

CALIBRATION SYSTEM CERTIFICATE

With respect to products (measuring instruments), we hereby certify that we have established our calibration system traceable to national (international) standards, as shown below.

Miyazaki Plant, Metrology Calibration Center, Utsunomiya Calibration Center, Hiroshima Calibration Center, Kawasaki Calibration Center and Techno Service Business Division (On-site calibration) have attained certification to conduct calibration services accredited under the Japan Calibration Service System (JCSS) based on the Measurement Law as an accredited calibration laboratory and to conduct calibration of standards with the Standards traceable to National Metrology Institute of Japan / National Institute of Advanced Industrial Science and Technology (NMIJ/AIST), being the national standards for Japan. Accordingly, our calibration results are traceable to NMIJ/AIST.

Manufacture, inspection and calibration service department of Mitutoyo conduct the calibration service by using the own standards which are calibrated by the JCSS accredited calibration laboratory. Accordingly, the calibration results are traceable to NMIJ/AIST.

In Metrology Calibration Center, calibration service is performed as a JCSS accredited calibration laboratory for temperature field as well, and this calibration service is necessary for high accuracy length measurement.

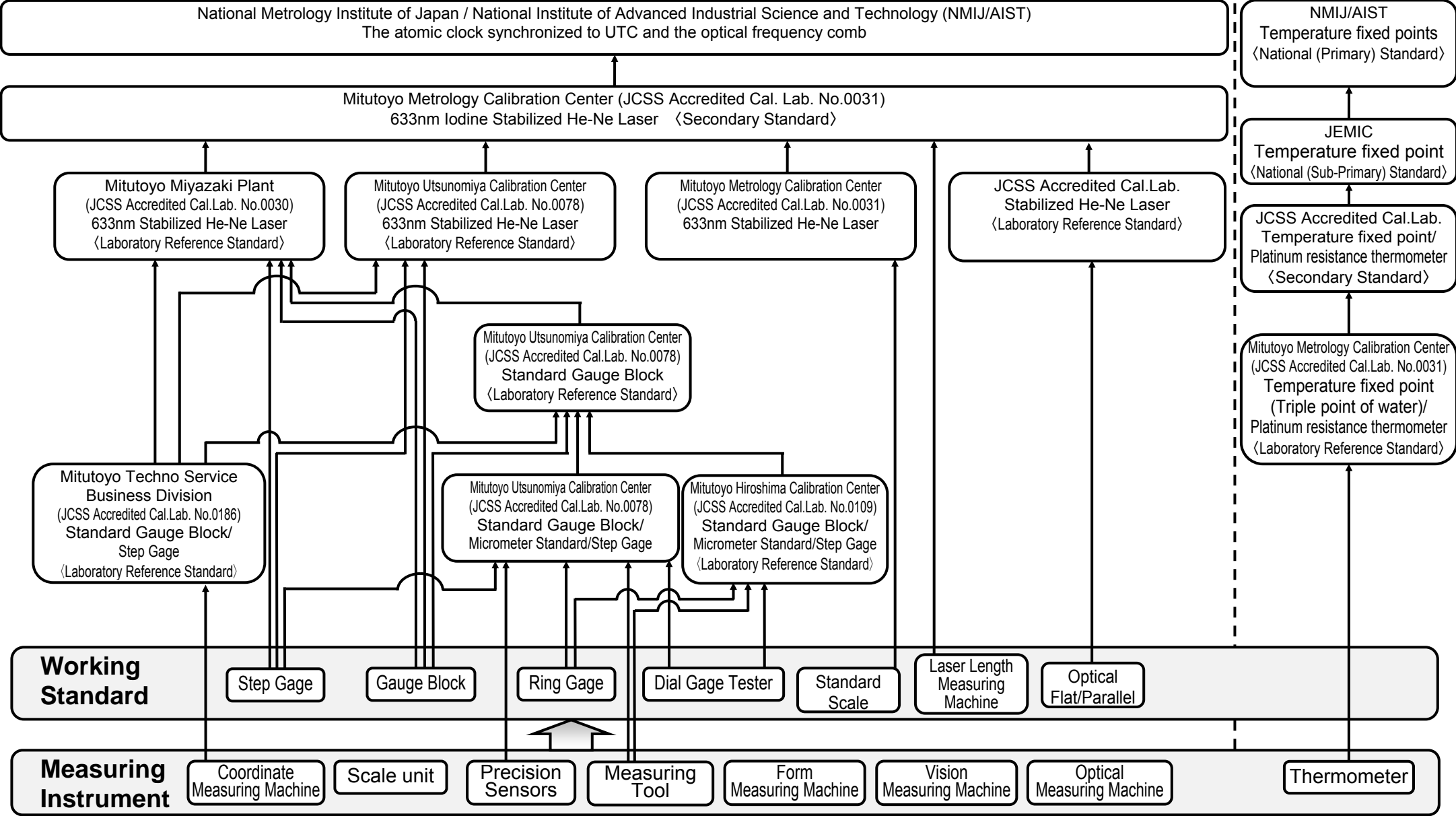
The JCSS accredited calibration laboratory meet the requirements of ISO/IEC 17025. Moreover, the JCSS is in agreement with Asia Pacific Laboratory Accreditation Cooperation (APLAC). Additionally, the JCSS is in agreement with the MRA of the International Laboratory Accreditation Corporation (ILAC). We issue a calibration certificate with JCSS, which are internationally recognized.

