



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

Customer: \_\_\_\_\_  
 SO No: \_\_\_\_\_  
 Model No: ERDLVA-2G18G-65-70MV-70C  
 Serial No: PL47586/2440

Tested By: Anton L.  
 Temperature: -40°C TO +70°C  
 Date 9/24/2024  
 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	1.80 :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	- 71.0 dBm	
5	VIDEO OUT Dynamic Range:	-65 to 0 dBm	-65 to 0 dBm	
6	VIDEO OUT Log Slope Fixed:	70 ± 3mV/dB	70.0 mV/dB	
			68.0 mV/dB	
7	VIDEO OUT Log Linearity:	±1.0 dB MAX @25C	0.58 dB	
			-0.45 dB	
8	VIDEO OUT Log Accuracy:	±2.3 dB MAX @25C	1.37 dB	
			-0.85 dB	
9	VIDEO OUT Absolute Log Accuracy:	±2.9 dB MAX Over Freq & temp	1.61 dB	
			-1.03 dB	
10	VIDEO OUT DC Offset:	0 ±70 mV (RF Input Terminated & DC Power On) @25C	33 mV	
11	VIDEO OUT Rise Time (10% to 90%):	28 ns MAX	22.3 ns	
12	VIDEO OUT Fall Time (90% to 10%):	300 ns MAX	193.8 ns	



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13	VIDEO OUT Settling Time:	50 ns With in $\pm 70$ mV of final value @-10 dBm	21.2 ns	PMI QA3
14	VIDEO OUT Recovery Time:	1 us MAX to within 1 dB of baseline for PW <10us & Power = -10dBm	0.305 us	
15	VIDEO OUT Video Frequency Flatness:	$\pm 2.0$ dB MAX @25C	$\pm 0.95$ 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	1.42 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	159.3 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: *H. K. [Signature]*

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: PL47586/2440  
DATE: 9/24/2024

Test Temp: 25 °C  
Video Offset: 33 mV

Frequency

2000 MHz	INTERCEPT (mV)	4820
	SLOPE (mV/dB)	68.0

6000 MHz	INTERCEPT (mV)	4852
	SLOPE (mV/dB)	69.1

10000 MHz	INTERCEPT (mV)	4825
	SLOPE (mV/dB)	70.0

14000 MHz	INTERCEPT (mV)	4814
	SLOPE (mV/dB)	69.8

18000 MHz	INTERCEPT (mV)	4802
	SLOPE (mV/dB)	68.1

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
378	728	1085	1434	1801	2125	2434	2769	3096	3460	3830	4130	4465	4822	
-25	-14	3	12	39	23	-7	-12	-25	-1	30	-10	-15	2	
-0.36	-0.21	0.04	0.18	0.58	0.35	-0.11	-0.18	-0.37	-0.01	0.44	-0.15	-0.22	0.03	
0.74	0.82	0.99	1.05	1.37	1.07	0.54	0.40	0.14	0.41	0.78	0.13	-0.02	0.15	

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
345	694	1051	1400	1765	2101	2443	2786	3116	3471	3820	4130	4490	4874	
-15	-12	0	3	23	13	10	7	-8	1	5	-31	-16	22	
-0.22	-0.17	-0.01	0.04	0.33	0.19	0.14	0.10	-0.12	0.02	0.07	-0.45	-0.24	0.32	
0.27	0.32	0.50	0.56	0.85	0.72	0.67	0.65	0.43	0.57	0.63	0.13	0.34	0.91	

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
273	614	958	1322	1686	2029	2400	2756	3080	3439	3779	4095	4451	4831	
-3	-13	-18	-3	10	3	24	35	4	14	5	-30	-24	6	
-0.06	-0.18	-0.27	-0.07	0.14	0.04	0.34	0.43	0.06	0.19	0.05	-0.43	-0.34	0.09	
-0.78	-0.83	-0.85	-0.57	-0.30	-0.33	0.05	0.21	-0.09	0.11	0.04	-0.38	-0.22	0.29	

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
275	615	958	1319	1670	2011	2391	2748	3076	3434	3773	4093	4443	4814	
0	-9	-15	-3	-1	-10	21	29	8	17	7	-23	-22	0	
0.01	-0.13	-0.21	-0.04	-0.02	-0.14	0.31	0.42	0.11	0.24	0.09	-0.32	-0.31	0.00	
-0.75	-0.82	-0.85	-0.62	-0.53	-0.59	-0.08	0.09	-0.15	0.04	-0.05	-0.41	-0.34	0.04	

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
362	713	1068	1410	1751	2076	2417	2753	3077	3437	3771	4099	4460	4838	
-12	-2	13	14	15	-1	-1	-5	-22	-3	-9	-22	-1	36	
-0.18	-0.02	0.19	0.21	0.21	-0.02	-0.01	-0.08	-0.32	-0.04	-0.13	-0.32	-0.02	0.53	
0.51	0.60	0.75	0.70	0.64	0.36	0.30	0.17	-0.14	0.08	-0.08	-0.32	-0.09	0.39	

RF Input Power (dBm)	
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.58
ACCURACY ERROR (dB)	1.37

