

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	smart watch
Test Model:	K66
Sample ID:	HC-C-202406-0122-01-01
Environmental Conditions	
Temperature:	24.2℃
Relative Humidity:	52.6%
Test Voltage:	DC 3.8V
Test Engineer:	Jolin Lee
Note: For a more detailed features description, please refer to the report TBR-C-202406-0122-31 The report only show the worst case data.	

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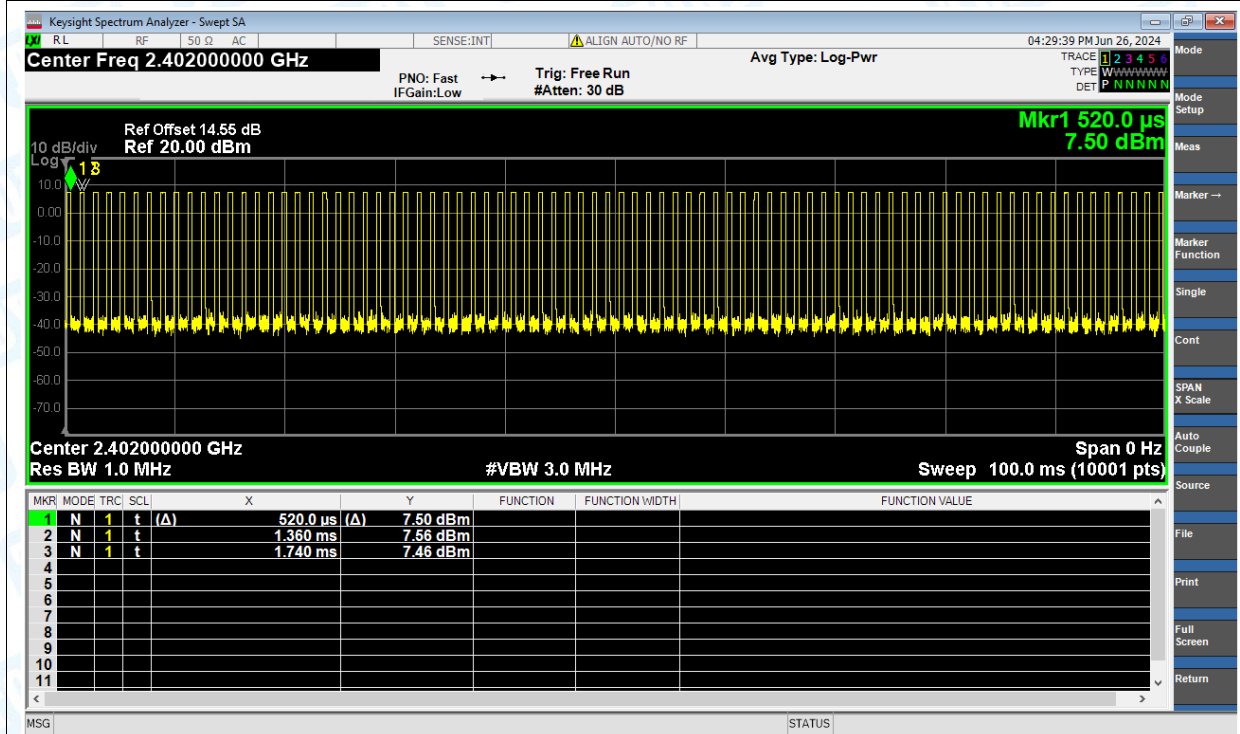
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1. Duty Cycle

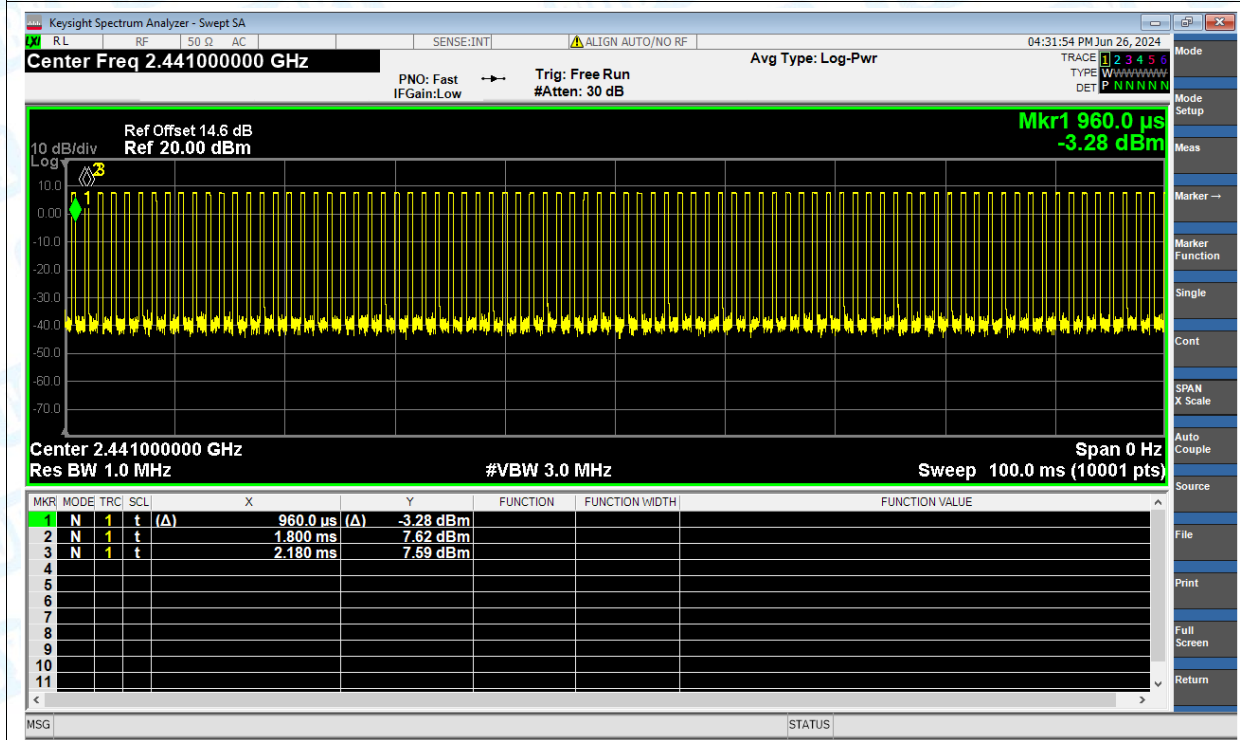
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVHT	1-DH1	2402	Ant1	31.15	5.07	2.63
NVHT	1-DH1	2441	Ant1	31.15	5.07	2.63
NVHT	1-DH1	2480	Ant1	31.71	4.99	2.56
NVHT	2-DH1	2402	Ant1	32.26	4.91	2.5
NVHT	2-DH1	2441	Ant1	31.71	4.99	2.56
NVHT	2-DH1	2480	Ant1	32.26	4.91	2.5
NVHT	3-DH1	2402	Ant1	31.71	4.99	2.56
NVHT	3-DH1	2441	Ant1	31.45	5.02	2.56
NVHT	3-DH1	2480	Ant1	31.71	4.99	2.56

Test Graphs

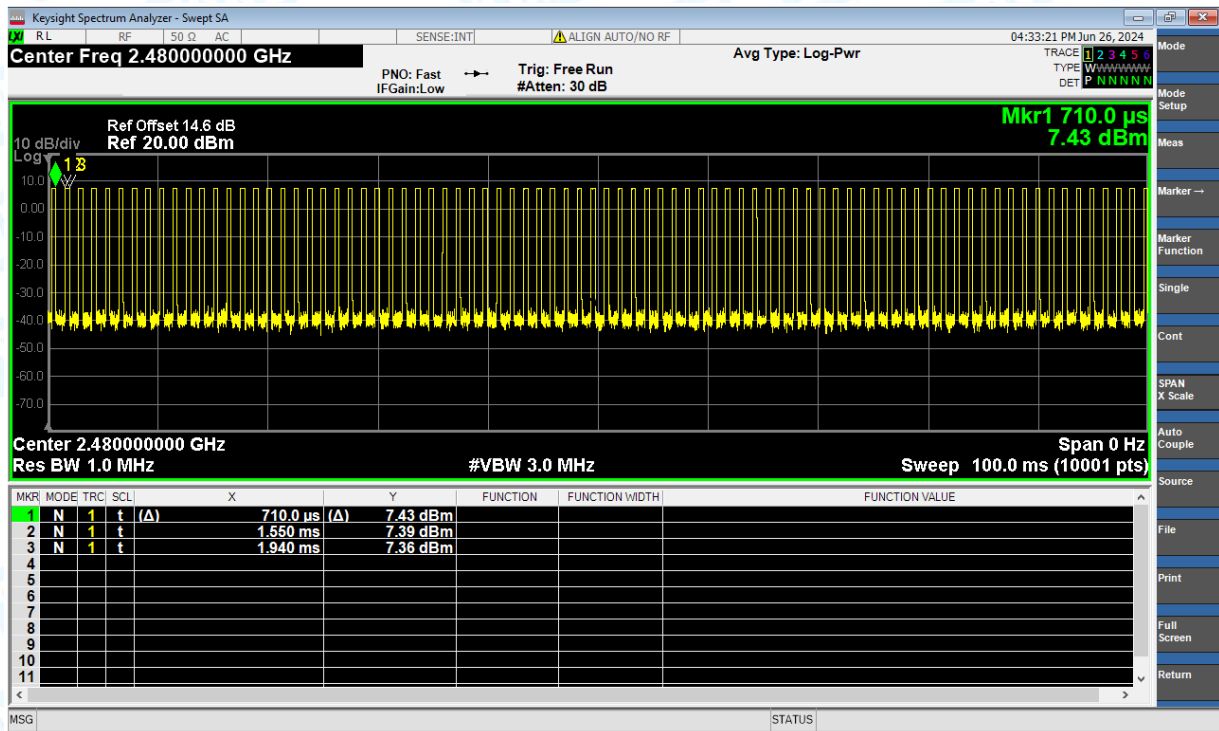
Duty Cycle NVHT 1-DH1 2402MHz Ant1



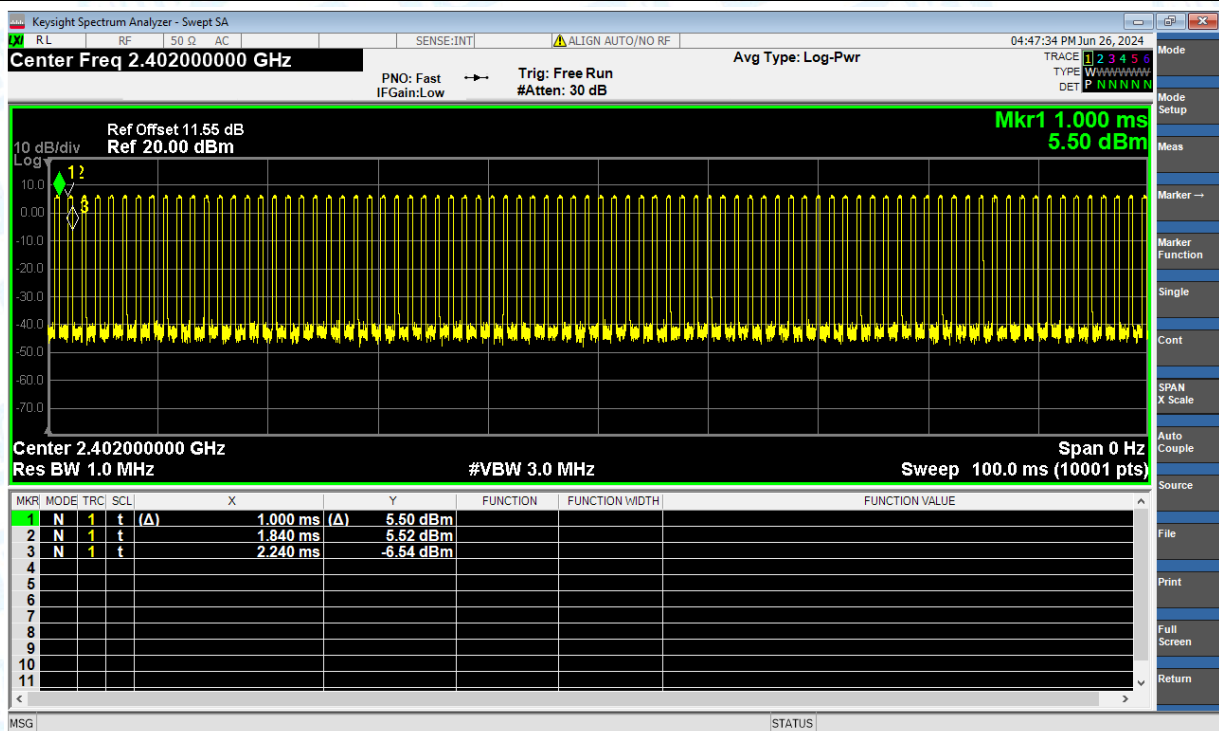
Duty Cycle NVHT 1-DH1 2441MHz Ant1



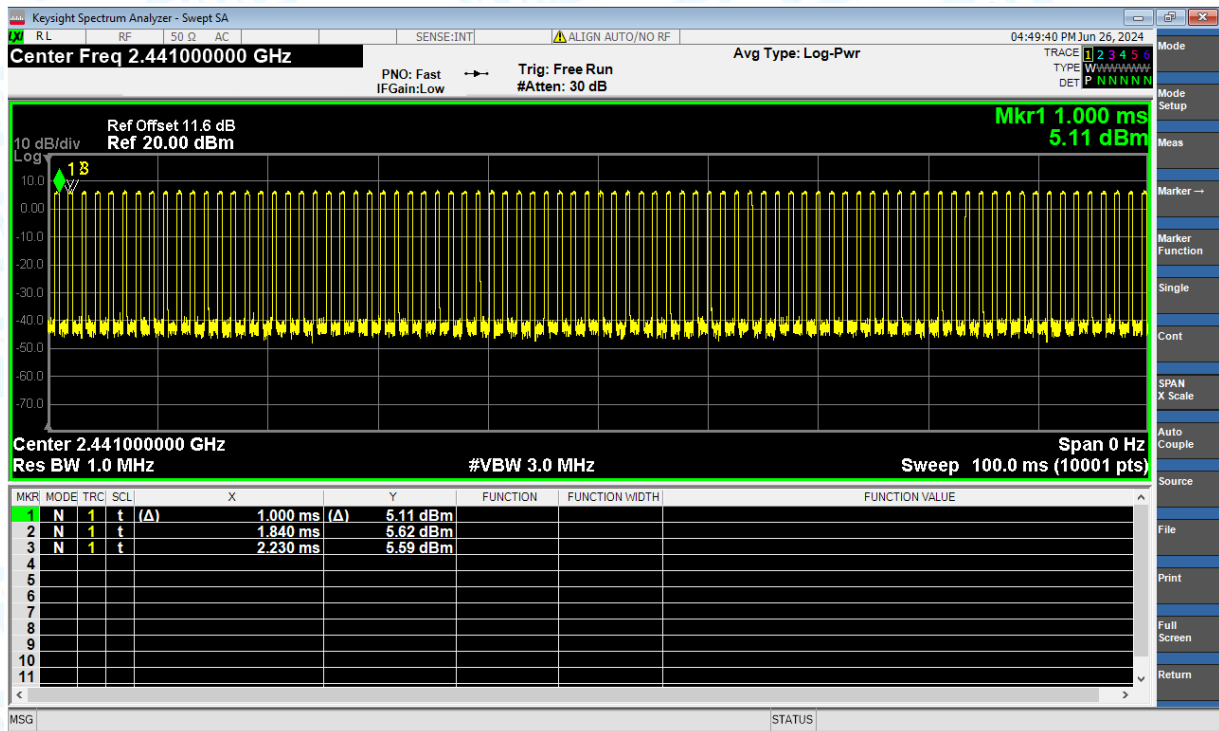
Duty Cycle NVHT 1-DH1 2480MHz Ant1



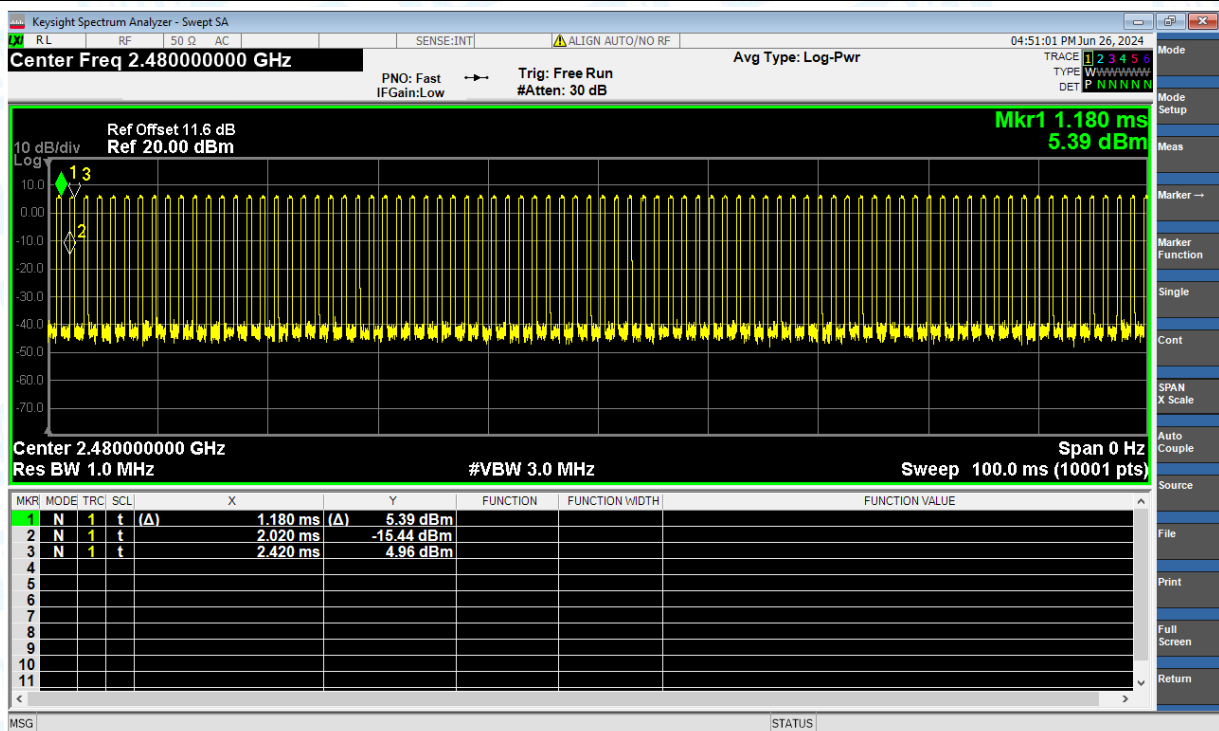
Duty Cycle NVHT 2-DH1 2402MHz Ant1



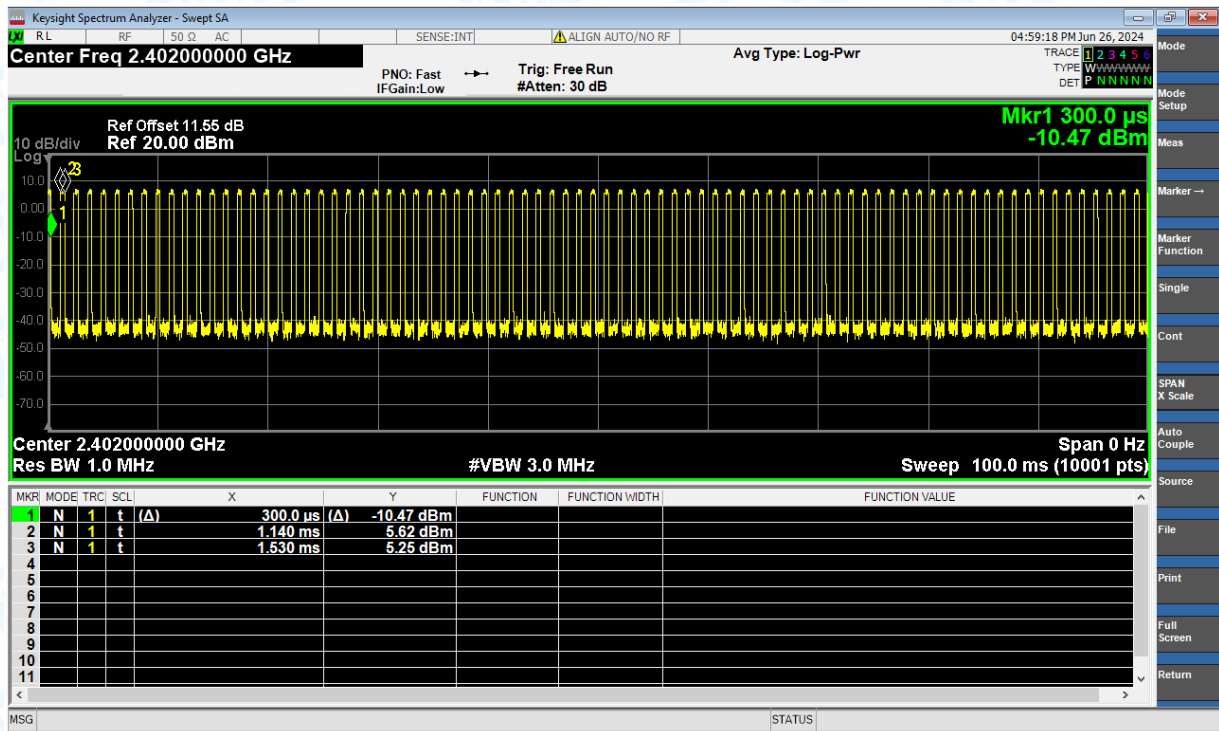
Duty Cycle NVHT 2-DH1 2441MHz Ant1



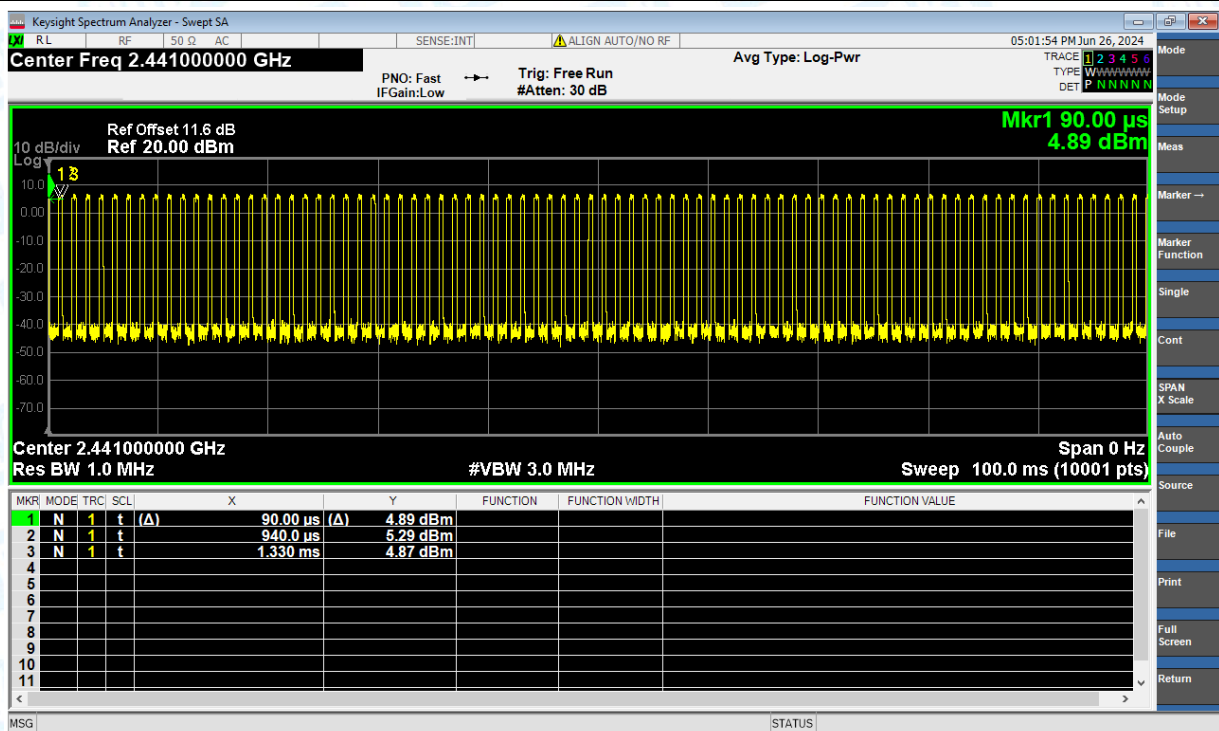
Duty Cycle NVHT 2-DH1 2480MHz Ant1

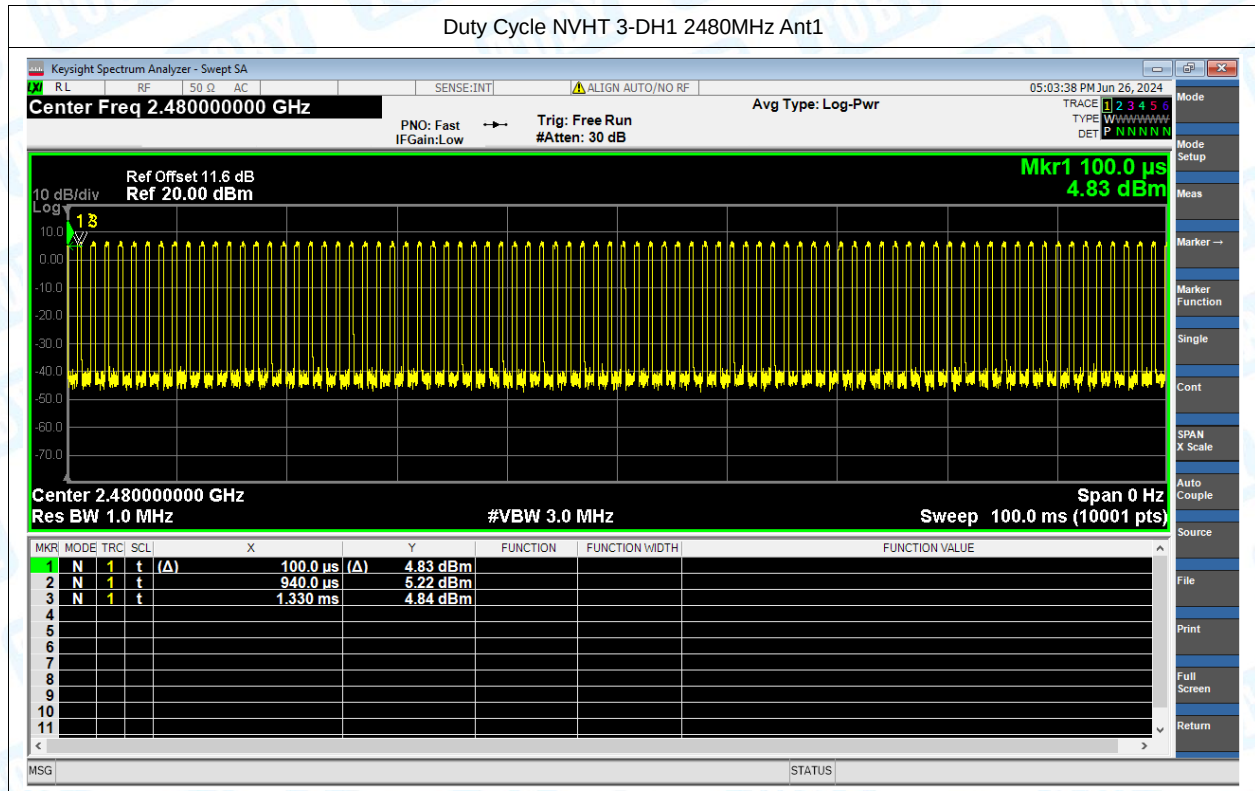


Duty Cycle NVHT 3-DH1 2402MHz Ant1



Duty Cycle NVHT 3-DH1 2441MHz Ant1



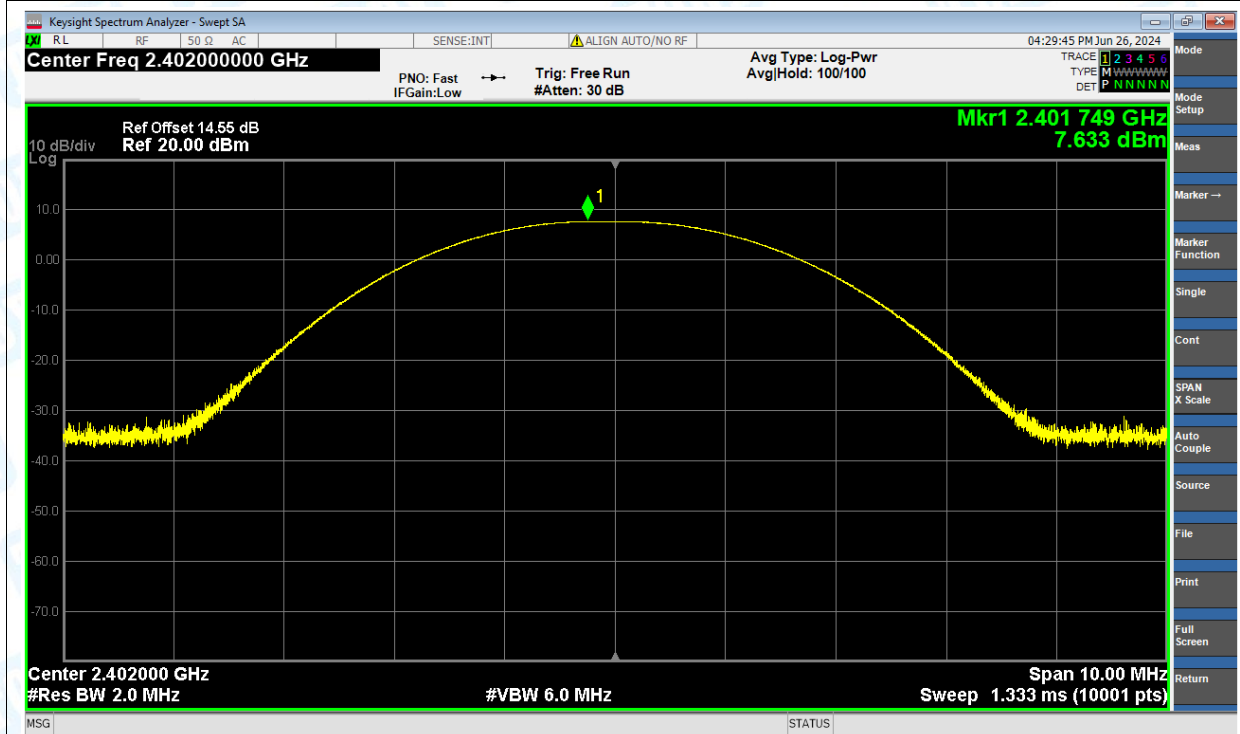


2. Maximum Conducted Output Power

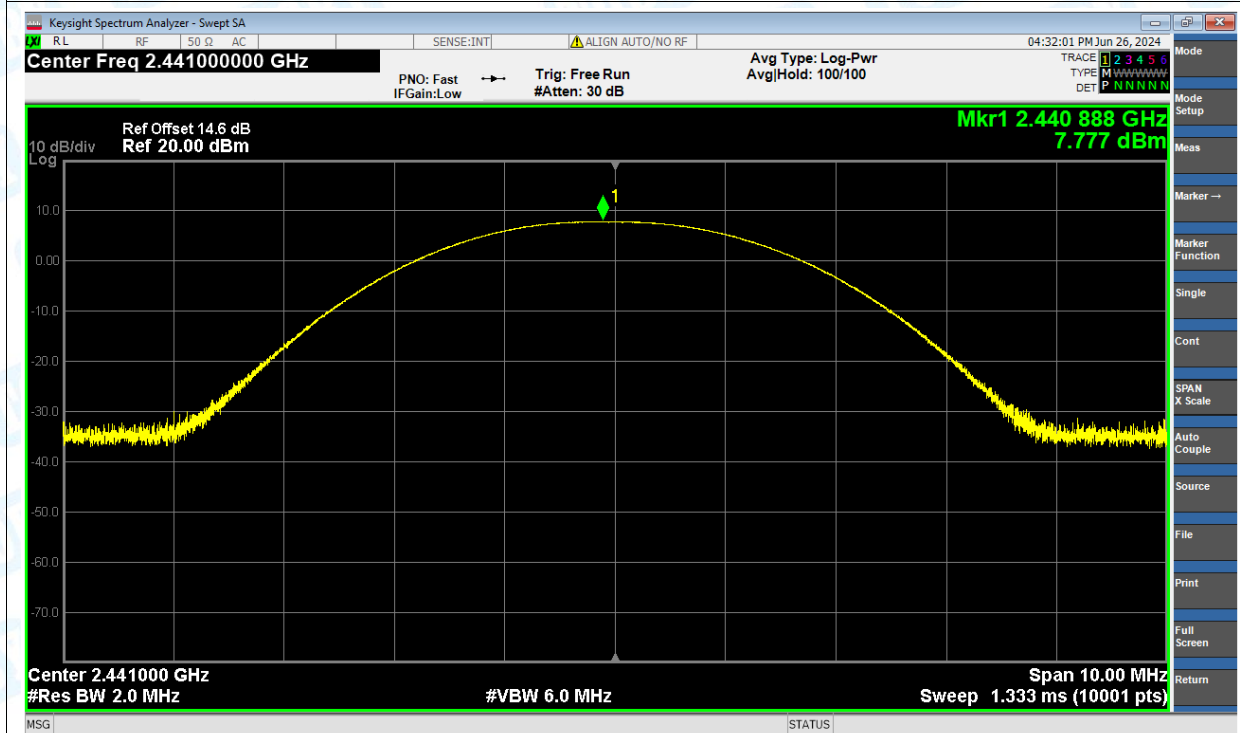
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVHT	1-DH1	2402	Ant1	7.633	21	Pass
NVHT	1-DH1	2441	Ant1	7.777	21	Pass
NVHT	1-DH1	2480	Ant1	7.557	21	Pass
NVHT	1-DH3	2441	Ant1	6.887	21	Pass
NVHT	1-DH5	2441	Ant1	6.84	21	Pass
NVHT	2-DH1	2402	Ant1	6.917	21	Pass
NVHT	2-DH1	2441	Ant1	6.992	21	Pass
NVHT	2-DH1	2480	Ant1	6.85	21	Pass
NVHT	2-DH3	2441	Ant1	6.879	21	Pass
NVHT	2-DH5	2441	Ant1	6.809	21	Pass
NVHT	3-DH1	2402	Ant1	6.347	21	Pass
NVHT	3-DH1	2441	Ant1	7.313	21	Pass
NVHT	3-DH1	2480	Ant1	7.118	21	Pass
NVHT	3-DH3	2441	Ant1	7.376	21	Pass
NVHT	3-DH5	2441	Ant1	7.399	21	Pass

