

**SOUTHWEST RESEARCH INSTITUTE  
CALIBRATION LABORATORY  
MEMORANDUM**

**November 30, 2007**

**To:** DON BANNON DIV20 B57

**From:** Institute Calibration Laboratory

**Subject:** Status of Calibration Supplier

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

**Description:** AC WATT TRANSDUCER

**Serial Number:** 03080276

**Asset Number:** 010468

**Work Order Number:** 303077279

**Date Calibrated:** November 12, 2007

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

**Remarks:**

- 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 contact the Institute Calibration Laboratory, extension 5215, if you have any questions about the condition of this equipment or calibration documentation.

Attachment(s) 2

**Customer Information**

Southwest Research Institute  
6220 Culebra Rd  
San Antonio, TX 78238

PO #: 887739J  
Reference #: 08004191  
Account #: SO1043  
SO #: 67492

**Instrument Identification**

Instrument Id: **03080276**

Noun: AC Watt Transducer

Serial #: 03080276

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: Debbie Nazimiec

Type Of Calibration: Normal

Cal Date: 12 NOV 07

As Found Condition: In Tolerance

Cal Due: 12 NOV 08

As Left Condition: Left As Found

Temperature: 23.1 °C

Procedure: Mfr Manual :

Humidity: 33.0 %

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.*

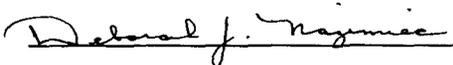
*Reported uncertainties and/or "test uncertainty ratios" (TUR's) are expressed as expanded uncertainty values at approximately the 95% confidence level using a coverage factor of K=2.*

*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 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



Edvaldo Calvao, 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	2.004	✓	Left as Found	■	1.95	2.05
40 W	4.00	4.013	✓	Left as Found	■	3.95	4.05
60 W	6.00	6.013	✓	Left as Found	■	5.95	6.05
80 W	8.00	8.010	✓	Left as Found	■	7.95	8.05
100 W	10.00	10.011	✓	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>
1000206177	22956	Calibrator	811A	15 JUN 2006	30 JUN 2008
1000232721	00127	Multimeter	1271	26 OCT 2007	30 APR 2008

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

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

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