

FACTBOOK

7467/TSE 1st Section, NSE 1st Section
HAGIWARA ELECTRIC HOLDINGS CO., LTD.
 For the fiscal year ended on March 31, 2018



Contents

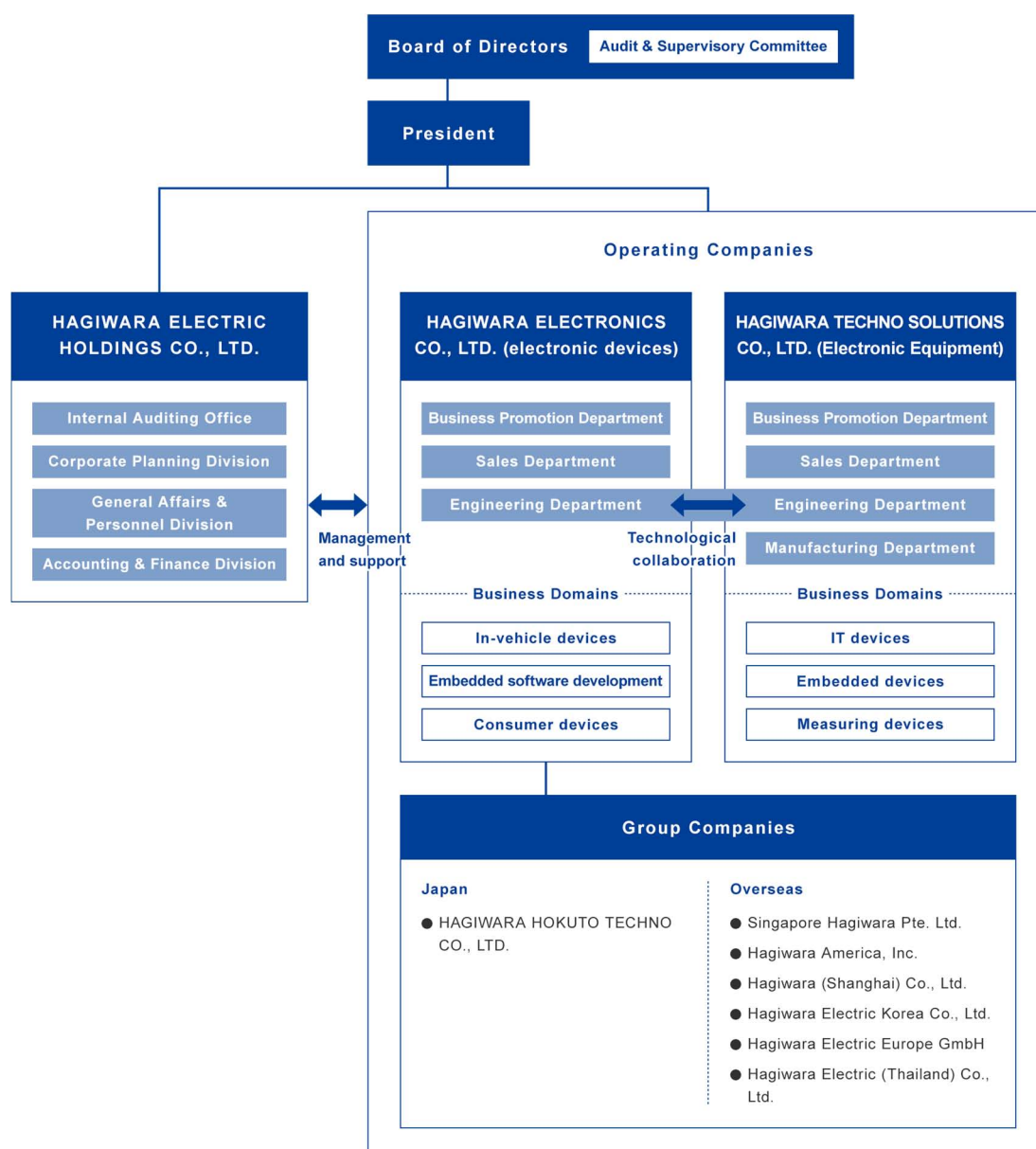
Corporate Profile	1-2
Consolidated Balance Sheet	3-4
Consolidated Statement of Income	5
Consolidated Statement of Cash Flows	6
Net Sales Breakdown by Business Segment and Major Client	7
Consolidated Profitability Indicators	8
Consolidated Profitability/Efficiency Indicators	9
Consolidated Efficiency/Stability Indicators	10
Stock Information	11-12
Corporate Vision	13
Our Business	14-18
Corporate Profile (Operating companies in Japan)	19

Corporate Outline (as of March 31, 2018)

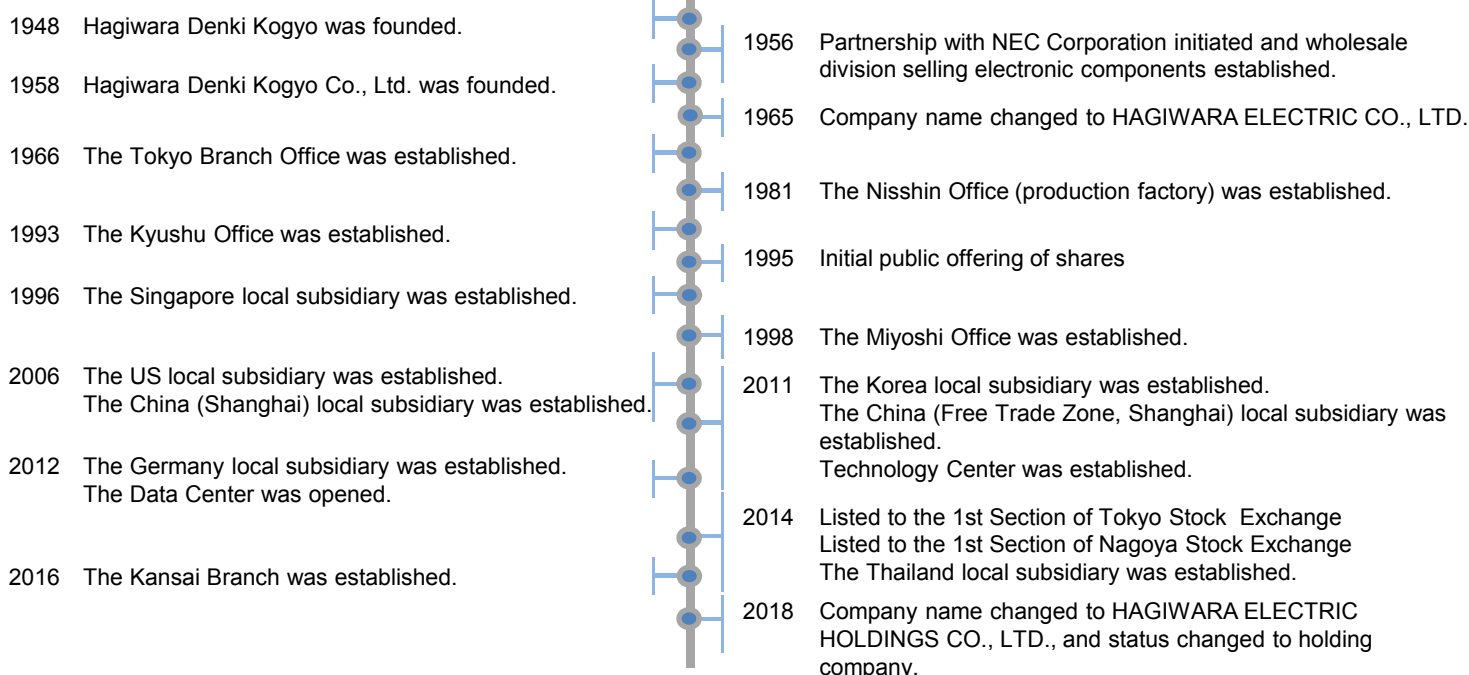
Name of Company	HAGIWARA ELECTRIC HOLDINGS CO., LTD.
Head Office	2-2-1 Higashisakura, Higashi-ku, Nagoya City, Aichi Pref. 461-8520 Japan
Representative	Mitsuo Iwai, President and Representative Director
Established	March 31, 1948
Capital	3,916,098,964 yen
Number of Employees	Consolidated: 523 *Excluding temporary employees
Major Business	Formulation and management of business strategies for group companies selling electronic devices and electronic equipment and manufacturing and selling FA equipment
Subsidiaries	HAGIWARA ELECTRONICS CO., LTD. HAGIWARA TECHNO SOLUTIONS CO., LTD.

