



**Summary Data**  
**For**  
**ERDLVA-2G18G-65-70MV-70C**

Customer: \_\_\_\_\_

Tested By: Anton L.

SO No: \_\_\_\_\_

Temperature: -40°C TO +70°C

Model No: ERDLVA-2G18G-65-70MV-70C

Date 9/24/2024

Serial No: PL47848/2440

Drawing No: 27642020 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:	2.2:1 MAX @ 50 Ω	1.77 :1 MAX	
3	Input Power:	(1) 1 W CW, Max. (2) 100 W Peak @ PW = 1 us & Duty Cycle = 1%, Max.	Pass	
4	VIDEO OUT TSS:	-71 dBm MAX	- 72.3 dBm	
5	VIDEO OUT Dynamic Range:	-65 to 0 dBm	-65 to 0 dBm	
6	VIDEO OUT Log Slope Fixed:	70 ± 3mV/dB	70.8 mV/dB	
			68.9 mV/dB	
7	VIDEO OUT Log Linearity:	±1.0 dB MAX @25C	0.61 dB	
			-0.43 dB	
8	VIDEO OUT Log Accuracy:	±2.3 dB MAX @25C	1.24 dB	
			-0.79 dB	
9	VIDEO OUT Absolute Log Accuracy:	±2.9 dB MAX Over Freq & temp	1.43 dB	
			-1.42 dB	
10	VIDEO OUT DC Offset:	0 ±70 mV (RF Input Terminated & DC Power On) @25C	38 mV	
11	VIDEO OUT Rise Time (10% to 90%):	28 ns MAX	24.8 ns	
12	VIDEO OUT Fall Time (90% to 10%):	300 ns MAX	204.7 ns	



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13	VIDEO OUT Settling Time:	50 ns With in $\pm 70$ mV of final value @-10 dBm	<b>28 ns</b>	PMI QA3
14	VIDEO OUT Recovery Time:	1 us MAX to within 1 dB of baseline for PW <10us & Power = -10dBm	<b>0.48 us</b>	
15	VIDEO OUT Video Frequency Flatness:	$\pm 2.0$ dB MAX @25C	$\pm$ <b>0.88 dB</b>	
16	VIDEO OUT CW Immunity:	CW Immune Power TSS to -40 dBm	<b>Pass</b>	
		Pulse Peak Amplitude Loss; 2 dB MAX @ -40dBm CW	<b>&lt; 2 dB</b>	
		Baseline shift 200mV @-40dBm CW	<b>&lt; 200 mV</b>	
		CW Immunity Time at CW = -40 dBm, $\leq 4$ ms	<b>1.53 ms</b>	
		CW Recovery Time at CW = -40 dBm, $\leq 20$ us	<b>&lt;20 us</b>	
17	Pulse droop	1dB Max for 300us pulse at or above -65dBm	<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:	$75 \pm 1 \Omega$	<b>75<math>\Omega</math></b>	
20	VIDEO driver capability	100 ft RG11 into 75 ohm load	<b>Pass</b>	
21	Pulse density capability	10% duty cycle 100 ns, 70% duty cycle 300 us at peak power -10 dBm with 1 dB variable for pulse amplitude and baseline	<b>Pass</b>	



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22	VIDEO OUT Noise Level (Vp-p):	160 mV max	135.7 mV	PMI QA3
23	VIDEO OUT Propagation Delay:	50 ns MAX from RF 50% to 10% video (excluding cable)	< 50 ns	
24	Power Supply	+15 V @ 500 mA MAX -15 V @ 100 mA MAX	+15 V @ 310 mA -15 V @ 80 mA	
25	Power Supply Ripple From DC to 10 MHz	100 mV MAX	Pass	

QA/QC Approval: *K. Klamm*

Date: 10-2-24



# Summary Data For ERDLVA-2G18G-65-70MV-70C

## LOG TRANSFER WITH FREQUENCY

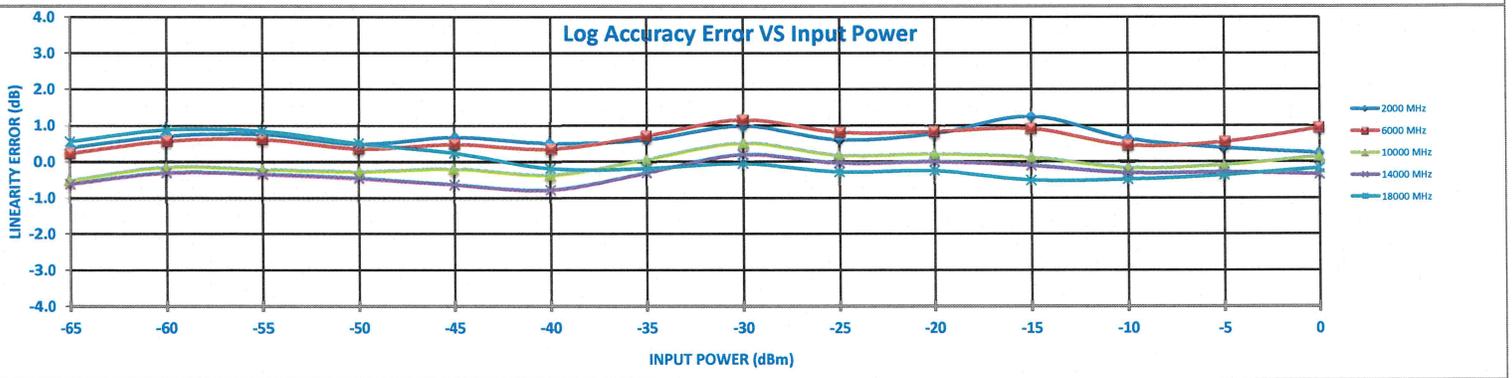
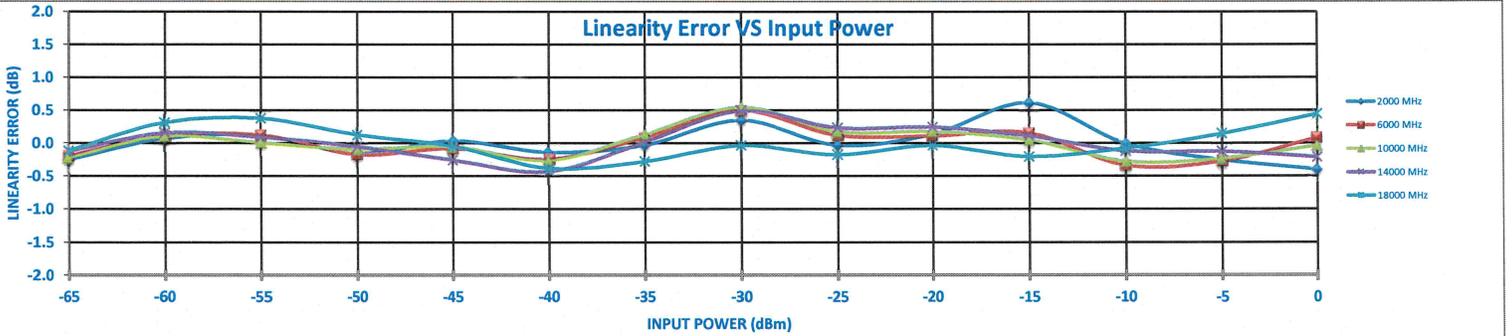
TESTED BY: Anton L.  
MODEL: ERDLVA-2G18G-65-70MV-70C  
SERIAL NO: PL47848/2440  
DATE: 9/24/2024