Drawing date : 2010-07-16

Traceability of Mitutoyo standard

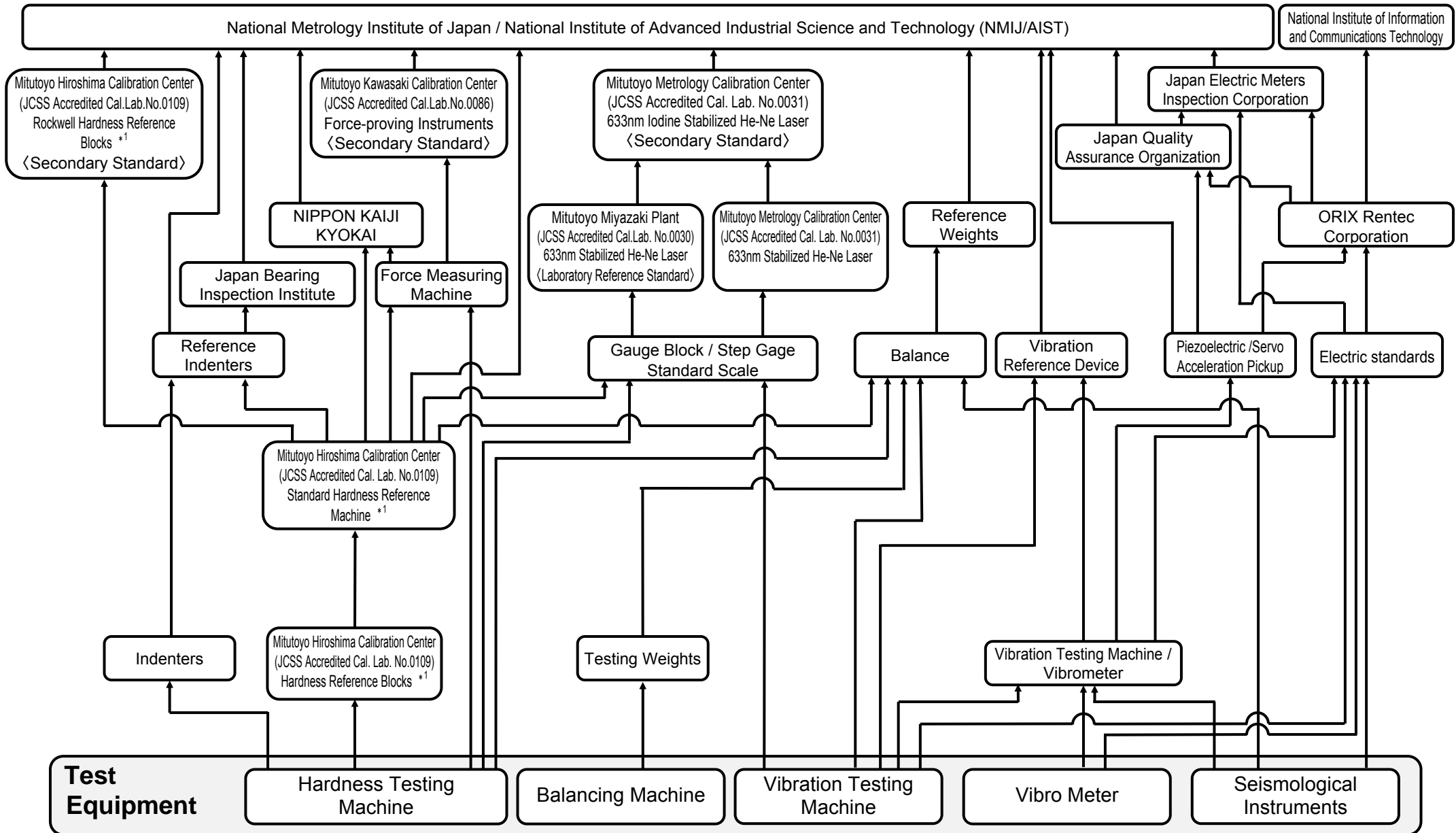
Traceability of length field

Traceability of temperature field



◆ This chart shows a simplified traceability system of Mitutoyo. Detailed traceability charts are published for each product.

Traceability of Test Equipment



*1 The scope of JCSS accreditation is from 20HRC up to 65HRC in the Rockwell Hardness Testing Machines and the Hardness Reference Blocks.


◆ This chart shows a simplified traceability system of Mitutoyo. Detailed traceability charts are published for each product.

Certificate of accreditation by JCSS

- ① Miyazaki Plant
- ② Metrology Calibration Center
- ③ Utsunomiya Calibration Center
- ④ Kawasaki Calibration Center
- ⑤ Hiroshima Calibration Center
- ⑥ Techno Service Business Division

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(English Translation)



Certificate of Accreditation

To Mitutoyo Corporation

IAJapan hereby accredits the following laboratory based on the Measurement Law as it meets the requirements of relevant international standards. This laboratory also meets the requirements for Mutual Recognition Arrangements (MRA) of ILAC and APLAC.

Accreditation No. J C S S O 0 3 0

Name of Laboratory
Miyazaki Plant, Mitutoyo Corporation

Address of Laboratory
10652-1, Kou, Tano-cho, Miyazaki-shi, Miyazaki
889-1701, Japan

Accreditation Scope Length (as attached)


Accreditation Criterion ISO/IEC 17025:2005

Date of Issue: 2009-12-04
Kattoo Seta, Ph. D.
Chief Executive, IAJapan
National Institute of Technology and Evaluation

International Accreditation Japan (IAJapan) is a laboratory accreditation body which has signed MRAs of ILAC (International Laboratory Accreditation Cooperation) and APLAC (Asia Pacific Laboratory Accreditation Cooperation).
MRA requirements are, in addition to relevant international standards and public requirements for participation in proficiency testing programs, verification and measurement, and the policy for the traceability of measurement to MRA program.
