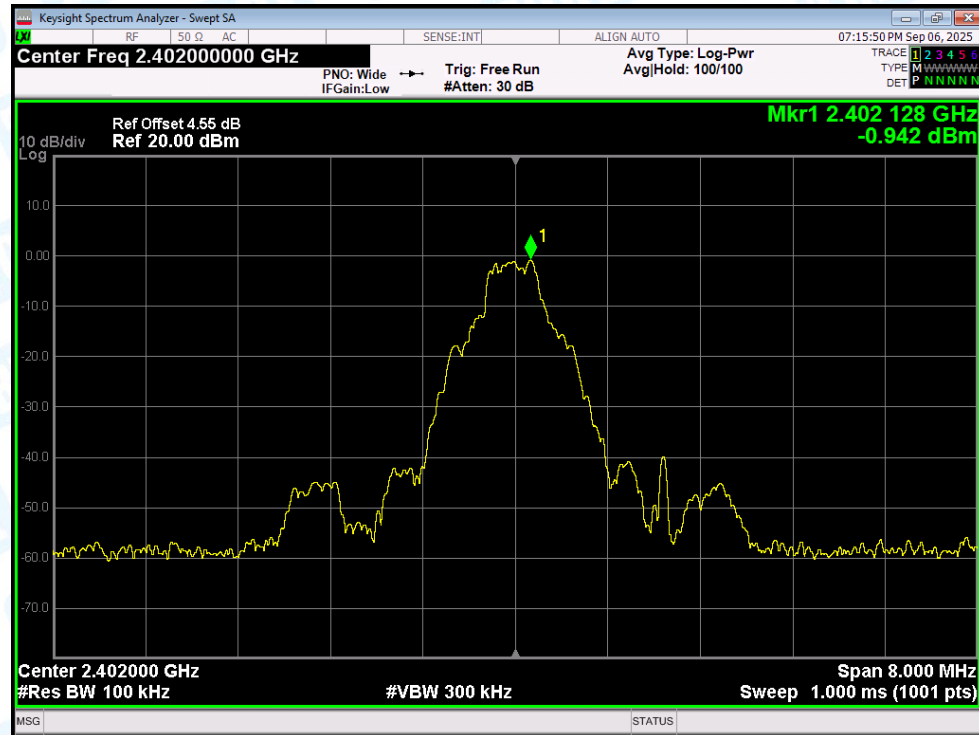


5. Band Edge

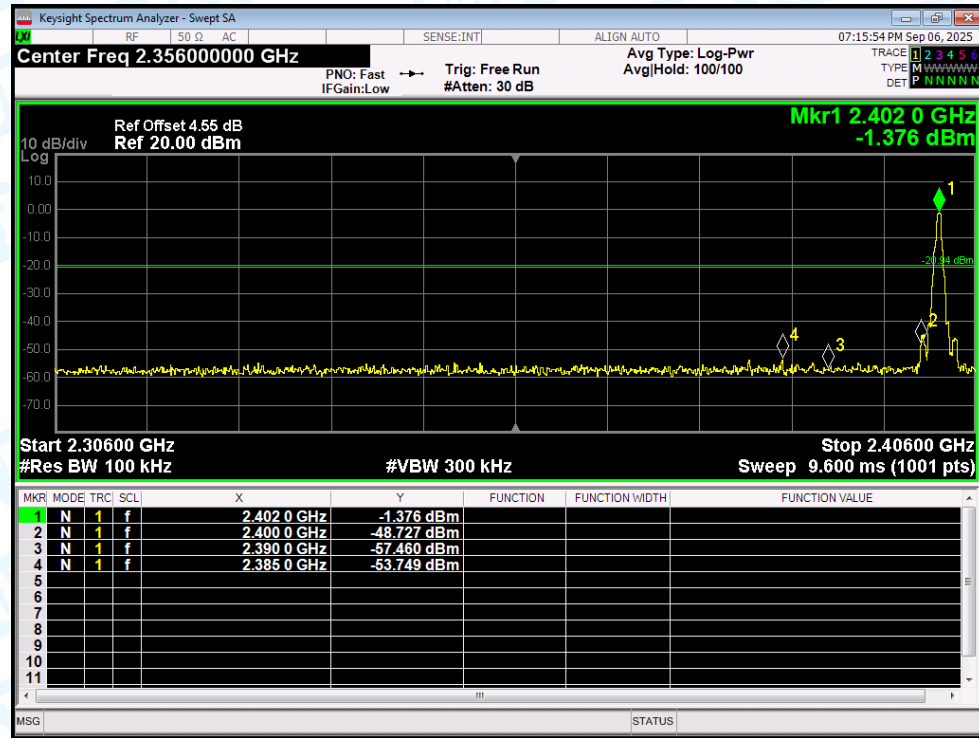
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-52.81	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-52.79	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-53.83	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-54.62	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-53.2	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-53.87	-20	Pass

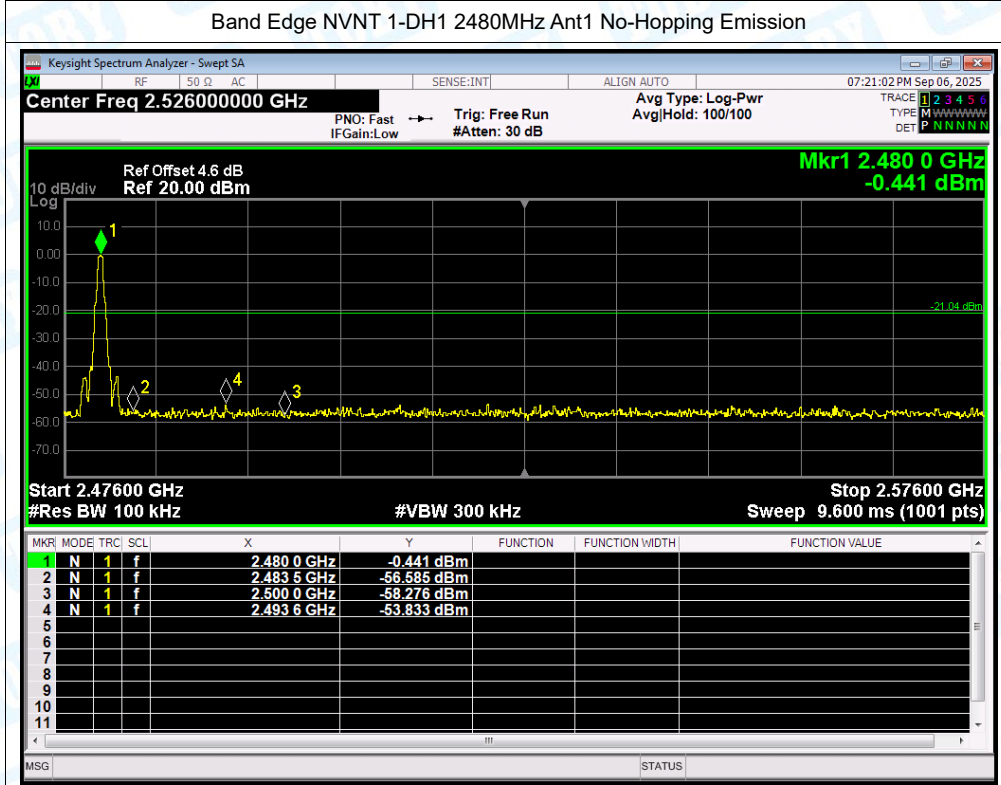
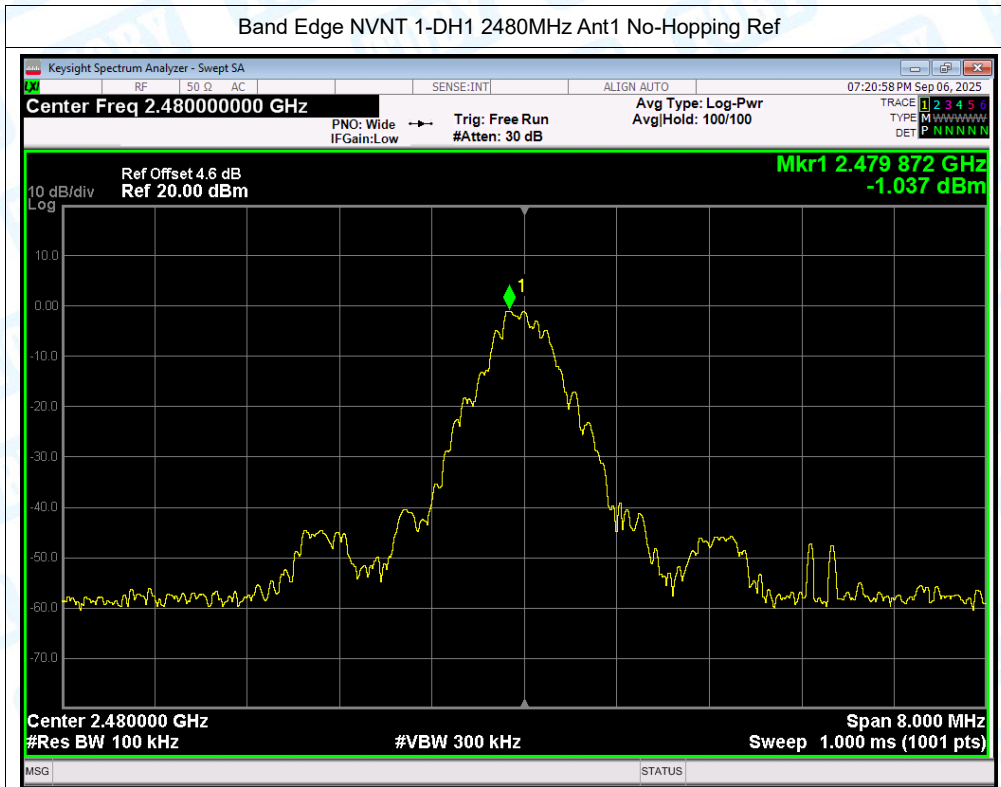
Test Graphs

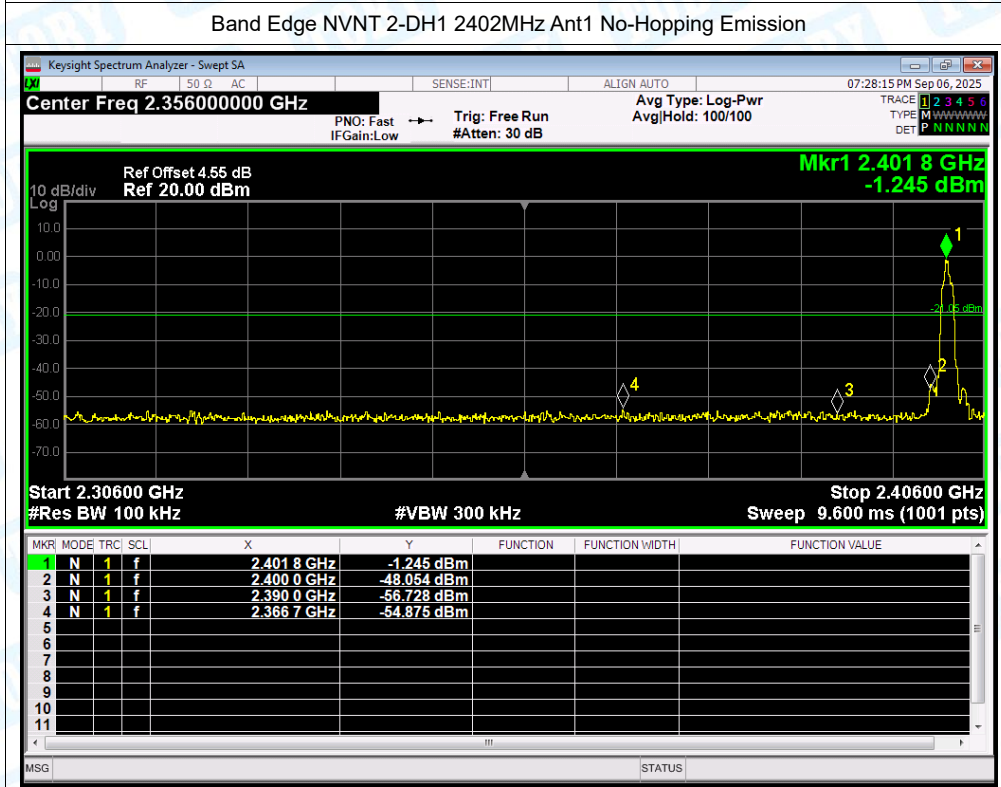
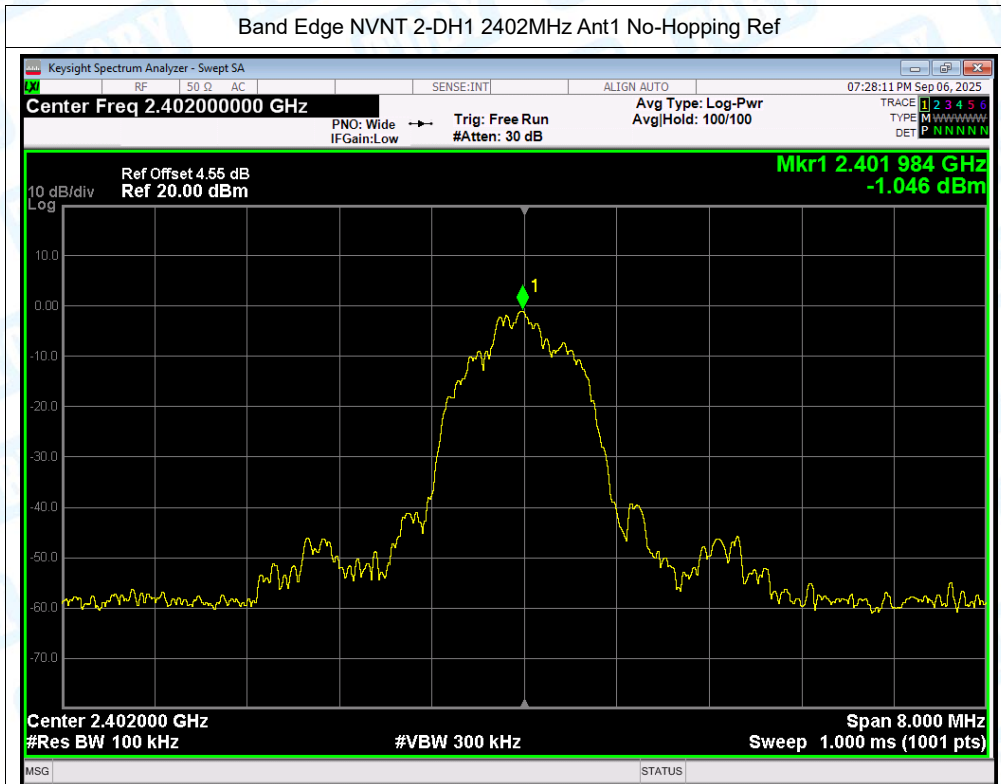
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref

