

# Fujitsu Components Group Environmental Report FY2017

The Fujitsu Components Group recognizes environmental management as one of the most important roles, and contributes to build a sustainable society and global environmental protection by striving to reduce adverse environmental impacts generated by products or services offered throughout the business activities.

## 1. Greeting

The Fujitsu Components Group has been conducting environment load reducing activities stand by the principle that keep the best corporate activities while improving our coexistence with the environment since 1998 with Fujitsu Group companies.

As an environmental trend, the Paris Agreement was adopted at the Conference of Parties (COP21) as a new international framework for greenhouse gas reduction in the post-2020 period, and it took effect in November 2016. Global momentum for the environment is rising. Under the circumstances, Fujitsu Components Group is also taking various measures to play a role in environmental approaches.

Proactive development of Green Products is one of the major activities. It reduces our own environmental load in design/manufacturing stages. In parallel, this activity leads to environment consciousness of customers' products. It is not only reduction of environmental load from design/manufacturing stages but also helps implementation of eco-friendly products at our customers.

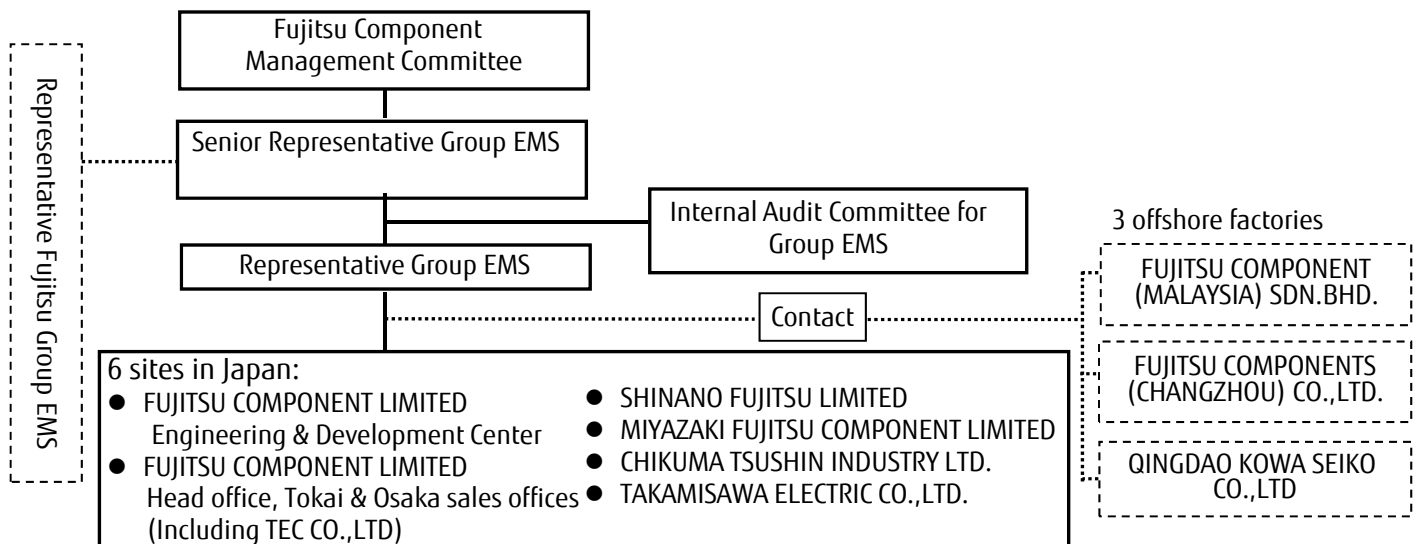
In the meantime, we have been positively developing Human Interface Technologies, which connects people and things.

Fujitsu Components Group strive for the realization of the human and environmental friendly society through our products.



