

CALTRONIX

Certificate of Calibration

CALTRONIX certifies that this instrument has been calibrated to published specifications using measurement standards traceable to the National Institute of Standards and Technology (NIST). CALTRONIX's calibration system meets or exceeds the requirements of MIL-STD-45662A, ANSI/NCSL Z540-1, ISO/IEC Guide 25 and ISO/IEC 17025.

CALTRONIX is accredited to ISO/IEC 17025 by ACLASS, Assured Calibration and Laboratory Accreditation Select Services, Certificate #'s AC-1182 & AC-1183.

Customer :	UNIVERSITY OF BUFFALO	Test Uncertainty Ratio:> or =	4 :1
	WHITE ROAD	Procedure :	CAL-8048
	BUFFALO, NY 14260	Interval :	12 Months
Description :	DC CALIBRATOR	Date Received :	07/19/2007
Manufacturer :	EDC	Date Calibrated:	07/25/2007
Model Number :	522	Date Due :	07/25/2008
Serial Number :	LC52096	Relative Humidity < or =	50 %
Company ID :		Temperature	74 F +/- 3.0 F
R.O. Number :	7K957		OUT OF TOLERANCE, ADJUSTED TO MFG SPEC.

Uncertainty budgets have been calculated at a 95% confidence level using a coverage factor of k=2.


Calibration Facility : 100 Town Centre Drive <> Rochester, New York 14623

Asset	Manufacturer	Model No.	Description	Caled	Due
3283	HP	3458A	DIGITAL MULTIMETER	04/20/2007	04/20/2008
3063	CLAROSTAT	240-C	POWER RESISTOR	06/01/2006	06/01/2008
2097	HP	334A	DISTORTION ANALYZER	06/07/2007	06/07/2008
3212	L & N	100 OHM	100 OHM STD RESISTOR	11/05/2003	11/05/2008

NIST	Cap	Sandia 49426	Volts	Fluke JJA	Dimen	821/270003
Numbers	Ind	811/264817	Res	811/269310	Mass	822/264749
	Freq	USNO (GPS)	Temp	255156		



MICHAEL DENT
Calibration Technician


Michael A. Dent 07/25/2007
Director of Quality

CALTRONIX Inc. <> 100 Town Centre Drive <> Rochester, New York 14623 <> 585 359-3780 <> Fax 585 334-0064

This certificate may not be altered or reproduced, except in full, without written approval of CALTRONIX.

CALTRONIX INC.
100 Town Centre Drive
Rochester, New York 14623
(585) 359-3780

07/25/2007

UNIVERSITY OF BUFFALO
ATTN: CHRIS BUDDEN
WHITE ROAD
BUFFALO, NY 14260

Dear Customer:

In accordance with Caltronix, Inc.'s Quality System, you are hereby notified that the following listed M&TE was Out-Of-Tolerance when received for Calibration.

M & TE Manufacturer : EDC
 Model Number : 522
 Serial Number : LC52096
 Company ID :
 Description : DC CALIBRATOR
 R.O. Number : 7K957

The Out-Of-Tolerance condition(s) were as Follows:

10 mA and 100 mA ranges output were low.
Adjusted all ranges / functions to
within tolerance.

Our records indicate this unit was received Out-Of-Tolerance
3 time(s) out of the last 5 time(s) we recieved this unit.
The following is a history of the last 10 received conditions.

0 -> Out of Tolerance	5 ->
1 -> Out of Tolerance	6 ->
2 -> In Tolerance	7 ->
3 -> Out of Tolerance	8 ->
4 -> In Tolerance	9 ->

MICHAEL DENT
Calibration Technician

MICHAEL DENT
DIRECTOR OF QUALITY

C A L I B R A T I O N D A T A S H E E T

CALTRONIX, Inc.
 100 Town Centre Drive
 Rochester, NY 14623
 (585) 359-3780 FAX (585) 334-0064

R.O. Number	7K957	Calibrated By	9	Date Calibrated	07/25/07
Manufacturer	EDC	Company	UNIVERSITY OF BUFFALO		
Model	522	Serial	LC52096		
Description	DC CALIBRATOR	ID No.			

Function/Parameter Tested	Lo Limit	As Found	Hi Limit	As Left
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DC VOLTAGE CALIBRATION					
RANGE 0 TO 11.11110					
SETTING	2.00000	1.999910	2.000001	2.000090	2.000016
	2.11111	2.111018	2.111104	2.111202	2.111124
	2.22222	2.222126	2.222203	2.222314	2.222230
	2.33333	2.333233	2.333305	2.333427	2.333342
	2.44444	2.444341	2.444402	2.444539	2.444454
	2.55555	2.555449	2.555510	2.555651	2.555566
	2.66666	2.666557	2.666610	2.666763	2.666676
	2.77777	2.777664	2.777715	2.777876	2.777787
	2.88888	2.888772	2.888815	2.888988	2.888900
	2.99999	2.999880	2.999916	3.000100	3.000010
	1.99999	1.999900	1.999906	2.000080	2.000012
	2.(10)(10)(10)(10)(10)	3.110988	3.111029	3.111212	3.111121
	3.00000	2.999890	3.000010	3.000110	3.000022
	4.00000	3.999870	4.000022	4.000130	4.000026
	5.00000	4.999850	5.000033	5.000150	5.000032
	6.00000	5.999830	6.000023	6.000170	6.000044
	7.00000	6.999810	7.000047	7.000190	7.000049
	8.00000	7.999790	8.000040	8.000210	8.000060
	9.00000	8.999770	9.000045	9.000230	9.000054
	(10).00000	9.999750	10.000144	10.000250	10.000082
RANGE 0 TO 111.11110					
SETTING	10.0000	9.9993	10.000034	10.0007	10.000271
	20.0000	19.9991	20.00016	20.0009	20.00029
	30.0000	29.9989	30.00022	30.0011	30.00044
	40.0000	39.9987	40.00040	40.0013	40.00051
	50.0000	49.9985	50.00056	50.0015	50.00073
	60.0000	59.9983	60.00049	60.0017	60.00086
	70.0000	69.9981	70.00075	70.0019	70.00096
	80.0000	79.9979	80.00073	80.0021	80.00118
	90.0000	89.9977	90.00077	90.0023	90.00126
	(10)0.0000	99.9975	100.00175	100.0025	100.00158
RANGE 0 TO 111.1110m					
	(10)0.0000m	99.9955	99.99908	100.0045	100.00087
DC CURRENT CALIBRATION					
RANGE 0 TO 111.1110					
SETTING	(10)0.0000	99.9948	99.99031 *	100.0052	100.00027

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R.O. Number	7K957	Calibrated By	9	Date Calibrated	07/25/07
Manufacturer	EDC	Company	UNIVERSITY OF BUFFALO		
Model	522	Serial	LC52096		
Description	DC CALIBRATOR	ID No.			

Function/Parameter Tested	Lo Limit	As Found	Hi Limit	As Left
RANGE 0 TO 11.11110				
SETTING (10)0.0000	9.99930	9.998929 *	10.00070	10.000014
NOISE AND RIPPLE CAL				
RANGE 0 TO 111.110				
SETTING (10)0.0000				
AT FULL LOAD in uVrms	' N/A '	.195	500	.195