



**SUMMARY TEST DATA  
ON  
SDLVA-2020-50 OPTION 26, INDRA**

PL33387/2133

Customer: _____	Tested By: <u>J. Boze</u>
SO No: _____	Temperature: <u>+25°C</u>
Model No: <u>SDLVA-2020-50 OPTION 26, INDRA</u>	Date: <u>08/18/2021</u>
Serial No: <u>PL33387/2133</u>	Drawing No: <u>27641280</u> Rev: <u>A1</u>

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC	
1	Frequency Range:	2.4 GHz to 5.4 GHz	2.4 GHz to 5.4 GHz	<b>PMI QA3</b>	
2	Dynamic Range:	-45 dBm to +5 dBm	-45 dBm to +5 dBm See Plot		
3	VSWR:	3.0:1 (@ -20 dBm, 2.4-5.4 GHz)	1.90:1 See Plot		
4	RF Gain:	60 dB Min	68 dB See Plot		
5	Frequency Flatness:	±2.0 dB Typ (2.4 GHz to 5.4 GHz)	±0.7 dB See Plot		
6	Log Linearity:	±1.75 dB Max (-45 dBm to +5 dBm)	±1.09 dBm See Plot		
7	Log Slope:	20 mV/dB (±10% Tolerance)	21.4 mV/dB See Plot		
8	Log Temperature Stability:	±1.75dB (0°C to 60°C)	±1.15 dB See Plot		
9	Rise Time (10% to 90%):	30 ns Max, 20 ns Typ	21.6 ns See Plot		
10	Recover Time:	250 ns Max, 150 ns Typ (-45 dBm to +5 dBm)	208 ns See Plot		
11	Limited RF Power Output:	+14 dBm Typ, +10 dBm Min	+15.2 dBm See Plot		
12	Propagation Delay: (10% of RF Input Signal to 90% Output Video)	35 ns Typ, 45 ns Max	Pass		
13	Output Video Load:	100 Ω ±10% or as desired	Pass		
14	DC Power: (No Load)	+15 V @ 600 mA Max -15 V @ 200 mA Max	410 mA 90 mA		<b>PMI QA3</b>