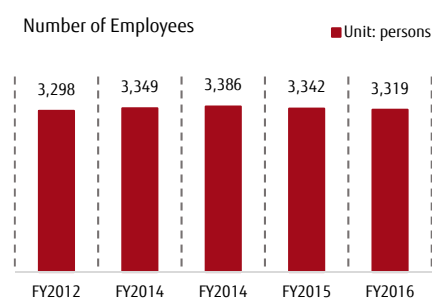
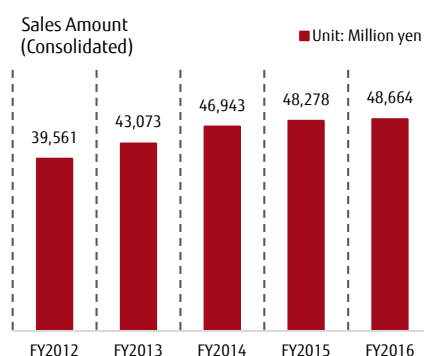
Hiroaki Kondo  
President and  
Representative Director

## 2. Organization for Environmental Activities



### 3. Group Profile

Head Office address	FUJITSU COMPONENT LIMITED Shinagawa Seaside Park Tower, 12-4, Higashi-shinagawa 4-chome, Shinagawa-ku, Tokyo 140-0002, Japan
President	Hiroaki Kondo
Founded	September 17, 2001
Main Business	Manufacturing and sales of switching devices (relays connectors, high voltage DC distribution devices, active optical cables) and human interface devices (touch panels, thermal printers, wireless modules, KVM switches)
Capital	6,764 million yen (As of March 31, 2017)
Sales	48,664 million yen (consolidated FY2017)
Financial Year End	March 31
Employees	3,319 (consolidated as of March 31, 2017)
Equity Market	Second Section of the Tokyo Stock Exchange, code 6719
Group Composition	The Group is composed of total 15 companies; 6 Japanese companies including 1 sales company, and 9 overseas companies including 6 sales companies



### 4. Environmental Policy, Environmental Protection Program

#### ■ Fujitsu Components Group Environmental Policy

##### Philosophy

The FUJITSU COMPONENTS Group, member of the FUJITSU Group, recognizes the value and importance of protecting the global environment as one of the most important issues. Our environmental philosophy is:

“We shall keep the best corporate activities while improving our coexistence with the environment.”

As an enterprise that develops, designs, manufactures and sells electrical components, we promote environmental management to realize low carbon and affluent society in accordance with ISO14001.

##### Action Plans

- We continuously improve our environmental management system and promote the prevention of environmental pollution by affirming environmental aspects being led from our activities, products and services.
- We proactively offer products that contribute to both environmental and economical goals.
- We comply with various environmental laws which govern our activities, products and services and also other requirements we have agreed.
- We continue to ban of hazardous substances in our products as specified by Fujitsu Components Group. We do not use or include any hazardous substances in our products, nor do we discharge any hazardous substances into the environment.
- We will strive to improve the environment through sustainable materials use(\*1), climate control and biodiversity conservation activities etc. with every employee working as a responsible cooperate citizen and diffuse such activities to the society.

\*1: We proactively pursue environmental conscious design, reduction of waste and recycling to prolong the life of exhaustible materials.

##### Accentuation Items

We promote the following as the most important aspects of our environmental management policy in regards to our activities, products, and services:

1. Development and provision of eco-friendly products
2. Co-operation with society and contribution to social activities as a good corporate citizens
3. Reduction of greenhouse gas (GHG) emission
4. Improvement of energy efficiency
5. Promotion for reducing of CO<sub>2</sub> emission in partner companies
6. Control on waste emission

##### Supplements

1. This policy is documented and made public to our employees, our group members and other parties concerned
2. The Environmental Control Division is responsible for the policies mentioned above.

April 12, 2017 Fujitsu Components Group Environmental

## 5. The 7th Stage Group Environmental Protection Program (FY2016 to FY2018)

The 7th Stage of the Fujitsu Components Group Environmental Protection Program has been established. Detailed action plans up to FY2018 have been provided and actual activities are on their way.

