



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

**PL28126/2021**

Customer: \_\_\_\_\_  
 SO No: \_\_\_\_\_  
 Model No: SDLVA-1G20G-58-12-SFF  
 Serial No: PL28126/2021

Tested By: J WADE Sign: JW  
 QA/QC By: ARTHUR Z. Sign: a3  
 Temperature: +25°C  
 Date: 05/21/2020  
 Drawing No: 27612160 Rev: A2

TEST ITEM	PARAMETERS	SPECIFIED VALUE	TEST MEASUREMENT	TEST RESULT	QA QC
1	Frequency Range	1 GHz – 20 GHz	1 GHz – 20 GHz	Pass	a3 5-21
2	Frequency Flatness	±2.0 dB Typ	See Plot	± 1.7 dB	
3	Log Linearity	±1.0 dB Typ	See Plot	Pass	
4	Log Linearity Over Temp	±1.0 dB Typ. (@ -55°C to +85°C)	By Design	Pass	
5	Logging Range	-54 to +5 dBm	See Plot	Pass	
6	Input VSWR	3.0:1 Typ	See Plot	2.77:1	
7	Log Video Output Voltage	0.9 V to 1.5 V Typ	See Plot	1.737 V	
8	Log Video Output Slope	14 mV / dB Typ	See Plot	14.6 mV	
9	Log Video Output Rise Time	5 ns Typ (Pin = -20 dBm @ 10% to 90%)	See Typical Characteristics	Pass	
10	Log Video Output Fall Time	20 ns Typ (Pin = -20 dBm @ 90% to 10%)	See Typical Characteristics	Pass	
11	Log Video Recovery Time	28 ns Typ (Pin = -50 dBm to 0 dBm)	See Typical Characteristics	Pass	
12	Log Video Propagation Delay	14 ns Typ	See Typical Characteristics	Pass	↓
13	Power Supply	+12V Typ @ 100mA	95 mA	Pass	a3 5-21

QA/QC Approval: Arthur Zimmerman Date: 5/21/2020



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**Transfer @ 25C – Data**

**LOG TRANSFER WITH FREQUENCY**  
**MODEL: SDLVA-1G20G-55-12-SFF**  
**TESTED BY: JERRY WADE**  
**DATE: 05/21/2020**  
**SERIAL NO: PL28126**  
**Test Temp: +25C**



**PLANAR MONOLITHICS INDUSTRIES**  
 4921 Robert J. Mathews Parkway,  
 Suite 1  
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 Phone: 916-542-1401 Fax: 301-662-

