



**Summary Data
For
ERDLVA-218-CW-75MV-93**

Customer: _____
 SO No: _____
 Model No: ERDLVA-218-CW-75MV-93
 Serial No: PL38407/2249

Tested By: JOHNM
 Temperature: -25C, 25C, 85C
 Date 12/7/2022
 Drawing No: 27642440 Rev: A1

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:	2.5:1 MAX @ -20 dBm	1.19:1 MAX	
3	Input Power:	23 dBm Max.	Pass	
4	VIDEO OUT TSS:	-42 dBm MAX	-43dBm	
5	VIDEO OUT Dynamic Range:	-40 to +20 dBm	-40 to +20 dBm	
6	VIDEO OUT Log Slope Fixed:	75 ± 10mV/dB	75.1-80.3mV/dB	
7	VIDEO OUT Log Linearity:	±1.0 dB MAX @25C ±1.5 dB MAX @ Over Temperature	See attached Graphs	
8	VIDEO OUT DC Offset:	0 to 125 mV @25C	93mV	
9	VIDEO OUT Rise Time (10% to 90%):	25 ns MAX	22.8ns	
10	VIDEO OUT Settling Time:	±0.5dB within 25ns from 90%	<0.5dB	
11	VIDEO OUT Recovery Time:	500ns MAX	320ns	
12	VIDEO OUT Video Frequency Flatness:	3.0 dB p-p MAX @ -20dBm	2.2dB p-p MAX @ -20dBm	



**Summary Data
For
ERDLVA-218-CW-75MV-93**

13	VIDEO OUT CW Immunity:	CW Immune Power -50 to -10 dBm	Pass	PMI QAS
		CW Attack Time 1500us	1440us	
		CW Release Time 250us	30us	
17	Pulse droop	1dB Max for 250us pulses	<1dB	
18	VIDEO OUT Pulse Response, input Signal:	100 ns to 300 us	100 ns to 300 us	
19	VIDEO LOAD Impedance:	93 ±1 Ω	93Ω	
21	VIDEO OUT Noise Level (RMS):	102 mV max	24.56mV	
22	VIDEO OUT Propagation Delay:	35 ns MAX from RF 10% to 10% video (excluding cable)	20ns	
23	Power Supply	+12 V @ 250 mA MAX -12 V @ 250 mA MAX	+12 V @ 210 mA -12 V @ 60 mA	

QA/QC Approval: *K. Motter* Date: 12-8-22
OJ 12-8-22



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LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV-93
 TESTED BY: J.Merriner
 DATE: 11-29-22
 SERIAL NO: PL38407
 Test Temp: +25C

Frequency

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

2 GHz	INTERCEPT (mV)	3454
	SLOPE (mV/dB)	78.1

316	696	1081	1498	1912	2299	2710	3124	3486	3840	4230	4580	4986
-16	-26	-31	-5	19	16	36	60	32	-5	-5	-45	-30
-0.20	-0.34	-0.40	-0.06	0.24	0.20	0.47	0.77	0.41	-0.06	-0.06	-0.58	-0.38

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

4.67 GHz	INTERCEPT (mV)	3424
	SLOPE (mV/dB)	77.4

319	704	1088	1504	1910	2275	2650	3042	3407	3785	4191	4610	4963
-10	-12	-14	15	34	12	0	5	-17	-25	-6	26	-8
-0.12	-0.15	-0.19	0.19	0.44	0.16	0.00	0.07	-0.21	-0.33	-0.08	0.33	-0.10

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

7.33 GHz	INTERCEPT (mV)	3434
	SLOPE (mV/dB)	77.4

329	718	1101	1515	1919	2283	2657	3050	3412	3790	4194	4621	4993
-9	-7	-11	16	33	10	-3	3	-22	-31	-14	25	10
-0.11	-0.09	-0.14	0.21	0.43	0.13	-0.04	0.04	-0.29	-0.41	-0.19	0.33	0.13

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

10 GHz	INTERCEPT (mV)	3411
	SLOPE (mV/dB)	78.9

275	628	1022	1439	1842	2223	2626	3055	3416	3800	4195	4608	4962
19	-22	-23	0	8	-5	4	38	5	-6	-5	14	-27
0.24	-0.29	-0.29	0.00	0.11	-0.06	0.05	0.48	0.06	-0.07	-0.06	0.17	-0.34

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

12.67 GHz	INTERCEPT (mV)	3431
	SLOPE (mV/dB)	77.1

323	709	1092	1522	1929	2295	2668	3071	3433	3807	4193	4596	4938
-23	-23	-26	19	40	21	8	26	2	-9	-9	9	-35
-0.30	-0.30	-0.33	0.25	0.52	0.27	0.11	0.33	0.03	-0.12	-0.11	0.11	-0.45