Item	The 7th Stage Group Environmental Protection Program Goals	FY2016		FY2017
		Targets	Results	Targets
Social contribution activities	<b>Improvement of environmental value throughout product lifecycle</b> At least 15 new eco-friendly products <sup>(*)1</sup> have to be developed by FY2018. i. Product having a leading energy-efficiency <sup>(*)2</sup> ii. Product's resource efficiency is increased by 5% or more compared to those of FY2014 <sup>(*)3</sup>	Develop min. 2 new eco-friendly products	Developed 8 new products	Develop 5 new products (Accumulation: 13)
	<b>Promotion of social contribution activities</b> Each employee shall contribute to the society to affluent and sustainable society. i. Continuous cooperation with society. ii. Material support and other activities to resolve social/environmental issues such as biodiversity observation.	Implement min. 33 activities	Implemented 34 activities	Implement 34 activities
Own business activities	<b>Reduction of greenhouse gas (GHG) emissions</b> We will control total emission amount of energy origin CO <sub>2</sub> less than 116% (22,497t-CO <sub>2</sub> ) <sup>(*)4</sup> compared to that of FY2013 (19,360t-CO <sub>2</sub> ). (Purchased electricity CO <sub>2</sub> conversion efficiency : 0.570t-CO <sub>2</sub> /MWh)	Hold it down to below 22,101t-CO <sub>2</sub> , 11% reduction against 24,168t-CO <sub>2</sub> (125% of FY2013)	21,231t-CO <sub>2</sub>	Below 22,343t-CO <sub>2</sub> (1.7% reduction against 22,750t-CO <sub>2</sub> (117.5% of FY2013))
	<b>Improvement of energy efficiency</b> We will improve specific energy consumption unit <sup>(*)5</sup> in facilities by an average of 1% per year.	Min. 8.7% improvement among 3 objective business sites	See table-1	1.0% improvement
	<b>Promotion for reducing CO<sub>2</sub> emission among supply chain</b> First-tier suppliers investigate all their second-tier suppliers by FY2018.	Extend it to 80% of suppliers	90%	95%
	<b>Control on waste emission</b> We will reduce waste amount to less than 687t <sup>(*)5</sup> (111% of 626t, average of FY2012 to FY2014) by FY2018.	Reduce it to less than 658t, 9% reduction against 714t (114% of FY2012 to FY2014 average.)	636t	Below 674t (3.7% reduction against 700t (112% of FY2012-2014 average))

\*1: Program goal of new products was revised from 5 to 15 since previous goal was accomplished in FY2016.

\*2 :The products meet the criteria which is ranked in the top 25% in the market including leading products (world-first, industry-first, world-best, industry - best) in energy efficiency.

\*3: Improvement of product's resources (smaller, lighter, thinner, reducing number of parts) or resource circulation (reducing waste amount, recycle capability).

\*4: Target amount of greenhouse gas emission and waste emission were amended due to estimated production rise.

\*5: Specific energy consumption unit means energy consumption amount per unit such as per sales amount, per production quantity, etc.

Table-1 Energy consumption per unit FY2016 results and FY2017 target

Site name	Calculation formula	Base figure (Base FY)	FY2016 results (Improved ratio against Base FY)	FY2017 target
FUJITSU COMPONENT Engineering & Development Center	$\frac{\text{Energy consumption (kl)}}{\text{sales amount (Million Yen)}}$	0.771 (FY2012)	0.5164 (33%)	Less than 0.5112
SHINANO FUJITSU	$\frac{\text{Energy consumption (kl)}}{\text{sales amount (10 Million Yen)}}$	1.633 (FY2012)	1.339 (18%)	Les than 1.325
MIYAZAKI FUJITSU COMPONENTS	$\frac{\text{Energy consumption (kl)}}{\text{production quantity (Kpcs)}}$	0.0158(FY2012)	0.01361 (13.9%)	Less than 0.01347

## 6. Environmental Activities

### ■ Development of Eco-friendly Products

We strive to develop and offer eco-friendly products which improve the environment and commercial aspects.

