Quantic PMI
PLANAR MONOLITHICS

SUMMARY TEST DATA
ON
SDLVA-1G20G-55-12-SFF-100OHM-ROHS

CUSTOMER: [redacted]
SO: [redacted]
MODEL NO: SDLVA-1G20G-55-12-SFF-100OHM-ROHS
SERIAL NO: PL53482/2526

TESTED BY: Justen Gayduchik
TEMPERATURE: +25°C
DATE: 6/23/2025
DRAWING NO: 27648680 **REV:** A2

TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
1	Frequency Range	1 to 20 GHz	1 to 20 GHz	
2	Frequency Flatness	±2.0 dB TYP	±1.9 dB	
3	Log Linearity	±1.5 dB (Pin = -50 to 0 dBm) @ +25°C TYP	±2.46 dB	
4	Log Linearity Over Temp	±2.0 dB (Pin = -50 to 0 dBm) @ -55°C to +85°C TYP	±2.59 dB	
5	Logging Range	-55 to +5 dBm	-55 to +5 dBm	
6	Input VSWR	2.8:1 TYP	4.5:1 Max.	
7	Log Video Output Voltage	0.1 to 2.5 V TYP	0.184 to 2.891 V	
8	Log Video Output Slope	50 mV / dB TYP	49.9 mV/ dB	
9	Log Video Output Rise Time	5 ns TYP (Pin = -20 dBm @ 10% to 90%)	6.0 ns	
10	Log Video Output Fall Time	20 ns TYP (Pin = -20 dBm @ 90% to 10%)	7.0 ns	
11	Log Video Recovery Time	28 ns TYP (Pin = -50 to 0 dBm)	45.3 ns	
12	Log Video Propagation Delay	15 ns TYP	15 ns	
13	Tangential Signal Sensitivity	-58 dBm TSS TYP	-57 dBm	
14	Power Supply	+8 to +15 VDC @ 130 mA TYP	116.2 mA	

QA/QC Approval: K. Klausmeyer Date: 6-23-25

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

Tabulated Transfer Data @ 25C

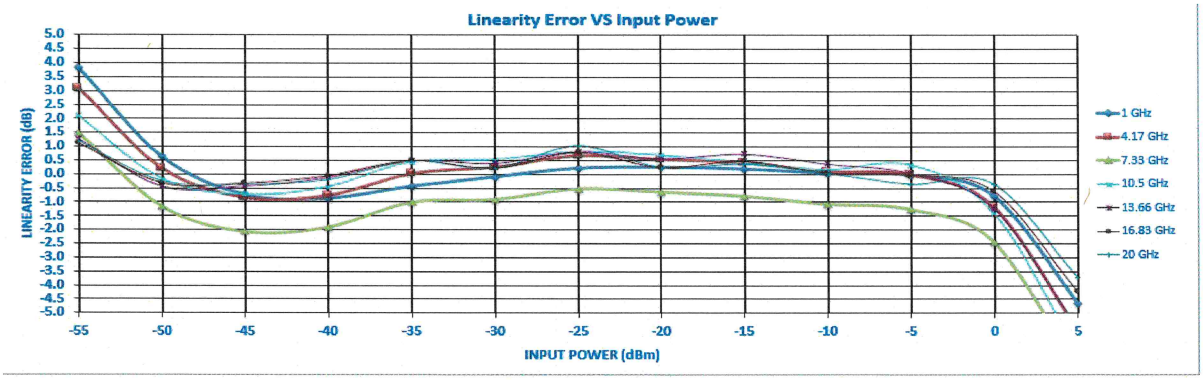
LOG TRANSFER WITH FREQUENCY
MODEL: SDLVA-1G20G-55-12-SFF-100OHM-ROHS
TESTED BY: Justen Gayduchik
DATE: 06-23-25
SERIAL NO: PL53482
Test Temp: +25C Output Offset(V)= 0.131