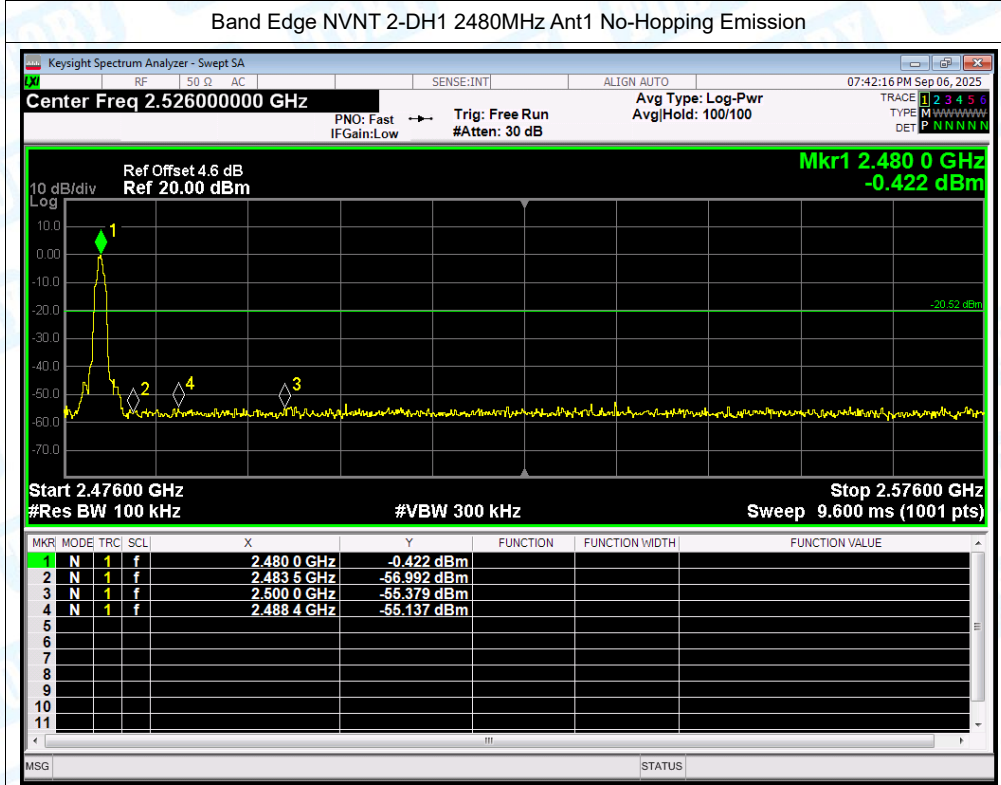


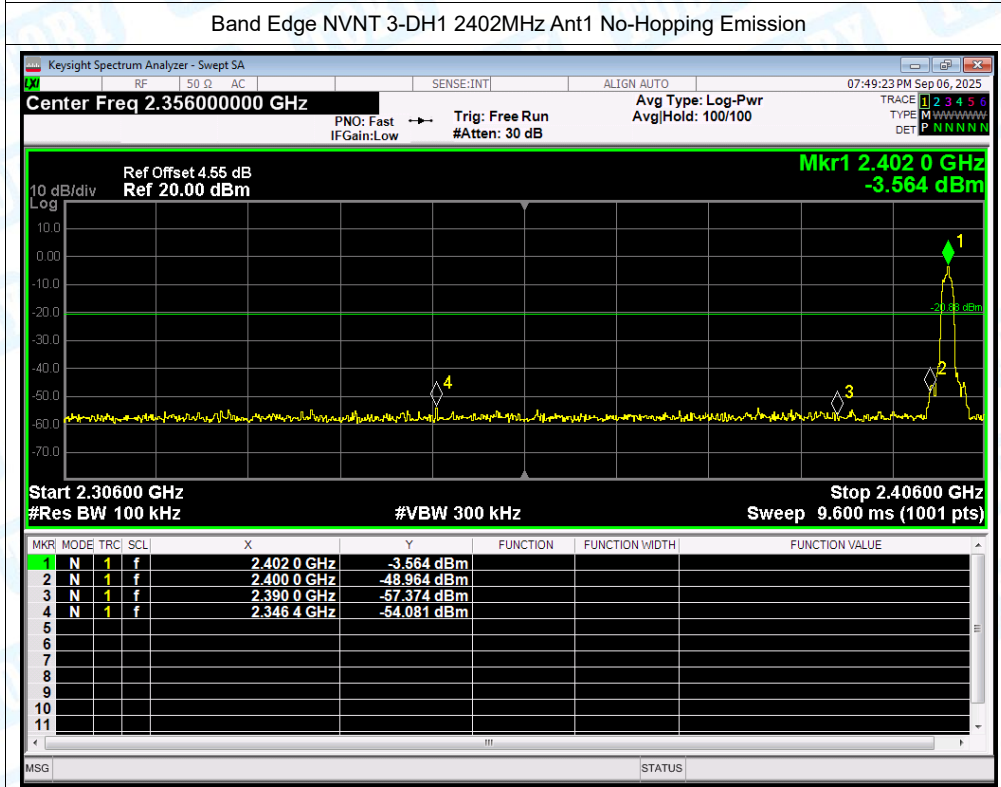
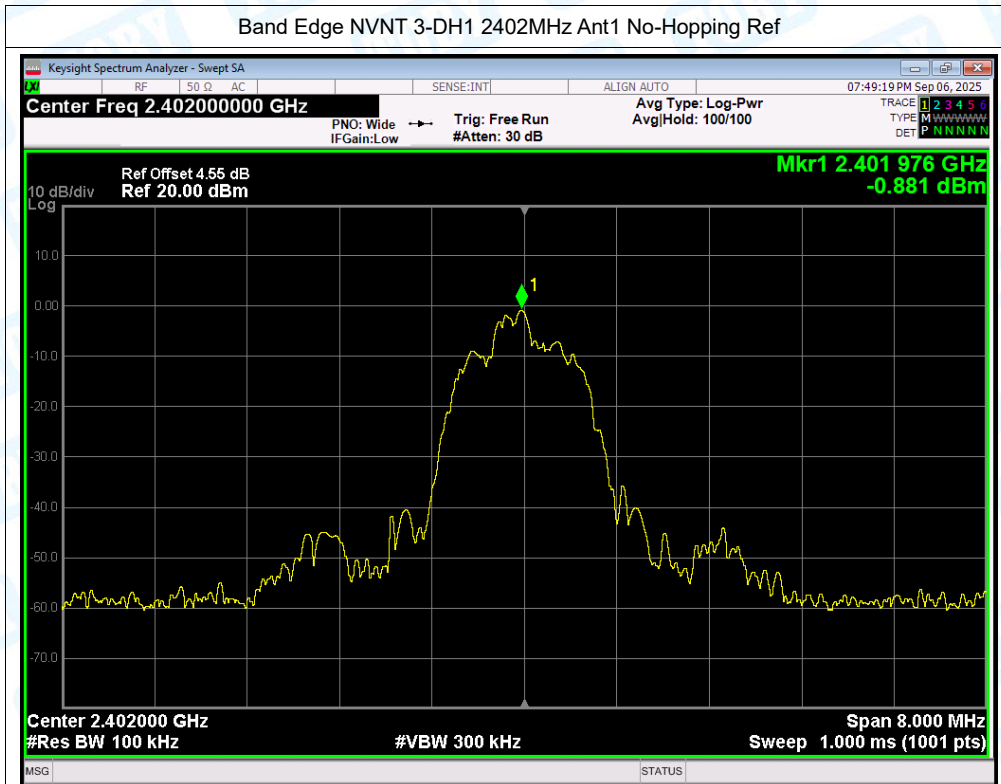
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission

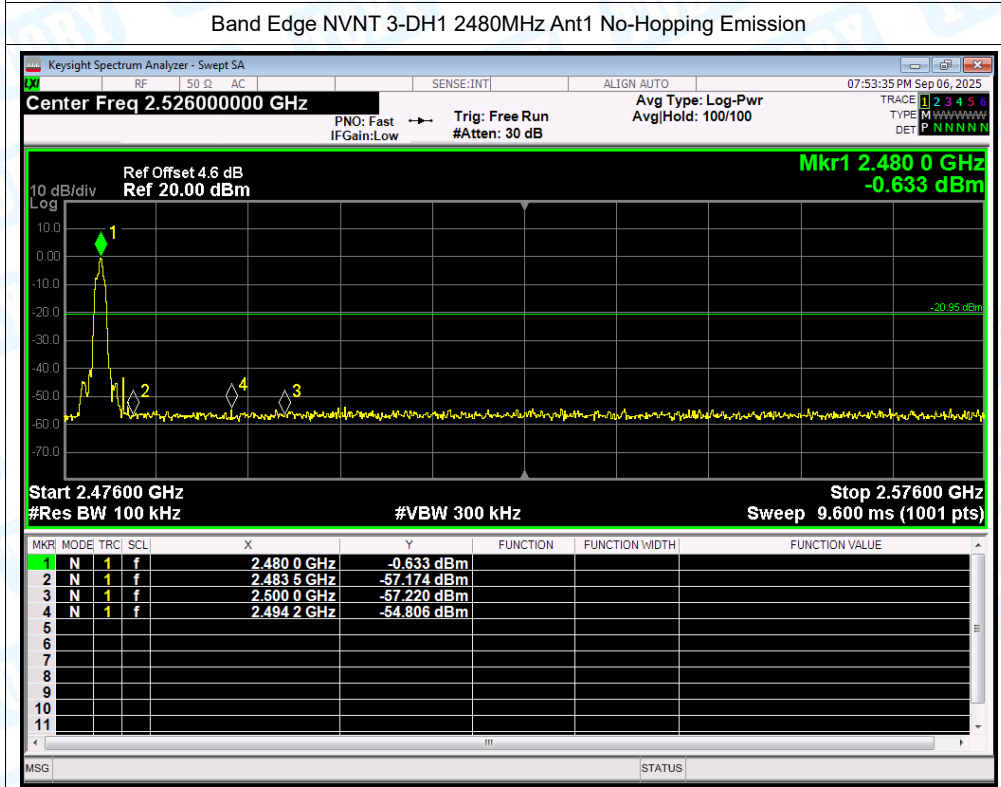
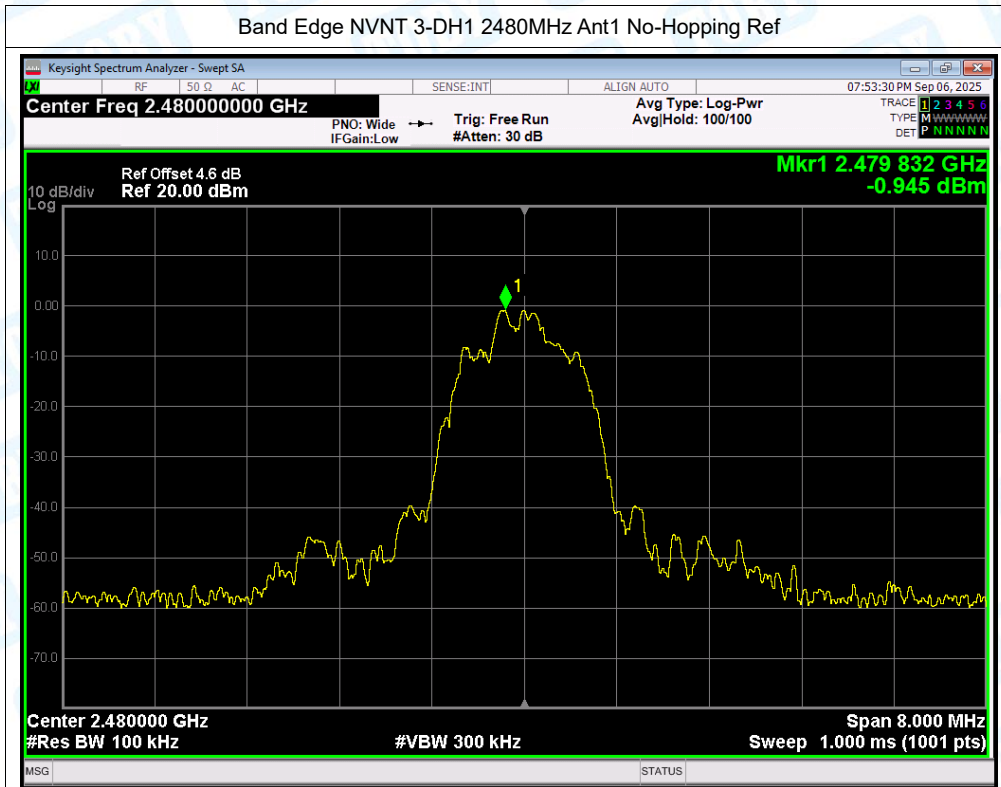












6. Band Edge(Hopping)

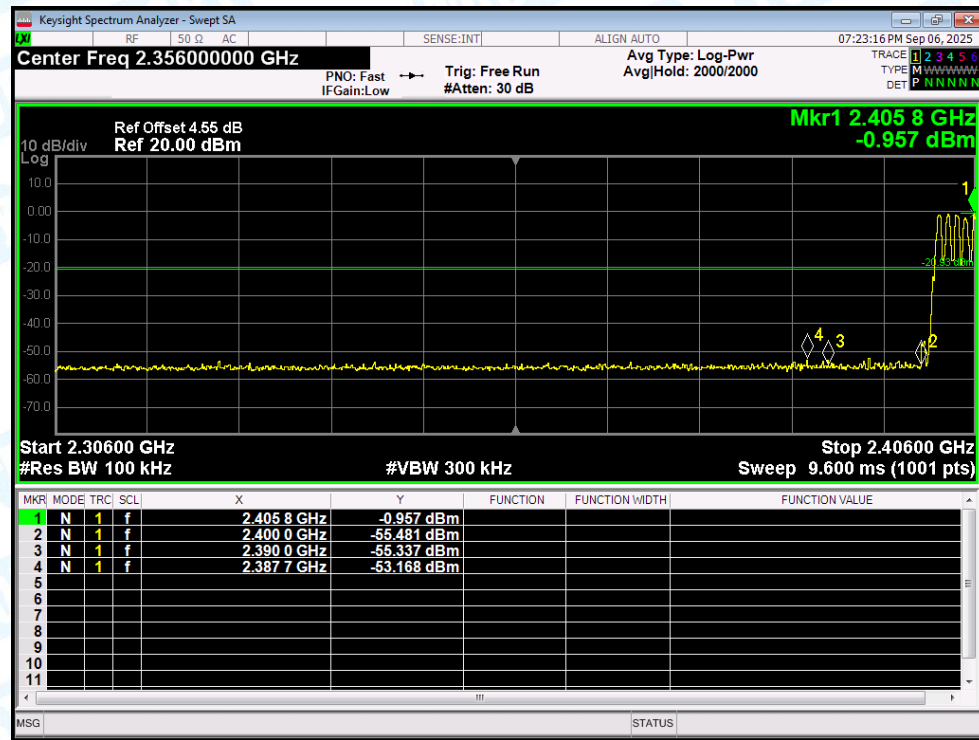
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-52.24	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-52.76	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-50.2	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-52.3	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-51.71	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-52.21	-20	Pass

