

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

CUSTOMER: \_\_\_\_\_  
 SO: \_\_\_\_\_  
 MODEL NO: SDLVA-1G20G-55-12-SFF  
 SERIAL NO: PL53508/2526

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	± 2.50 dB See Plot	Pass
3	Log Linearity	±1.5 dB Typ (-50 to 0dBm)	± 2.71 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	1.833:1	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	51.26 mV/dB	Pass
10	Log Video Output Rise Time	5 ns Typ (Pin = -20 dBm @ 10% to 90%)	8 nS	Pass
11	Log Video Output Fall Time	20 ns Typ (Pin = -20 dBm @ 90% to 10%)	11.8 nS	Pass
12	Log Video Recovery Time	28 ns Typ (Pin = -50 dBm to 0 dBm)	22 nS	Pass
13	Log Video Propagation Delay	15 ns Typ	By Design	Pass
14	TSS	-58dBm Typ	-56 dBm	Pass
15	Power Supply	+8V to +15V @ 130mA Typ	120mA	Pass

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

Date: 6-30-25



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LOG TRANSFER WITH FREQUENCY  
 MODEL: SDLVA-1G20G-55-12-SFF  
 TESTED BY: Jeramy Walker  
 DATE: 06/26/25  
 SERIAL NO: PL53508  
 Test Temp: +25C

Output Offset(V) = 0.152

Frequency

1 GHz	INTERCEPT (mV)	2684
	SLOPE (mV/dB)	52.4

4.17 GHz	INTERCEPT (mV)	2775
	SLOPE (mV/dB)	53.3

7.33 GHz	INTERCEPT (mV)	2824
	SLOPE (mV/dB)	52.7

10.5 GHz	INTERCEPT (mV)	2763
	SLOPE (mV/dB)	51.6

13.66 GHz	INTERCEPT (mV)	2754
	SLOPE (mV/dB)	50.3

16.83 GHz	INTERCEPT (mV)	2740
	SLOPE (mV/dB)	49.6

20 GHz	INTERCEPT (mV)	2701
	SLOPE (mV/dB)	49.0

Flatness +/-dB	
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Slope Avg(mv/dB)	51.3
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-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
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171	205	296	479	734	1011	1283	1574	1858	2144	2425	2707	2929
370	142	-29	-108	-115	-100	-90	-61	-40	-16	3	23	-17
7.06	2.71	-0.55	-2.06	-2.20	-1.91	-1.72	-1.17	-0.76	-0.30	0.06	0.44	-0.32

178	220	333	545	822	1110	1385	1669	1947	2231	2506	2776	2964
337	112	-41	-96	-86	-64	-56	-39	-28	-10	-2	1	-78
6.32	2.11	-0.77	-1.80	-1.61	-1.21	-1.05	-0.73	-0.52	-0.19	-0.04	0.02	-1.45

180	229	354	579	857	1131	1397	1676	1950	2230	2502	2769	2956
253	39	-99	-138	-123	-113	-110	-95	-84	-67	-59	-55	-132
4.81	0.74	-1.89	-2.62	-2.34	-2.14	-2.09	-1.79	-1.59	-1.28	-1.12	-1.05	-2.50

188	251	407	649	918	1177	1436	1704	1973	2244	2507	2761	2899
262	67	-35	-51	-40	-39	-38	-28	-17	-4	2	-2	-122
5.08	1.30	-0.68	-0.99	-0.77	-0.75	-0.73	-0.54	-0.32	-0.07	0.03	-0.05	-2.37

200	282	461	708	972	1223	1472	1737	1988	2251	2499	2749	2886
212	43	-29	-34	-21	-22	-24	-11	-11	0	-3	-5	-119
4.22	0.85	-0.59	-0.68	-0.43	-0.44	-0.48	-0.22	-0.23	0.00	-0.07	-0.09	-2.37

204	296	490	733	994	1234	1472	1742	1982	2247	2489	2743	2917
189	34	-20	-25	-12	-20	-29	-7	-15	2	-3	3	-71
3.82	0.68	-0.41	-0.50	-0.24	-0.39	-0.59	-0.14	-0.30	0.05	-0.07	0.06	-1.43

203	291	475	710	967	1207	1456	1727	1950	2214	2451	2697	2885
195	38	-23	-33	-21	-25	-21	5	-17	2	-6	-4	-61
3.98	0.78	-0.47	-0.67	-0.42	-0.52	-0.43	0.10	-0.34	0.05	-0.11	-0.09	-1.25

