



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

Customer: _____
 SO No: _____
 Model No: ERDLVA-2G18G-65-70MV-70C
 Serial No: PL44914/2443

Tested By: Jim Hopson
 Temperature: -40C TO +70C
 Date 10/18/2024
 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	2.11:1 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	71.5/68.1 mv/db	
7	VIDEO OUT Log Linearity:	±1.0 dB MAX @25C	.55/- .70 db	
8	VIDEO OUT Log Accuracy:	±2.3 dB MAX @25C	1.08/-1.15 db	
9	VIDEO OUT Absolute Log Accuracy:	±2.9 dB MAX Over Freq & temp	1.20/-1.51 db	
10	VIDEO OUT DC Offset:	0 ±70 mV (RF Input Terminated & DC Power On) @25C	22 mV	
11	VIDEO OUT Rise Time (10% to 90%):	28 ns MAX	24.3 ns	
12	VIDEO OUT Fall Time (90% to 10%):	300 ns MAX	166.3 ns	
13	VIDEO OUT Settling Time:	50 ns With in ±70 mV of final value @-10 dBm	40ns	



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ERDLVA-2G18G-65-70MV-70C

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	±1.04 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	1.6 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	142 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

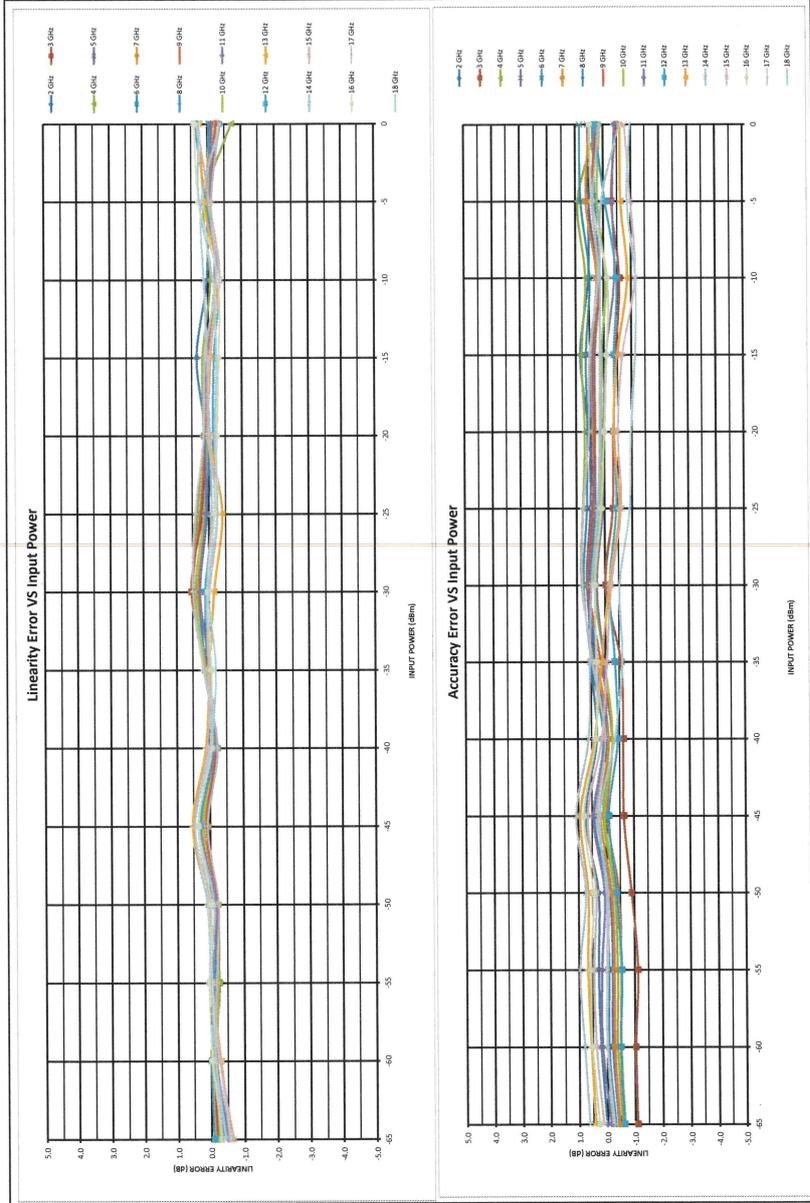


LOG TRANSFER VS. FREQUENCY
 Model: ERLVA-218-65-70MV-70
 Tested By: Jim Hopson
 Date: 10-18-24, PL44914
 Serial Number: 4255C
 Test Temp: 25°C

