



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

**PL28127/2021**

Customer: \_\_\_\_\_  
 SO No: \_\_\_\_\_  
 Model No: SDLVA-1G20G-58-12-SFF  
 Serial No: PL28127/2021

Tested By: J WADE Sign: JW  
 QA/QC By: ARTHUR Z. Sign: AB  
 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	<b>1 GHz – 20 GHz</b>	Pass	<i>AB</i> <i>5/21</i>
2	Frequency Flatness	±2.0 dB Typ	<b>See Plot</b>	± 1.3 dB	
3	Log Linearity	±1.0 dB Typ	<b>See Plot</b>	Pass	
4	Log Linearity Over Temp	±1.0 dB Typ. (@ -55°C to +85°C)	<b>By Design</b>	Pass	
5	Logging Range	-54 to +5 dBm	<b>See Plot</b>	Pass	
6	Input VSWR	3.0:1 Typ	<b>See Plot</b>	2.76:1	
7	Log Video Output Voltage	0.9 V to 1.5V Typ	<b>See Plot</b>	1.749 V	
8	Log Video Output Slope	14 mV / dB Typ	<b>See Plot</b>	14.3 mV	
9	Log Video Output Rise Time	5 ns Typ (Pin = -20 dBm @ 10% to 90%)	<b>See Typical Characteristics</b>	Pass	
10	Log Video Output Fall Time	20 ns Typ (Pin = -20 dBm @ 90% to 10%)	<b>See Typical Characteristics</b>	Pass	
11	Log Video Recovery Time	28 ns Typ (Pin = -50 dBm to 0 dBm)	<b>See Typical Characteristics</b>	Pass	
12	Log Video Propagation Delay	14 ns Typ	<b>See Typical Characteristics</b>	Pass	↓
13	Power Supply	+12V Typ @ 100mA	<b>95 mA</b>	Pass	<i>AB</i> <i>5/21</i>

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: PL28127**  
**Test Temp: +25C**



**PLANAR MONOLITHICS INDUSTRIES**  
 4921 Robert J. Mathews Parkway,  
 Suite 1  
 El Dorado Hills, CA 95762  
 Phone: 916-542-1401 Fax: 301-662-

Frequency

-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
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RF Input Power (dBm)

**1 GHz** INTERCEPT (mV) **1689**  
 SLOPE (mV/dB) **14.8**

943	958	996	1063	1141	1222	1307	1387	1473	1553	1640	1712	1749
69	10	-26	-34	-30	-23	-12	-6	6	12	25	23	-14
4.63	0.65	-1.79	-2.27	-2.00	-1.53	-0.79	-0.39	0.41	0.81	1.68	1.54	-0.96

Measured Value (mV)  
 Error (mV)  
 LINEARITY ERROR (dB)

**4.17 GHz** INTERCEPT (mV) **1689**  
 SLOPE (mV/dB) **14.8**

942	954	993	1062	1143	1224	1307	1387	1472	1557	1642	1711	1743
69	6	-29	-34	-27	-20	-11	-5	5	16	27	22	-20
4.63	0.44	-1.93	-2.28	-1.82	-1.36	-0.76	-0.36	0.37	1.10	1.84	1.49	-1.35

Measured Value (mV)  
 Error (mV)  
 LINEARITY ERROR (dB)

**7.33 GHz** INTERCEPT (mV) **1681**  
 SLOPE (mV/dB) **14.5**

943	957	998	1071	1150	1227	1309	1386	1470	1551	1634	1704	1728
62	3	-29	-28	-22	-18	-9	-4	7	15	26	23	-26
4.23	0.20	-1.98	-1.96	-1.53	-1.23	-0.59	-0.29	0.49	1.06	1.77	1.59	-1.76

Measured Value (mV)  
 Error (mV)  
 LINEARITY ERROR (dB)

**10.5 GHz** INTERCEPT (mV) **1674**  
 SLOPE (mV/dB) **14.2**

945	963	1012	1085	1159	1235	1313	1386	1468	1548	1632	1690	1719
51	-2	-24	-22	-19	-14	-7	-5	6	15	28	16	-26
3.61	-0.12	-1.67	-1.53	-1.32	-0.96	-0.47	-0.32	0.45	1.09	2.01	1.09	-1.86

Measured Value (mV)  
 Error (mV)  
 LINEARITY ERROR (dB)

**13.66 GHz** INTERCEPT (mV) **1666**  
 SLOPE (mV/dB) **13.9**

947	967	1019	1091	1164	1235	1311	1381	1459	1538	1616	1675	1725
47	-2	-20	-18	-14	-13	-7	-6	2	12	20	9	-10
3.39	-0.17	-1.44	-1.27	-1.03	-0.93	-0.47	-0.44	0.16	0.83	1.43	0.67	-0.74

