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

PL46123/2422

Customer:		**Tested By:**	**Anton L.**
SO No:		**Temperature:**	**+25°C**
Model No:	**SDLVA-18G40G-65-CD-292FF**	**Date:**	**05/29/24**
Serial No:	**PL46123/2422**	**Drawing No:**	**ETD000046** **REV: A2**

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	18.0 to 40.0GHz	**Pass**	PMI QA3
2	TSS (See Graph #2)	-65 dBm Max.	**-70.5 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.	**+1.14 dB -1.18 dB**	
6	Log Slope: (See Graph #1)	25 mV/dB Nom.	**25.25 mV/dB**	
7	Log Slope Variation: (See Graph #1)	±2.0 mV/dB Max.	**0.38 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.)	**27.0 ns**	
12	Delay Time:	15ns Max.	**<15ns by design**	
13	Input VSWR: (See Graph #5)	2.5:1 Max.	**2.3:1**	
14	Power Supply	+12V @ 500mA Max. -12V @ 200mA Max.	**+12V @ 410mA -12V @ 160mA**	

QA/QC Approval: K. Lutz 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)	1710	136	247	368	486	609	727	852	978	1100	1222	1397	1525	1652	1777	Measured Value (mV)	Error (dB)	
	SLOPE (mV/dB)	25.4	29	13	7	-3	-7	-16	-18	-20	-25	-30	18	18	18	16	Error (mV)	MAX	MIN
			1.14	0.50	0.26	-0.11	-0.27	-0.64	-0.72	-0.77	-0.98	-1.18	0.70	0.73	0.72	0.63	LINEARITY ERROR (dB)	1.14	-1.18
23.5 GHz	INTERCEPT (mV)	1708	135	247	369	490	614	721	845	973	1098	1225	1396	1524	1651	1775	Measured Value (mV)	Error (dB)	
	SLOPE (mV/dB)	25.4	28	13	8	2	-1	-21	-25	-24	-26	-26	18	19	19	16	Error (mV)	MAX	MIN
			1.10	0.50	0.30	0.07	-0.06	-0.84	-0.97	-0.93	-1.01	-1.01	0.72	0.75	0.75	0.63	LINEARITY ERROR (dB)	1.10	-1.01
29 GHz	INTERCEPT (mV)	1699	138	254	376	497	619	732	858	985	1109	1235	1387	1506	1634	1761	Measured Value (mV)	Error (dB)	
	SLOPE (mV/dB)	25.1	17	8	5	1	-3	-15	-14	-13	-14	-13	13	7	10	11	Error (mV)	MAX	MIN
			0.70	0.32	0.19	0.02	-0.11	-0.60	-0.58	-0.51	-0.56	-0.53	0.53	0.28	0.39	0.45	LINEARITY ERROR (dB)	0.70	-0.60
34.5 GHz	INTERCEPT (mV)	1657	109	222	343	465	584	706	831	960	1089	1213	1334	1458	1584	1714	Measured Value (mV)	Error (dB)	
	SLOPE (mV/dB)	24.8	14	3	0	-2	-7	-9	-8	-3	2	2	-1	-1	2	8	Error (mV)	MAX	MIN
			0.55	0.11	-0.01	-0.08	-0.28	-0.36	-0.32	-0.11	0.09	0.09	-0.02	-0.02	0.06	0.31	LINEARITY ERROR (dB)	0.55	-0.36
40 GHz	INTERCEPT (mV)	1727	130	245	367	495	611	756	889	1020	1150	1289	1393	1517	1645	1773	Measured Value (mV)	Error (dB)	
	SLOPE (mV/dB)	25.5	11	-1	-7	-7	-18	-1	4	8	10	21	-2	-6	-6	-6	Error (mV)	MAX	MIN
			0.45	-0.05	-0.27	-0.26	-0.72	-0.04	0.17	0.30	0.39	0.83	-0.10	-0.24	-0.23	-0.22	LINEARITY ERROR (dB)	0.83	-0.72

