

RF Test Data for Bluetooth(BR+EDR) (Conducted Measurements)

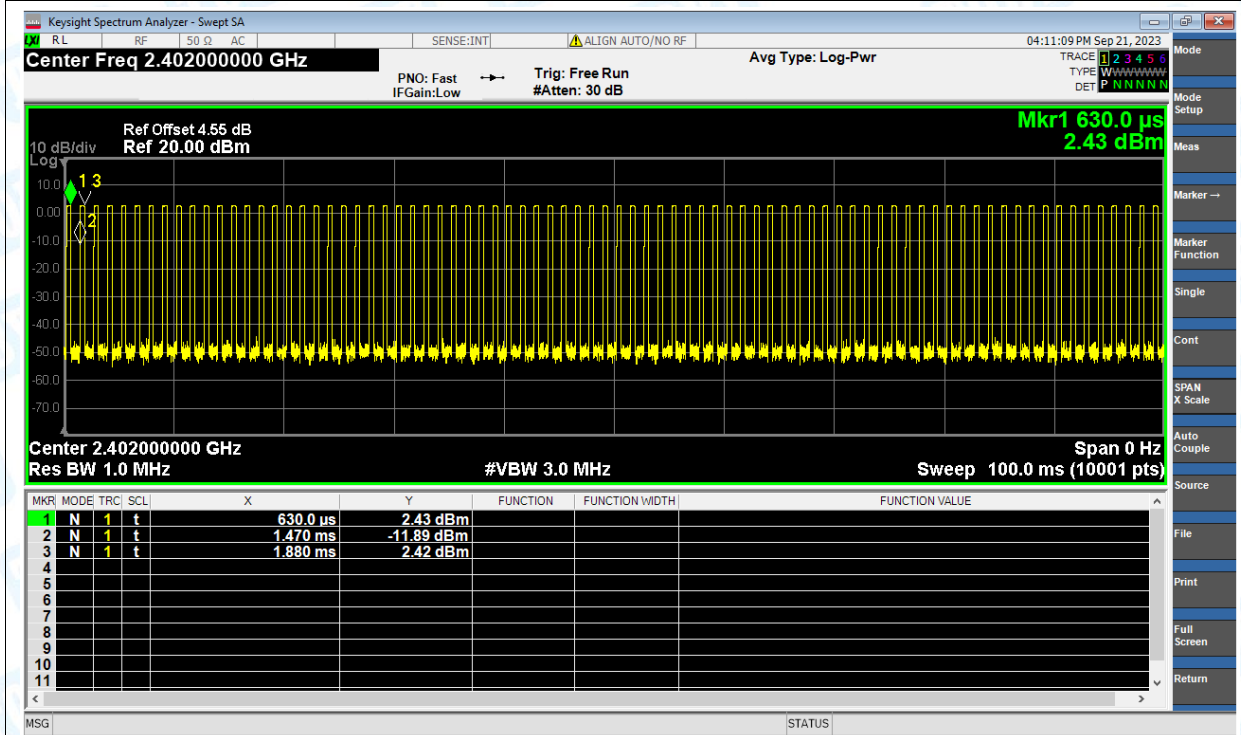
General Description of EUT	
Product Name:	Bluetooth headphone
Test Model:	D91
Sample ID:	HC-C-202309-0001-01-02-2#
Environmental Conditions	
Temperature:	23.8°C
Relative Humidity:	48%
Test Voltage:	DC 3.7V
Test Engineer:	Zhou Zhen
Note: For a more detailed features description, please refer to the report TBR-C-202309-0001-6 The report only show the worst case data.	

1. Duty Cycle

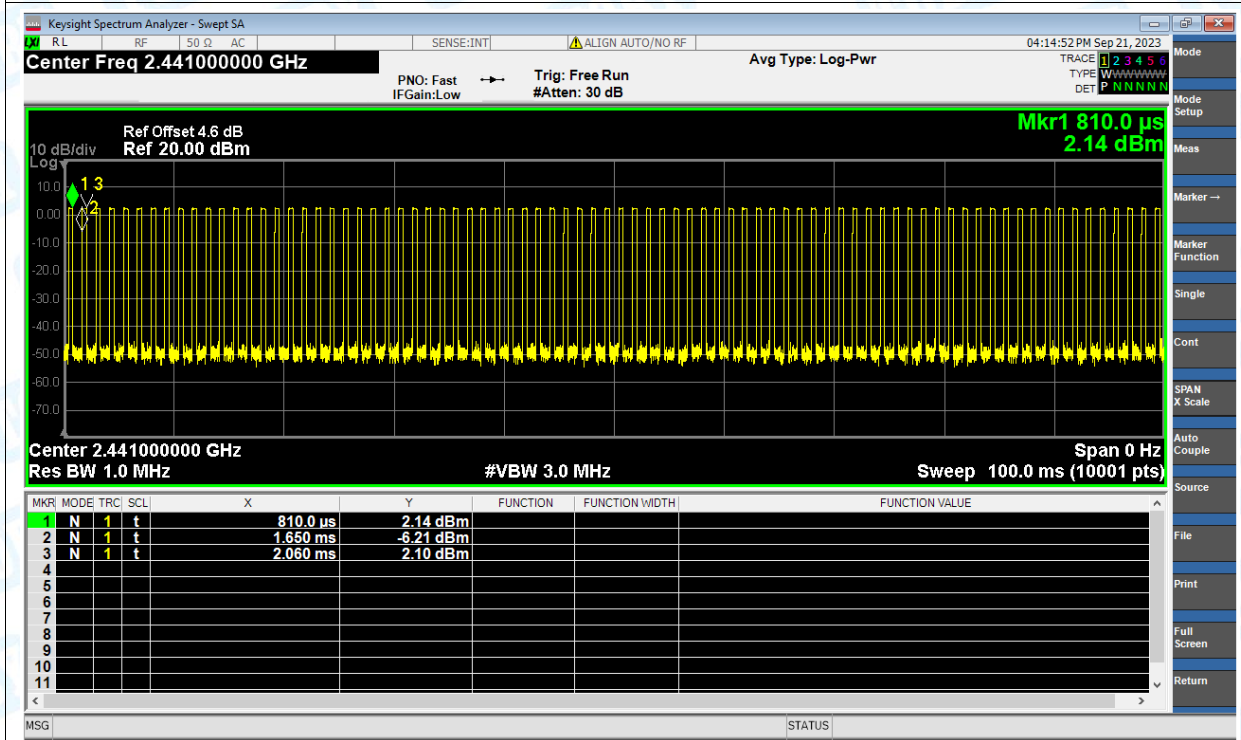
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	32.8	4.84	2.44
NVNT	1-DH1	2441	Ant1	32.8	4.84	2.44
NVNT	1-DH1	2480	Ant1	32.8	4.84	2.44
NVNT	2-DH1	2402	Ant1	32.8	4.84	2.44
NVNT	2-DH1	2441	Ant1	33.6	4.74	2.38
NVNT	2-DH1	2480	Ant1	33.6	4.74	2.38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

Test Graphs

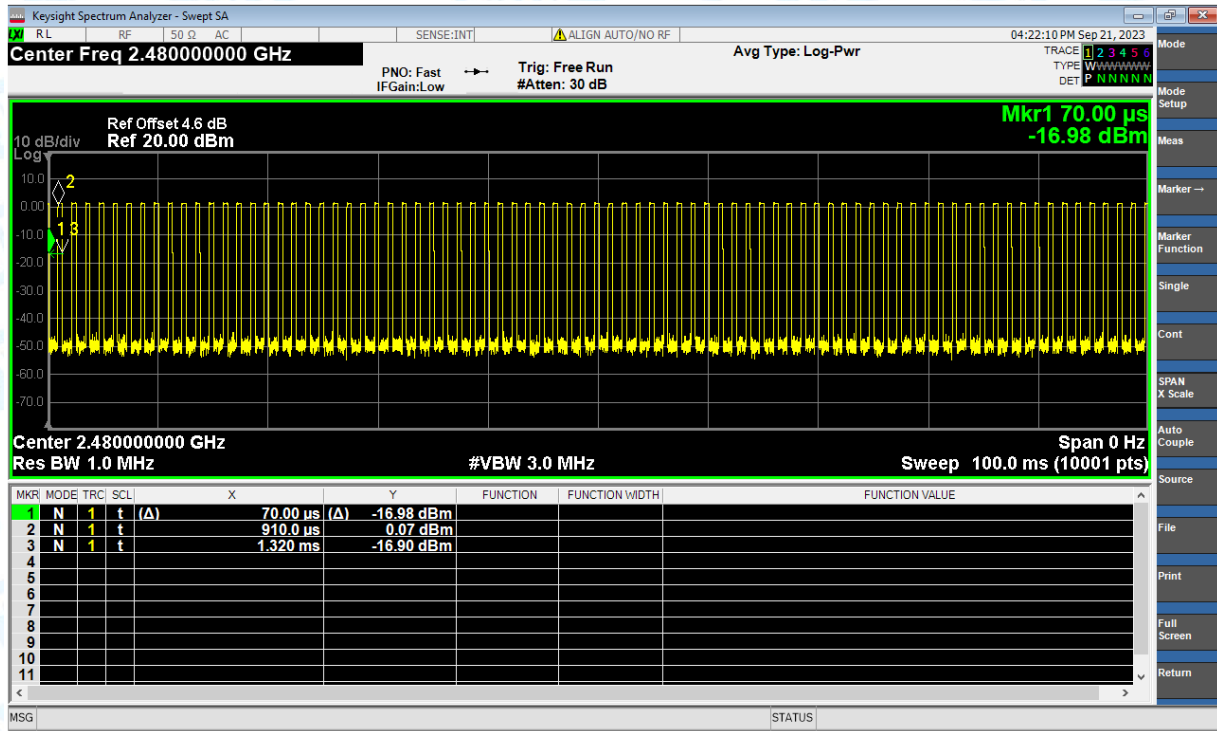
Duty Cycle NVNT 1-DH1 2402MHz Ant1



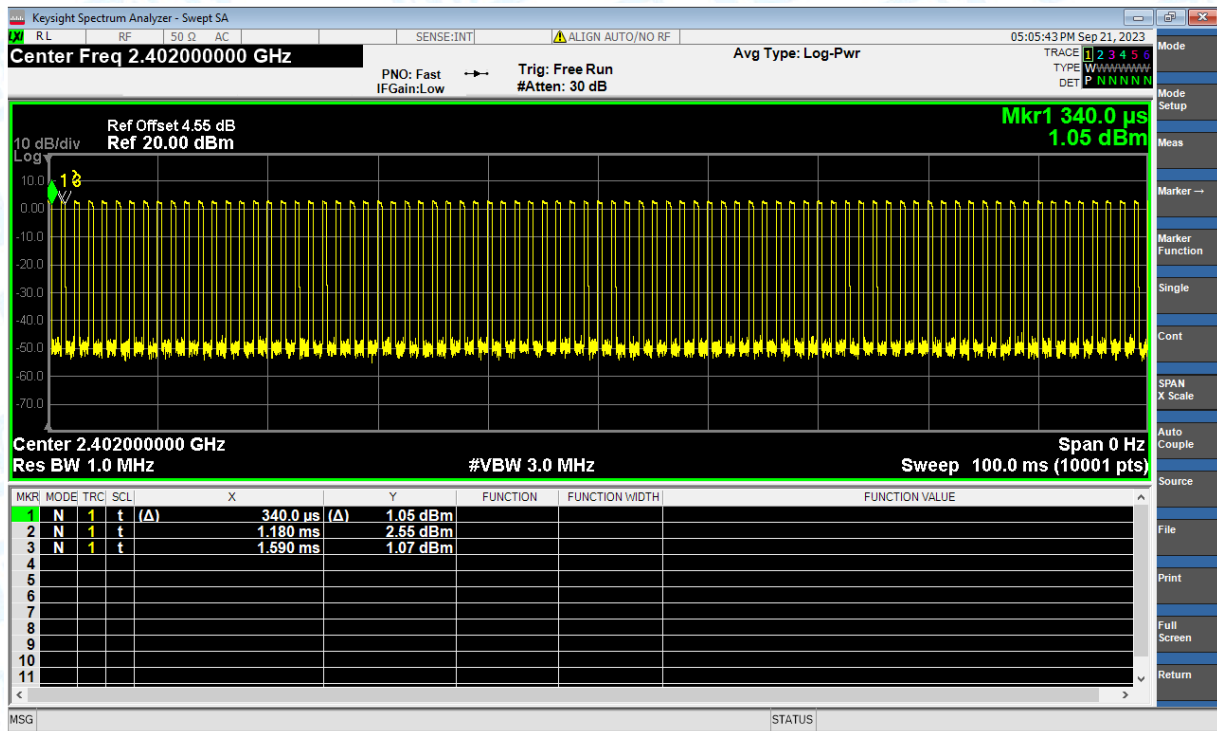
Duty Cycle NVNT 1-DH1 2441MHz Ant1



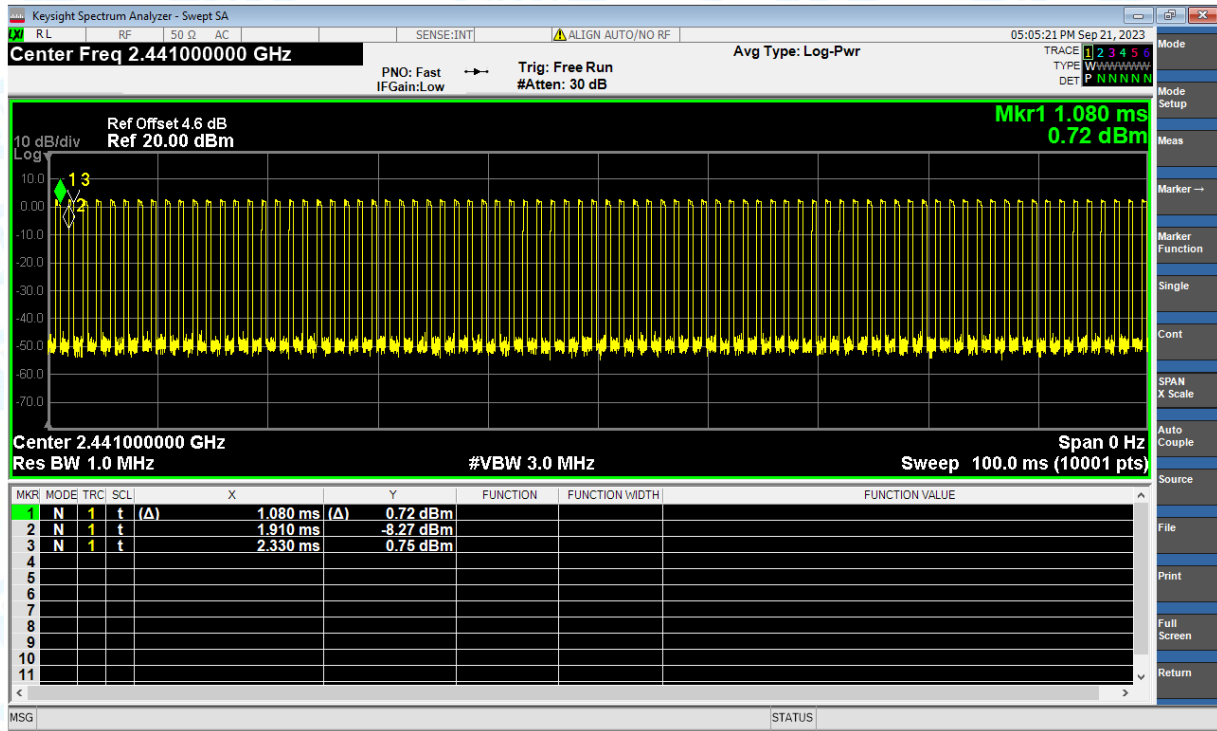
Duty Cycle NVNT 1-DH1 2480MHz Ant1



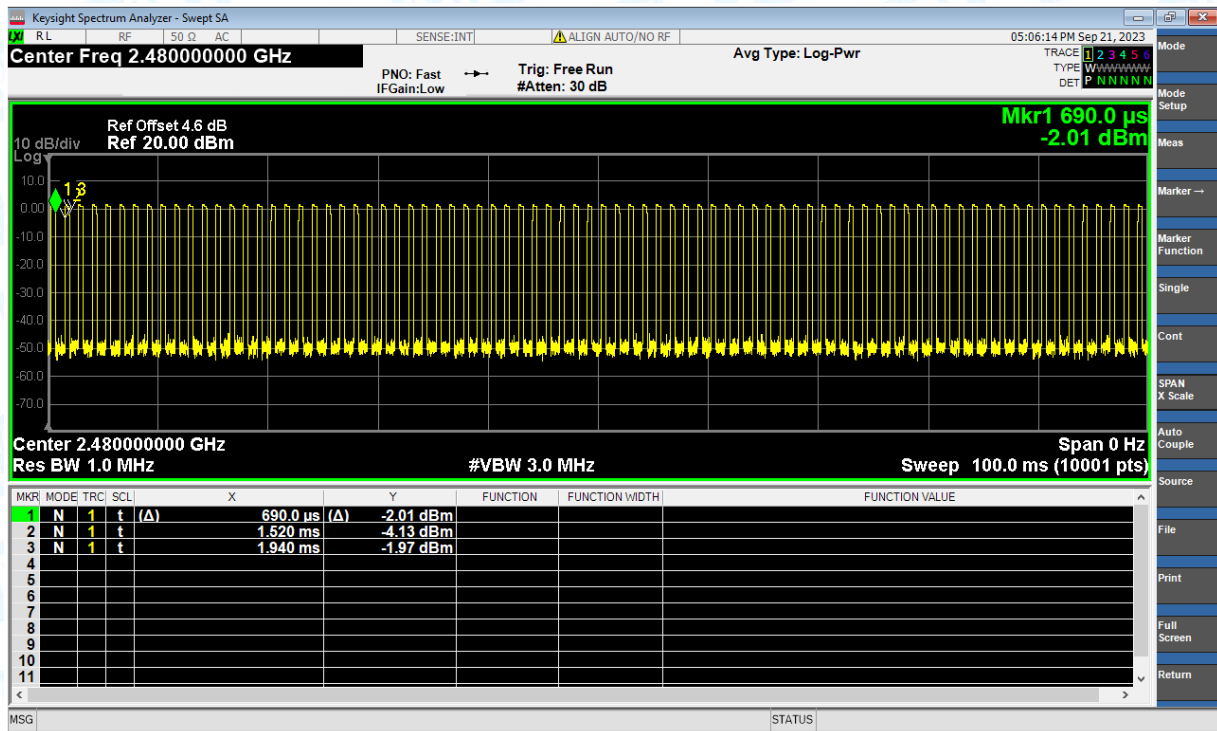
Duty Cycle NVNT 2-DH1 2402MHz Ant1



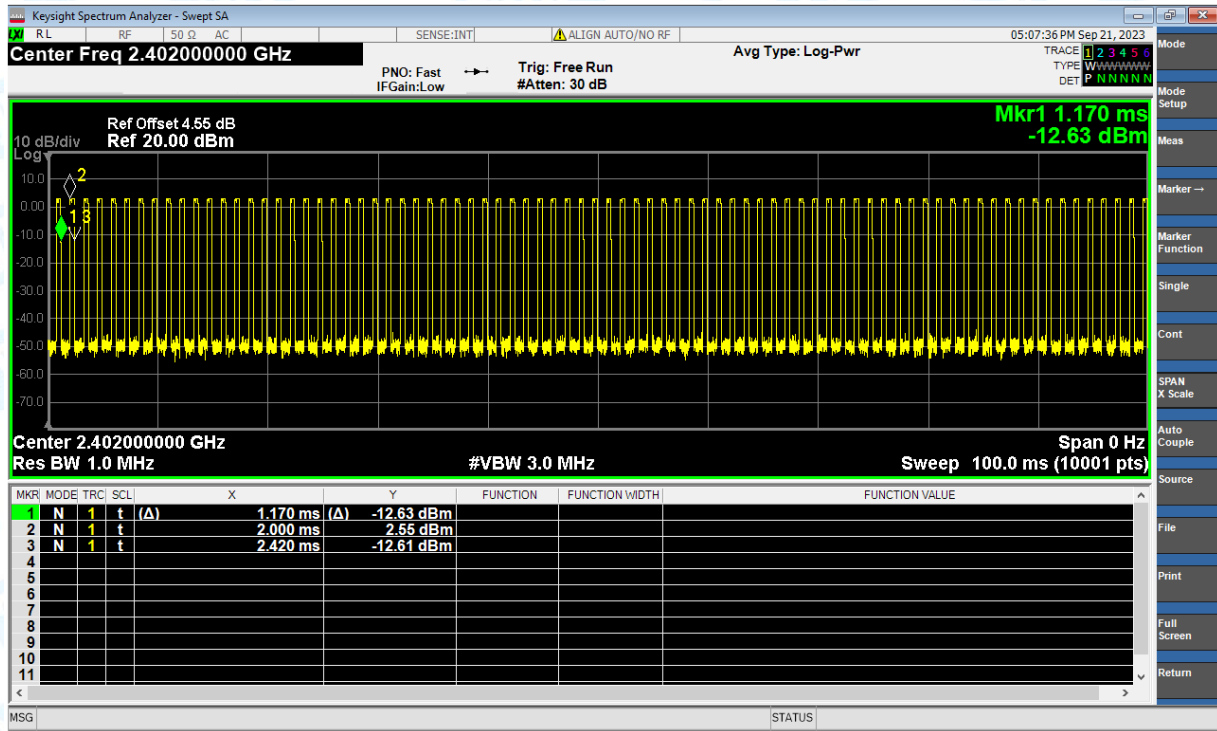
Duty Cycle NVNT 2-DH1 2441MHz Ant1



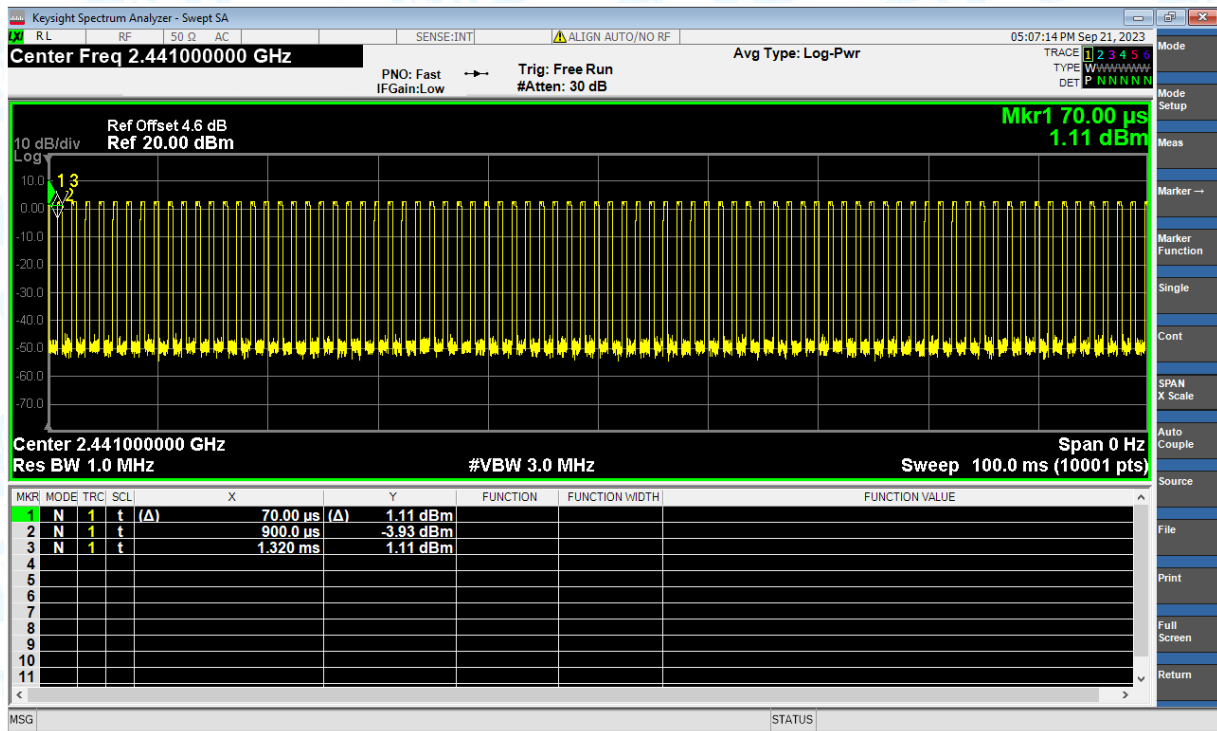
Duty Cycle NVNT 2-DH1 2480MHz Ant1

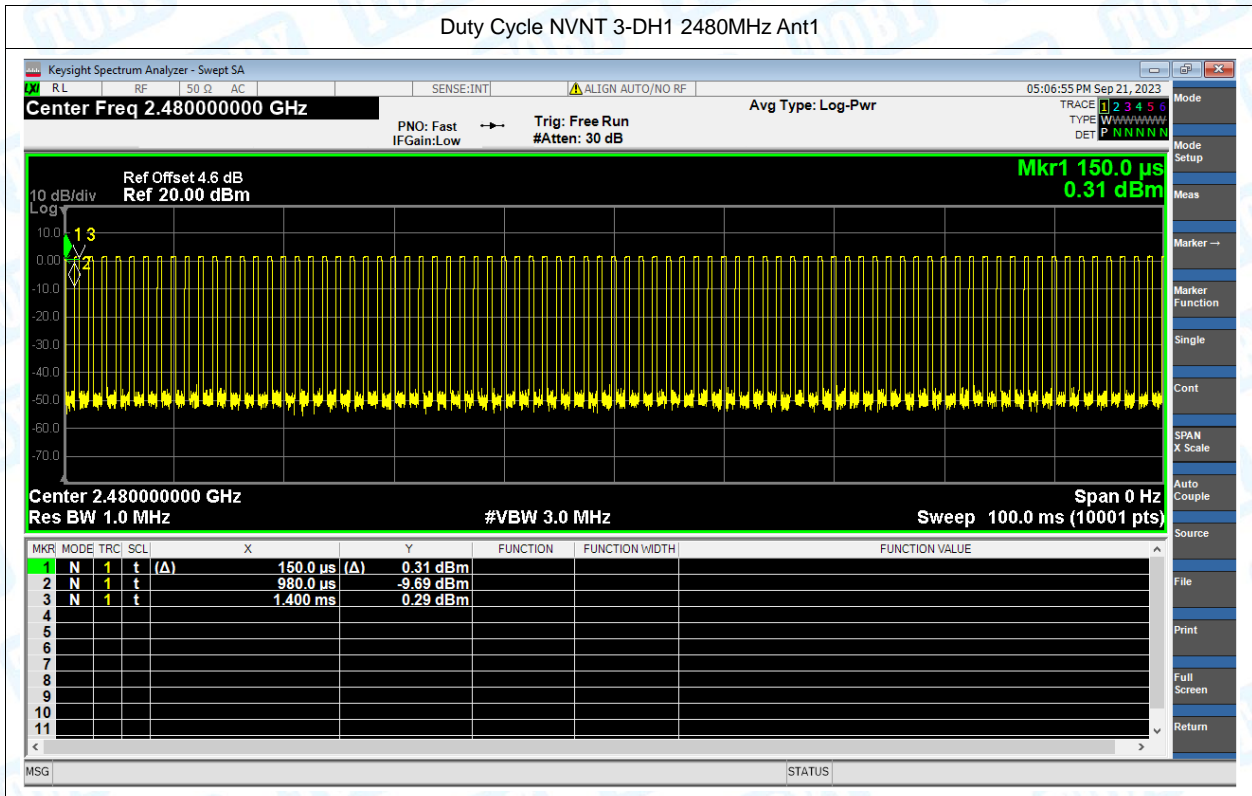


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



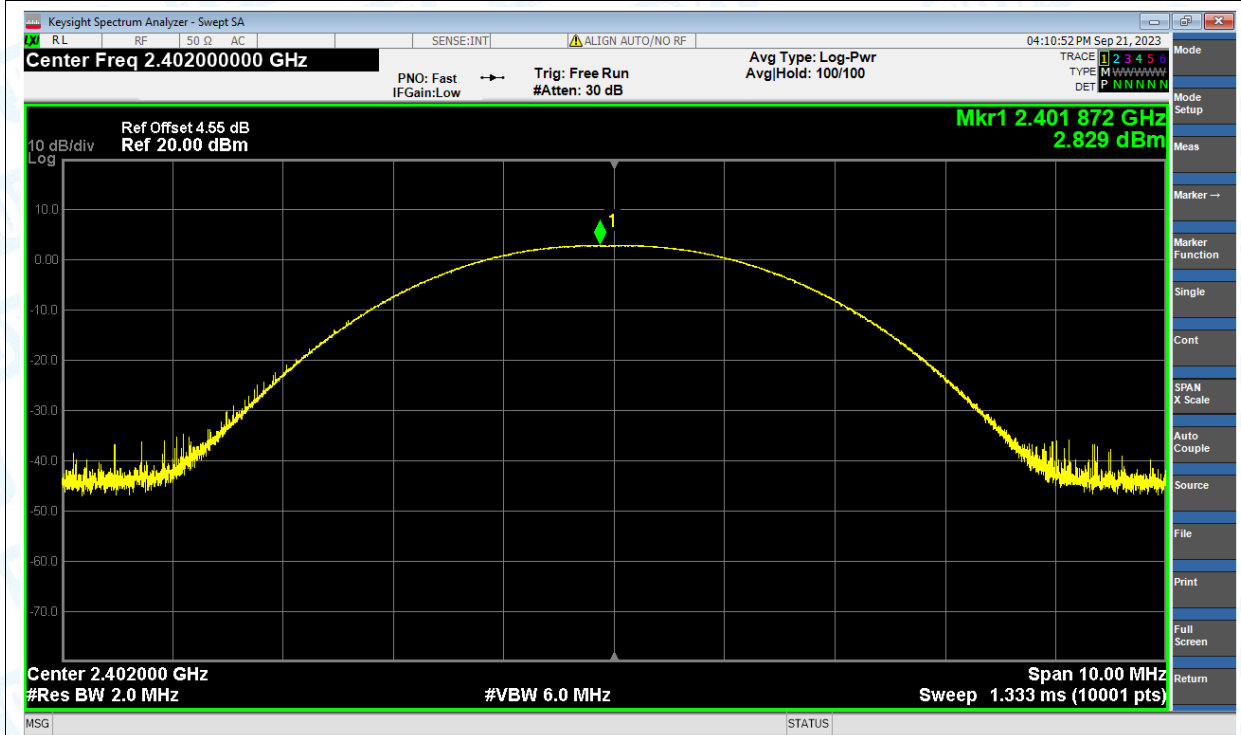


2. Maximum Conducted Output Power

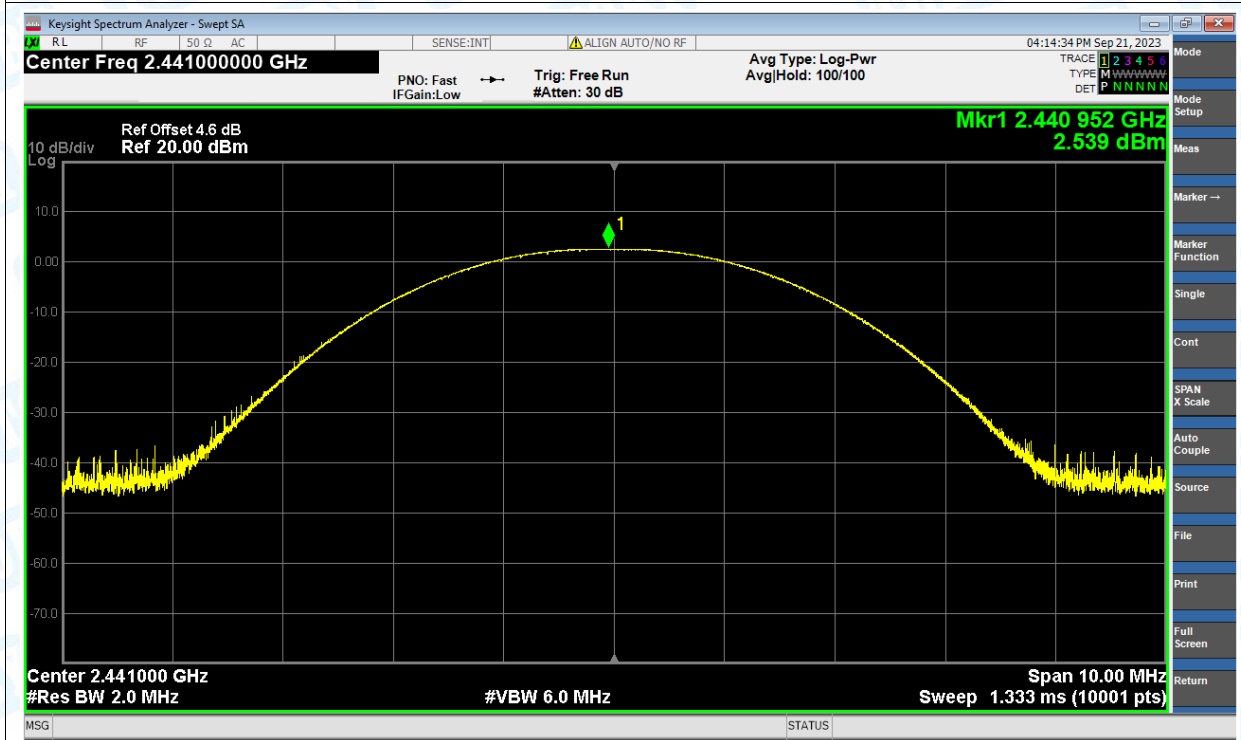
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	2.829	21	Pass
NVNT	1-DH1	2441	Ant1	2.539	21	Pass
NVNT	1-DH1	2480	Ant1	1.562	21	Pass
NVNT	2-DH1	2402	Ant1	3.108	21	Pass
NVNT	2-DH1	2441	Ant1	2.43	21	Pass
NVNT	2-DH1	2480	Ant1	1.937	21	Pass
NVNT	3-DH1	2402	Ant1	3.889	21	Pass
NVNT	3-DH1	2441	Ant1	3.565	21	Pass
NVNT	3-DH1	2480	Ant1	2.685	21	Pass

