Quantic PMI
PLANAR MONOLITHICS

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

CUSTOMER:
SO:
MODEL NO: SDLVA-1G20G-55-12-SFF
SERIAL NO: PL53511/2526

TESTED BY: Jeramy 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	± 2.10 dB See Plot	Pass
3	Log Linearity	±1.5 dB Typ (-50 to 0dBm)	± 1.73 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	4.595:1	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	52.40 mV/dB	Pass
10	Log Video Output Rise Time	5 ns Typ (Pin = -20 dBm @ 10% to 90%)	8.3 nS	Pass
11	Log Video Output Fall Time	20 ns Typ (Pin = -20 dBm @ 90% to 10%)	10.5 nS	Pass
12	Log Video Recovery Time	28 ns Typ (Pin = -50 dBm to 0 dBm)	31.6 nS	Pass
13	Log Video Propagation Delay	15 ns Typ	By Design	Pass
14	TSS	-58dBm Typ	-59.1 dBm	Pass
15	Power Supply	+8V to +15V @ 130mA Typ	120mA	Pass

QA/QC Approval: PMI QA3 K. Klamm Date: 6-30-25

7309-A Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 FAX: (301)662-1731
Email: sales@quanticpmi.com

LOG TRANSFER WITH FREQUENCY
MODEL: SDLVA-1G20G-55-12-SFF
TESTED BY: Jeramy Walker
DATE: 06/26/25
SERIAL NO: PL53511
Test Temp: +25C

Output Offset(V)= 0.154

PLANAR MONOLITHICS INDUSTRIES
4921 Robert J. Mathews Parkway, Suite 1
El Dorado Hills, CA 95762
Phone: 916-542-1401 Fax: 301-662-1731
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Frequency			-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)		
1 GHz	INTERCEPT (mV)	2971	204	294	479	737	1022	1307	1588	1873	2150	2431	2693	2947	3068	Measured Value (mV)		
	SLOPE (mV/dB)	54.6	236	53	-35	-50	-38	-26	-18	-6	-2	6	-5	-24	-176	Error (mV)		
			4.32	0.97	-0.64	-0.92	-0.70	-0.48	-0.33	-0.11	-0.04	0.11	-0.09	-0.44	-3.22	-0.92	0.97	LINEARITY ERROR (dB)
4.17 GHz	INTERCEPT (mV)	3016	212	310	512	782	1079	1364	1637	1918	2194	2472	2749	2981	3063	Measured Value (mV)		
	SLOPE (mV/dB)	54.8	212	36	-36	-41	-18	-7	-8	-1	1	4	7	-35	-227	Error (mV)		
			3.86	0.65	-0.67	-0.74	-0.32	-0.13	-0.15	-0.02	0.01	0.08	0.13	-0.64	-4.14	-0.74	0.65	LINEARITY ERROR (dB)
7.33 GHz	INTERCEPT (mV)	3066	219	325	540	813	1102	1373	1646	1922	2198	2472	2741	2972	3031	Measured Value (mV)		
	SLOPE (mV/dB)	54.1	129	-36	-91	-89	-70	-70	-67	-62	-56	-53	-54	-94	-305	Error (mV)		
			2.38	-0.66	-1.68	-1.64	-1.30	-1.29	-1.24	-1.14	-1.04	-0.97	-1.00	-1.73	-5.64	-1.73	-0.66	LINEARITY ERROR (dB)
10.5 GHz	INTERCEPT (mV)	2973	231	353	587	861	1133	1396	1658	1924	2196	2465	2721	2935	2989	Measured Value (mV)		
	SLOPE (mV/dB)	52.6	149	8	-21	-10	-1	0	-1	2	11	17	10	-38	-247	Error (mV)		
			2.83	0.15	-0.40	-0.18	-0.01	-0.01	-0.02	0.04	0.21	0.33	0.20	-0.73	-4.70	-0.73	0.33	LINEARITY ERROR (dB)
13.66 GH	INTERCEPT (mV)	2970	261	419	668	932	1200	1447	1711	1966	2216	2475	2734	2927	2987	Measured Value (mV)		
	SLOPE (mV/dB)	50.9	90	-7	-12	-3	11	4	13	14	9	14	19	-43	-237	Error (mV)		
			1.76	-0.13	-0.24	-0.05	0.22	0.07	0.26	0.27	0.18	0.27	0.36	-0.84	-4.66	-0.84	0.36	LINEARITY ERROR (dB)
16.83 GH	INTERCEPT (mV)	2950	270	438	696	952	1217	1450	1713	1955	2210	2467	2706	2925	3044	Measured Value (mV)		
	SLOPE (mV/dB)	50.0	71	-11	-3	2	17	0	13	5	10	17	6	-25	-156	Error (mV)		
			1.42	-0.23	-0.07	0.05	0.35	0.01	0.26	0.10	0.20	0.34	0.12	-0.51	-3.13	-0.51	0.35	LINEARITY ERROR (dB)
20 GHz	INTERCEPT (mV)	2903	256	411	655	903	1173	1405	1678	1917	2156	2420	2646	2889	3032	Measured Value (mV)		
	SLOPE (mV/dB)	49.8	91	-3	-8	-9	12	-5	19	9	0	15	-8	-14	-120	Error (mV)		
			1.83	-0.06	-0.16	-0.18	0.25	-0.09	0.39	0.19	-0.01	0.29	-0.17	-0.29	-2.42	-0.29	0.39	LINEARITY ERROR (dB)
	Flatness +/-dB		0.6	1.4	2.1	2.1	1.9	1.4	1.2	0.9	0.6	0.5	1.0	0.9	0.8	+/- 2.10		FLATNESS ERROR (dB)