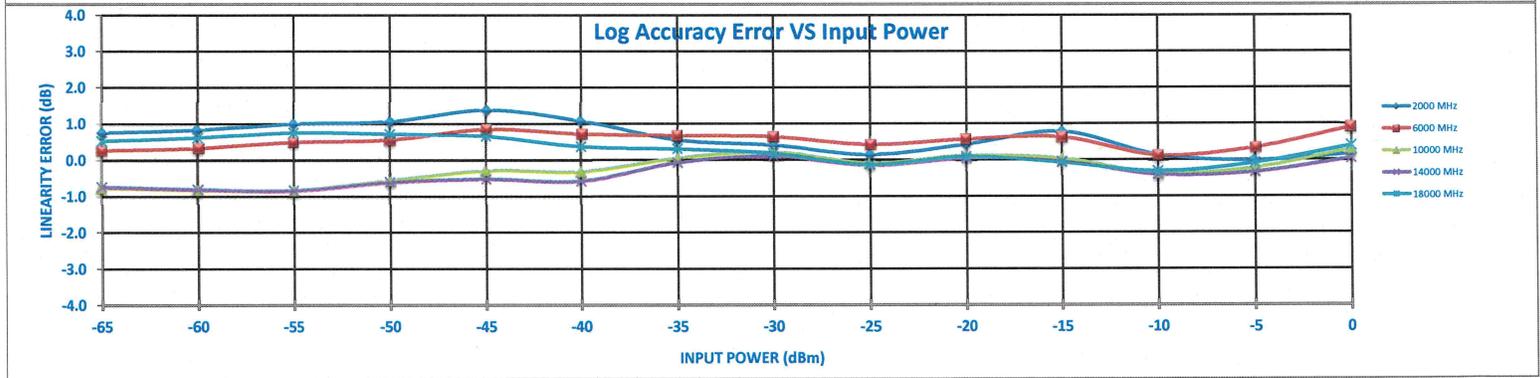
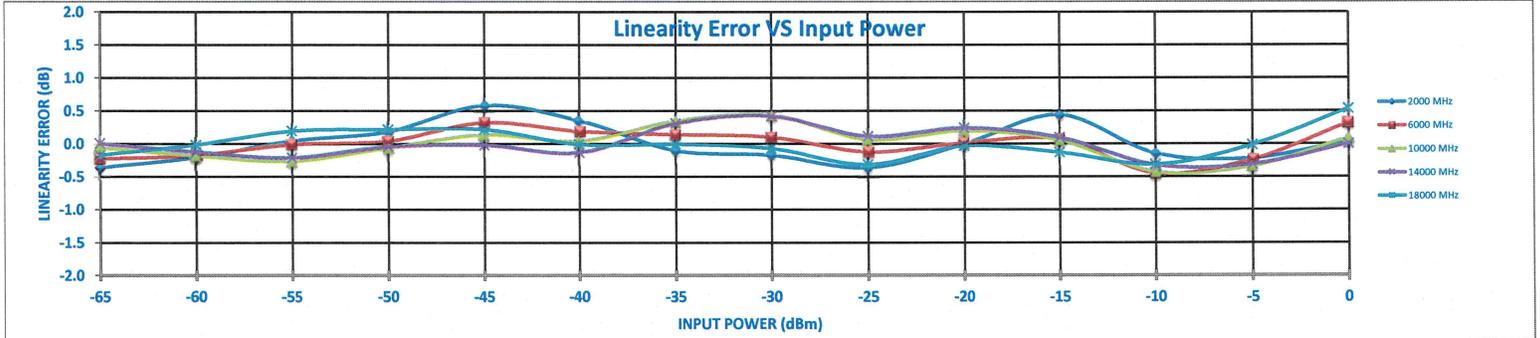
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.45
ACCURACY ERROR (dB)	0.91

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.43
ACCURACY ERROR (dB)	-0.85

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.42
ACCURACY ERROR (dB)	-0.85

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.53
ACCURACY ERROR (dB)	0.75

Flatness	+/- dB	0.76	0.83	0.92	0.83	0.95	0.83	0.38	0.28	0.29	0.27	0.43	0.27	0.34	0.43
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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: PL47586/2440  
DATE: 9/24/2024

Test Temp: -40 °C  
Video Offset: 23 mV

Frequency

2000 MHz	INTERCEPT (mV)	4831
	SLOPE (mV/dB)	69.6

6000 MHz	INTERCEPT (mV)	4882
	SLOPE (mV/dB)	70.5

10000 MHz	INTERCEPT (mV)	4877
	SLOPE (mV/dB)	71.4

14000 MHz	INTERCEPT (mV)	4876
	SLOPE (mV/dB)	71.6

18000 MHz	INTERCEPT (mV)	4880
	SLOPE (mV/dB)	70.2

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
302	643	994	1346	1716	2059	2373	2738	3087	3453	3826	4133	4462	4815	
-2	-10	-7	-3	19	14	-21	-4	-3	15	40	-1	-21	-16	
-0.04	-0.14	-0.10	-0.04	0.27	0.20	-0.30	-0.05	-0.04	0.21	0.57	-0.02	-0.30	-0.23	
0.19	0.06	0.07	0.10	0.39	0.29	-0.23	-0.01	-0.03	0.20	0.53	-0.08	-0.38	-0.34	

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
308	643	1000	1344	1714	2066	2408	2788	3132	3488	3844	4148	4503	4894	
7	-10	-5	-14	4	3	-7	20	12	15	19	-29	-27	12	
0.10	-0.14	-0.08	-0.20	0.05	0.05	-0.10	0.29	0.17	0.22	0.27	-0.42	-0.38	0.17	
0.27	0.06	0.16	0.07	0.36	0.39	0.27	0.70	0.62	0.70	0.79	0.13	0.20	0.79	

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
255	585	925	1282	1655	2015	2394	2773	3120	3479	3829	4134	4487	4865	
13	-9	-26	-26	-10	-7	15	36	28	30	23	-29	-33	-12	
0.25	-0.13	-0.37	-0.36	-0.14	-0.09	0.22	0.53	0.39	0.42	0.32	-0.41	-0.46	-0.16	
-0.48	-0.77	-0.91	-0.81	-0.48	-0.34	0.07	0.49	0.45	0.57	0.57	-0.07	-0.03	0.37	

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
247	577	917	1275	1632	1987	2383	2775	3117	3475	3829	4138	4491	4854	
23	-5	-23	-22	-23	-26	12	46	30	31	27	-22	-27	-22	
0.32	-0.07	-0.32	-0.31	-0.32	-0.36	0.17	0.65	0.43	0.43	0.38	-0.31	-0.37	-0.30	
-0.60	-0.88	-1.03	-0.91	-0.81	-0.74	-0.08	0.52	0.40	0.52	0.57	-0.01	0.03	0.22	

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
332	663	1022	1365	1710	2058	2416	2790	3139	3486	3835	4153	4517	4894	
14	-6	3	-5	-11	-14	-7	16	14	10	8	-25	-12	14	
0.20	-0.08	0.04	-0.08	-0.16	-0.20	-0.10	0.23	0.20	0.14	0.12	-0.35	-0.17	0.21	
0.62	0.35	0.47	0.37	0.30	0.27	0.39	0.73	0.72	0.67	0.66	0.20	0.40	0.79	

