



RYOSAN

Electronics System Coordinator

RYOSAN CO., LTD.
CORPORATE PROFILE 2018

Since its founding, Ryosan has conducted corporate activities based on the strong conviction that
 “a corporation is a public institution.”

This phrase means that corporations are founded in order to benefit society in both the present and the future.

Corporations are allowed to exist only if they are needed by society.

In other words, corporations lose their meaning when they are no longer needed by society.

Ryosan will continue its corporate activities with this strong conviction and firm resolution.

“A corporation is a public institution.”

Ryosan keeps this phrase firmly in its heart as the Company moves forward into the future.

Ryosan History

~1960	1970	1980	1990	2000	2010~
<p>1953 Ryosan Denki Co., Ltd. is established in Kanda-Suehirocho, Chiyoda-ku, Tokyo.</p> <p>1957 The Company is reorganized as a stock company as Ryosan Denki Co., Ltd.</p> <p>1963 Ryosan Trading Co., Ltd. is established.</p>	<p>1974 Hong Kong Ryosan Limited is established.</p> <p>1976 Singapore Ryosan Private Limited is established.</p> <p>1979 Ryotai Corporation is established.</p>	<p>1981 The company name is changed to Ryosan Co., Ltd.</p> <p>1982 Consolidated net sales exceed 100 billion yen.</p> <p>1983 Stock is listed on the Second Section of the Tokyo Stock Exchange.</p> <p>1986 Stock is listed on the First Section of the Tokyo Stock Exchange. The head office is moved to Higashi-Kanda, Chiyoda-ku.</p> <p>1988 Ryosan Trading Co., Ltd. merges with Ryosan Co., Ltd. Consolidated net sales exceed 200 billion yen.</p>	<p>1996 Ryosan Technologies USA Inc. is established.</p> <p>1997 Zhong Ling International Trading (Shanghai) Co.,Ltd. is established.</p> <p>1999 Kawasaki Comprehensive Business Center is established.</p>	<p>2000 The head office is moved to the current Head Office Building. Consolidated net sales exceed 300 billion yen.</p> <p>2001 Korea Ryosan Corporation and Ryosan (Thailand) Co.,Ltd. are established.</p> <p>2002 Ryosan IPC (Malaysia) Sdn.Bhd. and Dalian F.T.Z Ryosan International Trading Co.,Ltd. are established.</p> <p>2003 All domestic offices obtain ISO 14001 certification.</p> <p>2008 SAXIS Co., Ltd. is established.</p>	<p>2012 Ryosan Europe GmbH is established.</p> <p>2014 Ryosan India Pvt. Ltd. is established.</p> <p>2016 Engineering Headquarters obtain ISO9001 certification.</p> <p>2017 Edal Electronics Co., Ltd. becomes a wholly owned subsidiary.</p>



Ryosan is an electronics system coordinator.

The mission of Ryosan is to play a role in the fusion of human and technological progress through electronics system coordination. By fulfilling this mission, we aim to enhance our value in the electronics market, setting our sights on further development. Going forward, we are committed to meeting the expectations of our various stakeholders. In that pursuit, we ask for your continued support and encouragement.