Test Temp: 25 °C  
Video Offset: 38 mV

Frequency

Frequency	Intercept (mV)	Slope (mV/dB)	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)	Measured Value (mV)	Error (mV)	LINEARITY ERROR (dB)	ACCURACY ERROR (dB)																																							
2000 MHz	4978	70.3	392	766	1121	1453	1818	2157	2516	2894	3219	3582	3967	4275	4609	4950	-18	5	8	-11	2	-10	-3	24	-2	9	43	-1	-18	-28	-0.26	0.07	0.12	-0.16	0.03	-0.14	-0.04	0.34	-0.03	0.13	0.61	-0.01	-0.26	-0.40	0.37	0.69	0.75	0.47	0.66	0.49	0.60	0.97	0.60	0.76	1.24	0.62	0.38	0.23	0.61	1.24
6000 MHz	4994	70.7	382	757	1112	1445	1805	2147	2524	2907	3234	3587	3944	4263	4621	5000	-14	8	9	-12	-6	-17	6	35	9	8	11	-24	-19	6	-0.19	0.11	0.13	-0.17	-0.08	-0.24	0.08	0.50	0.12	0.11	0.16	-0.33	-0.27	0.08	0.23	0.57	0.62	0.36	0.48	0.34	0.71	1.16	0.81	0.83	0.91	0.45	0.55	0.94	0.50	1.16
10000 MHz	4947	70.8	329	706	1053	1400	1757	2096	2478	2861	3189	3543	3888	4219	4576	4944	-18	7	0	-7	-4	-19	9	38	12	12	3	-29	-17	-3	-0.22	0.10	0.00	-0.09	-0.05	-0.26	0.13	0.54	0.17	0.17	0.05	-0.28	-0.23	-0.04	-0.52	-0.16	-0.22	-0.28	-0.20	-0.38	0.05	0.50	0.17	0.21	0.12	-0.17	-0.09	0.14	0.54	-0.52
14000 MHz	4924	70.7	322	695	1044	1387	1726	2067	2452	2839	3174	3528	3872	4209	4562	4909	-9	11	6	-4	-18	-31	1	35	16	8	-9	-9	-15	-0.13	0.15	0.09	-0.06	-0.26	-0.43	0.02	0.49	0.23	0.24	0.11	-0.12	-0.13	-0.22	-0.62	-0.32	-0.35	-0.47	-0.65	-0.79	-0.32	0.19	-0.04	0.00	-0.11	-0.31	-0.29	-0.35	0.49	-0.79	
18000 MHz	4891	68.9	404	778	1127	1454	1787	2108	2460	2821	3156	3510	3843	4196	4556	4921	-8	21	26	8	-3	-27	-19	-3	-12	-3	-14	-6	10	30	-0.12	0.31	0.37	0.12	-0.05	-0.39	-0.28	-0.04	-0.18	-0.04	-0.21	-0.08	0.14	0.44	0.54	0.87	0.83	0.48	0.22	-0.21	-0.20	-0.06	-0.30	-0.26	-0.52	-0.50	-0.38	-0.18	0.44	0.87

Flatness	+/- dB	0.58	0.59	0.59	0.48	0.65	0.64	0.51	0.61	0.55	0.55	0.88	0.56	0.46	0.65	0.88
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# Summary Data For ERDLVA-2G18G-65-70MV-70C

## LOG TRANSFER WITH FREQUENCY

TESTED BY: Anton L.  
MODEL: ERDLVA-2G18G-65-70MV-70C  
SERIAL NO: PL47848/2440  
DATE: 9/24/2024

Test Temp: -40 °C  
Video Offset: 1 mV

Frequency		
2000 MHz	INTERCEPT (mV)	4872
	SLOPE (mV/dB)	70.0

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
326	683	1023	1351	1716	2063	2420	2793	3116	3476	3863	4177	4510	4851	
3	10	0	-22	-7	-10	-3	20	-7	3	40	5	-12	-21	
0.04	0.14	0.00	-0.31	-0.10	-0.14	-0.04	0.29	-0.09	0.05	0.58	0.06	-0.18	-0.30	
-0.03	0.07	-0.07	-0.39	-0.17	-0.22	-0.12	0.21	-0.17	-0.03	0.50	-0.02	-0.26	-0.39	

RF Input Power (dBm)	
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.58
ACCURACY ERROR (dB)	0.50

6000 MHz	INTERCEPT (mV)	4904
	SLOPE (mV/dB)	70.3

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
341	696	1043	1368	1728	2080	2451	2827	3153	3501	3864	4182	4535	4916	
5	8	4	-22	-14	-13	6	31	6	2	14	-20	-18	12	
0.07	0.12	0.06	-0.32	-0.20	-0.19	0.09	0.44	0.08	0.03	0.20	-0.28	-0.26	0.16	
0.18	0.25	0.21	-0.15	0.00	0.03	0.33	0.70	0.35	0.33	0.51	0.05	0.10	0.54	

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.44
ACCURACY ERROR (dB)	0.70