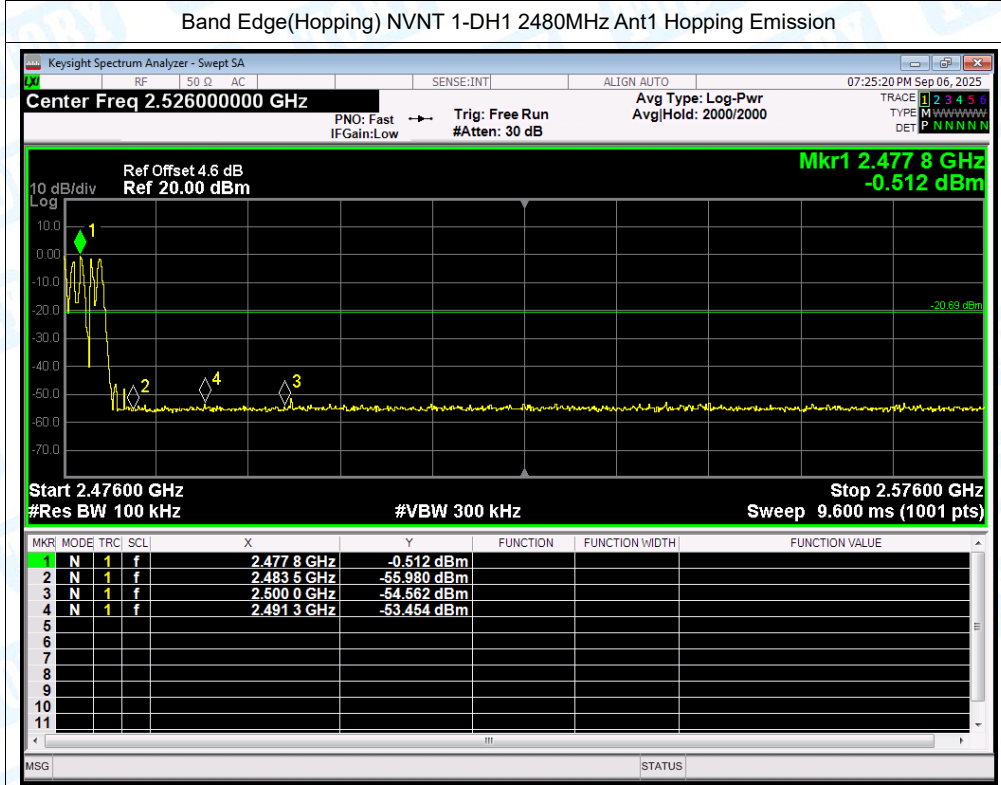
Test Graphs

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



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

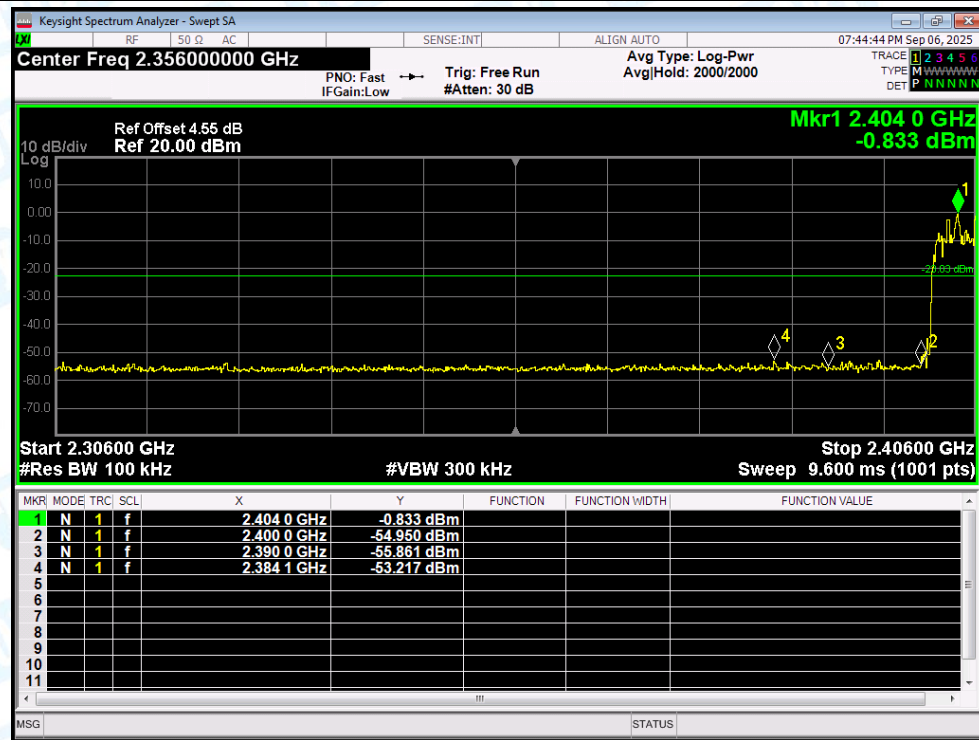


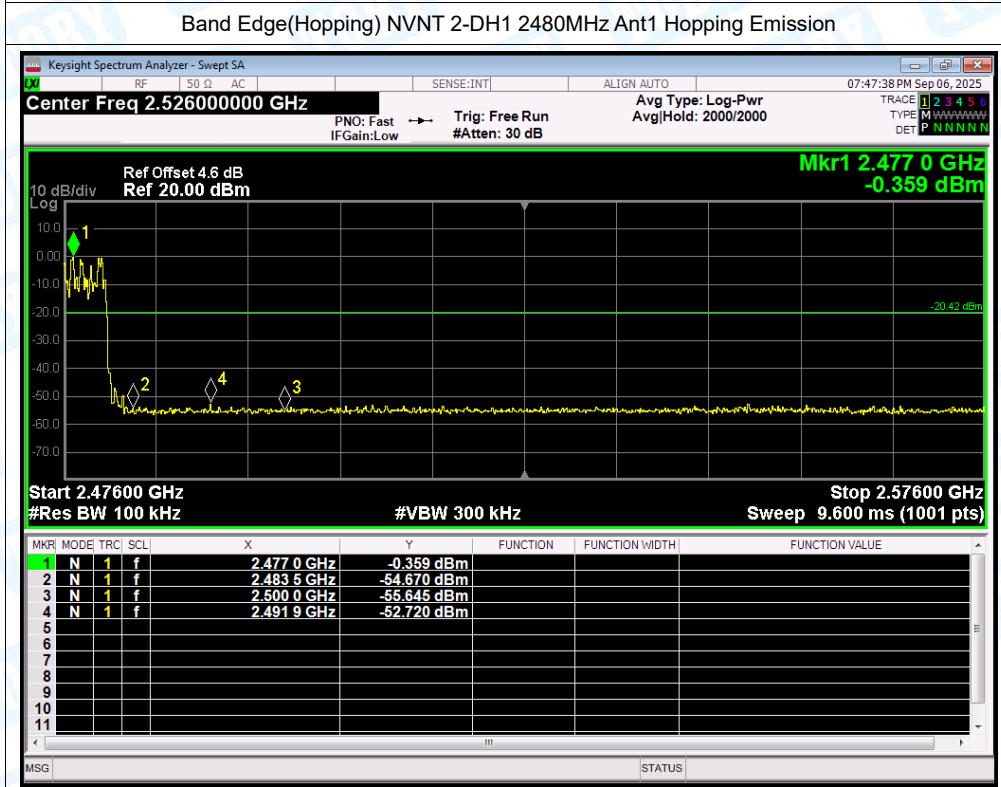
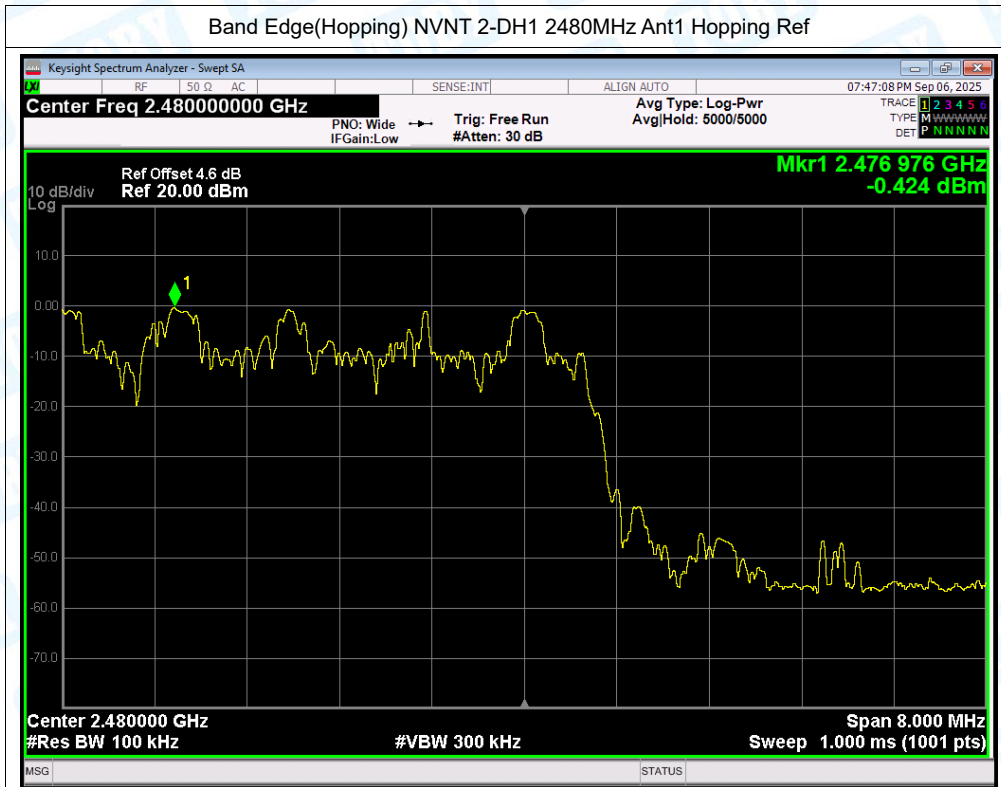


Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref

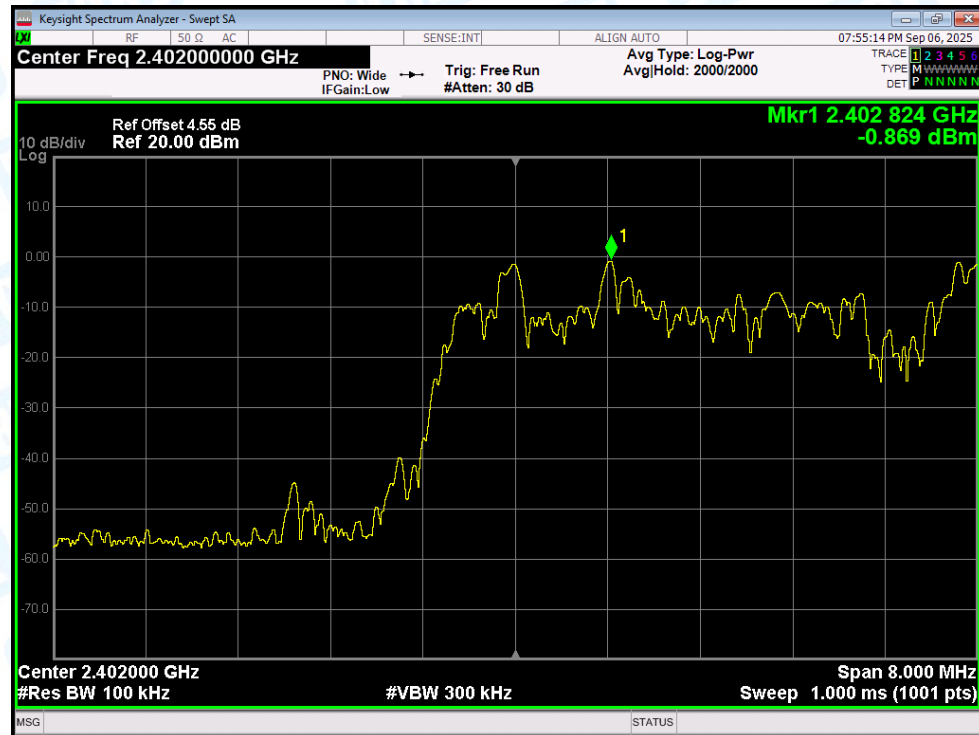


Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission

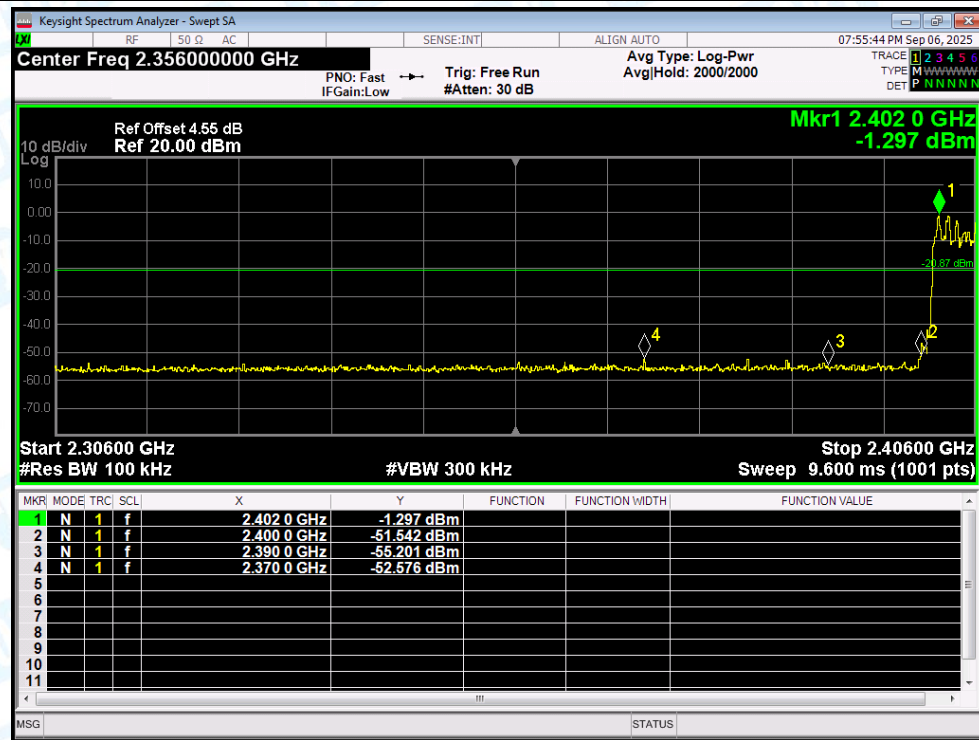


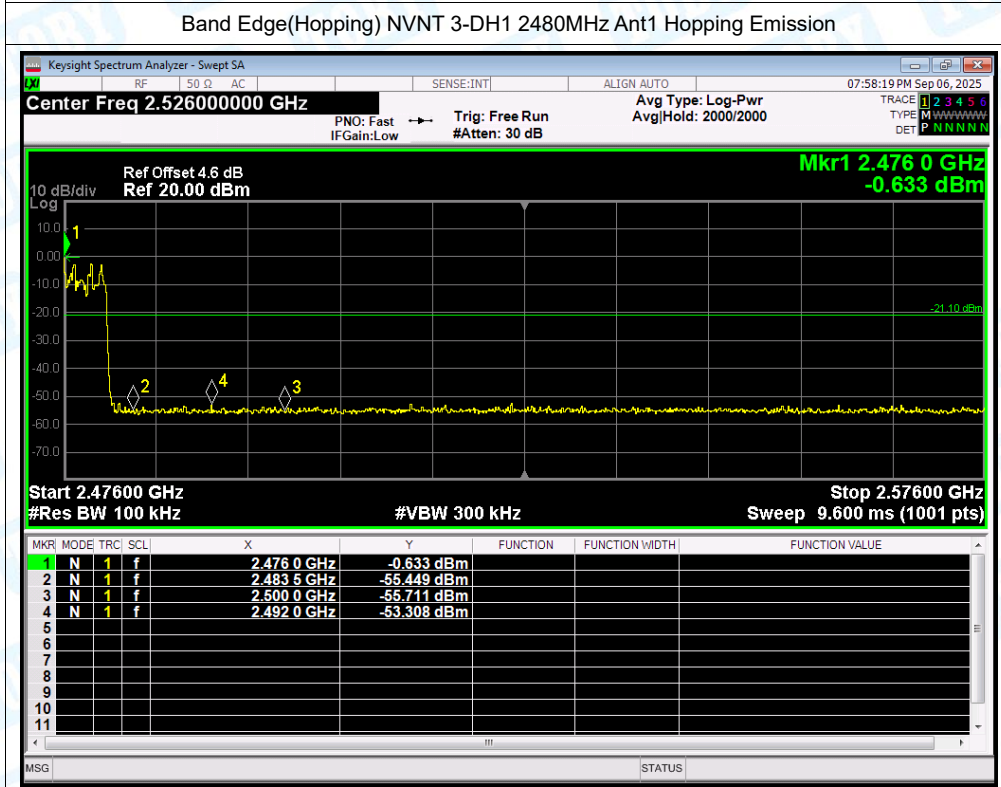


Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



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



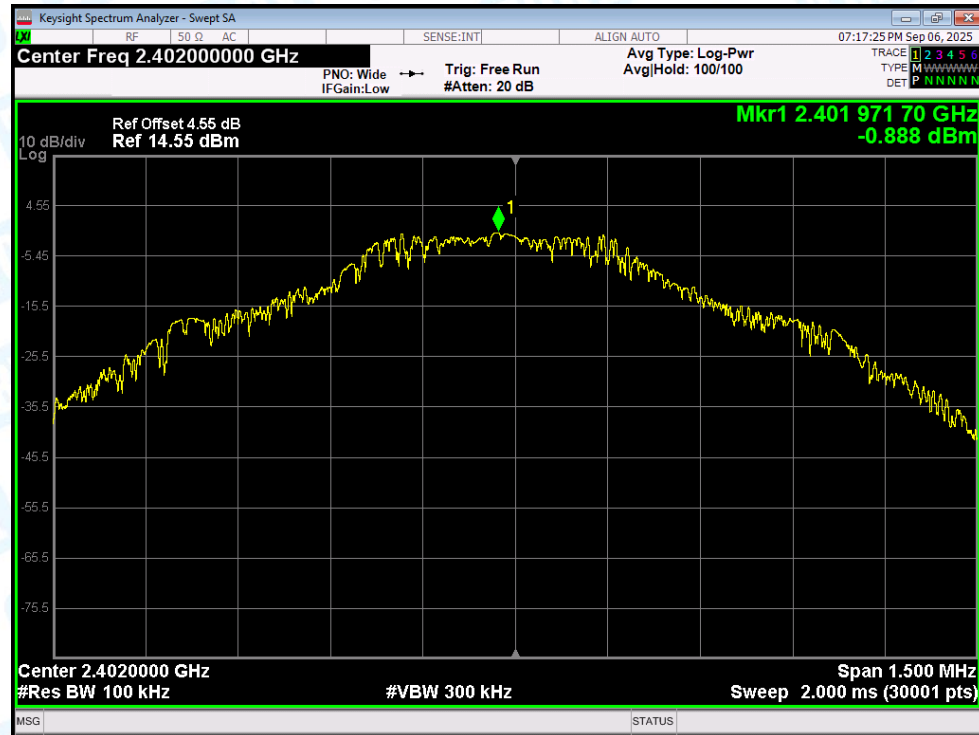


7. Conducted RF Spurious Emission

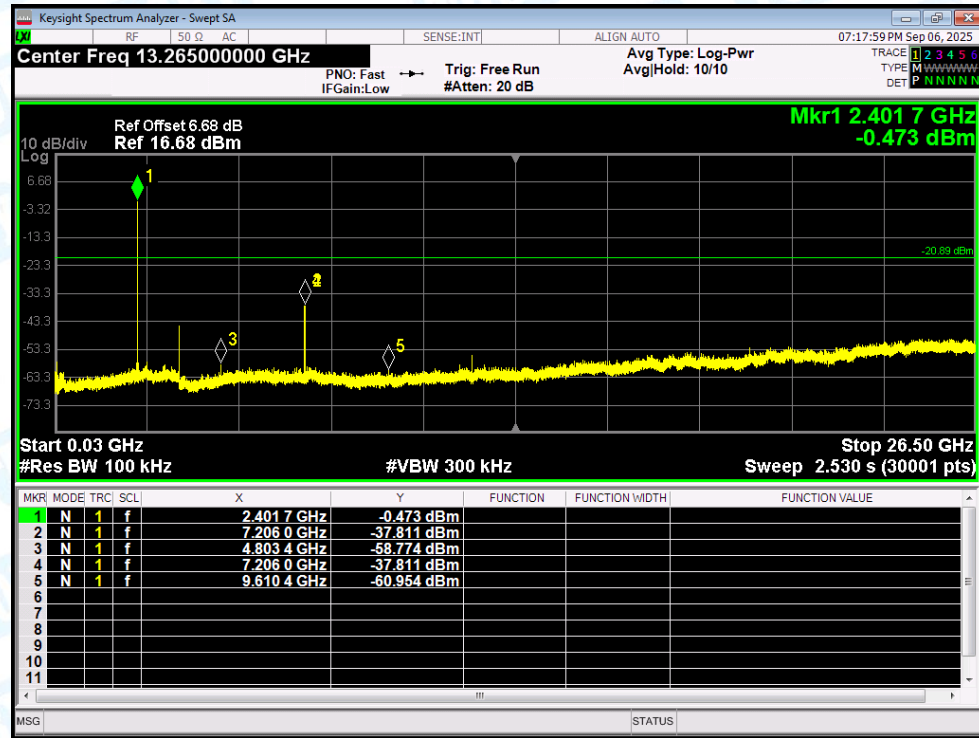
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-36.92	-20	Pass
NVNT	1-DH1	2441	Ant1	-36.29	-20	Pass
NVNT	1-DH1	2480	Ant1	-36.8	-20	Pass
NVNT	2-DH1	2402	Ant1	-39.05	-20	Pass
NVNT	2-DH1	2441	Ant1	-41.69	-20	Pass
NVNT	2-DH1	2480	Ant1	-37.32	-20	Pass
NVNT	3-DH1	2402	Ant1	-42.03	-20	Pass
NVNT	3-DH1	2441	Ant1	-47.83	-20	Pass
NVNT	3-DH1	2480	Ant1	-38.05	-20	Pass

Test Graphs

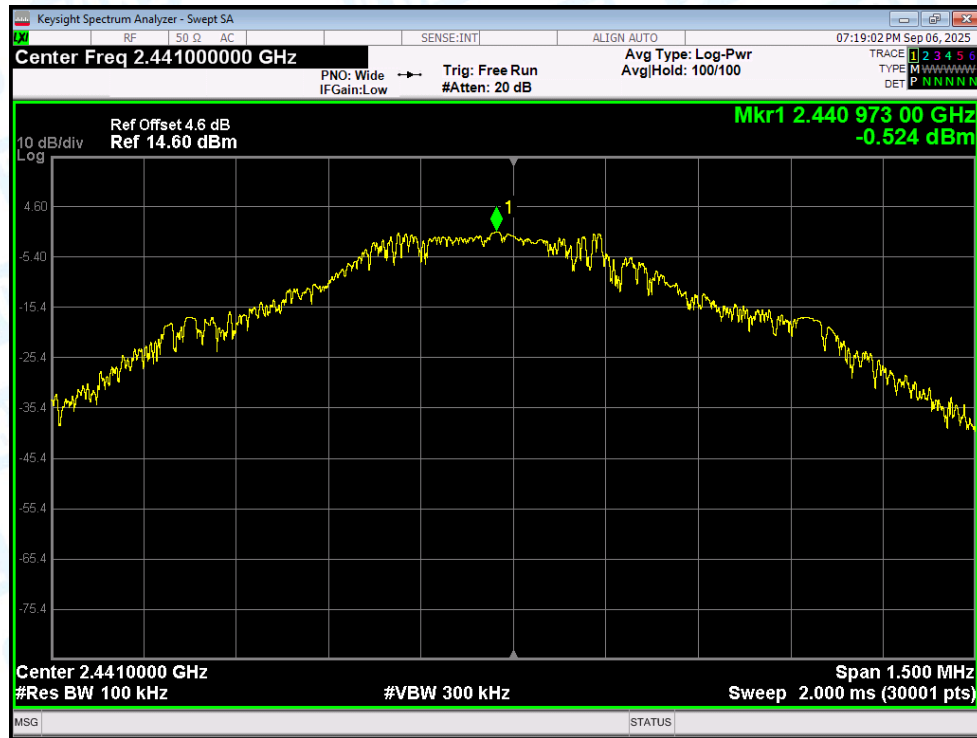
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



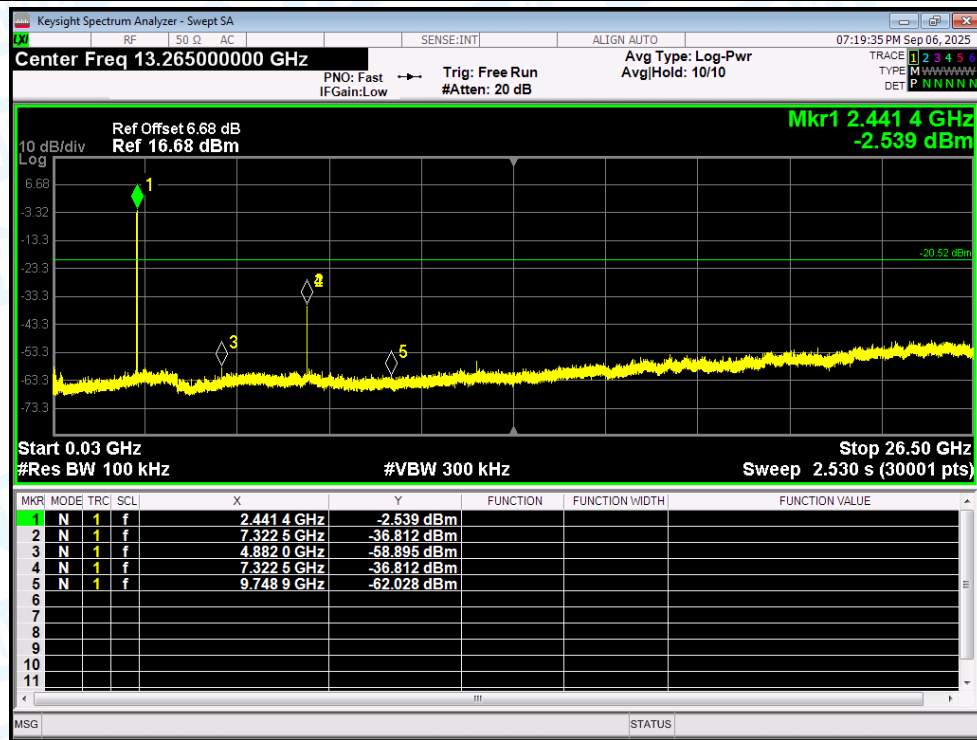
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



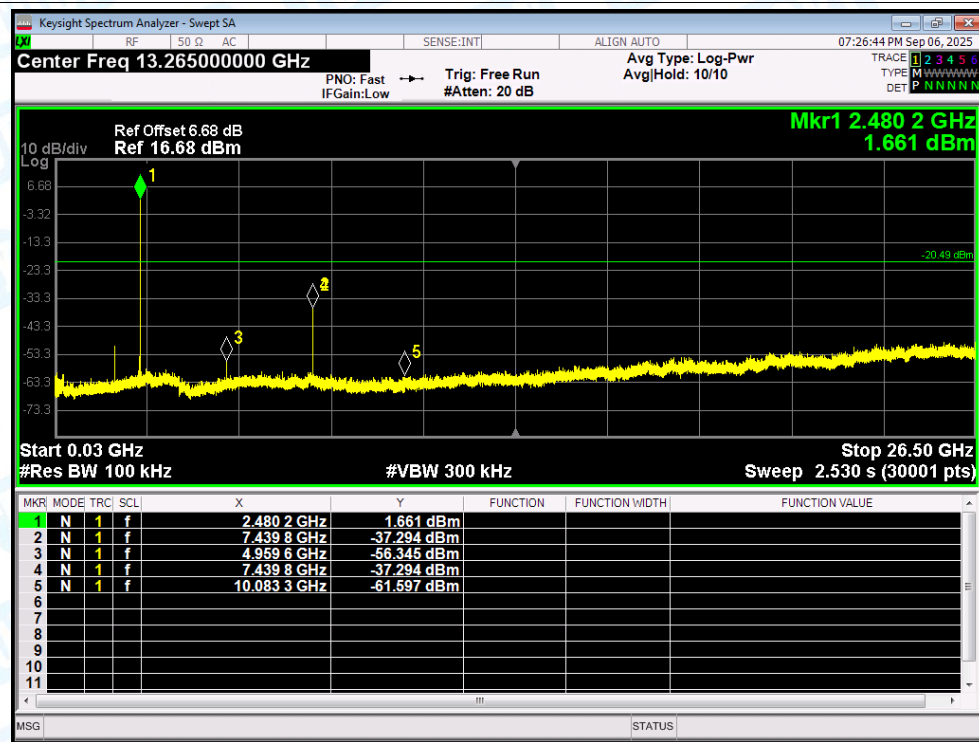
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



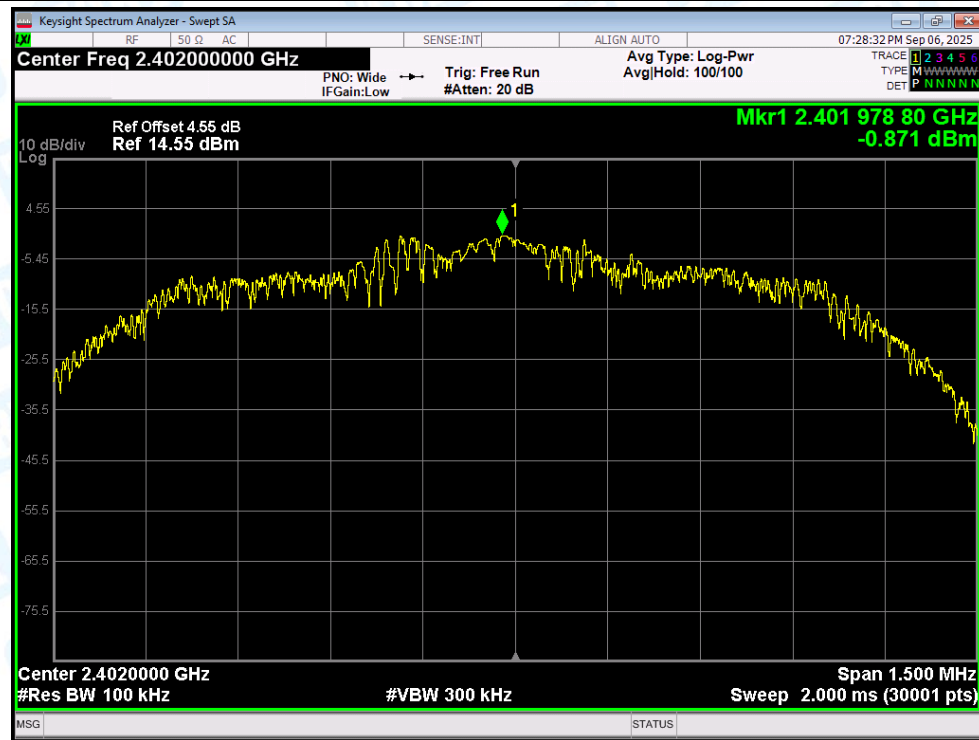
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



