〈English〉

TAMURA CORPORATION REPORT 2017

CORPORATE PROFILE / CSR REPORT DIGEST

Biltrite Tamura

The 11th Mid-term Plan 2016-2018

GROWING

TAMURA

Creating Value

The Tamura Group will contribute to society through our business activities, improve corporate value, and provide the next value with the aim of resolving new social issues.

Local community

Global environment

Customer

Shareholder/ investor

Realizing a sustainable society

Tamura Group's sustainable development

Social issues closely related to our businesses

- Global environmental issues
- Natural disaster preparedness
- Energy/resource issues
- Declining birth rate and the aging population
- Community development

Recognizing the missions to be fulfilled by the Tamura Group

OUR BUSINESS FIELD

- Electronic Components
- Information Equipment
- Electronic Chemicals/ Fa Systems

MISSION STATEMENT

MISSION

The Tamura Group supplies an original range of products and services, highly regarded in the global electronics market, to satisfy the evolving needs of customers, employees and shareholders supporting the Group's growth.

VISION

1. The management of the Tamura Group is based on businesses related to the requirements of the global electronics industry.
2. The business of the Tamura Group is based on technologies that support rapidly diversifying customer needs, with a special focus on high market value.
3. The Tamura Group evaluates its employees with fairness and highly rates excellent performance and exceptional productivity.
4. The Tamura Group is a responsible member of the global community and respects the laws and customs of the countries in which it conducts business activities.
5. The Tamura Group strives to protect the global environment, conserve natural resources and promote recycling.

GUIDELINE

1. We attach great importance to partnership.
2. We attach great importance to nurturing a spirit of creativity.
3. We attach great importance to individuality.
4. We attach great importance to social responsibility.

◆ Tamura Group Code of Conduct

1. Ensuring Customer Trust and Satisfaction
2. Acquiring the Trust of All Shareholders and Stakeholders in our Business Activities
3. Respecting Basic Human Rights
4. Safe and Healthy Workplace Environment
5. Free Competition and Fair Trade
6. Prohibition Against Insider Trading
7. Prohibition Against Inappropriate Entertainment or Gifts
8. Prohibition of Inappropriate Transactions with and Inappropriate Political Contributions to Public Bodies
9. Compliance with Laws and Regulations Regarding Import and Export Controls for Security
10. Creation, Protection and Use of Intellectual Property Rights and Know-How
11. Prohibition of Participation in Antisocial Behavior
12. Prohibition Against Competition or Conflict of Interest
13. Appropriate and Timely Disclosure of Information
14. Appropriate Protection and Handling of Information (Corporate Information, Private Information, etc.)
15. Preservation of Company Assets
16. Respect for the Global Environment
17. Cooperation with the International Community and Co-existence with Local Communities

The 11th Mid-term Plan

Biltrite Tamura GROWING

The 11th medium-term management plan ending FY2018 was launched in April 2016.
»» P.03

- Drawing a path to abundant growth
- Manufacturing excellent products
- Creating sound management
- Establishing the best global operation

Stakeholders

Business partner

Employee

TAMURA CORPORATION REPORT 2017

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Editorial Policy

This report will be published as "**TAMURA CORPORATION REPORT 2017**" to serve as an introduction to the Tamura Group. It is a compilation of Tamura's "**CORPORATE PROFILE**," which introduces the group's overview and business activities, and "**CSR REPORT DIGEST**," a digest of its CSR activities. A detailed report of CSR activities is available on the "CSR Activities" page of the Tamura Corporation website. The "Environmental Report Guidelines (FY2012 Edition)" of the Ministry of the Environment of Japan, and the "ISO26000" Guidance Standard were referred to when "CSR Activities" was edited.

Period covered

April 1, 2016 to March 31, 2017
(Includes some activities in or after April 2017)

Publication date

August 2017
(Previous report: August 2016 next report: due in August 2018)

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Through our products and business, we contribute to resolving social issues and work at fulfilling our social responsibility.

Highest past profits achieved, exceeding initial expectation
Significant improvement in soundness of management practices

In FY2016, the first year of the mid-term management plan "Biltrite Tamura GROWING", we achieved an increased profit that surpassed beginning-of-year forecasts, and business profit as well as current net profit attributable to owners of the parent reached new highs. Although sales showed a decrease of about 5 billion yen compared with the preceding term mainly due to the appreciation of the yen, substantial growth excluding the exchange factor remained at the level of the preceding term. Reflecting the increased profit, the annual dividend that combines interim and term-end dividends paid to shareholders was increased by 2 yen to 9 yen.

The increase in profit was mainly attributable to the electronic parts related business that increased profit by reinforcing high value-added products and shifting the priority market from households to industries. Meanwhile, although the electrochemical component implementation business was able to achieve a certain level of results by proactively expanding its sales in the IoT and in-vehicle markets, it experienced decreased sales and profit due to the appreciation of the yen. Partly because the special demand for security-related equipment had ended, the information equipment related business also showed decreased sales and profit compared to the preceding term.

The Company's ROE, as against the set goal for the final year of 9%, reached 10% in the first year, indicating improvement in soundness of management practices. The power to resist foreign exchange fluctuations has steadily increased. In FY2017, towards the optimization of our global network, we will continue to expand our strategic products by accelerating our local-based efforts in "Local development & local approval" to carry out product development as well as the acquisition of approval in a speedy manner and by reinforcing marketing under the leadership of the newly established Marketing and Development Management Division.

Aiming to welcome the year 2024, the 100th anniversary of the Company, as a prosperous company maintaining abundant growth

We at the Company value this medium-term management plan as the "stage of growth" towards the 100th anniversary in 2024. As the first in the electronic parts industry to celebrate its 100th anniversary, we will work on maintaining abundant growth under the motto "Drawing a path to abundant growth" so that the Company can celebrate its 100th anniversary in prosperity. In this rapidly-advancing society, by the time the Company reaches its 100th anniversary, some products will be already serving out their roles. However, we would like to develop products full of originality that can offer even greater value to customers than the former products and introduce them to the market. Our passion for pursuing new value in this manner is the source of the Company's growth and prosperity.

July 2017

Naoki Tamura
President
Tamura Corporation

Declaring its support for the U.N. Global Compact

The Tamura Group declares to its stakeholders that it will continue to support the U.N. Global Compact's ten principles in the areas of human rights, labor, the environment, and anti-corruption, and enact a set of core values in those four areas.

In order to grasp customers' needs by focusing on the market and develop products strongly demanded by the market, the Company's R&D has placed priority on operation by each business division. In FY2016, while maintaining this system and carefully observing the trend of the entire electronics-related market as well as competitors' movements, and further aiming to carry out R&D with a wide perspective, the Company newly established the Marketing and Development Management Division as an independent organization from its business divisions. It functions to check R&D of the business divisions from an objective point of view in cooperation with outside investigation organizations. Through this process that is performed in an equitable and fair manner, we consider that highly reliable R&D responding to true market needs can be accomplished without misjudging the entire market trend.

Contributing to realization of a sustainable society by continuing to supply environmentally minded products

Under the circumstances where climate change is advancing on a global level and every company is required to contribute to a sustainable society, we recognize that supplying environmentally minded products is a Tamura Group's social responsibility.

For example, a majority of eco-friendly cars, such as hybrid vehicles that contribute to CO2 emission reduction, use a voltage boosting reactor to increase battery voltage. Considering that the demand for eco-friendly cars will continue to rise worldwide, the Company's subsidiary, Wakayanagi Tamura Corporation (Kurihara City, Miyagi Prefecture), is scheduled to be remodeled into a mass-production plant for in-vehicle electronic parts, thus aiming to expand the Company's production capacity of in-vehicle reactors by 2.5 times or more in 2024, the centennial year. Among the products that contribute to environmental load reduction, the Company certifies ones that are especially outstanding as "Premier Eco-design Products". As of FY2016, Premier Eco-design Products account for 21% of all products, markedly exceeding the target of 17%.