Test Graphs

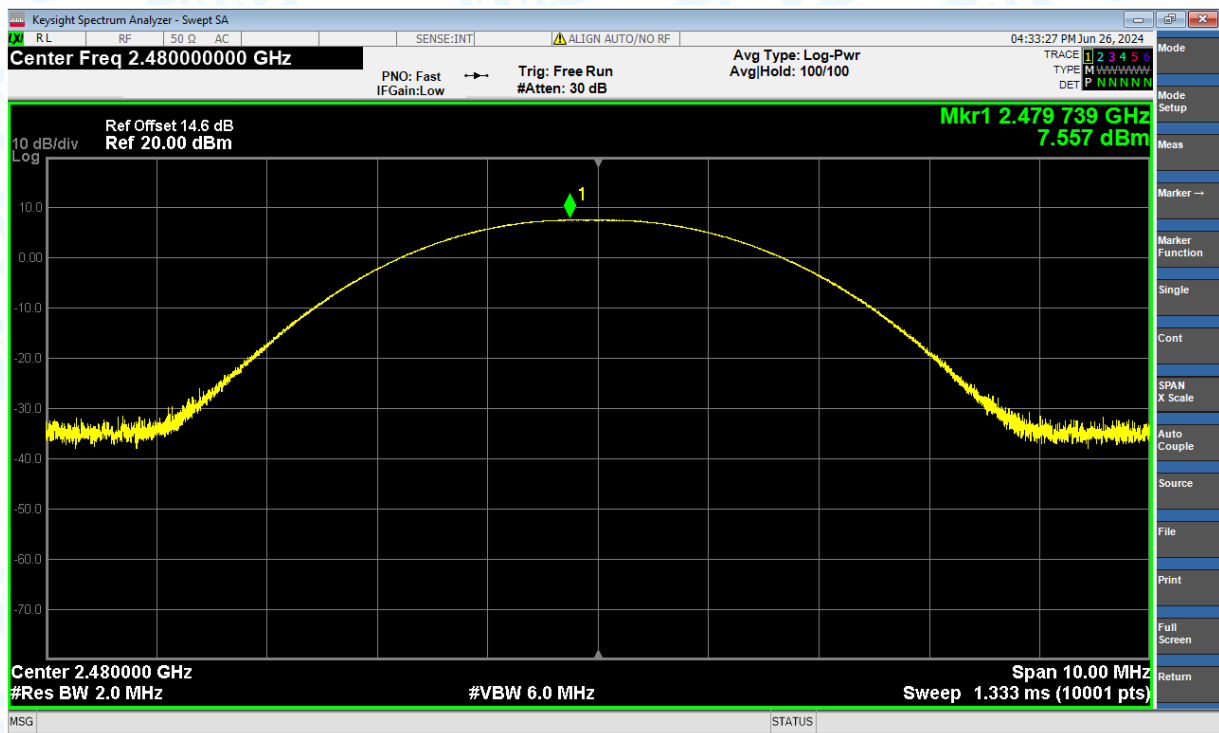
Power NVHT 1-DH1 2402MHz Ant1



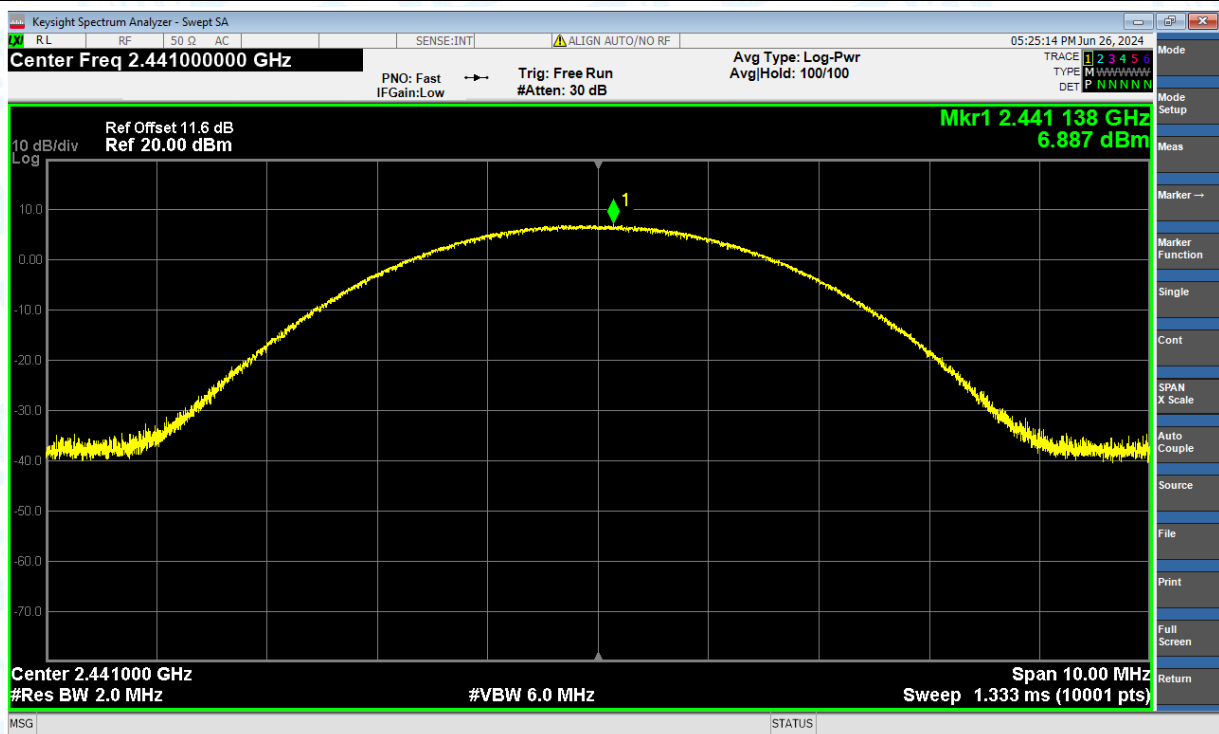
Power NVHT 1-DH1 2441MHz Ant1



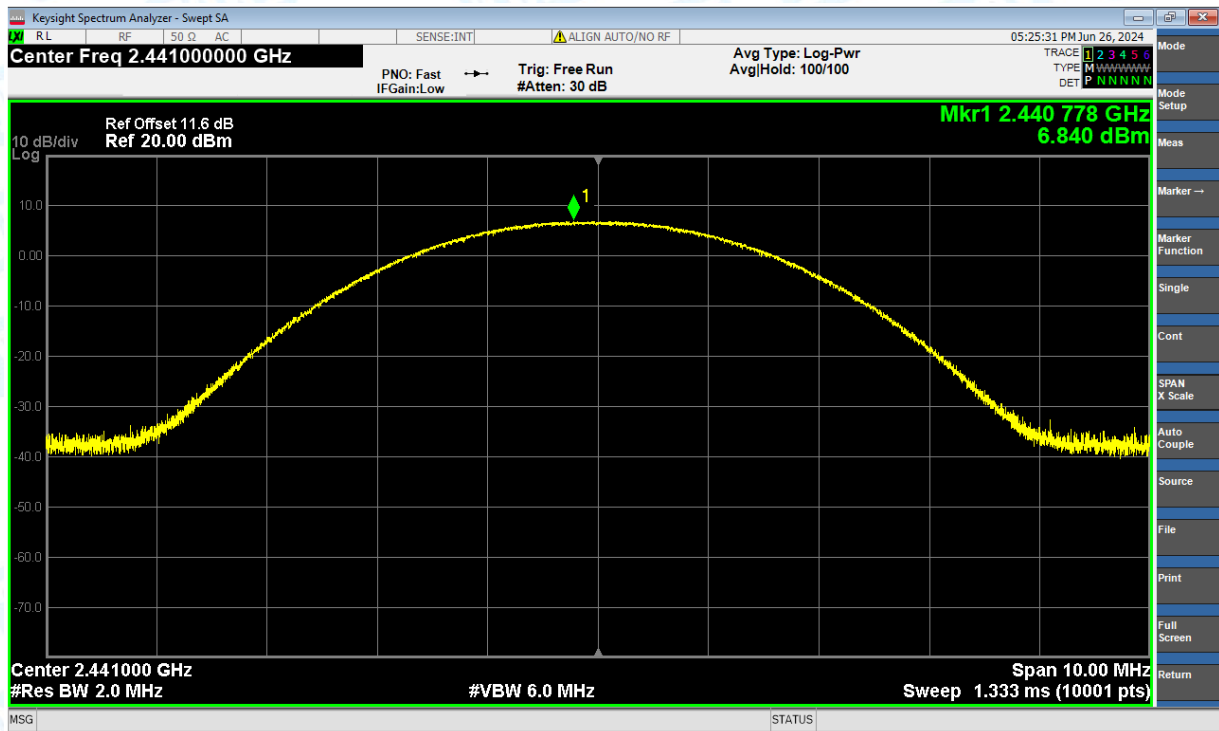
Power NVHT 1-DH1 2480MHz Ant1



Power NVHT 1-DH3 2441MHz Ant1



Power NVHT 1-DH5 2441MHz Ant1



Power NVHT 2-DH1 2402MHz Ant1



Power NVHT 2-DH1 2441MHz Ant1



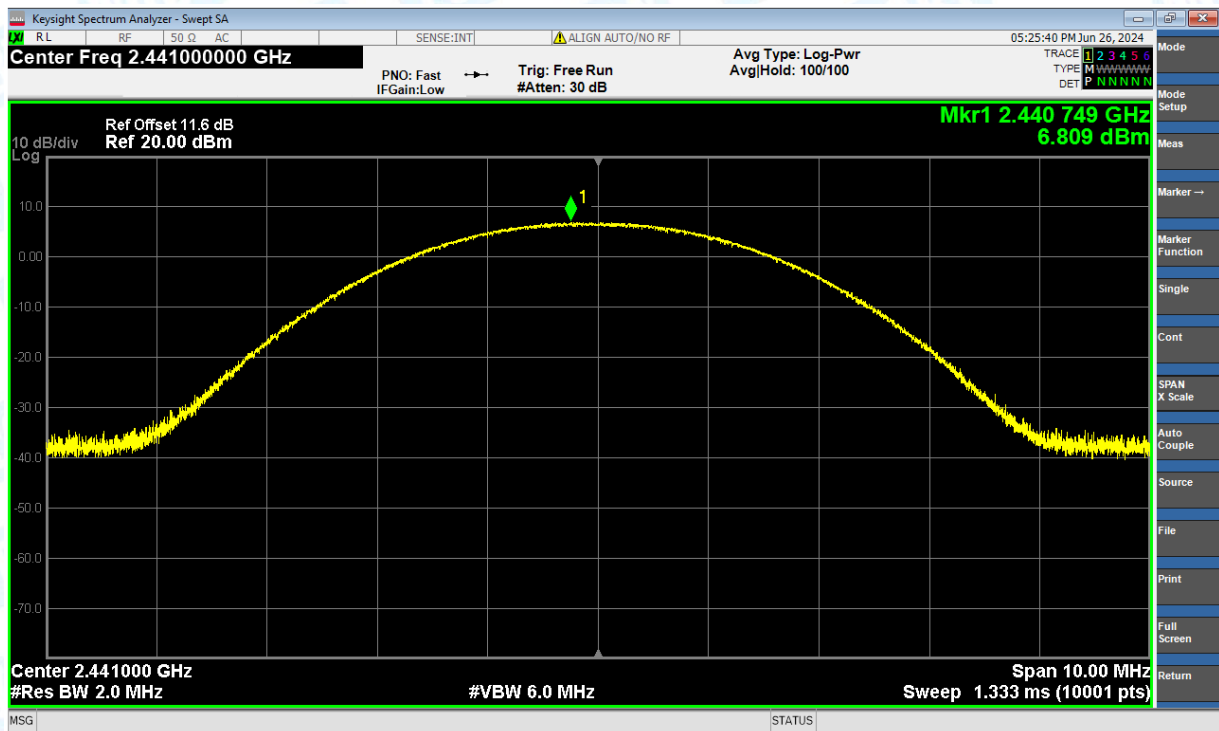
Power NVHT 2-DH1 2480MHz Ant1



Power NVHT 2-DH3 2441MHz Ant1



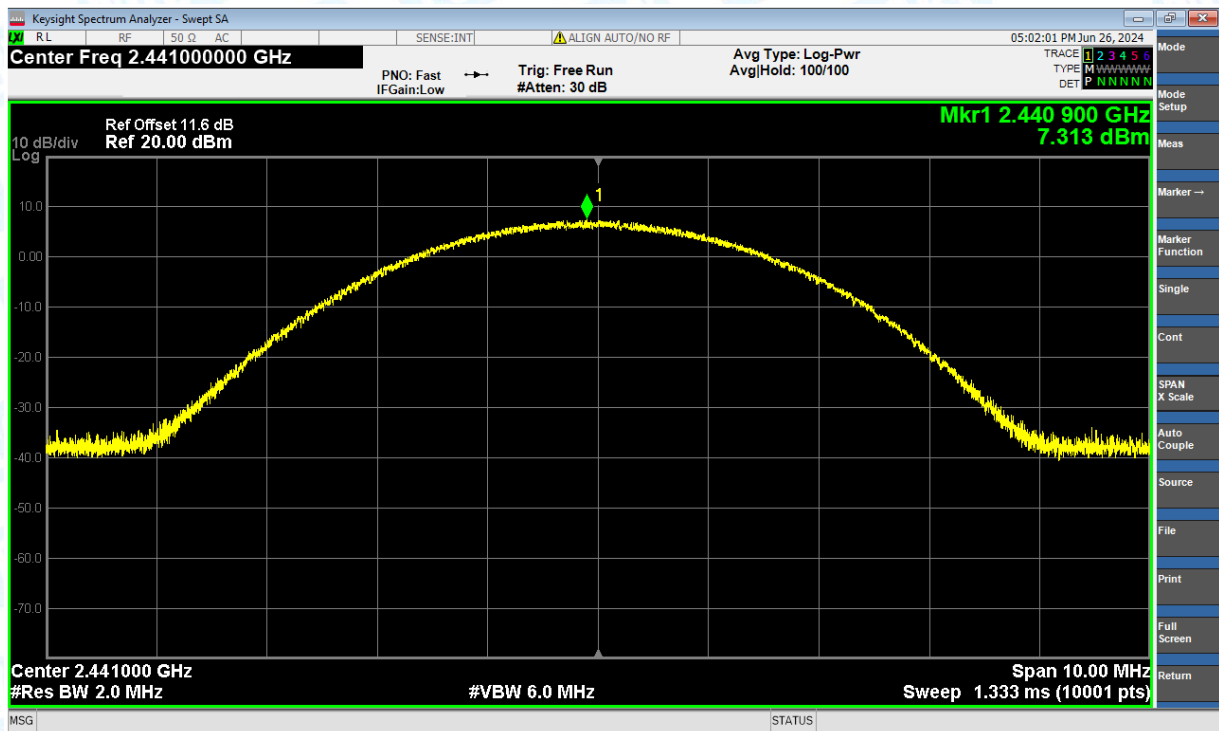
Power NVHT 2-DH5 2441MHz Ant1



Power NVHT 3-DH1 2402MHz Ant1



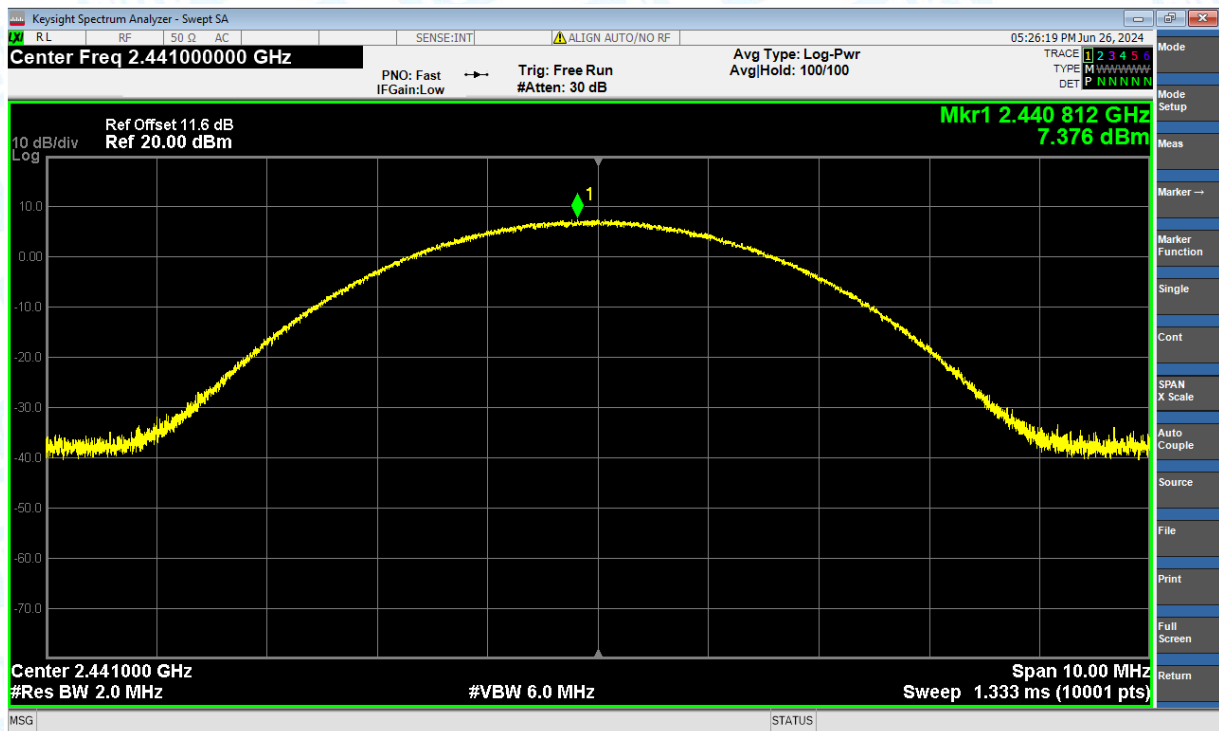
Power NVHT 3-DH1 2441MHz Ant1

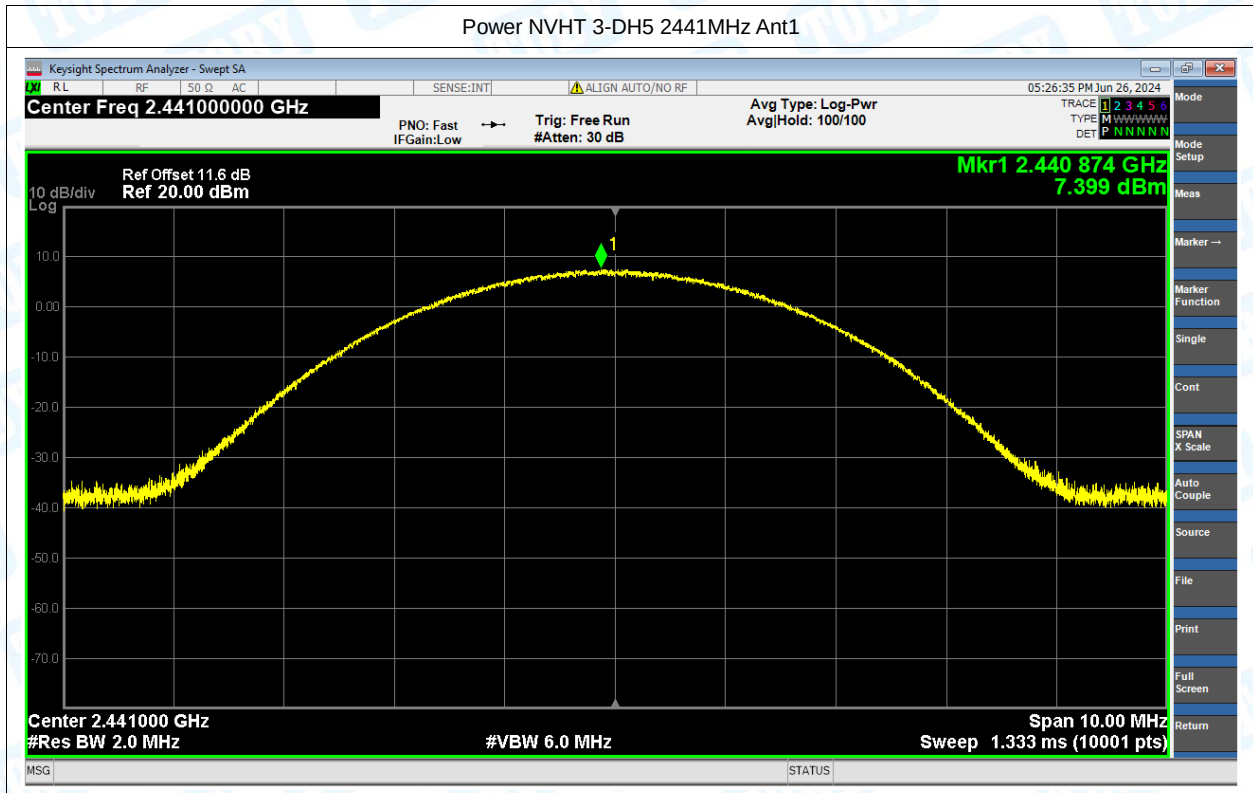


Power NVHT 3-DH1 2480MHz Ant1



Power NVHT 3-DH3 2441MHz Ant1



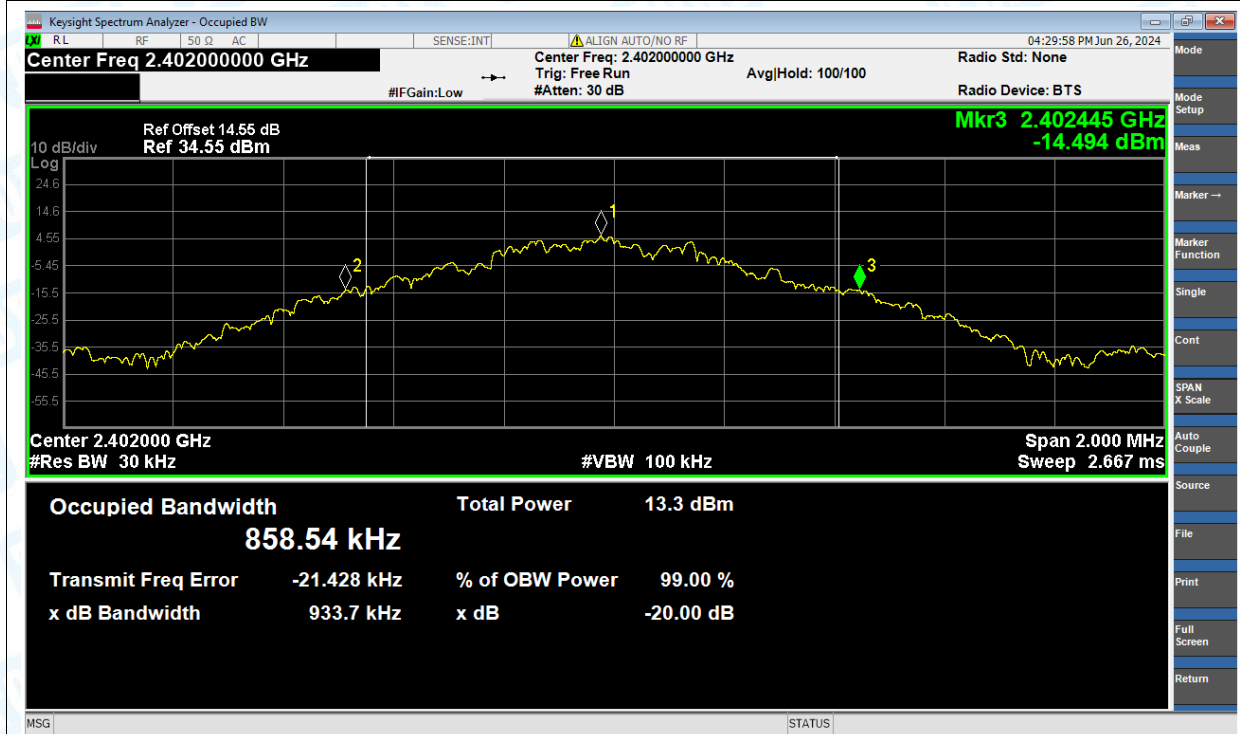


3. -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVHT	1-DH1	2402	Ant1	0.93	0	Pass
NVHT	1-DH1	2441	Ant1	0.95	0	Pass
NVHT	1-DH1	2480	Ant1	0.93	0	Pass
NVHT	2-DH1	2402	Ant1	1.21	0	Pass
NVHT	2-DH1	2441	Ant1	1.22	0	Pass
NVHT	2-DH1	2480	Ant1	1.23	0	Pass
NVHT	3-DH1	2402	Ant1	1.21	0	Pass
NVHT	3-DH1	2441	Ant1	1.21	0	Pass
NVHT	3-DH1	2480	Ant1	1.21	0	Pass

