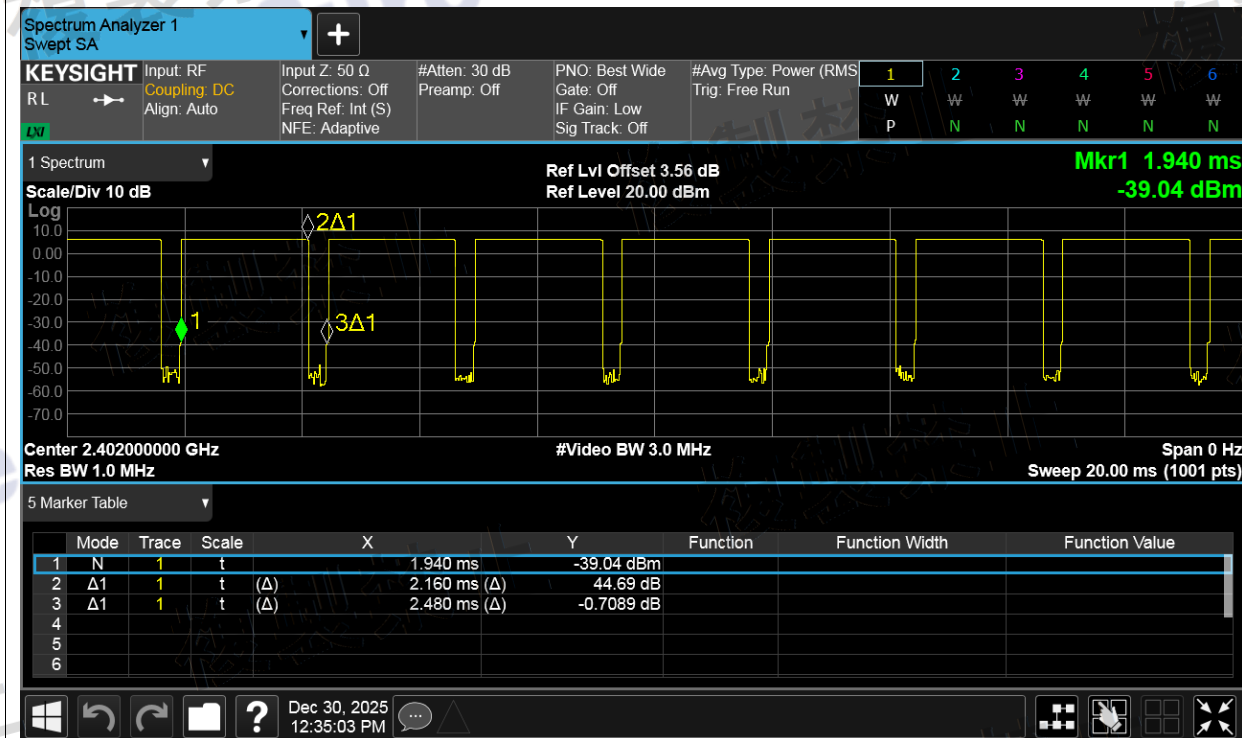


Duty Cycle

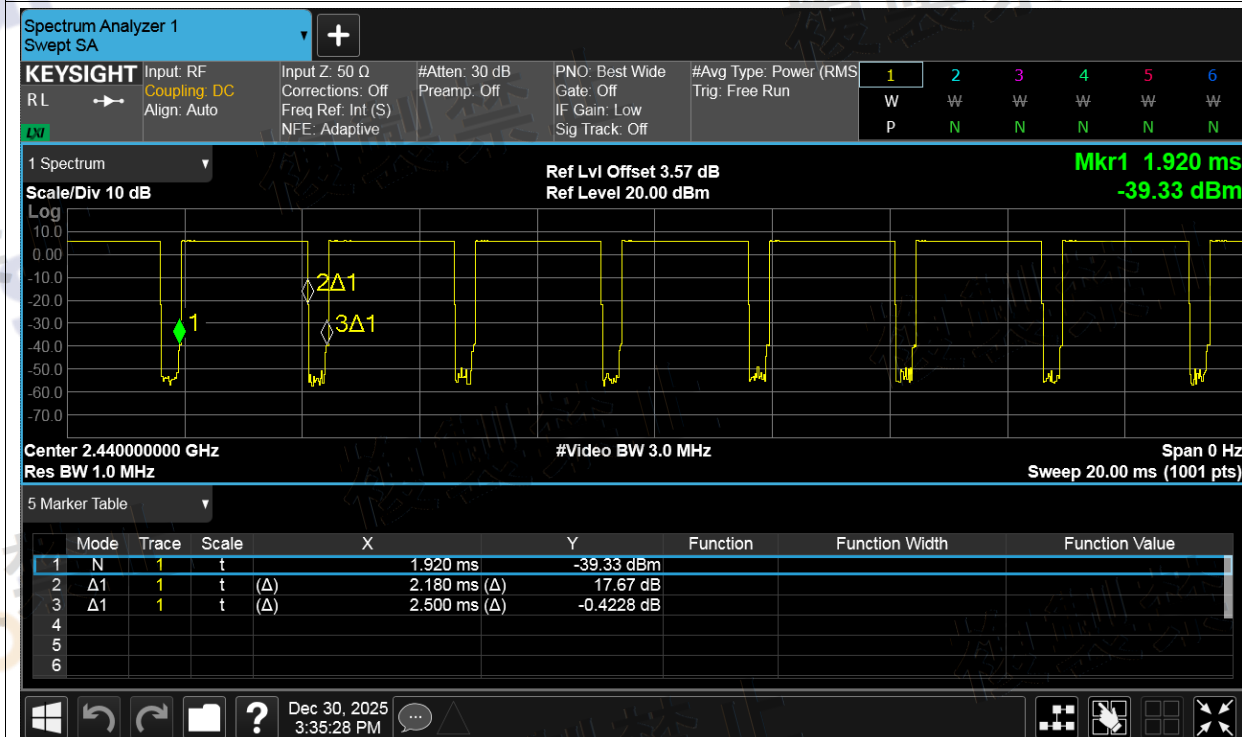
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	Burst Length (ms)
NVNT	BLE 1M	2402	Ant1	87.1	0.6	2.16
NVNT	BLE 1M	2440	Ant1	87.2	0.59	2.18
NVNT	BLE 1M	2480	Ant1	85.6	0.68	2.14
NVNT	BLE 2M	2402	Ant1	56.8	2.46	1.065
NVNT	BLE 2M	2440	Ant1	56.8	2.46	1.065
NVNT	BLE 2M	2480	Ant1	56.8	2.46	1.065

Test Graphs

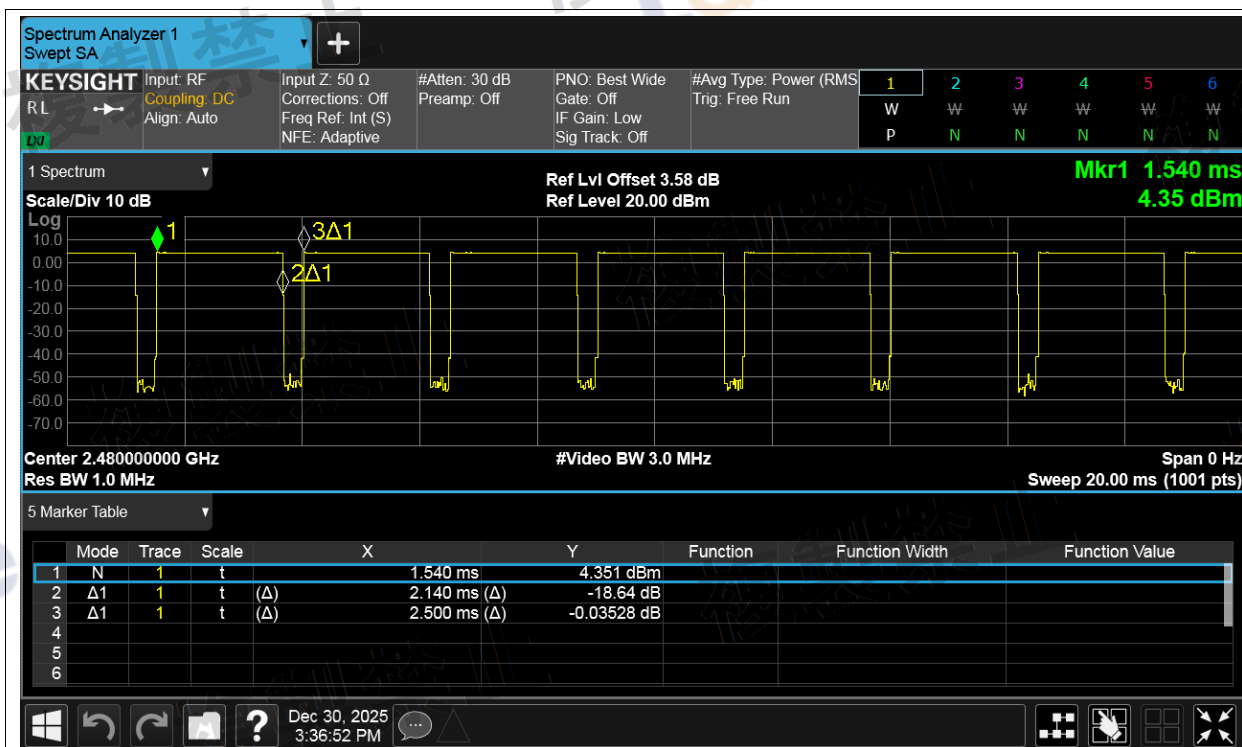
Duty Cycle NVNT BLE 1M 2402MHz Ant1



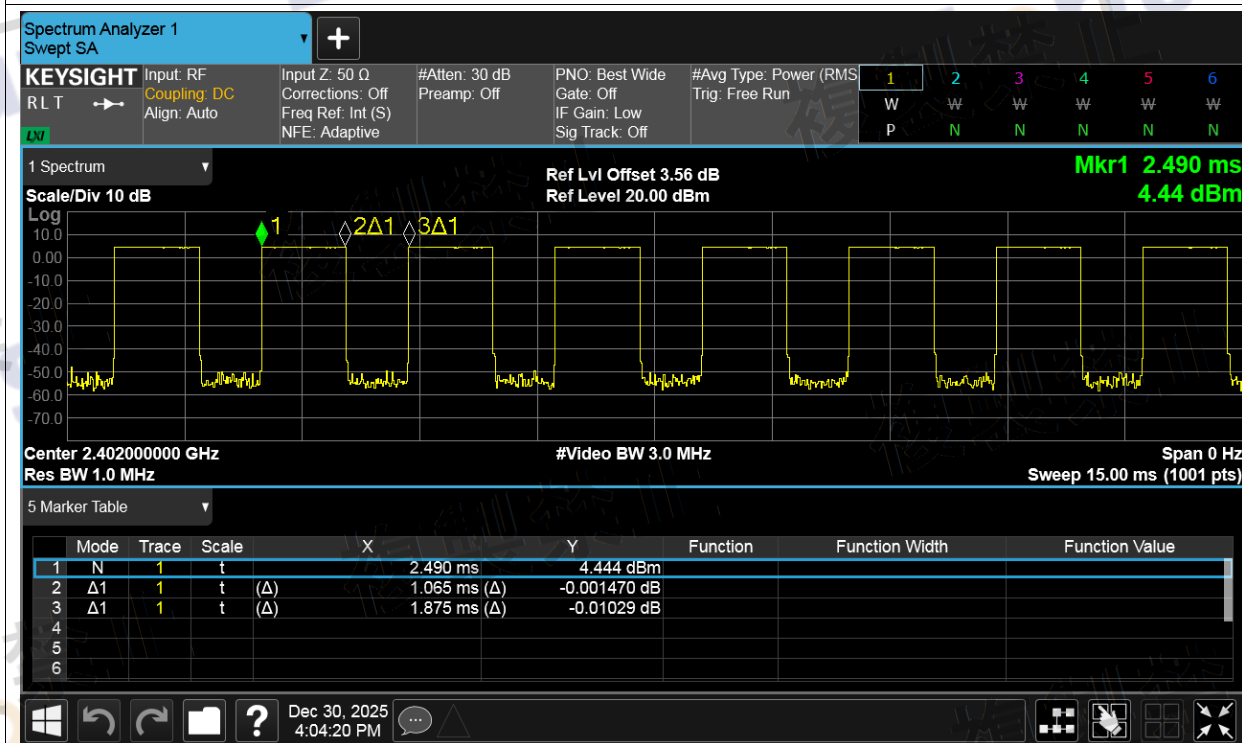
Duty Cycle NVNT BLE 1M 2440MHz Ant1



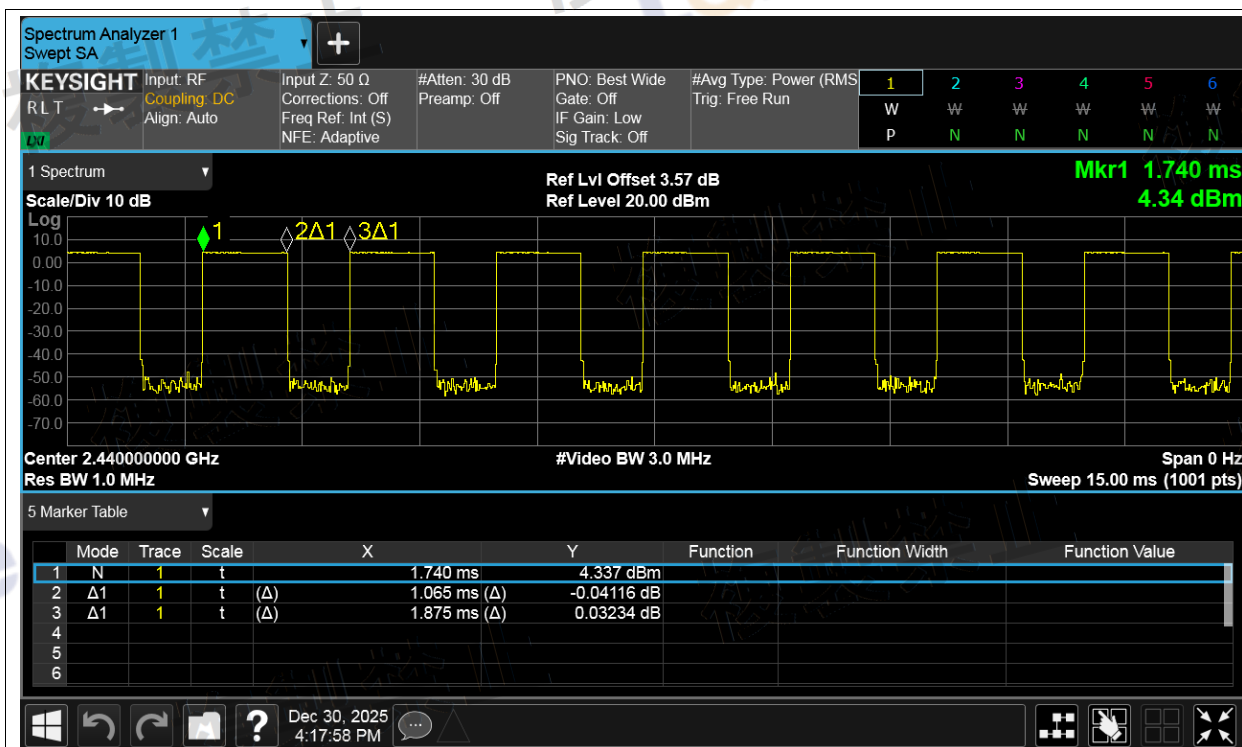
Duty Cycle NVNT BLE 1M 2480MHz Ant1



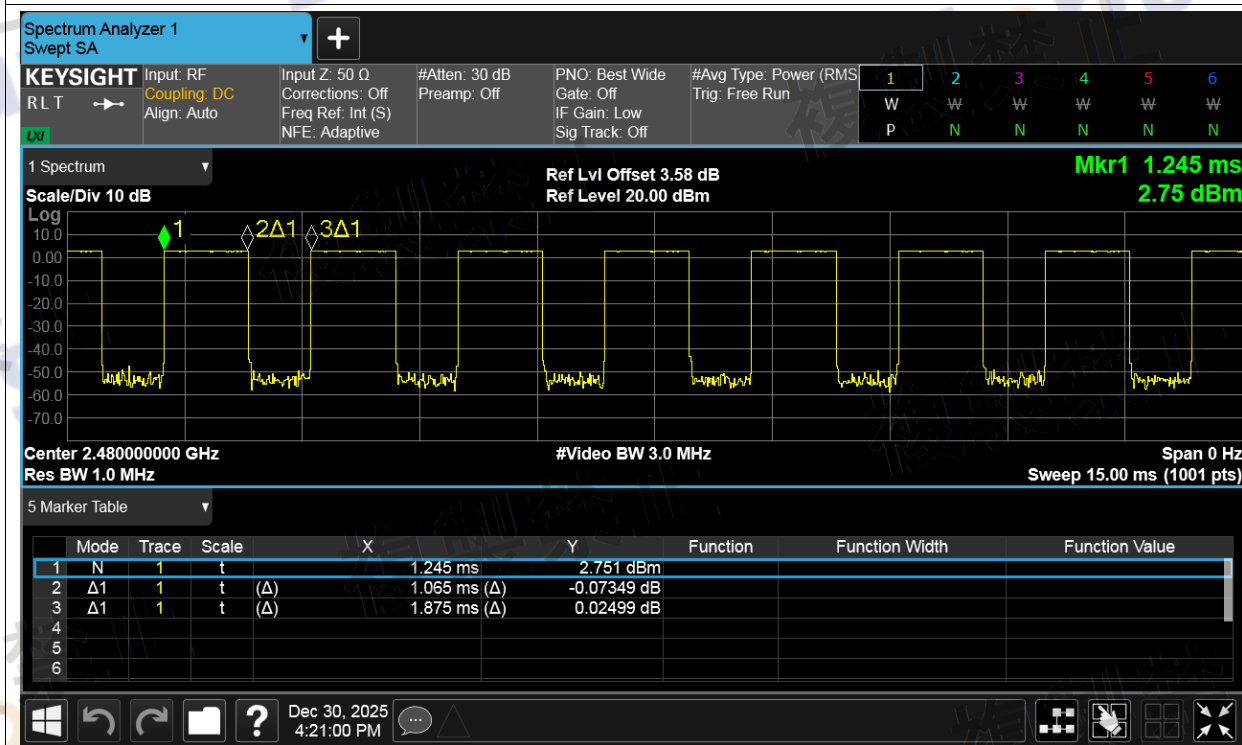
Duty Cycle NVNT BLE 2M 2402MHz Ant1



Duty Cycle NVNT BLE 2M 2440MHz Ant1



Duty Cycle NVNT BLE 2M 2480MHz Ant1

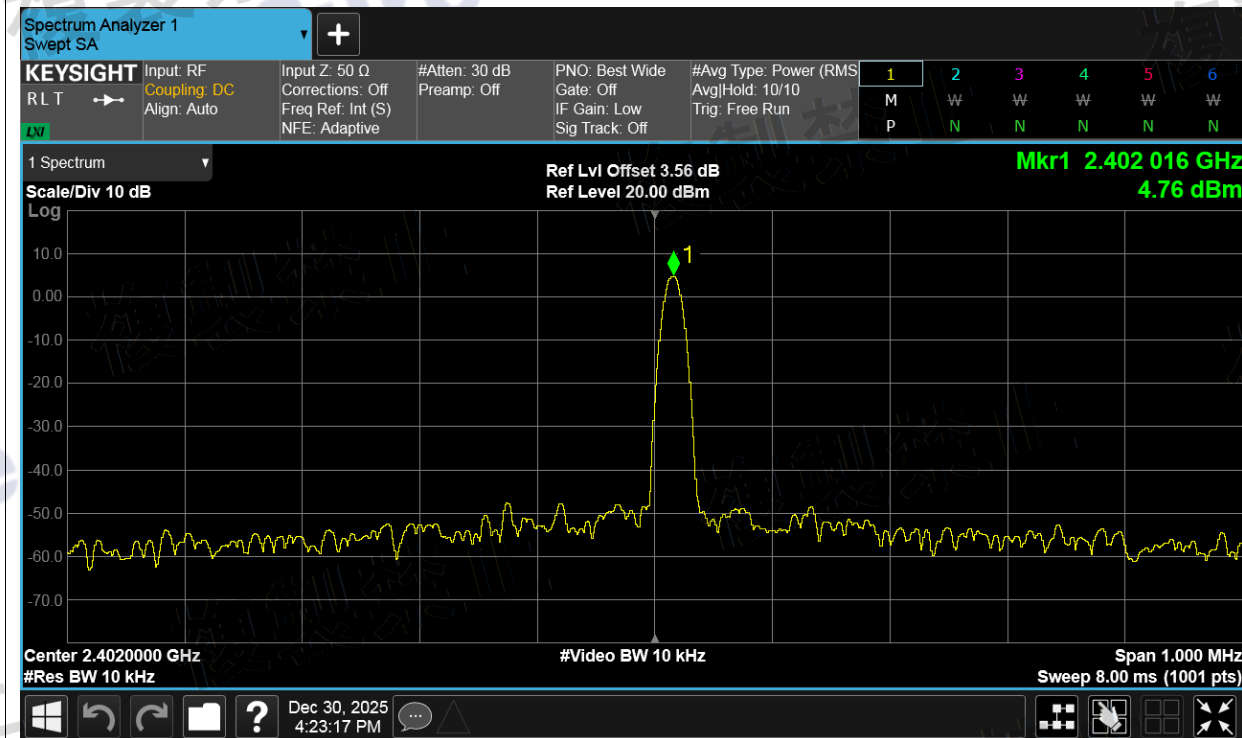


Frequency Tolerance

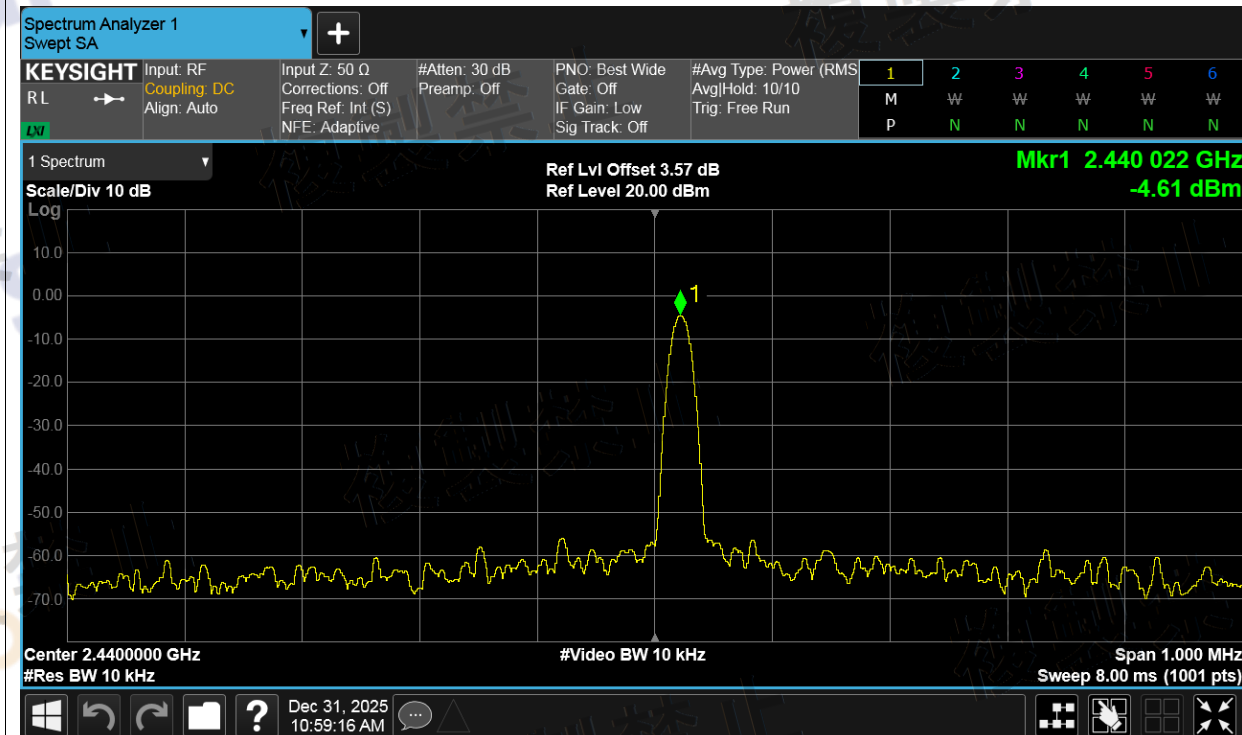
Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	BLE 1M	2402	Ant1	2402.016	16000	6.66	50	Pass
NVNT	BLE 1M	2440	Ant1	2440.022	22000	9.02	50	Pass
NVNT	BLE 1M	2480	Ant1	2480.016	16000	6.45	50	Pass

