

**Summary Data
For
EWDM-8G18G-65-70MV-2**

Customer: _____ Tested By: Jim Hopson
 SO No: _____ Temperature: +25°C, +85C, -10C
 Model No: EWDM-8G18G-65-70MV-2 Date 9/19/2025
 Serial No: PL53802/2531 Drawing No: 27650140 Rev: B1

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	8 to 18 GHz	2 to 8 GHz	PMI QA3
2	I/O VSWR:	2.3:1 Max	2.01:1	
3	Input Power Max:	(1) 1 W CW (2) 100 W Peak @ PW = 1 us & Duty Cycle = 1%	W CW Pass W Peak Pass	
4	Switch Isolation:	60 dB Min (All Ports)	>60dB	
5	Switching Speed:	100 ns Max	<100ns	
6	Linear RF Gain	+42.5 dB Min +47.5 dB Max	+44.0 dB Min +46.8 dB Max	
7	Noise Figure	6.5 dB Max	5.5dB TYP.	
8	Frequency Flatness	±2.5 dB	±1.40 dB	
9	1 dB Compression	+10 dBm Min	+10.4dBm	
10	Saturated Power	+20 dBm Max	+13.5dBm	
11	Second Harmonic	-10 dBc Min	-19dBc	
12	Third Harmonic	-20 dBc Nom	-31dBc	

**Summary Data
For
EWDM-8G18G-65-70MV-2**

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
13	TSS:	-71 dBm	-73dBm	PMI QA3
14	Dynamic Range:	-65 to 0 dBm	-65 to 0 dBm	
15	Log Slope:	70 mV/dB $\pm$ 3 mV/dB	70.44/69.32mV/dB	
16	Log Linearity:	$\pm$ 1.0 dB Max	.53/- .62dB	
17	Log Accuracy @ 25°C:	$\pm$ 1.75 dB Max	1.41/-1.36dB	
18	Absolute Log Accuracy:	$\pm$ 2.0 dB Max	1.75/-1.60dB	
19	DC Offset:	$\pm$ 70 mV	47mV	
20	Rise Time:	28 ns Max (10% to 90% @ -50 to 0 dBm, 10% to 90% Full Dynamic Range Guaranteed)	25.5ns	
21	Fall Time:	300 ns Max (10% to 90% @ -50 to 0 dBm, 10% to 90% Full Dynamic Range Guaranteed)	155.0ns	
22	Settling Time:	50 ns Max (From 10% to within 70 mV of final value @ -40 & -10 dBm)	<60ns	
23	Recovery Time:	1 us Max (From 90% of a -5 dBm, 100us Pulse to within $\pm$ 1.5 dB of baseline)	750ns	
24	Video Frequency Flatness:	$\pm$ 1.75 dB Max @ 25°C	$\pm$ 1.21 dB Max @ 25°C	
25	Pulse Width Process Range:	100 ns to 100 us	100 ns to 100 us	
26	Video Output Load Impedance:	95 $\pm$ 1 Ω	95 $\pm$ 1 Ω	

7309-A Grove Road Frederick, MD 21704 USA Phone: (301) 662-5019 Fax: (301) 662-1731
Email: sales@quanticpmi.com

Summary Data
For
EWDM-8G18G-65-70MV-2

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
27	Video Output @ -65 dBm:	330 ± 123 mV Over Frequency	323/220mV	PMI QA,?
28	Video Output Drive Capability:	Driving 100 ft RG180 into 95 Ω Load	Pass	
29	Pulse Density Capability:	10% Duty @ 100 ns PW 70% Duty @ 100 us PW	10% Duty @ 100ns PW 70% Duty @ 100us PW	
30	Noise Level:	25 mV RMS Max	17.82mV	
31	Pulse Droop @ -65 dBm:	70 mV Max	<70mV	
32	Propagation Delay:	50 ns Max (50% RF to 10% Video)	<50ns	
33	CW Immune Power:	TSS to -40 dBm	TSS to -40 dBm	
34	Baseline Shift:	200 mV Max @ -40 dBm CW	<200mV	
35	Pulse Amplitude Loss with Pulse @ -30 dBm:	CW @ -50 dBm = No Loss CW @ -40 dBm = 2 dB Max	-50 dBm = 0dB -40 dBm = <1dB	
36	CW Immue Time @ CW = -40 dBm	4 ms Max	2.5ms	
37	CW Recovery Time @ CW = -40 dBm	120 us Max	<100us	
38	DC Power:	+15V (±5%) @ 700 mA Max -15V (±5%) @ 200 mA Max	550 mA 140 mA	
39	Ripple DC to 10 MHz	100 mV Max	<100mV	

QA/QC Approval: H. Klamm Date: 9.23.25

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LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-8G18G-65-70MV-2
TESTED BY: JIM HOPSON
DATE: 9/19/25
SERIAL NO: PL53802-RF

Test Temp: +25C



PLANAR MONOLITHICS INDUSTRIES
4921 Robert J. Mathews Parkway STE 1
TEL: 916-542-1401 FAX: 301-662-1731
EMAIL: SALES@PMI-RF.COM
ISO 9001:2000 CERTIFIED

DC Offset= 0.047

Frequency

8000 MHz INTERCEPT (mV) 4856.3
SLOPE (mV/dB) 69.63

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
323	703	1006	1369	1731	2054	2431	2770	3143	3431	3825	4143	4546	4831
-7	25	-21	-6	8	-17	12	3	27	-33	13	-17	38	-25
-0.11	0.35	-0.30	-0.08	0.12	-0.27	0.12	0.04	0.39	-0.47	0.19	-0.24	0.54	-0.36
0.83	1.26	0.60	0.79	0.96	0.58	0.97	0.82	1.15	0.27	0.90	0.45	1.21	0.29

RF Input Power (dBm)
Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

9000 MHz INTERCEPT (mV) 4851.2
SLOPE (mV/dB) 69.76

315	691	998	1352	1717	2042	2418	2764	3126	3419	3824	4146	4539	4825
-2	25	-16	-11	5	-19	8	6	19	-37	19	-8	37	-28
-0.03	0.36	-0.24	-0.16	0.07	-0.27	0.12	0.08	0.27	-0.53	0.28	-0.11	0.53	-0.38
0.71	1.09	0.48	0.54	0.76	0.41	0.78	0.73	0.91	0.10	0.89	0.49	1.11	0.20

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

10000 MHz INTERCEPT (mV) 4840.5
SLOPE (mV/dB) 70.41

275	634	953	1307	1671	1999	2377	2735	3104	3403	3805	4127	4527	4812
11	18	-15	-13	-1	-23	0	7	24	-29	21	-8	39	-28
0.16	0.26	-0.21	-0.18	-0.01	-0.35	0.01	0.10	0.34	-0.42	0.29	-0.13	0.55	-0.40
0.14	0.28	-0.16	-0.10	0.10	-0.21	0.20	0.32	0.59	-0.13	0.62	0.22	0.94	0.01

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

11000 MHz INTERCEPT (mV) 4826.3
SLOPE (mV/dB) 70.44

261	614	940	1287	1652	1986	2361	2725	3094	3391	3790	4112	4510	4795
13	14	-12	-17	-5	-23	0	12	29	-26	20	-10	36	-31
0.19	0.20	-0.17	-0.25	-0.06	-0.32	0.00	0.17	0.41	-0.38	0.29	-0.14	0.51	-0.44
-0.06	-0.01	-0.35	-0.39	-0.17	-0.39	-0.03	0.17	0.45	-0.30	0.40	0.01	0.70	-0.23

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

12000 MHz INTERCEPT (mV) 4789
SLOPE (mV/dB) 69.51

269	633	954	1298	1662	1996	2373	2719	3071	3376	3748	4083	4470	4767
-2	15	-12	-16	1	-13	14	15	20	-23	2	-11	29	-24
-0.03	0.21	-0.17	-0.22	0.01	-0.18	0.24	0.22	0.28	-0.33	0.02	-0.16	0.41	-0.32
0.06	0.26	-0.15	-0.23	-0.03	-0.25	0.14	0.09	0.12	-0.52	-0.20	-0.41	0.12	-0.63

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

13000 MHz INTERCEPT (mV) 4853.4
SLOPE (mV/dB) 70.07

300	676	984	1341	1703	2030	2404	2744	3117	3423	3829	4151	4544	4819
1	27	-15	-9	3	-21	3	-7	15	-29	27	-2	41	-34
0.02	0.38	-0.22	-0.13	0.04	-0.29	0.04	-0.10	0.22	-0.41	0.38	-0.02	0.58	-0.49
0.50	0.88	0.28	0.38	0.56	0.24	0.58	0.45	0.78	0.15	0.96	0.56	1.18	0.11

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

14000 MHz INTERCEPT (mV) 4867.2
SLOPE (mV/dB) 70.12

313	689	996	1350	1712	2040	2415	2758	3131	3430	3845	4168	4560	4830
4	29	-15	-11	0	-22	2	-6	17	-35	30	2	43	-37
0.05	0.41	-0.21	-0.16	0.00	-0.32	0.03	-0.08	0.24	-0.50	0.42	0.03	0.62	-0.53
0.69	1.06	0.45	0.51	0.69	0.38	0.74	0.65	0.98	0.25	1.19	0.81	1.41	0.27

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

15000 MHz INTERCEPT (mV) 4774.4
SLOPE (mV/dB) 69.57

254	608	938	1283	1646	1980	2353	2699	3045	3367	3741	4068	4454	4750
2	8	-10	-13	2	-11	14	12	10	-16	10	-11	27	-24
0.03	0.11	-0.14	-0.18	0.03	-0.17	0.20	0.17	0.14	-0.23	0.15	-0.15	0.40	-0.35
-0.16	-0.10	-0.38	-0.44	-0.25	-0.48	-0.15	-0.20	-0.25	-0.65	-0.30	-0.62	-0.10	-0.87

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

16000 MHz INTERCEPT (mV) 4764.9
SLOPE (mV/dB) 69.32

258	612	940	1284	1648	1984	2360	2704	3042	3361	3733	4055	4441	4745
-1	6	-12	-15	3	-8	21	19	10	-17	8	-17	23	-20
-0.01	0.09	-0.18	-0.21	0.04	-0.12	0.31	0.27	0.15	-0.25	0.11	-0.24	0.33	-0.29
-0.10	-0.04	-0.35	-0.43	-0.23	-0.42	-0.05	-0.13	-0.29	-0.73	-0.41	-0.81	-0.29	-0.94

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

17000 MHz INTERCEPT (mV) 4836.1
SLOPE (mV/dB) 70.30

274	635	955	1303	1669	2008	2392	2743	3098	3394	3797	4121	4521	4811
7	17	-15	-18	-4	-16	16	16	19	-36	15	-12	36	-25
0.10	0.24	-0.21	-0.26	-0.05	-0.23	0.23	0.22	0.27	-0.52	0.22	-0.17	0.52	-0.36
0.13	0.29	-0.13	-0.16	0.07	-0.08	0.41	0.43	0.51	-0.26	0.50	0.13	0.85	0.00

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

18000 MHz INTERCEPT (mV) 4752.7
SLOPE (mV/dB) 70.19

220	534	889	1219	1583	1930	2298	2670	3021	3342	3687	4044	4421	4744
30	-7	-3	-24	-11	-15	2	23	23	-7	-13	-7	19	-9
0.42	-0.11	-0.05	-0.35	-0.16	-0.22	0.03	0.33	0.33	-0.10	-0.18	-0.10	0.27	-0.12
-0.64	-1.15	-1.08	-1.36	-1.15	-1.19	-0.93	-0.61	-0.59	-1.00	-1.07	-0.97	-0.58	-0.96

