



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

PL46544/2426

Customer: _____	Tested By: <u>Anton L.</u>
SO No: _____	Temperature: <u>+25°C</u>
Model No: <u>SDLVA-18G40G-65-CD-292FF</u>	Date: <u>06/27/24</u>
Serial No: <u>PL46544/2426</u>	Drawing No: <u>27600046</u> REV: A2

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.	-70.0 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 -1.34 dB	
6	Log Slope: (See Graph #1)	25 mV/dB Nom.	24.89 mV/dB	
7	Log Slope Variation: (See Graph #1)	±2.0 mV/dB Max.	0.82 mV/dB	
8	Frequency Flatness: @+25C (See Graph #1)	±2.5dB Max.	±1.3dB	
9	Pulse Width Range:	30ns to CW	Pass	
10	Rise Time: (See Graph #3)	11ns Max. (8 ns Typ.)	8.5 ns	
11	Recovery Time: (See Graph #4)	60ns Max. (40 ns Typ.)	23.0 ns	
12	Delay Time:	15ns Max.	<15ns by design	
13	Input VSWR: (See Graph #5)	2.5:1 Max.	1.9:1	
14	Power Supply	+12V @ 500mA Max. -12V @ 200mA Max.	+12V @ 370mA -12V @ 160mA	

QA/QC Approval: *K. Huter* Date: 6-28-24



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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)	1738															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	25.2	180	287	408	532	664	766	876	999	1126	1264	1435	1556	1681	1806	Error (mV)	MAX	MIN	
			29	10	5	3	9	-16	-31	-34	-34	-21	24	19	18	17	LINEARITY ERROR (dB)	1.16	-1.34	
			1.16	0.40	0.20	0.12	0.36	-0.63	-1.22	-1.34	-1.34	-0.83	0.96	0.76	0.72	0.68				
23.5 GHz	INTERCEPT (mV)	1756															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	25.4	182	290	413	539	677	780	894	1017	1144	1286	1443	1567	1694	1821	Error (mV)	MAX	MIN	
			25	6	2	1	12	-12	-24	-28	-28	-13	17	14	14	14	LINEARITY ERROR (dB)	0.97	-1.12	
			0.97	0.23	0.08	0.04	0.48	-0.46	-0.97	-1.12	-1.11	-0.52	0.67	0.56	0.56	0.57				
29 GHz	INTERCEPT (mV)	1766															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	25.6	162	269	389	513	669	812	933	1063	1192	1326	1434	1551	1676	1803	Error (mV)	MAX	MIN	
			9	-12	-22	-24	4	19	12	14	15	21	1	-19	-14	-15	LINEARITY ERROR (dB)	0.81	-0.93	
			0.36	-0.46	-0.77	-0.93	0.16	0.74	0.46	0.54	0.58	0.81	0.02	-0.41	-0.53	-0.57				
34.5 GHz	INTERCEPT (mV)	1705															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	24	200	308	431	555	686	787	903	1030	1158	1288	1389	1505	1629	1758	Error (mV)	MAX	MIN	
			6	-6	-3	1	12	-7	-10	-3	5	15	-4	-8	-4	6	LINEARITY ERROR (dB)	0.62	-0.43	
			0.24	-0.25	-0.12	0.05	0.51	-0.27	-0.43	-0.14	0.20	0.62	-0.16	-0.32	-0.15	0.23				
40 GHz	INTERCEPT (mV)	1721															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	24.3	191	295	418	540	683	809	930	1063	1192	1318	1394	1506	1629	1757	Error (mV)	MAX	MIN	
			0	-17	-16	-15	6	11	10	22	29	34	-11	-21	-19	-13	LINEARITY ERROR (dB)	1.40	-0.86	
			0.00	-0.72	-0.65	-0.63	0.26	0.45	0.43	0.90	1.21	1.40	-0.47	-0.86	-0.80	-0.53				
Flatness +/- dB		0.80	0.80	0.80	0.80	0.40	0.90	1.10	1.30	1.30	1.20	1.10	1.20	1.30	1.30					
Max. Video Output (V)		0.20	0.31	0.43	0.56	0.69	0.81	0.93	1.06	1.19	1.33	1.44	1.57	1.69	1.82					
Min. Video Output (V)		0.16	0.27	0.39	0.51	0.66	0.77	0.88	1.00	1.13	1.26	1.39	1.51	1.63	1.76					
Nominal Log Slope mV/dB		24.89														Video Output @ -63dBm		Video Output @ +2dBm		
Log Slope Variation: ± mV/dB		0.82														Min(V)= 162.0		Min(V)= 1757.0		
																Max(V)= 200.0		Max(V)= 1821.0		