Frequency

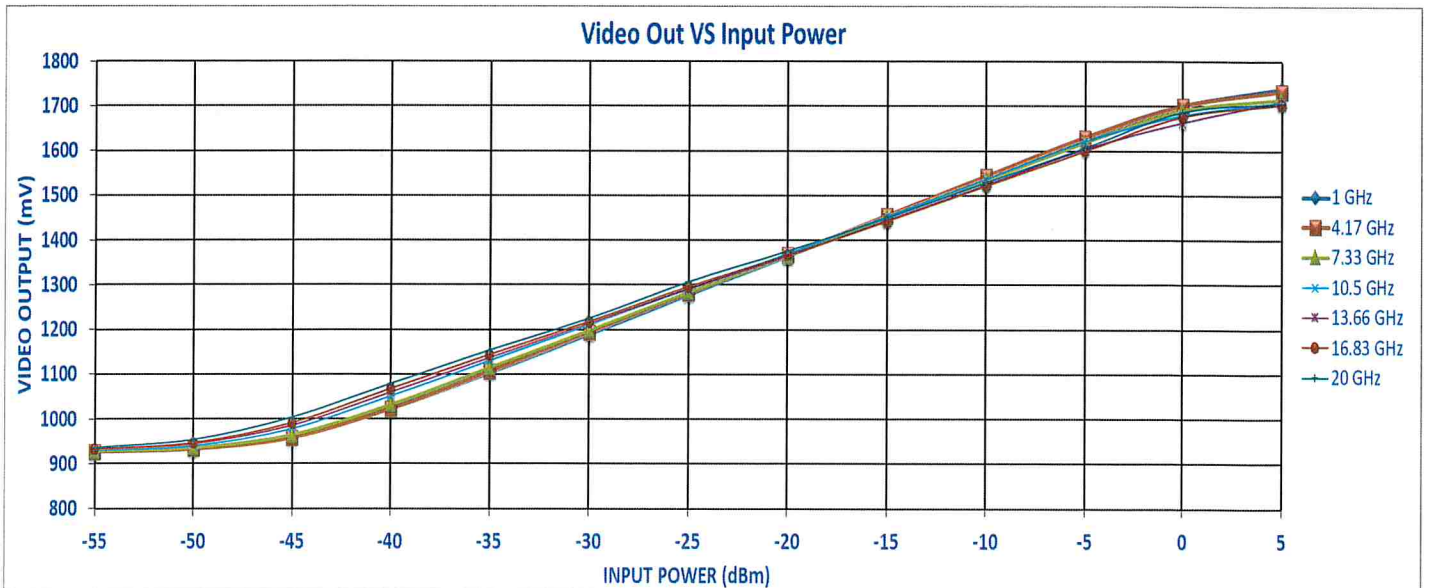
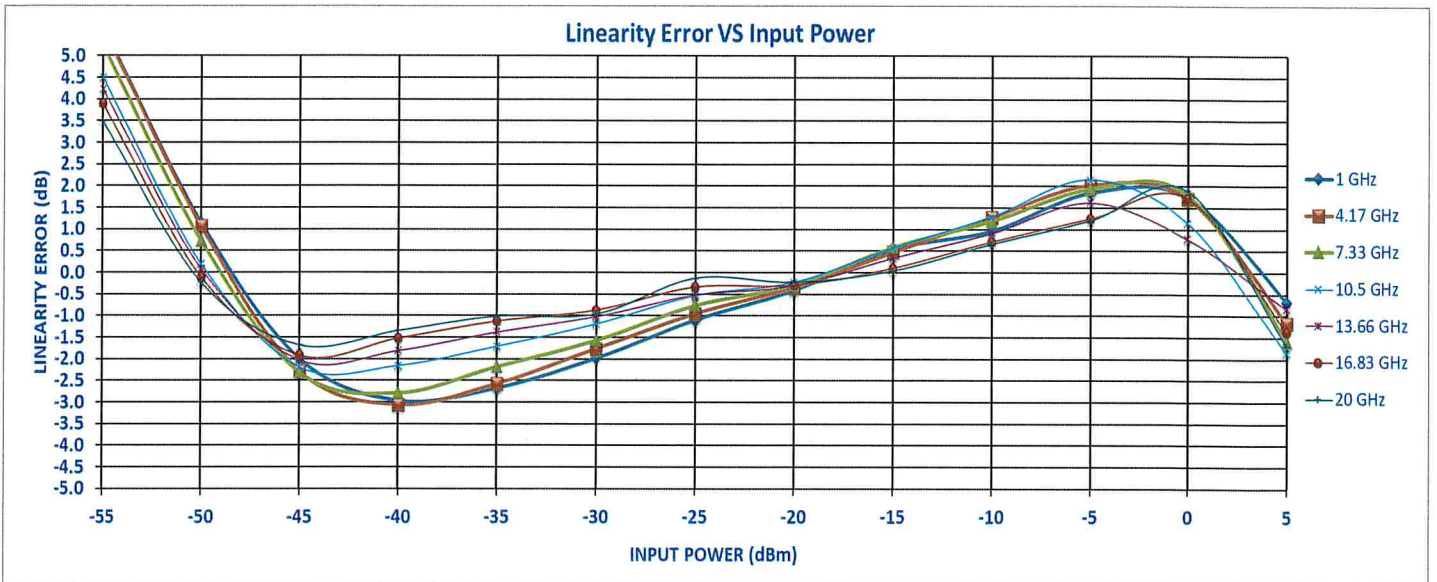
		-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
<b>1 GHz</b>	<b>INTERCEPT (mV)</b>	924 932 960 1022 1102 1188 1277 1363 1453 1536 1625 1698 1737													Measured Value (mV)
	<b>SLOPE (mV/dB)</b>	85 17 -31 -44 -40 -30 -17 -6 8 15 28 26 -11													Error (mV)
		5.60 1.13 -2.02 -2.93 -2.65 -1.97 -1.10 -0.42 0.52 1.00 1.87 1.69 -0.73													LINEARITY ERROR (dB)
X															
<b>4.17 GHz</b>	<b>INTERCEPT (mV)</b>	924 930 956 1020 1104 1191 1279 1364 1452 1540 1628 1699 1730													Measured Value (mV)
	<b>SLOPE (mV/dB)</b>	85 15 -34 -46 -38 -27 -15 -5 7 19 31 26 -18													Error (mV)
		5.62 1.02 -2.27 -3.05 -2.51 -1.77 -0.96 -0.36 0.45 1.25 2.05 1.74 -1.22													LINEARITY ERROR (dB)
X															
<b>7.33 GHz</b>	<b>INTERCEPT (mV)</b>	925 933 962 1030 1113 1196 1282 1363 1449 1533 1618 1688 1713													Measured Value (mV)
	<b>SLOPE (mV/dB)</b>	77 11 -35 -41 -32 -23 -11 -4 8 18 29 25 -24													Error (mV)
		5.17 0.71 -2.33 -2.74 -2.14 -1.53 -0.72 -0.25 0.56 1.23 1.97 1.70 -1.62													LINEARITY ERROR (dB)
X															
<b>10.5 GHz</b>	<b>INTERCEPT (mV)</b>	927 938 976 1049 1128 1208 1290 1367 1451 1534 1619 1676 1705													Measured Value (mV)
