



**Summary Data
For
ERDLVA-218-CW-75MV**

Customer: _____ Tested By: JOHNM
 SO No: _____ Temperature: -25C, 25C, 85C
 Model No: ERDLVA-218-CW-75MV-93 Date 11/14/2022
 Serial No: PL38403/2246 Drawing No: 27642440 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:	2.5:1 MAX @ -20 dBm	1.25:1 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	74.7-77.5mV/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	40mV	
9	VIDEO OUT Rise Time (10% to 90%):	25 ns MAX	15.3ns	
10	VIDEO OUT Settling Time:	±0.5dB within 25ns from 90%	<0.5dB	
11	VIDEO OUT Recovery Time:	500ns MAX	360ns	
12	VIDEO OUT Video Frequency Flatness:	3.0 dB p-p MAX @ -20dBm	2.2dB p-p MAX @ -20dBm	



**Summary Data
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		CW Immune Power -50 to -10 dBm	Pass	PMI QA3
13	VIDEO OUT CW Immunity:	CW Attack Time 1500us	1444us	
		CW Release Time 250us	30us	
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	50.6mV	
22	VIDEO OUT Propagation Delay:	35 ns MAX from RF 10% to 10% video (excluding cable)	17ns	
23	Power Supply	+12 V @ 250 mA MAX -12 V @ 250 mA MAX	+12 V @ 200 mA -12 V @ 60 mA	

QA/QC Approval: *K. Winters*

Date: 11-16-22

LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV-93
 TESTED BY: J.Merriner
 DATE: 11-3-22
 SERIAL NO: PL 38403
 Test Temp: +25C



PLANAR MONOLITHICS INDUSTRIES
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 Phone: 916-542-1401 Fax: 301-662-1731
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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)	3321
	SLOPE (mV/dB)	77.7

216	594	986	1363	1747	2163	2564	2955	3325	3730	4140	4460	4832
2	-8	-5	-16	-20	7	20	22	4	21	42	-26	-43
0.03	-0.11	-0.06	-0.21	-0.26	0.09	0.25	0.29	0.05	0.26	0.54	-0.34	-0.55

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

4.67 GHz	INTERCEPT (mV)	3284
	SLOPE (mV/dB)	75.4

245	643	1033	1403	1792	2187	2521	2890	3252	3662	4067	4415	4781
-23	-2	11	4	16	34	-9	-17	-32	1	29	0	-11
-0.31	-0.03	0.14	0.05	0.21	0.45	-0.12	-0.23	-0.43	0.01	0.38	0.00	-0.15

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

7.33 GHz	INTERCEPT (mV)	3325
	SLOPE (mV/dB)	75.7

274	686	1069	1434	1826	2220	2549	2924	3287	3692	4107	4457	4854
-23	11	15	2	15	31	-19	-22	-38	-11	25	-3	15
-0.30	0.14	0.20	0.02	0.20	0.41	-0.25	-0.29	-0.50	-0.15	0.34	-0.04	0.20

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

10 GHz	INTERCEPT (mV)	3330
	SLOPE (mV/dB)	74.6

306	739	1118	1475	1868	2247	2540	2913	3276	3693	4106	4452	4851
-38	22	27	11	31	37	-43	-44	-54	-10	30	3	28
-0.51	0.29	0.37	0.15	0.42	0.49	-0.58	-0.58	-0.72	-0.13	0.40	0.03	0.38

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

12.67 GHz	INTERCEPT (mV)	3333
	SLOPE (mV/dB)	74.3

329	746	1127	1496	1887	2263	2542	2911	3274	3684	4100	4453	4859
-33	13	22	20	40	44	-48	-50	-59	-20	24	6	41
-0.44	0.17	0.30	0.27	0.53	0.60	-0.65	-0.68	-0.79	-0.27	0.33	0.08	0.55

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

15.33 GHz	INTERCEPT (mV)	3334
	SLOPE (mV/dB)	75.7

285	699	1080	1452	1845	2231	2549	2924	3288	3697	4116	4467	4876
-23	13	15	9	24	32	-29	-32	-46	-15	25	-2	29
-0.30	0.17	0.20	0.12	0.32	0.42	-0.38	-0.42	-0.61	-0.20	0.33	-0.03	0.38

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

18 GHz	INTERCEPT (mV)	3316
	SLOPE (mV/dB)	74.1

308	734	1115	1480	1867	2241	2543	2914	3276	3680	4086	4431	4803
-44	11	22	16	33	36	-32	-32	-40	-7	29	3	5
-0.60	0.15	0.29	0.22	0.44	0.49	-0.43	-0.43	-0.54	-0.09	0.39	0.04	0.06

