Environmental Report

2018

CREATIVE CONNECTIVITY

Top Message

Breaking out of our shell to take on new challenges!

The declaration of withdrawal by the United States from the Paris Agreement had a great impact on the world. However, many other treaty-signing countries are making full-scale negotiations on the creation of rules for operation without losing sight of the importance of countermeasures against climate change. This year (2018) is the negotiation deadline, the milestone year for the implementation of the Paris Agreement. In Japan, the proposal of the long-term energy strategy for 2050 was summarized. Renewable energy as a main power source, strengthening of efforts aimed at realizing a “hydrogen society,” etc. were included as strategies in the New Basic Energy plan decided by the Cabinet at the beginning of this month. However, from the current situation in which more than 80% of Japan’s energy comes from thermal power generation, the path to achieve the energy mix target value of 2030 has not yet been seen. I believe that our technology development has the potential to create great business opportunities in this field.

Innovative technologies such as IoT and AI (Artificial Intelligence) have brought about major changes in society and the economy. This trend will accelerate further. In addition, the share economy promotes effective utilization of resources, so it is a favorable move in terms of the environment. These have a lot of possibilities to lead to problem solving for global problems such as global warming and resource depletion.

In order to realize sustainable growth, we must change ourselves amid this intense change of our business environment. Today's common sense is based on past experience. There is no guarantee for the future. We must improve the power of our imagination to create common sense for the new era.

Each company has its own vision and has various problems amid this social change. New demand can be found in the solutions to those problems. And I believe that many innovations ahead will newly contribute to environmental conservation.

The SMK Group holds up the banner of "Challenge Creativity Solutions" as a vision for our Mid-term Business Strategy. We aim to become a solution company that challenges to change.

Mankind has experienced several industrial revolutions and has sacrificed abundant nature while gaining a rich life. The modern age is said to be the fourth industrial revolution. This revolution, which the world greeted with coordinating vectors and facing global environmental problems, is beneficial for people who live on this planet as well as for people living in the future. Thinking it through, I believe that SMK’s challenge is to, with absolutely certainty, pass on this beautiful planet to the next generation.

July, 2018

President, Chief Executive Officer
and Chief Operating Officer

Yasumitsu Ikeda

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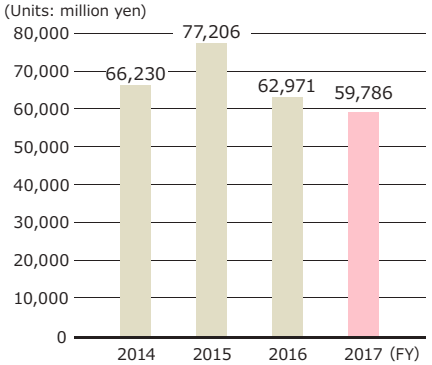
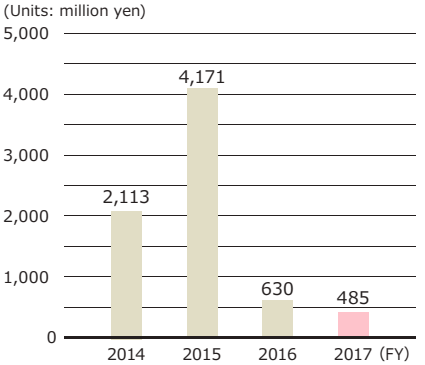
Corporate Profile (as of March 31, 2018)

Name SMK Corporation
Established April 3, 1925
Primary Businesses Manufacturing and sales of electronic components for use in electrical equipment, communications equipment, electronic equipment, industrial machinery, IT equipment and other applications.
Capital 7,996 million yen
Number of Employees 5,926 (in the Group)
Head office 5-5, Togoshi 6-chome, Shinagawa-ku, Tokyo 142-8511, Japan
TEL: +81-3-3785-1111 FAX: +81-3-3785-1878 URL: https://www.smk.co.jp/
Major Products High-frequency coaxial connectors / FPC-to-board connectors / Board-to-board connectors / Jacks / Remote controls / Switches / Wireless modules / Camera modules / Resistive touch panels / Capacitive touch panels / Optical touch panels