The Company's environmental activities have three major objectives: (1) increasing the percentage sales of eco-design products; (2) reducing substances with environmental load; and (3) reducing power consumption. In FY 2016, the reduction of electric power consumption alone failed to meet the target value and we have taken it as an issue to be addressed. As energy saving activities has been almost fully implemented at worksites, we consider it necessary to develop a company-wide policy to enforce large-scale "green investment". In the planned reconstruction of Sakado Factory, it is expected to be designed as an energy-saving building based on this policy and has been certified as a "Nearly ZEB", achieving energy savings of over 75% in the "Net Zero Energy Building (ZEB) verification project".

Biltrite Tamura
The 11th Mid-term Plan 2016-2018
GROWING

- Drawing a path to abundant growth
- Manufacturing excellent products
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Establishing presence in global market by promoting structural reconstruction for fair corporate management

As regards governance as the foundation for CSR management, the Company's policies in response to the "Corporate Governance Code" were defined in 2015 and all necessary response measures were completed by clearly stating the reasons for election at the time of election of directors in FY2017. Further, the Company has separated compliance promotion function and audit function that used to be held in one division, to delineate the roles of promotion and auditing. Further, by diversifying contacts for the whistle-blowing system and newly setting up independent contact points, the Company has been steadily developing structural reconstruction in order to enhance fair and sound management practices.

In 2016, our society was saddled with labor-management issues, such as long working hours. The Company has worked on correcting long working hours by linking the occupancy management system for security with the attendance management system to grasp the exit hour of each employee. Further, along with business globalization, in order to address various issues regarding personnel affairs in Japan and overseas, we have applied the distinguished personnel system of the head office to overseas operation bases and, at the same time, proactively promoted local employees to managerial posts there. In FY2016, the ratio of local employees in managerial posts of overseas subsidiaries reached approximately 80% and diversification of employment patterns progressed.

The entire Group endeavors to offer new value that has never existed before in the world.

In FY2016, the Company achieved the highest past operating profit and net profit as a result of having established a stable management foundation. However, it still requires growth ability that is one step above the current level in order to welcome the centennial anniversary in prosperity. Because of this, strategic products with unprecedented new value need to be introduced to the market and the Tamura Group will work on the fulfillment of this by using all its resources. Furthermore, we would like to contribute to addressing various issues of the society through these strategic products and to continue to fulfill the Company's social responsibility.

Company Profile

Company name TAMURA CORPORATION

Founded May 11, 1924
(Incorporated in Nov 21, 1939)

Capital ¥11,829 million

Share capital (as of Mar. 31, 2017)

Authorized	252,000,000 shares
Issued and outstanding	82,018,891 shares (Not including 752,582 shares of treasury stock)
Closing date	March 31, each year.
Number of shareholders	9,045

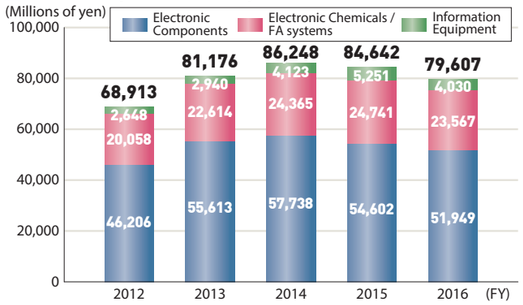
Directors/ Corporate officers (as of June. 28, 2017)

President/CEO	Naoki Tamura
Director/ Executive Vice President	Masahiro Asada
Director/ Vice President	Guohua Li
Director	Takeo Minomiya (Outside Director)
	Shigeaki Ishikawa (Outside Director)
Director/ Senior Executive Officer	Norihiko Nanjo
	Shoichi Saito
	Yusaku Hashiguchi
Senior Executive Officer	Tatsuya Kiyota
	Koichiro Maiki
	Seigen Kohakura
Executive Officer	Naokazu Sueda
	Seiji Shibata
	Akira Kimura
	Atsushi Shinbo
	Mitsutaka Nakamura
Standing Auditor	Hajime Kubo
Auditor	Koichi Moriya (Outside Auditor)
	Atsuji Toda (Outside Auditor)

Organization Map (as of April 1, 2017)

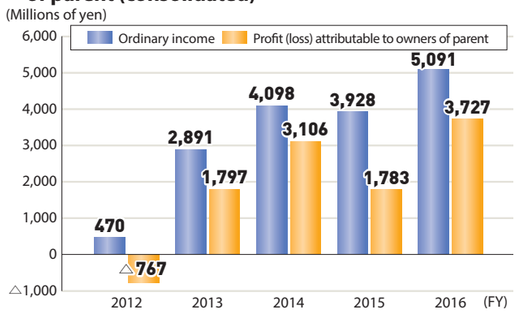
- Board of Directors
- Board of Auditors
- President
  - Integrated Audit Division
  - Core Technology Division
  - Crystal Development Department
  - Marketing and Development Management Division
  - Corporate Management Division
  - CSR Promotion Division
  - Human Resources & General Administration Division
  - **Information Equipment**
    - **Broadcom Business Unit**
  - **Electronic Components**
    - **Electronic Components Business Sector**
      - High power magnetic Division
      - Magnetic Division
      - Unit Division
      - West Japan Supervising Department
      - Business support Department
  - **Electronic Chemicals/FA systems**
    - **Electronic Chemicals & FA System Business Sector**
      - Electronic Chemicals Quality Assurance Division
      - Marketing Division
      - Electronic Chemicals Sales Division
      - Electronic Chemicals R&D Division
      - Electronic Chemicals Production Division
      - Factory Automation Business Unit

Net sales (consolidated)



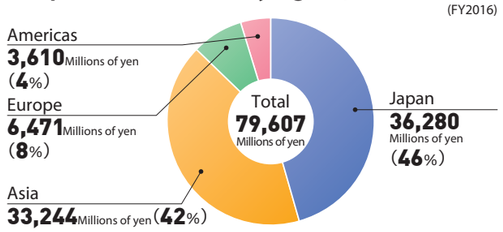
*Net Sales for external Customers by business segment (excludes internal net sales between different businesses).
*The amount of net sales for each fiscal year includes other operations (transportation, warehousing and others).

Ordinary income/Profit (loss) attributable to owners of parent (consolidated)



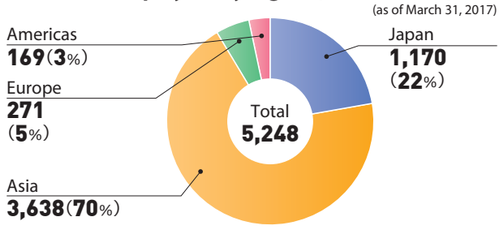
Composition of net sales by region (consolidated)

(FY2016)



Number of employees by region (consolidated)

(as of March 31, 2017)



- Head Office/Regional Headquarters/Others
- Electronic Components
- Electronic Chemicals
- FA Systems
- Information Equipment

Offices and Factories
- Head Office/Tokyo Factory
- Sakado Factory
- Iruma Factory
- Sayama Factory
- Kodama Factory
- Osaka Sales Office
- Nagoya Sales Office
- Fukuoka Service Office

Affiliated Companies
- Koha Co.,Ltd.
- Aizu Tamura Corporation
- Wakayanagi Tamura Corporation
- Tamura Distribution Center Inc.

Asia

Korea	Tamura Chemical Korea Co.,Ltd.
	Tamura Corporation of Korea
	Tamura Professional Solution Korea Co.,Ltd.
China	Tamura Corporation of China Limited
	Shanghai Xiangle Tamura Electro Chemical Industry Co.,Ltd.
	Tamura FA System (Suzhou) Corporation
	Tamura Seiko Electronics (Changshu) Co.,Ltd.
	Tamura Electronic Material (Tianjin) Co.,Ltd.
	Hefei Ecriee-Tamura Electric Co.,Ltd.
	Tamura Kaken (Dongguan) Ltd.
	Tamura Electronics (S.Z.) Co.,Ltd.
	Tamura Electronics (Huizhou) Co.,Ltd.
	Anzen Dengu (Huizhou) Co.,Ltd.
Hong Kong	Tamura Corporation of Hong Kong Limited
Taiwan	Tamura Power Technology Co.,Ltd.
	Tamura Kaken Tech Co.,Ltd.
Thailand	Tamura Corporation (Thailand) Co.,Ltd
Malaysia	Tamura Electronics (M) Sdn.Bhd.
	Tamura Kaken (M) Sdn.Bhd.
Singapore	Tamura Singapore Pte.Ltd.
Vietnam	Tamura Corporation Vietnam Co.,Ltd.
Bangladesh	Op-Seed Co., (BD) Ltd.
Myanmar	Earth Tamura Electronic (Myanmar) Co.,Ltd.
India	Tamura Elcomponics Technologies Pvt.Ltd.

