

# BUSINESS REPORT 2019

(from April 1, 2018 to March 31, 2019)



# To Our Shareholders



It is my pleasure to report on the business results of SHINKO ELECTRIC INDUSTRIES CO., LTD. (the Company) for fiscal year 2018 (April 1, 2018 to March 31, 2019), which marks our 84th business period.

Semiconductors are vital components that act like the brains in automobiles, in which technological development is accelerating, such as with autonomous driving and electric vehicles (EVs), and applications related to the Internet of Things (IoT)—which is envisioned to expand rapidly—as well as devices used in the medical, and other associated fields that support people’s health. The semiconductor market is anticipated to keep growing, as semiconductor usage continues to spread. Moreover, big data, artificial intelligence (AI), and other advanced technologies, supported by the practical implementation of the next-generation mobile communications standard (5G), are changing the structure of the economy and society. They have the potential to create innovation on a different order of magnitude than ever before. It is expected that the progress of semiconductors will continue as a key technology for achieving this potential.

The Shinko Group is committed to developing and providing to markets highly competitive products, based on our interconnection technology that brings the marvelous features and benefits of semiconductor devices into people’s lives. We will strive to provide products and services with high value for customers, and to support their success and maintain their trust, by accurately grasping customers’ needs and ensuring a high level of quality, cost, and delivery performance. Through these initiatives, we will pursue our own development and growth.

Through practice of the “SHINKO Way,” which sets out the Shinko Group’s corporate philosophy and policies, we are committed to running our business so that we remain a company that is needed by society, while continually boosting our corporate value and contributing to the sound development of society.

As we move forward, I ask for the continued support and encouragement of all our shareholders.

June 2019

A handwritten signature in black ink that reads "M. Fujita". The signature is written in a cursive, slightly slanted style.

Masami Fujita  
President and Representative Director

# Review of Operations and Outlook

## ■ Business Results for the Fiscal Year Ended March 31, 2019

During the fiscal year under review, the semiconductor market remained in good shape from sales of products such as memory and automobiles in the first half of the year thanks to expanding demand for semiconductors. In the second half of the year, however, there was a distinct slowdown due to such things as the effect of an oversupply of memory and inventory adjustments prompted by trade friction between the US and China.

In this environment, the Shinko Group focused on investing management resources into growth markets, including next-generation flip-chip type packages suited to nano-fabrication and high-density semiconductors. In the second half of the fiscal year, the Group faced headwinds overall, including the impact of inventory adjustments, and so pursued a course of proactive sales promotions. As a result, sales of ceramic electro static chucks for semiconductor manufacturing equipment increased, demand for heat spreaders for servers grew, while lead frames and IC assemblies were affected by inventory adjustments during the second half of the fiscal year. Sales of flip-chip type packages

decreased due to sluggish orders in the first half of the fiscal year. As a result of these factors, consolidated net sales for the period under review decreased 3.3% year on year to 142,277 million yen. Nevertheless, the growth in sales from high-value-added products and the posting of foreign exchange gains resulted in consolidated recurring income of 7,649 million yen (up 33.5% year on year). Profit attributable to owners of parent decreased 31.1% year on year to 2,526 million yen due to the posting of an extraordinary loss stemming from a loss associated with the move to a retirement benefit scheme with the introduction of a risk-sharing pension plan and an impairment loss on fixed assets.

For non-consolidated financial results, we recorded net sales of 136,003 million yen (down 2.5% year on year), recurring income of 8,584 million yen (up 57.0%), and net income of 3,572 million yen (up 2.0%). The Company paid a year-end dividend of 12.5 yen per share and an interim dividend of 12.5 yen, for a total dividend of 25 yen for the fiscal year under review.

## ■ Outlook

Regarding the future of the semiconductor industry, demand for semiconductors is anticipated to expand further in the IoT- and AI-related markets, where greater utilization is expected in the future, supported by the implementation of the next-generation mobile communications standard (5G) and in the automotive market where technological development is accelerating, mainly in the areas of autonomous driving and EVs. On the other hand, competition is forecast to intensify worldwide, with the need to establish development and production systems that can swiftly and flexibly meet increasingly sophisticated market needs.

