

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

CUSTOMER: _____
SO: _____
MODEL NO: SDLVA-1G20G-55-12-SFF
SERIAL NO: PL53231/2525

TESTED BY: Joshua Monley
TEMPERATURE: +25°C (Unless Otherwise Specified)
DATE: 6/12/2025
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)	± 2.03 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	4.211:1	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	49.96 mV/dB	Pass
10	Log Video Output Rise Time	5 ns Typ (Pin = -20 dBm @ 10% to 90%)	7.2 nS	Pass
11	Log Video Output Fall Time	20 ns Typ (Pin = -20 dBm @ 90% to 10%)	10.6 nS	Pass
12	Log Video Recovery Time	28 ns Typ (Pin = -50 dBm to 0 dBm)	21.6 nS	Pass
13	Log Video Propagation Delay	15 ns Typ	By Design	Pass
14	TSS	-58dBm Typ	-59.4 dBm	Pass
15	Power Supply	+8V to +15V @ 130mA Typ	110mA	Pass

QA/QC Approval:  **PMI QAS**

Date: 6-17-25

LOG TRANSFER WITH FREQUENCY
 MODEL: SDLVA-1G20G-55-12-SFF
 TESTED BY: Joshua Monley
 DATE: 6/12/2025
 SERIAL NO: PLS53231
 Test Temp: +25C

Output Offset(V) = 0.167



PLANAR MONOLITHICS INDUSTRIES
 4921 Robert J. Mathews Parkway, Suite 1
 El Dorado Hills, CA 95762
 Phone: 916-542-1401 Fax: 301-862-1731
 Email: sales@pml-ft.com/www.pml-ft.com

Frequency

-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
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RF Input Power (dBm)

1 GHz	INTERCEPT (mV)	2873
	SLOPE (mV/dB)	52.4

213	296	474	729	1015	1292	1570	1835	2092	2353	2600	2841	2943
219	41	-43	-50	-26	-11	6	9	4	3	-12	-32	-192
4.19	0.78	-0.83	-0.96	-0.49	-0.20	0.11	0.17	0.08	0.06	-0.22	-0.62	-3.67

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.96
LINEARITY ERROR (dB)	0.78

4.17 GHz	INTERCEPT (mV)	2921
	SLOPE (mV/dB)	52.5

222	318	515	784	1082	1356	1633	1890	2145	2400	2655	2875	2938
186	20	-46	-39	-3	9	23	18	11	3	-4	-46	-246
3.55	0.38	-0.87	-0.74	-0.06	0.16	0.44	0.34	0.20	0.06	-0.08	-0.88	-4.68

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.87
LINEARITY ERROR (dB)	0.44

7.33 GHz	INTERCEPT (mV)	2962
	SLOPE (mV/dB)	51.6

226	330	537	810	1100	1364	1636	1887	2138	2391	2634	2855	2903
100	-54	-105	-89	-57	-51	-37	-44	-50	-55	-70	-107	-316
1.94	-1.04	-2.03	-1.73	-1.11	-0.99	-0.71	-0.84	-0.98	-1.07	-1.35	-2.07	-6.14

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-2.03
LINEARITY ERROR (dB)	-0.71

10.5 GHz	INTERCEPT (mV)	2880
	SLOPE (mV/dB)	49.9

245	374	597	867	1148	1402	1667	1911	2154	2397	2644	2808	2799
112	-9	-35	-15	16	20	36	30	23	16	14	-72	-331
2.24	-0.18	-0.71	-0.30	0.32	0.41	0.71	0.60	0.46	0.33	0.28	-1.44	-6.62

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

13.66 GHz	INTERCEPT (mV)	2853
	SLOPE (mV/dB)	48.4

263	416	651	910	1184	1422	1682	1913	2145	2382	2619	2799	2839
72	-17	-24	-7	25	21	39	28	18	13	8	-54	-256
1.48	-0.36	-0.50	-0.15	0.51	0.43	0.80	0.58	0.37	0.27	0.16	-1.12	-5.29

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.50
LINEARITY ERROR (dB)	0.80

16.83 GHz	INTERCEPT (mV)	2809
	SLOPE (mV/dB)	47.6

262	415	635	886	1174	1398	1660	1882	2095	2339	2559	2780	2912
74	-11	-30	-17	33	19	43	26	1	7	-11	-29	-135
1.55	-0.24	-0.62	-0.35	0.69	0.39	0.89	0.55	0.02	0.14	-0.24	-0.60	-2.83

Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.62
LINEARITY ERROR (dB)	0.89

20 GHz	INTERCEPT (mV)	2760
	SLOPE (mV/dB)	47.4

249	386	599	840	1127	1351	1618	1840	2045	2297	2498	2739	2903
95	-5	-29	-25	26	13	43	28	-4	11	-25	-21	-93
2.01	-0.10	-0.60	-0.52	0.54	0.27	0.90	0.59	-0.08	0.24	-0.52	-0.43	-1.97

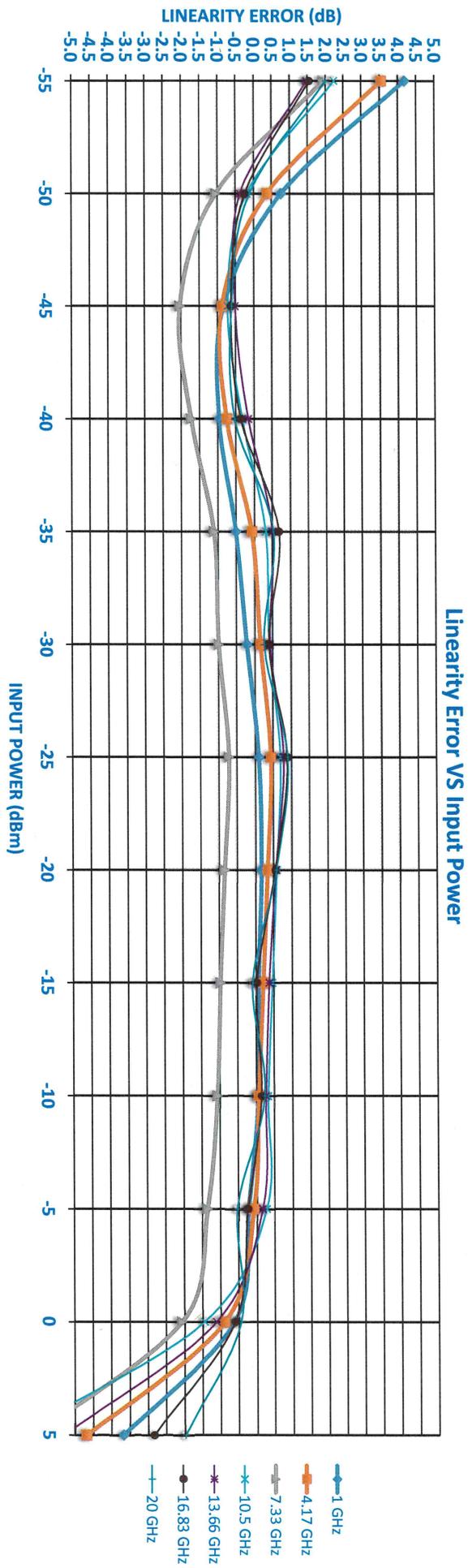
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.60
LINEARITY ERROR (dB)	0.90

0.5	1.2	1.8	1.8	1.7	1.3	1.1	0.8	1.1	1.0	1.6	1.4	1.4
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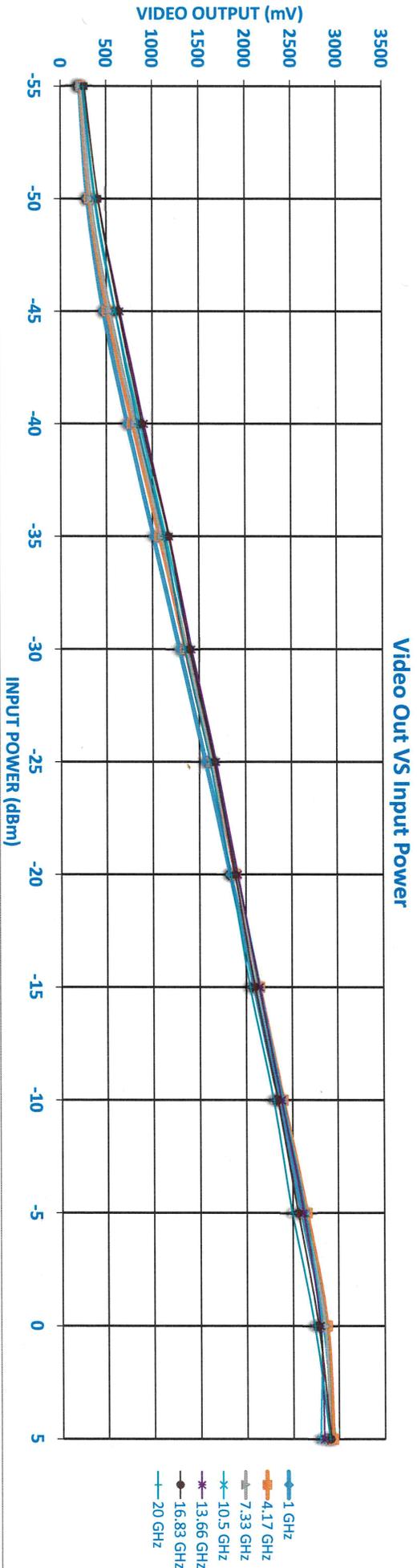
Measured Value (mV)	
Error (mV)	
LINEARITY ERROR (dB)	-0.60
LINEARITY ERROR (dB)	0.90
FLATNESS ERROR (dB)	+/- 1.80