Representative Director,
Executive Chairman



Representative Director,
President



Naoto Mimatsu

Hiroyuki Kurihara

The Three Functions

The three functions of an electronics system coordinator

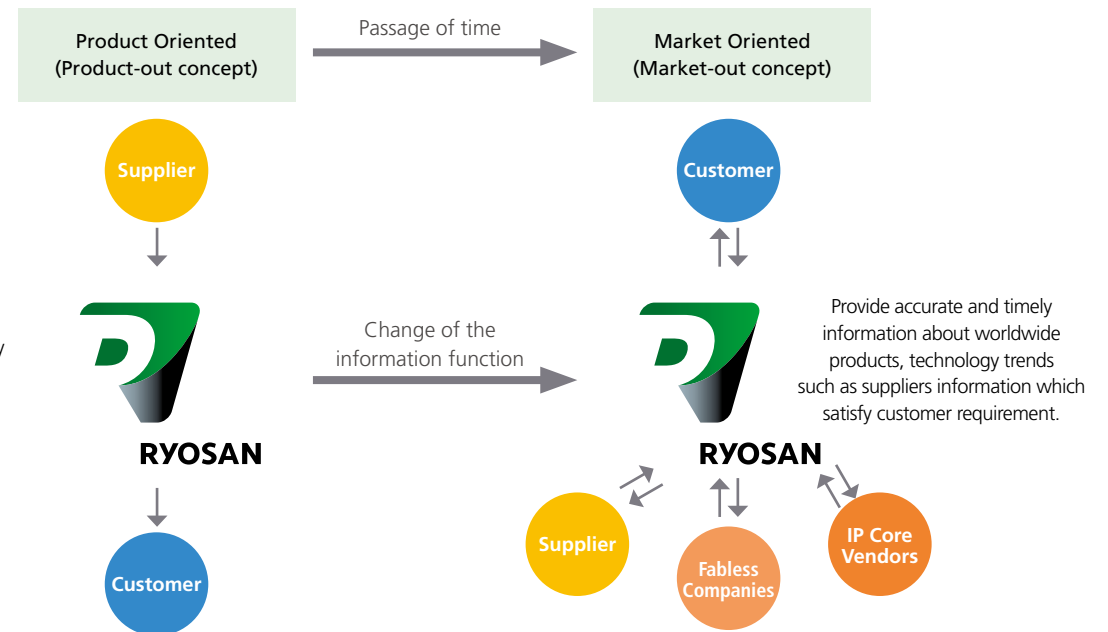
Satisfy customers through three

Compile current market needs and technology trends, provide them to customers as updated information.

The Information Function

“The Information Function,” “The Solutions Function,” and “The Distribution Function” are essential to an electronics system coordinator.

Provide accurate, timely information about the supplier's product/technology trends.



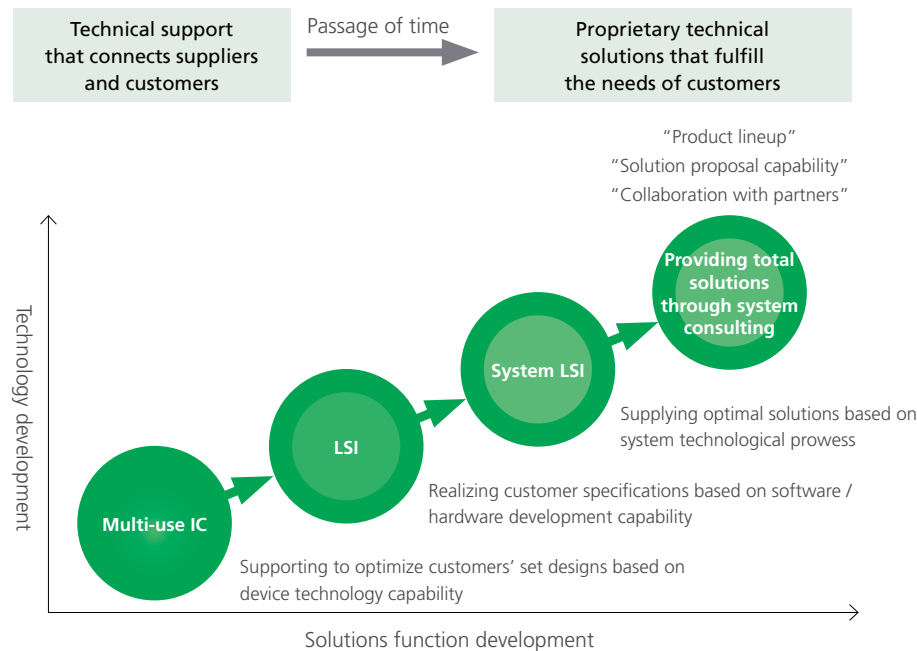
key functions.

Integrate expertise and knowledge with advanced technology, to offer the best possible solution to the customer.

Deliver required products to the required locations in the best possible condition.

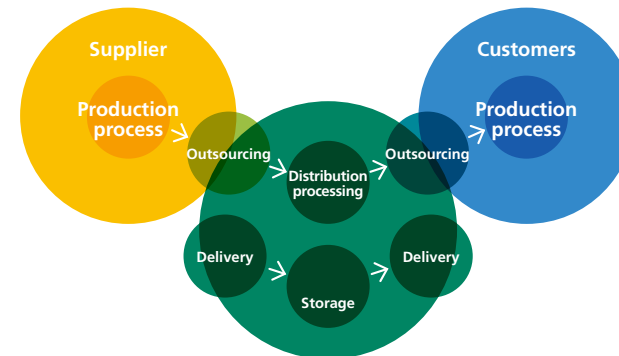
The Solution Function

The Distribution Function



Growing diversity and sophistication of customer needs

Providing timely, detailed and cost efficient logistics services through the organic integration of automated warehouse and information systems