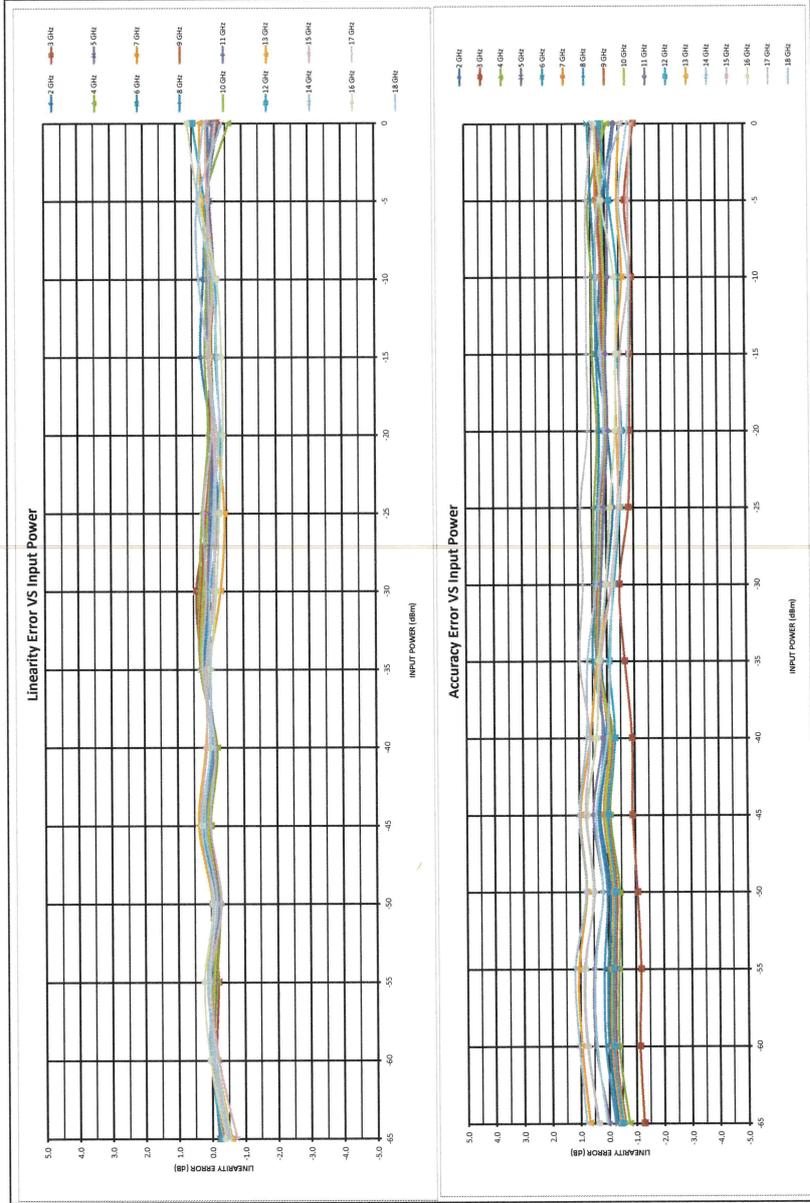
Frequency	Intercept (mV)	Slope (mV/dB)	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
2 GHz	4924	70.28	331	696	1052	1402	1784	2105	2470	2824	3161	3495	3824	4224	4572	4887
			-25	-11	-7	-8	22	-8	6	-6	5	25	3	-1	-1	-27
			-0.36	-0.10	-0.10	-0.12	0.32	-0.11	0.08	0.12	-0.09	0.08	0.35	0.04	-0.01	-0.39
			0.01	0.22	0.30	0.29	0.74	0.32	0.57	0.38	0.55	0.84	0.54	0.50	0.14	0.14
3 GHz	4872	70.33	254	609	983	1319	1688	2027	2384	2783	3114	3463	3906	4146	4517	4855
			-7	-16	-16	-10	8	-8	36	15	10	-2	-17	-1	-17	
			-0.14	-0.06	-0.06	0.1	-0.11	0.06	0.55	0.21	0.13	-0.03	-0.24	-0.01	-0.24	
			-1.08	-1.02	-1.11	-0.89	-0.63	-0.63	-0.56	-0.02	-0.29	-0.32	-0.42	-0.58	-0.28	-0.46
4 GHz	4951	71.48	292	654	1004	1362	1740	2077	2463	2843	3189	3524	3922	4232	4601	4901
			-13	-9	-16	-16	5	-15	13	36	25	12	13	-5	7	-50
			-0.19	-0.12	-0.23	-0.22	0.07	-0.21	0.19	0.50	0.34	0.17	0.18	0.06	0.10	0.19
			-0.54	-0.38	-0.39	-0.28	0.11	-0.08	0.42	0.84	0.78	0.70	0.80	0.99	0.81	0.19
5 GHz	4833	70.97	301	667	1017	1374	1755	2083	2459	2830	3170	3516	3869	4204	4574	4927
			-26	-10	-17	-0.14	0.23	-0.15	0.15	0.37	0.16	0.04	0.01	-0.27	-0.05	-0.08
			-0.26	-0.10	-0.17	-0.14	0.23	0.00	0.36	0.66	0.50	0.44	0.47	0.27	0.53	0.56
			-0.41	-0.19	-0.20	-0.11	0.32	0.00	0.36	0.66	0.50	0.44	0.47	0.27	0.53	0.56
6 GHz	4850	71.16	309	677	1028	1381	1762	2089	2489	2838	3179	3527	3881	4221	4584	4947
			-15	-3	-8	-11	15	-14	10	23	8	0	0	-0.02	-0.24	0.00
			-0.22	-0.04	-0.11	-0.15	0.20	-0.20	0.14	0.53	0.2	0.01	-0.02	-0.24	0.00	-0.04
			-0.30	-0.05	-0.05	-0.01	0.42	0.09	0.81	0.77	0.63	0.60	0.64	0.49	0.81	0.85
7 GHz	4832	71.08	299	662	1012	1369	1747	2077	2453	2824	3162	3512	3866	4204	4581	4922
			-13	-5	-10	-9	14	-12	9	25	7	2	1	-17	5	-10
			-0.18	-0.07	-0.15	-0.12	0.20	-0.16	0.13	0.35	0.10	0.03	0.01	-0.24	0.07	-0.14
			-0.44	-0.26	-0.27	-0.18	0.21	-0.08	0.28	0.57	0.39	0.38	0.43	0.25	0.63	0.49
8 GHz	4917	70.53	311	676	1026	1384	1762	2087	2457	2821	3158	3509	3863	4195	4558	4914
			-21	-9	-12	-6	19	-8	9	28	1	0	0	0.06	-0.23	-0.08
			-0.30	-0.13	-0.16	-0.09	0.27	-0.02	0.3	0.59	0.07	0.04	0.06	-0.23	-0.08	-0.04
			-0.21	-0.07	-0.07	0.33	0.42	0.08	0.34	0.63	0.33	0.34	0.39	0.12	0.30	0.38
9 GHz	4925	71.18	287	647	995	1351	1730	2067	2445	2825	3164	3508	3859	4197	4585	4907
			-11	-7	-15	-14	9	-10	12	36	19	7	2	-16	-4	-18
			-0.15	-0.09	-0.20	-0.20	0.12	-0.15	0.16	0.50	0.26	0.10	0.03	-0.22	-0.06	-0.25
			-0.81	-0.48	-0.52	-0.44	-0.23	-0.16	0.58	0.62	0.32	0.33	0.15	0.40	0.26	
10 GHz	4907	70.84	285	645	995	1356	1736	2086	2486	2861	3146	3493	3842	4181	4552	4886
			-17	-11	-15	-6	19	-8	9	28	1	0	0	0.06	-0.23	-0.08
			-0.24	-0.16	-0.22	0.42	0.24	-0.10	0.33	0.42	0.15	0.05	-0.03	-0.24	0.00	-0.15
