

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

CUSTOMER: \_\_\_\_\_  
 SO: \_\_\_\_\_  
 MODEL NO: SDLVA-1G20G-55-12-SFF  
 SERIAL NO: PL53512/2526

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	± 2.60 dB See Plot	Pass
3	Log Linearity	±1.5 dB Typ (-50 to 0dBm)	± 3.10 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	2.728:1	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	48.83 mV/dB	Pass
10	Log Video Output Rise Time	5 ns Typ (Pin = -20 dBm @ 10% to 90%)	7.8 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)	30.8 nS	Pass
13	Log Video Propagation Delay	15 ns Typ	By Design	Pass
14	TSS	-58dBm Typ	-55.1 dBm	Pass
15	Power Supply	+8V to +15V @ 130mA Typ	118mA	Pass

QA/QC Approval:  <sup>PMI</sup> <sub>QA3</sub>

Date: 6-30-25



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LOG TRANSFER WITH FREQUENCY  
 MODEL: SDLVA-1G20G-55-12-SFF  
 TESTED BY: Jeremy Walker  
 DATE: 06/26/25  
 SERIAL NO: PL53512  
 Test Temp: +25C

Output Offset(V)= 0.220

Frequency

Frequency	INTERCEPT (mV)	SLOPE (mV/dB)	2589	49.7	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
1 GHz	2589	49.7	233	378	7.60	258	327	481	716	984	1249	1530	1809	2078	2347	2604	2838
						154	-25	-120	-133	-114	-97	-65	-34	-14	7	15	1
						3.10	-0.51	-2.41	-2.68	-2.29	-1.95	-1.30	-0.69	-0.27	0.14	0.31	0.02
4.17 GHz	2682	50.7	237	343	6.77	271	361	546	804	1085	1355	1633	1901	2166	2423	2676	2880
						123	-40	-108	-104	-76	-60	-35	-20	-9	-5	-6	-55
						2.44	-0.79	-2.14	-2.05	-1.50	-1.18	-0.69	-0.40	-0.17	-0.10	-0.11	-1.09
7.33 GHz	2745	50.2	240	259	5.16	279	384	586	851	1122	1378	1651	1917	2179	2433	2679	2875
						47	-99	-149	-135	-115	-110	-89	-74	-63	-60	-66	-121
						0.93	-1.98	-2.96	-2.68	-2.29	-2.20	-1.76	-1.47	-1.25	-1.20	-1.30	-2.40
10.5 GHz	2696	49.3	249	262	5.33	303	439	665	926	1180	1430	1693	1950	2203	2447	2680	2830
						70	-40	-61	-46	-38	-34	-18	-7	0	-3	-16	-112
						1.42	-0.82	-1.23	-0.93	-0.77	-0.70	-0.36	-0.14	-0.01	-0.05	-0.32	-2.28
13.66 GHz	2672	48.0	255	220	4.59	322	477	710	966	1214	1450	1713	1956	2197	2424	2651	2817
						47	-38	-44	-28	-20	-24	0	3	4	-9	-21	-95
						0.98	-0.78	-0.92	-0.59	-0.41	-0.49	-0.01	0.06	0.09	-0.18	-0.45	-1.98
16.83 GHz	2643	47.3	256	213	4.51	323	484	716	964	1208	1427	1695	1932	2170	2405	2630	2839
						44	-32	-36	-24	-17	-34	-3	-2	0	-2	-13	-41
						0.92	-0.67	-0.76	-0.52	-0.36	-0.73	-0.06	-0.04	-0.01	-0.04	-0.28	-0.86
20 GHz	2602	46.7	254	219	4.69	319	467	691	929	1178	1405	1680	1901	2130	2368	2579	2797
						51	-35	-44	-39	-24	-30	12	-1	-5	0	-23	-38
						1.08	-0.74	-0.94	-0.84	-0.51	-0.64	0.25	-0.02	-0.11	-0.01	-0.49	-0.82
Flatness +/-dB			0.2	0.7	1.6	2.4	2.4	2.6	2.4	2.1	1.9	1.5	1.3	1.0	1.0	0.8	0.8
Slope Avg(mv/dB)																	48.8

