



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

PL40962/2322

Customer: _____ Tested By: Jim Hopson
 SO No: _____ Temperature: -25°C +25C +85C
 Model No: ERDLVA-218-CW-75MV Date: 06/21/2023
 Serial No: PL40962/2325 Drawing No: 276 & 40 Rev: A1

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	2 to 18 GHz	2 to 18 GHz	PMI QAS
2	VSWR:	2.5:1 MAX @ -20 dBm	1.59:1 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	76.1-80.3mV/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	50mV	
9	VIDEO OUT Rise Time (10% to 90%):	25 ns MAX	14.8ns	
10	VIDEO OUT Settling Time:	±0.5dB within 25ns from 90%	<0.5dB	

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11	VIDEO OUT Recovery	500ns MAX	<500ns	PMI QAS
12	Video Frequency Flatness:	3.0 dB p-p MAX @ -20dBm	1.40dB 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	41.2mV	
22	VIDEO OUT Propagation Delay:	35 ns MAX from RF 10% to 10% video (excluding cable)	<20ns	
23	Power Supply	+12 V @ 250 mA MAX -12 V @ 250 mA MAX	+12 V @ 140 mA -12 V @ 60 mA	<i>Handwritten signature and date: 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: PL40962
 Test Temp: +25C

Frequency

RF Input Power (dBm)

2 GHz	INTERCEPT (mV)	3458
	SLOPE (mV/DB)	76.1
	Measured Value (mV)	352
	Error (mV)	-61
	LINEARITY ERROR (DB)	-0.81

	Measured Value (mV)	784
	Error (mV)	-10
	LINEARITY ERROR (DB)	-0.13

4.67 GHz	INTERCEPT (mV)	3461
	SLOPE (mV/DB)	79.8
	Measured Value (mV)	254
	Error (mV)	-16
	LINEARITY ERROR (DB)	-0.20

	Measured Value (mV)	650
	Error (mV)	-19
	LINEARITY ERROR (DB)	-0.24

7.33 GHz	INTERCEPT (mV)	3484
	SLOPE (mV/DB)	77.2
	Measured Value (mV)	345
	Error (mV)	-53
	LINEARITY ERROR (DB)	-0.68

	Measured Value (mV)	784
	Error (mV)	1
	LINEARITY ERROR (DB)	0.01

10 GHz	INTERCEPT (mV)	3460
	SLOPE (mV/DB)	78.0
	Measured Value (mV)	303
	Error (mV)	-39
	LINEARITY ERROR (DB)	-0.50

	Measured Value (mV)	727
	Error (mV)	-5
	LINEARITY ERROR (DB)	-0.06

12.67 GHz	INTERCEPT (mV)	3459
	SLOPE (mV/DB)	77.5
	Measured Value (mV)	319
	Error (mV)	-40
	LINEARITY ERROR (DB)	-0.51

	Measured Value (mV)	736
	Error (mV)	-10
	LINEARITY ERROR (DB)	-0.13

15.33 GHz	INTERCEPT (mV)	3467
	SLOPE (mV/DB)	78.6
	Measured Value (mV)	291
	Error (mV)	-32
	LINEARITY ERROR (DB)	-0.41

	Measured Value (mV)	706
	Error (mV)	-10
	LINEARITY ERROR (DB)	-0.13

18 GHz	INTERCEPT (mV)	3447
	SLOPE (mV/DB)	78.7
	Measured Value (mV)	272
	Error (mV)	-29
	LINEARITY ERROR (DB)	-0.36

	Measured Value (mV)	679
	Error (mV)	-15
	LINEARITY ERROR (DB)	-0.19

Flatness P-P

1.2	1.8	1.6	1.4	1.4	1.0	0.4	0.4	0.4	0.4	0.4	0.4	1.0	0.8
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Slope Avg(mv/DB)

78.0



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LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV
 TESTED BY: Jim Hopson
 DATE: 06-19-23
 SERIAL NO: PL40962
 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)	3356
	SLOPE (mV/DB)	76.0

236	677	1083	1493	1883	2243	2613	2995	3365	3750	4121	4444	4849
-81	-20	7	37	47	27	17	19	9	14	5	-52	-27
-1.06	-0.26	0.09	0.48	0.61	0.35	0.22	0.25	0.12	0.18	0.06	-0.69	-0.36