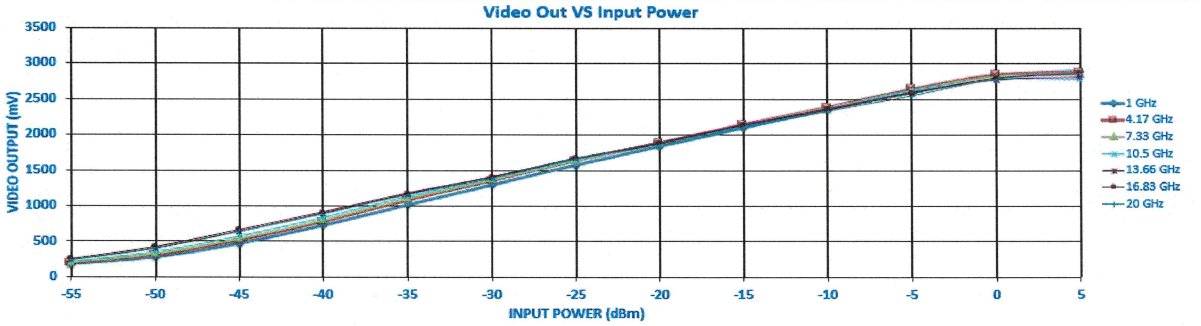
PLANAR MONOLITHICS INDUSTRIES
4921 Robert J. Mathews Parkway, Suite 1
El Dorado Hills, CA 95762
Phone: 916-542-1401 Fax: 301-662-1731
Email: sales@pmi-rf.com/www.pmi-rf.com

Frequency			-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5			RF Input Power (dBm)
1 GHz	INTERCEPT (mV)	2874	184	279	470	726	1011	1292	1571	1836	2095	2350	2609	2832	2891			Measured Value (mV)
	SLOPE (mV/dB)	52.6	201	33	-39	-46	-24	-5	11	13	9	2	-2	-42	-246			Error (mV)
			3.82	0.62	-0.74	-0.87	-0.45	-0.10	0.21	0.25	0.18	0.03	-0.04	-0.80	-4.68	-0.87	0.62	LINEARITY ERROR (dB)
4.17 GHz	INTERCEPT (mV)	2907	195	306	512	777	1079	1363	1636	1890	2146	2390	2645	2846	2873			Measured Value (mV)
	SLOPE (mV/dB)	52.3	162	11	-44	-40	1	13	35	28	22	5	-1	-61	-298			Error (mV)
			3.09	0.22	-0.84	-0.77	0.01	0.25	0.67	0.53	0.43	0.10	-0.02	-1.18	-5.66	-1.18	0.67	LINEARITY ERROR (dB)
7.33 GHz	INTERCEPT (mV)	2951	203	324	534	799	1102	1364	1640	1891	2140	2382	2629	2825	2842			Measured Value (mV)
	SLOPE (mV/dB)	51.3	76	-60	-107	-99	-52	-47	-28	-33	-41	-56	-65	-126	-366			Error (mV)
			1.47	-1.17	-2.08	-1.92	-1.02	-0.92	-0.54	-0.65	-0.80	-1.09	-1.28	-2.46	-7.13	-2.46	-0.54	LINEARITY ERROR (dB)
10.5 GHz	INTERCEPT (mV)	2853	216	353	574	837	1131	1384	1648	1890	2126	2362	2620	2782	2781			Measured Value (mV)
	SLOPE (mV/dB)	49.8	103	-9	-37	-23	22	26	41	33	20	7	16	-71	-321			Error (mV)
			2.07	-0.18	-0.74	-0.47	0.44	0.51	0.81	0.67	0.41	0.15	0.32	-1.42	-6.44	-1.42	0.81	LINEARITY ERROR (dB)
13.66 GHz	INTERCEPT (mV)	2830	234	393	635	892	1163	1400	1662	1891	2141	2365	2590	2771	2803			Measured Value (mV)
	SLOPE (mV/dB)	48.3	61	-21	-21	-5	24	19	40	27	36	18	1	-59	-269			Error (mV)
			1.27	-0.44	-0.43	-0.11	0.50	0.40	0.82	0.56	0.74	0.37	0.03	-1.23	-5.56	-1.23	0.82	LINEARITY ERROR (dB)
16.83 GHz	INTERCEPT (mV)	2827	247	418	657	909	1175	1401	1668	1881	2131	2350	2586	2797	2864			Measured Value (mV)
	SLOPE (mV/dB)	47.9	53	-15	-16	-3	24	10	38	12	22	2	-1	-30	-202			Error (mV)
			1.11	-0.32	-0.33	-0.06	0.49	0.21	0.79	0.24	0.47	0.04	-0.03	-0.62	-4.22	-0.62	0.79	LINEARITY ERROR (dB)
20 GHz	INTERCEPT (mV)	2797	245	414	646	891	1160	1385	1660	1860	2103	2324	2543	2780	2858			Measured Value (mV)
	SLOPE (mV/dB)	47.4	55	-13	-18	-10	22	10	48	11	17	1	-17	-17	-176			Error (mV)
			1.17	-0.27	-0.37	-0.21	0.47	0.21	1.01	0.23	0.36	0.02	-0.36	-0.37	-3.72	-0.37	1.01	LINEARITY ERROR (dB)
	Flatness +/-dB		0.6	1.4	1.9	1.8	1.6	1.1	1.0	0.6	0.5	0.7	1.0	0.8	1.1	+/- 1.90		FLATNESS ERROR (dB)