RF Input Power (dBm)

Measured Value (mV)  
 Error (mV)  
 LINEARITY ERROR (dB)  
 -2.68 3.10

Measured Value (mV)  
 Error (mV)  
 LINEARITY ERROR (dB)  
 -2.14 2.44

Measured Value (mV)  
 Error (mV)  
 LINEARITY ERROR (dB)  
 -2.96 0.93

Measured Value (mV)  
 Error (mV)  
 LINEARITY ERROR (dB)  
 -1.23 1.42

Measured Value (mV)  
 Error (mV)  
 LINEARITY ERROR (dB)  
 -0.92 0.98

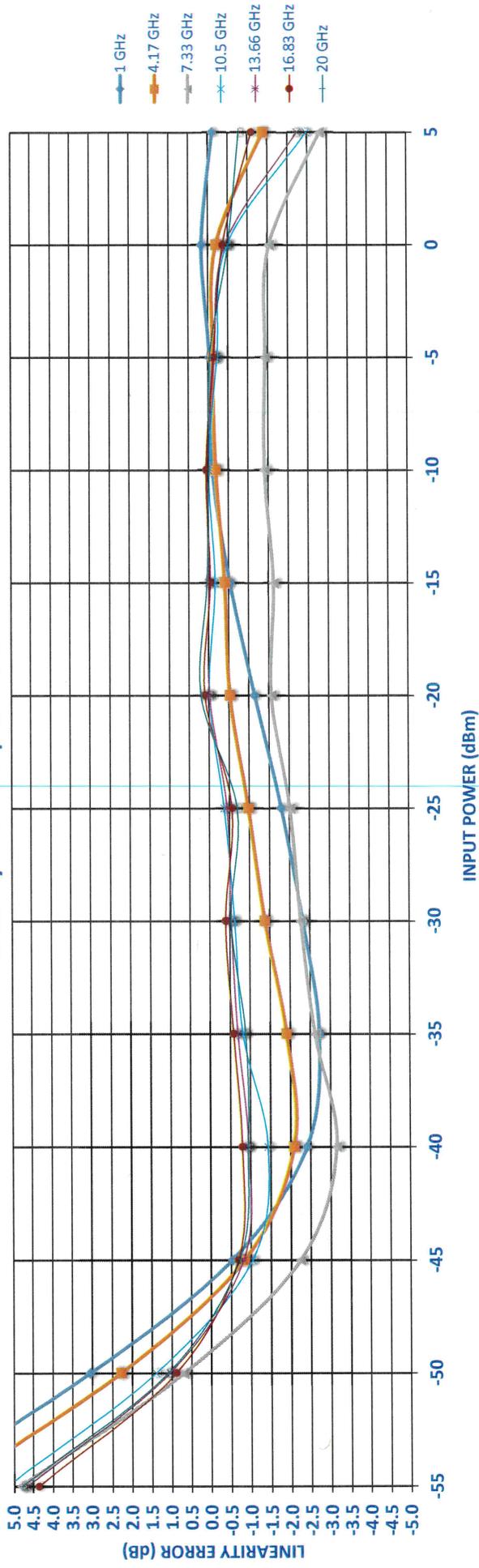
Measured Value (mV)  
 Error (mV)  
 LINEARITY ERROR (dB)  
 -0.76 0.92

