



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

PL46227/2422

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>5/29/2024</u>
Serial No: <u>PL46227/2422</u>	Drawing No: <u>2764240</u> Rev: <u>A1</u>

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	2 to 18 GHz	2 to 18 GHz	<i>PMI</i> <i>QA3</i>
2	VSWR:	2.5:1 MAX @ -20 dBm	1.60:1 MAX	
3	Input Power:	23 dBm Max.	Pass	
4	VIDEO OUT TSS:	-42 dBm MAX	-43dBm	
5	VIDEO OUT Dynamic Range:	-40 to +20 dBm	-40 to +20 dBm	
6	VIDEO OUT Log Slope Fixed:	75 ± 10mV/dB	73.7-76.3mV/dB	
7	VIDEO OUT Log Linearity:	±1.0 dB MAX @25C ±1.5 dB MAX @ Over Temperature	See attached Graphs	
8	VIDEO OUT DC Offset:	0 to 125 mV @25C	30mV	
9	VIDEO OUT Rise Time (10% to 90%):	25 ns MAX	16.3ns	
10	VIDEO OUT Settling Time:	±0.5dB within 25ns from 90%	<0.5dB	

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Email: sales@pmi-rf.com



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11	VIDEO OUT Recovery	500ns MAX	400ns	PMI QA3
12	Video Frequency Flatness:	3.0 dB p-p MAX @ -20dBm	.8dB p-p MAX @ -20dBm	
13	VIDEO OUT CW Immunity:	CW Immune Power -50 to -10 dBm	Pass	
		CW Attack Time 1500us	1300us	
		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 ±1 Ω	93Ω	
21	VIDEO OUT Noise Level (RMS):	102 mV max	37.9mV	
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	<i>W. Mathews 5-30-29</i>

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LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV-93
 TESTED BY: Jim Hopson
 DATE: 5-29-24
 SERIAL NO.: PL46227
 Test Temp: +25C

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)	3347
	SLOPE (mV/DB)	74.5

338	743	1123	1508	1896	2238	2570	2961	3328	3713	4117	4466	4831
-31	2	10	22	38	8	-32	-14	-19	-6	26	2	-5
-0.42	0.02	0.13	0.30	0.51	0.10	-0.44	-0.18	-0.25	-0.08	0.34	0.03	-0.07

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

4.67 GHz	INTERCEPT (mV)	3334
	SLOPE (mV/DB)	76.3

270	673	1047	1439	1832	2184	2553	2948	3320	3706	4112	4475	4869
-13	8	1	12	23	-6	-18	-5	-14	-9	15	-3	10
-0.17	0.11	0.01	0.15	0.31	-0.08	-0.24	-0.06	-0.18	-0.12	0.20	-0.04	0.13

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

7.33 GHz	INTERCEPT (mV)	3347
	SLOPE (mV/DB)	74.4

344	755	1134	1518	1895	2231	2560	2946	3315	3700	4110	4474	4858
-28	11	18	31	36	0	-43	-29	-32	-19	19	11	24
-0.37	0.15	0.25	0.41	0.48	0.00	-0.58	-0.39	-0.43	-0.25	0.26	0.15	0.32

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

10 GHz	INTERCEPT (mV)	3376
	SLOPE (mV/DB)	75.8

328	730	1109	1495	1884	2234	2594	2983	3360	3741	4148	4510	4912
-15	8	8	15	25	-4	-24	-14	-16	-14	14	-3	20
-0.20	0.11	0.10	0.20	0.33	-0.06	-0.31	-0.18	-0.21	-0.18	0.18	-0.04	0.26

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

12.67 GHz	INTERCEPT (mV)	3317
	SLOPE (mV/DB)	74.3

320	727	1101	1486	1871	2206	2533	2920	3287	3673	4073	4438	4831
-25	10	13	26	40	3	-41	-26	-30	-16	13	6	28
-0.34	0.14	0.17	0.35	0.53	0.04	-0.56	-0.35	-0.41	-0.21	0.17	0.08	0.37

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

15.33 GHz	INTERCEPT (mV)	3336
	SLOPE (mV/DB)	74.7

326	734	1115	1498	1880	2213	2546	2932	3302	3688	4093	4461	4869
-23	11	19	29	38	-3	-43	-30	-34	-21	11	6	40
-0.31	0.15	0.26	0.39	0.50	-0.04	-0.58	-0.41	-0.45	-0.28	0.15	0.07	0.54

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

18 GHz	INTERCEPT (mV)	3284
	SLOPE (mV/DB)	73.7

313	722	1088	1472	1851	2178	2496	2872	3236	3631	4035	4412	4798
-22	19	16	31	42	0	-50	-43	-48	-21	14	22	40
-0.29	0.25	0.22	0.43	0.57	0.00	-0.68	-0.58	-0.65	-0.29	0.19	0.30	0.54

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

Flatness P-P

Slope Avg(mv/DB)	74.8
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LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV-93
 TESTED BY: Jim Hopson
 DATE: 5-29-24
 SERIAL NO: PL46227
 Test Temp: -25C

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)	3442
	SLOPE (mV/DB)	74.4

429	836	1222	1611	1992	2336	2658	3049	3425	3813	4221	4565	4913
-36	-1	13	30	39	10	-40	-21	-17	-1	35	7	-18
-0.48	-0.01	0.17	0.40	0.52	0.14	-0.53	-0.28	-0.23	-0.02	0.47	0.09	-0.24

