



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

Customer: _____

Tested By: JOHNM

SO No: _____

Temperature: -28C, 25C, 85C

Model No: ERDLVA-218-CW-75MV

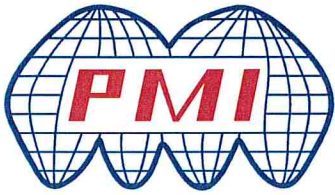
Date 4/5/2022

Serial No: PL34915

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 QAS
2	VSWR:	2.5:1 MAX @ -20 dBm	1.31:1 MAX	
3	Input Power:	23 dBm Max.	Pass	
4	VIDEO OUT TSS:	-42 dBm MAX	-42.5dBm	
5	VIDEO OUT Dynamic Range:	-40 to +20 dBm	-40 to +20 dBm	
6	VIDEO OUT Log Slope Fixed:	75 ± 10mV/dB	74.6-76.6mV/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	0mV	
9	VIDEO OUT Rise Time (10% to 90%):	25 ns MAX	22ns	
10	VIDEO OUT Settling Time:	±0.5dB within 25ns from 90%	<0.5dB	
11	VIDEO OUT Recovery Time:	500ns MAX	220ns	
12	VIDEO OUT Video Frequency Flatness:	3.0 dB p-p MAX @ -20dBm	2.4dB p-p MAX @ -20dBm	



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13	VIDEO OUT CW Immunity:	CW Immune Power -50 to -10 dBm	Pass	PMI QA3
		CW Attack Time 1500us	1500us	
		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	50mV	
22	VIDEO OUT Propagation Delay:	35 ns MAX from RF 10% to 10% video (excluding cable)	30ns	
23	Power Supply	+12 V @ 250 mA MAX -12 V @ 250 mA MAX	+12 V @ 150 mA -12 V @ 60 mA	

QA/QC Approval: H. Munter M. Gor

Date: 4-7-22

LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV
 TESTED BY: J.Merriner
 DATE: 12-6-21
 SERIAL NO: PL34915
 Test Temp: +25C



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Frequency

-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20
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2 GHz	INTERCEPT (mV)	3350
	SLOPE (mV/dB)	76.3

260	672	1055	1464	1861	2221	2586	2974	3337	3735	4131	4461	4876
-37	-7	-5	22	37	16	-1	5	-13	3	17	-34	-1
-0.49	-0.09	-0.07	0.29	0.49	0.20	-0.02	0.07	-0.18	0.04	0.23	-0.45	-0.01

RF Input Power (dBm)

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

4.67 GHz	INTERCEPT (mV)	3311
	SLOPE (mV/dB)	78.0

187	566	954	1374	1772	2140	2527	2930	3308	3714	4108	4466	4856
-3	-14	-16	14	21	-1	-4	9	-3	13	16	-16	-16
-0.04	-0.18	-0.21	0.17	0.27	-0.01	-0.05	0.11	-0.04	0.16	0.21	-0.20	-0.20

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

7.33 GHz	INTERCEPT (mV)	3342
	SLOPE (mV/dB)	78.2

195	597	984	1401	1801	2170	2563	2961	3333	3730	4134	4500	4902
-17	-6	-10	15	24	2	4	10	-9	-3	10	-15	-5
-0.22	-0.08	-0.13	0.20	0.31	0.02	0.05	0.13	-0.11	-0.04	0.13	-0.20	-0.06

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

10 GHz	INTERCEPT (mV)	3364
	SLOPE (mV/dB)	76.3

272	698	1083	1487	1877	2225	2573	2964	3345	3747	4144	4499	4893
-40	5	8	31	39	6	-28	-18	-19	2	18	-9	4
-0.52	0.06	0.11	0.41	0.52	0.08	-0.36	-0.24	-0.24	0.03	0.23	-0.12	0.05

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

12.67 GHz	INTERCEPT (mV)	3379
	SLOPE (mV/dB)	75.4

319	740	1130	1541	1920	2260	2585	2972	3351	3749	4147	4507	4904
-44	0	13	47	49	12	-40	-30	-28	-7	14	-3	17
-0.58	0.00	0.17	0.62	0.65	0.16	-0.53	-0.40	-0.37	-0.09	0.19	-0.04	0.23

