



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

PL40783/2322

Customer: _____	Tested By: <u>Jim Hopson</u>
SO No: _____	Temperature: <u>-25°C +25C +85C</u>
Model No: <u>ERDLVA-218-CW-75MV</u>	Date: <u>05/30/2023</u>
Serial No: <u>PL40783/2322</u>	Drawing No: <u>27642440</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	PMI QA3
2	VSWR:	2.5:1 MAX @ -20 dBm	1.43:1 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	72.6-76.6mV/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	32mV	
9	VIDEO OUT Rise Time (10% to 90%):	25 ns MAX	17.0ns	
10	VIDEO OUT Settling Time:	±0.5dB within 25ns from 90%	<0.5dB	W. 5-31-23

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



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11	VIDEO OUT Recovery	500ns MAX	<500ns	PMI QAS
12	Video Frequency Flatness:	3.0 dB p-p MAX @ -20dBm	2.40dB p-p MAX @ -20dBm	
13	VIDEO OUT CW Immunity:	CW Immune Power -50 to -10 dBm	Pass	
		CW Attack Time 1500us	<1500us	
		CW Release Time 250us	<50us	
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	<50mV	
22	VIDEO OUT Propagation Delay:	35 ns MAX from RF 10% to 10% video (excluding cable)	<20ns typ	
23	Power Supply	+12 V @ 250 mA MAX -12 V @ 250 mA MAX	+12 V @ 160 mA -12 V @ 70 mA	<i>W</i> <i>9-71-23</i>

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PLANAR MONOLITHICS INDUSTRIES
 4921 Robert J. Mathews Parkway, Suite 1
 El Dorado Hills, CA 95762
 Phone: 916-542-1401 Fax: 301-662-1731
 Email: sales@pmi-rf.com | www.pmi-

LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV
 TESTED BY: Jim Hopson
 DATE: 05-30-23
 SERIAL NO: PL40783
 Test Temp: +25C

RF Input Power (dBm)

-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20
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2 GHz	INTERCEPT (mV)	3318
	SLOPE (mV/dB)	73.1

368	750	1120	1510	1886	2207	2576	2970	3336	3706	4066	4369	4767
-26	-9	-5	20	30	-14	-11	17	18	22	17	-46	-13
-0.35	-0.13	-0.07	0.27	0.41	-0.20	-0.15	0.24	0.25	0.31	0.23	-0.62	-0.18

4.67 GHz	INTERCEPT (mV)	3310
	SLOPE (mV/dB)	76.6

269	618	981	1389	1778	2128	2549	2969	3338	3711	4094	4439	4811
24	-10	-30	-6	0	-33	5	42	28	17	17	-21	-32
0.31	-0.13	-0.40	-0.07	0.00	-0.43	0.06	0.54	0.36	0.23	0.22	-0.27	-0.42

7.33 GHz	INTERCEPT (mV)	3327
	SLOPE (mV/dB)	75.5

311	683	1046	1447	1832	2167	2570	2974	3341	3711	4096	4444	4819
2	-3	-17	7	14	-28	-2	24	14	7	14	-15	-17
0.03	-0.04	-0.23	0.09	0.19	-0.37	-0.03	0.32	0.19	0.09	0.19	-0.20	-0.23

10 GHz	INTERCEPT (mV)	3297
	SLOPE (mV/dB)	76.1

267	620	983	1390	1776	2121	2541	2963	3329	3699	4079	4416	4775
16	-12	-30	-3	2	-34	6	47	32	22	21	-23	-44
0.21	-0.16	-0.39	-0.04	0.03	-0.44	0.07	0.62	0.42	0.28	0.27	-0.30	-0.58

12.67 GHz	INTERCEPT (mV)	3294
	SLOPE (mV/dB)	74.6

305	673	1035	1448	1826	2151	2542	2947	3308	3677	4053	4396	4763
-5	-10	-21	19	24	-24	-6	26	14	10	13	-17	-23
-0.07	-0.14	-0.28	0.25	0.32	-0.32	-0.08	0.35	0.19	0.13	0.18	-0.23	-0.31

15.33 GHz	INTERCEPT (mV)	3273
	SLOPE (mV/dB)	75.3

270	626	988	1403	1784	2115	2514	2929	3288	3660	4038	4386	4760
9	-11	-26	13	17	-29	-6	32	15	10	12	-17	-19
0.12	-0.15	-0.34	0.17	0.23	-0.38	-0.08	0.43	0.20	0.14	0.16	-0.22	-0.26

