



**SUMMARY TEST DATA  
ON  
SDLVA-418-65-16MV-12DBM**

PL31784/2112

Customer: _____	Tested By: <u>J. Emperador</u>
SO No: _____	Temperature: <u>+25°C</u>
Model No: <u>SDLVA-418-65-16MV-12DBM</u>	Date: <u>03/23/2021</u>
Serial No: <u>PL31784/2112</u>	Drawing No: <u>27624783</u> Rev: <u>A1</u>

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC	
1	Frequency Range	4 GHz to 18 GHz	4 GHz to 18 GHz	<b>PMI QA3</b>	
2	TSS	-64 dBm max	-64.5 dBm		
3	Input Power Handling	+20 dBm	+20dBm		
4	Video Log Range	-55 dBm to +10 dBm	-55 to +10dBm		
5	Output Harmonics	-9 dBc	Pass		
6	Video Log Linearity	+2.2 dB	+1.56dB -1.06dB		
7	Video Log Slope	16.0 ±2.0 mV/dB nom	16.5mV/dB ±0.57dB		
8	Video Freq Flatness	±4 dB max	±3.10dB		
9	Pulse Width Range	25 nsec to CW	PASS		
10	Video Rise Time	10 nsec max	4.170 nsec		<b>PMI QA3</b>

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TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
11	Video Fall Time	15 nsec max	6.177 nsec	PMI QA3
12	Recovery Time	30 nsec max	22.192 nsec	
13	Delay	<2 nsec	<2 nsec	
14	Video Output Impedance	50Ω	Pass	
15	RF In/Out Impedance	50Ω	Pass	
16	Input VSWR (50Ω)	2.0:1 max	1.88:1	
17	DC Supply	+12 V @ 850 mA -12 V @ 250 mA	490 mA 30 mA	PMI QA3

QA/QC Approval: Arthur Zimmerman Date: 3-23-2021

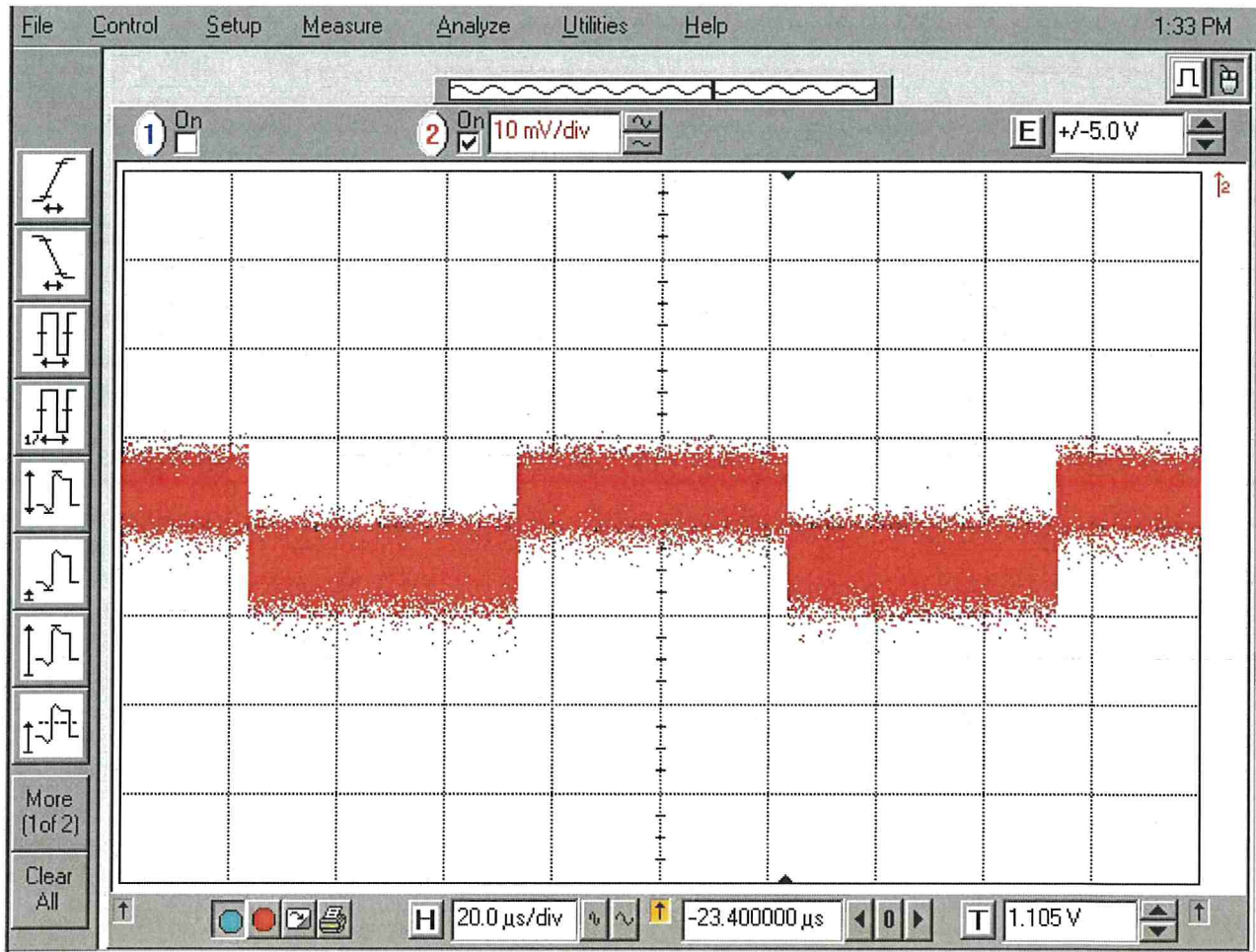
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TSS