Test Graphs

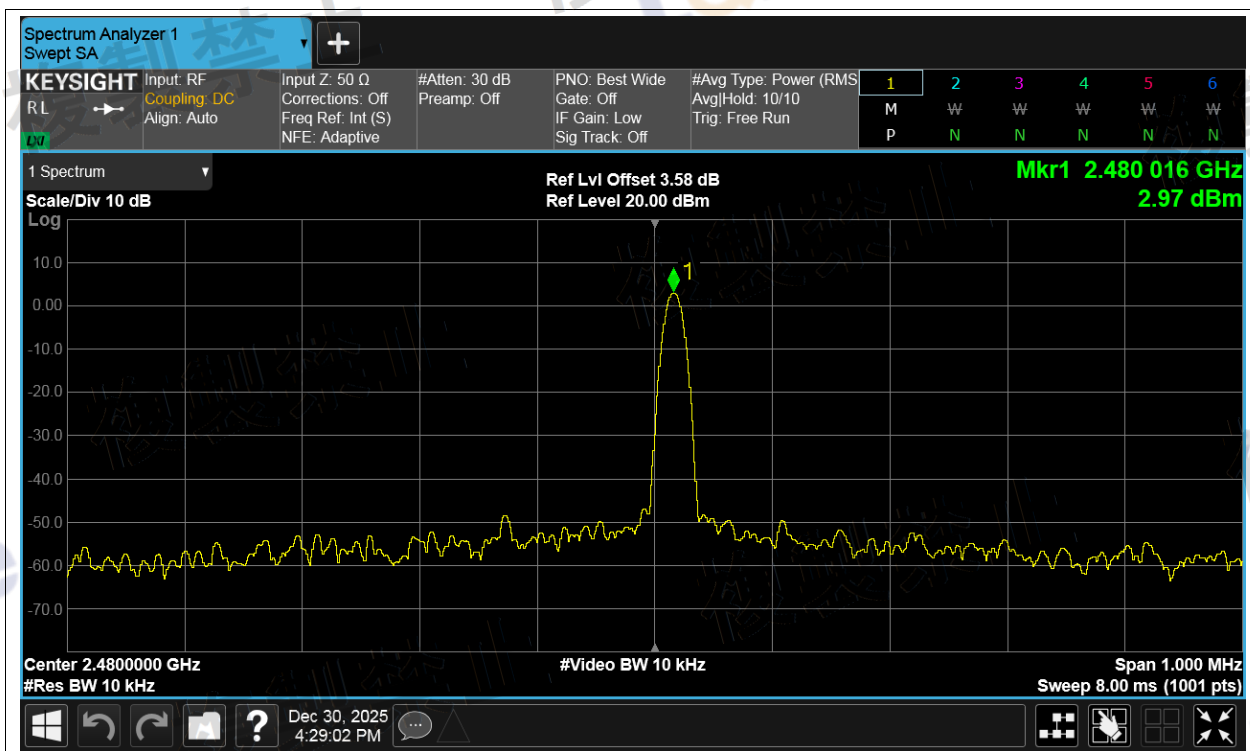
Freq. Error NVNT BLE 1M 2402MHz Ant1



Freq. Error NVNT BLE 1M 2440MHz Ant1



Freq. Error NVNT BLE 1M 2480MHz Ant1

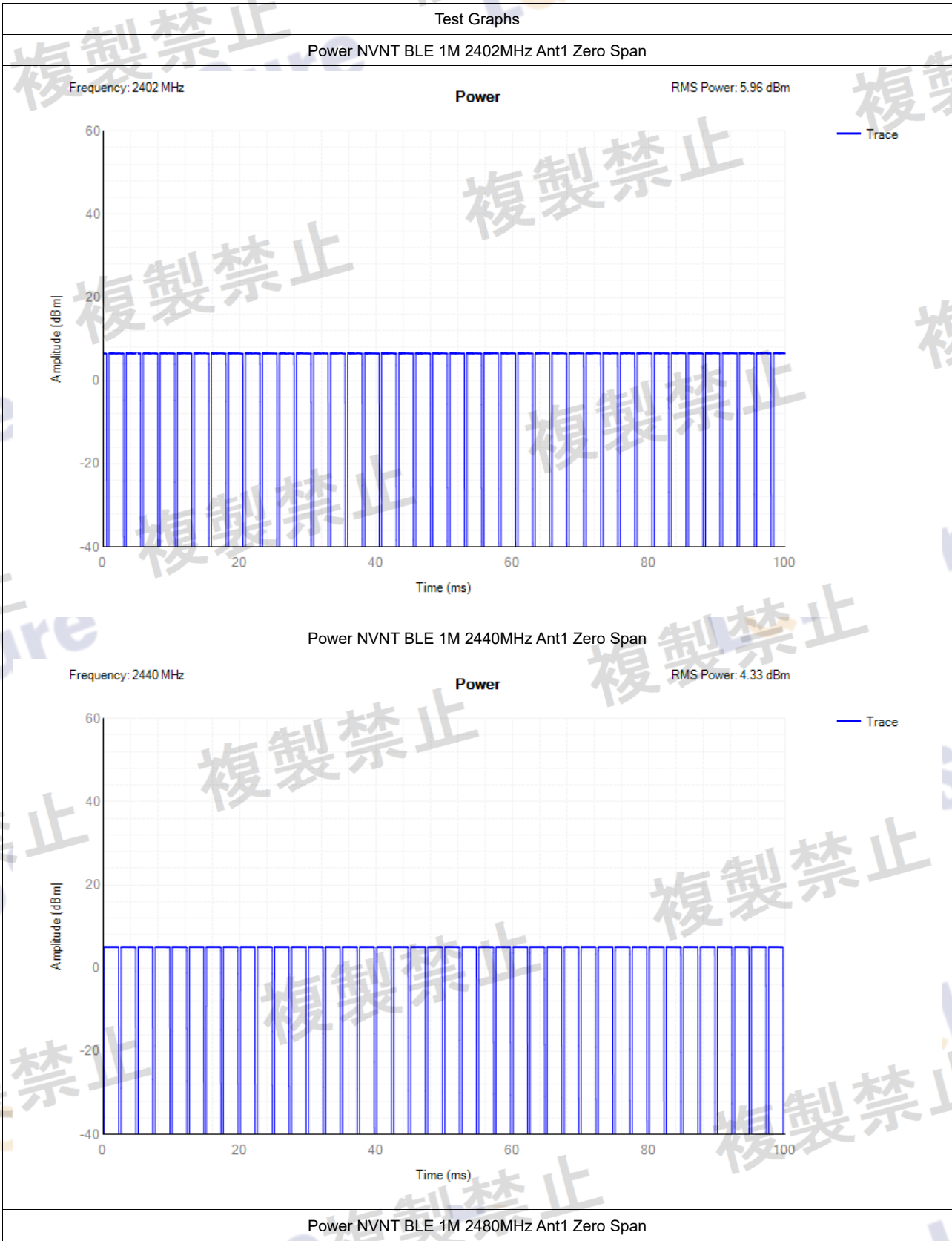


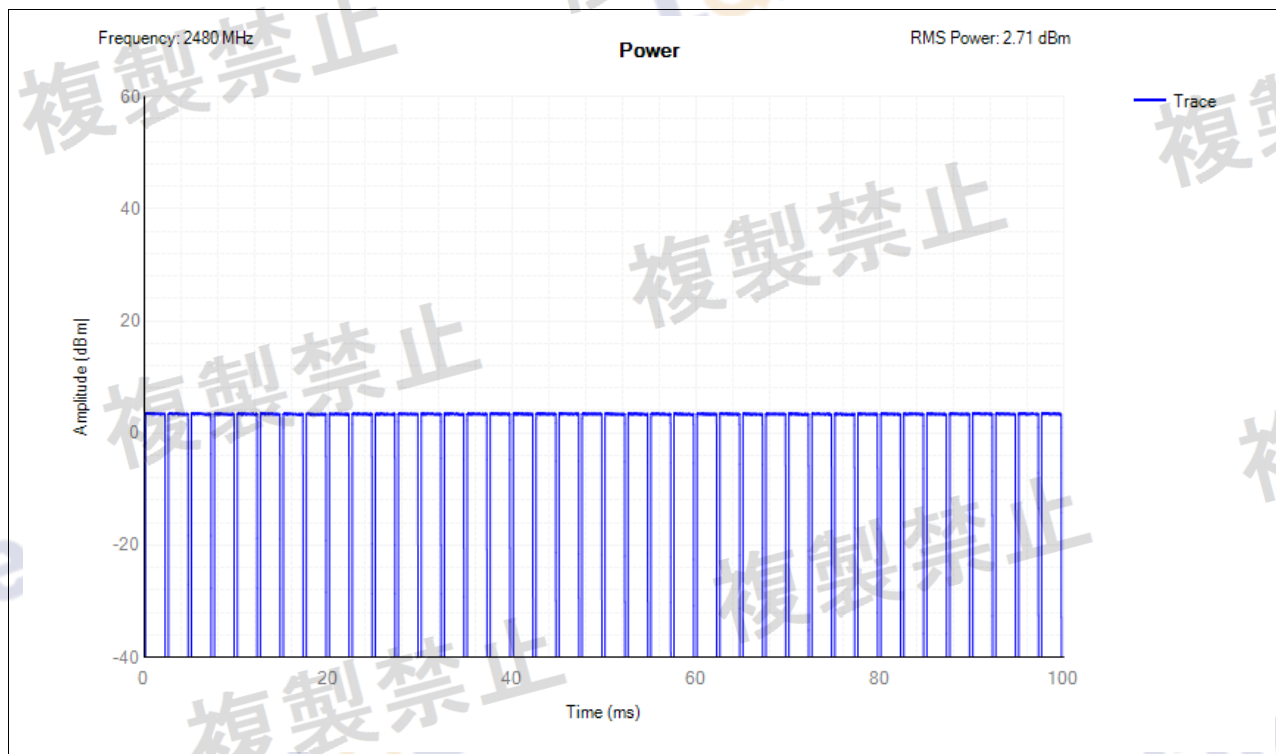
Antenna Power and Tolerances for Antenna Power

Condition	Mode	Frequency (MHz)	Antenna	Power (dBm)	Duty Cycle (%)	Power (dBm)	Antenna Power (mW)	Limit (mW)	Declared Power (mW)	Tolerance (%)	Upper Limit (%)	Verdict
NVNT	BLE 1M	2402	Ant1	5.96	87.1	6.56	4.53	10	5	-9.42	20	Pass
NVNT	BLE 1M	2440	Ant1	4.33	87.2	4.92	3.11	10	5	-37.84	20	Pass
NVNT	BLE 1M	2480	Ant1	2.71	85.6	3.39	2.18	10	5	-56.39	20	Pass
NVNT	BLE 2M	2402	Ant1	2.67	56.8	5.13	3.26	10	5	-34.88	20	Pass
NVNT	BLE 2M	2440	Ant1	2.3	56.8	4.76	2.99	10	5	-40.20	20	Pass
NVNT	BLE 2M	2480	Ant1	0.98	56.8	3.44	2.21	10	5	-55.88	20	Pass

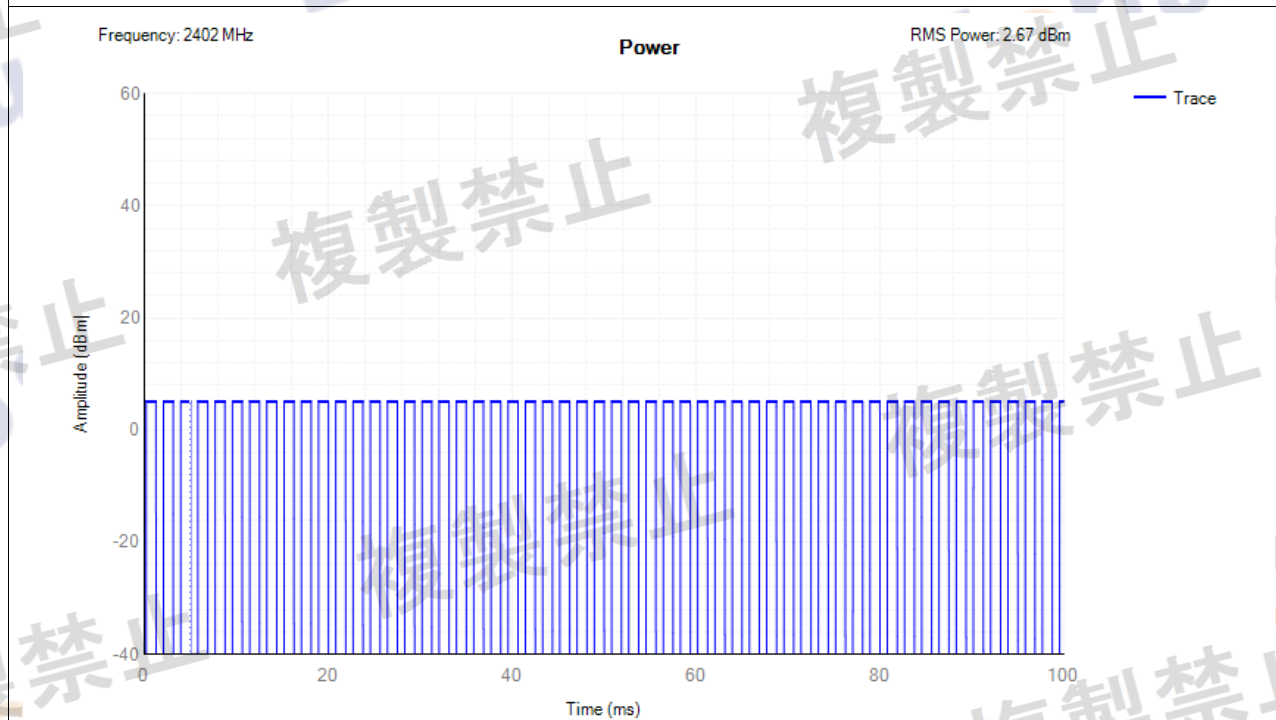
Note 1: Antenna Power (mW)= Measured Power (mW) / Burst Ratio

Note 2: Burst Ratio = ON Time / (ON Time + OFF Time)

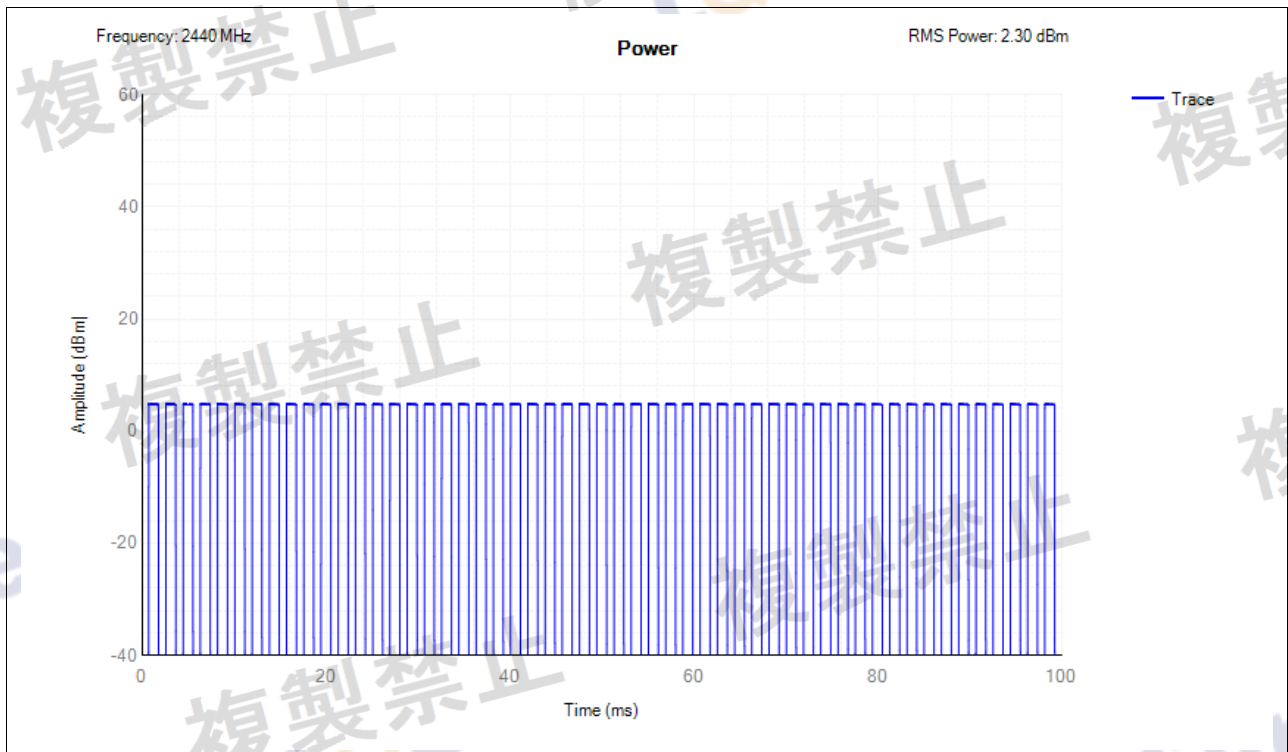




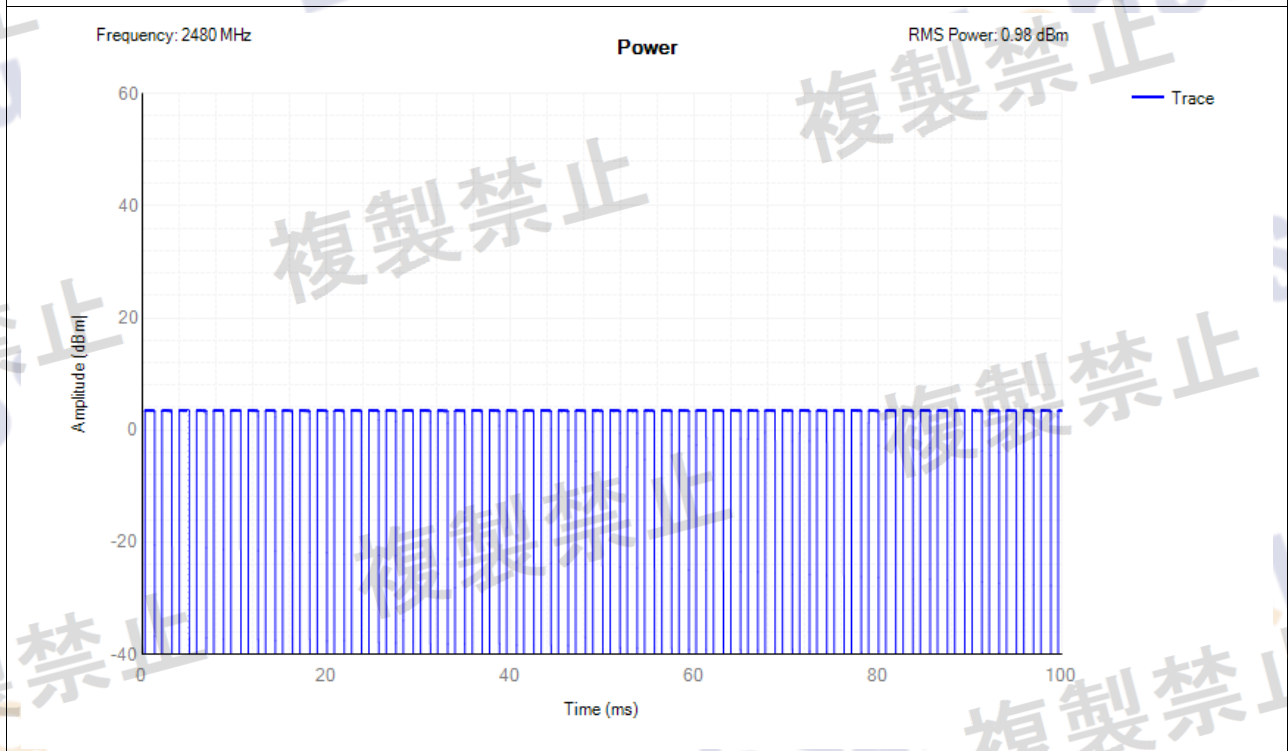
Power NVNT BLE 2M 2402MHz Ant1 Zero Span



Power NVNT BLE 2M 2440MHz Ant1 Zero Span



Power NVNT BLE 2M 2480MHz Ant1 Zero Span



EIRP Power

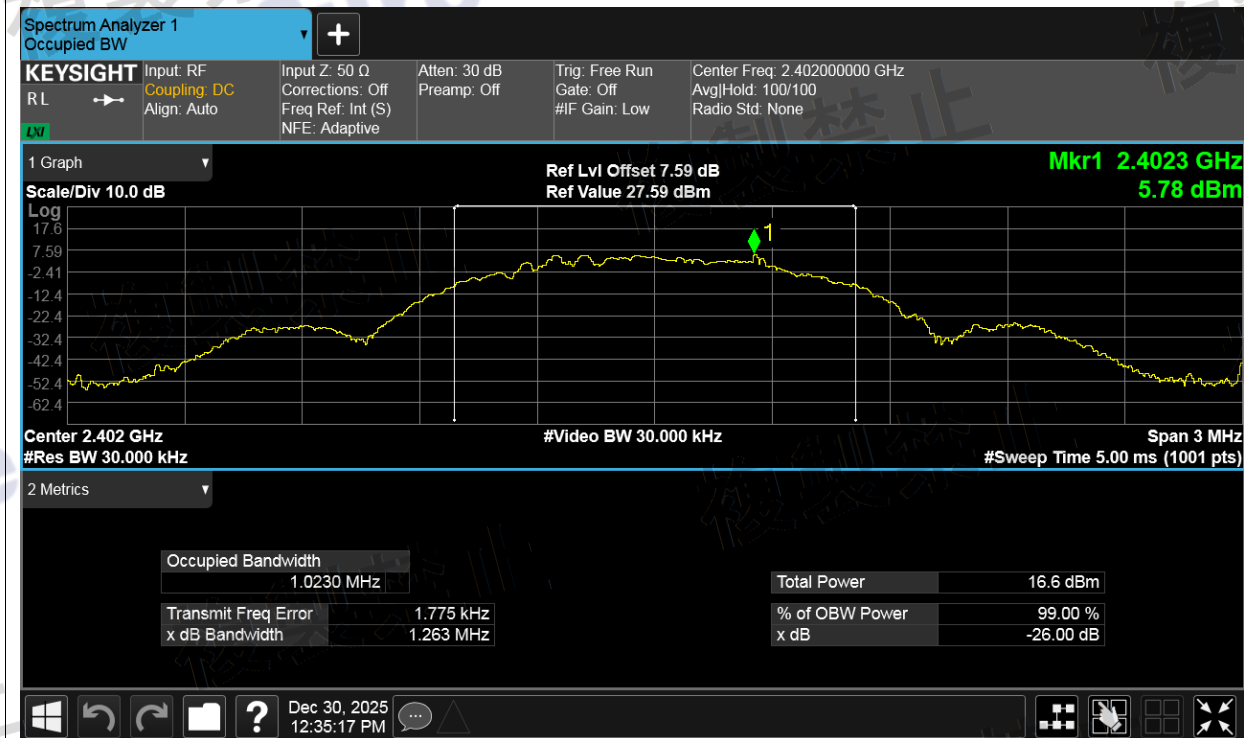
Condition	Mode	Frequency (MHz)	Antenna	Antenna Power (dBm)	Gain (dBi)	EIRP Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	6.56	4.20	10.76	12.14	Pass
NVNT	BLE 1M	2440	Ant1	4.92	4.20	9.12	12.14	Pass
NVNT	BLE 1M	2480	Ant1	3.39	4.20	7.59	12.14	Pass
NVNT	BLE 2M	2402	Ant1	5.13	4.20	9.33	12.14	Pass
NVNT	BLE 2M	2440	Ant1	4.76	4.20	8.96	12.14	Pass
NVNT	BLE 2M	2480	Ant1	3.44	4.20	7.64	12.14	Pass

Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)	Limit (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	1.023	26	Pass
NVNT	BLE 1M	2440	Ant1	1.023	26	Pass
NVNT	BLE 1M	2480	Ant1	1.020	26	Pass
NVNT	BLE 2M	2402	Ant1	2.047	26	Pass
NVNT	BLE 2M	2440	Ant1	2.040	26	Pass
NVNT	BLE 2M	2480	Ant1	2.045	26	Pass

Test Graphs

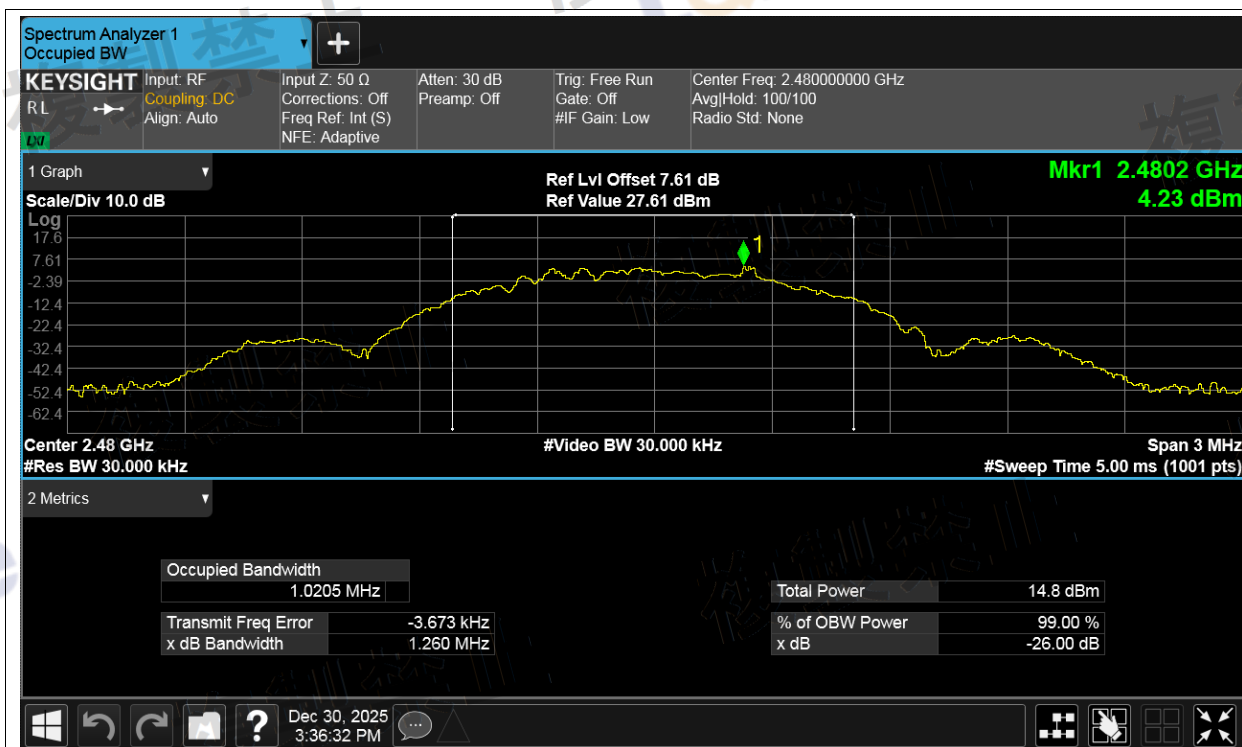
OBW NVNT BLE 1M 2402MHz Ant1



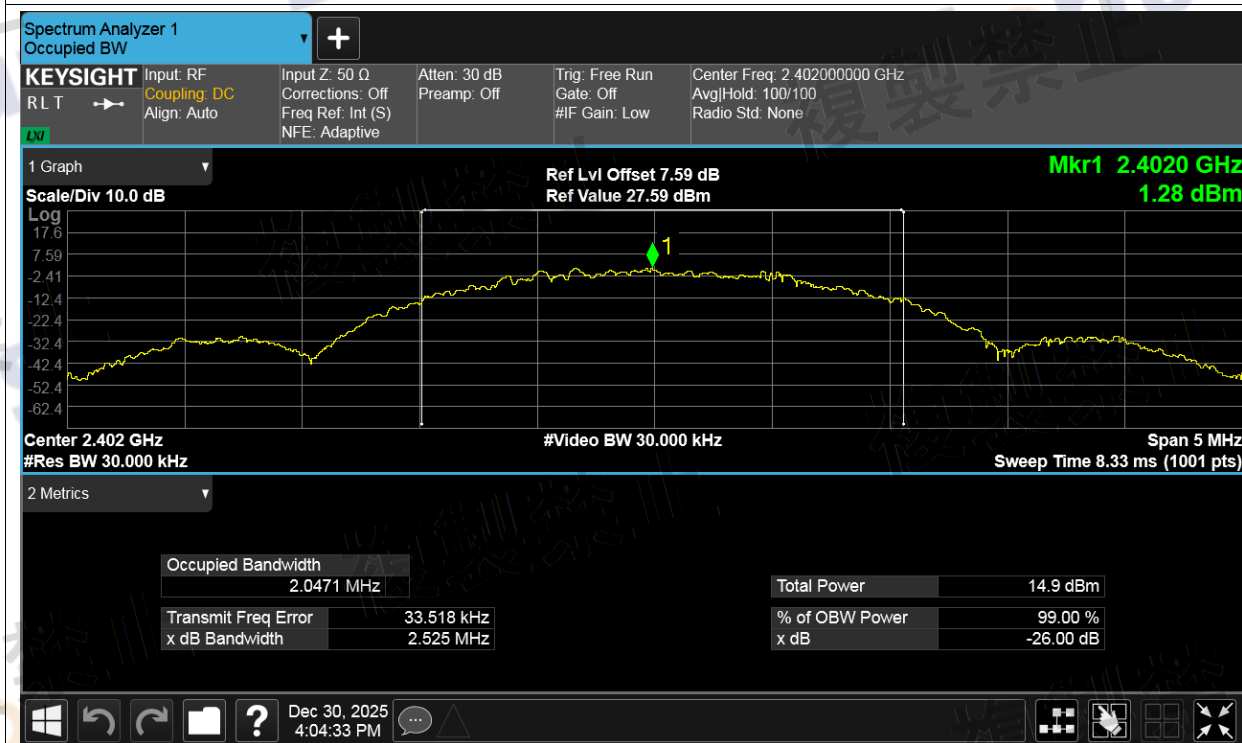
OBW NVNT BLE 1M 2440MHz Ant1



OBW NVNT BLE 1M 2480MHz Ant1



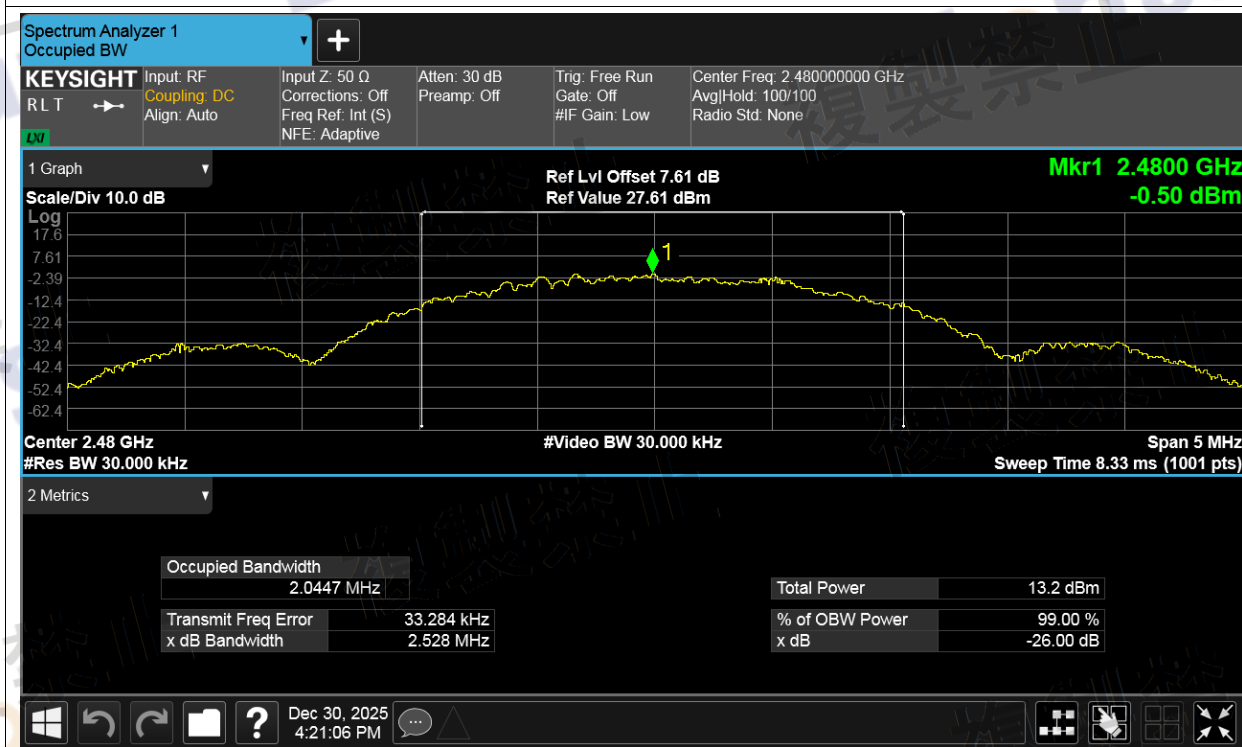
OBW NVNT BLE 2M 2402MHz Ant1



OBW NVNT BLE 2M 2440MHz Ant1



OBW NVNT BLE 2M 2480MHz Ant1

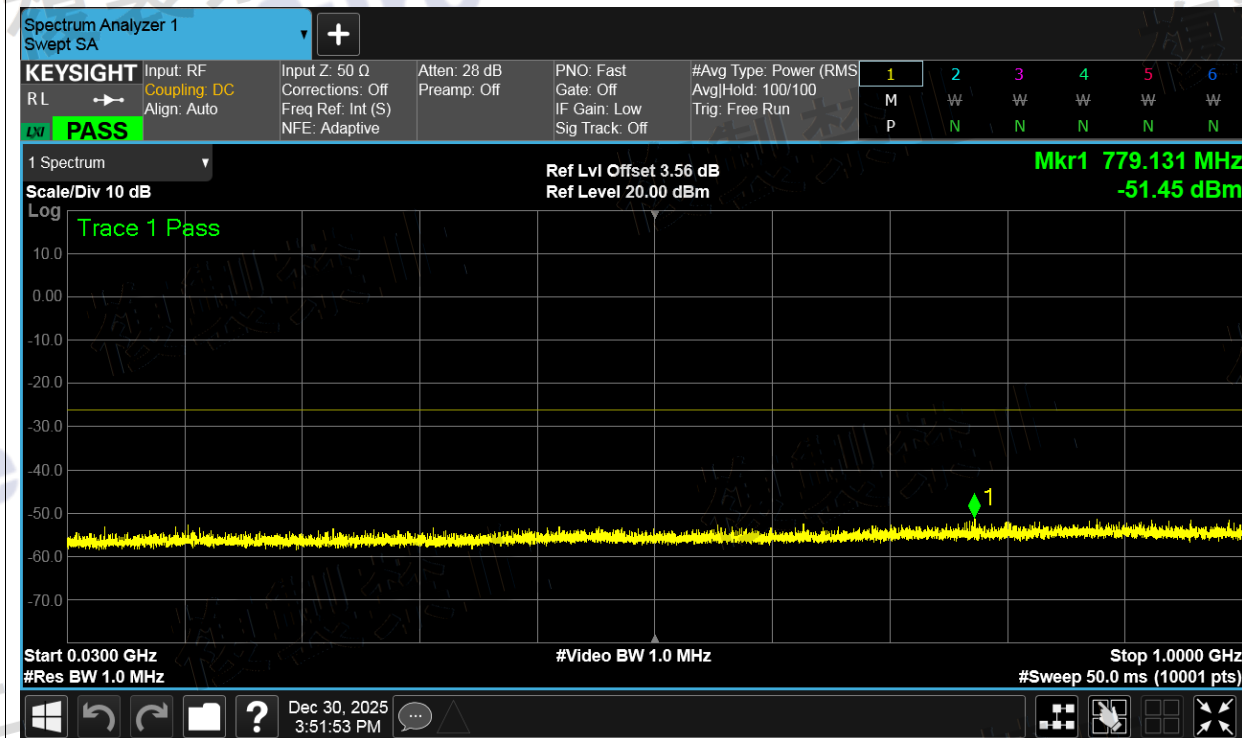


Transmitter Spurious Emissions

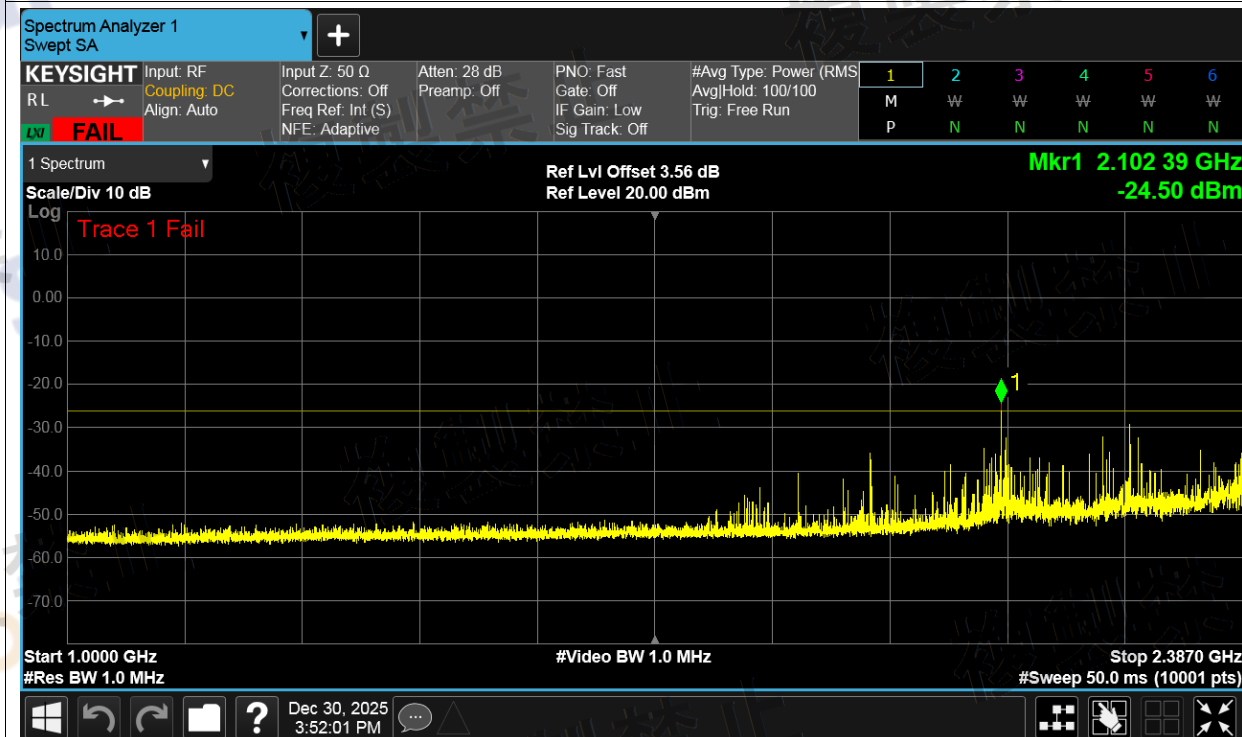
Condition	Mode	Frequency (MHz)	Antenna	Range (MHz)	Emission Frequency (MHz)	Max Peak Value (dBm)	Max RMS Value (dBm)	Max Peak Value (uW)	Max RMS Value (uW)	Limit Start(uW)	Limit Stop (uW)	Verdict
NVNT	BLE 1M	2402	Ant1	30-1000	779.13	-51.45	NA	0.0072	NA	2.5	2.5	Pass
NVNT	BLE 1M	2402	Ant1	1000-2387	2102.39	-24.50	-38.064	3.5481	0.1562	2.5	2.5	Pass
NVNT	BLE 1M	2402	Ant1	2387-2400	2399.91	-26.46	NA	2.2594	NA	25	25	Pass
NVNT	BLE 1M	2402	Ant1	2483.5-2496.5	2484.93	-35.77	NA	0.2649	NA	25	25	Pass
NVNT	BLE 1M	2402	Ant1	2496.5-13000	2621.49	-41.69	NA	0.0678	NA	2.5	2.5	Pass
NVNT	BLE 1M	2440	Ant1	30-1000	899.80	-49.37	NA	0.0116	NA	2.5	2.5	Pass
NVNT	BLE 1M	2440	Ant1	1000-2387	2134.43	-29.16	NA	1.2134	NA	2.5	2.5	Pass
NVNT	BLE 1M	2440	Ant1	2387-2400	2395.75	-45.64	NA	0.0273	NA	25	25	Pass
NVNT	BLE 1M	2440	Ant1	2483.5-2496.5	2484.04	-44.72	NA	0.0337	NA	25	25	Pass
NVNT	BLE 1M	2440	Ant1	2496.5-13000	3981.69	-43.13	NA	0.0486	NA	2.5	2.5	Pass
NVNT	BLE 1M	2480	Ant1	30-1000	676.99	-48.90	NA	0.0129	NA	2.5	2.5	Pass
NVNT	BLE 1M	2480	Ant1	1000-2387	2170.77	-31.69	NA	0.6776	NA	2.5	2.5	Pass
NVNT	BLE 1M	2480	Ant1	2387-2400	2398.33	-44.60	NA	0.0347	NA	25	25	Pass
NVNT	BLE 1M	2480	Ant1	2483.5-2496.5	2483.77	-38.25	NA	0.1496	NA	25	25	Pass
NVNT	BLE 1M	2480	Ant1	2496.5-13000	3734.86	-42.46	NA	0.0568	NA	2.5	2.5	Pass
NVNT	BLE 2M	2402	Ant1	30-1000	937.53	-51.12	NA	0.0077	NA	2.5	2.5	Pass
NVNT	BLE 2M	2402	Ant1	1000-2387	2247.19	-30.94	NA	0.8054	NA	2.5	2.5	Pass
NVNT	BLE 2M	2402	Ant1	2387-2400	2400.00	-17.82	-21.372	16.5196	7.2912	25	25	Pass
NVNT	BLE 2M	2402	Ant1	2483.5-2496.5	2488.38	-41.86	NA	0.0652	NA	25	25	Pass
NVNT	BLE 2M	2402	Ant1	2496.5-13000	2558.47	-43.10	NA	0.049	NA	2.5	2.5	Pass
NVNT	BLE 2M	2440	Ant1	30-1000	617.53	-51.16	NA	0.0077	NA	2.5	2.5	Pass
NVNT	BLE 2M	2440	Ant1	1000-2387	2135.54	-32.48	NA	0.5649	NA	2.5	2.5	Pass
NVNT	BLE 2M	2440	Ant1	2387-2400	2390.50	-41.32	NA	0.0738	NA	25	25	Pass
NVNT	BLE 2M	2440	Ant1	2483.5-2496.5	2489.09	-43.90	NA	0.0407	NA	25	25	Pass
NVNT	BLE 2M	2440	Ant1	2496.5-13000	3902.92	-44.73	NA	0.0337	NA	2.5	2.5	Pass
NVNT	BLE 2M	2480	Ant1	30-1000	931.42	-50.51	NA	0.0089	NA	2.5	2.5	Pass
NVNT	BLE 2M	2480	Ant1	1000-2387	2165.36	-36.54	NA	0.2218	NA	2.5	2.5	Pass
NVNT	BLE 2M	2480	Ant1	2387-2400	2399.58	-44.82	NA	0.033	NA	25	25	Pass
NVNT	BLE 2M	2480	Ant1	2483.5-2496.5	2483.52	-40.64	NA	0.0863	NA	25	25	Pass
NVNT	BLE 2M	2480	Ant1	2496.5-13000	5042.55	-45.19	NA	0.0303	NA	2.5	2.5	Pass

Test Graphs

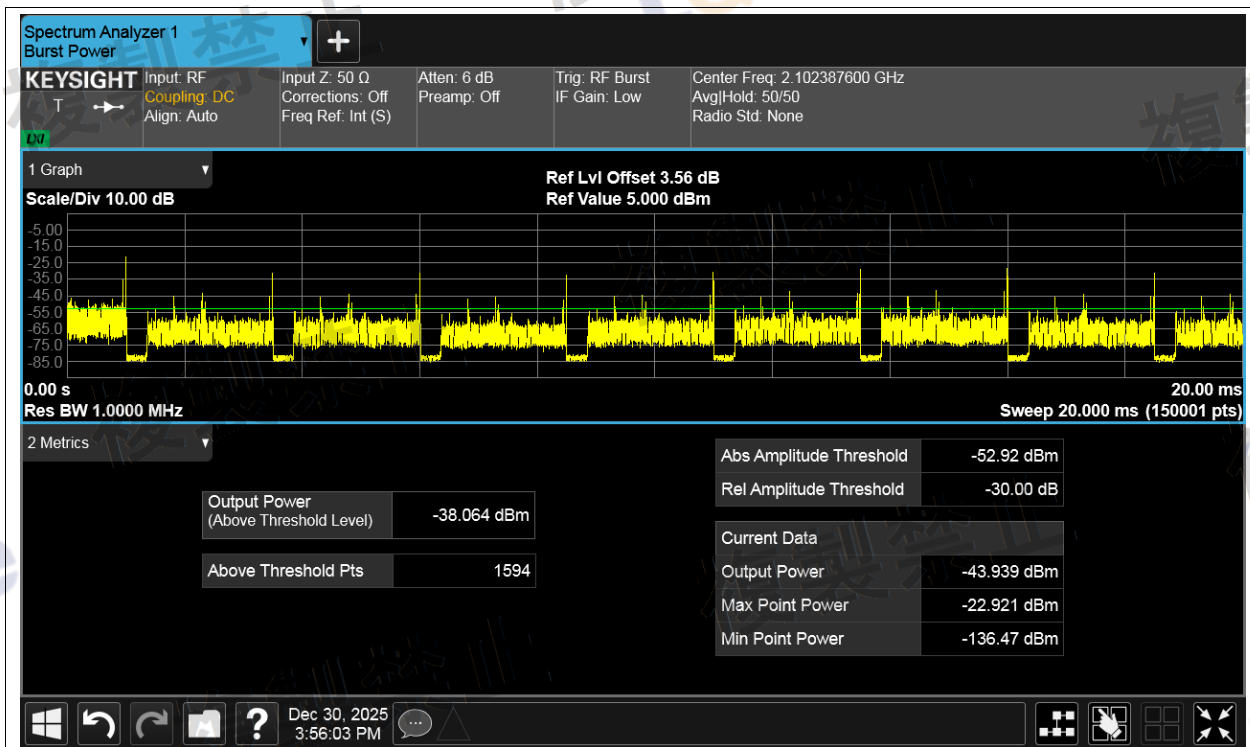
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 @ 30MHz-1000MHz



