SUMMARY TEST DATA
ON
SDLVA-18G40G-65-CD-292FF

PL52147/2517

Customer:		**Tested By:**	DA
SO No:		**Temperature:**	+25°C
Model No:	SDLVA-18G40G-65-CD-292FF	**Date:**	04/23/25
Serial No:	PL52147/2517	**Drawing No:**	ETD000046 REV: A2

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	18.0 to 40.0GHz	**Pass**	PMI QA3
2	TSS (See Graph #2)	-65 dBm Max.	**-71dBm**	
3	Power Handling	+10dBm Max.	**Pass**	
4	Dynamic Range:	-63dBm to +2dBm	**Pass**	
5	Log Linearity: @+25C (See Graph #1)	± 2.0 dB Max.	**+1.0dB -1.51dB**	
6	Log Slope: (See Graph #1)	25 mV/dB Nom.	**26.02mV/dB**	
7	Log Slope Variation: (See Graph #1)	±2.0 mV/dB Max.	**0.95mV/dB**	
8	Frequency Flatness: @+25C (See Graph #1)	±2.5dB Max.	**±2.10dB**	
9	Pulse Width Range:	30ns to CW	**Pass**	
10	Rise Time: (See Graph #3)	11ns Max. (8 ns Typ.)	**6.8ns**	
11	Recovery Time: (See Graph #4)	60ns Max. (40 ns Typ.)	**25.3ns**	
12	Delay Time:	60ns Max.	**<60ns by design**	
13	Input VSWR: (See Graph #5)	2.5:1 Max.	**1.88:1**	
14	Power Supply	+12V @ 500mA Max. -12V @ 200mA Max.	**+12V @ 418mA -12V @ 161mA**	

QA/QC Approval: K. Klam Date: 4-28-25

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Graph #1

Log Transfer vs Frequency @+25C

MODEL: SDLVA-18G40G-65-CD-292FF
SERIAL NO: PL52147
DATE: 04-23-25
TESTED BY: DA
Test Temp: +25°C

PLANAR MONOLITHICS INDUSTRIES
4921 Robert J. Mathews Parkway Suit 1
El Dorado Hills, CA 95762
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EMAIL: SALES@PMI-RF.COM

Frequency			-63	-58	-53	-48	-43	-38	-33	-28	-23	-18	-13	-8	-3	2	RF Input Power (dBm)		
18 GHz	INTERCEPT (mV)	1832	191	321	450	581	715	846	976	1107	1237	1375	1493	1620	1752	1879	Measured Value (mV)	Error (dB)	
	SLOPE (mV/dB)	26	-2	-2	-3	-2	2	2	2	3	3	11	-1	-4	-2	-6	Error (mV)	MAX	MIN
			-0.08	-0.08	-0.13	-0.09	0.06	0.09	0.09	0.12	0.12	0.42	-0.05	-0.17	-0.09	-0.21	LINEARITY ERROR (dB)	0.42	-0.21
23.5 GHz	INTERCEPT (mV)	1829	112	239	372	511	663	788	920	1052	1184	1343	1482	1614	1749	1883	Measured Value (mV)	Error (dB)	
	SLOPE (mV/dB)	27.4	9	-1	-5	-3	12	0	-5	-10	-15	7	9	4	2	-1	Error (mV)	MAX	MIN
			0.32	-0.05	-0.19	-0.12	0.43	-0.01	-0.19	-0.37	-0.55	0.25	0.32	0.14	0.07	-0.04	LINEARITY ERROR (dB)	0.43	-0.55
29 GHz	INTERCEPT (mV)	1810	211	346	477	605	675	797	928	1063	1199	1361	1488	1615	1748	1879	Measured Value (mV)	Error (dB)	
	SLOPE (mV/dB)	25.6	16	23	26	25	-33	-39	-36	-29	-21	13	12	10	15	18	Error (mV)	MAX	MIN
			0.62	0.89	1.00	0.99	-1.27	-1.51	-1.40	-1.13	-0.83	0.49	0.45	0.41	0.60	0.71	LINEARITY ERROR (dB)	1.00	-1.51
34.5 GHz	INTERCEPT (mV)	1792	175	308	441	575	684	810	944	1081	1218	1342	1449	1578	1712	1847	Measured Value (mV)	Error (dB)	
	SLOPE (mV/dB)	25.6	-6	0	5	11	-8	-10	-4	5	14	11	-10	-9	-3	4	Error (mV)	MAX	MIN
			-0.22	-0.02	0.18	0.42	-0.31	-0.39	-0.15	0.21	0.57	0.41	-0.40	-0.36	-0.12	0.16	LINEARITY ERROR (dB)	0.57	-0.40
40 GHz	INTERCEPT (mV)	1783	157	289	424	577	698	816	952	1087	1215	1336	1433	1561	1697	1831	Measured Value (mV)	Error (dB)	
	SLOPE (mV/dB)	25.5	-20	-15	-8	18	11	2	11	18	19	12	-18	-18	-9	-3	Error (mV)	MAX	MIN
			-0.77	-0.59	-0.30	0.70	0.45	0.08	0.41	0.71	0.73	0.48	-0.72	-0.70	-0.36	-0.11	LINEARITY ERROR (dB)	0.73	-0.77