Measured Value (mV)  
 Error (mV)  
 LINEARITY ERROR (dB)  
 -0.94 1.08

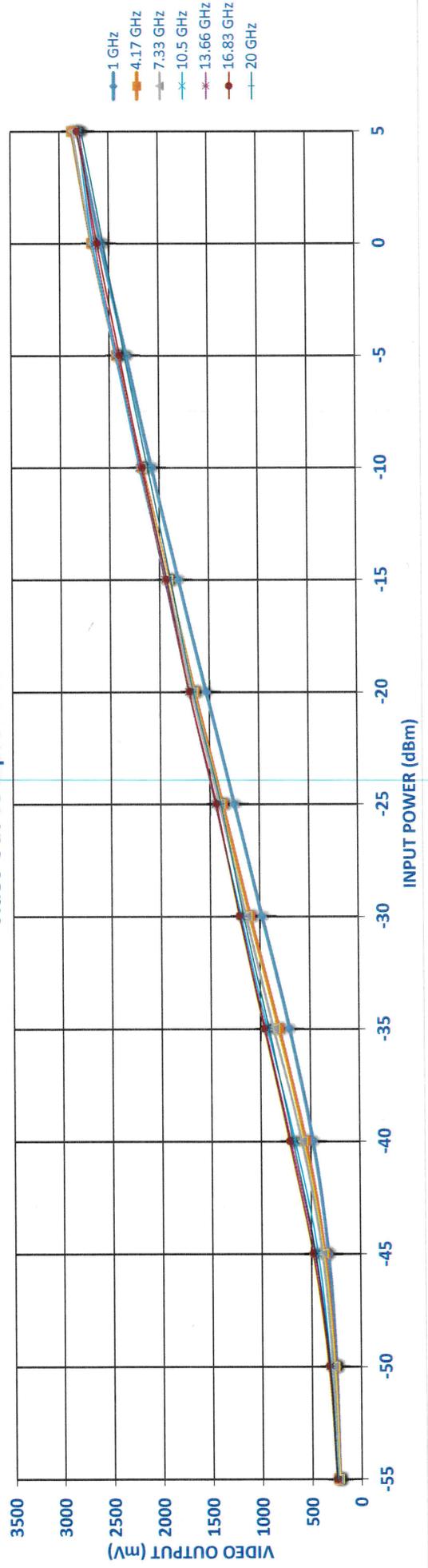
FLATNESS ERROR (dB)  
 +/- 2.60

LOG TRANSFER WITH FREQUENCY  
 MODEL: SDLVA-1G20G-55-12-SFF  
 SERIAL NO: PL53512  
 Test Temp: +25C

Linearity Error VS Input Power



