



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: PL35868

Drawing No: 27642440

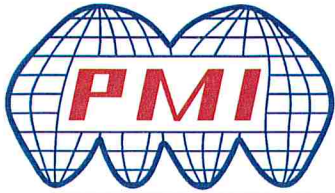
Rev: A1

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	1.43:1 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	72.6-82.3mV/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	35mV	
9	VIDEO OUT Rise Time (10% to 90%):	25 ns MAX	22.3ns	
10	VIDEO OUT Settling Time:	±0.5dB within 25ns from 90%	<0.5dB	
11	VIDEO OUT Recovery Time:	500ns MAX	400ns	
12	VIDEO OUT Video Frequency Flatness:	3.0 dB p-p MAX @ -20dBm	2.4dB p-p MAX @ -20dBm	

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



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

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	52mV	
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: *K. Winter M. Gann* Date: 4-7-22



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 4921 Robert J. Mathews Parkway, Suite 1
 El Dorado Hills, CA 95762
 Phone: 916-542-1401 Fax: 301-662-1731
 Email: sales@pmi-rf.com | www.pmi-

LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV
 TESTED BY: J.Merriner
 DATE: 3-29-22
 SERIAL NO: PL 35868
 Test Temp: +25C

VOS= 35MV

Frequency

2 GHz	INTERCEPT (mV)	3459
	SLOPE (mV/dB)	77.2

-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20
340	764	1154	1503	1922	2342	2692	3071	3450	3873	4268	4601	4952
-33	6	10	-27	6	41	5	-2	-9	29	38	-15	-50
-0.42	0.07	0.13	-0.35	0.08	0.53	0.06	-0.02	-0.11	0.37	0.49	-0.19	-0.64

RF Input Power (dBm)

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

4.67 GHz	INTERCEPT (mV)	3449
	SLOPE (mV/dB)	79.8

261	659	1052	1424	1824	2253	2669	3072	3465	3887	4280	4627	4992
4	3	-3	-30	-29	1	18	22	16	39	33	-19	-53
0.05	0.04	-0.04	-0.38	-0.36	0.01	0.22	0.27	0.20	0.48	0.41	-0.24	-0.67

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

7.33 GHz	INTERCEPT (mV)	3481
	SLOPE (mV/dB)	79.5

296	712	1102	1463	1872	2302	2693	3096	3482	3897	4300	4656	5045
-6	13	6	-31	-19	14	7	13	1	19	25	-17	-25
-0.07	0.16	0.07	-0.39	-0.24	0.17	0.09	0.16	0.02	0.24	0.31	-0.21	-0.32

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

10 GHz	INTERCEPT (mV)	3457
	SLOPE (mV/dB)	77.0

345	784	1170	1522	1930	2345	2662	3037	3431	3858	4250	4609	4996
-33	21	22	-11	12	42	-26	-36	-26	16	23	-3	-1
-0.43	0.27	0.29	-0.14	0.16	0.55	-0.33	-0.46	-0.34	0.20	0.30	-0.04	-0.01

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

12.67 GHz	INTERCEPT (mV)	3431
	SLOPE (mV/dB)	75.9

360	793	1176	1527	1936	2345	2642	2994	3391	3809	4201	4579	4973
-33	20	24	-5	24	54	-29	-57	-40	-1	11	9	23
-0.43	0.27	0.31	-0.07	0.32	0.70	-0.38	-0.75	-0.52	-0.02	0.14	0.12	0.31

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

15.33 GHz	INTERCEPT (mV)	3384
	SLOPE (mV/dB)	77.4

264	690	1078	1442	1842	2252	2614	2960	3362	3774	4163	4546	4941
-24	15	16	-7	6	29	4	-37	-22	3	5	1	9
-0.31	0.19	0.21	-0.09	0.08	0.38	0.05	-0.48	-0.28	0.04	0.07	0.02	0.12

