



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

PL52146/2517

Customer: _____	Tested By: <u>DA</u>
SO No: _____	Temperature: <u>+25°C</u>
Model No: <u>SDLVA-18G40G-65-CD-292FF</u>	Date: <u>04/23/25</u>
Serial No: <u>PL52146/2517</u>	Drawing No: <u>ETD000046</u> REV: <u>A2</u>

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA
1	Frequency Range:	18.0 to 40.0GHz	Pass	QA <i>[Signature]</i> [Initials]
2	TSS (See Graph #2)	-65 dBm Max.	-67dBm	
3	Power Handling	+10dBm Max.	Pass	
4	Dynamic Range:	-63dBm to +2dBm	Pass	
5	Log Linearity: @+25C (See Graph #1)	± 2.0 dB Max.	+1.19dB -1.45dB	
6	Log Slope: (See Graph #1)	25 mV/dB Nom.	24.82mV/dB	
7	Log Slope Variation: (See Graph #1)	±2.0 mV/dB Max.	0.72mV/dB	
8	Frequency Flatness: @+25C (See Graph #1)	±2.5dB Max.	±1.90dB	
9	Pulse Width Range:	30ns to CW	Pass	
10	Rise Time: (See Graph #3)	11ns Max. (8 ns Typ.)	6.5ns	
11	Recovery Time: (See Graph #4)	60ns Max. (40 ns Typ.)	28.8ns	
12	Delay Time:	60ns Max.	<60ns by design	
13	Input VSWR: (See Graph #5)	2.5:1 Max.	2.22:1	
14	Power Supply	+12V @ 500mA Max. -12V @ 200mA Max.	+12V @ 419mA -12V @ 159mA	