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**VIDEO LOG LINEARITY**

MODEL: SDLVA-418-65-16MV-12DBM  
TESTED BY: J.EMPERADOR  
DATE: 03/23/2021  
SERIAL NO: PL31784

Test Temp: +25C



PLANAR MONOLITHICS INDUSTRIES  
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GRAPH #1

Video Output Voltage With No RF -0.100

Frequency			-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	RF Input Power (dBm)			
4 GHz	INTERCEPT (mV)	-1111	-220	-301	-376	-458	-538	-630	-725	-805	-885	-950	-1015	-1101	-1189	-1271		Measured Value (mV)	Error(dB)	
	SLOPE (mV/dB)	-16.2	2	2	8	7	7	-4	-18	-17	-16	-1	15	10	3	2		Error (mV)	MAX	MIN
			-0.14	-0.13	-0.49	-0.41	-0.46	0.23	1.11	1.06	1.01	0.04	-0.94	-0.62	-0.17	-0.10		LINEARITY ERROR (dB)	1.11	-0.94
7.5 GHz	INTERCEPT (mV)	-1084	-228	-299	-360	-435	-512	-593	-686	-772	-856	-930	-995	-1076	-1167	-1256		Measured Value (mV)	Error(dB)	
	SLOPE (mV/dB)	-15.9	-20	-11	8	12	15	14	0	-6	-10	-5	10	8	-3	-12		Error (mV)	MAX	MIN
			1.23	0.69	-0.48	-0.77	-0.94	-0.85	-0.02	0.38	0.66	0.30	-0.62	-0.53	0.18	0.77		LINEARITY ERROR (dB)	1.23	-0.94
11 GHz	INTERCEPT (mV)	-1081	-165	-233	-313	-391	-478	-566	-654	-739	-829	-913	-994	-1076	-1168	-1259		Measured Value (mV)	Error(dB)	
	SLOPE (mV/dB)	-17.0	-19	-2	3	10	8	5	2	2	-3	-2	2	5	-2	-9		Error (mV)	MAX	MIN
			1.10	0.10	-0.19	-0.60	-0.48	-0.30	-0.12	-0.11	0.19	0.13	-0.10	-0.27	0.14	0.50		LINEARITY ERROR (dB)	1.10	-0.60
14.5 GHz	INTERCEPT (mV)	-1092	-180	-250	-323	-401	-484	-562	-656	-743	-832	-920	-1002	-1090	-1190	-1281		Measured Value (mV)	Error(dB)	
	SLOPE (mV/dB)	-17.1	-27	-11	1	8	11	18	9	8	4	2	5	2	-12	-18		Error (mV)	MAX	MIN
			1.56	0.66	-0.06	-0.49	-0.63	-1.06	-0.55	-0.46	-0.25	-0.09	-0.29	-0.13	0.72	1.05		LINEARITY ERROR (dB)	1.56	-1.06
18 GHz	INTERCEPT (mV)	-1026	-152	-211	-293	-376	-455	-533	-624	-709	-793	-870	-941	-1019	-1106	-1190		Measured Value (mV)	Error(dB)	
	SLOPE (mV/dB)	-16.2	-15	7	6	3	5	8	-2	-6	-10	-6	4	7	1	-2		Error (mV)	MAX	MIN
			0.93	-0.42	-0.35	-0.21	-0.33	-0.50	0.13	0.39	0.59	0.35	-0.25	-0.43	-0.05	0.15		LINEARITY ERROR (dB)	0.93	-0.50
Flatness +/- dB		2.30	2.70	2.50	2.50	2.50	2.90	3.10	2.90	2.80	2.40	2.20	2.50	2.60	2.80					
Max Video Output Volts		-0.152	-0.211	-0.293	-0.376	-0.455	-0.533	-0.624	-0.709	-0.793	-0.870	-0.941	-1.019	-1.106	-1.190					
Min Video Output Volts		-0.228	-0.301	-0.376	-0.458	-0.538	-0.630	-0.725	-0.805	-0.885	-0.950	-1.015	-1.101	-1.190	-1.281					
Log Slope Average: mV/dB																			-16.5	
Log Slope Variation: ± mV/dB																				0.57