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

18 GHz	INTERCEPT (mV)	3352
	SLOPE (mV/dB)	79.0

195	586	989	1368	1749	2164	2585	2952	3354	3755	4144	4534	4926
4	0	8	-8	-22	-3	23	-5	2	8	2	-3	-6
0.05	0.00	0.10	-0.11	-0.28	-0.03	0.30	-0.06	0.03	0.10	0.03	-0.04	-0.08

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

Flatness P-P

2.2	2.6	2.4	2.0	2.4	2.4	1.4	1.8	1.6	1.8	2.0	1.6	1.6
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Slope Avg(mv/dB)	78.0
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 4921 Robert J. Mathews Parkway, Suite 1
 El Dorado Hills, CA 95762
 Phone: 916-542-1401 Fax: 301-662-1731
 Email: sales@pmi-rf.com | www.pmi-

LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV
 TESTED BY: J.Merriner
 DATE: 3-29-22
 SERIAL NO: PL 35868
 Test Temp: -28C

VOS= -40MV

Frequency

2 GHz	INTERCEPT (mV)	3637
	SLOPE (mV/dB)	81.9

-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20
321	798	1209	1548	1985	2431	2818	3250	3646	4067	4500	4842	5224
-41	26	28	-42	-15	22	0	22	9	21	44	-23	-50
-0.50	0.32	0.34	-0.52	-0.18	0.27	0.00	0.27	0.11	0.25	0.54	-0.28	-0.62

RF Input Power (dBm)

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

4.67 GHz	INTERCEPT (mV)	3627
	SLOPE (mV/dB)	84.7

221	695	1109	1467	1886	2339	2790	3245	3657	4078	4511	4871	5272
-18	32	23	-43	-47	-18	10	41	30	27	37	-27	-49
-0.21	0.38	0.27	-0.50	-0.56	-0.21	0.12	0.49	0.35	0.32	0.44	-0.31	-0.58

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

7.33 GHz	INTERCEPT (mV)	3671
	SLOPE (mV/dB)	84.1

286	771	1176	1525	1953	2410	2826	3281	3683	4094	4540	4910	5338
-22	42	27	-44	-37	0	-4	30	12	3	28	-22	-14
-0.26	0.50	0.32	-0.53	-0.43	0.00	-0.05	0.36	0.14	0.03	0.34	-0.26	-0.17

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

10 GHz	INTERCEPT (mV)	3662
	SLOPE (mV/dB)	80.9

391	878	1273	1619	2040	2480	2794	3229	3641	4067	4501	4872	5301
-34	48	39	-20	-4	32	-59	-28	-21	0	30	-4	21
-0.42	0.60	0.48	-0.25	-0.04	0.39	-0.73	-0.35	-0.26	0.01	0.37	-0.05	0.26

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

12.67 GHz	INTERCEPT (mV)	3617
	SLOPE (mV/dB)	80.3

367	852	1253	1597	2017	2452	2757	3165	3586	4008	4434	4828	5265
-38	46	45	-12	6	40	-57	-50	-31	-10	14	6	42
-0.47	0.57	0.56	-0.15	0.08	0.49	-0.71	-0.63	-0.39	-0.13	0.17	0.08	0.52

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

15.33 GHz	INTERCEPT (mV)	3580
	SLOPE (mV/dB)	81.3

285	780	1184	1530	1950	2386	2739	3136	3563	3983	4400	4800	5236
-42	46	43	-17	-4	26	-28	-38	-17	-4	6	0	29
-0.52	0.57	0.53	-0.21	-0.05	0.31	-0.35	-0.46	-0.21	-0.05	0.08	0.00	0.36

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

18 GHz	INTERCEPT (mV)	3563
	SLOPE (mV/dB)	82.9

207	695	1113	1469	1887	2321	2734	3143	3568	3975	4391	4797	5232
-38	35	39	-20	-17	2	1	-5	5	-2	-1	-10	11
-0.46	0.42	0.46	-0.24	-0.20	0.03	0.01	-0.06	0.06	-0.03	-0.01	-0.12	0.13

