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

Customer: [redacted] **Tested By:** Jim Hopson

SO No: [redacted] **Temperature:** -40C TO +70C

Model No: ERDLVA-2G18G-65-70MV-70C **Date** 10/18/2024

Serial No: PL44912/2443 **Drawing No:** 27642020 **Rev:** A1

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	2 to 18 GHz	**2 to 18 GHz**	PMI QA3
2	VSWR:	2.2:1 MAX @ 50 Ω	**1.81:1 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	**71.3/67.7 mv/db**	
7	VIDEO OUT Log Linearity:	±1.0 dB MAX @25C	**.59/-.75 db**	
8	VIDEO OUT Log Accuracy:	±2.3 dB MAX @25C	**1.03/-1.0 db**	
9	VIDEO OUT Absolute Log Accuracy:	±2.9 dB MAX Over Freq & temp	**+1.28/-1.27 db**	
10	VIDEO OUT DC Offset:	0 ±70 mV (RF Input Terminated & DC Power On) @25C	**19 mV**	
11	VIDEO OUT Rise Time (10% to 90%):	28 ns MAX	**22.0 ns**	
12	VIDEO OUT Fall Time (90% to 10%):	300 ns MAX	**204.4 ns**	
13	VIDEO OUT Settling Time:	50 ns With in ±70 mV of final value @-10 dBm	**40 ns**	

7311-F Grove Road Frederick, MD 21704 USA
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14	VIDEO OUT Recovery Time:	1 us MAX to within 1 dB of baseline for PW <10us & Power = -10dBm	**600ns**	PMI QA3
15	VIDEO OUT Video Frequency Flatness:	±2.0 dB MAX @25C	**±0.84 dB MAX @25C**	
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	**1.5 ms**	
		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	**139 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 Klamm **Date:** 10-23-24

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LOG TRANSFER VS. FREQUENCY
Model: ERDLVA-218-65-70MV-70
Tested By: Jim Hopson
Date: 10-18-24
Serial Number: PL44912
Test Temp: +25°C

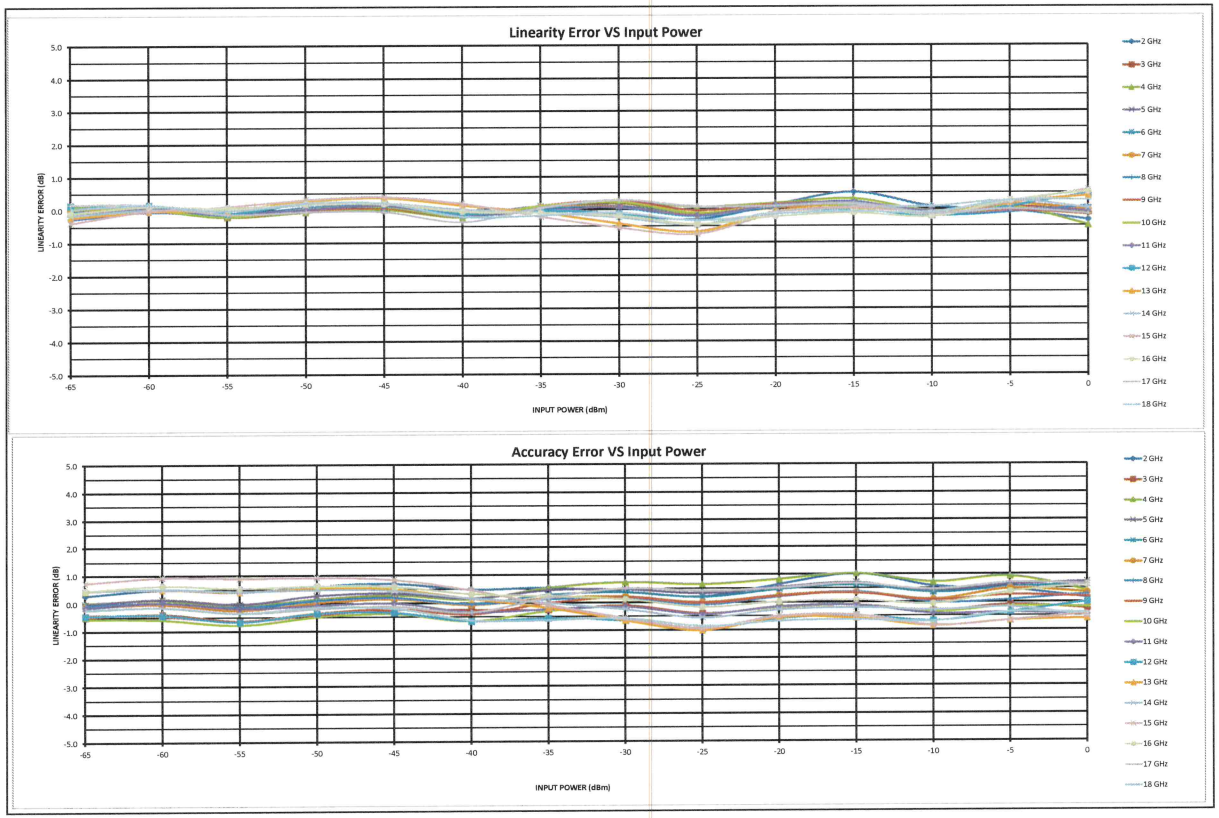
Frequency			-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2 GHz	Intercept (mV)	4875	314	679	1022	1387	1742	2077	2431	2770	3107	3487	3863	4182	4524	4852	Measured Value (mV)
	Slope (mV/dB)	69.88	-19	-3	-10	6	11	-3	2	-9	-21	10	36	6	-2	-23	Error (mV)
			-0.27	-0.05	-0.14	0.08	0.16	-0.04	0.02	-0.12	-0.30	0.14	0.52	0.08	-0.02	-0.33	0.52 Linearity Error (dB)
			0.29	0.50	0.41	0.62	0.70	0.49	0.55	0.39	0.21	0.64	1.02	0.58	0.47	0.15	1.02 Accuracy Error (dB)
3 GHz	Intercept (mV)	4831	260	617	949	1315	1676	2009	2375	2735	3064	3429	3784	4119	4485	4825	Measured Value (mV)
	Slope (mV/dB)	70.33	0	5	-15	0	9	-9	5	13	-9	4	7	-9	5	-6	Error (mV)
			0.00	0.07	-0.21	0.00	0.13	-0.13	0.07	0.19	-0.13	0.06	0.11	-0.13	0.07	-0.09	0.21 Linearity Error (dB)
			-0.49	-0.38	-0.64	-0.41	-0.25	-0.25	-0.25	-0.11	-0.40	-0.19	-0.11	-0.32	-0.09	-0.23	0.64 Accuracy Error (dB)
4 GHz	Intercept (mV)	4906	295	652	989	1354	1714	2052	2431	2794	3138	3500	3864	4192	4556	4871	Measured Value (mV)
	Slope (mV/dB)	70.94	0	3	-15	-5	1	-16	8	17	6	13	22	-4	5	-35	Error (mV)
			0.01	0.04	-0.21	-0.07	0.01	-0.23	0.12	0.23	0.08	0.19	0.32	-0.06	0.07	-0.49	0.49 Linearity Error (dB)
			0.01	0.12	-0.07	0.15	0.30	0.13	0.55	0.74	0.65	0.83	1.03	0.72	0.92	0.43	1.03 Accuracy Error (dB)
5 GHz	Intercept (mV)	4889	293	655	992	1363	1719	2055	2425	2776	3115	3480	3841	4169	4535	4892	Measured Value (mV)
	Slope (mV/dB)	70.62	-6	3	-13	5	8	-9	8	5	-9	3	11	-14	-1	3	Error (mV)
			-0.08	0.04	-0.18	0.07	0.11	-0.13	0.11	0.08	-0.12	0.05	0.16	-0.20	-0.02	0.04	0.20 Linearity Error (dB)
			-0.01	0.16	-0.02	0.28	0.37	0.17	0.46	0.48	0.32	0.54	0.70	0.39	0.62	0.73	0.73 Accuracy Error (dB)
6 GHz	Intercept (mV)	4884	284	644	981	1347	1704	2041	2413	2769	3106	3475	3835	4166	4529	4884	Measured Value (mV)
	Slope (mV/dB)	70.78	0	6	-11	2	5	-12	6	8	-9	6	12	-11	-2	0	Error (mV)
			0.00	0.09	-0.15	0.02	0.07	-0.17	0.08	0.11	-0.13	0.09	0.17	-0.15	-0.02	-0.01	0.17 Linearity Error (dB)
			-0.14	0.00	-0.18	0.05	0.16	-0.03	0.29	0.38	0.20	0.47	0.62	0.35	0.54	0.61	0.62 Accuracy Error (dB)
7 GHz	Intercept (mV)	4868	286	642	976	1345	1704	2038	2405	2758	3093	3460	3818	4149	4526	4866	Measured Value (mV)
	Slope (mV/dB)	70.53	2	6	-13	3	10	-9	5	6	-12	2	8	-14	10	-2	Error (mV)
			0.03	0.08	-0.18	0.05	0.14	-0.13	0.08	0.08	-0.17	0.03	0.11	-0.20	0.15	-0.03	0.20 Linearity Error (dB)
			-0.11	-0.03	-0.25	0.02	0.16	-0.07	0.18	0.22	0.01	0.26	0.37	0.10	0.49	0.35	0.49 Accuracy Error (dB)
8 GHz	Intercept (mV)	4855	290	646	984	1351	1707	2040	2402	2753	3086	3456	3818	4141	4497	4861	Measured Value (mV)
	Slope (mV/dB)	70.18	-3	2	-11	5	10	-8	4	4	-14	5	16	-12	-7	6	Error (mV)
			-0.04	0.03	-0.16	0.07	0.15	-0.11	0.05	0.05	-0.20	0.07	0.23	-0.17	-0.10	0.09	0.23 Linearity Error (dB)
			-0.06	0.03	-0.14	0.11	0.20	-0.04	0.13	0.15	-0.09	0.20	0.37	-0.01	0.08	0.28	0.37 Accuracy Error (dB)
9 GHz	Intercept (mV)	4867	265	612	949	1319	1678	2014	2392	2757	3091	3459	3816	4147	4510	4855	Measured Value (mV)
	Slope (mV/dB)	70.96	10	3	-15	0	4	-15	8	19	-2	11	13	-11	-3	-12	Error (mV)
			0.15	0.04	-0.22	0.00	0.06	-0.21	0.12	0.26	-0.03	0.15	0.19	-0.15	-0.04	-0.17	0.26 Linearity Error (dB)
			-0.41	-0.45	-0.64	-0.35	-0.22	-0.41	-0.01	0.21	-0.02	0.24	0.34	0.08	0.27	0.20	0.64 Accuracy Error (dB)
10 GHz	Intercept (mV)	4834	256	603	939	1309	1666	1997	2372	2732	3062	3430	3784	4117	4481	4829	Measured Value (mV)
	Slope (mV/dB)	70.56	9	3	-14	3	7	-14	8	15	-8	7	9	-11	0	-5	Error (mV)
			0.12	0.04	-0.20	0.04	0.10	-0.20	0.11	0.21	-0.11	0.11	0.12	-0.16	0.00	-0.07	0.21 Linearity Error (dB)
			-0.54	-0.58	-0.78	-0.49	-0.39	-0.66	-0.30	-0.15	-0.43	-0.17	-0.11	-0.35	-0.15	-0.17	0.78 Accuracy Error (dB)
11 GHz	Intercept (mV)	4813	284	646	981	1338	1693	2020	2376	2732	3062	3431	3784	4112	4465	4809	Measured Value (mV)
	Slope (mV/dB)	69.53	-9	5	-8	2	9	-12	-3	5	-13	9	14	-6	0	-4	Error (mV)
			-0.13	0.07	-0.11	0.03	0.13	-0.17	-0.05	0.07	-0.18	0.13	0.20	-0.08	0.00	-0.06	0.20 Linearity Error (dB)
			-0.14	0.03	-0.18	-0.08	0.00	-0.33	-0.24	-0.15	-0.43	-0.16	-0.11	-0.42	-0.38	-0.46	0.46 Accuracy Error (dB)
12 GHz	Intercept (mV)	4810	263	614	947	1318	1669	1997	2354	2697	3025	3401	3758	4094	4465	4842	Measured Value (mV)
	Slope (mV/dB)	70.12	11	11	-6	14	15	-8	-2	-9	-32	-6	0	-15	6	32	Error (mV)
			0.16	0.16	-0.09	0.20	0.21	-0.11	-0.02	-0.13	-0.45	-0.09	0.00	-0.21	0.08	0.46	0.46 Linearity Error (dB)
			-0.44	-0.43	-0.67	-0.36	-0.35	-0.66	-0.55	-0.65	-0.96	-0.59	-0.48	-0.68	-0.38	0.01	0.96 Accuracy Error (dB)
13 GHz	Intercept (mV)	4772	326	680	1023	1382	1729	2054	2380	2698	3022	3404	3752	4082	4445	4800	Measured Value (mV)
	Slope (mV/dB)	68.18	-15	-2	0	19	25	9	-6	-29	-46	-5	2	-9	14	28	Error (mV)
			-0.22	-0.02	0.01	0.27	0.36	0.13	-0.09	-0.43	-0.67	-0.07	0.03	-0.13	0.20	0.41	0.67 Linearity Error (dB)
			0.46	0.52	0.42	0.55	0.51	0.16	-0.18	-0.64	-1.00	-0.54	-0.57	-0.85	-0.66	-0.59	1.00 Accuracy Error (dB)
14 GHz	Intercept (mV)	4804	325	681	1024	1378	1725	2055	2392	2725	3053	3423	3778	4122	4478	4806	Measured Value (mV)
	Slope (mV/dB)	68.74	-11	2	1	11	15	1	-6	-17	-32	-6	5	6	18	2	Error (mV)
			-0.16	0.02	0.01	0.16	0.21	0.01	-0.09	-0.24	-0.47	-0.09	0.08	0.08	0.26	0.03	0.47 Linearity Error (dB)
			0.44	0.53	0.43	0.50	0.46	0.17	-0.01	-0.25	-0.56	-0.27	-0.20	-0.28	-0.19	-0.50	0.56 Accuracy Error (dB)
15 GHz	Intercept (mV)	4770	346	709	1056	1408	1752	2076	2387	2703	3028	3407	3759	4083	4445	4810	Measured Value (mV)
	Slope (mV/dB)	67.66	-26	-1	7	21	27	12	-15	-37	-51	-10	4	-11	13	40	Error (mV)
			-0.38	-0.02	0.11	0.31	0.40	0.18	-0.22	-0.55	-0.75	-0.15	0.06	-0.16	0.19	0.59	0.75 Linearity Error (dB)
			0.74	0.93	0.89	0.92	0.84	0.47	-0.08	-0.56	-0.92	-0.50	-0.47	-0.84	-0.66	-0.45	0.93 Accuracy Error (dB)
16 GHz	Intercept (mV)	4848	327	689	1032	1388	1735	2066	2410	2751	3080	3443	3798	4137	4518	4884	Measured Value (mV)
	Slope (mV/dB)	69.46	-6	9	5	13	13	-3	-7	-13	-31	-16	-8	-16	18	36	Error (mV)
			-0.08	0.13	0.07	0.19	0.19	-0.05	-0.10	-0.19	-0.45	-0.22	-0.11	-0.23	0.25	0.52	0.52 Linearity Error (dB)
			0.47	0.65	0.55	0.64	0.60	0.33	0.25	0.12	-0.18	0.01	0.09	-0.07	0.38	0.61	0.65 Accuracy Error (dB)
17 GHz	Intercept (mV)	4896	277	633	968	1329	1685	2019	2406	2779	3121	3478	3839	4174	4540	4885	Measured Value (mV)
	Slope (mV/dB)	71.26	13	13	-9	-4	-4	-27	4	21	7	7	12	-9	0	-11	Error (mV)
			0.18	0.18	-0.12	-0.06	-0.06	-0.37	0.06	0.29	0.09	0.10	0.17	-0.13	0.00	-0.15	0.37 Linearity Error (dB)
			-0.24	-0.15	-0.37	-0.21	-0.12	-0.34	0.19	0.52	0.41	0.51	0.67	0.46	0.69	0.63	0.69 Accuracy Error (dB)
18 GHz	Intercept (mV)	4795	278	634	969	1333	1680	1999	2349	2703	3033	3395	3748	4093	4466	4814	Measured Value (mV)
	Slope (mV/dB)	69.54	3	11	-1	15	14	-14	-12	-6	-24	-9	-4	-7	18	19	Error (mV)
			0.04	0.16	-0.02	0.22	0.20	-0.21	-0.18	-0.09	-0.34	-0.13	-0.06	-0.10	0.27	0.27	0.34 Linearity Error (dB)
			-0.23	-0.14	-0.35	-0.15	-0.19	-0.63	-0.62	-0.56	-0.85	-0.67	-0.63	-0.70	-0.36	-0.39	0.85 Accuracy Error (dB)