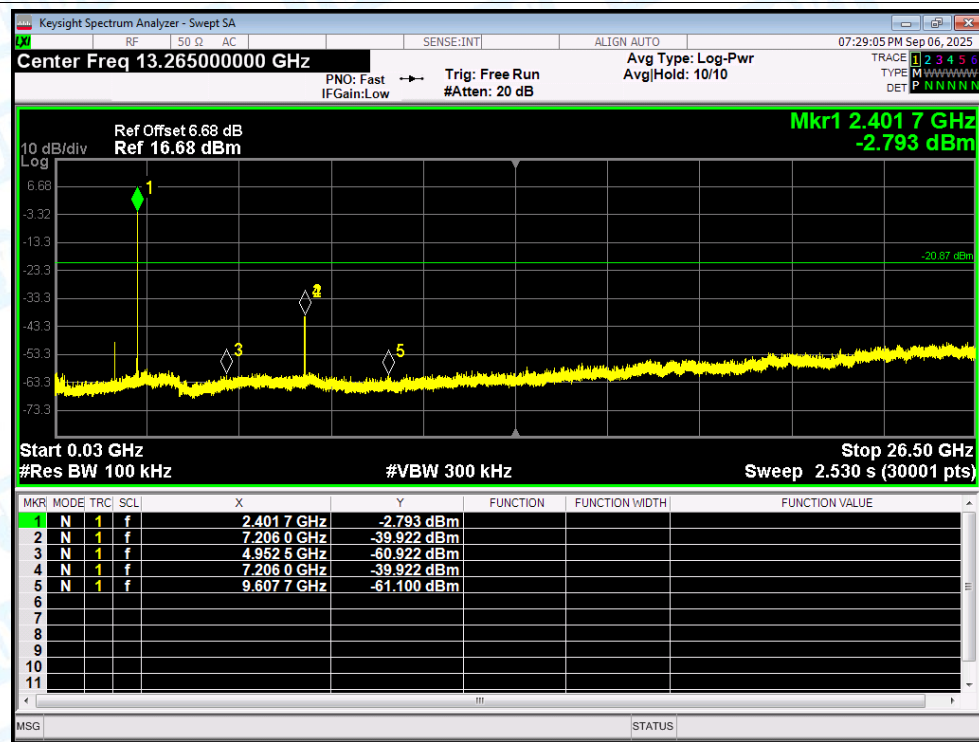
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



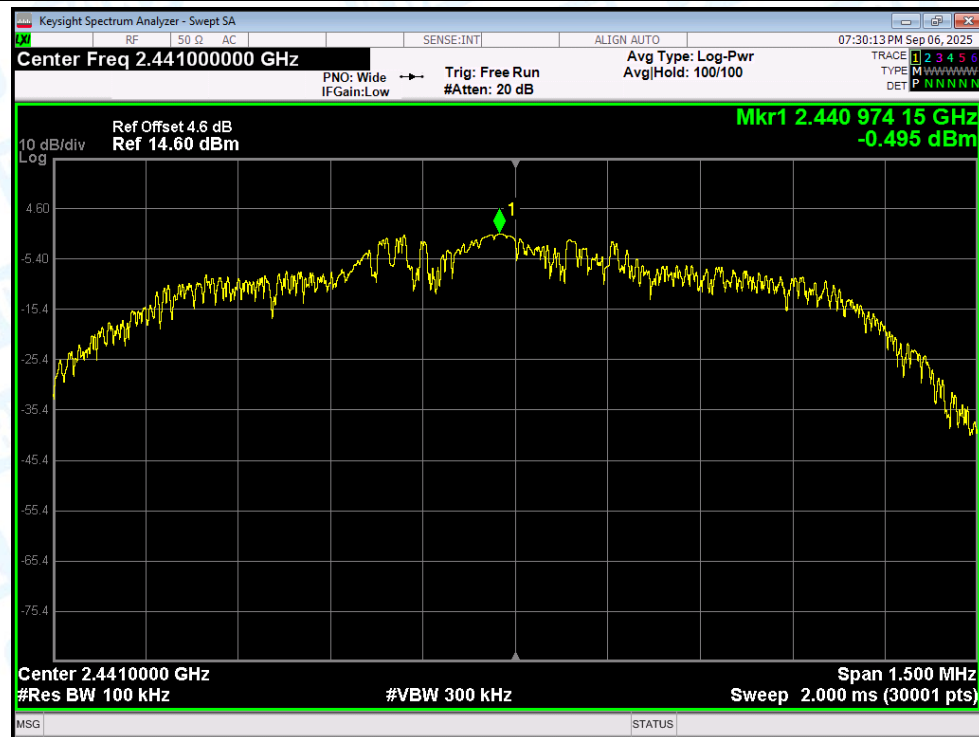
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



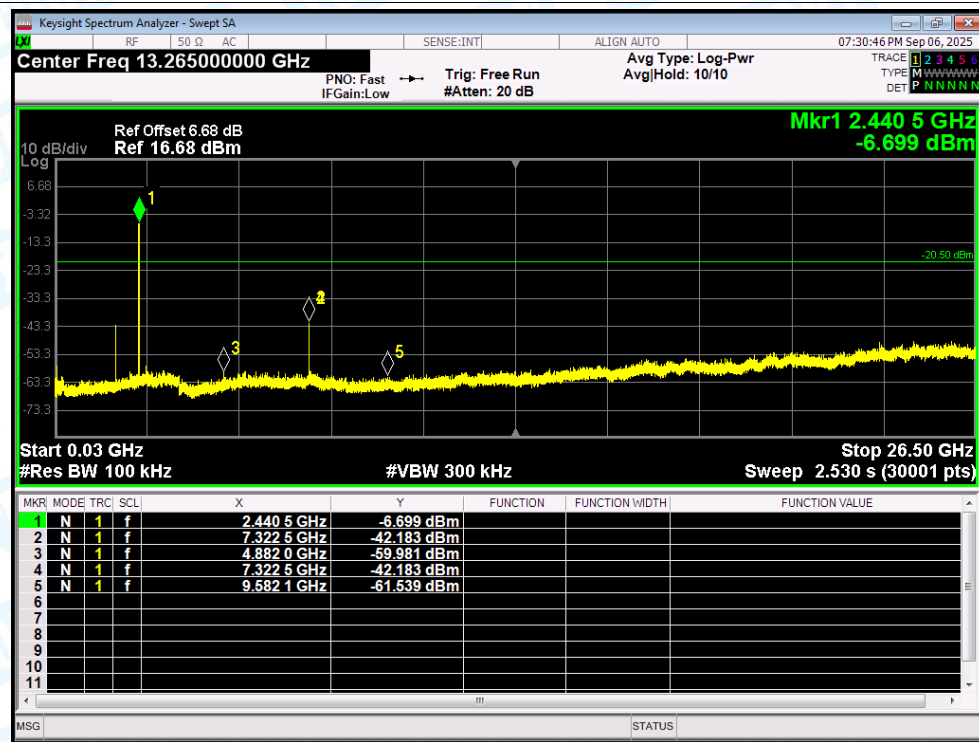
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



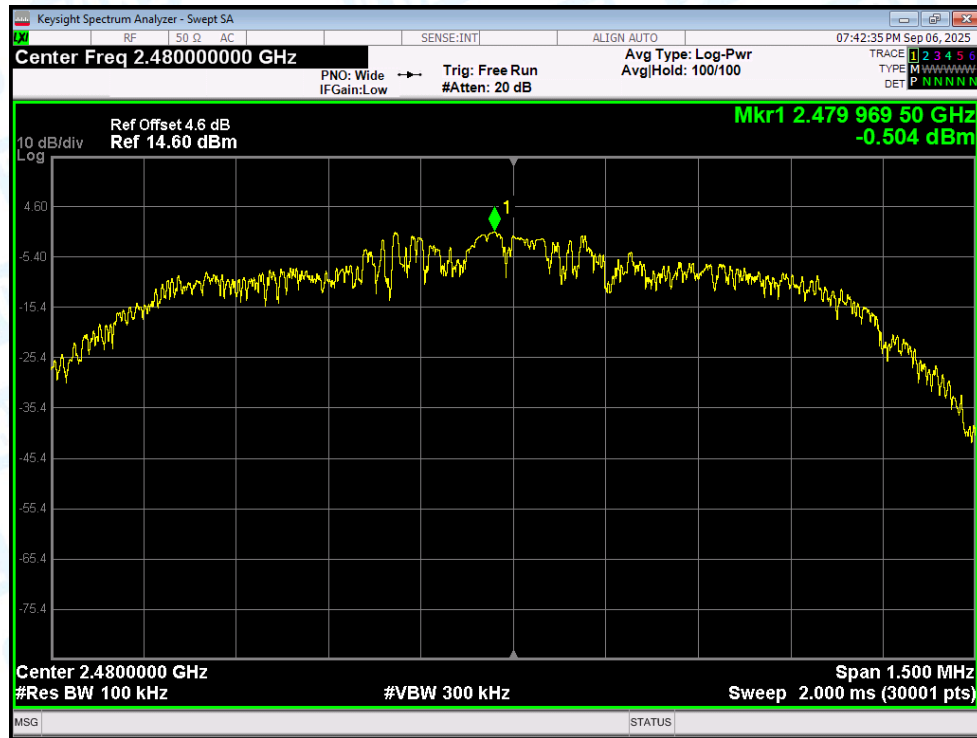
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



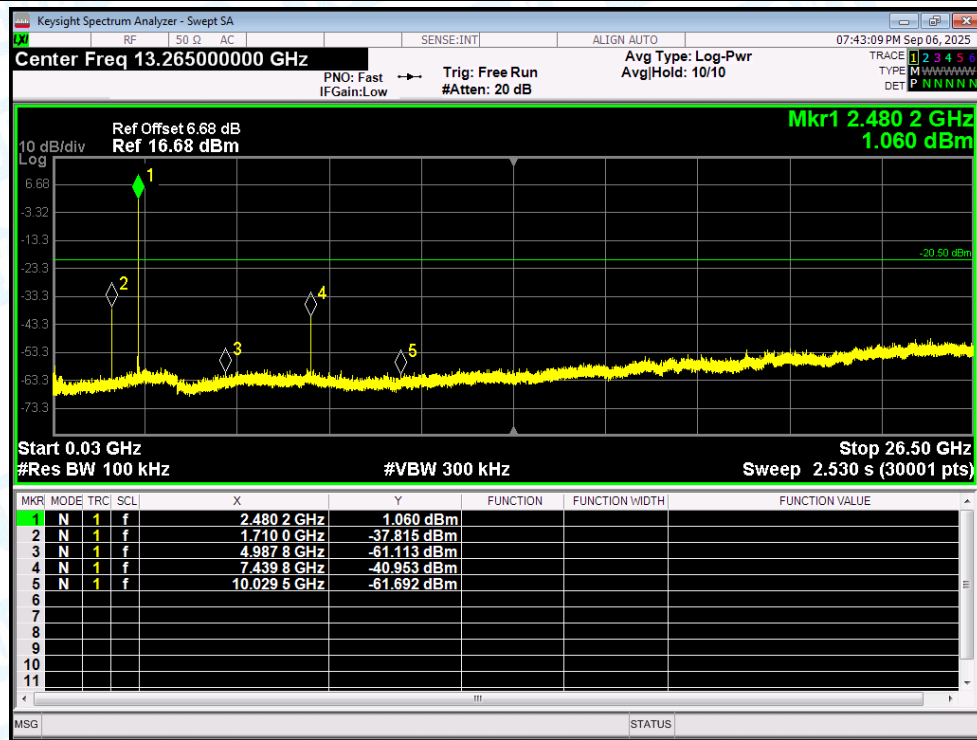
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



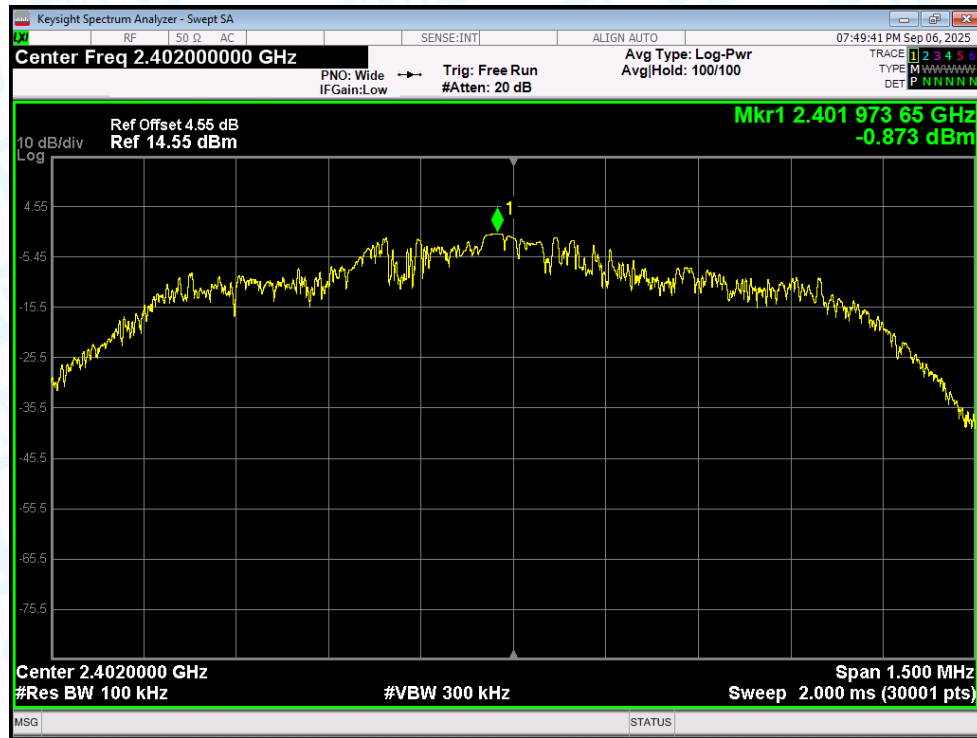
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



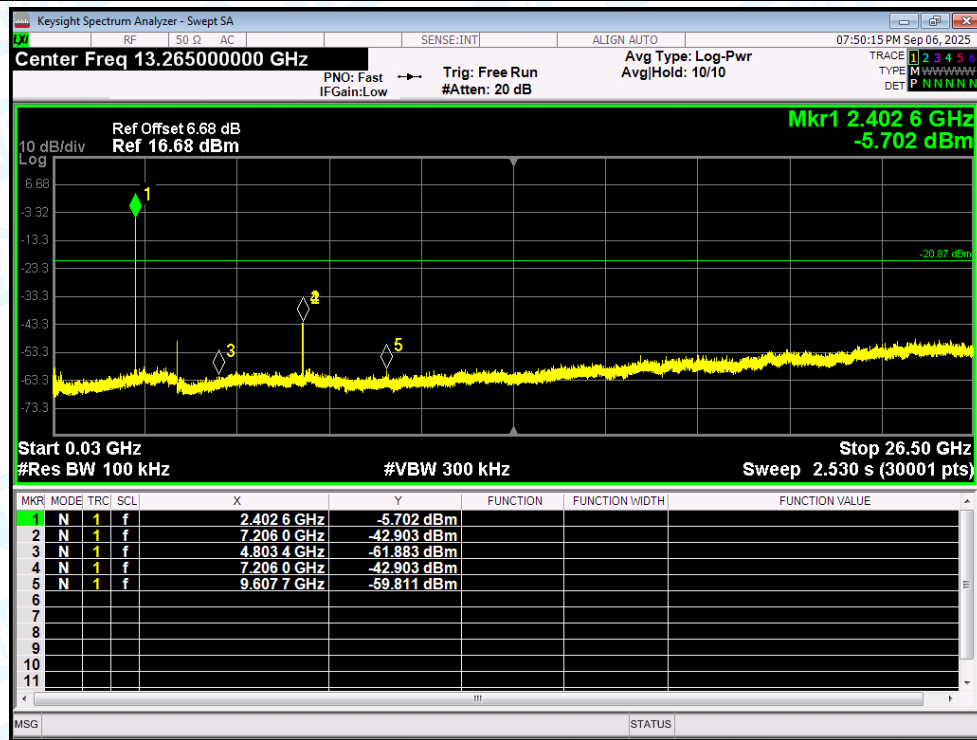
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



