



Customer: _____	Tested By: <u>Jim Hopson</u>
SO No: _____	Temperature: <u>-25°C +25C +85C</u>
Model No: <u>ERDLVA-218-CW-75MV-93</u>	Date: <u>5/28/2024</u>
Serial No: <u>PL46224/2422</u>	Drawing No: <u>2764240</u> Rev: <u>A1</u>

4921 Robert J. Mathews Pkwy Suite 1, El Dorado Hills, CA 95762 USA Phone: (916)542-1401 Fax:
(916)265-2597
Email: sales@pmi-rf.com



**SUMMARY TEST DATA
ON
ERDLVA-218-CW-75MV-93**

PL46224/2422

11	VIDEO OUT Recovery	500ns MAX	400ns	PMI QA3
12	Video Frequency Flatness:	3.0 dB p-p MAX @ -20dBm	1.60dB p-p MAX @ -20dBm	
13	VIDEO OUT CW Immunity:	CW Immune Power -50 to -10 dBm	Pass	
		CW Attack Time 1500us	1200us	
		CW Release Time 250us	<100us	
17	Pulse droop	1dB Max for 250us pulses	<1dB	
18	VIDEO OUT Pulse Response, input Signal:	100 ns to 300 us	100 ns to 300 us	
19	VIDEO LOAD Impedance:	93 $\pm$ 1 Ω	93 Ω	
21	VIDEO OUT Noise Level (RMS):	102 mV max	31.0mV	
22	VIDEO OUT Propagation Delay:	35 ns MAX from RF 10% to 10% video (excluding cable)	<35ns	
23	Power Supply	+12 V @ 250 mA MAX -12 V @ 250 mA MAX	+12 V @ 170 mA -12 V @ 70 mA	H. Mathews 5-30-24



PLANAR MONOLITHICS INDUSTRIES
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LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-218-CW-75MV-93
TESTED BY: Jim Hopson
DATE: 5-29-24
SERIAL NO.: PL46224
Test Temp: +85C

Frequency

2 GHz	INTERCEPT (mV)	3327
	SLOPE (mV/dB)	72.8

-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20
356	774	1148	1521	1892	2250	2624	2973	3341	3706	4070	4378	4750
-59	-5	5	14	21	15	25	10	14	15	15	-41	-33
-0.81	-0.06	0.07	0.20	0.29	0.21	0.35	0.14	0.20	0.21	0.21	-0.56	-0.45

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

4.67 GHz	INTERCEPT (mV)	3331
	SLOPE (mV/dB)	76.1

262	680	1050	1429	1815	2177	2599	2966	3339	3701	4088	4450	4854
-26	11	1	0	6	-13	29	16	8	-10	-3	-21	2
-0.35	0.15	0.01	0.00	0.07	-0.17	0.38	0.21	0.11	-0.13	-0.04	-0.28	0.03

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

7.33 GHz	INTERCEPT (mV)	3329
	SLOPE (mV/dB)	75.0

297	719	1089	1462	1838	2189	2592	2958	3330	3691	4081	4443	4839
-31	16	11	8	9	-15	13	4	1	-14	1	-12	9
-0.41	0.21	0.14	0.11	0.12	-0.20	0.17	0.05	0.01	-0.18	0.02	-0.16	0.12

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

10 GHz	INTERCEPT (mV)	3318
	SLOPE (mV/dB)	78.4

181	567	955	1339	1735	2119	2590	2975	3352	3715	4098	4455	4861
-2	-8	-12	-20	-15	-23	56	49	34	6	-3	-38	-24
-0.03	-0.10	-0.15	-0.25	-0.20	-0.30	0.71	0.63	0.44	0.07	-0.04	-0.49	-0.30

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

12.67 GHz	INTERCEPT (mV)	3302
	SLOPE (mV/dB)	76.5

220	629	1006	1383	1775	2137	2571	2949	3321	3678	4065	4422	4825
-22	5	-1	-6	3	-17	34	29	19	-7	-2	-28	-7
-0.29	0.06	-0.01	-0.08	0.04	-0.23	0.44	0.39	0.25	-0.09	-0.03	-0.36	-0.09

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

15.33 GHz	INTERCEPT (mV)	3286
	SLOPE (mV/dB)	77.0

190	589	975	1354	1744	2106	2561	2940	3309	3664	4052	4407	4815
-17	-3	-1	-7	-2	-25	45	39	23	-6	-3	-33	-10
-0.22	-0.03	-0.02	-0.09	-0.03	-0.32	0.59	0.51	0.30	-0.08	-0.04	-0.43	-0.13