Output Vos: 19.0 mV

Avg Slope:	70.0 mV/dB	346	709	1056	1408	1752	2077	2431	2794	3138	3500	3864	4192	4556	4892	Max Measured (mV)
Max Slope:	71.3 mV/dB	256	603	939	1309	1666	1997	2349	2697	3022	3395	3748	4082	4445	4800	Min Measured (mV)
Min Slope:	67.7 mV/dB	0.64	0.76	0.84	0.71	0.61	0.57	0.59	0.69	0.83	0.75	0.83	0.79	0.79	0.66	Flatness Error (+/-dB)

PL44912

+25°C


Linearity Error VS Input Power
LINEARITY ERROR (dB)
INPUT POWER (dBm)
2 GHz
3 GHz
4 GHz
5 GHz
6 GHz
7 GHz
8 GHz
9 GHz
10 GHz
11 GHz
12 GHz
13 GHz
14 GHz
15 GHz
16 GHz
17 GHz
18 GHz
Accuracy Error VS Input Power
LINEARITY ERROR (dB)
INPUT POWER (dBm)

LOG TRANSFER VS. FREQUENCY
Model: ERDLVA-218-65-70MV-70
Tested By: Jim Hopson
Date: 10-18-24
Serial Number: PL44912
Test Temp: -40°C