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

15.33 GHz	INTERCEPT (mV)	3416
	SLOPE (mV/dB)	77.0

317	701	1085	1513	1921	2286	2648	3041	3399	3780	4177	4590	4941
-19	-20	-21	22	45	25	2	10	-17	-21	-9	19	-15
-0.25	-0.26	-0.27	0.28	0.58	0.32	0.02	0.13	-0.22	-0.27	-0.12	0.25	-0.20

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

18 GHz	INTERCEPT (mV)	3430
	SLOPE (mV/dB)	76.9

329	723	1104	1530	1936	2298	2665	3067	3425	3794	4183	4597	4949
-27	-17	-20	21	43	21	3	21	-5	-20	-16	14	-18
-0.35	-0.22	-0.26	0.28	0.56	0.27	0.05	0.28	-0.07	-0.27	-0.21	0.18	-0.24

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

Slope Avg(mv/dB) **77.5**

0.6	1.2	1.0	1.2	1.2	1.0	1.0	1.0	1.0	1.2	0.8	0.6	0.6	0.8
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Flatness P-P



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LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV-93
 TESTED BY: J.Merriner
 DATE: 11-29-22
 SERIAL NO: PL38407
 Test Temp: -25C

Frequency

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

2 GHz	INTERCEPT (mV)	3521
	SLOPE (mV/DB)	81.4

283	657	1048	1468	1889	2297	2735	3170	3538	3896	4319	4718	5162
20	-13	-29	-16	-3	-2	29	57	17	-32	-16	-24	12
0.25	-0.16	-0.36	-0.20	-0.03	-0.02	0.35	0.69	0.21	-0.39	-0.20	-0.30	0.15

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

4.67 GHz	INTERCEPT (mV)	3487
	SLOPE (mV/DB)	80.3

297	676	1066	1483	1899	2283	2675	3087	3461	3842	4264	4739	5121
21	-1	-12	3	18	0	-9	2	-26	-46	-26	48	28
0.27	-0.01	-0.16	0.04	0.22	0.00	-0.11	0.02	-0.32	-0.58	-0.32	0.60	0.35

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

7.33 GHz	INTERCEPT (mV)	3506
	SLOPE (mV/DB)	80.3

320	701	1091	1506	1921	2301	2685	3097	3470	3851	4280	4761	5164
25	4	-7	6	20	-1	-19	-8	-36	-57	-29	50	52
0.31	0.05	-0.09	0.08	0.25	-0.02	-0.23	-0.10	-0.45	-0.71	-0.36	0.63	0.65

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

10 GHz	INTERCEPT (mV)	3480
	SLOPE (mV/DB)	81.3

279	626	1021	1437	1848	2243	2658	3096	3469	3854	4273	4740	5124
52	-8	-20	-10	-6	-17	-9	23	-11	-32	-20	40	18
0.63	-0.10	-0.24	-0.12	-0.07	-0.21	-0.11	0.28	-0.13	-0.40	-0.25	0.50	0.22

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

12.67 GHz	INTERCEPT (mV)	3498
	SLOPE (mV/DB)	80.3

301	676	1063	1496	1912	2298	2689	3107	3485	3866	4287	4738	5107
17	-10	-24	7	21	5	-5	11	-13	-33	-14	35	3
0.21	-0.12	-0.30	0.09	0.26	0.07	-0.07	0.14	-0.16	-0.41	-0.17	0.44	0.03

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

15.33 GHz	INTERCEPT (mV)	3485
	SLOPE (mV/DB)	79.7

316	690	1073	1503	1921	2302	2679	3085	3455	3836	4259	4727	5100
17	-7	-22	10	29	12	-9	-1	-30	-47	-22	48	22
0.22	-0.09	-0.28	0.12	0.37	0.15	-0.11	-0.02	-0.37	-0.59	-0.28	0.60	0.28

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

18 GHz	INTERCEPT (mV)	3500
	SLOPE (mV/DB)	79.1

331	729	1113	1539	1955	2330	2704	3112	3479	3847	4255	4724	5107
-7	-4	-15	15	36	16	-6	7	-21	-49	-36	38	25
-0.08	-0.05	-0.19	0.20	0.46	0.20	-0.07	0.09	-0.27	-0.62	-0.46	0.48	0.32

