



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

PL28123/2012

Customer: _____
 SO No: _____
 Model No: SDLVA-1G20G-58-12-SFF
 Serial No: PL28123/2012

Tested By: J WADE Sign: JW
 QA/QC By: ARTHUR Z. Sign: az
 Temperature: +25°C
 Date: 03/16/2020
 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	
2	Frequency Flatness	±2.0 dB Typ	See Plot	± 1.8 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	2.75:1	
7	Log Video Output Voltage	0.9 V to 1.5V Typ	See Plot	1.3V	
8	Log Video Output Slope	14 mV / dB Typ	See Plot	14.2 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	93 mA	Pass	

QA/QC Approval: Arthur Zimmerman Date: 3/19/20



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Transfer @ 25C – Data

Page #1

LOG TRANSFER WITH FREQUENCY
MODEL: SDLVA-1G20G-55-12-SFF
TESTED BY: JERRY WADE
DATE: 03/12/20
SERIAL NO: PL28123
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) **1715**
 SLOPE (mV/dB) **14.8**

976	986	1020	1087	1167	1249	1334	1415	1500	1579	1667	1738	1775
74	10	-30	-37	-31	-23	-12	-5	7	12	26	23	-14
4.99	0.67	-2.03	-2.50	-2.08	-1.54	-0.79	-0.31	0.45	0.79	1.74	1.55	-0.95

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

4.17 GHz INTERCEPT (mV) **1713**
 SLOPE (mV/dB) **14.8**

975	982	1015	1085	1167	1249	1333	1413	1498	1581	1666	1737	1767
75	8	-33	-37	-29	-21	-11	-5	7	16	27	24	-20
5.05	0.52	-2.25	-2.51	-1.96	-1.41	-0.72	-0.31	0.44	1.06	1.81	1.62	-1.35

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

7.33 GHz INTERCEPT (mV) **1703**
 SLOPE (mV/dB) **14.4**

976	985	1021	1094	1174	1253	1335	1411	1495	1573	1657	1727	1751
67	4	-33	-32	-24	-17	-7	-4	8	14	26	24	-25
4.62	0.25	-2.26	-2.21	-1.67	-1.20	-0.52	-0.25	0.56	0.96	1.78	1.63	-1.71

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

10.5 GHz INTERCEPT (mV) **1699**
 SLOPE (mV/dB) **14.1**

978	991	1037	1111	1187	1263	1340	1413	1494	1573	1657	1714	1744
55	-3	-27	-24	-18	-13	-6	-4	7	15	28	15	-26
3.90	-0.18	-1.92	-1.68	-1.29	-0.90	-0.45	-0.27	0.47	1.06	2.02	1.06	-1.82

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

13.66 GHz INTERCEPT (mV) **1688**
 SLOPE (mV/dB) **13.8**

980	995	1043	1117	1190	1262	1337	1407	1484	1561	1638	1698	1748
51	-3	-24	-19	-15	-12	-6	-5	3	11	19	10	-9
3.71	-0.20	-1.73	-1.37	-1.08	-0.87	-0.44	-0.37	0.20	0.78	1.35	0.70	-0.68

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

16.83 GHz INTERCEPT (mV) **1692**
 SLOPE (mV/dB) **13.7**

982	1000	1052	1128	1200	1269	1348	1412	1486	1563	1639	1720	1736
45	-6	-22	-15	-12	-11	-1	-5	0	8	16	28	-25
3.28	-0.41	-1.62	-1.09	-0.84	-0.82	-0.06	-0.40	-0.01	0.60	1.14	2.04	-1.80

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

20 GHz INTERCEPT (mV) **1699**
 SLOPE (mV/dB) **13.7**

985	1007	1062	1137	1207	1277	1356	1419	1493	1568	1644	1726	1746
41	-6	-19	-13	-12	-10	0	-6	0	6	13	27	-22
2.99	-0.41	-1.40	-0.94	-0.85	-0.75	0.01	-0.41	-0.02	0.44	0.98	1.95	-1.59