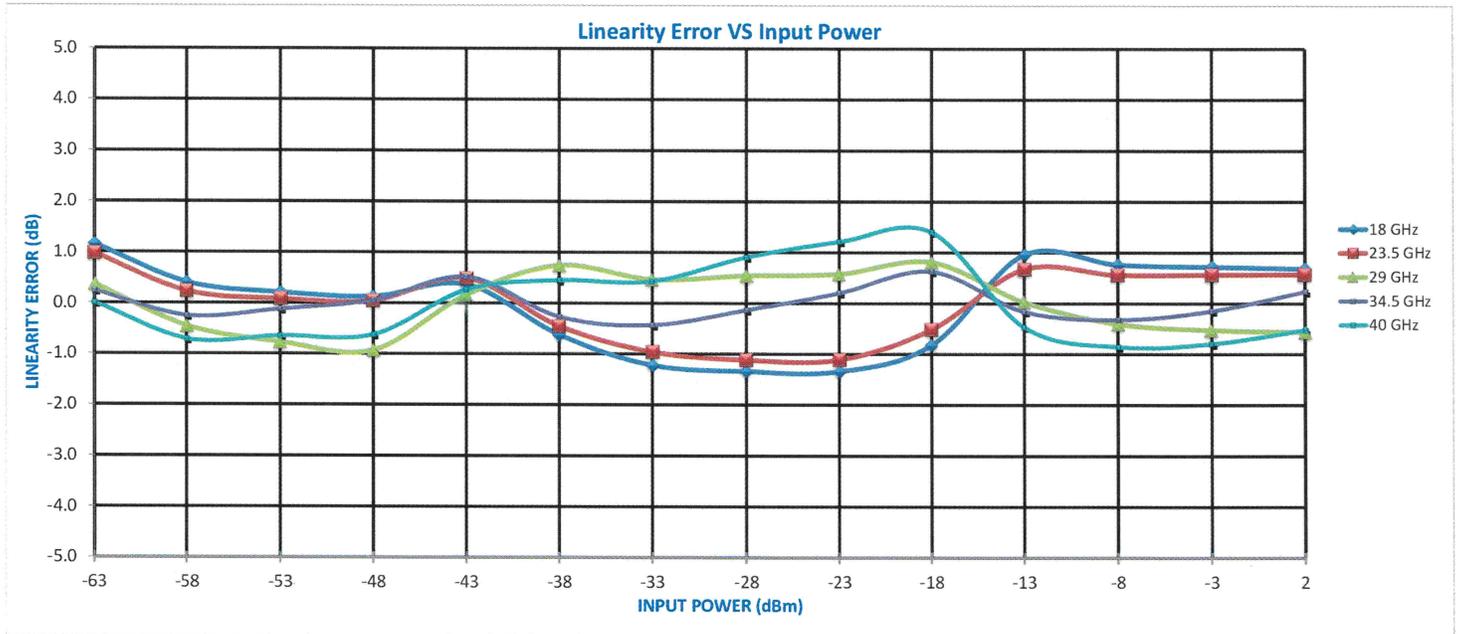


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Graph #1 (cont.)

