

# Creative Links to World Electronics



https://www.hirose.com/eu







Becoming a corporate group that contributes to realize an affluent society... By connecting wisdom and producing high value-added products

# Marketing and Innovation





President Kazunori Ishii

#### Greetings

Ever since it first began developing industry-leading original connectors with its own technologies, Hirose Electric has established its position in growing trust and recognition as a specialized manufacturer of connectors. Today, we are accelerating our efforts to further expand our global business. We also express our deep gratitude that we would not be where we are today without the kind support of our customers and business partners.

The entire Hirose Electric Group has a basic philosophy "a small company connecting wisdom." This philosophy encapsulates our wish to produce original products by seeking outside knowledge with an honest and humble attitude, and then linking this vast store of available knowledge and wisdom with the ones we have cultivated on our own. It further puts our wish to be a company that continuously takes a leap toward tomorrow by using the closeness of communication, impetus, and efficiency that are advantages of small companies. Our slogan "Creative Links to World Electronics" is also rooted in this philosophy.

Looking forward, we believe the electronics field will see the continuing materialization of new functions and services. They will come not only from technical progress along traditional and conventional lines but also the mutual integration of new domains and different fields. And we feel strongly that the hardware to support them will, more than ever before, require the development of innovative connectors based on new concepts and technologies. Hirose Electric has developed and supplied products that meet market demand by applying its marketing and innovative prowess. As we respond to changing times and markets, we will take on whatever challenges are necessary to satisfy our customers with always forward-looking product development and realize an affluent society through electronics products.

Our efforts here give us every confidence that we can look forward to the loyal support and patronage of our customers in the years to come.

## Making Hirose's original technologies the first in the world Ever-evolving product development

Even as the increasing needs of lighter and more compact devices, there has also been growing demand including faster transmission speeds and environment-resistant capabilities in recent years. As a result, the functions and performance of connectors are becoming progressively more sophisticated and diversified. Hirose responds with advanced and leading-edge development to meet all connector needs. This allows us to supply the world's markets with high value-added products.

#### **Internal Connectors**

Internal connectors are built into a variety of electronic devices, both for industrial use and consumer use. We offer an extensive lineup of the main internal connectors that includes board-to-board connectors, wire-to-board connectors, FPC/FFC connectors, and memory card connectors. We find new demand in the market, by catching potential needs from perspective of faster, thinner, and smaller products, which are the future trend in electronic devices, and engaging in proactive product development that incorporates the

## Coaxial Connectors and High-Frequency Devices

Coaxial connectors are special connectors that connect high-frequency signals, and they form a product group in which we have particularly strong expertise. By introducing ultra-micro products, we consistently maintain a top share in the small mobile device market, which includes smartphone. In addition, our products receive a high reputation for performance in mobile communication base stations, electronic measuring instruments, and other industrial devices. We also develop high-frequency devices based on this technology, among them directional couplers, fixed attenuators, and lightning arresters. Furthermore, we continue to offer solutions for today's age of full-scale advanced information and communications, a time when high-speed wireless technology is becoming increasingly ubiquitous.



As external connectors, which are commonly used for inter-device connections, we stand ready to meet any need with our vast lineup of circular connectors and rectangular connectors. In recent years, we have also addressed to new fields, including power devices for smart grid related technologies, and we are currently expanding our lineup of large-current connector variations. We are also fusing existing technologies with advanced leading-edge technologies to meet high-level needs arising from device advancements, including faster transmission speeds and environment-resistant functions.