10000 MHz	INTERCEPT (mV)	4879
	SLOPE (mV/dB)	70.4

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
302	662	1003	1336	1696	2048	2426	2806	3128	3477	3834	4157	4512	4876	
0	8	-3	-22	-14	-14	12	45	10	7	11	-18	-15	-3	
0.01	0.12	-0.04	-0.31	-0.20	-0.20	0.17	0.56	0.14	0.09	0.16	-0.25	-0.21	-0.04	
-0.37	-0.23	-0.36	-0.60	-0.46	-0.43	-0.03	0.40	0.00	-0.02	0.08	-0.30	-0.23	-0.03	

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.56
ACCURACY ERROR (dB)	-0.60

14000 MHz	INTERCEPT (mV)	4857
	SLOPE (mV/dB)	70.5

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
285	642	982	1313	1655	2003	2397	2782	3108	3459	3815	4144	4501	4841	
10	14	2	-20	-30	-35	7	40	13	12	15	-8	-4	-16	
0.14	0.20	0.03	-0.28	-0.43	-0.49	0.10	0.56	0.19	0.17	0.22	-0.12	-0.05	-0.23	
-0.62	-0.52	-0.66	-0.93	-1.05	-1.07	-0.45	0.05	-0.29	-0.27	-0.19	-0.49	-0.39	-0.53	

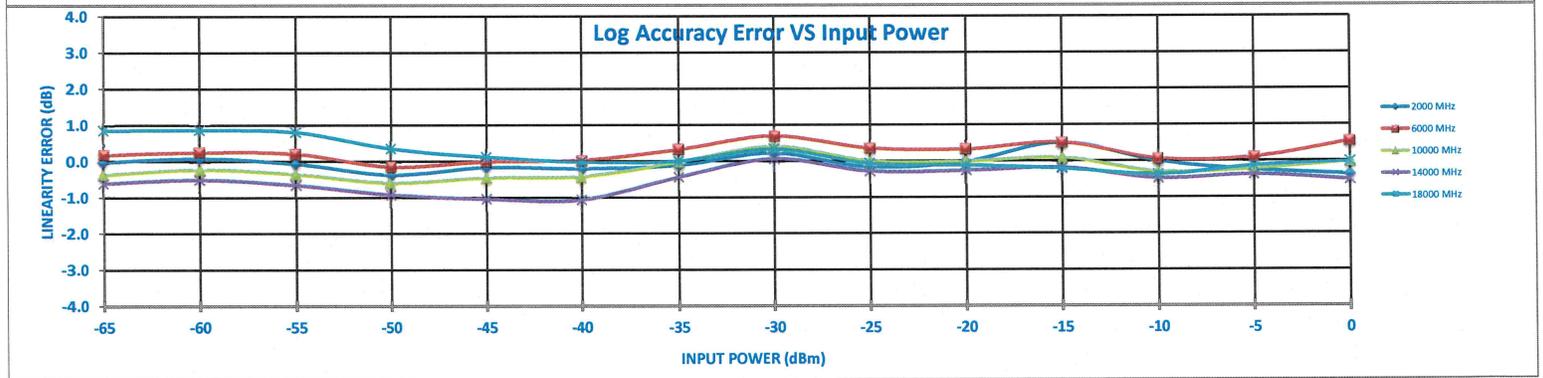
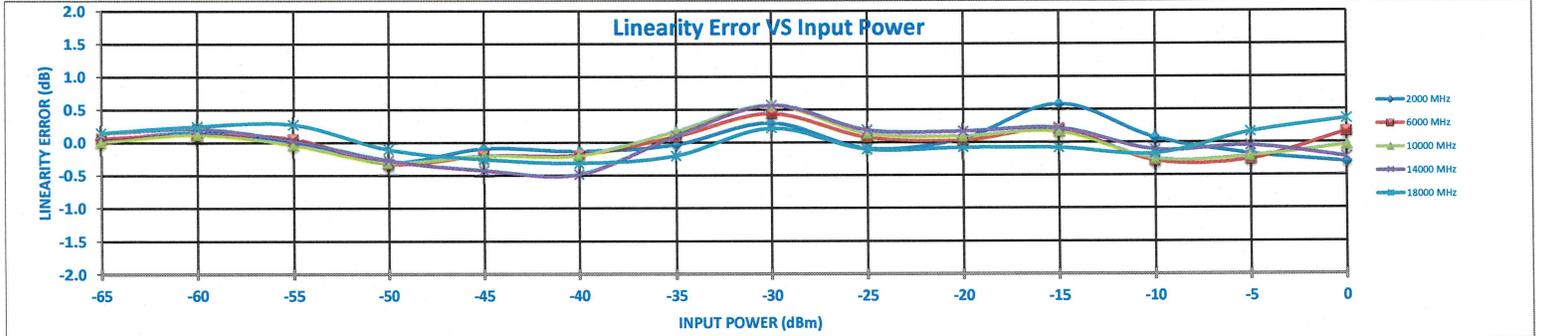
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.56
ACCURACY ERROR (dB)	-1.07

18000 MHz	INTERCEPT (mV)	4852
	SLOPE (mV/dB)	68.8

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
387	738	1084	1402	1736	2076	2428	2801	3123	3469	3813	4151	4518	4876	
10	16	18	-8	-18	-22	-14	14	-8	-6	-6	-12	11	24	
0.14	0.24	0.27	-0.11	-0.26	-0.32	-0.21	0.21	-0.11	-0.08	-0.09	-0.18	0.15	0.36	
0.84	0.85	0.80	0.34	0.11	-0.03	0.00	0.33	-0.07	-0.13	-0.22	-0.39	-0.15	-0.03	

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.36
ACCURACY ERROR (dB)	0.85

Flatness	+/- dB	0.73	0.69	0.73	0.64	0.58	0.55	0.39	0.32	0.32	0.30	0.36	0.27	0.24	0.54
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# Summary Data For ERDLVA-2G18G-65-70MV-70C

## LOG TRANSFER WITH FREQUENCY

TESTED BY: Anton L.  
MODEL: ERDLVA-2G18G-65-70MV-70C  
SERIAL NO: PL47848/2440  
DATE: 9/24/2024

Test Temp: 70 °C  
Video Offset: 9 mV

Frequency		
2000 MHz	INTERCEPT (mV)	4896
	SLOPE (mV/dB)	70.1

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
331	698	1040	1378	1742	2072	2440	2820	3147	3506	3889	4198	4529	4862	
-9	8	-1	-13	0	-20	-3	27	3	12	44	3	-17	-34	
-0.13	0.11	-0.01	-0.19	0.00	-0.29	-0.04	0.38	0.05	0.17	0.63	0.04	-0.24	-0.49	
-0.13	0.19	0.14	0.04	0.32	0.10	0.43	0.94	0.68	0.88	1.43	0.91	0.71	0.54	

