



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

PL46000/2422

Customer: <u>PMI</u>	Tested By: <u>Anton L.</u>
SO No: <u> </u>	Temperature: <u>+25°C</u>
Model No: <u>SDLVA-18G40G-65-CD-292FF</u>	Date: <u>05/29/24</u>
Serial No: <u>PL46000/2422</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.	-69.0 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.	+1.24 dB -1.07 dB	
6	Log Slope: (See Graph #1)	25 mV/dB Nom.	24.41 mV/dB	
7	Log Slope Variation: (See Graph #1)	±2.0 mV/dB Max.	0.83 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.)	7.3 ns	
11	Recovery Time: (See Graph #4)	60ns Max. (40 ns Typ.)	31.3 ns	
12	Delay Time:	15ns Max.	<15ns by design	
13	Input VSWR: (See Graph #5)	2.5:1 Max.	2.35:1	
14	Power Supply	+12V @ 500mA Max. -12V @ 200mA Max.	+12V @ 470mA -12V @ 160mA	

QA/QC Approval: *K. Linton* 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)	1682															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	24.3	166	268	386	503	628	760	886	1012	1132	1239	1361	1484	1610	1733	Error (mV)	MAX	MIN	
			16	-4	-7	-12	-9	2	6	11	9	-6	-5	-4	1	2	LINEARITY ERROR (dB)	0.65	-0.50	
			0.65	-0.16	-0.31	-0.50	-0.35	0.07	0.26	0.44	0.37	-0.23	-0.21	-0.15	0.03	0.09				
23.5 GHz	INTERCEPT (mV)	1696															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	25.1	148	249	367	488	612	736	856	980	1101	1218	1376	1612	1639	1760	Error (mV)	MAX	MIN	
			31	7	-1	-5	-6	-9	-13	-14	-18	-27	6	17	18	14	LINEARITY ERROR (dB)	1.24	-1.07	
			1.24	0.27	-0.02	-0.20	-0.25	-0.34	-0.51	-0.56	-0.74	-1.07	0.24	0.66	0.73	0.56				
29 GHz	INTERCEPT (mV)	1689															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	24.9	136	236	353	473	602	767	894	1018	1132	1235	1367	1482	1609	1732	Error (mV)	MAX	MIN	
			14	-10	-18	-22	-18	23	28	26	15	-6	-9	-8	-8	-7	LINEARITY ERROR (dB)	1.04	-0.89	
			0.56	-0.42	-0.72	-0.89	-0.70	0.93	1.04	1.02	0.60	-0.25	-0.35	-0.32	-0.22	-0.27				
34.5 GHz	INTERCEPT (mV)	1648															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	23.4	187	297	418	537	640	737	857	982	1101	1214	1331	1484	1594	1720	Error (mV)	MAX	MIN	
			14	7	10	12	-2	-22	-19	-11	-9	-13	-13	3	16	25	LINEARITY ERROR (dB)	1.07	-0.92	
			0.58	0.28	0.45	0.53	-0.07	-0.92	-0.80	-0.46	-0.38	-0.55	-0.55	0.13	0.69	1.07				
40 GHz	INTERCEPT (mV)	1675															Measured Value (mV)		Error (dB)	
	SLOPE (mV/dB)	24.4	149	253	372	498	606	760	884	1014	1131	1250	1361	1488	1594	1719	Error (mV)	MAX	MIN	
			10	-8	-11	-7	-20	2	14	22	17	14	-7	-12	-8	-5	LINEARITY ERROR (dB)	0.89	-0.84	
			0.42	-0.31	-0.43	-0.27	-0.84	0.06	0.56	0.89	0.69	0.56	-0.30	-0.50	-0.33	-0.21				
Flatness +/- dB		1.00	1.20	1.30	1.30	0.80	0.70	0.80	0.80	0.60	0.70	0.90	1.00	0.90	0.80					
Max. Video Output (V)		0.19	0.30	0.42	0.54	0.64	0.77	0.89	1.02	1.13	1.25	1.38	1.51	1.64	1.76					
Min. Video Output (V)		0.14	0.24	0.35	0.47	0.60	0.74	0.86	0.98	1.10	1.21	1.33	1.46	1.59	1.72					
Nominal Log Slope mV/dB	24.41															Video Output @ -63dBm		Video Output @ +2dBm		
Log Slope Variation: ± mV/dB	0.83															Min(V)= 136.0		Min(V)= 1719.0		
																Max(V)= 187.0		Max(V)= 1760.0		