Given this environment, the Shinko Group will concentrate on tying market growth and expansion to our own growth by continuing to focus the investment of management resources on markets with high growth potential. For example, we plan to make capital investments to reinforce production systems and increase production at our Takaoka Plant in Nakano City, Nagano Prefecture, among other plants. This will be for next-generation flip-chip type packages, demand for which is expected to

grow in the future for high-performance semiconductors, including for servers. We will also push ahead with the establishment of mass production systems for next-generation plastic BGA substrates that can handle even higher-speeds and larger-capacity semiconductor memory, as well as for ceramic electro static chucks for semiconductor manufacturing equipment, for which demand is anticipated to increase over the medium- to long-term. Additionally, we will further strengthen our business foundation by ensuring a high level of quality, cost, and delivery performance. To that end, we will continually work on the development and establishment of production systems for highly competitive products, based on a variety of semiconductor packaging technologies we have cultivated thus far.

To achieve “Progress without Limits,” the Shinko Group will provide products and services that offer solid value to customers, always starting with customer needs, in semiconductor markets that are expected to continue growing.

## Further Strengthening the Production capacity for Next-Generation Flip-Chip Type Packages

As semiconductor packages suited to nano-fabrication and high-density packaging of semiconductors, demand for flip-chip type packages is expected to grow, including for servers that perform large capacity data processing at high-speeds. Considering these needs, since fiscal year 2018, we have been installing equipment and establishing production lines at the Takaoka Plant in Nakano City, Nagano Prefecture, as well as at other plants, to reinforce our next-generation flip-chip type package production systems.

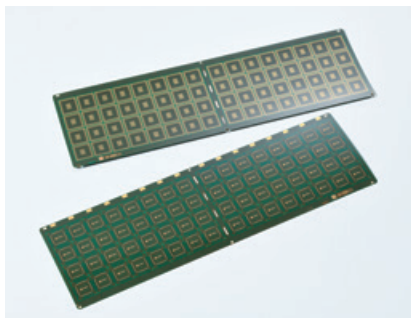
Driven by increased utilization of IoT and AI as well as the implementation of the next-generation mobile communications standard (5G), it is expected that demand will expand further for next-generation flip-chip type packages for high-performance semiconductors. Given these factors, we decided to substantially increase the amount of investments to further boost production capacity.

The production lines established under this plan are expected to commence operation sequentially in fiscal year 2020.



Takaoka Plant in Nakano City, Nagano Prefecture

## Establishing Production Lines for Next-Generation Plastic BGA Substrates



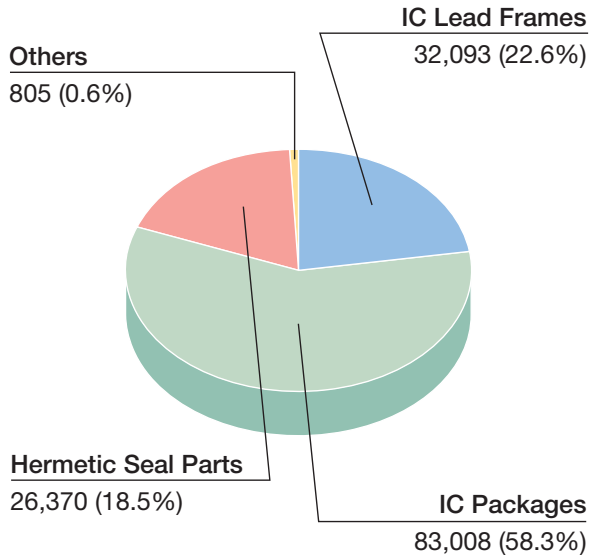
Plastic BGA substrates

Our plastic BGA substrates are used in semiconductors for automobiles, which require high reliability, and in semiconductor memory in devices such as high-end smartphones. The need to stack multiple memory chips known as “multi stacking” to achieve larger-capacity and higher-speed semiconductor memory for high-end smartphones, tablets, and servers will grow in the future. It is expected that efforts will increase to make semiconductor packages even smaller and thinner.

Accordingly, we will focus on providing packages for semiconductor memory that meet customer needs by leading the market in establishing production lines for next-generation plastic BGA substrates based on the most advanced Modified Semi Additive Process (MSAP).

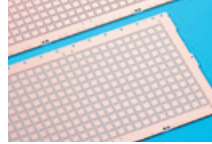
# Summary of Operations by Product Category

Net sales by product category  
(Millions of yen)

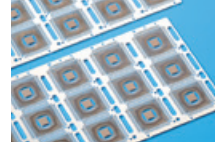


\* Figures in ( ) represent % of net sales

## IC Lead Frames



QFN-Type Lead Frames



Stamping Lead Frames



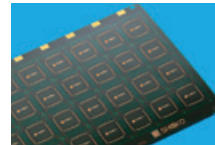
Riveting Lead Frames

Applications: Smartphones, automobiles, PCs, home appliances and industrial uses, etc.

