

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	SMART WATCH
Test Model:	G208
Sample ID:	HC-C-202405-0329-01-03#
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 3.7V
Test Engineer:	Jolin Lee
Note: For a more detailed features description, please refer to the report TBR-C-202405-0329-31 The report only show the worst case data.	

Contents

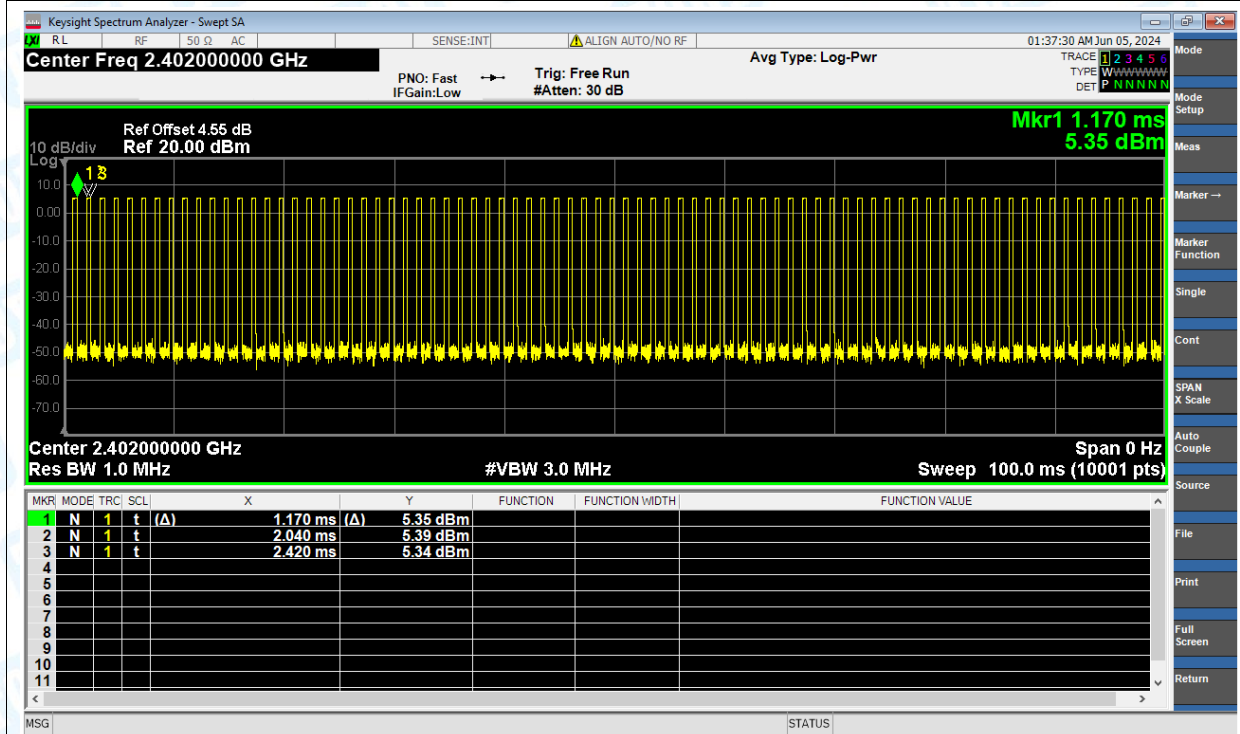
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1.Duty Cycle

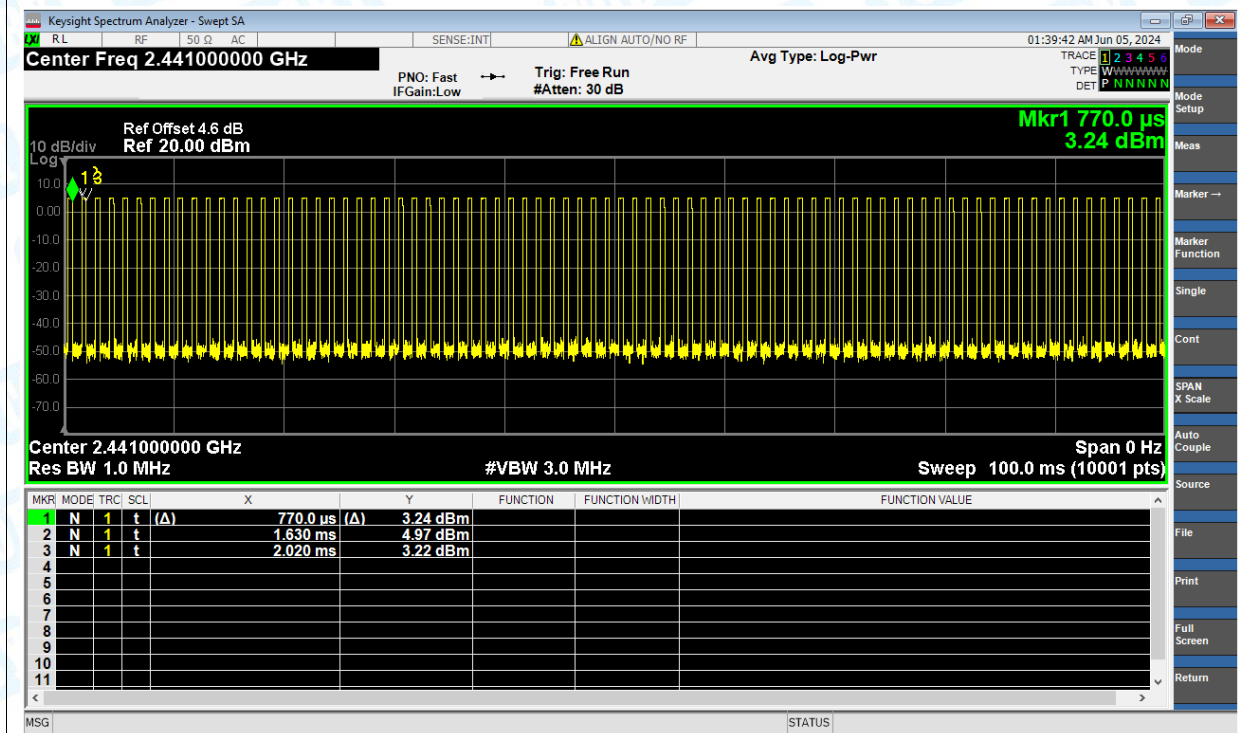
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	1-DH1	2480	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2402	Ant1	32	4.95	2.5
NVNT	2-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2480	Ant1	32	4.95	2.5
NVNT	3-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2480	Ant1	32	4.95	2.5

Test Graphs

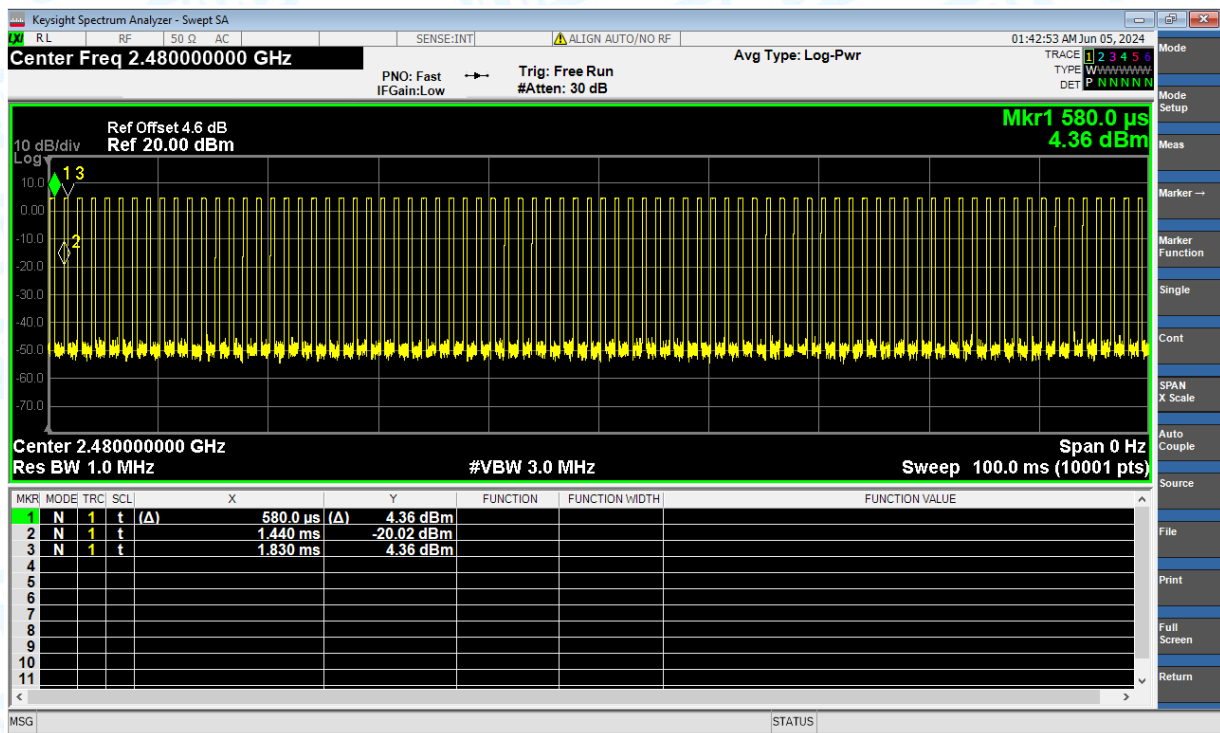
Duty Cycle NVNT 1-DH1 2402MHz Ant1



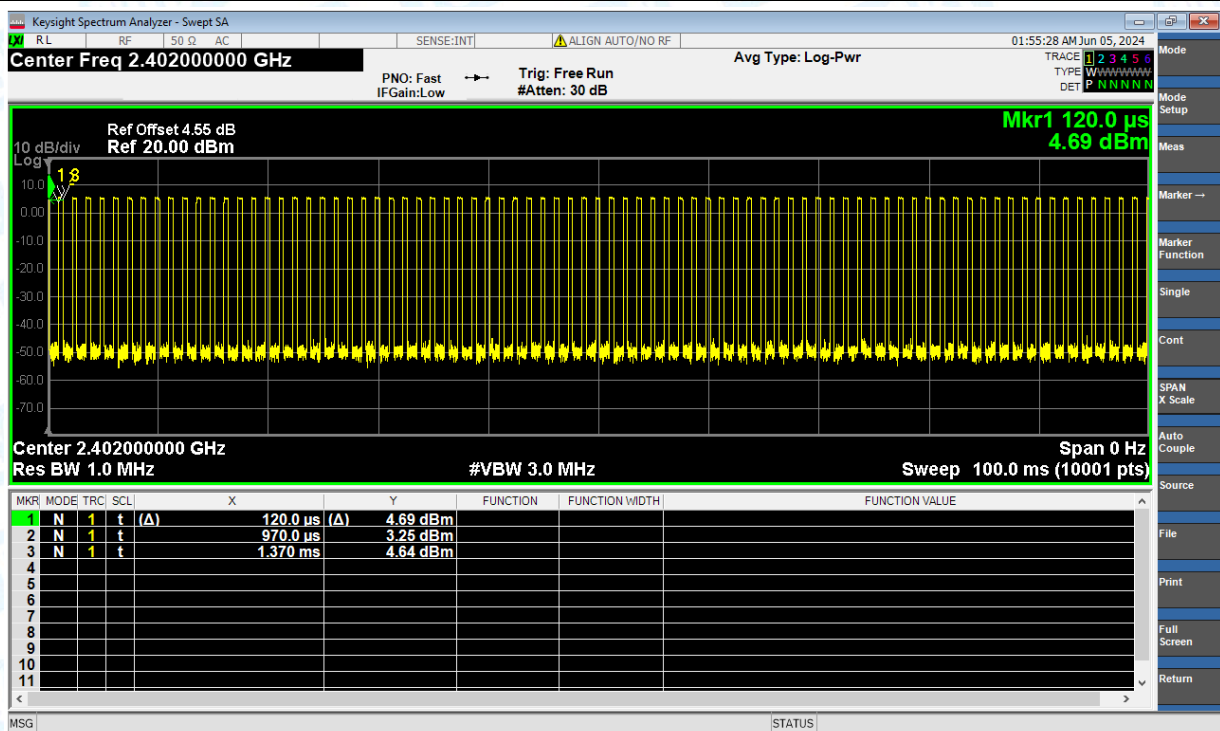
Duty Cycle NVNT 1-DH1 2441MHz Ant1



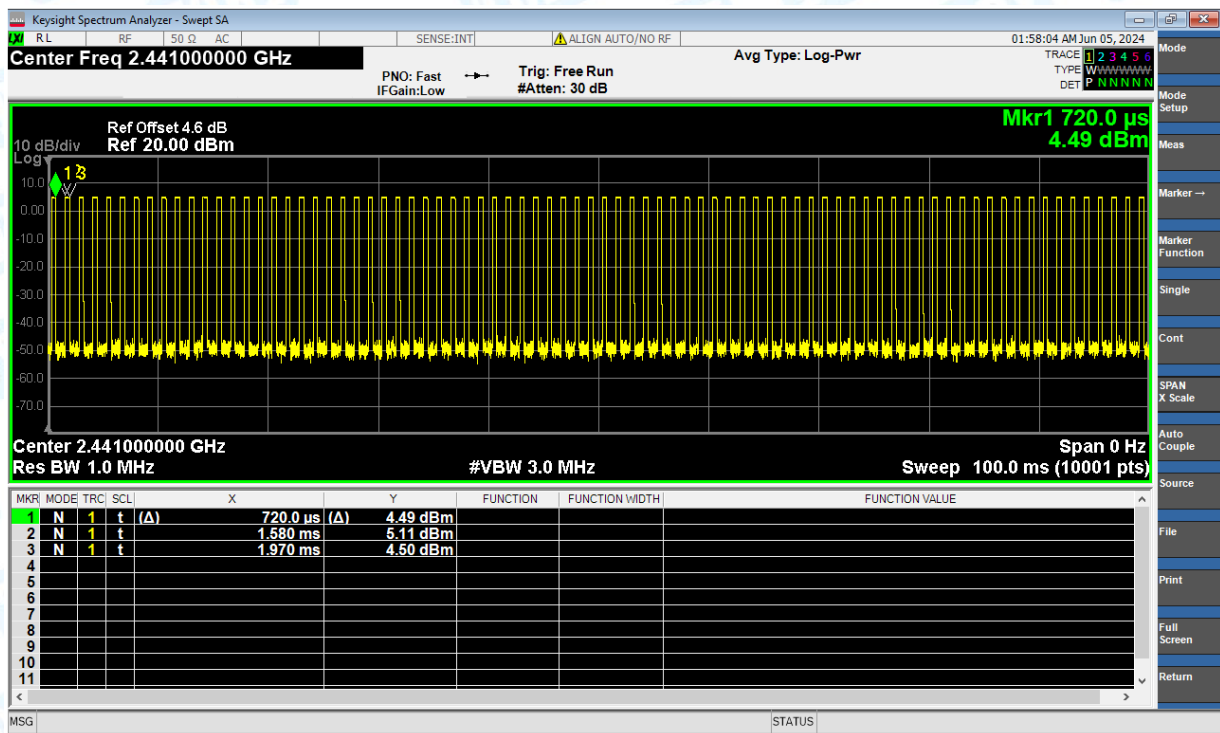
Duty Cycle NVNT 1-DH1 2480MHz Ant1



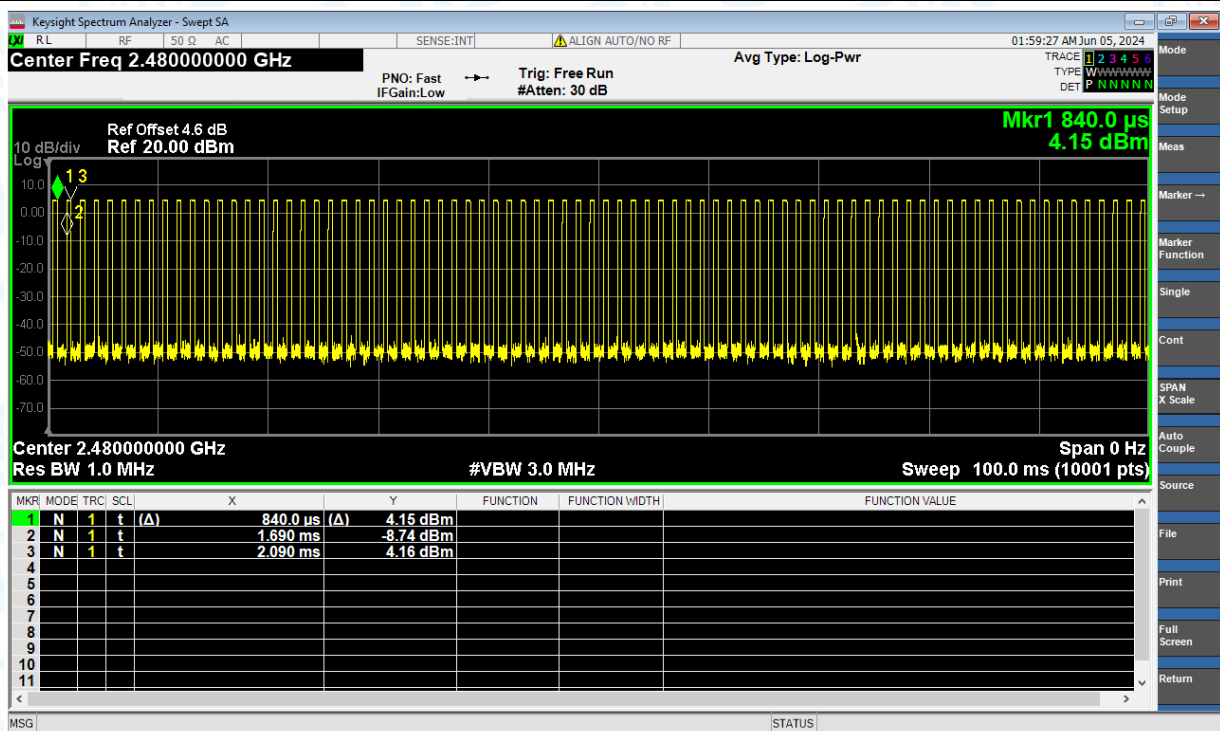
Duty Cycle NVNT 2-DH1 2402MHz Ant1



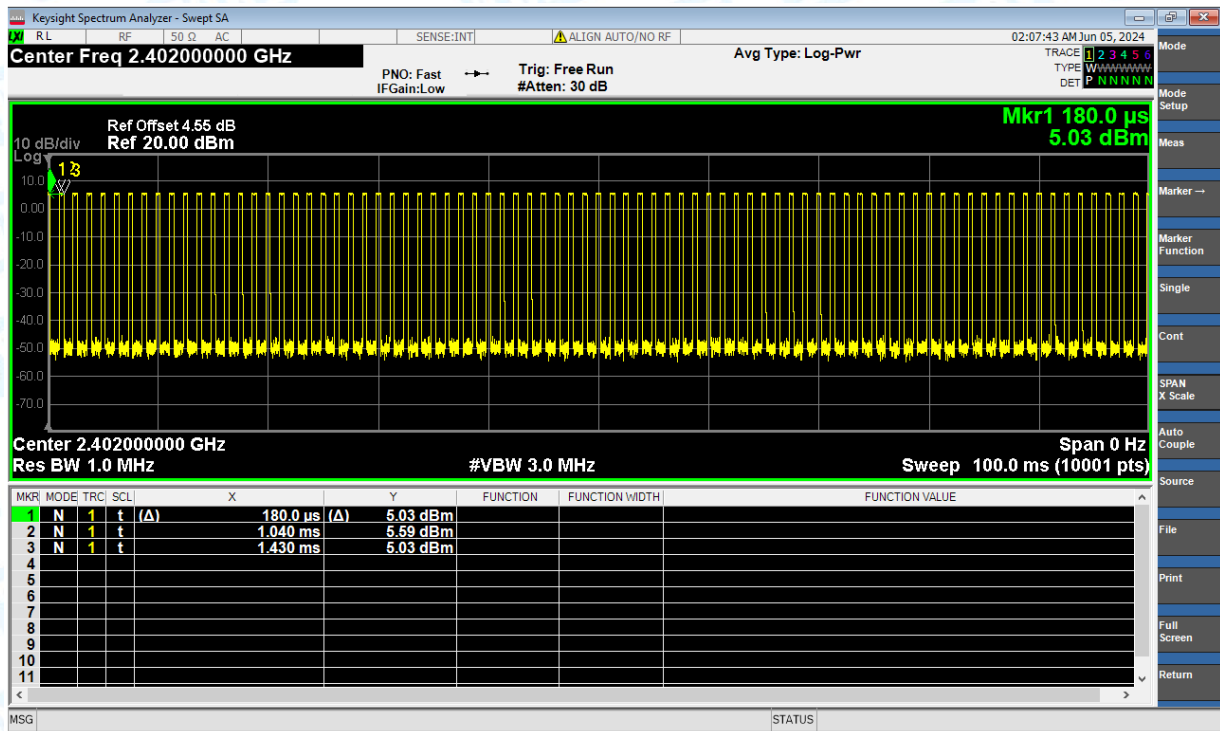
Duty Cycle NVNT 2-DH1 2441MHz Ant1



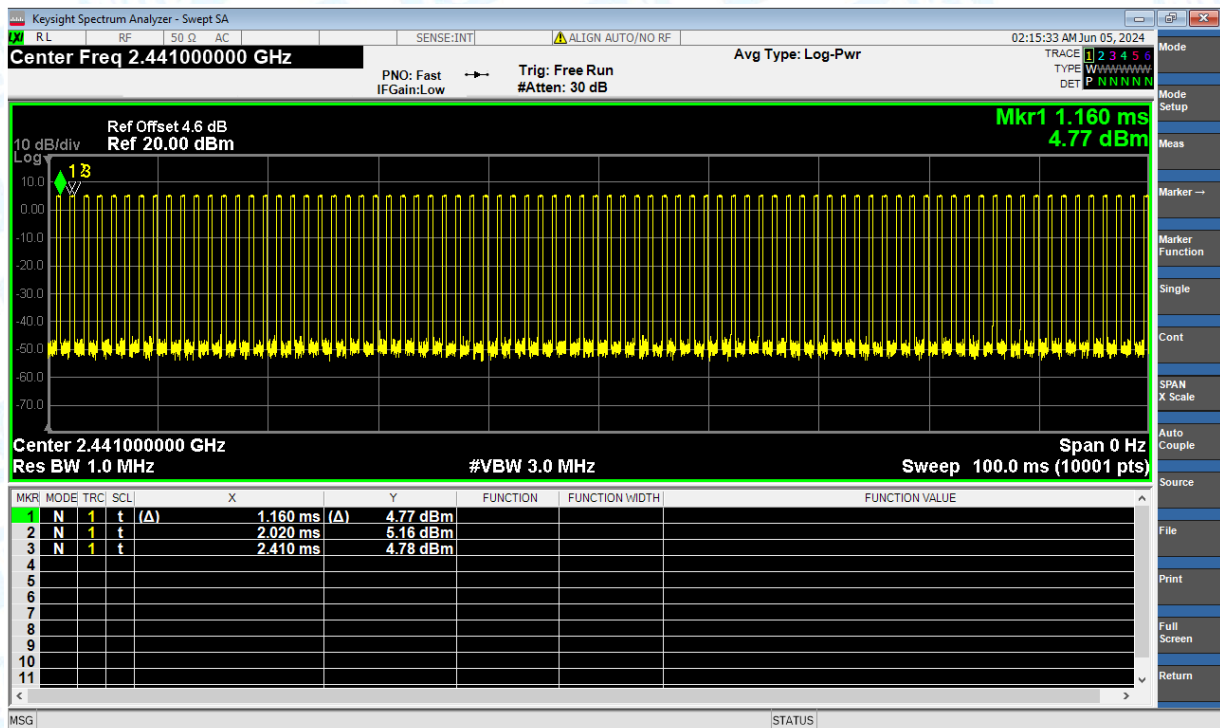
Duty Cycle NVNT 2-DH1 2480MHz Ant1

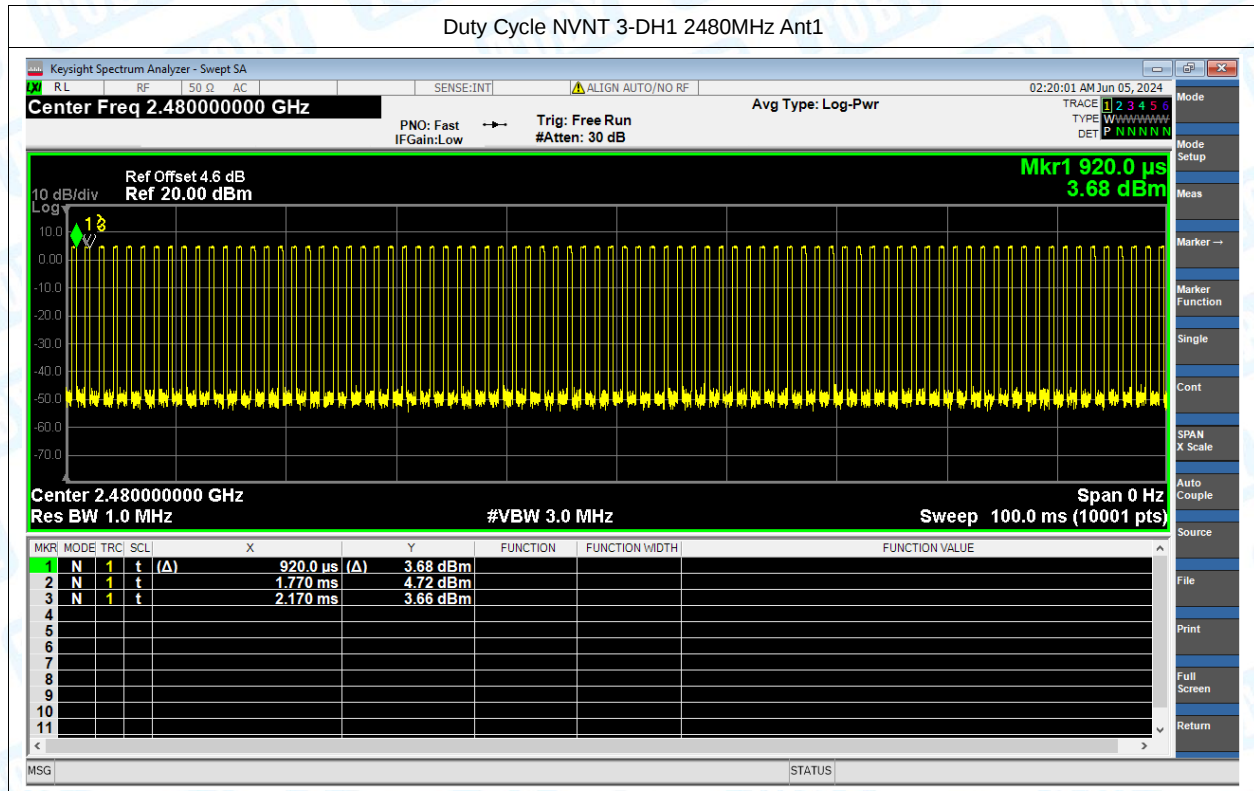


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



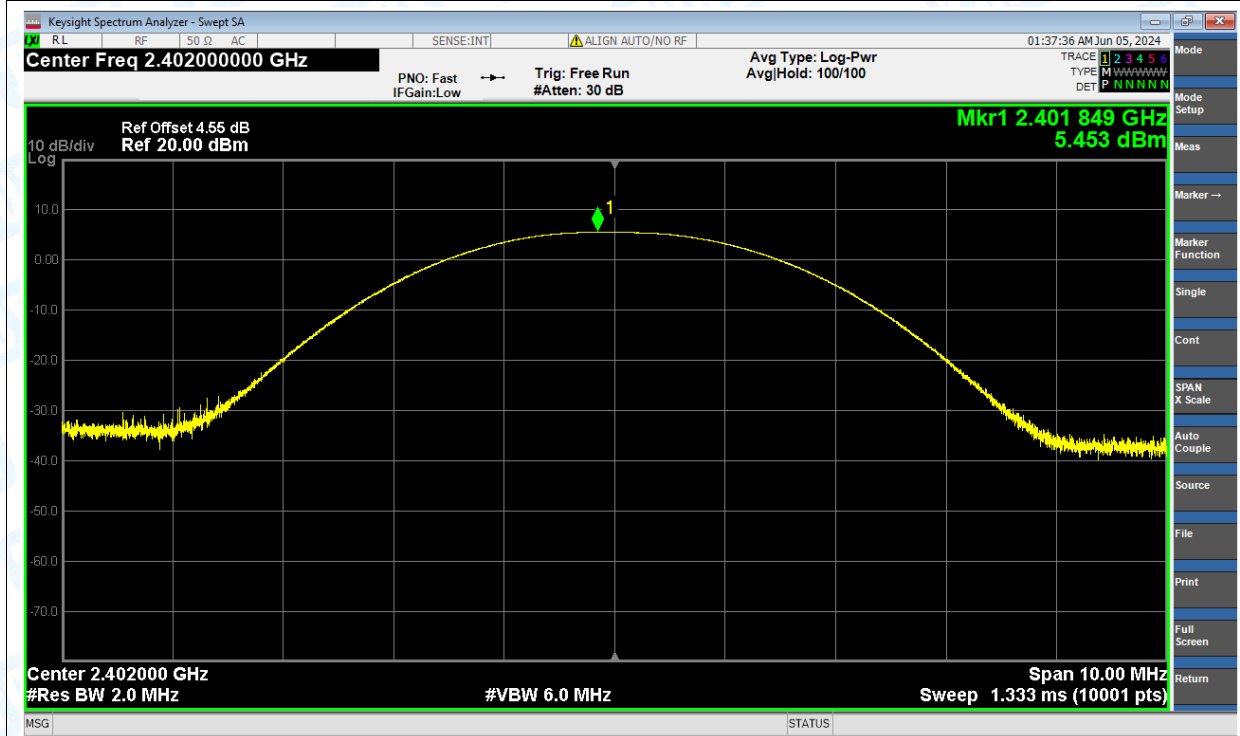


2.Maximum Conducted Output Power

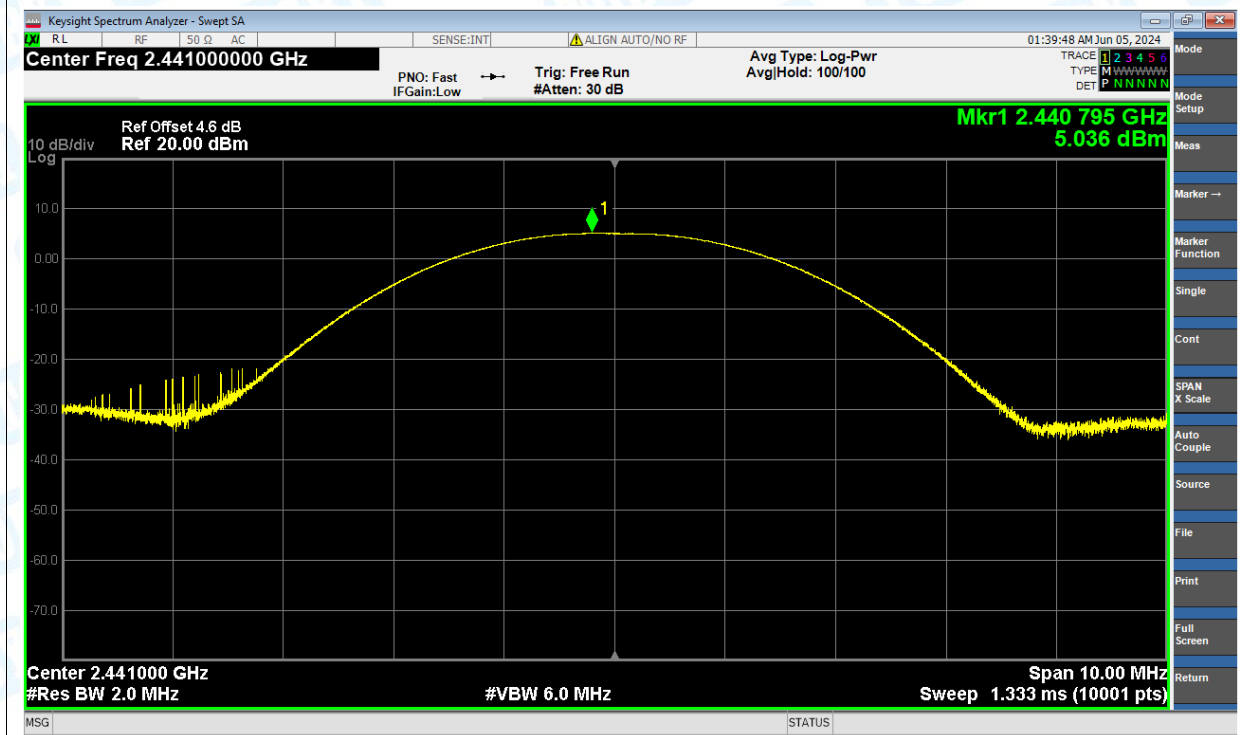
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	5.453	21	Pass
NVNT	1-DH1	2441	Ant1	5.036	21	Pass
NVNT	1-DH1	2480	Ant1	4.768	21	Pass
NVNT	2-DH1	2402	Ant1	5.875	21	Pass
NVNT	2-DH1	2441	Ant1	5.364	21	Pass
NVNT	2-DH1	2480	Ant1	4.956	21	Pass
NVNT	3-DH1	2402	Ant1	6.029	21	Pass
NVNT	3-DH1	2441	Ant1	5.526	21	Pass
NVNT	3-DH1	2480	Ant1	5.128	21	Pass