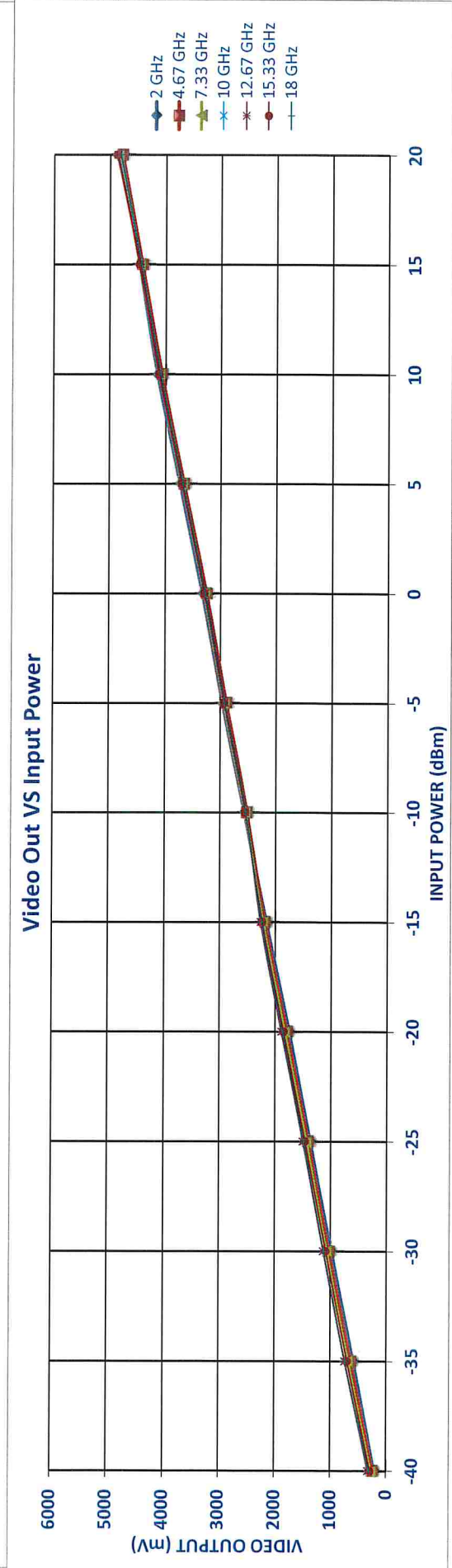
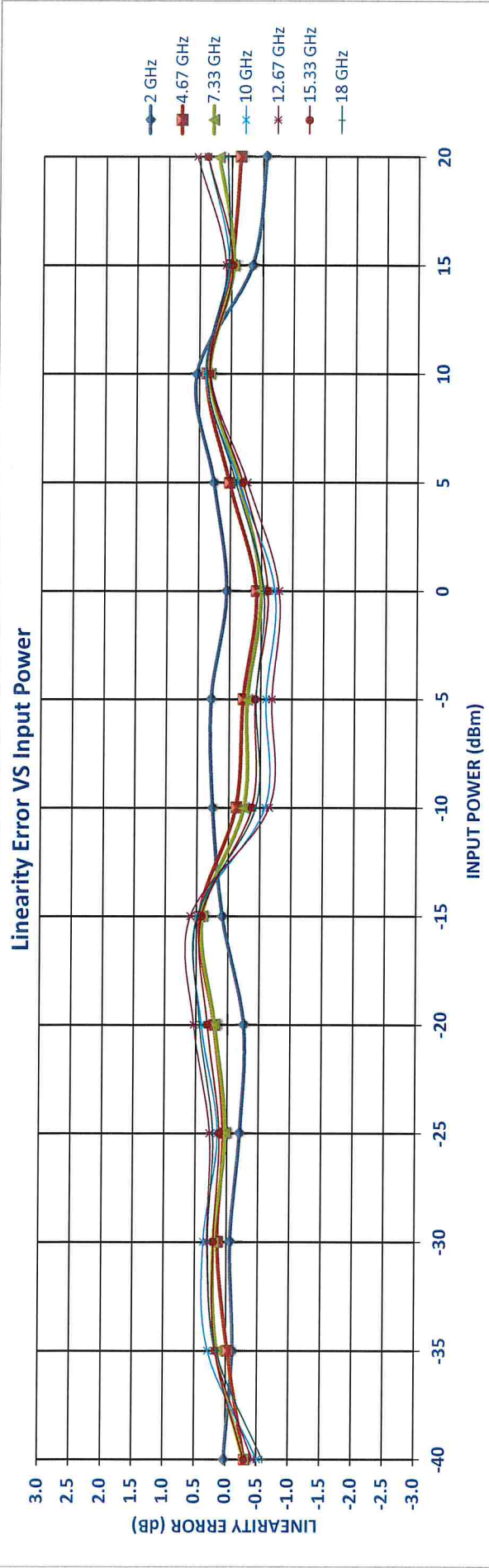
Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)

Flatness P-P

1.4	2.0	1.8	1.8	1.8	1.4	0.6	0.8	1.0	1.0	1.0	0.6	1.2
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Slope Avg(mv/dB) 75.4

LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-218-CW-75MV-93
SERIAL NO: PL 38403
Test Temp: +25C





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LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV-93
 TESTED BY: J.Merriner
 DATE: 11-3-22
 SERIAL NO: PL 38403
 Test Temp: +85C

Frequency	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20
2 GHz	261	625	1068	1451	1815	2209	2624	3025	3384	3779	4171	4471	4816
	-27	-47	12	11	-9	1	32	49	24	34	42	-42	-81
	-0.35	-0.61	0.16	0.14	-0.12	0.01	0.41	0.63	0.31	0.45	0.55	-0.54	-1.05
4.67 GHz	283	690	1113	1490	1855	2232	2590	2956	3312	3708	4103	4429	4771
	-59	-25	25	29	21	26	11	4	-13	10	32	-15	-46
	-0.79	-0.33	0.34	0.39	0.29	0.34	0.14	0.05	-0.18	0.13	0.43	-0.20	-0.62
7.33 GHz	299	723	1142	1516	1884	2259	2610	2979	3333	3728	4130	4461	4829
	-64	-14	31	31	25	26	3	-2	-22	-1	27	-16	-22
	-0.85	-0.19	0.41	0.41	0.33	0.35	0.04	-0.03	-0.30	-0.02	0.36	-0.22	-0.30
10 GHz	316	742	1155	1527	1894	2260	2597	2960	3316	3720	4120	4450	4815
	-64	-9	33	34	30	25	-9	-17	-31	2	31	-10	-16
	-0.86	-0.12	0.45	0.46	0.41	0.34	-0.12	-0.22	-0.42	0.02	0.41	-0.14	-0.22
12.67 GHz	349	802	1199	1577	1943	2306	2608	2965	3320	3719	4123	4457	4832
	-83	4	34	46	45	42	-23	-32	-44	-11	26	-6	2
	-1.13	0.05	0.47	0.62	0.62	0.57	-0.31	-0.44	-0.60	-0.15	0.36	-0.09	0.03
15.33 GHz	315	753	1160	1542	1910	2279	2620	2987	3342	3740	4146	4477	4857
	-69	-5	29	37	32	27	-5	-12	-30	-6	27	-16	-9
	-0.92	-0.06	0.39	0.50	0.43	0.37	-0.07	-0.16	-0.41	-0.08	0.36	-0.21	-0.13
18 GHz	289	704	1122	1508	1869	2236	2600	2975	3329	3720	4113	4437	4779
	-65	-22	23	36	24	18	9	11	-8	11	31	-18	-49
	-0.87	-0.30	0.30	0.48	0.32	0.24	0.12	0.15	-0.10	0.14	0.41	-0.24	-0.66
Flatness P-P	1.2	2.4	1.8	1.6	1.8	1.2	0.4	1.0	1.0	1.0	1.0	0.6	1.2
Slope Avg(mv/dB)	74.7												