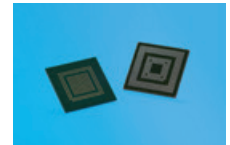
## IC Packages



Flip-Chip Type Package



Plastic BGA Substrates



IC Assemblies

Applications: PCs, servers, smartphones, consumer products, etc.

## Hermetic Seal Parts



Ceramic Electro Static Chuck



Glass-to-Metal Seals for Optical Devices



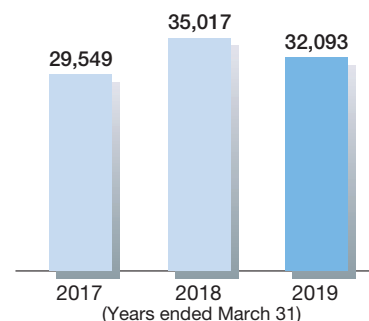
Glass-to-Metal Seals for Optical Communication Equipment

Applications: Semiconductor manufacturing equipment, automobiles, consumer products, communications equipment, etc.

## Net sales 32,093 million yen ( ↓ 8.4% year on year)

Revenue from etched lead frames expanded on higher demand for a wide range of applications, including automobiles and smartphones, despite sales trending downward in the second half of the year because of demand fluctuations. On the other hand, revenue from stamping lead frames decreased due to the heavy impact of inventory adjustments for the automotive market. Accordingly, consolidated net sales in this segment were 32,093 million yen (down 8.4% year on year).

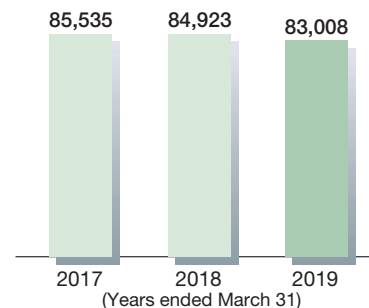
Net sales by product category (Millions of yen)



## Net sales 83,008 million yen ( ↓ 2.3% year on year)

Revenue from heat spreaders for server CPUs expanded. On the other hand, demand for plastic BGA substrates for memory, including for smartphones, decreased, and revenue from IC assemblies fell with inventory adjustments for the automotive market, despite an increase in orders for high-end smartphones. Revenue from flip-chip type packages declined due to a low level of sales across the first half of the year, although orders showed a recovery trend in the second half of the year. As a result, consolidated net sales in this segment were 83,008 million yen (down 2.3% year on year).

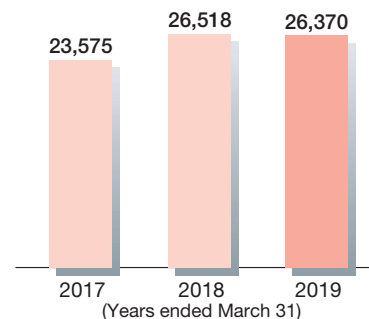
Net sales by product category (Millions of yen)



## Net sales 26,370 million yen ( ↓ 0.6% year on year)

Revenue from ceramic electro static chucks for semiconductor manufacturing equipment increased thanks to steady orders, despite the impact of restrained capital investment caused by an oversupply of memory. Although demand for glass-to-metal seals for optical devices increased, sales remained low for optical communication equipment. Accordingly, consolidated net sales in this segment were 26,370 million yen (down 0.6% year on year).

Net sales by product category (Millions of yen)

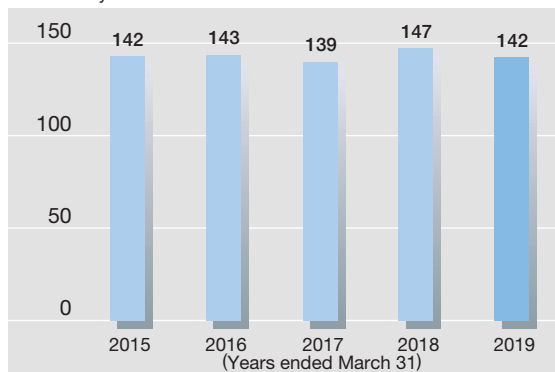


# Financial Highlights

## Consolidated

### Net sales

(Billions of yen)