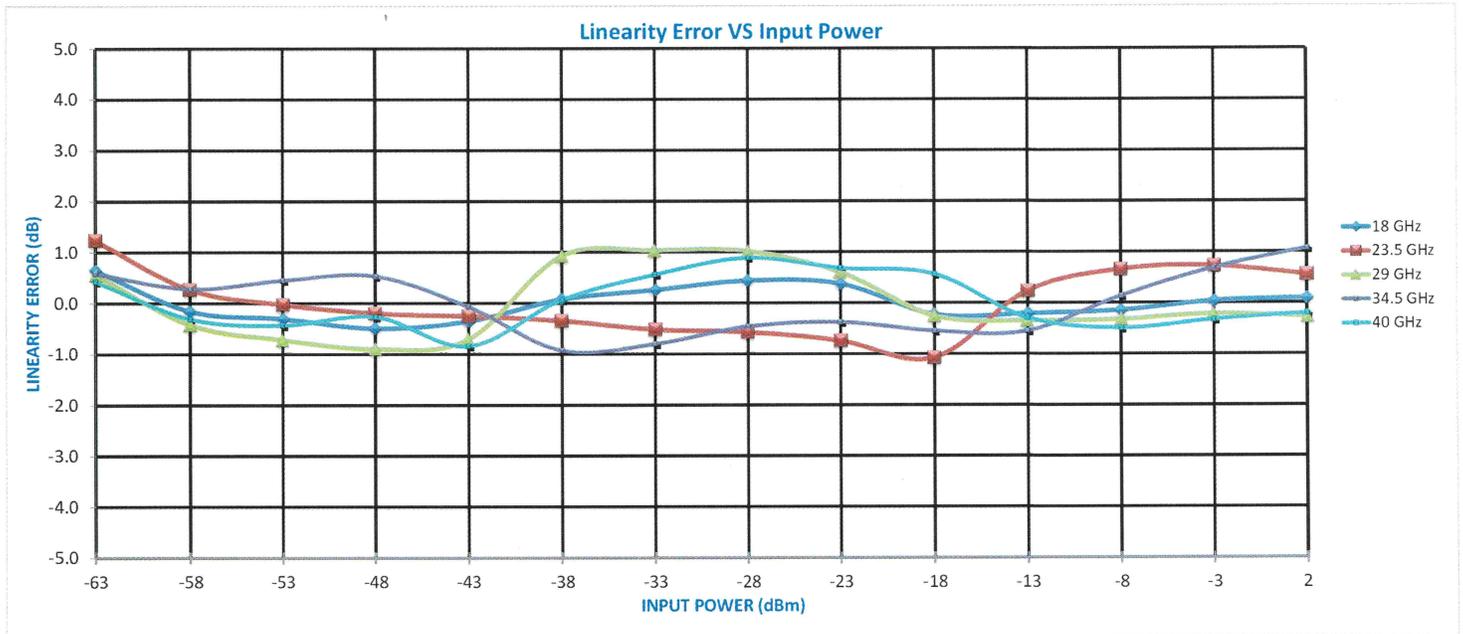


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Graph #1 (cont.)

