



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

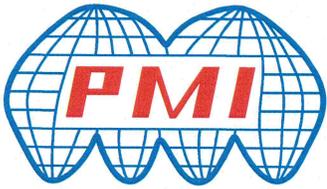
Customer: \_\_\_\_\_ Tested By: Anton L.  
 SO No: \_\_\_\_\_ Temperature: -40°C TO +70°C  
 Model No: ERDLVA-2G18G-65-70MV-70C Date 11/25/2024  
 Serial No: PL48062/2448 Drawing No: 27642020 Rev: A1

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	2 to 18 GHz	2 to 18 GHz	<b>PMI</b> <b>QA3</b> 
2	VSWR:	2.2:1 MAX @ 50 Ω	1.76 :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	- 72.0 dBm	
5	VIDEO OUT Dynamic Range:	-65 to 0 dBm	-65 to 0 dBm	
6	VIDEO OUT Log Slope Fixed:	70 ± 3mV/dB	70.7 mV/dB	
			69.5 mV/dB	
7	VIDEO OUT Log Linearity:	±1.0 dB MAX @25C	0.61 dB	
			-0.61 dB	
8	VIDEO OUT Log Accuracy:	±2.3 dB MAX @25C	0.85 dB	
			-1.04 dB	
9	VIDEO OUT Absolute Log Accuracy:	±2.9 dB MAX Over Freq & temp	1.07 dB	
			-1.18 dB	
10	VIDEO OUT DC Offset:	0 ±70 mV (RF Input Terminated & DC Power On) @25C	34 mV	
11	VIDEO OUT Rise Time (10% to 90%):	28 ns MAX	23.8 ns	
12	VIDEO OUT Fall Time (90% to 10%):	300 ns MAX	188.8 ns	



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13	VIDEO OUT Settling Time:	50 ns With in $\pm 70$ mV of final value @-10 dBm	23.7 ns	<b>PMI QAS</b>
14	VIDEO OUT Recovery Time:	1 us MAX to within 1 dB of baseline for PW <10us & Power = -10dBm	0.46 us	
15	VIDEO OUT Video Frequency Flatness:	$\pm 2.0$ dB MAX @25C	$\pm 0.83$ dB	
16	VIDEO OUT CW Immunity:	CW Immune Power TSS to -40 dBm	Pass	
		Pulse Peak Amplitude Loss; 2 dB MAX @ -40dBm CW	< 2 dB	
		Baseline shift 200mV @-40dBm CW	< 200 mV	
		CW Immunity Time at CW = -40 dBm, $\leq 4$ ms	1.45 ms	
		CW Recovery Time at CW = -40 dBm, $\leq 20$ us	<20 us	
17	Pulse droop	1dB Max for 300us pulse at or above -65dBm	<1dB	
18	VIDEO OUT Pulse Response, input Signal:	100 ns to 300 us	100 ns to 300 us	
19	VIDEO LOAD Impedance:	$75 \pm 1 \Omega$	75 $\Omega$	
20	VIDEO driver capability	100 ft RG11 into 75 ohm load	Pass	
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	Pass	



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22	VIDEO OUT Noise Level (Vp-p):	160 mV max	142.0 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 @ 320 mA -15 V @ 80 mA	
25	Power Supply Ripple From DC to 10 MHz	100 mV MAX	Pass	

QA/QC Approval: *K. Klauing*

Date: 11-25-23



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

## LOG TRANSFER WITH FREQUENCY

TESTED BY: Anton L.  
 MODEL: ERDLVA-2G18G-65-70MV-70C  
 SERIAL NO: PL48062/2448  
 DATE: 11/25/2024

Test Temp: 25 °C  
 Video Offset: 34 mV

**Frequency**

Frequency	Intercept (mV)	Slope (mV/dB)	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
<b>2000 MHz</b>	4907	69.5	382	739	1089	1432	1791	2110	2447	2819	3154	3523	3906	4215	4552	4894
			-4	5	7	2	14	-15	-26	-2	-14	7	42	4	-7	-13
			-0.06	0.07	0.10	0.03	0.20	-0.22	-0.37	-0.02	-0.20	0.10	0.61	0.05	-0.10	-0.18
			0.63	0.72	0.71	0.60	0.71	0.26	0.06	0.36	0.14	0.39	0.85	0.26	0.06	-0.07
<b>6000 MHz</b>	4913	70.2	348	709	1054	1399	1757	2083	2441	2821	3157	3514	3869	4191	4554	4931
			0	10	4	-2	4	-21	-14	15	0	5	9	-20	-8	18
			0.00	0.14	0.05	-0.04	0.06	-0.30	-0.20	0.21	0.00	0.08	0.13	-0.28	-0.11	0.25
			0.15	0.29	0.21	0.13	0.23	-0.13	-0.02	0.39	0.18	0.27	0.33	-0.09	0.09	0.46
<b>10000 MHz</b>	4869	70.7	283	635	973	1333	1690	2019	2390	2771	3104	3465	3809	4143	4511	4882
			8	7	9	-3	1	-23	-6	22	2	10	0	-19	5	13
			0.11	0.09	-0.12	-0.03	0.02	-0.32	-0.08	0.32	0.03	0.13	0.00	-0.27	-0.07	0.18
			-0.78	-0.76	-0.94	-0.81	-0.73	-1.04	-0.75	-0.32	-0.58	-0.43	-0.53	-0.77	-0.53	-0.24
<b>14000 MHz</b>	4901	70.6	319	680	1021	1370	1714	2044	2424	2807	3142	3501	3850	4181	4545	4905
			5	13	1	-2	-11	-34	-7	23	5	12	8	-14	-3	4
			0.07	0.19	0.02	-0.03	-0.16	-0.48	-0.10	0.33	0.08	0.16	0.11	-0.20	-0.04	0.06
			-0.27	-0.12	-0.26	-0.29	-0.39	-0.68	-0.27	0.19	-0.03	0.08	0.05	-0.23	-0.04	0.09
<b>18000 MHz</b>	4886	69.8	356	719	1061	1401	1735	2050	2419	2797	3132	3492	3831	4168	4543	4926
			9	23	16	7	-9	-43	-23	6	-8	3	-7	-20	6	40
			0.13	0.33	0.22	0.09	-0.12	-0.61	-0.33	0.09	-0.12	0.04	-0.11	-0.28	0.09	0.58
			0.26	0.44	0.31	0.15	-0.09	-0.60	-0.34	0.05	-0.18	-0.05	-0.22	-0.41	-0.07	0.39

