

News Release November 30, 2016

ISO/IEC17025:2005 Certification Scope Revision of Testing Center Hirose Electric Co., Ltd.

Testing Center of Hirose Electric Co., Ltd. has been certified according to ISO/IEC17025:2005 as Testing Laboratory and Calibration Laboratory by Japan Accreditation Board (JAB), Public Interest Incorporated Foundations on November 24, 2004. This certificate was renewed in September, 2016, which remains valid until November, 2020.

We will continuously maintain ISO/IEC17025:2005 and attempt to improve the quality of testing and calibration furthermore.

We will be pleased to cooperate on your request for a audit on our testing and calibration worked, although they are limited to those works entrusted by Hirose Electric, and Hirose Group companies.

**Accreditation Certificate**

[Testing laboratory]

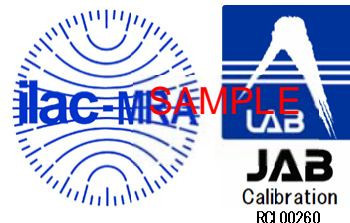
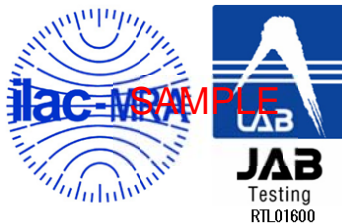
[Calibration laboratory]



**Accreditation Symbol**

[Testing laboratory]

[Calibration laboratory]



\*Accreditation: The Japan Accreditation Board for Conformity Assessment



JAB



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Testing Laboratory  
Accreditation  
Certificate

Accreditation No. RTL01600

**Hirose Electric Co., Ltd.**  
**Testing Center**

**14-36, Higashidai, Ichinoseki-shi, Iwate, 021-0822 Japan**

meets the following criteria. On the basis of this, Japan Accreditation Board (JAB) grants accreditation to the said testing laboratory.

Applicable accreditation criteria	: JIS Q 17025:2005 (ISO/IEC 17025:2005)
Scope of accreditation	: <b>Electrical testing</b> (As described in the appendix)
Premises covered by accreditation	: As described in the appendix.
Expiry date of accreditation	: November 30, 2020

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 pertinent requirements.

Renewed (3)                      October 28, 2016  
Initial accreditation              November 24, 2004

T. Oda, Chairman  
Laboratory Accreditation Committee

Y. Mizuka, President  
Japan Accreditation Board

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Accreditation No.	RTL01600
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# Accreditation Certificate

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Type of Laboratory	Testing Laboratory
Name of Laboratory	Hirose Electric Co., Ltd. Testing Center
Address	14-36, Higashidai, Ichinoseki-shi, Iwate, 021-0822 Japan

### 1) Premises on which testing activities are performed

Name of Premises	Hirose Electric Co., Ltd. Testing Center	
Address of Premises	Postal code	021-0822
	Address	14-36, Higashidai, Ichinoseki-shi, Iwate, Japan
Testing service at permanent facilities or on site testing service	<input checked="" type="checkbox"/> Testing service at permanent facilities <input type="checkbox"/> On site testing service	

### Scope of Accreditation

CODE OF CLASSIFICATION NAME	TEST METHOD STANDARD
M21 Electrical testing M21.5 Environmental testing M21.5.1 Cold tests	JIS C 5402:1992 7.9 JIS C 5402-11-10 JIS C 60068-2-1:1995, IEC 60068-2-1:1990 Test Aa (except 5, 6, 8, 10, 11) Test Ab (except 16, 17, 19, 21, 22) Test temperature -65 °C to -5 °C
M21.5.2 Dry Heat tests	JIS C 5402:1992 7.8 JIS C 5402-11-9 JIS C 60068-2-2:1995, IEC 60068-2-2:1974 Test Ba (except 5, 6, 8, 10, 11) Test temperature 30 °C to 200 °C Test Bb (except 16, 17, 19, 21, 22) Test temperature 30 °C to 100 °C
M21.5.3 Temperature cyclic tests	JIS C 60068-2-14:1988 Test Nb (except 3.5, 3.8, 3.9) JIS C 5402-11-4 Test Nb IEC 60068-2-14:1984 Test Nb (except 2.5, 2.8, 2.9) Test temperature -65 °C to 200 °C (The rate of change of temperature except (5 +/- 1) °C/min, (3 +/- 0.6) °C/min)
M21.5.4 Thermal shock tests	JIS C 60068-2-14:1988 Test Na (except 2.5, 2.8, 2.9) JIS C 5402:1992 7.2 JIS C 5402-11-4 Test Na IEC 60068-2-14:1984 Test Na (except 1.5, 1.8, 1.9) Test temperature -65 °C to 200 °C
M21.5.5 Damp Heat tests , steady state	JIS C 5402:1992 7.3 JIS C 60068-2-3:1987 (except 3.1, 5, 6) JIS C 5402-11-3