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

Flatness P-P

0.8	1.8	3.4	3.6	2.8	2.0	1.6	0.8	1.2	1.4	2.0	2.8	2.8
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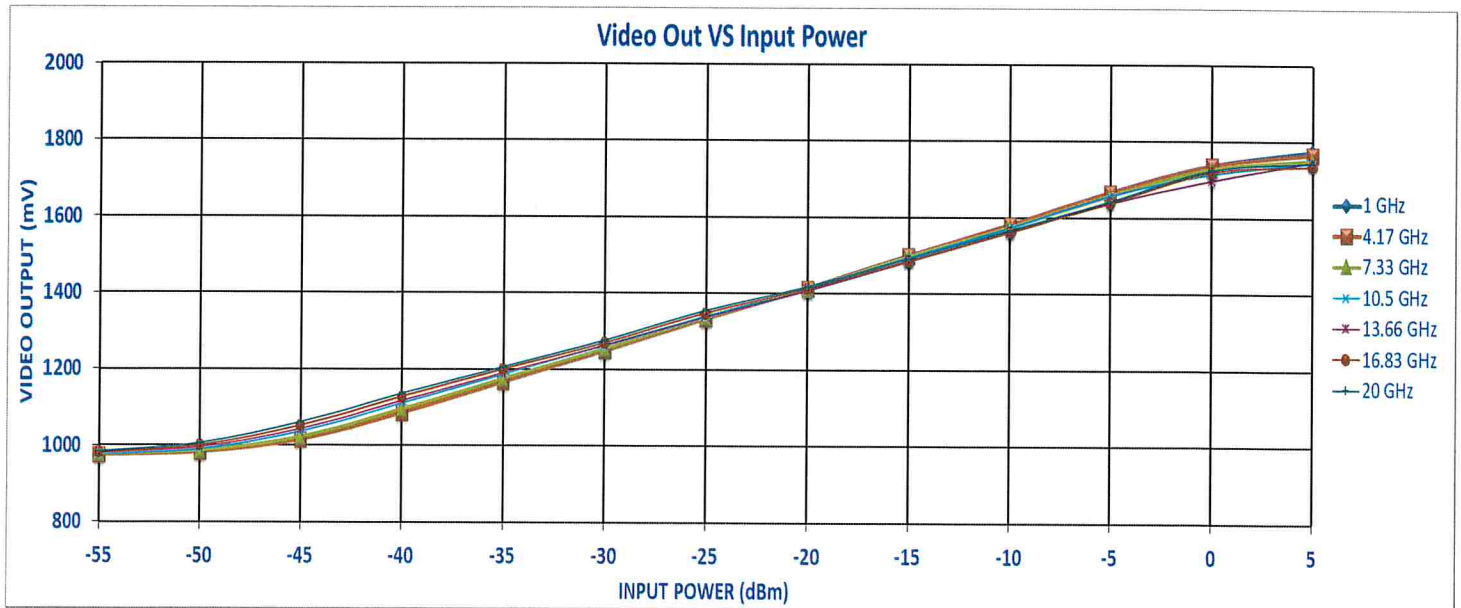
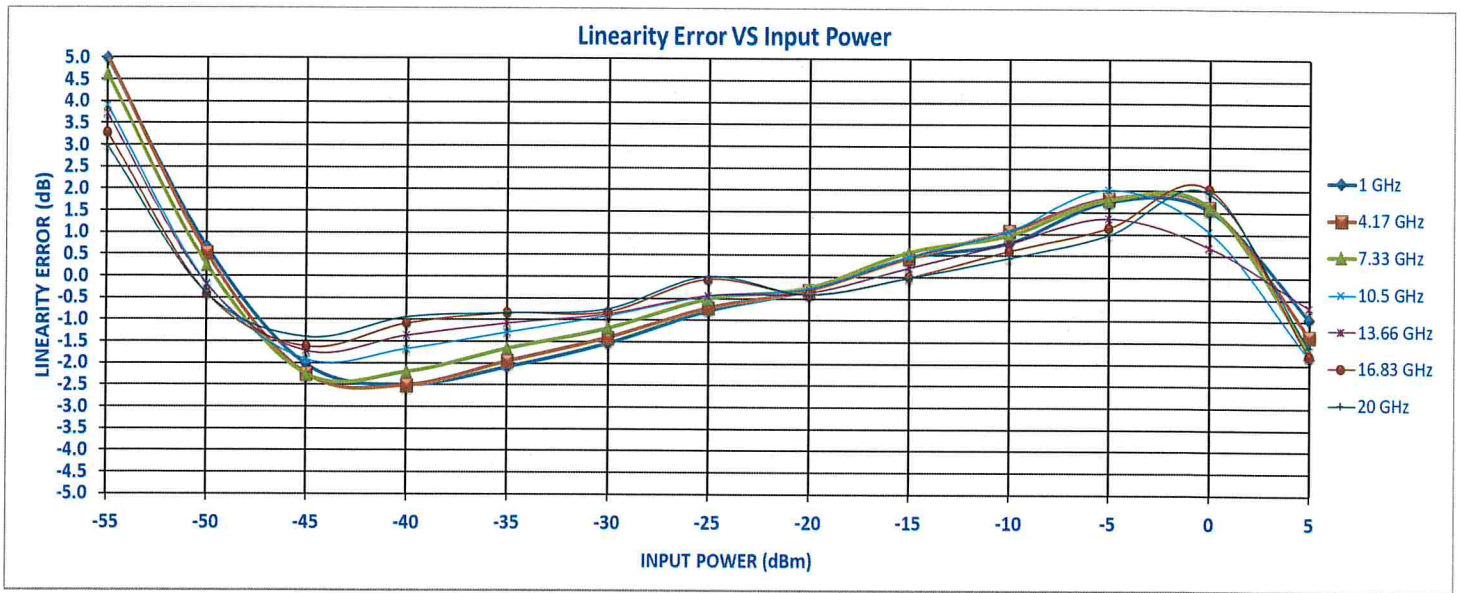
Slope Avg(mV/dB) **14.2**