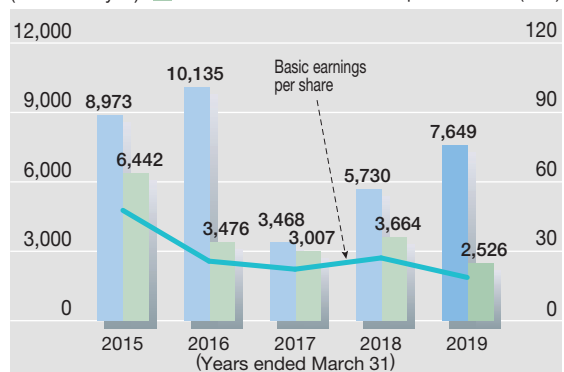


### Recurring income / Profit attributable to owners of parent

(Millions of yen)

Recurring income  
Profit attributable to owners of parent

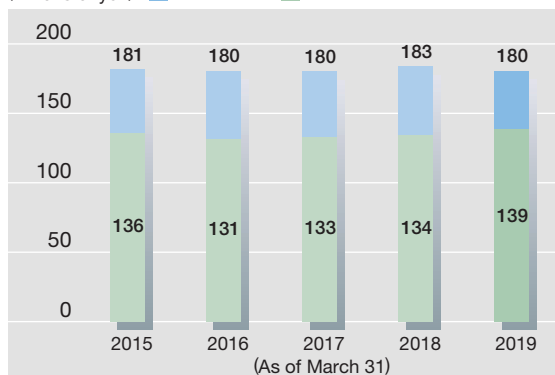
Basic earnings per share (Yen)



### Total assets / Net assets

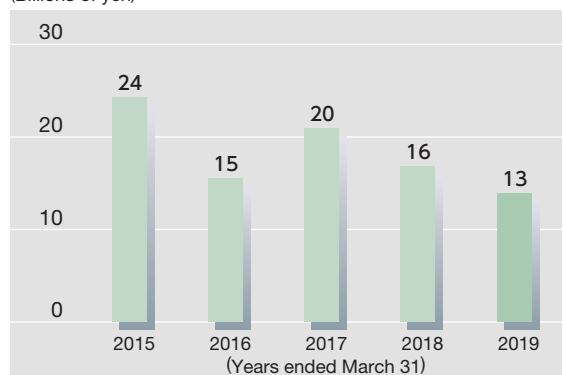
(Billions of yen)

Total assets  
Net assets



### Capital expenditure

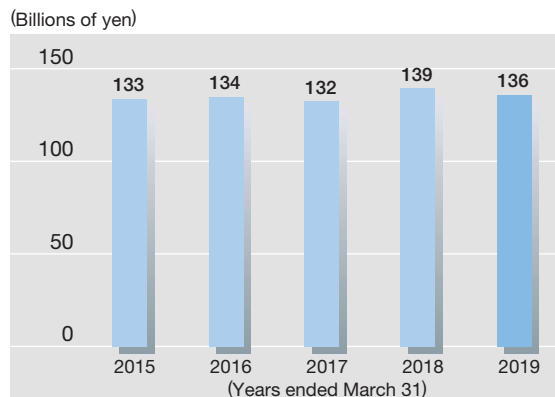
(Billions of yen)



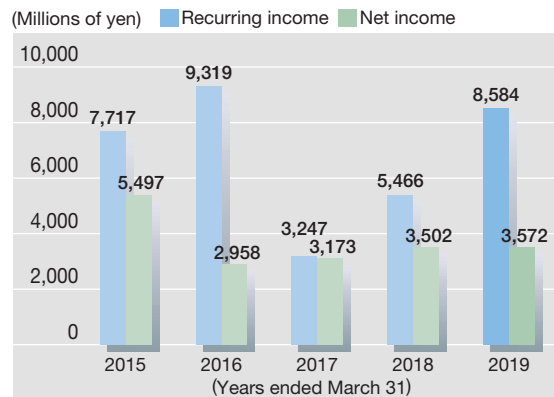


## Non-consolidated

### Net sales



### Recurring income / Net income



### Business performance and assets

Years ended March 31	2015	2016	2017	2018	2019
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#### Consolidated