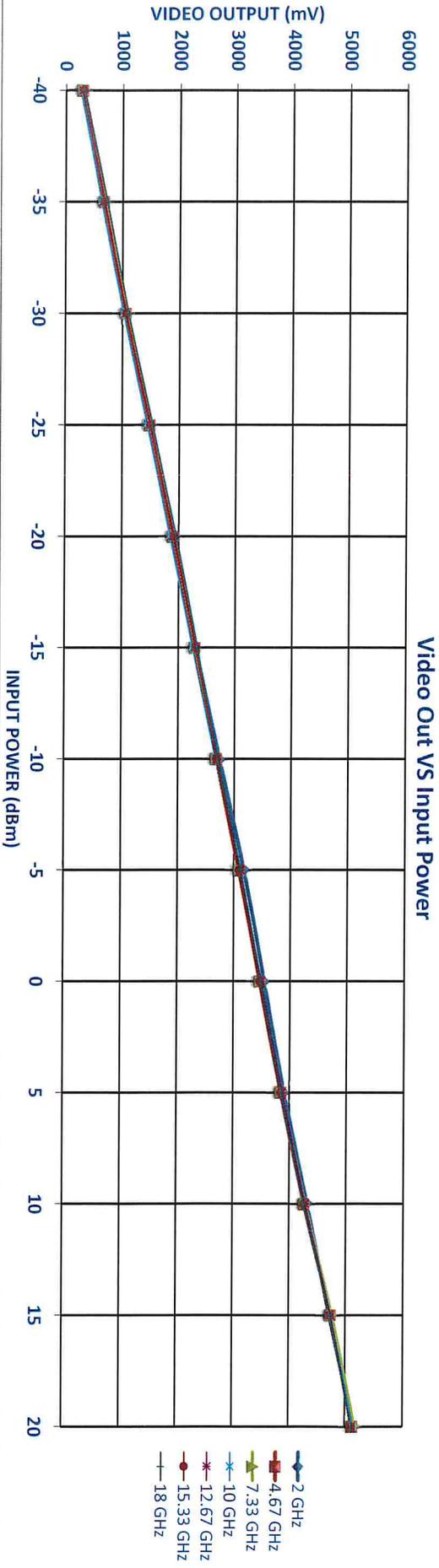
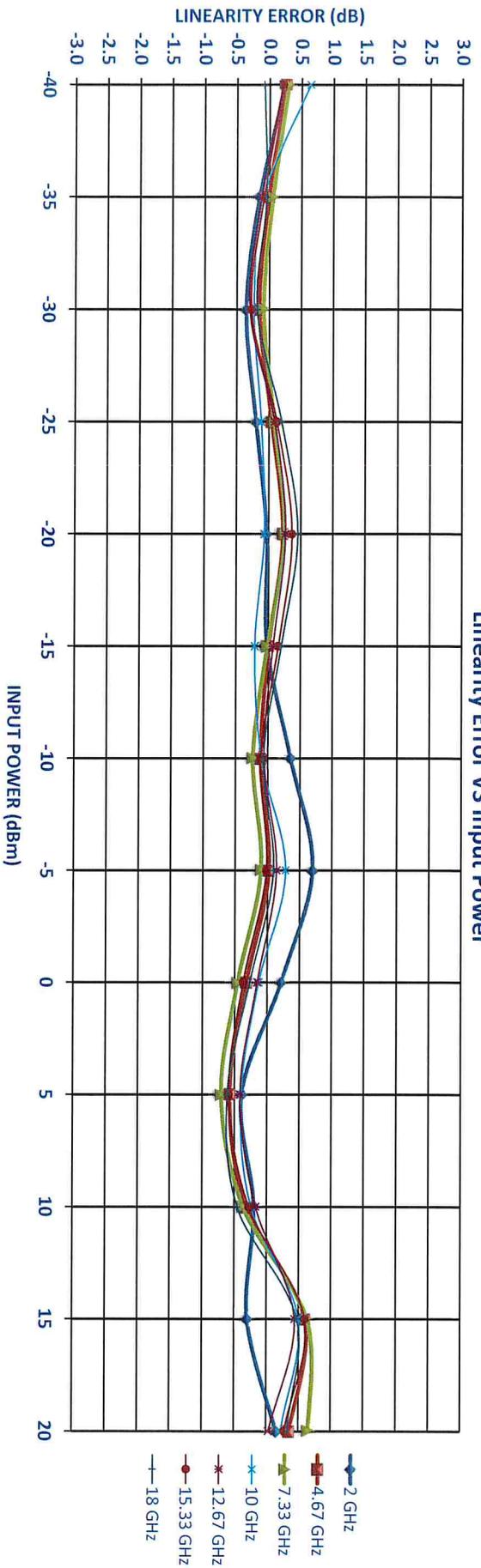
Measured Value (mV)
 Error (mV)
 LINEARITY ERROR (dB)

Flatness P-P

0.6	1.2	1.2	1.2	1.2	1.4	1.0	1.0	1.0	1.0	0.8	0.8	0.6	0.8
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Slope Avg(mv/db) 80.3

LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV-93
 SERIAL NO: PL38407
 Test Temp: -25C





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LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV-93
 TESTED BY: J.Merriner
 DATE: 11-29-22
 SERIAL NO: PL38407
 Test Temp: +85C

Frequency

-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20
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2 GHz	INTERCEPT (mV)	3298
	SLOPE (mV/DB)	74.6