QA/QC Approval: *A. Zimmerman*      Date: 8/24/21



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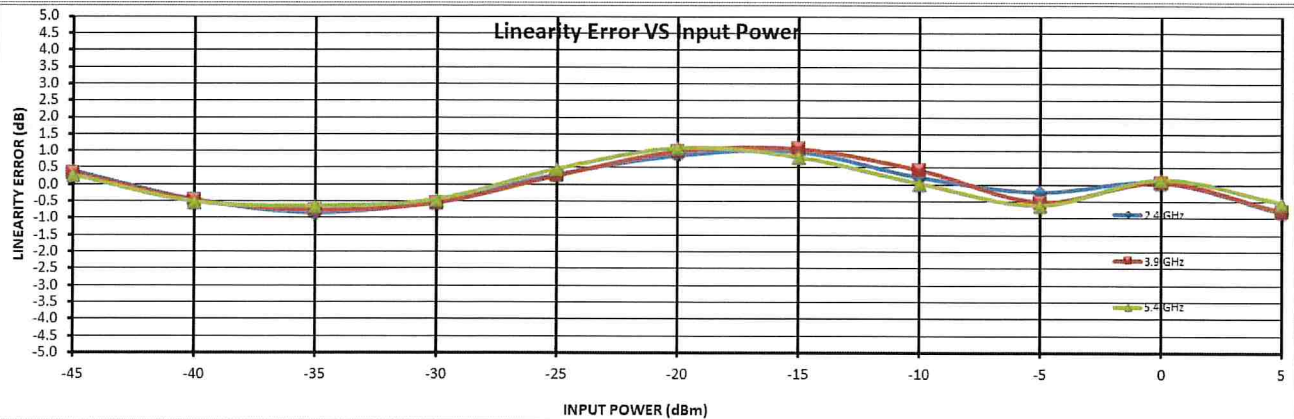
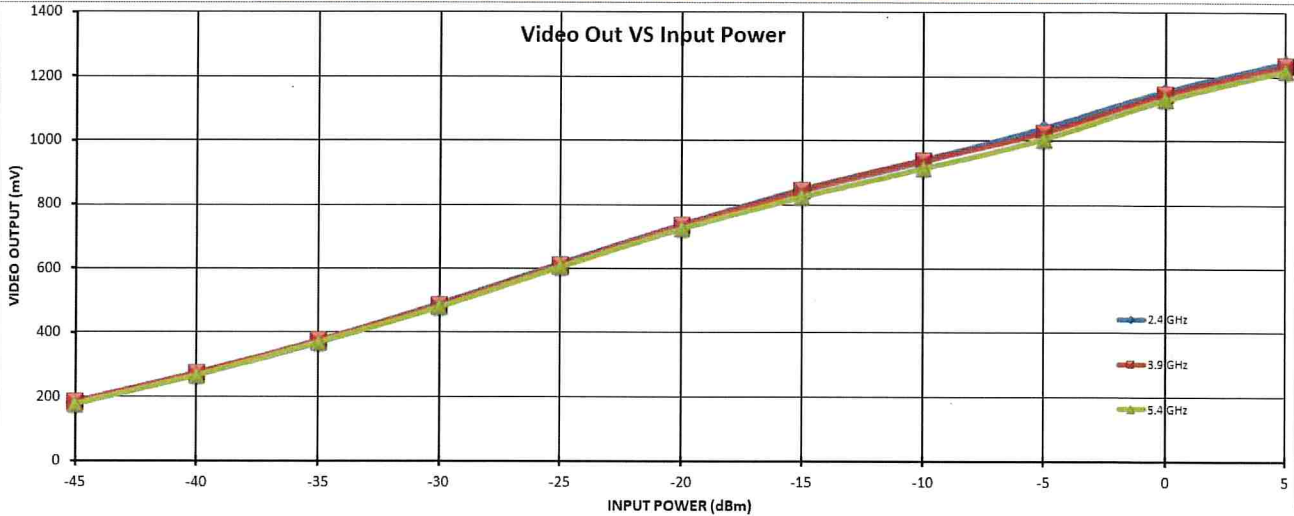
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MODEL: SDLVA-2020-50-OPTIONS 26, INDRA  
SERIAL NO: PL33387  
DATE: 08/18/21  
TESTED BY: J. Boze  
Test Temp: +25°C

## Log Transfer over Frequency (+25°C)



Frequency		-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
2.4 GHz	INTERCEPT (mV)	181	271	371	487	613	734	845	937	1036	1151	1240	Measured Value (mV)
	SLOPE (mV/dB)	9	-10	-18	-11	6	19	21	5	-5	2	-18	Error (mV)
		0.40	-0.45	-0.85	-0.50	0.30	0.87	0.98	0.22	-0.22	0.08	-0.82	0.98
3.9 GHz	INTERCEPT (mV)	183	273	374	486	611	734	843	937	1024	1144	1233	Measured Value (mV)
	SLOPE (mV/dB)	7	-10	-17	-12	6	21	23	9	-11	1	-17	Error (mV)
		0.34	-0.47	-0.77	-0.56	0.26	0.98	1.05	0.43	-0.52	0.06	-0.80	1.05
5.4 GHz	INTERCEPT (mV)	178	267	370	480	605	724	824	913	1005	1127	1218	Measured Value (mV)
	SLOPE (mV/dB)	6	-11	-14	-10	10	23	17	1	-13	3	-12	Error (mV)
		0.27	-0.52	-0.65	-0.45	0.46	1.09	0.82	0.03	-0.62	0.15	-0.55	1.09
Avg. Slope: 21.4 mV/dB		0.1	0.1	0.1	0.2	0.2	0.2	0.5	0.6	0.7	0.6	0.5	
Flatness dB: ±0.7 dB													





