

**Summary Data
For
EWDM-2G6G-65-70MV-1**

13	SW Linear Gain	+7 dB MIN, 15 dB MAX	+13.7 dB MAX +11.7 dB MIN	PMI QA3
14	SW Frequency Flatness:	±1.2 dB MAX	±1 dB	
15	SW 1 dB Compression Point:	+3 dBm MIN	+7.8 dBm	
16	SW Second Harmonic:	-9 dBc MIN	-26 dBc	
17	SW Third Harmonic:	-12 dBc MIN	-46 dBc	
18	VIDEO OUT TSS:	-71 dBm MAX	-71 dBm	
19	VIDEO OUT Dynamic Range:	-65 to 0 dBm	-65 to 0 dBm	
20	VIDEO OUT Log Slope Fixed:	70 ± 3mV/dB	69.39/70.11 mv/db	
21	VIDEO OUT Log Linearity:	±0.75 dB MAX @ 4 GHZ	.35/- .57 db	
22	VIDEO OUT Log Accuracy:	±1.25 dB MAX	.90/- .88 db	
23	VIDEO OUT Absolute Log Accuracy:	±1.5 dB MAX	1.26/-1.24 db	
24	VIDEO OUT DC Offset:	0 ±70 mV (RF Input Terminated & DC Power On)	-12 mV	
25	VIDEO OUT Rise Time (10% to 90%):	25 ns TYP 28 ns MAX	25 ns	
26	VIDEO OUT Fall Time (90% to 10%):	300 ns MAX	190.6 ns	
27	VIDEO OUT Settling Time:	50 ns With in ±70 mV of final value, MAX	35 ns	
28	VIDEO OUT Recovery Time:	0.5 us MAX to within 1 dB of baseline	0.4 us	



Summary Data
For
EWDM-2G6G-65-70MV-1

29	VIDEO OUT Video Frequency Flatness:	± 1.0 dB MAX	± 0.72 dB	PMI QA3
30	VIDEO OUT CW Immunity:	A. CW Immune Power TSS to -40 dBm Baseline Shift: 200 mV MAX	< 200 mV	
		B. Pulse Peak Amplitude Loss; 2 dB MAX	< 2 dB	
		CW Immunity Time at CW = -40 dBm, ≤ 4 ms	1.4 ms	
		CW Recovery Time at CW = -40 dBm, ≤ 50 us	< 50 us	
31	VIDEO OUT Pulse Response, input Signal:	100 ns to 300 us	100 ns to 300 us	
32	VIDEO OUT load Impedance:	$75 \pm 1 \Omega$	75 Ω	
33	VIDEO OUT Video Output driver capability	150 ft. RG11 into 75 ohm load	PASS	
34	Pulse density capability:	10% duty cycle 100ns; 70% duty cycle 300us at peak power -10 dBm with 1 dB variable for pulse amplitude and baseline	PASS	
35	VIDEO OUT Noise Level (Vp-p):	150 mV TYP	< 150 mV	



Summary Data
For
EWDM-2G6G-65-70MV-1

36	Droop of the Output Video Pulse @ 300us & - 65 dBm	70mV (1 dB) MAX	< 70 mV	PMI QA3
37	VIDEO OUT Propagation Delay:	50 ns MAX Excluding cable	40 ns	
38	Power Supply	+15 V @ 1000 mA MAX -15 V @ 500 mA MAX	+15 V @ 630 mA -15 V @ 136 mA	
39	Power Supply Ripple From DC to 10 MHz	100 mV MAX	Pass	

QA/QC Approval: H. Blum Date: 10-2-24

LOG TRANSFER WITH FREQUENCY
MODEL: EWDM-2G6G-65-70MV-1
TESTED BY: Jim Hopson
SERIAL NO: PL42353 RF
DATE: 08/16/24

Test Temp: 25C

PLANAR MONOLITHICS INDUSTRIES
4921 Robert J. Mathews Parkway STE 1
TEL: 916-542-1401 FAX: 301-662-1731
EMAIL: SALES@PMI-RF.COM
ISO 9001:2000 CERTIFIED

Frequency

-12 offset

RF Input Power (dbm)

2000 MHz	INTERCEPT (mV)	4794.6
	SLOPE (mV/dB)	69.9

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
242	623	968	1312	1634	1968	2333	2688	3052	3375	3781	4103	4461	4780
-9	22	18	12	-15	-31	-15	-10	5	-22	35	7	16	-15
-0.13	0.32	0.26	0.18	-0.22	-0.44	-0.22	-0.14	0.07	-0.31	0.50	0.11	0.23	-0.21
0.19	0.65	0.59	0.52	0.14	-0.08	0.15	0.24	0.45	0.08	0.90	0.51	0.64	0.21

Measured Value (mV)	4780
Error (mV)	-15
LINEARITY ERROR (dB)	-0.21
ACCURACY ERROR (dB)	0.21

3000 MHz	INTERCEPT (mV)	4798.1
	SLOPE (mV/dB)	69.738

254	634	979	1320	1642	1978	2346	2713	3077	3381	3769	4097	4455	4797
-11	20	17	9	-18	-31	-11	7	22	-22	17	-4	6	-1
-0.16	0.29	0.24	0.13	-0.26	-0.44	-0.16	0.10	0.32	-0.32	0.24	-0.05	0.08	-0.02
0.37	0.81	0.75	0.64	0.25	0.06	0.34	0.59	0.81	0.16	0.72	0.42	0.55	0.45

Measured Value (mV)	4797
Error (mV)	-4
LINEARITY ERROR (dB)	-0.02
ACCURACY ERROR (dB)	0.45

4000 MHz	INTERCEPT (mV)	4775.4
	SLOPE (mV/dB)	69.388

250	632	978	1319	1641	1976	2342	2701	3056	3348	3733	4079	4429	4800
-15	20	19	13	-12	-24	-5	7	15	-40	-2	-3	1	25
-0.22	0.29	0.27	0.19	-0.17	-0.34	-0.07	0.10	0.22	-0.57	-0.02	-0.04	0.01	0.35
0.31	0.78	0.74	0.62	0.24	0.04	0.28	0.42	0.51	-0.31	0.21	0.16	0.18	0.49

Measured Value (mV)	4800
Error (mV)	25
LINEARITY ERROR (dB)	0.35
ACCURACY ERROR (dB)	0.49