281	645	1036	1435	1836	2203	2579	2995	3348	3686	4026	4374	4733
-33	-42	-24	2	30	24	27	70	50	15	-18	-43	-57
-0.44	-0.56	-0.32	0.03	0.40	0.32	0.36	0.94	0.67	0.20	-0.24	-0.58	-0.77

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

4.67 GHz	INTERCEPT (mV)	3279
	SLOPE (mV/DB)	74.4

282	649	1039	1436	1830	2179	2524	2922	3275	3640	4022	4410	4739
-20	-25	-7	18	40	17	-10	16	-4	-11	-1	15	-28
-0.27	-0.33	-0.09	0.24	0.54	0.22	-0.14	0.21	-0.05	-0.14	-0.01	0.20	-0.38

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

7.33 GHz	INTERCEPT (mV)	3290
	SLOPE (mV/DB)	74.7

286	658	1045	1442	1834	2183	2531	2932	3287	3648	4023	4424	4774
-18	-19	-5	18	37	13	-13	15	-3	-16	-14	14	-9
-0.24	-0.26	-0.07	0.25	0.50	0.17	-0.17	0.20	-0.04	-0.21	-0.19	0.19	-0.13

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

10 GHz	INTERCEPT (mV)	3261
	SLOPE (mV/DB)	76.3

233	549	956	1352	1742	2116	2493	2929	3288	3657	4019	4404	4740
22	-43	-17	-3	6	-1	-5	49	27	15	-4	-1	-46
0.29	-0.56	-0.23	-0.03	0.08	-0.01	-0.07	0.65	0.36	0.20	-0.06	-0.01	-0.60

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

12.67 GHz	INTERCEPT (mV)	3292
	SLOPE (mV/DB)	74.1

291	662	1049	1462	1857	2204	2556	2964	3310	3667	4027	4401	4717
-37	-36	-20	22	47	23	5	42	18	4	-7	-3	-58
-0.50	-0.49	-0.27	0.30	0.63	0.31	0.06	0.57	0.24	0.05	-0.09	-0.04	-0.78

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

15.33 GHz	INTERCEPT (mV)	3261
	SLOPE (mV/DB)	74.4

266	616	1011	1422	1817	2170	2513	2914	3265	3628	3993	4381	4719
-18	-40	-17	22	45	26	-4	25	4	-5	-12	4	-30
-0.24	-0.54	-0.23	0.29	0.60	0.34	-0.05	0.34	0.06	-0.07	-0.16	0.05	-0.41

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

18 GHz	INTERCEPT (mV)	3236
	SLOPE (mV/DB)	77.1

205	472	891	1293	1686	2080	2468	2916	3280	3639	4004	4388	4717
54	-65	-31	-15	-7	1	3	66	44	18	-3	-4	-61
0.70	-0.84	-0.41	-0.19	-0.10	0.01	0.04	0.86	0.58	0.23	-0.03	-0.05	-0.79

