



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

Customer: _____
 SO No: _____
 Model No: ERDLVA-2G18G-65-70MV-70C
 Serial No: PL47178/2444

Tested By: Anton L.
 Temperature: -40°C TO +70°C
 Date 10/30/2024
 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	
2	VSWR:	2.2:1 MAX @ 50 Ω	1.89 :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	70.8 mV/dB	
			68.7 mV/dB	
7	VIDEO OUT Log Linearity:	±1.0 dB MAX @25C	0.55 dB	
			-0.36 dB	
8	VIDEO OUT Log Accuracy:	±2.3 dB MAX @25C	1.05 dB	
			-0.79 dB	
9	VIDEO OUT Absolute Log Accuracy:	±2.9 dB MAX Over Freq & temp	1.29 dB	
			-1.01 dB	
10	VIDEO OUT DC Offset:	0 ±70 mV (RF Input Terminated & DC Power On) @25C	41 mV	
11	VIDEO OUT Rise Time (10% to 90%):	28 ns MAX	22 ns	
12	VIDEO OUT Fall Time (90% to 10%):	300 ns MAX	217.2 ns	



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13	VIDEO OUT Settling Time:	50 ns With in ± 70 mV of final value @-10 dBm	21.2 ns	PMI QAS
14	VIDEO OUT Recovery Time:	1 us MAX to within 1 dB of baseline for PW <10us & Power = -10dBm	0.65 us	
15	VIDEO OUT Video Frequency Flatness:	± 2.0 dB MAX @25C	± 0.89 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	1.32 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 ± 1 Ω	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	143.7 mV	PMI QAS
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. Kaur

Date: 11-1-24



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

LOG TRANSFER WITH FREQUENCY

TESTED BY: Anton L.
 MODEL: ERDLVA-2G18G-65-70MV-70C
 SERIAL NO: PL47178/2444
 DATE: 10/30/2024

Test Temp: 25 °C
 Video Offset: 41 mV

Frequency

2000 MHz	INTERCEPT (mV)	4872
	SLOPE (mV/dB)	69.6

6000 MHz	INTERCEPT (mV)	4910
	SLOPE (mV/dB)	70.8

10000 MHz	INTERCEPT (mV)	4867
	SLOPE (mV/dB)	70.6

14000 MHz	INTERCEPT (mV)	4886
	SLOPE (mV/dB)	69.8

18000 MHz	INTERCEPT (mV)	4857
	SLOPE (mV/dB)	68.7

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
334	704	1043	1387	1763	2084	2423	2786	3115	3478	3857	4181	4517	4862	
-13	9	0	-4	24	-3	-13	2	-17	-2	29	5	-7	-10	
-0.19	0.13	0.00	-0.06	0.34	-0.05	-0.18	0.03	-0.24	-0.02	0.42	0.07	-0.10	-0.14	
0.09	0.38	0.23	0.15	0.53	0.12	-0.03	0.16	-0.13	0.06	0.48	0.11	-0.08	-0.14	

	308	668	1009	1358	1727	2061	2435	2819	3149	3502	3856	4183	4540	4914
-1	5	-7	-12	3	-17	3	33	9	8	8	-19	-16	4	
-0.01	0.08	-0.11	-0.18	0.04	-0.24	0.04	0.46	0.13	0.11	0.11	-0.27	-0.22	0.06	
-0.29	-0.14	-0.26	-0.27	0.01	-0.21	0.14	0.63	0.35	0.40	0.47	0.14	0.25	0.60	

	280	632	972	1328	1694	2031	2402	2784	3112	3467	3807	4143	4502	4869
1	8	-13	-10	5	-13	5	34	9	11	2	-19	-12	2	
0.02	0.01	-0.18	-0.14	0.05	-0.18	0.08	0.49	0.13	0.16	-0.02	-0.26	-0.18	0.02	
-0.69	-0.65	-0.79	-0.70	-0.46	-0.64	-0.33	0.13	-0.18	-0.10	-0.24	-0.43	-0.29	-0.04	

	333	702	1043	1388	1745	2072	2444	2821	3152	3504	3847	4178	4528	4870
-13	7	-2	-6	2	-20	2	30	12	15	8	-10	-9	-16	
-0.19	0.10	-0.02	-0.08	0.03	-0.29	0.03	0.43	0.17	0.21	0.12	-0.14	-0.13	-0.23	
0.07	0.35	0.23	0.16	0.27	-0.05	0.27	0.66	0.39	0.43	0.34	0.07	0.08	-0.03	

	385	751	1096	1429	1773	2084	2437	2798	3127	3480	3810	4154	4519	4895
-6	16	18	7	8	-25	-15	2	-12	-3	-16	-16	6	38	
-0.09	0.23	0.26	0.10	0.11	-0.36	-0.22	0.03	-0.18	-0.04	-0.24	-0.23	0.08	0.55	
0.82	1.05	0.99	0.75	0.67	0.12	0.17	0.33	0.04	0.09	-0.19	-0.27	-0.05	0.33	

RF Input Power (dBm)	
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.42
ACCURACY ERROR (dB)	0.53

