



Summary Data
For
ERDLVA-2G18G-65-70MV-85C

Customer: _____

Tested By: Joshua Monley

SO No: _____

Temperature: -10°C TO +85°C

Model No: ERDLVA-2G18G-65-70MV-85C

Date 6/26/2023

Serial No: PL40536/2326

Drawing No: 27642020

Rev: B1

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	2 to 18 GHz	2 to 18 GHz	PMI QA3
2	VSWR:	2.2:1 MAX @ 50 Ω	2.06:1 MAX	
3	Input Power:	(1) 1 W CW, Max. (2) 100 W Peak @ PW = 1 μ s & Duty Cycle = 1%, Max.	Pass	
4	VIDEO OUT TSS:	-71 dBm MAX	-71 dBm	
5	VIDEO OUT Dynamic Range:	-65 to 0 dBm	-65 to 0 dBm	
6	VIDEO OUT Log Slope Fixed:	70 $\pm$ 3mV/dB	72.46 mV/dB	
7	VIDEO OUT Log Linearity:	$\pm$ 1.0 dB MAX @25C	$\pm$ 0.84 dB MAX @25C	
8	VIDEO OUT Log Accuracy:	$\pm$ 2.3 dB MAX @25C	$\pm$ 1.25 dB MAX @25C	
9	VIDEO OUT Absolute Log Accuracy:	$\pm$ 2.6 dB MAX Over Freq & temp	$\pm$ 1.36 dB MAX Over Freq & temp	
10	VIDEO OUT DC Offset:	0 $\pm$ 70 mV (RF Input Terminated & DC Power On) @25C	62 mV	
11	VIDEO OUT Rise Time (10% to 90%):	28 ns MAX	26.5 ns	
12	VIDEO OUT Fall Time (90% to 10%):	300 ns MAX	117 ns	
13	VIDEO OUT Settling Time:	50 ns With in $\pm$ 70 mV of final value @-10 dBm	< 50ns	

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14	VIDEO OUT Recovery Time:	1 us MAX to within 1 dB of baseline for PW <10us & Power = -10dBm	< 1us	PMI QA3
15	VIDEO OUT Video Frequency Flatness:	±2.0 dB MAX @25C	±0.99 dB MAX @25C	
16	VIDEO OUT CW Immunity:	CW Immune Power TSS to -40 dBm	Pass	
		Pulse Peak Amplitude Loss; 2 dB MAX @ -40dBm CW	< 2dB	
		Baseline shift 200mV @-40dBm CW	< 200mV	
		CW Immunity Time at CW = -40 dBm, ≤ 4 ms	< 4ms	
		CW Recovery Time at CW = -40 dBm, ≤ 20 us	< 20 us	
17	Pulse droop	1dB Max for 300us pulse at or above -65dBm	< 1dB	
18	VIDEO OUT Pulse Response, input Signal:	100 ns to 300 us	100 ns to 300 us	
19	VIDEO LOAD Impedance:	75 ±1 Ω	75Ω	
20	VIDEO driver capability	100 ft RG11 into 75 ohm load	Pass	
21	Pulse density capability	10% duty cycle 100 ns, 70% duty cycle 300 us at peak power -10 dBm with 1 dB variable for pulse amplitude and baseline	Pass	
22	VIDEO OUT Noise Level (Vp-p):	160 mV max	132 mV	



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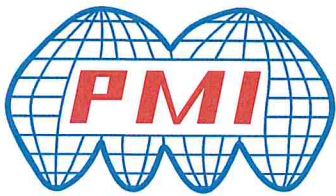
23	VIDEO OUT Propagation Delay:	50 ns MAX from RF 50% to 10% video (excluding cable)	< 50 ns	PMI QA3
24	Power Supply	+15 V @ 500 mA MAX -15 V @ 100 mA MAX	+15 V @ 310 mA -15 V @ 80 mA	/
25	Power Supply Ripple From DC to 10 MHz	100 mV MAX	Pass	

QA/QC Approval: _____

H. [Signature]

Date: _____

6-26-23



Summary Data For ERDLVA-2G18G-65-70MV-85C

LOG TRANSFER WITH FREQUENCY

TESTED BY: Joshua Monley
MODEL: ERDLVA-2G18G-65-70MV-85C
SERIAL NO: PL40536
DATE: 6/26/2023

