Summary Data
For
ERDLVA-2G8G-65-70MV

Customer: ____ **Tested By:** J.Emperador

SO No: ____ **Temperature:** +25°C, -10°C, +85°C

Model No: ERDLVA-2G8G-65-70MV **Date** 1/15/2019

Serial No: PL23428 **Drawing No:** 27633270 **Rev:** A1

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	2 to 8 GHz	**2 to 8 GHz**	PMI QA 1
2	VSWR:	2.3:1 Max @ 50 Ω	**1.33:1 @ 50 Ω (RF In)** **1.26:1 @ 50 Ω (Bit In)**	
3	Input Power Max:	(1) 1 W CW (2) 100 W Peak @ PW = 1 us & Duty Cycle = 1%	**(1) 1 W CW** **(2) 100 W Peak @ PW = 1 us & Duty Cycle = 1%**	
4	Switch Isolation:	60 dB Min (All Ports)	**68 dB**	
5	Switching Speed:	100 ns Max	**37 ns**	
6	Video Frequency Flatness:	±1.75 dB Max @ 25°C	**±0.87 dB**	
7	TSS:	-71 dBm	**-71.5 dBm**	PMI QA 1

Planar Monolithics Industries
Phone: (916) 542-1401 Fax: (916) 265-2597
Website: www.pmi-rf.com Email: sales@pmi-rf.com

Summary Data
For
ERDLVA-2G8G-65-70MV

TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
8	Dynamic Range:	-65 to 0 dBm	**-65 to 0 dBm**	PMI QA 1
9	Log Slope:	70 mV/dB ±3 mV/dB	**71.36 mV/dB**	
10	Log Linearity:	±1.0 dB Max	**+0.52 / -0.36 dB**	
11	Log Accuracy @ 25°C:	±1.25 dB Max	**+1.07 / -0.66 dB**	
12	Absolute Log Accuracy:	±2.0 dB Max	**+1.32 / -1.29 dB**	
13	DC Offset:	0 - 100mV	**95 mV**	
14	Rise Time:	28 ns Max (10% to 90% @ -40 & -10 dBm)	**26.22 ns**	
15	Fall Time:	300 ns Max (90% to 10% @ -40 & -10 dBm)	**120.62 ns**	
16	Settling Time:	50 ns Max (From 10% to within 35 mV of final value @ -40 & -10 dBm)	**48 ns**	
17	Recovery Time:	500 ns Max (From 90% of a -5 dBm, 100us Pulse to within ±1 dB of baseline) without Amplitude loss of a following -65 dBm, 100ns Pulse	**130.9 ns**	
18	Pulse Width Process Range:	100ns to 100us	**100ns to 100us**	
19	Video Output Load Impedance:	95 ±1 Ω	**95 ±1 Ω**	PMI QA 1

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TEST ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
20	Video Output @ -65 dBm:	330 ± 88 mV Over Frequeny	**262-304 mV**	PMI QA 1
21	Video Output Drive Capbility:	Driving 100 Ft RG180 into 95 Ω Load	**Pass**	
22	Pulse Density Capability:	No Pulse Amplitude Loss 20% Duty @ 100ns PW 70% Duty @ 100us PW	**No Pulse Amplitude Loss 20% Duty @100 ns PW 70% Duty @ 100us PW**	
23	Noise Level:	30 mV RMS Max	**11.69 mV**	
24	Pulse Droop @ -65 dBm:	70 mV Max	**0 mV**	
25	Propogation Delay:	80ns Max (50% RF to 10% Video)	**21 ns**	
26	CW Immune Power:	TSS to -40 dBm	**TSS to-40 dBm**	
27	Baseline Shift:	200 mV Max @ -40 dBm CW	**160 mV**	
28	Pulse Amplitude Loss with Pulse @ -30 dBm:	CW @ -50 dBm = No Loss CW @ -40 dBm = 2 dB Max	**-50 dBm = 0 dB -40 dBm = 1.85 dB**	
29	CW Immue Time @ CW = -40 dBm	4ms Max	**3.7 ms**	
30	CW Recovery Time @ CW = -40 dBm	120us Max	**55 us**	
31	DC Power:	+15V (±5%) @ 500 mA Max -15V (±5%) @ 200 mA Max	**+386 mA -139 mA**	PMI QA 1