Test Graphs

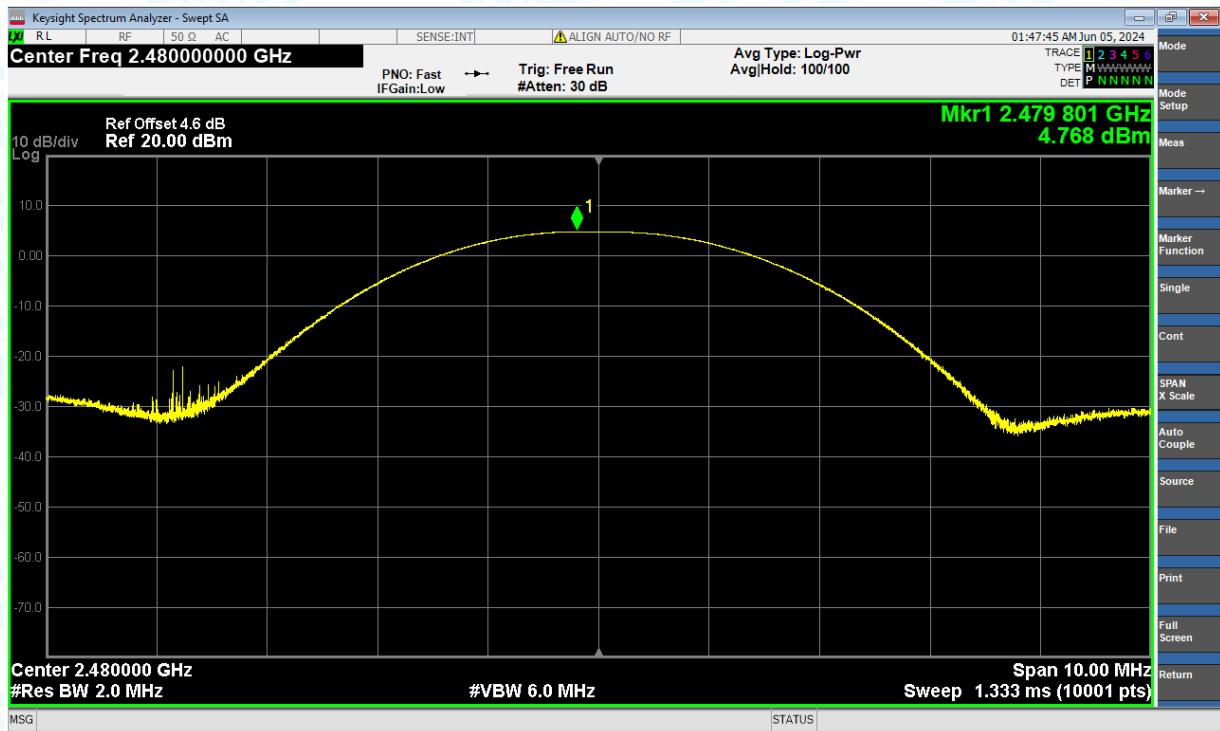
Power NVNT 1-DH1 2402MHz Ant1



Power NVNT 1-DH1 2441MHz Ant1



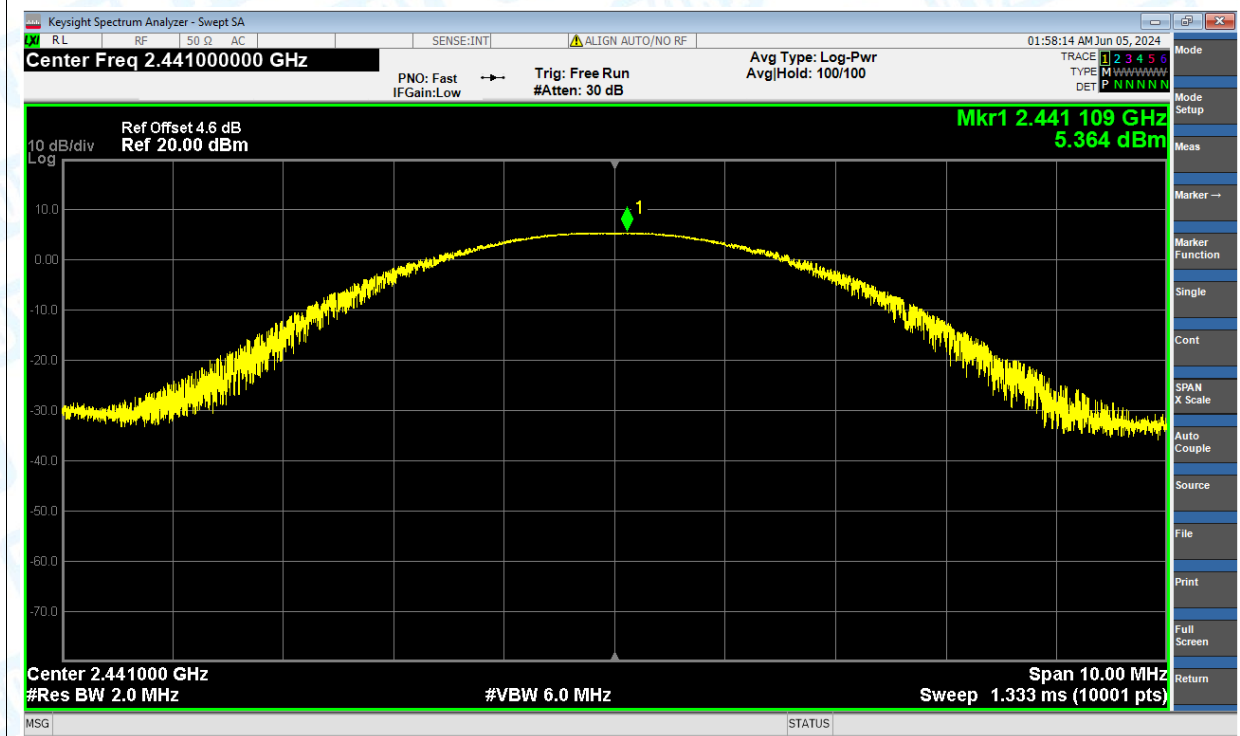
Power NVNT 1-DH1 2480MHz Ant1



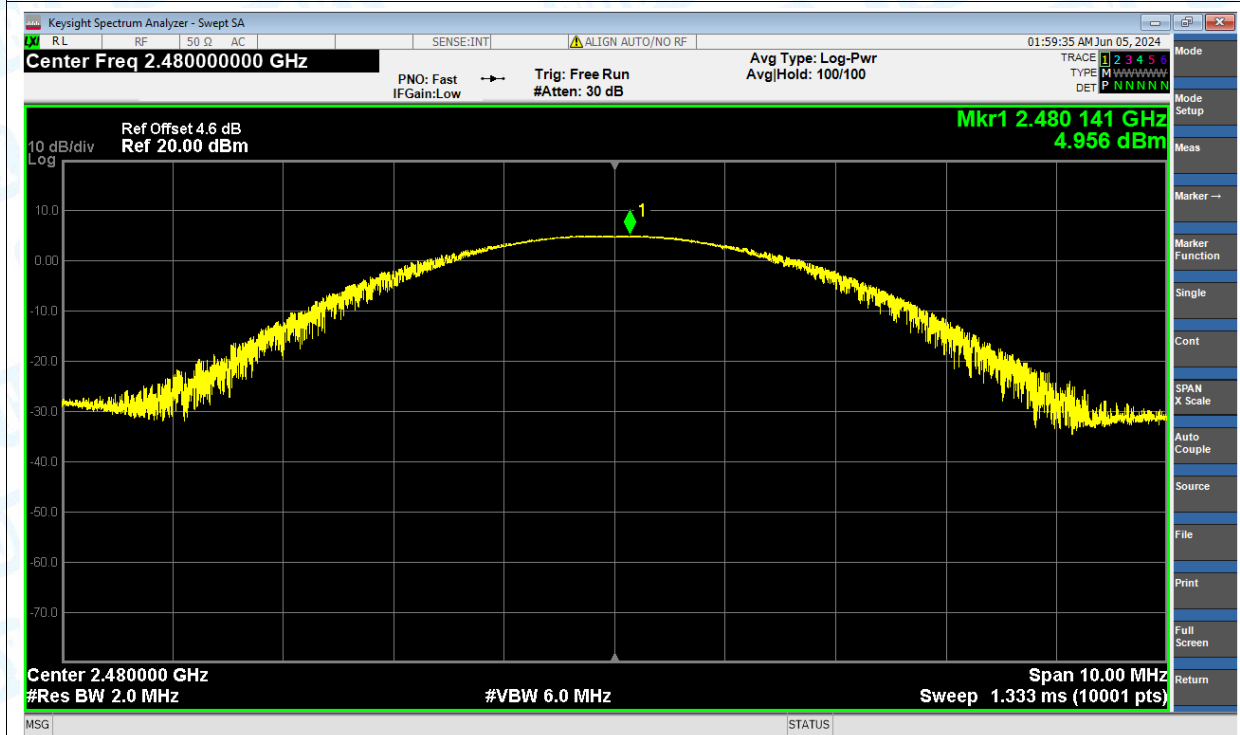
Power NVNT 2-DH1 2402MHz Ant1



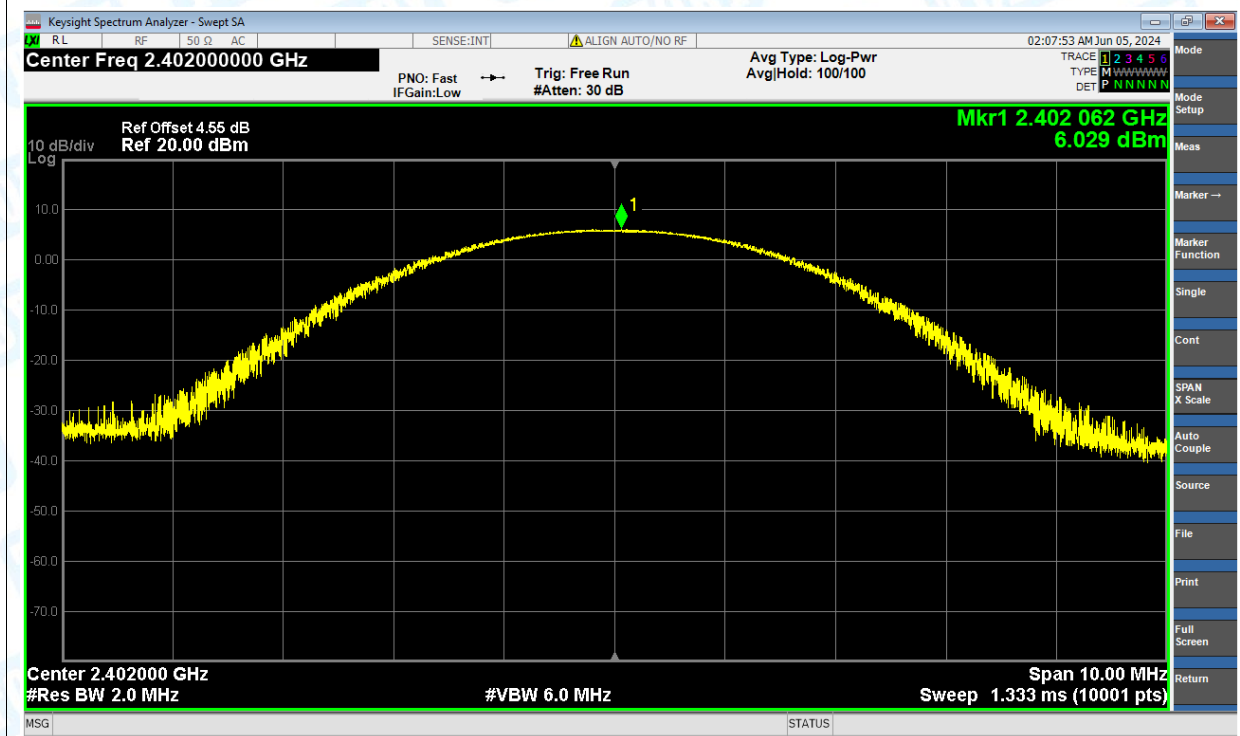
Power NVNT 2-DH1 2441MHz Ant1



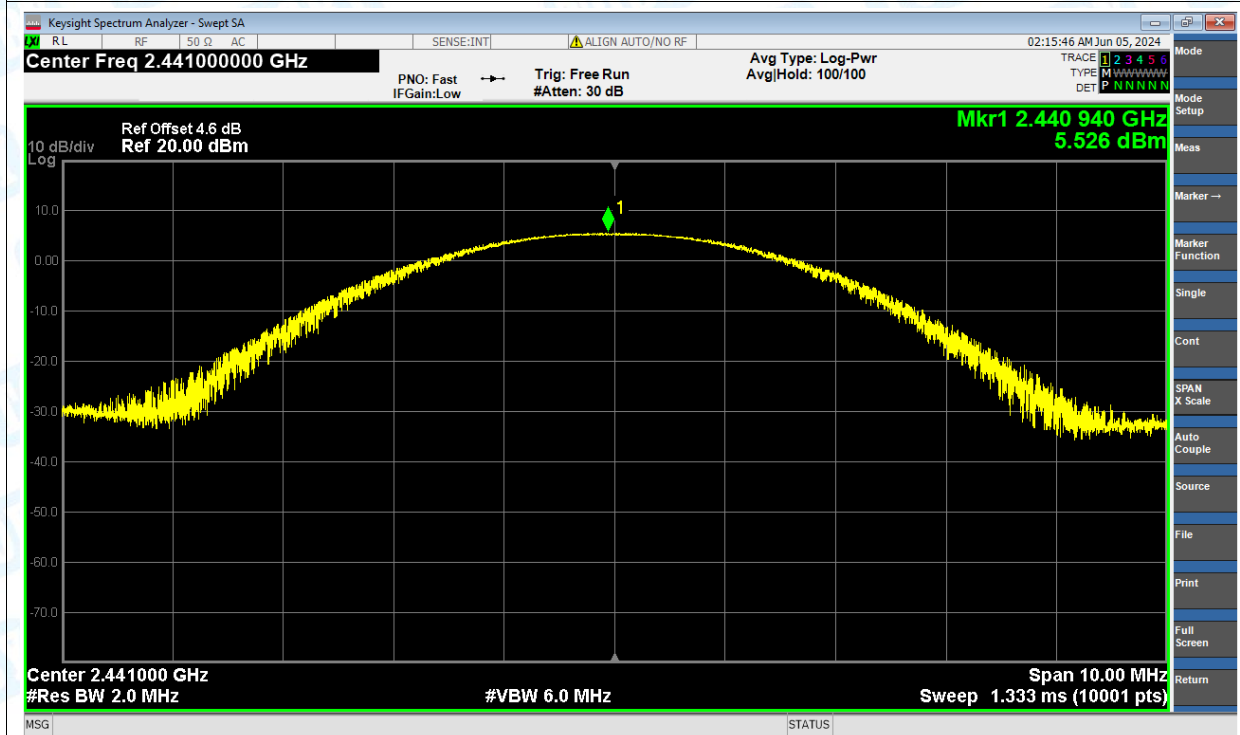
Power NVNT 2-DH1 2480MHz Ant1

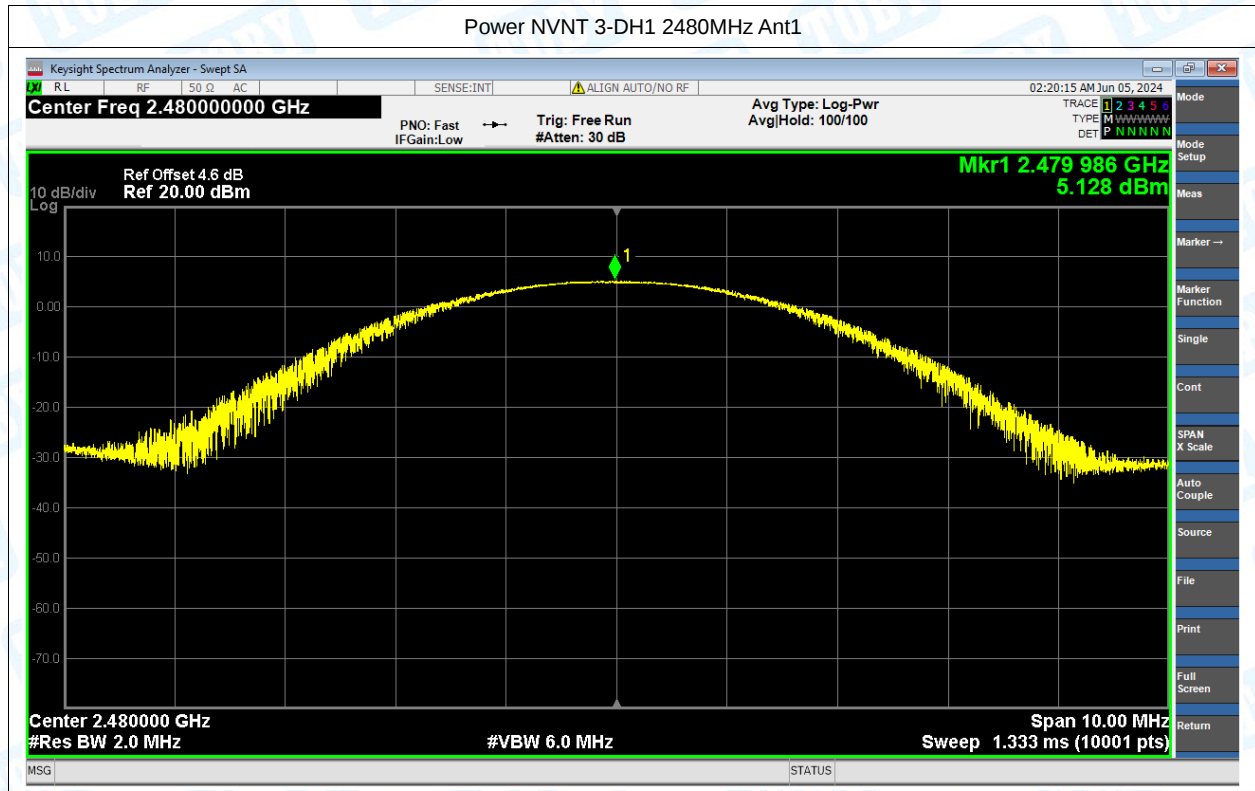


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



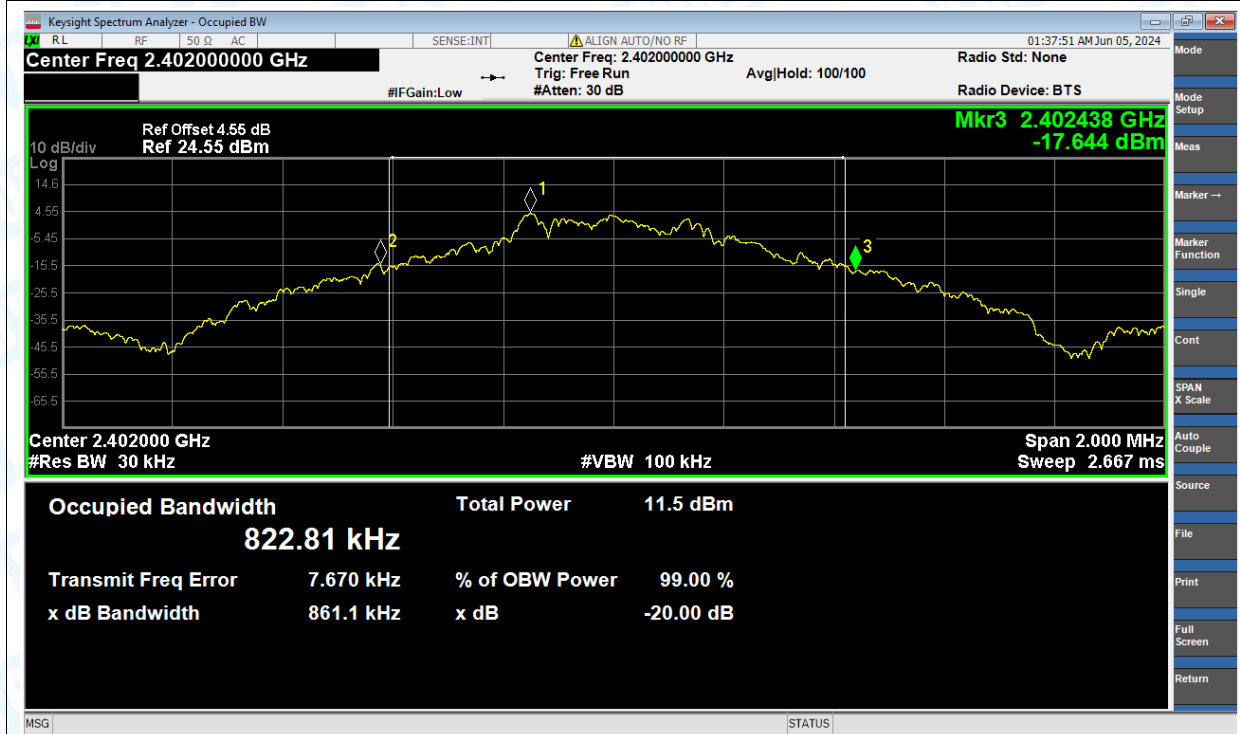


3.-20dB Bandwidth

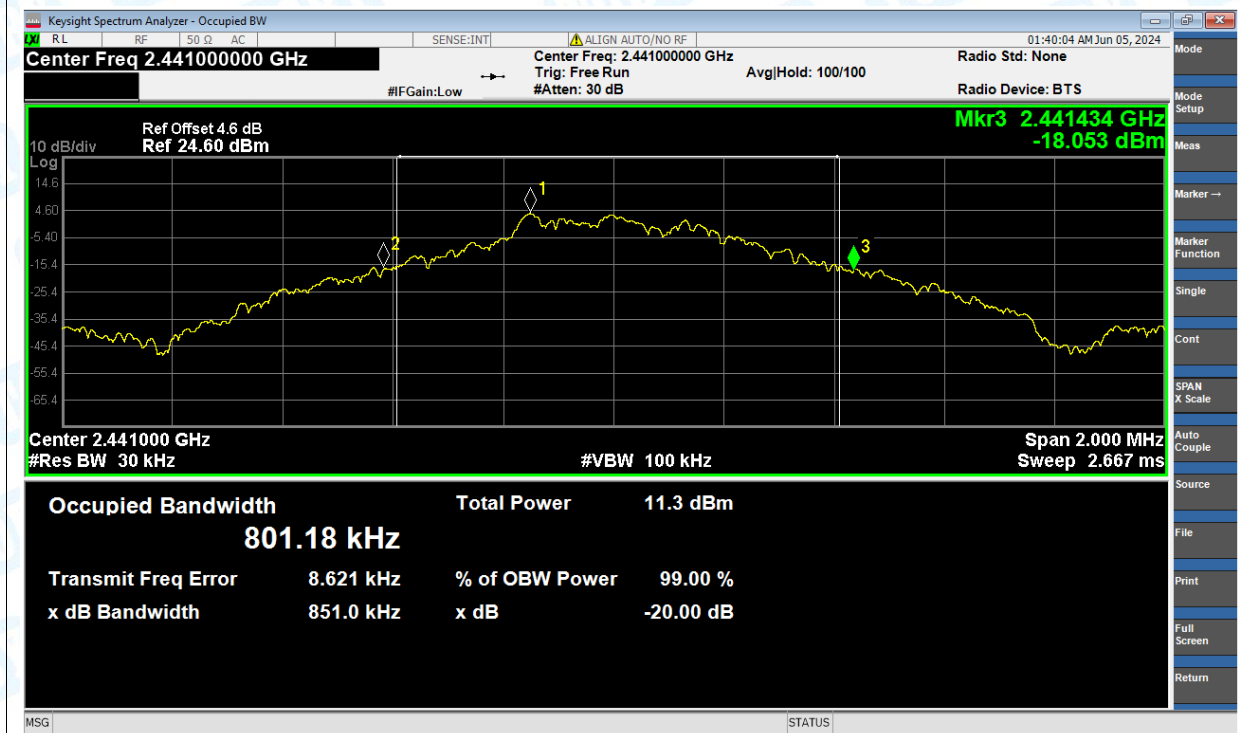
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.86	0	Pass
NVNT	1-DH1	2441	Ant1	0.85	0	Pass
NVNT	1-DH1	2480	Ant1	0.86	0	Pass
NVNT	2-DH1	2402	Ant1	1.26	0	Pass
NVNT	2-DH1	2441	Ant1	1.27	0	Pass
NVNT	2-DH1	2480	Ant1	1.27	0	Pass
NVNT	3-DH1	2402	Ant1	1.21	0	Pass
NVNT	3-DH1	2441	Ant1	1.23	0	Pass
NVNT	3-DH1	2480	Ant1	1.23	0	Pass

Test Graphs

-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



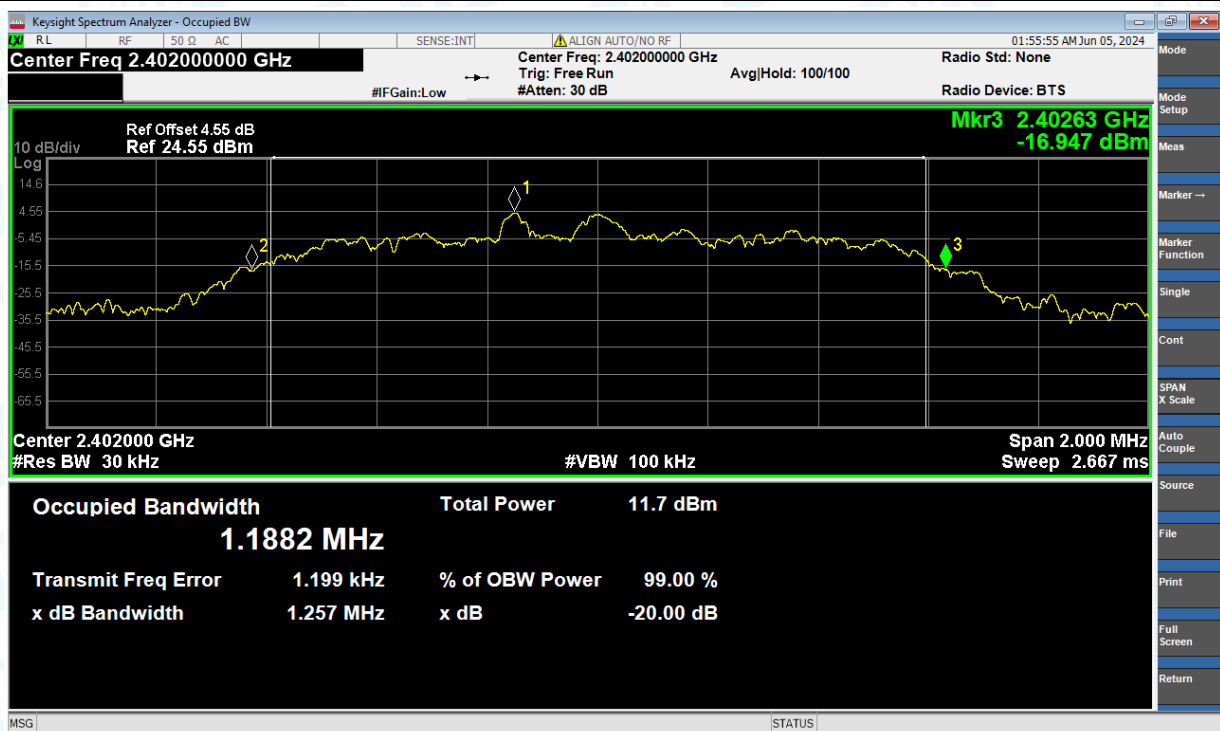
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



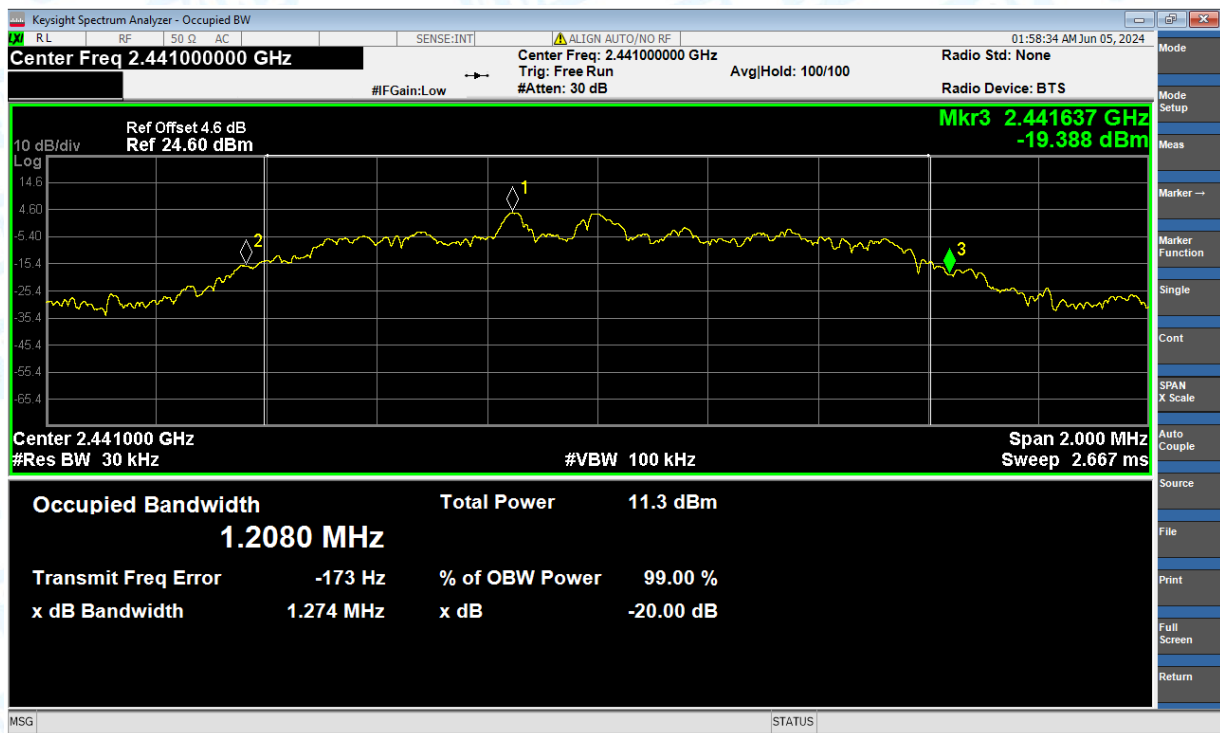
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



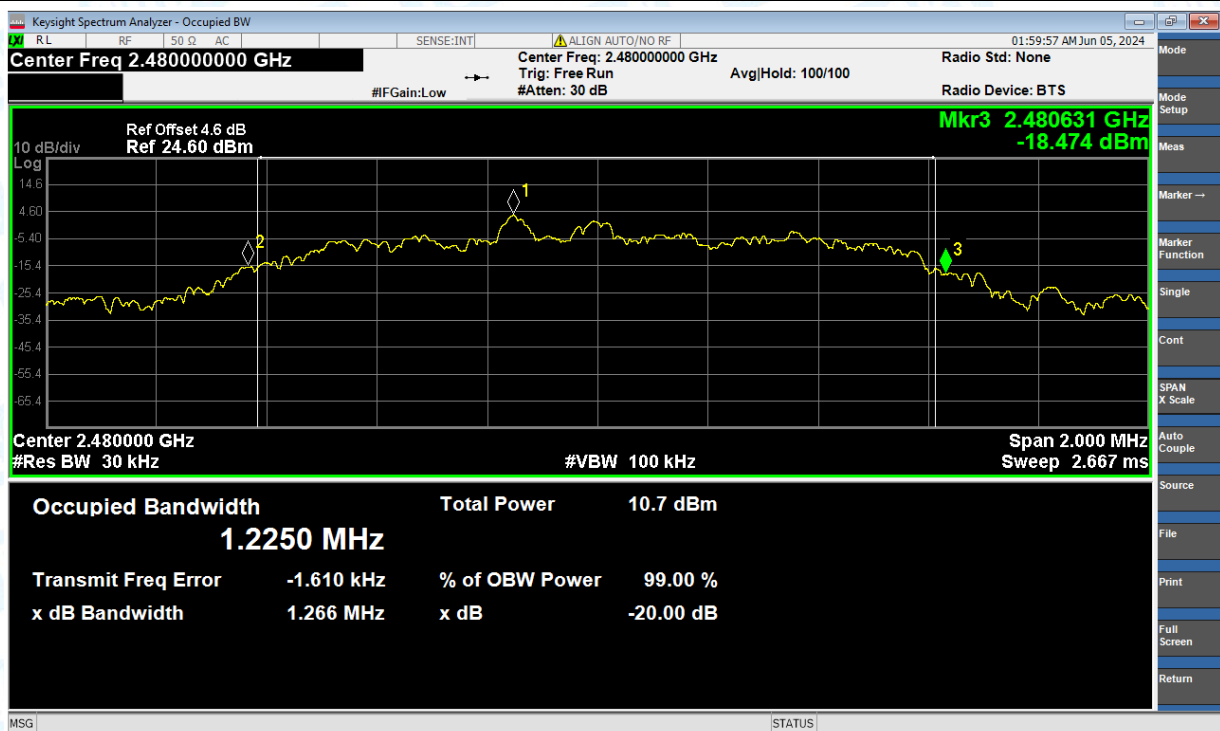
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



