



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

PL46001/2422

Customer: _____	Tested By: <b>Anton L.</b>
SO No: _____	Temperature: <b>+25°C</b>
Model No: <b>SDLVA-18G40G-65-CD-292FF</b>	Date: <b>05/29/24</b>
Serial No: <b>PL46001/2422</b>	Drawing No: <b>ETD000046</b> REV: <b>A2</b>

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC PMI QA3
1	Frequency Range:	18.0 to 40.0GHz	Pass	
2	TSS (See Graph #2)	-65 dBm Max.	-70.5 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.	+0.93 dB -1.02 dB	
6	Log Slope: (See Graph #1)	25 mV/dB Nom.	24.61 mV/dB	
7	Log Slope Variation: (See Graph #1)	±2.0 mV/dB Max.	0.76 mV/dB	
8	Frequency Flatness: @+25C (See Graph #1)	±2.5dB Max.	±1.4dB	
9	Pulse Width Range:	30ns to CW	Pass	
10	Rise Time: (See Graph #3)	11ns Max. (8 ns Typ.)	7.0 ns	
11	Recovery Time: (See Graph #4)	60ns Max. (40 ns Typ.)	20.3 ns	
12	Delay Time:	15ns Max.	<15ns by design	
13	Input VSWR: (See Graph #5)	2.5:1 Max.	2.2:1	
14	Power Supply	+12V @ 500mA Max. -12V @ 200mA Max.	+12V @ 390mA -12V @ 160mA	

QA/QC Approval: *K. Lutan*      Date: 5-30-24



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Graph #1

Log Transfer vs Frequency @+25C

Frequency		-63	-58	-53	-48	-43	-38	-33	-28	-23	-18	-13	-8	-3	2	RF Input Power (dBm)				
18 GHz	INTERCEPT (mV)	1701															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	24.9	148	282	386	502	622	748	866	993	1119	1236	1372	1507	1639	1768	Error (mV)	MAX	MIN	
			18	7	5	-2	-7	-6	-12	-10	-8	-16	-5	6	13	17	LINEARITY ERROR (dB)	0.70	-0.64	
			0.70	0.28	0.21	-0.09	-0.28	-0.22	-0.49	-0.39	-0.34	-0.64	-0.19	0.23	0.52	0.70				
23.5 GHz	INTERCEPT (mV)	1710															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	25	181	266	390	513	637	745	864	991	1119	1245	1386	1518	1650	1778	Error (mV)	MAX	MIN	
			18	7	6	4	3	-14	-20	-18	-15	-14	1	8	15	18	LINEARITY ERROR (dB)	0.72	-0.80	
			0.70	0.30	0.25	0.17	0.13	-0.56	-0.80	-0.73	-0.61	-0.58	0.06	0.33	0.61	0.72				
29 GHz	INTERCEPT (mV)	1713															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	25.3	138	280	373	492	613	755	878	1007	1135	1259	1382	1508	1640	1770	Error (mV)	MAX	MIN	
			14	2	-1	-8	-14	2	-1	1	3	0	-3	-3	2	8	LINEARITY ERROR (dB)	0.54	-0.54	
			0.54	0.09	-0.04	-0.33	-0.54	0.07	-0.06	0.05	0.11	0.02	-0.11	-0.13	0.10	0.24				
34.5 GHz	INTERCEPT (mV)	1688															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	23.7	196	318	441	559	664	761	881	1011	1144	1280	1371	1490	1621	1760	Error (mV)	MAX	MIN	
			4	8	12	11	-3	-24	-23	-12	3	20	-8	-8	5	15	LINEARITY ERROR (dB)	0.84	-1.02	
			0.18	0.32	0.50	0.47	-0.11	-1.02	-0.97	-0.49	0.11	0.84	-0.33	-0.32	0.20	0.63				
40 GHz	INTERCEPT (mV)	1678															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	24.1	182	280	406	532	634	748	874	1006	1133	1267	1361	1471	1601	1733	Error (mV)	MAX	MIN	
			1	-1	4	10	-8	-15	-9	2	9	23	-4	-14	-5	7	LINEARITY ERROR (dB)	0.93	-0.61	
			0.06	-0.04	0.19	0.42	-0.35	-0.61	-0.38	0.10	0.37	0.93	-0.16	-0.60	-0.20	0.28				
Flatness +/- dB		1.20	1.40	1.40	1.40	1.00	0.30	0.30	0.40	0.50	0.90	0.50	1.00	1.00	0.90					
Max. Video Output (V)		0.20	0.32	0.44	0.56	0.66	0.76	0.88	1.01	1.14	1.28	1.39	1.52	1.65	1.78					
Min. Video Output (V)		0.14	0.25	0.37	0.49	0.61	0.75	0.86	0.99	1.12	1.24	1.36	1.47	1.60	1.73					
Nominal Log Slope mV/dB	24.61															Video Output @ -63dBm		Video Output @ +2dBm		
Log Slope Variation: ± mV/dB	0.76															Min(V)= 135.0		Min(V)= 1733.0		
																Max(V)= 196.0		Max(V)= 1778.0		