Providing logistics services that extend beyond the storage and delivery functions to encompass the full range of customer and supplier processes

Semiconductors Business

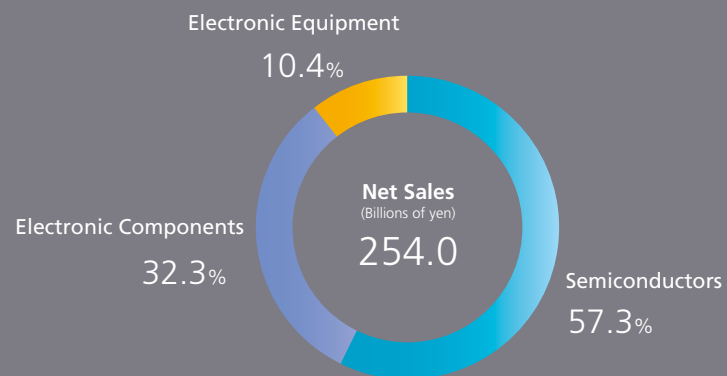
Ryosan is a vendor of microcomputers, system LSIs, general-purpose devices and memory, and a contract developer of microcomputer software and ASIC hardware.

Electronic Components Business

Ryosan sells a wide variety of products, from display devices and power systems to various structural components.

BUSINESS SUMMARY

Percentage of Net Sales
(Fiscal Year 2017)



Electronic Equipment Business

Ryosan sells embedded system products, platform system products and facilities equipment.

Solutions Business

Through a wide range of partners, Ryosan provides customers with the optimum solutions for their needs.

In addition to the semiconductor products of Renesas Electronics Corporation in Japan, Ryosan sells unique semiconductor products manufactured by companies such as NXP Semiconductors (Netherlands), ON Semiconductor (US) and Microchip Technology Inc., (US) and Winbond Electronics Corporation (Taiwan) and Macronix International Co., Ltd. (Taiwan) Ryosan is proactively enhancing its technical support capability with the goal of providing the optimal products, services, and solutions to customers.

Semiconductors Business



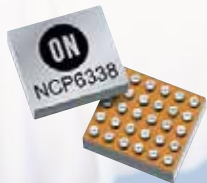
Renesas Electronics
32-bit Microcontroller



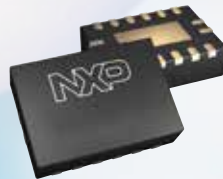
Winbond
DRAM/Flash Memory



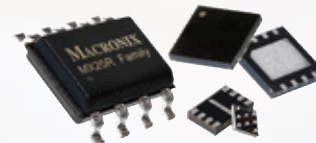
Microchip
8to32-bit
Microcontroller



ON Semiconductor
6A Step-Down DC-DC
Converter IC



NXP Semiconductors
IC for Automotive



Macronix
Nor Flash

Major Suppliers

Renesas Electronics Corporation
Everspin Technologies, Inc.
Faraday Technology Corporation
Macronix International Co., Ltd.
MegaChips Corporation
Microchip Technology Inc.
NEC Corporation
Nexperia B.V.
NXP Semiconductors N.V.
ON Semiconductor Corporation
VIA Labs, Inc.
WeEn Semiconductors Co., Ltd.
Winbond Electronics Corporation
YAMAHA CORPORATION
RICOH Electronic Devices Co., Ltd.

Ryosan handles a large number of electric component products from superior suppliers such as display devices, power supplies and electromechanical components. Staff with a thorough knowledge of individual suppliers and products are available to support customer requests.

Electronic Components Business



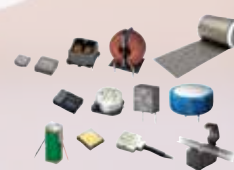
ORTUS TECHNOLOGY
Compact LCD Modules



ALPS ELECTRIC
Sensors



EM Devices
On-board
Communication Relays



Token
EMC Products

Major Suppliers

ALPS ELECTRIC CO., LTD.

COSEL CO., LTD.

EM Devices Corporation

FSP TECHNOLOGY INC.

Fujipream Corporation

GS Yuasa International Ltd.

Japan Aviation Electronics Industry, Limited

KEL CORPORATION

KYOCERA Corporation

MARUWA CO., LTD.

Matsuo Electric Co., Ltd.