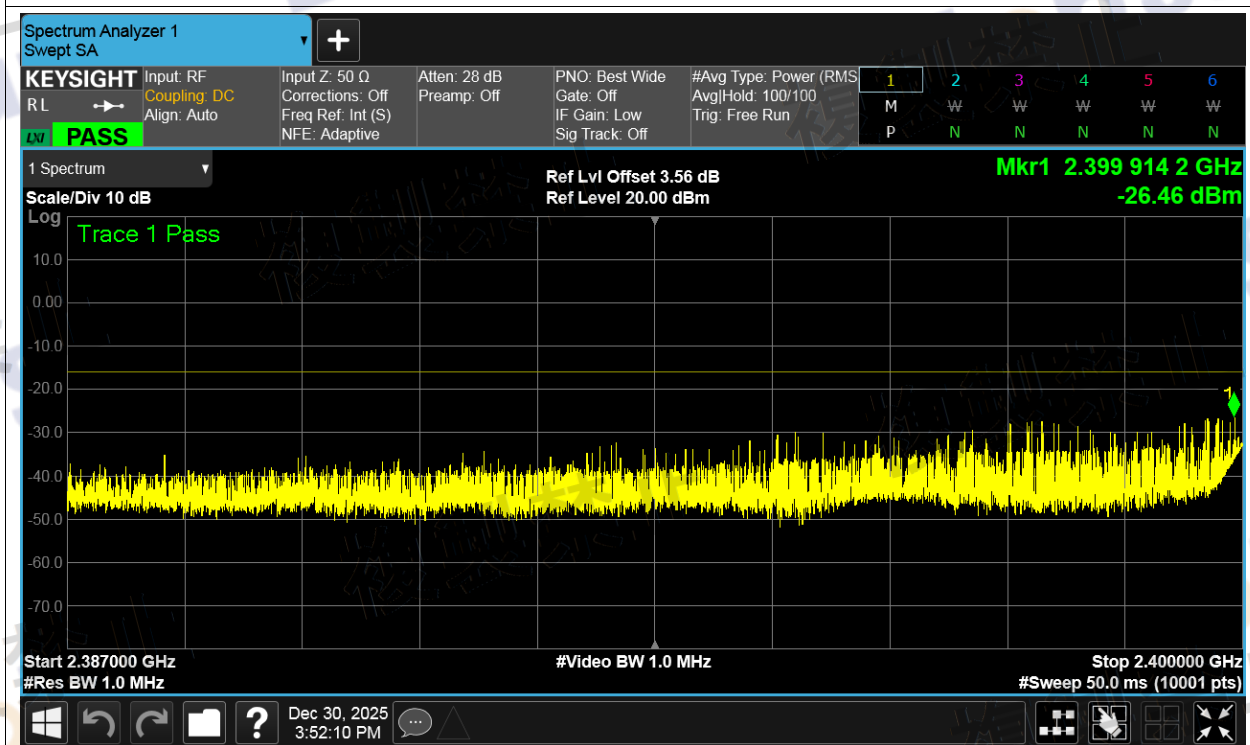
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 @ 1000MHz-2387MHz



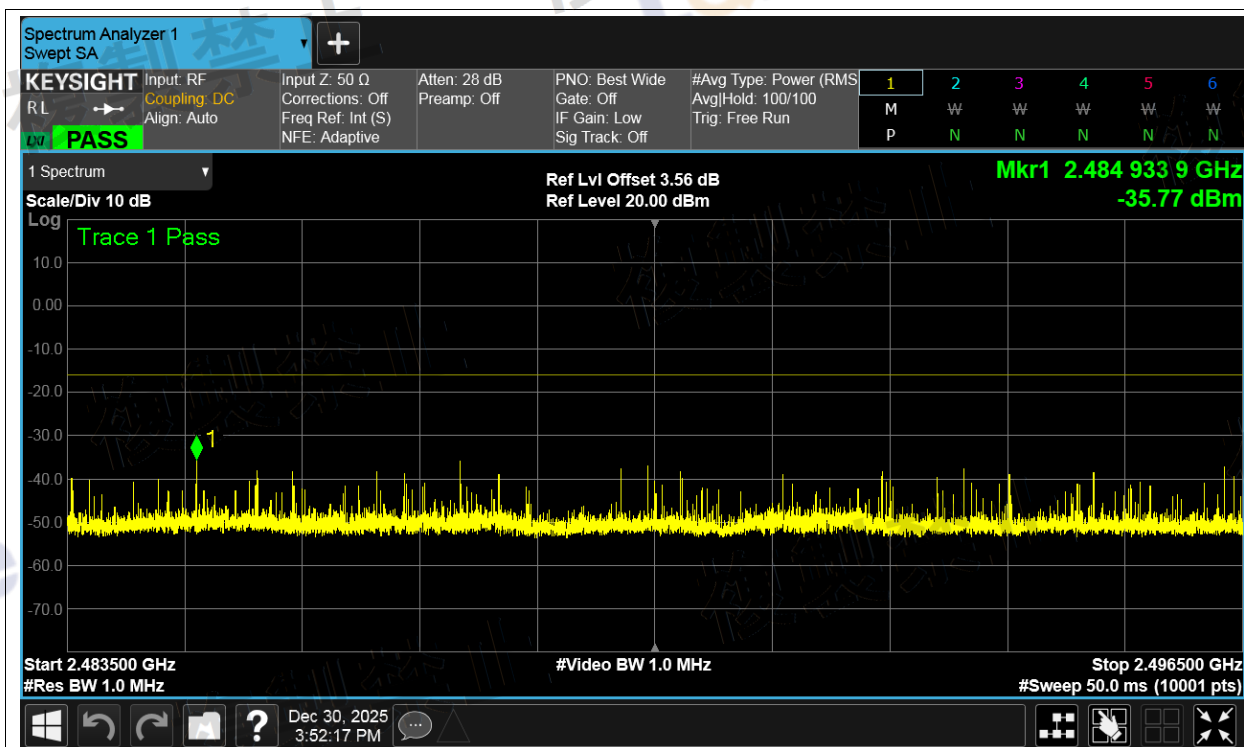
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 @ 1000MHz-2387MHz Final



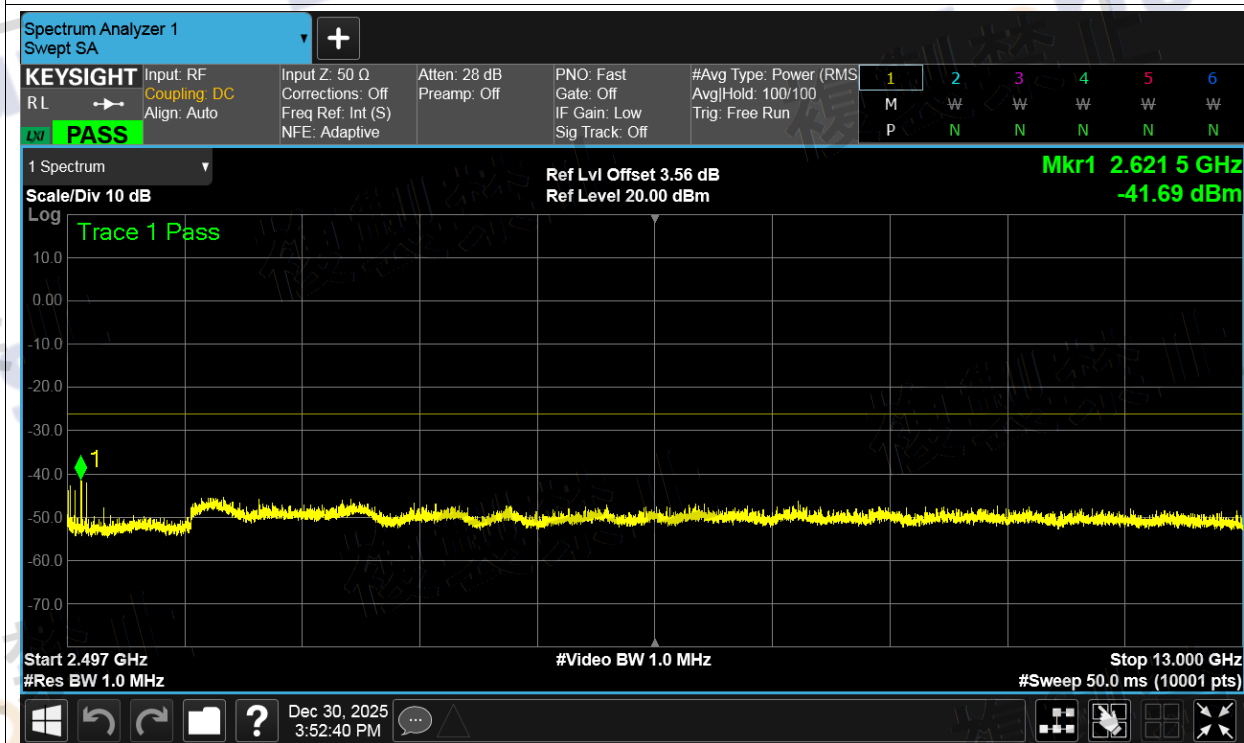
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 @ 2387MHz-2400MHz



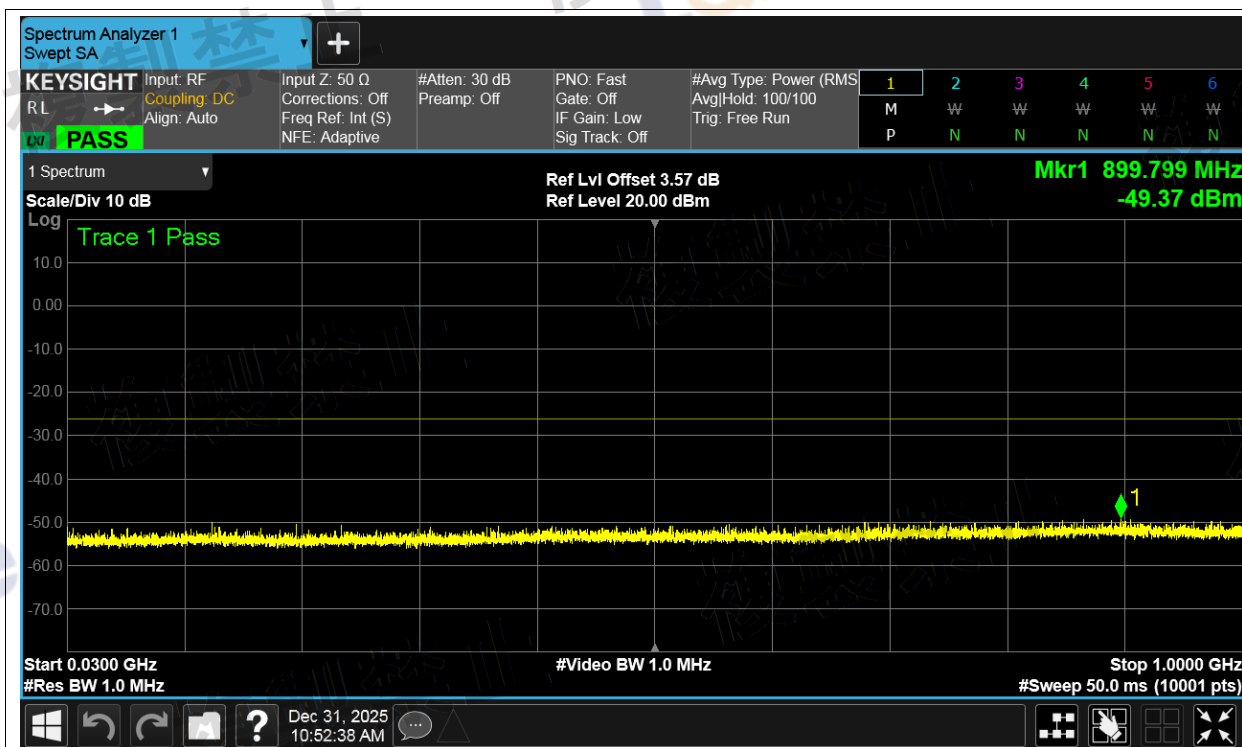
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 @ 2483.5MHz-2496.5MHz



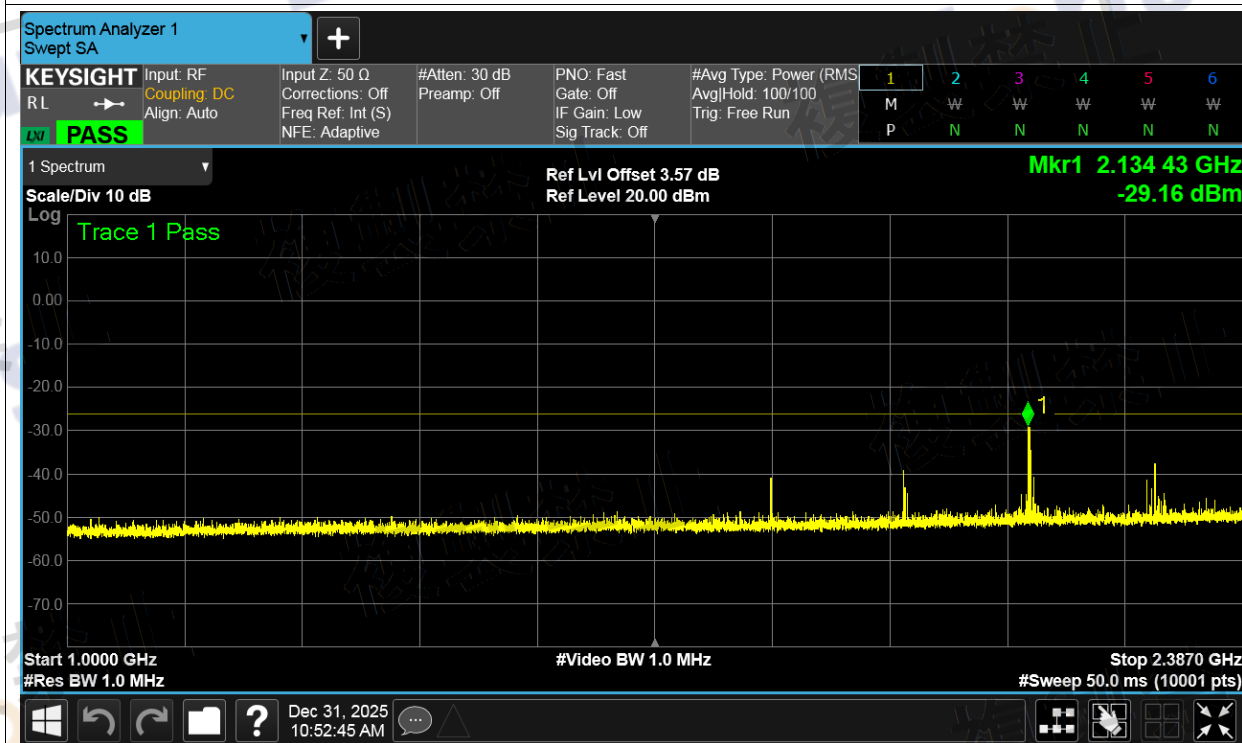
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 @ 2496.5MHz-13000MHz



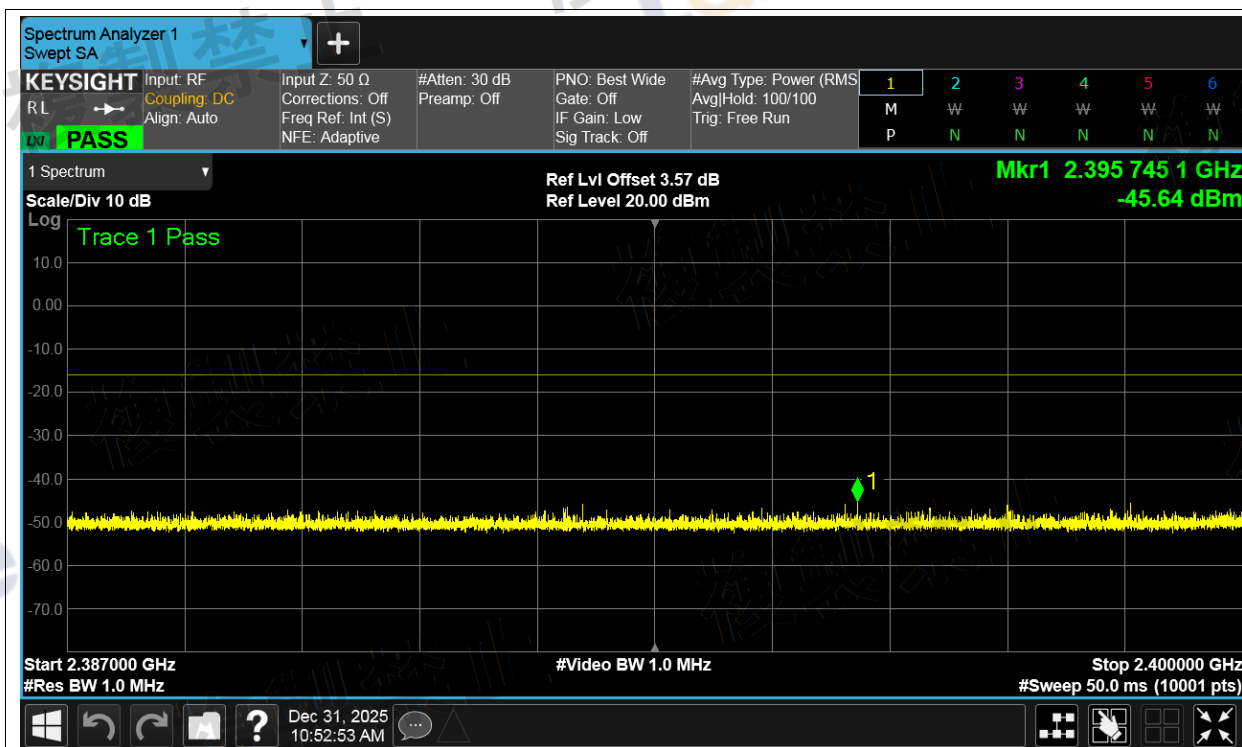
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 @ 30MHz-1000MHz



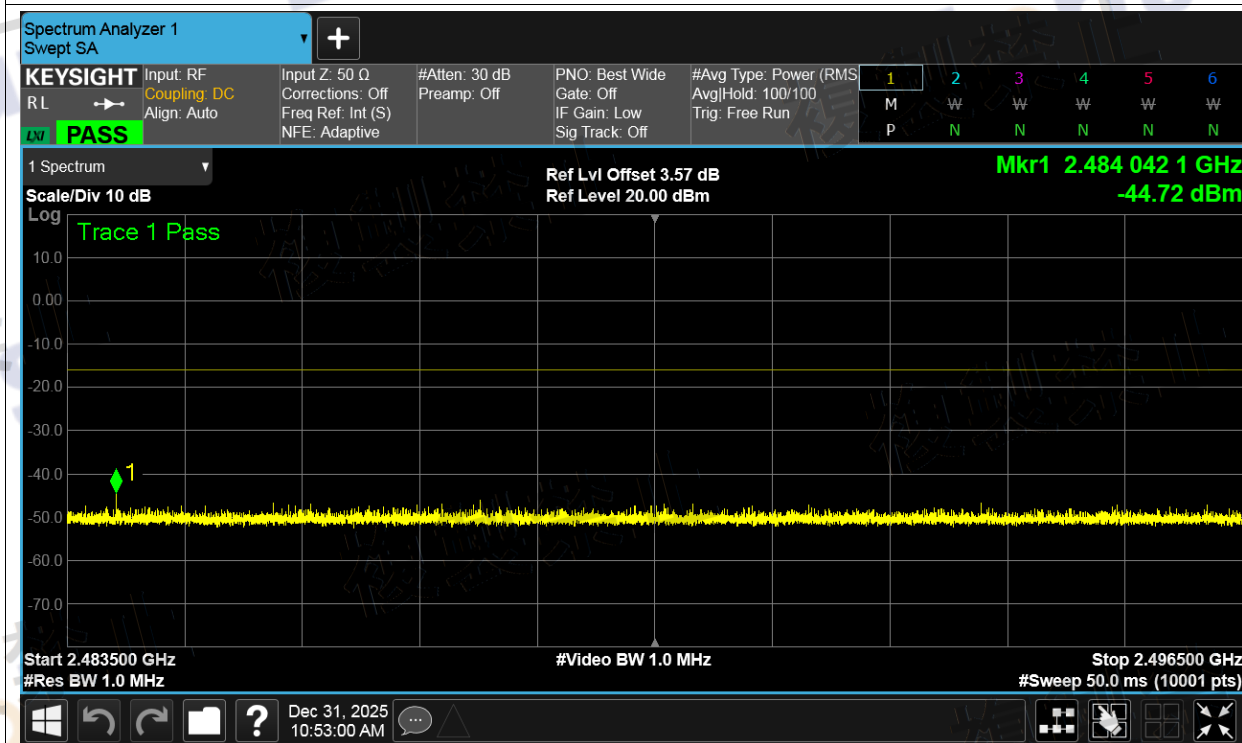
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 @ 1000MHz-2387MHz



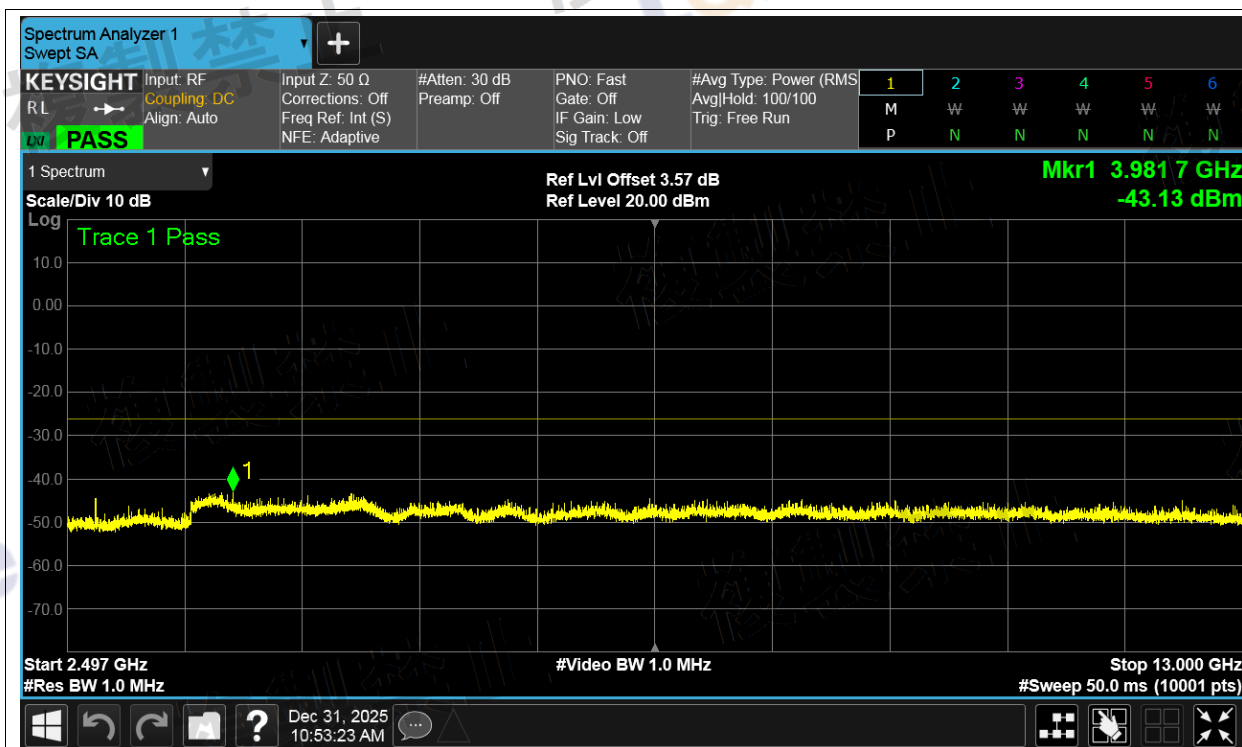
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 @ 2387MHz-2400MHz



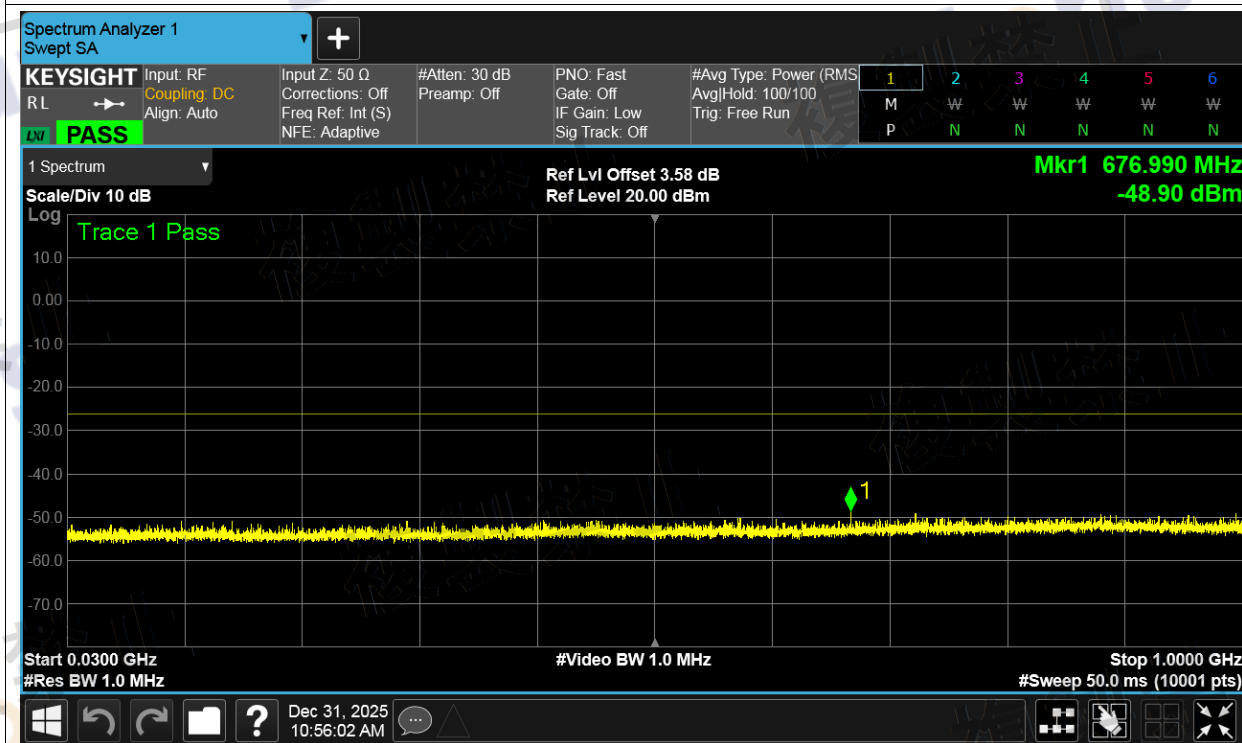
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 @ 2483.5MHz-2496.5MHz



