



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

PL28119/2012

Customer: _____
 SO No: _____
 Model No: SDLVA-1G20G-58-12-SFF
 Serial No: PL28119/2012

Tested By: J WADE Sign: JW
 QA/QC By: ARTHUR Z. Sign: [Signature]
 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	<i>aq</i> 3/19/20	
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	2.69:1		
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	14.4 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	94 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: PL28119
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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1 GHz INTERCEPT (mV) **1683**
 SLOPE (mV/dB) **15.0**

906	933	987	1057	1137	1218	1303	1383	1467	1544	1629	1699	1736
49	1	-20	-25	-20	-15	-5	0	9	11	21	16	-22
3.25	0.05	-1.35	-1.69	-1.36	-0.97	-0.31	0.02	0.61	0.74	1.40	1.07	-1.47

RF Input Power (dBm)

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

4.17 GHz INTERCEPT (mV) **1683**
 SLOPE (mV/dB) **15.0**

905	931	984	1057	1139	1221	1305	1384	1467	1548	1631	1699	1730
48	-1	-23	-25	-19	-12	-3	1	9	15	23	16	-28
3.19	-0.08	-1.55	-1.69	-1.23	-0.78	-0.18	0.07	0.60	0.99	1.52	1.04	-1.89

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

7.33 GHz INTERCEPT (mV) **1673**
 SLOPE (mV/dB) **14.7**

906	934	989	1065	1145	1223	1305	1381	1463	1541	1622	1689	1713
41	-5	-23	-20	-14	-9	-1	2	10	15	22	16	-34
2.79	-0.31	-1.56	-1.39	-0.95	-0.64	-0.06	0.11	0.70	1.00	1.52	1.08	-2.29

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

10.5 GHz INTERCEPT (mV) **1668**
 SLOPE (mV/dB) **14.4**

910	942	1003	1079	1155	1231	1309	1382	1462	1539	1621	1676	1706
32	-8	-19	-15	-10	-6	0	1	10	15	25	8	-33
2.22	-0.56	-1.31	-1.01	-0.72	-0.42	0.01	0.10	0.67	1.03	1.75	0.58	-2.33

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

13.66 GHz INTERCEPT (mV) **1661**
 SLOPE (mV/dB) **14.1**

914	949	1013	1090	1163	1234	1310	1381	1456	1532	1607	1664	1711
26	-9	-15	-9	-6	-5	0	1	6	12	16	3	-20
1.86	-0.65	-1.10	-0.62	-0.42	-0.37	0.03	0.08	0.42	0.83	1.16	0.22	-1.44

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

16.83 GHz INTERCEPT (mV) **1659**
 SLOPE (mV/dB) **13.9**

916	952	1017	1094	1167	1236	1313	1379	1451	1527	1602	1681	1699
24	-10	-14	-7	-4	-5	3	-1	1	7	13	22	-30
1.73	-0.69	-1.03	-0.51	-0.27	-0.33	0.19	-0.08	0.09	0.54	0.91	1.58	-2.13

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

20 GHz INTERCEPT (mV) **1668**
 SLOPE (mV/dB) **13.9**

922	965	1032	1106	1178	1246	1326	1390	1461	1537	1612	1690	1705
18	-8	-11	-6	-4	-5	5	0	1	8	13	22	-33
1.30	-0.60	-0.78	-0.45	-0.27	-0.38	0.38	-0.02	0.09	0.56	0.96	1.57	-2.35