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

4.67 GHz	INTERCEPT (mV)	3435
	SLOPE (mV/DB)	76.1

368	778	1156	1547	1937	2293	2647	3041	3422	3810	4221	4578	4956
-21	8	6	16	25	0	-26	-13	-13	-6	25	1	-2
-0.27	0.11	0.07	0.21	0.33	0.00	-0.35	-0.17	-0.17	-0.07	0.32	0.01	-0.02

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

7.33 GHz	INTERCEPT (mV)	3455
	SLOPE (mV/DB)	74.0

467	869	1262	1646	2009	2344	2657	3045	3424	3810	4226	4584	4951
-27	5	27	41	34	-1	-58	-40	-31	-15	31	19	15
-0.37	0.06	0.37	0.56	0.46	-0.01	-0.78	-0.54	-0.42	-0.21	0.41	0.25	0.21

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

10 GHz	INTERCEPT (mV)	3493
	SLOPE (mV/DB)	75.1

467	867	1260	1646	2016	2366	2700	3086	3475	3859	4268	4625	5010
-21	3	20	31	25	0	-42	-32	-18	-10	24	5	15
-0.28	0.04	0.27	0.41	0.34	0.00	-0.56	-0.42	-0.24	-0.13	0.32	0.07	0.19

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

12.67 GHz	INTERCEPT (mV)	3415
	SLOPE (mV/DB)	74.1

422	828	1212	1597	1975	2310	2620	3010	3383	3771	4180	4538	4915
-29	6	20	34	42	7	-54	-34	-32	-14	24	12	19
-0.40	0.08	0.27	0.46	0.57	0.09	-0.73	-0.46	-0.43	-0.19	0.33	0.16	0.25

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

15.33 GHz	INTERCEPT (mV)	3446
	SLOPE (mV/DB)	73.9

465	864	1261	1645	2007	2336	2641	3028	3408	3795	4207	4569	4962
-25	4	32	47	39	-1	-66	-48	-38	-20	23	15	39
-0.34	0.06	0.43	0.63	0.53	-0.02	-0.89	-0.65	-0.51	-0.27	0.31	0.20	0.52

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

18 GHz	INTERCEPT (mV)	3411
	SLOPE (mV/DB)	72.5

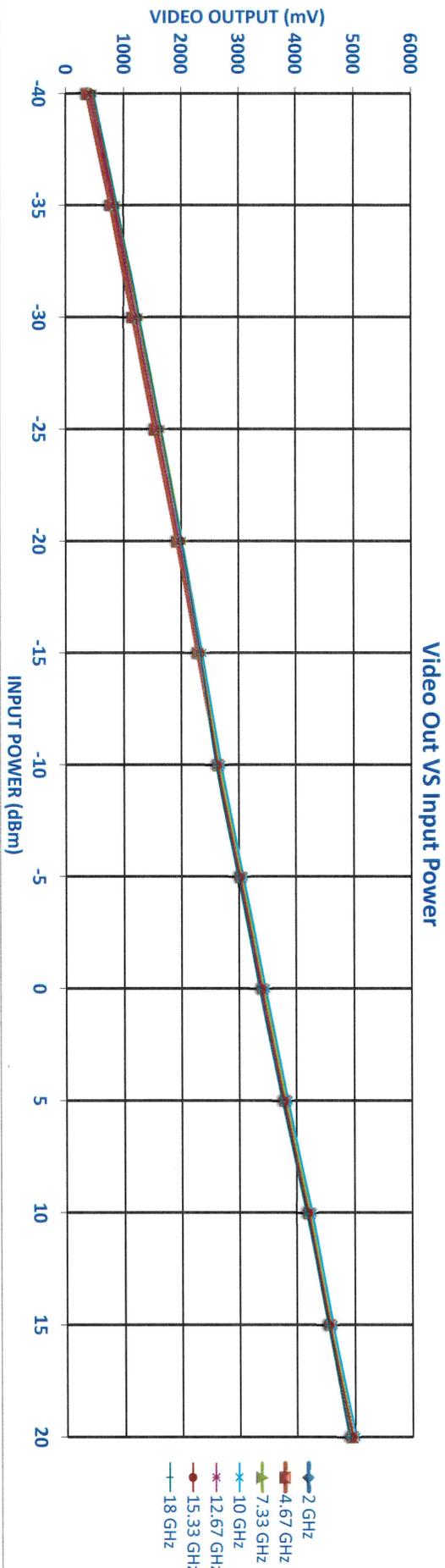
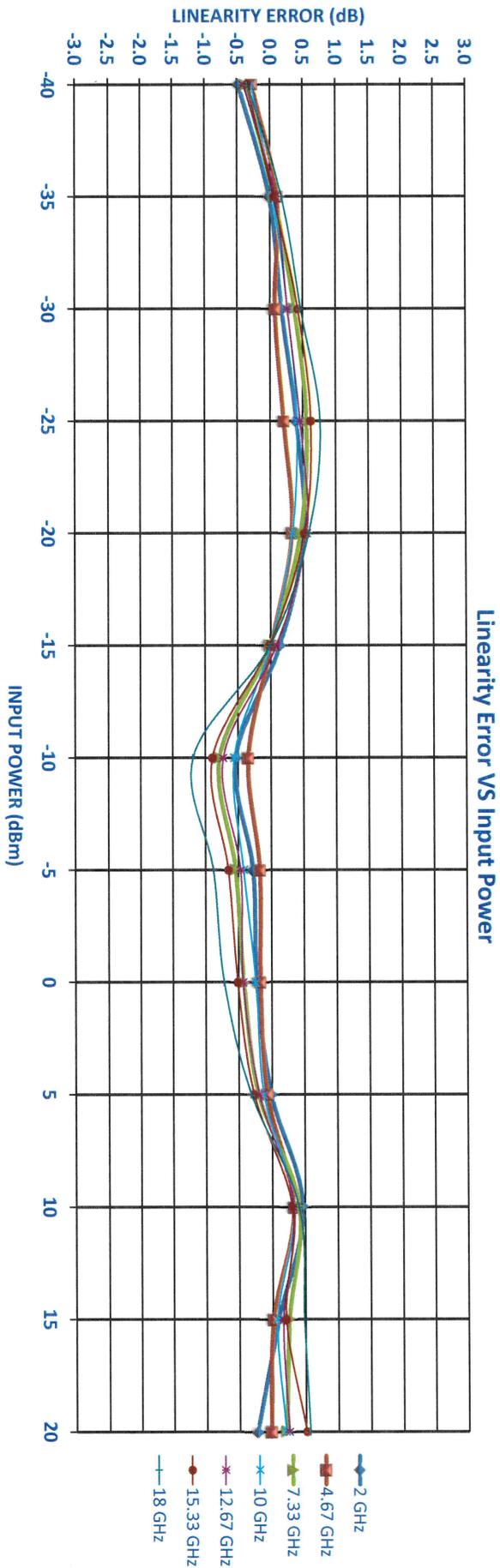
486	886	1270	1654	2004	2323	2600	2985	3359	3751	4166	4534	4903
-25	13	34	56	43	-1	-86	-64	-52	-23	29	35	41
-0.34	0.17	0.47	0.77	0.59	-0.01	-1.19	-0.88	-0.72	-0.32	0.41	0.48	0.57