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

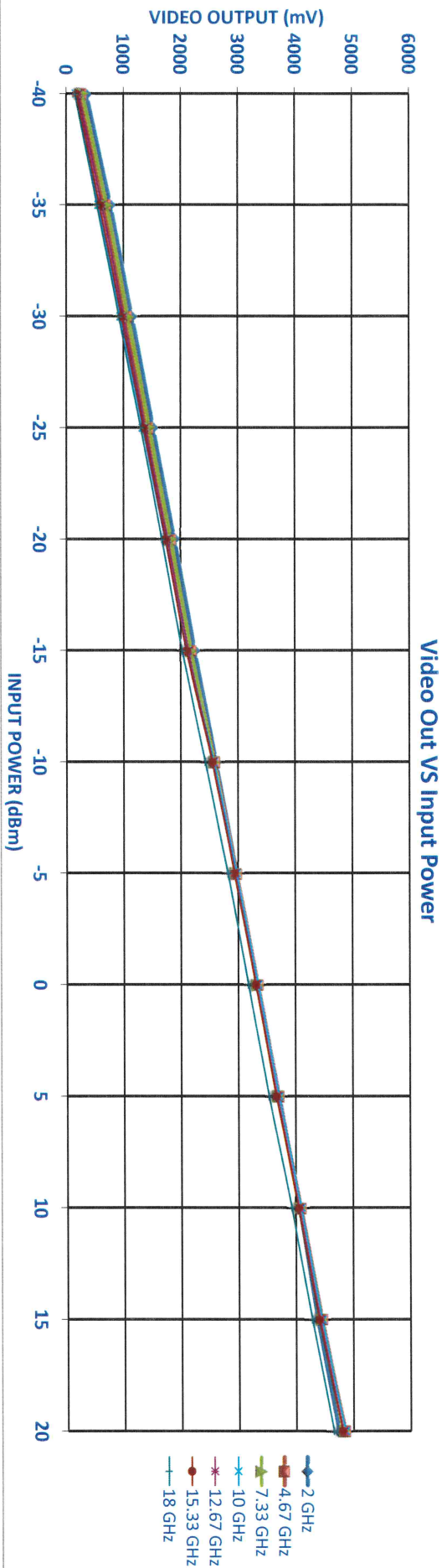
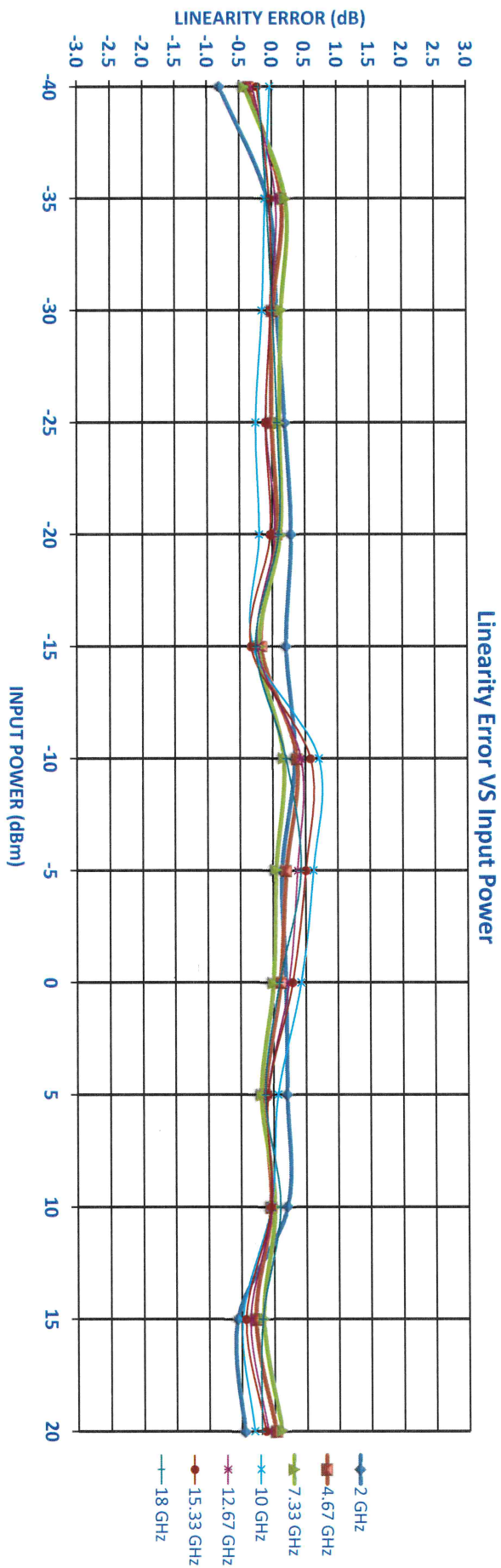
18 GHz	INTERCEPT (mV)	3171
	SLOPE (mV/dB)	74.9

160	543	924	1304	1680	2028	2437	2829	3178	3536	3927	4281	4654
-15	-6	0	6	7	-19	15	33	7	-9	7	-13	-15
-0.20	-0.08	0.01	0.08	0.10	-0.26	0.21	0.44	0.10	-0.12	0.10	-0.18	-0.20

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

Flatness P-P

Slope Avg(mV/dB) 75.8





LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV-93
 TESTED BY: Jim Hopson
 DATE: 5-29-24
 SERIAL NO: PL46224
 Test Temp: +25C

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Frequency

-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20
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RF Input Power (dBm)

2 GHz	INTERCEPT (mV)	3407
	SLOPE (mV/dB)	73.2

440	829	1209	1584	1952	2323	2709	3054	3429	3801	4159	4467	4818
-40	-16	-2	7	9	14	34	13	22	28	20	-37	-52
-0.54	-0.22	-0.03	0.09	0.12	0.19	0.47	0.18	0.30	0.39	0.28	-0.51	-0.72

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

4.67 GHz	INTERCEPT (mV)	3424
	SLOPE (mV/dB)	76.1

371	768	1134	1513	1893	2271	2689	3055	3438	3808	4190	4550	4938
-7	9	-6	-8	-8	-11	26	11	14	3	4	-17	-9
-0.10	0.12	-0.08	-0.10	-0.11	-0.15	0.34	0.15	0.18	0.04	0.05	-0.22	-0.12

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

7.33 GHz	INTERCEPT (mV)	3434
	SLOPE (mV/dB)	75.0

426	817	1192	1565	1930	2292	2689	3053	3439	3809	4194	4554	4934
-8	8	8	6	-4	-17	5	-6	5	0	10	-5	0
-0.11	0.11	0.11	0.08	-0.06	-0.23	0.06	-0.08	0.06	0.00	0.13	-0.07	0.00

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

10 GHz	INTERCEPT (mV)	3446
	SLOPE (mV/dB)	77.9

332	727	1092	1472	1868	2260	2717	3085	3476	3852	4227	4583	4977
2	7	-17	-27	-20	-17	50	29	30	17	3	-31	-26
0.02	0.09	-0.22	-0.34	-0.26	-0.22	0.64	0.37	0.39	0.22	0.03	-0.40	-0.34

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

12.67 GHz	INTERCEPT (mV)	3412
	SLOPE (mV/dB)	76.2

359	755	1118	1494	1881	2253	2675	3047	3433	3799	4181	4537	4922
-5	10	-8	-13	-7	-16	25	16	21	6	6	-19	-15
-0.06	0.13	-0.11	-0.17	-0.09	-0.21	0.32	0.21	0.27	0.07	0.08	-0.24	-0.19