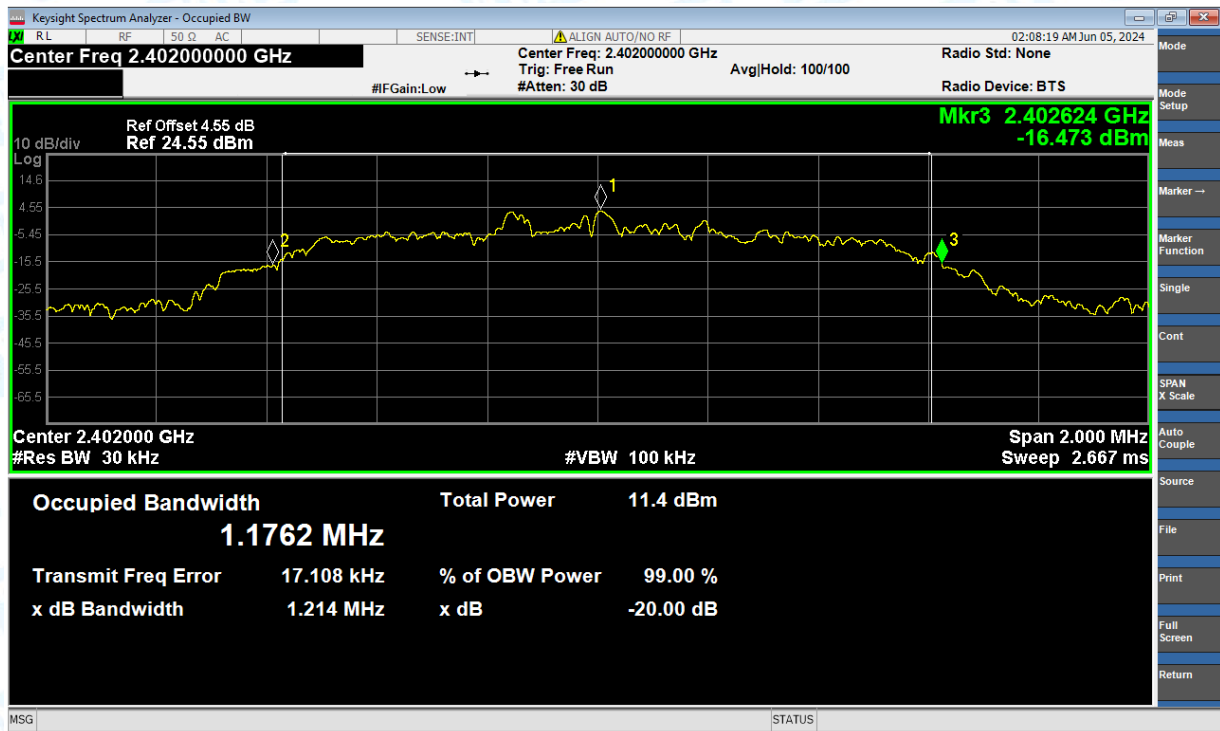
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



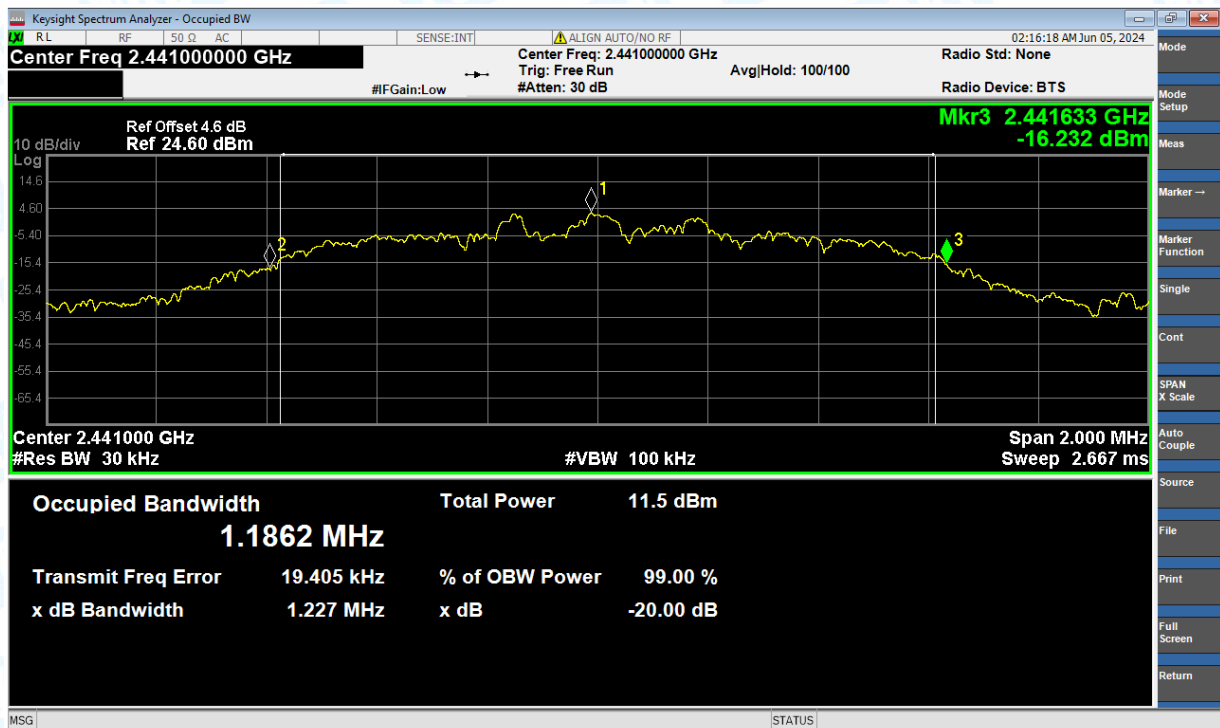
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

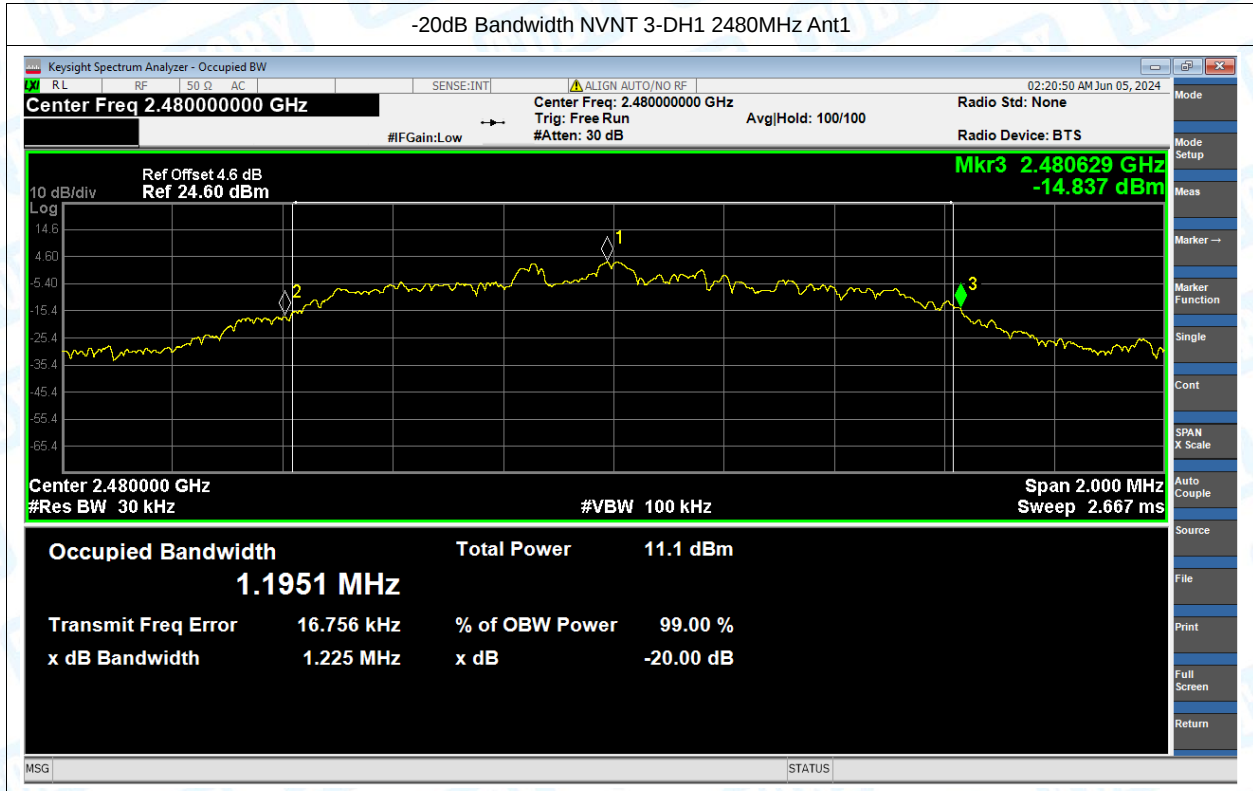


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



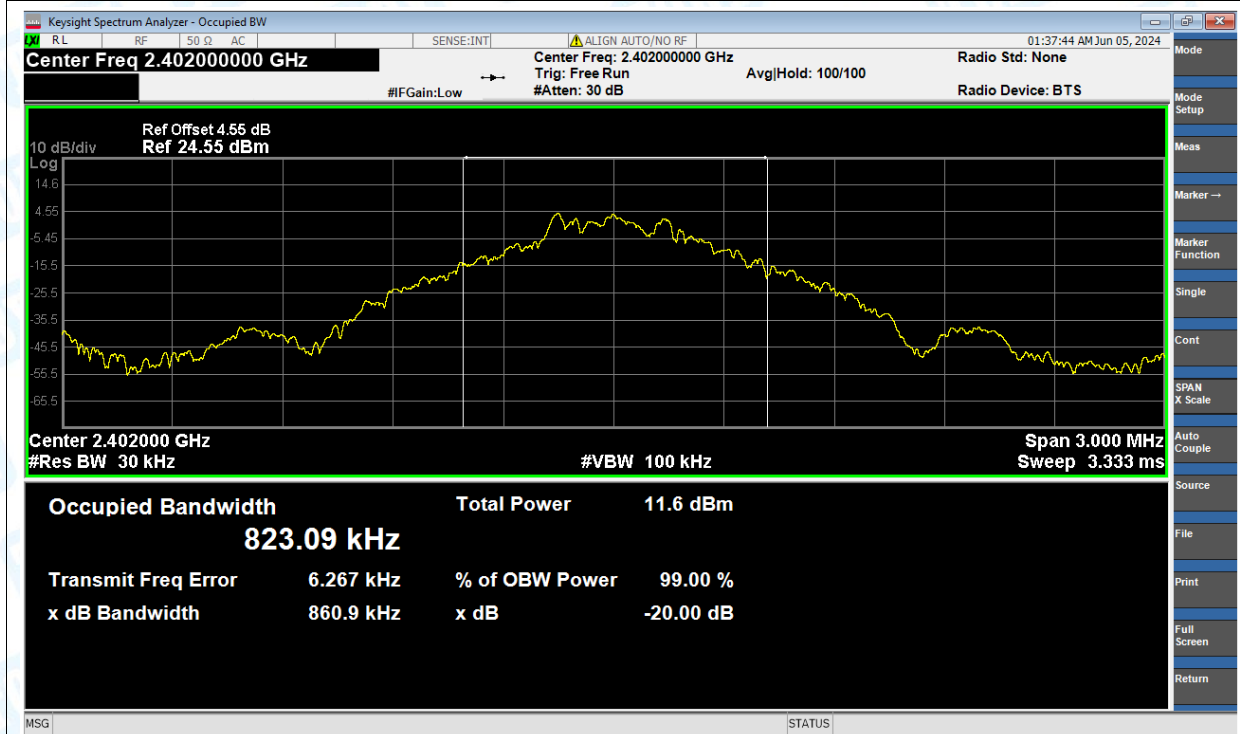


4.Occupied Channel Bandwidth

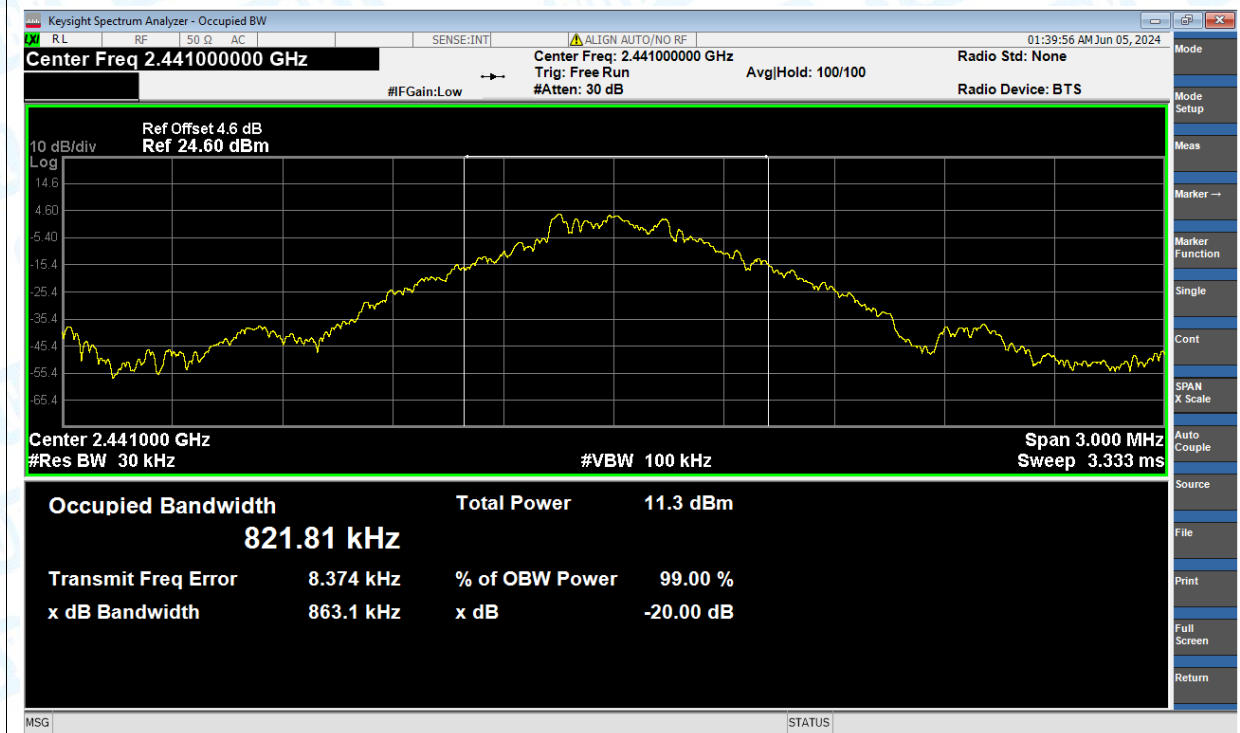
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.823
NVNT	1-DH1	2441	Ant1	0.822
NVNT	1-DH1	2480	Ant1	0.804
NVNT	2-DH1	2402	Ant1	1.207
NVNT	2-DH1	2441	Ant1	1.247
NVNT	2-DH1	2480	Ant1	1.294
NVNT	3-DH1	2402	Ant1	1.197
NVNT	3-DH1	2441	Ant1	1.237
NVNT	3-DH1	2480	Ant1	1.295