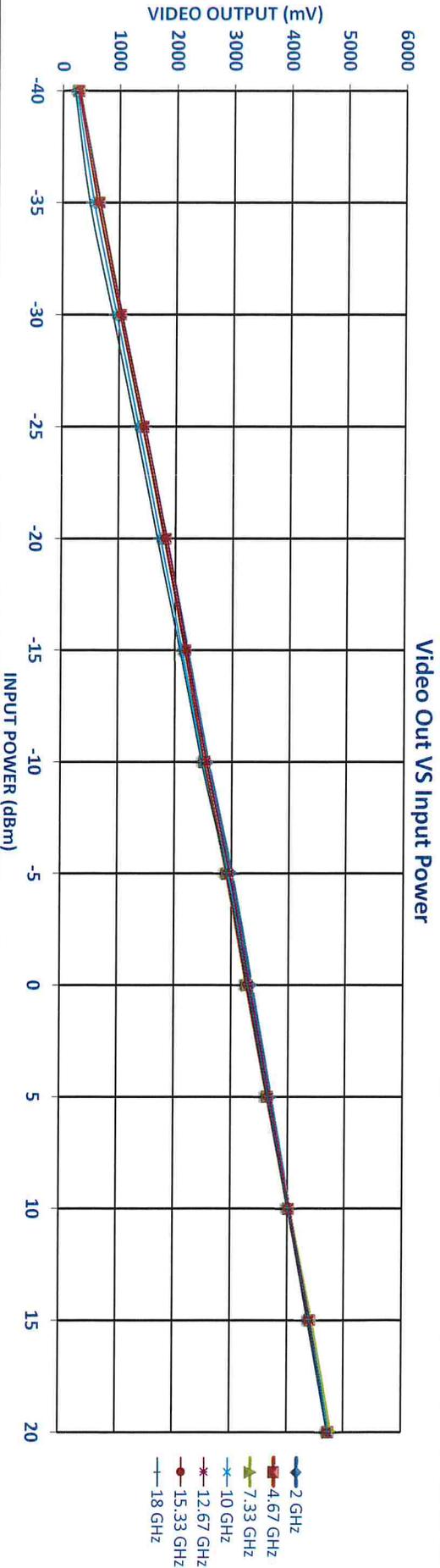
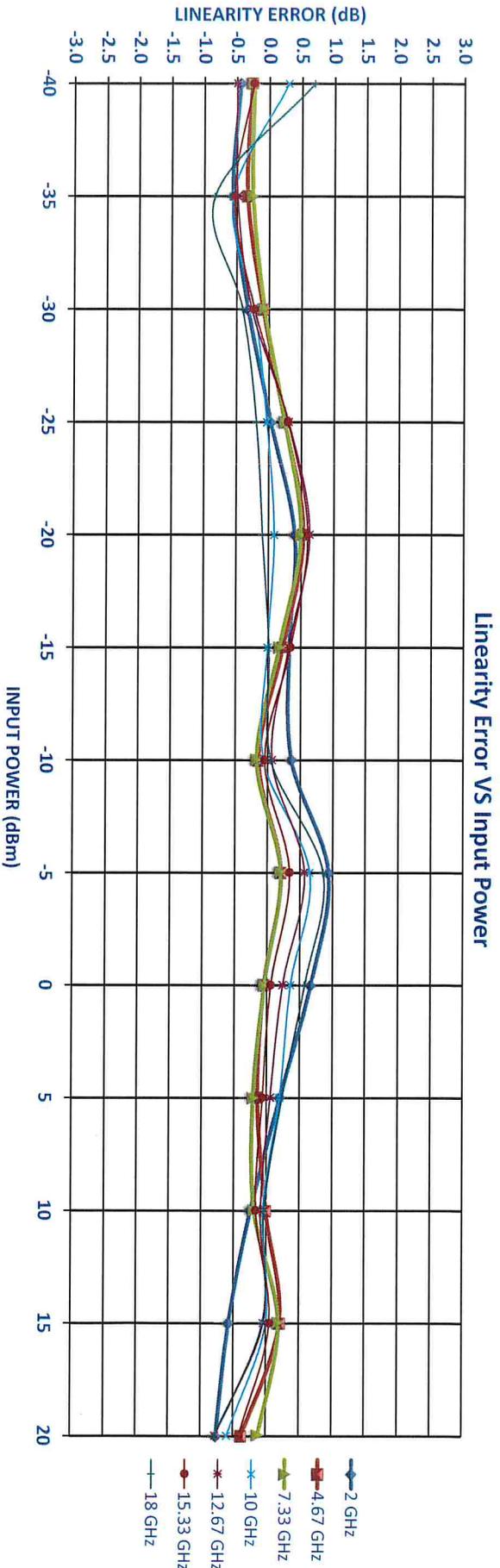
Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)