NIDEC COPAL ELECTRONICS CORPORATION

Nippon Chemi-Con Corporation

NIPPON SEIKI CO., LTD.

Nitsuko Electronics Corporation

OKI Techno Power Systems Co.,Ltd.

ORTUS TECHNOLOGY CO., LTD.

Sankyo Thermo-Tech, Inc.

SCHOTT AG

SEIKO EPSON CORPORATION

SMK Corporation

Sumitomo Electric Industries, Ltd.

TAIYO YUDEN CO., LTD.

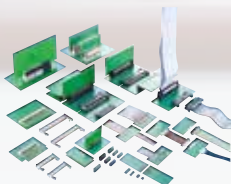
Tianma Japan, Ltd.

TOKIN Corporation

Tokyo Cosmos Electric Co., Ltd.



Tianma Japan
Small and Medium-sized
LCD Modules



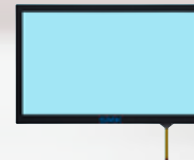
Japan Aviation
Electronics (JAE)
Connectors for Print Boards



Sumitomo
Electric Industries
FPC Products



COSEL
Unit and On-board Power Supplies/
Noise Filters



SMK
Touch Panels

Ryosan has two business fields as electronic equipment business: systems equipment business and facilities equipment business.

As systems equipment business, Ryosan provides platform products that can be used with IT systems and IoT products, customized products with user specifications, and various types of boards and modules for embedding in customer products.

As facilities equipment business, Ryosan provides manufacturing equipment, materials, and consigned processing services mainly to customers who manufacture semiconductors, electronic components and batteries.

Electronic Equipment Business



NEC
Factory Computer



NEC
Express Server



Newtech
Mirror Card



CANON ANELVA
Sputtering Equipment



OMRON LASERFRONT
Laser Trimmer

Major Suppliers

<Systems Equipment Business>

NEC Corporation
NEC Display Solutions, Ltd.
NEC Embedded Products, Ltd.
NEC Platforms, Ltd.
NEC Networks & System Integraion Corporation
NEC Solution Innovators, Ltd.
AVer Information Inc.
CONTEC CO., LTD.
CORE CORPORATION
FUJITSU LIMITED
Newtech Co., Ltd.
Nippon Avionics Co., Ltd.
Taitex Co., Ltd.
TOSHIBA CORPORATION
VIA Technologies, Inc.

<Facilities Equipment Business>

ARIOS INC.
CANON ANELVA CORPORATION
Daido Steel Co., Ltd.
D-process Inc.
KYOSIN ENGINEERING CORPORATION
OMRON LASERFRONT INC.
Showa Optronics Co., Ltd.
Sumitomo Precision Products CO., LTD.

Ryosan provides the optimal solution for fulfilling customer needs, co-working with relevant business partners, in addition to providing wide variety of products and supporting with system knowhow.

Solutions Business

<Case Study>

Automotive component market

Automotive components for peripheral recognition using AI



IoT market

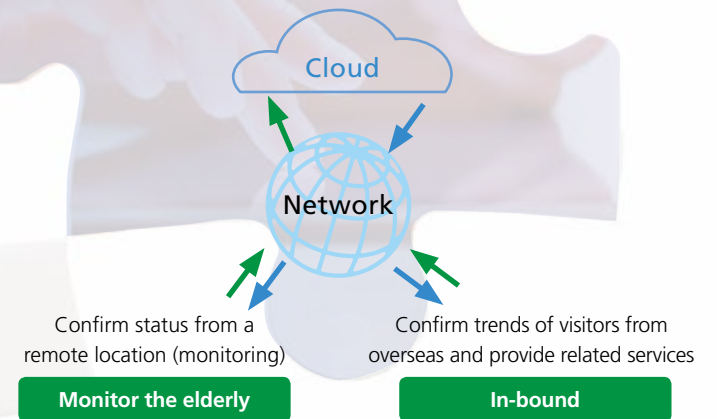
Customizable BLE* sensor modules



* Bluetooth Low Energy

Monitoring market, in-bound market

Business models with new services applying an IoT platform*



* Integrated system platform made of relevant hardware, software, networking, and cloud computing.

```
// Actual TestCheck object
setf = {

// Use a reference to a collection of variables in the test
add: function() {

// Query information on the test
if ( !query.isFunction( arg ) ) {
  if ( !query.isScope() ) { test.fail( arg ) }
  test.pass( arg );
} else if ( !arg || arg.length && query.isTest( arg ) ) {
  // Query information
  for ( var i = 0; i < arg.length; i++ ) {
    arg = "testing on " + i + " ";
  }
}
}
```

In order to answer customer needs, Ryosan provides the optimum products and solution packages as well as technical support to fit the actual conditions at customers' facilities.

