

SUMMARY TEST DATA ON SDLVA-1G20G-55-12-SFF

CUSTOMER: _____

SO: _____

TESTED BY: Jeremy Walker

TEMPERATURE: +25°C (Unless Otherwise Specified)

MODEL: SDLVA-1G20G-55-12-SFF

DATE: 6/25/2025

SERIAL NO: PL53488/2526

DRAWING NO: 27637600

REV: A1

TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
1	Frequency Range	1 GHz – 20 GHz	1 GHz – 20 GHz	Pass
2	Frequency Flatness	±2.0 dB Typ	± 2.10 dB See Plot	Pass
3	Log Linearity	±1.5 dB Typ (-50 to 0dBm)	± 2.24 dB See Plot	Pass
4	Log Linearity Over Temp	±2.0 dB Typ (-50 to 0dBm) (@ -55°C to +85°C)	By Design	Pass
5	Logging Range	-55 to +5 dBm	PASS	Pass
6	Video Load	50 OHMS	50 OHMS	Pass
7	Input VSWR	2.8:1 Typ	1.746:1	Pass
8	Log Video Output Voltage	0.1 V to 2.5V Typ	See Plot	Pass
9	Log Video Output Slope	50 mV / dB Typ	49.88 mV/dB	Pass
10	Log Video Output Rise Time	5 ns Typ (Pin = -20 dBm @ 10% to 90%)	8.8 nS	Pass
11	Log Video Output Fall Time	20 ns Typ (Pin = -20 dBm @ 90% to 10%)	14 nS	Pass
12	Log Video Recovery Time	28 ns Typ (Pin = -50 dBm to 0 dBm)	34.8 nS	Pass
13	Log Video Propagation Delay	15 ns Typ	By Design	Pass
14	TSS	-58dBm Typ	-58.4 dBm	Pass
15	Power Supply	+8V to +15V @ 130mA Typ	130mA	Pass

QA/QC Approval:  K. Haney

Date: 6.25.25



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LOG TRANSFER WITH FREQUENCY
 MODEL: SDLVA-1G20G-55-12-SFF
 TESTED BY: Jeramy Walker
 DATE: 6/25/2025
 SERIAL NO: PL53488
 Test Temp: +25C

Output Offset(V)= 0.147

Frequency

RF Input Power (dBm)

1 GHz	INTERCEPT (mV)	2780
	SLOPE (mV/dB)	51.9

182	249	406	637	915	1203	1470	1748	1999	2257	2495	2767	2905
254	62	-40	-69	-50	-21	-13	5	-3	-4	-25	-13	-134
4.90	1.20	-0.78	-1.32	-0.96	-0.41	-0.26	0.10	-0.05	-0.08	-0.49	-0.24	-2.58

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-1.32 1.20

4.17 GHz	INTERCEPT (mV)	2836
	SLOPE (mV/dB)	52.1

191	272	452	695	988	1272	1543	1809	2061	2310	2556	2812	2908
219	40	-41	-58	-26	-2	9	14	6	-6	-20	-24	-189
4.20	0.76	-0.78	-1.12	-0.49	-0.04	0.16	0.27	0.11	-0.11	-0.38	-0.47	-3.63

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-1.12 0.76

7.33 GHz	INTERCEPT (mV)	2888
	SLOPE (mV/dB)	51.4

193	282	473	717	1008	1277	1545	1806	2056	2302	2544	2802	2895
132	-36	-102	-115	-81	-69	-58	-54	-61	-72	-87	-86	-250
2.56	-0.71	-1.99	-2.24	-1.58	-1.34	-1.13	-1.05	-1.19	-1.40	-1.69	-1.67	-4.86

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-2.24 -0.71

10.5 GHz	INTERCEPT (mV)	2813
	SLOPE (mV/dB)	50.2

206	316	528	774	1059	1311	1577	1822	2072	2306	2545	2796	2851
153	12	-27	-31	3	4	19	13	12	-5	-17	-17	-213
3.06	0.25	-0.53	-0.63	0.05	0.07	0.37	0.26	0.24	-0.10	-0.34	-0.33	-4.24

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.63 0.37

13.66 GHz	INTERCEPT (mV)	2795
	SLOPE (mV/dB)	48.6

228	363	583	828	1110	1345	1612	1840	2080	2303	2535	2778	2819
107	-1	-24	-22	17	9	33	17	14	-6	-17	-17	-219
2.20	-0.02	-0.49	-0.46	0.34	0.18	0.67	0.36	0.29	-0.12	-0.35	-0.35	-4.51