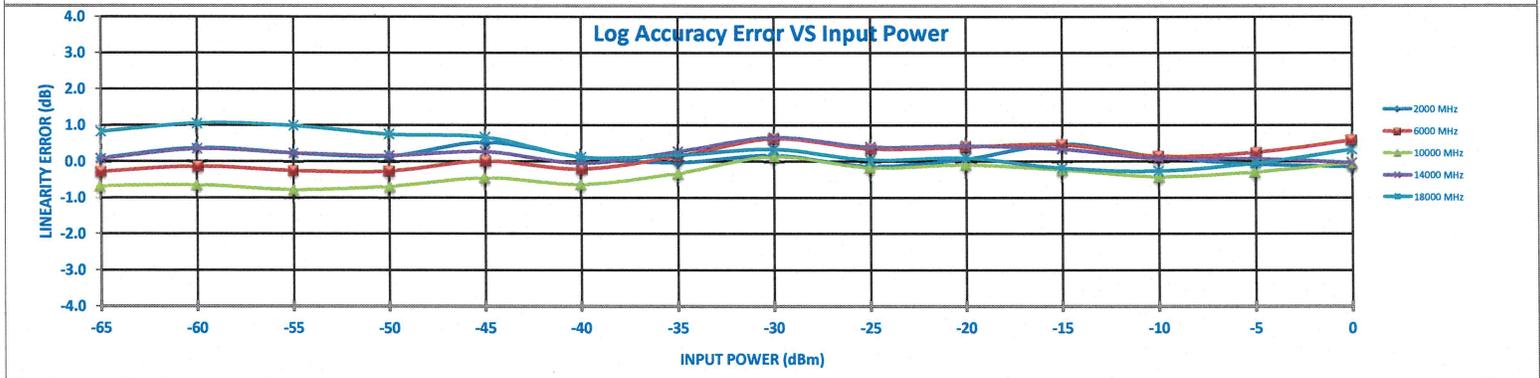
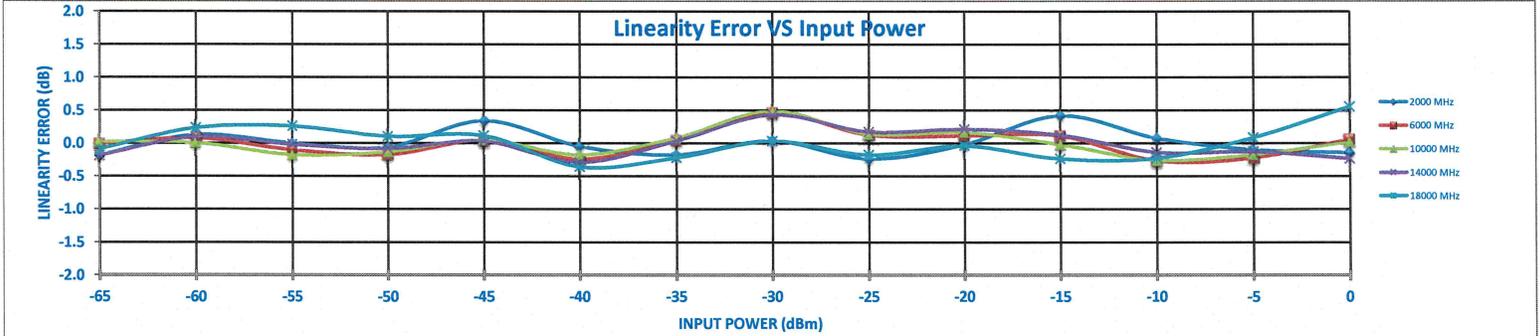
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.46
ACCURACY ERROR (dB)	0.63

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.49
ACCURACY ERROR (dB)	-0.79

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.43
ACCURACY ERROR (dB)	0.66

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.55
ACCURACY ERROR (dB)	1.05

Flatness	+/- dB	0.75	0.85	0.89	0.72	0.57	0.38	0.30	0.26	0.29	0.26	0.36	0.29	0.27	0.37
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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: PL47178/2444
 DATE: 10/30/2024

Test Temp: -40 °C
 Video Offset: -7 mV

Frequency

2000 MHz	INTERCEPT (mV)	4736
	SLOPE (mV/dB)	68.9

6000 MHz	INTERCEPT (mV)	4795
	SLOPE (mV/dB)	69.8

10000 MHz	INTERCEPT (mV)	4784
	SLOPE (mV/dB)	69.5

14000 MHz	INTERCEPT (mV)	4810
	SLOPE (mV/dB)	69.0

18000 MHz	INTERCEPT (mV)	4811
	SLOPE (mV/dB)	68.1

	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
258	602	933	1276	1655	1984	2320	2673	2993	3348	3727	4056	4390	4725	
3	2	-11	-13	21	5	-3	5	-20	-10	25	9	-2	-11	
0.04	0.03	-0.17	-0.19	0.31	0.08	-0.05	0.07	-0.29	-0.14	0.36	0.13	-0.02	-0.17	
-0.61	-0.63	-0.84	-0.87	-0.38	-0.62	-0.75	-0.64	-1.01	-0.87	-0.38	-0.62	-0.78	-0.93	

	268	608	938	1282	1656	1998	2365	2729	3055	3398	3757	4082	4432	4798
11	2	-17	-22	2	-5	13	28	5	-1	9	-15	-14	3	
0.15	0.02	-0.25	-0.32	0.04	-0.07	0.19	0.41	0.08	-0.01	0.13	-0.21	-0.20	0.04	
-0.46	-0.54	-0.76	-0.78	-0.37	-0.42	-0.10	0.17	-0.11	-0.15	0.05	-0.24	-0.18	0.12	

	263	610	946	1289	1664	2000	2367	2727	3050	3393	3743	4071	4426	4784
7	-7	-15	-16	9	2	17	29	5	0	2	-17	-10	0	
-0.01	-0.02	-0.19	-0.26	0.14	-0.03	0.25	0.42	0.07	0.00	0.03	-0.25	-0.15	0.00	
-0.54	-0.51	-0.65	-0.68	-0.25	-0.39	-0.07	0.14	-0.18	-0.22	-0.15	-0.40	-0.26	-0.08	

	324	672	1014	1349	1708	2042	2406	2761	3093	3432	3782	4112	4461	4799
-3	0	-3	-12	2	-9	10	20	8	2	7	-8	-4	-11	
-0.04	0.00	-0.04	-0.18	0.03	-0.13	0.15	0.30	0.11	0.03	0.10	-0.11	-0.05	-0.15	
0.35	0.39	0.34	0.19	0.39	0.22	0.49	0.63	0.44	0.35	0.41	0.19	0.24	0.14	

	389	730	1080	1414	1752	2075	2417	2767	3097	3433	3773	4110	4477	4856
4	4	14	8	5	-12	-11	-1	-11	-16	-16	-20	7	45	
0.06	0.07	0.21	0.11	0.08	-0.18	-0.16	-0.02	-0.17	-0.23	-0.24	-0.29	0.10	0.67	
1.29	1.23	1.29	1.13	1.02	0.70	0.65	0.72	0.50	0.36	0.28	0.16	0.48	0.96	