Test Graphs

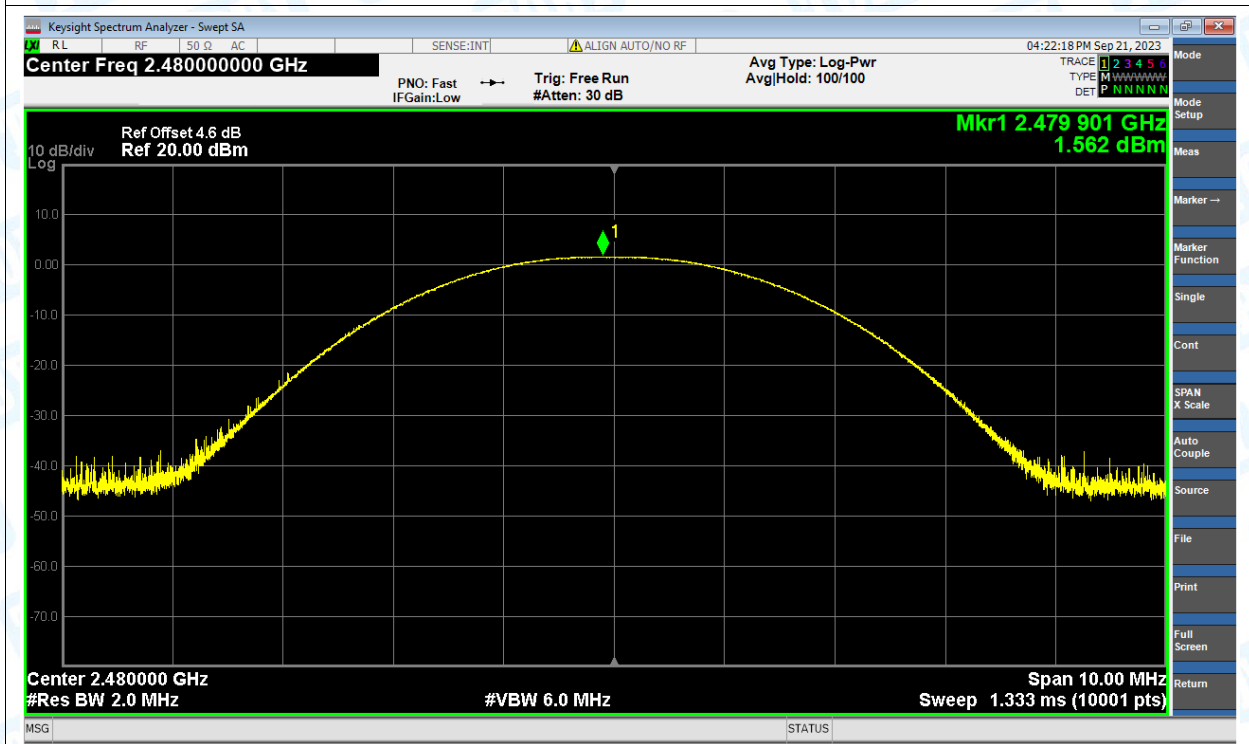
Power NVNT 1-DH1 2402MHz Ant1



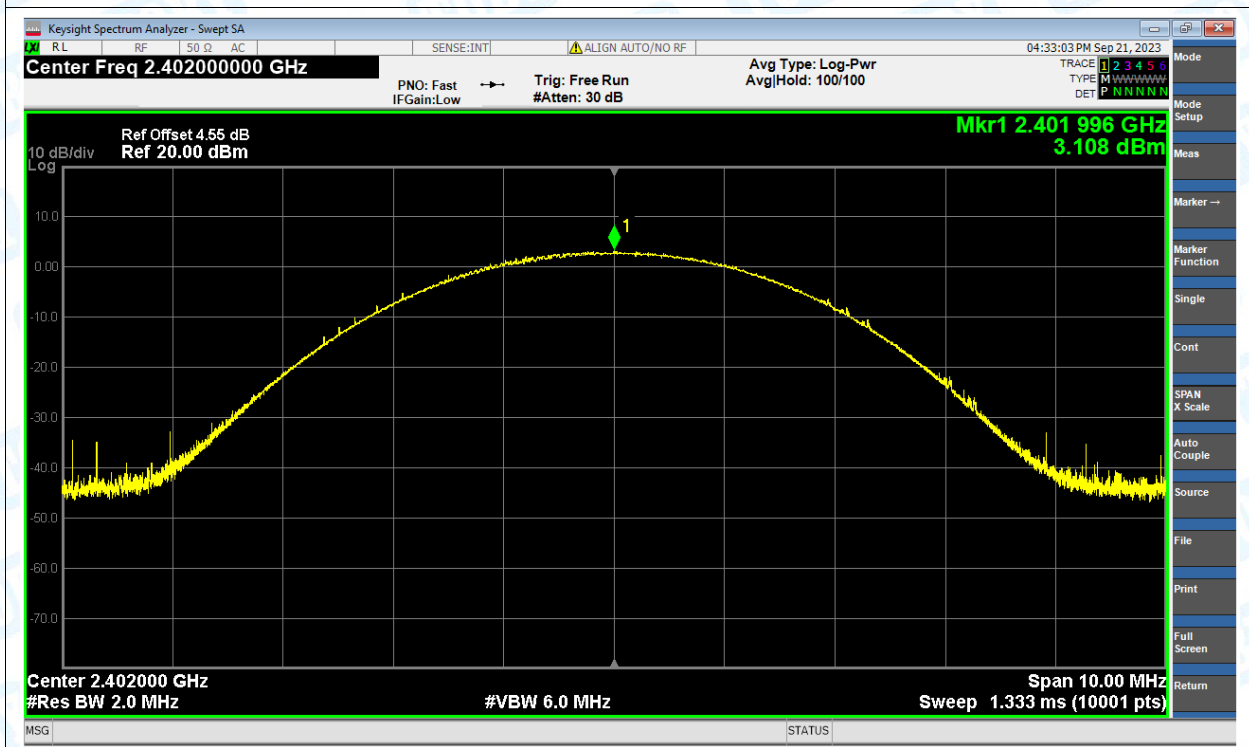
Power NVNT 1-DH1 2441MHz Ant1



Power NVNT 1-DH1 2480MHz Ant1



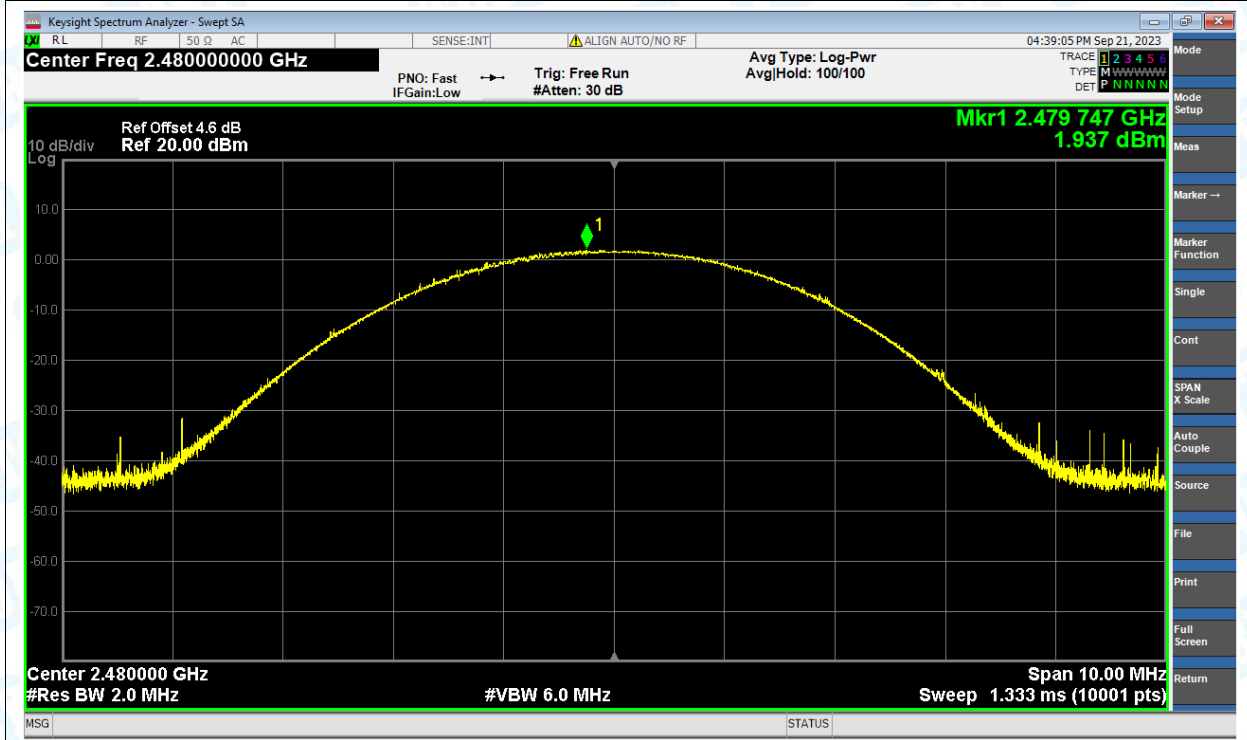
Power NVNT 2-DH1 2402MHz Ant1



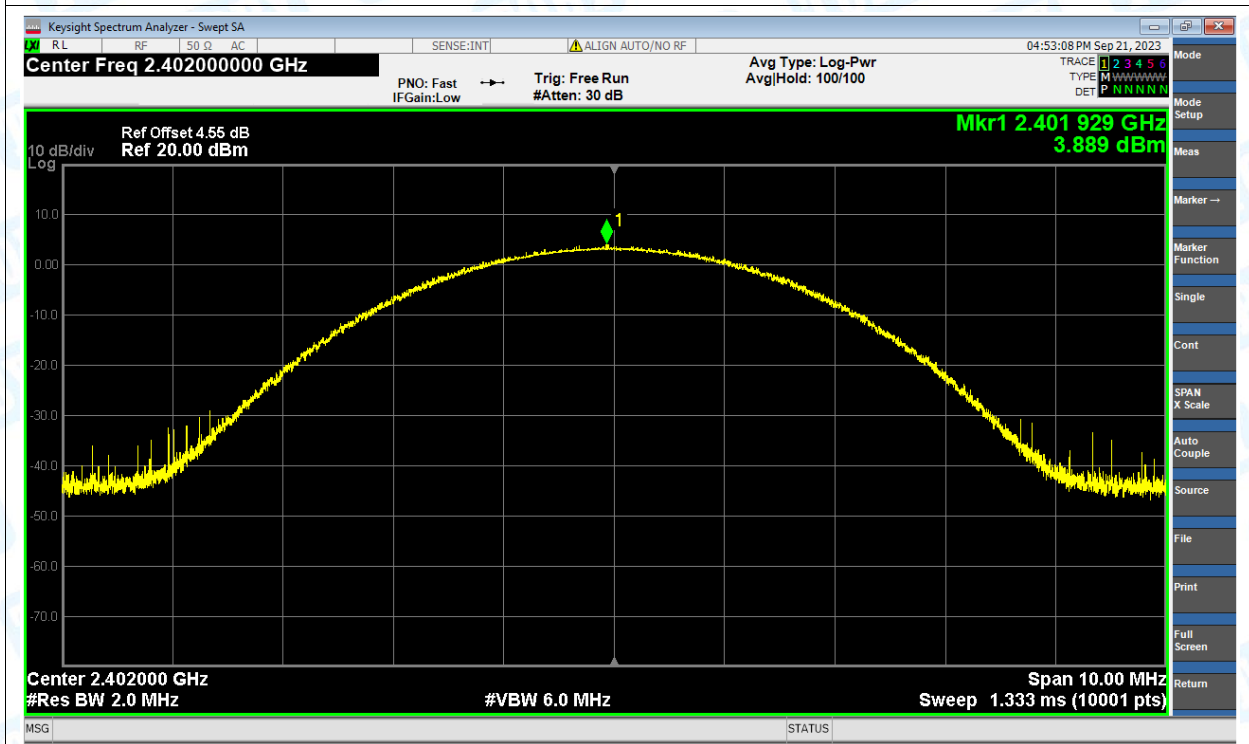
Power NVNT 2-DH1 2441MHz Ant1



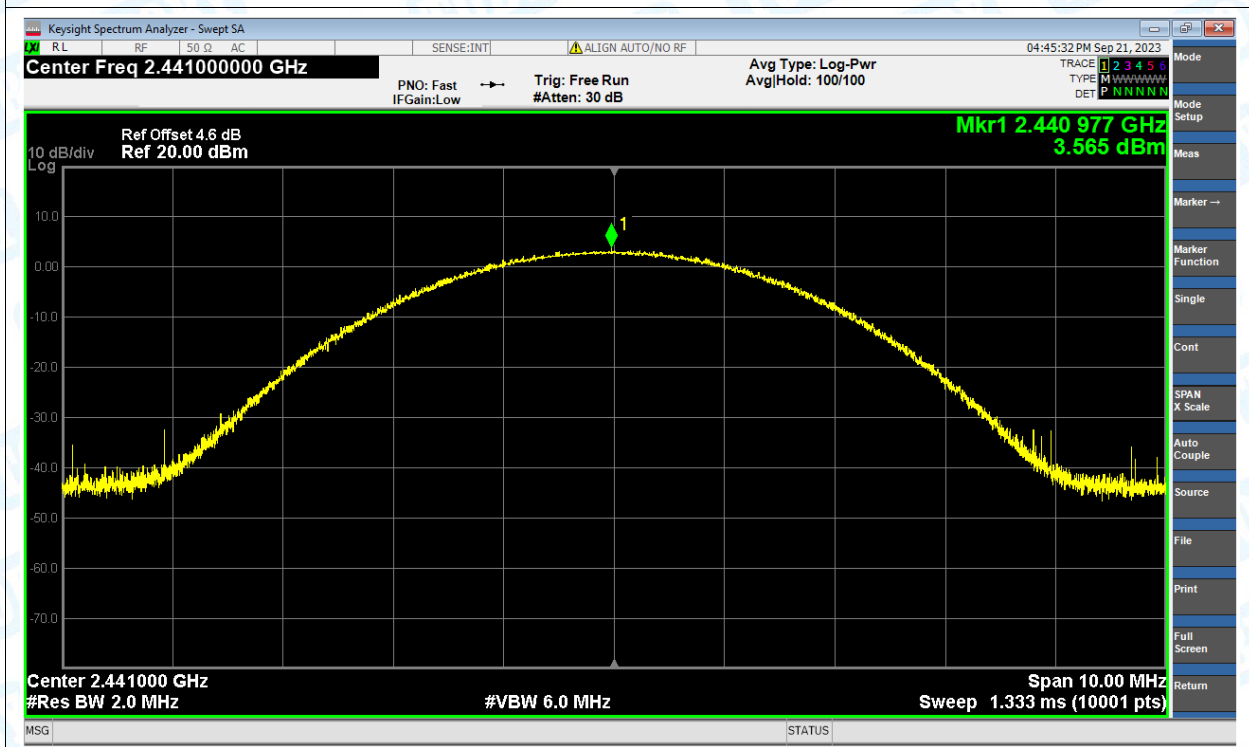
Power NVNT 2-DH1 2480MHz Ant1

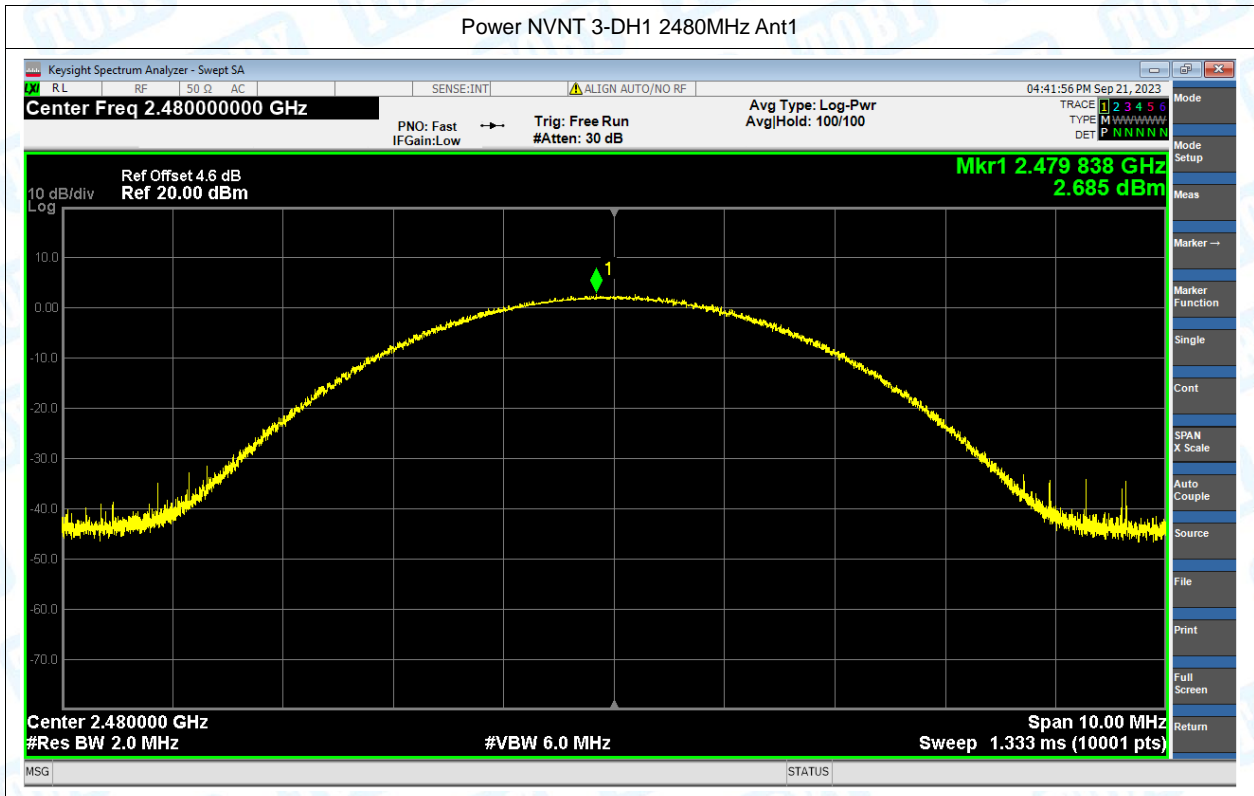


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



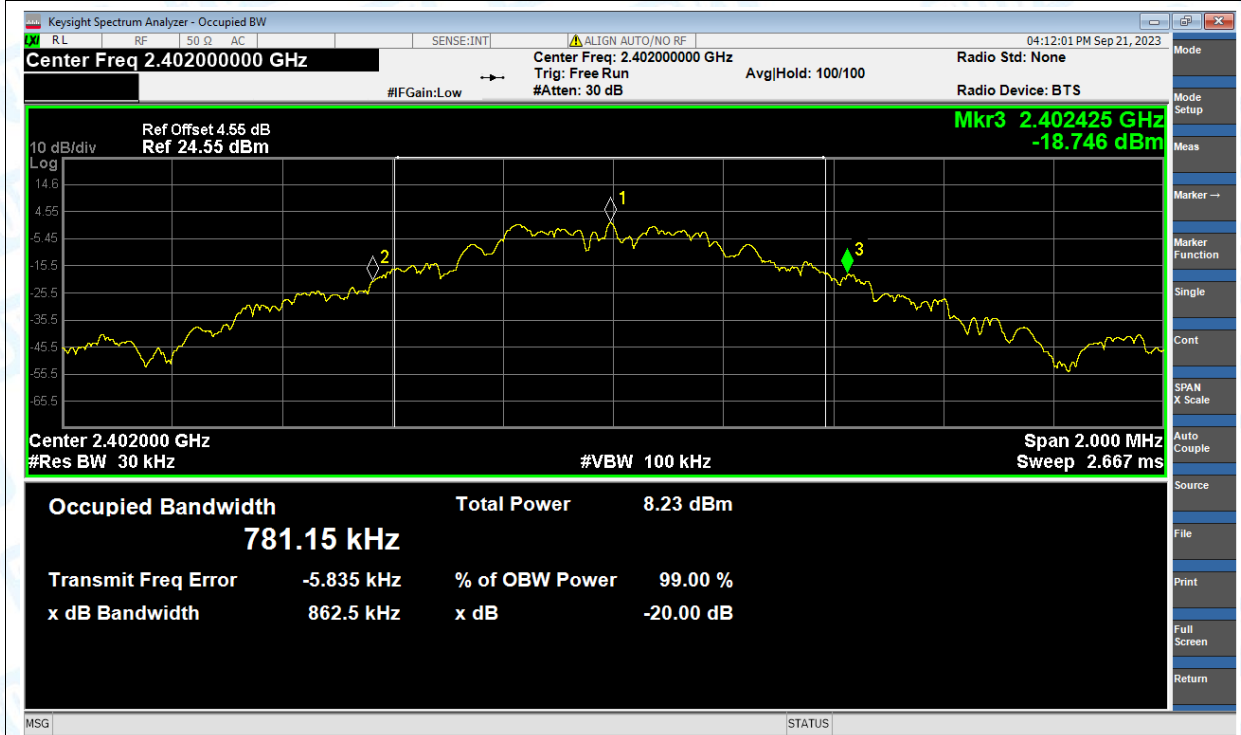


3. -20dB Bandwidth

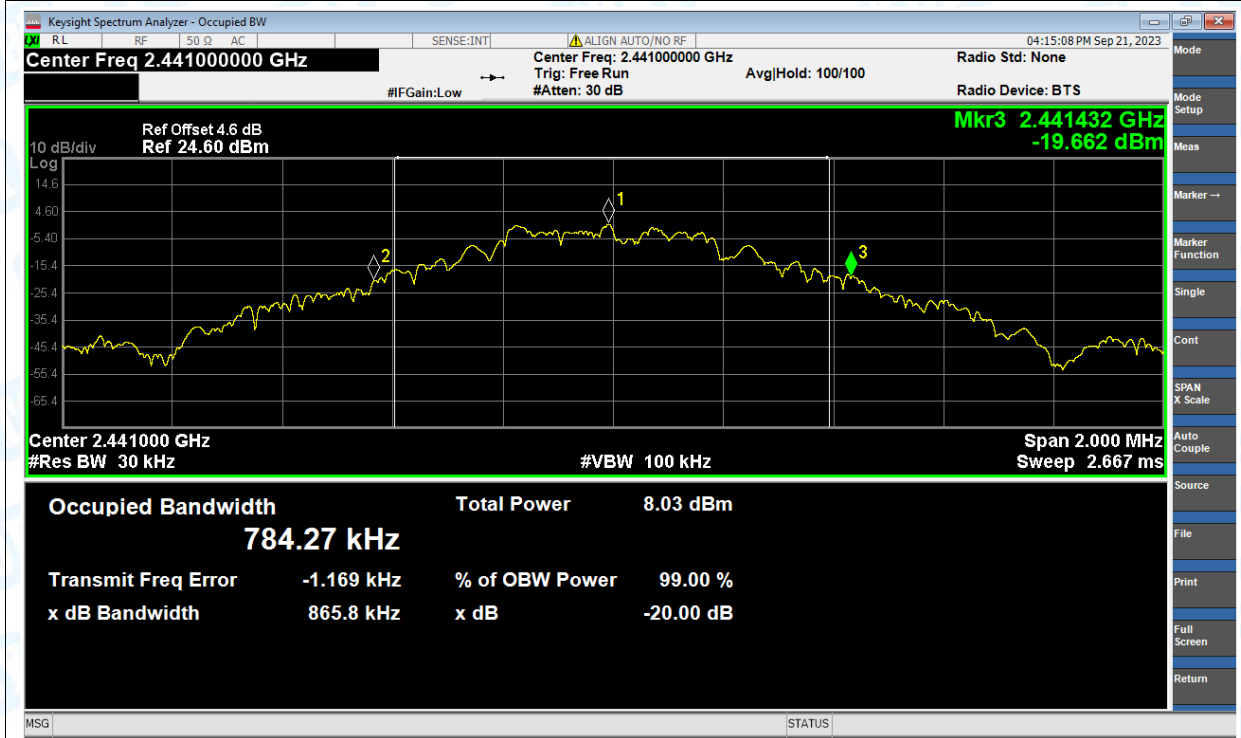
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.86	----	Pass
NVNT	1-DH1	2441	Ant1	0.87	----	Pass
NVNT	1-DH1	2480	Ant1	0.87	----	Pass
NVNT	2-DH1	2402	Ant1	1.28	----	Pass
NVNT	2-DH1	2441	Ant1	1.28	----	Pass
NVNT	2-DH1	2480	Ant1	1.28	----	Pass
NVNT	3-DH1	2402	Ant1	1.27	----	Pass
NVNT	3-DH1	2441	Ant1	1.28	----	Pass
NVNT	3-DH1	2480	Ant1	1.29	----	Pass

Test Graphs

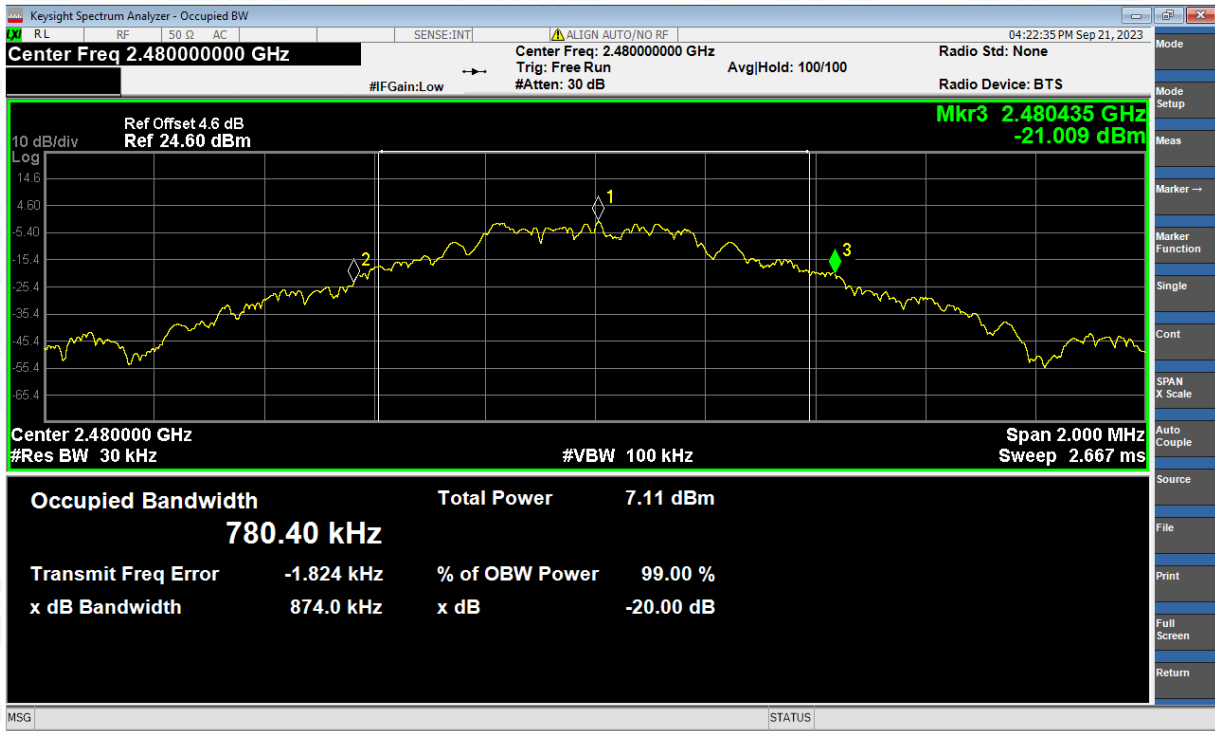
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



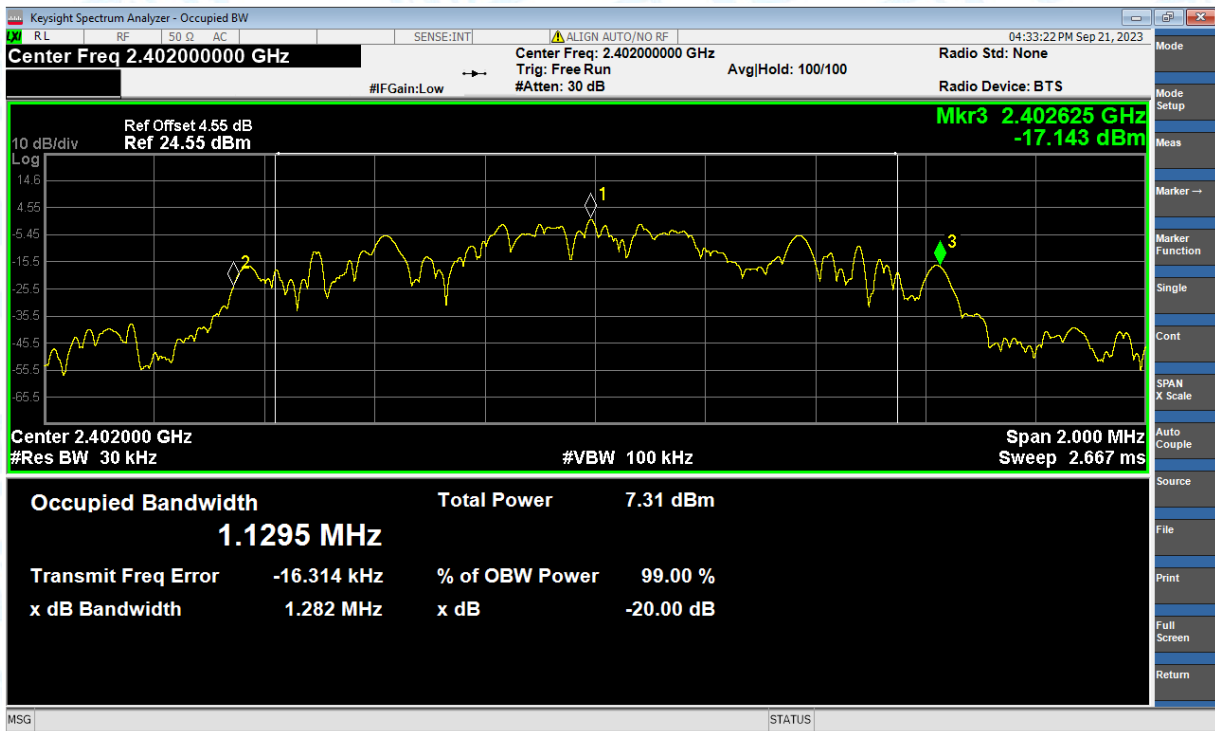
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



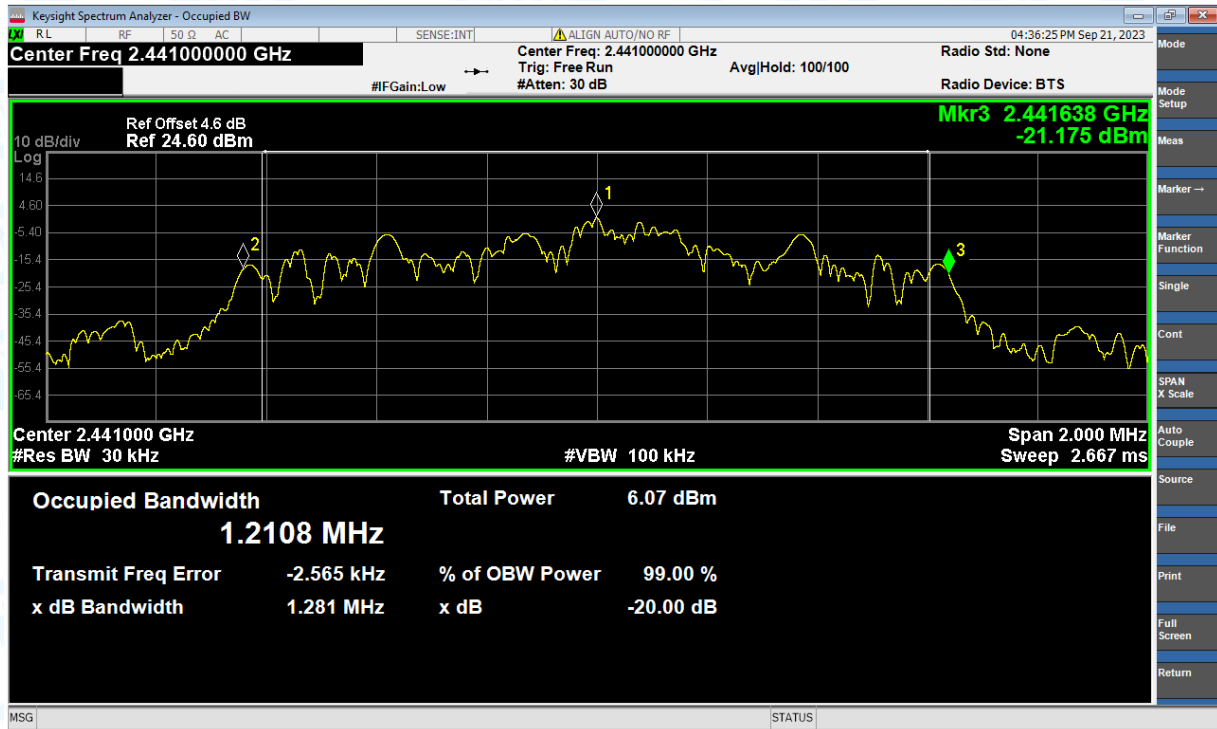
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



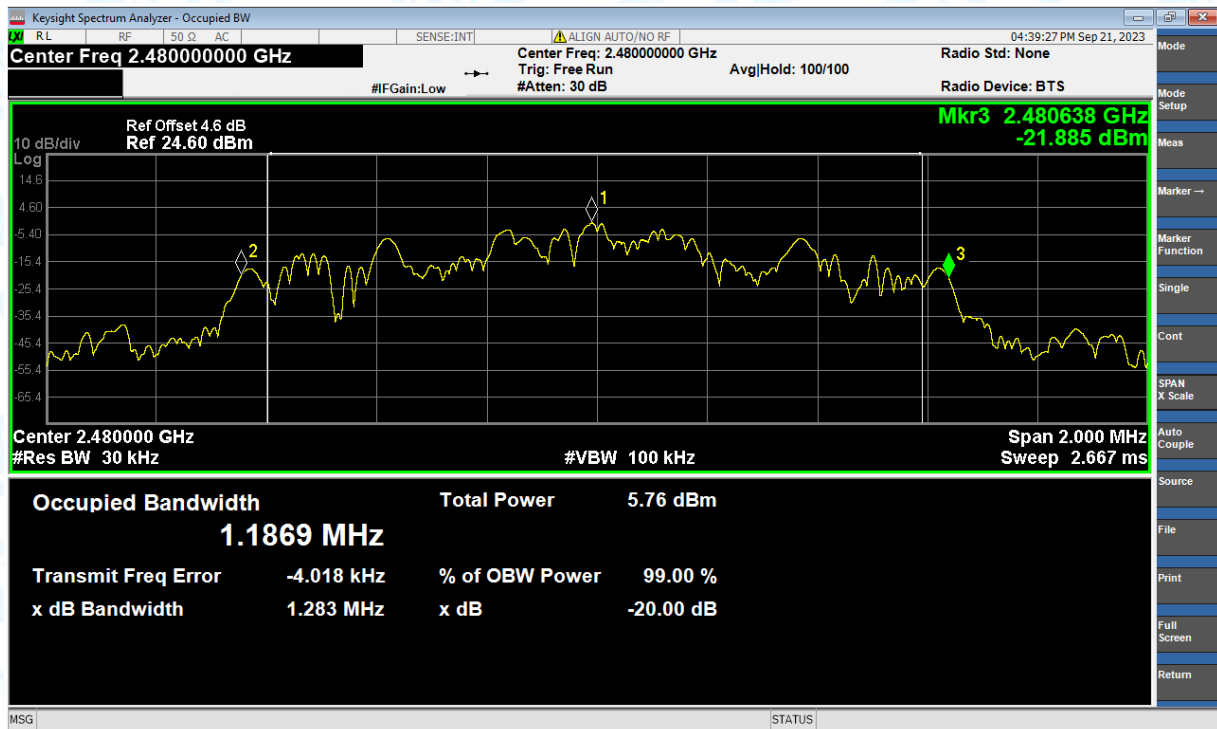
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



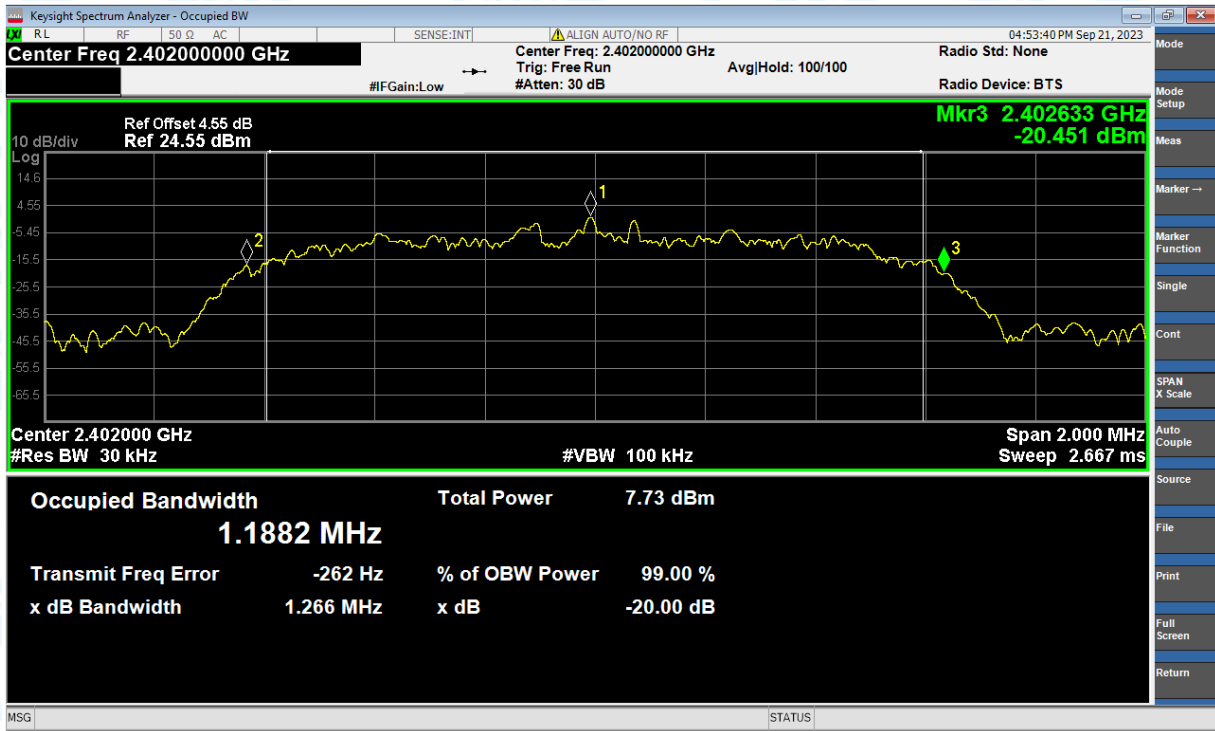
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