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.49 0.67

16.83 GHz	INTERCEPT (mV)	2767
	SLOPE (mV/dB)	47.7

235	378	600	840	1120	1342	1603	1825	2060	2285	2501	2766	2859
93	-3	-20	-18	23	7	29	13	9	-4	-27	-1	-146
1.94	-0.06	-0.41	-0.38	0.49	0.14	0.61	0.26	0.19	-0.09	-0.57	-0.01	-3.06

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.57 0.61

20 GHz	INTERCEPT (mV)	2719
	SLOPE (mV/dB)	47.3

225	359	568	794	1077	1302	1573	1796	2013	2251	2448	2710	2830
107	5	-23	-33	13	2	36	23	3	5	-35	-9	-126
2.27	0.10	-0.48	-0.70	0.28	0.04	0.77	0.48	0.07	0.10	-0.73	-0.19	-2.65

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.73 0.77

Flatness +/-dB

0.5	1.3	1.9	2.0	2.1	1.4	1.4	0.9	0.8	0.6	1.1	1.0	0.9
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Slope Avg(mv/dB) 49.9

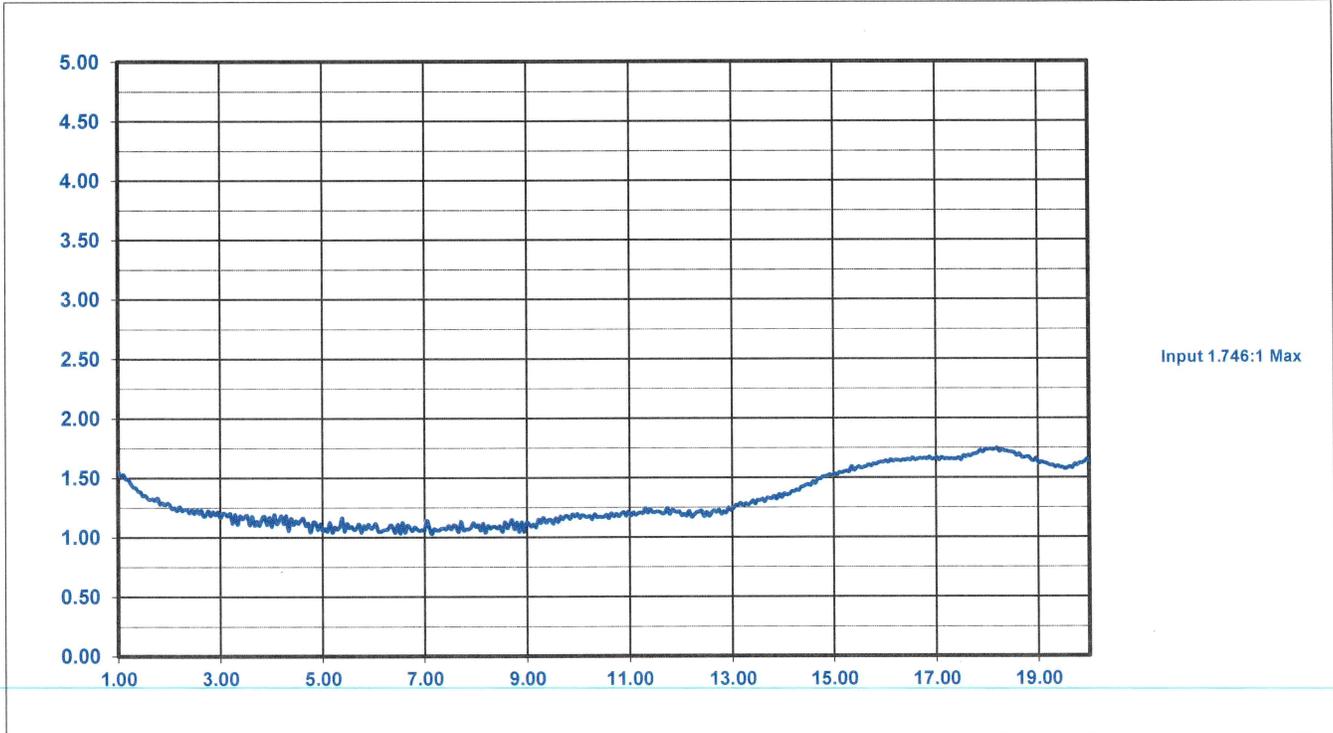
Measured Value (mV)	
Error (mV)	
FLATNESS ERROR (dB)	+/- 2.10



