



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

PL46543/2426

Customer: _____ Tested By: Anton L.
SO No: _____ Temperature: +25°C
Model No: SDLVA-18G40G-65-CD-292FF Date: 06/27/24
Serial No: PL46543/2426 Drawing No: 27600046 REV: A2

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	18.0 to 40.0GHz	Pass	QA QC PMI 043
2	TSS (See Graph #2)	-65 dBm Max.	-68.5 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.	+0.98 dB -0.87 dB	
6	Log Slope: (See Graph #1)	25 mV/dB Nom.	24.97 mV/dB	
7	Log Slope Variation: (See Graph #1)	±2.0 mV/dB Max.	1.17 mV/dB	
8	Frequency Flatness: @+25C (See Graph #1)	±2.5dB Max.	±1.5dB	
9	Pulse Width Range:	30ns to CW	Pass	
10	Rise Time: (See Graph #3)	11ns Max. (8 ns Typ.)	7.5 ns	
11	Recovery Time: (See Graph #4)	60ns Max. (40 ns Typ.)	31.8 ns	
12	Delay Time:	15ns Max.	<15ns by design	
13	Input VSWR: (See Graph #5)	2.5:1 Max.	2.4:1	
14	Power Supply	+12V @ 500mA Max. -12V @ 200mA Max.	+12V @ 360mA -12V @ 160mA	

QA/QC Approval: *K. K. K.*

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)	1771															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	26	159	264	382	507	648	794	908	1030	1187	1308	1463	1672	1694	1816	Error (mV)		MAX	MIN
			25	1	-11	-16	-5	11	-5	-13	-16	5	20	9	1	-6	LINEARITY ERROR (dB)		0.98	-0.63
			0.98	0.02	-0.44	-0.63	-0.20	0.42	-0.19	-0.50	-0.61	0.20	0.78	0.36	0.06	-0.25				
23.5 GHz	INTERCEPT (mV)	1748															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	24.8	200	312	433	557	695	801	916	1037	1161	1302	1439	1566	1678	1802	Error (mV)		MAX	MIN
			13	1	-1	-1	13	-5	-15	-17	-17	0	13	6	5	5	LINEARITY ERROR (dB)		0.54	-0.68
			0.54	0.06	-0.06	-0.06	0.51	-0.21	-0.61	-0.68	-0.68	0.01	0.54	0.26	0.19	0.19				
29 GHz	INTERCEPT (mV)	1778															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	25.5	183	297	419	540	686	811	928	1055	1182	1333	1463	1577	1699	1820	Error (mV)		MAX	MIN
			13	-1	-5	-13	8	3	-8	-8	-9	14	17	3	-2	-9	LINEARITY ERROR (dB)		0.66	-0.50
			0.51	-0.03	-0.25	-0.50	0.22	0.11	-0.30	-0.33	-0.35	0.57	0.66	0.13	-0.09	-0.35				
34.5 GHz	INTERCEPT (mV)	1693															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	23.6	209	321	443	565	692	782	892	1017	1141	1272	1396	1502	1623	1749	Error (mV)		MAX	MIN
			6	0	3	7	16	-12	-21	-14	-8	5	10	-2	1	9	LINEARITY ERROR (dB)		0.67	-0.87
			0.24	-0.02	0.14	0.30	0.67	-0.52	-0.87	-0.58	-0.34	0.20	0.41	-0.07	0.05	0.38				
40 GHz	INTERCEPT (mV)	1750															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	24.9	182	288	409	532	687	825	943	1069	1192	1320	1425	1538	1659	1784	Error (mV)		MAX	MIN
			3	-16	-20	-21	9	22	16	-17	16	19	-1	-12	-16	-16	LINEARITY ERROR (dB)		0.90	-0.85
			0.11	-0.64	-0.79	-0.85	0.37	0.90	0.63	0.69	0.62	0.76	-0.03	-0.50	-0.64	-0.63				
Flatness +/- dB		1.00	1.10	1.20	1.20	0.90	0.90	1.00	1.00	1.00	1.20	1.40	1.50	1.50	1.40					
Max. Video Output (V)		0.21	0.32	0.44	0.57	0.70	0.83	0.94	1.07	1.19	1.33	1.46	1.58	1.70	1.82					
Min. Video Output (V)		0.16	0.26	0.38	0.51	0.65	0.78	0.89	1.02	1.14	1.27	1.40	1.50	1.62	1.75					
Nominal Log Slope mV/dB		24.97														Video Output @ -63dBm		Video Output @ +2dBm		
Log Slope Variation: ± mV/dB		1.17														Min(V)= 159.0		Min(V)= 1749.0		
																Max(V)= 209.0		Max(V)= 1820.0		

