



Certificate of Calibration

PDI Dynamics, Inc.

Serial Number: L486

PDI Gage Factor: 94.8 $\mu\epsilon/V$

General Gage Factor: 329.1 $\mu\epsilon/mV/V_{exc}$

Initial Offset Voltage: 0.390 mV/V_{exc}

Transducer Model: PDI Transducer

Table 1 - Representative Calibration Data

Applied Strain ($\mu\epsilon$)	Transducer Output (mV/V _{exc})	Applied Strain ($\mu\epsilon$)	Transducer Output (mV/V _{exc})
-465	4.449	545	2.317
-445	4.265	622	3.422
-425	4.081	700	4.526
-405	3.897	777	5.630
-385	3.713	854	6.734
-365	3.529	931	7.838
-345	3.345	1008	8.942
-325	3.161	1085	10.046
-305	2.977	1162	11.150
-285	2.793	1239	12.254
-265	2.609	1316	13.358
-245	2.425	1393	14.462
-225	2.241	1470	15.566
-205	2.057	1547	16.670
-185	1.873	1624	17.774
-165	1.689	1701	18.878
-145	1.505	1778	19.982
-125	1.321	1855	21.086
-105	1.137	1932	22.190
-85	0.953	2009	23.294
-65	0.769	2086	24.398
-45	0.585	2163	25.502
-25	0.401	2240	26.606
-5	0.217	2317	27.710
15	0.033	2394	28.814
35	-0.151	2471	29.918
55	-0.335	2548	31.022
75	-0.519	2625	32.126
95	-0.703	2702	33.230
115	-0.887	2779	34.334
135	-1.071	2856	35.438
155	-1.255	2933	36.542
175	-1.439	3010	37.646
195	-1.623	3087	38.750
215	-1.807	3164	39.854
235	-1.991	3241	40.958
255	-2.175	3318	42.062
275	-2.359	3395	43.166
295	-2.543	3472	44.270
315	-2.727	3549	45.374
335	-2.911	3626	46.478
355	-3.095	3703	47.582
375	-3.279	3780	48.686
395	-3.463	3857	49.790
415	-3.647	3934	50.894
435	-3.831	4011	52.000
455	-4.015	4088	53.104
475	-4.199	4165	54.208
495	-4.383	4242	55.312
515	-4.567	4319	56.416
535	-4.751	4396	57.520
555	-4.935	4473	58.624
575	-5.119	4550	59.728
595	-5.303	4627	60.832
615	-5.487	4704	61.936
635	-5.671	4781	63.040
655	-5.855	4858	64.144
675	-6.039	4935	65.248
695	-6.223	5012	66.352
715	-6.407	5089	67.456
735	-6.591	5166	68.560
755	-6.775	5243	69.664
775	-6.959	5320	70.768
795	-7.143	5397	71.872
815	-7.327	5474	72.976
835	-7.511	5551	74.080
855	-7.695	5628	75.184
875	-7.879	5705	76.288
895	-8.063	5782	77.392
915	-8.247	5859	78.496
935	-8.431	5936	79.600
955	-8.615	6013	80.704
975	-8.799	6090	81.808
995	-8.983	6167	82.912
1015	-9.167	6244	84.016
1035	-9.351	6321	85.120
1055	-9.535	6398	86.224
1075	-9.719	6475	87.328
1095	-9.903	6552	88.432
1115	-10.087	6629	89.536
1135	-10.271	6706	90.640
1155	-10.455	6783	91.744
1175	-10.639	6860	92.848
1195	-10.823	6937	93.952
1215	-11.007	7014	95.056
1235	-11.191	7091	96.160
1255	-11.375	7168	97.264
1275	-11.559	7245	98.368
1295	-11.743	7322	99.472
1315	-11.927	7399	100.576
1335	-12.111	7476	101.680
1355	-12.295	7553	102.784
1375	-12.479	7630	103.888
1395	-12.663	7707	104.992
1415	-12.847	7784	106.096
1435	-13.031	7861	107.200
1455	-13.215	7938	108.304
1475	-13.399	8015	109.408
1495	-13.583	8092	110.512
1515	-13.767	8169	111.616
1535	-13.951	8246	112.720
1555	-14.135	8323	113.824
1575	-14.319	8400	114.928
1595	-14.503	8477	116.032
1615	-14.687	8554	117.136
1635	-14.871	8631	118.240
1655	-15.055	8708	119.344
1675	-15.239	8785	120.448
1695	-15.423	8862	121.552
1715	-15.607	8939	122.656
1735	-15.791	9016	123.760
1755	-15.975	9093	124.864
1775	-16.159	9170	125.968
1795	-16.343	9247	127.072
1815	-16.527	9324	128.176
1835	-16.711	9401	129.280
1855	-16.895	9478	130.384
1875	-17.079	9555	131.488
1895	-17.263	9632	132.592
1915	-17.447	9709	133.696
1935	-17.631	9786	134.800
1955	-17.815	9863	135.904
1975	-18.000	9940	137.008
1995	-18.184	10017	138.112
2015	-18.368	10094	139.216
2035	-18.552	10171	140.320
2055	-18.736	10248	141.424
2075	-18.920	10325	142.528
2095	-19.104	10402	143.632
2115	-19.288	10479	144.736
