



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

PL45717/2420

Customer: PL45717/2420 Tested By: Anton L.
SO No: PL45717/2420 Temperature: +25°C
Model No: SDLVA-18G40G-65-CD-292FF Date: 05/15/24
Serial No: PL45717/2420 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.	-71.0 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.	+1.30 dB -1.37 dB	
6	Log Slope: (See Graph #1)	25 mV/dB Nom.	25.33 mV/dB	
7	Log Slope Variation: (See Graph #1)	±2.0 mV/dB Max.	1.25 mV/dB	
8	Frequency Flatness: @+25C (See Graph #1)	±2.5dB Max.	±1.9dB	
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.)	18.8 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 @ 460mA -12V @ 160mA	

QA/QC Approval: K. [Signature] 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)	1788																
	SLOPE (mV/dB)	25.9																
			174	286	414	543	682	811	928	1055	1177	1293	1456	1591	1723	1852	Measured Value (mV)	Error (dB)
		16	-1	-3	-3	7	6	-6	-9	-16	-29	4	10	12	12	Error (mV)	MAX	MIN
		0.63	-0.04	-0.10	-0.11	0.26	0.24	-0.24	-0.33	-0.62	-1.14	0.16	0.37	0.47	0.46	LINEARITY ERROR (dB)	0.63	-1.14
23.5 GHz	INTERCEPT (mV)	1759																
	SLOPE (mV/dB)	26.2																
			143	248	371	500	631	773	877	996	1124	1252	1411	1567	1707	1845	Measured Value (mV)	Error (dB)
		34	8	0	-2	-2	9	-18	-30	-33	-36	-8	17	26	33	Error (mV)	MAX	MIN
		1.30	0.31	0.00	-0.07	-0.07	0.35	-0.68	-1.14	-1.25	-1.37	-0.30	0.66	1.00	1.27	LINEARITY ERROR (dB)	1.30	-1.37
29 GHz	INTERCEPT (mV)	1750																
	SLOPE (mV/dB)	25.3																
			153	267	396	529	669	809	930	1057	1182	1298	1406	1527	1665	1807	Measured Value (mV)	Error (dB)
		-3	-15	-13	-6	7	21	15	16	14	3	-15	-21	-9	6	Error (mV)	MAX	MIN
		-0.10	-0.60	-0.50	-0.25	0.28	0.82	0.60	0.61	0.55	0.13	-0.60	-0.82	-0.37	0.24	LINEARITY ERROR (dB)	0.82	-0.82
34.5 GHz	INTERCEPT (mV)	1699																
	SLOPE (mV/dB)	23.7																
			200	319	449	579	700	797	902	1026	1153	1266	1370	1496	1633	1775	Measured Value (mV)	Error (dB)
		-6	-5	6	18	20	-1	-15	-9	-1	-6	-21	-13	5	29	Error (mV)	MAX	MIN
		-0.25	-0.23	0.26	0.74	0.85	-0.06	-0.63	-0.39	-0.03	-0.27	-0.88	-0.56	0.22	1.21	LINEARITY ERROR (dB)	1.21	-0.88
40 GHz	INTERCEPT (mV)	1720																
	SLOPE (mV/dB)	25.6																
			136	240	362	494	610	722	865	1006	1133	1265	1380	1511	1648	1788	Measured Value (mV)	Error (dB)
		27	3	-3	1	-10	-26	-11	2	1	5	-7	-4	5	17	Error (mV)	MAX	MIN
		1.05	0.12	-0.11	0.05	-0.41	-1.03	-0.43	0.08	0.05	0.21	-0.29	-0.16	0.20	0.67	LINEARITY ERROR (dB)	1.05	-1.03
Flatness +/- dB		1.30	1.60	1.70	1.70	1.80	1.80	1.30	1.20	1.10	0.90	1.70	1.90	1.80	1.50			
Max. Video Output (V)		0.20	0.32	0.45	0.58	0.70	0.81	0.93	1.06	1.18	1.30	1.46	1.59	1.72	1.85			
Min. Video Output (V)		0.14	0.24	0.36	0.49	0.61	0.72	0.87	1.00	1.12	1.25	1.37	1.50	1.63	1.78			
Nominal Log Slope mV/dB		25.33														Video Output @ -63dBm		
Log Slope Variation: ± mV/dB		1.25														Min(V)= 136.0		
																Max(V)= 200.0		
																Video Output @ +2dBm		
																Min(V)= 1775.0		
																Max(V)= 1852.0		

