



Environmental Report

2015





“Creative Connectivity” — toward a better society and a brighter future

This spring, SMK celebrated the 90th anniversary of its founding.

In this landmark year, the SMK group has set “Creative Connectivity” as the new slogan for its management strategy. “Creative Connectivity” represents our wish to contribute to building a better society and future by solving problems in society and for our clients. We mean to do so by creatively connecting people with people, people with products, and products with products through the technologies cultivated during our long history.

Today, SMK is actively turning its attention toward the latent needs in the world and to strengthening our proactive “proposal-based” and high-quality production system. We are pursuing innovation as a means of realizing the relationship between high functionality and environmental performance as one of not mutual antagonism but coexistence. We are committed to consistently curbing environmental costs throughout our supply chain, from the planning and development stages to production and marketing including the logistics process and in this way further strengthening our connection to the society of the future. This is our vision for SMK as a good corporate citizen.

In the most exemplary case on which SMK focused in the clean energy field, the Kita-Ibaraki Photovoltaic Power Plant, part of the Hitachi works, started power generation in July of last year. SMK connectors are used in many places as key parts of photovoltaic panel connections, and we are

conducting field testing of their performance, as well as generating feedback for development of next-generation products. At the same time, we are also proposing new potential technological solutions, so that we are engaging with two or three different levels of issues simultaneously.

Looking overseas, I was satisfied with our overseas facilities’ activities when I visited their works. They are achieving eco-friendly production and carrying out proactive regional contribution programs in their communities. The seeds we nurtured have borne fruit through various programs such as seeking out local recycling companies for waste reduction, awareness-raising activities including factory tours and tree-planting activities, initiatives toward government Green Company Certification, and promoting our green procurement policy. These are signs of how the SMK Environmental Charter has taken root in the hearts of SMK employees.

We will refine our systems and practices with an earnest and single-minded passion by creatively connecting people with people, people with products, and products with products.

Our vision is spread out before us and SMK continues in its commitment toward a prosperous and progressive future. Look out for us as an eco-friendly company in the future.

July 2015

President and
Chief Operating Officer

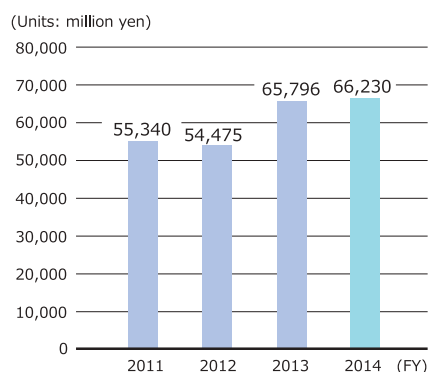
Yasumitsu Ikeda

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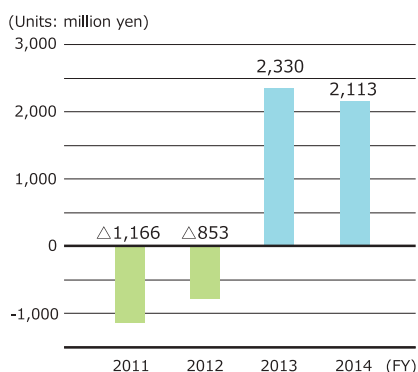
Corporate Profile (as of March 31, 2015)

Name	SMK Corporation
Established	April 1925
Registered	January 15, 1929
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	5,772 (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: http://www.smk.co.jp/
Major Products	Ccoaxial connectors / FPC connectors / Board-to-board connectors / Jacks / Remote controls / Switches / Wireless modules / Camera modules / Resistive touch panels / Capacitive touch panels / Optical touch panels

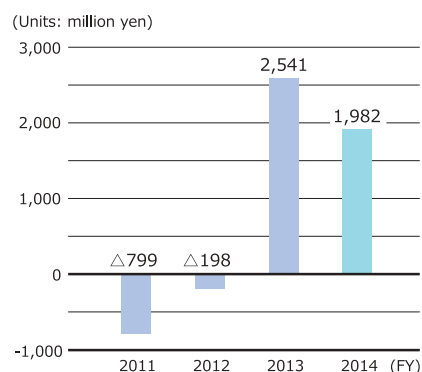
Consolidated Net Sales



Consolidated Operating Income



Consolidated Net Income



About This Report

Reporting period	FY2014 (April 1, 2014 - March 31, 2015)
Scope of calculations	SMK Corporation (10 sites in Japan) and consolidated subsidiaries (two in Japan and 17 overseas)
CO₂ emissions	Conversion coefficients are subject to the standards of the Federation of Electric Power Companies of Japan for domestic sites, and the GHG Protocol for overseas sites.
Access to corporate Information	Our website discloses data profiling our company, IR information, product descriptions, and past environmental reports. http://www.smk.co.jp/
Contact	Environmental Protection Department, SMK Corporation TEL : +81-3-3785-5058 FAX : +81-3-3785-0517

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 Corporate 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 Meeting. 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.