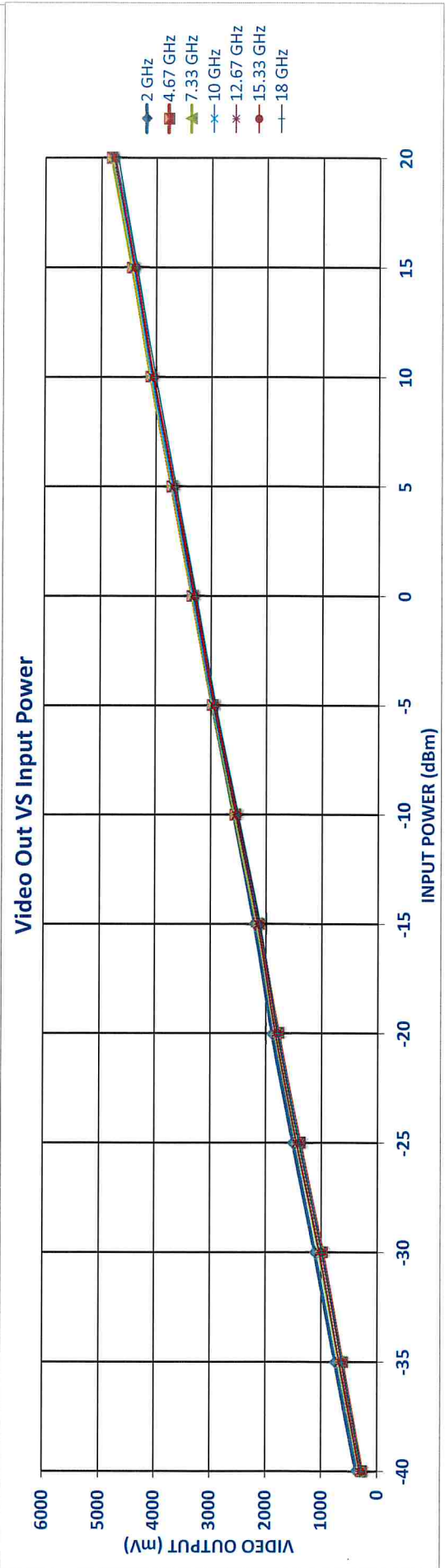
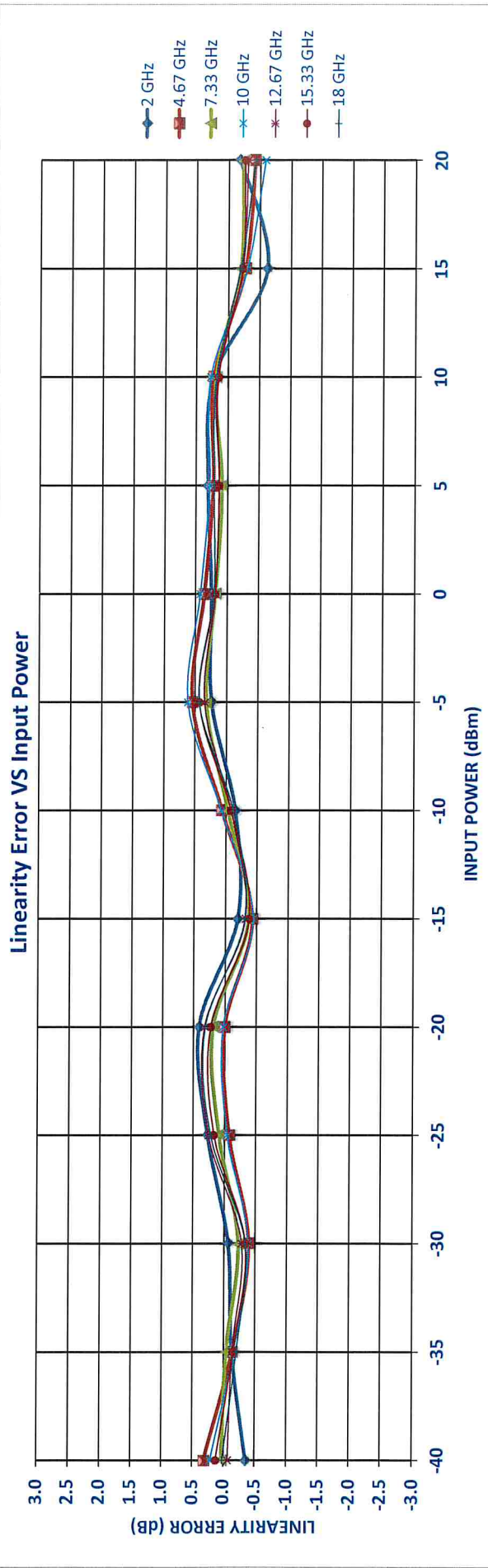
18 GHz	INTERCEPT (mV)	3246
	SLOPE (mV/dB)	74.5

269	625	987	1401	1780	2106	2493	2906	3262	3635	4005	4349	4704
1	-15	-25	16	23	-23	-9	32	16	16	14	-14	-32
0.02	-0.20	-0.34	0.22	0.31	-0.31	-0.12	0.43	0.21	0.22	0.19	-0.19	-0.43

Flatness P-P

Slope Avg(mv/dB)	75.1
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LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-218-CW-75MV
SERIAL NO: PL40783
Test Temp: +25C





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LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV
 TESTED BY: Jim Hopson
 DATE: 05-30-23
 SERIAL NO: PL40783
 Test Temp: +85C

RF Input Power (dBm)

-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20
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Measured Value (mV)
 Error (mV)
 LINEARITY ERROR (dB)

