Summary Data
For
EWDM-2G6G-65-70MV-1

Customer: [redacted]
SO No: [redacted]
Model No: EWDM-2G6G-65-70MV-1
Serial No: PL42361/2506

Tested By: Jim Hopson
Temperature: 0°C TO +85°C
Date 2/4/2025
Drawing No: 27637945 **Rev:** A1

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	2 to 6 GHz	**2 to 6 GHz**	PMI QA3
2	VSWR:	2.0:1 MAX @ 50 Ω	**1.19:1 @ 50 Ω (RF IN)** **1.17:1 @ 50 Ω (BIT IN)** **1.24:1 @ 50 Ω (RF OUT)** **1.38:1 @ 50 Ω (SW OUT)**	
3	Noise Figure:	6 dB MAX	**4.6 dB**	
4	Input Power:	(1) 1 W CW, Max. (2) 100 W Peak @ PW = 1 us & Duty Cycle = 1%, Max.	**PASS**	
5	TTL Control	See Logic Table	**PASS**	
6	SP3T Switch Isolation	60 dB MIN (All Ports)	**> 60 dB**	
7	SP3T Switching Speed:	100 ns MAX	**50 ns Typ.**	
8	RF OUT Linear Gain	+33 dB MIN, 39 dB MAX	**+38.1 dB MAX** **+36.16 dB MIN**	
9	RF OUT Frequency Flatness:	±2.0 dB MAX	**±0.985 dB**	
10	RF OUT 1 dB Compression Point:	+3 dBm MIN	**+10.5 dBm**	
11	RF OUT Second Harmonic:	-9 dBc MIN	**-26 dBc**	
12	RF OUT Third Harmonic:	-12 dBc MIN	**-46 dBc**	

7311-F Grove Road Frederick, MD 21704 USA
Phone: (301)662-5019 Fax: (301)662-1731
Website: www.pmi-rf.com Email: sales@pmi-rf.com

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13	SW Linear Gain	+7 dB MIN, 15 dB MAX	**+14.4 dB MAX +13.06 dB MIN**	PMI QA3
14	SW Frequency Flatness:	±1.2 dB MAX	**±0.705 dB**	
15	SW 1 dB Compression Point:	+3 dBm MIN	**+6.7 dBm**	
16	SW Second Harmonic:	-9 dBc MIN	**-22 dBc**	
17	SW Third Harmonic:	-12 dBc MIN	**-36 dBc**	
18	VIDEO OUT TSS:	-71 dBm MAX	**-71 dBm**	
19	VIDEO OUT Dynamic Range:	-65 to 0 dBm	**-65 to 0 dBm**	
20	VIDEO OUT Log Slope Fixed:	70 ± 3mV/dB	**70.97/69.19 mVdB**	
21	VIDEO OUT Log Linearity:	±0.75 dB MAX @ 4 GHZ	**.32/-.52 dB**	
22	VIDEO OUT Log Accuracy:	±1.25 dB MAX	**.84/-1.01 dB**	
23	VIDEO OUT Absolute Log Accuracy:	±1.5 dB MAX	**.87/-1.07 dB**	
24	VIDEO OUT DC Offset:	0 ±70 mV (RF Input Terminated & DC Power On)	**-15 mV**	
25	VIDEO OUT Rise Time (10% to 90%):	25 ns TYP 28 ns MAX	**25.5 ns**	
26	VIDEO OUT Fall Time (90% to 10%):	300 ns MAX	**158.1 ns**	
27	VIDEO OUT Settling Time:	50 ns With in ±70 mV of final value, MAX	**< 50 ns**	
28	VIDEO OUT Recovery Time:	0.5 us MAX to within 1 dB of baseline	**0.45 us**	

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29	VIDEO OUT Video Frequency Flatness:	±1.0 dB MAX	**±0.64 dB**	PMI QA3
30	VIDEO OUT CW Immunity:	A. CW Immune Power TSS to -40 dBm Baseline Shift: 200 mV MAX	**< 200 mV**	
		B. Pulse Peak Amplitude Loss; 2 dB MAX	**< 2 dB**	
		CW Immunity Time at CW = -40 dBm, ≤ 4 ms	**1.7 ms**	
		CW Recovery Time at CW = -40 dBm, ≤ 50 us	**< 50 us**	
31	VIDEO OUT Pulse Response, input Signal:	100 ns to 300 us	**100 ns to 300 us**	
32	VIDEO OUT load Impedance:	75 ±1 Ω	**75 Ω**	
33	VIDEO OUT Video Output driver capability	150 ft. RG11 into 75 ohm load	**PASS**	
34	Pulse density capability:	10% duty cycle 100ns; 70% duty cycle 300us at peak power -10 dBm with 1 dB variable for pulse amplitude and baseline	**PASS**	
35	VIDEO OUT Noise Level (Vp-p):	150 mV TYP	**< 150 mV**	

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36	Droop of the Output Video Pulse @ 300us & -65 dBm	70mV (1 dB) MAX	**< 70 mV**	PMI QA3
37	VIDEO OUT Propagation Delay:	50 ns MAX Excluding cable	**40 ns**	
38	Power Supply	+15 V @ 1000 mA MAX -15 V @ 500 mA MAX	**+15 V @ 630 mA** **-15 V @ 130 mA**	
39	Power Supply Ripple From DC to 10 MHz	100 mV MAX	**PASS**	