Flatness P-P

1.2	2.6	2.2	2.2	2.2	1.6	1.4	1.0	1.2	0.8	0.4	0.6	0.8
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Slope Avg(mv/db)	75.1
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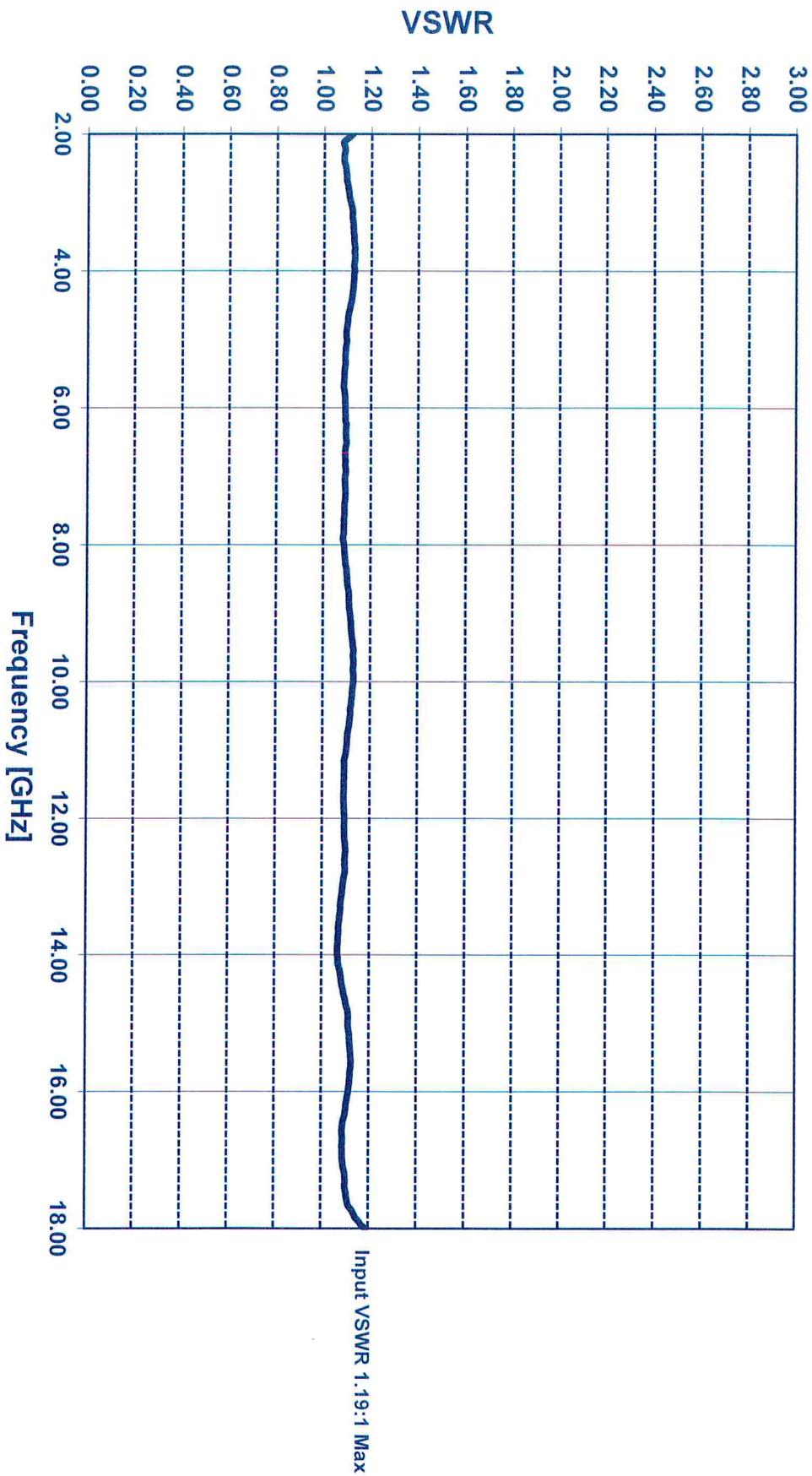
LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV-93
 SERIAL NO: PL38407
 Test Temp: +85C

