



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

**PL40963/2325**

Customer: \_\_\_\_\_ Tested By: Jim Hopson  
 SO No: \_\_\_\_\_ Temperature: -25°C +25C +85C  
 Model No: ERDLVA-218-CW-75MV Date: 06/21/2023  
 Serial No: PL40963/2325 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	1.53:1 MAX	
3	Input Power:	23 dBm Max.	Pass	
4	VIDEO OUT TSS:	-42 dBm MAX	-42dBm	
5	VIDEO OUT Dynamic Range:	-40 to +20 dBm	-40 to +20 dBm	
6	VIDEO OUT Log Slope Fixed:	75 ± 10mV/dB	71.7-79.6mV/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	50mV	
9	VIDEO OUT Rise Time (10% to 90%):	25 ns MAX	15.8ns	
10	VIDEO OUT Settling Time:	±0.5dB within 25ns from 90%	<0.5dB	

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11	VIDEO OUT Recovery	500ns MAX	<500ns	<b>PMI QAS</b>
12	Video Frequency Flatness:	3.0 dB p-p MAX @ -20dBm	1.80dB p-p MAX @ -20dBm	
13	VIDEO OUT CW Immunity:	CW Immune Power -50 to -10 dBm	<b>Pass</b>	
		CW Attack Time 1500us	<b>&lt;1500us</b>	
		CW Release Time 250us	<b>&lt;50us</b>	
17	Pulse droop	1dB Max for 250us pulses	<b>&lt;1dB</b>	
18	VIDEO OUT Pulse Response, input Signal:	100 ns to 300 us	<b>100 ns to 300 us</b>	
19	VIDEO LOAD Impedance:	93 ±1 Ω	<b>93Ω</b>	
21	VIDEO OUT Noise Level (RMS):	102 mV max	<b>22mV</b>	
22	VIDEO OUT Propagation Delay:	35 ns MAX from RF 10% to 10% video (excluding cable)	<b>&lt;20ns</b>	
23	Power Supply	+12 V @ 250 mA MAX -12 V @ 250 mA MAX	+12 V @ 150 mA -12 V @ 60 mA	<i>HW 6-21-23</i>

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LOG TRANSFER WITH FREQUENCY  
 MODEL: ERDLVA-218-CW-75MV  
 TESTED BY: Jim Hopson  
 DATE: 06-19-23  
 SERIAL NO: PL40963  
 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)	3341
	SLOPE (mV/dB)	73.8

350	773	1157	1523	1911	2236	2549	2942	3310	3686	4055	4478	4862
-38	16	31	28	47	3	-53	-30	-31	-24	-24	30	45
-0.51	0.22	0.42	0.38	0.63	0.04	-0.72	-0.40	-0.42	-0.32	-0.32	0.40	0.61

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

4.67 GHz	INTERCEPT (mV)	3415
	SLOPE (mV/dB)	77.0

313	725	1114	1491	1883	2242	2632	3057	3423	3778	4191	4596	4928
-20	7	11	3	9	-17	-12	28	8	-22	6	26	-27
-0.26	0.09	0.14	0.03	0.12	-0.22	-0.16	0.36	0.11	-0.28	0.08	0.34	-0.36

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

7.33 GHz	INTERCEPT (mV)	3394
	SLOPE (mV/dB)	75.9

329	749	1135	1506	1895	2241	2608	3029	3390	3747	4145	4567	4905
-28	13	19	10	20	-14	-26	15	-4	-26	-8	35	-7
-0.37	0.17	0.25	0.14	0.26	-0.18	-0.35	0.20	-0.05	-0.34	-0.10	0.46	-0.09

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

10 GHz	INTERCEPT (mV)	3376
	SLOPE (mV/dB)	76.5

303	707	1096	1475	1857	2207	2578	3010	3374	3738	4132	4561	4904
-12	9	16	12	11	-21	-33	16	-2	-21	-10	37	-3
-0.16	0.12	0.21	0.16	0.15	-0.28	-0.43	0.21	-0.03	-0.27	-0.13	0.48	-0.04

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

12.67 GHz	INTERCEPT (mV)	3407
	SLOPE (mV/dB)	77.9

290	681	1073	1467	1847	2213	2615	3054	3413	3769	4182	4603	4955
0	1	4	8	-2	-25	-13	37	6	-28	-4	27	-11
0.00	0.02	0.05	0.10	-0.02	-0.32	-0.16	0.47	0.08	-0.36	-0.06	0.35	-0.14