RF Input Power (dBm)	
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.63
ACCURACY ERROR (dB)	1.43

6000 MHz	INTERCEPT (mV)	4902
	SLOPE (mV/dB)	70.6

	312	673	1022	1363	1722	2052	2435	2822	3150	3500	3853	4177	4532	4903
-3	5	1	-10	-4	-27	3	37	13	10	10	-19	-17	1	
-0.04	0.07	0.02	-0.15	-0.06	-0.38	0.04	0.53	0.18	0.14	0.14	-0.27	-0.24	0.02	
-0.41	-0.17	-0.12	-0.17	0.03	-0.19	0.36	0.97	0.72	0.80	0.91	0.61	0.75	1.13	

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.53
ACCURACY ERROR (dB)	1.13

10000 MHz	INTERCEPT (mV)	4837
	SLOPE (mV/dB)	70.4

	254	620	961	1310	1665	1998	2374	2755	3090	3438	3779	4122	4472	4839
-5	9	3	-5	-3	-22	2	31	13	9	-2	-11	-13	2	
-0.08	0.12	-0.04	-0.08	-0.04	-0.31	0.02	0.43	0.19	0.13	-0.03	-0.16	-0.19	0.02	
-1.25	-0.94	-1.00	-0.94	-0.80	-0.97	-0.52	0.00	-0.14	-0.10	-0.16	-0.19	-0.12	0.20	

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.43
ACCURACY ERROR (dB)	-1.25

14000 MHz	INTERCEPT (mV)	4809
	SLOPE (mV/dB)	69.8

	265	630	971	1315	1658	1985	2358	2735	3075	3422	3762	4109	4449	4807
-4	12	4	-1	-8	-30	-6	22	13	10	1	-1	-10	-2	
-0.05	0.17	0.05	-0.02	-0.11	-0.43	-0.09	0.31	0.18	0.15	0.02	-0.02	-0.15	-0.02	
-1.09	-0.80	-0.86	-0.87	-0.90	-1.16	-0.75	-0.29	-0.36	-0.33	-0.41	-0.38	-0.45	-0.26	

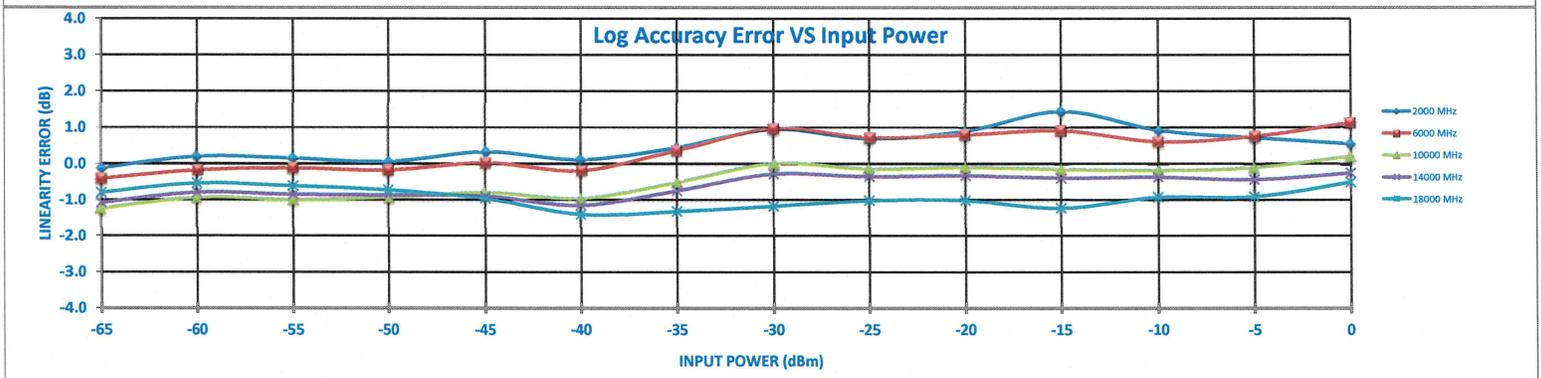
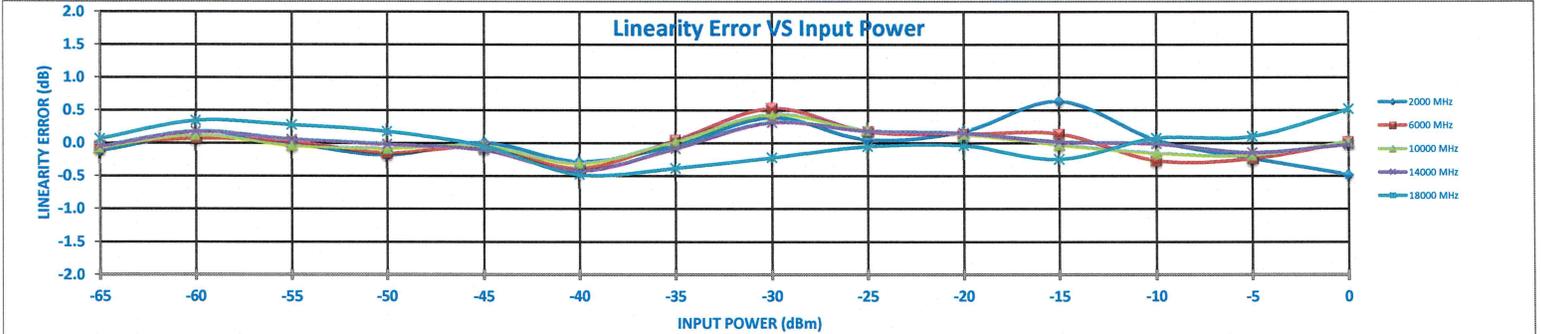
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Error (mV)	
LINEARITY ERROR (dB)	-0.43
ACCURACY ERROR (dB)	-1.16