Net sales	(Millions of yen)	142,815	143,453	139,890	147,113	142,277
Recurring income	(Millions of yen)	8,973	10,135	3,468	5,730	7,649
Profit attributable to owners of parent	(Millions of yen)	6,442	3,476	3,007	3,664	2,526
Basic earnings per share	(Yen)	47.69	25.74	22.26	27.13	18.70
Total assets	(Millions of yen)	181,903	180,886	180,339	183,759	180,793
Net assets	(Millions of yen)	136,407	131,834	133,435	134,606	139,200
Net assets per share	(Yen)	1,009.75	975.90	987.75	996.42	1,030.43
Capital expenditure	(Millions of yen)	24,324	15,508	20,973	16,813	13,937
Research & development	(Millions of yen)	3,946	3,643	3,499	3,440	3,221

#### Non-consolidated

Net sales	(Millions of yen)	133,898	134,960	132,504	139,464	136,003
Recurring income	(Millions of yen)	7,717	9,319	3,247	5,466	8,584
Net income	(Millions of yen)	5,497	2,958	3,173	3,502	3,572

# Financial Statements (Consolidated)

■ Balance sheets		As of March 31		
	(Millions of yen)		(Thousands of U.S. dollars)	
	2019	2018	2019	
<b>Assets</b>	<b>180,793</b>	<b>183,759</b>	<b>1,629,505</b>	
<b>Current assets</b>	<b>103,961</b>	<b>103,644</b>	<b>937,015</b>	
<b>Fixed assets</b>	<b>76,831</b>	<b>80,114</b>	<b>692,489</b>	
Property, plant and equipment	70,397	72,464	634,500	
Intangible assets	1,234	1,237	11,126	
Investments and other assets	5,199	6,412	46,863	
<b>Total assets</b>	<b>180,793</b>	<b>183,759</b>	<b>1,629,505</b>	
<b>Liabilities</b>	<b>41,592</b>	<b>49,152</b>	<b>374,878</b>	
<b>Current liabilities</b>	<b>36,477</b>	<b>36,947</b>	<b>328,774</b>	
<b>Long-term liabilities</b>	<b>5,115</b>	<b>12,205</b>	<b>46,103</b>	
<b>Net assets</b>	<b>139,200</b>	<b>134,606</b>	<b>1,254,627</b>	
<b>Shareholders' equity</b>	<b>143,259</b>	<b>144,110</b>	<b>1,291,207</b>	
Common stock	24,223	24,223	218,323	
Capital surplus	24,129	24,129	217,481	
Retained earnings	94,999	95,850	856,235	
Treasury stock	(92)	(92)	(832)	
<b>Accumulated other comprehensive income</b>	<b>(4,058)</b>	<b>(9,504)</b>	<b>(36,580)</b>	
<b>Total liabilities and net assets</b>	<b>180,793</b>	<b>183,759</b>	<b>1,629,505</b>	

## Statements of income Years ended March 31

	(Millions of yen)		(Thousands of U.S. dollars)
	2019	2018	2019
<b>Net sales</b>	<b>142,277</b>	<b>147,113</b>	<b>1,282,360</b>
Cost of goods sold	125,095	129,704	1,127,496
<b>Gross profit</b>	<b>17,182</b>	<b>17,409</b>	<b>154,864</b>
Selling, general and administrative expenses	12,334	12,510	111,167
<b>Operating income</b>	<b>4,848</b>	<b>4,899</b>	<b>43,696</b>
Non-operating income	2,828	847	25,490
Non-operating expenses	26	15	237
<b>Recurring income</b>	<b>7,649</b>	<b>5,730</b>	<b>68,949</b>
Extraordinary losses	3,860	895	34,795
<b>Income before income taxes</b>	<b>3,789</b>	<b>4,834</b>	<b>34,154</b>
Income taxes—current	1,851	1,395	16,685
Income taxes—deferred	(588)	(225)	(5,300)
<b>Profit attributable to owners of parent</b>	<b>2,526</b>	<b>3,664</b>	<b>22,769</b>

## Statements of cash flows Years ended March 31

	(Millions of yen)		(Thousands of U.S. dollars)
	2019	2018	2019
<b>Cash flows from operating activities</b>	<b>18,456</b>	<b>21,806</b>	<b>166,346</b>
<b>Cash flows from investing activities</b>	<b>(15,105)</b>	<b>(19,273)</b>	<b>(136,145)</b>
<b>Cash flows from financing activities</b>	<b>(3,441)</b>	<b>(3,441)</b>	<b>(31,020)</b>
Effect of exchange rate changes on cash and cash equivalents	739	(673)	6,664
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>648</b>	<b>(1,581)</b>	<b>5,845</b>
Cash and cash equivalents at beginning of year	45,666	47,248	411,596
Cash and cash equivalents at end of year	46,315	45,666	417,441