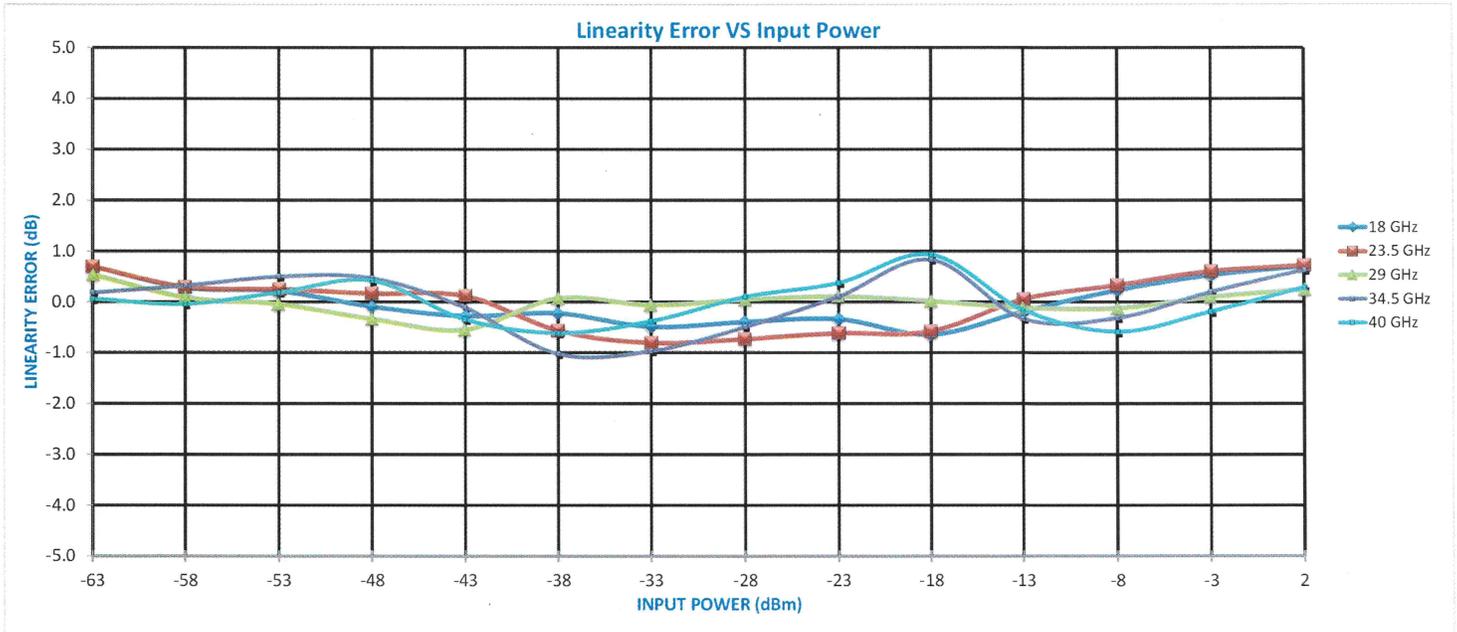


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Graph #1 (cont.)