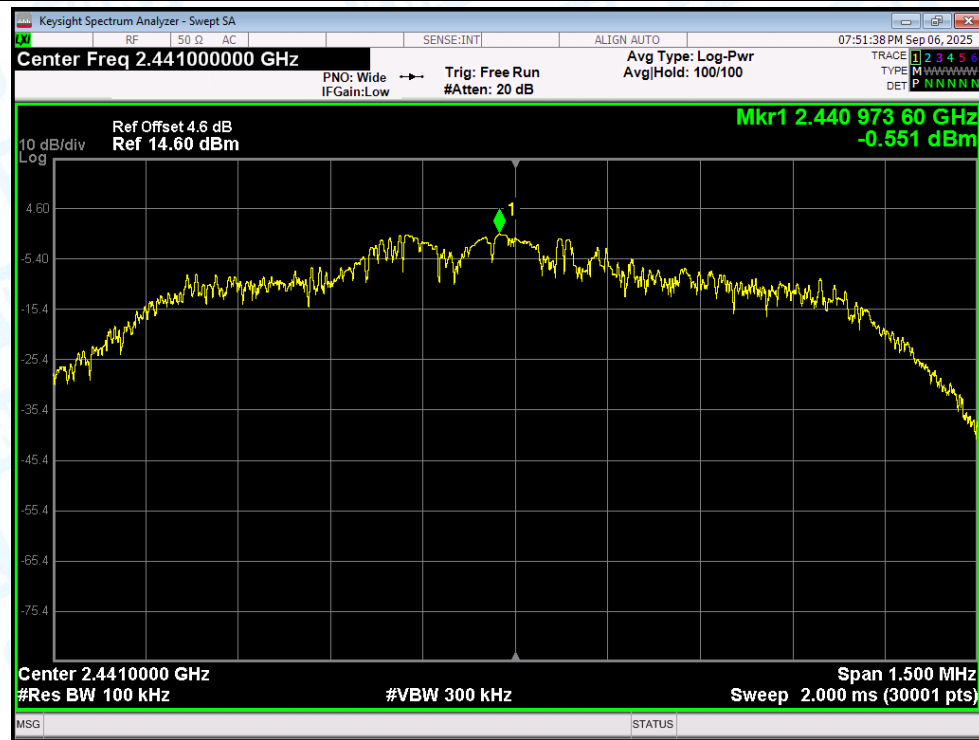
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



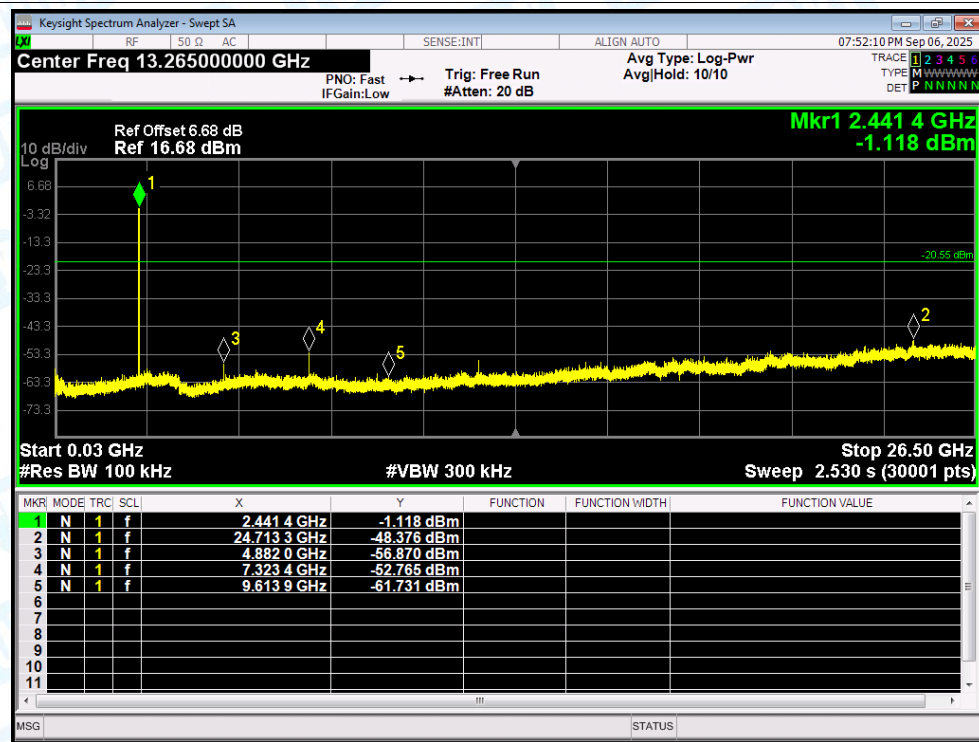
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



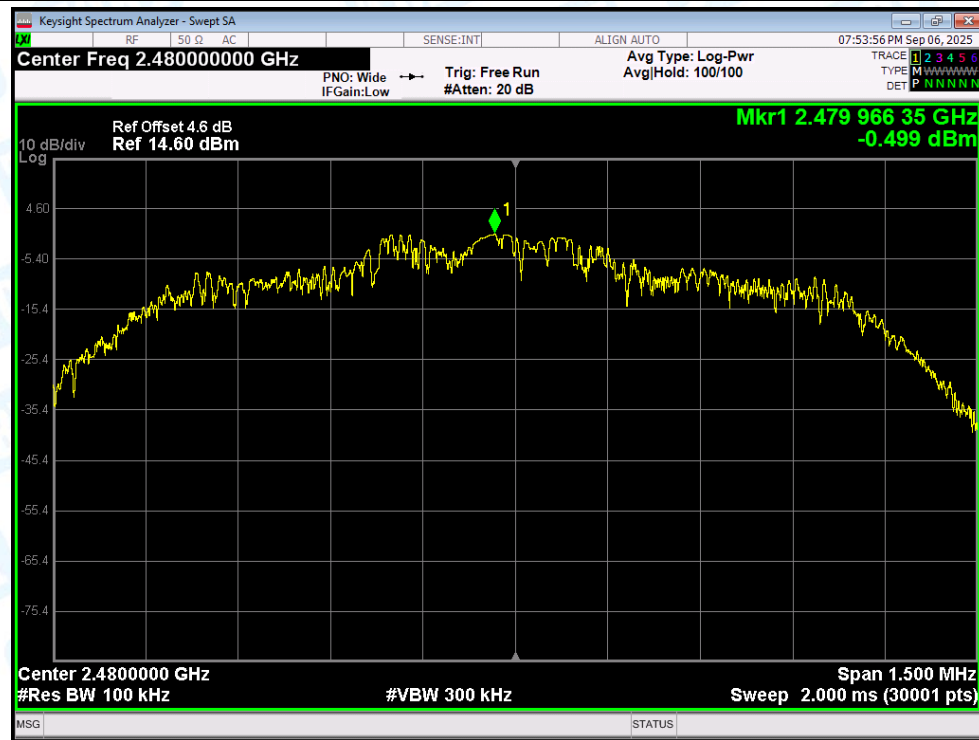
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



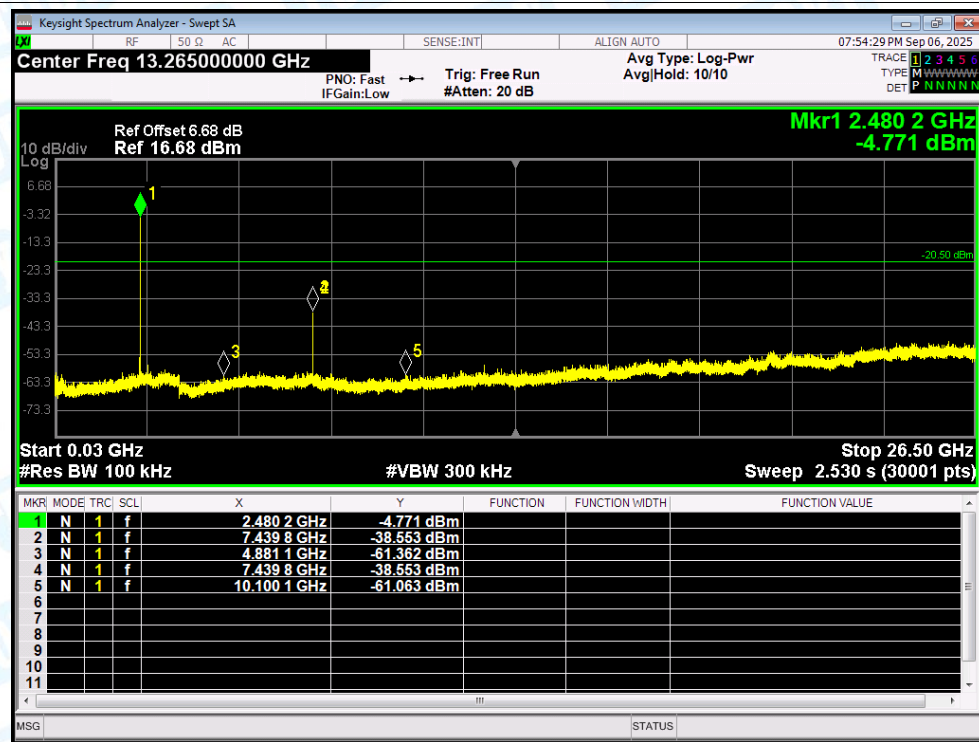
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

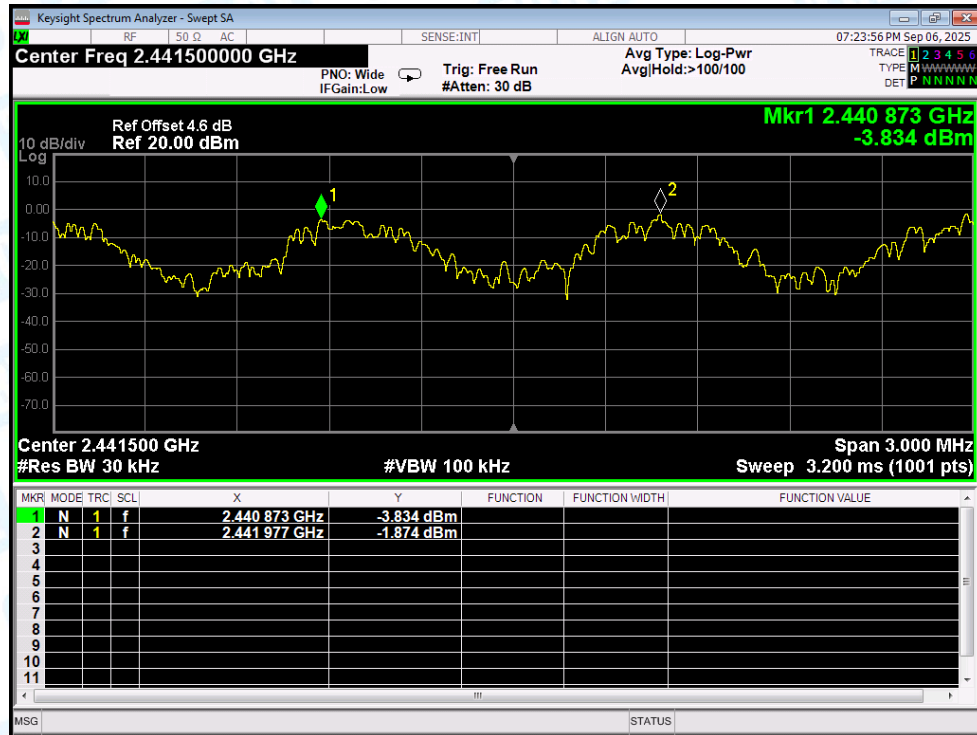


8. Carrier Frequencies Separation

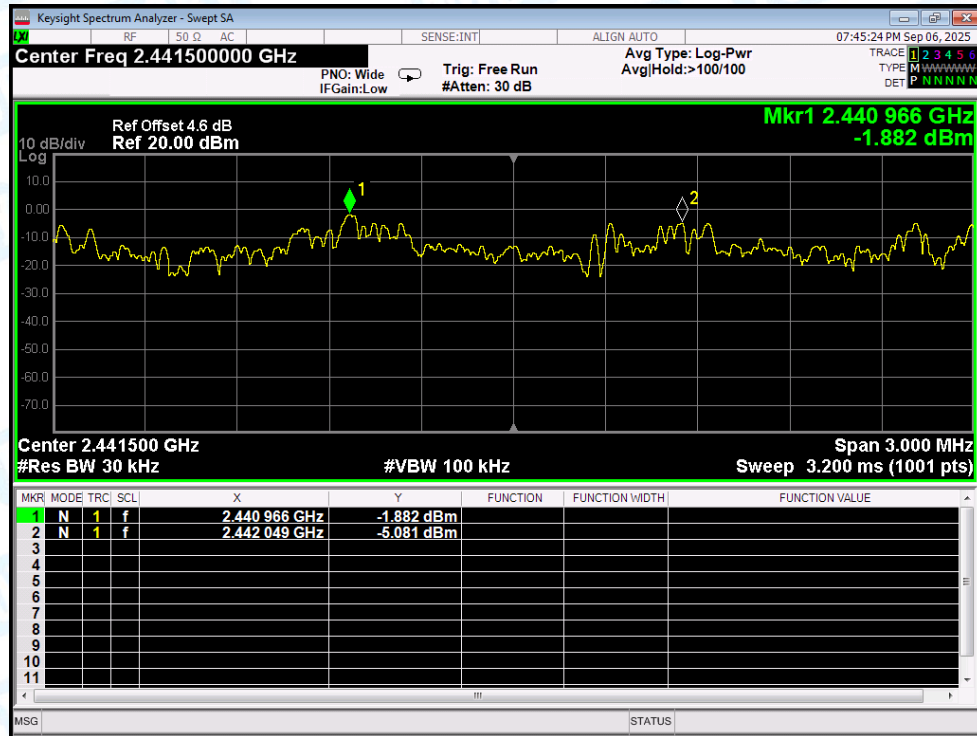
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.873	2441.977	1.104	0.54	Pass
NVNT	2-DH1	Ant1	2440.966	2442.049	1.083	0.773	Pass
NVNT	3-DH1	Ant1	2440.975	2442.064	1.089	0.767	Pass