Europe

U.K./Czech	Tamura Europe Limited
U.K.	Tamura Kaken (U.K.) Ltd.
Italy	Tamura Magnetic Engineering S.R.L.

Americas

U.S.A	Tamura Corporation of America
	Tamura Kaken Corp.,U.S.A
Mexico	Tamura Power Technologies de Mexico, S.A de C.V.
Brazil	Telepart-Tamura Industria e Comercio Ltda.
	Indusul Industria de Transformadores Ltda.
	Industria Sul Brazil de Transformadores Ltda.

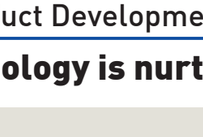
Tamura's technology is nurtured by history, unequaled to this day

HISTORY

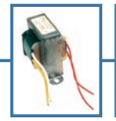
since 1924

1924~
Manufacture and sale of radio and gramophone

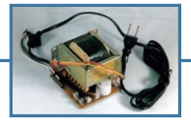
1930~
In-house production of Biltrite series transformer



Transformers



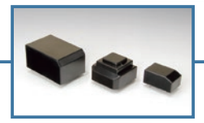
1956~
Cut core Magnetic material



1970~
Choke coils

1985~
Current sensors

1956~
Power supply system



1994~
Piezoelectric transformer

1973~
Thermal-links

1987~
Interlocking pushbuttons for vending machines

2008~
LED

1956~
Solderite flux

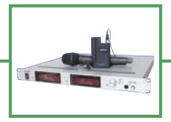
1957~
Solder paste

1961~
Resist ink

1968~
Automatic soldering system

1961~
Audio mixing console for broadcast use

1962~
Wireless microphone



1976~
Transmission monitoring device

The company that would eventually become the Tamura Group came into being in 1924, one year before the start of radio broadcasting in Japan, as the Tamura Radio Store. Its main business was radio repair and the manufacture of original radios. In the process of pursuing superior sound, the firm came to handle the manufacture of the key component, the transformer. Its reputation as the "Tamura of transformers" created a foundation on which to expand its businesses, including various electronic components related to transformers; flux and soldering materials that were born out of the pursuit of quality joining materials for the manufacture of transformers; soldering systems; and even broadcast audio equipment and communication systems, based on achievements in the manufacture of transformers for broadcasting and communication.

Currently, Tamura Corporation conducts business operations in three areas: electronic components, electronic chemical mounting, and information equipment, to develop and supply products that meet the needs of new markets, such as the environment and energy markets.

PRODUCTS

Electronic Components

- Transformers
- Inductors
- Reactors
- Choke coils
- Current sensors

- AC adaptors, Battery chargers
- Power modules
- Industrial power supplies

- Piezoelectric ceramic products

- Thermal-links
- Resistors

- LED-related products
- Vending machine products

Electronic Chemicals/FA Systems

- Solder paste & post-flux
- Self Assembling Material

- Solder resists (for rigid PCBs and flexible PCBs)
- OSP (pre-flux)

White reflective material, black absorbing material, Transparent insulation material

- Reflow soldering system
- Wave soldering system
- Spray fluxer and other peripheral devices

Information Equipment

- Audio mixing console for broadcast use
- Sound editor and other equipment for broadcast use

- Wireless intercom
- Wireless microphone

- Communication network equipment
- Security-related equipment
- OEM products

CORE TECHNOLOGY

Power solutions

- Dust core material development and mass-production technology
- Thermal protective element development and mass-production technology
- Electromagnetic field, heat, structural analysis (simulation) technology
- High-efficiency, low-noise power supply technology
- Large current transformer coil winding technology
- Environmental technology
- Adaptive technology for highly reliable standards (JAXA and MIL standards, etc.)

Piezoelectric ceramics

- Material development and process technology
- Element design technology and analysis technology
- Technology for controlling piezoelectric elements

LED and semiconductor devices

- LED packaging technology
- Waterproofing technology
- Thermal design and analysis technology
- Optical design and analysis technology
- High-efficiency reflection processing technology
- Growth technology of single crystal substrates
- High-quality epitaxial growth technology
- High efficiency High-power LED manufacturing
- Lighting design technology

Electronic mounting process, PCB material and semiconductor mounting material

- Unified, collaborative product development for both material and equipment
- Resin design and synthesis technology (photosensitive resin, thermo-setting resin, thermoplastic resin)
- Metal powder production technology
- Soldering technology
- Photosetting technology
- Thermosetting technology
- Environmental technology (technologies compliant with Pb-free, halogen-free requirements)
- Reflow heating technology
- Soldering technology
- Wave soldering technology
- Heat control technology
- (Nitrogen) Atmosphere control technology

Information equipment

- Audio processing technology
- Digital signal processing technology
- Acoustic technology
- High-frequency technology
- Radio technology
- High-density mounting technology
- Surround-sound technology

Deploying products that contribute to an energy-saving society in the global market

■ Electronic Components

Development, manufacture, and marketing of materials, components, and finished products, including transformers, LEDs, piezoelectric ceramics, and power supplies, contributing to the supply of products in a wide range of markets, from household appliances to industrial devices, medical instruments, and aerospace equipment.

Product TOPICS

Developing a PFC reactor for in-vehicle battery chargers for next-generation eco-cars

This PFC reactor for in-vehicle battery chargers is used in the PFC circuit (power factor improvement circuit) of a battery charger that is mounted in an eco-car (plug-in hybrid vehicle, electric car). In contrast to the conventional product that uses two toroidal-type reactors, this product has a 2-in-1 configuration in which a single reactor capable of functioning equally to two toroidal-type reactors is used. In addition to the use of core material developed by Tamura, a flat wire is adopted for the coil instead of the conventional round wire to increase heat radiation performance. As a result, approximately 40% downsizing is achieved. This product will continue to contribute to the diffusion of next-generation vehicles.

VOICE

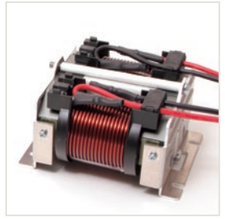
Voice of engineer

Automotive Dept.
Magnetic Div.
Electronic Components B.S.

Tsutomu Hamada

By feeding back customers' strong desire for downsizing to product development, we have achieved differentiation from other companies and succeeded in developing high value-added products. We will continue our efforts to create high value-added products.

■ Products



Reactors

Reactors are core components for voltage control and noise removal for power conditioners, air conditioners, and the like. They contribute to energy saving and clean energy.

Coils

Coils are components for removing noise or improving energy efficiency in various electronic devices. They contribute to performance improvement of electronic devices and energy savings.

Automotive reactors

The reactors are key components for optimal voltage control in hybrid and electric cars. Our reactors ensure not only eco-friendly but also highly reliable and safe driving.

Large transformers and reactors

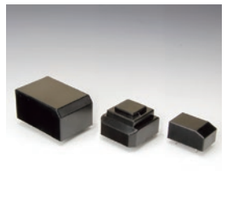
In large-scale wind or solar power generation systems and the like, large transformers and reactors are core components—the former are used for voltage conversion, and the latter are for voltage control and noise removal. They contribute to energy saving and clean energy.

Transformers and coils for aerospace use

As the only domestic manufacturer that has obtained certification from Japan Aerospace Exploration Agency (JAXA) for the standards of transformers and reactors for power systems, we develop, produce, and supply transformer and coil products for onboard use on satellites and their launching vehicles.

Current sensors

In order to make effective use of natural energy, it is necessary to monitor electrical current in equipment with a high degree of accuracy. Our product line, which is broad in terms of current range and accuracy range, contributes to creation, storage, and saving of energy.