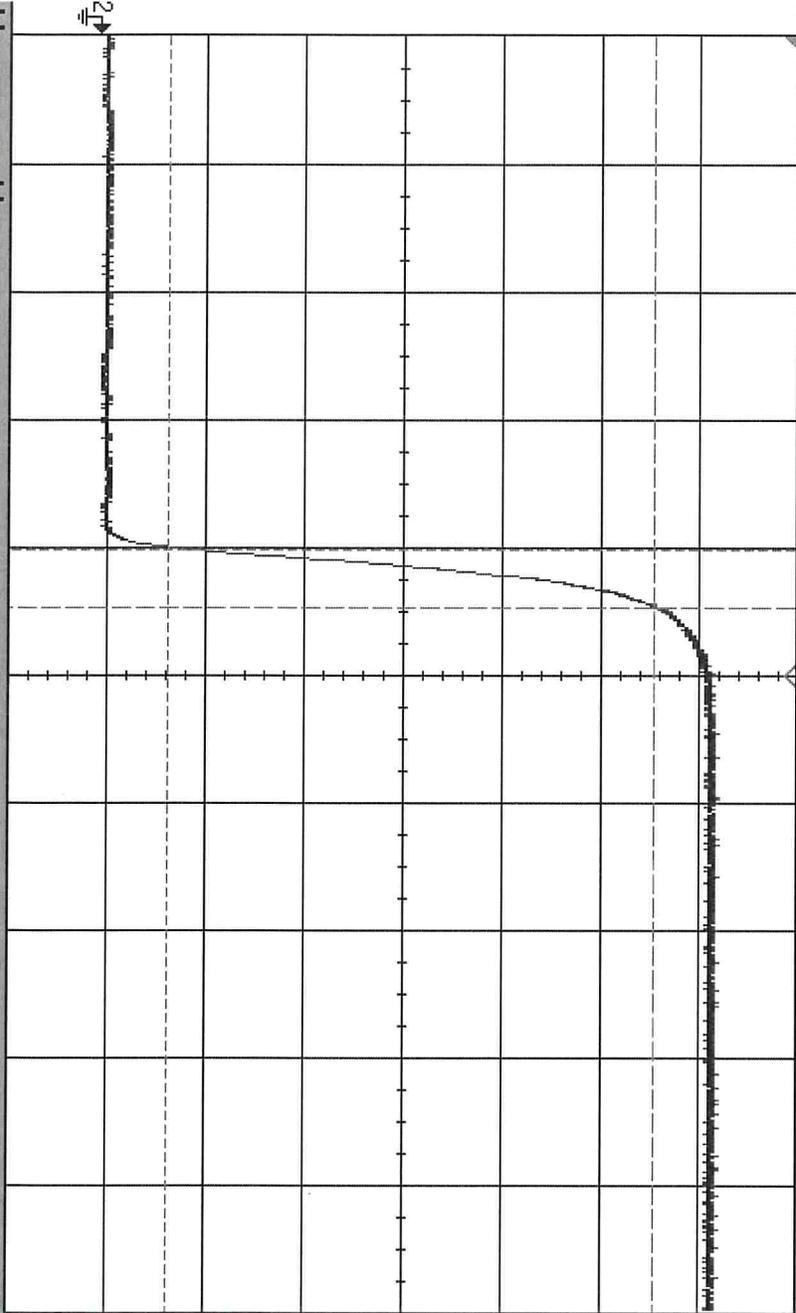


Model Number: ERDLVA-218-CW-75MV-93
Serial Number: PL38407

Temperature: +25C

VSWR GRAPH





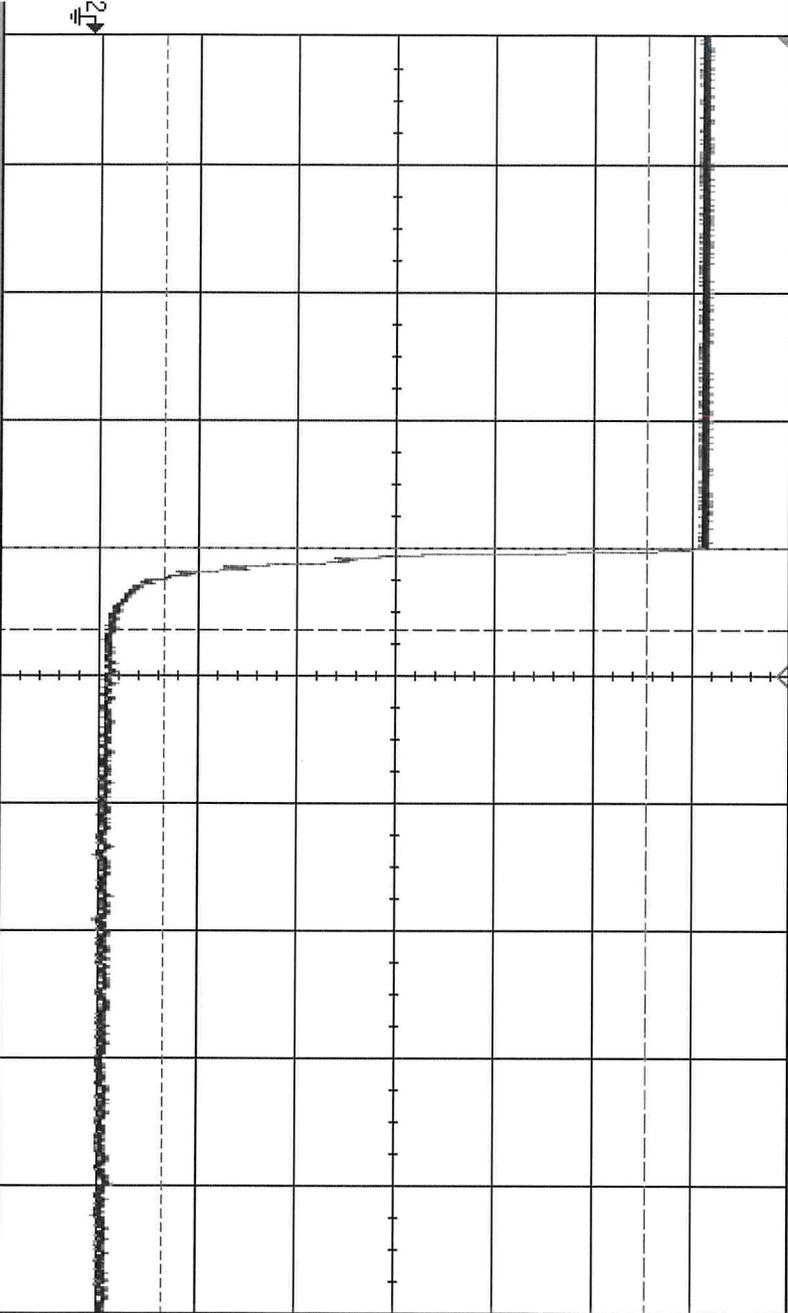
Measurement Menu

Source 2 Type: Rise Add Measurement Settings Clear Meas Statistics

Acquisition	4.00GSa/s
Averaging	2
Channels	1.00:1
DC	1.00:1
DC	10.0:1
DC	1.00:1
Measurements	
AC RMS - FS(2)	2.2583V
Fall(3)	No signal
Fall(2)	No edges
Rise(2)	22.8ns