	<b>SLOPE (mV/dB)</b>	64 3 -32 -31 -25 -17 -8 -3 9 19 32 16 -27													Error (mV)
		4.44 0.19 -2.18 -2.15 -1.70 -1.18 -0.52 -0.21 0.59 1.31 2.18 1.11 -1.89													LINEARITY ERROR (dB)
X															
<b>13.66 GHz</b>	<b>INTERCEPT (mV)</b>	928 941 983 1057 1134 1210 1288 1362 1442 1522 1602 1660 1709													Measured Value (mV)
	<b>SLOPE (mV/dB)</b>	59 1 -28 -25 -19 -14 -7 -4 5 14 23 10 -12													Error (mV)
		4.13 0.05 -1.99 -1.78 -1.36 -1.00 -0.51 -0.30 0.34 0.97 1.61 0.69 -0.86													LINEARITY ERROR (dB)
X															
<b>16.83 GHz</b>	<b>INTERCEPT (mV)</b>	930 945 990 1066 1141 1215 1294 1364 1440 1520 1598 1676 1693													Measured Value (mV)
	<b>SLOPE (mV/dB)</b>	53 -2 -27 -21 -16 -13 -4 -4 2 12 19 27 -26													Error (mV)
		3.80 -0.14 -1.93 -1.52 -1.17 -0.90 -0.27 -0.29 0.13 0.83 1.38 1.94 -1.85													LINEARITY ERROR (dB)
X															
<b>20 GHz</b>	<b>INTERCEPT (mV)</b>	933 952 1002 1077 1152 1223 1305 1374 1448 1527 1604 1684 1702													Measured Value (mV)
	<b>SLOPE (mV/dB)</b>	48 -3 -24 -19 -14 -13 -1 -3 1 10 17 27 -26													Error (mV)
		3.40 -0.24 -1.68 -1.34 -1.00 -0.94 -0.10 -0.18 0.09 0.72 1.20 1.90 -1.82													LINEARITY ERROR (dB)
X															
<b>Flatness P-P</b>		0.6 1.6 3.2 4.0 3.4 2.4 2.0 0.8 0.8 1.4 2.0 2.6 3.0													
<b>Slope Avg(mV/dB)</b>		14.6													