Log Transfer vs Frequency @+25C





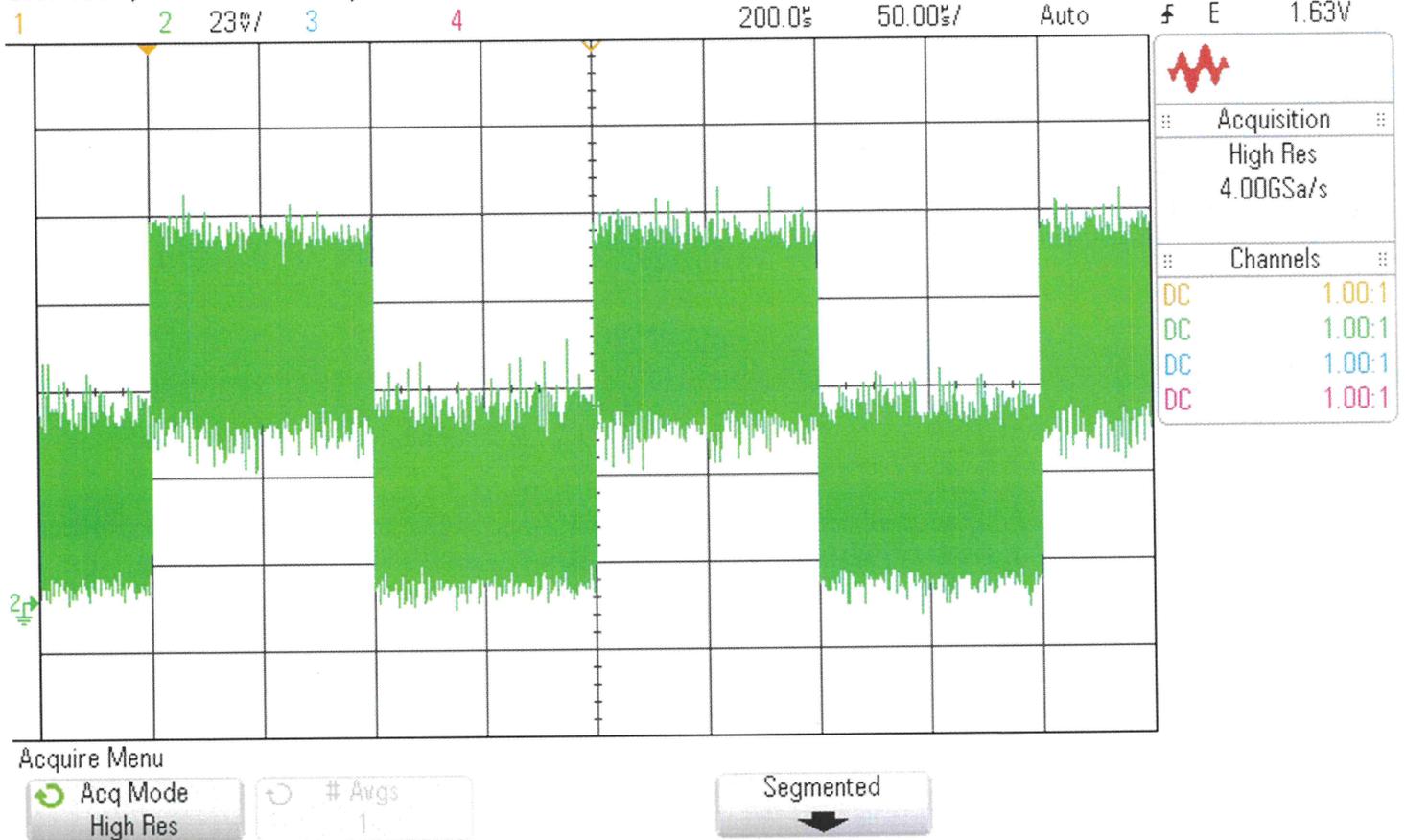
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Graph #2