18000 MHz	INTERCEPT (mV)	4754
	SLOPE (mV/dB)	68.8

	284	647	987	1324	1653	1967	2318	2673	3029	3374	3704	4070	4416	4789
4	23	19	12	-3	-34	-27	-16	-4	-3	-17	5	7	35	
0.06	0.33	0.27	0.17	-0.05	-0.49	-0.39	-0.23	-0.06	-0.05	-0.25	0.07	0.09	0.51	
-0.81	-0.55	-0.62	-0.74	-0.97	-1.42	-1.33	-1.19	-1.03	-1.03	-1.25	-0.94	-0.93	-0.52	

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.51
ACCURACY ERROR (dB)	-1.42

Flatness	+/- dB	0.56	0.57	0.57	0.49	0.64	0.76	0.88	1.08	0.88	0.96	1.34	0.93	0.84	0.83
															1.34

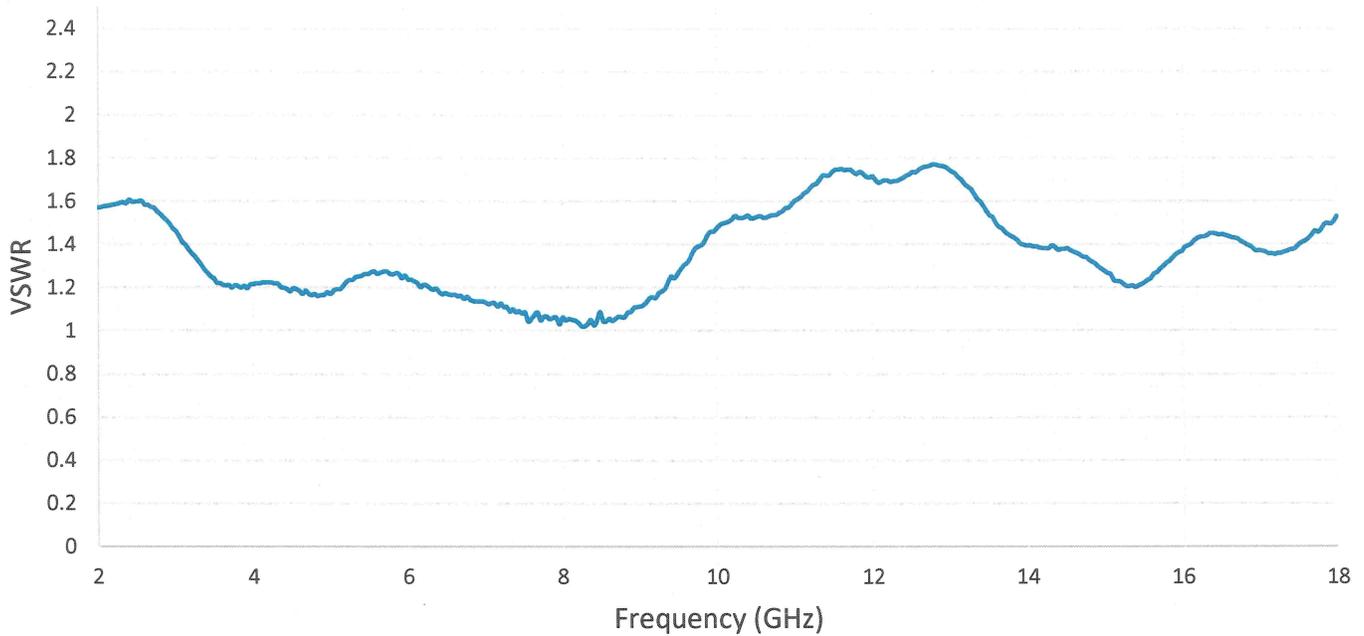




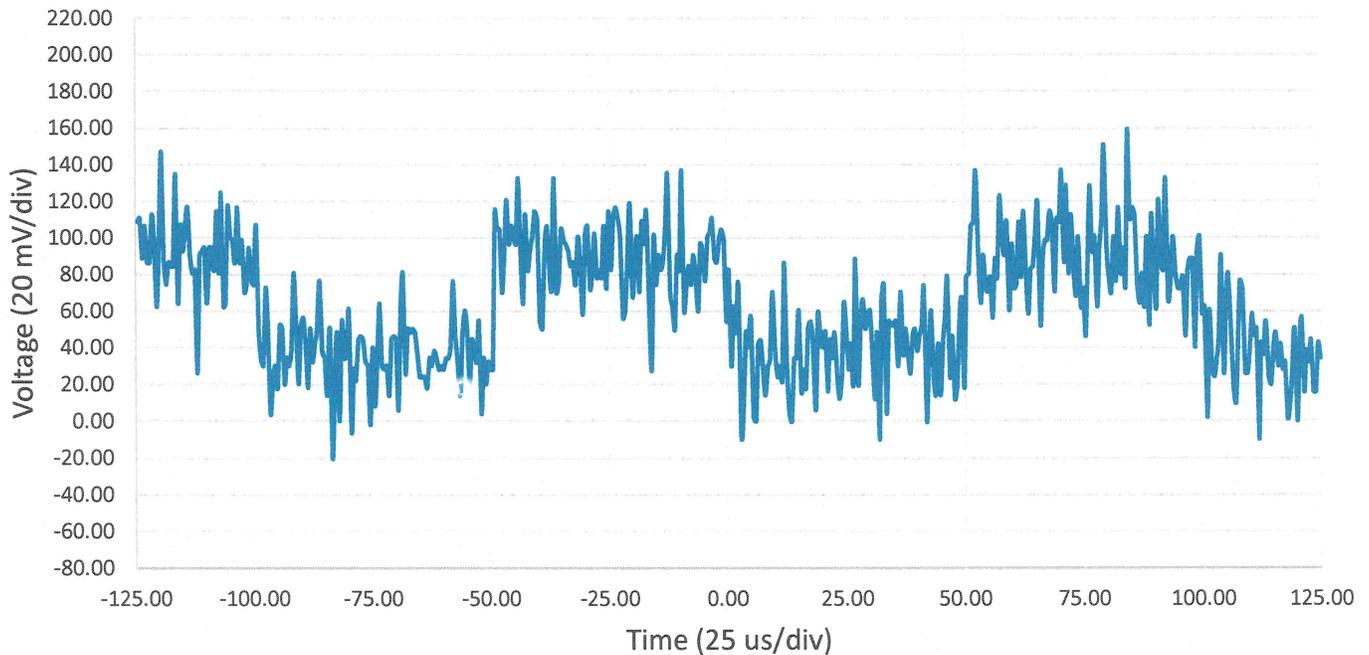
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For  
ERDLVA-2G18G-65-70MV-70C

