



e-material solution provider

# Is TDK Back?



**Annual Report 2004**

April 2003-March 2004  
TDK Corporation

**TDK CORPORATION**



## About TDK

TDK Corporation was established in 1935 as the world's first company to commercialize a magnetic material called ferrite. In the ensuing years, TDK has developed and commercialized a host of other materials and products. This drive is based on the company's founding spirit of "Contribute to culture and industry through creativity."

Looking ahead, TDK is determined to further refine its materials, process, and evaluation & simulation technologies—its core technologies—aiming to be an Exciting Company, a consummate **e-material solution provider** that delivers with perfect timing products imbuing value that customers want.

### On the Cover

The background of the cover of this Annual Report is a powder that consists primarily of barium titanate. Composed of minute particles of no more than 0.5 micrometers, this material is used in the dielectric layers of multilayer ceramic chip capacitors.

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### Cautionary Statement About Projections

This Annual Report contains forward-looking statements, including projections, plans, policies, management strategies, targets, schedules, understandings and evaluations, about TDK and its group companies that are not historical facts. These forward-looking statements are based on current forecasts, estimates, assumptions, plans, beliefs and evaluations in light of information available to management at the time this Annual Report was prepared.

In preparing forecasts and estimates, TDK and its group companies have used as their basis, certain assumptions as necessary, in addition to confirmed historical facts. However, due to their nature, there is no guarantee that these statements and assumptions will prove to be accurate in the future. TDK therefore wishes to caution readers that these statements, facts and certain assumptions contained in this earnings release are subject to a number of risks and uncertainties and may prove to be inaccurate.

The electronics markets in which TDK and its group companies operate are highly susceptible to rapid changes. Furthermore, TDK and its group companies operate not only in Japan, but in many other countries. As such, factors that can have significant effects on its results include, but are not limited to, shifts in technology, demand, prices, competition, economic environments and foreign exchange rates.





# Not Yet!

**There is no question that TDK's results are improving. But it is difficult to say that we are on a path to growth when the recovery was principally the result of two years of structural reforms. But we are determined to achieve more.**

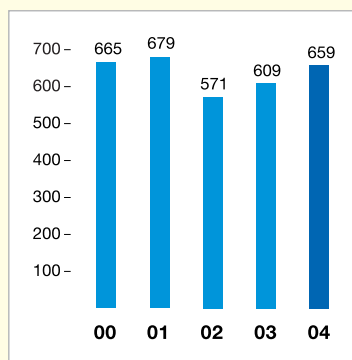


## Financial Highlights

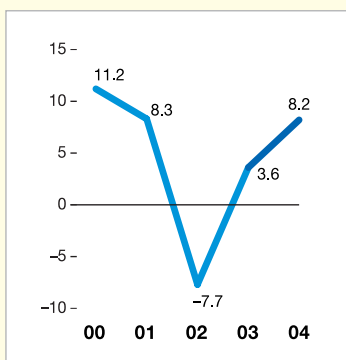
| Years ended March 31                              | Yen in millions<br>except per share amounts |         | U.S. dollars in thousands<br>except per share amounts |            |
|---|---|---------|---|------------|
|   | 2004  | 2003    | 2004  | Change (%) |
| <b>OPERATING RESULTS</b>                          |   |         |   |            |
| Net sales   | <b>¥658,862</b>                             | 608,880 | <b>\$6,215,679</b>                                    | 8.2        |
| Electronic materials                              | <b>166,818</b>                              | 168,949 | <b>1,573,755</b>                                      | (1.3)      |
| Electronic devices                                | <b>107,999</b>                              | 112,729 | <b>1,018,858</b>                                      | (4.2)      |
| Recording devices                                 | <b>230,105</b>                              | 175,986 | <b>2,170,802</b>                                      | 30.8       |
| Semiconductors and others                         | <b>17,940</b>                               | 14,865  | <b>169,245</b>  | 20.7       |
| Electronic materials and components               | <b>522,862</b>                              | 472,529 | <b>4,932,660</b>                                      | 10.7       |
| Recording media & systems                         | <b>136,000</b>                              | 136,351 | <b>1,283,019</b>                                      | (0.3)      |
| (Overseas sales)                                  | <b>490,206</b>                              | 443,377 | <b>4,624,585</b>                                      | 10.6       |
| Net income  | <b>42,101</b>                               | 12,019  | <b>397,179</b>  | 250.3      |
| Net income per share:                             |   |         |   |            |
| (basic)   | <b>317.80</b>                               | 90.56   | <b>3.00</b>   |            |
| (diluted)   | <b>317.69</b>                               | 90.56   | <b>3.00</b>   |            |
| Cash dividends per share                          | <b>50.00</b>                                | 45.00   | <b>0.47</b>   |            |
| <b>FINANCIAL POSITION</b>                         |   |         |   |            |
| Total assets                                      | <b>¥770,319</b>                             | 747,337 | <b>\$7,267,160</b>                                    | 3.1        |
| Stockholders' equity                              | <b>576,219</b>                              | 553,885 | <b>5,436,028</b>                                      | 4.0        |
| Long-term debt, excluding<br>current installments | <b>27</b>                                   | 94      | <b>255</b>  | (71.3)     |
| <b>PERFORMANCE INDICATORS</b>                     |   |         |   |            |
| Overseas production/net sales                     | <b>58.9</b>                                 | 56.0    |   |            |
| Gross profit margin percentage                    | <b>28.0</b>                                 | 24.5    |   |            |
| Operating income margin percentage                | <b>8.2</b>                                  | 3.6     |   |            |
| Return on equity                                  | <b>7.5</b>                                  | 2.1     |   |            |
| Price-earnings ratio                              | <b>25.0</b>                                 | 50.0    |   |            |

Note: Yen amounts have been translated into U.S. dollars, for convenience only, at the rate of ¥106=US\$1.

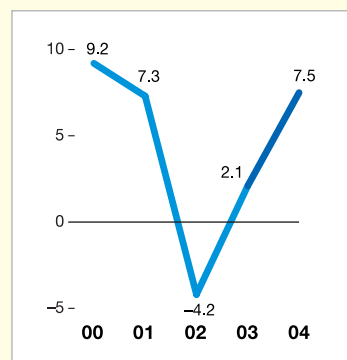
**Net Sales**  
(Yen in billions)



**Operating Income Ratio**  
(%)



**Return on Equity**  
(%)





### Two Consecutive Years of Top- and Bottom-Line Growth

TDK followed up last year's improved performance with stellar results in fiscal 2004, which ended on March 31, 2004. Consolidated net sales rose 8.2% to ¥658,862 million on a strong showing from the electronic materials and components segment. Growing demand for components, fueled by expansion in the digital home appliances market and an uptick in PC and mobile phone demand, supported sales of electronic materials and electronic devices. Meanwhile, recording devices sales grew by more than 30% year on year, the result mainly of growth in the hard disk drive (HDD) market and TDK's share of heads for this market. Operating income rose 2.5 times to ¥54,322 million on improved operating margins as rationalization initiatives yielded results. Net income jumped 3.5 times to ¥42,101 million, the result of ongoing reforms to the profit structure and other factors.

### Reflecting on Exciting 108—Unfinished Business

March 2004 marked the end of Exciting 108, the medium-term management plan that has been the polestar for our business activities since April 2000. Unfortunately, a major unforeseen event in the intervening period rendered our original Exciting 108 assumptions obsolete—the bursting of the IT bubble—and meant we had to abandon hope of achieving our targets at an early stage. And our capital expenditures fell out of step with demand cycles, too. This prompted us to launch rapid, wholesale structural reforms to address various problems. Exciting 108 was thus a period in which we realigned our operations to stay in step with market changes.

But TDK has achieved much over the past two years. The resolute execution of structural reforms has brought about a renewed spirit and ability to take up two challenges: generating profits under the presumption that our top line won't grow, and raising sales without counting on market growth. The rebound in our results in fiscal 2004 is evidence of the success of our reforms. So, while we fell short of our Exciting 108 goals, we have cleared the path to eventually achieving them.

A closer look at our fiscal 2004 results, however, reveals a number of key issues. One is the degree to which we rely on HDD heads and capacitors for our earnings. Another is slow progress with structural reforms in the magnetic materials-related and recording media businesses, two of our stalwarts in the past. We also have work to do improving the profit structure in high-frequency components and semiconductors, businesses that will be crucial in the unfolding broadband era.

While implementing measures to address these issues, we will remain tightly focused in fiscal 2005 and beyond on funneling resources to three key markets: IT home electronics appliances; high-speed, large-capacity networks; and car electronics. In these three markets, we want to expand our portfolio of number-one products, particularly for finished products exhibiting growth potential.

### **An Exciting Company—a Source of Inspiration and Excitement**

TDK's commitment to making the best possible products flows as strongly through our corporate veins today as it always has. We pride ourselves on being a company recognized for its diligence and sincerity. But I also want TDK to be an Exciting Company. This means serving as a source of inspiration and excitement by executing our imperatives more resolutely and improving quality. An Exciting Company should be able to inspire people and create value for all stakeholders—shareholders, customers, suppliers, employees and societies alike. Employees are key. This vision cannot be realized if employees don't embrace this mantra and work to raise their own value. With the pride of professionals and a sense of ownership and mission, I want each and every member of TDK to do just that. Recognizing each other's value and working collectively as a team toward shared goals is equally important. The sense of fulfillment at taking up new challenges and the joy in achieving goals will be a source of newfound energy. This is the origin of an Exciting Company.

### **TDK's Continued Revival Hinges on Growth in Our Core Business**

In electronic materials and components, our core business, we have many issues to address, as I said previously. These must be viewed in the context of an electronics industry that is expected to continue to grow and our duty to contribute to society as a key member of this industry. To succeed, we must identify customer needs and provide the products they want in a timely manner.

In this vein, we are determined to expand our components business, which is distinguished by the use of TDK's advanced materials development and process technologies. And we will expand in our core business domain by enhancing our reservoir of core technology. That's what TDK has long been known for. We will align ourselves with market demand, reinforcing our presence in domains in which we have traditionally been strong. Upgrading our core business is our top priority. Only by achieving this can we say that TDK is on a true growth trajectory.

In fiscal 2004, the operating income margin was 8.2% for TDK as a whole, but lower for the core electronic components operations. Electronic components that are used in a wide variety of fields should have a high profit margin. Earnings from recording media and HDD heads, both categories where TDK can set itself apart from competitors, should augment these earnings to create what I see as an ideal profit structure. It is for this reason that I say TDK's revival hinges on growth in our core business.

### **Our Core Business—Driving New Growth**

The following concrete strategies target this new growth and will be vital to realizing our image of TDK as an Exciting Company by focusing closely on our core business.

#### **1. Offer products imbuing value that customers want**

##### **Profit—a measure of a company's value**

Profit is the difference between the value customers perceive in our products and the cost of our efforts to supply those products. Another way of looking at this equation is that profit reflects customer satisfaction and one's competitiveness. This, in my view, is the value of a company, and one specific way to gauge that value is the operating income margin. TDK's operating income margin must be at least 10%. If TDK is not generating this degree of value, we are not fully satisfying everyone with an interest in TDK, including myself, and cannot continue to make the investments that are necessary for our business. In an electronics industry embroiled in fierce competition, this principle is critical to the very survival of a company. Sooner or later, being unable to produce sufficient value will mean no longer being able to keep pace with the competition. That's why I believe that the operating profit margin is an accurate measure of a company's value.

### Increasing the proportion of new and industry-leading products

Raising sales of new products as a percentage of net sales is the first vital step for lifting the operating margin. Growth hinges on it. New products have a high profit margin and are often purchased in large quantities. It is for these reasons that I am stressing the importance of new product-driven growth. New products make a company stand out from the crowd by showcasing core technologies. At TDK, new products, excluding HDD heads, accounted for around 24% of net sales in fiscal 2004. We plan to raise this to 30% in fiscal 2005. Our other strategy is to increase the percentage of products in our sales mix that are number one in new and growing fields, not mature markets. In fiscal 2005, our aim is for number-one products to generate 50% of our total net sales.

### Smaller, higher-capacitance components change technologies and create new applications

Multilayer chip capacitors perfectly illustrate the statement that “smaller, higher-capacitance components change technologies and create new applications.” The size of components determines the technology used. And when the capacitance is increased, a different manufacturing method is required. In each case, close to 1,000 layers of ceramic material sheets no more than 1 micron thick must be stacked. Capacitors epitomize the value of developing new products. Smaller capacitors with larger capacitance can be incorporated in finished products that previously used other components. This is important because we are in an era in which smaller products can create exciting new application markets. I’m always impressed when I see what our researchers have come up with. Some capacitors are small enough to be blown away with one’s breath when talking. Smaller than the tip of a pencil, they are too small to see with the naked eye. The result of stacking tens of extremely thin layers of ultra-fine materials, these tiny components underscore TDK’s value because of the key role they play in the development of new applications and products.

### 2. Strengthening core technologies strengthens competitiveness

Making strong products stronger is a key factor that will determine our competitiveness going forward. Refining core technologies is an essential element of our drive to increase the proportion of new and number-one products. To facilitate this, we initiated a major overhaul of our R&D framework in January 2004. The organizational reforms had three objectives.

#### Enhance our standing as an e-material solution provider

TDK is fortunate in that its business domain is the electronics industry. Our markets are constantly evolving, meaning that as an electronic components company we are always kept on our toes. As a self-described e-material solution provider, our concept of solutions is shaped by market needs, by the desire to provide the products customers want when they want them. For that, we are stepping up efforts to develop materials and hone the process technologies that use them.

#### A more market-oriented approach in R&D divisions

TDK’s research divisions have many highly skilled researchers. In the digital era, R&D will have a major bearing on our results and it is these researchers who will determine the success of our R&D. Researchers must naturally understand customer requirements. But they must also set standards for deciding whether a research theme will create value for TDK—whether the investment in R&D is recoverable, for example. To equip researchers with the background knowledge they need to make such judgments, we are assigning them to production lines so they can get a feel for front-line operations. Previously,



there was a tendency for TDK management to send researchers directly to research facilities without first giving them the opportunity to gain a firsthand understanding of our businesses and the issues that determine whether value can be created. Nurturing researchers with both technical skills and a business mindset is an important element of our personnel strategy.