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

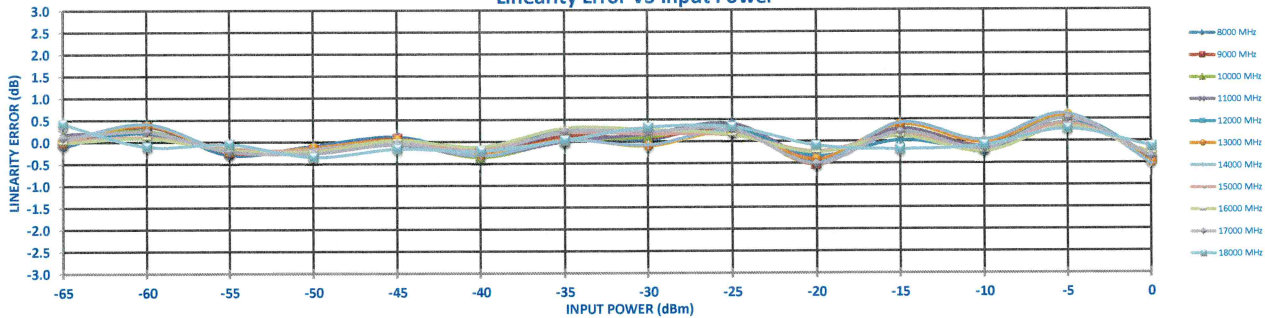
Flatness +/- dB

0.74	1.21	0.84	1.07	1.06	0.89	0.95	0.71	0.87	0.64	1.13	0.89	0.99	0.62
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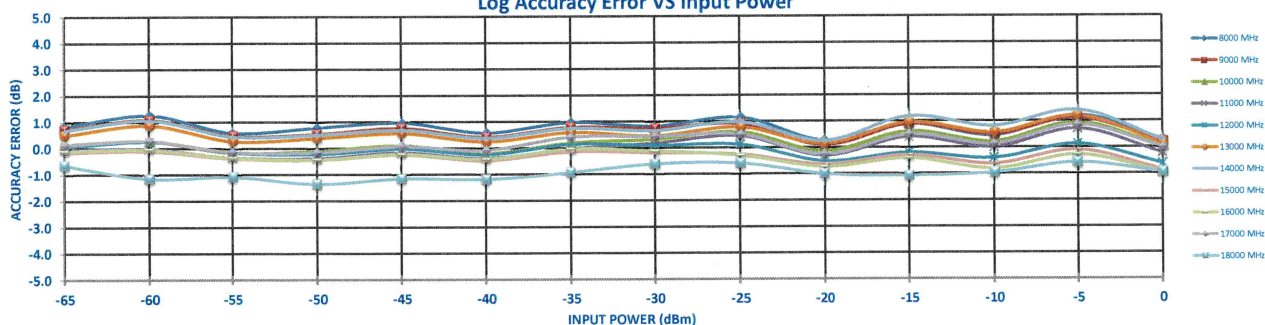
-65dBm mV-Out

323	Max
220	Min

Linearity Error VS Input Power



Log Accuracy Error VS Input Power



LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-8G18G-65-70MV-2
TESTED BY: JIM HOPSON
DATE: 9/19/25
SERIAL NO: PL53802-BIT

Test Temp: +25C



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DC Offset= 0.049

Frequency

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
8000 MHz	316	690	995	1352	1716	2038	2414	2759	3129	3417	3807	4134	4536	4826
INTERCEPT (mV)	0	25	-18	-9	6	-20	8	4	26	-34	7	-14	39	-19
SLOPE (mV/dB)	-0.01	0.36	-0.26	-0.14	0.06	-0.28	0.10	0.08	0.37	-0.48	0.25	-0.20	0.50	-0.27
	0.73	1.07	0.43	0.54	0.74	0.34	0.72	0.65	0.94	0.05	0.63	0.30	1.05	0.19

RF Input Power (dBm)	
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	
ACCURACY ERROR (dB)	

9000 MHz INTERCEPT (mV) 4835.9
SLOPE (mV/dB) 69.78

303	671	982	1337	1700	2025	2401	2748	3108	3407	3807	4130	4522	4813
3	22	-16	-10	4	-20	7	5	17	-33	18	-8	35	-23
0.04	0.31	-0.23	-0.14	0.06	-0.28	0.10	0.08	0.24	-0.48	0.25	-0.12	0.50	-0.33
0.54	0.80	0.25	0.32	0.51	0.16	0.53	0.49	0.64	-0.09	0.63	0.24	0.85	0.01

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	
ACCURACY ERROR (dB)	

10000 MHz INTERCEPT (mV) 4838.7
SLOPE (mV/dB) 70.45

273	629	951	1303	1667	1996	2372	2733	3102	3399	3800	4126	4526	4812
13	17	-13	-13	-2	-25	-4	8	24	-31	18	-8	39	-27
0.19	0.24	-0.19	-0.19	-0.02	-0.35	-0.02	0.11	0.35	-0.44	0.25	-0.12	0.56	-0.38
0.11	0.20	-0.19	-0.16	0.04	-0.26	0.12	0.28	0.55	-0.21	0.53	0.19	0.90	-0.01

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	
ACCURACY ERROR (dB)	

11000 MHz INTERCEPT (mV) 4828
SLOPE (mV/dB) 70.52

259	613	939	1283	1647	1981	2356	2727	3095	3391	3790	4114	4512	4797
15	16	-10	-19	-7	-26	-4	15	30	-27	20	-9	37	-31
0.21	0.23	-0.15	-0.27	-0.11	-0.37	-0.05	0.21	0.43	-0.38	0.28	-0.12	0.52	-0.44
-0.09	-0.03	-0.37	-0.45	-0.25	-0.47	-0.11	0.19	0.45	-0.32	0.38	0.01	0.70	-0.22

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	
ACCURACY ERROR (dB)	

12000 MHz INTERCEPT (mV) 4777.6
SLOPE (mV/dB) 69.48

264	619	945	1288	1652	1987	2361	2710	3059	3368	3731	4074	4457	4759
2	10	-11	-16	1	-11	15	17	18	-20	-9	-27	-19	-31
0.03	0.14	-0.16	-0.23	0.01	-0.17	0.22	0.24	0.26	-0.29	-0.06	-0.13	0.39	-0.27
-0.01	0.06	-0.28	-0.38	-0.18	-0.39	-0.04	-0.05	-0.06	-0.65	-0.46	-0.56	-0.08	-0.77

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	
ACCURACY ERROR (dB)	

13000 MHz INTERCEPT (mV) 4829
SLOPE (mV/dB) 70.07

283	648	964	1312	1674	2005	2375	2724	3094	3403	3799	4126	4517	4800
9	23	-11	-13	-2	-21	-2	-3	17	-25	21	-2	38	-29
0.12	0.33	-0.16	-0.19	-0.03	-0.30	-0.02	-0.04	0.24	-0.35	0.30	-0.03	0.55	-0.41
0.26	0.47	-0.01	-0.04	0.14	-0.13	0.16	0.15	0.44	-0.15	0.51	0.19	0.77	-0.18

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	
ACCURACY ERROR (dB)	

14000 MHz INTERCEPT (mV) 4844.3
SLOPE (mV/dB) 70.05

294	667	980	1330	1691	2021	2394	2740	3111	3412	3819	4144	4534	4810
3	26	-12	-12	-1	-21	1	-3	18	-31	25	0	40	-34
0.04	0.37	-0.16	-0.17	-0.01	-0.30	0.02	-0.04	0.26	-0.45	0.36	0.00	0.57	-0.49
0.41	0.75	0.22	0.22	0.38	0.10	0.43	0.38	0.68	-0.02	0.80	0.44	1.02	-0.04

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	
ACCURACY ERROR (dB)	

15000 MHz INTERCEPT (mV) 4759.4
SLOPE (mV/dB) 69.66

242	585	922	1281	1623	1960	2330	2681	3025	3353	3715	4057	4440	4741
11	5	-6	-15	-2	-13	9	11	7	-13	1	-6	29	-18
0.15	0.08	-0.09	-0.22	-0.02	-0.19	0.13	0.16	0.10	-0.19	0.01	-0.08	0.42	-0.26
-0.33	-0.43	-0.61	-0.76	-0.59	-0.77	-0.48	-0.47	-0.55	-0.86	-0.69	-0.80	-0.33	-1.02

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	
ACCURACY ERROR (dB)	

16000 MHz INTERCEPT (mV) 4764.5
SLOPE (mV/dB) 69.30

260	614	941	1284	1646	1984	2359	2705	3044	3363	3734	4054	4440	4744
0	7	-12	-16	0	-9	20	19	12	-18	9	-18	22	-21
0.00	0.11	-0.17	-0.22	0.00	-0.12	0.29	0.28	0.17	-0.22	0.13	-0.25	0.32	-0.30
-0.07	-0.01	-0.34	-0.44	-0.26	-0.43	-0.07	-0.12	-0.28	-0.72	-0.42	-0.84	-0.33	-0.98

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	
ACCURACY ERROR (dB)	

17000 MHz INTERCEPT (mV) 4832.4
SLOPE (mV/dB) 70.25

272	631	954	1303	1667	2006	2390	2744	3099	3394	3795	4115	4513	4807
6	14	-15	-17	-4	-16	16	19	23	-33	16	-15	32	-25
0.08	0.19	-0.21	-0.24	-0.06	-0.23	0.23	0.27	0.33	-0.48	0.23	-0.21	0.45	-0.36
0.10	0.23	-0.15	-0.16	0.04	-0.12	0.37	0.43	0.51	-0.28	0.45	0.03	0.72	-0.08

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	
ACCURACY ERROR (dB)	

18000 MHz INTERCEPT (mV) 4784
SLOPE (mV/dB) 70.37

234	563	907	1241	1606	1950	2322	2697	3051	3363	3723	4073	4459	4766
24	2	-6	-24	-11	-19	1	24	26	-13	-5	-7	27	-18
0.35	0.02	-0.09	-0.34	-0.16	-0.27	0.02	0.34	0.38	-0.19	-0.08	-0.10	0.38	-0.26
-0.44	-0.74	-0.82	-1.05	-0.83	-0.92	-0.60	-0.24	-0.18	-0.72	-0.57	-0.57	-0.05	-0.67

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	
ACCURACY ERROR (dB)	