**SUMMARY TEST DATA
ON
SDLVA-1G20G-55-12-SFF**

Model Number: SDLVA-1G20G-55-12-SFF
Serial Number: PL53488

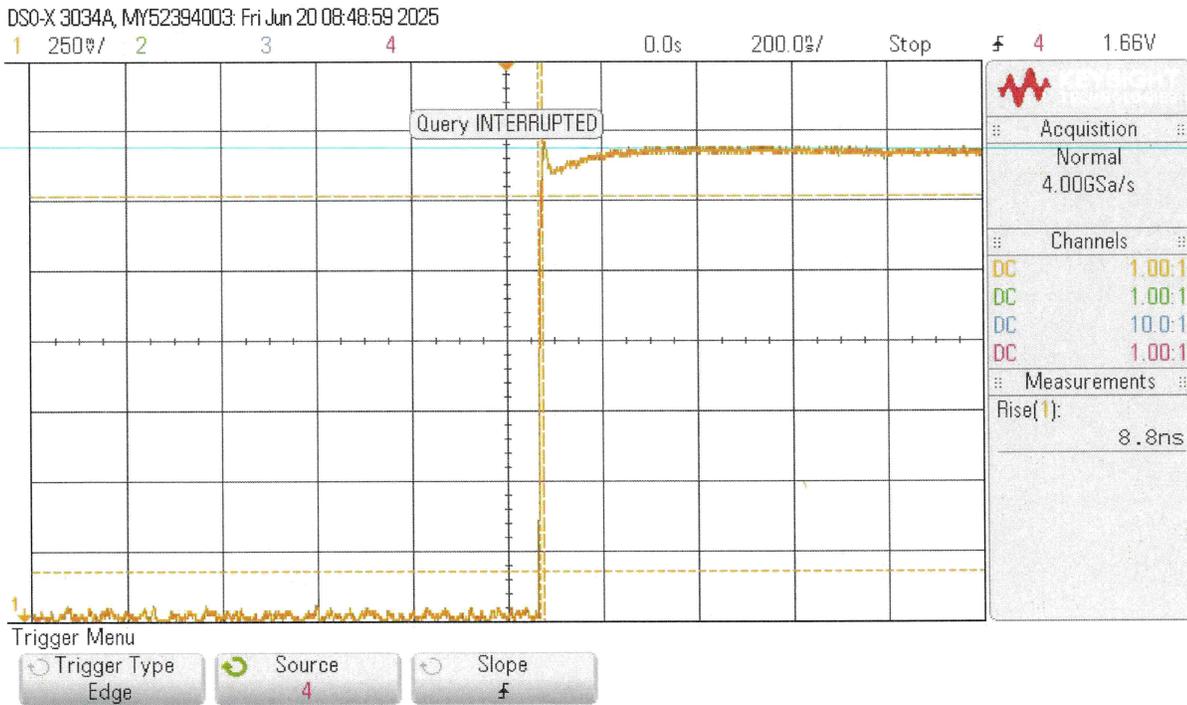
Temperature: +25C





**SUMMARY TEST DATA
ON
SDLVA-1G20G-55-12-SFF**

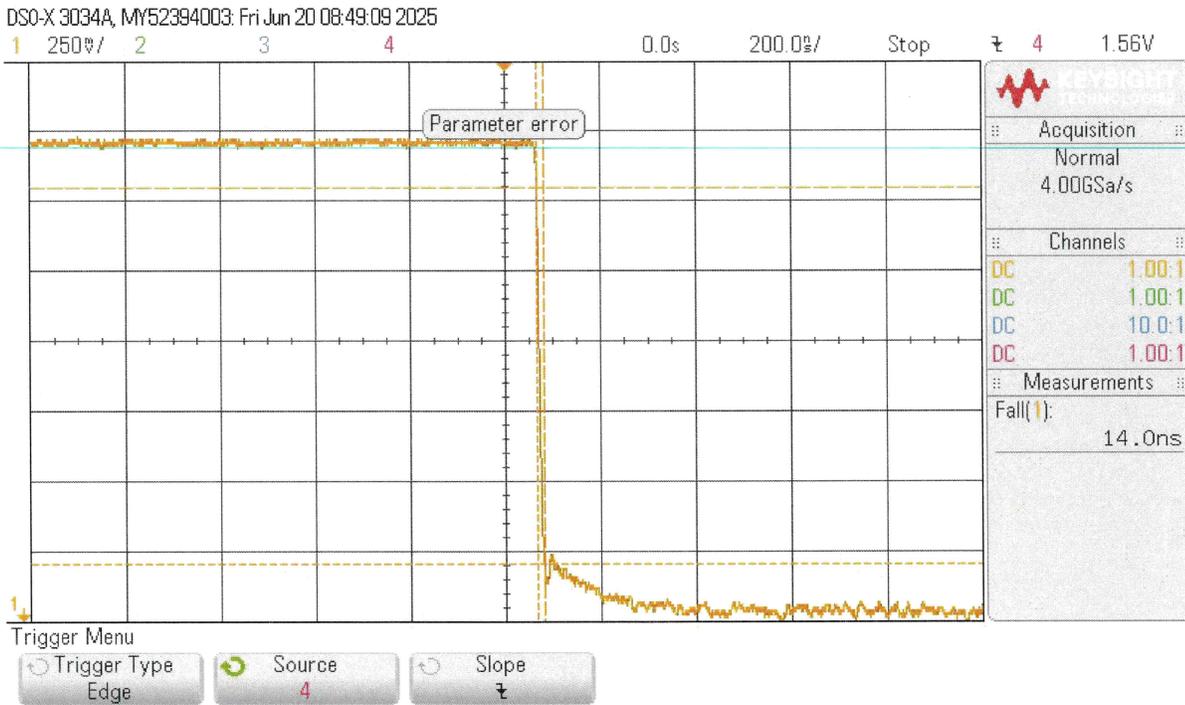
Rise Time = 8.8 ns