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

Flatness P-P

1.2	2.4	3.4	3.4	2.8	2.0	1.6	0.8	1.2	1.4	2.0	2.4	2.6
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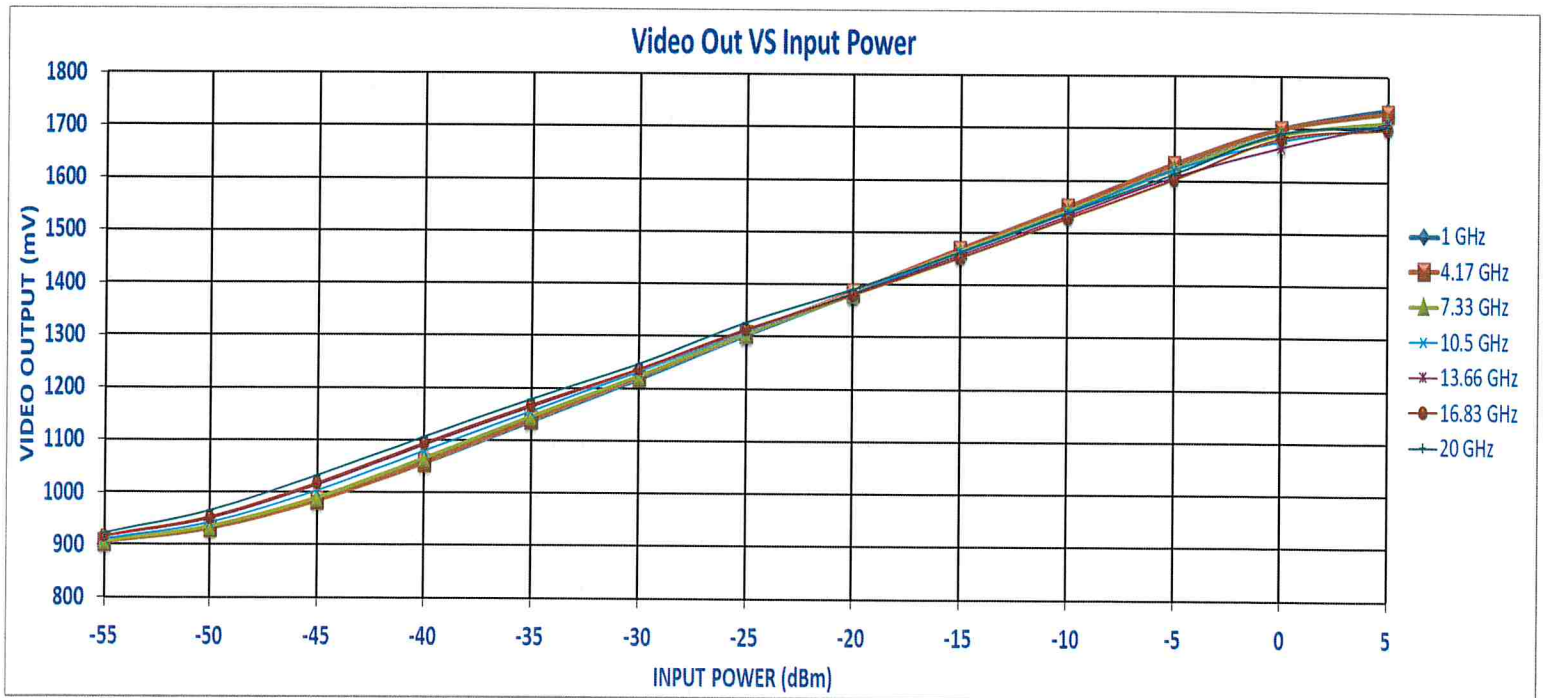
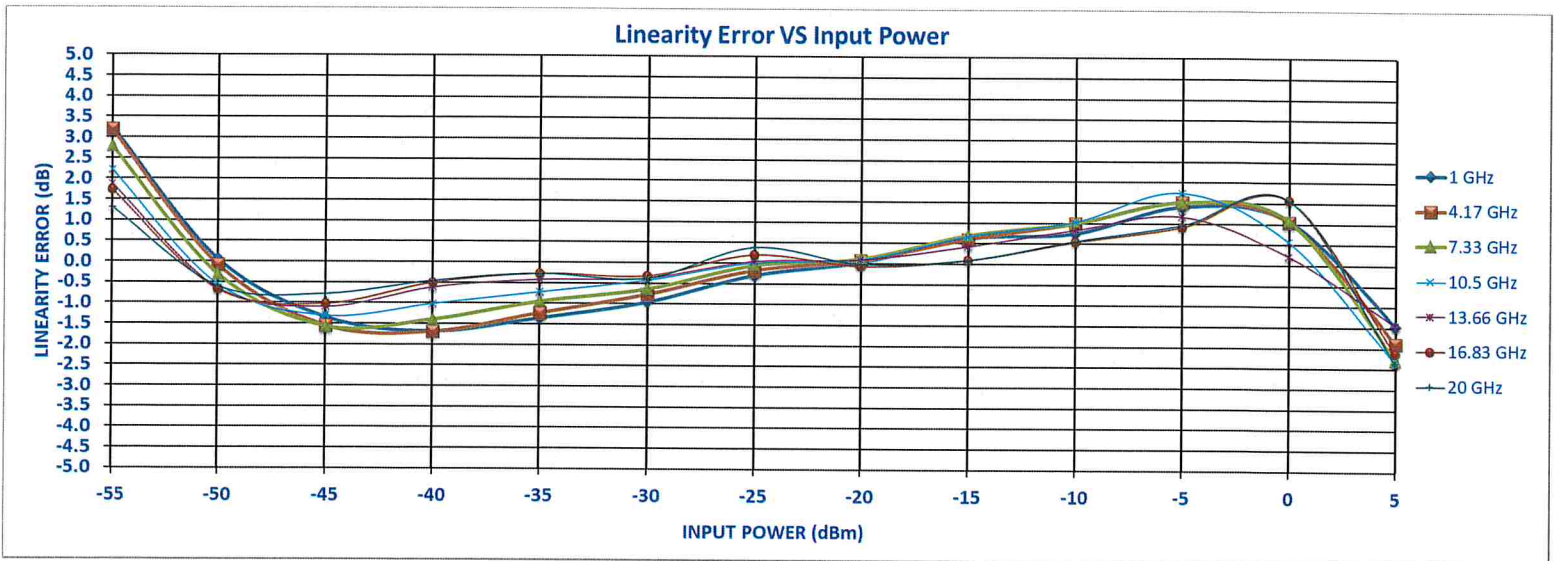
Slope Avg(mV/dB) **14.4**