Frequency

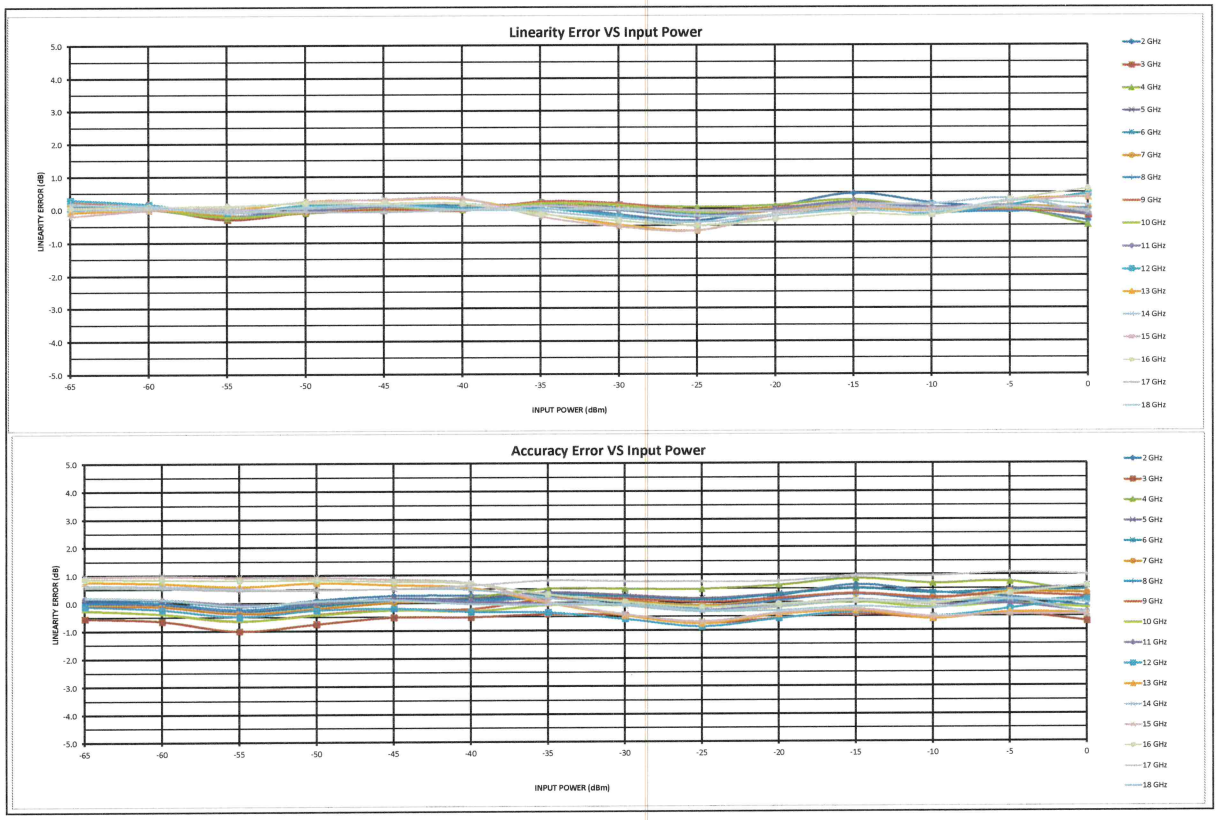
	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2 GHz Intercept (mV) 4824	295	645	976	1340	1699	2047	2394	2723	3058	3435	3812	4140	4476	4799	Measured Value (mV)
Slope (mV/dB) 69.67	-1	1	-16	-1	10	10	8	-11	-25	4	33	12	0	-25	Error (mV)
	-0.01	0.02	-0.23	-0.01	0.14	0.14	0.12	-0.16	-0.35	0.06	0.47	0.18	0.00	-0.36	0.47 Linearity Error (dB)
	0.07	0.10	-0.14	0.10	0.26	0.27	0.26	-0.01	-0.20	0.22	0.65	0.36	0.19	-0.16	0.65 Accuracy Error (dB)
3 GHz Intercept (mV) 4777	252	593	916	1281	1645	1988	2348	2692	3020	3380	3739	4075	4435	4763	Measured Value (mV)
Slope (mV/dB) 69.81	13	5	-21	-5	9	3	14	9	-12	-1	9	-4	7	-14	Error (mV)
	0.18	0.07	-0.31	-0.08	0.14	0.05	0.21	0.13	-0.17	-0.01	0.13	-0.06	0.10	-0.20	0.31 Linearity Error (dB)
	-0.55	-0.64	-1.00	-0.75	-0.52	-0.52	-0.41	-0.46	-0.74	-0.57	-0.40	-0.57	-0.40	-0.68	1.00 Accuracy Error (dB)
4 GHz Intercept (mV) 4866	288	633	967	1330	1688	2042	2412	2759	3106	3463	3828	4163	4515	4832	Measured Value (mV)
Slope (mV/dB) 70.57	9	1	-18	-8	-2	-1	16	10	4	8	20	2	2	-34	Error (mV)
	0.13	0.02	-0.25	-0.11	-0.04	-0.02	0.22	0.14	0.06	0.12	0.29	0.03	0.02	-0.49	0.49 Linearity Error (dB)
	-0.03	-0.07	-0.26	-0.04	0.10	0.19	0.51	0.50	0.49	0.63	0.88	0.69	0.76	0.31	0.88 Accuracy Error (dB)
5 GHz Intercept (mV) 4849	292	635	967	1331	1692	2039	2402	2743	3082	3441	3804	4138	4495	4851	Measured Value (mV)
Slope (mV/dB) 70.31	13	4	-15	-3	7	2	14	3	-10	-2	9	-8	-3	2	Error (mV)
	0.18	0.06	-0.22	-0.04	0.10	0.03	0.19	0.04	-0.14	-0.03	0.13	-0.12	-0.04	0.02	0.22 Linearity Error (dB)
	0.03	-0.04	-0.26	-0.03	0.16	0.15	0.37	0.27	0.15	0.31	0.53	0.33	0.47	0.59	0.59 Accuracy Error (dB)
6 GHz Intercept (mV) 4846	286	630	961	1325	1684	2035	2396	2738	3077	3439	3802	4138	4493	4843	Measured Value (mV)
Slope (mV/dB) 70.37	13	6	-15	-3	4	3	12	3	-10	0	11	-5	-2	-3	Error (mV)
	0.19	0.08	-0.22	-0.04	0.06	0.05	0.18	0.04	-0.15	0.00	0.16	-0.07	-0.02	-0.05	0.22 Linearity Error (dB)
	-0.06	-0.11	-0.35	-0.12	0.05	0.09	0.28	0.20	0.08	0.28	0.50	0.33	0.44	0.47	0.50 Accuracy Error (dB)
7 GHz Intercept (mV) 4834	284	629	959	1319	1682	2031	2388	2729	3064	3425	3788	4125	4489	4834	Measured Value (mV)
Slope (mV/dB) 70.20	13	7	-14	-5	7	5	11	1	-15	-5	7	-7	6	0	Error (mV)
	0.19	0.10	-0.20	-0.07	0.10	0.07	0.16	0.02	-0.21	-0.07	0.10	-0.10	0.09	0.00	0.21 Linearity Error (dB)
	-0.09	-0.13	-0.38	-0.20	0.02	0.04	0.17	0.07	-0.11	0.08	0.30	0.15	0.38	0.34	0.38 Accuracy Error (dB)
8 GHz Intercept (mV) 4819	292	637	968	1333	1691	2033	2388	2725	3059	3424	3788	4119	4464	4820	Measured Value (mV)
Slope (mV/dB) 69.74	6	2	-15	1	10	4	10	-2	-17	0	15	-3	-6	1	Error (mV)
	0.09	0.03	-0.22	0.01	0.15	0.05	0.14	-0.03	-0.24	0.00	0.22	-0.04	-0.09	0.01	0.24 Linearity Error (dB)
	0.03	-0.01	-0.25	0.00	0.15	0.06	0.17	0.02	-0.18	0.07	0.30	0.06	0.02	0.14	0.30 Accuracy Error (dB)
9 GHz Intercept (mV) 4838	272	611	940	1305	1665	2013	2386	2734	3072	3430	3790	4127	4484	4825	Measured Value (mV)
Slope (mV/dB) 70.54	19	5	-18	-6	1	-3	17	12	-2	3	10	-5	-1	-13	Error (mV)
	0.27	0.08	-0.26	-0.08	0.02	-0.05	0.24	0.17	-0.03	0.04	0.15	-0.08	-0.02	-0.18	0.27 Linearity Error (dB)
	-0.26	-0.38	-0.65	-0.40	-0.23	-0.22	0.14	0.14	0.00	0.15	0.33	0.18	0.31	0.21	0.65 Accuracy Error (dB)
10 GHz Intercept (mV) 4807	271	611	941	1303	1663	2007	2370	2716	3049	3408	3768	4102	4459	4797	Measured Value (mV)
Slope (mV/dB) 70.00	14	4	-16	-4	6	0	13	9	-8	1	11	-5	2	-10	Error (mV)
	0.20	0.05	-0.23	-0.06	0.08	0.00	0.18	0.13	-0.12	0.01	0.15	-0.07	0.03	-0.15	0.23 Linearity Error (dB)
	-0.27	-0.38	-0.64	-0.43	-0.26	-0.31	-0.09	-0.11	-0.33	-0.16	0.01	-0.18	-0.05	-0.19	0.64 Accuracy Error (dB)
11 GHz Intercept (mV) 4798	302	647	983	1333	1689	2031	2375	2718	3052	3413	3774	4109	4459	4786	Measured Value (mV)
Slope (mV/dB) 69.25	5	4	-7	-3	7	3	1	-3	-15	0	15	3	7	-12	Error (mV)
	0.07	0.05	-0.09	-0.04	0.10	0.04	0.01	-0.04	-0.22	0.00	0.21	0.05	0.10	-0.17	0.22 Linearity Error (dB)
	0.17	0.13	-0.03	0.00	0.12	0.04	-0.02	-0.09	-0.28	-0.09	0.10	-0.08	-0.05	-0.35	0.35 Accuracy Error (dB)
12 GHz Intercept (mV) 4786	282	621	951	1315	1667	2006	2352	2683	3011	3379	3743	4079	4446	4818	Measured Value (mV)
Slope (mV/dB) 69.61	21	12	-6	9	13	4	2	-15	-35	-15	1	-11	8	32	Error (mV)
	0.30	0.17	-0.09	0.14	0.19	0.06	0.03	-0.21	-0.50	-0.21	0.02	-0.16	0.11	0.46	0.50 Linearity Error (dB)
	-0.12	-0.24	-0.49	-0.26	-0.20	-0.32	-0.35	-0.59	-0.87	-0.58	-0.35	-0.51	-0.24	0.11	0.87 Accuracy Error (dB)
13 GHz Intercept (mV) 4759	344	688	1027	1384	1726	2067	2376	2692	3019	3390	3746	4074	4438	4783	Measured Value (mV)
Slope (mV/dB) 67.84	-5	-1	-1	17	20	22	-9	-32	-44	-12	5	-7	18	24	Error (mV)
	-0.08	-0.01	-0.01	0.25	0.29	0.32	-0.13	-0.47	-0.65	-0.18	0.07	-0.10	0.27	0.35	0.65 Linearity Error (dB)
	0.78	0.72	0.60	0.73	0.65	0.55	0.00	-0.46	-0.76	-0.42	-0.30	-0.59	-0.35	-0.39	0.78 Accuracy Error (dB)
14 GHz Intercept (mV) 4791	335	680	1021	1366	1716	2062	2388	2716	3049	3409	3771	4116	4470	4783	Measured Value (mV)
Slope (mV/dB) 68.55	0	2	0	3	10	13	-4	-18	-28	-11	8	11	22	-8	Error (mV)
	0.00	0.03	0.01	0.04	0.14	0.19	-0.05	-0.27	-0.41	-0.16	0.12	0.15	0.32	-0.12	0.41 Linearity Error (dB)
	0.65	0.61	0.51	0.47	0.51	0.48	0.17	-0.11	-0.33	-0.15	0.06	0.02	0.11	-0.39	0.65 Accuracy Error (dB)
15 GHz Intercept (mV) 4755	356	706	1049	1398	1740	2079	2378	2695	3024	3393	3751	4079	4433	4780	Measured Value (mV)
Slope (mV/dB) 67.47	-14	-1	5	16	21	23	-16	-36	-44	-13	8	-1	15	25	Error (mV)
	-0.20	-0.02	0.07	0.24	0.31	0.33	-0.23	-0.54	-0.66	-0.19	0.12	-0.02	0.22	0.37	0.66 Linearity Error (dB)
	0.95	0.98	0.91	0.93	0.85	0.73	0.03	-0.42	-0.69	-0.38	-0.23	-0.51	-0.42	-0.43	0.98 Accuracy Error (dB)
16 GHz Intercept (mV) 4811	351	697	1042	1391	1734	2077	2397	2726	3060	3415	3771	4111	4486	4853	Measured Value (mV)
Slope (mV/dB) 68.67	4	6	8	14	13	13	-10	-25	-34	-22	-10	-13	19	42	Error (mV)
	0.05	0.09	0.11	0.20	0.19	0.19	-0.15	-0.36	-0.50	-0.33	-0.14	-0.19	0.27	0.62	0.62 Linearity Error (dB)
	0.88	0.85	0.81	0.83	0.76	0.70	0.30	0.03	-0.17	-0.06	0.06	-0.05	0.34	0.62	0.88 Accuracy Error (dB)
17 GHz Intercept (mV) 4884	330	675	1017	1366	1716	2072	2432	2777	3124	3473	3834	4181	4537	4880	Measured Value (mV)
Slope (mV/dB) 70.26	13	7	-2	-4	-6	-1	8	1	-3	-5	4	0	5	-4	Error (mV)
	0.19	0.10	-0.03	-0.06	-0.08	-0.02	0.11	0.02	-0.04	-0.08	0.06	0.00	0.07	-0.05	0.19 Linearity Error (dB)
	0.58	0.54	0.45	0.47	0.51	0.63	0.80	0.76	0.75	0.77	0.96	0.95	1.07	1.00	1.07 Accuracy Error (dB)
18 GHz Intercept (mV) 4799	304	647	978	1338	1688	2025	2372	2719	3051	3399	3756	4099	4470	4808	Measured Value (mV)
Slope (mV/dB) 69.34	12	8	-8	6	9	-1	-1	0	-15	-14	-3	-7	17	9	Error (mV)
	0.17	0.12	-0.11	0.08	0.13	-0.01	-0.01	0.00	-0.22	-0.20	-0.05	-0.10	0.25	0.12	0.25 Linearity Error (dB)
	0.20	0.13	-0.11	0.07	0.10	-0.05	-0.06	-0.07	-0.30	-0.29	-0.16	-0.23	0.11	-0.03	0.30 Accuracy Error (dB)