QA/QC Approval: K Klamm Date: 2·7·25

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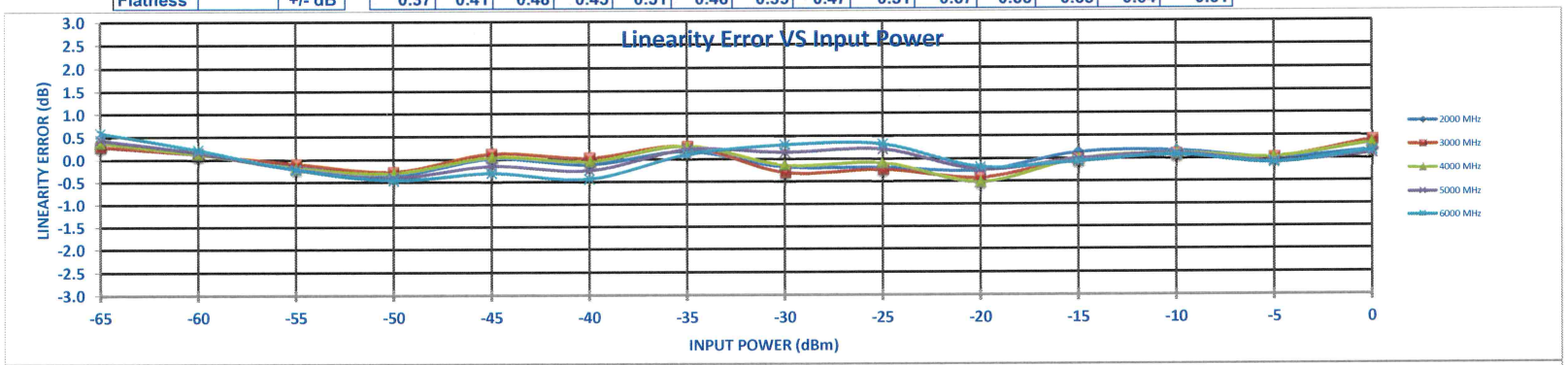
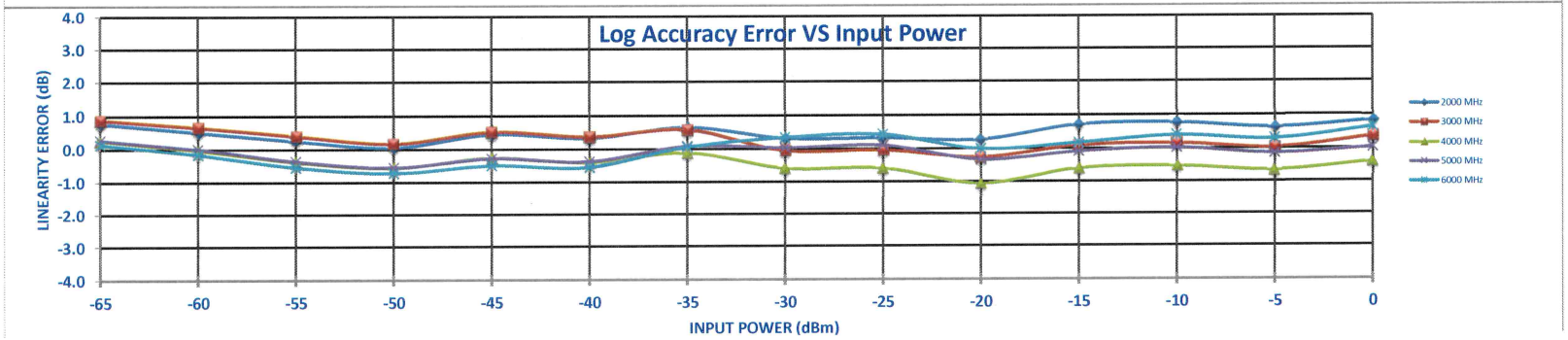
LOG TRANSFER WITH FREQUENCY
MODEL: EWDM-2G6G-65-70MV-1
TESTED BY: Anton L.
MODEL: EWDM-2G6G-65-70MV-1
SERIAL NO: PL42361
DATE: 2/4/25

Test Temp: 0C

PLANAR MONOLITHICS INDUSTRIES
4921 Robert J. Mathews Parkway STE 1
TEL: 916-542-1401 FAX: 301-662-1731
EMAIL: SALES@PMI-RF.COM
ISO 9001:2000 CERTIFIED

Frequency			-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2000 MHz	INTERCEPT (mV)	4838.8	298	630	962	1298	1676	2018	2390	2717	3068	3414	3794	4148	4488	4852	Measured Value (mV)
	SLOPE (mV/dB)	70.309	29	10	-10	-25	1	-8	12	-13	-13	-19	10	12	1	13	Error (mV)
			0.42	0.14	-0.14	-0.36	0.02	-0.12	0.17	-0.18	-0.19	-0.27	0.14	0.17	0.01	0.19	LINEARITY ERROR (dB)
			0.76	0.50	0.24	0.04	0.44	0.33	0.64	0.31	0.33	0.27	0.70	0.76	0.61	0.81	ACCURACY ERROR (dB)
3000 MHz	INTERCEPT (mV)	4791.9	306	641	973	1307	1681	2021	2385	2691	3042	3376	3751	4106	4447	4820	Measured Value (mV)
	SLOPE (mV/dB)	69.317	20	8	-6	-19	8	2	19	-21	-17	-30	-1	7	2	28	Error (mV)
			0.28	0.12	-0.09	-0.27	0.12	0.03	0.28	-0.31	-0.24	-0.43	-0.02	0.11	0.02	0.41	LINEARITY ERROR (dB)
			0.87	0.66	0.40	0.17	0.51	0.37	0.57	-0.06	-0.04	-0.27	0.09	0.16	0.03	0.36	ACCURACY ERROR (dB)
4000 MHz	INTERCEPT (mV)	4742.3	263	592	917	1255	1626	1966	2336	2653	3003	3320	3702	4057	4398	4766	Measured Value (mV)
	SLOPE (mV/dB)	69.315	26	9	-13	-22	3	-4	20	-10	-6	-36	-1	8	2	24	Error (mV)
			0.38	0.12	-0.19	-0.31	0.04	-0.05	0.28	-0.14	-0.09	-0.52	-0.01	0.11	0.03	0.34	LINEARITY ERROR (dB)
			0.26	-0.04	-0.40	-0.57	-0.27	-0.41	-0.13	-0.60	-0.60	-1.07	-0.61	-0.54	-0.67	-0.41	ACCURACY ERROR (dB)
5000 MHz	INTERCEPT (mV)	4789.5	264	595	919	1256	1625	1968	2351	2697	3052	3371	3738	4096	4434	4797	Measured Value (mV)
	SLOPE (mV/dB)	70.089	30	11	-16	-29	-11	-18	15	10	15	-17	0	7	-5	7	Error (mV)
			0.43	0.15	-0.22	-0.41	-0.15	-0.26	0.21	0.14	0.21	-0.24	0.00	0.10	-0.07	0.11	LINEARITY ERROR (dB)
			0.27	0.00	-0.37	-0.56	-0.29	-0.39	0.09	0.03	0.10	-0.34	-0.10	0.01	-0.16	0.03	ACCURACY ERROR (dB)
6000 MHz	INTERCEPT (mV)	4826.2	254	583	906	1244	1610	1956	2349	2719	3075	3394	3757	4122	4465	4838	Measured Value (mV)
	SLOPE (mV/dB)	70.978	41	15	-16	-33	-22	-31	7	22	23	-13	-5	6	-6	12	Error (mV)
			0.58	0.22	-0.23	-0.47	-0.31	-0.44	0.10	0.31	0.33	-0.18	-0.06	0.08	-0.09	0.17	LINEARITY ERROR (dB)
			0.13	-0.17	-0.56	-0.73	-0.50	-0.56	0.06	0.34	0.43	-0.01	0.17	0.39	0.29	0.61	ACCURACY ERROR (dB)
	Flatness	+/- dB	0.37	0.41	0.48	0.45	0.51	0.46	0.39	0.47	0.51	0.67	0.66	0.65	0.64	0.61	