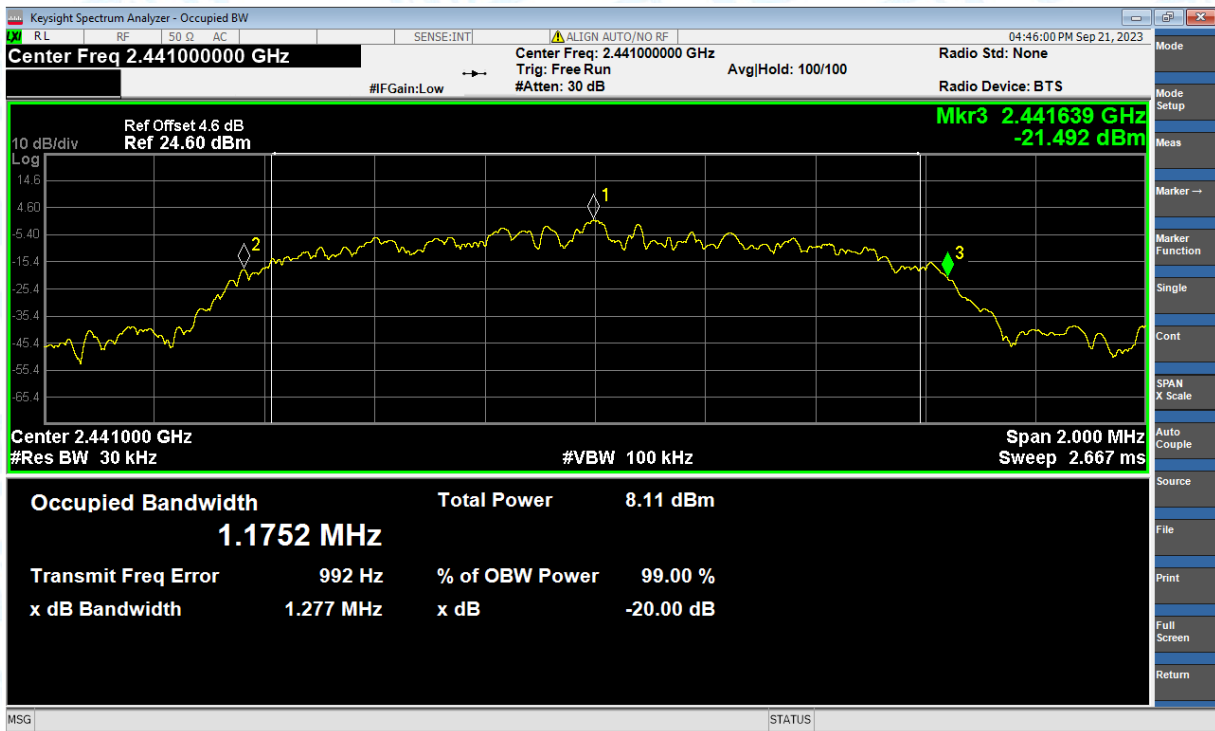
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

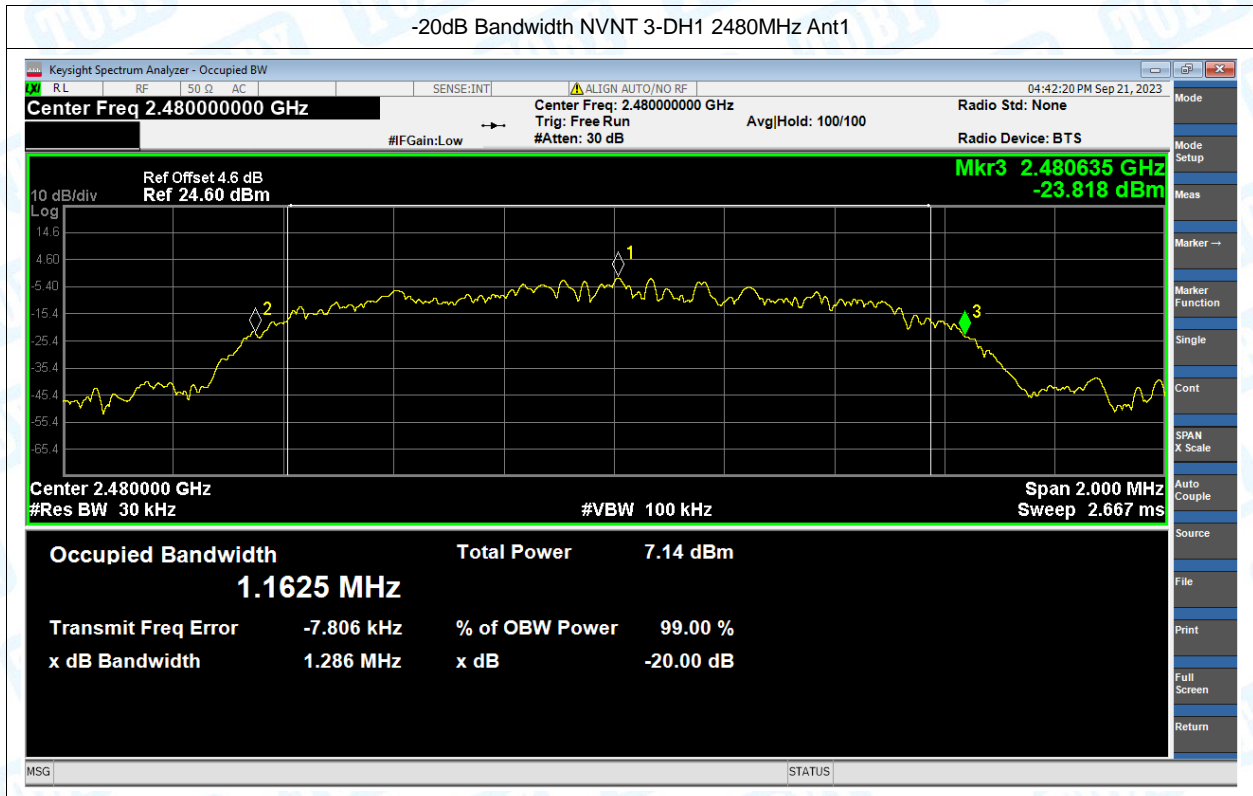


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



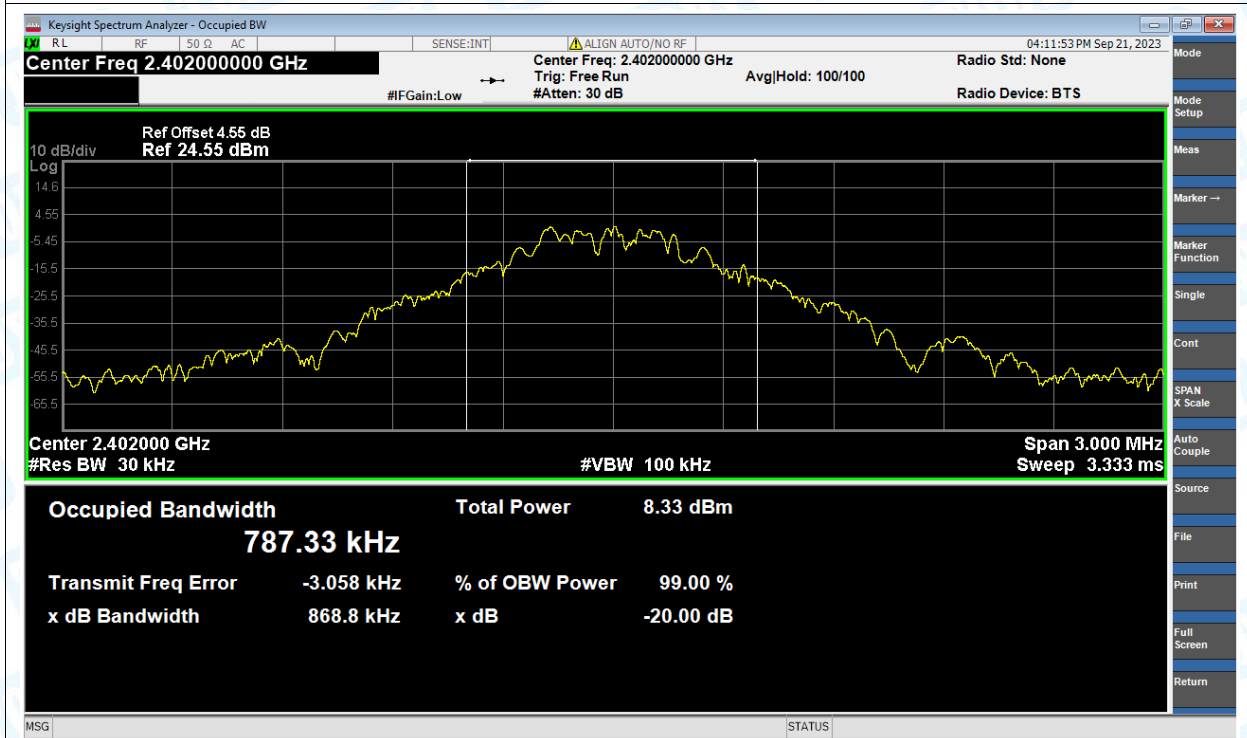


4. Occupied Channel Bandwidth

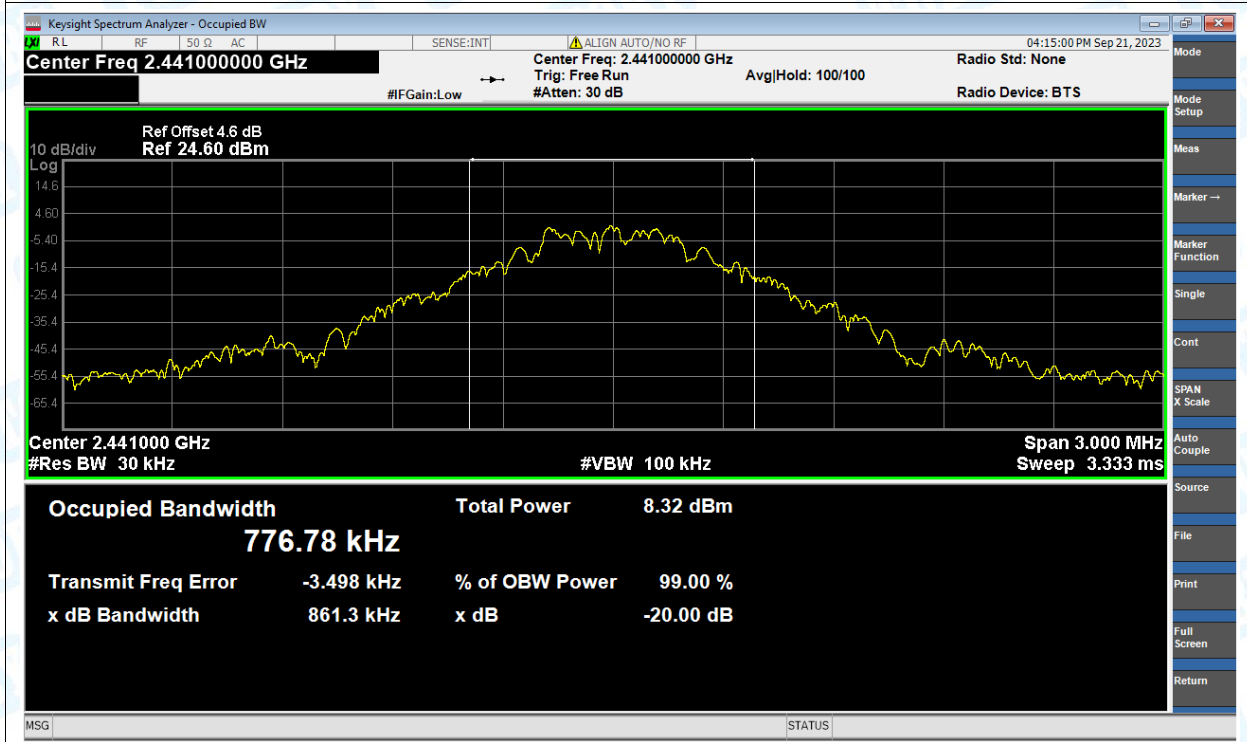
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.787
NVNT	1-DH1	2441	Ant1	0.777
NVNT	1-DH1	2480	Ant1	0.779
NVNT	2-DH1	2402	Ant1	1.194
NVNT	2-DH1	2441	Ant1	1.166
NVNT	2-DH1	2480	Ant1	1.234
NVNT	3-DH1	2402	Ant1	1.171
NVNT	3-DH1	2441	Ant1	1.156
NVNT	3-DH1	2480	Ant1	1.189

Test Graphs

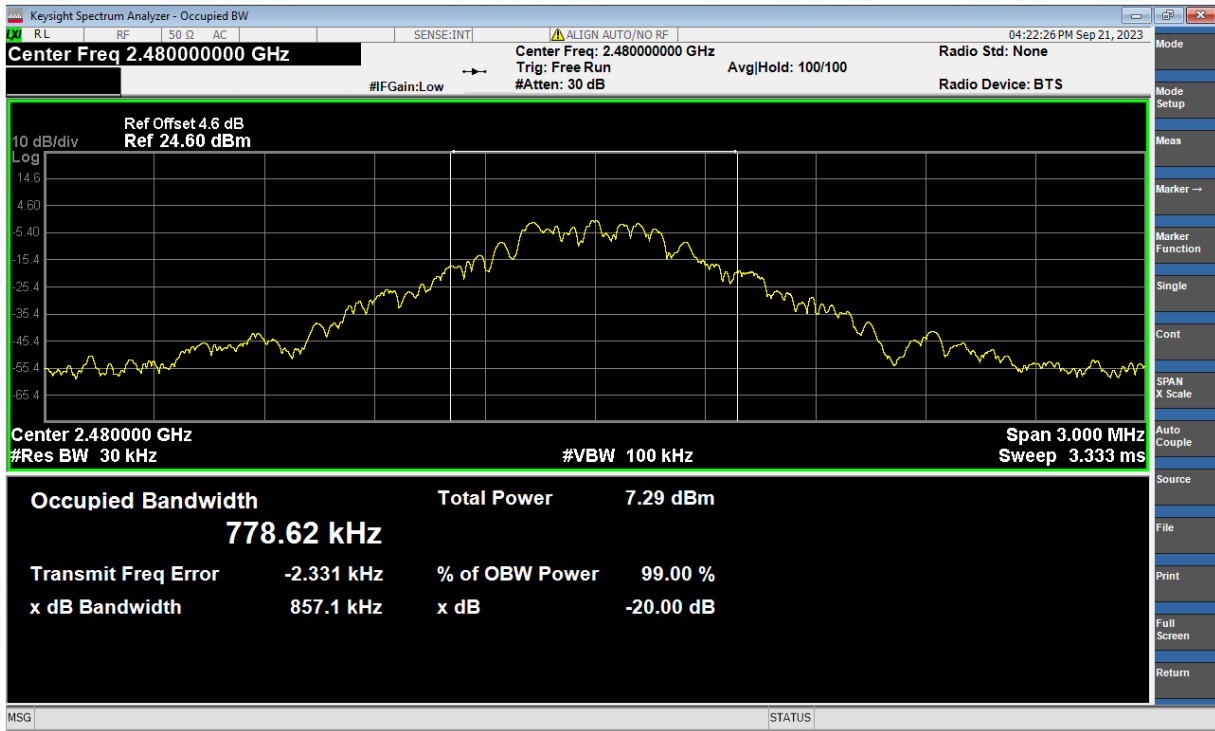
OBW NVNT 1-DH1 2402MHz Ant1



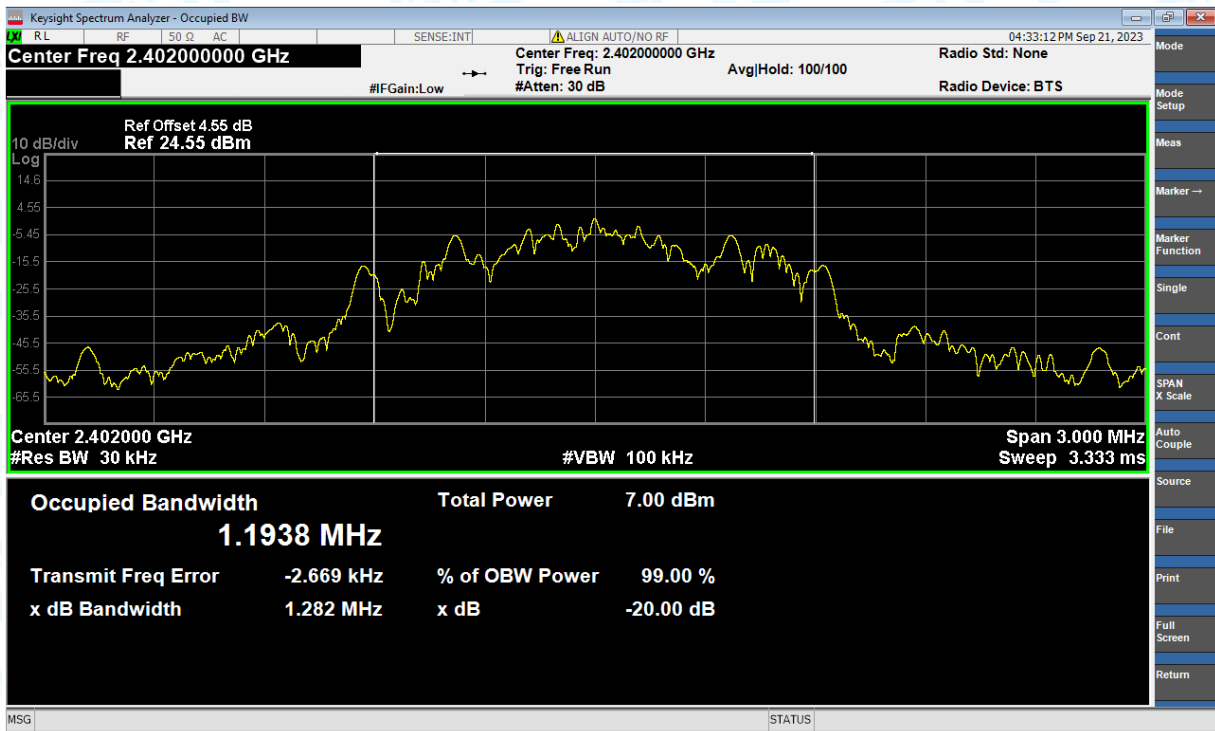
OBW NVNT 1-DH1 2441MHz Ant1



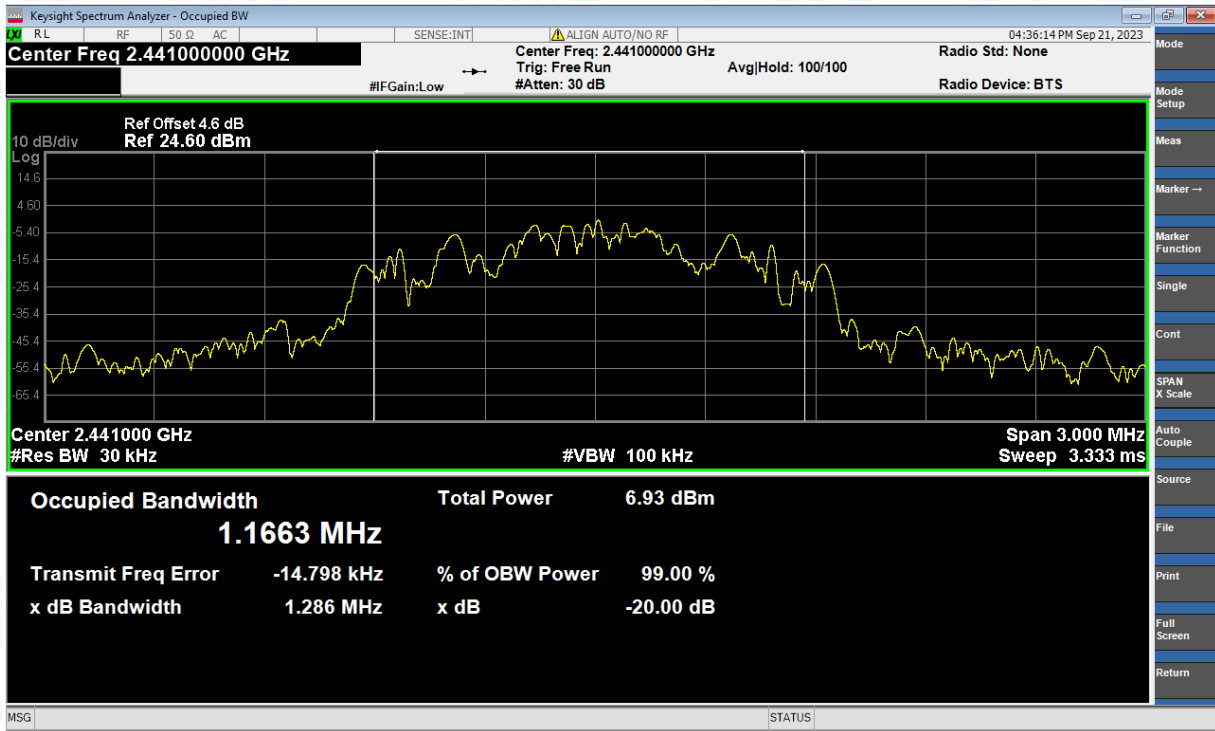
OBW NVNT 1-DH1 2480MHz Ant1



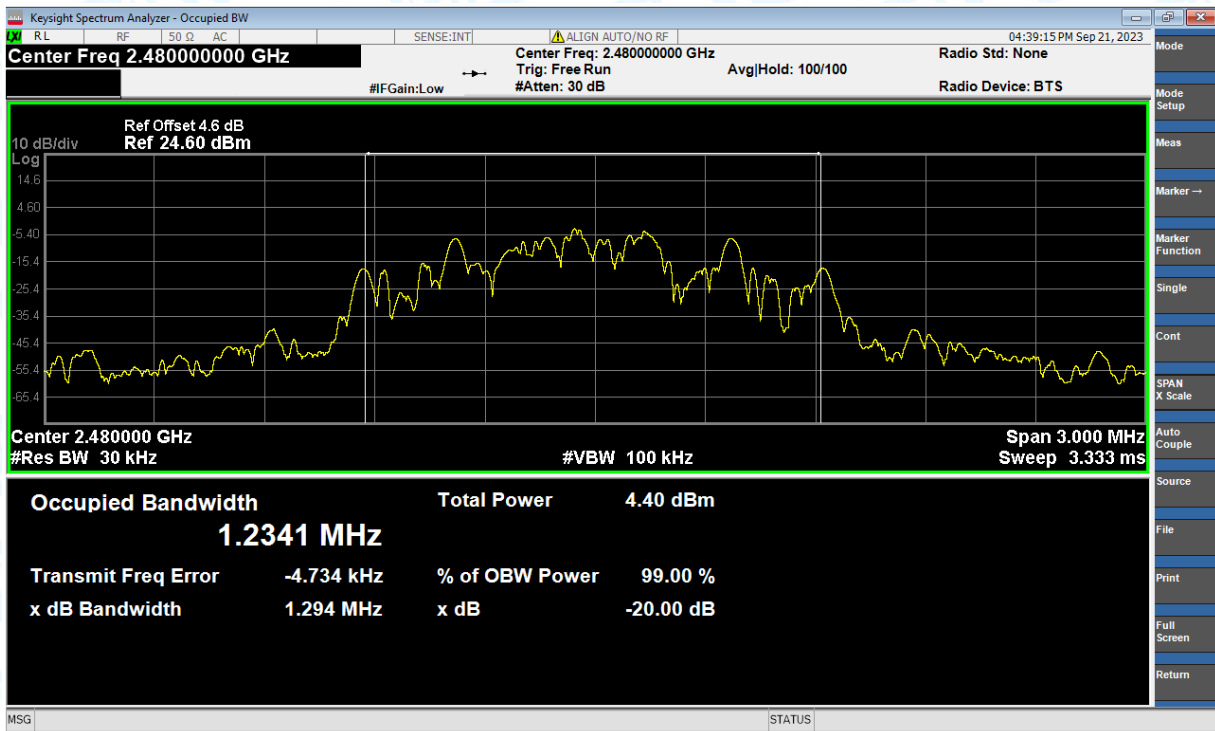
OBW NVNT 2-DH1 2402MHz Ant1



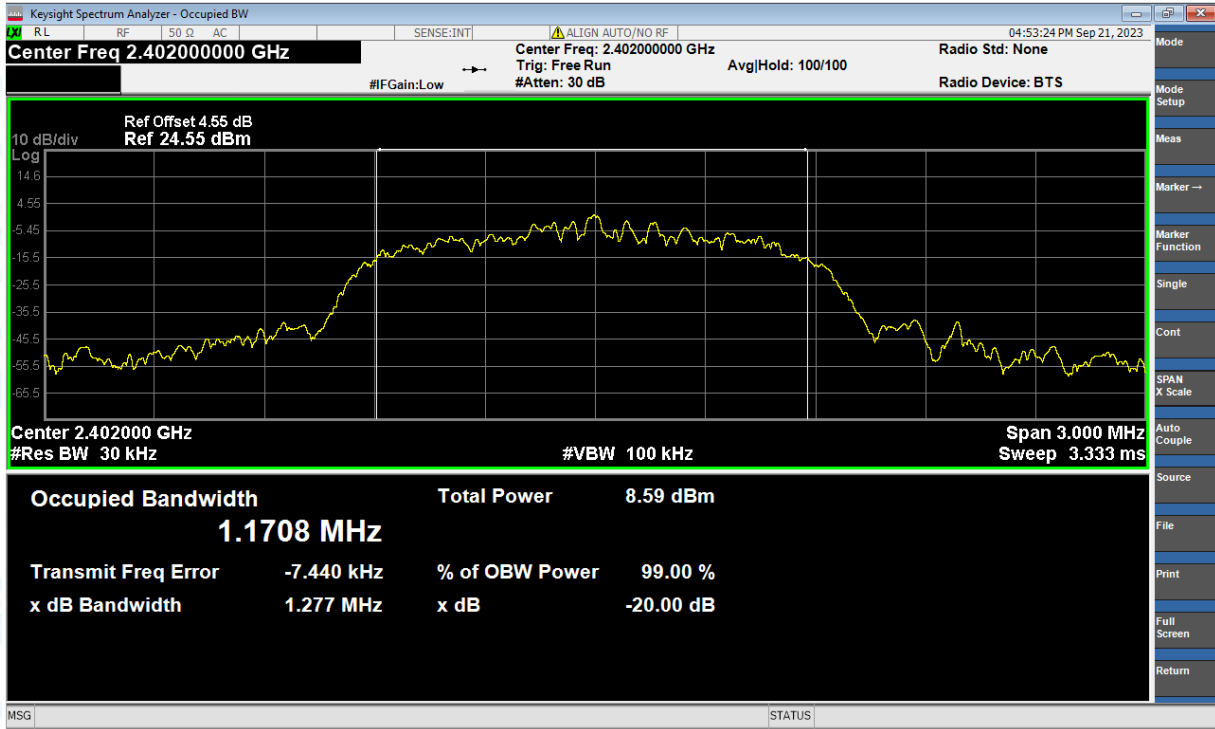
OBW NVNT 2-DH1 2441MHz Ant1



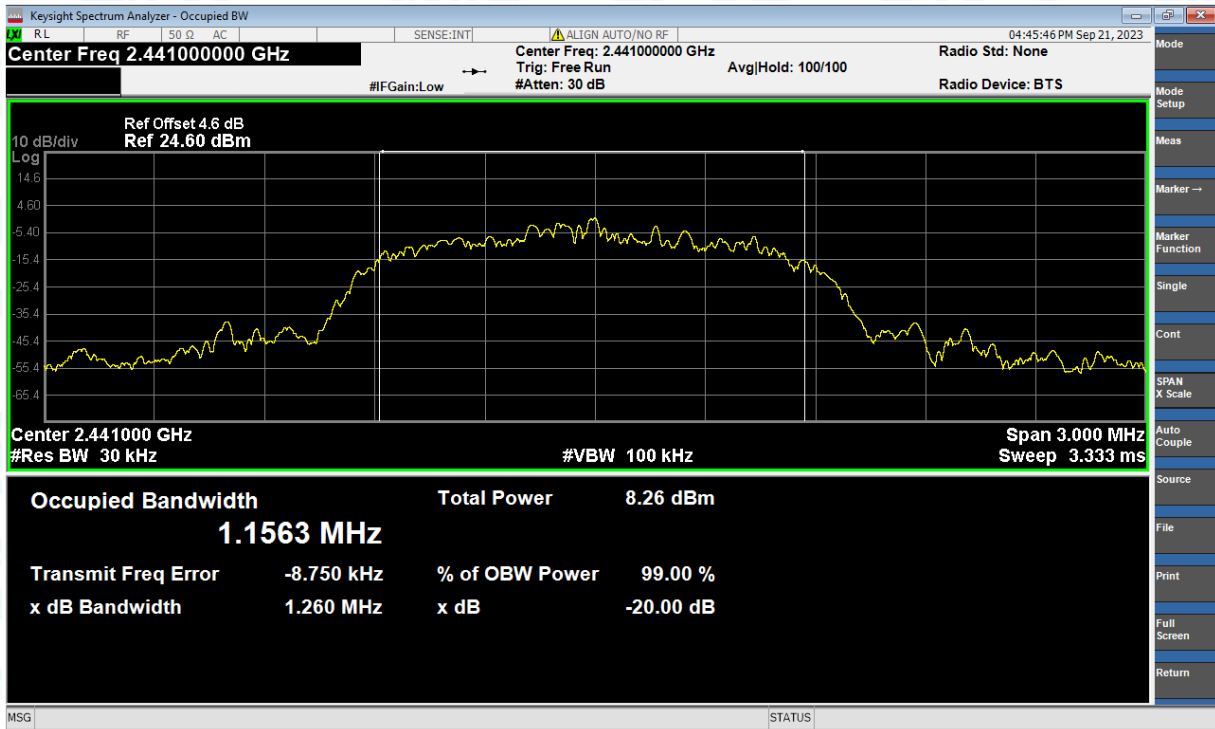
OBW NVNT 2-DH1 2480MHz Ant1

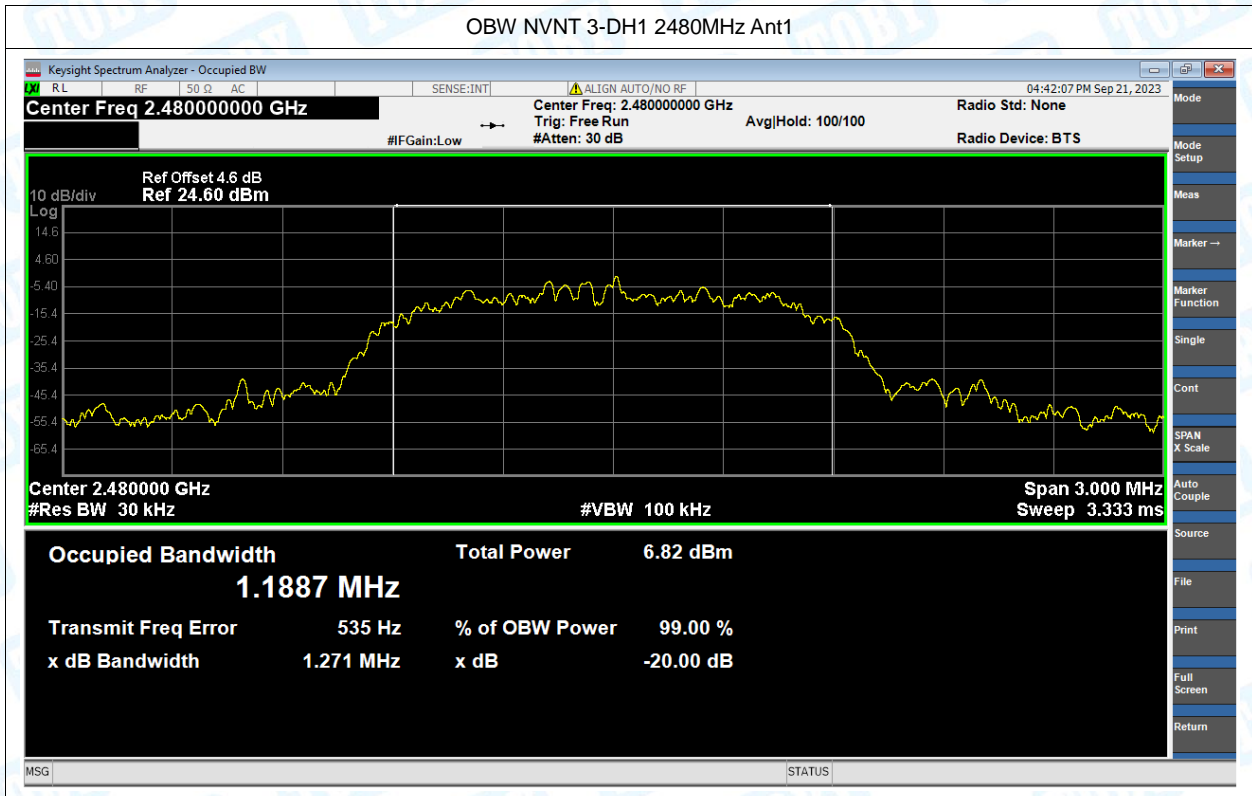


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



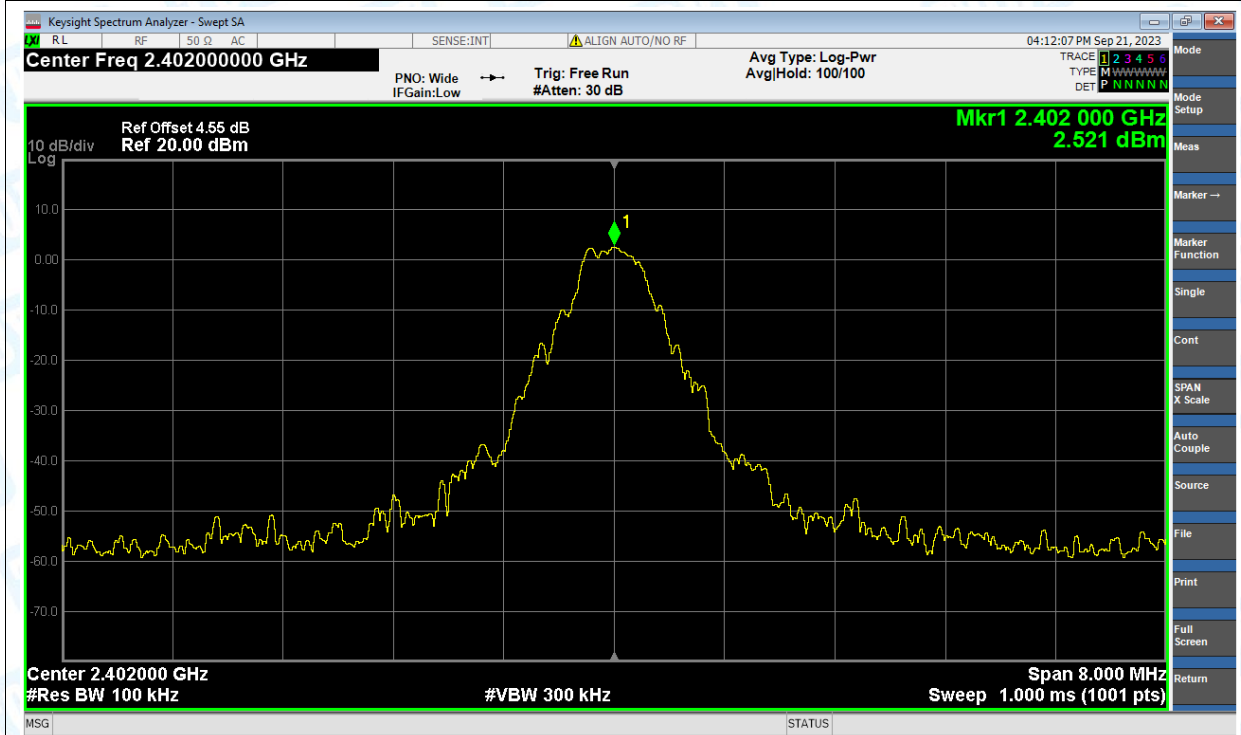


5. Band Edge

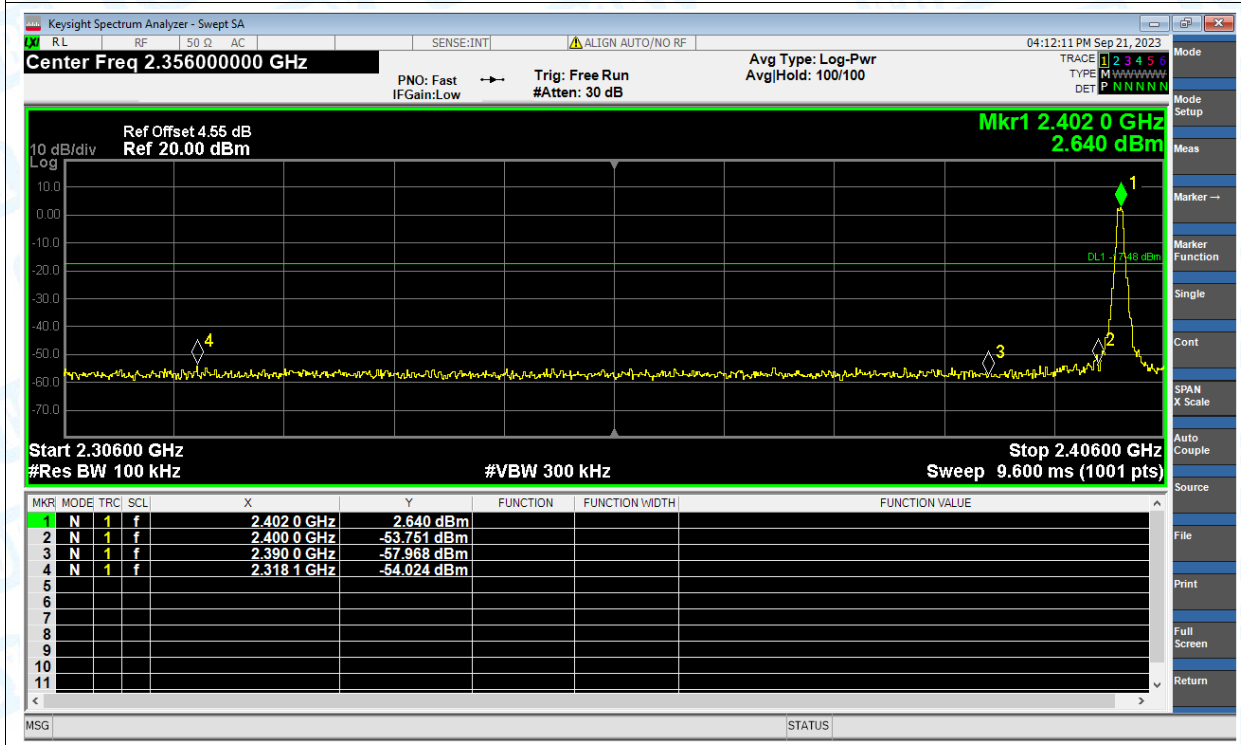
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-56.54	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-53.49	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-55.81	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-53.48	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-54.59	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-54.16	-20	Pass