Test Graphs

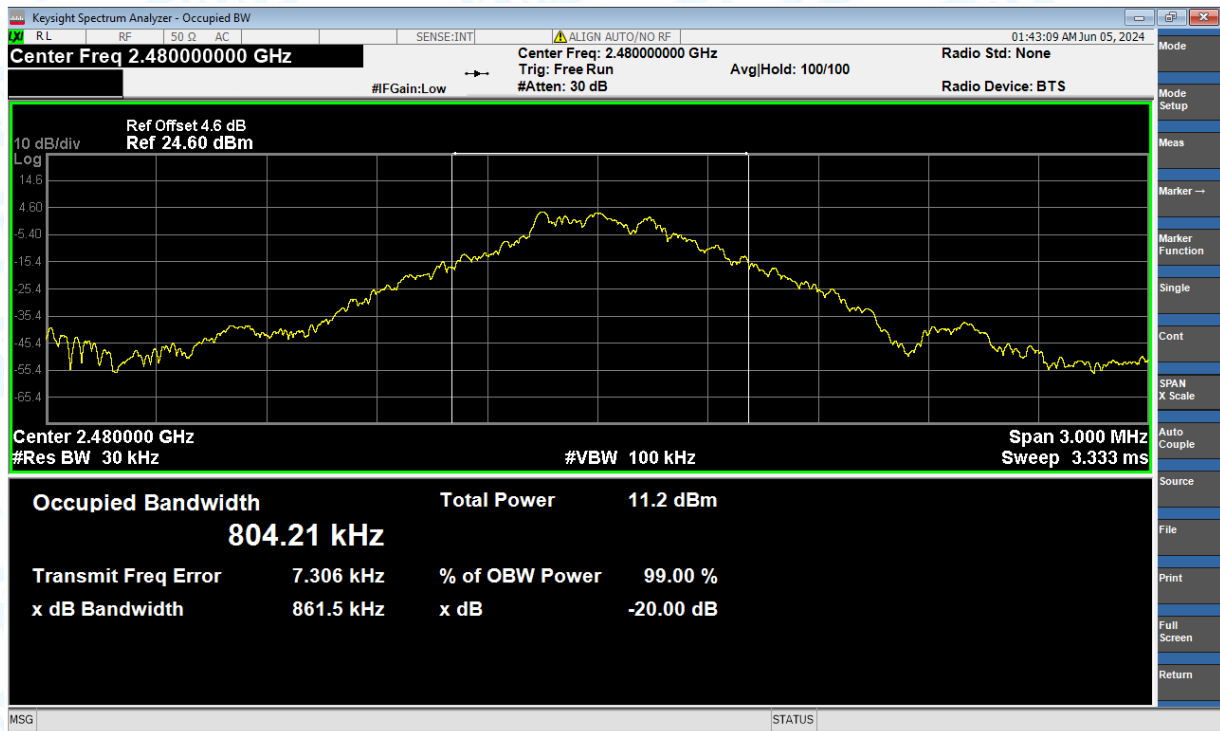
OBW NVNT 1-DH1 2402MHz Ant1



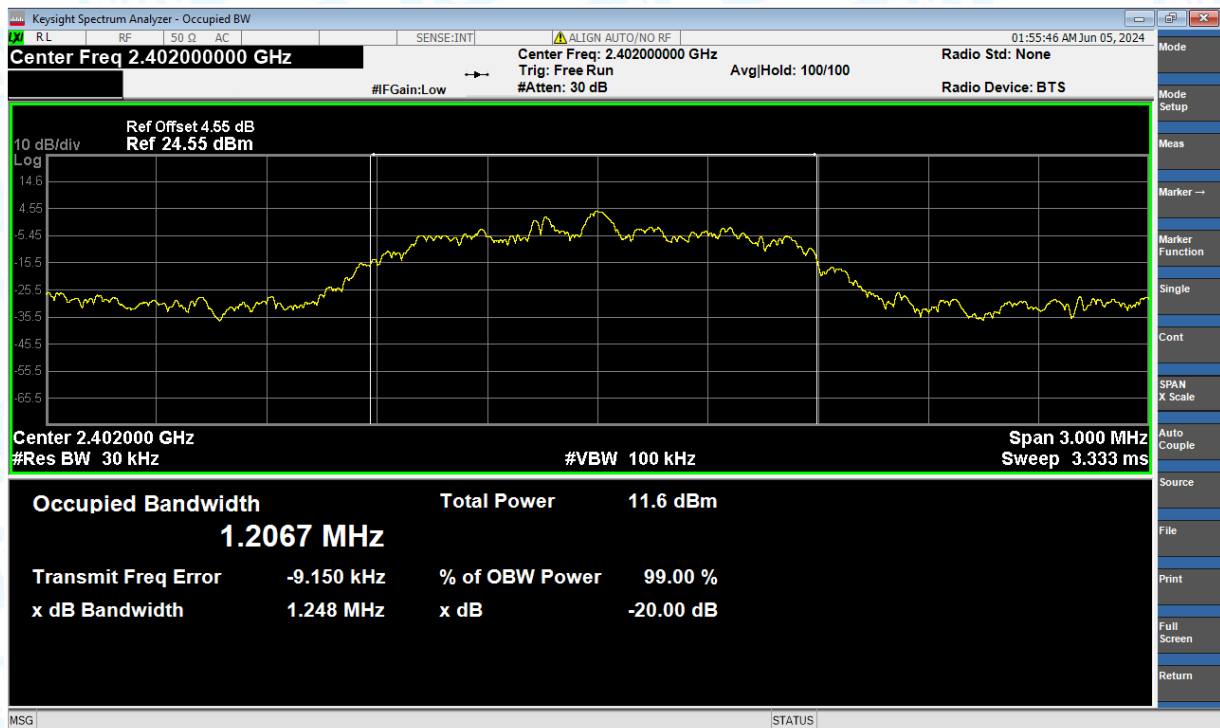
OBW NVNT 1-DH1 2441MHz Ant1



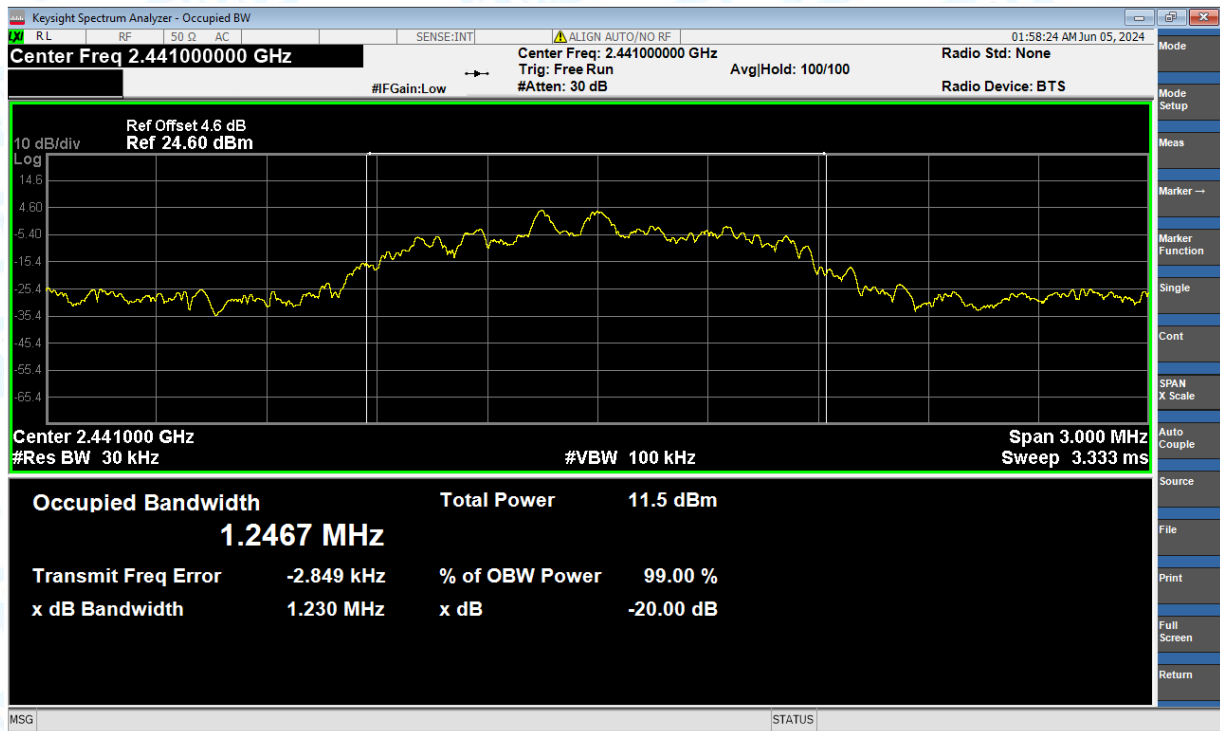
OBW NVNT 1-DH1 2480MHz Ant1



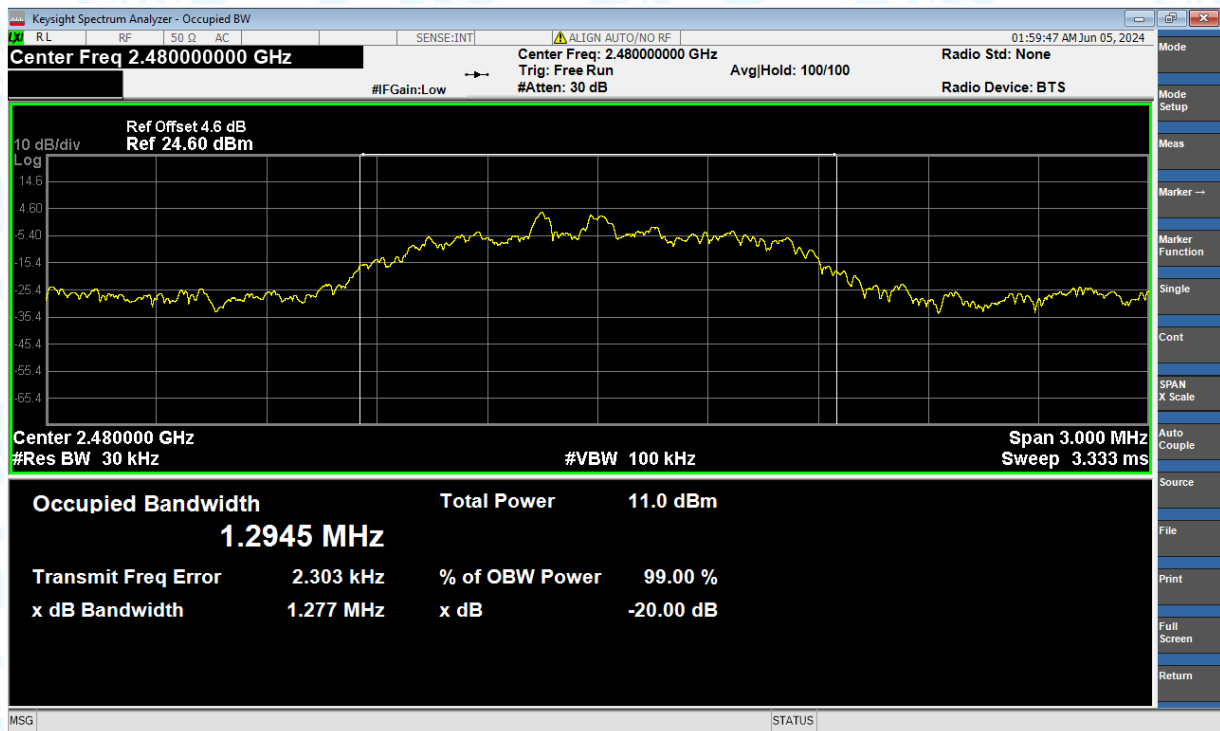
OBW NVNT 2-DH1 2402MHz Ant1



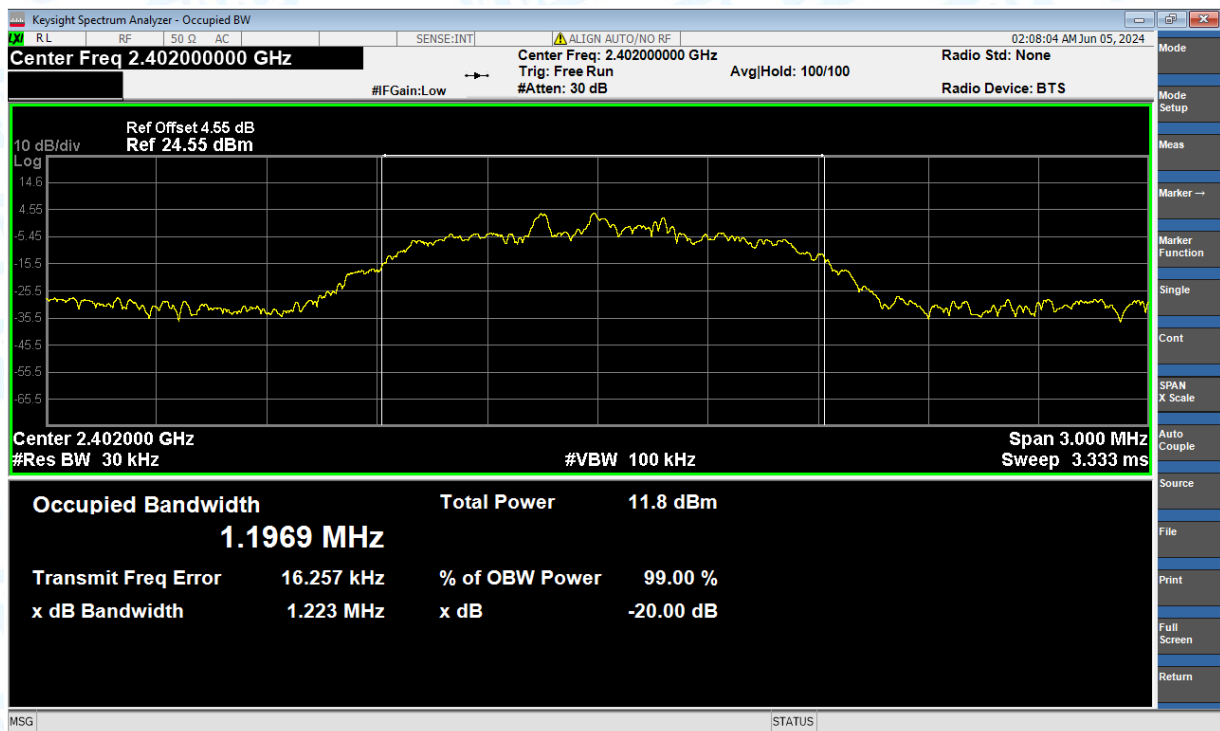
OBW NVNT 2-DH1 2441MHz Ant1



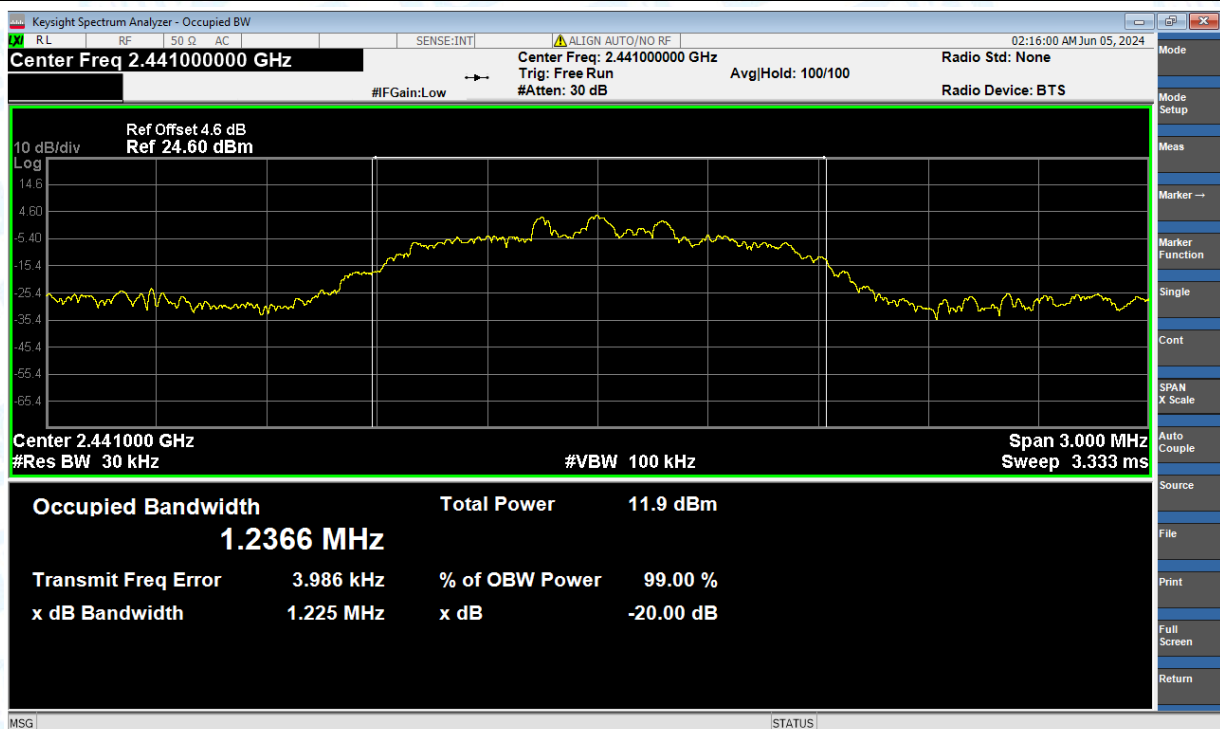
OBW NVNT 2-DH1 2480MHz Ant1

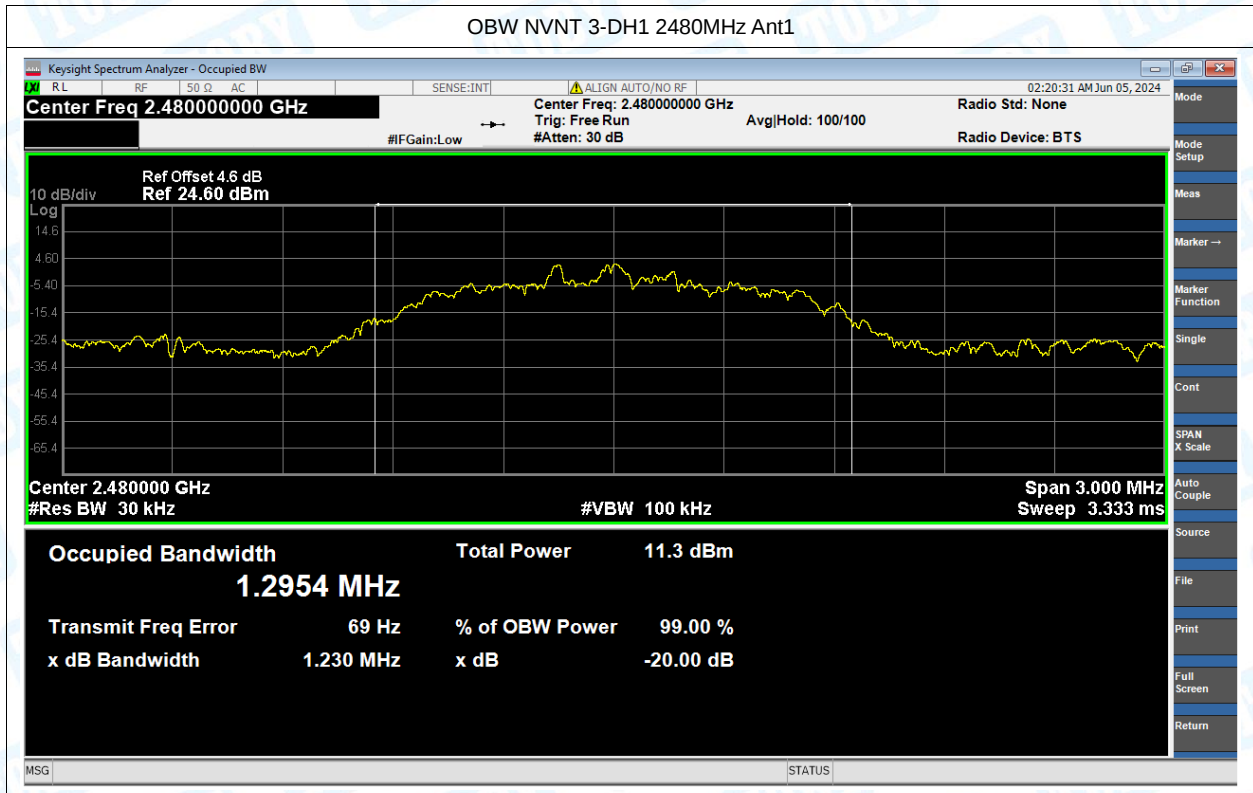


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1





5.Band Edge

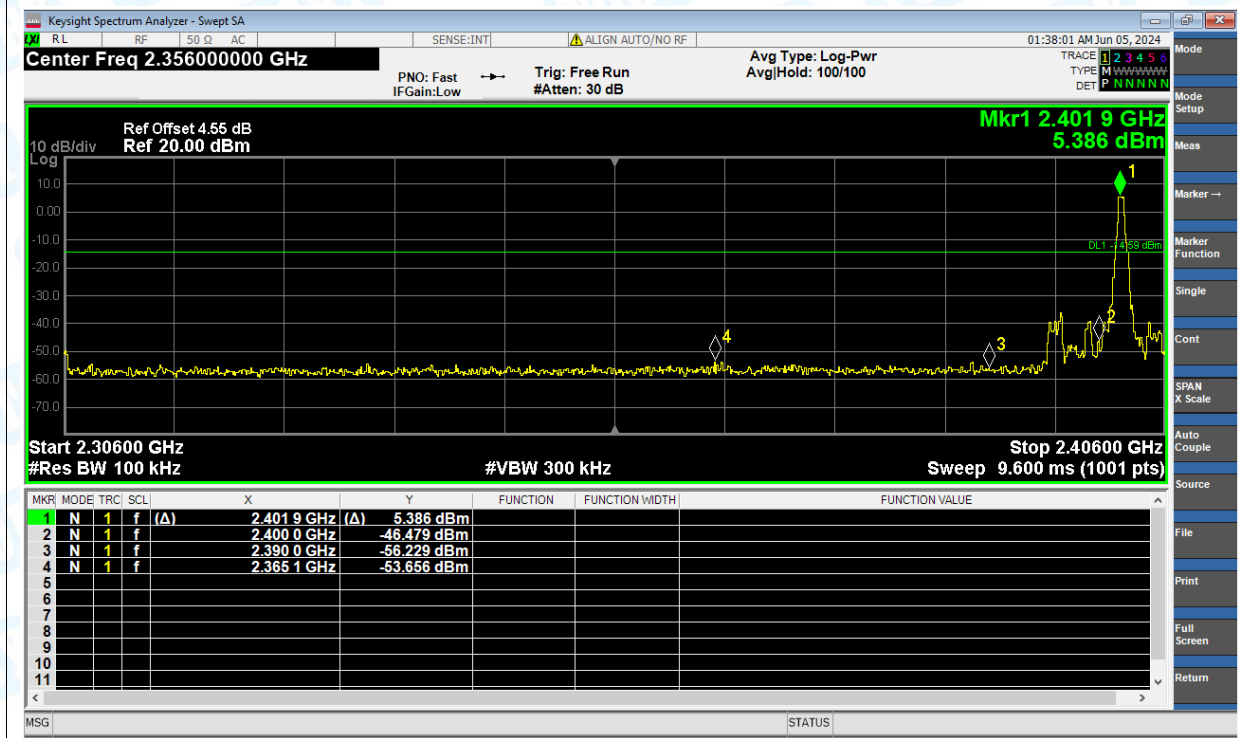
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-59.07	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-37.01	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-58.71	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-36.94	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-58.99	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-37.69	-20	Pass

Test Graphs

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



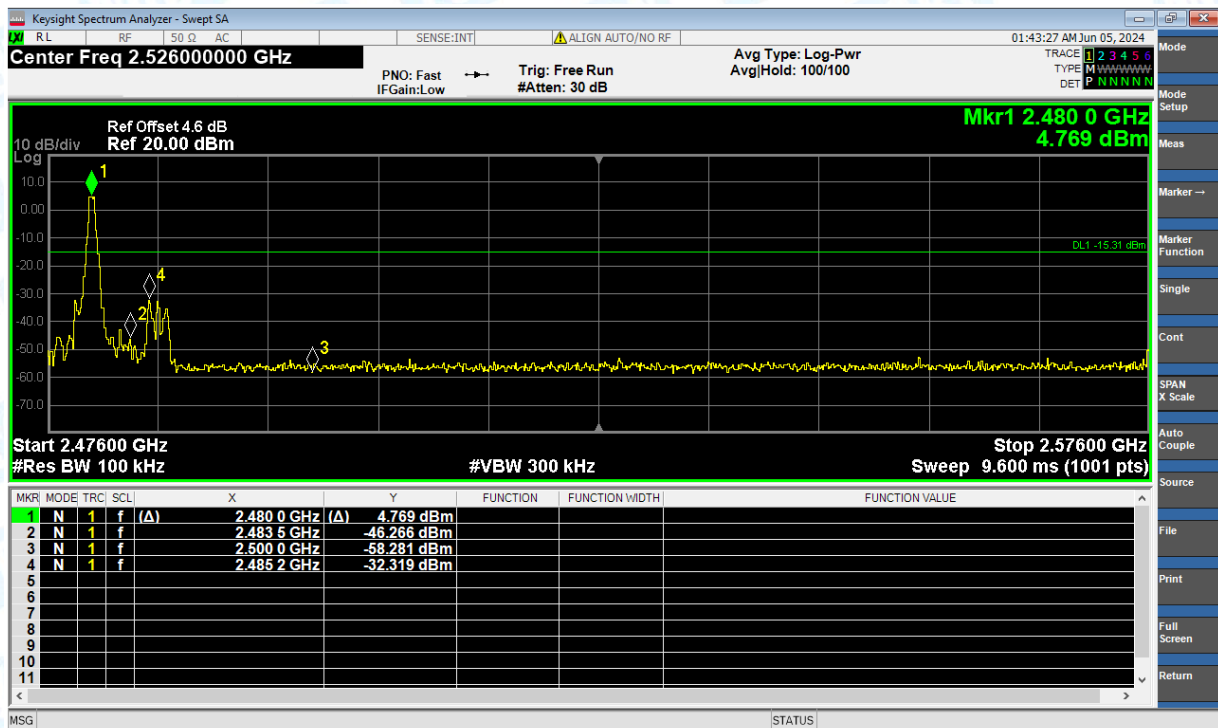
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



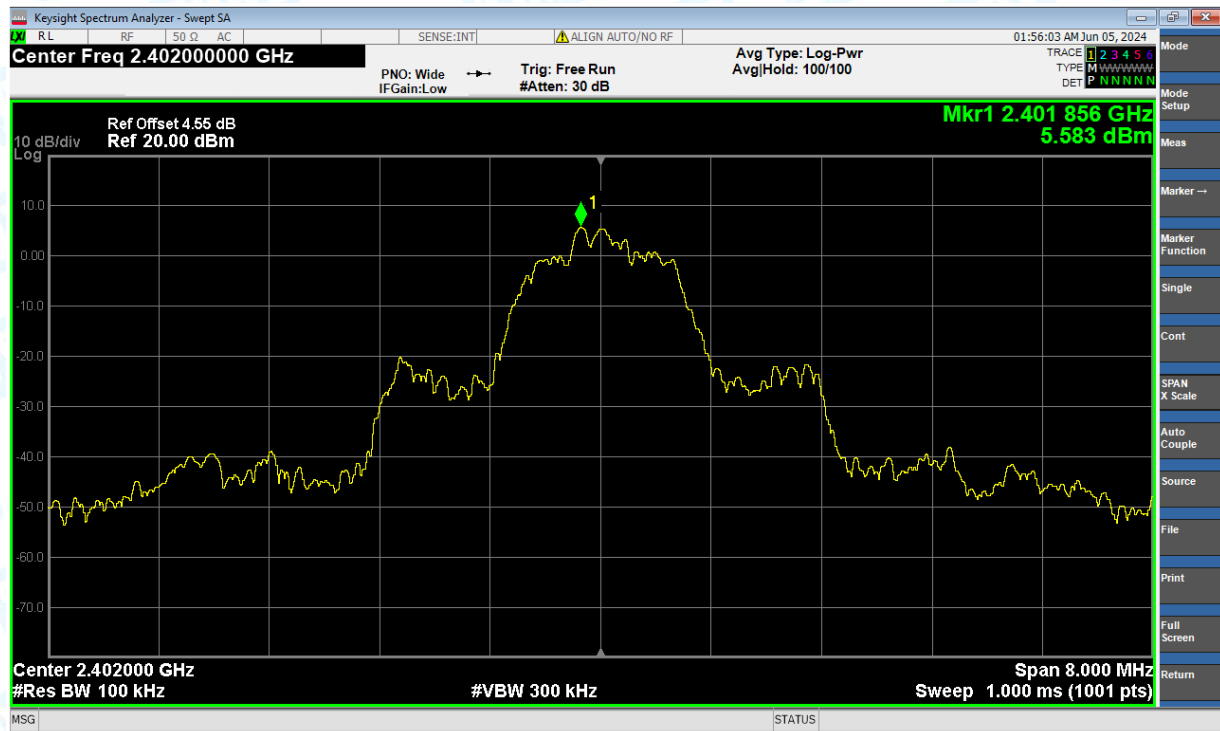
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



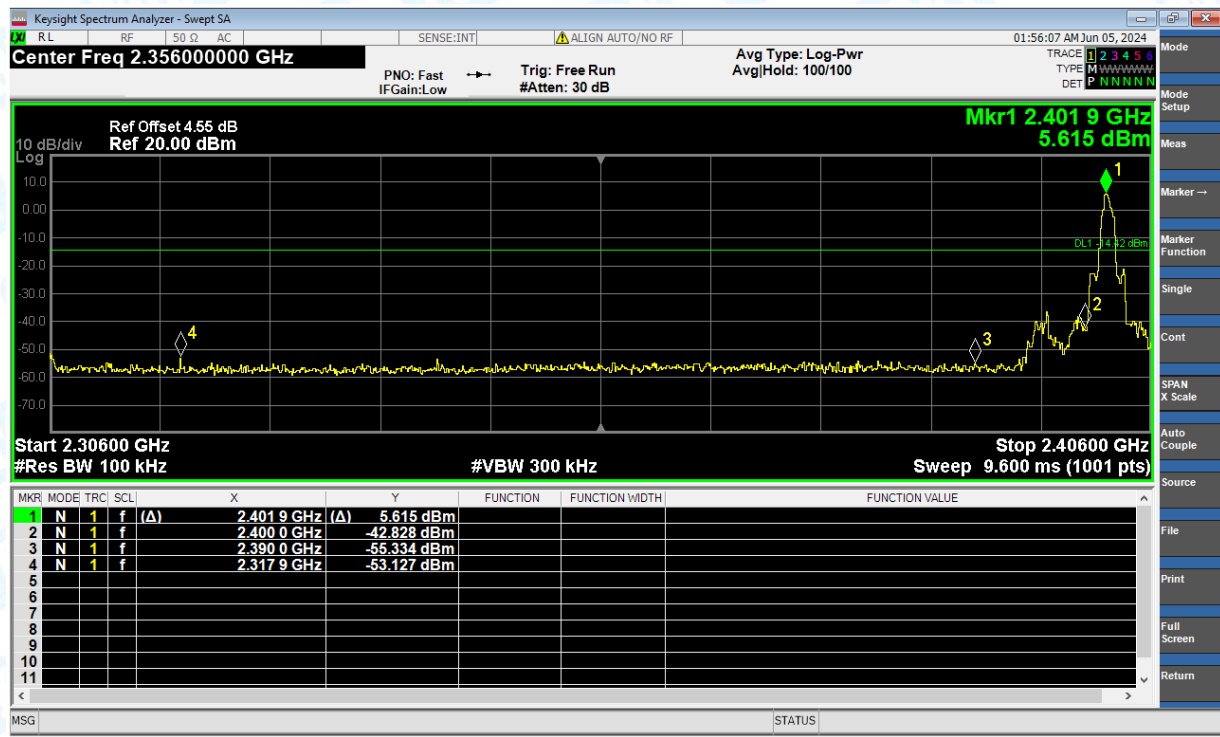
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



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



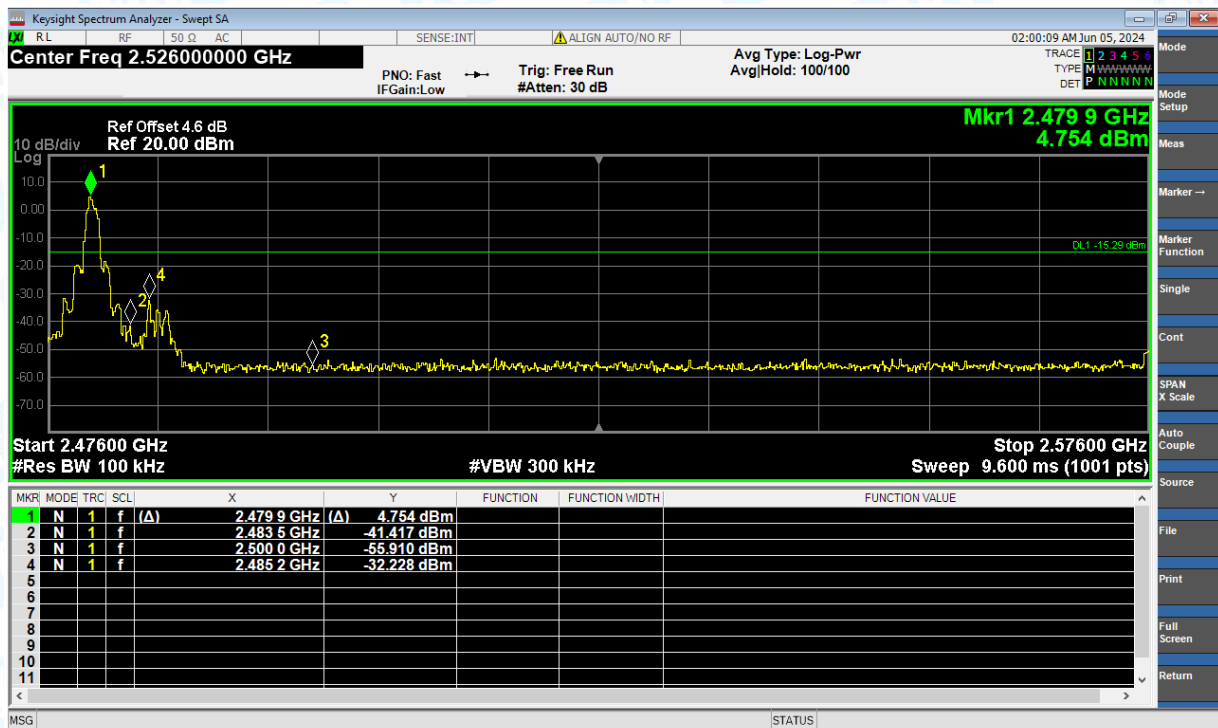
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



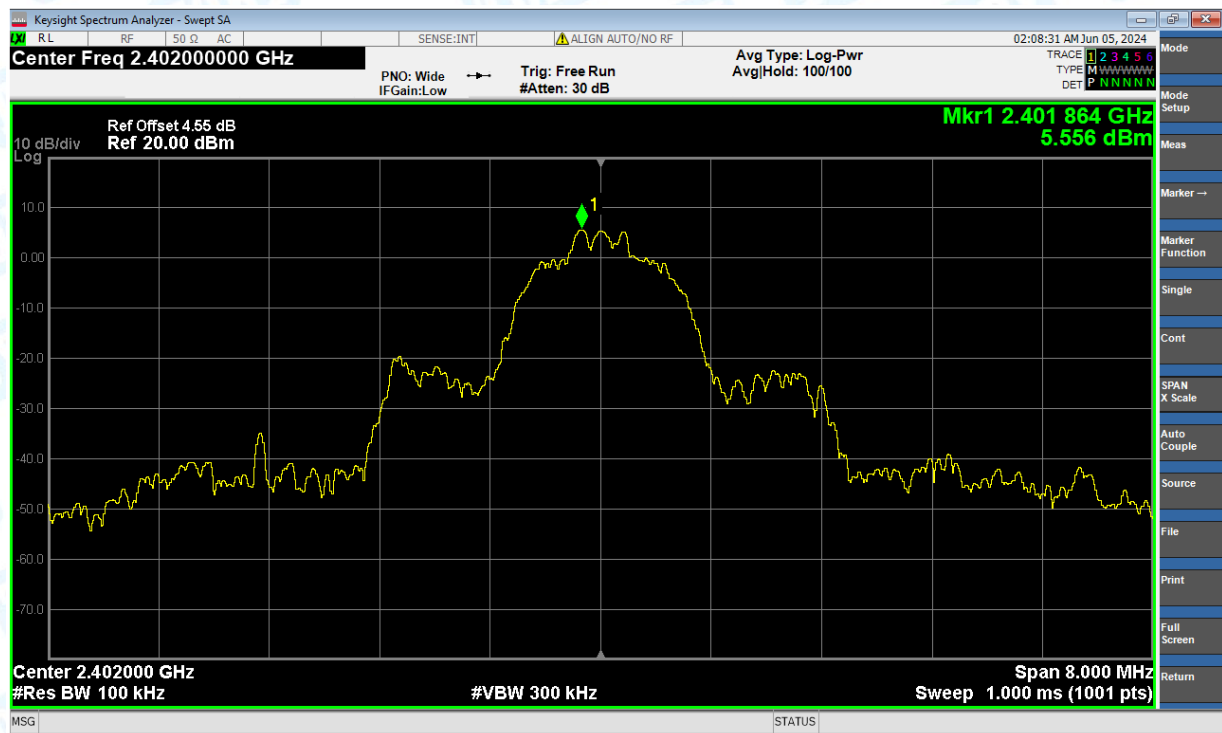
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



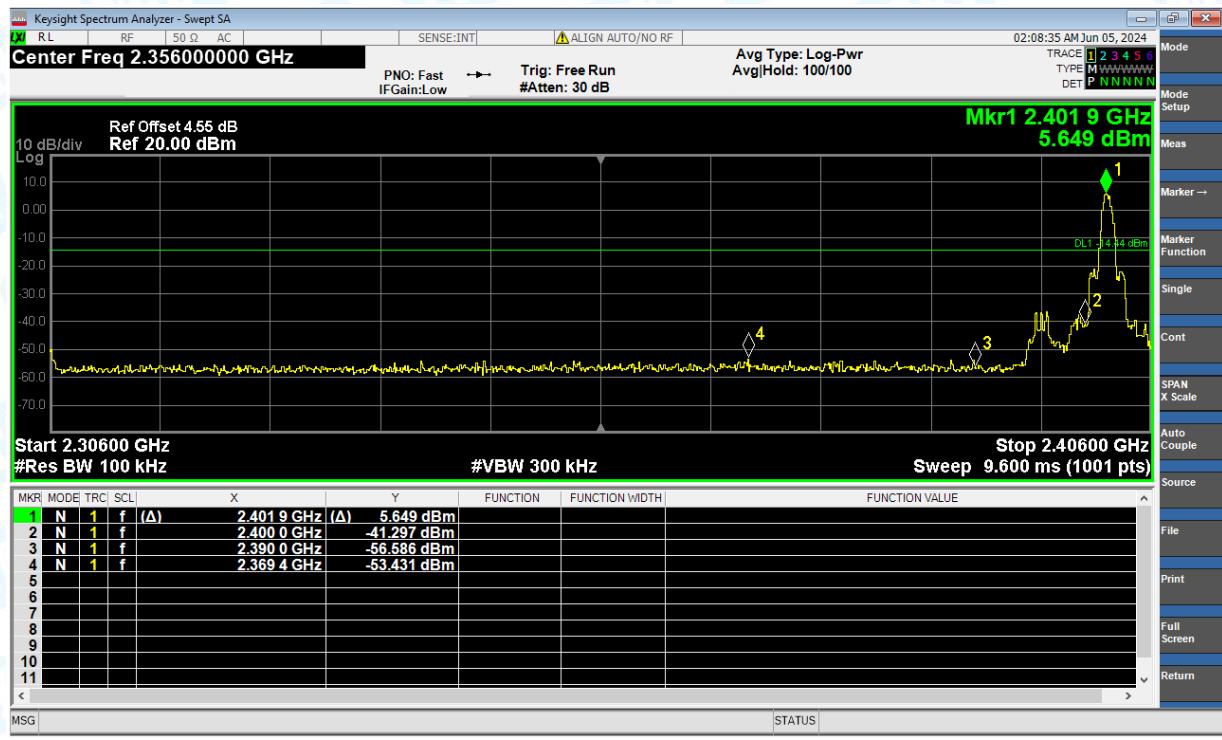
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



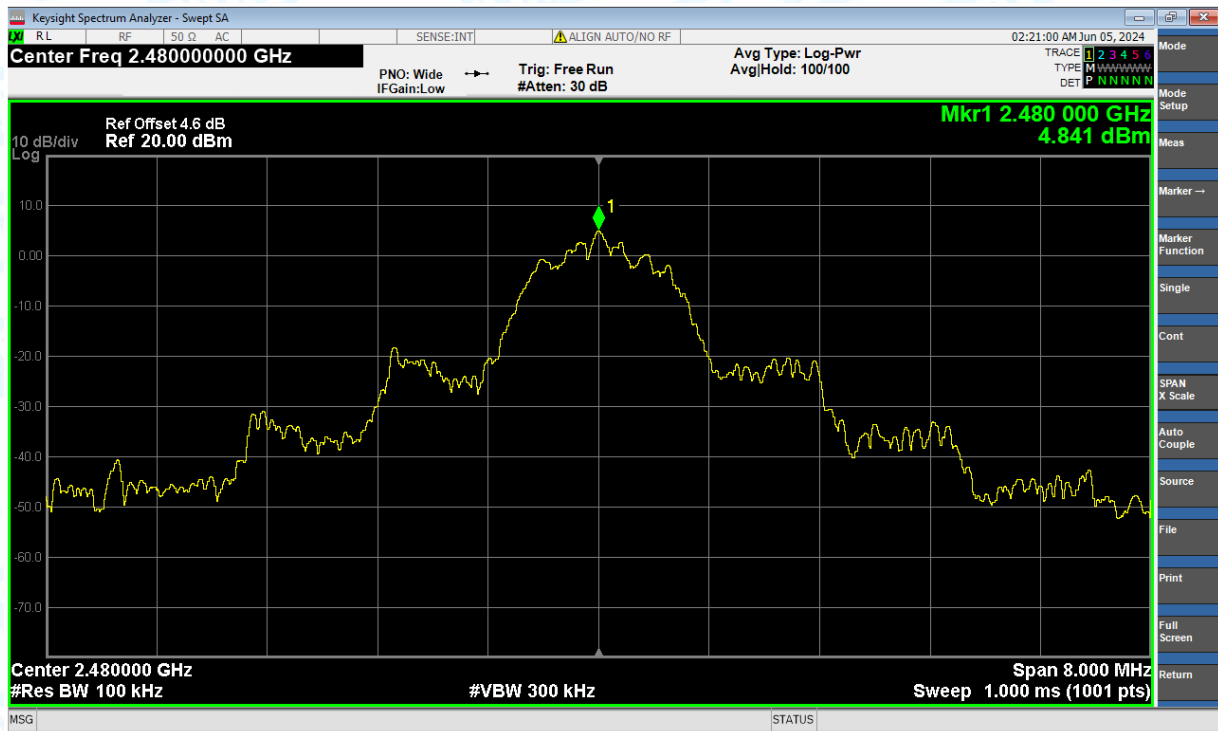
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



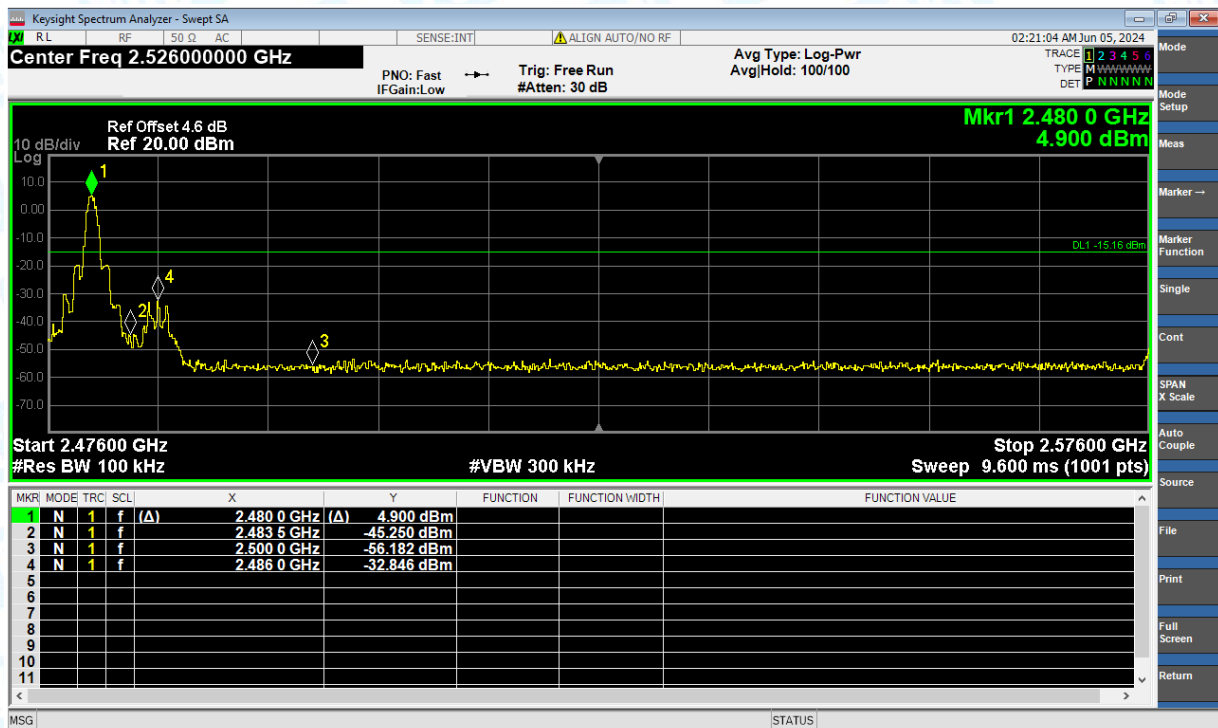
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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

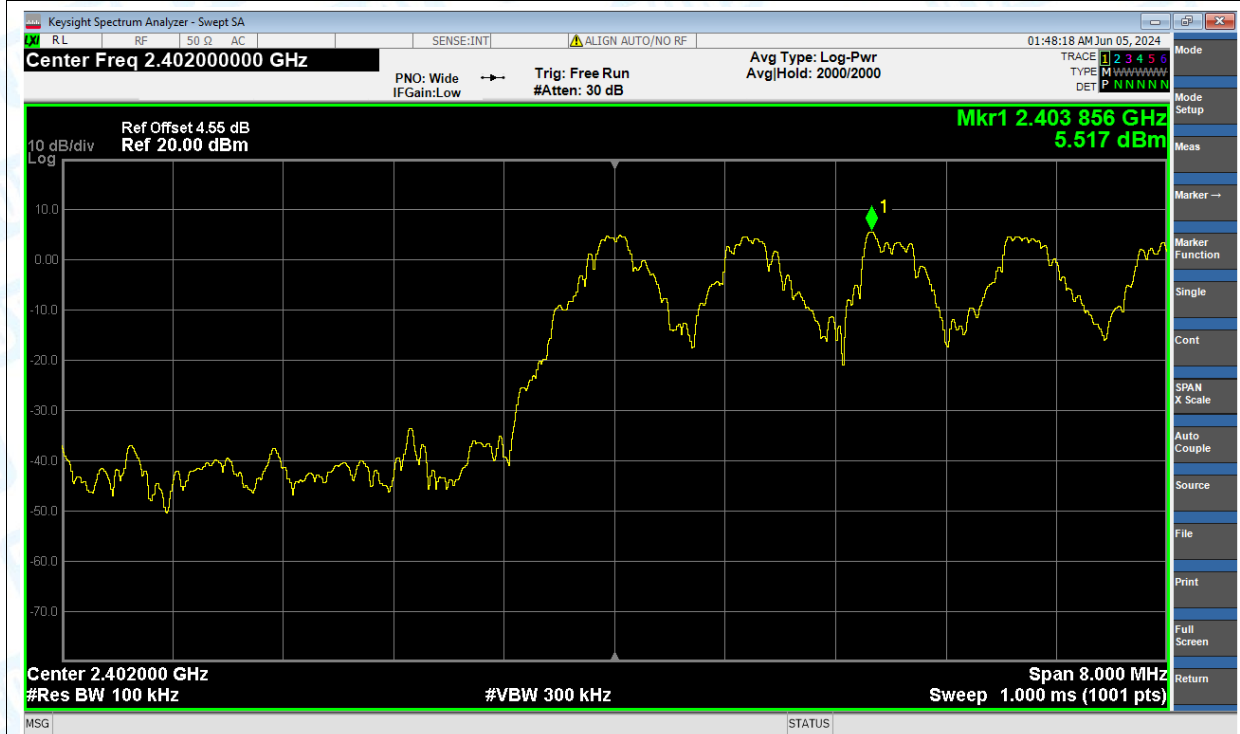


6. Band Edge(Hopping)

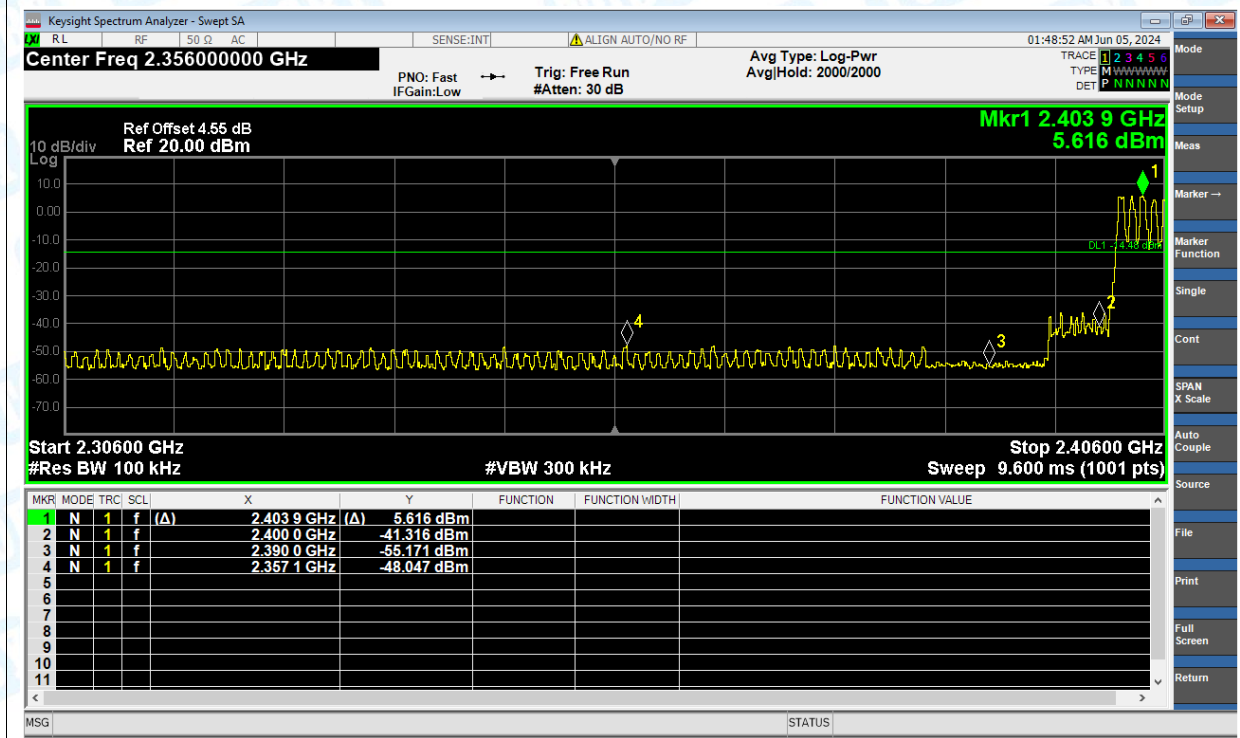
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-53.57	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-37.59	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-53.36	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-51.97	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-53.2	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-37.37	-20	Pass