Flatness +/- dB	1.90	2.10	2.00	1.80	1.00	1.10	1.10	1.10	1.00	0.70	1.20	1.10	1.10	1.00
Max. Video Output (V)	0.21	0.35	0.48	0.61	0.72	0.85	0.98	1.11	1.24	1.38	1.49	1.62	1.75	1.88
Min. Video Output (V)	0.11	0.24	0.37	0.51	0.66	0.79	0.92	1.05	1.18	1.34	1.43	1.56	1.70	1.83

Nominal Log Slope mV/dB	26.02
Log Slope Varaition: ± mV/dB	0.95

Video Output @ -63dBm
Min(V)= 112.0
Max(V)= 211.0

Video Output @ =+2dBm
Min(V)= 1831.0
Max(V)= 1883.0

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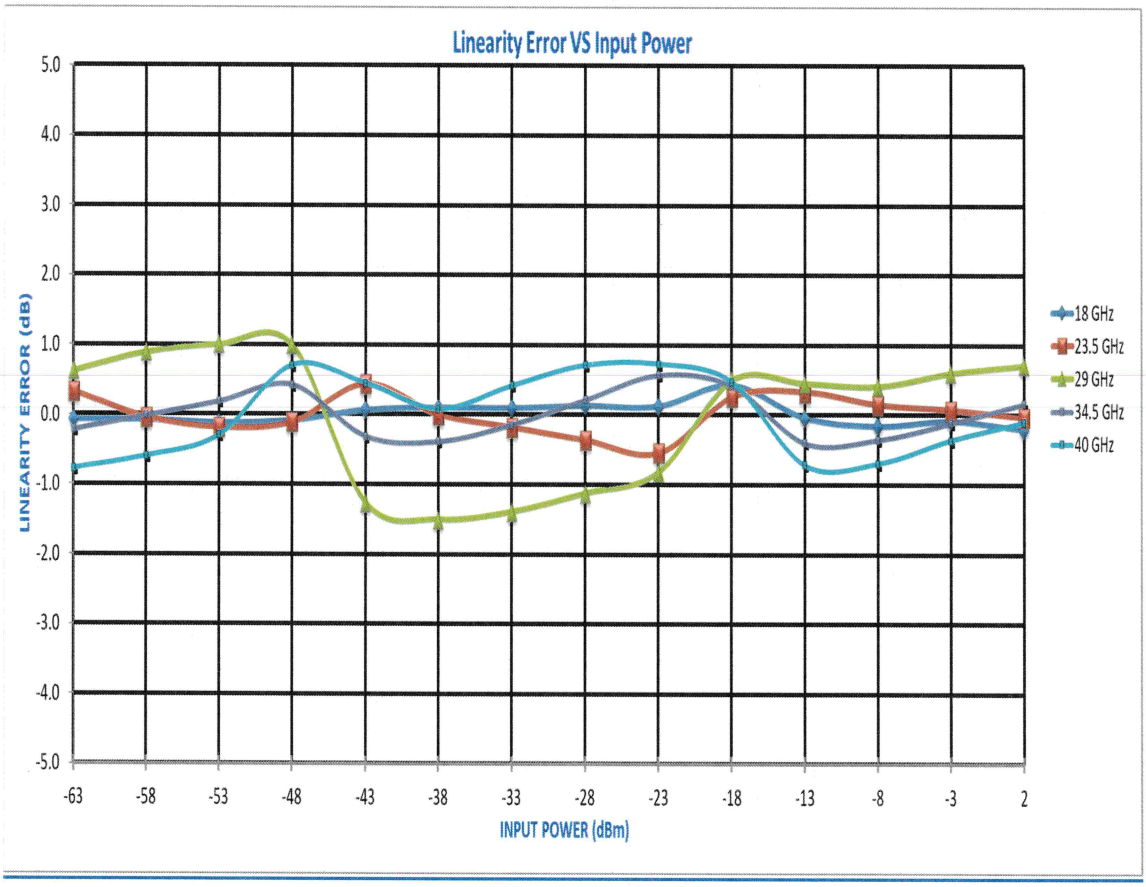
Graph #1 (cont.)