MRA requirements are, in addition to relevant international standards and public requirements for participation in proficiency testing programs, verification and measurement, and the policy for the traceability of measurement to MRA program.

②

(English Translation)



Certificate of Accreditation

To Mitutoyo Corporation

IAJapan hereby accredits the following laboratory based on the Measurement Law as it meets the requirements of relevant international standards. This laboratory also meets the requirements for Mutual Recognition Arrangements (MRA) of ILAC and APLAC.

Accreditation No. J C S S O 0 3 1

Name of Laboratory
Metrology Calibration Center, Techno Service Business
Division, Mitutoyo Corporation

Address of Laboratory
24, Kiyohara-kogyodanchi, Utsunomiya-shi, Tochigi-ken
321-3231, Japan

Accreditation Scope Length, Temperature (as attached)


Accreditation Criterion ISO/IEC 17025:2005

Date of Issue: 2009-11-01
Kattoo Seta, Ph. D.
Chief Executive, IAJapan
National Institute of Technology and Evaluation

International Accreditation Japan (IAJapan) is a laboratory accreditation body which has signed MRAs of ILAC (International Laboratory Accreditation Cooperation) and APLAC (Asia Pacific Laboratory Accreditation Cooperation).
MRA requirements are, in addition to relevant international standards and public requirements for participation in proficiency testing programs, verification and measurement, and the policy for the traceability of measurement to MRA program.
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③

(English Translation)



Certificate of Accreditation

To Mitutoyo Corporation

IAJapan hereby accredits the following laboratory based on the Measurement Law as it meets the requirements of relevant international standards. This laboratory also meets the requirements for Mutual Recognition Arrangements (MRA) of ILAC and APLAC.