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

15.33 GHz	INTERCEPT (mV)	3405
	SLOPE (mV/dB)	76.6

337	732	1100	1477	1862	2231	2672	3043	3429	3793	4176	4531	4922
-4	8	-7	-13	-11	-25	33	21	24	5	5	-23	-15
-0.05	0.11	-0.09	-0.17	-0.14	-0.32	0.43	0.28	0.32	0.07	0.07	-0.30	-0.19

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

18 GHz	INTERCEPT (mV)	3313
	SLOPE (mV/dB)	74.0

344	737	1089	1462	1836	2182	2573	2952	3317	3676	4072	4425	4782
-8	15	-3	0	4	-21	0	9	4	-7	18	1	-12
-0.10	0.20	-0.04	0.00	0.05	-0.28	0.00	0.12	0.05	-0.10	0.25	0.02	-0.16

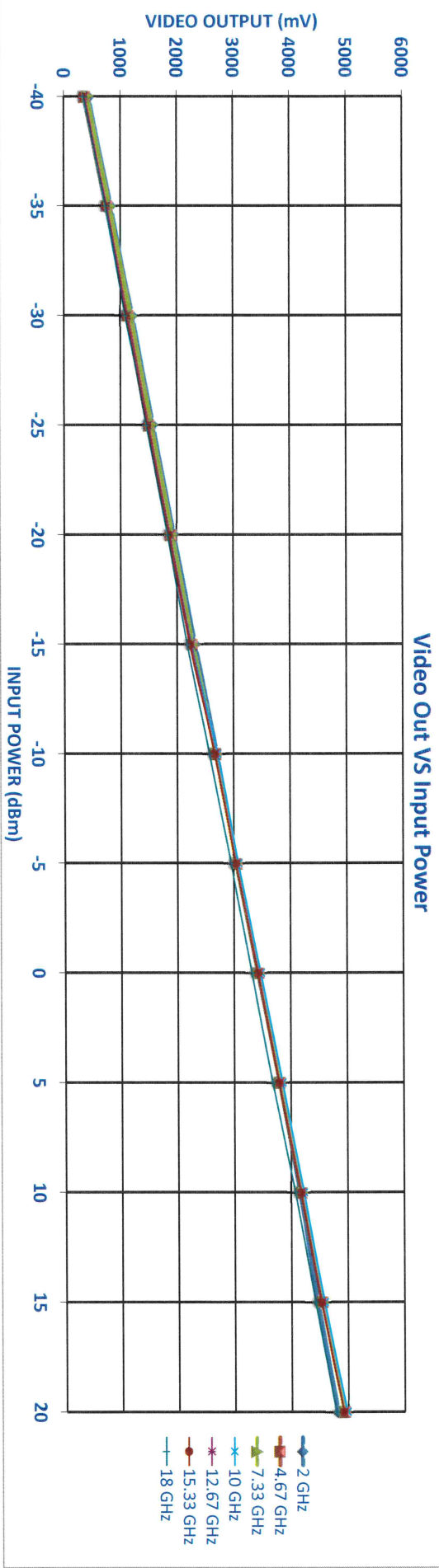
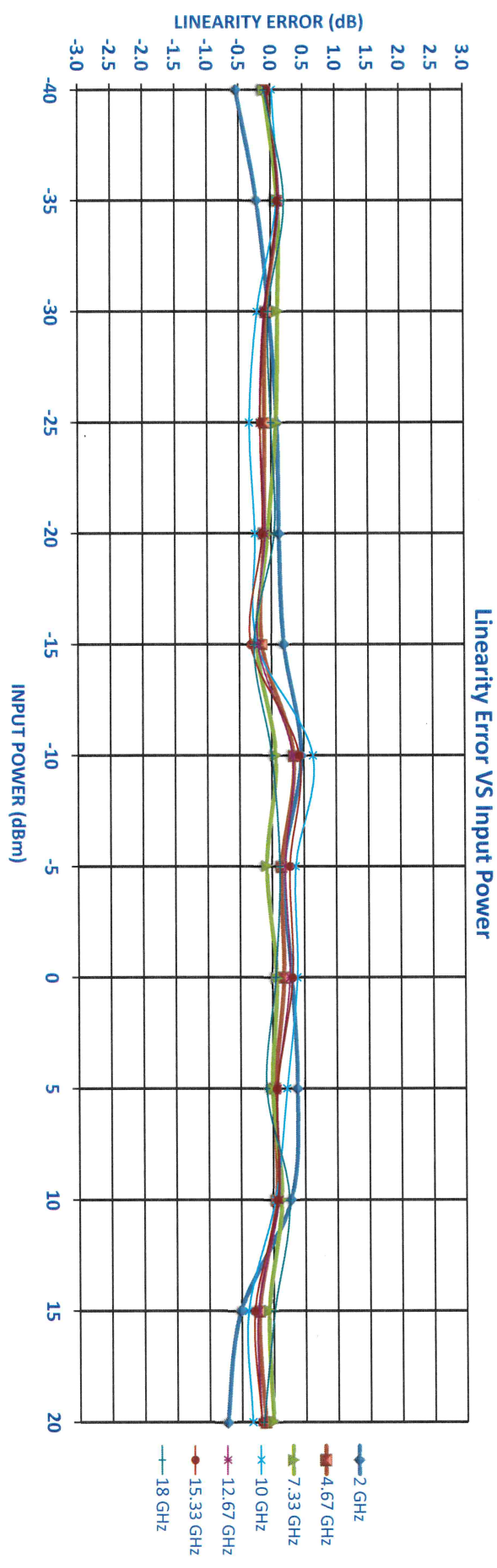
Measured Value (mV)
 Error (mV)
 LINEARITY ERROR (dB)