0.3	0.9	1.9	2.5	2.5	2.2	1.8	1.6	1.3	1.0	0.8	0.8	0.8
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RF Input Power (dBm)	
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Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	2.71
	-2.20

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	2.11
	-1.80

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.74
	-2.62

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	1.30
	-0.99

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.85
	-0.68

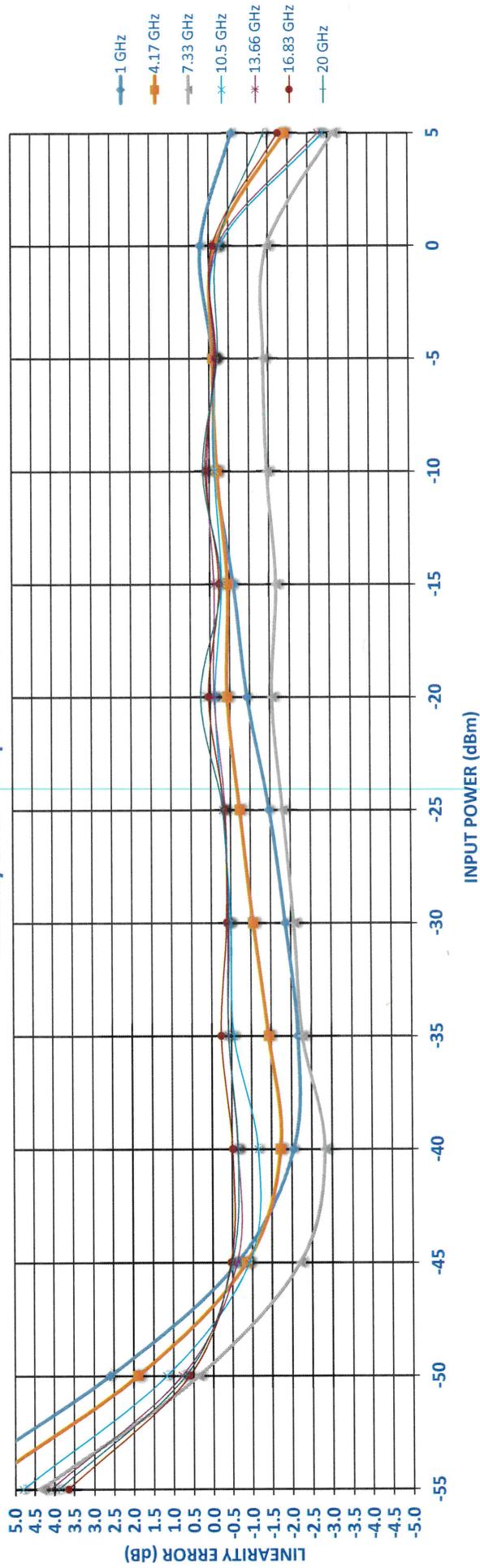
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.68
	-0.59

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	0.78
	-0.67

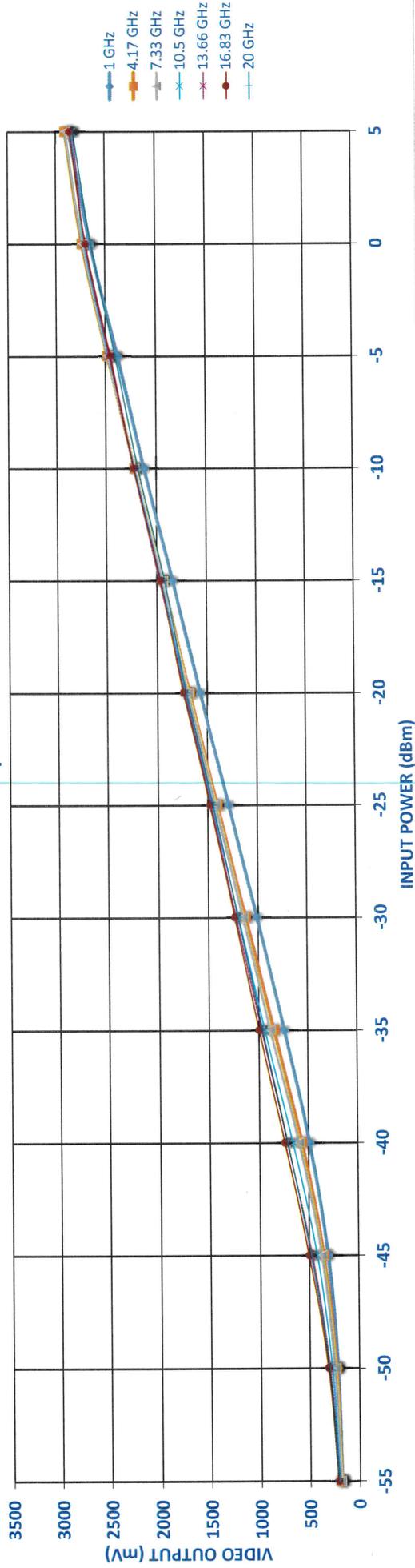
FLATNESS ERROR (dB)	+/- 2.50
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LOG TRANSFER WITH FREQUENCY  
 MODEL: SDLVA-1G20G-55-12-SFF  
 SERIAL NO: PL53508  
 Test Temp: +25C