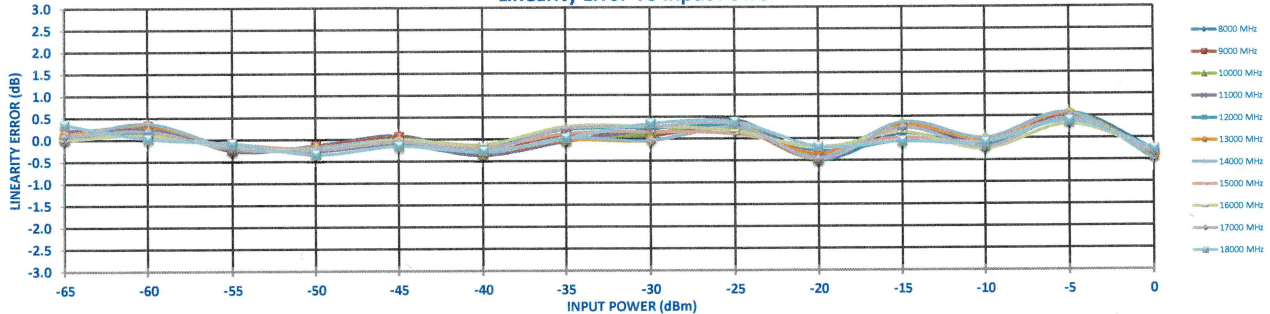
Flatness +/- dB

0.59	0.91	0.63	0.79	0.79	0.63	0.66	0.56	0.74	0.46	0.74	0.64	0.69	0.61
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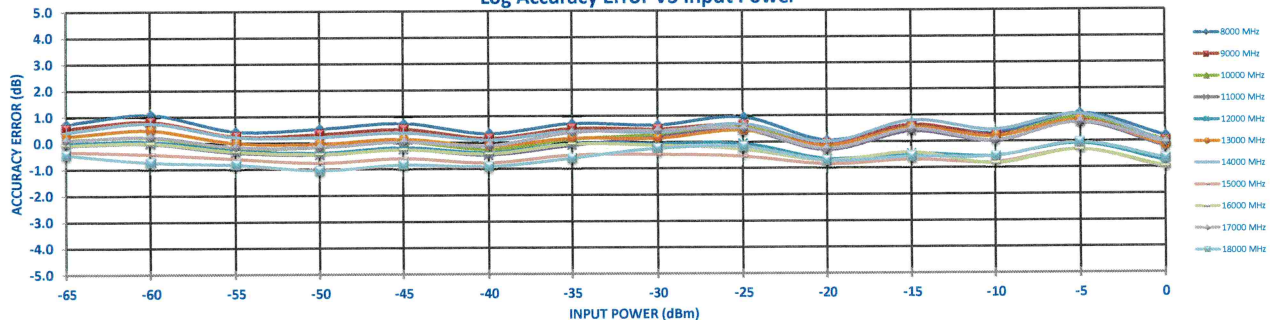
-65dBm mV-Out

316	Max
234	Min

Linearity Error VS Input Power



Log Accuracy Error VS Input Power



LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-8G18G-65-70MV-2
TESTED BY: JIM HOPSON
DATE: 9/19/25
SERIAL NO: PL53802-RF

Test Temp: +85C

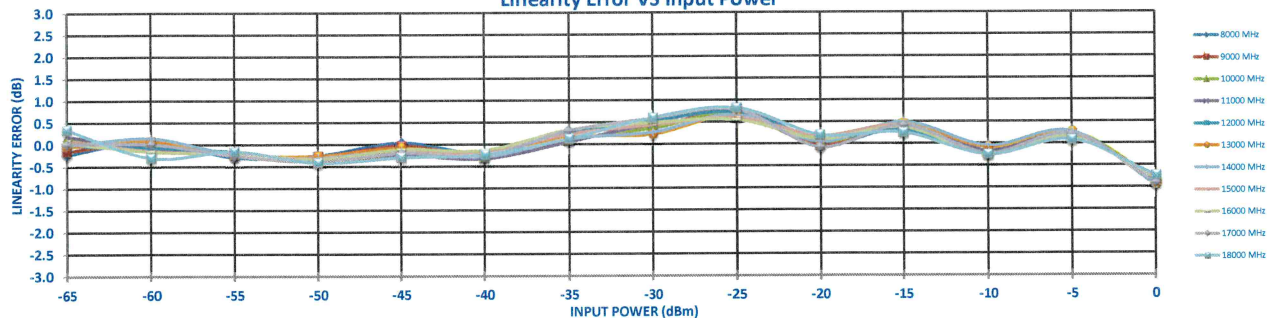


PLANAR MONOLITHICS INDUSTRIES
4921 Robert J. Mathews Parkway STE 1
TEL: 916-542-1401 FAX: 301-662-1731
EMAIL: SALES@PMI-RF.COM
ISO 9001:2000 CERTIFIED

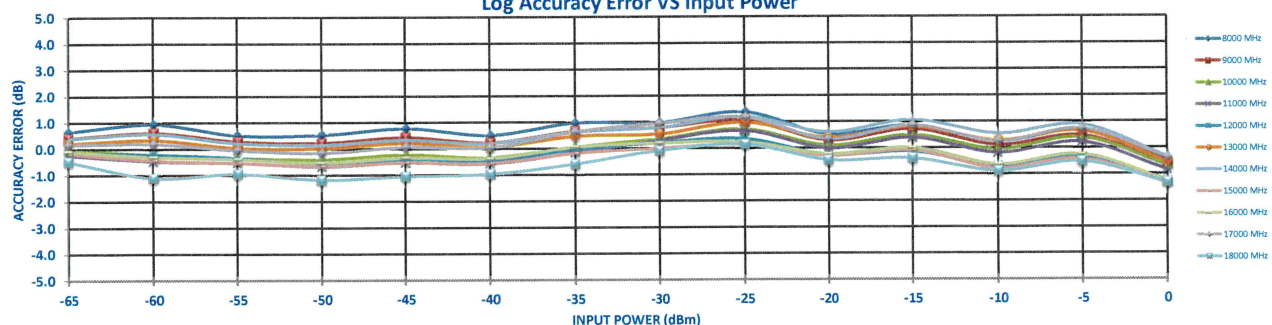
DC Offset= 0.047

Frequency		-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
8000 MHz	INTERCEPT (mV)	280	646	962	1308	1671	1998	2376	2722	3095	3382	3751	4054	4427	4695	Measured Value (mV)
	SLOPE (mV/dB)	-16	7	-20	-17	3	-14	21	24	54	-2	24	-16	14	-61	Error (mV)
		-0.23	0.10	-0.30	-0.25	0.04	-0.22	0.31	0.35	0.79	-0.03	0.35	-0.24	0.20	-0.89	LINEARITY ERROR (dB)
9000 MHz	INTERCEPT (mV)	263	623	946	1287	1647	1978	2354	2709	3073	3366	3741	4044	4414	4685	Measured Value (mV)
	SLOPE (mV/dB)	-11	5	-16	-19	-2	-15	17	28	48	-3	28	-13	13	-60	Error (mV)
		-0.16	0.08	-0.23	-0.27	-0.04	-0.22	0.24	0.40	0.70	-0.04	0.41	-0.19	0.19	-0.87	LINEARITY ERROR (dB)
10000 MHz	INTERCEPT (mV)	232	565	902	1244	1602	1939	2313	2679	3050	3352	3725	4033	4409	4681	Measured Value (mV)
	SLOPE (mV/dB)	10	-4	-15	-20	-10	-20	6	25	48	3	28	-11	17	-58	Error (mV)
		0.15	-0.06	-0.21	-0.29	-0.14	-0.29	0.09	0.36	0.70	0.04	0.41	-0.16	0.25	-0.84	LINEARITY ERROR (dB)
11000 MHz	INTERCEPT (mV)	219	548	890	1225	1581	1923	2298	2675	3046	3345	3718	4023	4397	4669	Measured Value (mV)
	SLOPE (mV/dB)	14	-6	-12	-25	-17	-23	6	33	55	6	31	-12	14	-62	Error (mV)
		0.19	-0.08	-0.17	-0.36	-0.24	-0.33	0.05	0.47	0.80	0.09	0.45	-0.17	0.20	-0.89	LINEARITY ERROR (dB)
12000 MHz	INTERCEPT (mV)	225	566	903	1233	1590	1932	2306	2669	3025	3328	3682	3990	4357	4641	Measured Value (mV)
	SLOPE (mV/dB)	-2	-4	-11	-25	-11	-13	17	37	49	8	31	-17	6	-53	Error (mV)
		-0.02	-0.06	-0.16	-0.36	-0.16	-0.19	0.25	0.53	0.71	0.12	0.27	-0.25	0.09	-0.78	LINEARITY ERROR (dB)
13000 MHz	INTERCEPT (mV)	249	604	929	1273	1632	1967	2341	2692	3068	3373	3747	4056	4426	4690	Measured Value (mV)
	SLOPE (mV/dB)	-3	6	-16	-18	-5	-17	11	15	45	4	31	-6	18	-65	Error (mV)
		-0.04	0.08	-0.23	-0.26	-0.08	-0.24	0.16	0.22	0.65	0.05	0.45	-0.09	0.25	-0.93	LINEARITY ERROR (dB)
14000 MHz	INTERCEPT (mV)	262	620	941	1282	1640	1977	2352	2709	3083	3387	3765	4074	4443	4704	Measured Value (mV)
	SLOPE (mV/dB)	-1	10	-16	-21	-10	-20	8	19	46	3	34	-4	19	-67	Error (mV)
		-0.01	0.15	-0.22	-0.31	-0.15	-0.29	0.12	0.27	0.66	0.04	0.49	-0.05	0.27	-0.97	LINEARITY ERROR (dB)
15000 MHz	INTERCEPT (mV)	223	550	890	1226	1581	1924	2296	2654	3009	3325	3685	3983	4353	4633	Measured Value (mV)
	SLOPE (mV/dB)	7	-10	-14	-22	-11	-12	17	37	43	13	29	-18	8	-56	Error (mV)
		0.10	-0.14	-0.20	-0.32	-0.16	-0.18	0.23	0.43	0.59	0.18	0.41	-0.25	0.12	-0.81	LINEARITY ERROR (dB)
16000 MHz	INTERCEPT (mV)	229	559	900	1235	1594	1937	2313	2688	3016	3330	3692	3993	4365	4642	Measured Value (mV)
	SLOPE (mV/dB)	3	-11	-14	-23	-8	-9	23	34	38	8	25	-18	10	-57	Error (mV)
		0.04	-0.16	-0.21	-0.34	-0.12	-0.13	0.33	0.49	0.55	0.11	0.37	-0.26	0.15	-0.82	LINEARITY ERROR (dB)
17000 MHz	INTERCEPT (mV)	246	594	923	1261	1622	1966	2353	2720	3081	3369	3751	4054	4432	4702	Measured Value (mV)
	SLOPE (mV/dB)	1	1	-18	-27	-14	-18	22	41	54	-6	29	-16	14	-63	Error (mV)
		0.01	0.02	-0.25	-0.39	-0.20	-0.26	0.31	0.59	0.78	-0.08	0.41	-0.23	0.21	-0.91	LINEARITY ERROR (dB)
18000 MHz	INTERCEPT (mV)	202	504	861	1190	1545	1896	2268	2648	3010	3314	3664	3976	4346	4636	Measured Value (mV)
	SLOPE (mV/dB)	24	-21	-11	-29	-21	-17	9	42	57	14	17	-18	5	-51	Error (mV)
		0.34	-0.30	-0.16	-0.42	-0.30	-0.24	0.12	0.60	0.82	0.20	0.25	-0.26	0.08	-0.74	LINEARITY ERROR (dB)
Flatness		0.56	1.03	0.73	0.85	0.91	0.74	0.78	0.54	0.62	0.53	0.73	0.71	0.70	0.51	ACCURACY ERROR (dB)
-65dBm mV-Out		280	Max													
		202	Min													

Linearity Error VS Input Power



Log Accuracy Error VS Input Power



LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-8G18G-65-70MV-2
TESTED BY: JIM HOPSON
DATE: 9/19/25
SERIAL NO: PL53802-RF

