



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

Customer: _____
 SO No: _____
 Model No: ERDLVA-2G18G-65-70MV-70C
 Serial No: PL47177/2440

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	1.78 :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	- 71.5 dBm	
5	VIDEO OUT Dynamic Range:	-65 to 0 dBm	-65 to 0 dBm	
6	VIDEO OUT Log Slope Fixed:	70 ± 3mV/dB	71.1 mV/dB 69.1 mV/dB	
7	VIDEO OUT Log Linearity:	±1.0 dB MAX @25C	0.46 dB -0.56 dB	
8	VIDEO OUT Log Accuracy:	±2.3 dB MAX @25C	0.53 dB -0.97 dB	
9	VIDEO OUT Absolute Log Accuracy:	±2.9 dB MAX Over Freq & temp	1.23 dB -1.46 dB	
10	VIDEO OUT DC Offset:	0 ±70 mV (RF Input Terminated & DC Power On) @25C	35 mV	
11	VIDEO OUT Rise Time (10% to 90%):	28 ns MAX	25.3 ns	
12	VIDEO OUT Fall Time (90% to 10%):	300 ns MAX	213.4 ns	



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13	VIDEO OUT Settling Time:	50 ns With in ± 70 mV of final value @-10 dBm	25.8 ns	PMI QA3
14	VIDEO OUT Recovery Time:	1 us MAX to within 1 dB of baseline for PW <10us & Power = -10dBm	0.3 us	
15	VIDEO OUT Video Frequency Flatness:	± 2.0 dB MAX @25C	± 0.59 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, ≤ 4 ms	1.35 ms	
		CW Recovery Time at CW = -40 dBm, ≤ 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 Ω	
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	139.9 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. Klauz

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: PL47177/2440
DATE: 9/24/2024

Test Temp: 25 °C
Video Offset: 35 mV

Frequency

2000 MHz	INTERCEPT (mV)	4837
	SLOPE (mV/dB)	69.2

6000 MHz	INTERCEPT (mV)	4833
	SLOPE (mV/dB)	69.6

10000 MHz	INTERCEPT (mV)	4875
	SLOPE (mV/dB)	71.1

14000 MHz	INTERCEPT (mV)	4882
	SLOPE (mV/dB)	70.6

18000 MHz	INTERCEPT (mV)	4823
	SLOPE (mV/dB)	69.1

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
2000 MHz	338	682	1023	1378	1750	2075	2410	2760	3087	3454	3832	4164	4501	4799
2000 MHz	-4	-5	-10	-1	25	4	-7	-2	-21	0	32	18	9	-38
2000 MHz	-0.05	-0.08	-0.15	-0.02	0.36	0.06	-0.10	-0.03	-0.31	0.00	0.46	0.26	0.14	-0.56
2000 MHz	0.33	0.25	0.13	0.21	0.53	0.18	-0.03	-0.02	-0.35	-0.10	0.31	0.06	-0.12	-0.86
6000 MHz	318	658	997	1353	1722	2050	2395	2745	3071	3435	3789	4133	4503	4835
6000 MHz	7	-1	-9	-1	20	0	-3	-1	-22	-6	0	-4	18	2
6000 MHz	0.10	-0.01	-0.14	-0.02	0.29	0.00	-0.04	-0.01	-0.32	-0.09	0.00	-0.06	0.26	0.03
6000 MHz	0.04	-0.09	-0.24	-0.15	0.13	-0.18	-0.25	-0.24	-0.58	-0.37	-0.31	-0.38	-0.09	-0.34
10000 MHz	275	609	946	1308	1674	2015	2399	2772	3096	3457	3807	4156	4533	4862
10000 MHz	20	-1	-20	-13	-2	-17	12	29	-2	-3	6	13	-13	
10000 MHz	0.28	-0.02	-0.28	-0.18	-0.03	-0.24	0.17	0.41	-0.03	0.05	-0.03	-0.12	0.19	-0.18
10000 MHz	-0.57	-0.79	-0.97	-0.80	-0.56	-0.68	-0.19	0.15	-0.22	-0.05	-0.05	-0.06	0.34	0.04
14000 MHz	302	641	983	1340	1696	2036	2420	2792	3120	3478	3830	4172	4542	4852
14000 MHz	12	-2	-13	-10	-7	-20	11	29	4	9	8	-4	13	-30
14000 MHz	0.17	-0.03	-0.19	-0.14	-0.10	-0.28	0.15	0.42	0.06	0.13	0.11	-0.05	0.19	-0.43
14000 MHz	-0.19	-0.34	-0.44	-0.34	-0.25	-0.38	0.11	0.43	0.13	0.25	0.28	0.17	0.47	-0.10
18000 MHz	342	685	1028	1375	1726	2048	2401	2745	3067	3429	3766	4123	4508	4847
18000 MHz	9	6	4	6	11	-12	-4	-6	-29	-12	-21	-9	31	24
18000 MHz	0.13	0.09	0.06	0.08	0.17	-0.17	-0.06	-0.08	-0.42	-0.18	-0.30	-0.13	0.45	0.35
18000 MHz	0.39	0.29	0.20	0.16	0.18	-0.21	-0.16	-0.24	-0.63	-0.45	-0.63	-0.53	-0.02	-0.17

RF Input Power (dBm)	
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.56
ACCURACY ERROR (dB)	-0.86