Organizational structure of the Group

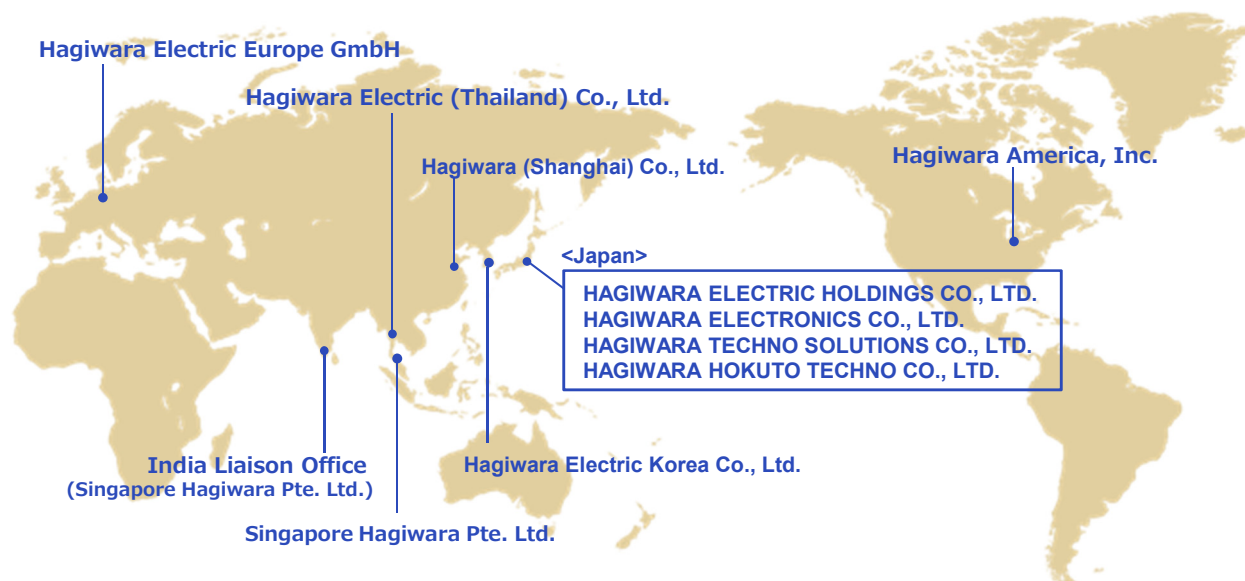
As of April 2018



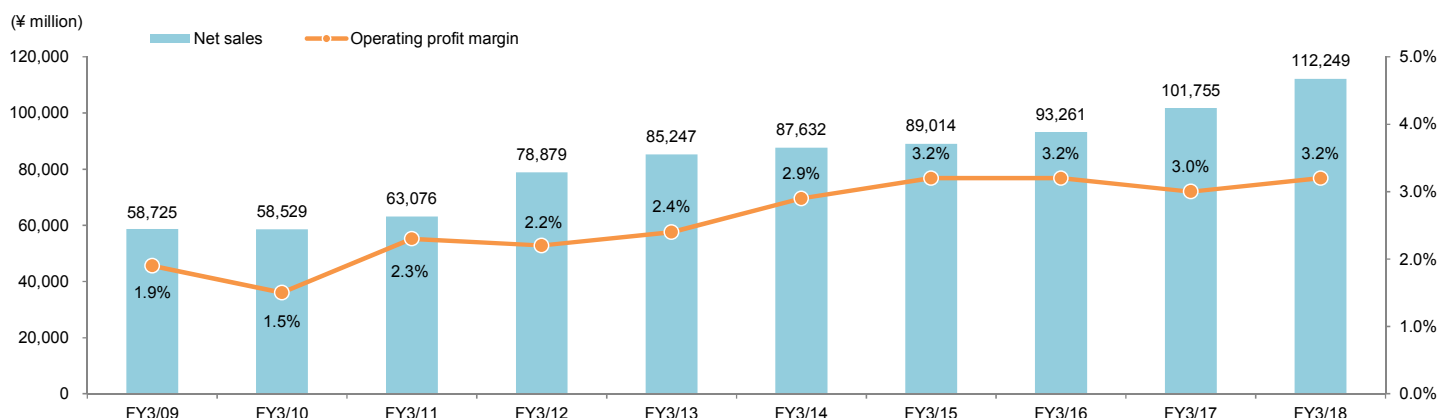
Corporate History Timeline



Group Network



Trend of Business Performance



Notes: The Company transitioned to a holding company system on April 1, 2018.

The business performance up to FY3/18 in this FACTBOOK refers to the figures of the former HAGIWARA ELECTRIC CO., LTD. before the transition.

Consolidated Balance Sheet



(¥ million)	FY3/14	FY3/15	FY3/16	FY3/17	FY3/18
Assets					
Total assets	44,523	46,670	48,815	52,370	57,754
Current assets	39,882	41,987	44,124	47,769	53,214
Cash and deposits	5,706	5,263	5,613	5,445	6,610
Notes and accounts receivable - trade	24,129	25,512	25,423	27,801	30,557
Electronically recorded monetary claims - operating	437	682	1,082	2,127	1,594
Securities	—	—	100	—	—
Merchandise and finished goods	8,470	9,438	10,903	10,977	12,860
Work in process	289	237	176	349	341
Raw materials and supplies	135	155	134	176	276
Deferred tax assets	266	274	262	373	353
Other	448	427	431	523	622
Allowance for doubtful accounts	(2)	(3)	(3)	(5)	(2)
Non-current assets	4,640	4,682	4,691	4,600	4,540
Property, plant and equipment	2,755	2,703	2,681	2,645	2,629
Buildings and structures	1,451	1,461	1,472	1,308	1,344
Accumulated depreciation	(920)	(956)	(984)	(838)	(874)
Buildings and structures, net	530	505	487	470	469
Machinery, equipment and vehicles	48	50	59	53	52
Accumulated depreciation	(23)	(28)	(34)	(34)	(39)
Machinery, equipment and vehicles, net	25	21	24	18	12
Land	1,970	1,970	1,970	1,917	1,917
Leased assets	165	147	158	141	131
Accumulated depreciation	(65)	(67)	(69)	(62)	(60)
Leased assets, net	100	79	88	79	70
Construction in progress	—	—	—	—	3
Other	603	584	588	668	707
Accumulated depreciation	(473)	(458)	(477)	(508)	(553)
Other, net	129	126	110	159	154
Intangible assets	211	189	147	107	108
Investments and other assets	1,673	1,790	1,862	1,847	1,802
Investment securities	823	1,062	940	1,470	1,448
Deferred tax assets	135	1	96	4	1
Other	730	747	840	372	352
Allowance for doubtful accounts	(16)	(21)	(16)	(0)	(0)