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Transfer @ 25C – Plot

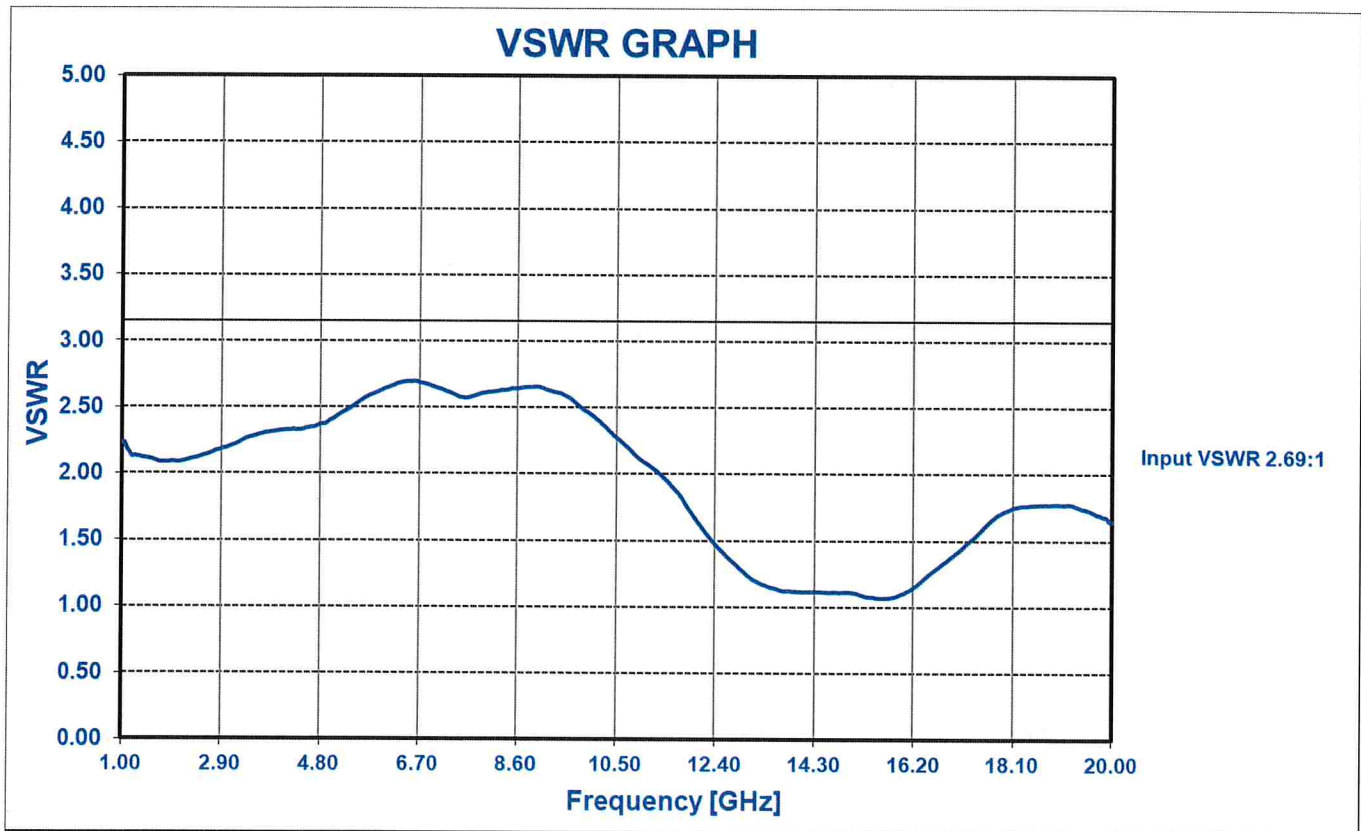




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VSWR