PL47848/2440

VSWR 1.77:1



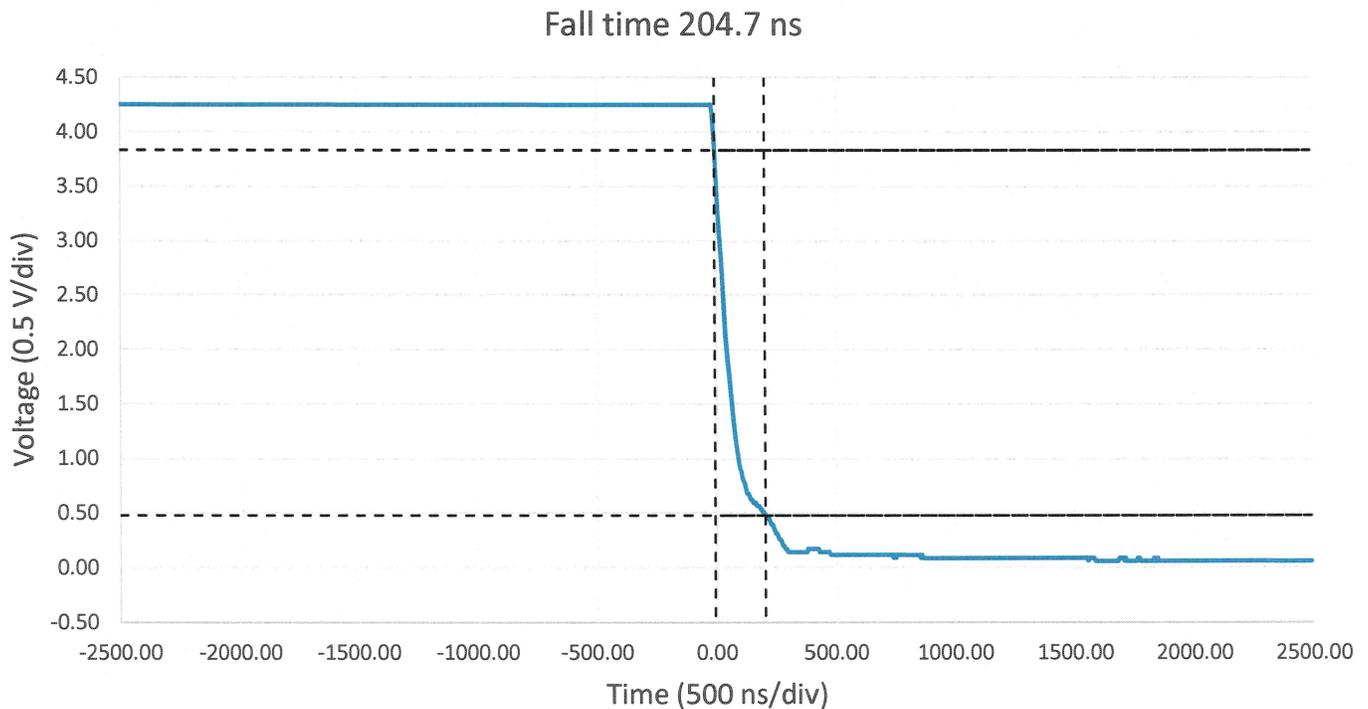
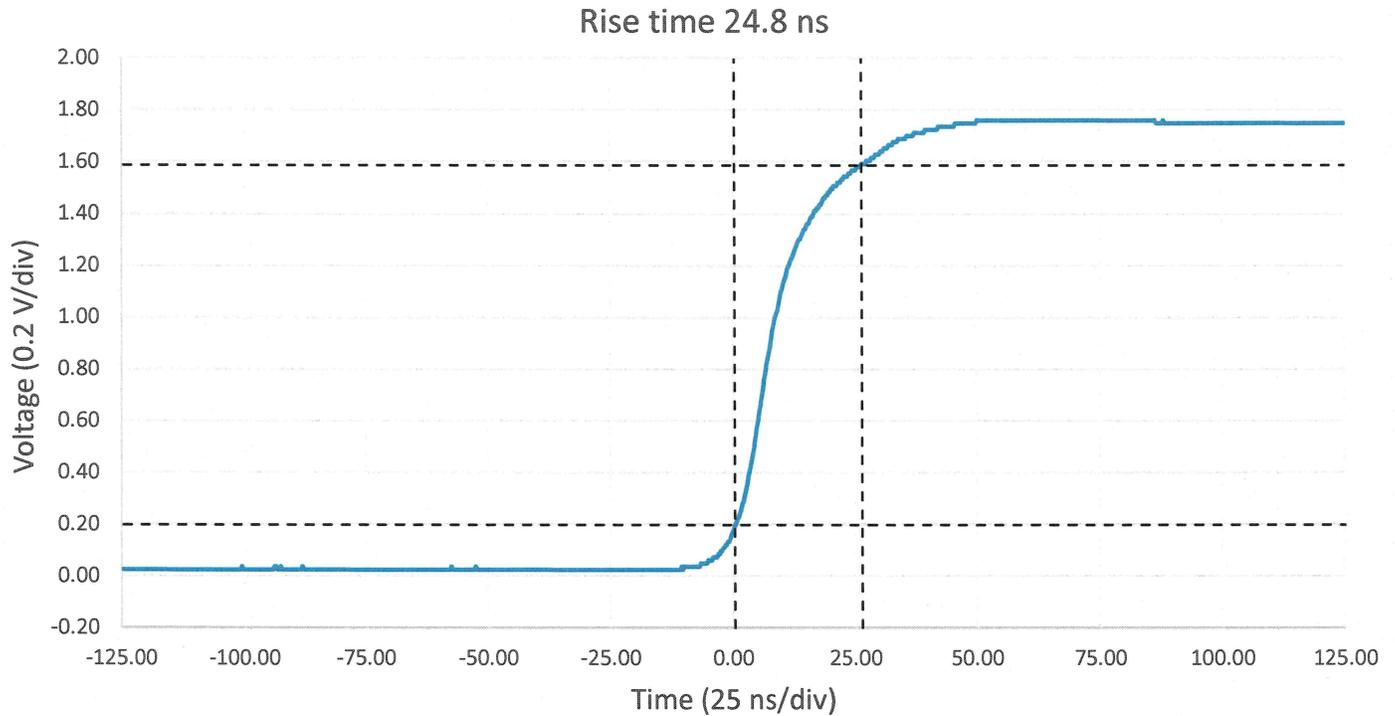
TSS @ -72.3 dBm





