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

PL52144/2517

Customer:		**Tested By:**	**DA**
SO No:		**Temperature:**	**+25°C**
Model No:	**SDLVA-18G40G-65-CD-292FF**	**Date:**	**04/23/25**
Serial No:	**PL52144/2517**	**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 GAS
2	TSS (See Graph #2)	-65 dBm Max.	**-69 dBm**	
3	Power Handling	+10dBm Max.	**Pass**	
4	Dynamic Range:	-63dBm to +2dBm	**Pass**	
5	Log Linearity: @+25C (See Graph #1)	± 2.0 dB Max.	**+1.36dB -1.04dB**	
6	Log Slope: (See Graph #1)	25 mV/dB Nom.	**24.65mV/dB**	
7	Log Slope Variation: (See Graph #1)	±2.0 mV/dB Max.	**0.77mV/dB**	
8	Frequency Flatness: @+25C (See Graph #1)	±2.5dB Max.	**1.70±dB**	
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.)	**27.5ns**	
12	Delay Time:	60ns Max.	**<60ns by design**	
13	Input VSWR: (See Graph #5)	2.5:1 Max.	**1.76:1**	
14	Power Supply	+12V @ 500mA Max. -12V @ 200mA Max.	**+12V @ 418mA -12V @ 161mA**	

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

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Graph #1

Log Transfer vs Frequency @+25C

MODEL: SDLVA-18G40G-65-CD-292FF
SERIAL NO: PL52144
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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Frequency			-63	-58	-53	-48	-43	-38	-33	-28	-23	-18	-13	-8	-3	2	RF Input Power (dBm)		
18 GHz	INTERCEPT (mV)	1749	173	292	428	578	695	814	938	1066	1199	1310	1419	1541	1666	1789	Measured Value (mV)	Error (dB)	
	SLOPE (mV/dB)	24.8	-15	-20	-8	18	11	6	7	11	20	7	-8	-10	-9	-10	Error (mV)	MAX	MIN
			-0.60	-0.80	-0.31	0.74	0.46	0.26	0.26	0.43	0.79	0.27	-0.33	-0.41	-0.36	-0.40	LINEARITY ERROR (dB)	0.79	-0.80
23.5 GHz	INTERCEPT (mV)	1776	162	277	413	570	682	795	917	1042	1179	1332	1450	1574	1699	1821	Measured Value (mV)	Error (dB)	
	SLOPE (mV/dB)	25.6	2	-12	-4	25	9	-6	-13	-16	-7	18	7	3	0	-6	Error (mV)	MAX	MIN
			0.07	-0.45	-0.15	0.98	0.34	-0.25	-0.49	-0.62	-0.28	0.69	0.29	0.12	0.00	-0.25	LINEARITY ERROR (dB)	0.98	-0.62
29 GHz	INTERCEPT (mV)	1724	190	308	443	589	688	805	930	1055	1181	1289	1400	1522	1648	1771	Measured Value (mV)	Error (dB)	
	SLOPE (mV/dB)	24.1	-12	-15	-1	25	3	-1	3	8	13	0	-10	-8	-3	-1	Error (mV)	MAX	MIN
			-0.51	-0.62	-0.03	1.02	0.12	-0.04	0.14	0.31	0.53	0.00	-0.40	-0.35	-0.13	-0.04	LINEARITY ERROR (dB)	1.02	-0.62
34.5 GHz	INTERCEPT (mV)	1686	174	288	421	558	638	745	870	1000	1132	1258	1365	1492	1621	1751	Measured Value (mV)	Error (dB)	
	SLOPE (mV/dB)	24.1	7	0	12	29	-12	-25	-21	-11	0	6	-8	-1	7	17	Error (mV)	MAX	MIN
			0.27	0.00	0.52	1.20	-0.48	-1.04	-0.86	-0.46	0.01	0.24	-0.32	-0.06	0.30	0.69	LINEARITY ERROR (dB)	1.20	-1.04
40 GHz	INTERCEPT (mV)	1751	189	303	443	606	708	820	947	1075	1207	1300	1414	1541	1673	1803	Measured Value (mV)	Error (dB)	
	SLOPE (mV/dB)	24.5	-15	-24	-7	33	13	2	6	12	21	-9	-18	-13	-4	3	Error (mV)	MAX	MIN
			-0.63	-0.98	-0.28	1.36	0.52	0.08	0.26	0.47	0.85	-0.36	-0.72	-0.54	-0.16	0.13	LINEARITY ERROR (dB)	1.36	-0.98