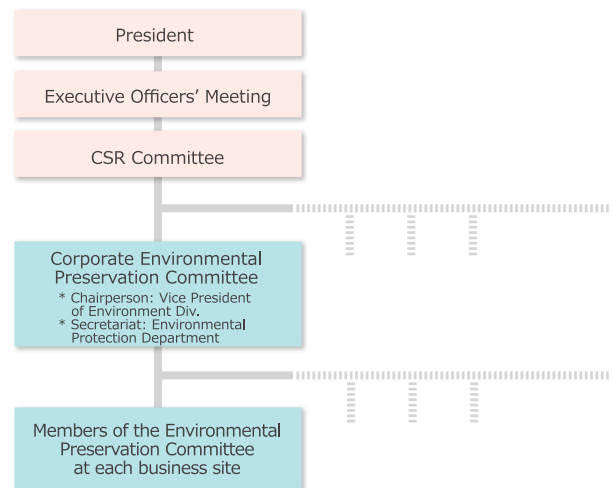
We have obtained ISO 14001 certification for all of our Japan sites and overseas works. Since fiscal 2007, in addition to individual activities at each site, we have been setting targets and themes to be shared by all members of the SMK Group, reinforcing linkage among our sites, and working to strengthen 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 suppliers. Specifically, we request our suppliers to pledge not to use any environmentally hazardous substances prohibited by SMK, and to put in place ISO 14001-based systems. We visit suppliers who have not obtained ISO 14001 certification to check on the status of their environmental preservation activities, and to suggest any necessary improvements.



Inspecting a waste treatment contractor (SMK Head Office)

Organizational Structure for Environmental Preservation



Environmental Education

SMK implements environmental education by levels of employees throughout the Group, and as a part of the professional education curriculums. In addition, each business site makes its own annual education plans.

We also encourage our employees to take the Certification Test for Environmental Specialists (Eco Test) administered by the Tokyo Chamber of Commerce and Industry. We have set a goal of having 5% of the employees in each division obtain certification, and every year since the first test in 2006, we have recruited candidates, purchased textbooks, and provided assistance with the burden of exam fees.



Environmental education (SMK Philippines)

Environmental Preservation Activities

All of SMK's Japan and overseas works have formulated targets for environmental preservation activities, and are pushing ahead with realization of improvements. The table below presents the actual results of SMK's major activities in fiscal 2014, as well as targets for this fiscal year.

Preventing Global Warming

With regard to CO₂ emissions, SMK was unable to achieve our targets either for CO₂ emissions per unit of production or for total CO₂ emissions, mainly due to expansion of our cleanroom floor area, which increased energy consumption in air-conditioning equipment and other auxiliary facilities.

Going forward, a new challenge is to make the status of energy utilization more visible and to implement efficient energy management.

Preserving Biodiversity

SMK revised the environmental education materials intended for use by our suppliers and distributed them to some of the suppliers that are not scheduled to acquire ISO 14001 certification.

Effective Use of Resources

Programs aimed at eliminating MUDA (wasteful and/or inefficient areas, actions, materials, etc.) in processes yielded reductions greater than the previous fiscal year both in industrial

waste discharge per unit of production value and in total industrial waste discharge. However, the total discharge reduction did not reach our target. We also took steps to increase recycling, but did not reach our target for landfill waste reduction.

Effective Responses for the Management of Environment-related Substances

SMK started full-fledged operation of a new system for BOM information.

Moreover, we will tackle strengthened oversight of BOM information and put the information to effective use. (*BOM: Bill of materials)

Strengthening eco-Friendly Design Approach

We carried out advance preparations for a management system aimed at integrating product assessment and our eco-product management system.

During the current fiscal year, we will continue studies in order to complete the integrated eco-product system.

