



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

PL50945/2504

Customer: _____	Tested By: <u>DA</u>
SO No: _____	Temperature: <u>+25°C</u>
Model No: <u>SDLVA-18G40G-65-CD-292FF</u>	Date: <u>01/22/25</u>
Serial No: <u>PL50945/2504</u>	Drawing No: <u>ETD000046</u> REV: <u>A2</u>

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC <i>PMI</i> <i>QAS</i>
1	Frequency Range:	18.0 to 40.0GHz	Pass	<div style="text-align: right; font-size: small;">PMI QAS</div> <hr style="border: 0.5px solid black;"/>
2	TSS (See Graph #2)	-65 dBm Max.	-67 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.	+1.40 dB -1.03 dB	
6	Log Slope: (See Graph #1)	25 mV/dB Nom.	24.73mV/dB	
7	Log Slope Variation: (See Graph #1)	±2.0 mV/dB Max.	1.03mV/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.)	7.8ns	
11	Recovery Time: (See Graph #4)	60ns Max. (40 ns Typ.)	18.8ns	
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 @ 381mA -12V @ 157mA	

QA/QC Approval: *K. Klammer* Date: 1-28-25



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Graph #1

Log Transfer vs Frequency @+25C

MODEL: SDLVA-18G40G-65-CD-292FF SERIAL NO: PL50945 DATE: 01-22-25 TESTED BY: DA Test Temp: +25°C		 PLANAR MONOLITHICS INDUSTRIES 4921 Robert J. Mathews Parkway Suit 1 El Dorado Hills, CA 95762 TEL: 916-542-1401 FAX: 916-265-2597 EMAIL: SALES@PMI-RF.COM																	
		RF Input Power (dBm)																	
Frequency		-63	-58	-53	-48	-43	-38	-33	-28	-23	-18	-13	-8	-3	2	Measured Value (mV)		Error (dB)	
18 GHz	INTERCEPT (mV)	140	249	370	501	669	794	919	1041	1161	1283	1393	1516	1643	1768	Error (mV)		MAX	MIN
	SLOPE (mV/dB)	-1	-18	-23	-18	24	23	22	17	11	7	-9	-12	-11	-12	LINEARITY ERROR (dB)		0.94	-0.92
		-0.05	-0.72	-0.92	-0.73	0.94	0.90	0.85	0.69	0.45	0.29	-0.34	-0.46	-0.43	-0.47				
23.5 GHz	INTERCEPT (mV)	168	285	409	546	660	780	907	1033	1161	1303	1416	1540	1669	1795	Error (mV)		MAX	MIN
	SLOPE (mV/dB)	8	-1	-3	9	-3	-8	-7	-6	-4	13	0	-2	2	2	LINEARITY ERROR (dB)		0.50	-0.33
		0.30	-0.04	-0.10	0.35	-0.11	-0.33	-0.27	-0.25	-0.16	0.50	0.00	-0.06	0.07	0.09				
29 GHz	INTERCEPT (mV)	122	230	351	477	615	732	860	990	1120	1272	1394	1516	1645	1772	Error (mV)		MAX	MIN
	SLOPE (mV/dB)	22	2	-3	-6	1	-11	-11	-15	-8	15	9	2	2	1	LINEARITY ERROR (dB)		0.87	-0.43
		0.87	0.07	-0.23	-0.33	0.04	-0.41	-0.43	-0.38	-0.32	0.59	0.33	0.08	0.10	0.03				
34.5 GHz	INTERCEPT (mV)	176	298	424	550	659	782	911	1041	1169	1257	1348	1472	1600	1730	Error (mV)		MAX	MIN
	SLOPE (mV/dB)	-13	-10	-2	6	-4	1	12	23	33	3	-24	-19	-9	3	LINEARITY ERROR (dB)		1.40	-1.03
		-0.57	-0.41	-0.09	0.24	-0.15	0.05	0.50	0.99	1.40	0.12	-1.03	-0.79	-0.38	0.12				
40 GHz	INTERCEPT (mV)	169	290	418	562	645	751	876	1005	1131	1259	1359	1485	1613	1742	Error (mV)		MAX	MIN
	SLOPE (mV/dB)	-2	-1	7	31	-6	-20	-14	-5	1	9	-11	-5	4	13	LINEARITY ERROR (dB)		1.30	-0.82
		-0.10	-0.05	0.29	1.30	-0.24	-0.82	-0.60	-0.22	0.04	0.38	-0.45	-0.19	0.15	0.53				
Flatness +/- dB		1.10	1.40	1.50	1.70	1.10	1.30	1.20	1.00	1.00	0.90	1.40	1.40	1.40	1.30				
Max. Video Output (V)		0.18	0.30	0.42	0.56	0.67	0.79	0.92	1.04	1.17	1.30	1.42	1.54	1.67	1.80				
Min. Video Output (V)		0.12	0.23	0.35	0.48	0.62	0.73	0.86	0.99	1.12	1.26	1.35	1.47	1.60	1.73				
Nominal Log Slope mV/dB	24.73																		
Log Slope Variation: ± mV/dB	1.03																		
																Video Output @ -63dBm		Video Output @ +2dBm	
																Min(V)= 122.0		Min(V)= 1730.0	
																Max(V)= 176.0		Max(V)= 1795.0	