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

Flatness P-P

2.2	2.2	2.0	1.8	1.8	2.0	1.2	1.8	1.4	1.4	1.8	1.4	1.4
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Slope Avg(mv/dB)	82.3
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LOG TRANSFER WITH FREQUENCY
 MODEL: ERDLVA-218-CW-75MV
 TESTED BY: J.Merriner
 DATE: 3-30-22
 SERIAL NO: PL 35868
 Test Temp: +85C

VOS= 125MV

Frequency

2 GHz	INTERCEPT (mV)	3239
	SLOPE (mV/dB)	71.2

-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20
312	710	1120	1492	1881	2248	2566	2856	3193	3583	3967	4308	4623
-81	-39	15	32	65	76	38	-27	-46	-12	16	2	-39
-1.14	-0.55	0.22	0.45	0.91	1.07	0.54	-0.38	-0.65	-0.17	0.23	0.02	-0.55

RF Input Power (dBm)

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

4.67 GHz	INTERCEPT (mV)	3226
	SLOPE (mV/dB)	73.7

246	589	1015	1406	1781	2167	2546	2863	3203	3593	3976	4327	4648
-33	-58	-1	22	29	46	57	5	-23	-1	13	-4	-52
-0.45	-0.79	-0.01	0.30	0.39	0.63	0.77	0.07	-0.31	-0.02	0.18	-0.06	-0.70

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

7.33 GHz	INTERCEPT (mV)	3248
	SLOPE (mV/dB)	73.6

259	622	1043	1431	1808	2196	2568	2877	3213	3599	3991	4349	4690
-43	-48	4	24	33	53	57	-2	-35	-17	7	-3	-30
-0.59	-0.66	0.06	0.33	0.45	0.72	0.77	-0.03	-0.47	-0.23	0.10	-0.04	-0.41

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

10 GHz	INTERCEPT (mV)	3212
	SLOPE (mV/dB)	72.2

262	641	1059	1444	1821	2198	2542	2826	3164	3549	3932	4299	4639
-63	-45	12	36	52	68	52	-25	-48	-24	-2	4	-17
-0.88	-0.63	0.16	0.50	0.72	0.95	0.71	-0.35	-0.67	-0.33	-0.03	0.06	-0.23

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

12.67 GHz	INTERCEPT (mV)	3217
	SLOPE (mV/dB)	71.1

291	697	1102	1482	1862	2237	2550	2818	3155	3530	3919	4296	4645
-83	-32	17	42	67	86	44	-44	-62	-43	-9	12	6
-1.16	-0.45	0.25	0.59	0.94	1.21	0.61	-0.62	-0.88	-0.60	-0.13	0.17	0.08

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

15.33 GHz	INTERCEPT (mV)	3171
	SLOPE (mV/dB)	72.8

227	556	993	1384	1752	2135	2507	2794	3133	3498	3886	4269	4622
-31	-66	7	34	37	56	64	-13	-38	-37	-13	6	-5
-0.43	-0.91	0.09	0.46	0.51	0.77	0.88	-0.18	-0.52	-0.51	-0.18	0.08	-0.08

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

18 GHz	INTERCEPT (mV)	3130
	SLOPE (mV/dB)	73.6

202	500	900	1280	1700	2080	2425	2768	3113	3465	3852	4244	4596
15	-55	-23	-10	42	54	31	6	-17	-33	-14	10	-6
0.21	-0.74	-0.31	-0.14	0.57	0.73	0.42	0.08	-0.23	-0.45	-0.19	0.14	-0.08

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

Flatness P-P

1.6	2.8	3.0	3.0	2.4	2.4	2.0	1.6	1.4	1.8	2.0	1.4	1.2
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Slope Avg(mv/dB) 72.6