Nature of initiative	FY2014		Self-assessment
	Target	Achievement	
Preventing global warming	CO ₂ emissions per unit of production value*1: 4% reduction relative to FY2013 Target: 0.48 t-CO ₂ /million yen	6% increase 0.53 t-CO ₂ /million yen	C
	Total CO ₂ emissions: 6% reduction relative to FY2013 Target: 28,991 t-CO ₂	4% increase 31,839 t	C
	Review and introduction of energy management systems	Try to introduce the Energy Monitoring System	B
	Review of SMK standards for LCA (including carbon footprint)	Perform trial assessment of Scope 3 using SMK standards based on the standards of the electronic parts industry.	A
Preserving biodiversity	Review of activities related to purchasing with preservation of biological diversity in mind	Revise environmental education materials intended for use by our suppliers	B
Effective use of resources	Industrial waste discharge per unit of production value*2: 9% reduction relative to FY2013 Target: 0.020 t/million yen	9% decrease 0.020 t-CO ₂ /million yen	A
	Total industrial waste discharge amount: 10% reduction relative to FY2013 Target: 1,198 t	9% decrease 1,217 t	B
	Landfill waste amount: 5% reduction relative to FY2013 Target: 105 t	8% increase 119 t	C
Effective responses for the management of environment-related substances	Register BOM information and efficient administration of the system to support EU-REACH directives.	Deploy management system	A
Strengthening eco-friendly design	Enhancement of product assessments	Prepare for integration of product assessment and our eco-product management system	C

*1: CO₂ emissions per unit of production value = CO₂ emissions divided by production value

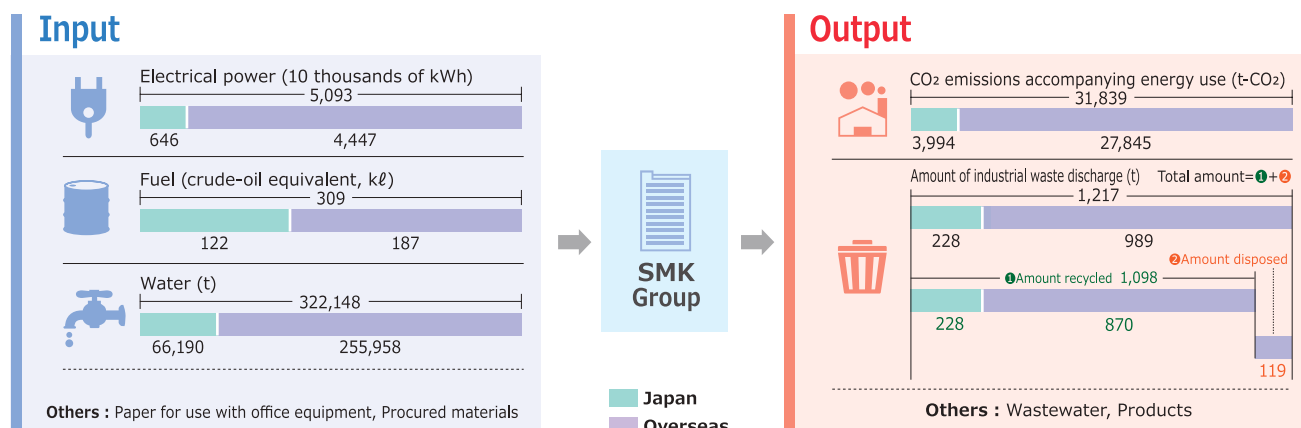
*2: Industrial waste discharge per unit of production value = industrial waste discharge divided by production value

Self-assessment

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

Material Balance

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



Energy and Resource Saving Results

SMK is promoting energy-saving activities as an important management policy to prevent global warming. We are also aiming to reduce the discharge of industrial waste and achieve zero emissions (i.e. zero landfill waste) by using our resources more effectively.

