



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

PL45718/2420

Customer: \_\_\_\_\_ Tested By: Anton L.  
SO No: \_\_\_\_\_ Temperature: +25°C  
Model No: SDLVA-18G40G-65-CD-292FF Date: 05/15/24  
Serial No: PL45718/2420 Drawing No: ETD000046 REV: A2

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA/QC PMI
1	Frequency Range:	18.0 to 40.0GHz	Pass	QA3
2	TSS (See Graph #2)	-65 dBm Max.	-69.5 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.	+1.77 dB -1.33 dB	
6	Log Slope: (See Graph #1)	25 mV/dB Nom.	25.07 mV/dB	
7	Log Slope Variation: (See Graph #1)	±2.0 mV/dB Max.	1.09 mV/dB	
8	Frequency Flatness: @+25C (See Graph #1)	±2.5dB Max.	±1.8dB	
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.)	25.5 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 @ 470mA -12V @ 160mA	

QA/QC Approval: K. Luter Date: 5-15-24



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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)	1778															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	26.2	201	304	424	560	708	827	960	1075	1200	1334	1452	1576	1700	1816	Error (mV)		MAX	MIN
			13	-10	-17	-17	15	8	5	4	2	10	2	0	-2	-12	LINEARITY ERROR (dB)		0.60	-0.66
			0.60	-0.41	-0.66	-0.66	0.60	0.31	0.19	0.14	0.09	0.41	0.08	0.00	-0.09	-0.49				
23.5 GHz	INTERCEPT (mV)	1766															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	26.4	148	244	380	483	620	766	874	997	1123	1276	1455	1582	1705	1820	Error (mV)		MAX	MIN
			47	11	-6	-15	-10	-7	-20	-29	-35	-15	33	27	18	1	LINEARITY ERROR (dB)		1.77	-1.33
			1.77	0.40	-0.21	-0.56	-0.37	-0.26	-0.76	-1.10	-1.33	-0.58	1.23	1.04	0.69	0.05				
29 GHz	INTERCEPT (mV)	1718															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	25	152	252	372	500	655	788	910	1035	1154	1272	1393	1510	1634	1758	Error (mV)		MAX	MIN
			8	-17	-22	-19	11	20	17	17	11	4	0	-8	-9	-12	LINEARITY ERROR (dB)		0.78	-0.87
			0.33	-0.67	-0.87	-0.74	0.46	0.78	0.66	0.66	0.43	0.15	-0.01	-0.33	-0.37	-0.49				
34.5 GHz	INTERCEPT (mV)	1712															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	24.2	199	309	432	563	672	773	893	1018	1140	1266	1402	1524	1651	1776	Error (mV)		MAX	MIN
			14	3	5	15	2	-18	-19	-15	-15	-10	5	6	12	15	LINEARITY ERROR (dB)		0.63	-0.79
			0.59	0.13	0.20	0.60	0.10	-0.74	-0.79	-0.63	-0.60	-0.40	0.21	0.24	0.47	0.63				
40 GHz	INTERCEPT (mV)	1726															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	24.5	181	286	408	548	698	807	930	1057	1177	1304	1398	1517	1642	1764	Error (mV)		MAX	MIN
			-3	-21	-21	-3	24	11	11	16	14	18	-10	-14	-11	-11	LINEARITY ERROR (dB)		0.99	-0.86
			-0.13	-0.84	-0.86	-0.14	0.99	0.44	0.47	0.65	0.56	0.74	-0.42	-0.56	-0.45	-0.47				
Flatness +/- dB		1.10	1.30	1.40	1.60	1.80	1.40	1.50	1.60	1.50	1.40	1.20	1.40	1.40	1.30					
Max. Video Output (V)		0.20	0.31	0.43	0.56	0.71	0.83	0.95	1.08	1.20	1.33	1.46	1.58	1.71	1.82					
Min. Video Output (V)		0.15	0.24	0.36	0.48	0.62	0.76	0.87	1.00	1.12	1.27	1.39	1.51	1.63	1.76					
Nominal Log Slope mV/dB	25.07															Video Output @ -63dBm		Video Output @ +2dBm		
Log Slope Variation: ± mV/dB	1.09															Min(V)= 148.0		Min(V)= 1756.0		
																Max(V)= 201.0		Max(V)= 1820.0		



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Graph #1 (cont.)

