

**Summary Data**  
**For**  
**ERDLVA-2G18G-65-70MV-85C**

Customer: \_\_\_\_\_

Tested By: Jim Hopson

SO No: \_\_\_\_\_

Temperature: -10°C TO +85°C

Model No: ERDLVA-2G18G-65-70MV-85C

Date 8/7/2024

Serial No: PL36719/2313

Drawing No: 27642020

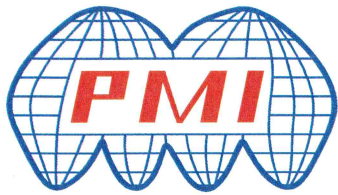
Rev: B1

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	2 to 18 GHz	2 to 18 GHz	PMI QA3 <hr style="border: 1px solid black;"/>
2	VSWR:	2.2:1 MAX @ 50 Ω	1.77:1 MAX	
3	Input Power:	(1) 1 W CW, Max. (2) 100 W Peak @ PW = 1 us & Duty Cycle = 1%, Max.	Pass	
4	VIDEO OUT TSS:	-71 dBm MAX	-71 dBm	
5	VIDEO OUT Dynamic Range:	-65 to 0 dBm	-65 to 0 dBm	
6	VIDEO OUT Log Slope Fixed:	70 ± 3mV/dB	71.6/68.8 mv	
7	VIDEO OUT Log Linearity:	±1.0 dB MAX @25C	.54/- .46 db	
8	VIDEO OUT Log Accuracy:	±2.3 dB MAX @25C	.83/-1.01 db	
9	VIDEO OUT Absolute Log Accuracy:	±2.6 dB MAX Over Freq & temp	±1.83 dB MAX Over Freq & temp	
10	VIDEO OUT DC Offset:	0 ±70 mV (RF Input Terminated & DC Power On) @25C	44 mV	
11	VIDEO OUT Rise Time (10% to 90%):	28 ns MAX	26.5 ns	
12	VIDEO OUT Fall Time (90% to 10%):	300 ns MAX	120 ns	
13	VIDEO OUT Settling Time:	50 ns With in ±70 mV of final value @-10 dBm	< 50ns	

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14	VIDEO OUT Recovery Time:	1 us MAX to within 1 dB of baseline for PW <10us & Power = -10dBm	< 1us	PMI QA3
15	VIDEO OUT Video Frequency Flatness:	±2.0 dB MAX @25C	+-.77 db	
16	VIDEO OUT CW Immunity:	CW Immune Power TSS to -40 dBm	Pass	
		Pulse Peak Amplitude Loss; 2 dB MAX @ -40dBm CW	< 2dB	
		Baseline shift 200mV @-40dBm CW	< 200mV	
		CW Immunity Time at CW = -40 dBm, ≤ 4 ms	1.3ms	
		CW Recovery Time at CW = -40 dBm, ≤ 20 us	< 20 us	
17	Pulse droop	1dB Max for 300us pulse at or above -65dBm	< 1dB	
18	VIDEO OUT Pulse Response, input Signal:	100 ns to 300 us	100 ns to 300 us	
19	VIDEO LOAD Impedance:	75 ±1 Ω	75Ω	
20	VIDEO driver capability	100 ft RG11 into 75 ohm load	Pass	
21	Pulse density capability	10% duty cycle 100 ns, 70% duty cycle 300 us at peak power -10 dBm with 1 dB variable for pulse amplitude and baseline	Pass	
22	VIDEO OUT Noise Level (Vp-p):	160 mV max	149 mV	



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23	VIDEO OUT Propagation Delay:	50 ns MAX from RF 50% to 10% video (excluding cable)	< 50 ns	PMI QA3
24	Power Supply	+15 V @ 500 mA MAX -15 V @ 100 mA MAX	+15 V @ 310 mA -15 V @ 80 mA	
25	Power Supply Ripple From DC to 10 MHz	100 mV MAX	Pass	

QA/QC Approval: K. [Signature]