			-0.64	-0.31	-0.52	-0.34	-0.05	-0.24	0.04	0.38	0.16	0.11	0.09	-0.05	0.21	0.12
11 GHz	4867	69.41	321	682	1044	1387	1764	2083	2438	2805	3139	3487	3831	4159	4515	4860
			-35	-11	-6	-10	20	-8	0	20	7	8	5	-14	-5	-7
			-0.50	-0.15	-0.08	-0.14	0.29	-0.11	0.00	0.29	0.10	0.12	0.07	-0.20	-0.07	-0.10
			-0.13	0.16	0.18	0.09	0.45	0.00	0.06	0.30	0.06	0.03	-0.07	-0.39	-0.31	-0.39
12 GHz	4892	70.59	287	646	993	1356	1736	2083	2440	2773	3105	3461	3811	4154	4533	4809
			-6	0	-0.09	0.06	0.30	-0.07	-0.01	0.13	-0.17	-0.12	-0.17	-0.31	0.06	0.39
			-0.69	0.0	-0.09	0.06	0.30	-0.07	-0.01	0.13	-0.17	-0.12	-0.17	-0.31	0.06	0.39
			-0.81	-0.49	-0.54	-0.37	-0.09	-0.43	-0.33	-0.16	-0.42	-0.35	-0.35	-0.46	-0.06	0.31
13 GHz	4827	68.11	360	721	1079	1428	1788	2111	2443	2805	3139	3487	3831	4159	4515	4860
			-39	-19	-1	7	37	9	0	-9	-27	-2	-3	-18	-6	-2
			-0.58	-0.28	-0.02	0.10	0.54	0.13	0.01	-0.13	-0.39	-0.03	-0.04	-0.30	-0.07	-0.10
			-0.43	0.58	0.68	0.66	0.94	0.40	0.14	-0.18	-0.54	-0.33	-0.48	-0.85	-0.61	-0.61
14 GHz	4872	68.63	374	737	1099	1434	1808	2126	2473	2813	3151	3497	3846	4195	4542	4847
			-54	-25	0.02	-0.10	0.35	-0.01	0.04	0.07	-0.04	0.05	-0.04	0.13	0.19	-0.37
			-0.64	-0.25	0.02	-0.10	0.35	-0.01	0.04	0.07	-0.04	0.05	-0.04	0.13	0.19	-0.37
			-0.63	0.80	0.97	0.75	1.08	0.81	0.56	0.48	0.23	0.17	0.15	0.12	0.07	-0.58
15 GHz	4812	68.12	340	708	1064	1408	1779	2093	2430	2769	3092	3451	3789	4107	4469	4834
			-45	-17	-2	32	5	2	0	-17	-27	-2	-3	-18	-6	-2
			-0.66	-0.25	-0.03	0.02	0.47	0.08	0.03	0.1	0.75	0.02	-0.02	-0.35	-0.04	0.32
			-0.14	0.39	0.47	0.37	0.67	0.14	-0.39	-0.21	-0.61	-0.49	-0.67	-1.13	-0.97	-0.76
16 GHz	4894	68.56	350	718	1072	1415	1789	2108	2456	2810	3143	3485	3829	4177	4565	4922
			-22	-2	4	-1	26	-3	3	5	-5	-3	3	9	13	-25
			-0.32	-0.03	0.06	-0.01	0.37	-0.05	-0.04	0.05	-0.17	-0.25	-0.31	-0.30	0.28	0.41
			0.29	0.53	0.58	0.47	0.81	0.36	0.32	0.37	0.12	0.00	-0.10	-0.13	0.40	0.49
17 GHz	4923	70.56	313	680	1050	1378	1754	2084	2466	2841	3188	3523	3872	4201	4563	4897
			-23	-9	-12	-17	7	-6	-16	16	11	11	-23	-10	-10	-37
			-0.33	-0.13	-0.17	-0.24	0.09	0.3	0.18	0.50	0.41	0.16	0.11	-0.23	-0.10	-0.37
			-0.23	-0.01	-0.02	-0.05	0.31	0.02	0.46	0.83	0.76	0.54	0.52	0.21	0.37	0.14
18 GHz	4901	68.54	317	681	1032	1382	1749	2060	2390	2747	3071	3418	3757	4106	4477	4819
			-8	0	7	32	0	-13	2	-17	-13	-16	-10	-18	-18	
			-0.43	-0.12	0.00	0.01	0.46	0.00	0.18	0.02	-0.25	-0.19	-0.24	-0.15	0.27	
			-0.19	0.01	0.01	0.00	0.24	-0.33	-0.62	-0.53	-0.91	-0.95	-1.12	-1.15	-0.66	0.38
Output Vos: 22.0 mV																
Avg Slope: 70.1 mV/dB																
Max Slope: 71.5 mV/dB																
Min Slope: 68.1 mV/dB																
Flatness Error (±): 0.91																

