



**SUMMARY TEST DATA  
ON  
SDLVA-1G20G-58-12-SFF**

**PL29626/2032**

Customer: \_\_\_\_\_  
Serial No: PL29626/2032

Tested By: Simon K. Sign: *SK*  
QA/QC By: Arthur Z. Sign: *AZ*  
Temperature: +25°C  
Date: 08/06/2020  
Drawing No: 27612160 Rev: A3

TEST ITEM	PARAMETERS	SPECIFIED VALUE	TEST MEASUREMENT	TEST RESULT	QA QC
1	Frequency Range	1 GHz – 20 GHz	<b>1 GHz – 20 GHz</b>	Pass	PMI QA3
2	Frequency Flatness	±2.0 dB Typ	<b>See Plot</b>	±0.6 dB	
3	Log Linearity	±1.0 dB Typ (-50 to 0 dBm)	<b>See Plot</b>	± 1.4 dB Max ± 1.0 dB Avg	
4	Log Linearity Over Temp	±1.0 dB Typ. (-50 to 0 dBm @ -55°C to +85°C)	<b>By Design</b>	Pass	
5	Logging Range	-54 to +5 dBm	<b>By Design</b>	Pass	
6	Input VSWR	3.0:1 Typ	<b>See Plot</b>	3.30:1	
7	Log Video Output Voltage	0.9 V to 1.5V Typ	<b>See Plot</b>	0.9 to 1.7 V	
8	Log Video Output Slope	14 mV / dB Typ	<b>See Plot</b>	14.8 mV	
9	Log Video Output Rise Time	5 ns Typ (Pin = -20 dBm @ 10% to 90%)	<b>See Plot</b>	6.9 ns	
10	Log Video Output Fall Time	20 ns Typ (Pin = -20 dBm @ 90% to 10%)	<b>See Plot</b>	8.3 ns	
11	Log Video Recovery Time	28 ns Typ (Pin = -50 dBm to 0 dBm)	<b>See Plot</b>	Pass	
12	Log Video Propagation Delay	14 ns Typ	<b>By Design</b>	Pass	
13	TSS	-60 dBm Typ	<b>See Plot</b>	-58 dBm	↓
14	Power Supply	+12V @ 100mA Typ	<b>93 mA</b>	Pass	PMI QA3