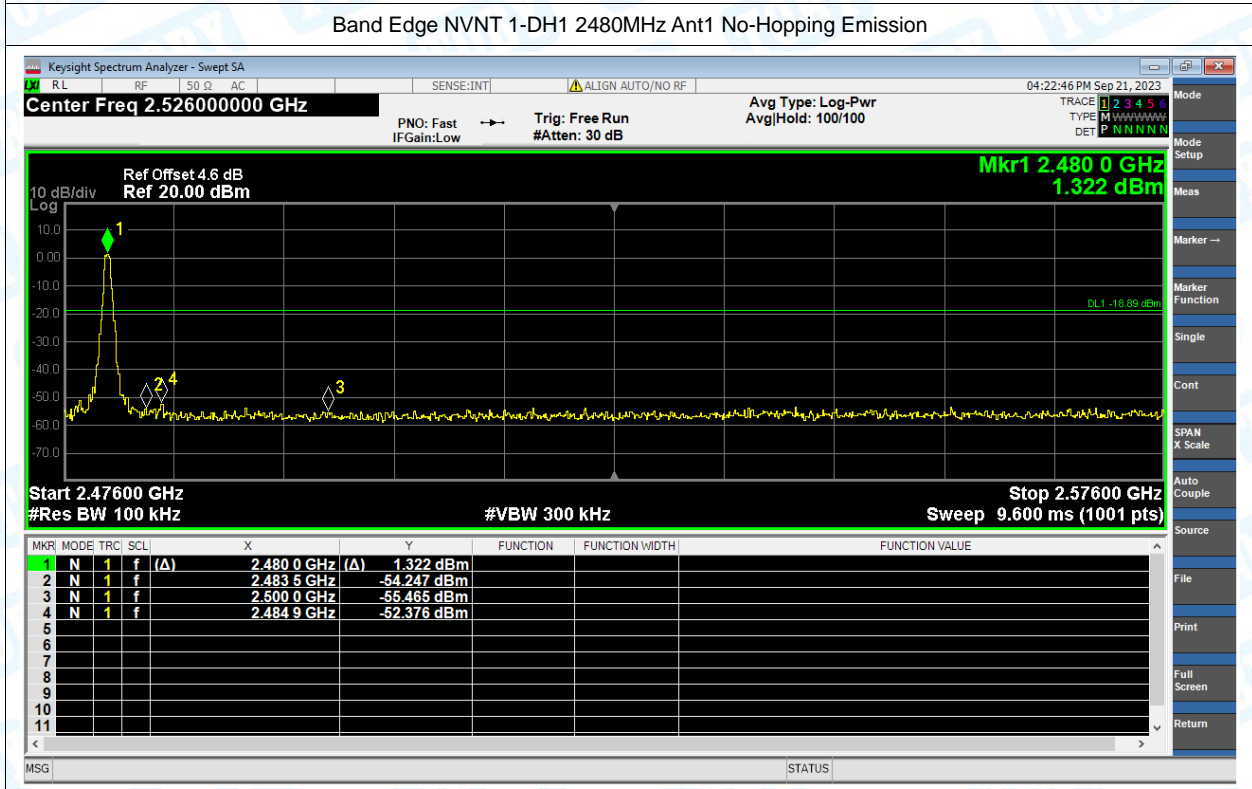
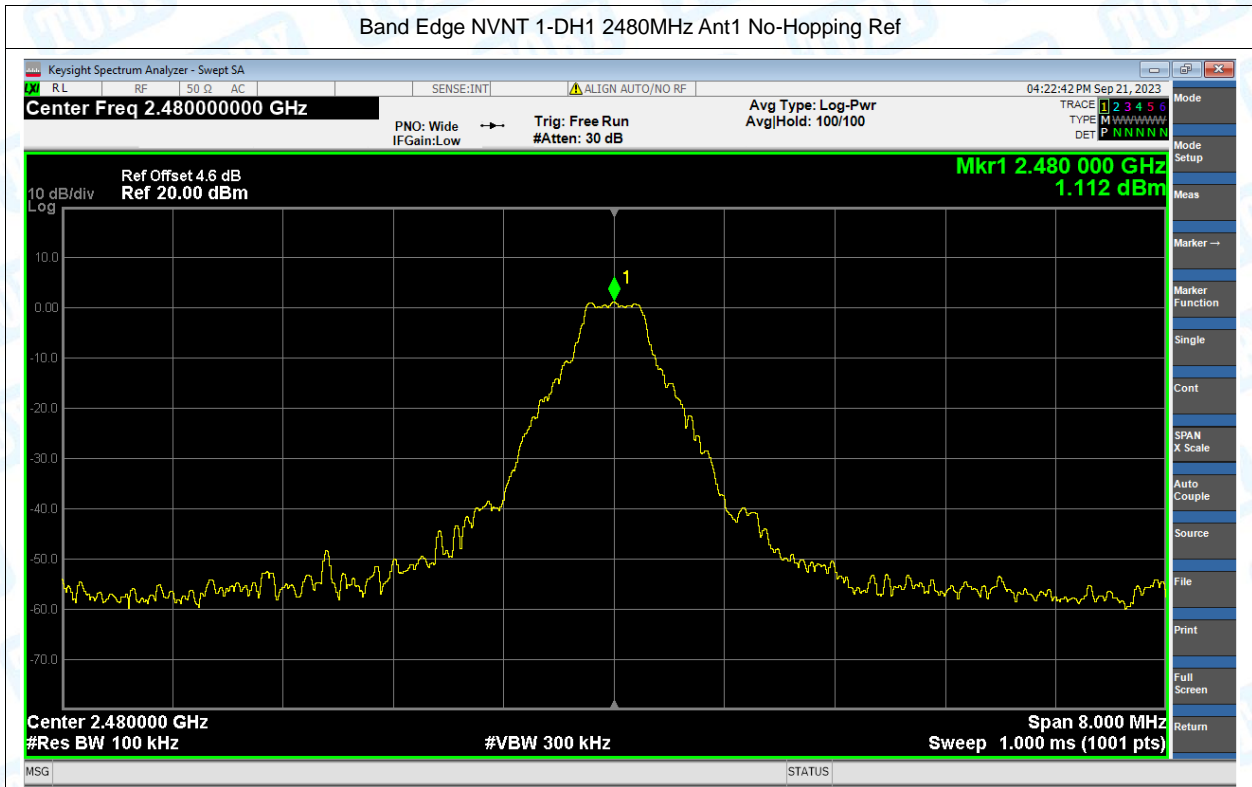
Test Graphs

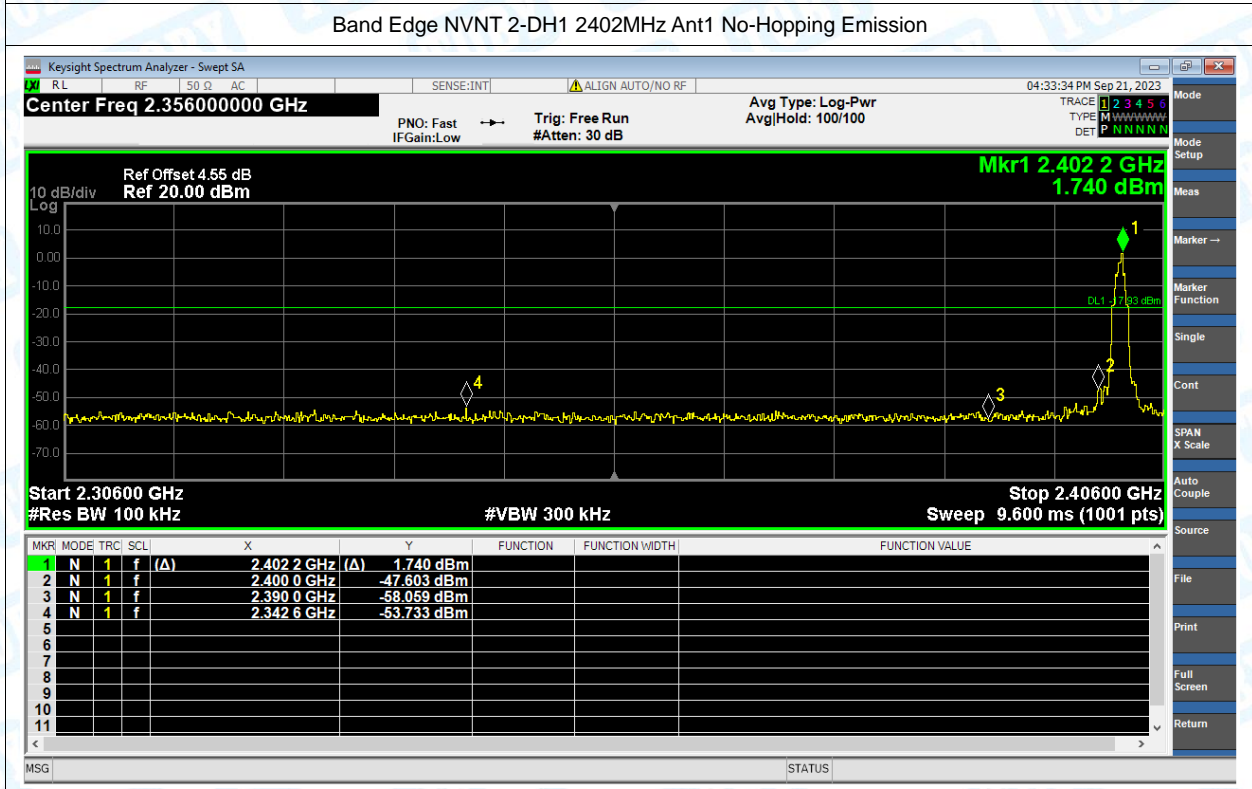
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref

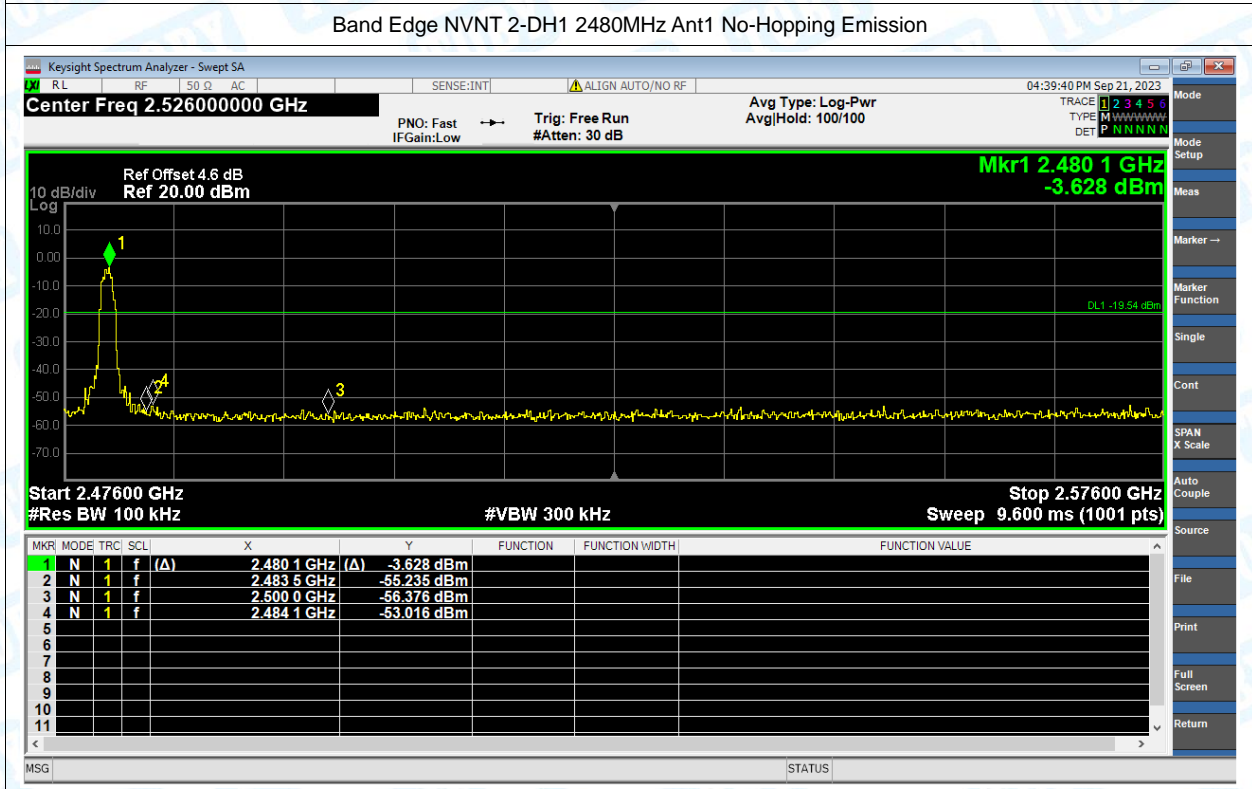


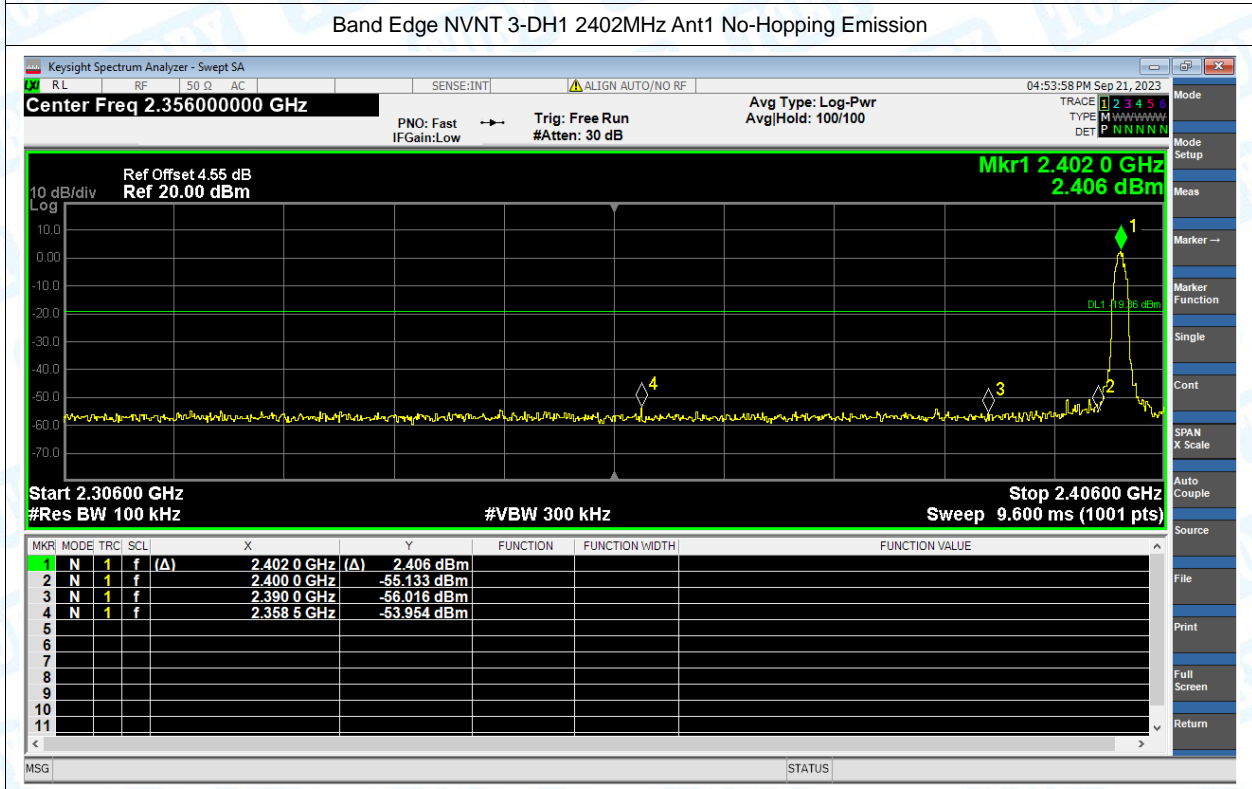
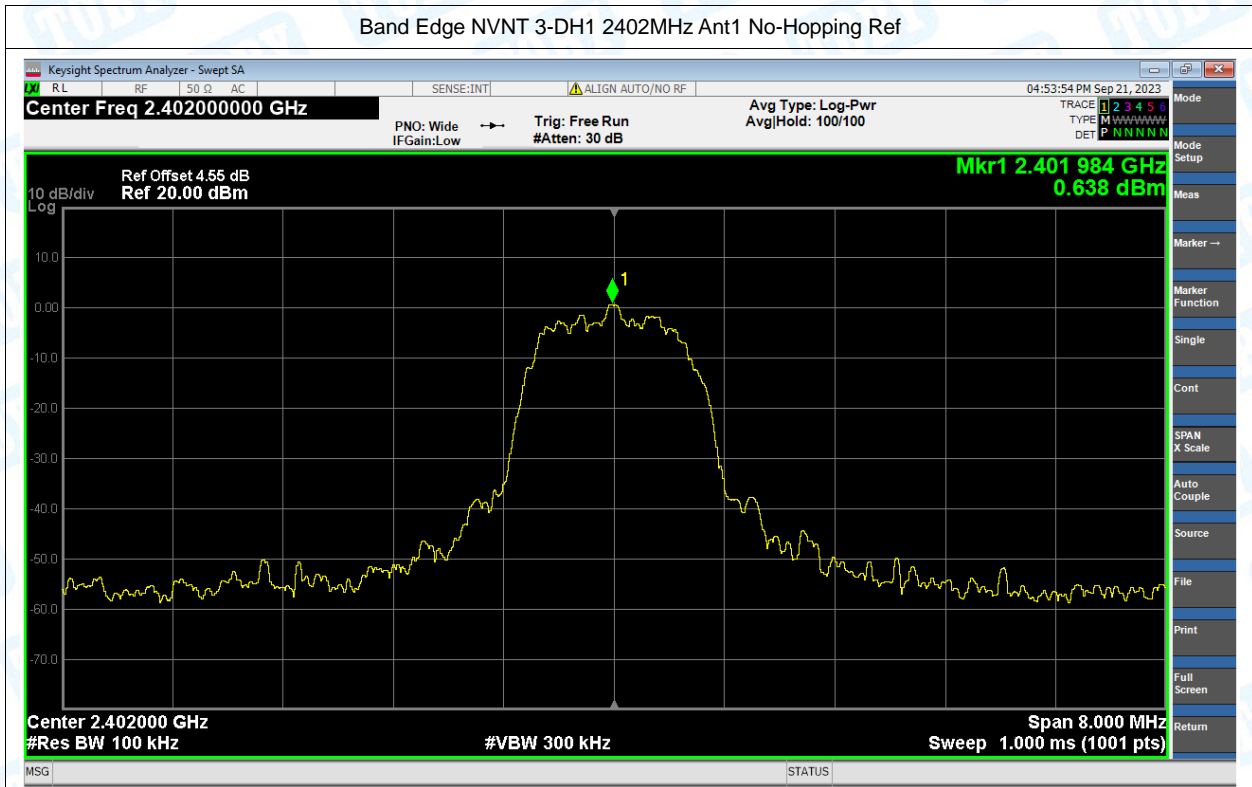
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission

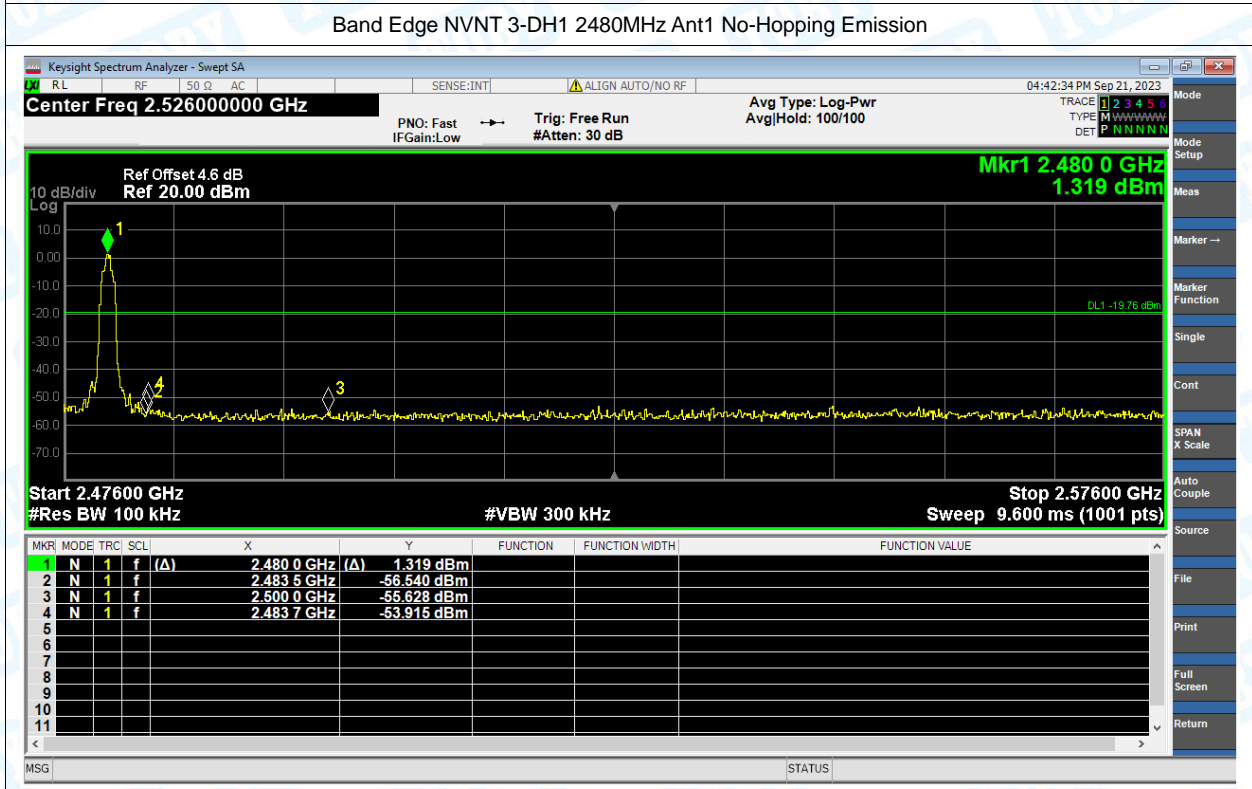
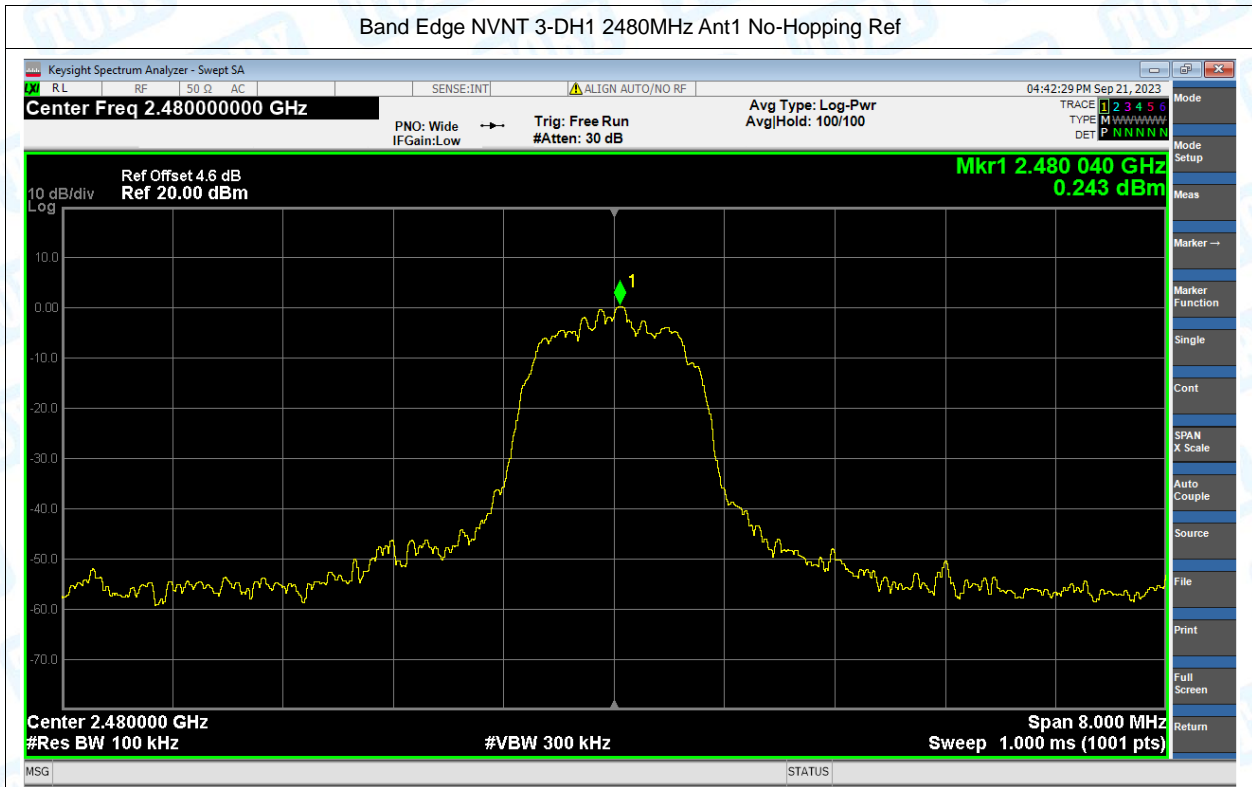










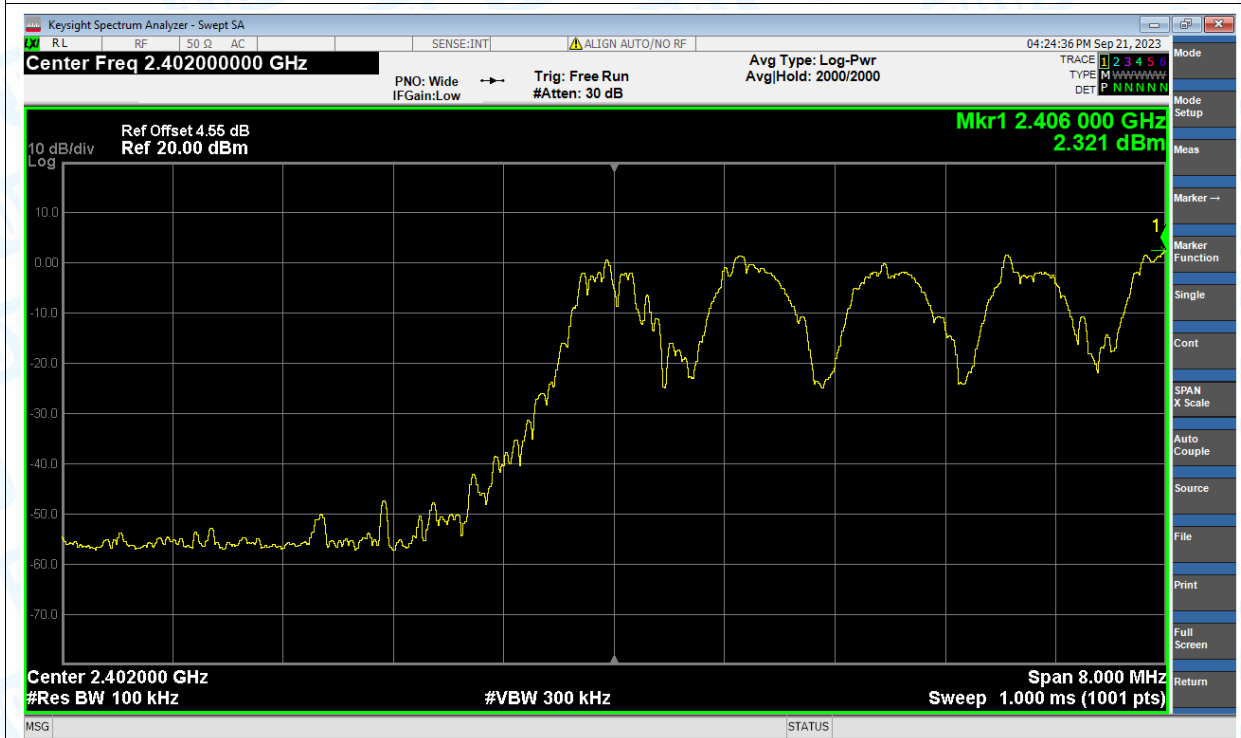


6. Band Edge(Hopping)

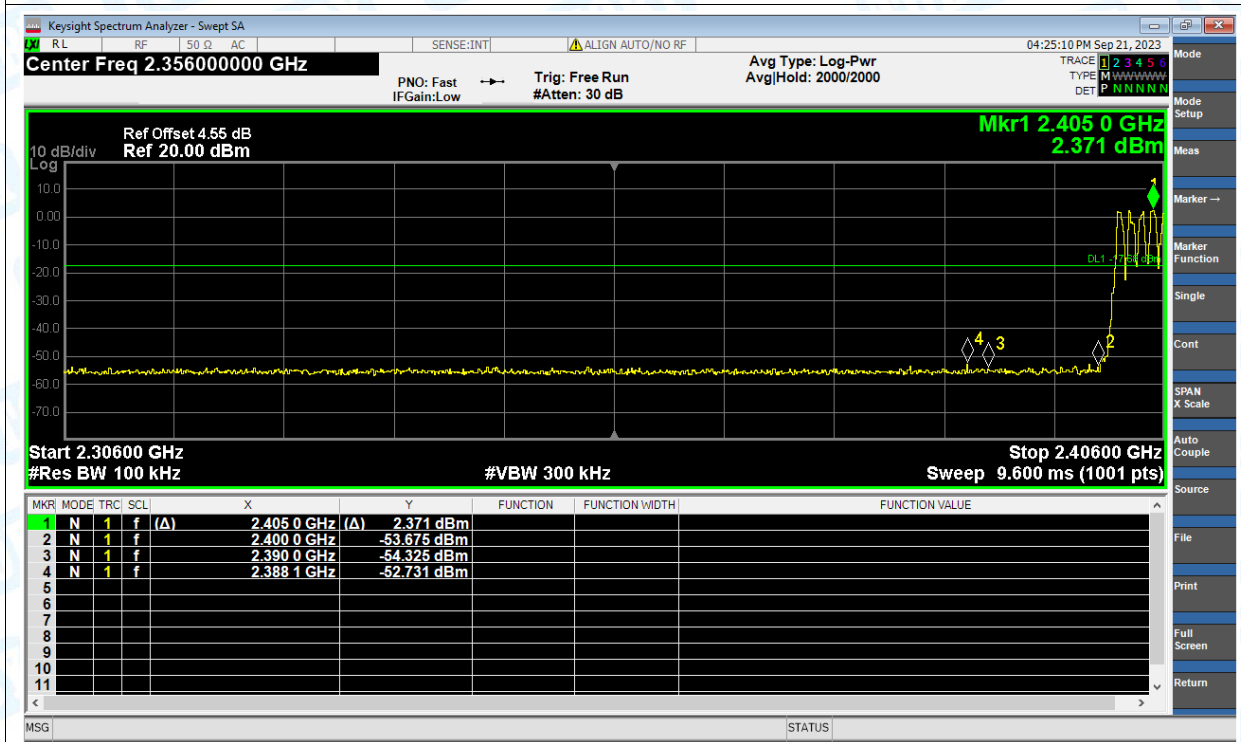
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-55.05	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-55.29	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-54.19	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-55.25	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-55.81	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-54.30	-20	Pass

Test Graphs

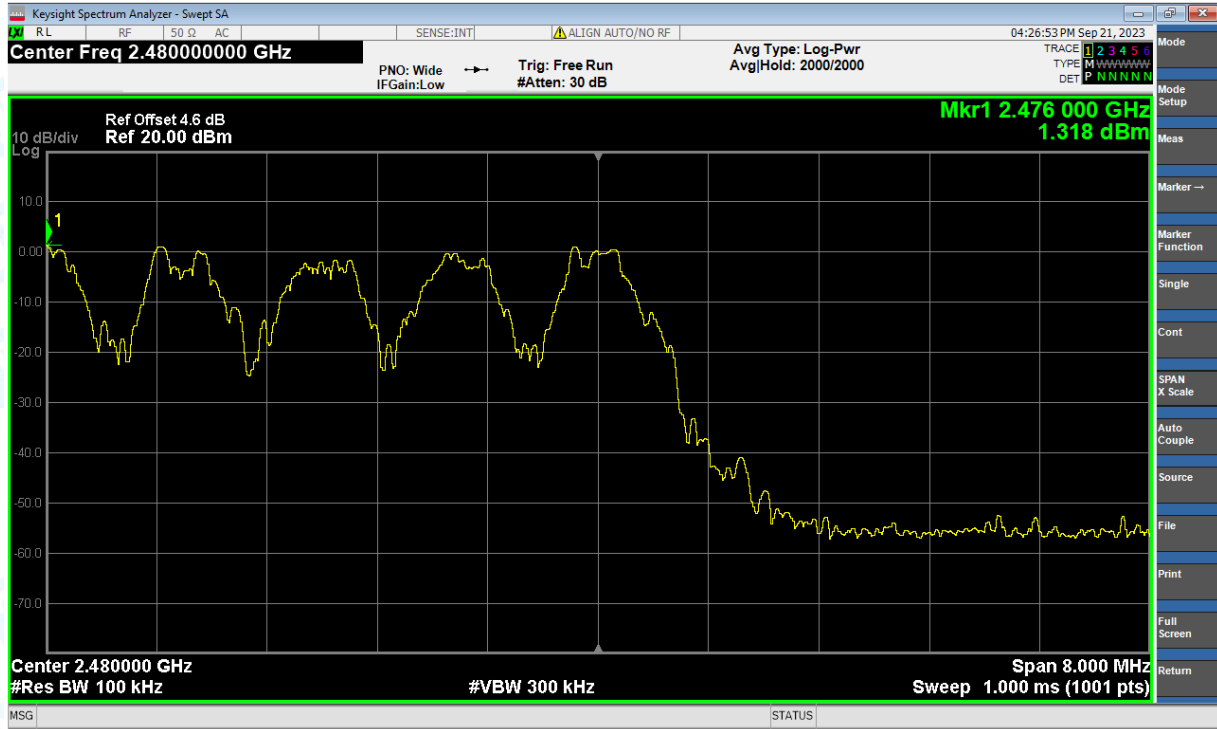
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref



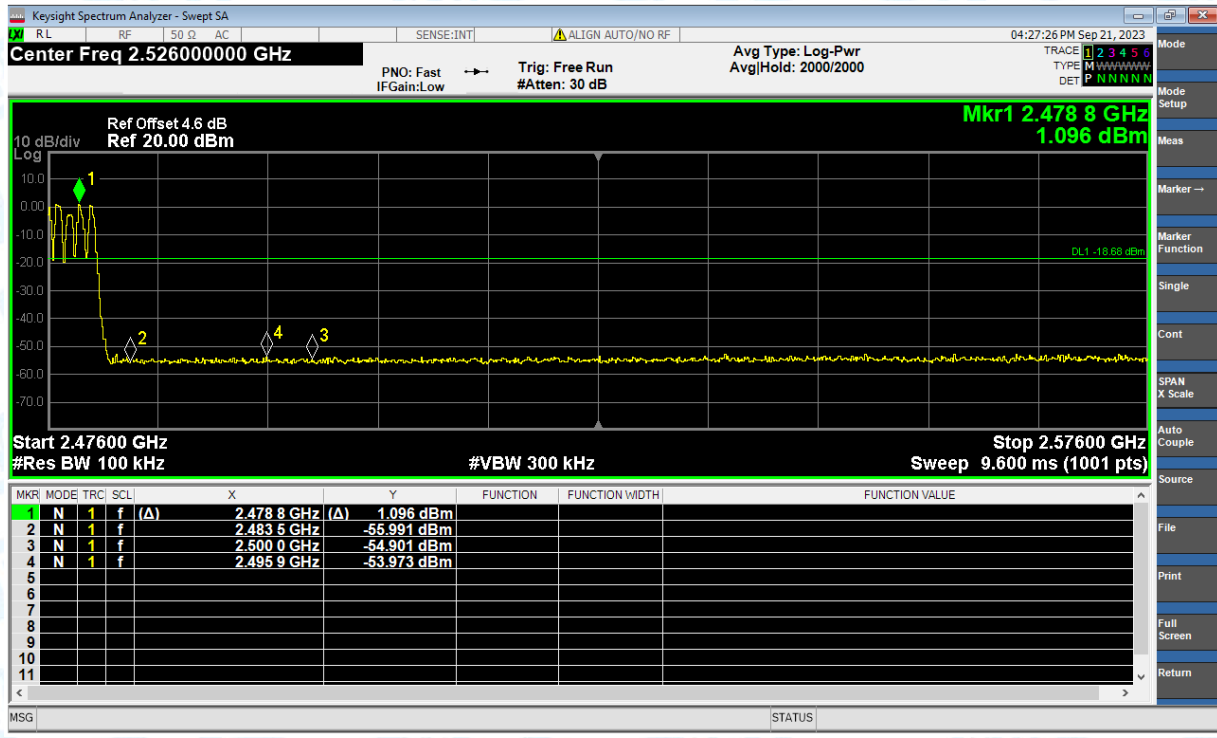
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



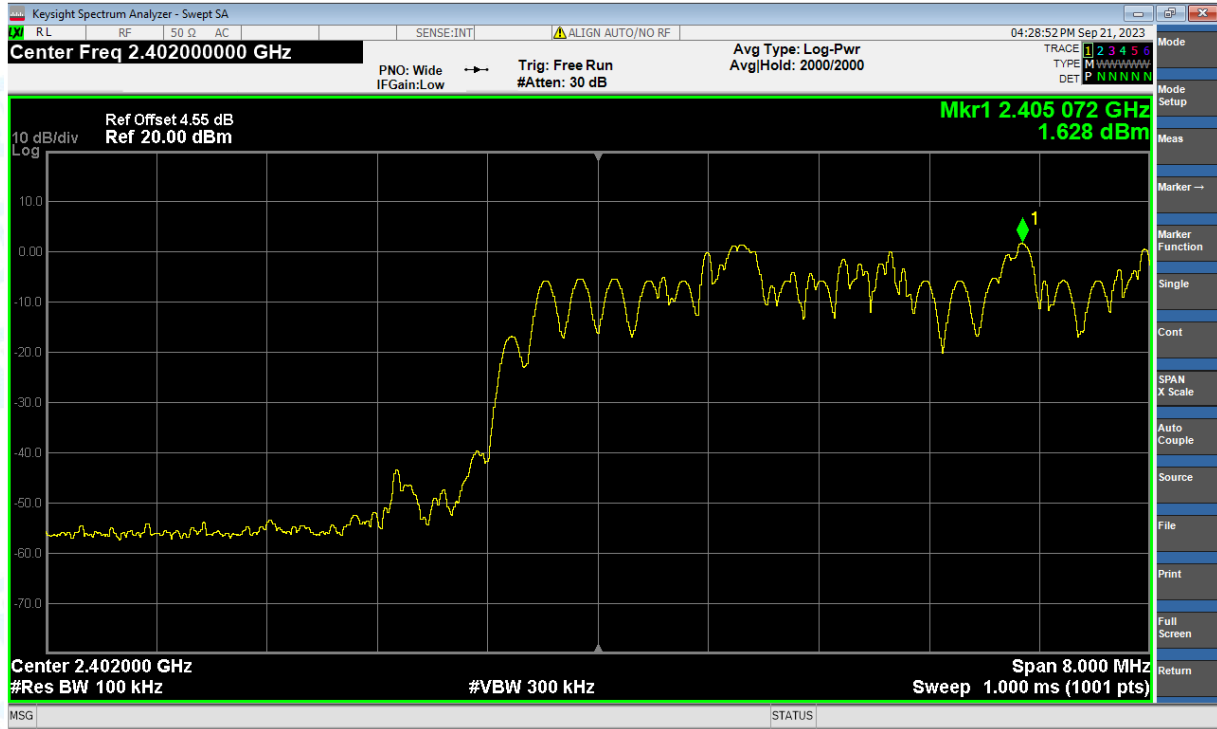
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref



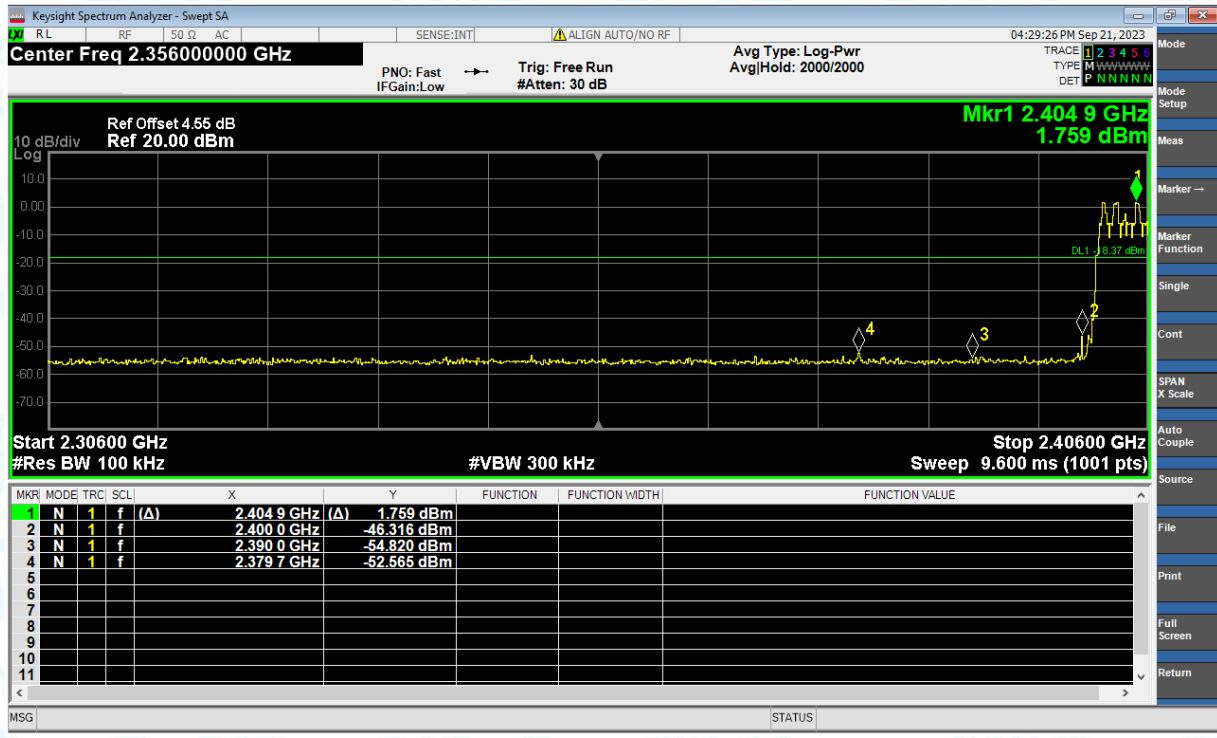
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



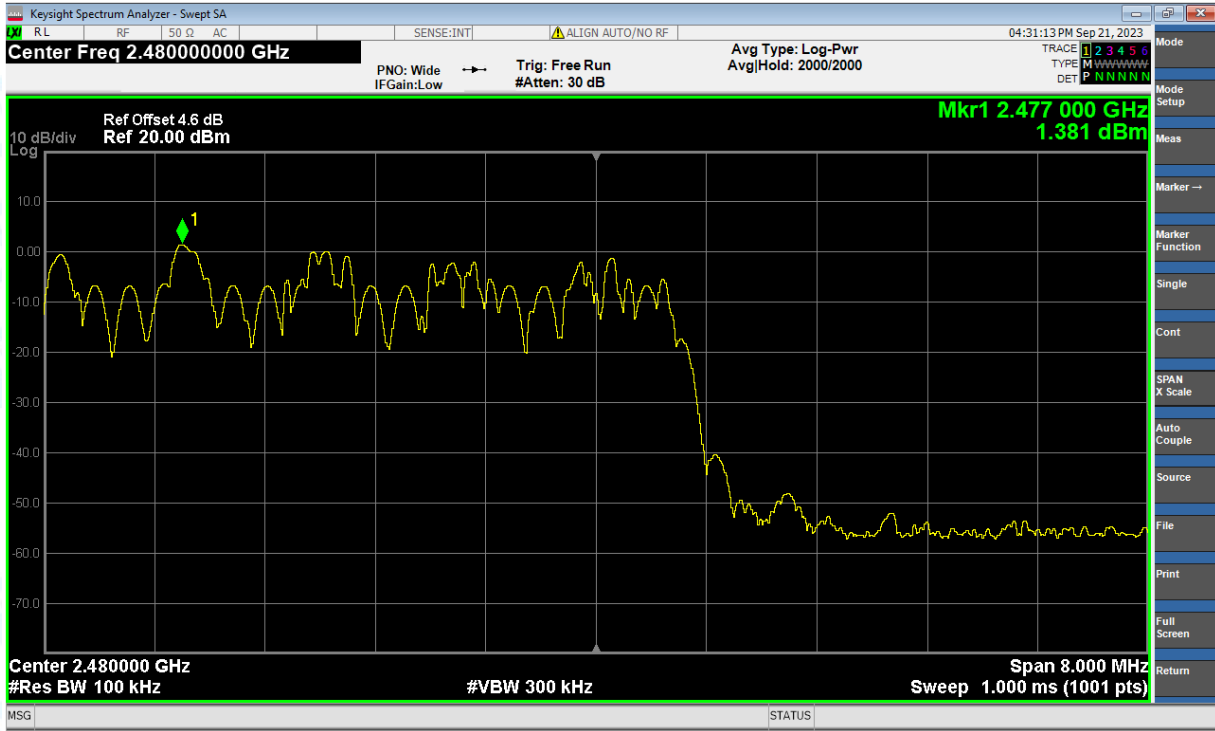
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



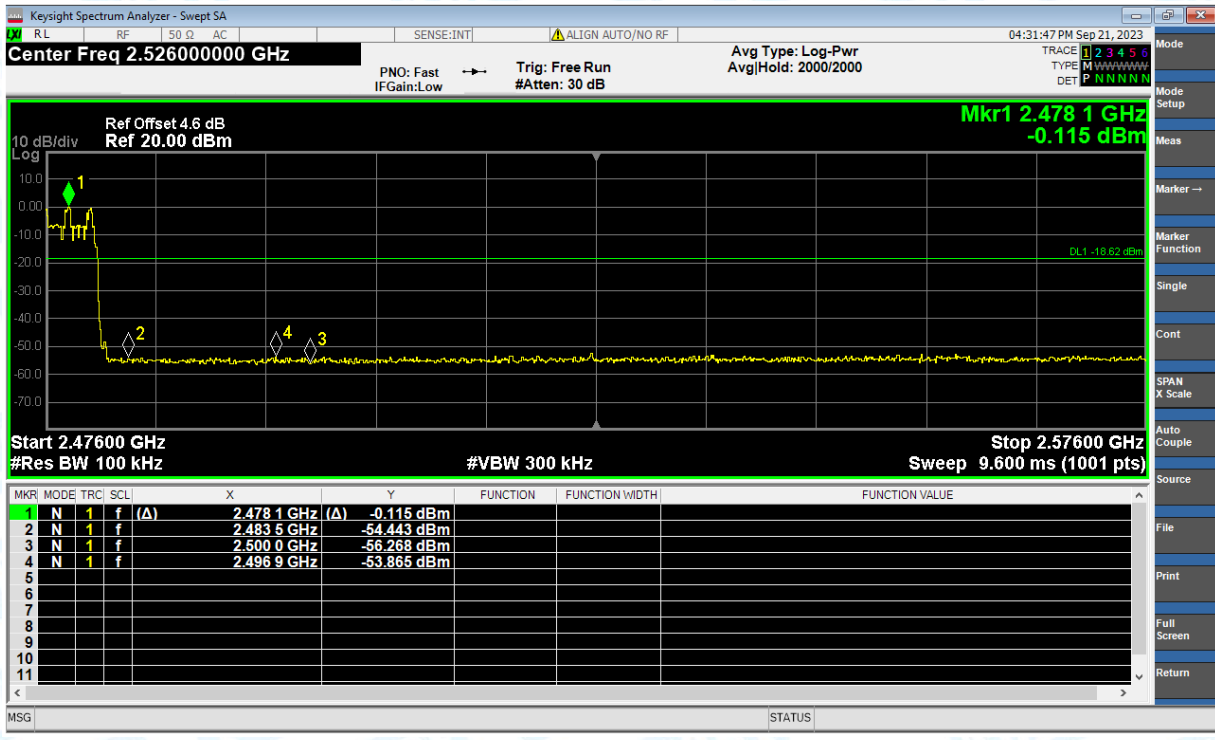
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



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



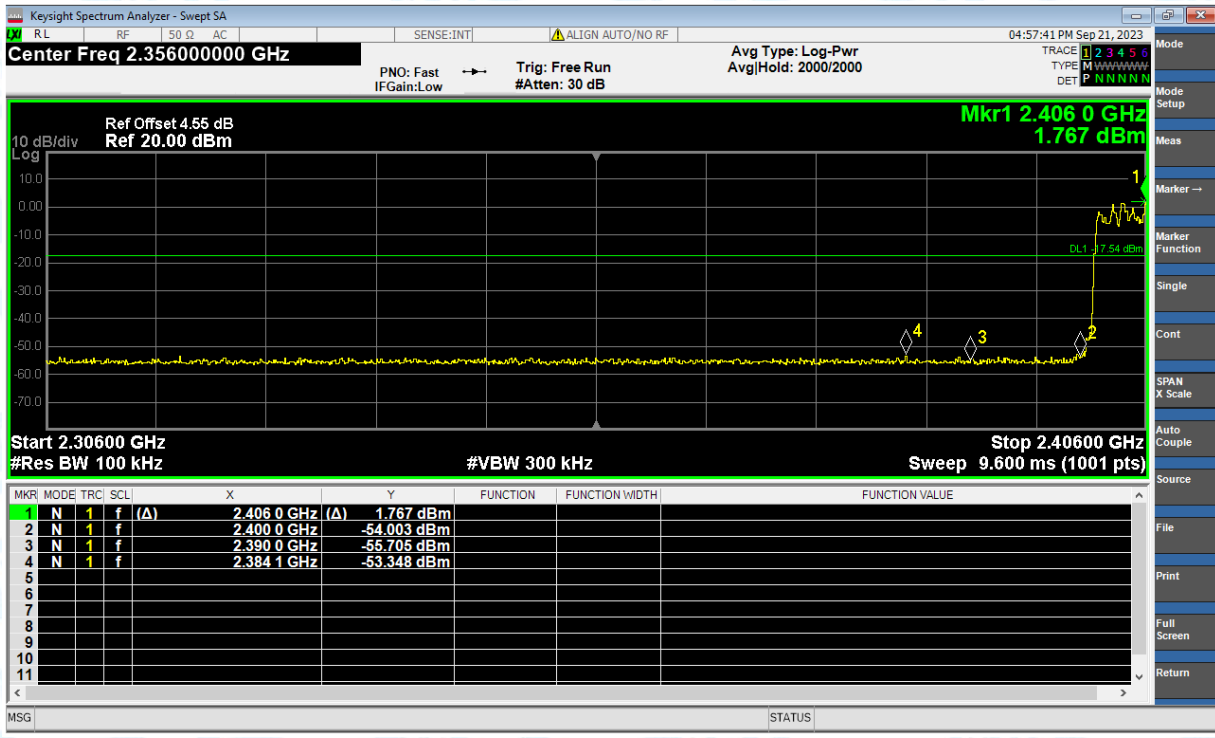
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



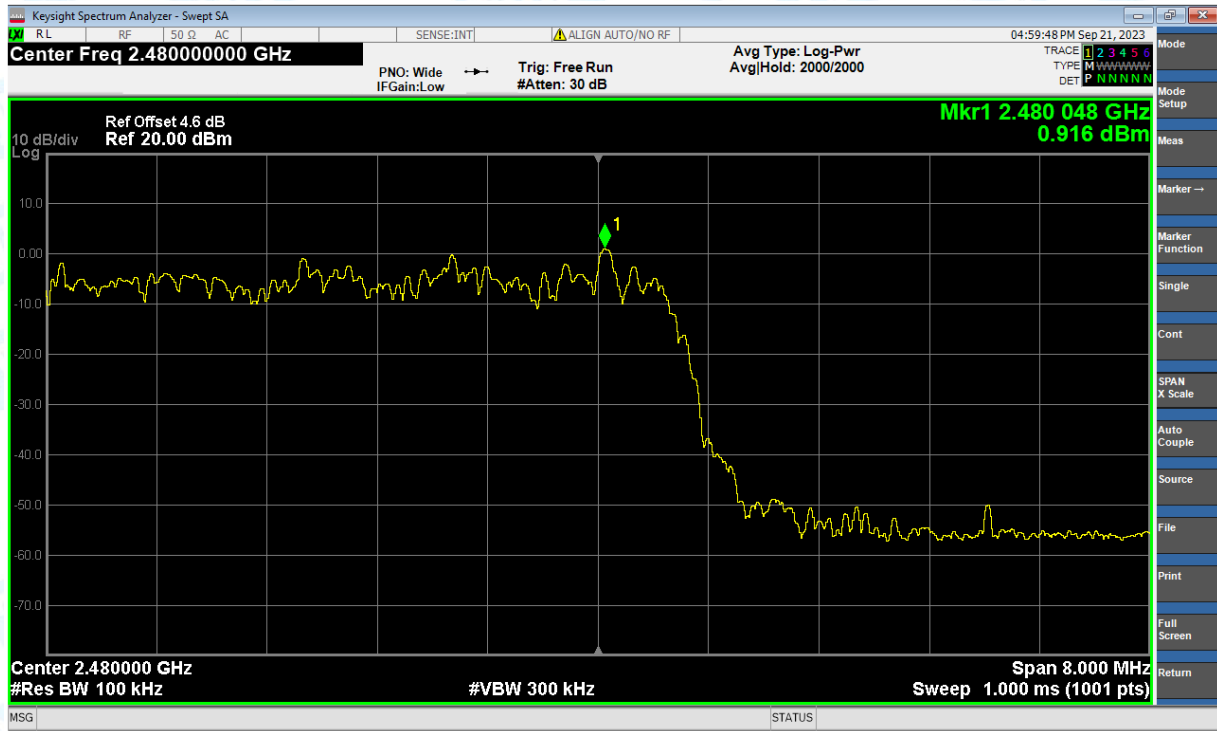
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



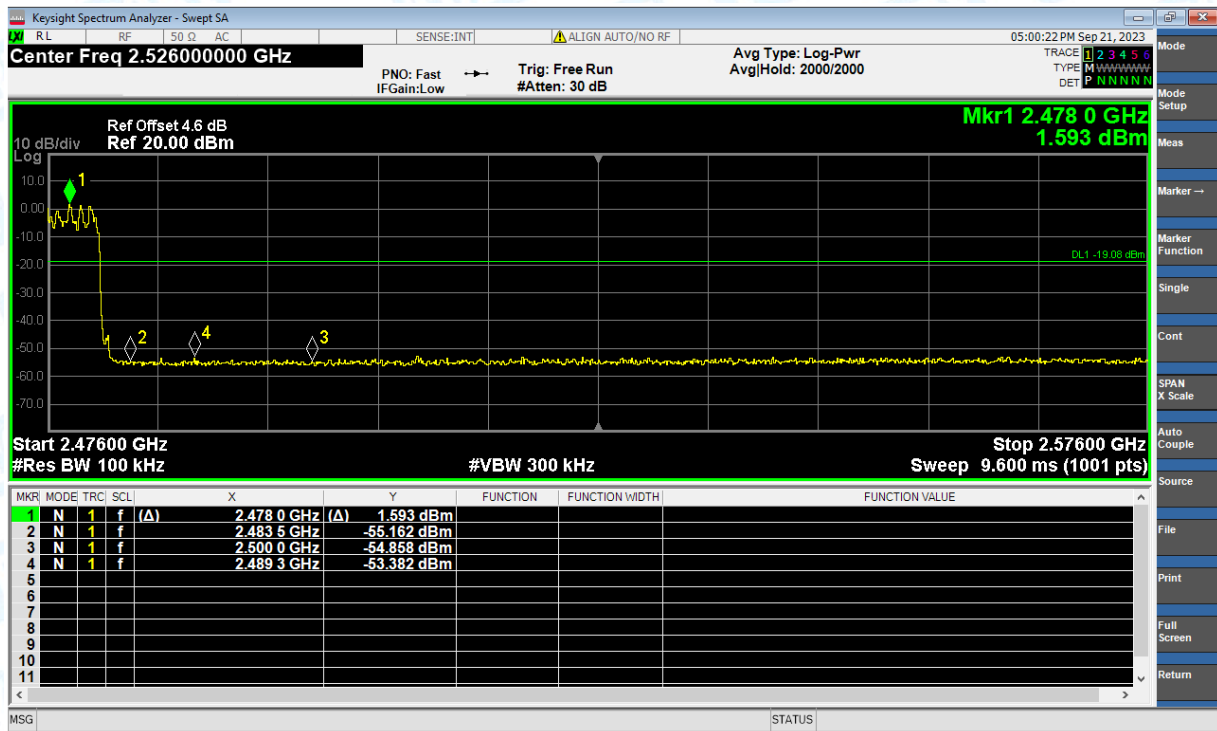
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



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



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

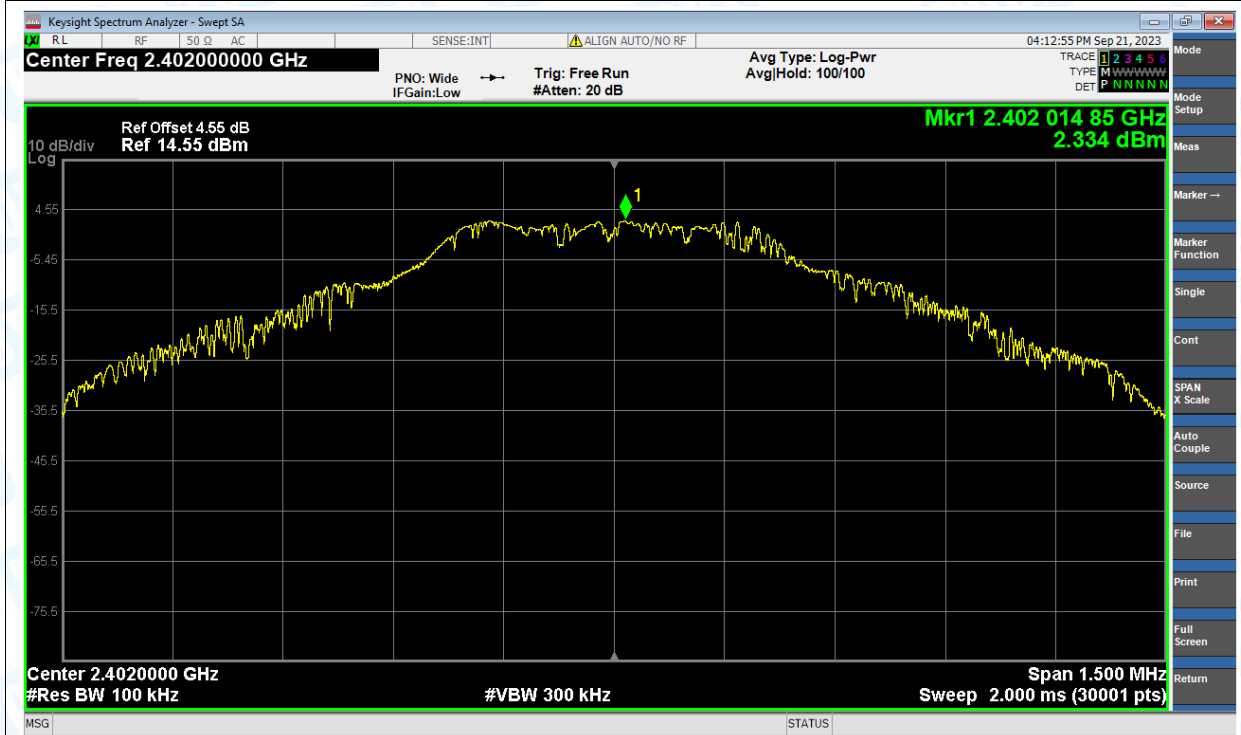


7. Conducted RF Spurious Emission

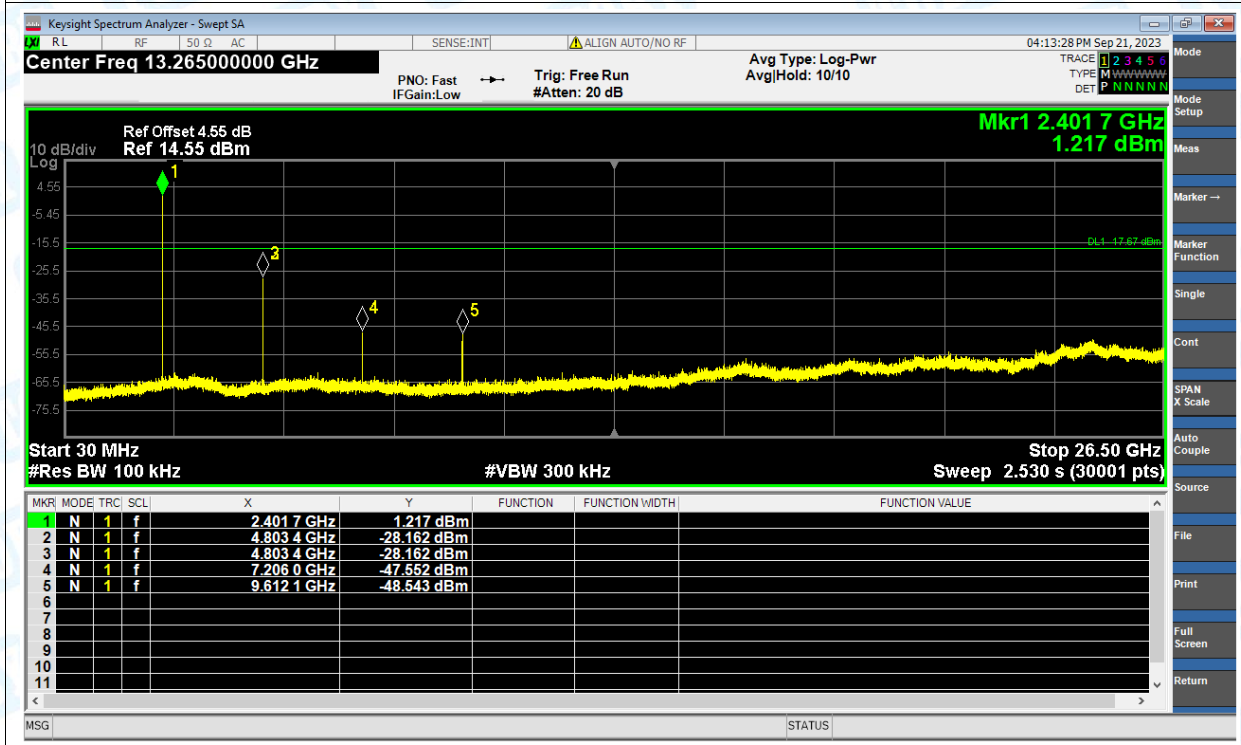
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-30.49	-20	Pass
NVNT	1-DH1	2441	Ant1	-32.93	-20	Pass
NVNT	1-DH1	2480	Ant1	-29.37	-20	Pass
NVNT	2-DH1	2402	Ant1	-33.27	-20	Pass
NVNT	2-DH1	2441	Ant1	-32.81	-20	Pass
NVNT	2-DH1	2480	Ant1	-31.01	-20	Pass
NVNT	3-DH1	2402	Ant1	-34.89	-20	Pass
NVNT	3-DH1	2441	Ant1	-34.49	-20	Pass
NVNT	3-DH1	2480	Ant1	-34.60	-20	Pass

Test Graphs

Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



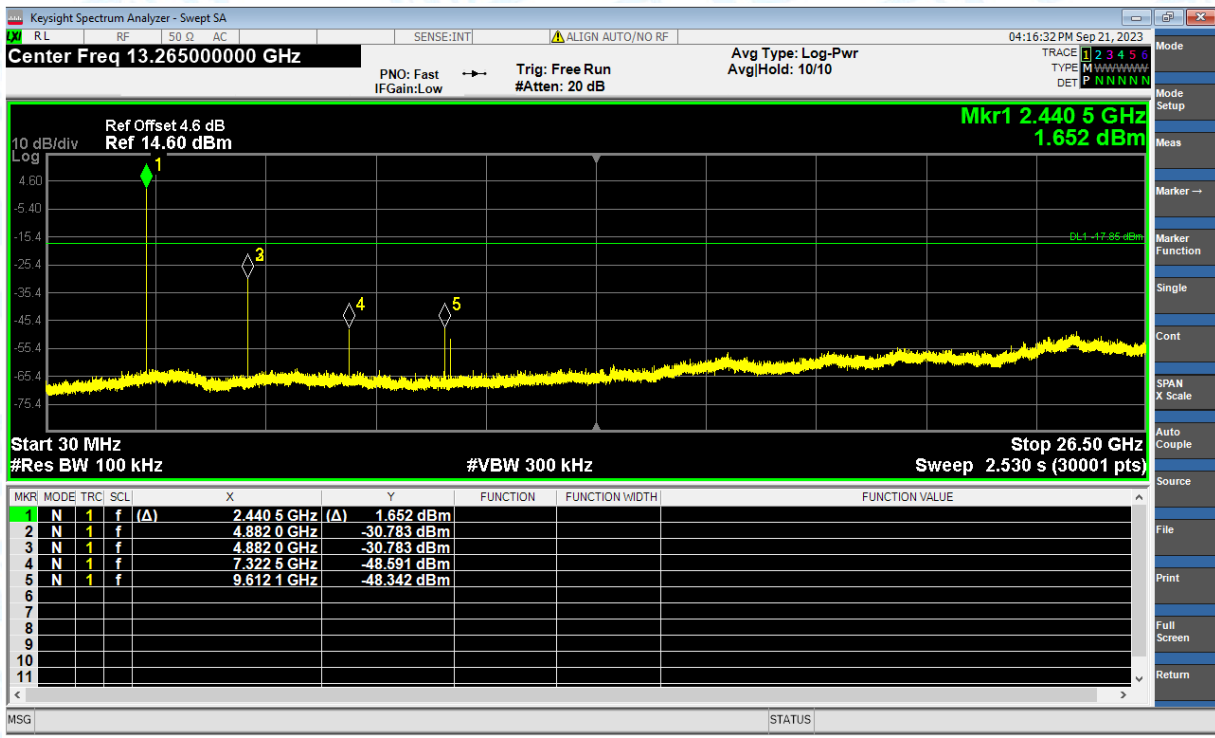
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



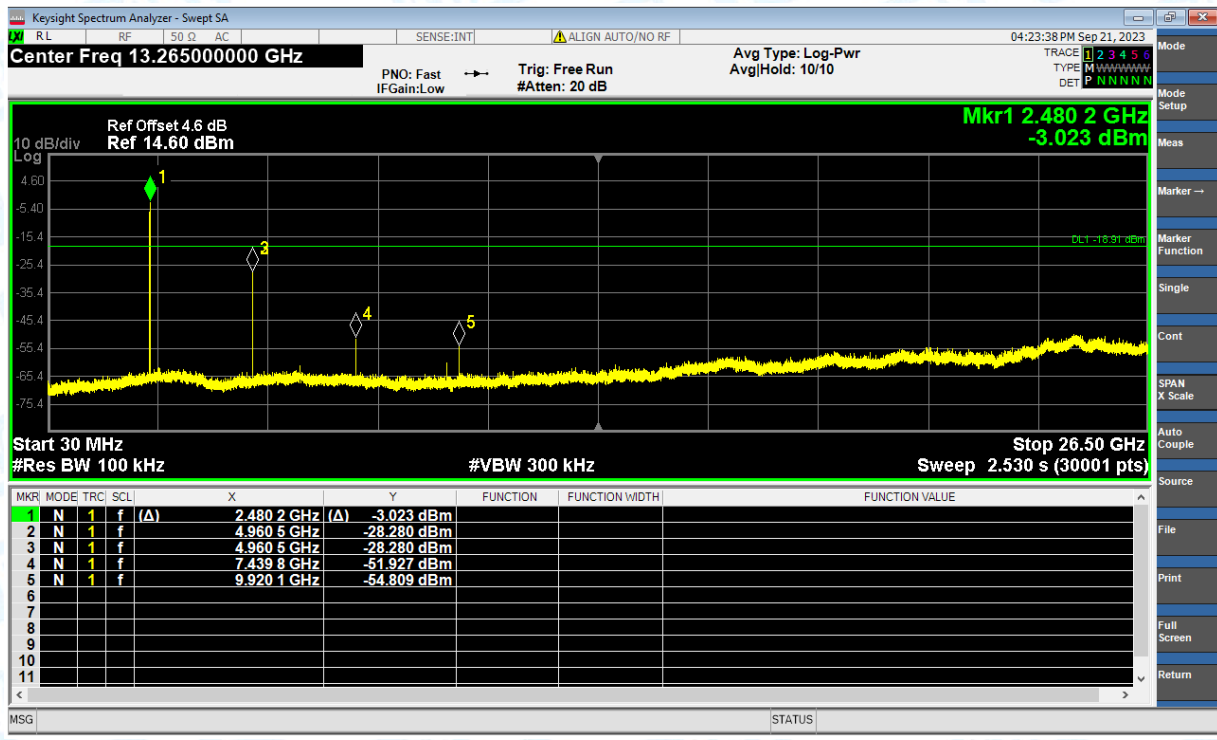
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