QA/QC Approval: *[Signature]* Date: 4-28-25



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Graph #1

Log Transfer vs Frequency @+25C

<p>MODEL: SDLVA-18G40G-65-CD-292FF SERIAL NO: PL52146 DATE: 04-23-25 TESTED BY: DA Test Temp: +25°C</p>		<p>PLANAR MONOLITHICS INDUSTRIES 4921 Robert J. Mathews Parkway Suite 1 El Dorado Hills, CA 95762 TEL: 916-542-1401 FAX: 916-265-2597 EMAIL: SALES@PMI-RF.COM</p>			
Frequency		-63 -58 -53 -48 -43 -38 -33 -28 -23 -18 -13 -8 -3 2	RF Input Power (dBm)		
18 GHz	INTERCEPT (mV)	1709	SLOPE (mV/dB)	25.7	
	Measured Value (mV)	83	200	324	460
	Error (mV)	-9	-20	-25	-17
	LINEARITY ERROR (dB)	-0.36	-0.80	-0.96	-0.67
		1.19	1.14	0.97	0.81
		0.76	-0.31	-0.48	-0.41
		-0.38	-0.51		
	Measured Value (mV)	1239	1363	1493	1622
	Error (mV)	-8	-12	-11	-10
	LINEARITY ERROR (dB)	-0.31	-0.48	-0.41	-0.38
		-0.51			
	Measured Value (mV)	1747			
	Error (mV)	-13			
	LINEARITY ERROR (dB)	-0.13			
	Measured Value (mV)	1747			
	Error (mV)	-13			
	LINEARITY ERROR (dB)	-0.13			
23.5 GHz	INTERCEPT (mV)	1694	SLOPE (mV/dB)	24.7	
	Measured Value (mV)	124	246	373	515
	Error (mV)	-13	-15	-12	7
	LINEARITY ERROR (dB)	-0.54	-0.61	-0.47	0.28
		0.58	0.48	0.58	0.68
		0.86	-0.50	-0.68	-0.34
		-0.16	-0.18		
	Measured Value (mV)	1019	1147	1237	1356
	Error (mV)	21	19	-8	-12
	LINEARITY ERROR (dB)	0.81	0.76	-0.31	-0.48
		0.86	-0.50	-0.68	-0.34
	Measured Value (mV)	1488	1616	1739	
	Error (mV)	-8	-4	-4	
	LINEARITY ERROR (dB)	-0.34	-0.16	-0.18	
	Measured Value (mV)	1739			
	Error (mV)	-4	-4		
	LINEARITY ERROR (dB)	-0.16	-0.18		
29 GHz	INTERCEPT (mV)	1640	SLOPE (mV/dB)	24.2	
	Measured Value (mV)	119	243	368	494
	Error (mV)	5	8	12	17
	LINEARITY ERROR (dB)	0.21	0.33	0.49	0.69
		-0.47	-0.34	-0.68	-0.39
		-0.15	0.05	-0.28	0.00
		0.37	0.66		
	Measured Value (mV)	699	824	952	1079
	Error (mV)	8	10	8	1
	LINEARITY ERROR (dB)	0.39	-0.15	0.05	-0.28
		0.00	0.37	0.66	
	Measured Value (mV)	1205	1318	1446	1576
	Error (mV)	-1	-7	6	9
	LINEARITY ERROR (dB)	-0.05	-0.28	0.00	0.37
		0.66			
	Measured Value (mV)	1704			
	Error (mV)	15			
	LINEARITY ERROR (dB)	0.15			
34.5 GHz	INTERCEPT (mV)	1616	SLOPE (mV/dB)	24.6	
	Measured Value (mV)	70	186	311	432
	Error (mV)	6	-1	0	-2
	LINEARITY ERROR (dB)	0.24	-0.05	0.02	-0.07
		-0.08	-0.37	-0.25	0.11
		0.51	0.86	-0.56	-0.33
		-0.05	0.23		
	Measured Value (mV)	929	1062	1189	1282
	Error (mV)	3	12	16	-14
	LINEARITY ERROR (dB)	0.11	0.51	0.86	-0.56
		0.23			
	Measured Value (mV)	1411	1541	1671	
	Error (mV)	-8	-1	6	
	LINEARITY ERROR (dB)	-0.33	-0.05	0.23	
	Measured Value (mV)	1671			
	Error (mV)	6			
	LINEARITY ERROR (dB)	0.23			
40 GHz	INTERCEPT (mV)	1683	SLOPE (mV/dB)	24.9	
	Measured Value (mV)	131	255	381	515
	Error (mV)	14	14	16	26
	LINEARITY ERROR (dB)	0.58	0.57	0.64	1.03
		-0.67	-1.45	-1.22	-0.79
		-0.44	0.03	0.06	0.29
		0.60	0.79		
	Measured Value (mV)	832	967	1100	1236
	Error (mV)	-30	-20	-11	1
	LINEARITY ERROR (dB)	-0.79	-0.44	0.03	0.06
		0.29	0.60	0.79	
	Measured Value (mV)	1361	1491	1623	1752
	Error (mV)	1	7	15	20
	LINEARITY ERROR (dB)	0.06	0.29	0.60	0.79
	Measured Value (mV)	1752			
	Error (mV)	20			
	LINEARITY ERROR (dB)	0.79			
	Flatness +/- dB	1.20	1.40	1.40	1.70
	Max. Video Output (V)	0.13	0.26	0.38	0.52
	Min. Video Output (V)	0.07	0.19	0.31	0.43
	Nominal Log Slope mV/dB	24.82			
	Log Slope Variation: ± mV/dB	0.72			
	Video Output @ -63dBm	Min(V)= 70.0		Video Output @ +2dBm	
		Max(V)= 131.0		Min(V)= 1671.0	
				Max(V)= 1752.0	