Flatness +/- dB	0.60	0.60	0.60	1.00	1.40	1.50	1.60	1.50	1.50	1.50	1.70	1.70	1.60	1.40	
Max. Video Output (V)	0.19	0.31	0.44	0.61	0.71	0.82	0.95	1.08	1.21	1.33	1.45	1.57	1.70	1.82	
Min. Video Output (V)	0.16	0.28	0.41	0.56	0.64	0.75	0.87	1.00	1.13	1.26	1.37	1.49	1.62	1.75	

Nominal Log Slope mV/dB	24.65
Log Slope Varaition: ± mV/dB	0.77

Video Output @ -63dBm
Min(V)= 162.0
Max(V)= 190.0

Video Output @ =+2dBm
Min(V)= 1751.0
Max(V)= 1821.0

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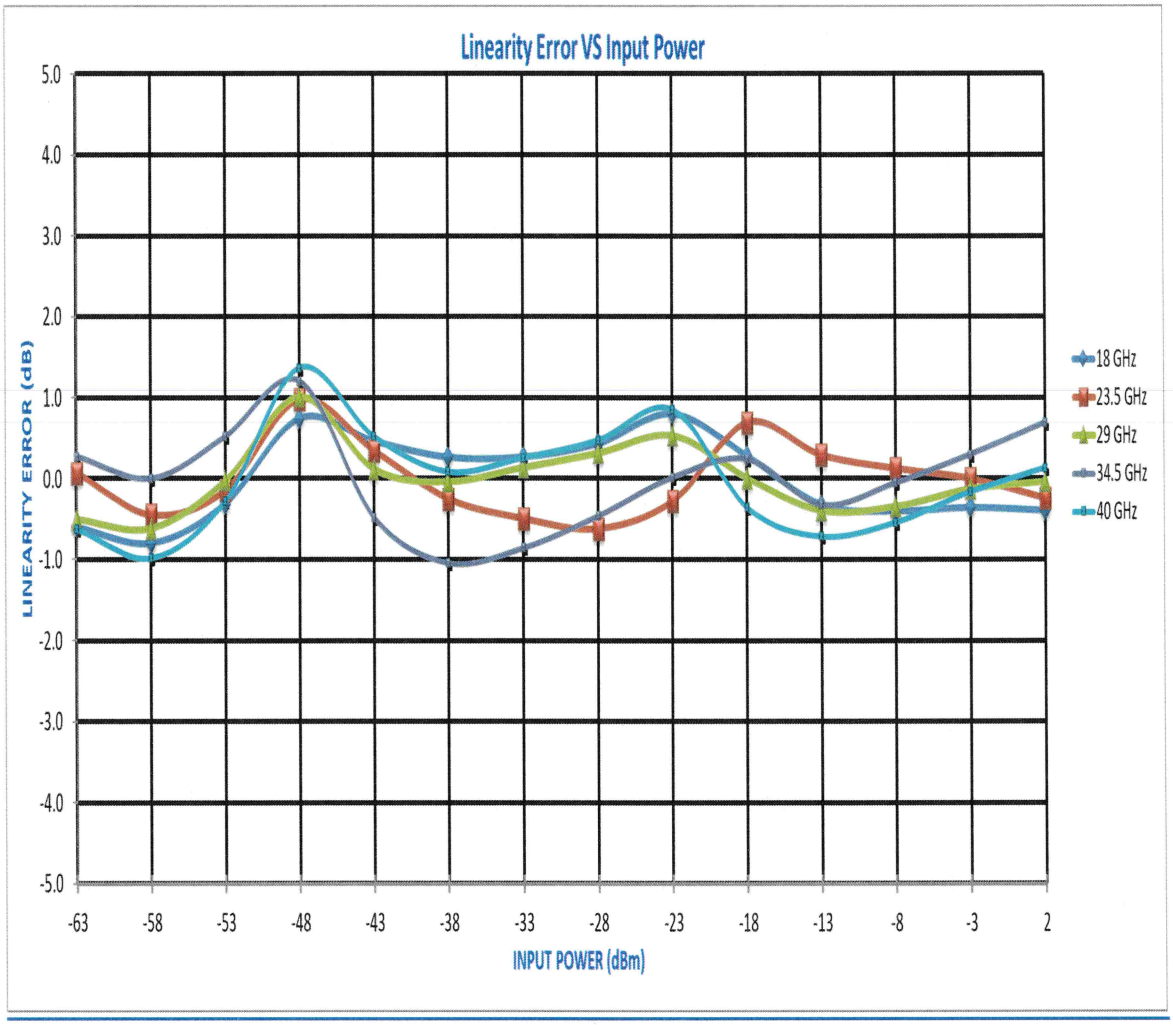
Graph #1 (cont.)