Test Graphs

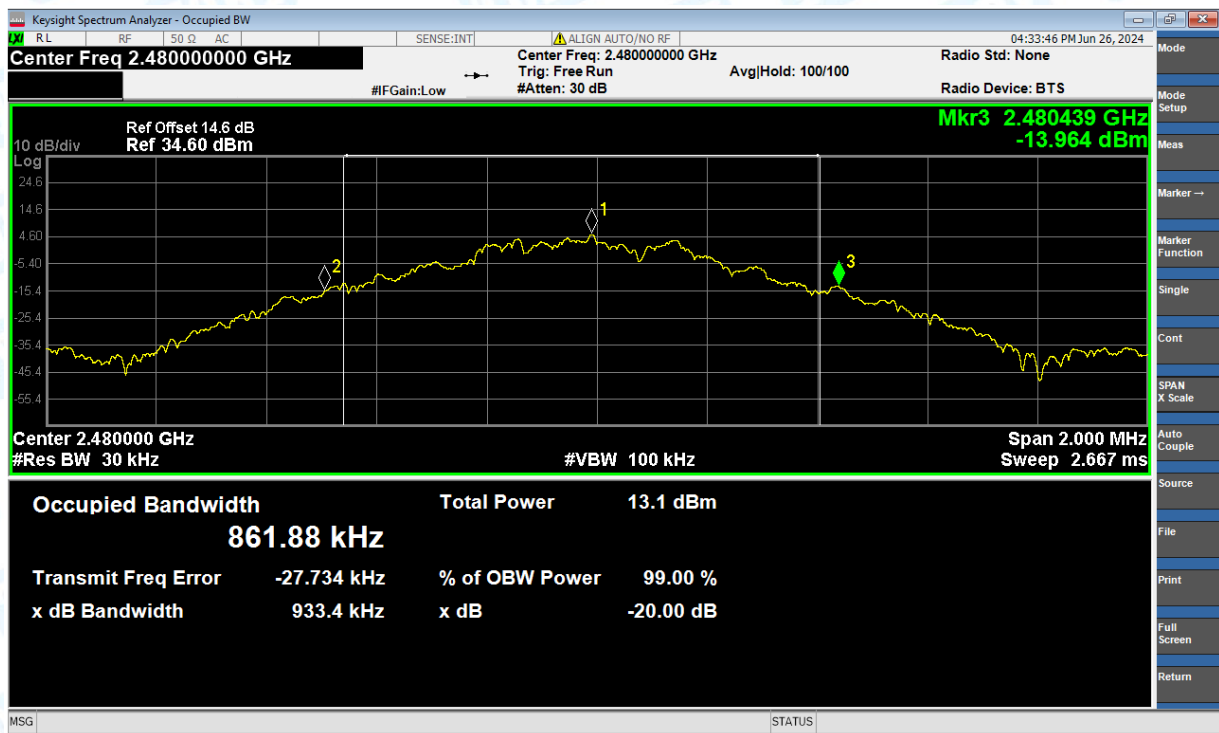
-20dB Bandwidth NVHT 1-DH1 2402MHz Ant1



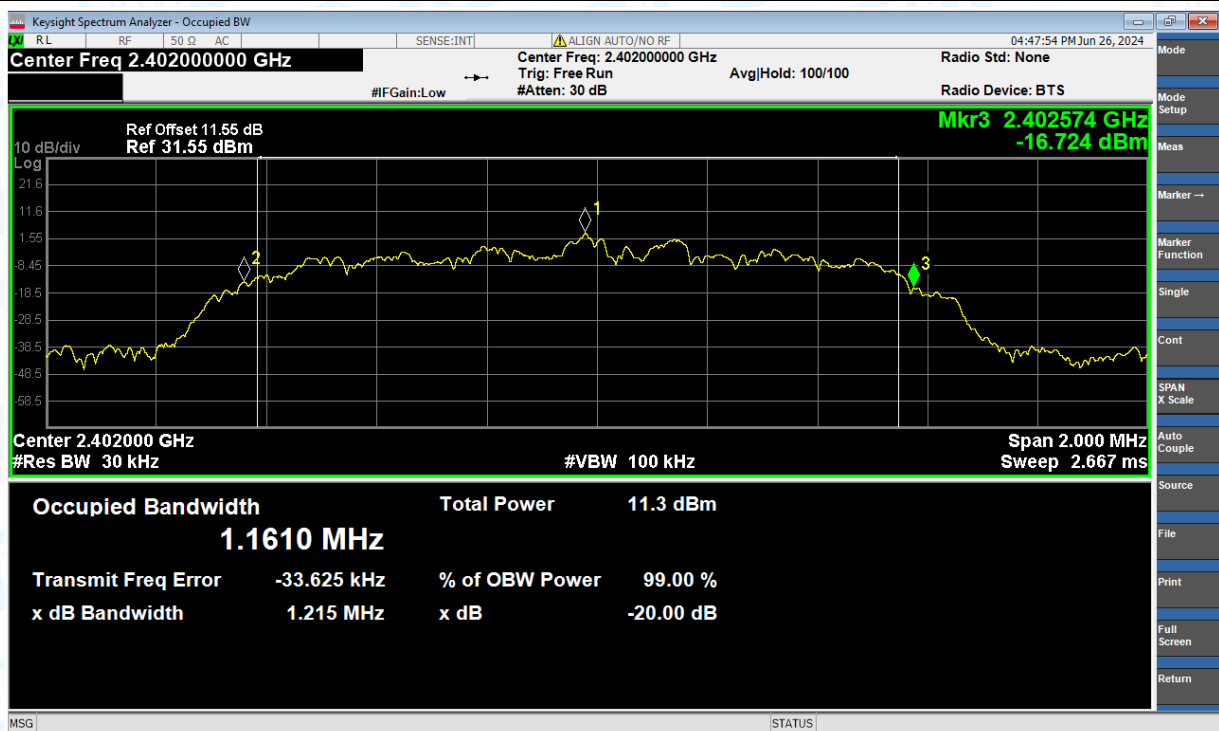
-20dB Bandwidth NVHT 1-DH1 2441MHz Ant1



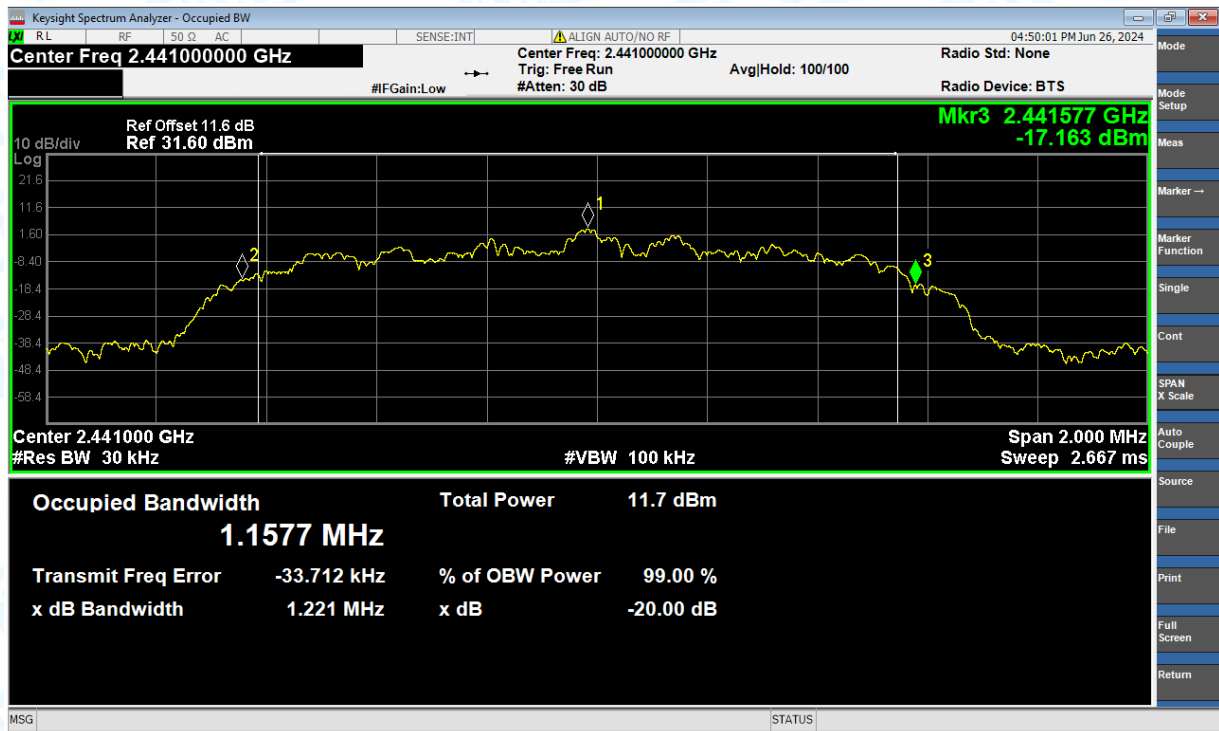
-20dB Bandwidth NVHT 1-DH1 2480MHz Ant1



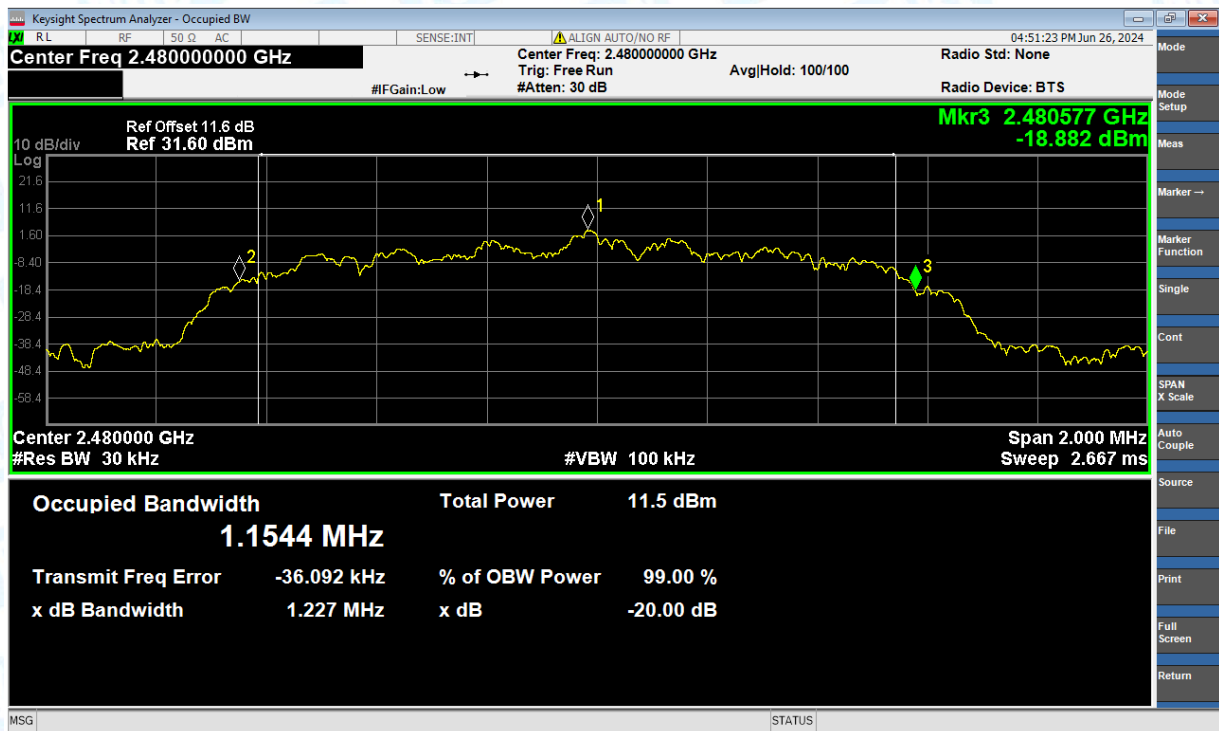
-20dB Bandwidth NVHT 2-DH1 2402MHz Ant1



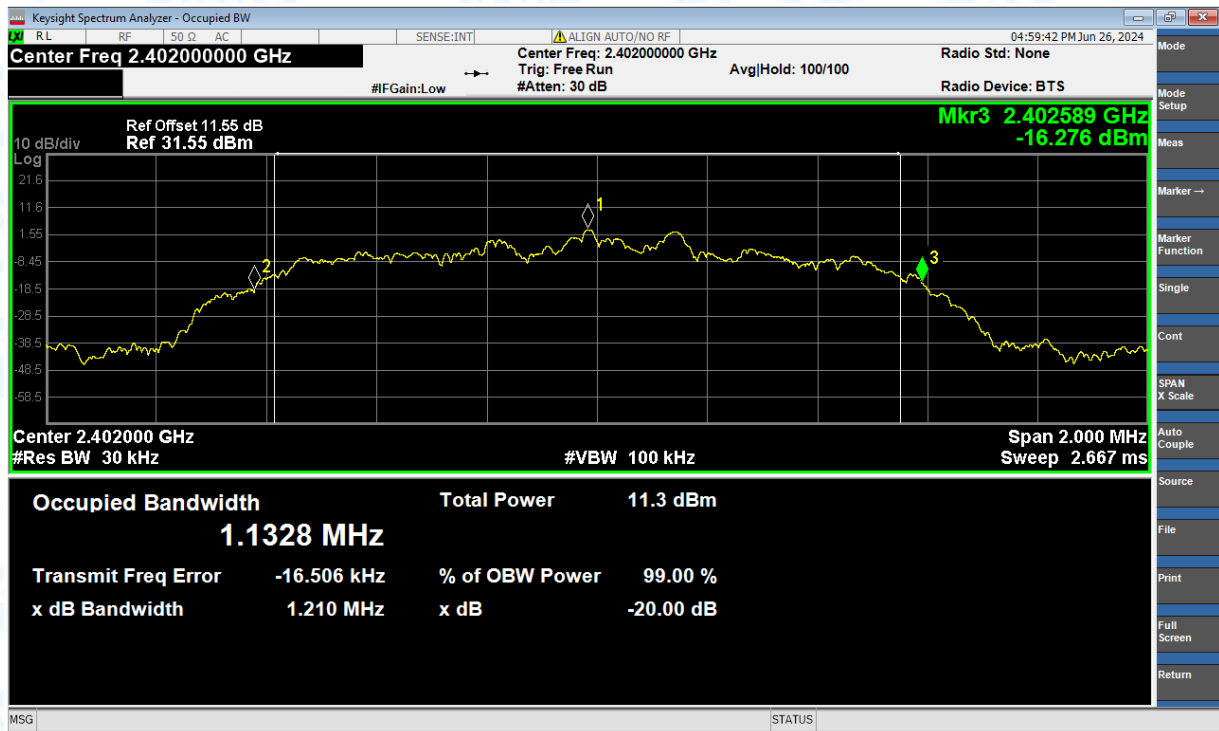
-20dB Bandwidth NVHT 2-DH1 2441MHz Ant1



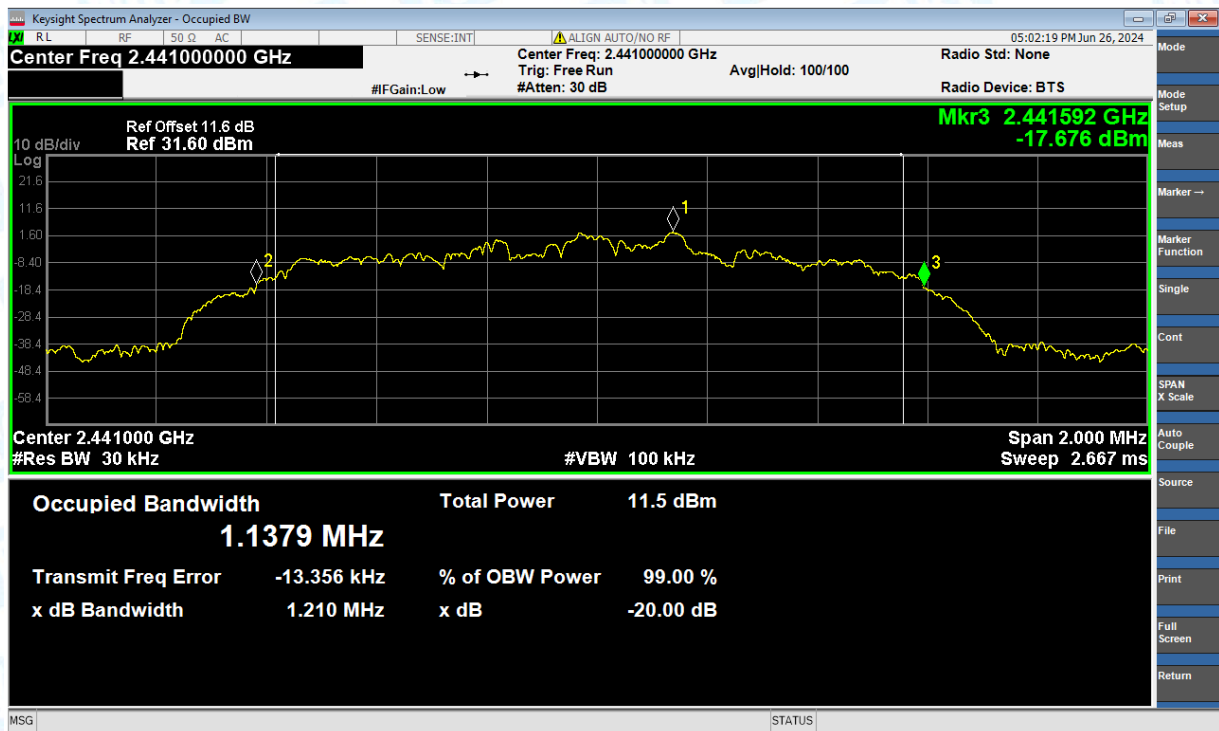
-20dB Bandwidth NVHT 2-DH1 2480MHz Ant1

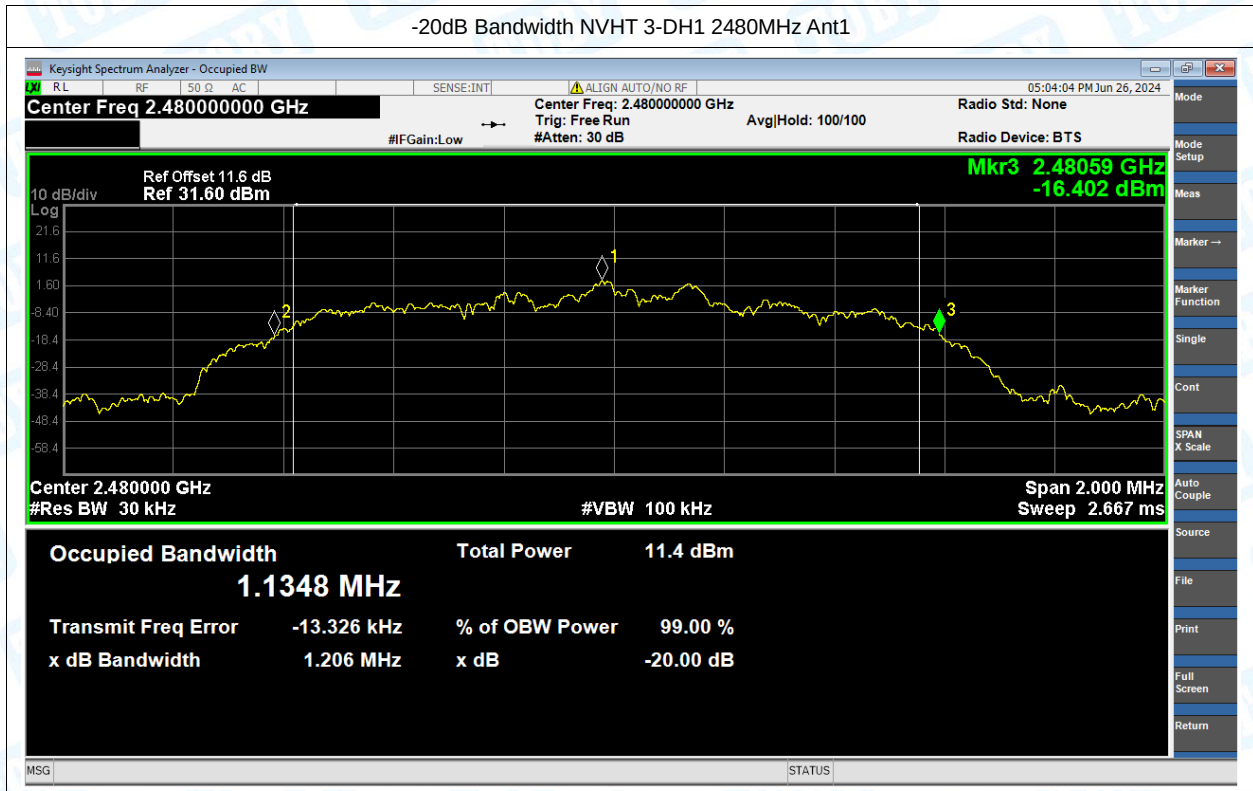


-20dB Bandwidth NVHT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVHT 3-DH1 2441MHz Ant1



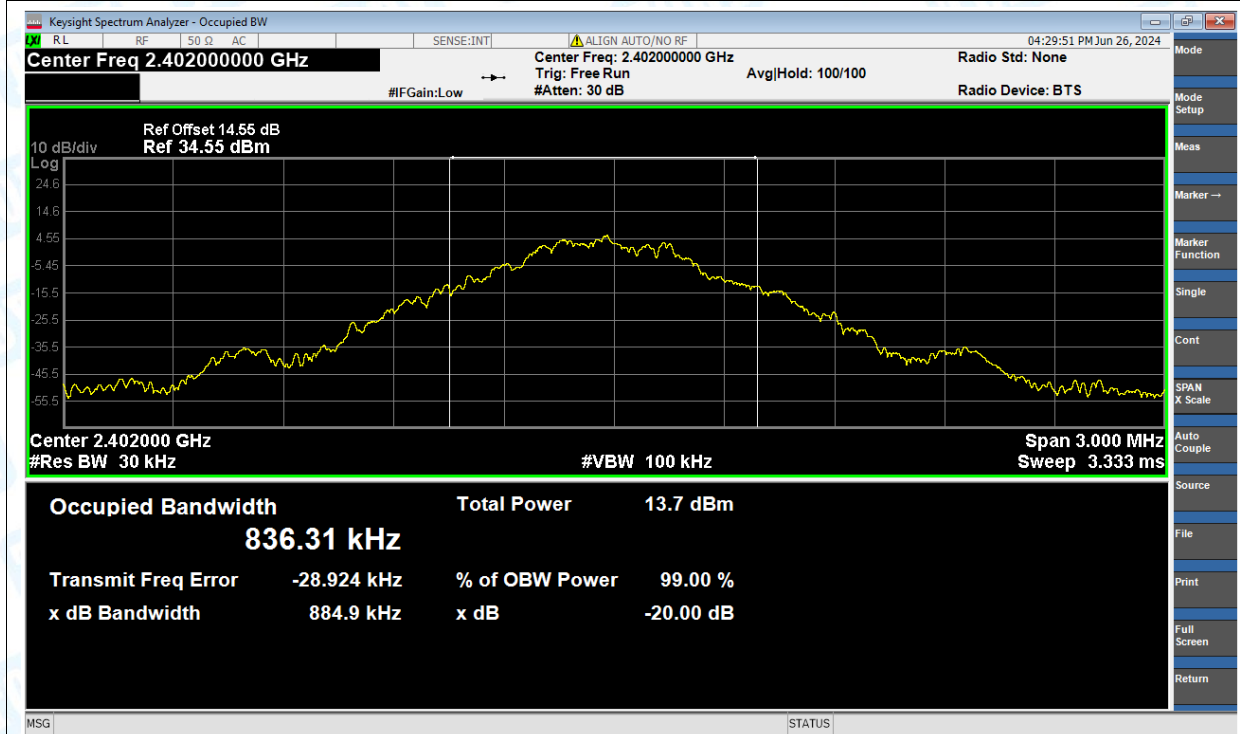


4. Occupied Channel Bandwidth

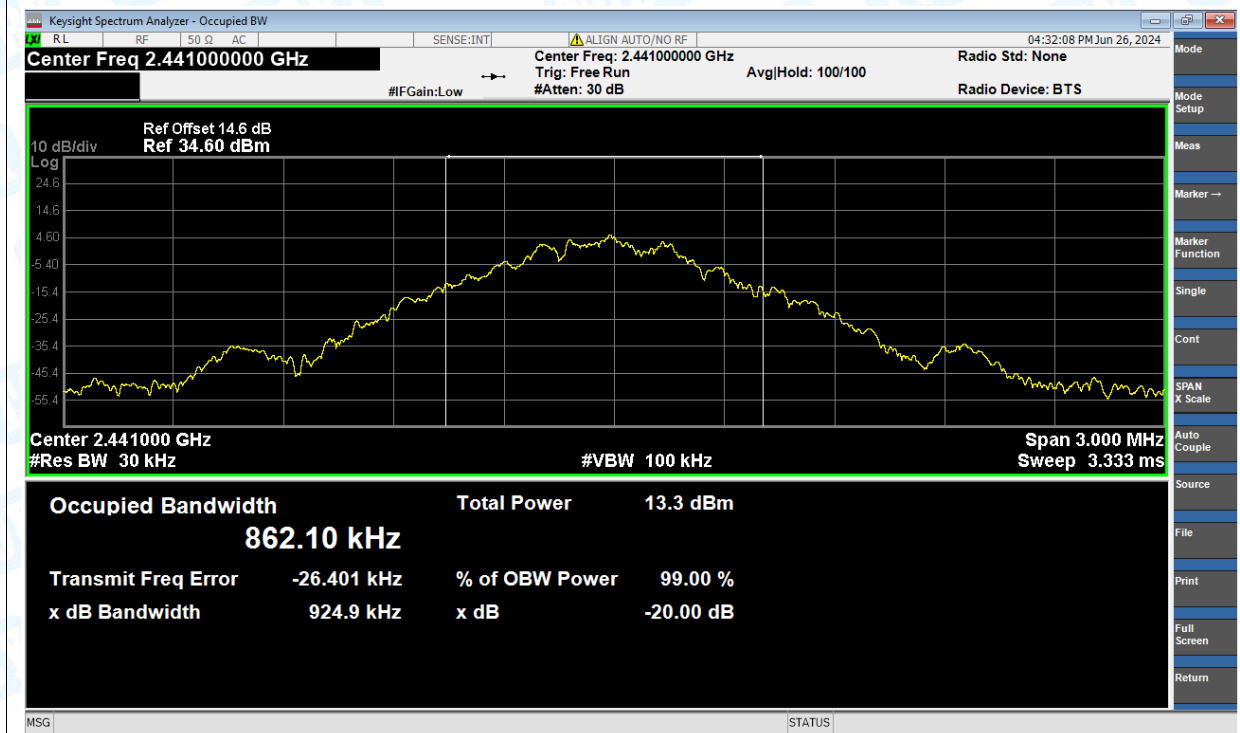
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVHT	1-DH1	2402	Ant1	0.836
NVHT	1-DH1	2441	Ant1	0.862
NVHT	1-DH1	2480	Ant1	0.859
NVHT	2-DH1	2402	Ant1	1.156
NVHT	2-DH1	2441	Ant1	1.14
NVHT	2-DH1	2480	Ant1	1.161
NVHT	3-DH1	2402	Ant1	1.134
NVHT	3-DH1	2441	Ant1	1.141
NVHT	3-DH1	2480	Ant1	1.126

Test Graphs

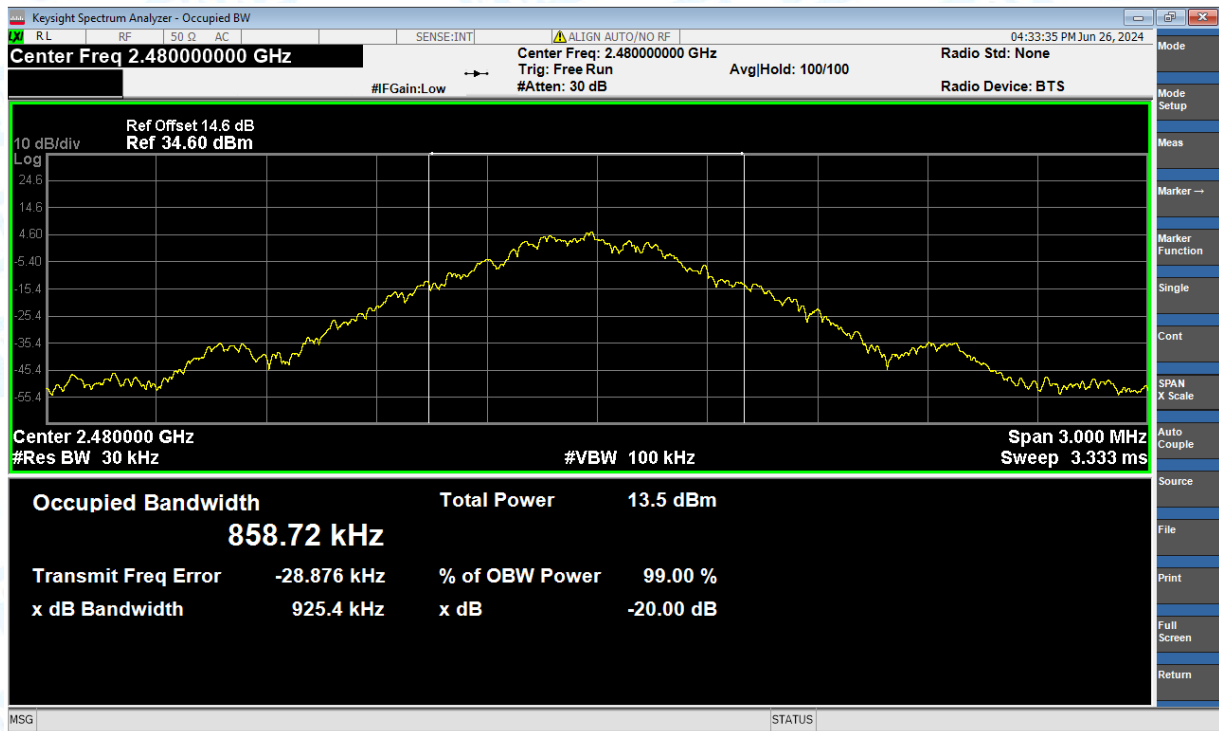
OBW NVHT 1-DH1 2402MHz Ant1



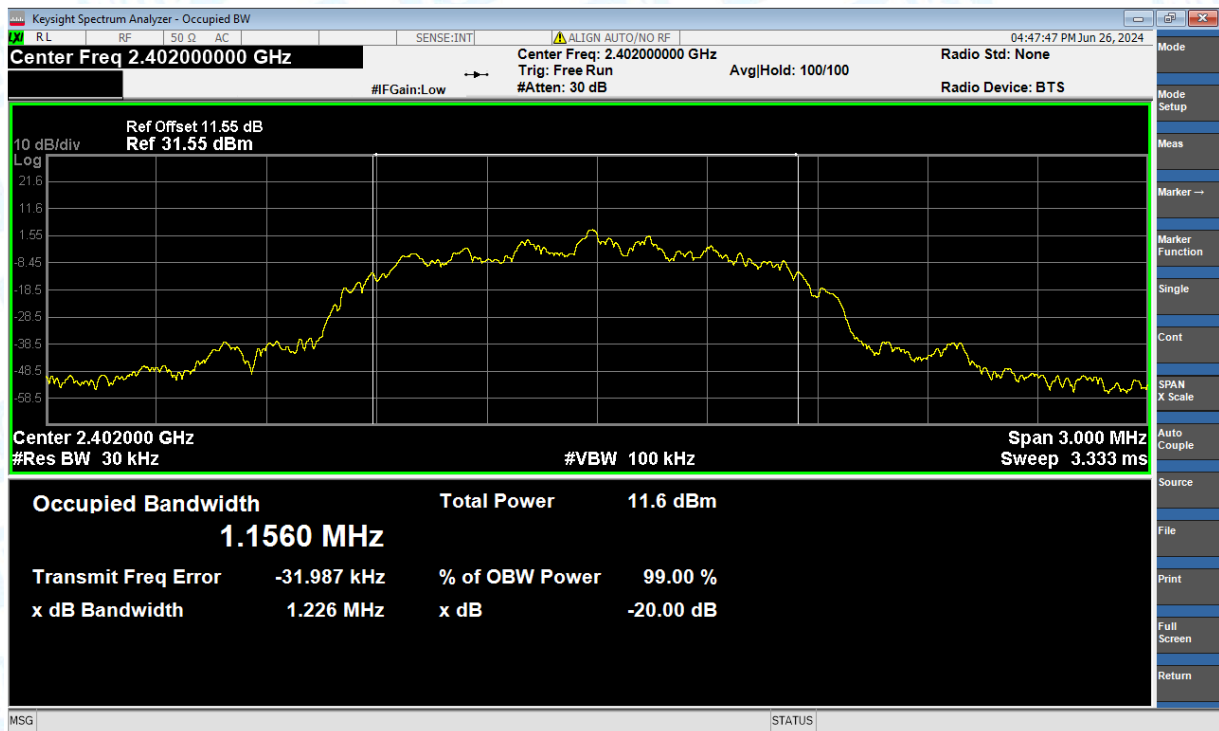
OBW NVHT 1-DH1 2441MHz Ant1



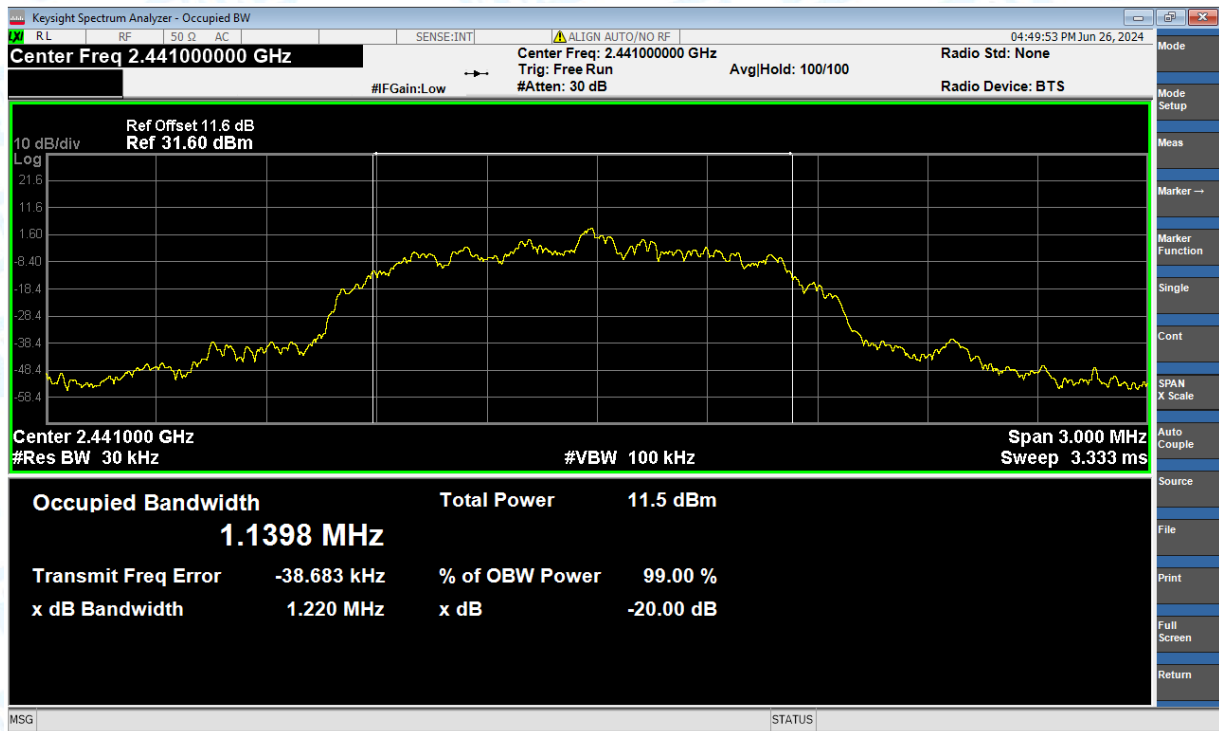
OBW NVHT 1-DH1 2480MHz Ant1



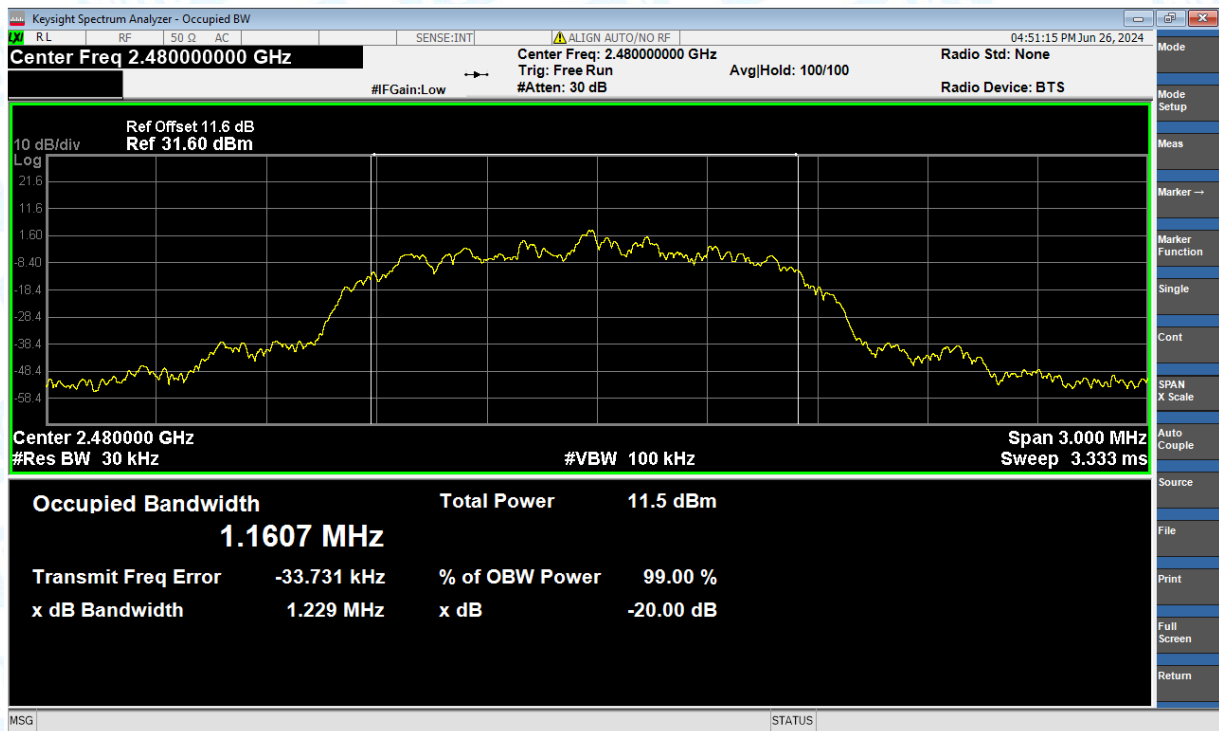
OBW NVHT 2-DH1 2402MHz Ant1



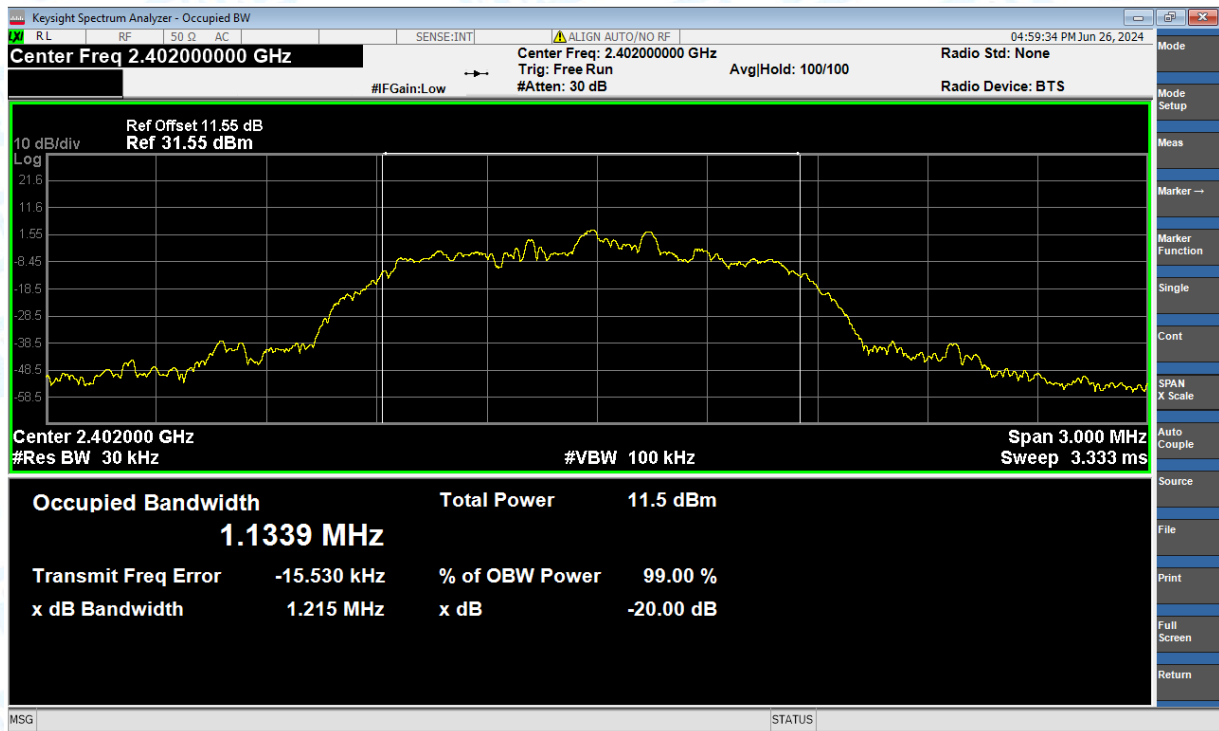
OBW NVHT 2-DH1 2441MHz Ant1



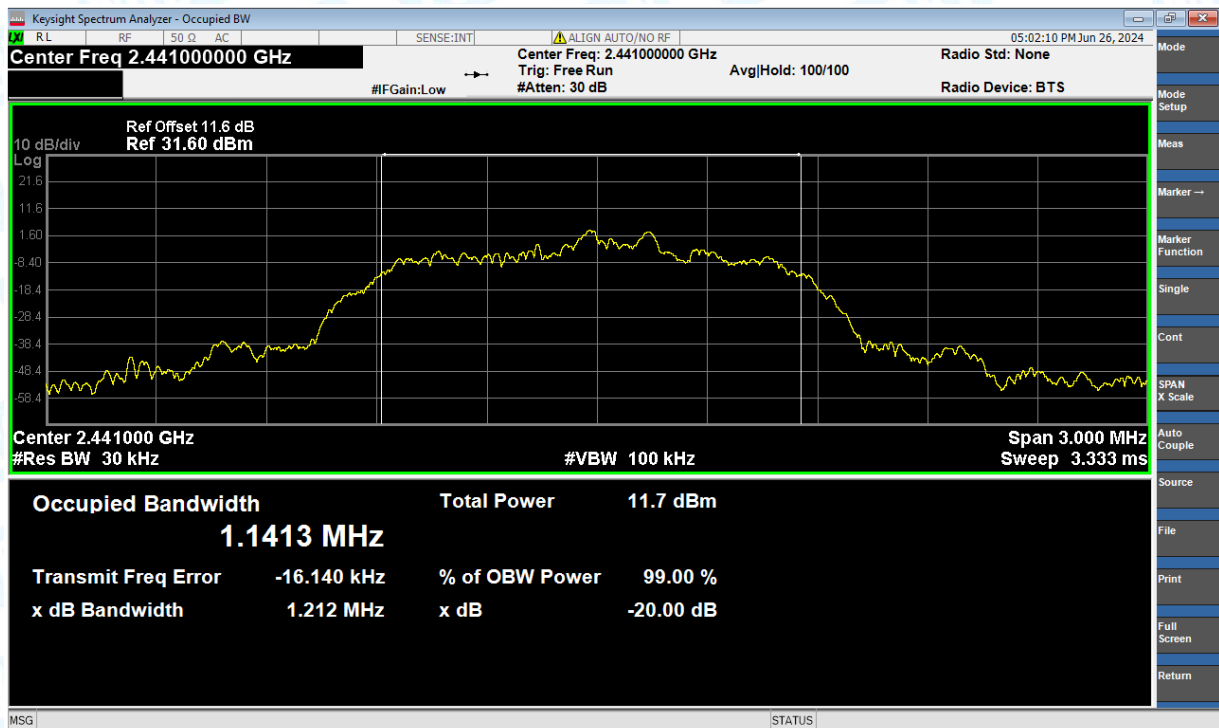
OBW NVHT 2-DH1 2480MHz Ant1

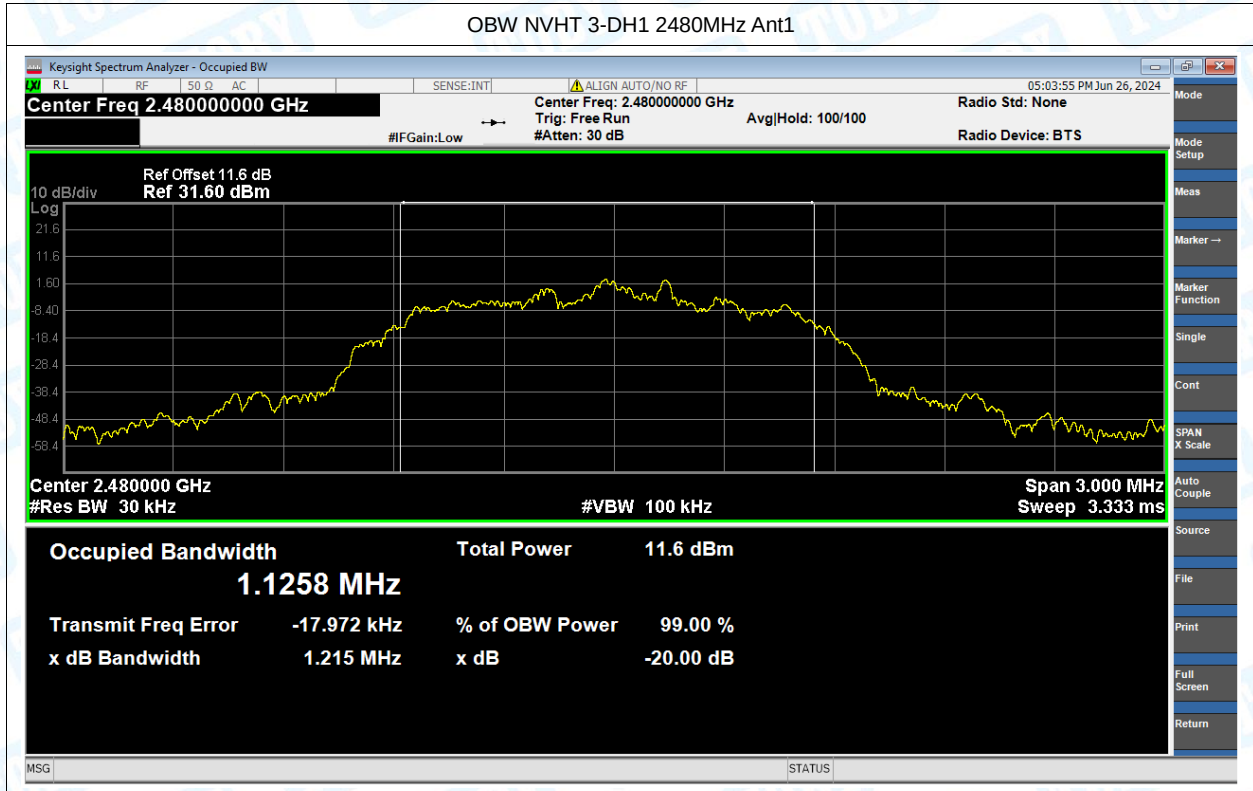


OBW NVHT 3-DH1 2402MHz Ant1



OBW NVHT 3-DH1 2441MHz Ant1



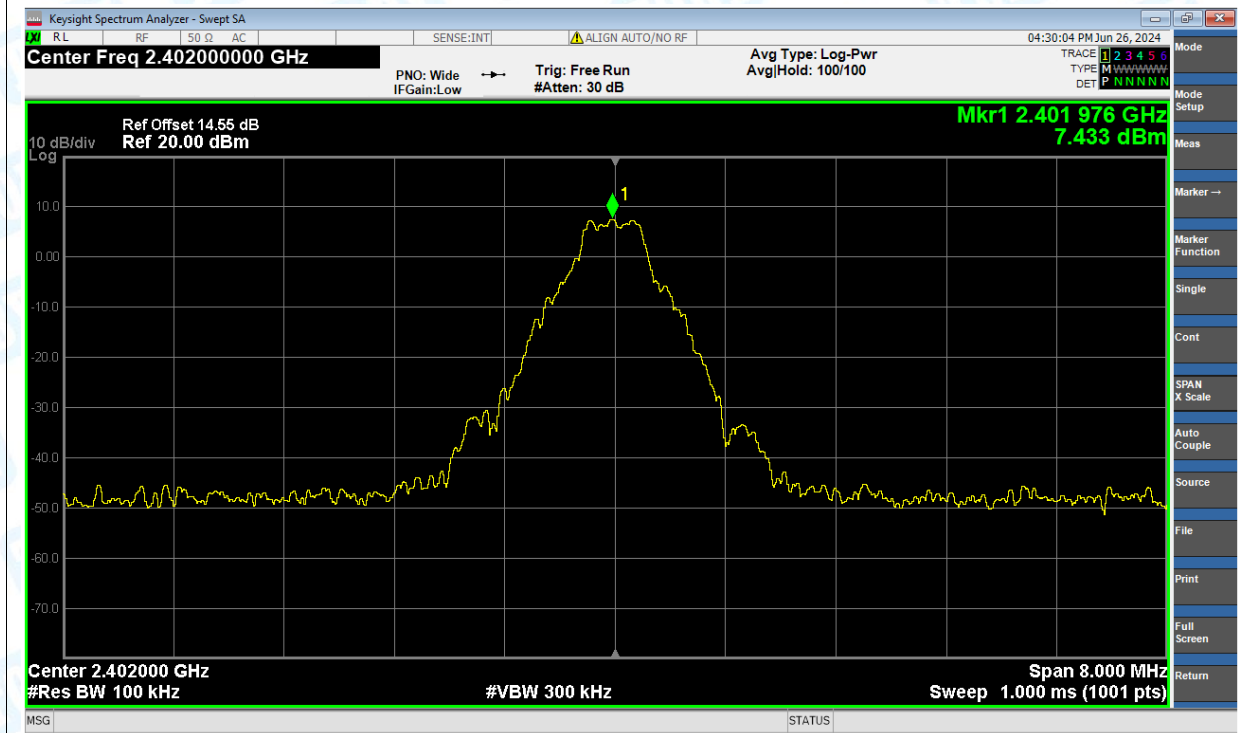


5. Band Edge

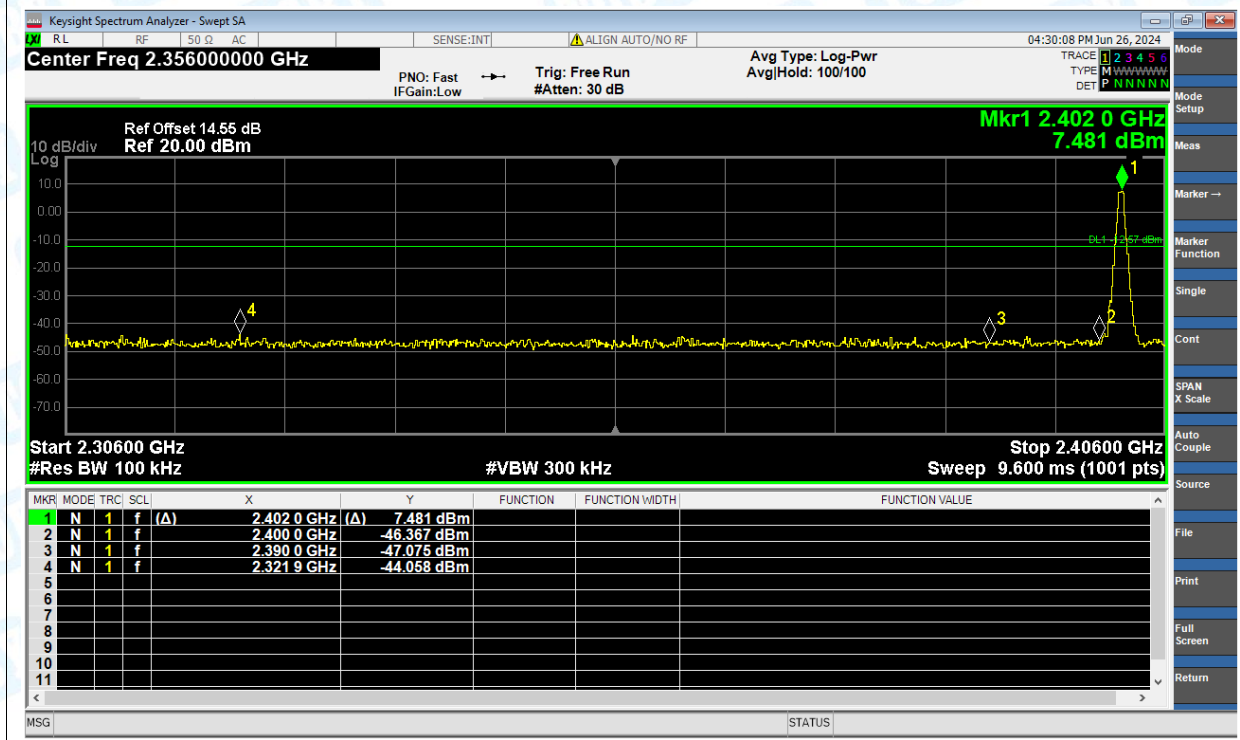
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVHT	1-DH1	2402	Ant1	No-Hopping	-51.49	-20	Pass
NVHT	1-DH1	2480	Ant1	No-Hopping	-51.8	-20	Pass
NVHT	2-DH1	2402	Ant1	No-Hopping	-52.23	-20	Pass
NVHT	2-DH1	2480	Ant1	No-Hopping	-52.67	-20	Pass
NVHT	3-DH1	2402	Ant1	No-Hopping	-52.21	-20	Pass
NVHT	3-DH1	2480	Ant1	No-Hopping	-52.26	-20	Pass