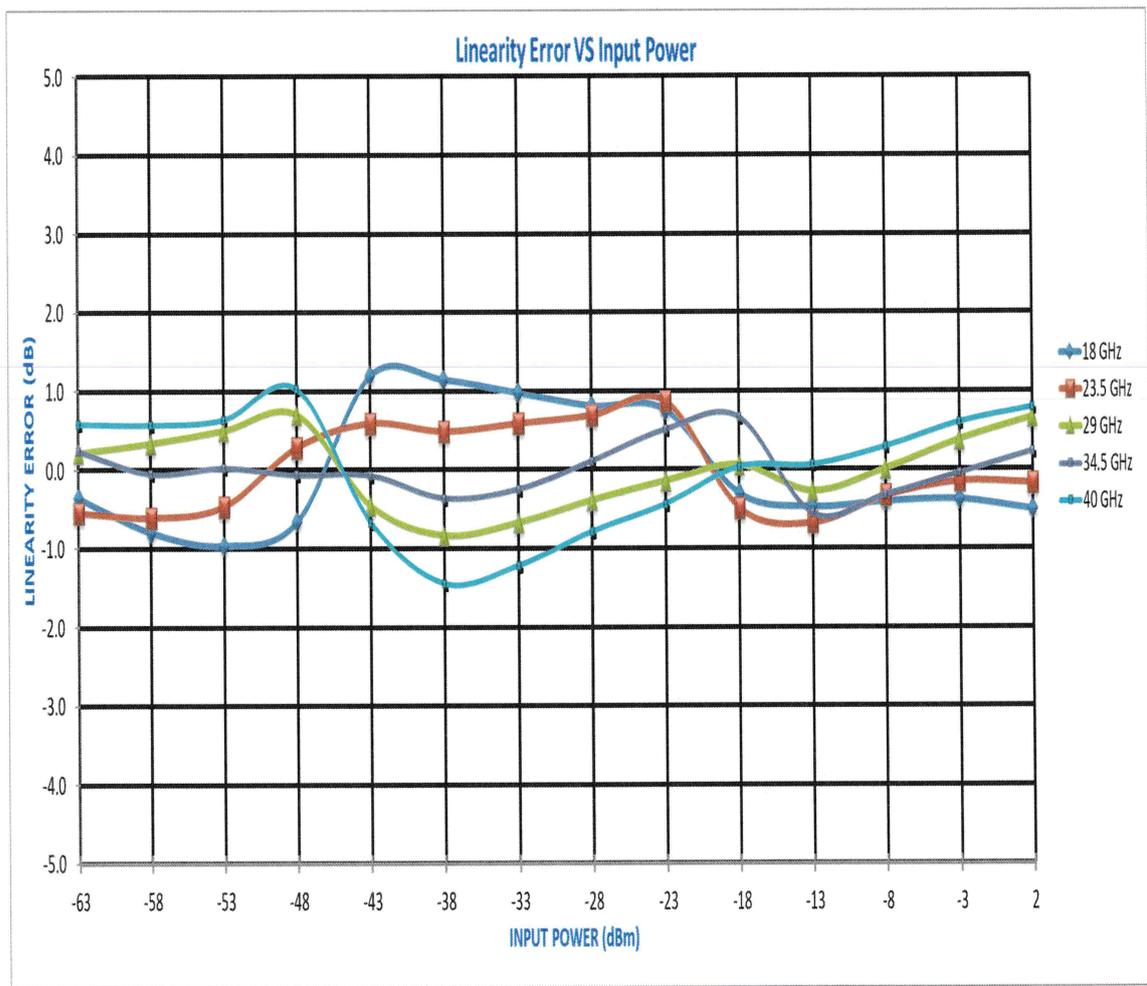


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Graph #1 (cont.)

Log Transfer vs Frequency @+25C





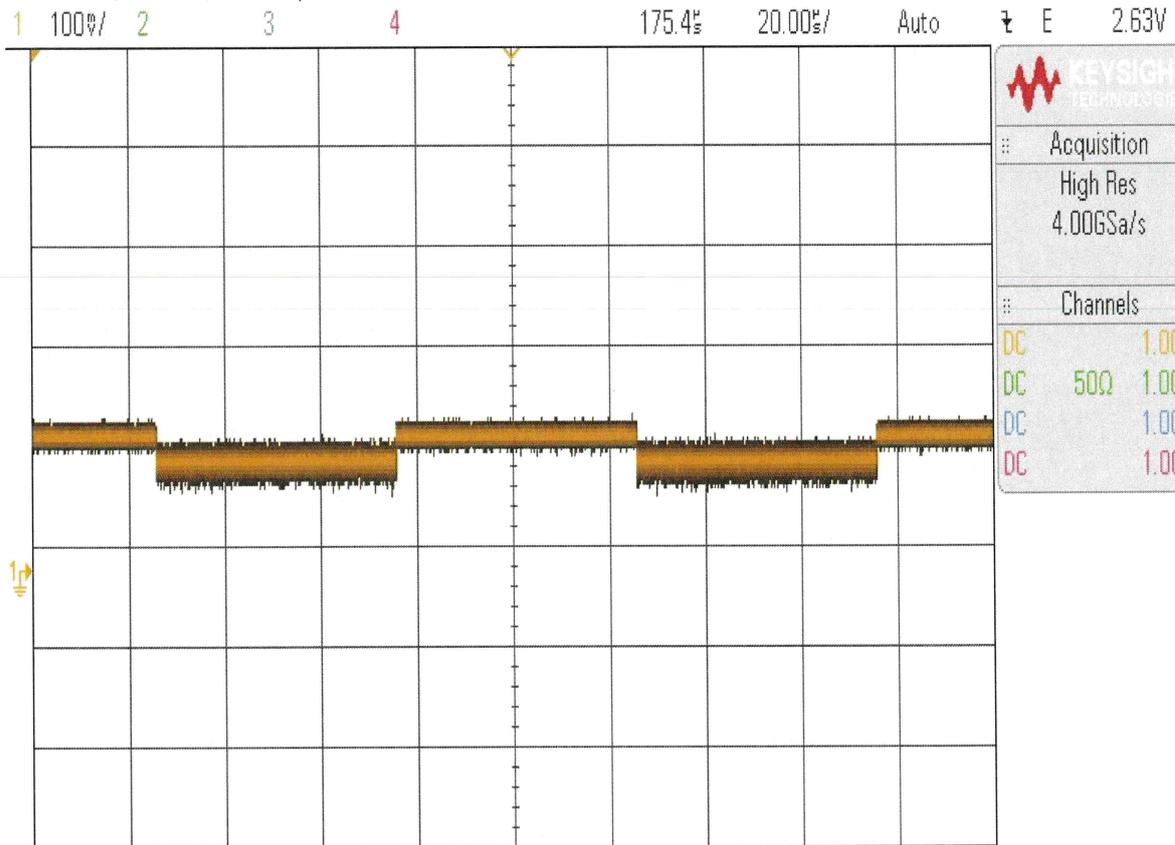
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Graph #2