Log Transfer vs Frequency @+25C



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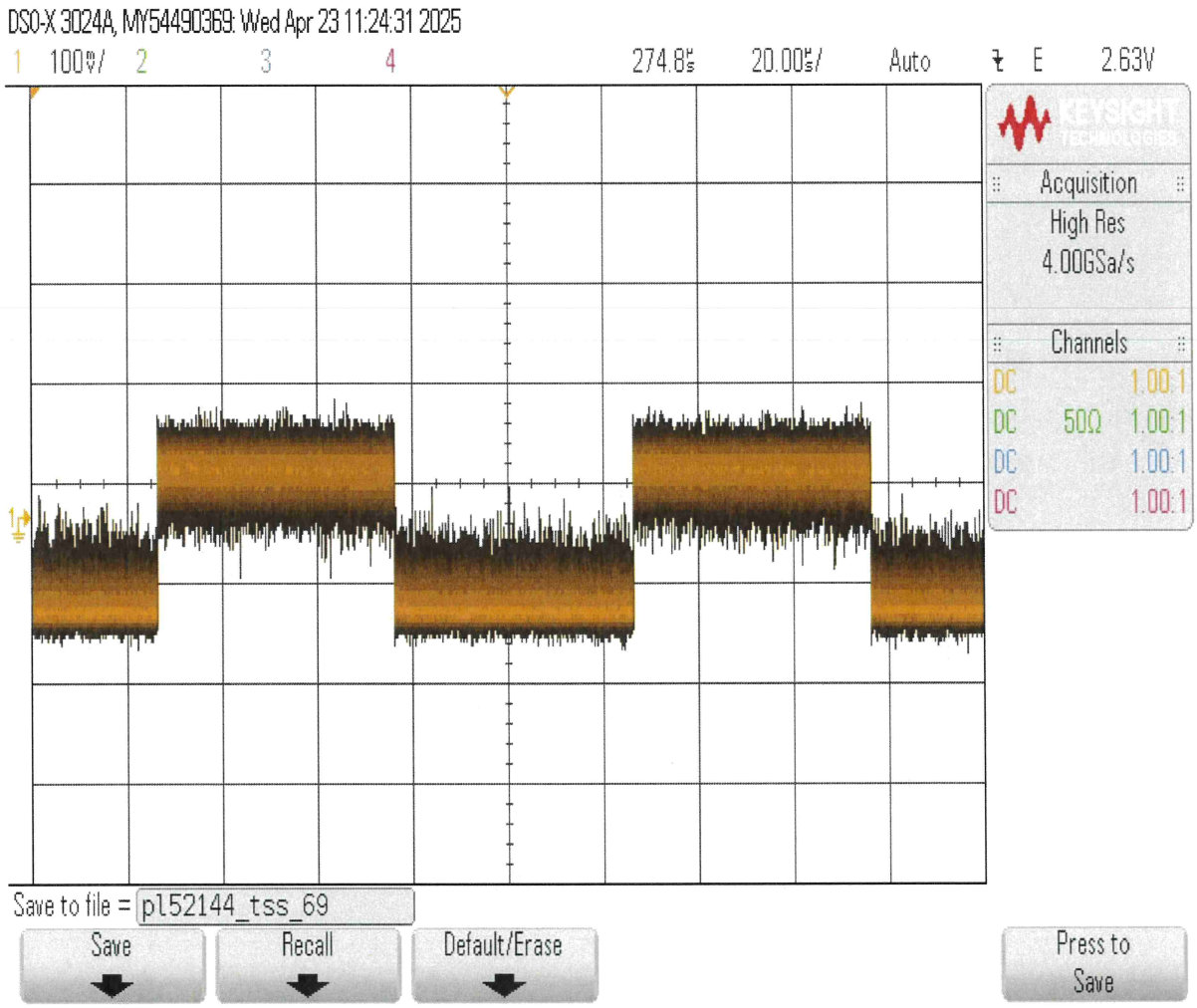
Graph #2