2135	-19.472	10556	145.840
2155	-19.656	10633	146.944
2175	-19.840	10710	148.048
2195	-20.024	10787	149.152
2215	-20.208	10864	150.256
2235	-20.392	10941	151.360
2255	-20.576	11018	152.464
2275	-20.760	11095	153.568
2295	-20.944	11172	154.672
2315	-21.128	11249	155.776
2335	-21.312	11326	156.880
2355	-21.496	11403	157.984
2375	-21.680	11480	159.088
2395	-21.864	11557	160.192
2415	-22.048	11634	161.296
2435	-22.232	11711	162.400
2455	-22.416	11788	163.504
2475	-22.600	11865	164.608
2495	-22.784	11942	165.712
2515	-22.968	12019	166.816
2535	-23.152	12096	167.920
2555	-23.336	12173	169.024
2575	-23.520	12250	170.128
2595	-23.704	12327	171.232
2615	-23.888	12404	172.336
2635	-24.072	12481	173.440
2655	-24.256	12558	174.544
2675	-24.440	12635	175.648
2695	-24.624	12712	176.752
2715	-24.808	12789	177.856
2735	-24.992	12866	178.960
2755	-25.176	12943	180.064
2775	-25.360	13020	181.168
2795	-25.544	13097	182.272
2815	-25.728	13174	183.376
2835	-25.912	13251	184.480
2855	-26.096	13328	185.584
2875	-26.280	13405	186.688
2895	-26.464	13482	187.792
2915	-26.648	13559	188.896
2935	-26.832	13636	190.000
2955	-27.016	13713	191.104
2975	-27.200	13790	192.208
2995	-27.384	13867	193.312
3015	-27.568	13944	194.416
3035	-27.752	14021	195.520
3055	-27.936	14098	196.624
3075	-28.120	14175	197.728
3095	-28.304	14252	198.832
3115	-28.488	14329	199.936
3135	-28.672	14406	201.040
3155	-28.856	14483	202.144
3175	-29.040	14560	203.248
3195	-29.224	14637	204.352
3215	-29.408	14714	205.456
3235	-29.592	14791	206.560
3255	-29.776	14868	207.664
3275	-29.960	14945	208.768
3295	-30.144	15022	209.872
3315	-30.328	15099	210.976
3335	-30.512	15176	212.080
3355	-30.696	15253	213.184
3375	-30.880	15330	214.288
3395	-31.064	15407	215.392
3415	-31.248	15484	216.496
3435	-31.432	15561	217.600
3455	-31.616	15638	218.704
3475	-31.800	15715	219.808
3495	-31.984	15792	220.912
3515	-32.168	15869	222.016
3535	-32.352	15946	223.120
3555	-32.536	16023	224.224
3575	-32.720	16100	225.328
3595	-32.904	16177	226.432
3615	-33.088	16254	227.536
3635	-33.272	16331	228.640
3655	-33.456	16408	229.744
3675	-33.640	16485	230.848
3695	-33.824	16562	231.952
3715	-34.008	16639	233.056
3735	-34.192	16716	234.160
3755	-34.376	16793	235.264
3775	-34.560	16870	236.368
3795	-34.744	16947	237.472
3815	-34.928	17024	238.576
3835	-35.112	17101	239.680
3855	-35.296	17178	240.784
3875	-35.480	17255	241.888
3895	-35.664	17332	242.992
3915	-35.848	17409	244.096
3935	-36.032	17486	245.200
3955	-36.216	17563	246.304
3975	-36.400	17640	247.408
3995	-36.584	17717	248.512
4015	-36.768	17794	249.616
4035	-36.952	17871	250.720
4055	-37.136	17948	251.824
4075	-37.320	18025	252.928
4095	-37.504	18102	254.032
4115	-37.688	18179	255.136
4135	-37.872	18256	256.240
4155	-38.056	18333	257.344
4175	-38.240	18410	258.448
4195	-38.424	18487	259.552
4215	-38.608	18564	260.656
4235	-38.792	18641	261.760
4255	-38.976	18718	262.864
4275	-39.160	18795	263.968
4295	-39.344	18872	265.072
4315	-39.528	18949	266.176
4335	-39.712	19026	267.280
4355	-39.896	19103	268.384
4375	-40.080	19180	269.488
4395	-40.264	19257	270.592
4415	-40.448	19334	271.696
4435	-40.632	19411	272.800
4455	-40.816	19488	273.904
4475	-41.000	19565	275.008
4495	-41.184	19642	276.112
4515	-41.368	19719	277.216
4535	-41.552	19796	278.320
4555	-41.736	19873	279.424
4575	-41.920	19950	280.528
4595	-42.104	20027	281.632
4615	-42.288	20104	282.736
4635	-42.472	20181	283.840
4655	-42.656	20258	284.944
4675	-42.840	20335	286.048
4695	-43.024	20412	287.152
4715	-43.208	20489	288.256
4735	-43.392	205	