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PL47848/2440

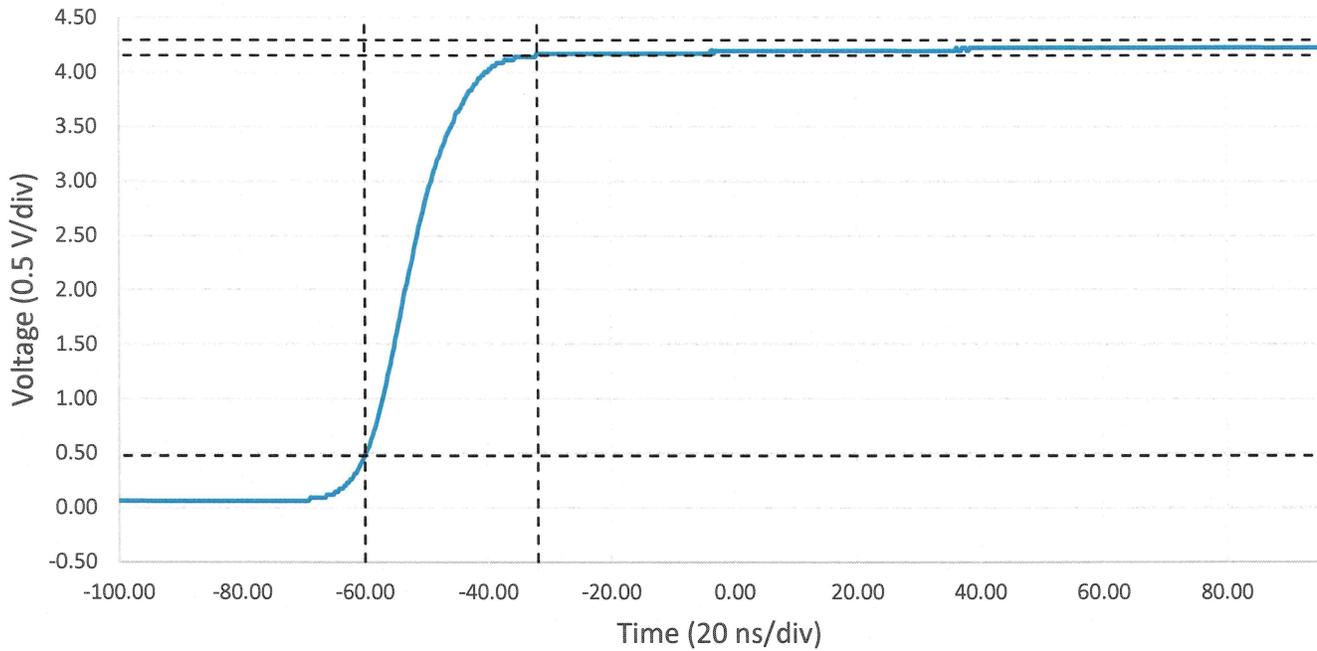




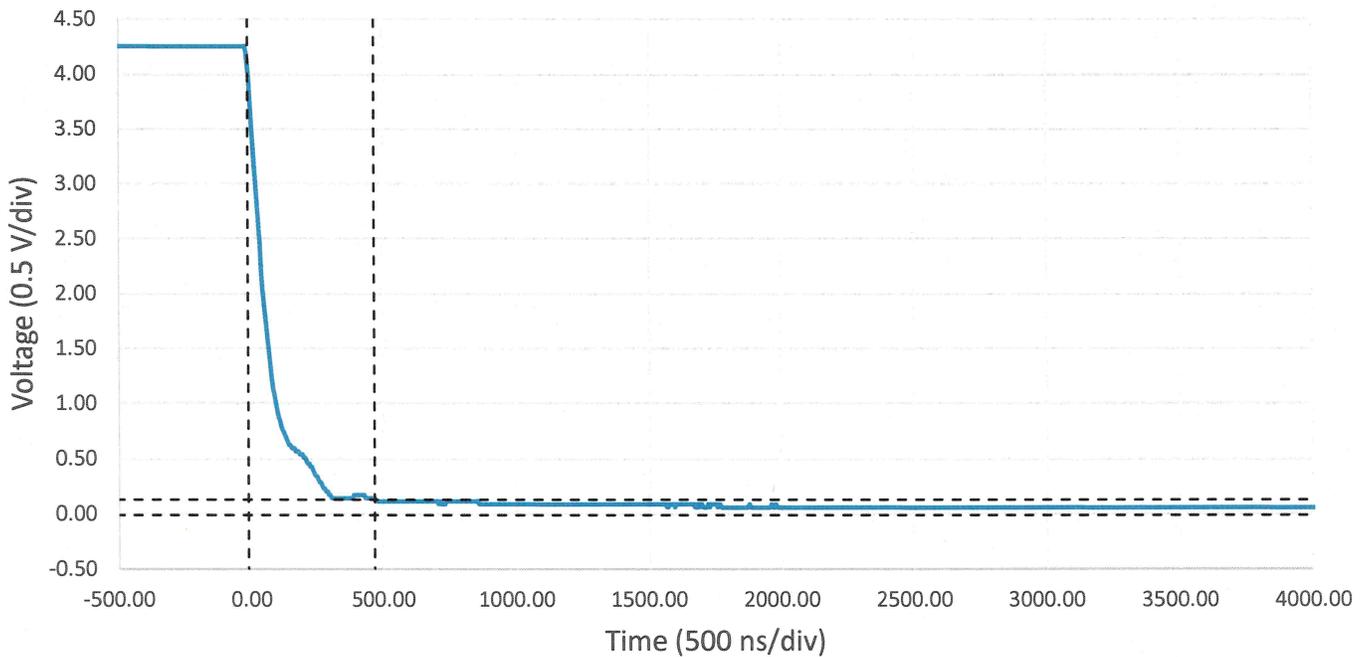
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ERDLVA-2G18G-65-70MV-70C