Slope Avg(mv/dB) 50.0

LOG TRANSFER WITH FREQUENCY
 MODEL: SDLVA-1G20G-55-12-SFF
 SERIAL NO: PL53231
 Test Temp: +25C



Linearity Error VS Input Power



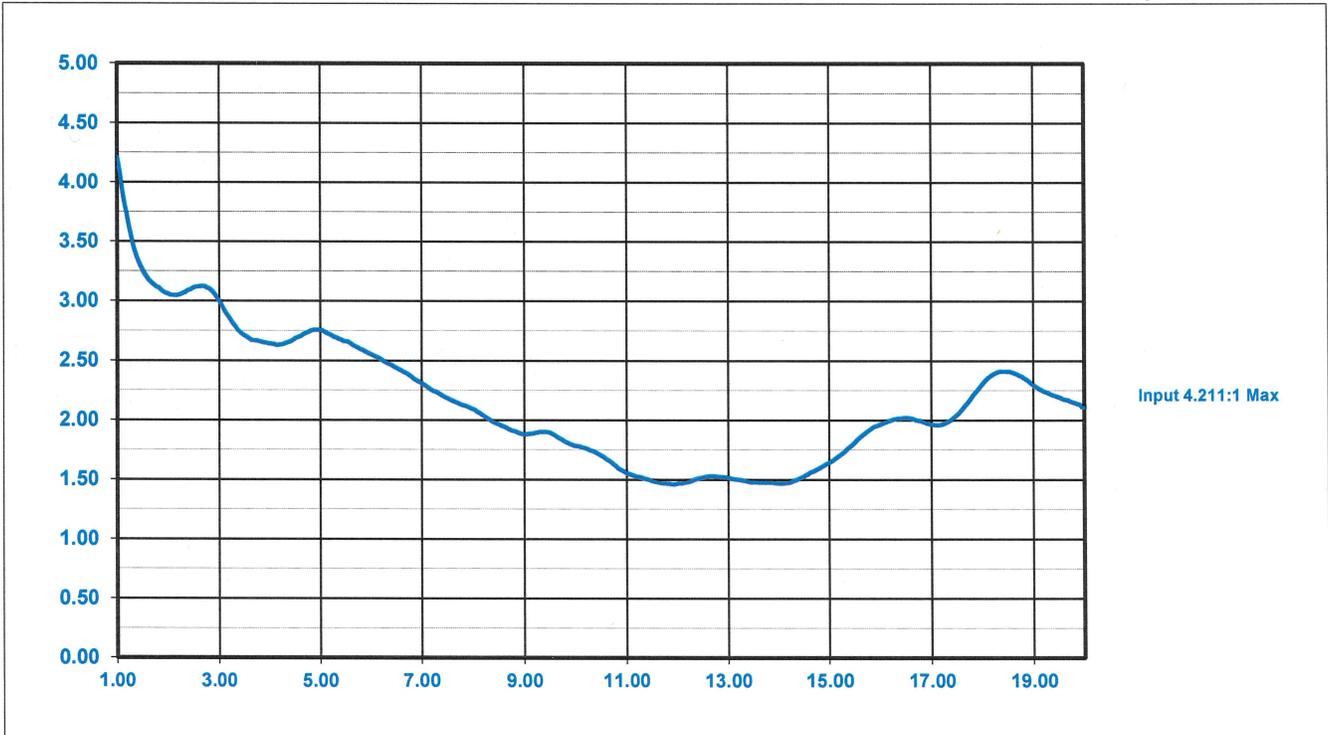
Video Out VS Input Power