QA/QC Approval: *Arthur Zimmerman* Date: 8-7-2020



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**Transfer @ 25C – Data**

Frequency	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)																																		
<b>1000 MHz</b>	<b>INTERCEPT (mV)</b> <b>1725</b>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>967</td><td>1022</td><td>1094</td><td>1171</td><td>1248</td><td>1330</td><td>1408</td><td>1493</td><td>1572</td><td>1657</td><td>1726</td></tr> <tr><td>21</td><td>-2</td><td>-7</td><td>-8</td><td>-9</td><td>-5</td><td>-5</td><td>2</td><td>3</td><td>10</td><td>1</td></tr> <tr><td>1.37</td><td>-0.10</td><td>-0.48</td><td>-0.54</td><td>-0.60</td><td>-0.34</td><td>-0.33</td><td>0.12</td><td>0.19</td><td>0.64</td><td>0.07</td></tr> </table>										967	1022	1094	1171	1248	1330	1408	1493	1572	1657	1726	21	-2	-7	-8	-9	-5	-5	2	3	10	1	1.37	-0.10	-0.48	-0.54	-0.60	-0.34	-0.33	0.12	0.19	0.64	0.07	Measured Value (mV)
	967	1022											1094	1171	1248	1330	1408	1493	1572	1657	1726																									
	21	-2											-7	-8	-9	-5	-5	2	3	10	1																									
1.37	-0.10	-0.48	-0.54	-0.60	-0.34	-0.33	0.12	0.19	0.64	0.07																																				
<b>SLOPE (mV/dB)</b> <b>15.6</b>		Error (mV)																																												
		<b>1.4</b>																																												
<b>4800 MHz</b>	<b>INTERCEPT (mV)</b> <b>1717.5</b>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>961</td><td>1015</td><td>1089</td><td>1168</td><td>1245</td><td>1324</td><td>1402</td><td>1483</td><td>1566</td><td>1649</td><td>1719</td></tr> <tr><td>20</td><td>-3</td><td>-7</td><td>-6</td><td>-7</td><td>-5</td><td>-5</td><td>-2</td><td>4</td><td>9</td><td>1</td></tr> <tr><td>1.30</td><td>-0.22</td><td>-0.46</td><td>-0.38</td><td>-0.42</td><td>-0.33</td><td>-0.31</td><td>-0.10</td><td>0.24</td><td>0.59</td><td>0.09</td></tr> </table>										961	1015	1089	1168	1245	1324	1402	1483	1566	1649	1719	20	-3	-7	-6	-7	-5	-5	-2	4	9	1	1.30	-0.22	-0.46	-0.38	-0.42	-0.33	-0.31	-0.10	0.24	0.59	0.09	Measured Value (mV)
	961	1015											1089	1168	1245	1324	1402	1483	1566	1649	1719																									
	20	-3											-7	-6	-7	-5	-5	-2	4	9	1																									
1.30	-0.22	-0.46	-0.38	-0.42	-0.33	-0.31	-0.10	0.24	0.59	0.09																																				
<b>SLOPE (mV/dB)</b> <b>15.5</b>		Error (mV)																																												
		<b>1.3</b>																																												
<b>8600 MHz</b>	<b>INTERCEPT (mV)</b> <b>1707.3</b>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>968</td><td>1026</td><td>1102</td><td>1175</td><td>1249</td><td>1326</td><td>1400</td><td>1480</td><td>1559</td><td>1641</td><td>1708</td></tr> <tr><td>15</td><td>-3</td><td>-2</td><td>-5</td><td>-6</td><td>-4</td><td>-6</td><td>-1</td><td>2</td><td>9</td><td>1</td></tr> <tr><td>0.96</td><td>-0.19</td><td>-0.15</td><td>-0.31</td><td>-0.40</td><td>-0.29</td><td>-0.38</td><td>-0.07</td><td>0.17</td><td>0.60</td><td>0.05</td></tr> </table>										968	1026	1102	1175	1249	1326	1400	1480	1559	1641	1708	15	-3	-2	-5	-6	-4	-6	-1	2	9	1	0.96	-0.19	-0.15	-0.31	-0.40	-0.29	-0.38	-0.07	0.17	0.60	0.05	Measured Value (mV)
	968	1026											1102	1175	1249	1326	1400	1480	1559	1641	1708																									
	15	-3											-2	-5	-6	-4	-6	-1	2	9	1																									
0.96	-0.19	-0.15	-0.31	-0.40	-0.29	-0.38	-0.07	0.17	0.60	0.05																																				
<b>SLOPE (mV/dB)</b> <b>15.1</b>		Error (mV)																																												
		<b>1.0</b>																																												