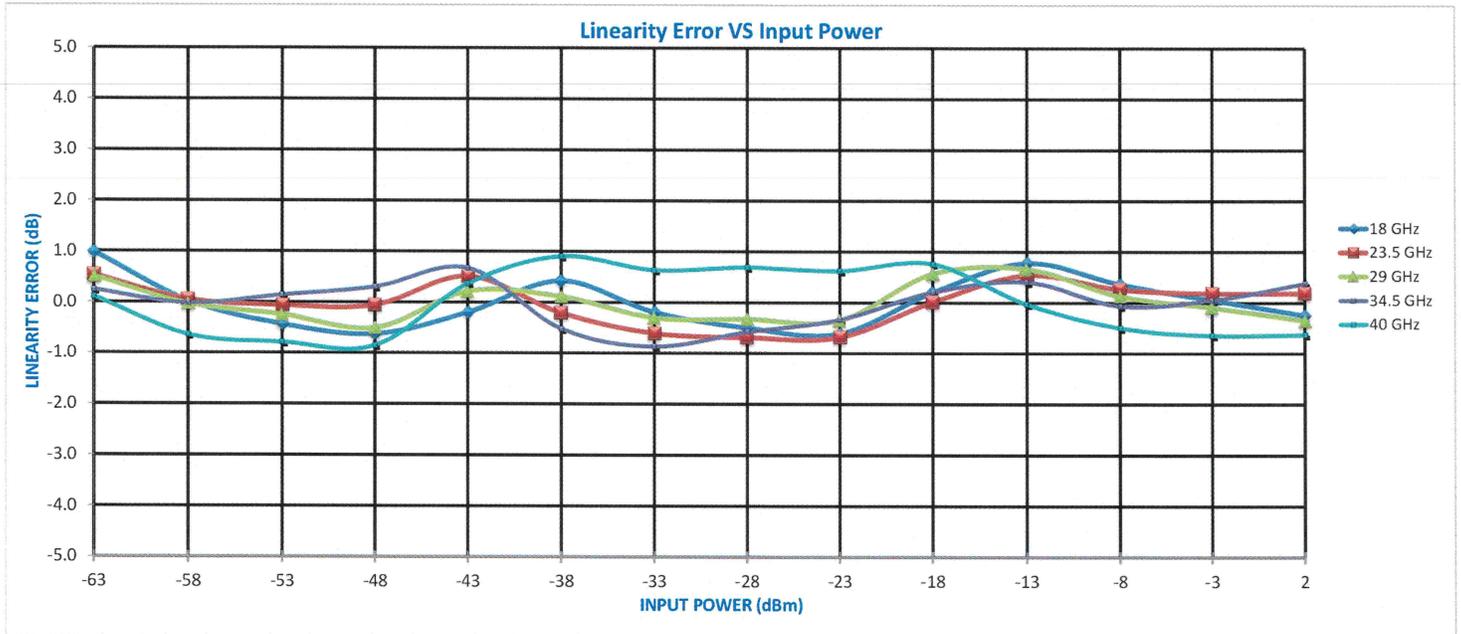


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Graph #1 (cont.)

Log Transfer vs Frequency @+25C



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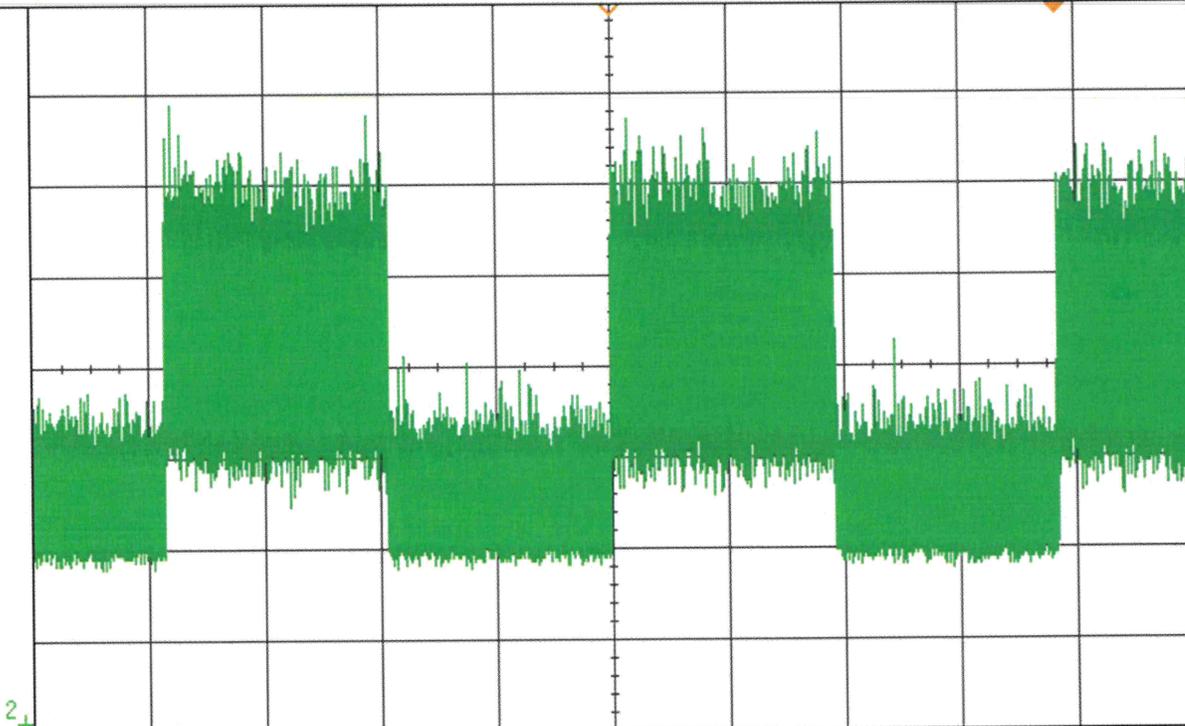
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Graph #2