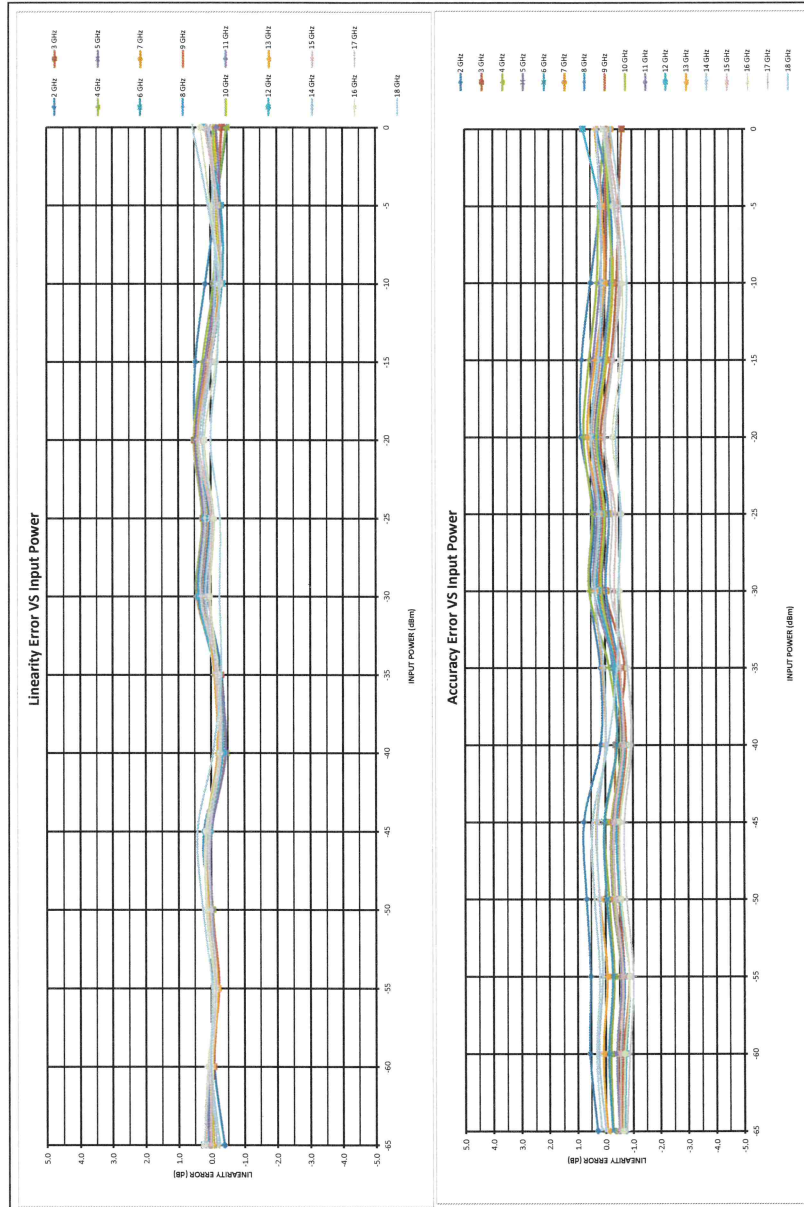
Date: 4-9-24



LOG TRANSFER VS. FREQUENCY  
 Model: ERDLVA-218-65-70MV-85  
 Tested By: Jim Hopson  
 Date: 8-7-24  
 Serial Number: PL36719  
 Test Temp: +25°C