Log Transfer vs Frequency @+25C





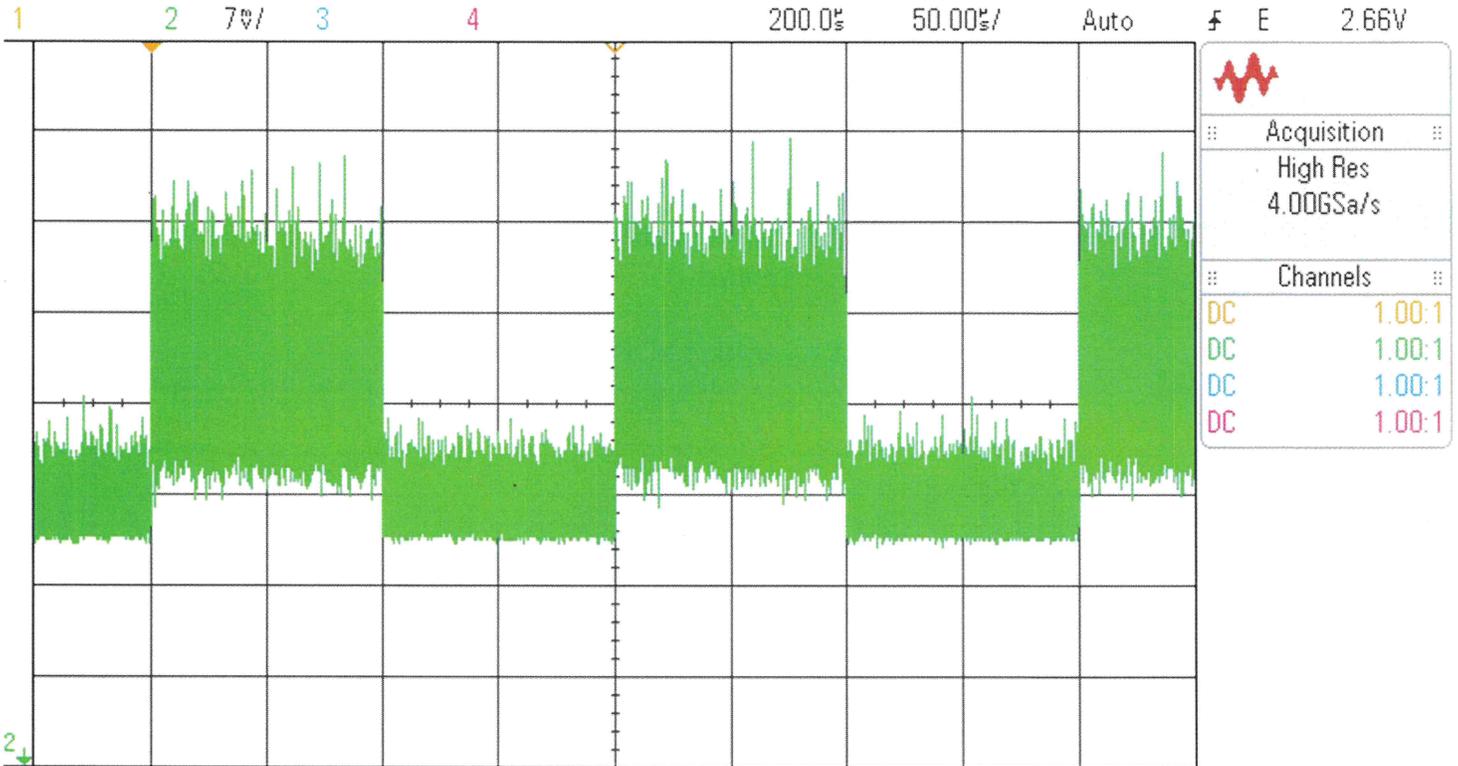
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Graph #2