#### ■ Highlight of New Developments

*Bluetooth®* V4.2 (low energy) modules (FWM8BLZ02)



Low power consumption LSI and optimized energy management function reduced power consumption to a half and extended communication distance to double compared with our conventional modules(\*). Also 18% weight reduction was achieved by review of internal construction. (\* Bluetooth V.4.1 modules)

50% reduction in power consumption

18% reduction in weight

Power relay FTR-K1-HC series



20A-250VAC rating power relay, optimized internal construction and employment of higher conductivity spring materials achieved the reduction of 45% in weight and 49% in volume compared with our equivalent relays(\*). (\* FTR-K3 series)

45% reduction in weight

49% reduction in volume

Improvements	Products	Products developed
Energy efficiency	KVM	<2U2 layer drawer> 8% reduction in weight (compared with our conventional product)
	Thermal printer	<6/8-inch printer control board (FTP-62EDSL)> 29% reduction in board area (compared with our conventional product)
	Connector	<Floating connector> 7% reduction in volume (compare with other companies' equivalent products)
	Keyboard	<NC05007-Bxxx> 18% reduction in weight (compared with our conventional product)
Resource efficiency	KVM	<Console drawer with LCD> 13% reduction on power consumption (compared with our conventional product)

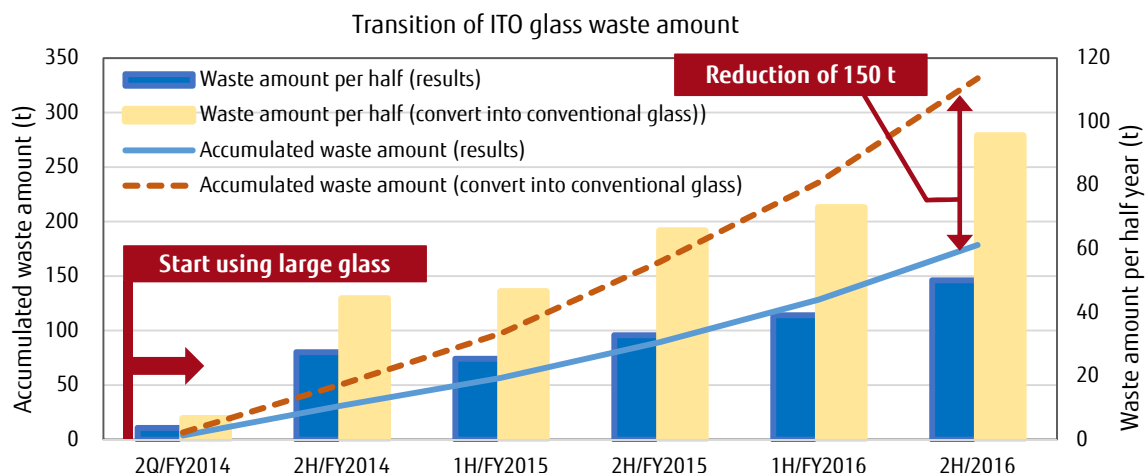
### Topics

#### Reduction of waste glass by adoption of large glass for touch panel production

Using a large mother glass is effective to reduce waste glass as it gives us more choices of cut size to minimize the waste. However, there need some breakthroughs because of difference of linear coefficient between glasses and films. We organized new working groups to find the solutions for those difficulties.

1. Construction of a production line and establishment of production method which minimize the warpage of a large glass and distortion on films.
2. Establishment of precise film pasting and printing method for the glass.
3. Production of new jigs for large glass and its implementation.

After solving above issues, the large glasses have been introduced in line since second half of FY2014 and total 150t of glass waste have been saved over the past 3 years.



