



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005  
& ANSI/NCSL Z540-1-1994

BIOTECHNICAL SERVICE, INC.  
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CALIBRATION

Valid To: February 29, 2012

Certificate Number: 2901.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations<sup>1</sup>:

I. Mechanical

Parameter/Equipment	Range	CMC <sup>2</sup> (±)	Comments
Mass <sup>3</sup>	(1 to 2) g	0.002 mg	Class 1 ASTM and below
	(5 to 10) g	0.003 mg	
	20 g	0.15 mg	
	50 g	0.37 mg	
	100 g	0.73 mg	
	200 g	1.5 mg	
	500 g	1.9 mg	
	1 mg	0.00088 mg	
	2 mg	0.00061 mg	
	3 mg	0.00075 mg	
	5 mg	0.00061 mg	
	10 mg	0.00073 mg	
	20 mg	0.00065 mg	
	30 mg	0.00083 mg	
	50 mg	0.00091 mg	
	100 mg	0.0011 mg	
	200 mg	0.00091 mg	
	300 mg	0.0013 mg	
	500 mg	0.0012 mg	

## II. Time & Frequency

Parameter/Equipment	Range	CMC <sup>2</sup> ( $\pm$ )	Comments
Frequency – Measure <sup>3</sup>	10 MHz	3.1 % of rdg	HP 5334B
Time/Stopwatch <sup>3</sup>	5 sec to 99 hrs	5 sec/day	VWR Timer/Counter

<sup>1</sup> This laboratory offers commercial and field calibration service.

<sup>2</sup> Calibration and Measurement Capability (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. Calibration and Measurement Capabilities represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of  $k = 2$ . The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.

<sup>3</sup> Field calibration service is available for this calibration and this laboratory meets A2LA R104 – *General Requirements: Accreditation of Field Testing and Field Calibration Laboratories* for these calibrations. Please note the actual measurement uncertainties achievable on a customer's site can normally be expected to be larger than the CMC found on the A2LA Scope. Allowance must be made for aspects such as the environment at the place of calibration and for other possible adverse effects such as those caused by transportation of the calibration equipment. The usual allowance for the actual uncertainty introduced by the item being calibrated, (e.g. resolution) must also be considered and this, on its own, could result in the actual measurement uncertainty achievable on a customer's site being larger than the CMC.



The American Association for Laboratory Accreditation

World Class Accreditation

# Accredited Laboratory

A2LA has accredited

## BIOTECHNICAL SERVICES, INC.

*San Diego, CA*

for technical competence in the field of

### Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories*. This laboratory also meets the requirements of ANSI/NCSL Z540-1-1994 and any additional program requirements in the field of calibration. 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 8 January 2009*).

Presented this 13<sup>th</sup> day of March 2010.



  
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Peter Meyer

President & CEO  
For the Accreditation Council  
Certificate Number 2901.01  
Valid to February 29, 2012  
Revised on January 20, 2012

*For the calibrations to which this accreditation applies, please refer to the laboratory's Calibration Scope of Accreditation.*