Test Temp: +25°C



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

2000 MHz	INTERCEPT (mV)	4980
	SLOPE (mV/dB)	71.18

6000 MHz	INTERCEPT (mV)	5000
	SLOPE (mV/dB)	70.82

10000 MHz	INTERCEPT (mV)	5040
	SLOPE (mV/dB)	72.46

14000 MHz	INTERCEPT (mV)	4967
	SLOPE (mV/dB)	70.88

18000 MHz	INTERCEPT (mV)	4909
	SLOPE (mV/dB)	68.35

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
319	682	1047	1440	1822	2148	2487	2858	3200	3580	3940	4280	4610	4920
-34	-27	-18	19	45	15	-2	13	0	24	28	12	-14	-60
-0.48	-0.38	-0.25	0.27	0.63	0.21	-0.02	0.19	-0.01	0.33	0.39	0.17	-0.20	-0.84
-0.86	-0.75	-0.61	-0.07	0.31	-0.10	-0.32	-0.10	-0.28	0.07	0.14	-0.07	-0.42	-1.06
350	738	1097	1483	1856	2187	2522	2886	3230	3590	3940	4280	4640	4980
-47	-13	-8	24	42	20	1	11	0	6	2	-12	-6	-20
-0.66	-0.18	-0.11	0.34	0.59	0.28	0.01	0.15	0.01	0.09	0.03	-0.17	-0.09	-0.29
-0.42	0.04	0.10	0.54	0.77	0.45	0.17	0.30	0.14	0.21	0.14	-0.07	0.00	-0.21
303	675	1036	1418	1790	2151	2530	2911	3250	3610	3960	4300	4660	5000
-27	-18	-19	1	10	9	25	45	21	19	7	-18	-18	-20
-0.38	-0.24	-0.26	0.01	0.14	0.13	0.36	0.62	0.29	0.26	0.09	-0.22	-0.25	-0.55
-1.08	-0.85	-0.76	-0.38	-0.14	-0.06	0.28	0.65	0.42	0.49	0.42	0.21	0.28	0.07
316	673	1049	1422	1795	2143	2494	2861	3200	3550	3900	4230	4580	4930
-34	-31	-9	9	28	22	18	31	15	11	7	-18	-22	-27
-0.47	-0.44	-0.13	0.13	0.39	0.30	0.26	0.43	0.22	0.16	0.09	-0.26	-0.31	-0.38
-0.90	-0.87	-0.58	-0.32	-0.07	-0.17	-0.23	-0.06	-0.28	-0.35	-0.42	-0.77	-0.85	-0.92
409	805	1177	1516	1889	2214	2502	2836	3170	3520	3860	4210	4580	4940
-57	-3	27	24	66	39	-15	-23	-30	-22	-24	-16	13	31
-0.84	-0.05	0.40	0.36	0.81	0.57	-0.22	-0.33	-0.44	-0.32	-0.35	-0.23	0.19	0.45
0.41	0.99	1.23	1.00	1.25	0.83	-0.11	-0.41	-0.70	-0.77	-0.99	-1.06	-0.85	-0.77

RF Input Power (dBm)
Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

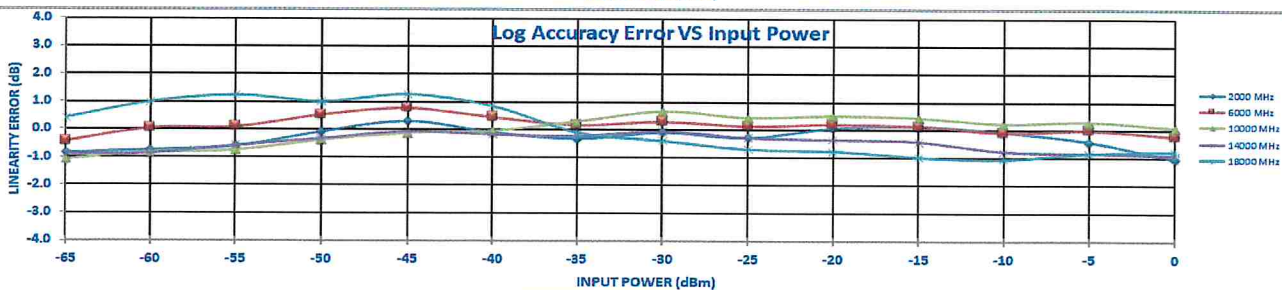
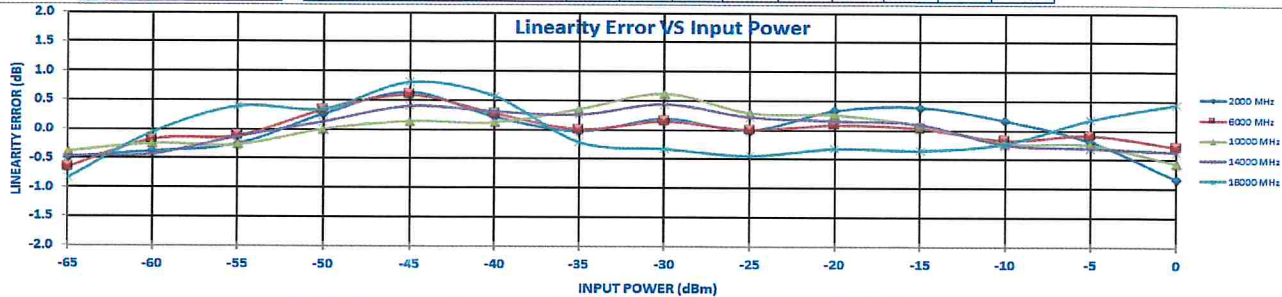
Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