352	710	1065	1452	1828	2146	2518	2916	3273	3640	3993	4304	4709
-2	-7	-15	9	23	-22	-13	22	16	20	10	-42	0
-0.03	-0.09	-0.20	0.13	0.31	-0.31	-0.18	0.30	0.22	0.28	0.14	-0.58	0.00

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

262	574	925	1325	1707	2062	2478	2913	3273	3644	4025	4375	4751
60	-8	-38	-19	-17	-43	-8	47	26	16	17	-14	-19
0.79	-0.11	-0.50	-0.25	-0.23	-0.57	-0.10	0.61	0.34	0.21	0.22	-0.18	-0.24

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

290	623	972	1371	1752	2091	2497	2915	3273	3642	4024	4377	4758
41	-3	-30	-7	-2	-39	-10	32	14	7	13	-10	-6
0.54	-0.03	-0.40	-0.09	-0.03	-0.52	-0.13	0.43	0.19	0.09	0.17	-0.14	-0.07

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

244	545	898	1296	1674	2032	2447	2895	3253	3623	3998	4340	4704
66	-13	-40	-22	-24	-46	-11	58	36	26	21	-17	-33
0.86	-0.17	-0.53	-0.29	-0.31	-0.60	-0.14	0.76	0.47	0.34	0.27	-0.22	-0.43

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

287	616	965	1374	1749	2078	2471	2889	3242	3610	3982	4330	4704
33	-10	-33	5	8	-35	-13	33	14	11	11	-13	-10
0.44	-0.13	-0.44	0.06	0.11	-0.47	-0.18	0.44	0.19	0.14	0.15	-0.17	-0.14

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

246	549	901	1309	1684	2029	2429	2864	3218	3590	3963	4317	4696
60	-14	-39	-7	-9	-40	-17	42	19	15	11	-12	-9
0.79	-0.19	-0.51	-0.09	-0.11	-0.53	-0.22	0.55	0.25	0.19	0.15	-0.15	-0.12

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

230	518	873	1277	1650	2001	2392	2833	3186	3560	3924	4276	4636
66	-21	-40	-11	-13	-36	-20	46	25	24	13	-9	-24
0.88	-0.28	-0.54	-0.15	-0.17	-0.49	-0.27	0.62	0.33	0.32	0.18	-0.12	-0.32

Flatness P-P
 Slope Avg(mv/dB)

1.6	2.6	2.6	2.4	2.4	2.0	1.6	1.2	1.2	1.2	1.4	1.4	1.6
Flatness P-P												
Slope Avg(mv/dB) 74.9												