Flatness +/- dB	0.60	0.60	0.70	0.60	0.70	1.00	1.10	1.20	1.20	1.50	1.20	1.30	1.30	1.20
Max. Video Output (V)	0.14	0.25	0.38	0.50	0.62	0.76	0.89	1.02	1.15	1.29	1.40	1.53	1.65	1.78
Min. Video Output (V)	0.11	0.22	0.34	0.47	0.58	0.71	0.83	0.96	1.09	1.21	1.33	1.46	1.58	1.71

Nominal Log Slope mV/dB	25.25
Log Slope Varaition: ± mV/dB	0.38

Video Output @ -63dBm
Min(V)= 109.0
Max(V)= 138.0

Video Output @ =+2dBm
Min(V)= 1714.0
Max(V)= 1777.0

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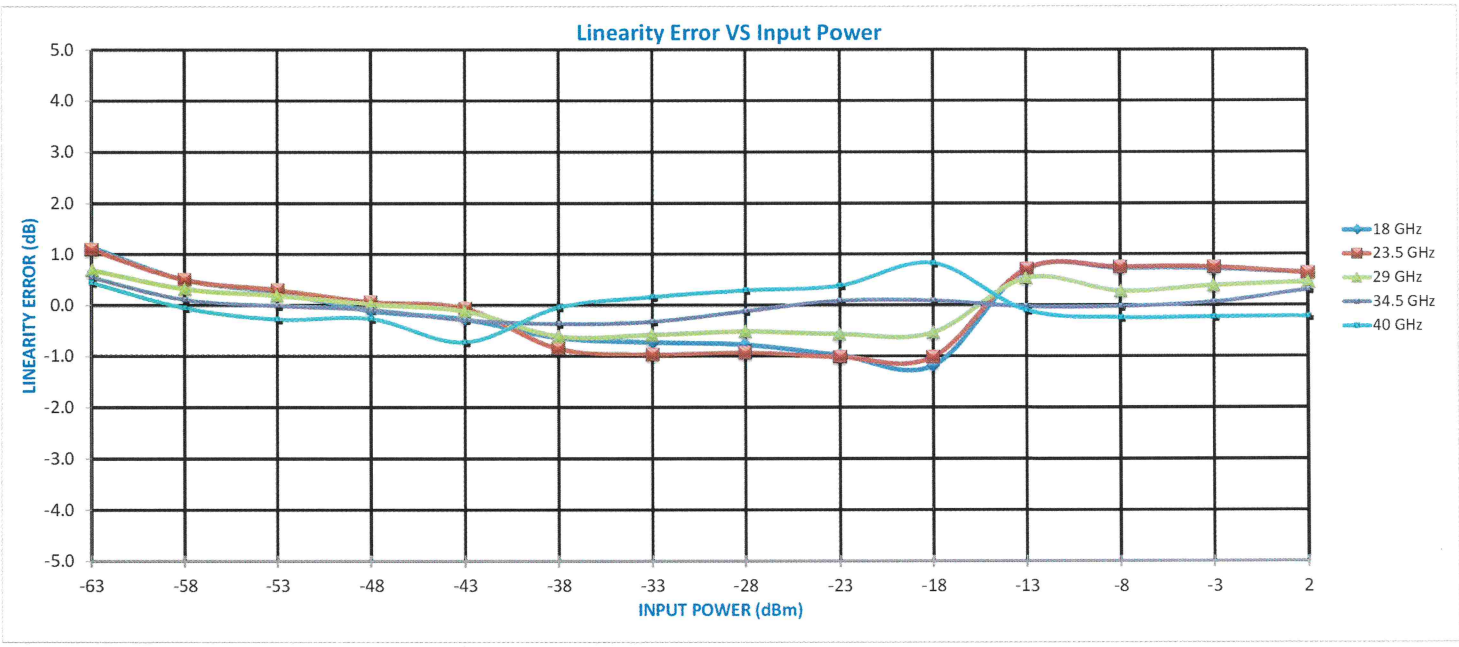
Graph #1 (cont.)