TSS- 69dBm @+25C



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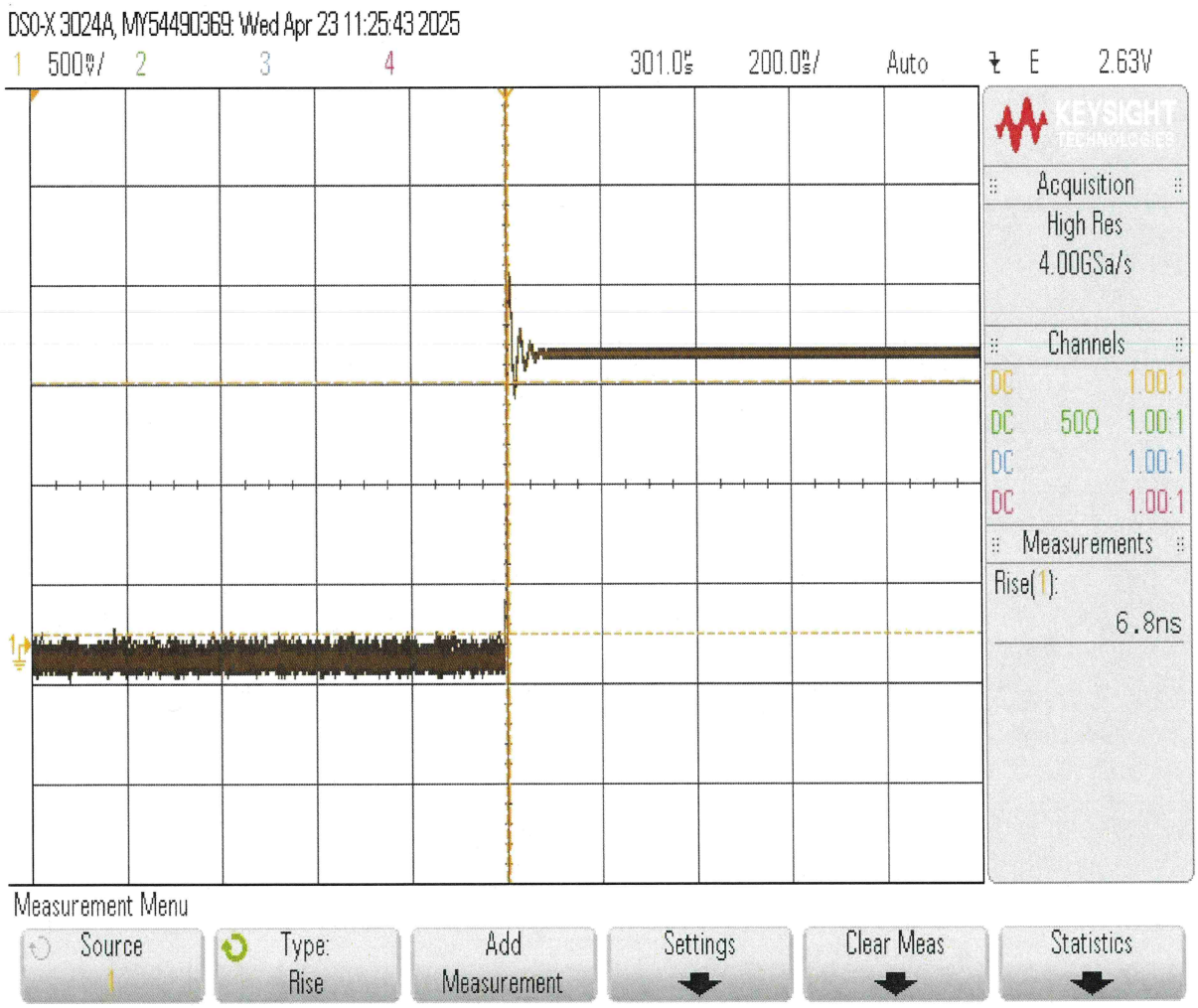
Graph #3