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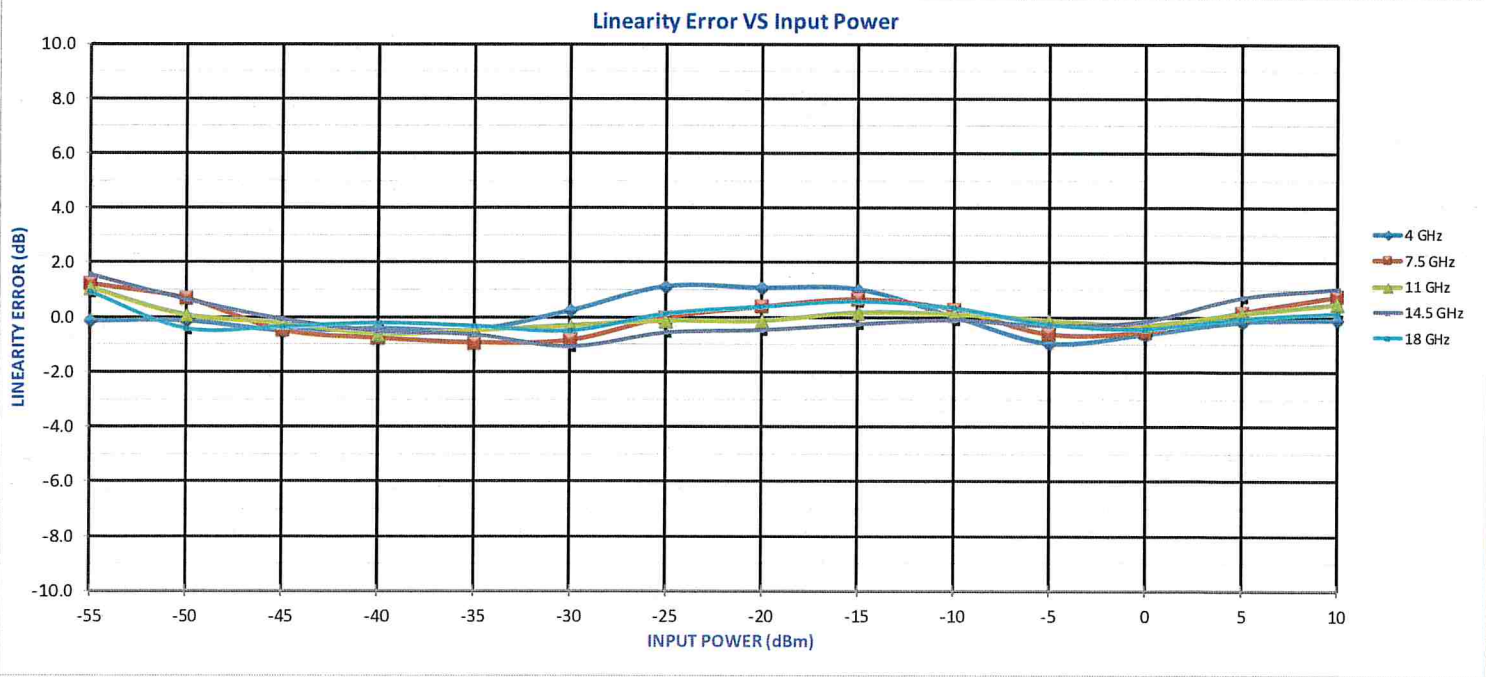