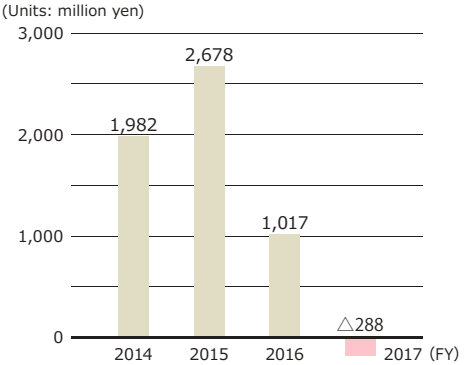
Consolidated Net Sales



Consolidated Operating Income



Consolidated Net Income



About this Report

Reporting period FY2017 (April 1, 2017 – March 31, 2018)

Scope of calculations SMK Corporation (nine sites in Japan) and consolidated subsidiaries (three in Japan and 19 overseas)

CO_2 emissions Electric CO_2 emission factor for domestic sites: The Electric Power Council for a Low Carbon Society. Electric CO_2 emission factor for overseas sites: 2005 – 2011: Subject to the standards of the IEA (International Energy Agency), from 2012: Subject to the standards of the DEFRA (Department for Environment Food & Rural Affairs). CO_2 emissions for fuels are subject to the standards found in official announcements by the Ministry of the Environment. In addition, data for past fiscal years was corrected by updating CO_2 emission factor.

Access to corporate information Our website discloses data profiling our company, IR information, product descriptions, and past environmental reports.
https://www.smk.co.jp/

Environmental Management

SMK Environmental Charter

1. Basic Philosophy

The SMK Group pursues environmental preservation as well as economic development by integrating its current technological strengths and creating advanced technology. As a good corporate citizen, every one of us will contribute to the promotion of sustainable global development.

2. Action Guidelines

(1) Develop environmentally friendly products
(2) Reduce waste by using everything to its fullest extent
(3) Preserve natural resources and saving of energy
(4) Encourage 3R (reduce, reuse, and recycle)
(5) Realize waste-free procurement and manufacturing

Organization to Promote Environmental Preservation

In SMK, the Group policies, targets, and initiatives related to environmental preservation are deliberated upon and determined by the Environmental Preservation Committee, which is chaired by the Vice President of the Environment Division. Major items are subject to deliberation and determination at the Executive Officer's Meetning. Upon determination, they are deployed at all Japan and overseas works. At each business site, the Local Environmental Preservation Committee decides local policies, targets, and initiatives in accordance with the Group policies, targets, and initiatives taking locally specific issues into consideration and puts them into practice.

Environmental Management Systems

SMK's environmental management systems are in accordance with ISO 14001, the international standard for EMS. We have obtained ISO 14001 certification for all of our Japan sites and overseas works. Since fiscal 2007, in addition to individual activities at each site, we have been setting targets and themes to be shared by all members of the SMK Group, reinforcing linkage among our sites, and working to strengthen group-wide systemic arrangements.

SMK's environmental preservation activities are not limited to our Group. The Green Procurement Guidelines that we published in 2004 also make demands on our business partners. Specifically, we request our business partners to pledge not to use any environmentall hazardous substances prohibited by SMK, and to put in place ISO 14001-based systems. We visit business partners who have not obtained ISO 14001 certification to check on the status of their environmental preservation activities, and to suggest any necessary improvements.

Environmental hazardous substances auditor training (SMK Dongguan- China-)

Organizational Structure for Environmental Preservation

Environment internal auditor brush-up training for (Toyama Works, Japan)

Inspection of PCB waste disposal site (Head Office)

FY2017 Environmental Preservation Activities

Preventing Global Warming

CO_2 emissions per unit of production increased due to an increase electricity usage in line with the promotion of in-house production at some overseas factories. The total CO_2 emission was reduced but the planned reduction target was not achieved.

Preserving Biodiversity

SMK held environmental learning courses at both domestic and overseas to learn about the effects of changes in the global environment on living things focusing on children from local communities.

Effective Use of Resources

Although SMK promoted activities aimed at eliminating MUDA (wasteful and/or inefficient areas, actions, materials, etc.) in manufacturing, both our industrial waste discharge per unit of production and total waste discharge increased due to an increase in waste discharge stemming from the relocation of some overseas factories.

Landfill waste targets were achieved.