Slope Avg(mv/dB)	52.4

LOG TRANSFER WITH FREQUENCY
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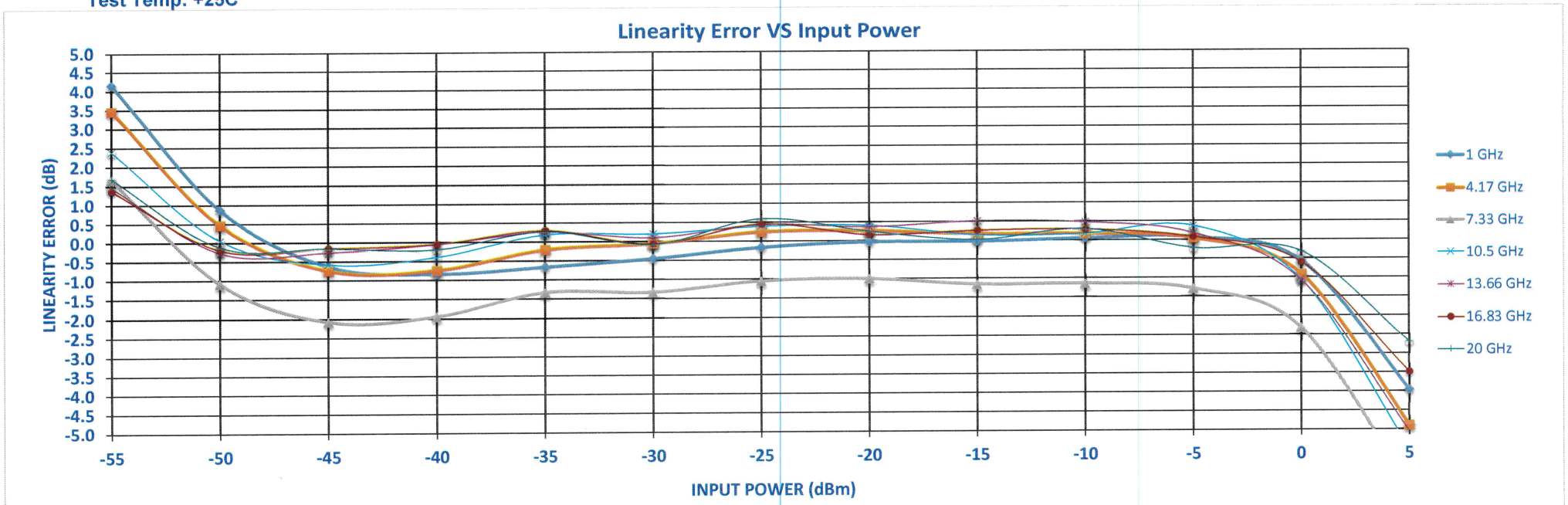

