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: B57
Contact: DON BANNON
Manufacturer / Model: TCC / S102C
Description: RESISTOR
Serial No: 1
Asset No: 011354
Procedure: DECADE RESISTOR TO 100 MOHM-STEP - 21 MAR 2006

Work Order: 303074757
Date Issued: Jun 6, 2007
Calibration Date: Jun 6, 2007
***Calibration Due:** Dec 6, 2007
Calibration Location: Bldg. 64
Environment: Temp. 68.0°F Hum. 42 %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: Unit value of 250.0158 ohms; Uncertainty of measurement is 0.0050 ohms

Standards Used

Asset No.	Serial No.	Manufacturer	Model	Description	Cal Due
007001	2823A21362	HEWLETT-PACKARD	3458A/OPT 002	MULTIMETER	Feb 26, 08

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

Measurements by: Joe Greagrey
Metrology Technician

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

Southwest Research Institute
Calibration Laboratory
Measurement Report

Work Order:	303074757	Mfr:	TCC	Technician:	JRG
Asset No:	011354	Model:	S102C		
Serial No:	1	Type:	Resistor 250 Ohm	Cal Date:	06-Jun-07
Remarks:					

Function/Range	Test Point	TI Reading	Difference	+/-Limit	+/-Uncertainty	Found/Left
Resistance	Ohm	Ohm	Ohm	Ohm	Ohm	Result
	250.0000	250.0158	0.0158	10	0.0050	Pass

END OF REPORT