Effective Responses for the Management of Environment-related Substances

In FY2017, SMG established a working group to promote in-house development of its bill of material (BOM) information system.

In addition, explanations about the system were provided at some overseas factories. SMK plans to continue developing and further establishing the system domestically and overseas.

Strengthening Eco-friendly Design Approach

In FY2017, SMK created integration evaluation standards for product assessment and eco-products.

During the current fiscal year, SMK will change its management system aimed at actual integration.

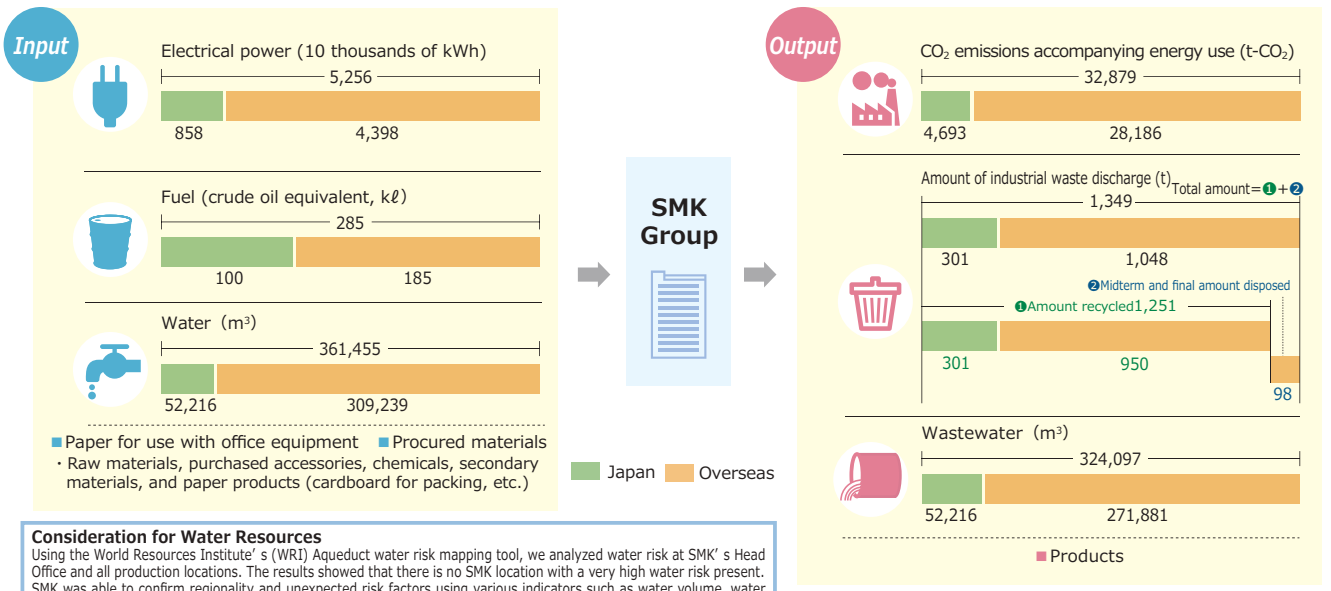
Nature of initiative	FY2017 Target	FY2017 Actual result	Self-assessment
Preventing global warming	CO_2 emissions per unit of production value*1: Decrease of 7% relative to FY2016. Target: 0.56t-CO_2/million yen	2% increase (0.61t-CO_2/million yen)	C
	Total CO_2 emissions: 7% reduction relative to FY2016. Target: 31,115t-CO_2	2% decrease (32,879t-CO_2)	B
	Review of SMK standards for LCA (including carbon fingerprint)	Additional review of Scope 3 trial and examination of officially announced companies' status and examination of officially announced business conditions.	C
Preserving biodiversity	Creating awareness regarding preservation of biodiversity	Held environmental learning courses at domestic and overseas sites	A
Effective use of resources	Industrial waste discharge per unit of production value*2: 9% reduction relative to FY2016. Target: 0.02t/million yen	9% increase (0.025t-CO_2/million yen)	C
	Total industrial waste discharge amount: Decrease of 10% relative to FY2016. Target: 1,160t	4% increase (1,349t)	C
	Landfill waste amount: Decrease of 17% relative to FY2016. Target: 98t	17% decrease (98t)	A
Effective responses for the management of environment-related substances	Register BOM information and efficient administration of the system to support EU-REACH directives	Establishment of cross-departmental working group to promote increased efficiency	B
Strengthening eco-friendly design	Enhancement of product assessments	Establishment of integration evaluation standards for product assessment and eco-products	A