Measured Value (mV)	Linearity Error (dB)	Accuracy Error (dB)
0.39	0.39	0.84
0.55	0.55	1.11
0.70	0.70	0.91
0.85	0.85	0.66
0.91	0.91	0.66
0.96	0.96	0.66
1.11	1.11	0.66
1.33	1.33	0.66
1.41	1.41	0.81
1.50	1.50	0.81
1.55	1.55	1.15
1.61	1.61	0.81
1.66	1.66	0.81
1.88	1.88	0.81
1.98	1.98	0.81
2.06	2.06	0.81
2.13	2.13	0.81
2.18	2.18	0.81
2.26	2.26	0.81
2.37	2.37	0.81
2.41	2.41	0.81
2.46	2.46	0.81
2.58	2.58	0.81
2.63	2.63	0.81
2.66	2.66	0.81
2.72	2.72	0.81
2.77	2.77	0.81
2.82	2.82	0.81
2.87	2.87	0.81
2.92	2.92	0.81</

PL 44914
+ 25°C



PL44914
-40°C



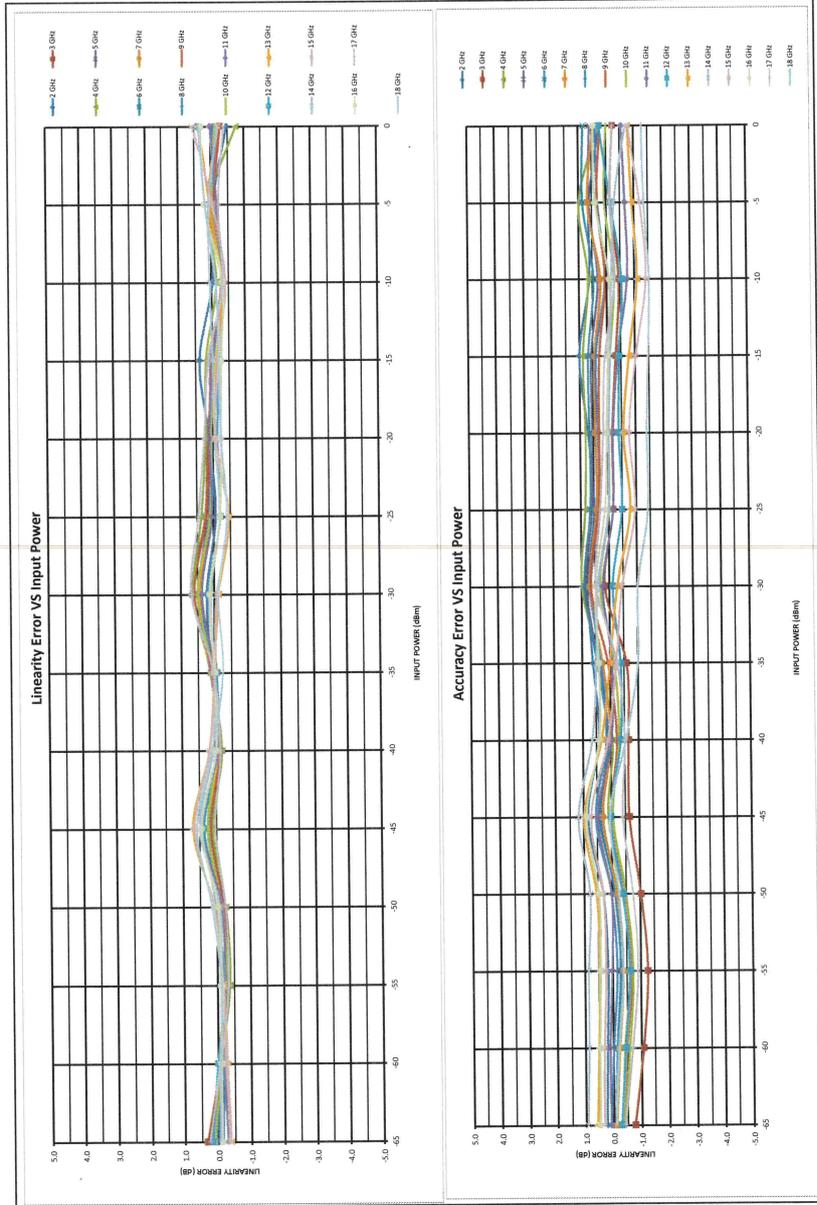


LOG TRANSFER VS. FREQUENCY
 Model: ERDLYA-218-6570M-V70
 Serial Number: PL44914
 Test Temp: +70°C

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	4914	70.31	335	683	1029	1380	1776	2096	2459	2821	3152	3516	3887	4209	4559	4881	0.46	0.46	1.01
3 GHz	4866	71.14	266	593	931	1296	1673	2016	2376	2776	3105	3455	3795	4135	4506	4849	0.66	0.66	1.24
4 GHz	4937	71.56	295	639	975	1341	1725	2062	2442	2836	3175	3522	3878	4212	4555	4884	0.74	0.74	0.99
5 GHz	4918	70.92	313	655	997	1360	1744	2075	2445	2824	3167	3505	3866	4187	4560	4906	0.48	0.48	0.82
6 GHz	4932	71.18	312	658	998	1359	1746	2078	2448	2829	3162	3512	3864	4198	4576	4923	0.46	0.46	0.89
7 GHz	4911	70.92	311	652	991	1354	1739	2067	2436	2816	3146	3497	3847	4182	4563	4897	0.46	0.46	0.71
8 GHz	4895	70.33	323	667	1006	1389	1766	2078	2440	2812	3140	3491	3844	4170	4537	4892	0.39	0.39	0.65
9 GHz	4899	70.99	295	634	971	1337	1717	2051	2422	2812	3141	3488	3836	4170	4539	4880	0.60	0.60	0.97
10 GHz	4873	70.04	282	627	961	1333	1713	2046	2406	2780	3115	3465	3809	4147	4520	4885	0.51	0.51	0.72
11 GHz	4824	68.83	325	676	1019	1369	1751	2065	2412	2793	3105	3454	3790	4115	4469	4827	0.41	0.41	0.73
12 GHz	4854	70.29	289	637	975	1340	1719	2042	2390	2758	3083	3439	3786	4128	4506	4882	0.40	0.40	0.61
13 GHz	4787	67.74	359	704	1050	1406	1766	2090	2417	2747	3063	3428	3762	4090	4452	4812	0.67	0.67	1.08
14 GHz	4830	68.07	383	728	1078	1422	1801	2143	2450	2795	3117	3465	3809	4154	4496	4817	0.50	0.50	0.90
15 GHz	4773	67.77	343	691	1035	1390	1768	2074	2401	2735	3069	3413	3745	4068	4432	4811	0.67	0.67	1.40
16 GHz	4875	69.48	352	701	1048	1400	1760	2096	2445	2801	3126	3470	3815	4160	4543	4887	0.45	0.45	0.90
17 GHz	4876	70.87	289	620	955	1315	1689	2032	2399	2789	3137	3476	3822	4145	4507	4850	0.69	0.69	0.89
18 GHz	4750	68.20	313	654	991	1350	1721	2029	2347	2696	3018	3370	3714	4060	4422	4776	0.59	0.59	1.31
Output Vols:	65.0 mV																		
Avg Slope:	70.3 mV/dB																		
Max Slope:	71.6 mV/dB																		
Min Slope:	67.7 mV/dB																		

Max Measured (mV)
 Min Measured (mV)
 Flatness Error (mV/dB)