Log Transfer vs Frequency @+25C





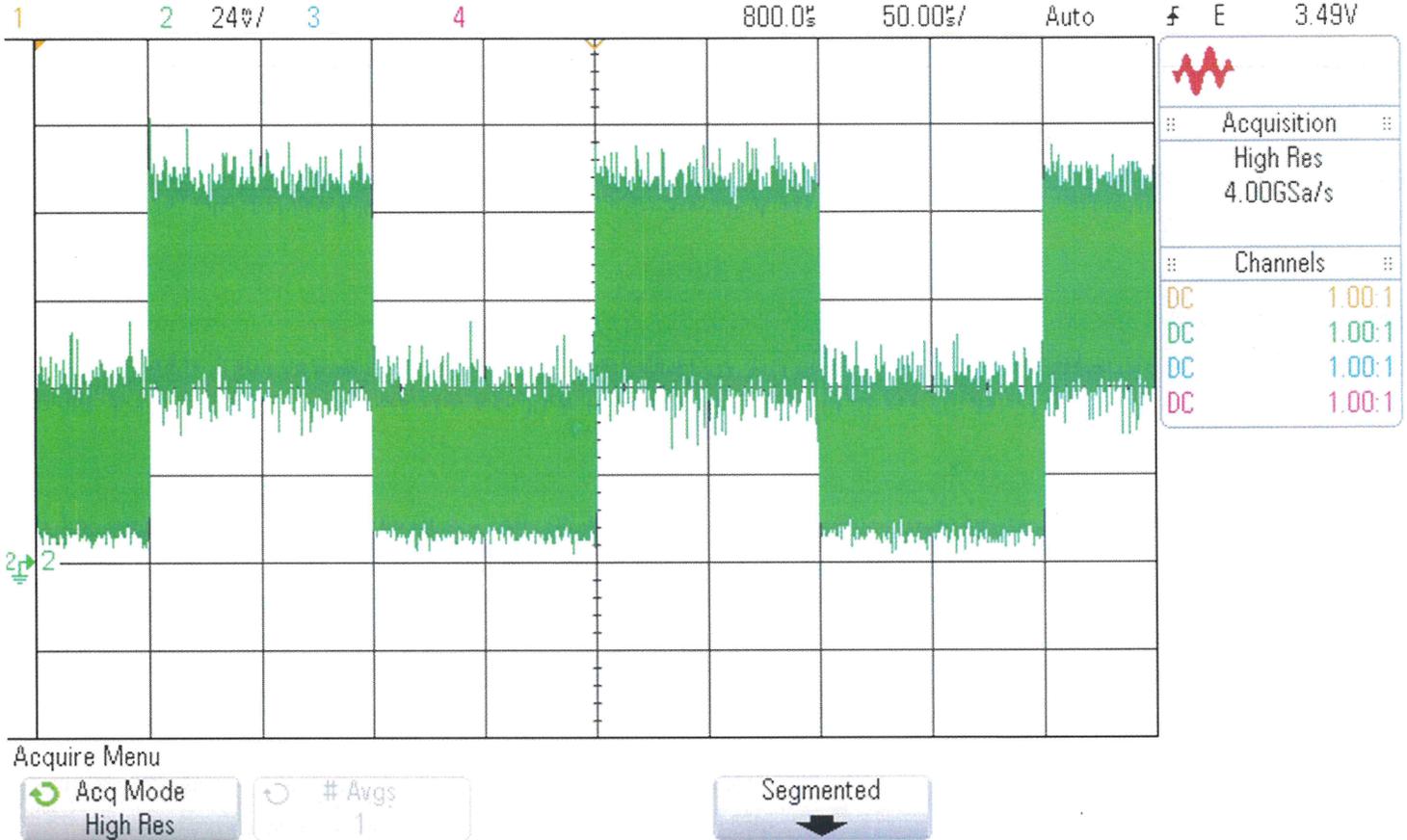
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Graph #2