Linearity Error VS Input Power



Video Out VS Input Power

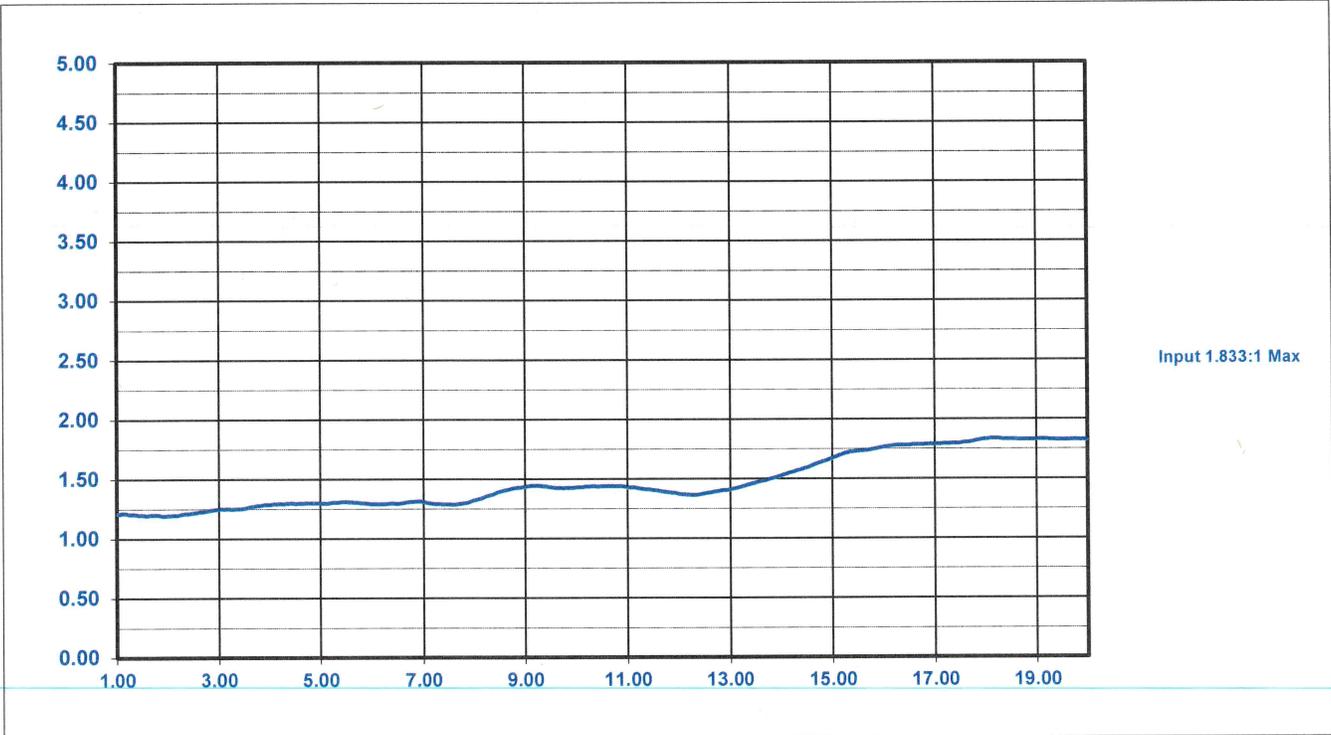




**SUMMARY TEST DATA  
ON  
SDLVA-1G20G-55-12-SFF**

Model Number: SDLVA-1G20G-55-12-SFF  
Serial Number: PL53508

Temperature: +25C