Test Graphs

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



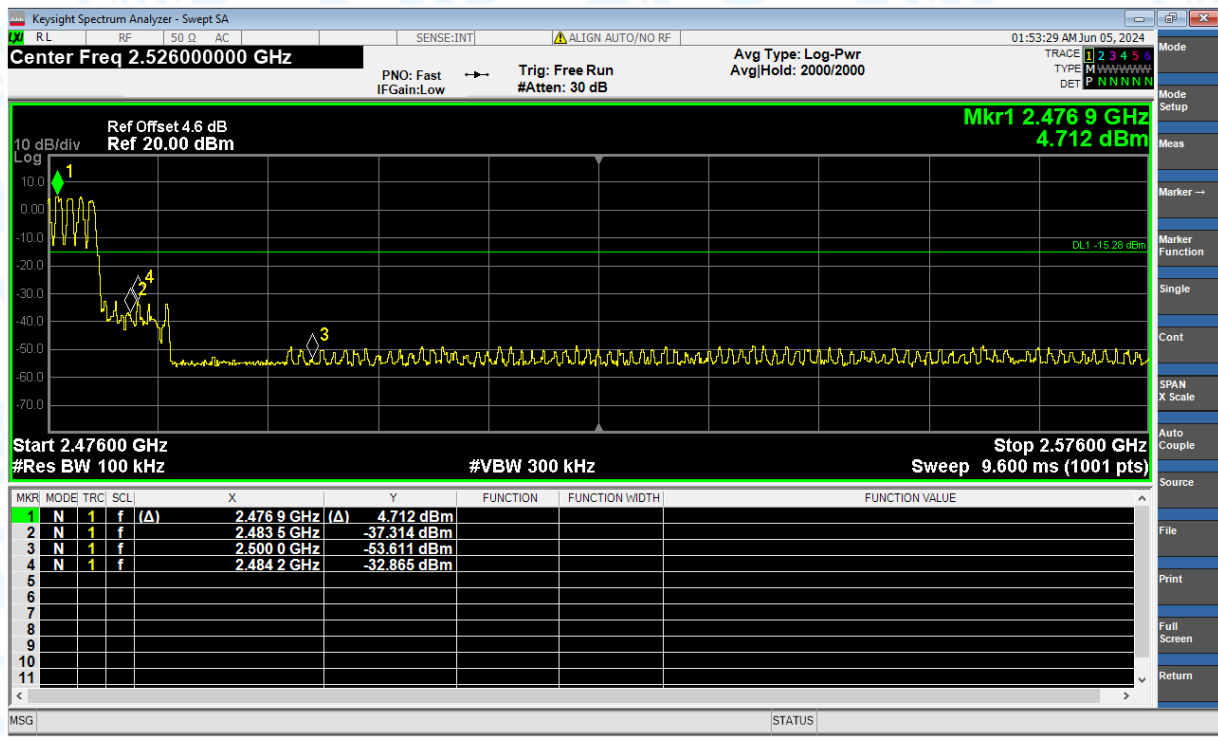
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



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



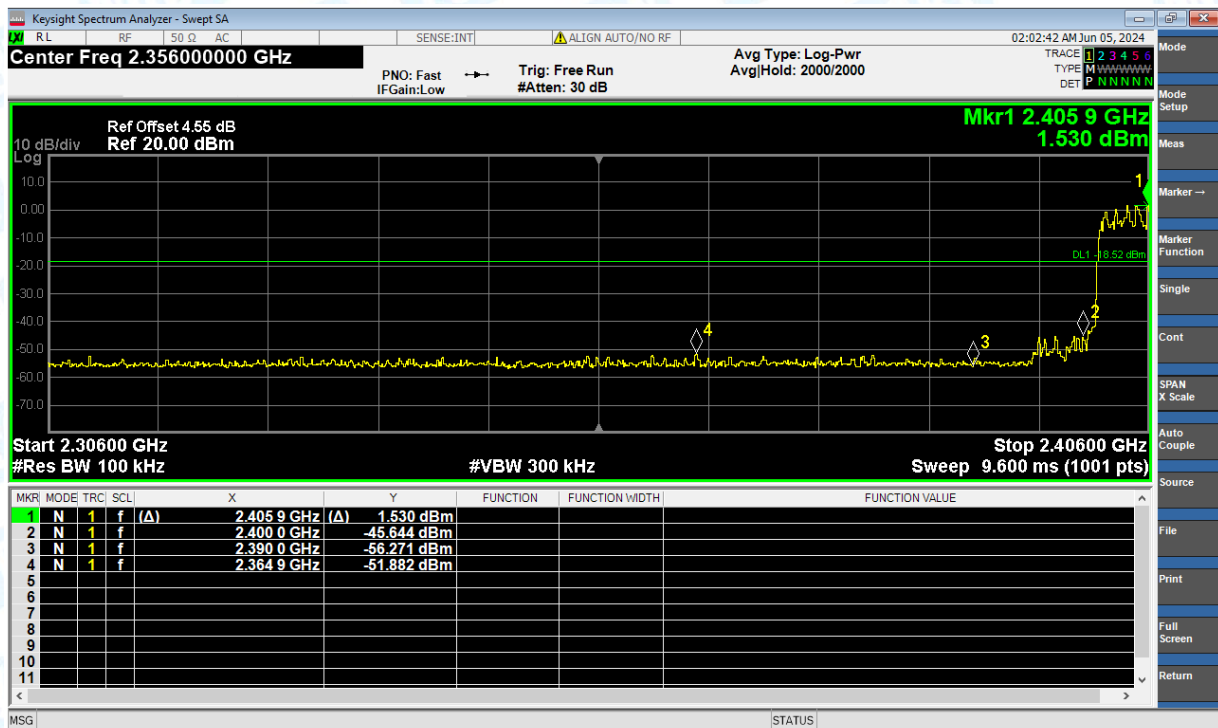
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



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



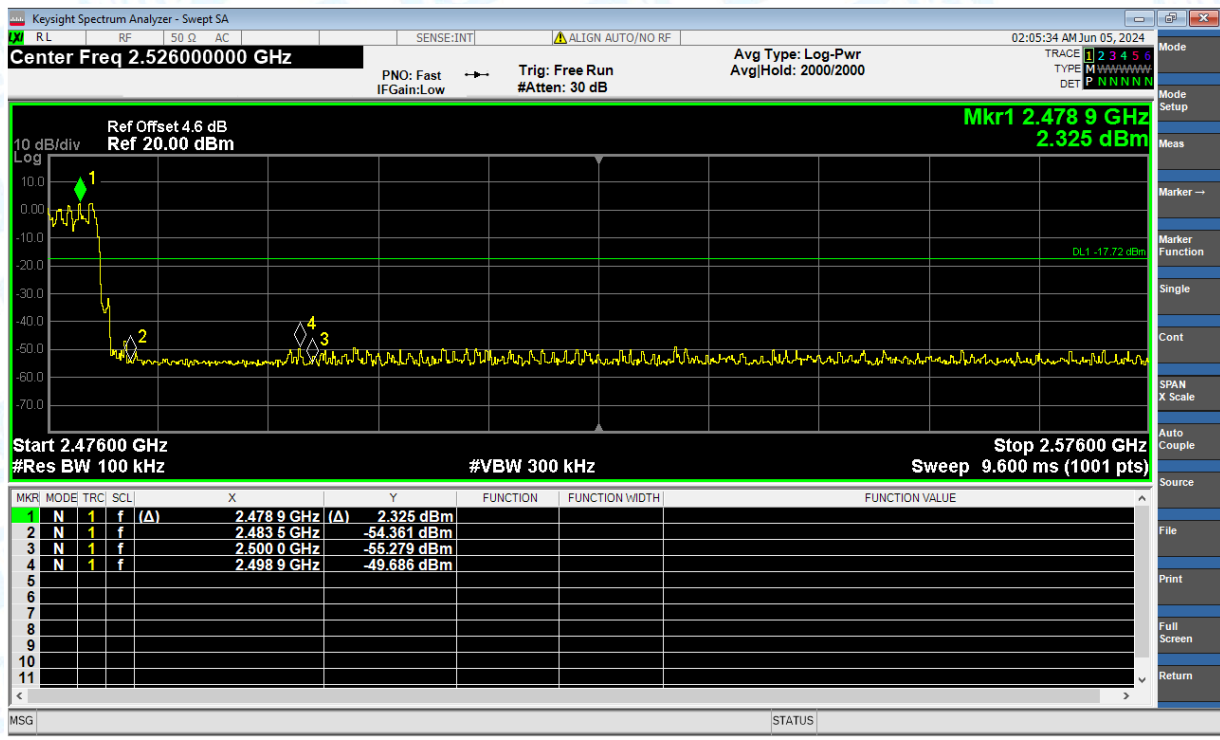
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



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



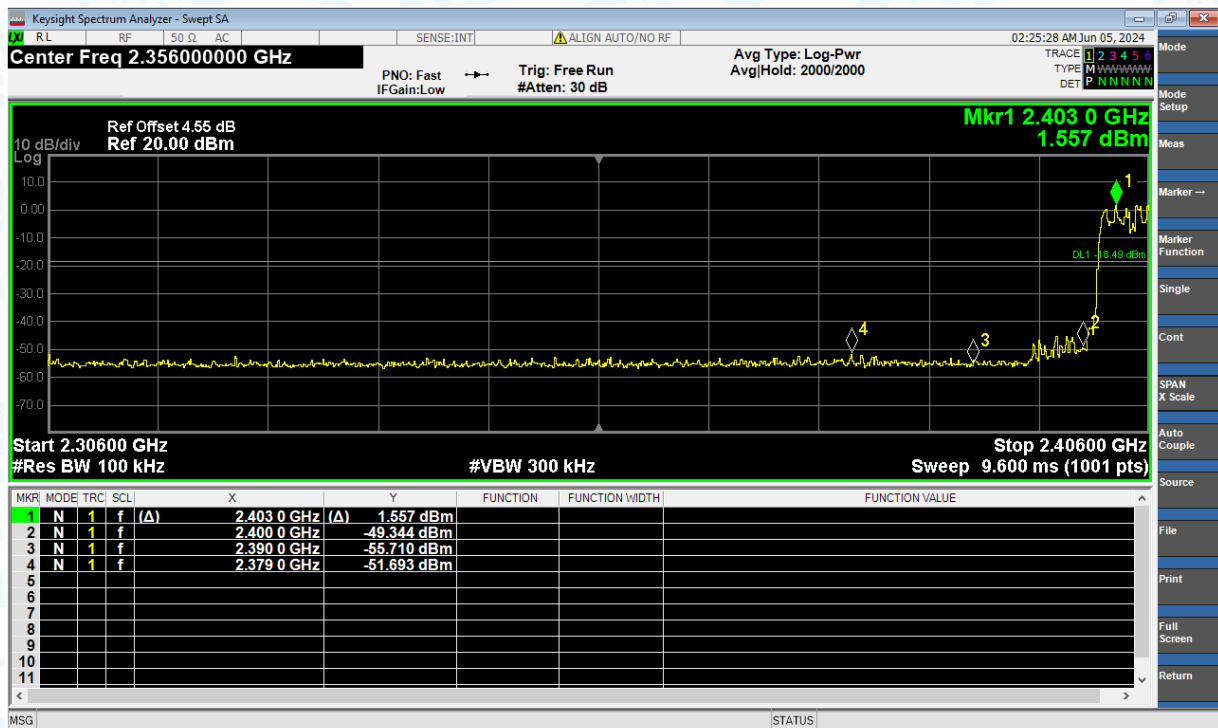
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



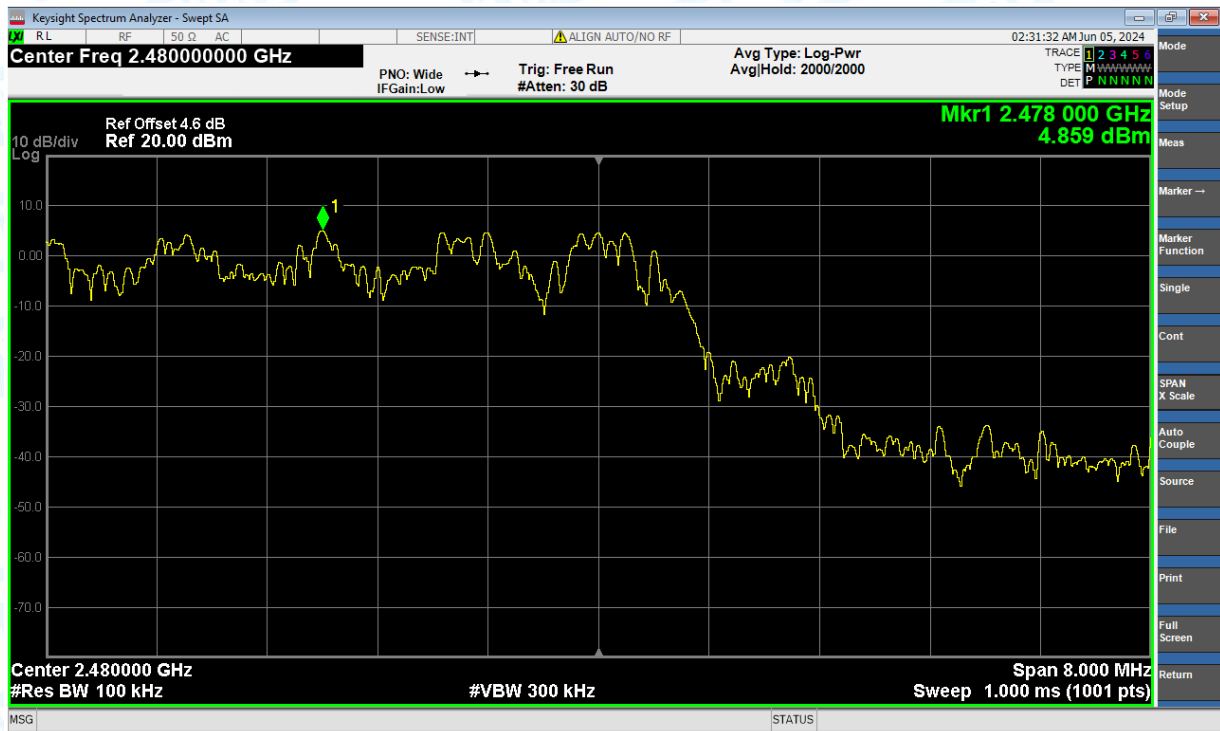
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



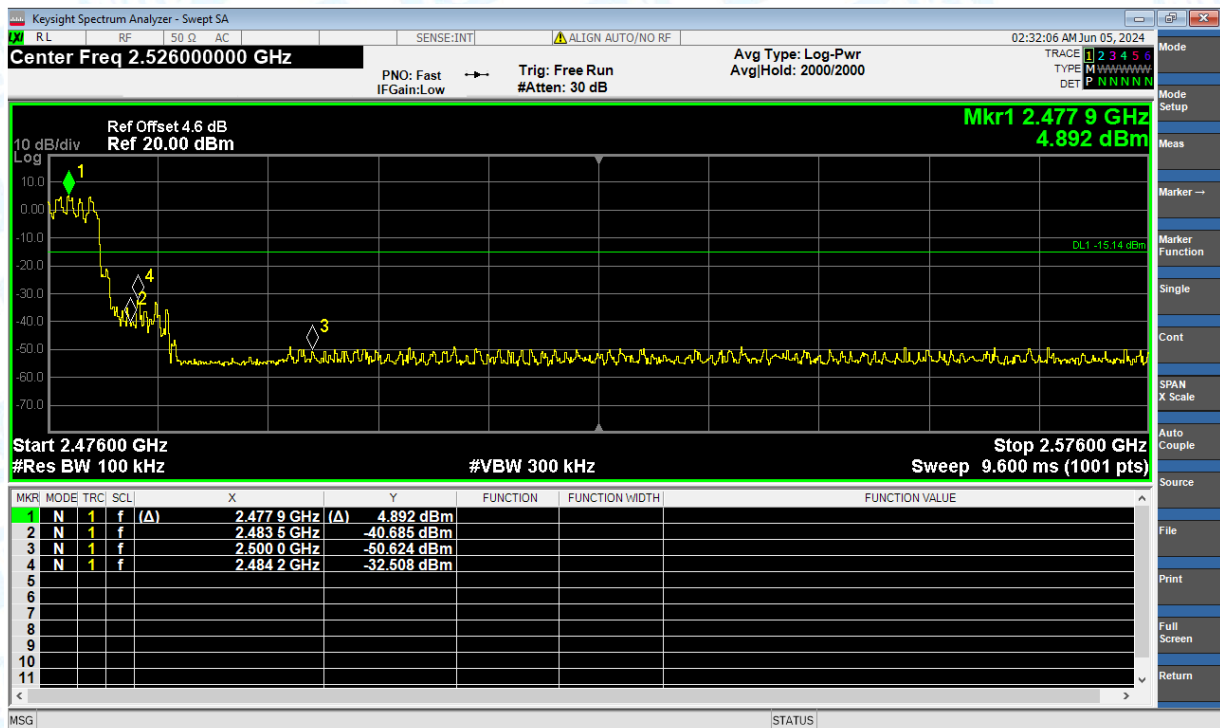
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



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



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

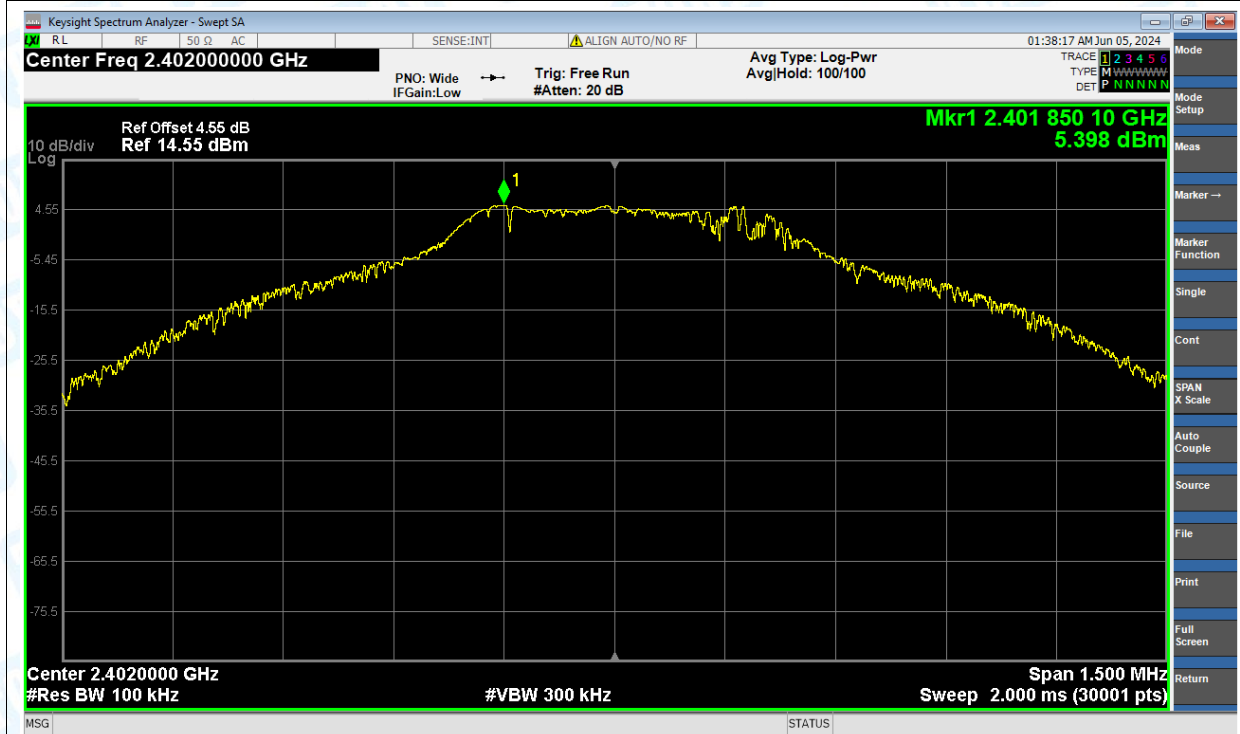


7. Conducted RF Spurious Emission

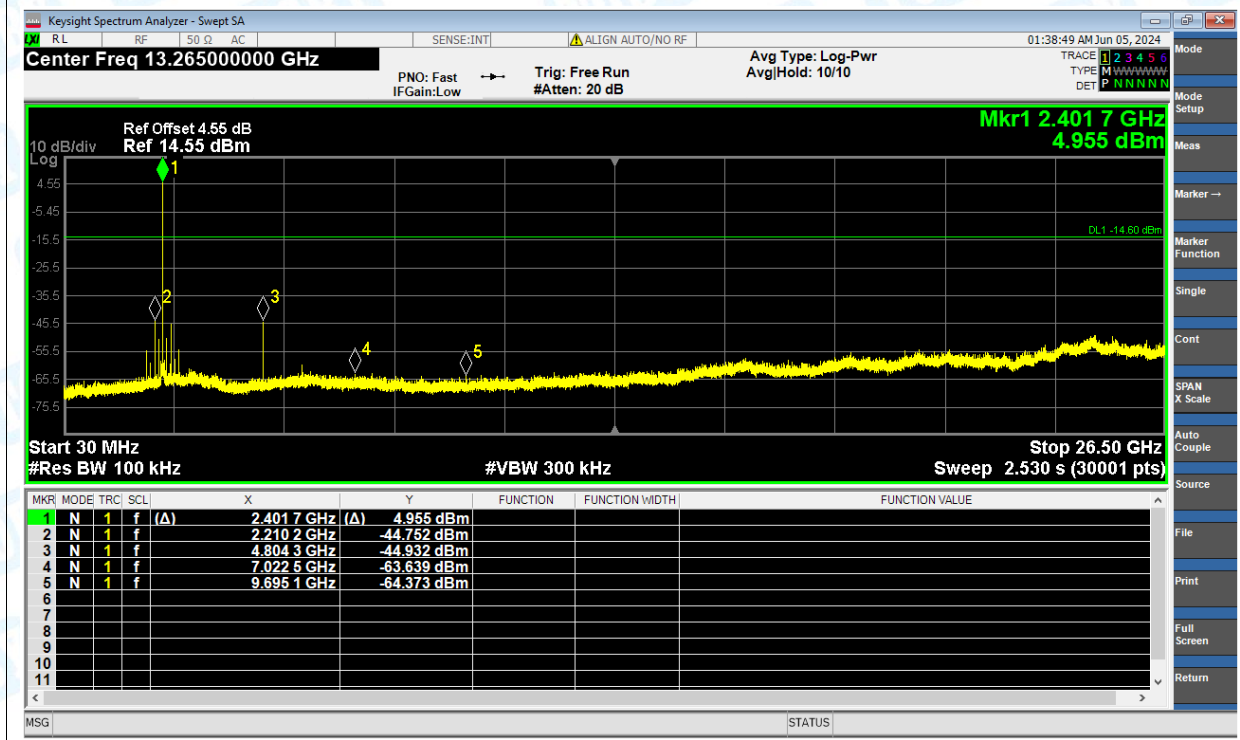
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-50.15	-20	Pass
NVNT	1-DH1	2441	Ant1	-48.32	-20	Pass
NVNT	1-DH1	2480	Ant1	-46.09	-20	Pass
NVNT	2-DH1	2402	Ant1	-50.62	-20	Pass
NVNT	2-DH1	2441	Ant1	-49.16	-20	Pass
NVNT	2-DH1	2480	Ant1	-47.77	-20	Pass
NVNT	3-DH1	2402	Ant1	-52.11	-20	Pass
NVNT	3-DH1	2441	Ant1	-51.49	-20	Pass
NVNT	3-DH1	2480	Ant1	-45.98	-20	Pass

Test Graphs

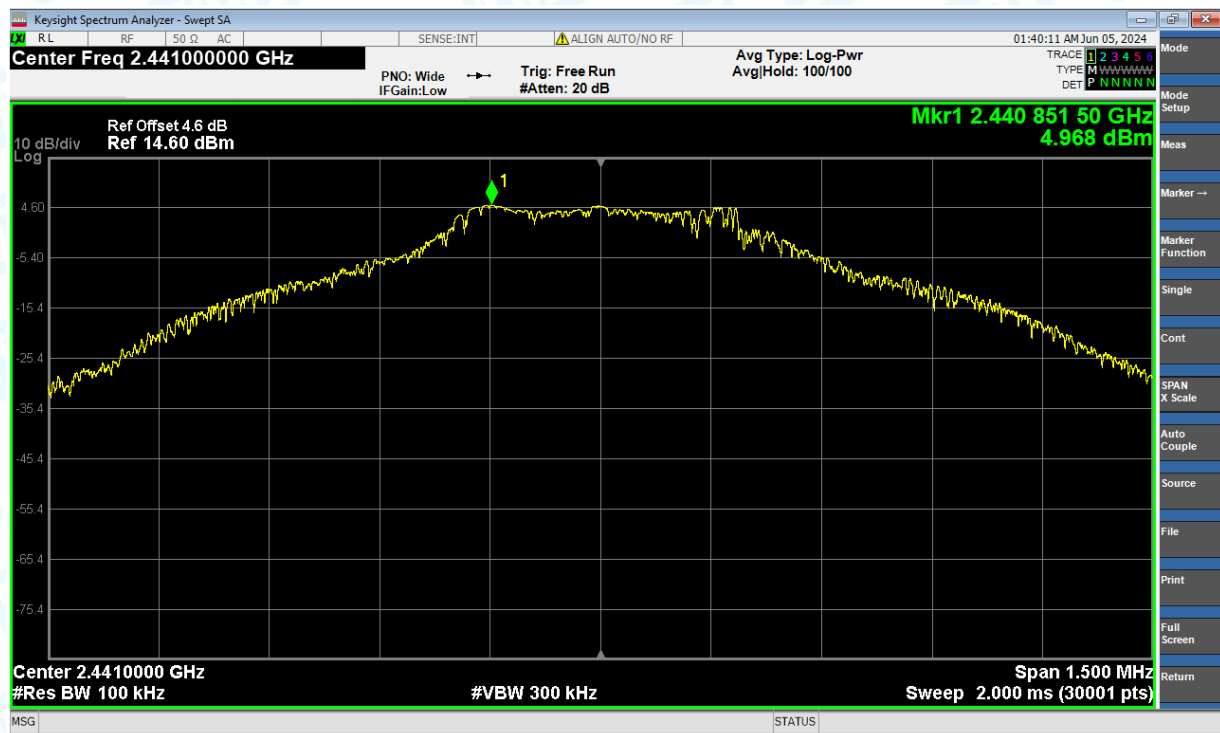
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



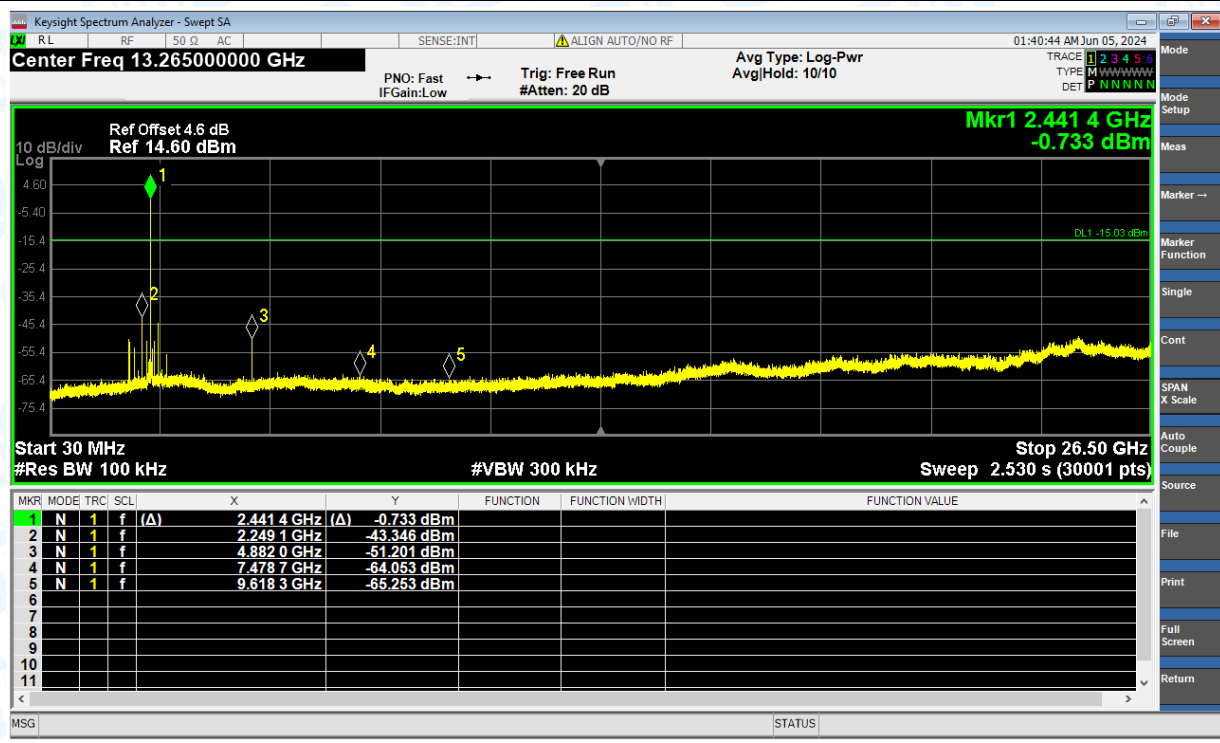
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



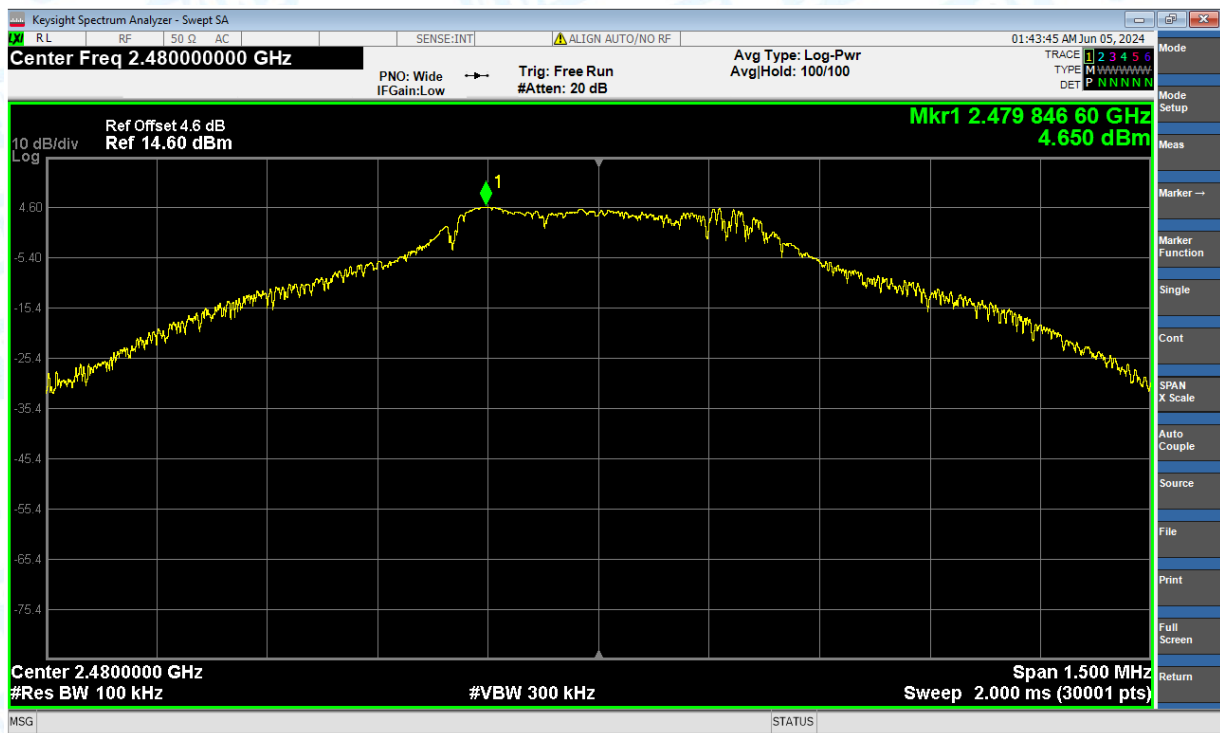
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



