

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

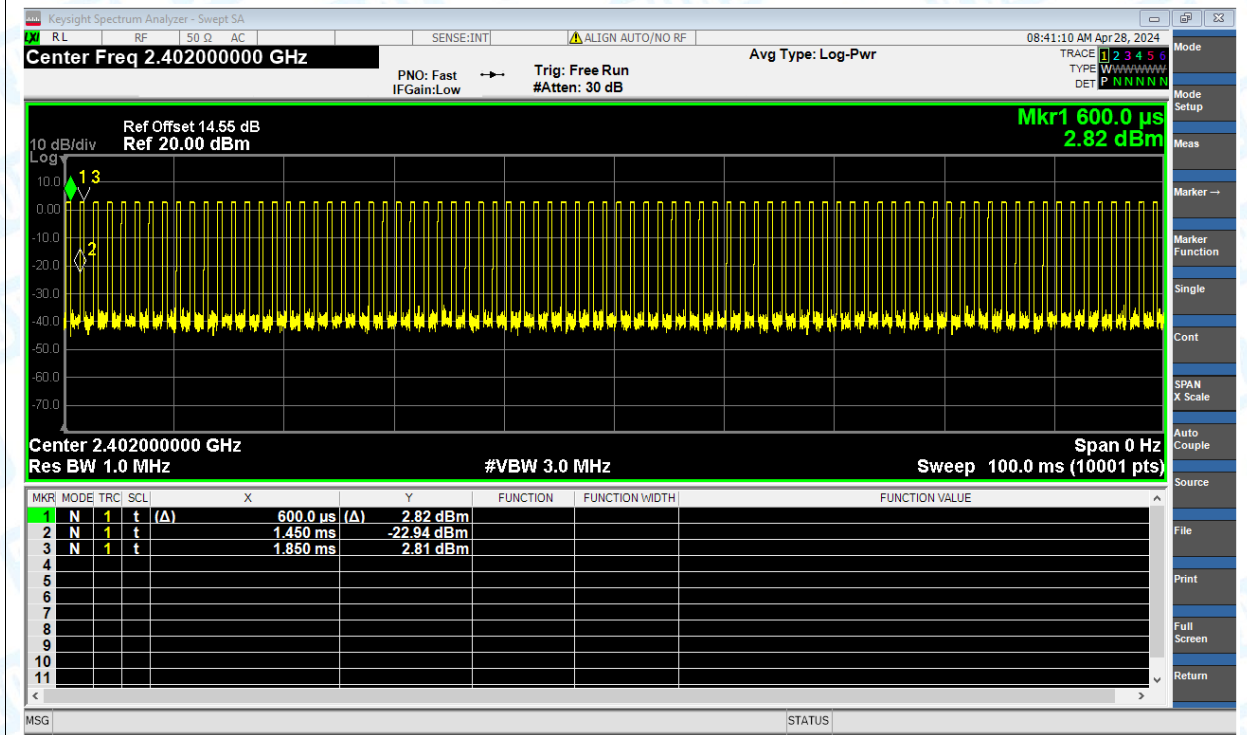
General Description of EUT	
Product Name:	Open Bluetooth headphone
Test Model:	S100
Sample ID:	HC-C-202404-0107-02-01-2#
Environmental Conditions	
Temperature:	23.8°C
Relative Humidity:	48%
Test Voltage:	DC 3.7V
Test Engineer:	Mike Yan
Note: For a more detailed features description, please refer to the report TBR-C-202404-0107-1 The report only show the worst case data.	

1. Duty Cycle

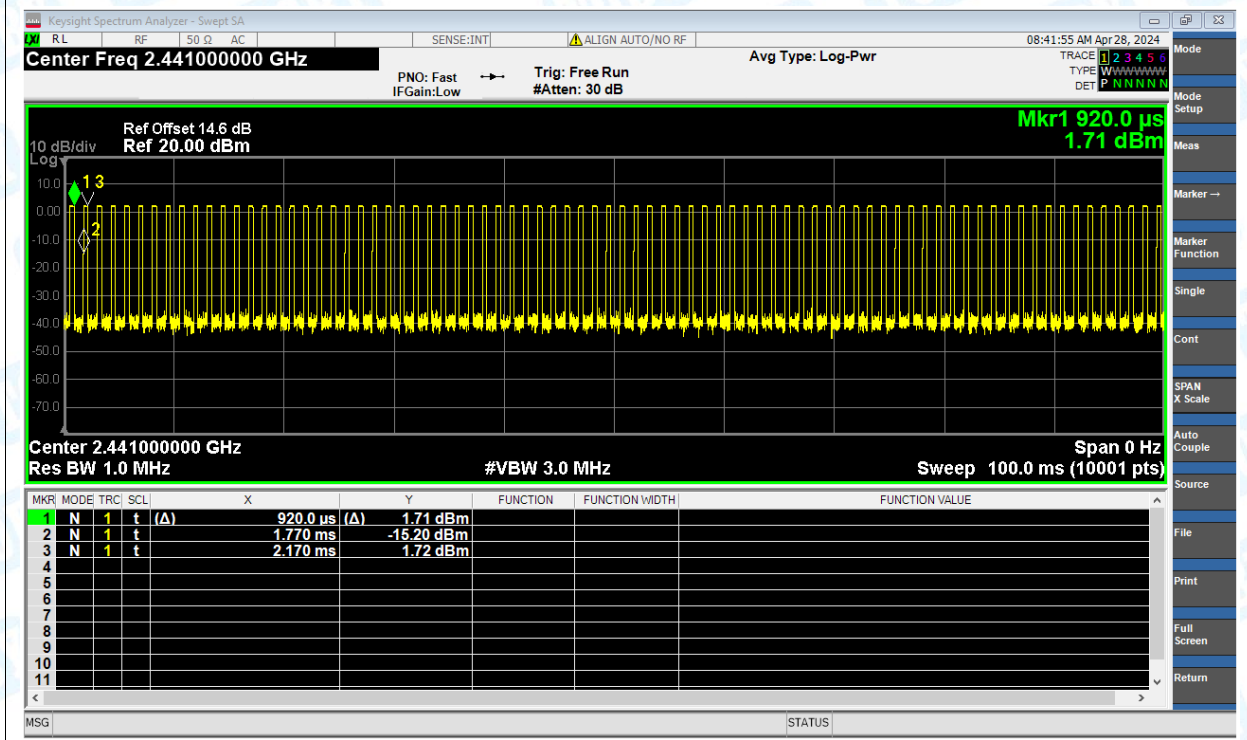
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	32	4.95	2.5
NVNT	1-DH1	2441	Ant1	32	4.95	2.5
NVNT	1-DH1	2480	Ant1	32	4.95	2.5
NVNT	2-DH1	2402	Ant1	32.8	4.84	2.44
NVNT	2-DH1	2441	Ant1	32.64	4.86	2.45
NVNT	2-DH1	2480	Ant1	32	4.95	2.5
NVNT	3-DH1	2402	Ant1	32.8	4.84	2.44
NVNT	3-DH1	2441	Ant1	32.8	4.84	2.44
NVNT	3-DH1	2480	Ant1	32.8	4.84	2.44

Test Graphs

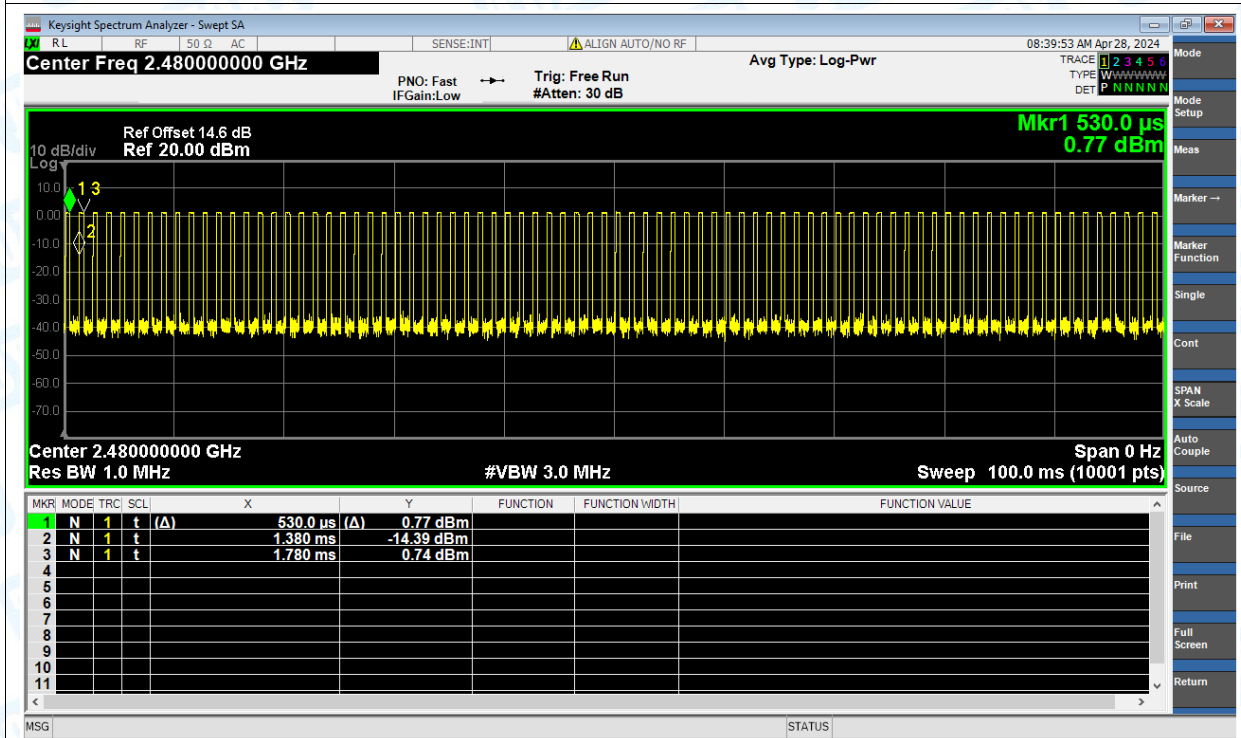
Duty Cycle NVNT 1-DH1 2402MHz Ant1



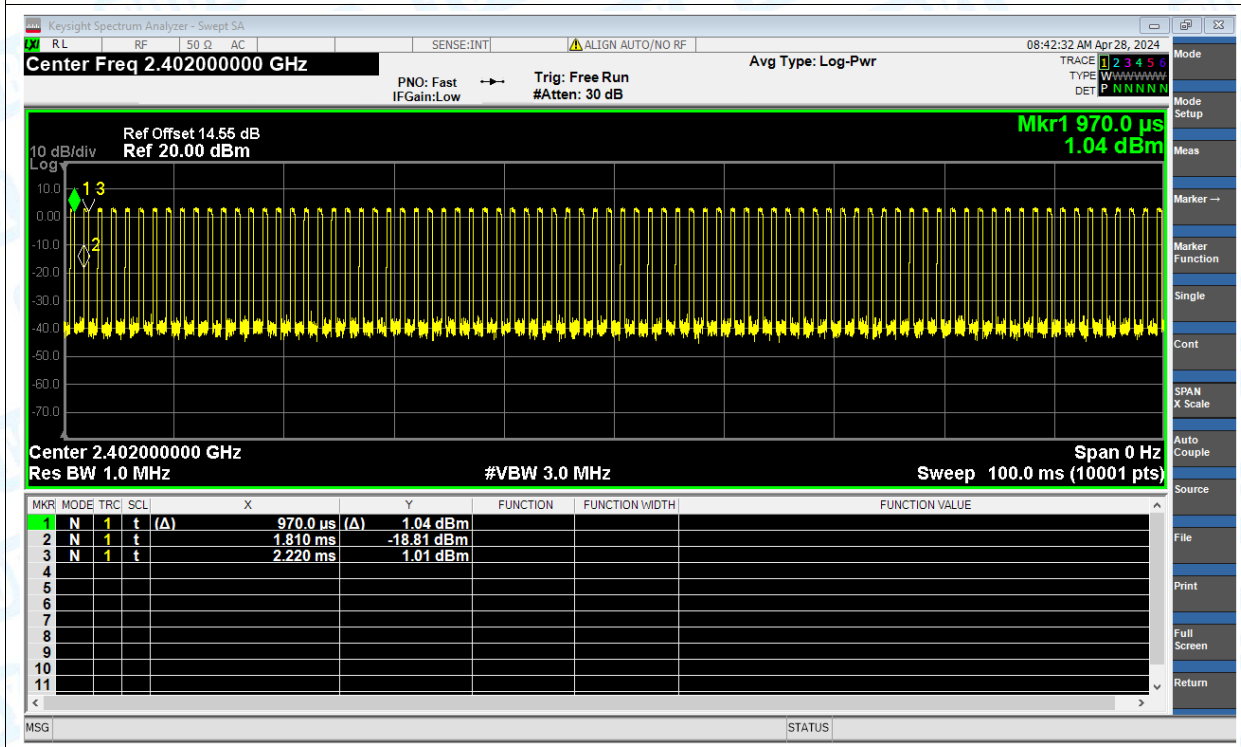
Duty Cycle NVNT 1-DH1 2441MHz Ant1



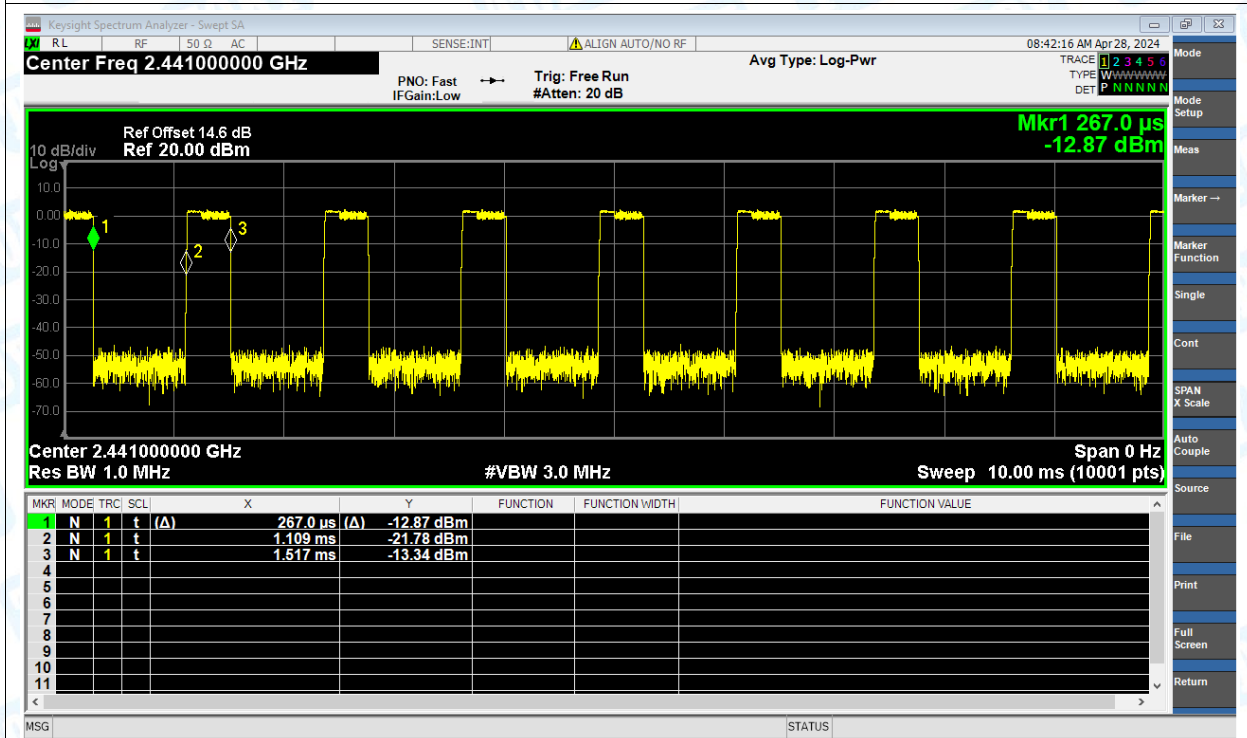
Duty Cycle NVNT 1-DH1 2480MHz Ant1



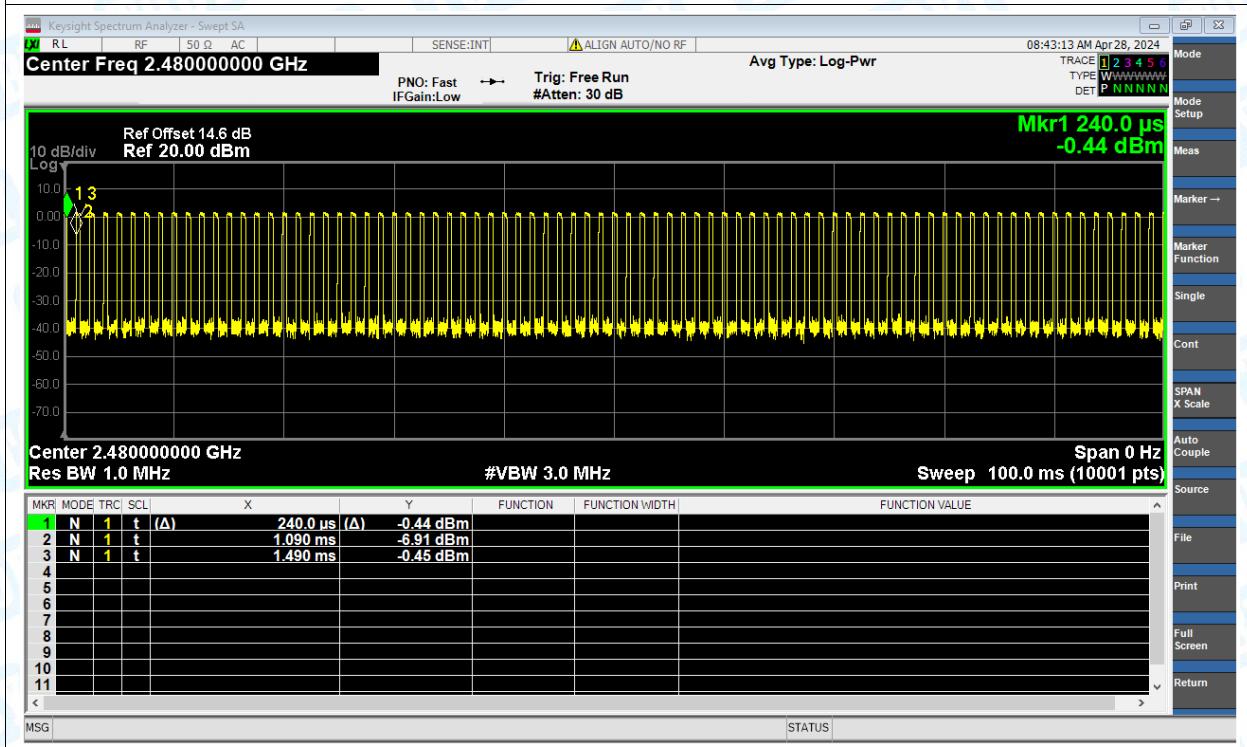
Duty Cycle NVNT 2-DH1 2402MHz Ant1



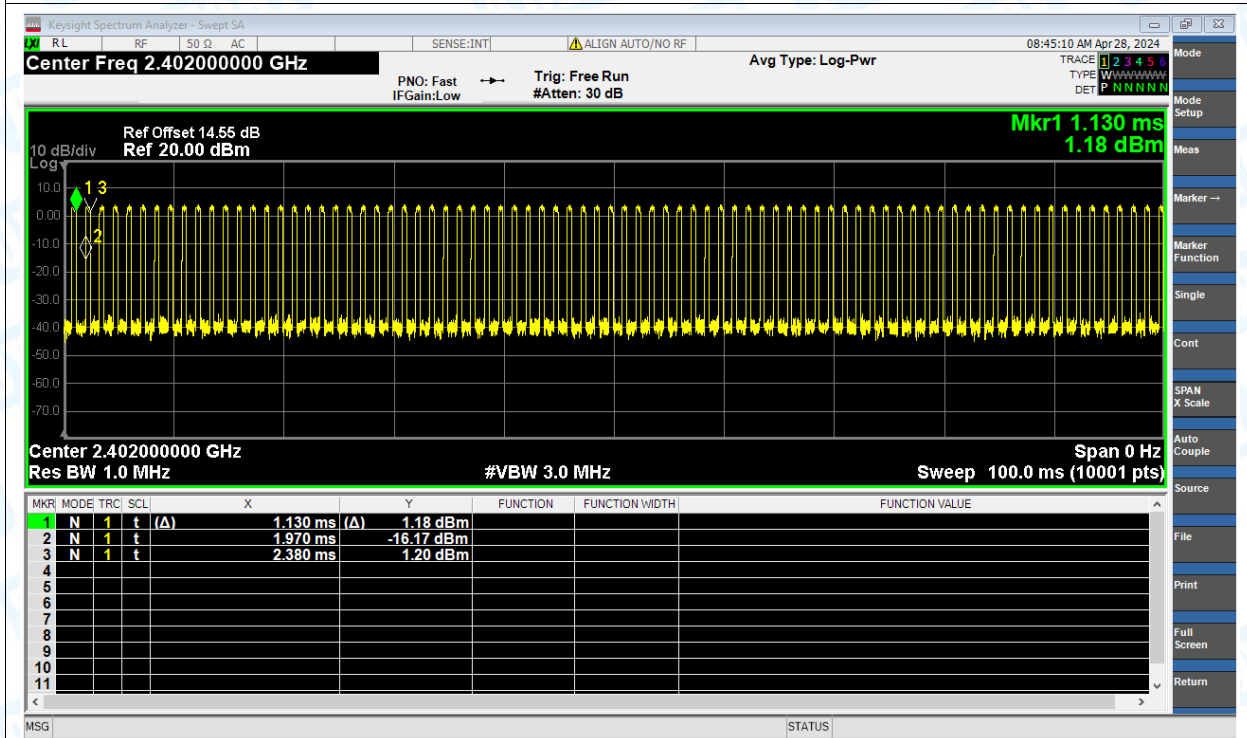
Duty Cycle NVNT 2-DH1 2441MHz Ant1



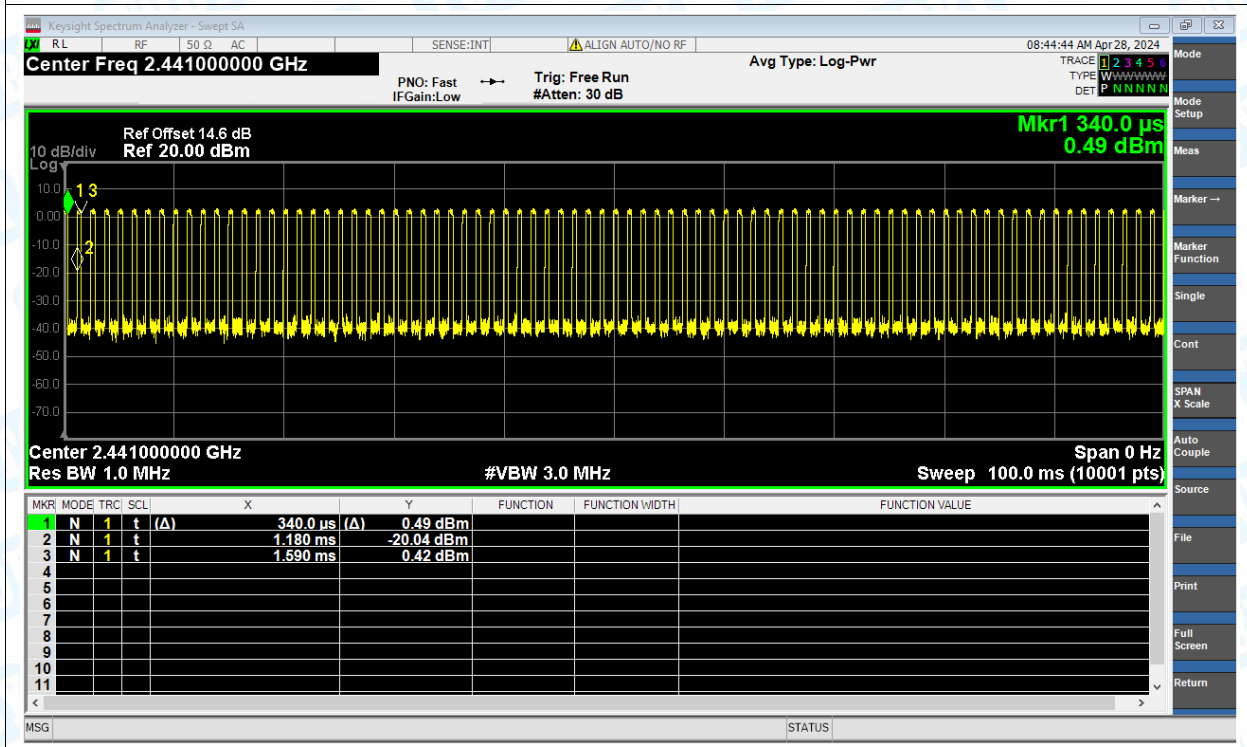
Duty Cycle NVNT 2-DH1 2480MHz Ant1

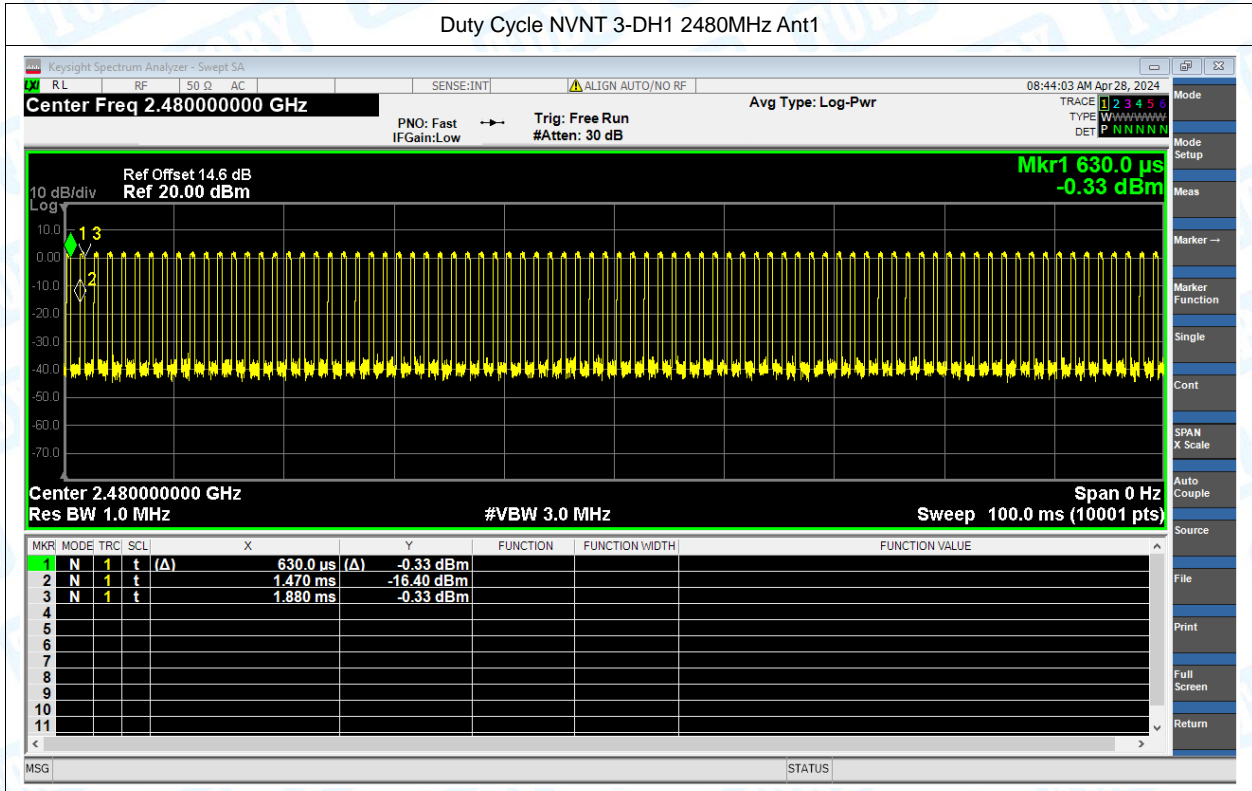


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



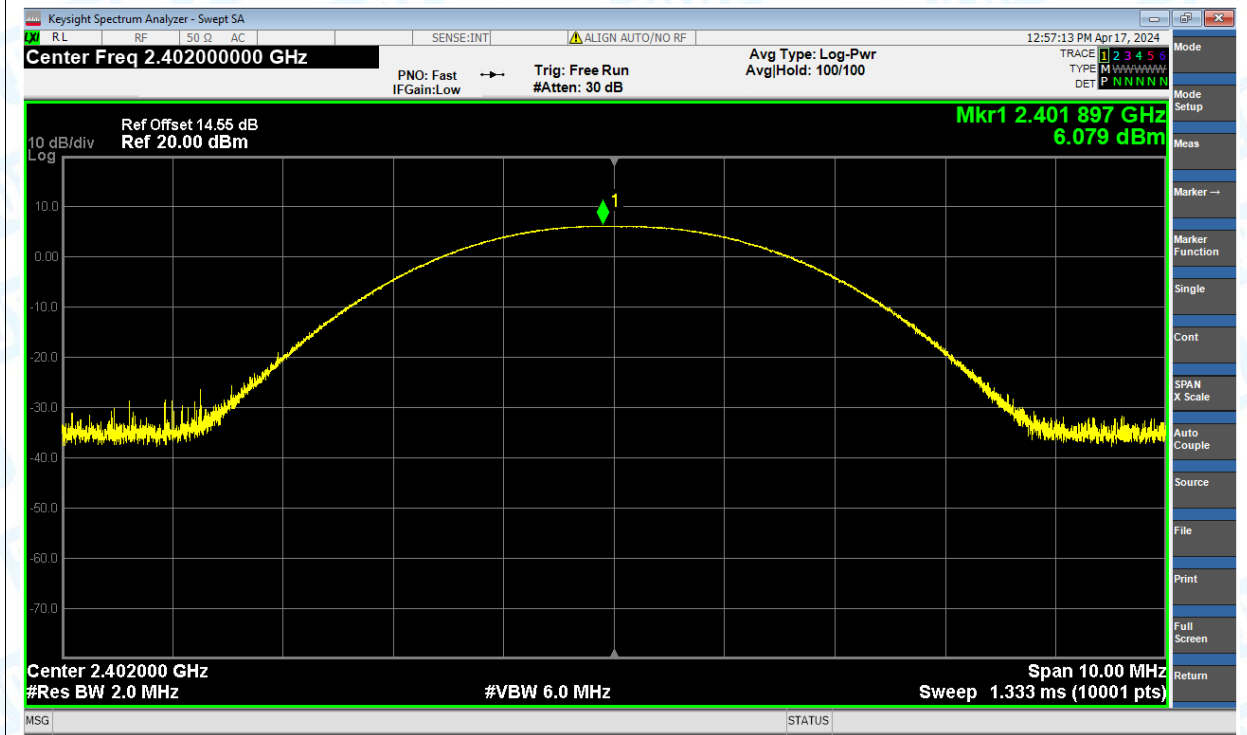


2. Maximum Conducted Output Power

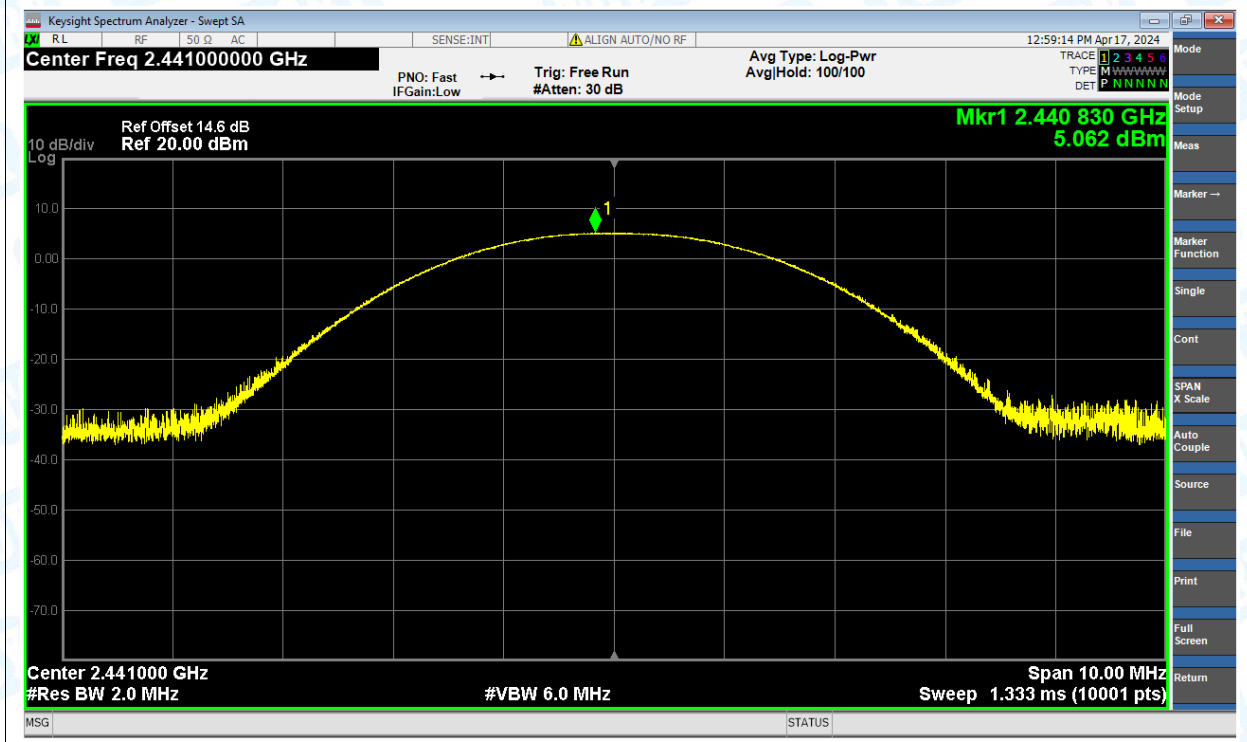
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	6.079	21	Pass
NVNT	1-DH1	2441	Ant1	5.062	21	Pass
NVNT	1-DH1	2480	Ant1	4.247	21	Pass
NVNT	2-DH1	2402	Ant1	6.552	21	Pass
NVNT	2-DH1	2441	Ant1	5.571	21	Pass
NVNT	2-DH1	2480	Ant1	4.685	21	Pass
NVNT	3-DH1	2402	Ant1	6.802	21	Pass
NVNT	3-DH1	2441	Ant1	5.874	21	Pass
NVNT	3-DH1	2480	Ant1	5.113	21	Pass