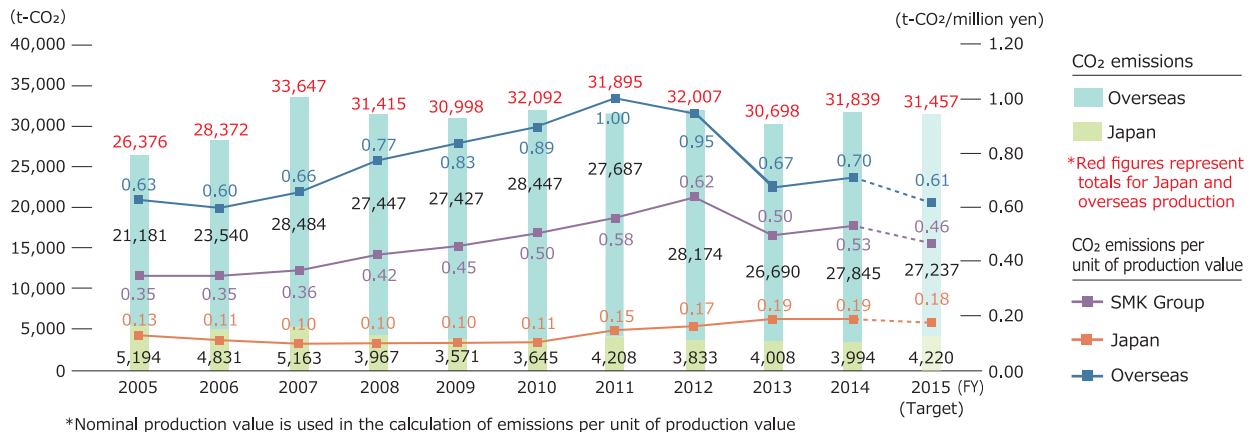
Energy-Saving Results

- ©As explained in "Environmental Preservation Activities," SMK increased both its CO₂ emissions per unit of nominal production value (106% against the previous fiscal year) and total CO₂ emissions (104% against the previous fiscal year) in the last fiscal year. The main reason is the same as that explained in "Environmental Preservation Activities."
- ©We have been working to progressively increase our level of in-house processing of parts (molding, stamping, etc.) rather than outsourcing since our base year (FY2005) towards the achievement of greater efficiency through integrated manufacturing. We evaluate our energy efficiency using actual CO₂ emissions (which exclude the increase due to bringing production in-house) and actual production value

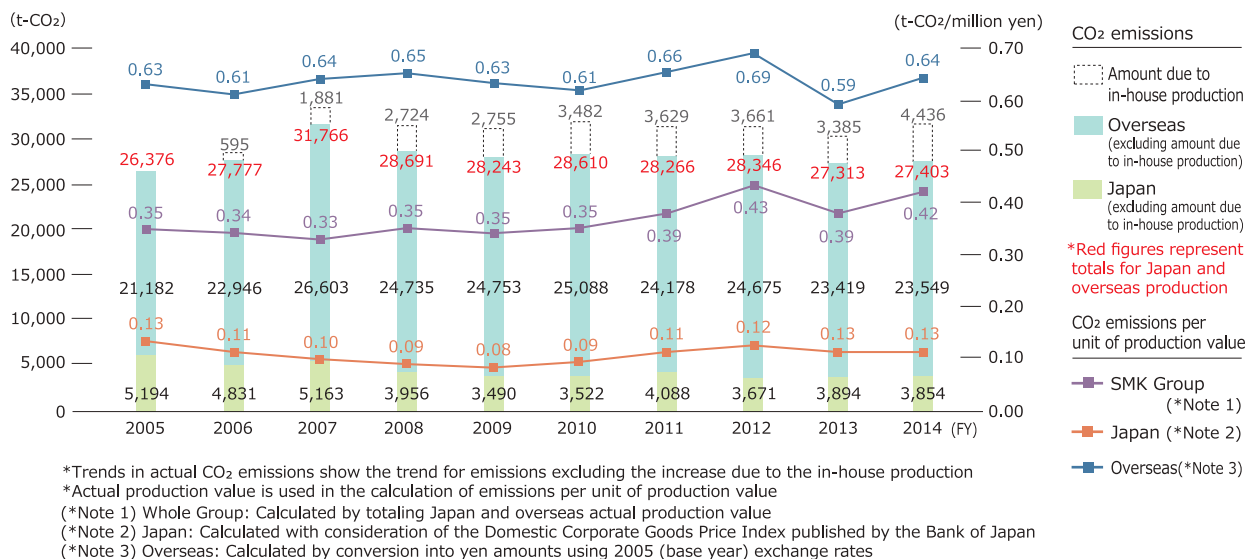
(which minimizes the effect of changes in commodity prices and exchange rates). **(See graphs below.)** Touch panels have to be manufactured in cleanrooms that consume large amounts of energy. Considering that our production of touch panels has doubled in comparison with the base year, our energy efficiency is improving step by step.