RF Input Power (dBm)
Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB) 0.61
ACCURACY ERROR (dB) 0.85

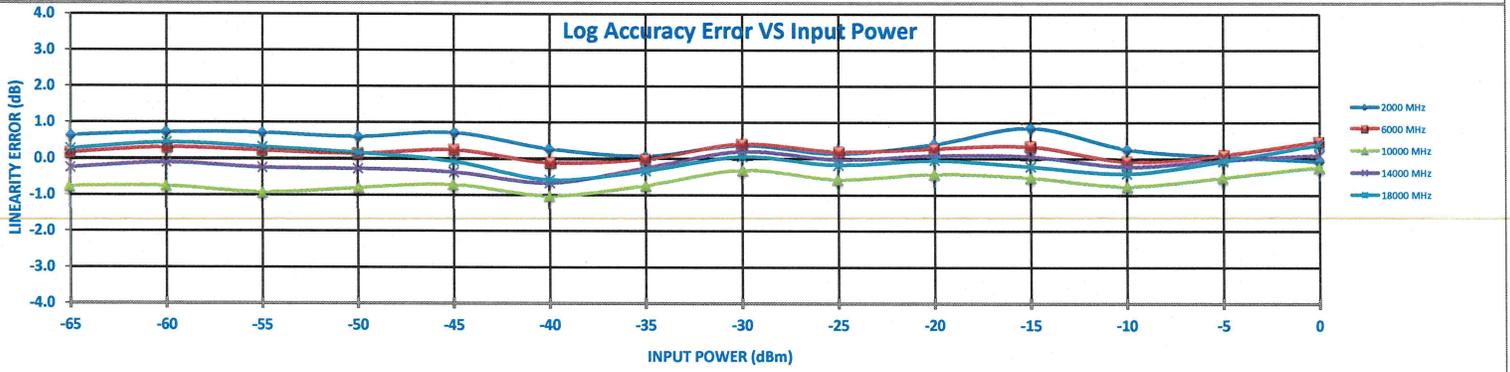
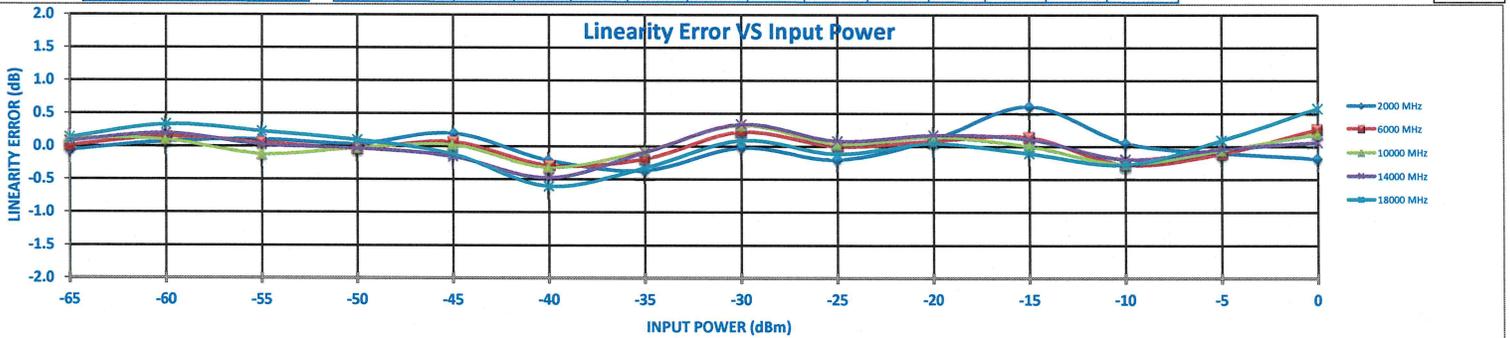
Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB) -0.30
ACCURACY ERROR (dB) 0.46

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB) -0.32
ACCURACY ERROR (dB) -1.04

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB) -0.48
ACCURACY ERROR (dB) -0.68

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB) -0.61
ACCURACY ERROR (dB) -0.60

Flatness	+/- dB	0.71	0.74	0.83	0.71	0.72	0.65	0.41	0.36	0.38	0.41	0.69	0.51	0.31	0.35	0.83
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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: PL48062/2448  
 DATE: 11/25/2024

Test Temp: -40 °C  
 Video Offset: -32 mV

Frequency

2000 MHz	INTERCEPT (mV)	4782
	SLOPE (mV/dB)	69.2

6000 MHz	INTERCEPT (mV)	4805
	SLOPE (mV/dB)	69.7

10000 MHz	INTERCEPT (mV)	4782
	SLOPE (mV/dB)	70.3

14000 MHz	INTERCEPT (mV)	4821
	SLOPE (mV/dB)	70.6

18000 MHz	INTERCEPT (mV)	4843
	SLOPE (mV/dB)	70.2

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
285	634	971	1314	1683	2014	2346	2705	3034	3397	3782	4097	4429	4769	
1	4	-5	-8	15	0	-14	-1	-18	-1	38	7	-7	-13	
0.02	0.06	-0.07	-0.11	0.22	0.00	-0.20	-0.01	-0.26	-0.01	0.55	0.10	-0.10	-0.19	
0.22	0.21	0.02	-0.08	0.20	-0.08	-0.33	-0.20	-0.50	-0.32	0.18	-0.32	-0.57	-0.71	

	285	626	965	1307	1671	2010	2366	2728	3062	3410	3767	4090	4446	4821
10	3	-7	-13	3	-7	1	14	0	-1	8	-18	-10	16	
0.15	0.04	-0.09	-0.19	0.04	-0.10	0.01	0.20	0.00	-0.01	0.11	-0.25	-0.14	0.24	
0.22	0.09	-0.06	-0.18	0.02	-0.13	0.05	0.13	-0.10	-0.13	-0.03	-0.42	-0.33	0.03	