Test Temp: -10C



PLANAR MONOLITHICS INDUSTRIES
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DC Offset= 0.034

Frequency

-65 -60 -55 -50 -45 -40 -35 -30 -25 -20 -15 -10 -5 0 RF Input Power (dBm)

8000 MHz INTERCEPT (mV) 4864
SLOPE (mV/dB) 70.12

322	693	984	1343	1707	2039	2415	2756	3132	3416	3813	4143	4567	4862
16	36	-23	-15	-2	-20	5	-4	21	-46	1	-20	54	-2
0.22	0.52	-0.33	-0.21	-0.02	-0.29	0.07	-0.06	0.30	-0.65	0.01	-0.28	0.76	-0.03
1.31	1.58	0.71	0.81	0.98	0.70	1.04	0.89	1.23	0.26	0.90	0.59	1.61	0.80

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

9000 MHz INTERCEPT (mV) 4864.9
SLOPE (mV/dB) 70.29

319	685	979	1332	1696	2030	2405	2752	3120	3409	3820	4156	4567	4858
23	37	-20	-19	-6	-23	0	-4	12	-50	9	-6	54	-7
0.32	0.53	-0.29	-0.26	-0.09	-0.33	0.00	-0.06	0.17	-0.71	0.13	-0.09	0.76	-0.10
1.26	1.46	0.64	0.66	0.83	0.57	0.90	0.83	1.06	0.16	1.00	0.77	1.61	0.75

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

10000 MHz INTERCEPT (mV) 4851.1
SLOPE (mV/dB) 70.96

271	627	933	1279	1644	1983	2358	2721	3097	3392	3800	4134	4550	4839
32	34	-15	-24	-14	-30	-9	-1	20	-40	13	-7	54	-12
0.46	0.47	-0.21	-0.34	-0.19	-0.42	-0.13	-0.02	0.28	-0.56	0.19	-0.11	0.76	-0.17
0.58	0.64	-0.01	-0.10	0.09	-0.10	0.23	0.39	0.73	-0.08	0.72	0.46	1.37	0.48

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

11000 MHz INTERCEPT (mV) 4832.1
SLOPE (mV/dB) 70.93

256	607	918	1258	1622	1967	2341	2708	3083	3376	3779	4113	4530	4819
34	31	-13	-28	-18	-28	-9	4	24	-38	11	-10	53	-13
0.48	0.43	-0.18	-0.39	-0.26	-0.39	-0.12	0.05	0.34	-0.53	0.15	-0.14	0.74	-0.18
0.37	0.36	-0.23	-0.40	-0.22	-0.32	-0.01	0.20	0.53	-0.31	0.42	0.16	1.09	0.19

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

12000 MHz INTERCEPT (mV) 4788.8
SLOPE (mV/dB) 69.90

264	623	929	1269	1634	1978	2351	2699	3054	3358	3726	4082	4483	4787
19	28	-15	-25	-9	-15	-9	7	13	-33	-14	-8	44	-2
0.27	0.41	-0.22	-0.35	-0.13	-0.21	0.13	0.10	0.18	-0.47	-0.20	-0.11	0.63	-0.03
0.48	0.58	-0.07	-0.24	-0.05	-0.17	0.13	0.08	0.12	-0.56	-0.33	-0.28	0.42	-0.26

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

13000 MHz INTERCEPT (mV) 4848.8
SLOPE (mV/dB) 70.49

292	657	955	1307	1669	2006	2376	2718	3093	3398	3806	4144	4554	4835
25	38	-17	-17	-8	-23	-6	-16	6	-41	15	0	58	-14
0.36	0.53	-0.24	-0.24	-0.11	-0.33	-0.08	-0.23	0.09	-0.58	0.21	0.00	0.82	-0.20
0.88	1.07	0.30	0.30	0.44	0.23	0.49	0.35	0.67	0.01	0.80	0.60	1.43	0.42

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

14000 MHz INTERCEPT (mV) 4868.5
SLOPE (mV/dB) 70.52

310	680	974	1324	1685	2023	2393	2737	3113	3407	3829	4169	4577	4852
25	43	-16	-19	-10	-25	-7	-16	7	-51	18	6	61	-16
0.36	0.60	-0.23	-0.26	-0.14	-0.35	-0.10	-0.23	0.11	-0.72	0.26	0.08	0.87	-0.23
1.14	1.39	0.57	0.54	0.67	0.47	0.73	0.62	0.96	0.13	1.13	0.96	1.75	0.66

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

15000 MHz INTERCEPT (mV) 4772.7
SLOPE (mV/dB) 69.87

251	606	918	1257	1618	1964	2334	2679	3029	3350	3720	4066	4465	4769
20	26	-12	-22	-10	-14	7	2	3	-25	-5	-8	42	-4
0.29	0.37	-0.17	-0.32	-0.15	-0.20	0.10	0.04	0.04	-0.36	-0.07	-0.11	0.60	-0.05
0.30	0.34	-0.23	-0.41	-0.28	-0.37	-0.11	-0.21	-0.24	-0.68	-0.42	-0.50	0.16	-0.52

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

16000 MHz INTERCEPT (mV) 4761.9
SLOPE (mV/dB) 69.63

257	605	917	1255	1617	1967	2340	2683	3024	3344	3710	4051	4449	4764
21	21	-15	-25	-11	-10	15	10	3	-25	-7	-15	35	2
0.31	0.30	-0.22	-0.36	-0.16	-0.14	0.22	0.15	0.04	-0.36	-0.11	-0.21	0.51	0.03
0.38	0.33	-0.24	-0.44	-0.30	-0.32	-0.02	-0.15	-0.31	-0.76	-0.56	-0.72	-0.06	-0.59

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

17000 MHz INTERCEPT (mV) 4836.2
SLOPE (mV/dB) 70.80

265	617	927	1269	1634	1984	2365	2718	3076	3374	3777	4118	4533	4834
31	29	-15	-27	-16	-20	7	6	10	-46	3	-10	51	-2
0.44	0.41	-0.21	-0.38	-0.23	-0.28	0.10	0.08	0.14	-0.65	0.04	-0.14	0.72	-0.03
0.50	0.50	-0.10	-0.24	-0.05	-0.08	0.33	0.35	0.43	-0.34	0.39	0.23	1.13	0.41

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

18000 MHz INTERCEPT (mV) 4751.3
SLOPE (mV/dB) 70.79

205	515	857	1173	1537	1898	2263	2639	2996	3324	3663	4045	4428	4765
55	11	-1	-39	-29	-22	-11	11	14	-11	-26	2	31	14
0.78	0.16	-0.01	-0.55	-0.41	-0.31	-0.15	0.16	0.20	-0.16	-0.37	0.02	0.43	0.19
-0.36	-0.95	-1.09	-1.60	-1.43	-1.30	-1.12	-0.78	-0.71	-1.05	-1.23	-0.80	-0.36	-0.57