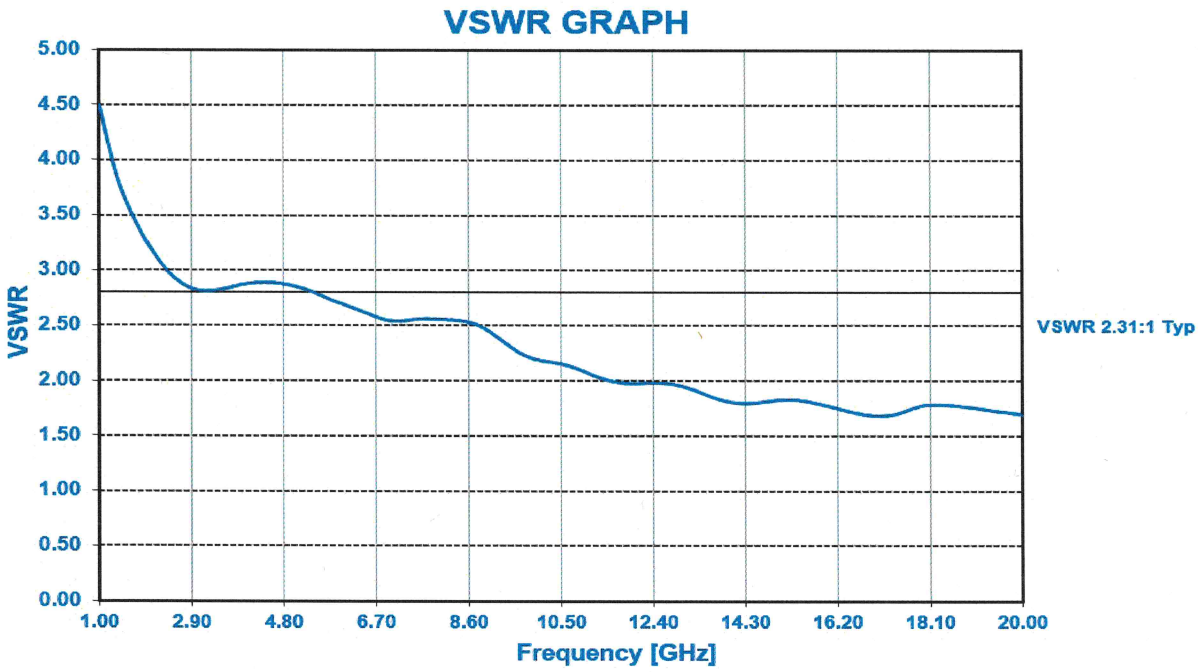
Slope Avg(mv/dB)	49.9

Transfer Plot @+25C

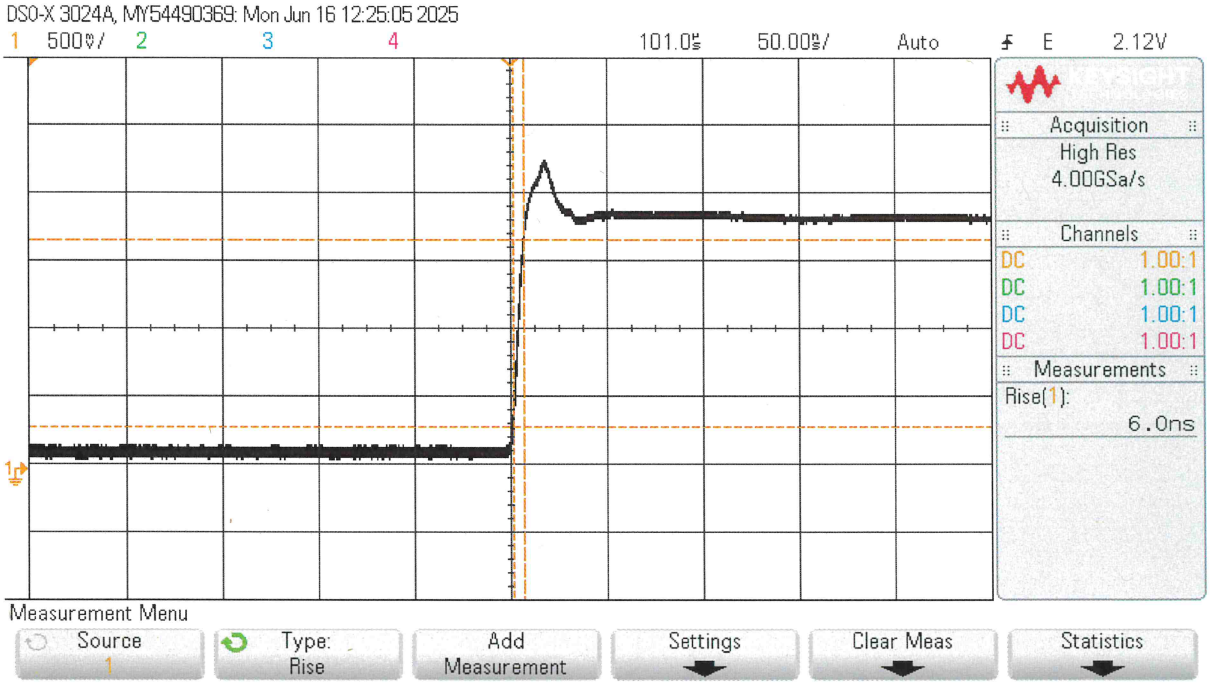




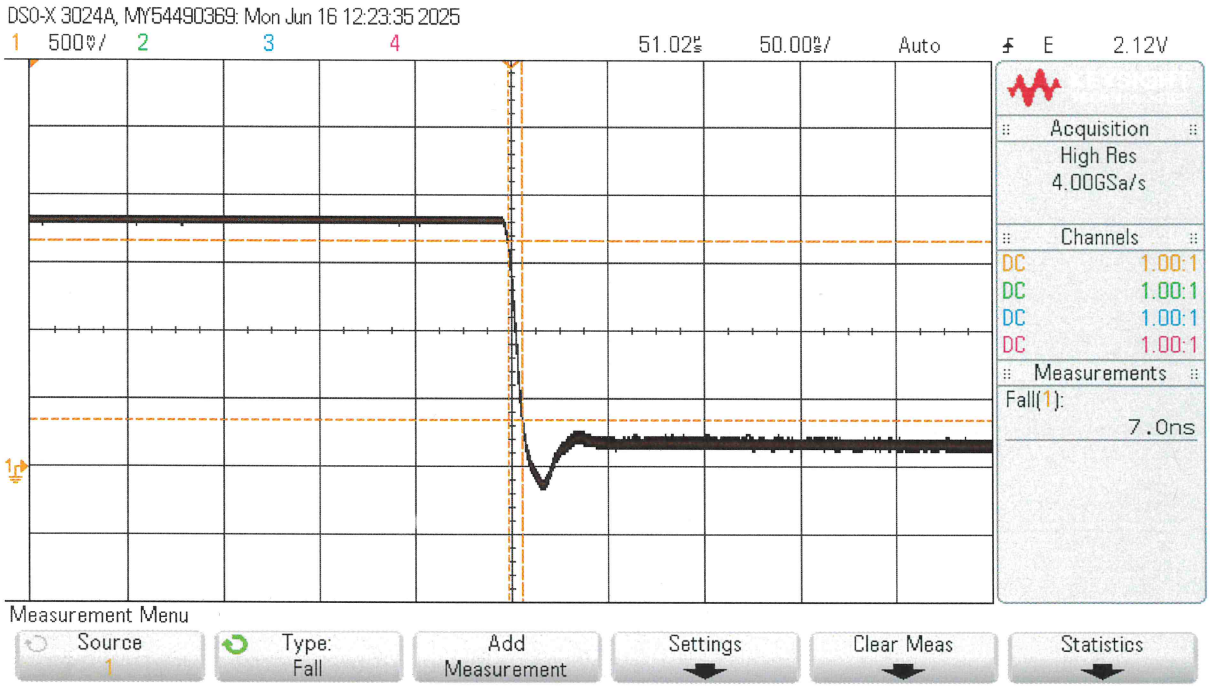
VSWR 4.5:1 Max.


VSWR GRAPH
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
VSWR
1.00
2.90
4.80
6.70
8.60
10.50
12.40
14.30
16.20
18.10
20.00
Frequency [GHz]
VSWR 2.31:1 Typ