Flatness +/- dB

0.75	0.93	0.99	0.69	0.70	0.50	0.30	0.53	0.56	0.63	0.70	0.63	0.56	0.56
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Summary Data For ERDLVA-2G18G-65-70MV-85C

LOG TRANSFER WITH FREQUENCY

TESTED BY: Joshua Monley
MODEL: ERDLVA-2G18G-65-70MV-85C
SERIAL NO: PL40536
DATE: 6/26/2023

Test Temp: -10°C



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4921 Robert J. Mathews Parkway STE 1
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Frequency

2000 MHz	INTERCEPT (mV)	4942
	SLOPE (mV/dB)	71.16

6000 MHz	INTERCEPT (mV)	4969
	SLOPE (mV/dB)	70.68

10000 MHz	INTERCEPT (mV)	5007
	SLOPE (mV/dB)	72.29

14000 MHz	INTERCEPT (mV)	4933
	SLOPE (mV/dB)	70.57

18000 MHz	INTERCEPT (mV)	4908
	SLOPE (mV/dB)	68.21

-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
284	651	1008	1396	1786	2115	2458	2818	3150	3530	3900	4240	4580	4890
-32	-21	-20	12	48	20	7	11	-13	11	26	10	-5	-52
-0.45	-0.30	-0.28	0.17	0.65	0.28	0.10	0.16	-0.18	0.16	0.36	0.14	-0.08	-0.73
-1.35	-1.17	-1.12	-0.63	-0.11	-0.46	-0.61	-0.62	-0.82	-0.45	-0.21	-0.40	-0.59	-1.21
328	717	1072	1452	1837	2162	2502	2868	3200	3560	3910	4250	4610	4950
-47	-11	-10	17	49	20	7	9	-2	4	1	-12	-5	-19
-0.66	-0.16	-0.14	0.24	0.69	0.28	0.09	0.13	-0.03	0.06	0.02	-0.17	-0.08	-0.27
-0.74	-0.23	-0.21	0.16	0.61	0.21	0.01	0.05	-0.11	-0.02	-0.07	-0.26	-0.17	-0.36
295	648	1002	1384	1767	2132	2510	2879	3220	3570	3930	4270	4630	4970
-13	-22	-25	-9	13	17	35	41	20	5	7	-14	-15	-37
-0.18	-0.30	-0.40	-0.12	0.18	0.23	0.46	0.56	0.28	0.12	0.10	-0.20	-0.22	-0.51
-1.20	-1.21	-1.20	-0.80	-0.38	-0.22	0.13	0.35	0.17	0.12	0.21	0.02	0.11	-0.08
317	674	1036	1403	1787	2137	2490	2844	3180	3530	3880	4210	4570	4900
-29	-25	-16	-2	29	26	27	28	11	8	5	-18	-10	-33
-0.42	-0.36	-0.23	-0.03	0.41	0.37	0.38	0.39	0.16	0.11	0.07	-0.26	-0.15	-0.47
-0.89	-0.84	-0.72	-0.53	-0.10	-0.15	-0.16	-0.15	-0.40	-0.45	-0.50	-0.83	-0.74	-1.07
429	810	1183	1523	1890	2218	2505	2832	3170	3510	3870	4210	4590	4940
-46	-6	26	25	51	38	-16	-30	-33	-34	-15	-16	23	32
-0.67	-0.08	0.39	0.37	0.75	0.56	-0.23	-0.44	-0.48	-0.50	-0.22	-0.24	0.33	0.47
0.69	1.08	1.36	1.17	1.36	1.00	0.06	-0.32	-0.54	-0.73	-0.64	-0.83	-0.45	-0.50