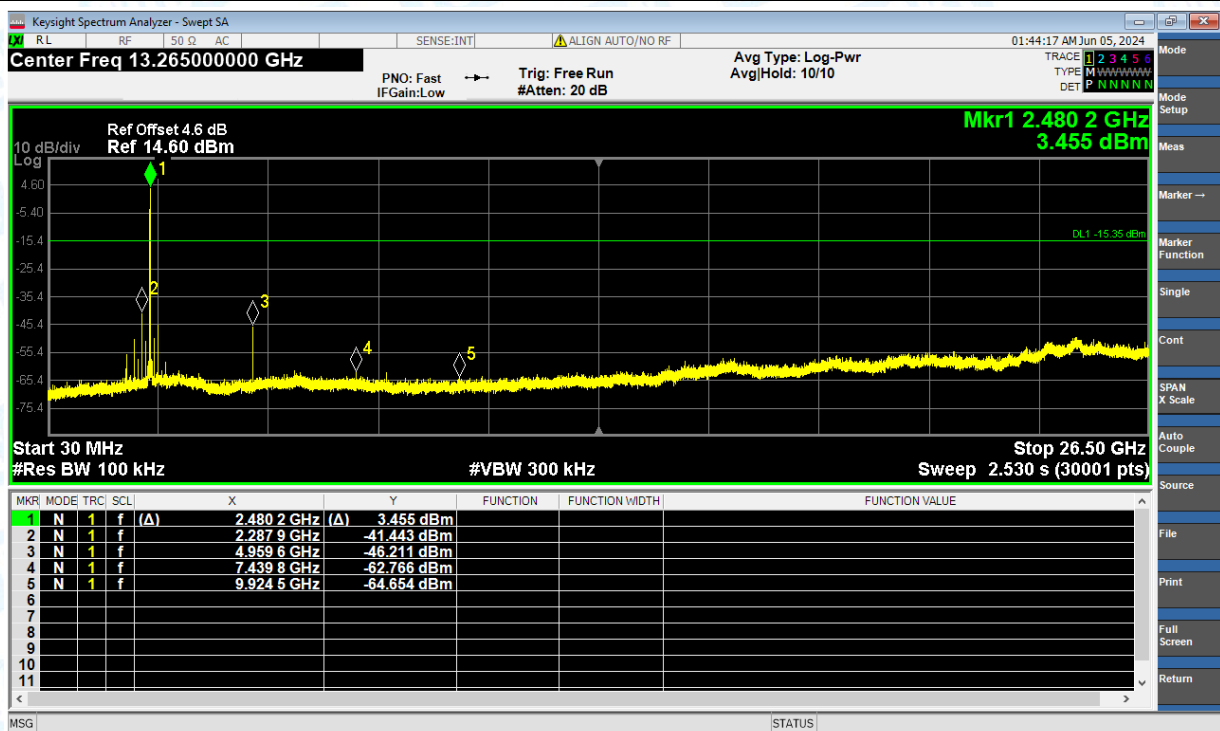
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



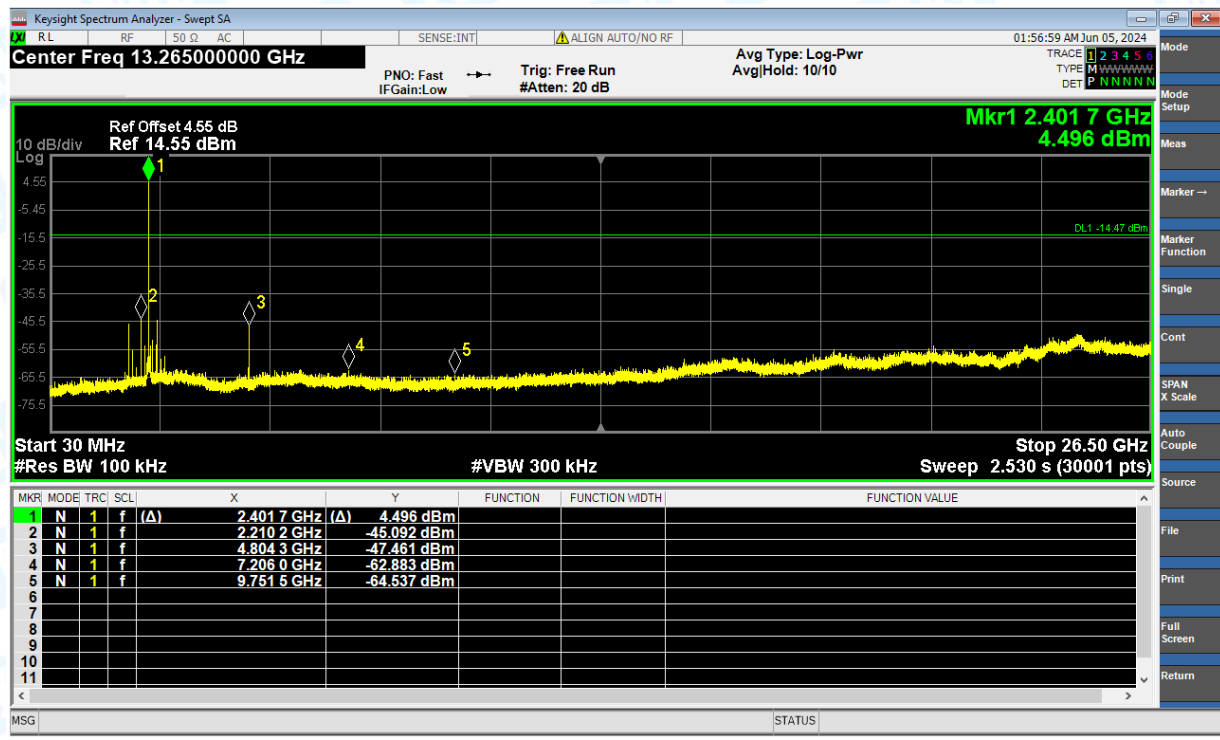
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



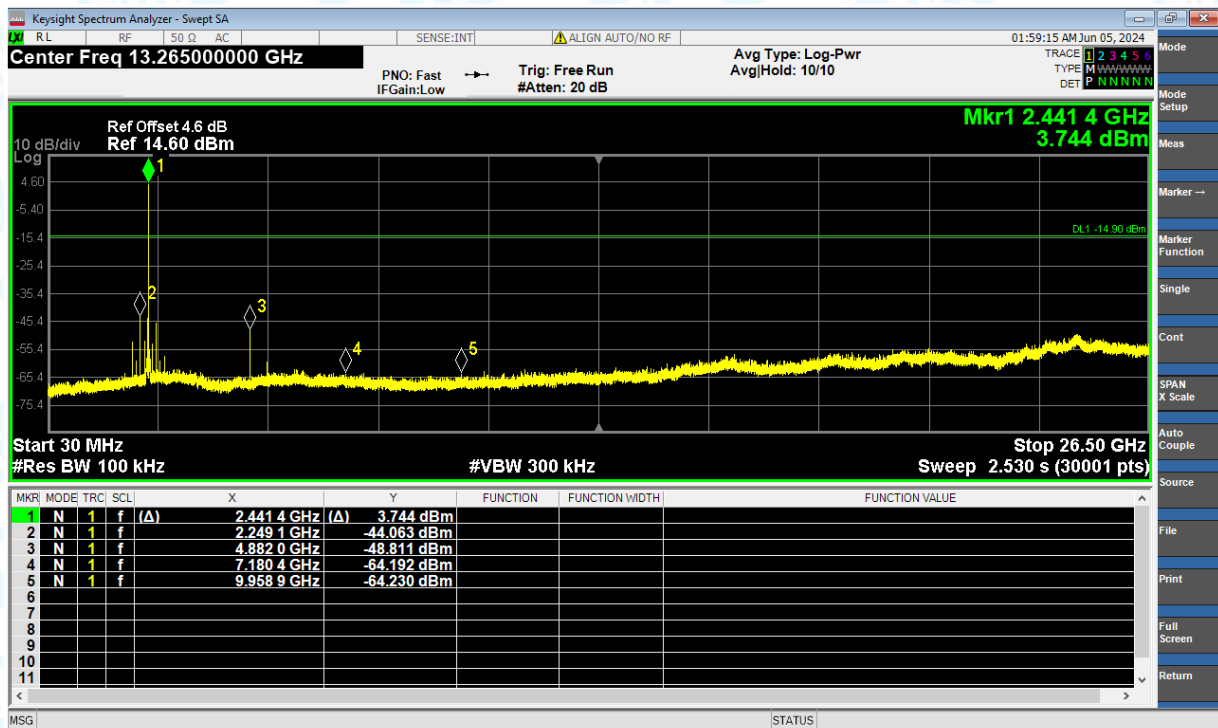
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



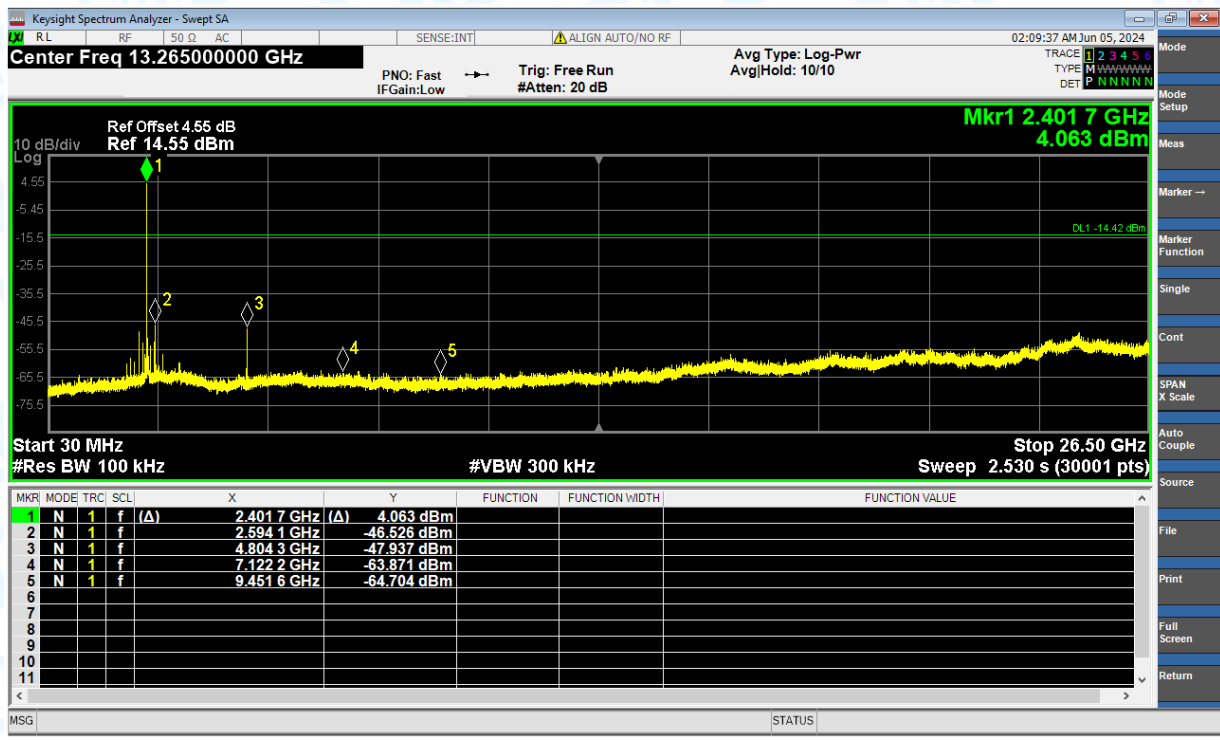
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



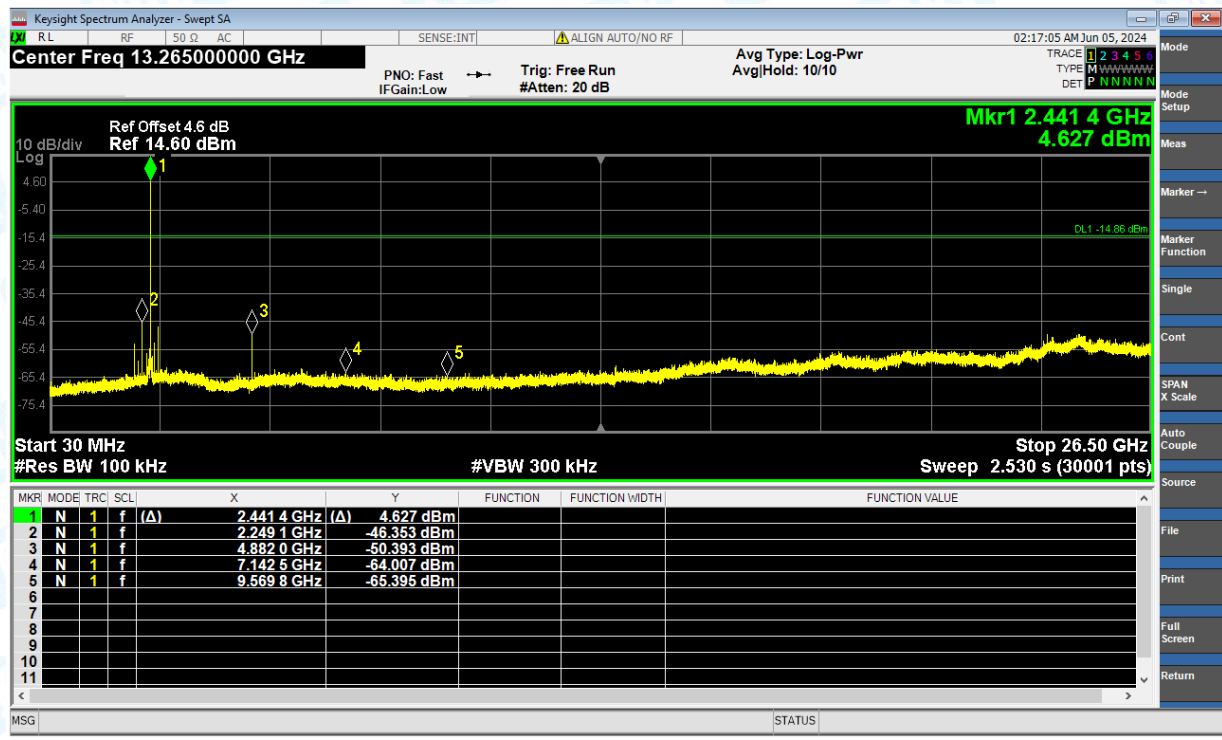
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



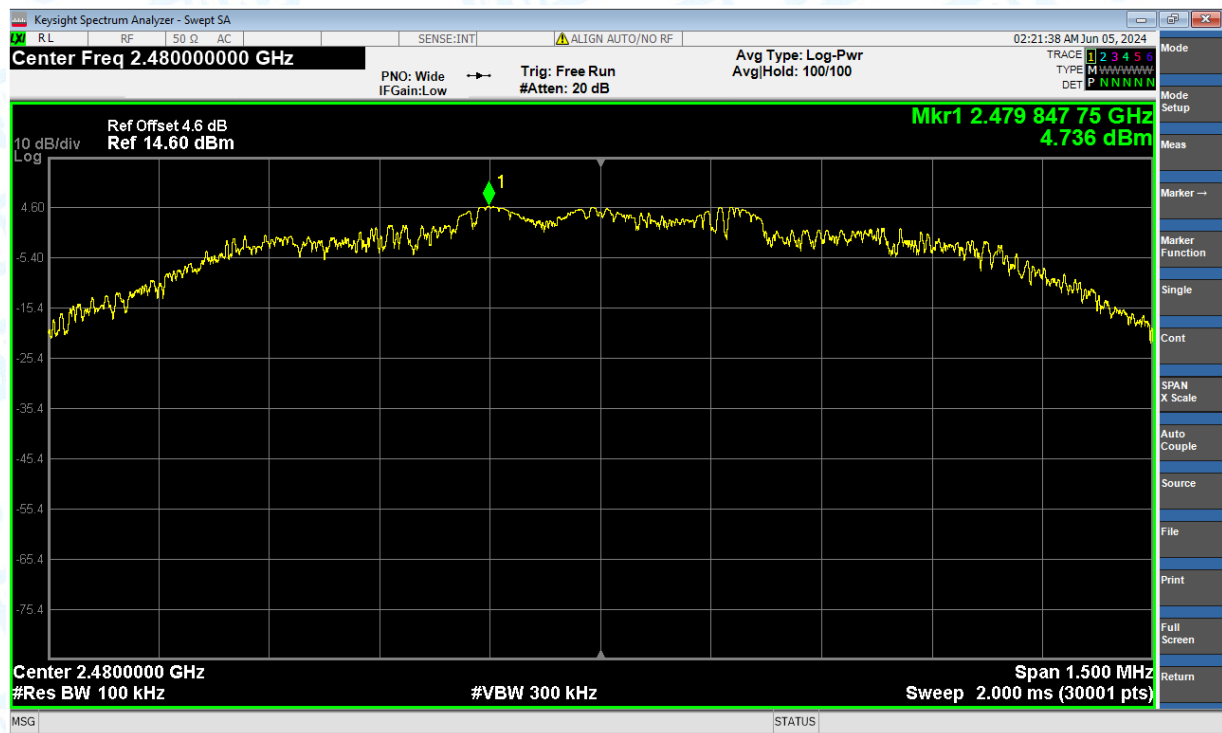
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



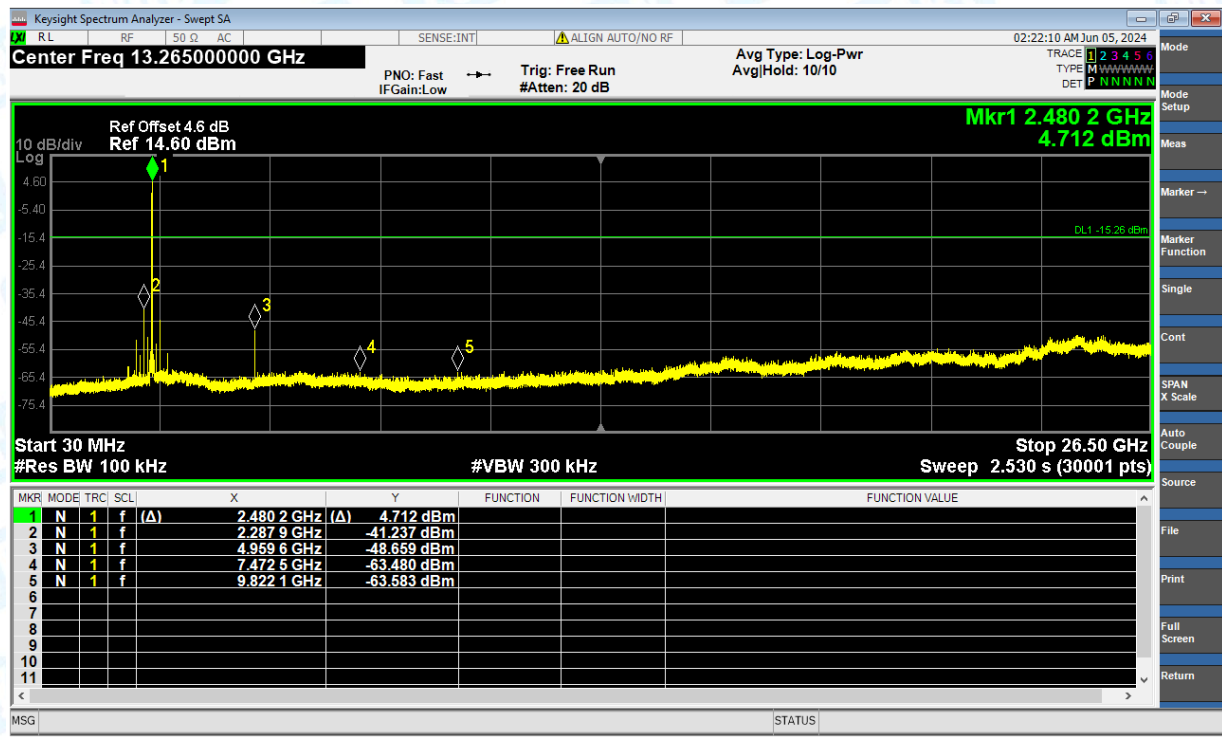
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

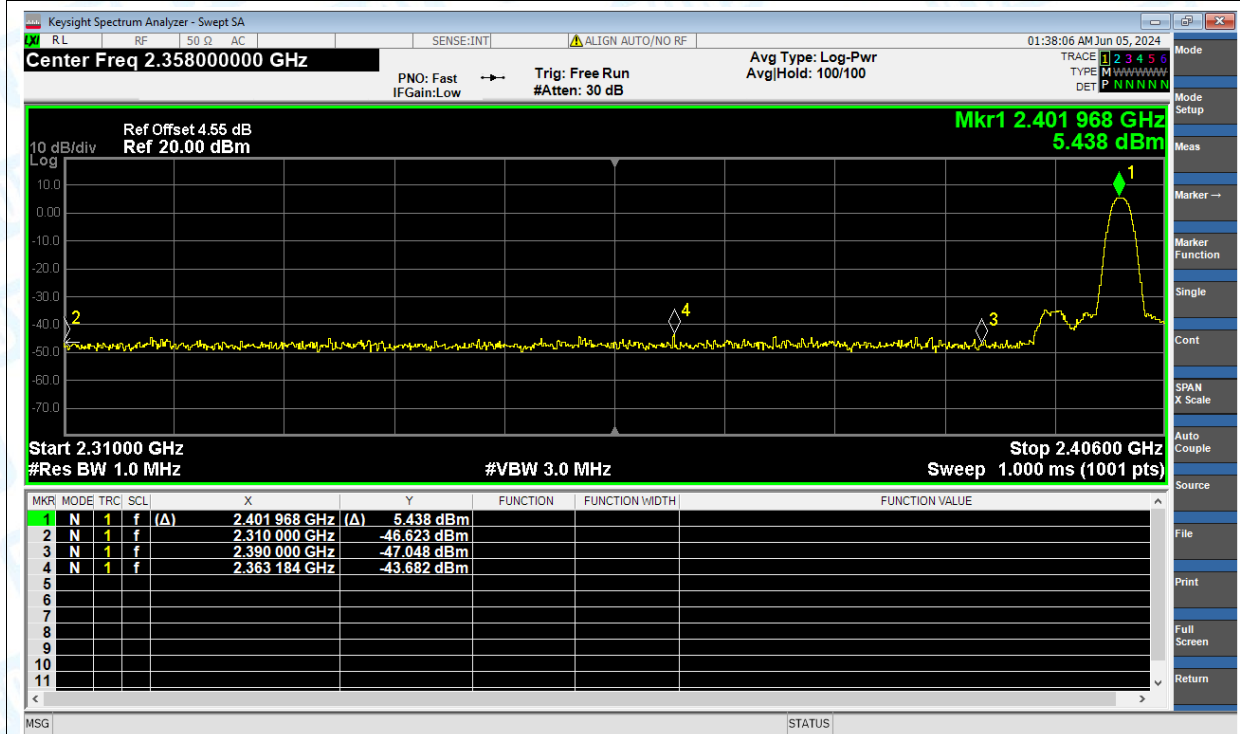


8.Restrict Band

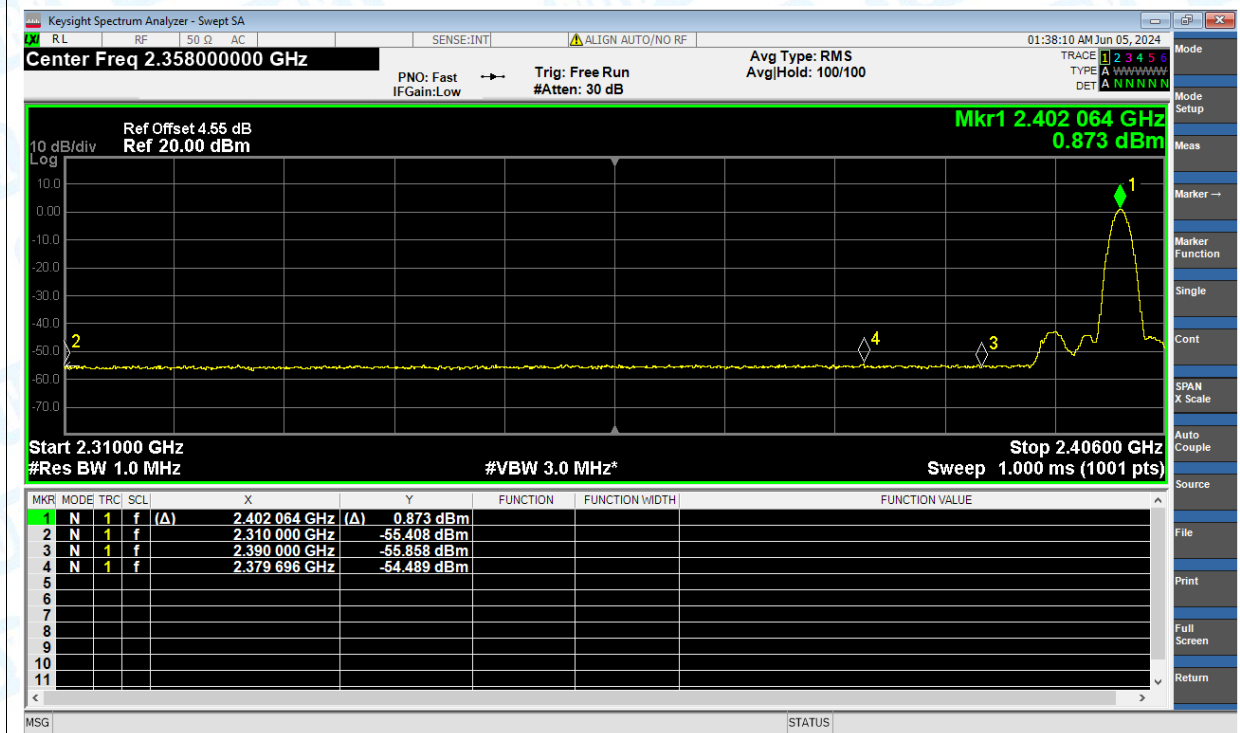
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-46.62	2	-	50.64	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-55.41	2	5.17	47.02	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2363.184	-43.68	2	-	53.58	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2379.696	-54.49	2	5.17	47.94	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-47.05	2	-	50.21	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-55.86	2	5.17	46.57	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-42.5	2	-	54.76	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-52.79	2	5.06	49.53	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.56	-41.8	2	-	55.46	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.68	-52.01	2	5.06	50.31	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-47.74	2	-	49.52	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.02	2	5.06	47.3	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-47.29	2	-	49.97	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-55.39	2	4.95	46.82	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2362.32	-43.42	2	-	53.84	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2356.272	-54.39	2	4.95	47.82	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-48.46	2	-	48.8	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-55.93	2	4.95	46.28	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-41.69	2	-	55.57	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-53.31	2	4.95	48.9	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.632	-41.28	2	-	55.98	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.656	-52.35	2	4.95	49.86	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-47.62	2	-	49.64	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-54.75	2	4.95	47.46	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-47.45	2	-	49.81	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-55.73	2	5.06	46.59	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2350.416	-44.13	2	-	53.13	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2354.352	-54.67	2	5.06	47.65	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-47.6	2	-	49.66	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-55.69	2	5.06	46.63	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-41.73	2	-	55.53	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-51.79	2	4.95	50.42	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.608	-41.37	2	-	55.89	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.584	-51.76	2	4.95	50.45	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-46.96	2	-	50.3	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.34	2	4.95	46.87	Average	54	Pass

Test Graphs

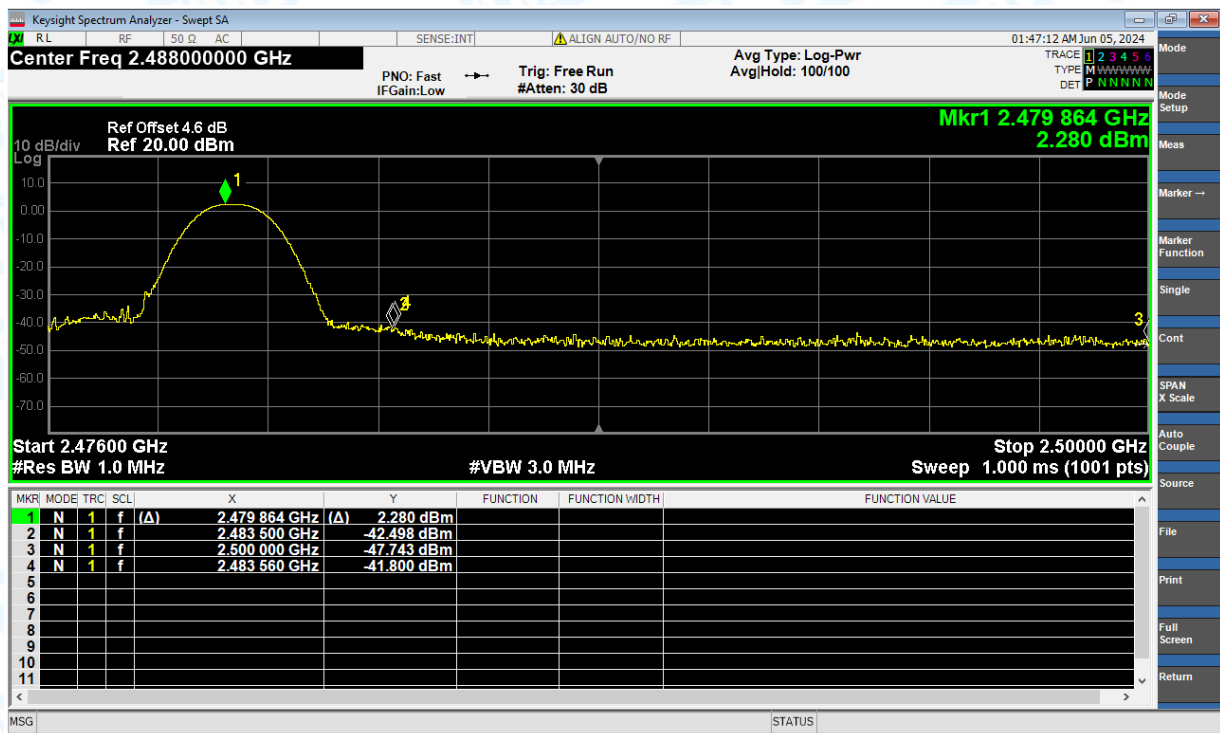
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



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



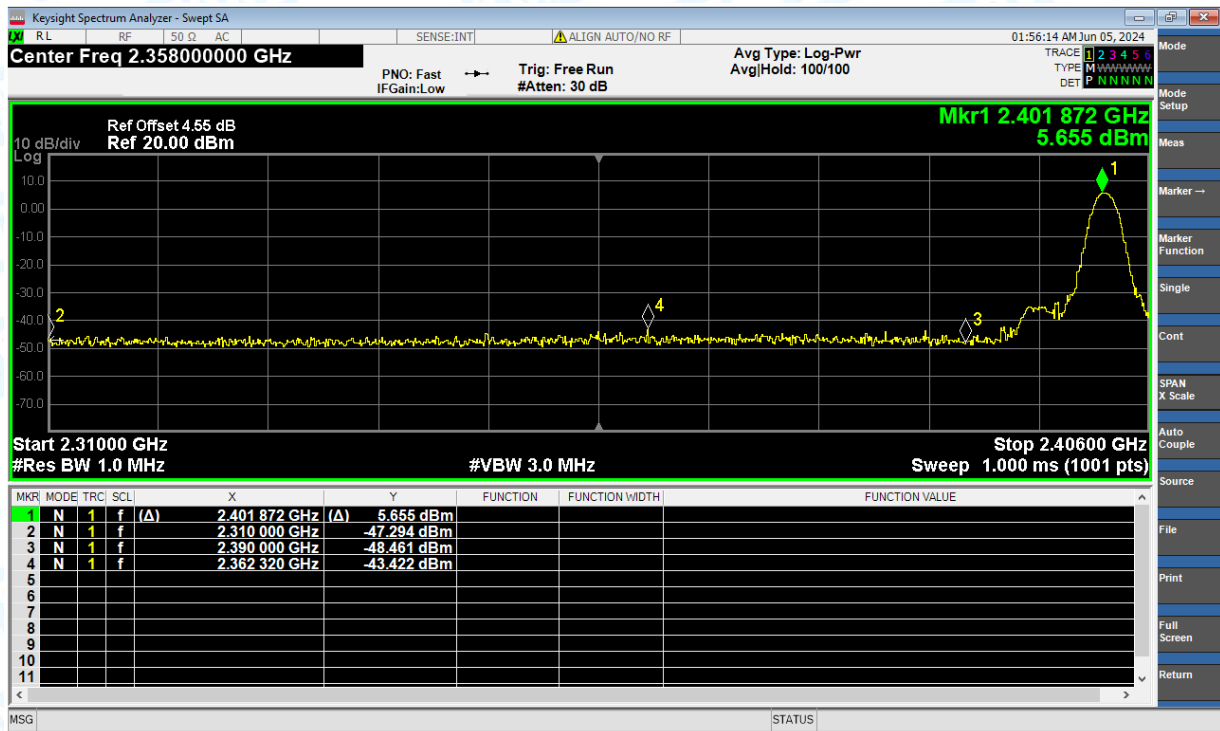
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