Test Graphs

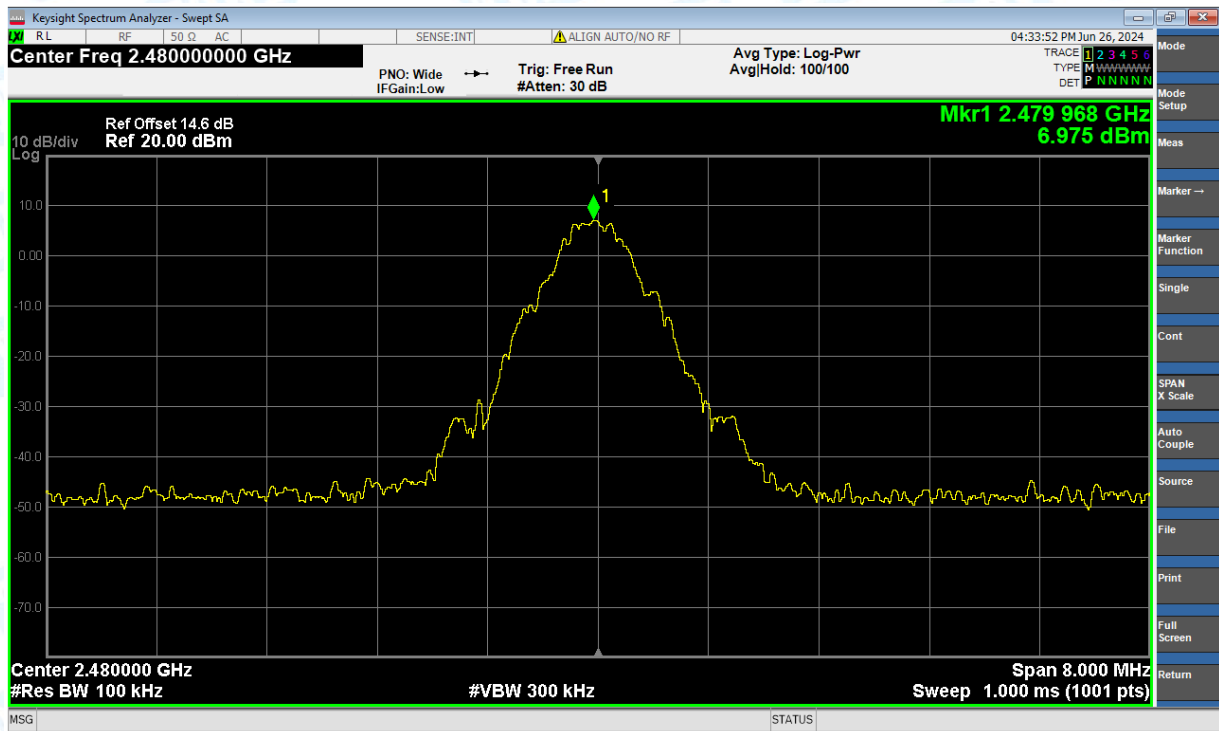
Band Edge NVHT 1-DH1 2402MHz Ant1 No-Hopping Ref



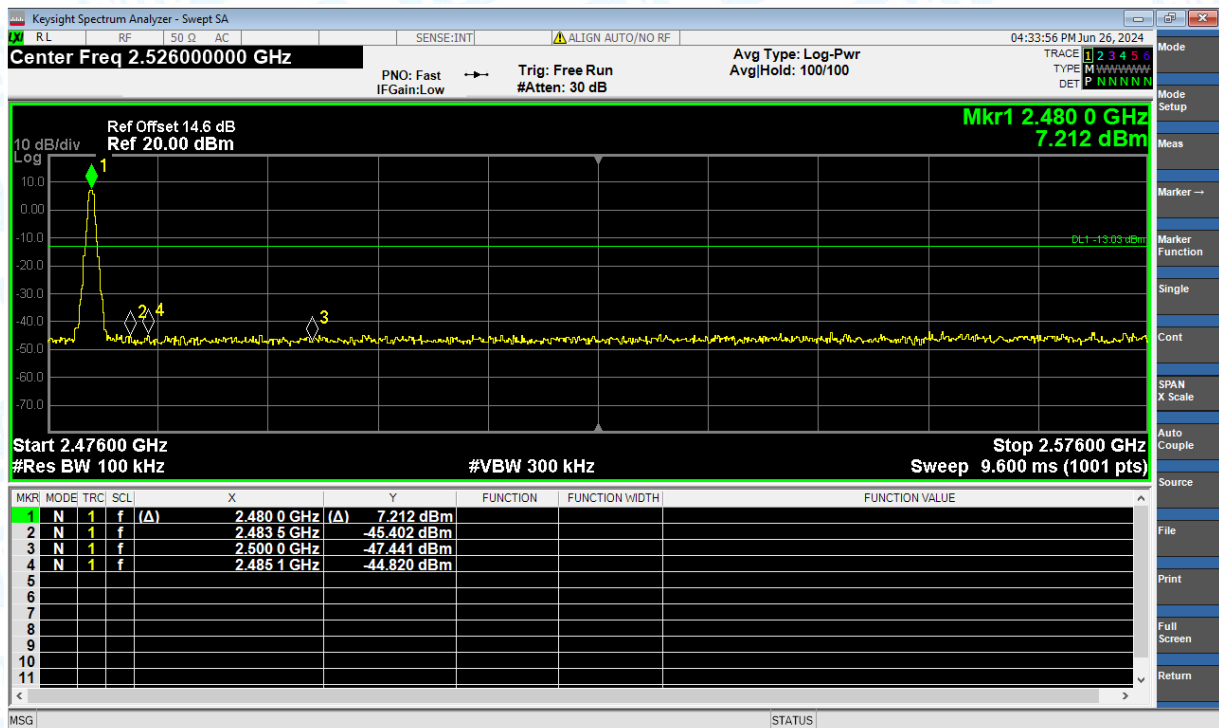
Band Edge NVHT 1-DH1 2402MHz Ant1 No-Hopping Emission



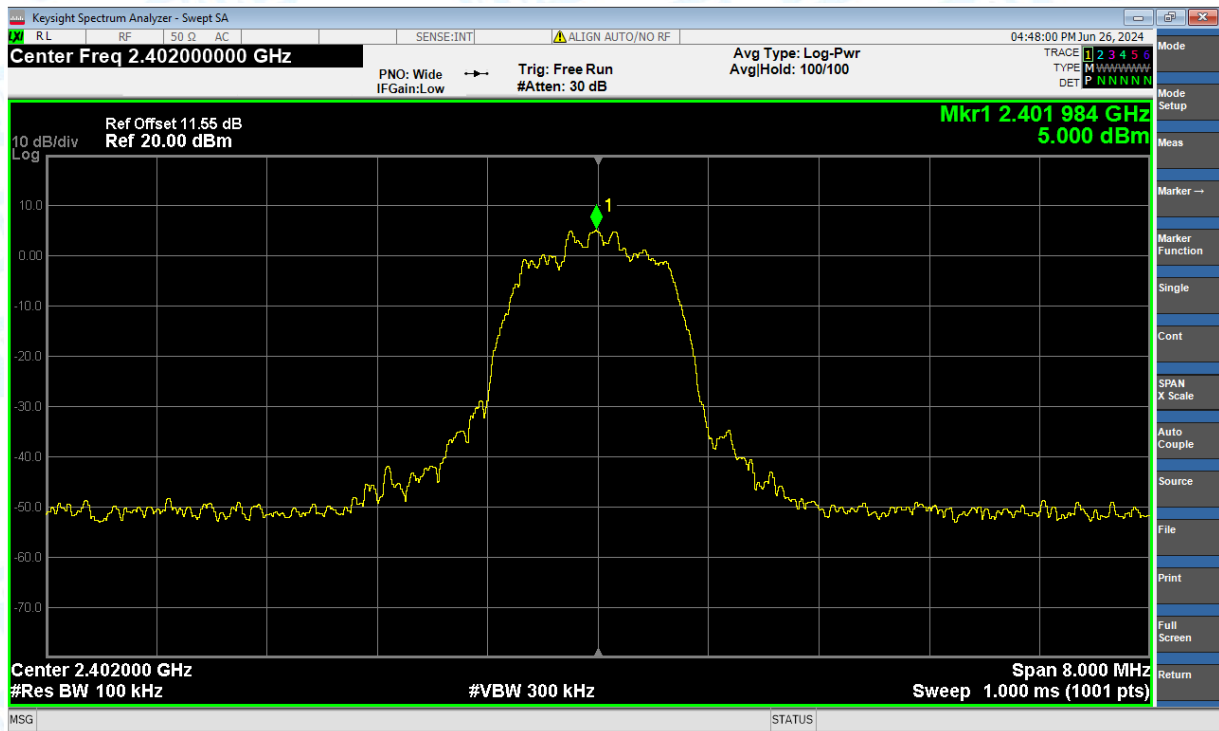
Band Edge NVHT 1-DH1 2480MHz Ant1 No-Hopping Ref



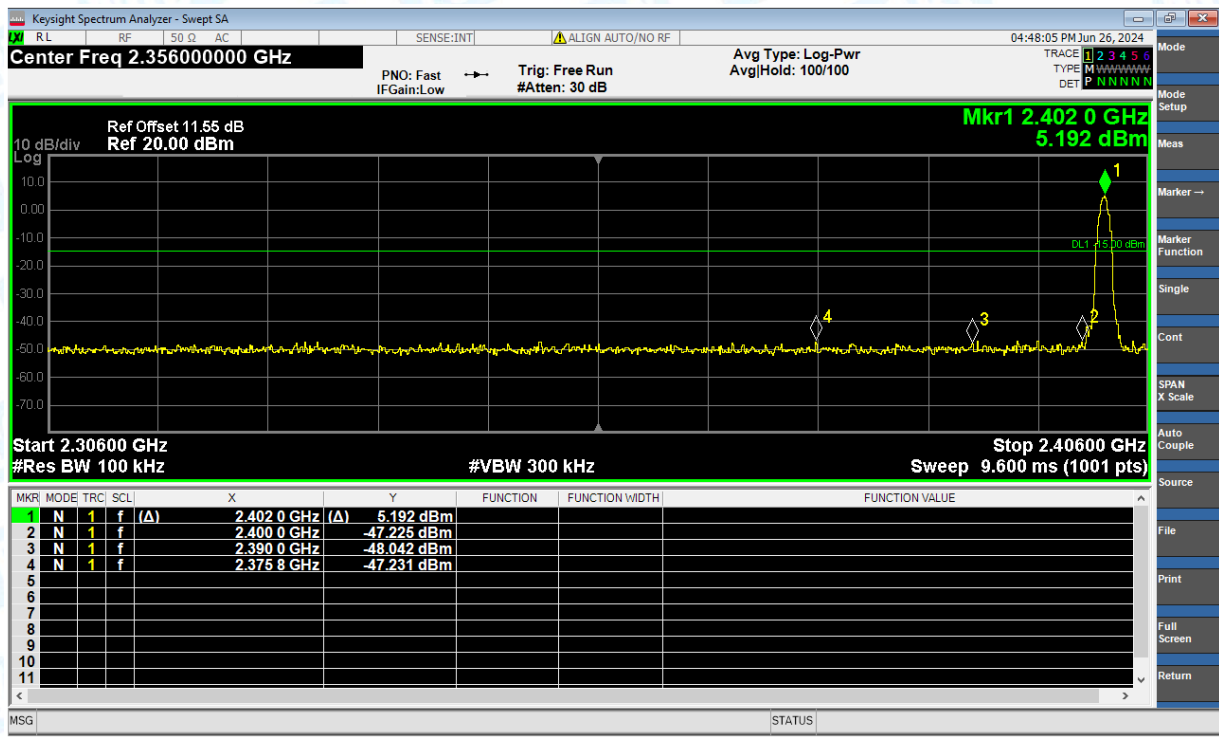
Band Edge NVHT 1-DH1 2480MHz Ant1 No-Hopping Emission



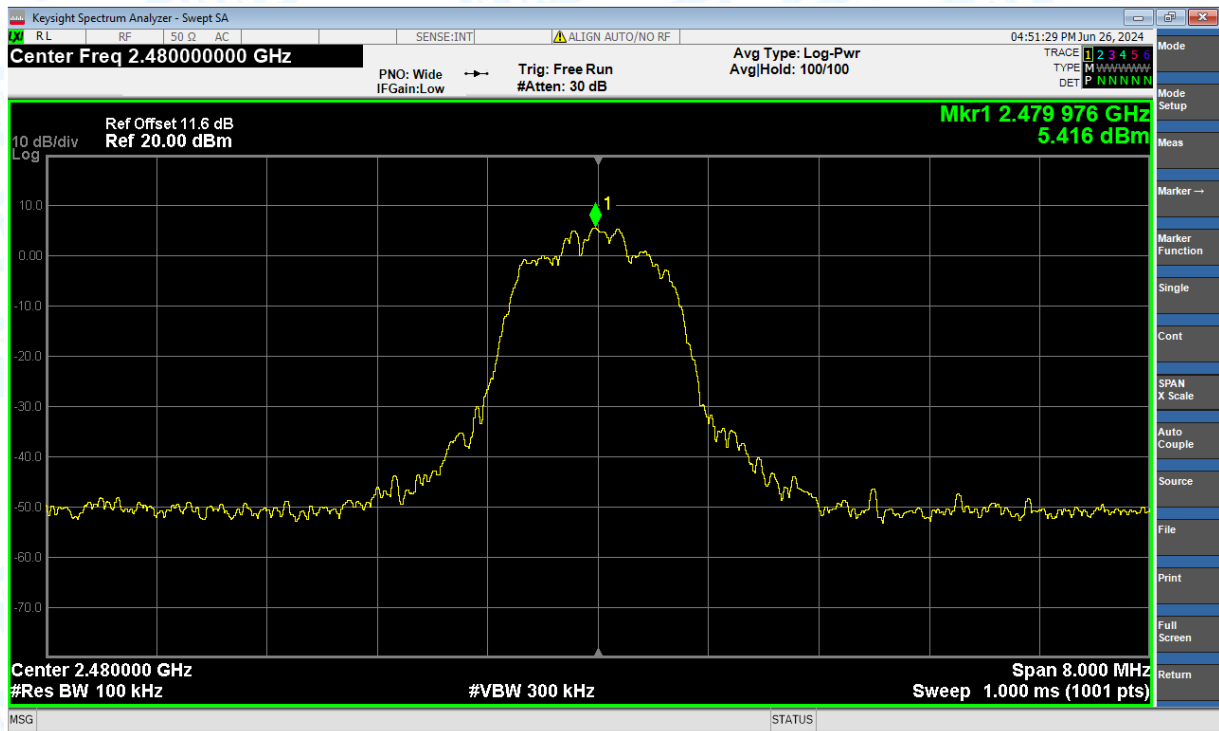
Band Edge NVHT 2-DH1 2402MHz Ant1 No-Hopping Ref



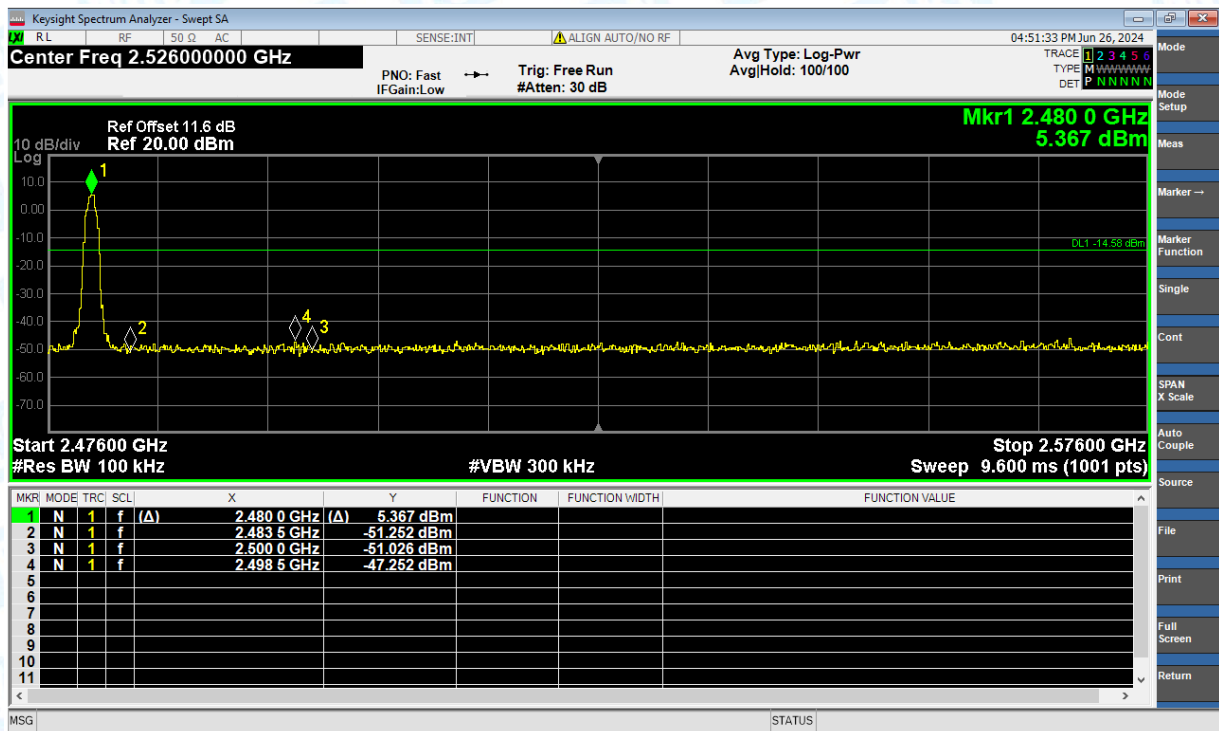
Band Edge NVHT 2-DH1 2402MHz Ant1 No-Hopping Emission



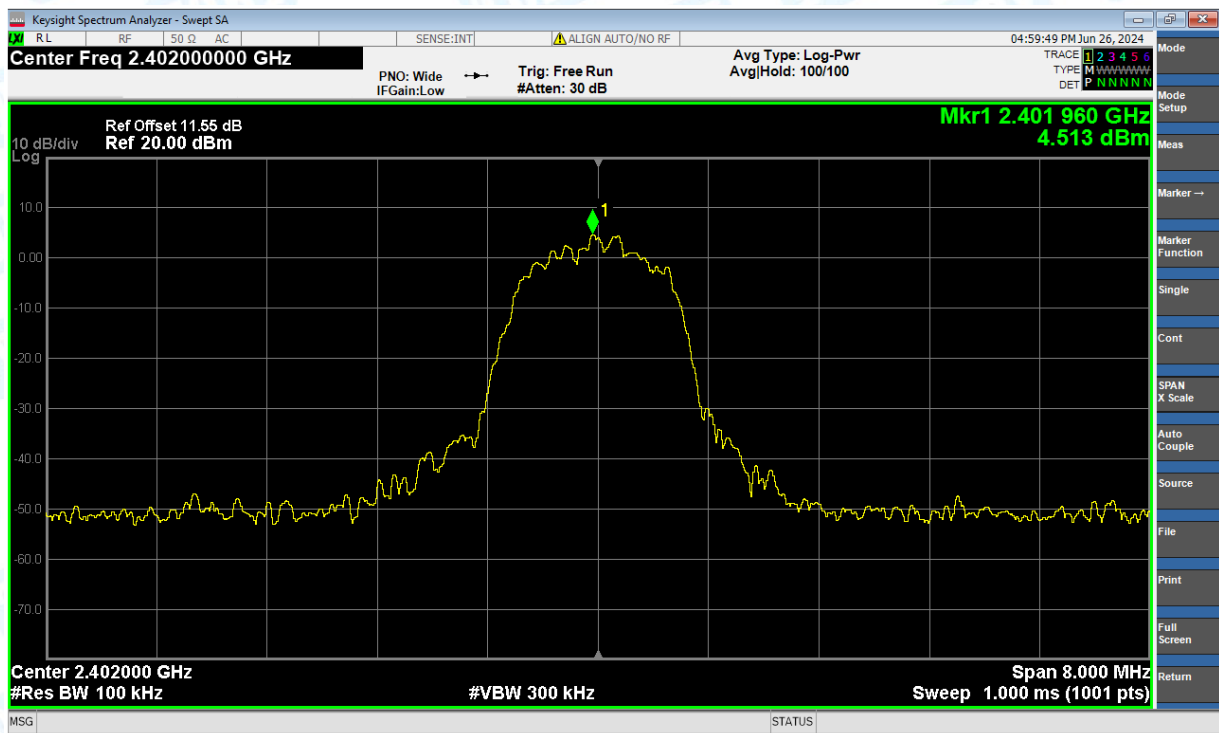
Band Edge NVHT 2-DH1 2480MHz Ant1 No-Hopping Ref



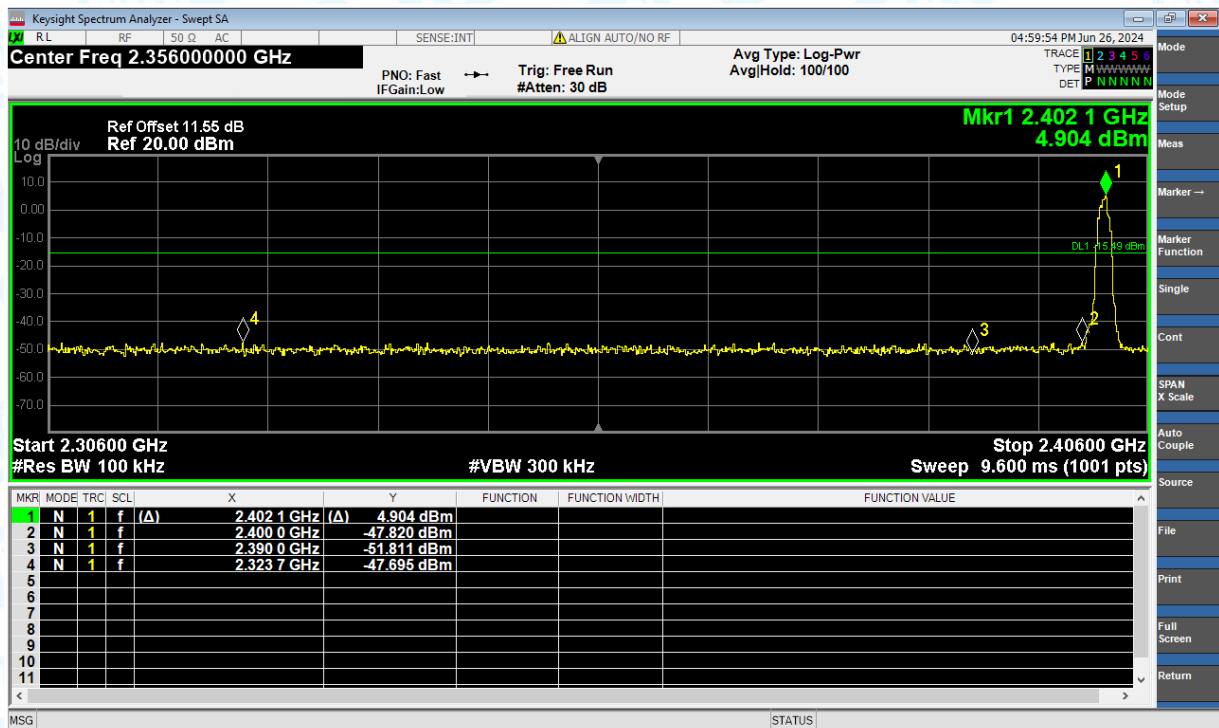
Band Edge NVHT 2-DH1 2480MHz Ant1 No-Hopping Emission



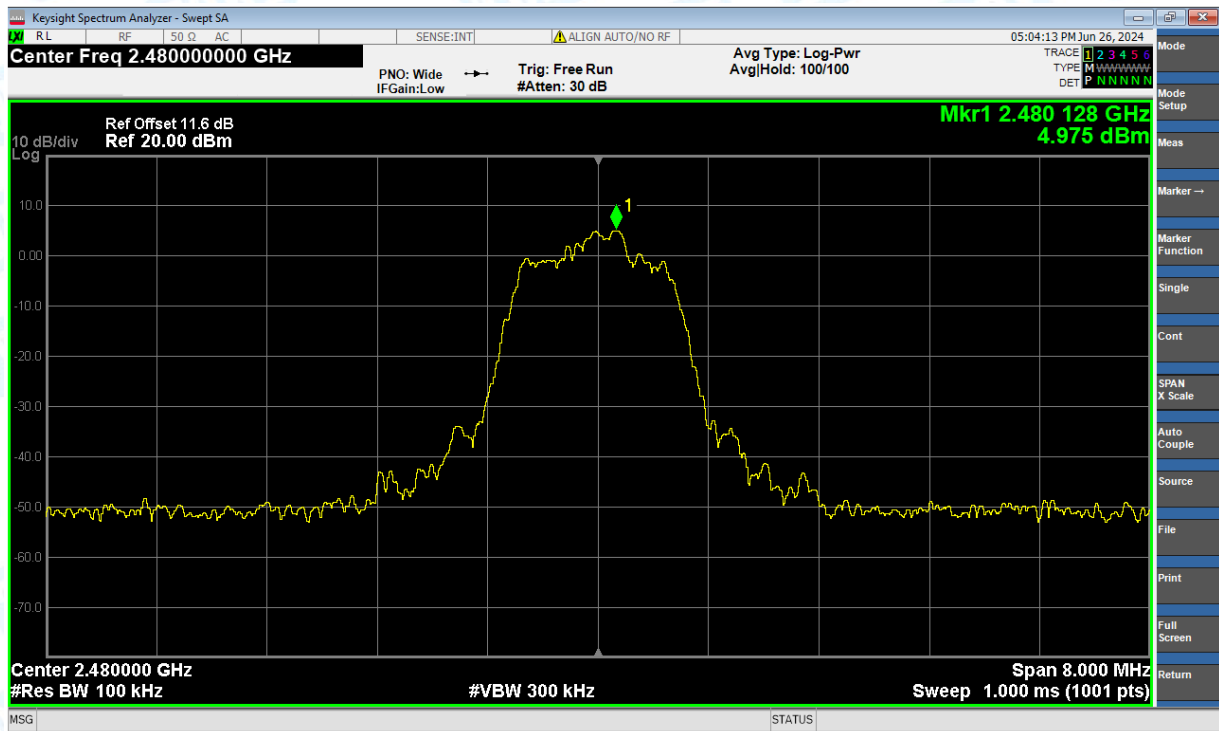
Band Edge NVHT 3-DH1 2402MHz Ant1 No-Hopping Ref



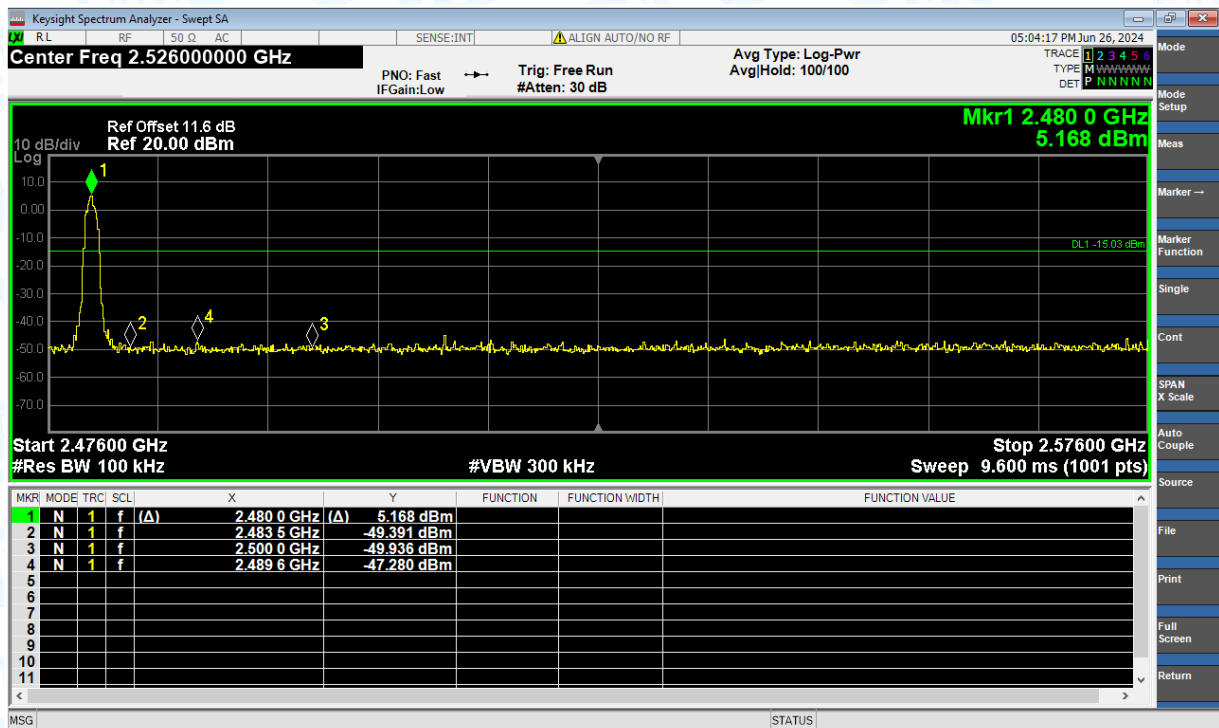
Band Edge NVHT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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



6. Band Edge(Hopping)

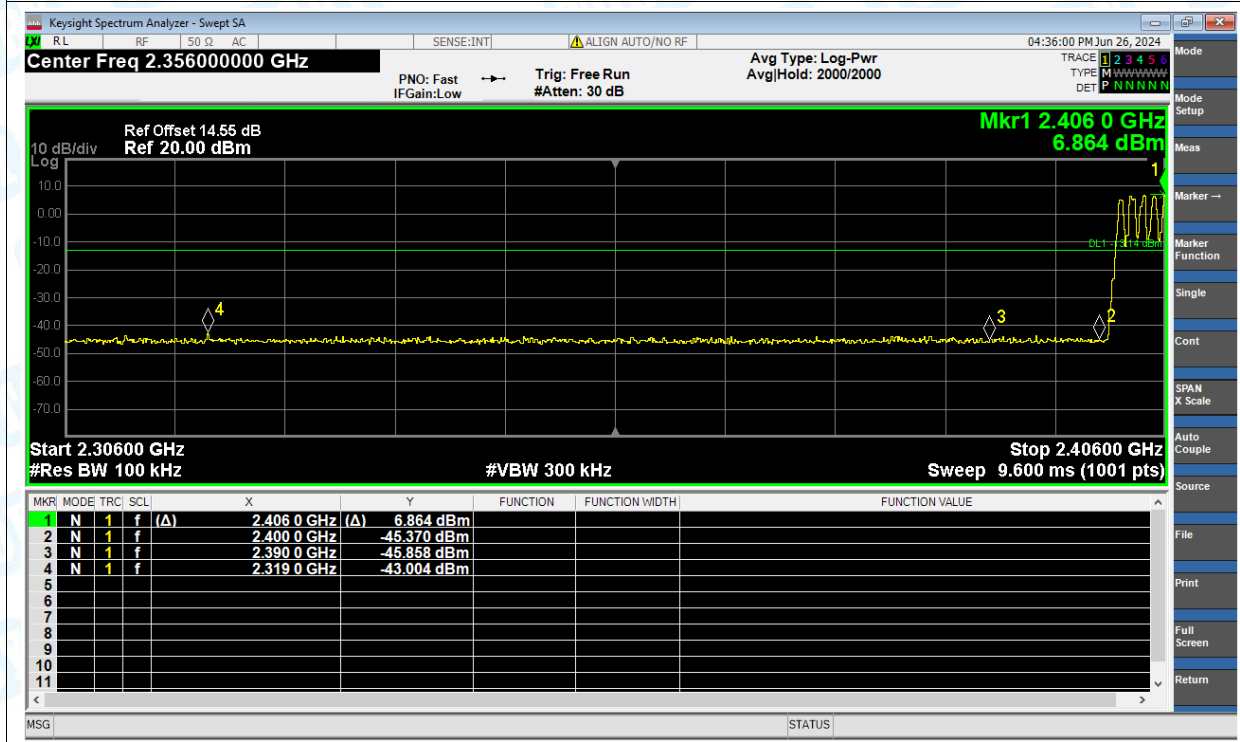
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVHT	1-DH1	2402	Ant1	Hopping	-49.86	-20	Pass
NVHT	1-DH1	2480	Ant1	Hopping	-50.63	-20	Pass
NVHT	2-DH1	2402	Ant1	Hopping	-51.44	-20	Pass
NVHT	2-DH1	2480	Ant1	Hopping	-51.48	-20	Pass
NVHT	3-DH1	2402	Ant1	Hopping	-51.21	-20	Pass
NVHT	3-DH1	2480	Ant1	Hopping	-50.84	-20	Pass