Output Vos: 19.0 mV

Avg Slope: 69.5 mV/dB
Max Slope: 70.6 mv/dB
Min Slope: 67.5 mv/dB

356	706	1049	1398	1740	2079	2432	2777	3124	3473	3834	4181	4537	4880	Max Measured (mV)
252	593	916	1281	1645	1988	2348	2683	3011	3379	3739	4074	4433	4763	Min Measured (mV)
0.75	0.81	0.96	0.84	0.68	0.65	0.60	0.68	0.81	0.68	0.68	0.77	0.75	0.84	Flatness Error (+/-dB)

PL44912
-40°C


Linearity Error VS Input Power
LINEARITY ERROR (dB)
INPUT POWER (dBm)
2 GHz
3 GHz
4 GHz
5 GHz
6 GHz
7 GHz
8 GHz
9 GHz
10 GHz
11 GHz
12 GHz
13 GHz
14 GHz
15 GHz
16 GHz
17 GHz
18 GHz
Accuracy Error VS Input Power
LINEARITY ERROR (dB)
INPUT POWER (dBm)

LOG TRANSFER VS. FREQUENCY
Model: ERDLVA-218-65-70MV-70
Tested By: Jim Hopson
Date: 10-18-24
Serial Number: PL44912
Test Temp: +70°C

Frequency			-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)	
2 GHz	Intercept (mV)	4847	322	668	1001	1365	1721	2048	2408	2754	3084	3463	3839	4154	4497	4823	Measured Value (mV)	
	Slope (mV/dB)	69.70	6	3	-12	3	11	-11	1	-2	-20	10	38	4	-1	-24	Error (mV)	
			0.08	0.05	-0.18	0.05	0.15	-0.15	0.01	-0.03	-0.29	0.15	0.54	0.06	-0.02	-0.34	0.54	Linearity Error (dB)
			0.82	0.78	0.56	0.78	0.89	0.58	0.75	0.71	0.45	0.89	1.28	0.80	0.72	0.40	1.28	Accuracy Error (dB)
3 GHz	Intercept (mV)	4809	261	598	924	1289	1648	1974	2345	2717	3042	3406	3758	4095	4461	4806	Measured Value (mV)	
	Slope (mV/dB)	70.38	27	12	-14	-1	7	-19	0	20	-7	5	5	-10	4	-3	Error (mV)	
			0.39	0.18	-0.19	-0.01	0.09	-0.27	0.00	0.28	-0.10	0.07	0.07	-0.14	0.06	-0.04	0.39	Linearity Error (dB)
			-0.06	-0.22	-0.54	-0.31	-0.16	-0.16	-0.16	0.18	-0.15	0.07	0.12	-0.05	0.21	0.16	0.54	Accuracy Error (dB)
4 GHz	Intercept (mV)	4874	295	635	963	1328	1689	2018	2402	2773	3109	3472	3836	4160	4526	4839	Measured Value (mV)	
	Slope (mV/dB)	70.79	23	9	-17	-6	1	-24	6	23	5	14	24	-6	6	-35	Error (mV)	
			0.32	0.12	-0.24	-0.09	0.01	-0.34	0.08	0.32	0.07	0.20	0.34	-0.08	0.09	-0.49	0.49	Linearity Error (dB)
			0.43	0.31	0.02	0.25	0.43	0.15	0.66	0.99	0.81	1.02	1.24	0.89	1.14	0.63	1.24	Accuracy Error (dB)
5 GHz	Intercept (mV)	4858	303	644	972	1338	1697	2023	2397	2757	3088	3453	3814	4140	4507	4859	Measured Value (mV)	
	Slope (mV/dB)	70.41	22	11	-13	1	8	-18	4	12	-9	4	13	-14	1	1	Error (mV)	
			0.31	0.16	-0.18	0.01	0.11	-0.26	0.05	0.17	-0.13	0.05	0.18	-0.19	0.02	0.02	0.31	Linearity Error (dB)
			0.55	0.44	0.14	0.40	0.55	0.22	0.59	0.76	0.51	0.74	0.92	0.60	0.87	0.92	0.92	Accuracy Error (dB)
6 GHz	Intercept (mV)	4851	288	627	954	1318	1677	2003	2380	2745	3075	3445	3805	4133	4498	4850	Measured Value (mV)	
	Slope (mV/dB)	70.64	29	15	-12	-1	5	-22	2	13	-10	7	14	-11	1	-1	Error (mV)	
			0.41	0.21	-0.16	-0.01	0.07	-0.31	0.02	0.19	-0.14	0.10	0.20	-0.16	0.01	-0.01	0.41	Linearity Error (dB)
			0.33	0.19	-0.11	0.11	0.26	-0.06	0.35	0.58	0.32	0.63	0.79	0.50	0.74	0.79	0.79	Accuracy Error (dB)
7 GHz	Intercept (mV)	4831	291	629	959	1322	1681	2006	2376	2736	3062	3430	3785	4117	4493	4829	Measured Value (mV)	
	Slope (mV/dB)	70.22	24	10	-11	1	9	-17	2	11	-14	3	7	-12	13	-2	Error (mV)	
			0.34	0.15	-0.15	0.02	0.13	-0.24	0.03	0.16	-0.20	0.04	0.10	-0.18	0.18	-0.04	0.34	Linearity Error (dB)
			0.37	0.22	-0.04	0.17	0.32	-0.02	0.29	0.45	0.13	0.41	0.51	0.27	0.66	0.49	0.66	Accuracy Error (dB)
8 GHz	Intercept (mV)	4819	301	636	965	1330	1686	2008	2375	2729	3055	3425	3786	4107	4464	4831	Measured Value (mV)	
	Slope (mV/dB)	69.88	24	9	-11	5	11	-16	2	6	-17	3	15	-13	-6	12	Error (mV)	
			0.34	0.13	-0.16	0.07	0.16	-0.23	0.02	0.09	-0.25	0.05	0.21	-0.19	-0.08	0.17	0.34	Linearity Error (dB)
			0.52	0.32	0.04	0.28	0.39	0.01	0.27	0.35	0.03	0.34	0.52	0.13	0.25	0.51	0.52	Accuracy Error (dB)
9 GHz	Intercept (mV)	4826	268	597	927	1293	1651	1979	2356	2729	3056	3424	3781	4111	4471	4816	Measured Value (mV)	
	Slope (mV/dB)	70.64	34	9	-14	-1	4	-22	2	22	-4	11	14	-9	-2	-10	Error (mV)	
			0.47	0.13	-0.20	-0.02	0.05	-0.31	0.03	0.31	-0.06	0.15	0.20	-0.13	-0.03	-0.15	0.47	Linearity Error (dB)
			0.04	-0.24	-0.50	-0.25	-0.11	-0.41	0.00	0.35	0.05	0.33	0.45	0.18	0.35	0.30	0.50	Accuracy Error (dB)
10 GHz	Intercept (mV)	4789	257	584	910	1279	1631	1957	2328	2697	3022	3390	3740	4076	4437	4793	Measured Value (mV)	
	Slope (mV/dB)	70.29	37	12	-13	4	5	-20	-1	17	-10	7	5	-10	-1	4	Error (mV)	
			0.52	0.18	-0.19	0.06	0.07	-0.29	-0.01	0.24	-0.14	0.10	0.08	-0.14	-0.01	0.06	0.52	Linearity Error (dB)
			-0.11	-0.42	-0.75	-0.45	-0.40	-0.72	-0.40	-0.10	-0.44	-0.16	-0.14	-0.32	-0.14	-0.03	0.75	Accuracy Error (dB)
11 GHz	Intercept (mV)	4760	288	631	960	1314	1667	1986	2339	2696	3019	3387	3734	4064	4411	4770	Measured Value (mV)	
	Slope (mV/dB)	68.98	12	10	-6	3	11	-15	-7	5	-17	7	9	-6	-4	10	Error (mV)	
			0.17	0.14	-0.09	0.04	0.16	-0.21	-0.10	0.08	-0.24	0.10	0.13	-0.09	-0.06	0.14	0.24	Linearity Error (dB)
			0.33	0.25	-0.03	0.05	0.12	-0.31	-0.24	-0.12	-0.48	-0.20	-0.23	-0.49	-0.51	-0.36	0.51	Accuracy Error (dB)
12 GHz	Intercept (mV)	4766	271	603	929	1298	1648	1969	2320	2666	2990	3364	3718	4059	4425	4803	Measured Value (mV)	
	Slope (mV/dB)	69.66	33	17	-6	15	17	-11	-8	-10	-35	-9	-3	-11	7	37	Error (mV)	
			0.47	0.24	-0.08	0.21	0.24	-0.15	-0.11	-0.15	-0.50	-0.13	-0.05	-0.15	0.10	0.53	0.53	Linearity Error (dB)
			0.09	-0.15	-0.47	-0.18	-0.16	-0.55	-0.51	-0.55	-0.90	-0.53	-0.46	-0.56	-0.31	0.11	0.90	Accuracy Error (dB)
13 GHz	Intercept (mV)	4723	326	665	995	1356	1704	2017	2347	2660	2980	3360	3705	4040	4396	4759	Measured Value (mV)	
	Slope (mV/dB)	67.72	5	6	-3	19	29	3	-5	-31	-50	-8	-2	-6	12	36	Error (mV)	
			0.08	0.08	-0.04	0.29	0.42	0.05	-0.08	-0.46	-0.73	-0.12	-0.03	-0.08	0.18	0.54	0.73	Linearity Error (dB)
			0.88	0.74	0.47	0.65	0.65	0.14	-0.13	-0.64	-1.04	-0.59	-0.64	-0.84	-0.73	-0.52	1.04	Accuracy Error (dB)
14 GHz	Intercept (mV)	4751	330	674	1010	1360	1707	2027	2360	2689	3010	3379	3730	4077	4426	4768	Measured Value (mV)	
	Slope (mV/dB)	68.06	3	7	3	12	19	-1	-9	-20	-39	-11	0	7	15	17	Error (mV)	
			0.05	0.10	0.04	0.18	0.28	-0.02	-0.13	-0.29	-0.58	-0.16	0.00	0.10	0.23	0.25	0.58	Linearity Error (dB)
			0.93	0.87	0.69	0.71	0.69	0.28	0.06	-0.22	-0.61	-0.32	-0.28	-0.30	-0.30	-0.39	0.93	Accuracy Error (dB)
15 GHz	Intercept (mV)	4722	349	698	1034	1385	1729	2044	2358	2663	2984	3362	3709	4040	4400	4777	Measured Value (mV)	
	Slope (mV/dB)	67.17	-6	7	7	22	30	9	-13	-43	-58	-16	-5	-10	14	55	Error (mV)	
			-0.10	0.10	0.10	0.33	0.45	0.14	-0.19	-0.65	-0.87	-0.24	-0.07	-0.15	0.21	0.83	0.87	Linearity Error (dB)
			1.21	1.21	1.03	1.07	1.01	0.53	0.03	-0.59	-0.99	-0.56	-0.58	-0.84	-0.67	-0.26	1.21	Accuracy Error (dB)
16 GHz	Intercept (mV)	4813	315	660	988	1346	1698	2018	2371	2719	3044	3410	3765	4105	4482	4845	Measured Value (mV)	
	Slope (mV/dB)	69.53	22	19	-1	10	14	-14	-8	-8	-31	-12	-5	-13	17	32	Error (mV)	
			0.31	0.27	-0.01	0.14	0.20	-0.20	-0.12	-0.12	-0.44	-0.18	-0.07	-0.18	0.24	0.46	0.46	Linearity Error (dB)
			0.72	0.67	0.37	0.51	0.56	0.15	0.22	0.21	-0.13	0.13	0.22	0.10	0.51	0.72	0.72	Accuracy Error (dB)
17 GHz	Intercept (mV)	4840	249	567	892	1256	1609	1943	2325	2724	3060	3423	3781	4114	4478	4829	Measured Value (mV)	
	Slope (mV/dB)	71.59	62	22	-11	-5	-10	-34	-9	32	10	15	15	-10	-4	-11	Error (mV)	
			0.87	0.31	-0.15	-0.06	-0.13	-0.47	-0.13	0.44	0.14	0.21	0.21	-0.14	-0.06	-0.15	0.87	Linearity Error (dB)
			-0.23	-0.67	-1.00	-0.78	-0.72	-0.92	-0.44	0.28	0.10	0.31	0.45	0.23	0.45	0.49	1.00	Accuracy Error (dB)
18 GHz	Intercept (mV)	4726	272	597	923	1289	1634	1944	2282	2634	2964	3329	3684	4034	4398	4757	Measured Value (mV)	
	Slope (mV/dB)	69.14	40	20	0	20	20	-16	-24	-17	-33	-14	-5	0	18	31	Error (mV)	
			0.58	0.29	0.00	0.29	0.28	-0.23	-0.34	-0.25	-0.48	-0.20	-0.07	0.00	0.26	0.45	0.58	Linearity Error (dB)
			0.10	-0.24	-0.56	-0.31	-0.36	-0.91	-1.06	-1.01	-1.27	-1.04	-0.94	-0.92	-0.70	-0.55	1.27	Accuracy Error (dB)