QA/QC Approval: PMI QA 1 **Date:** 1/17/19

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LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-2G8G-65-70MV
TESTED BY: J.Emperador
DATE: 01/15/2019
SERIAL NO: PL23428

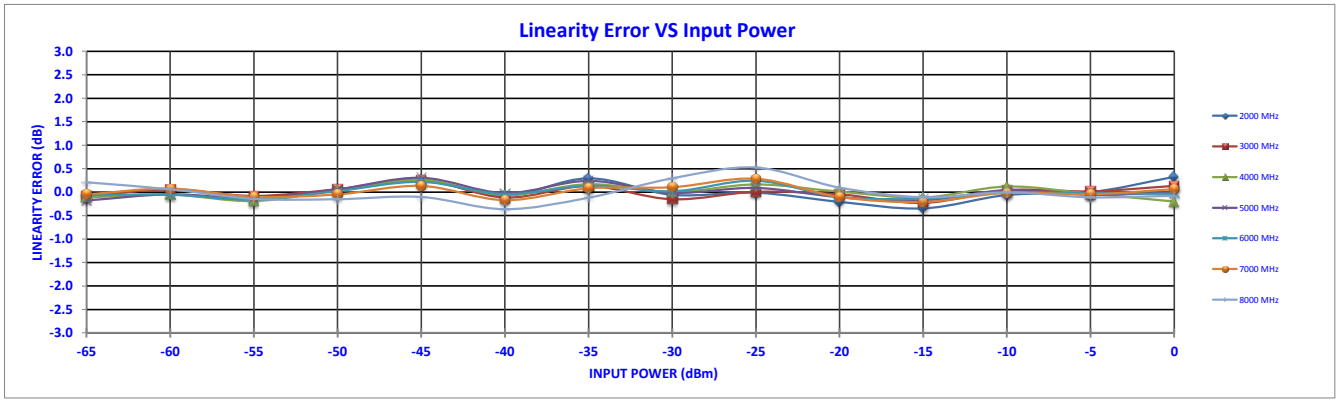
Test Temp: +25C

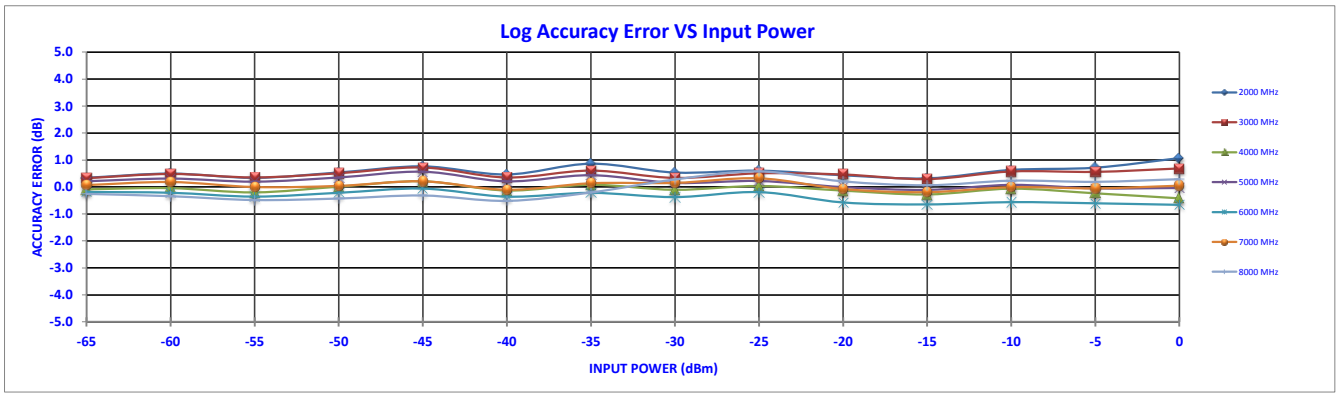
PLANAR MONOLITHICS INDUSTRIES
4921 Robert J. Mathews Parkway STE 1
TEL: 916-542-1401 FAX: 301-662-1731
EMAIL: SALES@PMI-RF.COM
ISO 9001:2000 CERTIFIED