PL47848/2440

Settle time 28 ns



Recovery time 480 ns

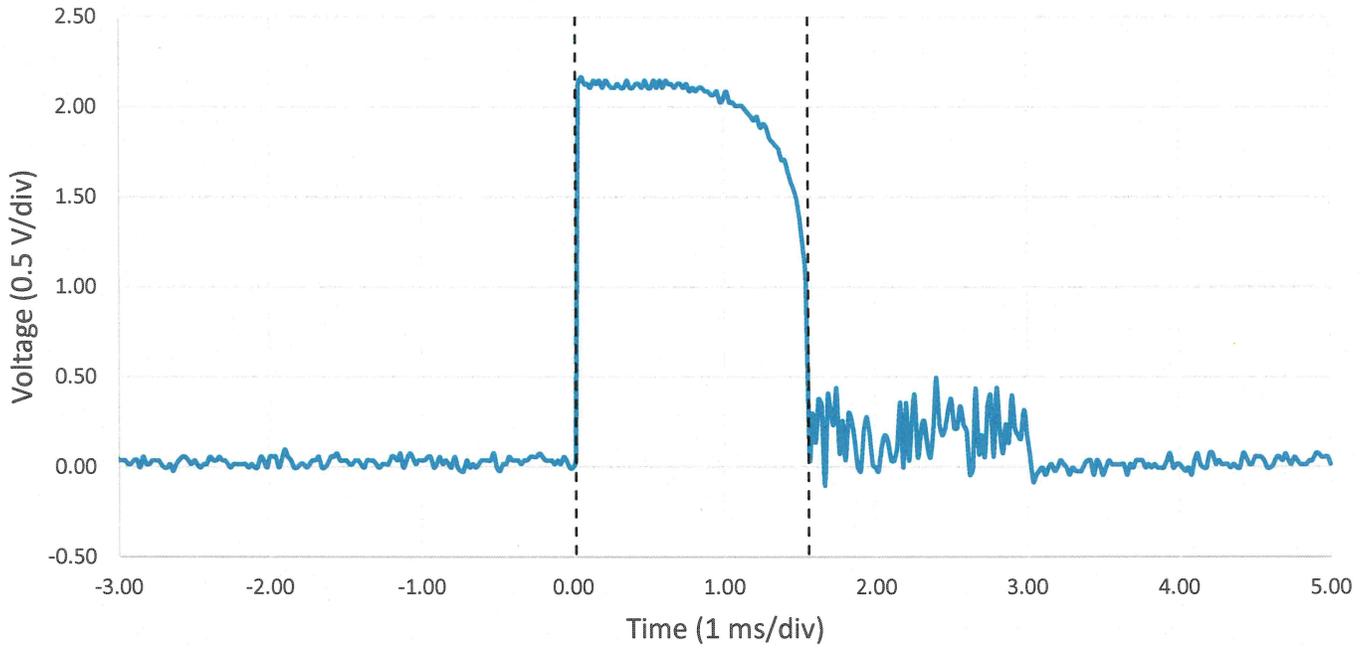




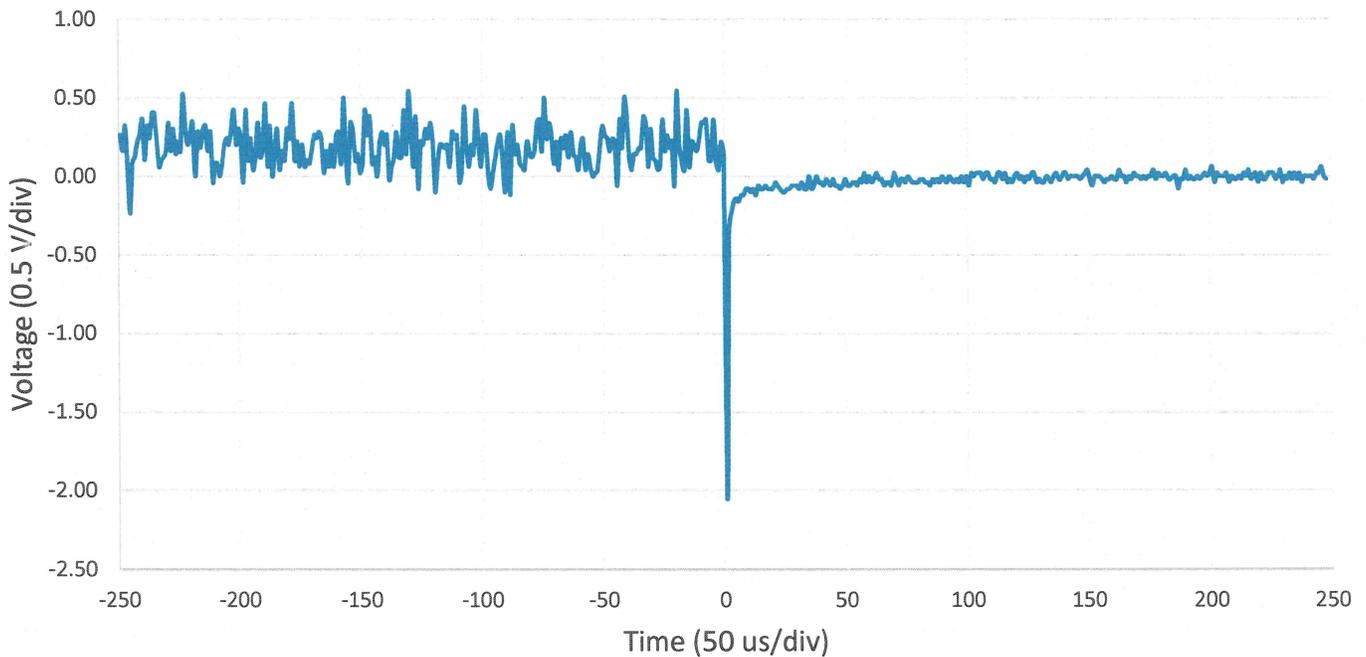
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PL47848/2440

CW Immunity 1.53 ms



CW Recovery Plot





**Summary Data**  
**For**  
**ERDLVA-2G18G-65-70MV-70C**

PL47848/2440

RMS Noise 20.6 mV