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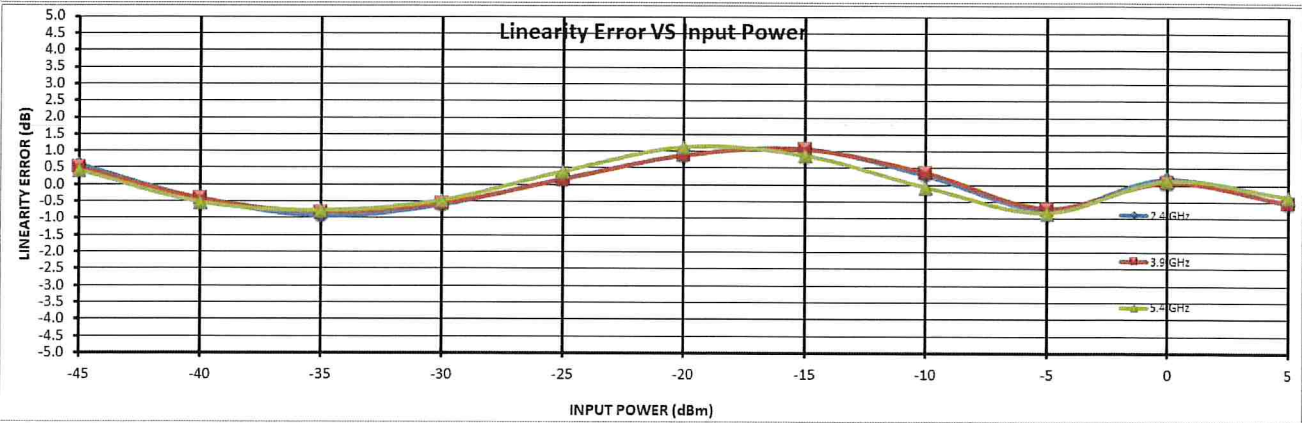
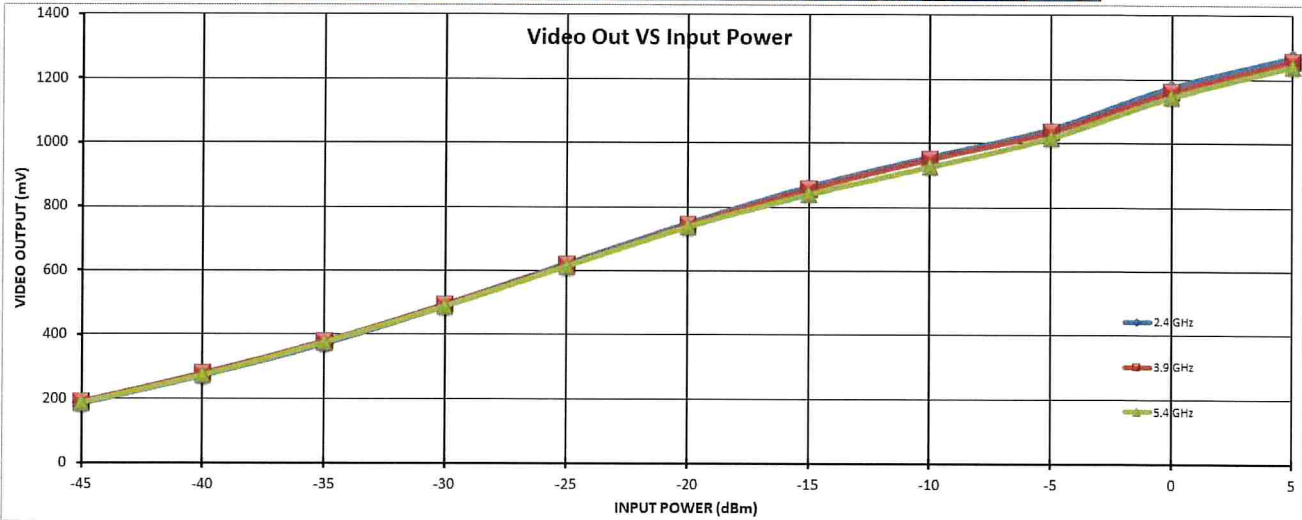
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MODEL: SDLVA-2020-50-OPTIONS 26, INDRA  
SERIAL NO: PL33387  
DATE: 08/18/21  
TESTED BY: J. Boze  
Test Temp: 0°C