## Fiber Optic Connectors/Passive and Active Devices

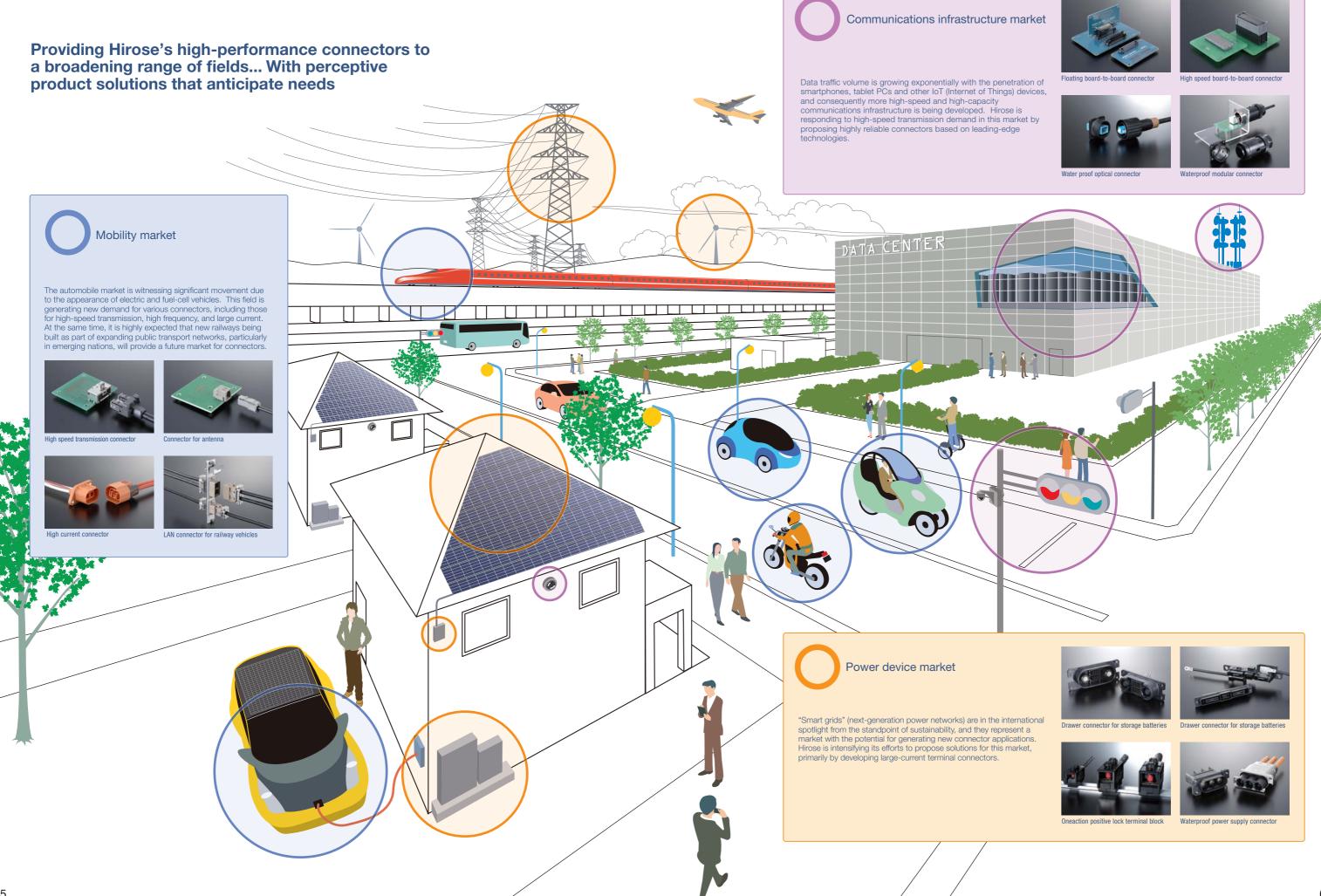
Since the 1980s, we have been developing key fiber optic connectors and passive devices together with communications carriers, and we have also contributed to the development of products that make FTTH (fiber to the home) technology a reality. We have developed and offer a series of various waterproof optical connectors for wireless base stations and other outdoor communications devices in response to the rapid development of mobile networks in recent years. We are actively anticipating the optical communications age's full-scale arrival by developing new products with active devices installed within connectors for use in medical and industrial devices and equipment.