PL 35868

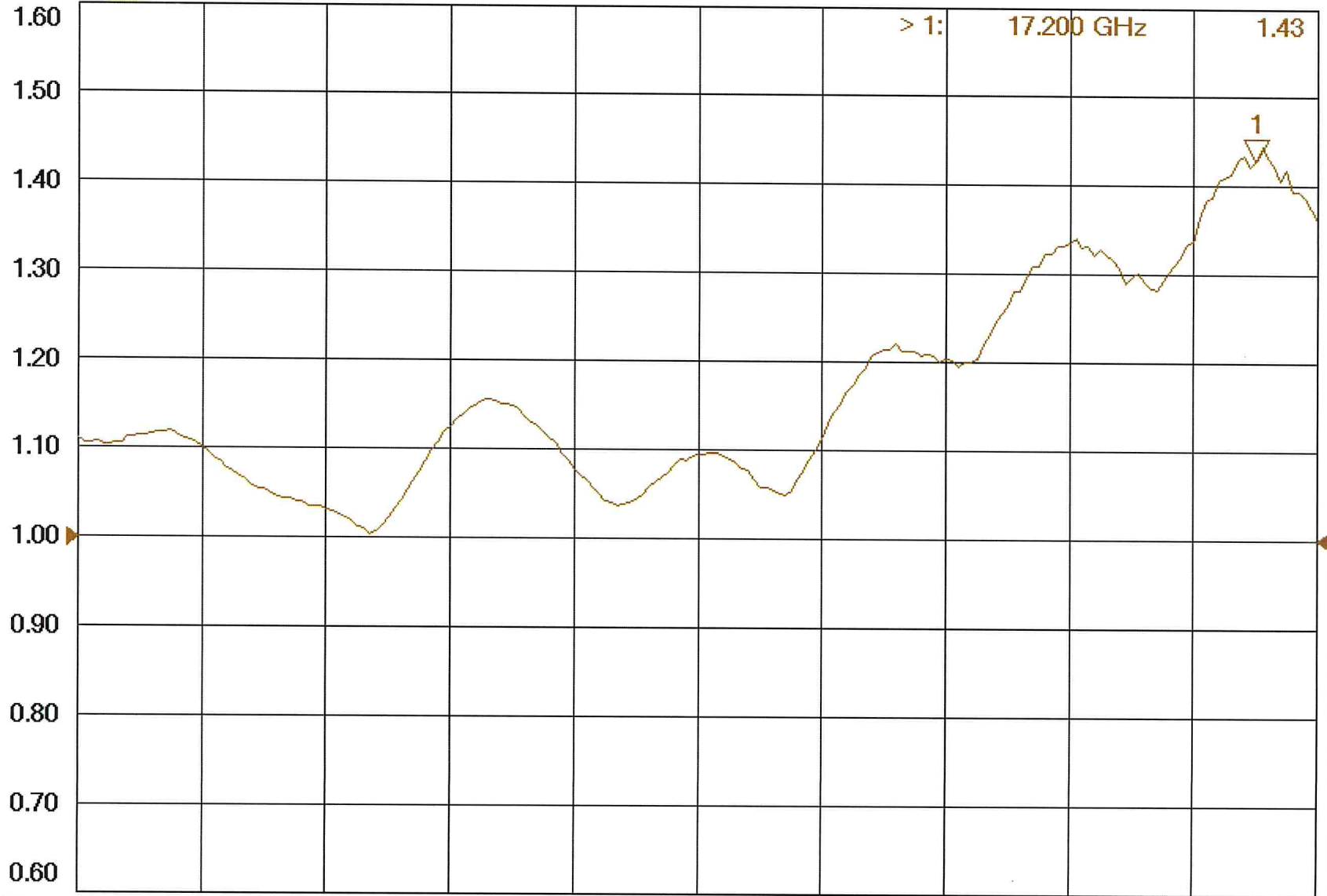
File Trace/Chan Response Marker/Analysis Stimulus Utility Help

Trace 1

Marker 1 17.200000000 GHz

Marker

Tr 1 S11 SWR 0.100U/ 1.00U



* Marker 1

Marker 2

Marker 3

Reference

More Markers ▶

Turn Off Markers ▶

Properties ▶

Marker Functions ▶

1 >Ch1: Start 2.00000 GHz —

Stop 18.00000 GHz

Cont. CH 1: S11 C 2-Port

Favorites LCL