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

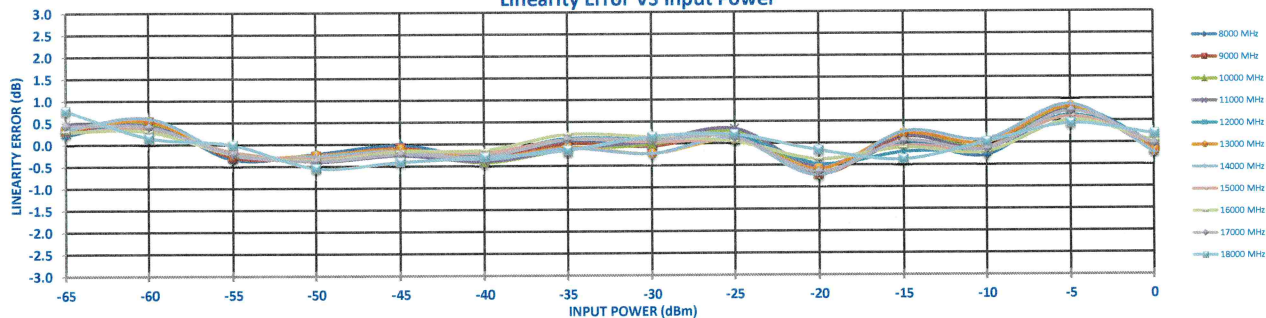
Flatness +/- dB

0.83 1.26 0.90 1.21 1.21 1.00 1.08 0.83 0.97 0.65 1.18 0.88 1.06 0.70

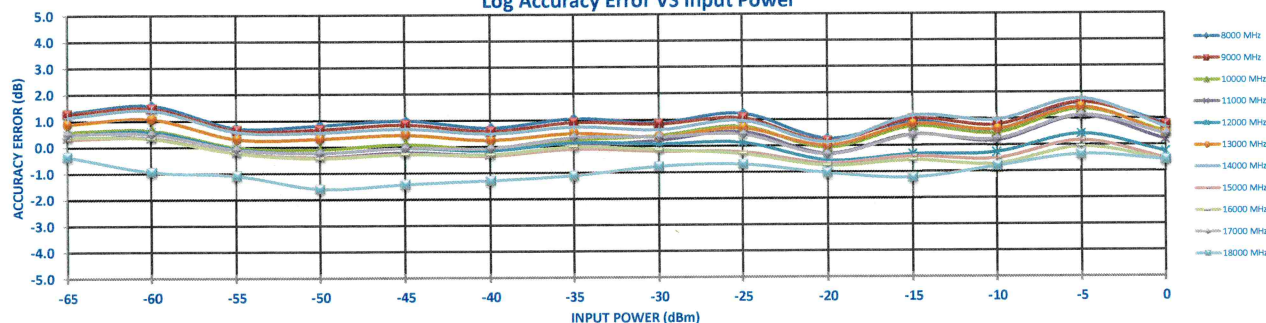
-65dBm mV-Out

322 Max
205 Min

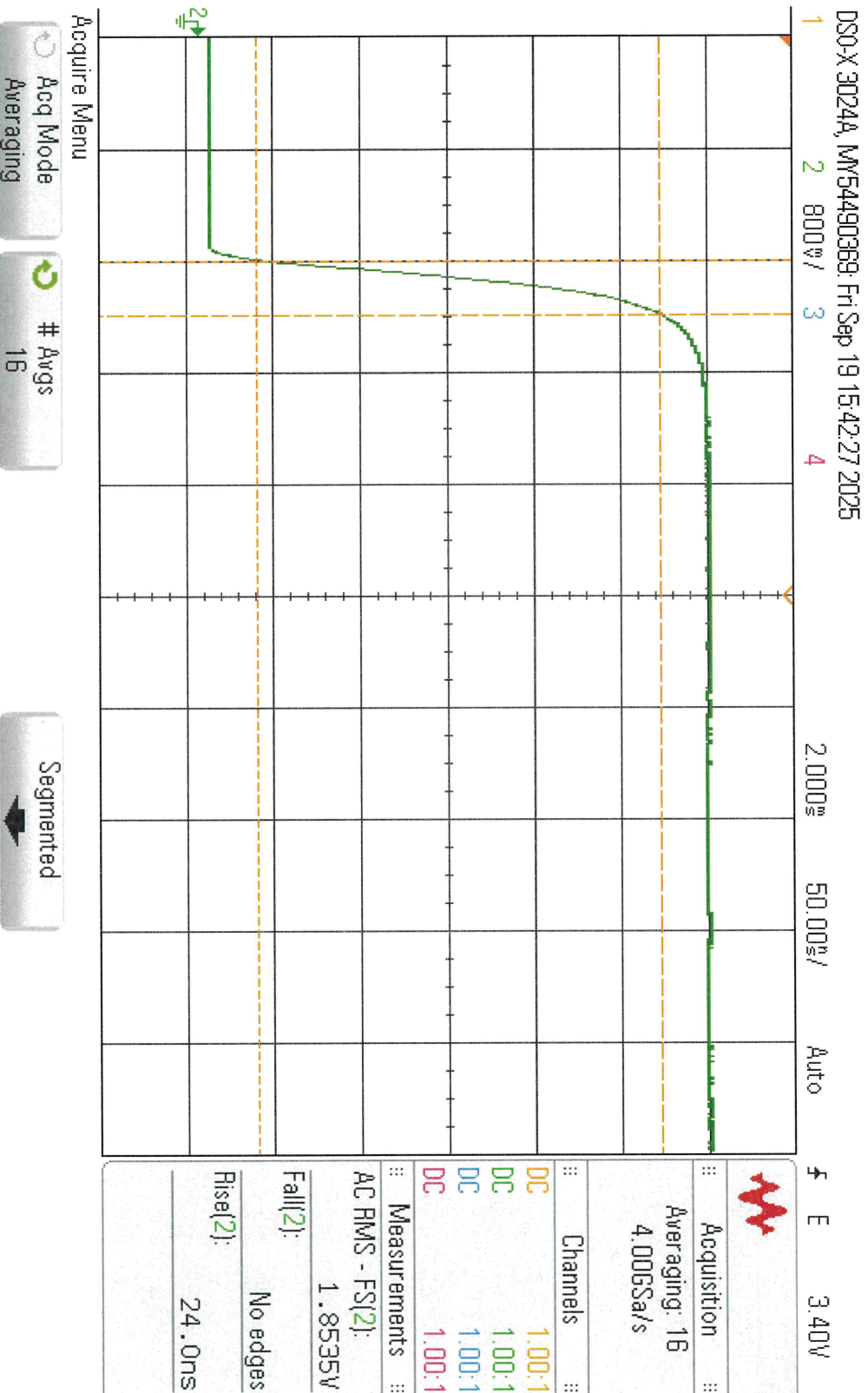
Linearity Error VS Input Power



Log Accuracy Error VS Input Power

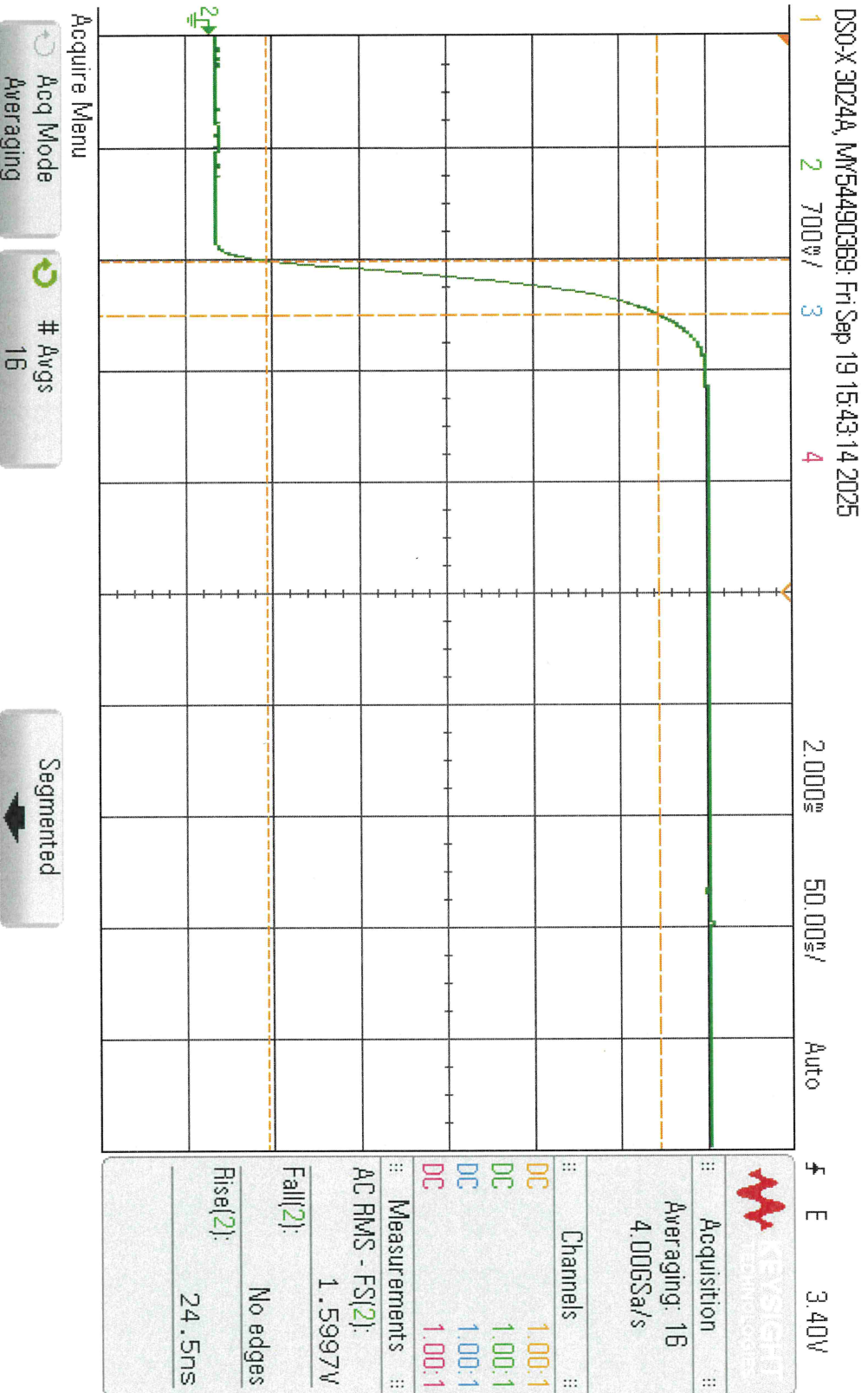


PL 53802
Rise / Settling @ 0dbm