Log Transfer vs Frequency @+25C





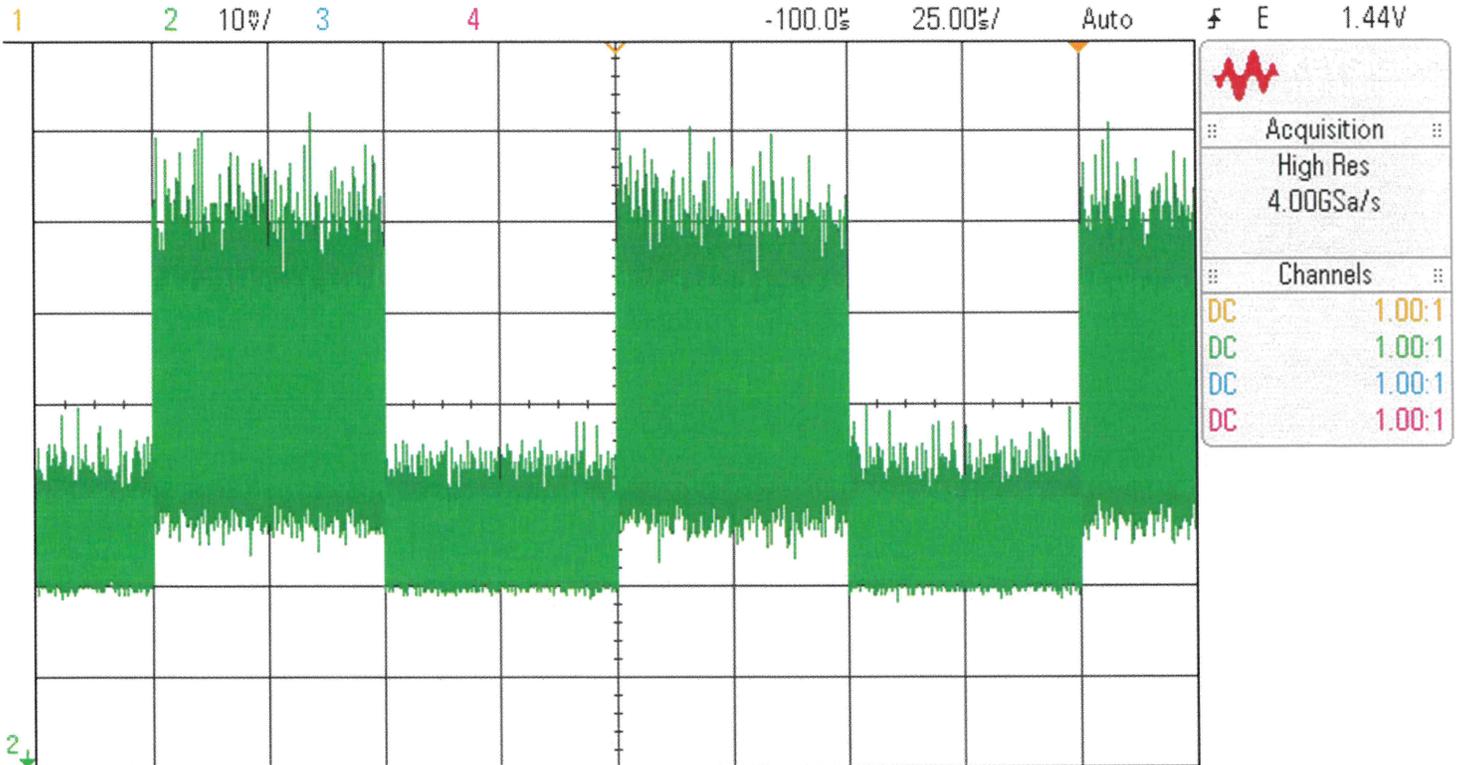
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Graph #2