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

15.33 GHz	INTERCEPT (mV)	3259
	SLOPE (mV/dB)	75.5

206	599	984	1409	1800	2144	2489	2869	3234	3637	4024	4386	4764
-32	-17	-9	38	52	18	-14	-12	-25	1	10	-5	-5
-0.42	-0.22	-0.12	0.51	0.68	0.24	-0.19	-0.16	-0.33	0.01	0.14	-0.07	-0.07

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

18 GHz	INTERCEPT (mV)	3324
	SLOPE (mV/dB)	74.9

275	696	1081	1494	1878	2218	2550	2937	3305	3700	4087	4438	4816
-53	-6	4	43	52	18	-25	-13	-19	1	14	-10	-6
-0.70	-0.08	0.06	0.57	0.70	0.23	-0.33	-0.17	-0.26	0.02	0.18	-0.13	-0.09

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

Flatness P-P

1.8	2.2	2.4	2.2	2.0	1.6	1.2	1.4	1.6	1.4	1.6	1.6	1.8
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Slope Avg(mv/dB) 76.4

LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV
 TESTED BY: J.Merriner
 DATE: 12-6-21
 SERIAL NO: PL34915
 Test Temp: -28C



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Frequency

2 GHz	INTERCEPT (mV)	3460
	SLOPE (mV/dB)	77.2

-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20
334	763	1152	1530	1940	2322	2681	3069	3453	3868	4264	4588	4982
-38	5	8	0	24	20	-7	-5	-7	22	32	-30	-22
-0.50	0.06	0.10	0.00	0.31	0.26	-0.09	-0.07	-0.09	0.28	0.41	-0.39	-0.29

RF Input Power (dBm)

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

4.67 GHz	INTERCEPT (mV)	3421
	SLOPE (mV/dB)	78.8

260	666	1055	1449	1854	2244	2626	3021	3418	3844	4241	4589	4964
-10	2	-3	-3	8	5	-7	-6	-3	29	33	-13	-32
-0.13	0.02	-0.04	-0.03	0.11	0.06	-0.09	-0.08	-0.04	0.37	0.41	-0.17	-0.41

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

7.33 GHz	INTERCEPT (mV)	3467
	SLOPE (mV/dB)	78.6

299	727	1115	1500	1909	2298	2675	3065	3459	3873	4277	4634	5020
-25	10	5	-2	14	10	-6	-9	-8	14	25	-11	-18
-0.32	0.13	0.07	-0.03	0.18	0.13	-0.07	-0.11	-0.10	0.17	0.32	-0.14	-0.23

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

10 GHz	INTERCEPT (mV)	3496
	SLOPE (mV/dB)	76.3

409	839	1232	1604	1999	2361	2684	3071	3477	3897	4292	4640	5020
-34	14	26	16	30	10	-49	-43	-19	19	33	-1	-2
-0.44	0.19	0.34	0.21	0.39	0.13	-0.64	-0.57	-0.25	0.25	0.43	-0.01	-0.03

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

12.67 GHz	INTERCEPT (mV)	3498
	SLOPE (mV/dB)	75.8

429	856	1251	1636	2022	2376	2685	3070	3474	3889	4285	4638	5018
-39	9	25	32	39	14	-56	-49	-24	12	29	3	5
-0.52	0.12	0.34	0.42	0.51	0.19	-0.74	-0.65	-0.32	0.16	0.39	0.05	0.06

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

15.33 GHz	INTERCEPT (mV)	3375
	SLOPE (mV/dB)	74.8

327	767	1154	1539	1935	2285	2580	2956	3328	3756	4152	4505	4873
-57	9	22	34	56	32	-47	-45	-47	7	29	8	2
-0.76	0.13	0.30	0.45	0.74	0.42	-0.63	-0.61	-0.63	0.09	0.38	0.10	0.02