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VIDEO LOG LINEARITY

DATE: 03/23/2021  
SERIAL NO: PL31784



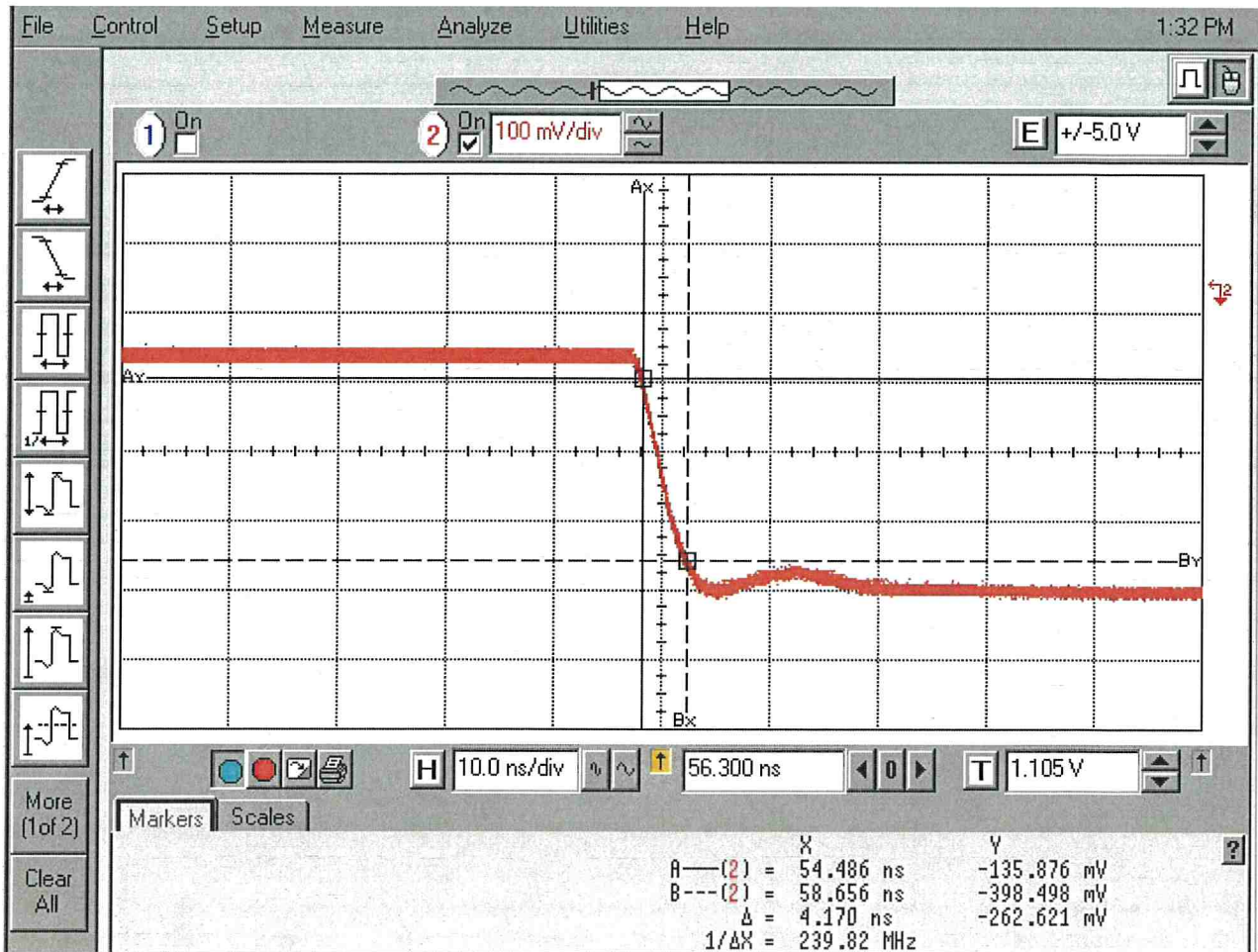
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RISE TIME