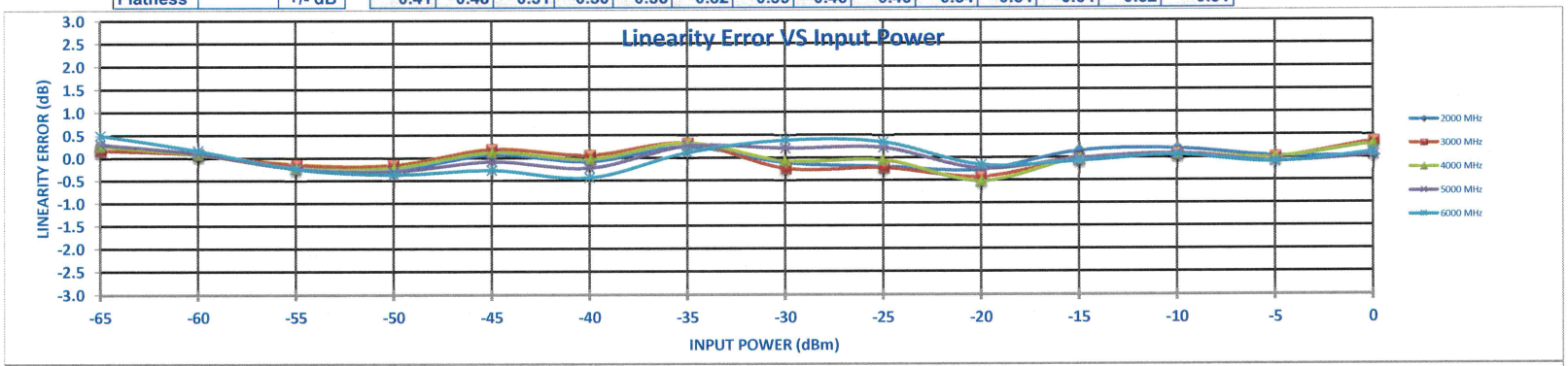


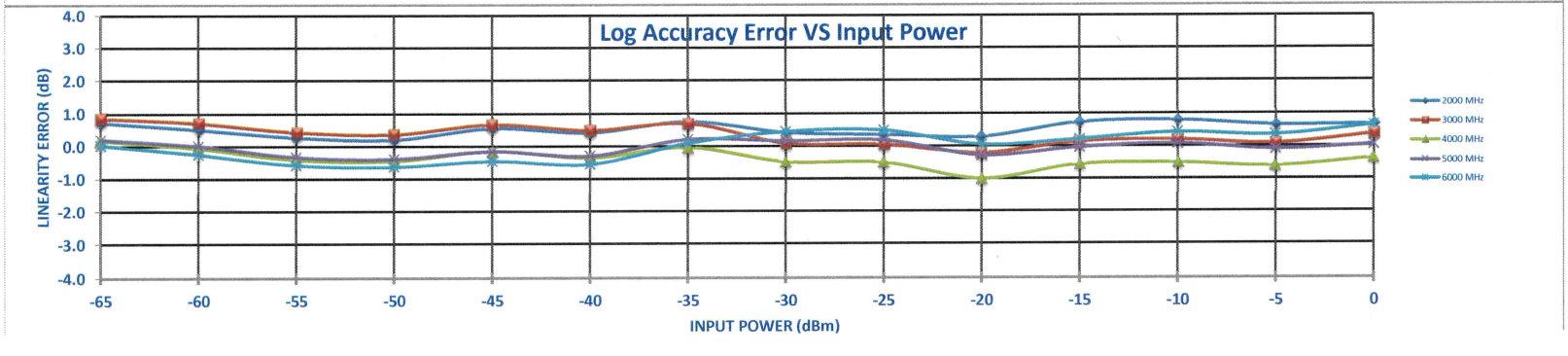
LOG TRANSFER WITH FREQUENCY
MODEL: EWDM-2G6G-65-70MV-1
TESTED BY: Anton L.
MODEL: EWDM-2G6G-65-70MV-1
SERIAL NO: PL42361
DATE: 2/4/25

Test Temp: 25C

PLANAR MONOLITHICS INDUSTRIES
4921 Robert J. Mathews Parkway STE 1
TEL: 916-542-1401 FAX: 301-662-1731
EMAIL: SALES@PMI-RF.COM
ISO 9001:2000 CERTIFIED

Frequency			-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2000 MHz	INTERCEPT (mV)	4821.3	285	620	952	1297	1671	2011	2384	2710	3055	3400	3780	4134	4473	4824	Measured Value (mV)
	SLOPE (mV/dB)	70.115	21	6	-13	-19	5	-6	17	-8	-13	-19	10	14	2	3	Error (mV)
			0.30	0.08	-0.19	-0.26	0.07	-0.08	0.24	-0.11	-0.19	-0.27	0.15	0.20	0.03	0.04	LINEARITY ERROR (dB)
			0.72	0.51	0.26	0.19	0.54	0.41	0.74	0.41	0.34	0.28	0.72	0.78	0.63	0.65	ACCURACY ERROR (dB)
3000 MHz	INTERCEPT (mV)	4779.5	294	634	964	1309	1679	2016	2380	2687	3034	3366	3739	4093	4434	4804	Measured Value (mV)
	SLOPE (mV/dB)	69.185	12	6	-10	-11	13	4	22	-17	-16	-30	-3	5	0	25	Error (mV)
			0.17	0.08	-0.15	-0.16	0.19	0.06	0.32	-0.24	-0.23	-0.43	-0.04	0.08	0.01	0.35	LINEARITY ERROR (dB)
			0.84	0.71	0.43	0.36	0.66	0.48	0.69	0.08	0.04	-0.21	0.13	0.19	0.07	0.36	ACCURACY ERROR (dB)
4000 MHz	INTERCEPT (mV)	4732.2	246	580	905	1252	1622	1958	2329	2648	2996	3310	3691	4044	4386	4753	Measured Value (mV)
	SLOPE (mV/dB)	69.298	18	6	-16	-15	8	-2	22	-5	-4	-36	-2	5	0	21	Error (mV)
			0.26	0.08	-0.23	-0.22	0.12	-0.03	0.32	-0.08	-0.05	-0.52	-0.02	0.07	0.00	0.30	LINEARITY ERROR (dB)
			0.16	-0.06	-0.41	-0.45	-0.16	-0.35	-0.04	-0.48	-0.50	-1.01	-0.56	-0.51	-0.62	-0.36	ACCURACY ERROR (dB)
5000 MHz	INTERCEPT (mV)	4778.1	249	585	911	1257	1622	1962	2346	2692	3043	3361	3727	4084	4422	4781	Measured Value (mV)
	SLOPE (mV/dB)	70.002	21	7	-17	-21	-6	-16	18	14	15	-17	-1	6	-6	3	Error (mV)
			0.30	0.10	-0.24	-0.30	-0.09	-0.23	0.26	0.20	0.21	-0.24	-0.01	0.09	-0.09	0.04	LINEARITY ERROR (dB)
			0.20	0.01	-0.33	-0.38	-0.16	-0.29	0.20	0.15	0.17	-0.28	-0.04	0.06	-0.10	0.04	ACCURACY ERROR (dB)
6000 MHz	INTERCEPT (mV)	4814	236	567	893	1239	1601	1944	2338	2712	3064	3383	3744	4108	4452	4822	Measured Value (mV)
	SLOPE (mV/dB)	70.975	35	11	-17	-26	-19	-31	8	27	24	-12	-5	4	-7	8	Error (mV)
			0.50	0.16	-0.25	-0.37	-0.27	-0.44	0.11	0.38	0.34	-0.16	-0.08	0.05	-0.10	0.11	LINEARITY ERROR (dB)
			0.01	-0.25	-0.59	-0.64	-0.46	-0.55	0.09	0.44	0.47	0.04	0.20	0.41	0.33	0.62	ACCURACY ERROR (dB)
	Flatness	+/- dB	0.41	0.48	0.51	0.50	0.56	0.52	0.39	0.46	0.49	0.64	0.64	0.64	0.62	0.51	