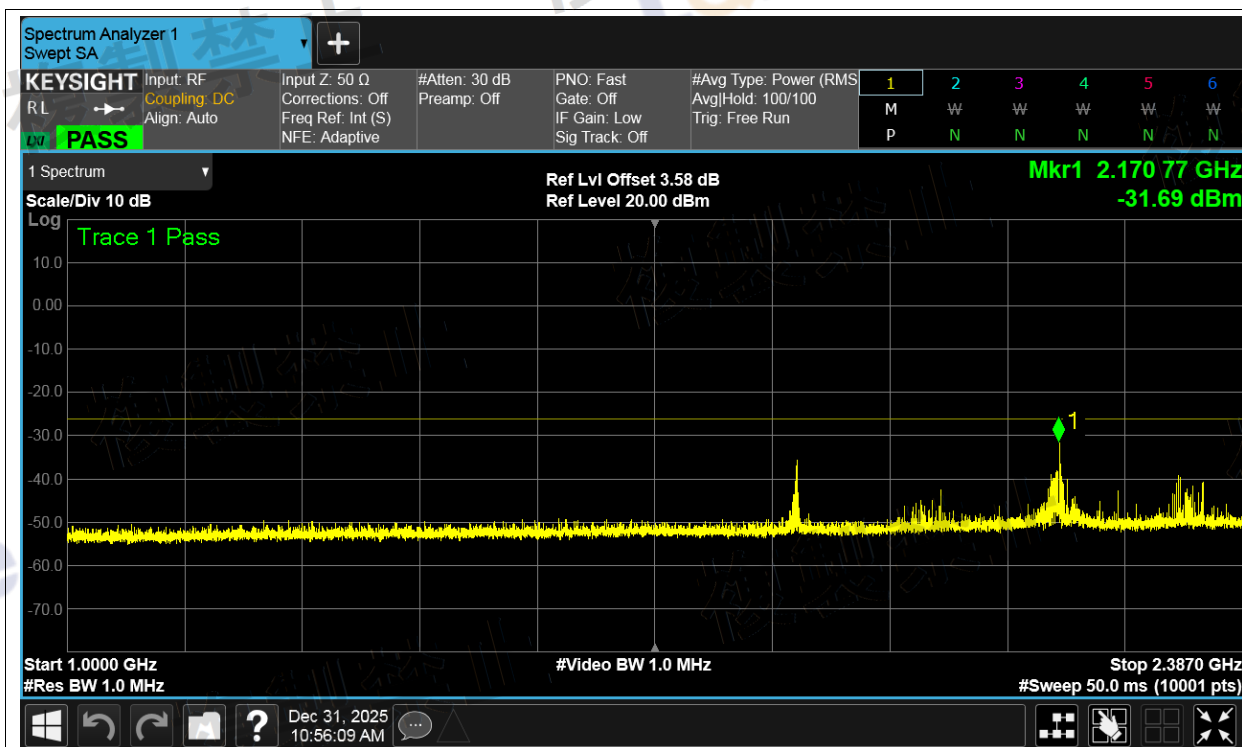
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 @ 2496.5MHz-13000MHz



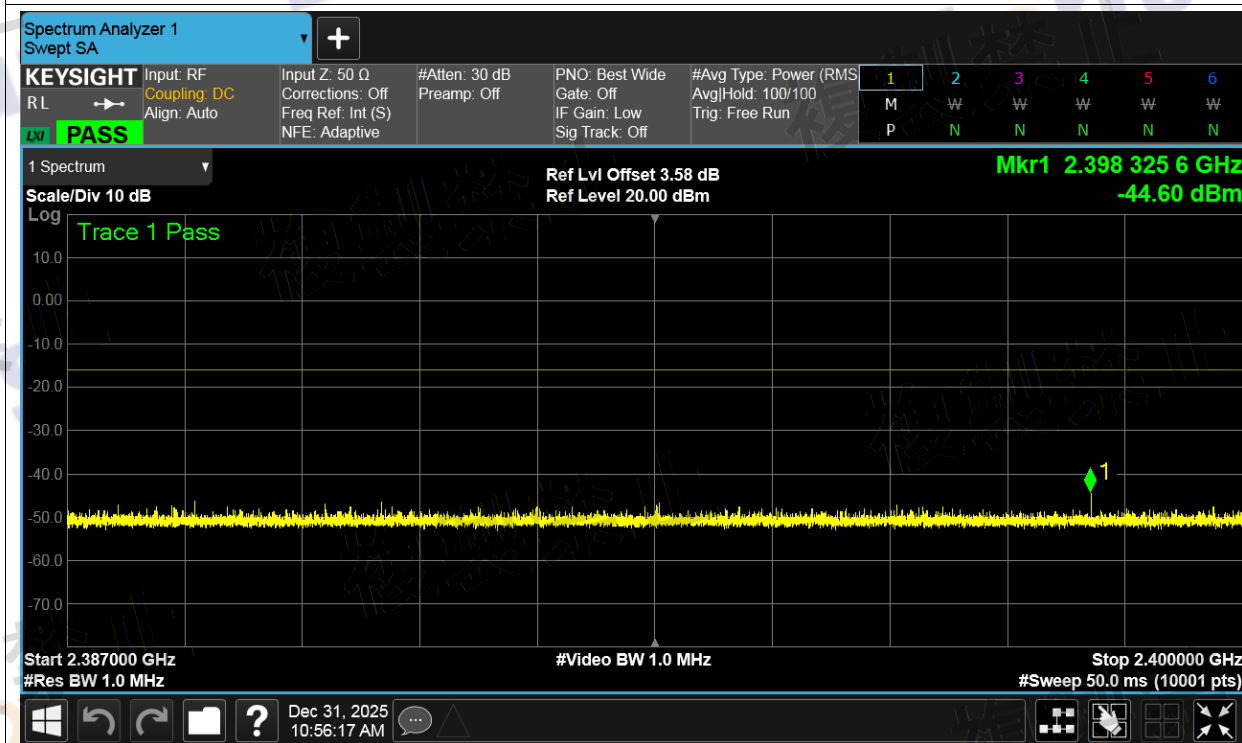
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 @ 30MHz-1000MHz



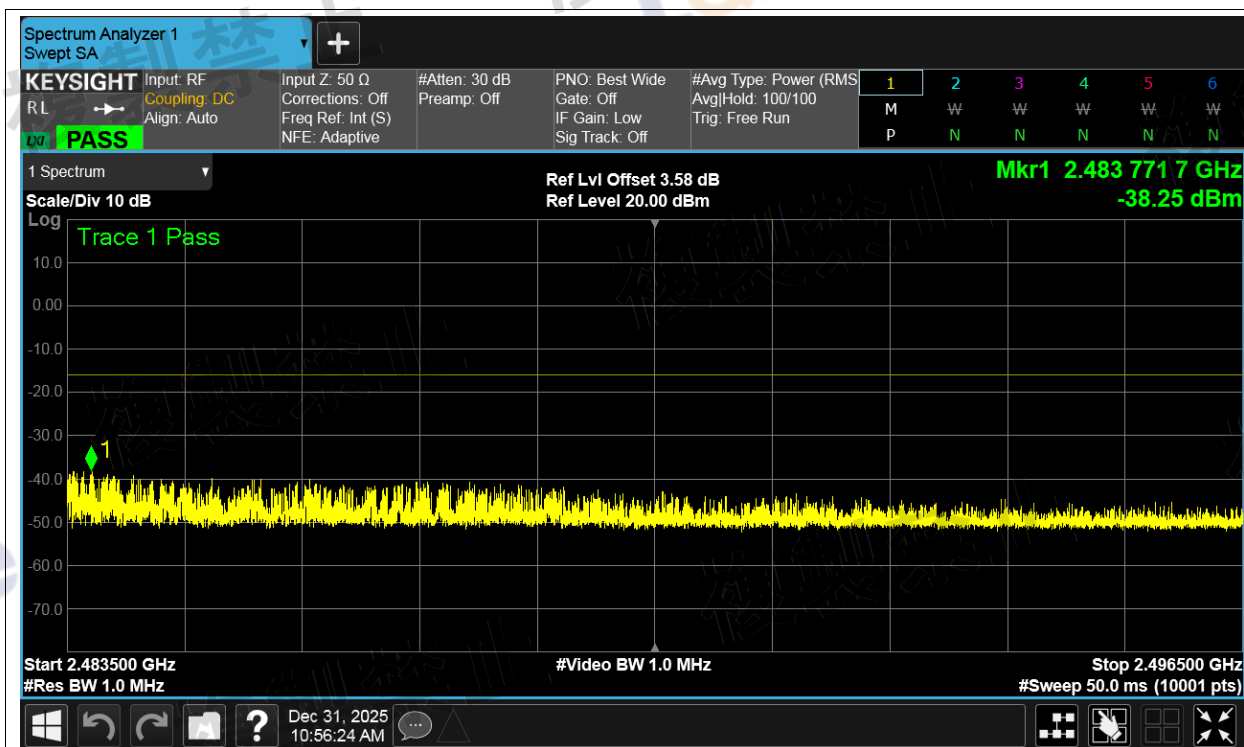
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 @ 1000MHz-2387MHz



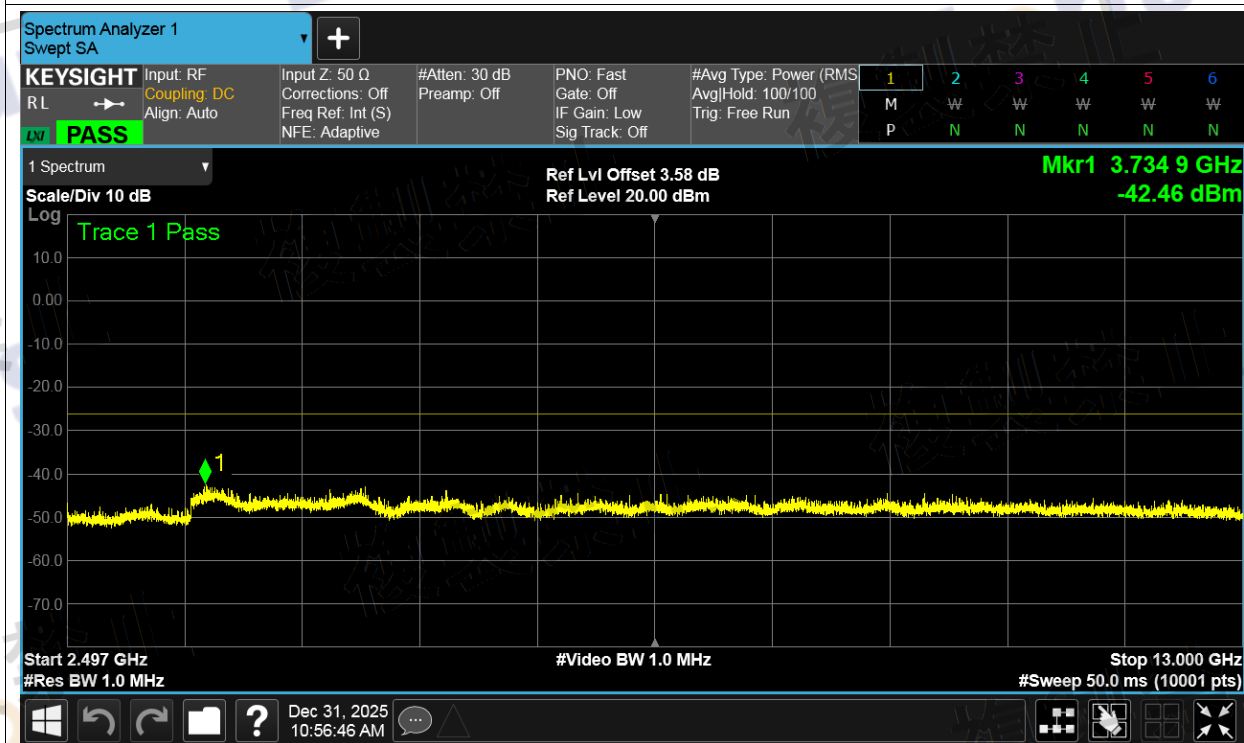
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 @ 2387MHz-2400MHz



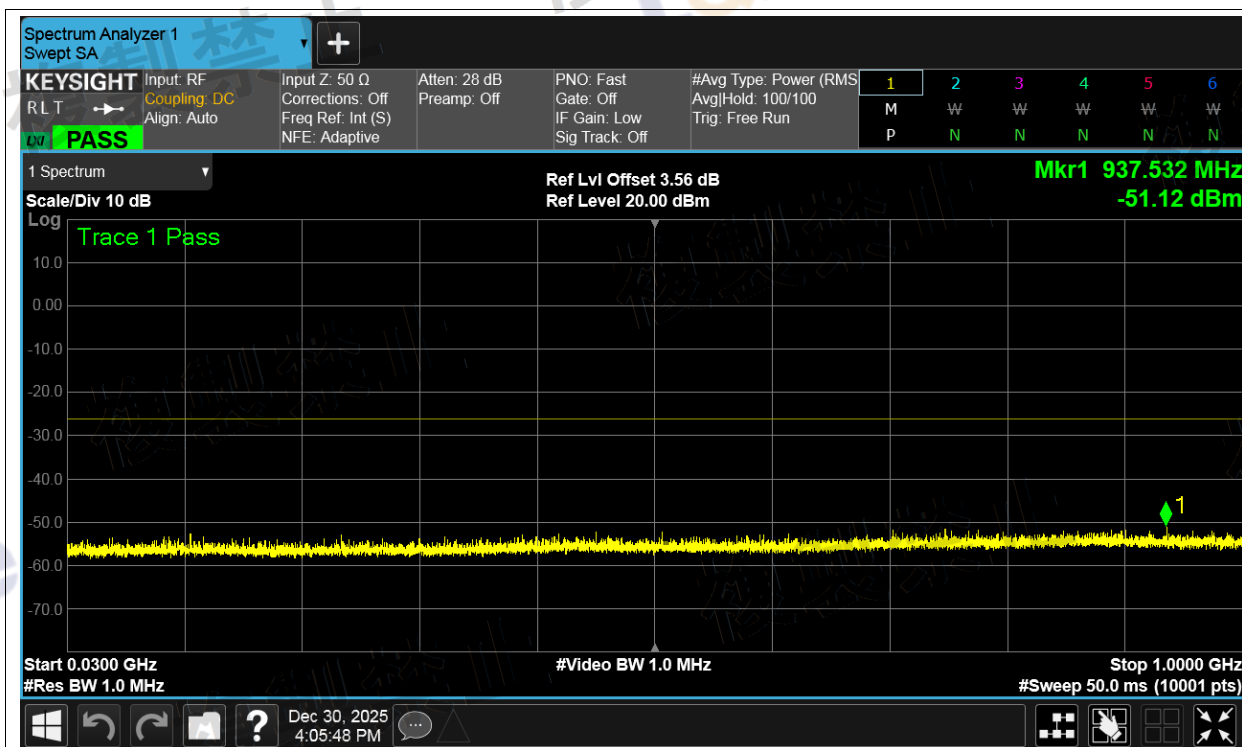
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 @ 2483.5MHz-2496.5MHz



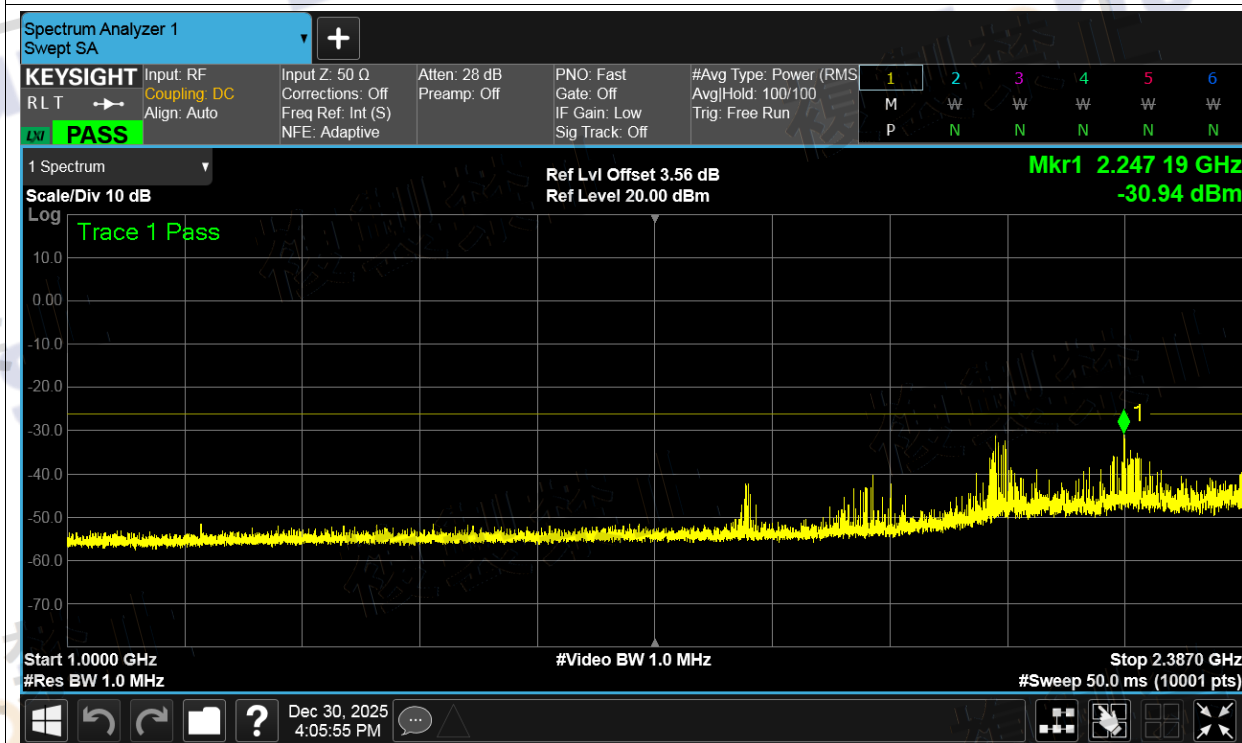
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 @ 2496.5MHz-13000MHz



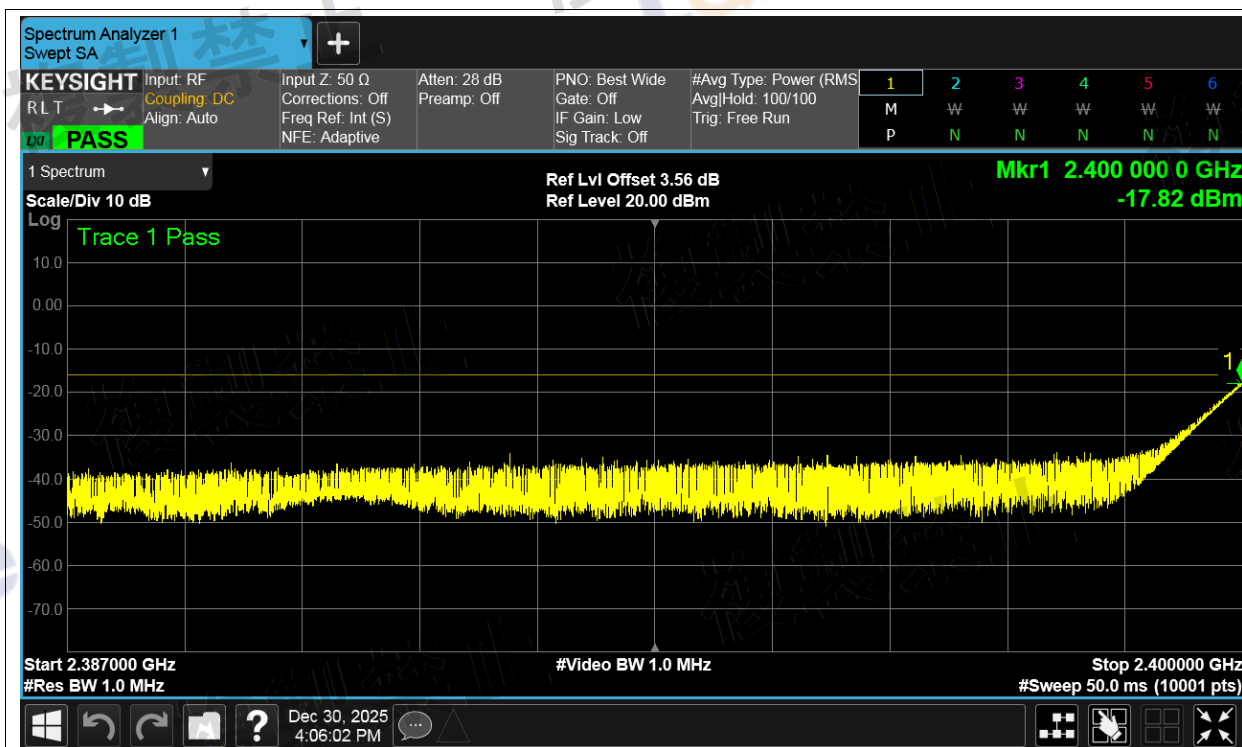
Tx. Spurious NVNT BLE 2M 2402MHz Ant1 @ 30MHz-1000MHz



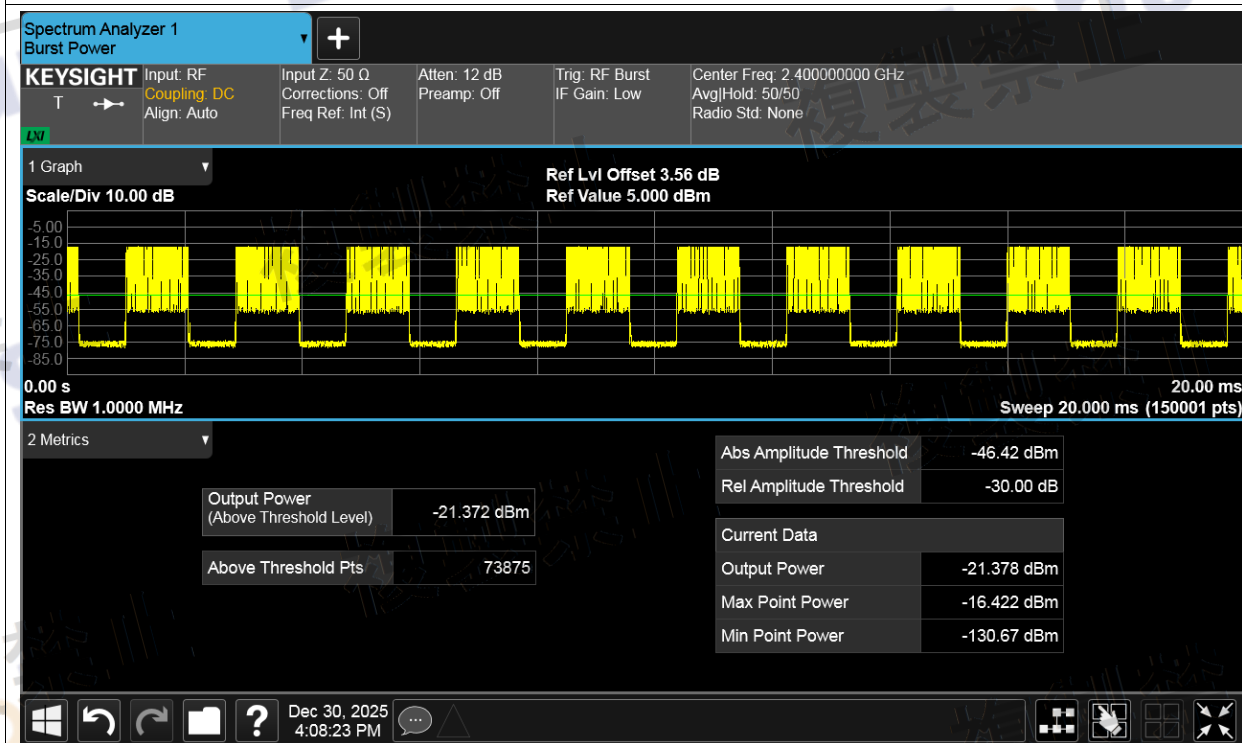
Tx. Spurious NVNT BLE 2M 2402MHz Ant1 @ 1000MHz-2387MHz