	226	567	900	1249	1616	1961	2330	2701	3030	3381	3733	4062	4421	4785
13	3	-16	-18	-3	-9	8	28	8	5	8	-17	9	3	
0.19	0.04	-0.22	-0.26	-0.04	-0.13	0.12	0.40	0.08	0.07	0.08	-0.24	-0.13	0.05	
-0.62	-0.75	-0.99	-1.00	-0.76	-0.83	-0.56	-0.26	-0.56	-0.54	-0.52	-0.82	-0.69	-0.49	

	246	592	931	1272	1625	1972	2356	2732	3070	3419	3773	4104	4462	4814
15	8	-6	-18	-19	-25	6	29	14	10	11	-11	-6	-7	
0.21	0.11	-0.09	-0.26	-0.26	-0.35	0.09	0.41	0.20	0.14	0.15	-0.16	-0.09	-0.10	
-0.33	-0.39	-0.55	-0.68	-0.63	-0.68	-0.19	0.18	0.01	0.00	0.06	-0.22	-0.10	-0.07	

	305	645	986	1323	1666	2006	2384	2755	3095	3440	3783	4122	4488	4875
23	12	2	-11	-19	-30	-3	17	6	1	-7	-19	-4	32	
0.33	0.18	0.03	-0.16	-0.27	-0.43	-0.04	0.25	0.09	0.01	-0.10	-0.27	-0.06	0.46	
0.51	0.37	0.24	0.05	-0.05	-0.19	0.21	0.51	0.37	0.30	0.20	0.04	0.27	0.80	

RF Input Power (dBm)	
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.56
ACCURACY ERROR (dB)	-0.71

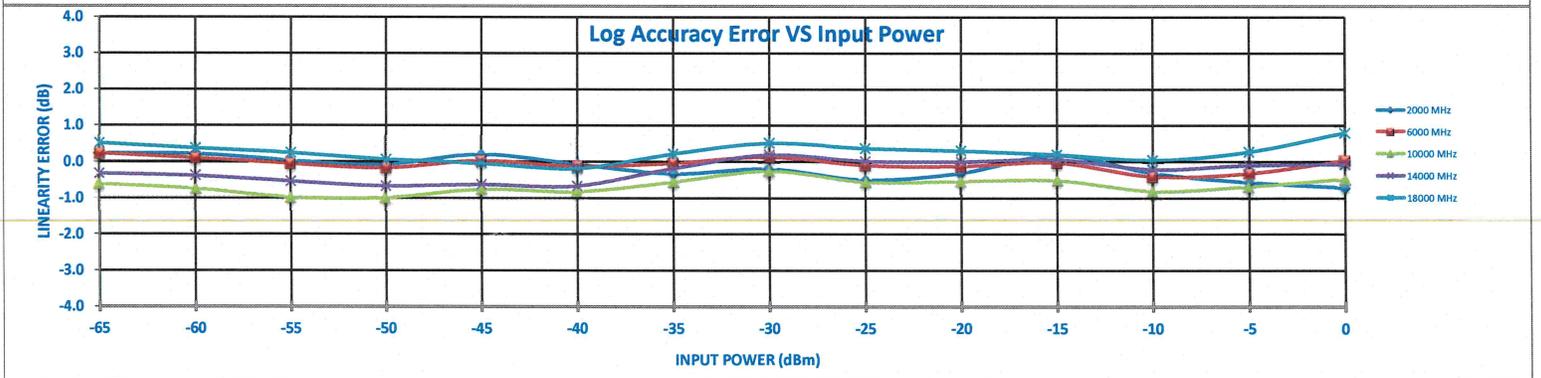
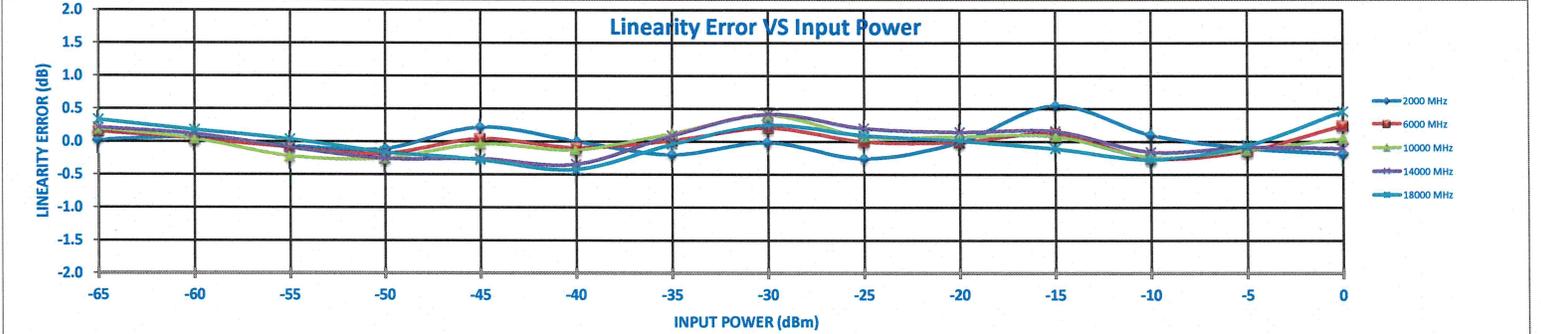
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.25
ACCURACY ERROR (dB)	-0.42

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.40
ACCURACY ERROR (dB)	-1.00

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.41
ACCURACY ERROR (dB)	-0.68

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.46
ACCURACY ERROR (dB)	0.80

Flatness	+/- dB	0.56	0.56	0.61	0.53	0.48	0.38	0.39	0.39	0.46	0.42	0.36	0.43	0.48	0.76
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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: PL48062/2448  
DATE: 11/25/2024