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

Flatness P-P

Slope Avg(mv/DB)	74.3
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LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV-93
 SERIAL NO: PL46227
 Test Temp: -25C





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LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV-93
 TESTED BY: Jim Hopson
 DATE: 5-29-24
 SERIAL NO.: PL46227
 Test Temp: +85C

Frequency

-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20
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2 GHz	INTERCEPT (mV)	3203
	SLOPE (mV/DB)	74.7

151	590	977	1367	1762	2096	2433	2827	3186	3564	3960	4317	4694
-63	2	16	32	54	14	-23	-2	-17	-12	10	-7	-3
-0.84	0.03	0.21	0.43	0.72	0.19	-0.30	-0.03	-0.23	-0.17	0.13	-0.09	-0.04

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

4.67 GHz	INTERCEPT (mV)	3179
	SLOPE (mV/DB)	76.9

82	467	880	1273	1668	2024	2409	2812	3172	3551	3950	4320	4722
-20	-20	9	17	27	-1	-1	17	-7	-13	1	-13	4
-0.26	-0.25	0.11	0.22	0.36	-0.02	-0.01	0.22	-0.10	-0.17	0.02	-0.18	0.05

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

7.33 GHz	INTERCEPT (mV)	3185
	SLOPE (mV/DB)	75.3

129	548	945	1332	1725	2060	2415	2804	3161	3539	3941	4311	4705
-45	-2	18	29	46	4	-17	-4	-24	-22	4	-3	15
-0.60	-0.03	0.24	0.39	0.61	0.06	-0.22	-0.06	-0.31	-0.29	0.05	-0.03	0.20

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

10 GHz	INTERCEPT (mV)	3204
	SLOPE (mV/DB)	77.0

96	498	902	1292	1693	2046	2436	2836	3198	3572	3973	4340	4753
-27	-10	9	14	30	-2	3	18	-6	-17	-1	-19	9
-0.35	-0.13	0.11	0.18	0.38	-0.03	0.03	0.23	-0.07	-0.22	-0.01	-0.24	0.12

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

12.67 GHz	INTERCEPT (mV)	3158
	SLOPE (mV/DB)	75.2

104	518	918	1306	1702	2039	2392	2781	3137	3515	3907	4278	4682
-45	-7	17	28	48	9	-14	-1	-21	-20	-4	-9	19
-0.60	-0.10	0.22	0.38	0.64	0.12	-0.19	-0.02	-0.28	-0.26	-0.05	-0.12	0.25

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

15.33 GHz	INTERCEPT (mV)	3161
	SLOPE (mV/DB)	76.2

83	481	892	1281	1676	2019	2394	2783	3141	3520	3916	4291	4710
-31	-14	16	25	39	1	-5	3	-20	-22	-6	-12	26
-0.40	-0.18	0.22	0.32	0.51	0.01	-0.07	0.04	-0.26	-0.28	-0.09	-0.16	0.34