#### An even tighter focus on research themes

Standards for selecting research themes are fluid. They change to mirror changes in the competitive landscape and market needs. Building a storehouse of patents is incomparably far more important now than ever before. In the digital era, the development timeframe is also a very important parameter for selecting research themes. Our task is to improve R&D efficiency by sufficiently considering the importance of ever-changing parameters and using this analysis to concentrate resources in a more tightly focused manner.

#### 3. Professionals trusted by customers and society

Maximizing enterprise value is the single greatest mission of management. And there is no question that the people working at TDK are the foundation for this. It is people that make the products that satisfy customers and generate earnings. That's why we are creating an environment that motivates and inspires employees to create the products that create the value that creates an Exciting Company—an exciting electronic components company.

#### Controlling Inventory Levels

The life cycles of electronic components are growing shorter year by year, meaning that prices can quickly drop if one isn't careful. In this environment, the decision to raise output cannot be based solely on projections of strong sales of a particular product. Because inventory soon becomes obsolete, the return on assets and lead times are more important than the capacity utilization rate. Misreading trends in demand can be fatal for any electronic components company. That's why, we tightly manage inventory by setting basic stock levels based on lead times.

Looking at the medium- to long-term picture, I believe that the electronics industry is entering a new cycle of growth. The industry has a major role to play in creating a ubiquitous information society as progress is made in building Internet- and broadband-based networks. It is my view that, while demand is likely to ebb and flow in the short term due to inventory cycles, there will be strong growth over the long term.

But make no mistake, not everyone will be successful in the digital era just because they are part of the electronics industry. Companies that have the technologies to provide products imbuing value will thrive. Others won't.

Leveraging materials, process and evaluation & simulation technologies, TDK's core technologies, we will deliver products of value to the market, in the process contributing to the development of the electronics industry. Making this possible will be the support of shareholders, customers and business partners, and the commitment of employees.


As we pursue the goal of being an Exciting Company, we aim to maximize enterprise value through a tight focus on electronic materials and components, an area that is key to our future growth. We still have much unfinished business in this regard—but the growth prospects are there.

June 2004



Hajime Sawabe  
President and CEO





**Why? Because  
we still have much  
unfinished business  
to be an Exciting  
Company.**

**We have yet to achieve the strong growth and high profit margins that we expect in our core business. Only when we do, which means addressing various issues, and have created a company that is the leader in the electronic components field will we earn high marks from stakeholders.**



# Industry-Leading Core Products and Technologies



GMR heads

*Creating new products is a company's social mission. But performing this role in the impending ubiquitous information society will require companies to skillfully integrate elemental technologies to satisfy diverse needs. TDK is doing that. And the result is total solutions encompassing products, systems and services.*



## Refining Core Technologies to Expand in Three Growth Fields

*Based on a strategy of prioritizing resources to invest in areas harboring strong prospects, TDK has pinpointed three growth fields in an electronics industry driving progress in ubiquitous information networks: IT home electronics appliances; high-speed, large-capacity networks; and car electronics. Leveraging its core technologies—materials technologies, process technologies, and evaluation & simulation technologies—TDK has won high marks around the world for providing advanced electronic components, electronic devices, systems and services to these fields.*

*Ubiquitous information networks will spawn a borderless, seamless networked information society. But beyond facilitating communication anytime, anywhere and with anybody on a worldwide scale, ubiquitous networks will also usher in another era—communication using any type of electronic device or equipment. All manner of electronic devices and equipment, from mobile phones and PCs to AV equipment, household appliances and car navigation systems, will communicate with one another based on the same interface specification. Amid this communication sea change, electronic component manufacturers must focus on creating more than just quality products if they hope to survive. Several aspects of developing products for finished product manufacturers are taking on greater importance: coming up with concepts and designs that provide accurate and timely solutions from the earliest stages of conceptual development and design, and providing solutions that anticipate future product trends. In a word, component manufacturers must be more than component manufacturers. That's what TDK is—and it's a business style that is becoming increasingly important.*

*Complex convergences of technologies in the ubiquitous era are expected to drive expansion in the previously mentioned three growth fields TDK is targeting. Evidence of this can already be seen in the IT home electronics market, with rapid growth centered on the so-called “three new consumer treasures”: digital still cameras, large flat-screen TVs and HDD/DVD recorders. And high-speed, large-capacity networks based on broadband communications and wired/wireless LANs are increasingly branching out beyond offices and homes to find their way into car electronics. Advances are also being made with mobile phones, which are evolving as sophisticated multimedia terminals that are a step up from mobile communications devices.*

*And with product life cycles growing shorter, seemingly by the day, the onus is on electronic component manufacturers to fashion flexible production systems. TDK has done that. Materials, process, and evaluation & simulation technologies, the source of TDK's competitiveness, allow the company to swiftly meet various market needs, including demands for strict quality management, short lead times and producing many varieties of products in small lots. Underpinning the continued competitiveness of these core technologies are close collaboration and personnel exchanges among operating divisions and a production system that skillfully integrates elemental technologies.*

*Guided by the mantra of being an Exciting Company, TDK is determined to continue innovating from the earliest stages of product development. TDK's ongoing drive is to be the quintessential e-material solution provider, one that boldly challenges the frontiers of innovation.*

**Chris T. Burket, TDK Corporation of America**

*My job is to promote TDK's products where the IC maker can receive benefits by utilizing our components in his/her design. Designing in our leading-edge new products ensures that the IC maker is continuing to specify our products which are aligned in the direction we are moving. I believe that TDK will see the results of our sales promotion activities in the near future.*



## Magnetic Head Technology—Nanotechnology

### The Cornerstone of TDK's Competitiveness

Hard disk drives (HDDs) are tipped to benefit from an explosion in demand as applications widen. No longer is the HDD seen only as a storage device for PCs. HDDs are now finding a home in an increasing number of products, including car navigation systems, HDD recorders, and mobile devices.

iVDR (Information Versatile Disk for Removable usage), which uses 2.5-inch and lower HDDs, is currently attracting interest. Small enough to slip into one's pocket, iVDR is a removable HDD recorder that stores large volumes of data and can even record digital Hi-Vision TV broadcasts. It can be connected to PCs, AV equipment, and other electronic equipment.

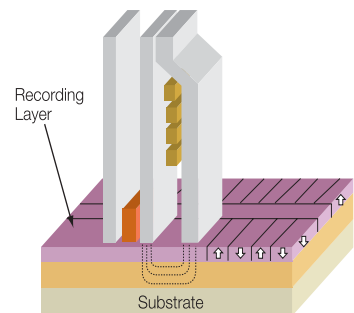
The iVDR highlights the rapid progress in recent years in making HDDs smaller. Two factors have contributed to this: hard disk materials with higher areal recording densities, and evolutionary advances in magnetic heads. The tip of the swing arm that reads the fast-spinning surface of the hard disk has been integrated with the slider, for example. As a world leader in magnetic heads, TDK has an integrated ability to produce many types of heads for HDDs, from HGA (Head Gimbal Assembly) to HSA (Head Stack Assembly). And TDK has developed a high impact-resistant head that can withstand forces of more than 1,000Gs during normal operation, approximately 5 times that of existing products, a breakthrough that has cleared the path to equipping mobile devices with HDDs.

Well before nanotechnology became a household word, TDK was consistently bringing to bear various elemental technologies at the nanometer level. Take the spin valve of current GMR (Giant-MR) heads with an areal recording density of 60Gbps (gigabit/square inch) as an illustration. The valve is fabricated by stacking many layers of film no thicker than a few nanometers. The TMR head (Tunneling-MR head) is another example. A next-generation head for the 100Gbps era, TDK's TMR head is produced by stacking layers of ferromagnetic and anti-ferromagnetic of only several nanometers between insulation layers less than 1 nanometer thick. In this microscopic world, even one improperly placed atom can disrupt the characteristics of an entire layer of thin film. TDK has also begun making use of perpendicular magnetic recording (CPP-GMR head), another next-generation technology, as it makes progress developing single-pole magnetic heads that can be fabricated using the same cost-efficient processes as used for integrated circuits. Through these and other efforts on the cutting edge of HDD head technology, TDK is aiming to make further strides in raising areal recording density.

TDK's treasure trove of materials technologies, leading-edge process technologies in the range of one-tenth of a nanometer, and the foresight to accurately read the unfolding market roadmap underpin its competitiveness as one of the world's preeminent manufacturers of magnetic heads.



A TMR head (Tunneling-MR head) through an electron microscope



An artist's impression of perpendicular magnetic recording



#### CHAU Yiu Chung, SAE Magnetics (H.K.) Ltd.

*I work at SAE Magnetics (H.K.) Ltd., where we are endeavoring to improve production yields and quality in the production of HDD heads. Part of our mission is to enable TDK to meet customers' requirements on time and at the right price. At present, my colleagues and I are learning and exploring all about HDD heads, including details of TDK's long-standing involvement in this field. Through these activities, I'm confident that we'll be a company with stable growth and bright prospects.*



## Leading the Way in Compactness, Capacitance and Performance

### TDK's Multilayer Ceramic Chip Capacitors

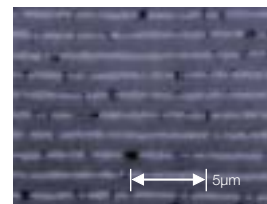
Chip capacitors are vital components in electronic circuits. Given that some 200-300 chip capacitors are used in a typical mobile phone, it is clear that downsizing chip capacitors can save considerable space and size and enable the addition of new functions. At present, 600 billion multilayer ceramic chip capacitors are produced worldwide every year, the vast majority of which are made by Japanese companies.

Multilayer ceramic chip capacitors are produced by printing electrode paste on thin ceramic sheets. Anywhere from tens to hundreds of these are then pressed together, cut to the proper dimensions and fired. TDK has developed a revolutionary sheet processing method and was first to begin mass producing multilayer ceramic chip capacitors with internal electrodes made of nickel instead of expensive precious metals.

The latter opened the way to the development of lower-cost products with larger capacitance and other outstanding characteristics. In recent times, there has been a switch away from using aluminum electrolytic capacitors and tantalum electrolytic capacitors to multilayer ceramic chip capacitors for large-capacitance capacitors for mobile phones, notebook PCs and other equipment. Electrolytic capacitors have the drawback of generating heat at high signal frequencies due to their high ESR (equivalent series resistance). In multilayer ceramic chip capacitors, however, impedance falls as the signal frequency rises. Furthermore, taking advantage of the fact that it has no polarity it is easier to use. Digital equipment with faster CPUs and lower power consumption will require low ESR decoupling capacitors. TDK has achieved a dramatic reduction in ESR while bringing down the size and increasing the capacitance of capacitors by applying its expertise in materials design technology for dielectric materials and ultra-thin multilayering technologies.

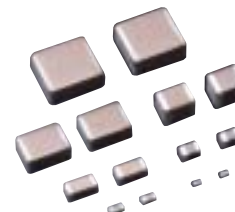
Large numbers of capacitors are being used in automobiles due to advances in car electronics. But extremely severe demands are placed on durability; capacitors must withstand shocks and vibrations and operate under high ambient temperatures. Furthermore, there is a trend toward improving fuel economy by moving the electronic control unit (ECU) closer to the engine and making the wire harness connecting the two shorter and lighter. Responding to these exacting applications, TDK developed an X8R-type multilayer ceramic chip capacitor, which meets the highest standard for temperature resistance. This series of capacitors displays the same superior characteristics in other high-temperature environments as well, such as in precision measurement equipment.

For many years, manufacturers believed that the thickness of the dielectric layers of multilayer ceramic chip capacitors would never fall below 2 micrometers. TDK turned conventional wisdom on its head, however, by developing a superfine ceramic powder with a particle diameter of 0.2 micrometers by applying advanced technology that uniformly combines this powder with a minute quantity of additives. Using these materials technologies and multilayer process technology, TDK has succeeded in developing the 0402-type series (0.4 x 0.2mm) of ultra-compact capacitor. The dielectric layer at present is a mere approximate 1 micrometer thick and capacitors have more than 1,000 layers. Aiming for further breakthroughs, TDK's desire to make progress in multilayer ceramic chip capacitors knows no bounds.

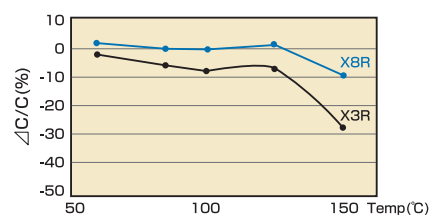


**Cross-section of a multilayer ceramic chip capacitor**

TDK's ability to make smaller, larger capacitance capacitors lies in its proprietary thin film and multilayering technologies. By making dielectric materials finer, TDK has reduced the thickness of dielectric materials and internal electrodes to about 1 micrometer and under 1 micrometer, respectively.



**X8R multilayer ceramic chip capacitor**



**Capacitance Temperature Characteristics**

The permissible variation in capacitance in multilayer ceramic chip capacitors is determined by the temperature range under which each model can be used. This TDK capacitor, the first in the industry to use nickel internal electrodes and designed for high-temperature operating environments, clears X8R, a strict standard under which capacitance cannot vary by more than  $\pm 15\%$  over a temperature range of  $-55\sim+150^{\circ}\text{C}$ .

### Masazumi Arata, Circuit Devices Business Group

*My responsibility is the development of multilayer ferrite coils. Satisfying demands from customers for smaller, thinner coils with enhanced properties while keeping prices low requires us to review existing design and production methods and materials from the ground up. Another important aspect of my work is creating profitable industry-leading products. Speed is key. Development presents its fair share of headaches, but this is outweighed by the pride I take in working on products which customers have high expectations for.*



# TDK's Core Technologies: Materials, Process, and Evaluation & Simulation Technologies



Optical pickup for  
DVD recorder



DC-DC converter for hybrid  
electric vehicles

*A company's vitality hinges on the ability to constantly become more competitive. And earning the trust of customers is the motivation for refining technologies. Drawing on its collective strengths in three core technological areas—materials, process, and evaluation & simulation technologies—TDK is working to break new ground.*



### New Products Continue a Tradition of Excellence in Ferrite Technology Low Core Loss, High Saturation Magnetic Flux Density Products—Just What the Industry Wants

Ferrite is still a material with boundless development potential: even minor changes in material composition and firing conditions can unearth superior characteristics that break new theoretical ground. TDK boasts an unshakeable competitive advantage in ferrite technologies thanks to its extensive know-how as well as sophisticated technological reservoir in this area. No other company can match the experience of TDK, which was the world's first company to commercialize ferrite about 70 years ago.