TSS-68.5 dBm @+25C

DSO-X 3024A, MY54490369: Thu Jun 27 15:20:40 2024

1 2 14V/ 3 4 -100.0% 26.00%/ Auto f E 3.60V



KEYSIGHT TECHNOLOGIES

Acquisition

- High Res
- 4.00GSa/s

Channels

DC	1.00:1

Acquire Menu

Acq Mode
High Res

Avgs
1

Segmented



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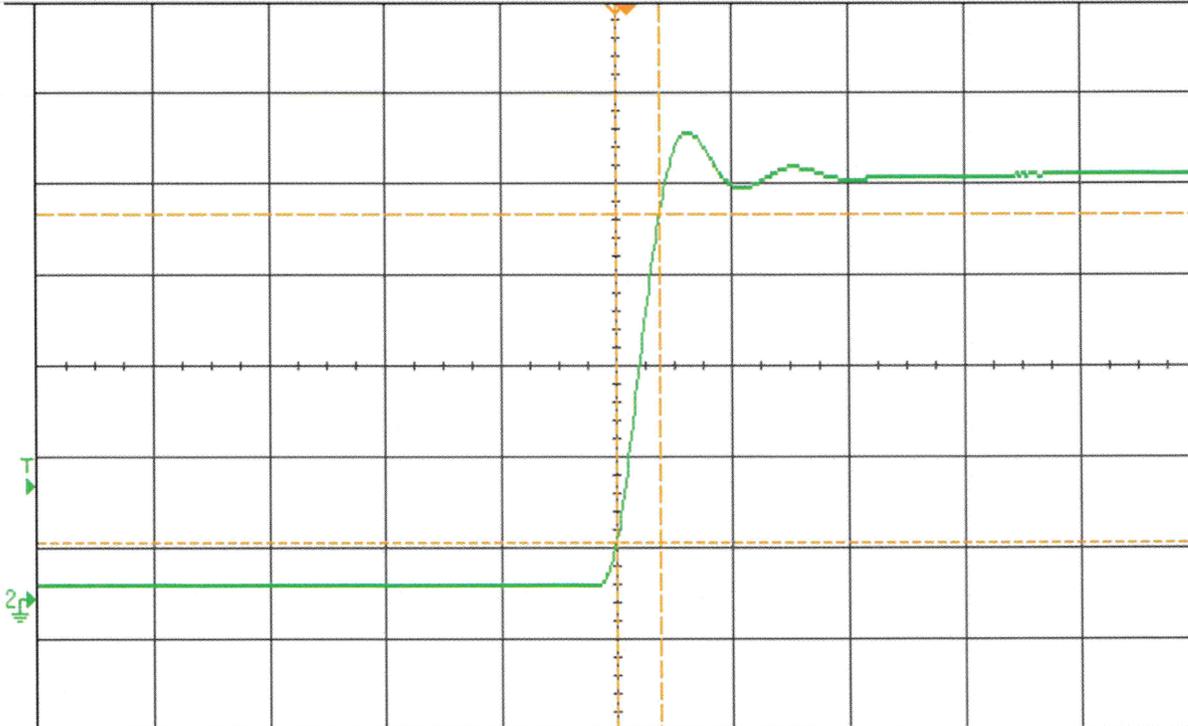
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Graph #3