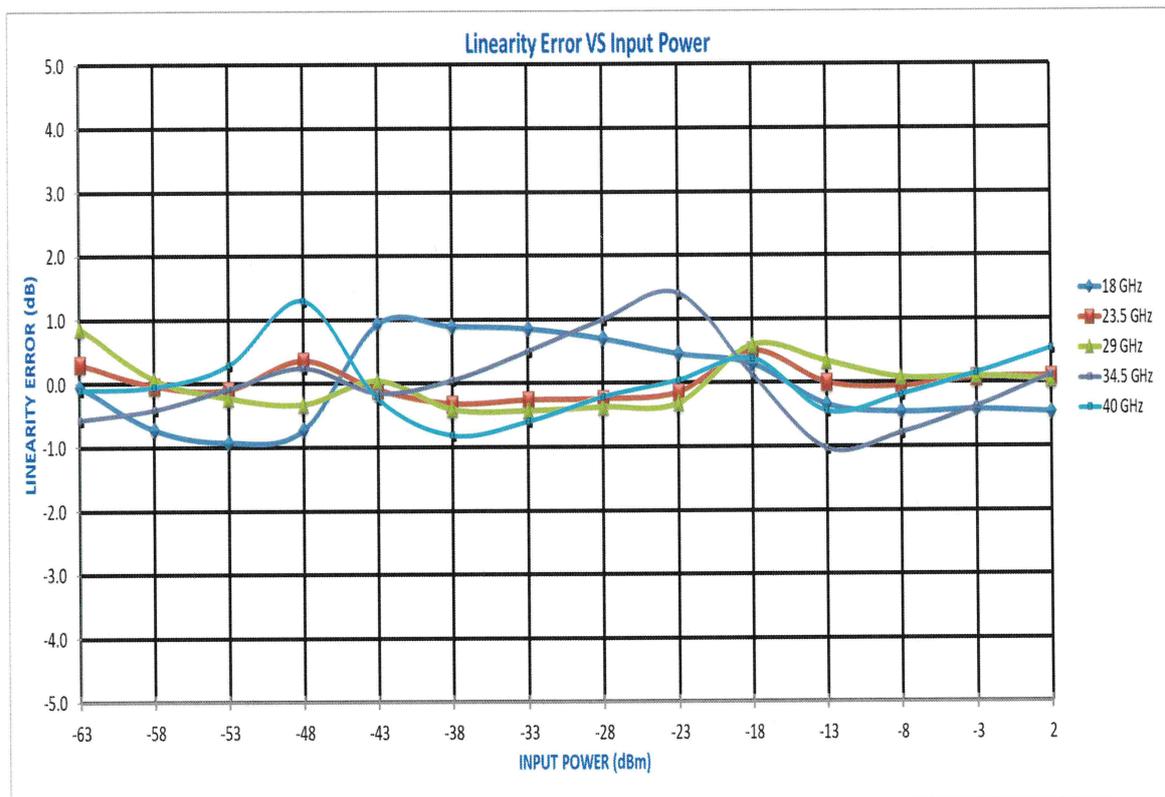


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Graph #1 (cont.)