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

4.67 GHz	INTERCEPT (mV)	3348
	SLOPE (mV/DB)	80.0

134	503	938	1366	1757	2149	2588	3000	3370	3757	4154	4514	4902
-15	-46	-11	17	8	0	39	52	22	9	6	-34	-46
-0.19	-0.58	-0.14	0.21	0.10	0.00	0.49	0.64	0.27	0.11	0.07	-0.42	-0.57

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

7.33 GHz	INTERCEPT (mV)	3362
	SLOPE (mV/DB)	77.8

190	621	1035	1454	1845	2211	2603	2988	3355	3740	4139	4506	4904
-61	-18	7	37	39	16	19	15	-7	-11	-1	-22	-13
-0.78	-0.24	0.09	0.47	0.50	0.21	0.25	0.20	-0.09	-0.14	-0.01	-0.29	-0.17

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

10 GHz	INTERCEPT (mV)	3322
	SLOPE (mV/DB)	78.9

138	520	953	1380	1767	2142	2556	2961	3324	3718	4114	4479	4872
-28	-40	-2	31	23	4	23	34	2	2	4	-26	-27
-0.35	-0.51	-0.02	0.39	0.30	0.05	0.30	0.43	0.03	0.03	0.05	-0.33	-0.35

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

12.67 GHz	INTERCEPT (mV)	3337
	SLOPE (mV/DB)	78.3

160	558	982	1420	1808	2176	2578	2969	3332	3723	4118	4485	4884
-44	-37	-5	42	38	14	25	24	-5	-5	-2	-26	-19
-0.56	-0.48	-0.06	0.53	0.48	0.18	0.32	0.31	-0.06	-0.07	-0.02	-0.34	-0.24

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

15.33 GHz	INTERCEPT (mV)	3333
	SLOPE (mV/DB)	79.9

126	481	926	1363	1753	2136	2570	2979	3345	3731	4130	4500	4905
-11	-66	-10	27	18	1	36	45	12	-2	-2	-32	-26
-0.14	-0.70	-0.13	0.34	0.22	0.02	0.45	0.57	0.15	-0.02	-0.03	-0.40	-0.33