Consolidated Balance Sheet



(¥ million)	FY3/14	FY3/15	FY3/16	FY3/17	FY3/18
Liabilities					
Total liabilities	22,895	23,341	24,494	26,688	28,874
Current liabilities	17,993	18,784	21,119	23,002	24,536
Notes and accounts payable - trade	11,411	11,929	11,536	12,884	11,585
Electronically recorded obligations - operating	—	—	974	1,731	2,914
Short-term loans payable	4,192	4,024	4,519	4,508	6,582
Current portion of long-term loans payable	394	794	2,195	1,320	918
Lease obligations	29	27	27	23	21
Income taxes payable	712	555	539	639	526
Provision for directors' bonuses	42	55	53	52	48
Provision for loss on order received	—	—	—	0	11
Other	1,209	1,397	1,273	1,841	1,927
Non-current liabilities	4,901	4,557	3,374	3,686	4,338
Long-term loans payable	4,085	4,008	2,613	3,243	3,925
Lease obligations	73	56	58	51	44
Deferred tax liabilities	1	18	1	0	67
Net defined benefit liability	312	66	286	191	119
Asset retirement obligations	61	62	69	79	80
Other	368	344	344	119	102
Net assets					
Total net assets	21,627	23,328	24,320	25,681	28,880
Shareholders' equity	21,305	22,653	23,985	25,267	28,347
Capital stock	3,301	3,301	3,301	3,301	3,916
Capital surplus	3,792	3,792	3,792	3,792	4,407
Retained earnings	14,223	15,571	16,904	18,527	20,378
Treasury shares	(12)	(12)	(12)	(354)	(354)
Accumulated other comprehensive income	322	675	334	413	528
Valuation difference on available-for-sale securities	148	261	152	282	388
Foreign currency translation adjustment	185	342	306	242	239
Remeasurements of defined benefit plans	(11)	70	(124)	(110)	(98)
Share acquisition rights	—	—	—	—	3
Total liabilities and net assets	44,523	46,670	48,815	52,370	57,754

Consolidated Statement of Income



(¥ million)	FY3/14	FY3/15	FY3/16	FY3/17	FY3/18
Net sales	87,632	89,014	93,261	101,755	112,249
Cost of sales	78,900	79,966	83,759	92,011	101,365
Gross profit	8,732	9,047	9,502	9,744	10,883
Selling, general and administrative expenses	6,218	6,201	6,486	6,643	7,251
Operating profit	2,513	2,845	3,015	3,100	3,631
Non-operating income	79	106	87	66	96
Interest income	4	4	8	7	6
Dividend income	10	10	13	13	15
Foreign exchange gains	—	30	—	—	—
Operations consignment fee	48	26	5	3	—
Subsidy income	—	17	35	0	—
Refunded import duty	—	—	—	15	—
Insurance premiums refunded cancellation	—	—	—	—	30
Gain on valuation of investment securities	—	—	—	—	17
Other	16	17	24	27	26
Non-operating expenses	126	82	182	112	140
Interest expenses	53	50	49	39	39
Share issuance cost	18	—	—	—	—
Foreign exchange losses	—	—	100	26	9
Loss on sales of accounts receivable	31	22	21	31	49
Commission fee	17	—	—	—	23
Other	6	9	11	14	18
Ordinary profit	2,467	2,869	2,921	3,055	3,587
Extraordinary income	0	—	8	126	7
Gain on sales of non-current assets	—	—	—	120	0
Gain on sales of investment securities	0	—	8	2	0
Gain on reversal of asset retirement obligations	—	—	—	4	—
Gain on liquidation of subsidiaries and associates	—	—	—	—	7
Extraordinary losses	11	3	2	15	3
Loss on disposal of non-current assets	11	3	2	6	2
Loss on sales of investment securities	—	—	0	—	—
Impairment loss	—	—	—	9	—
Loss on sales of membership	—	—	—	—	1
Profit before income taxes	2,455	2,866	2,926	3,166	3,591
Income taxes - current	1,099	969	970	1,050	1,012
Income taxes - deferred	(28)	66	42	(83)	37
Total income taxes	1,070	1,035	1,012	967	1,050
Profit	1,385	1,831	1,913	2,198	2,540
Profit attributable to owners of parent	1,385	1,831	1,913	2,198	2,540

Consolidated Statement of Cash Flows



(¥ million)	FY3/14	FY3/15	FY3/16	FY3/17	FY3/18
Cash flows from operating activities					
Net cash provided by (used in) operating activities	187	(5)	793	1,003	(1,829)
Profit before income taxes	2,455	2,866	2,926	3,166	3,591
Depreciation	364	209	195	193	172
Impairment loss	—	—	—	9	—
Loss (gain) on sales and retirement of non-current assets	11	3	2	(114)	2
Increase (decrease) in allowance for doubtful accounts	6	7	(5)	(13)	(2)
Increase (decrease) in provision for directors' bonuses	12	12	(1)	(1)	(3)
Increase (decrease) in provision for directors' retirement benefits	(359)	—	—	—	—
Increase (decrease) in net defined benefit liability	(50)	(125)	(63)	(74)	(56)
Increase (decrease) in provision for loss on order received	—	—	—	—	10
Interest and dividend income	(14)	(15)	(22)	(20)	(22)
Share issuance cost	18	—	—	—	—
Interest expenses	53	50	49	39	39
Surrender value of insurance	—	—	—	—	(30)
Loss (gain) on valuation of investment securities	—	—	—	—	(17)
Gain on reversal of asset retirement obligations	—	—	—	(4)	—
Loss (gain) on sales of investment securities	(0)	—	(8)	(2)	(0)
Loss (gain) on liquidation of subsidiaries and associates	—	—	—	—	(7)
Loss (gain) on sales of membership	—	—	—	—	1
Decrease (increase) in notes and accounts receivable - trade	(1,890)	(1,628)	(310)	(3,424)	(2,222)
Decrease (increase) in inventories	(714)	(934)	(1,383)	(287)	(1,975)
Increase (decrease) in notes and accounts payable - trade	798	517	582	2,104	(115)
Other, net	445	229	(177)	445	(65)
Subtotal	1,137	1,192	1,783	2,015	(703)
Interest and dividend income received	15	16	23	21	23
Interest expenses paid	(54)	(50)	(49)	(38)	(38)
Income taxes paid	(910)	(1,163)	(963)	(994)	(1,110)
Cash flows from investing activities					
Net cash provided by (used in) investing activities	2	(238)	(295)	93	125
Proceeds from withdrawal of time deposits	—	—	—	300	—
Purchase of investment securities	(32)	(92)	(153)	(348)	(25)
Proceeds from sales of investment securities	162	—	15	10	0
Proceeds from redemption of investment securities	—	—	—	100	200
Purchase of property, plant and equipment	(73)	(56)	(61)	(157)	(72)
Proceeds from sales of property, plant and equipment	—	—	—	231	0
Purchase of intangible assets	(44)	(83)	(25)	(41)	(40)
Payments for lease and guarantee deposits	—	—	(68)	—	—
Proceeds from cancellation of insurance funds	—	—	—	—	86
Other, net	(9)	(6)	(1)	0	(22)
Cash flows from financing activities					
Net cash provided by (used in) financing activities	1,173	(357)	(112)	(1,200)	2,871
Net increase (decrease) in short-term loans payable	(827)	(168)	494	(10)	2,084
Proceeds from long-term loans payable	1,100	800	800	1,950	1,600
Repayments of long-term loans payable	(719)	(476)	(794)	(2,195)	(1,320)
Proceeds from issuance of common shares	1,723	—	—	—	—
Payments for issuance of common shares	(15)	—	—	—	—
Purchase of treasury shares	(0)	(0)	(0)	(341)	(0)
Proceeds from sales of treasury shares	244	—	—	—	—
Proceeds from issuance of shares resulting from exercise of share acquisition rights	—	—	—	—	1,219
Cash dividends paid	(306)	(480)	(582)	(575)	(691)
Other, net	(25)	(32)	(29)	(28)	(21)
Effect of exchange rate change on cash and cash equivalents	224	157	(36)	(64)	(2)
Net increase (decrease) in cash and cash equivalents	1,587	(443)	350	(168)	1,164
Cash and cash equivalents at beginning of period	4,049	5,636	5,193	5,543	5,375
Cash and cash equivalents at end of period	5,636	5,193	5,543	5,375	6,540

Net Sales Breakdown by Business Segment and Major Client



Net Sales Breakdown by Business Segment

(¥ million)	FY3/14	FY3/15	FY3/16	FY3/17	FY3/18
Net sales	87,632	89,014	93,261	101,755	112,249
Electron Devices Business Unit	72,916	73,097	76,081	83,878	91,971
IT Solutions Business Unit	14,716	15,916	17,180	17,877	20,278
Segment profit	2,513	2,845	3,015	3,100	3,631
Electron Devices Business Unit	2,996	3,196	3,299	3,539	4,061
IT Solutions Business Unit	677	874	1,039	1,052	1,242
Reconciling items	(1,160)	(1,225)	(1,323)	(1,491)	(1,672)

Net Sales Breakdown by Major Client

(¥ million)	FY3/14	FY3/15	FY3/16	FY3/17	FY3/18
Net sales	87,632	89,014	93,261	101,755	112,249
DENSO CORPORATION	48,846	48,196	51,657	58,209	63,388
Toyota Motor Corporation	9,353	9,176	8,416	8,541	9,020
TOKAI RIKA CO., LTD.	5,622	5,726	5,458	4,960	4,940
Others	23,811	25,914	27,729	30,044	34,899

Note: Net sales to overseas subsidiaries of DENSO CORPORATION, etc. are included in "Others."