Log Transfer vs Frequency @+25C



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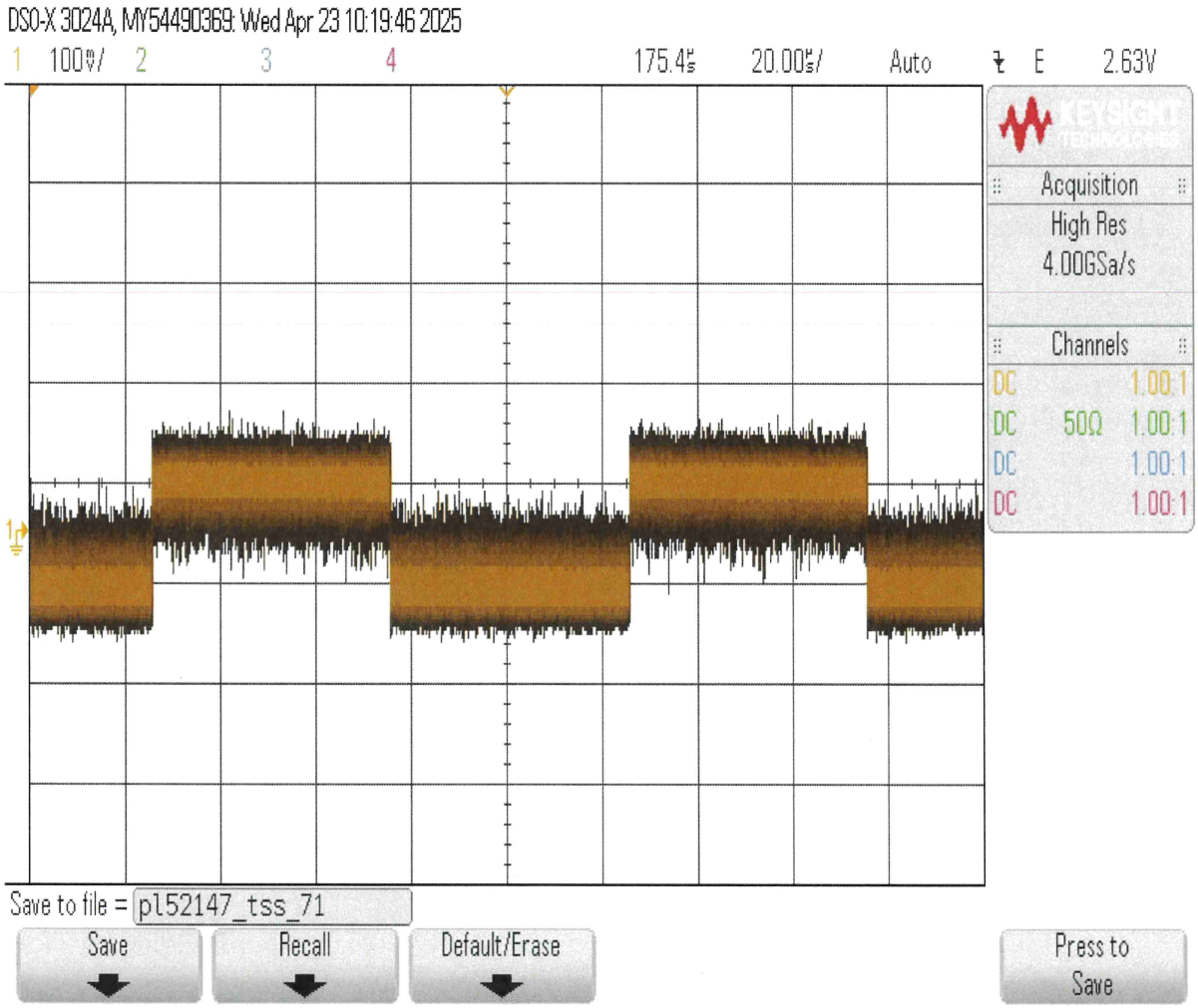
Graph #2

