

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

CUSTOMER: \_\_\_\_\_  
SO: \_\_\_\_\_  
MODEL NO: SDLVA-1G20G-55-12-SFF  
SERIAL NO: PL53506/2526

TESTED BY: Jeremy Walker  
TEMPERATURE: +25°C (Unless Otherwise Specified)  
DATE: 6/26/2025  
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	± 1.80 dB See Plot	Pass
3	Log Linearity	±1.5 dB Typ (-50 to 0dBm)	± 2.35 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	4.563:1	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	50.27 mV/dB	Pass
10	Log Video Output Rise Time	5 ns Typ (Pin = -20 dBm @ 10% to 90%)	7.5 nS	Pass
11	Log Video Output Fall Time	20 ns Typ (Pin = -20 dBm @ 90% to 10%)	10.8 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	-59.8 dBm	Pass
15	Power Supply	+8V to +15V @ 130mA Typ	119mA	Pass

QA/QC Approval:    
PMI  
QAS

Date: 6-30-25



PLANAR MONOLITHICS INDUSTRIES  
 4921 Robert J. Mathews Parkway, Suite 1  
 El Dorado Hills, CA 95762  
 Phone: 916-542-1401 Fax: 301-662-1731  
 Email: sales@pmi-rf.com/www.pmi-rf.com

LOG TRANSFER WITH FREQUENCY  
 MODEL: SDLVA-1G20G-55-12-SFF  
 TESTED BY: Jeremy Walker  
 DATE: 06/26/25  
 SERIAL NO: PL53506  
 Test Temp: +25C

