



Summary Data
For
ERDLVA-18G40G-65-50-1

Customer: _____ Tested By: **E.BENSON**
 SO No: _____ Temperature: **+25°C**
 Model No: **ERDLVA-18G40G-65-50-1** Date: **04/30/24**
 Serial No: **PL45885/2417** Drawing No: **27643800** Rev: **A1**

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	18 GHz to 40 GHz	18 GHz to 40 GHz	
2	Frequency Flatness:	±1.75 dB Typ. ±2.0 dB Max. @ -20dBm	±1.10 dB	
3	Output Noise Level:	150 mV P-P (Includes offset)	145 mV P-P	
4	Dynamic Range:	68 dB Min.	>68 dB	
5	TSS:	-68 dBm @ +85°C	-68 dBm	
6	Log Dynamic Range:	-65 dBm to 0 dBm	-65 dBm to +0 dBm	
7	Log Slope:	50 mV/dB ±4.0 mV/dB	48 mV/dB	
8	Log Linearity:	±1.5 dB Max.	See attached Graphs	
9	Log Accuracy:	±1.5 dB Max. ±2.0 dB With Temp	±1.05 dB	
10	Output Stability VS Temp:	±1.0 dB	±X.X dB	
11	Settling Time:	10% to 1 dB, 40 ns Max.	39 ns	
12	Recovery Time (1 dB Below Peak to 1 dB)	350 ns Max. (0 dBm is PW= 100 us)	>350ns	
13	VSWR:	2.5:1 Max.	2.36:1	
14	Max Input Level:	+20 dBm CW	20 dBm CW	
15	Propagation Delay:	50% RF to 10% Video	NA ns	
16	DC Offset:	±50 mV Max.	± 49.5 mV	



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17	Pulse Width Range:	50 ns to 250 us	50 ns to 250 us	PMI QA3
18	Rise Time:	10 ns Typ., 25 ns Max. (10% to 90%)	11.3 ns	
19	CW Immunity Time:	5ms @ -40dBm	2.5 ms @ -40 dBm	
20	CW Immunity:	TSS to -40 dBm, (-30 dBm Goal)	-40 dBm	
21	CW Immunity Recovery Time:	150 us Max.	125 us	
22	Baseline Shift With CW:	1 dB Max. to -40 dBm	0.8 dBm	
23	Pulse Droop:	PW= 100 us, PRI= 1 ms, Pin= -60 dBm 2.5 dB Max.	1.8 dB	
24	Output Matching Unit to Unit:	1.2 dB P-P Max. @ -20 dBm 2.4 dB P-P Max. @ 0 dBm	0.0 dB @ -20 dBm 0.0 dB @ 0 dBm	
25	Power Supply	+9 to +12 V @ 330 mA Max. -11.5 V to -15V @ 120 mA Max.	+10.5 V @ 264 mA -12.0 V @ 74 mA	