Log Transfer vs Frequency @+25C



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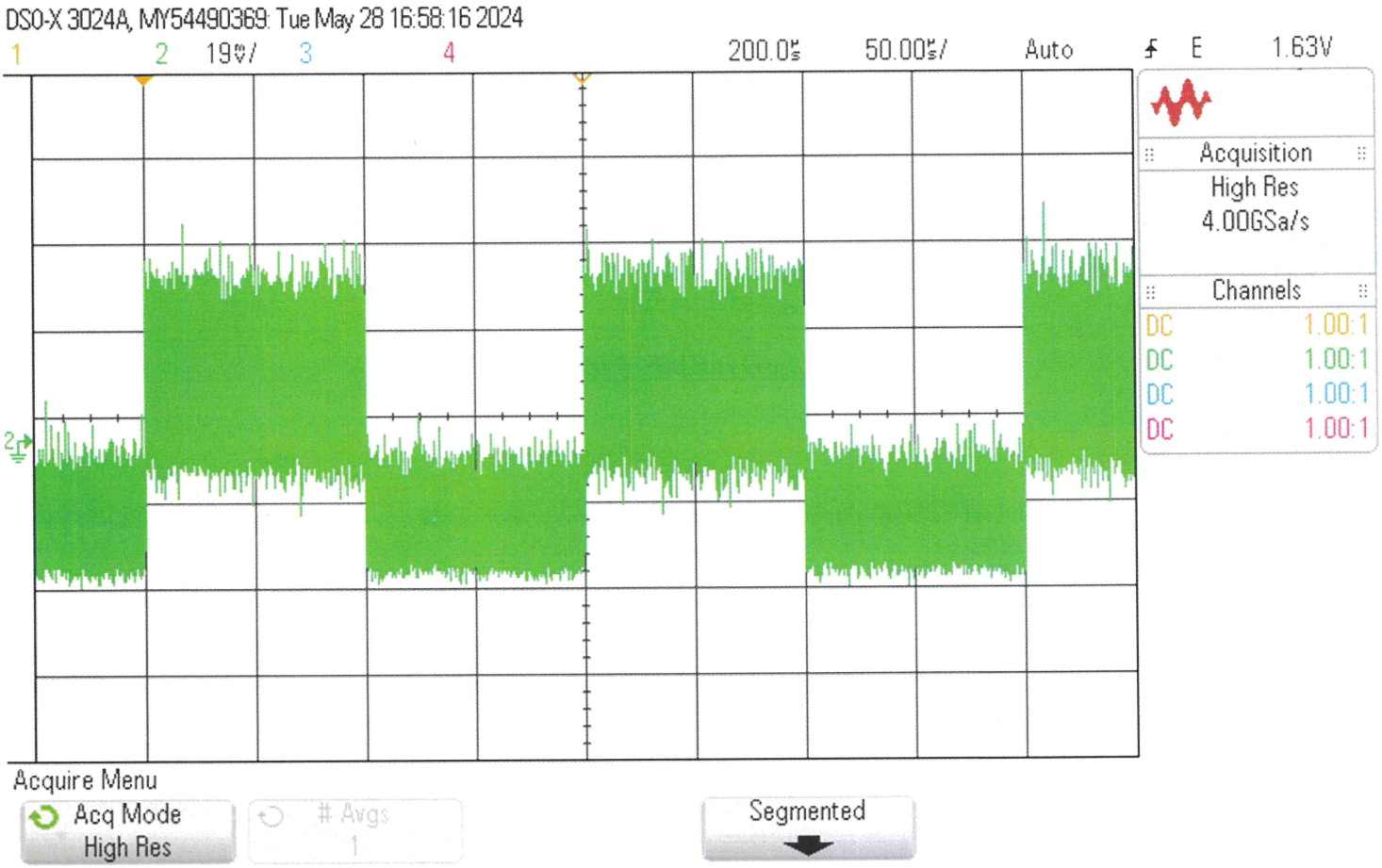
Graph #2

