

# 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.

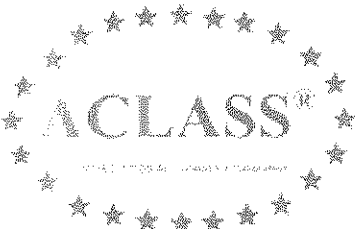
Customer :	UNIVERSITY OF BUFFALO	Test Uncertainty Ratio:> or =	4 : 1
	WHITE ROAD	Procedure :	CAL-3019
	BUFFALO, NY 14260	Interval :	12 Months
Description :	DIGITAL OSCILLOSCOPE	Date Received :	09/21/2006
Manufacturer :	TEKTRONIX	Date Calibrated:	09/25/2006
Model Number :	TDS224	Date Due :	09/25/2007
Serial Number :	B011630	Relative Humidity < or =	50 %
Company ID :		Temperature	74 F +/- 3.0 F
R.O. Number :	5R393		IN TOLERANCE

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	Calcd	Due
1076	TEKTRONIX	TM501	MAINFRAME POWER SUPPLY	Calibration Not Required	
2020	JOHN FLUKE	5700A	METER CALIBRATOR	11/14/2005	11/14/2006
2046	IWATSU	SC-340	OSCILLOSCOPE CALIBRATOR	09/28/2005	09/28/2006
2087	HP	8620C	SWEEP OSCILLATOR	03/27/2006	03/27/2007

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		



JAMES R. COYLE  
Calibration Technician

Michael A. Dent 09/25/2006  
Director of Quality

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

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

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

R.O. Number	5R393	Calibrated By	30	Date Calibrated	09/25/06
Manufacturer	TEKTRONIX	Company	UNIVERSITY OF BUFFALO		
Model	TDS224	Serial	B011630		
Description	DIGITAL OSCILLOSCOPE	ID No.			

Function/Parameter Tested	Lo Limit	As Found	Hi Limit	As Left
SELF TEST	' PASS '	PASS	' FAIL '	PASS
GAIN V				
CHANNEL 1    5 mV/DIV	.0338	.0346	.0362	.0346
200 mV/DIV	1.351	1.392	1.449	1.392
2 V/DIV	13.51	14.00	14.49	14.00
CHANNEL 2    5 mV/DIV	.0338	.0344	.0362	.0344
200 mV/DIV	1.351	1.392	1.449	1.392
2 V/DIV	13.51	14.00	14.49	14.00
CHANNEL 3    5 mV/DIV	.0338	.0354	.0362	.0354
200 mV/DIV	1.351	1.392	1.449	1.392
2 V/DIV	13.51	13.90	14.49	13.90
CHANNEL 4    5 mV/DIV	.0338	.0354	.0362	.0354
200 mV/DIV	1.351	1.392	1.449	1.392
2 V/DIV	13.51	14.09	14.49	14.09
BANDWIDTH V				
CHANNEL 1	2.12	2.58	' N/A '	2.58
CHANNEL 2	2.12	2.54	' N/A '	2.54
CHANNEL 3	2.12	2.58	' N/A '	2.58
CHANNEL 4	2.12	2.62	' N/A '	2.62
SAMPLE RATE & DELAY TIME	-2	.3	2	.3
TRIGGER 750mV @ 500mV/DIV				
CHANNEL 1	' STABLE '	STABLE	' UNSTABLE '	STABLE
CHANNEL 2	' STABLE '	STABLE	' UNSTABLE '	STABLE
CHANNEL 3	' STABLE '	STABLE	' UNSTABLE '	STABLE
CHANNEL 4	' STABLE '	STABLE	' UNSTABLE '	STABLE