QA/QC Approval: *K. [Signature]*

Date: 4-30-24



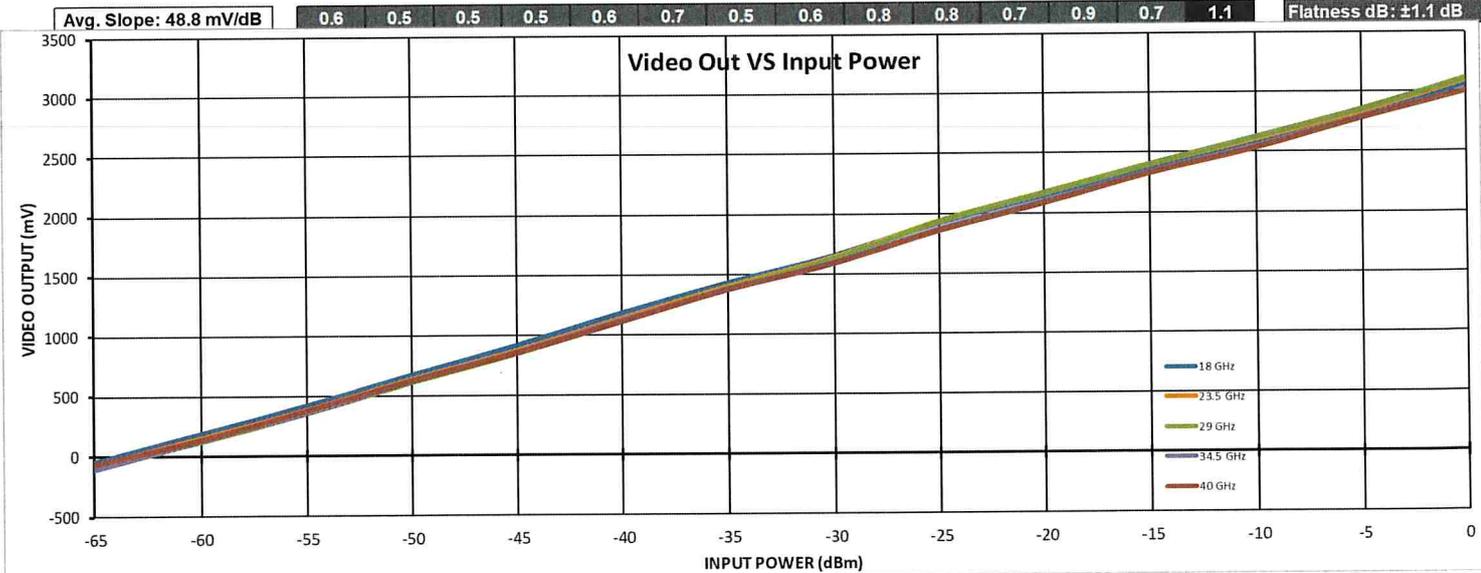
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TRANSFER RESPONSE TABULATED DATA & GRAPH