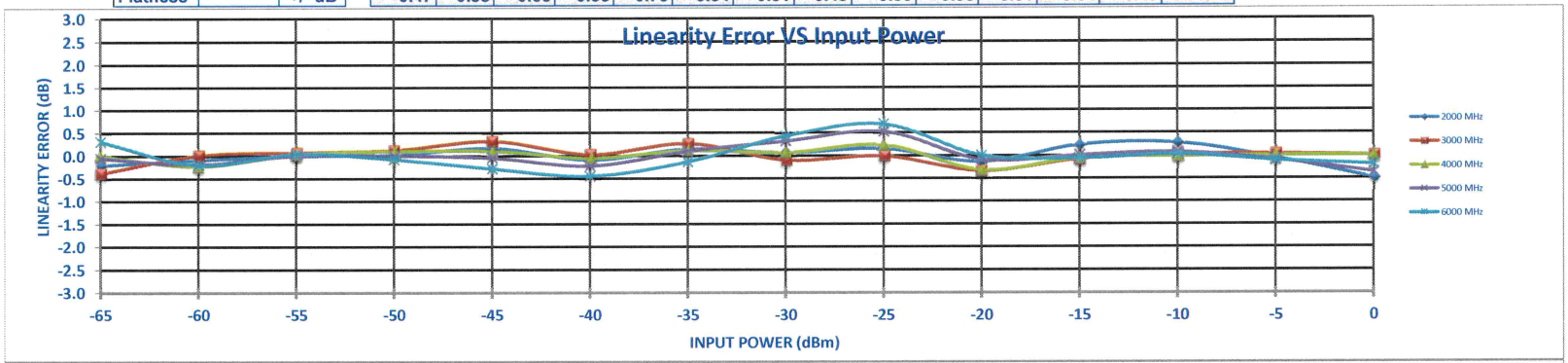


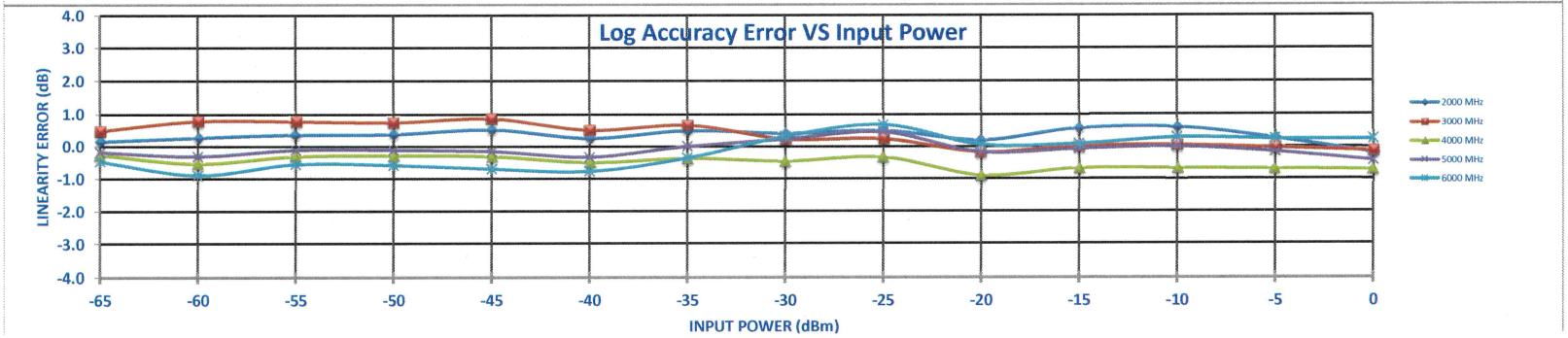
LOG TRANSFER WITH FREQUENCY
MODEL: EWDM-2G6G-65-70MV-1
TESTED BY: Anton L.
MODEL: EWDM-2G6G-65-70MV-1
SERIAL NO: PL42361
DATE: 2/4/25