RF Input Power (dBm)
Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

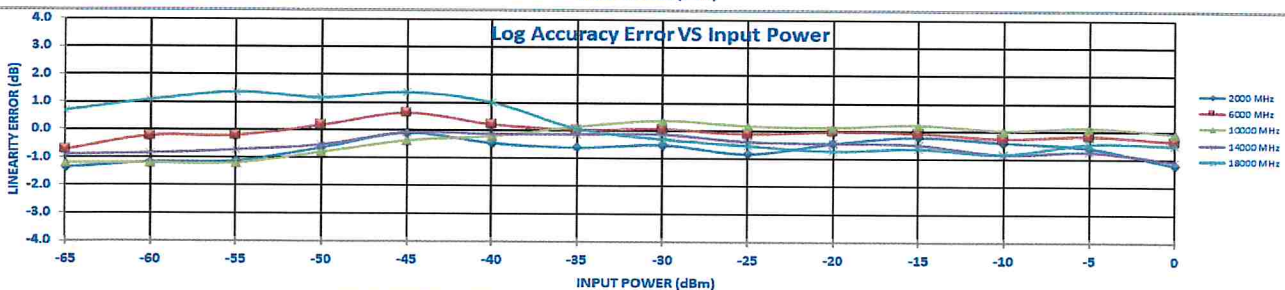
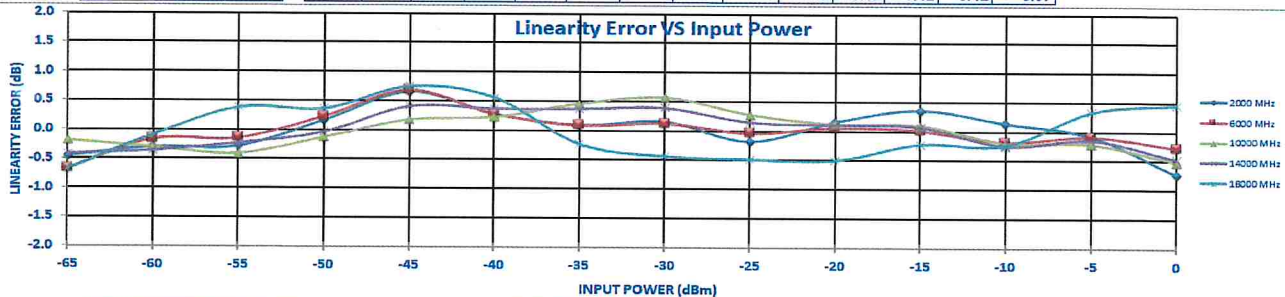
Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)
ACCURACY ERROR (dB)

Flatness +/- dB

1.02	1.15	1.28	0.98	0.87	0.73	0.37	0.43	0.50	0.42	0.42	0.42	0.42	0.57
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Summary Data For ERDLVA-2G18G-65-70MV-85C