Video Out VS Input Power

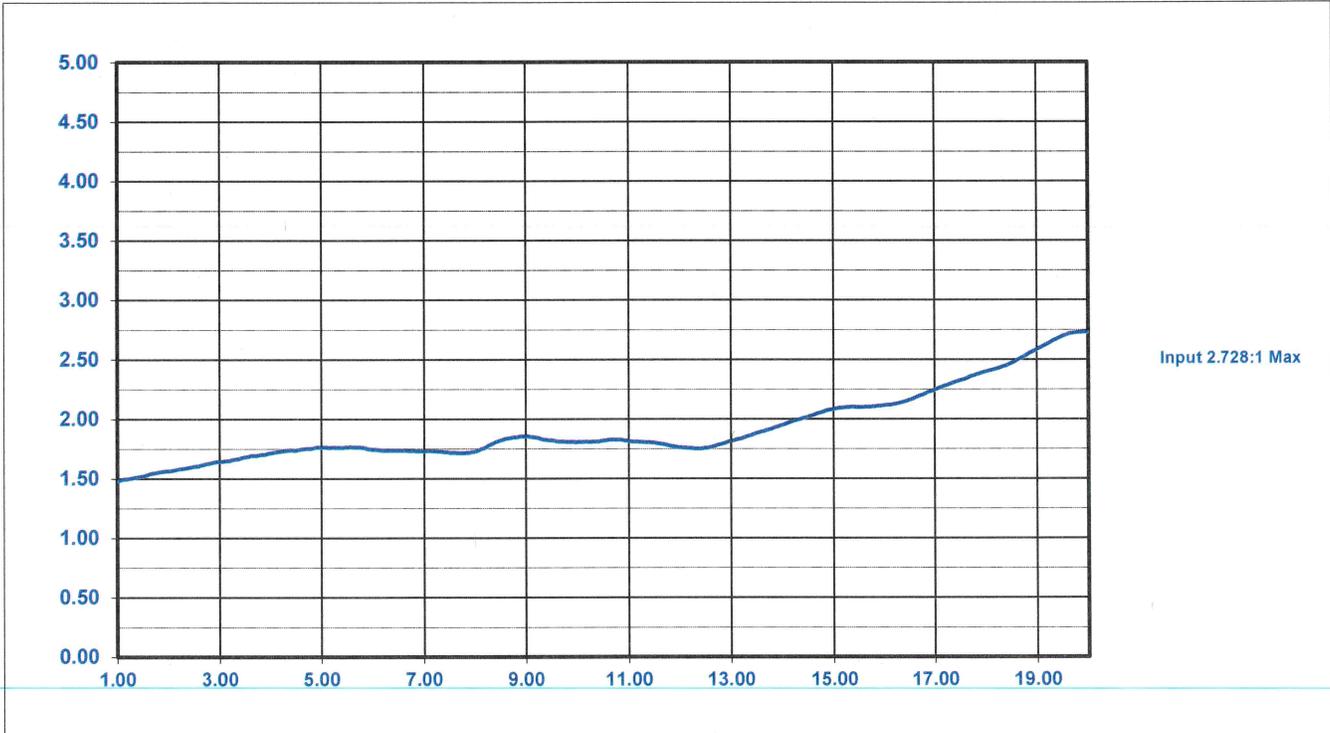




**SUMMARY TEST DATA  
ON  
SDLVA-1G20G-55-12-SFF**

Model Number: SDLVA-1G20G-55-12-SFF  
Serial Number: PL53512

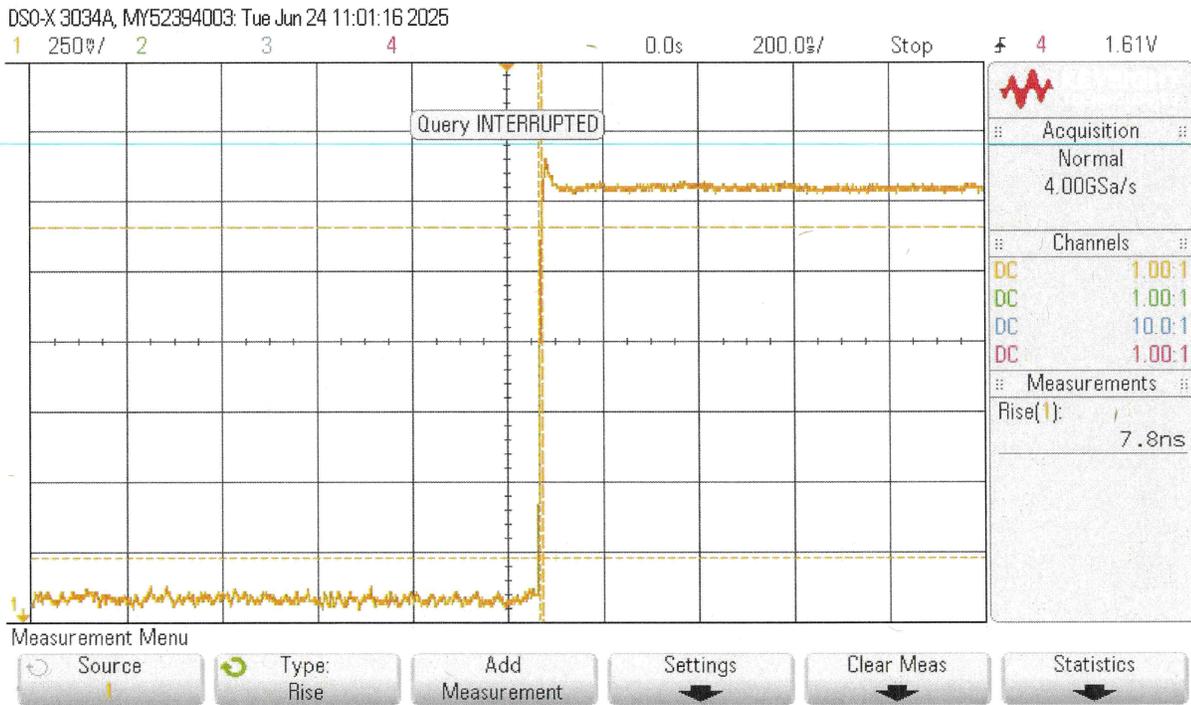
Temperature: +25C





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