RF Input Power (dBm)	
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.57
ACCURACY ERROR (dB)	0.53

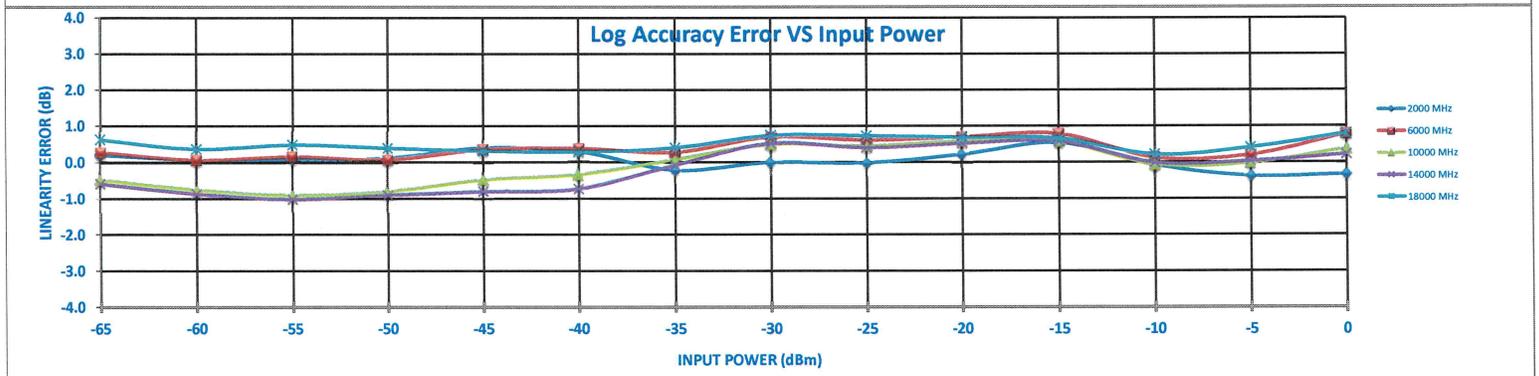
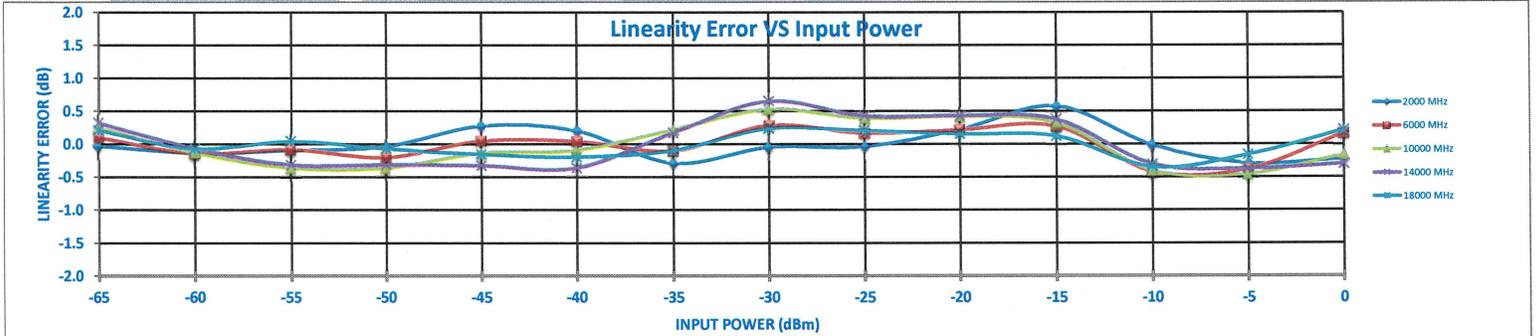
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.42
ACCURACY ERROR (dB)	0.79

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.53
ACCURACY ERROR (dB)	-0.91

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.65
ACCURACY ERROR (dB)	-1.03

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.35
ACCURACY ERROR (dB)	0.79

Flatness	+/- dB	0.61	0.61	0.75	0.64	0.60	0.56	0.31	0.37	0.37	0.25	0.13	0.14	0.39	0.56
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# Summary Data For ERDLVA-2G18G-65-70MV-70C