Test Temp: 70 °C  
Video Offset: 4 mV

Frequency

2000 MHz	INTERCEPT (mV)	4906
	SLOPE (mV/dB)	69.7

6000 MHz	INTERCEPT (mV)	4905
	SLOPE (mV/dB)	70.3

10000 MHz	INTERCEPT (mV)	4845
	SLOPE (mV/dB)	70.6

14000 MHz	INTERCEPT (mV)	4876
	SLOPE (mV/dB)	70.1

18000 MHz	INTERCEPT (mV)	4841
	SLOPE (mV/dB)	70.0

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
357	728	1088	1432	1789	2102	2438	2821	3156	3525	3906	4211	4548	4881	
-21	2	14	10	18	-17	-29	5	-8	13	45	2	-9	-25	
-0.29	0.03	0.20	0.14	0.26	-0.25	-0.42	0.08	-0.12	0.18	0.65	0.03	-0.13	-0.35	
0.46	0.75	0.88	0.79	0.88	0.34	0.13	0.59	0.37	0.63	1.07	0.42	0.22	-0.03	

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
308	696	1045	1396	1753	2075	2429	2811	3150	3507	3859	4182	4543	4912	
-25	11	9	8	13	-16	-14	16	3	9	9	-20	-10	7	
-0.36	0.16	0.12	0.11	0.19	-0.23	-0.20	0.23	0.05	0.12	0.13	-0.28	-0.15	0.10	
-0.24	0.29	0.27	0.27	0.36	-0.04	0.00	0.45	0.29	0.38	0.40	0.00	0.15	0.41	

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
242	618	973	1325	1680	2006	2365	2743	3083	3443	3783	4124	4486	4857	
-17	6	9	5	10	-17	-11	15	2	9	-4	-15	6	12	
-0.24	0.09	0.12	0.11	0.14	-0.24	-0.15	0.21	0.03	0.13	-0.05	-0.22	-0.09	0.17	
-1.18	-0.82	-0.76	-0.74	-0.68	-1.03	-0.91	-0.52	-0.67	-0.54	-0.69	-0.83	-0.66	-0.37	

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
294	678	1031	1389	1724	2057	2411	2786	3122	3481	3826	4160	4516	4886	
-25	9	11	19	3	-14	-11	14	-1	7	2	-15	-9	10	
-0.35	0.12	0.16	0.27	0.04	-0.21	-0.16	0.19	-0.01	0.11	0.03	-0.21	-0.13	0.15	
-0.44	0.03	0.07	0.17	-0.05	-0.30	-0.25	0.09	-0.11	0.01	-0.07	-0.31	-0.24	0.04	

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
276	671	1012	1365	1698	2009	2363	2740	3087	3448	3783	4125	4493	4876	
-18	27	18	22	5	-34	-30	-2	-5	6	-9	-17	2	35	
-0.26	0.39	0.26	0.31	0.07	-0.48	-0.42	-0.04	-0.07	0.09	-0.13	-0.24	0.02	0.50	
-0.70	-0.07	-0.20	-0.17	-0.42	-0.99	-0.94	-0.56	-0.61	-0.47	-0.69	-0.81	-0.56	-0.10	

RF Input Power (dBm)	
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.65
ACCURACY ERROR (dB)	1.07

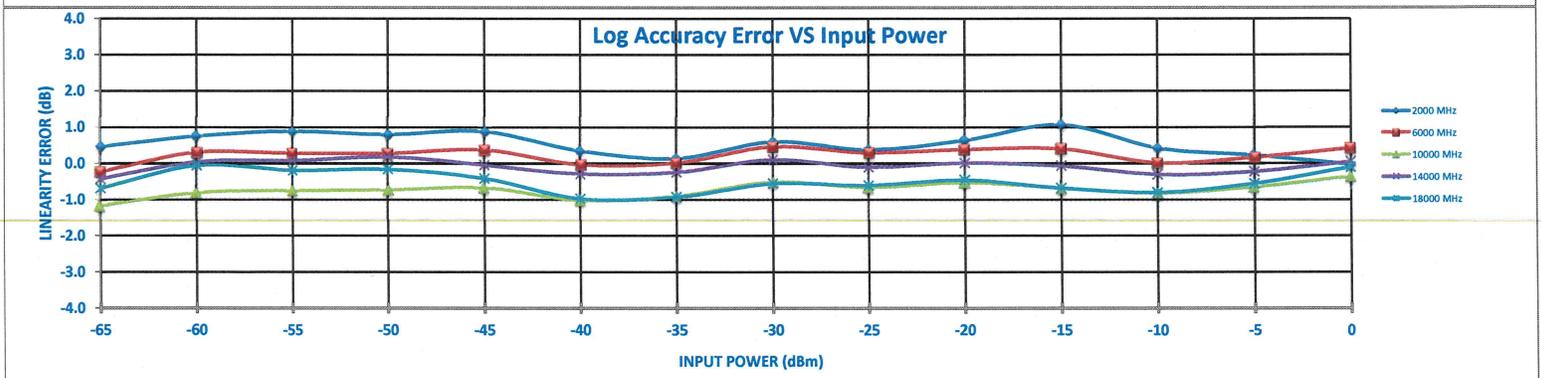
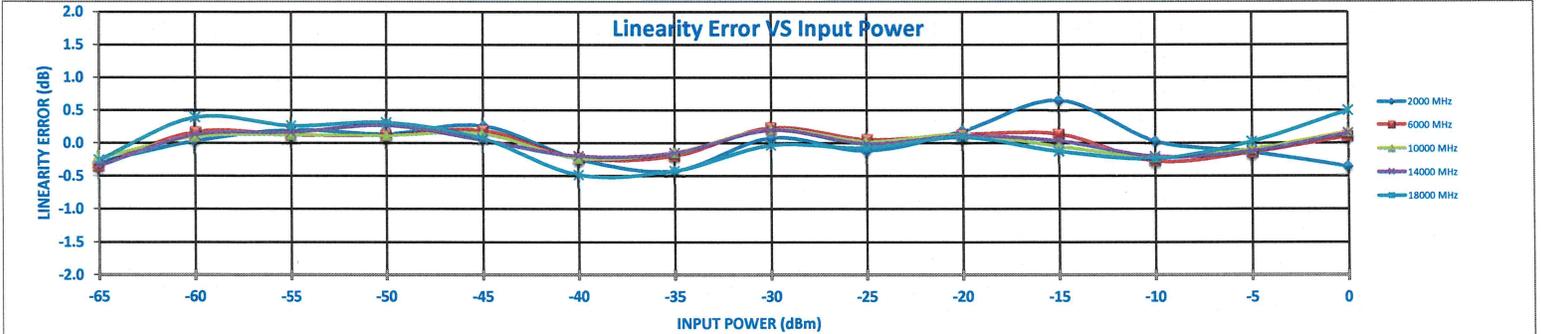
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.36
ACCURACY ERROR (dB)	0.45