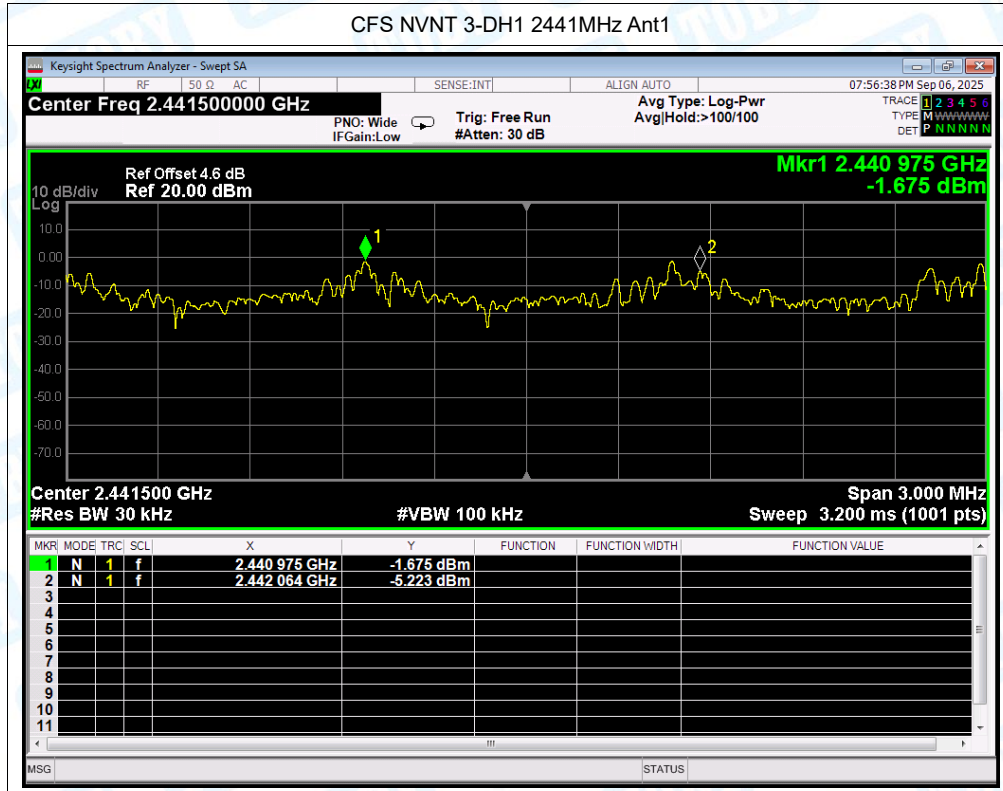
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



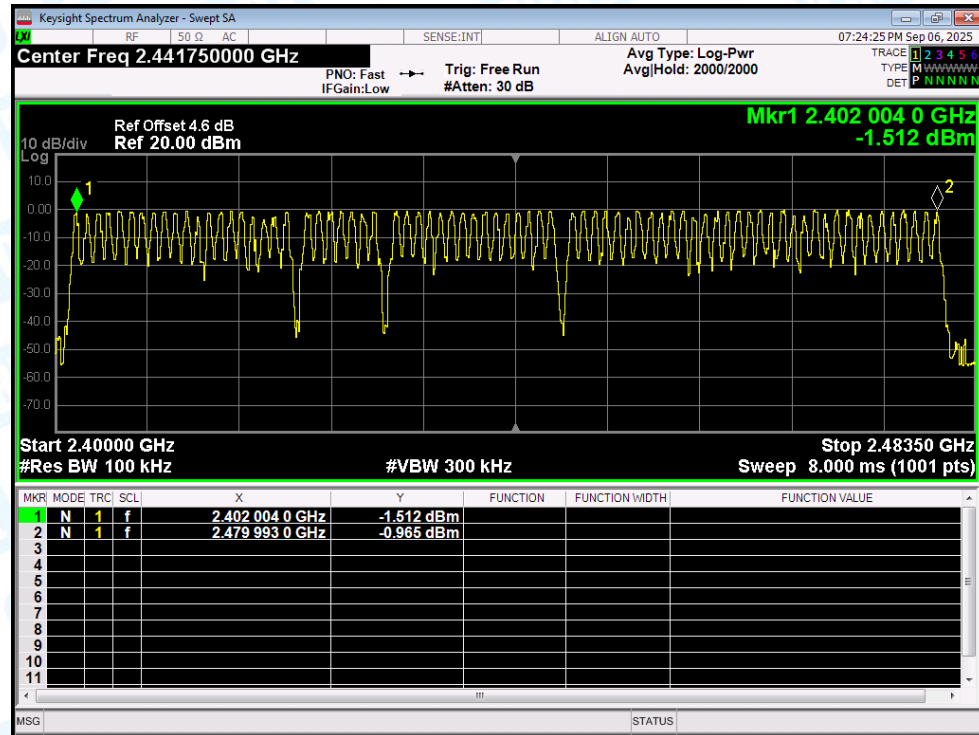


9. Number of Hopping Channel

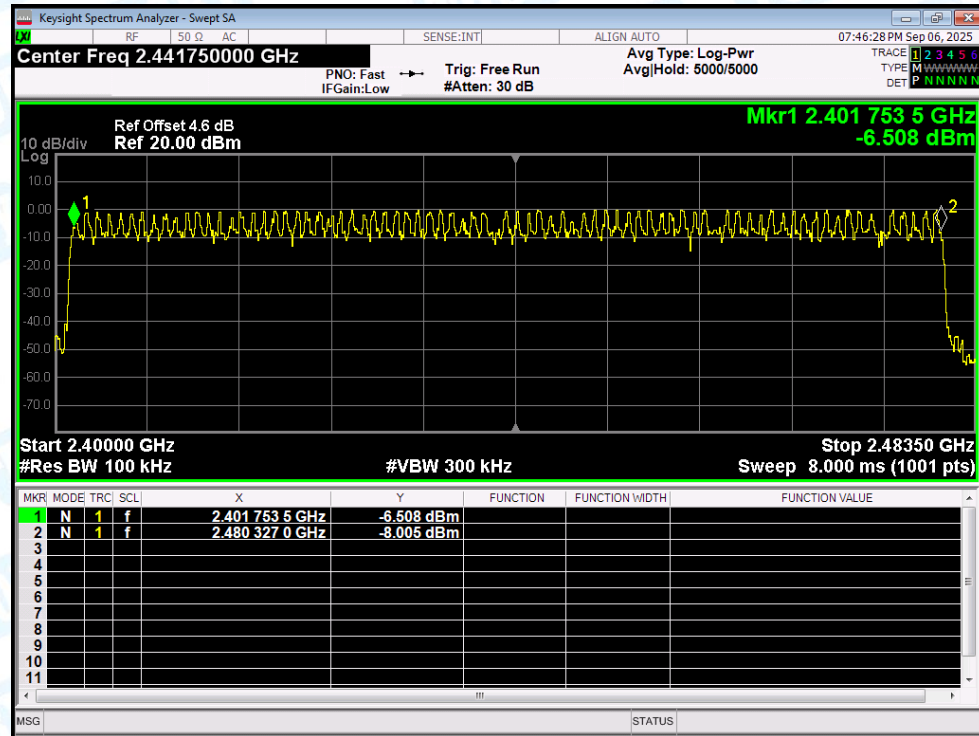
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

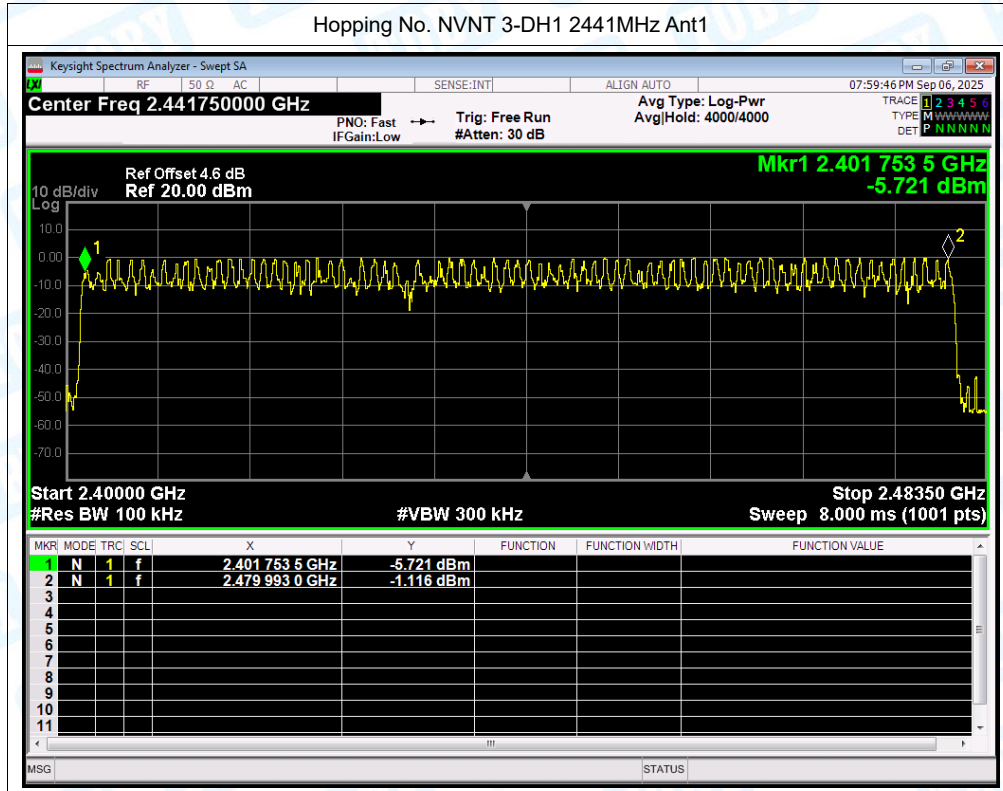
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



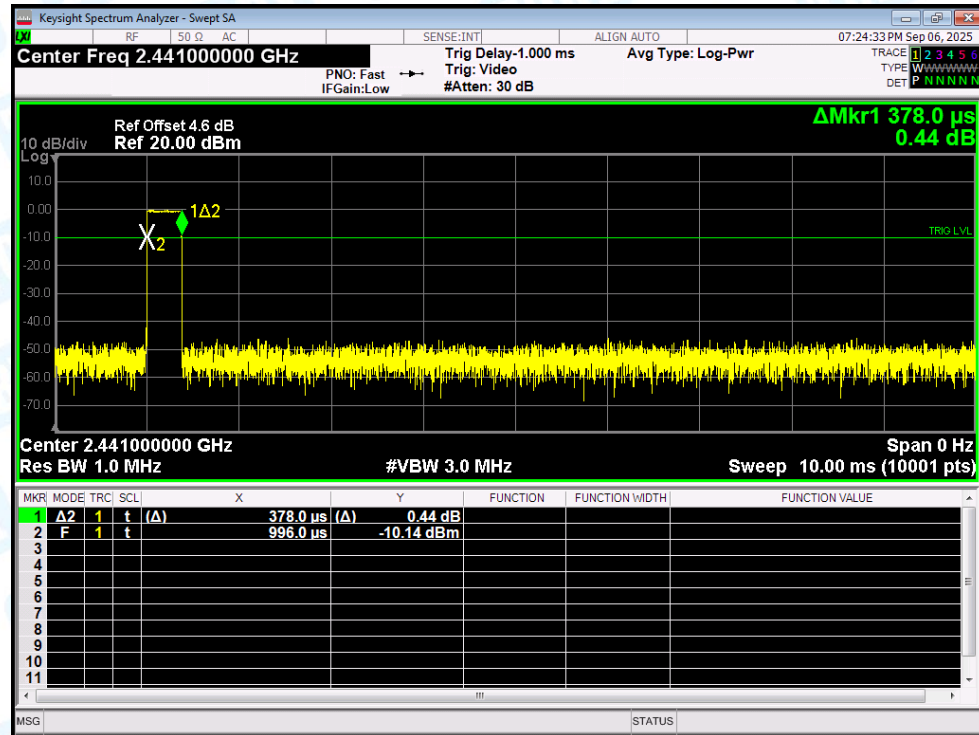


10. Dwell Time

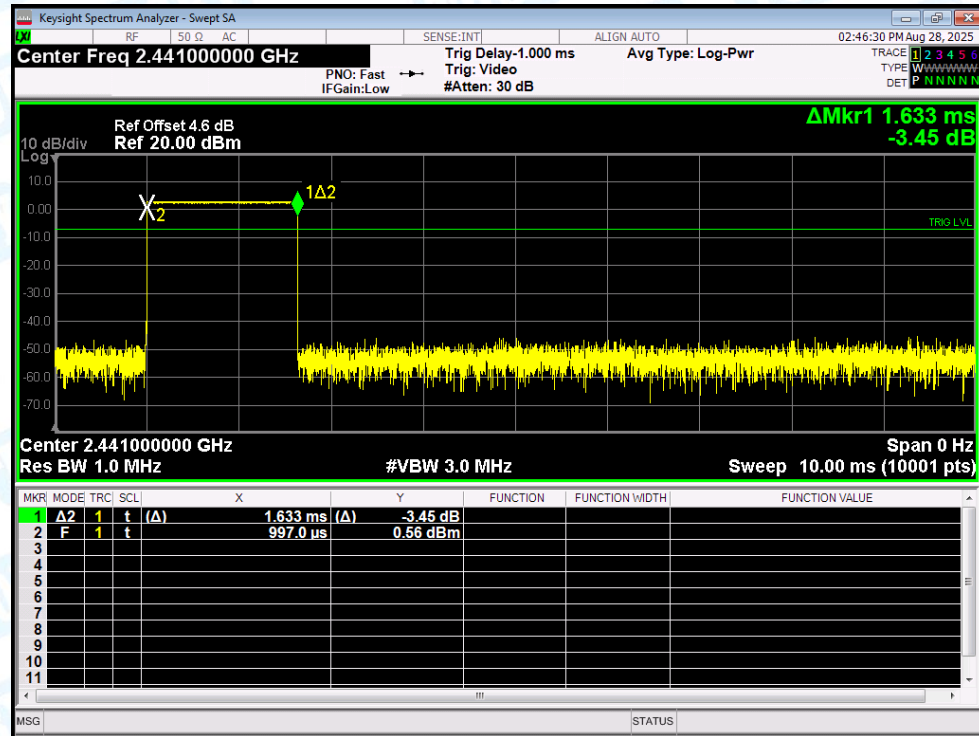
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.378	120.96	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.633	261.28	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.882	307.413	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.387	123.84	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.639	262.24	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.887	307.947	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.386	123.52	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.636	261.76	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.887	307.947	31600	400	Pass