TSS -71dBm @+25C



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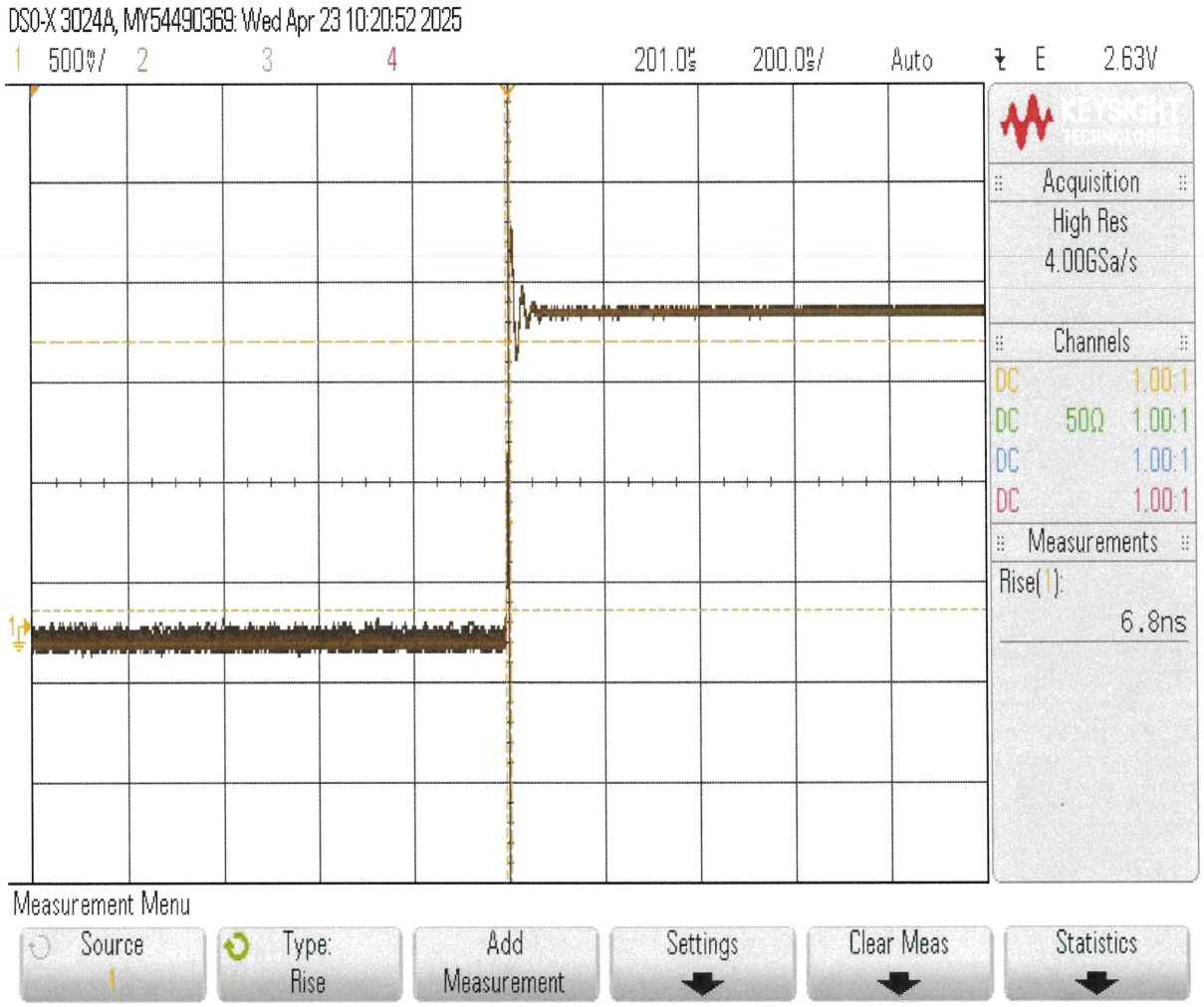
Graph #3