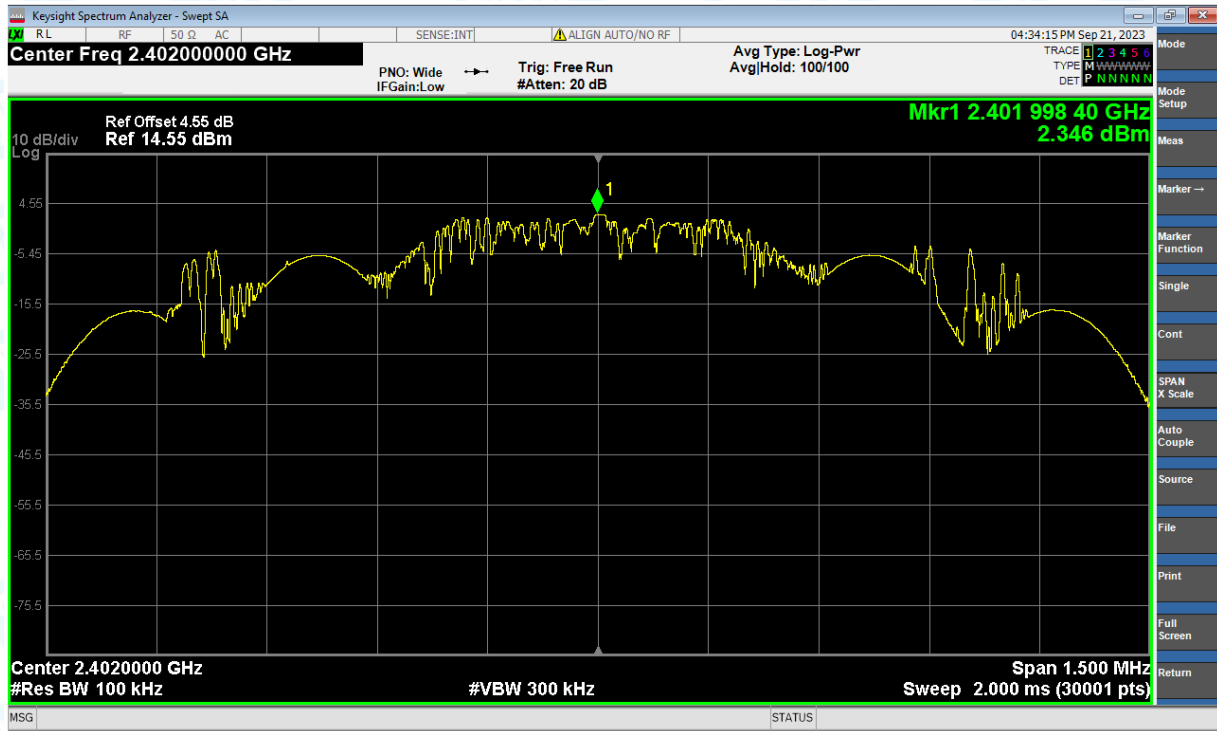
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



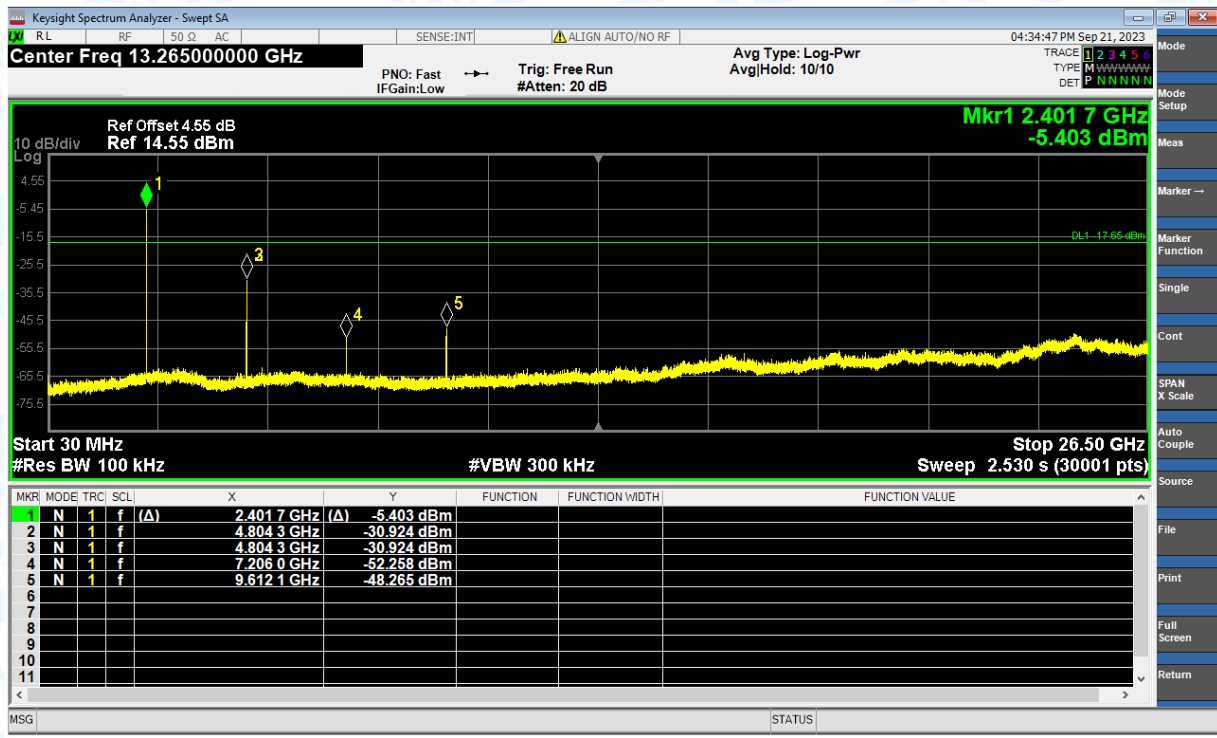
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



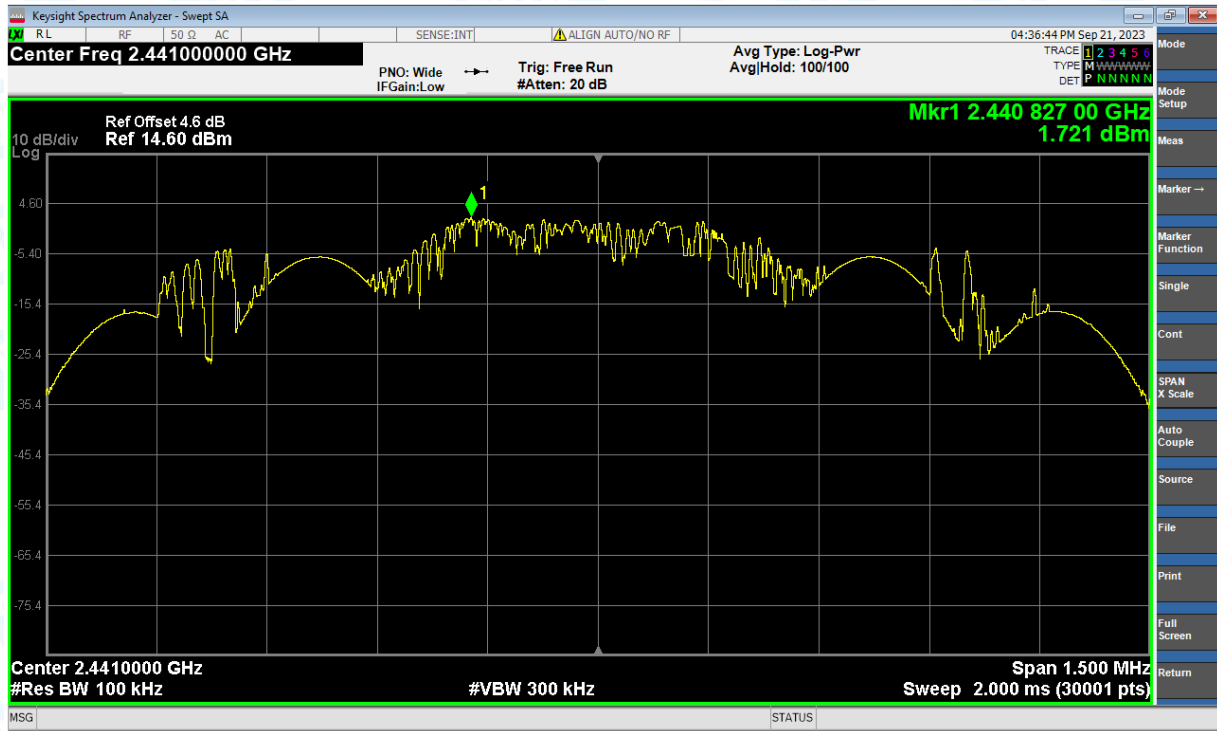
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



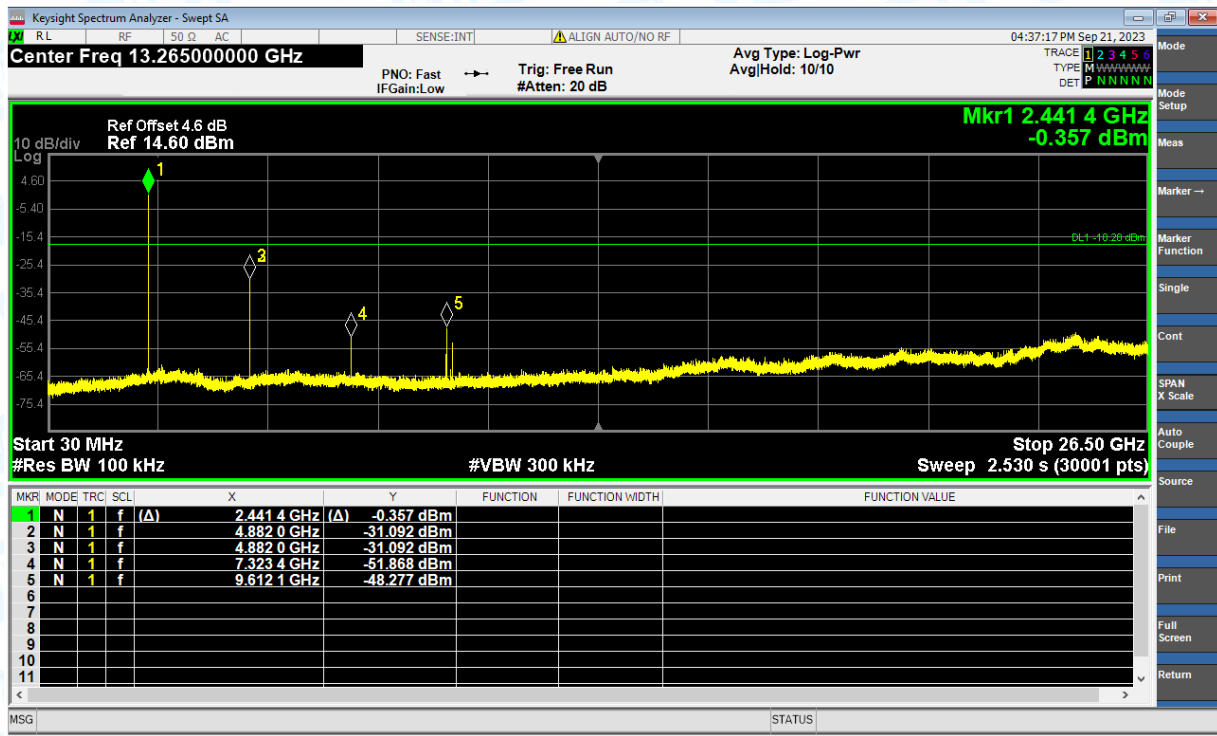
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



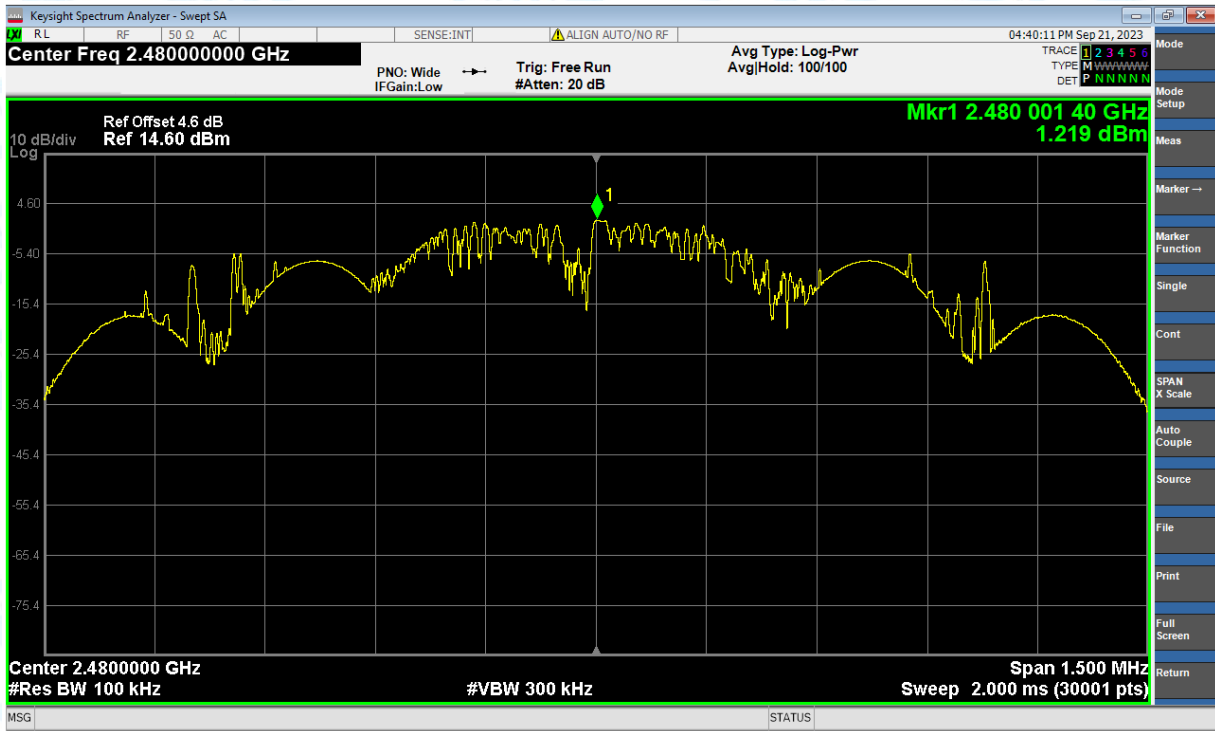
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



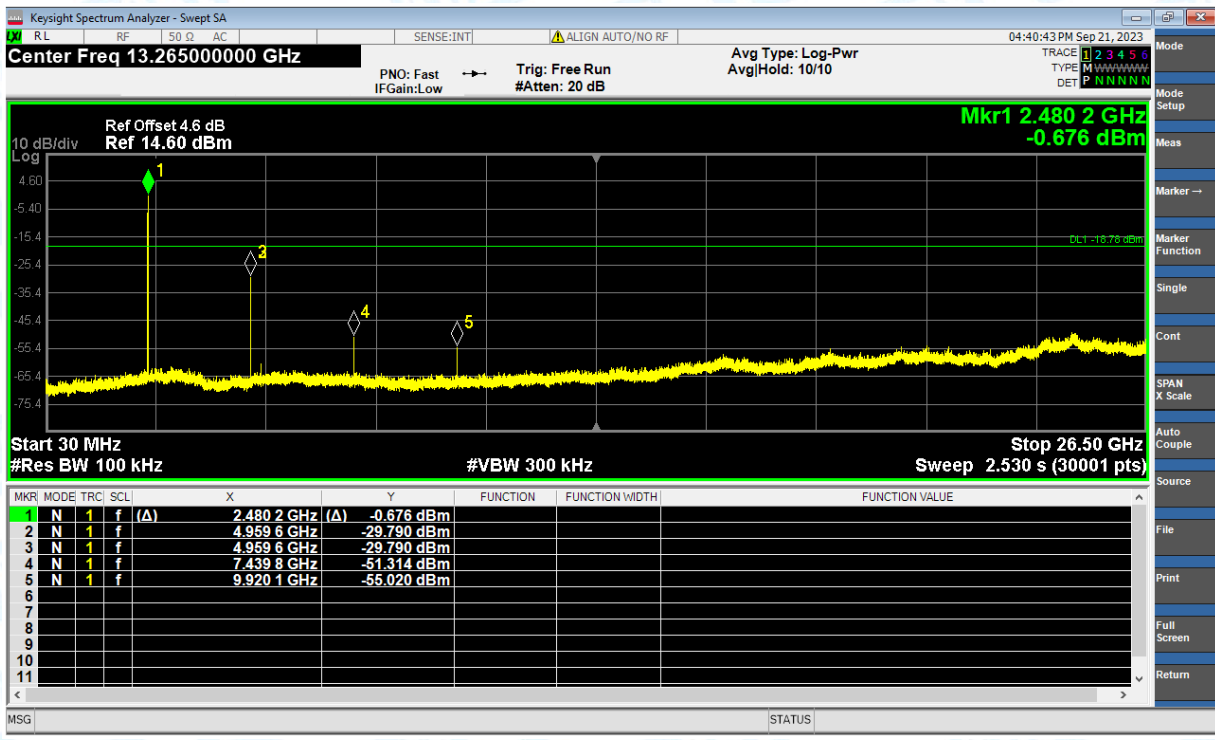
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



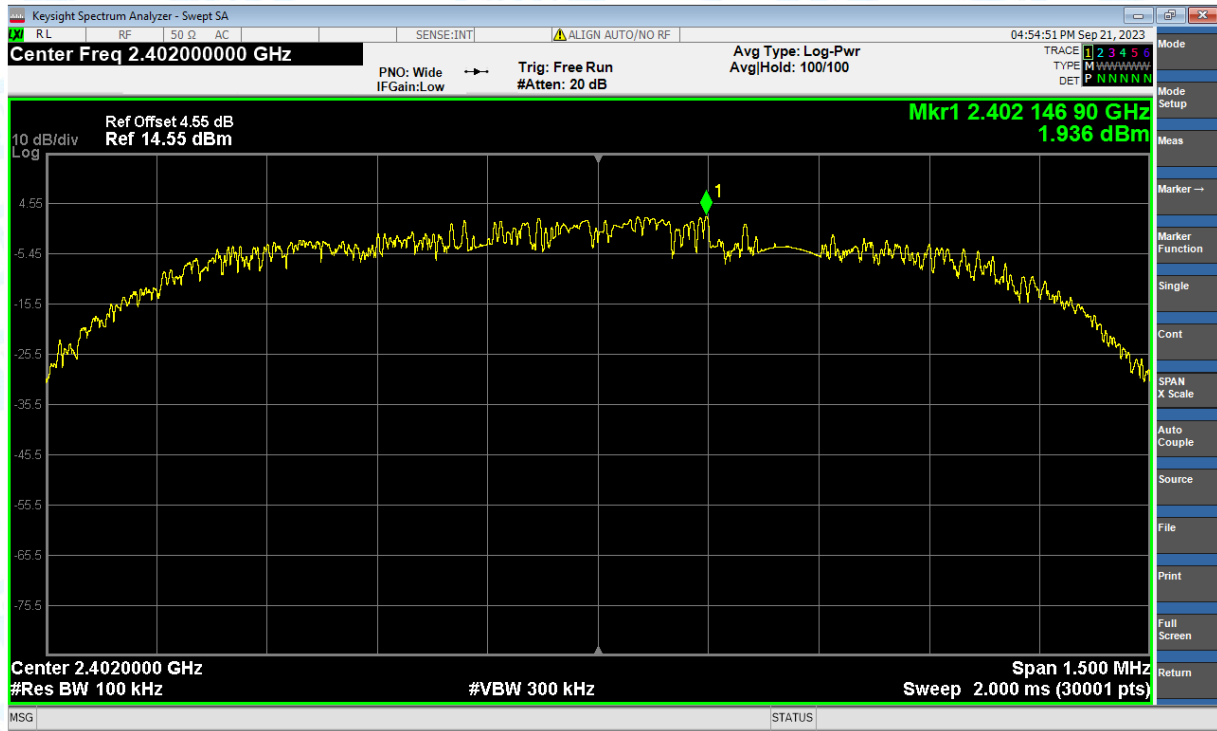
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



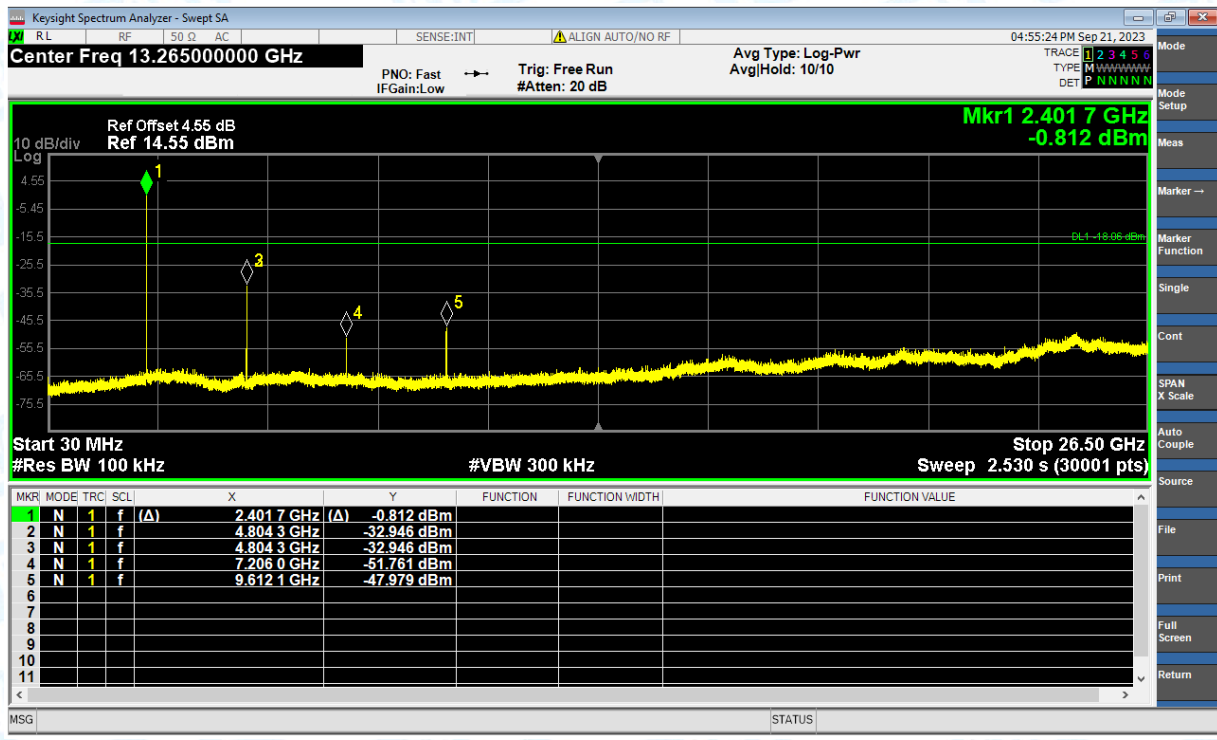
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



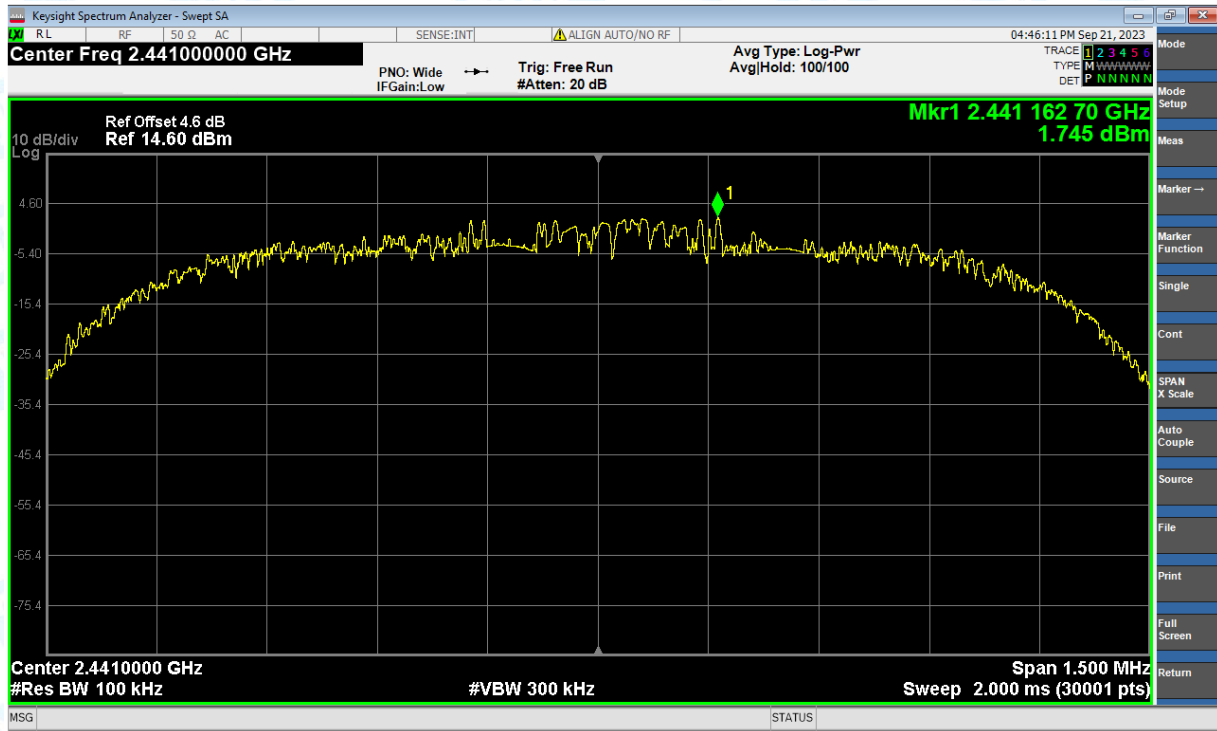
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



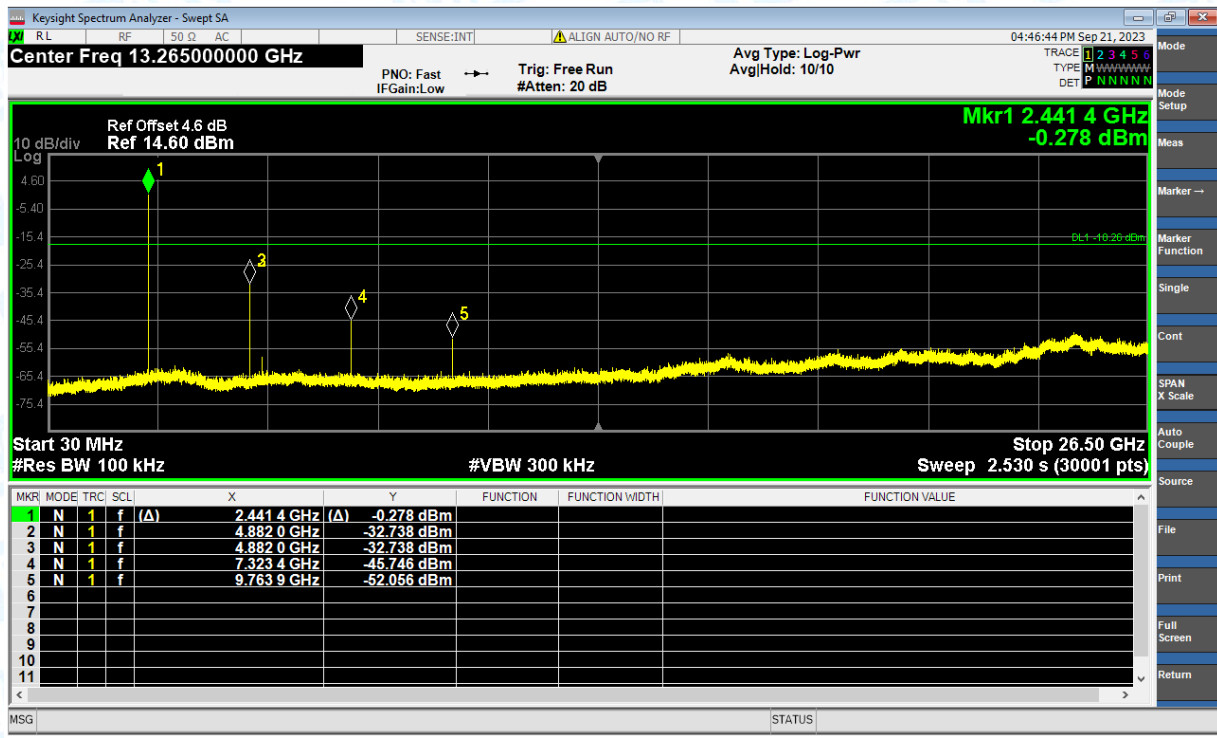
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



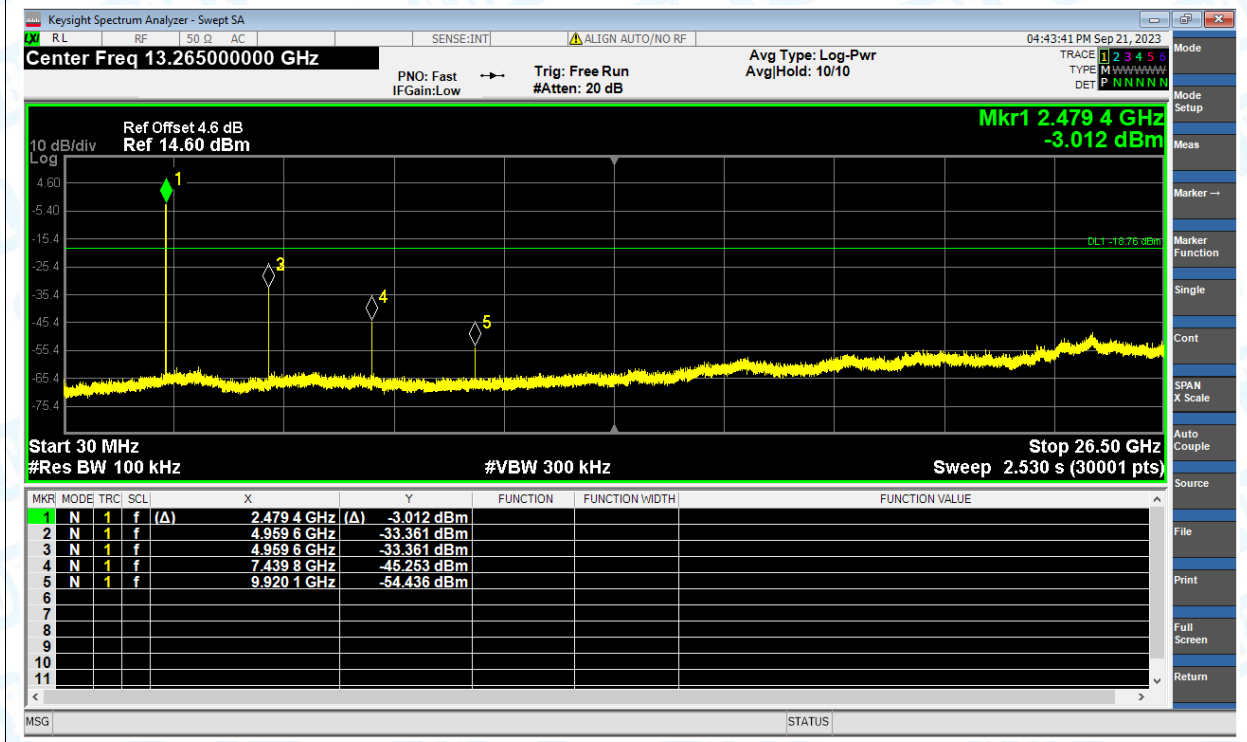
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

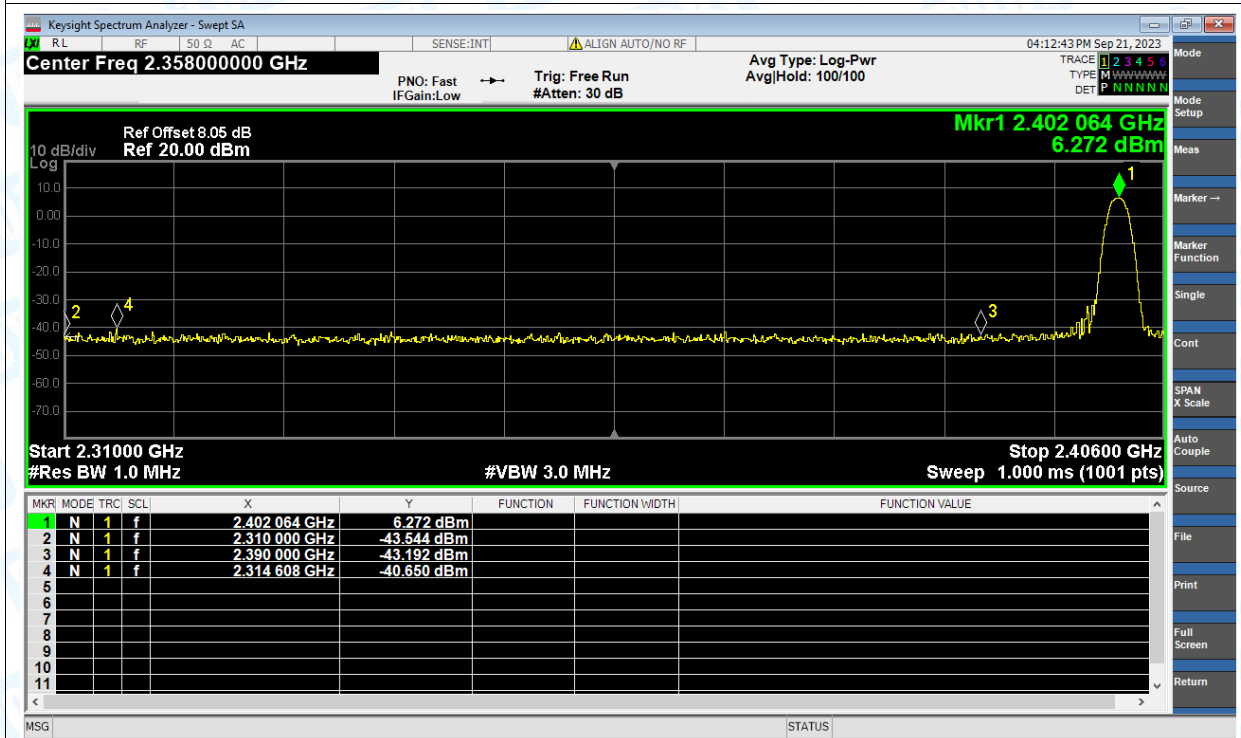


8. Restrict Band

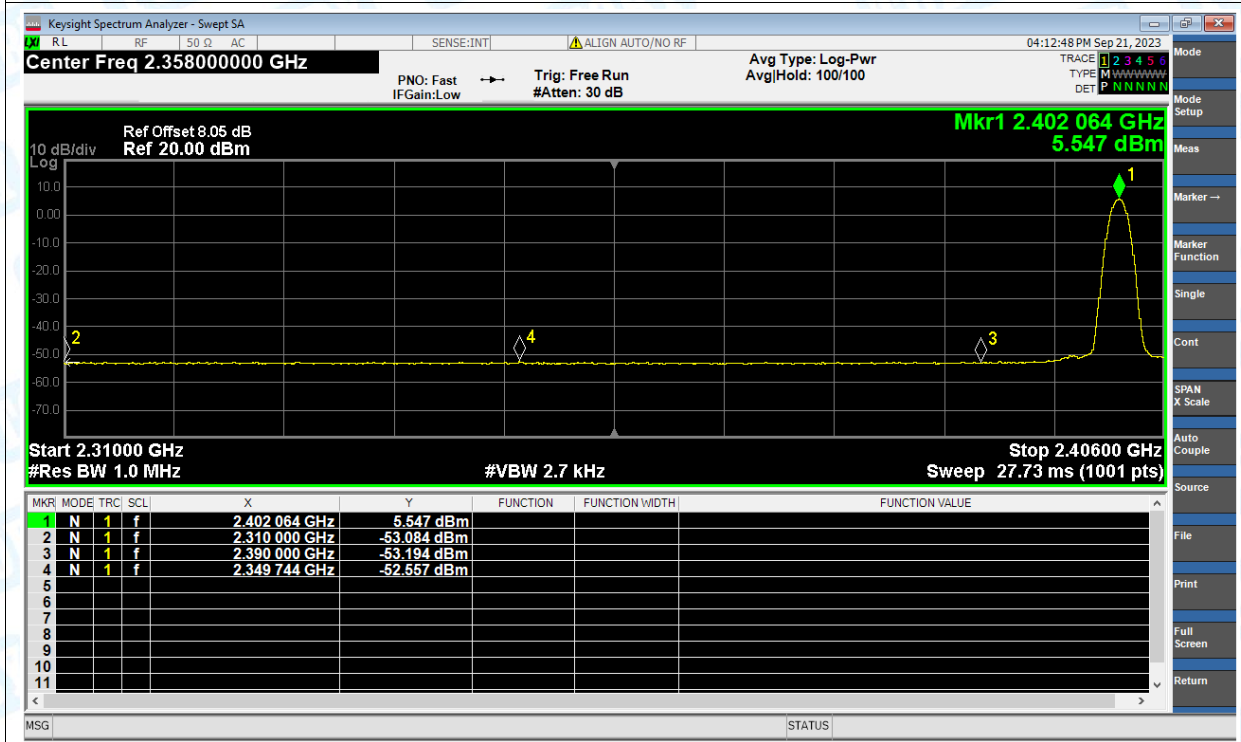
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-43.54	2.5	54.22	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-53.08	2.5	44.68	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2314.608	-40.65	2.5	57.11	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2349.744	-52.56	2.5	45.2	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-43.64	2.5	54.12	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-53.26	2.5	44.5	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-42.83	2.5	54.93	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-50.99	2.5	46.77	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.728	-39.6	2.5	58.16	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.944	-50.51	2.5	47.25	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-43.88	2.5	53.88	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-52.98	2.5	44.78	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-43.91	2.5	53.85	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-53.89	2.5	43.87	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2387.376	-40.83	2.5	56.93	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2389.584	-53.54	2.5	44.22	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-43.7	2.5	54.06	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-53.61	2.5	44.15	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-41.79	2.5	55.97	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-51.96	2.5	45.8	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2484.976	-39.37	2.5	58.39	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2484.016	-51.68	2.5	46.08	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-43.19	2.5	54.57	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-53.46	2.5	44.3	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-45.91	2.5	51.85	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-53.89	2.5	43.87	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2331.504	-40.88	2.5	56.88	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2387.76	-53.48	2.5	44.28	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-45.58	2.5	52.18	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-53.68	2.5	44.08	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-41.97	2.5	55.79	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-51.88	2.5	45.88	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2484.016	-38.69	2.5	59.07	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.728	-51.67	2.5	46.09	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-43.17	2.5	54.59	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-53.37	2.5	44.39	Average	54	Pass