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)

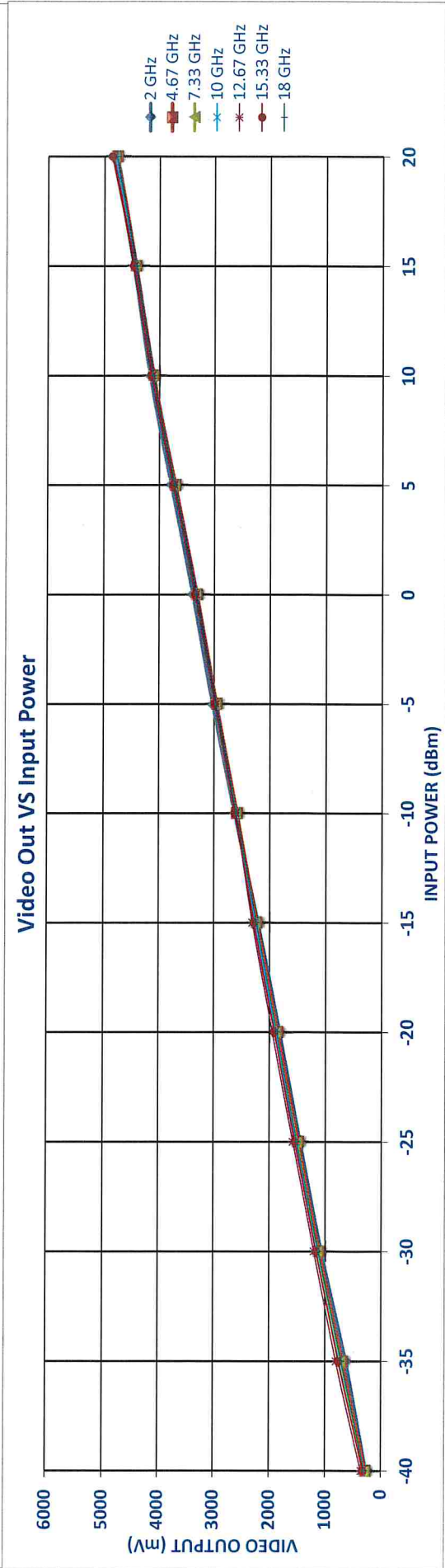
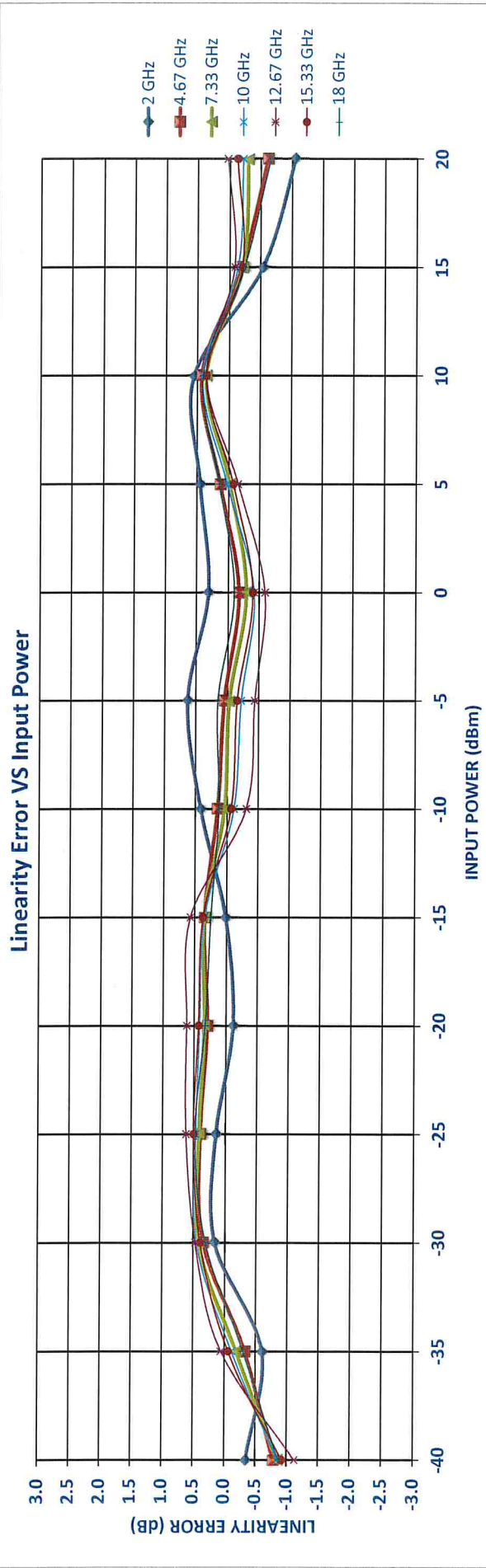
Measured Value (mV)
 Error (mV)
 LINEARITY ERROR (dB)

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

Measured Value (mV)
 Error (mV)
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Measured Value (mV)
 Error (mV)
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LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-218-CW-75MV-93
SERIAL NO: PL 38403
Test Temp: +85C





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LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV-93
 TESTED BY: J.Merriner
 DATE: 11-3-22
 SERIAL NO: PL 38403
 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)	3452
	SLOPE (mV/dB)	79.9

261	639	1049	1431	1840	2284	2682	3069	3430	3856	4288	4634	5023
6	-15	-5	-23	-13	31	29	17	-22	4	36	-17	-28
0.08	-0.19	-0.06	-0.28	-0.17	0.39	0.37	0.21	-0.28	0.05	0.46	-0.22	-0.35