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.24
ACCURACY ERROR (dB)	-1.18

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.35
ACCURACY ERROR (dB)	-0.44

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.50
ACCURACY ERROR (dB)	-0.99

Flatness	+/- dB	0.82	0.78	0.82	0.76	0.78	0.68	0.53	0.58	0.52	0.58	0.88	0.62	0.44	0.39
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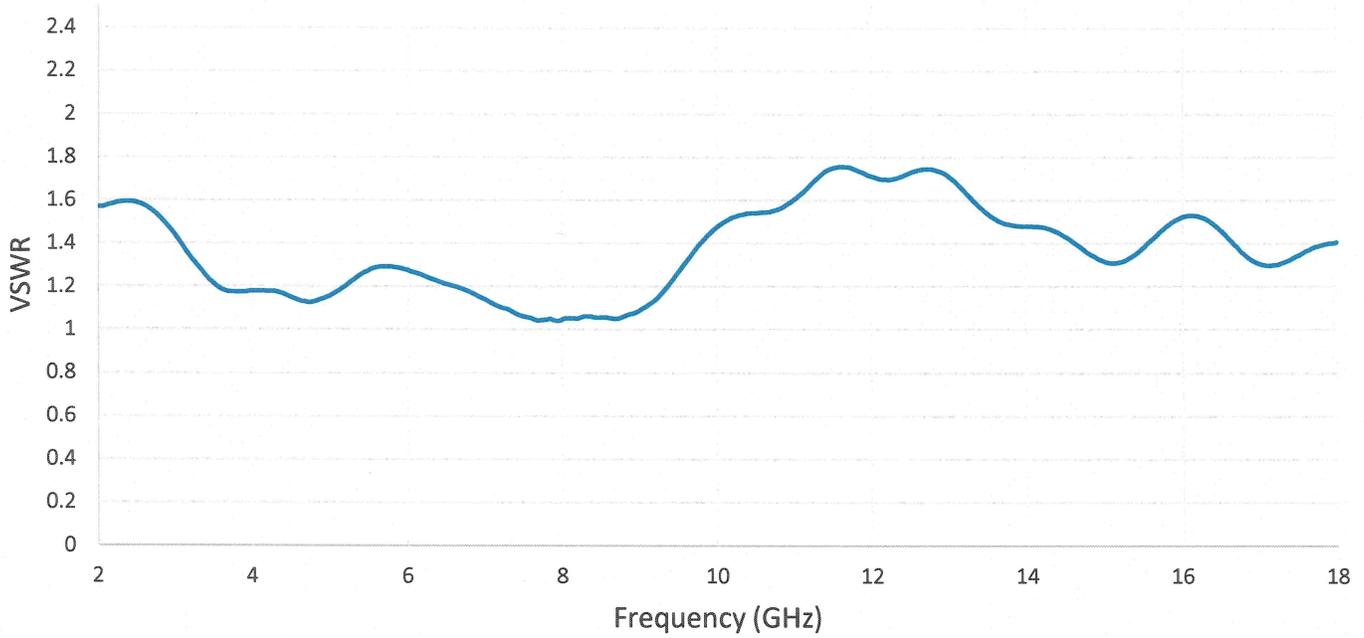




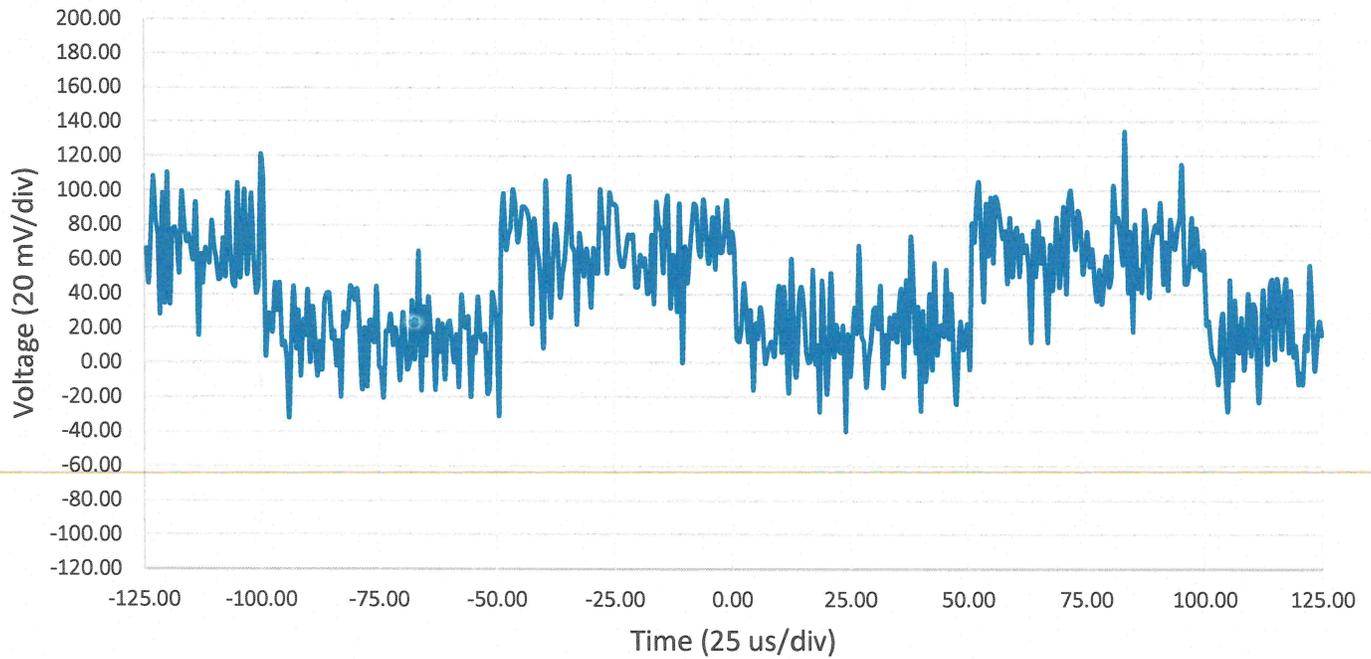
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PL48062/2448