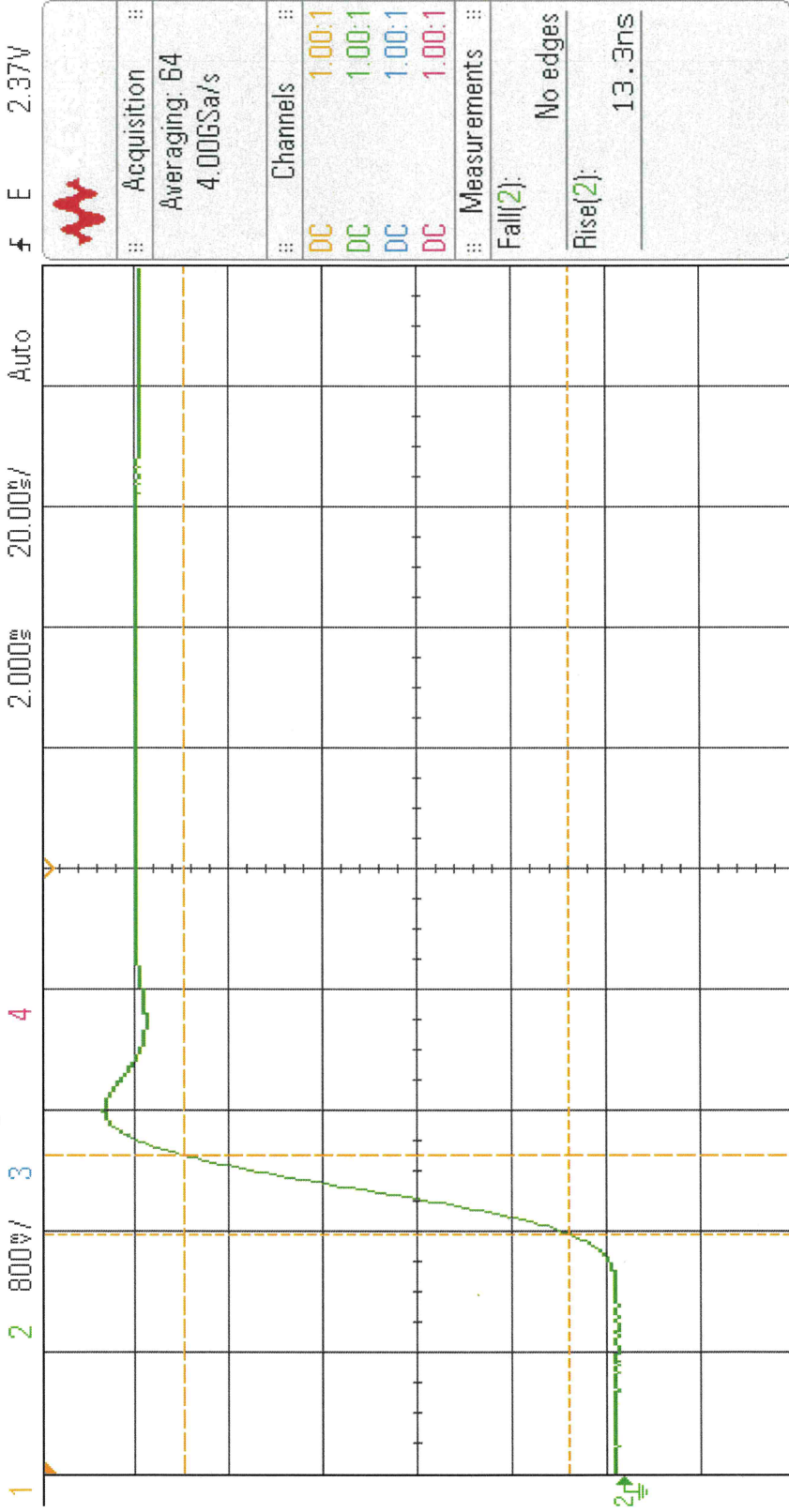
Frequency	Intercept (mV)	Slope (mV/dB)	65	60	55	50	45	40	35	30	25	20	15	10	5	0	Measured Value (mV)	Linearity Error (dB)	Accuracy Error (dB)
2 GHz	487.4	69.57	325	684	1042	1402	1759	2066	2417	2793	3132	3515	3863	4190	4515	4839	0.86	0.86	0.86
	487.4	69.57	-0.38	-0.08	0.06	0.10	0.10	0.23	0.39	0.51	0.64	0.74	0.83	0.90	0.95	1.00	1.03	0.44	0.44
3 GHz	483.4	70.29	266	614	957	1321	1679	1999	2355	2753	3095	3465	3769	4125	4470	4811	0.52	0.52	0.52
	483.4	70.29	0.81	-0.04	-0.16	0.02	0.11	-0.34	-0.27	0.39	0.26	0.13	-0.09	-0.18	-0.23	-0.23	0.71	0.71	0.71
4 GHz	488.7	70.16	286	642	983	1346	1706	2025	2385	2795	3137	3509	3844	4174	4520	4854	0.63	0.63	0.63
	488.7	70.16	-0.02	0.01	-0.17	-0.04	0.05	-0.44	-0.21	0.44	0.27	0.53	0.26	0.07	-0.18	-0.46	0.77	0.77	0.77
5 GHz	4859	70.59	271	627	965	1337	1690	2012	2371	2761	3104	3479	3809	4141	4490	4856	0.44	0.44	0.44
	4859	70.59	0.00	0.04	-0.17	0.10	0.10	-0.34	-0.25	0.27	0.13	0.44	0.12	-0.18	-0.23	-0.23	0.61	0.61	0.61
6 GHz	4864	70.34	288	647	987	1352	1708	2026	2386	2767	3110	3488	3820	4152	4500	4857	0.44	0.44	0.44
	4864	70.34	-0.06	0.05	-0.12	0.07	0.13	-0.35	-0.23	0.19	0.06	0.44	0.16	-0.12	-0.18	-0.10	0.70	0.70	0.70
7 GHz	4849	70.41	270	625	965	1334	1690	2012	2374	2753	3095	3472	3800	4134	4489	4839	0.44	0.44	0.44
	4849	70.41	-0.30	0.00	-0.17	0.07	0.13	-0.30	-0.16	0.23	0.06	0.44	0.10	-0.16	-0.23	-0.23	0.61	0.61	0.61
8 GHz	4864	70.86	266	616	956	1330	1682	2008	2371	2753	3096	3473	3807	4139	4488	4874	0.37	0.37	0.37
	4864	70.86	0.11	0.05	-0.15	0.13	0.10	-0.30	-0.18	0.21	0.05	0.37	0.09	-0.23	-0.29	-0.15	0.70	0.70	0.70
9 GHz	4873	71.13	265	610	945	1315	1672	2002	2373	2768	3111	3486	3817	4152	4503	4851	0.50	0.50	0.50
	4873	71.13	-0.22	0.07	-0.22	-0.02	0.00	-0.36	-0.14	0.41	0.23	0.50	0.16	-0.43	-0.20	-0.30	0.86	0.86	0.86
10 GHz	4859	70.58	271	627	965	1333	1688	2010	2380	2765	3106	3476	3803	4141	4495	4855	0.48	0.48	0.48