Rise Time 6.8nS



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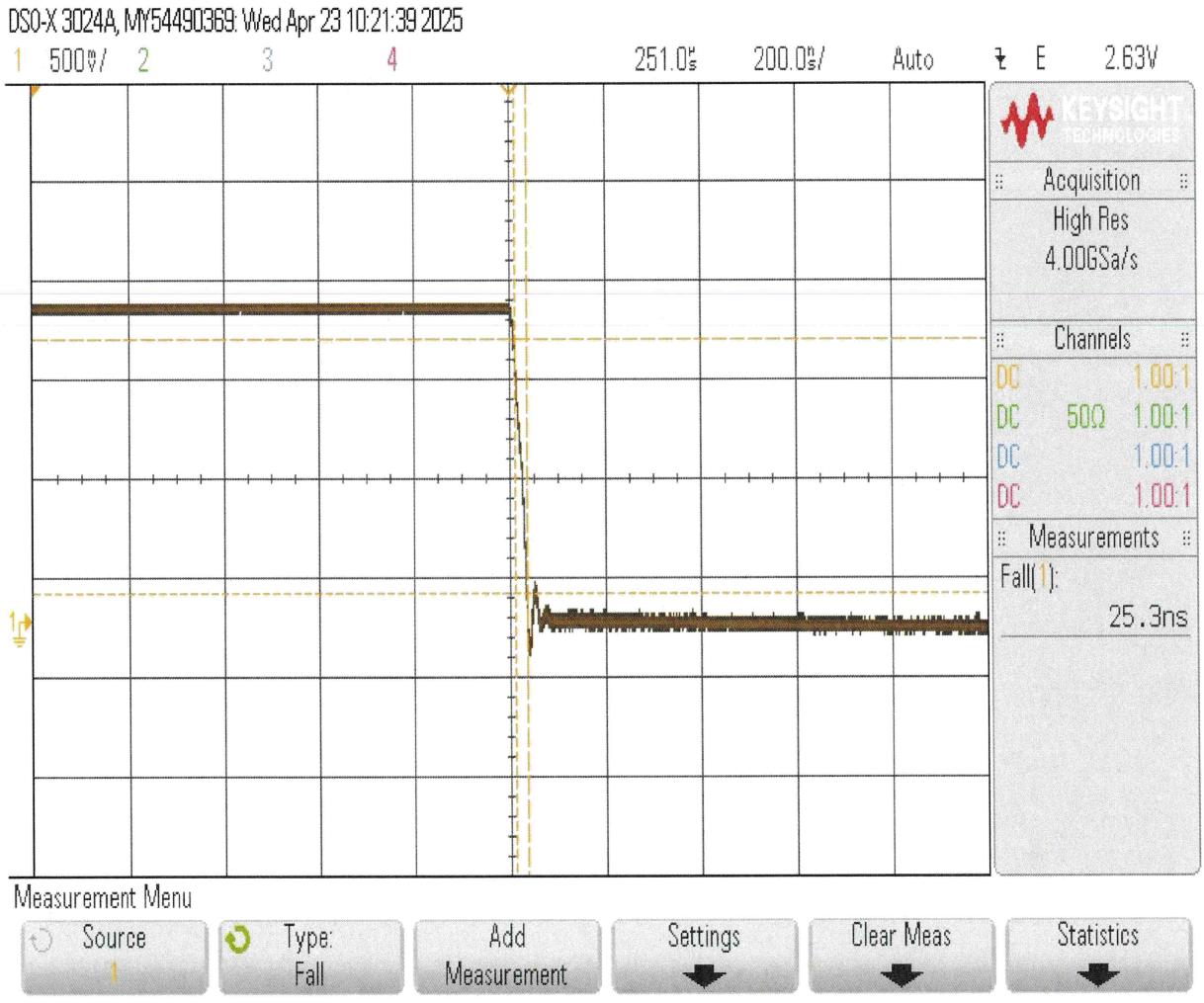
Graph #4

Recovery Time 25.3nS



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Graph #5

VSWR 1.88:1 @+25C & -20dBm

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