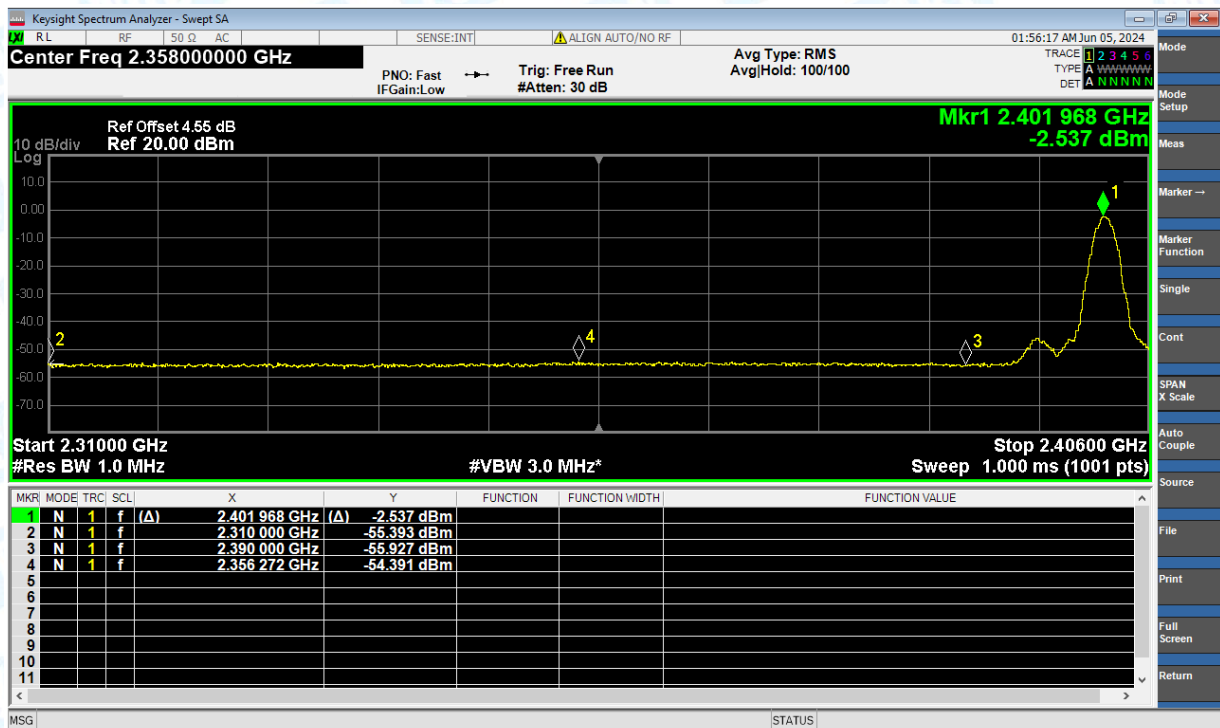
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



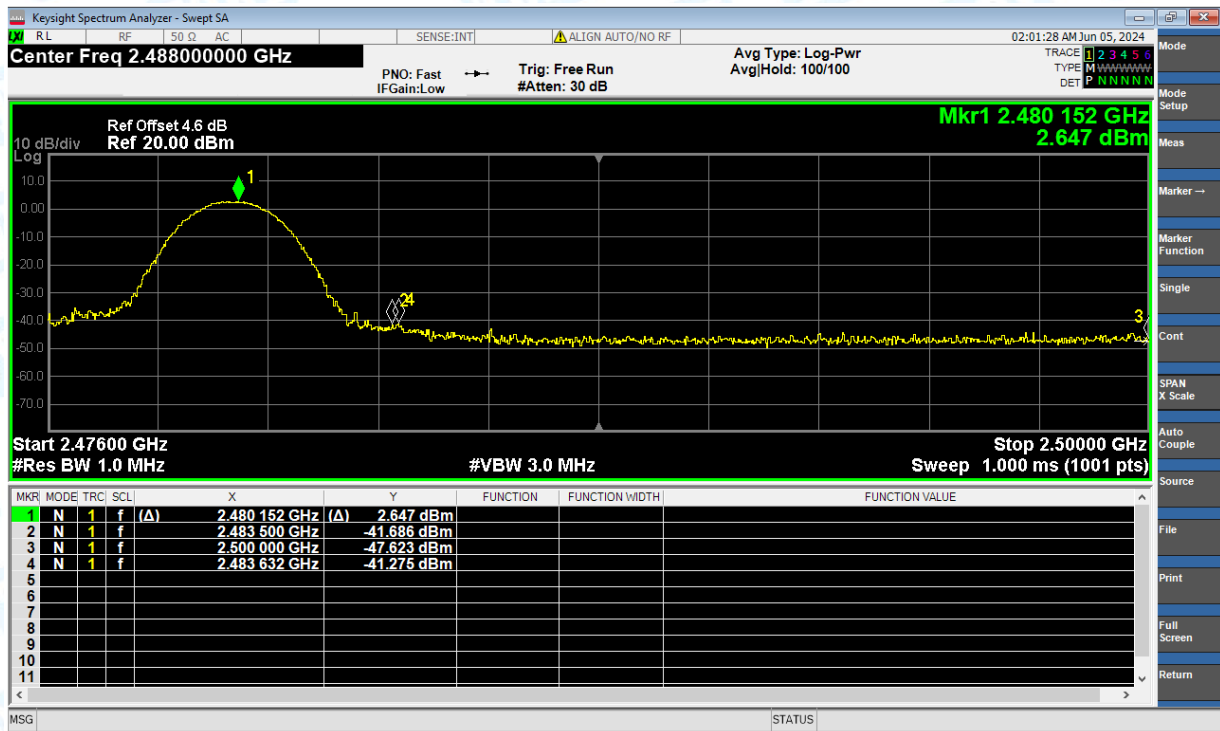
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



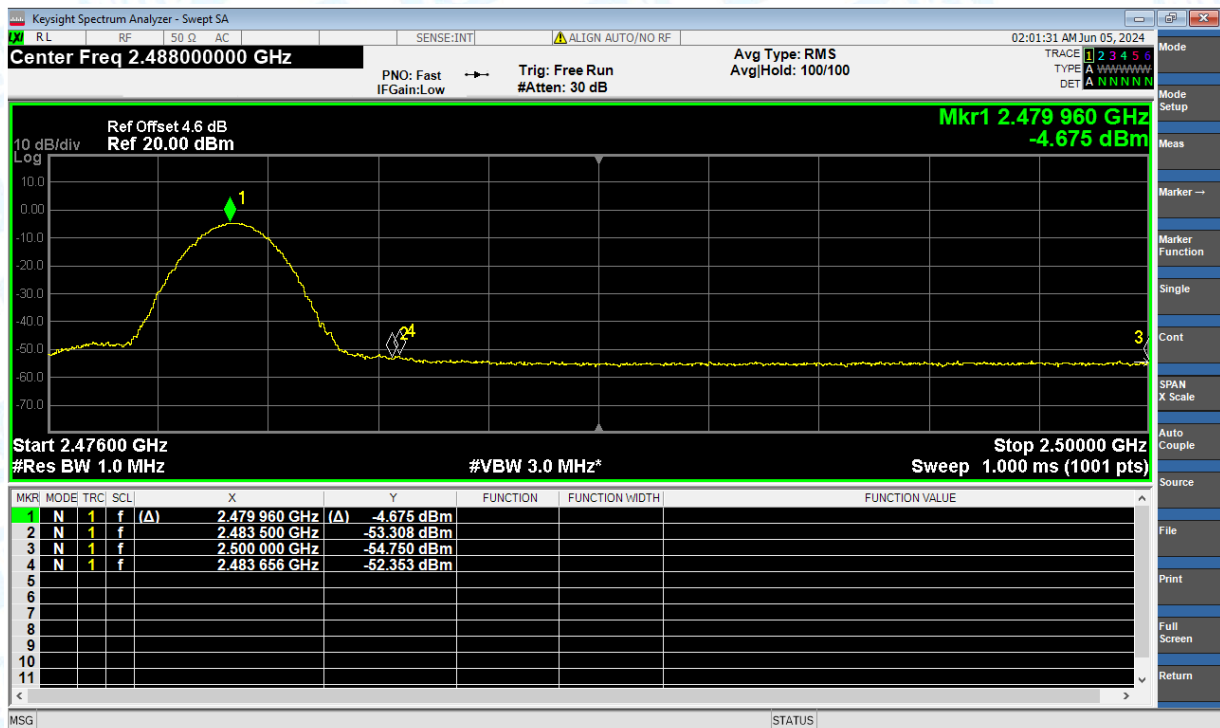
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



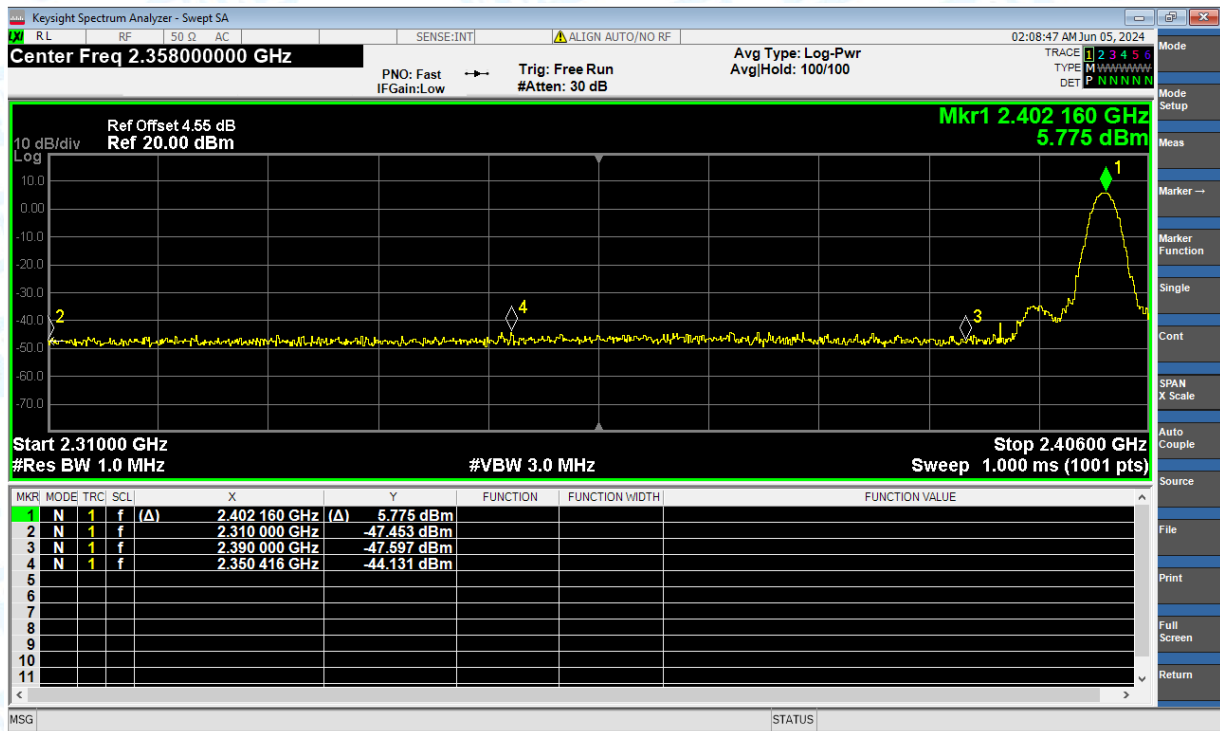
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



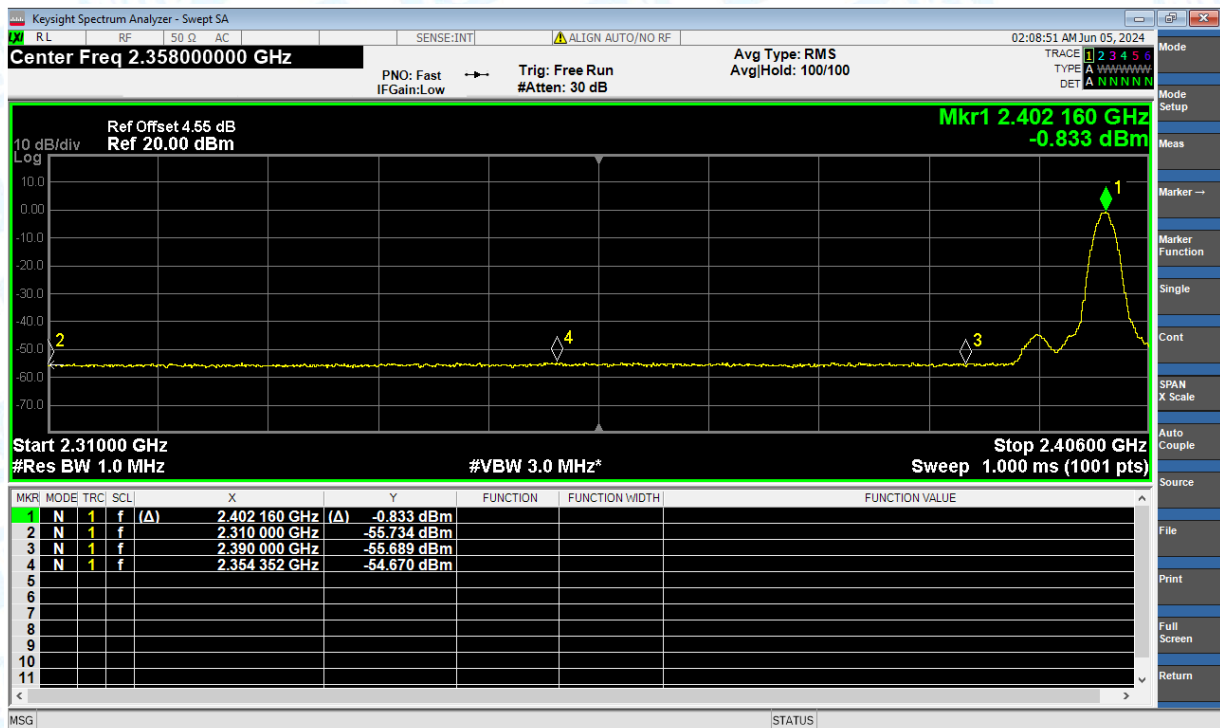
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



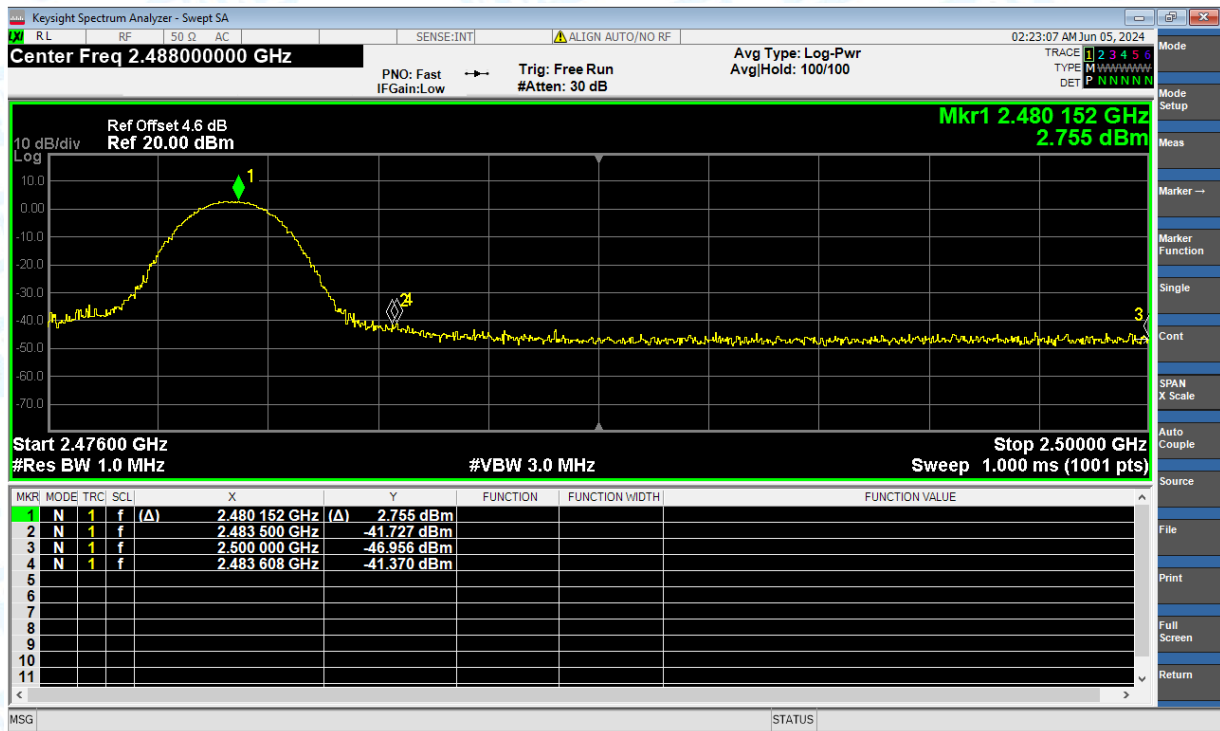
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



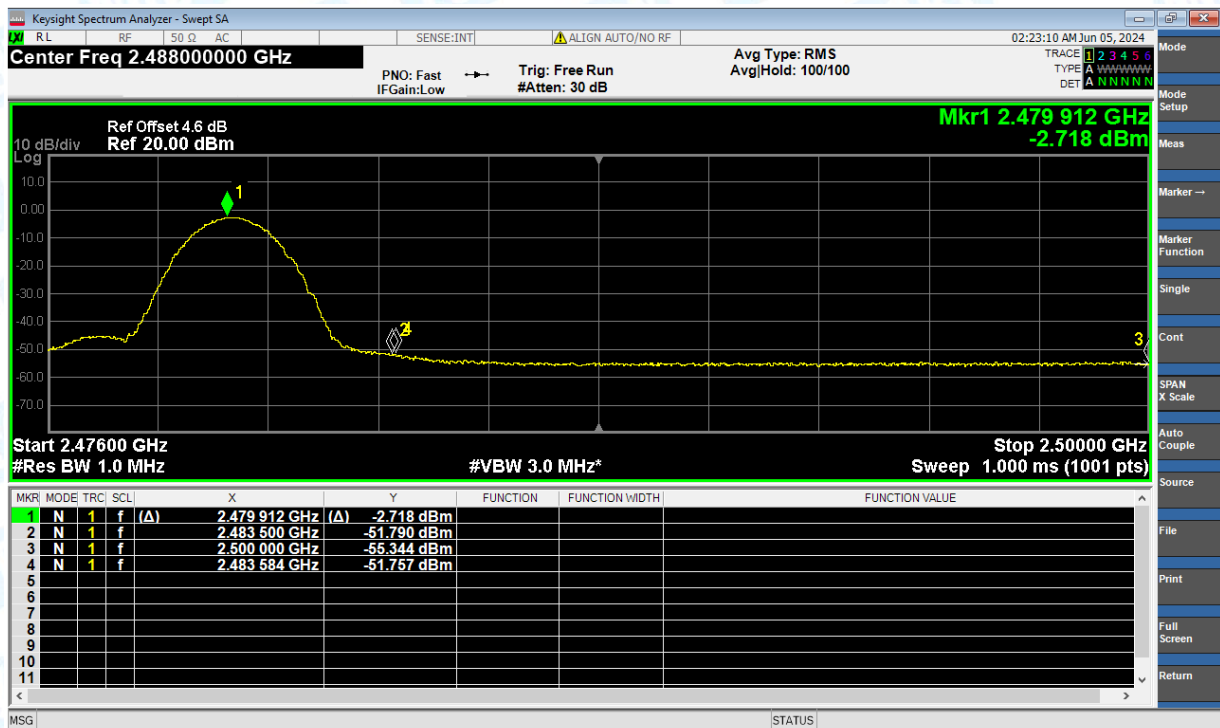
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

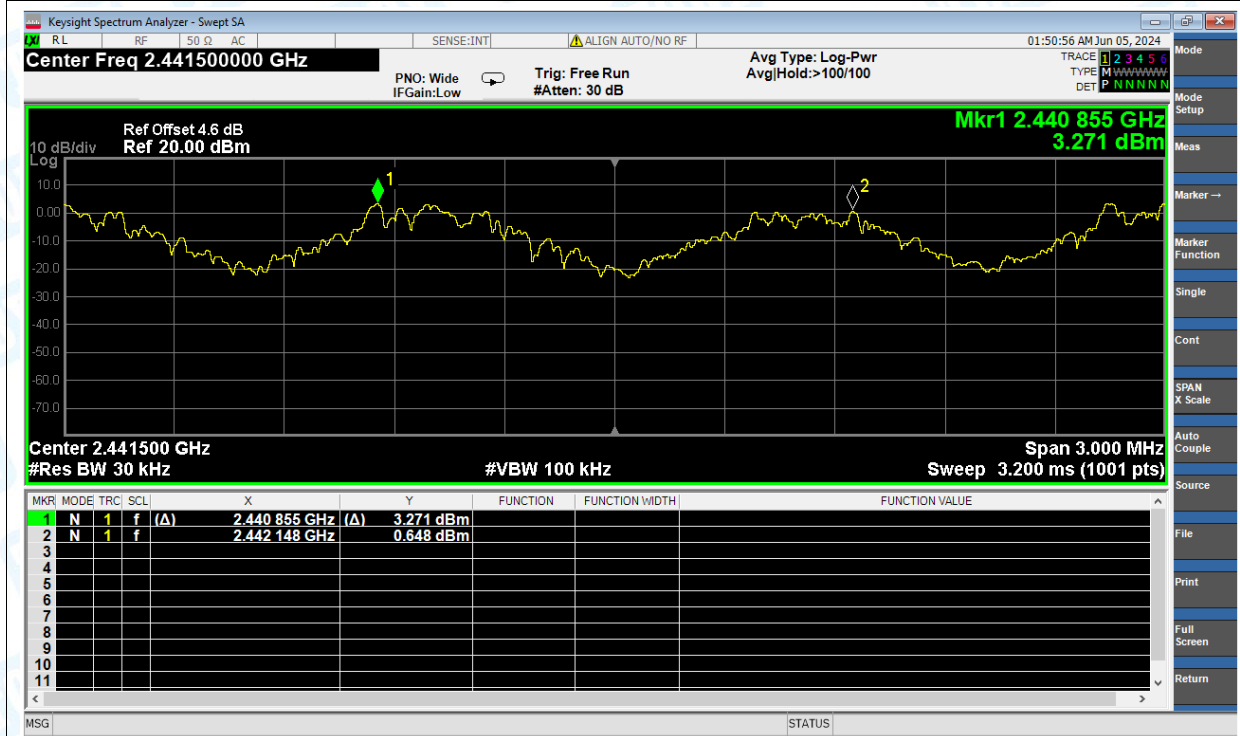


9.Carrier Frequencies Separation

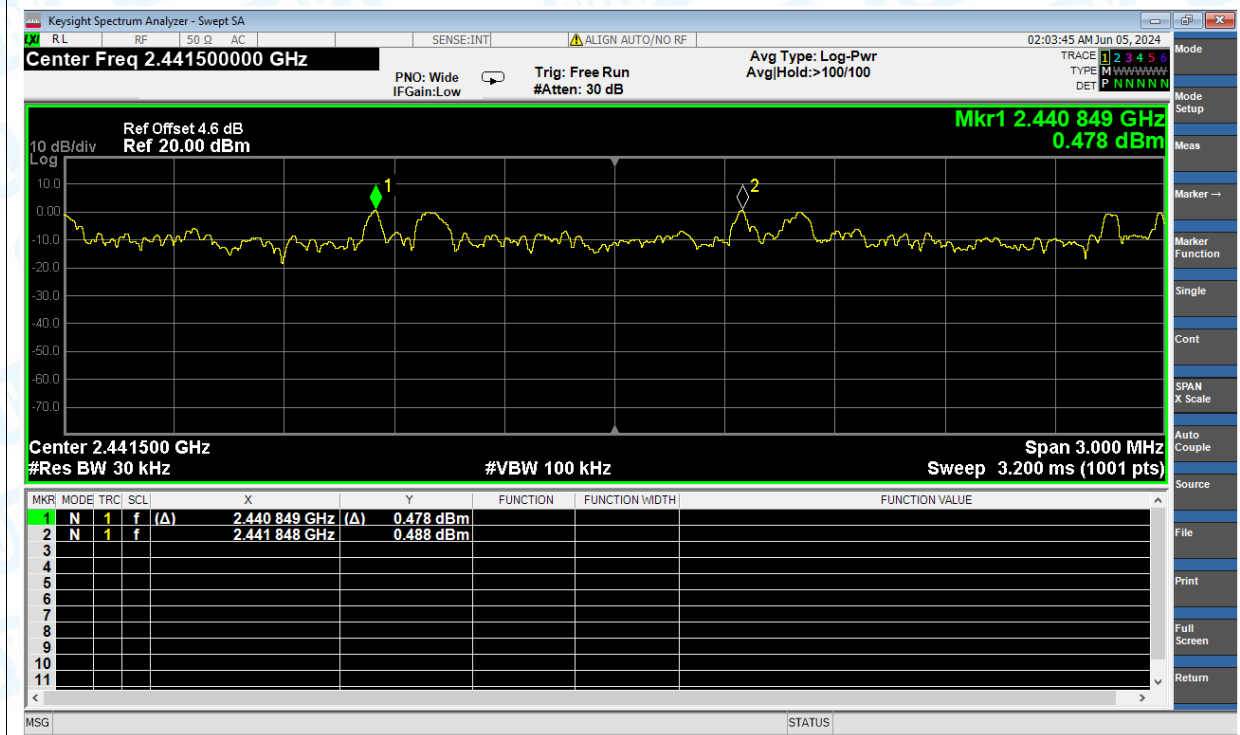
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.855	2442.148	1.293	0.567	Pass
NVNT	2-DH1	Ant1	2440.849	2441.848	0.999	0.847	Pass
NVNT	3-DH1	Ant1	2440.999	2441.848	0.849	0.82	Pass

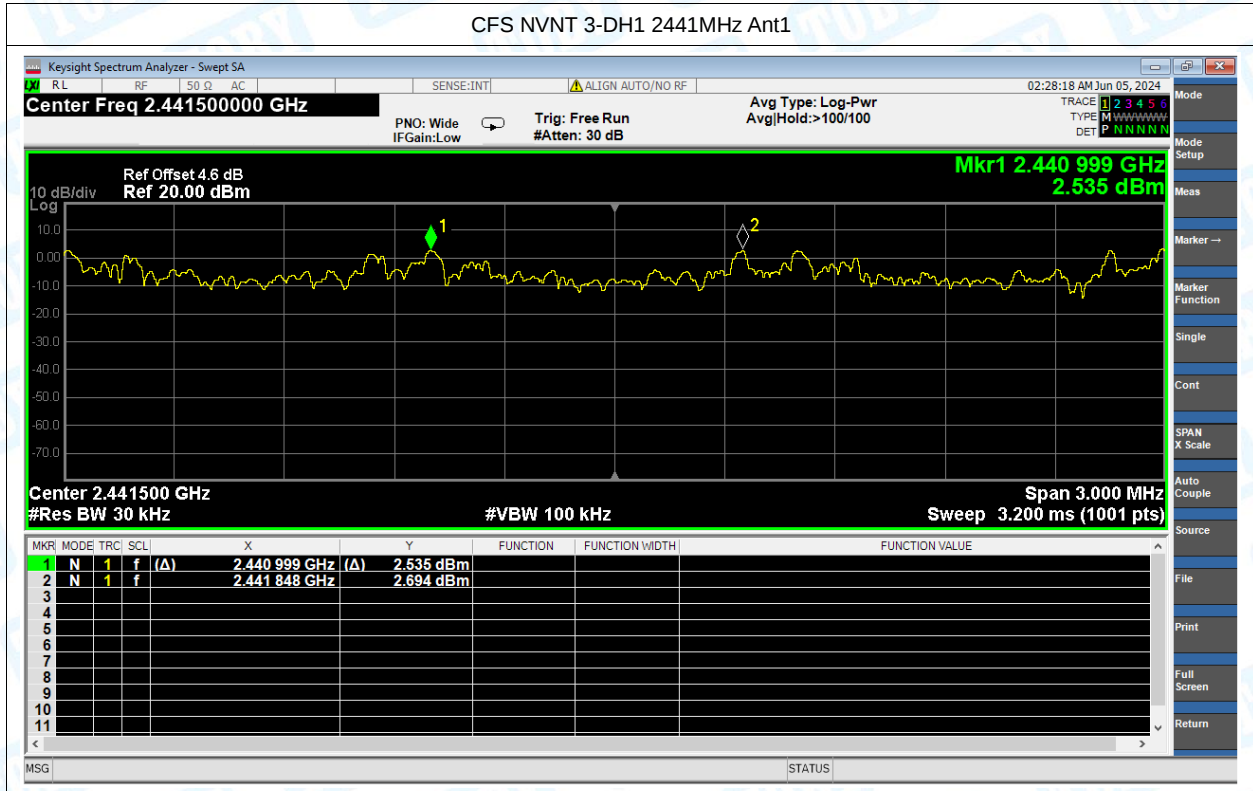
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