Flatness P-P

Slope Avg(mV/dB) 75.6

1.4	1.4	1.6	1.6	1.6	1.8	2.0	1.8	2.2	2.4	2.0	2.0	2.6
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LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-218-CW-75MV-93
SERIAL NO: PL46224
Test Temp: +25C



LOG TRANSFER WITH FREQUENCY

MODEL: ERDLVA-218-CW-75MV-93

TESTED BY: Jim Hopson

DATE: 5-29-24

SERIAL NO: PL46224

Test Temp: -25C



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Frequency

-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20
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2 GHz	INTERCEPT (mV)	3474
	SLOPE (mV/dB)	73.8

487	867	1253	1633	1999	2377	2774	3124	3505	3885	4241	4546	4875
-34	-23	-6	5	2	10	38	19	31	42	28	-36	-76
-0.46	-0.31	-0.08	0.06	0.02	0.14	0.52	0.26	0.42	0.56	0.39	-0.48	-1.03

4.67 GHz	INTERCEPT (mV)	3497
	SLOPE (mV/dB)	76.6

426	819	1192	1574	1949	2337	2755	3128	3518	3898	4275	4629	5000
-6	4	-6	-7	-16	-11	24	14	21	18	12	-17	-29
-0.08	0.05	-0.08	-0.10	-0.20	-0.14	0.32	0.18	0.27	0.23	0.15	-0.23	-0.38

7.33 GHz	INTERCEPT (mV)	3510
	SLOPE (mV/dB)	75.4

493	869	1256	1634	1990	2358	2757	3128	3521	3902	4281	4635	5000
-1	-2	8	9	-12	-21	1	-5	11	15	17	-6	-17
-0.01	-0.02	0.11	0.12	-0.16	-0.27	0.02	-0.06	0.15	0.20	0.23	-0.07	-0.23

10 GHz	INTERCEPT (mV)	3533
	SLOPE (mV/dB)	78.0

414	803	1176	1558	1948	2353	2799	3170	3565	3955	4322	4670	5055
2	1	-16	-24	-25	-10	46	27	32	32	8	-34	-39
0.03	0.01	-0.21	-0.31	-0.32	-0.13	0.59	0.35	0.41	0.41	0.11	-0.43	-0.50

12.67 GHz	INTERCEPT (mV)	3484
	SLOPE (mV/dB)	76.3

425	815	1190	1566	1945	2327	2740	3115	3510	3884	4262	4612	4979
-6	3	-4	-10	-12	-12	19	13	26	18	14	-17	-32
-0.07	0.04	-0.05	-0.13	-0.16	-0.16	0.25	0.16	0.34	0.24	0.19	-0.23	-0.42

15.33 GHz	INTERCEPT (mV)	3480
	SLOPE (mV/dB)	76.7

408	801	1178	1551	1930	2309	2738	3113	3508	3881	4259	4609	4986
-5	5	-1	-12	-16	-21	25	16	28	18	12	-21	-28
-0.06	0.06	-0.02	-0.16	-0.21	-0.27	0.32	0.21	0.37	0.23	0.16	-0.28	-0.36

18 GHz	INTERCEPT (mV)	3406
	SLOPE (mV/dB)	73.9

441	828	1196	1568	1929	2278	2653	3036	3416	3775	4173	4524	4859
-9	8	7	9	1	-20	-14	-1	10	-1	28	9	-25
-0.13	0.11	0.09	0.12	0.01	-0.27	-0.19	-0.01	0.13	-0.01	0.37	0.12	-0.34

Flatness P-P

1.2	0.8	1.0	1.0	1.0	1.4	2.0	1.8	2.0	2.4	2.0	2.0	2.6
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Slope Avg(mV/dB) 75.8

RF Input Power (dBm)

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

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

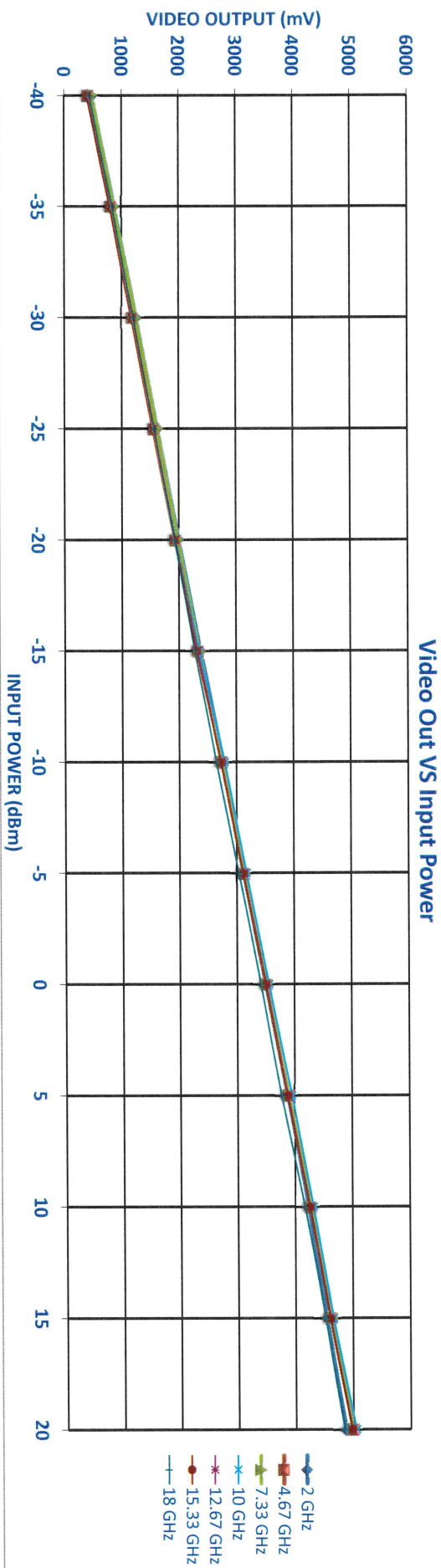
Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)