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

18 GHz	INTERCEPT (mV)	3091
	SLOPE (mV/DB)	75.6

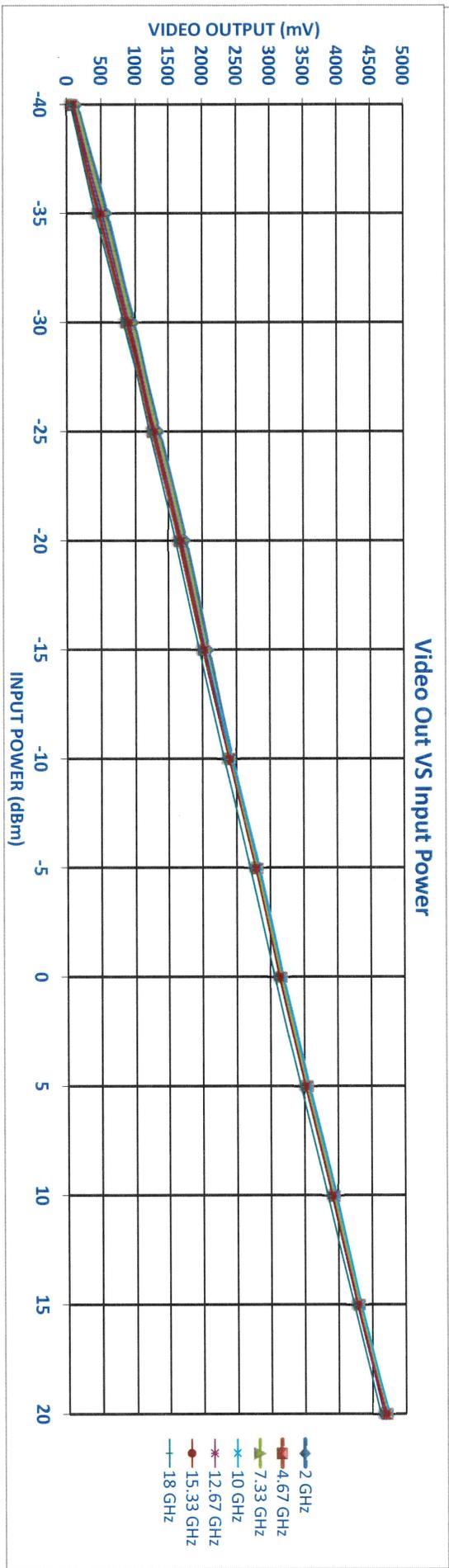
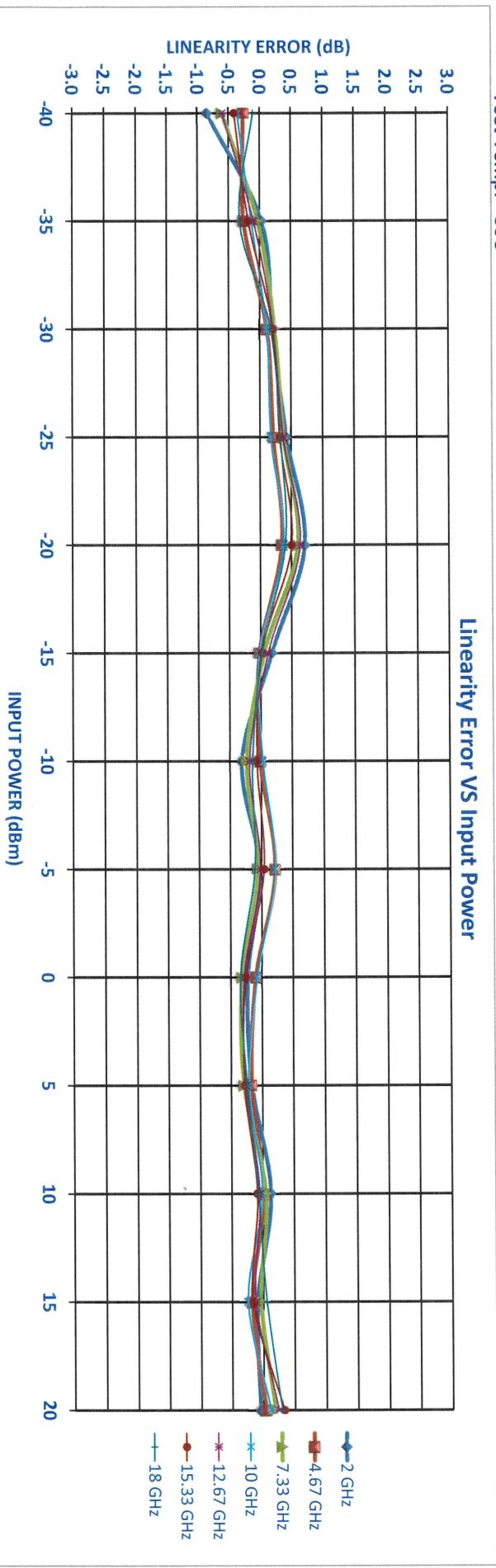
57	419	835	1225	1609	1958	2324	2705	3065	3451	3842	4230	4627
-8	-24	14	25	31	2	-10	-8	-26	-18	-5	4	23
-0.10	-0.32	0.18	0.33	0.41	0.02	-0.14	-0.10	-0.34	-0.24	-0.07	0.06	0.31