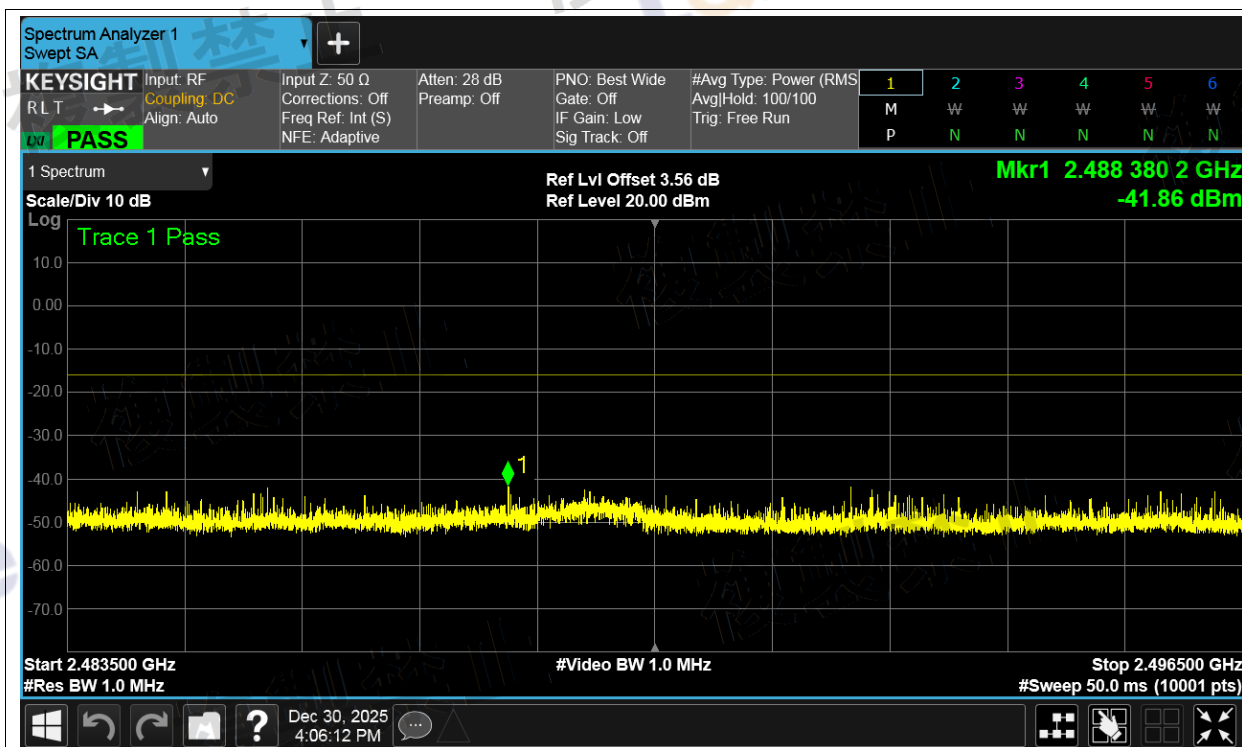
Tx. Spurious NVNT BLE 2M 2402MHz Ant1 @ 2387MHz-2400MHz



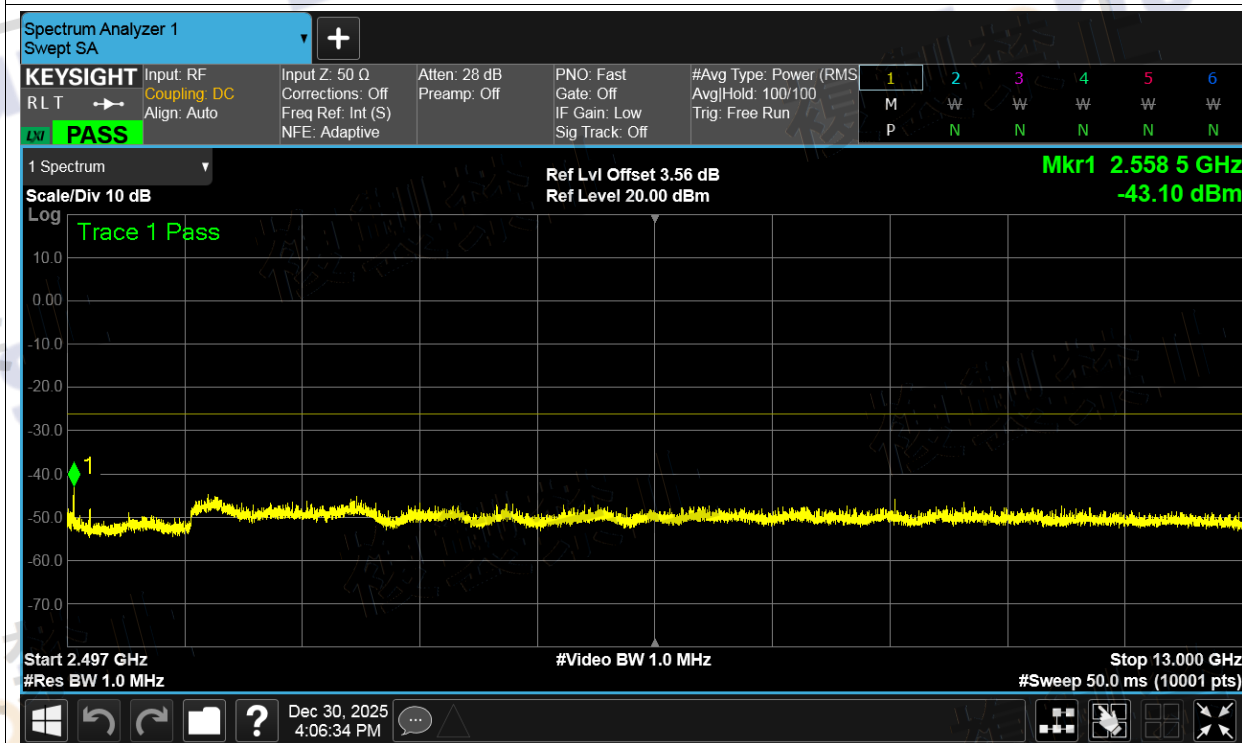
Tx. Spurious NVNT BLE 2M 2402MHz Ant1 @ 2387MHz-2400MHz Final



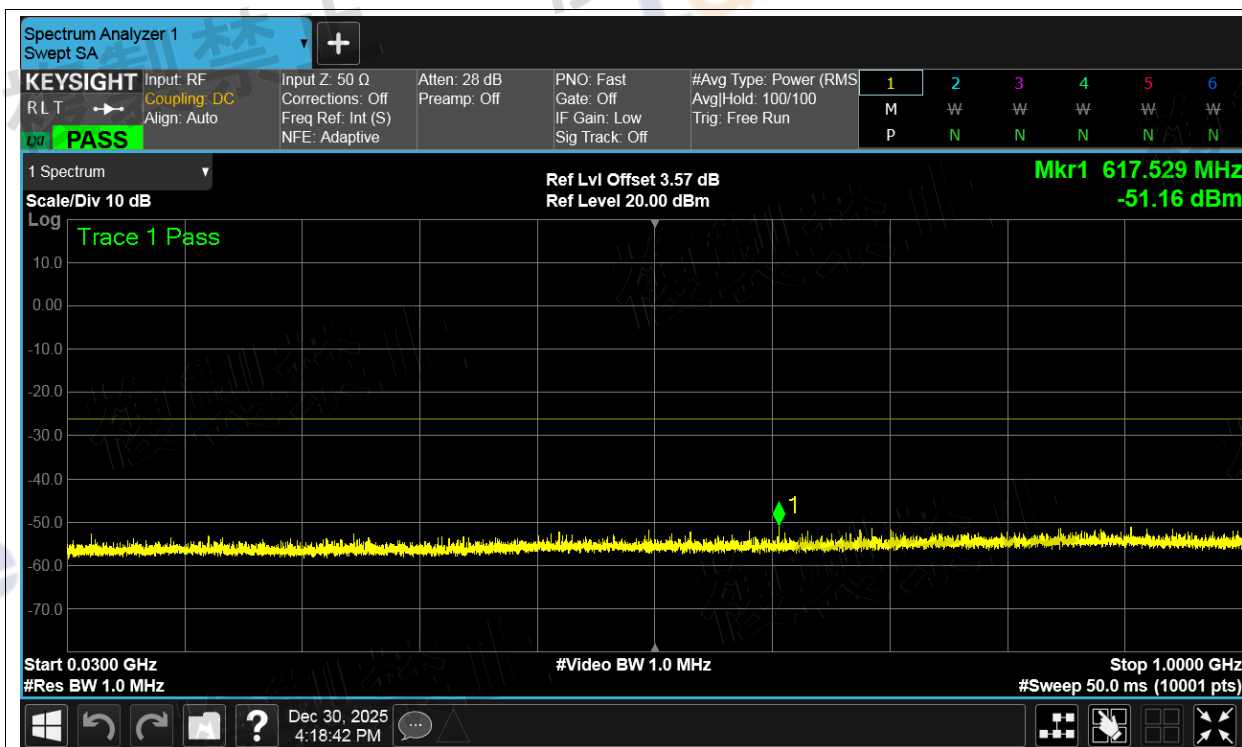
Tx. Spurious NVNT BLE 2M 2402MHz Ant1 @ 2483.5MHz-2496.5MHz



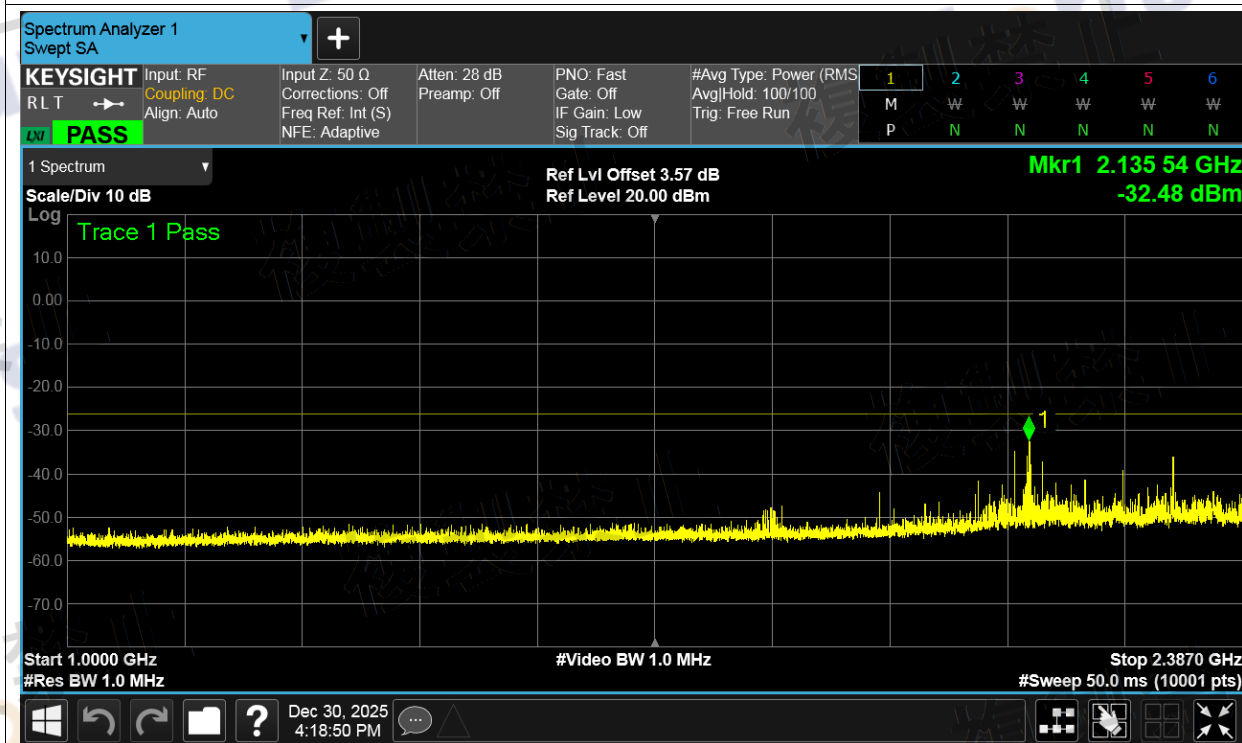
Tx. Spurious NVNT BLE 2M 2402MHz Ant1 @ 2496.5MHz-13000MHz



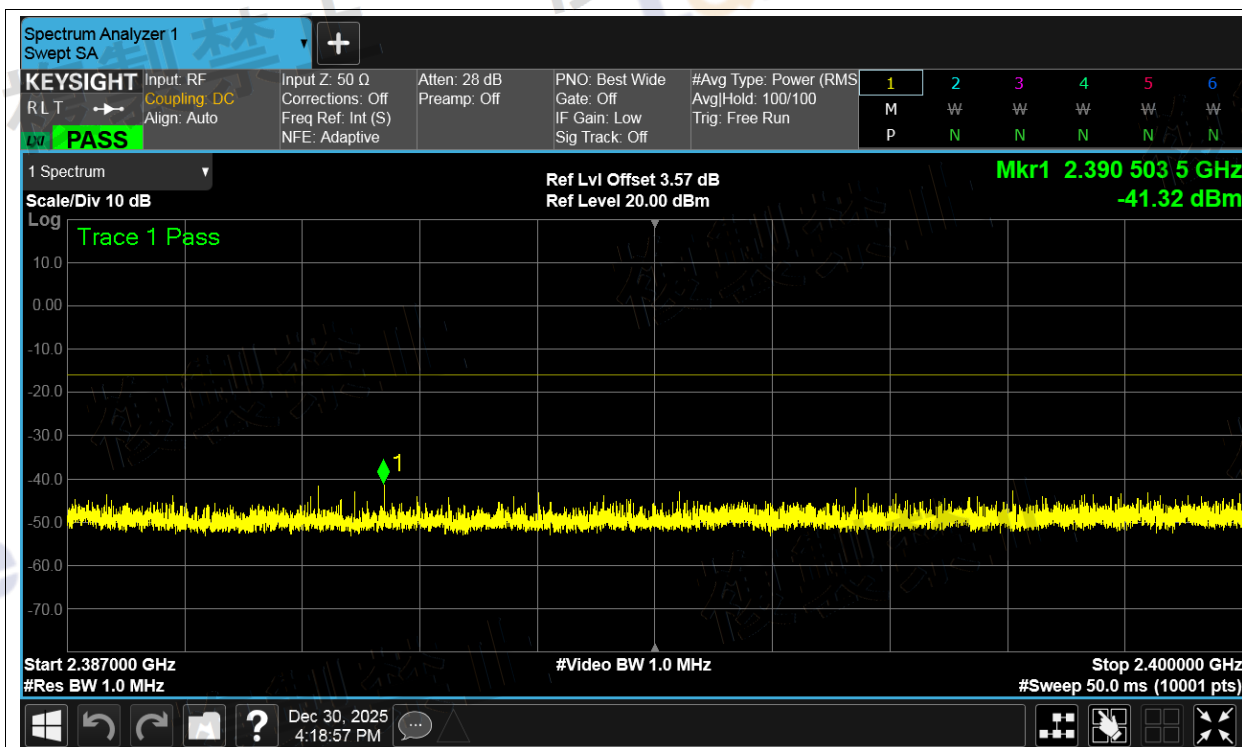
Tx. Spurious NVNT BLE 2M 2440MHz Ant1 @ 30MHz-1000MHz



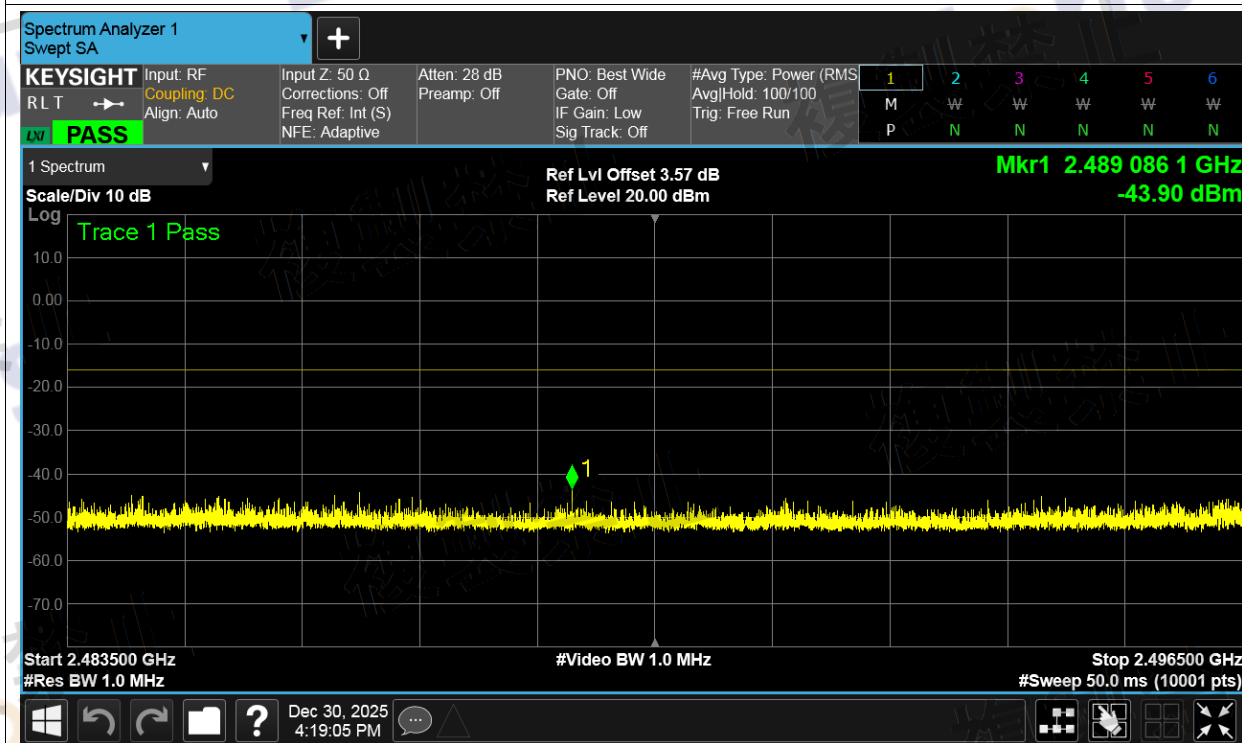
Tx. Spurious NVNT BLE 2M 2440MHz Ant1 @ 1000MHz-2387MHz



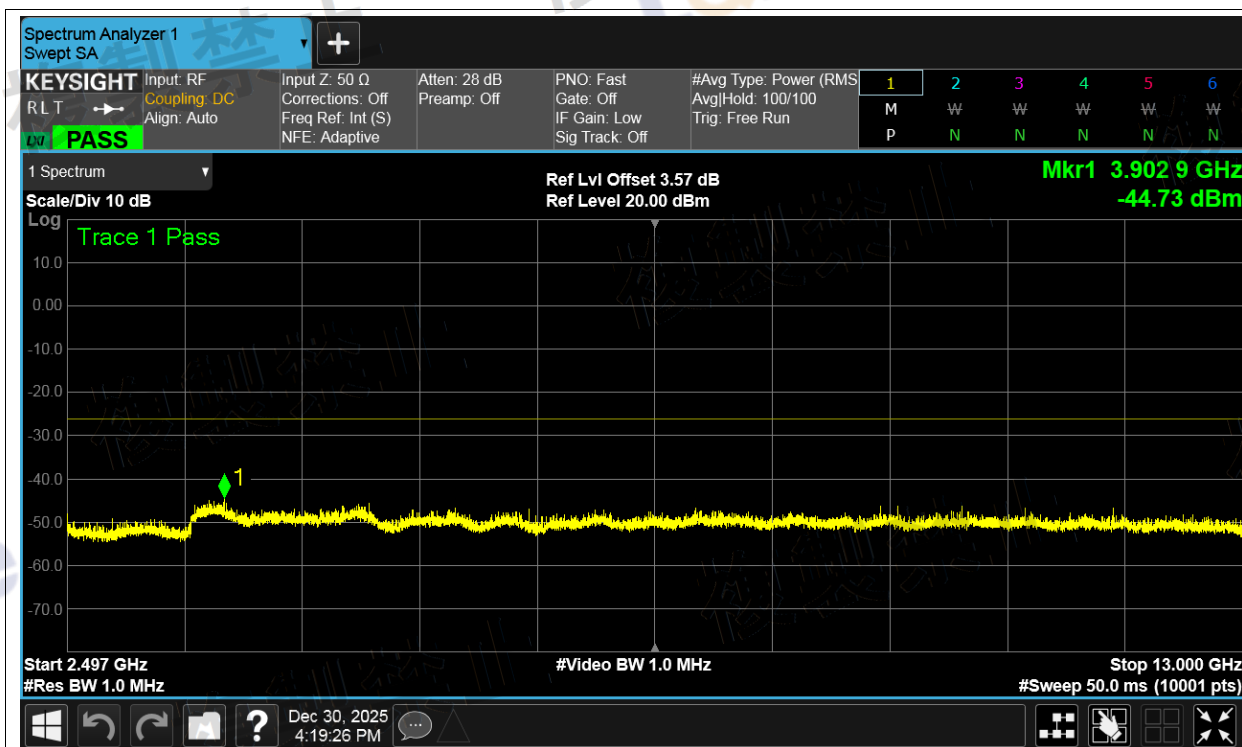
Tx. Spurious NVNT BLE 2M 2440MHz Ant1 @ 2387MHz-2400MHz



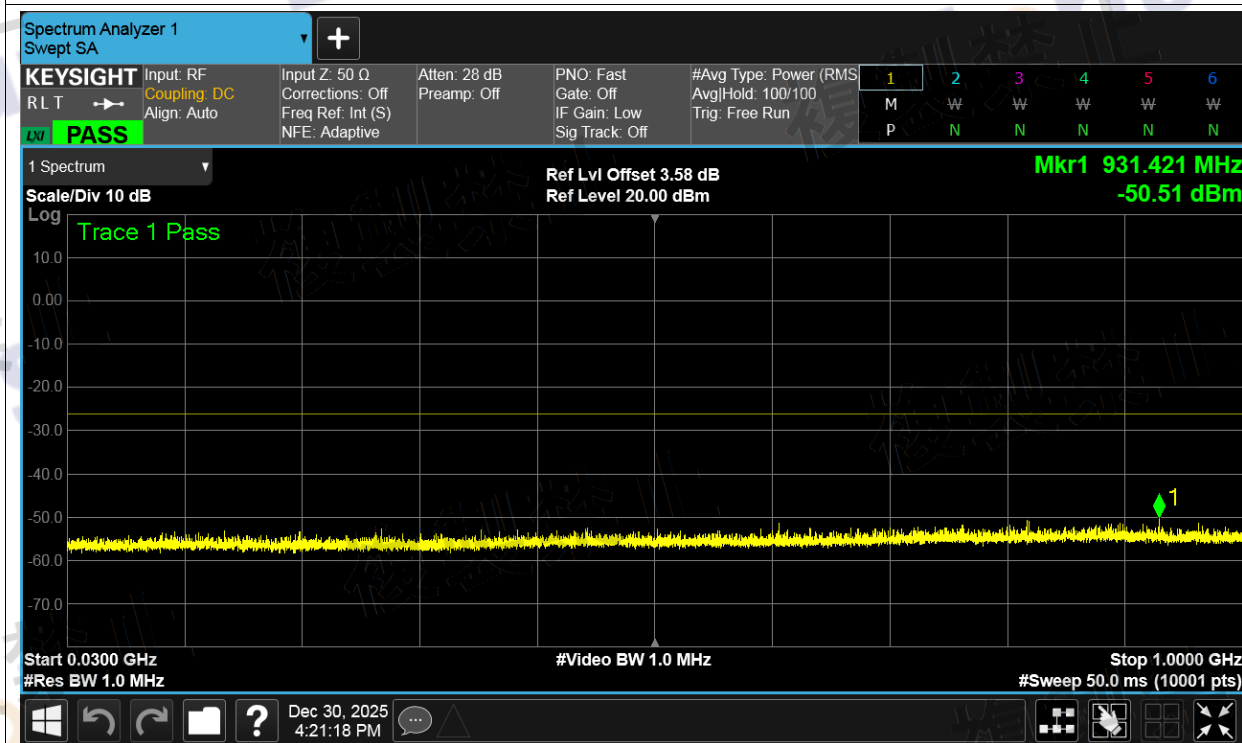
Tx. Spurious NVNT BLE 2M 2440MHz Ant1 @ 2483.5MHz-2496.5MHz