	4859	70.58	-0.01	0.04	-0.17	0.04	0.07	-0.31	-0.33	0.16	0.40	0.03	-0.23	-0.16	-0.06	-0.06	0.50	0.50	0.50
11 GHz	4888	71.15	270	627	964	1330	1686	2011	2381	2762	3126	3499	3834	4166	4512	4876	0.48	0.48	0.48
	4888	71.15	0.09	0.11	-0.15	0.01	0.00	-0.43	-0.23	0.40	0.24	0.48	0.19	-0.14	-0.28	-0.17	0.63	0.63	0.63
12 GHz	4886	71.63	257	603	944	1319	1677	2006	2379	2774	3117	3489	3822	4165	4516	4870	0.39	0.39	0.39
	4886	71.63	0.24	0.07	-0.17	0.06	0.06	-0.34	-0.10	0.38	0.17	0.36	0.01	-0.34	-0.30	-0.20	0.50	0.50	0.50
13 GHz	4876	70.23	301	661	1001	1369	1727	2055	2412	2781	3120	3499	3828	4156	4512	4879	0.39	0.39	0.39
	4876	70.23	-0.14	-0.02	-0.18	0.06	0.16	-0.17	-0.09	0.17	-0.01	0.39	0.08	-0.25	-0.19	0.04	0.63	0.63	0.63
14 GHz	4872	70.08	305	672	1012	1370	1726	2054	2409	2781	3120	3489	3820	4163	4516	4875	0.26	0.26	0.26
	4872	70.08	-0.00	0.24	0.10	0.21	0.30	-0.01	0.06	0.37	0.21	0.49	0.21	-0.11	0.16	0.23	0.49	0.49	0.49
15 GHz	4837	70.34	268	618	960	1330	1683	2009	2367	2732	3078	3457	3786	4118	4472	4851	0.37	0.37	0.37
	4837	70.34	0.03	0.01	-0.13	0.13	0.15	-0.21	-0.12	-0.02	0.37	0.05	-0.30	-0.20	-0.19	0.19	0.66	0.66	0.66
16 GHz	4835	70.64	260	606	944	1315	1686	1992	2348	2718	3063	3436	3765	4110	4483	4858	0.33	0.33	0.33
	4835	70.64	0.23	0.13	-0.08	0.17	0.17	-0.25	-0.20	0.03	-0.09	0.19	-0.15	-0.64	0.02	0.33	0.66	0.66	0.66
17 GHz	4848	70.99	251	594	934	1301	1657	1988	2349	2741	3086	3455	3784	4118	4479	4854	0.44	0.44	0.44
	4848	70.99	0.24	0.09	-0.14	0.03	0.05	-0.28	-0.20	0.32	0.15	0.37	0.01	-0.20	-0.14	0.06	0.66	0.66	0.66
18 GHz	4803	68.77	315	677	1019	1382	1737	2048	2375	2722	3065	3428	3768	4098	4464	4840	0.54	0.54	0.54
	4803	68.77	-0.26	0.01	-0.02	0.26	0.42	-0.05	-0.30	-0.25	-0.17	0.01	-0.19	-0.24	0.05	0.54	0.81	0.81	0.81
Output Vos: 44.0 mV																			
Avg Slope: 70.5 mV/dB																			
Max Slope: 71.6 mV/dB																			
Min Slope: 68.8 mV/dB																			
Max Measured (mV)																			
Min Measured (mV)																			
Flatness Error (%/dB)																			