The importance of ferrite is increasing as a material for cores in transformers and choke coils that today must be smaller and lighter while offering better specifications. In particular, power ferrites require formulations that minimize energy loss within the core so that power supply transformers can operate more efficiently. Generally speaking, however, the sensitivity of ferrite's magnetic properties to changes in temperature has presented obstacles to maintaining a low core loss over a wide temperature range. TDK's PC95 ferrite core material solves this problem. Based on TDK's advanced materials technology, PC95 has won high marks as an ideal material for use in DC-DC converters for hybrid electric vehicles, an application that demands the utmost in energy efficiency. PC95 is also well suited for transformers to power backlights of large-screen LCD TVs, in which the operating temperature of the transformer differs depending on where it is placed in the LCD.

PC90 also continues TDK's tradition of leveraging its knowledge of ferrite to shatter conventional wisdom. For years, formulating a ferrite with both a low energy loss and high saturation flux density was believed to be impossible. TDK developed PC90 by pushing the properties of ferrite to the limit, achieving the optimal balance between these conflicting properties. Achieving both low energy loss and high saturation flux density in one material, PC90 is a long-awaited breakthrough for the industry. DNW45, a ferrite material designed for pulse transformers required by next-generation high-speed LAN systems, as well as increasingly popular ADSL and gigabit Ethernet systems, also illustrates how TDK's rich lineup of ferrites helps customers develop products that are smaller, lighter and more slender while packing in more sophisticated functions.

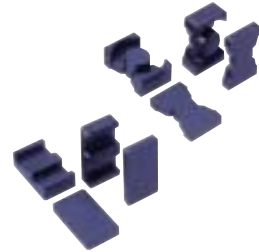
### TDK's Magnet Technologies Continue to Break New Ground

Magnets are essential components of electric motors and many other widely used electrical and electronic devices. Progress in magnet technology through the years has made enormous contributions to conserving energy and protecting the environment. Beginning with the commercialization of ferrite magnets in 1959, TDK has consistently been a leader in state-of-the-art magnet technologies. Innovations have included REC rare-earth magnets, made of samarium and cobalt ( $\text{Sm}_2\text{Co}_{17}$ ); and the NEOREC magnet, a neodymium (Nd-Fe-B) magnet with a maximum energy product (BH) that is one of the highest in the world. Innovation even includes ferrite magnets, a sector widely regarded as having reached its technological limit. But TDK proved this thinking wrong with its considerable R&D resources and spirit of taking on new challenges. The development of a high-performance lanthanum-cobalt ferrite magnet, a world first, typifies this spirit. Currently, TDK is rapidly stepping up the output of NEOREC magnets as the need for smaller, lighter weight electronic appliances with better performance grows. NEOREC magnets are being used in drive motors in hybrid electric cars, air-conditioner and other home appliance motors, and digital still camera actuators. Use continues to expand.

NEOREC magnets are also indispensable for VCMs (voice coil motors) that move the magnetic heads in HDDs at high speed. Now that HDDs are beginning to appear in mobile equipment, a higher degree of dimensional accuracy is required in magnets for VCMs. No problem for TDK. The company has developed high-precision molding technologies and surface processing technologies that create an extremely uniform plating layer, backed by the development of high-performance presses and exclusive electroplating fluids.

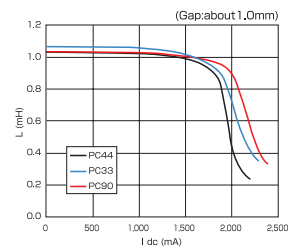
### Fumitaka Baba, Materials R&D Center

*Raising production output of rare-earth magnetic materials without undermining their properties is a delicate balancing act. But solving these conflicting issues can lead to cost savings for TDK. It's a very rewarding field of research. I enjoy the challenge, knowing the potential payoffs for the company. Every breakthrough motivates me to achieve more.*



#### Transformer cores using power ferrite

TDK's transformer cores are smaller and more slender thanks to original profiles made possible by technology for the design of optimal magnetic circuitry.



#### D.C. pre-magnetization curve

The D.C. pre-magnetization curve is a critical parameter in making cores smaller without sacrificing performance. It is much better in PC90 ferrite than in TDK's PC33 and PC44. A groundbreaking ferrite, PC90 responds to an electronics industry requiring transformers and coils with a low core loss and high saturation magnetic flux density.



VCM magnets



Leveraging analysis and control techniques that transcend conventional theory, and by rationalizing its production line and optimizing the procurement of raw materials, TDK is engaged in an endless pursuit of world-leading magnet performance and cost competitiveness. TDK's magnets and the products that use them respond to all manner of cutting-edge needs.

### Process Technologies

#### The World's Smallest SMD Inductors—A Showcase of Elemental Technologies

SMD (surface mount device) components have driven advances in the density of circuit boards in mobile phones, video cameras, digital still cameras, MD players and other mobile equipment. SMD inductors, passive components that are every bit as vital as capacitors, must be smaller, slimmer and lighter to facilitate higher circuit densities. TDK offers a range of inductors to respond to such demands. These include the VLF series of SMD power inductors for use in DC-DC converters; the MLK0603 series of multilayer chip inductors, which are used in RF matching circuits; and the GLF SMD inductor series, which has a coil structure with a low DC resistance, thus responding to the trend toward lower power consumption in mobile equipment.

Besides using fine multilayering technology, coil structure-type inductors also employ sophisticated process technologies. The GLF1608, the world's smallest\* SMD inductor with a coil structure, was developed by applying several advanced elemental technologies, including technology for creating finer materials to raise the core's dimensional accuracy, precise positional control of each strand of wire and a technique that connects wires at high temperature without using solder. In terms of compactness and the two main characteristics of inductors—inductance and low DC resistance—the GLF1608 series has passed stringent reliability trials with flying colors.

\*As of April 2004 (TDK survey)

While enhancing competitiveness by reducing costs and shortening lead times and pursuing the highest-quality products free of defects, TDK will continue developing inductors with better performance and smaller dimensions to expand its lineup of SMD inductors.

#### Demand for Varistors Rising as IC Drive Voltages Fall

Voltages to drive ICs are declining as electronic components become smaller and circuit density increases. And lower voltages are making mobile phones and other mobile equipment more susceptible to surges in voltage from static electricity and other sources. Varistors absorb these surges, protecting equipment from malfunctions and damage. This is done by utilizing the unique physical properties of the boundaries between crystals in the electronic ferrite used in varistors. The three-dimensional matrix formed by these boundaries ordinarily has a high electrical resistance. But when there is a voltage surge, the quantum tunneling effect quickly grounds the current.

TDK's multilayer chip varistors significantly lower the varistor voltage, compared with existing disk-type varistors, and achieve both a more compact size and greater reliability. The application of a proprietary composition of zinc oxide and praseodymium oxide compound and advanced molecular structure control technology has enabled TDK to attain uniformity in the boundaries between ferrite crystals and minimize the size of the crystals. Together with the use of thinner layers of materials, TDK has successfully developed varistors with stable characteristics.

TDK's multilayer chip varistors are effective at combating surges in mobile phones, PDAs, portable AV equipment, game consoles and other equipment. TDK is working steadily to bolster its product lineup, including low capacitance varistors that are suitable for high-speed signal lines such as USB 2.0 as well as varistors that are smaller and compatible with lower voltages and arrays.



#### The GLF1608 series of SMD inductors

The GLF1608 is the world's smallest\* SMD inductor with a coil structure. The simple shape reduces materials, compared with the existing NLV series. And TDK has enhanced performance in many ways, such as by incorporating ferrite powder in the resin used for the exterior package.



#### Microscopic crystal structure

With these ferrite crystals, which are remarkably fine and uniform compared with other formulations, TDK has achieved stable varistor characteristics and miniaturization.



**Welcome to nanotechnology. This technician examines and analyzes materials in a world few can see.**



**A team of researchers decked out in their cleanroom suits.**

### TDK's New Solutions for the Ubiquitous Age

With the start in December 2003 of terrestrial digital TV broadcasts in Japan, HDMI will likely be an acronym viewers become more familiar with. Why? Because HDMI, or High-Definition Multimedia Interface, is an interface that connects DVD recorders, digital tuners and other digital AV equipment to digital TVs. HDMI is a specification that adds functions to AV equipment while maintaining backward compatibility with DVI (Digital Visual Interface), which is used mainly in PC monitors. The defining feature of HDMI is its simplicity—it combines high-definition video and multi-channel audio simply with one small connector.

With HDMI, which employs a differential signaling, filter technology is crucial for preventing skew caused by phase shifts in the differential signal. For HDMI to become the standard interface for connecting different types of digital equipment, it will require the support of as many companies as possible. TDK was the first EMC parts manufacturer in the industry to be registered with HDMI Licensing, LLC, the standardization body for HDMI.

Proposing optimal circuit structures in collaboration with manufacturers of finished products, ICs, connectors and other products represents a new business model for TDK, one that will transform the company into a total provider of EMC solutions. TDK has already seen one result of this initiative with the development of its ACM2012H-900, a common-mode filter for HDMI.

Armed with its evaluation & simulation technologies, which include high-frequency differential signal evaluation technology and IC evaluation technology as well as filter and circuit design technologies, TDK is determined to play a major role in advancing next-generation digital networks.

### World-Leading UWB Evaluation System

UWB (Ultra Wideband) communications is attracting worldwide interest as an ultra-high speed short-distance wireless communications system with a maximum transmission speed of 480Mbps. UWB enables digital TVs, HDD/DVD recorders, PCs and other equipment to be wirelessly networked to facilitate the instantaneous exchange of large volumes of data such as Hi-Vision video. Expectations are huge for this technology because it is also suitable for positioning measuring and as a short-distance radar. There are many possible applications, from crime-prevention systems and wireless tags to metal detection and resource prospecting.

TDK has participated in MBOA (Multiband OFDM Alliance), the group which is proposing UWB technical specifications, from an early stage. While forging collaborative relationships with other companies in the industry, TDK is mustering its technologies to nurture what it sees as a promising market.

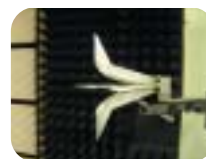
Unlike conventional wireless communications, which uses electromagnetic waves to carry signals, UWB sends and receives data over a wide spectrum of 3.1 to 10.6 gigahertz by using very small pulses of 1 nanosecond in duration. Practical application of this technology, however, requires solutions to problems relating to interference with existing wireless communications systems and other electronic equipment. Furthermore, because the strength of UWB electromagnetic waves is weaker than the noise (interference) emitted by PCs, an extremely high level of re-productivity will be required to conduct evaluation tests.

But UWB communications is seen in some quarters as opening the way to a full-fledged ubiquitous networked society. TDK's evaluation & simulation technologies are a powerful ally for this technology. TDK has developed a UWB evaluation system—the world's first—based on its unique EMC evaluation technology as well as expertise in electromagnetic wave absorption and anechoic chambers. In addition to performing EMC evaluations of UWB communications and antennas, the system can perform measurements of antenna-equipped UWB modules.



**The ACM2012H-900 common-mode filter for HDMI**

Leveraging molding technologies for precisely forming miniature cores and automated winding and wire connection technologies that precisely control the distance between wires, TDK has achieved a superior coupling coefficient. The ACM2012H-900 common-mode filter dramatically extends the transmission band to 6GHz, well above the previous limit of 1.6GHz.



**Antenna**



**Anechoic chamber**

### UWB evaluation system

TDK's UWB evaluation system consists totally of software and hardware developed in-house, including high-performance standard antennas that automatically switch between vertically and horizontally polarized waves, rotating machine devices, controllers, anechoic chambers and control programs.

### Yuki Miyamoto, Advanced Process Technology Center

*TDK is researching ways to make ceramic substrates as smooth as silicon substrates. It's an exciting research theme because it harbors the potential to widen applications for ceramic substrates. We've already enjoyed some success and we remain convinced that by solving certain technical issues an even higher degree of smoothness will be possible.*

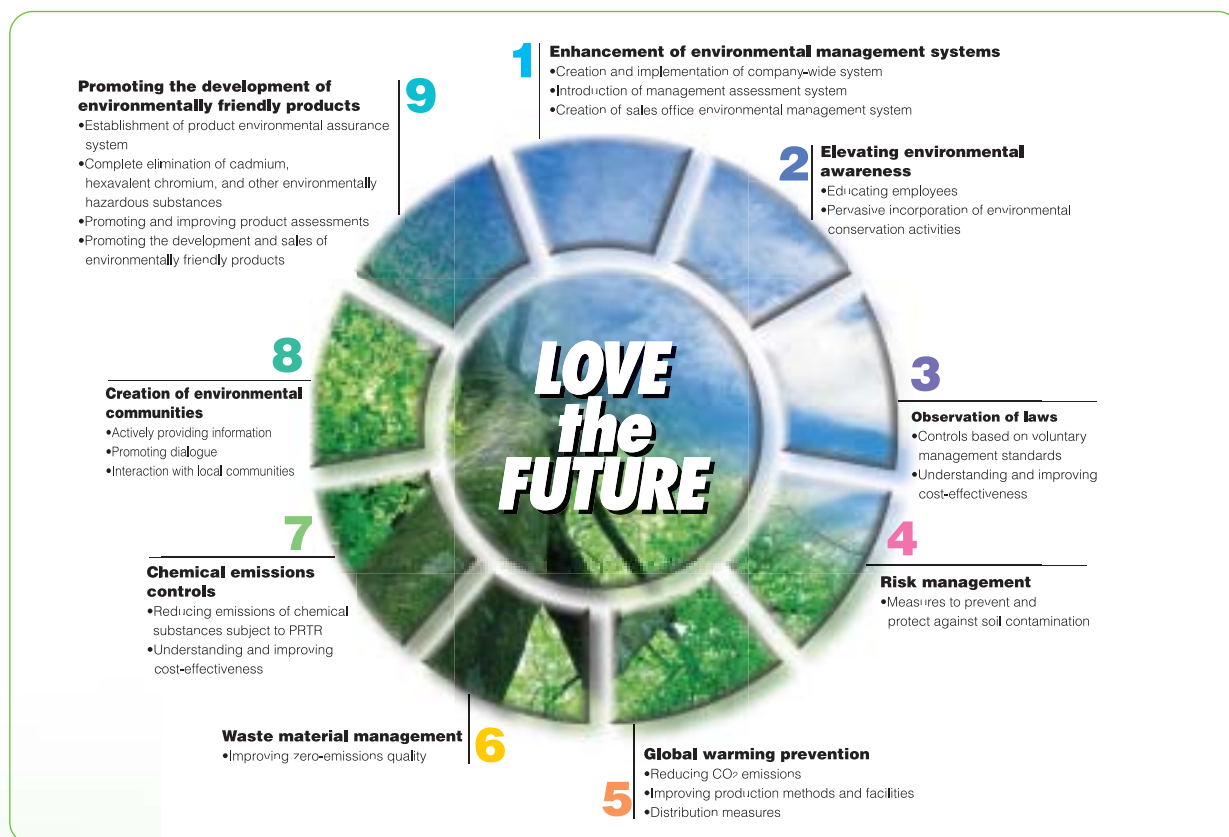




## Environmental Activities

*Positioning environmental preservation as one of its most important management themes, TDK has formulated a fundamental environmental plan, "TDK Environmental Action 2010." The next step in the company's environmental activities, this plan runs through 2010. TDK Environmental Action 2010 contains nine concrete action points that were established based on the nature of TDK's business activities, and sets medium- and long-term goals. The plan clearly defines the roles and responsibilities of sites, business divisions and head office.*