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

18 GHz	INTERCEPT (mV)	3457
	SLOPE (mV/dB)	74.0

444	873	1266	1647	2025	2366	2653	3037	3425	3838	4230	4572	4938
-52	7	30	41	49	20	-63	-50	-32	11	33	5	1
-0.70	0.10	0.40	0.55	0.66	0.27	-0.86	-0.67	-0.43	0.15	0.45	0.07	0.01

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

Flatness P-P

2.4	2.8	2.8	2.6	2.2	1.8	1.4	1.6	2.0	1.8	1.8	1.8	2.0
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Slope Avg(mv/dB)	76.5
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 MODEL: ERDLVA-218-CW-75MV
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Frequency

2 GHz	INTERCEPT (mV)	3236
	SLOPE (mV/dB)	76.5

-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20
158	534	932	1337	1736	2096	2472	2876	3231	3622	4013	4353	4755
-17	-24	-8	14	31	8	2	23	-5	4	12	-30	-11
-0.22	-0.31	-0.11	0.19	0.40	0.11	0.02	0.30	-0.06	0.05	0.16	-0.39	-0.14

RF Input Power (dBm)

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

4.67 GHz	INTERCEPT (mV)	3191
	SLOPE (mV/dB)	78.3

101	403	825	1227	1620	2007	2404	2834	3204	3601	3990	4353	4726
43	-46	-16	-5	-4	-9	-3	35	13	19	16	-12	-31
0.56	-0.59	-0.20	-0.07	-0.05	-0.11	-0.04	0.45	0.17	0.24	0.21	-0.16	-0.40

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

7.33 GHz	INTERCEPT (mV)	3209
	SLOPE (mV/dB)	78.8

101	408	830	1232	1628	2017	2428	2860	3222	3611	4009	4378	4758
42	-45	-16	-8	-6	-11	6	44	13	8	12	-13	-27
0.54	-0.57	-0.21	-0.10	-0.08	-0.14	0.08	0.56	0.16	0.10	0.15	-0.16	-0.34

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

10 GHz	INTERCEPT (mV)	3215
	SLOPE (mV/dB)	77.5

118	473	880	1286	1681	2048	2439	2855	3221	3614	4005	4363	4735
3	-29	-10	9	16	-4	-1	28	6	12	15	-14	-30
0.04	-0.38	-0.13	0.11	0.21	-0.06	-0.01	0.36	0.08	0.15	0.20	-0.18	-0.38

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

12.67 GHz	INTERCEPT (mV)	3251
	SLOPE (mV/dB)	76.4

161	559	954	1371	1766	2114	2478	2877	3240	3631	4025	4387	4763
-34	-18	-5	30	43	9	-9	8	-11	-2	10	-10	-16
-0.44	-0.23	-0.06	0.40	0.57	0.12	-0.11	0.11	-0.14	-0.02	0.14	-0.13	-0.21

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

15.33 GHz	INTERCEPT (mV)	3126
	SLOPE (mV/dB)	77.4

86	349	780	1190	1581	1965	2354	2777	3143	3531	3909	4276	4637
55	-69	-25	-1	3	0	2	38	17	18	9	-11	-37
0.71	-0.89	-0.32	-0.02	0.03	0.00	0.02	0.49	0.22	0.23	0.12	-0.14	-0.47

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

18 GHz	INTERCEPT (mV)	3167
	SLOPE (mV/dB)	77.4

101	403	823	1235	1626	2005	2401	2828	3190	3576	3953	4308	4667
29	-56	-23	2	6	-2	7	48	23	22	12	-20	-48
0.37	-0.72	-0.30	0.03	0.08	-0.02	0.10	0.61	0.29	0.28	0.15	-0.26	-0.62

