



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

PL45420/2418

Customer: _____	Tested By: Anton L.
SO No: _____	Temperature: +25°C
Model No: SDLVA-18G40G-65-CD-292FF	Date: 05/02/24
Serial No: PL45420/2418	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 QA3
2	TSS (See Graph #2)	-65 dBm Max.	-69.6 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.	+1.41 dB -0.84 dB	
6	Log Slope: (See Graph #1)	25 mV/dB Nom.	25.22 mV/dB	
7	Log Slope Variation: (See Graph #1)	±2.0 mV/dB Max.	0.61 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.)	7.3 ns	
11	Recovery Time: (See Graph #4)	60ns Max. (40 ns Typ.)	23.5 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 @ 410mA -12V @ 160mA	

QA/QC Approval: *K. Luten* Date: 4-30-24



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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)	1702															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	25.6	123	220	338	459	595	714	838	970	1099	1232	1390	1514	1636	1751	Error (mV)	MAX	MIN	
			36	5	-5	-12	-5	-14	-18	-14	-13	-8	22	17	11	-2	LINEARITY ERROR (dB)	1.41	-0.70	
			1.41	0.19	-0.20	-0.48	-0.18	-0.53	-0.70	-0.55	-0.51	-0.32	0.84	0.68	0.44	-0.08				
23.5 GHz	INTERCEPT (mV)	1714															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	25.3	147	249	368	494	629	740	862	987	1110	1248	1402	1527	1650	1768	Error (mV)	MAX	MIN	
			28	4	-4	-4	4	-12	-16	-18	-21	-10	17	16	12	4	LINEARITY ERROR (dB)	1.12	-0.84	
			1.12	0.15	-0.15	-0.17	0.16	-0.46	-0.64	-0.70	-0.84	-0.39	0.69	0.62	0.48	0.14				
29 GHz	INTERCEPT (mV)	1702															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	25.7	112	212	330	454	596	729	852	981	1107	1242	1385	1505	1627	1745	Error (mV)	MAX	MIN	
			26	-2	-12	-17	-3	2	-4	-3	-5	1	16	8	2	-9	LINEARITY ERROR (dB)	1.02	-0.65	
			1.02	-0.08	-0.48	-0.65	-0.12	0.07	-0.14	-0.11	-0.20	0.06	0.63	0.31	0.06	-0.34				
34.5 GHz	INTERCEPT (mV)	1650															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	24.4	128	232	352	479	612	710	827	952	1076	1202	1341	1459	1584	1708	Error (mV)	MAX	MIN	
			18	-1	-3	2	13	-11	-16	-14	-12	-8	9	5	8	10	LINEARITY ERROR (dB)	0.72	-0.67	
			0.72	-0.02	-0.11	0.09	0.53	-0.46	-0.67	-0.55	-0.48	-0.32	0.37	0.20	0.32	0.39				
40 GHz	INTERCEPT (mV)	1708															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	25.1	139	243	364	503	645	752	876	1006	1133	1274	1384	1506	1629	1750	Error (mV)	MAX	MIN	
			11	-11	-15	-1	15	-3	-4	0	2	17	2	-1	-4	-8	LINEARITY ERROR (dB)	0.69	-0.59	
			0.43	-0.42	-0.59	-0.05	0.61	-0.12	-0.18	0.01	0.07	0.69	0.08	-0.06	-0.15	-0.33				
Flatness +/- dB		0.70	0.70	0.80	1.00	1.00	0.80	1.00	1.10	1.10	1.40	1.20	1.30	1.30	1.20					
Max. Video Output (V)		0.15	0.25	0.37	0.50	0.65	0.75	0.88	1.01	1.13	1.27	1.40	1.53	1.65	1.77					
Min. Video Output (V)		0.11	0.21	0.33	0.45	0.60	0.71	0.83	0.95	1.08	1.20	1.34	1.46	1.58	1.71					
Nominal Log Slope mV/dB		25.22		Video Output @ -63dBm							Video Output @ +2dBm									
Log Slope Variation: ± mV/dB		0.61		Min(V)= 112.0							Min(V)= 1708.0									
				Max(V)= 147.0							Max(V)= 1768.0									