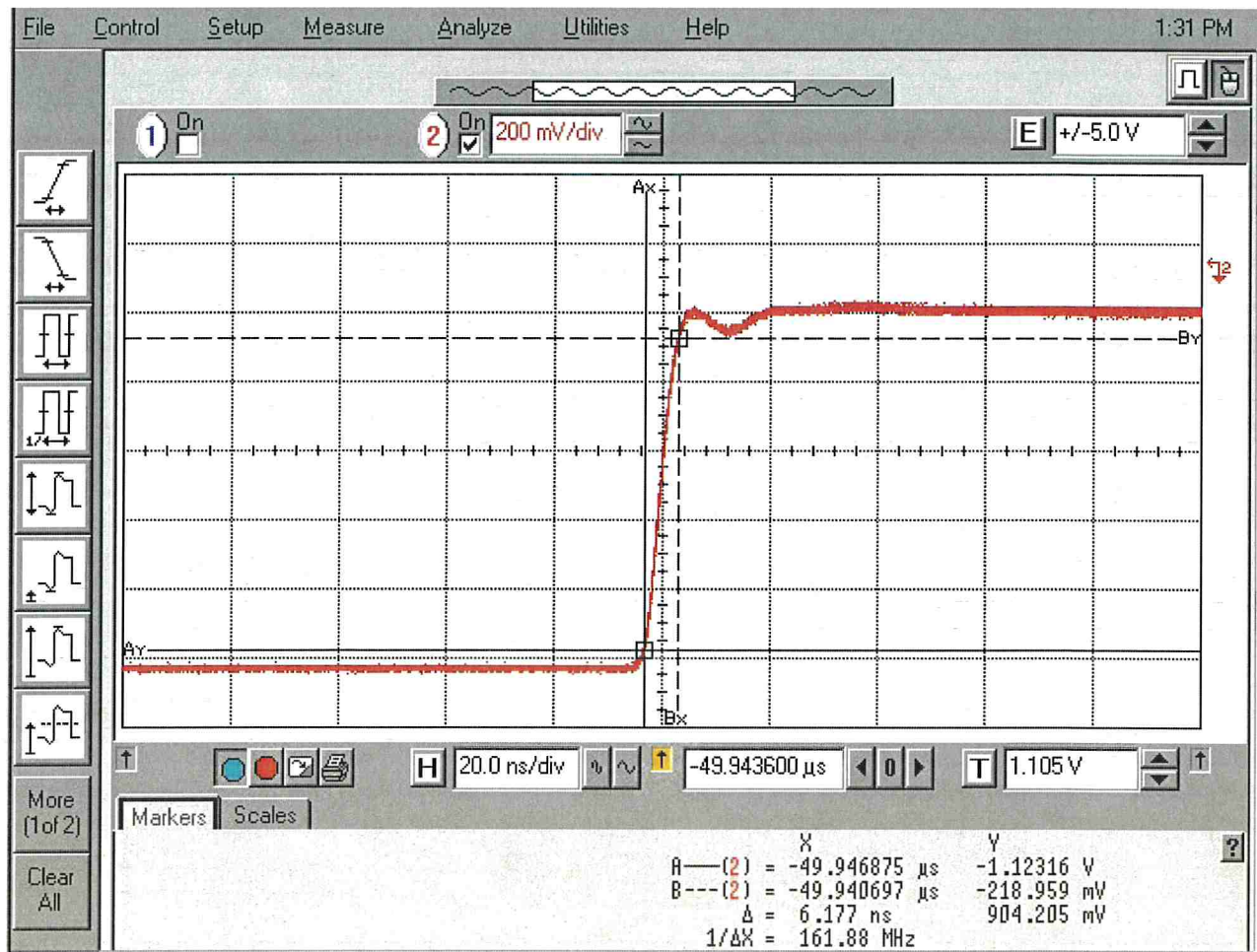
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VIDEO FALL TIME