2 GHz INTERCEPT (mV) 3257
 SLOPE (mV/dB) 72.6

4.67 GHz INTERCEPT (mV) 3247
 SLOPE (mV/dB) 76.1

7.33 GHz INTERCEPT (mV) 3259
 SLOPE (mV/dB) 75.2

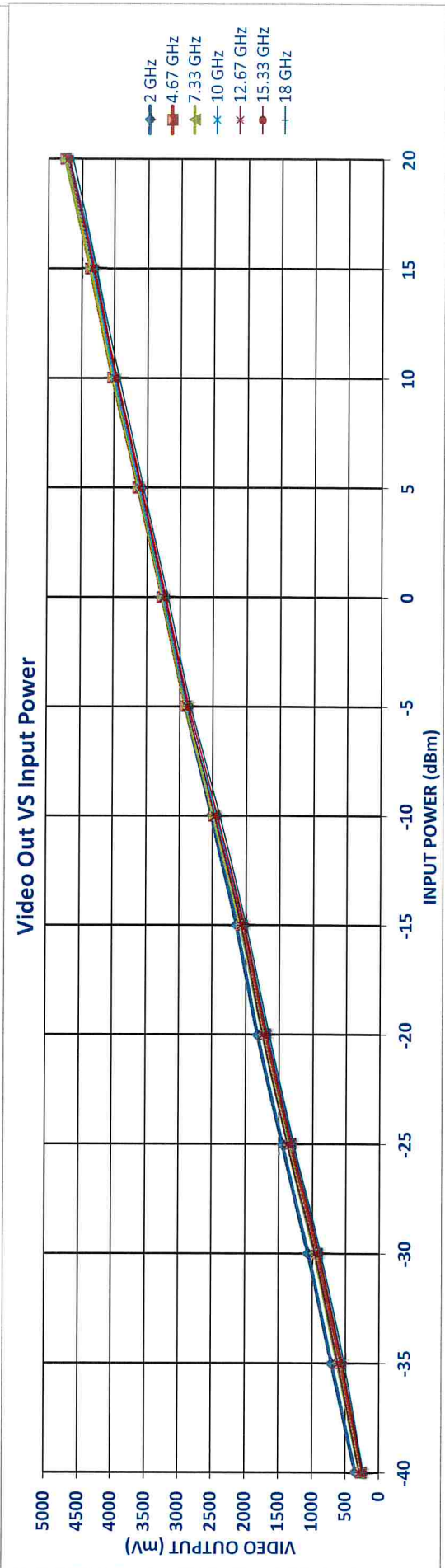
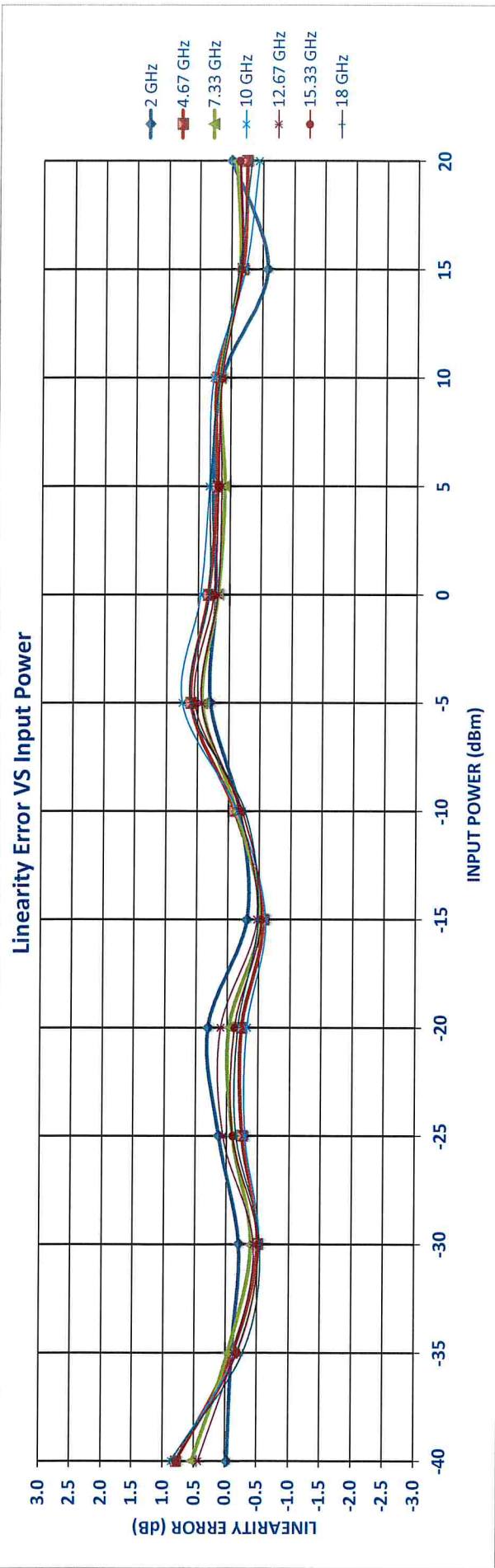
10 GHz INTERCEPT (mV) 3217
 SLOPE (mV/dB) 76.0