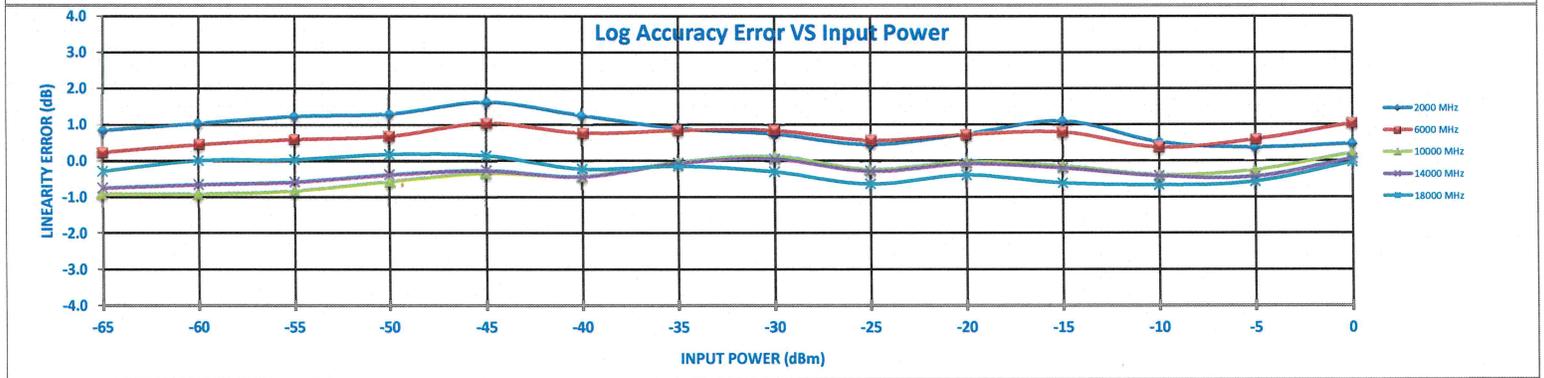
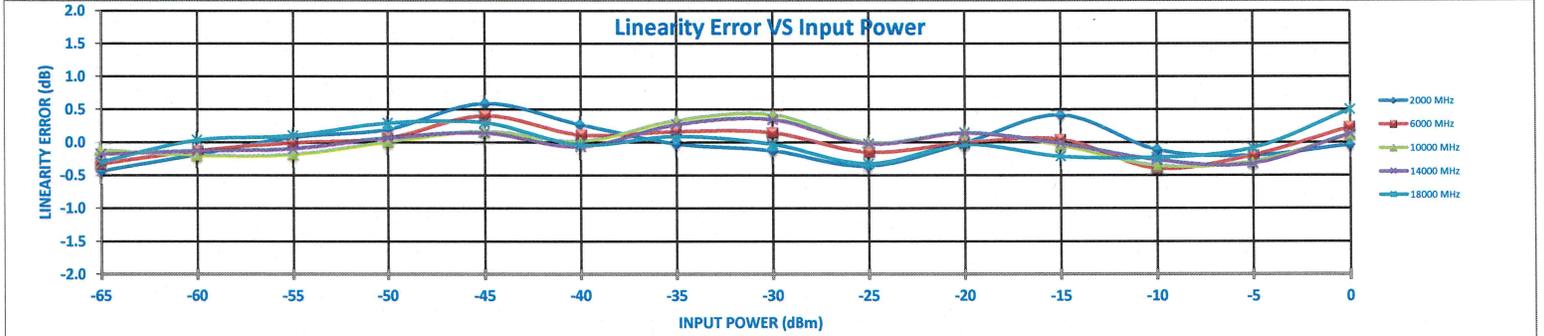
## LOG TRANSFER WITH FREQUENCY

TESTED BY: Anton L.  
MODEL: ERDLVA-2G18G-65-70MV-70C  
SERIAL NO: PL47586/2440  
DATE: 9/24/2024

Test Temp: 70 °C  
Video Offset: 48 mV

Frequency		-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2000 MHz	INTERCEPT (mV)	4845														Measured Value (mV)
	SLOPE (mV/dB)	68.2														Error (mV)
		382	740	1099	1448	1816	2135	2456	2790	3115	3480	3850	4155	4490	4842	LINEARITY ERROR (dB)
		-30	-13	5	13	40	18	-2	-9	-25	-1	28	-8	-14	-3	ACCURACY ERROR (dB)
		-0.44	-0.19	0.07	0.19	0.59	0.26	-0.03	-0.13	-0.36	-0.01	0.41	-0.11	-0.20	-0.04	
		0.83	1.01	1.22	1.28	1.61	1.23	0.88	0.72	0.43	0.72	1.09	0.51	0.36	0.46	
6000 MHz	INTERCEPT (mV)	4866														Measured Value (mV)
	SLOPE (mV/dB)	69.3														Error (mV)
		341	701	1056	1407	1777	2103	2453	2798	3124	3480	3830	4146	4506	4882	LINEARITY ERROR (dB)
		-22	-9	0	5	28	8	12	10	-10	0	3	-27	-13	16	ACCURACY ERROR (dB)
		-0.32	-0.13	0.00	0.07	0.41	0.11	0.17	0.15	-0.15	-0.01	0.05	-0.39	-0.19	0.23	
		0.23	0.45	0.59	0.68	1.04	0.77	0.84	0.84	0.57	0.72	0.80	0.38	0.59	1.04	
10000 MHz	INTERCEPT (mV)	4817														Measured Value (mV)
	SLOPE (mV/dB)	70.0														Error (mV)
		262	606	957	1320	1681	2020	2392	2748	3068	3428	3765	4093	4447	4825	LINEARITY ERROR (dB)
		-9	-14	-13	0	12	1	23	29	0	10	-3	-25	-20	5	ACCURACY ERROR (dB)
		-0.12	-0.20	-0.18	0.01	0.17	0.01	0.33	0.42	-0.01	0.14	-0.04	-0.35	-0.29	0.11	
		-0.91	-0.93	-0.84	-0.58	-0.35	-0.43	-0.04	0.12	-0.25	-0.03	-0.14	-0.39	-0.26	0.22	
14000 MHz	INTERCEPT (mV)	4805														Measured Value (mV)
	SLOPE (mV/dB)	69.5														Error (mV)
		273	624	974	1333	1686	2019	2390	2743	3065	3424	3761	4091	4435	4814	LINEARITY ERROR (dB)
		-12	-9	-7	5	10	-5	19	24	-2	10	-1	-19	-22	9	ACCURACY ERROR (dB)
		-0.18	-0.13	-0.10	0.07	0.14	-0.07	0.27	0.35	-0.02	0.14	-0.01	-0.27	-0.32	0.13	
		-0.75	-0.67	-0.59	-0.39	-0.28	-0.45	-0.07	0.04	-0.29	-0.09	-0.20	-0.42	-0.43	0.06	
18000 MHz	INTERCEPT (mV)	4773														Measured Value (mV)
	SLOPE (mV/dB)	68.4														Error (mV)
		304	669	1016	1371	1714	2033	2384	2718	3040	3402	3732	4073	4425	4807	LINEARITY ERROR (dB)
		-21	2	7	19	20	-3	6	-2	-22	-3	-15	-16	-6	34	ACCURACY ERROR (dB)
		-0.31	0.03	0.10	0.28	0.30	-0.04	0.09	-0.03	-0.33	-0.04	-0.22	-0.23	-0.09	0.49	
		-0.30	-0.01	0.01	0.16	0.13	-0.25	-0.16	-0.32	-0.65	-0.41	-0.62	-0.68	-0.58	-0.04	