PL36719  
25°C



PL36719  
settle

DSO-X 3034A, MW52394003, Mon Aug 05 10:45:14 2024



Measurement Menu

Source 2

Type: Rise

Add Measurement

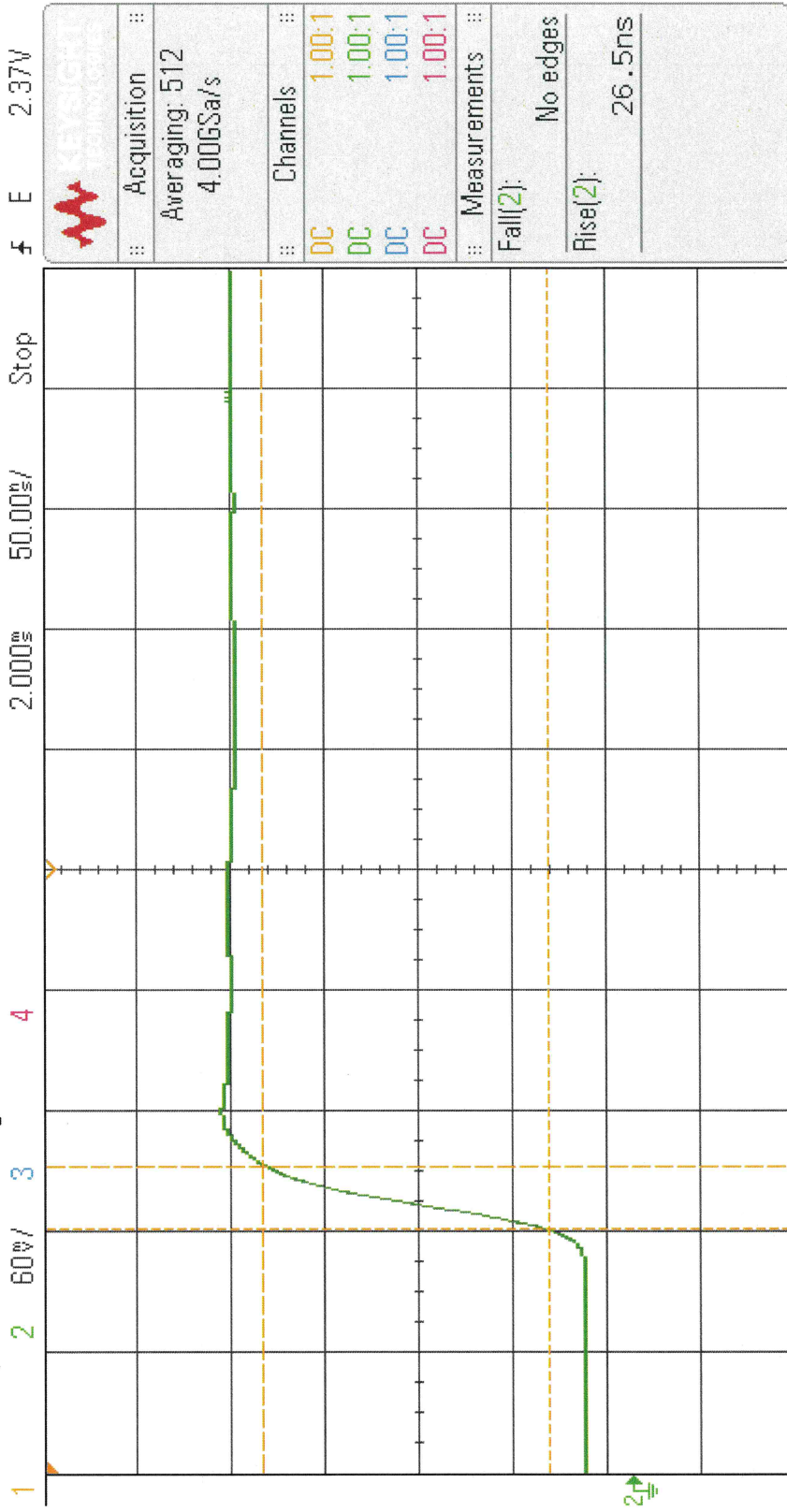
Settings

Clear Meas

Statistics

PL36719  
Rise Time

DSO-X 3034A, MY52394003, Mon Aug 05 10:47:20 2024



KEYSIGHT TECHNOLOGIES

Acquisition  
Averaging: 512  