*1: CO_2 emissions per unit of production value = CO_2 emissions divided by production
*2: Industrial waste discharge per unit of production value = industrial waste discharge divided by production value

Self-assessment : A : attained B : insufficiently attained C : not attained

Material Balance

At SMK, we work to track, analyze, and reduce the material balance (environment footprint) of each process throughout the Group, from product design and development to manufacturing and sales.



Consideration for Water Resources

Using the World Resources Institute' s (WRI) Aqueduct water risk mapping tool, we analyzed water risk at SMK' s Head Office and all production locations. The results showed that there is no SMK location with a very high water risk present. SMK was able to confirm regionality and unexpected risk factors using various indicators such as water volume, water quality, water usage regulations, etc.

We will continue with water conservation efforts by examining beneficial measures for water conservation after understanding the water risk for the region of each site.

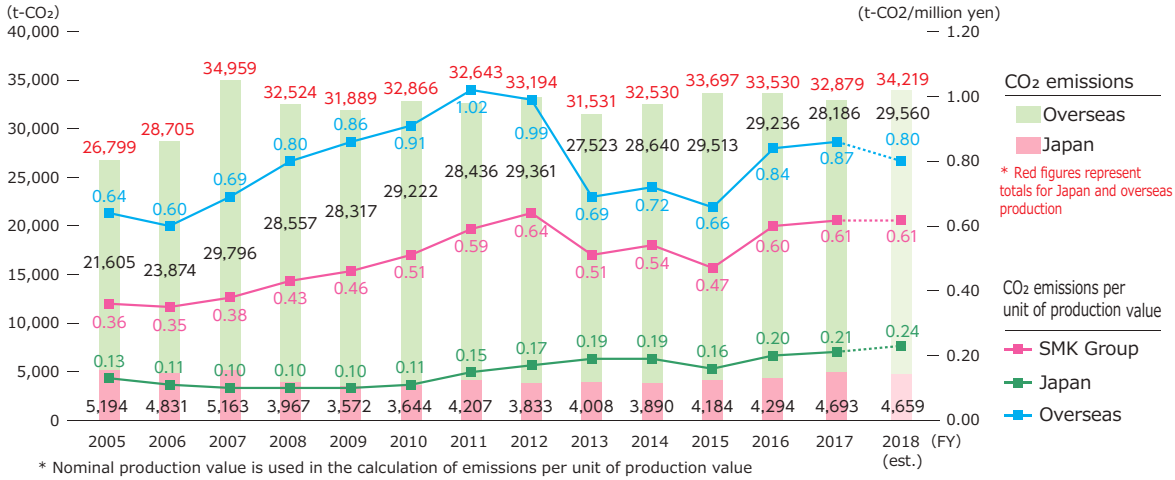
Energy and Resource Saving Results

SMK aims to improve efficiency of its energy usage as an important management policy to help prevent global warming. We are also working to reduce the discharge of industrial waste and achieve zero emissions (i.e. zero landfill waste) by using out resources more effectively.

Energy-Saving Results

	Year on Year		
	Japan	Overseas	Overall SMK Group
CO_2 emissions per unit of production value (nominal production value)	105%	104%	102%
CO_2 emissions	109%	96%	98%