Test Graphs

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



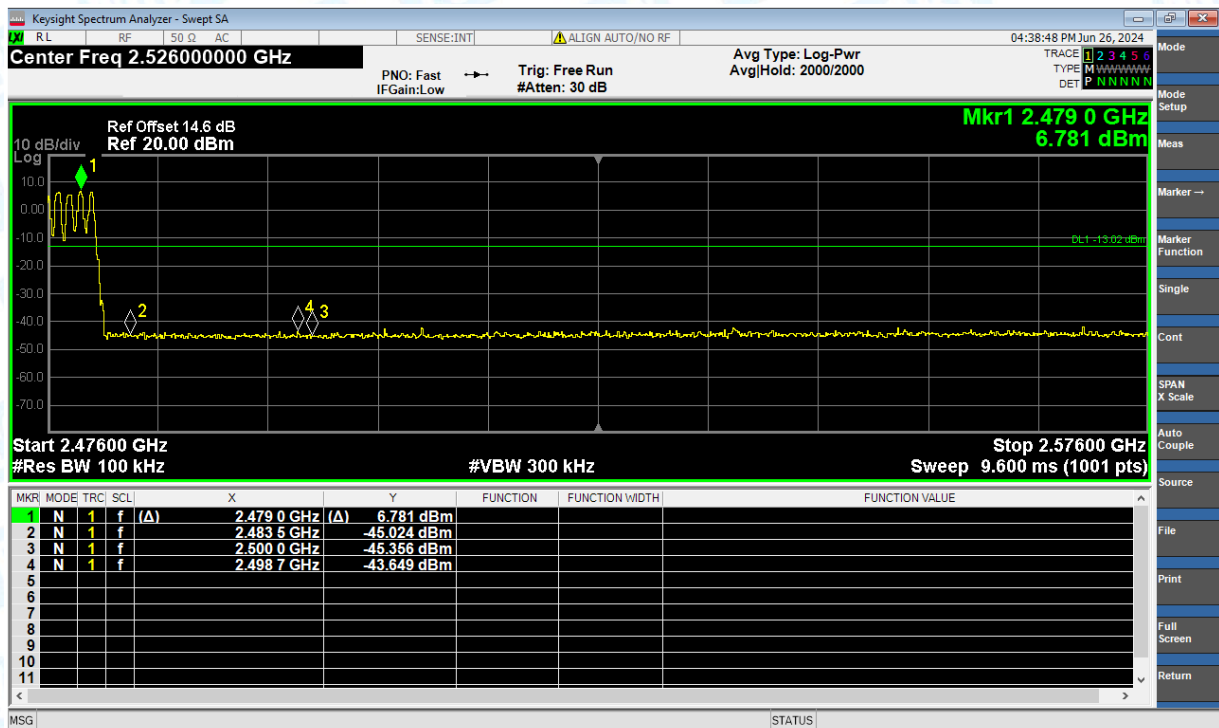
Band Edge(Hopping) NVHT 1-DH1 2402MHz Ant1 Hopping Emission



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



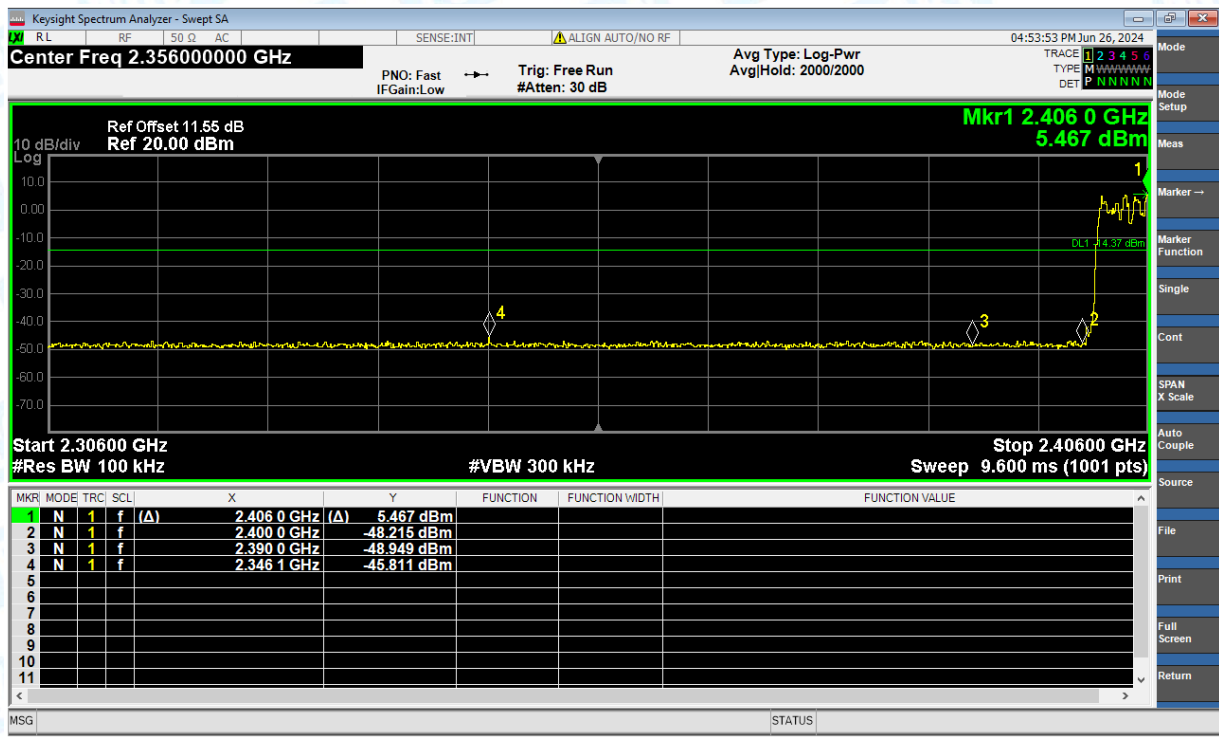
Band Edge(Hopping) NVHT 1-DH1 2480MHz Ant1 Hopping Emission



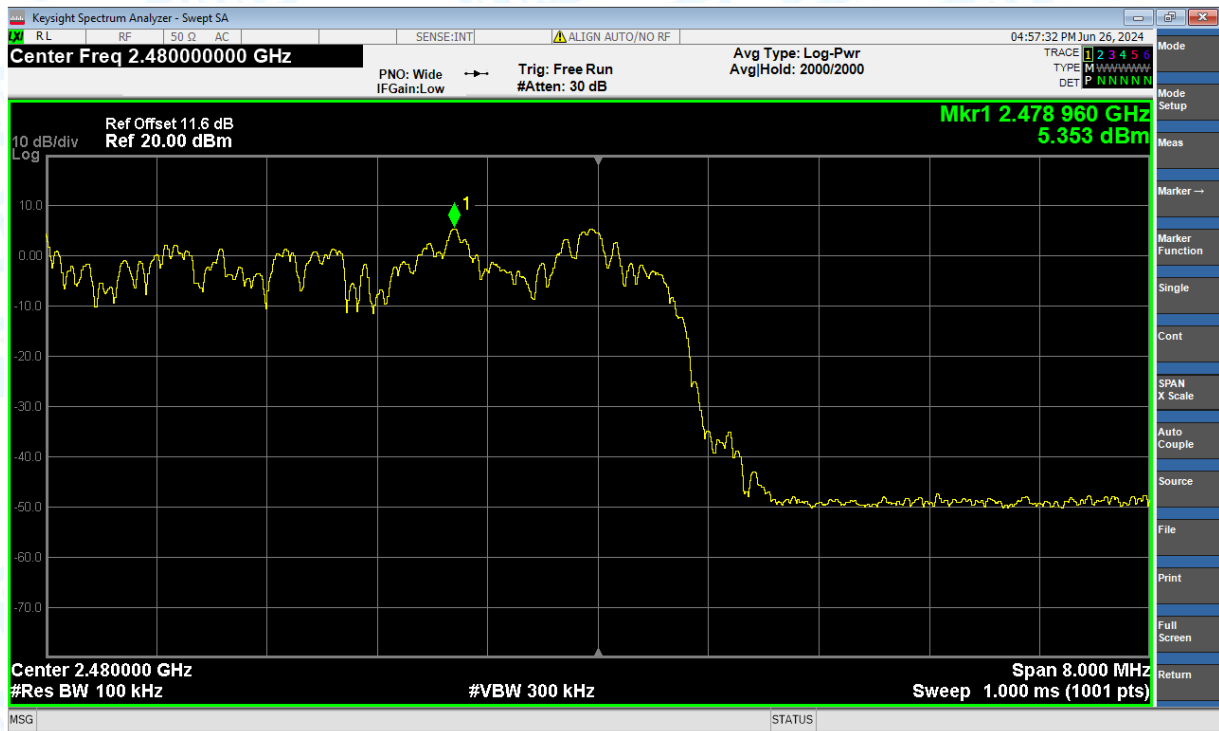
Band Edge(Hopping) NVHT 2-DH1 2402MHz Ant1 Hopping Ref



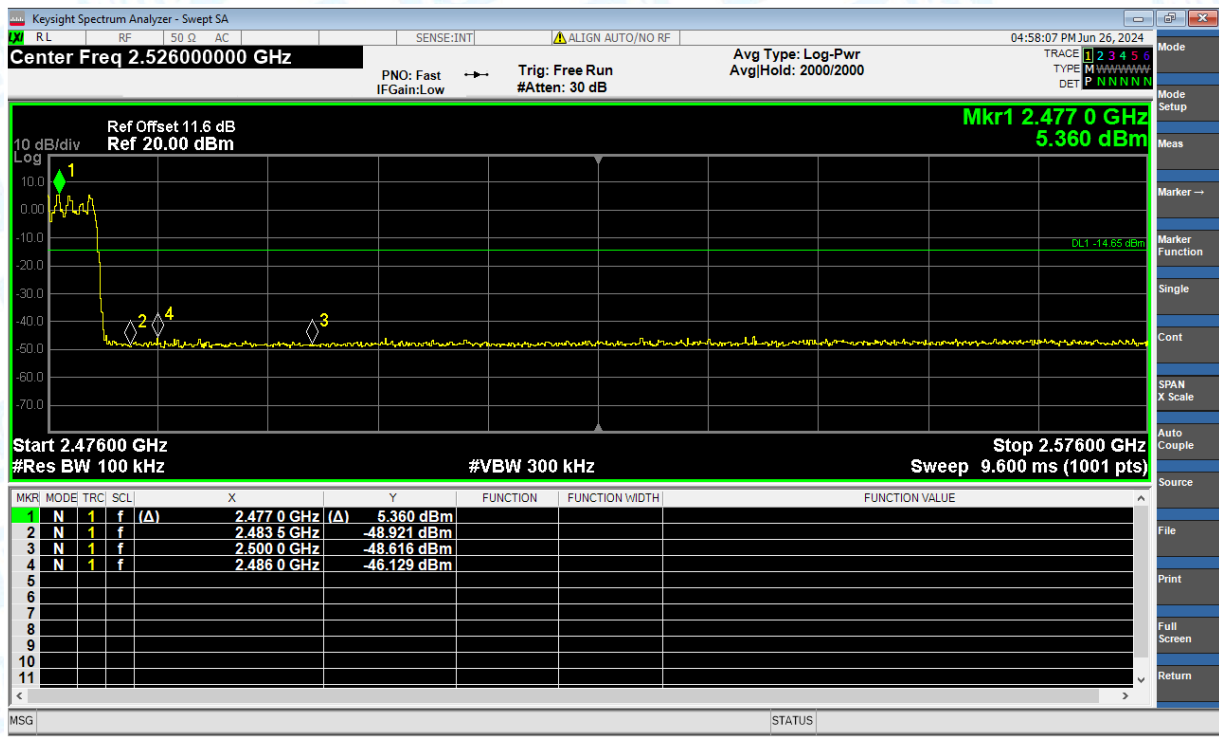
Band Edge(Hopping) NVHT 2-DH1 2402MHz Ant1 Hopping Emission



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



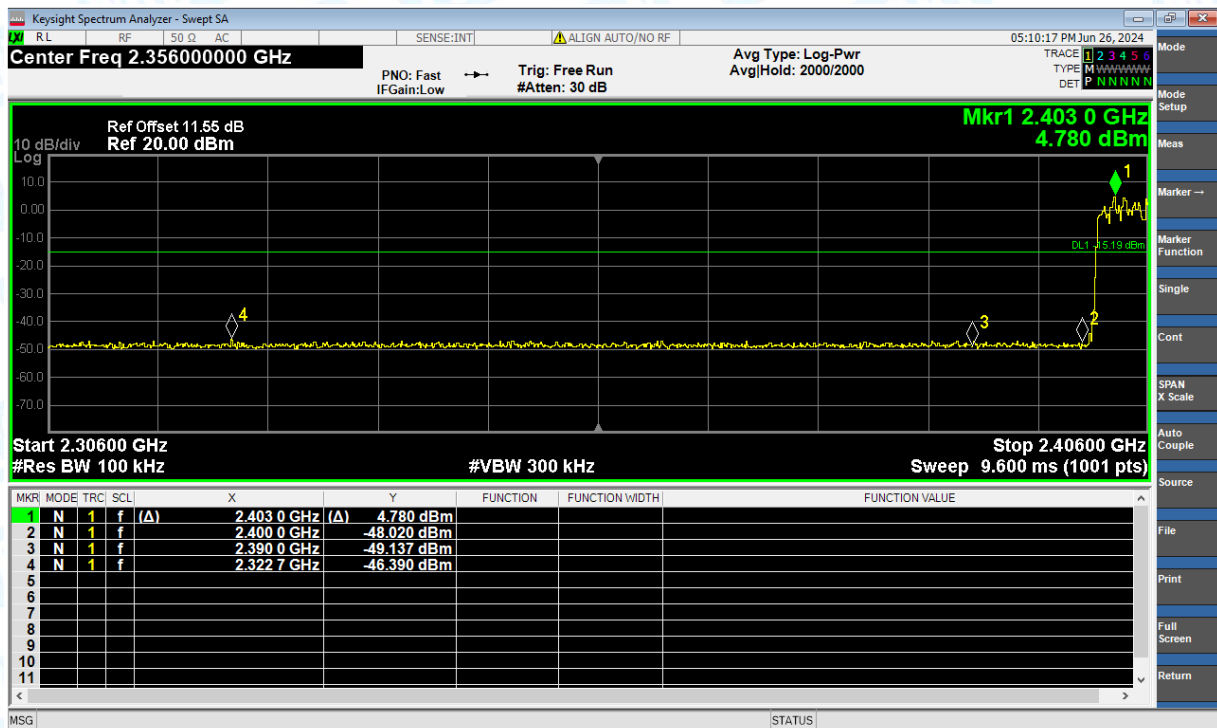
Band Edge(Hopping) NVHT 2-DH1 2480MHz Ant1 Hopping Emission



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



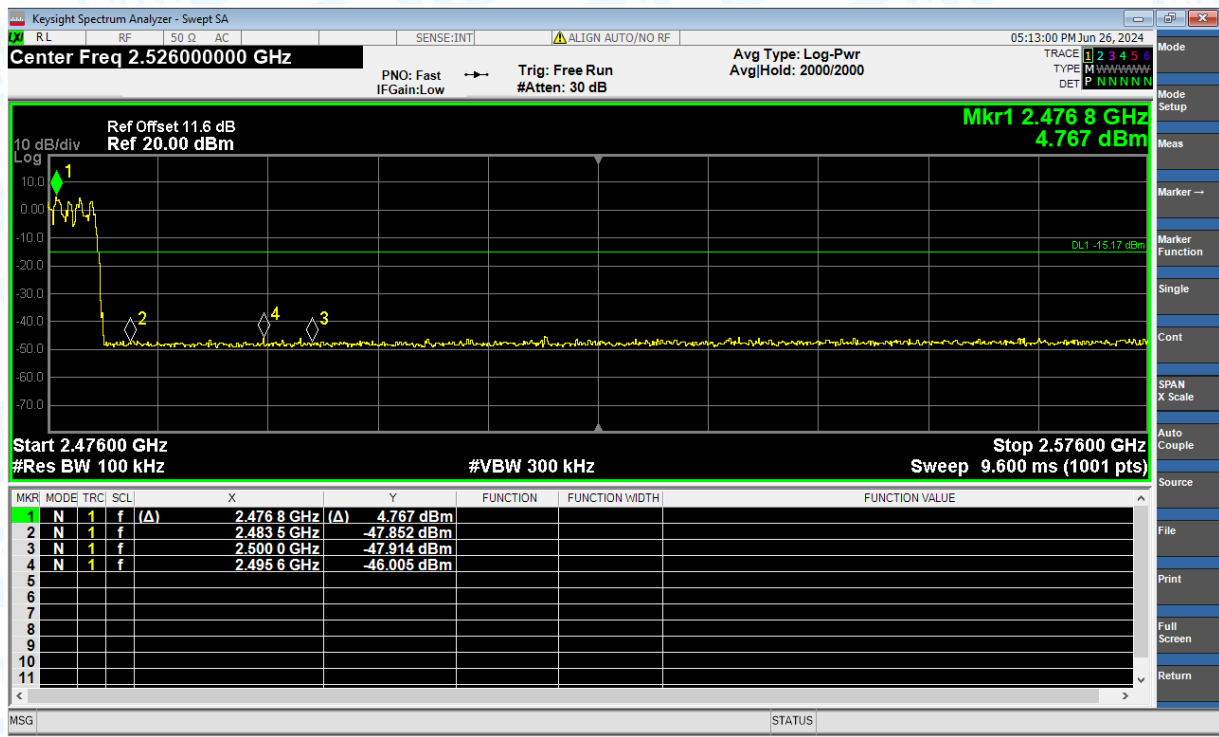
Band Edge(Hopping) NVHT 3-DH1 2402MHz Ant1 Hopping Emission



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



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

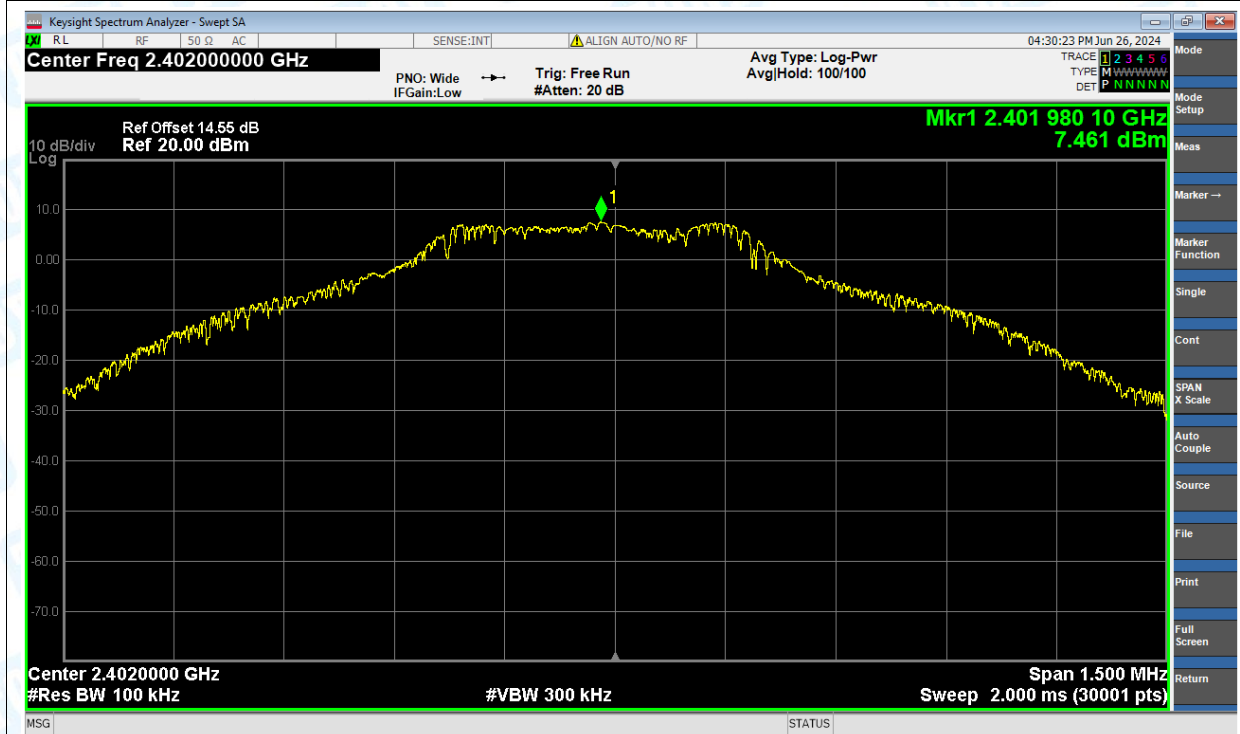


7. Conducted RF Spurious Emission

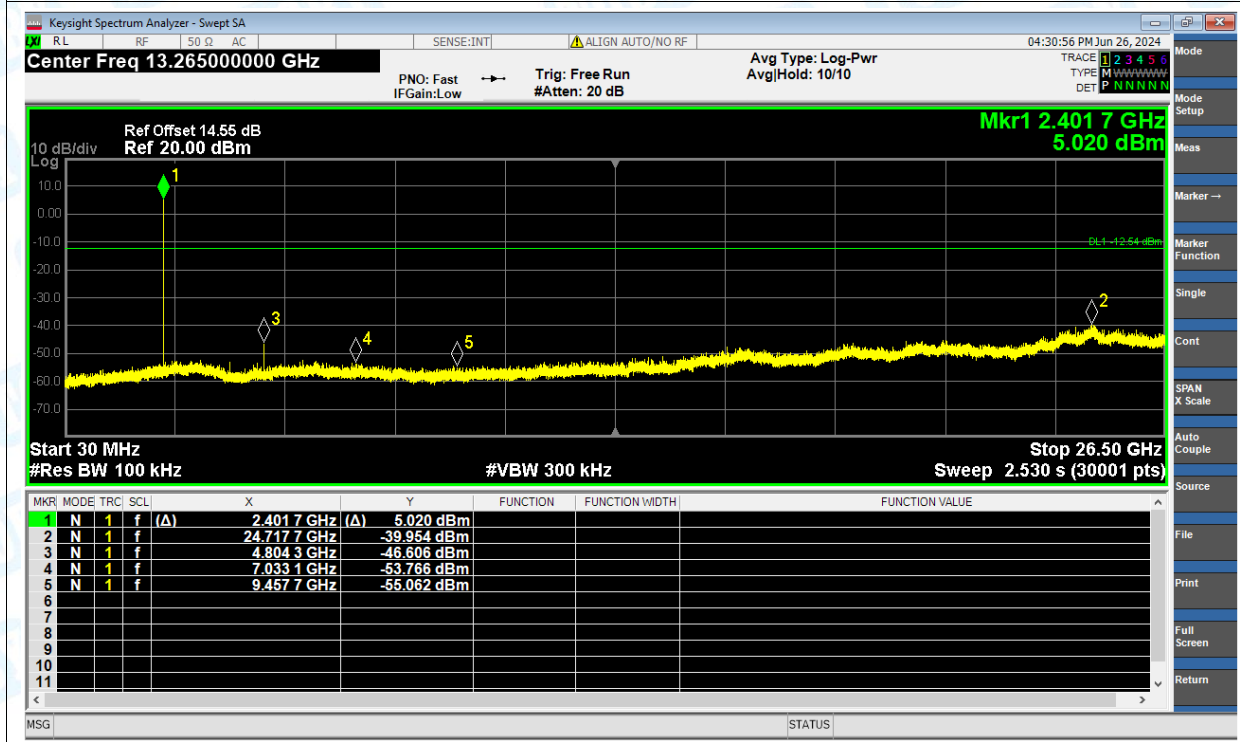
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVHT	1-DH1	2402	Ant1	-47.41	-20	Pass
NVHT	1-DH1	2441	Ant1	-47.46	-20	Pass
NVHT	1-DH1	2480	Ant1	-45.76	-20	Pass
NVHT	2-DH1	2402	Ant1	-48.04	-20	Pass
NVHT	2-DH1	2441	Ant1	-47.97	-20	Pass
NVHT	2-DH1	2480	Ant1	-48.11	-20	Pass
NVHT	3-DH1	2402	Ant1	-48.37	-20	Pass
NVHT	3-DH1	2441	Ant1	-47.76	-20	Pass
NVHT	3-DH1	2480	Ant1	-48.65	-20	Pass

Test Graphs

Tx. Spurious NVHT 1-DH1 2402MHz Ant1 Ref



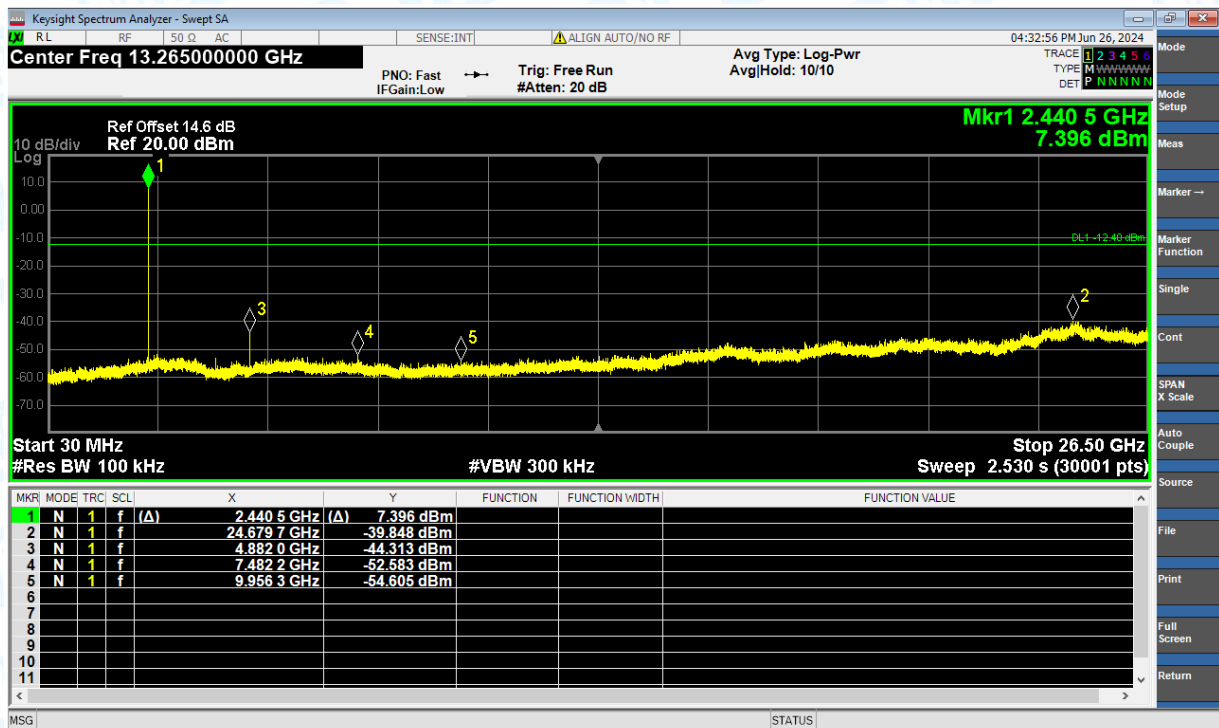
Tx. Spurious NVHT 1-DH1 2402MHz Ant1 Emission



Tx. Spurious NVHT 1-DH1 2441MHz Ant1 Ref



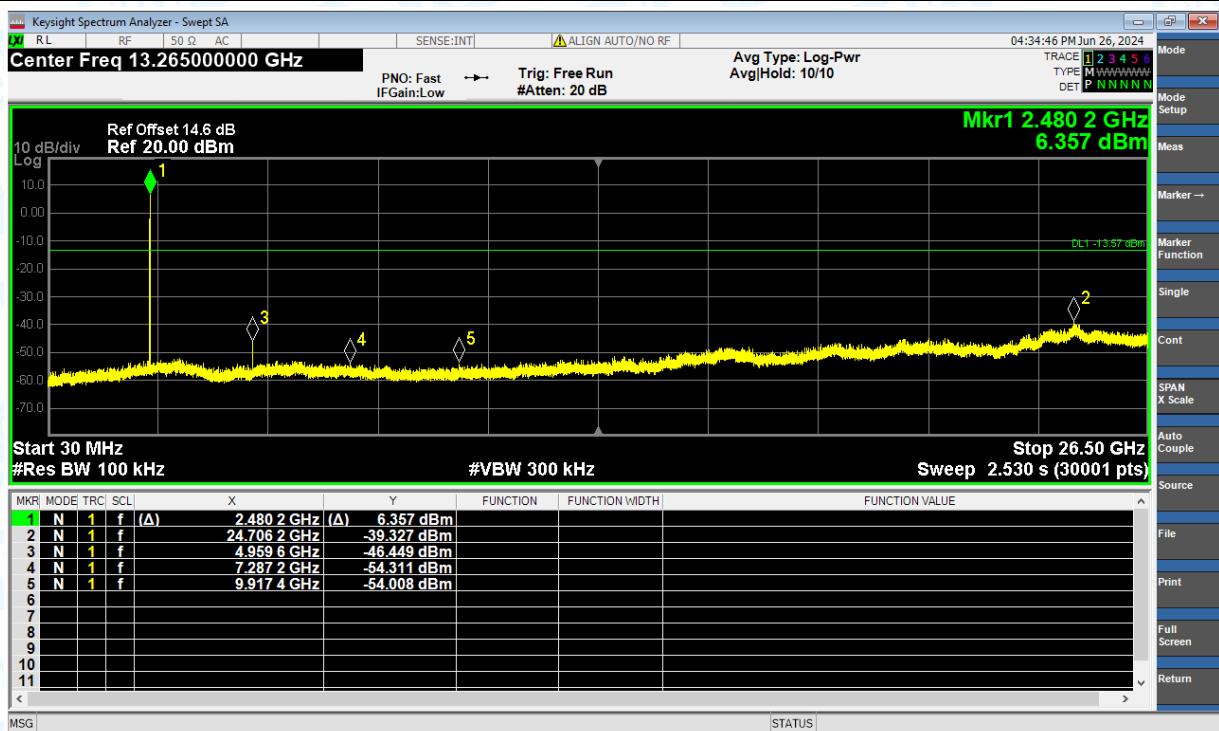
Tx. Spurious NVHT 1-DH1 2441MHz Ant1 Emission



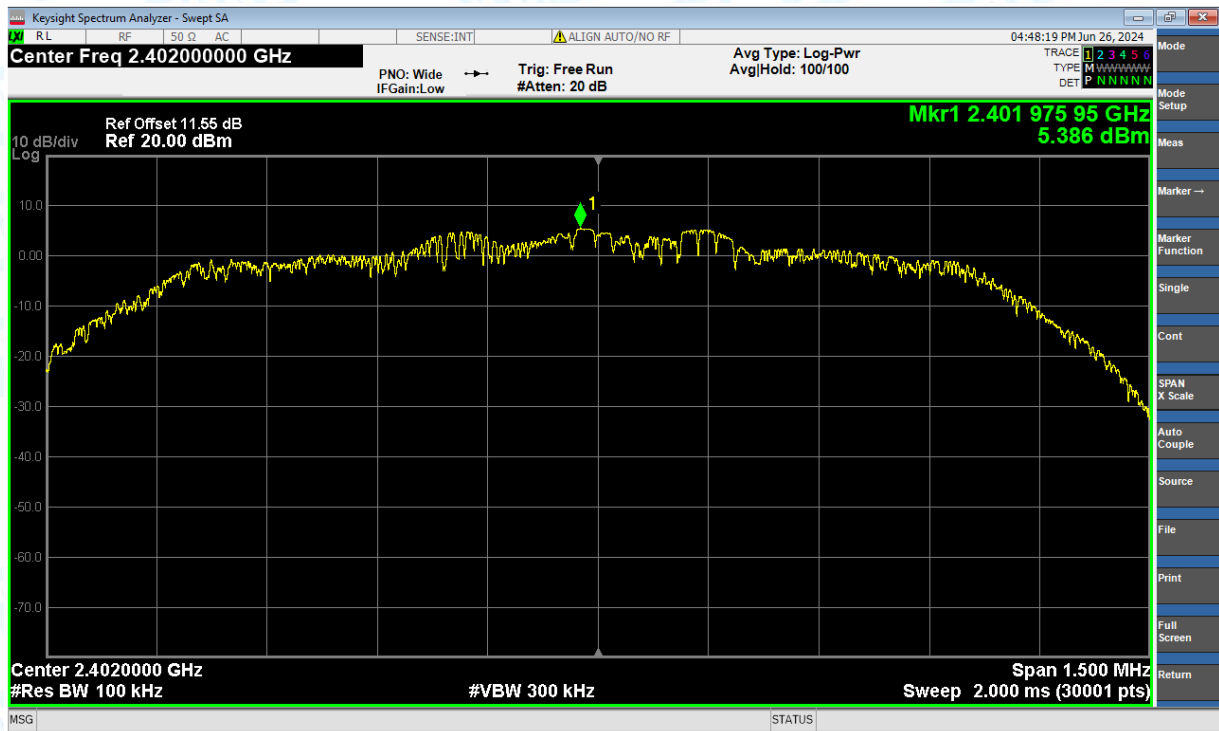
Tx. Spurious NVHT 1-DH1 2480MHz Ant1 Ref



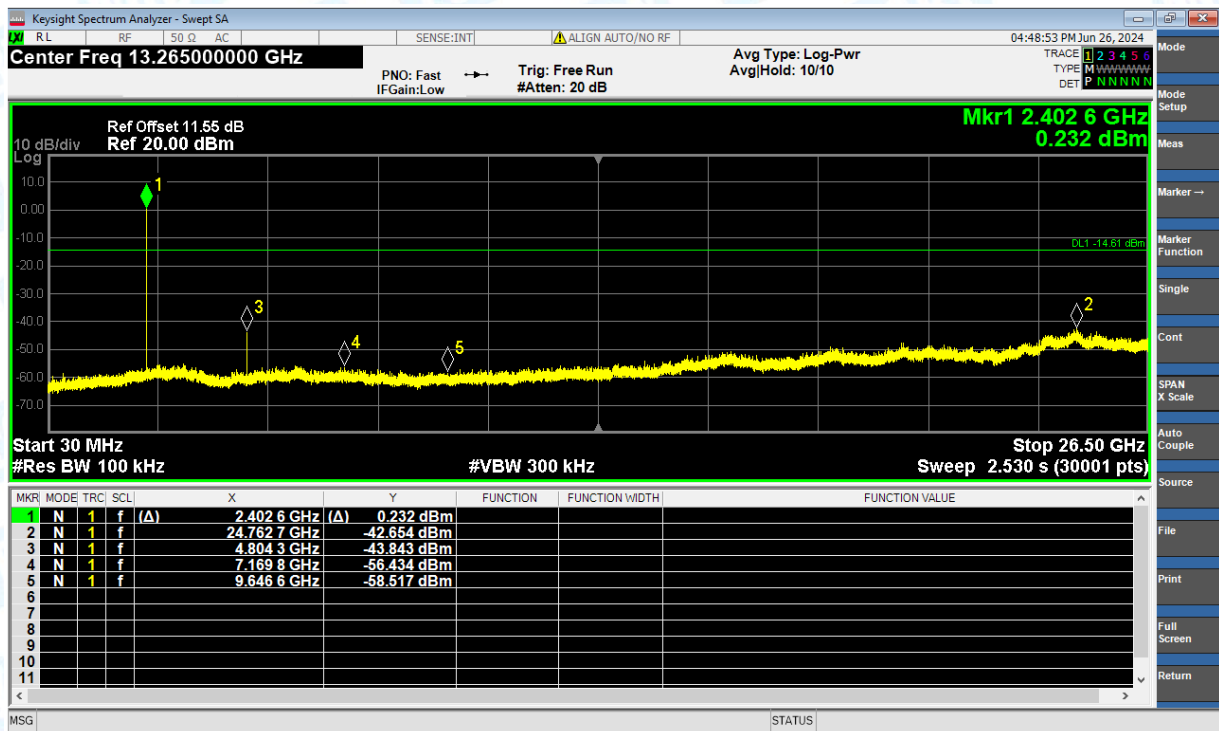
Tx. Spurious NVHT 1-DH1 2480MHz Ant1 Emission