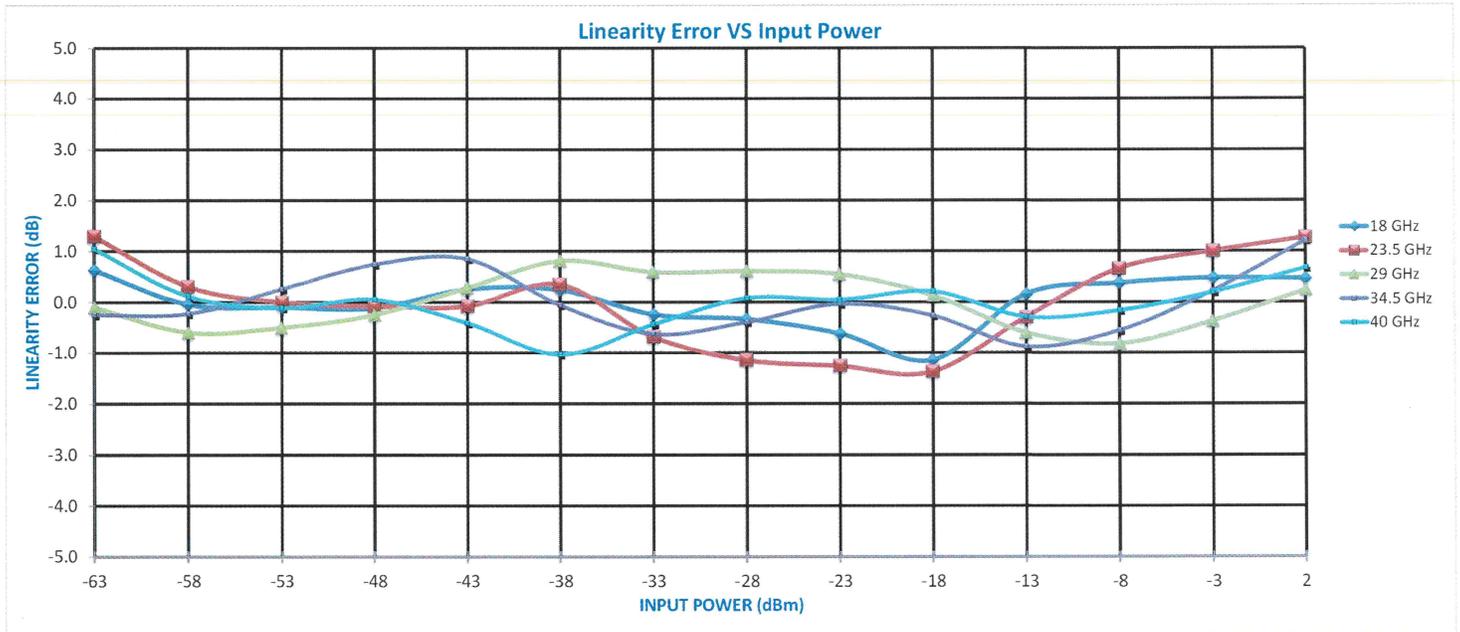


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Graph #1 (cont.)

Log Transfer vs Frequency @+25C





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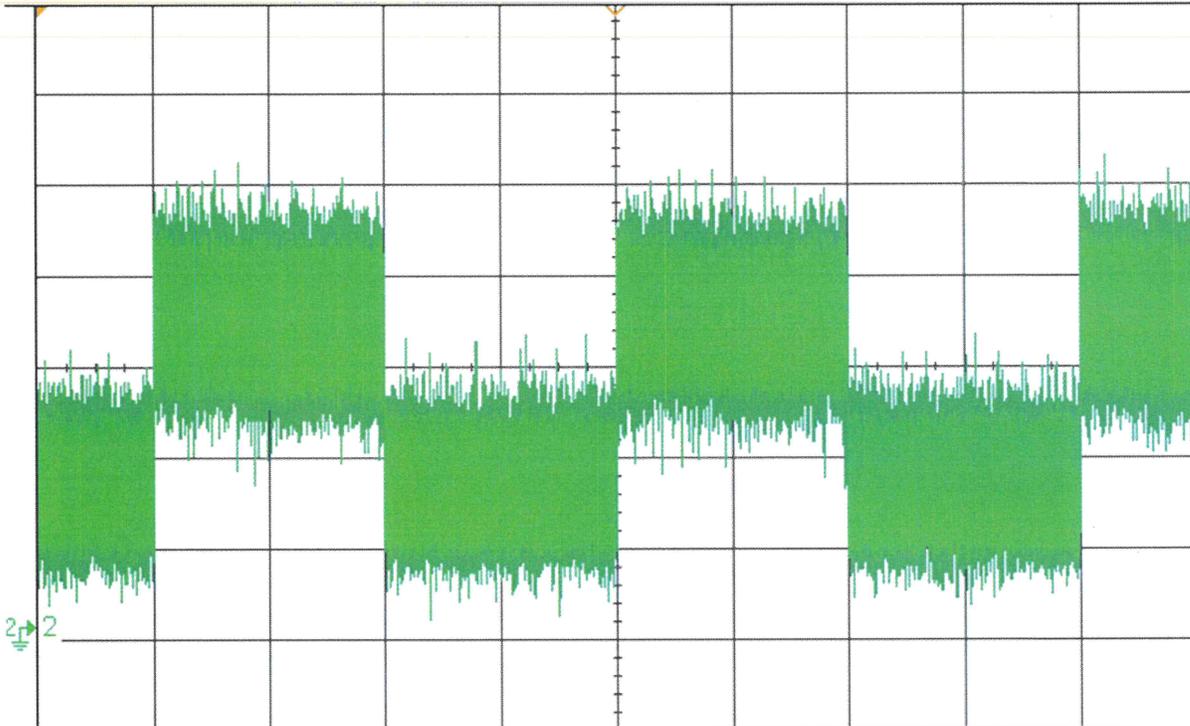
PL45717/2420