As an electronic systems coordinator, Ryosan aims to provide both technical support and integrated system solutions which enables customers to use suppliers products in an efficient manner.

TECHNICAL SUPPORT

Technical support

- Total technical support for all processes from product planning to mass-production
- Research/Issue market information
- Propose systems/solutions
- Propose system development support structure
- Mass-Production setup support, QA Support

Element technology development

- AI, Image recognition
- Various communication systems, standard I/F (wired and wireless)
- Automotive LAN (CAN, LIN, Ethernet, etc.)
- Automotive information controls (Miracast, System controls, etc.)
- Motor controls, various sensor controls

System solutions development

- Planning → system design → solution development → evaluation
Reference boards software products, and Package proposals
- Camera/Motor control/Wireless applications
 - IoT/Automotive Network/AI

Technical support for devices

- Providing the optimum devices to meet specifications Q&A support for various devices
- MCU (8 bit – 64 bit), SoC, ASIC
 - Power devices, ASSP
 - Various modules

System development

- Consigned development and development support for customers
- Embedded software development
 - ASIC development
 - Mixed-signal development
 - IP and middleware development

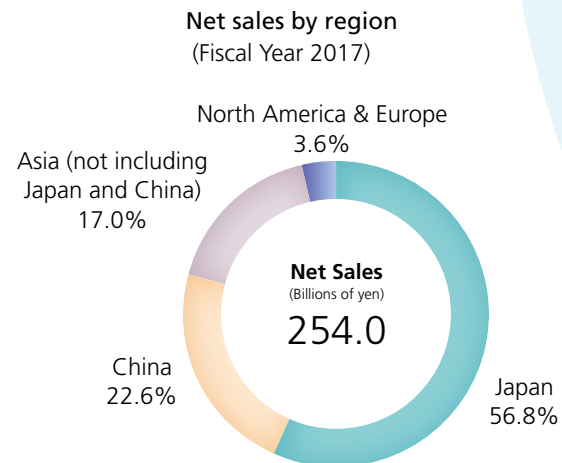
About ISO9001

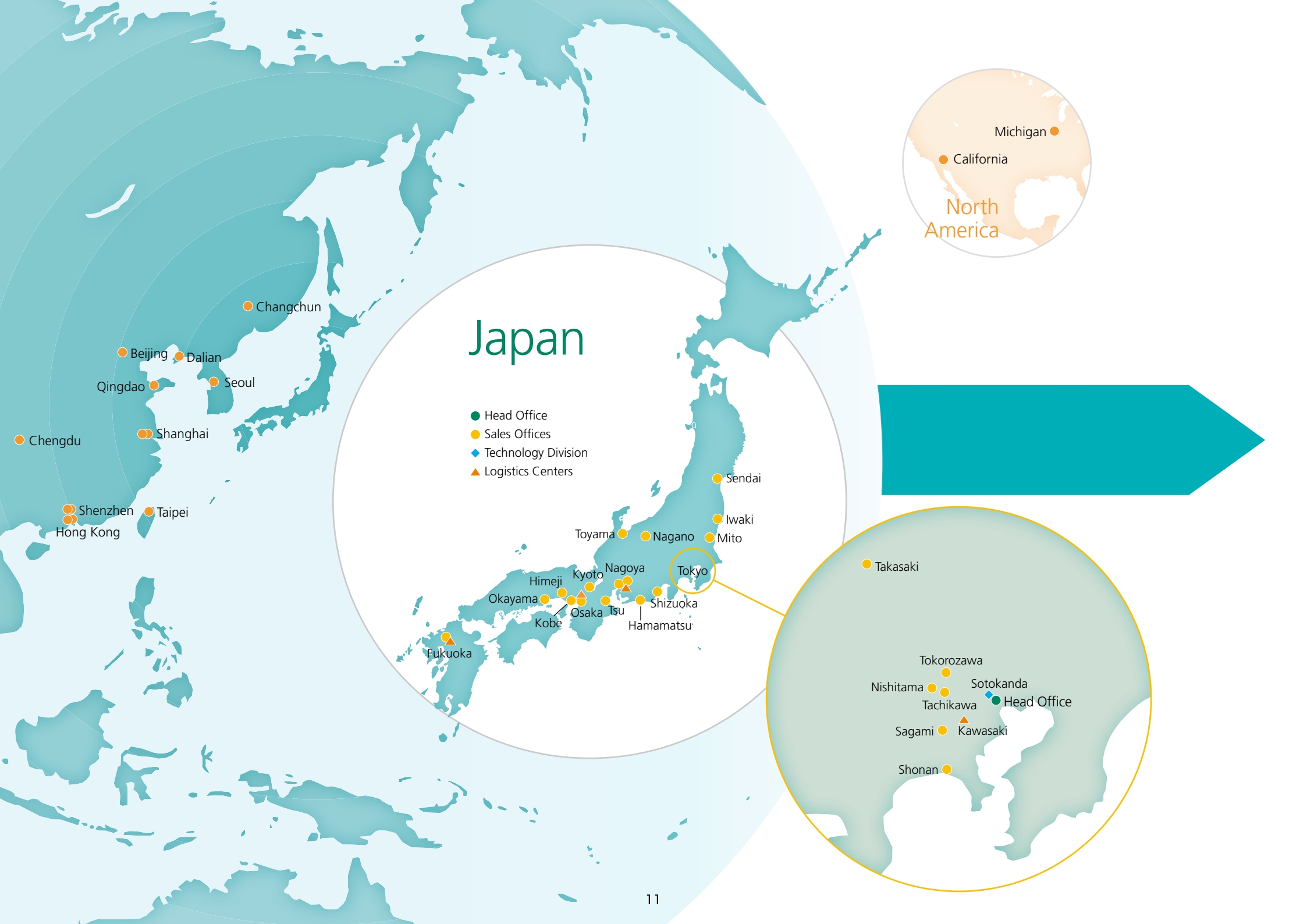
- 1. Organization: Ryosan Company, Limited Engineering Headquarters
- 2. Certification: ISO9001:2015 / JIS Q 9001:2015
- 3. Registration Date: 3.June.2016
- 4. Certificate Number: JQA-QMA15404
- 5. Certifying Body: Japan Quality Assurance Organization (JQA)