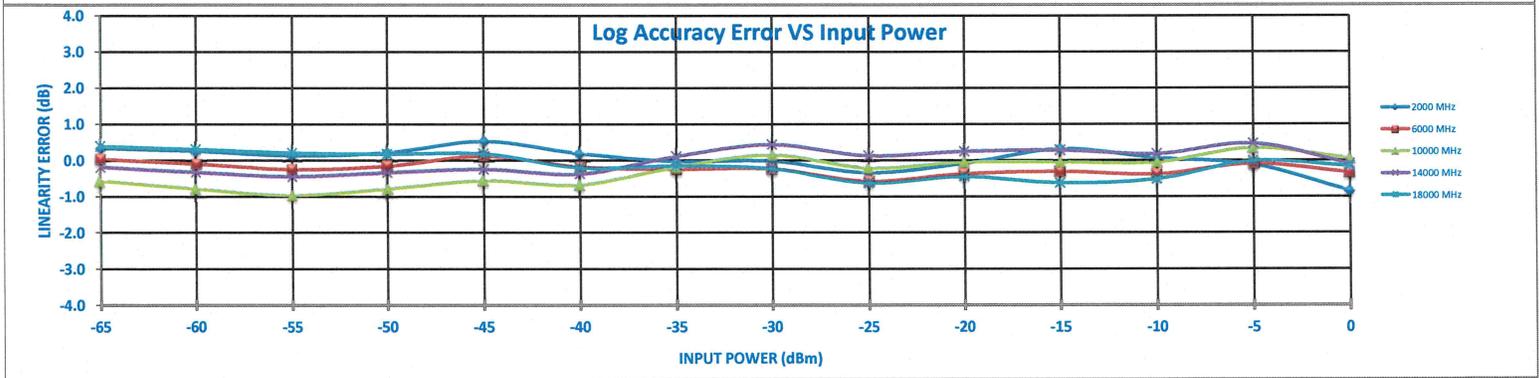
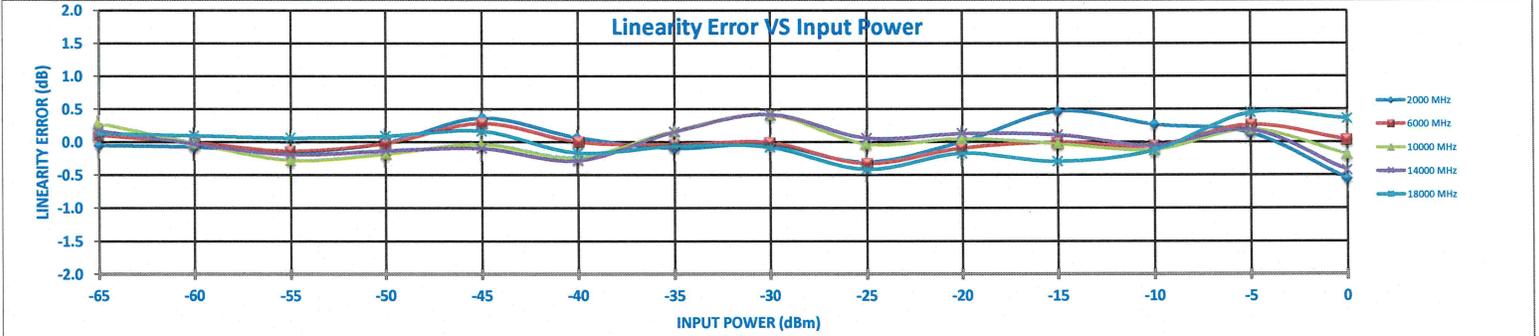
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.32
ACCURACY ERROR (dB)	-0.58

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.41
ACCURACY ERROR (dB)	-0.97

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.43
ACCURACY ERROR (dB)	0.47

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.45
ACCURACY ERROR (dB)	-0.63

Flatness	+/- dB	0.48	0.54	0.59	0.50	0.54	0.43	0.18	0.34	0.38	0.35	0.47	0.35	0.29	0.45	0.59
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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: PL47177/2440
DATE: 9/24/2024

Test Temp: -40 °C
Video Offset: 12 mV

Frequency

2000 MHz	INTERCEPT (mV)	4728
	SLOPE (mV/dB)	68.3

6000 MHz	INTERCEPT (mV)	4738
	SLOPE (mV/dB)	68.6

10000 MHz	INTERCEPT (mV)	4796
	SLOPE (mV/dB)	70.1

14000 MHz	INTERCEPT (mV)	4820
	SLOPE (mV/dB)	70.0

18000 MHz	INTERCEPT (mV)	4757
	SLOPE (mV/dB)	68.5

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
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287	622	958	1309	1684	2018	2344	2673	2987	3351	3731	4070	4401	4688
-3	-9	-15	-5	29	21	6	-6	-34	-11	27	25	15	-40
-0.04	-0.14	-0.22	-0.07	0.42	0.31	0.09	-0.09	-0.50	-0.16	0.40	0.37	0.22	-0.58
0.67	0.46	0.26	0.27	0.63	0.40	0.06	-0.24	-0.76	-0.56	-0.13	-0.29	-0.56	-1.46

284	614	953	1305	1675	2012	2343	2676	2992	3350	3710	4054	4415	4735
5	-8	-12	-3	24	18	6	-4	-31	-16	1	2	20	-3
0.07	-0.12	-0.17	-0.04	0.35	0.26	0.09	-0.06	-0.45	-0.23	0.02	0.03	0.29	-0.04
0.63	0.34	0.19	0.21	0.50	0.31	0.04	-0.20	-0.69	-0.57	-0.43	-0.51	-0.36	-0.79

256	584	919	1273	1647	1997	2369	2716	3036	3388	3745	4097	4456	4775
15	-7	-23	-19	4	4	29	23	-8	-6	0	2	11	-21
0.21	-0.11	-0.33	-0.27	0.06	0.06	0.37	0.32	-0.11	-0.09	0.00	0.03	0.15	-0.30
0.23	-0.09	-0.30	-0.24	0.10	0.10	0.41	0.37	-0.06	-0.03	0.07	0.10	0.23	-0.21

280	612	956	1305	1672	2018	2398	2745	3075	3425	3781	4128	4477	4779
7	-11	-16	-17	0	-4	26	24	4	4	10	7	7	-41
0.10	-0.15	-0.23	-0.25	0.00	-0.05	0.38	0.34	0.05	0.06	0.15	0.10	0.09	-0.59
0.57	0.31	0.23	0.21	0.46	0.40	0.83	0.79	0.50	0.50	0.59	0.54	0.53	-0.16