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

18 GHz	INTERCEPT (mV)	3306
	SLOPE (mV/DB)	80.3

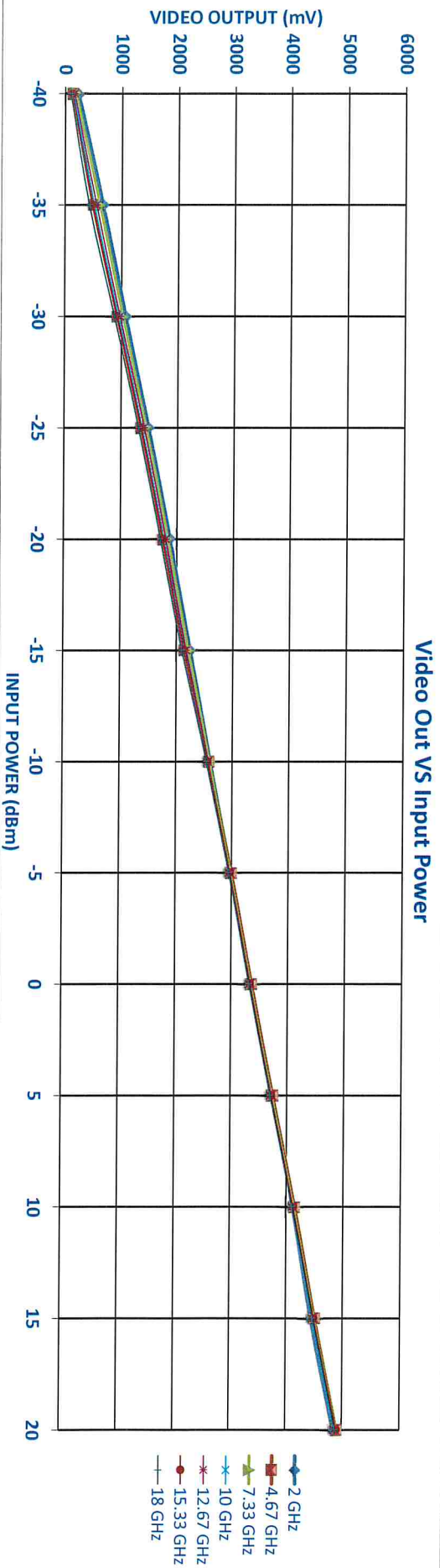
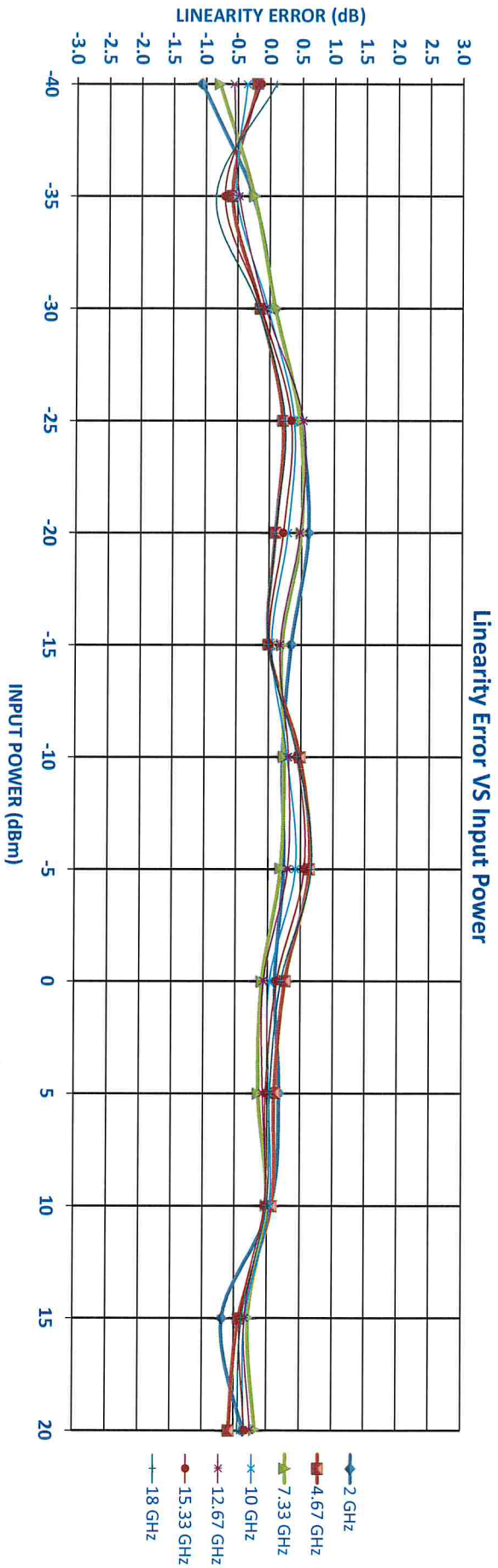
103	429	884	1319	1709	2102	2540	2959	3323	3711	4109	4480	4877
8	-67	-14	20	8	0	37	54	17	3	0	-31	-35
0.10	-0.84	-0.17	0.25	0.10	0.00	0.46	0.67	0.21	0.04	0.00	-0.38	-0.44

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

Flatness P-P

1.6	3.2	2.6	2.2	2.2	1.8	1.0	0.6	0.6	0.6	0.6	0.8	0.8
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Slope Avg(mv/DB) 78.7