Test Graphs

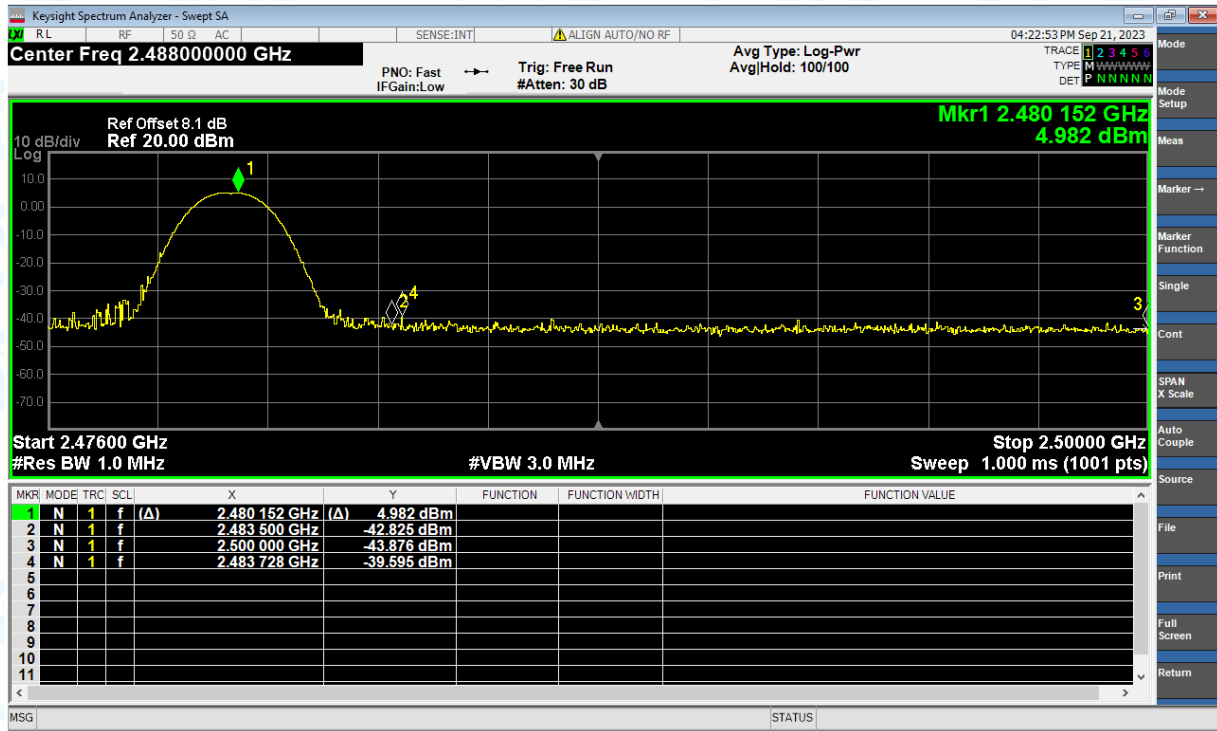
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



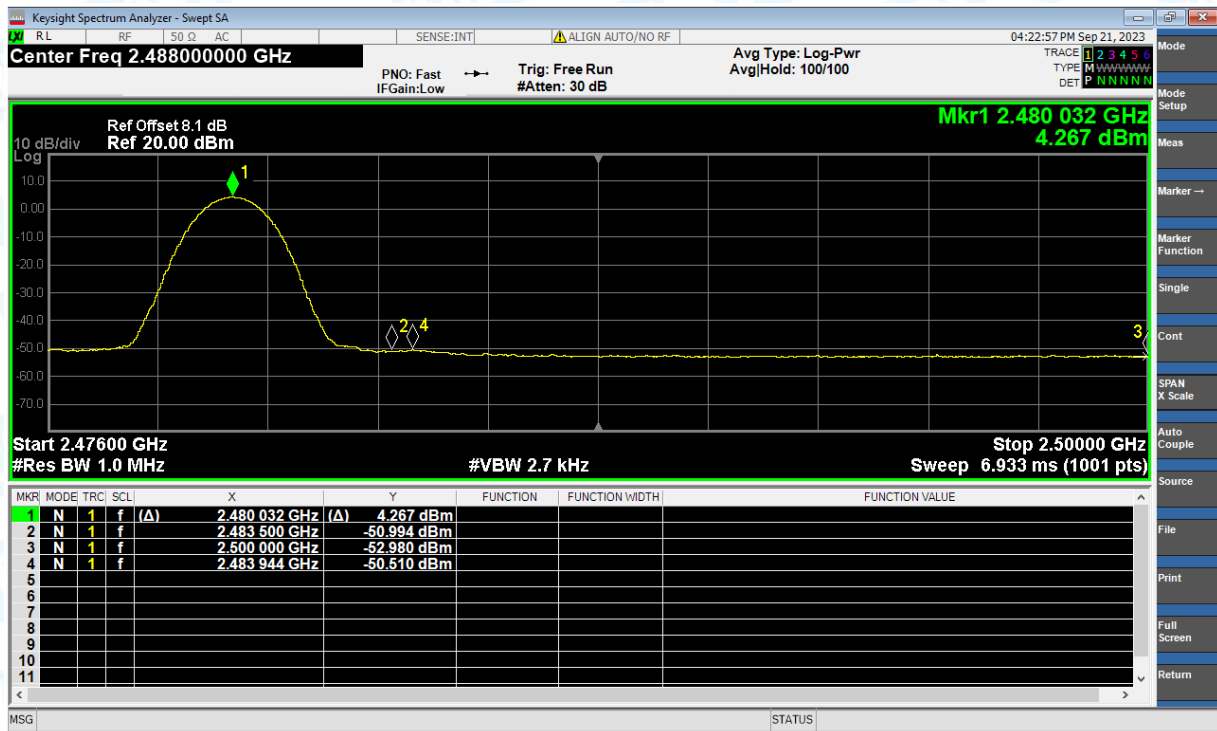
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average

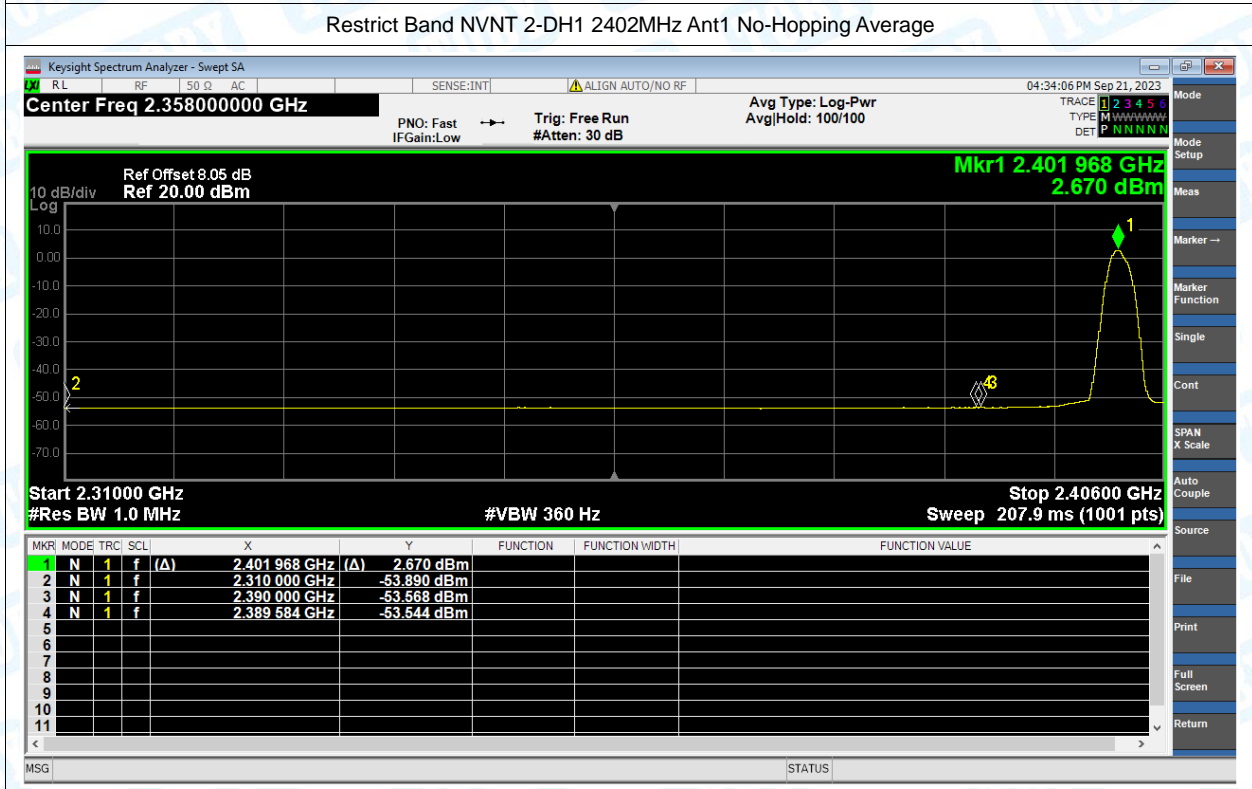
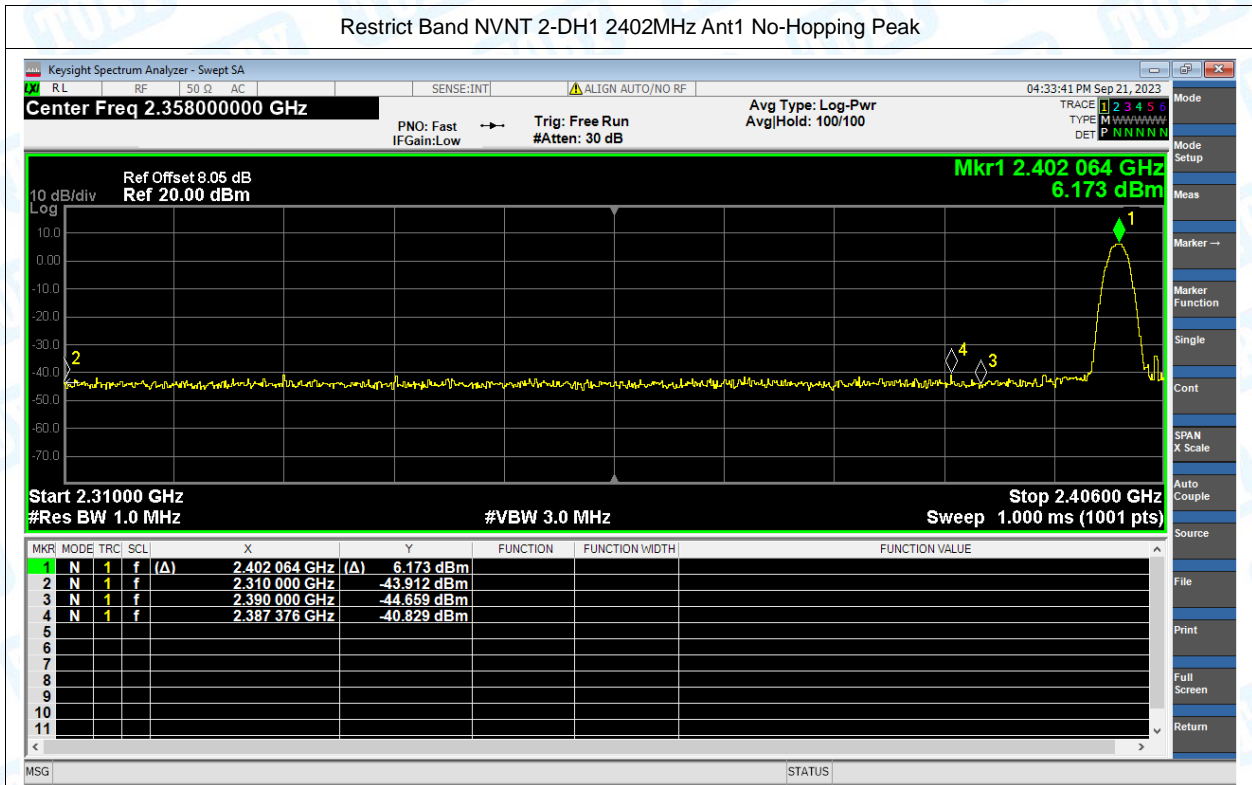


Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak

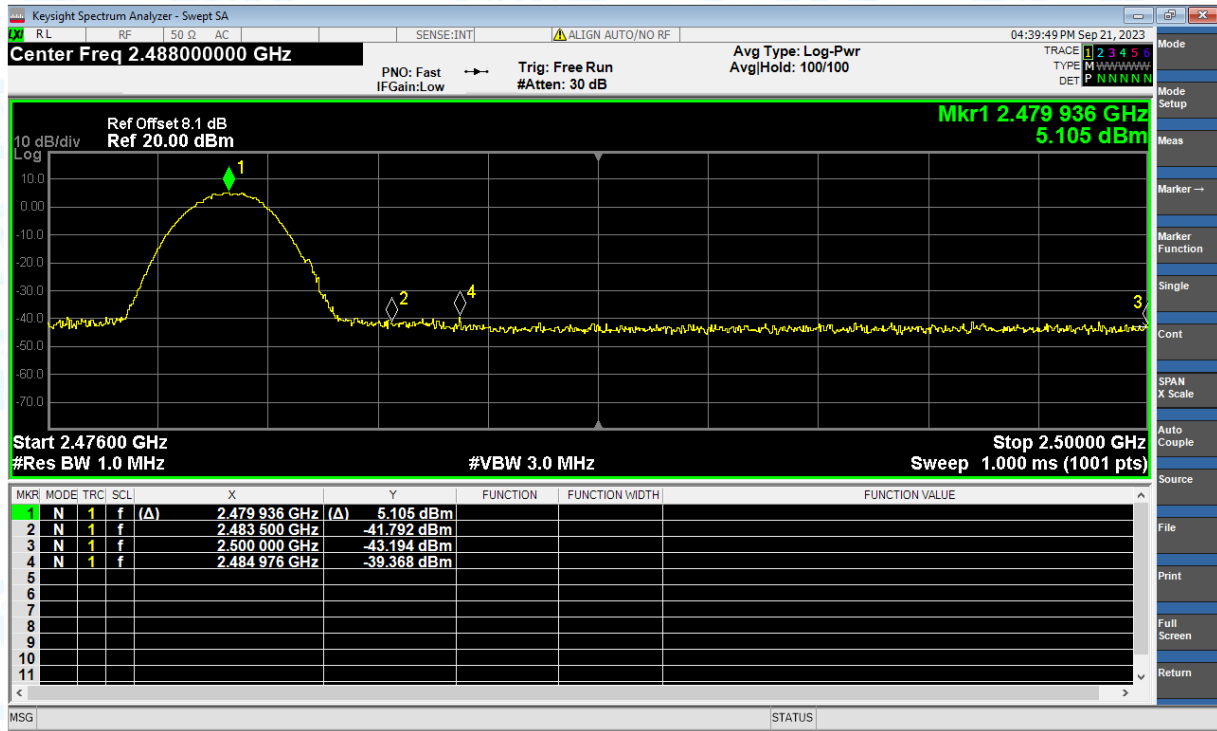


Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average

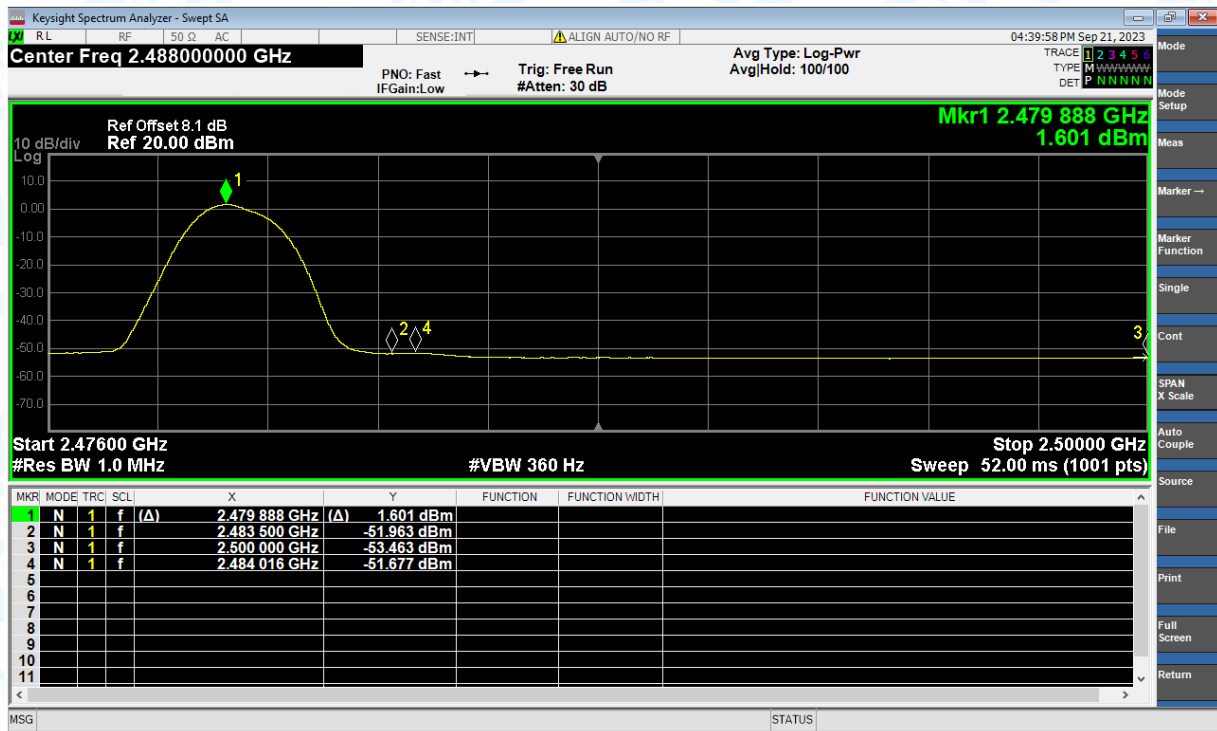




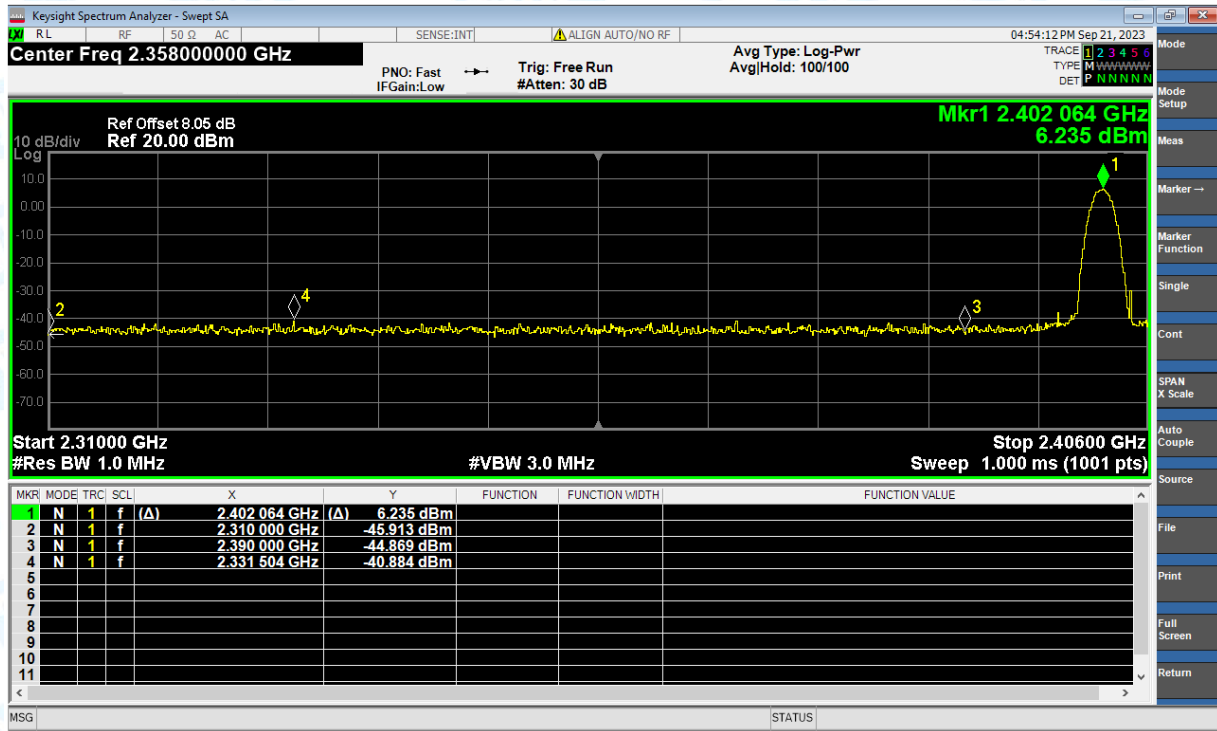
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



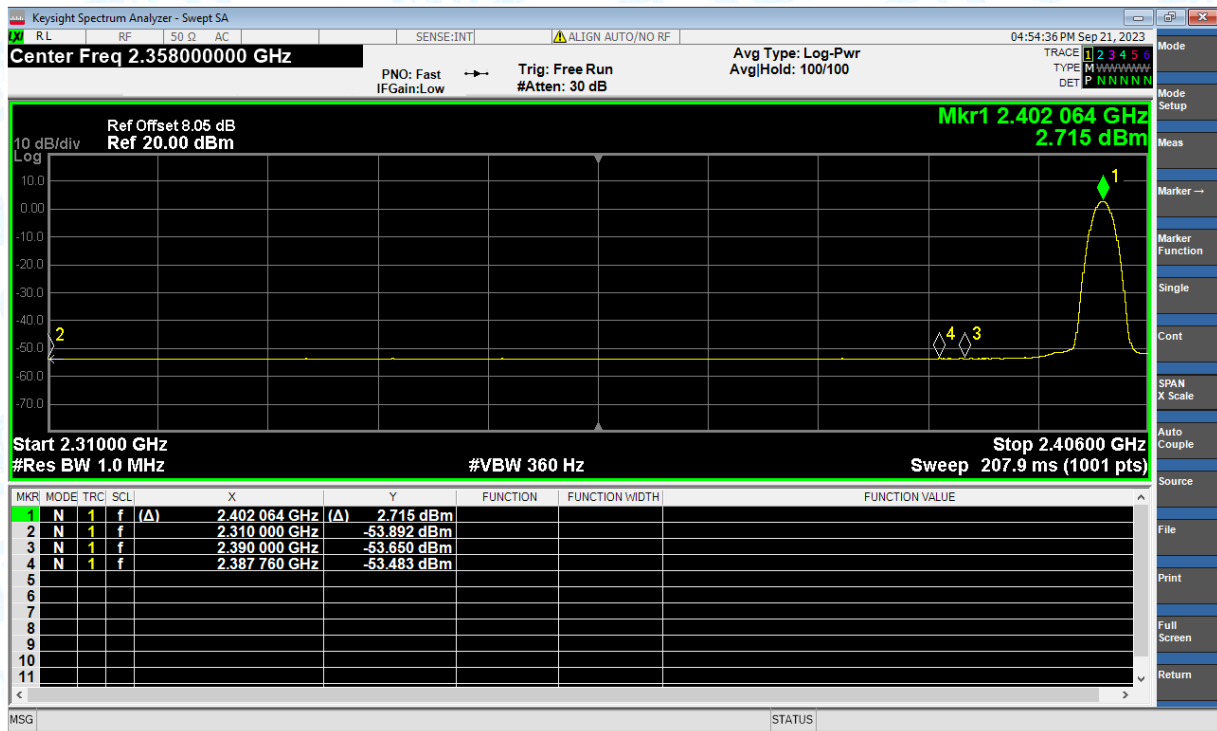
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



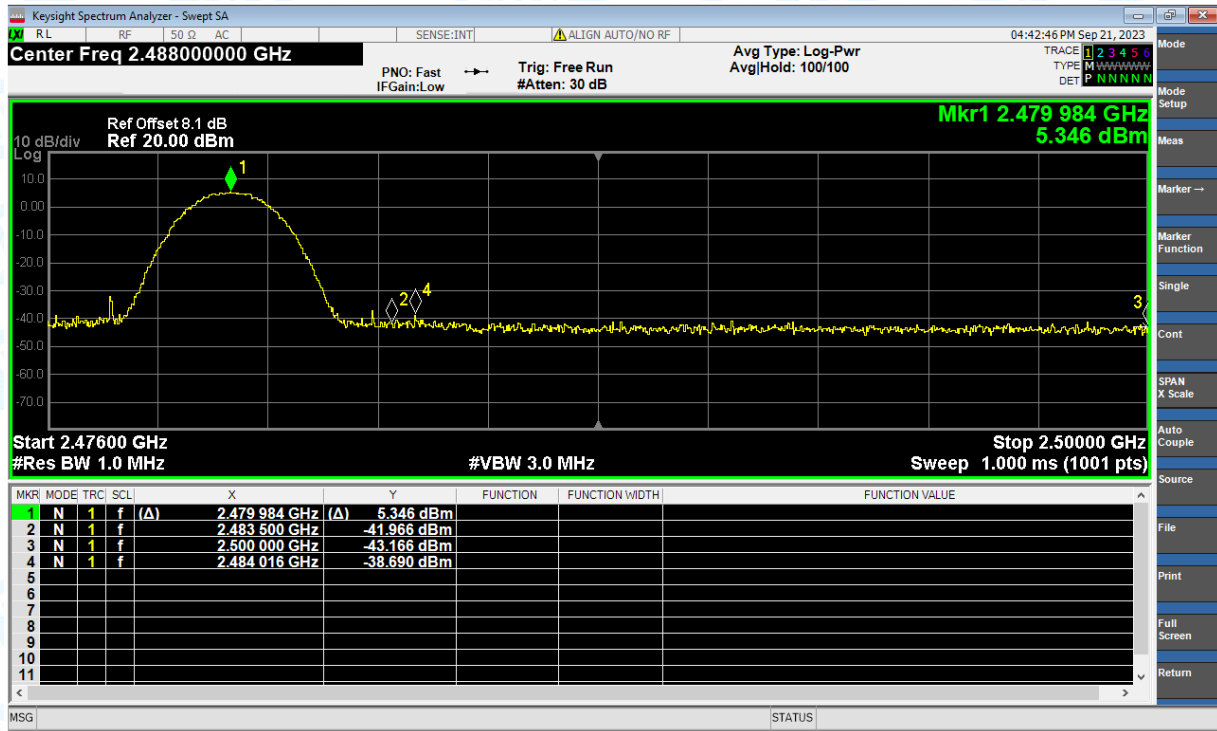
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



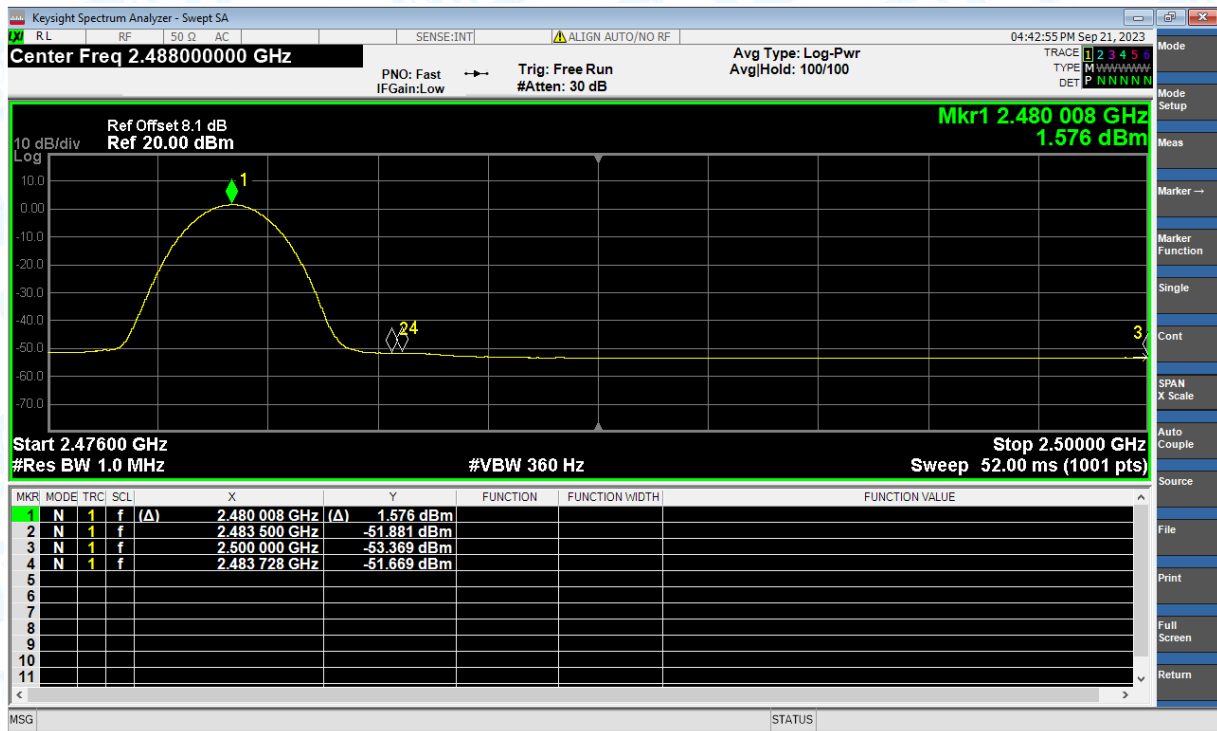
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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



9. Carrier Frequencies Separation

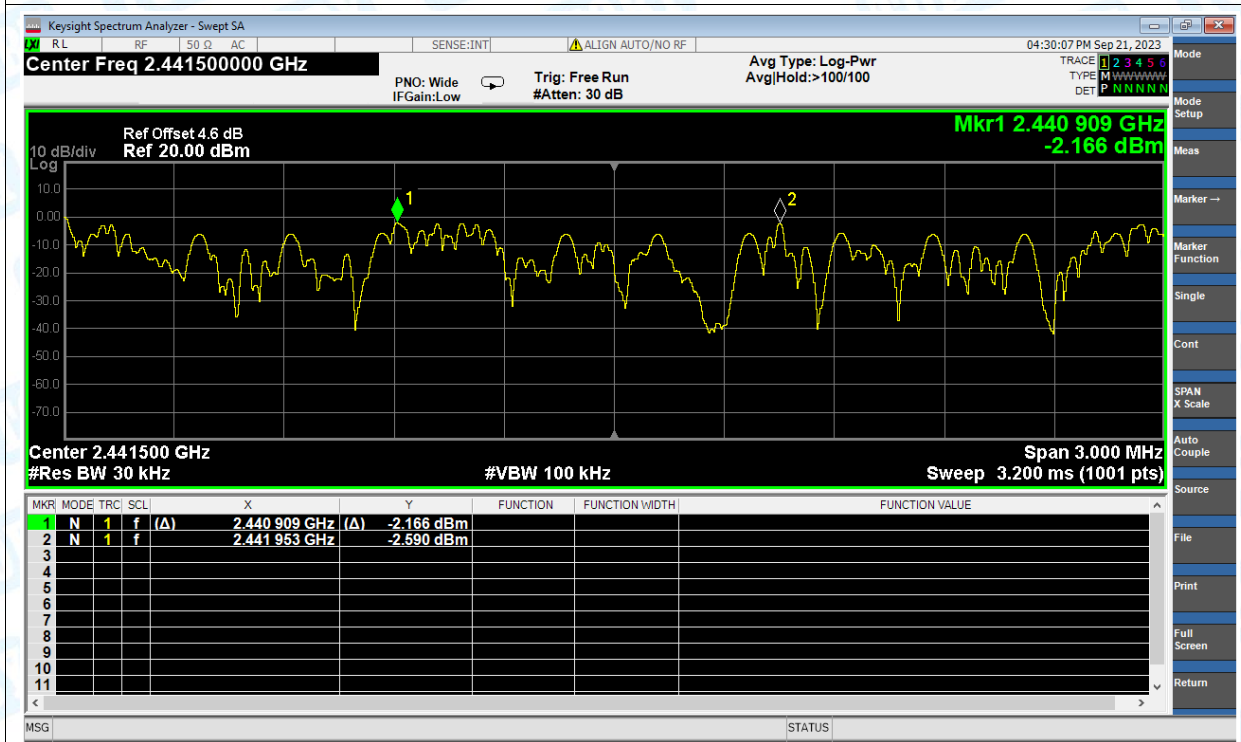
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.834	2441.998	1.164	0.580	Pass
NVNT	2-DH1	Ant1	2440.909	2441.953	1.044	0.853	Pass
NVNT	3-DH1	Ant1	2441.014	2442.007	0.993	0.860	Pass

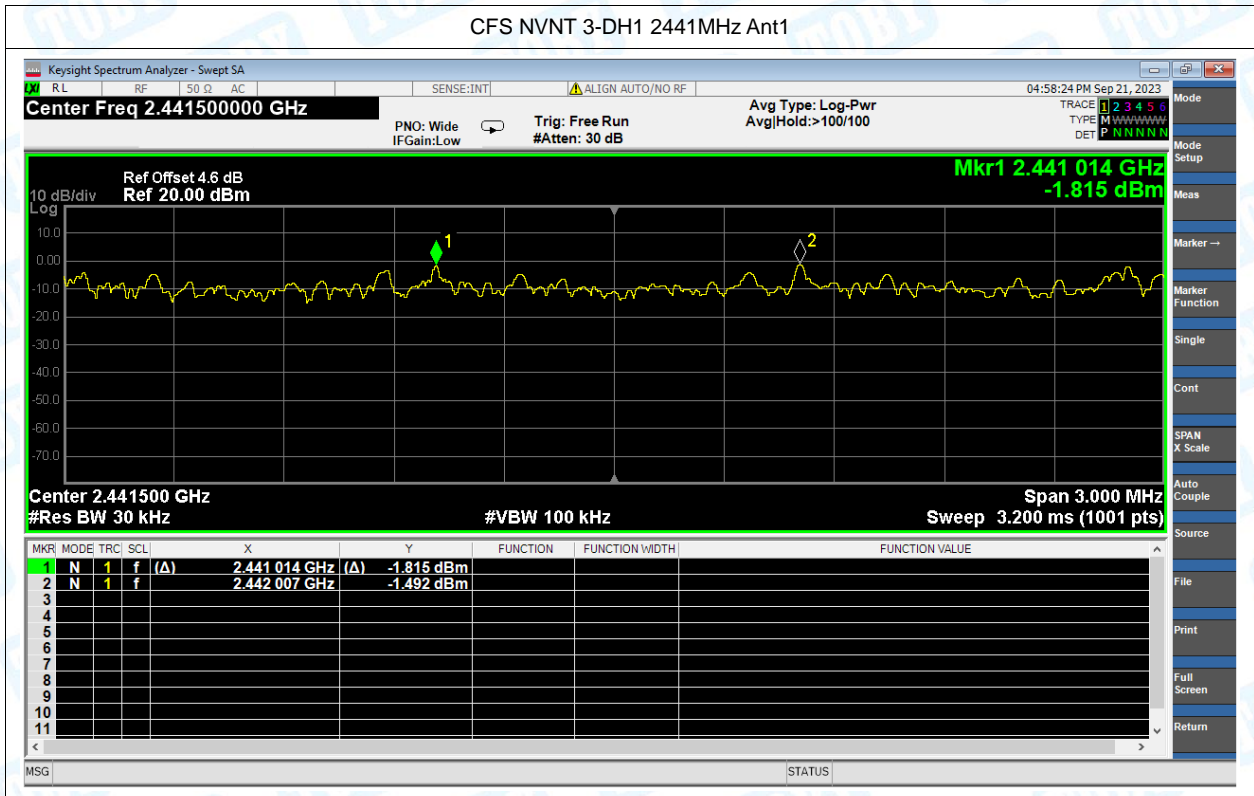
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