DC Offset= 0.043

Frequency			-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2000 MHz	INTERCEPT (mV)	4909	304	667	1008	1374	1742	2073	2453	2782	3139	3479	3823	4197	4555	4932	Measured Value (mV)
	SLOPE (mV/dB)	70.76	-5	4	-9	3	17	-5	21	-4	-1	-15	-25	-4	0	23	Error (mV)
			-0.08	0.05	-0.13	0.05	0.25	-0.08	0.29	-0.06	-0.01	-0.21	-0.35	-0.06	0.00	0.33	LINEARITY ERROR (dB)
			0.34	0.50	0.34	0.54	0.76	0.47	0.86	0.54	0.61	0.43	0.32	0.63	0.72	1.07	ACCURACY ERROR (dB)
3000 MHz	INTERCEPT (mV)	4895.6	303	666	1009	1372	1739	2065	2435	2768	3132	3481	3821	4193	4544	4905	Measured Value (mV)
	SLOPE (mV/dB)	70.56	-6	4	-6	4	19	-8	9	-11	0	-3	-16	3	1	9	Error (mV)
			-0.09	0.06	-0.08	0.06	0.26	-0.12	0.13	-0.15	0.01	-0.05	-0.23	0.04	0.02	0.13	LINEARITY ERROR (dB)
			0.33	0.48	0.35	0.51	0.72	0.35	0.61	0.34	0.51	0.46	0.29	0.58	0.56	0.69	ACCURACY ERROR (dB)
4000 MHz	INTERCEPT (mV)	4841.1	274	629	970	1337	1703	2031	2398	2737	3099	3439	3781	4148	4488	4827	Measured Value (mV)
	SLOPE (mV/dB)	70.14	-8	-4	-13	3	18	-4	12	0	11	1	-8	8	-2	-14	Error (mV)
			-0.11	-0.05	-0.19	0.04	0.26	-0.06	0.17	0.00	0.16	0.01	-0.11	0.12	-0.03	-0.20	LINEARITY ERROR (dB)
			-0.09	-0.04	-0.20	0.01	0.21	-0.13	0.08	-0.10	0.04	-0.13	-0.28	-0.06	-0.24	-0.42	ACCURACY ERROR (dB)
5000 MHz	INTERCEPT (mV)	4854.7	295	654	998	1361	1728	2055	2423	2755	3112	3448	3793	4158	4501	4854	Measured Value (mV)
	SLOPE (mV/dB)	69.96	-12	-3	-9	4	21	-1	17	-1	6	-8	-12	3	-4	-1	Error (mV)
			-0.18	-0.05	-0.13	0.06	0.31	-0.02	0.24	-0.01	0.09	-0.11	-0.18	0.04	-0.06	-0.01	LINEARITY ERROR (dB)
			0.21	0.31	0.20	0.35	0.57	0.21	0.44	0.15	0.22	-0.01	-0.11	0.08	-0.05	-0.04	ACCURACY ERROR (dB)
6000 MHz	INTERCEPT (mV)	4812.7	267	617	959	1321	1684	2015	2377	2718	3083	3408	3755	4113	4462	4810	Measured Value (mV)
	SLOPE (mV/dB)	69.87	-4	-4	-11	2	15	-3	10	1	17	-7	-10	-1	-1	-3	Error (mV)
			-0.06	-0.05	-0.16	0.02	0.22	-0.04	0.14	0.02	0.24	-0.11	-0.14	-0.01	-0.02	-0.04	LINEARITY ERROR (dB)
			-0.18	-0.21	-0.36	-0.22	-0.06	-0.36	-0.22	-0.37	-0.19	-0.57	-0.65	-0.56	-0.60	-0.66	ACCURACY ERROR (dB)
7000 MHz	INTERCEPT (mV)	4855.6	285	645	984	1339	1703	2033	2402	2755	3119	3443	3787	4152	4501	4860	Measured Value (mV)
	SLOPE (mV/dB)	70.26	-3	5	-7	-3	9	-12	6	7	20	-7	-15	-1	-3	4	Error (mV)
			-0.05	0.07	-0.10	-0.05	0.13	-0.17	0.08	0.10	0.28	-0.10	-0.21	-0.01	-0.05	0.06	LINEARITY ERROR (dB)
			0.07	0.18	0.00	0.04	0.21	-0.10	0.14	0.15	0.32	-0.08	-0.19	-0.01	-0.05	0.05	ACCURACY ERROR (dB)
8000 MHz	INTERCEPT (mV)	4882.5	262	608	950	1306	1666	2004	2378	2764	3137	3463	3805	4169	4518	4877	Measured Value (mV)
	SLOPE (mV/dB)	71.31	15	4	-10	-11	-7	-26	-9	21	37	7	-8	0	-8	-5	Error (mV)
			0.21	0.06	-0.14	-0.15	-0.10	-0.36	-0.12	0.29	0.52	0.10	-0.11	0.00	-0.11	-0.08	LINEARITY ERROR (dB)
			-0.26	-0.34	-0.48	-0.43	-0.32	-0.51	-0.20	0.28	0.58	0.21	0.06	0.23	0.19	0.29	ACCURACY ERROR (dB)
	Flatness	+/- dB	0.30	0.42	0.42	0.48	0.54	0.49	0.54	0.45	0.40	0.52	0.48	0.60	0.66	0.87	