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

Flatness P-P

Slope Avg(mv/db)	75.9
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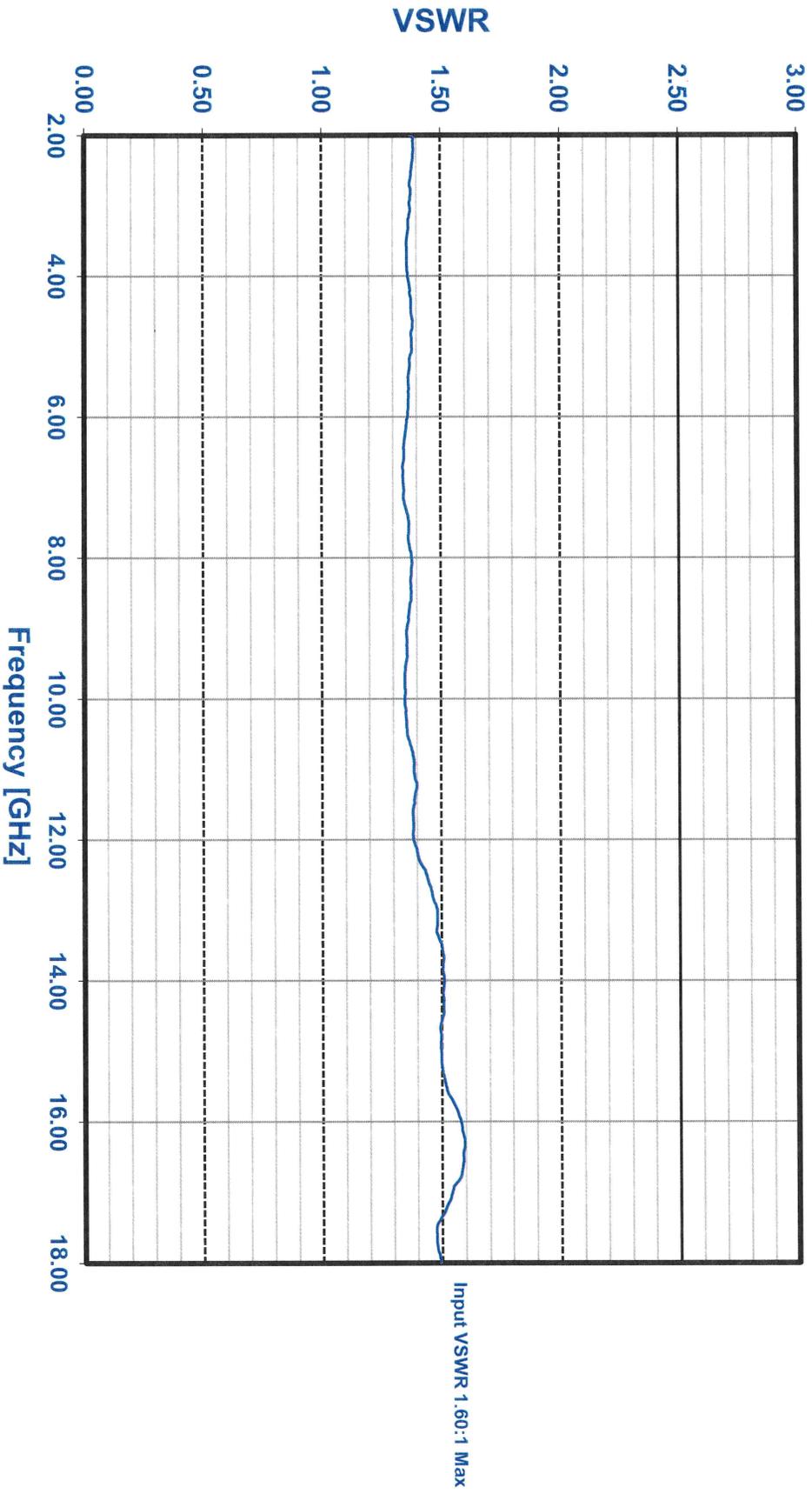
LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV-93
 SERIAL NO: PL46227
 Test Temp: +85C