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Serial Number: PL53231

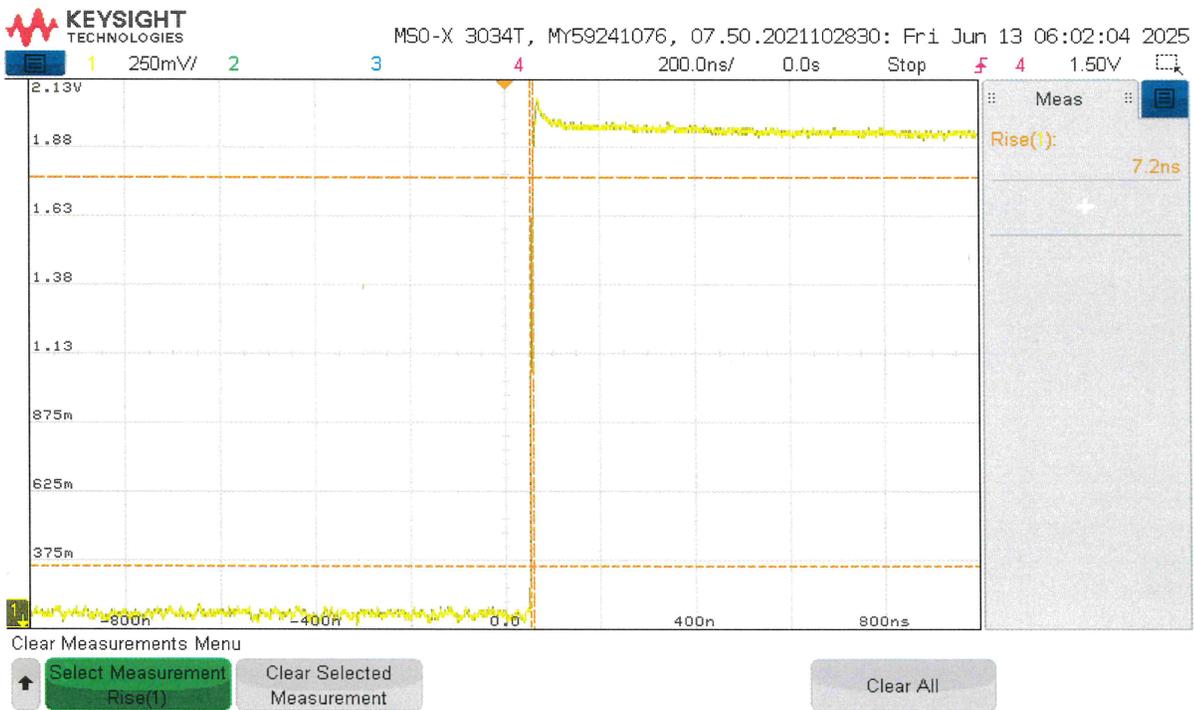
Temperature: +25C





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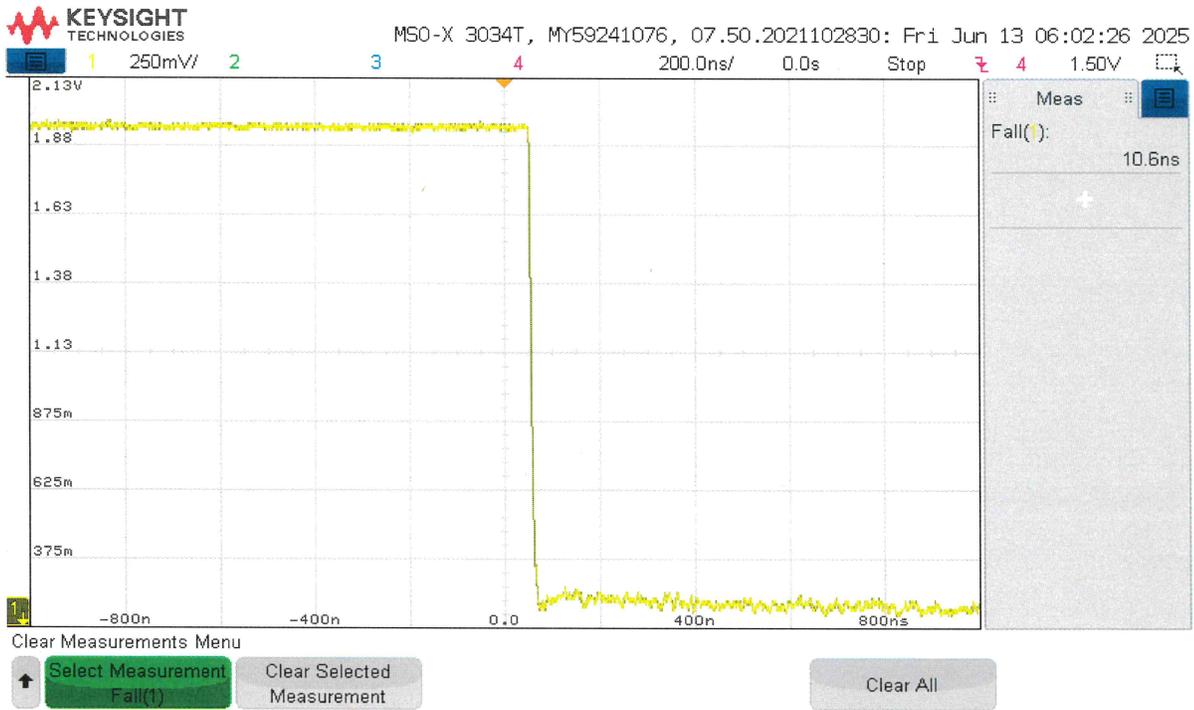
Rise Time = 7.2 ns