RF Input Power (dBm)	
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.36
ACCURACY ERROR (dB)	-1.01

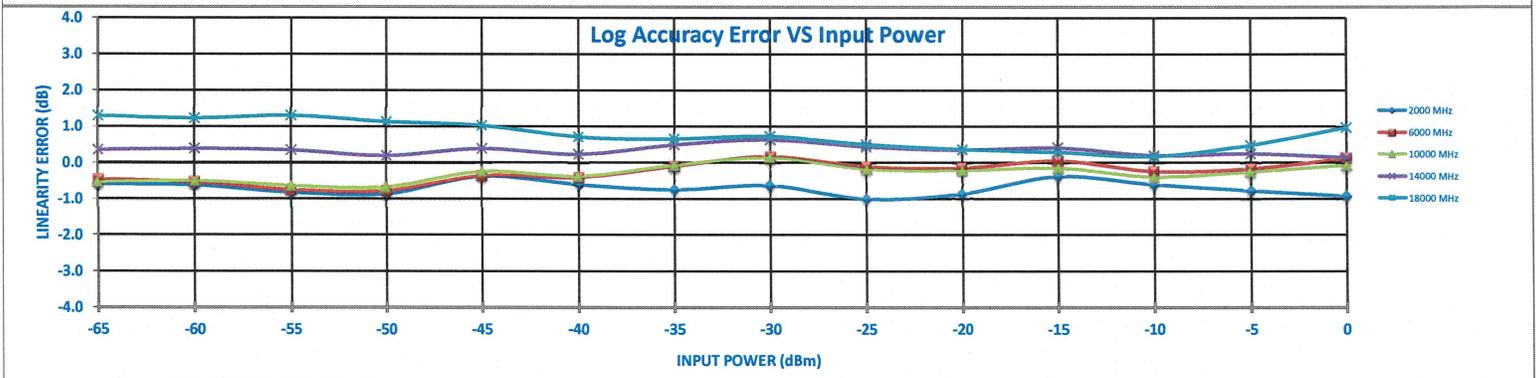
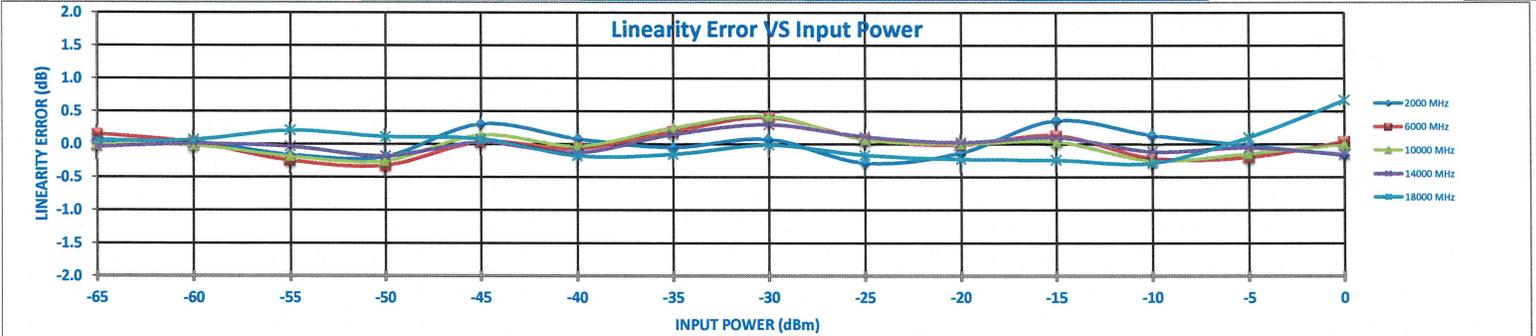
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.41
ACCURACY ERROR (dB)	-0.78

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.42
ACCURACY ERROR (dB)	-0.68

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.30
ACCURACY ERROR (dB)	0.63

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.67
ACCURACY ERROR (dB)	1.29

Flatness		+/- dB	0.95	0.93	1.06	1.00	0.70	0.66	0.70	0.68	0.75	0.62	0.40	0.41	0.63	0.95
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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: PL47178/2444
 DATE: 10/30/2024