PL44914
+ 70°C



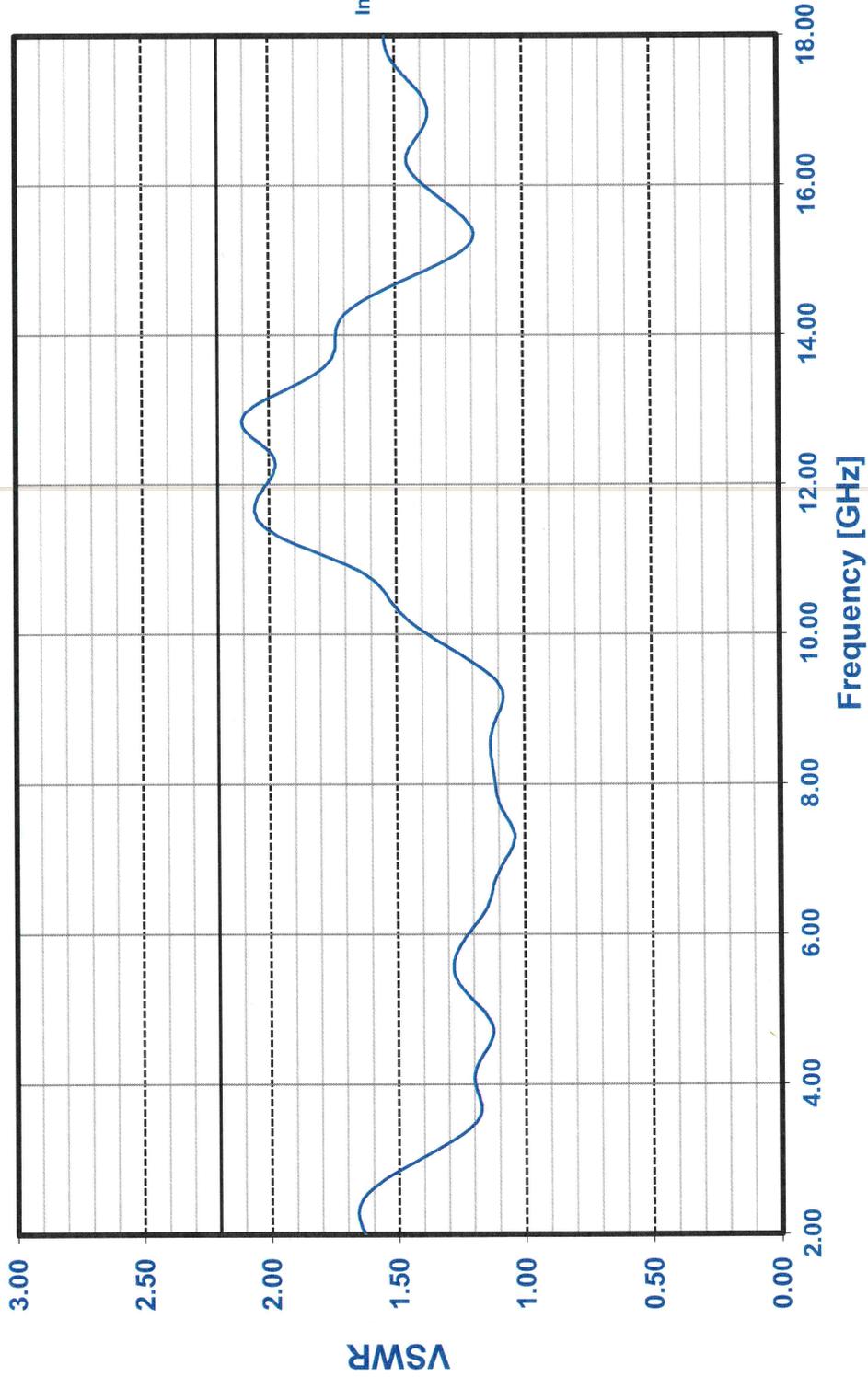
Model Number: ERDLVA-2G18G-65-70MV-70C

Serial Number: PL44914

Date: 10/18/2024

Temperature: +25C

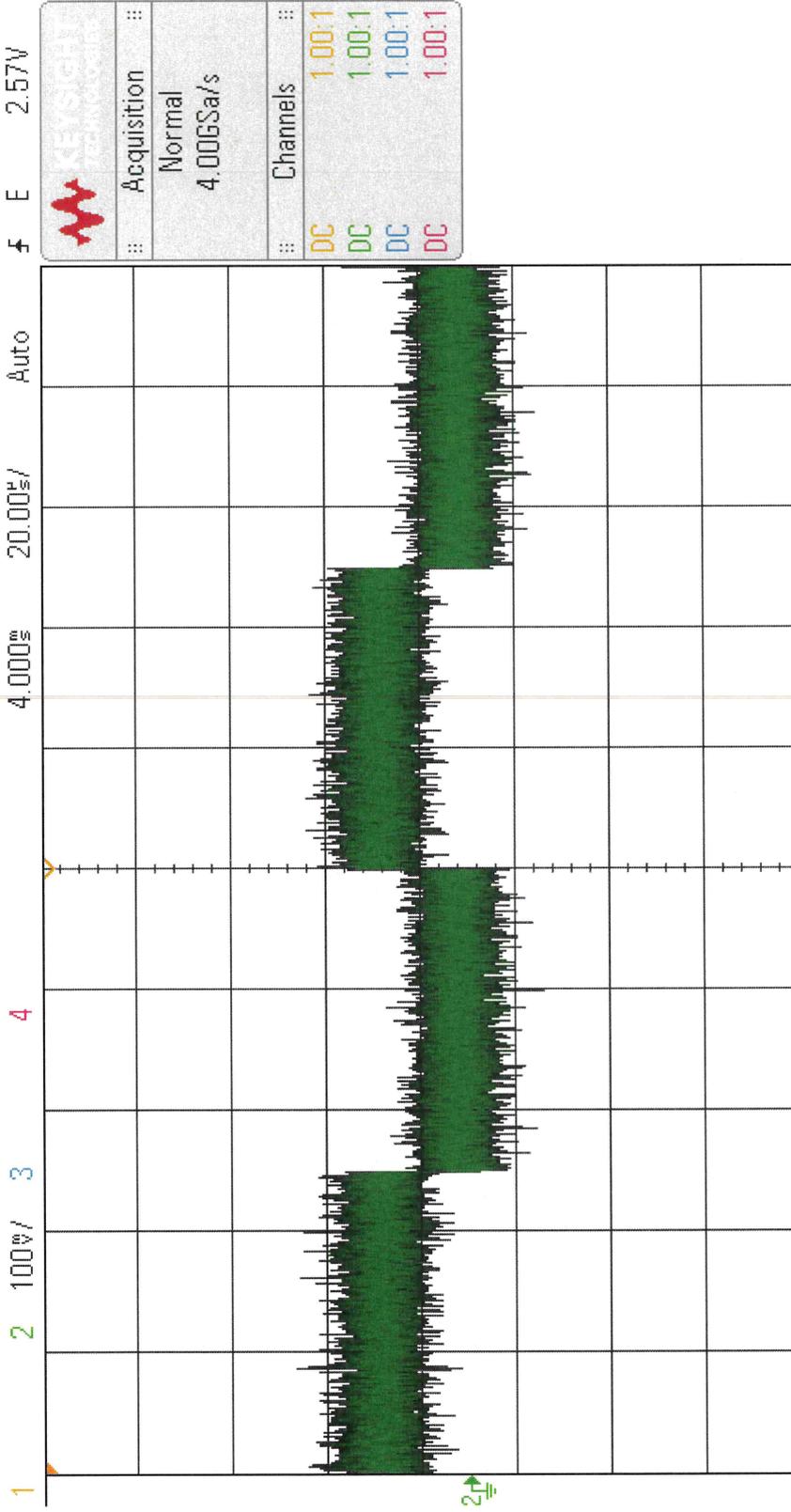
VSWR GRAPH



PL44914

TSS -71dbm

DSO-X 3034A, MY52394003: Tue Oct 15 15:44:57 2024



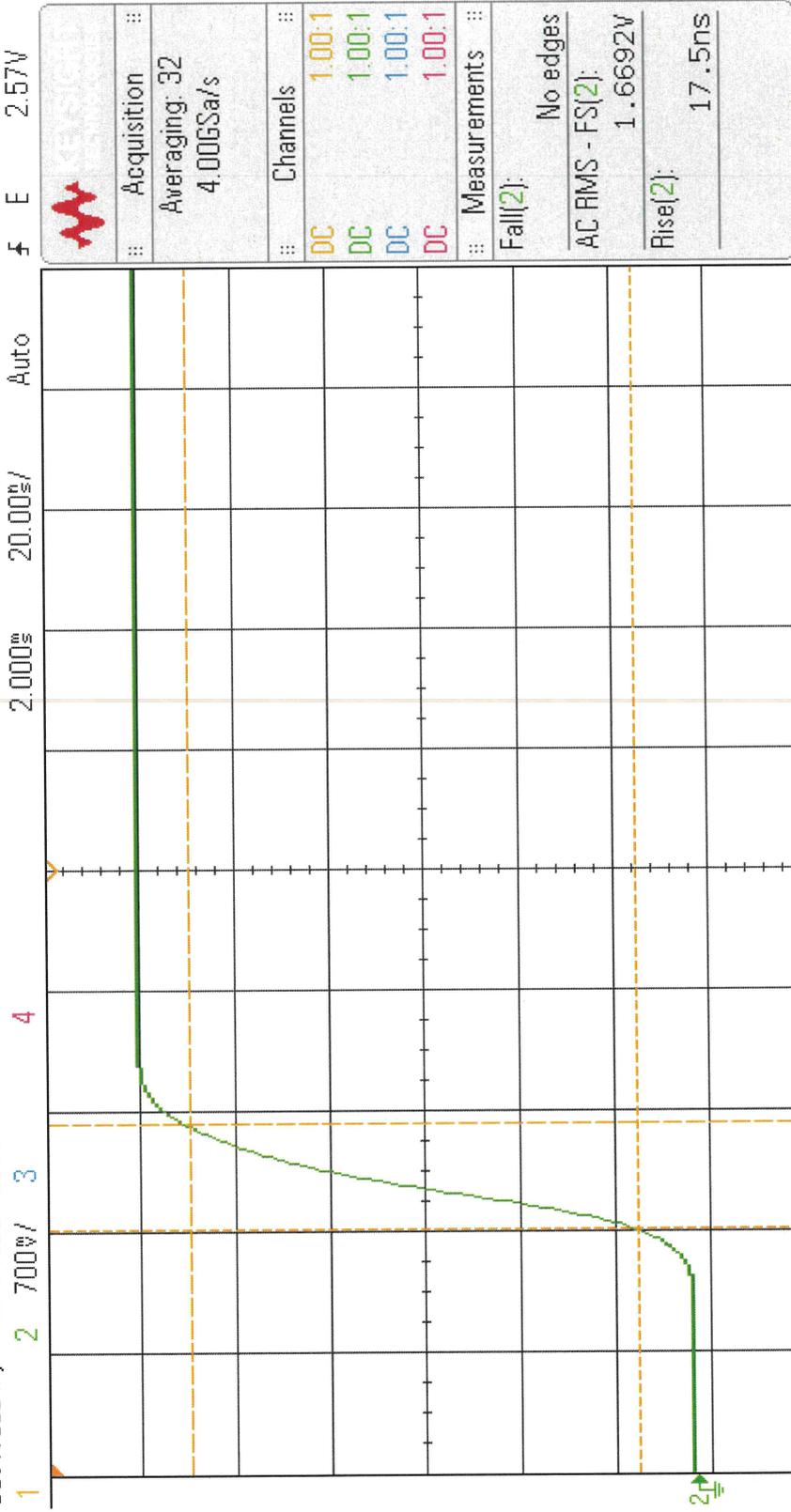
Cursors Menu

Mode Off

To turn on cursors, press the [Cursors] key on the front panel.