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

15.33 GHz	INTERCEPT (mV)	3345
	SLOPE (mV/dB)	77.3

259	627	1030	1427	1797	2167	2555	2991	3353	3716	4096	4535	4883
6	-12	4	15	-2	-18	-17	32	8	-16	-22	30	-8
0.08	-0.16	0.05	0.19	-0.02	-0.24	-0.22	0.42	0.10	-0.20	-0.29	0.39	-0.11

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

18 GHz	INTERCEPT (mV)	3365
	SLOPE (mV/dB)	78.6

242	598	1004	1404	1774	2165	2573	3021	3384	3742	4136	4568	4919
21	-16	-3	4	-19	-21	-6	49	19	-16	-15	24	-18
0.27	-0.21	-0.04	0.05	-0.24	-0.27	-0.08	0.62	0.24	-0.21	-0.19	0.30	-0.23

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

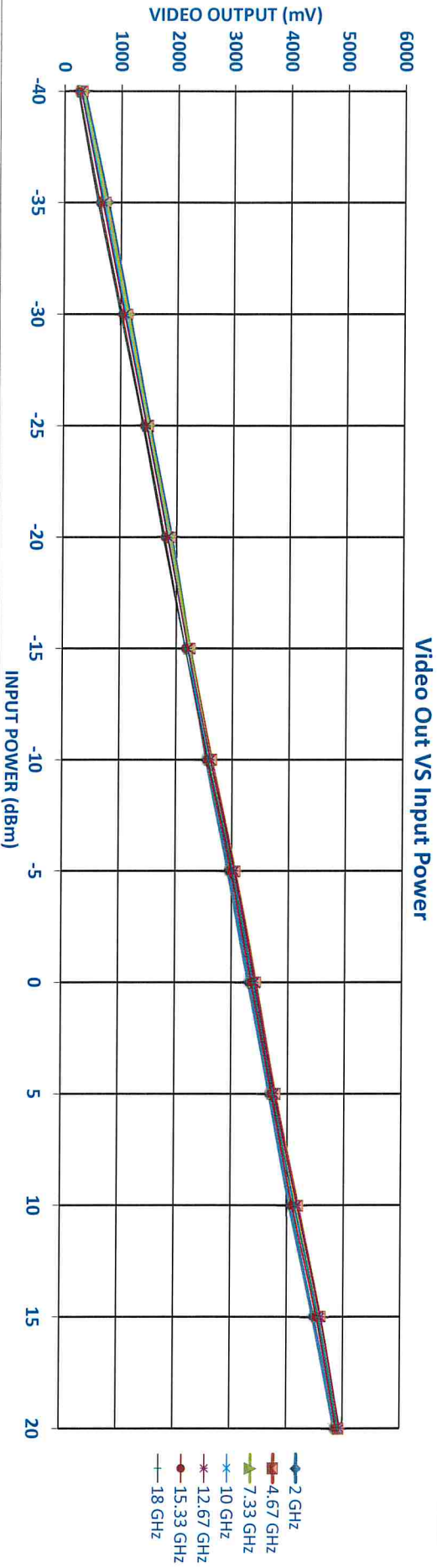
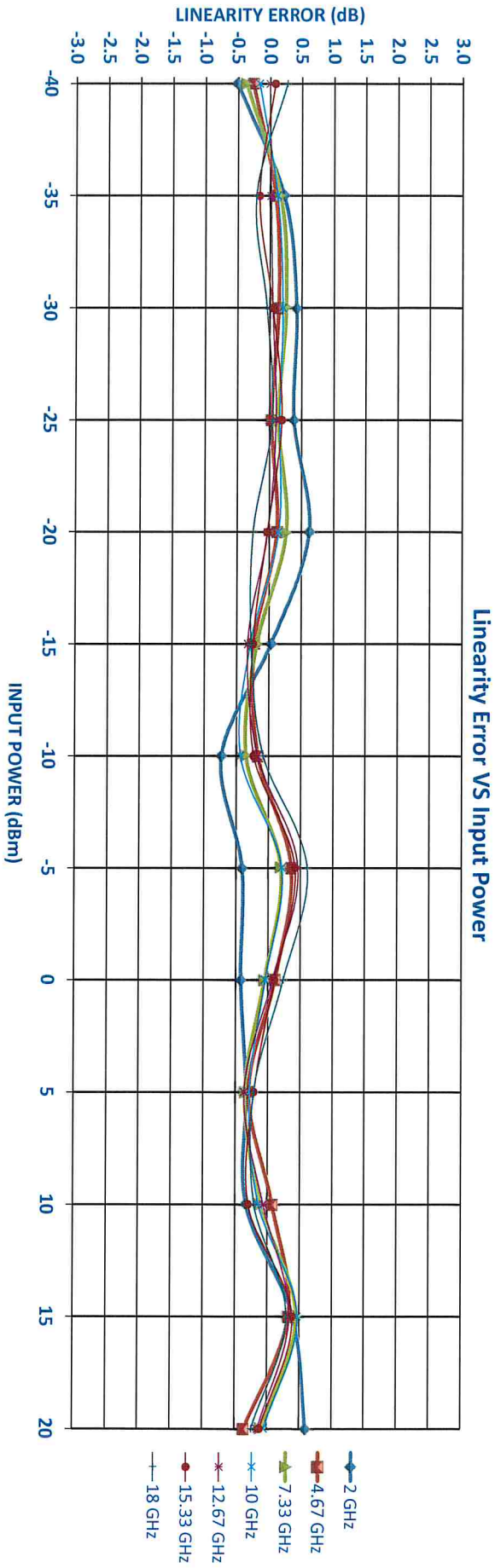
Flatness P-P