### ● An Overview of TDK Environmental Action 2010



### ● Main Highlights and Goals

#### Fiscal 2004 Highlights

Enhancement of environmental management systems

- Started operating a company-wide system

Global warming prevention

- Put in place an energy management system

Waste material management

- Achieved zero emissions in March 2004 at all sites in Japan and four overseas sites

Promoting the development of environmentally friendly products

- Revised green procurement standards
- Revised product assessment

#### Fiscal 2005 Goals

Enhancement of environmental management systems

- Complete the process to integrate the ISO 14001 certification of individual business units into a company-wide system

Global warming prevention

- Reduce CO<sub>2</sub> emissions (improve energy unit consumption by at least 1.5% compared with previous year)
- Establish an energy management system

Waste material management

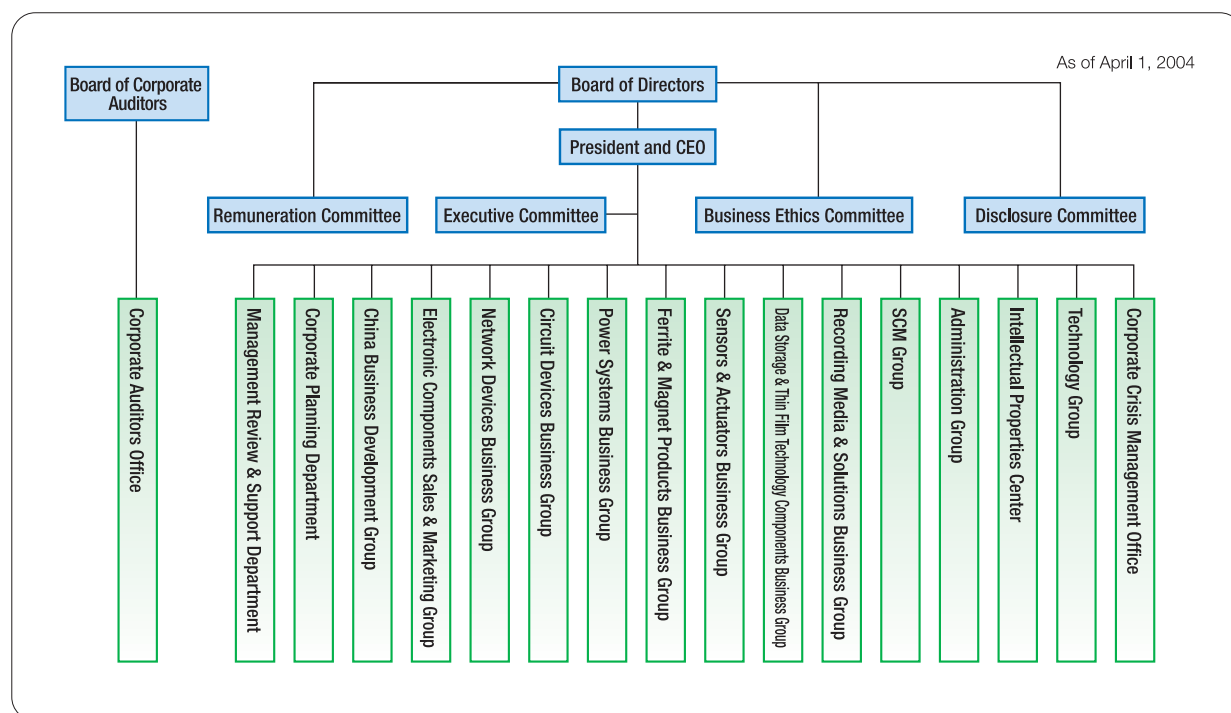
- Improve resource recycling efficiency by at least 1.0% from the previous fiscal year
- Reduce volume of waste materials generated by at least 1.0% compared with the previous fiscal year

Promoting the development of environmentally friendly products

- Conduct resource management using TDK Green Procurement Standards (Green procurement)
- Establish of product environmental assurance system
- Promote the TDK All Green Strategy (Completely eliminate the use of lead, mercury, cadmium, hexavalent chromium compounds, PBB (polybrominated biphenyls), PBDE (polybrominated diphenyl ethers), PVC (polyvinyl chloride) and brominated flame retardants)
- Promote and improve product assessment for all products

## Corporate Governance

*Companies must conduct their activities and manage their operations in a fair, impartial and transparent manner, abiding by laws and regulations, and with the recognition that their existence is supported by shareholders, customers, suppliers, employees and society. TDK has put in place internal control systems with this fundamental recognition in mind. It has also implemented a number of other measures in the same vein, such as appointing an outside director and corporate auditors, involving people outside the company in setting directors' remuneration, and ensuring that corporate ethics are strictly observed.*



One of TDK's 7 directors is an outside director, who also serves as the chairperson of the Remuneration Committee, which was set up to ensure the transparency of directors' remuneration. Two more committees, the Business Ethics Committee and Ethic Council, were established to ensure that TDK upholds corporate ethical standards. At the same time, TDK is continuing activities to build a global corporate ethics framework that also encompasses all domestic and overseas subsidiaries. All subsidiaries have an ethics council. Independent of these committees, TDK has a "helpline" that encourages employees to report matters relating to corporate ethics and offer suggestions. Moreover, having introduced the post of corporate officer, TDK has clearly demarcated responsibilities: directors are responsible for decision making and oversight, while corporate officers have responsibility for executing day-to-day operations. Corporate officers execute policies set by the Board of Directors in their respective areas of responsibility.

TDK applies the Corporate Auditor System in accordance with the Commercial Code of Japan, and 3 of its 5 corporate auditors come from outside the company. The role of the corporate auditor is not restricted to the supervision of directors'

activities. As required, they also audit the performance of duties. In addition, the Management Review & Support Department is primarily responsible for auditing business activities.

Another defining aspect of TDK's corporate governance system is that it receives advice and cautionary counsel from outside legal counsel regarding risks associated with TDK's corporate activities.

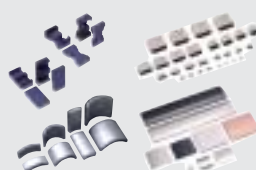
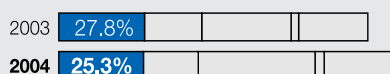
To comply with the U.S. Sarbanes-Oxley Act of 2002, a strict law relating to corporate governance that was prompted by a series of scandals involving major corporations, TDK has formed a project team that includes outside experts to undertake a fundamental review of corporate systems and to establish internal controls. The team is also implementing measures restricting the outsourcing of work to preserve the impartiality and independence of the independent auditors. Moreover, at the ordinary general meeting of shareholders held in June 2003, a resolution was approved that shortens the terms of directors to one year. This change was made to give the company the best management structure with which to respond flexibly to changes in its operating environment and to build greater trust with shareholders.

## TDK at a Glance

| Years ended March 31                | Yen (Millions)  |         | U.S. Dollars<br>(Thousands) | Change (%) |
|-------------------------------------|-----------------|---------|-----------------------------|------------|
|                                     | 2004            | 2003    | 2004                        |            |
| Electronic materials and components | <b>¥522,862</b> | 472,529 | <b>\$4,932,660</b>          | 10.7       |
| Electronic materials                | <b>166,818</b>  | 168,949 | <b>1,573,755</b>            | (1.3)      |
| Electronic devices                  | <b>107,999</b>  | 112,729 | <b>1,018,858</b>            | (4.2)      |
| Recording devices                   | <b>230,105</b>  | 175,986 | <b>2,170,802</b>            | 30.8       |
| Semiconductors and others           | <b>17,940</b>   | 14,865  | <b>169,245</b>              | 20.7       |
| Recording media & systems           | <b>136,000</b>  | 136,351 | <b>1,283,019</b>            | (0.3)      |
| Total                               | <b>¥658,862</b> | 608,880 | <b>\$6,215,679</b>          | 8.2        |

### Electronic Materials and Components

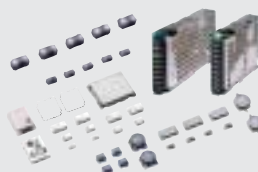
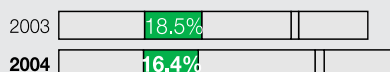
#### Electronic Materials



#### Main Products

Multilayer ceramic chip capacitors, ferrite cores for coils and transformers, ferrite and rare-earth magnets

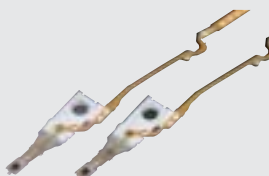
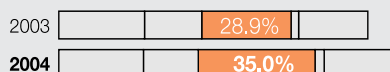
#### Electronic Devices



#### Main Products

Coils, EMC components, transformers, high-frequency components, piezoelectric components, sensors, chip varistors, DC-DC converters, switching power supplies

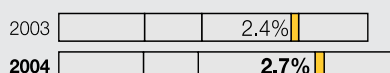
#### Recording Devices



#### Main Products

GMR heads for hard disk drives, heads for high-capacity floppy disk drives, thermal printer heads, optical pickups

#### Semiconductors and Others



#### Main Products

ICs for modems and LAN/WAN applications, anechoic chambers

### Recording Media & Systems



#### Main Products

Audiotapes, videotapes, CD-Rs, MiniDiscs (MDs), DVDs, tape-based data storage media for computers



## Review of Operations

Consolidated net sales for fiscal 2004, ended March 31, 2004, increased 8.2% from ¥608,880 million to ¥658,862 million.

In the electronics industry, TDK's field of operations, the year was characterized by the rising popularity of LCD and plasma flat-screen TVs, digital still cameras and DVD recorders, as well as by the increasing sophistication of mobile phones and replacement demand for PCs, and the growing use of electronics in automobiles. However, deflationary trends in world markets affected these finished products, placing unrelenting pricing pressure on electronic materials and components, and recording media and systems, TDK's main products.



### Electronic Materials and Components Segment

In the electronic materials and components segment, net sales increased 10.7%, from ¥472,529 million to ¥522,862 million. Sales in both the electronic materials and electronic devices sectors decreased compared with the previous fiscal year when TDK benefited from a temporary surge in demand related to the 2002 FIFA World Cup™ and strong demand from manufacturers following a period of inventory reductions. This decline occurred despite solid demand for components that was spurred by the growing popularity of flat-screen TVs, digital still cameras, DVD recorders and other electronic products, as well as by recovering sales of mobile phones. Segment sales as a whole rose on the back of a sharp year-on-year increase in sales of HDD heads accompanying burgeoning demand for HDDs. Sector results were as follows.

#### Electronic Materials

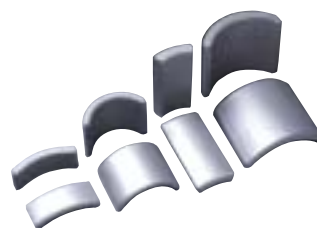
##### [Product Overview]

The **electronic materials** sector is broadly divided into two product sectors: capacitors, and ferrite cores and magnets.

Multilayer ceramic chip capacitors, the mainstay product of the first category, are produced by alternately stacking many layers of electrodes, consisting mainly of palladium or nickel, and dielectric material, mainly barium titanate or titanium oxide. The standout feature of these capacitors, which are designed to store electrical energy, is that each of the layers is no thicker than several to tens of micrometers. The ability to form such thin layers is one of TDK's greatest strengths and is critical to capacitor



Ferrite cores



Ferrite magnets

performance because energy storage increases with the number of layers. Multilayer chip capacitors store and discharge electric charges in the circuits of electronic devices. They are used to smooth out and stabilize electrical current, eliminate electromagnetic interference, or “noise,” and allow alternate current to pass while blocking direct current, a process known as coupling.

Ferrite is an electronic material that is mainly used as a magnetic material. Consisting primarily of ferric oxide, ferrite also includes cobalt, nickel, manganese or other metals to obtain precisely the desired properties. As ferrite is produced by sintering powder materials, it is called a magnetic ceramic. Ferrite is broadly divided into two types. One is soft ferrite, which is used in cores for transformers and coils. By improving the characteristic of soft ferrite, it is possible to make smaller, lighter and more efficient transformers and coils. The other type is hard ferrite. This material is used chiefly to make magnets that are essential to the operation of motors in office equipment, audio and visual products, automobiles and other widely used products.

TDK has also commercialized rare-earth magnets, consisting mainly of metals such as samarium and neodymium. Extremely powerful in relation to their small size, rare-earth magnets are used in small, voice coil motors (VCMs) for HDDs.

#### [Results]

Sales in the electronic materials sector decreased 1.3% from ¥168,949 million to ¥166,818 million.

In capacitors, sales of multilayer ceramic chip capacitors, the main product in the capacitor sector, increased. Higher orders for capacitors, which reflected growing demand for communications products, offset falling sales prices and the negative effect of exchange rate movements.