TSS-69.0 dBm @+25C

DSO-X 3024A, MY54490369: Tue May 28 16:56:44 2024





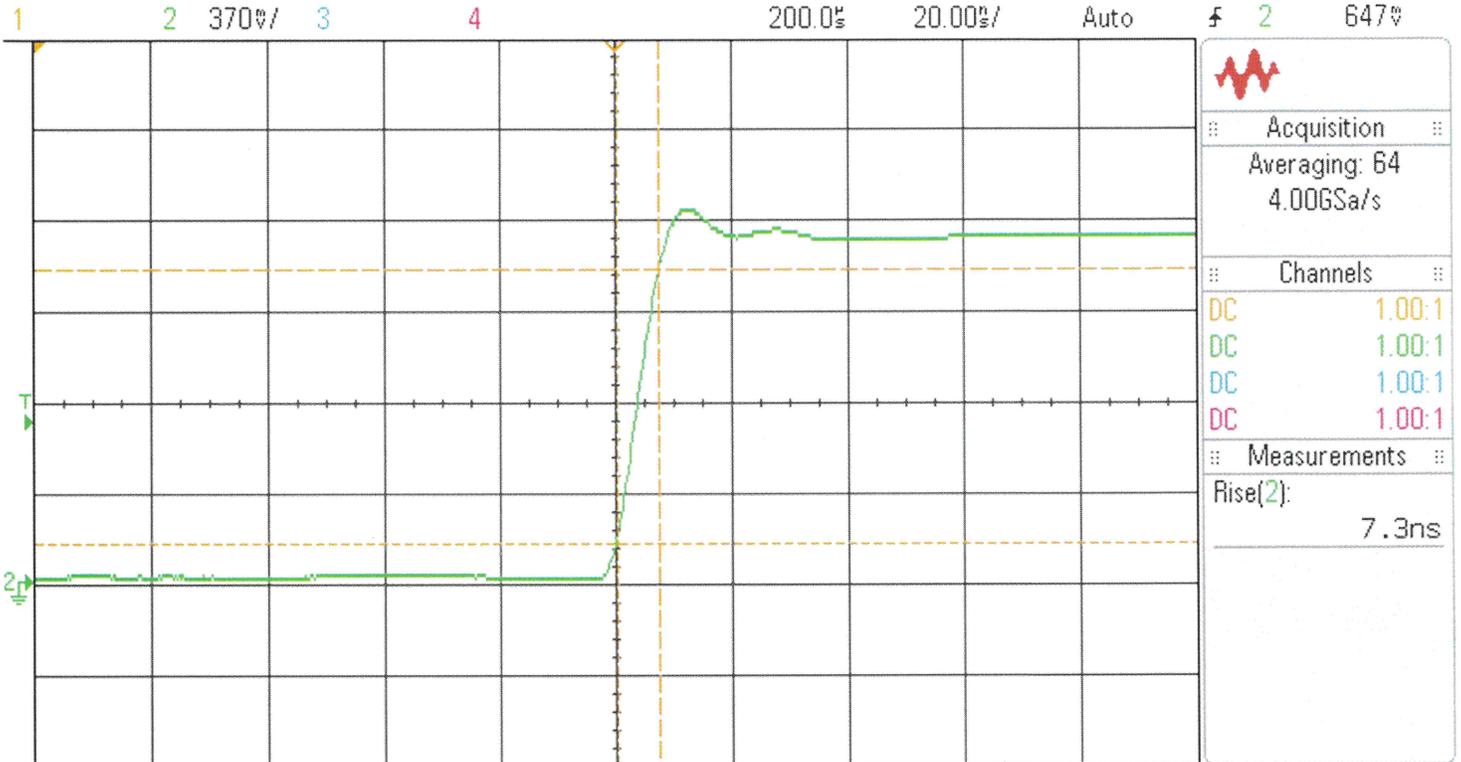
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Graph #3