4.00GSa/s

Channels  
DC 1.00:1  
DC 1.00:1  
DC 1.00:1  
DC 1.00:1

Measurements  
Fall(2): No edges  
Rise(2): 26.5ns

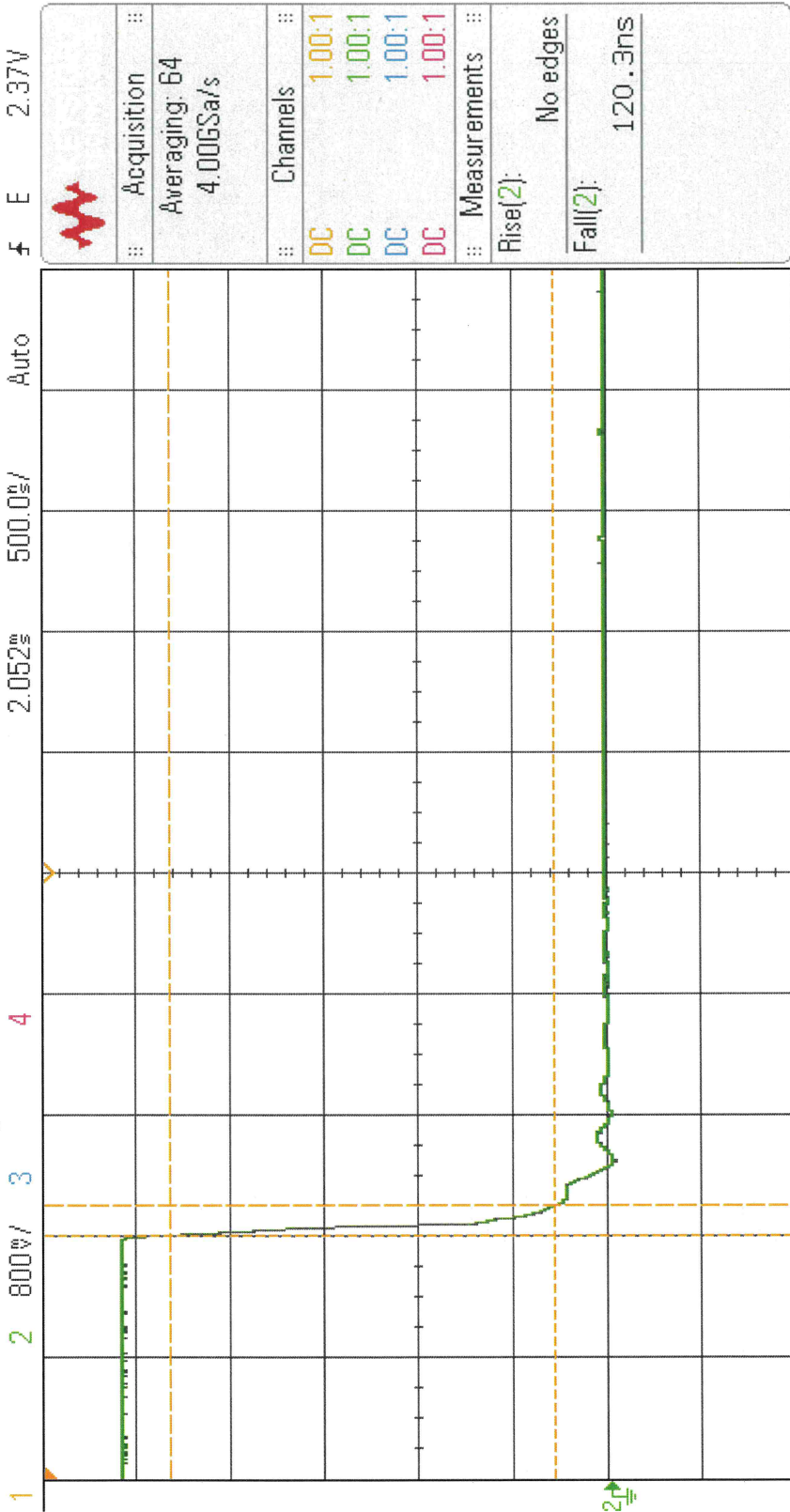
Acquire Menu

Acq Mode Averaging  
# Avgs 512

Segmented

PL36719  
Recovery

DSO-X 3034A, MY52394003, Mon Aug 05 10:43:57 2024



Clear Measurements Menu

Clear Meas 1  
Rise(2)