TSS -67dBm @+25C

DSO-X 3024A, MY54490369: Wed Apr 23 10:17:32 2025



Measurement Menu

Source | Type: Rise | Add Measurement | Settings | Clear Meas | Statistics



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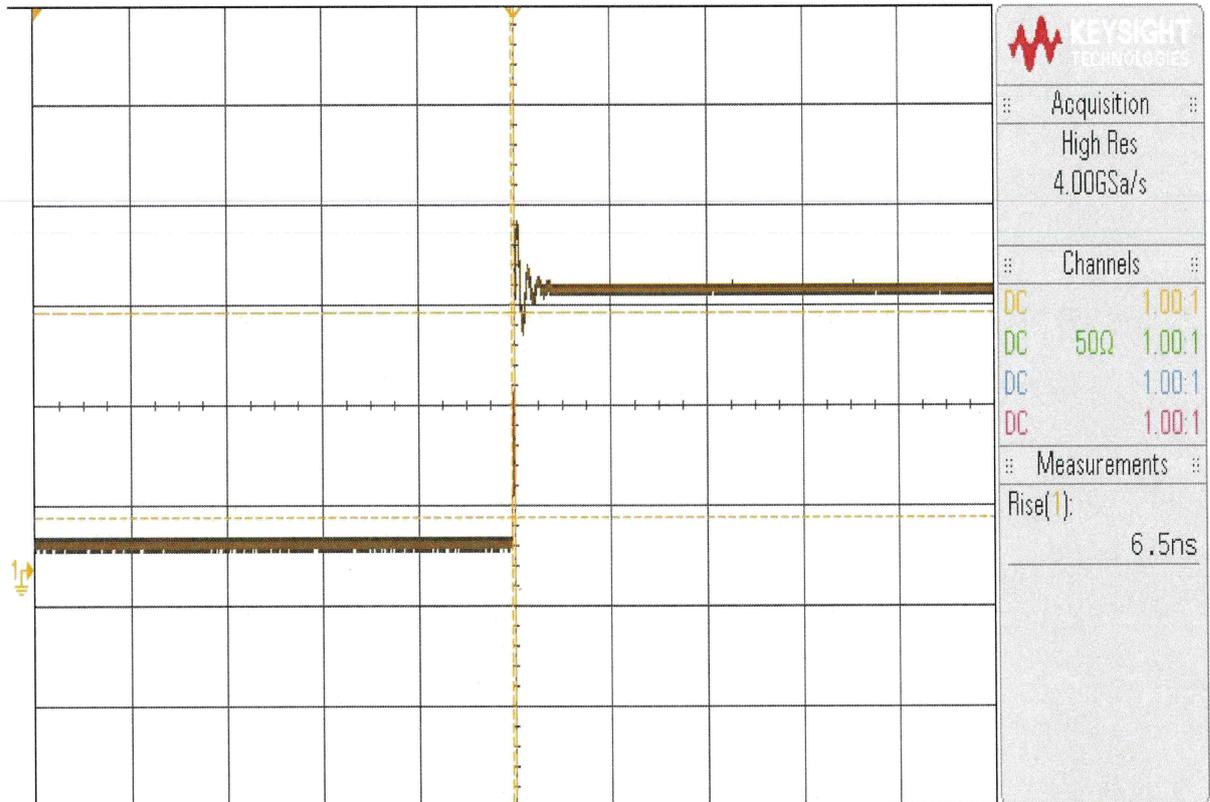
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Graph #3