Test Graphs

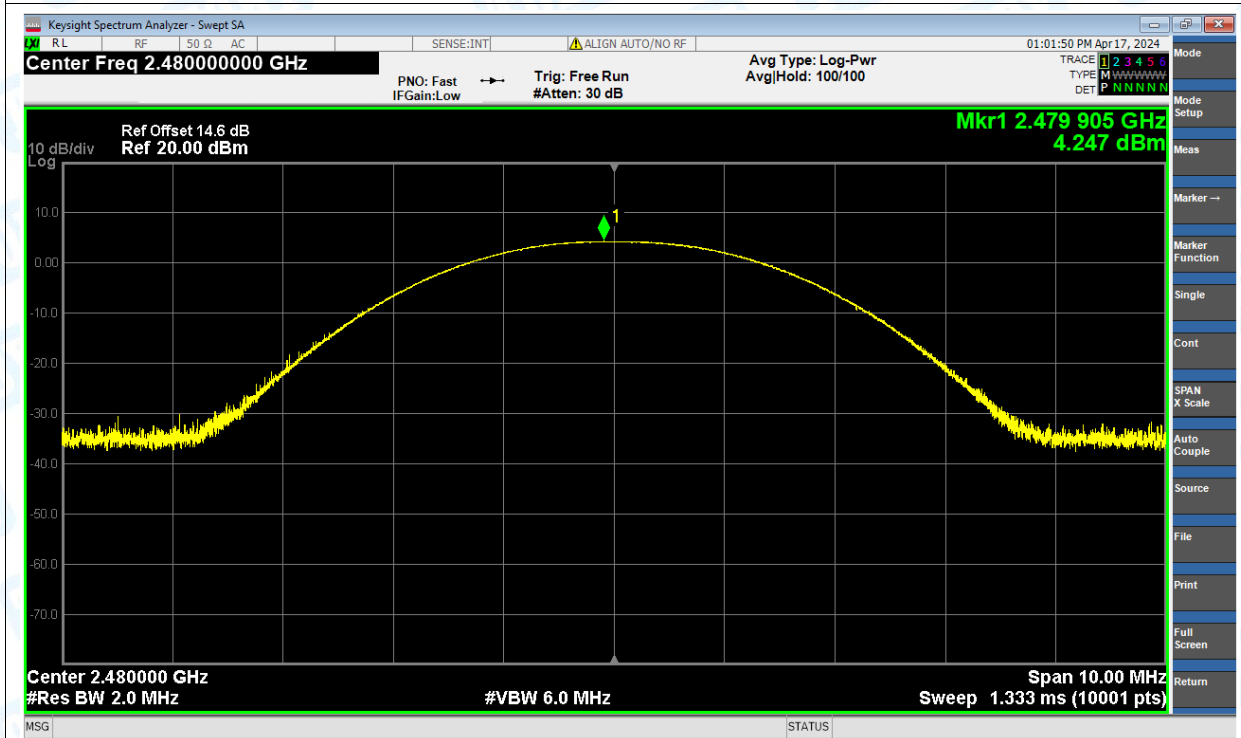
Power NVNT 1-DH1 2402MHz Ant1



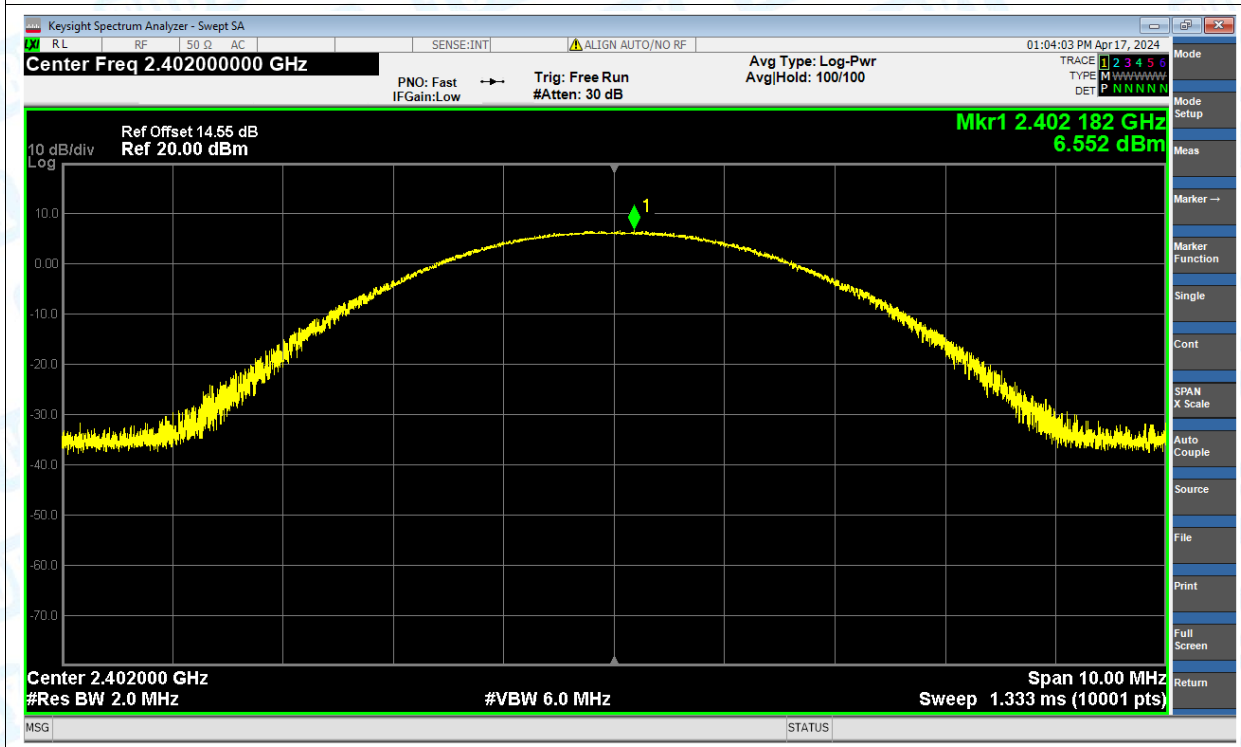
Power NVNT 1-DH1 2441MHz Ant1



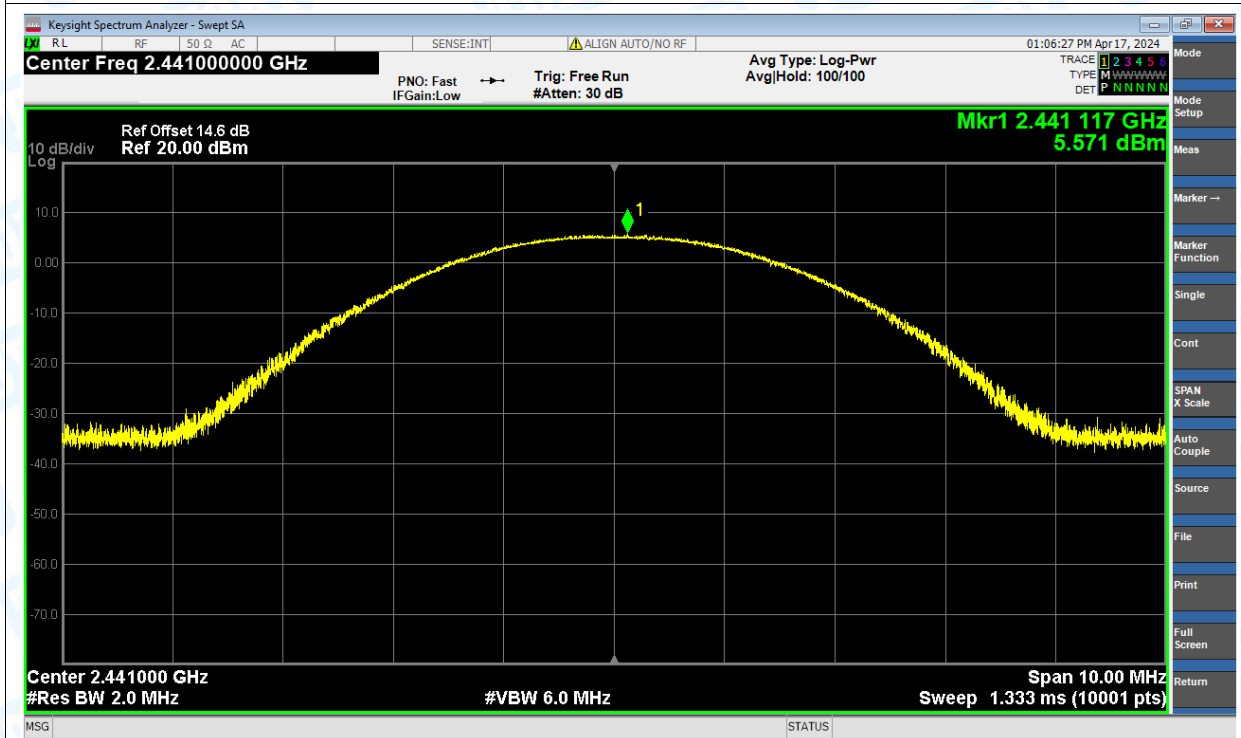
Power NVNT 1-DH1 2480MHz Ant1



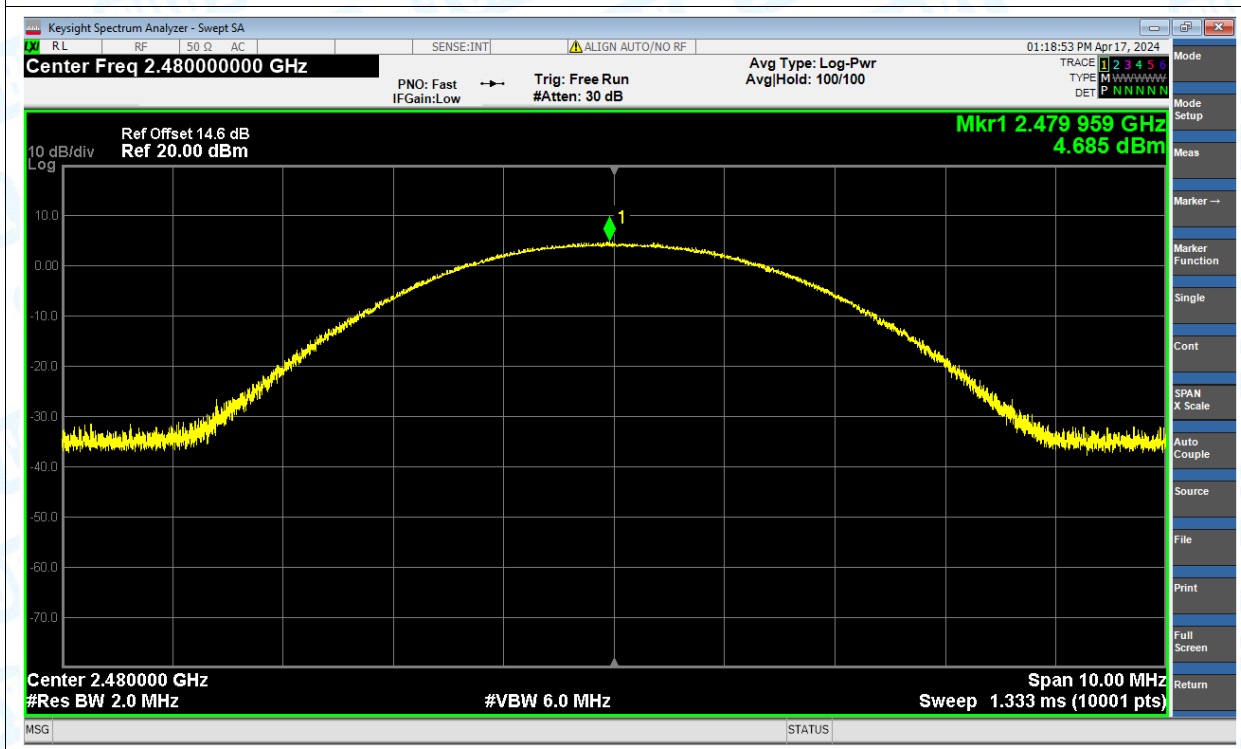
Power NVNT 2-DH1 2402MHz Ant1



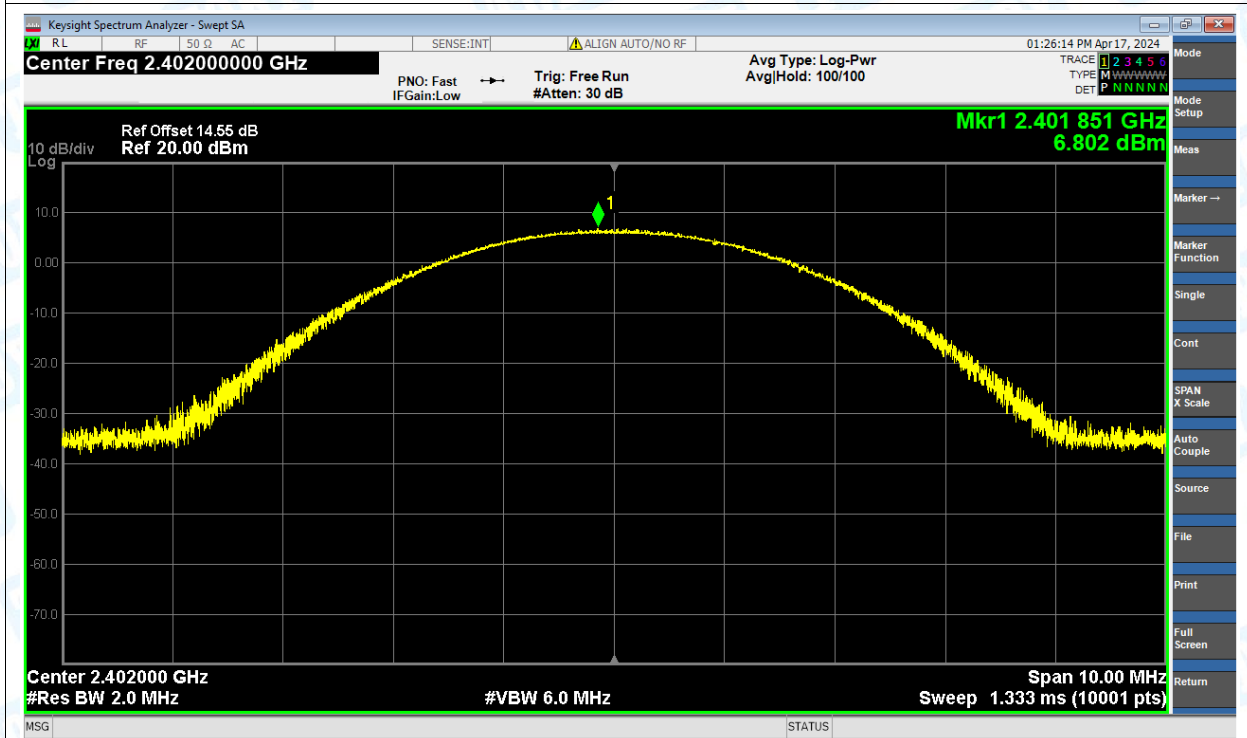
Power NVNT 2-DH1 2441MHz Ant1



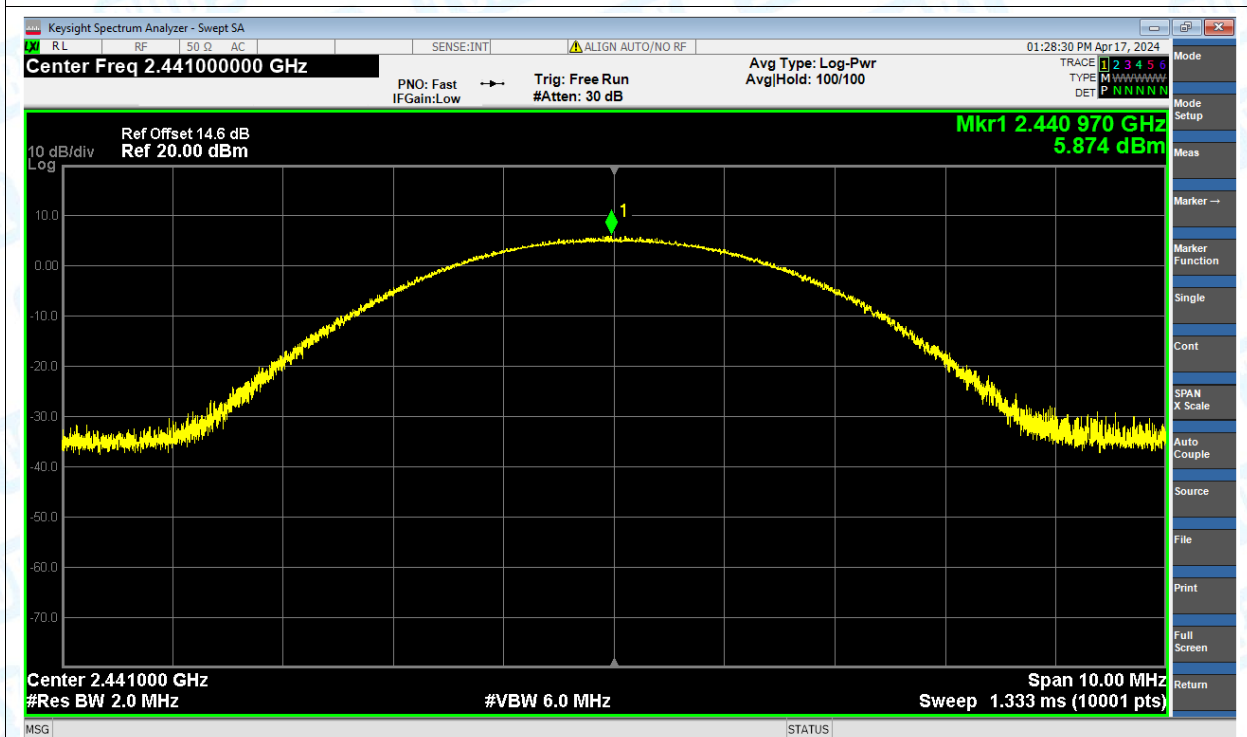
Power NVNT 2-DH1 2480MHz Ant1



Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



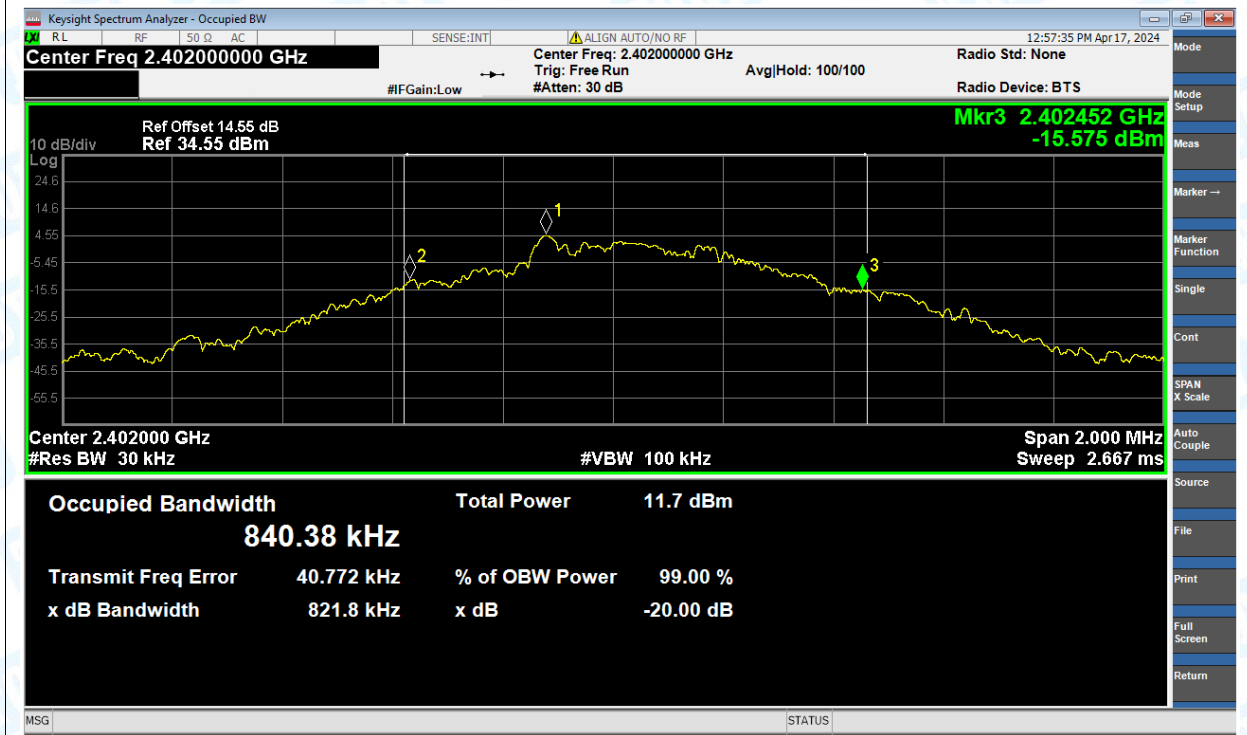


3. -20dB Bandwidth

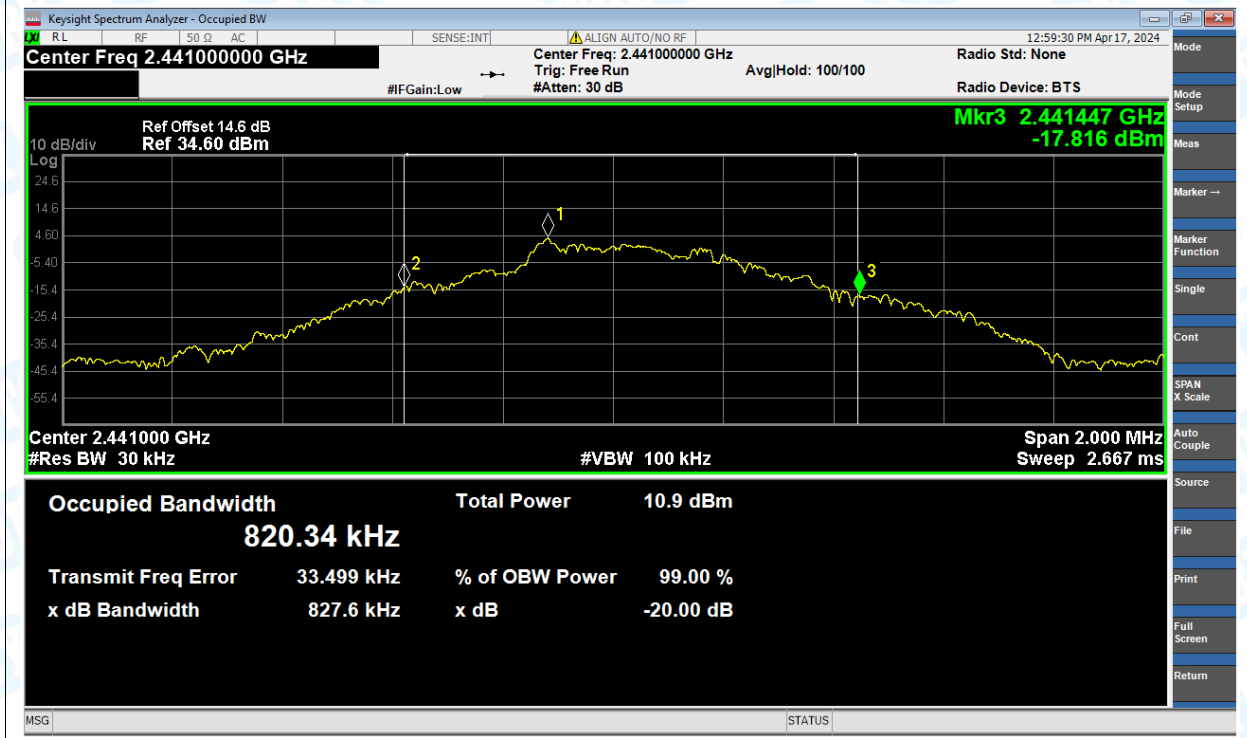
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.82	----	Pass
NVNT	1-DH1	2441	Ant1	0.83	----	Pass
NVNT	1-DH1	2480	Ant1	0.83	----	Pass
NVNT	2-DH1	2402	Ant1	1.23	----	Pass
NVNT	2-DH1	2441	Ant1	1.25	----	Pass
NVNT	2-DH1	2480	Ant1	1.20	----	Pass
NVNT	3-DH1	2402	Ant1	1.22	----	Pass
NVNT	3-DH1	2441	Ant1	1.20	----	Pass
NVNT	3-DH1	2480	Ant1	1.20	----	Pass

Test Graphs

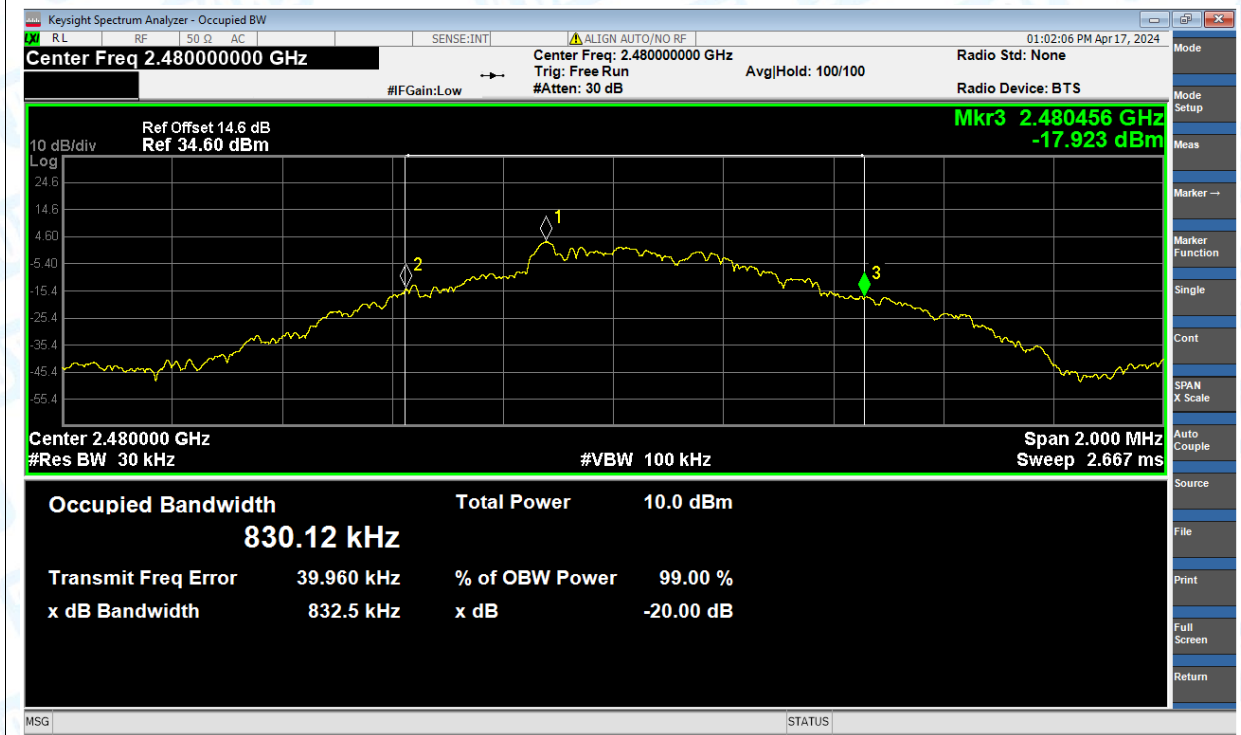
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



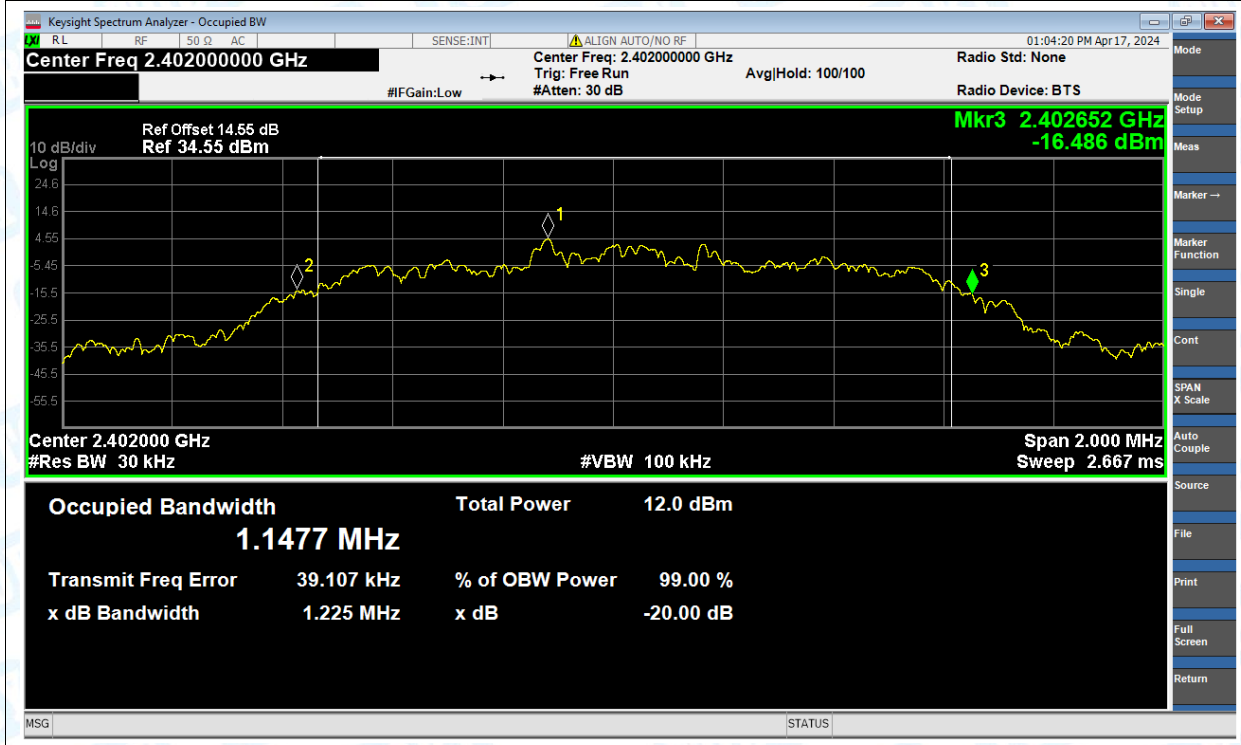
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



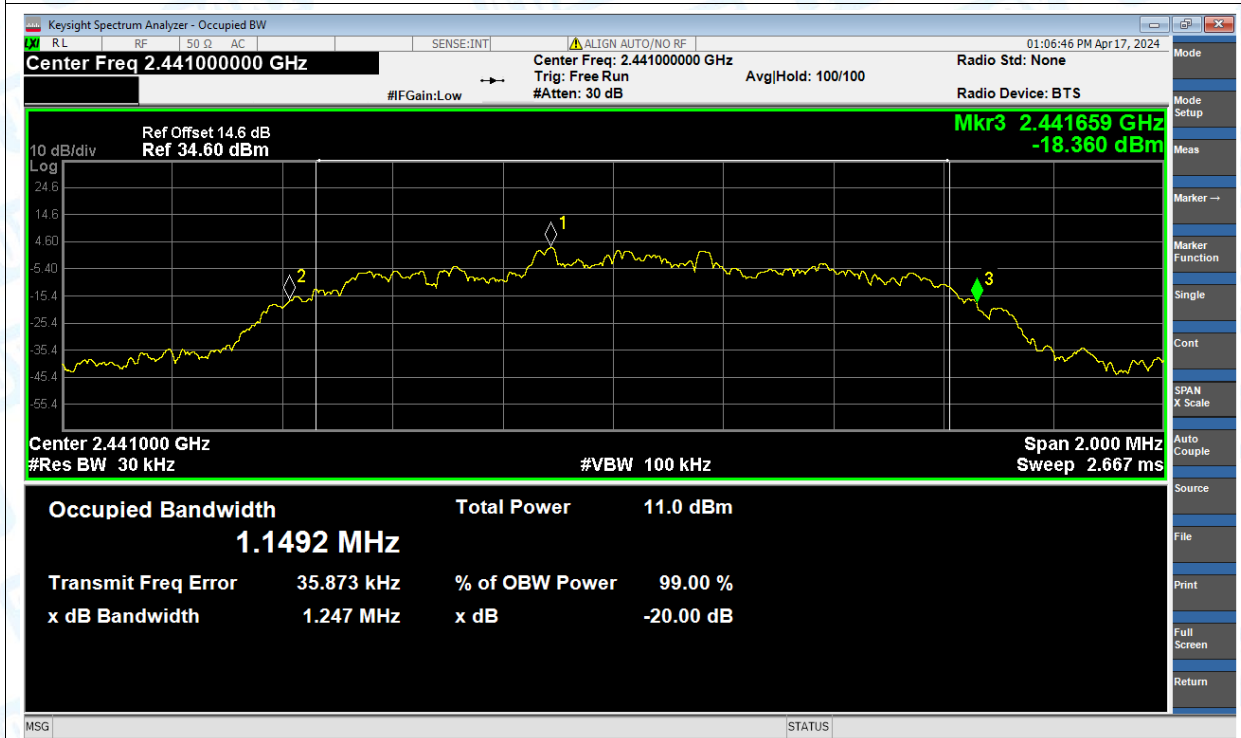
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



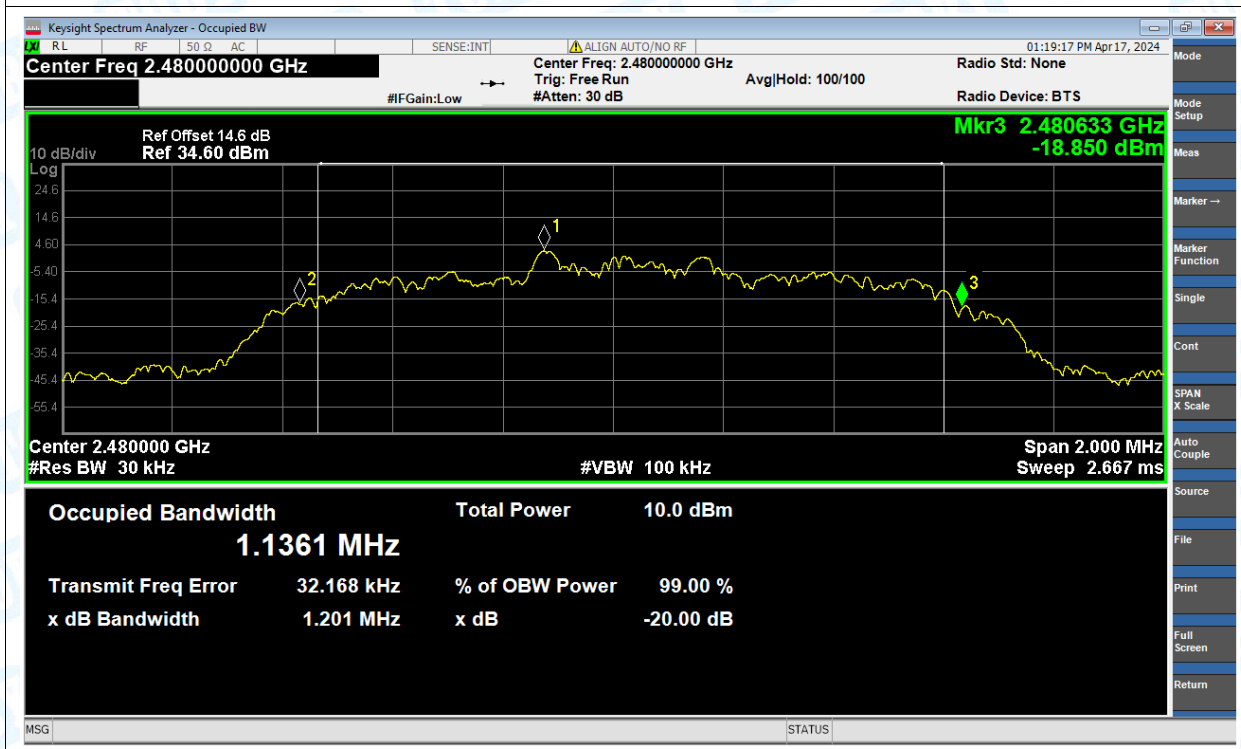
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



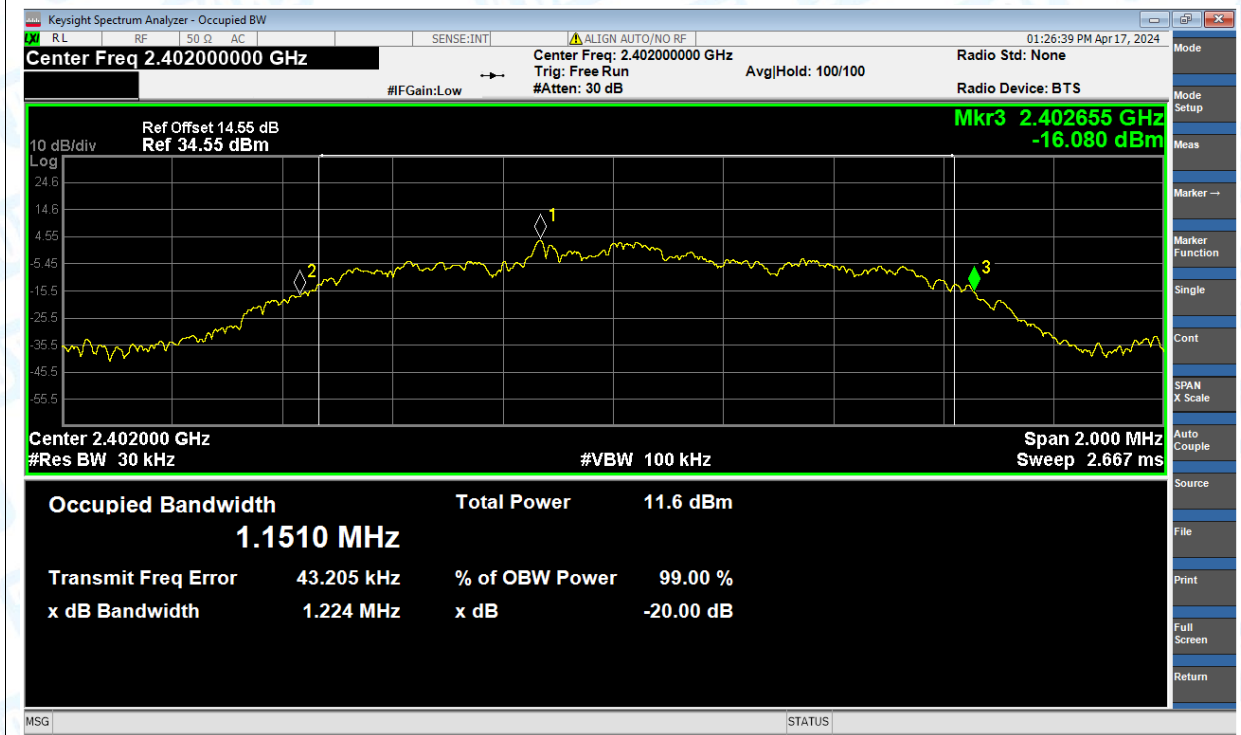
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



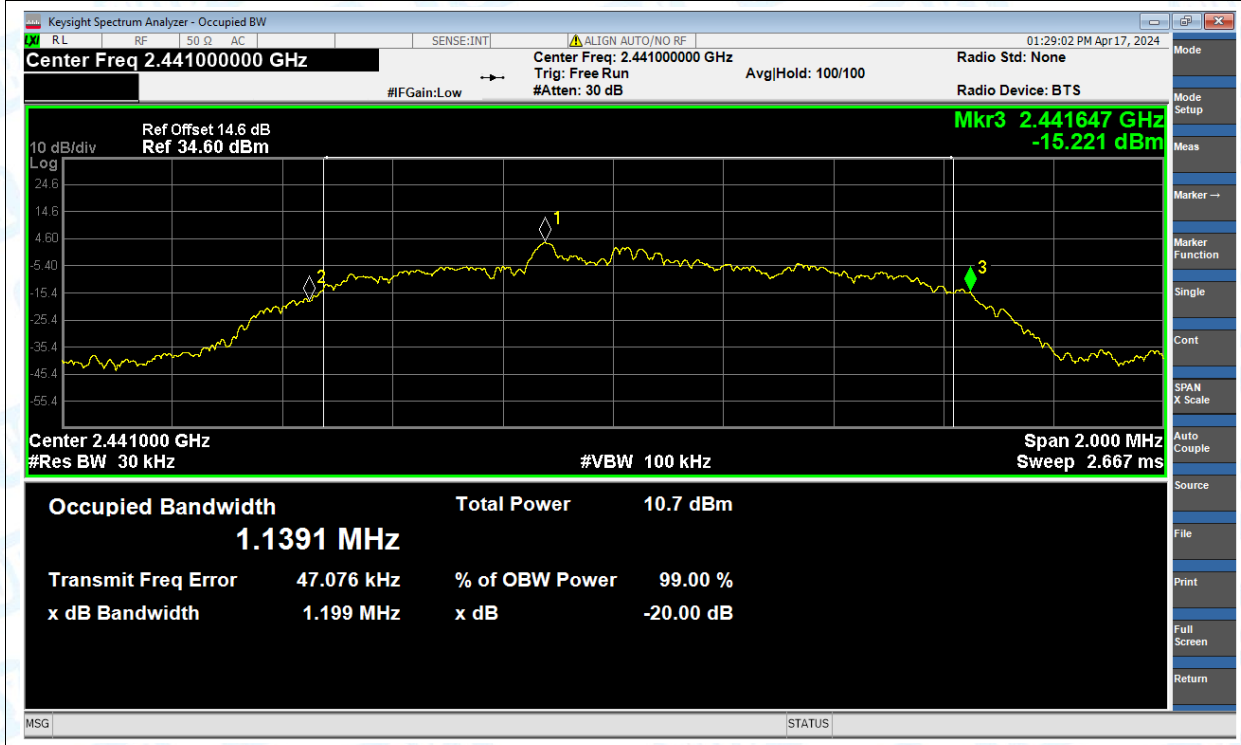
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