Consolidated Profitability Indicators

(%)	FY3/14	FY3/15	FY3/16	FY3/17	FY3/18
Gross profit on Net sales	10.0	10.2	10.2	9.6	9.7
Operating profit margin	2.9	3.2	3.2	3.0	3.2
Ordinary profit margin	2.8	3.2	3.1	3.0	3.2
Net profit margin	1.6	2.1	2.1	2.2	2.3
ROA	5.8	6.3	6.1	6.0	6.5
ROE	6.9	8.1	8.0	8.8	9.3
DOE	2.1	2.2	2.4	2.6	2.9

Gross profit on Net sales=Gross profit/Net sales

Operating profit margin=Operating profit/Net sales

Ordinary profit margin=Ordinary profit/Net sales

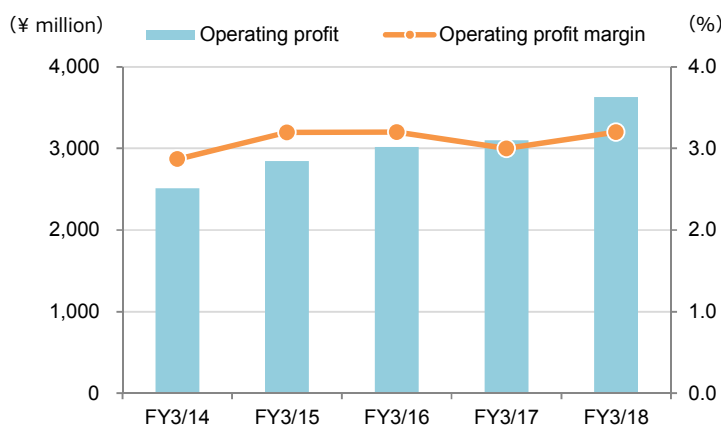
Net profit margin=Profit attributable to owners of parent/Net sales

ROA=Ordinary profit/Average total assets

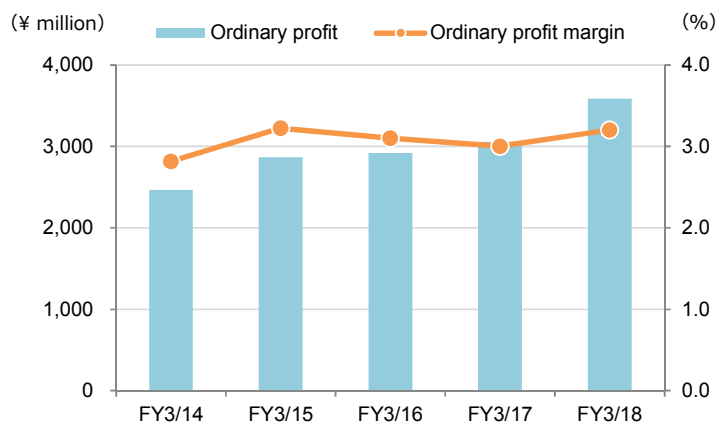
ROE=Profit attributable to owners of parent/Average equity

DOE=Total dividend/Average net assets

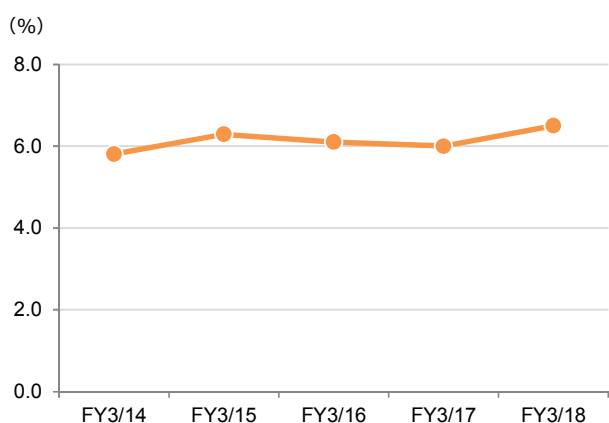
Operating profit margin



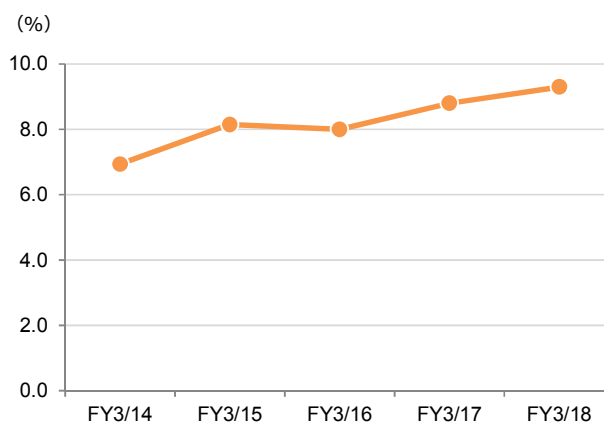
Ordinary profit margin



ROA



ROE



Consolidated Profitability/Efficiency Indicators

(times)	FY3/14	FY3/15	FY3/16	FY3/17	FY3/18
Total assets turnover	2.1	2.0	2.0	2.0	2.0
Equity turnover	4.4	4.0	3.9	4.1	4.1
Property, plant and equipment turnover	31.8	32.6	34.6	38.2	42.6
Interest coverage ratio	47.7	57.2	62.0	80.0	93.6

	FY3/14	FY3/15	FY3/16	FY3/17	FY3/18
Number of employees at end of period	450	463	470	499	523
Number of temporary employees at end of period	39	38	38	43	47
Net sales per employee (¥ thousand)	179,207	177,673	183,585	187,740	196,928
Ordinary profit per employee (¥ thousand)	5,045	5,727	5,750	5,637	6,293
Net profit per employee (¥ thousand)	2,832	3,655	3,766	4,055	4,456

Total assets turnover=Net sales/Average total assets

Equity turnover= Net sales/Average equity

Property, plant and equipment turnover=Net sales/Average property, plant and equipment

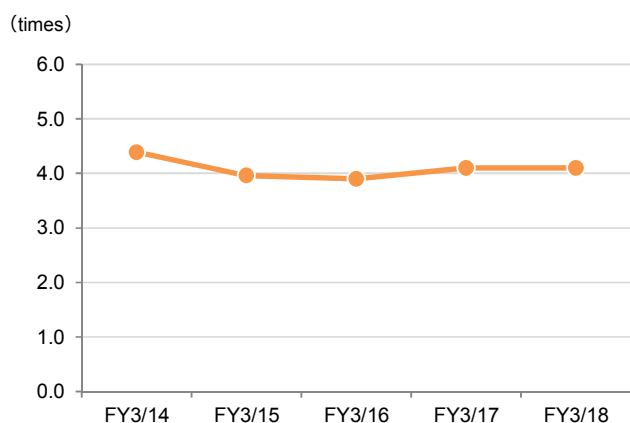
Interest coverage ratio=(Operating profit+Interest income+Dividends income)/Interest expenses

Net sales per employee=Net sales/(No. of employees at end of period+No. of temp. employees at end of period)

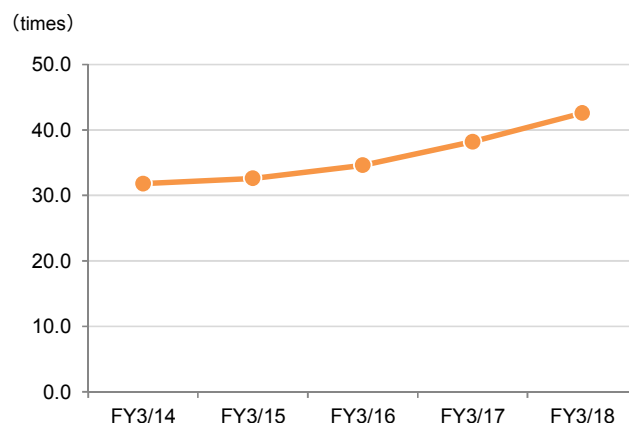
Ordinary profit per employee=Ordinary profit/(No. of employees at end of period+No. of temp. employees at end of period)