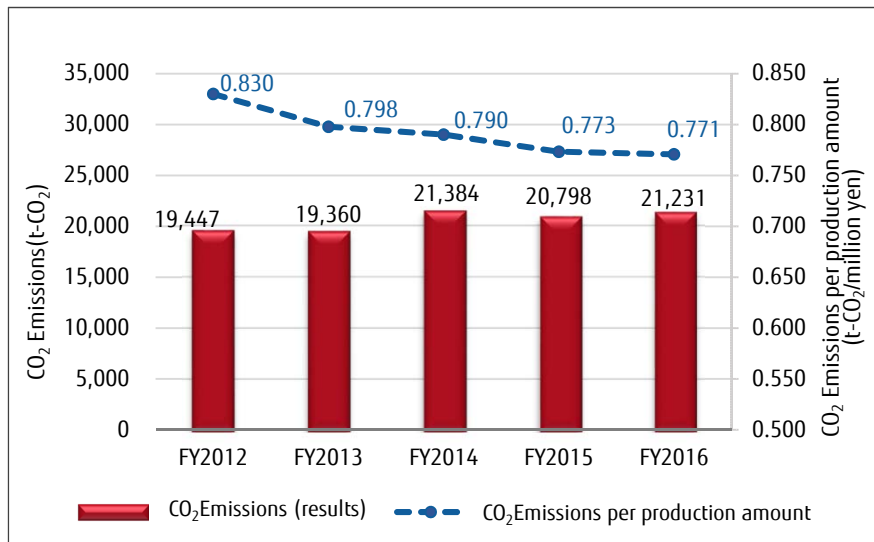
■ **Global Warming Prevention Activities (Reduction of Energy Origin CO<sub>2</sub>, Improvement of Energy Efficiency)**

We continuously been engaged in reducing CO<sub>2</sub> by improving energy efficiency of electric power, A heavy oil and LPG etc.

■ **Major Activities**

Activities proceeded	Results
Reduction on inflow of newly produced clean air into clean room by effective control of differential damper	51t-CO <sub>2</sub>
10% improve on working efficiency by Increase of the number of parts in barrel plating	50t-CO <sub>2</sub>
De-energization of exhaust fans and other equipment in factory at night and holidays	47t-CO <sub>2</sub>
Application of anti-heat paint on roof	3t-CO <sub>2</sub>

■ **Transition of CO<sub>2</sub> Generation**



Energy saving by effective control of differential damper (Engineering & development center)



Energy saving by application of water-proof anti-heat paint on roof (Engineering & development center)

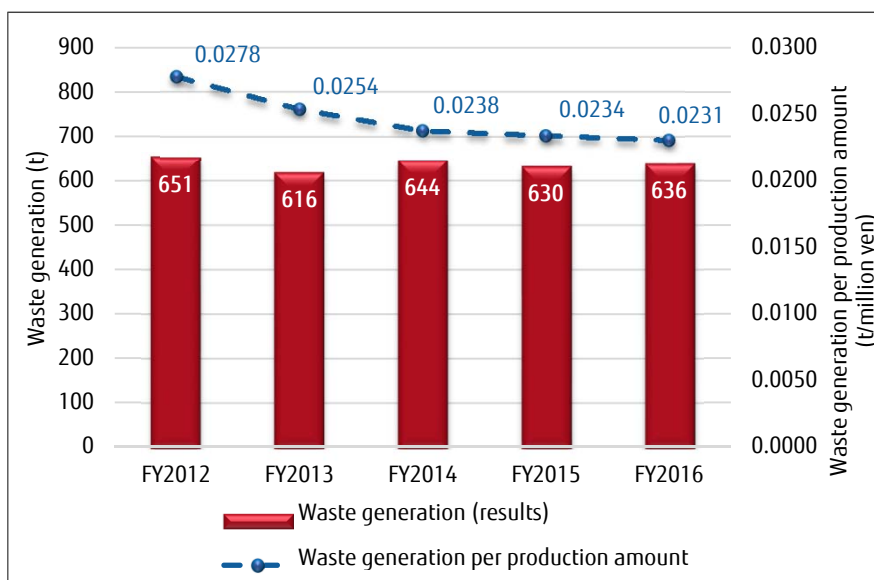
■ **Industrial Waste Reduction Management**

Every worker in group recognizes the importance of 3R(Reuse, Reduce and Recycle) and segregate the waste. We have been working to reduce waste and convert waste into valuable resources.