## Log Transfer over Frequency (0°C)



Frequency		-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
2.4 GHz	INTERCEPT (mV)	1167											Measured Value (mV)
	SLOPE (mV/dB)	22.1											Error (mV)
			185	273	372	490	618	744	859	952	1040	1171	1265
3.9 GHz	INTERCEPT (mV)	1160											Measured Value (mV)
	SLOPE (mV/dB)	21.8											Error (mV)
			189	278	378	493	618	743	856	950	1036	1162	1258
5.4 GHz	INTERCEPT (mV)	1142											Measured Value (mV)
	SLOPE (mV/dB)	21.5											Error (mV)
			185	272	374	488	614	737	839	926	1017	1145	1242
Avg. Slope: 21.8 mV/dB Flatness dB: ±0.6 dB			0.1	0.1	0.1	0.1	0.1	0.2	0.5	0.6	0.5	0.6	0.5





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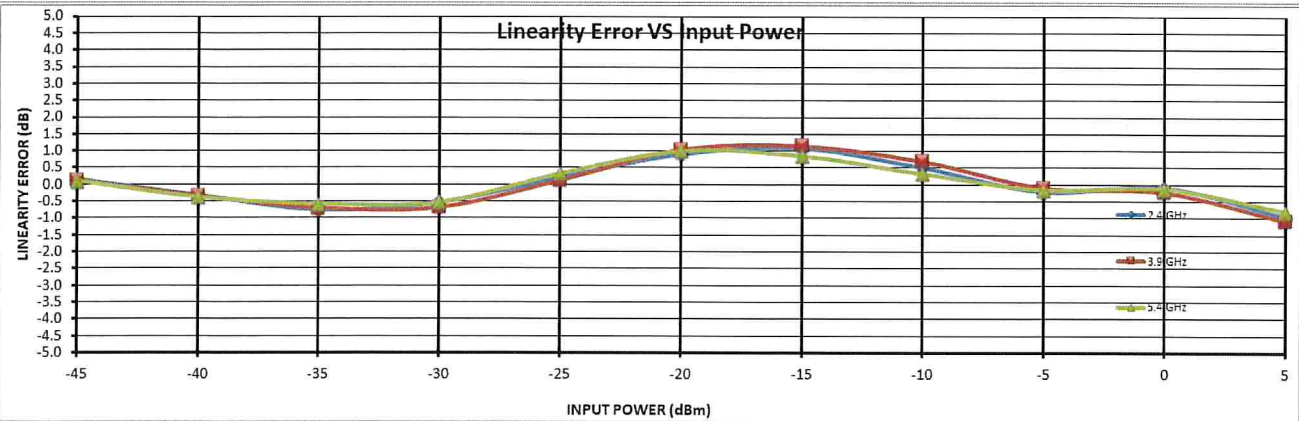
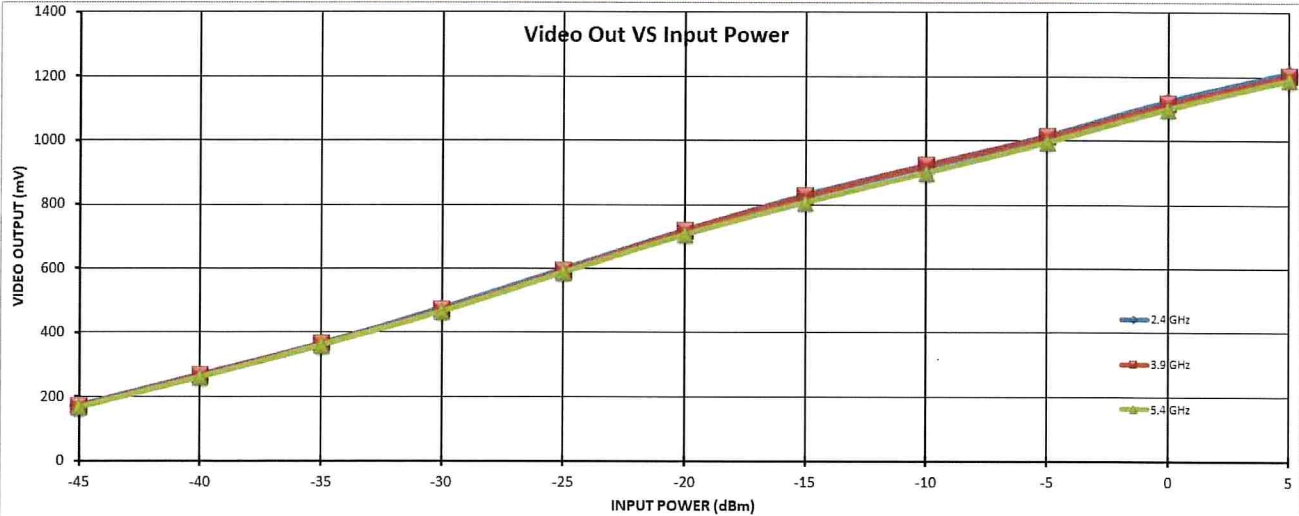
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MODEL: SDLVA-2020-50-OPTIONS 26, INDRA  
SERIAL NO: PL33387  
DATE: 08/18/21  
TESTED BY: J. Boze  
Test Temp: +60°C