Net profit per employee=Profit attributable to owners of parent/(No. of employees at end of period+No. of temp. employees at end of period)

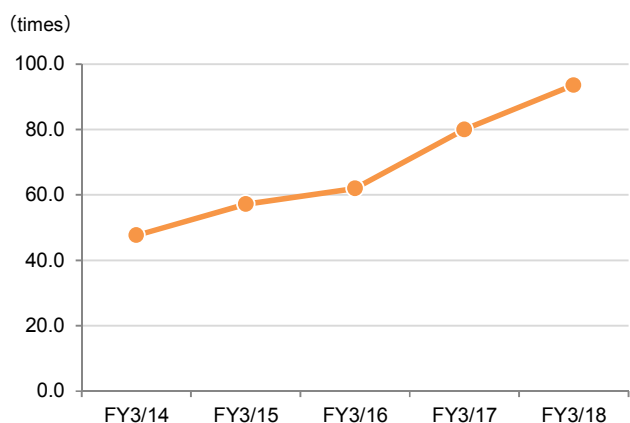
Equity turnover



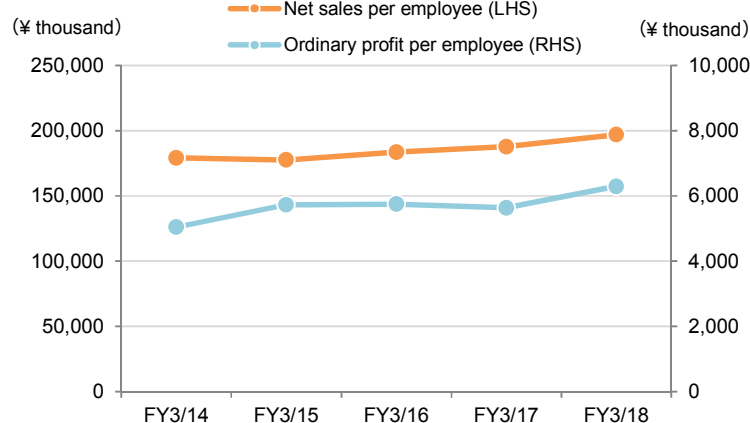
Property, plant and equipment turnover



Interest coverage ratio



Net sales/Ordinary profit per employee



Consolidated Efficiency/Stability Indicators



(%)	FY3/14	FY3/15	FY3/16	FY3/17	FY3/18
Equity ratio	48.6	50.0	49.8	49.0	50.0
Interest-bearing debt ratio	19.5	18.9	19.1	17.3	19.8
Acid-test ratio	168.2	167.5	152.1	153.8	158.0
Current ratio	221.7	223.5	208.9	207.7	216.9
Non-current ratio	21.5	20.1	19.3	17.9	15.7
Non-current assets to Non-current liability ratio	17.5	16.8	16.9	15.7	13.7

Equity ratio=Equity/Total assets

Interest-bearing debt ratio = Interest-bearing debt/Total assets

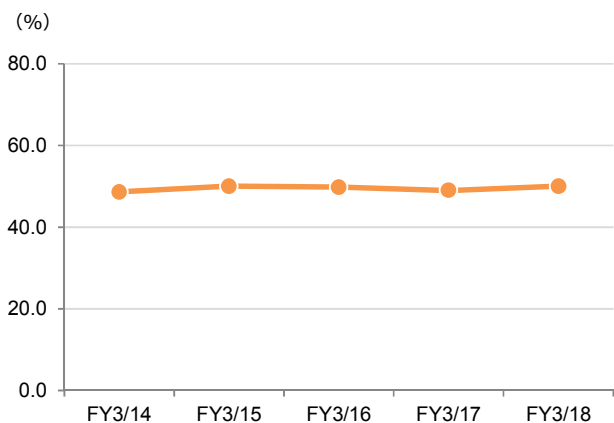
Acid-test ratio=Liquid assets/Current liabilities

Current ratio=Current assets/Current liabilities

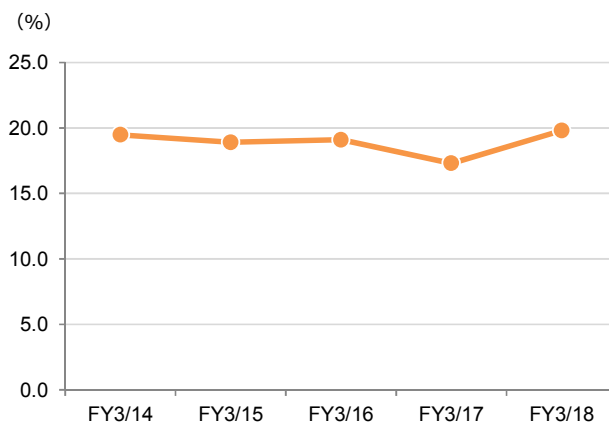
Non-current ratio=Non-current assets/Equity

Non-current assets to Non-current liability ratio=Non-current assets/(Equity+Non-current liabilities)

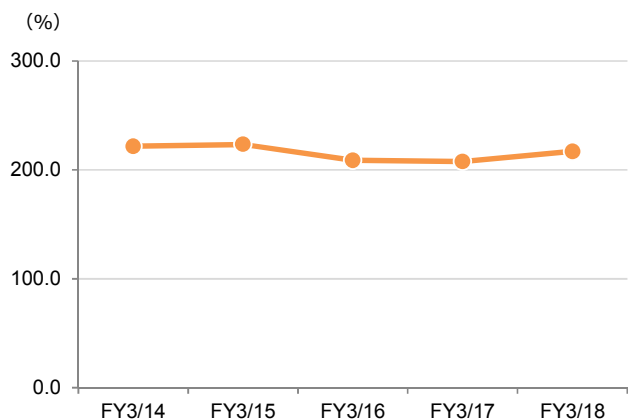
Equity ratio



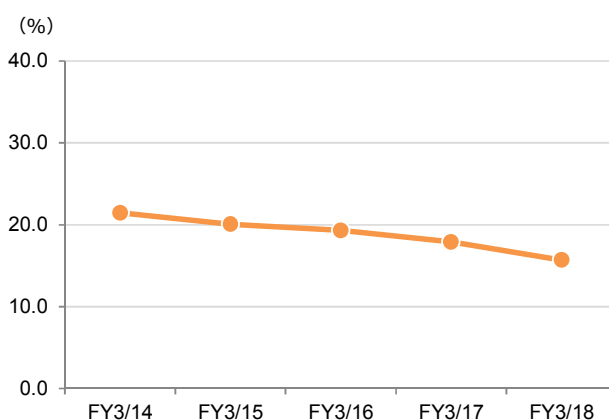
Interest-bearing debt ratio



Current ratio



Non-current ratio



Per Share Indicators

(¥)	FY3/14	FY3/15	FY3/16	FY3/17	FY3/18
Share price at end of period	1,261	1,831	1,947	2,158	3,225
Closing stock price range for the last 12 months	1,138-1,600	1,230-1,986	1,667-2,337	1,736-2,201	2,092-3,990
Earnings per share (EPS)	202.79	220.47	230.45	269.12	310.45
Book-value per share (BPS)	2,603.99	2,808.79	2,928.30	3,160.68	3,393.75
Dividend per share (DPS)	55.00	60.00	70.00	80.00	95.00

Other Indicators

		FY3/14	FY3/15	FY3/16	FY3/17	FY3/18
Total amount of dividends	(¥ million)	421	498	581	650	792
Dividend payout ratio	(%)	27.1	27.2	30.4	29.7	30.6
Price earnings ratio (PER)	(times)	6.22	8.30	8.45	8.02	10.39
Price book-value ratio (PBR)	(times)	0.48	0.65	0.66	0.68	0.95
Term-average number of shares outstanding	(thousand shares)	6,829	8,305	8,305	8,168	8,184
Number of shareholders	(persons)	4,784	3,759	3,329	3,118	2,864

Notes: The Company has conducted issuance of new shares through public offering, disposal of treasury shares through public offering, and issuance of new shares through third-party allotment during the second half of FY3/14.