Accreditation No. J C S S O 0 7 8

Name of Laboratory
Utsunomiya Calibration Center, Techno Services Business
Division, Mitutoyo Corporation

Address of Laboratory
2200-1 Shimoguri-cho, Utsunomiya-shi, Tochigi
321-0923, Japan

Accreditation Scope Length (as attached)


Accreditation Criterion ISO/IEC 17025:2005

Date of Issue: 2009-12-25
Kattoo Seta, Ph. D.
Chief Executive, IAJapan
National Institute of Technology and Evaluation

International Accreditation Japan (IAJapan) is a laboratory accreditation body which has signed MRAs of ILAC (International Laboratory Accreditation Cooperation) and APLAC (Asia Pacific Laboratory Accreditation Cooperation).
MRA requirements are, in addition to relevant international standards and public requirements for participation in proficiency testing programs, verification and measurement, and the policy for the traceability of measurement to MRA program.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system. The management system requirements in ISO/IEC 17025:2005 meet the principles of ISO 9001:2008 and are aligned with its generic requirements.

④

(English Translation)



Certificate of Accreditation

To Mitutoyo Corporation

IAJapan hereby accredits the following laboratory based on the Measurement Law as it meets the requirements of relevant international standards. This laboratory also meets the requirements for Mutual Recognition Arrangements (MRA) of ILAC and APLAC.

Accreditation No. J C S S O 0 8 6

Name of Laboratory
Kawasaki Calibration Center, Techno Service Business
Division, Mitutoyo Corporation

Address of Laboratory
1-20-1 Sakado, Takatsu-ku Kawasaki-shi, Kanagawa
213-8533, Japan

Accreditation Scope Force (as attached)

Accreditation Criterion ISO/IEC 17025:2005

Date of Issue: 2009-09-01
Kattoo Seta, Ph. D.
Chief Executive, IAJapan
National Institute of Technology and Evaluation

International Accreditation Japan (IAJapan) is a laboratory accreditation body which has signed MRAs of ILAC (International Laboratory Accreditation Cooperation) and APLAC (Asia Pacific Laboratory Accreditation Cooperation).
MRA requirements are, in addition to relevant international standards and public requirements for participation in proficiency testing programs, verification and measurement, and the policy for the traceability of measurement to MRA program.
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(English Translation)



Certificate of Accreditation

To Mitutoyo Corporation

IAJapan hereby accredits the following laboratory based on the Measurement Law as it meets the requirements of relevant international standards. This laboratory also meets the requirements for Mutual Recognition Arrangements (MRA) of ILAC and APLAC.

Accreditation No. J C S S O 1 0 9

Name of Laboratory
Hiroshima Calibration Center, Techno Services Business
Division, Mitutoyo Corporation

Address of Laboratory
6-8-20, Hirokoshingai, Kure-shi, Hiroshima 737-0112, Japan

Accreditation Scope Length, Hardness (as attached)


Accreditation Criterion ISO/IEC 17025:2005

Date of Issue: 2009-07-01
Kattoo Seta, Ph. D.
Chief Executive, IAJapan
National Institute of Technology and Evaluation

International Accreditation Japan (IAJapan) is a laboratory accreditation body which has signed MRAs of ILAC (International Laboratory Accreditation Cooperation) and APLAC (Asia Pacific Laboratory Accreditation Cooperation).
MRA requirements are, in addition to relevant international standards and public requirements for participation in proficiency testing programs, verification and measurement, and the policy for the traceability of measurement to MRA program.
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(English Translation)



Certificate of Accreditation

To Mitutoyo Corporation

IAJapan hereby accredits the following laboratory as a calibration laboratory based on the Measurement Law as it meets the requirements of relevant international standards. This laboratory also meets the requirements for Mutual Recognition Arrangements (MRA) of ILAC and APLAC.