<b>12400 MHz</b>	<b>INTERCEPT (mV)</b> <b>1694.1</b>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>982</td><td>1046</td><td>1121</td><td>1190</td><td>1261</td><td>1333</td><td>1402</td><td>1479</td><td>1553</td><td>1632</td><td>1689</td></tr> <tr><td>6</td><td>-2</td><td>1</td><td>-2</td><td>-3</td><td>-2</td><td>-5</td><td>0</td><td>2</td><td>10</td><td>-5</td></tr> <tr><td>0.39</td><td>-0.15</td><td>0.07</td><td>-0.12</td><td>-0.17</td><td>-0.16</td><td>-0.35</td><td>0.01</td><td>0.17</td><td>0.67</td><td>-0.35</td></tr> </table>										982	1046	1121	1190	1261	1333	1402	1479	1553	1632	1689	6	-2	1	-2	-3	-2	-5	0	2	10	-5	0.39	-0.15	0.07	-0.12	-0.17	-0.16	-0.35	0.01	0.17	0.67	-0.35	Measured Value (mV)
	982	1046											1121	1190	1261	1333	1402	1479	1553	1632	1689																									
	6	-2											1	-2	-3	-2	-5	0	2	10	-5																									
0.39	-0.15	0.07	-0.12	-0.17	-0.16	-0.35	0.01	0.17	0.67	-0.35																																				
<b>SLOPE (mV/dB)</b> <b>14.4</b>		Error (mV)																																												
		<b>0.7</b>																																												
<b>16200 MHz</b>	<b>INTERCEPT (mV)</b> <b>1670.8</b>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>975</td><td>1036</td><td>1110</td><td>1180</td><td>1245</td><td>1317</td><td>1383</td><td>1453</td><td>1528</td><td>1604</td><td>1680</td></tr> <tr><td>7</td><td>-2</td><td>2</td><td>1</td><td>-4</td><td>-2</td><td>-7</td><td>-7</td><td>-2</td><td>4</td><td>9</td></tr> <tr><td>0.53</td><td>-0.14</td><td>0.13</td><td>0.10</td><td>-0.27</td><td>-0.16</td><td>-0.46</td><td>-0.48</td><td>-0.15</td><td>0.25</td><td>0.66</td></tr> </table>										975	1036	1110	1180	1245	1317	1383	1453	1528	1604	1680	7	-2	2	1	-4	-2	-7	-7	-2	4	9	0.53	-0.14	0.13	0.10	-0.27	-0.16	-0.46	-0.48	-0.15	0.25	0.66	Measured Value (mV)
	975	1036											1110	1180	1245	1317	1383	1453	1528	1604	1680																									
	7	-2											2	1	-4	-2	-7	-7	-2	4	9																									
0.53	-0.14	0.13	0.10	-0.27	-0.16	-0.46	-0.48	-0.15	0.25	0.66																																				
<b>SLOPE (mV/dB)</b> <b>14.1</b>		Error (mV)																																												
		<b>0.7</b>																																												
<b>20000 MHz</b>	<b>INTERCEPT (mV)</b> <b>1688.2</b>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>991</td><td>1054</td><td>1128</td><td>1195</td><td>1259</td><td>1335</td><td>1396</td><td>1467</td><td>1546</td><td>1620</td><td>1702</td></tr> <tr><td>8</td><td>0</td><td>4</td><td>0</td><td>-6</td><td>-1</td><td>-10</td><td>-10</td><td>-1</td><td>2</td><td>14</td></tr> <tr><td>0.55</td><td>0.02</td><td>0.27</td><td>0.02</td><td>-0.44</td><td>-0.05</td><td>-0.72</td><td>-0.69</td><td>-0.09</td><td>0.16</td><td>0.98</td></tr> </table>										991	1054	1128	1195	1259	1335	1396	1467	1546	1620	1702	8	0	4	0	-6	-1	-10	-10	-1	2	14	0.55	0.02	0.27	0.02	-0.44	-0.05	-0.72	-0.69	-0.09	0.16	0.98	Measured Value (mV)
	991	1054											1128	1195	1259	1335	1396	1467	1546	1620	1702																									
	8	0											4	0	-6	-1	-10	-10	-1	2	14																									
0.55	0.02	0.27	0.02	-0.44	-0.05	-0.72	-0.69	-0.09	0.16	0.98																																				
<b>SLOPE (mV/dB)</b> <b>14.1</b>		Error (mV)																																												
		<b>1.0</b>																																												
<b>Average Slope (mV/dB)</b> <b>14.8</b>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>1</td><td>1.4</td><td>1.4</td><td>0.9</td><td>0.6</td><td>0.6</td><td>0.9</td><td>1.4</td><td>1.5</td><td>1.8</td><td>1.6</td></tr> </table>										1	1.4	1.4	0.9	0.6	0.6	0.9	1.4	1.5	1.8	1.6	<b>Flatness = ± 0.6</b>																							
1	1.4	1.4	0.9	0.6	0.6	0.9	1.4	1.5	1.8	1.6																																				