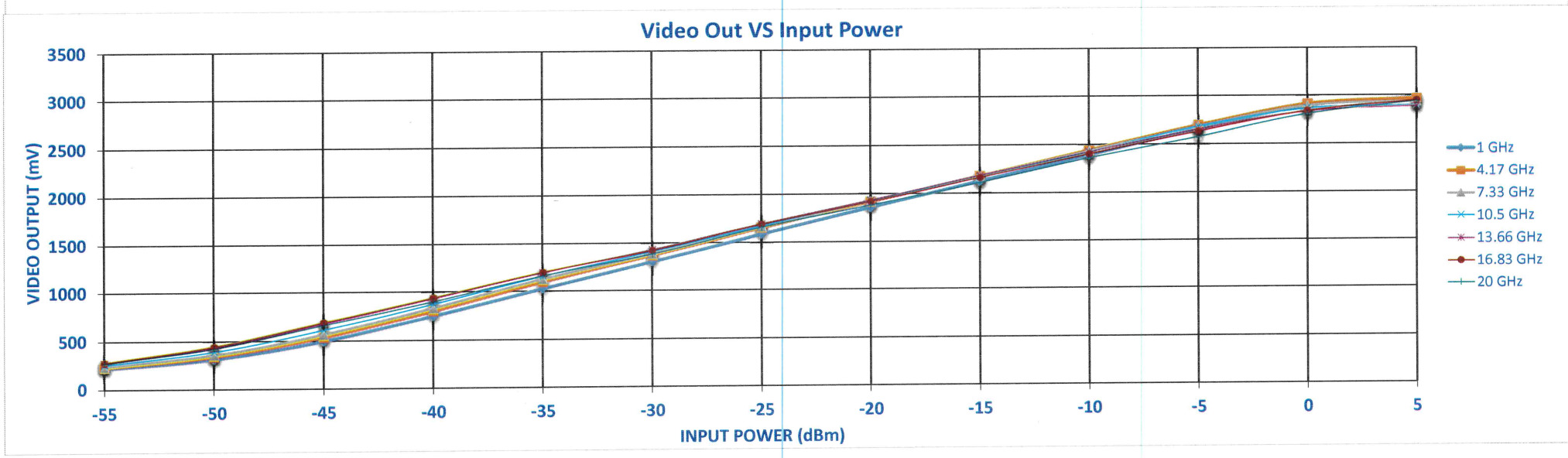

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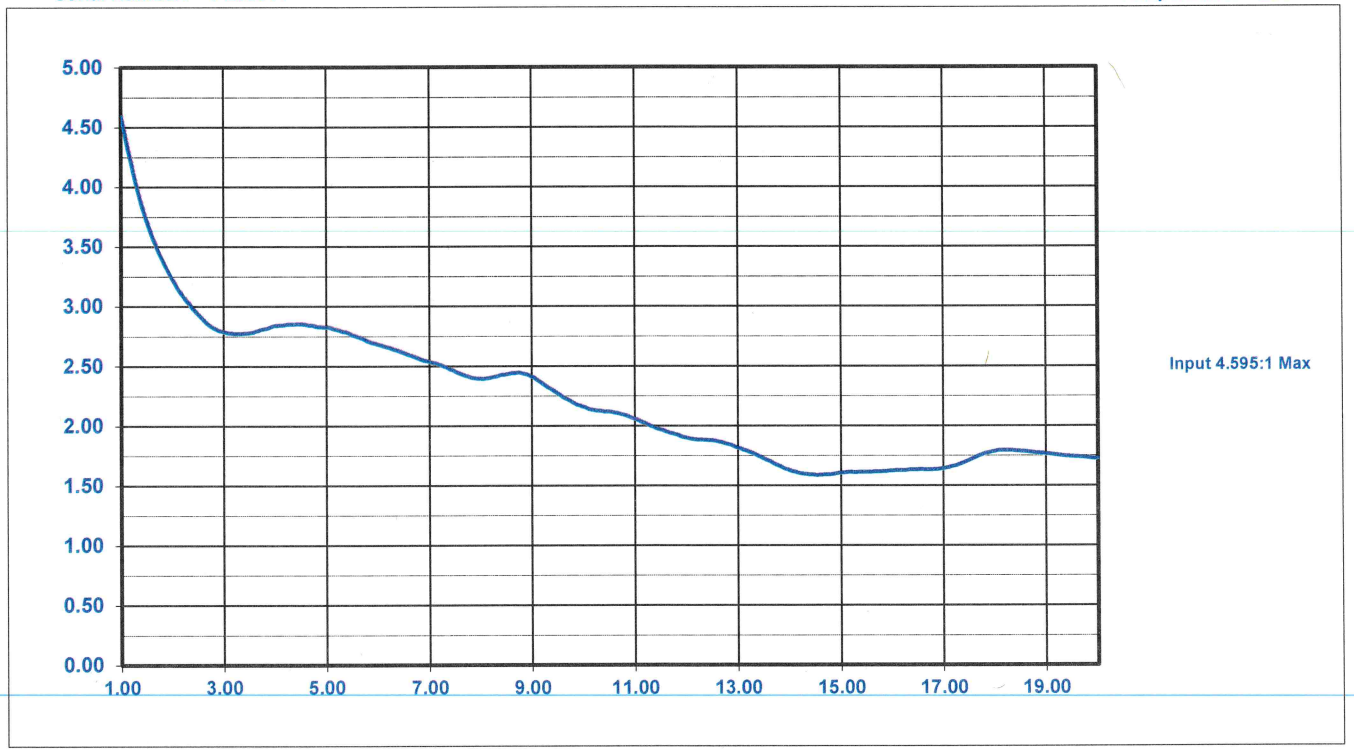
Serial Number: PL53511