Log Transfer vs Frequency @+25C





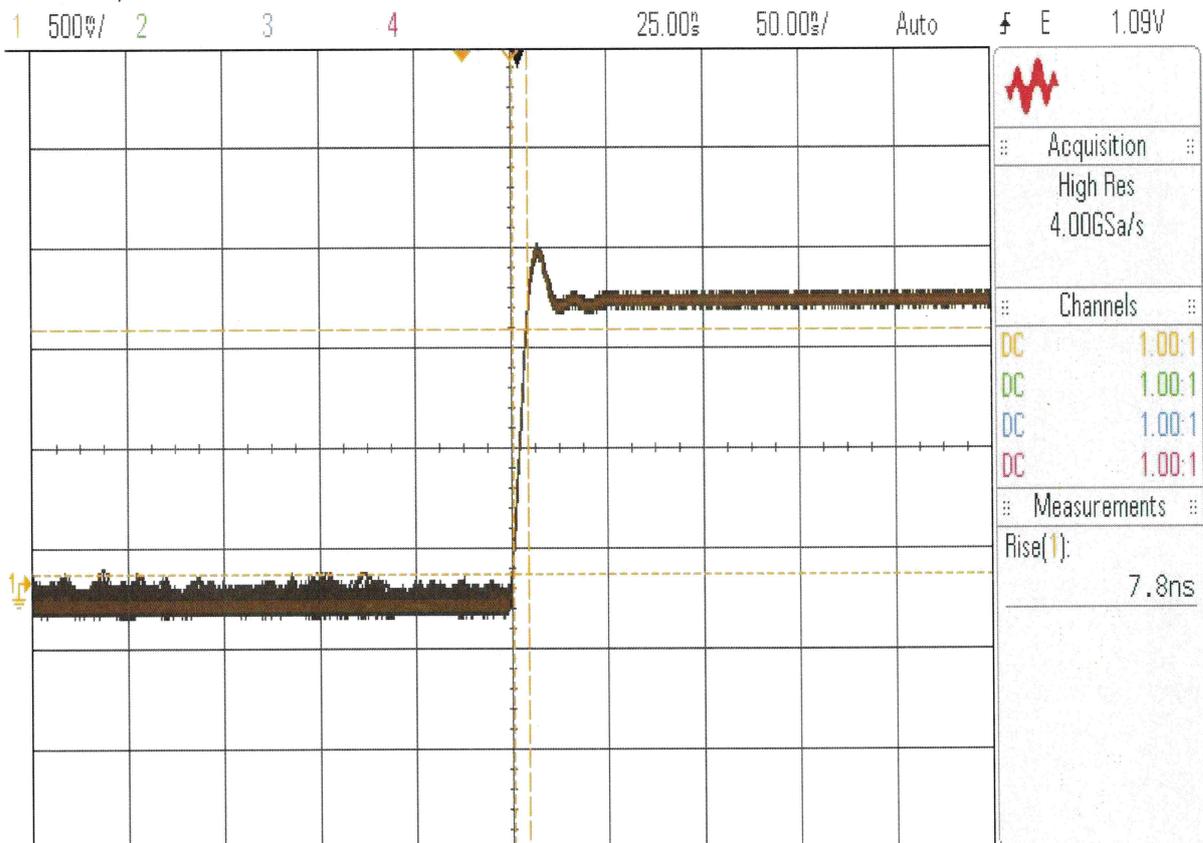
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Graph #3