12.67 GHz INTERCEPT (mV) 3228
 SLOPE (mV/dB) 74.3

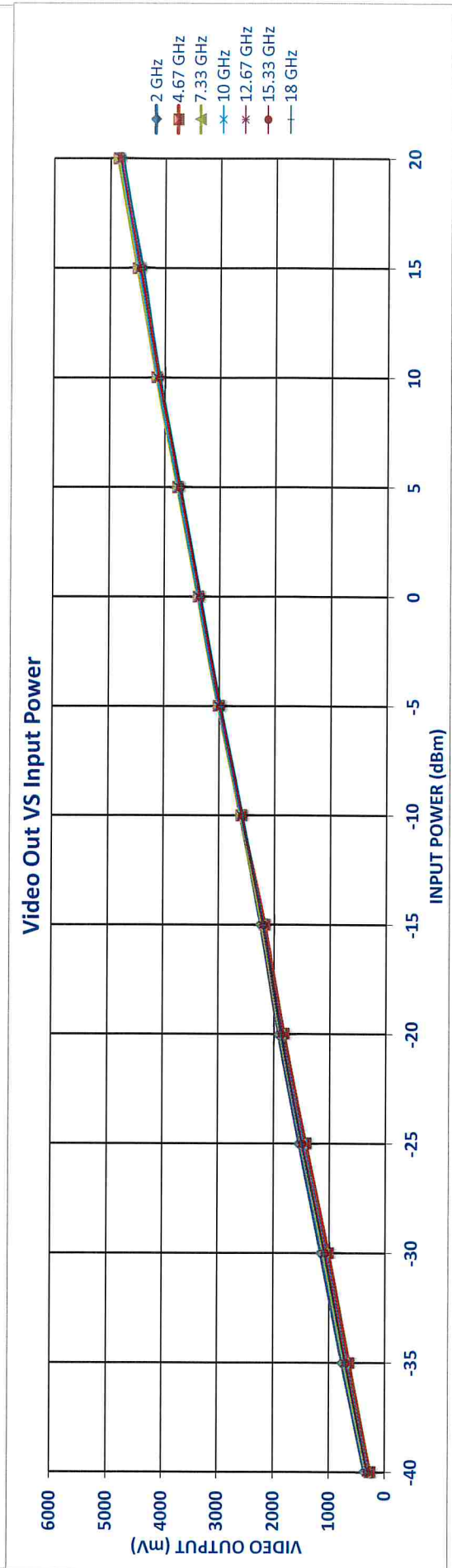
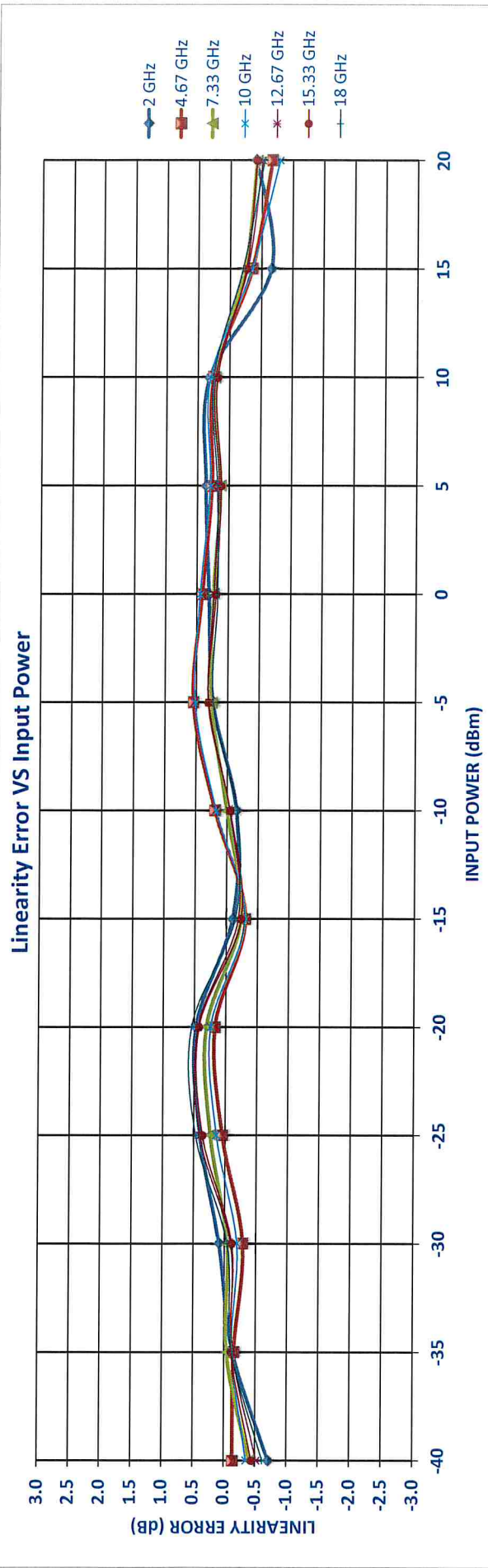
15.33 GHz INTERCEPT (mV) 3199
 SLOPE (mV/dB) 75.3

