



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

PL40965/2325

Customer: _____ SO No: _____ Model No: <u>ERDLVA-218-CW-75MV</u> Serial No: <u>PL40965/2325</u>	Tested By: <u>Jim Hopson</u> Temperature: <u>-25°C +25C +85C</u> Date: <u>06/21/2023</u> Drawing No: <u>27642440</u> Rev: <u>A1</u>
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TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	2 to 18 GHz	2 to 18 GHz	QA QC
2	VSWR:	2.5:1 MAX @ -20 dBm	1.52:1 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	75.0-79.1 mV/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	16.8ns	
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 QA3
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	40mV	
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 @ 130 mA -12 V @ 60 mA	Holla 6-21-23

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LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV
 TESTED BY: Jim Hopson
 DATE: 06-19-23
 SERIAL NO: PL40965
 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)	3481
	SLOPE (mV/dB)	76.2

390	816	1194	1587	1996	2383	2701	3095	3461	3844	4264	4615	5001
-43	2	-1	11	39	45	-18	-5	-20	-18	21	-9	-4
-0.56	0.03	-0.01	0.15	0.51	0.59	-0.24	-0.07	-0.26	-0.24	0.27	-0.12	-0.06

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

4.67 GHz	INTERCEPT (mV)	3496
	SLOPE (mV/dB)	77.7

351	781	1154	1551	1969	2373	2736	3118	3491	3870	4285	4656	5021
-39	3	-13	-4	26	42	16	10	-5	-15	12	-5	-28
-0.50	0.03	-0.16	-0.05	0.33	0.54	0.21	0.13	-0.07	-0.19	0.16	-0.06	-0.36

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

7.33 GHz	INTERCEPT (mV)	3494
	SLOPE (mV/dB)	76.9

382	803	1178	1575	1987	2384	2733	3112	3480	3853	4269	4650	5022
-36	0	-9	3	31	43	8	2	-14	-26	6	2	-10
-0.47	0.01	-0.12	0.04	0.40	0.56	0.10	0.03	-0.19	-0.34	0.07	0.03	-0.14

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

10 GHz	INTERCEPT (mV)	3435
	SLOPE (mV/dB)	77.3

310	737	1106	1505	1918	2309	2671	3056	3418	3807	4222	4596	4961
-35	6	-11	1	28	33	8	7	-17	-15	14	1	-20
-0.45	0.08	-0.15	0.02	0.36	0.42	0.11	0.09	-0.23	-0.19	0.18	0.02	-0.26

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

12.67 GHz	INTERCEPT (mV)	3454
	SLOPE (mV/dB)	75.5

387	802	1178	1586	1990	2371	2692	3069	3430	3810	4215	4588	4957
-45	-7	-9	21	47	51	-6	-7	-24	-21	6	1	-7
-0.59	-0.10	-0.12	0.28	0.63	0.67	-0.08	-0.09	-0.31	-0.28	0.08	0.02	-0.10

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

15.33 GHz	INTERCEPT (mV)	3410
	SLOPE (mV/dB)	76.6

306	728	1097	1507	1917	2301	2658	3038	3394	3772	4174	4552	4931
-42	-2	-16	11	38	40	14	11	-16	-21	-1	-6	-10
-0.54	-0.03	-0.21	0.14	0.50	0.52	0.18	0.14	-0.21	-0.27	-0.02	-0.08	-0.13

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

18 GHz	INTERCEPT (mV)	3401
	SLOPE (mV/dB)	77.4

270	686	1054	1467	1881	2274	2660	3044	3399	3775	4175	4550	4918
-36	-6	-25	1	28	34	33	30	-2	-13	0	-12	-31
-0.46	-0.08	-0.33	0.01	0.36	0.44	0.42	0.39	-0.03	-0.17	0.00	-0.15	-0.40

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

Flatness P-P		
Slope Avg(mv/dB)		76.8



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LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV
 TESTED BY: Jim Hopson
 DATE: 06-19-23
 SERIAL NO: PL40966
 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)	3550
	SLOPE (mV/dB)	75.5

494	900	1289	1688	2088	2466	2757	3150	3524	3909	4334	4687	5050
-37	-9	3	25	48	48	-38	-22	-26	-18	30	5	-9
-0.49	-0.11	0.04	0.33	0.63	0.64	-0.50	-0.30	-0.34	-0.24	0.39	0.07	-0.12