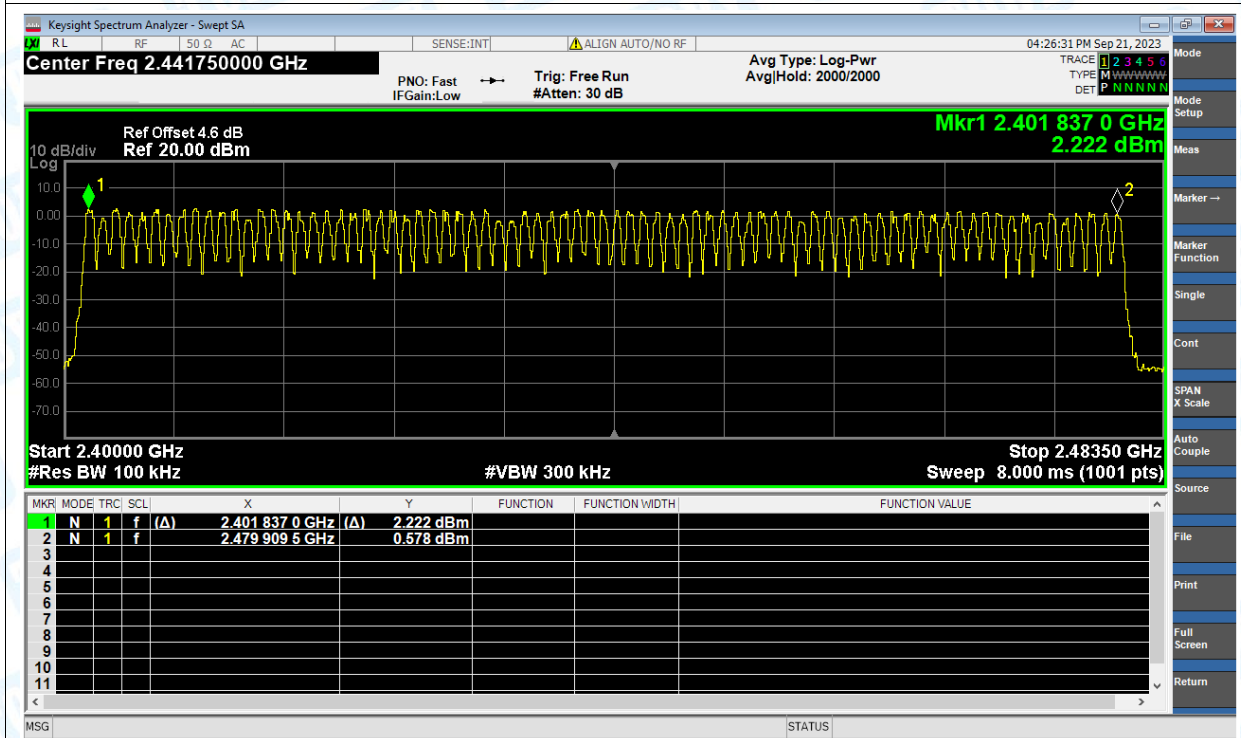


10. Number of Hopping Channel

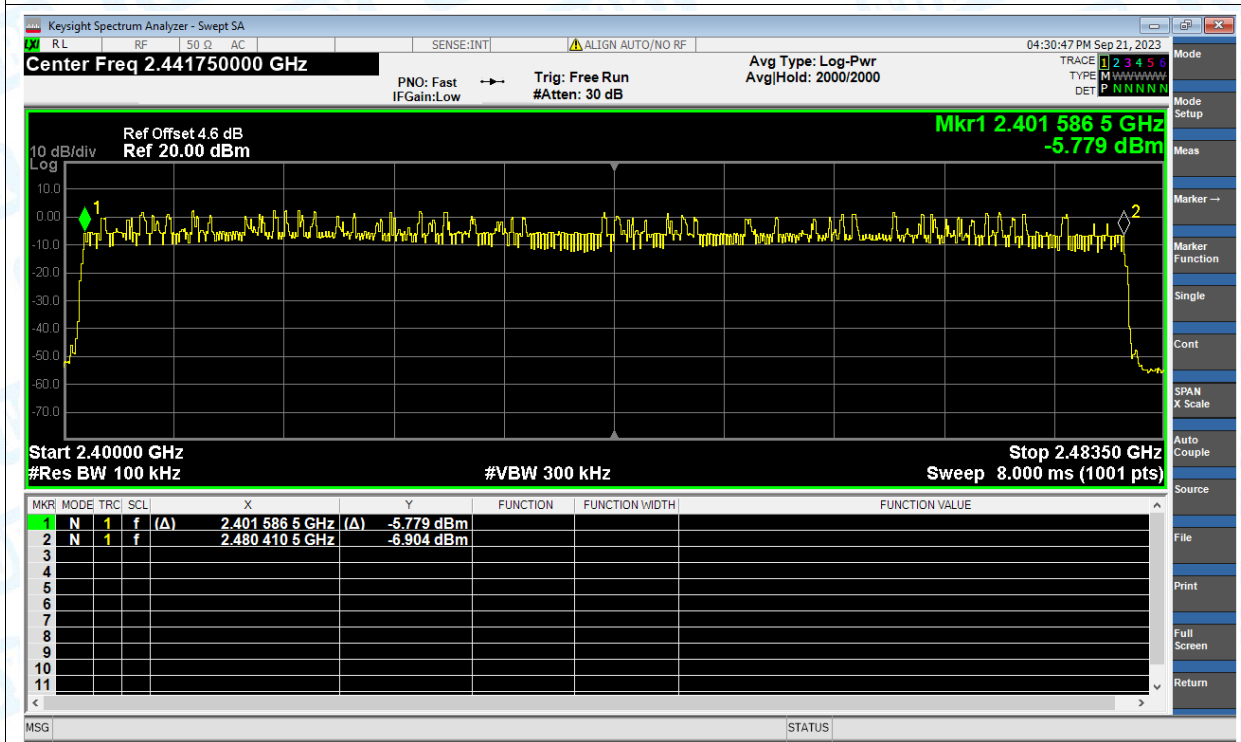
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

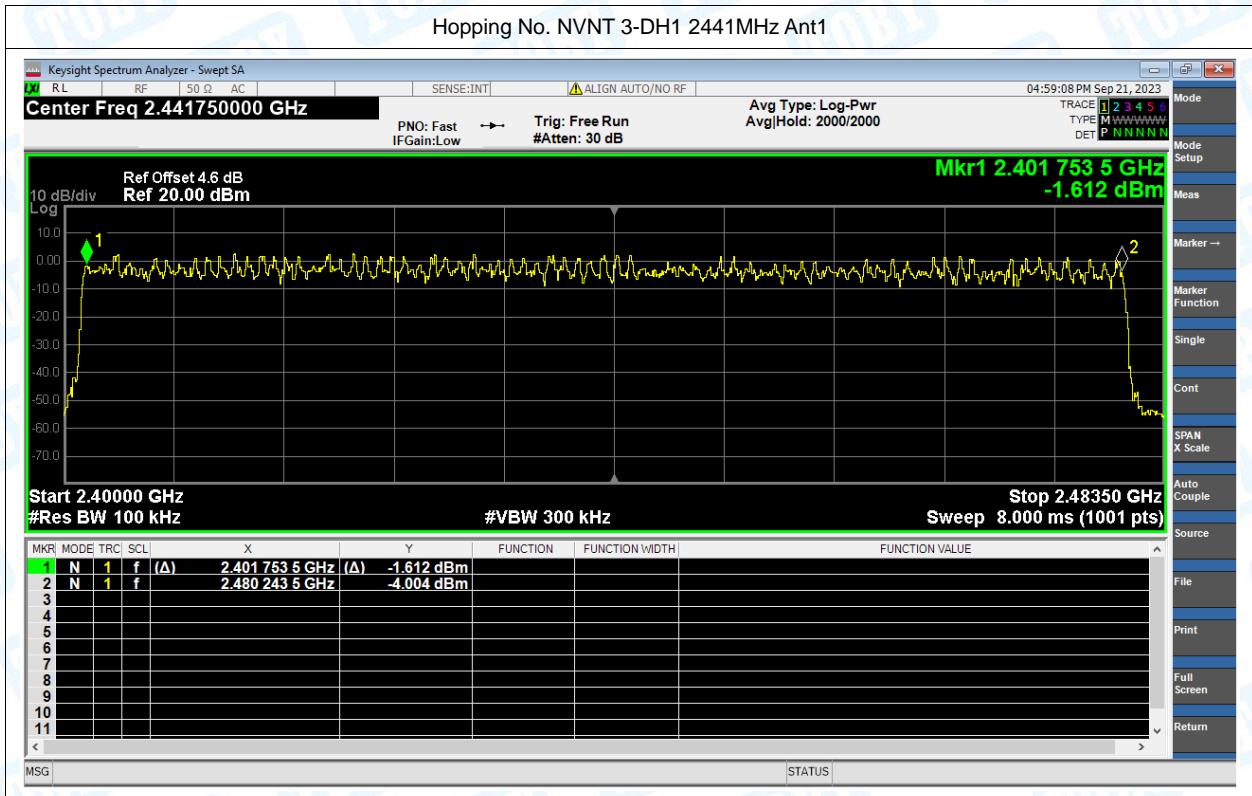
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



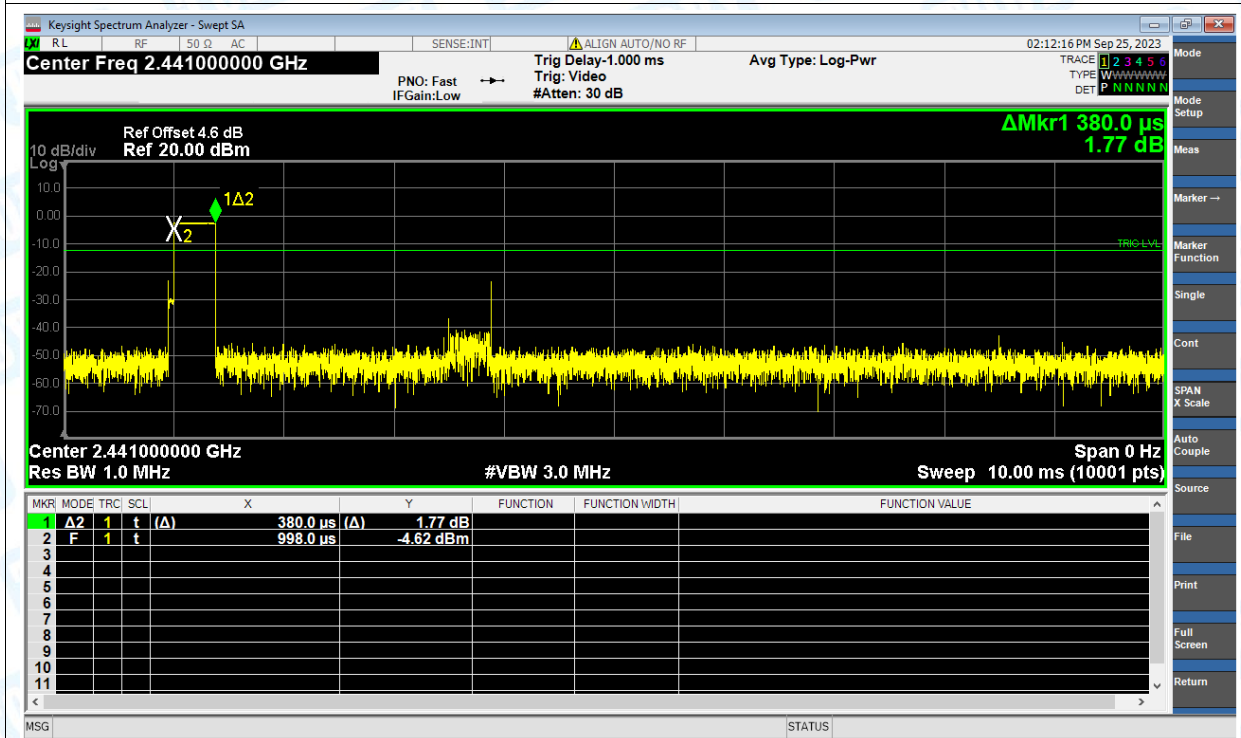


11. Dwell Time

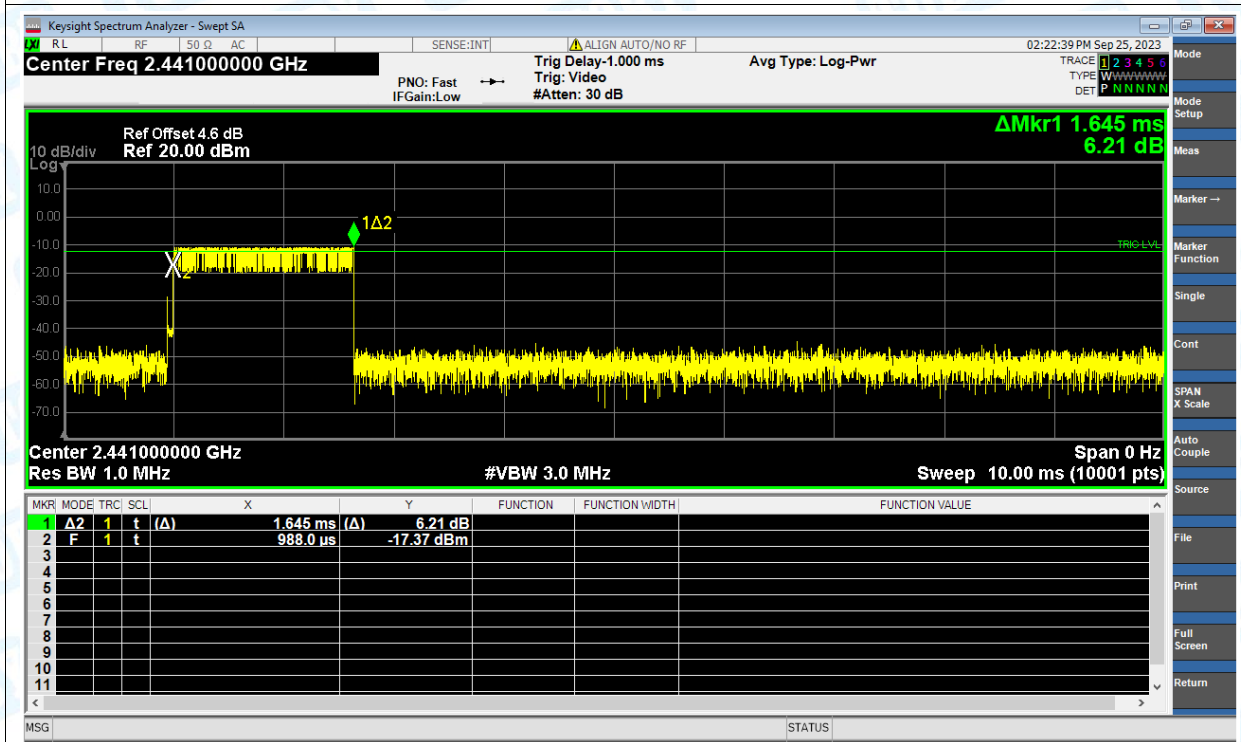
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.38	121.6	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.645	263.2	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.893	308.587	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.388	124.16	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.639	262.24	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.888	308.053	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.388	124.16	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.637	261.92	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.889	308.16	31600	400	Pass

Test Graphs

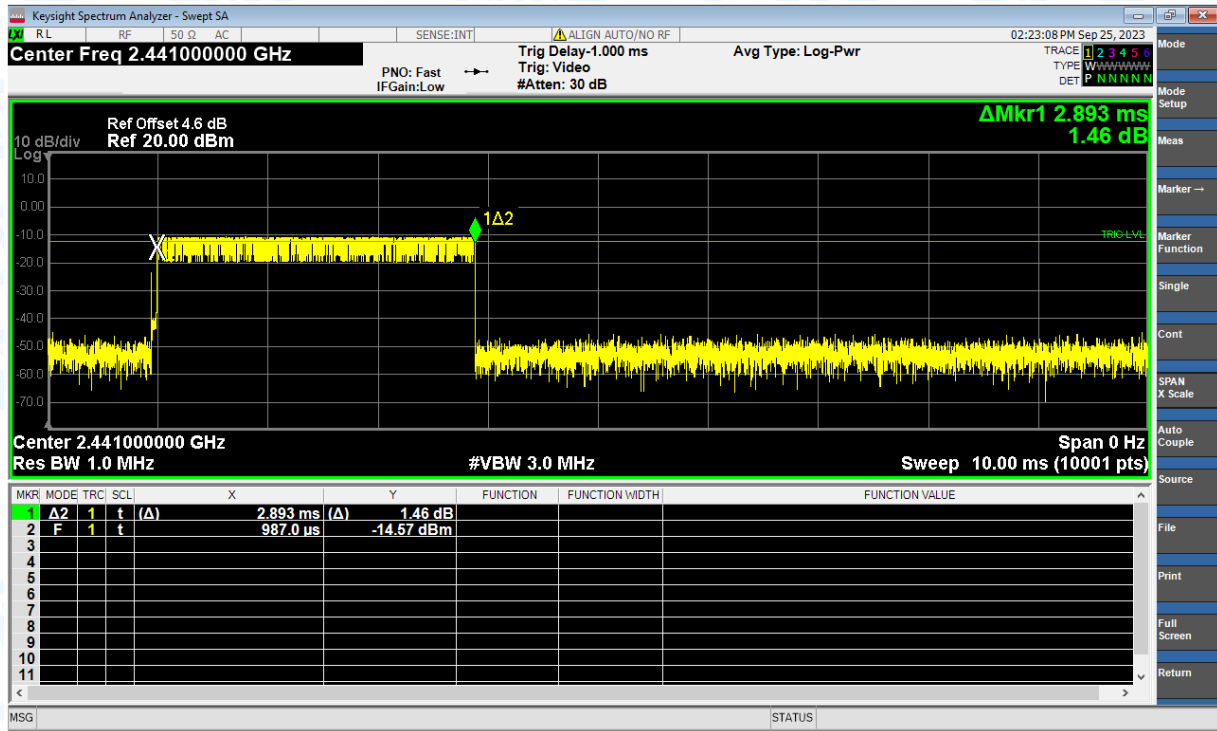
Dwell NVNT 1-DH1 2441MHz Ant1



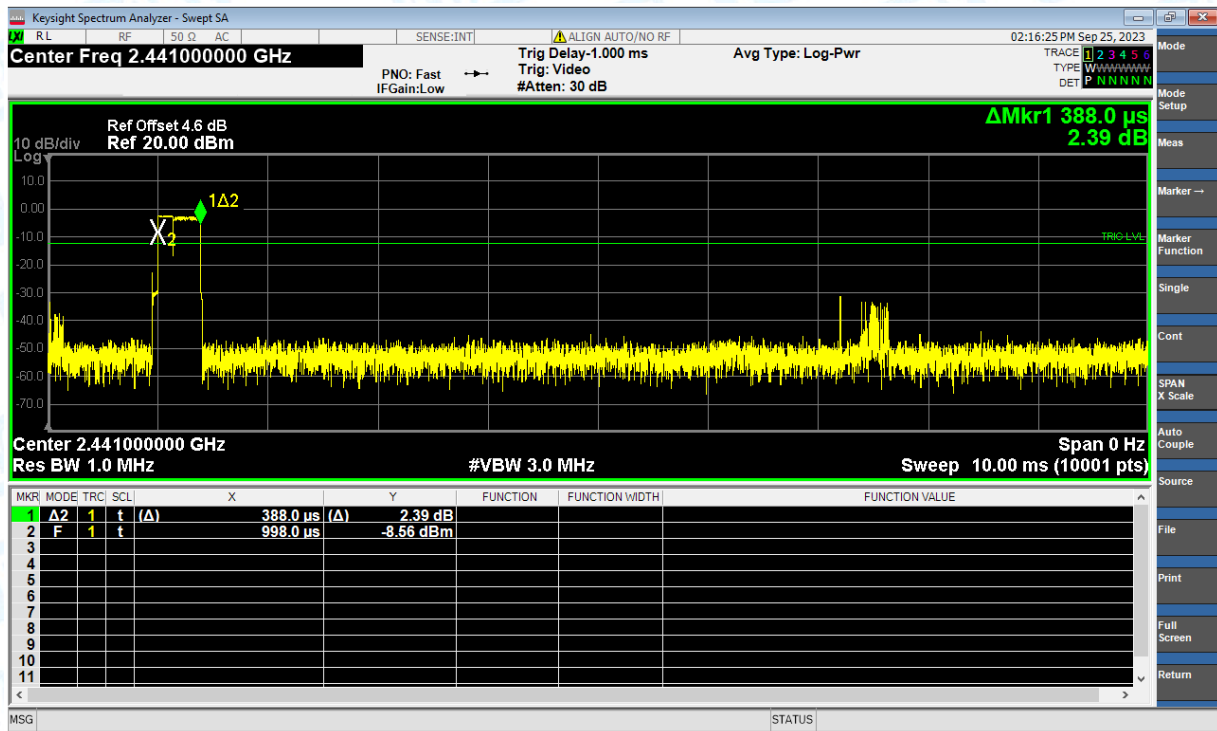
Dwell NVNT 1-DH3 2441MHz Ant1



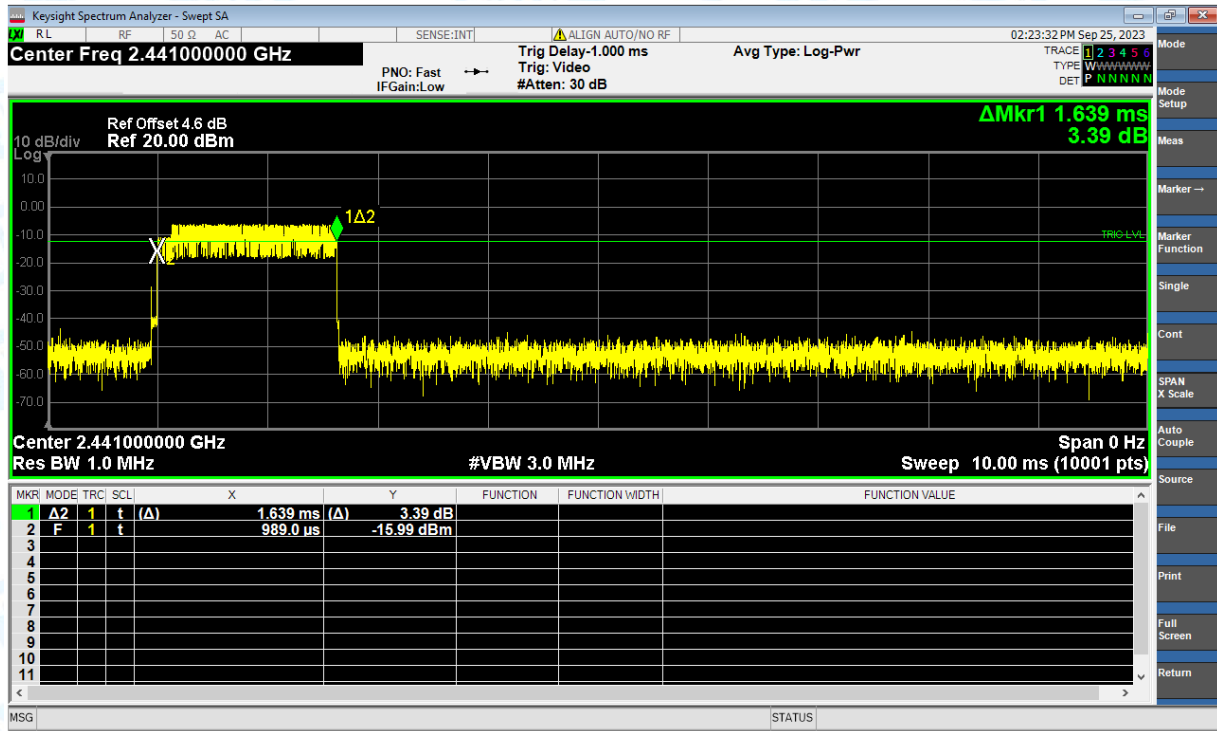
Dwell NVNT 1-DH5 2441MHz Ant1



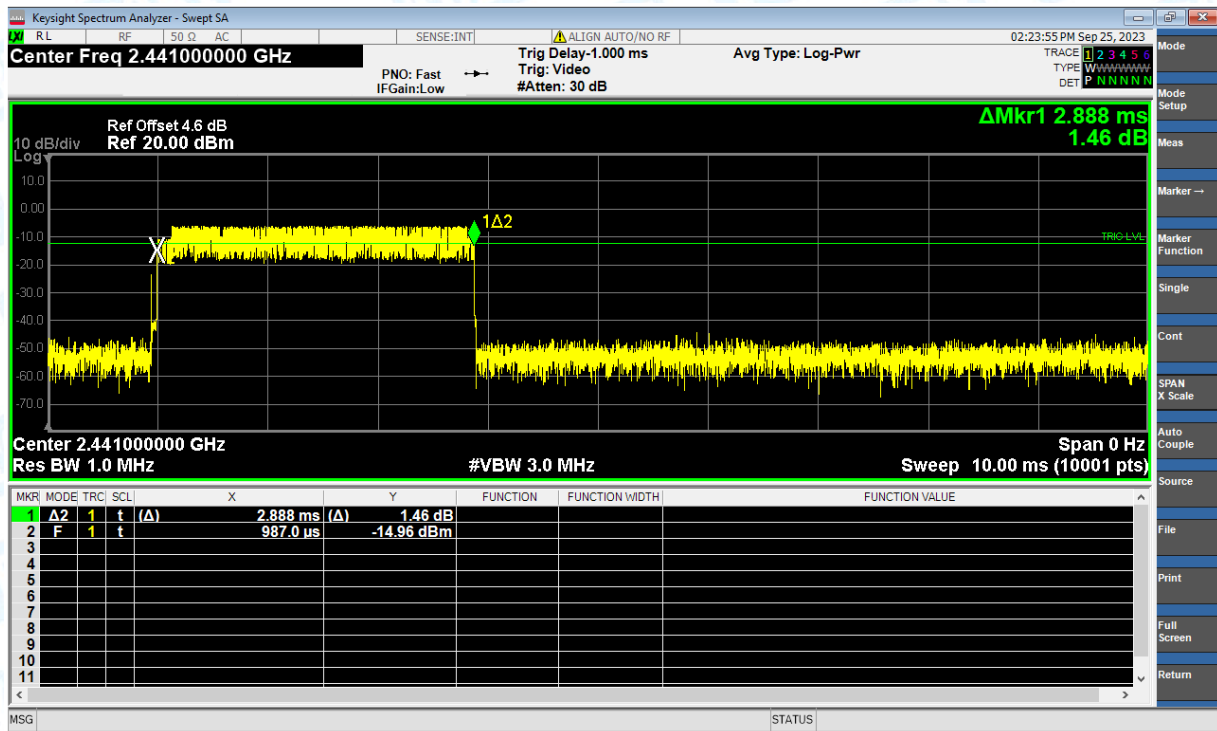
Dwell NVNT 2-DH1 2441MHz Ant1



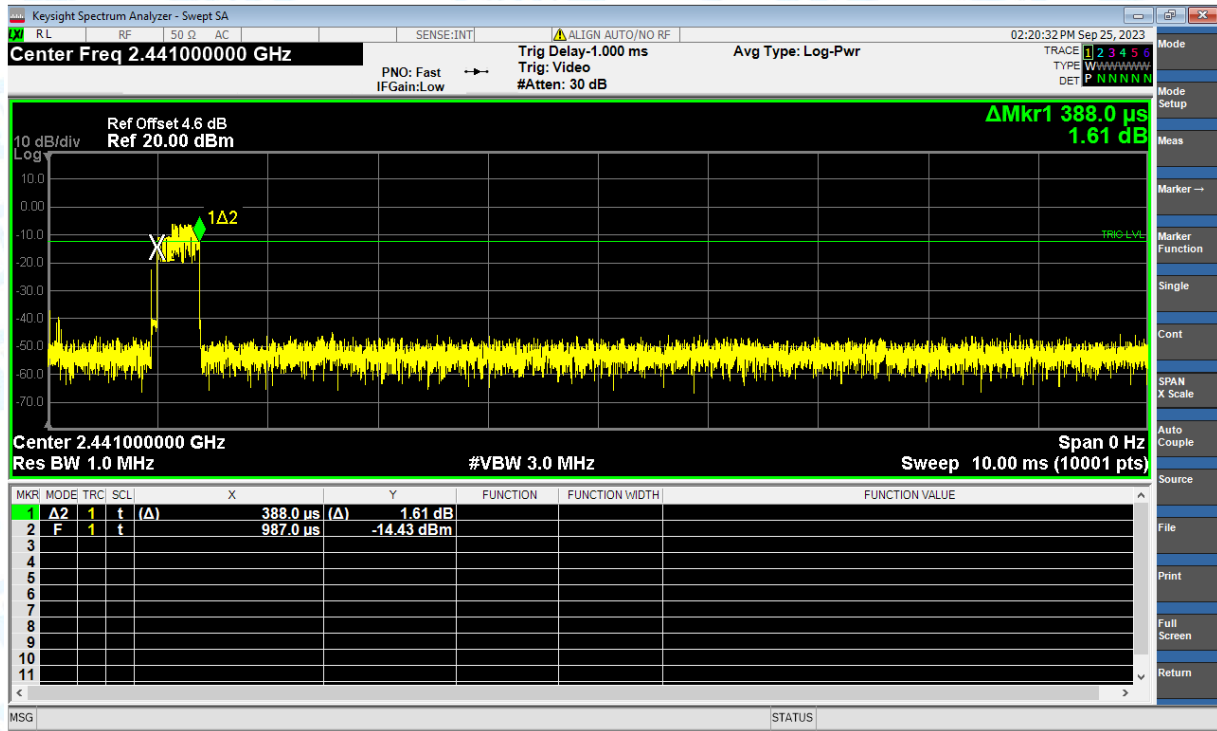
Dwell NVNT 2-DH3 2441MHz Ant1



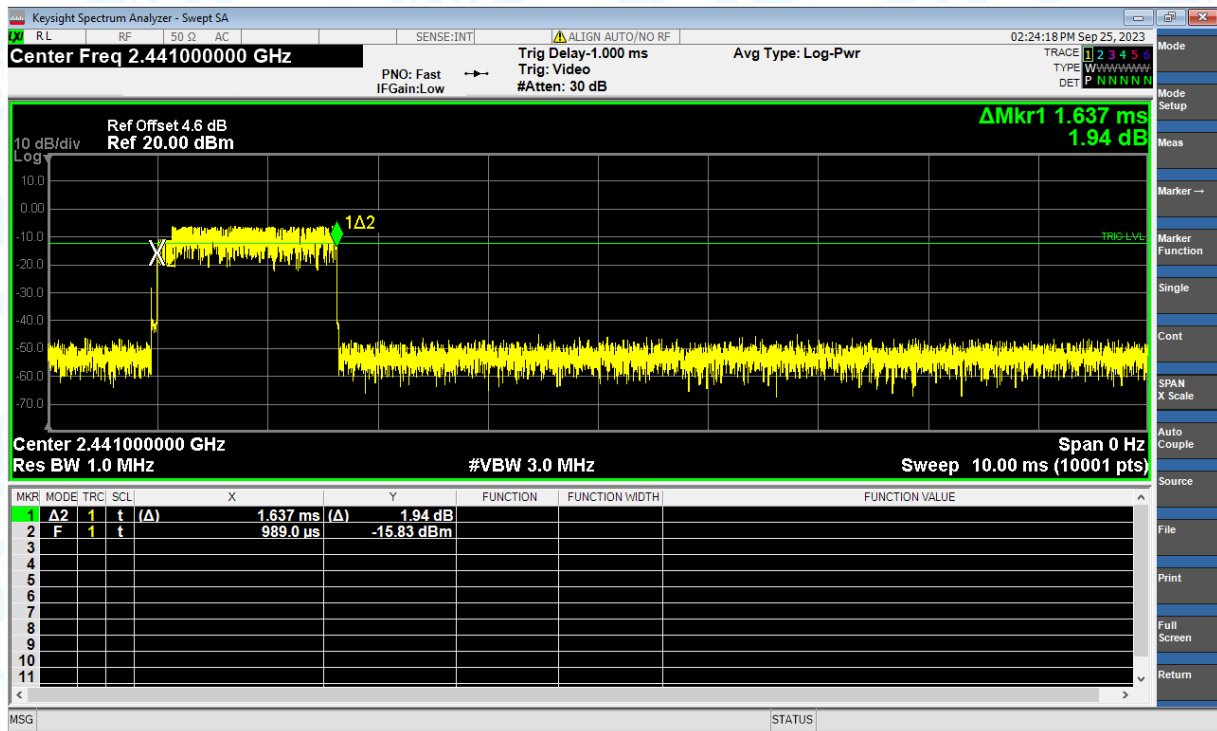
Dwell NVNT 2-DH5 2441MHz Ant1

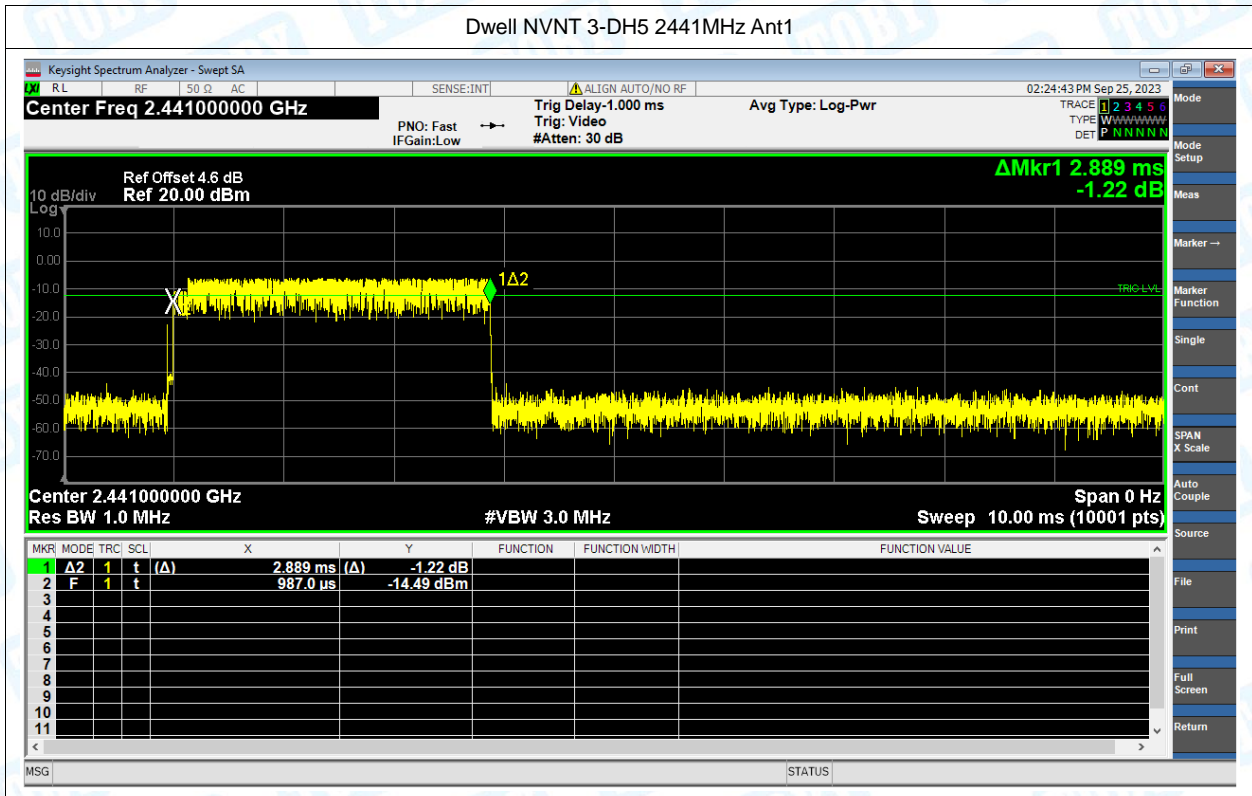


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





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