



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

FARO International (Shanghai) Company Ltd.
1/F, Building No. 2, 188 Pingfu Road
Juxin Information Technology Park, Xuhui District
Shanghai 200231 China

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.

A handwritten signature in black ink, appearing to read 'R. Douglas Leonard Jr.', is positioned above a horizontal line.

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 25 January 2022

Certificate Number: L1147.07-1



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).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

FARO International (Shanghai) Company Ltd.

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CALIBRATION

Valid to: **January 25, 2022**

Certificate Number: **L1147.07-1**

Length-Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) ²	Reference Standard, Method, and/or Equipment
Articulated Arm Coordinate Measurement Machine (AACMM): Volumetric Performance	(0 to 0.9) m (0 to 2.2) m	(0.35 + 0.45L) μm 3.5 μm	ASME B89.4.22-2004 at 5.2, 5.3 and 5.4 ISO 10360-2:2001 Ball Bar Kinematic Scale Bar
Effective Diameter	(3 to 25.4) mm	1 μm	Test Sphere

Length-Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) ²	Reference Standard, Method, and/or Equipment
Articulated Arm Coordinate Measurement Machine (AACMM):			ISO 10360-12:2016 6.2, 6.3, 6.4
Probing Size Error (PSize)	Sphere Diameter: 25.4 mm	1 μm	Test Sphere
Probing Form Error (PForm)	Sphere Diameter: 25.4 mm	0.9 μm	Test Sphere
Articulated Location Error (LDia)	Sphere Diameter: 25.4 mm	1.7 μm	Test Sphere
Length Measurement Error, Unidirectional (EUni)	(0 to 1.05) m (0 to 1.36) m (0 to 1.8) m (0 to 2.11) m (0 to 2.42) m (0 to 2.64) m	3.1 μm 3.7 μm 4.0 μm 5.7 μm 6.4 μm 8.4 μm	Kinematic Scale Bar
Articulated Arm Coordinate Measurement Machine (AACMM):			B89.4.22-2004 and ISO 10360-12:2016
Single Point Articulation Performance	N/A ³	0.41 μm	Test Sphere
Articulated Arm Coordinate Measuring Machines (AACMM) with Optical Distance Sensors:			Based on ISO 10360-08:2013 Annex D
Articulated Location Value	Sphere Diameter: 50.8 mm	4.4 μm	Test Sphere
Laser Line Probe (LLP):			Internal Procedure:
Diameter	Cylinder Diameter: 25.4 mm	1.8 μm	Reference Cylinder
Z Distance/Position	(75 to 360) mm	1.5 μm	Calibrated distance/ Position by Laser Interferometer

Length-Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) ²	Reference Standard, Method, and/or Equipment
Faro Laser Tracker: Ranging Length Measurement	(0.04 to 25) m	(2 + 0.4L) μm	ASME B89.4.19:2006 Reference Laser Tracker
Faro Laser Tracker: Transverse Length Measurement	(0.23 to 6.2) m	(8 + 1.2X) μm	ASME B89.4.19:2006 Reference Laser Tracker Kinematic Scale Bars

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. L = Length in meters, X = the perpendicular distance from the tracker to the space frame.
3. Point measurements do not have a range.
4. This scope is formatted as part of a single document including Certificate of Accreditation No. L1147.07-1.



R. Douglas Leonard Jr., VP, PILR SBU