**LOG TRANSFER VS FREQUENCY**  
**MODEL: SDLVA-1G20G-58-12-SFF**  
**TESTED BY: Simon K.**  
**DATE: 08/06/2020**  
**SERIAL NO: PL29626**

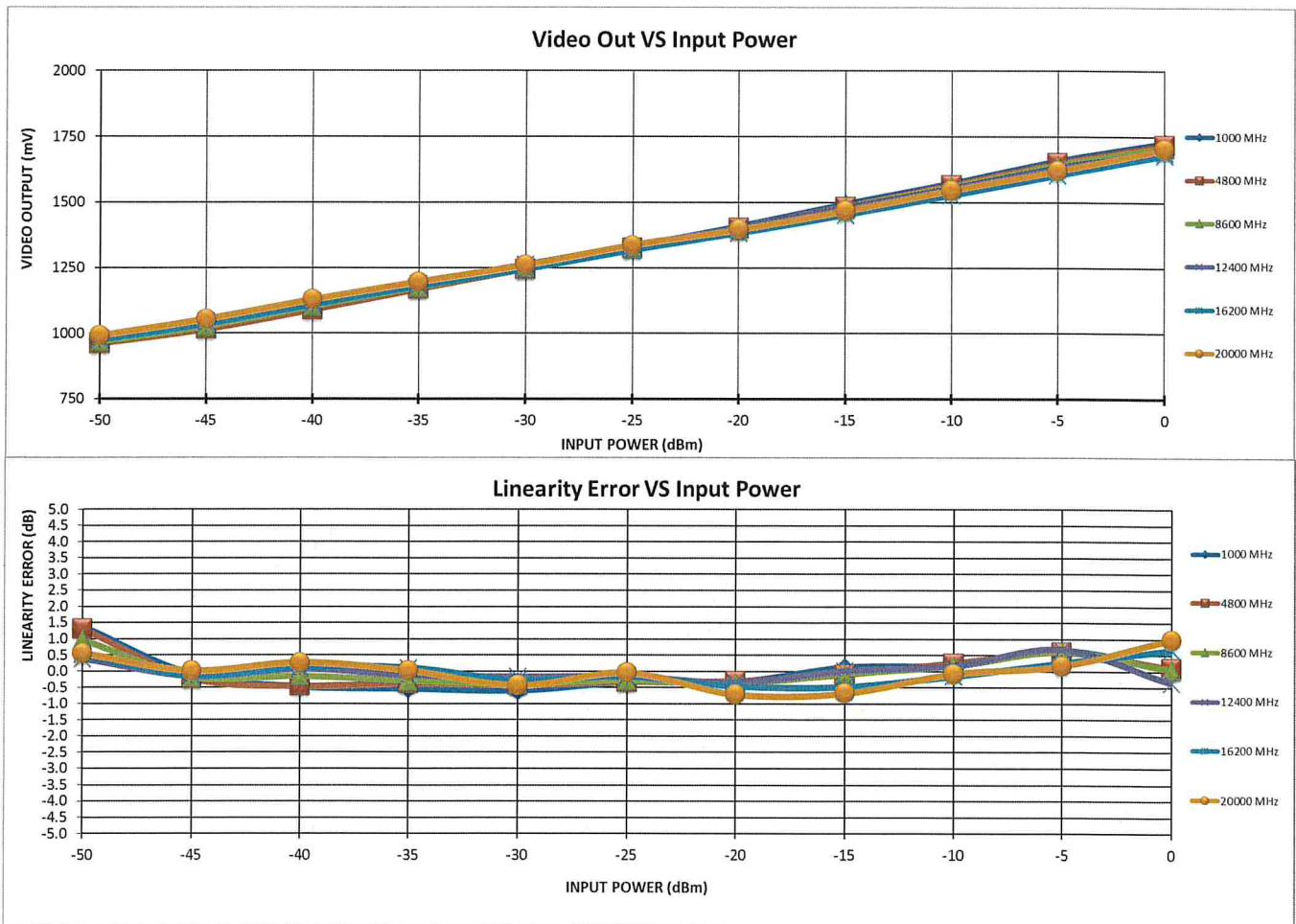