Clear Meas 2  
Fall(2)

Clear Meas 3  
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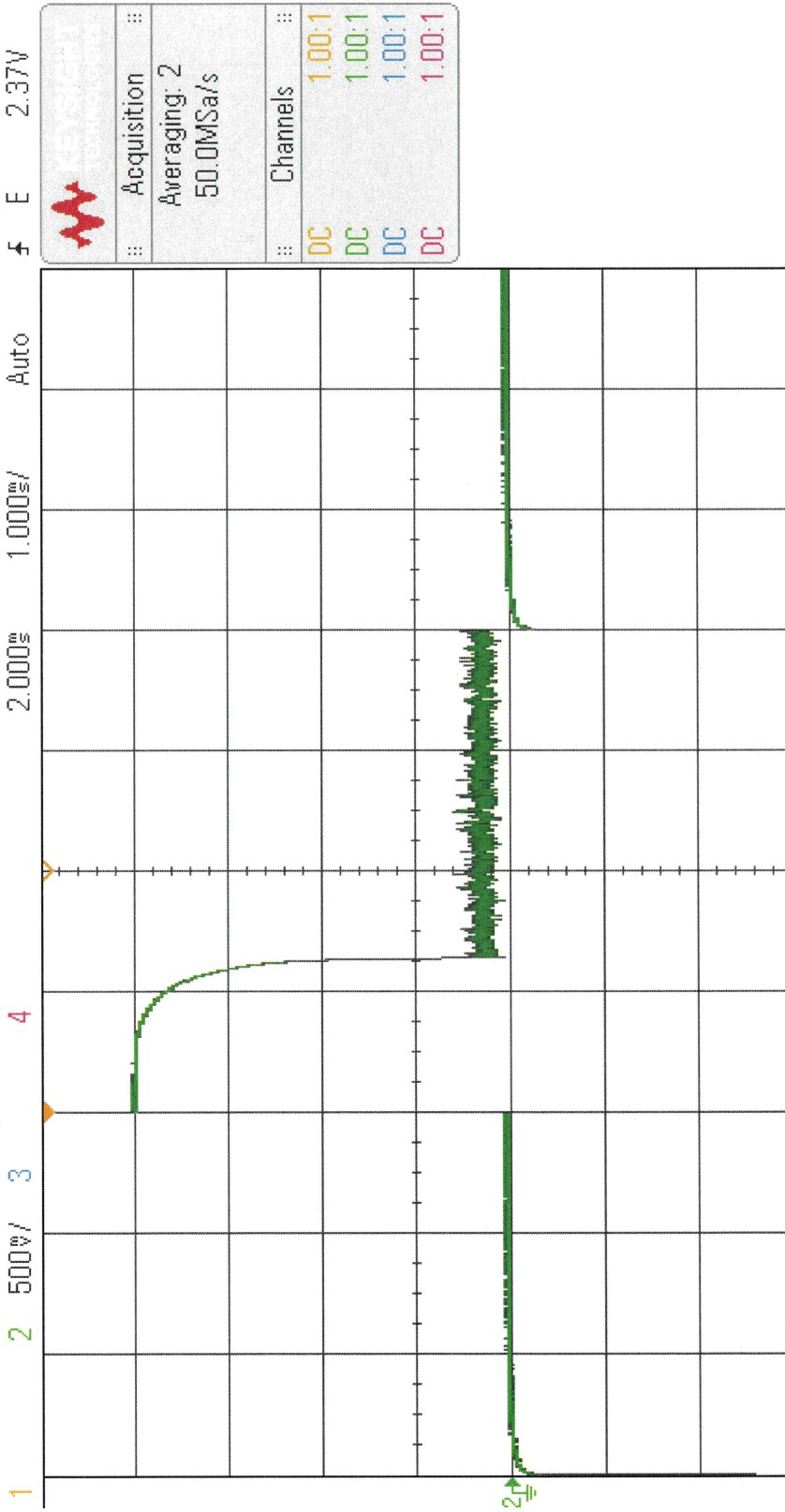
Clear Meas 4  
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Clear All

