CERTIFICATE OF ACCREDITATION

ANSI National Accreditation Board

11617 Coldwater Road, Fort Wayne, IN 46845 USA

This is to certify that

II-VI Optical Systems Calibration Laboratory
2710 Commerce Way
Philadelphia, PA 19154

has been assessed by ANAB and meets the requirements of international standard

ISO/IEC 17025:2017

while demonstrating technical competence in the field of

CALIBRATION

Refer to the accompanying Scope of Accreditation for information regarding the types of activities to which this accreditation applies

AC-1762

Certificate Number

ANAB Approval

Certificate Valid Through: 03/05/2021

Version No. 007 Issued: 02/12/2019

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. 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 April 2017).

ANSI National Accreditation Board

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

II-VI Optical Systems Calibration Laboratory

2710 Commerce Way
Philadelphia, PA 19154
Jeremy Miller
215-842-3675 ext. 106

CALIBRATION

Valid to: **March 5, 2021** Certificate Number: **AC-1762**

Length – Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Precision Grids, Scales and Reticles Soda Lime Glass	X= (0.003 to 100) mm	$2E\text{-}08x^2 + 4E\text{-}08x + 0.001\ 78$ mm	CAL-STD-01 Quartz Scale CAL-L-01 Autograph CMM MLA Procedure MI-1500-002, Autograph Calibration
	Y= (0.003 to 100) mm	$2E\text{-}08y^2 + 4E\text{-}08y + 0.001\ 78$ mm	
	X= (100 to 400) mm	$7E\text{-}09x^2 + 2E\text{-}06x + 0.001\ 66$ mm	
	Y= (100 to 400) mm	$7E\text{-}09y^2 + 2E\text{-}06y + 0.001\ 66$ mm	
	X= (400 to 1 524) mm	$2E\text{-}10x^2 + 7E\text{-}06x + 0.000\ 67$ mm	
	Y= (400 to 1 524) mm	$2E\text{-}10y^2 + 7E\text{-}06y + 0.000\ 67$ mm	
Precision Grids, Scales and Reticles Borofloat Glass	X= (0.003 to 400) mm	$2E\text{-}09x^2 + 6E\text{-}10x + 0.001\ 79$ mm	
	Y= (0.003 to 400) mm	$2E\text{-}09y^2 + 6E\text{-}10y + 0.001\ 79$ mm	
	X= (400 to 1 200) mm	$7E\text{-}10x^2 + 9E\text{-}07x + 0.001\ 56$ mm	
	Y= (400 to 1 200) mm	$7E\text{-}10y^2 + 9E\text{-}07y + 0.001\ 56$ mm	
	X= (1 200 to 1 524) mm	$2E\text{-}10x^2 + 2E\text{-}06x + 0.000\ 89$ mm	
	Y= (1 200 to 1 524) mm	$2E\text{-}10y^2 + 2E\text{-}06y + 0.000\ 89$ mm	

Length – Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Precision Grids, Scales and Reticles Fused Silica Glass	X = (0 to 1 524) mm	$6E\text{-}11x^2 + 2E\text{-}09x + 0.001\ 81$ mm	CAL-STD-01 Quartz Scale CAL-L-01 Autograph CMM MLA Procedure MI-1500-002, Autograph Calibration
	Y = (0 to 1524) mm	$6E\text{-}11y^2 + 2E\text{-}09y + 0.001\ 81$ mm	
Precision Grids, Scales and Reticles Silicon	X= (0.003 to 950) mm	$1E\text{-}09x^2 + 3E\text{-}07x + 0.001\ 76$ mm	
	Y= (0.003 to 950) mm	$1E\text{-}09y^2 + 3E\text{-}07y + 0.001\ 76$ mm	
	X= (950 to 1 524) mm	$3.7E\text{-}10x^2 + 1E\text{-}06x + 0.001\ 65$ mm	
	Y= (950 to 1 524) mm	$3.7E\text{-}10y^2 + 1E\text{-}06y + 0.001\ 65$ mm	

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 (k=2), corresponding to a confidence level of approximately 95%.

Notes:

1. On-site calibration service is available for this parameter, since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.
2. *X and Y represent length in millimeters.*
3. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-1762.

Vice President