Power modules

High-efficiency DC converter functions are packaged. e modules allow you to easily design high-performance power supply (high-efficiency, low-standby-power, quiet, and small) best suited for your product.

Gate driver module

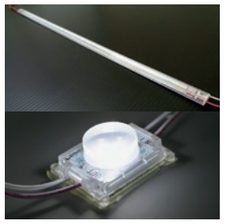
The product for driving high-power switching semiconductors used in inverters, etc. Suitable for both IGBT and SiC-MOSFET because of its low noise characteristics. This product can contribute to drastic simplification of equipment design.

LED power supply

LED power supply for outdoor use such as facility illumination and road illumination. Designed to achieve high efficiency and high power factor and equipped with multi-stage optical modulation function, the product can realize the industry's top level of energy saving illumination.

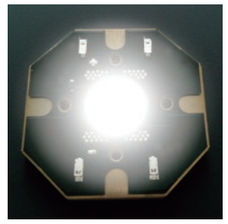
Vending machine related products

Our lineup is extensive, including item selection buttons with market share exceeding 90%, price indicators, and LED lighting. The item selection button with the price indication function has been enlarged for visibility.



LED lighting for special applications

LED lighting for special applications, such as inside lighting type signboards and refrigeration display cases that utilize optical engineering design technology.



Power LED

A super luminosity LED with brightness equivalent to a 1 kW halogen lamp. This product has been realized thanks to the Company's original electronics-packaging technology and heat radiation design. Conversion to LED is expected in the fields of stage lighting, ground lighting, etc. where strong lighting is required.

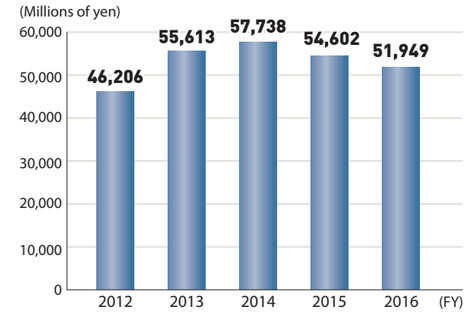
AC adaptors

Our AC adaptors supply stable power to optical network units (ONU). Their high resistance to exogenous noise due to thunder and other causes provide support for communication lifelines such as the Internet and telephones.

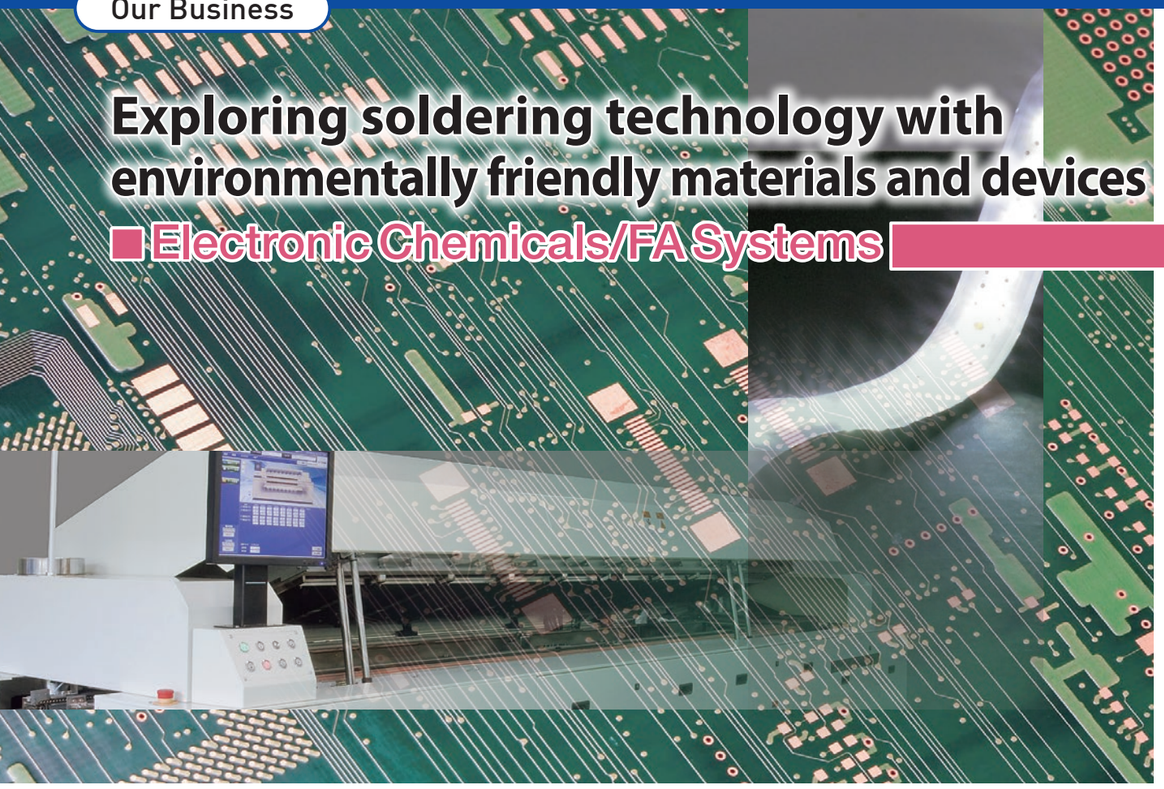
Piezoelectric transformers

The use of the resonance phenomenon of piezoelectric ceramics allows efficient generation of high voltage. Our products are used for high-voltage power supply for laser printers, copiers, ion generators, etc.

Changes in net sales



*Net sales for external customers (excludes internal net sales between different businesses).



Exploring soldering technology with environmentally friendly materials and devices

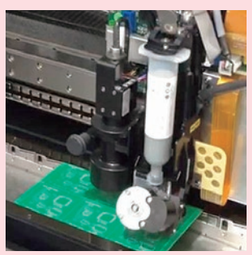
■ Electronic Chemicals/FA Systems

Development, manufacture, and marketing of PCB materials, soldering materials for PCB components, and PCB soldering systems, contributing to the growth of various electronics equipment industries.

Product TOPICS

Developing solder paste for jet dispensing in response to new technology for solder supply

Solder paste is cream-type solder material. This product was developed with compatibility with jet dispensing, a new technology for solder supply, in mind. In recent years, due to an increase of flexible substrates and cavity substrates as a result of diversification of printed circuit boards, supplying paste has become difficult in the conventional mask printing method. For this reason, the demand for this product, which can ensure stable application of solder paste in a non-contact manner, has increased in market.



VOICE

Voice of engineer

Electronic Chemicals R&D Div.
Electronic Chemicals & FA System B.S.

Isao Sugiyama

Based on an in-depth understanding of the discharge mechanism of the jet device and relevant calculations of physical properties, stable jet dispensing performance has been realized. In order to further respond to market demand, we will continue work on the development of higher-performance products.

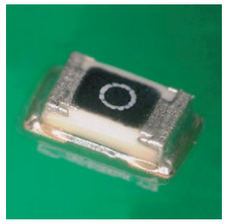
■ Products

Flux

Flux is the keystone of Tamura's materials development. By chemically removing oxide film from the metal surface to be soldered, flux ensures superior wettability and spreadability for solderable metals.

Solder paste

Used as joining material for surface mounting, solder paste is prepared by mixing solder powder and a flux. Tamura's extensive metal composition lineup provides compatibility with various applications, such as fine mounting, in-car use, and micro bump formation.



Self assembling material

Self assembling materials simultaneously provide conductivity and reinforcement by means of metal joining and resin, respectively. The materials are lead-free/VOC-free and eco-friendly, and realize low-temperature joining, potentially contributing to CO_2 reduction.

Solder resist

The solder resist plays an important role in maintaining insulation performance by protecting printed circuit boards (PCBs) from oxidation. Mindful that it serves as the face of PCBs, Tamura is as attentive to the external appearance as the reliability.

Solder resists for flexible PCBs

Halogen-free solder resists for flexible PCBs are available in rich color variations.