Test Temp: +85C

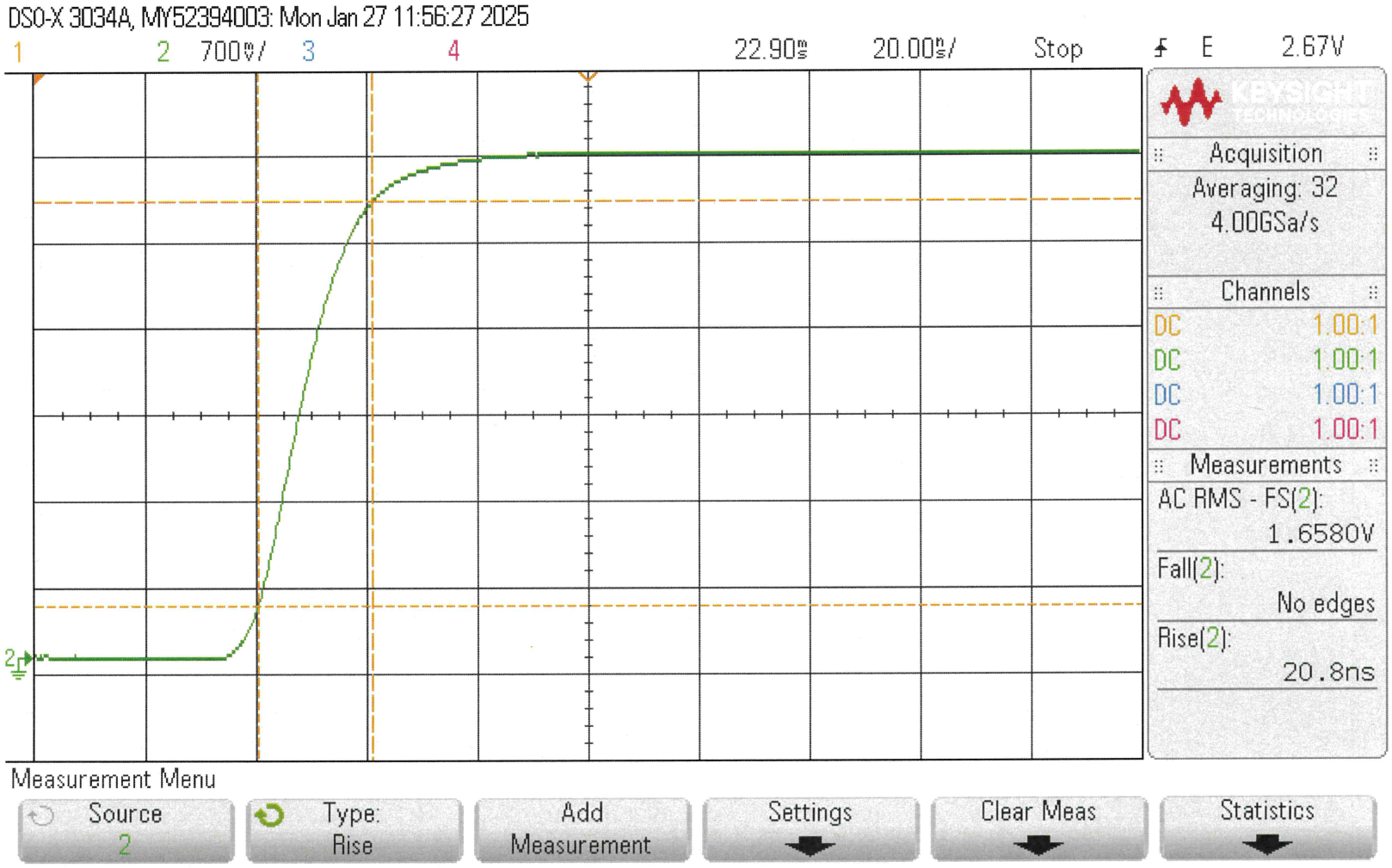
PLANAR MONOLITHICS INDUSTRIES
4921 Robert J. Mathews Parkway STE 1
TEL: 916-542-1401 FAX: 301-662-1731
EMAIL: SALES@PMI-RF.COM
ISO 9001:2000 CERTIFIED

Frequency			-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2000 MHz	INTERCEPT (mV)	4699	190	544	896	1243	1599	1927	2289	2629	2981	3307	3678	4027	4350	4665	Measured Value (mV)
	SLOPE (mV/dB)	69.146	-15	-6	0	1	12	-6	10	4	11	-9	16	19	-3	-34	Error (mV)
			-0.21	-0.09	0.00	0.02	0.17	-0.09	0.15	0.06	0.15	-0.13	0.23	0.28	-0.05	-0.49	LINEARITY ERROR (dB)
			0.14	0.26	0.35	0.36	0.51	0.25	0.48	0.39	0.48	0.19	0.55	0.59	0.26	-0.19	ACCURACY ERROR (dB)
3000 MHz	INTERCEPT (mV)	4668.2	212	580	925	1269	1623	1944	2301	2617	2964	3282	3641	3989	4330	4669	Measured Value (mV)
	SLOPE (mV/dB)	68.15	-26	1	5	8	22	2	18	-7	0	-23	-5	2	3	1	Error (mV)
			-0.39	0.01	0.07	0.12	0.32	0.03	0.27	-0.10	-0.01	-0.34	-0.07	0.03	0.04	0.01	LINEARITY ERROR (dB)
			0.46	0.78	0.77	0.74	0.85	0.49	0.65	0.22	0.23	-0.17	0.01	0.04	-0.03	-0.13	ACCURACY ERROR (dB)
4000 MHz	INTERCEPT (mV)	4627.1	161	488	850	1198	1542	1875	2230	2570	2925	3231	3593	3939	4284	4628	Measured Value (mV)
	SLOPE (mV/dB)	68.716	0	-16	2	7	7	-3	8	4	16	-22	-3	-1	0	1	Error (mV)
			0.01	-0.24	0.03	0.10	0.10	-0.05	0.12	0.06	0.23	-0.32	-0.05	-0.01	0.01	0.01	LINEARITY ERROR (dB)
			-0.27	-0.55	-0.32	-0.29	-0.32	-0.51	-0.38	-0.46	-0.33	-0.91	-0.68	-0.68	-0.69	-0.72	ACCURACY ERROR (dB)
5000 MHz	INTERCEPT (mV)	4673.3	167	504	864	1210	1553	1887	2256	2617	2978	3282	3635	3986	4321	4648	Measured Value (mV)
	SLOPE (mV/dB)	69.271	-4	-13	1	0	-3	-15	7	22	36	-6	1	5	-6	-25	Error (mV)
			-0.05	-0.19	0.01	0.00	-0.04	-0.22	0.10	0.32	0.53	-0.09	0.01	0.08	-0.09	-0.37	LINEARITY ERROR (dB)
			-0.19	-0.32	-0.12	-0.12	-0.16	-0.33	0.00	0.22	0.43	-0.17	-0.07	0.00	-0.16	-0.43	ACCURACY ERROR (dB)
6000 MHz	INTERCEPT (mV)	4707.8	147	463	833	1177	1515	1856	2231	2623	2994	3298	3646	4005	4348	4694	Measured Value (mV)
	SLOPE (mV/dB)	70.505	22	-15	3	-6	-20	-32	-9	30	49	0	-4	2	-7	-14	Error (mV)
			0.31	-0.21	0.04	-0.08	-0.29	-0.45	-0.13	0.43	0.69	0.00	-0.06	0.03	-0.10	-0.20	LINEARITY ERROR (dB)
			-0.48	-0.91	-0.56	-0.59	-0.71	-0.78	-0.36	0.30	0.66	0.06	0.09	0.27	0.23	0.23	ACCURACY ERROR (dB)
	Flatness	+/- dB	0.47	0.85	0.66	0.66	0.78	0.64	0.51	0.43	0.50	0.55	0.61	0.64	0.48	0.48	