-65dBm mV-Out	
304	Max
262	Min





LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-2G8G-65-70MV
TESTED BY: J.Emperador
DATE: 01/15/2019
SERIAL NO: PL23428

Test Temp: -10C

DC Offset= 0.044

PLANAR MONOLITHICS INDUSTRIES
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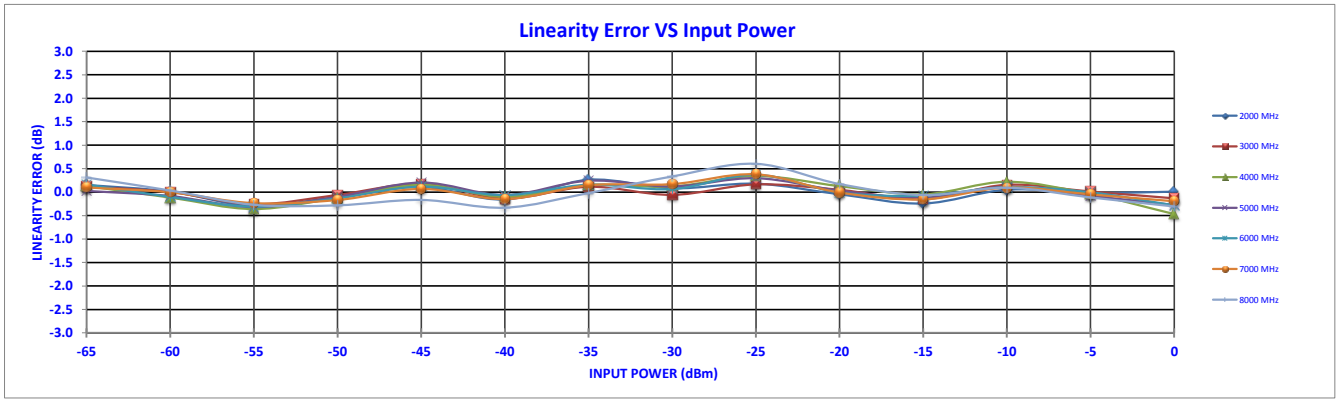
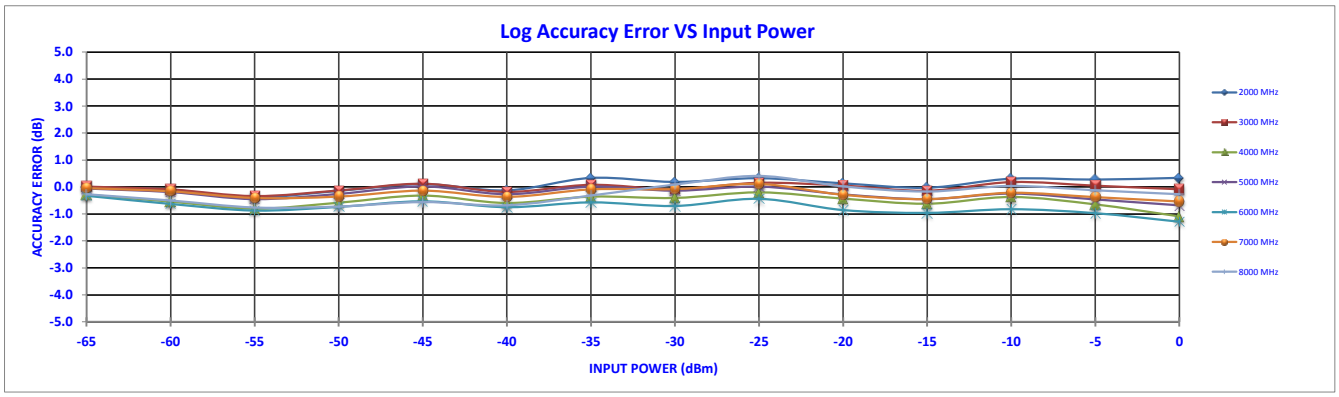
ISO 9001:2000 CERTIFIED