Model Number: ERDLVA-2G18G-CW-75MW
Serial Number: PL46227
Date: 5/29/2024

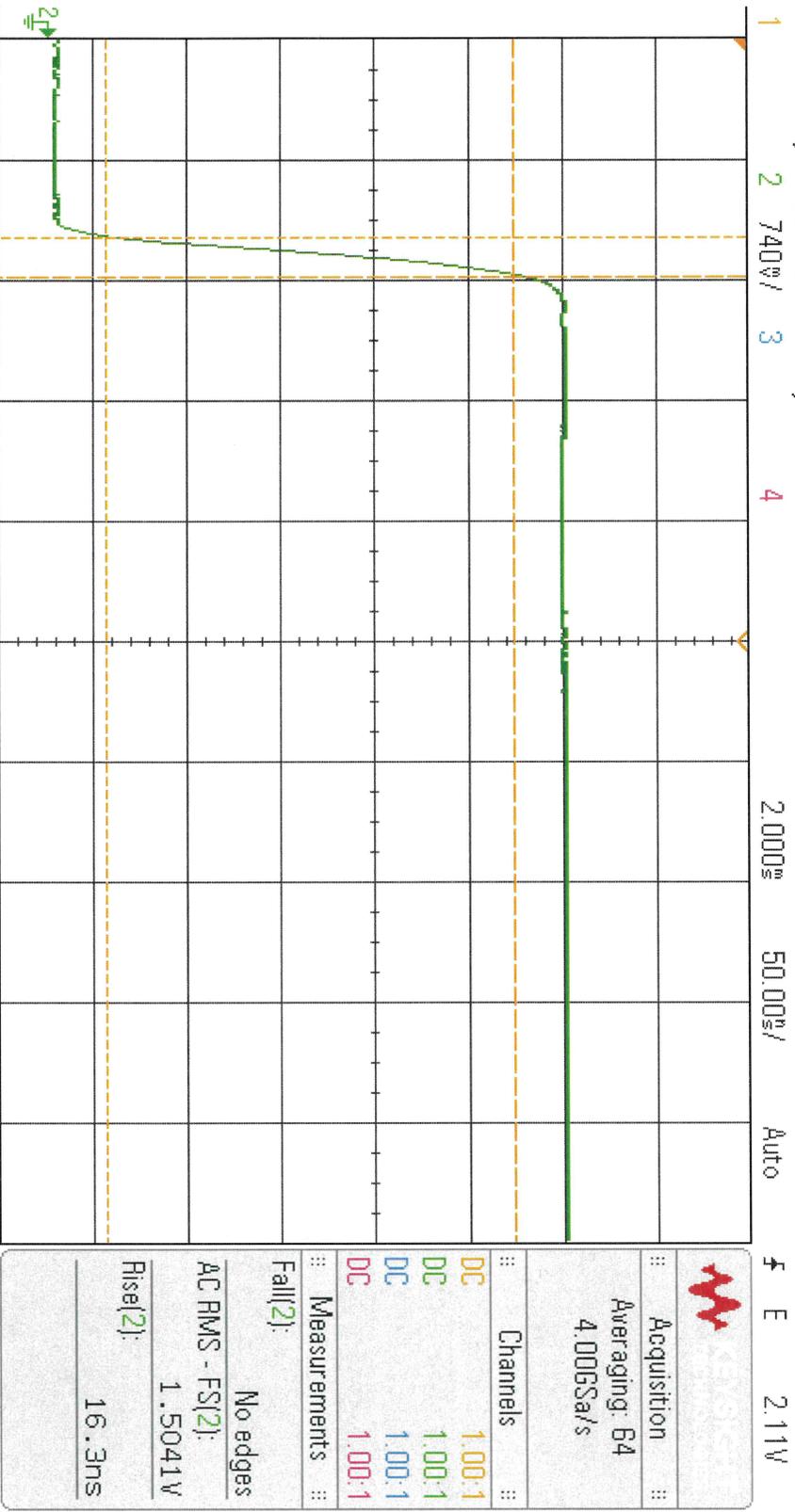
Temperature: +25C

VSWR GRAPH



PL46227
Settle / Rise

DSO-X 3034A, MW52394003, Wed May 29 12:00:11 2024



Measurement Menu

Source 2

Type: Rise

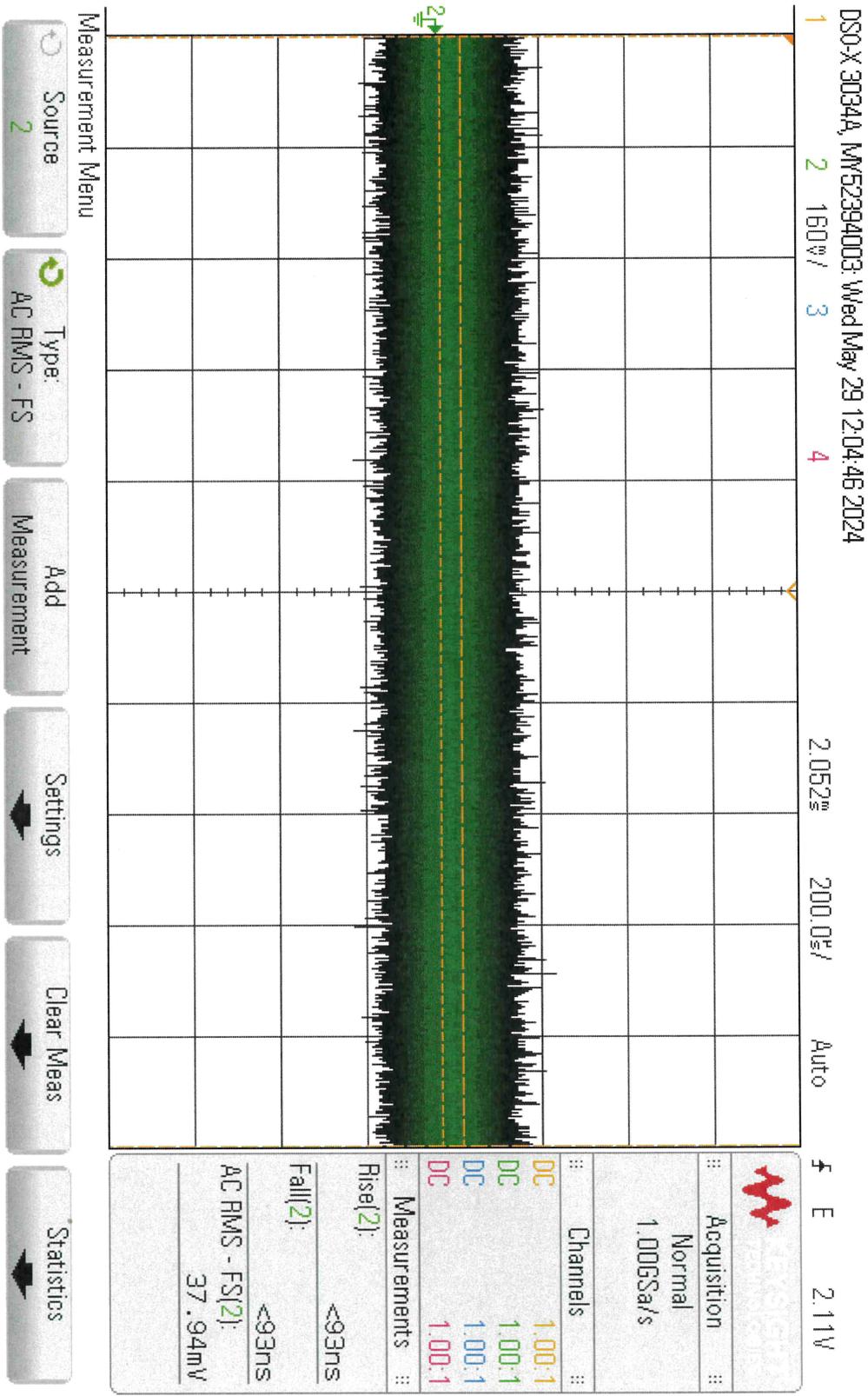
Add Measurement

Settings

