CERTIFICATE OF ACCREDITATION

ANSI National Accreditation Board

11617 Coldwater Road, Fort Wayne, IN 46845 USA

This is to certify that

Applied Image Inc.

1653 East Main Street
Rochester, NY 14609

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-2818

Certificate Number

ANAB Approval

Certificate Valid Through: 10/30/2021
Version No. 001 Issued: 10/30/2019

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

Applied Image Inc.
1653 East Main Street
Rochester, NY 14609
Gregory Peck
585-482-0300 ext. 222

CALIBRATION

Valid to: **October 30, 2021** Certificate Number: **AC-2818**

Length – Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) [1]	Reference Standard, Method, and/or Equipment
Single Axis Length Non-Contact	(0 to 200) µm	0.43 µm	Filar Microscope
	(> 200 to 400) µm	0.73 µm	
	(> 400 to 800) µm	1.3 µm	
	(> 800 to 1 600) µm	1.5 µm	
	(0 to 25.4) mm	0.49 µm	Laser Based Measuring Machine
	(0.8 to 400) mm	(0.002 3 + 0.000 008*L*) mm	CMM
	(401 to 1 200) mm	(0.015 + 0.000 051*L*) mm	Coordinatograph
	(0 to 25.4) mm	3.8 µm	Micrometers
	(> 25.4 to 75) mm	6.9 µm	
	(0 to 150) mm	35 µm	Caliper

Length – Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) [1]	Reference Standard, Method, and/or Equipment
Length Aspect of Bar Code Measurement	(3 to 200) mils (0.2 to 5) mm	(0.051 + 0.000 25*L*) mils (0.0013 + 0.000 25*L*) mm	Automated Bar Code Verification System (Judge)

Photometry and Radiometry

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) [2,3]	Reference Standard, Method, and/or Equipment
Spectral Reflection Aspect of Bar Code Measurement	(0.25 to 100) %R (at 660 nm)	(0.35 + 0.014*R*) %R	Automated Bar Code Verification System (Judge)
45°:0° or 0°:45° Spectral Reflection Photometry Status A Density	(V Filter) (0 to 1.25) D (> 1.25 to 2.1) D	 0.011 D 0.033 D	Color Reflection Densitometer
	(C Filter) (0 to 1.25) D (> 1.25 to 2.1) D	 0.012 D 0.034 D	
	(M Filter) (0 to 1.25) D (> 1.25 to 2.1) D	 0.0095 D 0.026 D	
	(Y Filter) (0 to 1.25) D (> 1.25 to 2.1) D	 0.0094 D 0.031 D	
45°:0° or 0°:45° Spectral Reflection Photometry % Reflectance	(0.25 to 100) %R (at 660 nm)	(0.066 + 0.007*R*) %R	Spectral Reflectometer

Photometry and Radiometry

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) [2,3]	Reference Standard, Method, and/or Equipment
Spectral Transmission Photometry (0-100) %T	(250 to 400) nm (401 to 900) nm (901 to 1000) nm	(0.15 + 0.003 8*T*) %T (0.38 + 0.002 8*T*) %T (0.71 + 0.006*T*) %T	Transmission Spectro-photometer
Transmission Density	(0 to 3.7) D (3.701 to 4.5) D	0.025 D 0.059 D	Transmission Densitometer

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. Where *L* is shown, it represents the length of the measured value in the same units represented in the range, either mils or mm.
2. The following are non-SI terms: %T is percent transmission, %R is the percent reflectance and D is the optical density.
3. *R* and *T* represent the measured value of % R or %T.
4. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-2818.

Vice President