	Year on Year	
	Japan	Overall SMK Group
CO ₂ emissions per unit of production value (nominal production value)	100%	106%
CO ₂ emissions	100%	104%

Trends in CO₂ emissions and CO₂ emissions per unit of nominal production value



Trends in CO₂ emissions and CO₂ emissions per unit of actual production value

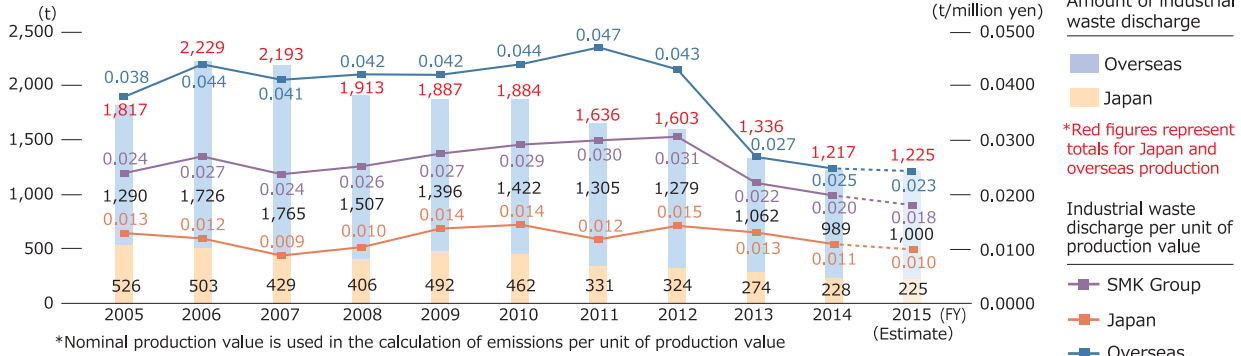


Resource-saving Results

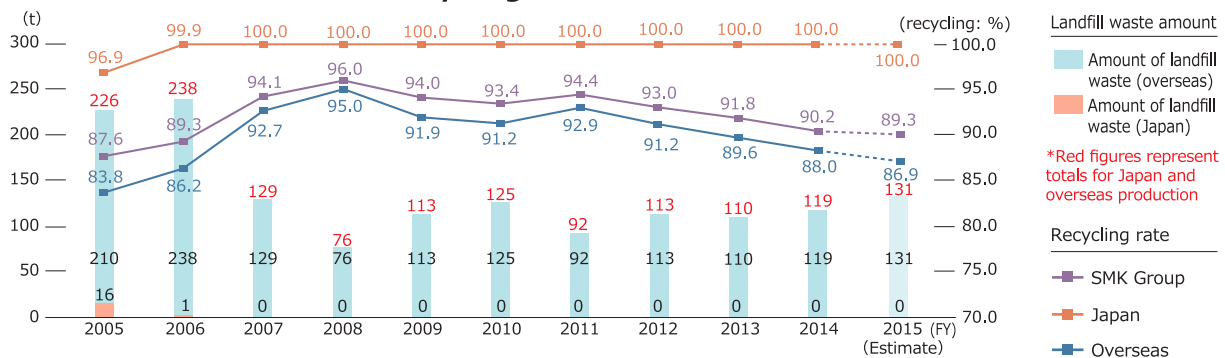
- SMK achieved improvement in industrial waste discharge in fiscal year 2013 in terms of both indicators, industrial waste per unit of production value (91% of the previous fiscal year) and amount of industrial waste discharge (91% of the previous fiscal year).
- We have been working to limit landfill waste at our overseas works through glass waste recycling, implemented since the 2012 fiscal year. However, the volume of this waste increased somewhat (108% of the previous period).

	Year on Year	
	Japan	Overall SMK Group
Industrial waste discharge per unit of production value (nominal production value)	85%	91%
Overall industrial waste discharge amount	83%	91%
Recycling amount	83%	90%
Landfill waste amount	—	108%