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

4.67 GHz	INTERCEPT (mV)	3415
	SLOPE (mV/dB)	77.3

295	704	1104	1478	1897	2312	2639	3005	3355	3785	4207	4584	4969
-26	-3	10	-3	29	58	-2	-23	-60	-16	19	9	8
-0.33	-0.04	0.13	-0.04	0.38	0.75	-0.03	-0.29	-0.77	-0.21	0.25	0.12	0.10

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

7.33 GHz	INTERCEPT (mV)	3466
	SLOPE (mV/dB)	77.9

329	748	1144	1513	1939	2348	2675	3047	3403	3827	4262	4640	5059
-21	8	15	-6	31	50	-12	-30	-63	-29	17	5	35
-0.28	0.10	0.19	-0.08	0.39	0.64	-0.16	-0.38	-0.81	-0.37	0.22	0.07	0.45

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

10 GHz	INTERCEPT (mV)	3479
	SLOPE (mV/dB)	76.3

394	827	1215	1581	2007	2388	2668	3039	3393	3830	4264	4637	5061
-33	18	25	10	54	54	-48	-58	-86	-30	23	14	57
-0.44	0.24	0.33	0.13	0.71	0.70	-0.63	-0.76	-1.12	-0.39	0.30	0.19	0.74

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

12.67 GHz	INTERCEPT (mV)	3473
	SLOPE (mV/dB)	76.6

374	801	1195	1573	1998	2383	2668	3036	3390	3819	4254	4634	5066
-34	10	20	15	57	59	-39	-54	-83	-37	15	11	60
-0.45	0.13	0.27	0.20	0.75	0.77	-0.51	-0.71	-1.09	-0.49	0.19	0.15	0.79

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

15.33 GHz	INTERCEPT (mV)	3466
	SLOPE (mV/dB)	78.2

325	736	1132	1513	1936	2341	2670	3041	3396	3825	4262	4645	5075
-15	5	11	1	33	47	-14	-34	-70	-32	15	7	46
-0.19	0.07	0.14	0.01	0.42	0.61	-0.18	-0.44	-0.89	-0.41	0.19	0.09	0.59

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

18 GHz	INTERCEPT (mV)	3456
	SLOPE (mV/dB)	76.1

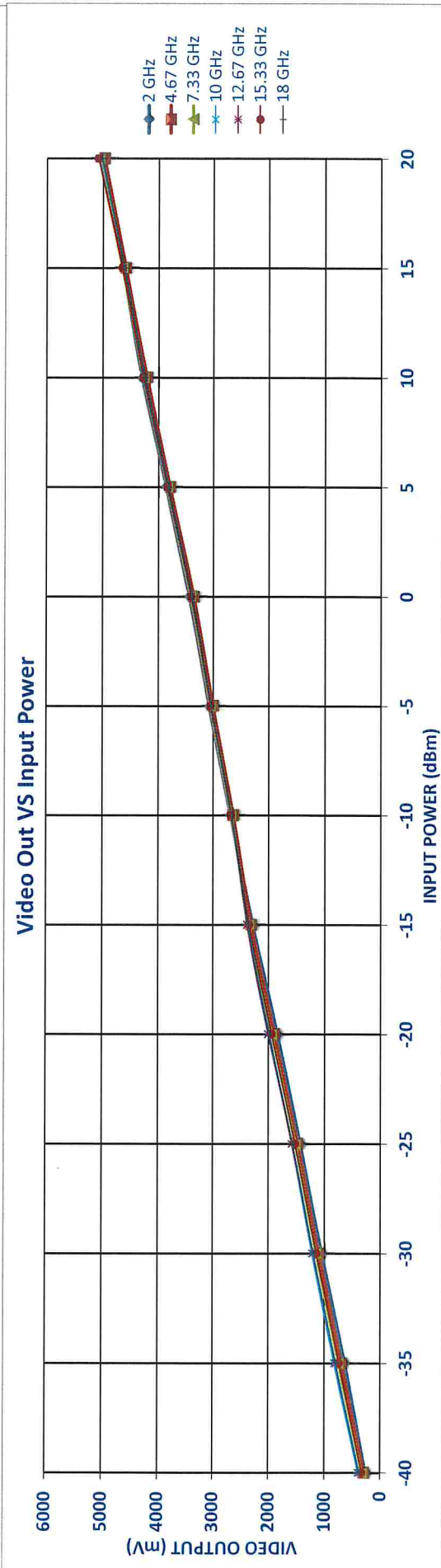
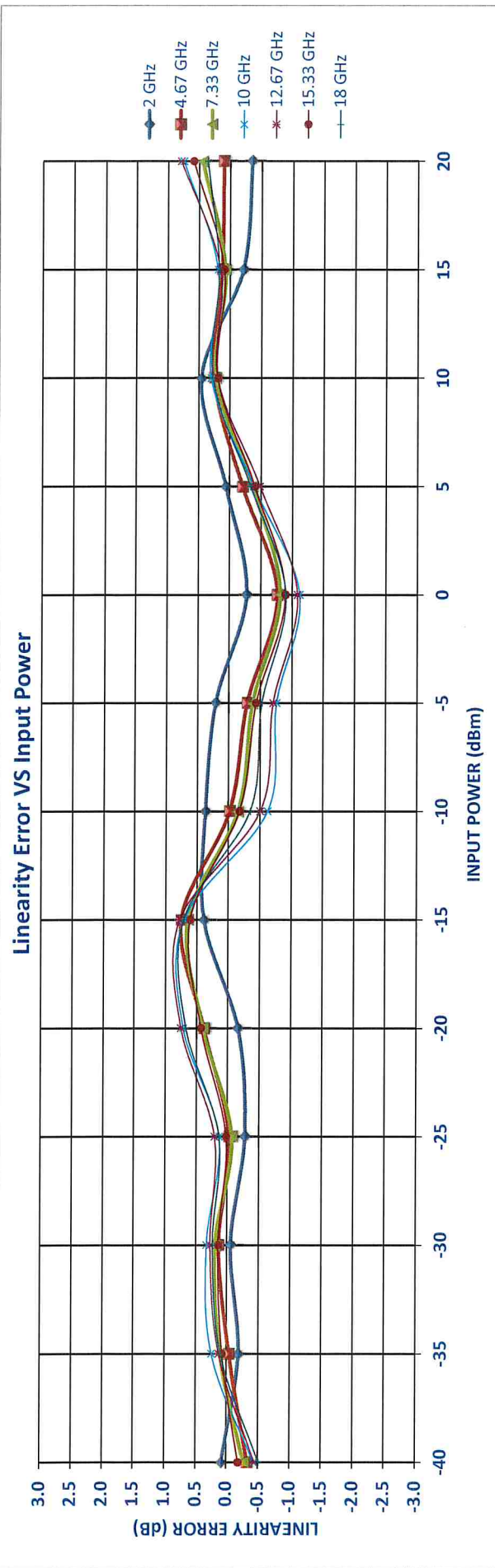
371	798	1189	1562	1984	2368	2668	3035	3387	3811	4238	4611	5006
-39	7	17	10	51	54	-26	-40	-69	-26	21	13	27
-0.51	0.09	0.23	0.13	0.67	0.71	-0.35	-0.53	-0.90	-0.34	0.27	0.17	0.36