In ferrite cores and magnets, overall sales of ferrite cores decreased year on year. Deflection yoke cores and flyback transformer cores saw sales drop due to falling demand and sales prices. The drop in orders is a reflection of a rapid shift in consumer demand from CRT TVs to LCD, plasma and other flat-panel models. Higher sales of small coils and transformer cores, a category where demand is



*Multilayer ceramic chip capacitors*



*Rare-earth magnets*



increasing, failed to offset this decrease. Magnet sales declined as the effect of falling sales prices outweighed higher sales volumes. Overall, sales of ferrite cores and magnets were down year on year.

## Electronic Devices

### [Product Overview]

The [electronic devices](#) sector is broken down into three broad categories: inductive devices, high-frequency components, and power supplies and other products.

The main products in the inductive devices category are coils, transformers and EMC components. Coils are typically made by winding a wire around a ferrite core. Because they produce a magnetic field when a current passes through the wire and also produce electromotive force depending on changes in magnetic flux, coils are widely used in electronic circuits. TDK has commercialized SMD coils that use an epoxy resin adhesive and multilayer chip coils, in which coil patterns are formed by a process similar to printing. Choke coils and common mode filters are other coil types. Transformers, which have two or more coils, use electromagnetic coupling to step up and down AC voltage or convert impedance. EMC components reduce electromagnetic noise given off by all types of electronic devices. In recent years, as IC clock frequencies have climbed, high-frequency noise has become an increasingly serious problem. TDK has addressed this with a broad lineup of EMC components, including beads and filters, made from ferrite, which is an excellent absorber of high-frequency noise.

High-frequency components are chiefly used in circuits for mobile phones and other devices that handle high frequency signals. In mobile phones, voice frequencies must be modulated and demodulated at extremely high frequencies. TDK produces isolators that use ferrite to control the movement of these signals, and VCOs (voltage-controlled oscillators) that produce frequencies required for transmission and reception in mobile phones. This category also



*High-frequency components*



*Coils (Inductors)*



*Chip varistors*

consists of diplexers that split and combine signals of differing frequencies in mobile phones. These products are modules made by combining capacitors, coils, resistors, ICs, transistors and other components.

In power supplies, TDK offers switching power supplies that convert alternating current into direct current, DC-AC inverters that convert direct current into alternating current, and DC-DC converters that alter DC voltages.

In other products, TDK manufactures products such as sensors and actuators, as well as chip varistors. Sensors are measurement devices that produce an electrical signal that varies in accordance with a specific parameter such as humidity or printer toner level. Actuators are products that convert electrical energy into mechanical energy for such applications as buzzers. Chip varistors protect electronic circuits from abnormal voltages, such as static electricity and pulses, that can cause equipment to malfunction.

#### [Results]

In the electronic devices sector, sales decreased 4.2% from ¥112,729 million to ¥107,999 million.

Inductive devices, the largest product category in this sector, posted higher sales as demand for communications products increased in line with advances in the performance of mobile phones. However, sales growth was held back by lower sales prices and foreign currency movements.

Sales of high-frequency components decreased despite an upswing in shipment volumes that resulted from strong demand for components used in mobile phones, the main market for these components, and successful activities to win new orders. The decrease reflects the continuing glut in the supply of high-frequency components in the market as a whole, which prompted customers to demand price reductions that were greater than in other electronic component categories.



*Power system products*



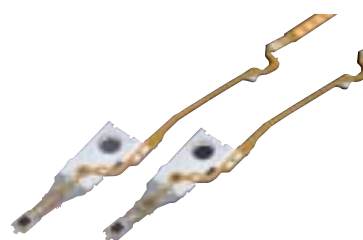
Sales of other products decreased. Sensors and actuators recorded higher sales due to growth in demand for communications products and PCs and peripherals. However, sales of power systems declined due to lackluster demand associated with the amusement field, a sector where demand was strong in the previous fiscal year.

## Recording Devices

### [Product Overview]

The [recording devices](#) sector is divided into two categories: heads for HDDs, the mainstay of the sector, and other types of heads. HDD heads employ a thin-film construction and magneto-resistive (MR) material to “read” signals recorded on hard disks. MR refers to the phenomenon in which a material’s electrical resistance varies when exposed to a magnetic field. The commercialization of HDD heads using this MR effect has made it possible to “read” signals recorded on hard disks at much higher areal densities. At present, GMR (Giant-MR) heads, which have higher playback sensitivity than conventional MR heads, are the mainstream technology in the HDD head market.

Other heads includes optical pickups, magnetic heads used in floppy disk drives (FDDs) and thermal printer heads.



*GMR heads*



*Optical pickup for DVDs*

### [Results]

Recording devices sales climbed 30.8% from ¥175,986 million to ¥230,105 million.

Sales of HDD heads grew as steady expansion continued from the previous fiscal year in the HDD market. There were two main reasons for this: steady growth in HDD demand and higher-than-expected demand for HDD heads.

Rising sales of HDDs reflects growth in existing demand for use as storage devices in PCs, as well as increasing use in game consoles, portable audio players, HDD recorders and other consumer electronics equipment. The higher-than-expected demand for HDD heads reflected an end to the downward trend in the number of heads used per HDD.

Sales of other heads, which include magnetic heads used in FDDs, thermal printer heads and optical pickups, also increased. Most noteworthy was the growth in optical pickups as video recorders, PC and other equipment increasingly use optical disk drives.

## Semiconductors and Others

### [Product Overview]

In the [semiconductors and others](#) sector, two of the main products are semiconductors and anechoic chambers.

Semiconductors represent ICs for cable TV set-top box modems, LAN devices and other ICs used for communications. These products are designed at U.S.-based TDK Semiconductor Corporation.

Anechoic chambers are rooms in which the walls are covered in ferrite tiles that absorb electromagnetic waves. These spaces, designed to block electromagnetic waves emanating from outside as well as to control reflections of electromagnetic radiation within the chamber, facilitate the evaluation and testing of noise in electronic devices, including those used in automobiles.

### [Results]

Sales in the semiconductors and others sector climbed 20.7% from ¥14,865 million to ¥17,940 million, despite sluggish sales of semiconductors for communications applications. Growth reflected higher sales of anechoic chambers for noise control and equipment used in these chambers.



*ICs for modems*



*Anechoic chamber*

## Recording Media & Systems Segment

### [Product Overview]

In the recording media & systems segment, the main products are audio-tapes, videotapes, optical media and tape-based data storage media for computers.

TDK supplies several types of optical discs, including write-once CD-Rs and 4.7 gigabyte DVDs that can hold approximately 7 times more data than their CD counterparts, although having the same 12cm diameter. TDK has also commercialized a Blu-ray disc that can store huge volumes of data. These discs are being seen as the next generation of optical media.

In tape-based data storage media for computers, TDK has commercialized a product that has been verified under LTO Ultrium 2 standards, making it compatible with magnetic-tape backup equipment meeting the LTO\* (Linear Tape-Open) standard. This segment also handles PC software, portable CD players and other products.

\*Linear Tape-Open, LTO, LTO logo, Ultrium and Ultrium logo are trademarks of HP, IBM and Certance LLC in the U.S., other countries or both.

### [Results]

In the recording media & systems segment, sales edged down 0.3% from ¥136,351 million to ¥136,000 million. While TDK continues to command a high share of the audiotape and videotape markets, sales in these two categories decreased as demand continues to shrink due to structural changes. Optical media products posted increased sales, with higher sales volumes of CD-Rs and DVDs in an expanding market offsetting lower sales prices. Sales of other products decreased. Higher sales of LTO (Linear Tape-Open) standard tape-based data storage media for computers failed to offset lower sales of PC software, recording equipment and other products.



CD-R



DVD



LTO



## Directors, Corporate Auditors and Corporate Officers

### Directors (☆Outside Director)



Hajime Sawabe  
President and CEO



Jiro Iwasaki  
Director



Shinji Yoko  
Director



Takeshi Nomura  
Director



Mitsuaki Konno  
Director



Yasuhiro Hagihara<sup>☆</sup>  
Director



Takehiro Kamigama  
Director

### Corporate Auditors (\*Outside Corporate Auditor)



Masaaki Miyoshi  
Corporate Auditor



Takuma Otsuka  
Corporate Auditor



Kazutaka Kubota<sup>\*</sup>  
Corporate Auditor



Kaoru Matsumoto<sup>\*</sup>  
Corporate Auditor



Ryoichi Ohno<sup>\*</sup>  
Corporate Auditor

### Corporate Officers



Hajime Sawabe  
President and CEO



Kiyoshi Ito  
Executive Vice President



Takehiro Kamigama  
Executive Vice President



Hirokazu Nakanishi  
Senior Vice President



Jiro Iwasaki  
Senior Vice President



Shinji Yoko  
Senior Vice President



Takeshi Nomura  
Senior Vice President



Katsuhiro Fujino  
Corporate Senior Officer



Takeshi Ohwada  
Corporate Senior Officer



Mitsuaki Konno  
Corporate Officer



Kunihiro Fukushima  
Corporate Officer



Yukio Hirokawa  
Corporate Officer



Masatoshi Shikanai  
Corporate Officer



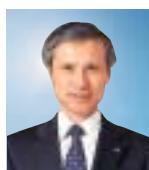
Yukio Harada  
Corporate Officer



Michinori Katayama  
Corporate Officer



Kenryo Namba  
Corporate Officer



Takaya Ishigaki  
Corporate Officer



Minoru Takahashi  
Corporate Officer



Seiji Enami  
Corporate Officer



Raymond Leung  
Corporate Officer

(As of June 29, 2004)

## Operating Results

### SEGMENT SALES

Consolidated net sales increased 8.2% to ¥658.9 billion (\$6,216 million) in fiscal 2004, the year ended March 31, 2004, from ¥608.9 billion in fiscal 2003, the year ended March 31, 2003.

The Japanese economy in fiscal 2004 tended toward recovery, led by IT-related production and exports. However, with no upturn evident in household incomes, consumer spending failed to rebound. Meanwhile, the U.S. economy, the driving force for the world economy, expanded compared with the previous year, with consumer spending, housing investment and capital expenditures all rising, as the government eased fiscal and monetary policy.

In the electronics industry, the year was characterized by the rising popularity of LCD and plasma flat-screen TVs, digital cameras and DVD recorders, as well as by the increasing sophistication of mobile phones and replacement demand for PCs, and the growing use of electronics in automobiles. However, deflationary trends in world markets affected these finished products, placing unrelenting pricing pressure on electronic materials and components and recording media and systems, TDK's main products.

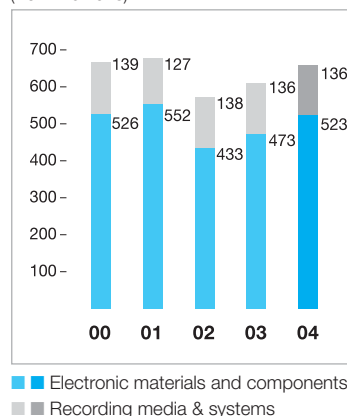
TDK saw orders drop in the first quarter (April-June 2003) of fiscal 2004 due to one-off factors such as the SARS outbreak and fallout from the Iraq war. Nevertheless, TDK remained focused on implementing profit structure reforms, carrying on initiatives from fiscal 2003 to improve asset productivity and concentrate resources on strategic businesses.

In the electronic materials and components segment, net sales increased 10.7% from ¥472.5 billion in fiscal 2003 to ¥522.9 billion (\$4,933 million) in fiscal 2004.

Sales in the electronic materials sector decreased 1.3% from ¥168.9 billion to ¥166.8 billion (\$1,574 million). Sales of multilayer chip capacitors, a mainstay of capacitor products, increased. Higher orders for capacitors, which reflected growing demand for communications products, offset falling sales prices and the negative effect of exchange rate movements. In ferrite cores, deflection yoke cores and flyback transformer cores saw sales drop due to falling demand and sales prices. The drop in orders is a reflection of a rapid shift in consumer demand from CRT TVs to LCD, plasma and other flat-panel models. Higher sales of small coils and transformer cores, a category where demand is increasing, failed to offset this decrease, resulting in a decline in overall sales of ferrite cores. Magnet sales declined as the effect of falling sales prices outweighed higher sales volumes. In the electronic devices sector, sales decreased 4.2% from ¥112.7 billion to ¥108.0 billion (\$1,019 million). Inductive devices, the largest product category in this sector,

## Net Sales

(Yen in billions)



posted higher sales as demand for communications applications increased in line with advances in the performance of mobile phones. However, sales growth was held back by lower sales prices and foreign currency movements. Sales of high-frequency components decreased despite an upswing in shipment volumes that resulted from strong demand for components used in mobile phones, the main market for these components, and successful activities to win new orders. The decrease reflects the continuing glut in the supply of high-frequency components in the market as a whole, which prompted customers to demand price reductions that were greater than in other electronic component categories. Sensors and actuators recorded higher sales due to growth in demand for communications applications and PCs and peripherals. However, sales of power systems declined due to lackluster demand associated with the amusement field, a sector where demand was strong in the previous fiscal year. Recording devices sales climbed 30.8% from ¥176.0 billion to ¥230.1 billion (\$2,171 million). Sales of HDD heads, the main product in this sector, were up sharply. This was primarily because of continuing expansion in the HDD market and the resulting robust HDD sales by major TDK customers. Sales of other heads also increased. Sales in the semiconductors & others sector climbed 20.7% from ¥14.9 billion to ¥17.9 billion (\$169 million), despite sluggish sales of semiconductors for communications applications. Growth reflected higher sales of anechoic chambers for noise control and equipment used in these chambers.

In the recording media & systems segment, sales edged down 0.3%, to ¥136.0 billion (\$1,283 million) in fiscal 2004 from ¥136.4 billion in fiscal 2003. While TDK continues to command a high share of the audiotape and videotape markets, sales in these two categories decreased as demand continues to shrink due to structural changes. Optical media products posted increased sales, with higher sales volumes

of CD-Rs and DVDs in an expanding market offsetting lower sales prices. Sales of other products decreased. Higher sales of LTO-standard\* (Linear Tape-Open) tape-based data storage media for computers failed to offset lower sales of PC software, recording equipment and other products.

\*Linear Tape-Open, LTO, LTO logo, Ultrium and Ultrium logo are trademarks of HP, IBM and Certance LLC in the U.S., other countries or both.