White reflective material

White reflective materials are applied to the back surface of a LED PCB or a solar power panel to increase reflectivity. They are highly functional halogen-free materials with high reflectivity and discoloration resistance.

Black absorbing material

These materials are applied to a surface of a printed circuit board or a film to accentuate LED light. They can meet design requirements such as covering and hiding wiring.

Transparent insulation material

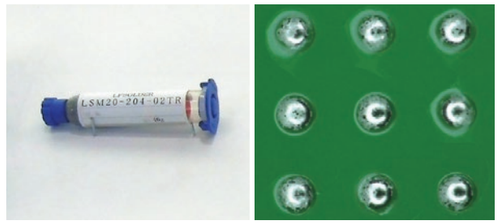
Transparent insulation materials are used in the manufacture of touch panel LCDs used in smartphones, tablet PCs, and the like. They are highly flexible and compatible with organic and inorganic substances and are available as thin films with a transmittance of 98% or higher.

Reflow soldering systems

Reflow soldering systems heat PCB-mounted components to melt solder and join the components and circuits on the board. In particular, the twin-chamber type, which uses a dual-lane system to solder substrates in two rows and features separate controllability of the two lanes, can simultaneously solder two types of substrates, allowing the construction of high-efficiency flexible mounting lines.

Selective soldering systems

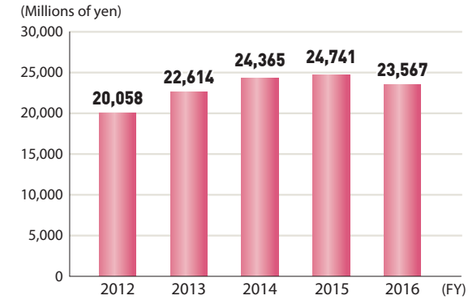
Selective soldering systems mount components to be inserted on a PCB that has gone through a reflow soldering process, and perform soldering, in a solder bath, only on parts of the PCB where the components are inserted. Labor-saving on production lines is achieved by transforming the entire soldering process into a fully automated integrated line.



Selective soldering material

Solder paste for use in partial solder supply by dispensing and rapid-heating soldering with a laser. Because it can automatize conventional manual soldering while contributing to achieving high quality, it is drawing attention in the areas of camera modules and in-car components. The development of jet-dispensing products capable of high-speed three-dimensional soldering is also underway.

Changes in net sales



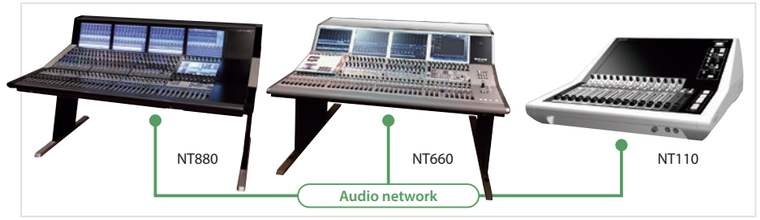
*Net sales for external customers (excludes internal net sales between different businesses).

Contributing to creating a secure, safe, and comfortable society through broadcasting and communication technologies

Information Equipment

We will develop new technologies on the basis of the one and only technology that we have developed in the broadcasting and communication field to provide secure and safe ICT products, with an eye towards further advancement.

Products



NT series—audio mixing consoles for broadcast use

Sound editing and acoustic adjustment equipment for sound transmission in television and radio broadcasting, etc. The new product NT110 has the same level of safety and operability as the NT series, and incorporates the sound processing section and the input/output section in its main body for reduced size and weight. Moreover, it can be connected to audio networks, such as MADI and Dante.

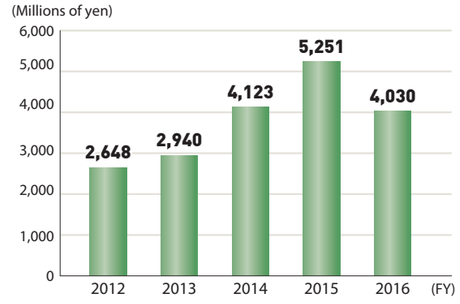
OFDM Digital wireless microphone

A new A-type wireless microphone that ensures high sound quality by means of the uncompressed 24-bit/48 kHz format and 8-bit ADPCM. It offers good radio propagation properties unaffected by pulsive noise, and has low latency.

TS-LINK

Tamura's original communication technology TS-LINK can accurately transmit large amounts of data by using high-efficiency wireless technology. Development geared toward such applications as the management of movement of a large number of people in events or commercial facilities, logistics management, and watching over children and the elderly, is underway.

Changes in net sales

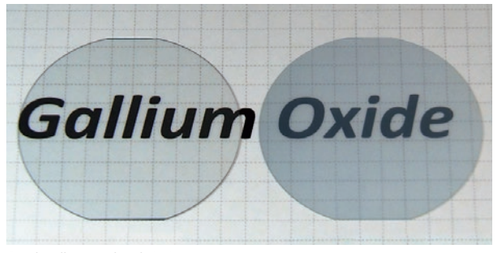


*Net sales for external customers (excludes internal net sales between different businesses).

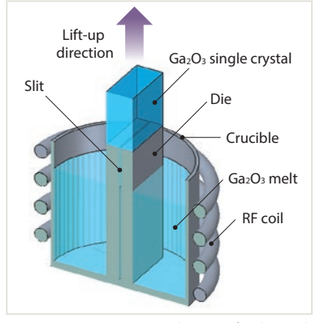
We are making efforts to develop future products that would constitute the next-generation eco-friendly society, and have set gallium oxide substrate development as the starting point.

Gallium oxide substrates

Gallium oxide (Ga_2O_3) is a new semiconductor material developed in Japan. It is characterized by a large bandgap energy and compatibility with the melt growth method. Therefore, large-size high-quality single-crystal substrates can be produced at a low cost. It is highly anticipated as a next-generation power semiconductor material because of its possible applicability to LEDs, deep ultraviolet sensors, etc.



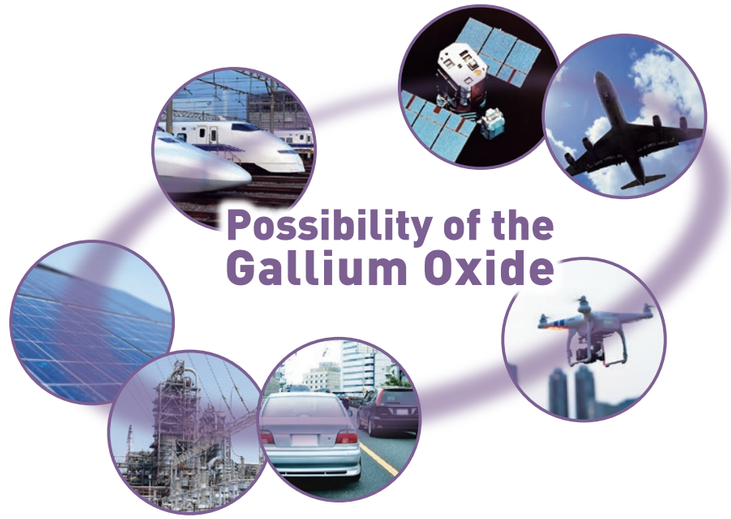
4-inch gallium oxide substrate



Schematic of melt growth

High expectations for application to next-generation power semiconductors to promote energy savings

The development of innovative power-saving technologies is a global issue. The Tamura Group is conducting research and development on gallium oxide, a candidate material for next-generation power semiconductors. Gallium oxide is attracting the attention of public institutions and enterprises at home and abroad, because it will enable the development of diodes or transistors with both higher withstand voltage and lower loss than silicon (Si), currently the main semiconductor material, and gallium nitride (GaN) and silicon carbide (SiC), both of which have been drawing attention in recent years. The practical use of gallium oxide is highly awaited in a wide range of industrial fields, such as power conditioners for solar and wind power generation, inverters for driving motors of electric vehicles and trains, power devices for aerospace applications, and next-generation electrical power transmission systems.



