



# SOUTHWEST RESEARCH INSTITUTE®

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Institute Calibration Laboratory  
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Calibration Laboratory  
Certificate #0972-01

## Certificate of Calibration

**Submitted By:** DIV20

**Address:** B57

**Contact:** DON BANNON

**Manufacturer / Model:** SWRI / 1000 OHM

**Description:** RESISTOR BOX

**Serial No:** 171001

**Asset No:** 003096

**Procedure:** DECADE RESISTOR TO 100 MOHM-STEP - 21 MAR 2006

**Work Order:** 303077009

**Date Issued:** Oct 17, 2007

**Calibration Date:** Oct 17, 2007

**\*Calibration Due:** Apr 17, 2008

**Calibration Location:** Bldg. 64

**Environment:** Temp. 72.0°F Hum. 45 %RH

**\*\*Data Type:** FOUND-LEFT

**DivID/Location:** N/A

This certificate documents traceability to the National Institute of Standards and Technology (NIST) and the International System of Units (SI). The Laboratory quality system conforms to ISO/IEC 17025, 2005, ANSI/NCSL Z540-1-1994 and relevant requirements of the ISO 9000-2000 standard. This certificate shall not be reproduced, except in full, without the written approval of the Southwest Research Institute Calibration Laboratory. This certificate shall not be used to claim product endorsement by Southwest Research Institute, American Association for Laboratory Accreditation (A2LA) or any agency of the U. S. Government. Results of this calibration relate only to the instrument described above at the time of calibration and does not imply any long term stability of the instrument.

\*Determined by the customer, does not imply the instrument will remain within tolerance as any number of factors may cause an out-of-tolerance condition before this date. \*\*Found/Left = adjustment and/or repair was not required, As Left = adjusted and/or repaired was required. The client has sole responsibility for determination of in-/out-of-tolerance or compliance/noncompliance. See Remarks or attached Measurement Report with the same Work Order number for data.

Reported uncertainty calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM) and represents an expanded uncertainty with a coverage factor of k=2 to approximate a 95% confidence level.

**Remarks:** 1000.47 Ohm

### Standards Used

Asset No.	Serial No.	Manufacturer	Model	Description	Cal Due
001505	2823A07741	HEWLETT-PACKARD	3458A/OPT 002	MULTIMETER	May 07, 08

*Scott Keate*

Reviewed by: ( ) wgh (✓) srk ( ) jrg ( ) blt ( ) pwc  
Metrology Technician

m:\a2la1.rpt Rev date August 15, 2005

*Joe Greagrey*

Measurements by: Joe Greagrey  
Metrology Technician

Southwest Research Institute  
Calibration Laboratory  
Measurement Report

Work Order:	303077009	Mfr:	SWRI	Technician:	JRG
Asset No:	003096	Model:	1000 OHM		
Serial No:	171001	Type:	Resistors	Cal Date:	17-Oct-07
Remarks:					

Function/Range	Test Point	TI Reading	Difference	+/-Limit	+/-Uncertainty	Found/Left
Resistance	Ohm	Ohm	Ohm	Ohm	Ohm	Result
	1000.00	1000.47	0.47	10.00	0.021	Pass
END OF REPORT						