CO_2 emissions

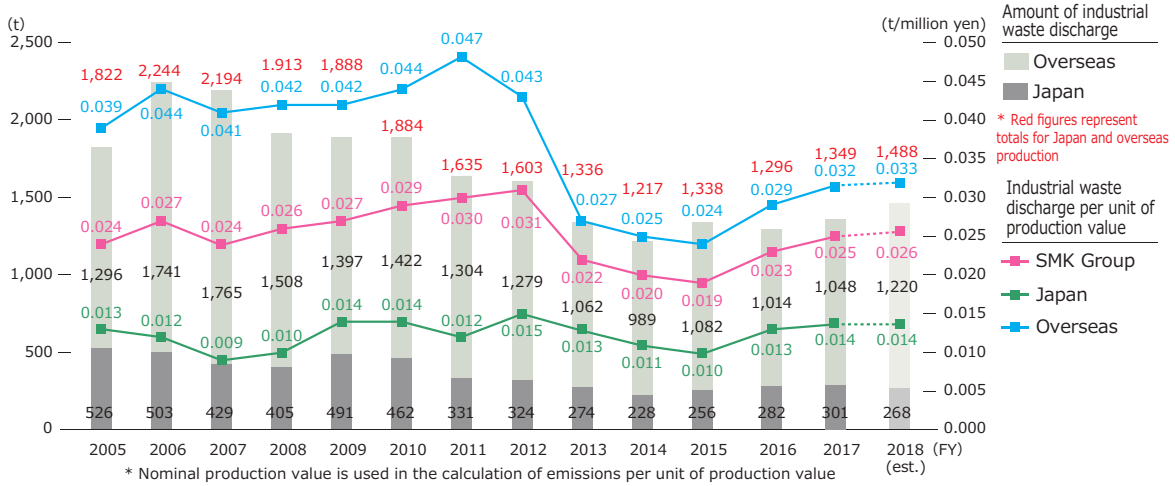


* Nominal production value is used in the calculation of emissions per unit of production value

Resource-saving Results

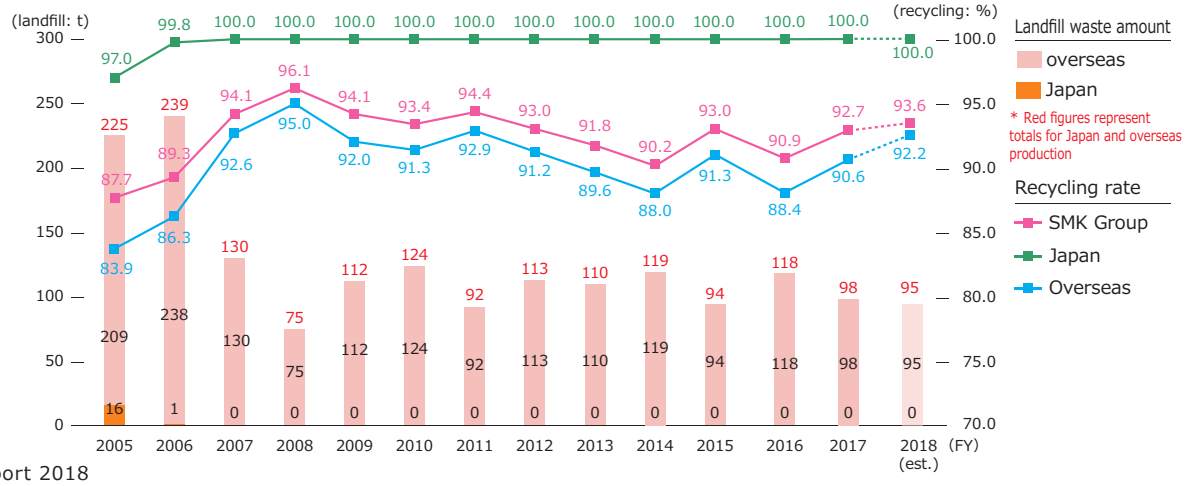
	Year on Year		
	Japan	Overseas	Overall SMK Group
Industrial waste discharge per unit of production value (nominal production value)	108%	110%	109%
Overall industrial waste discharge amount	107%	103%	104%
Landfill waste amount	—	83%	83%

Amount of industrial waste discharge



* Nominal production value is used in the calculation of emissions per unit of production value

Amount of landfill waste and recycling rate



Environmental Accounting

Environmental Preservation Costs and Benefits

(Units: million yen)