Output Offset(V)= 0.128

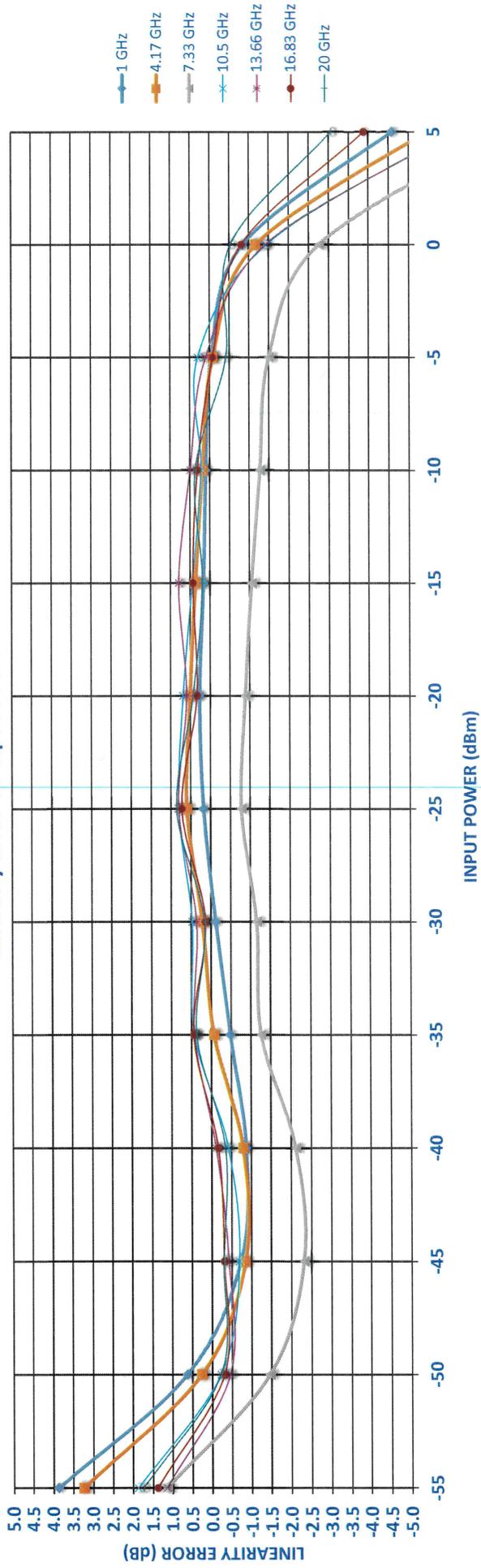
Frequency

Frequency	INTERCEPT (mV)	SLOPE (mV/dB)	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
1 GHz	2853	52.4	178	268	454	708	995	1278	1547	1817	2077	2338	2579	2815	2905	Measured Value (mV) Error (mV)
			207	35	-41	-49	-24	-3	4	12	10	9	-12	-38	-210	-0.93 0.67 LINEARITY ERROR (dB)
			3.96	0.67	-0.78	-0.93	-0.46	-0.06	0.08	0.23	0.19	0.17	-0.23	-0.73	-4.02	
4.17 GHz	2893	52.6	183	281	486	750	1045	1326	1591	1856	2117	2375	2630	2844	2997	Measured Value (mV) Error (mV)
			184	19	-39	-38	-6	12	13	15	13	8	0	-49	-259	-0.93 0.36 LINEARITY ERROR (dB)
			3.50	0.36	-0.74	-0.73	-0.12	0.22	0.26	0.29	0.25	0.16	0.00	-0.93	-4.92	
7.33 GHz	2959	51.8	191	302	524	790	1077	1345	1610	1870	2130	2383	2632	2837	2867	Measured Value (mV) Error (mV)
			84	-64	-101	-95	-67	-58	-52	-52	-51	-57	-67	-122	-351	-2.35 -0.98 LINEARITY ERROR (dB)
			1.62	-1.24	-1.96	-1.83	-1.29	-1.12	-1.01	-1.00	-0.98	-1.10	-1.30	-2.35	-6.77	
10.5 GHz	2867	50.4	206	337	576	840	1115	1372	1627	1877	2136	2382	2623	2811	2844	Measured Value (mV) Error (mV)
			112	-9	-22	-10	13	18	21	18	25	19	8	-56	-275	-1.11 0.50 LINEARITY ERROR (dB)
			2.22	-0.18	-0.44	-0.20	0.25	0.35	0.41	0.37	0.50	0.38	0.16	-1.11	-5.46	
13.66 GHz	2840	48.6	231	393	634	890	1159	1399	1659	1895	2136	2371	2608	2780	2801	Measured Value (mV) Error (mV)
			64	-17	-19	-6	20	17	34	27	25	17	11	-60	-282	-1.23 0.70 LINEARITY ERROR (dB)
			1.31	-0.36	-0.40	-0.13	0.41	0.35	0.70	0.55	0.51	0.35	0.23	-1.23	-5.80	
16.83 GHz	2803	48.1	228	383	626	873	1143	1371	1628	1856	2099	2339	2559	2770	2873	Measured Value (mV) Error (mV)
			71	-15	-12	-6	24	11	27	15	17	17	-4	-33	-171	-0.69 0.57 LINEARITY ERROR (dB)
			1.47	-0.31	-0.26	-0.12	0.49	0.23	0.57	0.31	0.36	0.35	-0.08	-0.69	-3.55	
20 GHz	2761	47.9	217	362	591	826	1100	1329	1597	1822	2048	2299	2504	2738	2863	Measured Value (mV) Error (mV)
			90	-5	-15	-20	15	5	33	19	5	17	-18	-23	-138	-0.48 0.69 LINEARITY ERROR (dB)
			1.88	-0.10	-0.32	-0.41	0.31	0.09	0.69	0.39	0.11	0.35	-0.37	-0.48	-2.87	
			0.5	1.2	1.8	1.8	1.6	1.2	1.1	0.8	0.9	0.8	1.3	1.1	1.0	+/- 1.80 FLATNESS ERROR (dB)