Amount of industrial waste discharge



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 Accrued		Environmental Preservation Benefits (Quantity)	
		Investments		Expenses		Amount	YoY	Consumption/Output Savings	YoY
		Amount	YoY	Amount	YoY				
Business area costs	Pollution Prevention	0.3	1%	34.7	150%	0	—	Use of Environmentally Hazardous Substances: 15.3 t	—
	Global environmental preservation	120.4	1147%	52.8	118%	18.4	474%	CO ₂ emissions per unit of production value: -0.026 t-CO ₂ /million yen	—
	Resource circulation	0	—	24.2	95%	82.1	160%	Landfill waste amount: -9.1 t Industrial waste discharge per unit of production value: 0.0016 t /million yen	17%
	Sub-total	—	—	—	—	—	—	—	—
Upstream/downstream	Green procurement	0	—	0.3	204%	0	—	—	—
Administration	Elimination of environmentally hazardous substances / Environmental management education, activities for the achievement of certification, etc.	0	—	183.9	101%	0	—	—	—
R&D	Development of environmentally friendly products	0	—	24.6	115%	0	—	—	—
Social activity	Initiatives to expand green areas at works	0	—	7.5	116%	0	—	—	—
Environmental remediation	—	0	—	0	—	0	—	—	—
Total	—	120.6	178%	328.1	108%	100.6	182%	—	—

Energy and Resource Saving Activities

Report on start of power generation at photovoltaic power plant

Kita-Ibaraki photovoltaic power plant (320-kW capacity), part of the Hitachi works, was completed and started generating electricity in July 2014. SMK photovoltaic module connectors are being used for its photovoltaic panels.

The power plant is operating smoothly, and generated 217 MWh during the nine-month period from that July to the following March. This was 107.6% of the projected power generation. CO₂ emissions were reduced by 68.5 t-CO₂*.

Photovoltaic power generation systems with a capacity of 950 kW have also been installed on the rooftops of buildings owned by SMK subsidiaries in Japan.

Going forward, we are committed to continuing our contributions to CO₂ reduction by generating electric power through clean energy and expanding sales of eco-products.

*Converted according to Japan Photovoltaic Energy Association voluntary industry rules at 0.3145 kg-CO₂/kWh



Opening ceremony



Photovoltaic power generation system on building owned by SMK subsidiary in Japan



Kitaibaraki photovoltaic power plant at the Hitachi works

SMK factory tour held.

SMK Electronics (Dongguan) Co., Ltd.

In August 2014, we held a factory tour for members of employees' families. Since the schools were on summer holiday, many children were able to join the tour. After our welcome party, the children expressed delight as they clutched their small presents from us. The tour then proceeded to observe the manufacturing process, and our briefing on the products brought many interested questions from the participants. During the tour of the treatment facility for our plating process, we explained our measures to prevent the discharge of substances that potentially pollute the environment.

The tour gave the children a good sense of how important it is for corporations and for us as individuals to take action on environmental preservation in order to protect our beautiful environment.



Toward acquisition of Green Company certification

SMK Electronica S. A. de C. V.

We are currently working to acquire Green Company certification under a program sponsored by the Mexican federal government. There are approximately 570 companies engaged in manufacturing in the city of Tijuana in the state of Baja California where SMK Mexico is located, and acquisition of Green Company certification is given great importance.

Government certification identifies a corporation as a socially responsible enterprise, and leads to the creation of new economic outcomes and corporate value.

We have already passed a pre-audit by a third-party organization, and in July we are scheduled to undergo the final process, which is an audit by a government organization PROFEPA.



Audit by a third-party organization (provisional acceptance)

Tree-planting activities/Making a contribution to society by recycling packing materials

SMK Electronics (Phils.) Corporation

Tree-planting activities

In a tie-up with the Department of Environment and Natural Resources (DENR) of the Philippines, we carried out tree-planting activities.

After an in-house campaign to choose an environmental slogan, SMK Philippines selected "Make a little change, starting right now." Wearing T-shirts printed with this slogan, we worked up a comfortable sweat under the sunny blue sky while planting a total of 1,360 young trees. As the young trees grow, we estimate that they will absorb approximately 264 tons of CO₂ in the coming 20 years.

Our hope is that we can leave the coming generations a more beautiful natural environment, and we would like to continue these kinds of projects in the future.



Making a contribution to society by recycling packing materials

We are involved in an ongoing initiative to donate school chairs and drawing books to nearby elementary schools.

The school chairs and drawing books are made by our employees. They obtain the material from recycled wooden boxes and protective paper sheets used to pack glass for touch panels, our main product at SMK Philippines.

We visit the schools, where we make a small ceremony of the donations and give an easy-to-understand lecture to the children on how to separate waste material for recyclables. Through these educational activities, we have the chance to remind them of the value of resources.