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

Flatness P-P

Slope Avg(mv/dB)	77.5
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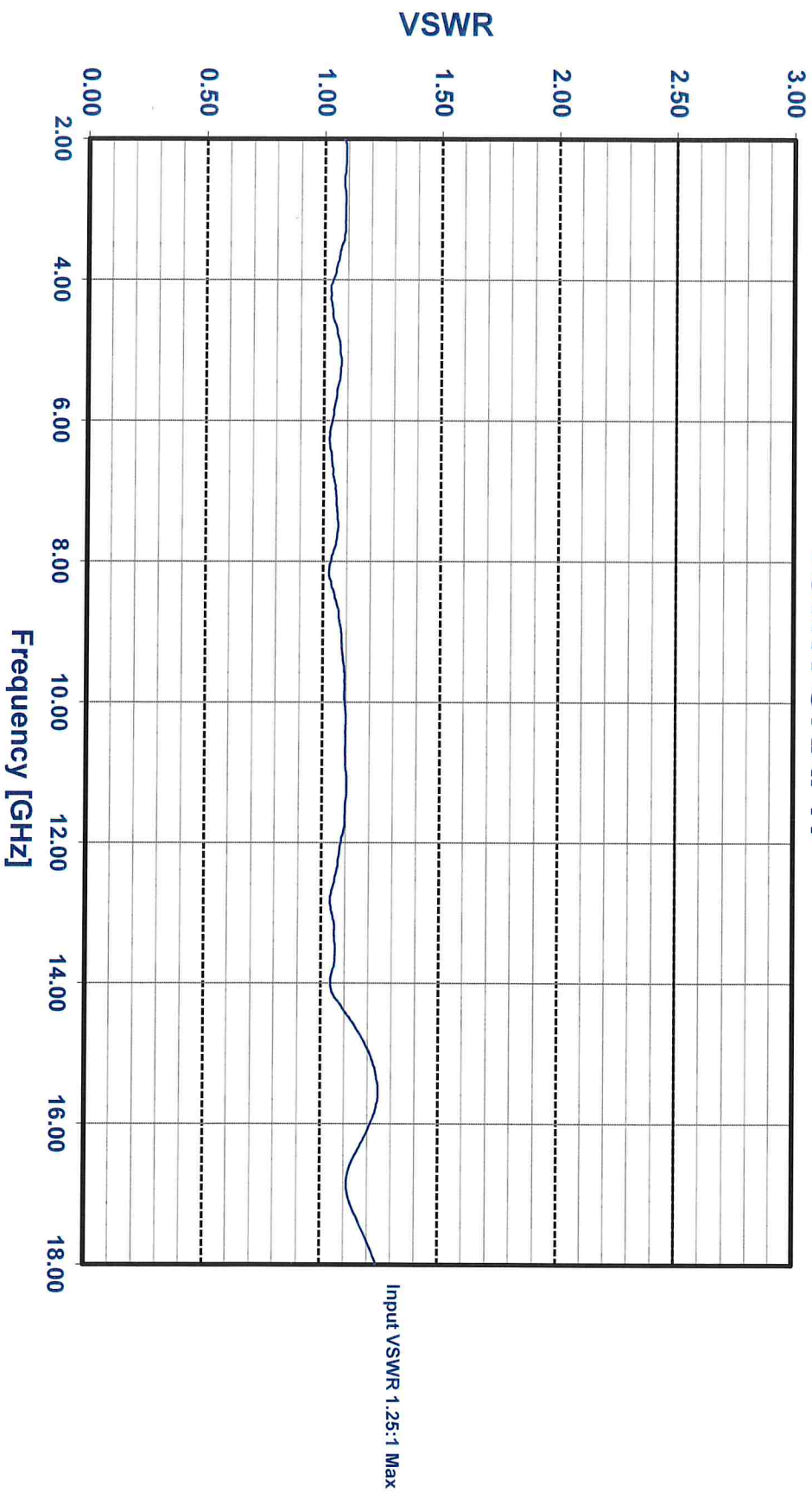
LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-218-CW-75MV-93
SERIAL NO: PL 38403
Test Temp: -25C