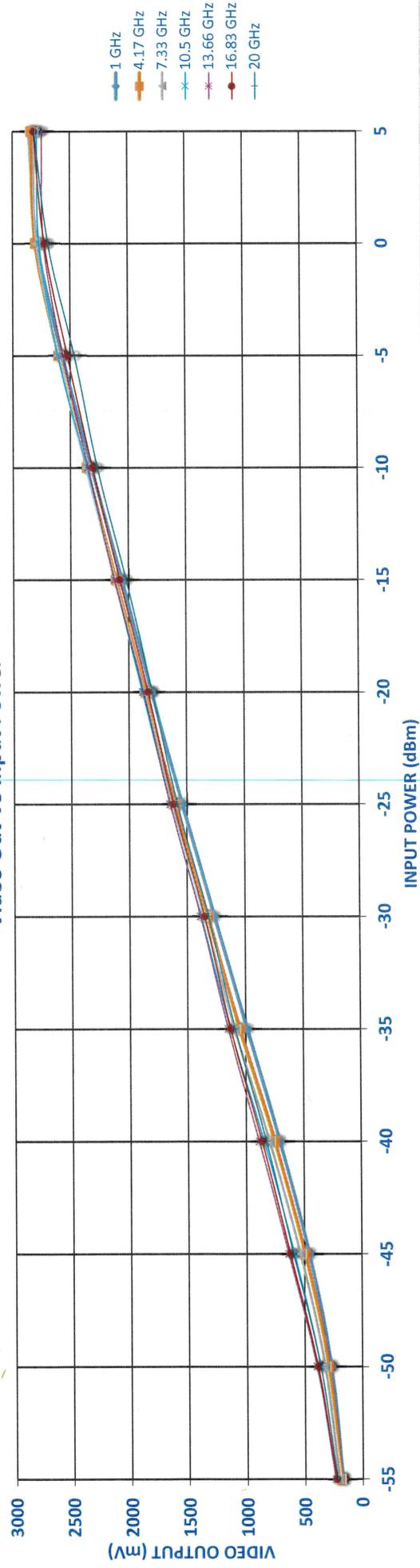
Slope Avg (mv/dB) 50.3

LOG TRANSFER WITH FREQUENCY  
 MODEL: SDLVA-1G20G-55-12-SFF  
 SERIAL NO: PL53506  
 Test Temp: +25C

Linearity Error VS Input Power



Video Out VS Input Power

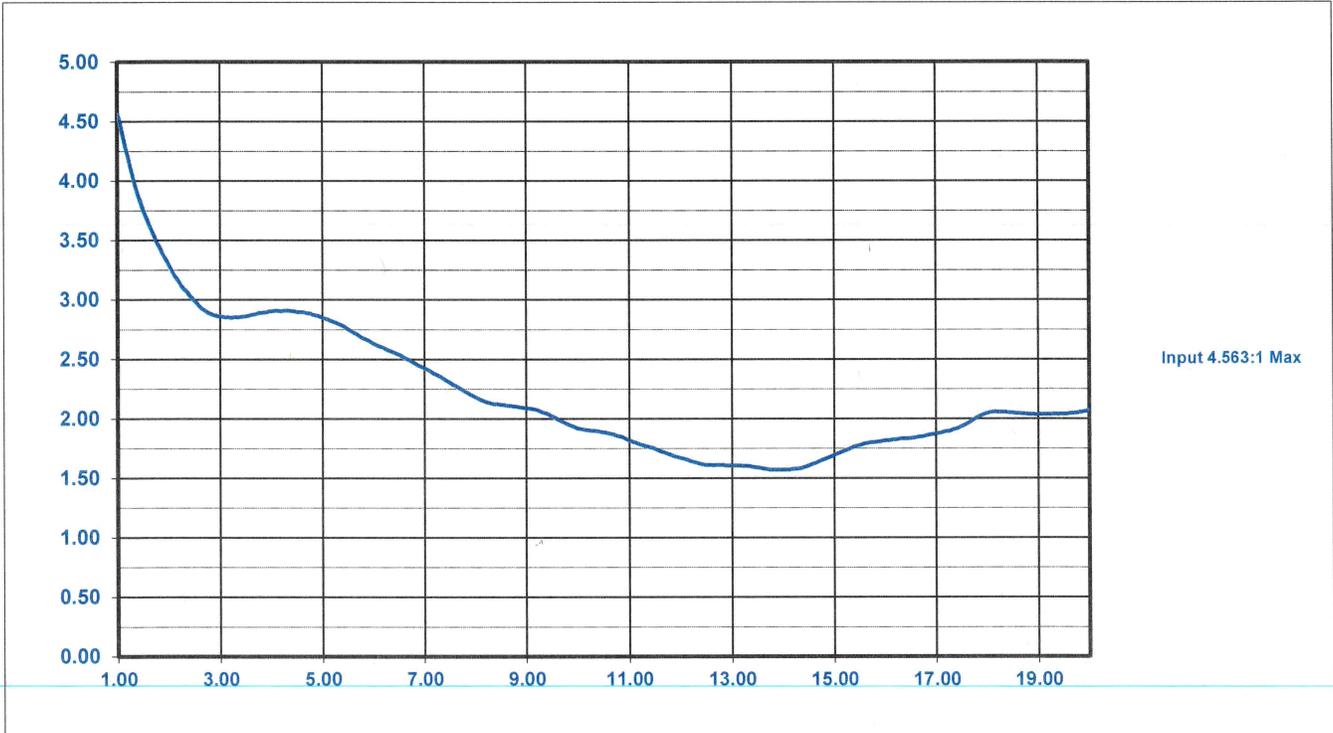




**SUMMARY TEST DATA  
ON  
