



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

PL46124/2422

Customer: <u>PMI</u>	Tested By: <u>Anton L.</u>
SO No: <u>20240529</u>	Temperature: <u>+25°C</u>
Model No: <u>SDLVA-18G40G-65-CD-292FF</u>	Date: <u>05/29/24</u>
Serial No: <u>PL46124/2422</u>	Drawing No: <u>ETD000046</u> REV: <u>A2</u>

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.	-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.	+1.45 dB -1.31 dB	
6	Log Slope: (See Graph #1)	25 mV/dB Nom.	24.67 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.	±1.7dB	
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.)	29.5 ns	
12	Delay Time:	15ns Max.	<15ns by design	
13	Input VSWR: (See Graph #5)	2.5:1 Max.	2.45:1	
14	Power Supply	+12V @ 500mA Max. -12V @ 200mA Max.	+12V @ 440mA -12V @ 160mA	

QA/QC Approval: K. [Signature] 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)	1733															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	25.4	156	255	375	497	633	780	904	1026	1140	1244	1393	1534	1668	1798	Error (mV)	MAX	MIN	
			25	-3	-10	-15	-7	13	10	5	-8	-31	-9	5	11	14	LINEARITY ERROR (dB)	0.99	-1.23	
			0.99	-0.12	-0.40	-0.60	-0.26	0.53	0.40	0.20	-0.32	-1.23	-0.37	0.18	0.45	0.56				
23.5 GHz	INTERCEPT (mV)	1704															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	25.3	148	248	367	492	619	726	848	974	1098	1216	1361	1520	1668	1788	Error (mV)	MAX	MIN	
			37	10	3	1	2	-17	-22	-22	-25	-33	-15	18	30	33	LINEARITY ERROR (dB)	1.45	-1.31	
			1.45	0.40	0.11	0.05	0.08	-0.69	-0.86	-0.88	-0.98	-1.31	-0.57	0.72	1.17	1.32				
29 GHz	INTERCEPT (mV)	1736															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	25.4	145	247	367	494	641	801	931	1057	1174	1279	1382	1517	1650	1780	Error (mV)	MAX	MIN	
			7	-17	-24	-24	-4	29	33	32	22	0	-24	-15	9	-9	LINEARITY ERROR (dB)	1.29	-0.96	
			0.29	-0.69	-0.96	-0.95	-0.15	1.16	1.29	1.25	0.87	0.01	-0.93	-0.60	-0.36	-0.23				
34.5 GHz	INTERCEPT (mV)	1655															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	23.2	191	300	421	547	669	767	891	1016	1133	1239	1327	1452	1586	1720	Error (mV)	MAX	MIN	
			0	-7	-2	7	3	-5	3	12	12	2	-26	-17	0	18	LINEARITY ERROR (dB)	0.78	-1.13	
			0.01	-0.30	-0.10	0.32	0.14	-0.22	0.12	0.50	0.53	0.09	-1.13	-0.75	0.02	0.78				
40 GHz	INTERCEPT (mV)	1677															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	24	169	275	398	528	641	760	889	1019	1135	1249	1344	1469	1604	1737	Error (mV)	MAX	MIN	
			6	-8	-6	4	-3	-4	5	15	11	5	-20	-16	-1	12	LINEARITY ERROR (dB)	0.62	-0.85	
			0.23	-0.35	-0.23	0.18	-0.12	-0.16	0.21	0.62	0.45	0.19	-0.85	-0.65	-0.03	0.51				
Flatness +/- dB		0.90	1.10	1.10	1.10	0.80	1.50	1.70	1.70	1.50	1.30	1.30	1.70	1.70	1.60					
Max. Video Output (V)		0.19	0.30	0.42	0.55	0.66	0.80	0.93	1.06	1.17	1.28	1.39	1.53	1.67	1.80					
Min. Video Output (V)		0.15	0.25	0.37	0.49	0.62	0.73	0.85	0.97	1.10	1.22	1.33	1.45	1.59	1.72					
Nominal Log Slope mV/dB		24.67														Video Output @ -63dBm		Video Output @ +2dBm		
Log Slope Variation: ± mV/dB		1.09														Min(V)= 145.0		Min(V)= 1720.0		
																Max(V)= 191.0		Max(V)= 1798.0		



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Graph #1 (cont.)