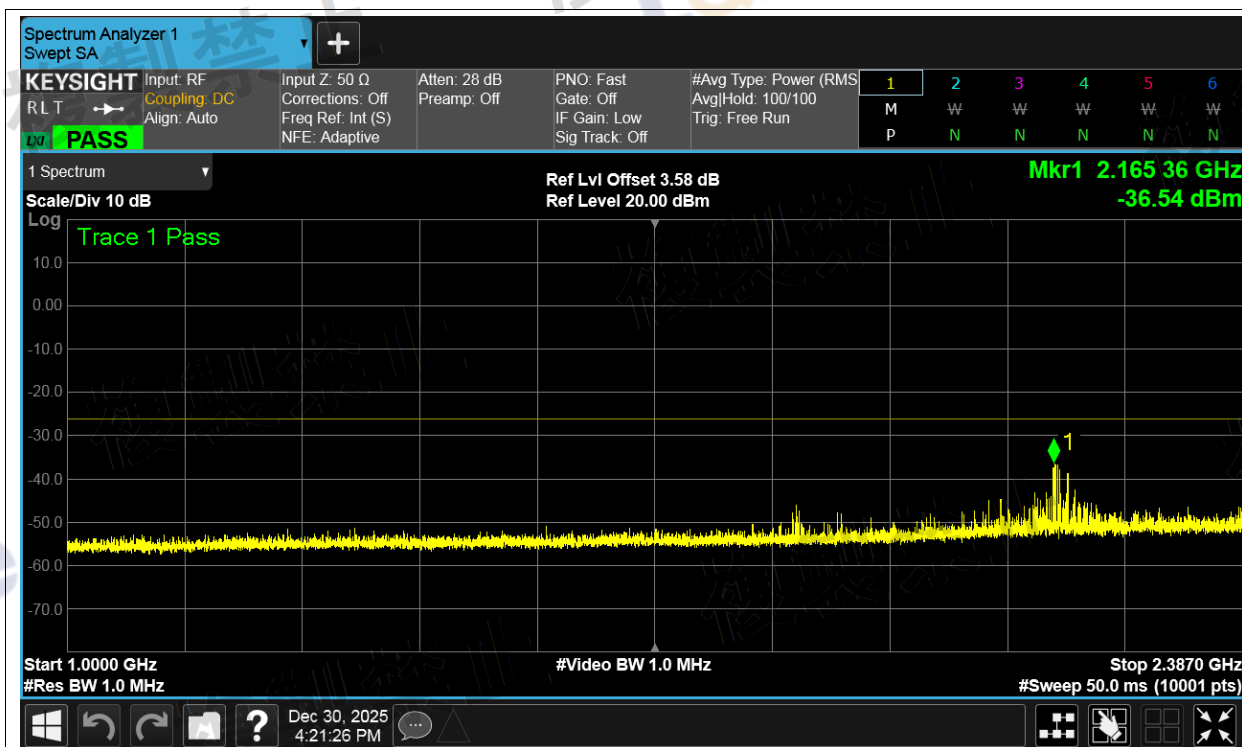
Tx. Spurious NVNT BLE 2M 2440MHz Ant1 @ 2496.5MHz-13000MHz



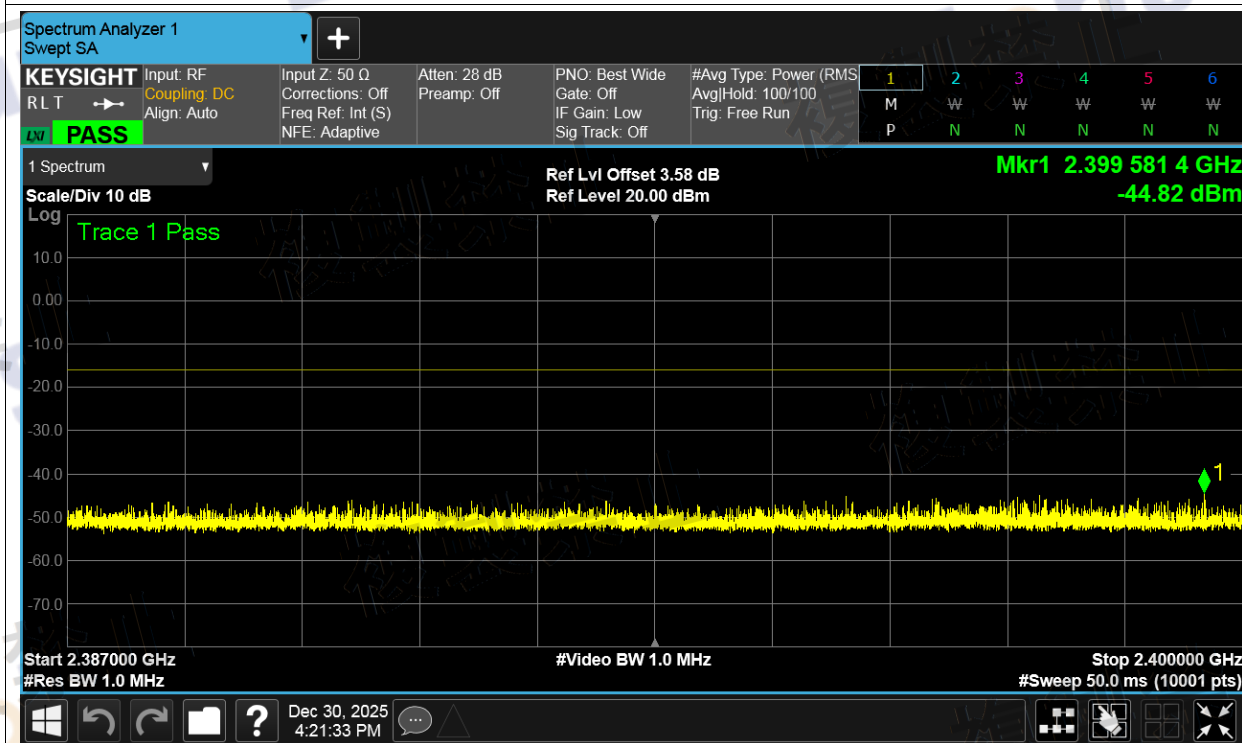
Tx. Spurious NVNT BLE 2M 2480MHz Ant1 @ 30MHz-1000MHz



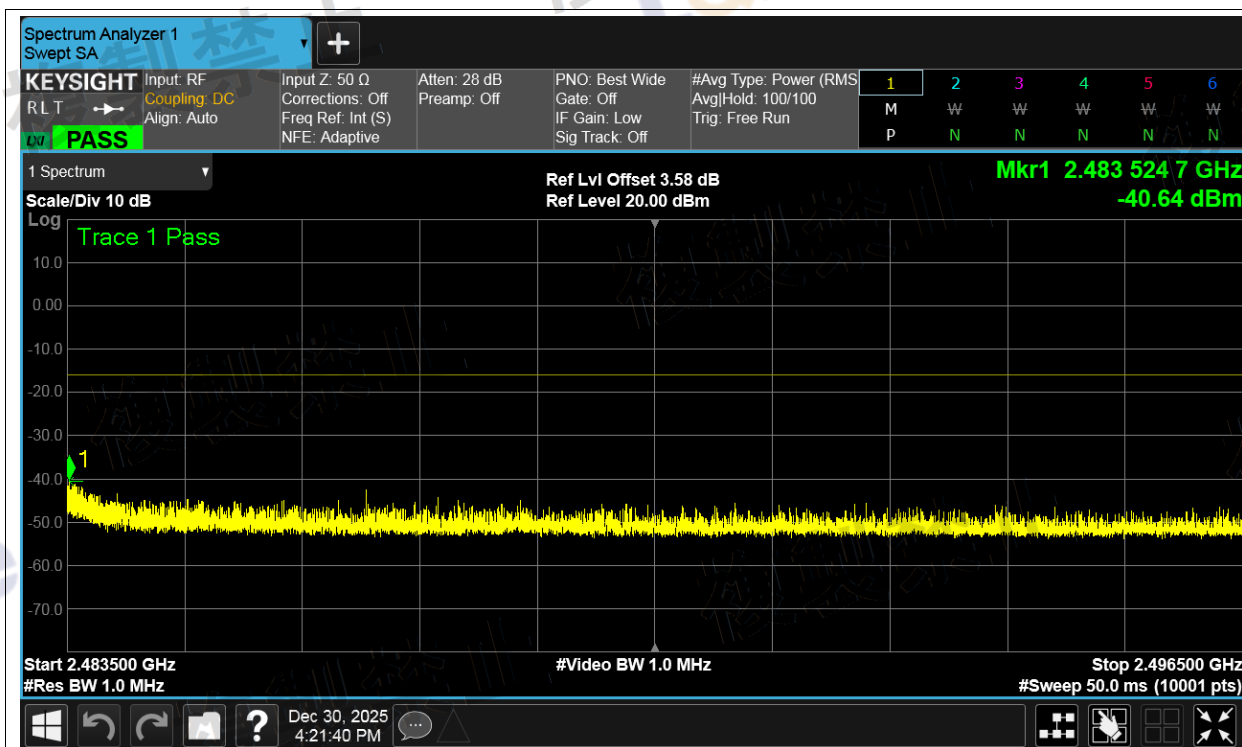
Tx. Spurious NVNT BLE 2M 2480MHz Ant1 @ 1000MHz-2387MHz



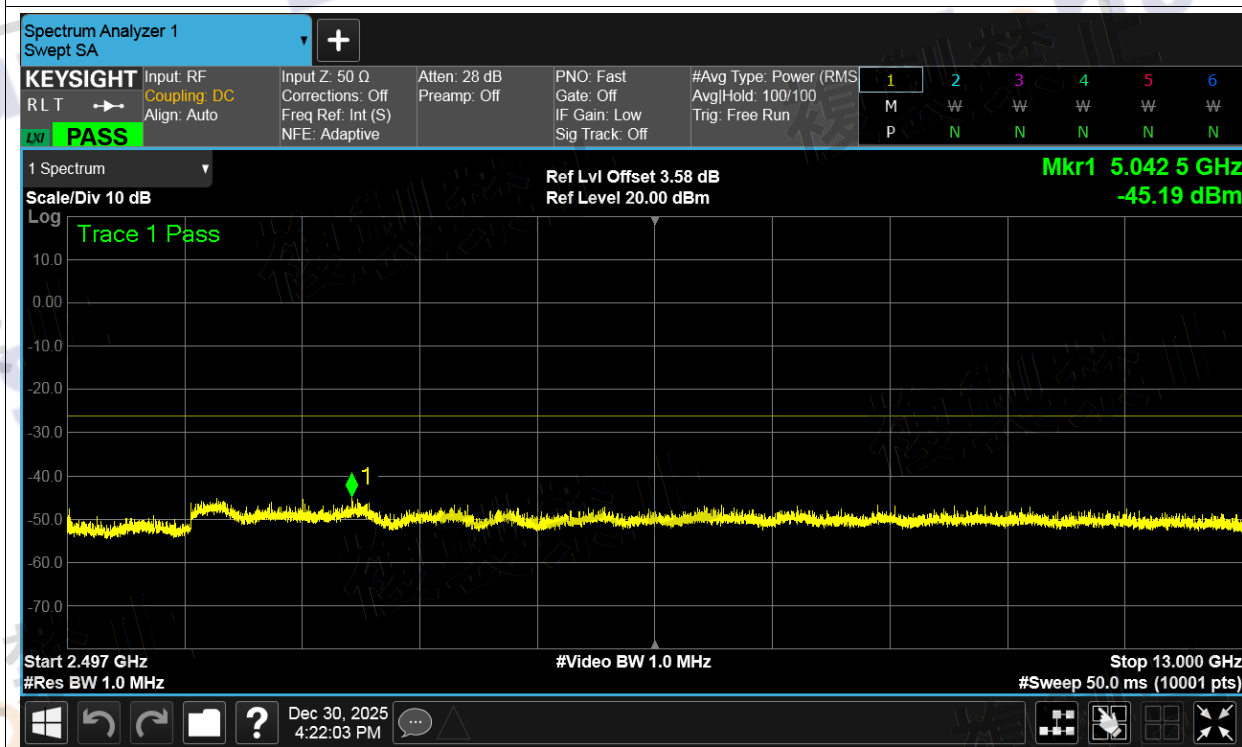
Tx. Spurious NVNT BLE 2M 2480MHz Ant1 @ 2387MHz-2400MHz



Tx. Spurious NVNT BLE 2M 2480MHz Ant1 @ 2483.5MHz-2496.5MHz



Tx. Spurious NVNT BLE 2M 2480MHz Ant1 @ 2496.5MHz-13000MHz

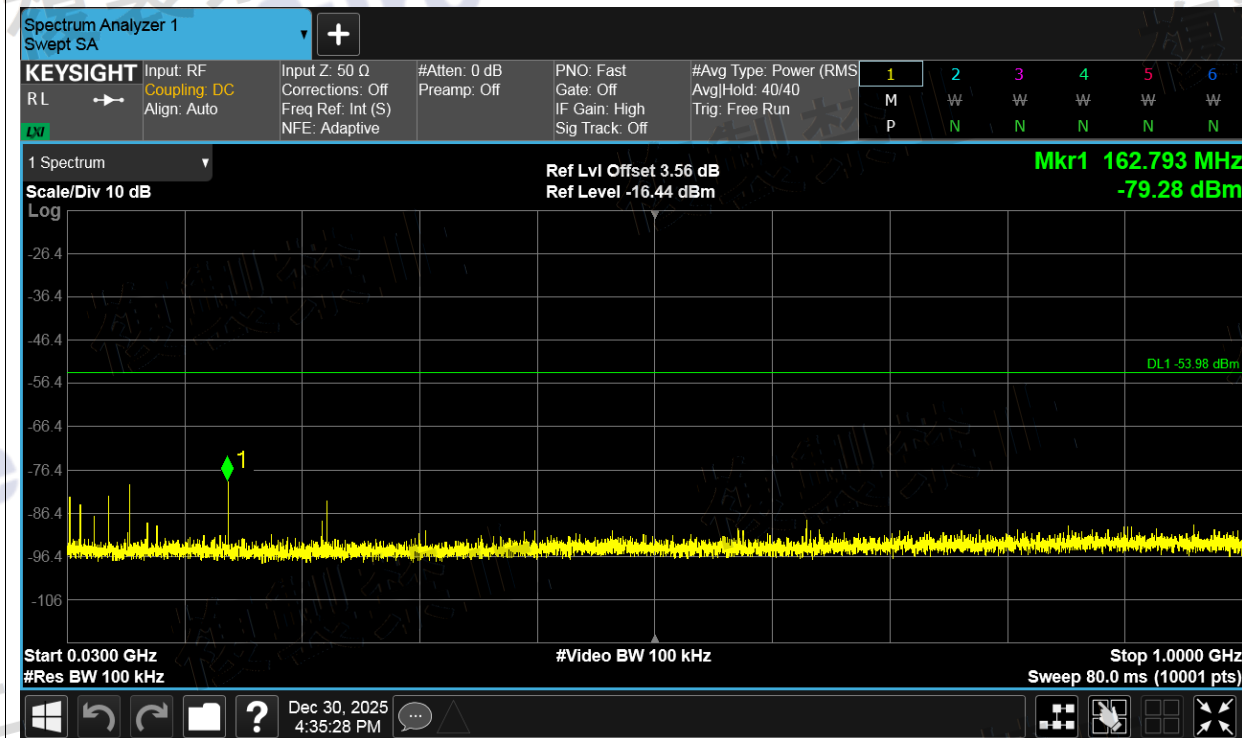


Secondary Radiated Emissions

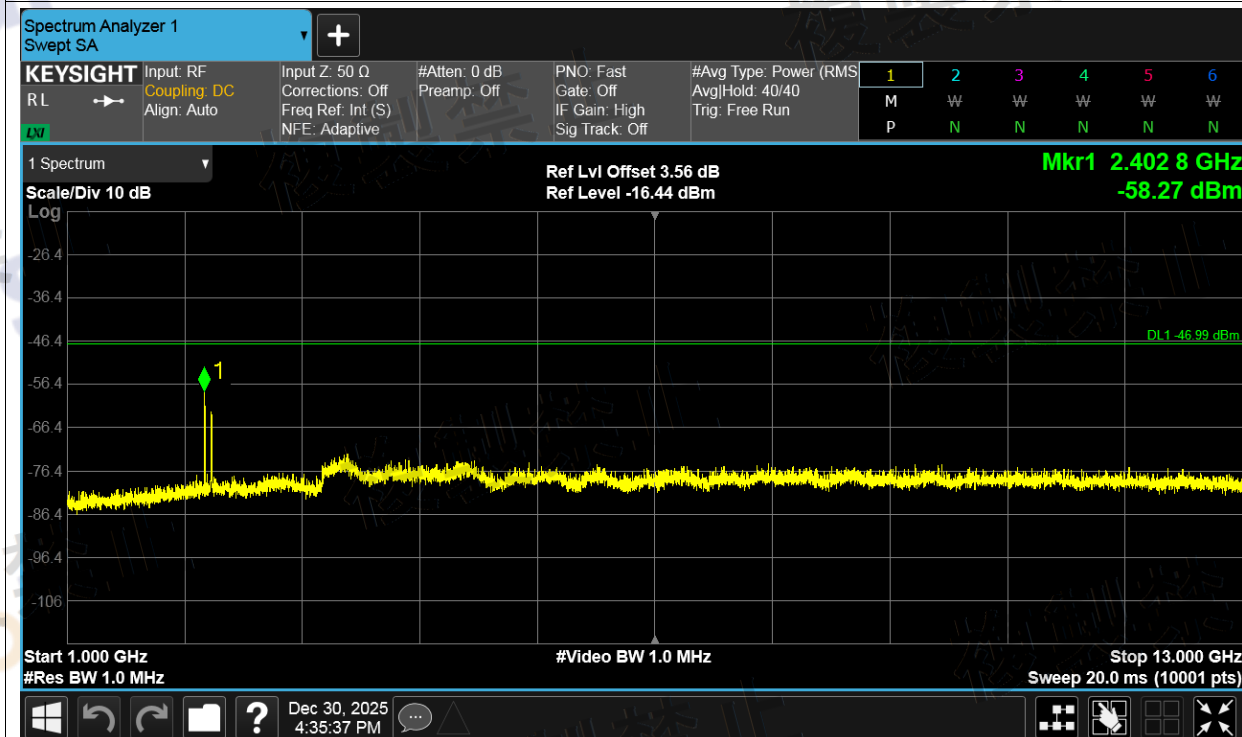
Condition	Mode	Frequency (MHz)	Antenna	Range (MHz)	Emission Frequency (MHz)	Max Peak Value (dBm)	Max RMS Value (dBm)	Max Peak Value (nW)	Max RMS Value (nW)	Limit (nW)	Verdict
NVNT	BLE 1M	2402	Ant1	30-1000	162.79	-79.28	NA	0.0118	NA	4	Pass
NVNT	BLE 1M	2402	Ant1	1000-13000	2402.80	-58.27	NA	1.4894	NA	20	Pass
NVNT	BLE 1M	2440	Ant1	30-1000	83.06	-79.17	NA	0.0121	NA	4	Pass
NVNT	BLE 1M	2440	Ant1	1000-13000	3860.80	-72.78	NA	0.0527	NA	20	Pass
NVNT	BLE 1M	2480	Ant1	30-1000	84.03	-78.57	NA	0.0139	NA	4	Pass
NVNT	BLE 1M	2480	Ant1	1000-13000	2467.60	-59.31	NA	1.1722	NA	20	Pass
NVNT	BLE 2M	2402	Ant1	30-1000	81.41	-77.45	NA	0.018	NA	4	Pass
NVNT	BLE 2M	2402	Ant1	1000-13000	2476.00	-60.07	NA	0.984	NA	20	Pass
NVNT	BLE 2M	2440	Ant1	30-1000	83.16	-79.22	NA	0.012	NA	4	Pass
NVNT	BLE 2M	2440	Ant1	1000-13000	2426.80	-60.42	NA	0.9078	NA	20	Pass
NVNT	BLE 2M	2480	Ant1	30-1000	84.03	-78.30	NA	0.0148	NA	4	Pass
NVNT	BLE 2M	2480	Ant1	1000-13000	5791.60	-61.73	NA	0.6714	NA	20	Pass

Test Graphs

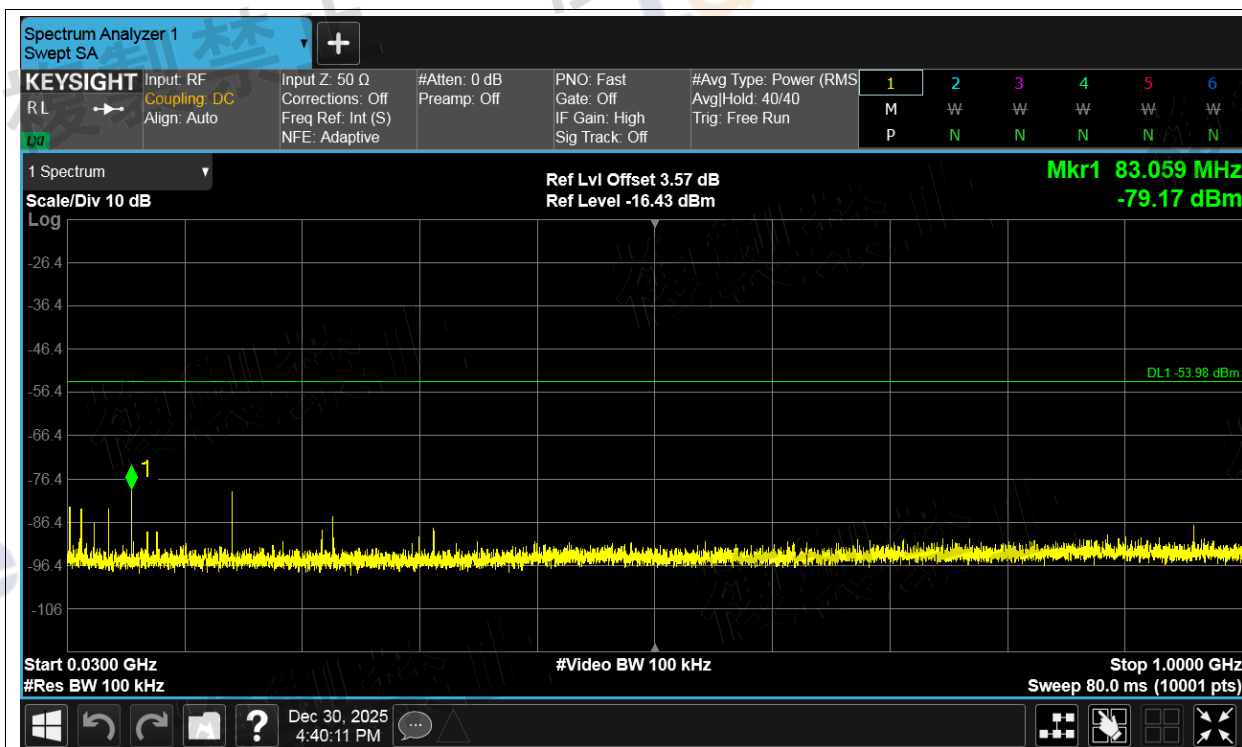
Rx. Spurious NVNT BLE 1M 2402MHz Ant1 @ 30MHz-1000MHz