■ **Major Activities**

Measures	Results
Recycling of cleaning solution used for press materials	200L
Recycling of wrapping plastics	120kg
Reduction of waste glass by adoption of large glass on touch panel production	80t

■ **Transition of CO<sub>2</sub> Generation**



## 7. Activities to Prevent Environmental Pollution

### ■ Status of Environmental Laws Compliance

We have complied with all environmental laws or regulations in FY2016.

#### Status of ground water contamination

As to the contamination of ground water in which chlorinated organic solvent having been found in Takamisawa in 1998, we have been continuously performing cleanup by pumping aeration treatment and vacuum suction devices. We confirmed that there was no out flow of contaminated water to outside of facilities and no complaints from neighborhood or the competent administrative in FY2016.

FY2015 Measuring data						
TAKAMISAWA Shinshu plant	Laws	Items	Unit	Legal threshold (Ground water)	*Max. value at site	Max. value at observation well (located downstream of ground water)
	Measurement based on Soil Contamination Countermeasures Act	Tetrachloroethylene	mg/l	0.01	1.5	less than 0.005
		Trichloroethylene	mg/l	0.01	0.66	less than 0.005
		Cis-1,2- dichloroethylene	mg/l	0.04	1.2	less than 0.005

## 8. Chemical Substances Contained in Products

### ■ Management of Chemical Substances Contained in Products

As to additional regulation set on 4 phthalic esters and expiration of exemptions of European RoHS directives, we are studying the substitute materials by considering customer requests and validity of regulations.

The counter measures for those new regulations will be provided by March 2018 in line with Fujitsu Group policy.

Communication schema for SVHC candidate substances etc. in REACH restrictions was shifted from AIS<sup>(\*1)</sup> to chemSHERPA<sup>(\*2)</sup>.

### ■ Green Procurement

All raw and auxiliary materials are procured in line with *Green procurement agreement* and *Environmental common procurement specification*, confirmed with certificates of non-use of restricted materials specified by Fujitsu Limited and Fujitsu Components group and AIS data.

We also ask all supply partners to build an environmental management system as well as prevention of global warming and biodiversity program to further reduction of the environmental impact throughout supply chain.

#### <Actions to conflict minerals>

*Fujitsu Group procurement policy*<sup>(\*3)</sup> applies for treatments of conflict materials. In order to supply reliable information to the customers, the usage of conflict minerals under DRC conflict materials<sup>(\*4)</sup> in our products are investigated in line with OECD Due Diligence Guidance and Conflict-free Sourcing Initiative (CFSI).

\*1 : AIS stands for Article Information Sheet, a standard format recommended by Joint Article Management Promotion-consortium(JAMP) to disclose/transmit information of chemical substances contained in a product.

\*2: A scheme that facilitates sharing information on chemical substances in products conducted by Ministry of Economy, Trade and Industry. (Abbreviation of Chemical information Sharing and Exchange under Reporting Partnership in supply chain)

\*3: Refer to : <http://www.fujitsu.com/global/about/procurement/policy/>

\*4: 4 minerals (tin, tantalum, tungsten and gold) mined in Democratic Republic of Congo and neighboring countries.

## 9. Status of Social Contribution Activities

Each site engages in social contributions, in which not only our employees but also their family members join, for biodiversity conservation and harmonizing with local community. Those activities are expanding year by year and thoroughly penetrate in to the society.

- Social contribution activities : Local area cleaning up , nature protection
- Biodiversity conservation or activities solving/assisting environmental issues: Extermination of invasive alien plants, donation through collection of bottle caps/used stamps, and purchasing of commodities with donation for environmental activities.



Head office (Shinagawa, Tokyo)  
Cleaning up Shinagawa station area by Fujitsu group companies



Engineering & Development Center (Suzaka, Nagano)  
Joined in Shuzaka-city town cleaning up activities



Shinano Fujitsu (Iiyama, Nagano)  
Extermination activities for alien plants



Chikuma Tsushin, Takamisawa (Saku, Nagano)  
Cleaning up around factory



Miyazaki Fujitsu Component (Nichinan, Miyazaki)  
Cleaning up Aburatsu area



### ■ Contact

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