Accreditation No. J C S S O 1 8 6

Name of Laboratory
Techno Services Business Division, Mitutoyo Corporation

Address of Laboratory
796-1, Hiramatsuhoncho, Utsunomiya-shi, Tochigi
321-0932, Japan

Accreditation Scope Length (as attached)

Accreditation Criterion ISO/IEC 17025: 2005

Date of Issue: 2010-02-25
Kattoo Seta, Ph. D.
Chief Executive, IAJapan
National Institute of Technology and Evaluation

International Accreditation Japan (IAJapan) is a laboratory accreditation body which has signed MRAs of ILAC (International Laboratory Accreditation Cooperation) and APLAC (Asia Pacific Laboratory Accreditation Cooperation).
MRA requirements are, in addition to relevant international standards and public requirements for participation in proficiency testing programs, verification and measurement, and the policy for the traceability of measurement to MRA program.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system. The management system requirements in ISO/IEC 17025:2005 meet the principles of ISO 9001:2008 and are aligned with its generic requirements.

Scope of service and Calibration Uncertainty

L (mm) : Nominal Length

Item	Scope	BMC* (k=2)	
1	Laser	633nm Laser Wavelength	4.2×10^{-11}
2	Gauge Block	0.1mm-100mm 100mm-250mm 250mm-1000mm	0.020μm (0.010+0.00010·L) μm (0.020+0.00020·L) μm
3	Standard Scale (Line Standard)	300mm or less 300mm-1000mm	(0.10+0.12·L/1000) μm (0.06+0.25·L/1000) μm
4	Step Gage	Check Master, Caliper Checker, Inside Micro Checker	
		0.1mm-1510mm	(0.21+0.5·L/1000) μm
		1510mm-2010mm	(0.26+0.54·L/1000) μm
		Depth Micro Checker	
	0.5mm-300mm	(0.5+L/1000) μm	
	Height Master		
	1000mm or less	(0.5+L/1000) μm	
5	Micrometer Standard	25mm-1000mm	(0.4+L/1000) μm
6	Cylindrical Gage	25mm-500mm	(0.5+L/1000) μm
7	Dial Gage Tester	5mm or less	0.10μm
		25mm or less	0.21μm
		100mm or less	(0.1+4.8·L/1000) μm
8	Ring Gage	6mm-80mm	0.7μm
		80mm-120mm	0.8μm
9	Coordinate Measuring Machine	1000mm or less	(0.2+0.2·L/1000) μm
		1510mm or less	(0.5+0.4·L/1000) μm
10	Micrometer	25mm or less	0.3μm
		500mm or less	(1.2+L/175) μm
11	Indicating Micrometer	Micrometer up to 100mm	(0.9+L/250) μm
		Indicator ±0.06mm	(0.3+L/125) μm
12	Caliper	600mm or less	0.02mm
		600mm-1000mm	0.03mm

Item	Scope	BMC* (k=2)	
13	Height Gage	600mm or less	0.015mm
		600mm-1000mm	0.02mm
14	Depth Gage	600mm or less	0.02mm
		600mm-1000mm	0.03mm
15	Dial Indicator	5mm or less	0.4μm
		50.8mm or less	1.1μm
		100mm or less	1.7μm
16	Dial Test Indicator	0.6mm or less 1.6mm or less	0.5μm 1.2μm
17	Cylinder Gage	6mm-400mm	0.9μm
18	Electrical Comparator	±5μm	0.15μm
		±200μm	0.2μm
		±2000μm	1.0μm
19	Platinum Resistance Thermometers	0-40°C Four wires system Three wires system	6mK 50mK
20	Thermometer with indicator	0-40°C	8mK
21	Force-Proving instrument	10N-200N	0.016%
		30N-2kN	0.019%
22	Rockwell Hardness Reference Blocks	From 20HRC up to 25HRC	0.43HRC
		More than 25HRC less than 35HRC	0.44HRC
		From 35HRC up to 45HRC	0.42HRC
		More than 45HRC less than 55HRC	0.39HRC
		From 55HRC up to 65HRC	0.35HRC
23	Rockwell Hardness Testing Machine	From 20HRC up to 25HRC	0.41HRC
		More than 25HRC less than 35HRC	0.41HRC
		From 35HRC up to 45HRC	0.39HRC
		More than 45HRC less than 55HRC	0.37HRC
		From 55HRC up to 65HRC	0.34HRC

※BMC : Best Measurement Capability