5000 MHz	INTERCEPT (mV)	4776.7
	SLOPE (mV/dB)	69.731

236	614	958	1307	1627	1961	2329	2689	3050	3335	3718	4075	4431	4817
-8	21	16	17	-12	-27	-7	4	17	-47	-13	-4	3	40
-0.12	0.30	0.24	0.24	-0.17	-0.38	-0.10	0.06	0.24	-0.68	-0.18	-0.06	0.04	0.58
0.11	0.52	0.45	0.45	0.04	-0.18	0.09	0.25	0.42	-0.49	-0.01	0.11	0.21	0.74

Measured Value (mV)	4817
Error (mV)	40
LINEARITY ERROR (dB)	0.58
ACCURACY ERROR (dB)	0.74

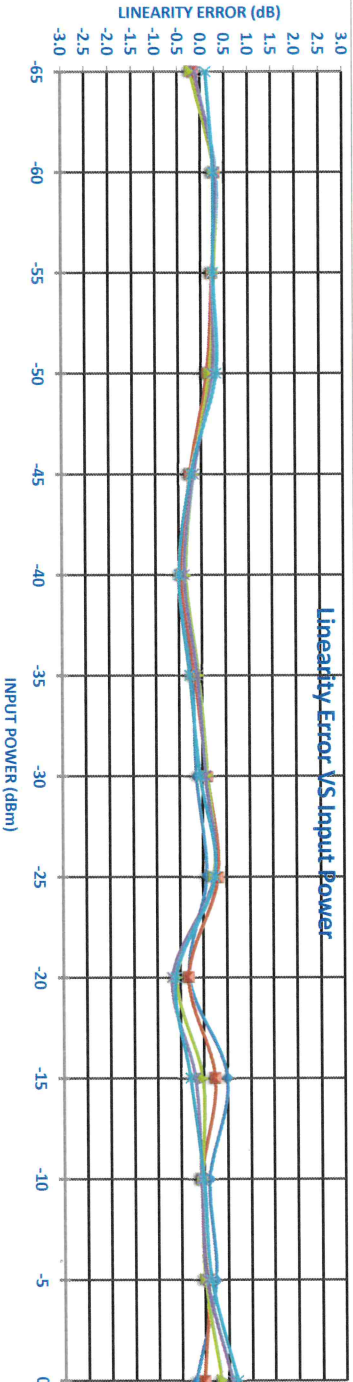
6000 MHz	INTERCEPT (mV)	4752.3
	SLOPE (mV/dB)	70.106

203	564	914	1269	1581	1913	2279	2645	3017	3308	3680	4050	4411	4800
8	18	18	22	-17	-35	-20	-4	17	-42	-21	-1	9	48
-0.11	0.26	0.25	0.31	-0.24	-0.50	-0.28	-0.06	0.25	-0.60	-0.30	-0.02	0.13	0.68
-0.37	-0.19	-0.18	-0.09	-0.62	-0.87	-0.62	-0.38	-0.05	-0.88	-0.55	-0.25	-0.08	0.49

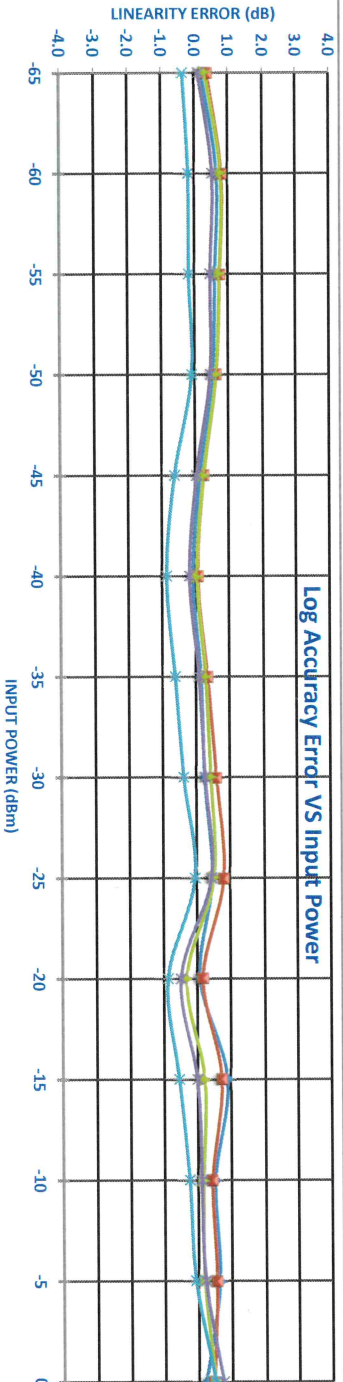
Measured Value (mV)	4800
Error (mV)	48
LINEARITY ERROR (dB)	0.68
ACCURACY ERROR (dB)	0.49

Flatness	+/- dB
----------	--------

0.37	0.50	0.47	0.37	0.44	0.47	0.48	0.49	0.43	0.52	0.72	0.38	0.36	0.27
------	------	------	------	------	------	------	------	------	------	------	------	------	------



Log Accuracy Error VS Input Power



LOG TRANSFER WITH FREQUENCY

MODEL: EMDM-2G6G-65-70MV-1
TESTED BY: Jim Hopson
SERIAL NO: PL42353 RF
DATE: 08/16/24

Test Temp: +85C

PLANAR MONOLITHICS INDUSTRIES
4921 Robert J. Mathews Parkway STE 1
TEL: 916-542-1401 FAX: 301-662-1731
EMAIL: SALES@PMI-RF.COM
ISO 9001:2000 CERTIFIED



Frequency

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	---

RF Input Power (dBm)

2000 MHz	INTERCEPT (mV)	4549.2
	SLOPE (mV/dB)	68.359

101	436	803	1154	1461	1784	2133	2501	2870	3184	3556	3905	4204	4493
-5	-12	14	23	-12	-31	-24	3	30	2	32	39	-3	-56
-0.07	-0.17	0.20	0.33	-0.18	-0.45	-0.35	0.04	0.44	0.03	0.47	0.58	-0.05	-0.82
0.67	0.53	0.86	0.95	0.41	0.09	0.16	0.50	0.86	0.41	0.81	0.88	0.22	-0.59

Measured Value (mV)