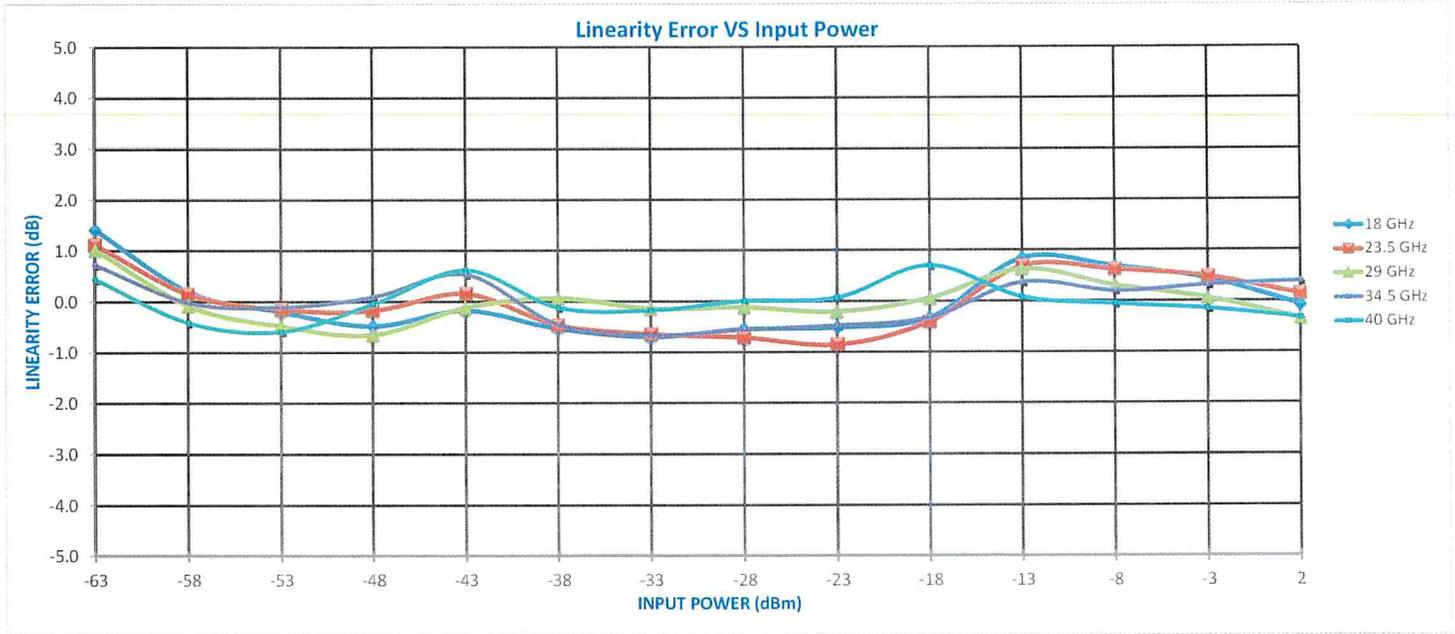


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Graph #1 (cont.)

Log Transfer vs Frequency @+25C





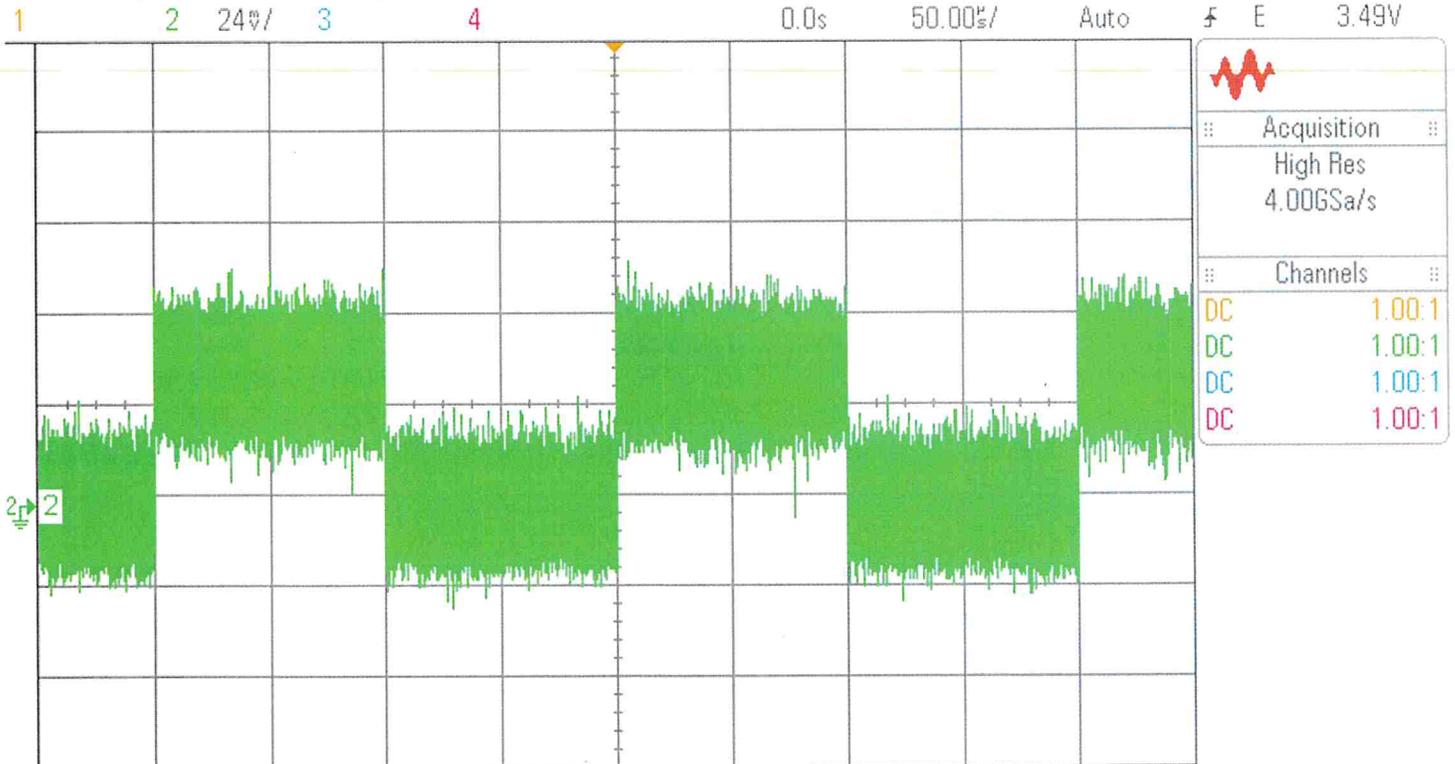
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Graph #2