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

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

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

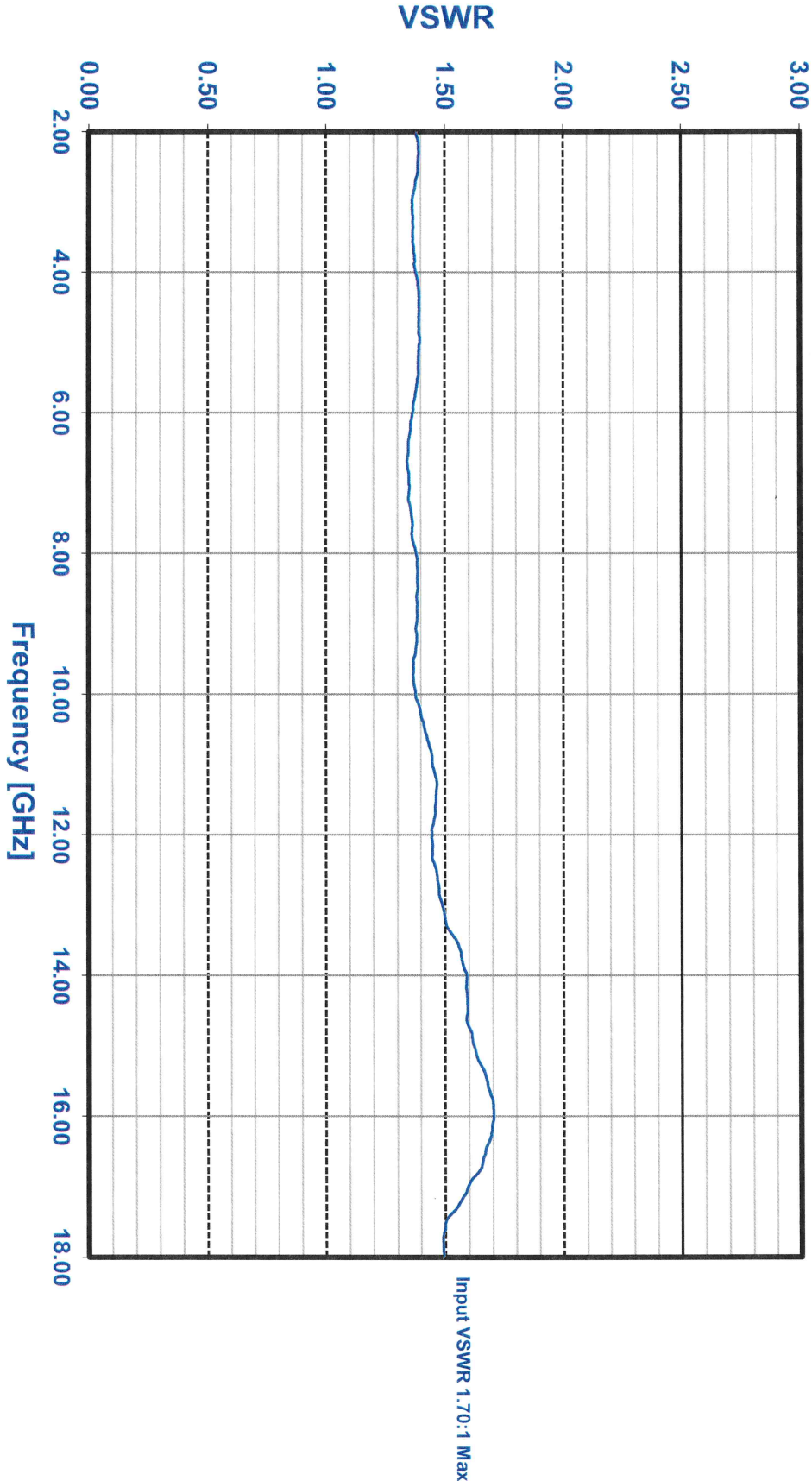
Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)



