



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	: ISO/IEC 17025:2017 (JIS Q 17025:2018)
Scope of accreditation	: Electrical Testing (As described in the appendix)
Premises covered by accreditation	: As described in the appendix.
Expiry date of accreditation	: November 30, 2028

Revised	December 18, 2025
Renewed	December 1, 2024
Initial accreditation	November 24, 2004

Y. Miki, President

Japan Accreditation Board



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Type of Laboratory	Testing
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	14-36, Higashidai, Ichinoseki-shi, Iwate, 021-0822 Japan
Testing service at permanent facilities or on site testing service	☒ Testing service at permanent facilities ☐ On site testing service

Scope of Accreditation

FIELD	M21 Electrical Testing
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CODE OF CLASSIFICATION, NAME	TEST METHOD STANDARD
M21 Electrical testing M21.5 Environmental testing M21.5.1 Cold tests	IEC 60512-11-10, JIS C 5402-11-10 IEC 60068-2-1, JIS C 60068-2-1 Test Ab (except 6.7,6.8,6.10,6.13,7) Test temperature -65 °C to -40 °C
M21.5.2 Dry Heat tests	IEC 60512-11-9, JIS C 5402-11-9 IEC 60068-2-2, JIS C 60068-2-2 Test Bb (except 6.6,6.7,6.9,6.13,7) Test temperature 70 °C to 100 °C
M21.5.3 Test N: Change of temperature	IEC 60512-11-4 Test Na, JIS C 5402-11-4 Test Na IEC 60068-2-14:2009, JIS C 60068-2.14 Test Na (except 6,7.2.4,7.4,8,9) Low temperature -65 °C to -40 °C High temperature 60 °C to 155 °C
M21.5.5 Damp Heat tests , steady state	IEC 60068-11-3, JIS C 5402-11-3 IEC 60068-2-78, JIS C 60068-2-78 (except 4.3,5,6) Test combination : (40+/-2) °C, (93+/-3) % (40+/-2) °C, (85+/-3) %
M21.5.6 Damp heat tests , cyclic(12+12-Hour cycle)	IEC 60068-2-30, JIS C 60068-2-30(except 6,8,10,11) IEC 60512-11-12, JIS C 5402-11-12
M21.5.7 Composite temperature /humidity cyclic tests	IEC 60068-2-38, JIS C 60068-2-38 (except 7.2, 7.4.5, 7.5, 8)
M21.5.11 Sealing tests	IEC 60068-2-17, JIS C 60068-2-17 Test Qf Head of water 0.15 m to 1.5 m



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CODE OF CLASSIFICATION, NAME	TEST METHOD STANDARD
M21.5.16 Water tests	ISO 20653:2013(IPX1,2,3,4,4K,7,8,9K) (IPX1 is for specimen size W150 mm x D150 mm x H200 mm or less, IPX2 is for specimen size W200 mm x D200 mm x H200 mm or less, IPX3,4 for swivel tube, radius 200mm, 400mm only, IPX7,8 is for specimen size W200 mm x D200 mm x H200 mm or less) JIS D 5020(IPX1,2,3,4,4K,7,8,9K) (IPX1 is for specimen size W150 mm x D150 mm x H200 mm or less, IPX2 is for specimen size W200 mm x D200 mm x H200 mm or less, IPX3,4 for swivel tube, radius 200mm, 400mm only, IPX7,8 is for specimen size W200 mm x D200 mm x H200 mm or less) IEC 60529:2001/ JIS C 0920(IPX1,2,3,4,7,8) (IPX1 is for specimen size W150 mm x D150 mm x H200 mm or less, IPX2 is for specimen size W200 mm x D200 mm x H200 mm or less, IPX3,4 for oscillating tube, radius 200mm, 400mm only, IPX7,8 is for specimen size W200 mm x D200 mm x H200 mm or less)
M21.5.18 Vibration tests	IEC 60512-6-4, JIS C 5402-6-4 IEC 60068-2-6, JIS C 60068-2-6 (except 5.3.2, 6, 7, 8.3.2, 9,, 11, 12) Frequency 10 Hz to 2000 Hz Half amplitude 0.35 mm to 1.5 mm Acceleration 50 m/s ² to 200 m/s ²
M16.5.19 Combined climatic (temperature/humidity) and dynamic (vibration/shock) tests	ISO 16750-3 (Test-III, IV, V only)
M21.5.21 Broad-band random vibration tests	IEC 60068-2-64, JIS C 60068-2-64 (except 6, 7, 8.4.2, 10, 11) Frequency 5 Hz to 2000 Hz Acceleration spectral density 0.5 (m/s ²) ² / Hz to 10 (m/s ²) ² / Hz
M21.5.23 Acceleration tests, steady state	IEC 60512-6-3, JIS C 5402-6-3 IEC 60068-2-27, JIS C 60068-2-27 (except 6, 7, 10, 11) Half sine wave Acceleration 300 m/s ² to 1000 m/s ²
M21.5.24 Bump tests	IEC 60512-6-2, JIS C 5402-6-2 IEC 60068-2-27, JIS C 60068-2-27 (except 6, 7, 10, 11) Acceleration 100 m/s ² to 250 m/s ²