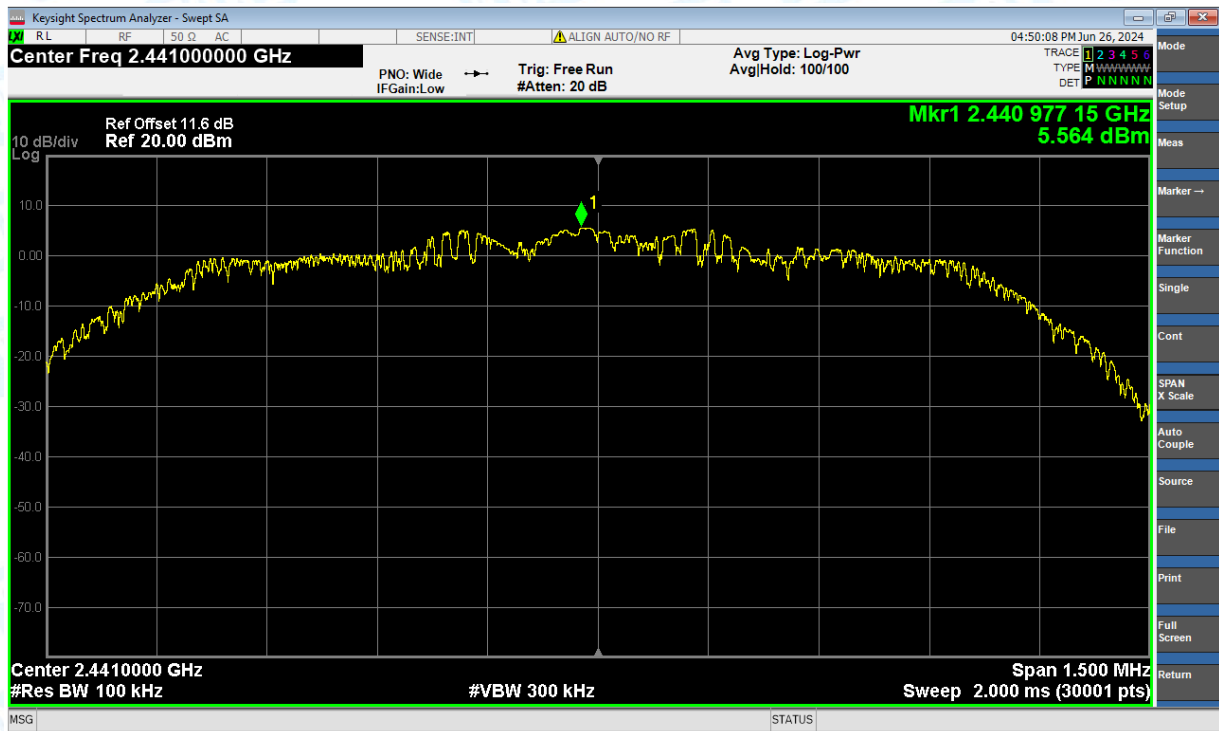
Tx. Spurious NVHT 2-DH1 2402MHz Ant1 Ref



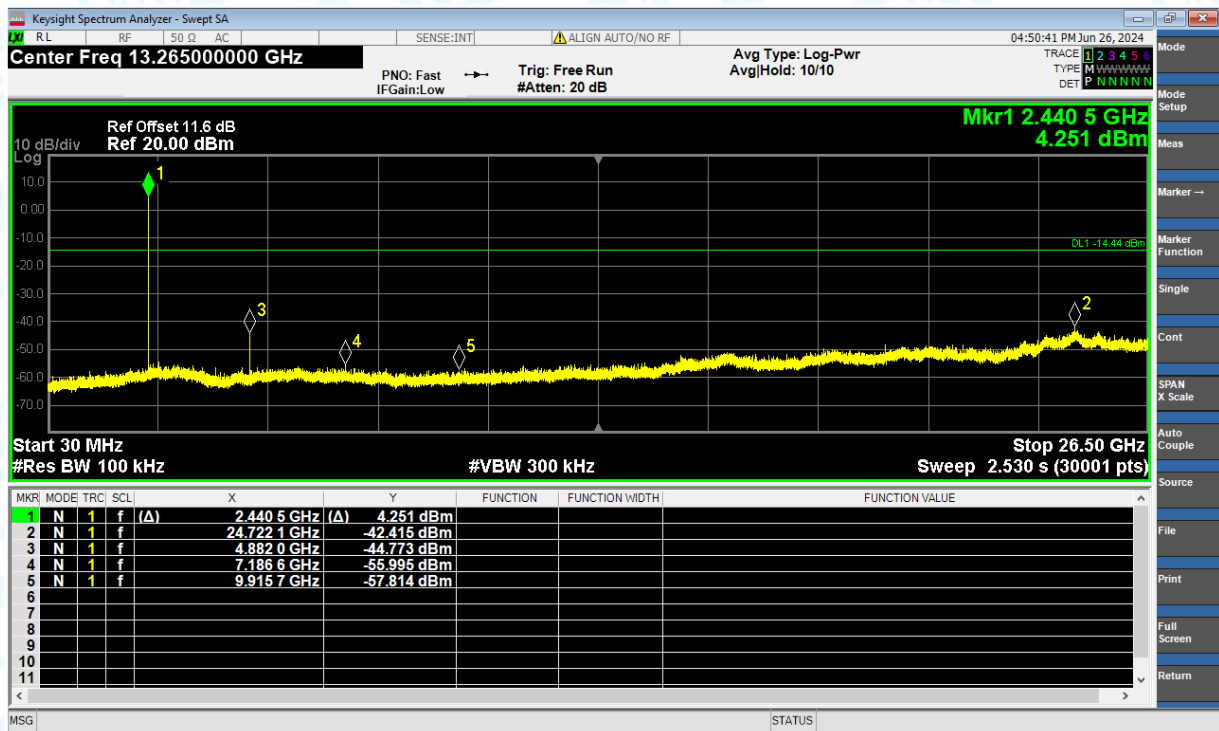
Tx. Spurious NVHT 2-DH1 2402MHz Ant1 Emission



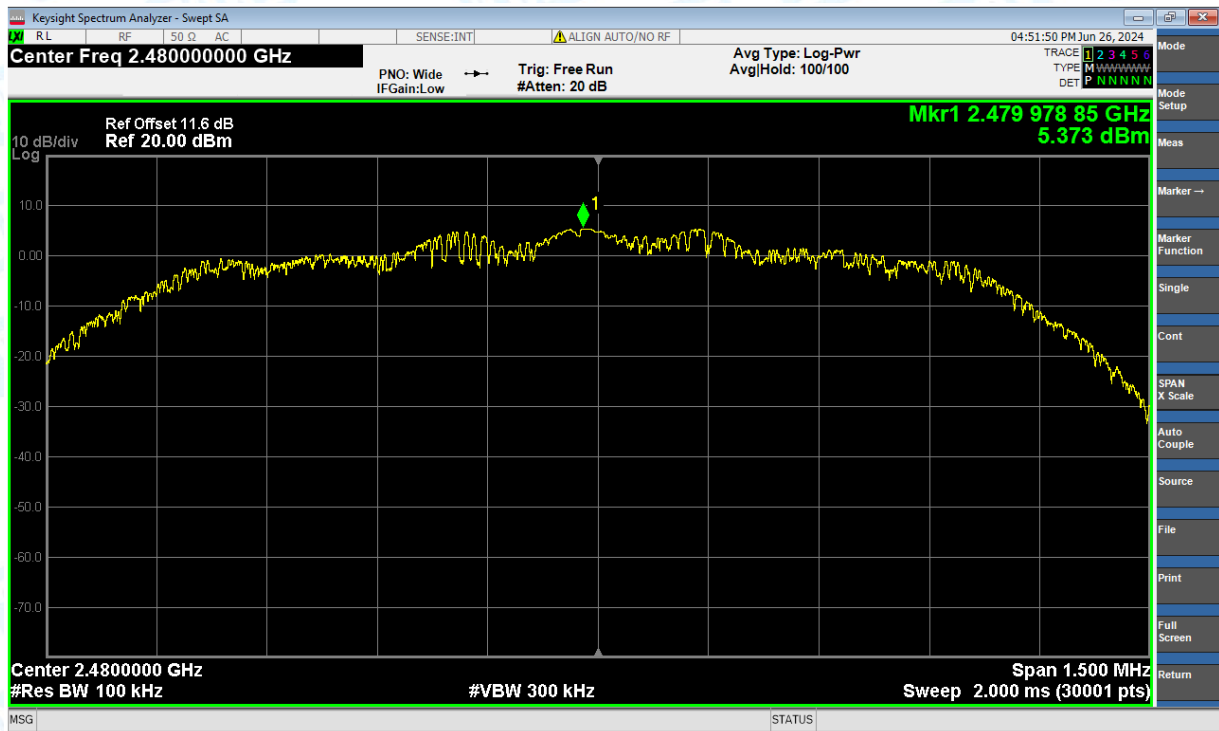
Tx. Spurious NVHT 2-DH1 2441MHz Ant1 Ref



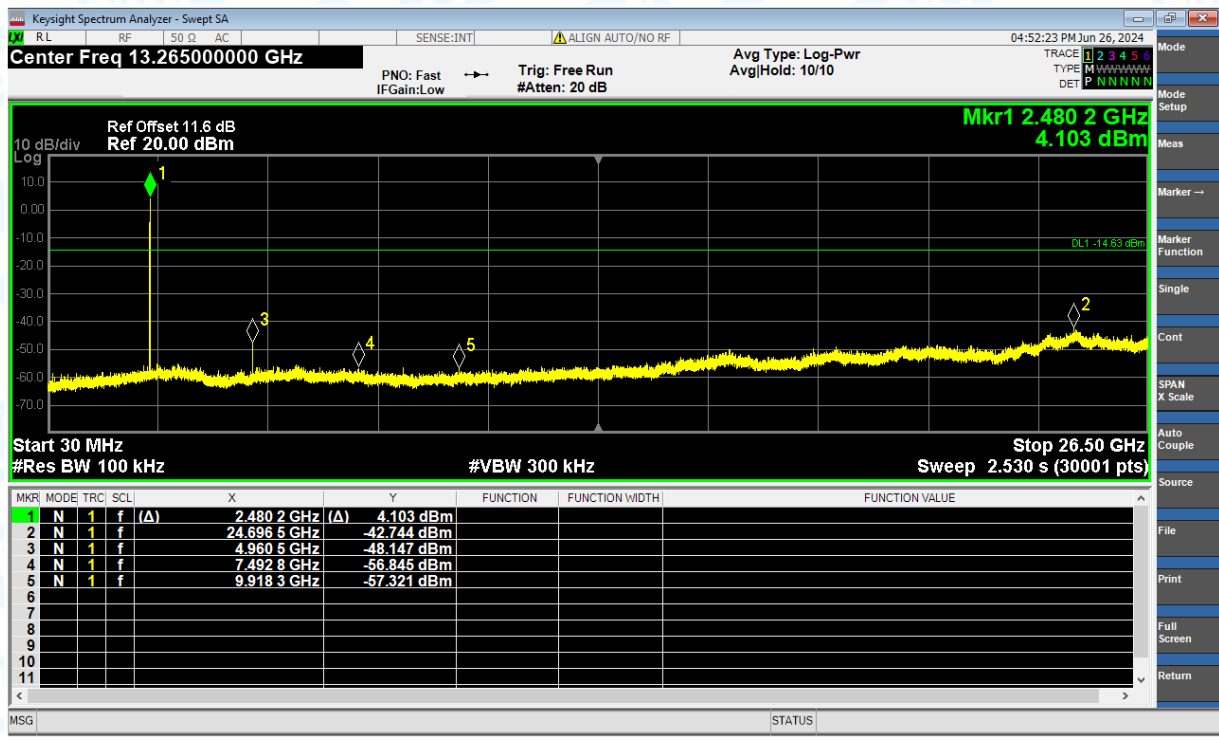
Tx. Spurious NVHT 2-DH1 2441MHz Ant1 Emission



Tx. Spurious NVHT 2-DH1 2480MHz Ant1 Ref



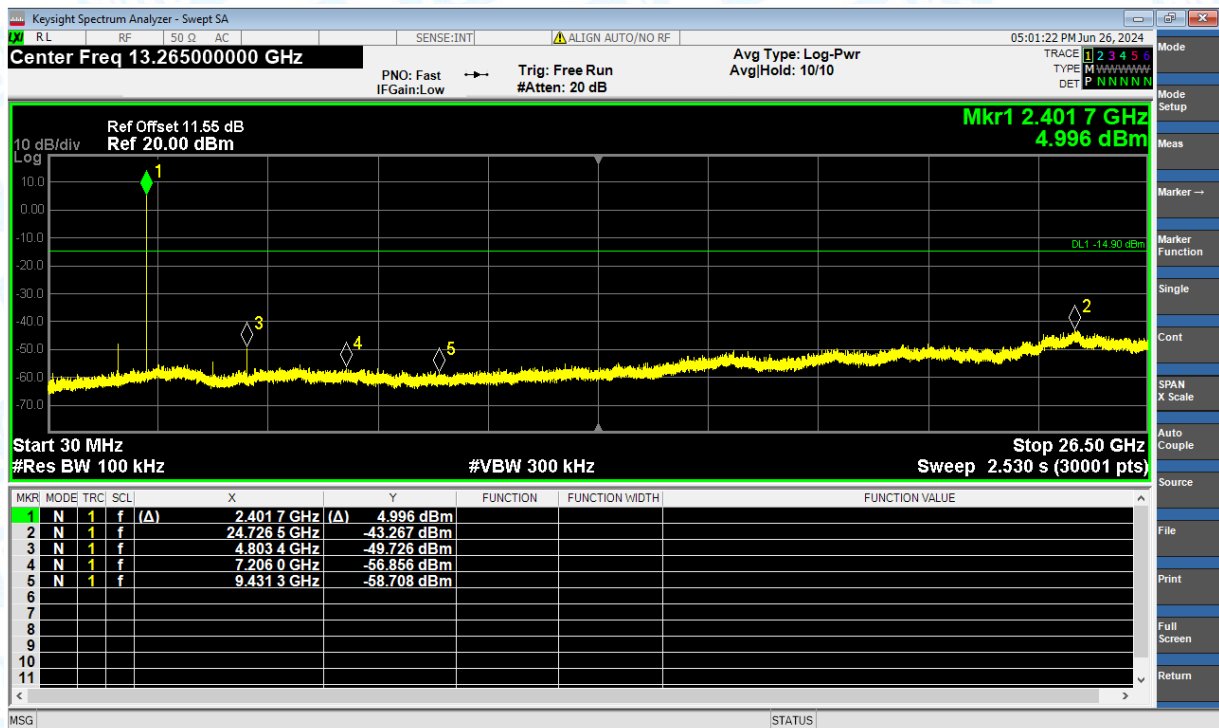
Tx. Spurious NVHT 2-DH1 2480MHz Ant1 Emission



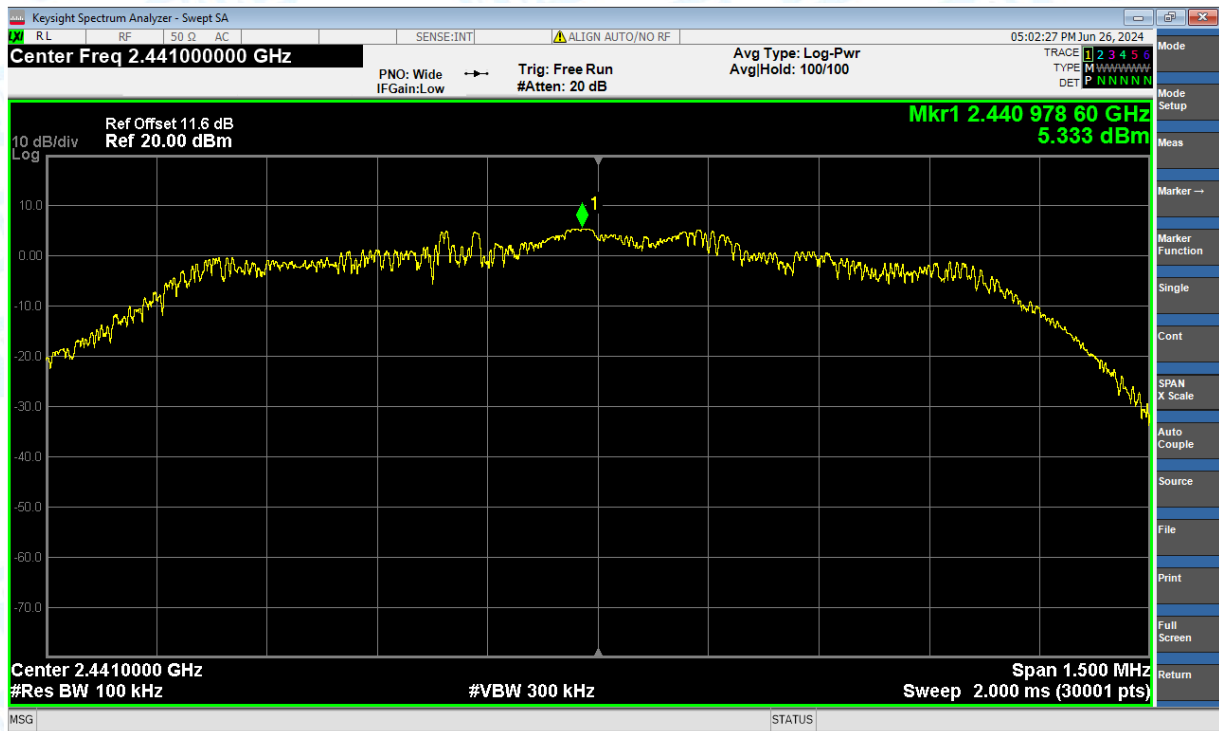
Tx. Spurious NVHT 3-DH1 2402MHz Ant1 Ref



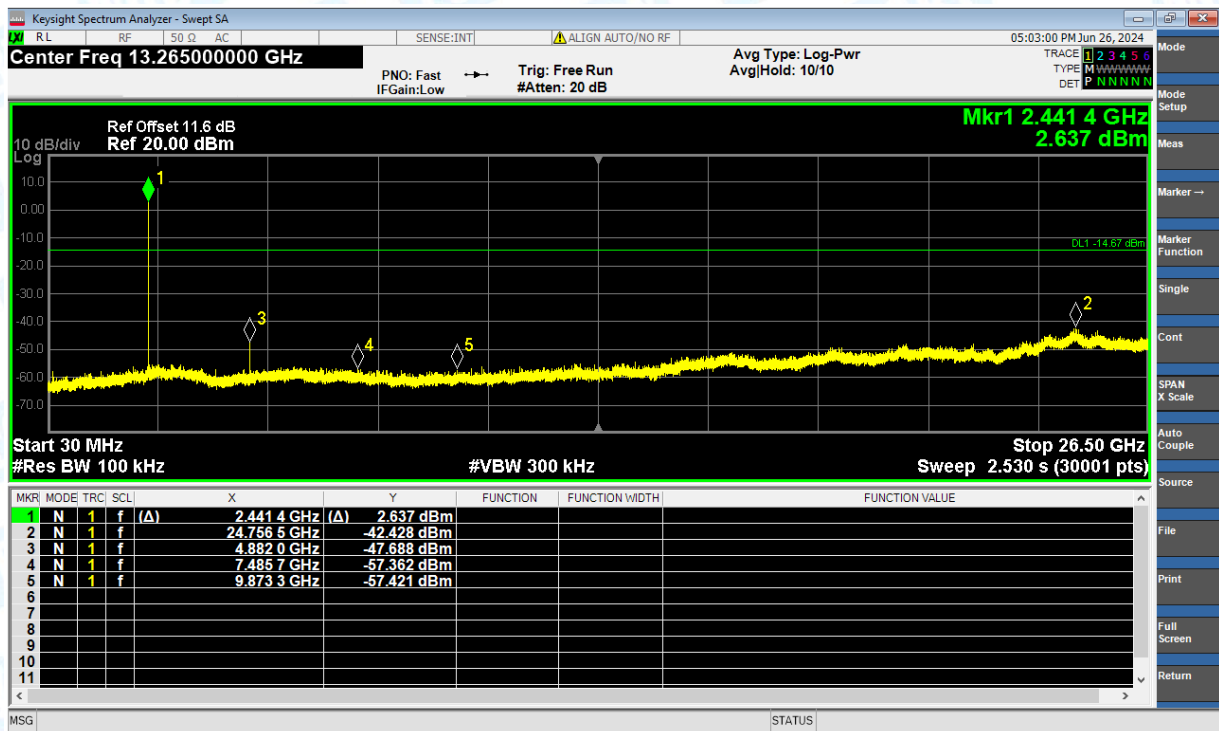
Tx. Spurious NVHT 3-DH1 2402MHz Ant1 Emission



Tx. Spurious NVHT 3-DH1 2441MHz Ant1 Ref



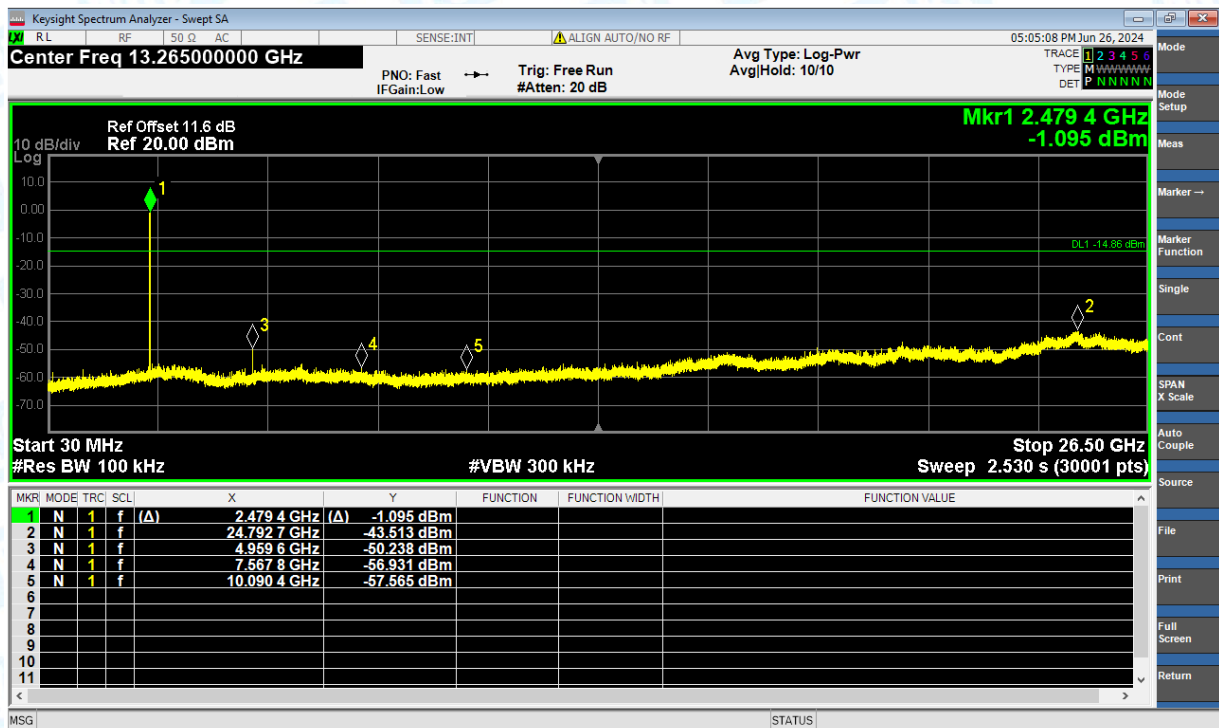
Tx. Spurious NVHT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVHT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVHT 3-DH1 2480MHz Ant1 Emission

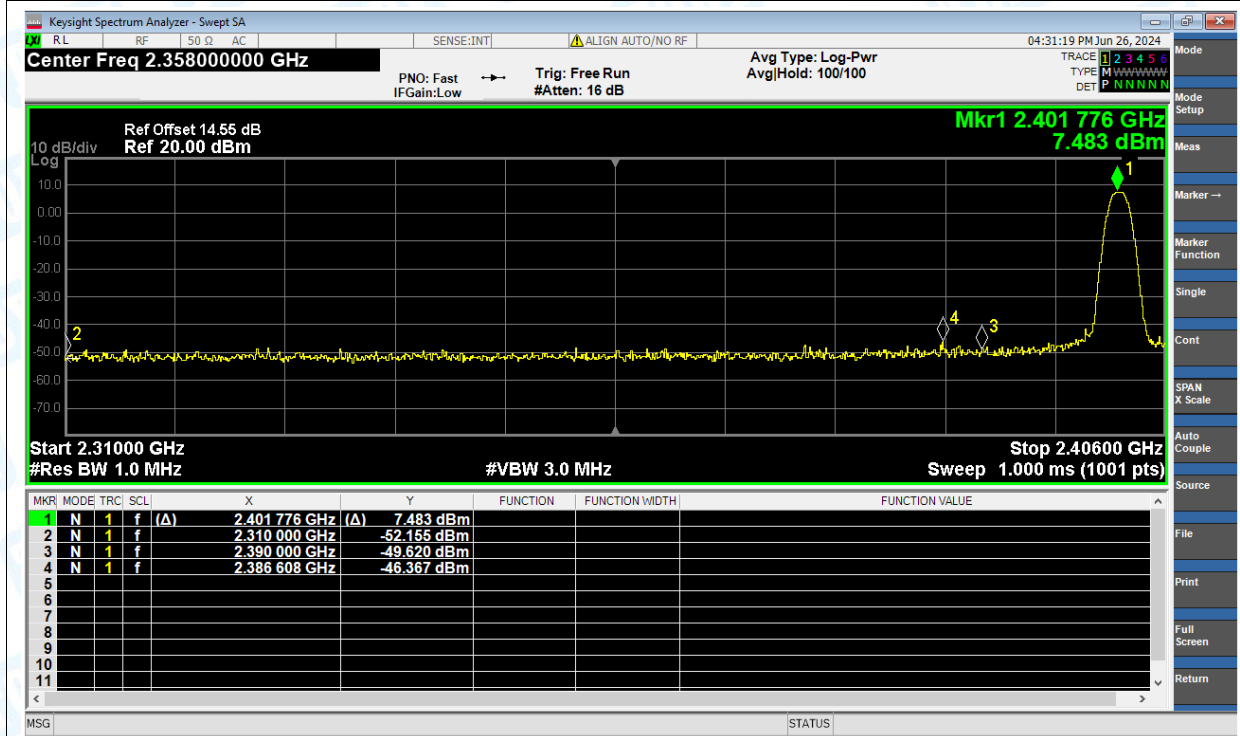


8. Restrict Band

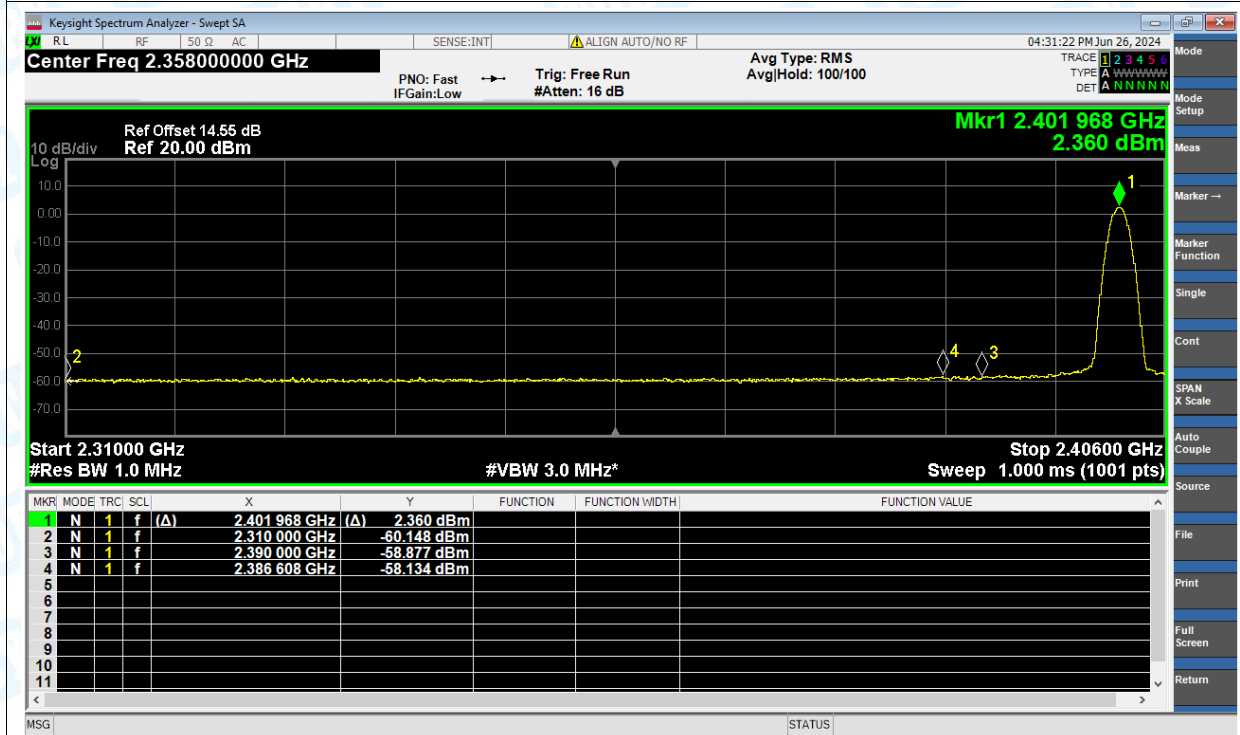
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVHT	1-DH1	2402	Ant1	No-Hopping	2310	-52.16	2	-	45.1	Peak	74	Pass
NVHT	1-DH1	2402	Ant1	No-Hopping	2310	-60.15	2	5.07	42.18	Average	54	Pass
NVHT	1-DH1	2402	Ant1	No-Hopping	2386.608	-46.37	2	-	50.89	Peak	74	Pass
NVHT	1-DH1	2402	Ant1	No-Hopping	2386.608	-58.13	2	5.07	44.2	Average	54	Pass
NVHT	1-DH1	2402	Ant1	No-Hopping	2390	-49.62	2	-	47.64	Peak	74	Pass
NVHT	1-DH1	2402	Ant1	No-Hopping	2390	-58.88	2	5.07	43.45	Average	54	Pass
NVHT	1-DH1	2480	Ant1	No-Hopping	2483.5	-47.3	2	-	49.96	Peak	74	Pass
NVHT	1-DH1	2480	Ant1	No-Hopping	2483.5	-56.68	2	4.99	45.57	Average	54	Pass
NVHT	1-DH1	2480	Ant1	No-Hopping	2483.608	-45.52	2	-	51.74	Peak	74	Pass
NVHT	1-DH1	2480	Ant1	No-Hopping	2483.512	-56.67	2	4.99	45.58	Average	54	Pass
NVHT	1-DH1	2480	Ant1	No-Hopping	2500	-51.72	2	-	45.54	Peak	74	Pass
NVHT	1-DH1	2480	Ant1	No-Hopping	2500	-59	2	4.99	43.25	Average	54	Pass
NVHT	2-DH1	2402	Ant1	No-Hopping	2310	-55.58	2	-	41.68	Peak	74	Pass
NVHT	2-DH1	2402	Ant1	No-Hopping	2310	-63.22	2	4.91	38.95	Average	54	Pass
NVHT	2-DH1	2402	Ant1	No-Hopping	2386.608	-50.69	2	-	46.57	Peak	74	Pass
NVHT	2-DH1	2402	Ant1	No-Hopping	2381.424	-61.44	2	4.91	40.73	Average	54	Pass
NVHT	2-DH1	2402	Ant1	No-Hopping	2390	-51.14	2	-	46.12	Peak	74	Pass
NVHT	2-DH1	2402	Ant1	No-Hopping	2390	-62.52	2	4.91	39.65	Average	54	Pass
NVHT	2-DH1	2480	Ant1	No-Hopping	2483.5	-50.74	2	-	46.52	Peak	74	Pass
NVHT	2-DH1	2480	Ant1	No-Hopping	2483.5	-59.8	2	4.91	42.37	Average	54	Pass
NVHT	2-DH1	2480	Ant1	No-Hopping	2483.8	-47.48	2	-	49.78	Peak	74	Pass
NVHT	2-DH1	2480	Ant1	No-Hopping	2483.896	-59.57	2	4.91	42.6	Average	54	Pass
NVHT	2-DH1	2480	Ant1	No-Hopping	2500	-51.49	2	-	45.77	Peak	74	Pass
NVHT	2-DH1	2480	Ant1	No-Hopping	2500	-61.86	2	4.91	40.31	Average	54	Pass
NVHT	3-DH1	2402	Ant1	No-Hopping	2310	-54.99	2	-	42.27	Peak	74	Pass
NVHT	3-DH1	2402	Ant1	No-Hopping	2310	-63.39	2	4.99	38.86	Average	54	Pass
NVHT	3-DH1	2402	Ant1	No-Hopping	2377.488	-50.49	2	-	46.77	Peak	74	Pass
NVHT	3-DH1	2402	Ant1	No-Hopping	2386.032	-61.5	2	4.99	40.75	Average	54	Pass
NVHT	3-DH1	2402	Ant1	No-Hopping	2390	-53.45	2	-	43.81	Peak	74	Pass
NVHT	3-DH1	2402	Ant1	No-Hopping	2390	-62.4	2	4.99	39.85	Average	54	Pass
NVHT	3-DH1	2480	Ant1	No-Hopping	2483.5	-51.96	2	-	45.3	Peak	74	Pass
NVHT	3-DH1	2480	Ant1	No-Hopping	2483.5	-60.56	2	4.99	41.69	Average	54	Pass
NVHT	3-DH1	2480	Ant1	No-Hopping	2483.968	-49.21	2	-	48.05	Peak	74	Pass
NVHT	3-DH1	2480	Ant1	No-Hopping	2483.776	-60.02	2	4.99	42.23	Average	54	Pass
NVHT	3-DH1	2480	Ant1	No-Hopping	2500	-53.9	2	-	43.36	Peak	74	Pass
NVHT	3-DH1	2480	Ant1	No-Hopping	2500	-62.46	2	4.99	39.79	Average	54	Pass

Test Graphs

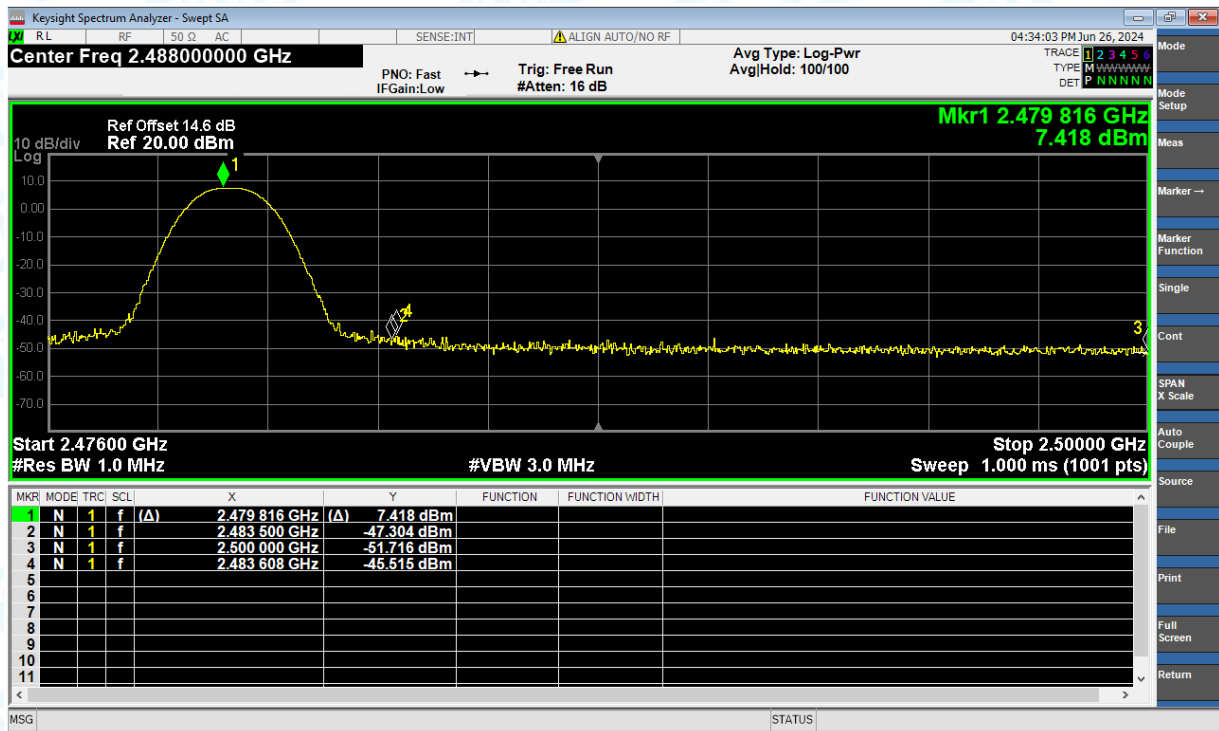
Restrict Band NVHT 1-DH1 2402MHz Ant1 No-Hopping Peak