Rise Time 6.5nS

DSO-X 3024A, MY54490369: Wed Apr 23 10:16:13 2025

1 500mV/ 2 3 4 101.0% 200.0mV/ Auto E 2.63V



Measurement Menu

Source 1 Type: Rise Add Measurement Settings Clear Meas Statistics



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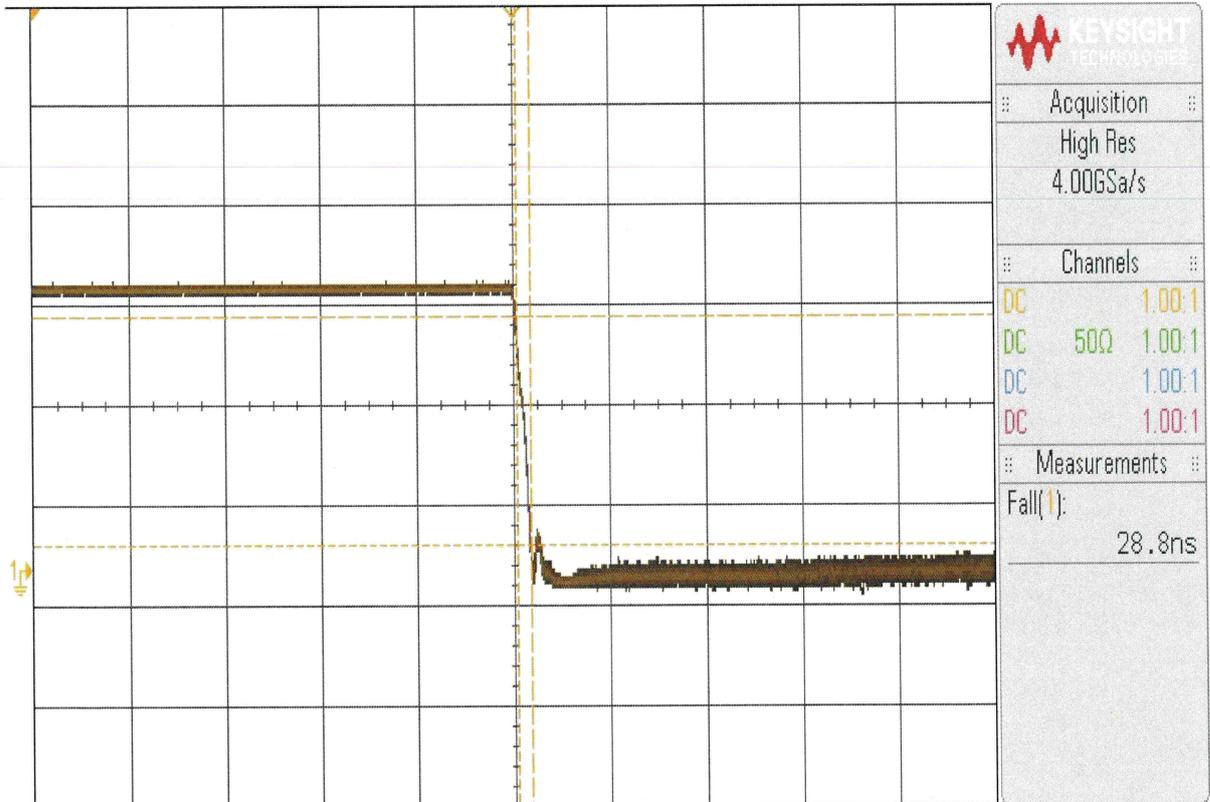
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Graph #4

Recovery Time 28.8nS

DSO-X 3024A, MY54490369, Wed Apr 23 10:15:15 2025

1 500V/ 2 3 4 151.0% 200.0V/ Auto E 2.63V



Save to file = pl52146_fall

Save

Recall

Default/Erace

Press to Save



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Graph #5

VSWR 2.22:1 @+25C & -20dBm