TSS-70.0 dBm @+25C

DSO-X 3024A, MY54490369: Thu Jun 27 16:02:21 2024



Acquire Menu

Acq Mode
High Res

Avgs
1

Segmented



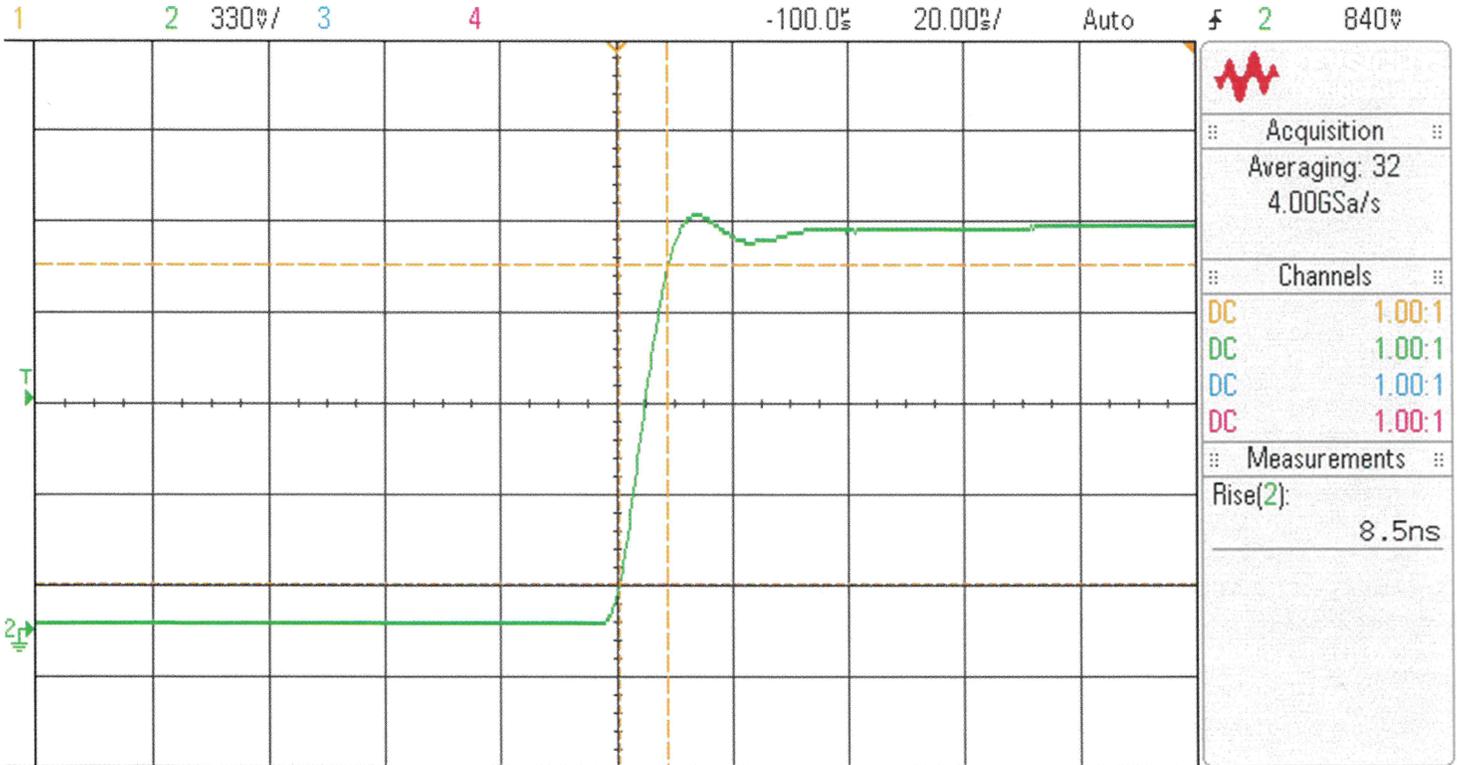
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Graph #3