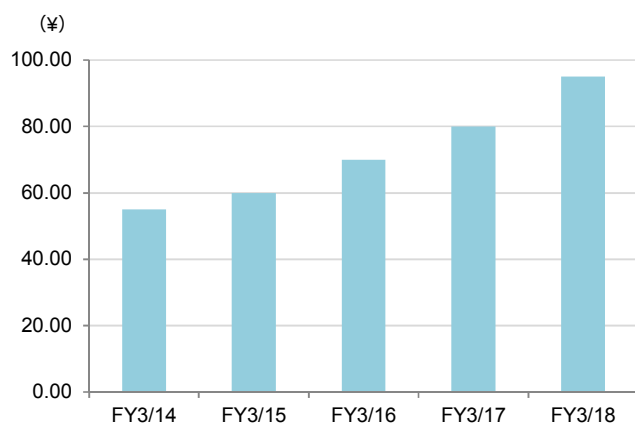
: The Company issued the share acquisition rights during the second half of FY3/18.

Dividend payout ratio=DPS/EPS

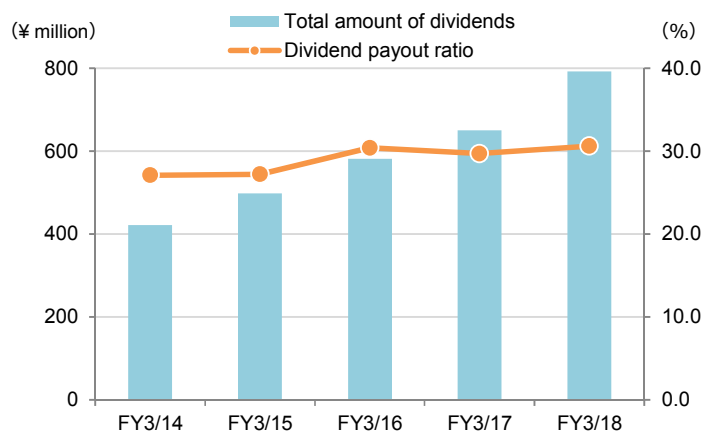
PBR=Share price at end of period/BPS

PER=Share price at end of period/EPS

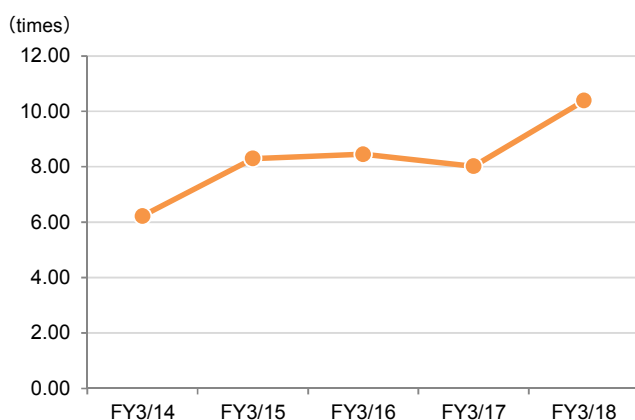
Dividend per share



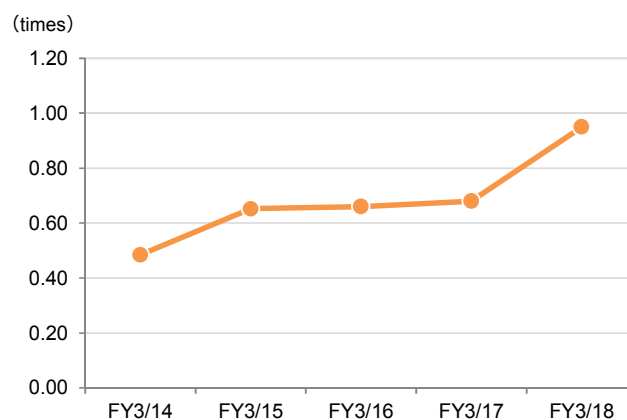
Total amount of dividends/Dividend payout ratio



PER



PBR



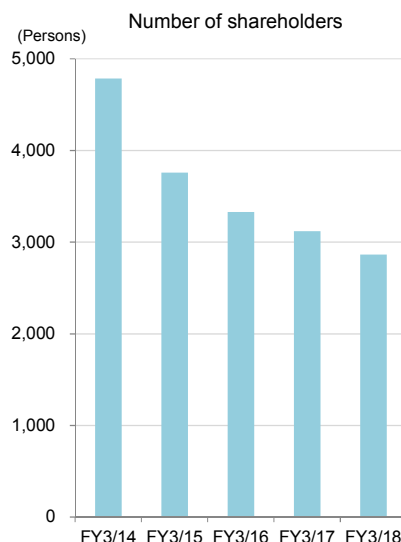
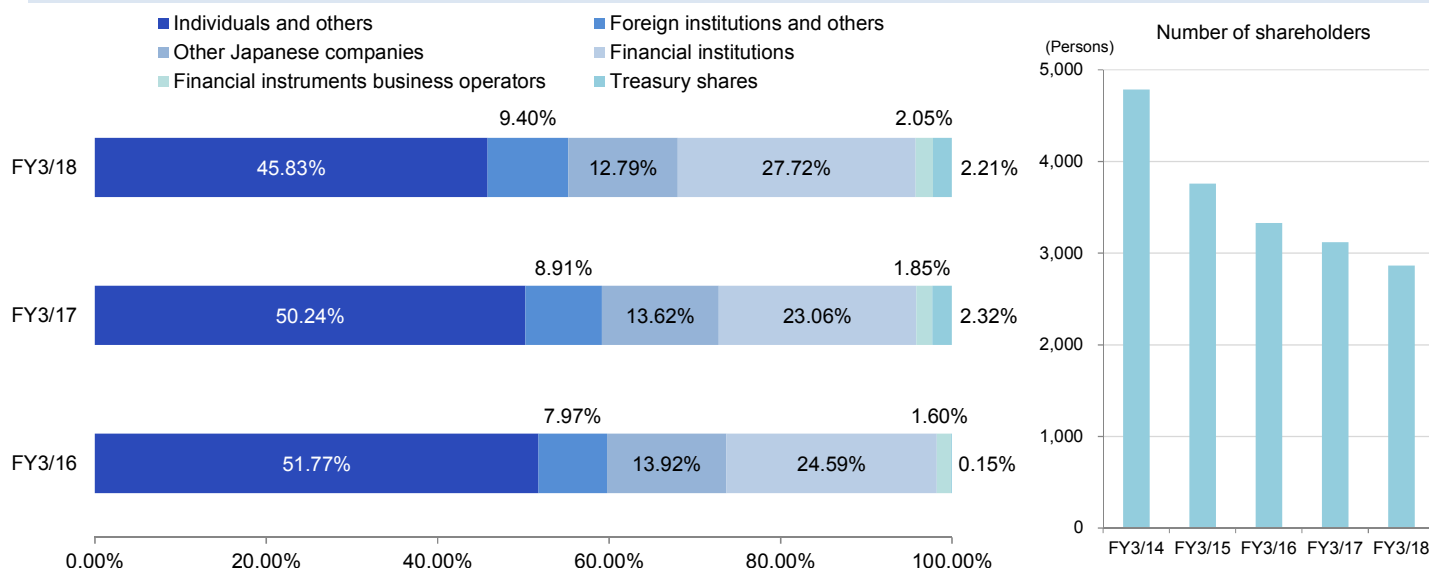
Status of Major Shareholders