TSS-70.5 dBm @+25C



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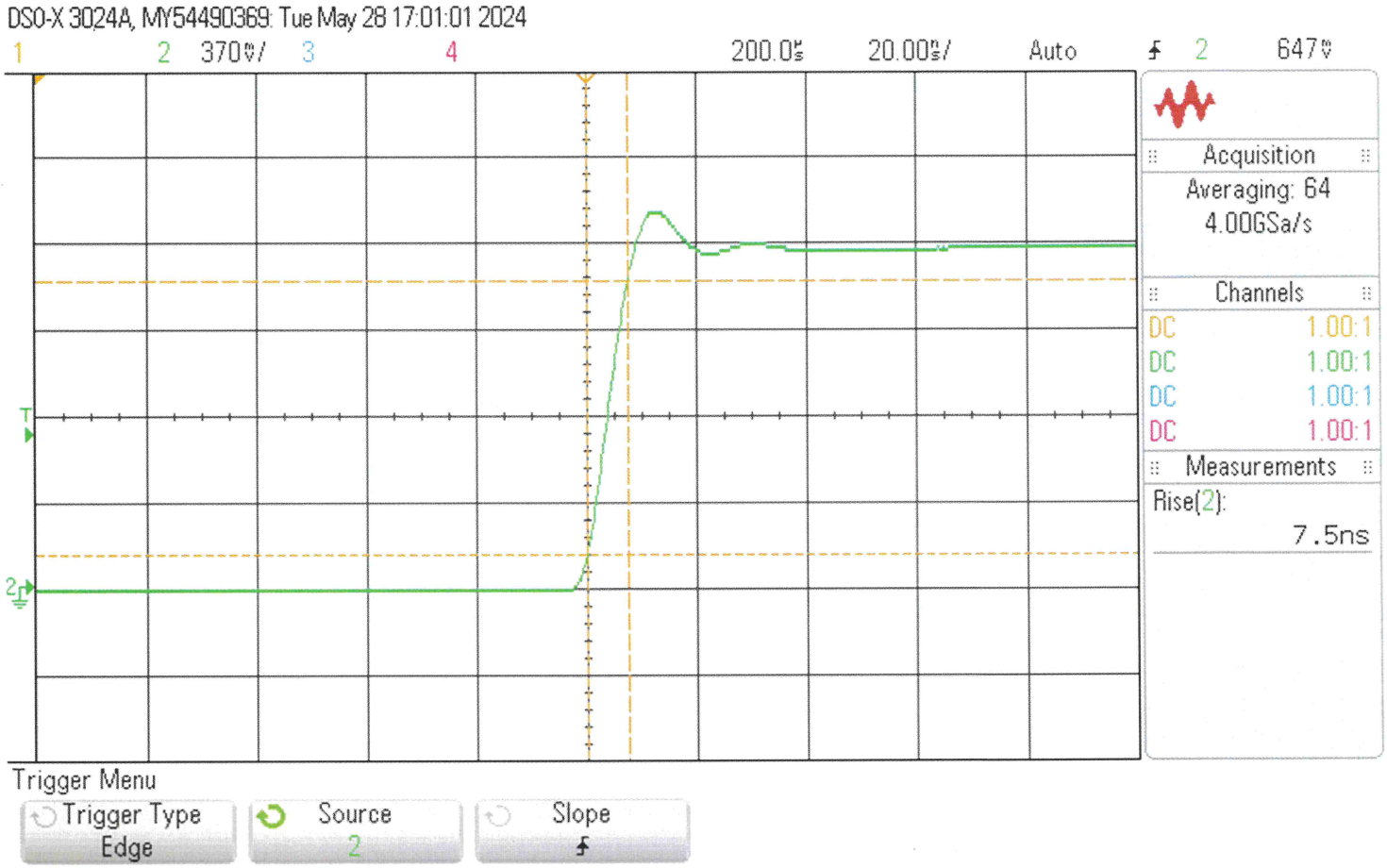
Graph #3