VSWR 1.76:1



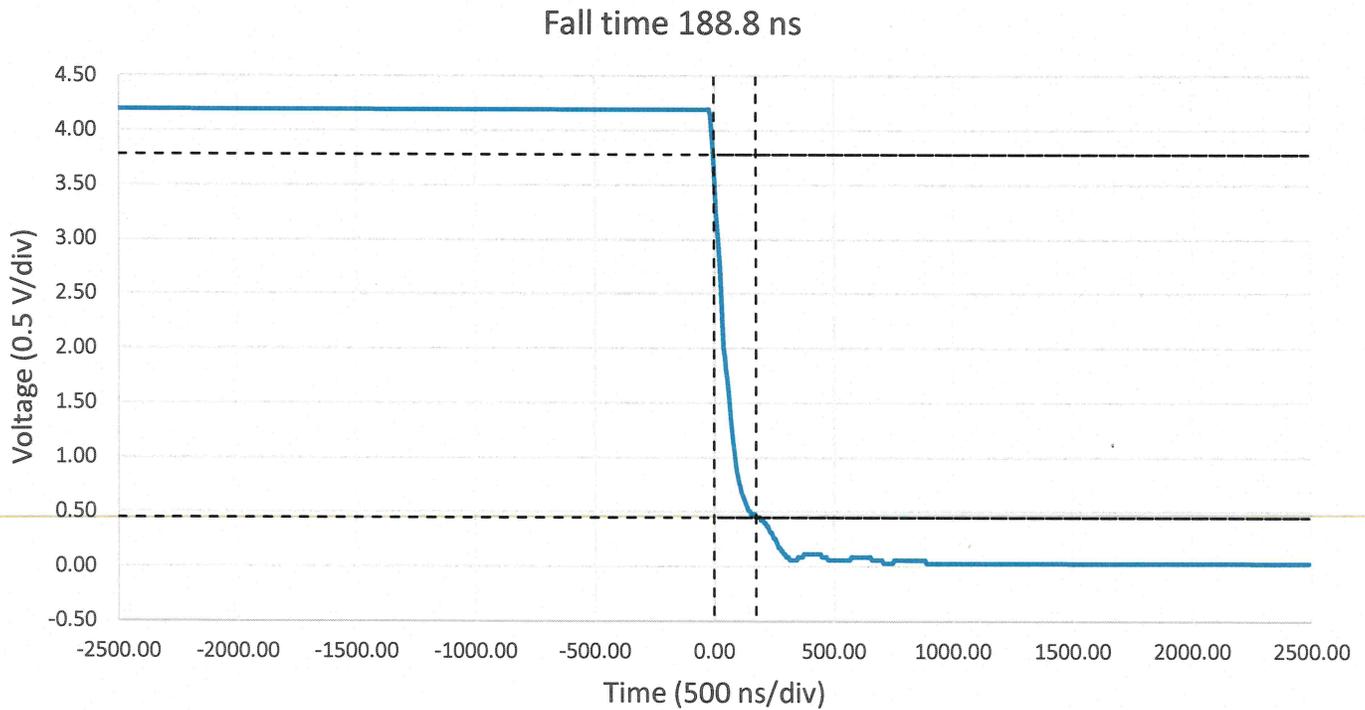
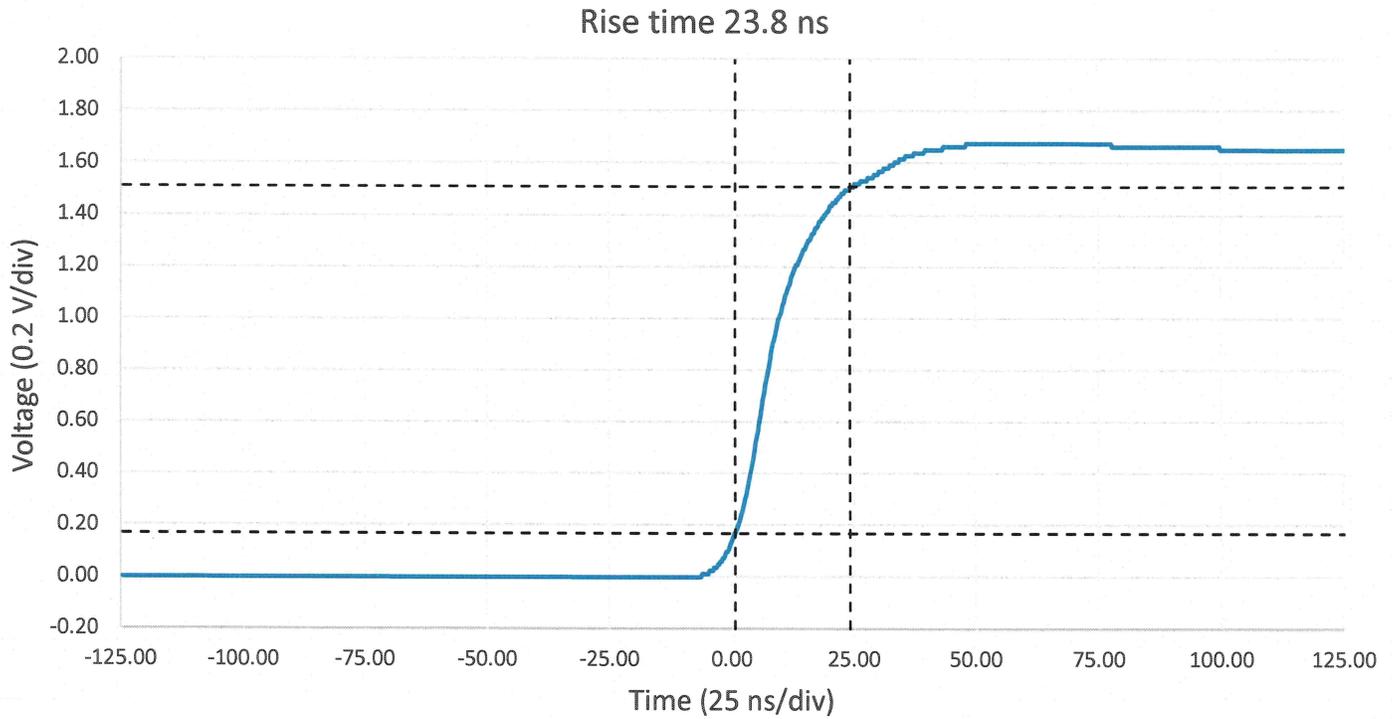
TSS @ -72 dBm