## Medical Electronics Equipment



Since 1976 we have been developing and manufacturing various medical equipment sets that include, among others, electronic therapy devices that alleviate pain and promote circulation and pulse oximeters that measure oxygen density in the blood. More recently, we have gained considerable market appreciation by developing unique products. First and foremost here is our development of products for personal use that apply technologies typically intended for doctors, such as electronic devices (EMS) for slimming and muscle training, electrolytic water generators for elimination of bacteria, and facial beauty rollers.





## Factory automation (FA) equipment market

Evolving 'Smart Factory utilizing IoT' as represented by Industrie 4.0 is requesting new technology offerings such as 'Miniaturization' and 'Speeding up' from connector suppliers in the FA equipment market. Paying its attention to these points of variation, Hirose is developing new connectors and providing the market with optimum solution for the evolution of equipment.



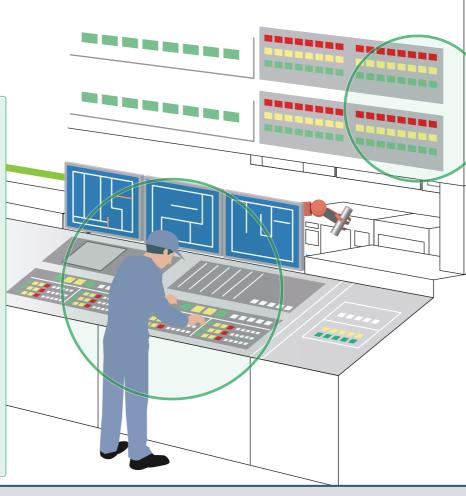


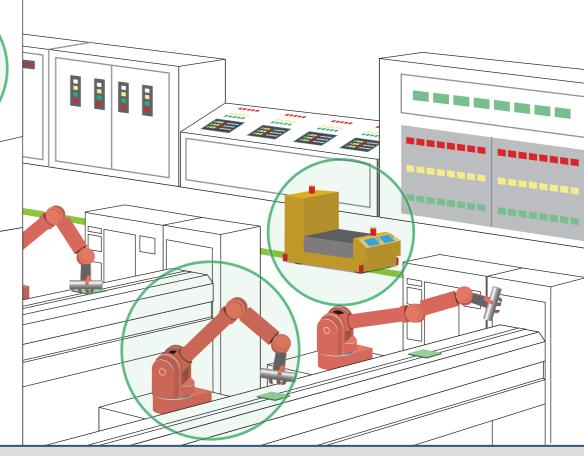


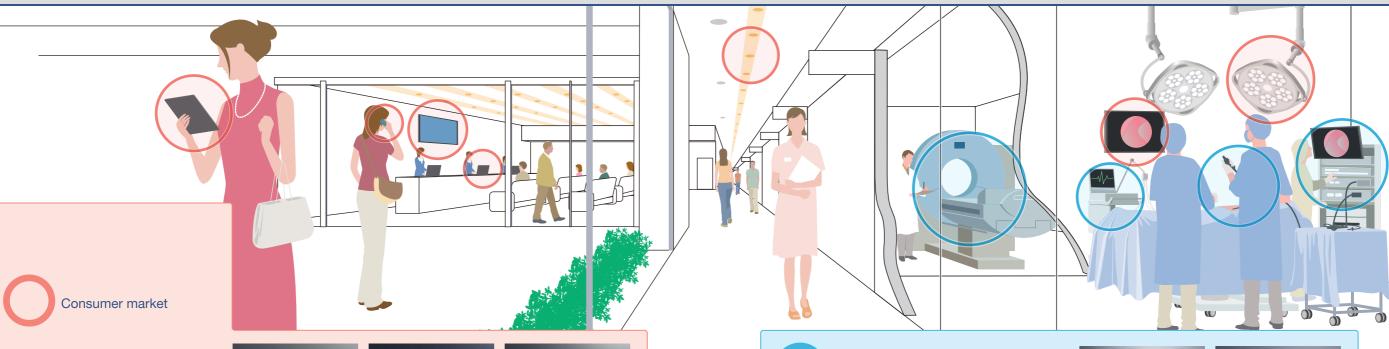












Hirose is continually developing and offering new ultra-micro connectors for the emerging data terminal market, in order to meet the demand of miniaturization accelerated by the widespread use of smartphones, tablet devices and wearable devices. Hirose leads the way in meeting demand for anti-noise measures and high-speed transmission. Moreover, LED lighting, which uses connectors to join LED light source units with drive circuit units, has emerged as a new connectors market. Hirose is actively offering solutions to expedite this market's development.