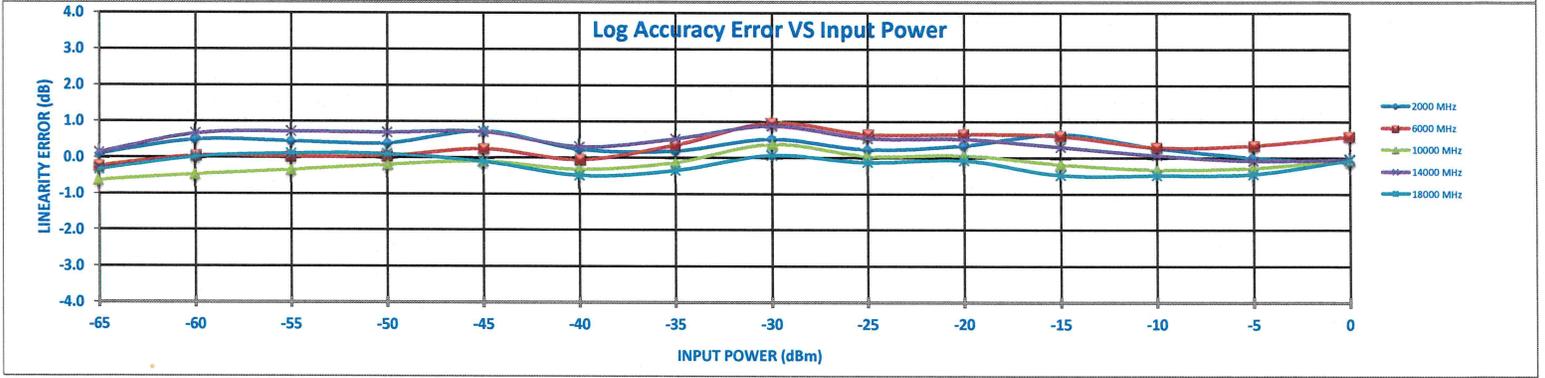
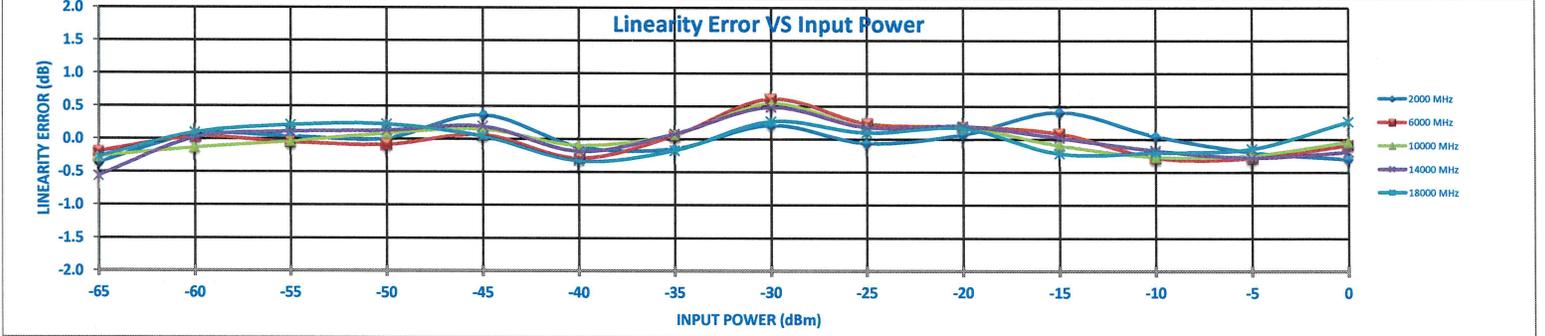
Test Temp: 70 °C
 Video Offset: 40 mV

Frequency

Frequency	Intercept (mV)	Slope (mV/dB)	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
2000 MHz	4940	70.2	316	697	1046	1395	1771	2088	2437	2813	3145	3505	3880	4205	4539	4883
			-26	4	2	0	25	-8	-10	15	-4	5	29	3	-14	-21
			-0.37	0.06	0.03	0.01	0.36	-0.12	-0.15	0.21	-0.06	0.07	0.41	0.04	-0.20	-0.30
			0.09	0.49	0.44	0.39	0.73	0.22	0.18	0.51	0.22	0.33	0.65	0.26	0.00	-0.12
6000 MHz	4940	71.3	293	665	1016	1370	1737	2068	2449	2845	3175	3528	3877	4207	4563	4934
			-14	2	-4	-6	5	-21	4	43	17	14	6	-20	-20	-6
			-0.20	0.02	-0.05	-0.08	0.06	-0.29	0.05	0.61	0.24	0.19	0.09	-0.28	-0.29	-0.08
			-0.24	0.04	0.02	0.04	0.25	-0.06	0.35	0.96	0.65	0.65	0.61	0.29	0.34	0.60
10000 MHz	4891	70.9	265	629	990	1353	1712	2049	2415	2803	3132	3486	3821	4163	4519	4888
			-19	-10	-3	6	10	-7	5	38	13	13	7	-16	-17	-3
			-0.27	-0.14	-0.04	0.08	0.15	-0.10	0.07	0.54	0.18	0.18	-0.09	-0.27	-0.25	-0.04
			-0.64	-0.47	-0.35	-0.20	-0.11	-0.33	-0.14	0.37	0.04	0.06	-0.19	-0.34	-0.29	-0.05
14000 MHz	4902	69.9	319	709	1065	1416	1770	2093	2461	2839	3167	3518	3855	4191	4533	4889
			-40	1	7	9	13	-13	5	34	12	14	1	-12	-20	-13
			-0.57	0.01	0.11	0.13	0.19	-0.19	0.08	0.48	0.18	0.20	0.02	-0.17	-0.28	-0.19
			0.13	0.66	0.71	0.69	0.71	0.30	0.52	0.88	0.53	0.51	0.29	0.06	-0.09	-0.04
18000 MHz	4868	70.2	286	663	1022	1374	1712	2037	2399	2781	3120	3476	3800	4152	4507	4887
			-19	7	15	16	3	-23	-12	19	7	12	-15	-14	-10	19
			-0.28	0.09	0.21	0.22	0.04	-0.33	-0.18	0.27	0.09	0.17	-0.22	-0.20	-0.15	0.27
			-0.34	0.01	0.10	0.10	-0.11	-0.50	-0.36	0.06	-0.13	-0.08	-0.49	-0.49	-0.46	-0.07

RF Input Power (dBm)	Measured Value (mV)	Error (mV)	LINEARITY ERROR (dB)	ACCURACY ERROR (dB)
-65	316	-26	-0.37	0.09
-60	697	4	0.06	0.49
-55	1046	2	0.03	0.44
-50	1395	0	0.01	0.39
-45	1771	25	0.36	0.73
-40	2088	-8	-0.12	0.22
-35	2437	-10	-0.15	0.18
-30	2813	15	0.21	0.51
-25	3145	-4	-0.06	0.22
-20	3505	5	0.07	0.33
-15	3880	29	0.41	0.65
-10	4205	3	0.04	0.26
-5	4539	-14	-0.20	0.00
0	4883	-21	-0.30	-0.12