TSS-70.5 dBm @+25C

DSO-X 3024A, MY54490369, Fri May 24 13:37:31 2024



Acquire Menu

Acq Mode  
High Res

# Avgs  
1

Segmented



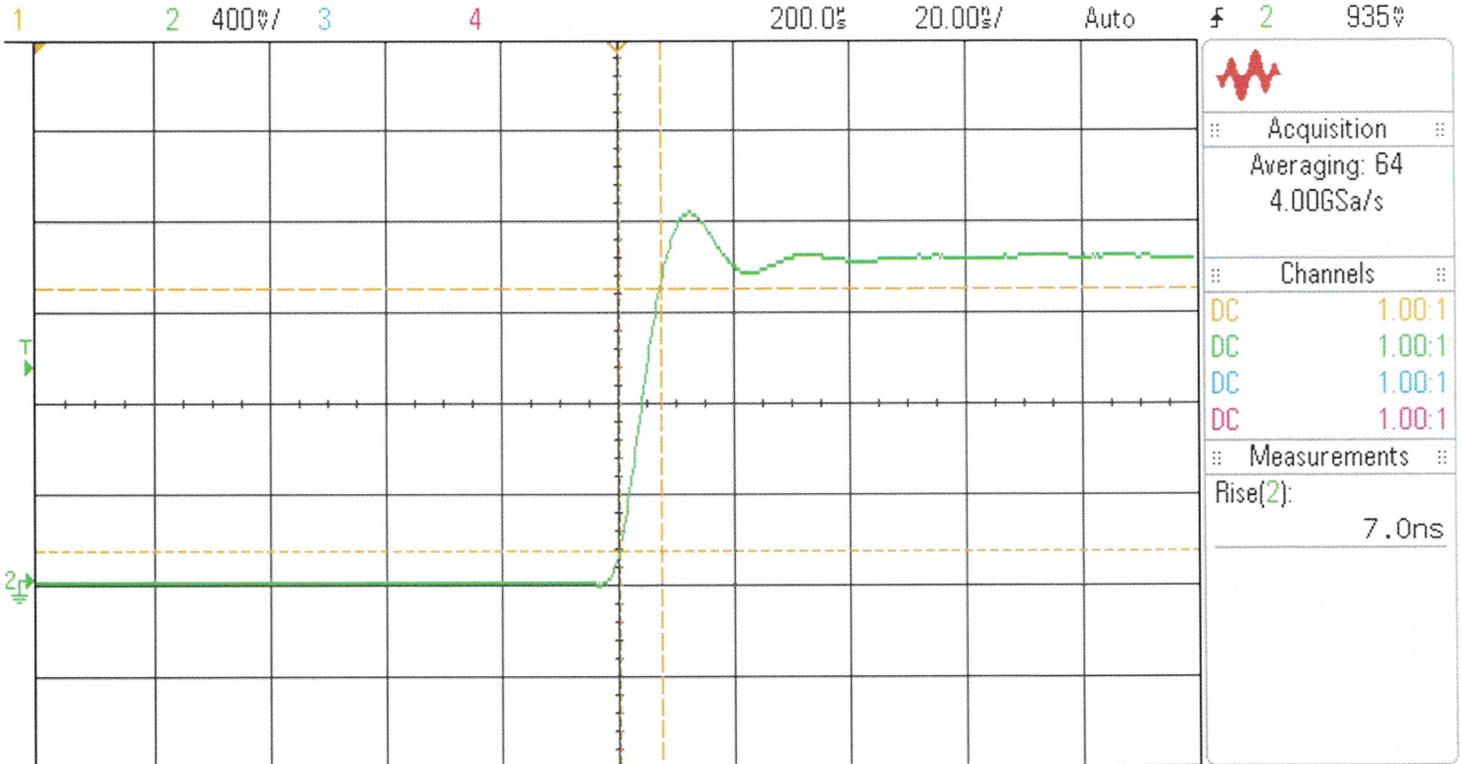
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**Graph #3**