Rise Time 7.3ns

DSO-X 3024A, MY54490369, Tue May 28 17:03:22 2024



Trigger Menu



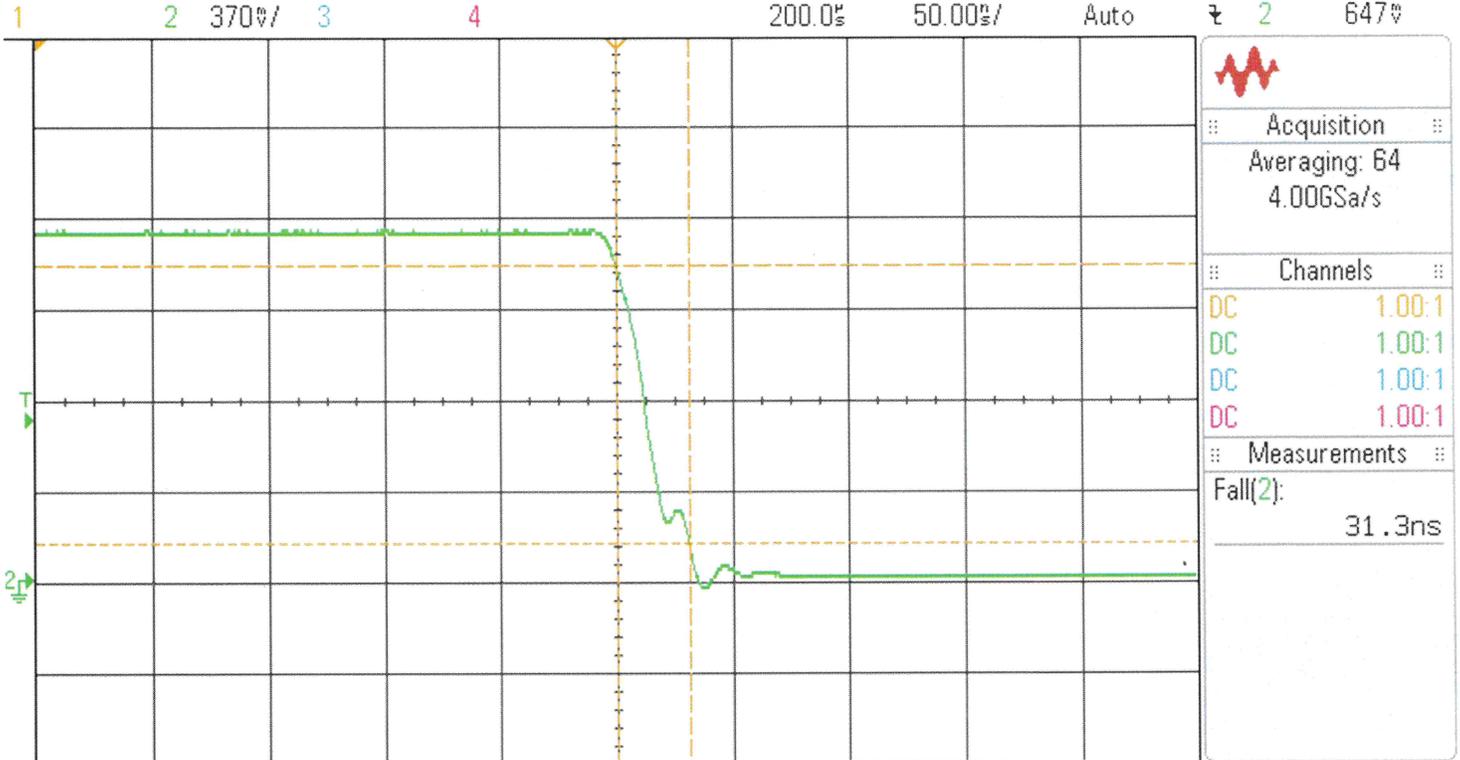
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Graph #4

Recovery Time 31.3ns

DSO-X 3024A, MY54490369: Tue May 28 17:04:06 2024



Trigger Menu

Trigger Type: Edge
Source: 2
Slope: \uparrow



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Graph #5

VSWR 2.35:1 @+25C & -20 dBm