Measured Value (mV)  
 Error (mV)  
 LINEARITY ERROR (dB)

**16.83 GHz** INTERCEPT (mV) **1667**  
 SLOPE (mV/dB) **13.8**

950	972	1026	1101	1172	1241	1319	1384	1459	1538	1616	1696	1710
42	-5	-20	-14	-12	-12	-3	-7	-1	9	18	29	-26
3.08	-0.33	-1.42	-0.99	-0.85	-0.85	-0.21	-0.50	-0.07	0.65	1.30	2.09	-1.90

Measured Value (mV)  
 Error (mV)  
 LINEARITY ERROR (dB)

**20 GHz** INTERCEPT (mV) **1676**  
 SLOPE (mV/dB) **13.8**

953	981	1038	1111	1181	1250	1330	1393	1468	1545	1623	1703	1719
37	-4	-16	-12	-11	-11	0	-6	0	8	16	27	-26
2.67	-0.30	-1.18	-0.89	-0.82	-0.82	-0.03	-0.47	-0.03	0.54	1.19	1.99	-1.86

Measured Value (mV)  
 Error (mV)  
 LINEARITY ERROR (dB)

Flatness P-P

0.8	1.8	3.2	3.4	2.8	2.0	1.6	0.8	1.0	1.4	1.8	2.6	2.8
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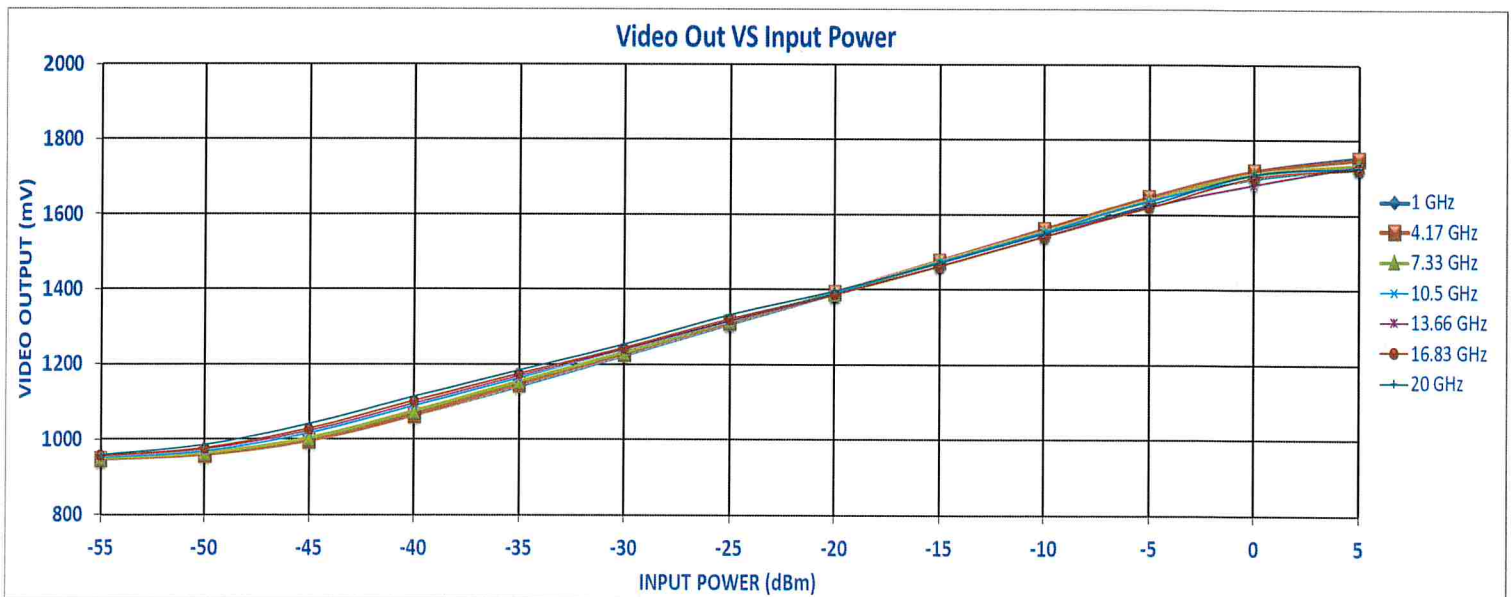
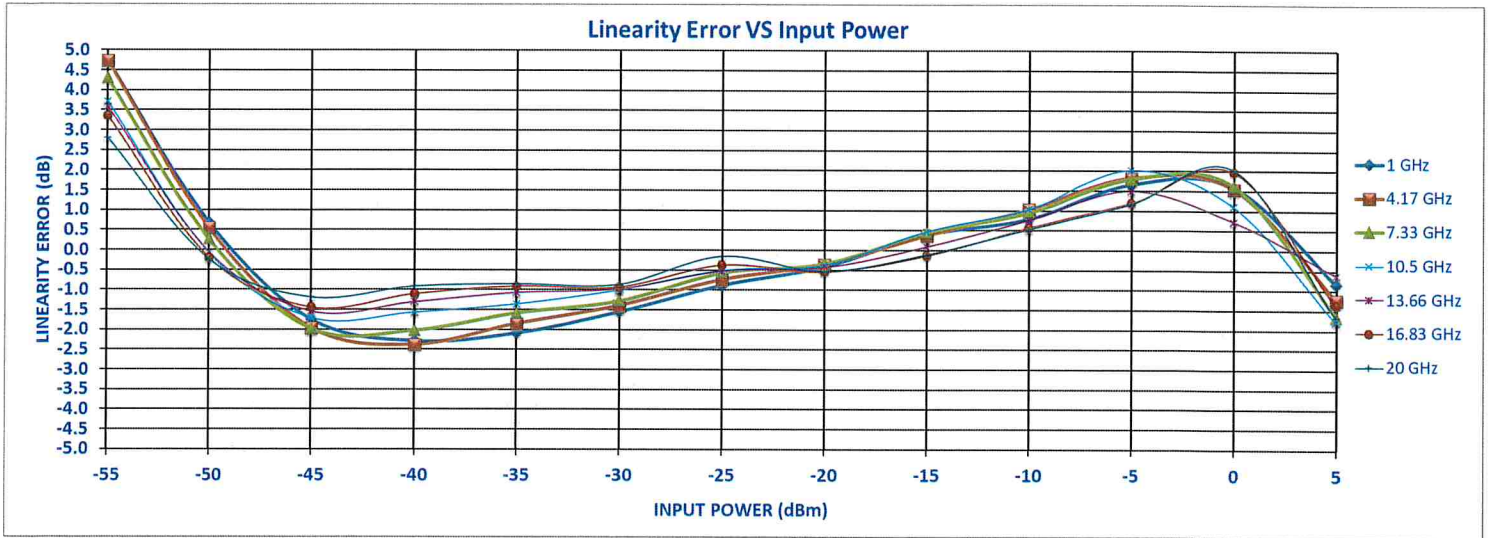
Slope Avg(mV/dB) **14.3**