Frequency			-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2000 MHz	INTERCEPT (mV)	4897.3	280	626	960	1330	1701	2038	2424	2767	3130	3470	3812	4189	4540	4898	Measured Value (mV)
	SLOPE (mV/dB)	71.20	11	1	-21	-7	8	-11	19	6	13	-3	-17	4	-1	1	Error (mV)
			0.15	0.01	-0.30	-0.10	0.11	-0.16	0.26	0.08	0.18	-0.05	-0.24	0.05	-0.02	0.01	LINEARITY ERROR (dB)
			0.00	-0.10	-0.38	-0.14	0.11	-0.13	0.34	0.19	0.32	0.13	-0.03	0.31	0.27	0.34	ACCURACY ERROR (dB)
3000 MHz	INTERCEPT (mV)	4877.4	281	627	963	1331	1702	2034	2406	2748	3118	3464	3804	4180	4524	4868	Measured Value (mV)
	SLOPE (mV/dB)	70.84	8	0	-18	-4	13	-10	8	-4	12	3	-11	11	1	-9	Error (mV)
			0.12	0.00	-0.25	-0.06	0.18	-0.14	0.11	-0.06	0.16	0.05	-0.15	0.16	0.01	-0.13	LINEARITY ERROR (dB)
			0.01	-0.09	-0.34	-0.13	0.12	-0.18	0.08	-0.08	0.15	0.05	-0.14	0.18	0.05	-0.08	ACCURACY ERROR (dB)
4000 MHz	INTERCEPT (mV)	4829.9	260	595	930	1299	1671	2005	2375	2725	3093	3430	3770	4141	4475	4797	Measured Value (mV)
	SLOPE (mV/dB)	70.45	9	-8	-25	-9	11	-7	11	8	24	9	-3	16	-3	-33	Error (mV)
			0.13	-0.12	-0.36	-0.12	0.16	-0.10	0.15	0.12	0.34	0.13	-0.05	0.22	-0.04	-0.47	LINEARITY ERROR (dB)
			-0.28	-0.54	-0.80	-0.58	-0.32	-0.59	-0.36	-0.41	-0.20	-0.43	-0.62	-0.37	-0.65	-1.09	ACCURACY ERROR (dB)
5000 MHz	INTERCEPT (mV)	4845.2	276	620	955	1322	1695	2028	2401	2744	3108	3441	3782	4150	4488	4826	Measured Value (mV)
	SLOPE (mV/dB)	70.32	2	-6	-22	-7	14	-4	17	8	21	2	-8	8	-6	-19	Error (mV)
			0.03	-0.08	-0.32	-0.10	0.20	-0.06	0.24	0.12	0.30	0.03	-0.12	0.11	-0.08	-0.27	LINEARITY ERROR (dB)
			-0.06	-0.19	-0.45	-0.26	0.02	-0.27	0.01	-0.14	0.01	-0.28	-0.45	-0.24	-0.46	-0.68	ACCURACY ERROR (dB)
6000 MHz	INTERCEPT (mV)	4802.8	257	589	925	1288	1656	1994	2360	2704	3076	3400	3746	4109	4452	4783	Measured Value (mV)
	SLOPE (mV/dB)	70.11	11	-7	-22	-9	8	-4	11	5	26	-1	-5	7	0	-20	Error (mV)
			0.16	-0.10	-0.31	-0.13	0.12	-0.06	0.16	0.06	0.37	-0.01	-0.07	0.10	0.00	-0.28	LINEARITY ERROR (dB)
			-0.33	-0.63	-0.87	-0.74	-0.53	-0.75	-0.57	-0.70	-0.44	-0.86	-0.96	-0.82	-0.97	-1.29	ACCURACY ERROR (dB)
7000 MHz	INTERCEPT (mV)	4849.7	277	622	958	1315	1684	2021	2394	2748	3115	3440	3782	4152	4494	4836	Measured Value (mV)
	SLOPE (mV/dB)	70.46	7	0	-17	-12	5	-10	10	12	27	-1	-11	7	-3	-14	Error (mV)
			0.10	0.00	-0.24	-0.17	0.07	-0.15	0.15	0.17	0.38	-0.01	-0.15	0.10	-0.05	-0.19	LINEARITY ERROR (dB)
			-0.04	-0.16	-0.41	-0.36	-0.13	-0.37	-0.09	-0.08	0.11	-0.29	-0.45	-0.22	-0.38	-0.54	ACCURACY ERROR (dB)
8000 MHz	INTERCEPT (mV)	4876.8	261	598	933	1289	1654	1999	2378	2760	3136	3462	3802	4170	4512	4855	Measured Value (mV)
	SLOPE (mV/dB)	71.36	22	2	-19	-20	-12	-24	-1	24	43	12	-5	7	-8	-22	Error (mV)
			0.31	0.03	-0.27	-0.28	-0.17	-0.33	-0.02	0.33	0.60	0.17	-0.06	0.09	-0.11	-0.31	LINEARITY ERROR (dB)
			-0.27	-0.50	-0.76	-0.72	-0.56	-0.68	-0.32	0.09	0.41	0.02	-0.17	0.04	-0.12	-0.27	ACCURACY ERROR (dB)
	Flatness	+/- dB	0.17	0.27	0.27	0.30	0.34	0.31	0.45	0.45	0.42	0.50	0.47	0.57	0.62	0.81	