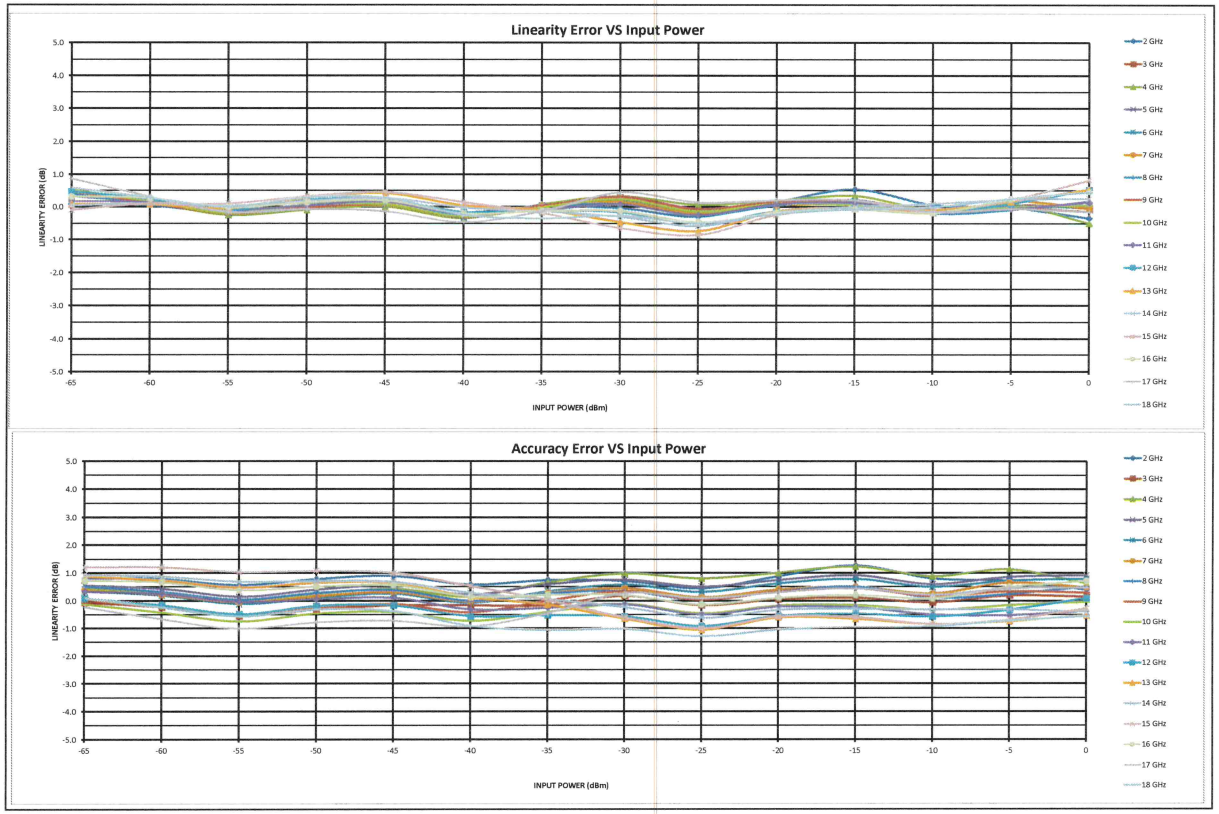
Output Vos: 57.0 mV

Avg Slope:	69.7 mV/dB
Max Slope:	71.6 mv/dB
Min Slope:	67.2 mv/dB

349	698	1034	1385	1729	2048	2408	2773	3109	3472	3839	4160	4526	4859	Max Measured (mV)
249	567	892	1256	1609	1943	2282	2634	2964	3329	3684	4034	4396	4757	Min Measured (mV)
0.72	0.94	1.02	0.93	0.86	0.75	0.90	1.00	1.04	1.03	1.11	0.90	0.93	0.73	Flatness Error (+/-dB)

