



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

Customer: _____ Tested By: Al Kendall
 SO No: _____ QA/QC By: Arthur Zimmerman
 Model No: SDLVA-1G20G-58-12-SFF Temperature: +25°C
 Serial No: PL26501/1937 Date: 09/12/2019
 Drawing No: 27612160 Rev: A1

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	±1.60 dB	Pass	
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	-54 to +5 dBm	Pass	
6	Input VSWR	3.0:1 Typ	Pass	Pass	
7	Log Video Output Voltage	0.9 V to 1.5V Typ	0.9 to 1.70V	Pass	
8	Log Video Output Slope	14 mV / dB Typ	14.1 mV / dB	Pass	
9	Log Video Output Rise Time	5 ns Typ (Pin = -20 dBm @ 10% to 90%)	3.98 ns	Pass	
10	Log Video Output Fall Time	20 ns Typ (Pin = -20 dBm @ 90% to 10%)	9.088 ns	Pass	
11	Log Video Recovery Time	28 ns Typ (Pin = -50 dBm to 0 dBm)	18 ns	Pass	
12	Propagation Delay	14 ns Typ	By design	Pass	
13	TSS	-60 dBm Typ	-60 dBm	Pass	
14	Power Supply	+12V Typ @ 100mA	98 mA	Pass	

QA/QC Approval: _____ Date: _____



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ON
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LOGGING LINEARITY @+25C

LOG TRANSFER WITH FREQUENCY
MODEL: SDLVA-1G20G-58-12-SFF
TESTED BY: Al Kendall
DATE: 09/05/2019
SERIAL NO: PL26501
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)	1700
	SLOPE (mV/dB)	14.4

955	981	1030	1098	1176	1252	1332	1409	1487	1565	1646	1718	1758
49	3	-20	-24	-19	-15	-7	-2	4	9	18	18	-14
3.42	0.22	-1.39	-1.68	-1.28	-1.02	-0.48	-0.15	0.24	0.64	1.25	1.23	-1.00

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

4.17 GHz	INTERCEPT (mV)	1695
	SLOPE (mV/dB)	14.4

953	976	1024	1093	1173	1250	1329	1404	1481	1559	1640	1714	1753
51	2	-22	-25	-17	-12	-6	-3	2	8	17	19	-14
3.54	0.14	-1.54	-1.75	-1.20	-0.86	-0.38	-0.18	0.16	0.57	1.18	1.32	-0.98

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

7.33 GHz	INTERCEPT (mV)	1692
	SLOPE (mV/dB)	14.2

956	981	1033	1107	1184	1258	1335	1407	1484	1559	1639	1710	1741
43	-3	-22	-19	-12	-9	-3	-2	4	9	18	18	-22
3.02	-0.21	-1.54	-1.32	-0.88	-0.65	-0.21	-0.13	0.31	0.61	1.26	1.27	-1.54

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

10.5 GHz	INTERCEPT (mV)	1685
	SLOPE (mV/dB)	13.8

960	989	1046	1120	1192	1265	1337	1404	1480	1556	1636	1700	1730
34	-6	-18	-13	-10	-6	-3	-5	2	9	20	15	-24
2.49	-0.41	-1.28	-0.91	-0.70	-0.41	-0.19	-0.33	0.17	0.68	1.48	1.11	-1.71

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

13.66 GHz	INTERCEPT (mV)	1674
	SLOPE (mV/dB)	13.6

960	989	1047	1120	1192	1260	1331	1397	1468	1545	1620	1681	1735
33	-6	-15	-10	-6	-6	-3	-5	-2	7	14	7	-7
2.46	-0.41	-1.14	-0.77	-0.47	-0.46	-0.24	-0.38	-0.16	0.51	1.03	0.52	-0.51

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

16.83 GHz	INTERCEPT (mV)	1676
	SLOPE (mV/dB)	13.6

963	993	1051	1126	1197	1262	1334	1396	1464	1542	1616	1697	1736
33	-5	-15	-7	-4	-7	-3	-8	-8	2	8	21	-7
2.43	-0.36	-1.08	-0.54	-0.31	-0.51	-0.20	-0.62	-0.61	0.15	0.61	1.58	-0.54

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

20 GHz	INTERCEPT (mV)	1680
	SLOPE (mV/dB)	13.5

968	1003	1062	1135	1205	1269	1344	1403	1470	1546	1617	1702	1743
29	-4	-12	-6	-4	-7	0	-8	-8	0	4	22	-5
2.12	-0.28	-0.90	-0.48	-0.29	-0.54	0.03	-0.59	-0.62	0.02	0.29	1.60	-0.36