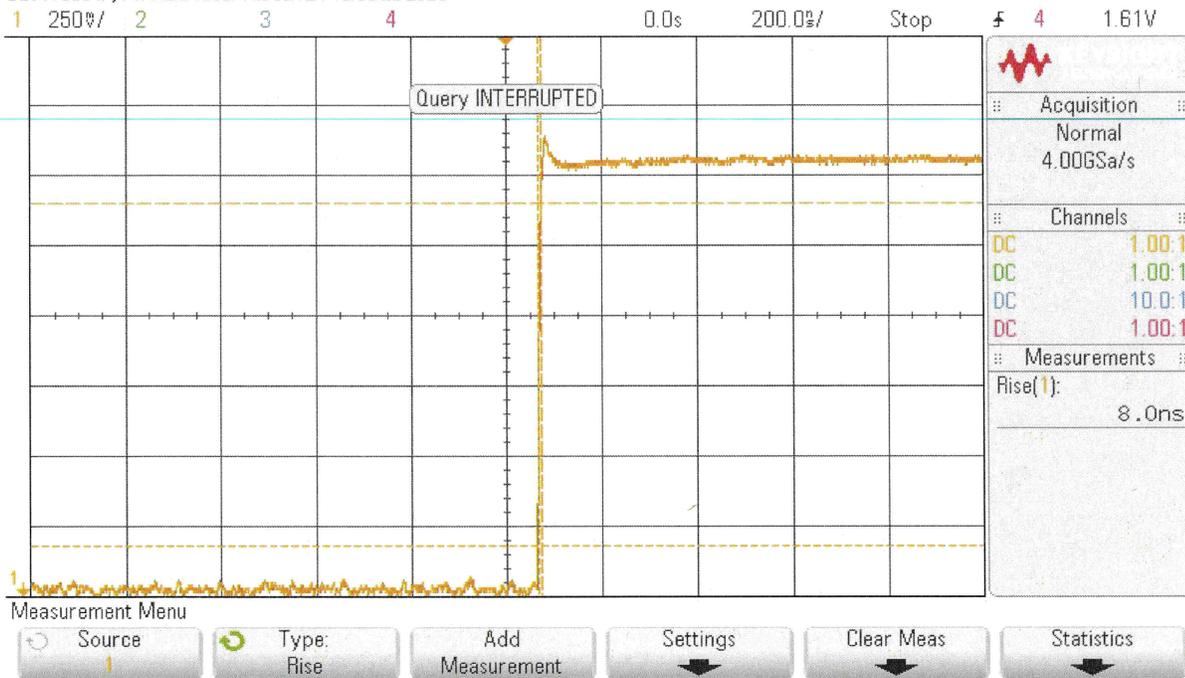




**SUMMARY TEST DATA  
ON  
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Rise Time = 8 ns

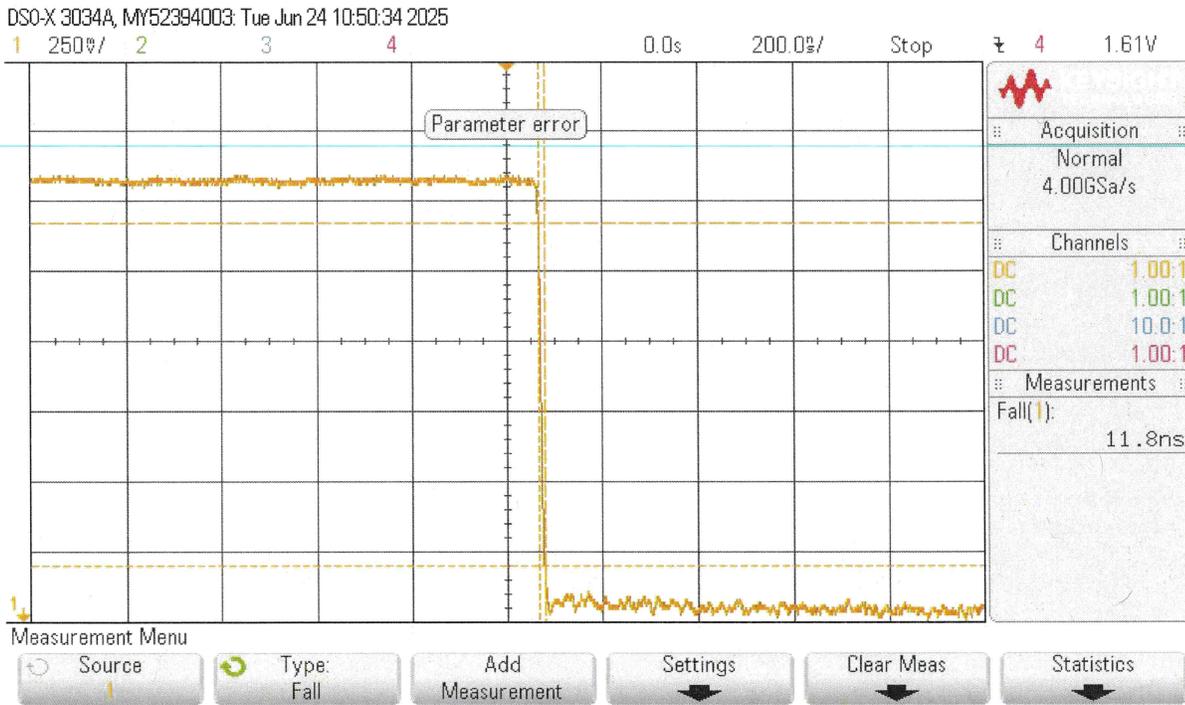
DSO-X 3034A, MY52394003: Tue Jun 24 10:50:29 2025