Flatness	+/- dB	0.87	0.97	1.03	0.93	0.98	0.84	0.52	0.58	0.61	0.57	0.86	0.59	0.59	0.54	1.03
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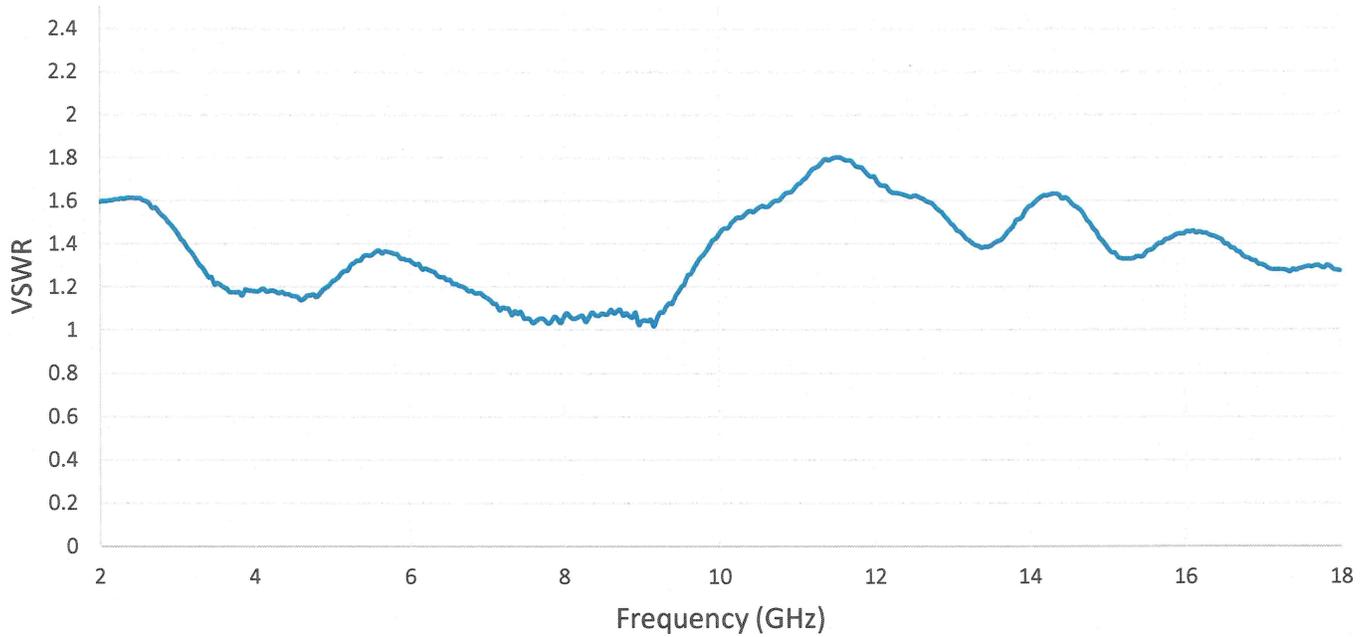




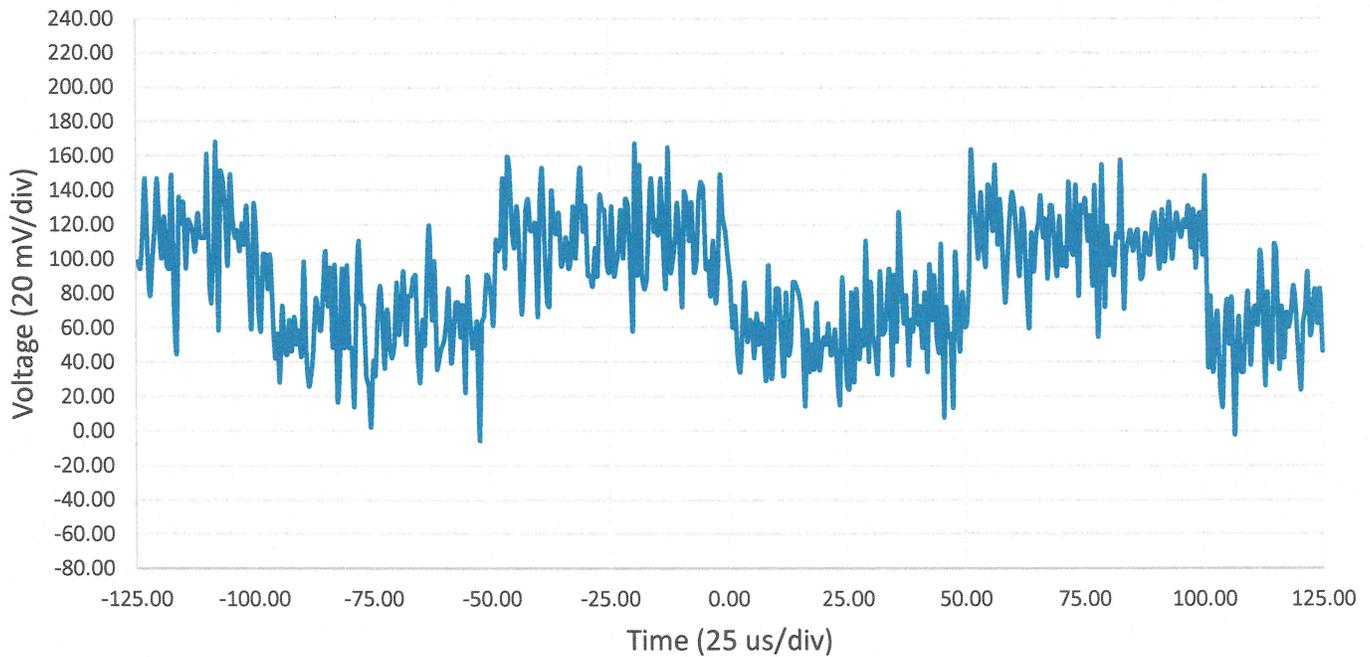
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For  
ERDLVA-2G18G-65-70MV-70C