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PL48062/2448

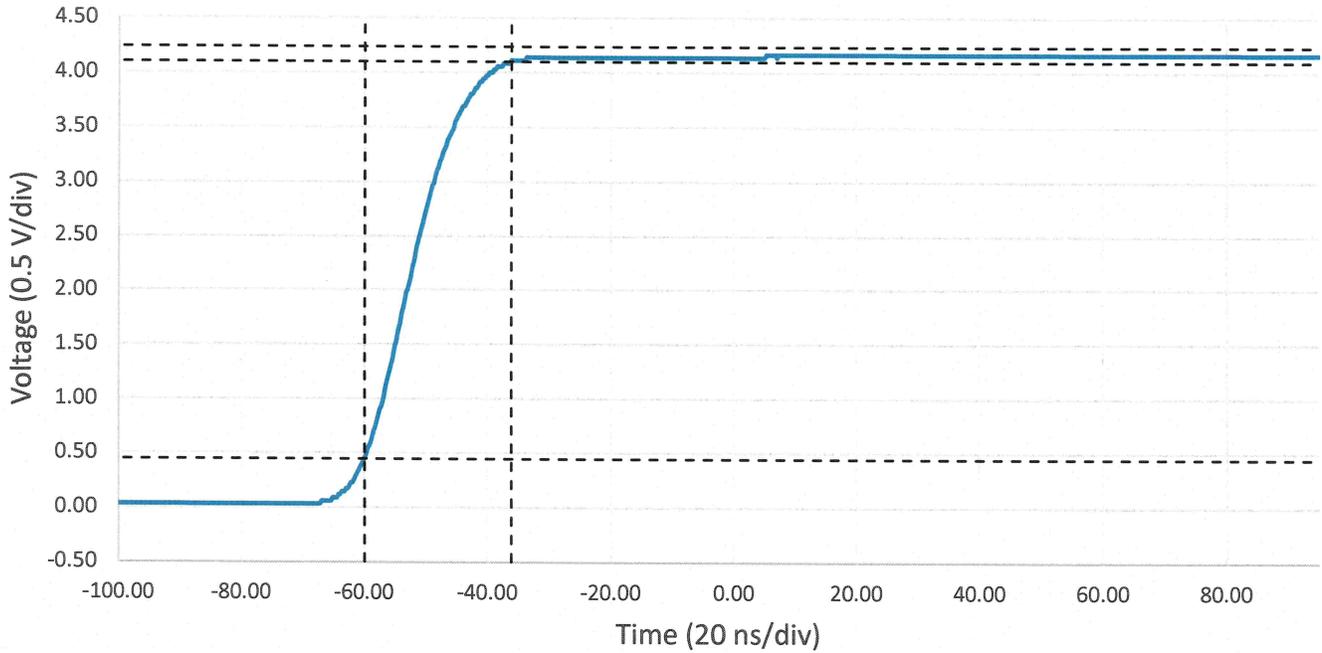




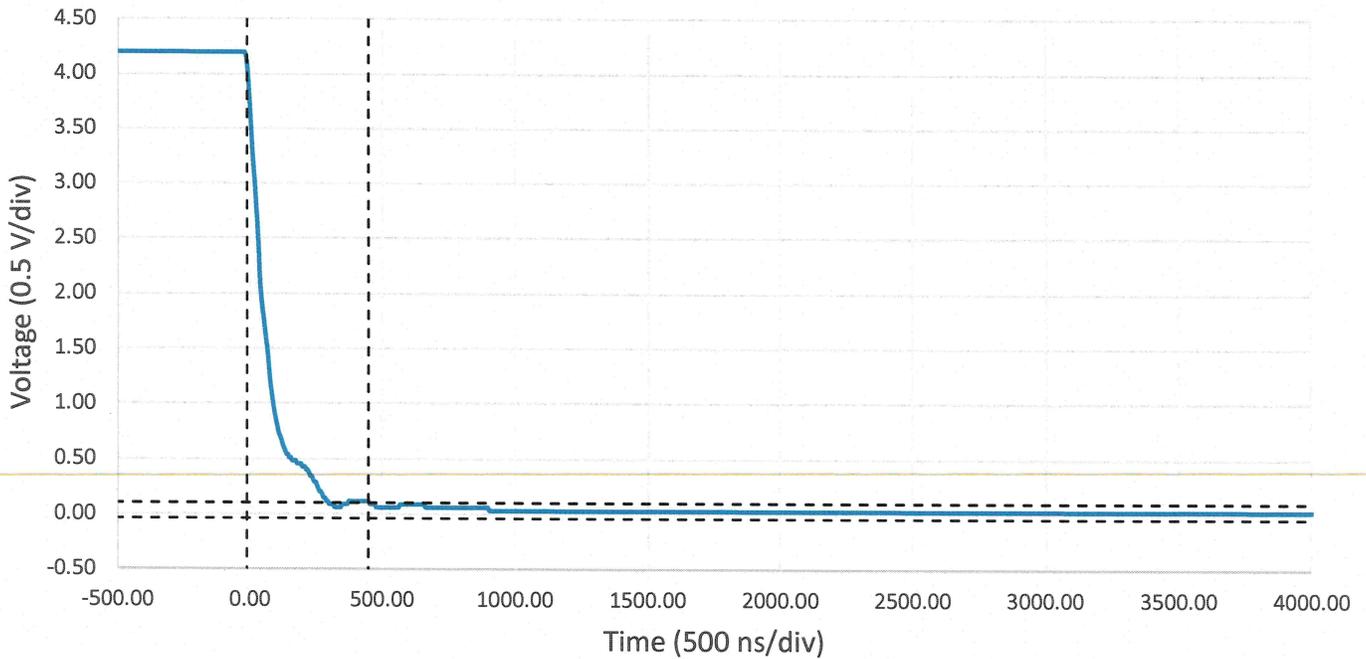
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PL48062/2448