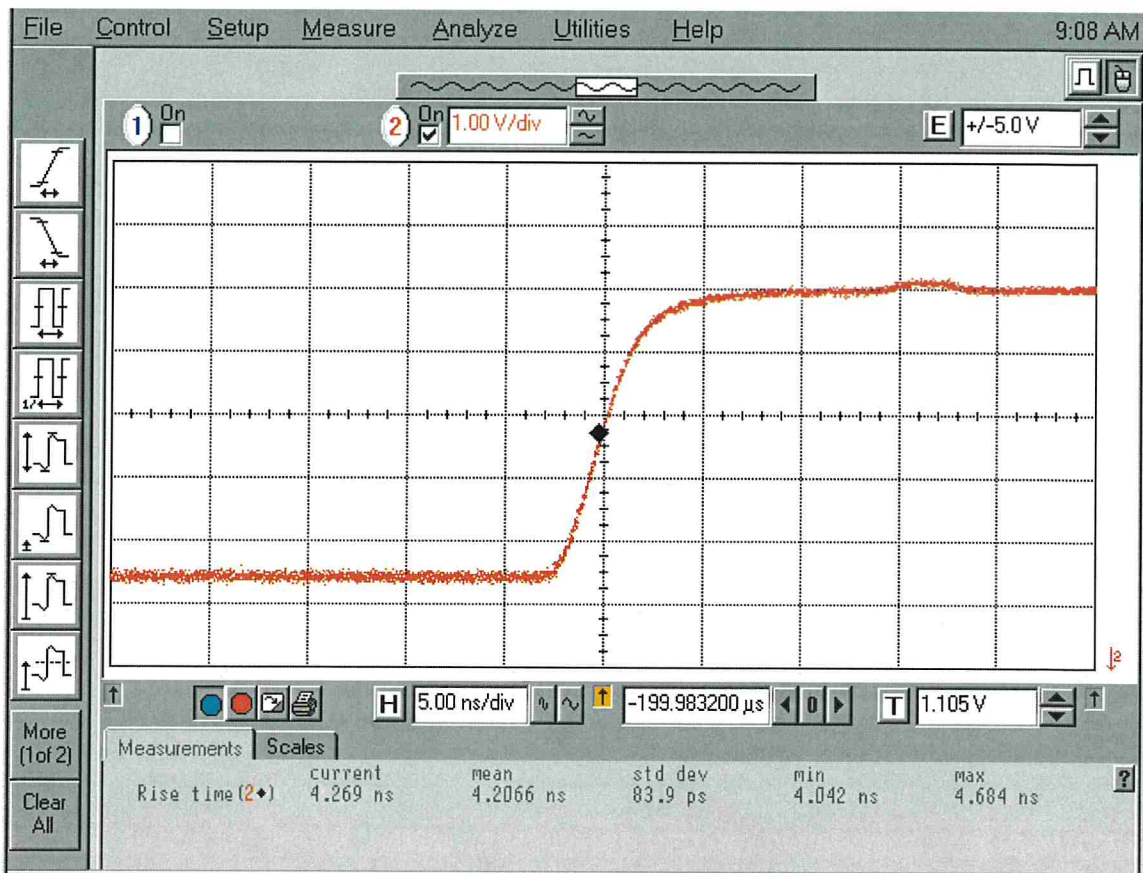




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Rise Time





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Fall Time