Log Transfer vs Frequency @+25C





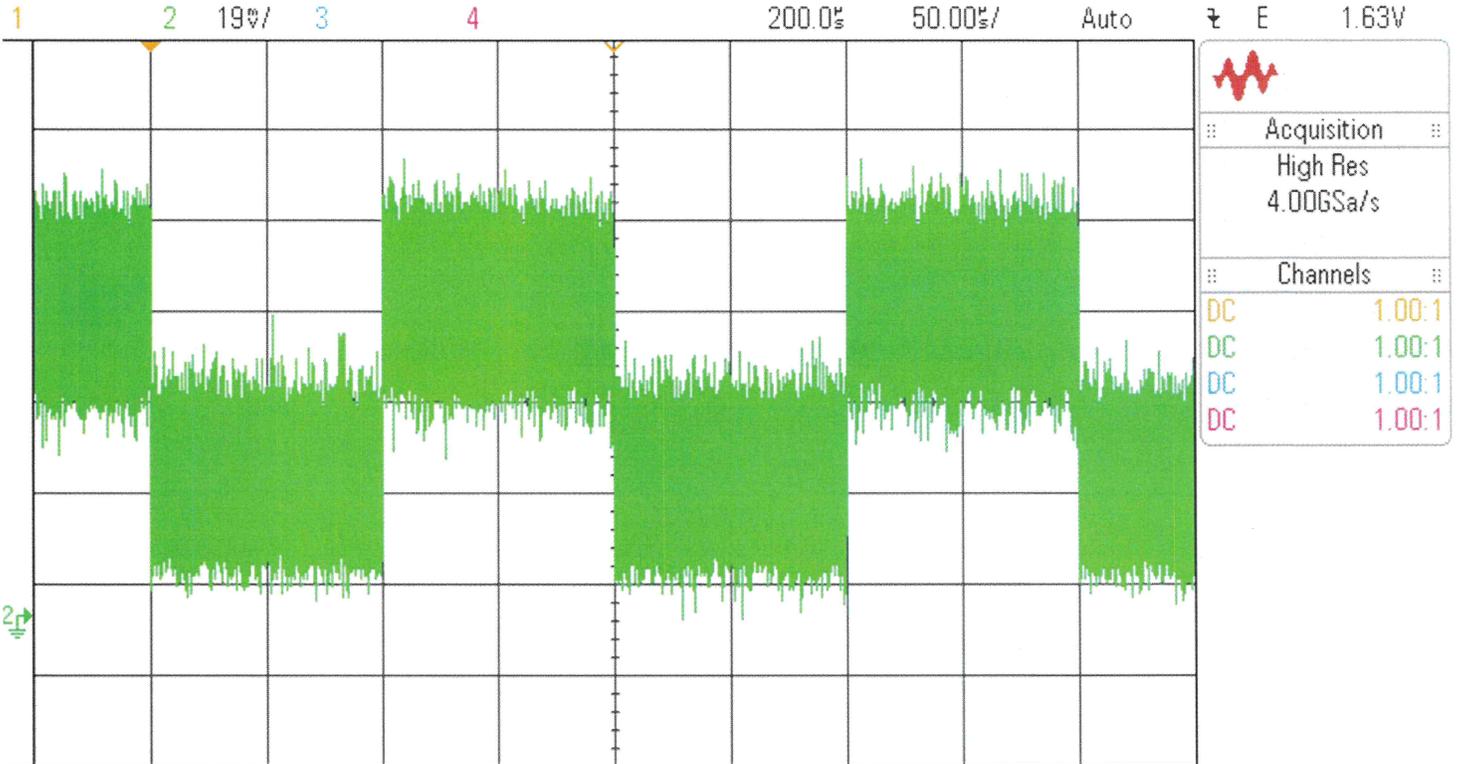
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Graph #2