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

4.67 GHz	INTERCEPT (mV)	3571
	SLOPE (mV/dB)	77.0

446	871	1255	1655	2068	2468	2803	3178	3560	3942	4361	4732	5074
-46	-5	-6	9	37	52	2	-8	-11	-14	20	6	-36
-0.59	-0.07	-0.08	0.11	0.48	0.67	0.03	-0.10	-0.14	-0.18	0.26	0.08	-0.47

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

7.33 GHz	INTERCEPT (mV)	3577
	SLOPE (mV/dB)	76.0

496	905	1298	1698	2101	2486	2807	3180	3556	3931	4352	4733	5081
-41	-12	1	21	44	49	-10	-17	-21	-26	15	16	-17
-0.54	-0.16	0.01	0.28	0.58	0.64	-0.13	-0.23	-0.28	-0.35	0.19	0.20	-0.22

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

10 GHz	INTERCEPT (mV)	3527
	SLOPE (mV/dB)	76.2

437	857	1237	1635	2044	2432	2751	3130	3500	3888	4312	4687	5030
-40	-2	-3	14	42	49	-14	-16	-27	-20	23	16	-22
-0.53	-0.02	-0.04	0.18	0.55	0.64	-0.18	-0.21	-0.35	-0.26	0.30	0.22	-0.29

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

12.67 GHz	INTERCEPT (mV)	3536
	SLOPE (mV/dB)	74.7

499	903	1296	1709	2101	2471	2763	3138	3506	3885	4297	4672	5019
-49	-19	1	40	59	55	-26	-25	-30	-25	14	15	-11
-0.66	-0.25	0.01	0.54	0.79	0.74	-0.35	-0.33	-0.40	-0.33	0.19	0.21	-0.15

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

15.33 GHz	INTERCEPT (mV)	3503
	SLOPE (mV/dB)	75.4

435	856	1237	1645	2047	2429	2738	3114	3476	3852	4264	4642	5000
-53	-8	-4	27	52	57	-11	-12	-27	-27	8	9	-10
-0.70	-0.11	-0.06	0.36	0.69	0.76	-0.14	-0.16	-0.35	-0.36	0.10	0.12	-0.13

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

18 GHz	INTERCEPT (mV)	3496
	SLOPE (mV/dB)	75.8

409	834	1211	1619	2029	2416	2740	3117	3479	3851	4261	4636	4987
-55	-9	-11	18	49	57	2	0	-17	-24	7	3	-25
-0.72	-0.11	-0.14	0.24	0.65	0.76	0.03	0.01	-0.22	-0.31	0.10	0.05	-0.32

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

Flatness P-P

1.2	1.0	1.2	1.2	1.0	1.0	1.0	0.8	1.2	1.2	1.4	1.2	1.2
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Slope Avg(mv/dB) 75.8



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LOG TRANSFER WITH FREQUENCY

MODEL: ERDLVA-218-CW-75MV
 TESTED BY: Jim Hopson
 DATE: 06-19-23
 SERIAL NO: PL40965
 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)	3362
	SLOPE (mV/dB)	77.2

215	661	1046	1441	1858	2245	2603	2991	3346	3723	4135	4497	4908
-59	1	0	9	40	41	13	15	-16	-25	1	-23	2
-0.76	0.02	0.00	0.12	0.52	0.53	0.17	0.19	-0.21	-0.32	0.01	-0.30	0.02

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

4.67 GHz	INTERCEPT (mV)	3364
	SLOPE (mV/dB)	78.4

170	614	1003	1404	1824	2224	2621	3008	3367	3740	4149	4517	4900
-58	-6	-9	0	28	36	41	36	3	-16	1	-23	-33
-0.74	-0.07	-0.11	0.00	0.36	0.46	0.52	0.46	0.04	-0.21	0.01	-0.30	-0.41

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

7.33 GHz	INTERCEPT (mV)	3354
	SLOPE (mV/dB)	78.0

175	620	1007	1407	1823	2220	2616	2997	3351	3719	4128	4505	4896
-58	-3	-7	3	29	36	42	33	-3	-26	-7	-20	-19
-0.75	-0.04	-0.08	0.04	0.37	0.46	0.54	0.42	-0.04	-0.33	-0.09	-0.25	-0.24

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

10 GHz	INTERCEPT (mV)	3277
	SLOPE (mV/dB)	78.9

94	488	903	1306	1713	2110	2531	2933	3282	3664	4066	4439	4820
-27	-28	-7	1	14	16	43	50	5	-8	0	-22	-35
-0.35	-0.35	-0.09	0.01	0.17	0.20	0.54	0.64	0.06	-0.10	0.00	-0.28	-0.45