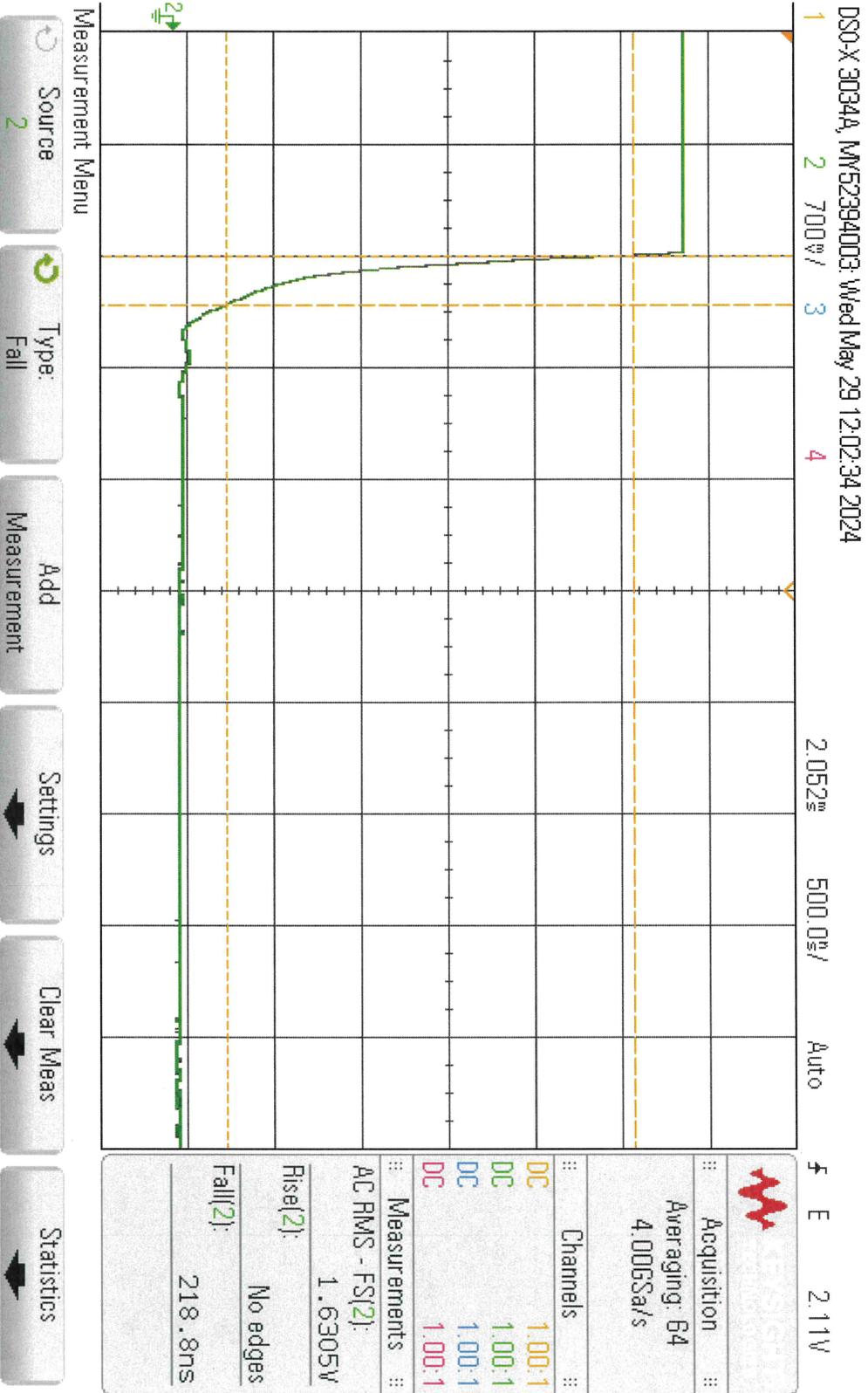
Clear Meas

Statistics

PL46227
RMS noise



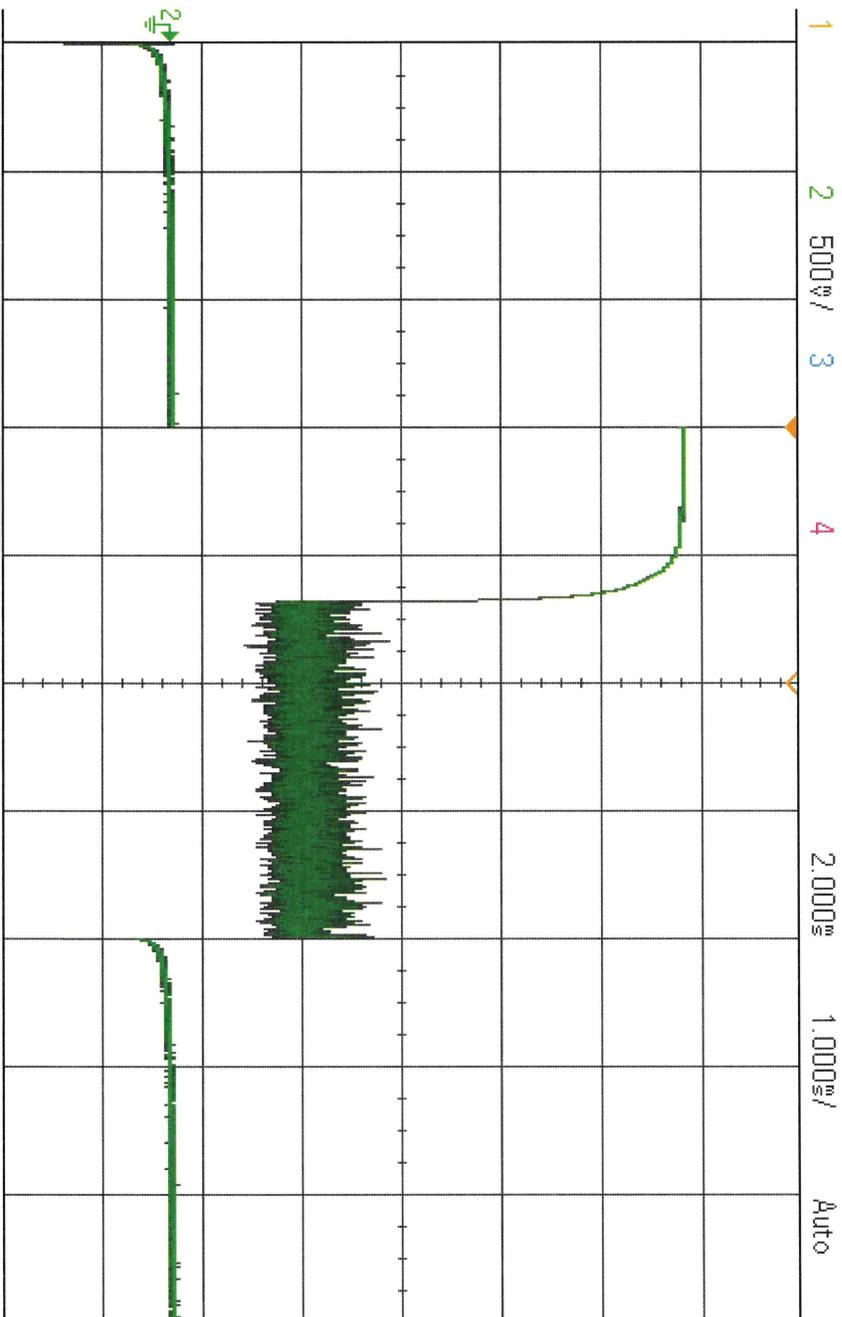
PL46227
Recovery



PL46227

CW Immune

DSO-X 3034A, MW52394003: Wed May 29 11:53:39 2024



f E 2.11V

KEYSIGHT
TECHNOLOGIES

Acquisition
Averaging: 2
50.0MSa/s

Channels	
DC	1.00:1

Save to file = pl46227_cw_immune1