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LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV
 TESTED BY: Jim Hopson
 DATE: 06-19-23
 SERIAL NO: PL40962
 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)	3497	377	810	1213	1612	1997	2366	2720	3117	3514	3908	4293	4602	4986
	SLOPE (mV/dB)	76.5	-60	-10	11	27	30	30	17	-12	3	17	29	31	-42
4.67 GHz	INTERCEPT (mV)	3507	285	696	1090	1513	1912	2307	2735	3136	3535	3928	4329	4682	5045
	SLOPE (mV/dB)	80.0	-23	-12	-18	5	4	0	28	29	28	21	23	-24	-61
7.33 GHz	INTERCEPT (mV)	3538	416	847	1254	1648	2028	2398	2746	3138	3536	3926	4329	4687	5056
	SLOPE (mV/dB)	76.8	-49	-2	21	31	27	12	-24	-16	-2	3	22	-4	-19
10 GHz	INTERCEPT (mV)	3522	379	811	1211	1612	1996	2368	2731	3127	3523	3918	4321	4677	5044
	SLOPE (mV/dB)	77.5	-45	0	13	26	23	8	-17	-8	1	9	24	-7	-27
12.67 GHz	INTERCEPT (mV)	3511	372	804	1204	1619	1999	2368	2722	3116	3509	3902	4302	4660	5032
	SLOPE (mV/dB)	77.2	-51	-5	9	38	32	15	-17	-9	-2	5	19	-9	-23
15.33 GHz	INTERCEPT (mV)	3525	367	798	1195	1609	1993	2367	2739	3133	3530	3919	4321	4682	5058
	SLOPE (mV/dB)	77.8	-45	-3	5	30	24	9	-8	-3	5	4	17	-11	-24
18 GHz	INTERCEPT (mV)	3508	353	785	1180	1597	1983	2355	2723	3118	3511	3901	4304	4664	5031
	SLOPE (mV/dB)	77.7	-48	-4	2	31	29	12	-8	-2	3	5	19	-9	-31
Flatness P-P			-0.61	-0.05	0.03	0.40	0.37	0.16	-0.10	-0.02	0.04	0.06	0.25	-0.12	-0.39
Slope Avg(mv/dB)		77.6	1.6	2.0	2.2	1.8	1.4	1.2	0.4	0.2	0.4	0.4	0.4	1.0	1.0

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

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

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

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 Error (mV)
 LINEARITY ERROR (dB)

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

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

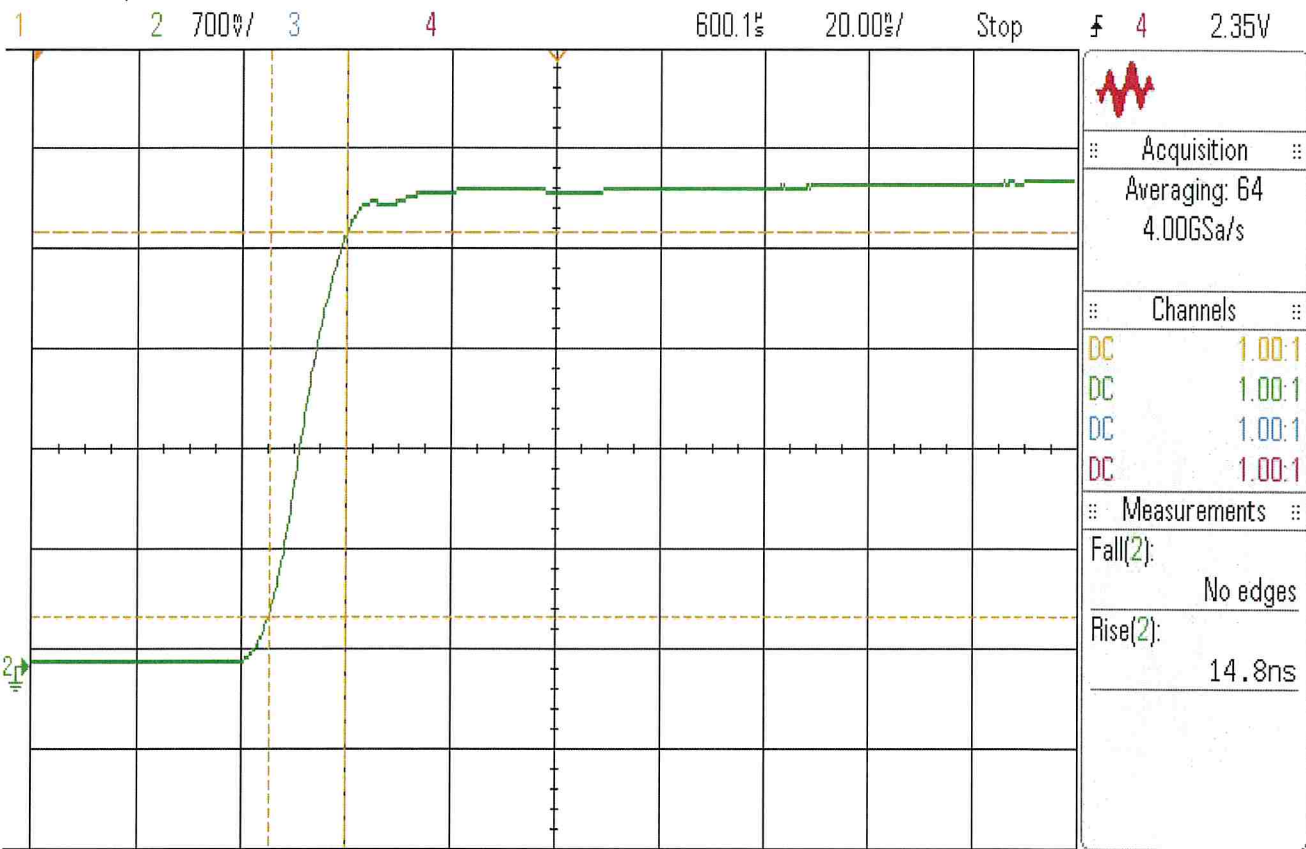
Measured Value (mV)
 Error (mV)
 LINEARITY ERROR (dB)