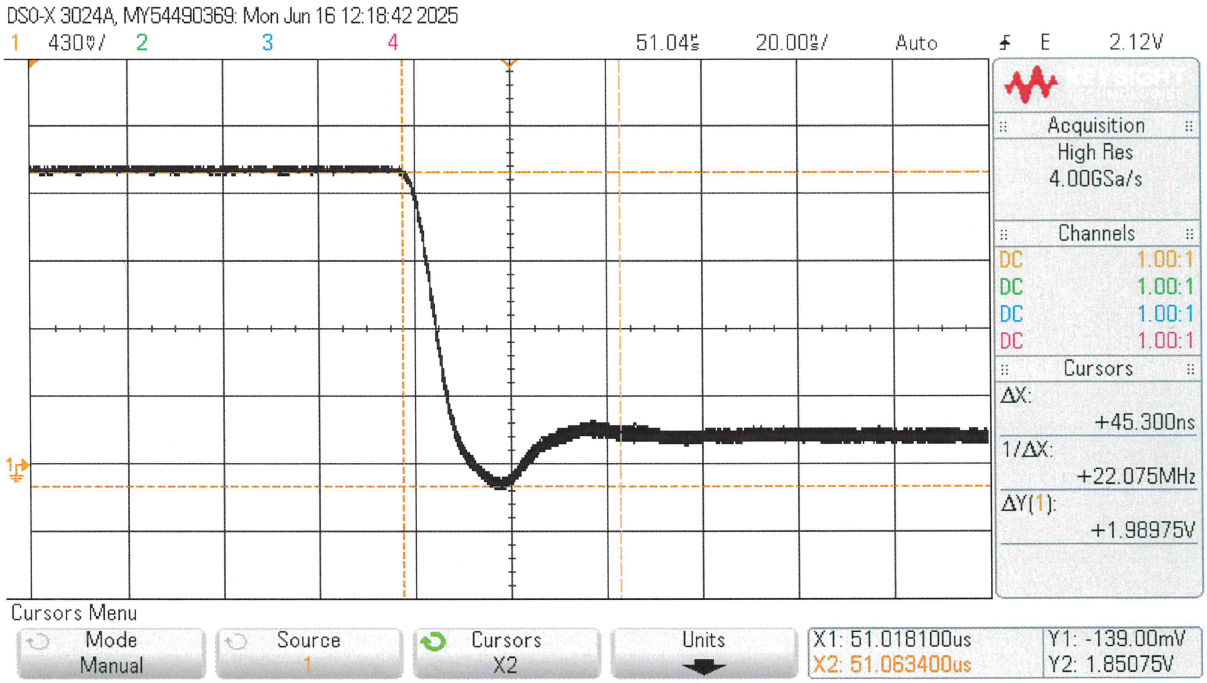
Rise Time 6.0 ns



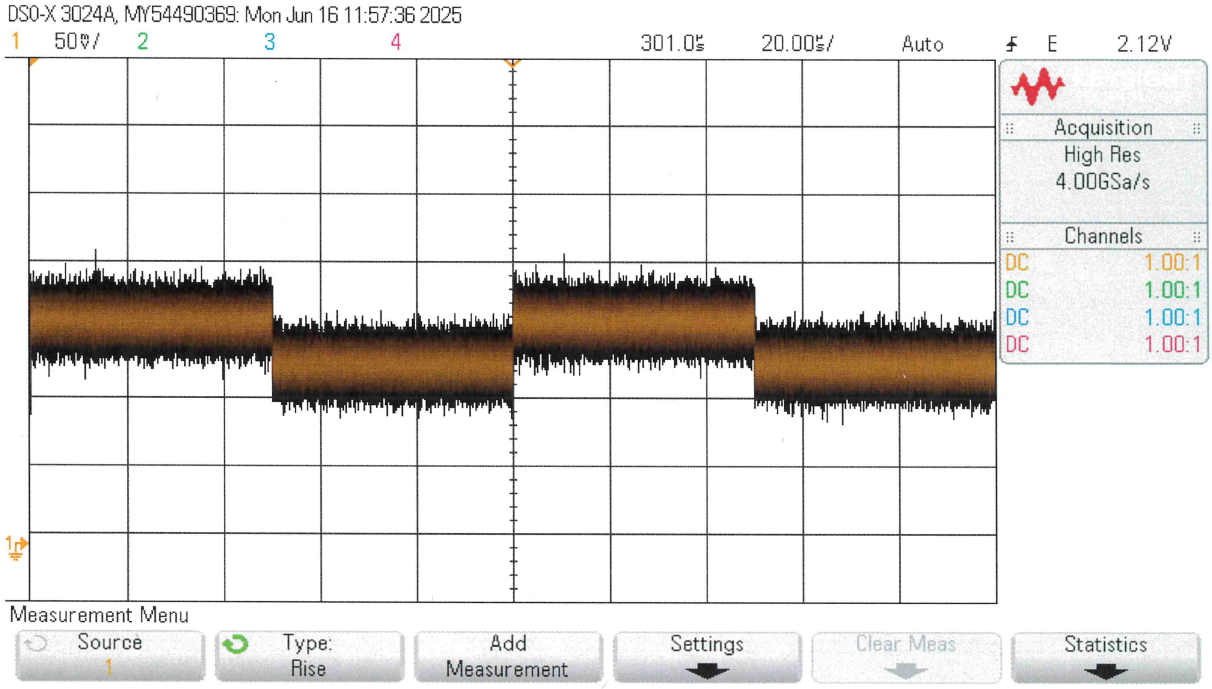
Fall Time 7.0 ns



Recovery Time 45.3 ns



TSS @ -57 dBm


DSO-X 3024A, MY54490369: Mon Jun 16 11:57:36 2025
1 50mV/ 2 3 4
301.0µs 20.00µs/ Auto E 2.12V
Acquisition
High Res
4.00GSa/s
Channels
DC 1.00:1
DC 1.00:1
DC 1.00:1
DC 1.00:1
Measurement Menu
Source 1
Type: Rise
Add Measurement
Settings
Clear Meas
Statistics