PL47586/2440

VSWR 1.8:1



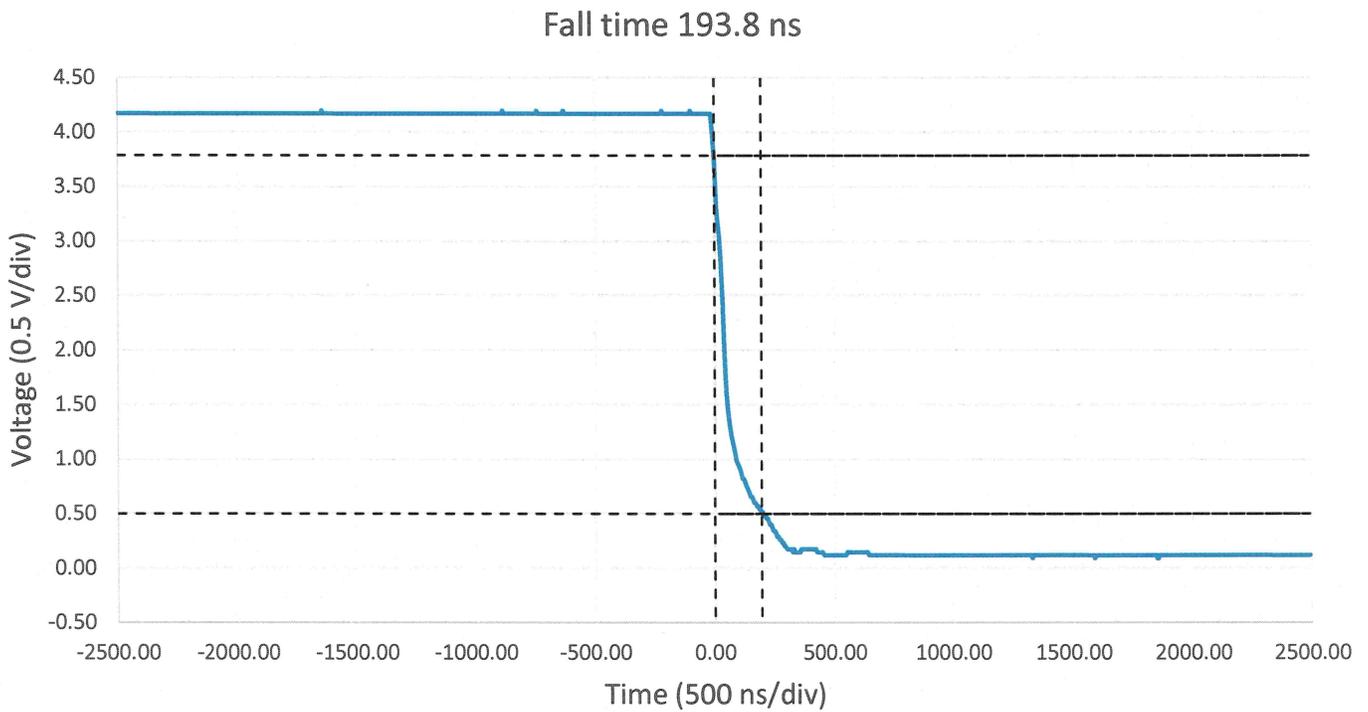
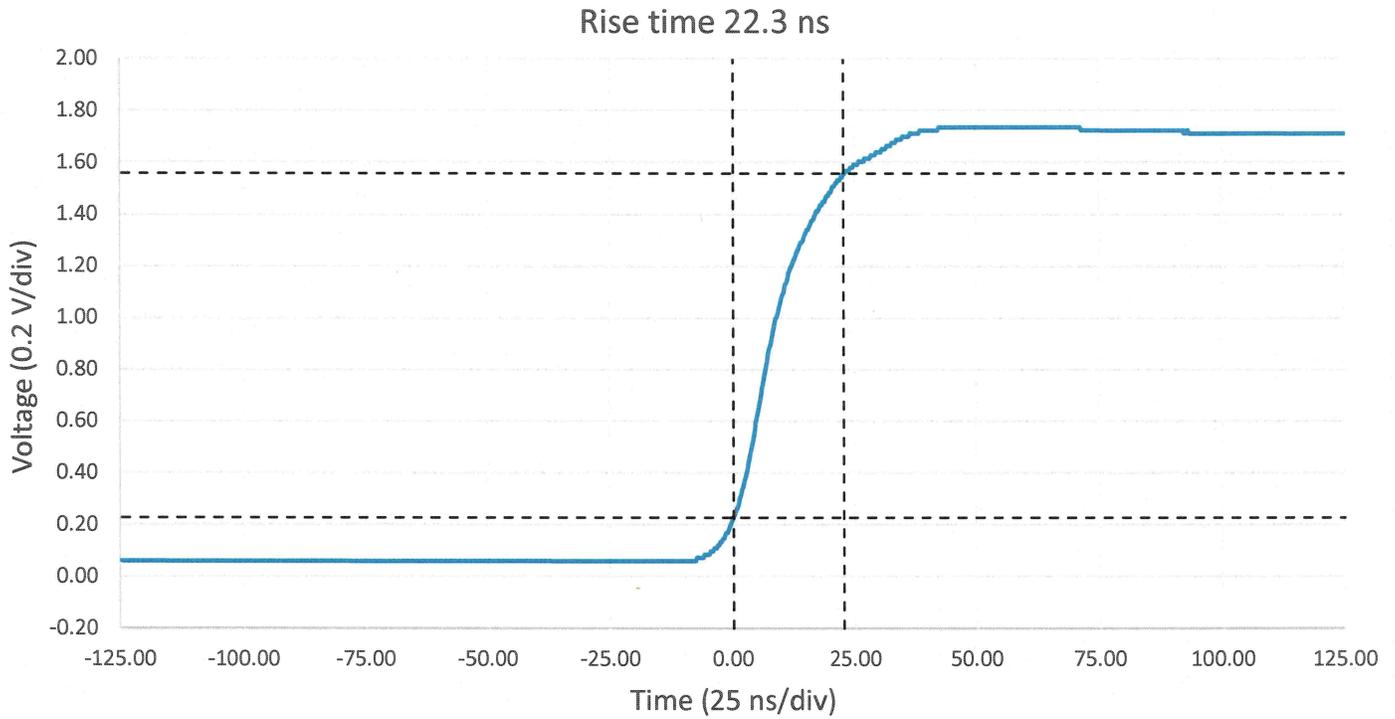
TSS @ -71 dBm