315	648	994	1339	1690	2023	2362	2697	3013	3367	3715	4074	4445	4770
7	-2	2	5	13	4	1	-6	-33	-21	-15	2	30	13
0.11	-0.03	0.03	0.07	0.19	0.06	0.01	-0.09	-0.48	-0.31	-0.22	0.02	0.44	0.19
1.07	0.83	0.77	0.70	0.71	0.47	0.31	0.10	-0.39	-0.33	-0.36	-0.23	0.07	-0.29

RF Input Power (dBm)	
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.58
ACCURACY ERROR (dB)	-1.46

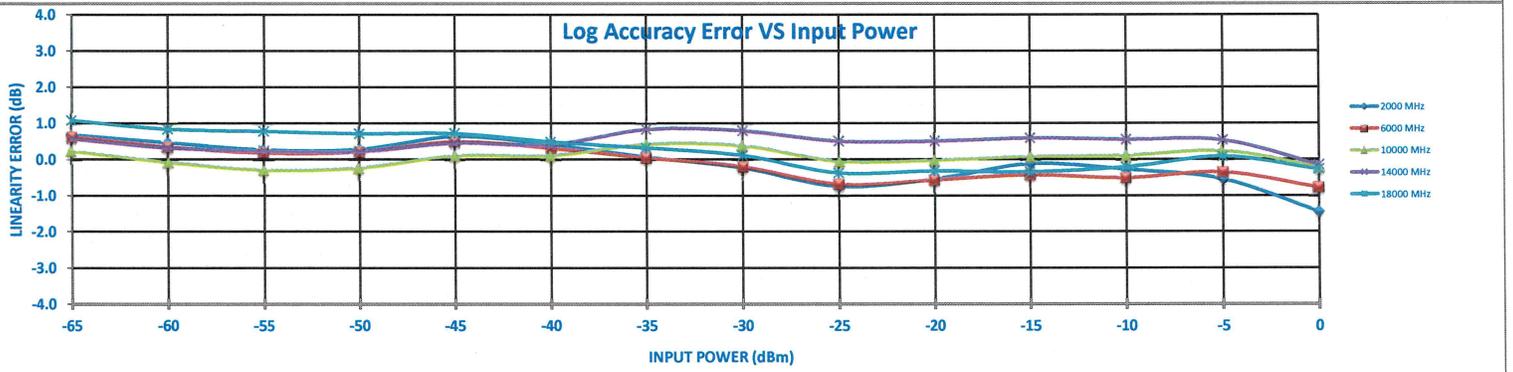
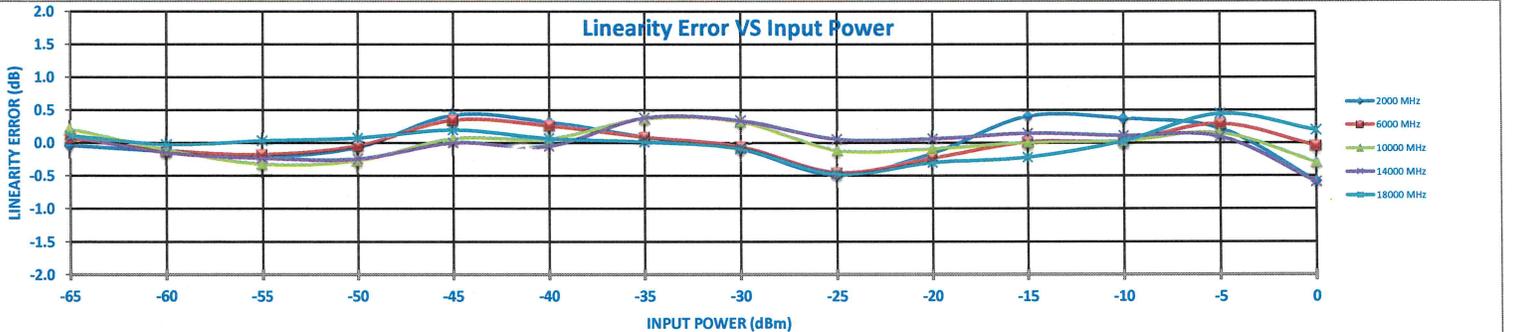
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.45
ACCURACY ERROR (dB)	-0.79

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.37
ACCURACY ERROR (dB)	0.41

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.59
ACCURACY ERROR (dB)	0.83

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.48
ACCURACY ERROR (dB)	1.07

Flatness	+/- dB	0.42	0.46	0.54	0.47	0.31	0.19	0.39	0.51	0.63	0.54	0.51	0.53	0.54	0.65
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Summary Data For ERDLVA-2G18G-65-70MV-70C