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

PL40962/2322

DSO-X 3034A, MY52394003: Tue Jun 20 13:50:30 2023



Acquire Menu

Acq Mode
Averaging

Avgs
64

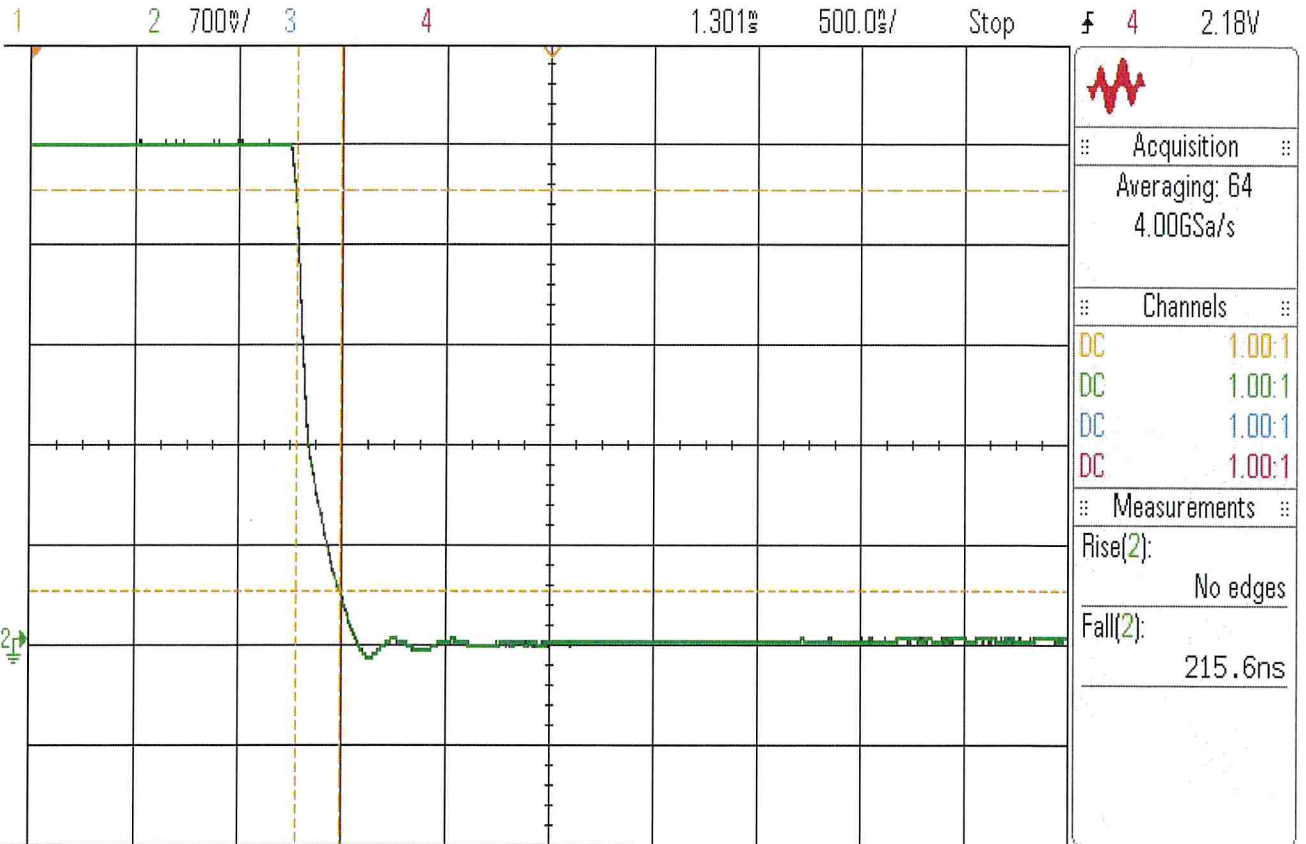
Segmented
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**SUMMARY TEST DATA
ON
ERDLVA-218-CW-75MV**