1.4	2.2	2.0	1.6	1.8	1.0	1.0	1.4	1.4	1.2	1.8	1.6	1.2
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Slope Avg(mv/dB)

76.7

LOG TRANSFER WITH FREQUENCY  
 MODEL: ERDLVA-218-CW-75MV  
 SERIAL NO: PL40963  
 Test Temp: +25C





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LOG TRANSFER WITH FREQUENCY  
 MODEL: ERDLVA-218-CW-75MV  
 TESTED BY: Jim Hopson  
 DATE: 06-19-23  
 SERIAL NO: PL40963  
 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)	3424
	SLOPE (mV/DB)	75.5

358	793	1191	1564	1981	2311	2619	3009	3377	3755	4154	4611	4976
-46	12	32	27	67	19	-50	-38	-47	-47	-25	54	42
-0.61	0.15	0.42	0.36	0.89	0.26	-0.66	-0.50	-0.63	-0.62	-0.34	0.72	0.55

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

4.67 GHz	INTERCEPT (mV)	3493
	SLOPE (mV/DB)	78.6

320	747	1150	1530	1958	2320	2696	3113	3481	3842	4297	4684	5061
-31	4	14	1	36	5	-12	13	-12	-44	18	12	-4
-0.39	0.04	0.17	0.01	0.46	0.07	-0.15	0.16	-0.16	-0.56	0.23	0.16	-0.05

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

7.33 GHz	INTERCEPT (mV)	3480
	SLOPE (mV/DB)	77.3

350	787	1185	1561	1984	2330	2675	3084	3449	3810	4249	4711	5018
-39	12	23	13	50	9	-32	-10	-31	-56	-4	72	-7
-0.51	0.15	0.30	0.17	0.64	0.12	-0.42	-0.12	-0.40	-0.73	-0.05	0.93	-0.09

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

10 GHz	INTERCEPT (mV)	3465
	SLOPE (mV/DB)	77.7

325	755	1157	1537	1958	2303	2651	3066	3433	3803	4237	4707	5011
-32	10	23	15	47	4	-37	-10	-32	-50	-5	77	-8
-0.41	0.12	0.30	0.19	0.61	0.05	-0.48	-0.13	-0.41	-0.65	-0.06	0.99	-0.10

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

12.67 GHz	INTERCEPT (mV)	3496
	SLOPE (mV/DB)	79.6

298	711	1118	1513	1934	2301	2686	3109	3471	3832	4288	4739	5094
-14	1	10	7	30	-1	-14	11	-25	-62	-4	49	6
-0.17	0.02	0.13	0.09	0.38	-0.01	-0.17	0.14	-0.31	-0.77	-0.04	0.62	0.08

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

15.33 GHz	INTERCEPT (mV)	3435
	SLOPE (mV/DB)	78.5

278	682	1091	1486	1901	2267	2633	3045	3407	3776	4189	4675	5019
-16	-5	12	14	36	10	-17	2	-28	-52	-32	62	13
-0.20	-0.06	0.15	0.18	0.46	0.12	-0.22	0.03	-0.36	-0.66	-0.40	0.79	0.17

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

18 GHz	INTERCEPT (mV)	3469
	SLOPE (mV/DB)	79.3

279	688	1097	1493	1914	2290	2671	3090	3450	3810	4248	4710	5052
-18	-5	7	6	31	10	-5	17	-19	-56	-15	51	-4
-0.23	-0.07	0.09	0.08	0.39	0.13	-0.07	0.22	-0.25	-0.71	-0.18	0.64	-0.05

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

Flatness P-P

1.0	1.4	1.2	1.0	1.0	0.8	1.0	1.4	1.4	1.2	1.8	1.6	1.6
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Slope Avg(mv/DB) 78.1