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

12.67 GHz	INTERCEPT (mV)	3312
	SLOPE (mV/dB)	76.6

175	618	1005	1417	1830	2211	2576	2952	3300	3674	4070	4442	4826
-72	-12	-8	21	51	48	30	23	-12	-21	-9	-20	-19
-0.94	-0.16	-0.11	0.27	0.66	0.63	0.39	0.30	-0.16	-0.28	-0.11	-0.26	-0.25

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

15.33 GHz	INTERCEPT (mV)	3260
	SLOPE (mV/dB)	77.2

118	533	934	1346	1755	2138	2529	2909	3254	3629	4017	4396	4786
-53	-24	-10	16	39	36	41	35	-6	-17	-15	-23	-19
-0.69	-0.32	-0.12	0.21	0.51	0.47	0.53	0.45	-0.08	-0.22	-0.20	-0.29	-0.24

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

18 GHz	INTERCEPT (mV)	3241
	SLOPE (mV/dB)	79.1

62	416	852	1264	1664	2070	2507	2917	3263	3634	4022	4397	4775
-13	-55	-15	2	6	16	58	72	22	-3	-10	-31	-49
-0.17	-0.69	-0.19	0.02	0.08	0.21	0.73	0.91	0.28	-0.03	-0.13	-0.39	-0.62

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

Flatness P-P

2.0	3.2	2.4	2.2	2.4	2.2	1.4	1.2	1.4	1.4	1.6	1.6	1.8
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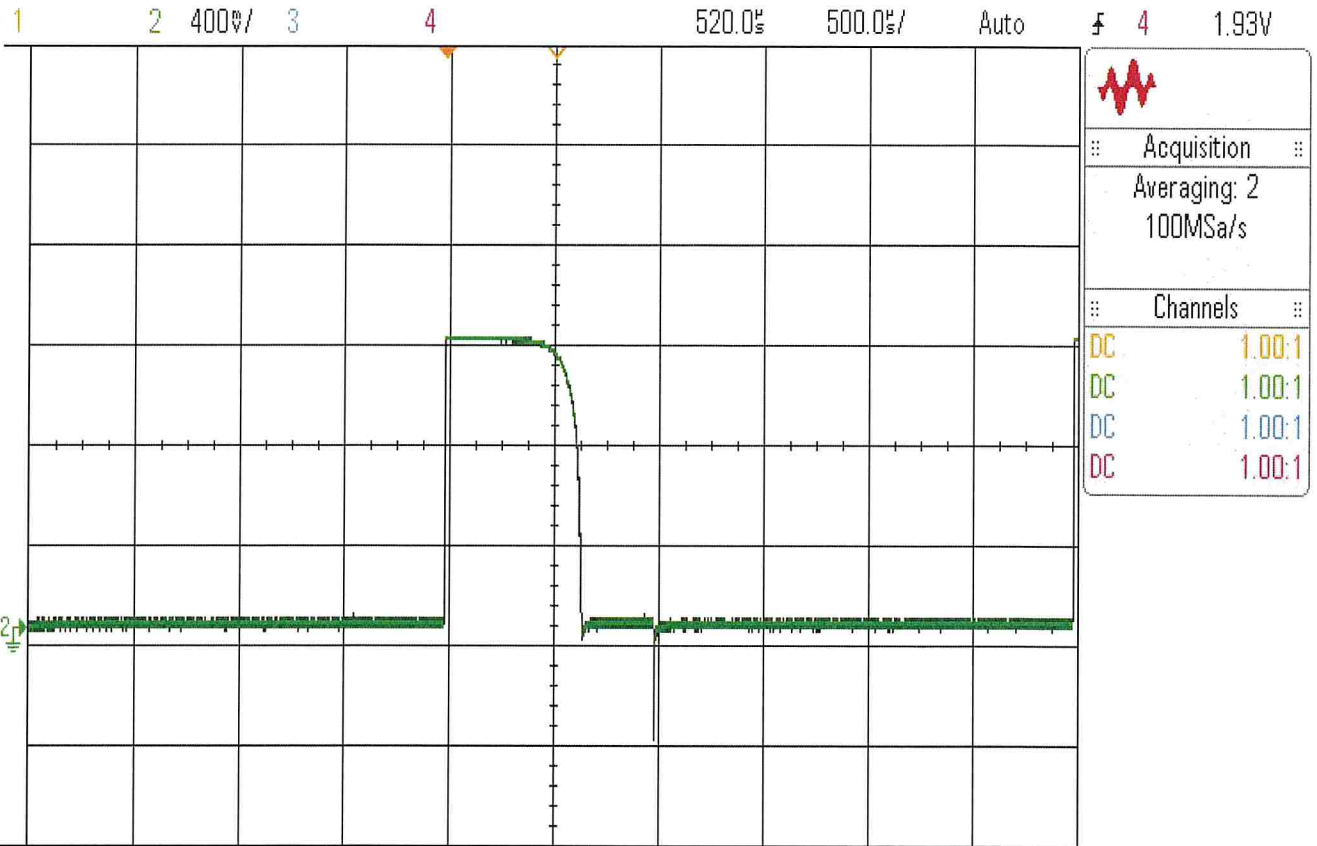
Slope Avg(mv/dB) 77.9