PL40962/2322

DSO-X 3034A, MY52394003: Tue Jun 20 13:58:00 2023



Measurement Menu

Source 2 Type: Fall Add Measurement Settings Clear Meas Statistics

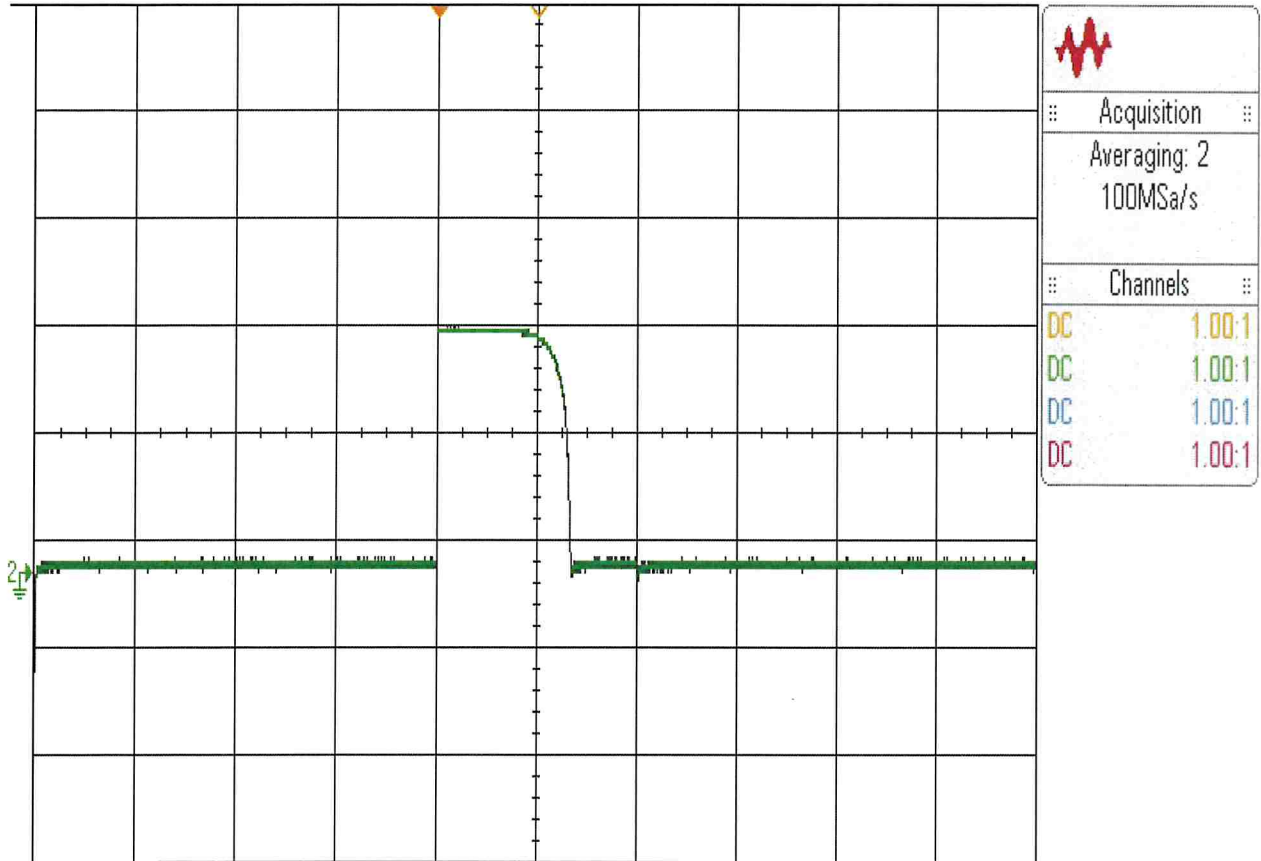


**SUMMARY TEST DATA
ON
ERDLVA-218-CW-75MV**

PL40962/2322

DSO-X 3034A, MY52394003: Tue Jun 20 14:08:10 2023

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



Acquisition	
Averaging:	2
	100MSa/s
Channels	
DC	1.00:1
DC	1.00:1
DC	1.00:1
DC	1.00:1