Rise Time 7.5ns

DSO-X 3024A, MY54490369: Thu Jun 27 13:34:08 2024

1 2 320V/ 3 4 -2.000% 20.00%/ Auto f 2 396V



KEYSIGHT TECHNOLOGIES

Acquisition
Averaging: 128
4.00GSa/s

Channels
DC 1.00:1
DC 1.00:1
DC 1.00:1
DC 1.00:1

Measurements
Rise(2):
7.5ns

Trigger Menu

Trigger Type: Edge
Source: 2
Slope: f



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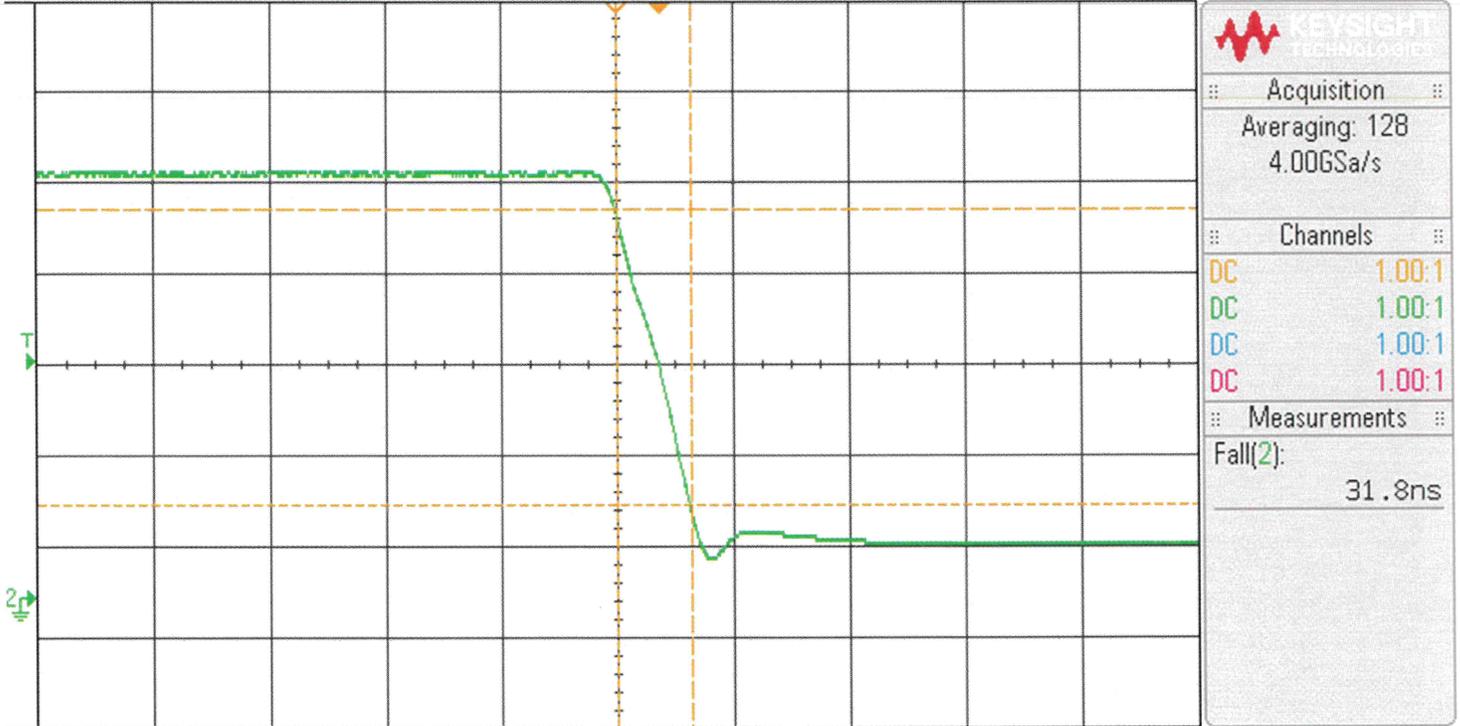
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Graph #4

Recovery Time 31.8ns

DSO-X 3024A, MY54490369: Thu Jun 27 13:33:22 2024

1 2 320V/ 3 4 -19.00% 50.00%/ Auto 2 830V



KEYSIGHT TECHNOLOGIES	
Acquisition	
Averaging: 128	
4.00GSa/s	
Channels	
DC	1.00:1
Measurements	
Fall(2):	31.8ns

Trigger Menu

Trigger Type: Edge
Source: 2
Slope: ∇



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Graph #5

VSWR 2.4:1 @+25C & -20 dBm

