

**SOUTHWEST RESEARCH INSTITUTE  
CALIBRATION LABORATORY  
MEMORANDUM**

**September 27, 2004**

**To:** RON GREEN DIV20 T1

**From:** Walt Hill, Metrology Group Leader  
Institute Calibration Laboratory

**Subject:** Status of Calibration Supplier

**Manufacturer/Model:** OHIO SEMITRONICS PC5-103D

**Description:** AC WATT TRANSDUCER

**Serial Number:** 03080278

**Asset Number:** 010469

**Work Order Number:** 444060807

**Date Calibrated:** September 20, 2004

**Supplier:** CMI, CENTERVILLE GA - A2LA - 800 525-0408

**Remarks:** CMI Cert. # 1000176216.

- Supplier is on the Approved Suppliers List (ASL).
- Supplier is not on the Approved Suppliers List.
- Calibration is ISO 17025 accredited.
- Calibration is not ISO 17025 accredited.
- There is no known supplier to meet ISO 17025 accreditation at this time.

Please notify the Institute Calibration Laboratory, extension 5215, of any discrepancies with the item or calibration documentation.

Attachment(s) 2

Customer Information

Southwest Research Institute  
6220 Culebra Rd  
San Antonio, TX 78238

PO #: 479072ROM  
Reference #: REQ 04027651  
Account #: SO1043  
SO #: 47112

Instrument Identification

Instrument Id: **03080278**

Noun: AC Watt Transducer

Serial #: 03080278

Mfr: Ohio Semitronics

Model: PC5-103D

Accuracy:  $\pm 0.5\%$  of Full Scale

Expanded Measurement Uncertainty at K=2:  $\pm 0.1\%$  of Full Scale

Certification Information

Reason For Service: Calibration

Technician: Larry Welch

Type Of Calibration: Normal

Cal Date: 20 SEP 04

As Found Condition: In Tolerance

Cal Due: 20 SEP 05

As Left Condition: Left As Found

Temperature: 23.0 °C

Procedure: Mfr Manual :

Humidity: 46.0 %

Quality Remarks: Calibration complies with ISO/IEC 17025 & ANSI/NCSL Z540 requirements.

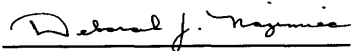
*This instrument has been calibrated using standards with accuracies traceable to the National Institute of Standards and Technology, derived from natural physical constants, derived from ratio measurements, or compared to consensus standards.*

*Reported uncertainties and/or "test uncertainty ratios" (TUR's) are expressed as expanded uncertainty values at approximately the 95% confidence level using a coverage factor of K=2. A TUR of 4:1 is routinely observed unless otherwise noted on the Certificate. Statements of compliance, where applicable, are based on test results falling within specified limits with no reduction by the uncertainty of the measurement.*


*Certified Measurements, Inc.'s Quality System complies with the applicable requirements of 10CFR Part 50 Appendix B, 10CFR Part 21, ANSI/NCSL Z540-1 and ISO/IEC 17025.*

*The results contained herein relate only to the item calibrated. Calibration due dates appearing on the Certificate of Calibration and label are determined by the client for administrative purposes and do not imply continued conformance to specification.*

*This certificate shall not be reproduced except in full, without the written permission of Certified Measurements, Inc.*



Deborah J. Nazimiec, Technical Manager



Robert S. Lamb, President

✓ In Tolerance    ✗ Out of Tolerance

**Calibration Data**

Range	Nominal	As Found		As Left	Min	Max
Watt transducer, output in volts dc						
20 W	2.00	2.018	✓	Left as Found	1.95	2.05
40 W	4.00	4.018	✓	Left as Found	3.95	4.05
60 W	6.00	6.015	✓	Left as Found	5.95	6.05
80 W	8.00	8.005	✓	Left as Found	7.95	8.05
100 W	10.00	9.994	✓	Left as Found	9.95	10.05

End of Datasheet

**Calibration Standards**

<u>NIST Traceable #</u>	<u>Instrument ID#</u>	<u>Description</u>	<u>Model</u>	<u>Calibration Date</u>	<u>Date Due</u>
1000168068	00127	Multimeter	1271	14 APR 2004	31 OCT 2004
1000170821	22956	Calibrator	811A	04 JUN 2004	30 JUN 2005

Your calibration records are available on-line at <http://www.cmi-labs.com>

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510 North Houston Lake Blvd.  
Centerville, Georgia 31028  
Tel: 478.953.5171  
Fax: 478.953.2688

**CERTIFIED MEASUREMENTS, INC.**  
*Raising the Calibration Standard...*

1395 South Marietta Parkway  
Building 200, Suite 206  
Marietta, Georgia 30067  
Tel: 770.428.1901  
Fax: 770.428.7331