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CODE OF CLASSIFICATION, NAME	TEST METHOD STANDARD
M21.5.26 Free fall tests	IEC 60068-2-31 method 1, JIS C 60068-2-31 method 1 (except 4, 6, 7) Dropping height 25 mm to 1000 mm
M21.5.29 Soldering tests	IEC 60068-2-20, JIS C 60068-2-20 Test Ta (except 4.1.3, 4.2.6, 4.3.5, 4.4, size A) Test Tb (except 5.1.2, 5.5, 5.7, size A)
M21.17 Accessories M21.17.2 Connectors, Connection DevicesConnectors, Connection Devices	IEC 60512-1-1, JIS C 5402-1-1 IEC 60512-2-5, JIS C 5402-2-5 IEC 60512-9-1, JIS C 5402-9-1 IEC 60512-4-1, JIS C 5402-4-1 AC voltage tests 0 V to 5000 V DC voltage tests 0 V to 5000 V IEC 60512-3-1, JIS C 5402-3-1 Insulation resistance 1 M Ω to 50 G Ω IEC 60512-2-2, JIS C 5402-2-2 DC resistance 0.1 m Ω to 200 Ω (Test current 1 mA to 3 A) (One-way carrying of current is acceptable) IEC 60512-2-6, JIS C 5402-2-6 IEC 60512-2-1, JIS C 5402-2-1 DC resistance 0.1 m Ω to 200 Ω (Test current 1 mA to 100 mA) (One-way carrying of current is acceptable) AC resistance 0.1 m Ω to 200 Ω (Frequency 1 kHz only) IEC 60512-16-5, JIS C 5402-16-5 IEC 60512-13-2, JIS C 5402-13-2 IEC 60512-17-3, JIS C 5402-17-3(using weight is acceptable instead of pull force test machine), IEC 60512-15-6, JIS C 5402-15-6(using weight is acceptable instead of pull force test machine), IEC 60512-13-5, JIS C 5402-13-5 IEC 60512-13-1, JIS C 5402-13-1 IEC 60512-16-4, JIS C 5402-16-4 Strength up to 4900 N



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Type of Laboratory	Testing
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 Yokohama Branch
Address	2-6-3, Nakagawa-Chuoh, Tsuzuki-ku, Yokohama, 224-8540 Japan
Testing service at permanent facilities or on site testing service	☒ Testing service at permanent facilities ☐ On site testing service

Scope of Accreditation

FIELD	M21 Electrical Testing
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CODE OF CLASSIFICATION, NAME	TEST METHOD STANDARD
M21.4.2 Continuous disturbance tests(on board vehicle)	CISPR 25:2016(Current Probe Method) (except Annex I (normative) Test methods for shielded power supply systems for high voltages in electric and hybrid vehicles) CISPR 25(Voltage Method) (except Annex H (normative) Test methods for shielded power supply systems for high voltages in electric and hybrid vehicles)
M21.4.8 Radiated emission tests (on board vehicle)	CISPR 25:2016(except 6.6 , 6.7) (except Annex I (normative) Test methods for shielded power supply systems for high voltages in electric and hybrid vehicles)
M21.4.22 Immunity tests for Equipment installed on road vehicles	ISO11452-4 BCI (except 6.2 TWC test method)
M21.5.29 Soldering tests	IEC 60512-12-2, JIS C 5402-12-2 IEC 60512-12-5, JIS C 5402-12-5 IEC 60068-2-20, JIS C 60068-2-10 Test Ta (except 4.1.3, 4.2, 4.3.4, 4.4, size A) Test Tb (except 5.1.2, 5.2, 5.5, 5.7, size A)
M21.5.30 Soldering tests by the wetting balance method	IEC 60512-12-7, JIS C 5402-12-7 IEC 60068-2-69, JIS C 60068-2-69 (except 8.2.4)
M21.5.2 Dry Heat tests	IEC 60512-11-9, JIS C 5402-11-9 IEC 60068-2-2, JIS C 60068-2-2, Test Bb (except 6.6, 6.7, 6.9, 6.13, 7) Test temperature 70 °C to 155 °C
M21.5.36 Other Environmental tests	IEC 60068-2-82, JIS C 60068-2-82



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CODE OF CLASSIFICATION, NAME	TEST METHOD STANDARD
M21.17 Accessories M21.17.2 Connectors, Connection DevicesConnectors, Connection Devices	IEC 62153-4-7 (Up to 8 GHz) (except7.2 Balanced or multiconductor device,7.3 Cable assembly) (EMC)
M21.17 Accessories M21.17.2 Connectors, Connection DevicesConnectors, Connection Devices	IEC 60512-5-1, JIS C 5402-5-1 IEC 60512-5-2, JIS C 5402-5-2 IEC 60512-1-1, JIS C 5402-1-1 IEC 60512-4-1, JIS C 5402-4-1 AC voltage tests 0 V to 5000 V IEC 60512-3-1, JIS C 5402-3-1 Insulation resistance 1 M Ω to 50 G Ω IEC 60512-2-2, JIS C 5402-2-2 DC resistance 0.1 m Ω to 200 Ω (Test current 1 mA to 3 A) (One-way carrying of current is acceptable) AC resistance 0.1 m Ω to 200 Ω IEC 60512-2-1, JIS C 5402-2-1 DC resistance 0.1 m Ω to 200 Ω (Test current 1 mA to 100 mA) (One-way carrying of current is acceptable) AC resistance 0.1 m Ω to 200 Ω (Frequency 1kHz only)

(Notes on Accreditation Certificate)

The laboratory is only accredited for laboratory activities outlined within the methods listed above. Reference to any other activity within these standards, such as risk management or risk assessment, does not fall within the laboratory's accredited capabilities.

When version information of standards or methods are not identified in the scope, laboratories shall adapt to use the current version of such standards within six months at latest from the issued date of current version.

Notes for EMC test laboratory for FCC

Accreditation does not imply acceptance to the FCC equipment authorization program. Please see the FCC website (<https://apps.fcc.gov/oetcf/eas/>) for a listing of FCC approved laboratories.

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