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Transfer @ 25C – Plot

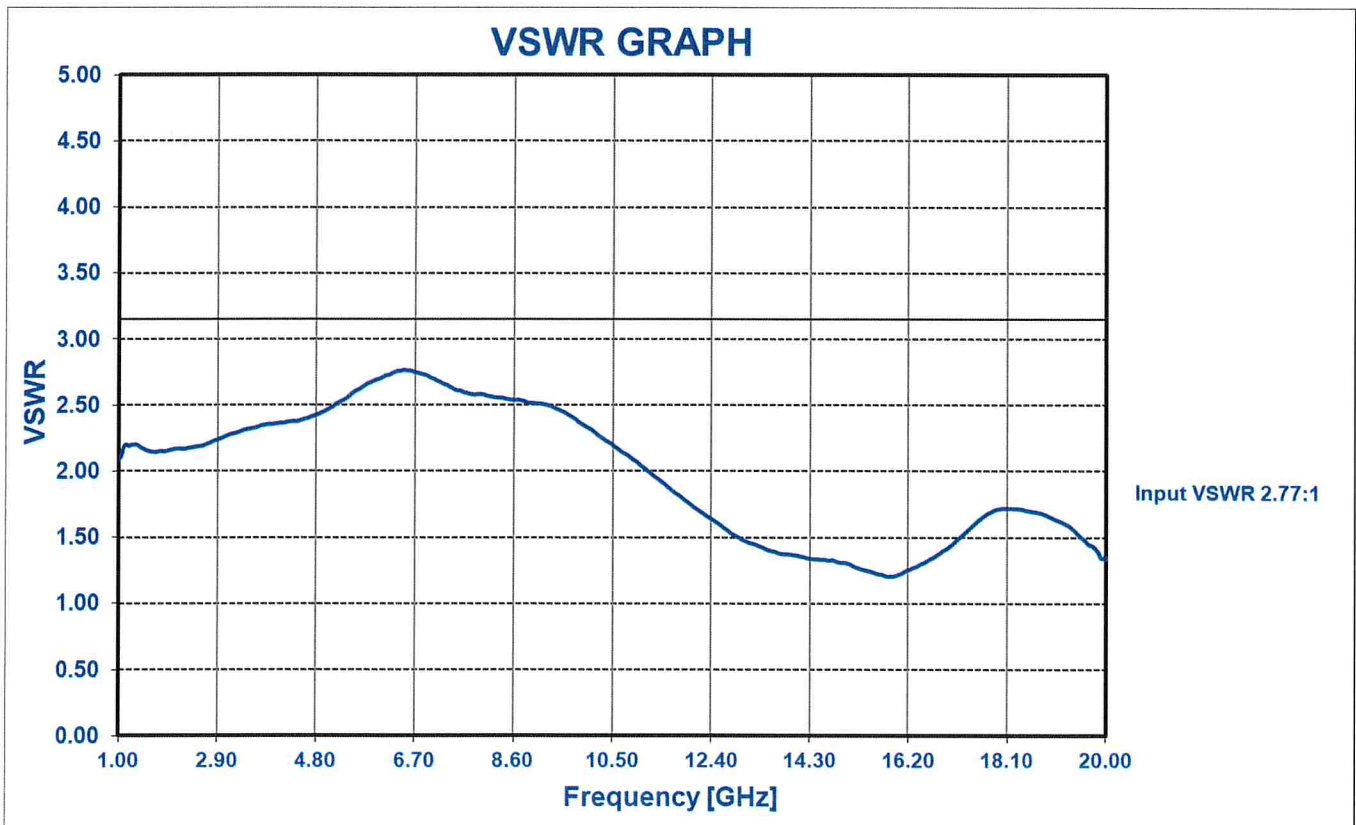




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VSWR

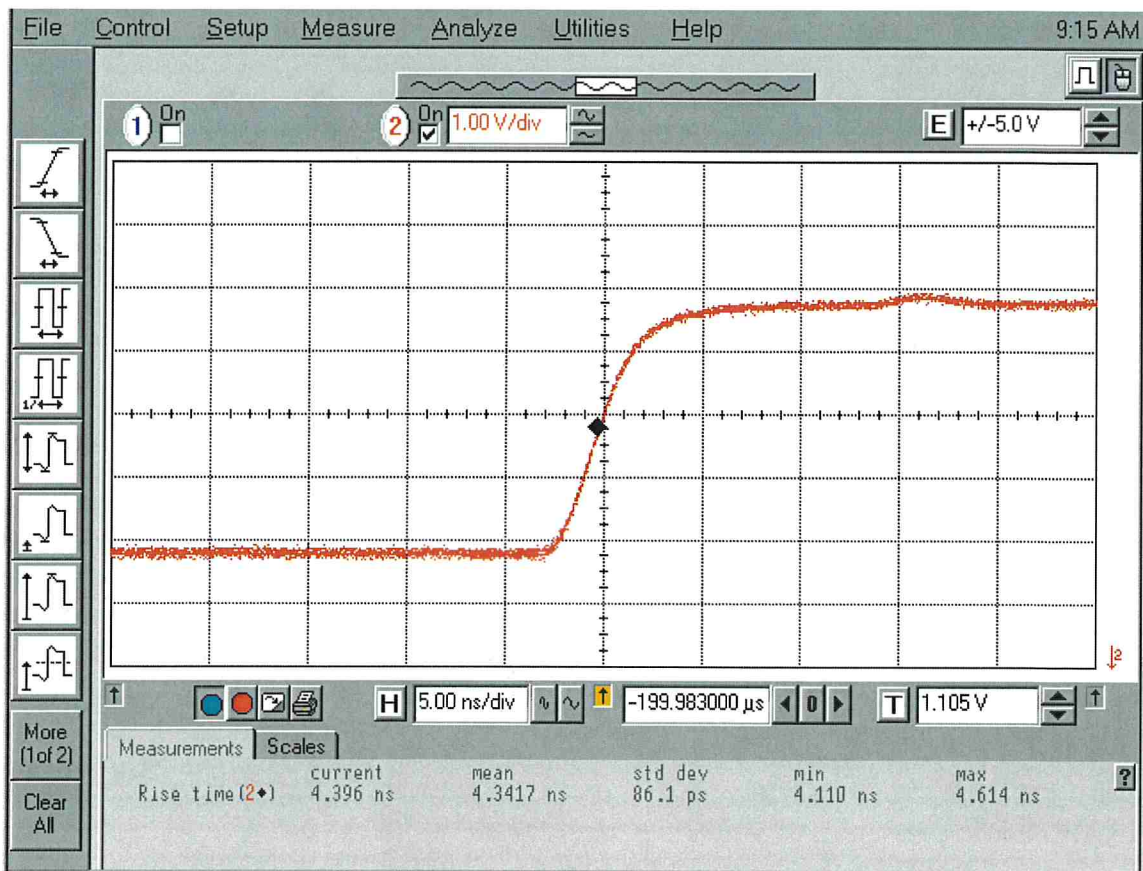




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Rise Time





SUMMARY TEST DATA  
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Fall Time