TSS-69.5 dBm @+25C

DSO-X 3024A, MY54490369: Wed May 29 09:35:22 2024



Acquire Menu

Acq Mode
High Res

Avgs
1

Segmented



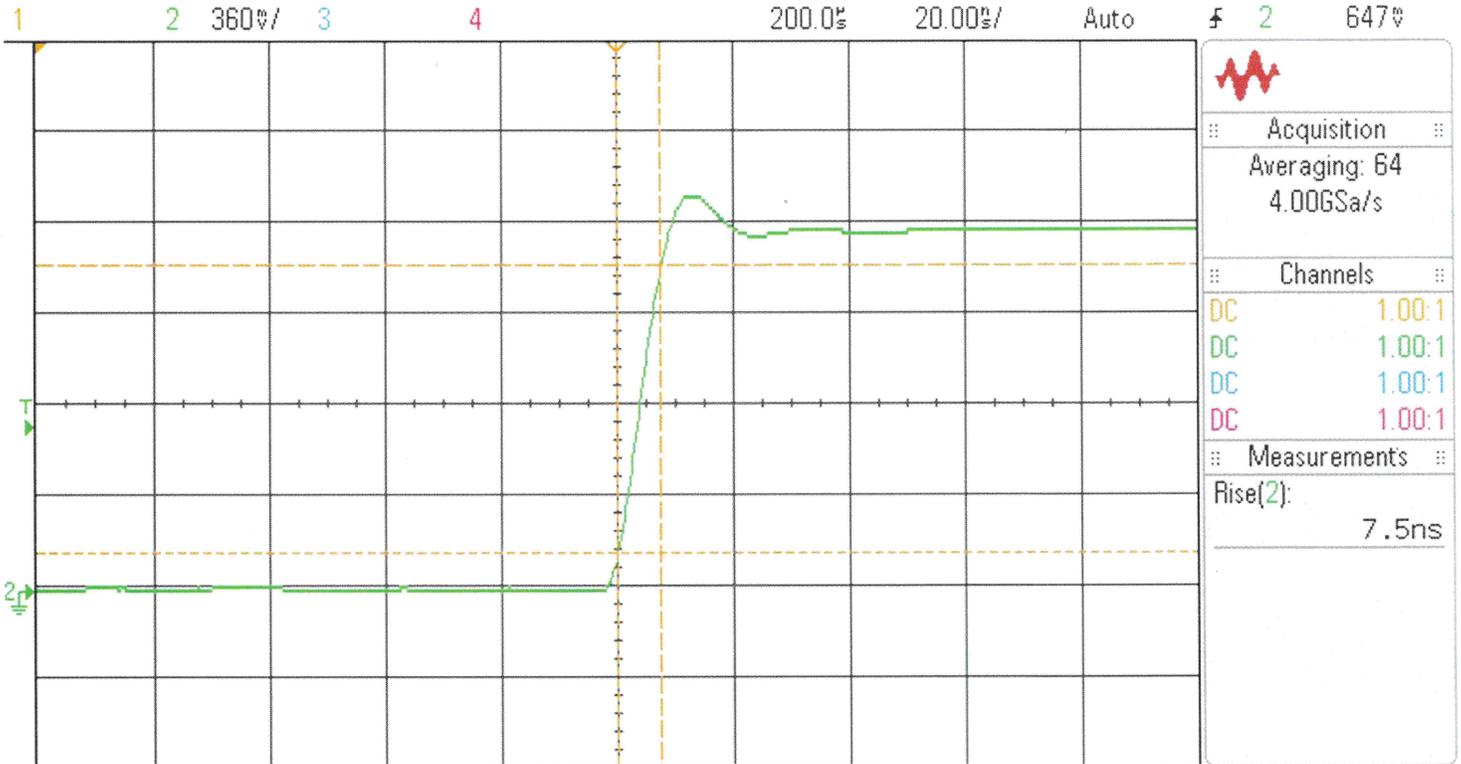
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Graph #3