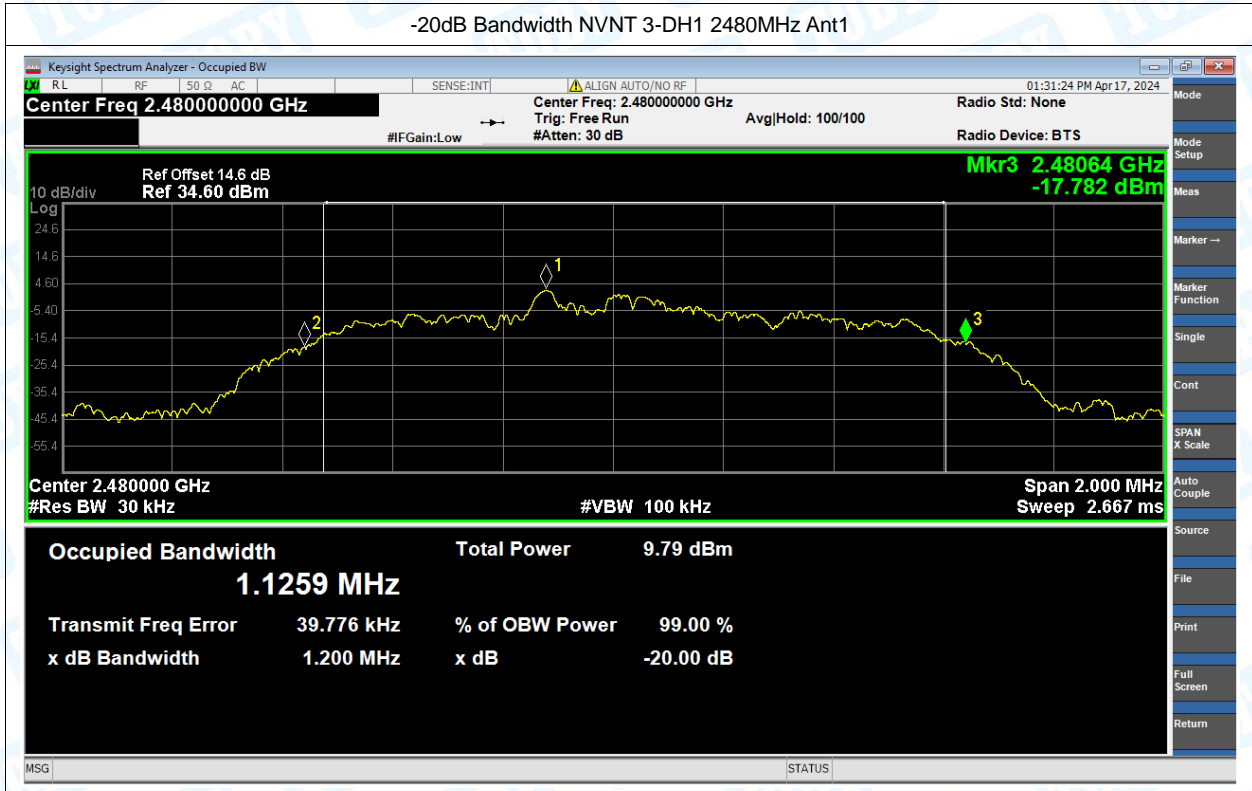


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



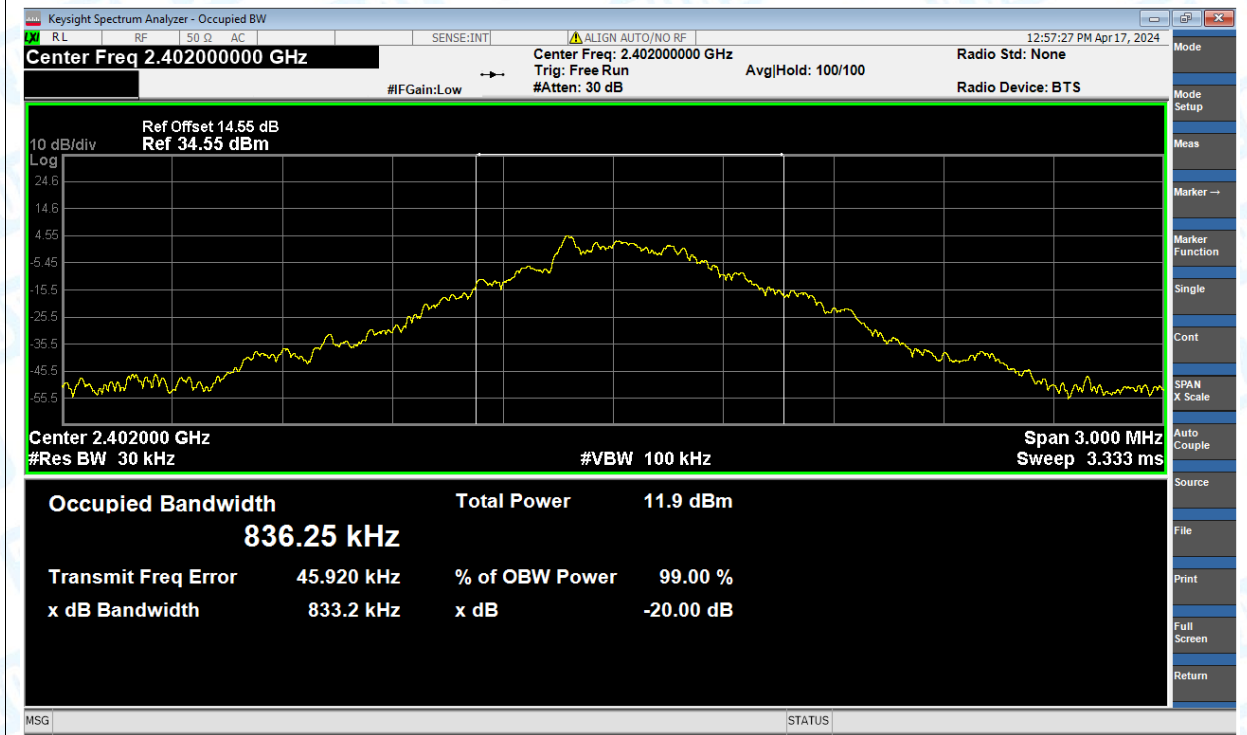


4. Occupied Channel Bandwidth

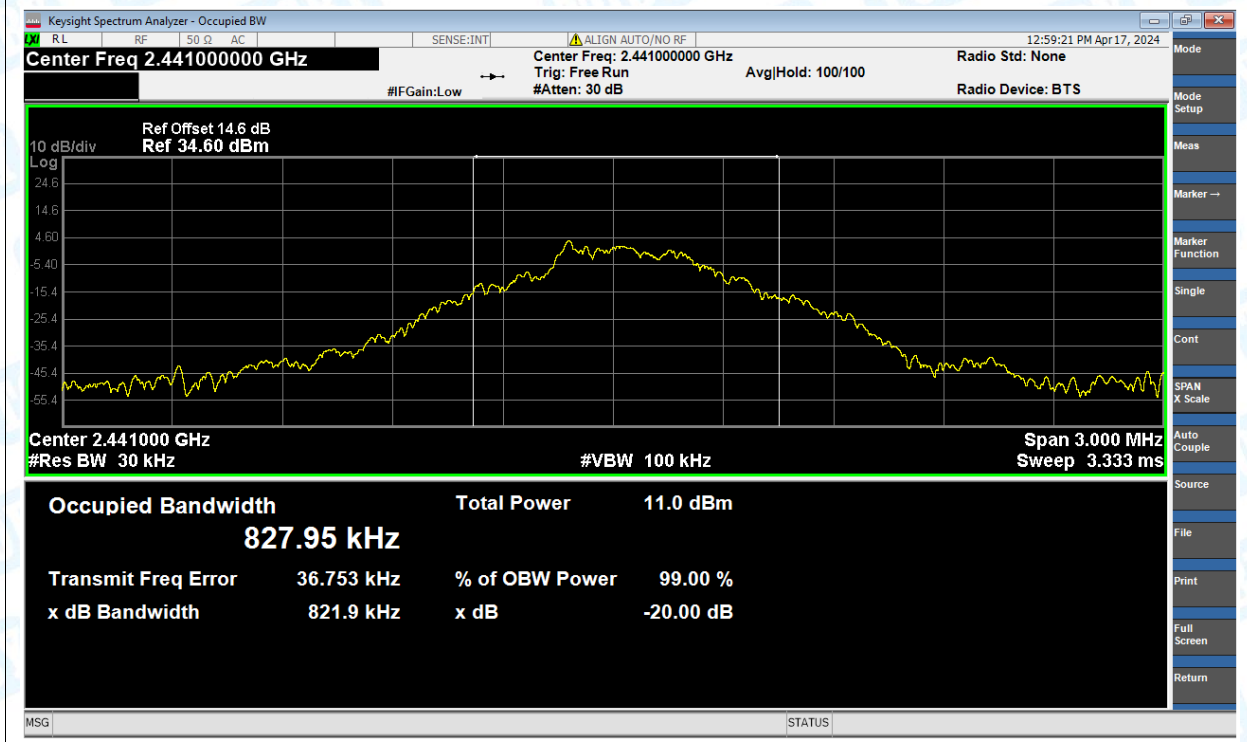
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.836
NVNT	1-DH1	2441	Ant1	0.828
NVNT	1-DH1	2480	Ant1	0.827
NVNT	2-DH1	2402	Ant1	1.138
NVNT	2-DH1	2441	Ant1	1.146
NVNT	2-DH1	2480	Ant1	1.125
NVNT	3-DH1	2402	Ant1	1.150
NVNT	3-DH1	2441	Ant1	1.149
NVNT	3-DH1	2480	Ant1	1.137

Test Graphs

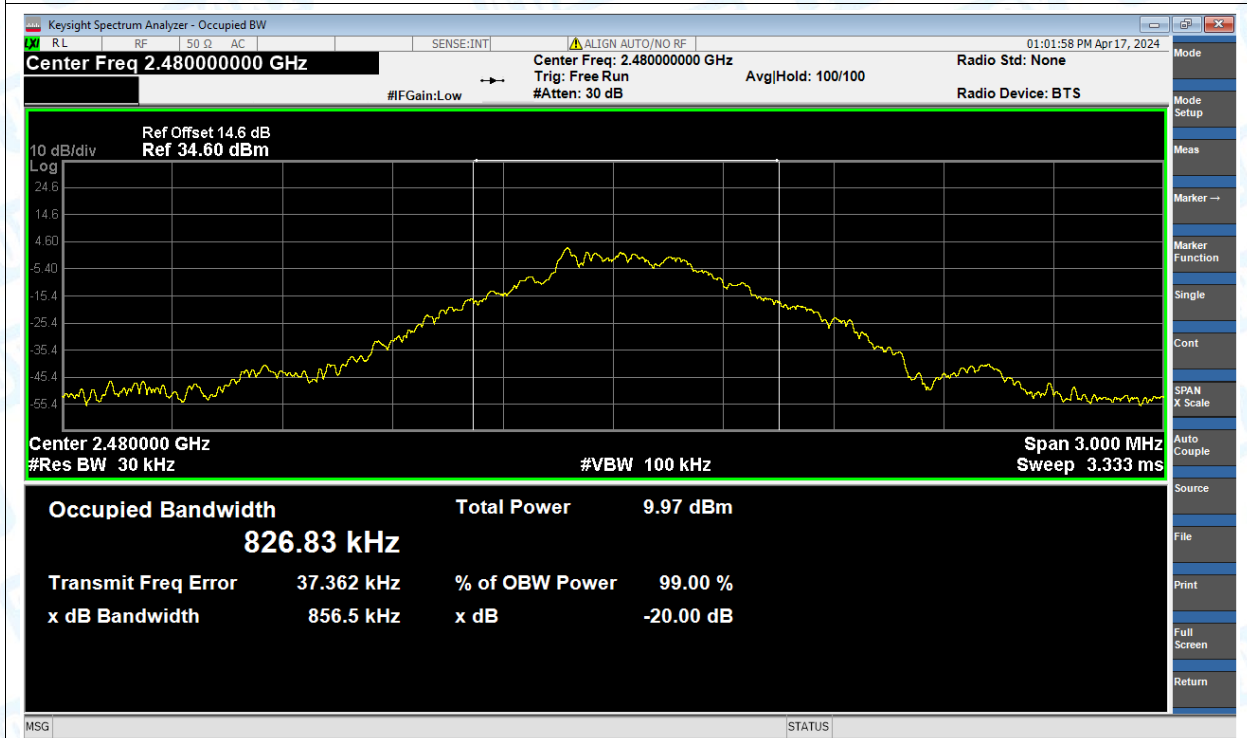
OBW NVNT 1-DH1 2402MHz Ant1



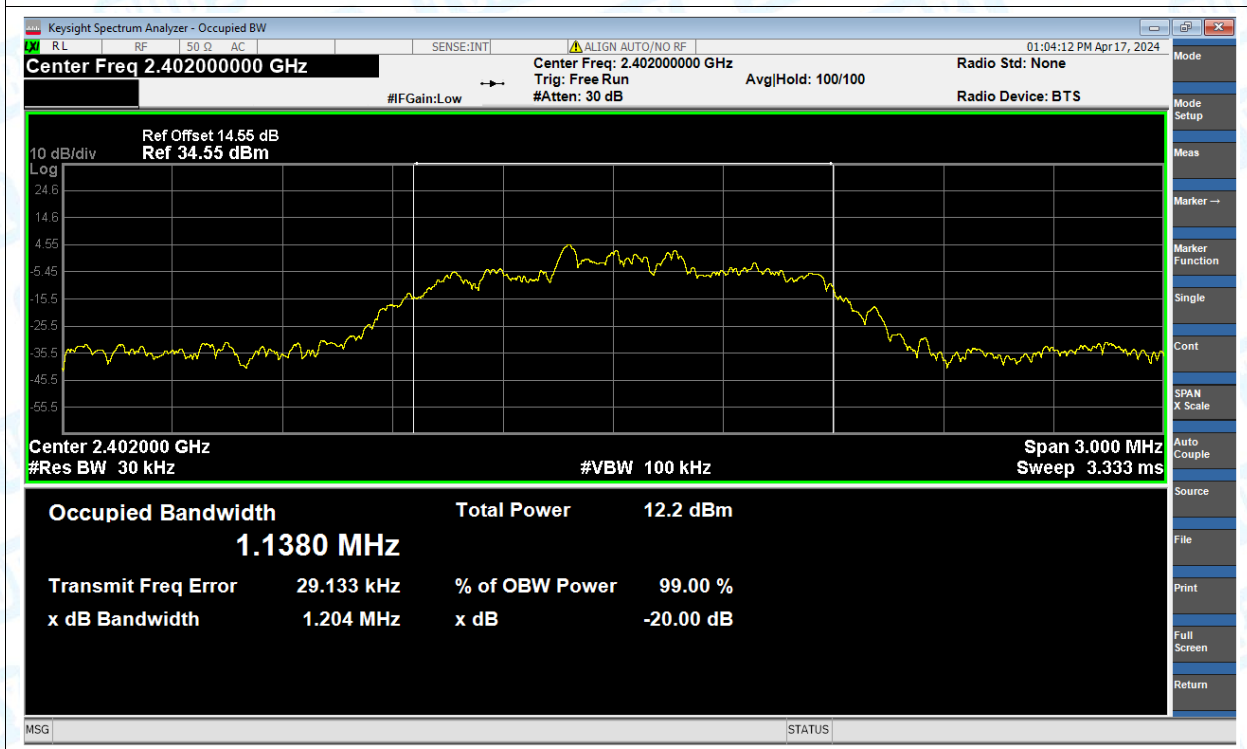
OBW NVNT 1-DH1 2441MHz Ant1



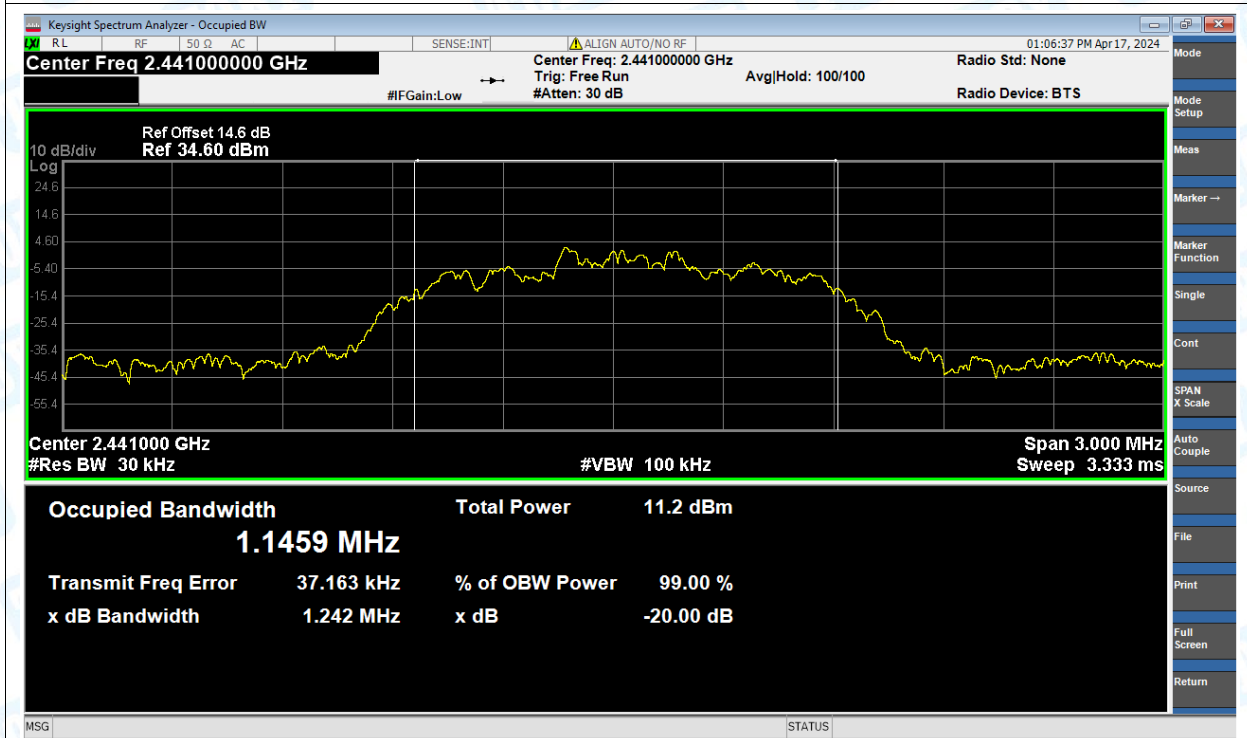
OBW NVNT 1-DH1 2480MHz Ant1



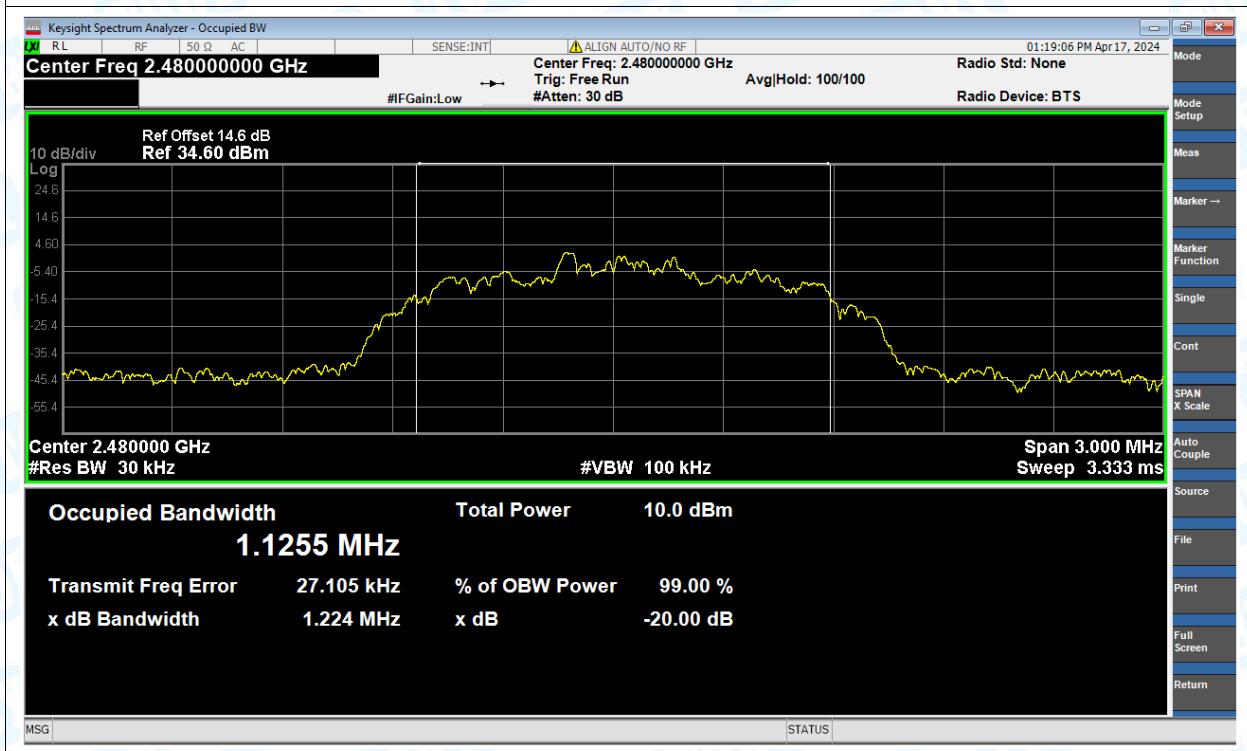
OBW NVNT 2-DH1 2402MHz Ant1



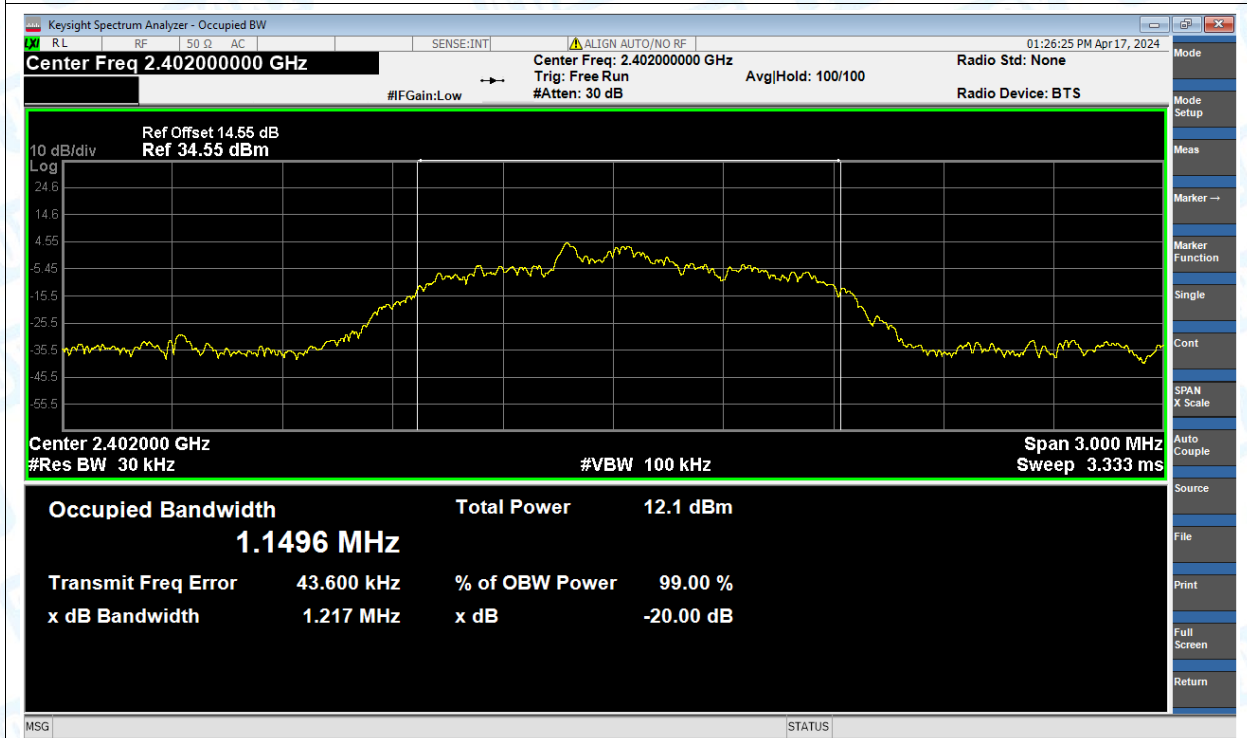
OBW NVNT 2-DH1 2441MHz Ant1



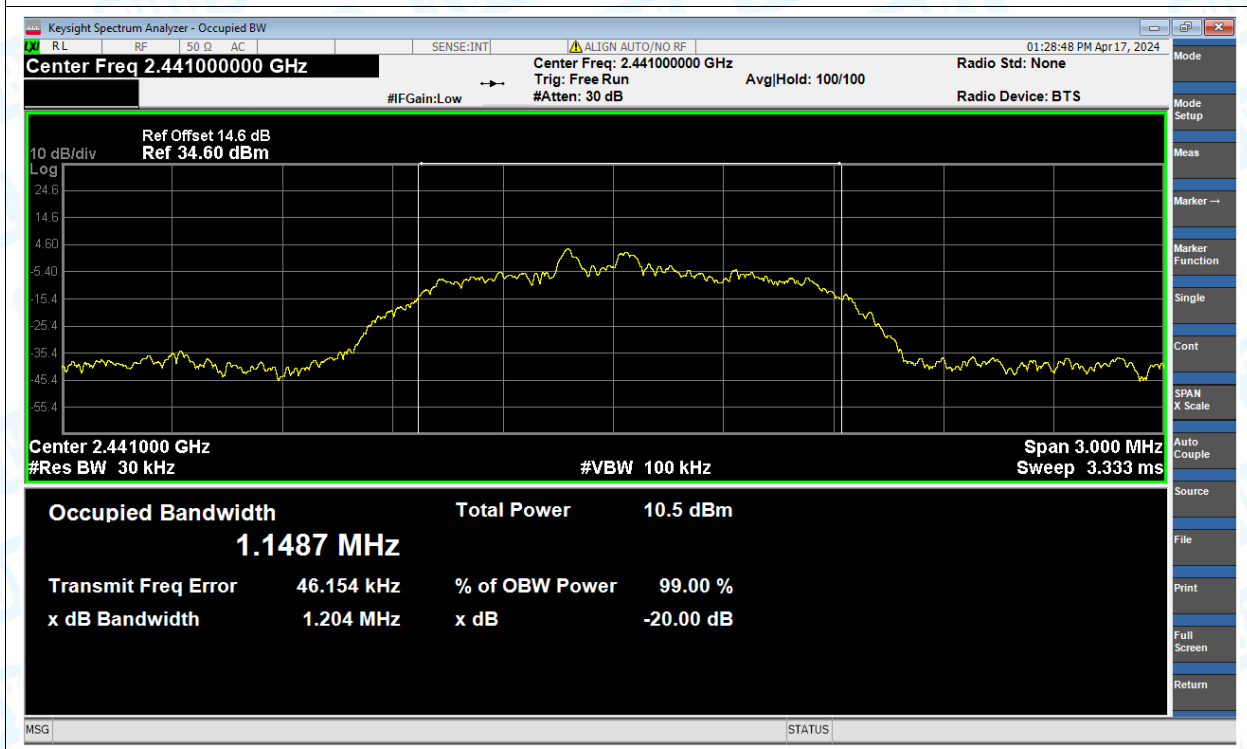
OBW NVNT 2-DH1 2480MHz Ant1

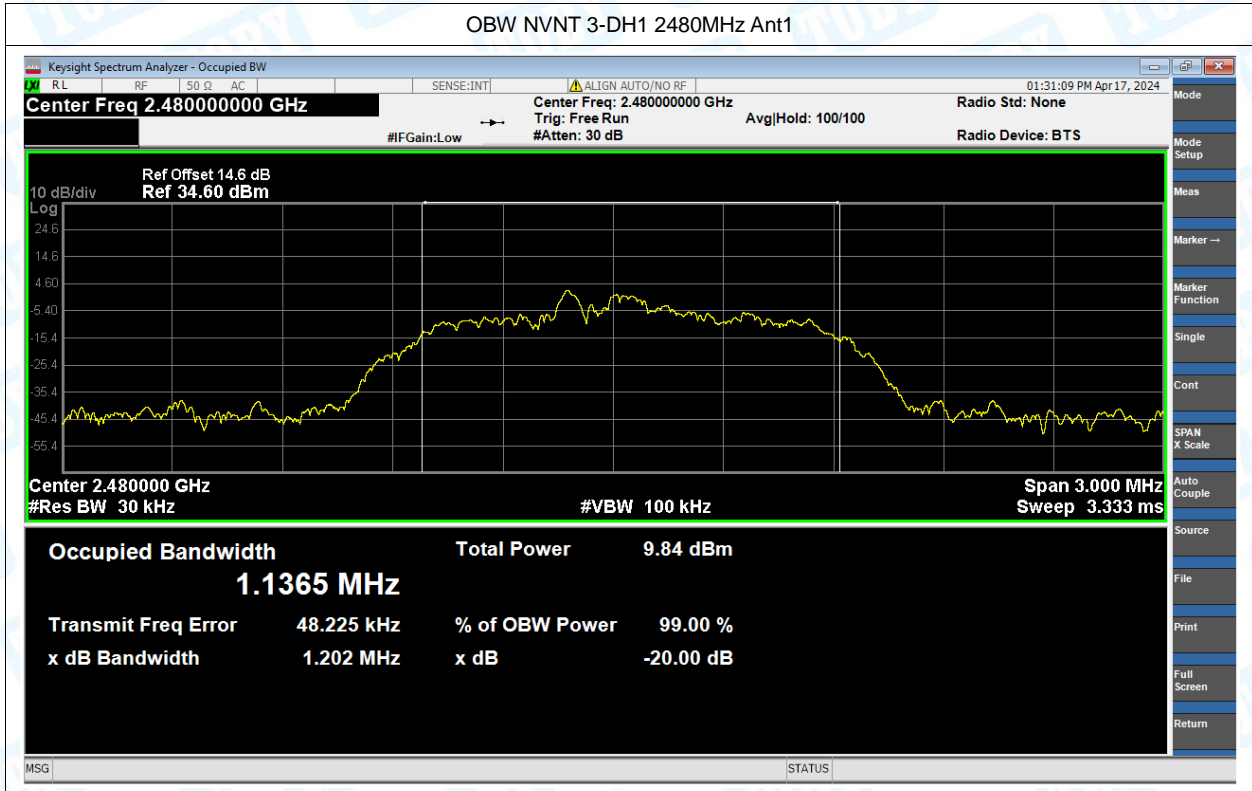


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



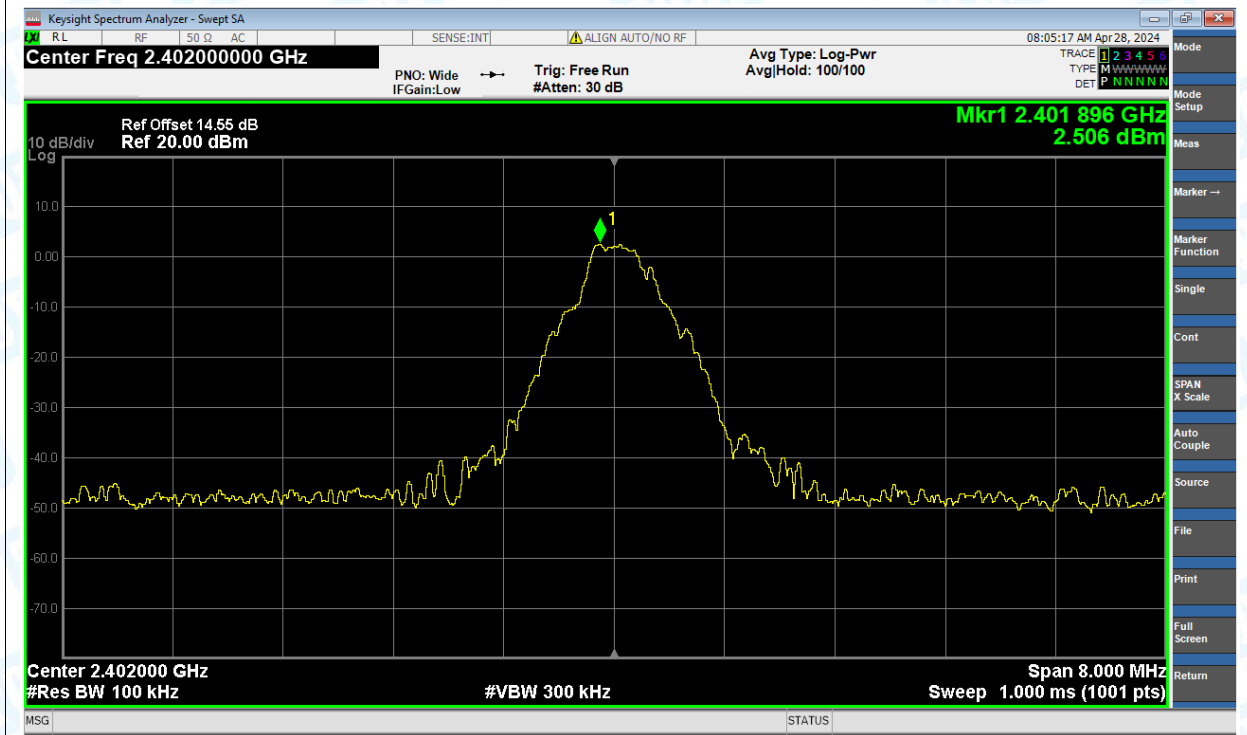


5. Band Edge

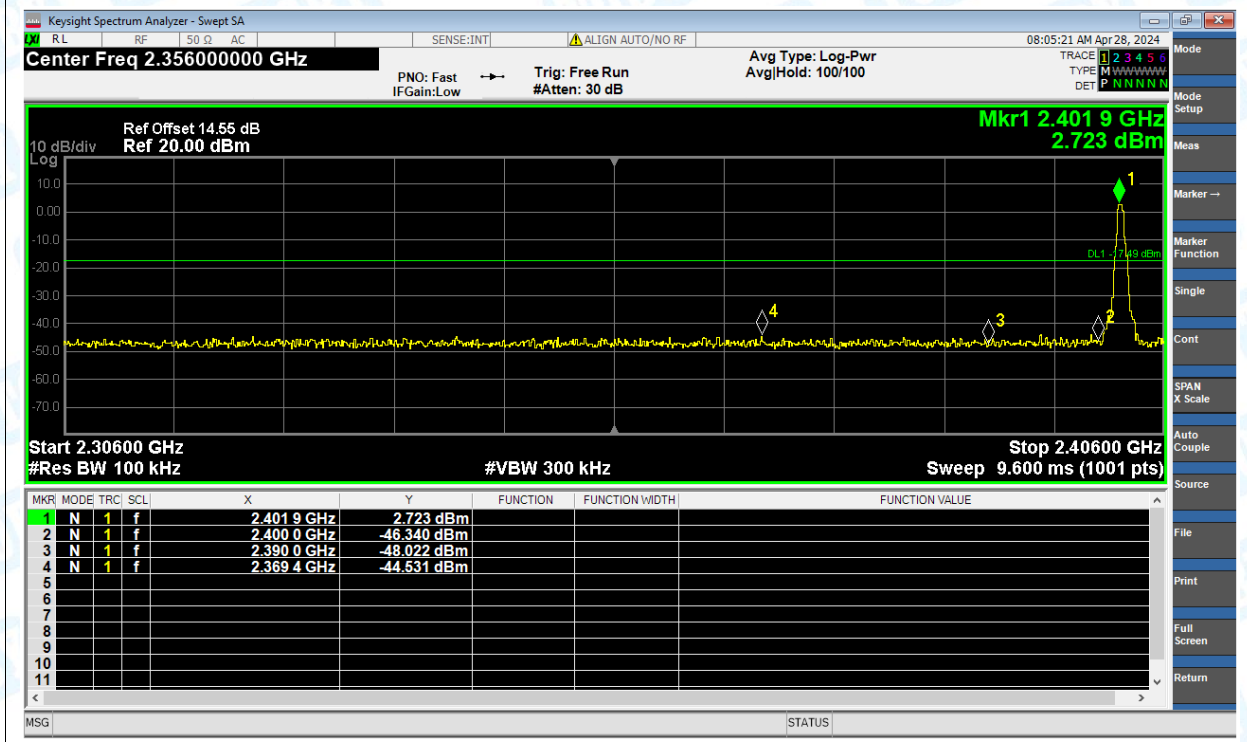
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-47.04	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-44.86	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-46.92	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-44.16	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-47.05	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-45.54	-20	Pass