Category		Major Activities	Environmental Preservation Costs				Economic Benefits		Environmental Preservation Benefits (Quantity)	
			Investments		Expenses					
			Amount	YoY	Amount	YoY	Amount	YoY	Consumption/Output Savings	YoY
Business area costs	Pollution Prevention	Operation and maintenance, etc. of facilities used to prevent pollution	3.9	560%	28.2	97%	0	—	Use of Environmentally Hazardous Substances: -5.0 t	13%
	Global environmental preservation	Adoption of energy-saving equipment, efficient operation of air conditioning and other such equipment as well as related maintenance, inspection, etc.	18.7	82%	47.4	87%	21.8	130%	CO_2 emissions per unit of production value: -0.006 t-CO2/million yen	5%
	Resource circulation	Appropriate processing and recycling promotion, etc. of industrial waste discharge	0	—	43.2	157%	147.9	138%	Landfill waste amount: 20.1t Industrial waste discharge per unit of production value: -0.0017 t/million yen	38%
	Sub-total	—	22.5	96%	118.8	107%	169.7	137%	—	—
Upstream/ Downstream		Green procurement, etc.	0	—	0.7	195%	0	—	—	—
Administration		X-ray fluorescence spectrometer replacement, activities which aim to guarantee eliminating the use of environmentally hazardous substances in products, environmental management promotion, etc.	30.2	122%	196.5	102%	0	—	—	—
R&D		Development of environmentally friendly products, etc	0	—	16.0	91%	0	—	—	—
Social activities		Initiatives to expand green areas in local communities and at works, etc.	0	—	7.9	39%	0	—	—	—
Environmental damage		—	0	—	0	—	0	—	—	—
Total		—	52.8	109%	339.8	99%	169.7	137%	—	—

Environmental preservation costs: In regard to environmental preservation costs during FY2017, investments increased from the previous fiscal year while expenses remained at the same level.
Major investments were from the adoption of energy-saving equipment (including photovoltaic power generation facilities, LED lighting, and upgraded air conditioning equipment) and for upgrading X-ray fluorescence spectrometers used to inspect for environmental hazardous substances.

Economic Benefits: Economic benefits for FY2017 increased from the previous fiscal year. This was the result of an increase in sales revenue of waste with value at overseas offices, energy savings from new energy saving equipment, and continued profits on energy from a photovoltaic power generation system.

Environmental Preservation Benefits (Reduction of waste): As for environmental preservation benefits, although landfill waste amount decreased as a result of its environmental improvement activities, SMK's CO_2 emission per unit of production, industrial waste per unit of production, and environmental hazardous material values worsened.

Actual results of Power Generation at photovoltaic power plant

1,320,000 kWh of electricity was produced by photovoltaic power plant owned by SMK and its subsidiaries in fiscal 2017. This reduced CO_2 emissions by 416 tons.
* CO_2 emission factor used in accordance with Industry Independent Rules of the Japan Photovoltaic Energy Association.

SMK Electronics (Phils.) Corporation Installation of Photovoltaic Power Generation Facilities

The adoption of small-sized photovoltaic power generation facilities in November 2017 contributes to a decrease in power usage for lighting at SMK Electronics (Phils.) Corporation.
Until May 2018, the power generated by the new facilities was 12,000 kWh (CO_2 reduction amount of 6t-CO_2).

Environmental Preservation Activity Reports

Effective Utilization of Resources

SMK Electronics (Phils.) Corporation

SMK continues to donate school chairs and drawing books produced in-house from wooden boxes used for packaging and protective paper for glass to suburban elementary schools in the region.

Until now, SMK has been able to provide children with 635 school chairs as well as 635 drawing books.

SMK has also started activities in which rubbish bins and dustpans are manufactured out of empty cans and then donated.

SMK will continue activities from which children can learn the importance of environmental preservation.

Donation of Waste Material

SMK Electronica S.A. de C.V. (Mexico)

SMK donated unneeded sheets to facilities in the local community.

The materials were reused for pinatas (containers and figures filled with candy) which are used during children' s festivals in Mexico.

In addition, SMK donated compressed wood to organizations that run workshops. The material has been reborn as a fine artwork by children.

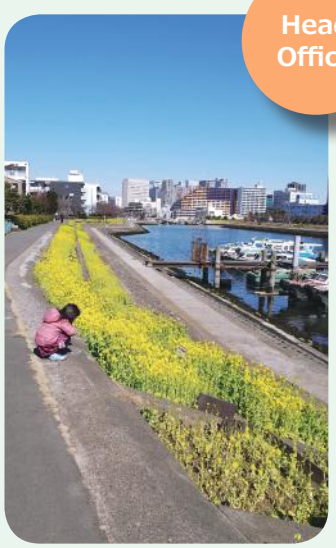
Environmental Communication

Head Office

Continuing from last year, SMK held the Introduction of Environmental Preservation Activities and Hands-on Manufacturing Experience, which was co-sponsored by the Shinagawa Ward Environmental Information Activities Center. 18 elementary school students from the region as well as their family members participated in the program which taught the children about the importance of environmental preservation as well as the joy of manufacturing.