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Transfer @ 25C – Plot



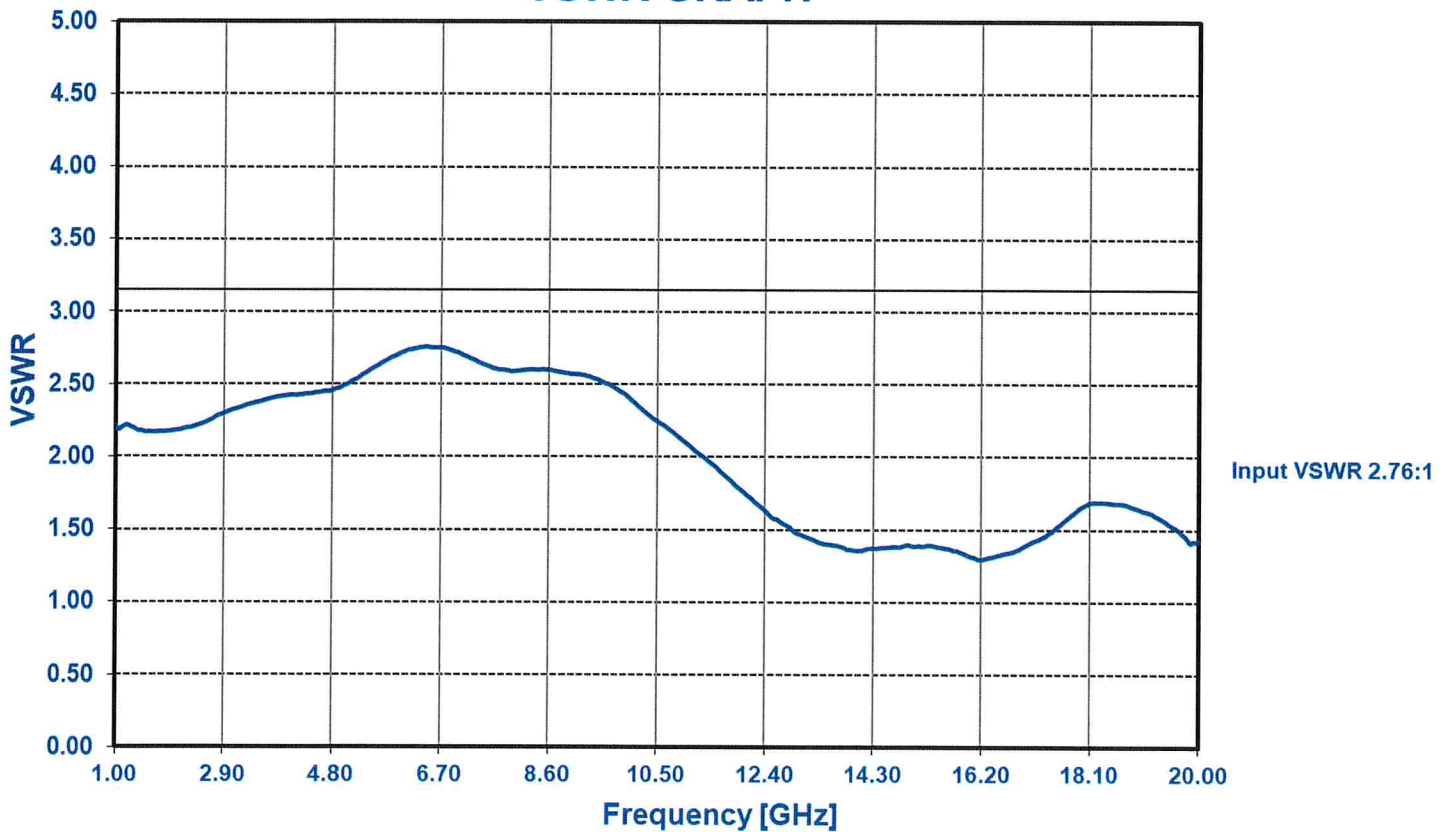


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VSWR