Test Graphs

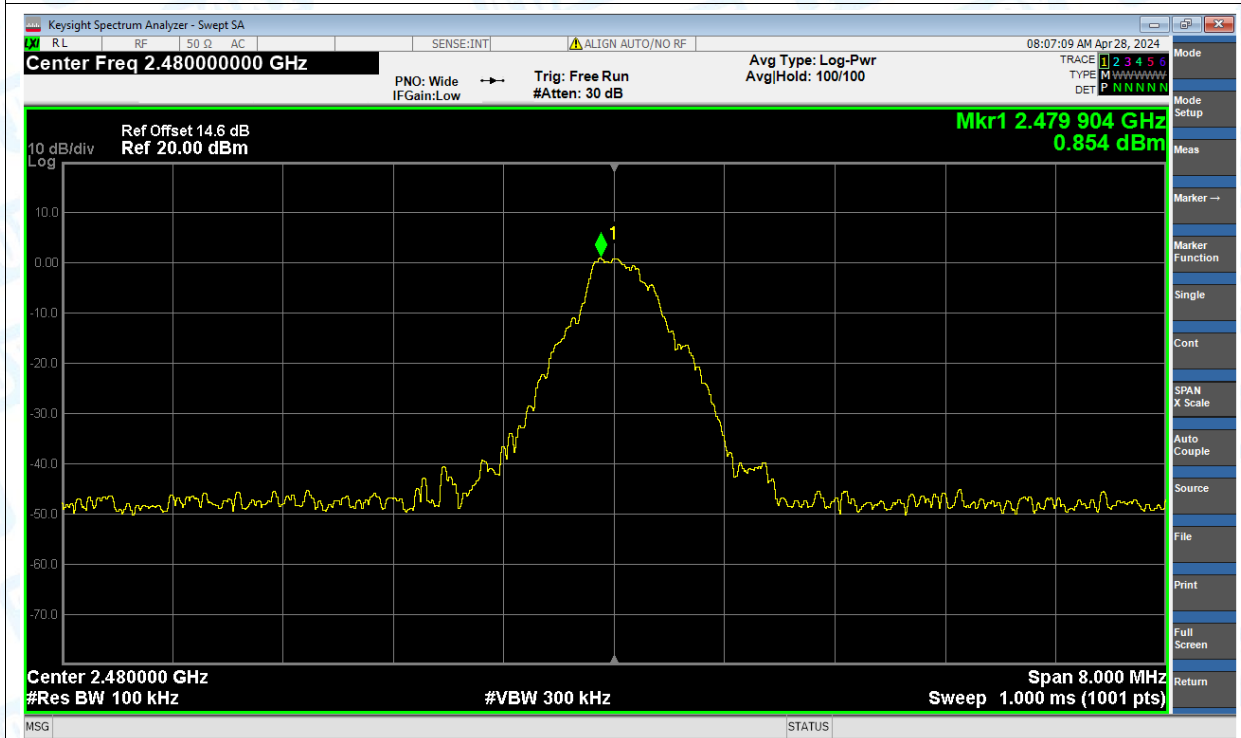
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



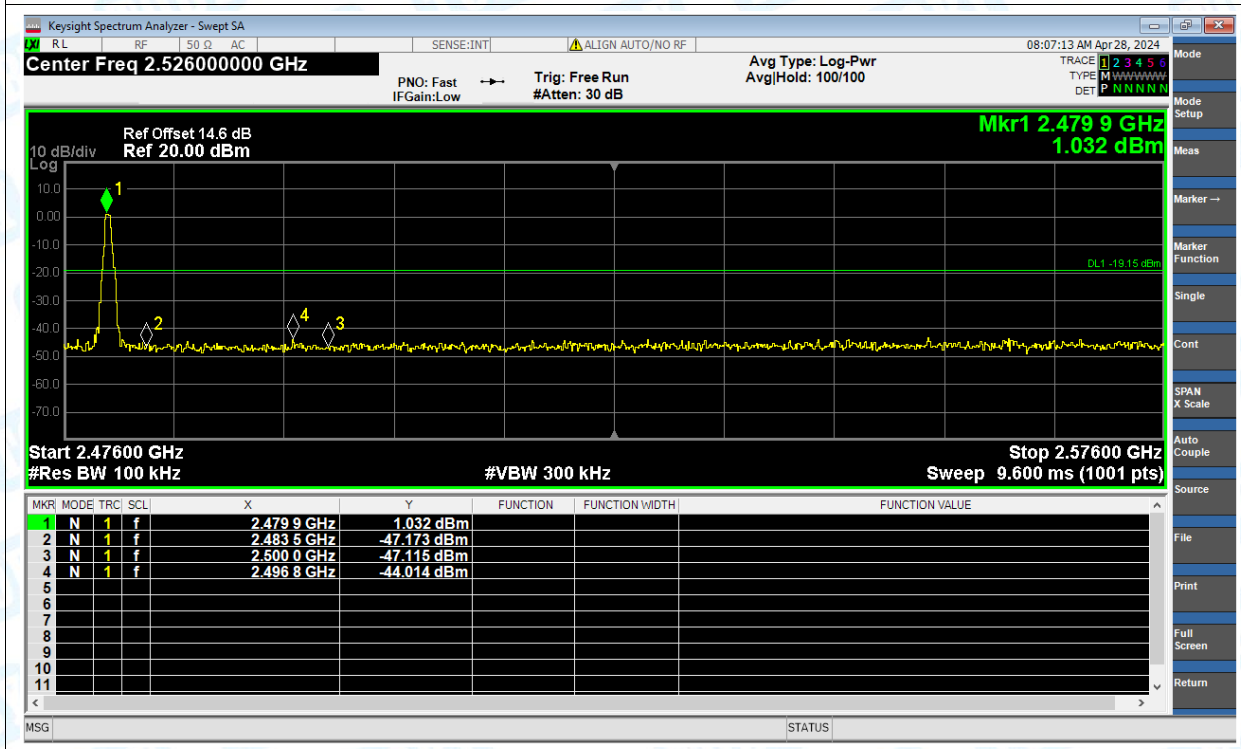
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



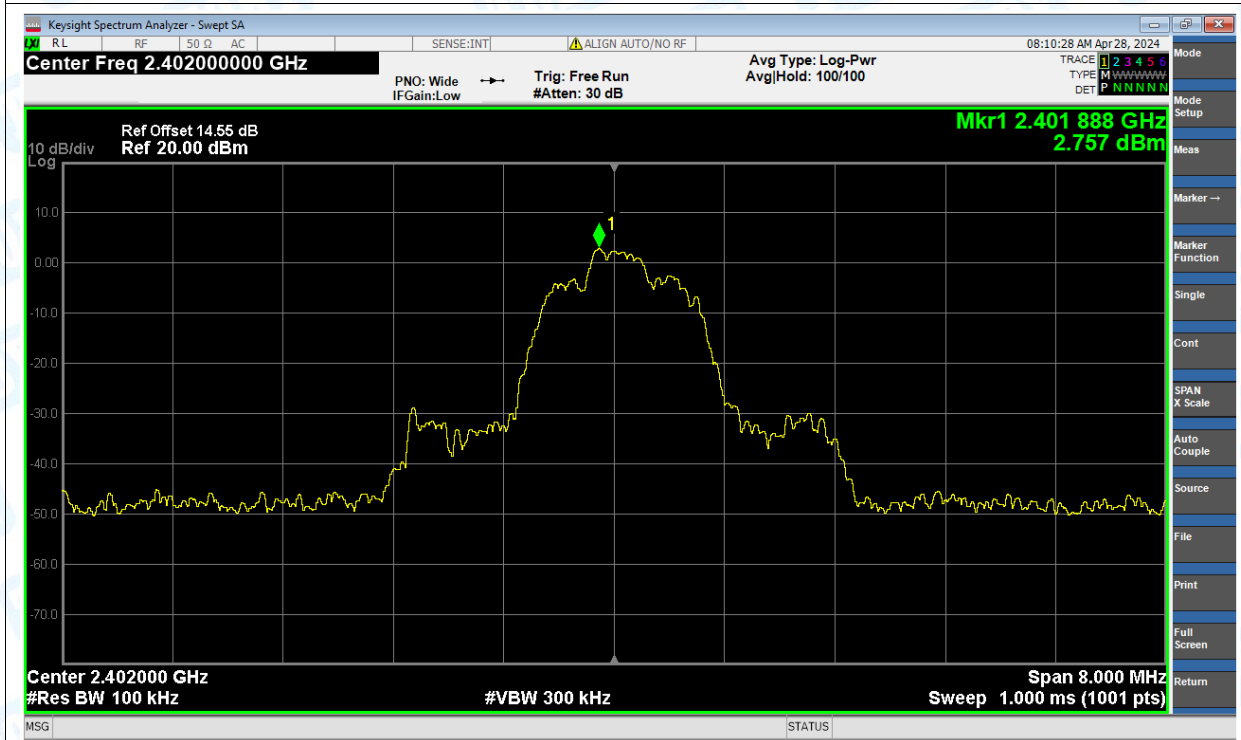
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



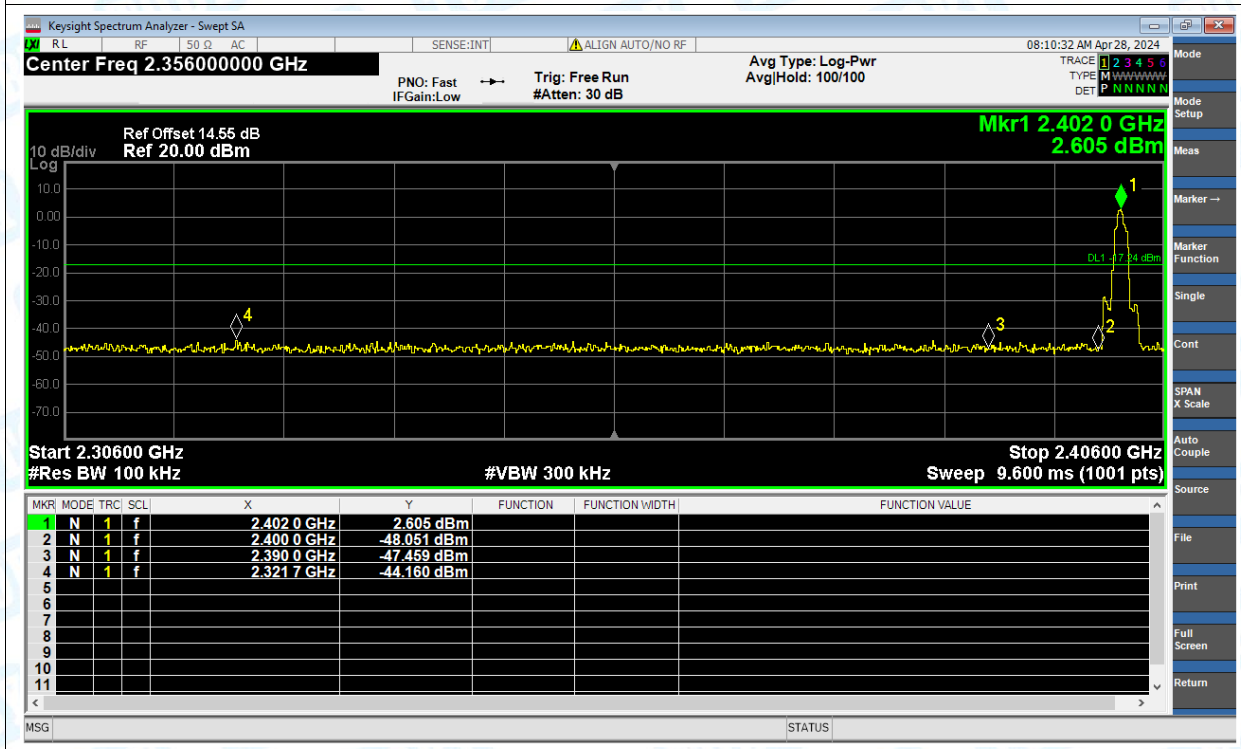
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



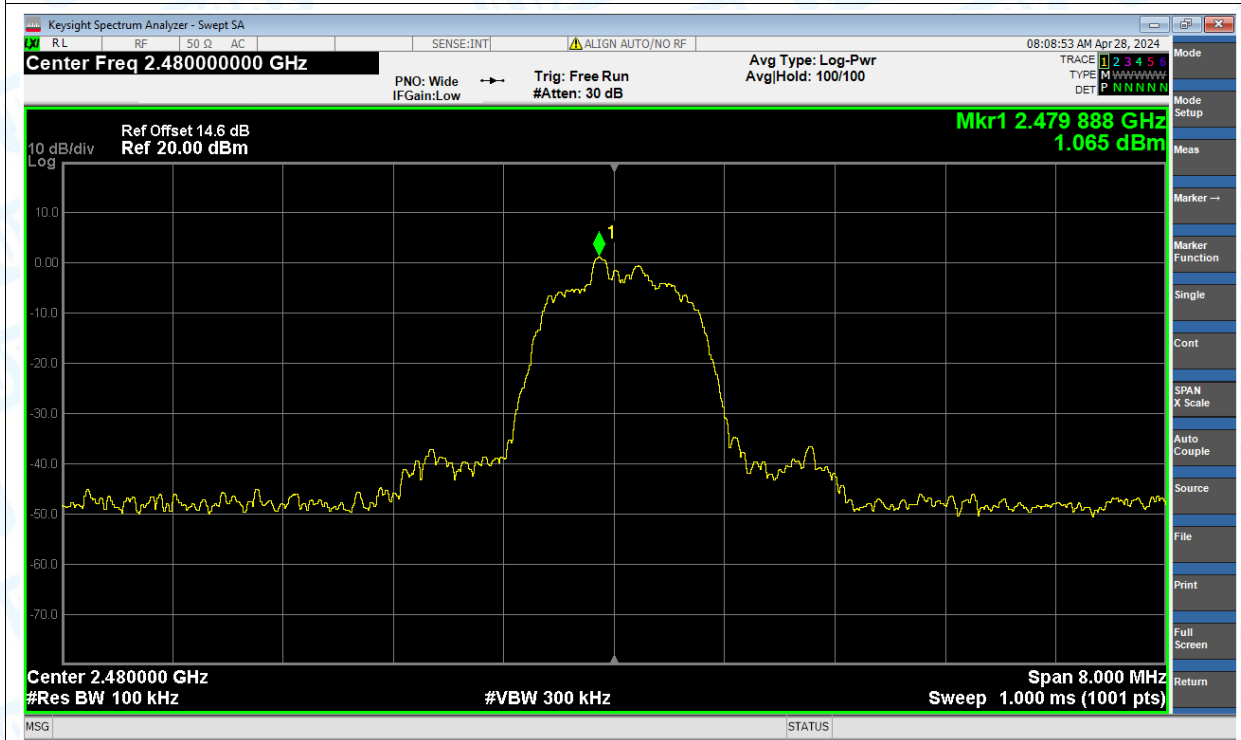
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



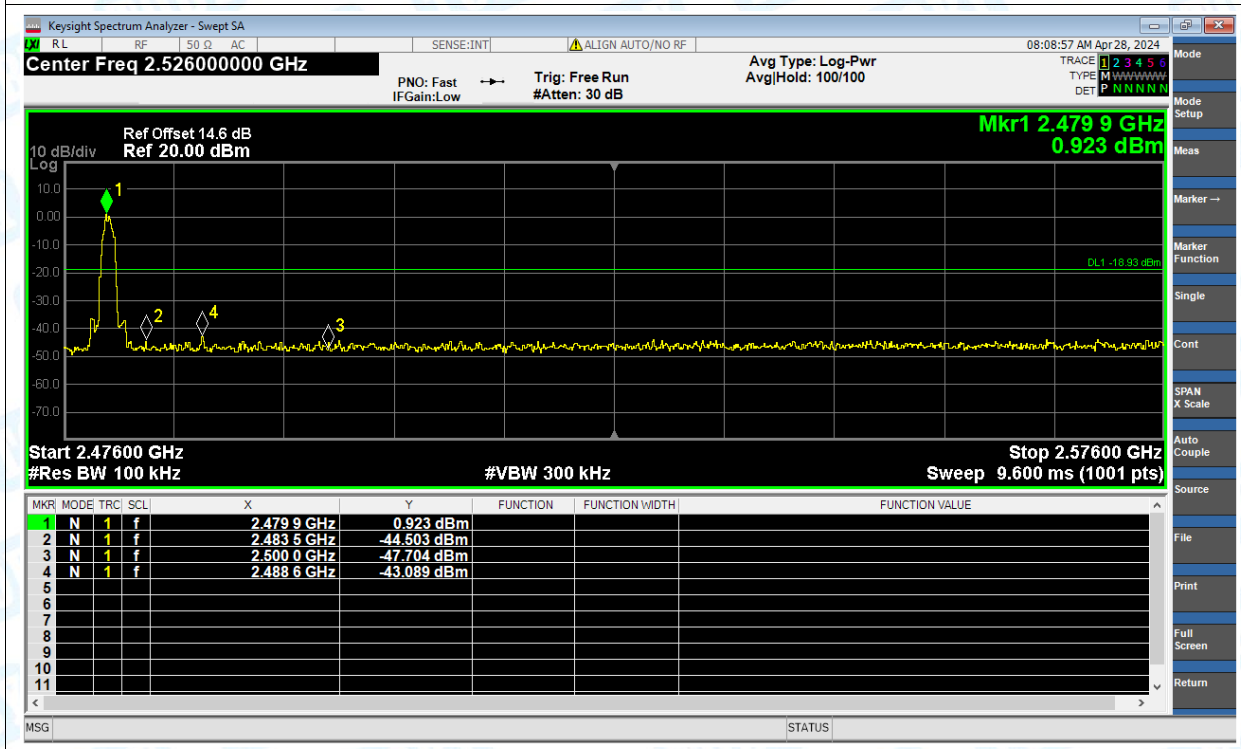
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



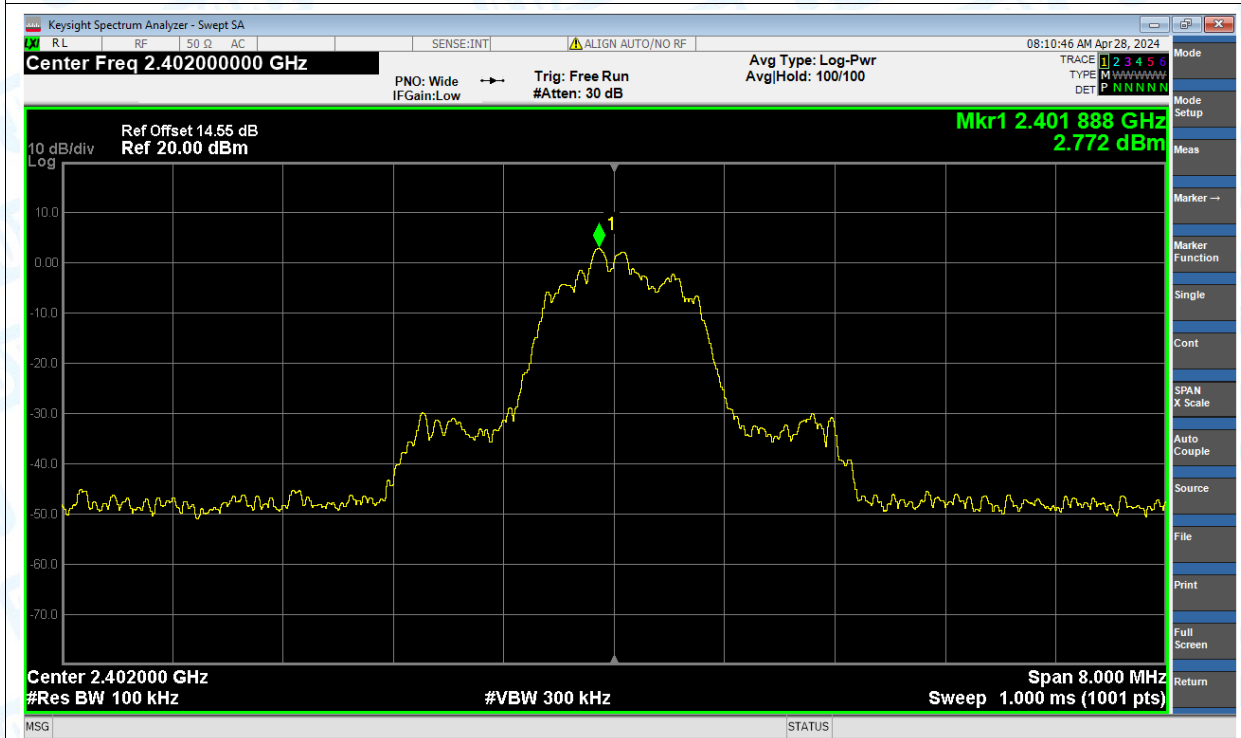
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



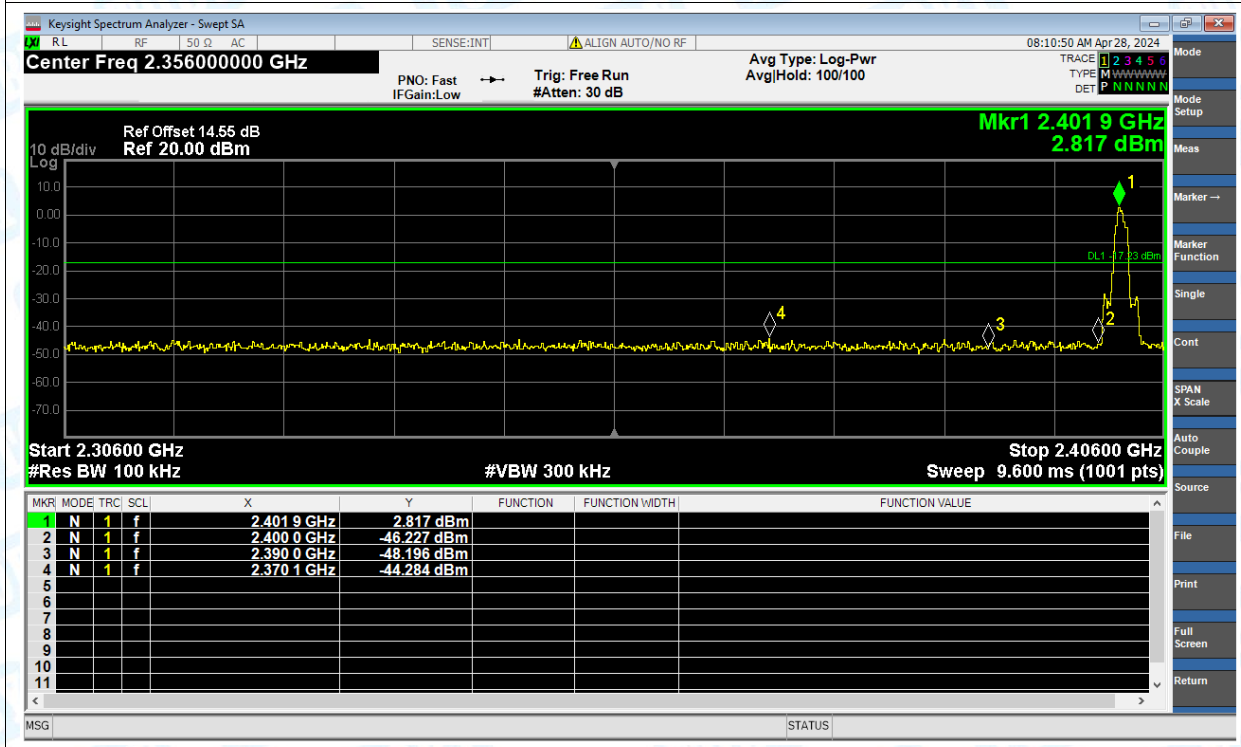
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



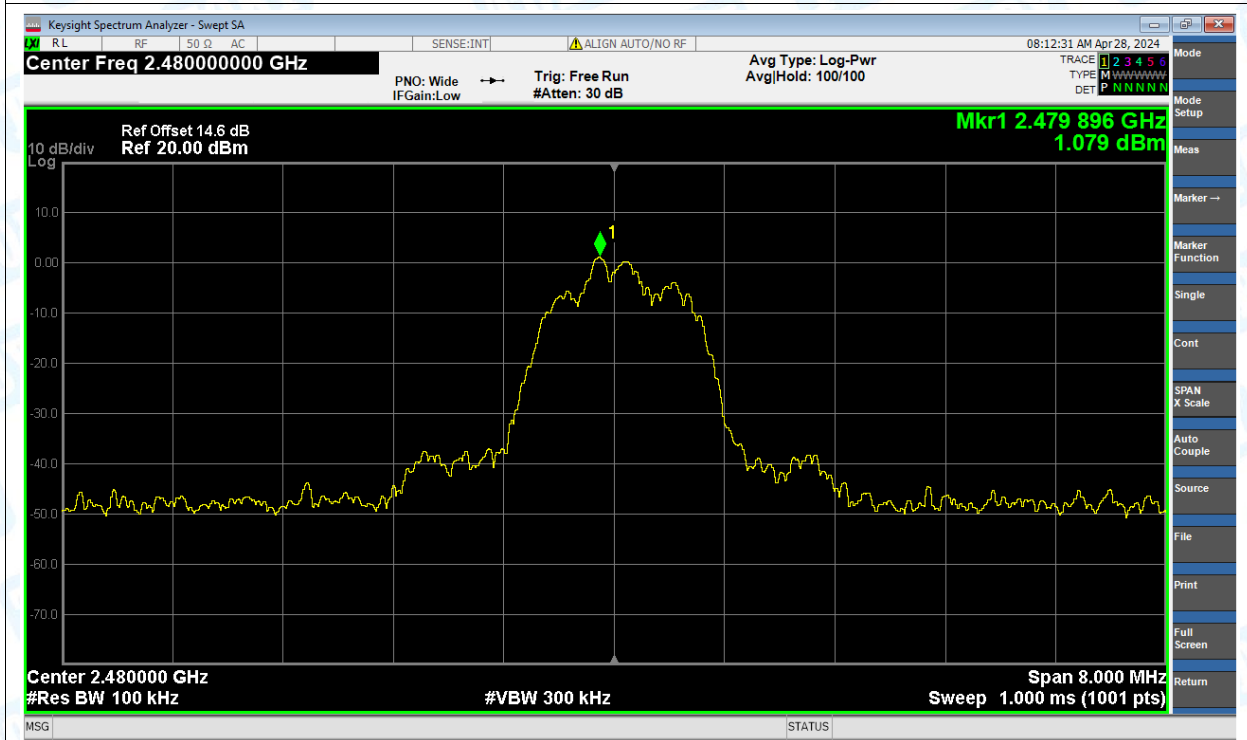
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



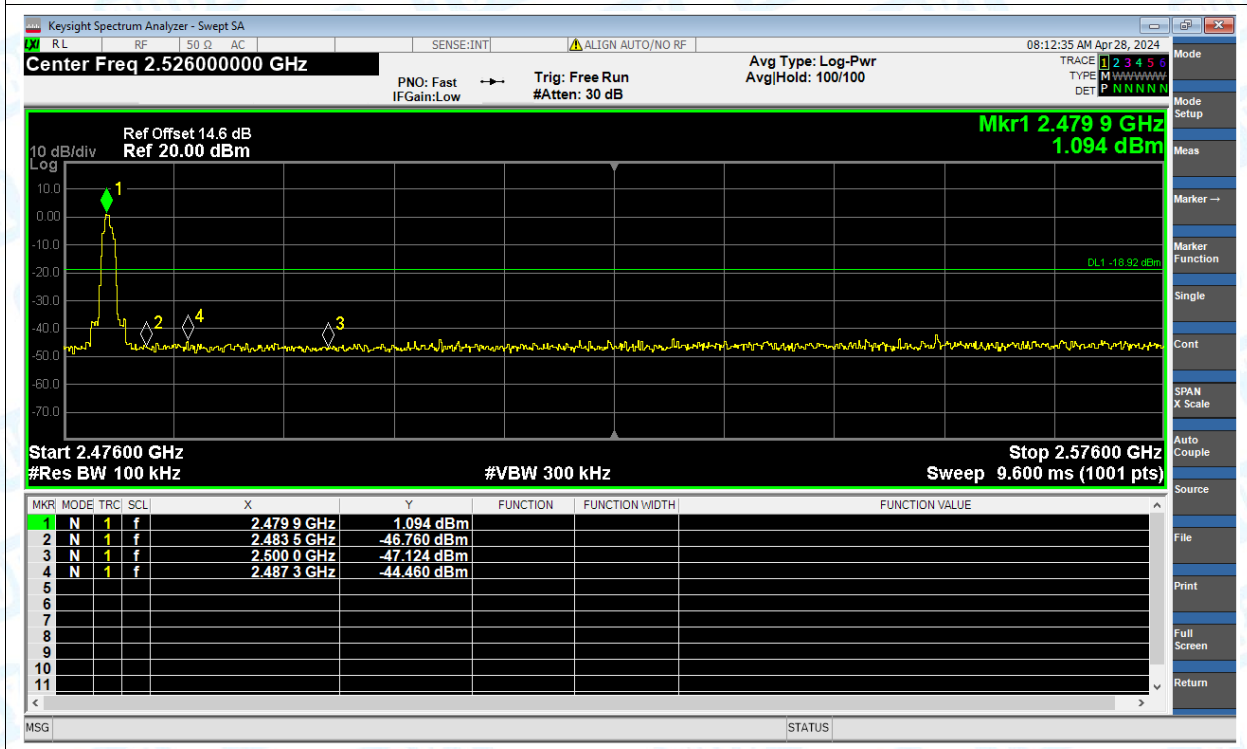
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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

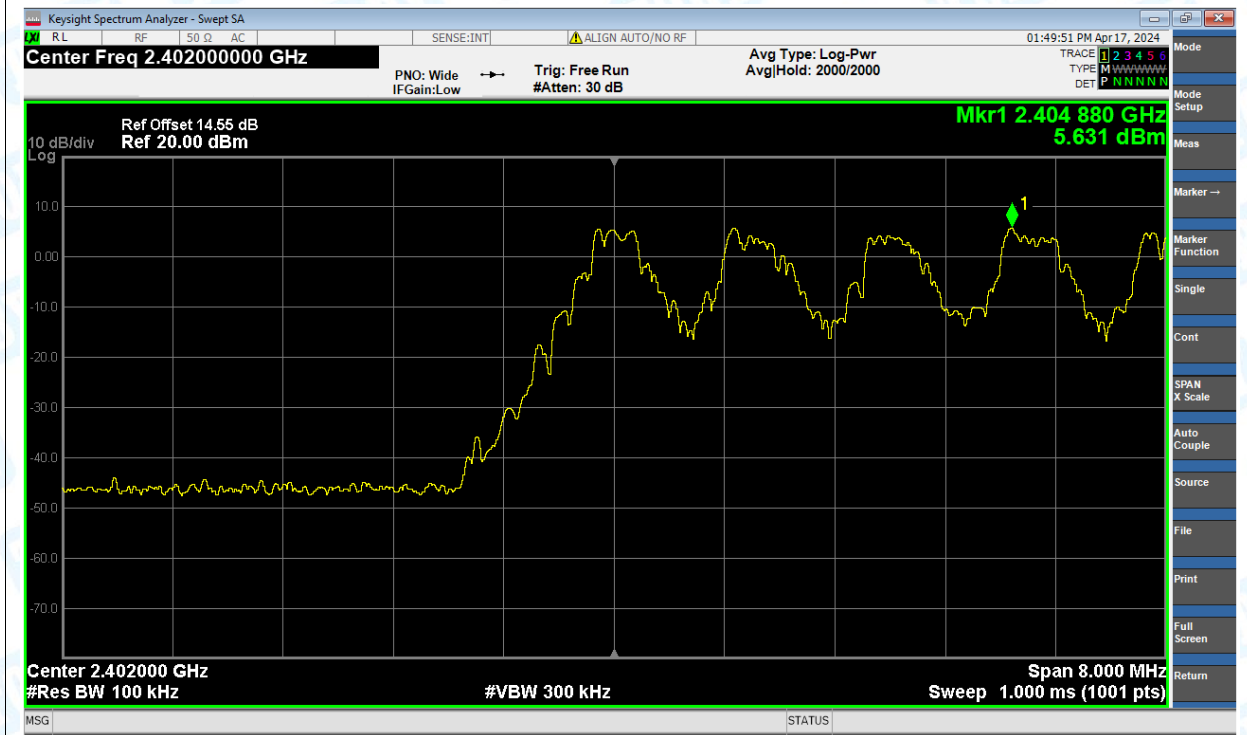


6. Band Edge(Hopping)

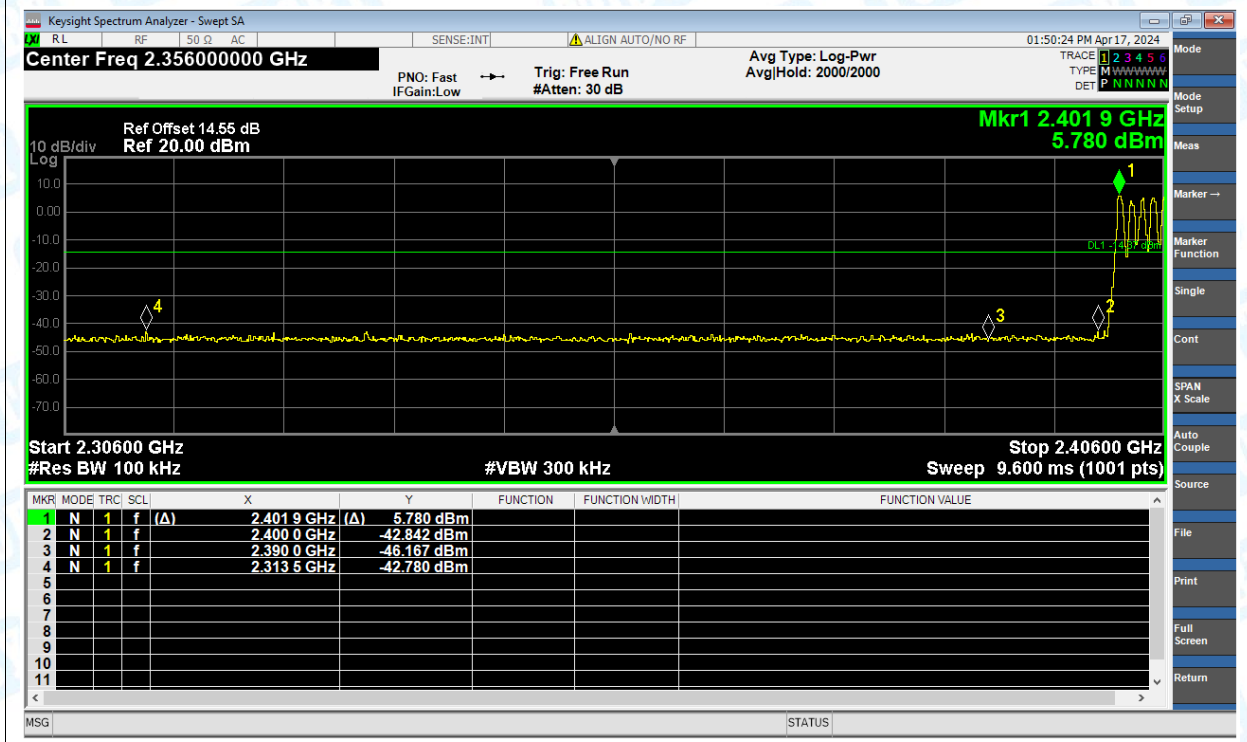
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-48.41	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-47.09	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-49.06	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-47.66	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-48.98	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-46.81	-20	Pass

Test Graphs

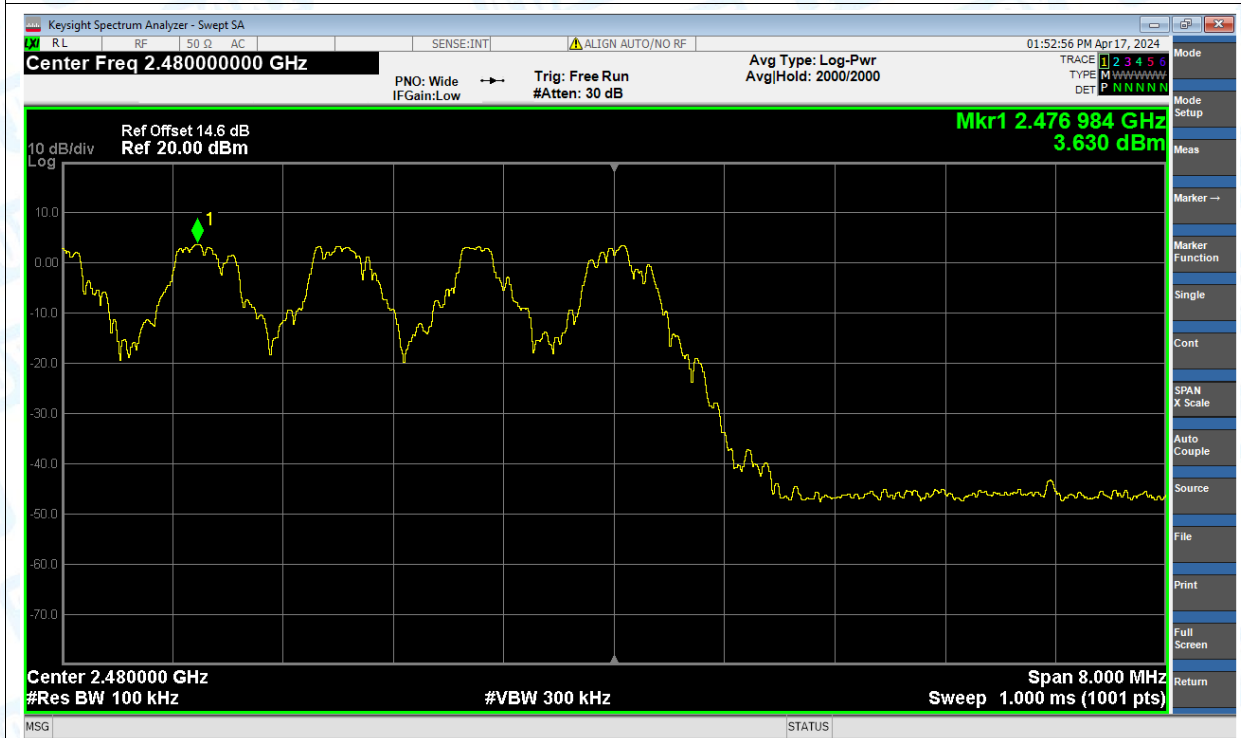
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref



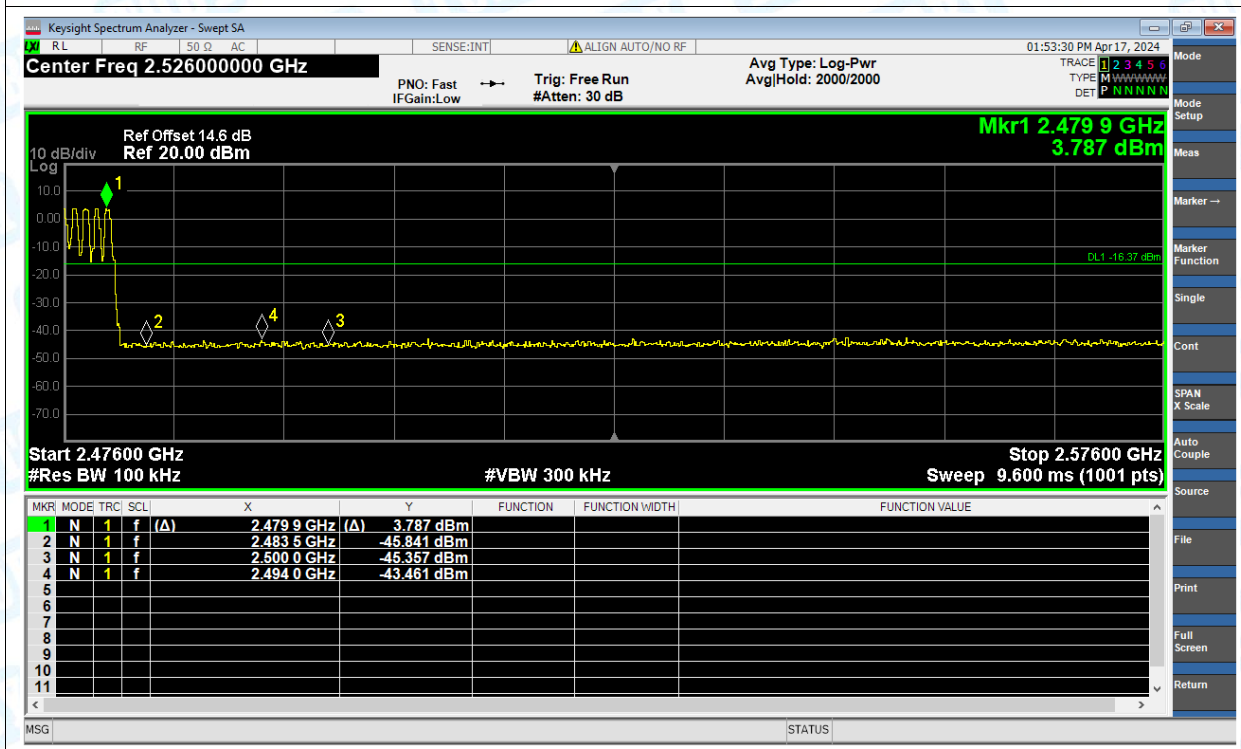
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



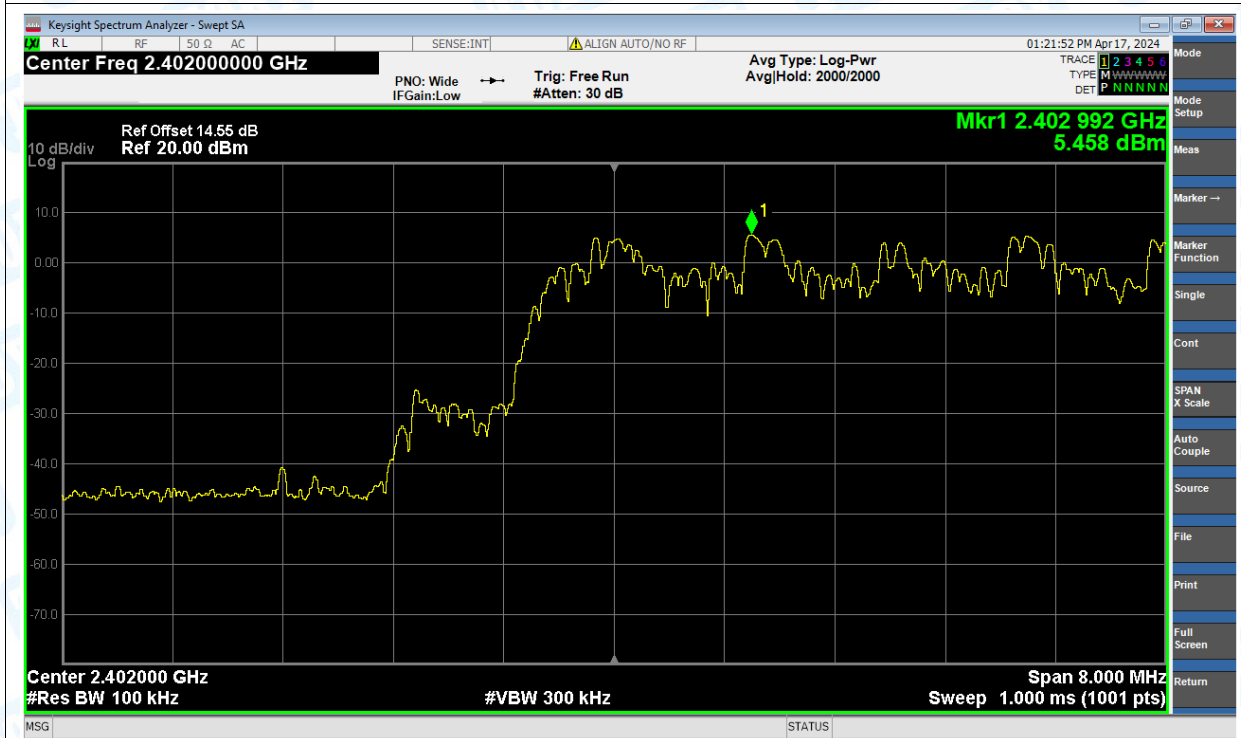
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref



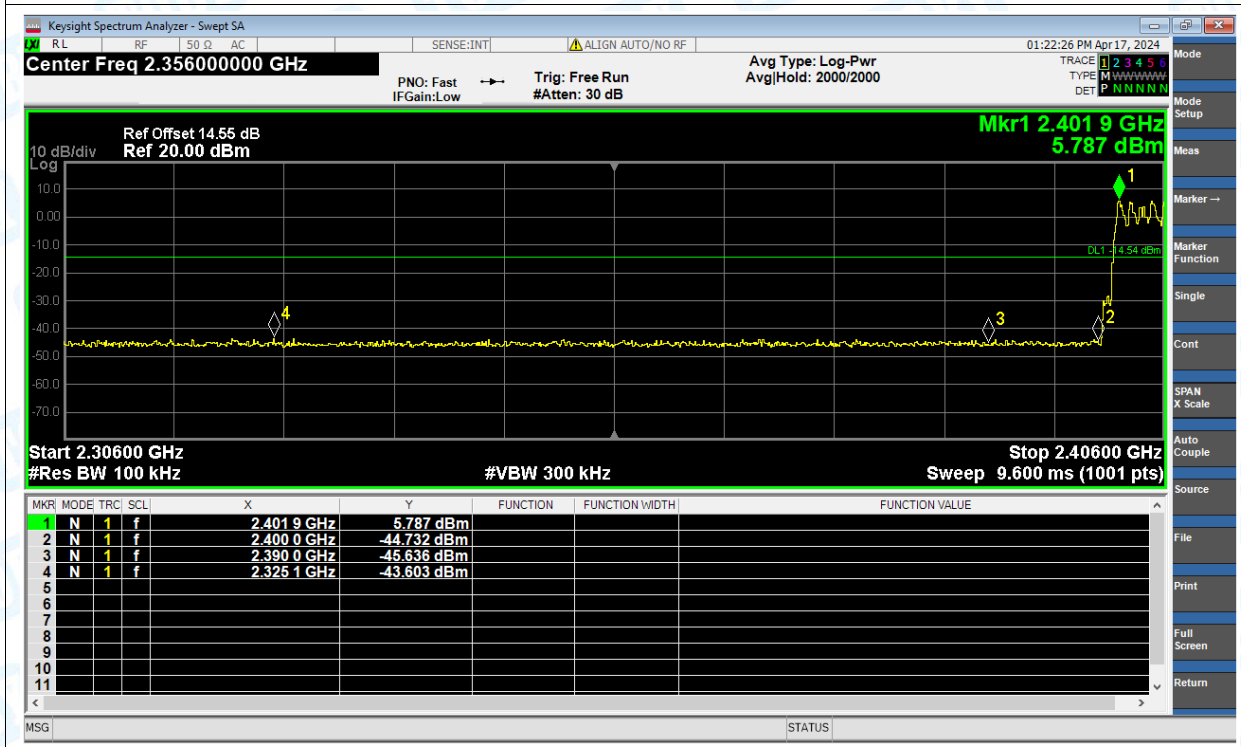
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



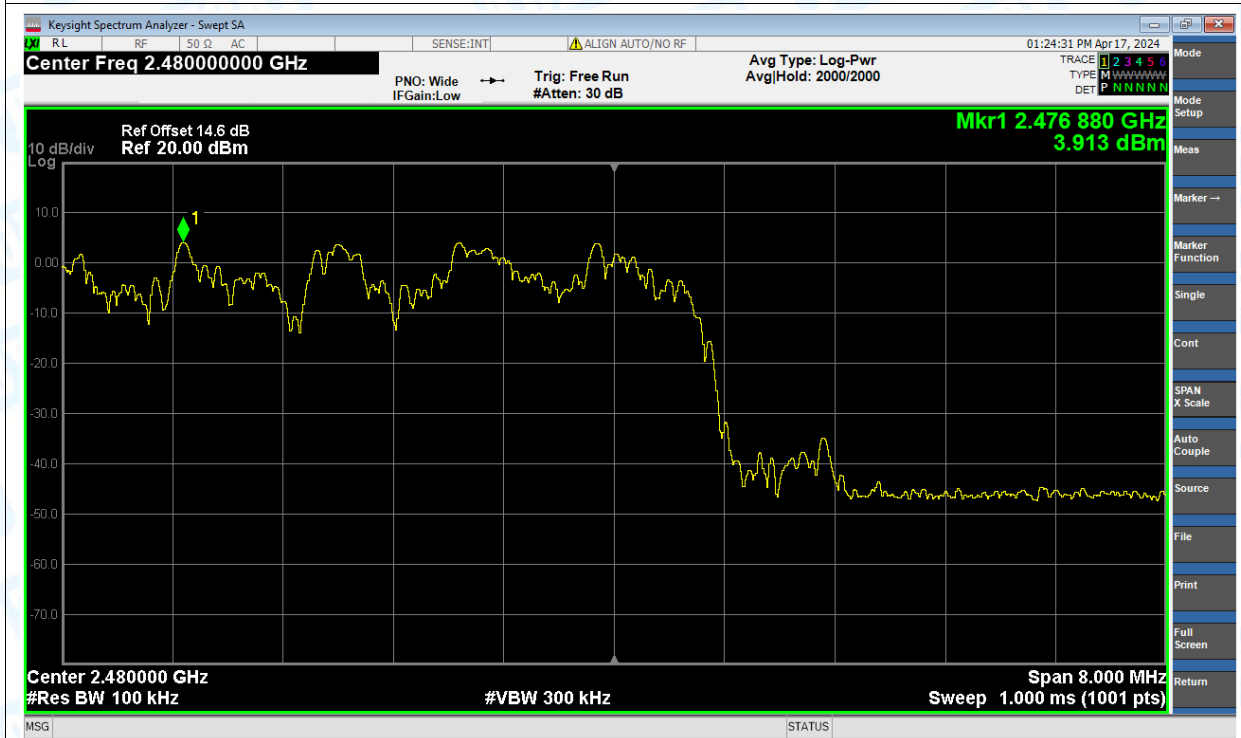
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



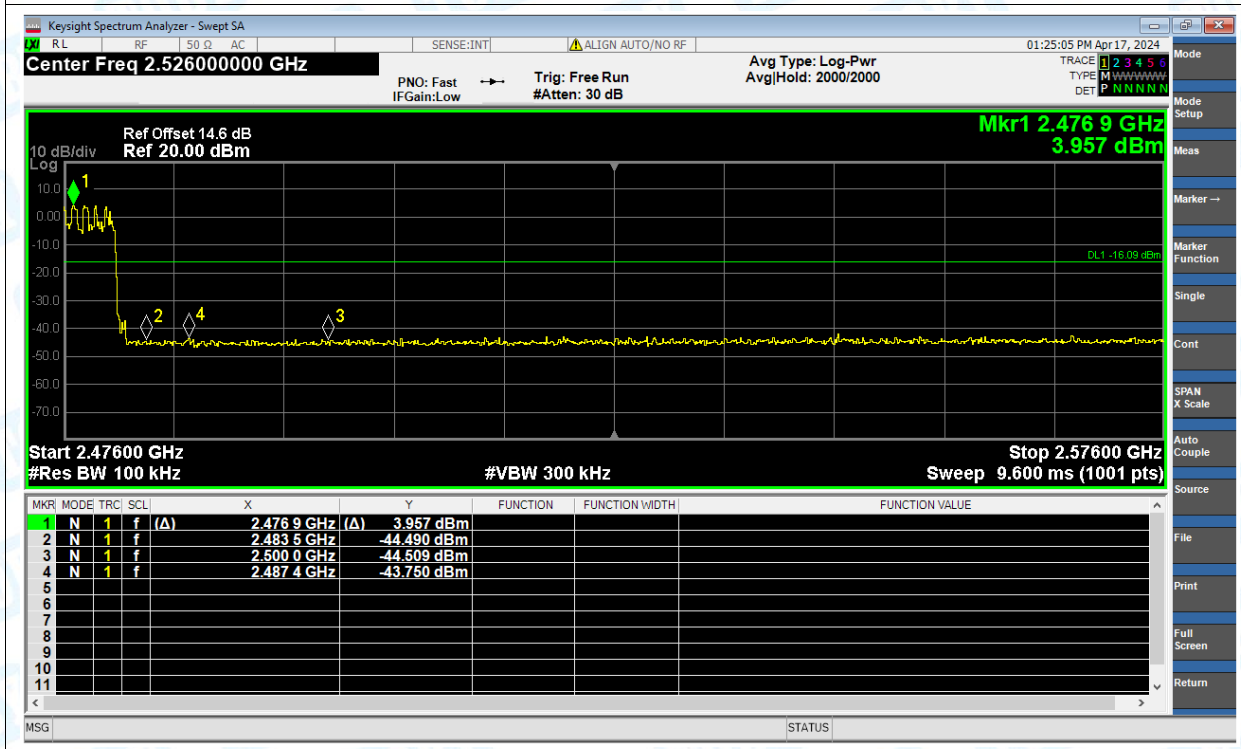
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



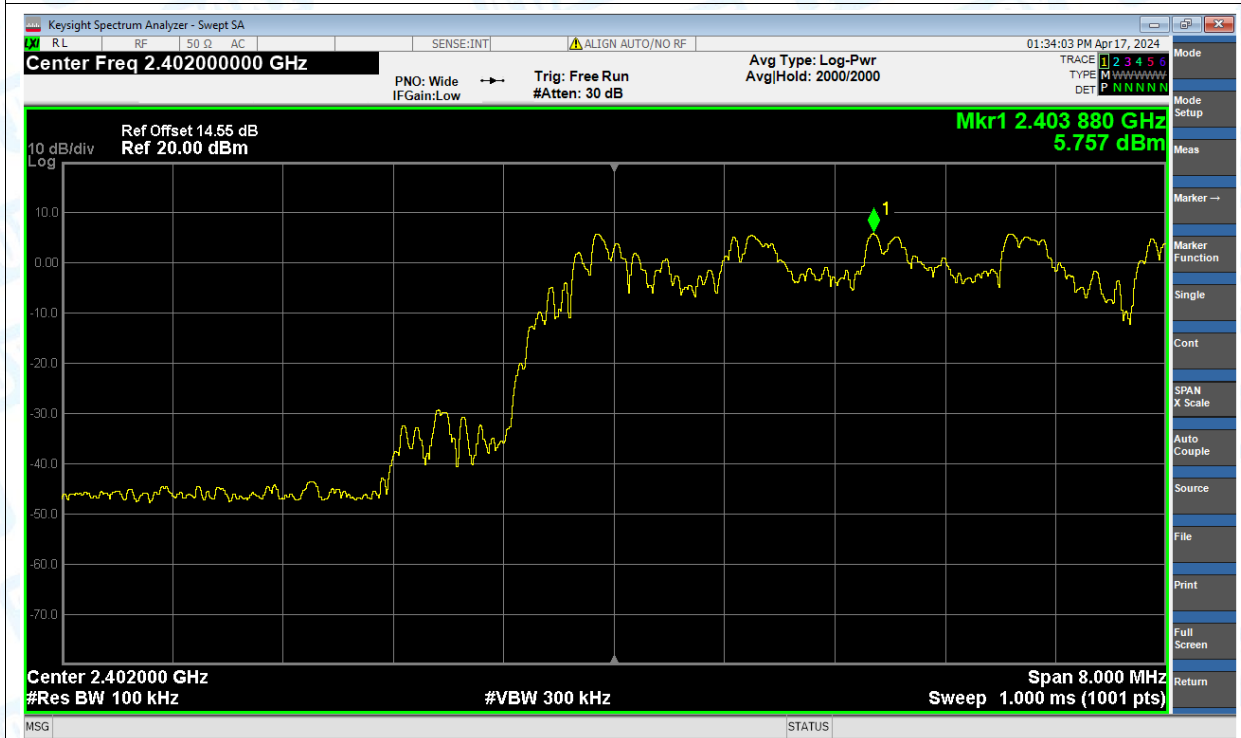
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Ref



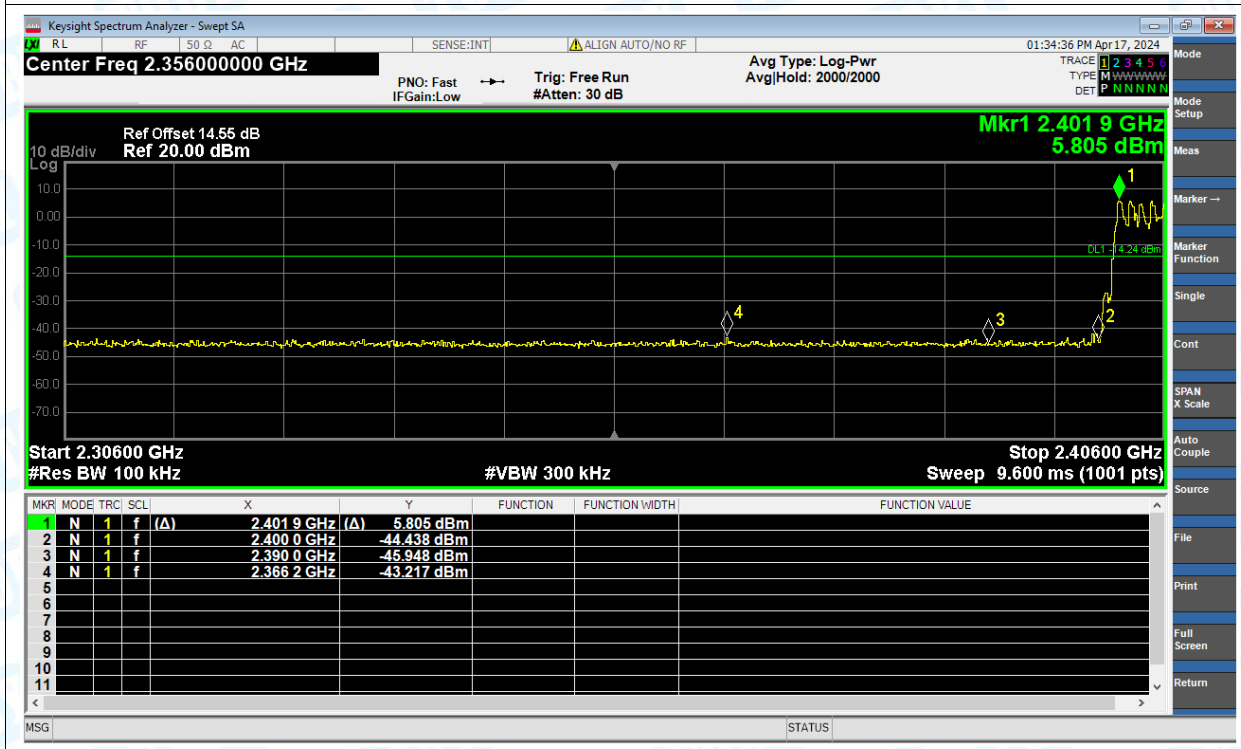
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



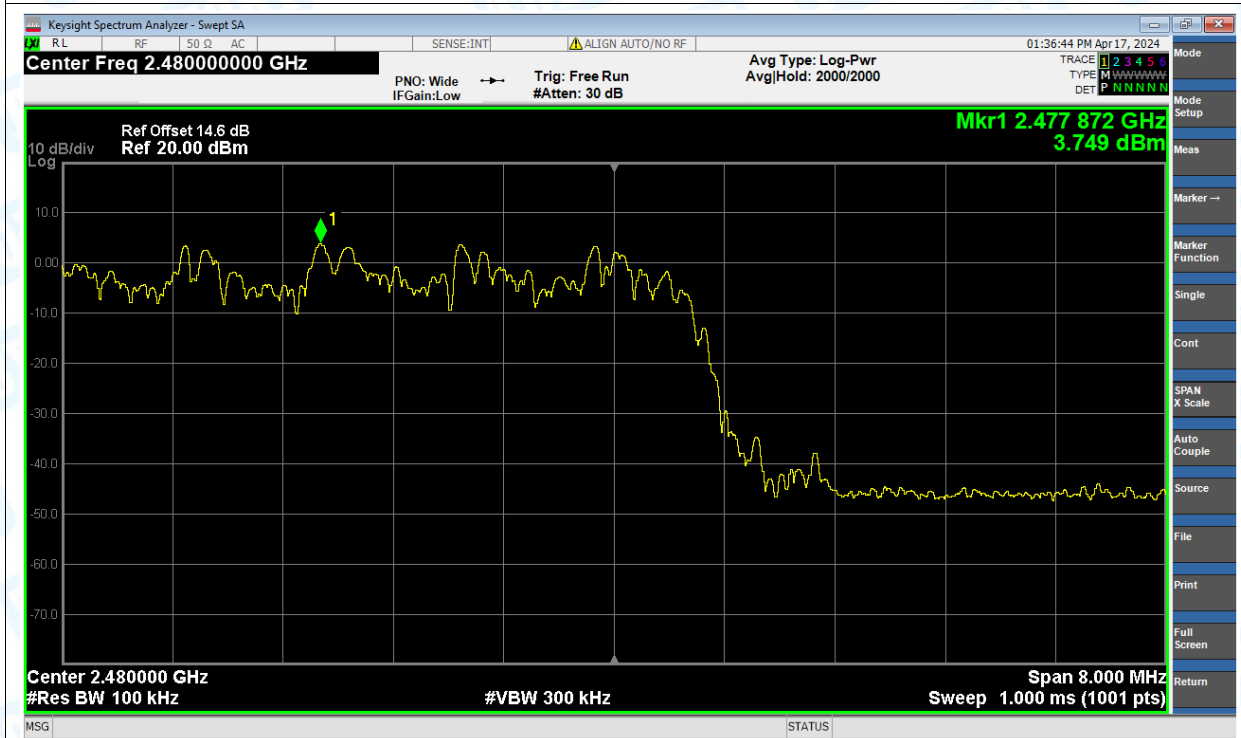
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



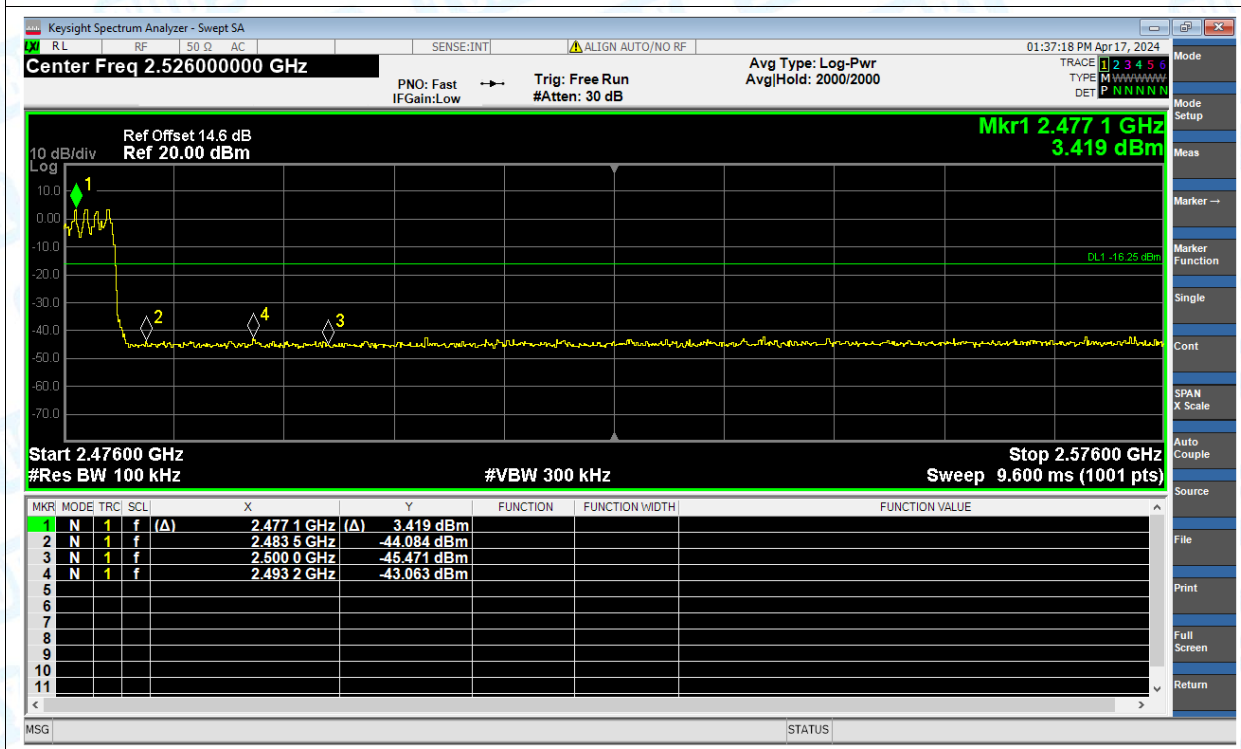
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



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



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

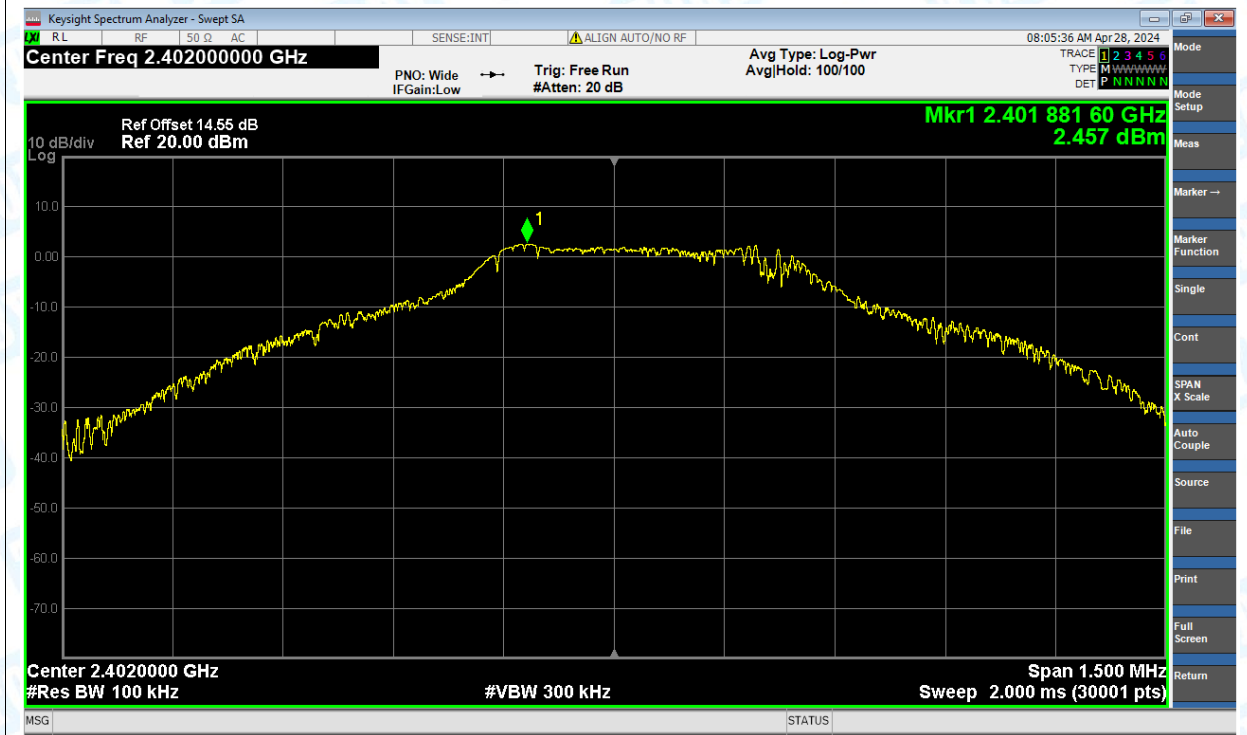


7. Conducted RF Spurious Emission

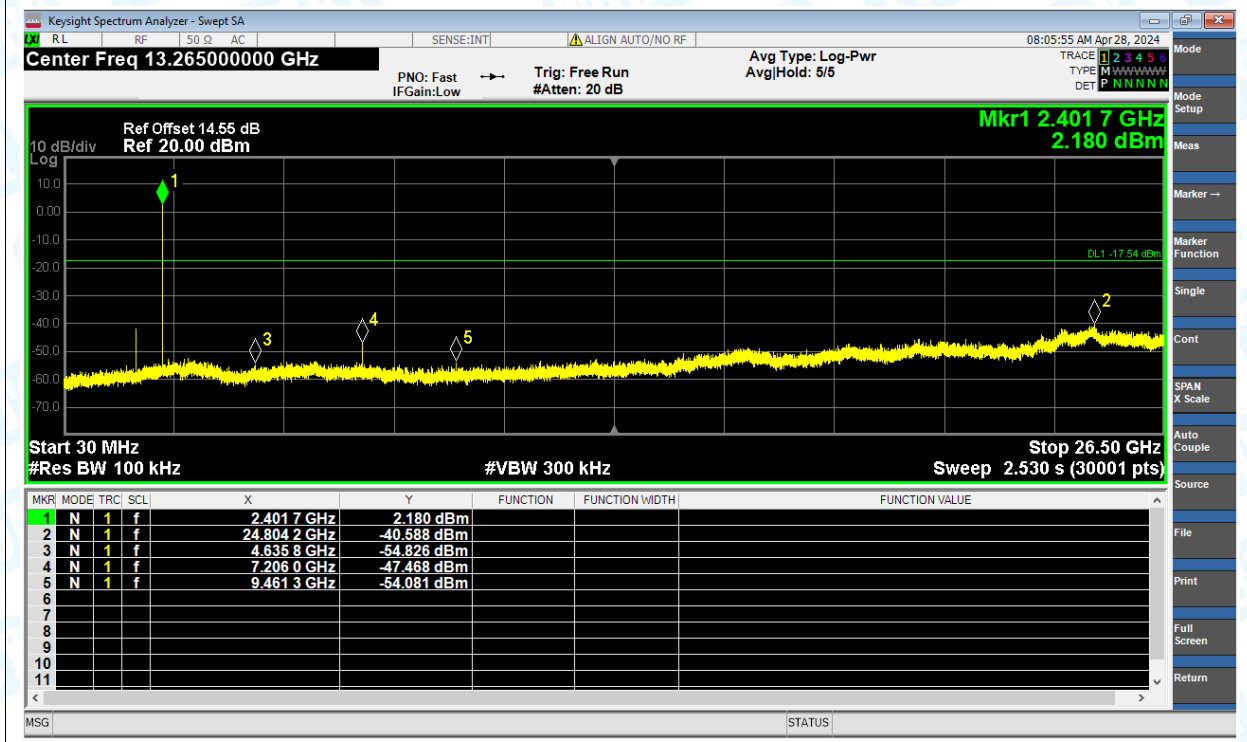
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-43.05	-20	Pass
NVNT	1-DH1	2441	Ant1	-40.71	-20	Pass
NVNT	1-DH1	2480	Ant1	-41.6	-20	Pass
NVNT	2-DH1	2402	Ant1	-42.05	-20	Pass
NVNT	2-DH1	2441	Ant1	-41.32	-20	Pass
NVNT	2-DH1	2480	Ant1	-41.35	-20	Pass
NVNT	3-DH1	2402	Ant1	-43.01	-20	Pass
NVNT	3-DH1	2441	Ant1	-42.34	-20	Pass
NVNT	3-DH1	2480	Ant1	-41.58	-20	Pass

Test Graphs

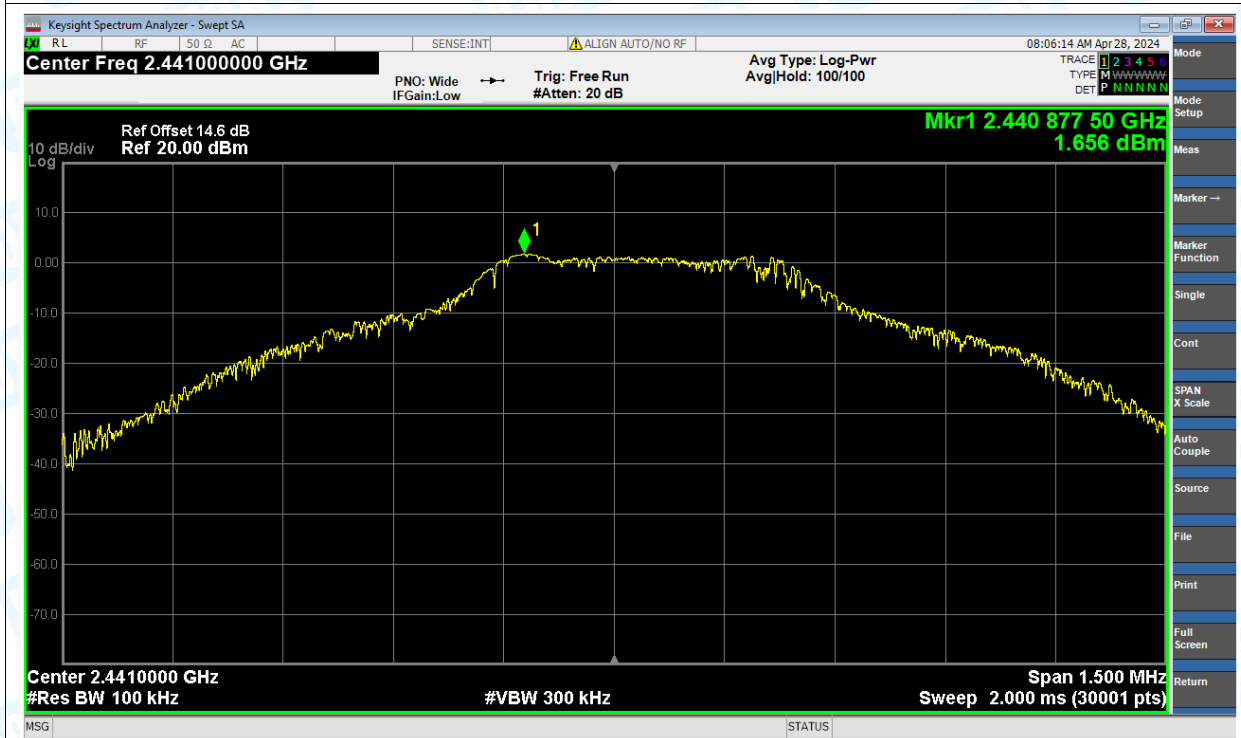
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