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 MODEL: ERDLVA-218-CW-75MV  
 TESTED BY: Jim Hopson  
 DATE: 06-19-23  
 SERIAL NO: PL40963  
 Test Temp: +85C

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)	3201
	SLOPE (mV/dB)	71.7

261	686	1090	1473	1836	2134	2424	2808	3180	3553	3900	4283	4662
-72	-6	40	64	69	9	-60	-34	-21	-6	-18	7	28
-1.01	-0.08	0.56	0.90	0.96	0.12	-0.83	-0.48	-0.29	-0.09	-0.24	0.10	0.39

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

4.67 GHz	INTERCEPT (mV)	3277
	SLOPE (mV/dB)	75.2

223	619	1036	1431	1800	2135	2511	2940	3304	3659	4034	4401	4732
-45	-25	15	34	27	-14	-14	39	27	6	5	-5	-50
-0.60	-0.34	0.21	0.46	0.36	-0.18	-0.19	0.52	0.36	0.08	0.06	-0.06	-0.66

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

7.33 GHz	INTERCEPT (mV)	3257
	SLOPE (mV/dB)	74.6

224	626	1041	1434	1798	2125	2488	2916	3278	3633	3996	4378	4712
-50	-21	21	41	32	-14	-23	32	21	3	-7	2	-36
-0.68	-0.29	0.28	0.55	0.43	-0.18	-0.31	0.43	0.28	0.04	-0.09	0.03	-0.49

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

10 GHz	INTERCEPT (mV)	3231
	SLOPE (mV/dB)	75.6

184	547	980	1378	1739	2077	2442	2890	3257	3620	3979	4367	4707
-22	-37	18	38	21	-19	-32	38	26	11	-8	2	-36
-0.29	-0.49	0.24	0.50	0.27	-0.26	-0.43	0.50	0.35	0.15	-0.10	0.03	-0.47

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

12.67 GHz	INTERCEPT (mV)	3273
	SLOPE (mV/dB)	76.7

187	548	983	1393	1755	2101	2491	2944	3303	3656	4033	4416	4769
-19	-42	10	37	16	-22	-15	55	30	0	-6	-7	-37
-0.25	-0.54	0.13	0.48	0.20	-0.28	-0.20	0.71	0.40	0.00	-0.08	-0.09	-0.48

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

15.33 GHz	INTERCEPT (mV)	3208
	SLOPE (mV/dB)	76.5

151	467	918	1329	1688	2046	2425	2881	3246	3605	3959	4352	4695
3	-63	5	34	10	-15	-18	55	38	14	-15	-4	-44
0.04	-0.83	0.07	0.44	0.13	-0.19	-0.24	0.72	0.49	0.18	-0.19	-0.05	-0.57