-65dBm mV-Out	
281	Max
257	Min





LOG TRANSFER WITH FREQUENCY
MODEL: ERDLVA-2G8G-65-70MV
TESTED BY: J.Emperador
DATE: 01/15/2019
SERIAL NO: PL23428

Test Temp: +85C

PLANAR MONOLITHICS INDUSTRIES
4921 Robert J. Mathews Parkway STE 1
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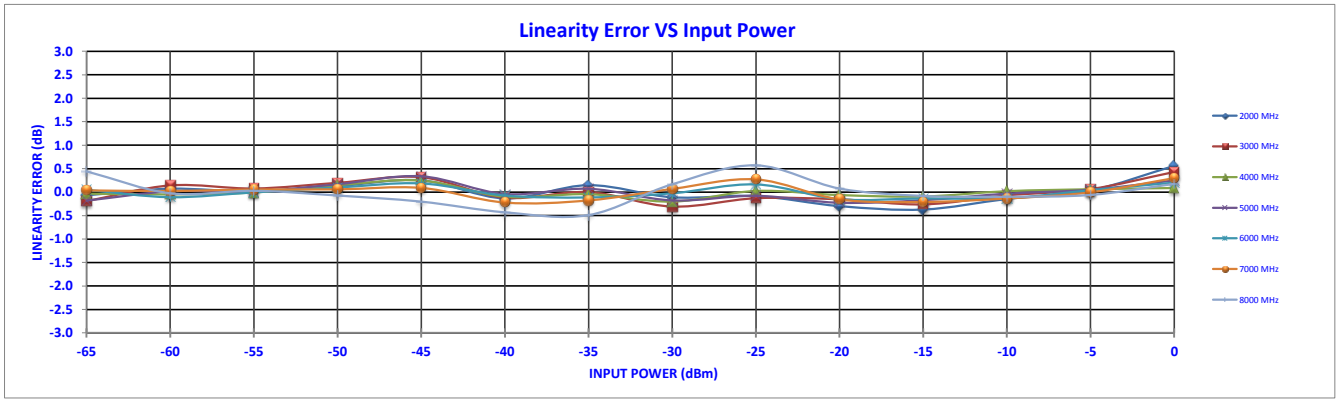
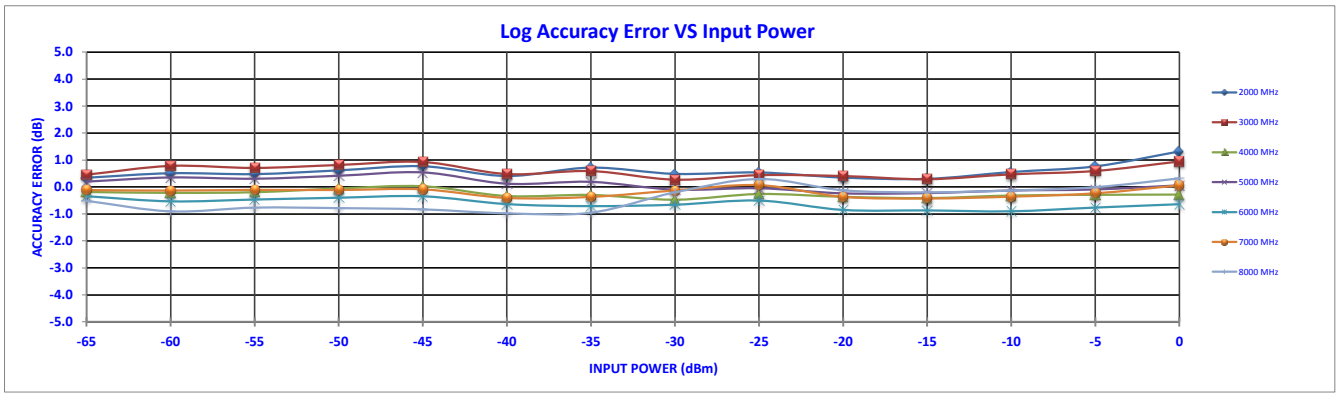
EMAIL: SALES@PMI-RF.COM
ISO 9001:2000 CERTIFIED