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

Flatness +/-dB	
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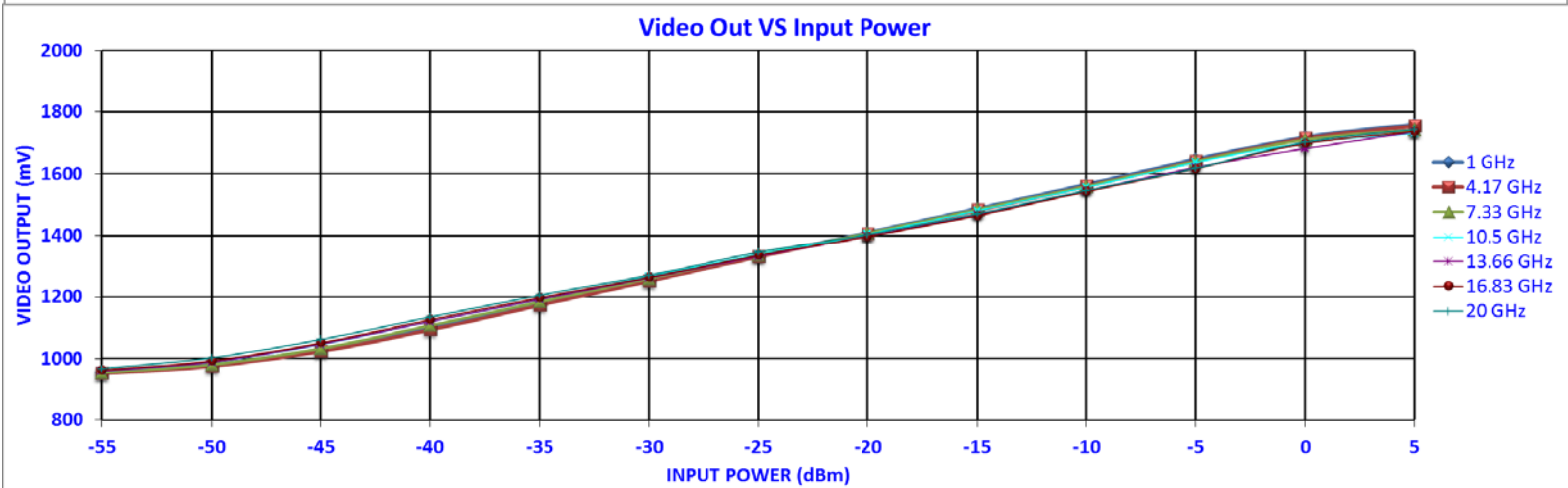
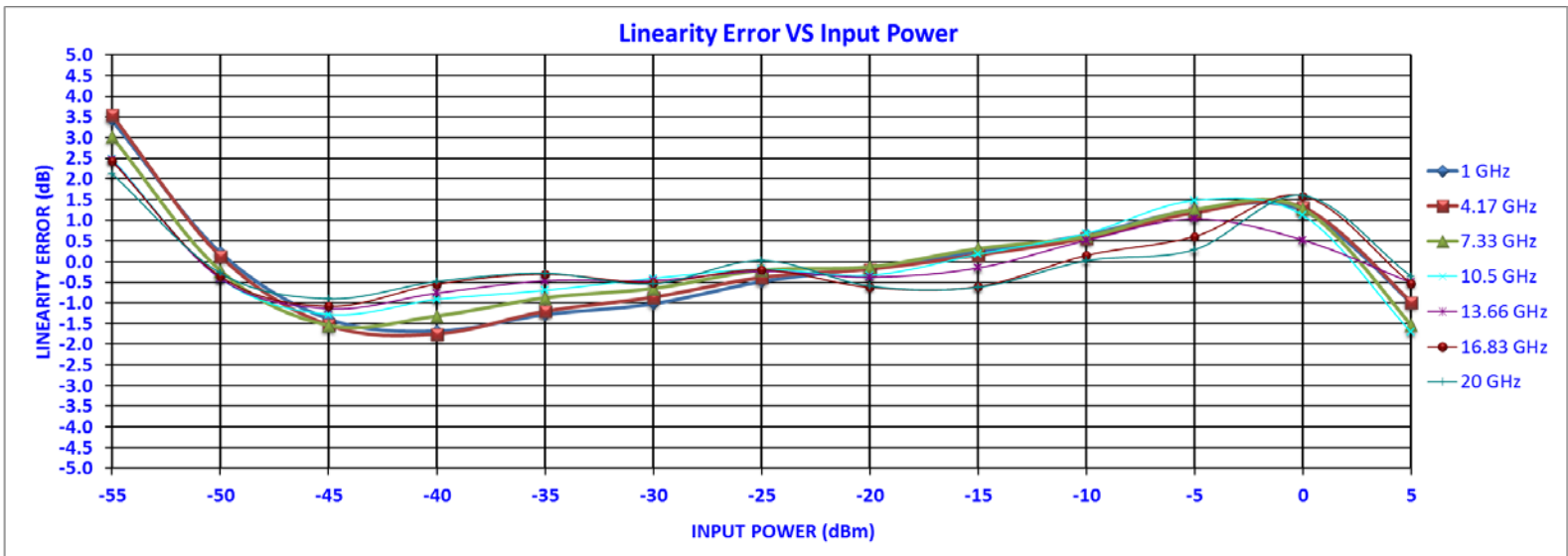