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

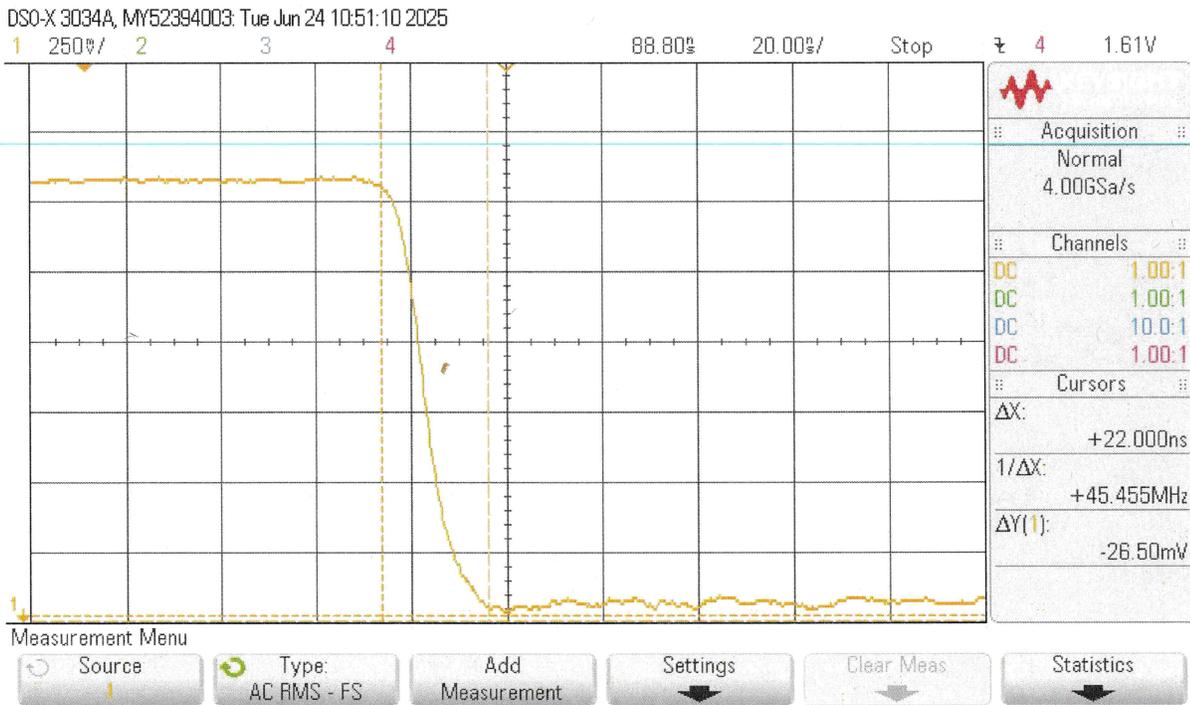
Fall Time = 11.8 ns





**SUMMARY TEST DATA  
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Recovery Time = 22 ns





**SUMMARY TEST DATA  
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TSS = -56 dBm