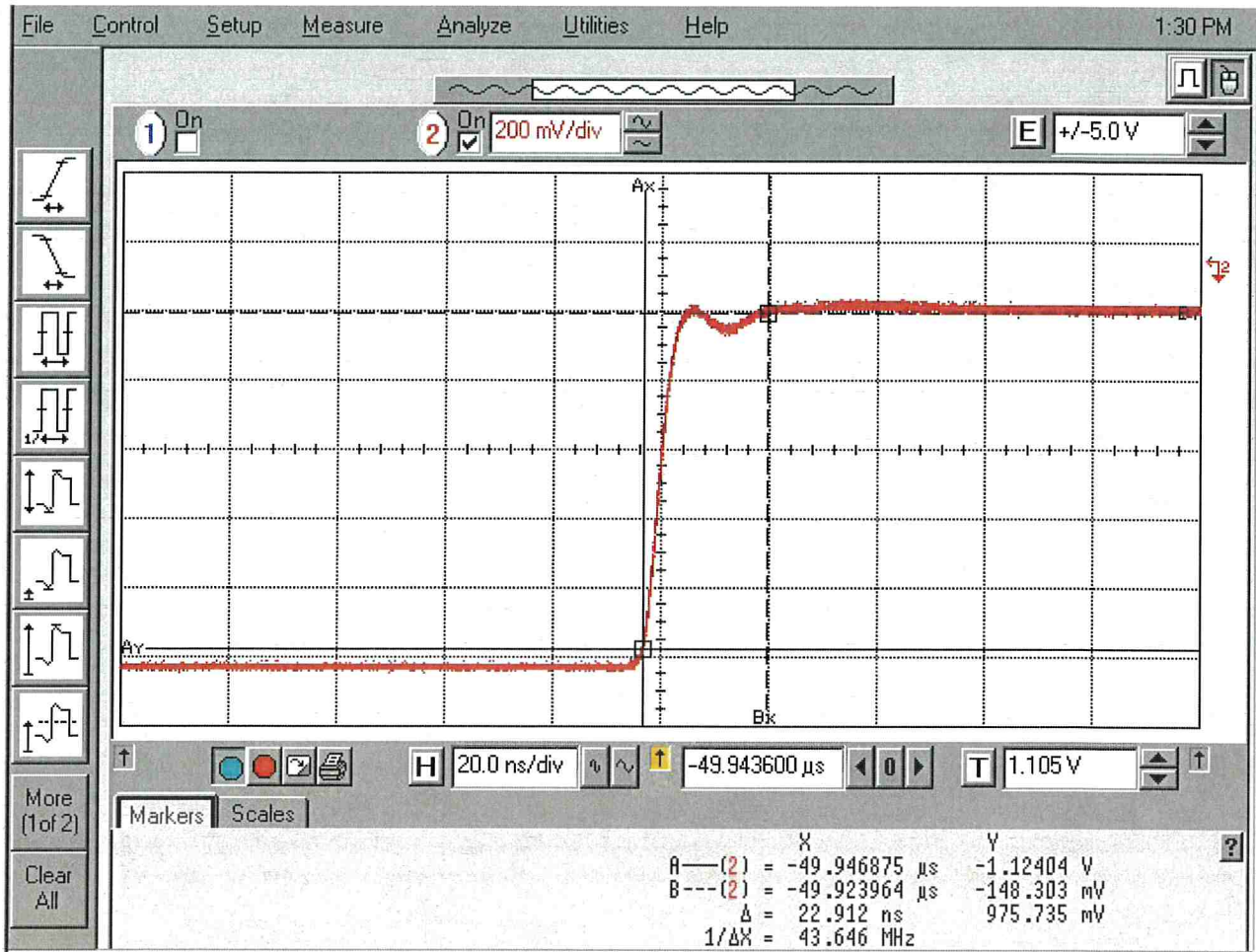
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VIDEO RECOVERY TIME



