

# Eco-Friendly Design

Murata's products (electronic components) can be found in electronic equipment produced worldwide. We are fully aware of the degree to which products influence the environment, and make the reduction of environmental impact by products a priority issue.

## Manufacturing Environmentally Conscious Products

### Introduction of Product Assessment at the Mass-Production Stage

Murata is promoting eco-friendly design, with an emphasis on reducing regulated chemical substances contained in products, cutting electricity consumption and utilizing resources effectively through downsizing.

Since November 2004, we have implemented a product assessment system throughout the Group to evaluate the environmental impact of products. This system extends beyond the development stage, spanning preproduction prototyping and market introduction to confirm that Murata's products are environmentally considerate.

### Introduction of Lifecycle Assessment (LCA), through Product Use and Disposal

In addition to product assessments, Murata is focusing on lowering the environmental burden of its products throughout their lifecycles. In 1995, Murata established its LCA Subcommittee, and in 1999 introduced LCA into its R&D process. Through this evaluation method, CO<sub>2</sub> emissions, consumption of principal raw materials and other data are analyzed for representative products. LCA is being applied to Murata's own production

facilities, which are designed in-house, in addition to marketed products.

During fiscal 2006, we constructed a database of CO<sub>2</sub> emissions by materials, which will effectively simplify LCA data calculations.

### Product Assessment Items

Classification	Item
Product	Controlled substances
	Downsizing
	Reduction of main raw materials
	Power conservation
Production process	Controlled substances
	Energy consumption reduction
	Electricity and waste reduction
Packaging and packing	Controlled substances
	Electricity and waste reduction

## Managing Environmentally Hazardous Chemical Substances

### Attaining Targets for Environmentally Hazardous Chemical Substance Reduction

Electrical components necessarily contain substances with the potential to damage the human body and the environment. Murata is striving to reduce or eliminate environmentally hazardous chemical substances, including substances not prohibited by laws and regulations.

During fiscal 2006, we promoted conversion to alternative substances and developed alternative technologies:

1. To eliminate substances stipulated under the RoHS directive in Europe
2. To reduce usage of halogenated flame retardants by 20% from fiscal 2003 levels

As a result of these endeavors, in May 2006 Murata completed its responses to the RoHS directive in Europe for all products other than RoHS-specified exceptions.

In addition, we cut usage of halogenated flame retardants by more than 30%.

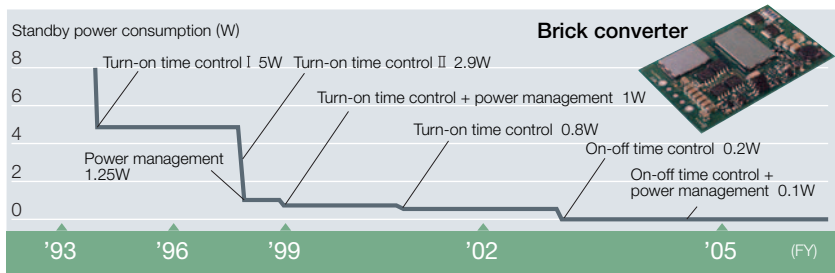
#### About Lifecycle Assessment (LCA)

Lifecycle assessment is a method of quantitatively assessing all the environmental influences imparted by a product throughout its lifecycle, from resource extraction through manufacturing, sales, use and disposal.

#### Handling Products Not Covered by RoHS

For regions and applications not covered by the RoHS directive, we operate a framework of autonomous restraint whereby we do not endorse production of manufacture and sales of non-RoHS-compliant products without management-level clearance.

### Standby Power-Saving Circuit Technology (Example of the power savings achieved through the Company's technical development)



#### Web Data

- Standards for Environmentally Hazardous Chemical Substances
- Management of Information on Environmentally Hazardous Chemical Substances

▶ <http://www.murata.com/csr/environment/06.html>

▶ <http://www.murata.com/csr/environment/10.html>