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

PL40965/2325

DSO-X 3034A, MY52394003: Tue Jun 20 14:42:10 2023



Cursors Menu

Mode
Off

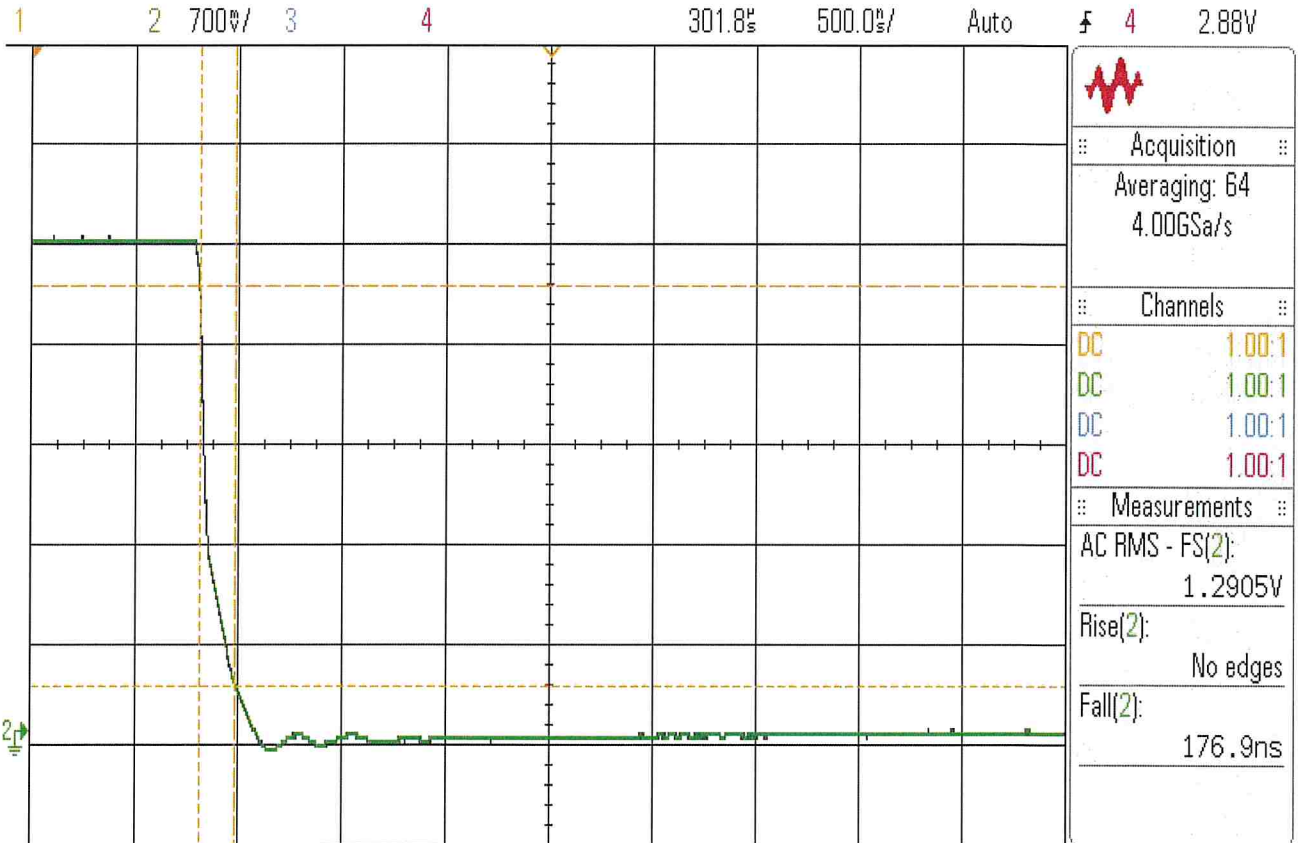
To turn on cursors, press the [Cursors] key on the front panel.