LOG TRANSFER WITH FREQUENCY

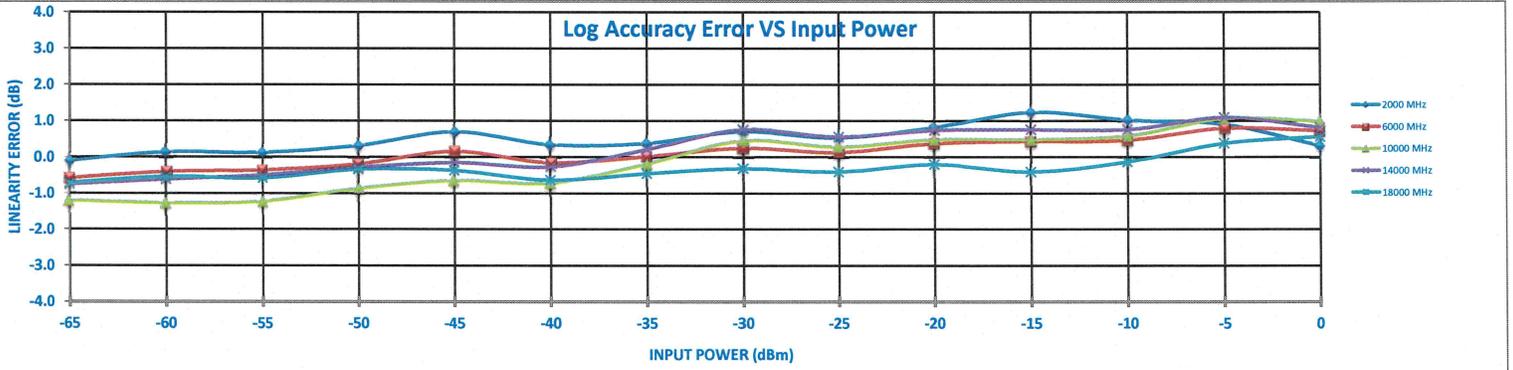
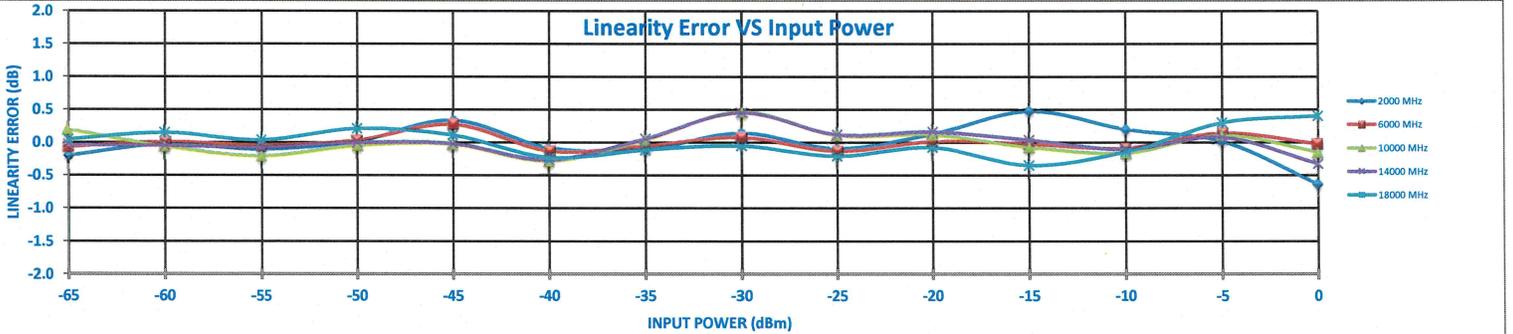
TESTED BY: Anton L.
MODEL: ERDLVA-2G18G-65-70MV-70C
SERIAL NO: PL47177/2440
DATE: 9/24/2024

Test Temp: 70 °C
Video Offset: 20 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)
2000 MHz	4861	69.9	302	664	1008	1366	1738	2058	2406	2773	3106	3471	3845	4175	4512	4816	Measured Value (mV)
			-15	-2	-8	1	23	-6	-8	10	-7	9	33	13	1	-45	Error (mV)
			-0.21	-0.03	-0.11	0.01	0.33	-0.09	-0.11	0.14	-0.10	0.12	0.47	0.19	0.01	-0.64	LINEARITY ERROR (dB)
			-0.12	0.13	0.12	0.30	0.70	0.33	0.38	0.70	0.52	0.81	1.23	1.01	0.90	0.30	ACCURACY ERROR (dB)
6000 MHz	4847	70.3	270	627	975	1332	1701	2024	2381	2742	3079	3441	3790	4137	4505	4845	Measured Value (mV)
			-5	1	-3	2	20	-9	-4	6	-9	1	-2	-6	10	-2	Error (mV)
			-0.07	0.01	-0.04	0.03	0.28	-0.13	-0.05	0.08	-0.13	0.02	-0.02	-0.09	0.14	-0.02	LINEARITY ERROR (dB)
			-0.58	-0.41	-0.36	-0.19	0.16	-0.16	0.01	0.25	0.13	0.38	0.43	0.46	0.80	0.72	ACCURACY ERROR (dB)
10000 MHz	4874	71.7	227	567	915	1285	1645	1985	2367	2756	3089	3448	3793	4145	4523	4863	Measured Value (mV)
			14	5	-16	-5	-2	-21	3	33	8	8	-5	-12	8	-11	Error (mV)
			0.19	-0.06	-0.21	-0.05	-0.03	-0.29	0.04	0.46	0.11	0.12	-0.07	-0.16	0.11	-0.15	LINEARITY ERROR (dB)
			-1.20	-1.28	-1.23	-0.87	-0.65	-0.72	-0.19	0.45	0.28	0.48	0.48	0.58	1.06	0.99	ACCURACY ERROR (dB)
14000 MHz	4874	71.0	258	612	965	1325	1679	2016	2394	2777	3108	3466	3812	4157	4525	4851	Measured Value (mV)
			-3	-4	-5	0	-1	-19	4	32	8	11	2	-8	6	-23	Error (mV)
			-0.04	-0.05	-0.08	0.00	-0.02	-0.27	0.06	0.45	0.11	0.16	0.03	-0.11	0.08	-0.33	LINEARITY ERROR (dB)
			-0.75	-0.62	-0.51	-0.29	-0.16	-0.28	0.20	0.75	0.55	0.74	0.75	0.75	1.09	0.81	ACCURACY ERROR (dB)
18000 MHz	4805	70.0	260	617	959	1321	1664	1990	2348	2702	3041	3400	3731	4095	4476	4833	Measured Value (mV)
			3	10	2	14	7	-16	-8	-4	-15	-6	-25	-11	21	28	Error (mV)
			0.04	0.14	0.03	0.20	0.11	-0.24	-0.12	-0.06	-0.21	-0.08	-0.35	-0.15	0.30	0.40	LINEARITY ERROR (dB)
			-0.72	-0.55	-0.59	-0.35	-0.38	-0.65	-0.46	-0.33	-0.42	-0.22	-0.42	-0.14	0.38	0.55	ACCURACY ERROR (dB)