TSS-69.6 dBm @+25C

DSO-X 3024A, MY54490369: Wed May 01 16:37:08 2024



Acquire Menu

Acq Mode
High Res

Avgs
1

Segmented



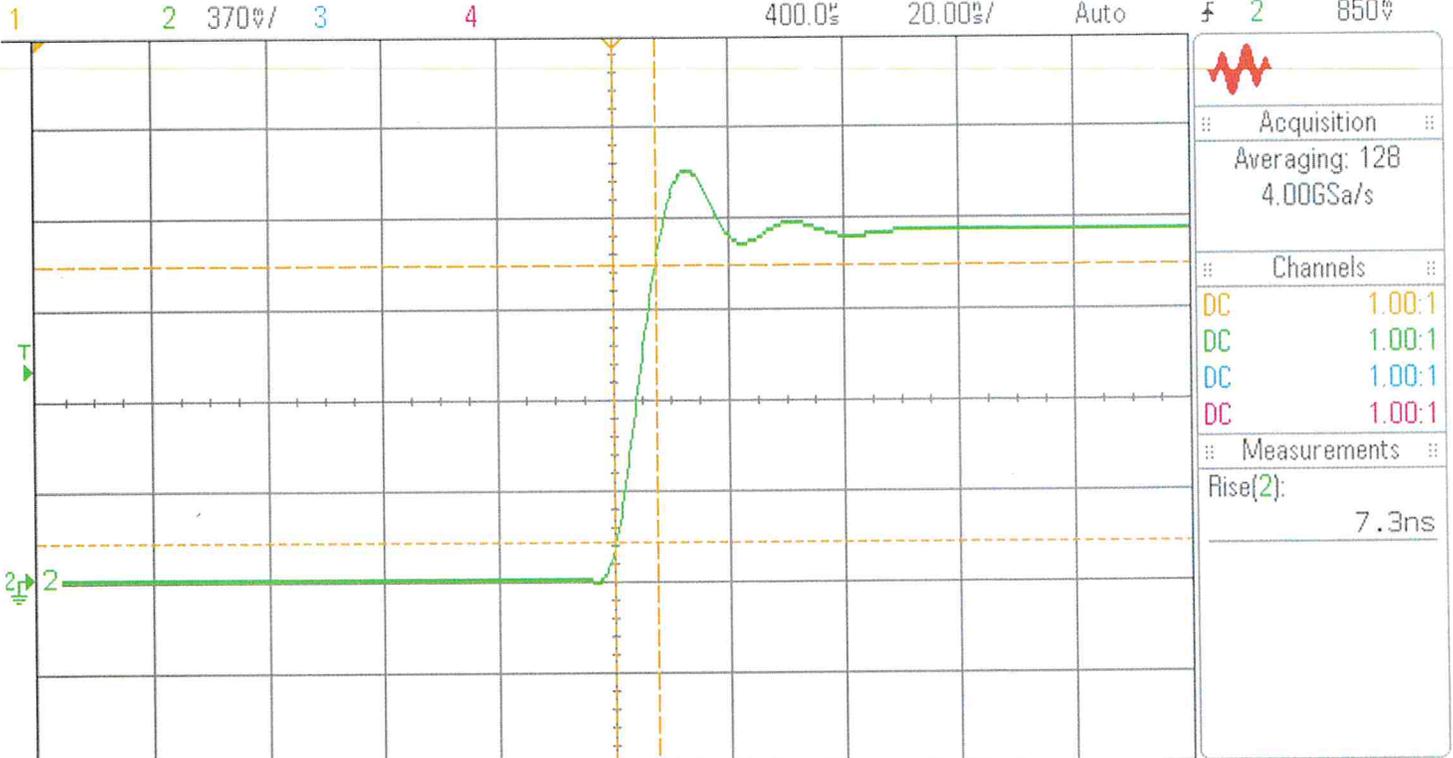
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Graph #3