0.5	1	1.4	1.5	1.1	0.7	0.5	0.5	0.8	0.8	1.1	1.3	1
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Slope Avg(mv/dB)	13.9
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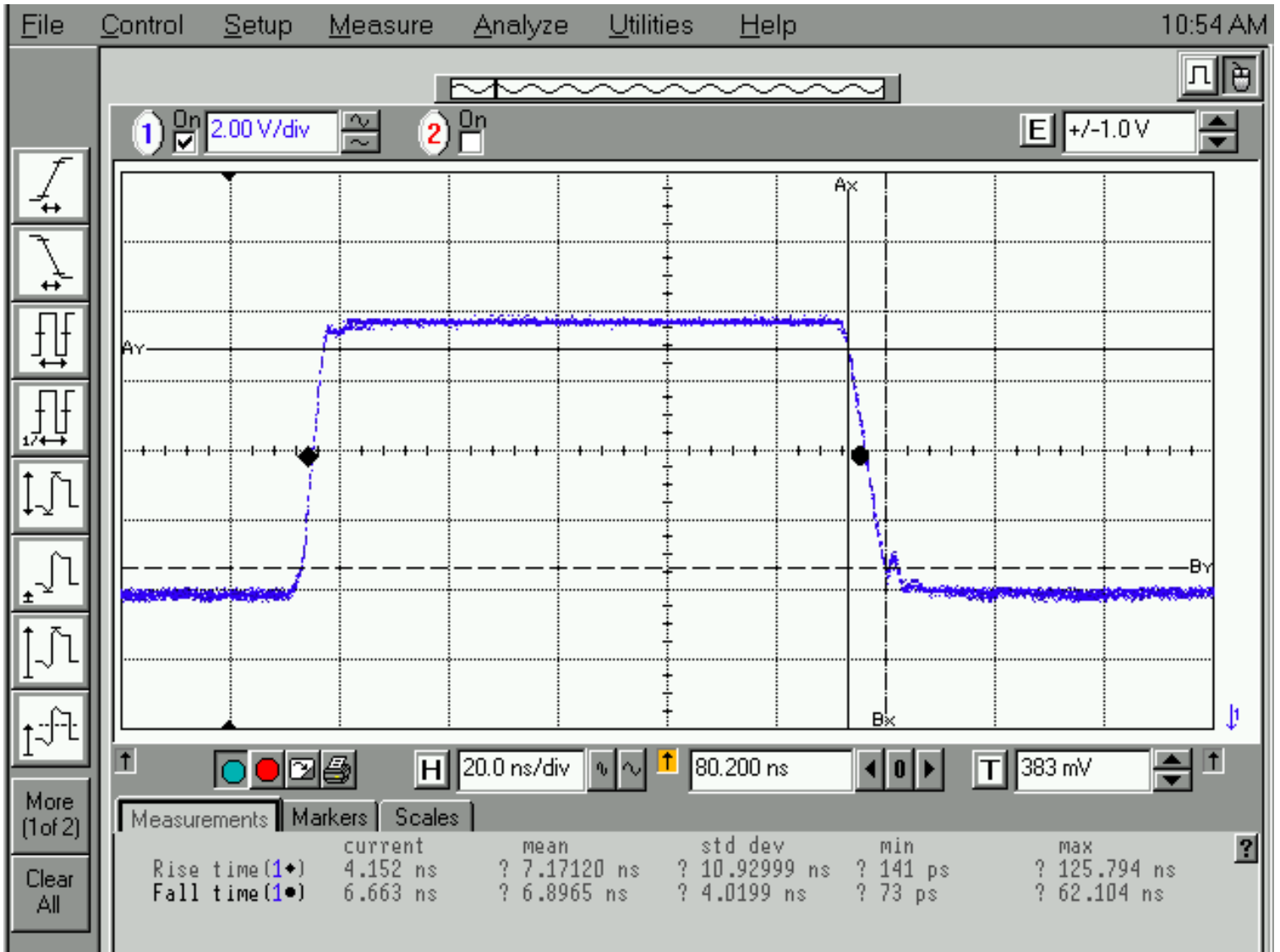
LOGGING LINEARITY (cont.) @+25C