Rise Time 7.5ns



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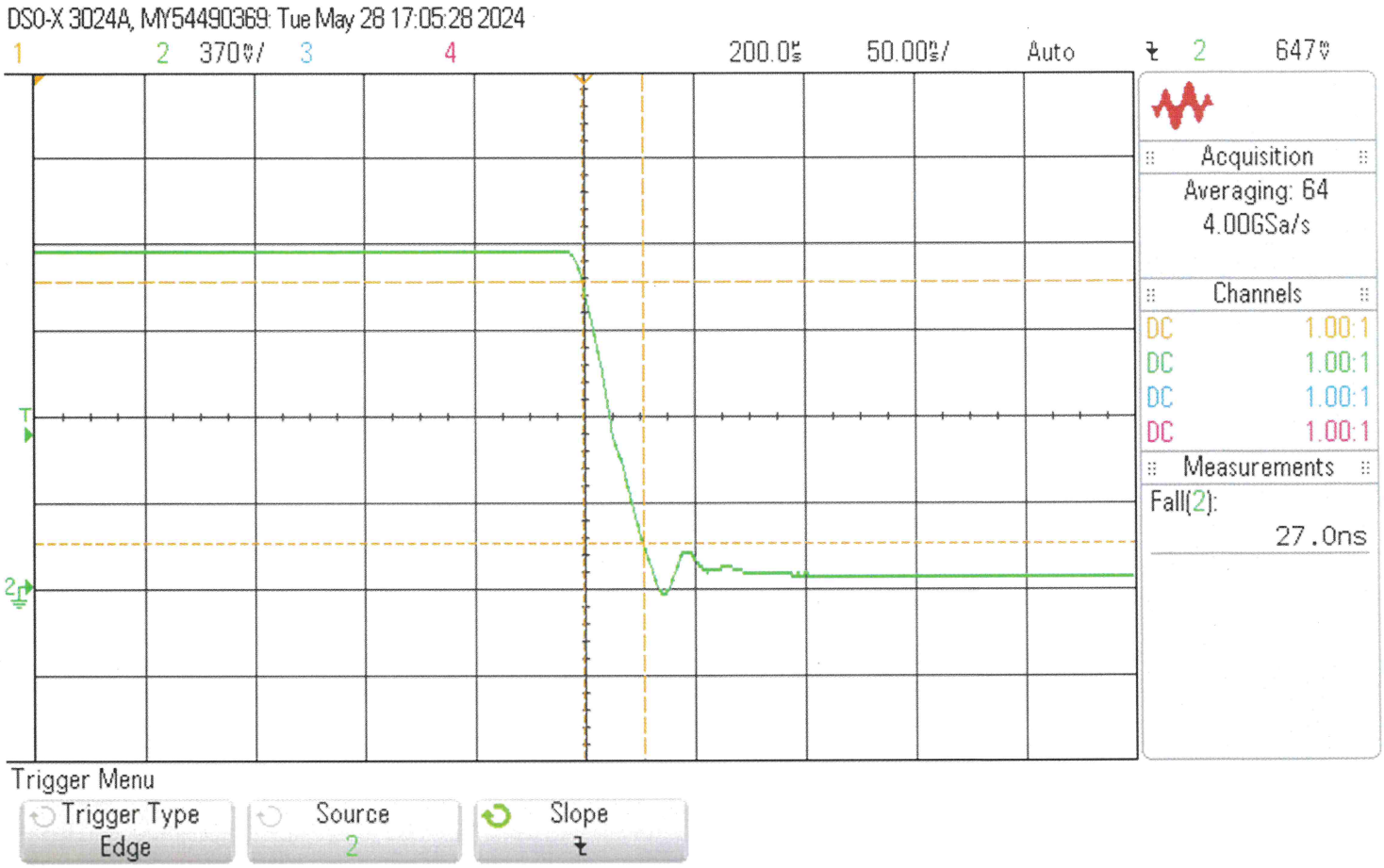
Graph #4