Micro coaxial connector







The medical devices field makes various needs including faster signal speed based on higher image definition for MRI, CT equipment etc. The application of electronics in medical devices will continue to evolve as medical technologies become increasingly sophisticated and refined, and this demands to propose forefront solutions in the area of connectors.









## Unifying all types of technology and information Innovation connecting wisdom

## The "Yokohama Center": Integrating technology and marketing

As a result of our efforts in leading-edge fields, we now possess sophisticated technologies and diverse development capabilities that we are able to offer a lineup of well over 50,000 products. It is especially our policy to continuously ensure that at least 30% of these products (in terms of sales ratio) are new products. The development behind this takes place at our Yokohama Center, which began operations in 2011. The center integrates a technical network that horizontally links the sectors of engineering, production technologies, and quality assurance with sales and marketing, which enables us to speedily develop new products possessing both high applicability and added value and respond to global market needs.



The systems that produce advanced and leading-edge products and the support systems

We take the lead in developing and quickly producing heretofore unbegotten products. We develop new products through tireless R&D that links our product development team with our sales and marketing team. Our stable production and reliability of a continuing succession of new cutting-edge products is supported by our production technology and quality control system. Our production technology department meets production demand for a broad range of connectors with an integrated development system covering everything from advanced molds to automatic assembly machinery and tools. On the other hand, our quality control department, which sets a 100% no-defect rate as its guiding principle, not only conducts quality inspections but also maintains a strong awareness of how customers use our products and conducts repeated verifications and improvements from a variety of angles.