PL44914
settle

DSO-X 3034A, MY52394003: Tue Oct 15 15:18:48 2024



Save to file = pl44914_settle

Save →

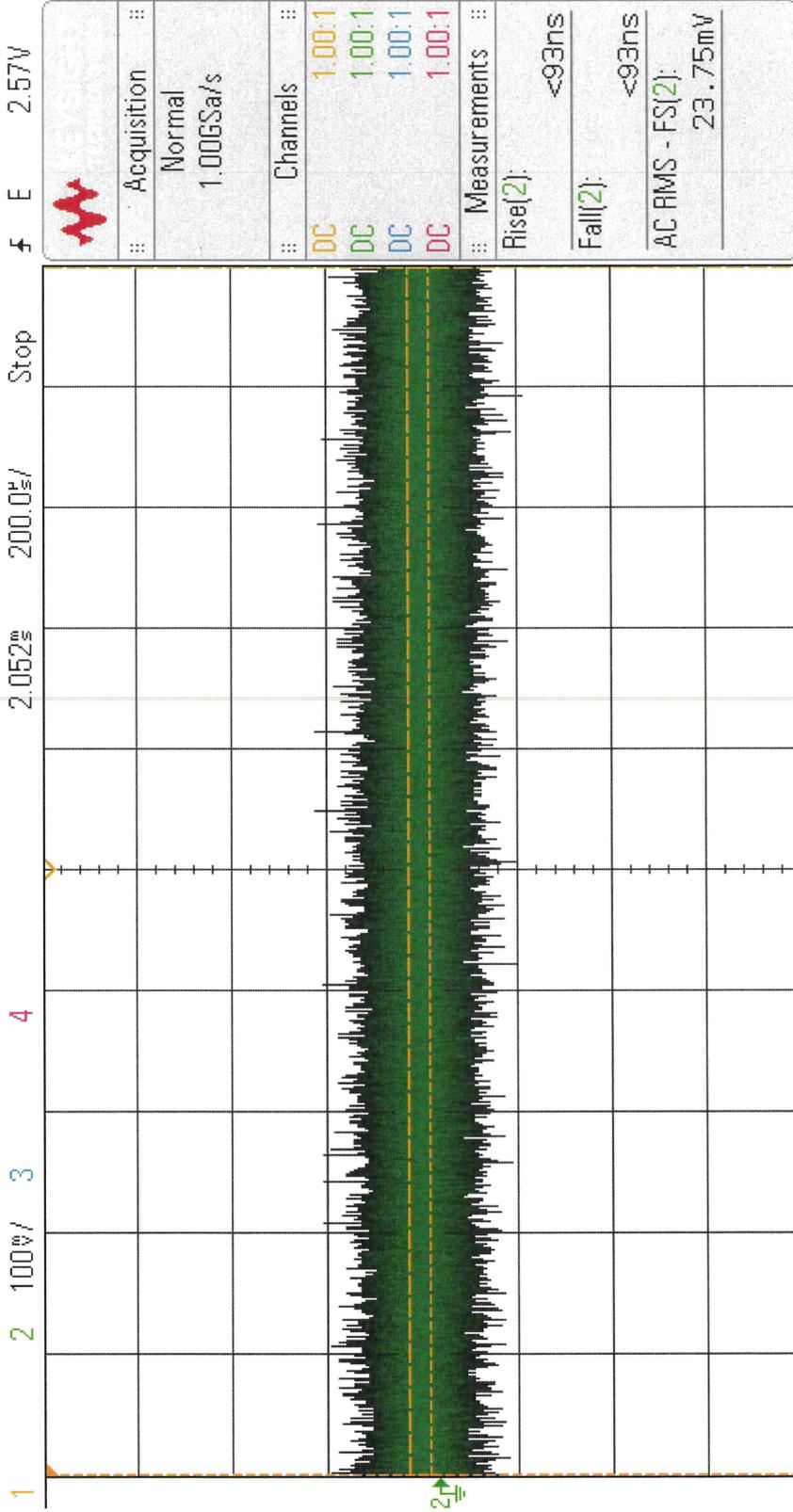
Recall →

Default/Erse →

Press to
Save

PL44914 -
RMS noise

DSO-X 3034A, MY52394003: Tue Oct 15 15:22:02 2024



Acquisition	Normal
Channels	1.00:1
DC	1.00:1
Measurements	
Rise(2)	<93ns
Fall(2)	<93ns
AC RMS - FS(2)	23.75mV