PL36719

cw Immune

DSO-X 3034A, MF52394003, Mon Aug 05 10:57:47 2024



Save to file = pl36719\_cw\_immune

Save

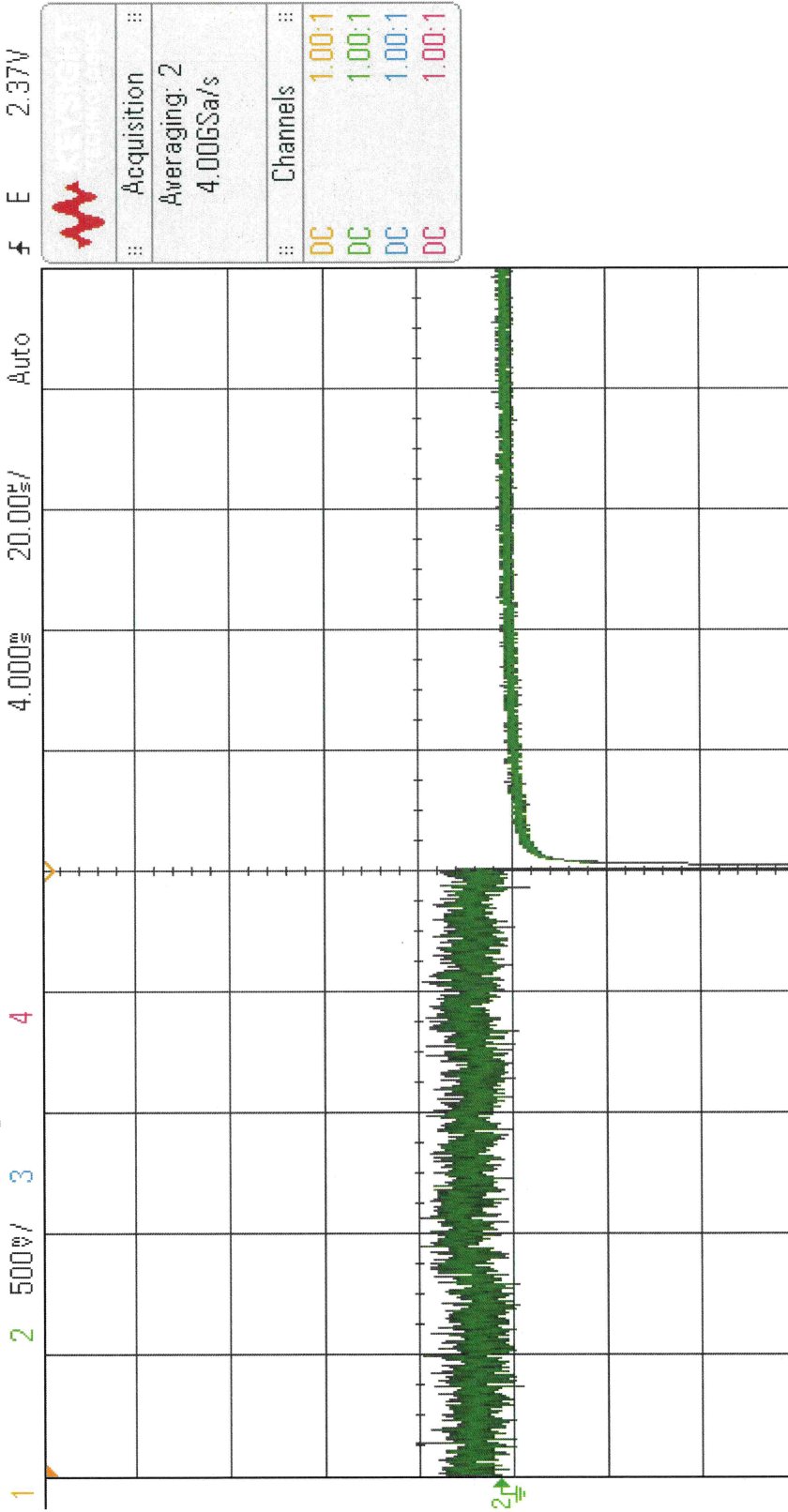
Recall

Default/Erase

Press to Save

PL36719  
CW Recovery

DSO-X 3034A, MV52394003, Mon Aug 05 10:57:06 2024



Acquisition	:
Averaging: 2	:
4.00GSa/s	:
Channels	:
DC	1.00:1
DC	1.00:1
DC	1.00:1
DC	1.00:1

Acquire Menu

Acq Mode Averaging

# Avgs 2

Segmented