Flatness	+/- dB	0.38	0.57	0.53	0.45	0.42	0.40	0.44	0.45	0.39	0.37	0.57	0.39	0.40	0.36
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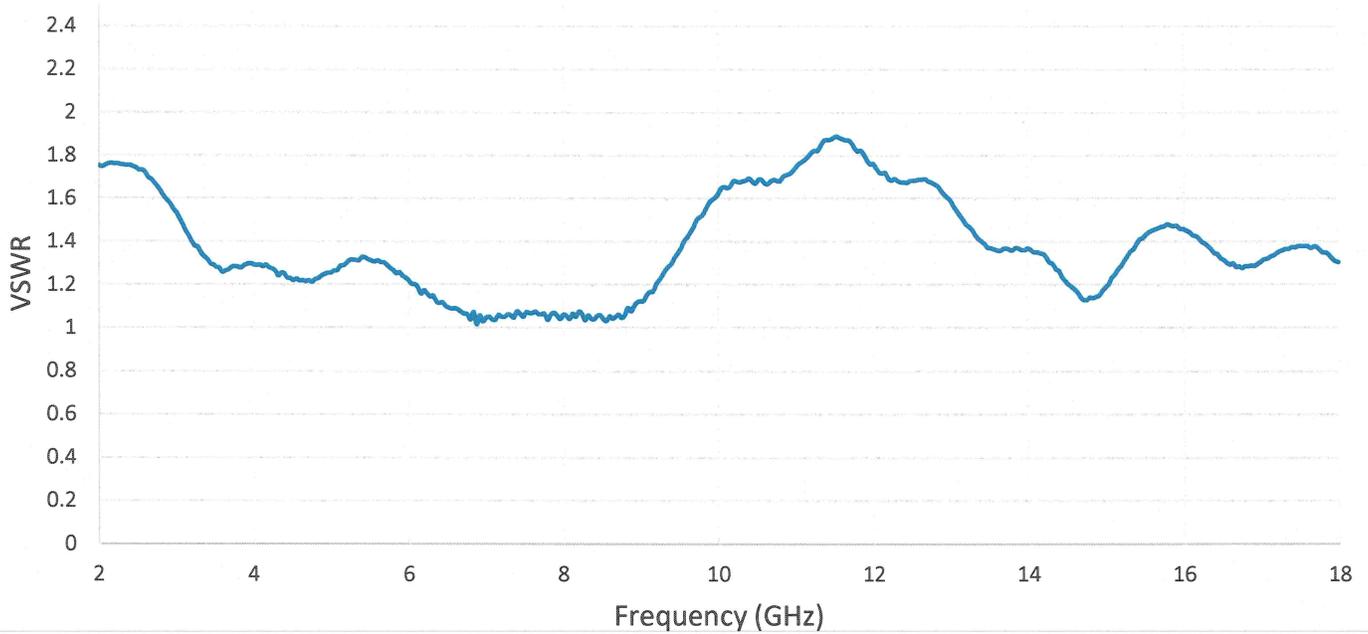




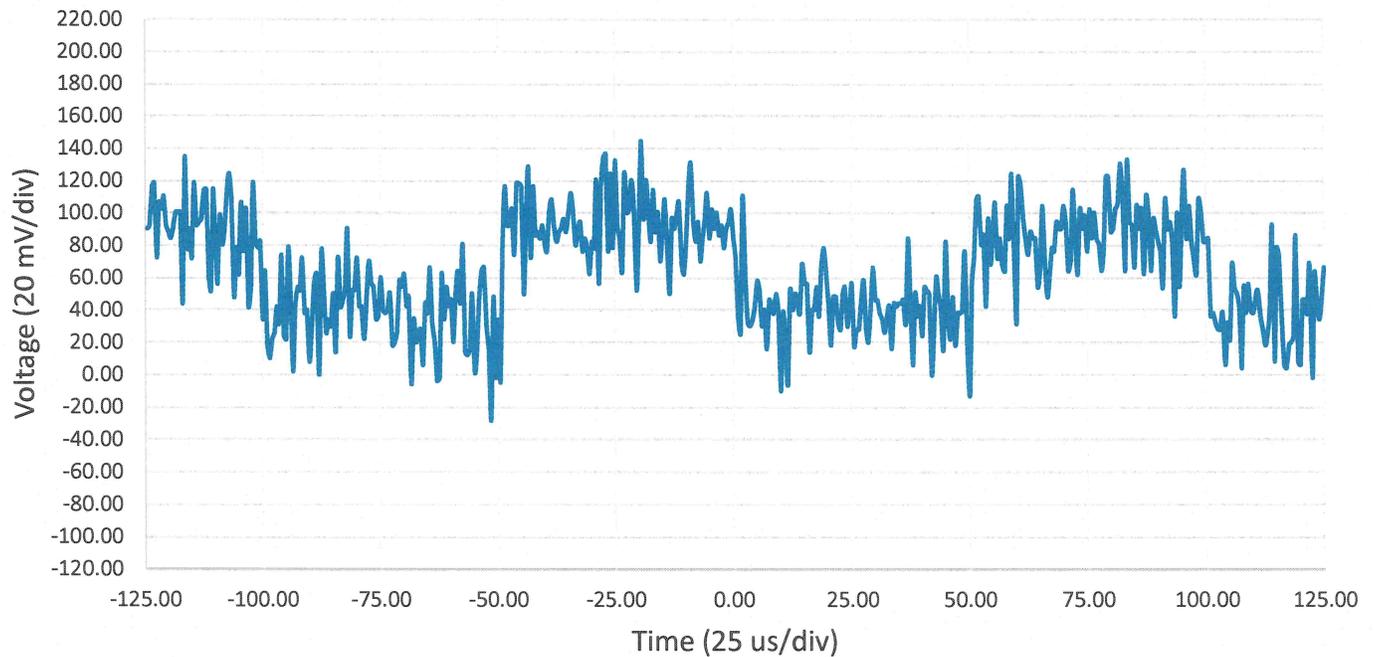
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PL47178/2444