LOG TRANSFER WITH FREQUENCY

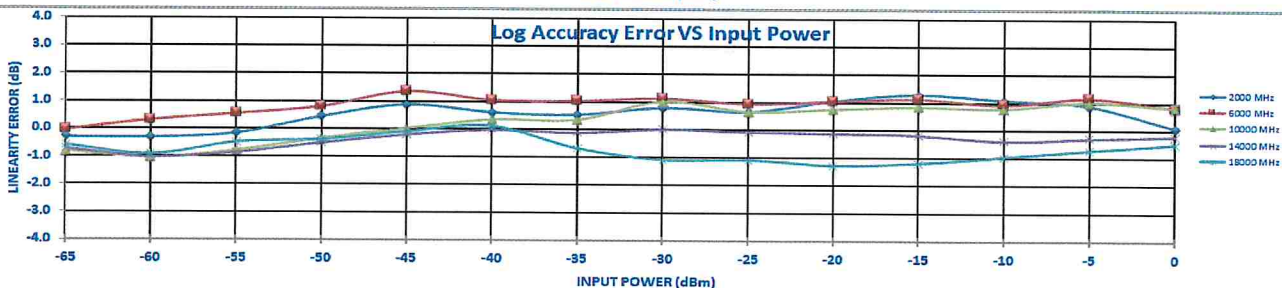
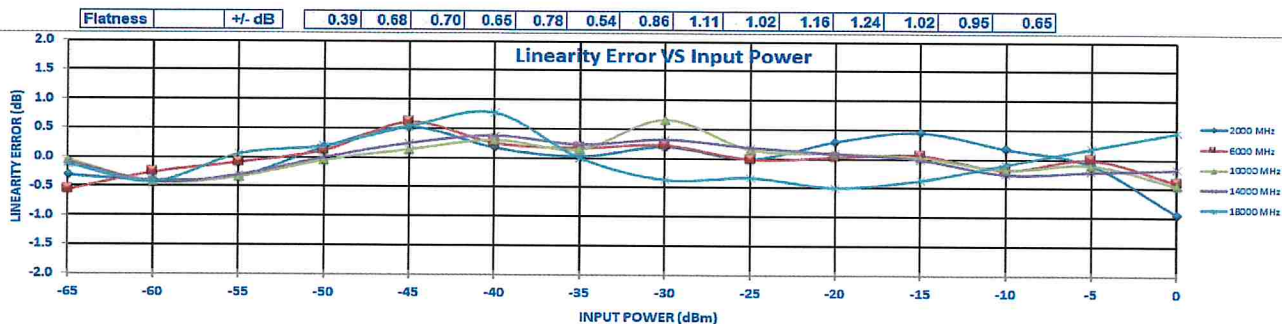
TESTED BY: Joshua Monley
MODEL: ERDLVA-2G18G-65-70MV-85C
SERIAL NO: PL40536
DATE: 6/26/2023

Test Temp: +85°C



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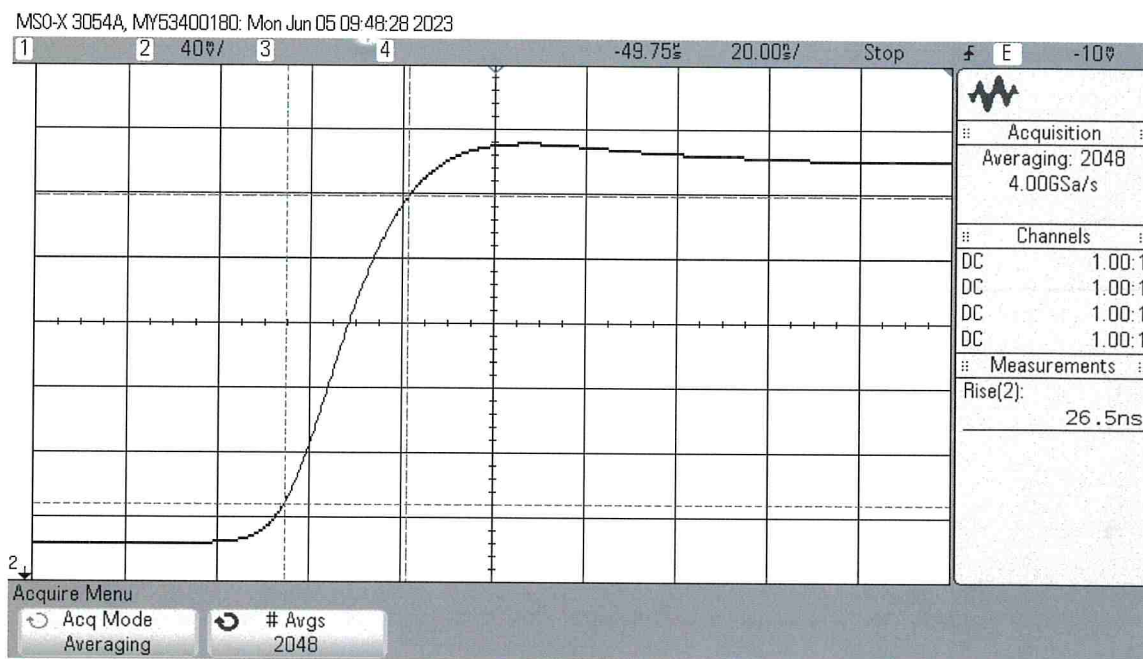
Frequency		-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2000 MHz	INTERCEPT (mV)	4936														
	SLOPE (mV/dB)	69.84														
	Measured Value (mV)	375	718	1072	1457	1830	2155	2494	2855	3190	3560	3920	4250	4580	4870	
	Linearity Error (dB)	-0.31	-0.40	-0.33	0.19	0.53	0.18	0.04	0.20	0.00	0.30	0.45	0.18	-0.09	-0.94	
6000 MHz	INTERCEPT (mV)	4948														
	SLOPE (mV/dB)	69.49														
	Measured Value (mV)	392	760	1120	1482	1863	2186	2528	2879	3210	3560	3910	4240	4600	4920	
	Linearity Error (dB)	-0.56	-0.26	-0.08	0.13	0.61	0.26	0.18	0.23	-0.01	0.03	0.07	-0.18	0.00	-0.40	
10000 MHz	INTERCEPT (mV)	4952														
	SLOPE (mV/dB)	70.91														
	Measured Value (mV)	339	667	1028	1403	1771	2137	2481	2871	3190	3540	3890	4230	4590	4920	
	Linearity Error (dB)	-0.05	-0.42	-0.33	-0.04	0.15	0.31	0.16	0.66	0.16	0.09	0.03	-0.18	-0.10	-0.45	
14000 MHz	INTERCEPT (mV)	4862														
	SLOPE (mV/dB)	69.4														
	Measured Value (mV)	345	669	1024	1392	1756	2112	2449	2802	3140	3480	3820	4150	4500	4850	
	Linearity Error (dB)	-0.08	-0.41	-0.30	0.00	0.25	0.38	0.23	0.32	0.19	0.09	-0.01	-0.26	-0.22	-0.17	
18000 MHz	INTERCEPT (mV)	4799														
	SLOPE (mV/dB)	68.25														
	Measured Value (mV)	354	675	1049	1400	1764	2121	2410	2726	3070	3400	3750	4110	4470	4830	
	Linearity Error (dB)	-0.12	-0.42	0.06	0.20	0.54	0.77	0.00	-0.37	-0.33	-0.50	-0.37	-0.09	0.18	0.46	
Flatness																
+/- dB		0.39	0.68	0.70	0.65	0.78	0.54	0.86	1.11	1.02	1.16	1.24	1.02	0.95	0.65	