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Type of Laboratory	Testing Laboratory
Name of Laboratory	Hirose Electric Co., Ltd. Testing Center
Address	14-36, Higashidai, Ichinoseki-shi, Iwate, 021-0822 Japan

CODE OF CLASSIFICATION NAME	TEST METHOD STANDARD
	JIS C 60068-2-78 :2004,IEC 60068-2-78 :2001 (except 6, 8, 10, 11) Test combination : (40+/-2) °C, (93+/-3) % (40+/-2) °C, (85+/-3) %
M21.5.6 Damp heat tests , cyclic(12+12-Hour cycle)	JIS C 5402:1992 7.4.2 JIS C 60068-2-30:1988,IEC 60068-2-30:1980 (except 5, 7, 9, 10) JIS C 5402-11-12
M21.5.7 Composite temperature /humidity cyclic tests	JIS C 5402:1992 7.4.1 JIS C 60068-2-38 :1988,IEC 60068-2-38:1974 (except 6.2, 6.4, 7)
M21.5.11 Sealing tests	JIS C 5402:1992 7.5.1 Head of water 0.15 m to 1.5 m JIS C 5402:1992 7.6 Pressure ambient pressure to 17.6 kPa
M21.5.18 Vibration tests	JIS C 5402:1992 6.1 JIS C 5402:1975 6.1 Frequency 10 Hz to 2000 Hz Half amplitude 0.35 mm to 1.5 mm Acceleration 49 m/s <sup>2</sup> to 196 m/s <sup>2</sup> JIS C 5402-6-4 JIS C 60068-2-6:1999,IEC 60068-2-6:1995 (except 5.3.2, 6, 7, 8.2.2, 9, 10, 11, 12) Frequency 10 Hz to 2000 Hz Half amplitude 0.35 mm to 1.5 mm Acceleration 50 m/s <sup>2</sup> to 200 m/s <sup>2</sup>
M21.5.21 Broad-band random vibration tests	JIS C 60068-2-64:1997 method 1 (except method 2) IEC 60068-2-64:1993 method 1 (except method 2) Frequency 5 Hz to 2000 Hz Acceleration spectral density 0.5 (m/s <sup>2</sup> ) <sup>2</sup> / Hz to 10 (m/s <sup>2</sup> ) <sup>2</sup> / Hz
M21.5.23 Acceleration tests,steady state	JIS C 5402:1992 6.2 Half sine wave Acceleration 294 m/s <sup>2</sup> to 981 m/s <sup>2</sup> JIS C 5402-6-3 JIS C 60068-2-27:1995,IEC 60068-2-27:1987 (except 6, 7, 8.2, 9, 10, 11) Half sine wave Acceleration 300 m/s <sup>2</sup> to 1000 m/s <sup>2</sup>



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Type of Laboratory	Testing Laboratory
Name of Laboratory	Hirose Electric Co., Ltd. Testing Center
Address	14-36, Higashidai, Ichinoseki-shi, Iwate, 021-0822 Japan