DC Offset= 0.095

Frequency			-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	RF Input Power (dBm)
2000 MHz	INTERCEPT (mV)	4886.5	304	666	1014	1374	1735	2060	2432	2766	3120	3457	3804	4172	4537	4926	Measured Value (mV)
	SLOPE (mV/dB)	70.43	-5	5	1	9	18	-9	10	-8	-6	-21	-26	-10	3	39	Error (mV)
			-0.07	0.07	0.01	0.13	0.25	-0.13	0.15	-0.11	-0.08	-0.30	-0.37	-0.15	0.04	0.56	LINEARITY ERROR (dB)
			0.34	0.51	0.48	0.62	0.77	0.41	0.72	0.49	0.54	0.35	0.30	0.55	0.76	1.32	ACCURACY ERROR (dB)
3000 MHz	INTERCEPT (mV)	4870	312	685	1030	1388	1746	2065	2423	2751	3113	3461	3803	4166	4525	4900	Measured Value (mV)
	SLOPE (mV/dB)	69.92	-13	10	5	14	22	-8	0	-22	-9	-11	-18	-5	5	30	Error (mV)
			-0.19	0.14	0.08	0.20	0.32	-0.12	0.00	-0.31	-0.13	-0.15	-0.26	-0.07	0.07	0.43	LINEARITY ERROR (dB)
			0.46	0.78	0.71	0.82	0.93	0.48	0.59	0.27	0.44	0.41	0.29	0.47	0.59	0.95	ACCURACY ERROR (dB)
4000 MHz	INTERCEPT (mV)	4807.9	267	615	967	1327	1683	2008	2361	2699	3064	3407	3754	4111	4463	4814	Measured Value (mV)
	SLOPE (mV/dB)	69.82	-2	-3	-1	10	17	-7	-3	-14	2	-4	-6	1	4	6	Error (mV)
			-0.03	-0.05	-0.01	0.15	0.25	-0.10	-0.04	-0.20	0.03	-0.06	-0.09	0.02	0.06	0.09	LINEARITY ERROR (dB)
			-0.19	-0.22	-0.19	-0.06	0.03	-0.33	-0.30	-0.47	-0.26	-0.36	-0.41	-0.32	-0.29	-0.28	ACCURACY ERROR (dB)
5000 MHz	INTERCEPT (mV)	4820.7	294	655	1002	1360	1719	2040	2395	2725	3079	3416	3767	4124	4477	4838	Measured Value (mV)
	SLOPE (mV/dB)	69.45	-13	1	1	12	23	-3	5	-12	-5	-16	-12	-2	4	17	Error (mV)