## Log Transfer over Frequency (+60°C)



Frequency		-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
2.4 GHz	INTERCEPT (mV)	170	266	363	474	596	717	827	921	1012	1121	1209	Measured Value (mV)
	SLOPE (mV/dB)	3	-7	-16	-11	4	19	23	11	-5	-2	-20	Error (mV)
		0.16	-0.32	-0.76	-0.53	0.21	0.90	1.08	0.50	-0.21	-0.08	-0.94	1.08
3.9 GHz	INTERCEPT (mV)	171	267	365	471	594	719	827	923	1012	1115	1203	Measured Value (mV)
	SLOPE (mV/dB)	3	-7	-15	-15	3	22	24	15	-2	-5	-23	Error (mV)
		0.12	-0.34	-0.70	-0.69	0.13	1.04	1.15	0.69	-0.10	-0.23	-1.07	1.15
5.4 GHz	INTERCEPT (mV)	166	260	360	465	587	705	806	899	993	1098	1188	Measured Value (mV)
	SLOPE (mV/dB)	2	-8	-12	-11	7	21	18	7	-3	-3	-17	Error (mV)
		0.10	-0.38	-0.58	-0.53	0.33	1.00	0.85	0.32	-0.17	-0.12	-0.80	1.00
Avg. Slope: 21.1 mV/dB Flatness dB: ±0.6 dB													
		0.1	0.2	0.1	0.2	0.2	0.3	0.5	0.6	0.4	0.5	0.5	