Temperature: +25C



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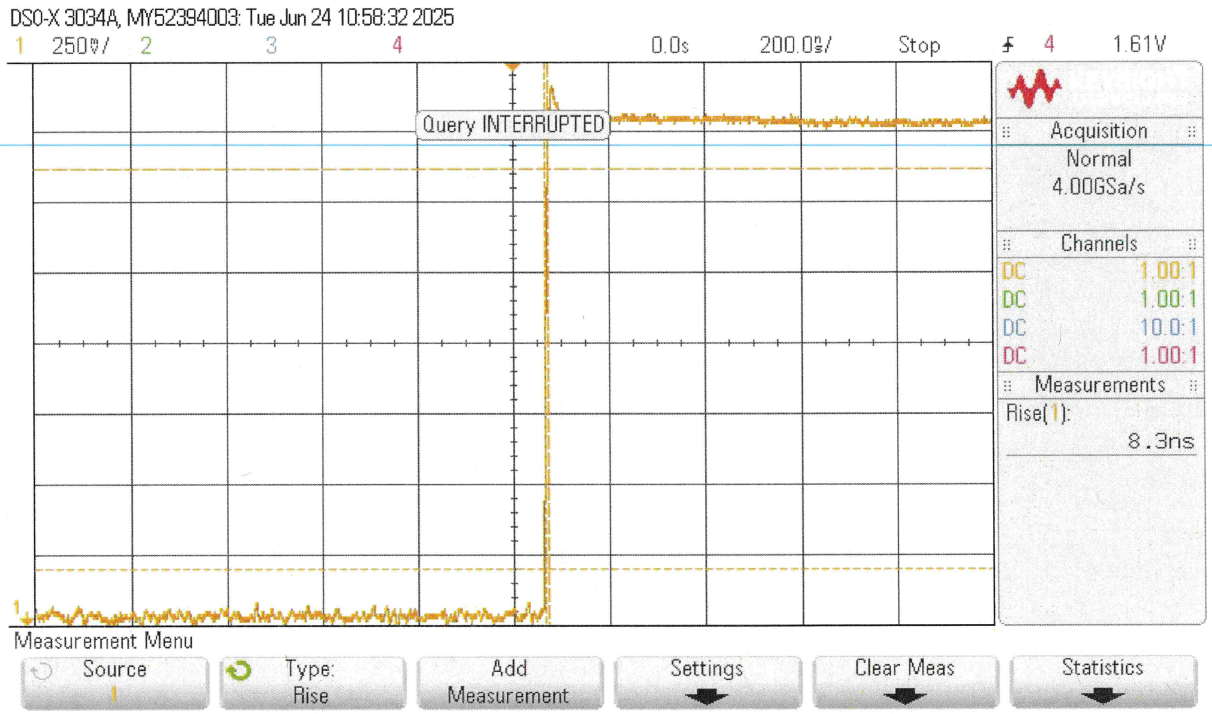
Rise Time = 8.3 ns