CODE OF CLASSIFICATION NAME	TEST METHOD STANDARD
M21.5.24 Bump tests	JIS C 5402:1992 6.32 Acceleration 98 m/s <sup>2</sup> to 390 m/s <sup>2</sup> JIS C 5402-6-2 JIS C 60068-2-29:1995, IEC 60068-2-29:1987 (except 6, 7, 8.2, 9, 10, 11) Acceleration 100 m/s <sup>2</sup> to 250 m/s <sup>2</sup>
M21.5.26 Free fall tests	JIS C 60068-2-31 method 1, IEC 60068-2-31 method 1 (except 4, 6, 7) Dropping height 25 mm to 1000 mm
M21.5.29 Soldering tests	JIS C 5402:1992 7.11 method 1 JIS C 5402:1992 7.11 method 2 (except size A) JIS C 5402:1992 7.12 method 1 JIS C 5402:1992 7.12 method 2 (except size A) JIS C 60068-2-20, IEC 60068-2-20 Test Ta (except 4.1.3, 4.2.5, 4.3.4, 4.4, size A) Test Tb (except 5.1.2, 5.5, 5.7, size A)
M21.17 Accessories M21.17.2 Connectors, Connection Devices Connectors, Connection Devices	JIS C 5402:1992 4.1 (1), (3), (4) JIS C 5402-1-1 JIS C 5402:1992 4.3 JIS C 5402:1992 4.4 JIS C 5402:1992 5.5 JIS C 5402-2-5 JIS C 5402:1992 6.3 JIS C 5402-9-1 JIS C 5402:1992 5.1 AC voltage tests 0 V to 5000 V DC voltage tests 0 V to 5000 V JIS C 5402-4-1 AC voltage tests 0 V to 5000 V DC voltage tests 0 V to 5000 V JIS C 5402:1992 5.2 Insulation resistance 1 MΩ to 50 GΩ JIS C 5402-3-1 Insulation resistance 1 MΩ to 50 GΩ JIS C 5402:1992 5.3 DC resistance 0.1 mΩ to 200 Ω (Test current 1 mA to 3 A) (One-way carrying of current is acceptable) AC resistance 0.1 mΩ to 200 Ω JIS C 5402-2-2 DC resistance 0.1 mΩ to 200 Ω

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Type of Laboratory	Testing Laboratory
Name of Laboratory	Hirose Electric Co., Ltd. Testing Center
Address	14-36, Higashidai, Ichinoseki-shi, Iwate, 021-0822 Japan

CODE OF CLASSIFICATION NAME	TEST METHOD STANDARD
	(Test current 1 mA to 3 A) (One-way carrying of current is acceptable) JIS C 5402:1992 5.4 DC resistance 0.1 mΩ to 200 Ω (Test current 1 mA to 100 mA) (One-way carrying of current is acceptable) AC resistance 0.1 mΩ to 200 Ω(Frequency 1kHz only) JIS C 5402:1992 5.8 (Only the measuring equipment of JIS C 5402:1992 5.3 , shall be applied), JIS C 5402-2-6 JIS C 5402-2-1 DC resistance 0.1 mΩ to 200 Ω (Test current 1 mA to 100 mA) (One-way carrying of current is acceptable) AC resistance 0.1 mΩ to 200 Ω(Frequency 1kHz only)
	JIS C 5402:1992 6.4 JIS C 5402-16-5 Holding force up to 49 N JIS C 5402:1992 6.6 JIS C 5402-13-2 JIS C 5402:1992 6.7(using weight is acceptable instead of pull Force test machine), JIS C 5402:1992 6.8 (using weight is acceptable instead of pull force test machine), JIS C 5402-15-6 (using weight is acceptable instead of pull force test machine), JIS C 5402:1992 6.11 JIS C 5402-13-5 JIS C 5402:1992 6.12(except torque) JIS C 5402-13-1 (except torque) JIS C 5402:1992 6.22 JIS C 5402-16-4(except torque) Strength up to 4900 N

**Japan Accreditation Board**



JAB



Calibration Laboratory

# Accreditation Certificate

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Accreditation No. RCL00260

**Hirose Electric Co., Ltd.  
Testing Center**

**14-36, Higashidai, Ichinoseki-shi, Iwate, 021-0822 Japan**

meets the following criteria. On the basis of this, Japan Accreditation Board (JAB) grants accreditation to the said calibration laboratory.