Save

Recall

Default/Erase

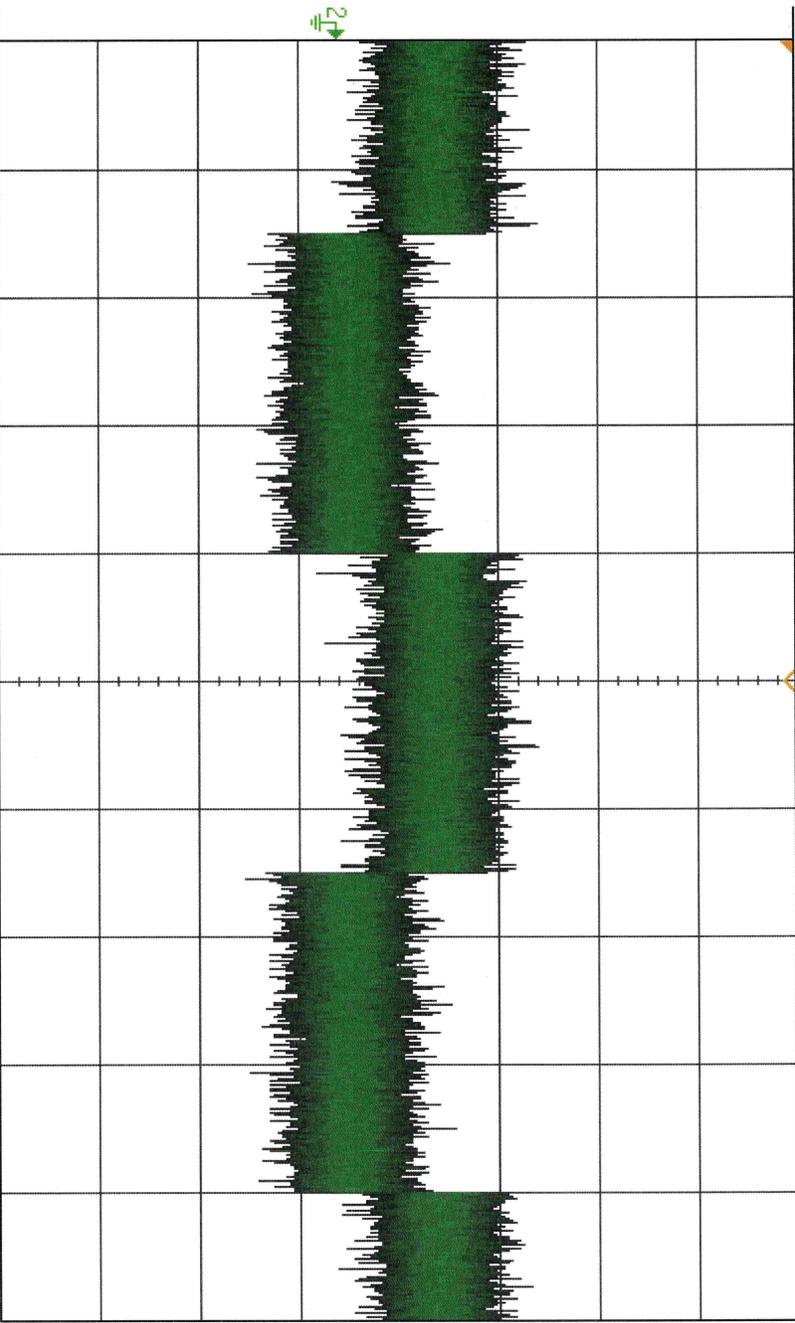
Press to Save

PL46227

TSS -43 dbm

DSO-X 3034A, MW52394003, Wed May 29 12:07:26 2024

1 2 160ns / 3 4 2.020ns 20.00ns / Auto f E 2.11V



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

Cursors Menu

Mode Off

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