Test Graphs

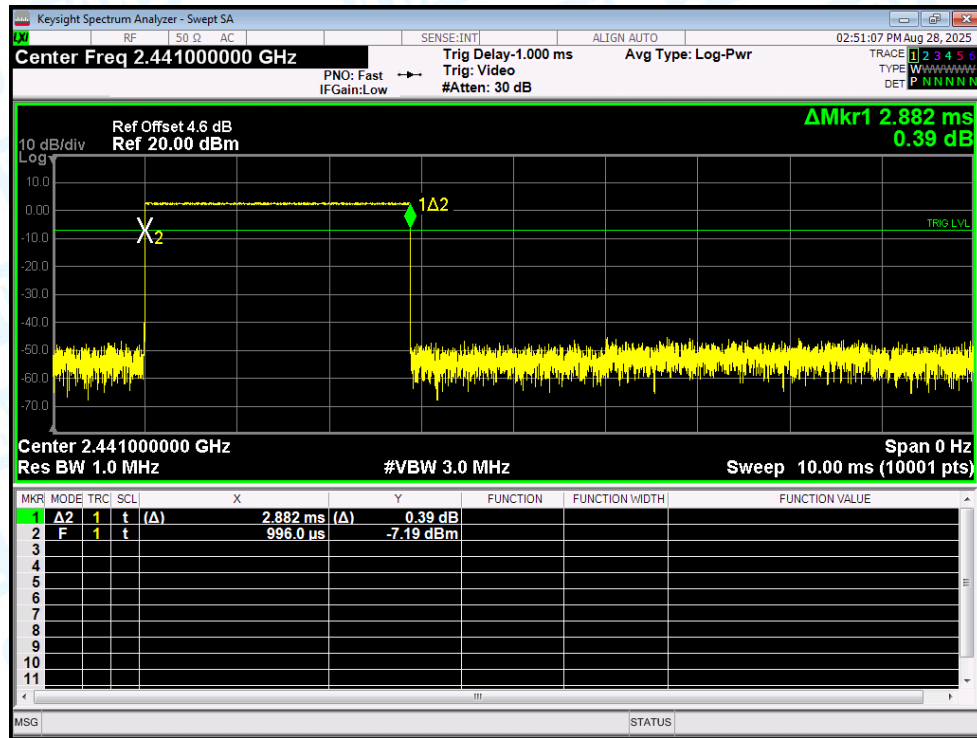
Dwell NVNT 1-DH1 2441MHz Ant1



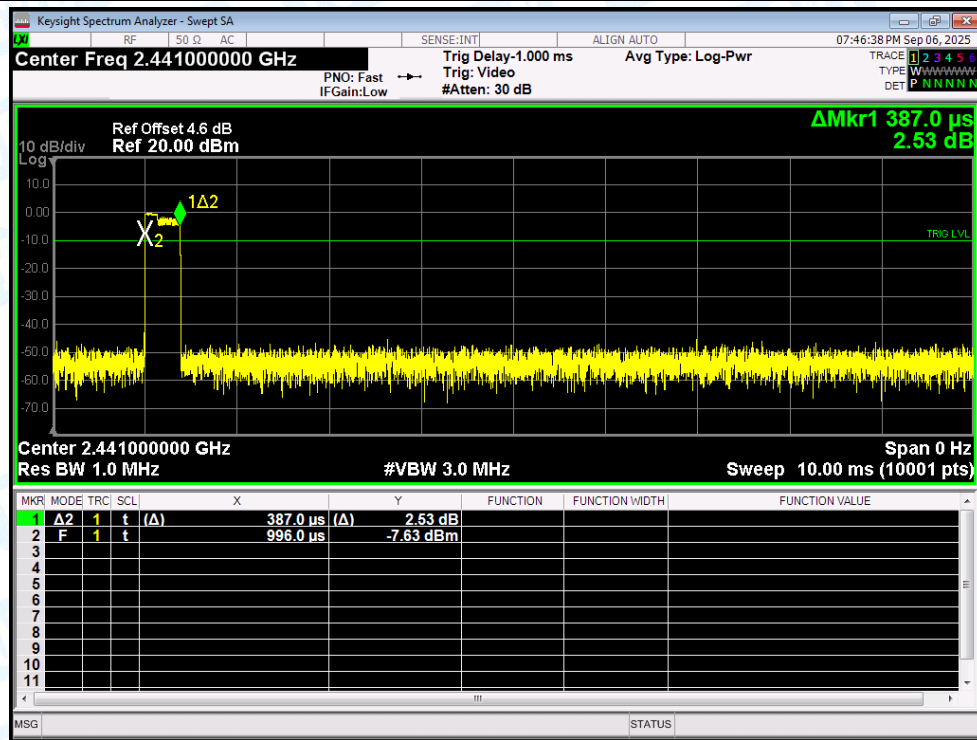
Dwell NVNT 1-DH3 2441MHz Ant1



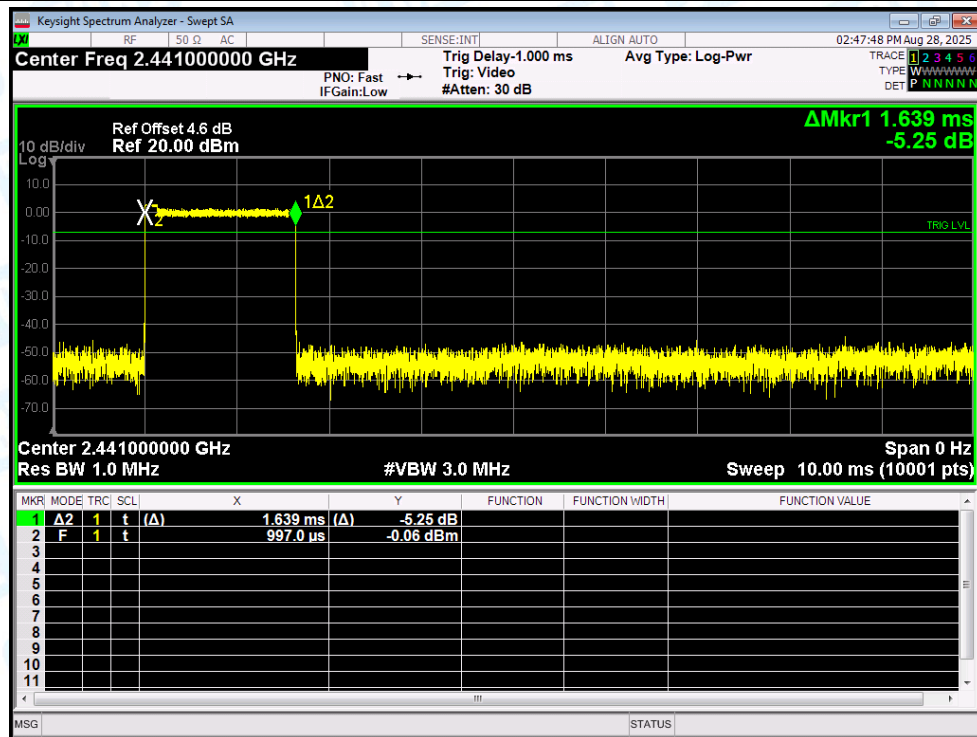
Dwell NVNT 1-DH5 2441MHz Ant1



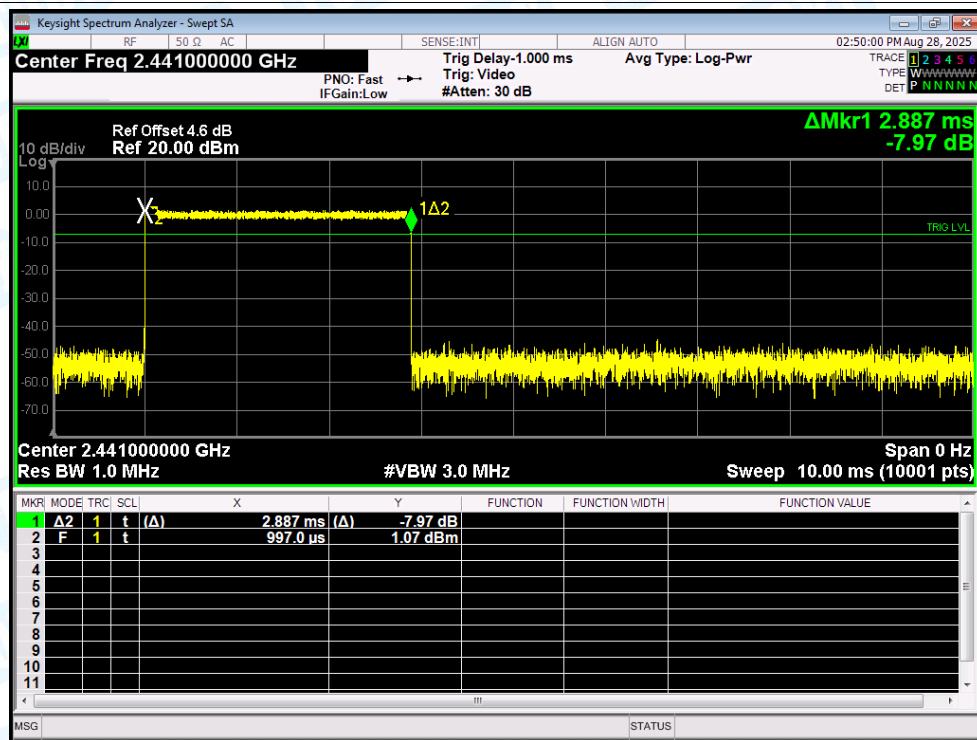
Dwell NVNT 2-DH1 2441MHz Ant1



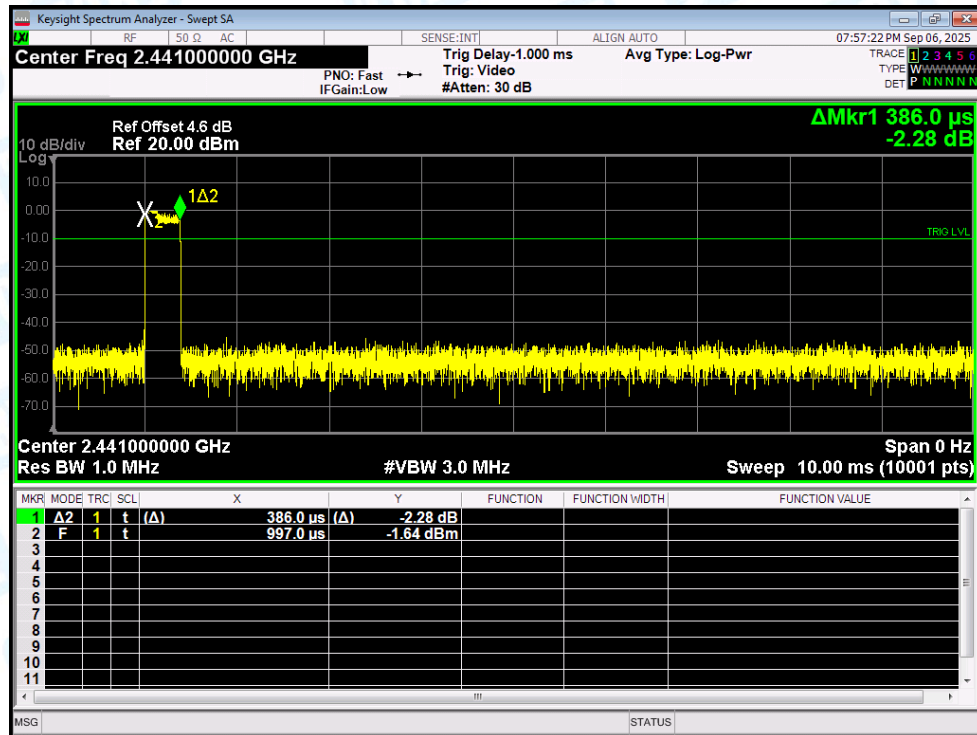
Dwell NVNT 2-DH3 2441MHz Ant1



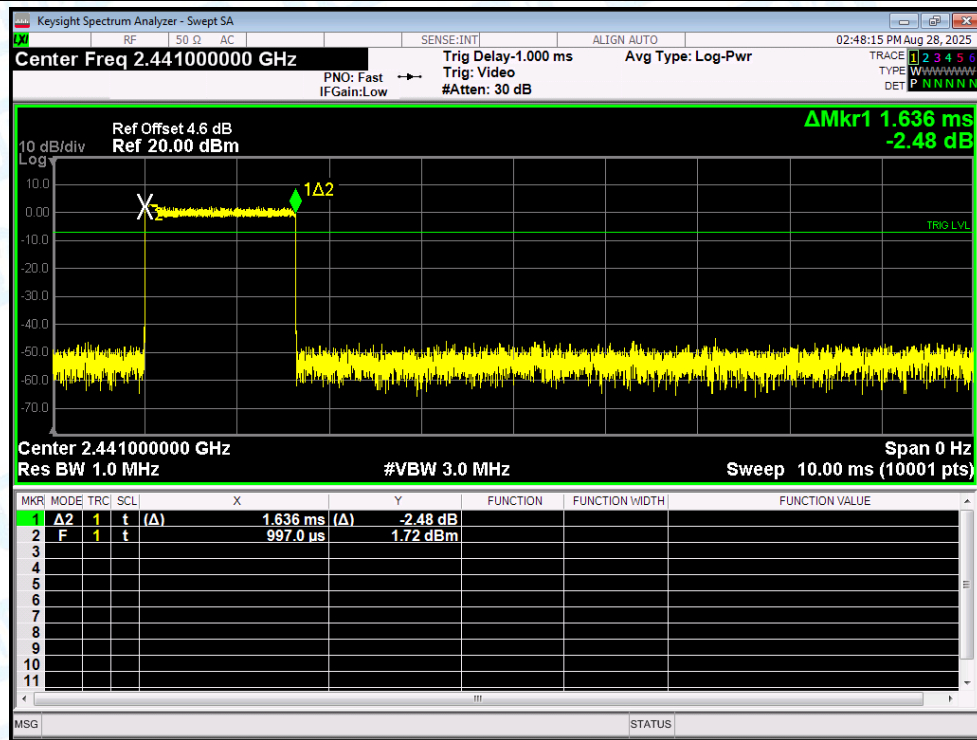
Dwell NVNT 2-DH5 2441MHz Ant1

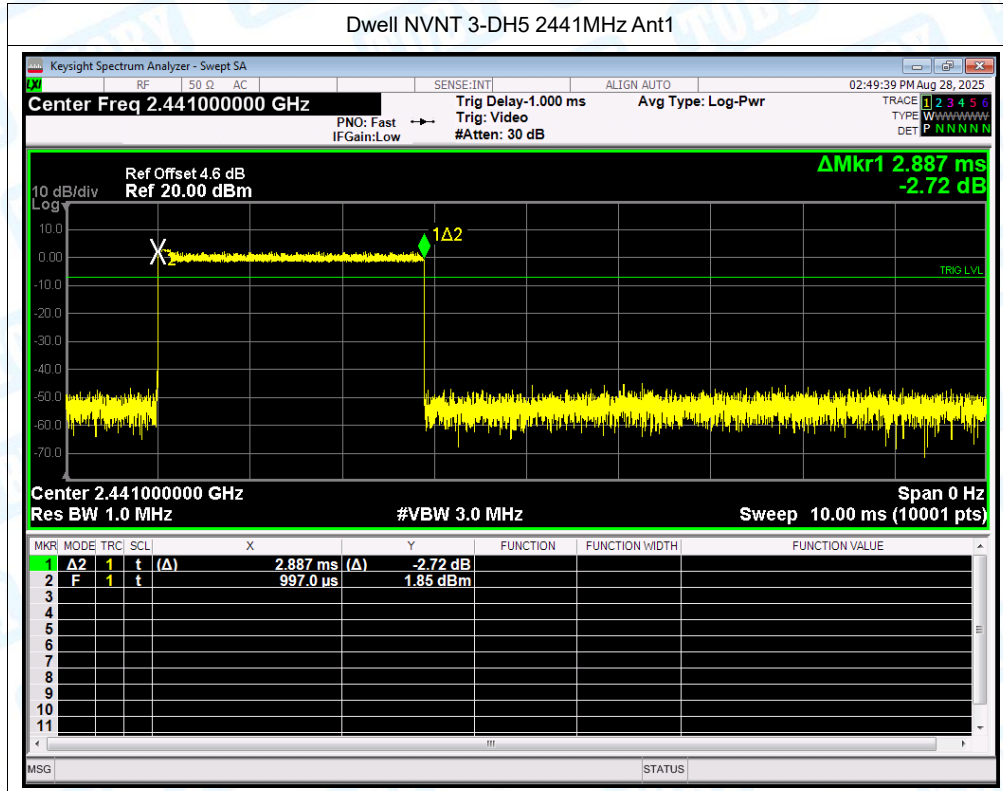


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





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