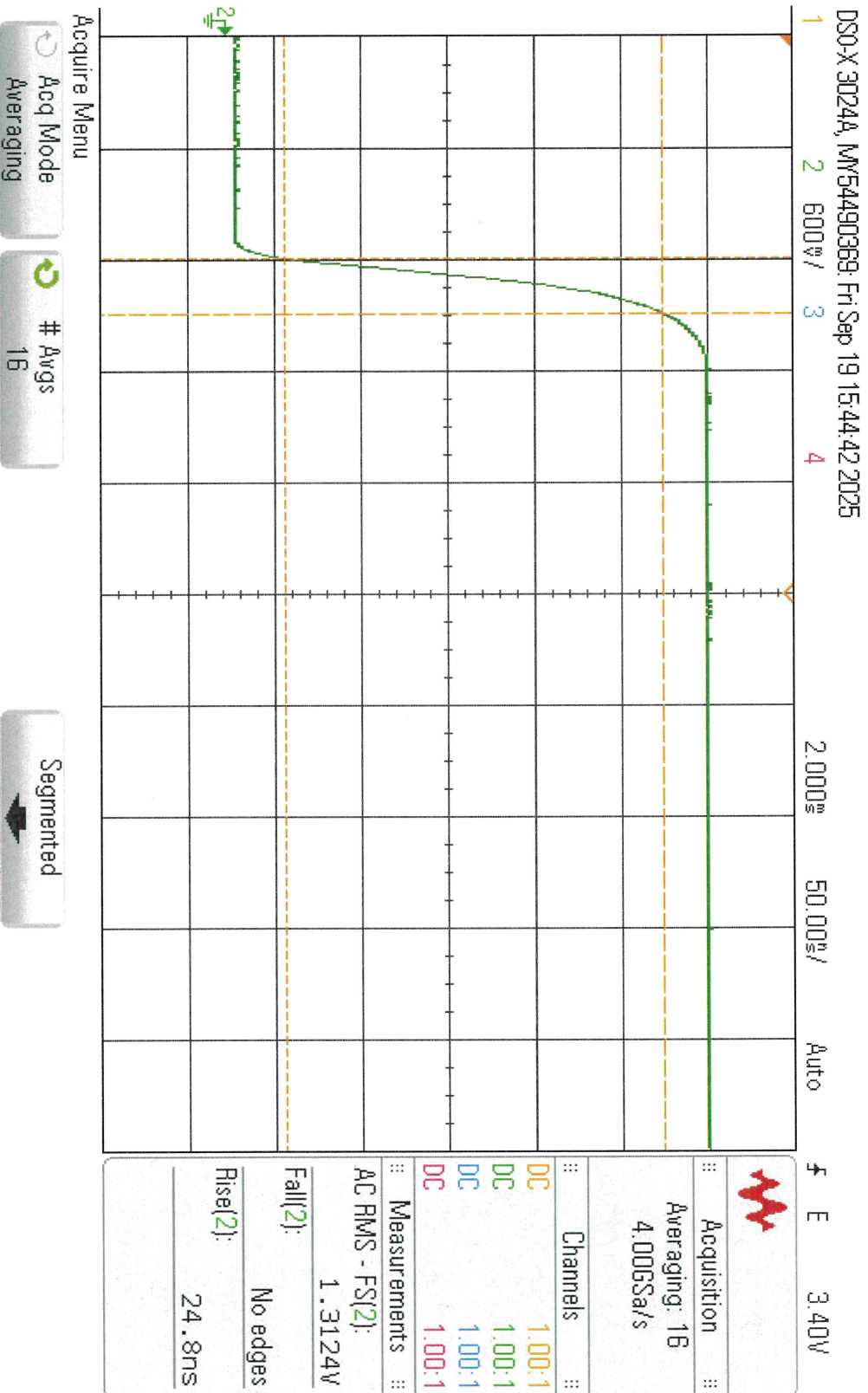


PL53802

Rise/setting @ -10dbm

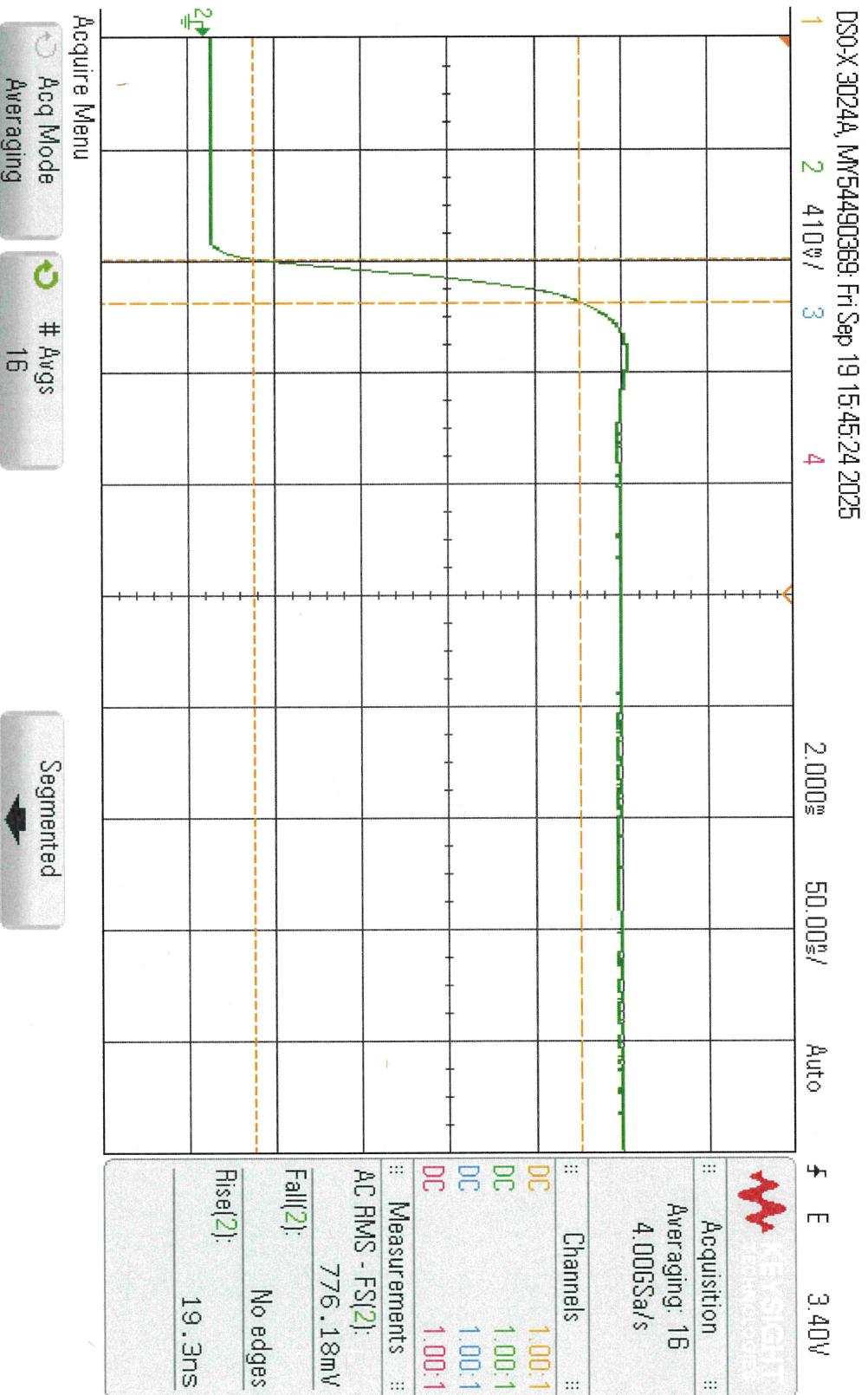


PL53802
Rise/settling @ -20dbm

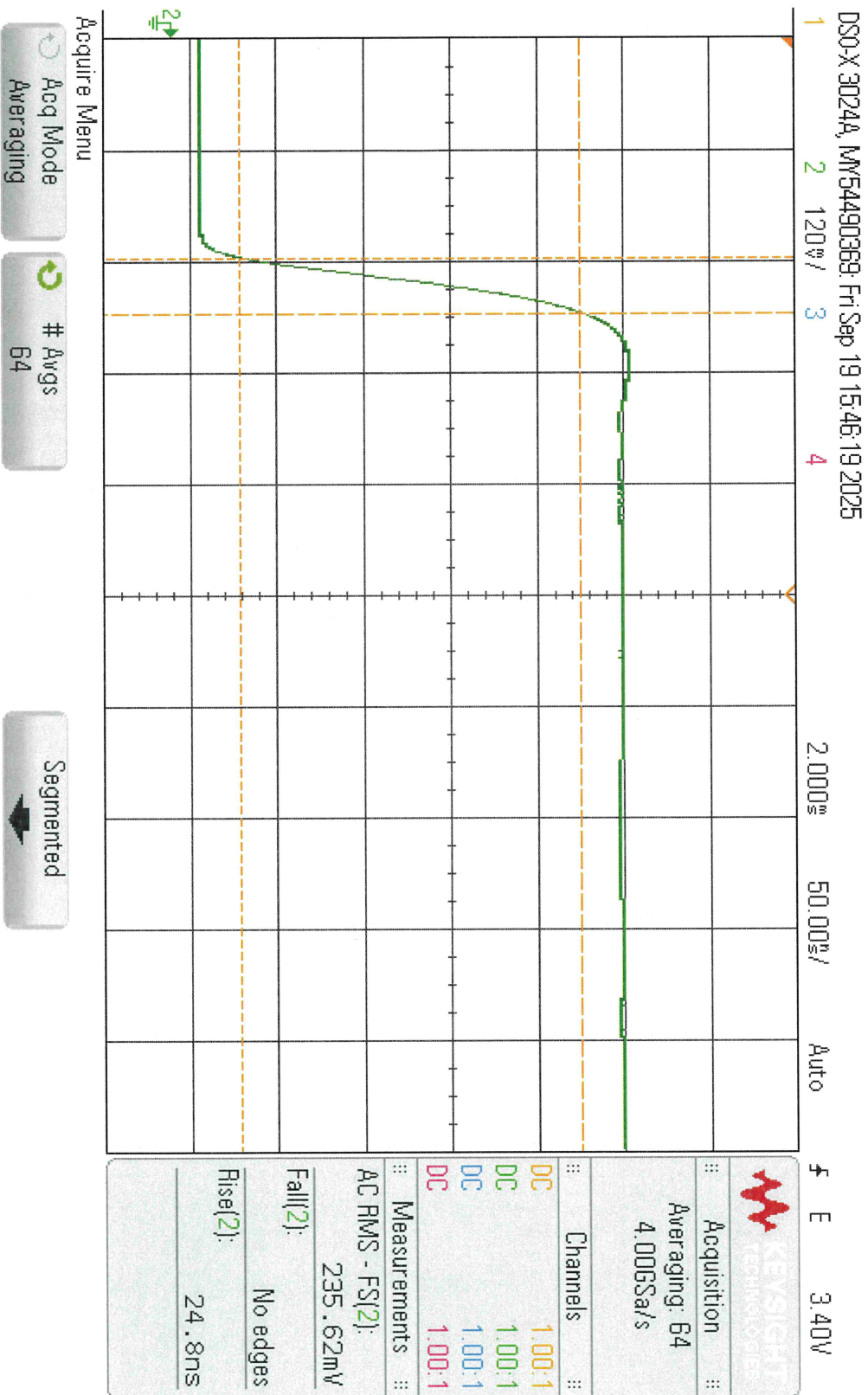


PL53802

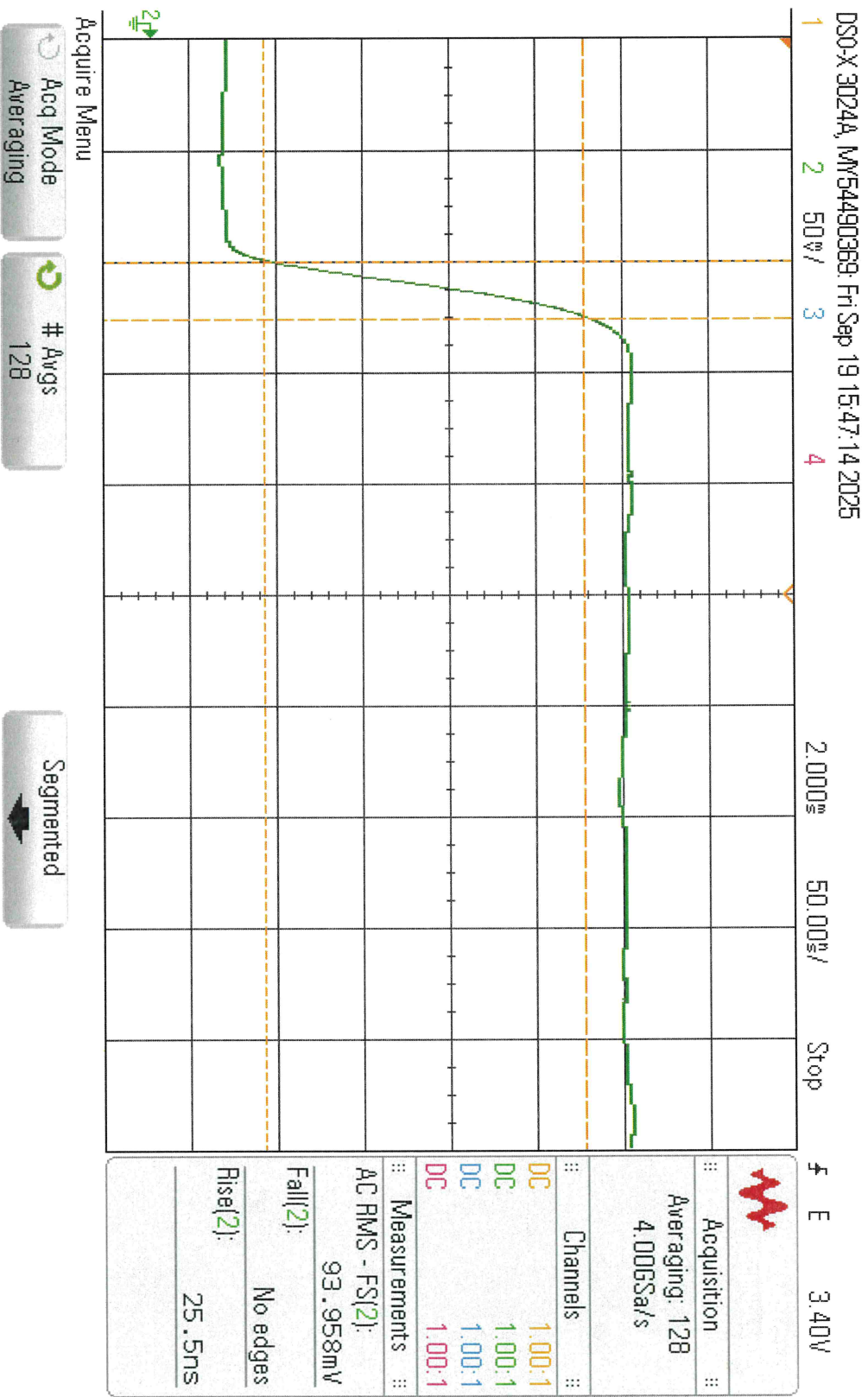
Rise / settling @ -40dbm



PL53802
Rise/ settling @ -60dbm

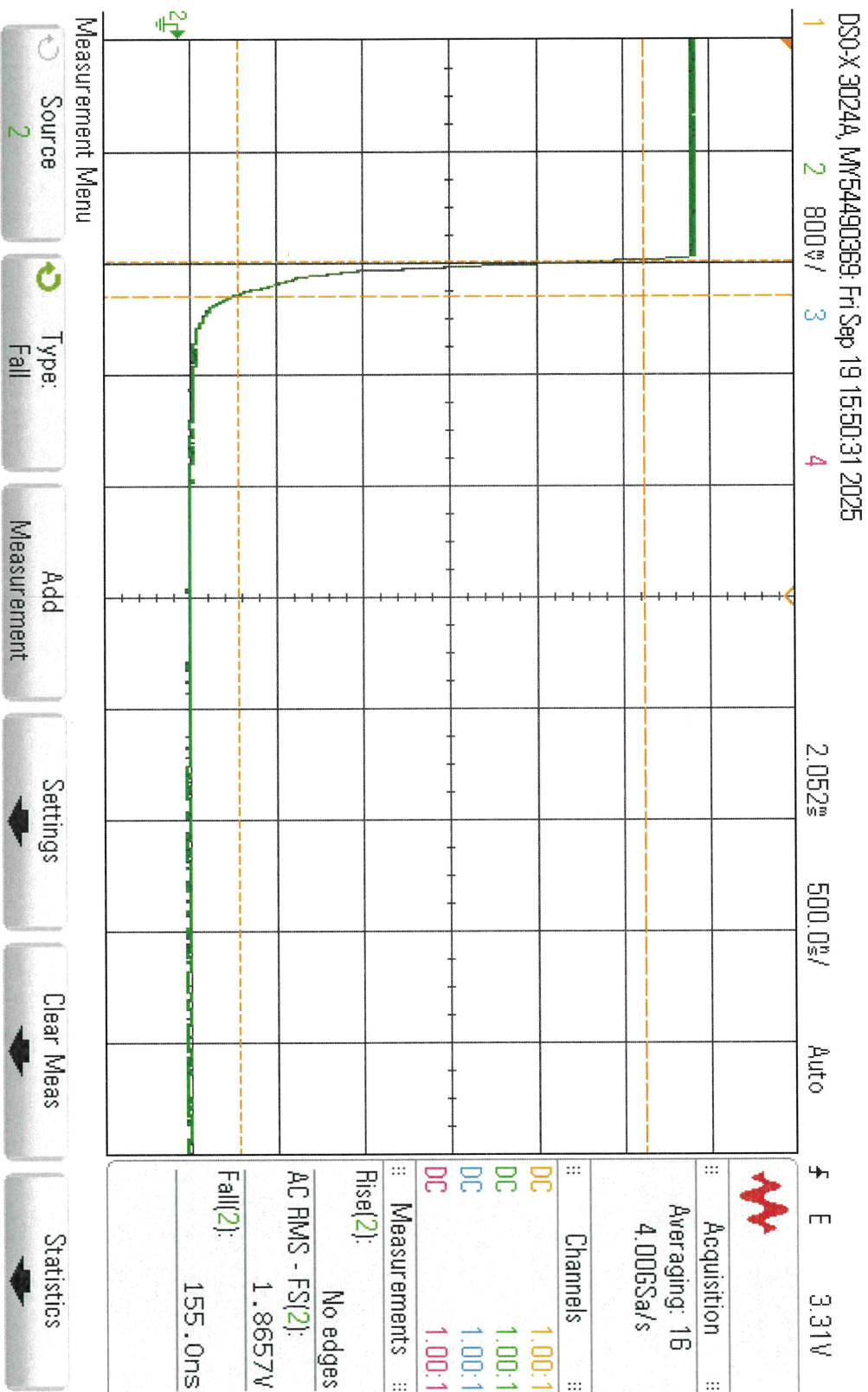


PL53802
Rise / settling @ -65dbm

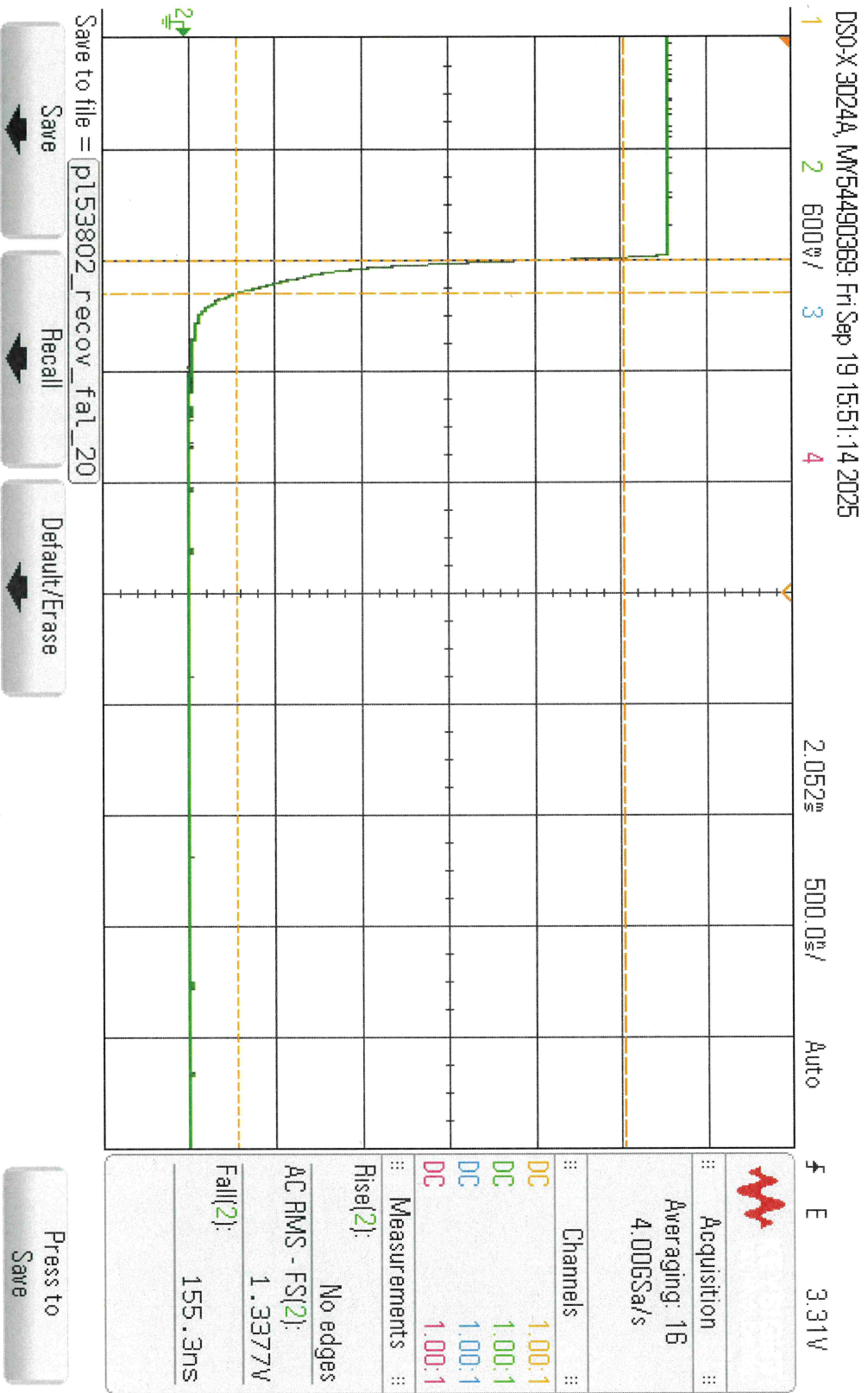


PL53802

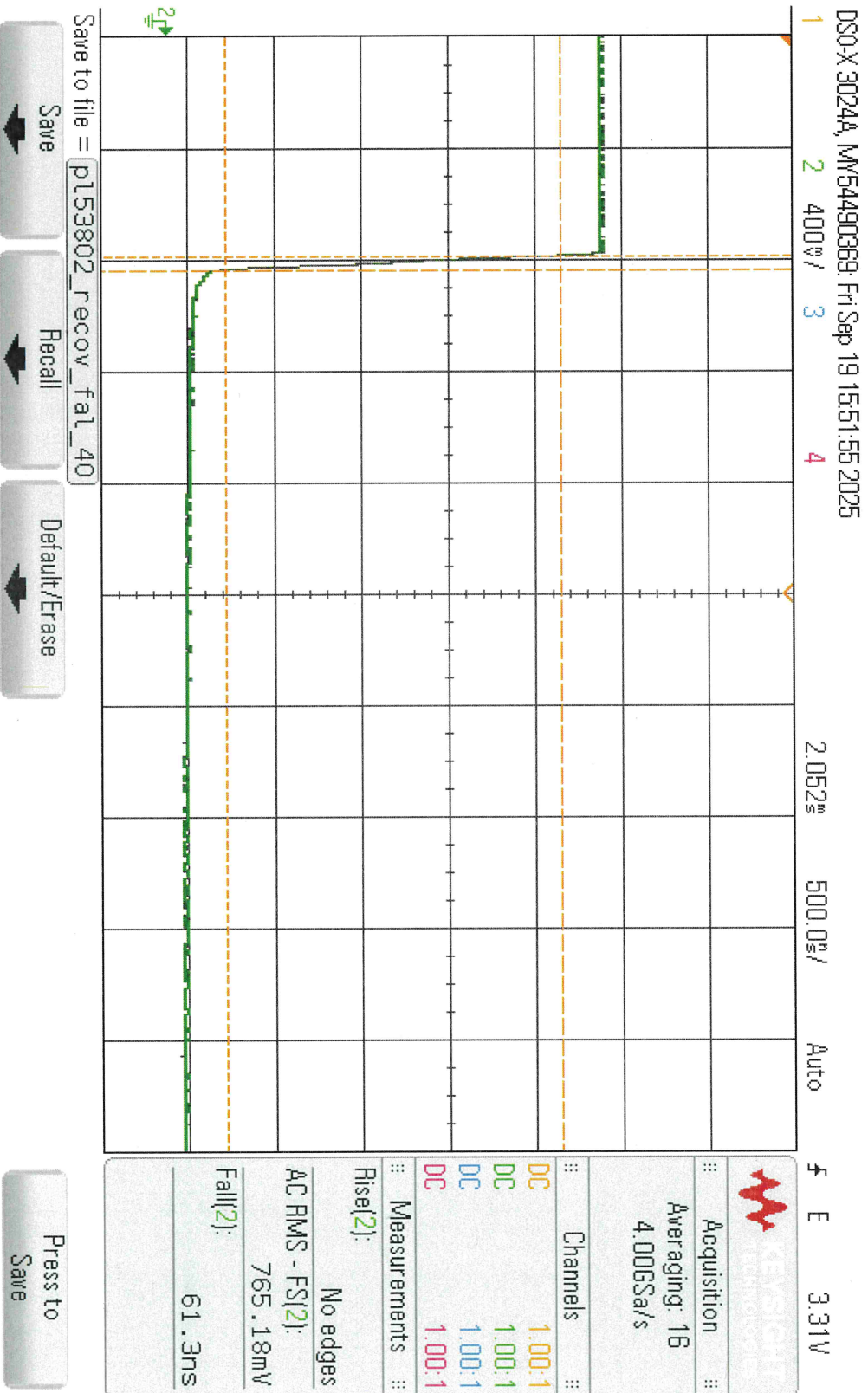