- 6. Scope of Registration: Design/Development of software for microcomputer, and logic circuit for LSI based on customer requirements.
• Sales promotion and Technical Supports for electronics devices

RYOSAN GLOBAL NETWORK

In today's global society, it is increasingly common for the planning, development and manufacturing steps of a product to be performed in different countries. Considering the current market trend in the electronic industry where speedy response across national borders is expected, it is essential to provide products and technical supports in a timely and efficient manner at the nearby location to the customer production sites.

In the early 1970s, Ryosan began expanding into China and the Association of South-East Asian Nations (ASEAN). In the 1990s, Ryosan advanced into North America. Today there are over 20 Ryosan sales bases around the world. These outlets assist both Japanese companies with overseas production facilities and local customers.





Japan

- Head Office
- Sales Offices
- ◆ Technology Division
- ▲ Logistics Centers

- Changchun
- Beijing
- Dalian
- Qingdao
- Seoul
- Chengdu
- Shanghai
- Shenzhen
- Taipei
- Hong Kong

- Sendai
- Iwaki
- Mito
- Toyama
- Nagano
- Tokyo
- Nagoya
- Kyoto
- Himeji
- Okayama
- Kobe
- Osaka
- Tsu
- Shizuoka
- Hamamatsu
- Fukuoka



Company Overview (as of June 22, 2018)

Name of Company	Ryosan Company, Limited
Date of Establishment	November 18, 1953
Business Activities	Sale of semiconductors, electronic components and electronic equipment
Capital	17,690,508,514 yen
Head Office	2-3-5, Higashi-Kanda, Chiyoda-ku, Tokyo, 101-0031, Japan
Number of Employees	635 (Consolidated: 946) <as of March 31, 2018>
Stock Listings	Tokyo Stock Exchange, First Section, Code: 8140
Fiscal Year End	March 31
Main Banks	Sumitomo Mitsui Banking Corporation MUFG Bank, Ltd.