**Test Temp: +25C**



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Transfer @ 25C – Plot

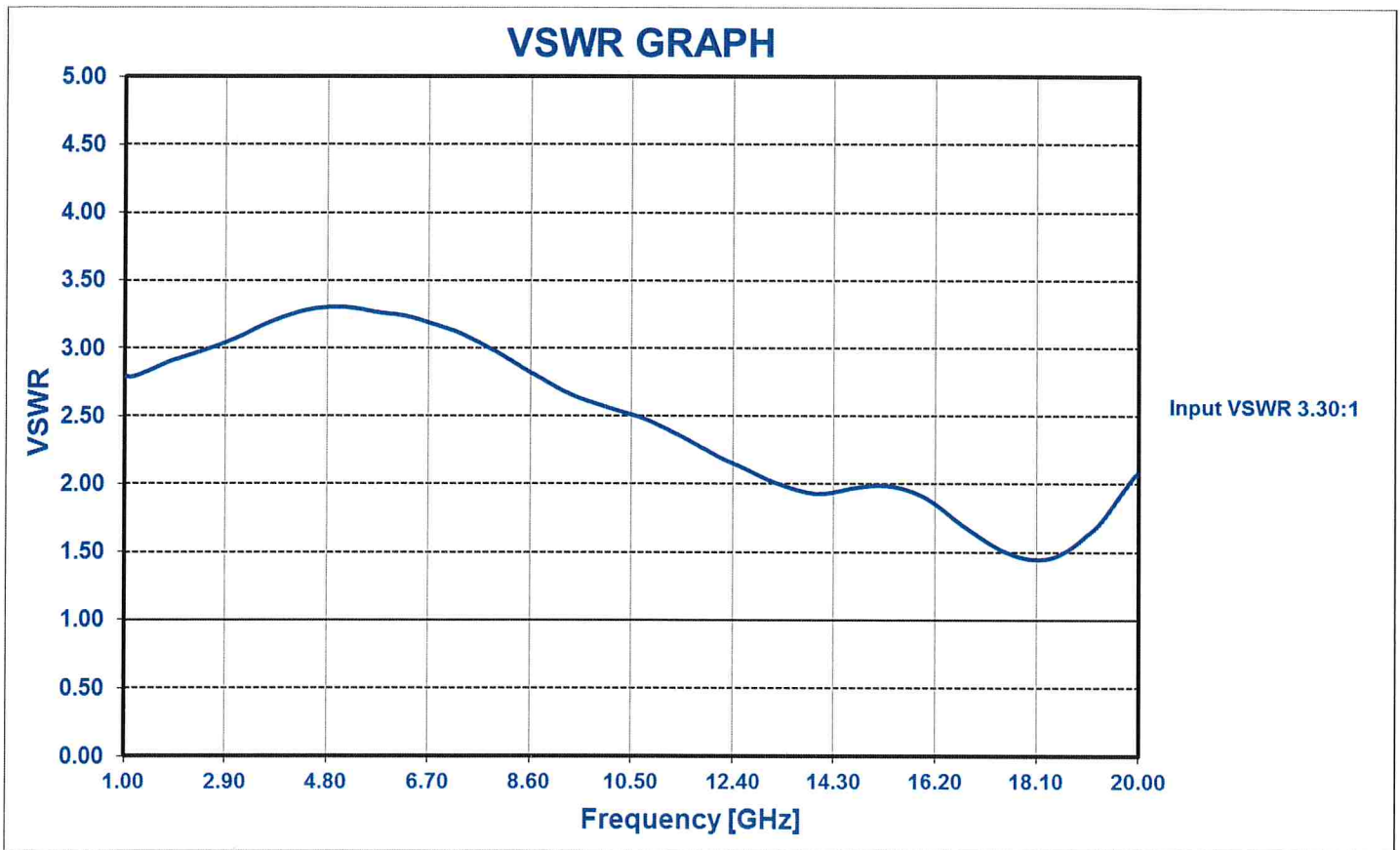




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VSWR

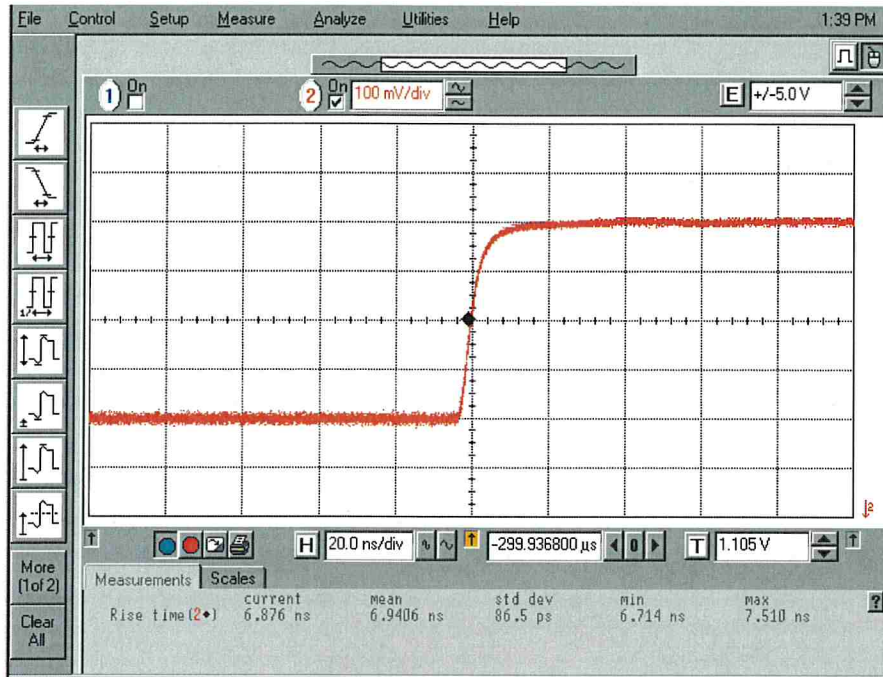