Recovery Time 27.0ns



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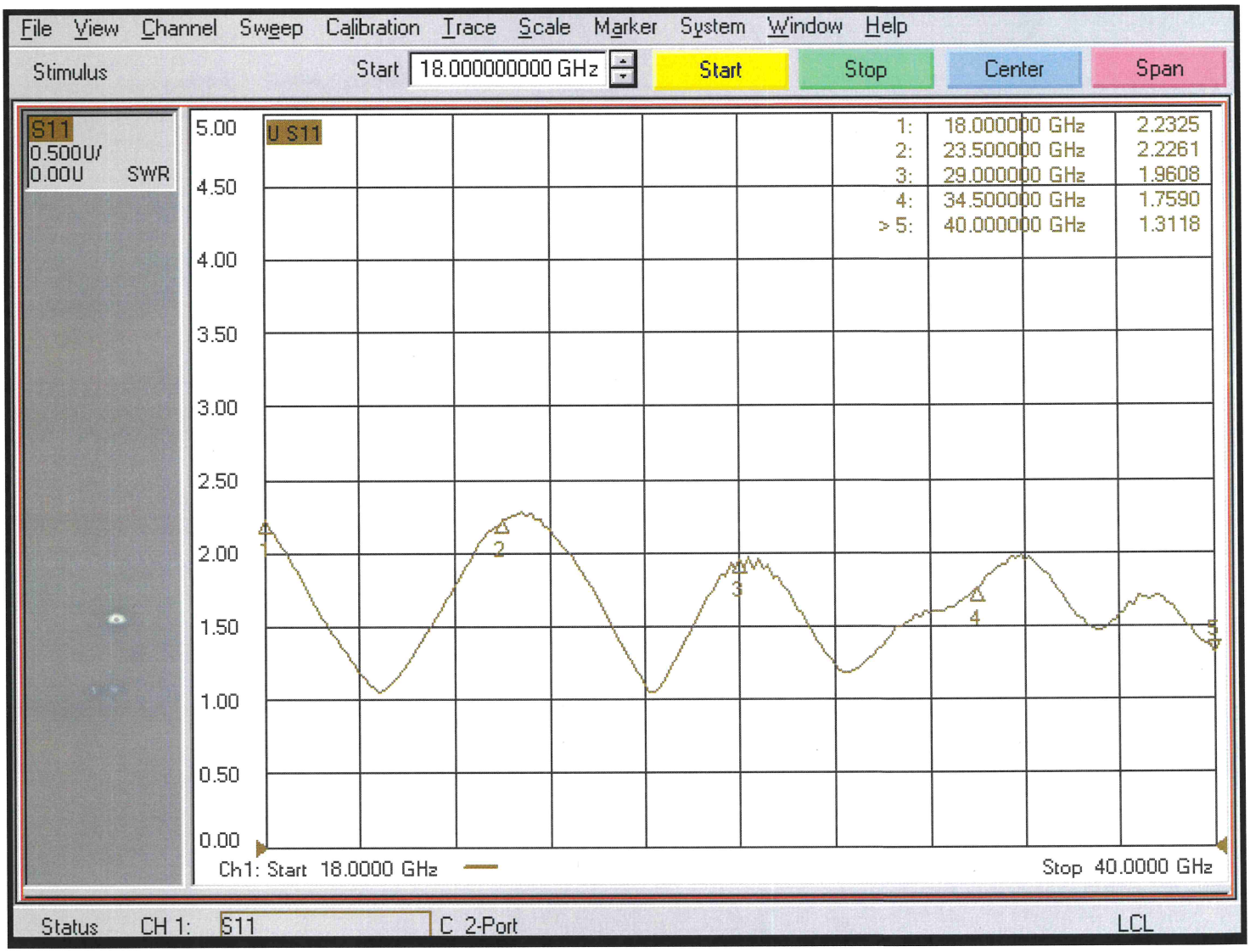
Graph #5

VSWR 2.3:1 @+25C & -20 dBm



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