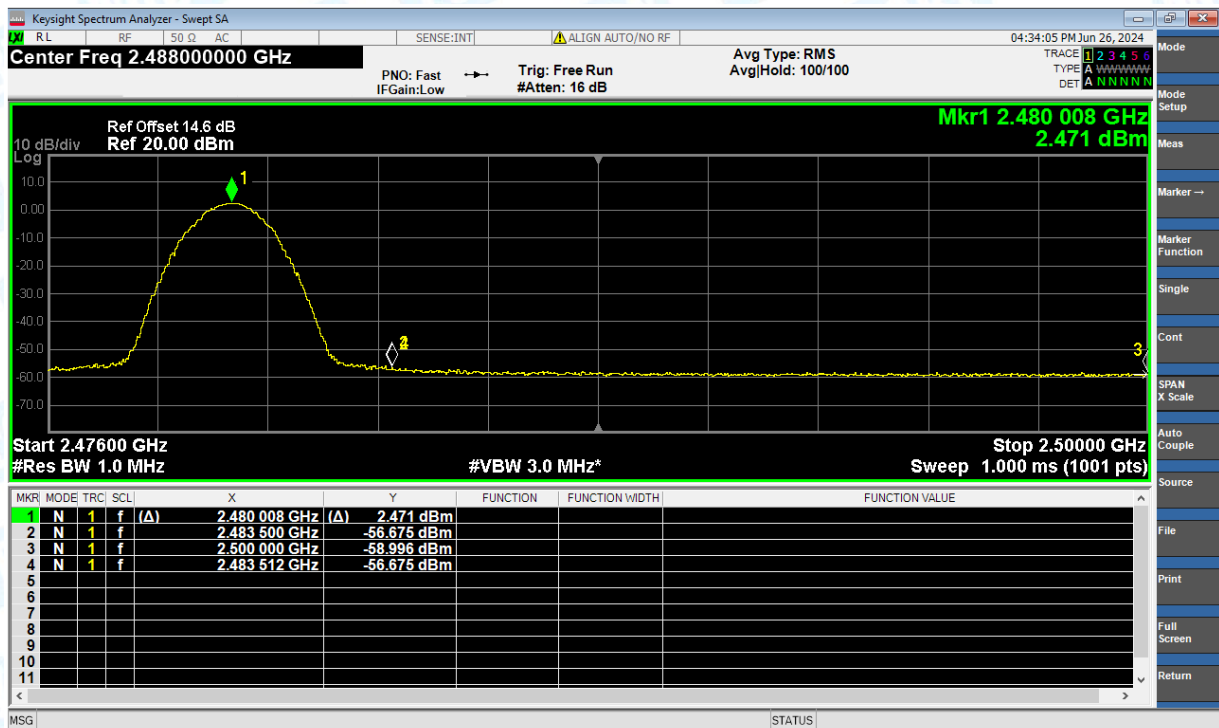
Restrict Band NVHT 1-DH1 2402MHz Ant1 No-Hopping Average



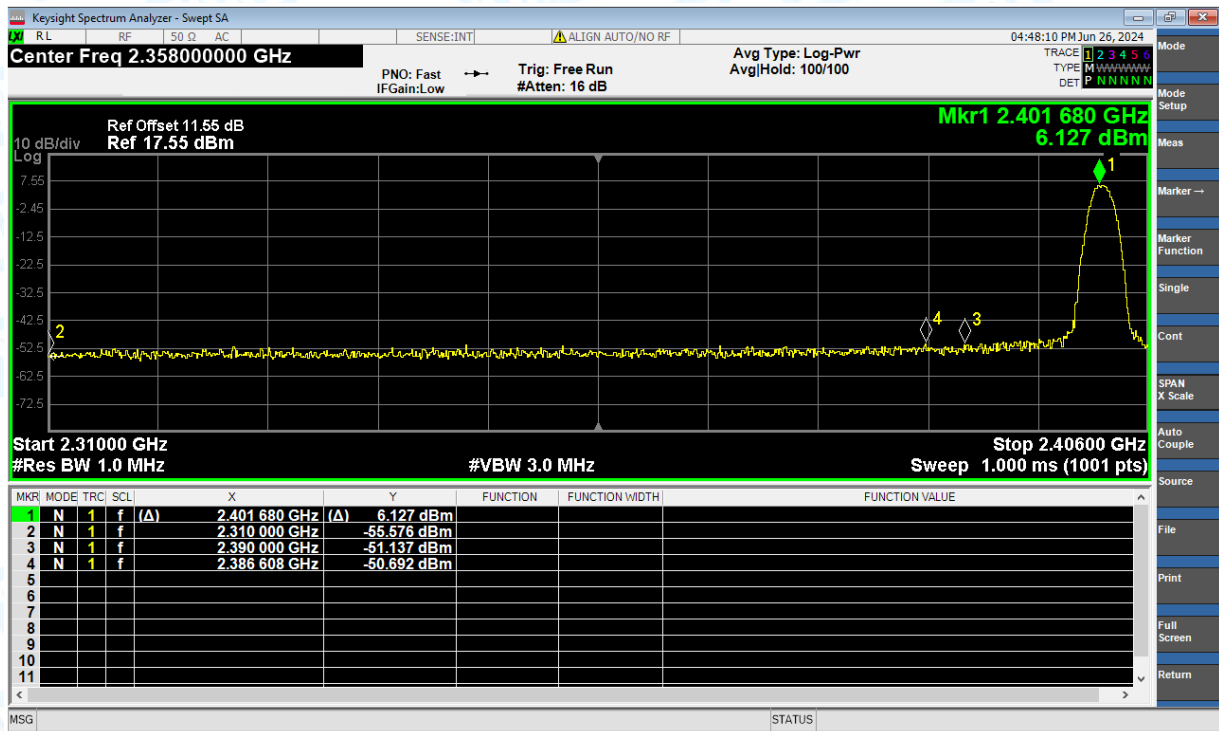
Restrict Band NVHT 1-DH1 2480MHz Ant1 No-Hopping Peak



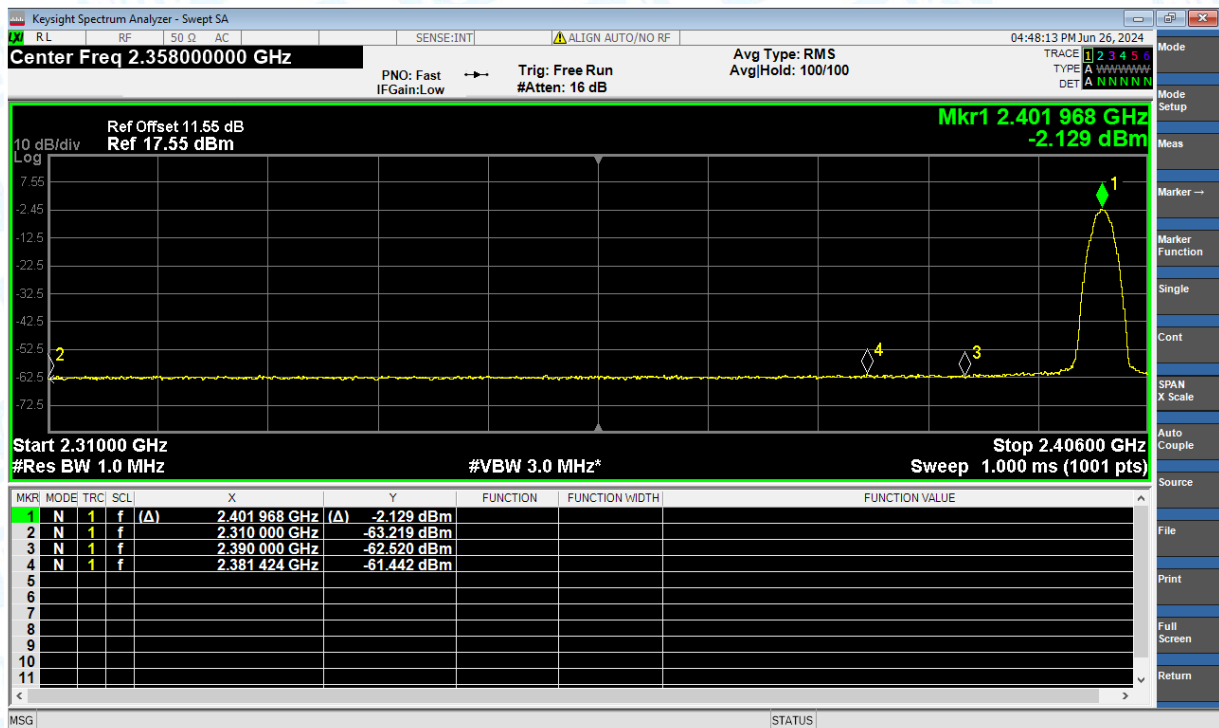
Restrict Band NVHT 1-DH1 2480MHz Ant1 No-Hopping Average



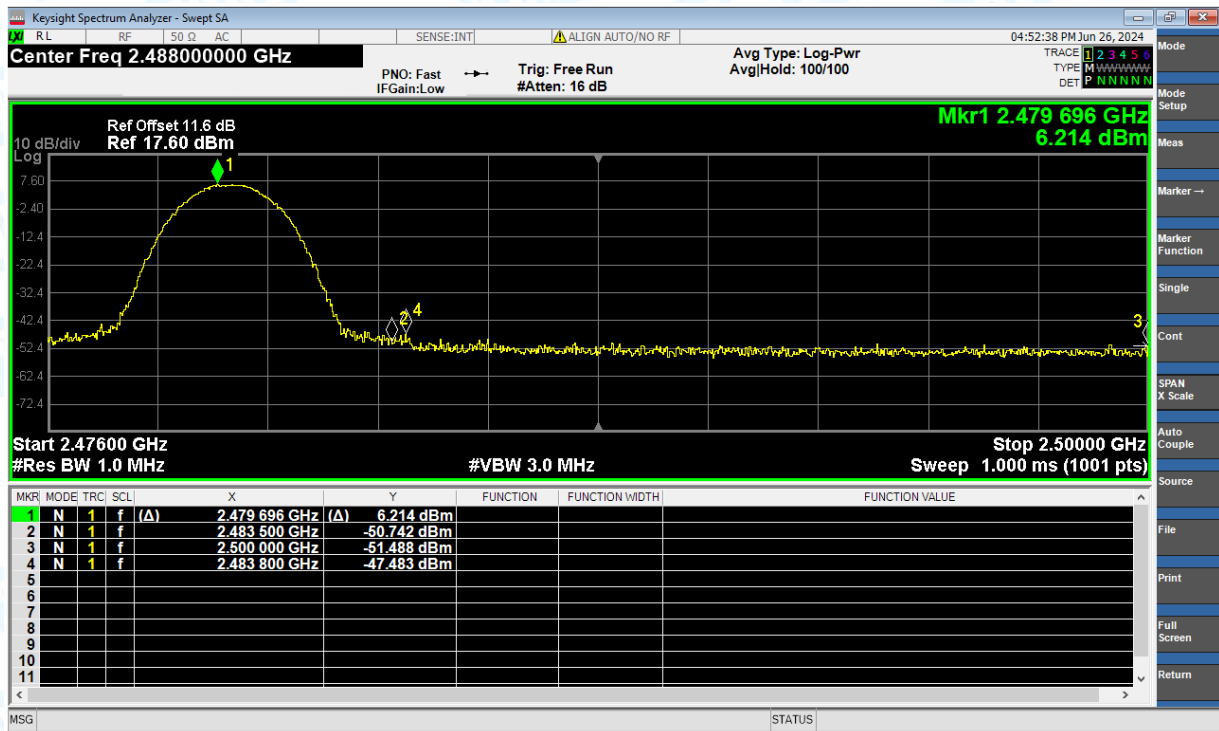
Restrict Band NVHT 2-DH1 2402MHz Ant1 No-Hopping Peak



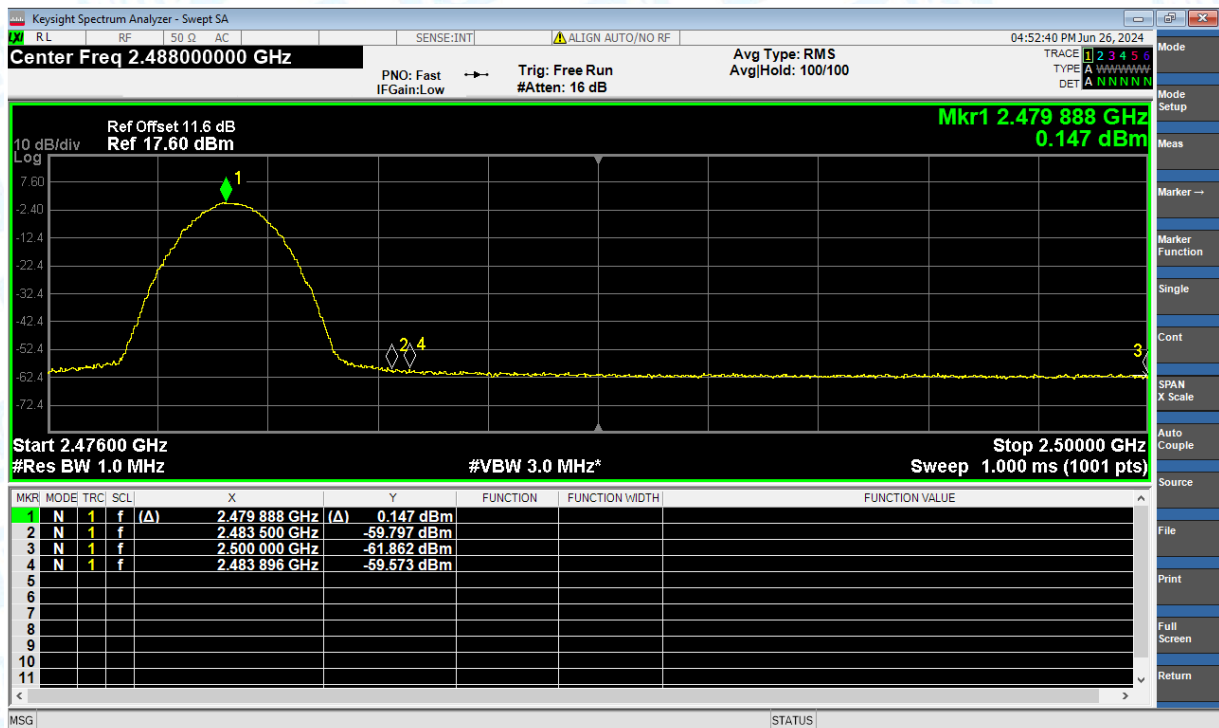
Restrict Band NVHT 2-DH1 2402MHz Ant1 No-Hopping Average



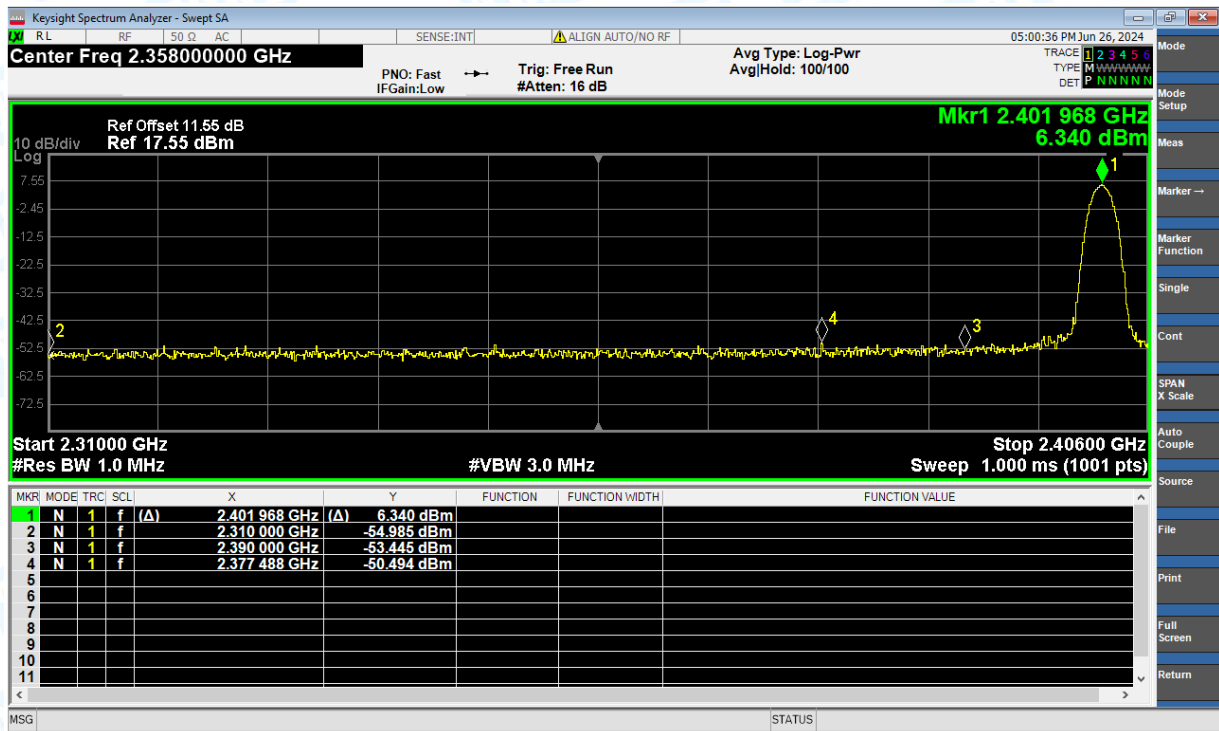
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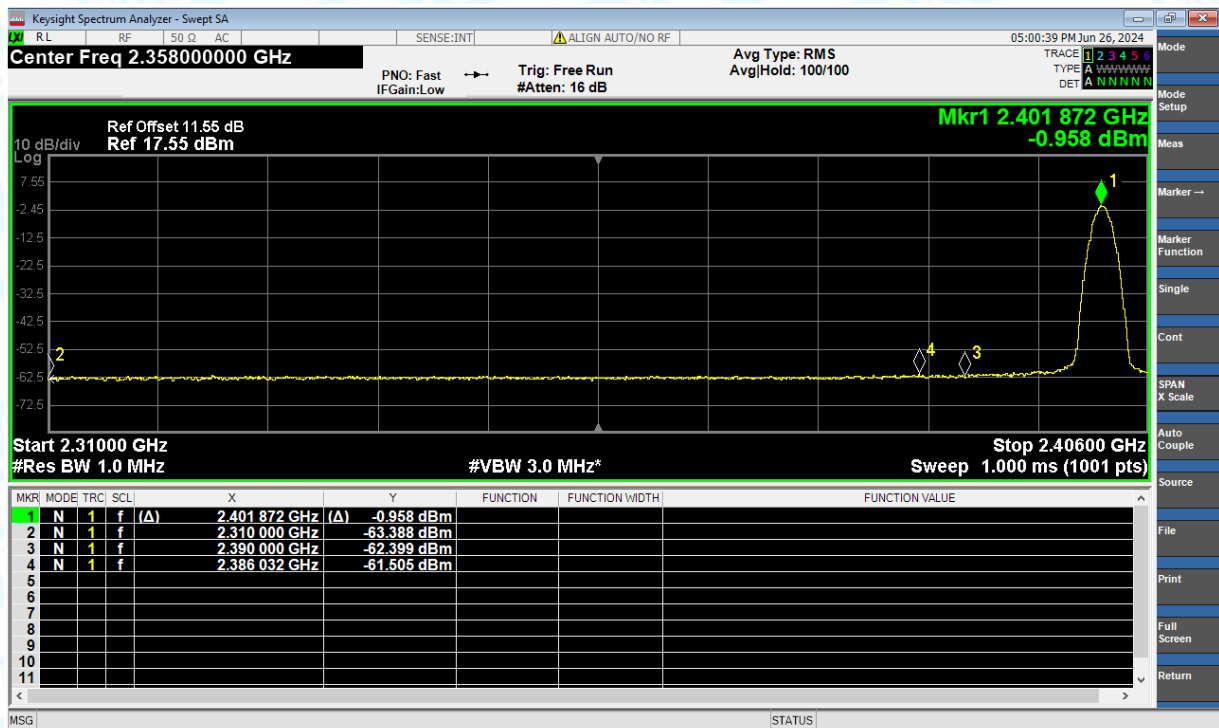
Restrict Band NVHT 2-DH1 2480MHz Ant1 No-Hopping Average



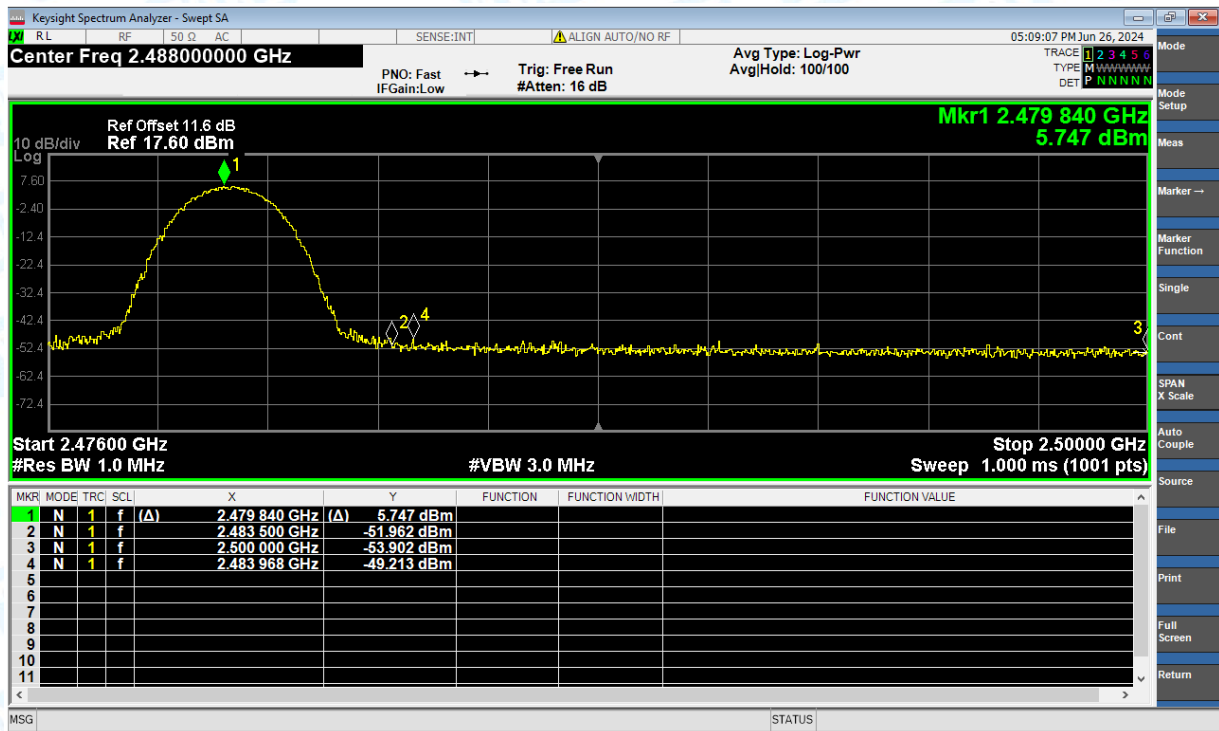
Restrict Band NVHT 3-DH1 2402MHz Ant1 No-Hopping Peak



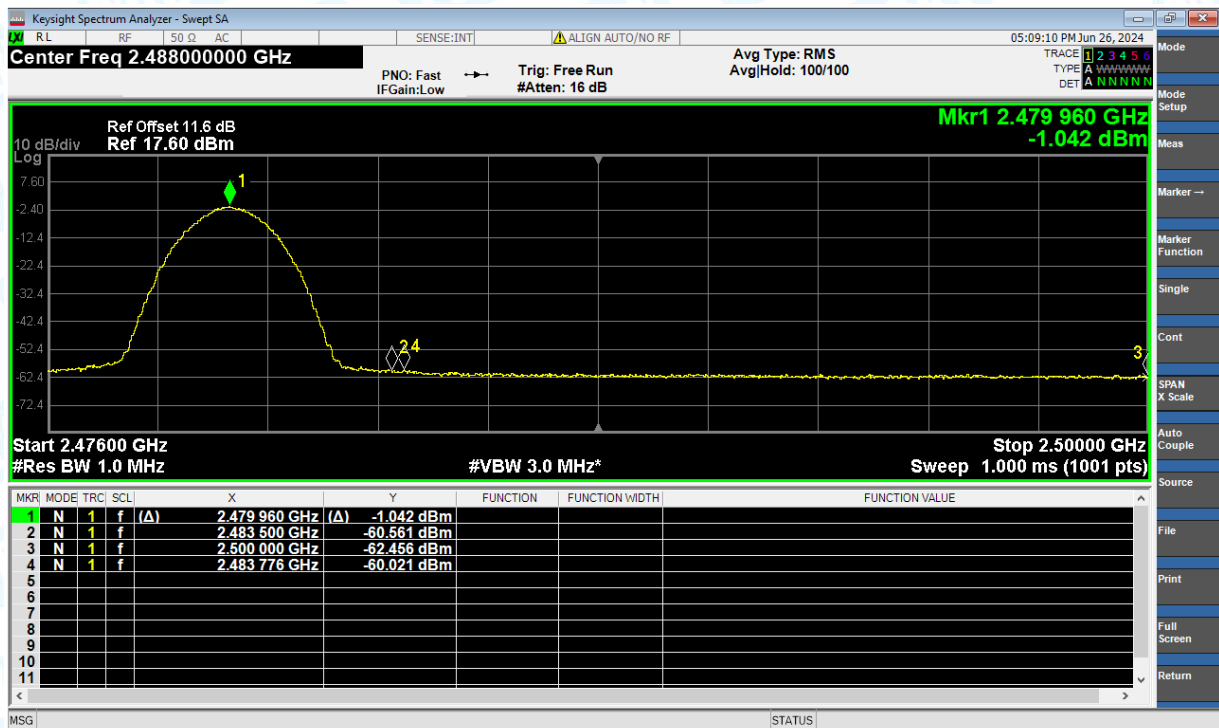
Restrict Band NVHT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

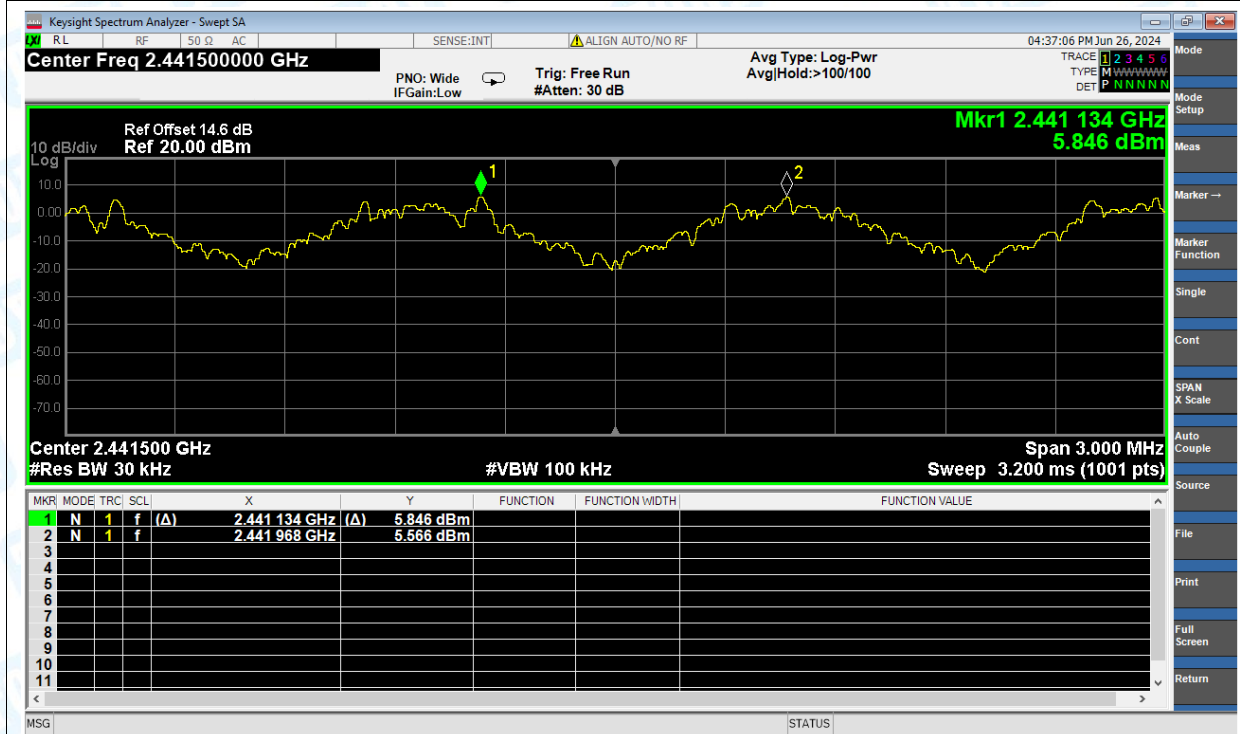


9. Carrier Frequencies Separation

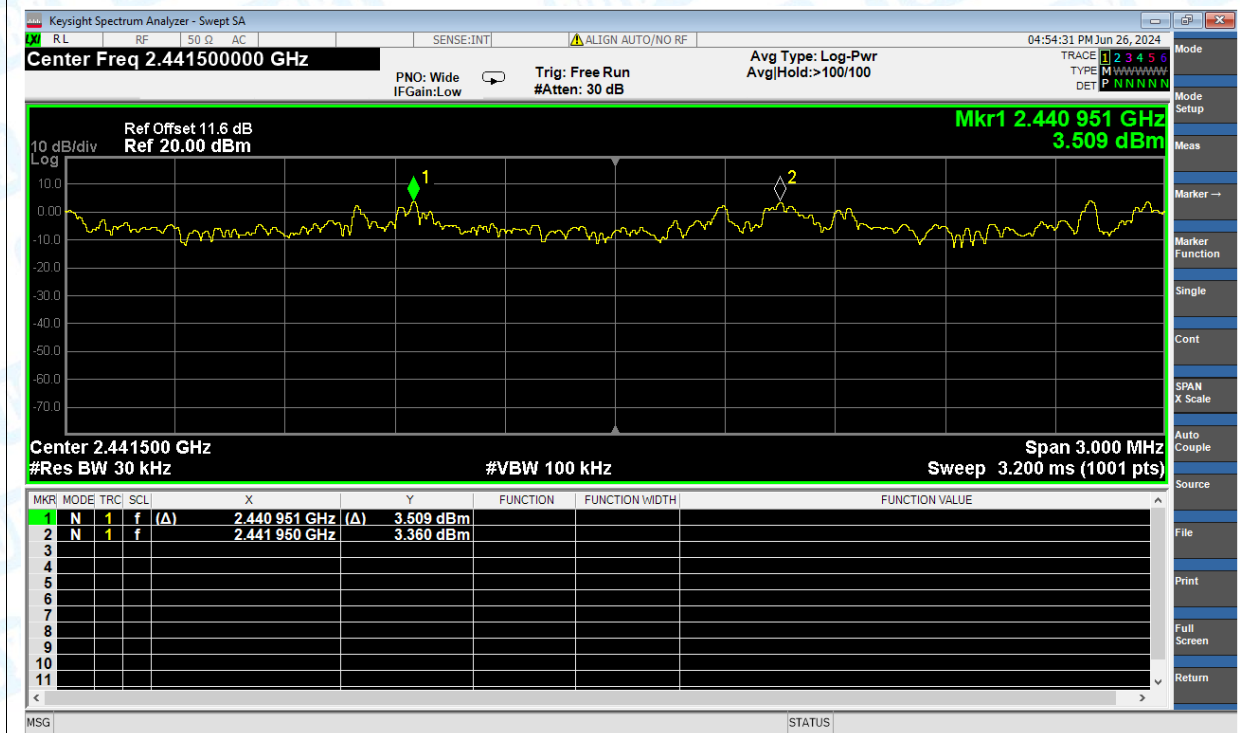
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVHT	1-DH1	Ant1	2441.134	2441.968	0.834	0.633	Pass
NVHT	2-DH1	Ant1	2440.951	2441.95	0.999	0.813	Pass
NVHT	3-DH1	Ant1	2440.963	2441.977	1.014	0.807	Pass