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

18 GHz	INTERCEPT (mV)	3201
	SLOPE (mV/dB)	78.3

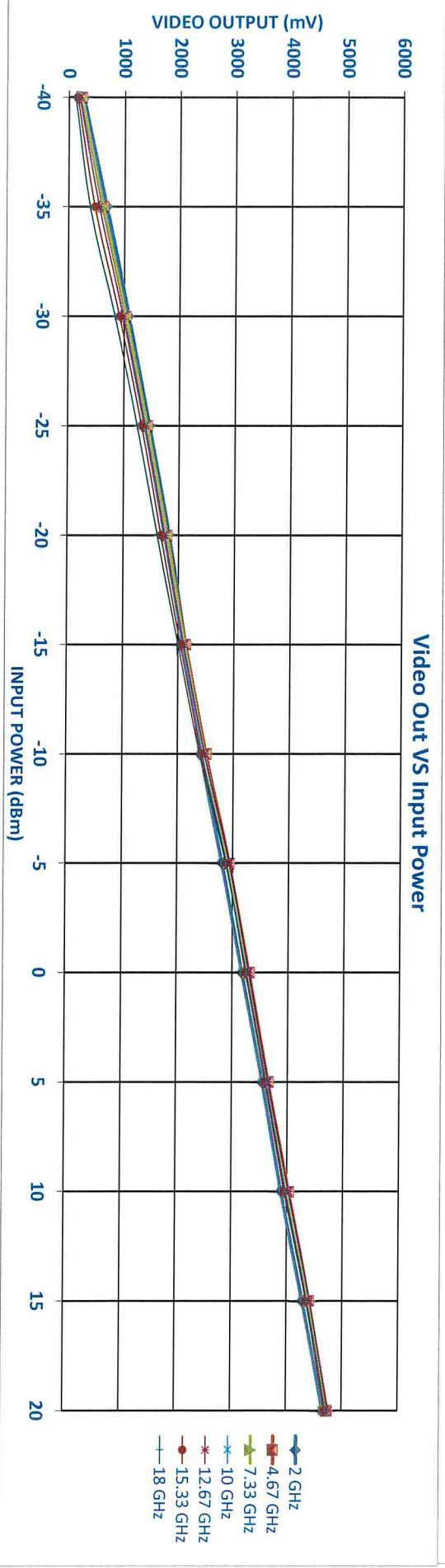
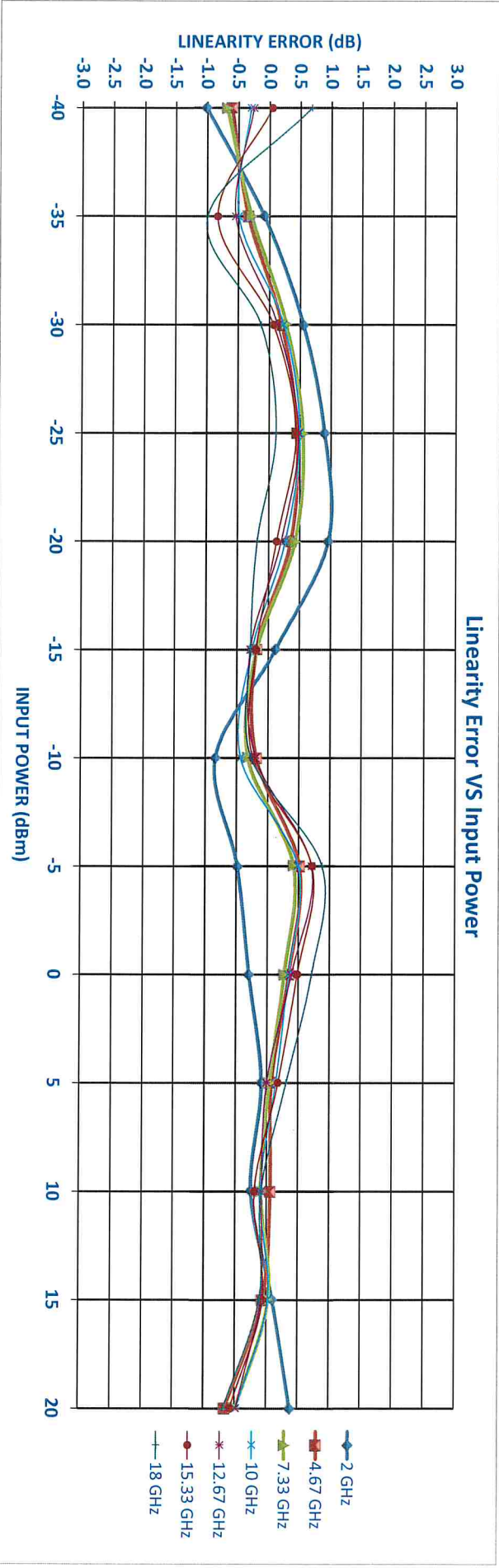
122	382	841	1252	1620	2004	2397	2878	3257	3617	3977	4367	4714
54	-78	-10	9	-14	-22	-21	69	56	25	-7	-8	-53
0.69	-0.99	-0.13	0.12	-0.18	-0.28	-0.26	0.88	0.72	0.32	-0.09	-0.11	-0.68

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

Flatness P-P	
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Slope Avg(mV/dB)	75.5
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LOG TRANSFER WITH FREQUENCY  
 MODEL: ERDLVA-218-CW-75MV  
 SERIAL NO: PL40963  
 Test Temp: +85C