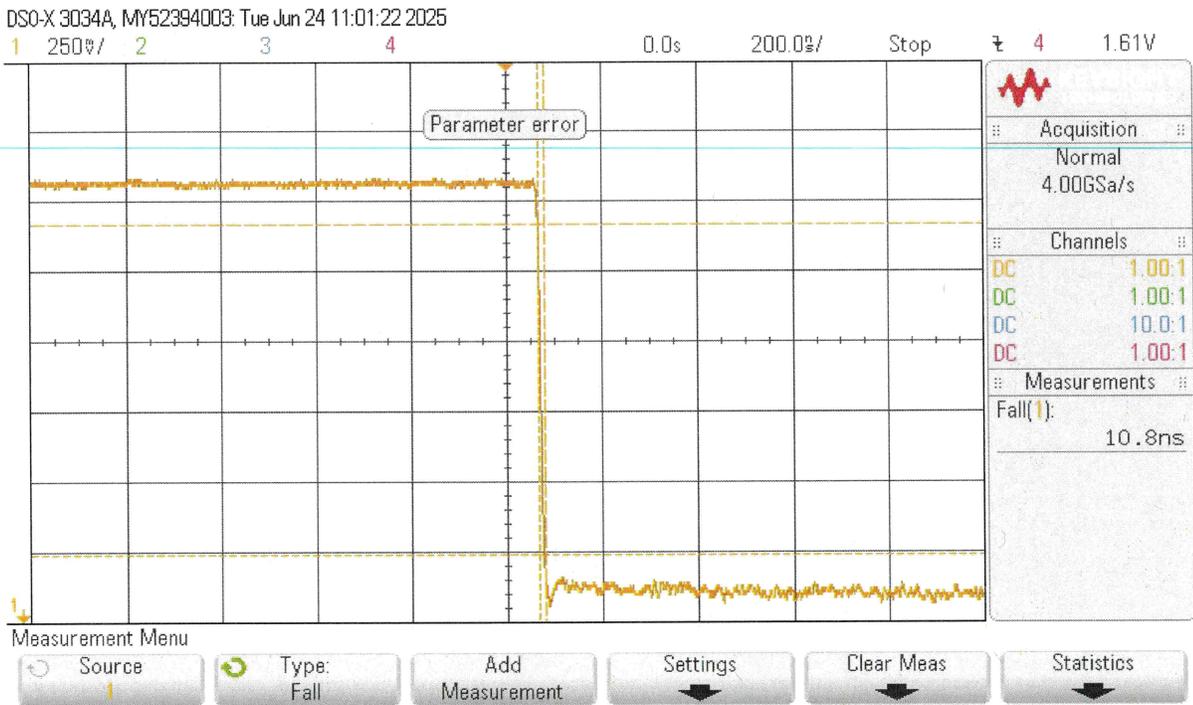
Rise Time = 7.8 ns





**SUMMARY TEST DATA  
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Fall Time = 10.8 ns

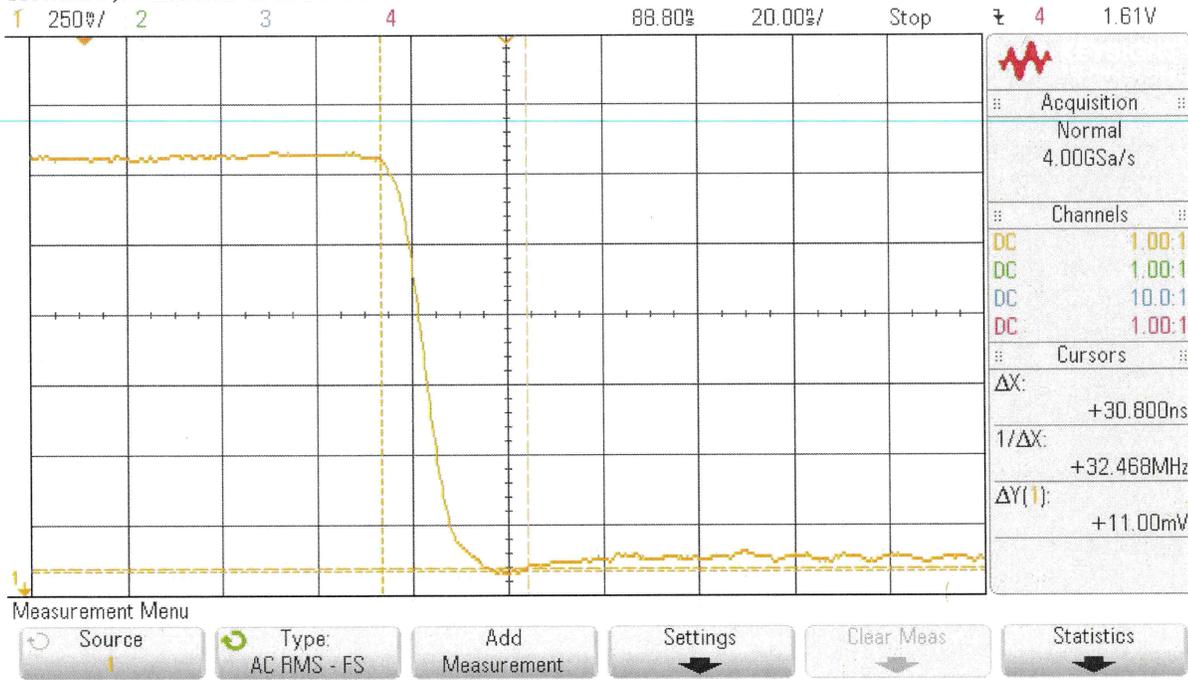




**SUMMARY TEST DATA  
ON  
SDLVA-1G20G-55-12-SFF**

Recovery Time = 30.8 ns