Error (mV)

LINEARITY ERROR (dB)

ACCURACY ERROR (dB)

3000 MHz	INTERCEPT (mV)	4562.3
	SLOPE (mV/dB)	68.274

111	455	823	1171	1480	1803	2157	2533	2898	3189	3540	3895	4227	4526
-14	-11	23	22	-10	-28	-16	19	43	-8	2	15	6	-36
-0.20	-0.16	0.23	0.33	-0.15	-0.42	-0.23	0.28	0.62	-0.12	0.03	0.23	0.09	-0.53
0.81	0.81	1.15	1.20	0.68	0.37	0.51	0.97	1.26	0.49	0.58	0.73	0.55	-0.11

Measured Value (mV)

Error (mV)

LINEARITY ERROR (dB)

ACCURACY ERROR (dB)

4000 MHz	INTERCEPT (mV)	4527.1
	SLOPE (mV/dB)	68.236

87	414	792	1142	1449	1773	2122	2498	2860	3149	3486	3851	4185	4524
-5	-19	18	27	-7	-25	-17	18	39	-13	-18	6	-1	-3
-0.07	-0.28	0.26	0.39	-0.11	-0.36	-0.25	0.26	0.57	-0.20	-0.26	0.09	-0.01	-0.05
0.46	0.21	0.70	0.78	0.23	-0.07	0.00	0.46	0.71	-0.09	-0.20	0.09	-0.06	-0.14

Measured Value (mV)

Error (mV)

LINEARITY ERROR (dB)

ACCURACY ERROR (dB)

5000 MHz	INTERCEPT (mV)	4527.3
	SLOPE (mV/dB)	68.457

77	397	780	1134	1442	1766	2115	2489	2853	3137	3479	3847	4184	4535
-1	-23	18	29	-5	-23	-16	15	37	-21	-21	4	-1	8
-0.01	-0.34	0.26	0.43	-0.07	-0.34	-0.24	0.22	0.54	-0.31	-0.31	0.06	-0.02	0.11
0.32	-0.04	0.52	0.66	0.13	-0.17	-0.10	0.33	0.61	-0.27	-0.30	0.04	-0.07	0.02

Measured Value (mV)

Error (mV)

LINEARITY ERROR (dB)

ACCURACY ERROR (dB)

6000 MHz	INTERCEPT (mV)	4495.5
	SLOPE (mV/dB)	69.115

40	314	714	1066	1374	1700	2038	2421	2804	3104	3430	3809	4156	4519
37	-35	20	26	-11	-31	-38	-1	36	-9	-29	5	6	24
0.54	-0.50	0.29	0.38	-0.16	-0.45	-0.56	-0.01	0.53	-0.13	-0.42	0.07	0.09	0.34
-0.22	-1.24	-0.44	-0.33	-0.86	-1.12	-1.22	-0.66	-0.10	-0.75	-1.02	-0.52	-0.48	-0.21

Measured Value (mV)

Error (mV)

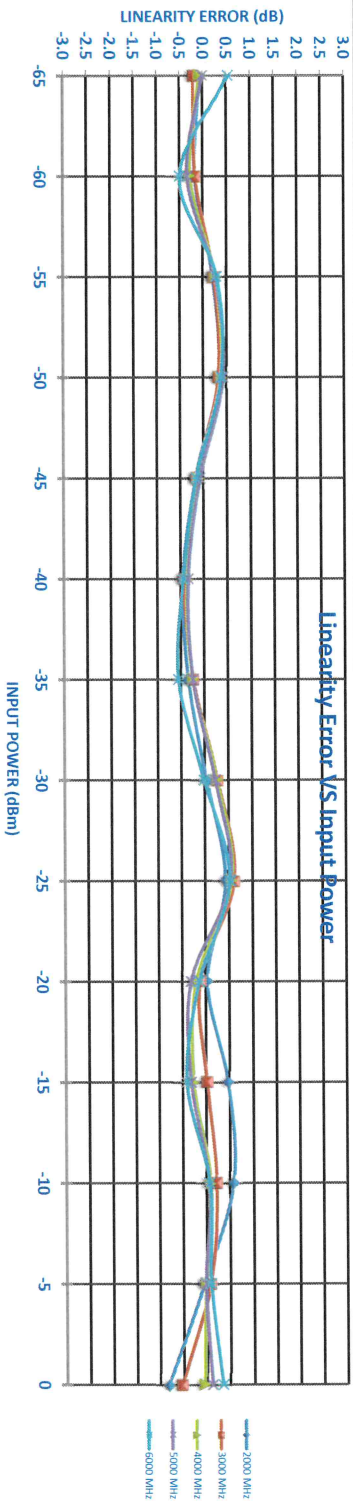
LINEARITY ERROR (dB)

ACCURACY ERROR (dB)

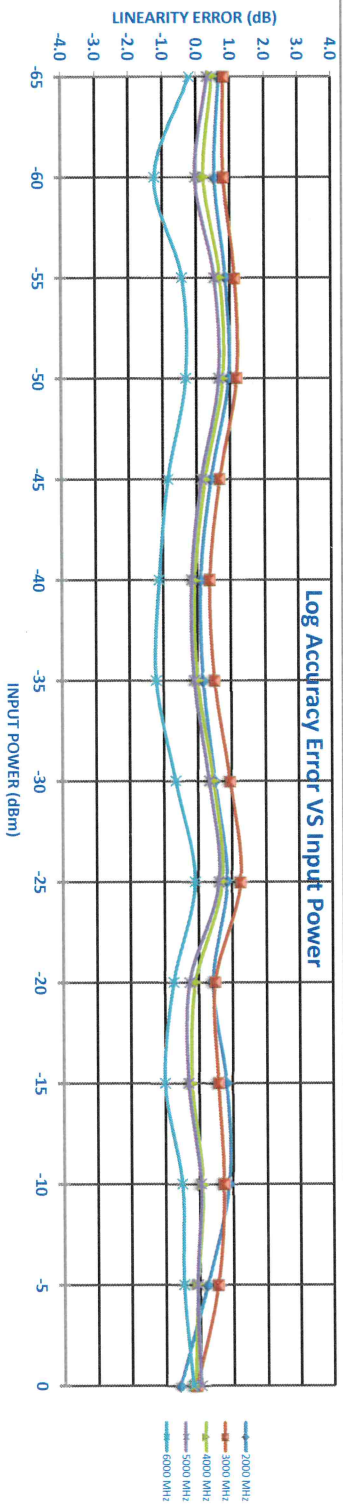
Flatness	+/- dB
----------	--------

0.52	1.02	0.79	0.76	0.77	0.75	0.86	0.81	0.68	0.62	0.91	0.70	0.52	0.30
------	------	------	------	------	------	------	------	------	------	------	------	------	------