Model Number: ERDLVA-2G18G-CW-75MW
Serial Number: PL46224
Date: 5/29/2024

Temperature: +25C

VSWR GRAPH



PL 46224

TSS-43dbm

DSO-X 3034A, MW52394003: Wed May 29 11:32:36 2024

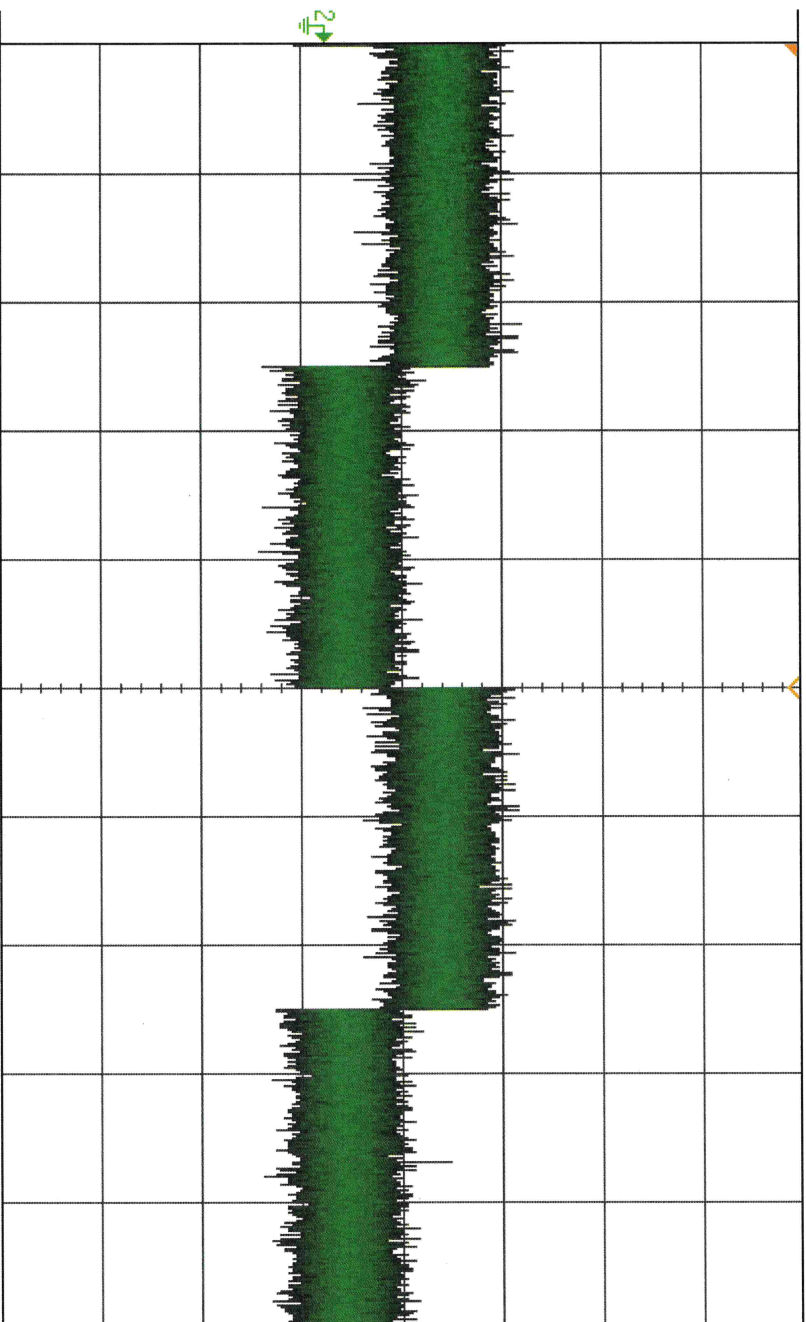
1 2 160°/ 3 4

2.000°

20.00°/

Auto

f E 2.12V



KEYSIGHT TECHNOLOGIES	Acquisition	:
Normal	:	:
4.00GSa/s	:	:
Channels	:	:
DC	1.00:1	:
DC	1.00:1	:
DC	1.00:1	:
DC	1.00:1	:

Cursors Menu

Mode
Off

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

PL46224
settle / Rise

DSO-X 3034A, MW52394003: Wed May 29 11:41:10 2024

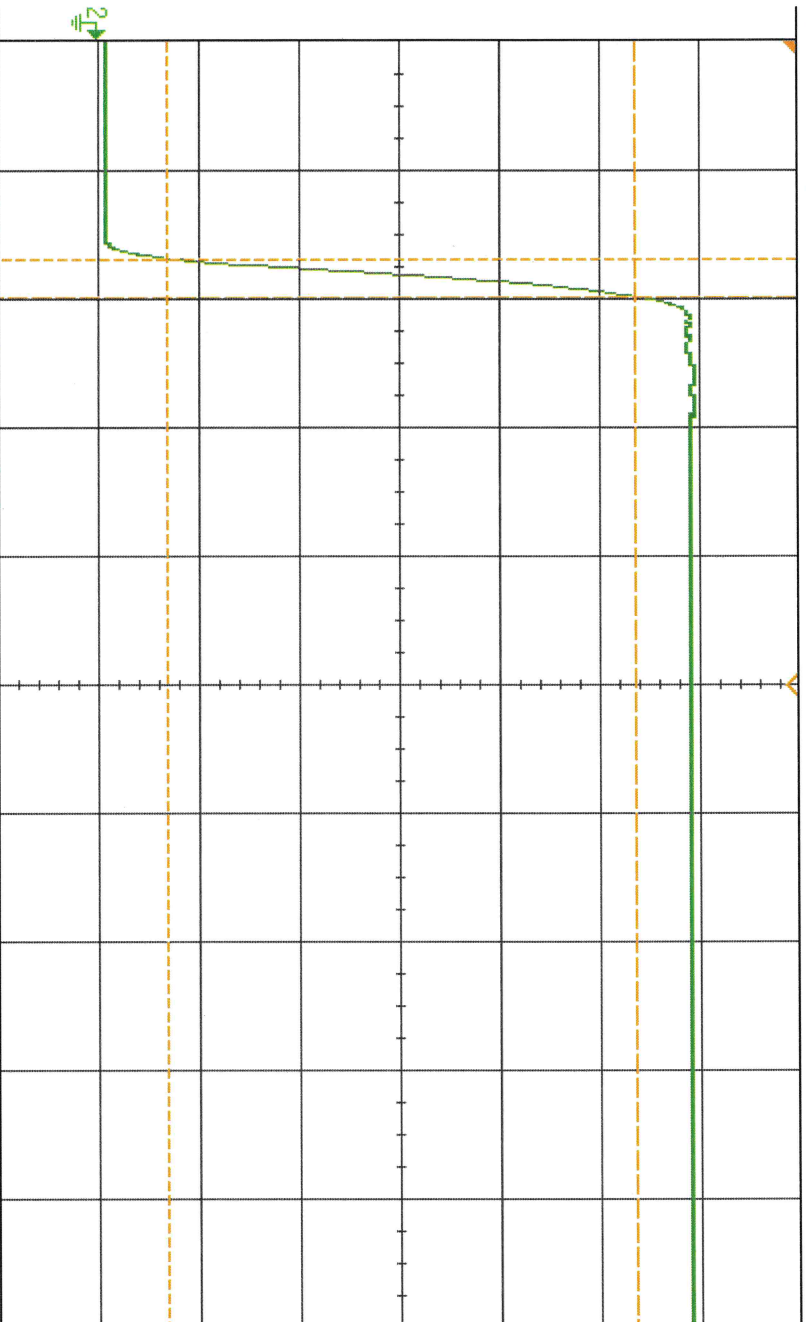
1 2 700% / 3 4

2.000ms

50.00% /

Auto

f E 2.11V



Save to file = pl46224_settle_rise

Save

Recall

Default/Erase

Press to
Save



Acquisition

Averaging: B4

4.006Sa/s

Channels

DC 1.00:1

DC 1.00:1

DC 1.00:1

DC 1.00:1

Measurements

Fall(2):