Board of Directors

Representative Director	Naoto Mimatsu
Representative Director	Hiroyuki Kurihara
Director	Kazunori Sato
Director	Masahide Nishiura

Audit and Supervisory Committee Member

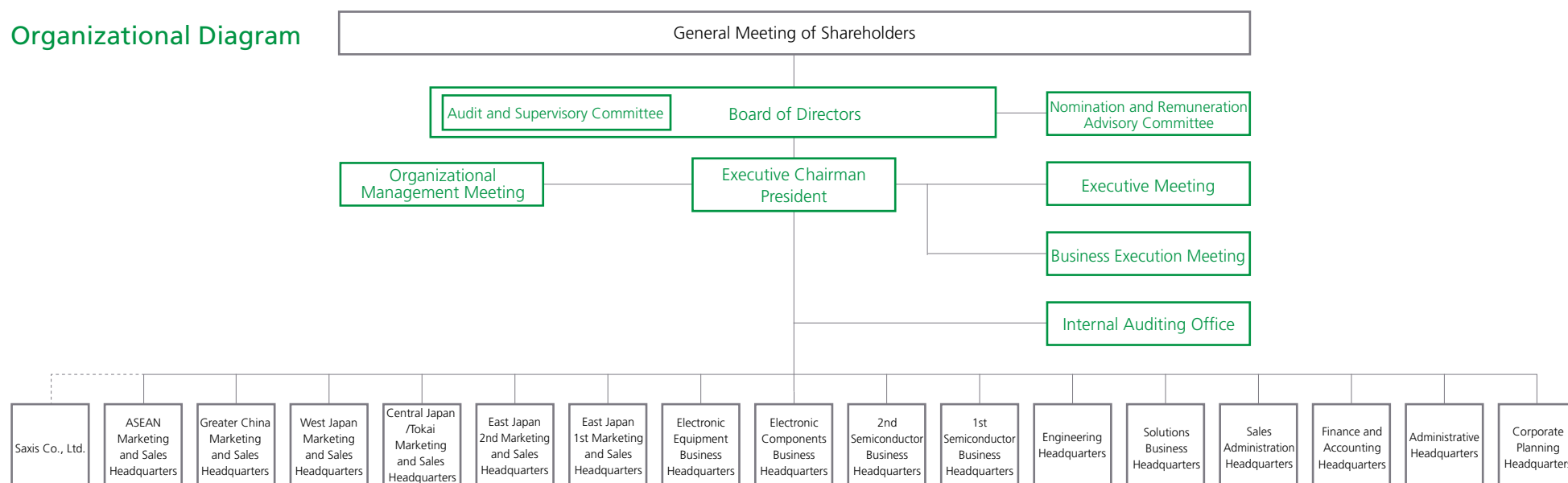
Director	Iwao Sakamoto
Director	Shinya Nambu
Outside Director	Fumiaki Sato
Outside Director	Hideki Kuwahata
Outside Director	Mahito Ogawa
Outside Director	Hirokazu Tamura

Executive Officer

Executive Chairman	Naoto Mimatsu
President	Hiroyuki Kurihara
Senior Executive Officer	Kazunori Sato
Senior Executive Officer	Masahide Nishiura
Senior Executive Officer	Koji Homma
Senior Executive Officer	Hiroshi Shibuya
Senior Executive Officer	Yasuo Yoshiizumi
Executive Officer	Hiroshi Kobayashi
Executive Officer	Hiroyuki Igari
Executive Officer	Satoshi Mizusawa
Executive Officer	Kenji Ishimura
Executive Officer	Ryuji Iwadate
Executive Officer	Kazuhiko Inaba
Executive Officer	Kazuhiro Saito
Executive Officer	Shunya Endo
Executive Officer	Hirohumi Kitora
Executive Officer	Tatsumi Nakahigashi
Executive Officer	Yasuhiko Kirihata