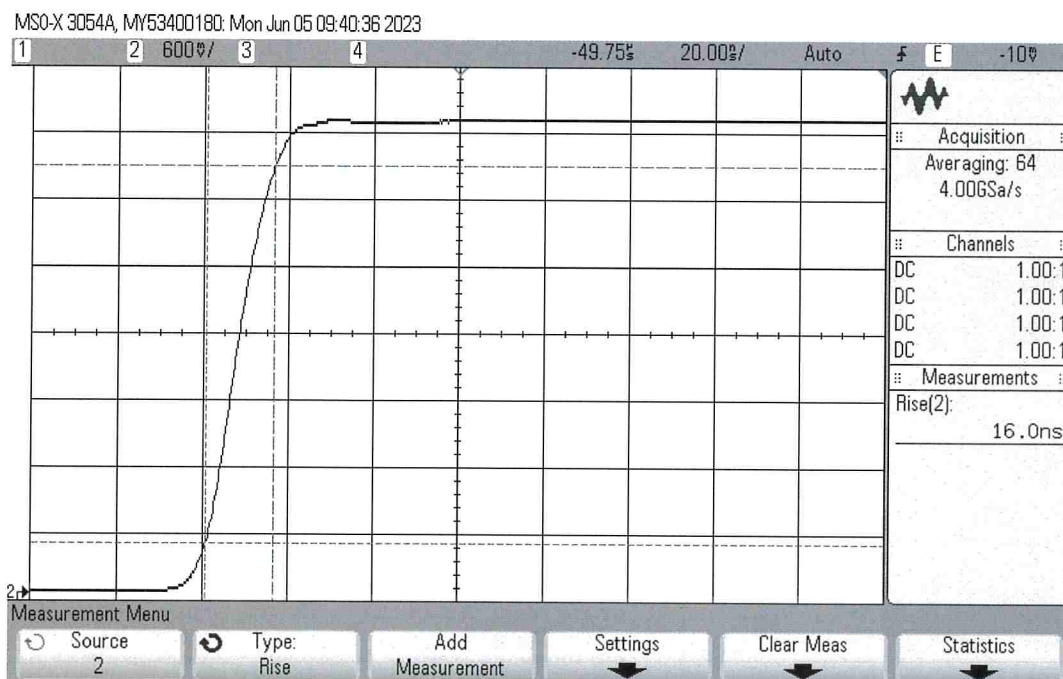


Summary Data
For
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Rise Time



Settling Time





Summary Data
For
ERDLVA-2G18G-65-70MV-85C

Fall & Recovery Time