PL 44912

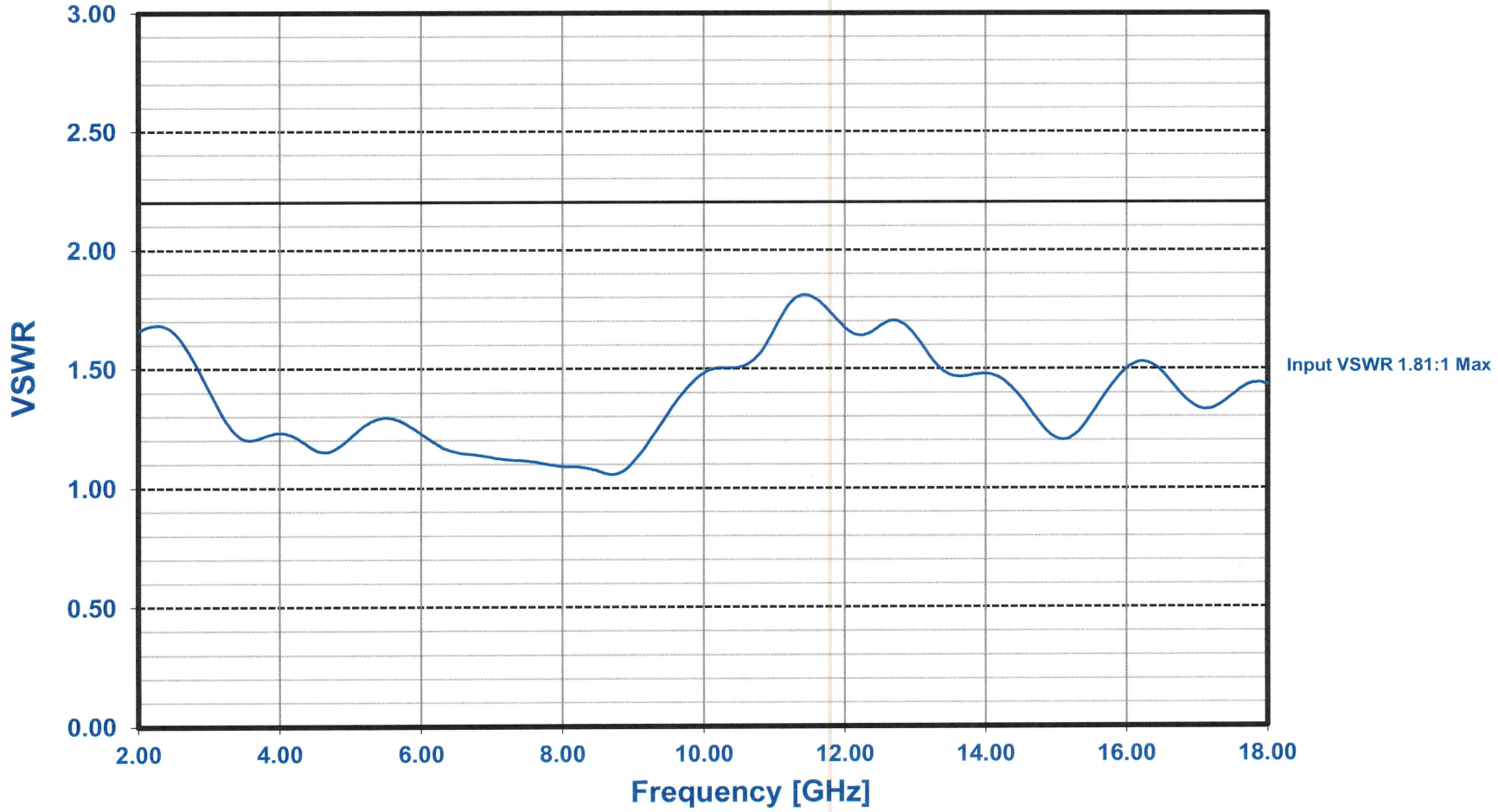
+70°C


Linearity Error VS Input Power
LINEARITY ERROR (dB)
INPUT POWER (dBm)
2 GHz
3 GHz
4 GHz
5 GHz
6 GHz
7 GHz
8 GHz
9 GHz
10 GHz
11 GHz
12 GHz
13 GHz
14 GHz
15 GHz
16 GHz
17 GHz
18 GHz
Accuracy Error VS Input Power
LINEARITY ERROR (dB)
INPUT POWER (dBm)