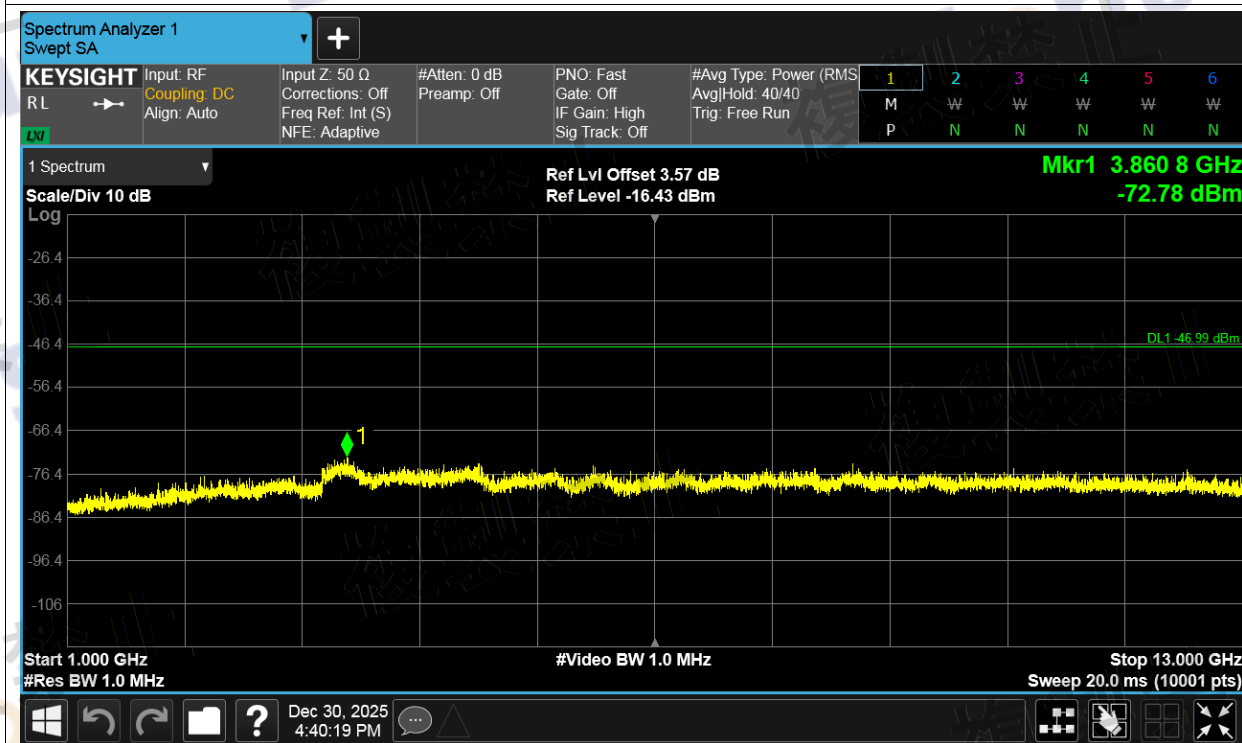
Rx. Spurious NVNT BLE 1M 2402MHz Ant1 @ 1000MHz-13000MHz



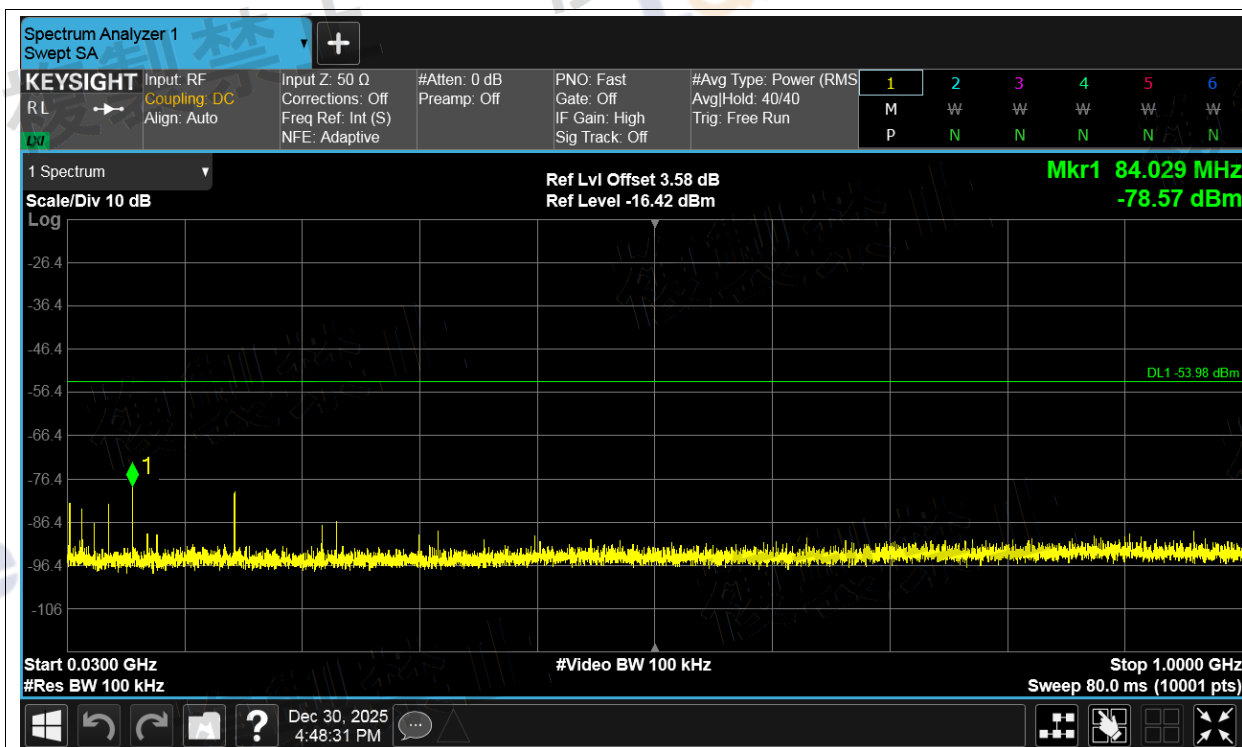
Rx. Spurious NVNT BLE 1M 2440MHz Ant1 @ 30MHz-1000MHz



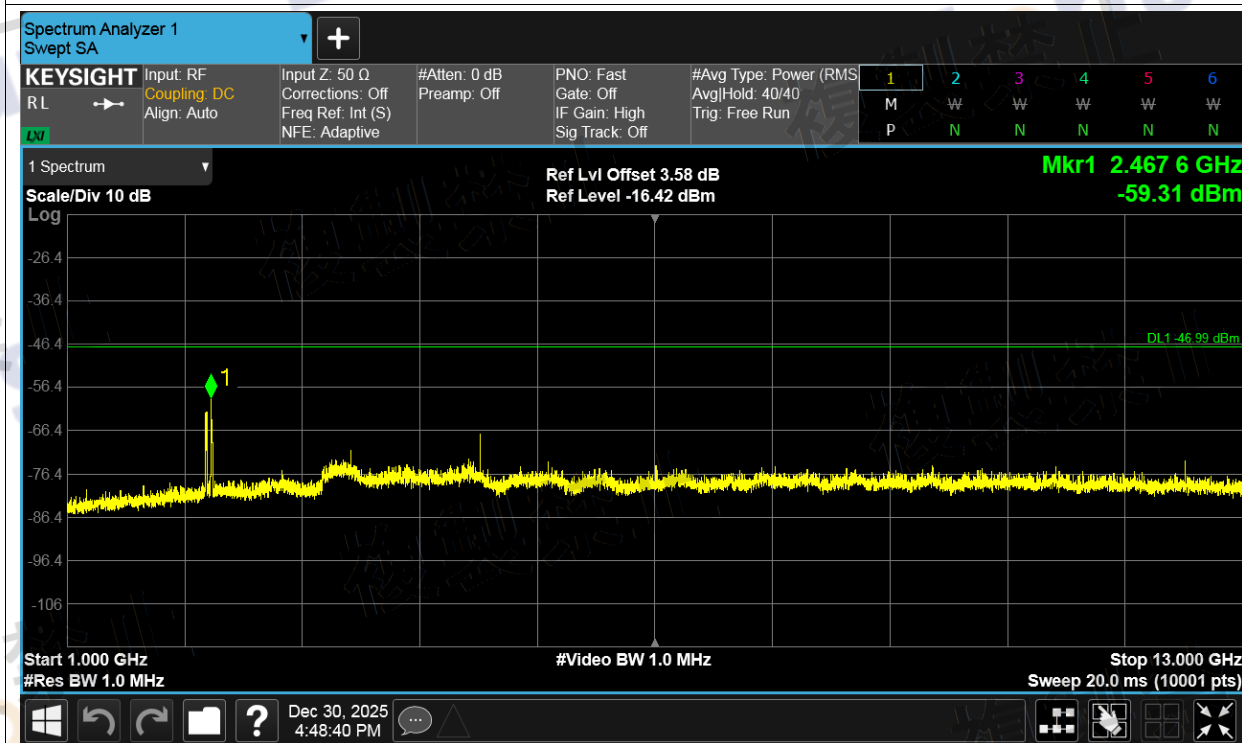
Rx. Spurious NVNT BLE 1M 2440MHz Ant1 @ 1000MHz-13000MHz



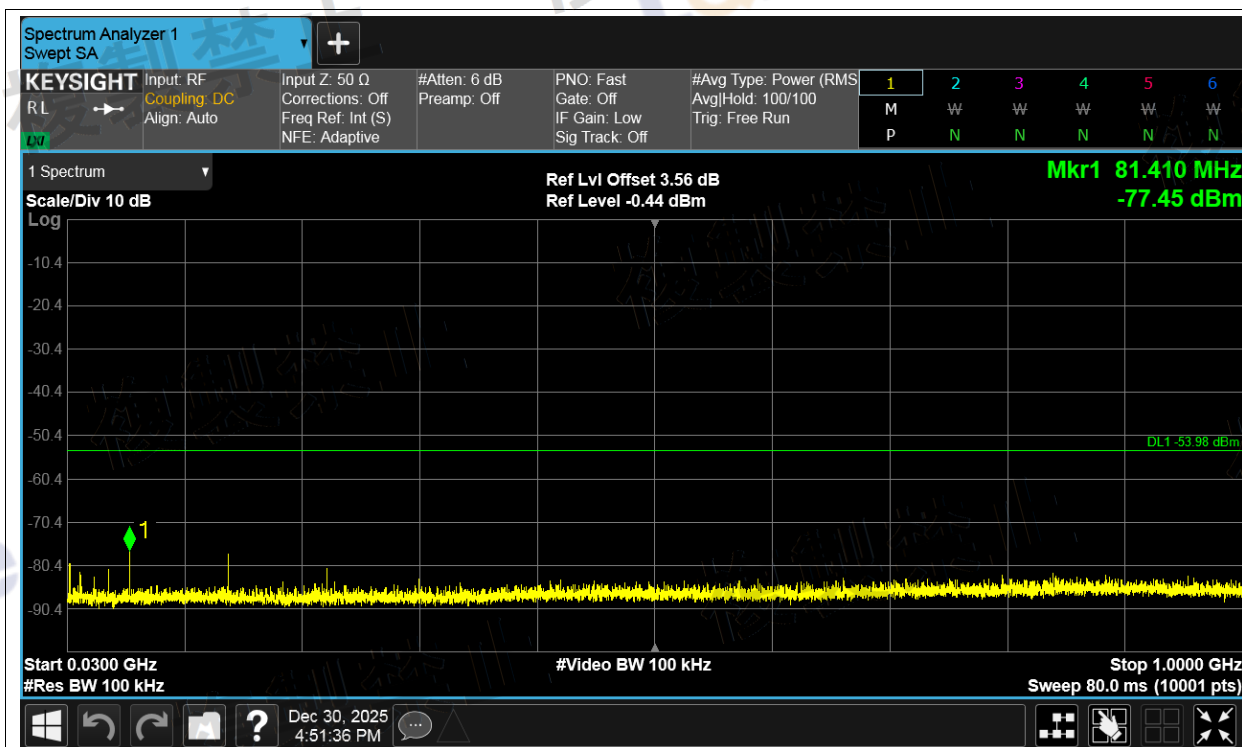
Rx. Spurious NVNT BLE 1M 2480MHz Ant1 @ 30MHz-1000MHz



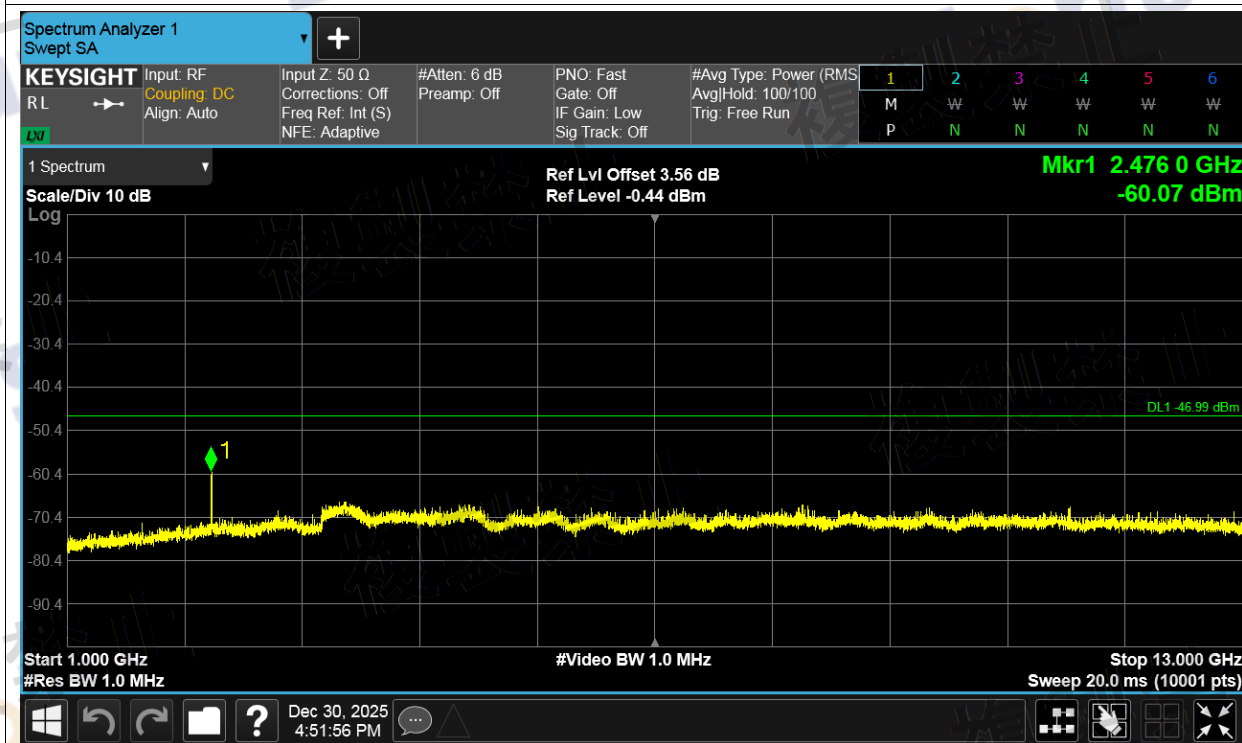
Rx. Spurious NVNT BLE 1M 2480MHz Ant1 @ 1000MHz-13000MHz



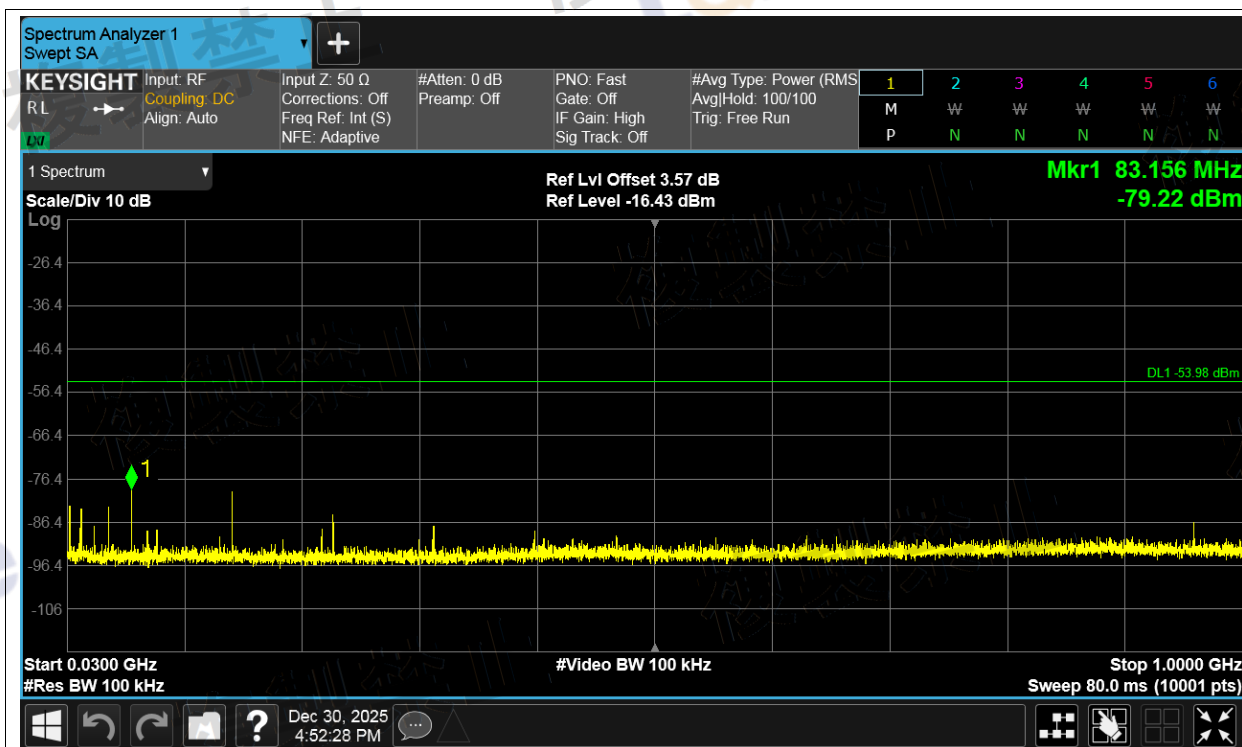
Rx. Spurious NVNT BLE 2M 2402MHz Ant1 @ 30MHz-1000MHz



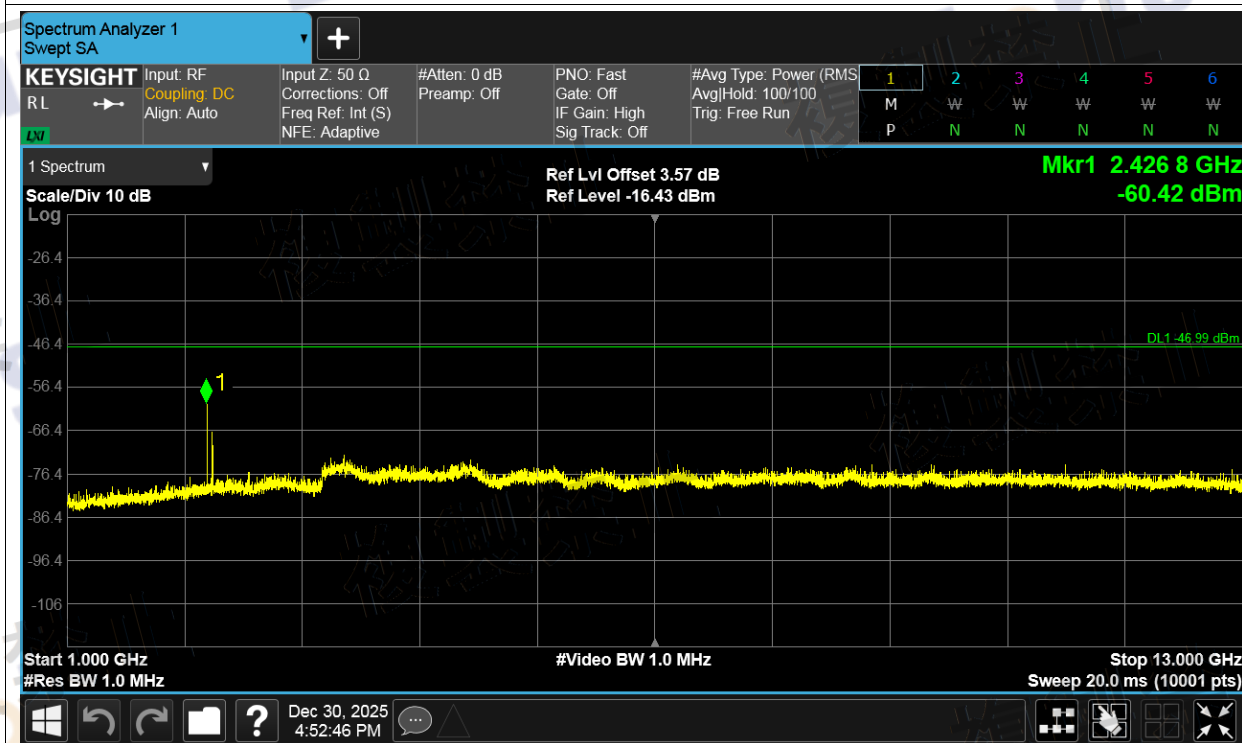
Rx. Spurious NVNT BLE 2M 2402MHz Ant1 @ 1000MHz-13000MHz



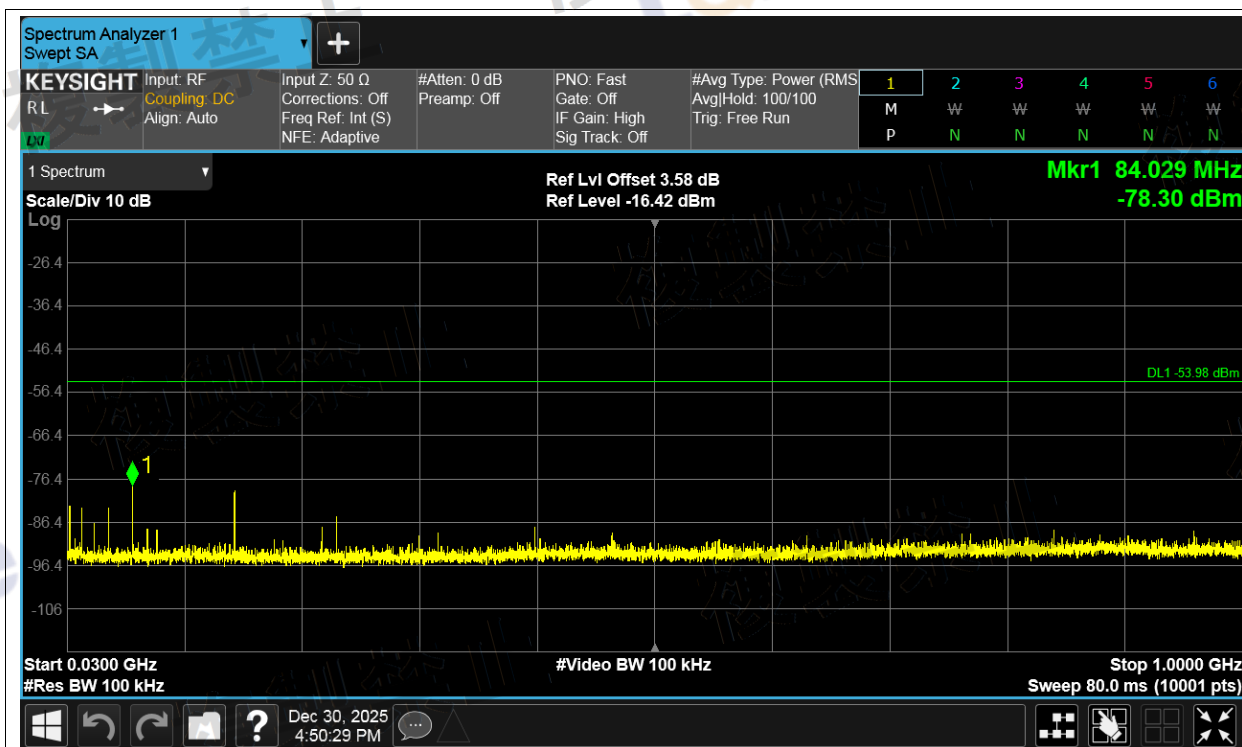
Rx. Spurious NVNT BLE 2M 2440MHz Ant1 @ 30MHz-1000MHz



Rx. Spurious NVNT BLE 2M 2440MHz Ant1 @ 1000MHz-13000MHz



Rx. Spurious NVNT BLE 2M 2480MHz Ant1 @ 30MHz-1000MHz



Rx. Spurious NVNT BLE 2M 2480MHz Ant1 @ 1000MHz-13000MHz