## SALES BY REGION

| Years ended March 31                     | 2004            |                | 2003    |         | Yen in millions (%) |         |
|--|-----------------|----------------|---------|---------|---------------------|---------|
|  |                 |                |         |         | 2002                |         |
| Japan .....                              | <b>¥168,656</b> | <b>(25.6)</b>  | 165,503 | (27.2)  | 164,804             | (28.9)  |
| Americas .....                           | <b>89,657</b>   | <b>(13.6)</b>  | 106,060 | (17.4)  | 109,452             | (19.2)  |
| Europe .....                             | <b>81,950</b>   | <b>(12.4)</b>  | 78,740  | (12.9)  | 79,639              | (13.9)  |
| Asia (excluding Japan) and Oceania ..... | <b>315,691</b>  | <b>(47.9)</b>  | 255,901 | (42.0)  | 214,377             | (37.6)  |
| Middle East and Africa .....             | <b>2,908</b>    | <b>(0.5)</b>   | 2,676   | (0.5)   | 2,239               | (0.4)   |
| Net sales .....                          | <b>¥658,862</b> | <b>(100.0)</b> | 608,880 | (100.0) | 570,511             | (100.0) |

*Note: Sales by region are classified by the customer location.*

By region, sales in Japan increased 1.9% to ¥168.7 billion (\$1,591 million) in fiscal 2004 from ¥165.5 billion in fiscal 2003. There was a 10.6% rise in overseas sales year on year to ¥490.2 billion (\$4,625 million) from ¥443.4 billion in fiscal 2003. Overseas sales accounted for 74.4% of consolidated net sales.

In Japan, sales edged up from the previous fiscal year as higher sales in the recording devices sector offset sales decreases caused by lower orders for DC-DC converters for the amusement field and falling demand for audiotapes.

In Asia (excluding Japan) and Oceania, sales increased due to higher sales of recording devices, as the Company regained market share, and strong sales of electronic materials and electronic devices.

In the Americas, sales decreased due to the effect of foreign exchange translations resulting from the appreciation of the yen. Other factors were lower sales in the recording media & systems segment despite higher sales of optical media products, including DVDs, due to lower sales of other

products; and lower sales in the electronic materials and components segment.

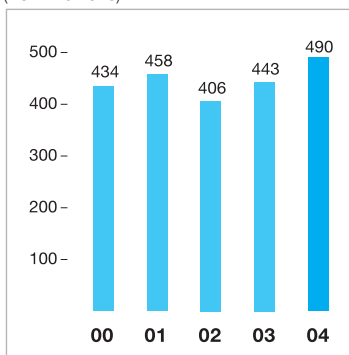
In Europe, sales increased. Sales were sluggish in the electronic materials and components segment, but rose in the recording media & systems segment as sharply higher sales of DVDs and other optical media products countered falling demand for audiotapes.

## EFFECT OF FOREIGN EXCHANGE MOVEMENTS

In fiscal 2004, overseas sales accounted for 74.4% of consolidated net sales, up 1.6 percentage point. As a result, fluctuations in foreign exchange rates have a significant effect on the Company's consolidated sales and income. During fiscal 2004, the yen appreciated 7.2% in relation to the U.S. dollar and depreciated 9.7% in relation to the euro, based on the Company's average internal exchange rates. Overall, the Company estimates that each ¥1 movement in exchange rates during fiscal 2004 had the net effect of reducing net sales by about ¥4.0 billion and operating income by about ¥1.5 billion, in relation to the prior fiscal year. The Company conducts a large share of business activities outside Japan as one way to offset the impact of exchange-rate fluctuations. Such activities include manufacturing and sales, as well as research, design and procurement. In-region production in fiscal 2004 represented 111.3% of sales in Asia (excluding Japan) and Oceania, 26.1% in the Americas, and 23.4% in Europe. Overseas production accounted for 58.9% of total sales in fiscal 2004, compared with 56.0% one year earlier, and for 79.1% of overseas sales, compared with 76.9% one year earlier. The rise in the percentage of overseas production in fiscal 2004 is mainly due to higher production in Asia in the electronic materials and components

## Overseas Sales

(Yen in billions)





segment primarily as a result of an increase in overseas production, which rose in line with sales growth resulting from a recovery in market share in recording devices.

The Company and certain overseas subsidiaries hedge exposure to foreign exchange movements by entering into forward foreign exchange contracts and swaps for some foreign currency-denominated obligations. Foreign exchange risk arising in operating activities is hedged by using forward

foreign exchange contracts. In principle, the Company's policy is to hedge up to 50% of expected foreign currency-denominated accounts receivable for each month for the next six months. Due to the global nature of operations, management realizes that currency movements continue to have the potential to exert a material influence on consolidated performance.

## EXPENSES AND NET INCOME (LOSS)

| Years ended March 31                         | 2004                |         | 2003    |         | 2002     |         |
|--|---------------------|---------|---------|---------|----------|---------|
|  | Yen in millions (%) |         |         |         |          |         |
| Net sales                                    | ¥658,862            | (100.0) | 608,880 | (100.0) | 570,511  | (100.0) |
| Cost of sales                                | 474,106             | (72.0)  | 459,616 | (75.5)  | 464,620  | (81.4)  |
| Selling, general and administrative expenses | 130,434             | (19.8)  | 121,839 | (20.0)  | 123,741  | (21.7)  |
| Restructuring cost                           | —                   | —       | 5,345   | (0.9)   | 25,872   | (4.6)   |
| Other income (deductions)                    | 1,281               | (0.2)   | (3,999) | (−0.6)  | 25       | (0.0)   |
| Income taxes and minority interests          | 13,502              | (2.0)   | 6,062   | (1.0)   | (17,926) | (−3.2)  |
| Net income (loss)                            | ¥ 42,101            | (6.4)   | 12,019  | (2.0)   | (25,771) | (−4.5)  |

The cost of sales increased 3.2% from ¥459.6 billion in fiscal 2003 to ¥474.1 billion (\$4,473 million) in fiscal 2004 due to higher sales. Cost of sales decreased from 75.5% to 72.0% of net sales, respectively. This reflected both an improvement in the capacity utilization rate accompanying higher sales, and cutbacks in expenses and improvements in various cost categories resulting from structural reforms. These benefits outweighed strong downward pressure on prices and adverse effects of foreign exchange movements. As a result, gross profit increased 23.8%.

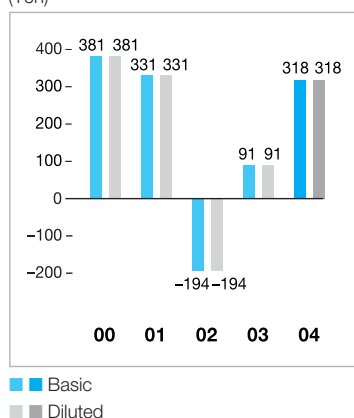
Selling, general and administrative expenses increased ¥8.6 billion from ¥121.8 billion in fiscal 2003 to ¥130.4 billion (\$1,231 million) in fiscal 2004, and decreased from 20.0% to

19.8% of net sales, respectively. Selling, general and administrative expenses rose in line with the 8.2% rise in net sales as the Company prevented further growth in these expenses by strictly managing fixed expenses. Research and development expenses represented 5.2% of net sales, the same as in the previous fiscal year.

Other income (deductions) improved ¥5.3 billion from the previous fiscal year. While there was a ¥1.6 billion increase in foreign exchange losses, there was a ¥2.2 billion decrease in loss on securities, net and increases of ¥1.9 billion in patent infringement settlement and ¥1.3 billion in equity in earnings of affiliates.

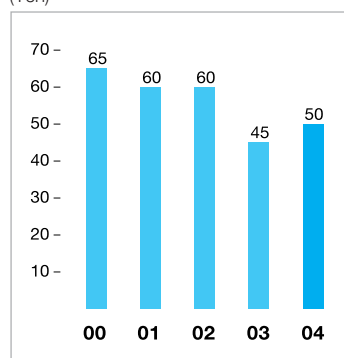
### Net Income Per Share

(Yen)



### Dividend Per Share

(Yen)



The ratio of income taxes to income before income taxes (the effective tax rate) decreased from 29.3% in fiscal 2003 to 23.6% in fiscal 2004. The decrease reflects decrease in additional valuation allowance provided during the year and the higher amounts of income earned in China, etc. during fiscal 2004, which were taxed at rates lower than the Company's effective rate for all other jurisdictions in which it pays income taxes.

The Company posted a net income of ¥42.1 billion (\$397 million), resulting in net income per diluted share of ¥317.69 (\$3.00), compared with ¥90.56 in the previous fiscal year. The return on equity increased from 2.1% to 7.5%. Cash dividends paid during the fiscal year totaled ¥50 (\$0.47). This dividend is the sum of the June 2003 year-end dividend of ¥25 and the December 2003 interim dividend of ¥25. Shareholders of record on March 31, 2004 received a cash dividend of ¥30 per share at the end of June 2004.

## FISCAL 2003 VS. FISCAL 2002

### SEGMENT SALES

Consolidated net sales increased 6.7% to ¥608.9 billion in fiscal 2003, the year ended March 31, 2003, from ¥570.5 billion in fiscal 2002, the year ended March 31, 2002. The Company's operating environment in fiscal 2003 remained as severe as it was in the previous fiscal year. The bellwether U.S. economy, the driving force of the world economy, appeared to gradually move back onto a recovery footing after taking a step backwards at the start of 2002. However, in the closing months of 2002 consumer and corporate sentiment nosedived due to stagnant demand and tumbling share prices. The Japanese and European economies, which are highly reliant on external demand, felt the effects of the U.S. slowdown. Asia, including China, fared relatively well, but this region is nowhere near becoming a leading force in the world economy just yet.

The increase in sales in this difficult operating environment reflected a recovery in the Company's share of the HDD head market and rising demand for electronic components, which was fueled by the digitalization of audio and visual equipment and the increasing use of electronics in automobiles.

In the electronic materials and components segment, net sales rose 9.2% to ¥472.5 billion in fiscal 2003 from ¥432.9 billion in fiscal 2002. In the electronic materials sector, sales rose 4.4% from ¥161.8 billion in fiscal 2002 to ¥168.9 billion. Sales of multilayer chip capacitors, a mainstay of capacitor products, increased on the strength of the digitalization of audio and visual equipment and increasing use of electronics in automobiles. Sales of ferrite cores and

magnets edged down slightly year on year due to reduced demand for ferrite cores used in IT-related information and communications applications, despite increased magnet sales in the automobile and parts fields. In the electronic devices sector, sales increased 6.4% from ¥105.9 billion to ¥112.7 billion. Inductive devices recorded higher sales, reflecting the growing use of automotive electronics as well as growth in demand for digital audio and visual products. However, sales of high-frequency components, a large proportion of which are used in communications applications, particularly mobile phones, declined due to severe demands for price reductions from customers because of the continuing supply glut. Recording devices sales climbed 19.7% from ¥147.0 billion in fiscal 2002 to ¥176.0 billion due to a recovery in the Company's market share amid firm overall demand in the HDD head market. The Company's 40 gigabyte/disk HDD heads were instrumental in winning back customers. In the semiconductors & others sector, sales dipped 17.9% from ¥18.1 billion to ¥14.9 billion. Sales of semiconductors for communications applications dropped sharply due to the continuing low levels of investment in communications infrastructure equipment.

In the recording media & systems segment, sales edged down slightly by 0.9% to ¥136.4 billion in fiscal 2003 from ¥137.6 billion in fiscal 2002. There were several reasons. Audiotape sales continued to shrink from the previous fiscal year as the long-term decline in demand continued due to the market shift to optical media. While there is a similar long-term decline in demand for videotapes due to the rising popularity of optical media and DVD software, sales rose slightly during the year, boosted by demand stemming from the 2002 FIFA World Cup™. In optical media, demand for CD-Rs and DVDs was buoyant, but this strength was negated by falling MD demand and lower sales prices of CD-Rs, resulting in largely flat sales overall. Tape-based data storage media for computers, which obtained new-standard LTO\* (Linear Tape-Open) verification in the previous fiscal year, and software also recorded sales gains.

\*Linear Tape-Open, LTO, LTO logo, Ultrium and Ultrium logo are trademarks of HP, IBM and Certance LLC in the U.S., other countries or both.

In Japan, sales increased 0.4% to ¥165.5 billion in fiscal 2003 from ¥164.8 billion in fiscal 2002. There was a 9.3% increase in overseas sales year on year to ¥443.4 billion in fiscal 2003 from ¥405.7 billion in fiscal 2002. Overseas sales accounted for 72.8% of consolidated net sales.

While robust demand was recorded for capacitors and DC-DC converters for video game systems, sales in Japan

were largely unchanged due to lower sales in the recording media & systems segment as audiotape demand declined.

In Asia (excluding Japan) and Oceania, sales increased due to higher sales in recording devices, as the Company regained market share, and higher sales in electronic materials and electronic devices.

In the Americas, sales declined as lower sales in the electronic materials and components segment outweighed higher sales in other areas, particularly for tape-based data storage media for computers.

In Europe, sales declined. Sales of automotive components in the electronics materials and components segment were strong. However, total sales in this region were brought down by waning demand for high-frequency components for mobile phones, particularly GSM-format phones, and falling demand for audiotapes and MDs in the recording media & systems segment.

#### EFFECT OF FOREIGN EXCHANGE MOVEMENTS

In fiscal 2003, overseas sales accounted for 72.8% of consolidated net sales, up 1.7 percentage points. As a result, fluctuations in foreign exchange rates have a significant effect on the Company's consolidated sales and income. During fiscal 2003, the yen appreciated 2.4% in relation to the U.S. dollar and depreciated 9.5% in relation to the euro, based on the Company's average internal exchange rates. Overall, the Company estimates that exchange rate movements during fiscal 2003 had the net effect of reducing net sales by about ¥2.8 billion, in relation to the prior fiscal year. The Company conducts a large share of business activities outside Japan as one way to offset the impact of exchange-rate fluctuations. Such activities include manufacturing and sales, as well as research, design and procurement. In-region production in fiscal 2003 represented 111.3% of sales in Asia (excluding Japan) and Oceania, 28.6% in the Americas, and 33.0% in Europe. Overseas production accounted for 56.0% of total sales in fiscal 2003, compared with 53.8% one year earlier, and for 76.9% of overseas sales, compared with 75.7% one year earlier. The rise in the percentage of overseas production in fiscal 2003 is mainly due to higher production in Asia in the electronic materials and components segment as a result of an increase in the capacity utilization rate, which increased in line with sales growth resulting from a recovery in market share in recording devices.