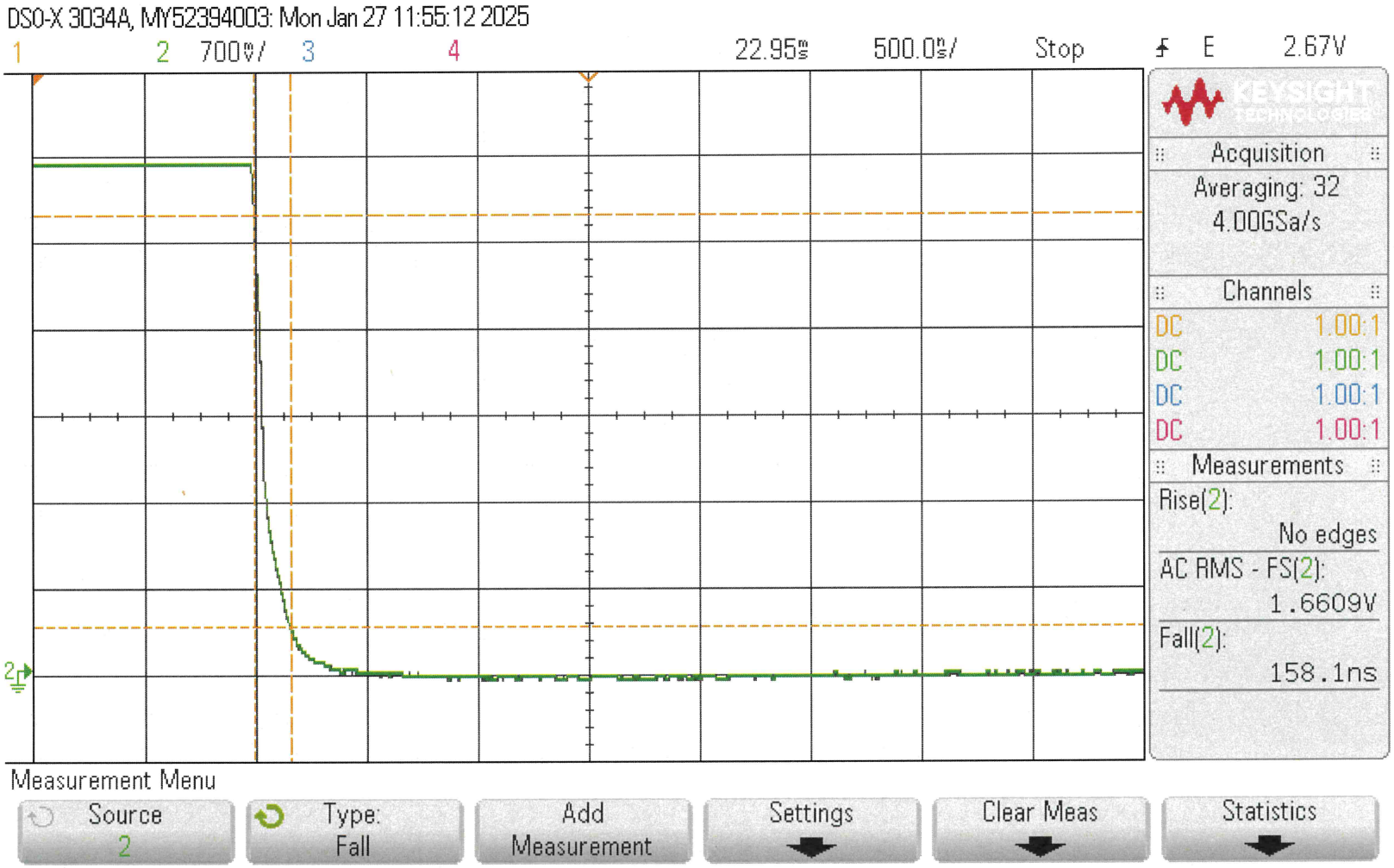




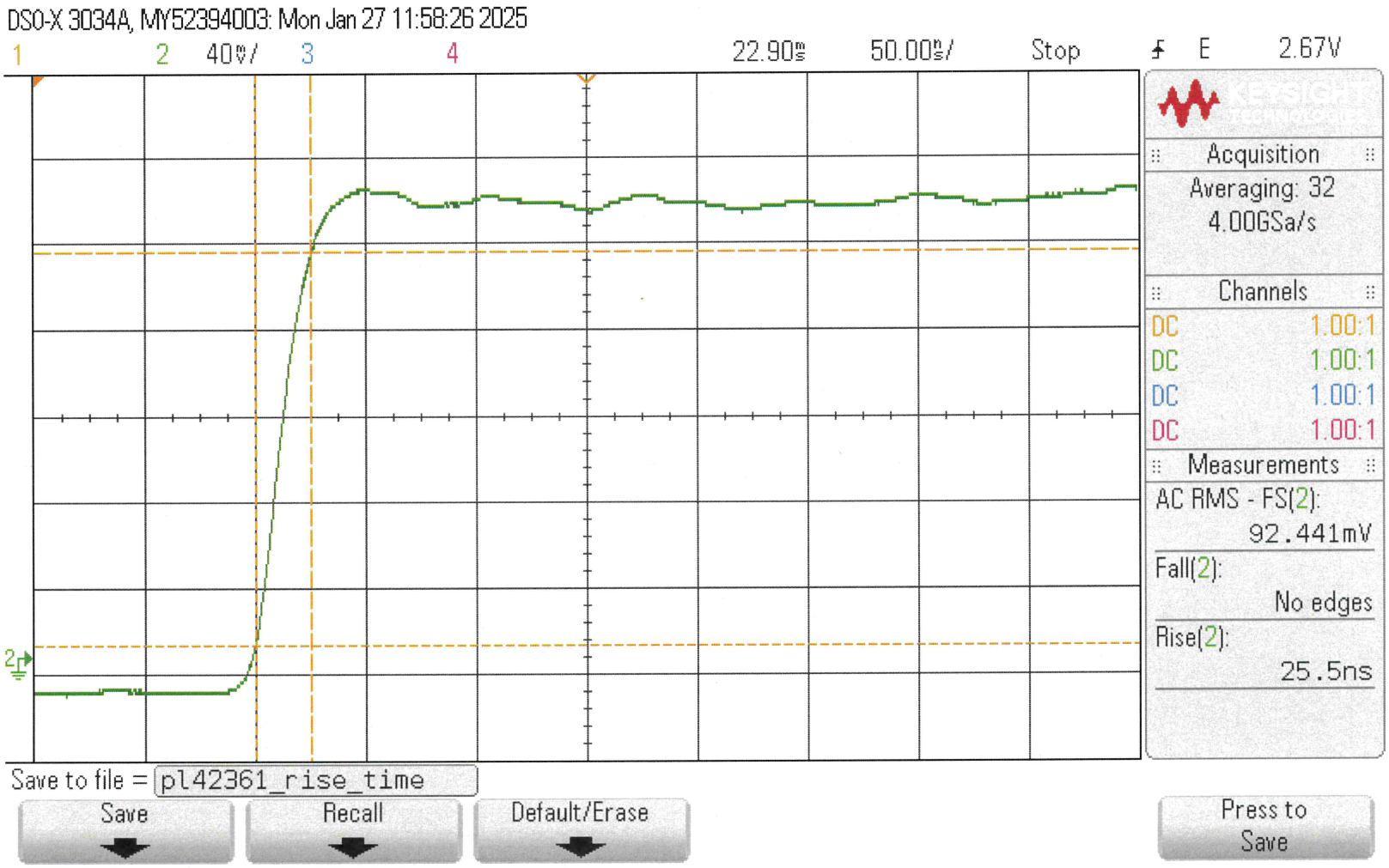
PL42361
Settle