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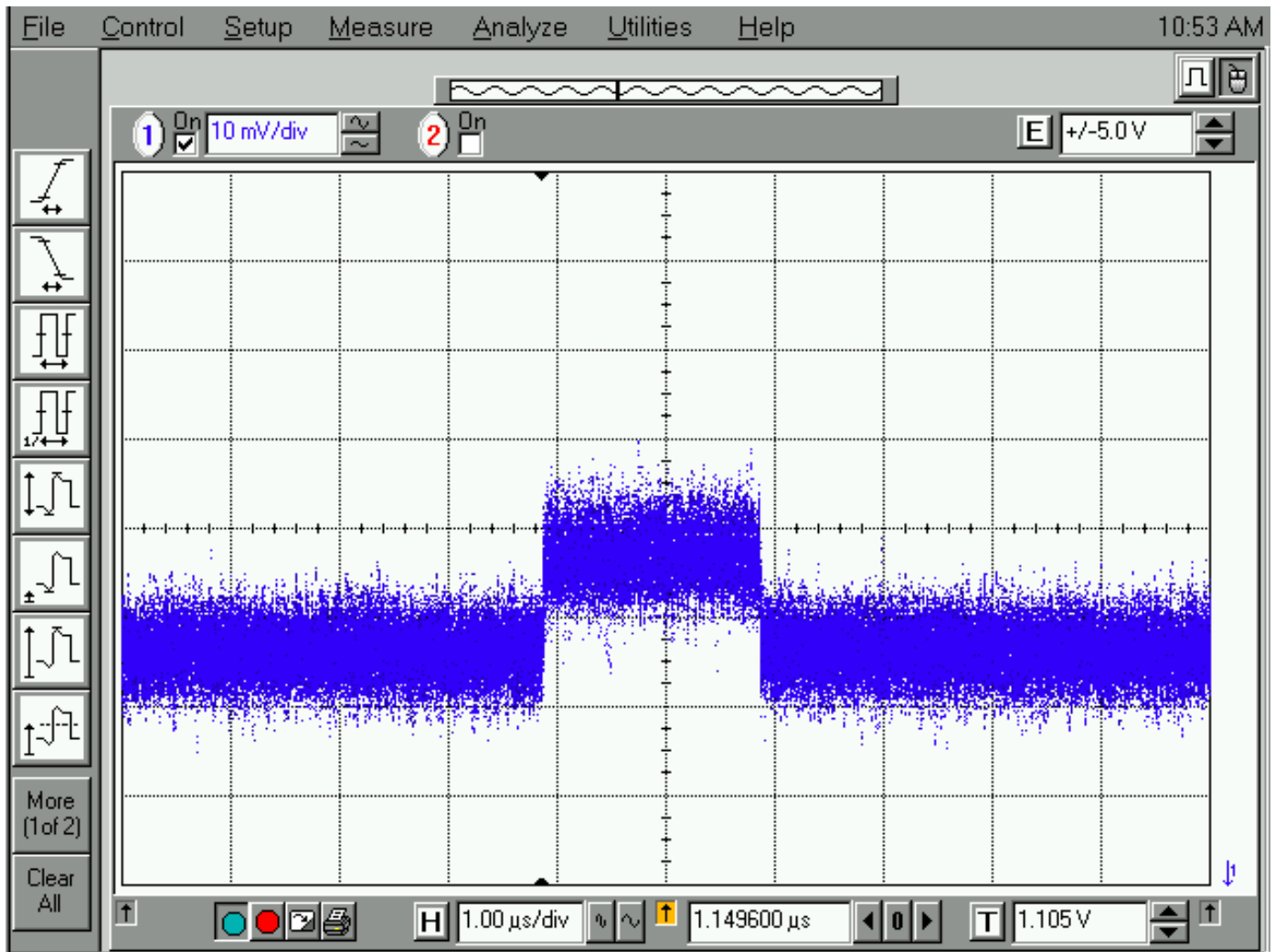
RISE/FALL & RECOVERY TIME





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TSS





**SUMMARY TEST DATA
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VSWR