Rise Time 7.8nS

MSO-X 3054A, MY53400180: Mon Jan 20 12:27:35 2025



Measurement Menu

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



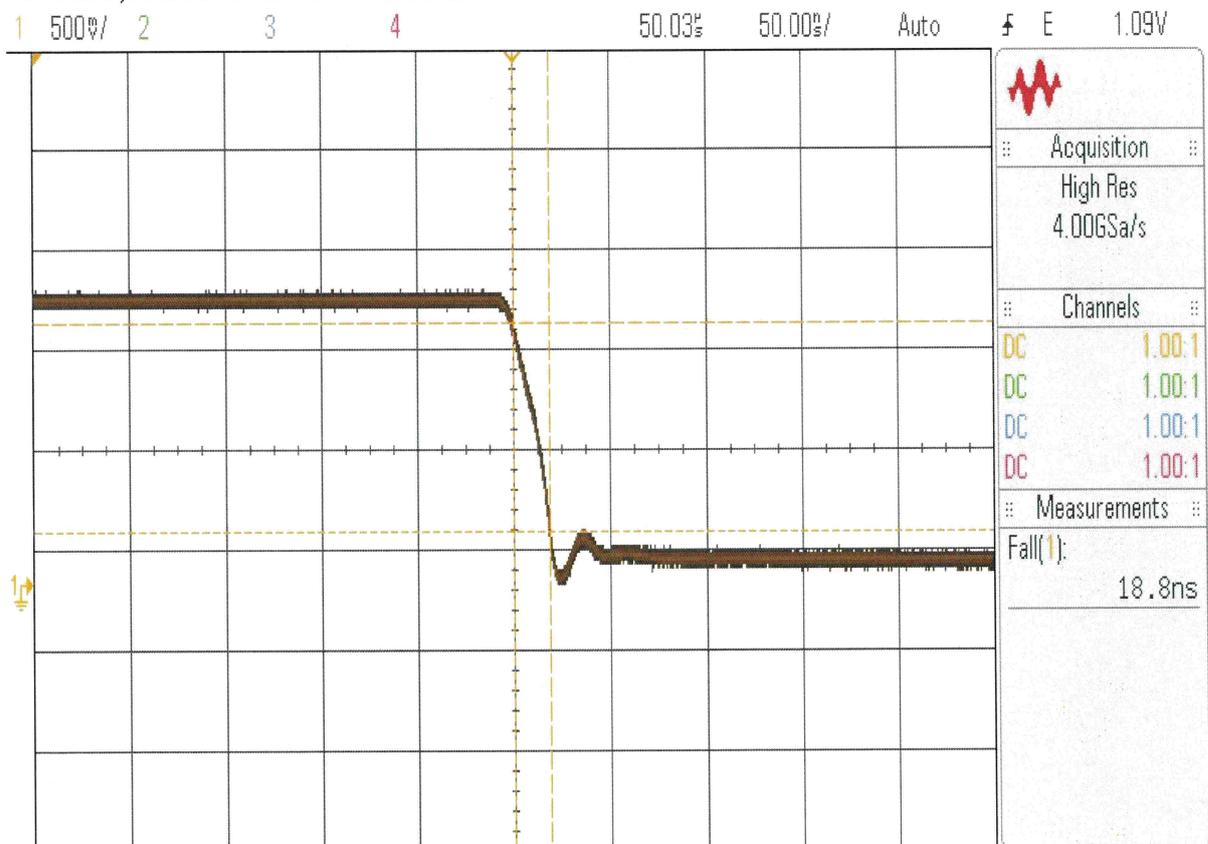
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Graph #4

Recovery Time 18.8nS

MSO-X 3054A, MY53400180: Mon Jan 20 12:26:23 2025



Measurement Menu

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



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Graph #5

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