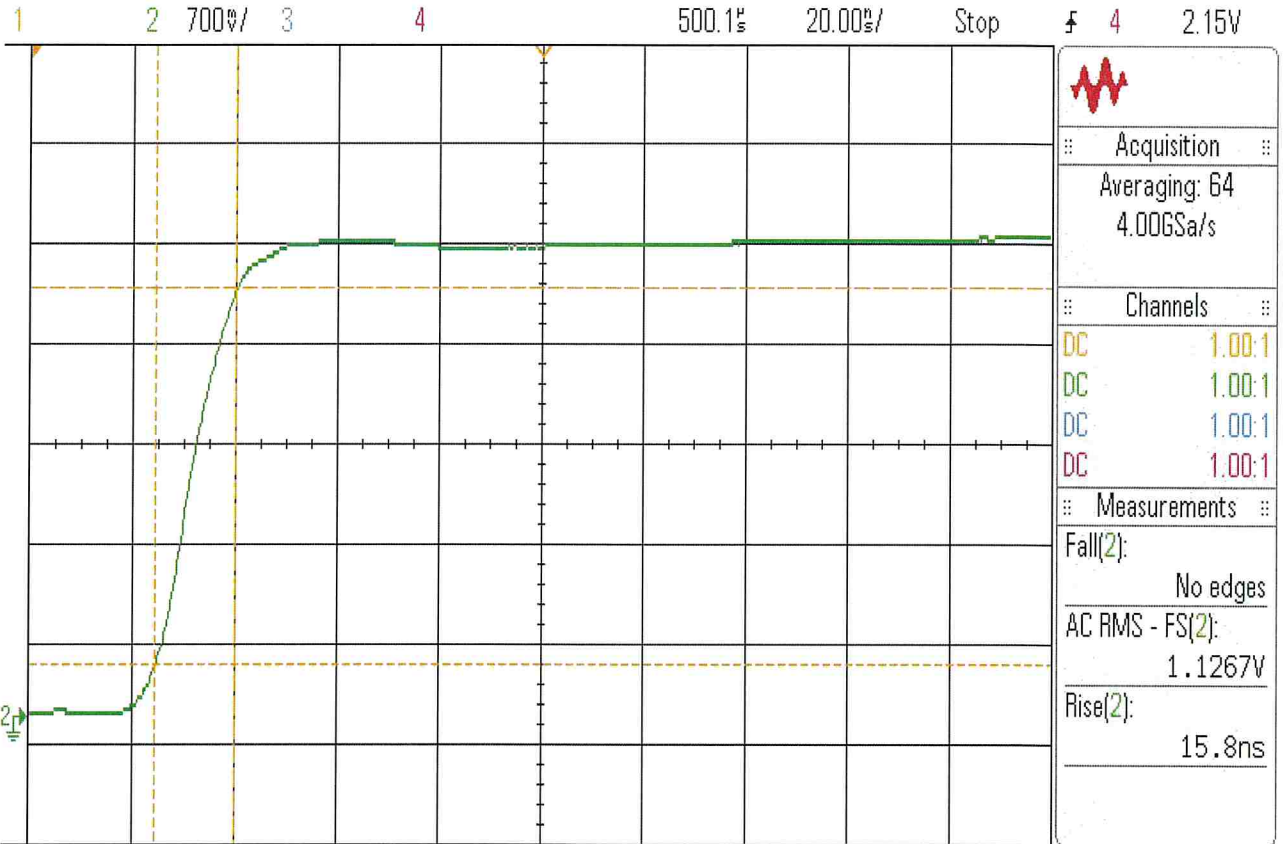




**SUMMARY TEST DATA  
ON  
ERDLVA-218-CW-75MV**

**PL40963/2325**

DSO-X 3034A, MY52394003, Tue Jun 20 14:15:47 2023



Measurement Menu

Source 2	Type: Rise	Add Measurement	Settings ↓	Clear Meas ↓	Statistics ↓
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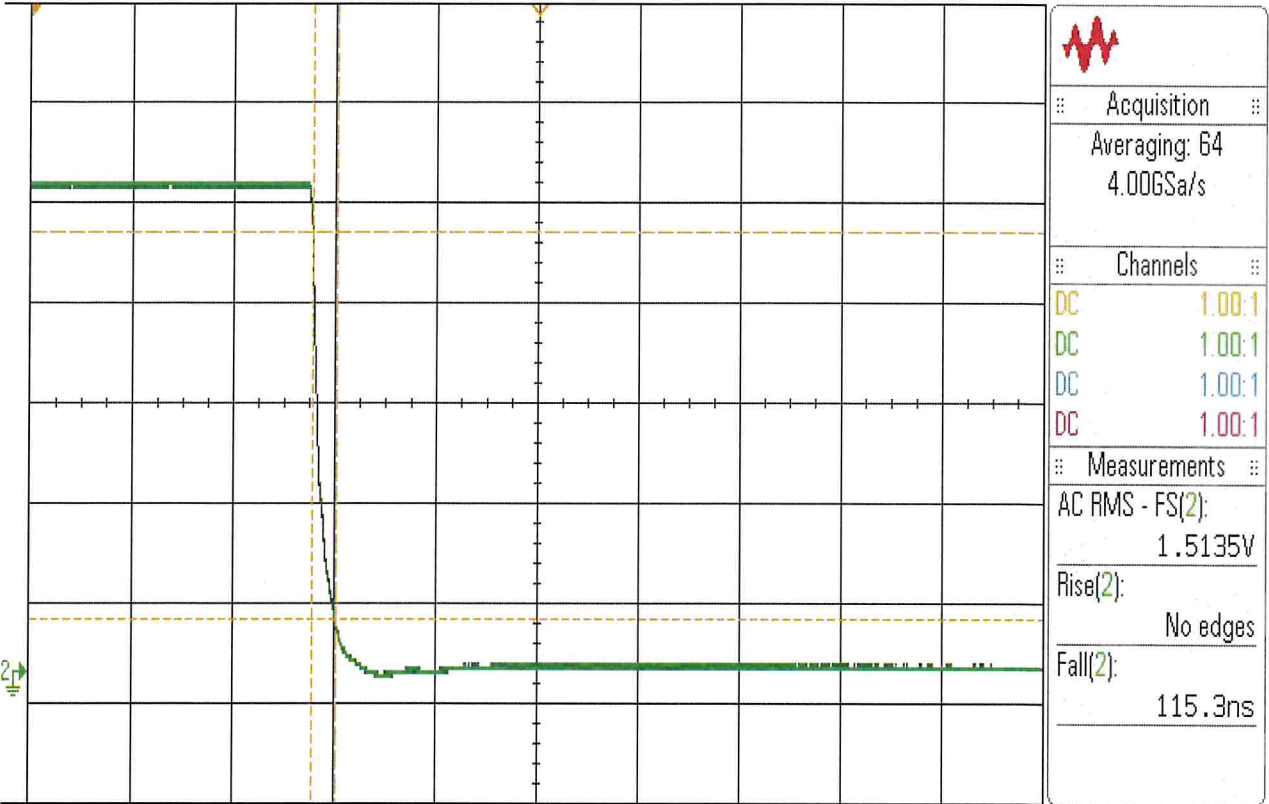