Model Number: ERDLVA-2G18G-CW-75MV-93
Serial Number: PL38403
Date: 11/14/2022

Temperature: +25C

VSWR GRAPH

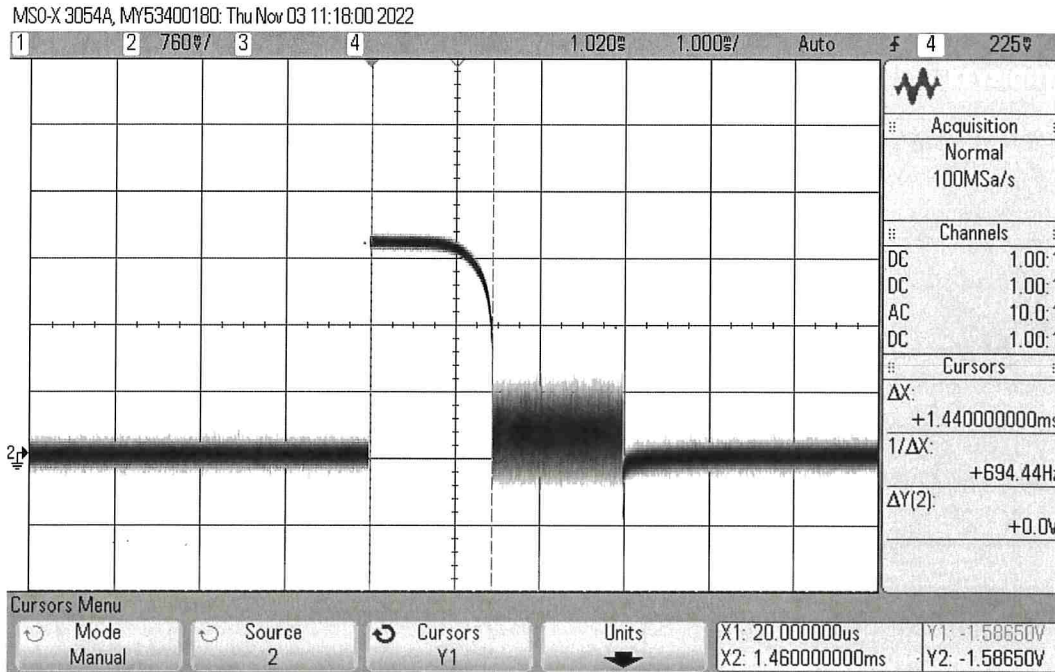




**SUMMARY TEST DATA
ON
ERDLVA-218-CW-75MV-93**

PL38403/2246

CW ATTACK



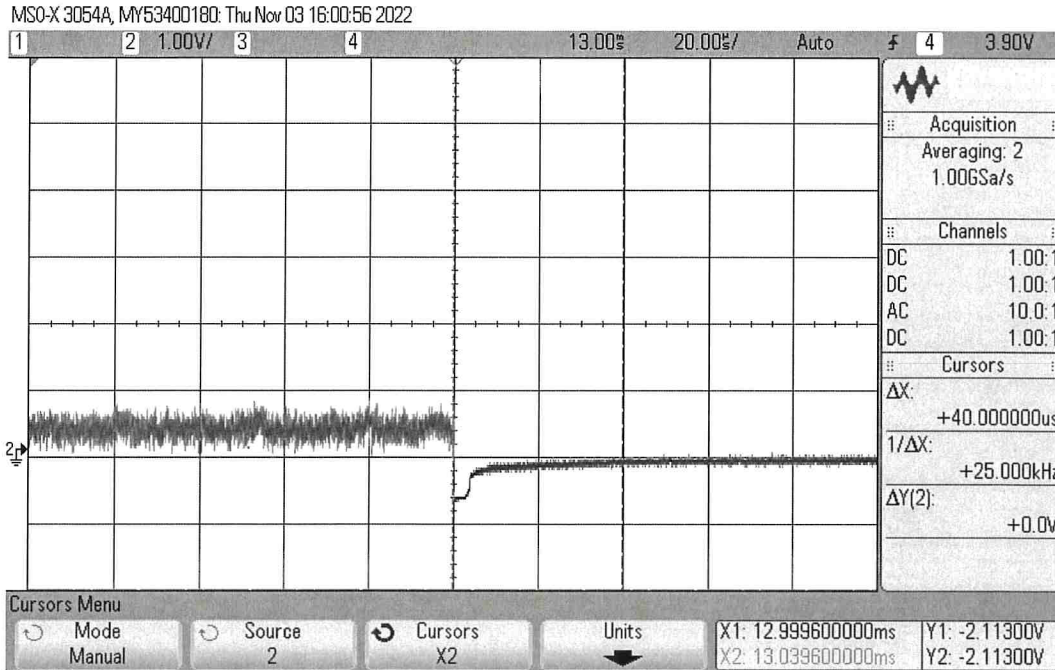
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**SUMMARY TEST DATA
ON
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PL38403/2246

CW RECOVERY



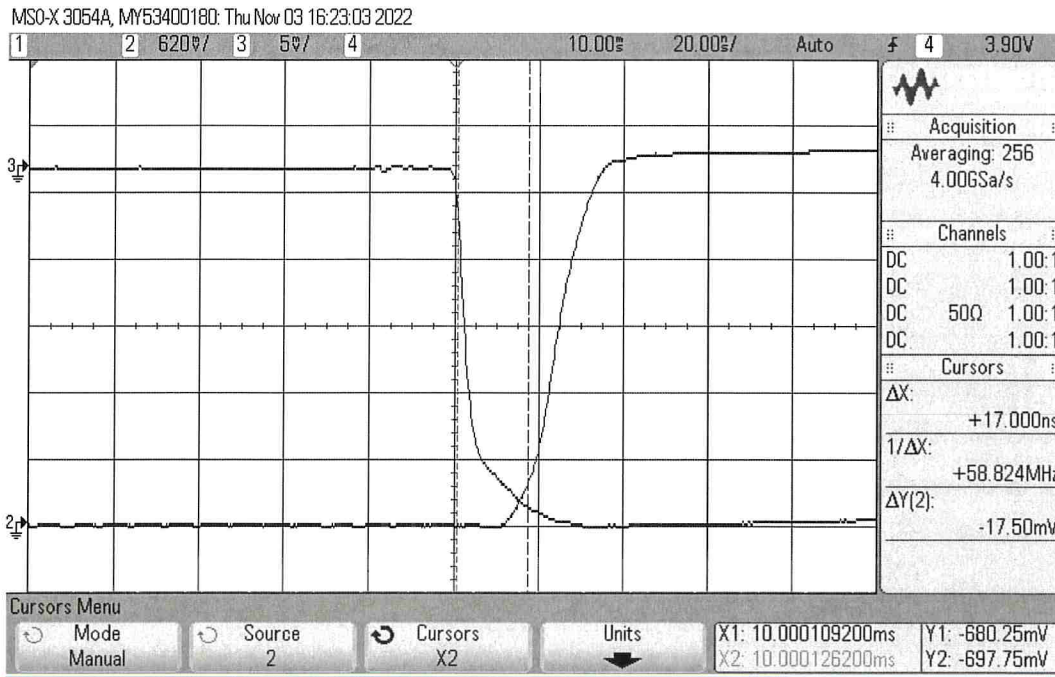
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DELAY