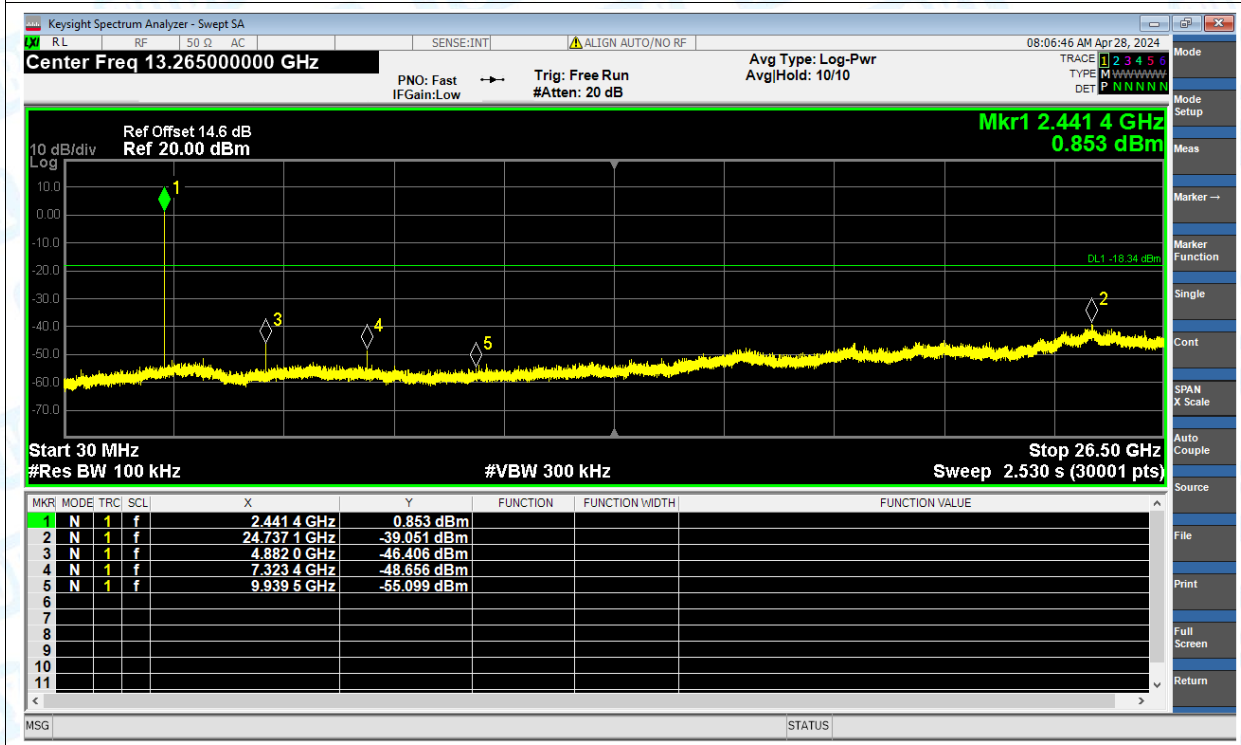
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



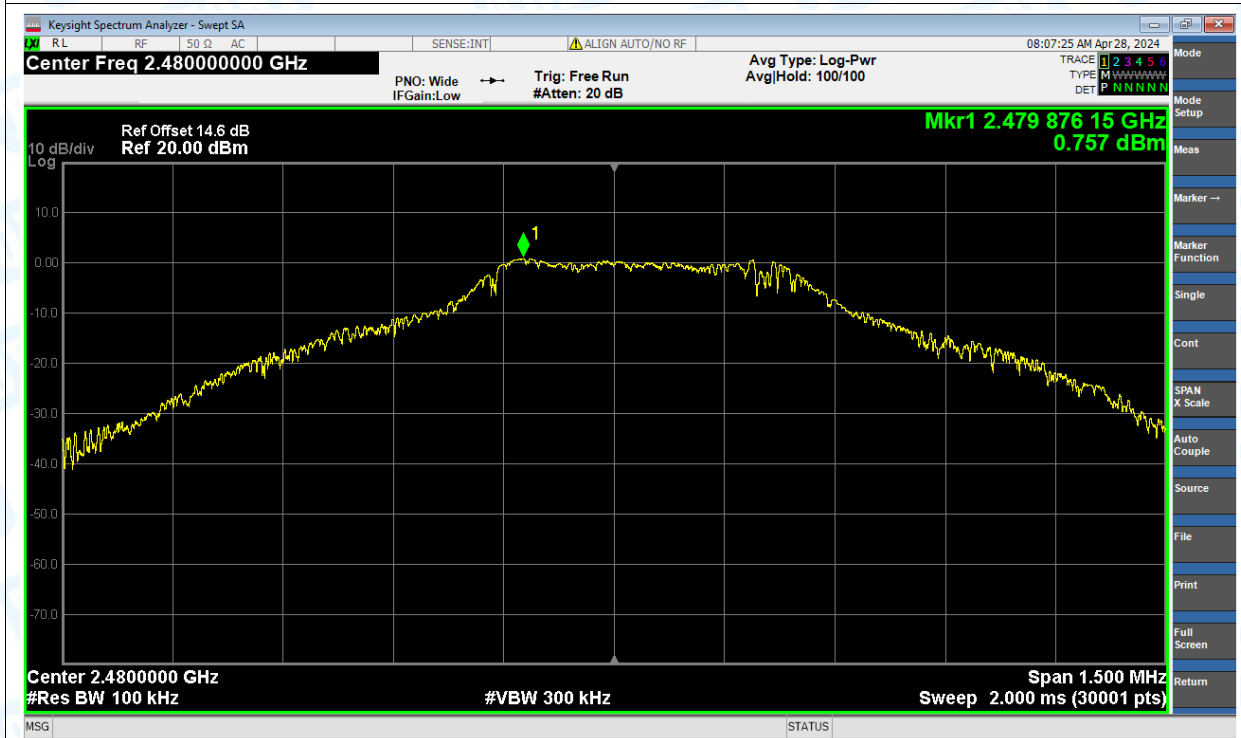
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



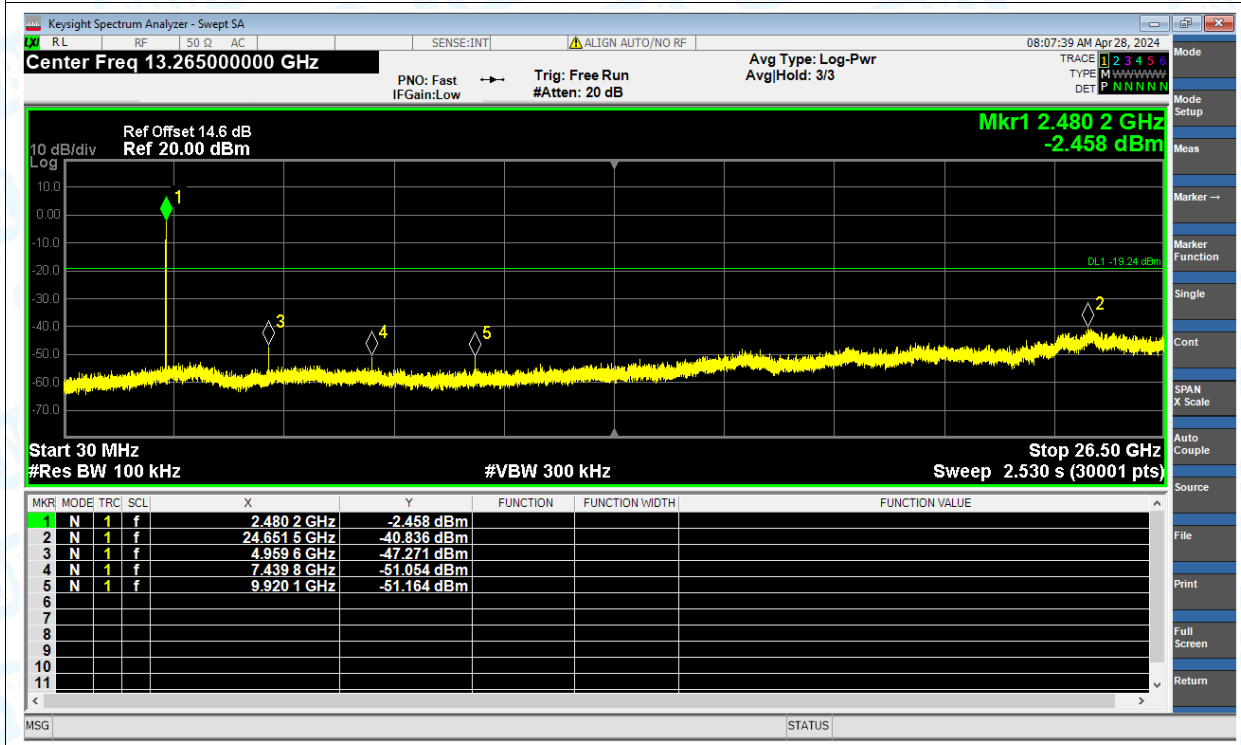
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



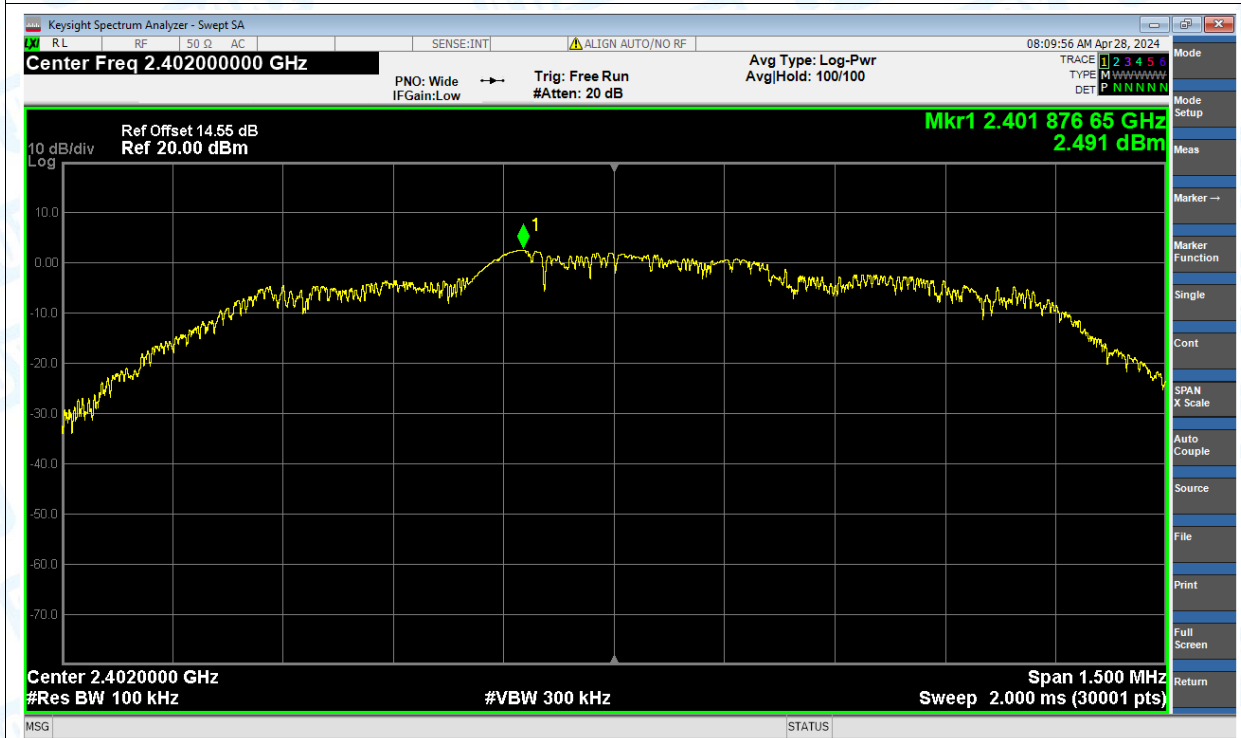
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



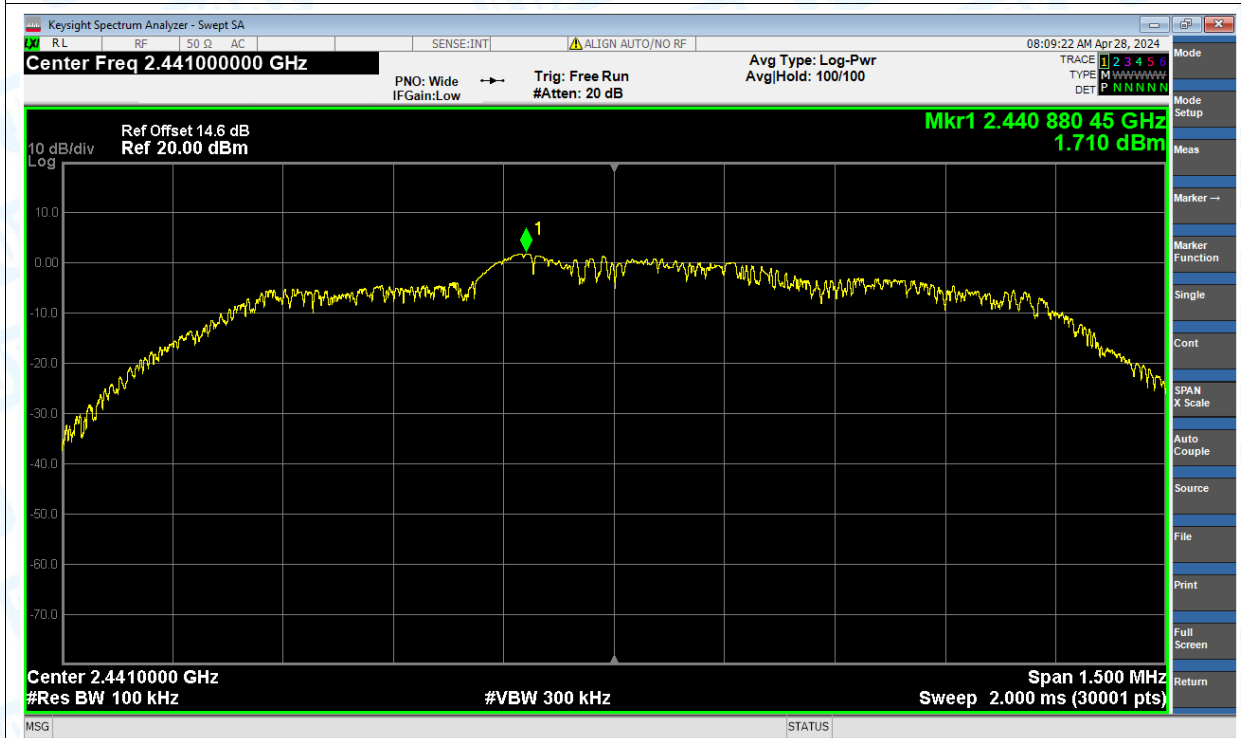
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



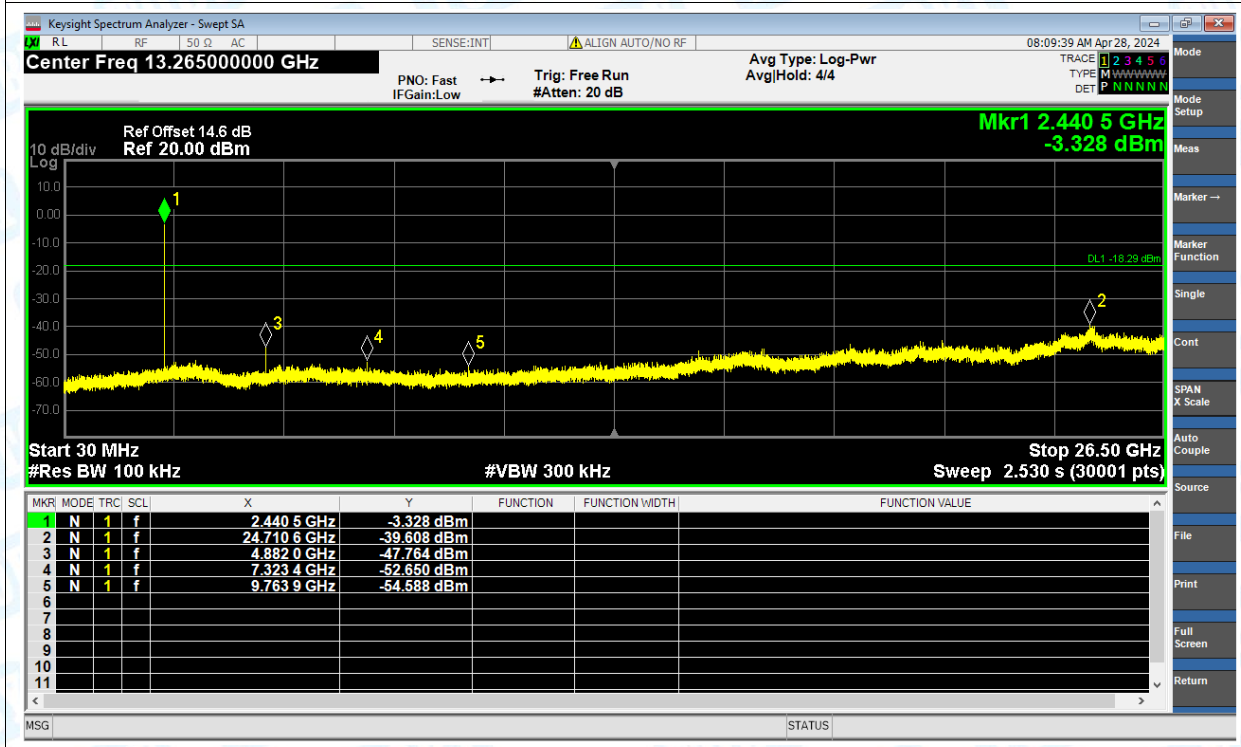
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



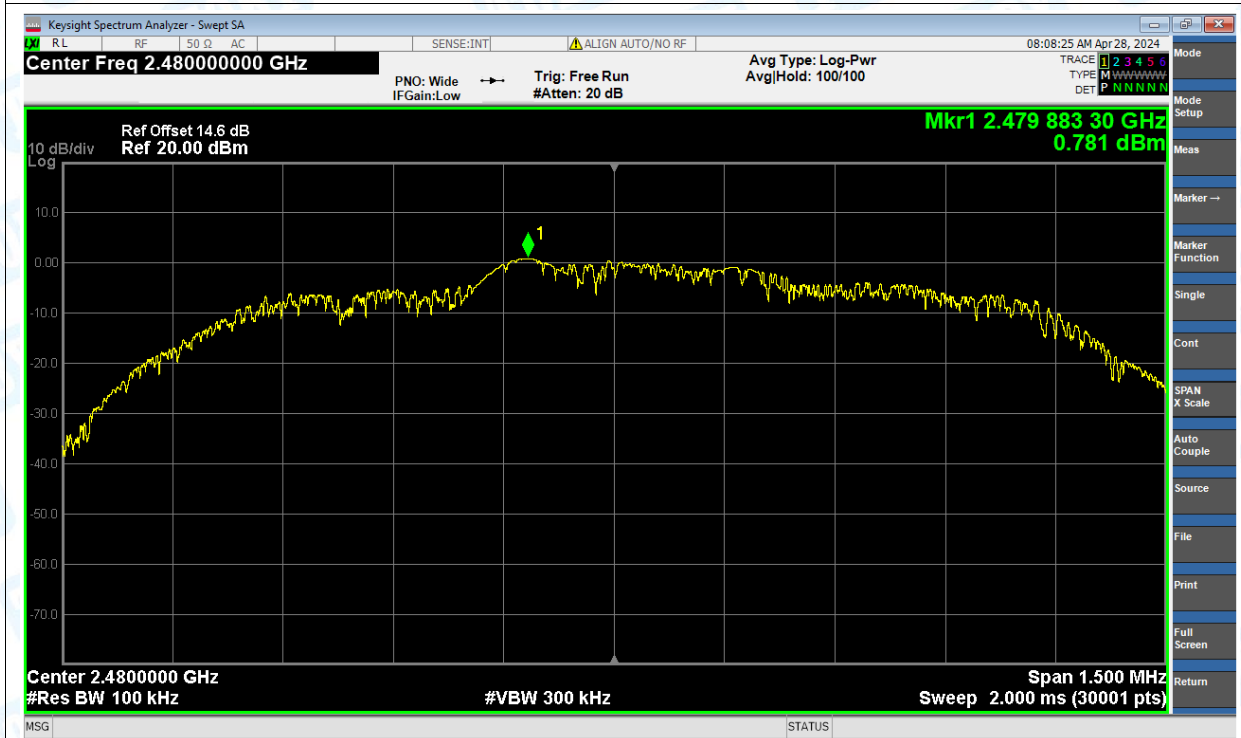
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



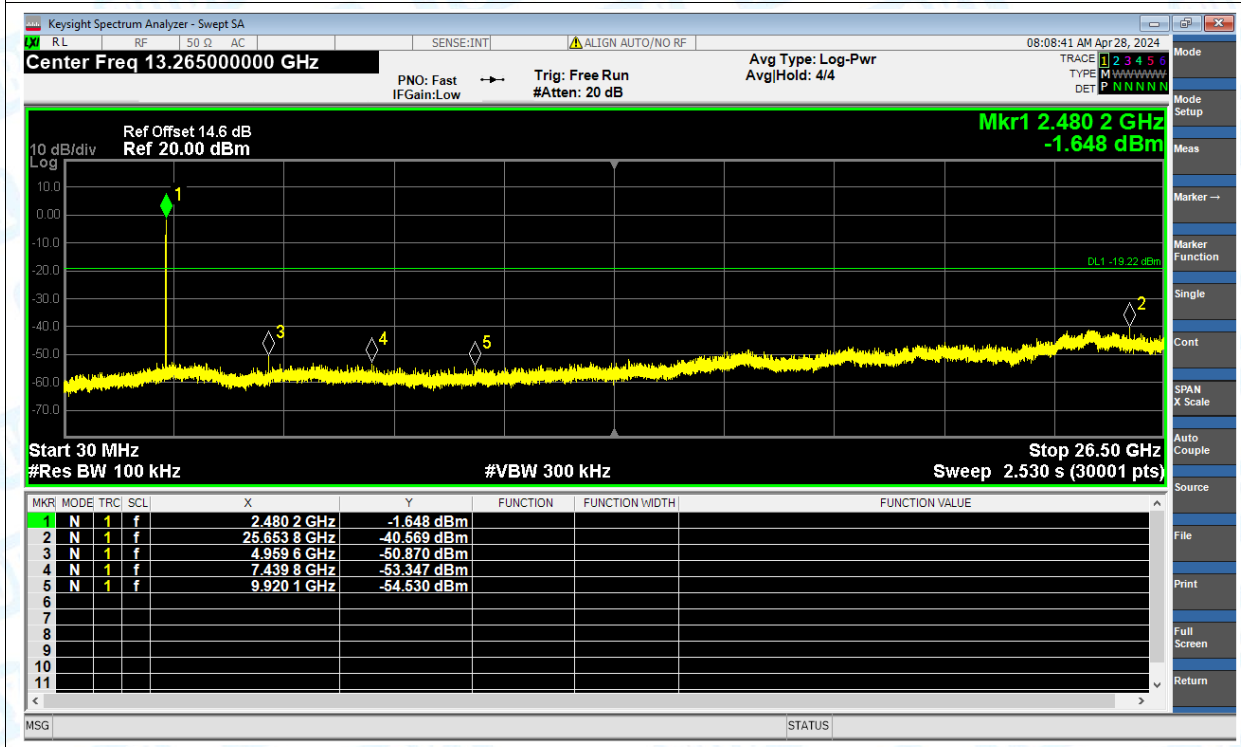
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



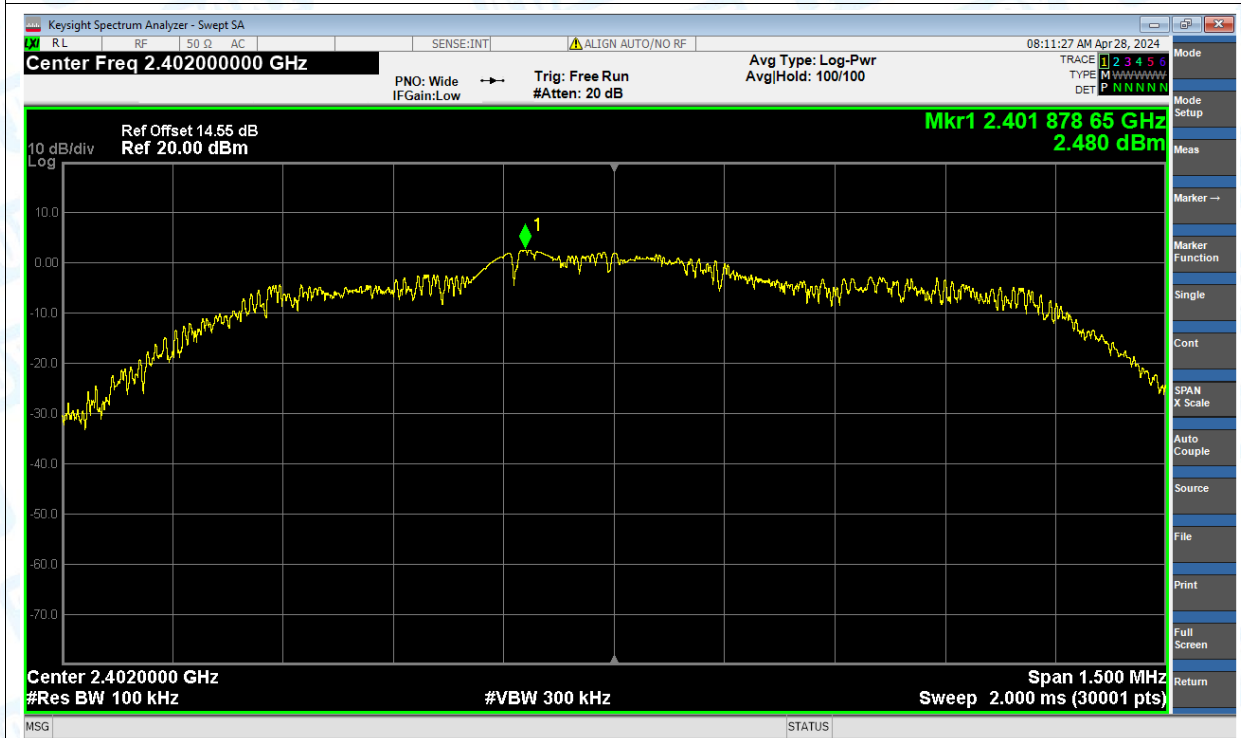
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



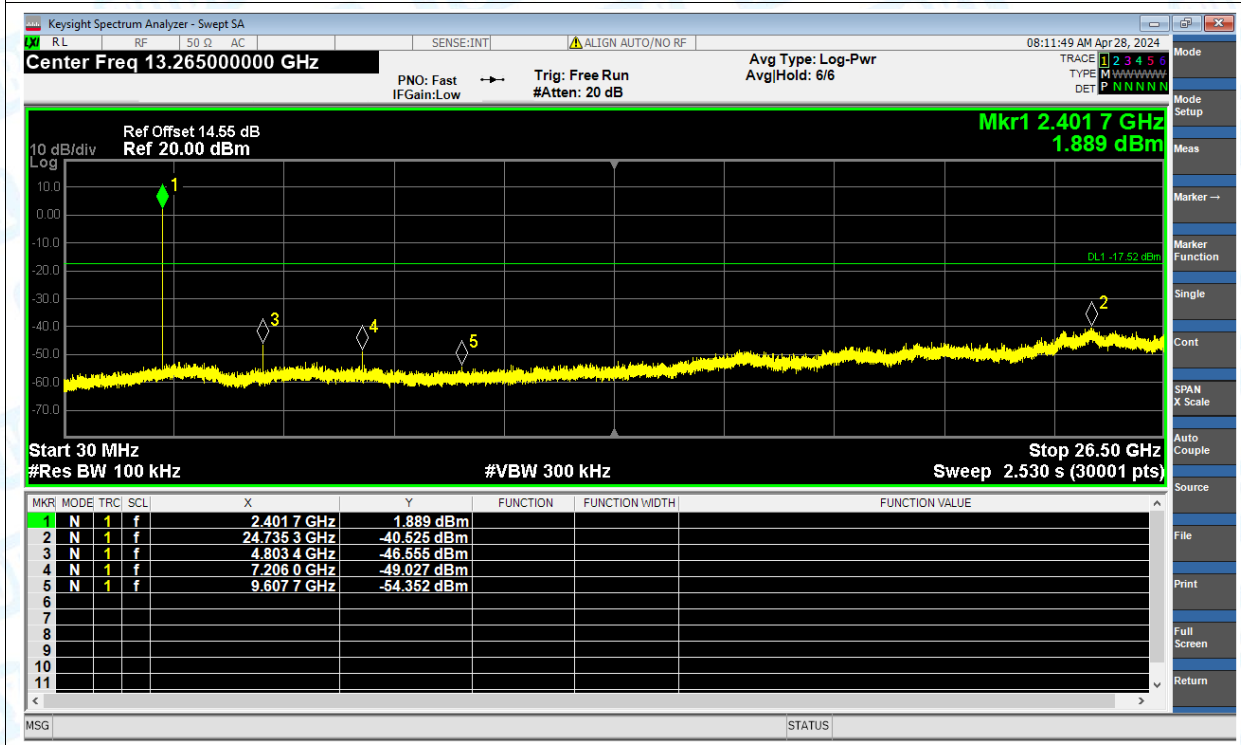
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



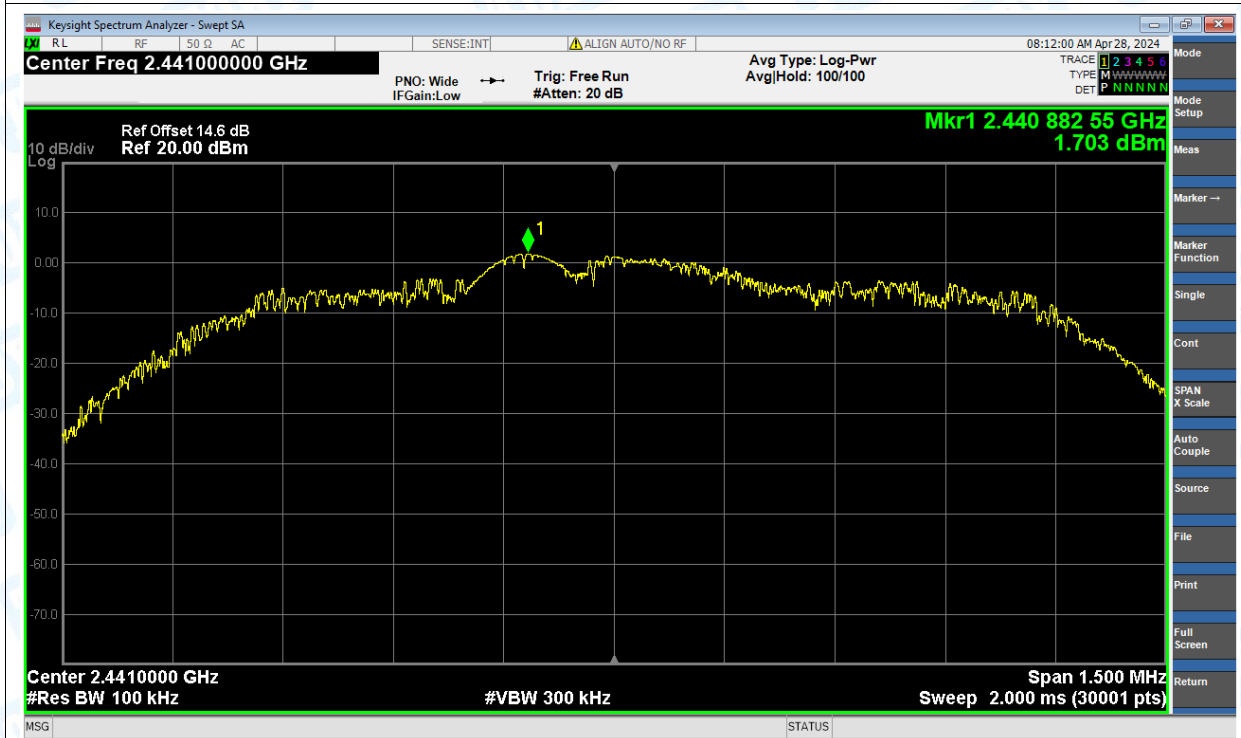
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



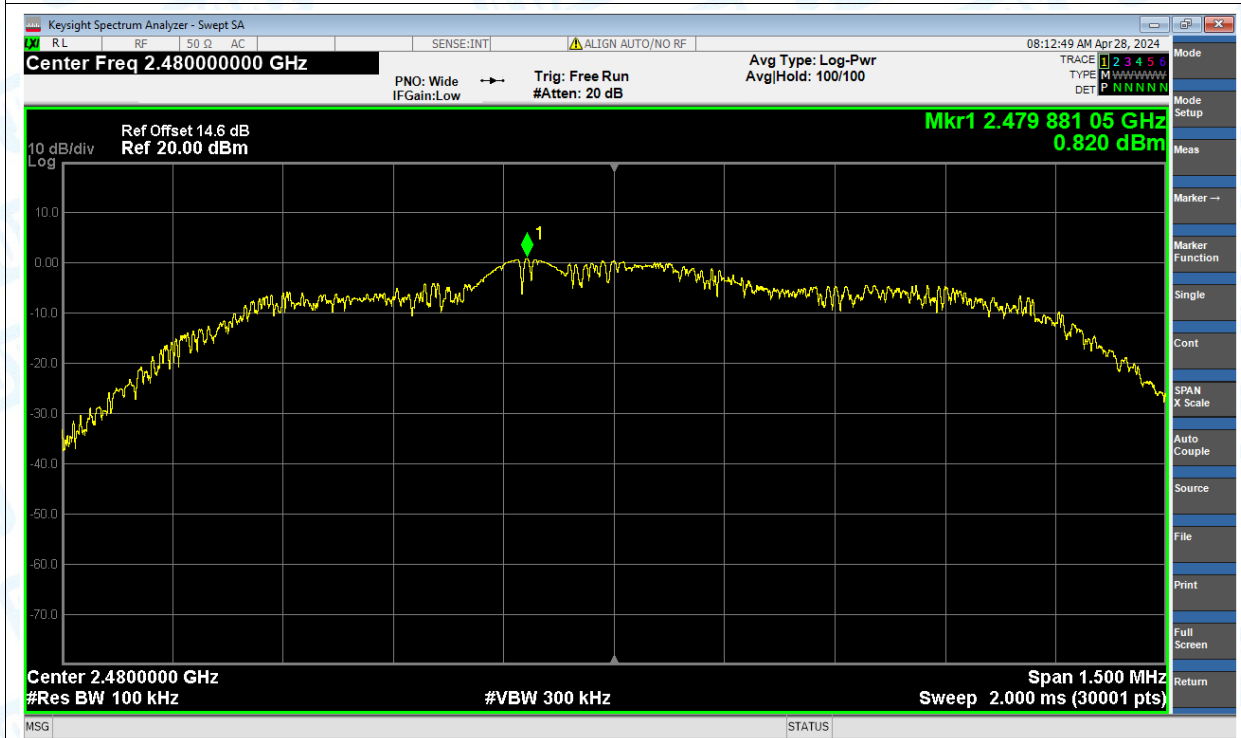
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



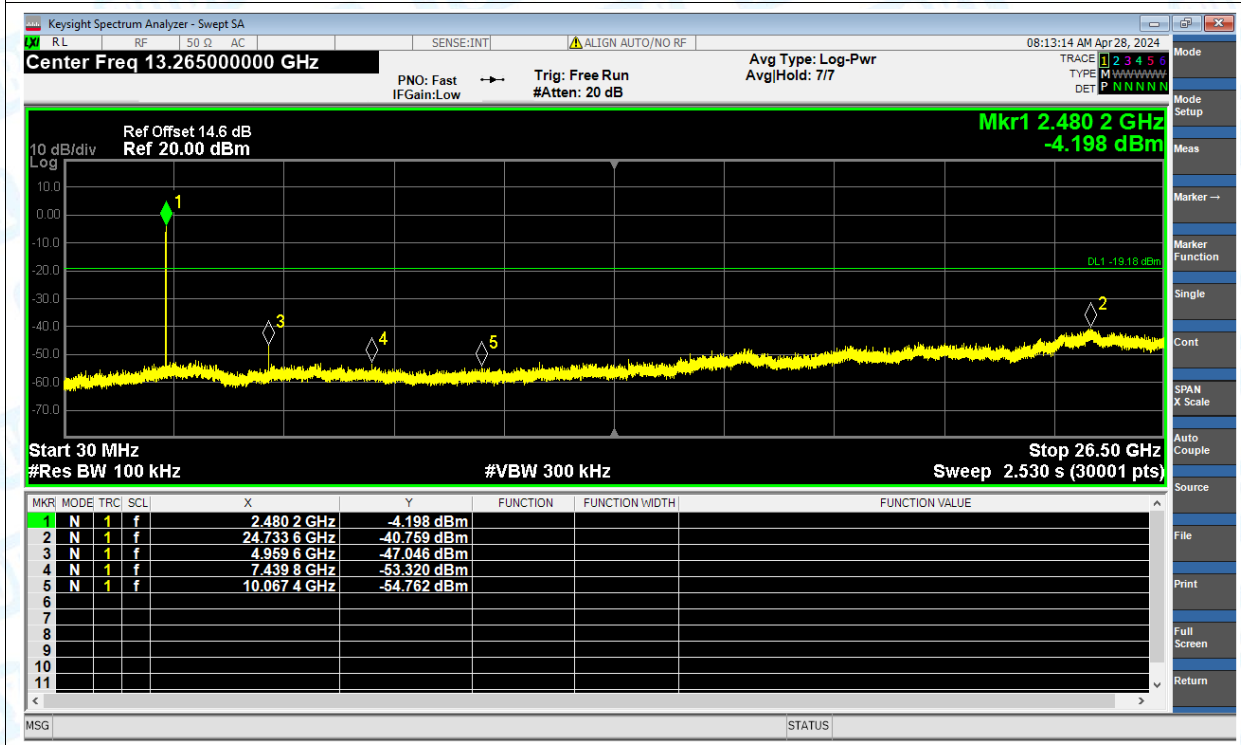
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