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Transfer @ 25C – Plot

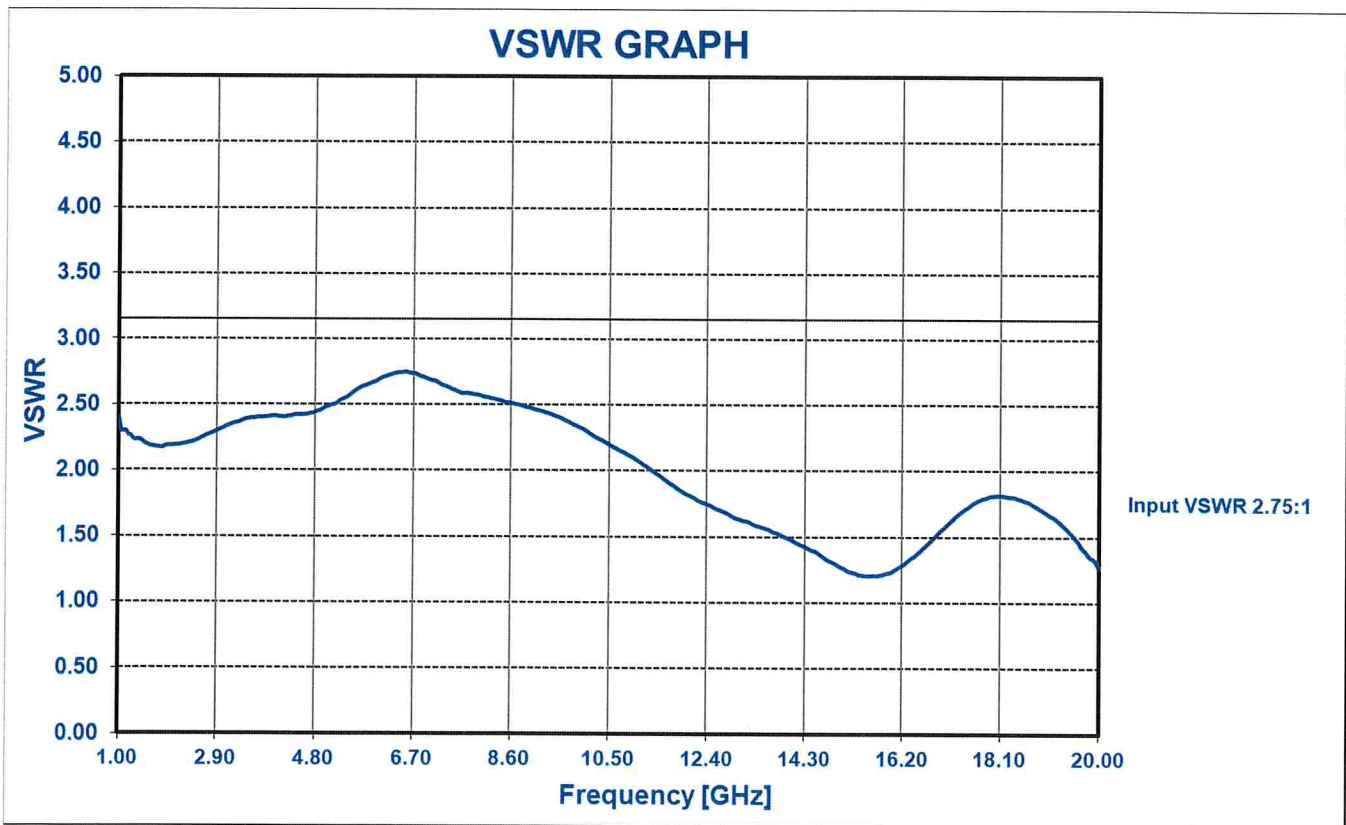




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VSWR