Flatness	+/- dB	0.54	0.70	0.67	0.59	0.67	0.53	0.42	0.54	0.49	0.51	0.83	0.58	0.36	0.34	0.83
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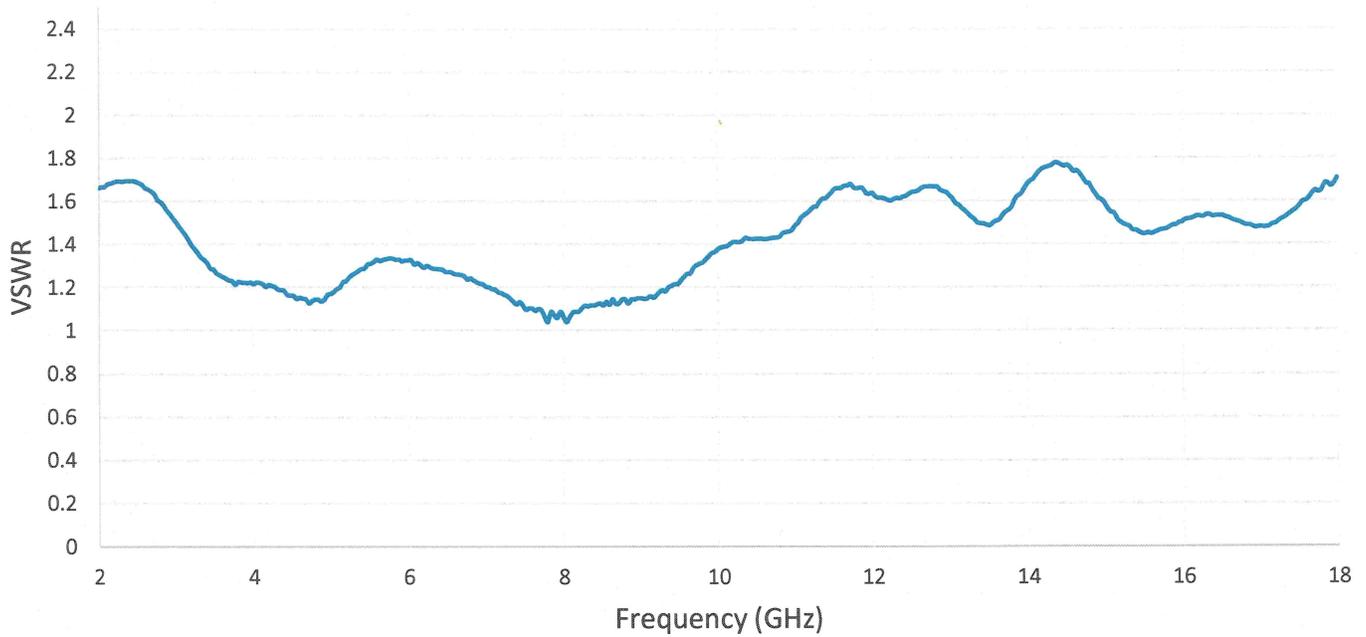




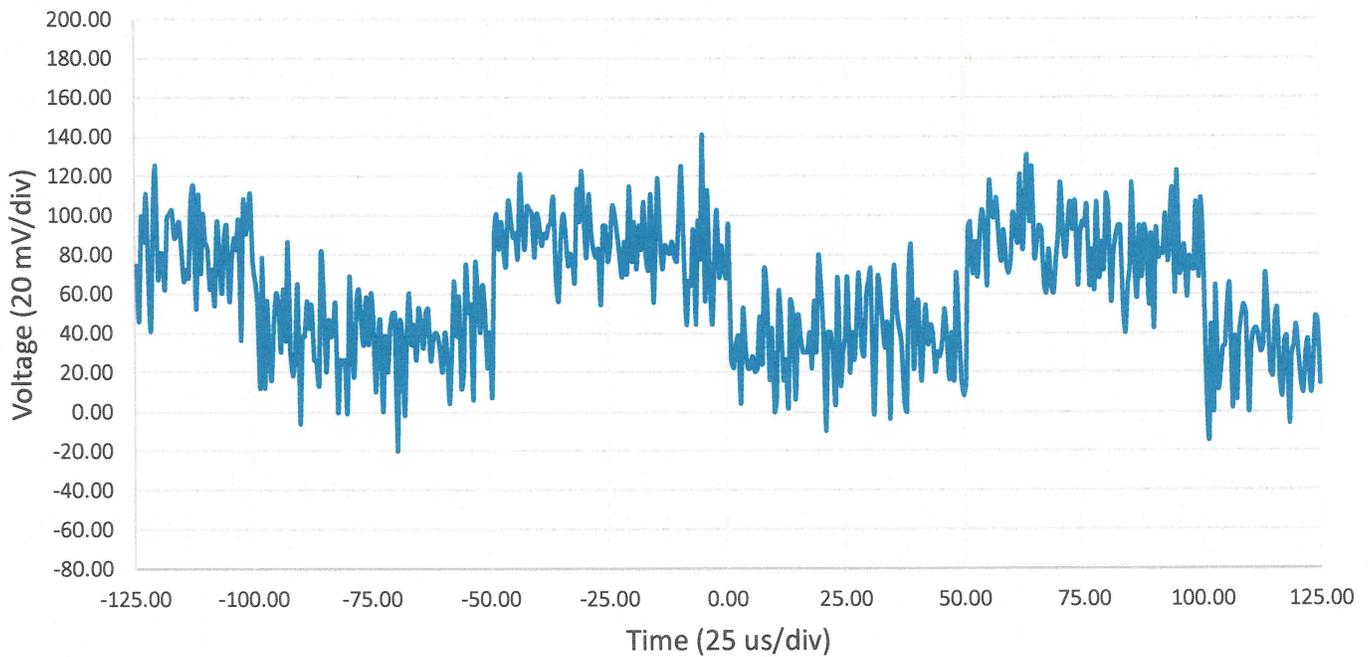
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PL47177/2440