No edges

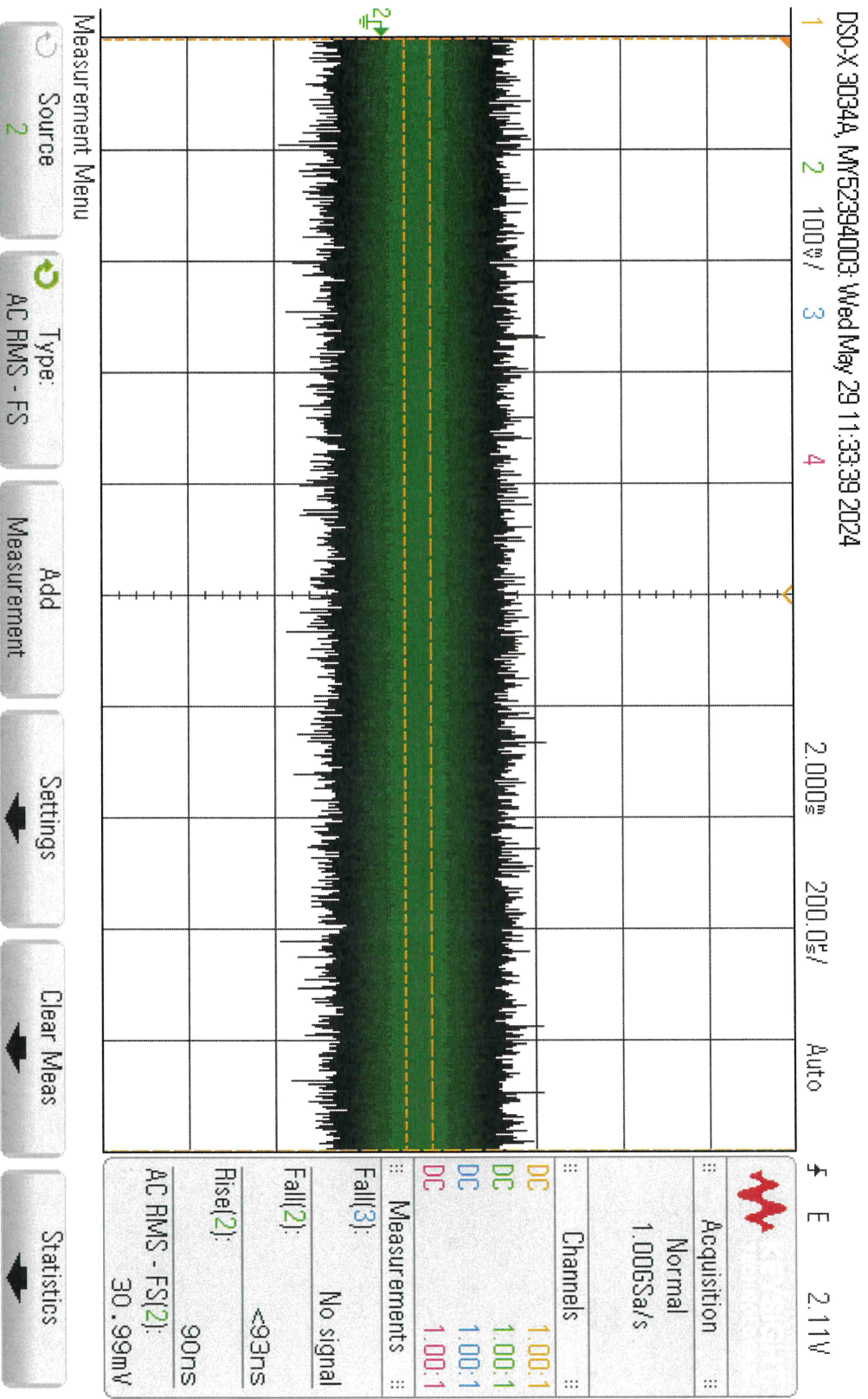
AC RMS - FS(2):

1.5505V

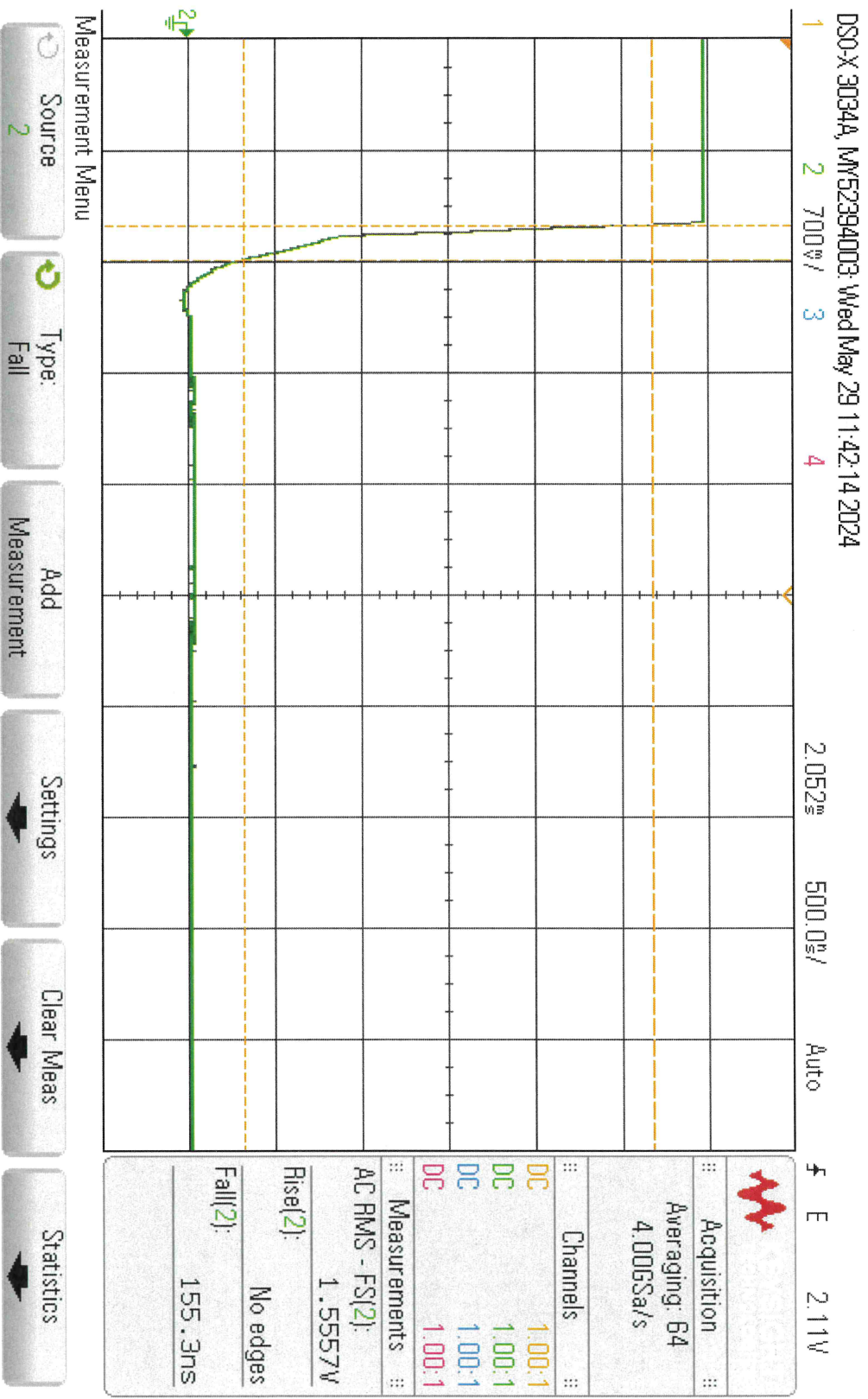
Rise(2):