**Rise Time 7.0ns**

DSO-X 3024A, MY54490369: Fri May 24 13:27:44 2024



Trigger Menu

Trigger Type: Edge    Source: 2    Slope: f



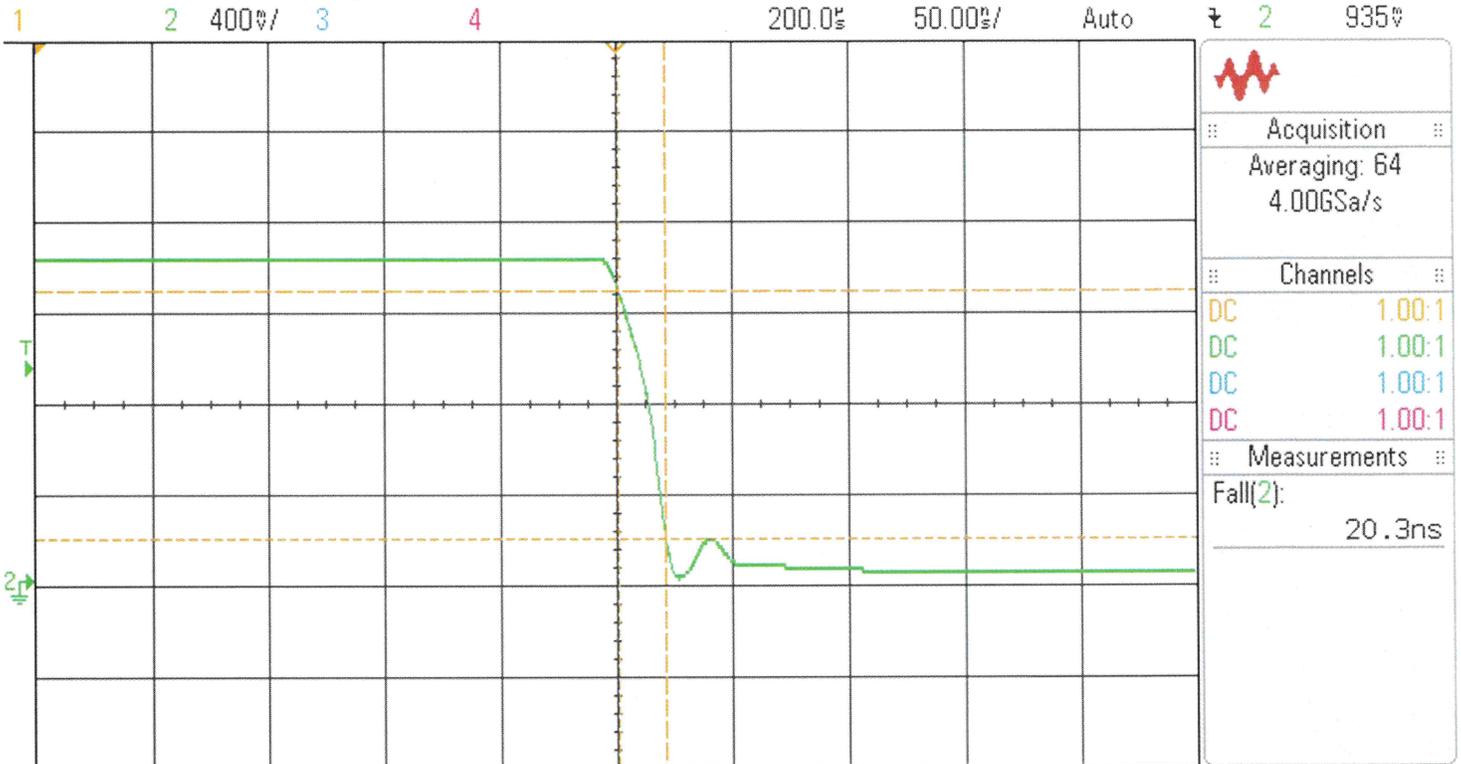
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Graph #4

Recovery Time 20.3ns

DSO-X 3024A, MY54490369: Fri May 24 13:32:52 2024



Trigger Menu



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**Graph #5**

**VSWR 2.2:1 @+25C & -20 dBm**