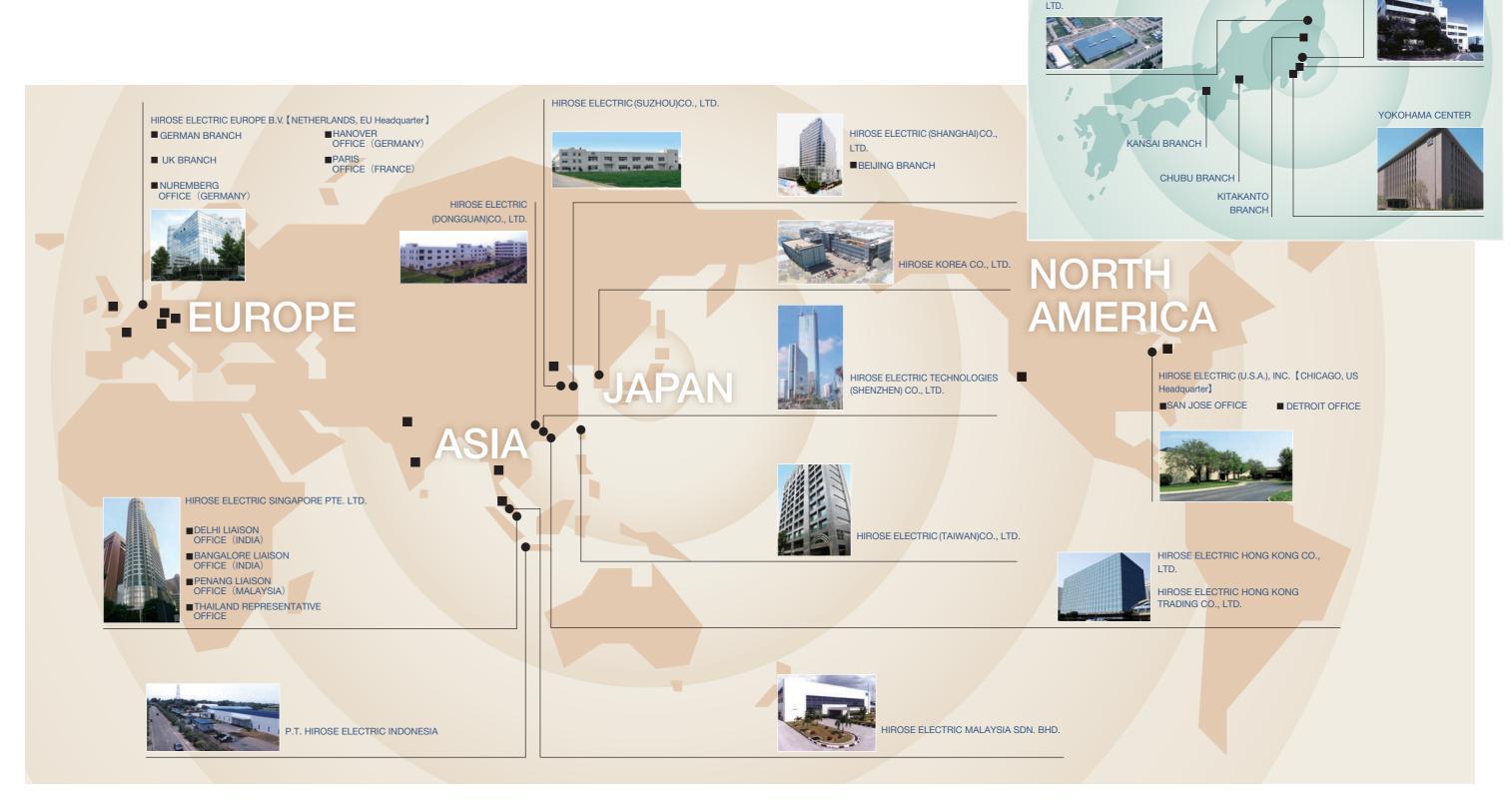
Developing manufacturing technologies by utilizing the advantages of "fabless manufacturing"

For our production system, we have made "fabless manufacturing" the core of our business style since the 1960s to keep focusing our operation on direct-sales / outsourcing-production business model. Our production centers (Tohoku Hirose Electric, Koriyama Hirose Electric, and Ichinoseki Hirose Electric) strive to make us a "top runner" also in manufacturing by working in collaboration with our partner companies to pursue stable supply, advanced productivity, and a 100% no-defect rate while also driving visionary operations that include developing molds, designing types of manufacturing machine, and researching plating technologies. Moreover, the three plants work together with our overseas production centers to ensure our global product supply, and each engages in activities that contribute to employment generation and industrial promotion in its respective community.

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## Aiming to be a global connectors brand that is needed and trusted in the international market

Our overseas business began in 1967, when we signed our first distribution agreement with overseas agency. We have steadily expanded our sphere of business since then, and now operate a sales network that links four main regions: Japan, Asia, America, and Europe, in addition to moving forward with the development of overseas production centers, so that we are able to meet international demand for connectors. We will continue to actively globalize our R&D function and strive to expand our world market share as a global brand.



TOHOKU HIROSE ELECTRIC CO...

ICHINOSEKI HIROSE ELECTRIC CO.,

KORIYAMA HIROSE ELECTRIC CO.,

HEAD OFFICE

KIKUNA OFFICE

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## Fulfilling our responsibility to the global environment and society as a robustly growing company

As we consider preservation of the global environment to be one of the primary responsibilities of a corporation that manufactures products that are distributed worldwide, the Hirose Electric Group formulated its Basic Environmental Policy in 2001. A revised version was released on April 1, 2011, adding our commitment to the preservation of biodiversity, as we also hold this to be an important facet of corporate responsibility. The latest revision was made on January 18, 2016 to accommodate the revision of ISO 14001.