15.0ns

PL462224
Rms 46152



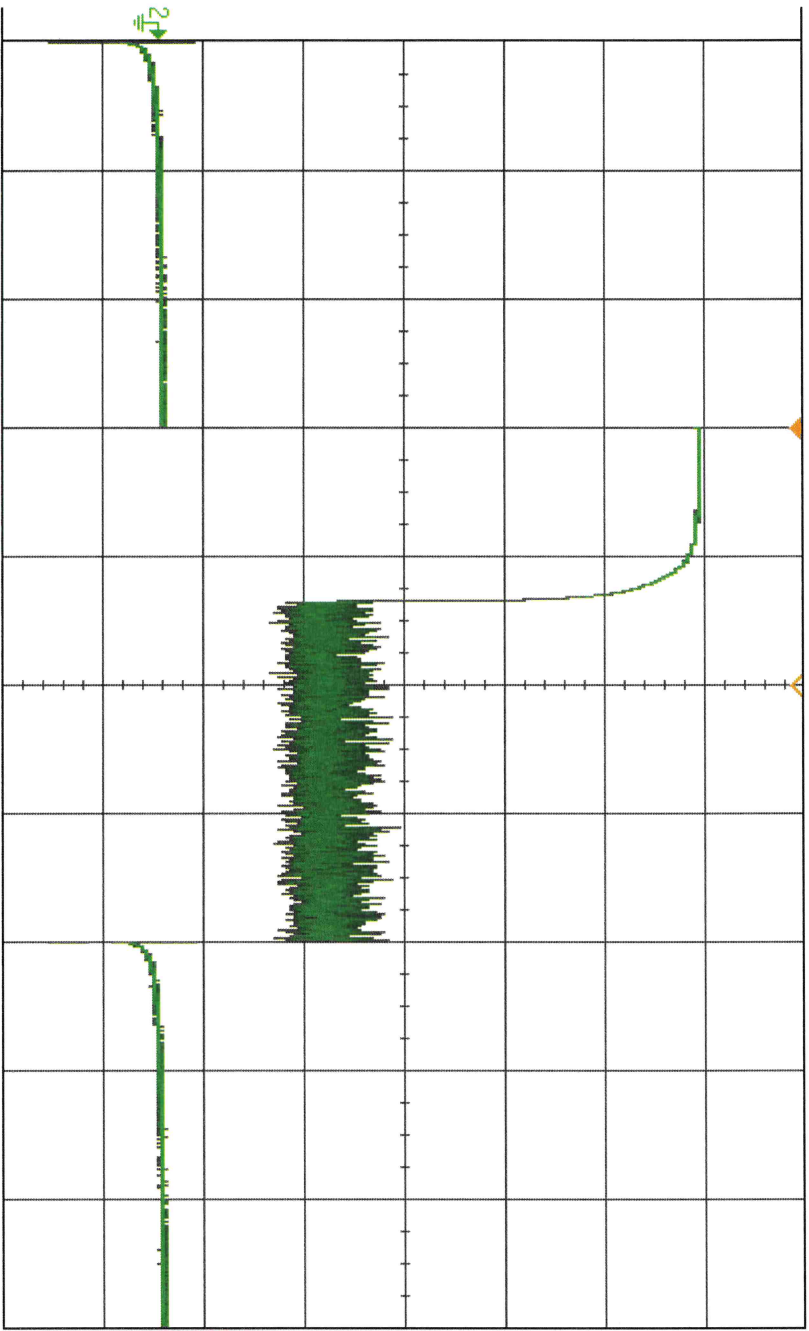
PL462224
Recovery



PL46224
CW Immune

DSO-X 3034A, MW52394003: Wed May 29 11:31:08 2024

1 2 500V / 3 2.000ms 1.000ms / Auto f E 2.12V



Acquisition	
Averaging: 2	
50.0MSa/s	
Channels	
DC	1.00:1
DC	1.00:1
DC	1.00:1
DC	1.00:1

Save to file = pl46224_cw_immune1

Format
BMP (8-bit)

Save to
usb

File Name

Settings

Press to
Save