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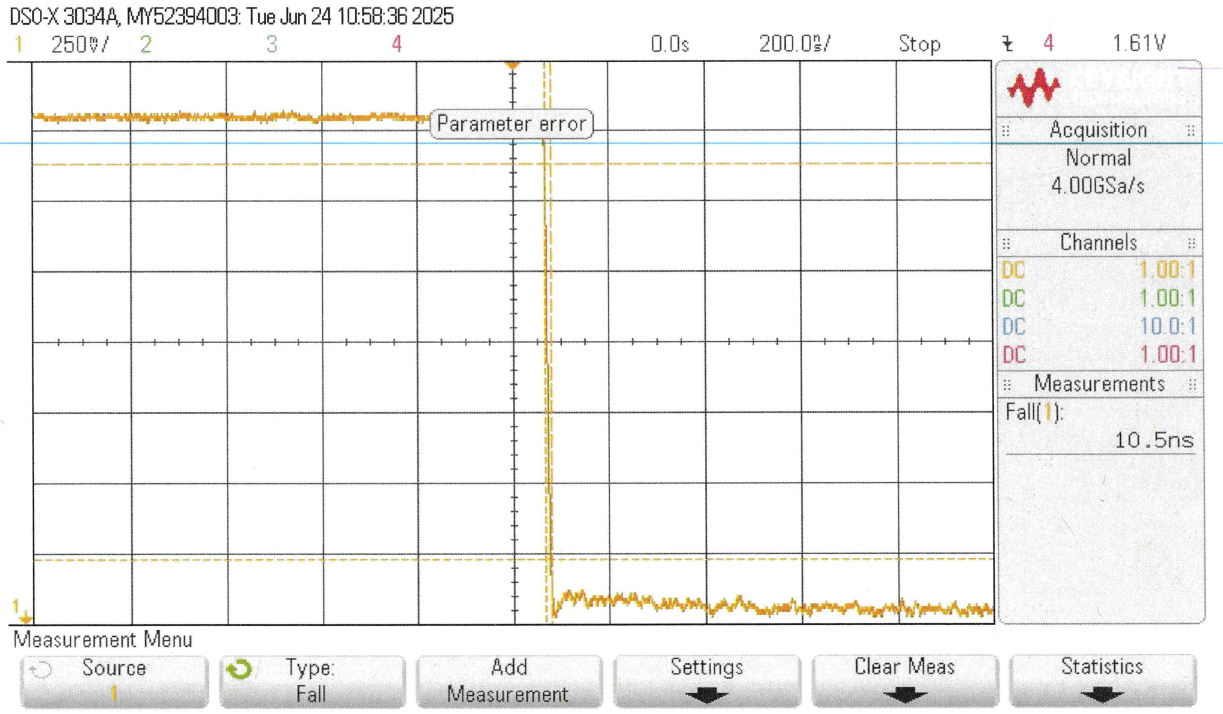
Fall Time = 10.5 ns