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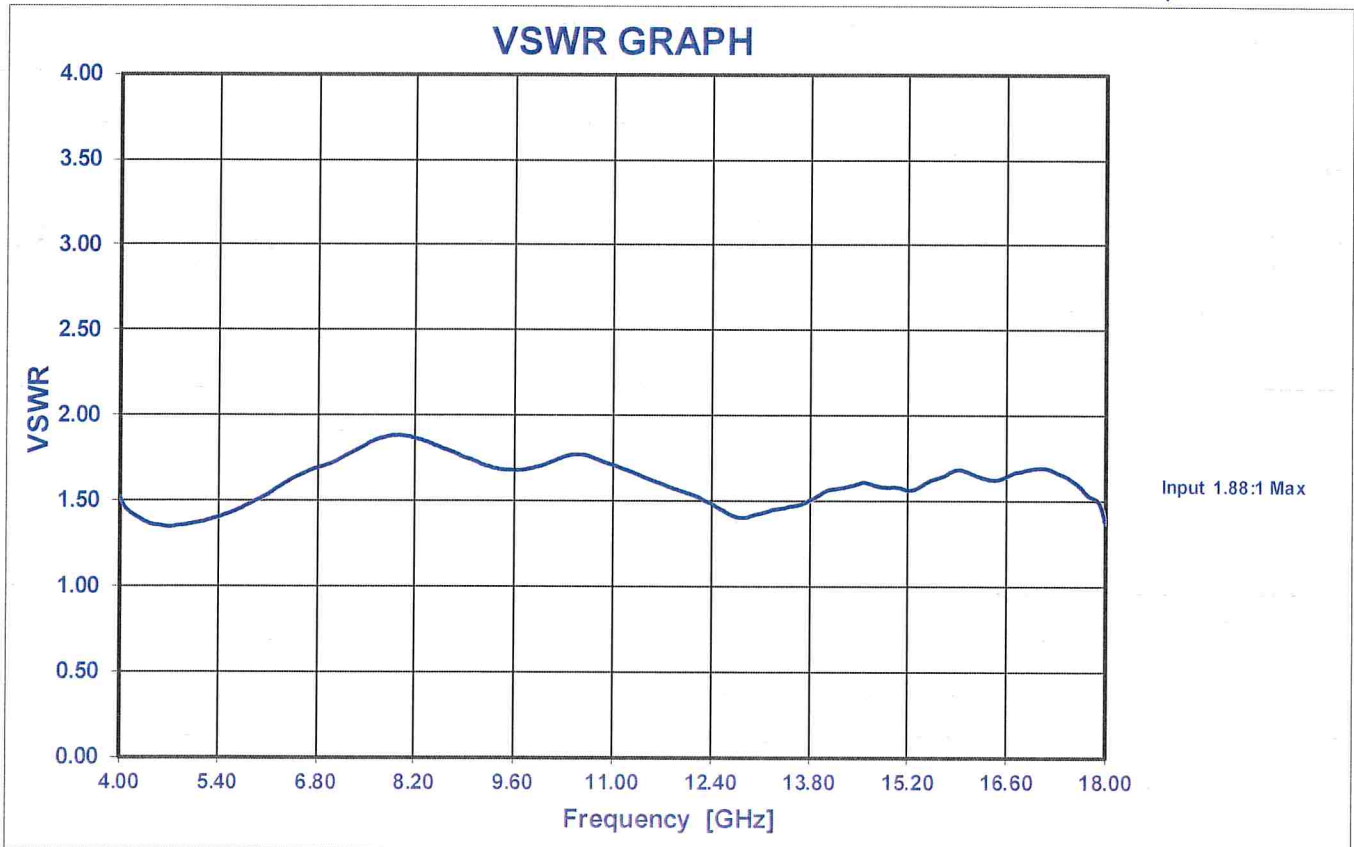
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**INPUT VSWR**

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Serial Number: PL31784

Temperature: +25C



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