

CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Nikon Metrology, Inc.

12701 Grand River Road Brighton, MI 48116

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

CALIBRATION

This certificate is valid only when accompanied by a current scope of accreditation document. The current scope of accreditation can be verified at www.anab.org.

SDX

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 30 March 2023 Certificate Number: L1080-1





SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Nikon Metrology, Inc.

12701 Grand River Road Brighton, MI 48116 Jeff Root 810-220-4360

CALIBRATION

Valid to: March 30, 2023 Certificate Number: L1080-1

Length – Dimensional Metrology

Version 006 Issued: April 15, 2021

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Autocollimators	Up to 10'	0.7"	Procedure WI-305: Optical Wedge
Measuring Microscope ¹ :		7	Procedure WI-304:
X, Y, Z Axis Length	(0 to 300) mm	1.5 μm	LTE Zerodur Line Scales
X and Y Axes Squareness	Up to 50 mm	1.5 µm	X-Y Zerodur Line Scale
Optical Comparators ¹ :			Procedure WI-304:
Magnification	(10 to 100) X	0.04 % of magnified length ²	Glass Line Scales
X, Y Axis Length	(0 to 300) mm	1.5 μm	LTE Zerodur Line Scales
X and Y Axes Squareness	Up to 50 mm	1.5 μm	X-Y Zerodur Line Scale
VMA Video Measuring System ¹ :			Procedure WI-301:
X, Y Axis, X-Y Diagonal	(0 to 300) mm	1.5 μm	LTE Zerodur Line Scales
Length	(0 to 700) mm	2.5 μm	
Z Axis Length	(2 to 40) mm	0.5 μm	Gauge Blocks
Video Probe	(0.022 to 8) mm	0.5 μm	Test Slide

ANSI National Accreditation Board



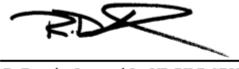
Length – Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
VMR & VMZ Video Measuring System ¹ :			Procedure WI-301:
X, Y Axis, X-Y Diagonal Length	(0 to 300) mm (0 to 700) mm	1 μm 1.5 μm	LTE Zerodur Line Scales
Z Axis Length	(2 to 40) mm	0.5 µm	Gauge Blocks
Video Probe	(0.022 to 8) mm	0.5 μm	Test Slide

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. Magnification length of 100 mm up to 200 mm.
- 3. This scope is formatted as part of a single document including Certificate of Accreditation No. L1080-1.



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