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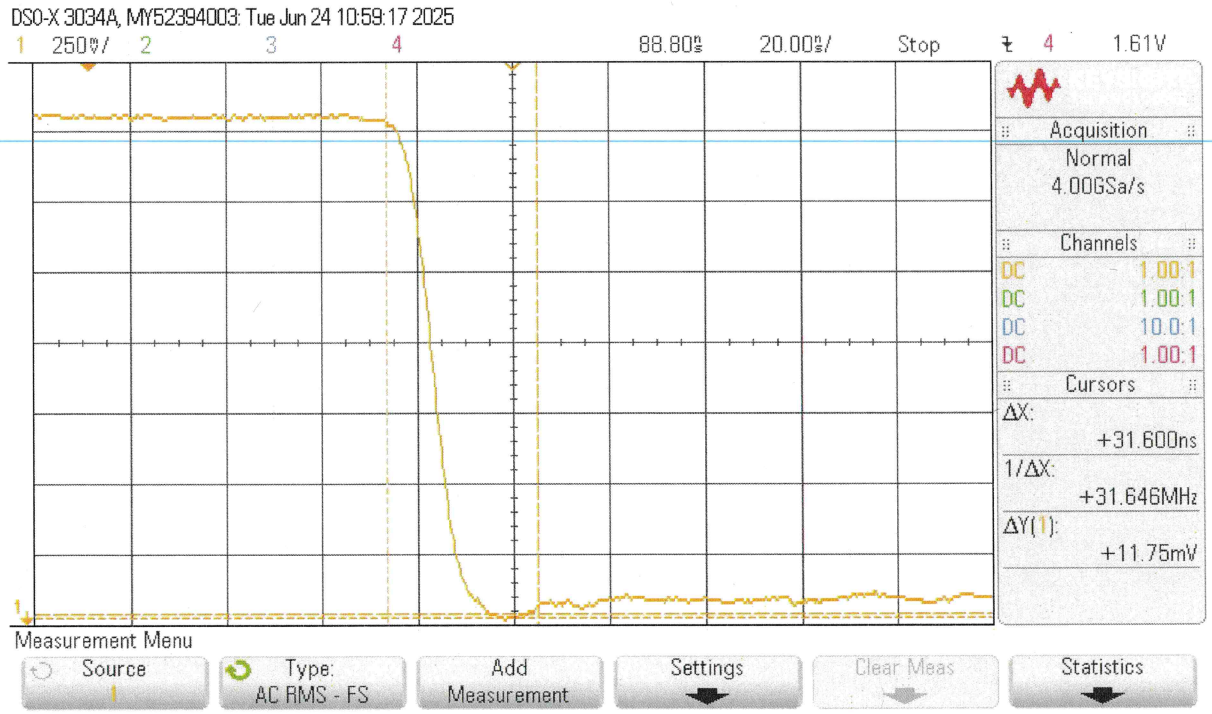
Recovery Time = 31.6 ns



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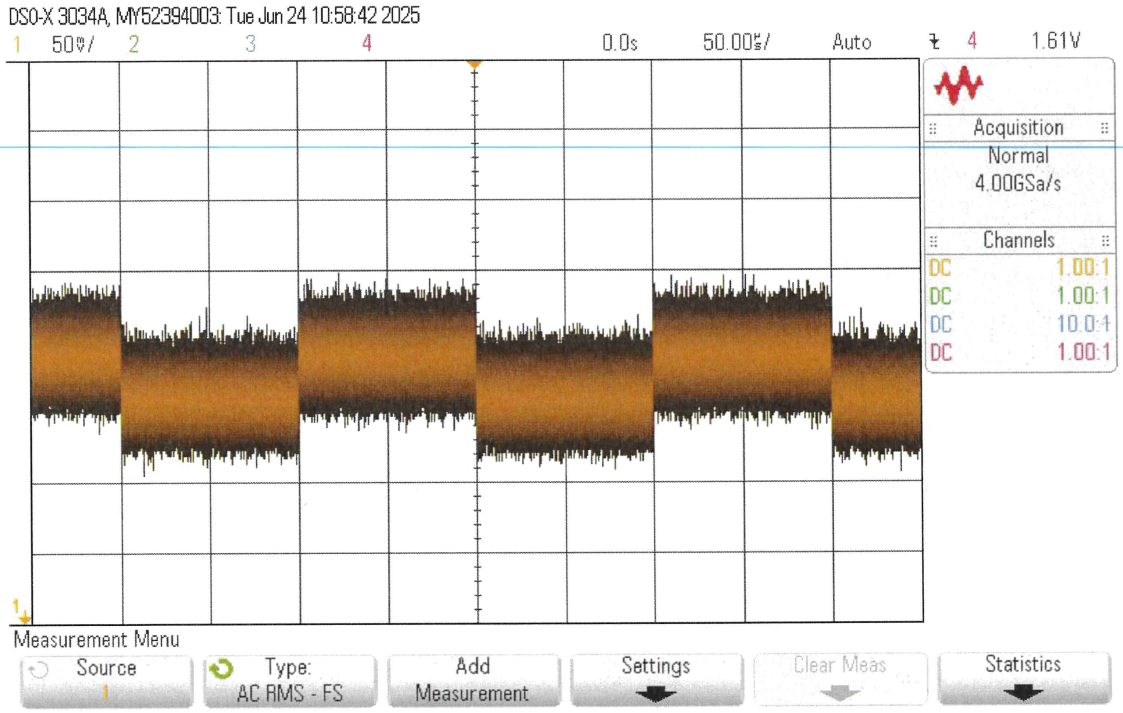
TSS = -59.1 dBm



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