18 GHz INTERCEPT (mV) 3161
 SLOPE (mV/dB) 74.9

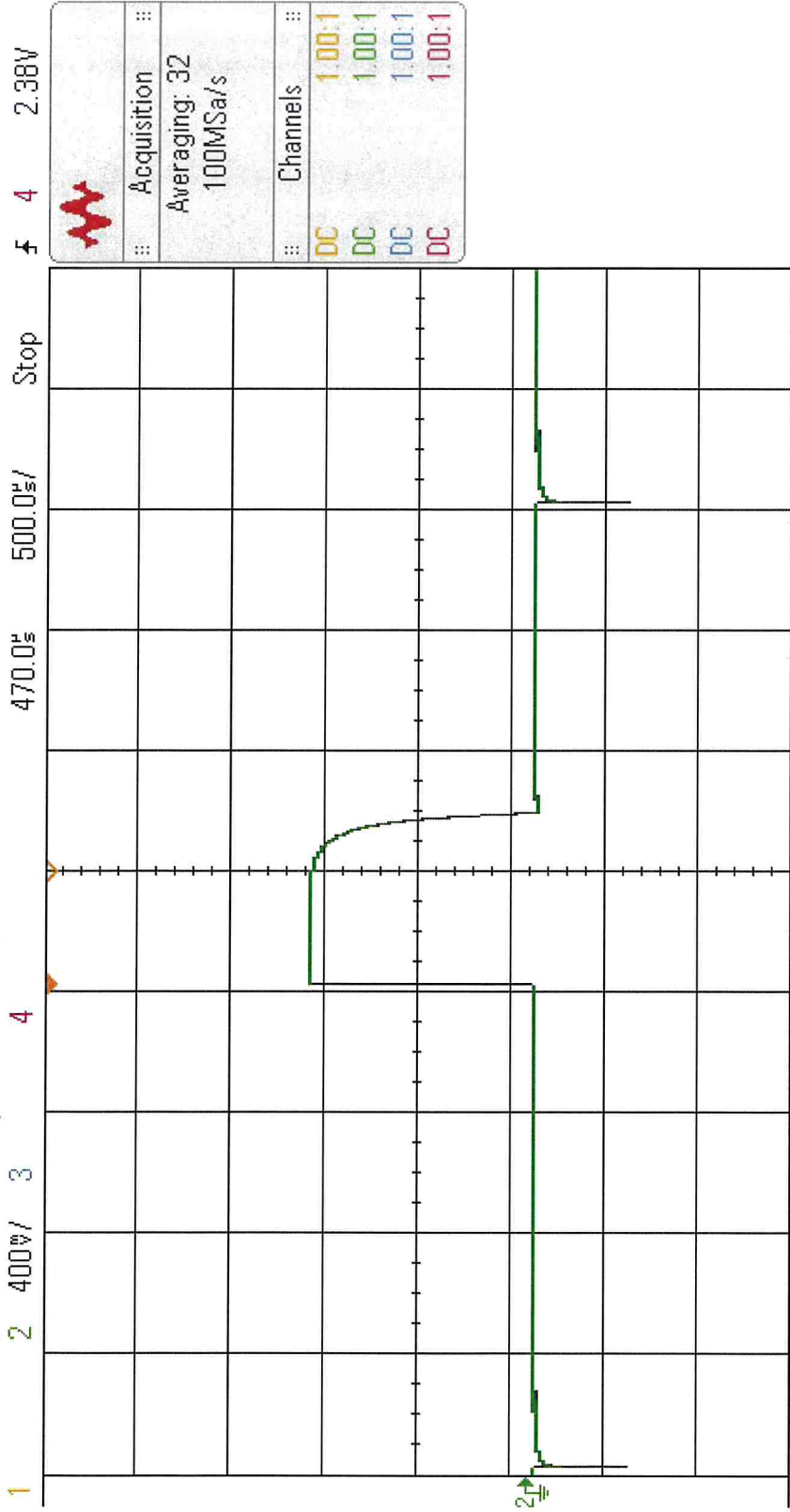
LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-218-CW-75MV
SERIAL NO: PL40783
Test Temp: +85C



LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-218-CW-75MV
SERIAL NO: PL40783
Test Temp: -25C



DSO-X 3034A, MY52394003: Wed May 31 14:57:34 2023



Acquisition	:
Averaging: 32	:
100MSa/s	:
Channels	:
DC	1.00:1
DC	1.00:1
DC	1.00:1
DC	1.00:1

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Format
BMP (8-bit)

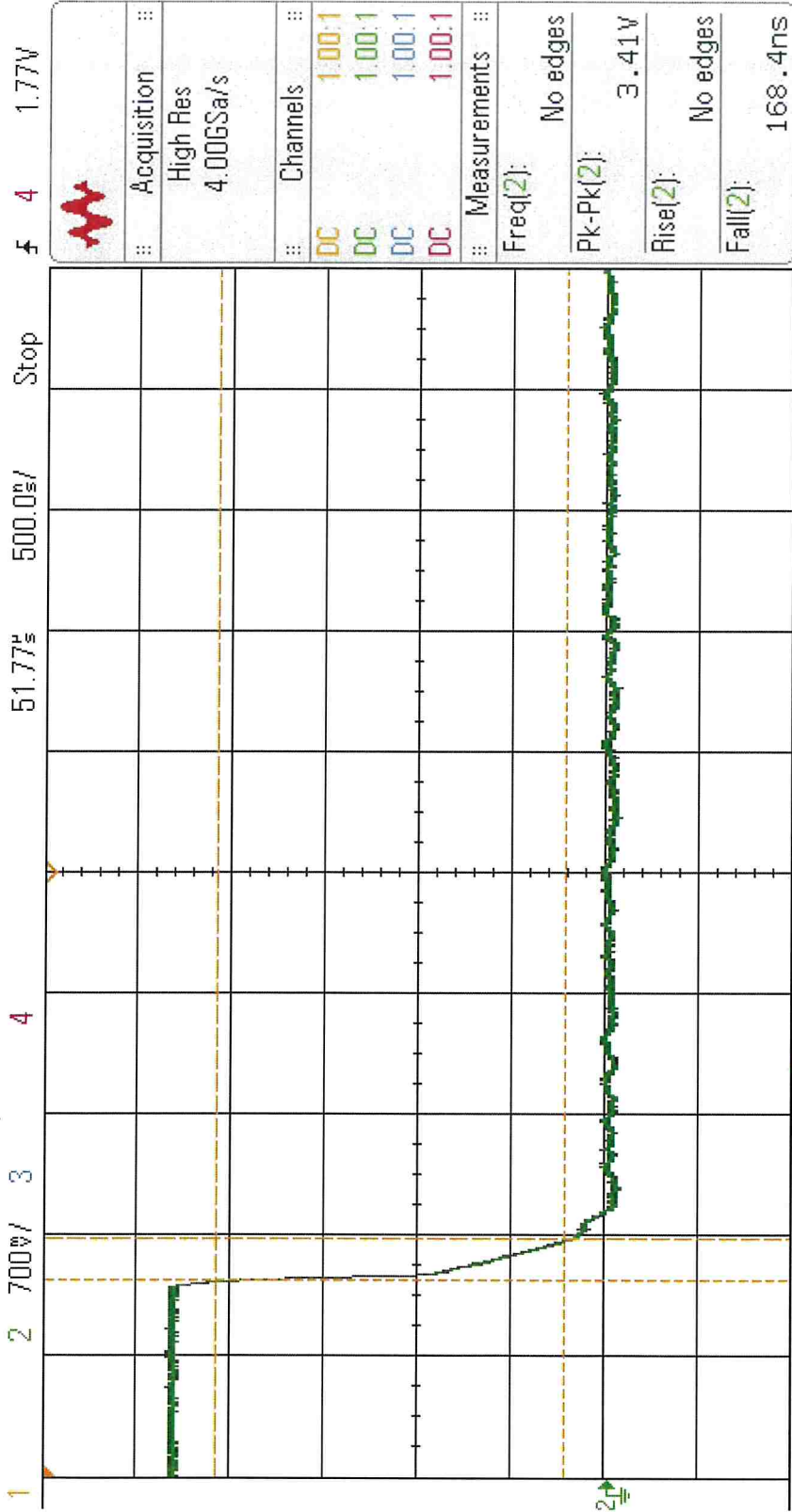
Save to
USB \usb

File Name

Settings

Press to
Save

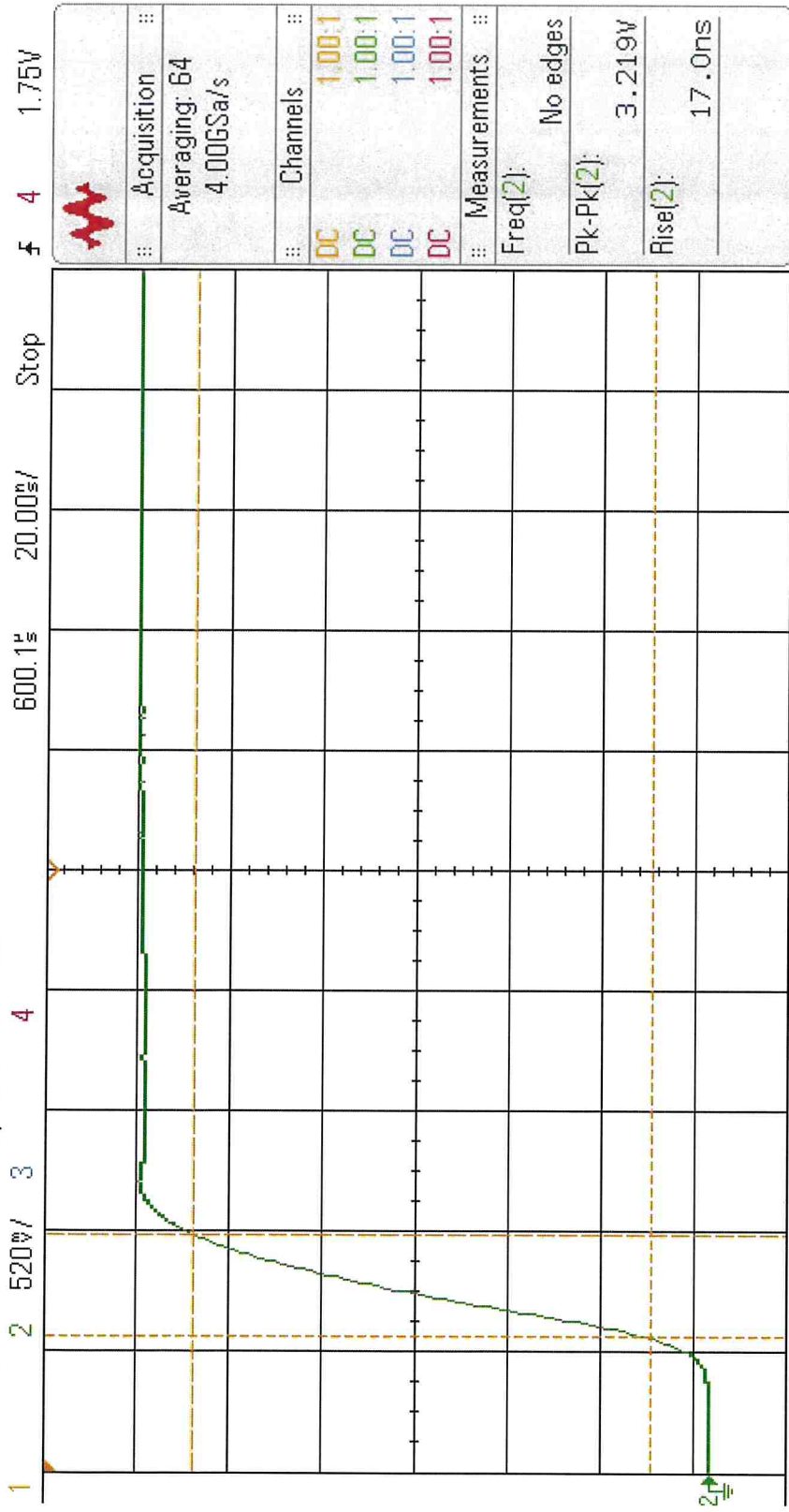
DSO-X 3034A, MY52394003: Wed May 31 14:16:54 2023