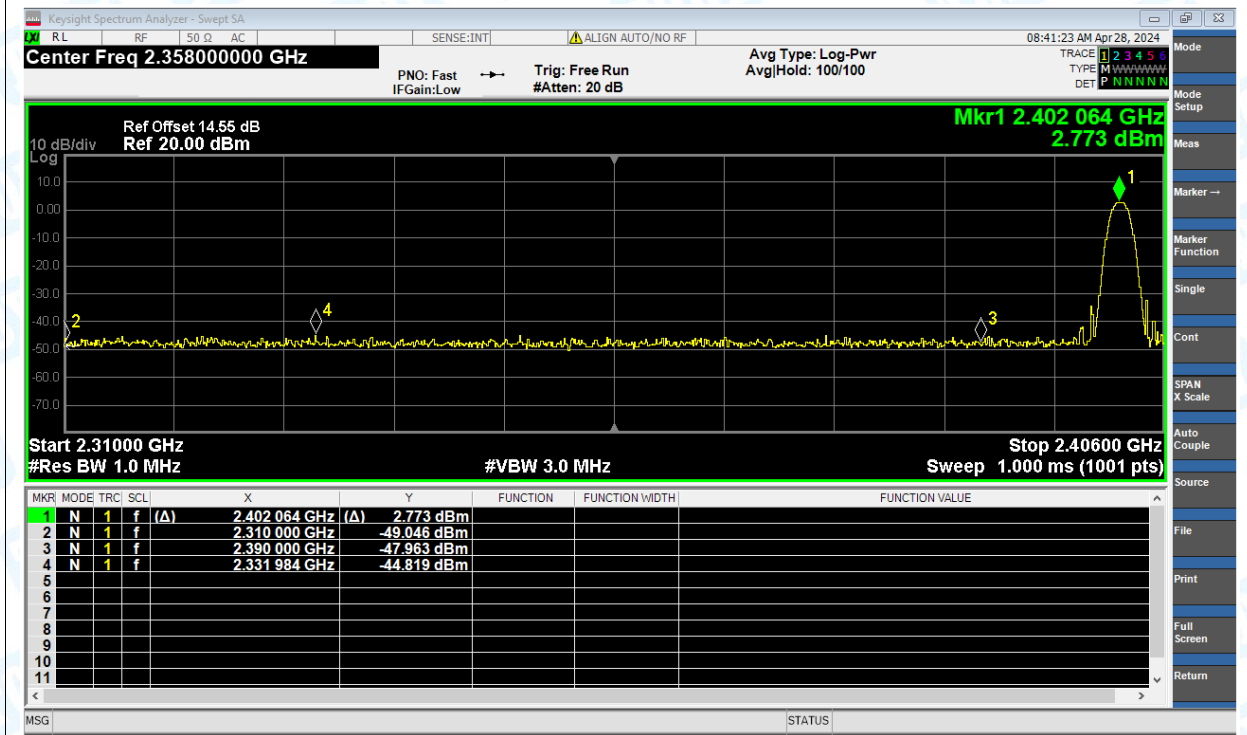


8. Restrict Band

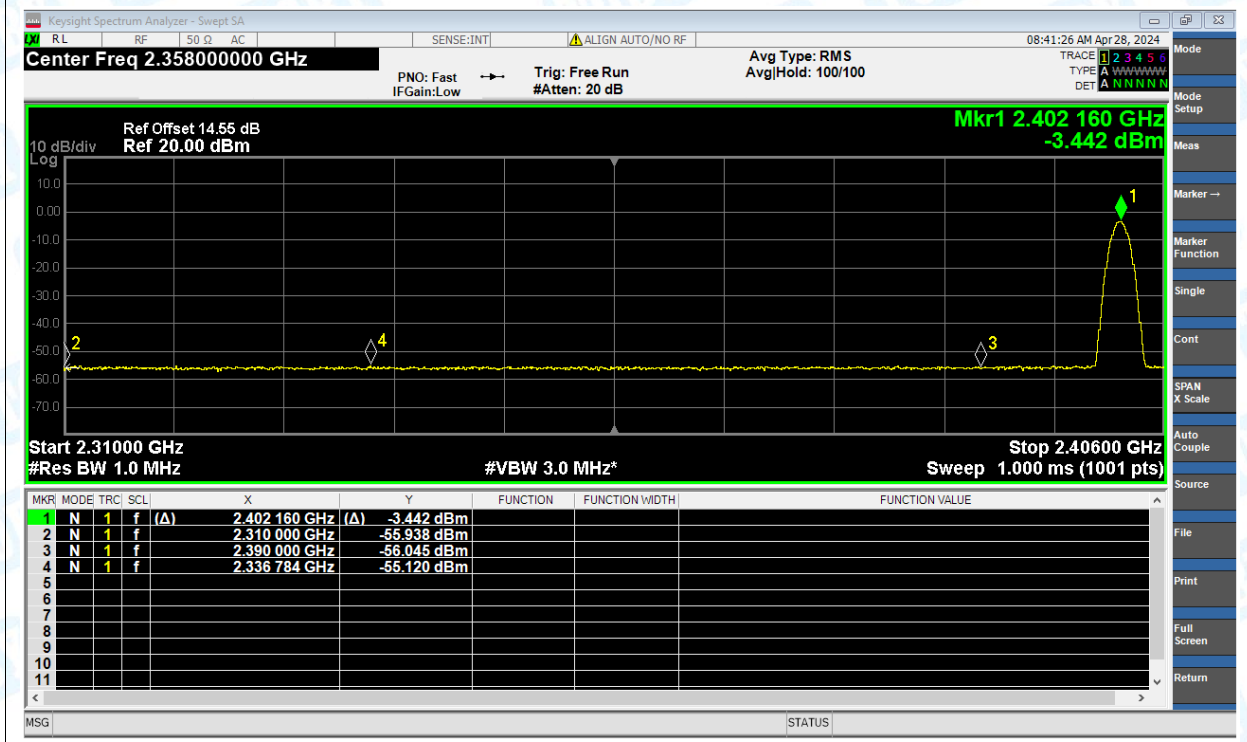
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-49.05	4.3	-	50.51	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-55.94	4.3	4.95	48.57	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2331.984	-44.82	4.3	-	54.74	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2336.784	-55.12	4.3	4.95	49.39	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-47.96	4.3	-	51.6	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-56.05	4.3	4.95	48.46	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-48.45	4.3	-	51.11	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-55.66	4.3	4.95	48.85	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2497.36	-44.06	4.3	-	55.5	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2497.816	-54.79	4.3	4.95	49.72	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-45.72	4.3	-	53.84	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.73	4.3	4.95	48.78	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-48.77	4.3	-	50.79	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-55.83	4.3	4.84	48.57	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2323.536	-44.96	4.3	-	54.6	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2313.648	-54.99	4.3	4.84	49.41	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-48.53	4.3	-	51.03	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-55.77	4.3	4.84	48.63	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-47.13	4.3	-	52.43	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-55.78	4.3	4.95	48.73	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2495.8	-44.91	4.3	-	54.65	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2484.04	-54.77	4.3	4.95	49.74	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-47.43	4.3	-	52.13	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.81	4.3	4.95	48.7	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-48.19	4.3	-	51.37	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.37	4.3	4.84	48.03	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2327.76	-44.77	4.3	-	54.79	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2340.048	-55.12	4.3	4.84	49.28	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-48.02	4.3	-	51.54	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-55.82	4.3	4.84	48.58	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-46.39	4.3	-	53.17	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-55.16	4.3	4.84	49.24	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.608	-43.67	4.3	-	55.89	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2489.176	-54.77	4.3	4.84	49.63	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-48.34	4.3	-	51.22	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.58	4.3	4.84	48.82	Average	54	Pass

Test Graphs

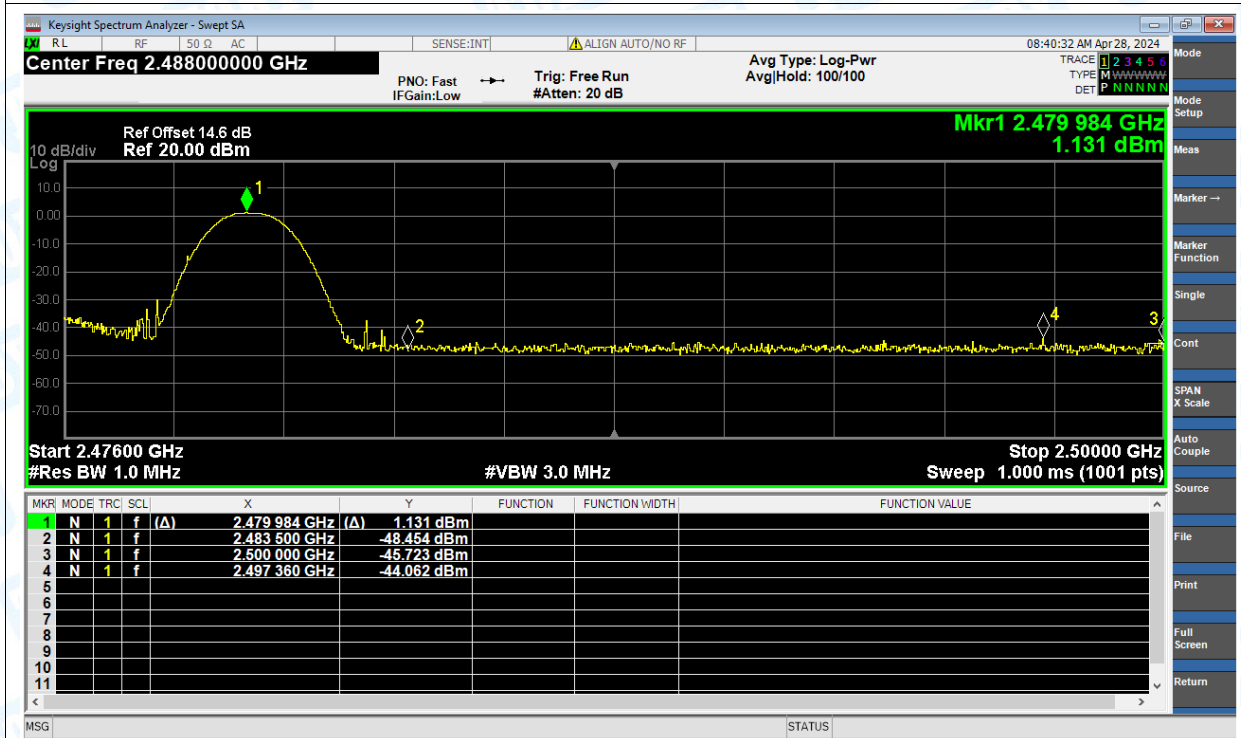
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



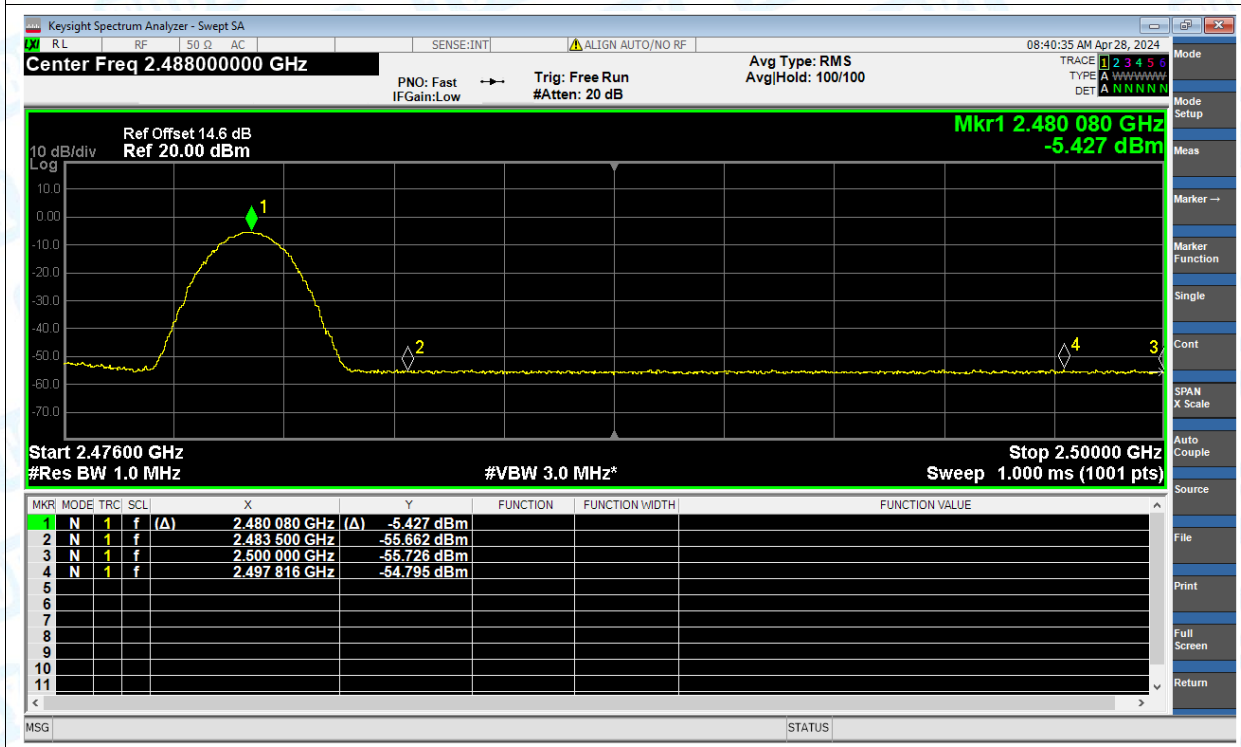
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



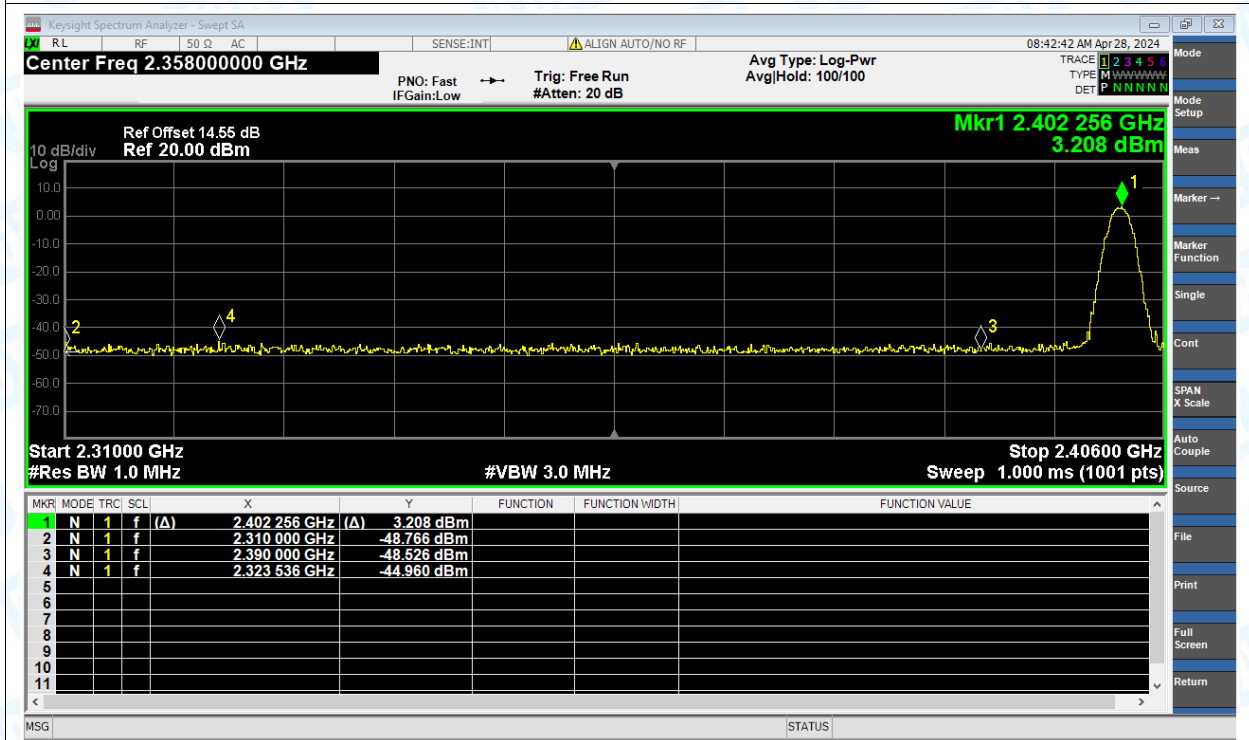
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



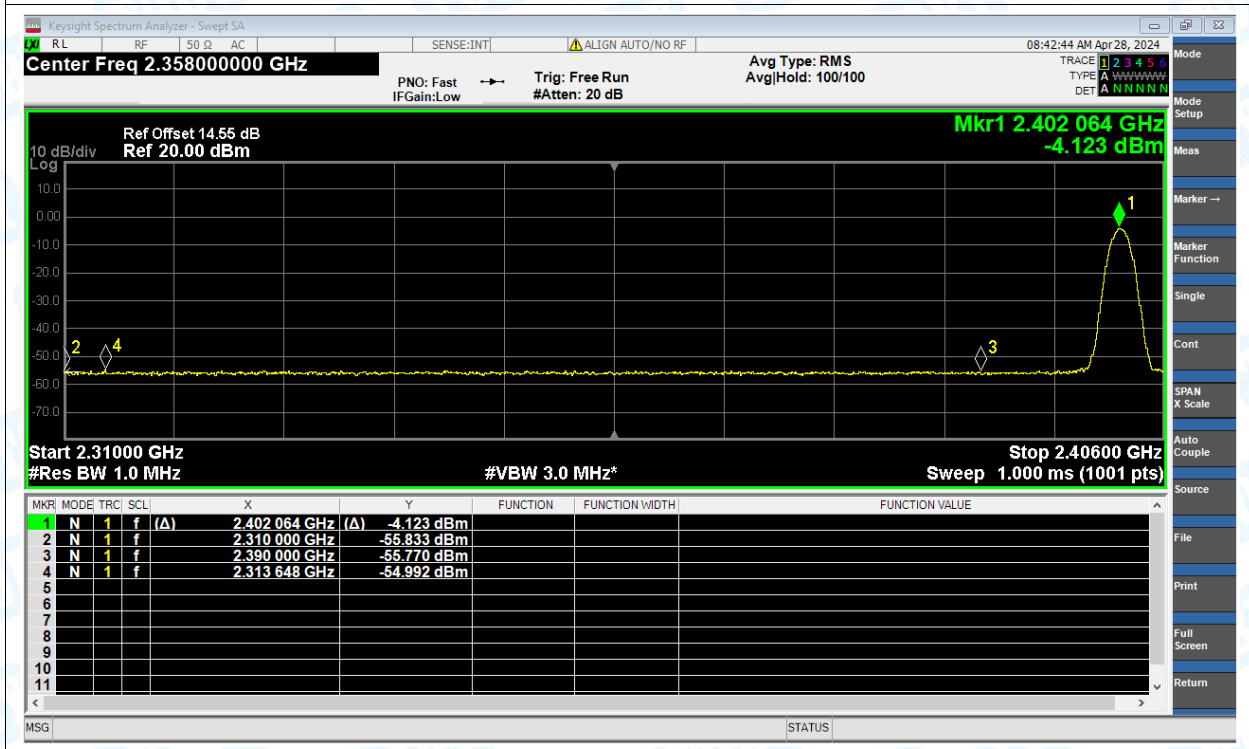
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



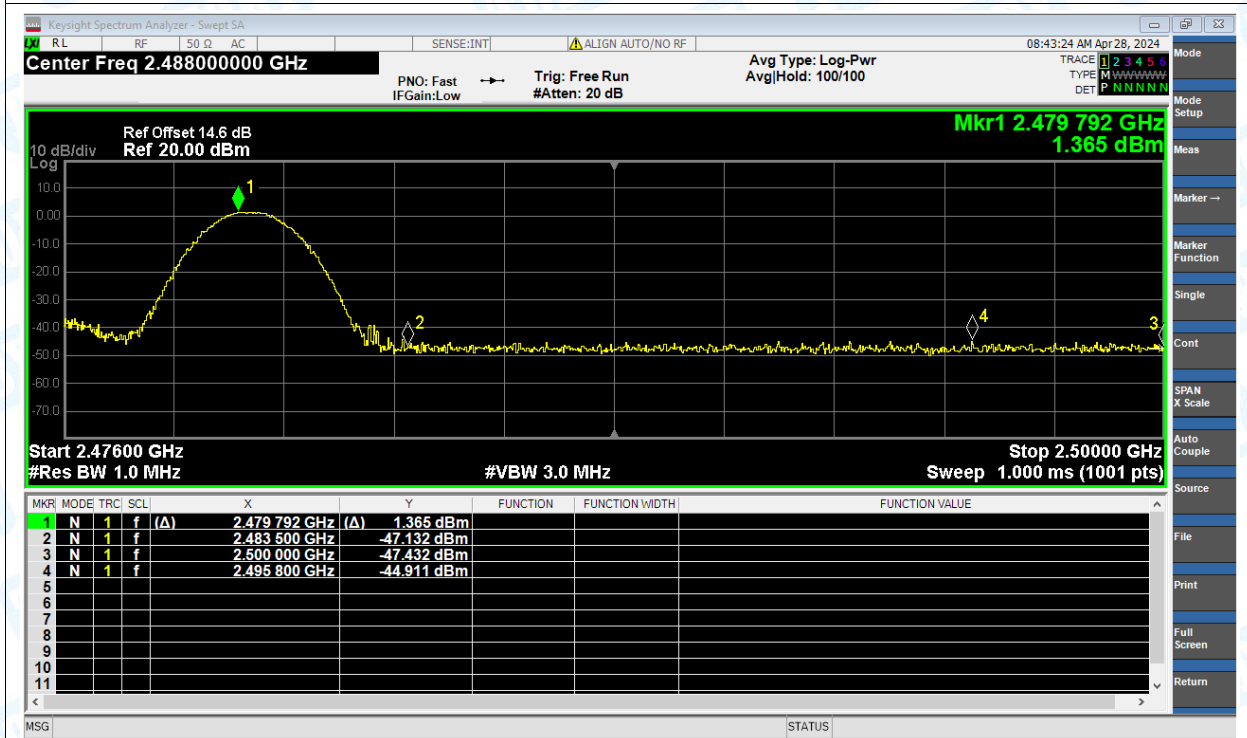
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



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



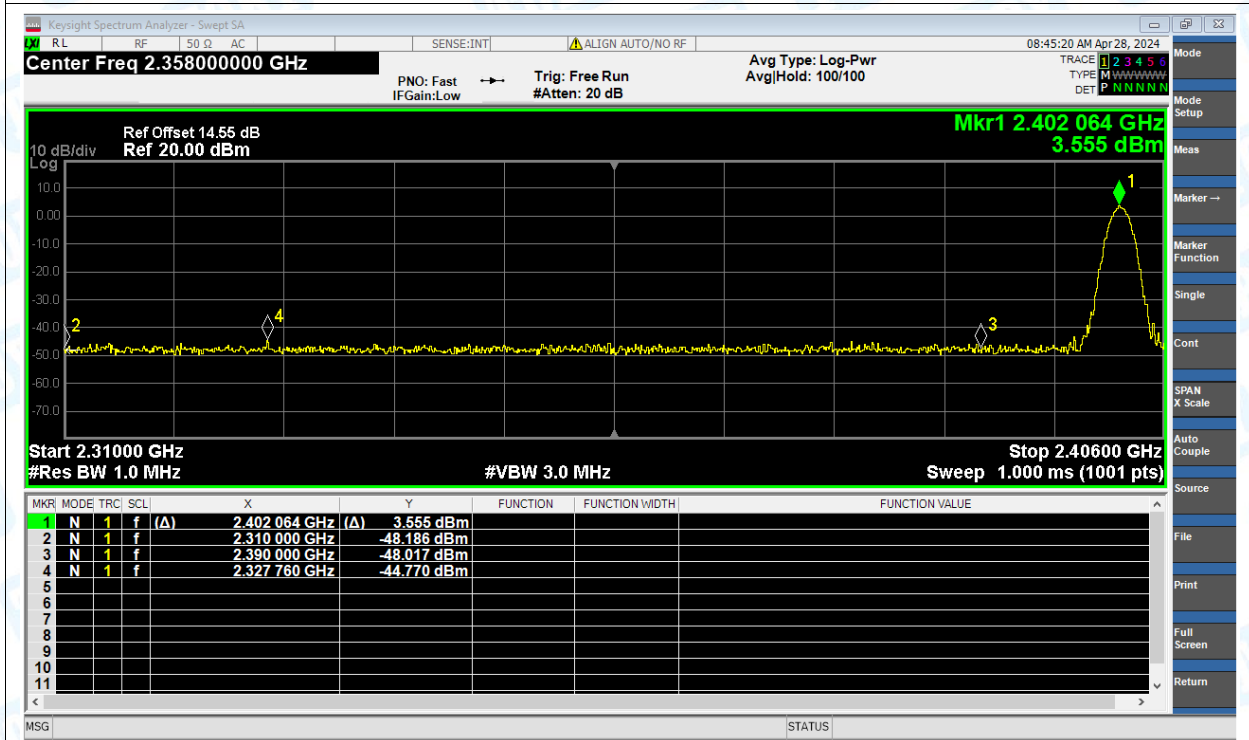
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



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



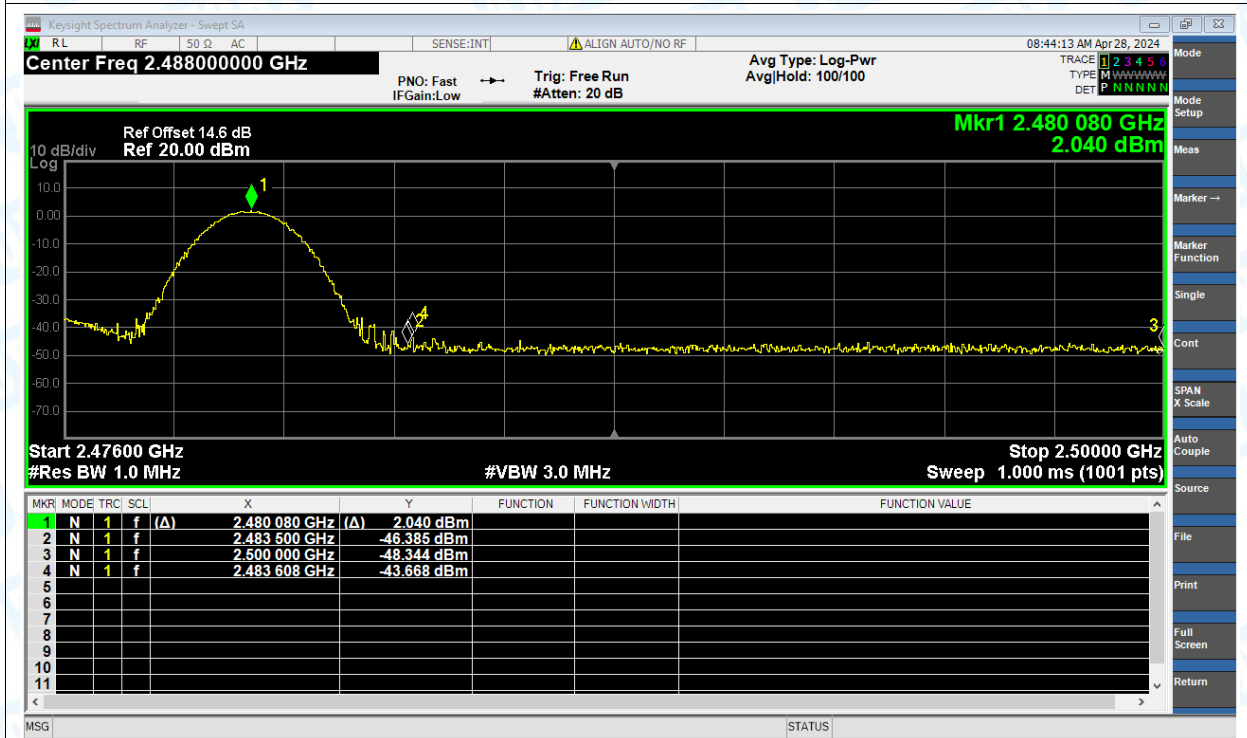
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



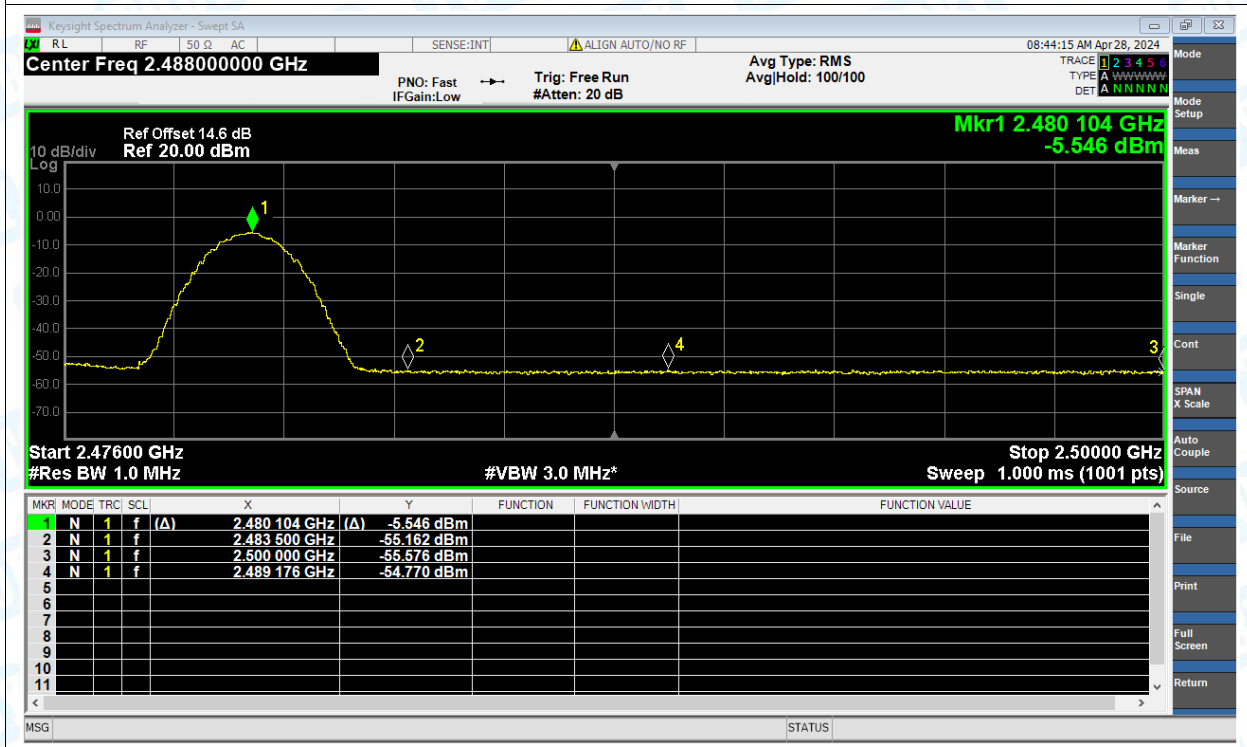
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

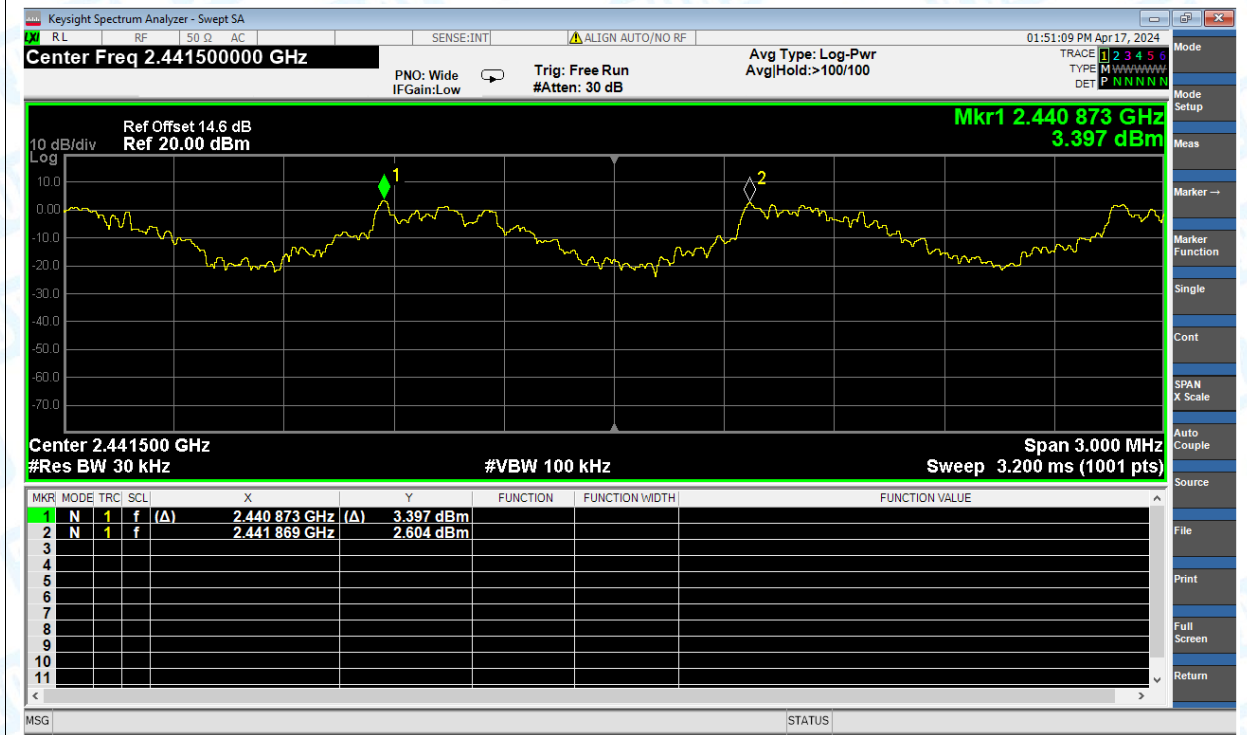


9. Carrier Frequencies Separation

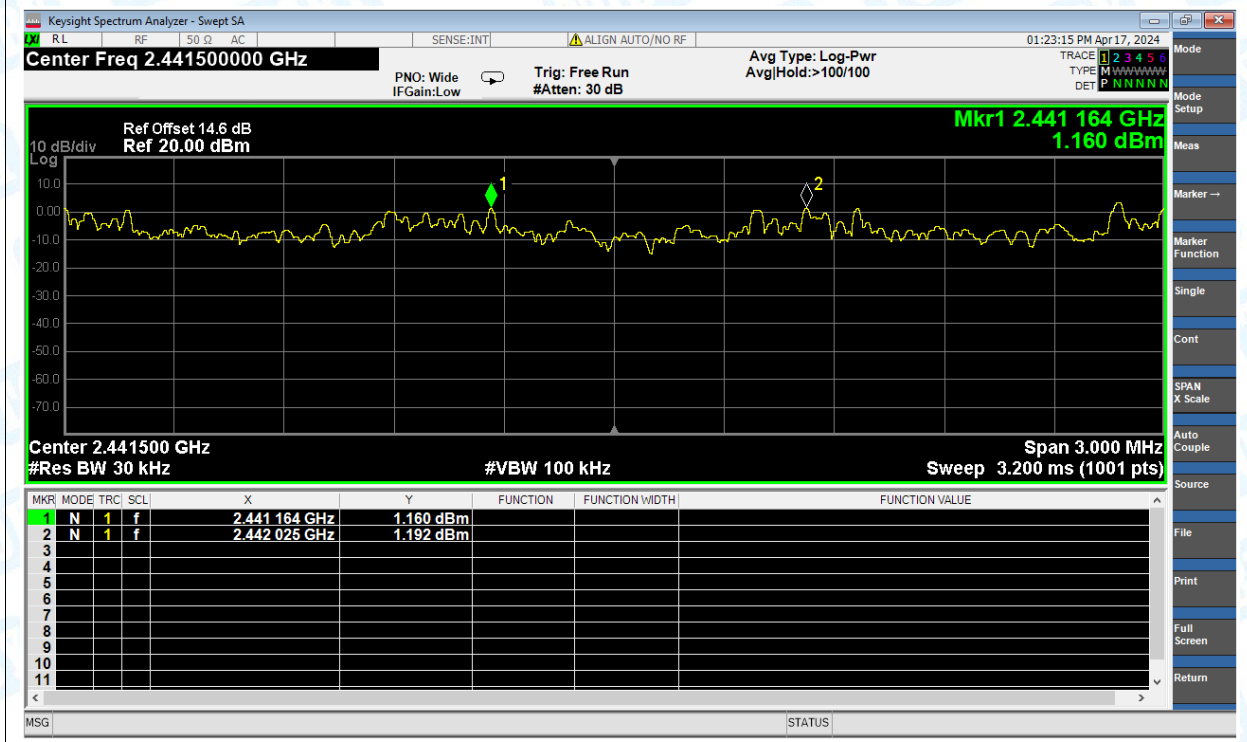
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.873	2441.869	0.996	0.553	Pass
NVNT	2-DH1	Ant1	2441.164	2442.025	0.861	0.833	Pass
NVNT	3-DH1	Ant1	2440.873	2441.869	0.996	0.813	Pass