Rise Time 7.5ns

DSO-X 3024A, MY54490369: Wed May 29 09:33:09 2024



Trigger Menu

Trigger Type: Edge
Source: 2
Slope: f



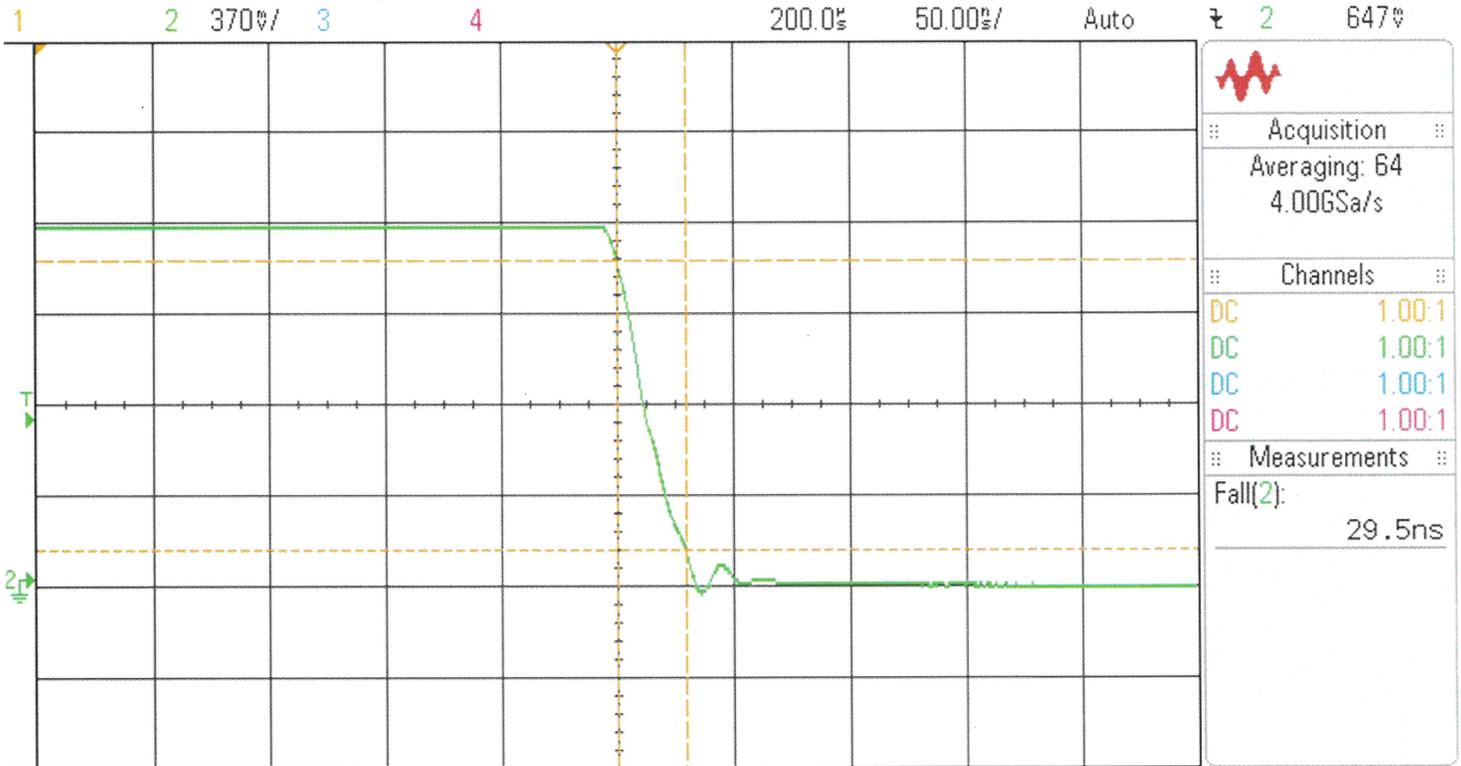
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Graph #4

Recovery Time 29.5ns

DSO-X 3024A, MY54490369: Wed May 29 09:33:54 2024



Trigger Menu

Trigger Type: Edge Source: 2 Slope: \uparrow



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Graph #5

VSWR 2.45:1 @+25C & -20 dBm