## **Basic Environmental Policy**

As is fitting for a company whose slogan is "Creative Links to World Electronics," the Hirose Electric Group recognizes the importance of preserving the global environment as one of the basic business challenges associated with its global ambitions. We will therefore promote corporate activities that give full consideration to conservation of the environment and biodiversity.

Connectors, which are our main products, help to save energy because their detachability enhances the users' productivity and facilitates transportation of their products. They are used in environmentally friendly products, such as electric vehicles and LED lights. Through the utilization of our connectors, we will contribute to the realization of a low-carbon society, preservation of the environment, and conservation of biodiversity.

Recognizing that in an endeavor to preserve the environment it is important to adopt environmental management that both is effective and conforms to the relevant environmental management system standards. Hirose Electric and its group companies are committed to conforming to the international standard ISO 14001 and are implementing the following environmental protection activities.

- 1. We will ensure that we understand the conditions surrounding our company, the needs of our stakeholders, and the impact of our activities and products on the environment. Based on these findings, we will identify what we must do to protect the environment, ensure that we meet our conformance obligations, and determine the risks and opportunities associated with undertaking such activities. We will promote environmental protection and prevention of pollution by planning and implementing our activities accordingly.
- 2. We will comply with environment-related laws, regulations, ordinances, and external requirements that we subscribe to.
- 3. We will promote the following activities as priorities in our business activities:
- Design, production, and marketing of products those are environmentally friendly  $\bullet \textbf{Promotion of energy conservation through effective utilization of resources, streamlining } \\$ of operations and reduction of waste
- •Promotion of reduction of industrial waste such as metal chips and waste plastic, and
- promotion of recycling and reuse through segregation.

  4. We will provide in-company training on preservation of the environment and conservation of biodiversity, and raise the awareness of, support, and ask for cooperation from our business partners and clients.
- 5. We will continuously improve our environment management system in order to enhance the resultsthat our environmental preservation activities will deliver.

ISO 14001

January 18, 2016 Hirose Electric Co., Ltd.

President

## Environmental management framework

## ■ ISO 14001 certification

The entire Hirose Electric Group engages in environmental protection activities. Ichinoseki Hirose Electric obtained ISO 14001 certification in 1999 and was followed by Koriyama Hirose Electric and Tohoku Hirose Electric in 2000. The Hirose Electric Group, including these three domestic plants, obtained unified certification in 2002. Our overseas Group companies are also taking active steps



## Environmental auditing

We conduct internal environmental auditing to confirm that the operation of our environmental management system is based on ISO 14001 and being implemented and maintained appropriately. Moreover, we undergo regular and renewal-oriented external audits by registered external auditing organizations in order to maintain our ISO 14001 certification.



External audit

#### Initiatives to reduce burden on the environment

## ■ Reducing substances of concern in products

We comply promptly with product-related chemical substance laws and ordinances, which become tougher year by year. When designing products, we select environment-friendly components and materials in accordance with "green procurement guidelines." We also examine products' environment-friendliness when conducting design review.



Design review (FMEA

#### ■ Measures to reduce energy consumption

We are working to reduce energy consumption at our offices and plants. We routinely provide education by displaying posters in our offices and plants encouraging employees to shut off lights during the lunch break, avoid using elevators when going up or down just two floors, and save electricity in restrooms.



(Ichinoseki Hirose Electric)

#### ■ Biodiversity Conservation

To materialize the concept of establishing contact with Biodiversity, we incorporate eco-tour programs into staff social gatherings



Scenes of eco-tours

## CSR management

The Hirose Electric Group's basic philosophy vis-à-vis CSR management is founded on three main pillars: corporate governance, compliance, and risk management.



Social responsibility

The Hirose Electric Group believes that we have to fulfill the five social responsibilities



## Participation in the UN's "Global Compact"

Hirose Electric announced its support for the United Nations' "Global Compact" program and was registered as a participating company in February 2012. The "Global Compact" is a voluntary initiative in which companies provide responsible and creative leadership in acting as fine members of society and participating in the building of an international framework for realizing sustainable growth.

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