Recovery / Fall @ 0dbm



PL53802
Recovery / Fall @ -20dbm



PL53802
Recovery/Fall @ -40dbm



PL53802
Recovery/Fall @ -50dbm

DSO-X 3024A, MY54490369, Fri Sep 19 15:52:35 2025

1 2 250°/ 3 4

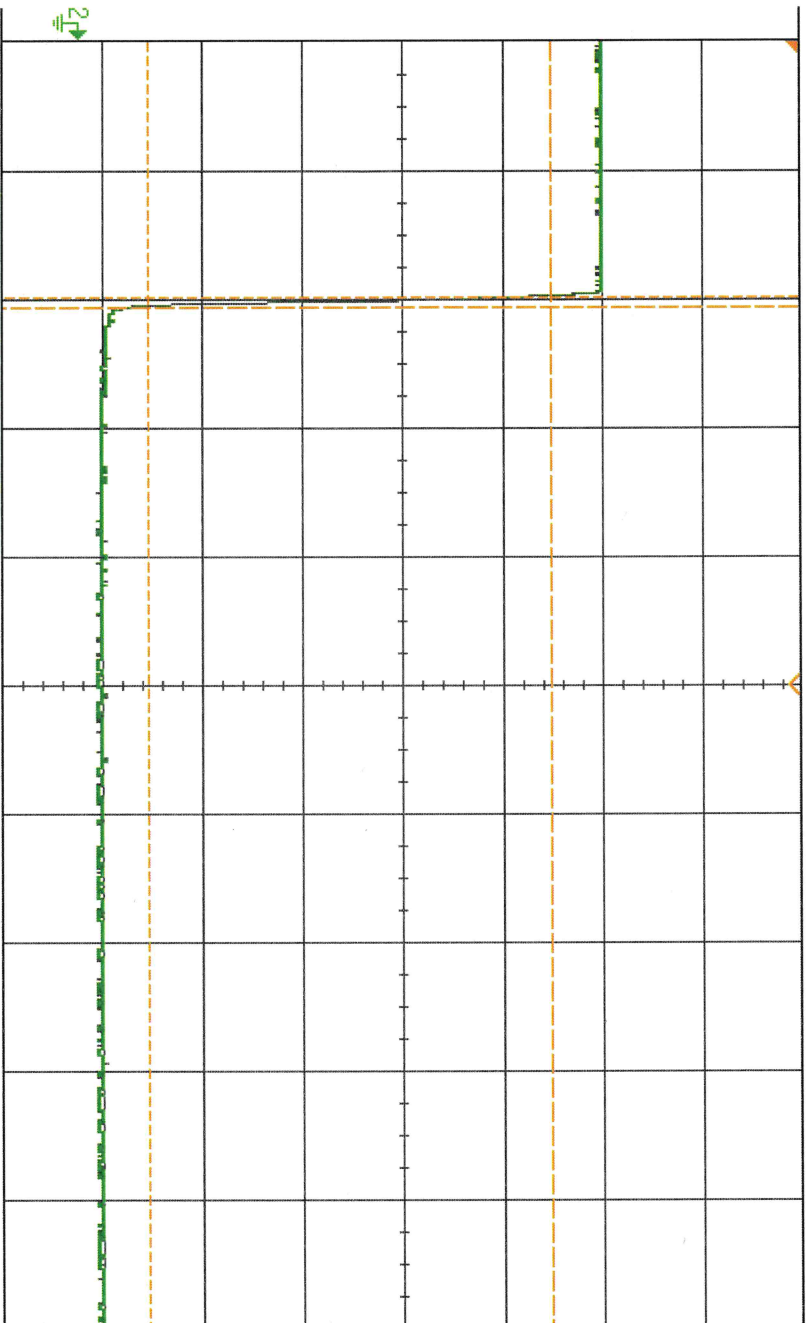
2.052ms

500.0mV

Auto

f E

3.31V



Save to file = PL53802_recov_fal_50

Save

Recall

Default/Erase

Press to
Save



Acquisition

Averaging: 16

4.00GSa/s

Channels

DC 1.00:1

DC 1.00:1