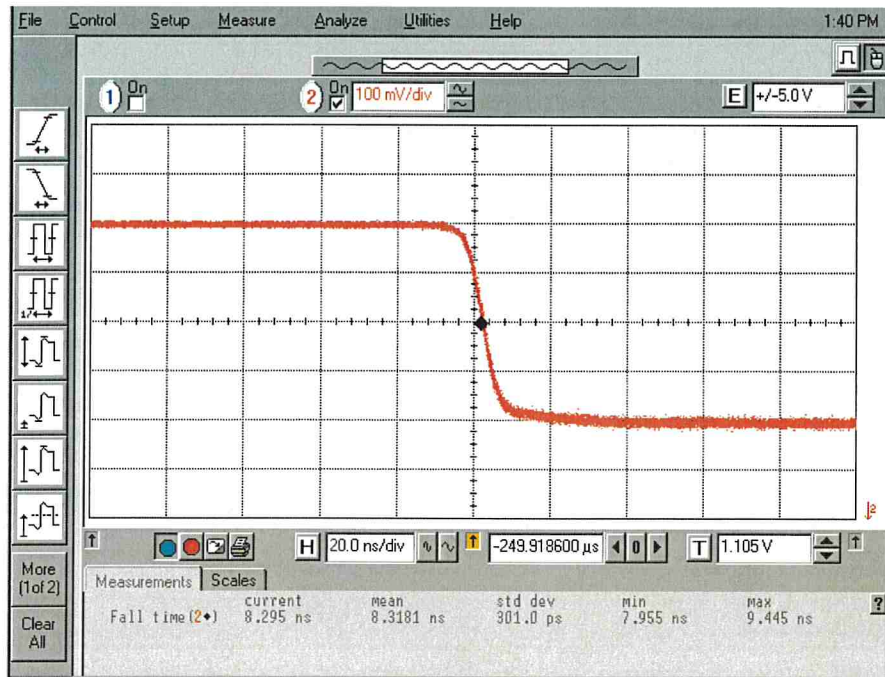
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**Rise Time**



**Fall/Recovery Time**





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TSS