VSWR 1.78:1



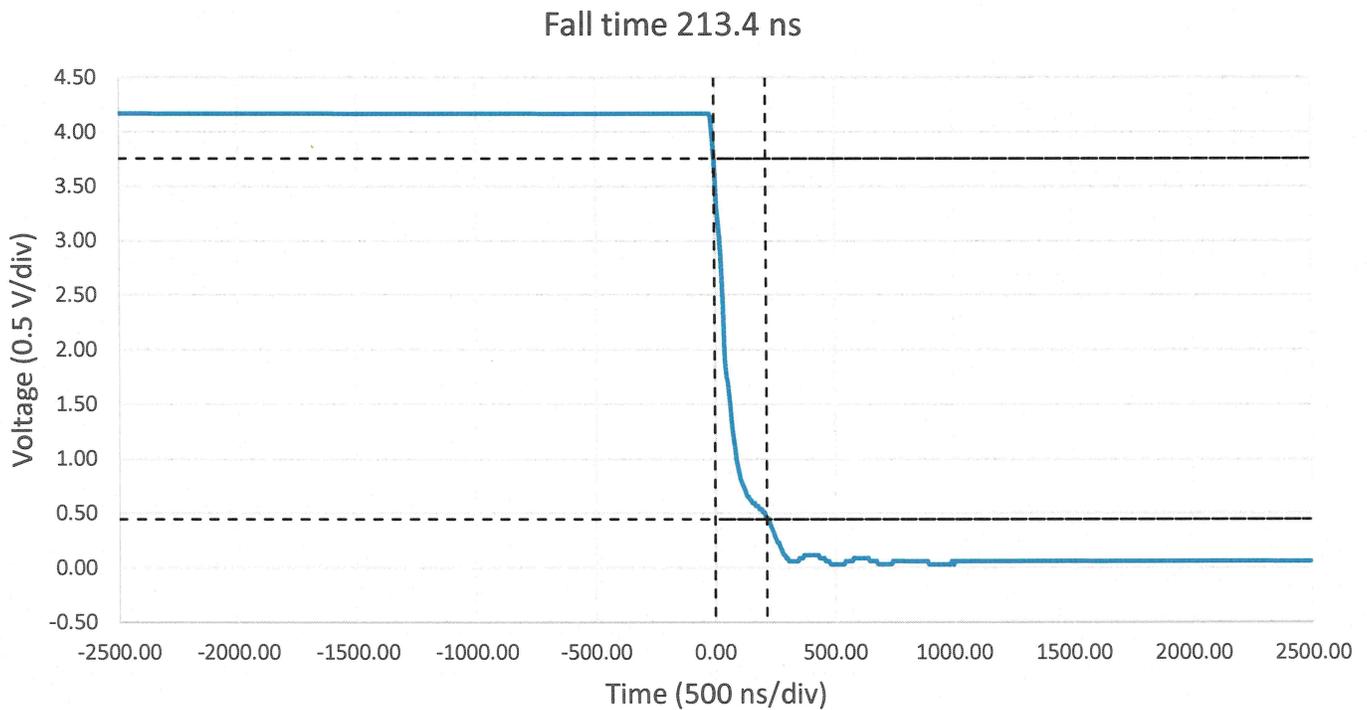
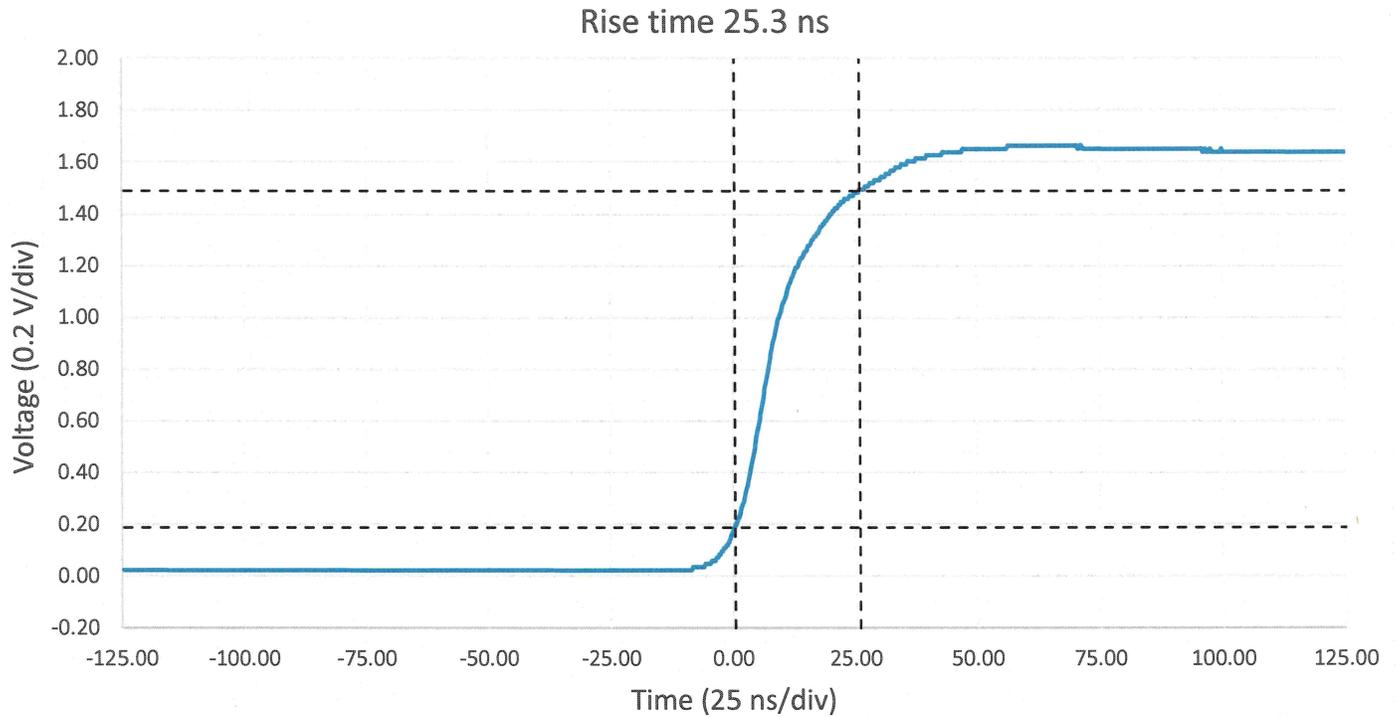
TSS @ -71.5 dBm