MODEL: ERDLVA-18G40G-65-50-1
SERIAL NO: PL45885
DATE: 04-30-2024
TESTED BY: E.Benson
TEST TEMP: +25°C



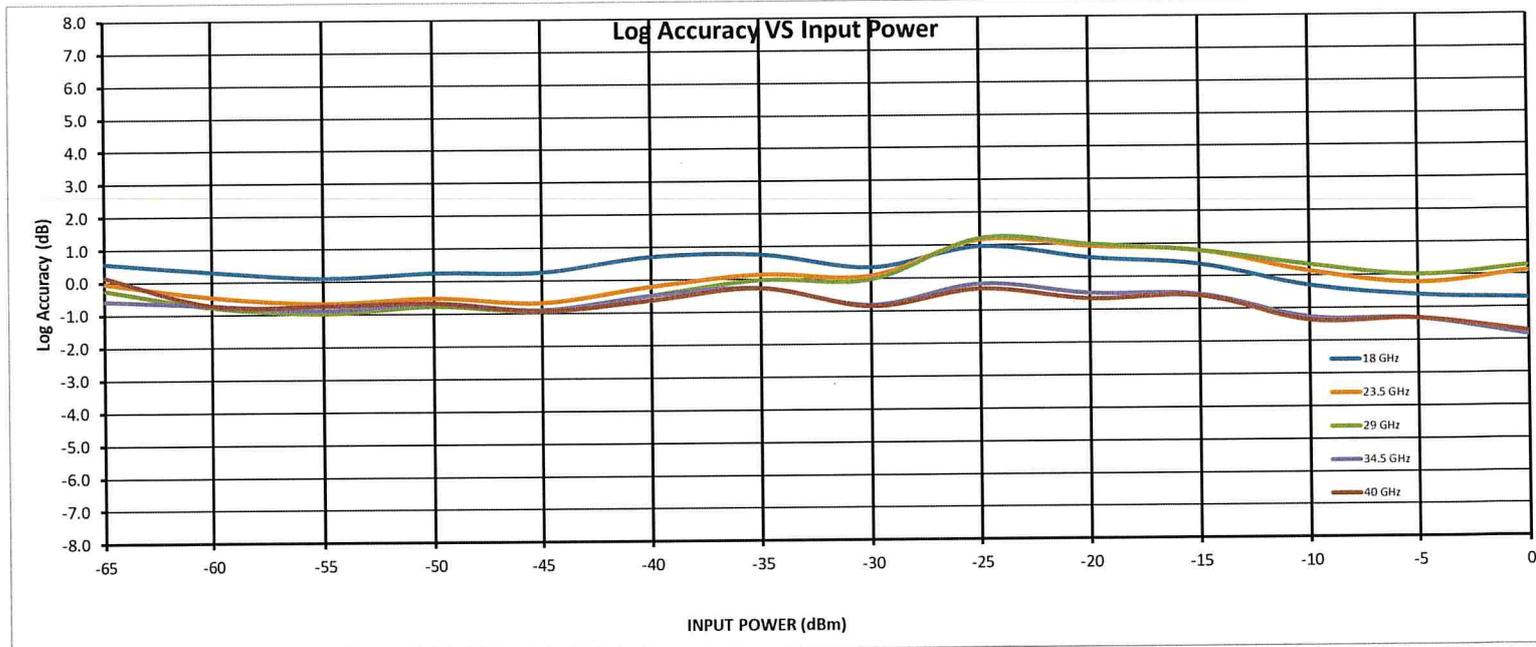
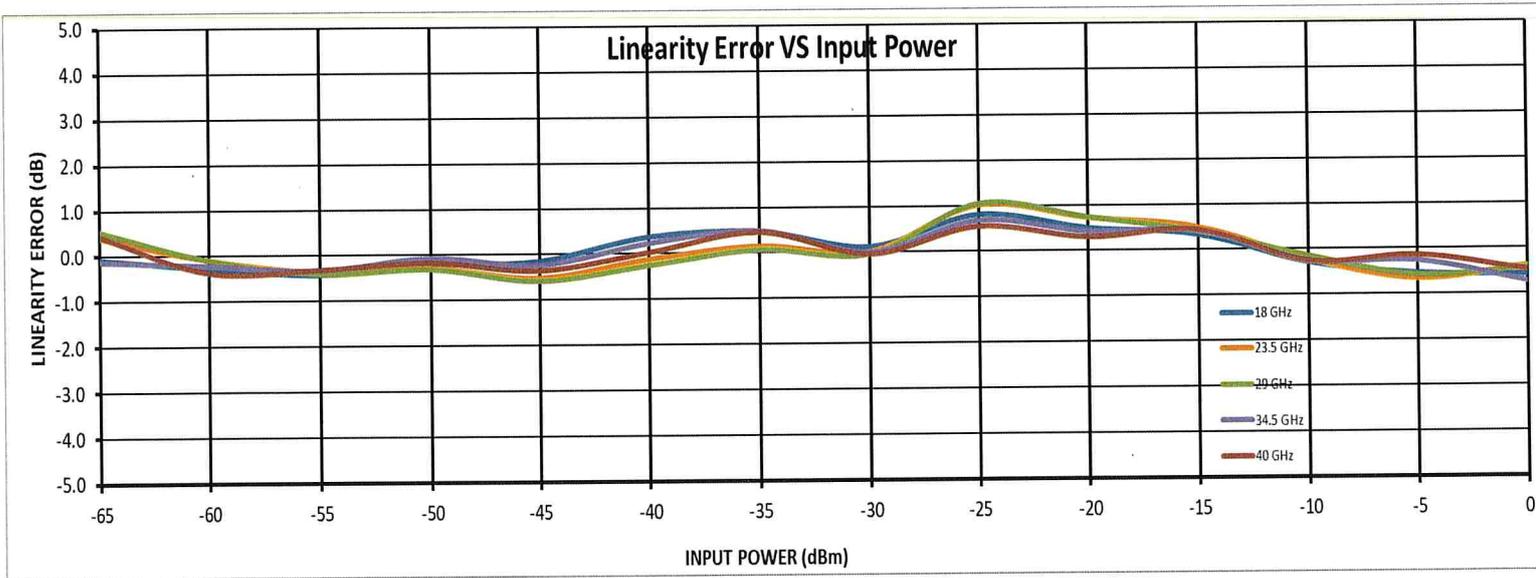
Frequency		-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
18 GHz	INTERCEPT (mV)	3086														Measured Value (mV)
	SLOPE (mV/dB)	48.2														Error (mV)
	LIN. ERR. (dB)	0.8														LINEARITY ERROR (dB)
		-50	181	415	666	910	1176	1422	1646	1920	2146	2379	2590	2819	3058	
		-4	-14	-21	-11	-6	18	23	6	36	24	16	-14	-28	-28	
		-0.08	-0.28	-0.43	-0.22	-0.16	0.36	0.47	0.12	0.80	0.49	0.33	-0.29	-0.54	-0.58	
23.5 GHz	INTERCEPT (mV)	3117														Measured Value (mV)
	SLOPE (mV/dB)	49.5														Error (mV)
	LIN. ERR. (dB)	1.01														LINEARITY ERROR (dB)
		-80	143	377	628	864	1131	1392	1633	1930	2163	2399	2611	2837	3098	
		19	-5	-19	-15	-26	-7	7	0	50	35	24	-11	-33	-19	
		0.39	-0.10	-0.37	-0.30	-0.53	-0.14	0.14	0.01	1.01	0.72	0.48	-0.23	-0.66	-0.39	
29 GHz	INTERCEPT (mV)	3127														Measured Value (mV)