as of March 31, 2018

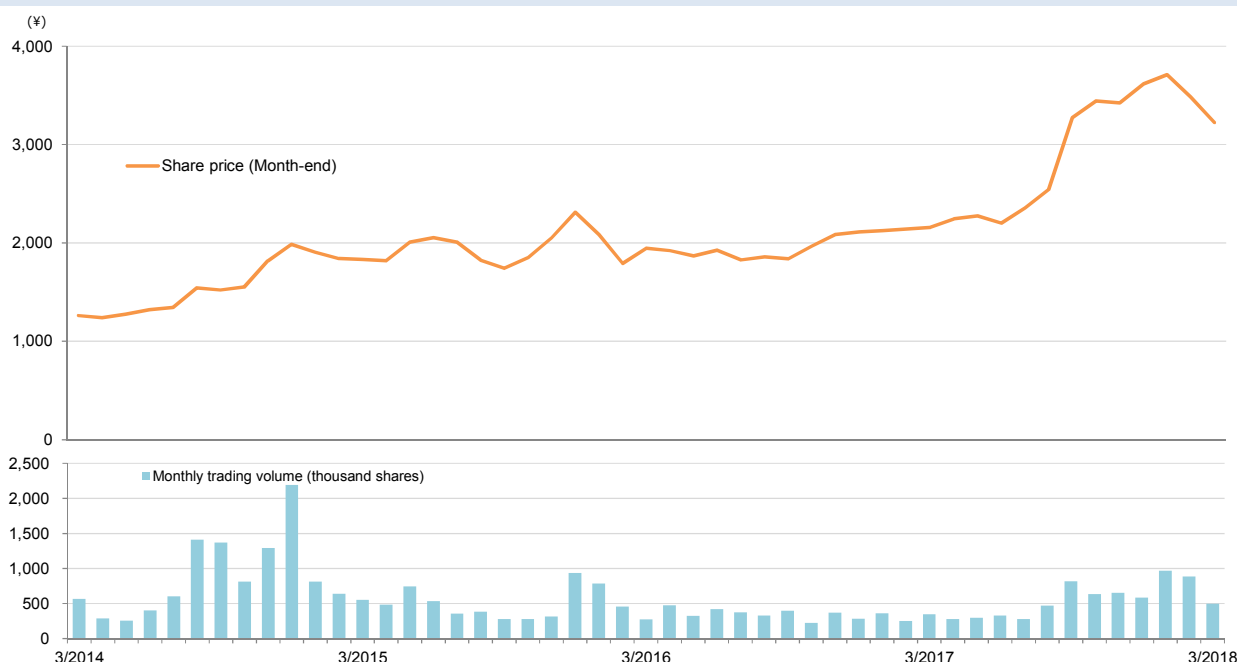
Top 10 Shareholders	Number of shares	Shareholding ratio (%)
Japan Trustee Services Bank, Ltd. (trust account)	765,000	8.79
STANY Co., Ltd.	495,250	5.69
Tomoaki Hagiwara	334,675	3.85
Employees' Stockholding	280,374	3.22
Yoshiaki Hagiwara	248,175	2.85
The Master Trust Bank of Japan, Ltd.(trust account)	240,600	2.77
The Bank of Tokyo-Mitsubishi UFJ, Ltd.	232,500	2.67
Nagoya Small and Medium Business Investment & Consultation Co., Ltd.	230,000	2.64
Sumitomo Mitsui Trust Bank, Limited	178,000	2.05
Sachiko Hagiwara	170,575	1.96

Notes: In addition to the above, the Company holds 192,736 shares (2.21%) of treasury shares.
 : The Bank of Tokyo-Mitsubishi UFJ, Ltd. changed its name to MUFG Bank, Ltd. on April 1, 2018.

Breakdown of Type of Shareholders



Share Price and Trading Volume



Our vision is to be a global supplier of one-stop solutions providing our customers with the best practices from devices to systems.

The foundation of our corporate activities is to prioritize our customers' perspective. We not only meet our customers' needs, but we exceed their expectations by using our knowledge as a trading company to make proposals and leverage our proven technologies to deliver the best solution. The Hagiwara Electric Group works as one to fulfill its role and

mission as a technology trading company. We contribute to the achievement of a prosperous society by creating technological bases to support our electronic devices business, technology solutions business, and overseas business expansion, through which we create solutions that add new value and create greater opportunities for success in all fields.



Electronic Devices Business Supporting the Automotive Society of Tomorrow

Crafting the automobile of tomorrow as a universal device specialist

The automotive industry has entered a period of rapid change. As the speed of development has accelerated, there have been revolutionary innovations in automotive technologies, from electric vehicles (EV) to advanced driver-assistance systems (ADAS). Hagiwara Electric Holdings strives to further these advancements, by providing state-of-the-art device solutions to the automotive society of tomorrow, which transcend conventional concepts.

Overseas Business Expansion Supporting Your Global Expansion

One-stop solutions to connect manufacturing across the globe

The Hagiwara Electric Group supports the globalization of manufacturing by actively promoting overseas expansion. We currently have a worldwide network originating in Japan and covering North America, Asia and Europe. By utilizing the group know-how and resources of our local bases, we are able to provide the same level of support for customers engaged in overseas manufacturing operations as for customers operating in Japan.

Technology Solutions Business Supporting the IoT Society for Tomorrow

Expanding tomorrow's potential with IoT to realize a society where data and information are connected

We provide one-stop IoT solutions to realize a "connected society" by fusing and growing factory automation (FA) and other technologies for measurement and IT cultivated on the factory floor.

Technological Base Supporting Hagiwara Electric Technologies

Creating new value in society with the power of technology

From development of original component technologies to applied technology and cutting-edge technology, we actively pursue new potential and functional diversity in addition to seeking new technologies. We create new value in society by being responsive to the expanding markets of many different industries, while at the same time, using our strengths to support the business of Hagiwara Electric Group.

Electronic Devices Business

Crafting the automobile of tomorrow as a universal device specialist

The automotive industry has entered a period of rapid change. As the speed of development has accelerated, there have been revolutionary innovations in automotive technologies, from electric vehicles (EV) to advanced driver-assistance systems (ADAS). Hagiwara Electric Holdings strives to further these advancements, by providing state-of-the-art device solutions to the automotive society of tomorrow, which transcend conventional concepts.

Business Domains

Contributing to the automotive society of tomorrow, transitioning beyond conventional concepts, by providing the cutting edge solutions



Supporting the Latest Innovations

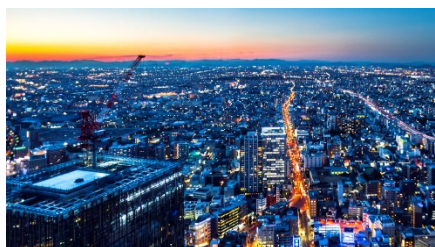
Internal vehicle devices

The safety and comfort of one's car is paramount to a relaxed and enjoyable driving experience. We handle a diverse selection of electronic devices that support these developments. What's more, our team is equipped to provide a personalized experience with advanced device solutions. Our specialists are experienced in developing new cutting edge products that are customized and tailored to suit your company's needs.

Embedded software development

With the increasing usage of electronics in vehicles, the demand for microcontrollers has increased.

To meet this ever increasing demand, we are developing improved software to advance the quality and performance of automotive microcontrollers.



Supporting the Evolution of Industry

Devices for industry and social infrastructure

As automation and motorization expand, so too does the technology used in our daily lives. The electronic devices we supply support these developments and allow us to respond quickly to our customers' needs in a variety of fields even as the global demand outgrows production.

Features of Electronic Devices Business

1. The Hagiwara of Cars

A wealth of achievements in the automotive industry especially in the Chubu region

The Hagiwara Electric Group is based in Nagoya, where the world's top automobile and auto parts manufacturers are located. When the Hagiwara Electric Group was founded, we put down roots in the Chubu region, where we have been able to create and foster close relationships with our customers. These relationships have been cultivated over many years and at their cores are built on trust. This has allowed us to gather the latest knowledge about industry trends as well as accumulate the latest and most advanced technology available with which the cars of the future will be fashioned.

2. The Hagiwara of Solutions

Established partnerships with global leaders and drivers of growth

The partnerships we promote are those that will benefit our customers and provide us the tools to resolve any issues they might face. With a focus on long-established global brands, we are always in pursuit of manufacturers who will be the leaders of the next generation. This commitment to coordinating and selecting only the best assists us in providing our customers with most innovative solutions available.