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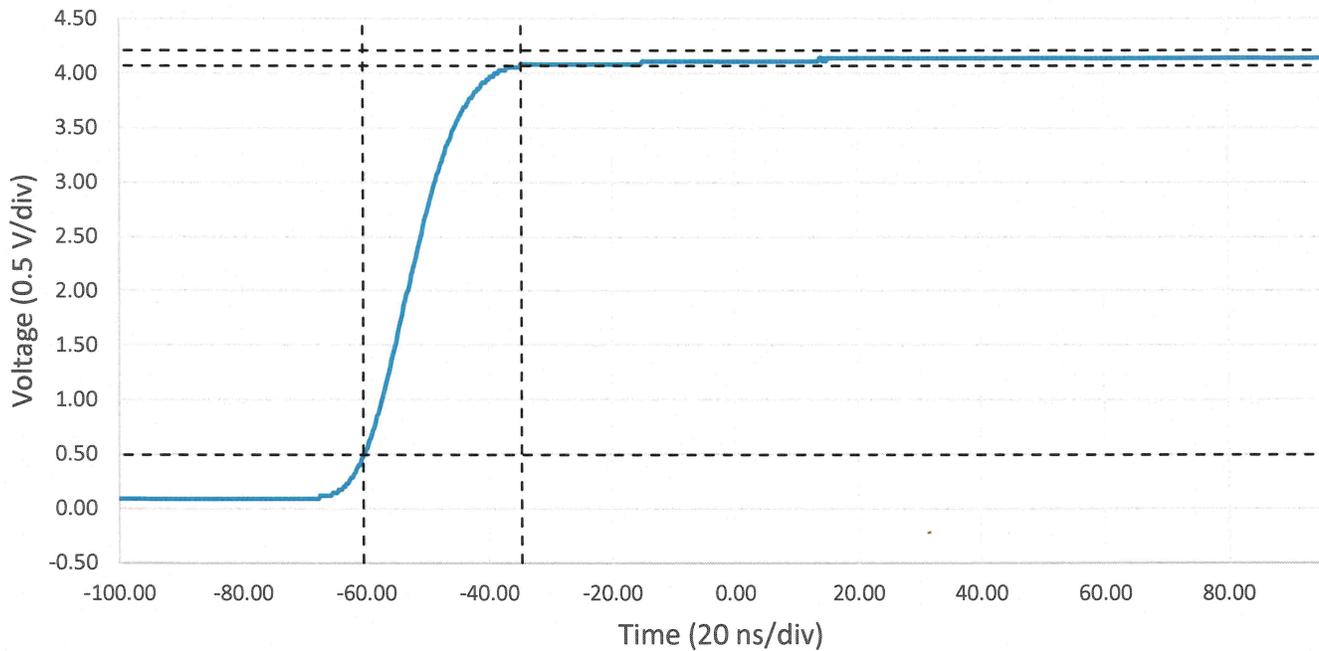




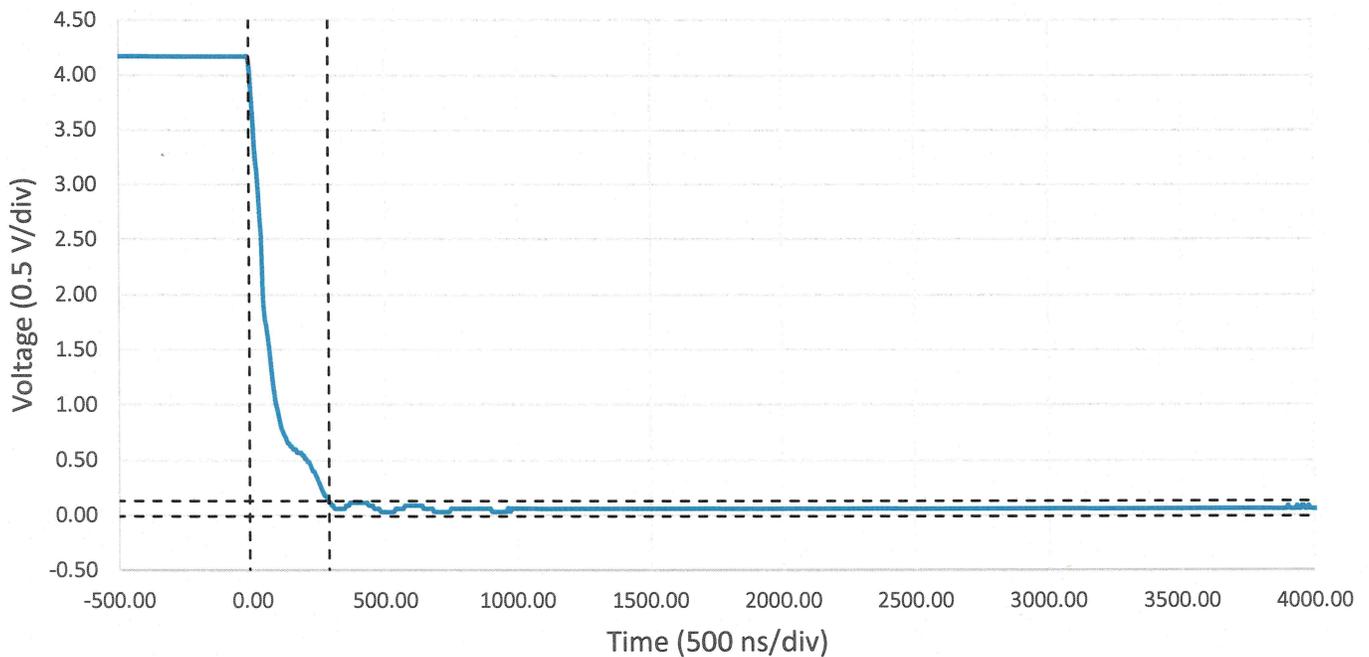
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PL47177/2440