Save to file = pl40783_recovery

Spell Enter Delete Character Increment Press to Save

DSO-X 3034A, MW52394003: Tue May 30 15:41:20 2023



Acquisition	⋮
Averaging: 64	
4.00GSa/s	
Channels	⋮
DC	1.00:1
DC	1.00:1
DC	1.00:1
DC	1.00:1
Measurements	⋮
Freq(2):	No edges
Pk-Pk(2):	3.219V
Rise(2):	17.0ns

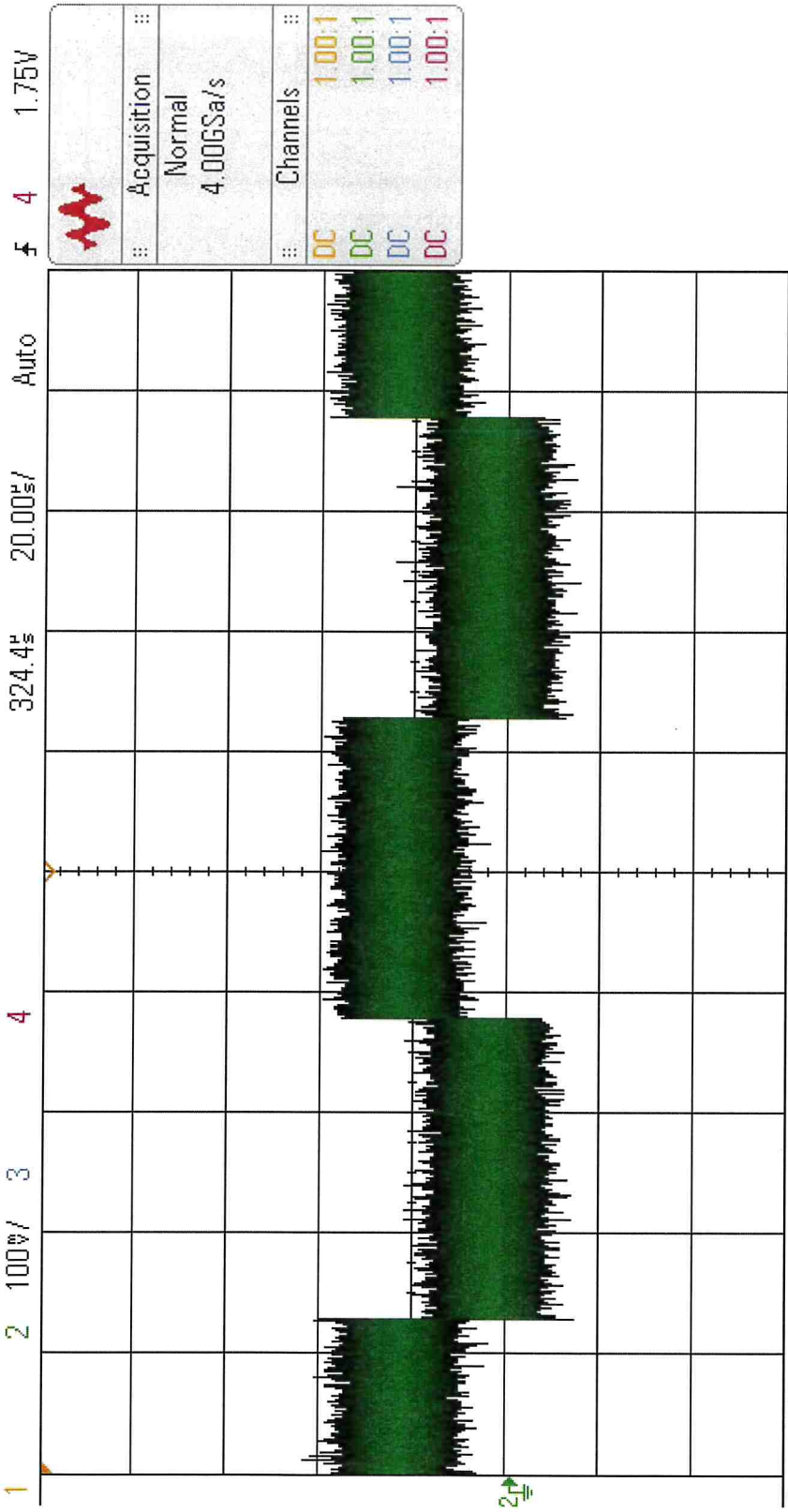
Acquire Menu

Acq Mode
Averaging

Avgs
64

Segmented

DSO-X 3034A, MV52394003: Tue May 30 15:46:26 2023



Cursors Menu

Mode Off

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

Model Number: ERDLVA-2G18G-CW-75MV

Serial Number: PL40783

Date: 6/2/2023

Temperature: +25C

VSWR GRAPH