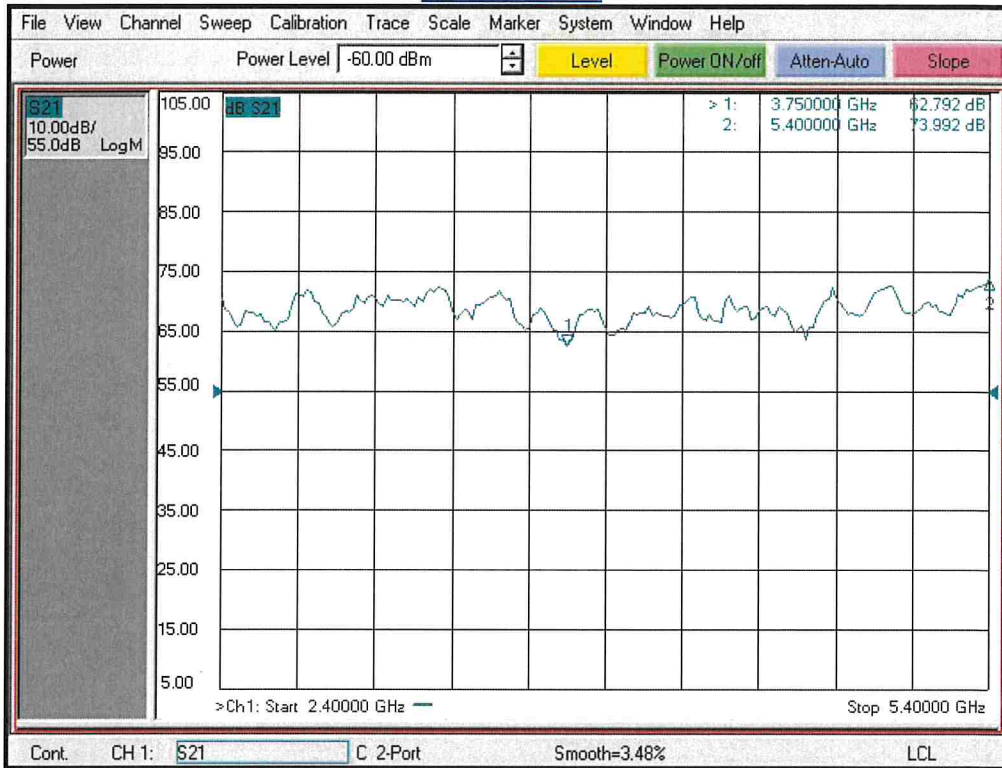




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## RF Gain Plot



## VSWR Plot

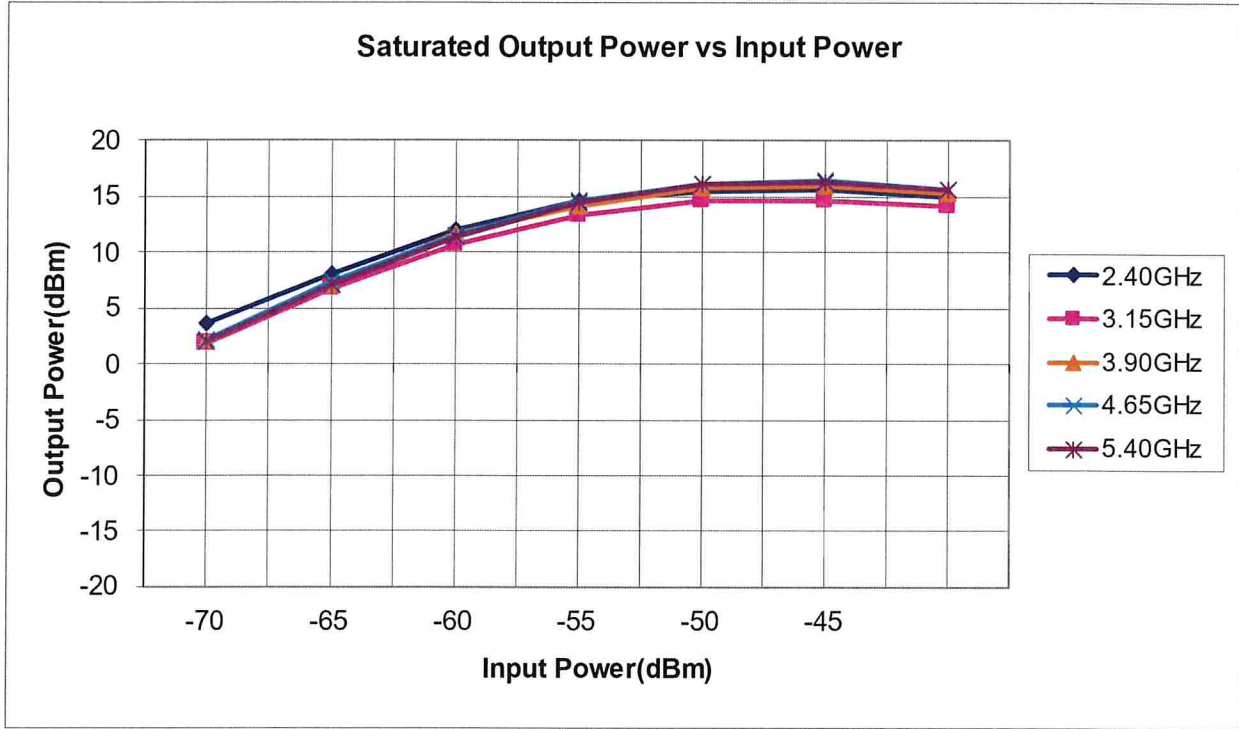