Model Number: ERDLVA-2G18G-65-70MV-70C
Serial Number: PL44912
Date: 10/18/2024

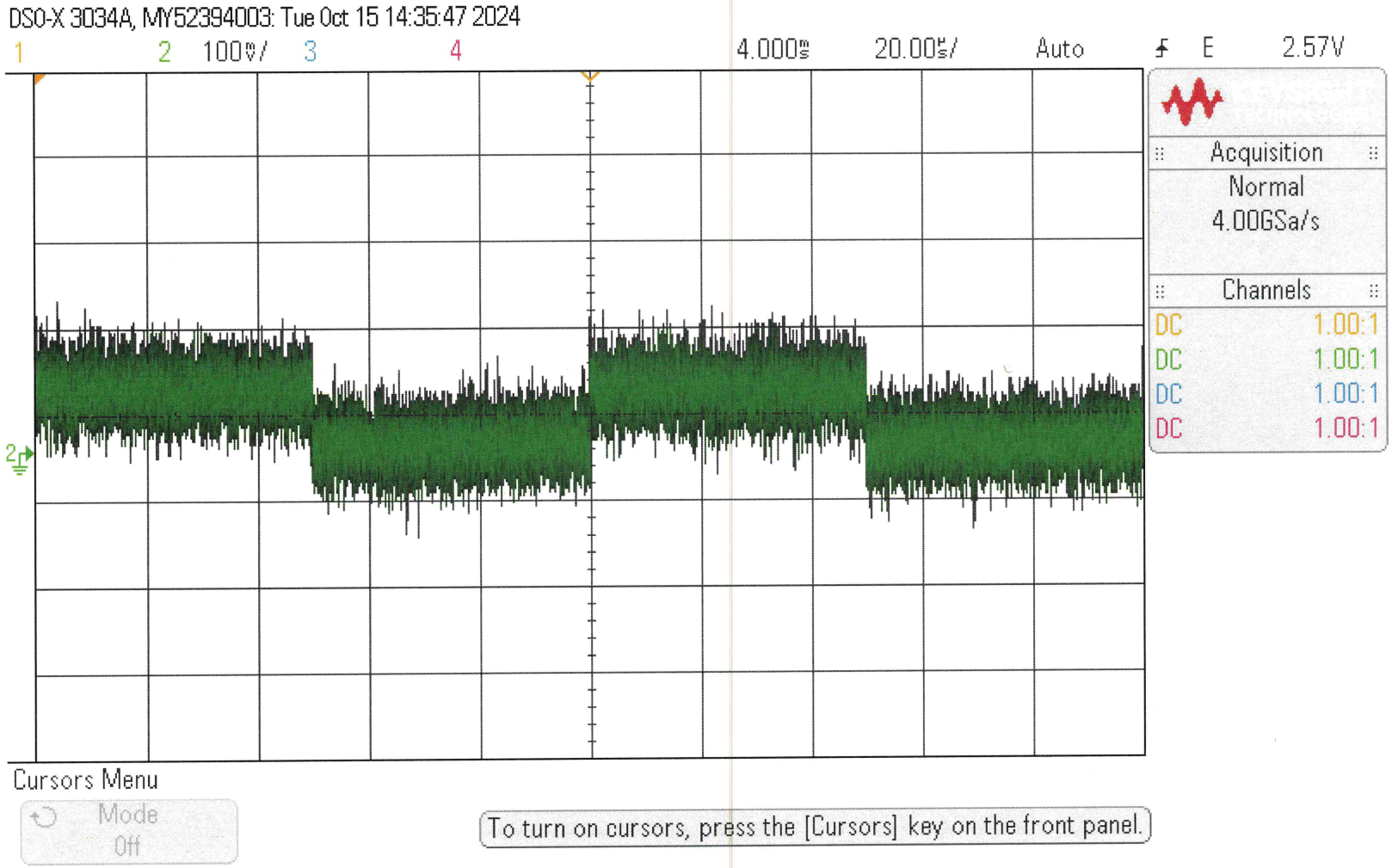
Temperature: +25C

VSWR GRAPH

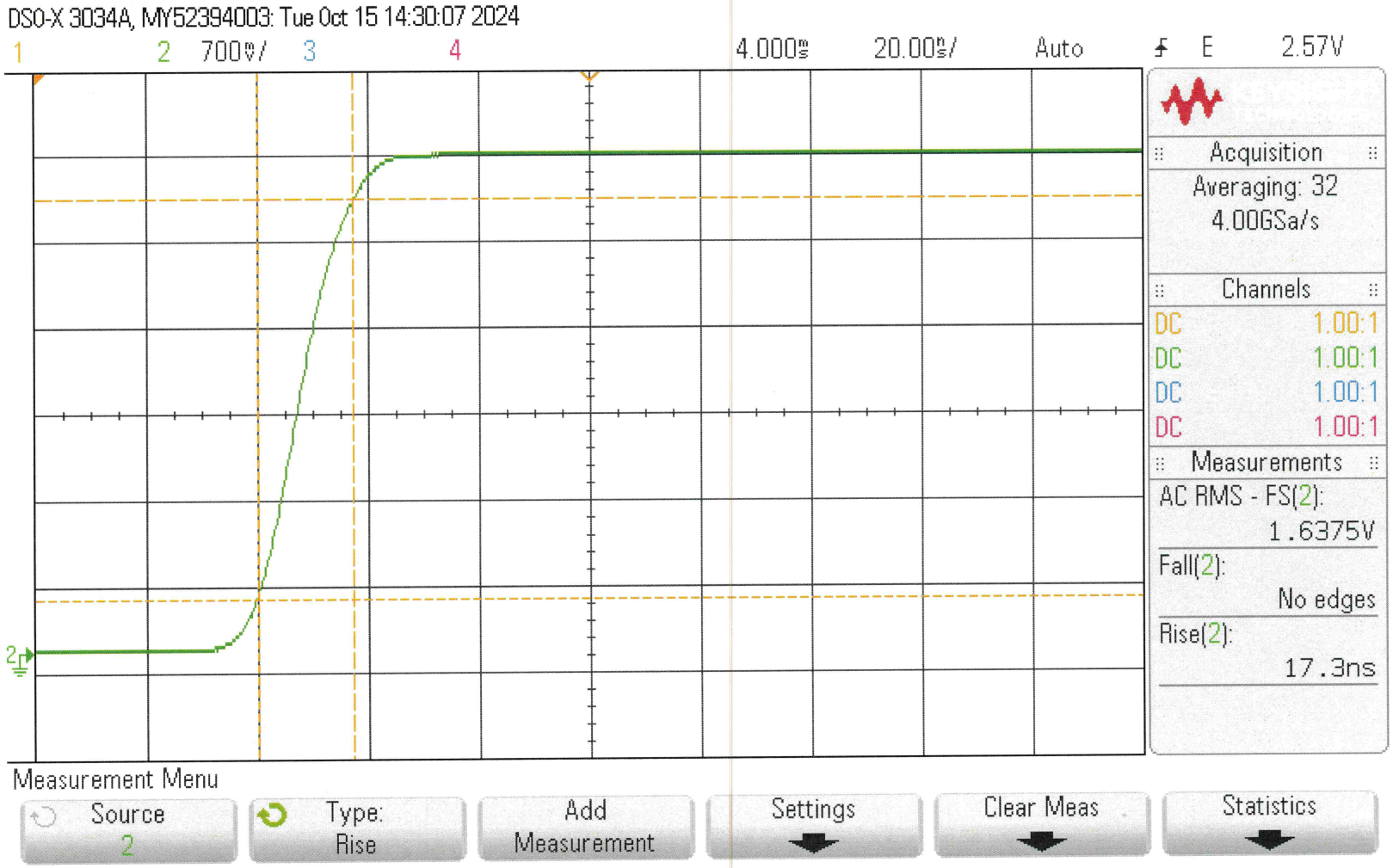


PL44912

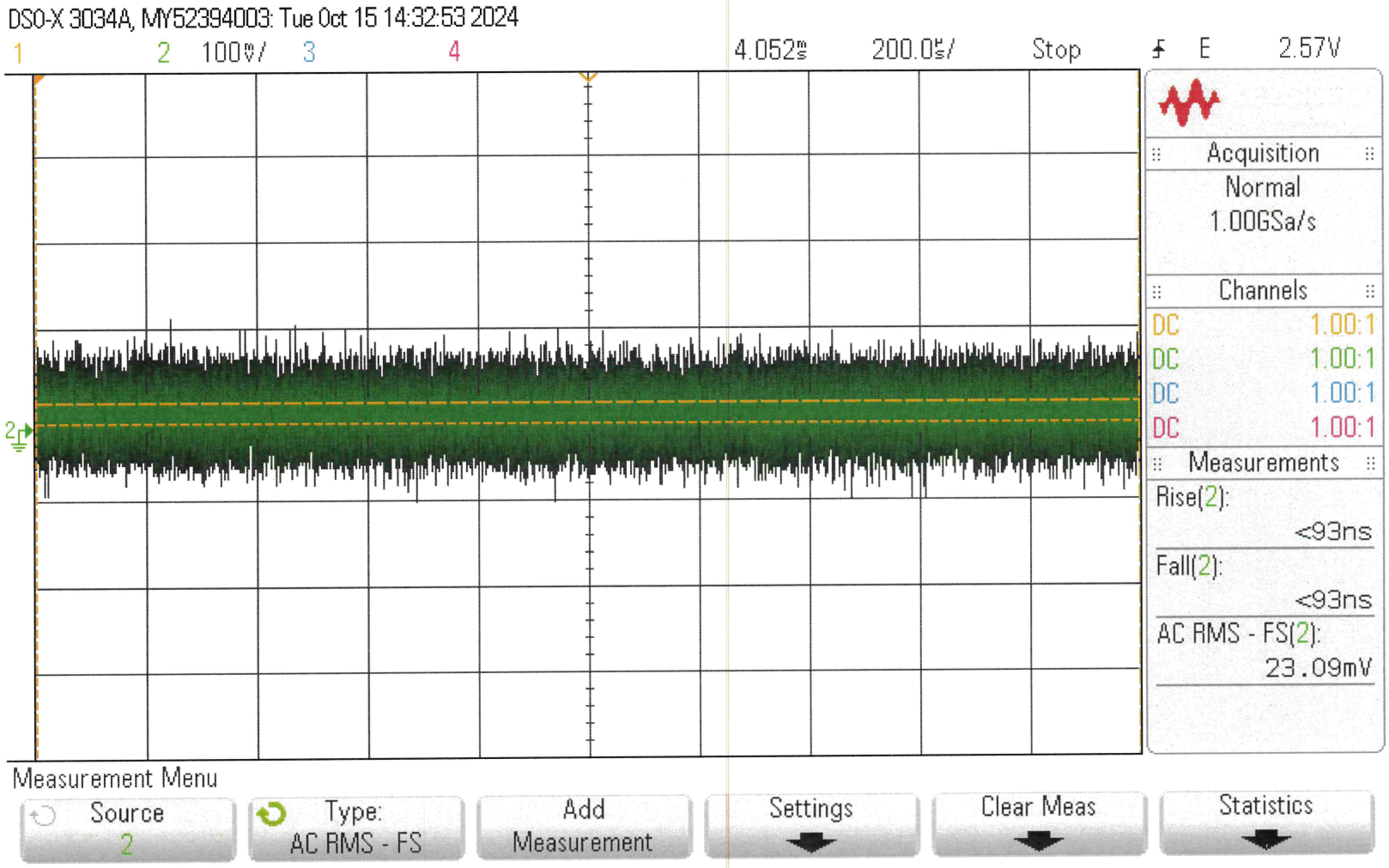
TSS -71dbm



