

# CERTIFICATE OF ACCREDITATION

## The ANSI National Accreditation Board

Hereby attests that

FARO Japan Inc.

716, Kumada, Nagakute-shi Aichi, 480-1144, Japan

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 <a href="https://www.anab.org">www.anab.org</a>.

SDE

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 25 January 2022 Certificate Number: L1147.06-1





### SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

## FARO Japan Inc.

716, Kumada, Nagakute-shi Aichi, 480-1144, Japan Emi Ozaki (Customer Service): +81-52-890-5011 Adrian Lim (Total Quality): +65 65111372

#### **CALIBRATION**

Valid to: January 25,2022 Certificate Number: L1147.06-1

#### **Length-Dimensional Metrology**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) <sup>2</sup>	Reference Standard, Method, and/or Equipment
Articulated Arm Coordinate			ASME B89.4.22-2004 at
Measurement Machine			5.2, 5.3 and 5.4
(AACMM):	A A		ISO 10360-2:2001
	(00)		5 # 5
Volumetric Performance	(0  to  0.9)  m	$(0.35 + 0.45L) \mu\text{m}$	Ball Bar
	(0 to 2.2) m	3.5 µm	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 <sup>3</sup>	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):	50.0 mm	i. i µiii	Internal Procedure:
Diameter	Cylinder Diameter: 25.4 mm	1.8 µm	Reference Cylinder  Calibrated distance/
Z Distance/Position	(75 to 360) mm	1.5 μm	Position by Laser Interferometer





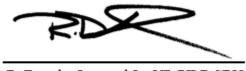
#### **Length-Dimensional Metrology**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) <sup>2</sup>	Reference Standard, Method, and/or Equipment
Faro Laser Tracker:	(0.04 to 25) m	$(2 + 0.4L)  \mu \text{m}$	ASME B89.4.19-2006:
Ranging Length Measurement			Reference Laser Tracker
Faro Laser Tracker:	(0.23 to 6.2) m	(8 + 1.2 <i>X</i> ) μm	ASME B89.4.19:2006
Transverse Length Measurement			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.
- L = Length in meters, X = the perpendicular distance from the tracker to the space frame.
- 3. Point measurements do not have a range.
- This scope is formatted as part of a single document including Certificate of Accreditation No. L1147.06-1.



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