COMPANY OVERVIEW

Organizational Diagram



Main Clients

Accelink Technologies Co., Ltd.	GLORY LTD.	Murata Manufacturing Co., Ltd.	Sumitomo Wiring Systems, Ltd.
ADVANTEST CORPORATION	Haier Co., Ltd.	NEC Corporation	SUMITRONICS CORPORATION
ALPINE ELECTRONICS, INC.	Hisense Electric Co., Ltd.	NEC Platforms, Ltd.	TCL Electronics, Ltd.
ALPS ELECTRIC CO., LTD.	Hitachi Automotive Systems, Ltd.	NIKON CORPORATION	TDK Corporation
Azbil Corporation	Hitachi, Ltd.	Nintendo Co., Ltd.	TOPRO DISPLAY TECHNOLOGY Co., Ltd.
Blueway Electronics Co., Ltd.	Hon Hai Precision Industry Co., Ltd.	OMRON Corporation	TOSHIBA CORPORATION
BROTHER INDUSTRIES, LTD.	Hyundai Autron Co., Ltd.	Panasonic Corporation	TOSHIBA TEC CORPORATION
Calsonic Kansei Corporation	Hyundai Mobis Co., Ltd.	PIONEER CORPORATION	Toyodenso Co., Ltd.
Canon Inc.	Jabil Circuit, Inc.	Sanmina-SCI Corporation	TOYOTA MOTOR CORPORATION
CASIO COMPUTER CO., LTD.	Japan Radio Co., Ltd.	SANYO DENKI CO., LTD.	Wacom Co., Ltd.
Clarion Co., Ltd.	JVC KENWOOD Corporation	SEIKO EPSON CORPORATION	WATADA PRINTING CO., LTD.
COSEL CO., LTD.	KOITO MANUFACTURING CO.,LTD.	Sharp Corporation	WESTBEGIN Co., Ltd.
DENSO CORPORATION	Komatsu Ltd.	Sichuan Changhong Electric Co., Ltd.	Xacti Corporation.
FANUC CORPORATION	KONICA MINOLTA, INC.	SIIX Corporation	YAMAHA CORPORATION
Fuji Xerox Co., Ltd.	Mamiya-OP Co., Ltd.	SIMPLO TECHNOLOGY CO., LTD.	YASKAWA Electric Corporation
FUJIFILM Corporation	MinebeaMitsumi Inc.	Sony Corporation	YAZAKI Corporation
FUJITSU LIMITED	MITSUBA Corporation	STANLEY ELECTRIC CO., LTD.	YOKOWO CO., LTD.
FURUNO ELECTRIC CO., LTD.	Mitsubishi Electric Corporation	Sumitomo Electric Industries, Ltd.	ZTE Corporation

Environmental Measures

On August 22, 2003, Ryosan received internationally recognized ISO 14001 certification from the Japan Quality Assurance Organization, an official certifying body, for the environmental management system covering all domestic offices.

1. Registered Company	Ryosan Company, Limited
2. Head Office	2-3-5 Higashi-Kanda, Chiyoda-ku, Tokyo 101-0031, Japan
3. Certification	ISO 14001 : 2015 / JIS Q 14001 : 2015
4. Certification Date	August 22, 2003
5. Registration Number	JQA-EM3334
6. Registered Business Activities	Sales of semiconductors, electronic components and electronic equipment; software development; electronic circuit design.
7. Onsite Affiliates	Saxis Company, Limited
8. Certifying Body	Japan Quality Assurance Organization

Ryosan's Environment Policies

(Alphabetical Order)

Ryosan will call the earth our home until the very end, but the earth should never be considered the property of those who live on it today. Our children, grandchildren and offspring well into the future will continue to live here. Truly, the earth is something that our descendants have imparted to us to as caretakers.

Philosophy

What modern man must realize is that we share this earth of ours with those who will follow in our footsteps far off into the future. It could very well happen that our efforts geared towards increased abundance and wealth actually turn the lives of our descendants into a severe existence. In order to enable the human race to continue its time on this earth, we as their ancestors of old must put efforts into protecting and restoring the earth's environment. As a public institution, we fully recognize this responsibility and constantly consider the environment when conducting business activities.

Guidelines

- As an electronics systems integrator, we are involved in the buying and selling of semiconductors, electronic components, electronic equipment and other equipment. We also engage in software development, electronic circuit design and ancillary services related to each of these business areas. Across the breadth of our business activities, we are committed to advancing a variety of measures aimed at curtailing global warming while promoting the conservation and sustainable use of biodiversity.
- We firmly respect all applicable environmental laws and regulations, as well as environmental charters and arrangements independently agreed upon by the Company.
- We regularly review all environmental protection objectives, continuously updating environmental targets and pushing forward measures to prevent pollution.
- We tirelessly promote the following activities:
 - Conservation of energy and resources
 - Recycling-oriented businesses (waste reduction, recycling, green procurement, etc.)
 - Control and management of products containing chemical substances in collaboration with customers and suppliers
- We proactively disseminate information regarding our environmental policies to heighten internal awareness and deepen understanding of these policies among Ryosan employees.
- We broadly publicize Ryosan's environmental policies and swiftly disclose environmental information to the public upon request.

RYOSAN CO., LTD.