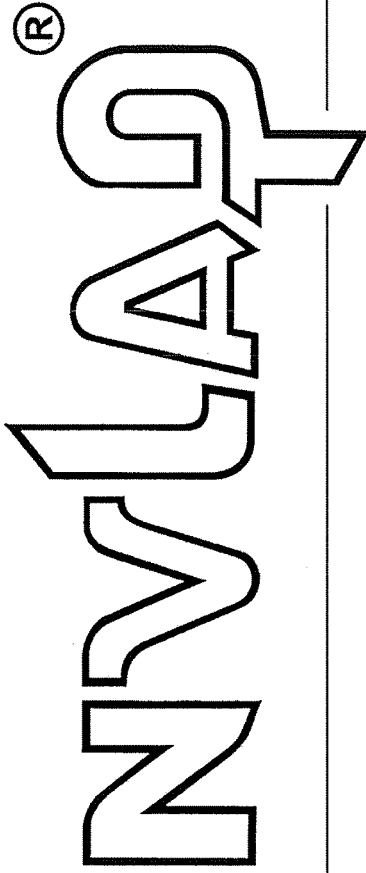


United States Department of Commerce  
National Institute of Standards and Technology



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## Certificate of Accreditation to ISO/IEC 17025:2005

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NVLAP LAB CODE: 2006661-0

**Bios International Corporation**  
Butler, NJ

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,  
listed on the Scope of Accreditation, for:*

### **CALIBRATION LABORATORIES**

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.  
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality  
management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).*

2009-10-01 through 2010-09-30

Effective dates



*Dolly S. Bruce*

For the National Institute of Standards and Technology



**National Voluntary  
Laboratory Accreditation Program**



**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005**

**Bios International Corporation**  
 10 Park Place  
 Butler, NJ 07405-1371  
 Mr. Harvey Padden  
 Phone: 973-492-8400 x13 Fax: 973-492-8270  
 E-mail: padh@biosint.com  
 URL: www.biosint.com

**CALIBRATION LABORATORIES**

**NVLAP LAB CODE 200661-0**

Scope Revised: 2010-04-21

*NVLAP Code:* 20/A01                      ANSI/NCSL Z540-1-1994; Part 1                      Compliant

**DC/LOW FREQUENCY ELECTROMAGNETICS**

*NVLAP Code:* 20/E05  
 DC Current

<i>Range</i>	<i>Best Uncertainty (±) <sup>note 1</sup></i>	<i>Remarks</i>
0.1 to 20 mA	0.015 %	

*NVLAP Code:* 20/E06  
 DC Voltage

<i>Range</i>	<i>Best Uncertainty (±) <sup>note 1</sup></i>	<i>Remarks</i>
0.1 to 28 V	0.015 %	

**TIME AND FREQUENCY**

*NVLAP Code:* 20/F01  
 Frequency Dissemination <sup>note 2</sup>

<i>Range</i>	<i>Best Uncertainty (±) <sup>note 1</sup></i>	<i>Remarks</i>
0.1 Hz to 10 MHz	0.000025 %	Frequency Period 200 ns to 10 sec

2009-10-01 through 2010-09-30

*Effective dates*

*Sally S. Bruce*

*For the National Institute of Standards and Technology*



**National Voluntary  
Laboratory Accreditation Program**



**CALIBRATION LABORATORIES**

**NVLAP LAB CODE 200661-0**

Scope Revised: 2010-04-21

**MECHANICAL**

*NVLAP Code:* 20/M05

Flow Rate

<i>Range in sccm</i> <sup>note 3</sup>	<i>Best Uncertainty (±)</i> <sup>note 1</sup>	<i>Remarks</i>
1.0 to 2.5	0.16 %	
2.5 to 5.0	0.12 %	
5.0 to 50 000	0.071 %	
50 000 to 500 000	0.16 %	

**THERMODYNAMIC**

*NVLAP Code:* 20/T05

Pressure <sup>note 2</sup>

<i>Range</i>	<i>Best Uncertainty (±)</i> <sup>note 1</sup>	<i>Remarks</i>
0 kPa to 1 kPa	0.15 kPa	
87 kPa to 173 kPa	3.47 Pa	

*NVLAP Code:* 20/T07

Resistance Thermometry <sup>note 2</sup>

<i>Range in °C</i>	<i>Best Uncertainty (±)</i> <sup>note 1</sup>	<i>Remarks</i>
-20 to -5	0.05 °C	
-5 to 70	0.03 °C	
70 to 130	0.03 °C	

1. Represents an expanded uncertainty using a coverage factor,  $k = 2$ , at an approximate level of confidence of 95 %.
2. Calibration service provided in support of Bios International Corporation manufactured flow standards only.
3. Gas under measurement at laboratory pressure and temperature. Standardization to 0° C and 760 mmHg.

2009-10-01 through 2010-09-30

*Effective dates*

*Sally S. Bruce*

*For the National Institute of Standards and Technology*