SOUTHWEST RESEARCH INSTITUTE®

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Institute Quality Systems
Institute Calibration Laboratory
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Certificate of Calibration

ACCREDITED
Calibration Laboratory
Certificate #0972-01

Submitted By: DIV20
Address: B51
Contact: DON BANNON
Manufacturer / Model: SWRI / 100K-10M OHMS
Description: RESISTOR BOX
Serial No: 7243
Asset No: 007243
Procedure: DECADE RESISTOR - 21 MAR 06

Work Order: 303082214
Date Issued: Jul 19, 2008
Calibration Date: Jul 19, 2008
***Calibration Due:** Jan 19, 2009
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: None

Standards Used

Asset No.	Serial No.	Manufacturer	Model	Description	Cal Due
001505	2823A07741	HEWLETT-PACKARD	3458A/OPT 002	MULTIMETER	May 08, 09

Reviewed by: ( ) srk ( ) mar ( ) wgh

Measurements by: Clint Rowe
Metrology Technician

Southwest Research Institute
Calibration Laboratory
Measurement Report

Work Order:	303082214	Mfr.	SWRI	Technician	CER
Asset No.	007243	Model	100k-10M OHM		
Serial No.	7243	Type.	Resistors	Cal Date.	19-Jul-08
Remarks:					

Function/Range	Test Point	TI Reading	Difference	+/-Limit	+/-Uncertainty	Found/Left
Resistance	kOhm	kOhm	kOhm	kOhm	kOhm	Result
	100.00	99.74	-0.26	1.00	0.0018	Pass
	MOhm	MOhm	MOhm	MOhm	MOhm	
	10.00	9.96	-0.04	0.10	0.0010	Pass

END OF REPORT