Tamura's Technologies Supporting Society, Industry, and Everyday Life

Tamura's products have been supporting various industries and social infrastructure as "materials," "components," and "devices" that range from consumer products, such as automobiles and electronic equipment, to devices at manufacturing sites and natural-energy-related and aerospace fields. From raw materials to complete systems, Tamura's technologies have contributed to safety and comfort as well as energy savings.

Electronic Components
Electronic Chemicals / FA Systems
Information Equipment

In Aviation and Space

Contributing to society by providing ultimate environmental resistance in the form of airplanes, rockets, and satellites

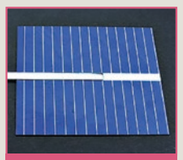
Transformers/Reactors

In Wind and Solar Power Generation

Offering parts and materials that contribute to efficiency improvement in renewable energy generation and DC transmission

Large transformers and reactors

Current sensors



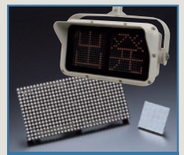
Self assembling material

White reflective material

Flux

At Train Stations

Supporting railway operation in the audio-visual realm by conveying such information as arrival/departure times



LED electric bulletin board

Wireless microphone systems

In convenience stores and other shops

LED light source contributes to energy savings for shop sign lighting and showcases.

Advertisement LED Lighting

LED lighting for showcases

In Automatic Vending Machines on the Street

Realizing leading-edge functions for display, item selection, interface with a smartphone, etc.

Price display unit

Product selection buttons

In Broadcast Stations

Used in equipment for adjusting sound delivered to audiences, and wireless systems for in-house communication

Audio mixing console

Digital wireless intercom system

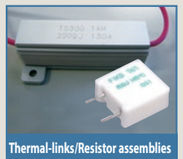
OFDM Digital wireless microphone

In Eco-Friendly Cars

Supporting safe, secure, and eco-friendly driving with highly reliable and efficient parts and materials

Automotive reactors/Coils

Solder resist



Thermal-links/Resistor assemblies
Metal-clad resistors

Solder paste

In Smartphones and Tablet PCs

Employed as materials that support device evolution to realize multi-functionalization and miniaturization

Transparent insulation material

Self assembling material

Black absorbing material

In Manufacturing Plants

Playing active roles as components of robots and machine tools as well as devices indispensable for PCB assembly

Current sensors

Gate driver module

Reactors

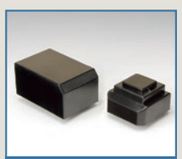
Cement resistor

Soldering systems

At Home

Used in air conditioners and power conditioners as components that contribute to energy savings and equipment safety

Current sensors



Power modules

Reactors

Thermal-links
Thermal-links/Resistor assemblies

Goals and Results of CSR Activities

The Tamura Group is promoting CSR activities in six areas, i.e., "compliance/corporate ethics," "risk management," "information management," "human rights/labor," "environment/quality," and "social contribution."

Self-assessment criteria

100% or higher achievement　80–100% achievement　Less than 80% achievement

Report page

Page number indicates the page where activities are reported in the Tamura Corporation Report 2017.
Web: www.tamura-ss.co.jp/en/csr/index.html
All activities, with some exemptions, are reported.
For some information in items marked with an asterisk (*), target values and actual results are reported.

Area of activity	Task	FY2016 Activity Goal	FY2016 Activity Result	Self assessment	Report page	FY2017 Activity Goal
(General)	● Elimination of CSR risk ● Diffusion of CSR	● Overseas introduction of education for dissemination utilizing "CSR Information Site	● Implementation of CSR information sessions at 9 business establishments in Japan ● Awareness raising by using the company magazine ● Discussion of educational activities to diffuse CSR to overseas operation bases		Page19 Web: ・CSR at Tamura Group	● Implementation of educational activities to diffuse CSR to overseas operation bases
Compliance / Corporate ethics	● Communication of management philosophy and "Tamura Group Code of Conduct ● Promotion of compliance with laws and regulations ● Enhancement of compliance education	● Promotion of education for dissemination of corporate philosophy and the "Tamura Group Code of Conduct" ● Promotion of compliance education	● Awareness raising for the whistle-blowing system by means of CSR information sessions, posters, and Compliance Card ● Implementation of in-house training workshops on cartel prevention, security export control, and unfair competition prevention (10 times) ● Compliance education using video teaching materials ● Issuance of mail magazine that explains immediate compliance violation issues, case studies, etc. in an easy-to-understand manner ● Implementation of corporate philosophy education at affiliate companies in Taiwan and discussion sessions for management executives in Myanmar and Bangladesh		Page19 Web: ・Compliance ・Employee Relations	● Promotion of education for dissemination of corporate philosophy and the "Tamura Group Code of Conduct" ● Promotion of compliance education
Risk management	● Strengthening of risk management	● Periodic/occasional review of Business Continuity Plan (BCP) documents ● Implementation of emergency drills	● Global implementation of BCP in individual business segment ● Implementation of evacuation drills and safety confirmation drills at domestic business sites ● Improvement of stockpile of each business site in Japan		Web: ・Risk Management ・Employee Relations	● Periodic/occasional review of BCP documents ● Implementation of emergency drills
Information management	● Reinforcement of data protection program ● More timely and appropriate disclosure of corporate information	● Reinforcement of the information protection system ● Timely and appropriate corporate information disclosure on Website	● Enhancement of network security against cyberattack and information leakage ● Implementation of self-check assessment of "information management" for managers ● Timely and appropriate corporate information disclosure on Website		Web: ・Risk Management ・Shareholder and Investor Relations	● Reinforcement of the information protection system ● Timely and appropriate corporate information disclosure on Website
Human rights / Labor	● Promotion of CSR procurement ● Enrichment of internal employee education ● Establishment of fair and impartial personnel system ● Promotion of diversification ● Activation of internal communications ● Establishment of appropriate working environment	● Continuous provision of overseas training ● Enrichment of healthcare ● Internal inspections for safety and health ● Execution of the action plan to promote active female participation ● Response to conflict minerals issues	● Global expansion of personnel system ● Overseas training for new employees ● Establishment of appropriate working environment -Implementation of labor management training and stress management training for managers -Introduction of in-office time management system ● Stress management Implementation of stress counseling at regular intervals ● Workplace inspection for safety and sanitation, and implementation of traffic safety training sessions ● Execution of the action plan to promote active female participation ● Active promotion of use of childcare leave system ● Promotion of employment of persons with disabilities and the elderly ● Survey of suppliers on their use of conflict minerals ● Promotion of conclusion of contracts, etc. in accordance with "Procurement Guidelines" -Disuse of conflict minerals -Elimination of antisocial forces		Page19 Web: ・Business Partner Relations ・Employee Relations*	● Development of global human resources ● Establishment of appropriate working environment ● Continuous provision of overseas training ● Enrichment of healthcare ● Promotion of internal inspections for safety and sanitation ● Execution of the action plan to promote active female participation ● Response to conflict minerals issues
Environment / Quality	【Quality】 ● Further increased customer satisfaction ● Increased green procurement	● Quality improvement awareness building activities during the quality month ● Hosting of the Tamura Group Quality Promotion Conference ● Update of green procurement standards ● Strengthening of management of chemical substances in products ● Preparation for compliance with ISO9001:2015	● Message sent by officers responsible for quality on the first day of the quality month ● Hosting of the 10th Tamura Group Quality Promotion Conference ● Preparation and survey for renewal of Green Procurement Guidelines ● Promotion of sharing of information on establishment, revision, and abolishment of laws and regulations for chemical substances in products ● Preparation for compliance with ISO9001:2015 and completion of partial transfer ● Implementation of education of ISO9001:2015 for internal auditors		Web: ・Customer Relations ・Business Partner Relations	● Quality improvement awareness building activities during the quality month ● Hosting of the Tamura Group Quality Promotion Conference ● Update of green procurement standards ● Strengthening of management of chemical substances in products ● Compliance with ISO9001 : 2015 ● Implementation of education of ISO9001:2015 for internal auditors
	【Environment】 ● Offering eco-design products ● Reduction in use of substances with environment load ● Promotion of energy and resource savings ● Promotion of group-wide integrated ISO 14001 certification	● Ratio of eco-design product sales to total sales Premier eco-design products: 17% ● Reduction of substances with environmental load: 52% reduction in basic unit vs. FY2005 ● Reduction of power consumption: 9% reduction vs. FY2005 ● Compliance with environmental laws and regulations ● Preparation for compliance with ISO14001:2015	● Ratio of eco-design product sales to total sales Premier eco-design products: 21% [Target achieved] (General eco-design products: 53% [Target achieved]) ● Reduction of substances with environmental load: 56% reduction [Target achieved] ● Reduction of power consumption: 8% reduction [Target not achieved] ● No violations of environmental laws and regulations ● Preparation for compliance with ISO14001:2015 ● Implementation of education of ISO14001:2015 for internal auditors		Page21-22 Web: ・Environment Management ・Environmental Targets, Performance, and Evaluation* ・Action on Environmental Protection*	● Ratio of eco-design product sales to total sales Premier eco-design products: 16% ● Reduction of substances with environmental load: 60% reduction in basic unit vs. FY2005 ● Reduction of power consumption: 11% reduction vs. FY2005 ● Compliance with environmental laws and regulations ● Compliance with ISO14001:2015
Social contribution	● Continuous social contribution activities ● Coexistence with community and volunteer activities ● Promotion of cultural, arts, and sports activities	● Donation activities ● Hosting of Monozukuri (manufacturing) school ● Sports promotion ● Internship and job experience programs ● Co-existence with the community, volunteer activities ● Promotion of Eco-cap Campaign ● Promotion of used stamp collection ● Promotion of supporting UNICEF by collecting foreign coins	● Donation activities ● Hosting of Monozukuri (manufacturing) school (three times) ● Support for sports activities - Sponsorship of women's football team (Chifure AS Elfen Saitama) - Sponsorship of 2017 Nerima Kobushi Half Marathon ● Implementation of internship and job experience programs ● Promotion of environment beautification activities near and around individual business sites ● Promotion of Eco-cap Campaign ● Promotion of used stamp collection ● Promotion of supporting UNICEF by collecting foreign coins		Page19-20 Web: ・Social Contribution Activities*	● Donation activities ● Hosting of Monozukuri (manufacturing) school ● Sports promotion ● Internship and job experience programs ● Co-existence with the community, volunteer activities ● Promotion of Eco-cap Campaign ● Promotion of used stamp collection ● Promotion of supporting UNICEF by collecting foreign coins