Settle time 25.8 ns



Recovery time 300 ns

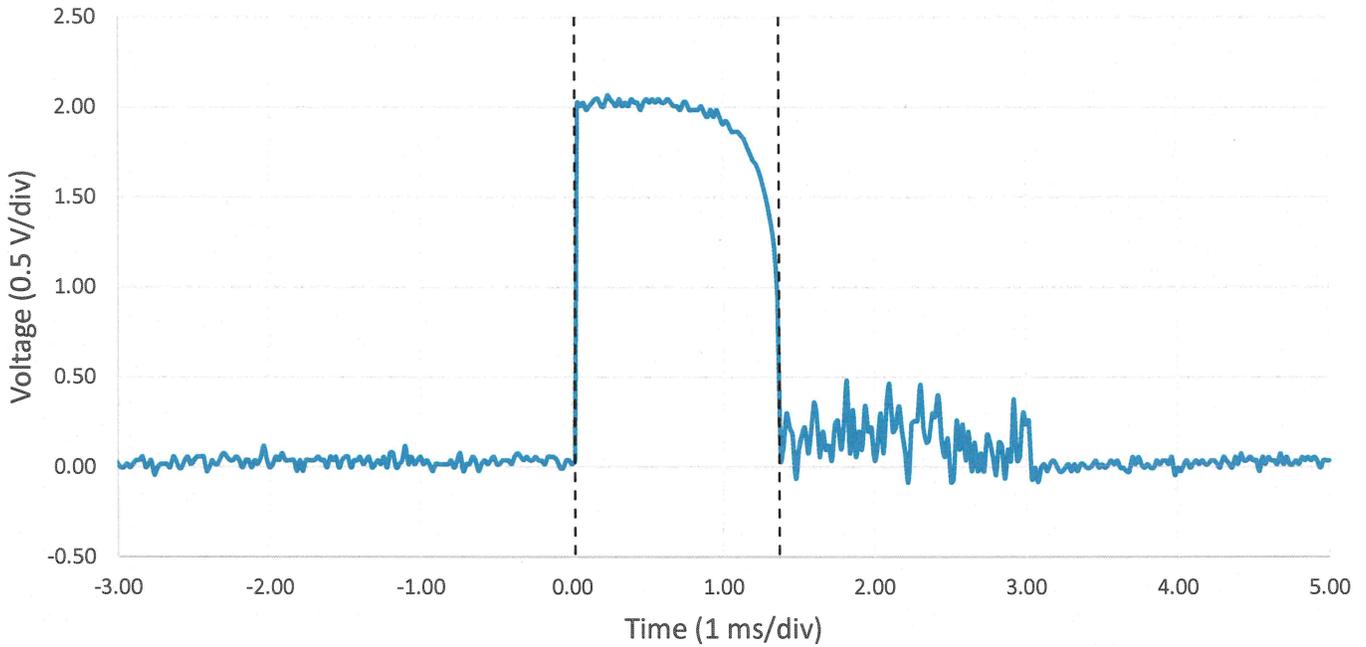




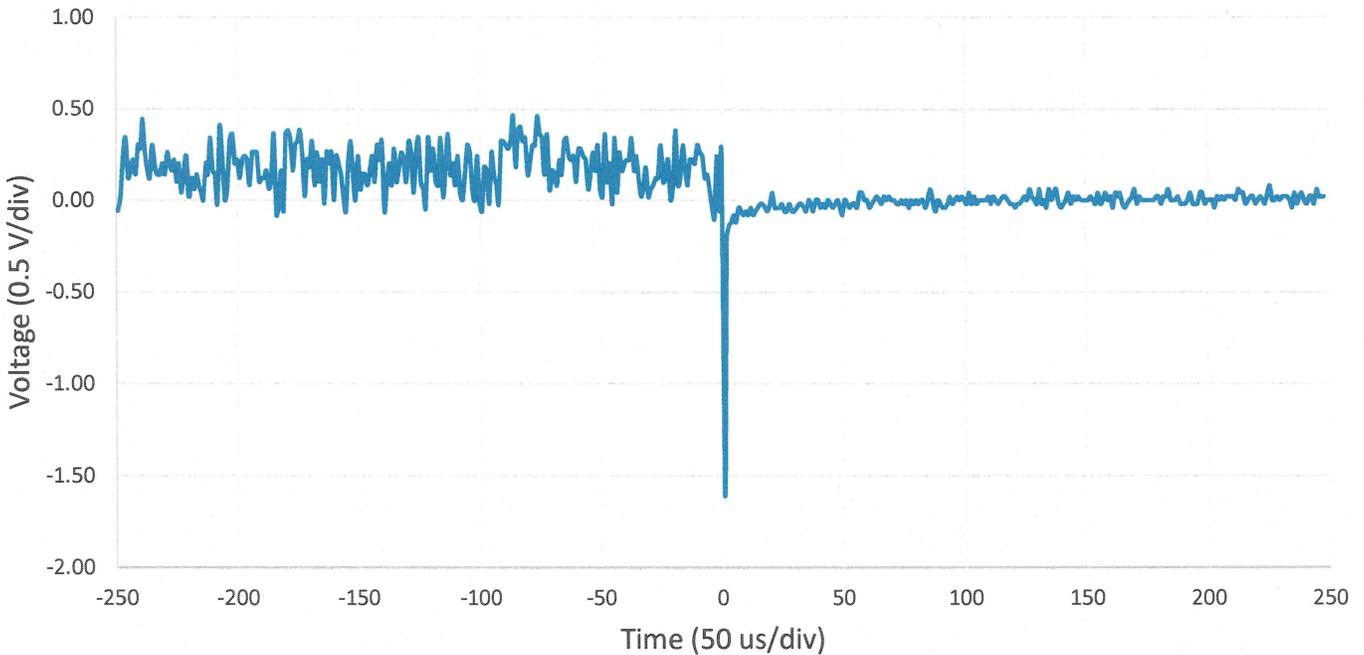
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PL47177/2440

CW Immunity 1.35 ms



CW Recovery Plot





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

PL47177/2440

RMS Noise 21.2 mV