TSS-69.5 dBm @+25C

DSO-X 3024A, MY54490369, Tue May 14 13:45:17 2024





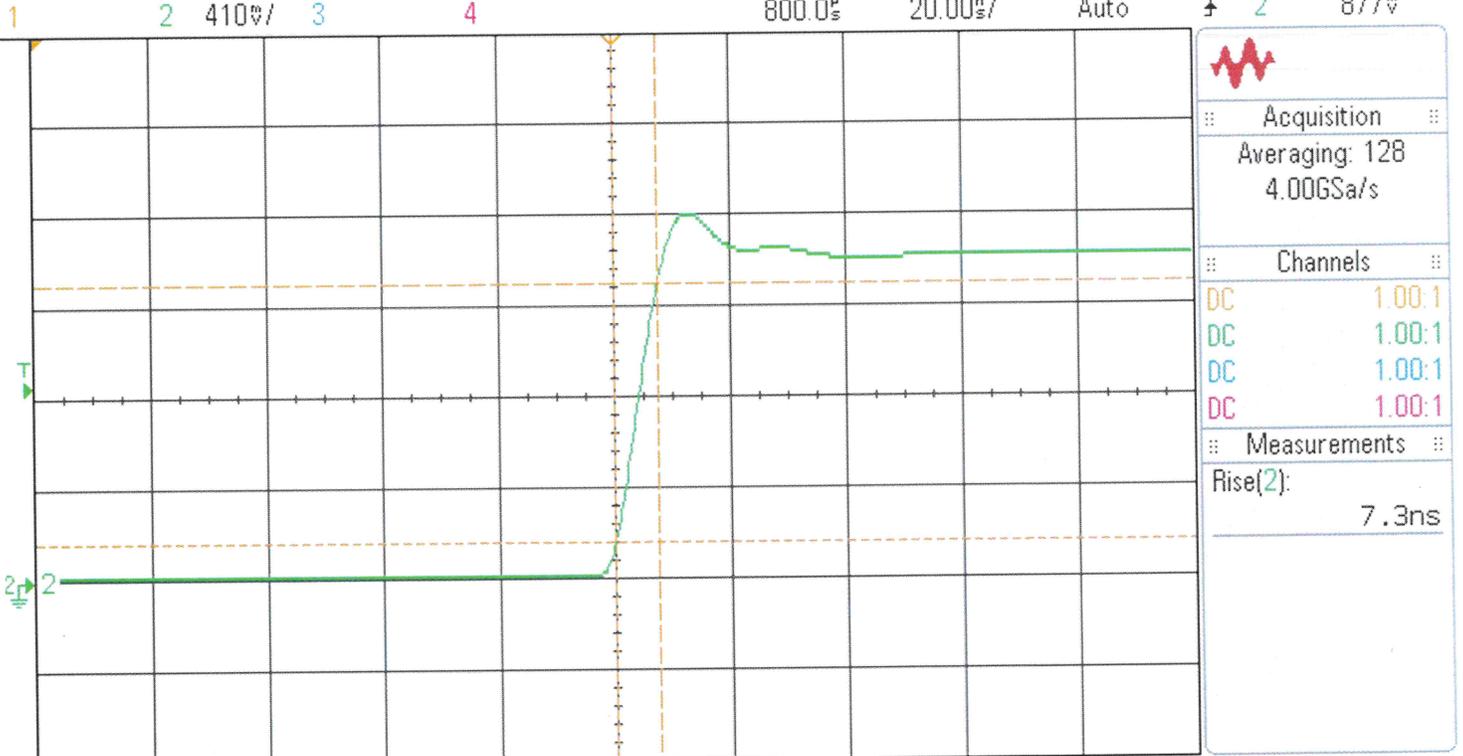
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Graph #3