Settle time 23.7 ns



Recovery time 460 ns

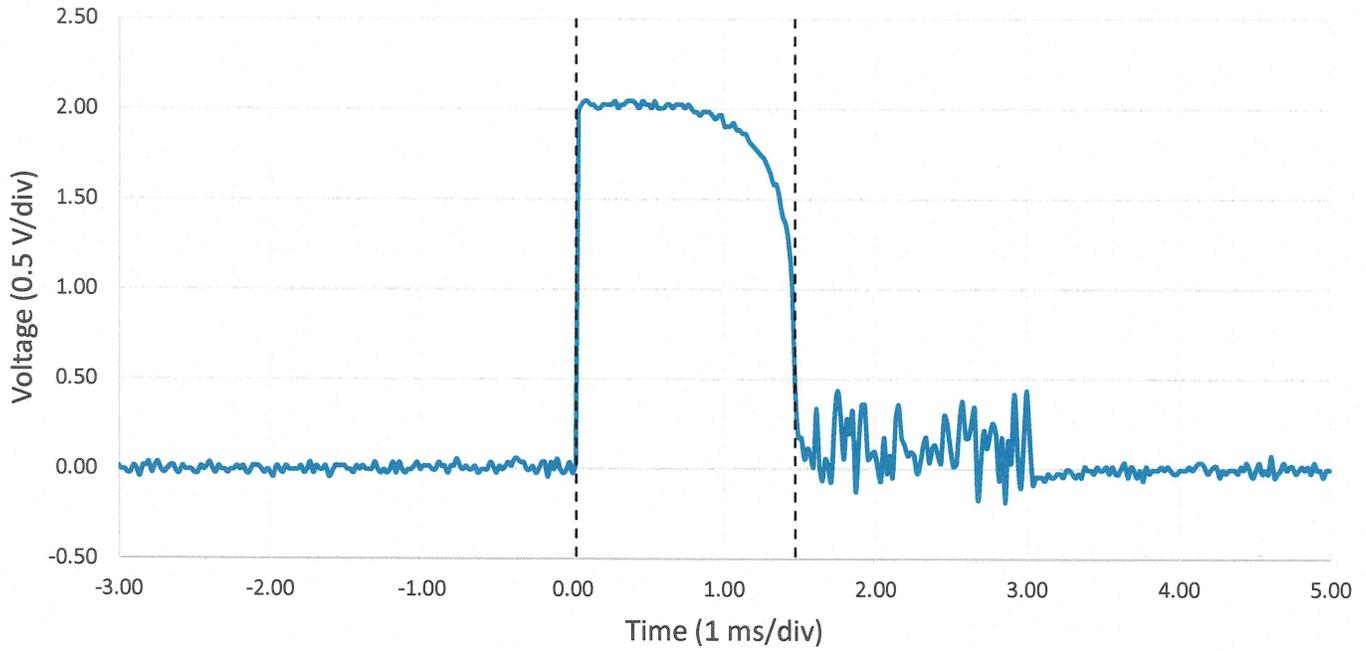




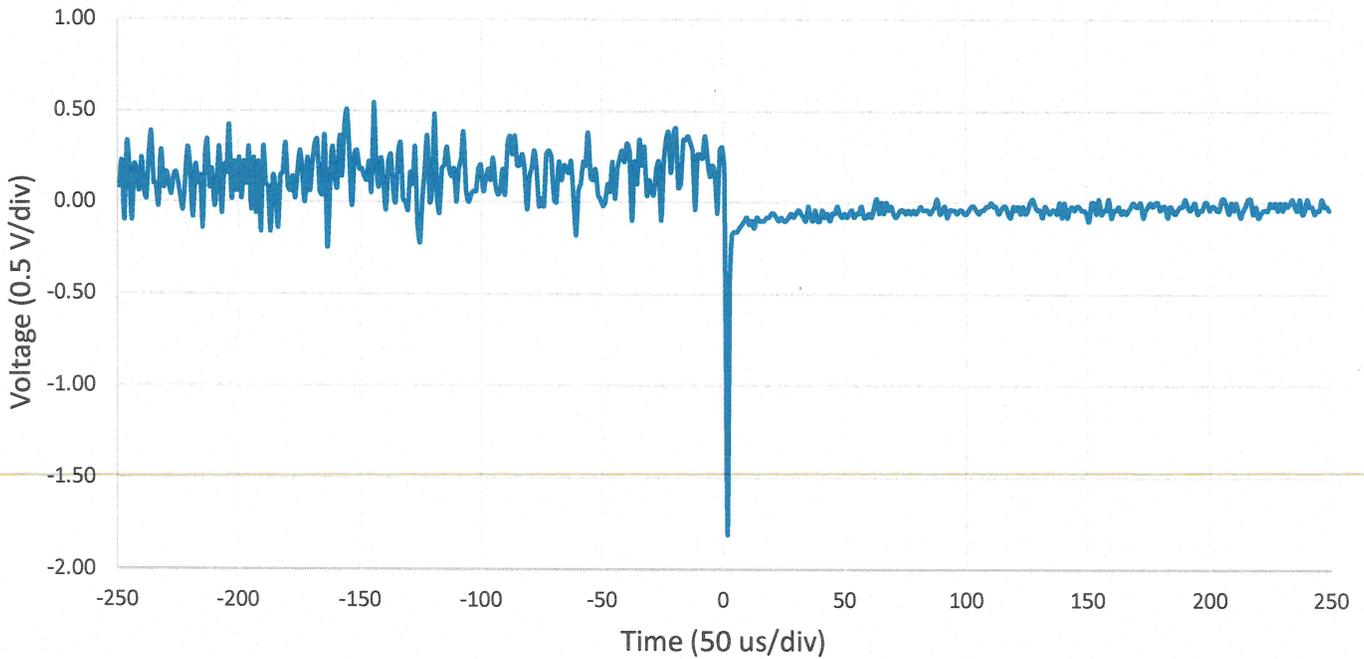
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PL48062/2448

CW Immunity 1.45 ms



CW Recovery Plot





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RMS Noise 21.5 mV