Measurement Menu
Source 2

Type: AC RMS - FS

Add Measurement

Settings

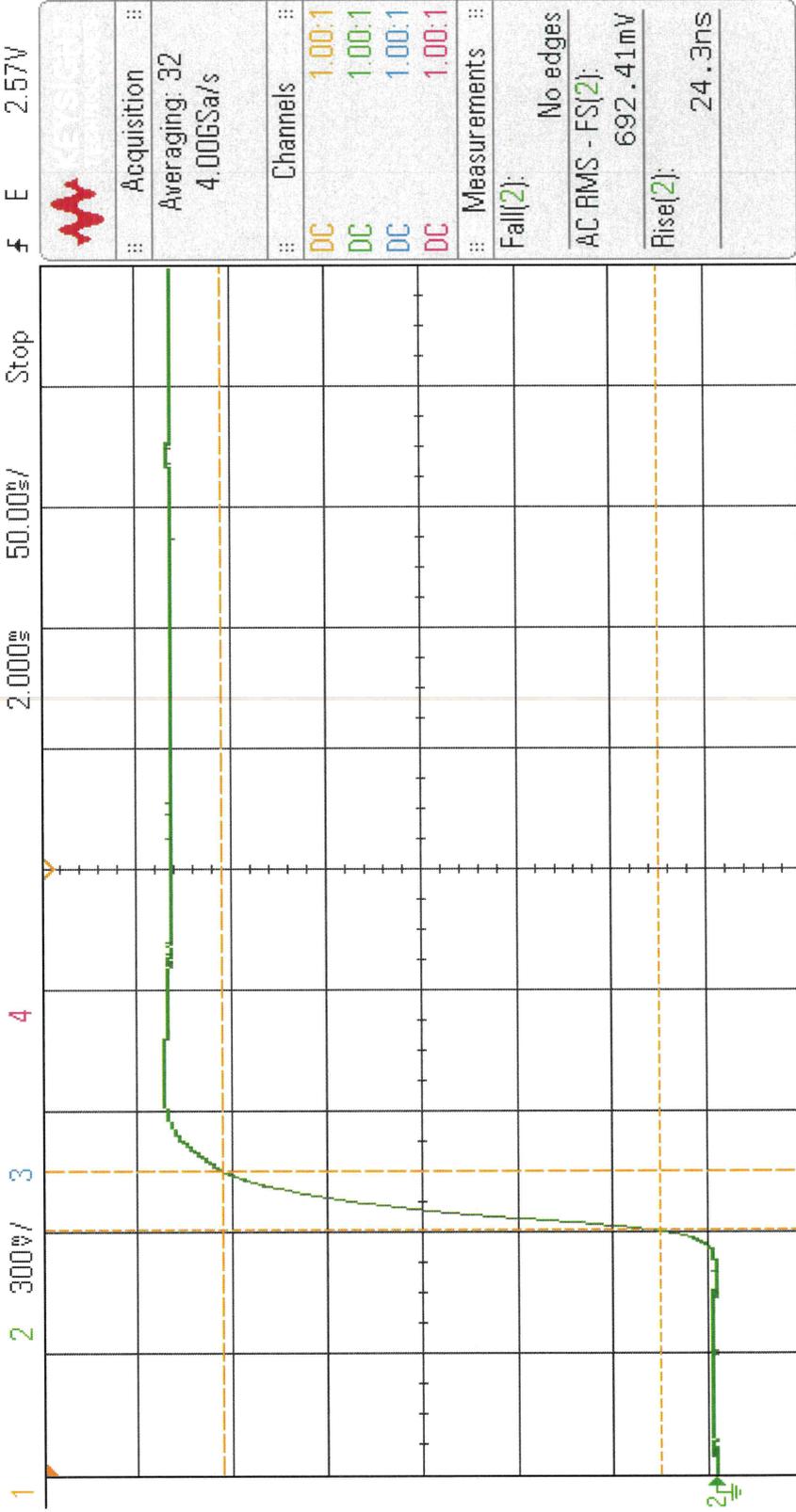
Clear Meas

Statistics

PL44914

Rise Time -45dbm

DSO-X 3034A, MY52394003: Tue Oct 15 15:24:51 2024



Measurement Menu

Source 2

Type: Rise

Add Measurement

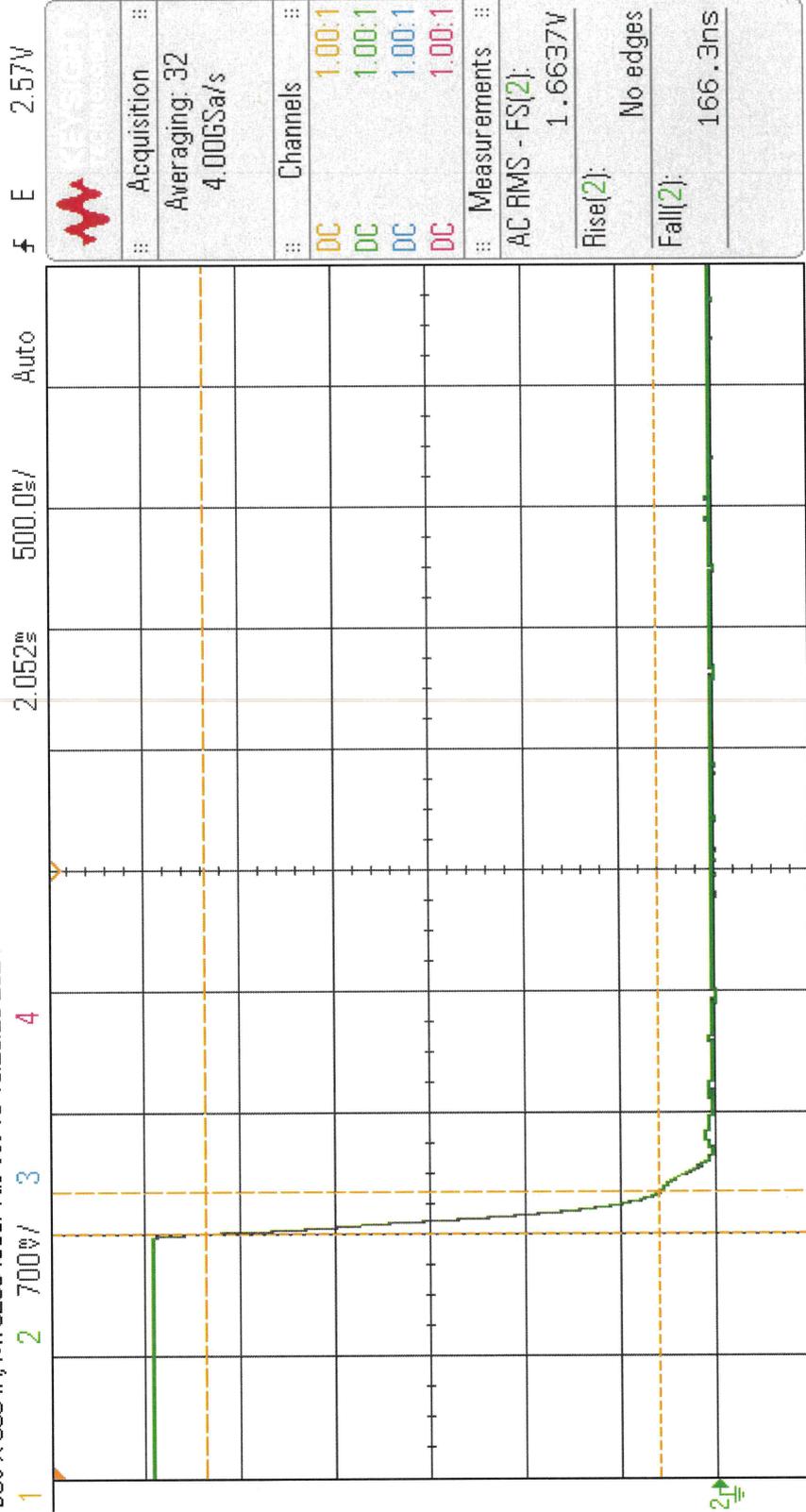
Settings

Clear Meas

Statistics