Graph #2

TSS-71.0 dBm @+25C

DSO-X 3024A, MY54490369: Tue May 14 13:43:57 2024

1 2 16% / 3 4 800.0% 50.00% / Auto f E 3.49V



Acquisition	
High Res	
4.00GSa/s	
Channels	
DC	1.00:1

Acquire Menu

Acq Mode
High Res

Avgs
1

Segmented
↓



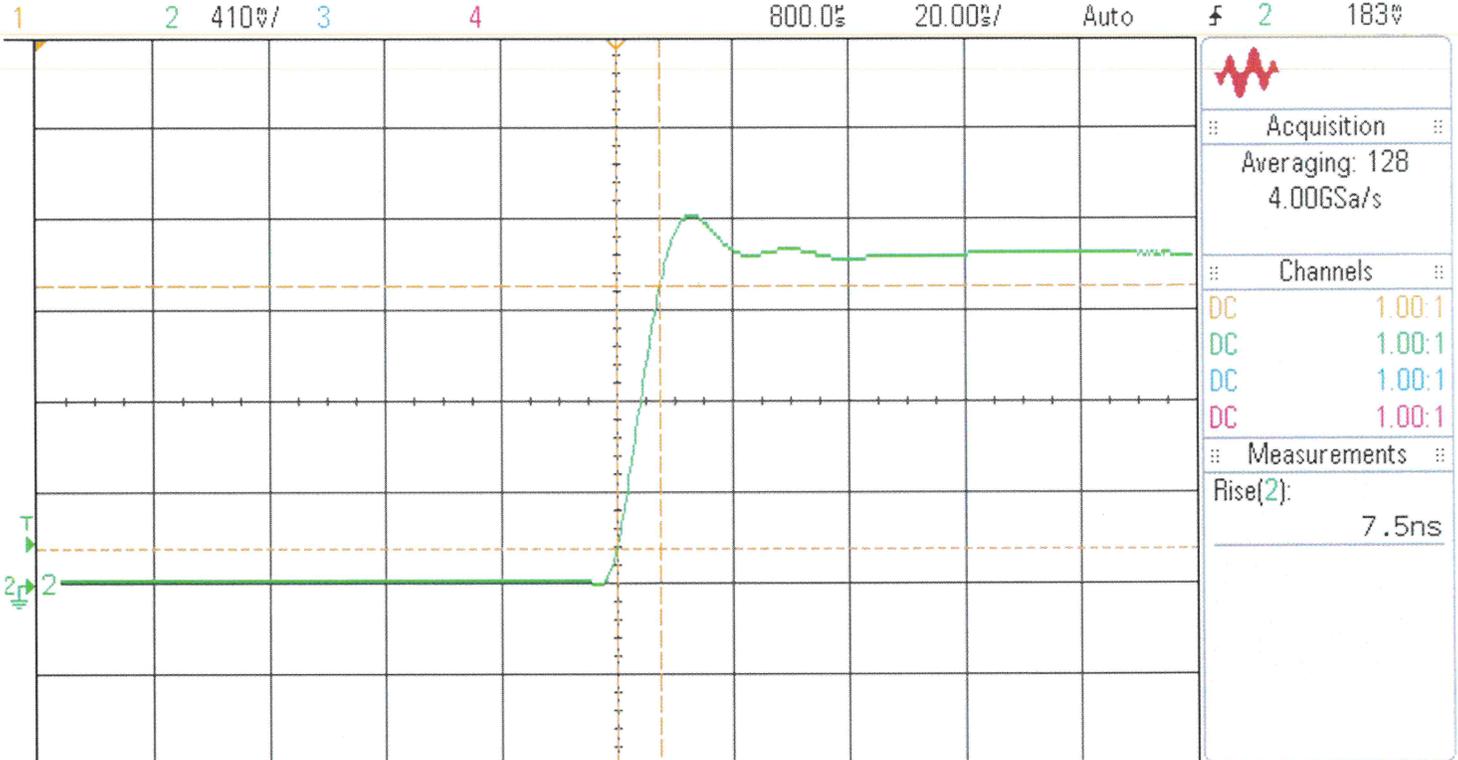
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PL45717/2420