SDLVA-1G20G-55-12-SFF**

Model Number: SDLVA-1G20G-55-12-SFF  
Serial Number: PL53506

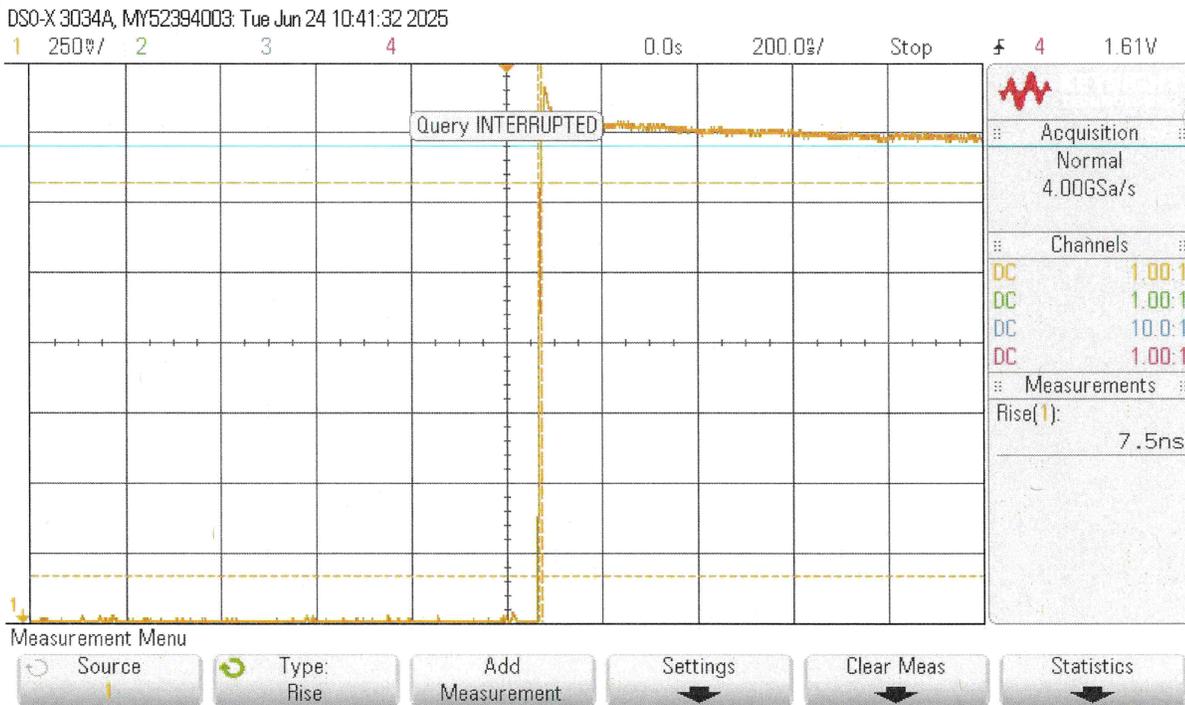
Temperature: +25C





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

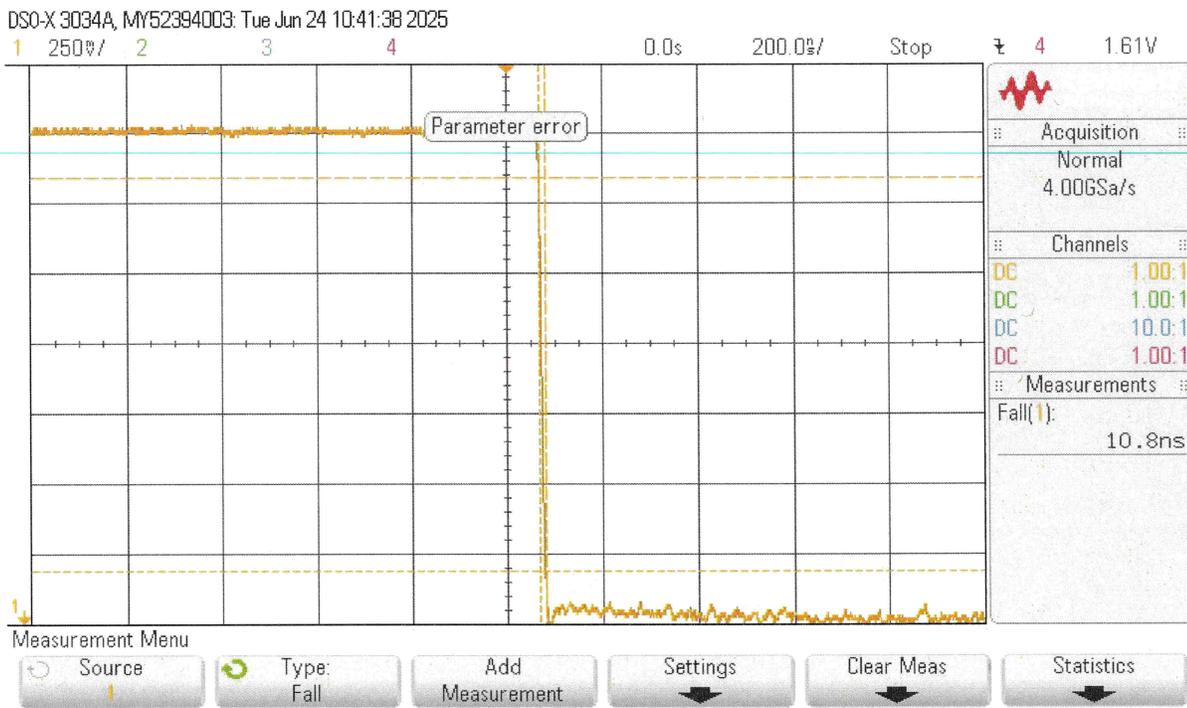
Rise Time = 7.5 ns