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PL47586/2440

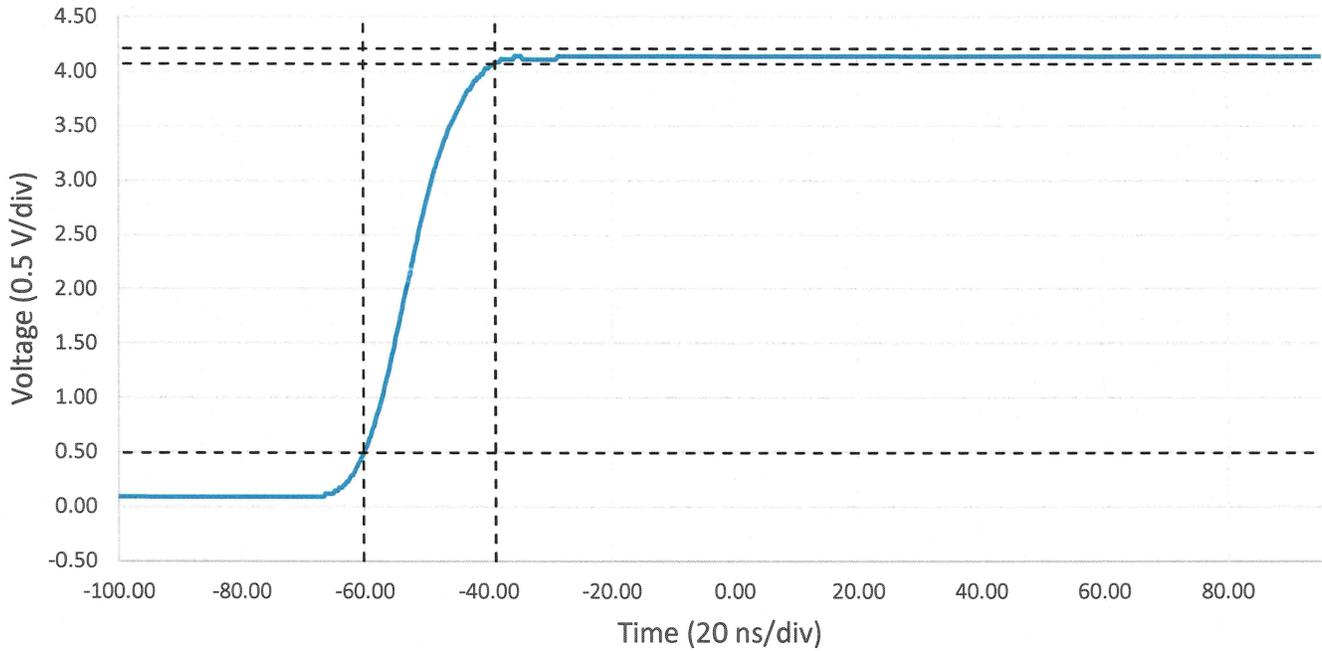




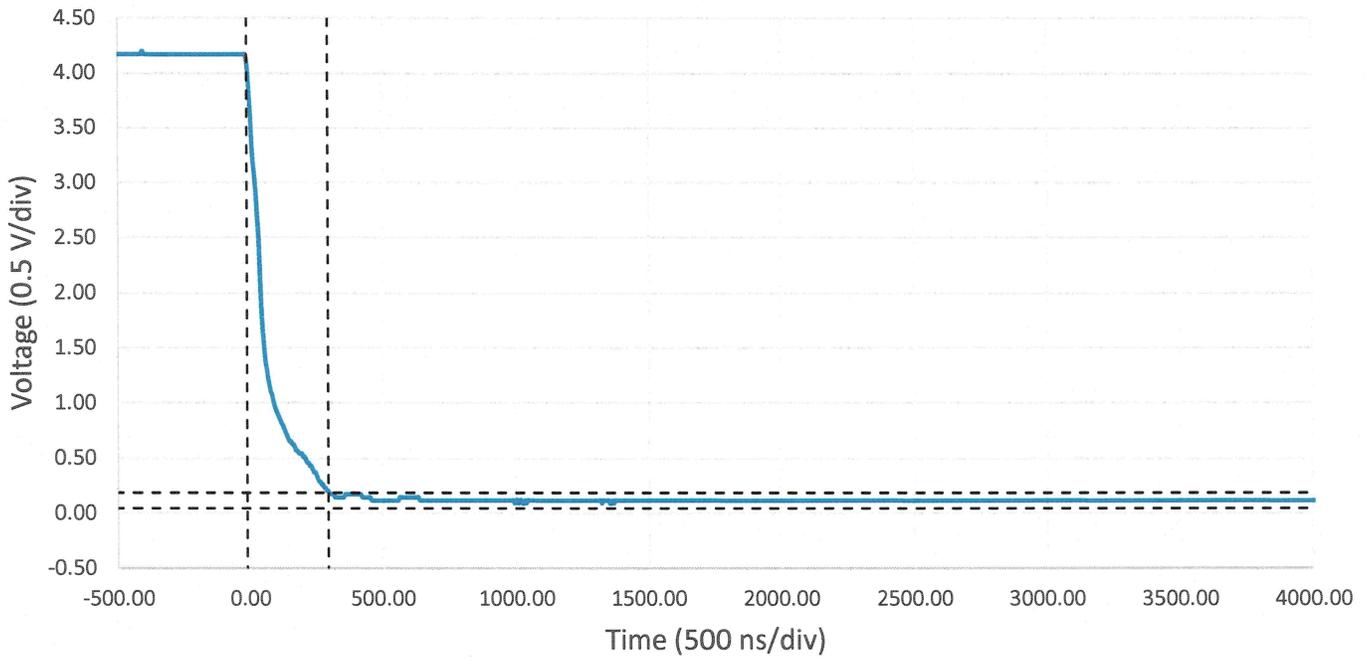
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ERDLVA-2G18G-65-70MV-70C