SUMMARY TEST DATA  
ON  
ERDLVA-218-CW-75MV

PL40963/2325

DSO-X 3034A, MY52394003: Tue Jun 20 14:19:09 2023

1 2 700% 3 4 301.2% 500.0% / Stop f 4 2.02V



Measurement Menu

Source 2 Type: Fall Add Measurement Settings Clear Meas Statistics

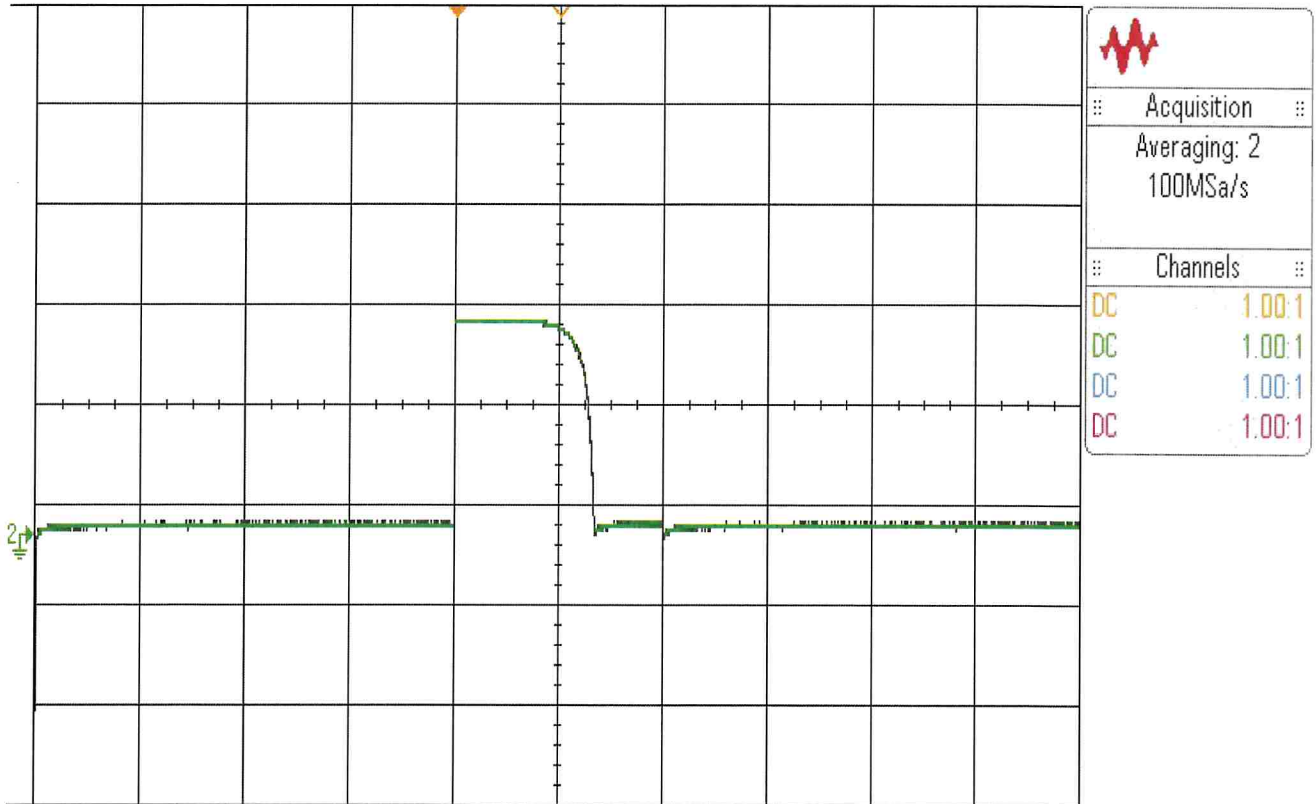


**SUMMARY TEST DATA  
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**PL40963/2325**

DSO-X 3034A, MY52394003: Tue Jun 20 14:11:31 2023

1 2 500V/ 3 4 500.0% 500.0%/ Auto f 4 2.15V



Save to file = pl40963\_cw\_immune

Save  
↓

Recall  
↓

Default/Erase  
↓