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

Fall Time = 10.8 ns

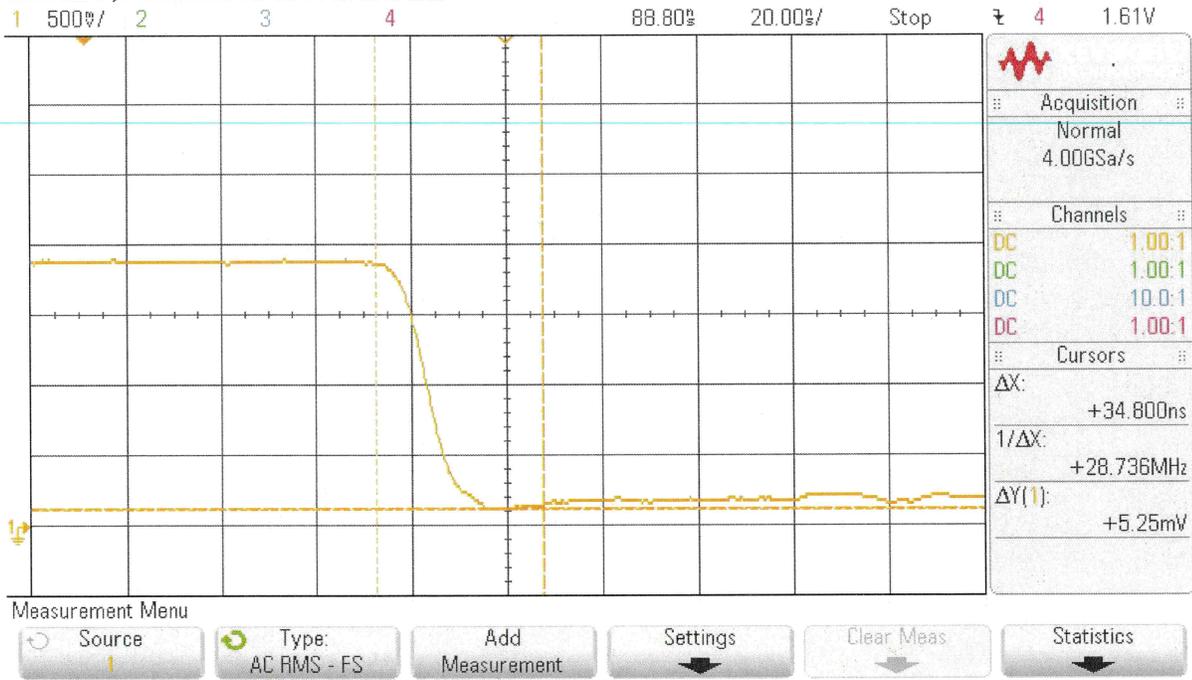




**SUMMARY TEST DATA  
ON  
SDLVA-1G20G-55-12-SFF**

Recovery Time = 34.8 ns

DSO-X 3034A, MY52394003: Tue Jun 24 10:43:10 2025

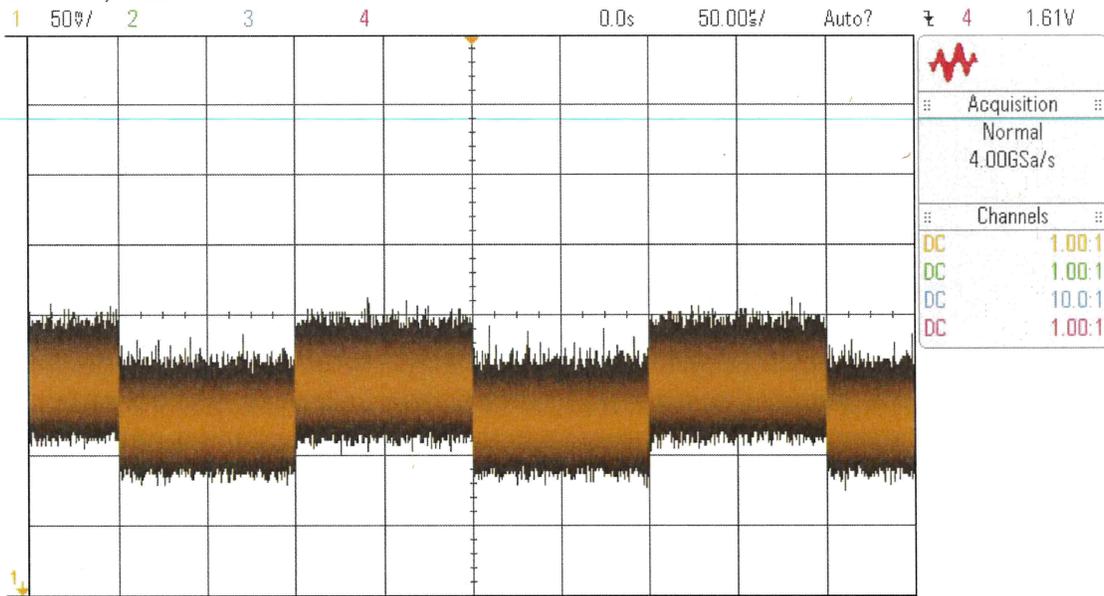




**SUMMARY TEST DATA  
ON  
SDLVA-1G20G-55-12-SFF**

TSS = -59.8 dBm

DSO-X 3034A, MY52394003: Tue Jun 24 10:41:44 2025



Acquisition	
Normal	
4.00GSa/s	
Channels	
DC	1.00:1
DC	1.00:1
DC	10.0:1
DC	1.00:1

Measurement Menu

Source | Type: AC RMS - FS | Add Measurement | Settings | Clear Meas | Statistics