PL 44914
Recovery Fall

DSO-X 3034A, MY52394003: Tue Oct 15 15:20:29 2024



Measurement Menu

Source 2

Type: Fall

Add Measurement

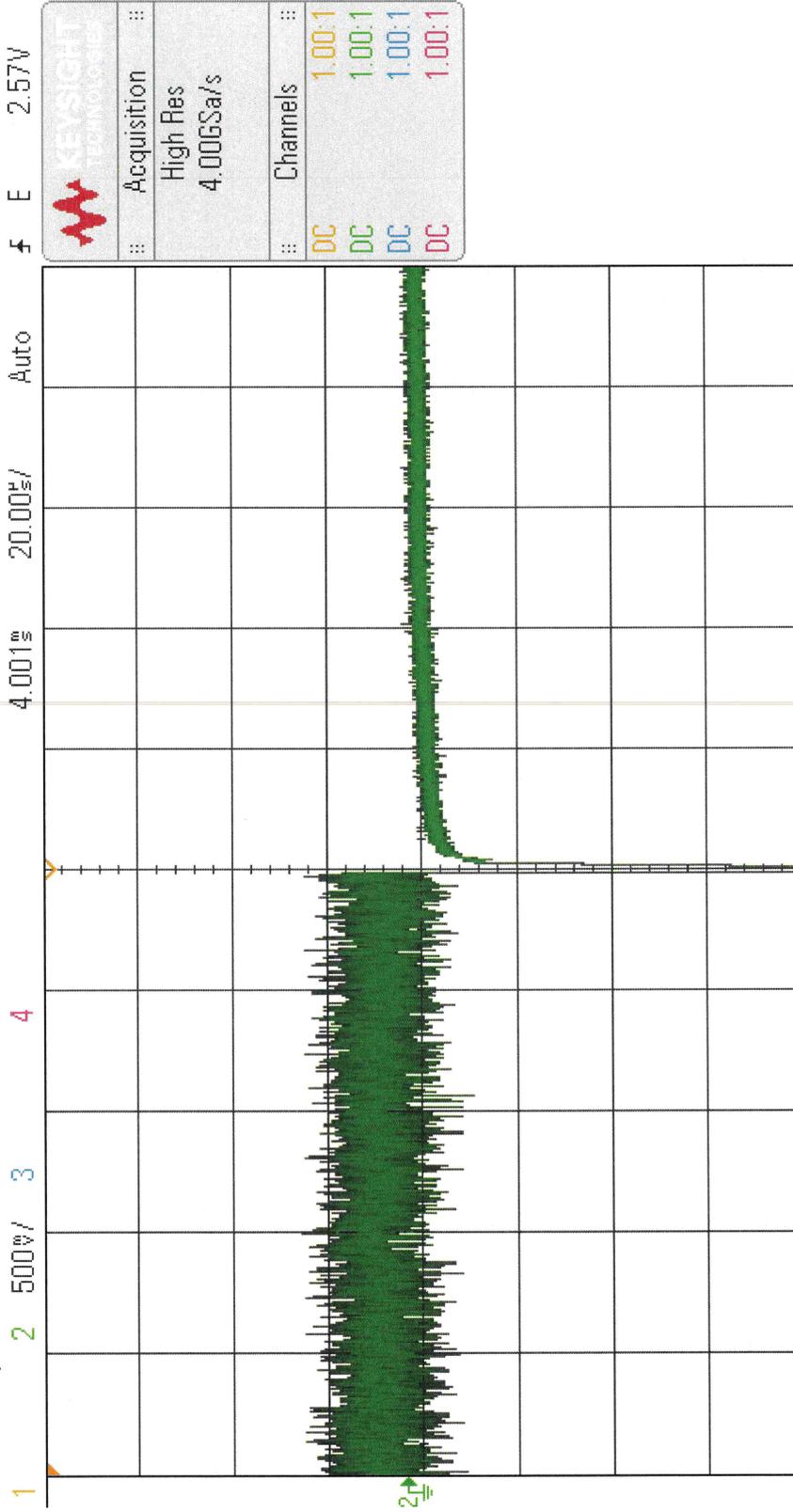
Settings

Clear Meas

Statistics

PL441914
CW Recovery

DSO-X 3034A, MY52394003, Tue Oct 15 15:26:42 2024



Acquire Menu
Acq Mode
High Res

Avgs
1

Segmented

PL44914
cw Immune