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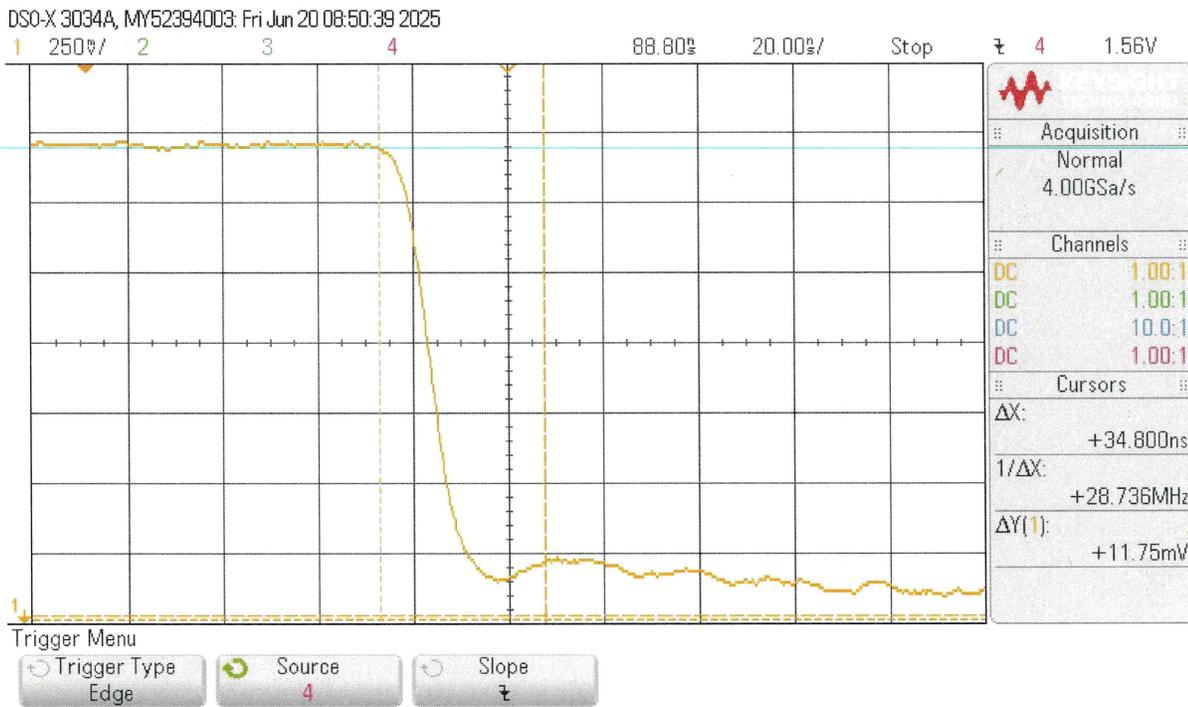
Fall Time = 14 ns





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Recovery Time = 34.8 ns





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TSS = -58.4 dBm