CSR Activity Topics in FY2016

Diffusion of CSR

CSR information session

As a new CSR promotion system was re-established in April 2016, the CSR promotion function that had been worked at by an independent organization and the compliance promotion function were integrated. Further, the whistle-blowing system was reorganized where a new function of consultation was provided in addition to reporting. A contact point independent of management is also available. It has already started as the "Corporate Ethics and Legal Compliance Center".

▲ Compliance Card and awareness-raising posters

Aiming at promoting understanding and diffusion of these new systems and new rules, we conducted information sessions at 9 business establishments and affiliates targeting all employees in Japan. Compliance Cards with information about the contact points for whistle-blowing were distributed and disseminated.

Compliance education

Improving awareness and sensitivity among management executives and all employees is essential for the realization of compliance management, for the purpose of which compliance education has been focused on as an important tool. In FY2016, practical training courses and education were also implemented, aiming at the diffusion of CSR.

■Major compliance education programs implemented in FY2016

- Group training on cartel prevention, security export control, and the Unfair Competition Prevention Act: 10 times
- "Information management" self-check assessment for managers
- Small-group discussion-style training using video and training tools
- Issuance of mail magazine that explains immediate compliance violation issues, case studies, etc.: Semimonthly

Establishment of appropriate working environment

We are making efforts to create a working environment in which employees can continue engaging in their work in a pleasant manner by achieving both increased worthwhileness of working and appropriate labor management. Especially with regard to labor management improvement, efforts have been promoted through the implementation of labor management training and stress management training for managers of all business establishments towards full penetration of compliance-based labor management and realization of work environment with less stress. In addition, by improving the attendance management system, we have established a system that enables prompt reporting/management of everyday working hours. Further, through the introduction of the in-office time management system that allows checking of working hours objectively, a structure that enables timely and accurate management of working hours of individual employees has been realized at all workplaces of Tamura Corporation.

With regard to the actual introduction of this new system, we held information sessions for all employees. The aim of these sessions was for all employees to reconfirm the method of managing appropriate working hours and to understand that the activation of workplace communication and the buildup of a favorable organizational environment are important for improving work efficiency.

Tamura Corporation will continue promoting measures and policies to maintain and improve favorable workplace climate by diffusing appropriate labor management based on compliance.

VOICE Voice of a human resource (HR) officer

Exective Officer, General Manager of Human Resources & General Administration Div.

Naokazu Sueda

Our work involves creating a system in which individual employees can confirm their own working hours and performance as well as shaping a climate where reporting-contacting-consultation to/with superiors, subordinates, colleagues, and other divisions are more valued than ever. Creating a work environment where work can be effectively performed without stress will lead to increased worthwhileness of working and favorable work-life balance. Further, regarding the Company's personnel system, by designing a system to support various life events, such as marriage and childbirth, our efforts are geared toward developing environments where employees, regardless of gender, can continue working for many years to come.

Wakayanagi Tamura Corporation Certified as a "Youth Yell Company"

In August 2016, Wakayanagi Tamura Corporation was certified as a "Youth Yell Company". It is the second company in Miyagi Prefecture and the 69th in Japan to receive such a certification. "Youth Yell Certification" is a system whereby the Minister of Health, Labour and Welfare awards small and medium-sized companies with an excellent employment management status of young people based on the Act on Promotion of Youth Employment.

Aizu Tamura Corporation entered into a cooperation agreement on disaster prevention with Aizu Misato Town

In June 2016, Aizu Tamura Corporation entered into a cooperation agreement on disaster prevention with Aizu Misato Town of Onuma-gun, Fukushima Prefecture. Under this agreement, in the event of a disaster, the company shall offer its facilities to the victims as shelter and its employees shall collaborate in the operation of the shelter. As there were some dangerous situations in the past where the nearby Agagawa River overflowed due to heavy rain, etc., the company, as a regional company, aims to prepare for a possible disaster collaboratively with Aizu Misato Town. In August, a large-scale disaster prevention drill was conducted jointly with the Self-Defense Force, the Fire Station, the Police Station, and the Town Office.

Donation of disaster stockpile

Disaster stockpile food that is stored in each business establishment and approaching the best-before date was donated to the food bank. In August 2016, Typhoon No. 10 caused serious damage in the Tohoku and Hokkaido regions, and potable water and food products were delivered to Iwaizumi Town in Iwate Prefecture, a disaster-stricken area.

Monodukuri School (Manufacturing Class)

Aiming to convey the importance of "monodukuri (manufacturing)" to the next generation who will bear the future, Tamura has been holding the "Monodukuri School" every year since 2008. In FY2015, Tamura Corporation and Aizu Tamura Corporation both sponsored a class where participants were taught how to assemble an AM radio.

Wakayanagi Tamura Corporation ▼

▲ Tamura Corporation

Aizu Tamura Corporation ▶

Participation in Irumagawa River Clean-Up

In March 2017, volunteers from Sayama Office and Tamura Distribution Center Inc. participated in the "Irumagawa River Clean-Up" sponsored by Sayama City. Irumagawa River Clean-Up is a collaborative activity of citizens, administrations, companies, and organizations to remove rubbish from the Irumagawa riverbed.

VOICE Voice of the participant

Core Technology Division
Semiconductor Development Dept.

Haruna Kon

It was my first time to participate in the Clean-Up. I was surprised that so much rubbish was collected in such a short time, including not only empty cans and plastic bottles, which I had expected, but also scrap wood from housing construction, bicycles, and everything else. Next time, I intend to participate in the activity with my children.

Support for sports activities

Through support for sports activities, we are enhancing our social contribution to local communities.