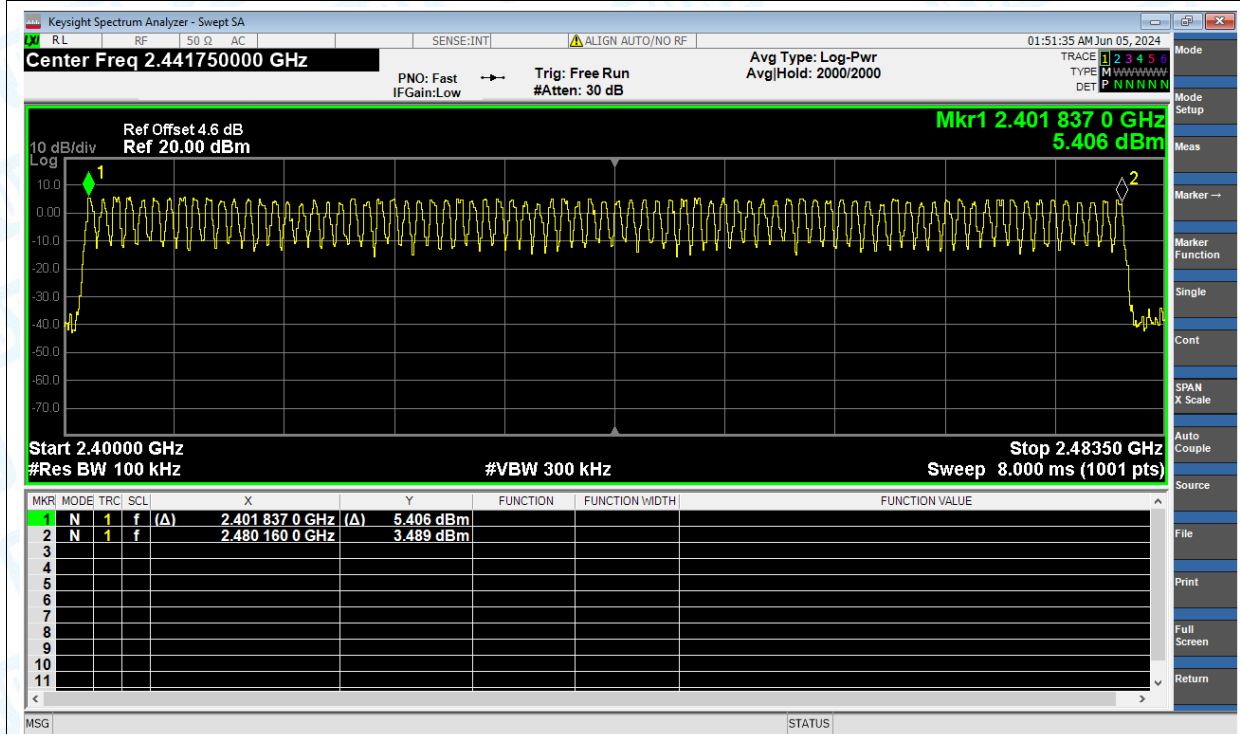


10.Number of Hopping Channel

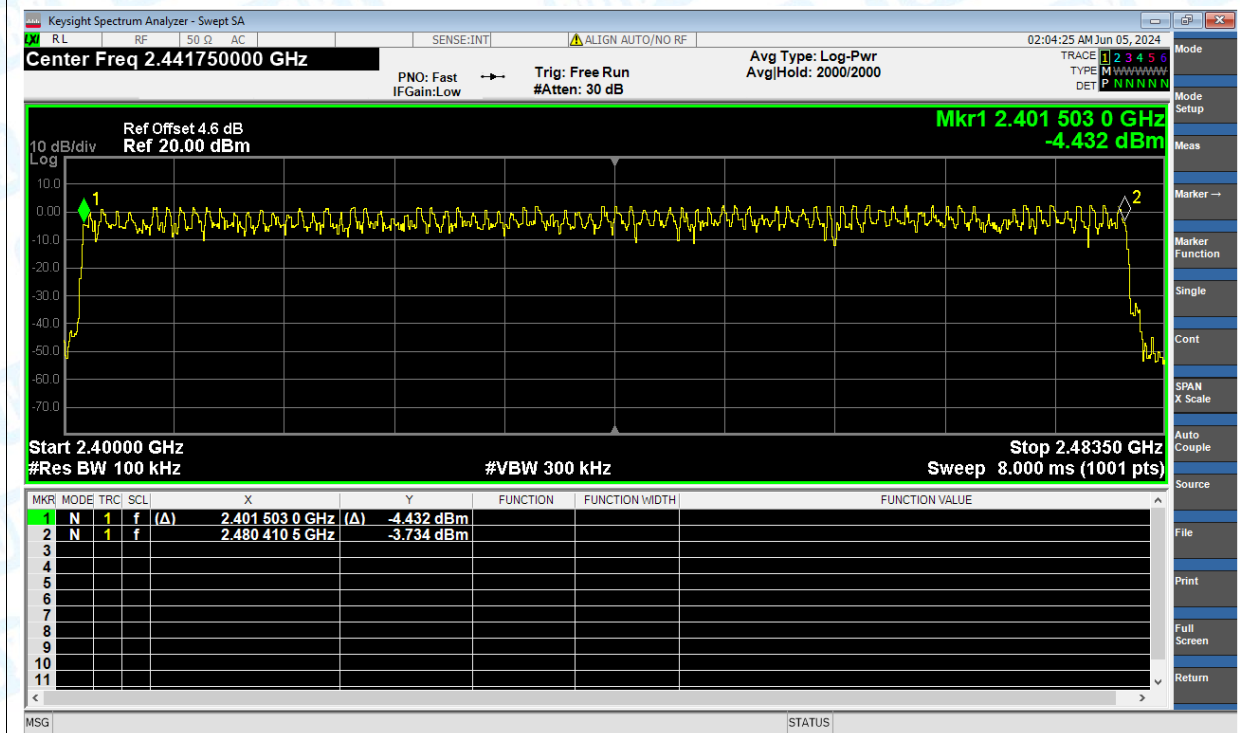
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

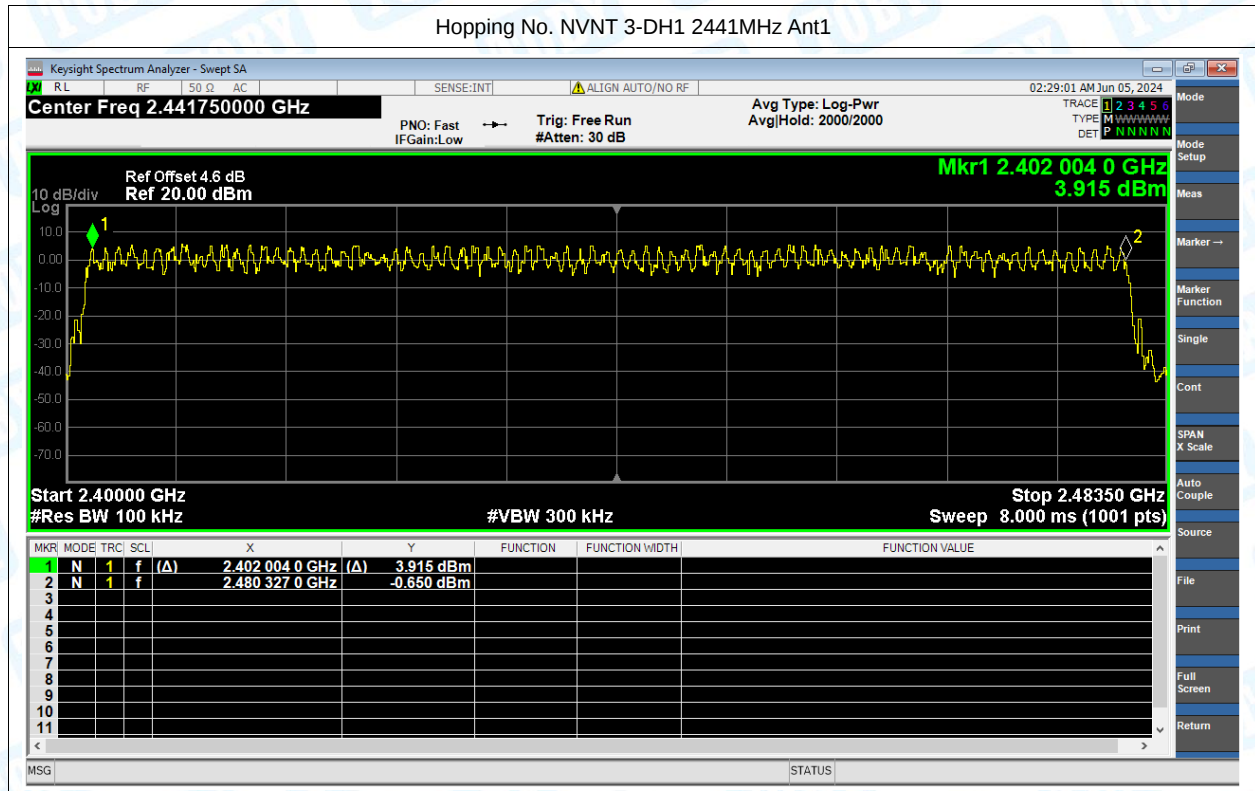
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



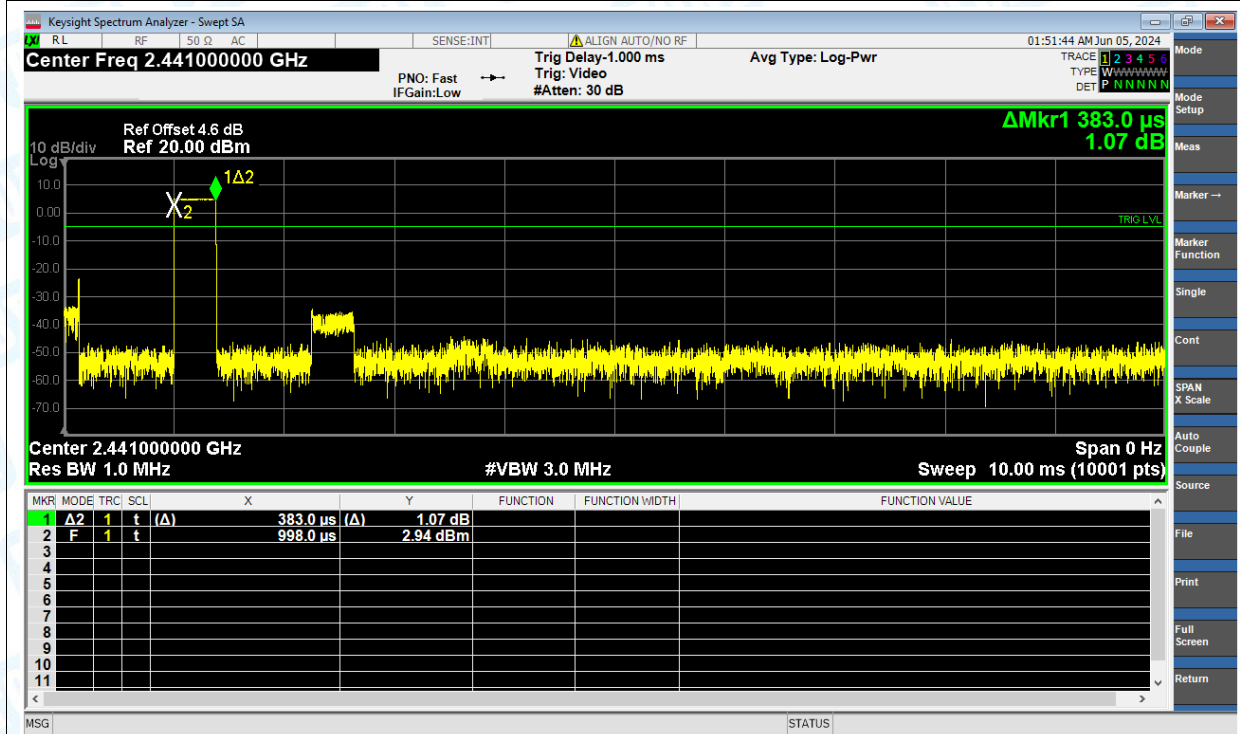


11.Dwell Time

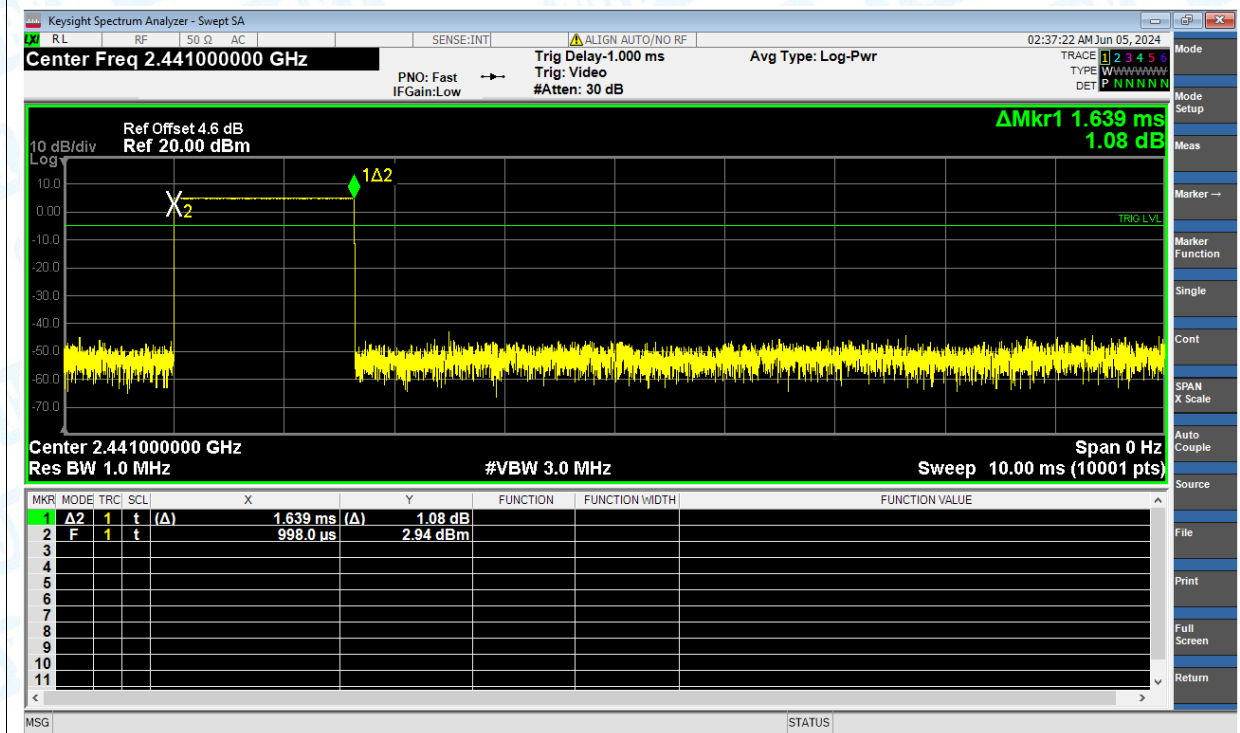
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.383	122.56	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.639	262.24	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.888	308.053	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.392	125.44	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.644	263.04	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.892	308.48	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.392	125.44	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.643	262.88	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.894	308.693	31600	400	Pass

Test Graphs

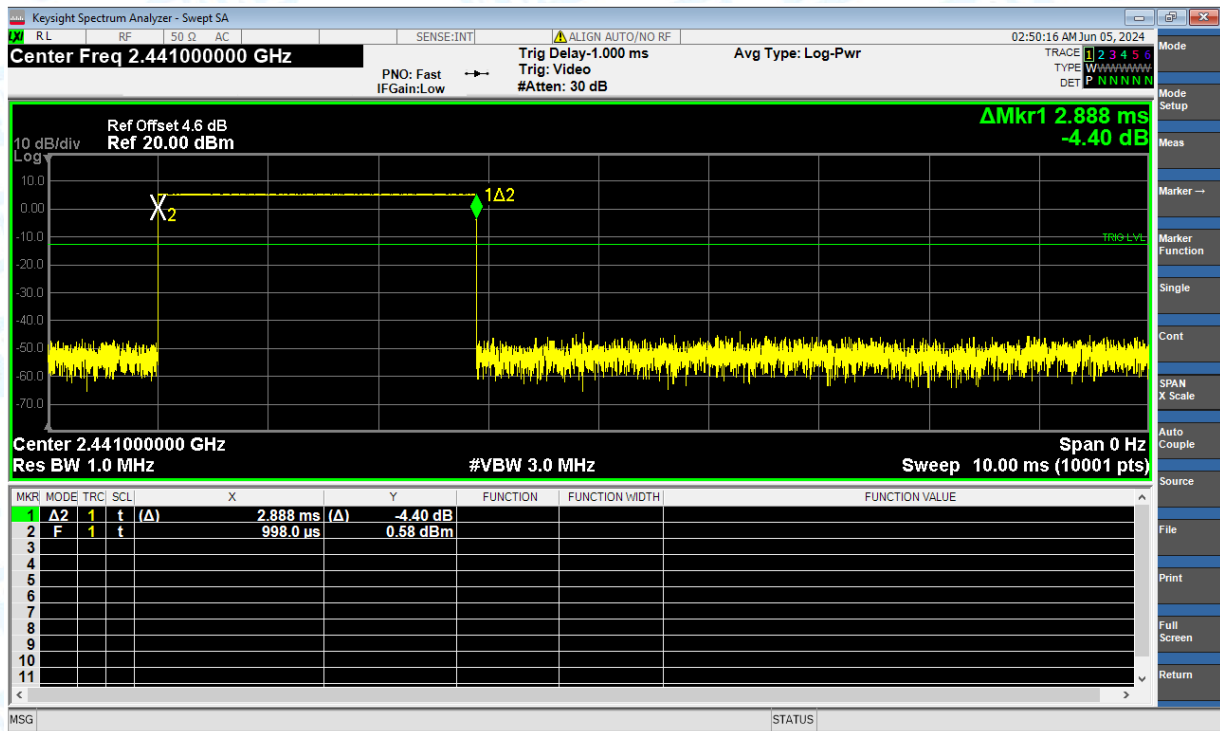
Dwell NVNT 1-DH1 2441MHz Ant1



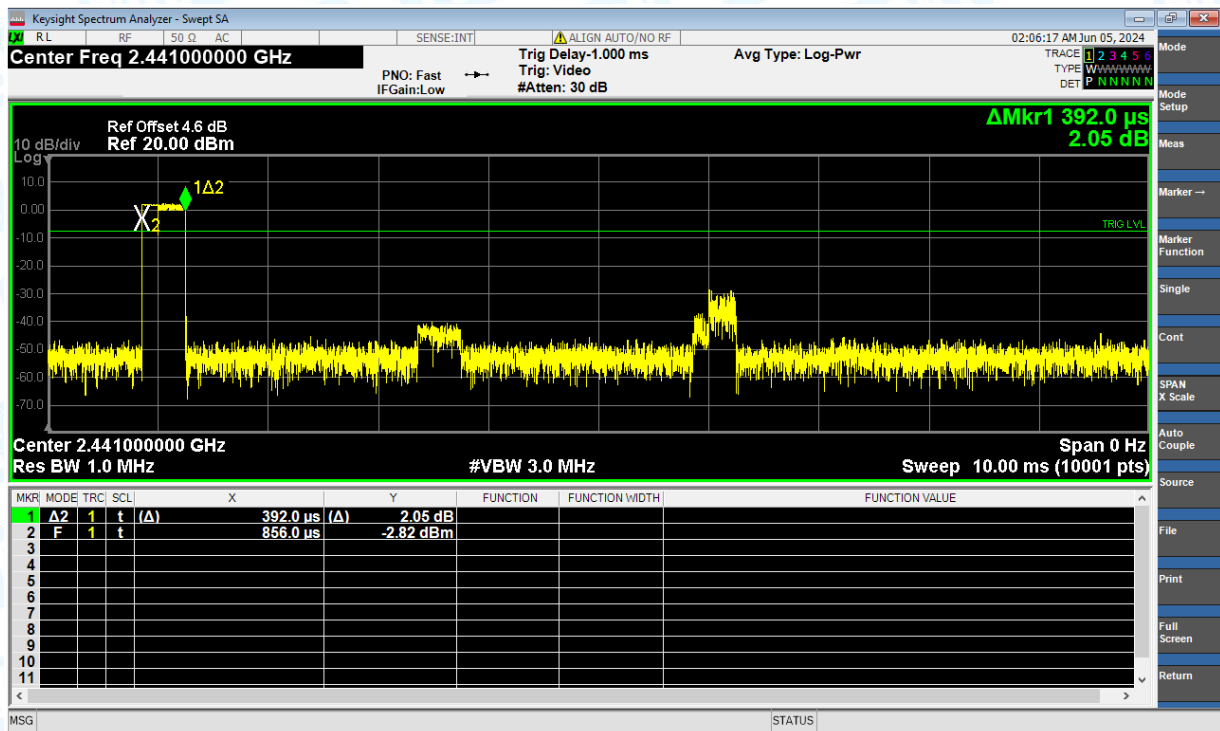
Dwell NVNT 1-DH3 2441MHz Ant1



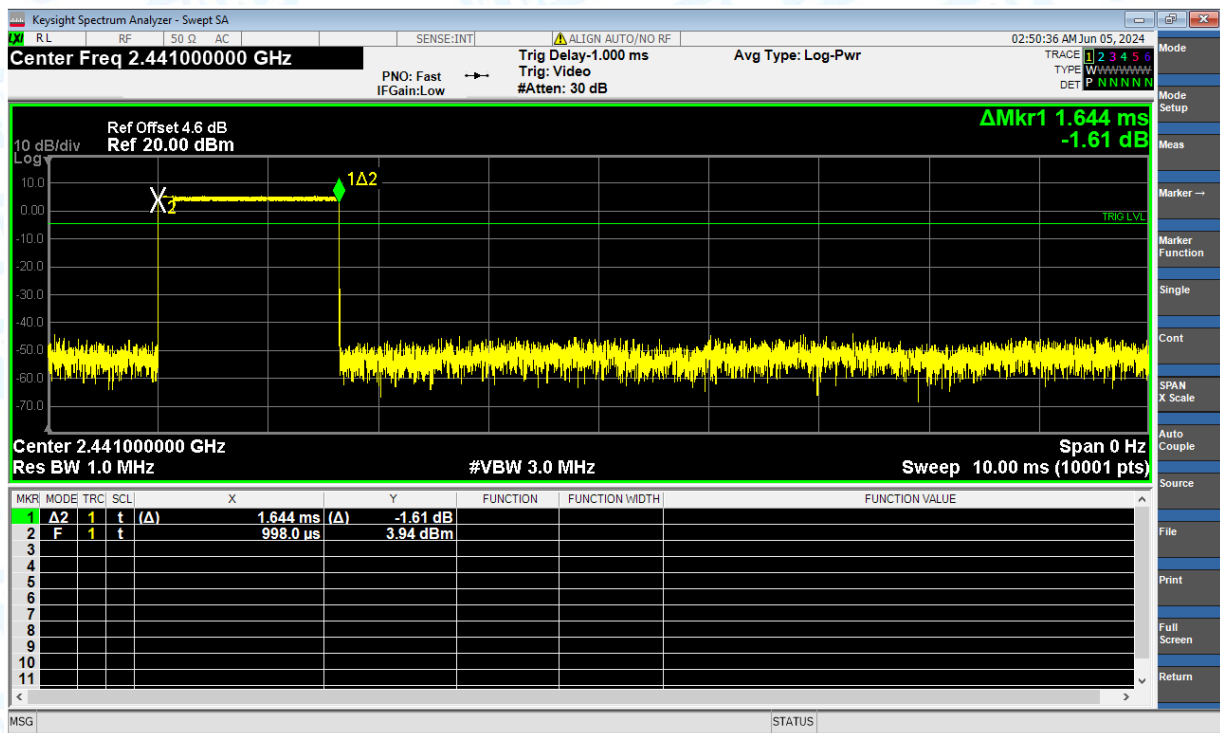
Dwell NVNT 1-DH5 2441MHz Ant1



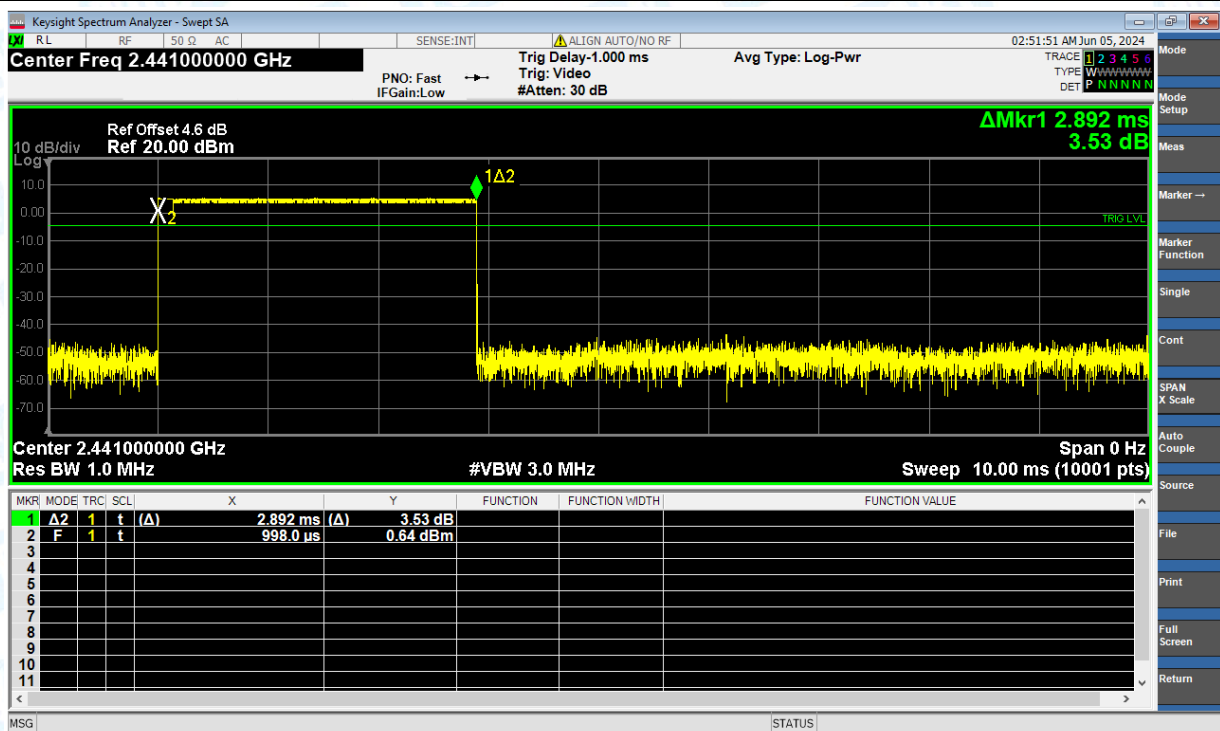
Dwell NVNT 2-DH1 2441MHz Ant1



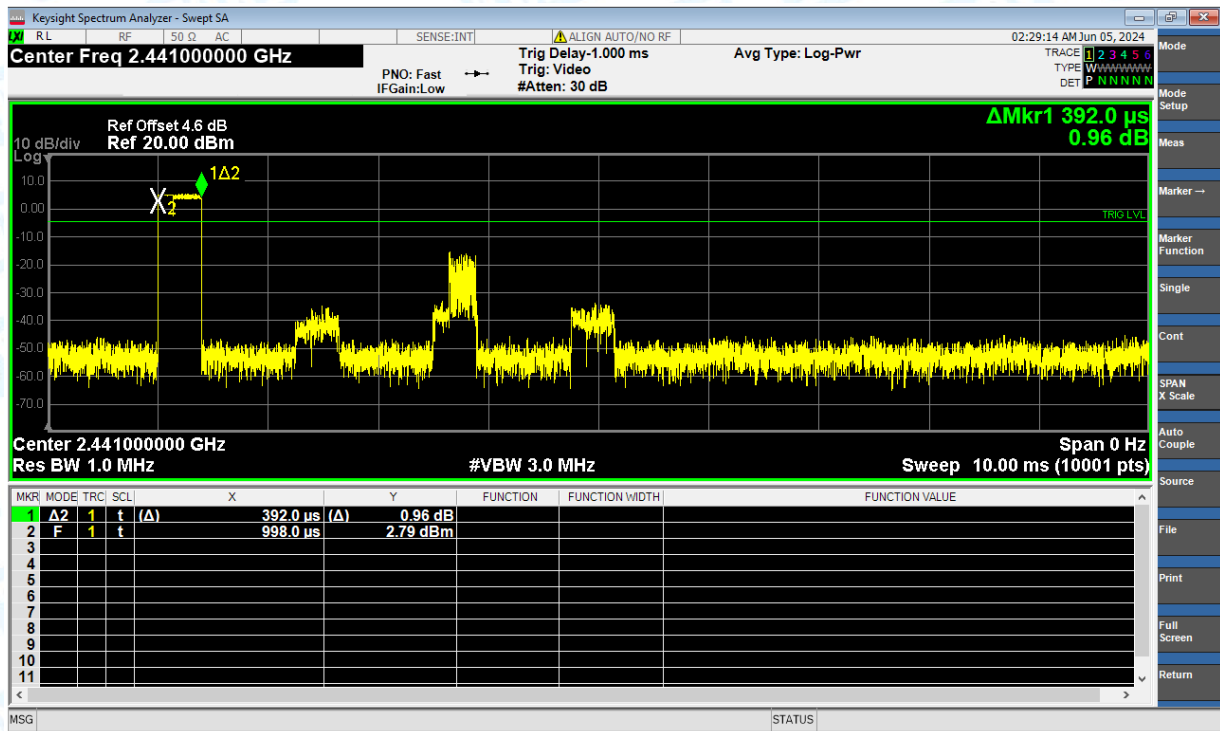
Dwell NVNT 2-DH3 2441MHz Ant1



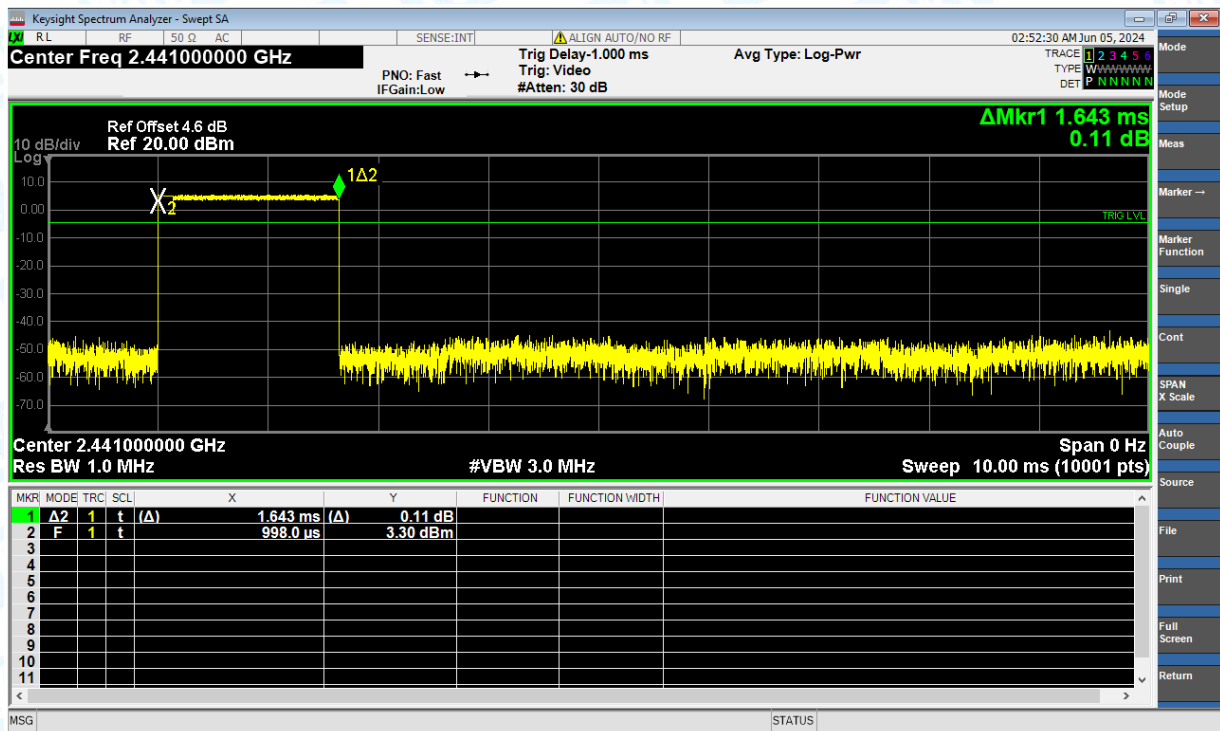
Dwell NVNT 2-DH5 2441MHz Ant1

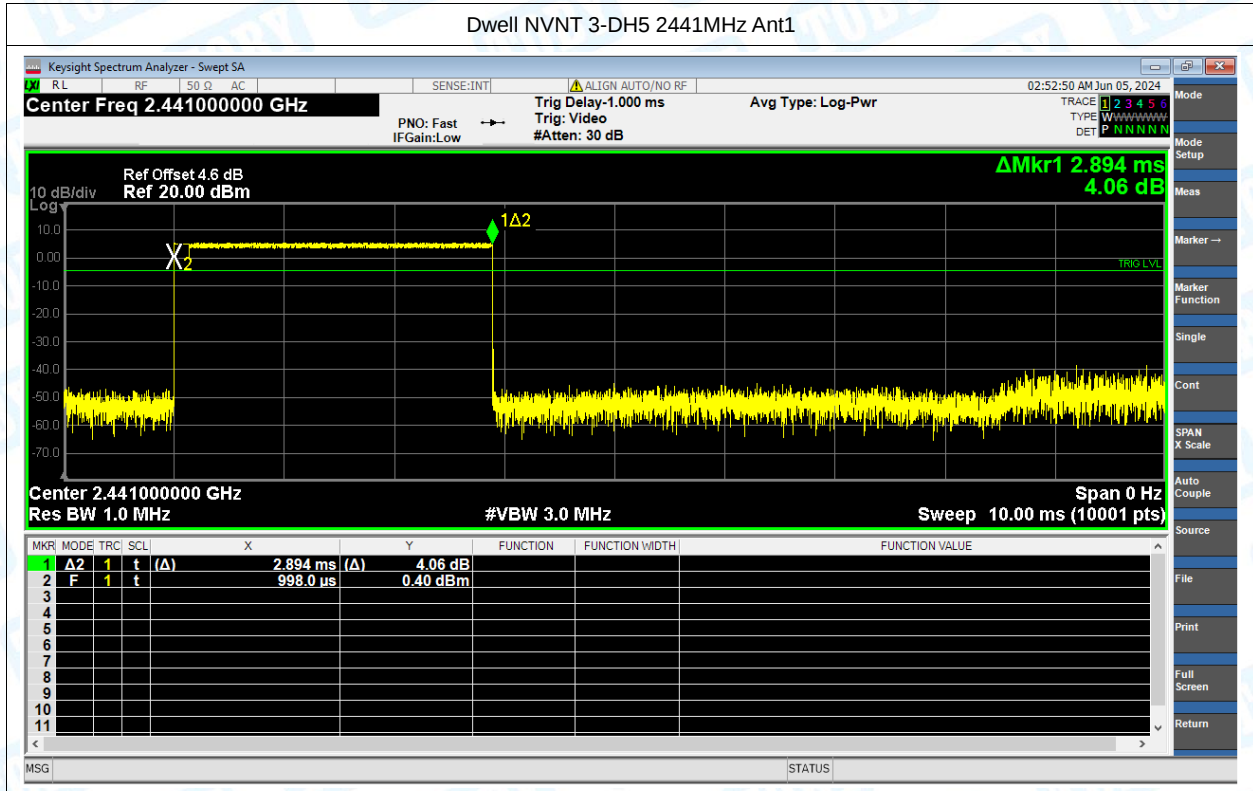


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





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