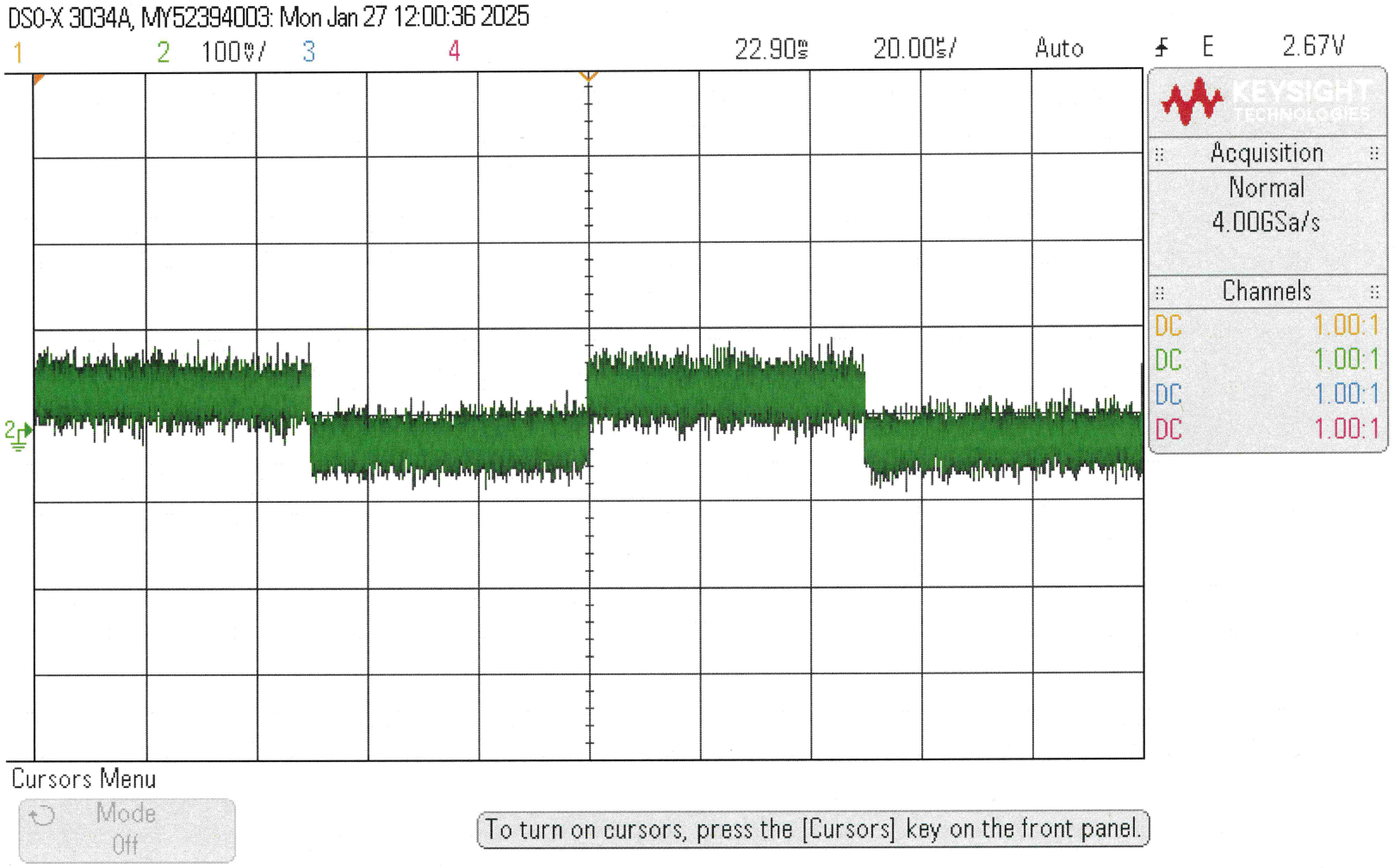
PL42361
Recovery / Fall



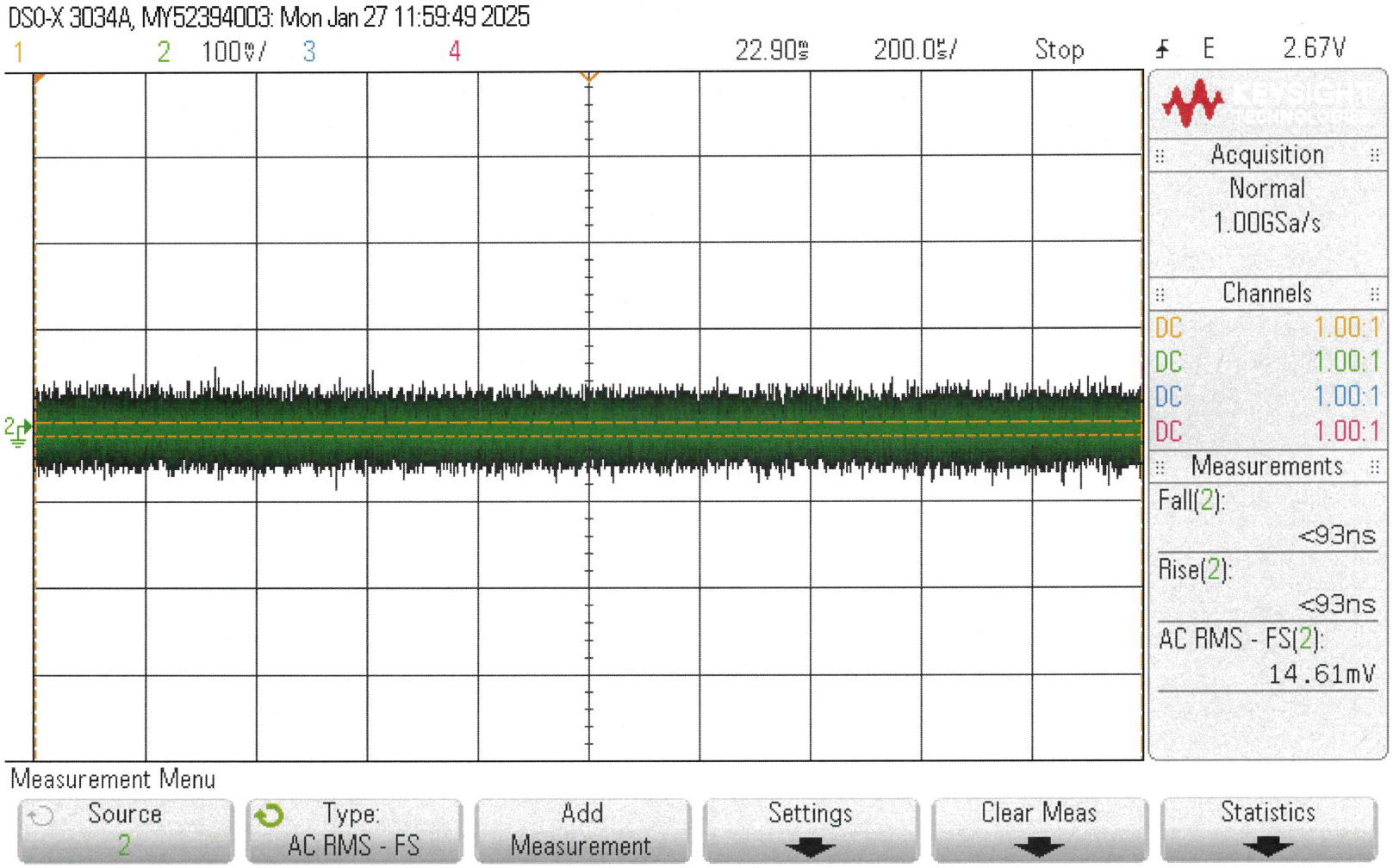
PL42361
Rise Time