These activities were welcomed by the Philippines Department of Education and the local community, and they have been introduced in the mass media, including regional newspapers and television programs.

The employees derive great joy from taking materials that would have been disposed of as waste, and turning them into things that bring smiles to children's faces. This helps raise awareness of environmental conservation among our employees.



English interview at a local FM radio station



We've made over 250 chairs.

Creation of Environmentally Friendly Products

Connector for Photovoltaic Modules

These connectors link photovoltaic modules with cables. The original multi-point contact structure assures an excellent contact performance. The original water-tightness structure (top and bottom cover system) facilitates cable waterproofing with easy operation without tools. The connectors have UL and TÜV certifications. Available in a wide variety of configurations, such as splitters.



Connector for LED Lighting(COB type) LT-10/LT-11 Series

Connector for LED lighting, a type of illumination that offers energy-saving benefits. SMK developed a socket for the COBLED package and added it to its product inventory.

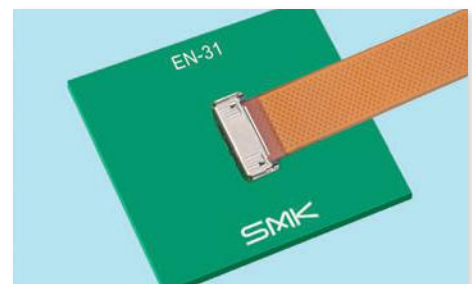
This product is composed of two parts, a top cover and a bottom cover, which radiate heat from the LED into a heat sink. This structure contributes to overall improvements in ease of assembly and in reliability.



FPC connectors for High-Speed Transmission: EN-31 Series

0.3-mm pitch FPC connectors compatible with products such as digital home electronic equipment and IT devices in which signal transmission speeds are increasing.

The connectors are compatible with the MIPI / D-PHY standard for high-speed interfaces, and are ideally suited to realizing high-speed transmission in mobile devices. The product design and the material selection take RoHS Directive and halogen-free into account.



Micro USB Connectors (Spring Contact Terminal)

Micro USB connectors for use in smart phones, mobile telephones, etc.

The spring terminals allow these to be pushed to the PWB without using solders. The product design and the material selection take RoHS Directive and halogen-free into account.



Supporting ECHONET Lite Wired LAN adaptor (wall-mounted type)

This is a middleware adapter that supports the ECHONET Lite protocol. It will function as a network interface adaptor to control household appliances (air conditioners, hot water heaters, etc.) designed to meet demand for HEMS and smart house functionality. The use of such devices is expected to become increasingly widespread due to upcoming energy conservation measures. These products will link with various electric power saving services, contributing to reduced power consumption and environmental control in homes and offices.



One Glass Solution (OGS) electrostatic capacitive touch panels for use in vehicles

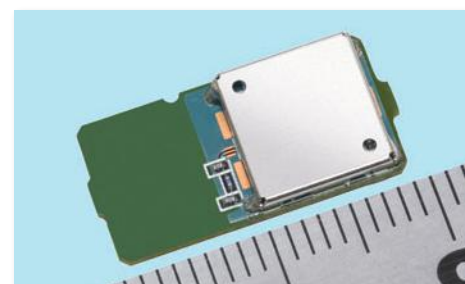
In the past, most touch panels for use in vehicles were made by laminating a cover panel over a glass sensor using optical paste. This product, however, is the result of our success in developing a structure that has the sensor function attached directly to the cover glass. This has greatly reduced the number of components. The optical characteristics have also been improved, making the display elements mounted on the back surface of the touch panel more visible.



Wireless Modules

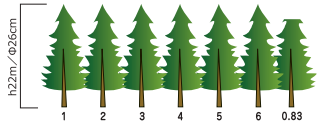
Various wireless modules installed power self-management software to reduce energy consumption.

Especially, our new model BTS01 Bluetooth® smart module not only saves energy, but its smaller and lighter form simultaneously saves resources.





SMK printed this Environmental report by reusing 6.24 kg of aluminum plates in the printing process, thus reducing CO₂ emissions by 95.24 kg.
Japan Smart Energy Co.,Ltd.examined this numerical value and confirmed it.



95.24kg is same as quantity of CO₂ which a 6.83 cedar of 50 years old (h.=22m/d.=26cm) absorbs for one year.
[source:forestry report 1997, Forestry Agency of Japan]



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