Rise Time 7.3ns

DSO-X 3024A, MY54490369: Thu May 02 13:20:31 2024



Trigger Menu

Trigger Type: Edge Source: 2 Slope: f



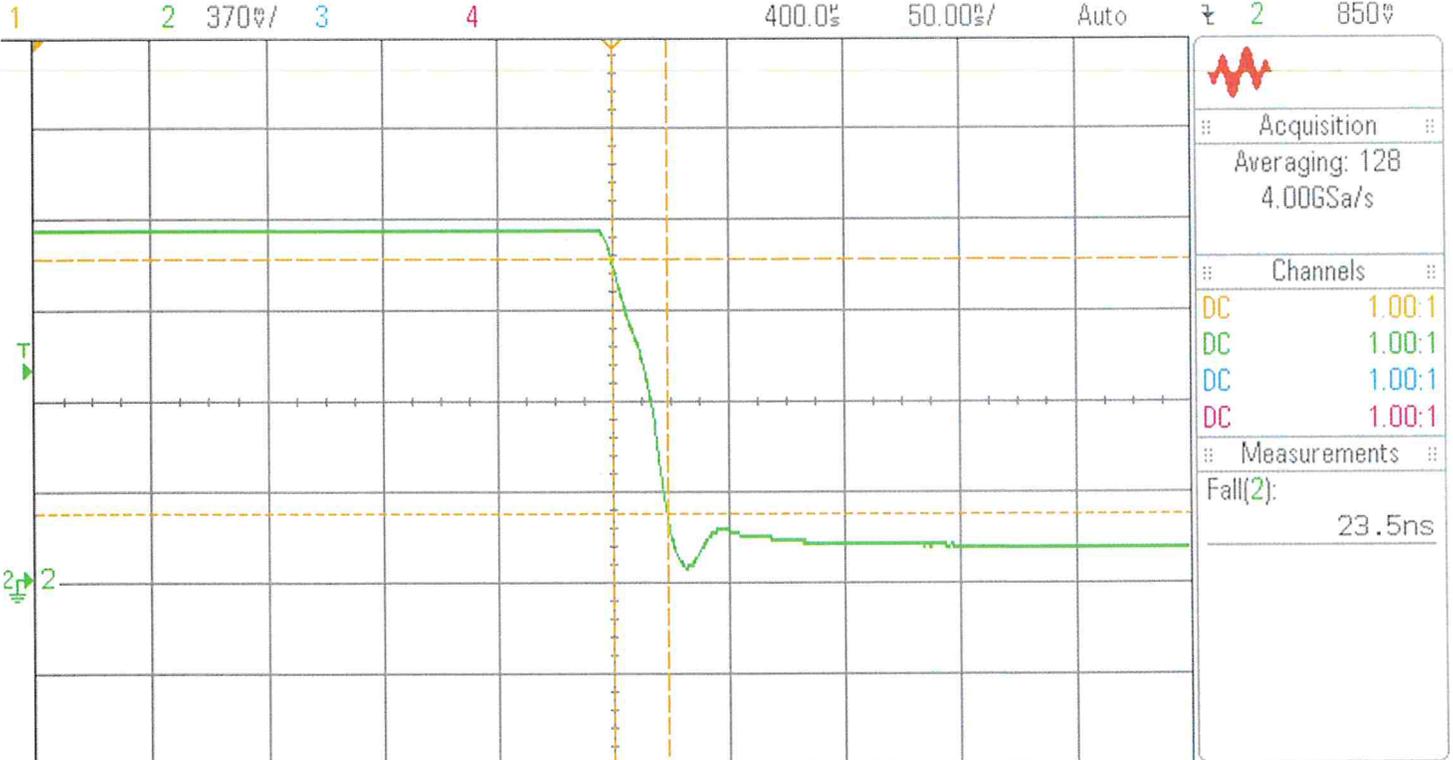
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Graph #4

Recovery Time 23.5ns

DSO-X 3024A, MY54490369: Thu May 02 13:20:58 2024



Trigger Menu

Edge
 2
 \uparrow



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Graph #5

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