The Company and certain overseas subsidiaries hedge exposure to foreign currency exchange movements by entering into forward foreign exchange contracts and swaps for some foreign currency-denominated obligations. Foreign exchange risk arising in operating activities is hedged by

using forward foreign exchange contracts. In principle, the Company's policy is to hedge up to 50% of expected foreign currency-denominated accounts receivable for each month for the next six months. Due to the global nature of operations, management realizes that currency movements continue to have the potential to exert a material influence on consolidated performance.

#### EXPENSES AND NET INCOME (LOSS)

The cost of sales decreased 1.1% from ¥464.6 billion in fiscal 2002 to ¥459.6 billion in fiscal 2003 despite an increase in net sales, and fell from 81.4% to 75.5% of net sales, respectively. This reflected both an improvement in the capacity utilization rate accompanying higher sales, and cutbacks in expenses and various cost improvements resulting from structural reforms. These benefits outweighed strong downward pressure on prices and adverse effects of foreign exchange movements. As a result, gross profit increased 41.0%.

Selling, general and administrative expenses decreased ¥1.9 billion from ¥123.7 billion in fiscal 2002 to ¥121.8 billion in fiscal 2003, and decreased from 21.7% to 20.0% of net sales, respectively. This was because the Company managed to hold expenses to an increase of only 1.5%, although sales rose 6.7%, thanks to thoroughgoing expenditure reviews. Research and development expenses represented 5.2% of net sales, compared with 6.8% in the previous fiscal year. In addition, the Company recognized restructuring costs of ¥5.3 billion for structural reforms, but this was a sharp decrease from the ¥25.9 billion recognized in the previous fiscal year.

Other income (deductions) decreased ¥4.0 billion from the previous fiscal year, mainly on account of a ¥3.1 billion increase in loss on securities, net and a ¥2.1 billion rise in foreign exchange losses, offset by a ¥1.3 billion increase in equity in earnings of affiliates.

The ratio of income taxes and income tax benefit to income (loss) before income taxes (the effective tax rate) decreased from 38.9% in fiscal 2002 to 29.3% in fiscal 2003. The decrease reflects the higher amounts of income earned in China during fiscal 2003, which were taxed at rates lower than the Company's effective rate for all other jurisdictions in which it pays income taxes. The difference between the Company's statutory tax rate of 41% and its effective tax rate is principally due to differences in statutory rates of foreign subsidiaries and the generation of net operating loss carry-forwards currently reserved.

The Company posted a net income of ¥12.0 billion, resulting in net income per diluted share of ¥90.56 for fiscal 2003 as compared to minus ¥193.91 in fiscal 2002. The



return on equity was 2.1%, compared to minus 4.2% in fiscal 2002. Cash dividends paid during the fiscal year totaled ¥45. This dividend is the sum of the June 2002 year-end dividend of ¥20 and the November 2002 interim dividend of ¥25. Shareholders of record on March 31, 2003 received a cash dividend of ¥25 per share at the end of June 2003.

## Liquidity and Capital Resources

### OPERATING CAPITAL REQUIREMENTS

The Company's requirements for operating capital primarily are for the purchase of raw materials and parts for use in the manufacture of its products. Also, operating expenses, including manufacturing expenses and SGA expenses, require a substantial amount of operating capital. Payroll and payroll-benefits, and marketing expenses, such as those incurred for advertising and sales promotion, account for a significant portion of operating expenses. The Company's expenditure for R&D is recorded as part of various operating expenses, and payroll for R&D-related personnel accounts for a material portion of R&D expenses. The necessary funds for these expenses are provided internally from profits, depreciation and amortization, the reduction of trade receivables and inventories, and other sources.

### CAPITAL EXPENDITURES

In fiscal 2004, capital expenditures on a cash basis were ¥44.9 billion (\$423 million), compared with ¥41.5 billion in fiscal 2003. Amid lingering doubts about the sustainability of the economic recovery, the Company emphasized cash flows and concentrated capital expenditures on strategically important business fields. Among major overseas projects were HDD head facility expansions and upgrades and the expansion of production facilities for electronic materials and components in China. In Japan, production and research facilities for multilayer chip capacitors and other electronic materials and components, and production and research facilities for HDD heads were significant elements of capital outlays. The funds for these capital expenditures are provided by internal resources generated from depreciation and amortization and profits.

### OFF-BALANCE SHEET ARRANGEMENTS

As part of its ongoing business, the Company does not participate in transactions with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which have been established for the purpose of facilitating off-balance sheet arrangements or other limited purposes.

On March 31, 2004, commitments outstanding for the purchase of property, plant and equipment approximated ¥8.8 billion (\$83 million). The Company has entered into several purchase agreements with certain suppliers whereby the Company committed to purchase minimum amount of raw materials to be used in the manufacture of its products. Future minimum purchase remaining under the agreements approximated ¥1.4 billion (\$13 million) at March 31, 2004. Contingent liabilities for guarantees of loans of the Company's employees and affiliates amounted to approximately ¥6.6 billion (\$62 million). The Company is planning capital expenditures of ¥55.0 billion in fiscal 2005, primarily for production facilities and rationalization measures. Actual capital expenditures could differ from this forecast as a result of factors such as shifts in technology, demand, prices, competition, economic environments and foreign exchange rates.

The Company's basic policy is to pay a stable dividend over the long term depending on operating results. Funds for paying dividends are allocated from internal funds.

The Company has various employee pension plans covering its employees. The unfunded amount as of March 31, 2004 was ¥90.1 billion (\$850 million). The unfunded amount decreased by ¥14.0 billion as compared with last year due to the appreciation of plan assets. However, out of this amount, ¥73.5 billion (\$694 million) was accrued on the consolidated balance sheets as of March 31, 2004. The Company contributes to the Employees' Pension Fund (EPF) in conformity with governmental regulations which require an employer to contribute systematically in accordance with cost allocation methods and to contribute to special pension premiums in order to fund the unfunded portion over a maximum of 20 years if such unfunded portion exceeds the specified level prescribed in the regulations. Therefore, although there is no immediate substantial cash funding requirement, the Company's cash funding requirement is affected by possible changes in interest rates, return on assets, and governmental regulations on a long-term basis.

On September 25, 2003, the Company received governmental permission with regard to its application to be exempted from the obligation to pay benefits for future employee service related to the substitutional portion of an EPF plan. The Company expects to complete the transfer of the minimum funding requirement to the government in February 2005. While the transfer of this substitutional portion is not expected to have a material adverse effect on the Company's consolidated financial statements, however, the final amount of the impact could be significantly different depending on any change in the amounts of pension obligation or plan assets to be transferred.

Regarding loans, in principle, the Company's policy is to use funds provided by the parent company to meet the financing requirements of group companies. However, certain of the Company's overseas subsidiaries have their own credit facilities for borrowing funds.

Regarding the Company's capital expenditure plans, the Company's policy is to rigorously select investments in the strategic fields of IT home electronic appliances, high-speed and large-capacity networks and car electronics. Capital expenditures will be funded using internally generated funds.

Contractual obligations on March 31, 2004 are summarized as follows:

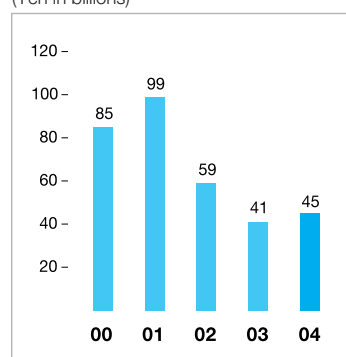
|  | Payments Due by Period (Yen in millions) |                  |              |               |
|--|--|------------------|--------------|---------------|
|  | Total                                    | Less than 1 year | 1 to 5 years | After 5 years |
| Contractual obligations:                                       |  |                  |              |               |
| Long-term debt . . . . .                                       | 128                                      | 101              | 27           | —             |
| Operating leases . . . . .                                     | 10,909                                   | 3,347            | 6,333        | 1,229         |
| Purchase commitment of raw materials . . . . .                 | 1,411                                    | 536              | 666          | 209           |
| Purchase commitment of property, plant and equipment . . . . . | 8,846                                    | 8,846            | —            | —             |

## FINANCIAL MANAGEMENT

Operating capital and capital expenditures are, in principle, funded by cash generated through operating activities. To improve capital efficiency, to the extent possible, the Company centralizes financial management in the Head Office, having introduced a cash management system (CMS). Surplus funds are invested with an emphasis on low risk. Funds from within the group will be utilized, to the extent possible, to extend financing to subsidiaries that cannot procure operating capital or funds for capital expenditures themselves.

## Capital Expenditures

(Yen in billions)



## CASH FLOWS

| Years ended March 31  | 2004     | 2003     | 2002     |
|---|----------|----------|----------|
| Net income (loss)   | ¥ 42,101 | 12,019   | (25,771) |
| Adjustments to reconcile net income (loss) to net cash provided by operating activities | 72,603   | 92,339   | 67,275   |
| Net cash provided by operating activities   | 114,704  | 104,358  | 41,504   |
| Net cash used in investing activities   | (37,770) | (46,645) | (57,903) |
| Net cash used in financing activities   | (9,661)  | (7,925)  | (13,202) |
| Effect of exchange rate changes on cash and cash equivalents                            | (10,669) | (4,998)  | 4,445    |
| Net change in cash and cash equivalents   | ¥ 56,604 | 44,790   | (25,156) |

Cash and cash equivalents increased ¥56.6 billion to ¥227.2 billion (\$2,143 million) from ¥170.6 billion in the previous fiscal year. Operating activities provided net cash of ¥114.7 billion (\$1,082 million), a year-on-year increase of ¥10.3 billion. This reflected mainly a ¥30.1 billion increase in net income to ¥42.1 billion (\$397 million) and a ¥6.6 billion decrease in depreciation and amortization to ¥51.2 billion (\$483 million), as well as increases in trade receivables and inventories of ¥7.6 billion and ¥7.8 billion, respectively. Regarding the shortfall in pension assets, the Company plans to take actions in response to certain recent reforms to the pension system, including transferring the substitutional portion of Employees' Pension Fund (EPF) liabilities.

Investing activities used net cash of ¥37.8 billion (\$356 million), a decrease of ¥8.8 billion from ¥46.6 billion in the previous fiscal year. The main factor was a ¥6.2 billion decrease in payment for purchase of other investments to ¥0.4 billion (\$4 million). Regarding research and development expenses, the Company's policy is to focus investments in the strategic fields of IT home electronic appliances, high-speed and large-capacity networks and car electronics. Funds for research and development will be appropriated from internal funds.

Financing activities used net cash of ¥9.7 billion (\$91 million), ¥1.8 billion more than the ¥7.9 billion in cash used in the previous fiscal year. This mainly represented an increase of ¥0.8 billion in repayments of short-term debt and a ¥0.7 billion increase in dividends paid.

Regarding fund procurement costs, the Company has long-term corporate credit ratings of AA- and A1 from Standard & Poor's and Moody's, respectively. Furthermore,

Standard & Poor's gives the Company their highest short-term credit rating, A-1+, and the Company's U.S. subsidiaries have been given the highest short-term rating of P-1 by Moody's. These ratings allow the Company to procure funds if needed at low interest rates.

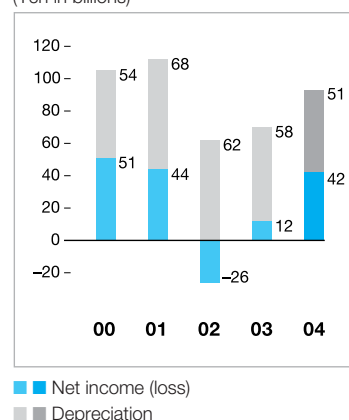
The Company's basic policy is to pay a stable dividend over the long term. Funds for paying dividends are allocated from internal funds.

With unstable financial conditions expected to continue in Japan, the Company's policy is to maintain a high level of liquidity. The Company thus has no immediate plans to repurchase its stock.

The Company estimates that operating cash flows and other internal resources will provide adequate liquidity in fiscal 2005. Regarding cash flows for the fiscal year ending March 31, 2005 and onward, the Company expects to provide the necessary funds from operating cash flows by increasing profitability and improving the return on assets.

### Net Cash Flows

(Yen in billions)





## FINANCIAL POSITION

| Years ended March 31                              | 2004                |                  | 2003            |  | 2002            |  |
|---|---------------------|------------------|-----------------|--|-----------------|--|
|   | Yen in millions (%) |                  |                 |  |                 |  |
| Short-term debt                                   | ¥                   | 315 (0.1)        | 1,431 (0.3)     |  | 1,655 (0.3)     |  |
| Current installments of long-term debt            |                     | 101 (0.0)        | 488 (0.1)       |  | 657 (0.1)       |  |
| Trade notes payable                               |                     | 635 (0.1)        | 824 (0.1)       |  | 849 (0.1)       |  |
| Long-term debt,<br>excluding current installments |                     | 27 (0.0)         | 94 (0.0)        |  | 459 (0.1)       |  |
| Stockholders' equity                              |                     | 576,219 (99.8)   | 553,885 (99.5)  |  | 583,927 (99.4)  |  |
| Total capital                                     |                     | ¥577,297 (100.0) | 556,722 (100.0) |  | 587,547 (100.0) |  |

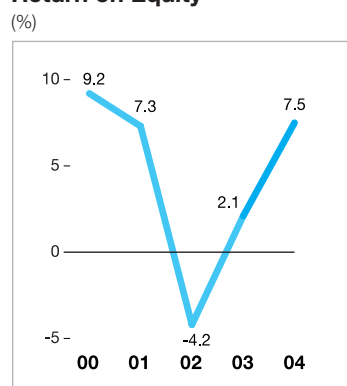
Total assets amounted to ¥770.3 billion (\$7,267 million), up ¥23.0 billion from ¥747.3 billion at the previous fiscal year-end. As of March 31, 2004, cash and cash equivalents were ¥227.2 billion (\$2,143 million), ¥56.6 billion higher than ¥170.6 billion a year ago. However, property, plant and equipment decreased ¥17.0 billion to ¥208.9 billion (\$1,971 million) from ¥225.9 billion, and noncurrent deferred income taxes decreased ¥9.8 billion to ¥34.1 billion (\$322 million) from ¥43.9 billion.