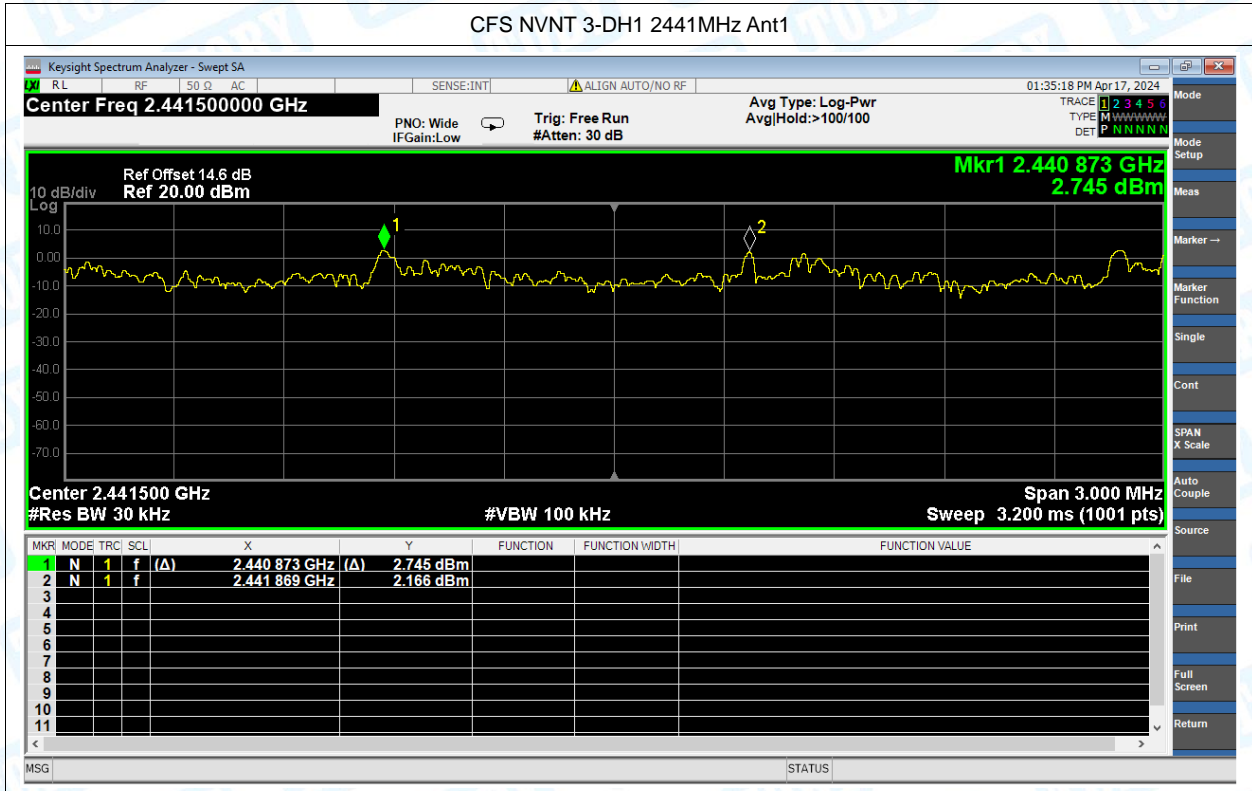
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



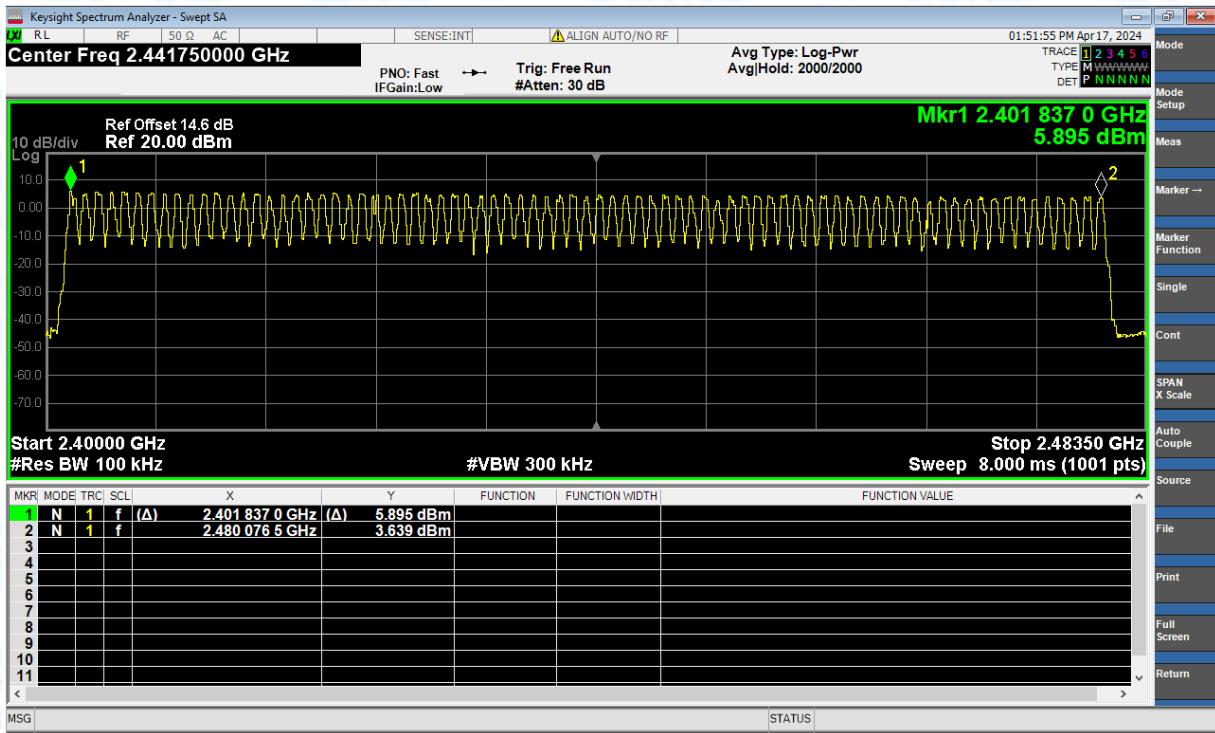


10. Number of Hopping Channel

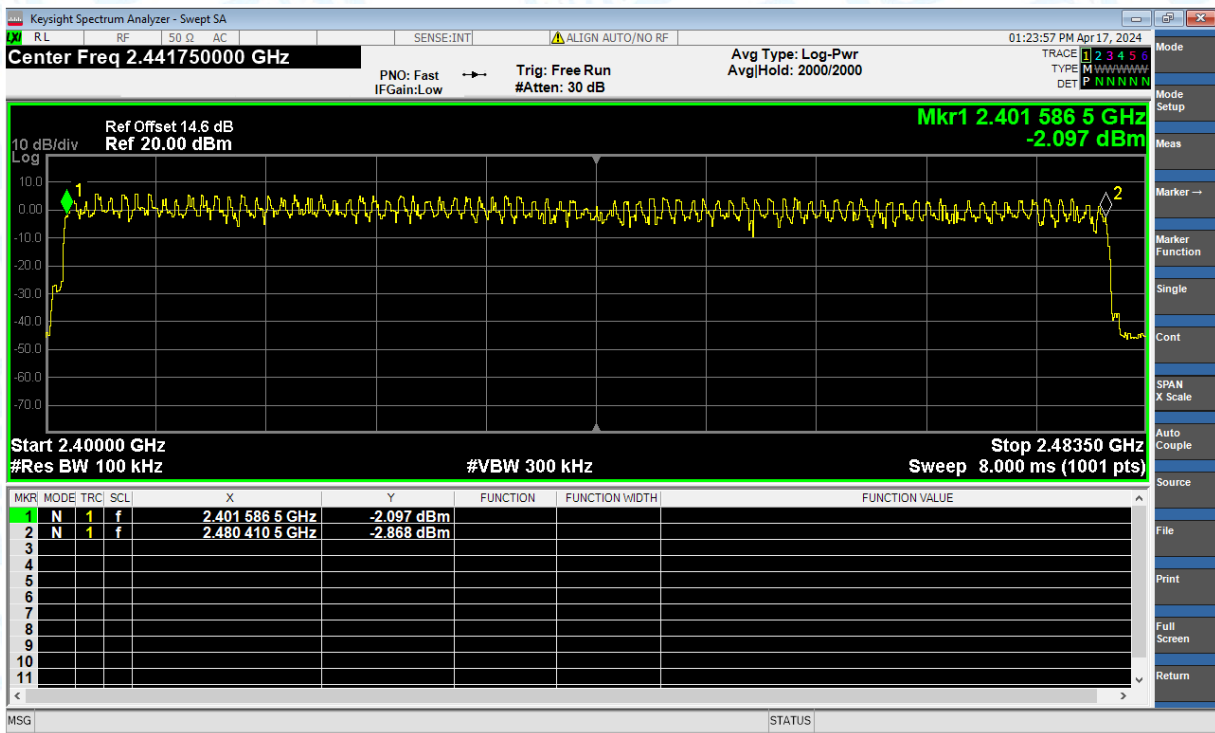
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

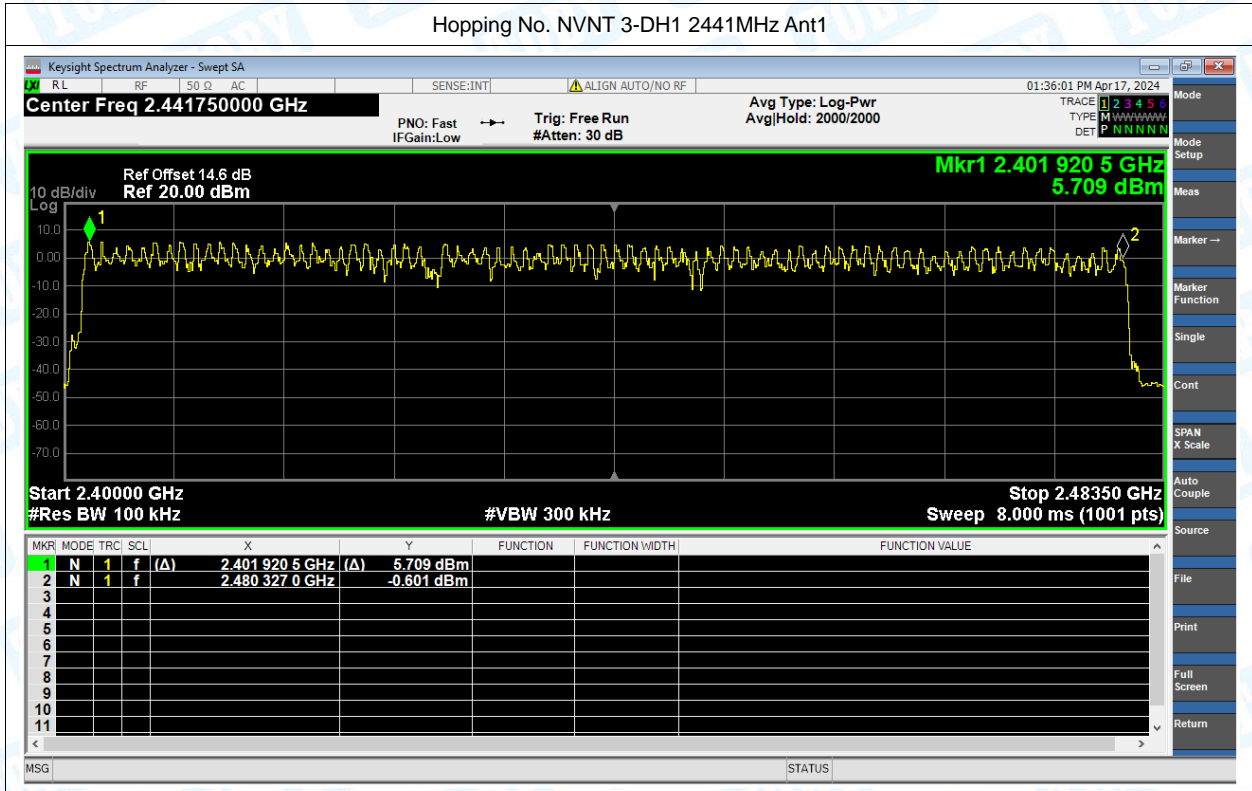
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



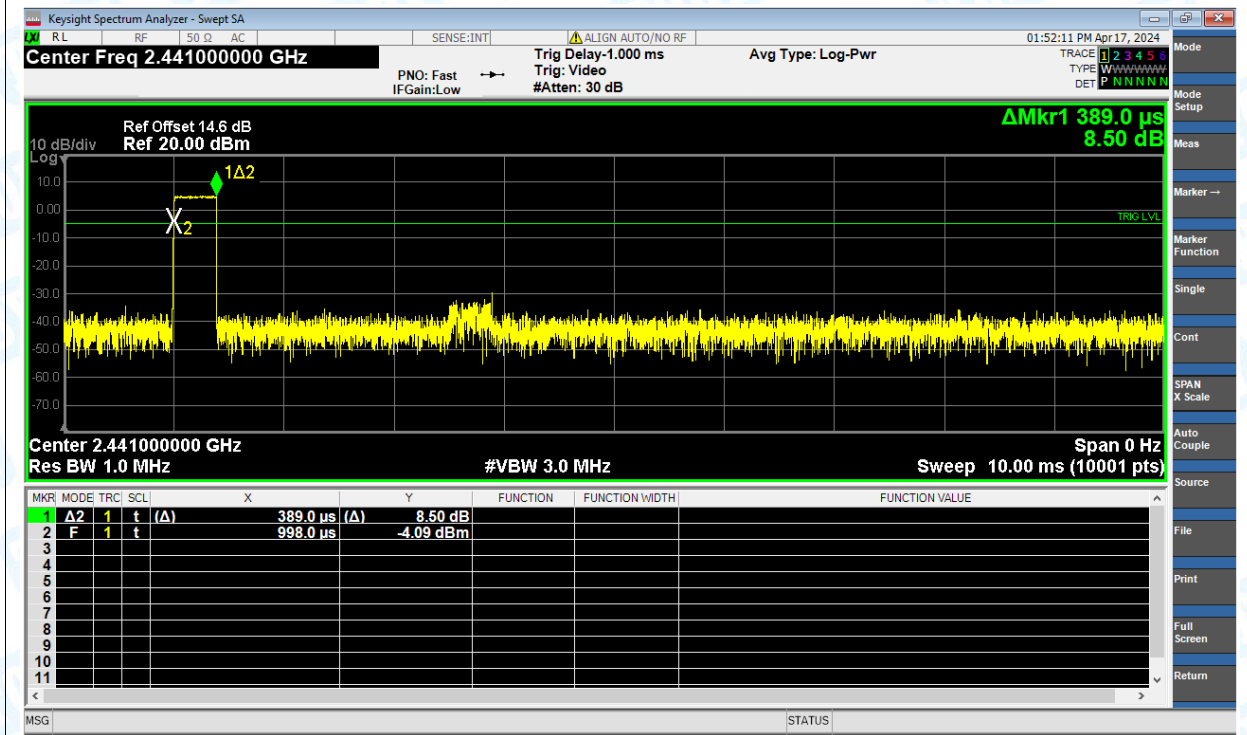


11. Dwell Time

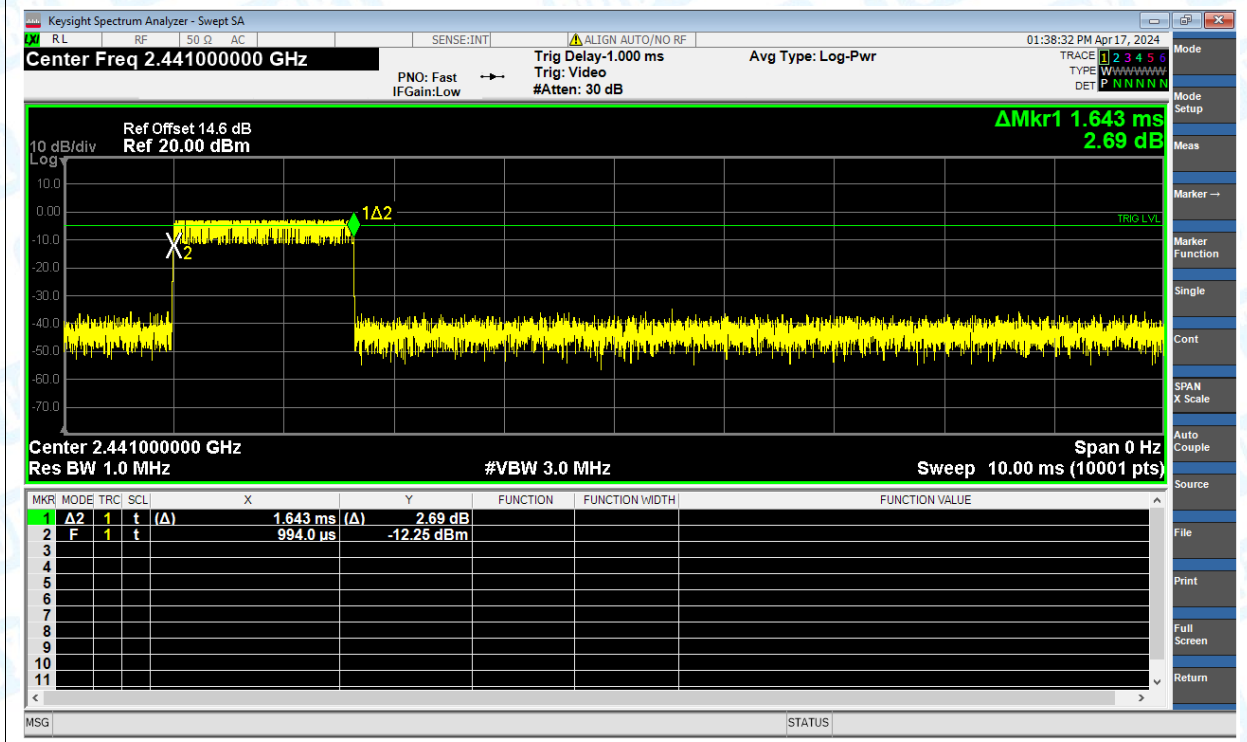
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.389	124.48	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.643	262.88	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.891	308.373	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.399	127.68	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.627	260.32	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.899	309.227	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.401	128.32	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.647	263.52	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.899	309.227	31600	400	Pass

Test Graphs

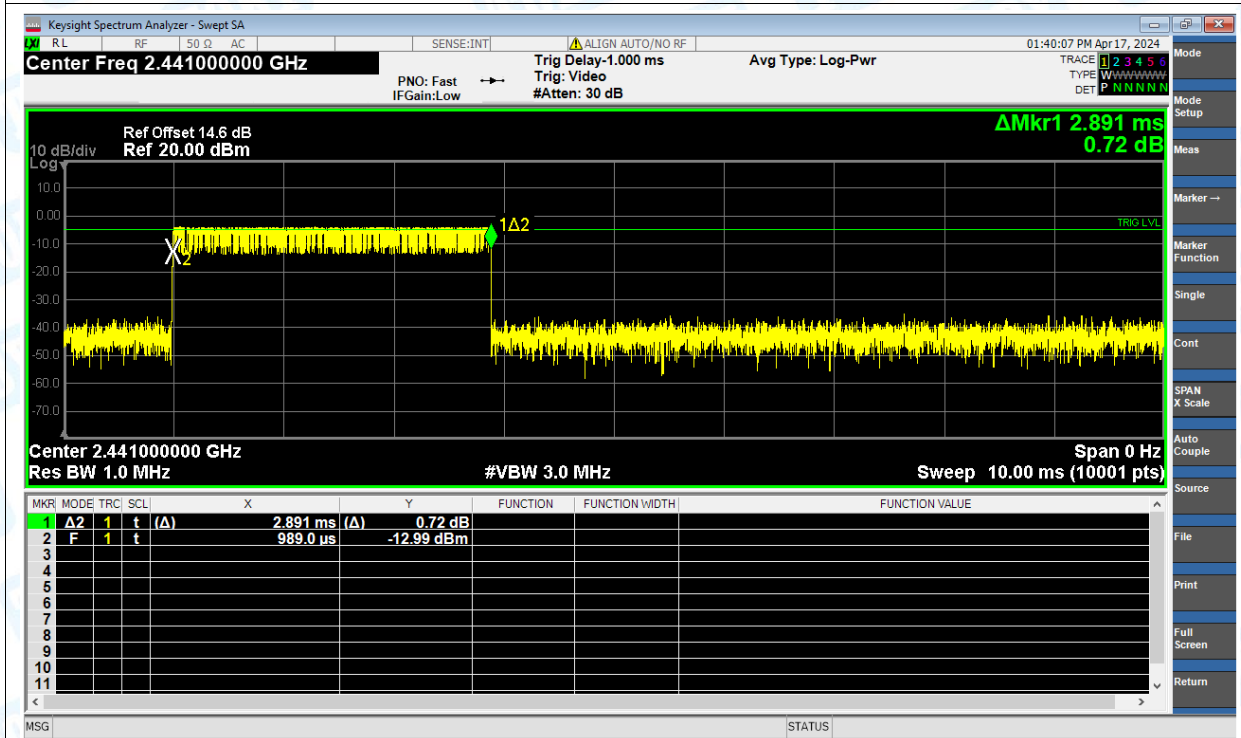
Dwell NVNT 1-DH1 2441MHz Ant1



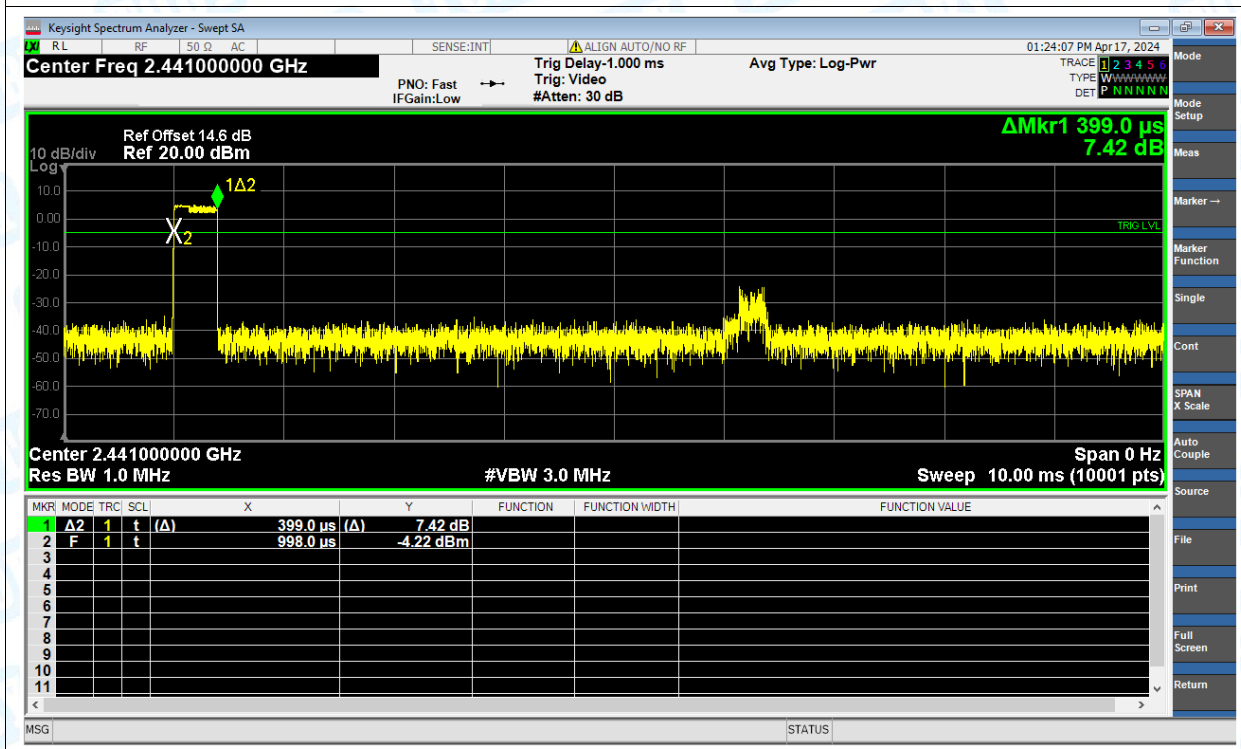
Dwell NVNT 1-DH3 2441MHz Ant1



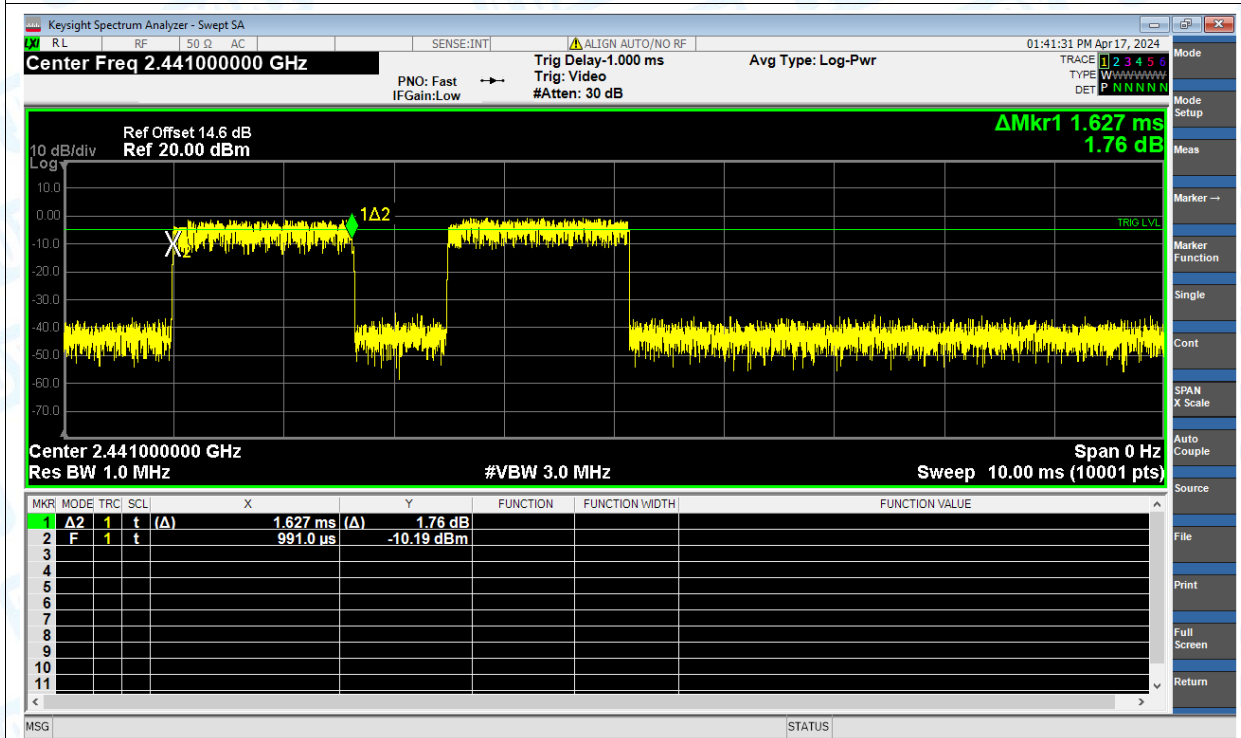
Dwell NVNT 1-DH5 2441MHz Ant1



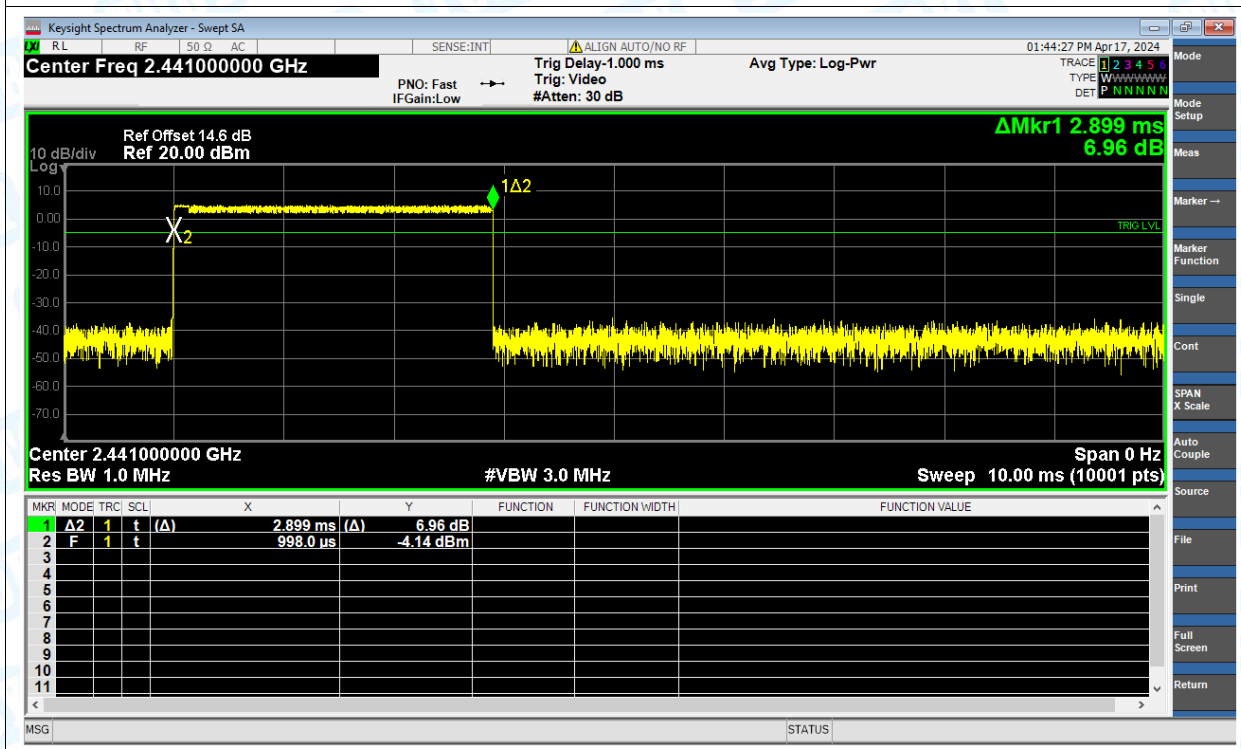
Dwell NVNT 2-DH1 2441MHz Ant1



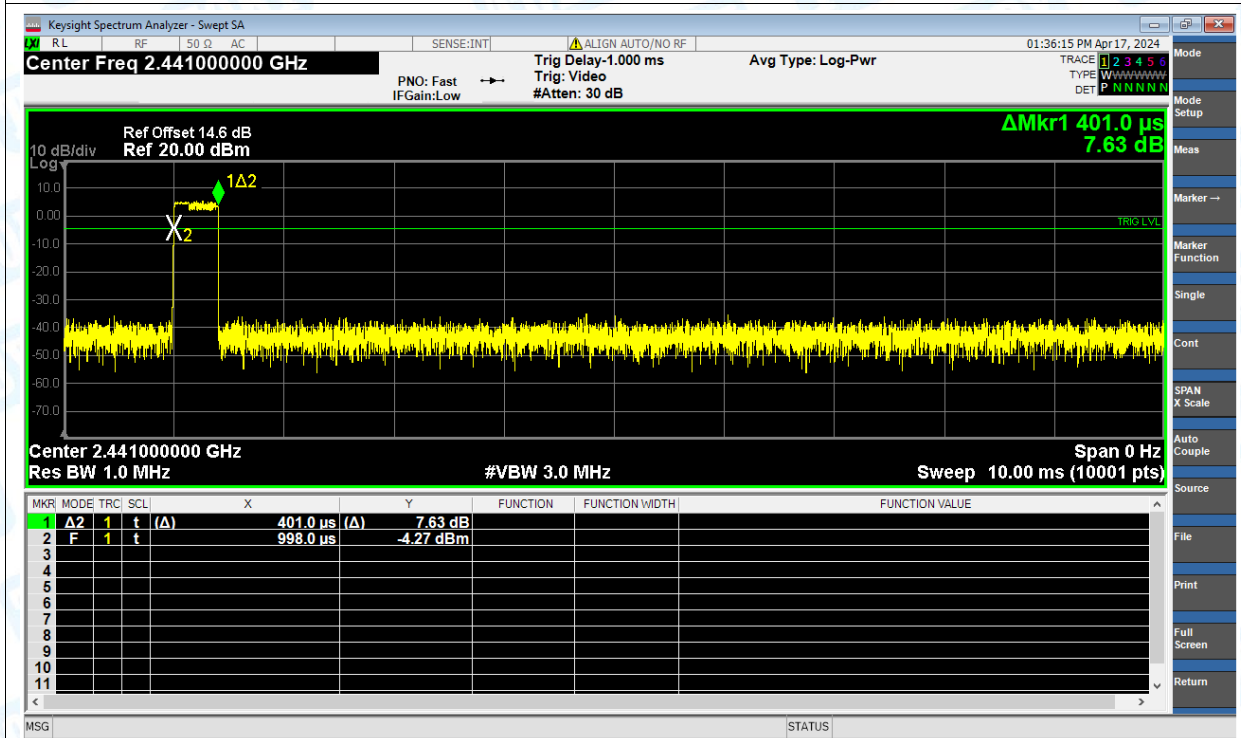
Dwell NVNT 2-DH3 2441MHz Ant1



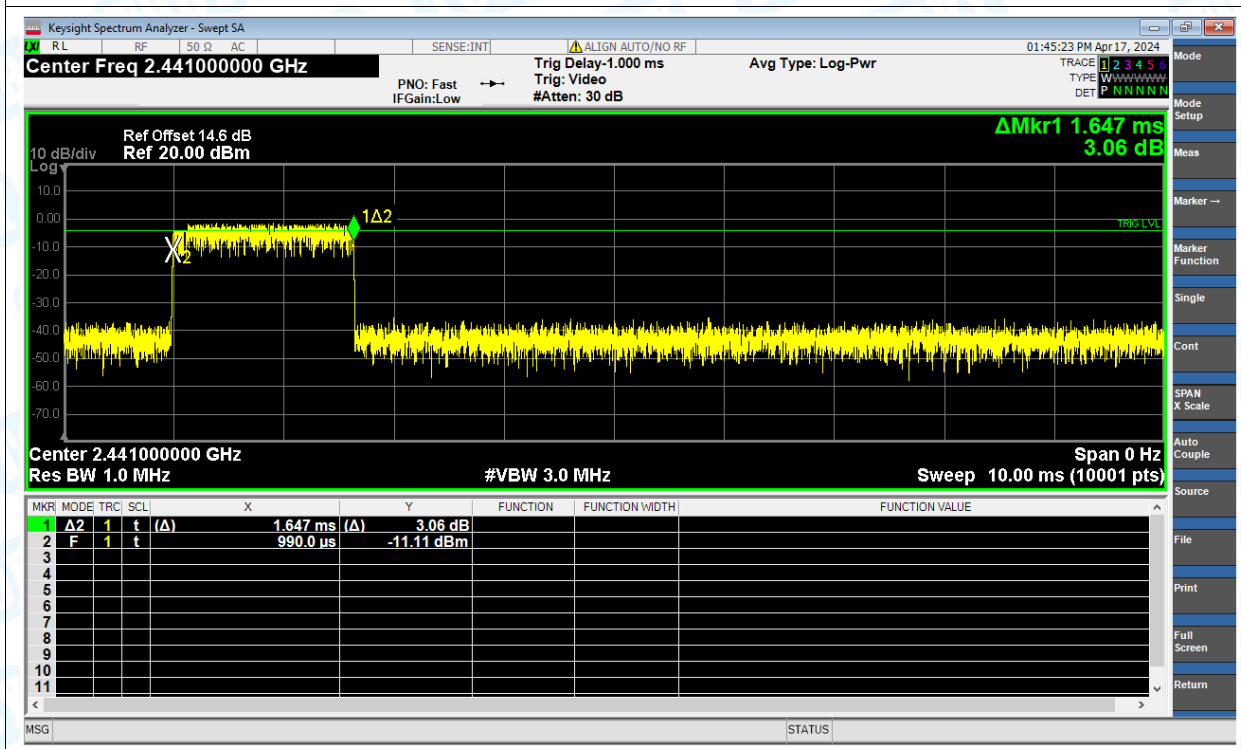
Dwell NVNT 2-DH5 2441MHz Ant1

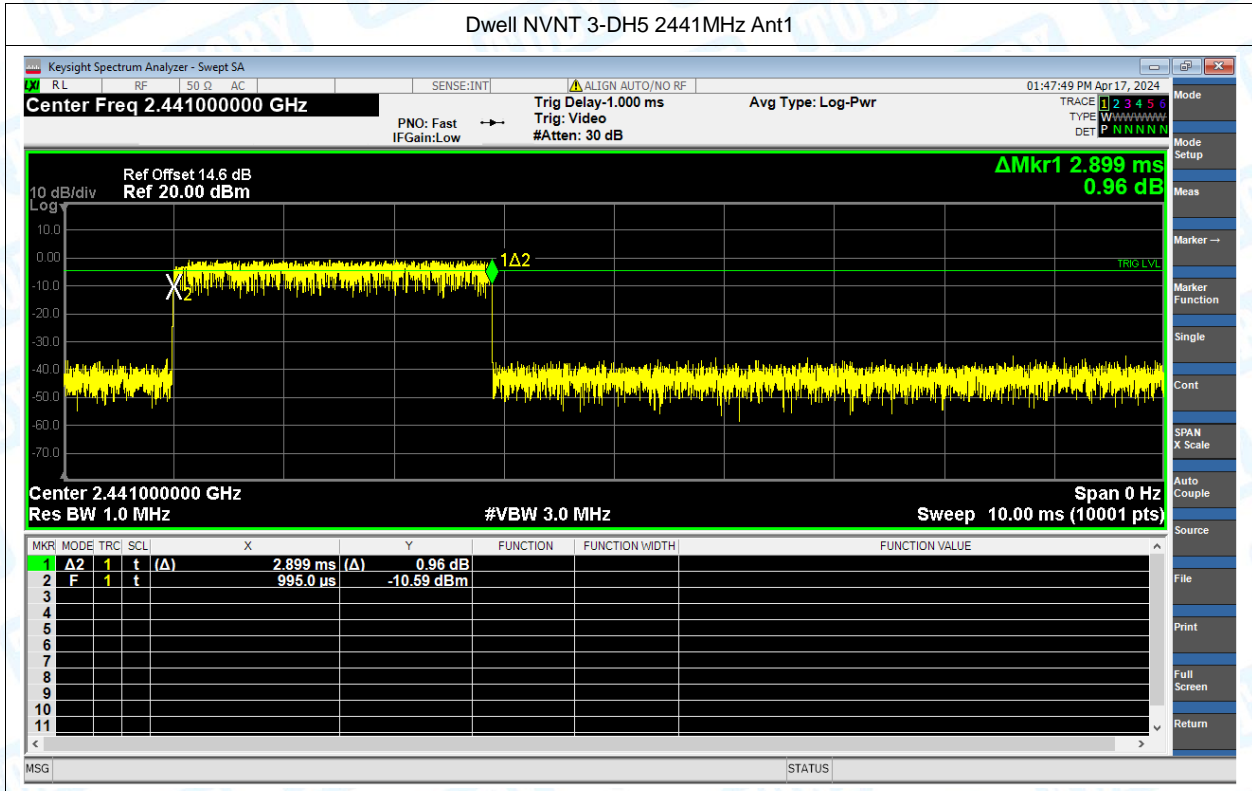


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





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