Rise Time 6.8nS



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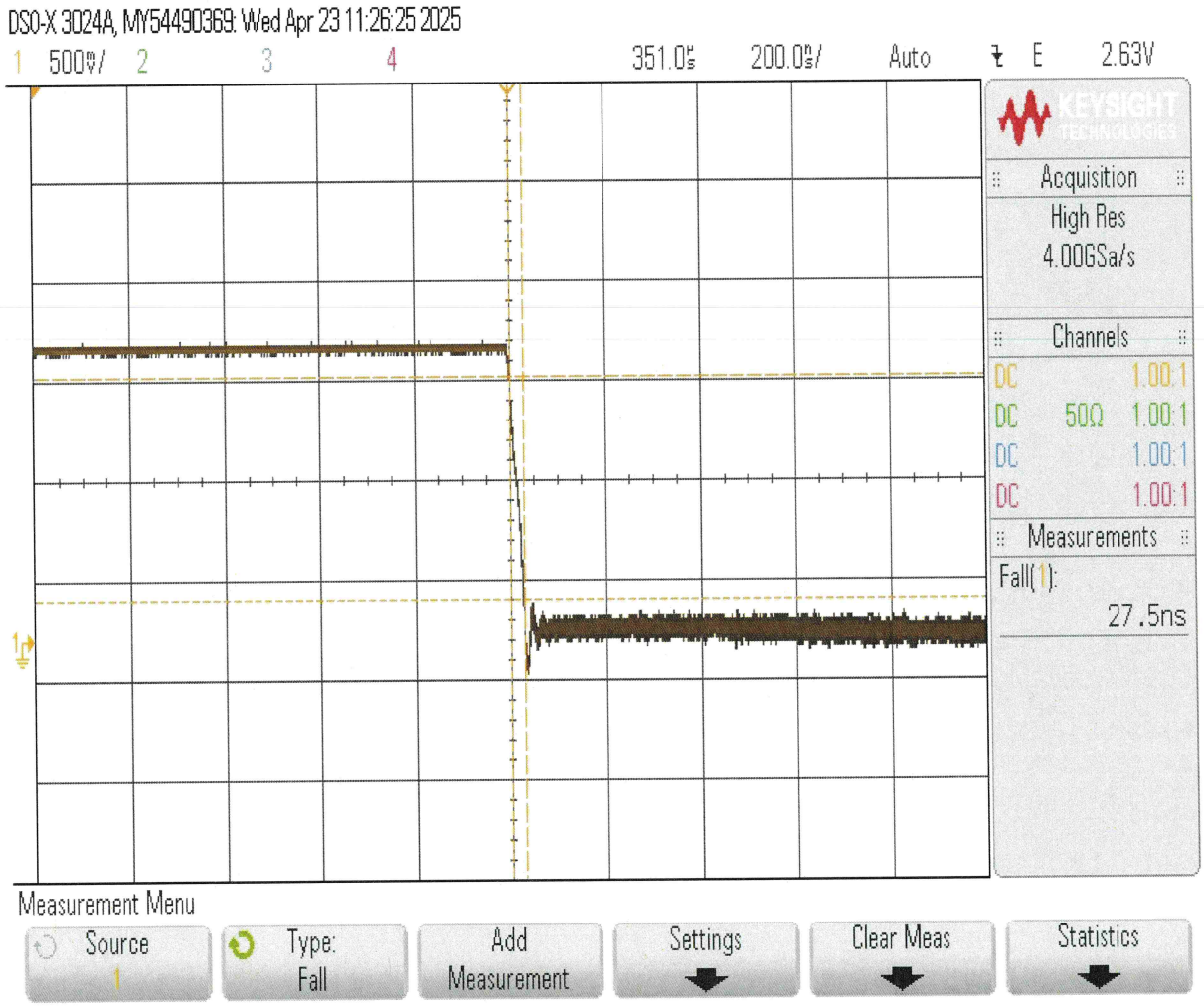
Graph #4

Recovery Time 27.5nS



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Graph #5

VSWR 1.76:1 @+25C & -20dBm

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