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

PL40965/2325

DSO-X 3034A, MY52394003: Tue Jun 20 14:50:23 2023



Measurement Menu

Source 2 Type: Fall Add Measurement Settings Clear Meas Statistics

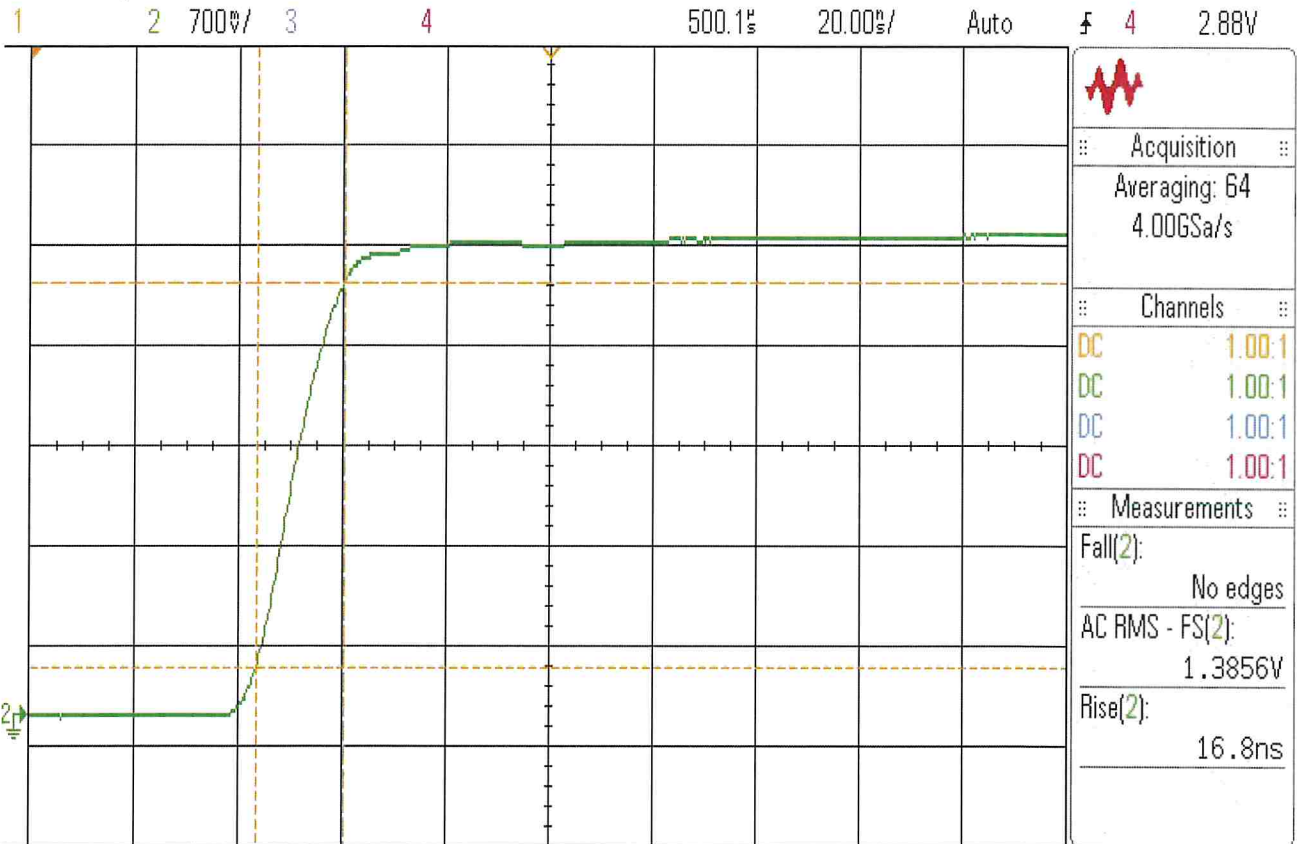
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**SUMMARY TEST DATA
ON
ERDLVA-218-CW-75MV**

PL40965/2325

DSO-X 3034A, MY52394003: Tue Jun 20 14:48:18 2023



Measurement Menu

Source 2	Type: Rise	Add Measurement	Settings ↓	Clear Meas ↓	Statistics ↓
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Email: sales@pmi-rf.com

Model Number: ERDLVA-2G18G-CW-75MV
Serial Number: PL40965
Date: 6/21/2023

Temperature: +25C

VSWR GRAPH