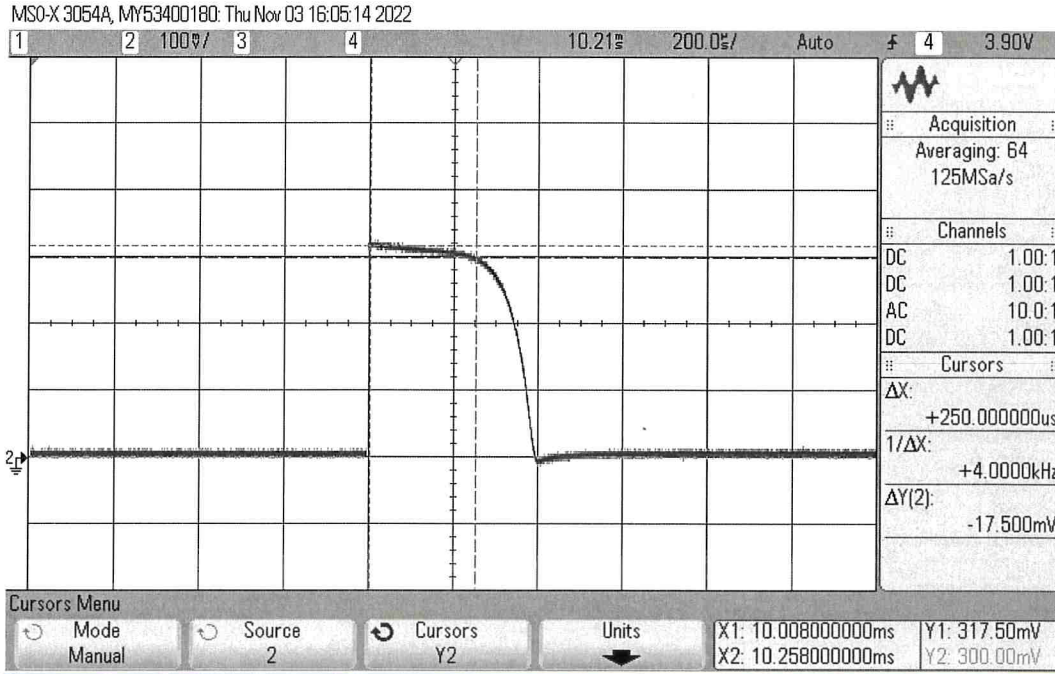
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**SUMMARY TEST DATA
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PL38403/2246