Applicable accreditation criteria	: JIS Q 17025:2005 (ISO/IEC 17025:2005)
Scope of accreditation	: <b>Electromagnetics(DC/Low Frequency), Dimensional</b> (As described in the appendix)
Premises covered by accreditation	: As described in the appendix.
Expiry date of accreditation	: November 30, 2020

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 pertinent requirements.

Renewed (3)	November 22, 2016
Initial accreditation	November 24, 2004

T. Oda, Chairman  
Laboratory Accreditation Committee

Y. Mizuka, President  
Japan Accreditation Board

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Accreditation No.

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Type of Laboratory	Calibration Laboratory
Name of Laboratory	Hirose Electric Co., Ltd. Testing Center
Address	14-36, Higashidai, Ichinoseki-shi, Iwate, 021-0822 Japan

### 1) Premises on which calibration activities are performed

Name of Premises	Hirose Electric Co., Ltd. Testing Center		
Address of Premises	Postal Code	021-0822	
	Address	14-36, Higashidai, Ichinoseki-shi, Iwate, Japan	
Calibration service at permanent facilities or on site calibration service	<input checked="" type="checkbox"/> Calibration service at permanent facilities <input checked="" type="checkbox"/> On site calibration service		

### Scope of Accreditation

CODE OF CLASSIFICATION, QUANTITY MEASURAND / CALIBRATION ITEM	RANGE OF CALIBRATION	EXPANDED UNCERTAINTY (APPROXIMATELY 95 % COVERAGE PROBABILITY, $k = 2$ )	CALIBRATION PROCEDURE, REMARKS
M13 Dimensional M13.5 Length and step gauges	Diameter 1 mm to 10 mm Over 10 mm to 30 mm	1.3 $\mu$ m 1.4 $\mu$ m	Calibration object : Pin gauge  In-house method : M16-4006  Reference Standard : Master pin gauge
M13.17 Micrometers	Scale interval/Reference Resolution : Length 0.01 mm : 0 mm to 75 mm  0.001 mm : 0 mm to 75 mm	[4.2+L/(250 mm)] $\mu$ m  [2.2+L/(200 mm)] $\mu$ m	Calibration object : External micrometer, Blade micrometer, Crimp height micrometer, Cylinder micrometer, Point micrometer,  In-house method : M16-4054  Reference Standard : gauge blocks



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Type of Laboratory	Calibration Laboratory
Name of Laboratory	Hirose Electric Co., Ltd. Testing Center
Address	14-36, Higashidai, Ichinoseki-shi, Iwate, 021-0822 Japan

CODE OF CLASSIFICATION, QUANTITY MEASURAND / CALIBRATION ITEM	RANGE OF CALIBRATION	EXPANDED UNCERTAINTY (APPROXIMATELY 95 % COVERAGE PROBABILITY, $k = 2$ )	CALIBRATION PROCEDURE, REMARKS
M13.18 Calipers	Scale interval/Reference Resolution : Length 0.01 mm : 0 mm to 300 mm 0.02 mm : 0 mm to 150 mm 0.05 mm : 0 mm to 300 mm	0.03 mm 0.05 mm 0.11 mm	Calibration object : Vernier caliper, Digimatic caliper, Dial caliper, Constant pressure caliper, Inside caliper,  In-house method : M16-4051  Reference Standard : gauge blocks
M11 Electromagnetics (DC/Low Frequency) M11.25 Withstanding voltage tester AC voltage	100 V to 5,300 V, 50 Hz	100 V~200 V : 8 % 200 V~300 V : 5 % 300 V~500 V : 4 % 500 V~1,000 V : 3 % 1,000 V~5,300 V : 2 %	Calibration object : Withstanding voltage tester  In-house method : M16-4058  Reference Standard : High voltage digital meter
M11.25 Withstanding voltage tester AC current	0.5 mA to 3 mA, 50 Hz	0.5 mA~1 mA : 4 % 1 mA~2 mA : 2 % 2 mA~3 mA : 1 %	Calibration object : Withstanding voltage tester  In-house method : M16-4058  Reference Standard : Digital multi meter
(NOTE) L:Nominal dimension of gauge blocks			

**Japan Accreditation Board**