Linearity Error VS Input Power



Log Accuracy Error VS Input Power





Frequency

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	---

RF Input Power (dBm)

2000 MHz	INTERCEPT (mV)	4840.1
	SLOPE (mV/dB)	70.284

269	646	990	1333	1660	2000	2367	2722	3088	3415	3821	4132	4498	4841
-3	23	16	7	-17	-29	-13	-10	5	-19	35	-5	9	1
-0.04	0.33	0.22	0.10	-0.25	-0.41	-0.19	-0.14	0.07	-0.28	0.50	-0.07	0.13	0.01
0.11	0.50	0.41	0.31	-0.01	-0.16	0.09	0.16	0.39	0.06	0.86	0.30	0.53	0.43

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

3000 MHz	INTERCEPT (mV)	4841.6
	SLOPE (mV/dB)	70

286	660	1006	1343	1673	2015	2384	2749	3113	3422	3812	4132	4494	4844
-6	18	14	1	-19	-27	-8	7	21	-20	20	-10	2	2
-0.08	0.26	0.20	0.02	-0.27	-0.38	-0.11	0.11	0.31	-0.28	0.29	-0.14	0.03	0.03
0.36	0.70	0.64	0.46	0.17	0.06	0.33	0.54	0.74	0.16	0.73	0.30	0.47	0.47

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

4000 MHz	INTERCEPT (mV)	4818.5
	SLOPE (mV/dB)	69.674

279	658	1003	1341	1670	2011	2378	2735	3090	3386	3778	4118	4469	4842
-11	20	17	6	-13	-21	-2	7	13	-39	5	-4	-1	23
-0.15	0.29	0.24	0.09	-0.19	-0.30	-0.03	0.10	0.19	-0.56	0.07	-0.05	-0.02	0.34
0.26	0.67	0.60	0.43	0.13	0.00	0.24	0.34	0.41	-0.36	0.24	0.10	0.11	0.44

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

5000 MHz	INTERCEPT (mV)	4818.3
	SLOPE (mV/dB)	70.004

267	638	981	1328	1654	1995	2364	2722	3083	3371	3762	4112	4470	4858
-1	20	13	10	-14	-23	-4	4	15	-47	-6	-6	2	40
-0.02	0.28	0.18	0.14	-0.20	-0.33	-0.06	0.05	0.21	-0.68	-0.09	-0.09	0.02	0.57
0.09	0.39	0.29	0.24	-0.10	-0.23	0.04	0.16	0.31	-0.57	0.01	0.01	0.13	0.67

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

6000 MHz	INTERCEPT (mV)	4794.4
	SLOPE (mV/dB)	70.302

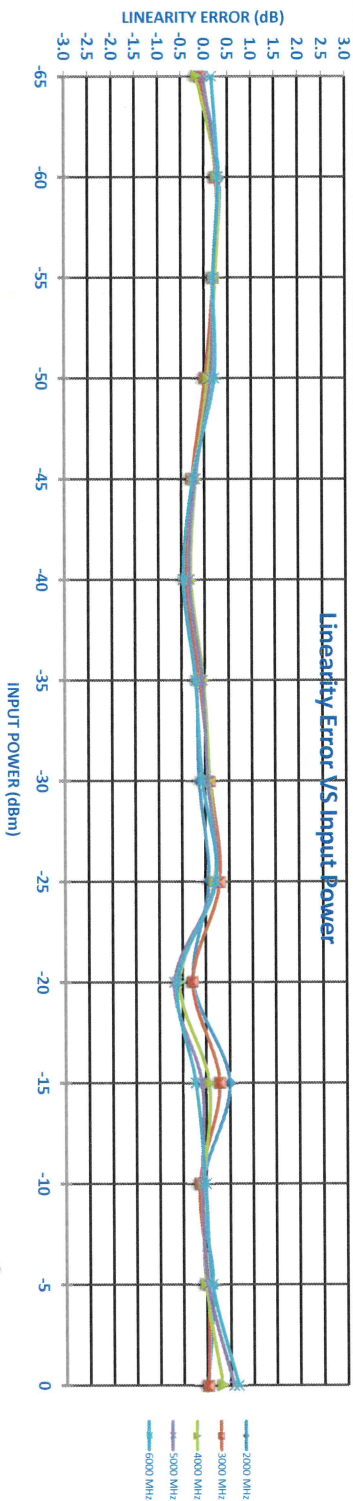
236	597	941	1294	1613	1950	2319	2681	3052	3345	3724	4090	4451	4841
11	21	13	15	-18	-32	-15	-4	15	-43	-16	-1	8	47
-0.16	0.30	0.19	0.21	-0.25	-0.46	-0.21	-0.06	0.22	-0.62	-0.23	-0.02	0.12	0.66
-0.36	-0.20	-0.29	-0.24	-0.69	-0.87	-0.60	-0.43	-0.13	-0.94	-0.53	-0.30	-0.14	0.43