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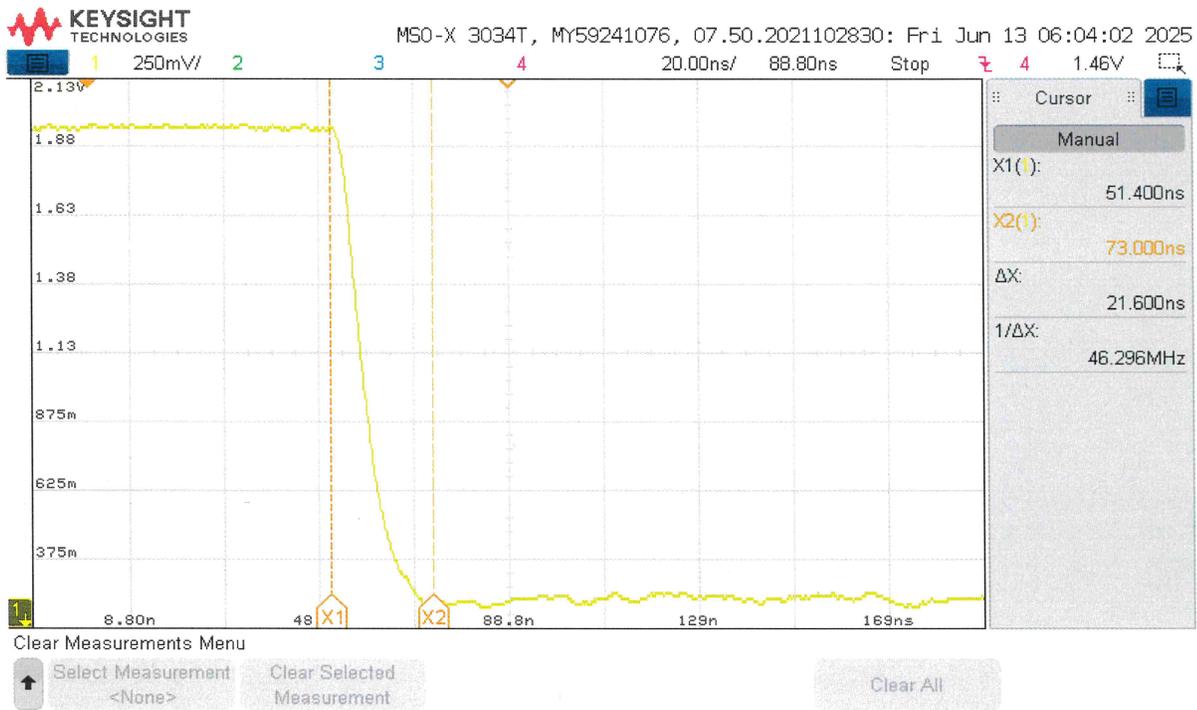
Fall Time = 10.6 ns





**SUMMARY TEST DATA
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Recovery Time = 21.6 ns





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TSS = -59.4 dBm