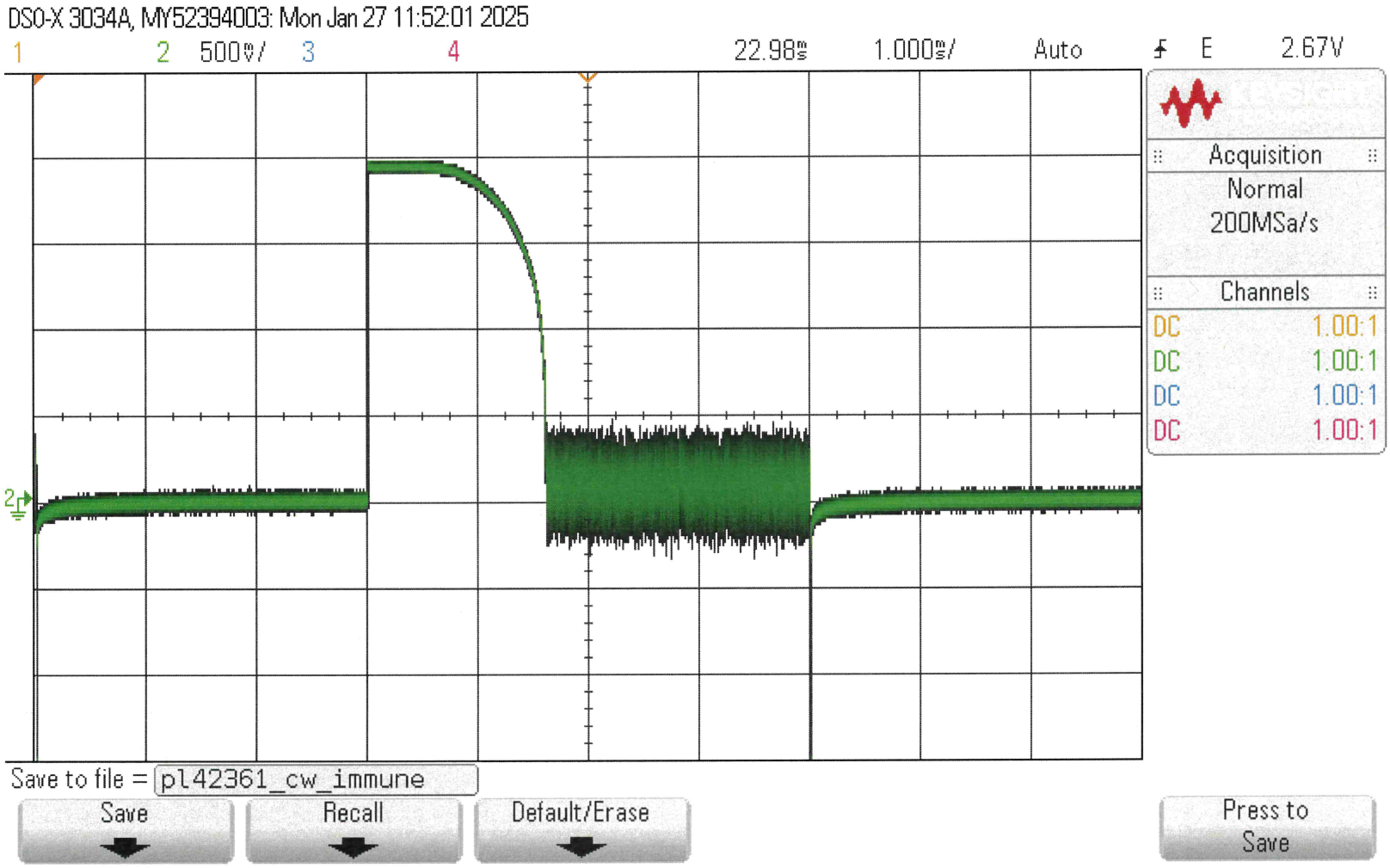
PL42361
TSS -71



PL42361
Rms noise



PL42361
cw Immune



PL42361
CW Recovery