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

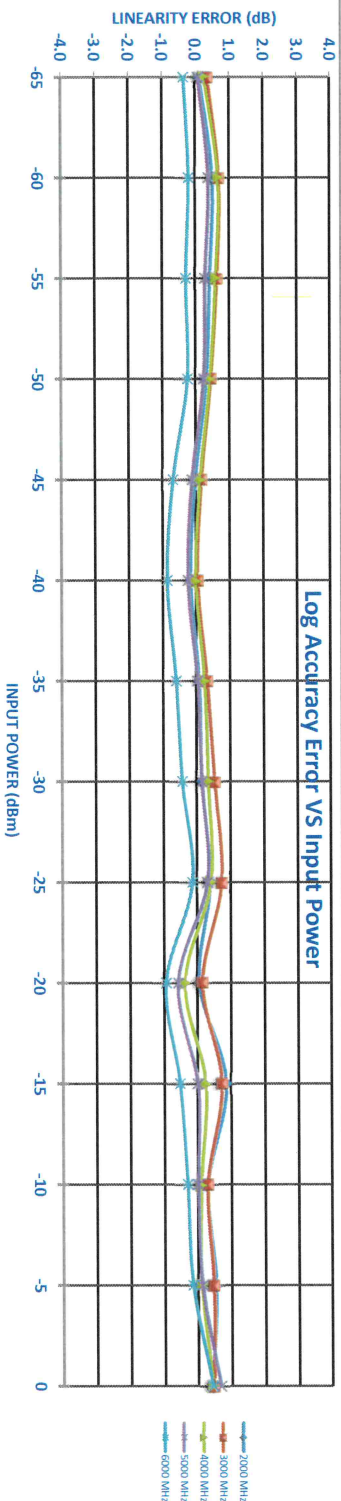
Flatness	+/- dB
----------	--------

0.36	0.45	0.46	0.35	0.43	0.46	0.46	0.49	0.44	0.55	0.69	0.30	0.34	0.12
------	------	------	------	------	------	------	------	------	------	------	------	------	------