M50-X-3054A, MW53400180: Tue Nov 29 12:46:33 2022

1 2 760V/ 3 4 10.30ms 500.0ns/ Auto f 4 3.85V



Acquisition
Averaging: 2
4.006Sa/s

Channels
DC 1.00:1
DC 1.00:1
DC 10.0:1
DC 1.00:1

Cursors

ΔX : +320.000ns
 $1/\Delta X$: +3.1250MHz

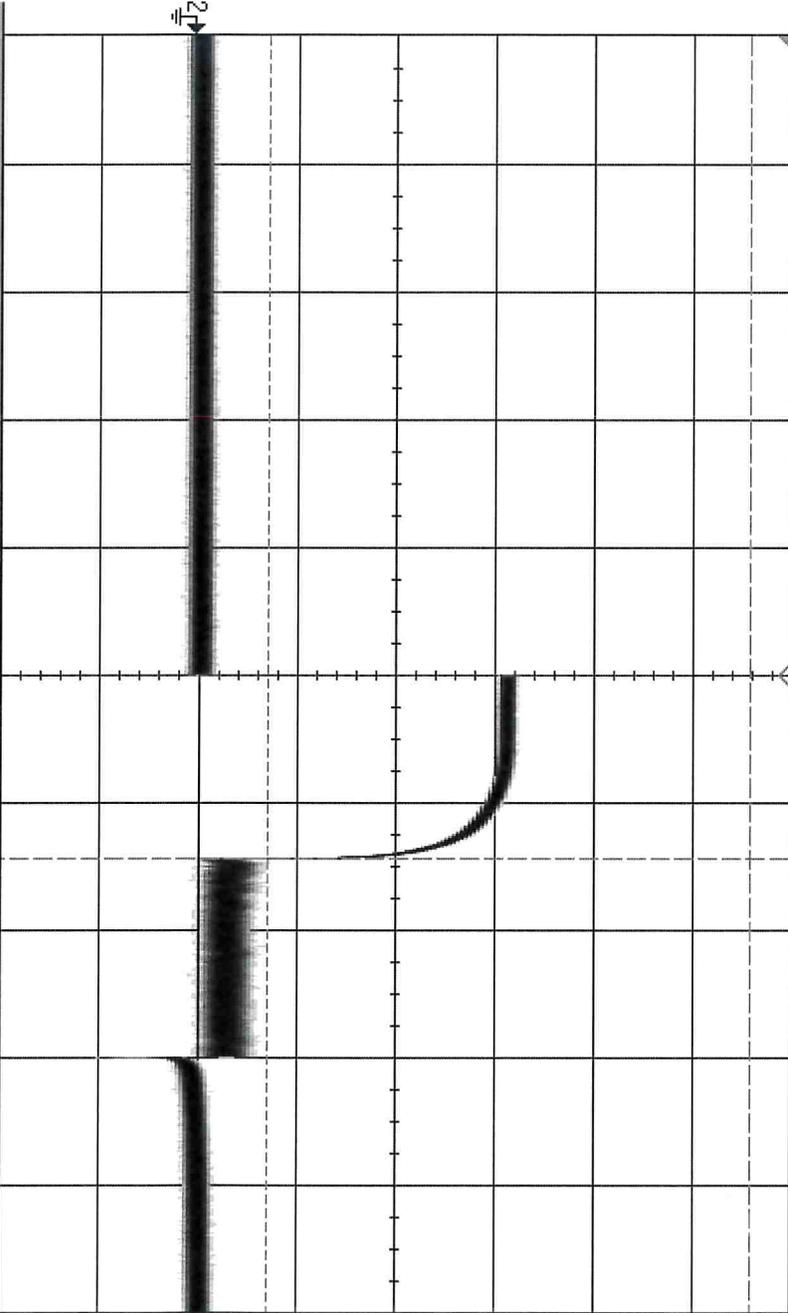
$\Delta Y(2)$: +3.71550V

Cursors Menu

Mode Manual Source 2 Cursors X2 Units X1: 10.300120000ms Y1: 565.25mV X2: 10.300440000ms Y2: 4.28075V

MISO-X 3054A, MW53400180: Tue Nov 29 12:49:11 2022

1 2 760V/ 3 4 10.00s 1.000s/ Auto f 4 3.85V



Acquisition	Normal	100MSa/s
Channels	DC	1.00:1
	DC	1.00:1
	DC	10.0:1
	DC	1.00:1
Cursors	ΔX: +1.4400000000ms	
	1/ΔX: +694.44Hz	
	ΔY(2): +3.71550V	

Cursors Menu

Mode Manual

Source 2

Cursors X1

Units

X1: 10.0000000000ms Y1: 565.25mV

X2: 11.4400000000ms Y2: 4.28075V