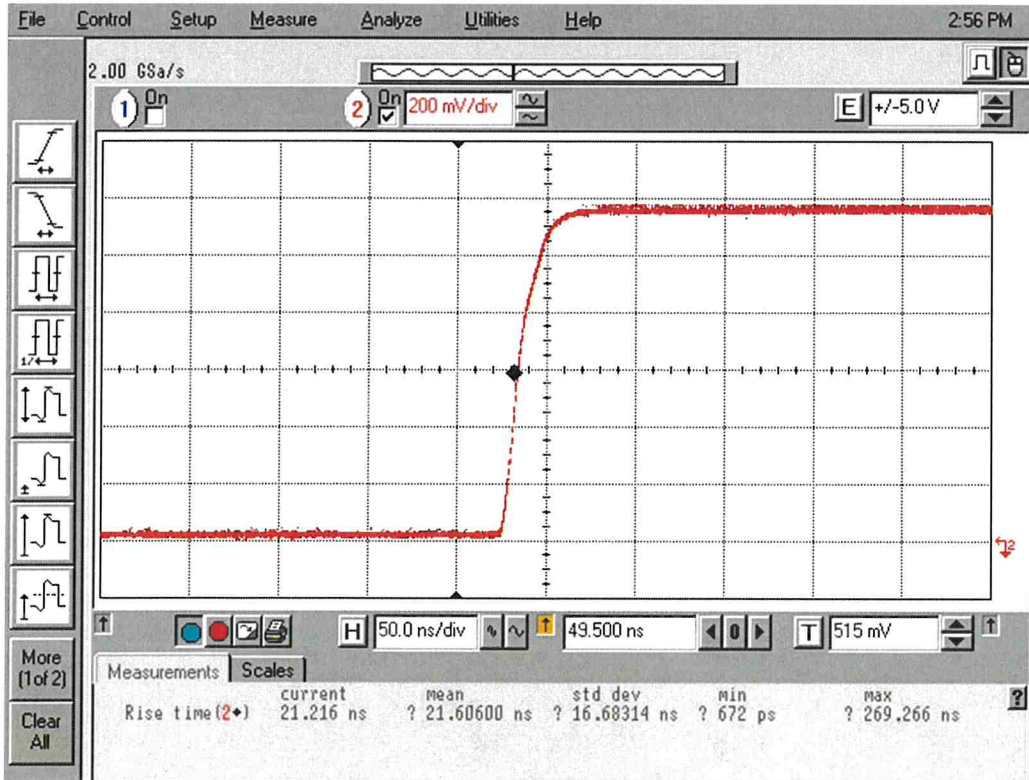
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PSAT Plot



Rise Time Plot





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