DC 1.00:1

DC 1.00:1

Measurements

Rise(2):

No edges

AC RMS - FS(2):

501.44mV

Fall(2):

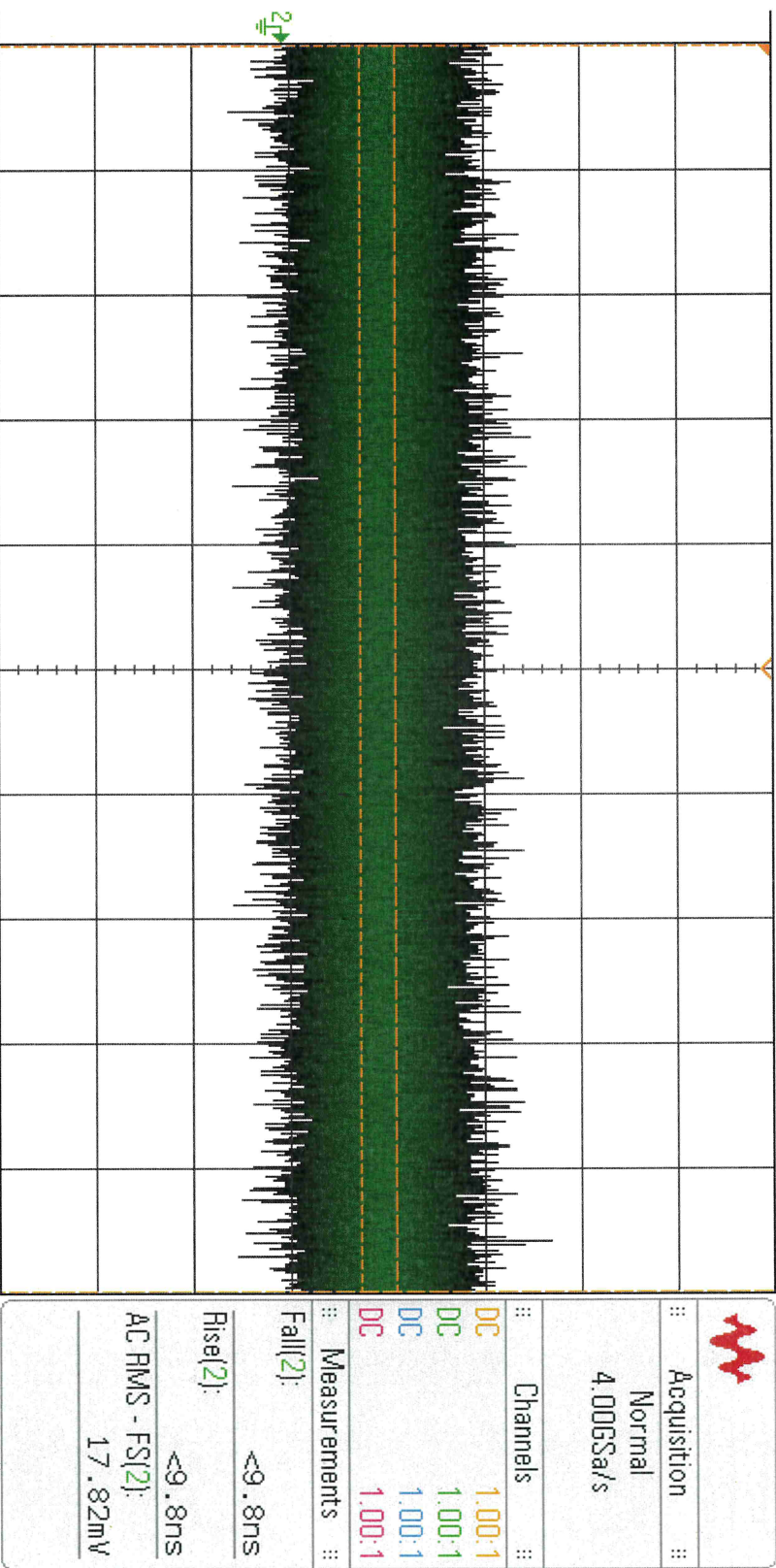
38.4ns

PL53802.

RMS noise

DSO-X 3024A, MY54490369, Fri Sep 19 15:49:05 2025

1 2 50V/ 3 4 2.000ms 20.00ns/ Auto f E 3.40V



Measurement Menu

Source 2

Type: AC RMS - FS

Add Measurement

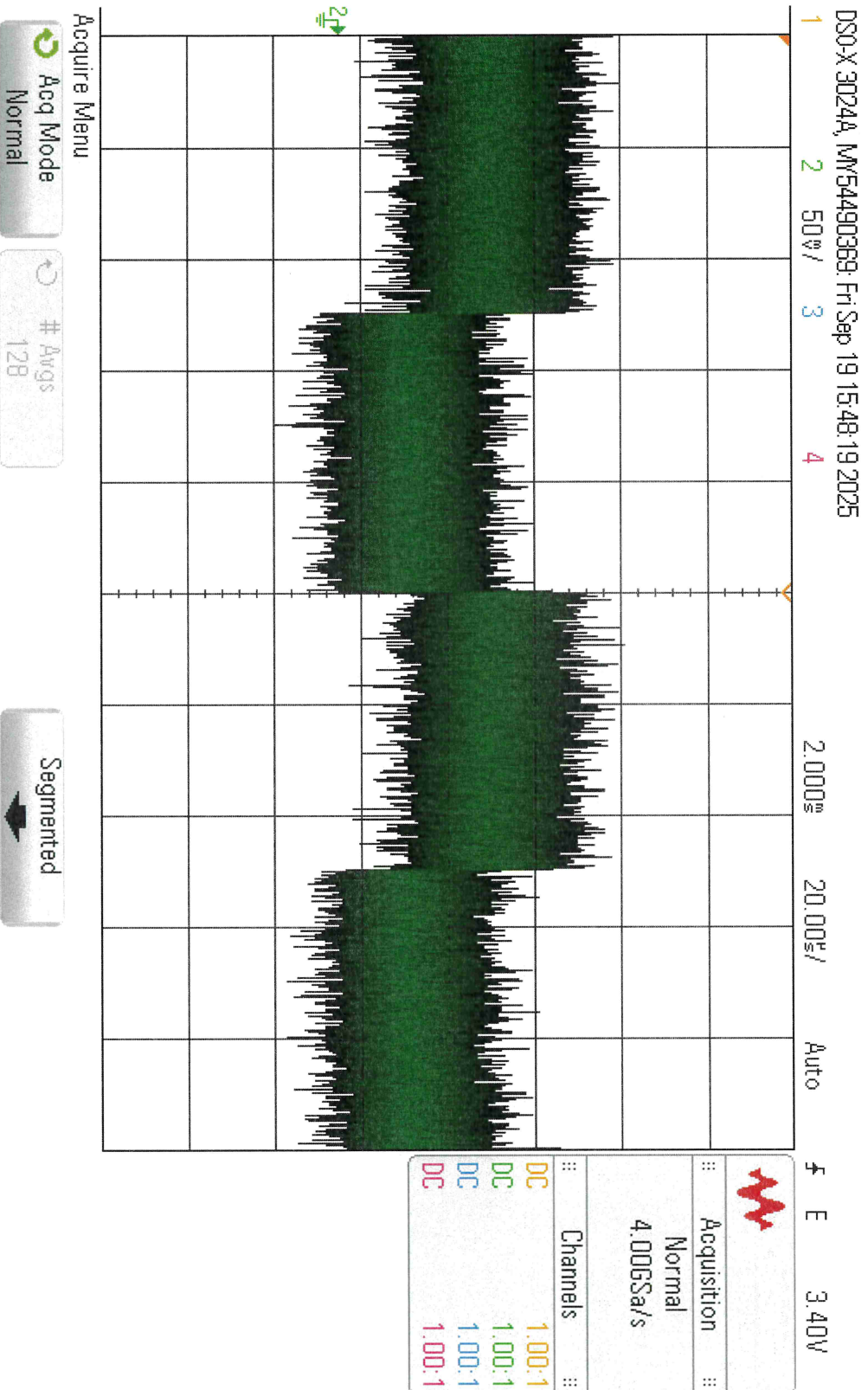
Settings

Clear Meas

Statistics

PL53802

TSS - 73 dbm



PL53802
CW Immune -40dbm