VSWR 1.89:1



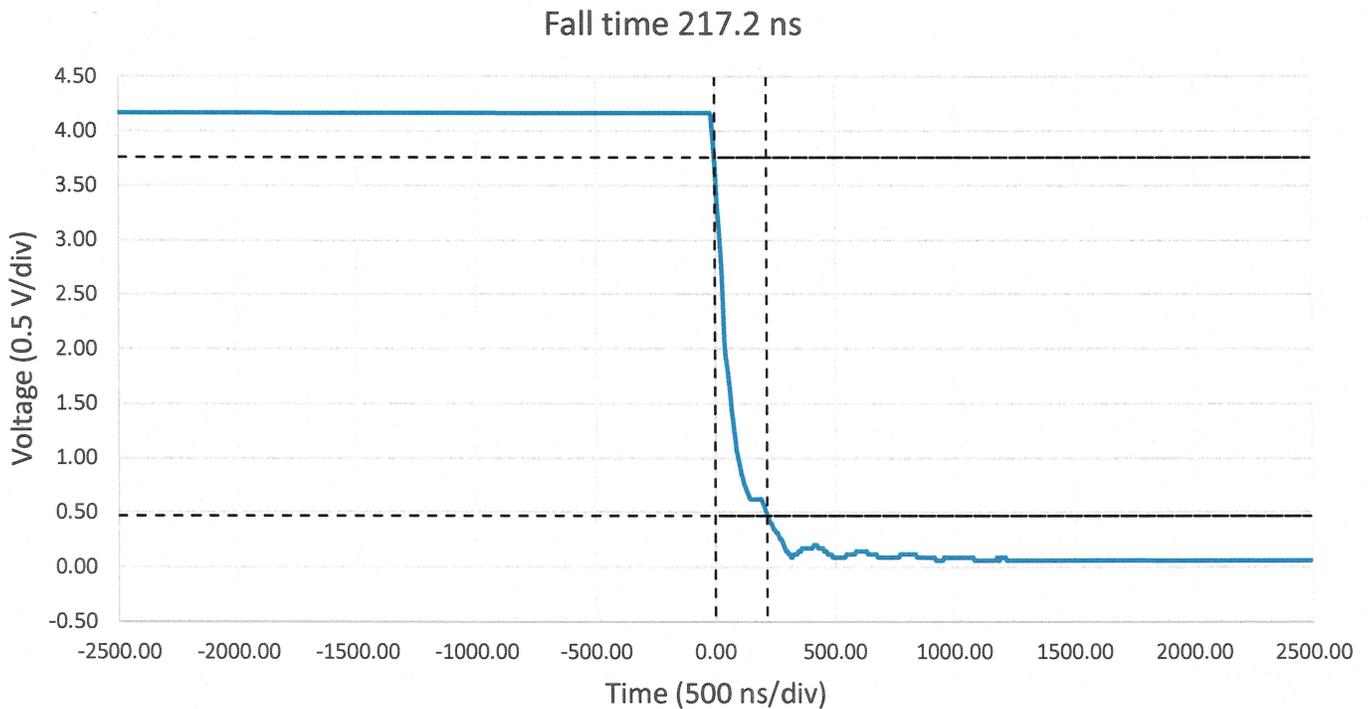
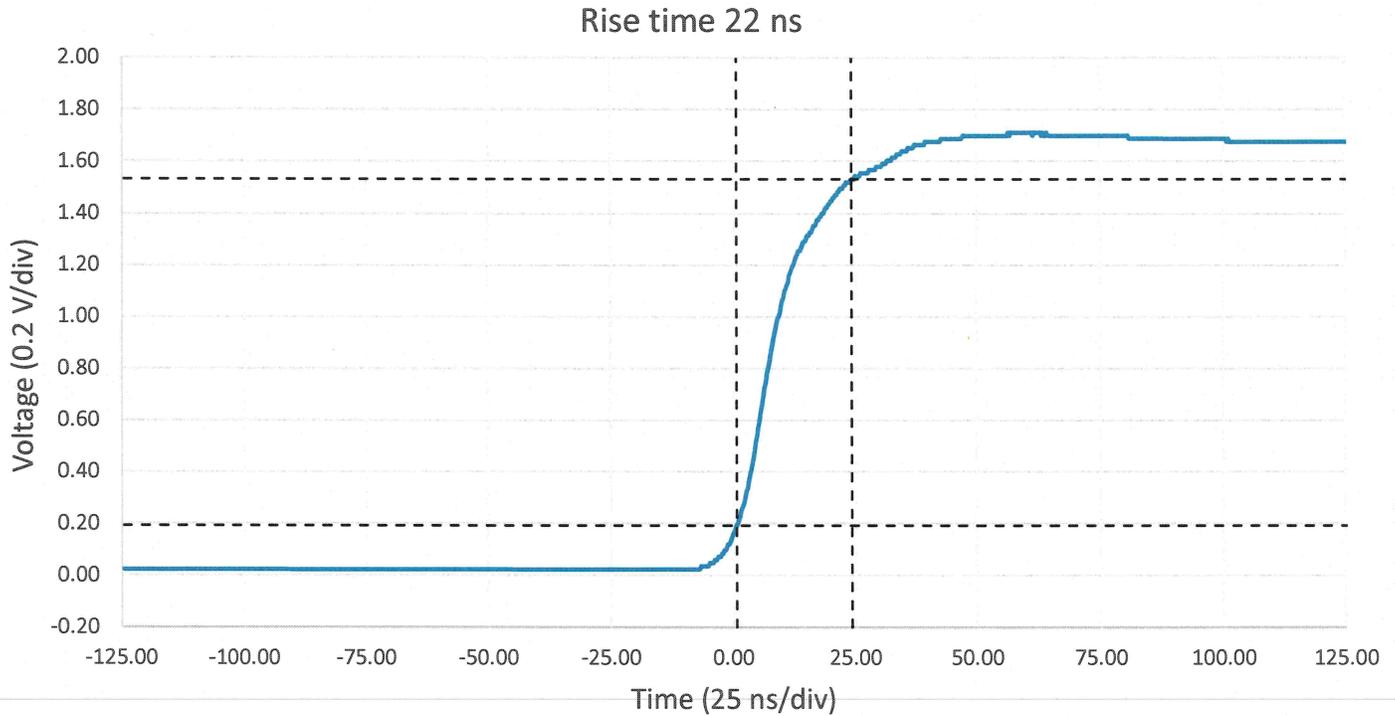
TSS @ -71.5 dBm