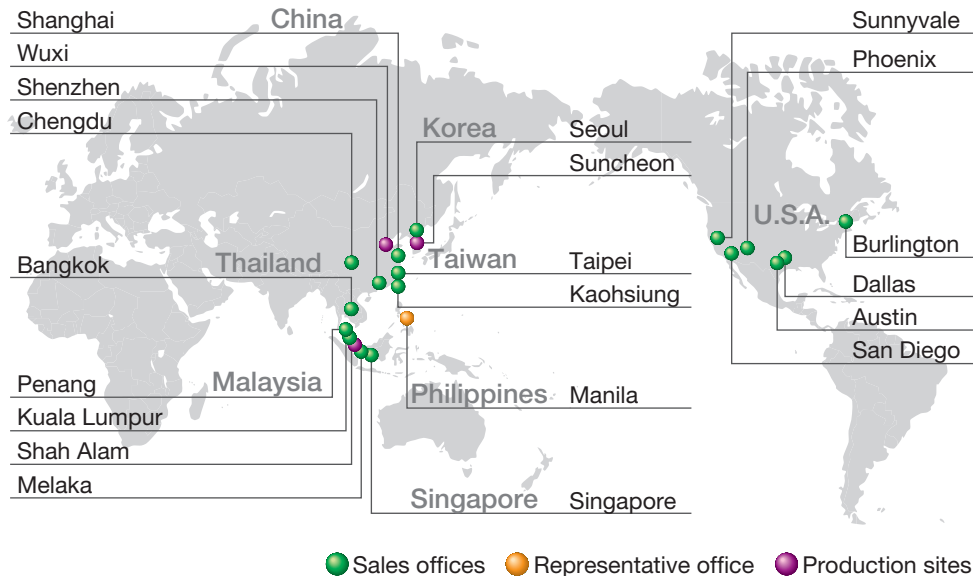
Note: The U.S. dollar amounts represent translation of Japanese yen at the rate of ¥110.95 = U.S. \$1.00 on March 31, 2019.

# Corporate Data

(As of March 31, 2019)

■ Corporate name	<b>SHINKO ELECTRIC INDUSTRIES CO., LTD.</b>
■ Established	September 12, 1946
■ Head office	80, Oshimada-machi, Nagano-shi, Nagano 381-2287, Japan Tel: 81 (26) 283-1000
■ Major business lines	Manufacturing and sales of lead frames, plastic laminated packages (PLPs) and glass-to-metal seals IC assembly
■ Number of employees	4,035 (Consolidated: 4,850)
■ Plants & facilities	Kohoku Plant Wakaho Plant Takaoka Plant Arai Plant Kyogase Plant SHINKO R&D Center Kurita Sogo Center
■ Sales offices Representative office	Tokyo, Osaka, Sendai, Nagano, Nagoya, Oita, Fukuoka Manila
■ Subsidiaries	SHINKO PARTS CO., LTD. SHINKO TECHNOSERVE CO., LTD. SHINKO ELECTRONICS (MALAYSIA) SDN. BHD. KOREA SHINKO MICROELECTRONICS CO., LTD. SHINKO ELECTRIC INDUSTRIES (WUXI) CO., LTD. SHINKO ELECTRIC AMERICA, INC. KOREA SHINKO TRADING CO., LTD. TAIWAN SHINKO ELECTRONICS CO., LTD. SHANGHAI SHINKO TRADING LTD. SHINKO ELECTRONICS (SINGAPORE) PTE. LTD.
■ Affiliated company	SHINKO MICROELECTRONICS (THAILAND) CO., LTD.