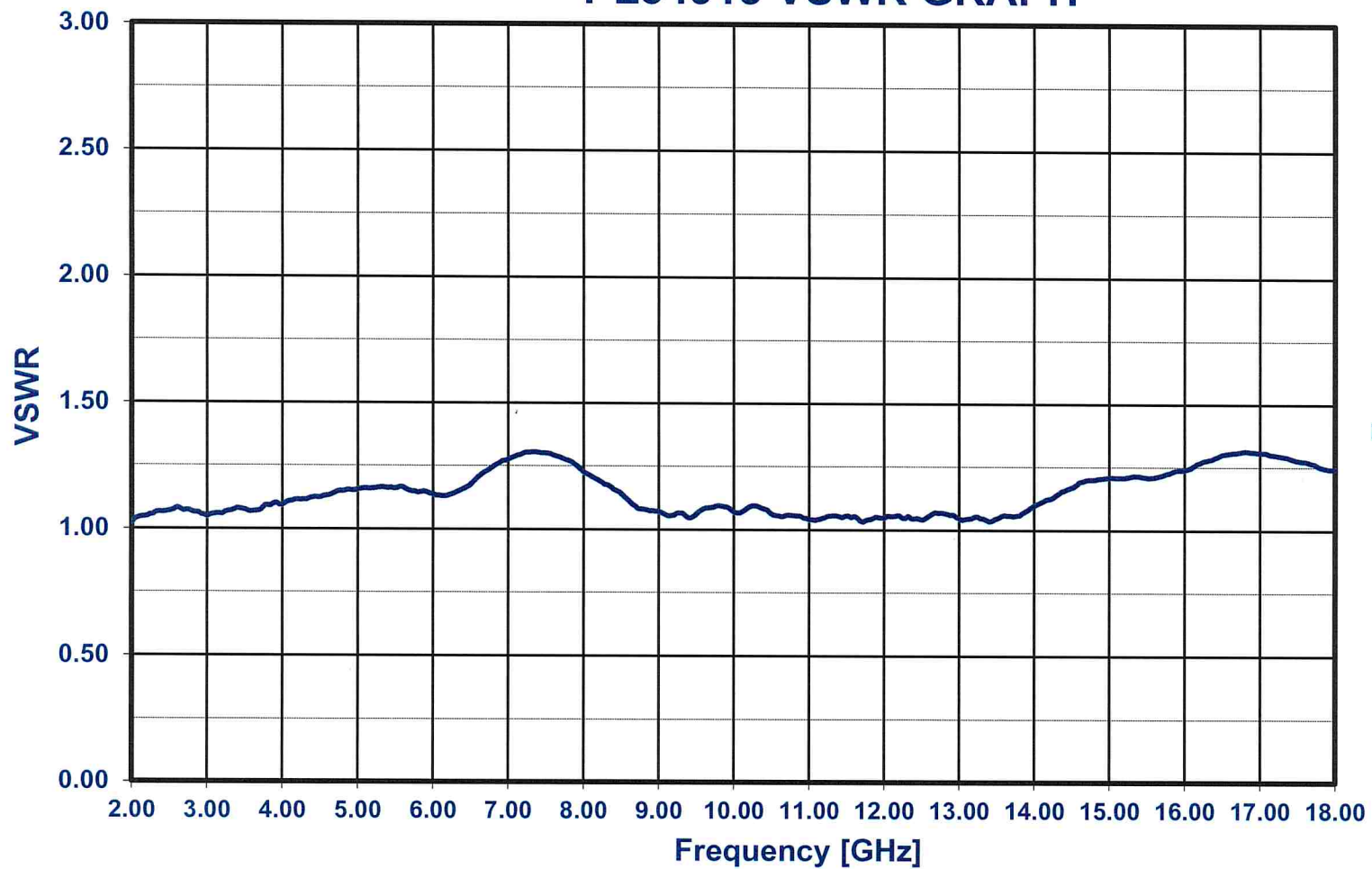
Measured Value (mV)
Error (mV)
LINEARITY ERROR (dB)

Flatness P-P

1.0	2.8	2.2	2.4	2.4	2.0	1.6	1.2	1.2	1.2	1.4	1.4	1.6
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Slope Avg(mv/dB) 77.5

PL34915 VSWR GRAPH



Input VSWR 1.31:1 Max