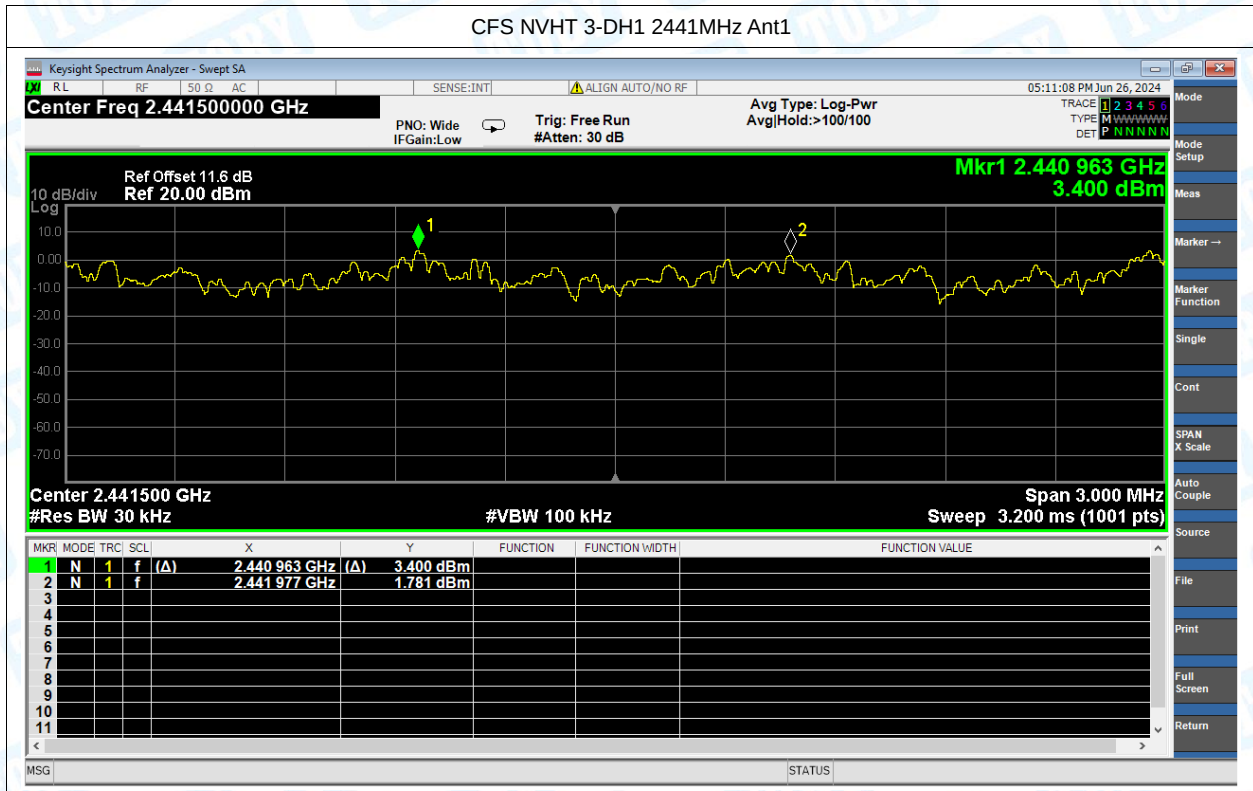
Test Graphs

CFS NVHT 1-DH1 2441MHz Ant1



CFS NVHT 2-DH1 2441MHz Ant1



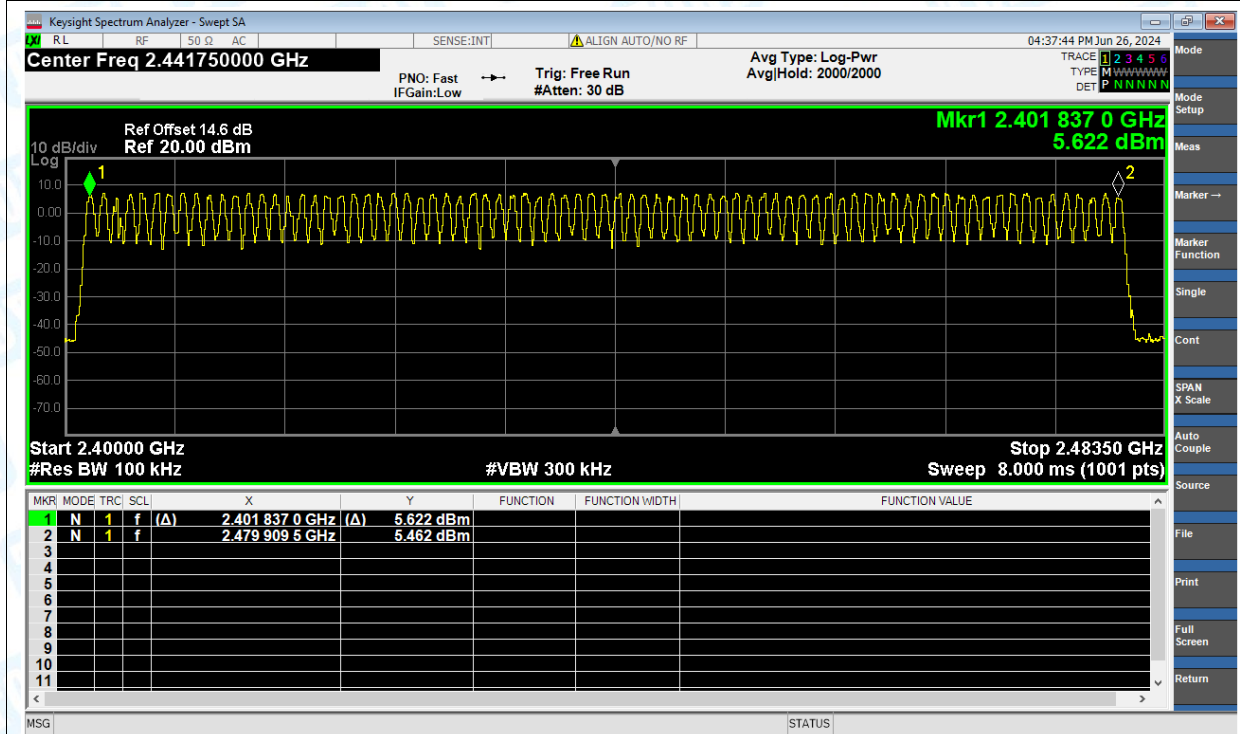


10. Number of Hopping Channel

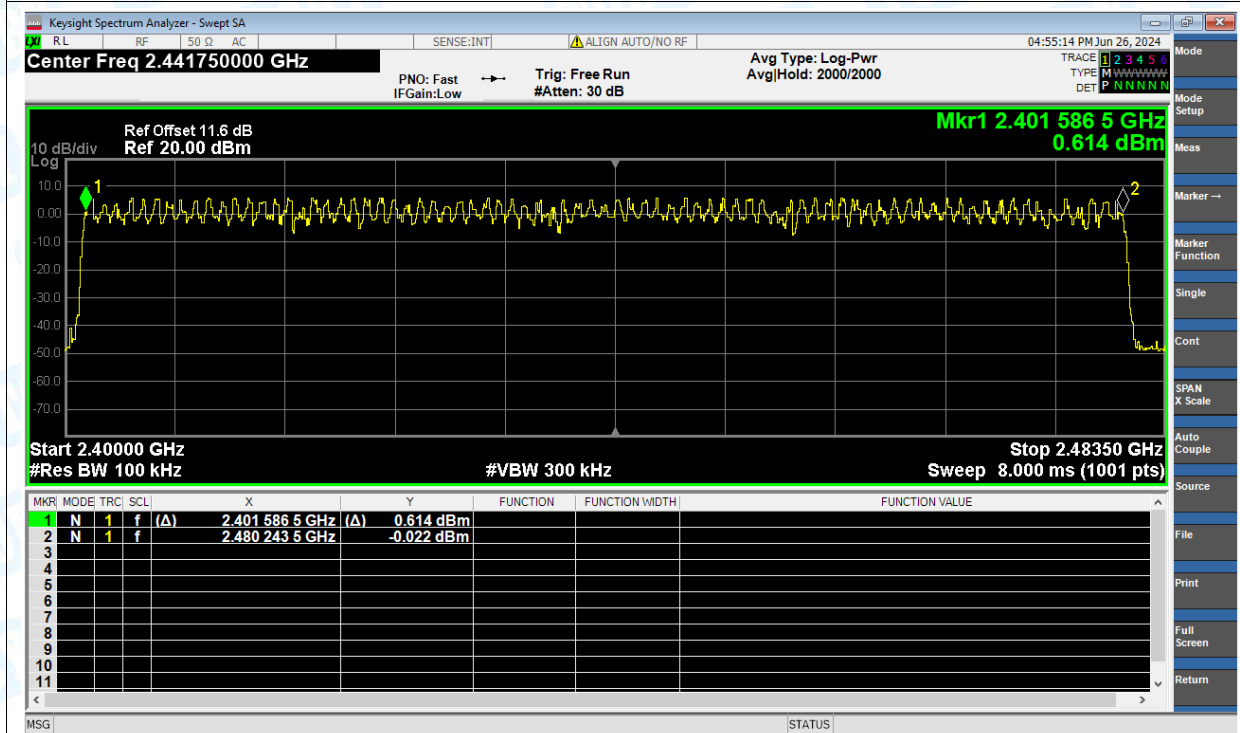
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVHT	1-DH1	Ant1	79	15	Pass
NVHT	2-DH1	Ant1	79	15	Pass
NVHT	3-DH1	Ant1	79	15	Pass

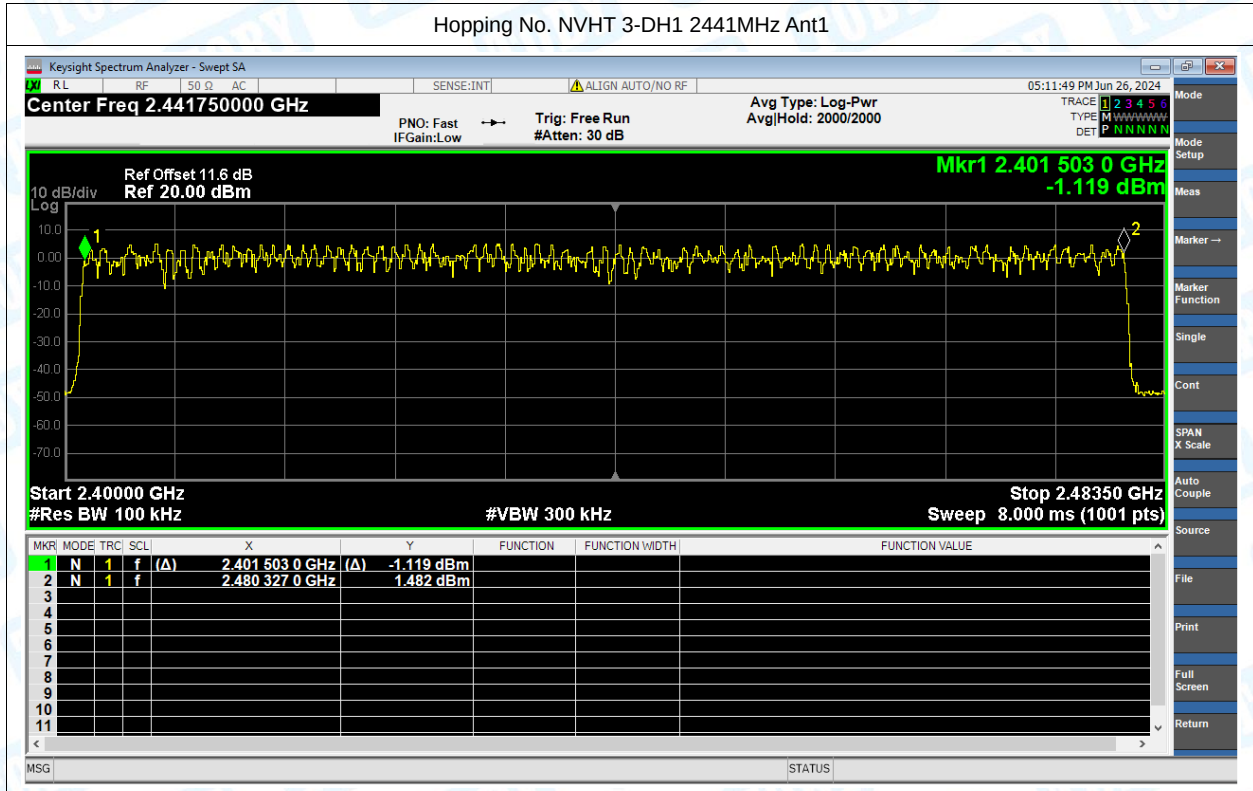
Test Graphs

Hopping No. NVHT 1-DH1 2441MHz Ant1



Hopping No. NVHT 2-DH1 2441MHz Ant1



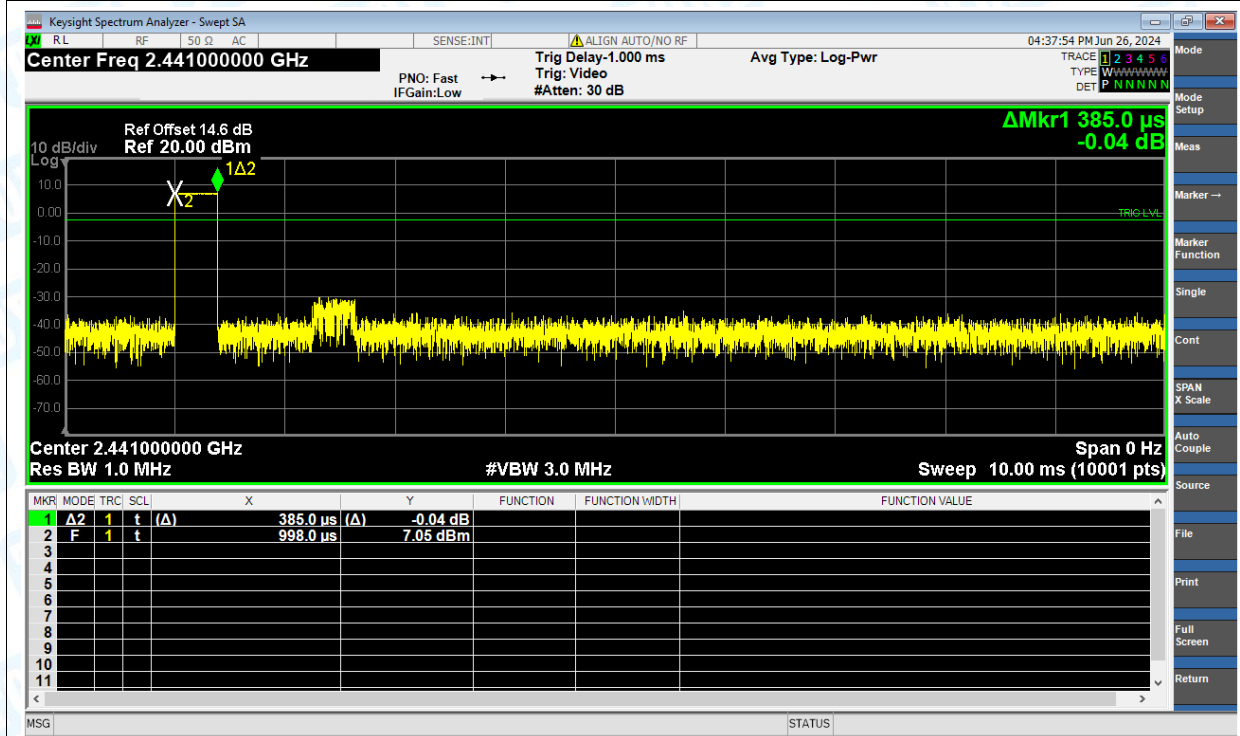


11. Dwell Time

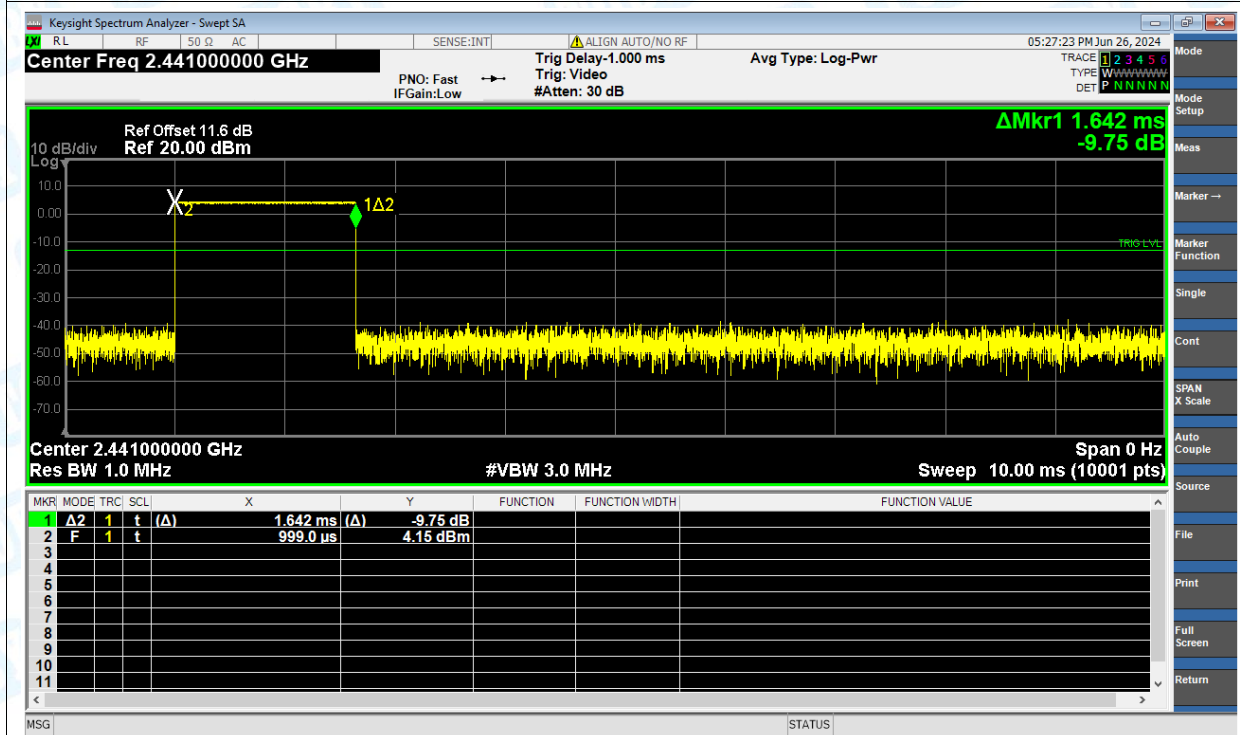
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVHT	1-DH1	2441	Ant1	0.385	123.2	31600	400	Pass
NVHT	1-DH3	2441	Ant1	1.642	262.72	31600	400	Pass
NVHT	1-DH5	2441	Ant1	2.89	308.267	31600	400	Pass
NVHT	2-DH1	2441	Ant1	0.394	126.08	31600	400	Pass
NVHT	2-DH3	2441	Ant1	1.646	263.36	31600	400	Pass
NVHT	2-DH5	2441	Ant1	2.894	308.693	31600	400	Pass
NVHT	3-DH1	2441	Ant1	0.394	126.08	31600	400	Pass
NVHT	3-DH3	2441	Ant1	1.645	263.2	31600	400	Pass
NVHT	3-DH5	2441	Ant1	2.896	308.907	31600	400	Pass

Test Graphs

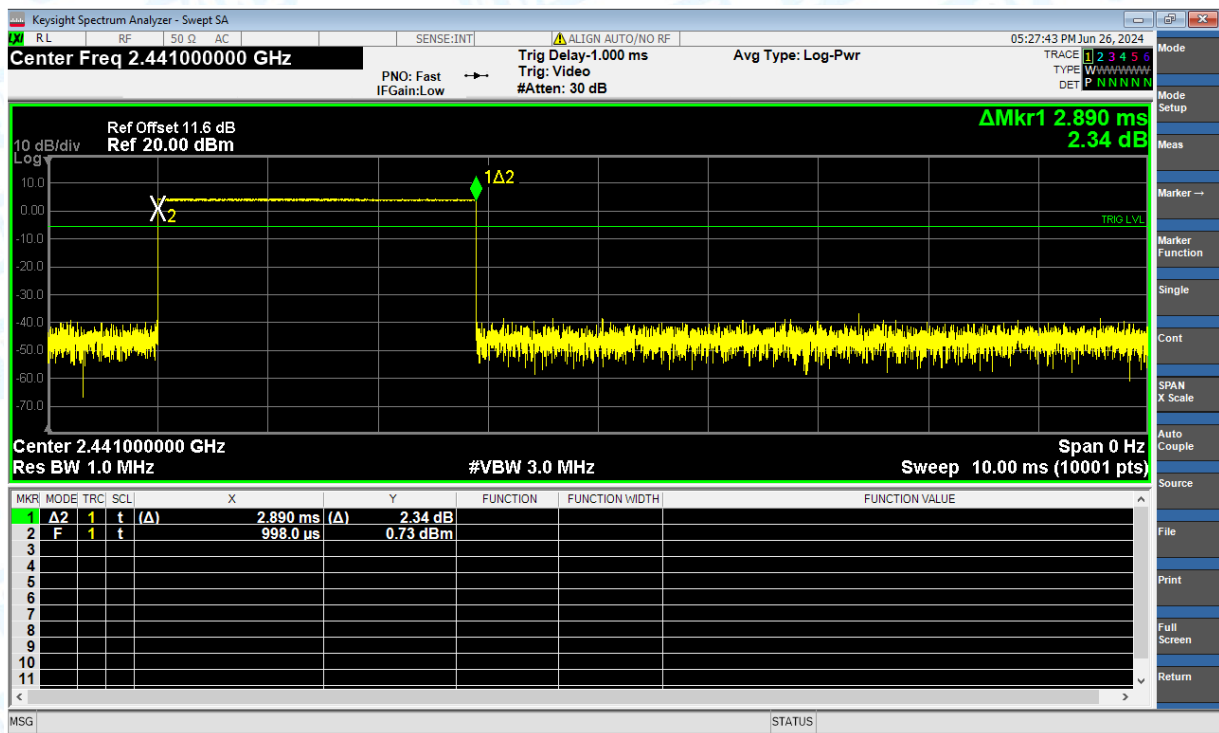
Dwell NVHT 1-DH1 2441MHz Ant1



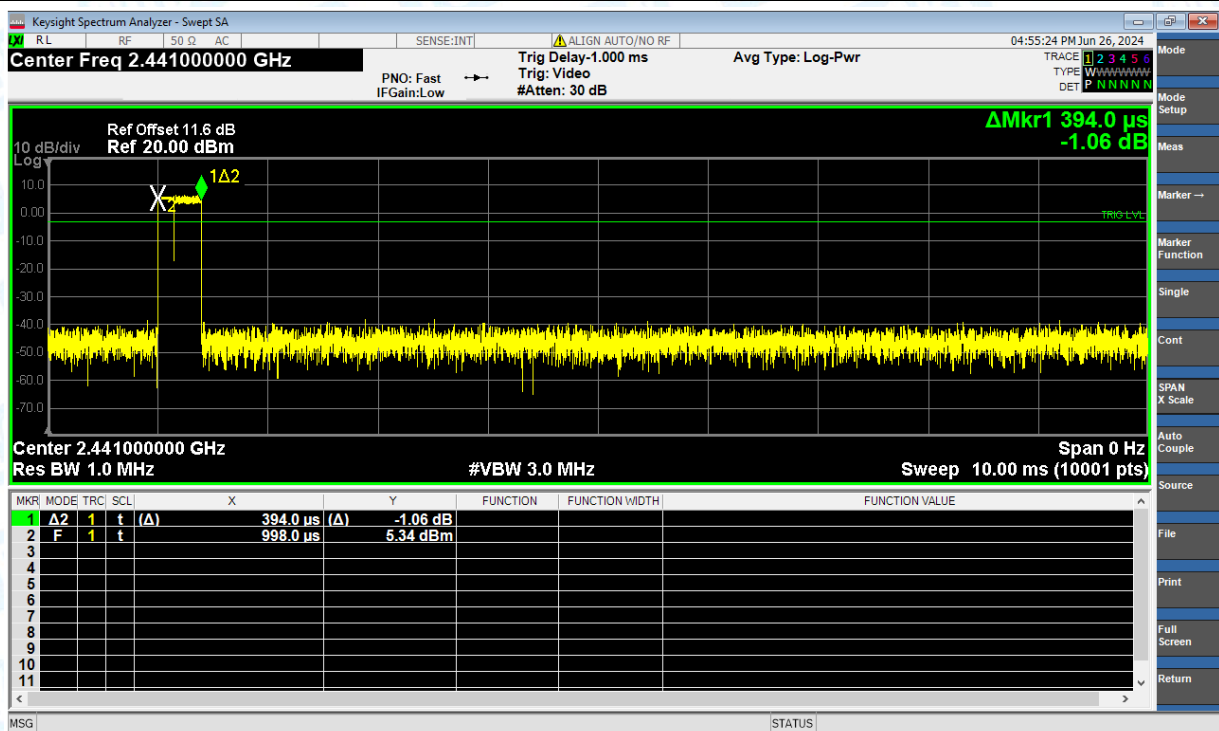
Dwell NVHT 1-DH3 2441MHz Ant1



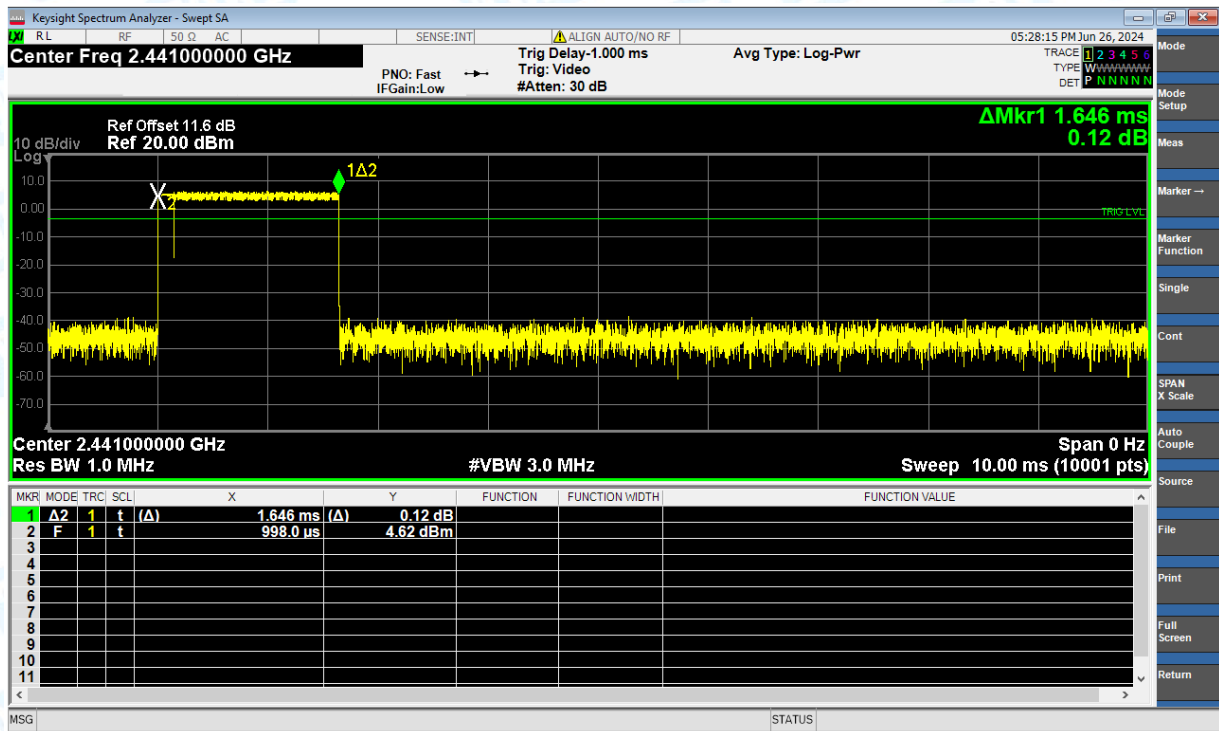
Dwell NVHT 1-DH5 2441MHz Ant1



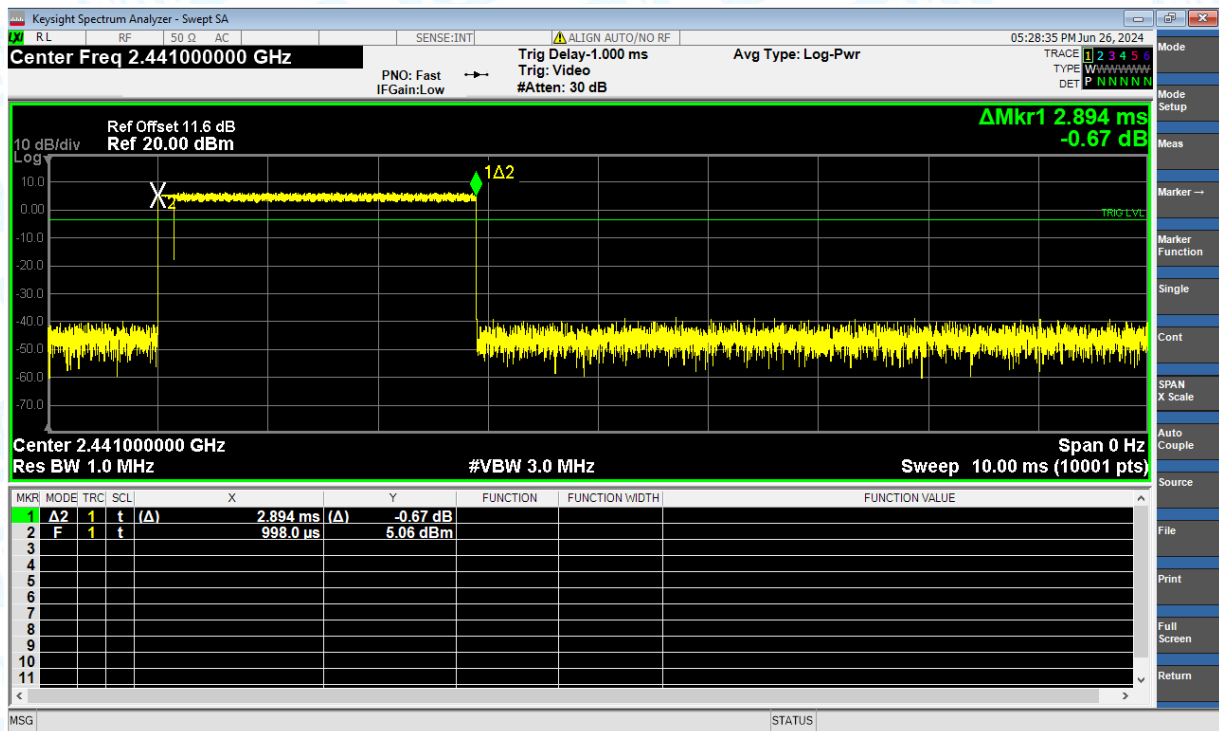
Dwell NVHT 2-DH1 2441MHz Ant1



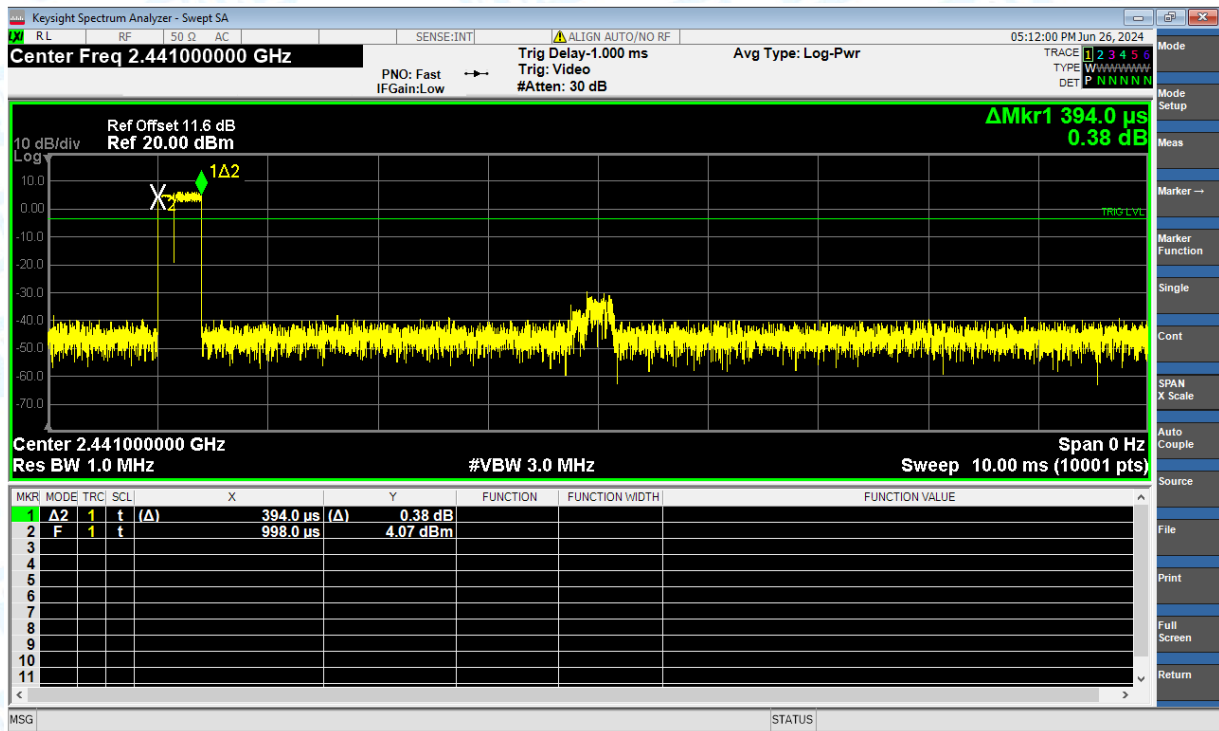
Dwell NVHT 2-DH3 2441MHz Ant1



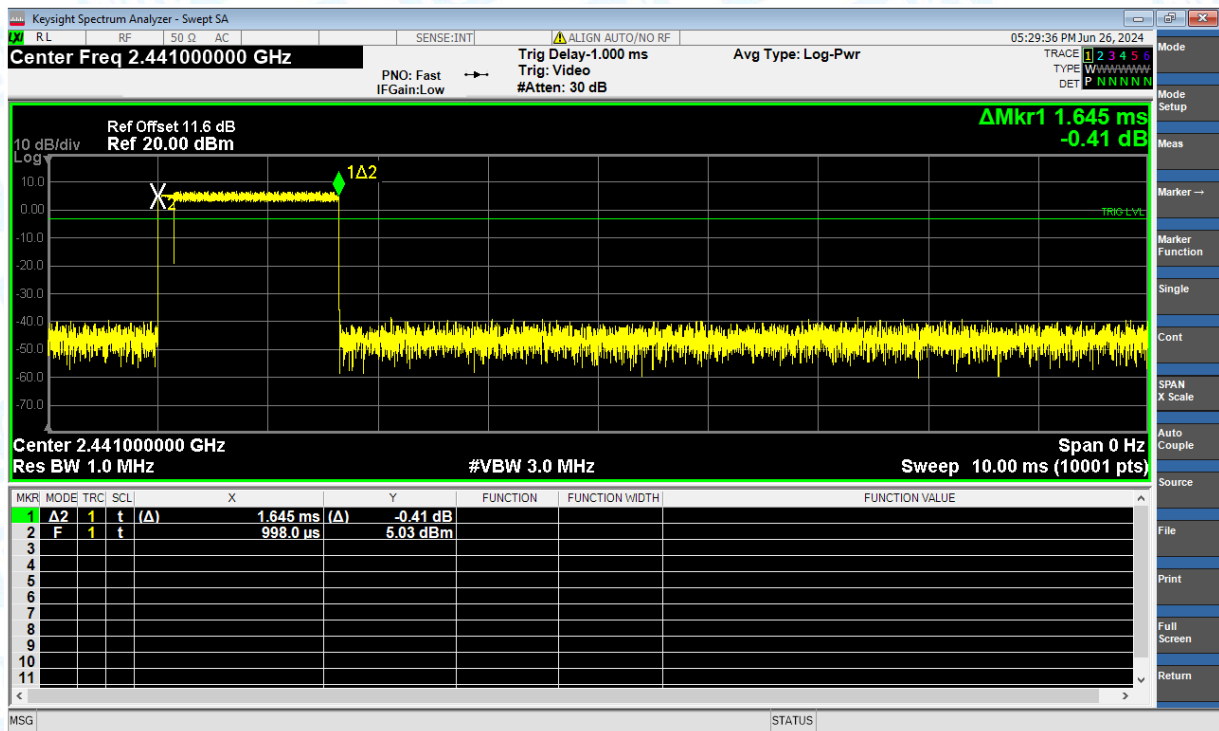
Dwell NVHT 2-DH5 2441MHz Ant1

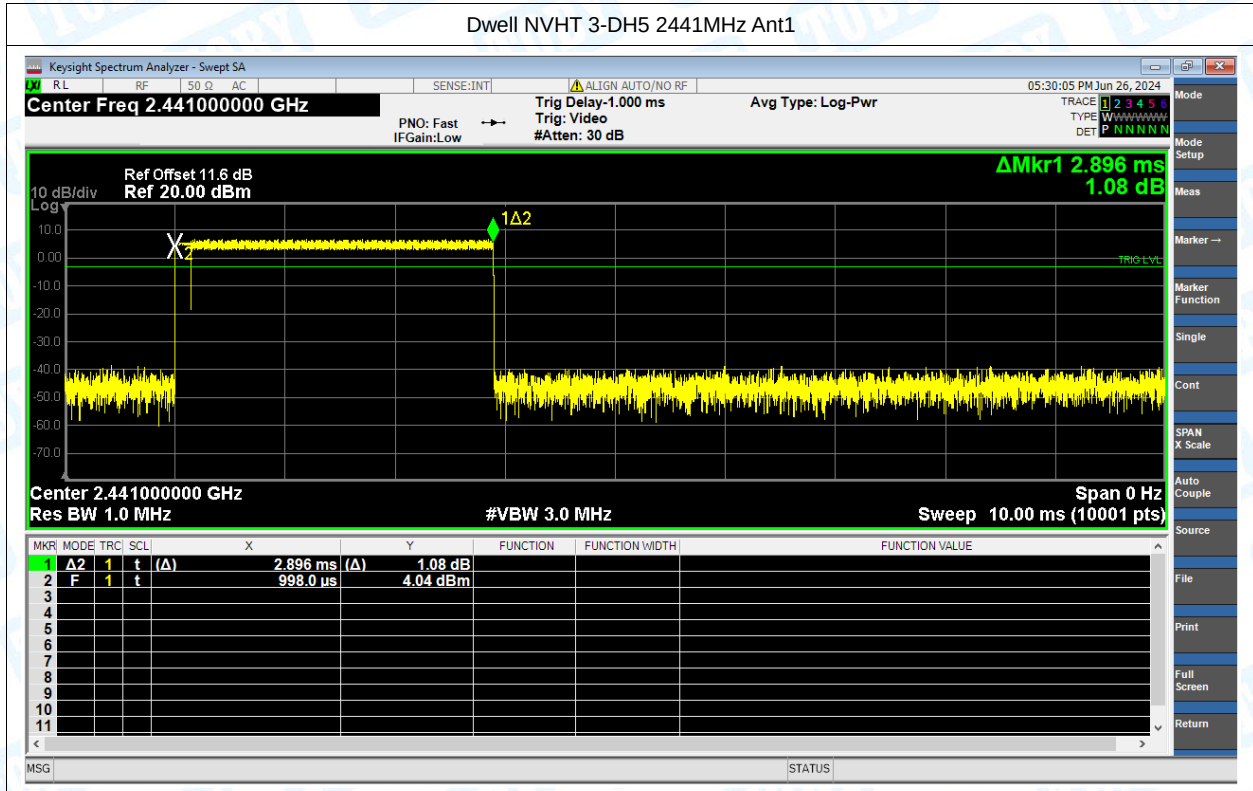


Dwell NVHT 3-DH1 2441MHz Ant1



Dwell NVHT 3-DH3 2441MHz Ant1





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