■ Global network



## Board of Directors

(As of June 25, 2019)

President and Representative Director	Masami Fujita
Representative Director and Executive Managing Corporate Officer	Hiroshi Hasebe
Directors and Managing Corporate Officers	Tadashi Kodaira Takashi Ozawa
Director, Standing Audit and Supervisory Committee Member	Akihiko Ito
Directors, Audit and Supervisory Committee Members	Koji Kitazawa Namiko Araki

# Shareholders' Data

(As of March 31, 2019)

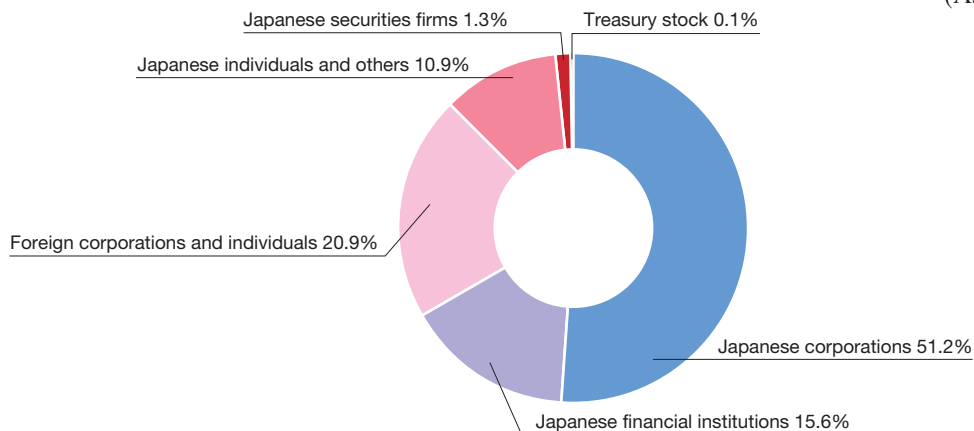
■ Total number of authorized shares	540,000,000 shares
■ Total number of shares issued	135,171,942 shares
■ Paid-in capital	24,223,020,480 yen
■ Number of shareholders	15,683
■ Principal shareholders	

Name	Number of shares held (Thousands)	Percentage of shares held (%)
Fujitsu Limited	67,587	50.03
The Master Trust Bank of Japan, Ltd. (Trust Account)	3,991	2.95
Japan Trustee Services Bank, Ltd. (Trust Account)	3,808	2.82
BNY GCM CLIENT ACCOUNT JPRD AC ISG (FE-AC)	3,704	2.74
GOLDMAN SACHS INTERNATIONAL	3,138	2.32
Japan Trustee Services Bank, Ltd. (Trust Account 9)	3,095	2.29
SSBTC CLIENT OMNIBUS ACCOUNT	2,239	1.66
NORTHERN TRUST CO. (AVFC) RE HCR00	2,147	1.59
The Hachijuni Bank, Ltd.	1,836	1.36
DFA INTL SMALL CAP VALUE PORTFOLIO	1,828	1.35

Note: The investment ratio is calculated after exclusion of treasury stock holdings.

## Distribution of stock by type of shareholder

(As of March 31, 2019)



## Shareholder information

<b>Administrator of shareholders' register and account management institution for special accounts</b>	
(Contact)	Mitsubishi UFJ Trust and Banking Corporation Corporate Agency Division 1-1, Nikko-cho, Fuchu-shi, Tokyo, Japan Tel (toll-free number): 0120-232-711 (Japanese only)
(Mailing address)	Mitsubishi UFJ Trust and Banking Corporation Corporate Agency Division Shin-TOKYO Post Office post office box No. 29, Tokyo 137-8081, Japan
<b>Business year</b>	From April 1 each year to March 31 of the following year
<b>Record date</b>	
Record date for the annual shareholders' meeting	March 31 each year
Record date for dividends	March 31 each year and September 30 if an interim dividend shall be paid
<b>Method of public notice</b>	Electronic public notice Electronic public notice shall be presented on our company website: <a href="https://www.shinko.co.jp/ir/kk/">https://www.shinko.co.jp/ir/kk/</a> However, in case an accident or any other unavoidable circumstance that precludes electronic notification arises, notices shall be posted in the <i>Nihon Keizai Shimbun</i> .

### Notes:

1. To change a shareholder address, place a claim for purchase, or other requests, please contact the account management institution (such as a securities company) with which you have an account.
2. For all matters relating to shares recorded in special accounts, the account management institution is Mitsubishi UFJ Trust and Banking Corporation. Please contact the address above. Any branch of Mitsubishi UFJ Trust and Banking Corporation throughout Japan will also be able to assist you.
3. If you have not yet received your dividend payment, you can receive payment at any branch of Mitsubishi UFJ Trust and Banking Corporation.

Front cover: Lily flowers and Shirouma Sanzan (View from Hakuba Village, Nagano Prefecture)



SHINKO

SHINKO ELECTRIC INDUSTRIES CO., LTD.  
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<https://www.shinko.co.jp>