DSO-X 3034A, MY52394003: Tue Jun 24 11:01:53 2025

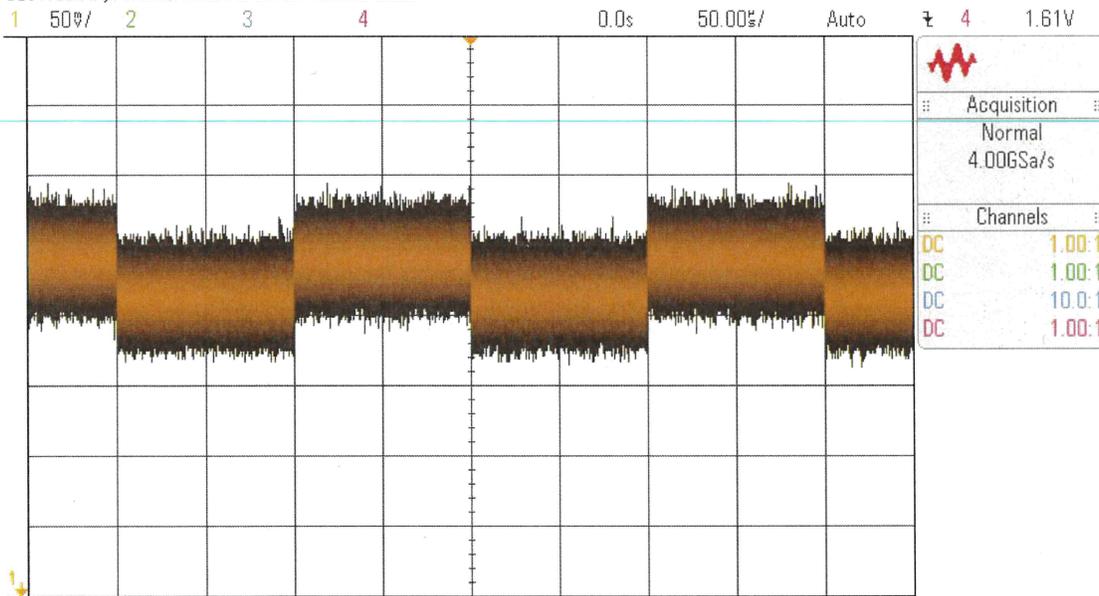




**SUMMARY TEST DATA  
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TSS = -55.1 dBm

DSO-X 3034A, MY52394003: Tue Jun 24 11:01:27 2025



Measurement Menu

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