	SLOPE (mV/dB)	49.9														Error (mV)
	LIN. ERR. (dB)	1.05														LINEARITY ERROR (dB)
		-90	128	362	616	852	1118	1384	1628	1932	2166	2399	2621	2849	3106	
		27	-5	-20	-16	-29	-13	4	-2	53	37	20	-7	-29	-21	
		0.54	-0.09	-0.40	-0.31	-0.58	-0.26	0.07	-0.04	1.05	0.74	0.41	-0.14	-0.57	-0.42	
34.5 GHz	INTERCEPT (mV)	3038														Measured Value (mV)
	SLOPE (mV/dB)	48.3														Error (mV)
	LIN. ERR. (dB)	0.73														LINEARITY ERROR (dB)
		-106	131	367	621	854	1118	1372	1590	1864	2093	2334	2543	2784	3003	
		-6	-11	-16	-3	-12	11	24	0	33	20	20	-12	-13	-35	
		-0.13	-0.22	-0.33	-0.07	-0.24	0.23	0.49	0.00	0.68	0.42	0.42	-0.26	-0.26	-0.73	
40 GHz	INTERCEPT (mV)	3031														Measured Value (mV)
	SLOPE (mV/dB)	48														Error (mV)
	LIN. ERR. (dB)	0.55														LINEARITY ERROR (dB)
		-70	131	374	621	852	1111	1372	1588	1857	2085	2332	2538	2784	3008	
		21	-18	-16	-9	-18	1	22	-2	27	14	21	-13	-7	-23	
		0.43	-0.38	-0.32	-0.18	-0.37	0.02	0.46	-0.05	0.55	0.30	0.44	-0.27	-0.15	-0.48	