Save to file = PL40962_cw_immune

Spell
p

Enter
→

Delete
Character

Increment
□

Press to
Save

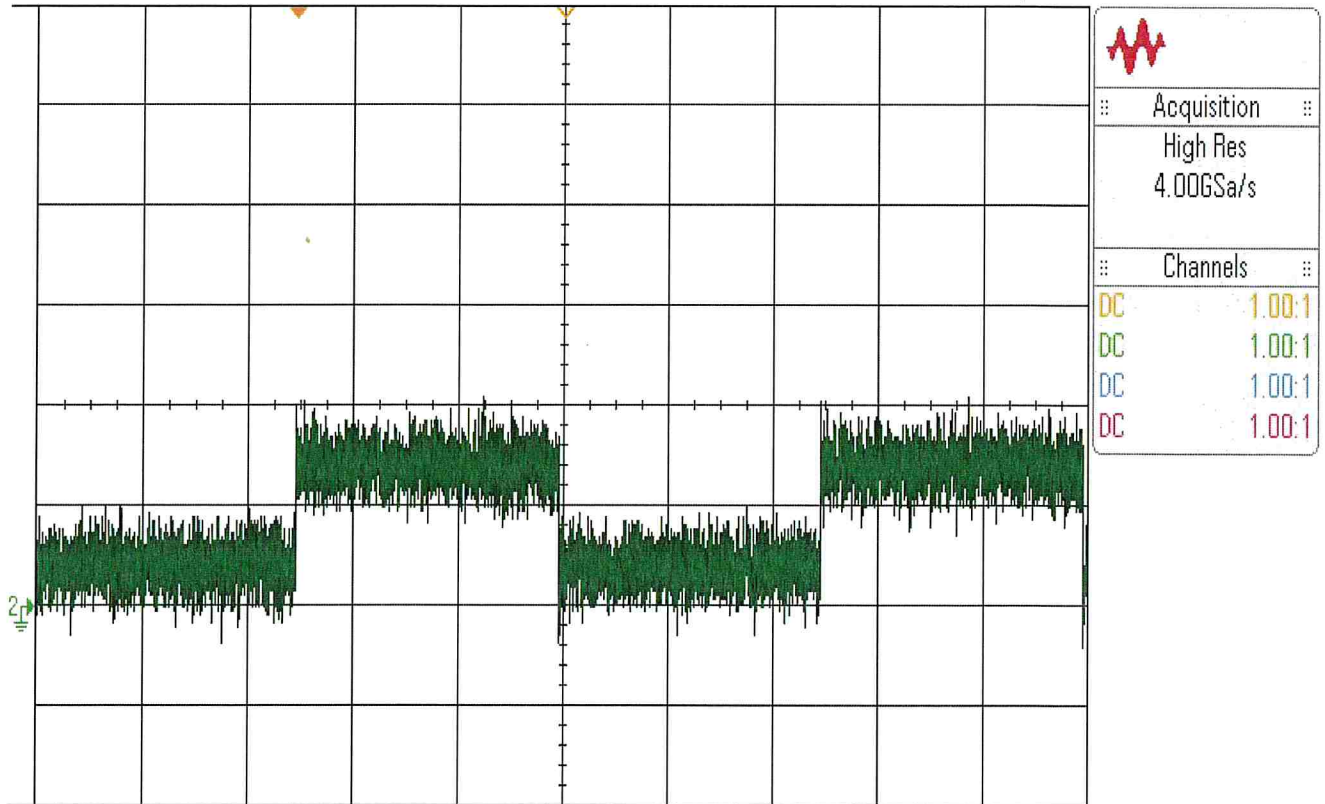


**SUMMARY TEST DATA
ON
ERDLVA-218-CW-75MV**

PL40962/2322

DSO-X 3034A, MY52394003: Wed May 31 14:27:08 2023

1 2 100% 3 4 51.00% 20.00% Stop f 4 1.77V



Cursors Menu

Mode
Off

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

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Email: sales@pmi-rf.com

Model Number: ERDLVA-2G18G-CW-75MV
Serial Number: PL40962
Date: 6/21/2023

Temperature: +25C

VSWR GRAPH