PL47586/2440

Settle time 21.2 ns



Recovery time 305 ns

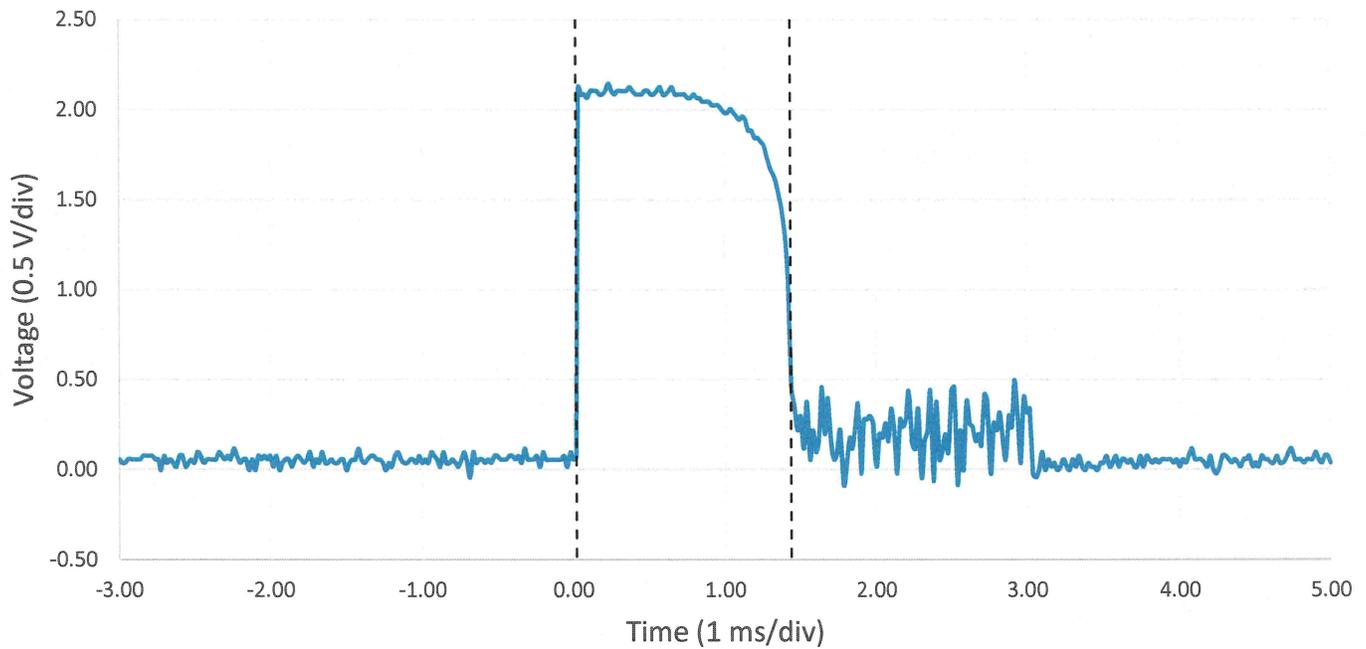




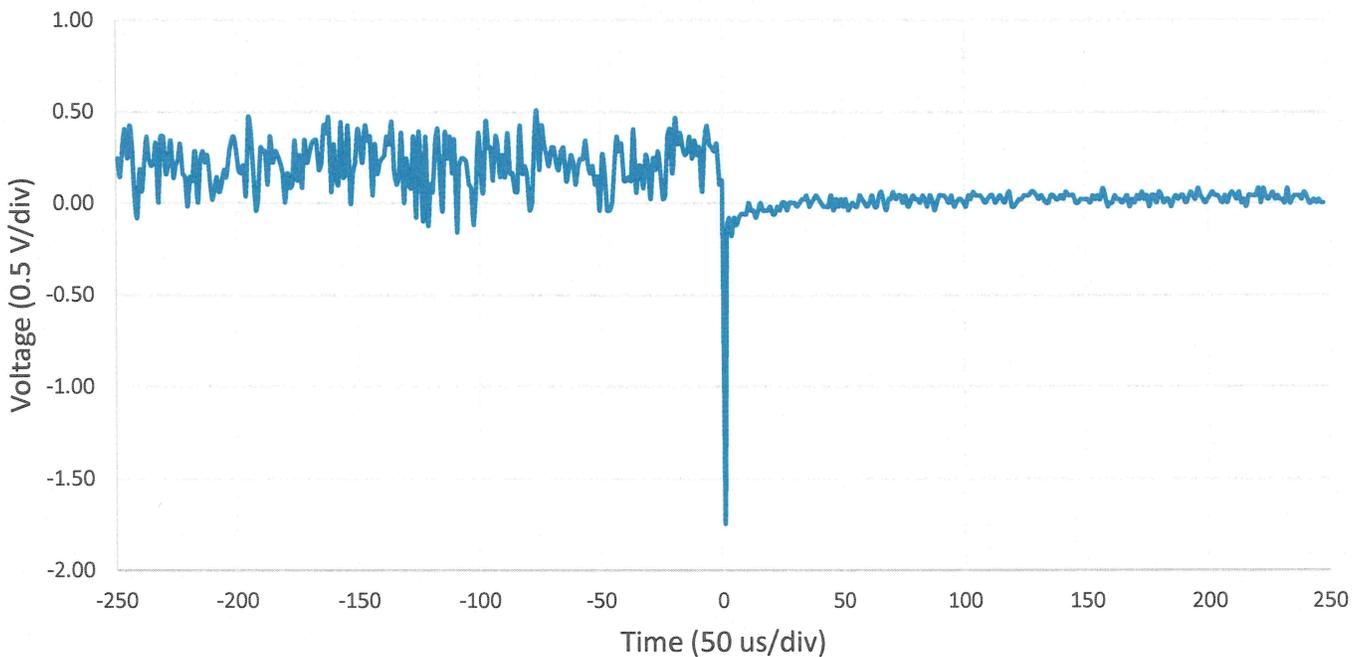
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CW Immunity 1.42 ms



CW Recovery Plot





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PL47586/2440

RMS Noise 24.1 mV