Rise Time 8.5ns

DSO-X 3024A, MY54490369: Thu Jun 27 16:00:22 2024



Trigger Menu

Trigger Type: Edge | Source: 2 | Slope: f



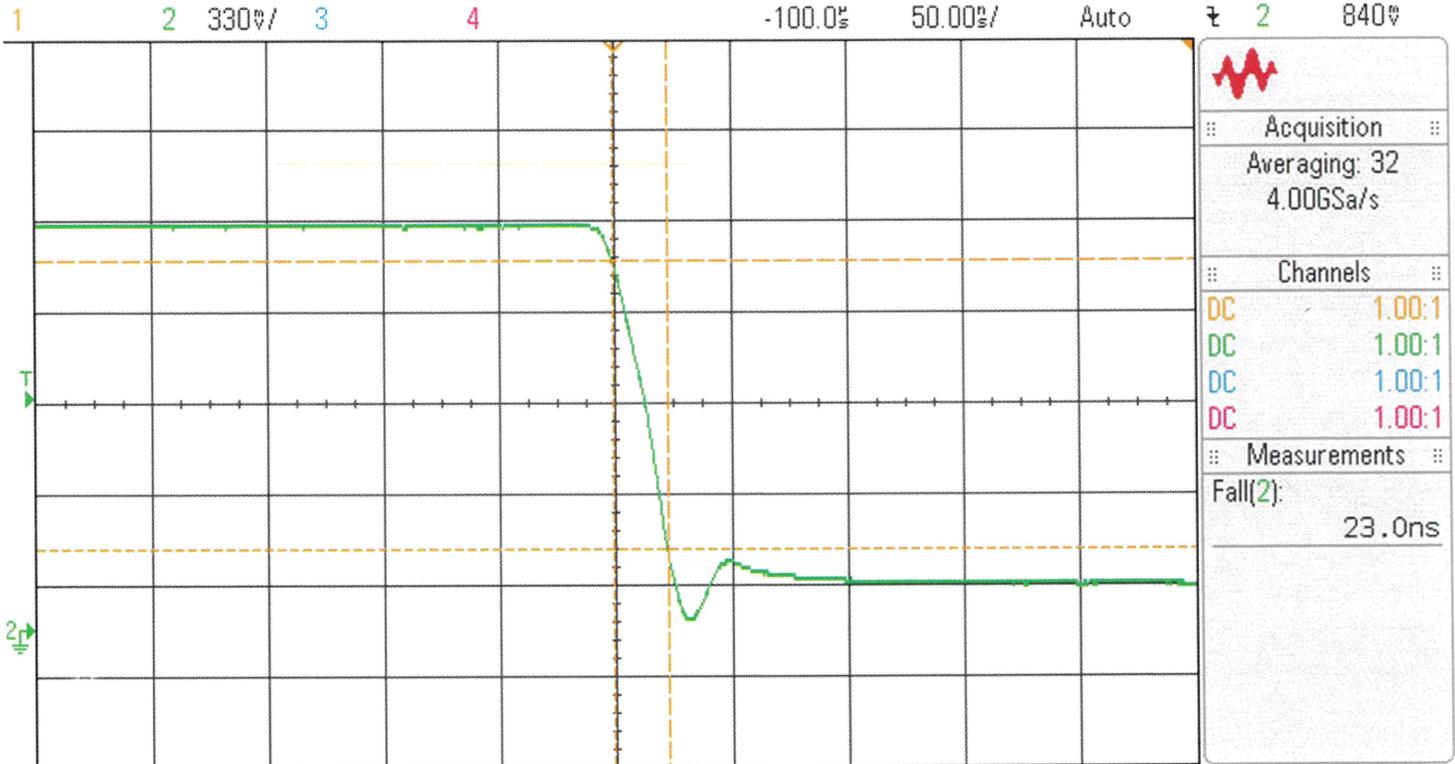
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Graph #4

Recovery Time 23.0ns

DSO-X 3024A, MY54490369: Thu Jun 27 15:59:17 2024



Trigger Menu

Trigger Type: Edge | Source: 2 | Slope: \uparrow



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Graph #5

VSWR 1.9:1 @+25C & -20 dBm