3. The Hagiwara of Technological Strengths

Our efforts in the field of hardware development and EMS/ODM

In recent years, semiconductors such as LSIs with integrated functionality have become mainstream. The Hagiwara Electric Group utilizes its technological strengths to support the functional development of semiconductors as well as the incorporation of "plus alpha" functions into general purpose products. Due to our advancements in software creation and design, we are able to provide electronics manufacturing services (EMS) and original design manufacturing (ODM).

4. The Hagiwara That Is Everywhere in Society

A presence in multiple fields including industry, robots, housing equipment, and nursing care

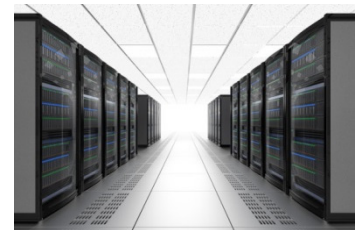
Device solutions from the Hagiwara Electric Group are utilized in factories to accelerate factory automation (FA). Additionally, our solutions are used in both the housing equipment field and the nursing care field. Our cutting-edge inventory of electronic components and ability to propose solutions support automation and motorization, bringing more convenience to our lives.

Technology Solutions Business

Expanding tomorrow's potential with IoT to realize a society where data and information are connected

We provide one-stop IoT solutions to realize a "connected society" by fusing and growing factory automation (FA) and other technologies for measurement and IT cultivated on the factory floor.

Solutions for Every Area



Features of Technology Solutions Business

1. Trading Company with Manufacturing Functions

Partnerships with a variety of manufacturers and our own manufacturing function

In addition to the major manufacturers we have been working with for many years, we also actively collaborate with leading manufacturers across the globe. We assist our customers in finding state-of-the-art technologies and products that suit them. We also have a manufacturing arm where we develop and manufacture our own original products. We resolve the issues faced by our customers through our commitment to quality and meticulous support.

2. Achievements in Industry

A wealth of achievements at auto factories and other production sites especially in the Chubu region

The Chubu region is where many world-class automobile manufacturers and automobile parts manufacturers have their production bases. The region is also playing host to an increasing number of companies engaged in manufacturing equipment for production facilities such as machine tools. Headquartered in Nagoya—the heart of the Chubu—the Hagiwara Electric Group has a proven track record in production site-related business. We are also leveraging these achievements to develop a wide range of solutions in various other fields such as IT and security.

3. Looking Ahead and Being a Pioneer

Using our technological strengths stay new and on trend

From selling computers and servers to building networks and IT platforms, we have always used state-of-the-art and trending technologies such as measurement solutions that support model-based development. We will continue to use our proven, extensive technological resources to seek new technologies that will form the foundation of the next generation.

4. Widely Connected IoT

Achieving a connected IoT where data is gathered from machines and objects and then analyzed

We can capture data from various machines and objects by utilizing our achievements in IT, embedded devices, measurement and other areas of factory automation (FA). The Internet of Things (IoT) will transform accumulated data into meaningful information that will create new value. With data collection and analysis based IoT, we can provide a one-stop solution encompassing the entire process from beginning to end. This is our strength.

Overseas Business Expansion

One-stop solutions to connect manufacturing across the globe

The Hagiwara Electric Group supports the globalization of manufacturing by actively promoting overseas expansion. We currently have a worldwide network originating in Japan and covering North America, Asia and Europe. By utilizing the group know-how and resources of our local bases, we are able to provide the same level of support for customers engaged in overseas manufacturing operations as for customers operating in Japan. Our goal is to strengthen the development support system of local subsidiaries by implementing measures such as stationing engineers at each location. This allows us to contribute to the creation and expansion of global markets with our customers while at the same time developing new products and new businesses.

Approach to Overseas Business

- Meeting the global needs of Japanese companies
- Proposing Solutions That Correspond with Local Needs
- Expanding Our Overseas Network
- Business localization
- Enhancing development and design
- Creating new markets

Technological Base

Creating new value in society with the power of technology

From development of original component technologies to applied technology and cutting-edge technology, we actively pursue new potential and functional diversity in addition to seeking new technologies. We create new value in society by being responsive to the expanding markets of many different industries, while at the same time, using our strengths to support the business of Hagiwara Electric Group.

Hagiwara Electric's Strengths



The Hagiwara Electric Group's strength lies in the ability to use our technological advantages to provide solutions for issues and challenges faced by our customers. Our technologies are largely divided into support technology and development technology, and at the heart of both of these is our component technology and experience. Electronic products are becoming increasingly sophisticated and complex. What is needed now is not only product lineup, but also the ability to support all the technical aspects of a customer's project by utilizing expertise in each field of the customer's business. Utilizing our proven track record and the experience we have accrued, we serve the role of a bridge between suppliers and customers. Our competencies translate into an ability to support our customers' product development and to help their business succeed. At the heart of our ability to provide solutions is the technological strength of the Hagiwara Electric Group and we will further enhance it as a horizontally interconnected foundation that supports the entire Group.

Our Technologies

Examples of Support Technologies

Support for Component Selection

- Introduction of new products from manufacturing partners
- Provision of the latest product information and technical trends
- Assistance in new product evaluation and comparative evaluation of parts

Development Support for Customers

- Support for advance development of embedded systems
- Support for development of embedded software and hardware mass production
- Support for constructing IT and other systems (system integrator)
- Introduction of partner companies that can perform development and evaluation

Support for Failure Analysis

- Cooperation in failure classification, reproduction testing and analysis
- Follow up on failure analysis in collaboration with manufacturing partners

Examples of Development Technologies

Contracted Development of Embedded Systems

- Embedded software development and evaluation
- Development of embedded system hardware
- Circuit design and evaluation of system LSIs and ICs

Contracted Development Related to IT Solutions

- IoT-related system development
- System development for production management systems, etc.
- Construction of various FA and measurement systems

Establishment of Evaluation Environments and Contracted Development of Component Technologies for Automated Driving and Other Systems

- Acquisition of car driving video and data tagging
- Image processing that can be applied to electronic mirrors and peripheral monitoring
- Implementation of new algorithms in embedded systems

HAGIWARA ELECTRONICS CO., LTD.



Hagiwara Electronics' mission is to continually pursue new areas of business while supporting this period of innovation in the automotive society.

Name of Company	HAGIWARA ELECTRONICS CO., LTD.
Location	Takaoka Park Building, 2-2-1 Higashi Sakura, Higashi-ku, Nagoya-shi, Aichi
Representative	Takehiko Mori, President and Representative Director
Established	May 1, 2017 (Business operation commenced on April 1, 2018)
Capital	310 million yen
Major Business	Sale of integrated circuits, semiconductors and electron devices

HAGIWARA TECHNO SOLUTIONS CO., LTD.



Hagiwara Techno Solutions' mission is to contribute to factories that enable more efficient manufacturing by realizing traceability using factory IoT.

Name of Company	HAGIWARA TECHNO SOLUTIONS CO., LTD.
Location	Takaoka KANAME Building, 2-28-23 Izumi, Higashi-ku, Nagoya-shi, Aichi
Representative	Kazunari Shiraki, President and Representative Director
Established	May 1, 2017 (Business operation commenced on April 1, 2018)
Capital	310 million yen
Major Business	Sale of electronic equipment and manufacture and sale of FA equipment

HAGIWARA HOKUTO TECHNO CO., LTD.

Name of Company	HAGIWARA HOKUTO TECHNO CO., LTD.
Location	Takaoka Park Building, 2-2-1 Higashi Sakura, Higashi-ku, Nagoya-shi, Aichi
Representative	Koji Fujita, President and Representative Director
Established	April 2, 2018
Capital	45 million yen
Equity ownership ratio	HAGIWARA ELECTRONICS CO., LTD.: 66.56% Hokuto System Co., Ltd.: 33.44%
Major Business	Consignment and services related to in-vehicle software verification and development



Contact

HAGIWARA ELECTRIC HOLDINGS CO., LTD.

General Affairs Department

Phone: +81-52-931-3511

FAX: +81-52-931-9414

E-mail: ir@hagiwara.co.jp

<https://www.hagiwara.co.jp/english/>