			-0.18	0.02	0.01	0.17	0.34	-0.04	0.07	-0.18	-0.08	-0.23	-0.17	-0.03	0.05	0.25	LINEARITY ERROR (dB)
			0.20	0.35	0.31	0.42	0.54	0.12	0.19	-0.10	-0.05	-0.24	-0.23	-0.13	-0.09	0.06	ACCURACY ERROR (dB)
6000 MHz	INTERCEPT (mV)	4774.9	256	593	948	1303	1657	1987	2332	2686	3047	3373	3722	4070	4430	4789	Measured Value (mV)
	SLOPE (mV/dB)	69.57	3	-7	0	7	13	-5	-8	-2	11	-10	-9	-9	3	14	Error (mV)
			0.05	-0.11	-0.01	0.10	0.19	-0.07	-0.11	-0.02	0.16	-0.15	-0.13	-0.13	0.04	0.20	LINEARITY ERROR (dB)
			-0.34	-0.53	-0.46	-0.40	-0.34	-0.63	-0.71	-0.66	-0.50	-0.85	-0.87	-0.90	-0.76	-0.64	ACCURACY ERROR (dB)
7000 MHz	INTERCEPT (mV)	4817.1	272	621	973	1323	1675	2003	2356	2723	3087	3407	3753	4108	4467	4838	Measured Value (mV)
	SLOPE (mV/dB)	69.96	3	2	4	4	6	-16	-12	5	19	-11	-15	-9	0	21	Error (mV)
			0.04	0.02	0.06	0.06	0.09	-0.22	-0.18	0.07	0.27	-0.15	-0.21	-0.14	0.00	0.30	LINEARITY ERROR (dB)
			-0.11	-0.13	-0.11	-0.11	-0.09	-0.41	-0.37	-0.13	0.07	-0.36	-0.43	-0.36	-0.23	0.06	ACCURACY ERROR (dB)
8000 MHz	INTERCEPT (mV)	4843.5	244	567	927	1276	1623	1963	2315	2718	3103	3424	3769	4124	4483	4856	Measured Value (mV)
	SLOPE (mV/dB)	71.25	31	-2	2	-5	-14	-31	-35	12	41	5	-6	-7	-4	13	Error (mV)
			0.44	-0.02	0.03	-0.07	-0.20	-0.43	-0.49	0.17	0.57	0.08	-0.08	-0.10	-0.06	0.18	LINEARITY ERROR (dB)
			-0.51	-0.90	-0.76	-0.78	-0.83	-0.98	-0.95	-0.20	0.30	-0.12	-0.20	-0.13	-0.01	0.32	ACCURACY ERROR (dB)
	Flatness	+/- dB	0.49	0.84	0.74	0.80	0.88	0.73	0.84	0.57	0.52	0.63	0.59	0.73	0.76	0.98	

-65dBm mV-Out		
312	Max	
244	Min