DROOP

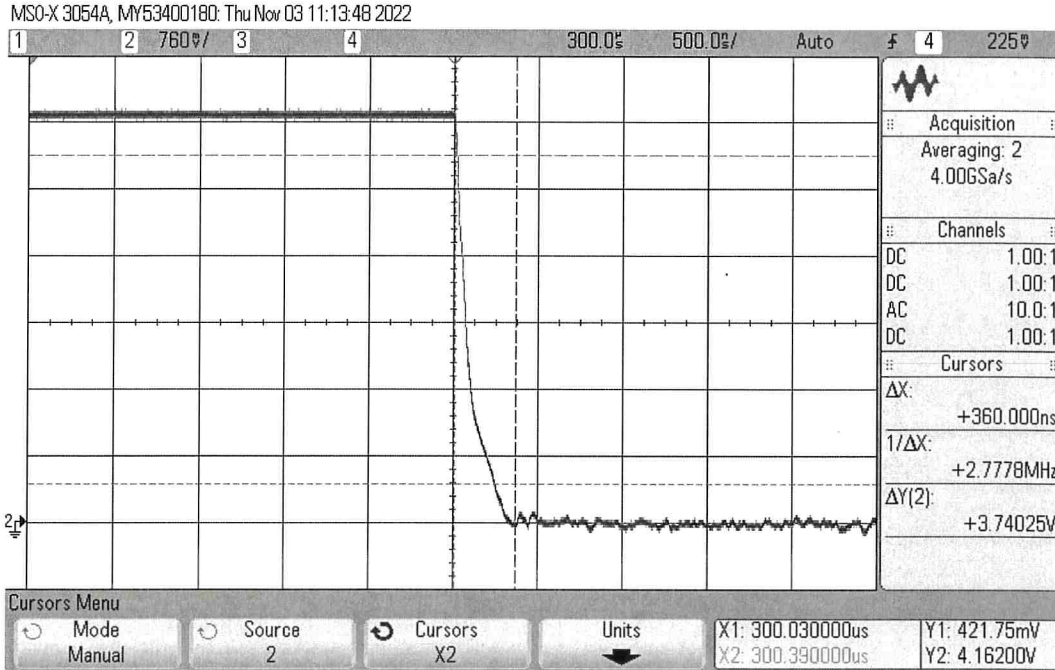




**SUMMARY TEST DATA
ON
ERDLVA-218-CW-75MV-93**

PL38403/2246

RECOVERY TIME



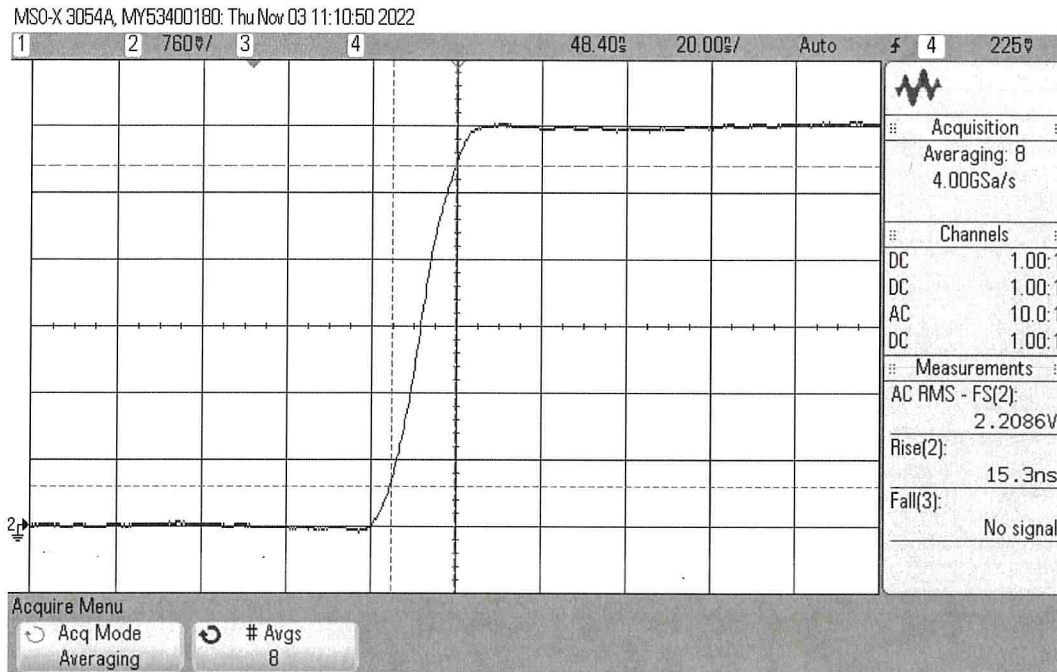
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**SUMMARY TEST DATA
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PL38403/2246

RISE TIME



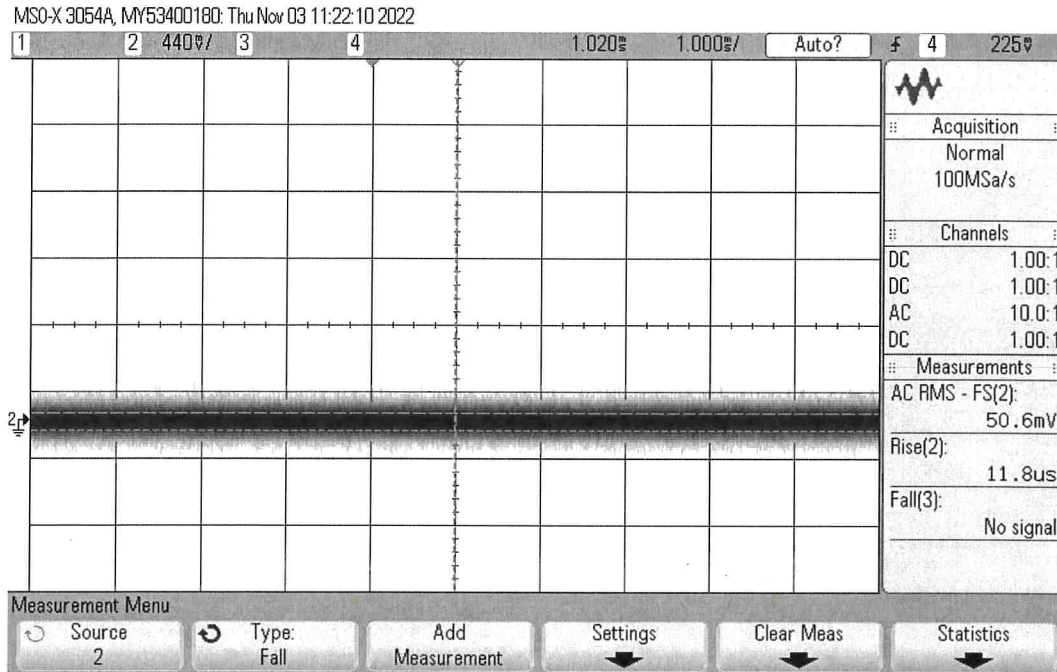
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**SUMMARY TEST DATA
ON
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PL38403/2246

RMS NOISE



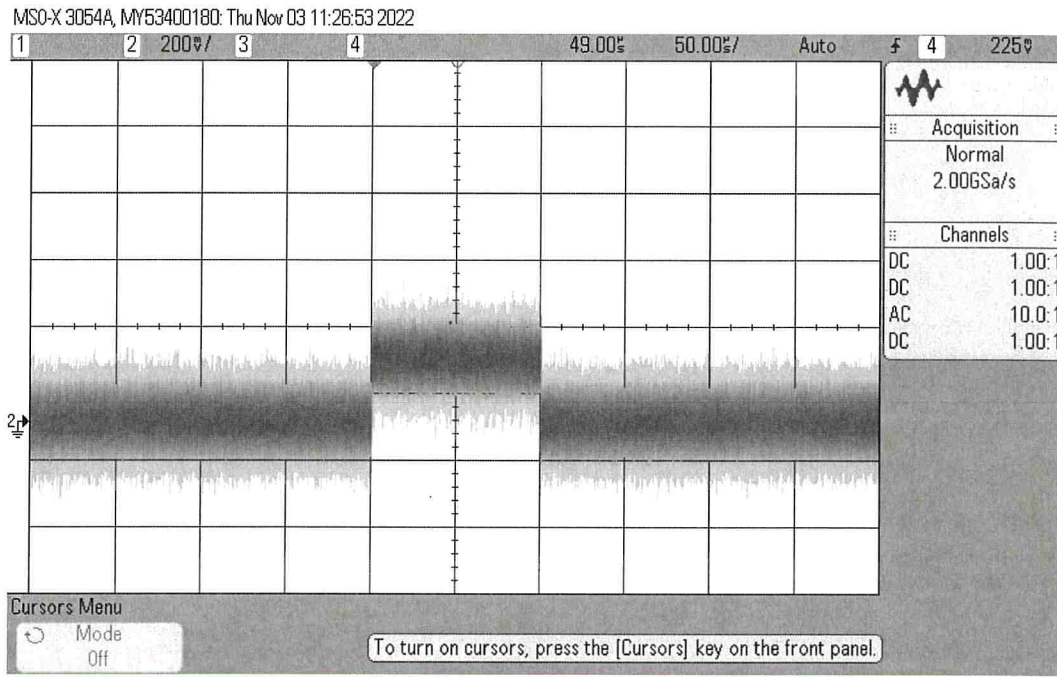
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**SUMMARY TEST DATA
ON
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PL38403/2246

TSS



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