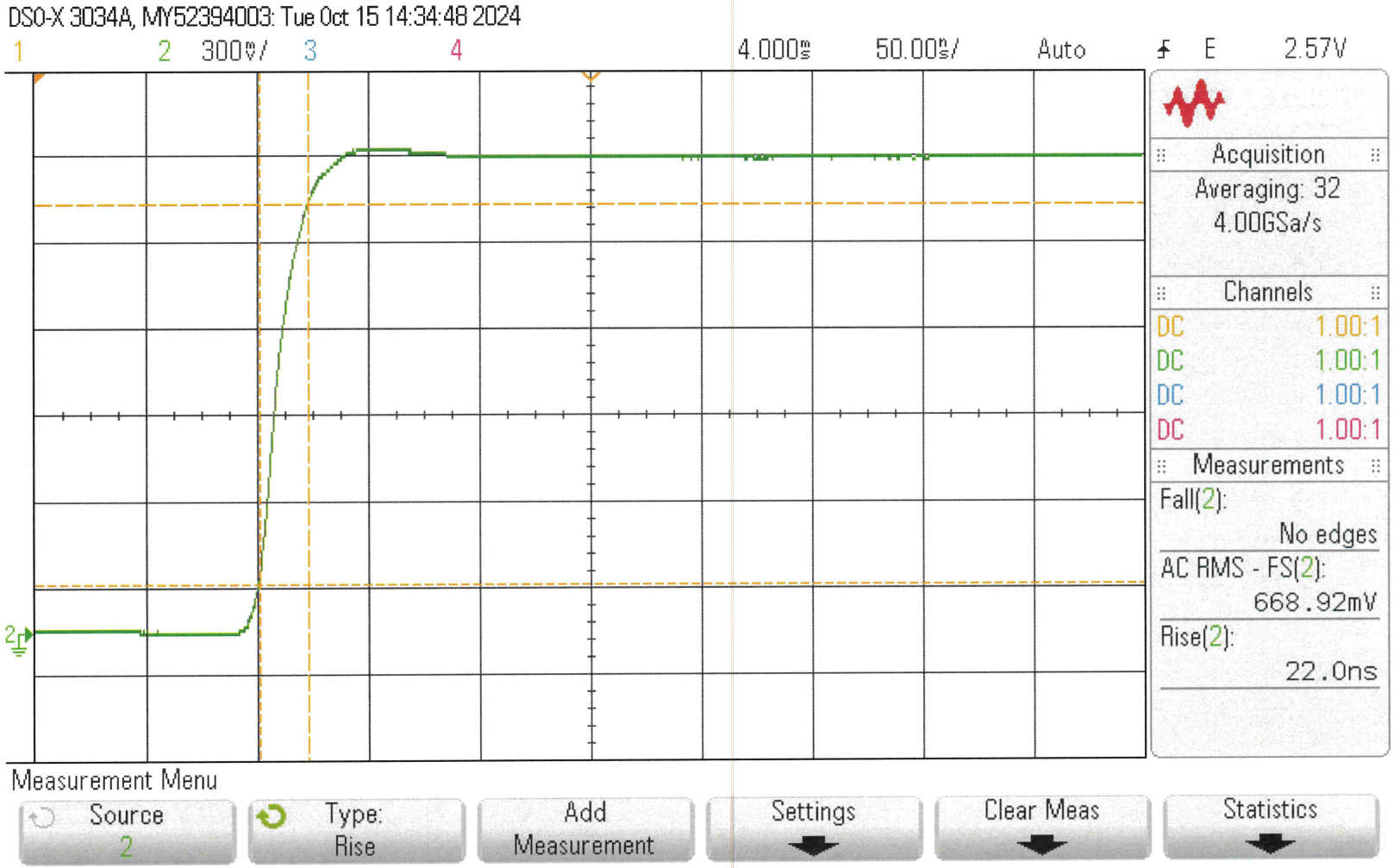
PL44912
Settle



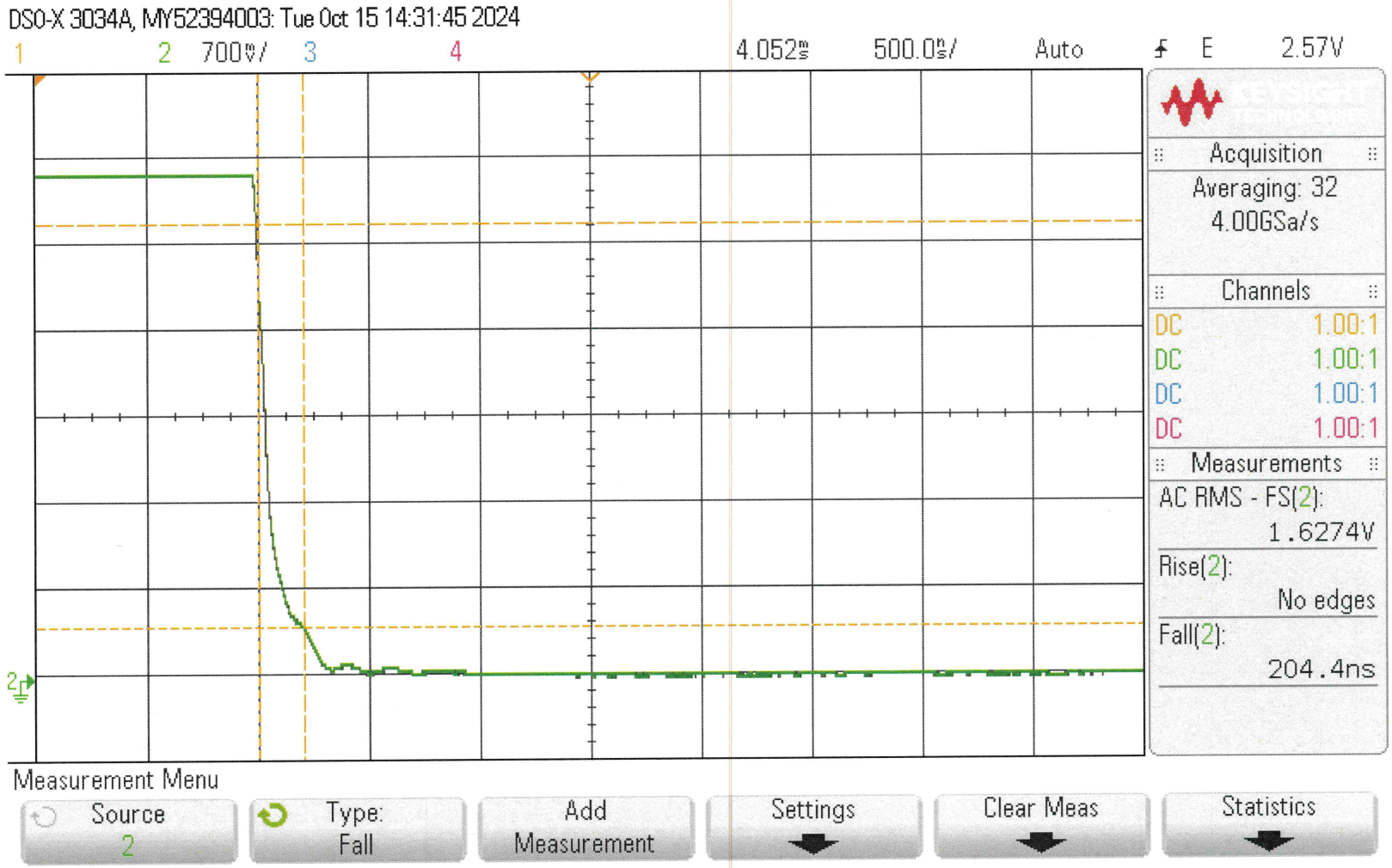
PL44912
RMS Noise



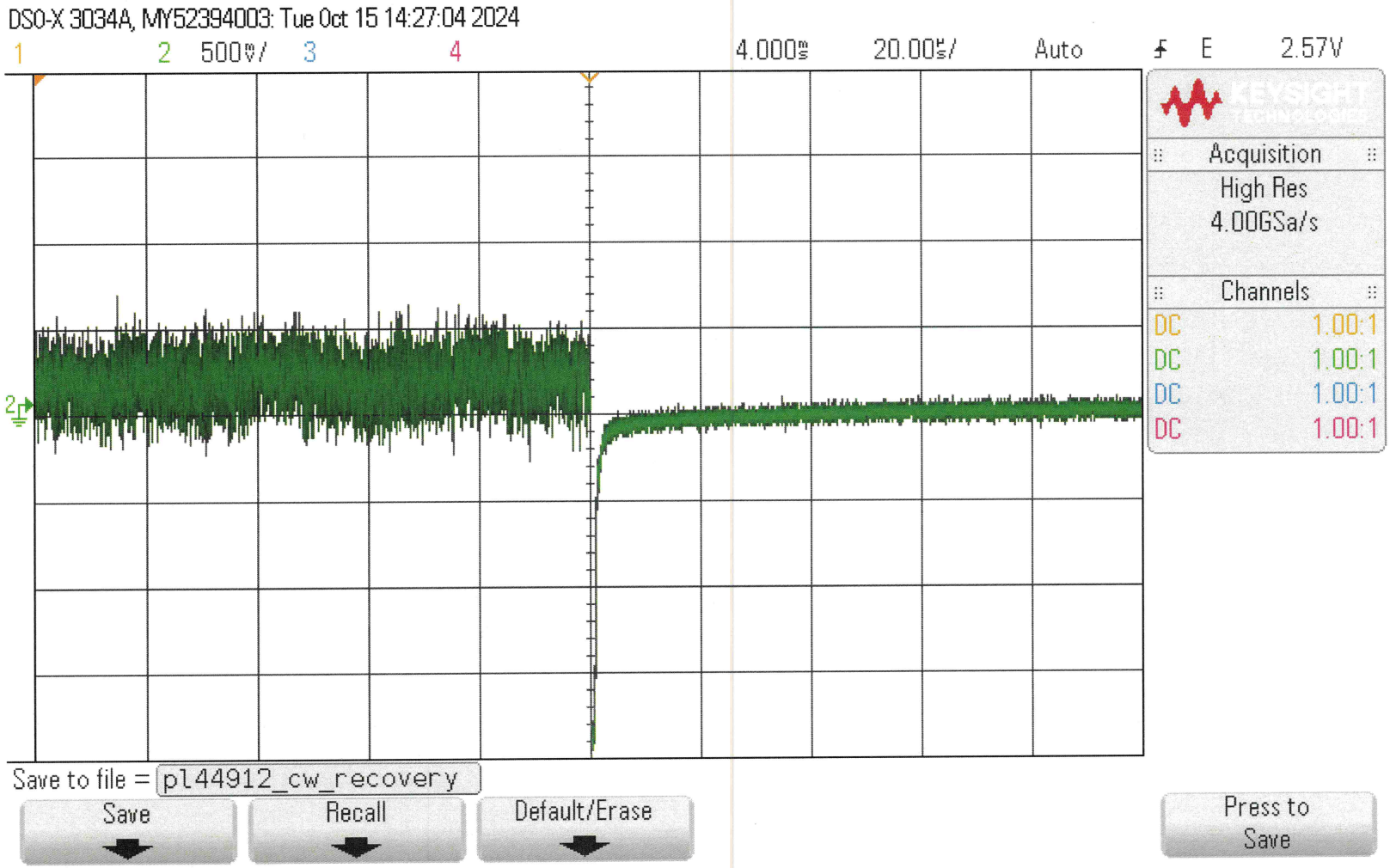
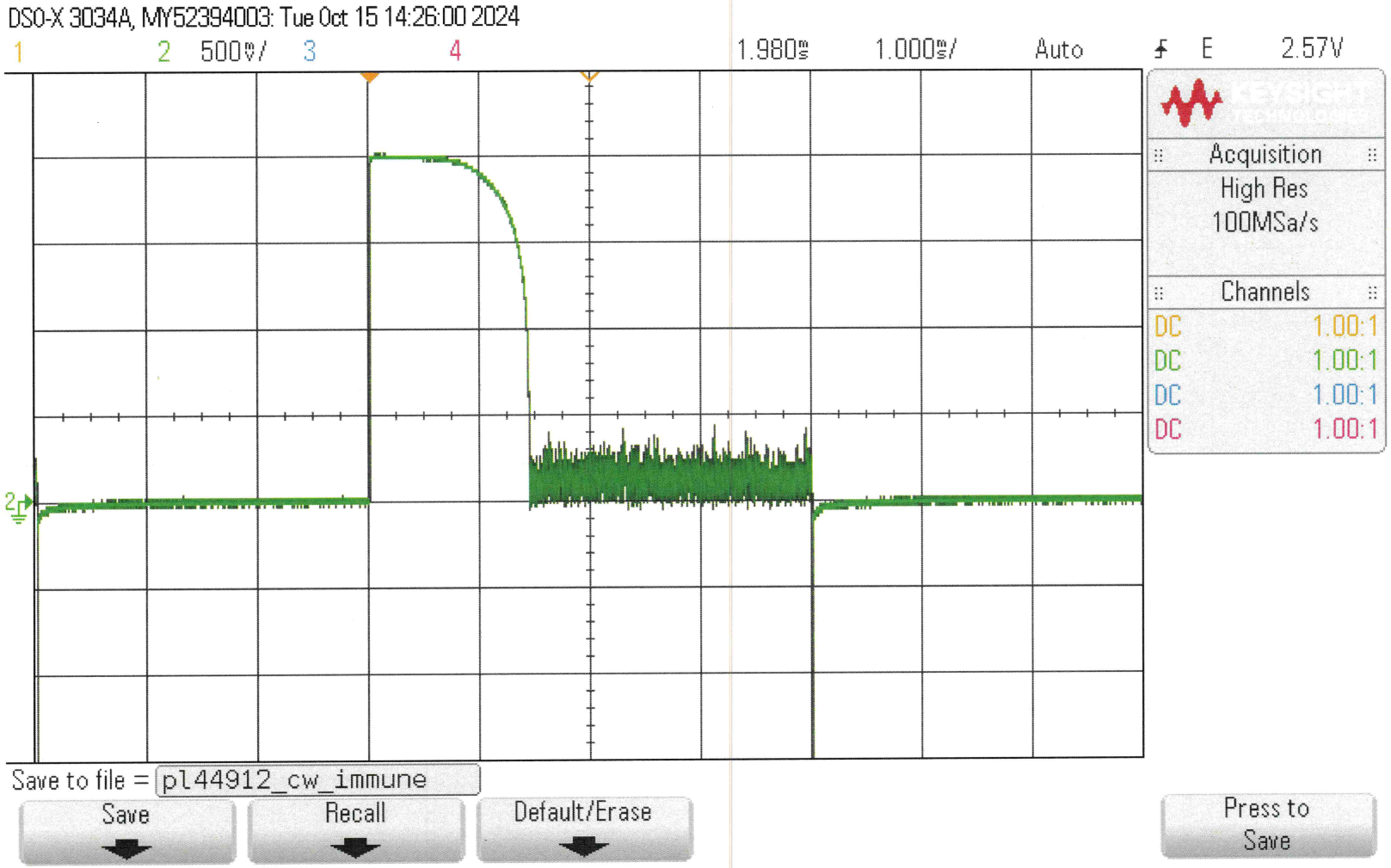
PL44912
Rise Time @-45dbm



PL44912
Recovery Fall



PL44912
CW Recovery



PL44912
cw Immune