Graph #3

Rise Time 7.5ns

DSO-X 3024A, MY54490369: Tue May 14 13:24:32 2024



Trigger Menu

Trigger Type
 Edge

Source
 2

Slope
 f



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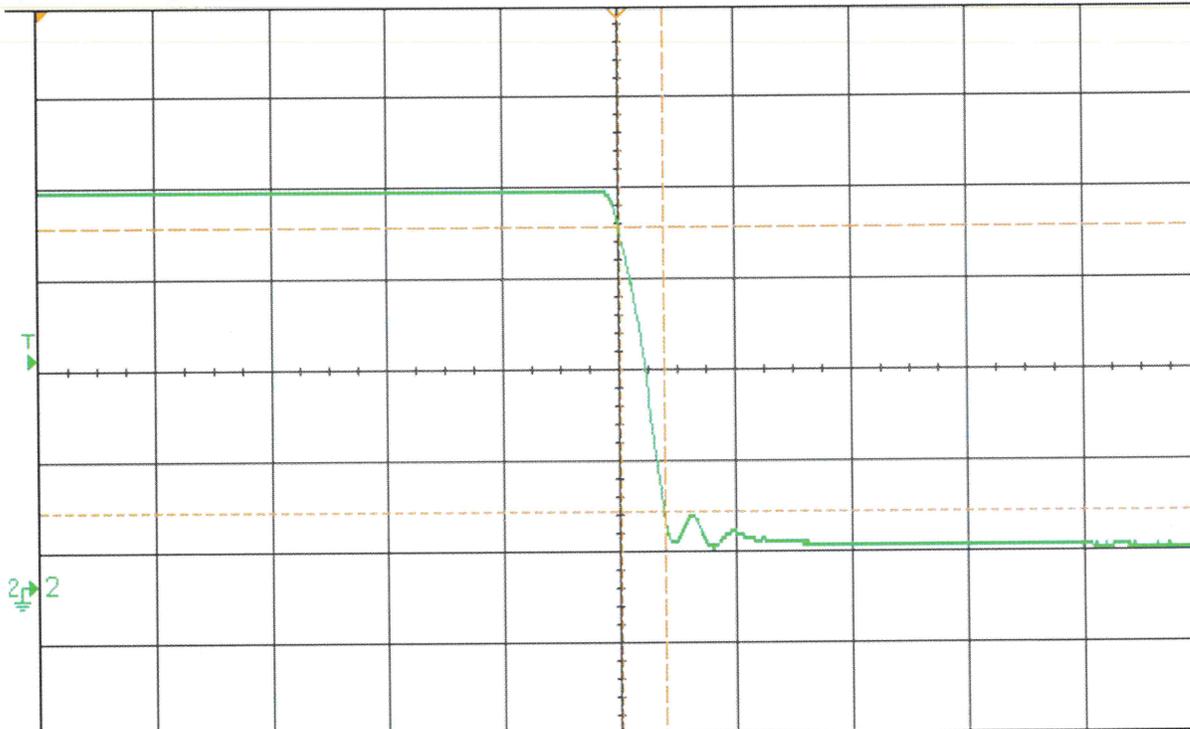
PL45717/2420

Graph #4

Recovery Time 18.8ns

DSO-X 3024A, MY54490369: Tue May 14 13:39:06 2024

1 2 350V/ 3 4 800.0% 50.00%/ Auto 2 866V



Acquisition	
Averaging:	128
	4.00GSa/s
Channels	
DC	1.00:1
Measurements	
Fall(2):	18.8ns

Trigger Menu

Trigger Type: Edge
 Source: 2
 Slope: \uparrow



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Graph #5

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