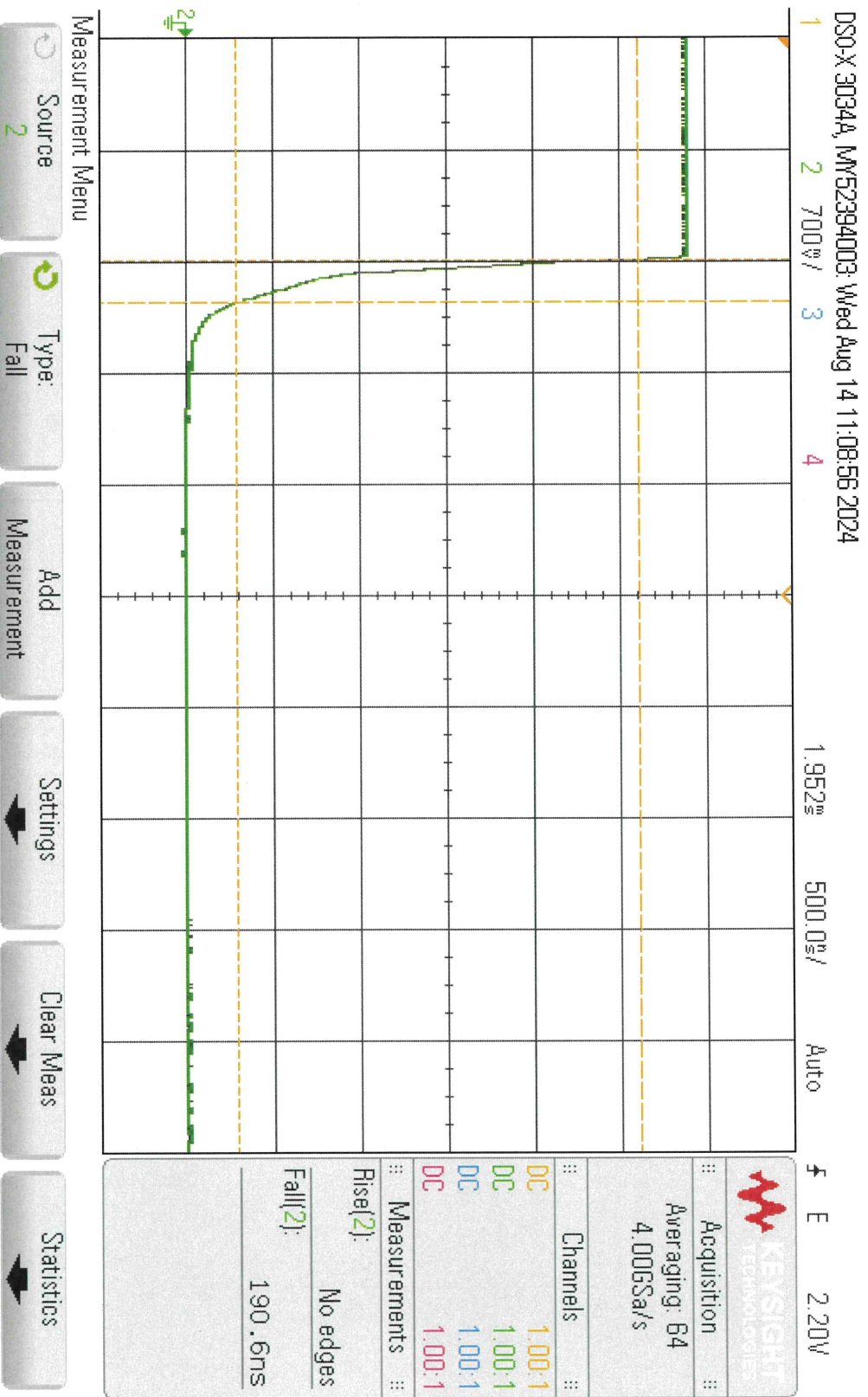
Linearity Error VS Input Power



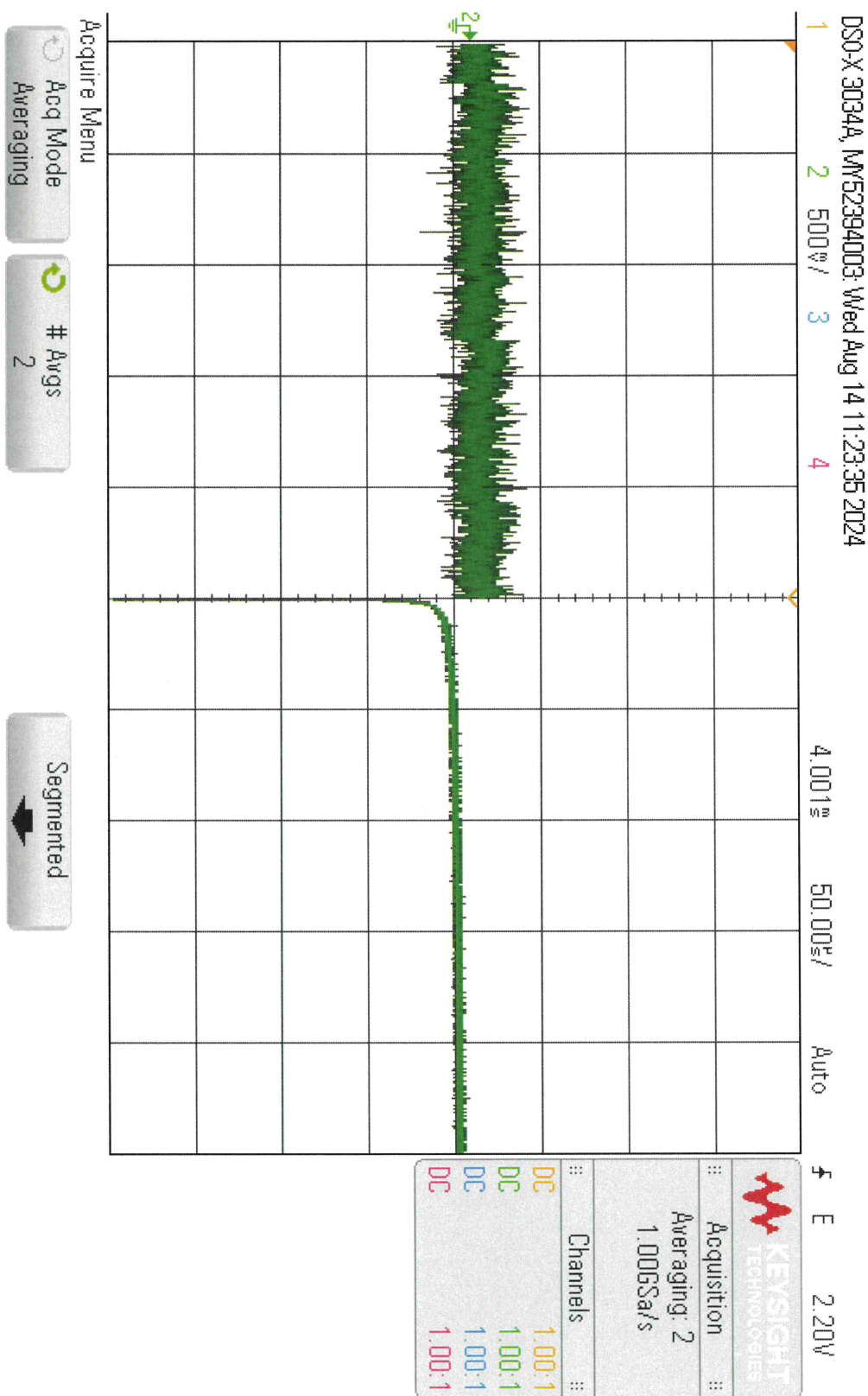
Log Accuracy Error VS Input Power



PL42353
Recovery



PL42353
CW Recovery

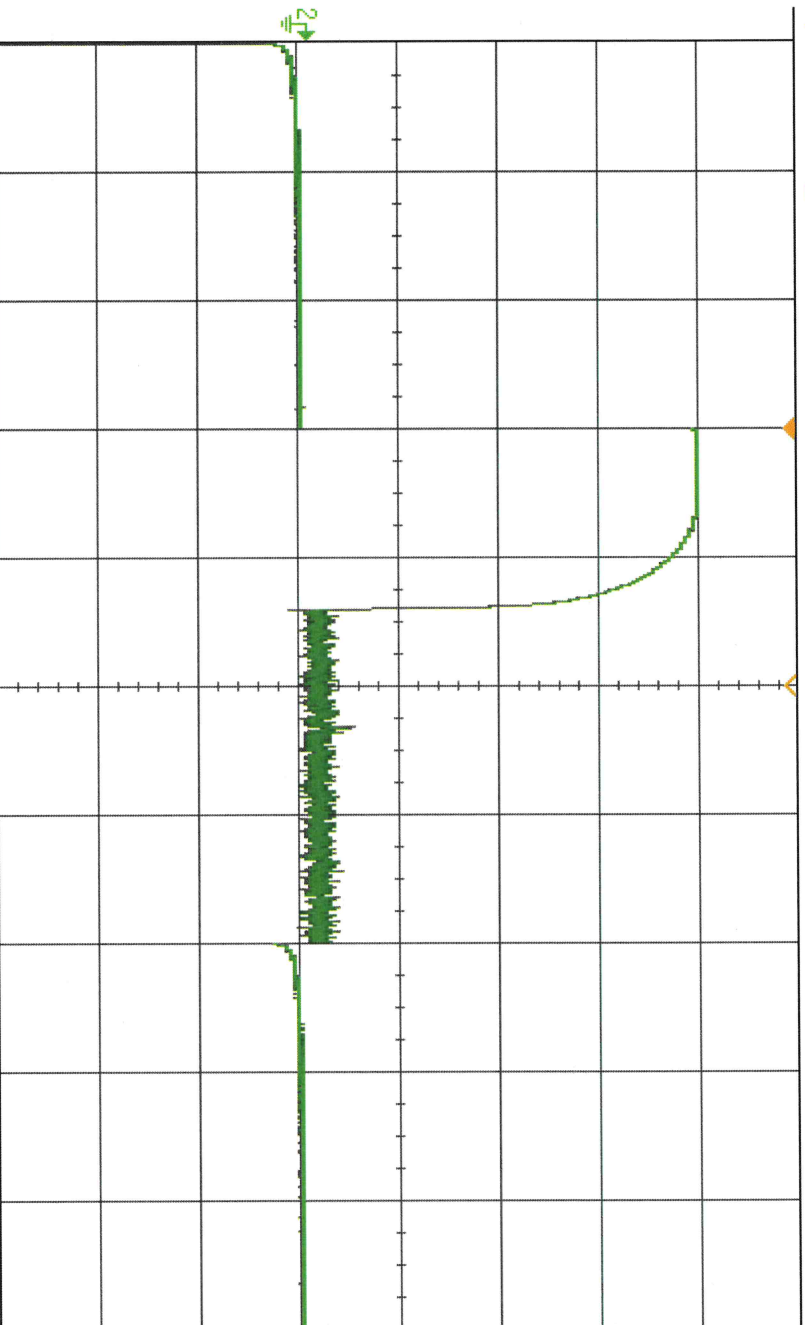


PL42353

CW Immune

DSO-X 3034A, MW52394003: Wed Aug 14 11:24:30 2024

1 2 500% 3 4 2.000ms 1.000ms/ Auto f E 2.20V



KEYSIGHT
TECHNOLOGIES

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 = pl42353_cw Immune

Save

Recall

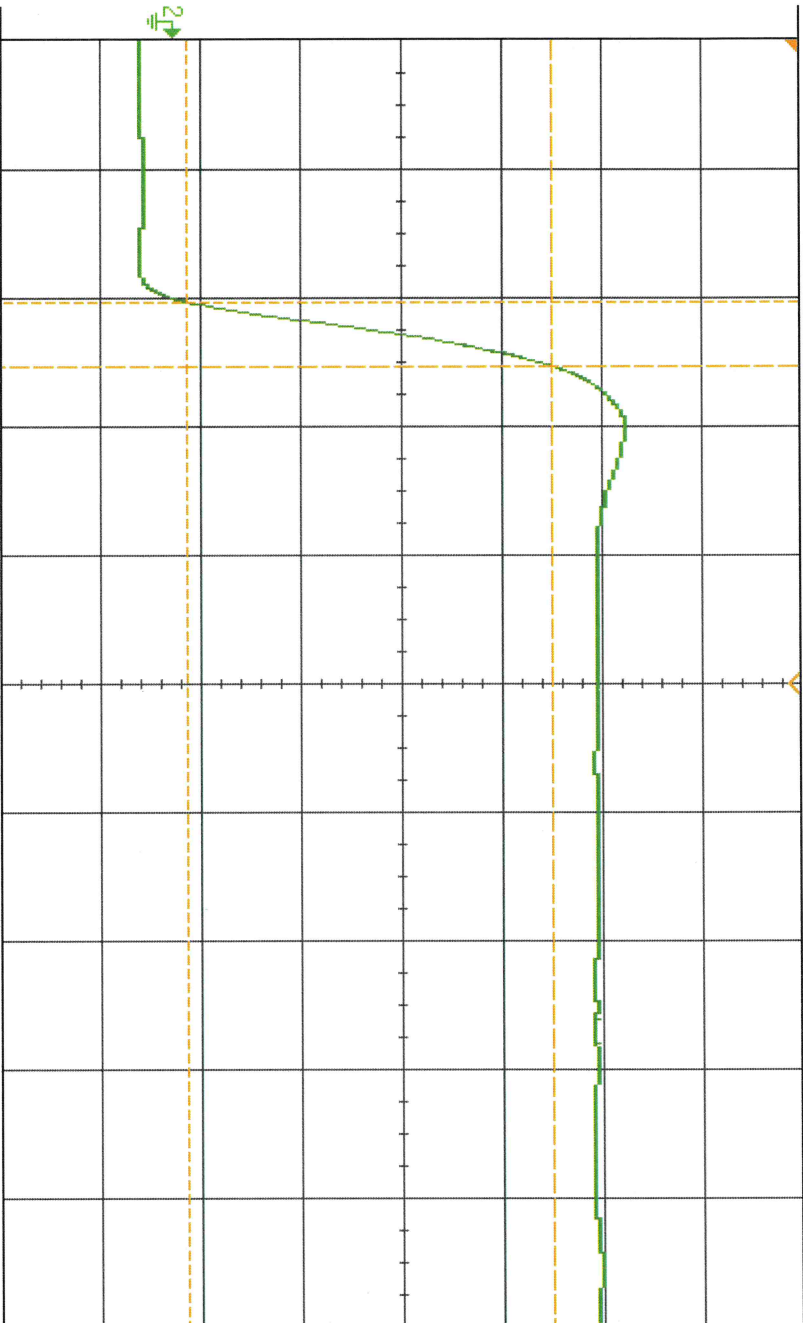
Default/Erase

Press to
Save

PL42353
Rise Time

DSO-X 3034A, MW52394003: Wed Aug 14 11:05:34 2024

1 2 60V/ 3 4 1.900ns 50.00ns/ Stop f E 2.20V



KEYSIGHT TECHNOLOGIES	
Acquisition	
Averaging: 512	
4.00GSa/s	
Channels	
DC	1.00:1
DC	1.00:1
DC	1.00:1
DC	1.00:1
Measurements	
Fall(2):	No edges
Rise(2):	25.0ns

Acquire Menu

Acq Mode Averaging

Avgs 512

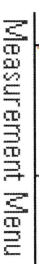
Segmented

Rms noise

[illegible][illegible]

1.952 m	200.0 Hz	Auto	f	E	2.20 V
---------	----------	------	---	---	--------

2.20V



2

AC RMS - FS

Add	Measurement
1	100
2	200
3	300
4	400
5	500
6	600
7	700
8	800
9	900
10	1000



KEYSHOT
RENDERING SOFTWARE

Acquisition ::

Normal
1.00GSa/s

Channels:

DC	1.00
----	------

DC 1.00:~

1.00:

1.00V DC

Measurements :

Rise(2):