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PL47178/2444

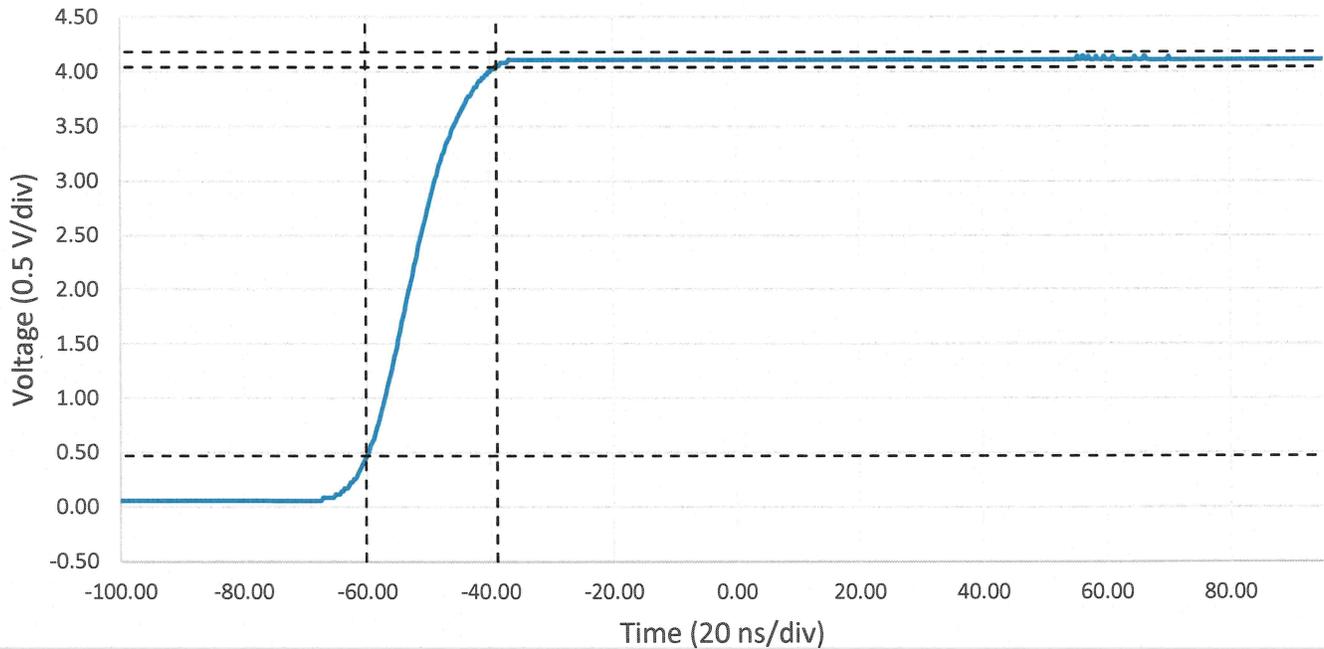




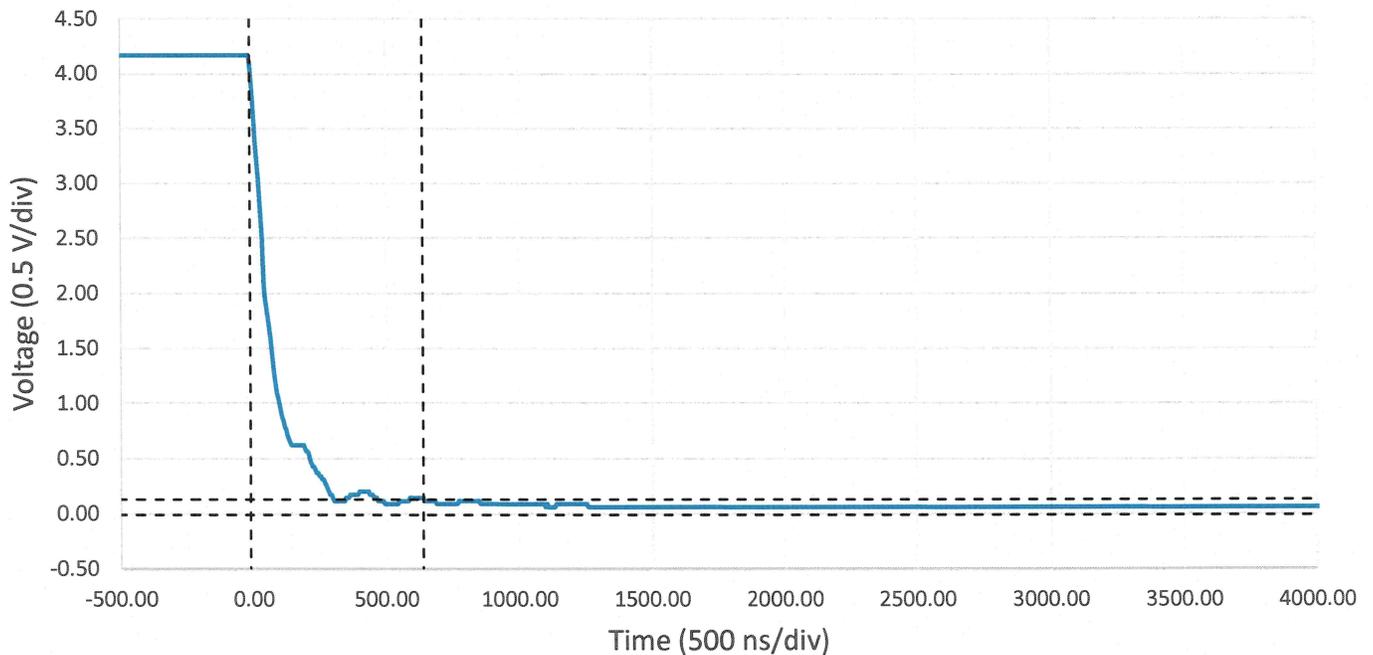
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Settle time 21.2 ns