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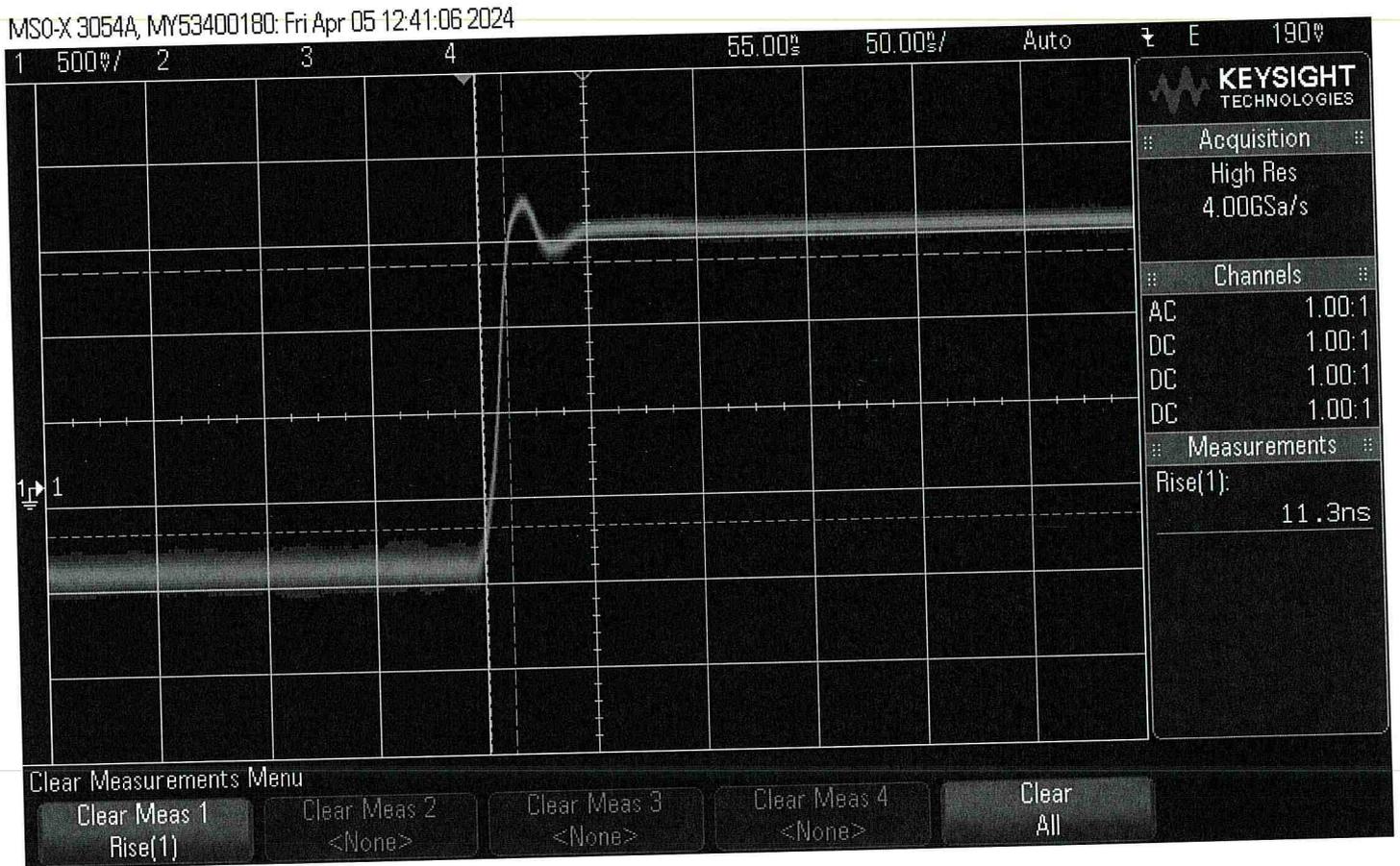
LOG LINEARITY & LOGGING ACCURACY GRAPHS





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RISE TIME PHOTO 11.3nS





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TSS PHOTO -68dBm

MSO-X 3054A, MY53400180: Fri Apr 05 12:37:25 2024