Δ93ns

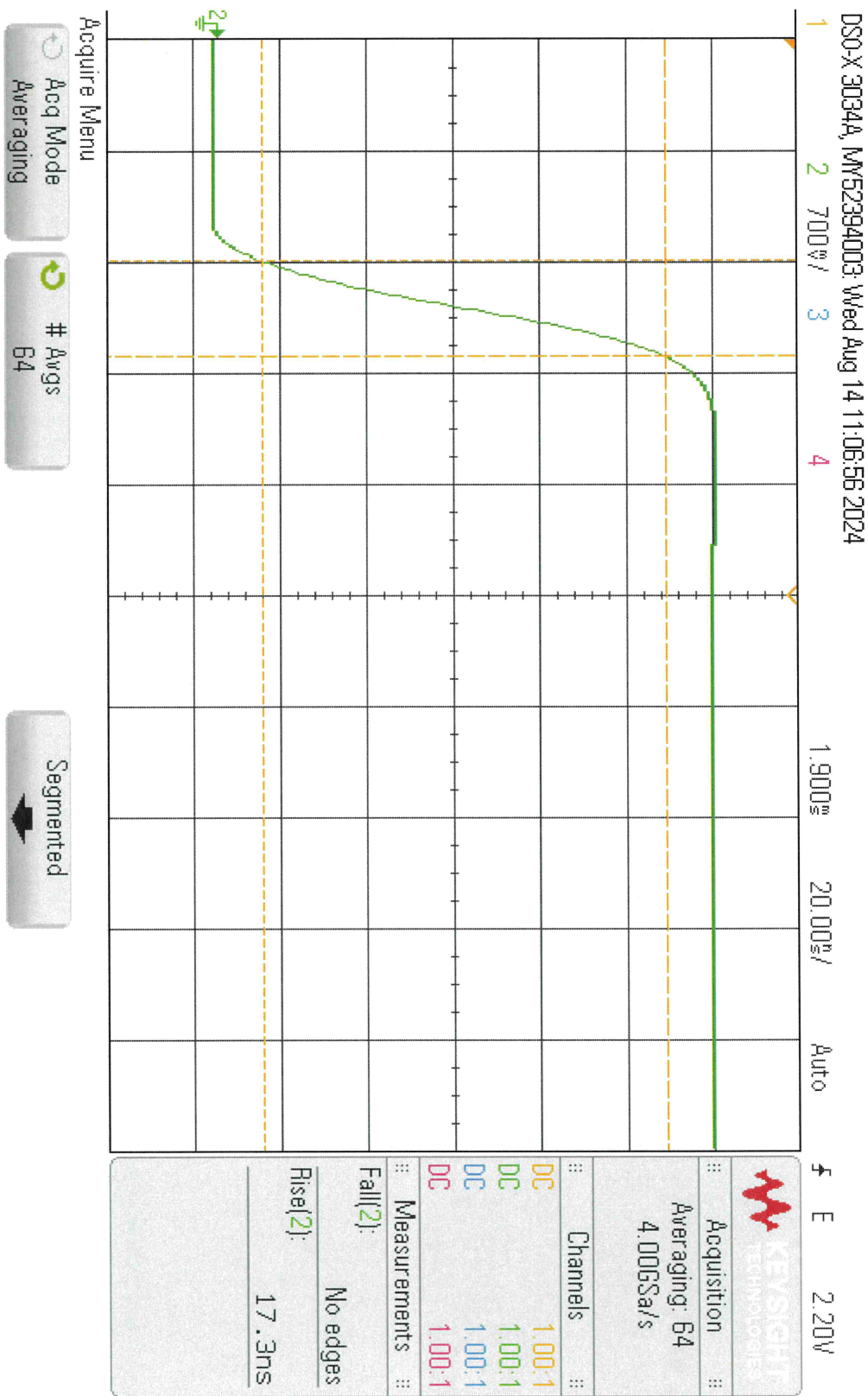
Fall(2):

93ns

AC RMS - FS(2):

20.88mV

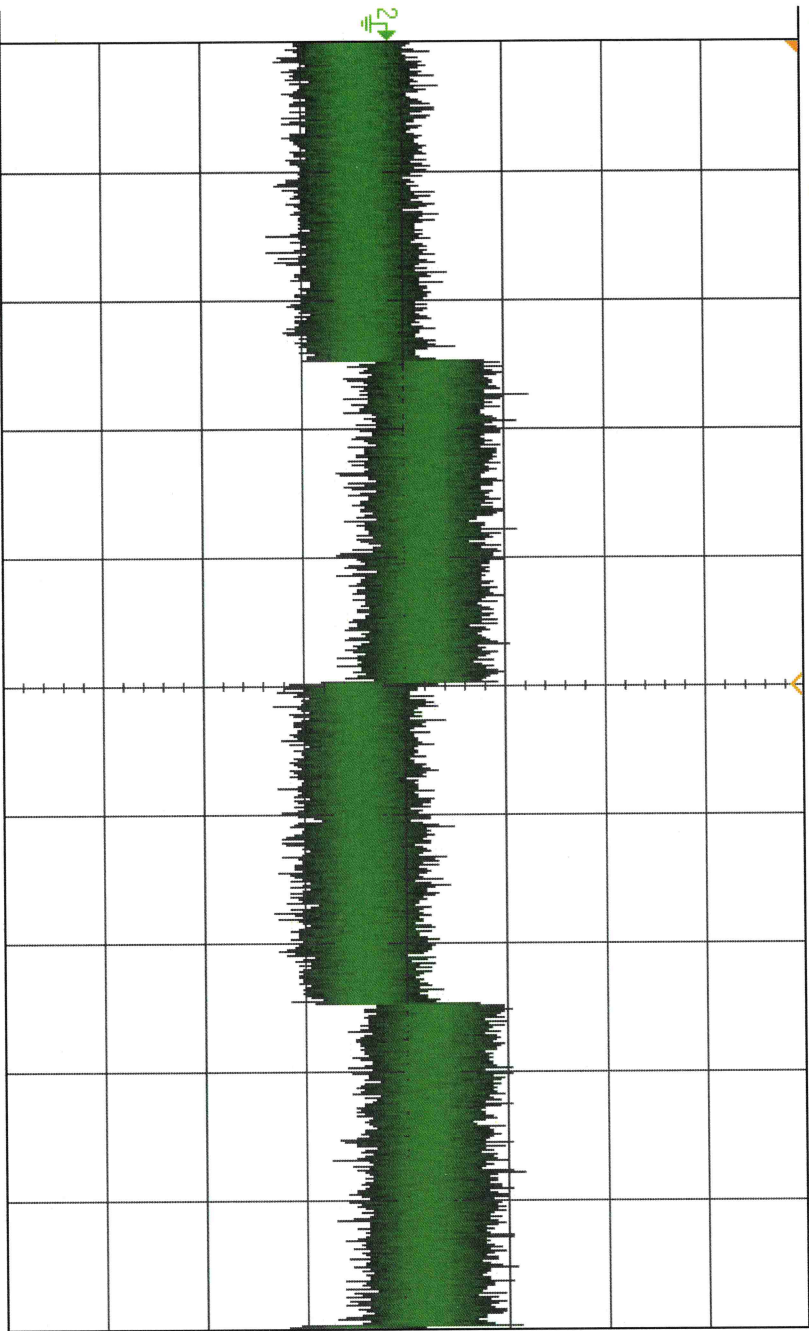
PL42353
Settle



PL42353
TSS -71

DSO-X 3034A, MY52394003, Wed Aug 14 11:15:31 2024

1 2 100% / 3 4 1.951ms 20.00% / Auto f E 2.20V



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.