Recovery time 650 ns

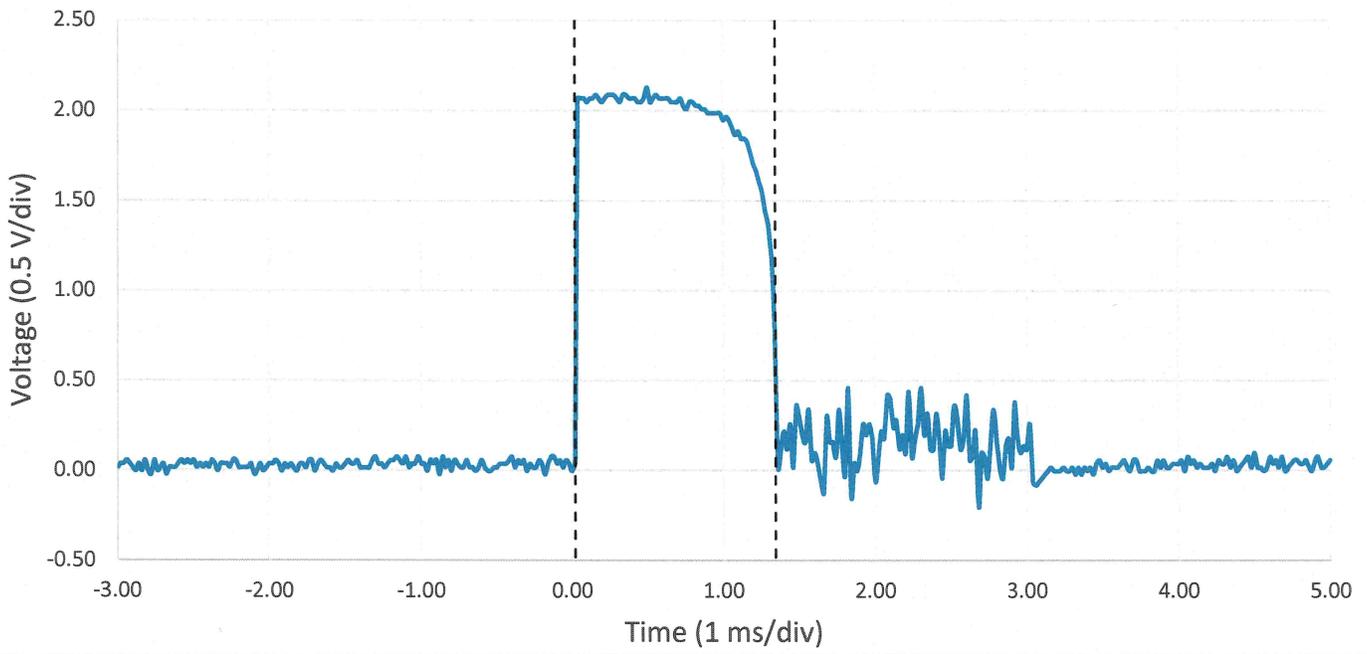




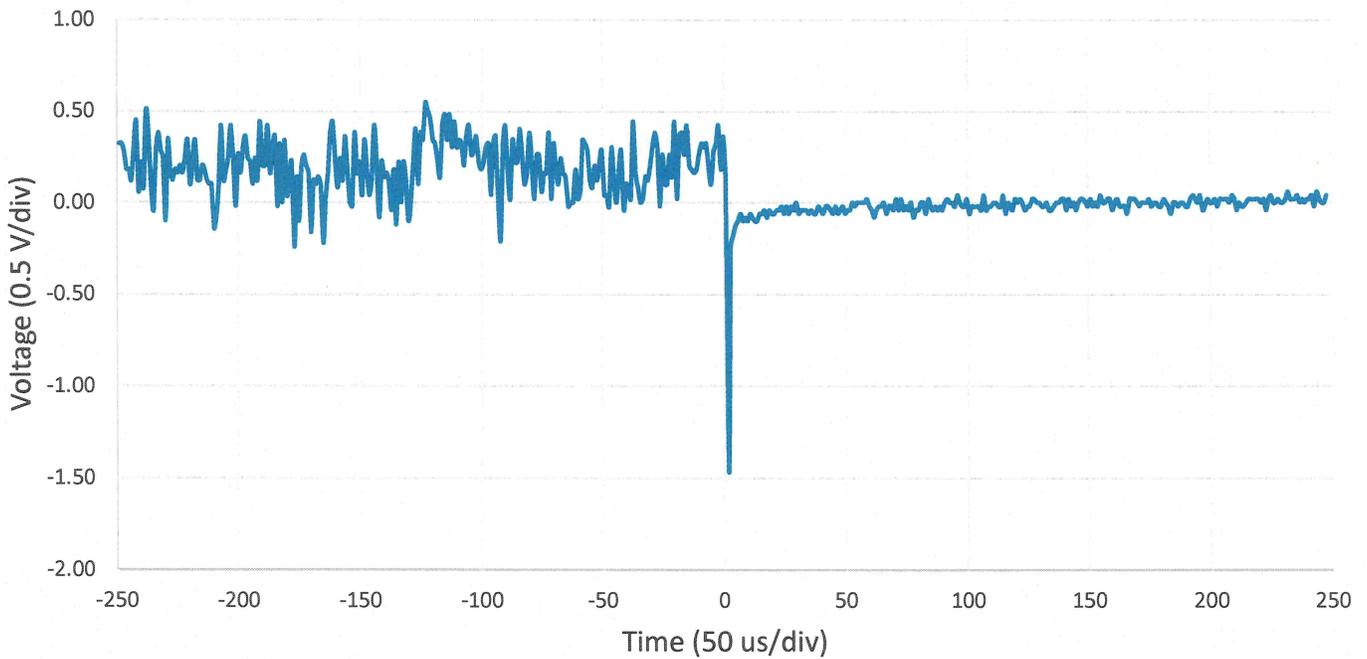
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ERDLVA-2G18G-65-70MV-70C

PL47178/2444

CW Immunity 1.32 ms



CW Recovery Plot





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

PL47178/2444

RMS Noise 21.8 mV