Rise Time 7.3ns

DSO-X 3024A, MY54490369 Tue May 14 13:25:48 2024



Trigger Menu

Trigger Type: Edge  
Source: 2  
Slope: f



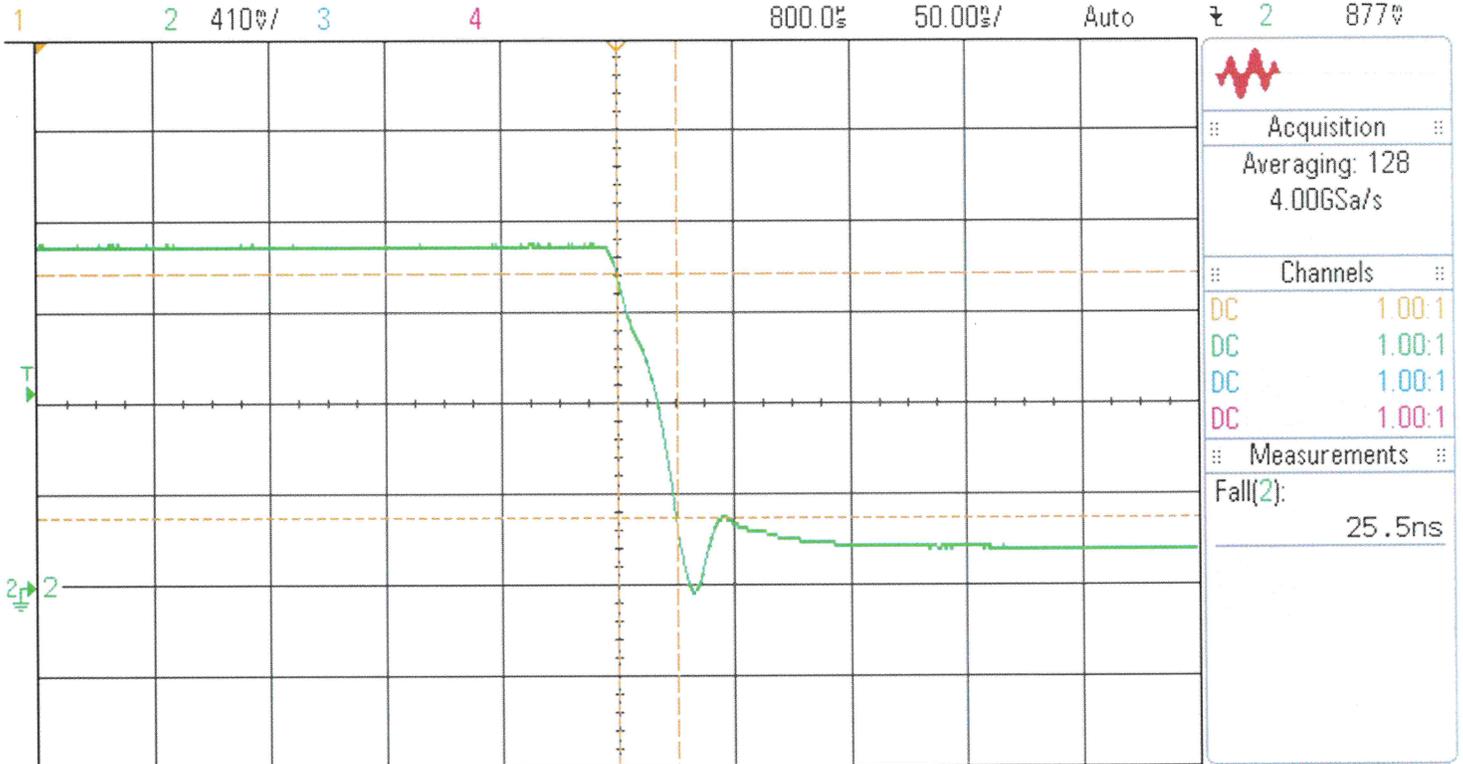
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Graph #4

Recovery Time 25.5ns

DSO-X 3024A, MY54490369: Tue May 14 13:37:43 2024



Acquire Menu

Acq Mode  
Averaging

# Avgs  
128

Segmented



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**Graph #5**

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

