



Environmental Conservation Activities

Environmentally Conscious Products

Oki Electric contributes to the reduction of environmental impact through environmentally conscious design and manufacturing. Here are some examples of Oki's environmentally conscious products that have not been presented yet.

Development of a Compact-size, Large-capacity ATM for the Chinese Market

We developed an ATM (Automated Teller Machine) for the Chinese market — the ATM21S. For this machine, we leveraged the technology nurtured in Japan to realize the largest capacity for banknotes in the industry while retaining a slim appearance. The machine also allows paying in and taking out Chinese banknotes at high speed. Currently, cash dispensers which offer mainly cashing functions are the mainstream in the Chinese market. In recent years, however, the number of ATMs that allow users also to deposit banknotes is steadily increasing. The demand for ATMs that are compact and allow an efficient use of capital is expected to grow further. With the ATM21S, Oki realized a capacity of up to 14,000 banknotes for the first time in the industry to improve operability, and also facilitated the replacement of existing machines by giving the new machine the same width as a cash

dispenser (470 mm). This compact size saves space, and contributes to reducing environmental impacts by saving resources and energy, also during transport.



●ATM21S
(Automated Teller Machine)

Development of Cadmium-free Mobile PC Keyboards, Acceleration of Strategy for China

We established a manufacturing process for mobile PC keyboards that are free of cadmium, a substance restricted in the RoHS directive. We also developed a technology to make thinner and lighter keyboards without any sacrifices in functionality. In the future, Oki will aim for overseas expansion, mainly to China, in the mobile PC keyboard field, where customers demand thinner, lighter and environmentally conscious products. Since this keyboard is a product that offers high quality while giving consideration to the environment, we even received a letter of appreciation from one of our customers.



●Mobile PC Keyboard

Eco-cables: Development of PVC-free Flat Cables

Oki Electric Cable Co., Ltd., a group company developing and manufacturing communications cables, etc., started the production of "Eco-OKIFLEX" cables, environmentally conscious flat cables that offer superior flame resistance, refringency and flexibility without using PVC. Most communications cables, etc. use PVC in their covering material. PVC, however, contains lead additives to maintain performance, and lead is one of the substances restricted in the RoHS Directive. Also, because one of the main elements of PVC is the halogen substance chlorine, toxic substances such as dioxin may be generated when PVC is

burned. "Eco-OKIFLEX" cables contain uniquely treated polyethylene material to improve their self-extinguishing ability, realizing a flame resistance that is equal to conventional PVC.



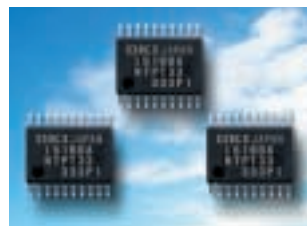
●Oki-ECOFLEX Flat Cable

Commercialization of Energy-saving LSIs (SOI Technology)

Development of the First One-chip LSI for Radio Wave Watches in the World Using SOI-CMOS Technology

Oki Electric was the first in the world to succeed in mass production of LSIs utilizing complete depletion SOI (Silicon on Insulator)-CMOS technology. The LSIs were employed for radio wave solar watches. LSIs utilizing SOI-CMOS technology boast high-speed performance while realizing an electronic power consumption of less than one third of conventional products. The combination with a solar cell allows building innovative watches that do not require battery replacement, so that this LSI is wildly popular in the solar radio wave watch market as an energy-saving, environmentally conscious product. We further succeeded in developing the radio wave receptor LSI "ML6190A" and the RTC*1) "ML6191", which has an additional auto-correction function. Especially the "ML6191" is under attention as a one-chip LSI that incorporates radio wave reception and real time clock functions for the first time in the industry. In the future, we expect that these

LSIs will be applied for time-correction also in audio-visual equipment, home appliances, PCs and clocks in cars.



●Development LSIs Using SOI Technology



●A Radio Wave Solar Watch Containing the Commercialized LSIs (photograph courtesy of Casio Computer Co., Ltd.)

*1) RTC: Real Time Clock