VSWR GRAPH

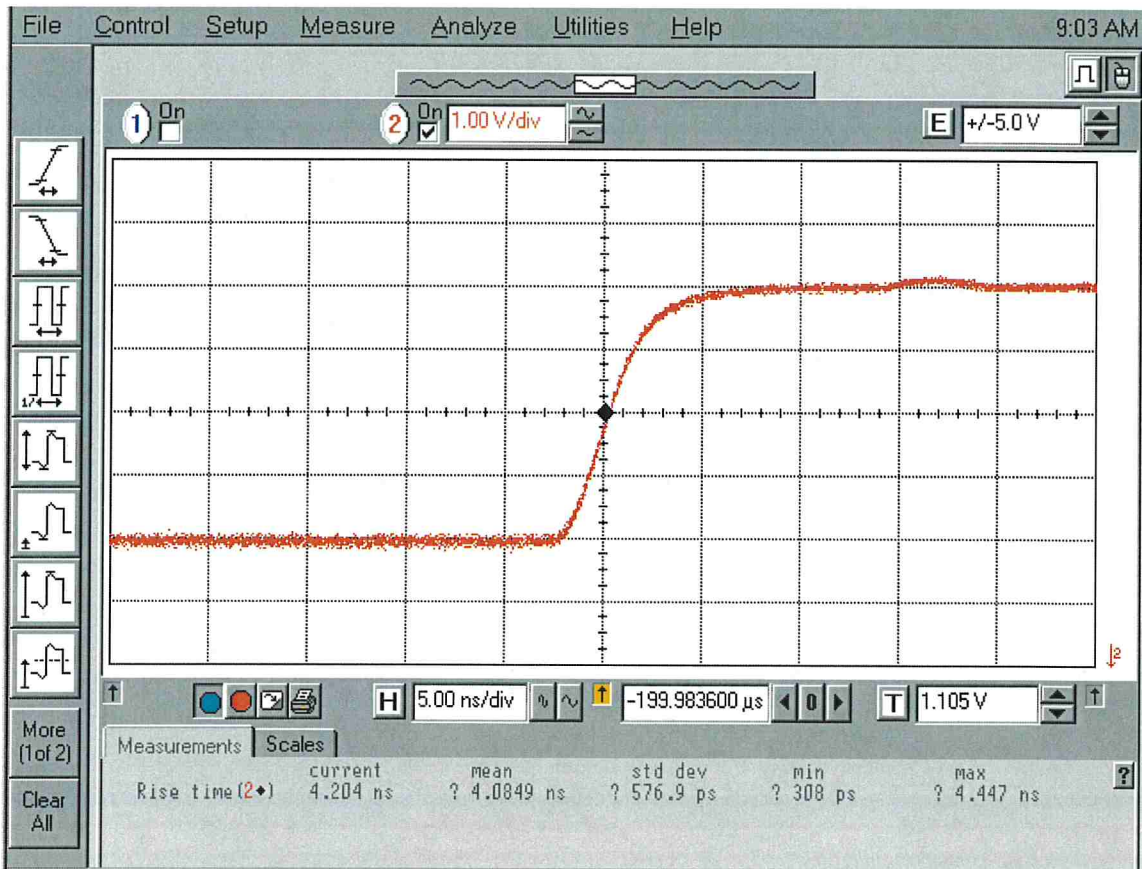




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Rise Time





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Fall Time