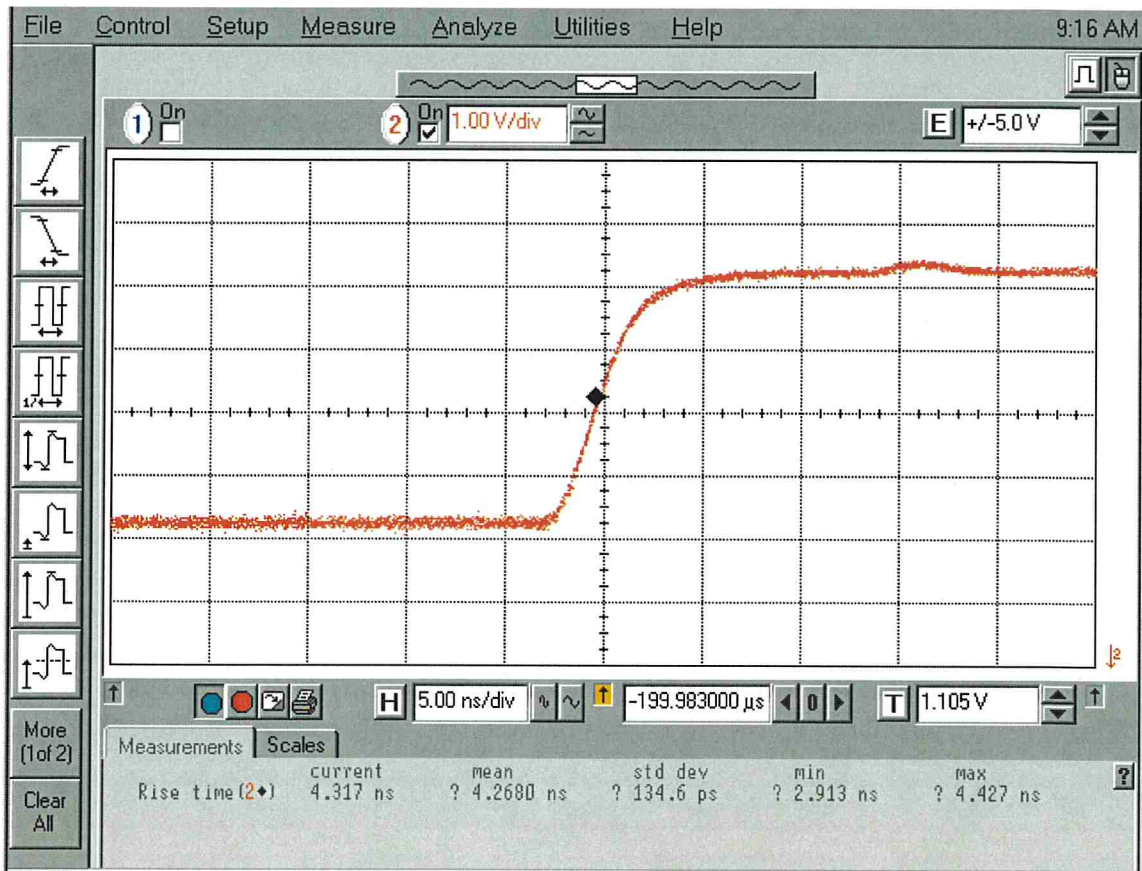




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Rise Time





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Fall Time

