Environmental Review Development and Design

We are aware that due to the nature of our business, some of our products have considerable environmental impact.

In light of this, we conduct product assessments and LCA data analyses from the product development and design stages, to promote the development of products with low environmental impact.

Developing and Designing Environmentally Conscious Products

Murata has recognized that its priority task is to minimize the environmental impact of its products, in view of the characteristics of Murata's business operations. Based on such recognition, Murata has been actively implementing measures such as reducing the use of environmentally hazardous substances contained in its products, designing more compact products, and saving power.

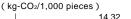
Specifically, in 1995 Murata established its LCA Subcommittee, and in 1999 introduced life cycle assessment (LCA) into its R&D process. Moreover, since November 2004 we have adopted and implemented in earnest the product assessment system in every division.

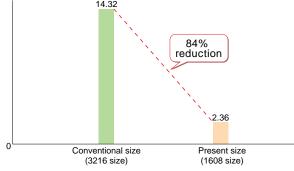
Employment of LCA in Product Development and Design

The life cycle assessment (LCA) is a method of quantitatively assessing the various environmental impacts imparted by a product throughout its life cycle, which extends from resource extraction to manufacturing, sales, use, and disposal.

Using analyses results of LCA data on our typical products, Murata prepared its own LCA guidelines and introduced them into the R&D process. The items considered in an LCA assessment include carbon dioxide emissions, lead content, and the amount of principal raw materials consumed. The LCA assessment thus covers not only the product itself but also the equipment used to produce the product.

 $\ensuremath{\text{CO}_2}$ emission reductions resulting from product (chip capacitor) downsizing





Introduction of Product Assessment System Product assessment is a method of assessing, at the design development stage, a product's impact on the environment. Murata has introduced its product assessment system not only in the product development and design stages, but also prior to the mass production trial and mass production stages, to confirm product environmental friendliness.

Introduction of production assessment

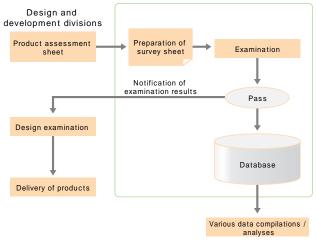
	(Number of assessments)	
	Fiscal 2004*	Fiscal 2005
Product	124	357
Raw materials/method	74	178
Total	198	535

* For fiscal 2004, numbers of assessments implemented over five months are indicated (term: November 2004 - March 2005).

Product Assessment Items

Classification	ltem	
Product	Controlled substances	
	Downsizing	
	Reduction of main raw materials	
	Power conservation	
Production process	Controlled substances	
	Reduction of energy consumption	
	Resource and waste reduction	
Packaging and packing	Controlled substances	
	Resource and waste reduction	

Product Assessment Examination System Structure



Toward Total Elimination of Environmentally Hazardous Substances in Products

Murata's products contain various substances. Since some of these substances may adversely affect the human body and the environment, we are aware of the urgent necessity of reducing and eventually eliminating the use of these substances. We at Murata call them " environmentally hazardous substances." Even concerning substances whose use is not prohibited by laws and regulations, we are also making voluntary efforts for their reduction and elimination.

Adoption of Standards regarding the Use

of Environmentally Hazardous Substances in Products

The Murata Group has established a Regulation Program for Environmentally Hazardous Substances in Products ("Product Regulation Program") so as to control chemical substances, classifying them into three ranks: substances prohibited in products, substances to be reduced, and substances whose reduction is under preparation.

Moreover, aside from groups of regulated substances, we manage the content of substances likely to be regulated in the future or that can be recycled and reused. We take this approach by instituting a policy for chemical substances whose content should be determined at the time of procurement.

Regulation program for environmentally hazardous substances in products

Progress in Reducing the Use of Environmentally Hazardous Substances

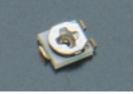
We are making progress in reducing the use of environmentally hazardous substances, in accordance with the product regulation program for existing products. As for newly developed products, we have established a system that confirms compliance with the Product Regulation Program during the design stage, so as to provide customers with products containing less environmentally hazardous substances.

Notably, we are implanting a project to aggressively reduce and eliminate the use of lead, hexavalent chromium, mercury, cadmium and specified brominated flame retardants subject to strengthened EU regulations.

As for halogenated flame retardants, whose reduction is not required by current law but is covered by our voluntary regulation program, first we focused our reduction efforts on additives in resins that are molded within Murata. In fiscal 2006, Murata is expanding the scope of its reduction targets to include additives in resins and plastics that are procured as molded components from suppliers. Given our smooth progress in these activities, we expect that we will attain our reduction targets for fiscal 2006.

Examples of Murata's lead-free products

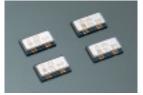




Chip EMIFIL® inductor type

Trimmer potentiometer (PVZ2A Series)

Examples of RoHS Directive-compliant products



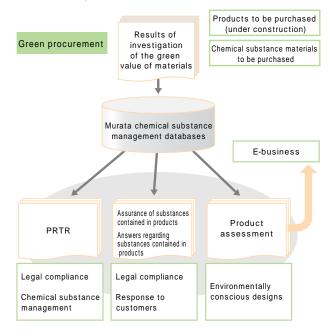
Piezoelectric vibrating gyroscope(GYROSTAR®)



Bluetooth® modules *The Bluetooth trademarks are owned by Bluetooth SIG, Inc., USA.

Compilation of an Information Database

Murata is compiling a database for use in a system to appropriately manage information on substances used in Murata products, including the amount contained. This database is used to ensure that specific environmentally hazardous substances restricted by laws and regulations are not contained in any Murata product, and to provide customers and governments with relevant information in a timely manner.



System to manage information on chemical substances contained in products