The introduction of environmental preservation activities portion of the program provided explanation about global warming prevention through reduction of CO_2 emissions, the importance of resources through the concept of 3R (reduce, reuse, and recycle), and manufacturing of products without using hazardous substances. After the explanations, information was presented about the various environmental preservations activities which SMK carries out globally.

The hands-on manufacturing experience portion of the program allowed participants to create electronic handicrafts using eco-friendly and recycled materials. SMK will continue this effort in the future in order to heighten children' s interest in enjoyable environmental preservation activities.



Head Office

Flower Planting Activity
(Shinagawa Ward, Tokyo, Japan)

As a member of the Shinagawa CSR Promotion Association, SMK participated in the Shinagawa Hanakaido flower planting project.

A project managed by an NPO, Shinagawa Hanakaido nurtures rape blossoms and Mexican asters which grow along a 2 kilometer stretch of the Katsushima Canal dyke, which makes the area rich in nature and contributes to the creation of a society which is in harmony with nature.

Many local residents, schools, and businesses participated in the flower planting activity.

Environmental Preservation Activity Reports

Community Clean-up

SMK actively holds local community based volunteer clean-up activities at all of its locations.

SMK America Group

Toyama Works (Japan)

SMK Electronics (Dongguan) Co., Ltd. (China)

SMK Electronics (Phils.) Corporation

Hitachi Works (Japan)

Conservation of our nature

SMK Electronics (Phils.) Corporation

Tree Planting

Thirty SMK Philippines employees participated in a tree planting activity led by a local city administration.

SMK Electronics (Phils.) Corporation donated 100 mango and other seedlings for the event.

Creation of Environmentally Friendly Products

Micro USB Connectors (Spring Terminal)

New micro USB connectors for use in smart phones, mobile telephones, and similar products.
The spring terminals allow the connectors to be directly installed to circuit boards without using solder.
RoHS compliant, halogen-free design, using carefully selected materials.

Temperature Sensor

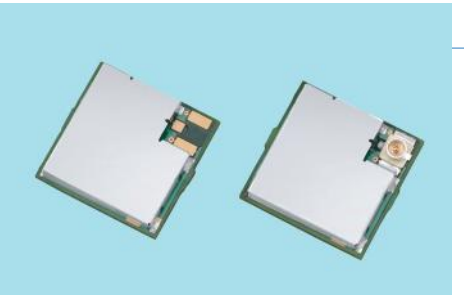
SMK developed the temperature sensor for the purpose of temperature control to meet the needs of the HEMS and BEMS markets.
Utilizing the long range capability provided by Sub-GHz wireless technology, this device makes it possible to transmit temperature information measured in a vast range of environments, including single-family homes, factories, offices, and stores.
Featuring low power consumption, the product can operate for 5 years or more on just one coin battery (*depending on usage environment).

Capacitive Touch Pane "CapDuo Touch"

Currently, G1G type sensor structure capacitive touch panels are being supplied for the automotive market. The G1G type sensor structure bonds two glass sensors (X sensor and Y sensor) using OCA (Optical Clear Adhesive). However, with the successful development of the “CapDuo Touch” touch panel, which has X and Y sensors placed on the front and rear of a single sheet of glass, SMK was able to reduce the amount of parts used compared to the number used in the conventional G1G type since only one glass sensor is used without the need for OCA.

Sigfox RF Module "WF931"

The "WF931"module makes it possible to perform tasks including changing the settings, restarting, and checking the status of IoT devices using downlink communication which could not be done with conventional uplink communication only modules.
In addition, the module is equipped with a power management function to save power.



SMK Corporation
5-5, Togoshi 6-chome, Shinagawa-ku, Tokyo 142-8511, Japan
TEL: +81-3-3785-5058 (Environmental Protection Dept.) FAX: +81-3-3785-0517 URL: https://www.smk.co.jp/

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