Sponsoring 2017 Nerima Kobushi Half Marathon

Tamura Corporation which is headquartered in Nerima Ward, jointly supported the 2017 Nerima Kobushi Half Marathon. While many volunteer runners from the Company participated in the marathon, a workshop was held in cooperation with the Nature Conservation Society of Japan (NACS-J) again, as was the case last year. Participants enjoyed making castanets, etc. using wood from the Akaya Forest.

Sponsoring Chifure AS Elfen Saitama Football Team

Since 2006, Tamura Corporation has been supporting, as the top partner, the Chifure AS Elfen Saitama women's football team based in Saitama Prefecture, where four of our factories are located. Our support includes, for example, offering the use of the ground of the Sports Center located within Sayama Factory for the team's training and football school.

Environmental Topics in FY2016

Environmental Management

The Tamura Group is doing the best to lessen environmental impact through ongoing improvement activities, thereby fulfilling our social responsibility as well as contributing to the realization of a sustainable society.

Integration of Environmental Management System (EMS)

The Tamura Group established a globally unified environmental management system in 2006 and had integrated 25 sites at 17 companies by FY2016, the intent of which was to improve environmental performance and strengthen environmental governance of the Group as a whole.

Tamura Group Environmental Targets, Performance, and Evaluation

The Tamura Group has taken the initiative in environmental protection by setting three common targets: "increasing the percentage sales of eco-design products," "reducing substances with environmental load," and "reducing power consumption," which are the main measures specified in its environmental policy.

In FY2016, we attained the preset target values for "increasing the percentage sales of eco-design products" and "reducing substances with environmental load". However, we failed to achieve the target value for "reducing power consumption". In this regard, we are determined to further work on our current energy-saving activities and the introduction of energy-saving equipment.

Tamura Group Environmental Policy

Environmental Concept

The Tamura Group promotes the conservation of a biologically diverse global environment and conducts all of its business activities in harmony with the environment. These activities are based on the Group Mission Statement: "The Tamura Group offers an original range of products and services, highly regarded in the global electronics market, to satisfy the evolving needs of customers, employees and shareholders supporting the Group's growth."

Main Measures

The main focus of the Tamura Group's business is the design, development, production and servicing of electronic components, electro-chemical materials, soldering equipment and information equipment. Our environmental management system ensures the efficient use of resources, pollution prevention and compliance with regulations. We are also committed to continuously improving the management system and focus on the following activities for environmental protection:

1. **The supply of eco-friendly products.**
2. **Control and reduction of environmental burden materials.**
3. **Promotion of energy conservation and saving resources.**

FY2016 Targets and Performance of the Tamura Group

	Environmental objectives	Environmental targets for FY2016	Achievements for FY2016	Environmental targets for FY2017
I	Increasing the percentage sales of eco-design products	Percentage sales of Premier eco-design products: 17% (General eco-design products: 53%)	21% (53%)	Percentage sales of Premier eco-design products: 16%
II	Reducing substances with environmental load	Chemical substances designated under the PRTR Law*: 52% reduction in basic unit vs. FY2005	56% reduction	Chemical substances designated under the PRTR Law*: 60% reduction in basic unit vs. FY2005
III	Reducing power consumption (Reducing CO_2 emissions)	Reduction of power consumption: 9% reduction vs. FY2005	8% reduction	Reduction of power consumption: 11% reduction vs. FY2005

*PRTR: Pollutant Release and Transfer Register; a public registry on harmful chemical substance emissions into the environment that may have a potentially serious impact, as well as transfer of waste

Installation of storage battery

Installation of solar power generation facility

Summary of the Tamura Group's Environmental Performance

The Tamura Group has a quantitative grasp of environmental load generated through its business operations and is working to reduce environmental load in various aspects of its business activities through development of premier eco-design products as well as improvements in productivity and distribution efficiency.

Summary of environmental performance in FY2016

INPUT	
Electricity	54,650 MWh
Processed natural gas	60,000 m^3
Gasoline	217 kl
Heavy oil	48 kl
Diesel oil	153 kl
Paper	9.55 million sheets
Water	198,000 m^3
Chemical substances designated under the PRTR Law*	183 t

Business activities

Procurement → Development → Manufacturing → Distribution → Customer

OUTPUT	
CO_2 emissions	35,900 t-CO_2
Wastewater	186,000 m^3
Total waste generated	1,673 t
Recycling volume	994 t
Total disposal volume	242 t

*We manage our factories overseas with the same criteria. This includes the figures for our factories overseas.

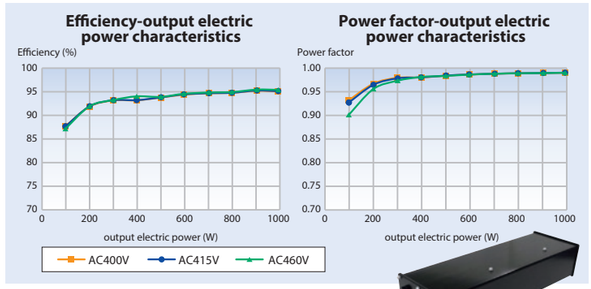
New Premier Eco-design Products

The Tamura Group carries out the product environmental assessment in the development and design phase and while addressing the minimization of environmental impact, we will contribute to the global environment through development and offering of premier eco-design products.

kW-class electric power source with ultra-high efficiency

A number of large-scale sports facilities for football, baseball, etc. are supplied with AC400V power source.

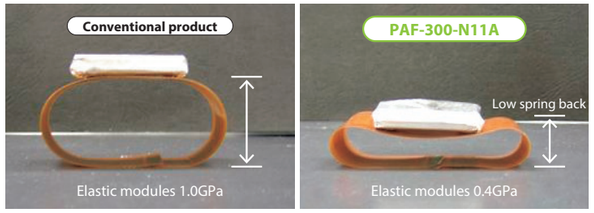
In the conventional method, the voltage of AC400V is lowered to AC200V with a voltage-reduction transformer. However, various disadvantages exist, such as a significant efficiency drop (approx. 90%) due to increased energy loss of the voltage-reduction transformer and heavy weight. This product has realized high efficiency and high power factor over a wide output range by directly controlling the voltage at AC400V without requiring a voltage-reduction transformer.



Low spring back solder resist (PAF-300-N11 series) for FPC

The PAF-300-N11 series of halogen-free solder resists for flexible substrates is available in various colors.

It is halogen-free and characterized by VTM-0 incombustibility. Due to its low-elasticity design, repulsion force is extremely low and the FPC substrate can be easily mounted by bending.

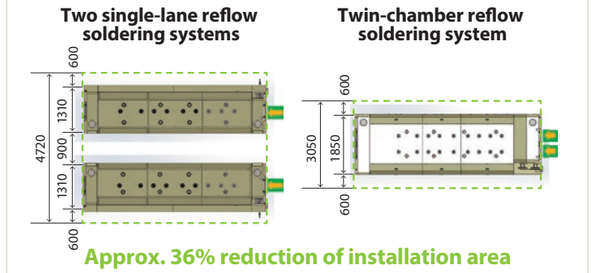


Dual-lane twin-chamber reflow soldering system (TNV33-7010EMT)

The dual-lane twin-chamber reflow soldering system is an epoch-making soldering system in which two reflow soldering systems are combined into one. It has two independently driven conveyors and, as the inside of the chamber is partitioned, two different sets of temperature profiles can be set.

Compared to the case where two single-lane reflow soldering systems are installed, this system realizes 36% space savings and thus can contribute to the construction of your highly efficient production line by being combined with the dual mounter. Further, compared to the two single-lane reflow soldering systems, this system is equipped with an energy saving and heat insulation structure used in the TNV series, thereby realizing approximately 10% power consumption reduction in the stable state and approximately 12% reduction in integral power consumption. Furthermore, because its structure minimizes flux clogging even in mass production, maintenance performance is improved.

More than 50 units have already been delivered to customers and these have been highly evaluated by their users.



UN GLOBAL COMPACT

COMMUNICATION ON PROGRESS

This is our **Communication on Progress** in implementing the principles of the **United Nations Global Compact** and supporting broader UN goals.

We welcome feedback on its contents.

Tamura's mascot "Quenu"

TAMURA CORPORATION

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