Press to  
Save

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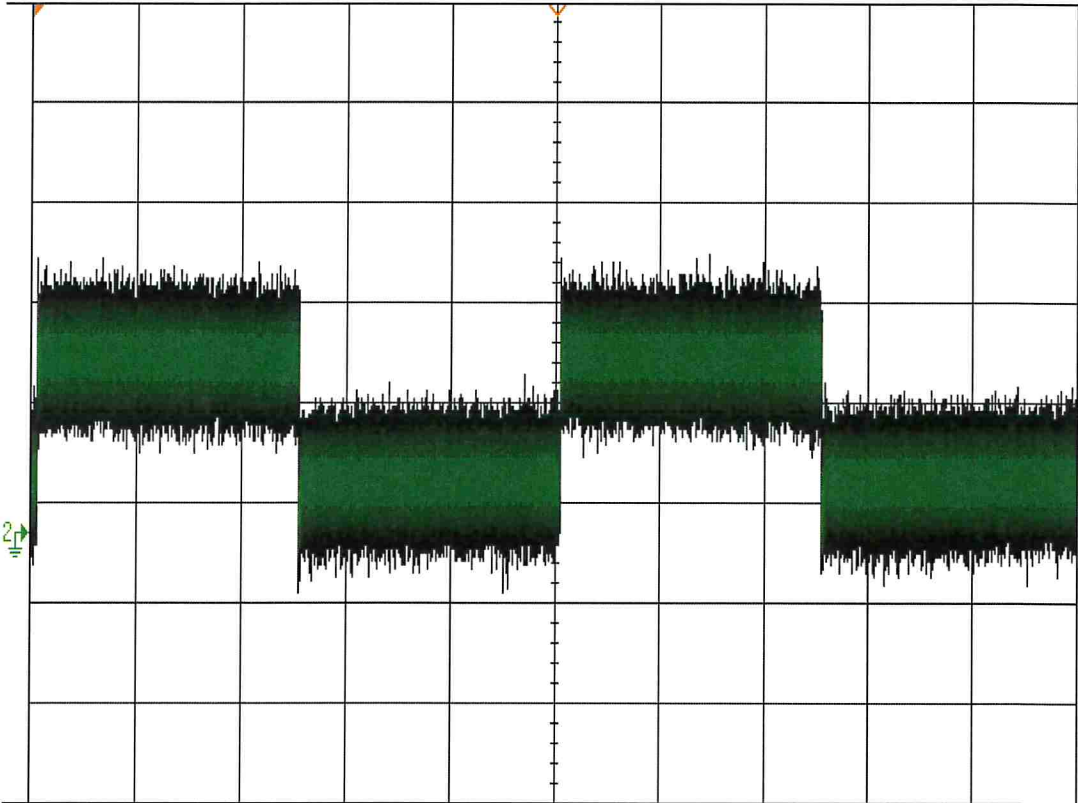


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ON  
ERDLVA-218-CW-75MV**

**PL40963/2325**

DSO-X 3034A, MY52394003: Tue Jun 20 14:13:19 2023

1 2 100% / 3 4 499.2% 20.00% / Auto f 4 2.15V



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

Acquire Menu

Acq Mode  
Normal

# Avgs  
2

Segmented

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

Serial Number: PL40963

Date: 6/21/2023

Temperature: +25C

## VSWR GRAPH