Total liabilities increased ¥0.7 billion, from ¥190.1 billion to ¥190.8 billion (\$1,800 million). Trade payables increased ¥2.9 billion, from ¥57.0 billion to ¥59.9 billion (\$565 million), accrued expenses increased ¥5.3 billion, from ¥28.1 billion to ¥33.4 billion (\$316 million), and income taxes payables increased ¥3.6 billion, from ¥1.1 billion to ¥4.7 billion (\$44 million). Retirement and severance benefits decreased ¥11.5 billion, from ¥85.0 billion to ¥73.5 billion (\$694 million).

Total stockholders' equity increased ¥22.3 billion, from ¥553.9 billion to ¥576.2 billion (\$5,436 million). Retained earnings rose ¥34.9 billion, from ¥525.9 billion to ¥560.8 billion (\$5,290 million), while accumulated other comprehensive loss rose ¥11.6 billion, from ¥78.8 billion to ¥90.4 billion (\$853 million).

The Company currently has no capital market debt outstanding. However, the Company maintains long-term corporate credit ratings of AA- and A1 from Standard & Poor's and Moody's, respectively. Furthermore, Standard & Poor's gives the Company their highest short-term credit rating, A-1+ and the Company's U.S. subsidiaries have been given the highest short-term rating of P-1 by Moody's.

### Return on Equity



## RESTRUCTURING CHARGES

During the year ended March 31, 2003, the Company recorded a restructuring charge of ¥5.3 billion. As a result of the restructuring, a total of 1,302 regular employees were terminated through March 31, 2003. The Company and domestic subsidiaries released 237 employees in Japan and overseas subsidiaries released 1,065 employees mainly in the Americas and Europe. The Company recorded a work-force reduction charge of approximately ¥2.3 billion relating primarily to severances. The Company recorded a restructuring charge of ¥3.0 billion mainly relating to losses on the disposal of property, plant and equipment in Japan, in the Americas and in Europe.

The downturn in the U.S. economy from the fourth quarter ended March 31, 2001 and the recent reduction in IT investment volume on a world-wide basis had an adverse effect on the Company. Under the circumstances, the Company believes offering competitive pricing is essential to maintaining its advantageous position in the market of electronic components. Additionally, many of the Company's customers who manufacture consumer products have transferred their manufacturing facilities to Asian countries, in particular China. As a result, the Company, as a supplier of electronic components to these customers, will be required to transfer certain of its factories to these Asian countries in order to meet the customer's logistical needs. Given the global economic conditions, the Company decided to restructure its organization to improve its competitive and financial position on a world-wide basis. The structural reforms implemented over the past two years, including manufacturing plant integration and closure, reduction of headcount and other rationalization plans, had been accomplished almost on schedule through March 31, 2003.

Through March 31, 2003, the Company had paid ¥5.1 billion of the ¥5.3 billion restructuring charges. The Company paid all of the remaining restructuring costs by the end of first quarter of fiscal 2004.

## Research and development, patents and licenses, etc.

R&D expenditures amounted to ¥34.5 billion (\$325 million), 5.2% of net sales in fiscal 2004; ¥31.9 billion, 5.2% of net sales in fiscal 2003; and ¥38.6 billion, 6.8% of net sales in fiscal 2002.

In its R&D activities, the Company continues to work on strengthening and expanding development of new products that respond to diversification in the electronics market. In particular, the Company is concentrating on next-generation recording-related products, micro electronics modules for mobile communications-related applications, and energy-efficient,

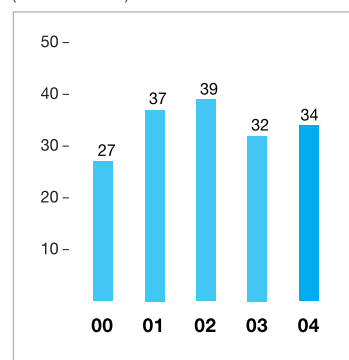
environmentally friendly devices based on materials and design technologies. Furthermore, the Company is using its reservoir of technologies to conduct efficient R&D activities concentrating on three strategic areas: IT home electronic appliances, high-speed and large-capacity networks and car electronics.

In the recording media & systems field, the Company is pushing ahead with research on next-generation DVD-related products, including Blu-ray discs, while in the electronic components field R&D themes are development of tunnel-junction MR heads, research in next-generation magnetic recording technologies, improving high-frequency-related components for mobile communications applications and improving wireless LAN-related products. Moreover, in EMC-related areas, which draw on the Company's materials technologies, the Company is working toward the commercialization of products designed for the increasingly higher frequencies used in electronic devices.

R&D at the Company is conducted by the Materials R&D Center, Advanced Process Technology Center, Devices Development Center, HMS (Hybrid Material Solutions) Research Center, Production Engineering Development Center, Materials Analysis Center, Application Center, Silicon System Development Dept., New Business Development Dept. and the R&D functions of each operating group. Each facility is developing new products and technologies in its area of responsibility. The Application Center devises the necessary application technologies with the aim of keeping the Company in step with market trends and customer needs. The Materials R&D Center is responsible for research in magnetic and dielectric materials that use powder metallurgy. The Advanced Process Technology Center facilitates the use of cutting-edge process technologies. The Devices Development Center conducts research in next-generation recording and communications technologies as well as new

### Research and Development

(Yen in billions)



devices. The HMS Research Center conducts research in hybrid multilayer development technologies and related areas.

In terms of overseas R&D activities, the Company is conducting R&D projects in collaboration with leading universities in the U.S. and U.K., and overseas R&D subsidiaries are making use of local technological resources. In China, where the Company is aiming to establish and develop an operating base capable of supporting growth, R&D activities are being carried out in the area of electronic components and materials. In addition, consolidated subsidiaries are pushing ahead with various R&D themes. TDK Semiconductor Corporation is developing semiconductors for LAN/WAN applications and Headway Technologies, Inc. is developing next-generation HDD heads.

Although the Company has a variety of patents in Japan and other countries, and licenses from other companies, it believes that termination of any one of its patents or licenses or related group of patents or licenses would not materially adversely affect its business. Total income from patents and licenses was ¥0.1 billion (\$0.9 million) in fiscal 2004, ¥0.2 billion in fiscal 2003 and ¥0.3 billion in fiscal 2002. The Company paid ¥12.4 billion (\$117 million) in fiscal 2004, ¥10.2 billion in fiscal 2003 and ¥6.1 billion in fiscal 2002 for patents and licenses, mainly royalties for the use of optical disk technologies. The Company does not believe that acquisition of new proprietary patents or other companies' patents would have a material effect on operating results in the future.

## MARKET RISK MANAGEMENT

### MARKET RISK EXPOSURE

The Company is subject to market risk associated with changes in stock prices, interest rates and foreign currency exchange rates. Foreign exchange risk is considered as the primary market risk exposure. The Company has a policy for the procedures and controls to manage market risk sensitive instruments. In order to hedge interest rate risk and foreign currency exchange rate risk, the Company uses derivative financial instruments. The Company does not hold or issue derivative financial instruments for trading purposes.

### FOREIGN EXCHANGE RISK

The Company's international operations, foreign exchange indebtedness and intercompany loans expose the Company to the risk of changes in foreign currency exchange rates. In order to limit this exposure, the Company enters into currency swaps, foreign exchange and currency options contracts. Management expects that gains and losses on derivative financial instruments should offset most of the corresponding gains and losses on foreign exchange indebtedness and intercompany loans being hedged, and does not

expect net gains or losses on these instruments to have a material effect on the Company's financial results.

### STOCK PRICE RISK

The Company's exposure to market risk involving changes in stock prices relates only to its equity securities categorized as available-for-sale securities. The Company purchases equity securities for the purpose of acquiring technological information and for other purposes, and not as a means of investing surplus funds. The aggregate cost and fair value of these equity securities were ¥2.8 billion (\$26 million) and ¥3.8 billion (\$36 million) as of March 31, 2004, and ¥1.6 billion and ¥1.7 billion as of March 31, 2003, respectively. As of March 31, 2004, these securities mainly represented investments in companies in the communications and electronic equipment industries, and the cost and fair value of these equity securities were ¥2.4 billion (\$23 million) and ¥3.3 billion (\$31 million), respectively. As of March 31, 2003, these securities mainly represented investments in companies in the communications and electronic equipment industries, and both the cost and fair value of the equity securities were ¥1.3 billion.

### INTEREST RATE RISK

The Company's exposure to market risk a changes in interest rates relates primarily to its debt securities. The Company has debt securities with fixed rates. The Company, to the extent possible, plans to limit debt securities to short-term debt securities. The Company believes that the fair values of interest rate sensitive instruments as of March 31, 2004 and 2003, and potential, near-term losses affecting future earnings, fair values, and/or cash flows from reasonable near-term changes in interest rates are immaterial.

## CRITICAL ACCOUNTING POLICIES

Critical accounting policies are those that require application of management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain and may change in subsequent periods.

The following is not intended to be a comprehensive list of all of the Company's accounting policies. The Company's significant accounting policies are more fully described in Note 1 to the Consolidated Financial Statements. In many cases, the accounting treatment of a particular transaction is specifically dictated by accounting principles generally accepted in the United States of America, with no need for management's judgment in their application. There are also areas in which management's judgment in selecting an available alternative would not produce a materially different result.



The Company has identified the following as critical accounting policies: impairment of long-lived assets, valuation of inventories, goodwill and other intangible assets, pension benefit costs, and deferred tax assets.

#### **IMPAIRMENT OF LONG-LIVED ASSETS**

The Company's long-lived assets and certain identifiable intangibles are reviewed for impairment whether events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. This review is performed using estimates of future cash flows. If the carrying amount of the asset is considered to be impaired, an impairment charge is recorded for the amount by which the carrying value of an asset exceeds its fair value. Management believes that the estimates of future cash flows and fair values are reasonable, however, changes in estimates resulting in lower future cash flows and fair value due to unforeseen changes in business assumptions could negatively affect the valuation of those long-lived assets and significantly affect the Company's financial position and results of operations. The Company makes investments with due prudence, taking sufficiently into consideration the future profitability of products and the recoverability of investments.

#### **VALUATION OF INVENTORIES**

Inventories are stated at the lower of cost or net realizable value. Net realizable value is the estimated selling price less the estimated costs of completion and the estimated cost necessary to make a sale. The Company routinely reviews its inventories for their salability and for indications of obsolescence to determine if inventories should be written down to net realizable value. In estimating the net realizable value of its inventories, the Company considers the age of the inventory and likelihood of spoilage on changes in market demand for its inventories. Management believes the judgments and estimates are reasonable, however, changes in actual future demand or market conditions could require additional inventory write-downs. The Company's policy is to mitigate the risk of write-downs, to the extent possible, by reducing the level of inventories through shorter production lead-times.

#### **GOODWILL AND OTHER INTANGIBLE ASSETS**

Goodwill and other intangible assets that are determined to have an indefinite life are not amortized and are tested for impairment on an annual basis and between annual tests if an event occurs or circumstances change that would more likely than not reduce the fair value of these assets below their carrying amount. Fair value for these assets is determined

using a discounted cash flow analysis, which is based on an authorized business plan. Management believes that the estimates of future cash flows and fair value are reasonable, however, changes in estimates resulting in lower future cash flows and fair value due to unforeseen changes in business assumptions could negatively affect the valuations.

#### **PENSION BENEFIT COSTS**

Employee pension benefit costs and obligations are dependent on assumptions used by actuaries in calculating such amounts. These assumptions include discount rates, retirement rates and mortality rates which are based upon current statistical data, as well as salary growth, long-term return on plan assets and other factors. Changes in assumptions will affect the Company's financial position and results of operations. A decrease in the discount rate leads to an increase in actuarial pension benefit obligations that could lead to an increase in net periodic pension cost through amortization of unrecognized actuarial gain or losses. An increase in the expected return on plan assets may decrease net periodic pension cost in the current year. However, the difference between the expected return and the actual return on those assets, could negatively affect net income in future years.

#### **DEFERRED TAX ASSETS**

The Company has significant deferred tax assets, which are subject to realizability assessment. In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the schedule reversal of deferred tax liabilities, projected future taxable income, and tax planning strategies in making this assessment. Based upon the level of historical taxable income and projections for future taxable income over the periods in which the deferred tax assets are deductible, management believes that it is more likely than not that all of the deferred tax assets less valuation allowance will be realized. However, in the event future projections for income are not realized or are realized in lesser amounts, or in cases where management revises its assessment of the potential for realization of deferred tax assets based on other factors, deferred tax assets may be determined not to be realizable, which then would result in additional income tax expenses that would adversely affect net income.

## Forward-Looking Statements

This report contains forward-looking statements, including projections, plans, policies, management strategies, targets, schedules, understandings and evaluations, about the Company and its group companies that are not historical facts. These forward-looking statements are based on current forecasts, estimates, assumptions, plans, beliefs and evaluations in light of information available to management on the date of this report.

In preparing forecasts and estimates, the Company and its group companies have used as their basis, certain assumptions as necessary, in addition to confirmed historical facts. However, due to their nature, there is no guarantee that these statements and assumptions will prove to be accurate in the future. The Company therefore wishes to caution readers that these statements, facts and certain assumptions contained in this report are subject to a number of risks and uncertainties and may prove to be inaccurate.

The electronics markets in which the Company and its group companies operate are highly susceptible to rapid changes. Furthermore, the Company and its group companies operate not only in Japan, but in many other countries. As such, factors that can have significant effects on its results include, but are not limited to, shifts in technology, demand, prices, competition, economic environments and foreign exchange rates.

## SEGMENT INFORMATION

The following industry and geographic segment information is required by the Japanese Securities Exchange Law. Segment information is unaudited.

### Industry Segment Information

| Years ended March 31                           | Yen<br>(Millions) |                  | U.S. Dollars<br>(Thousands) |  | Change (%) |
|--|-------------------|------------------|-----------------------------|--|------------|
|  | 2004              | 2003             | 2004                        |  |            |
| <b>ELECTRONIC MATERIALS<br/>AND COMPONENTS</b> |                   |                  |                             |  |            |
| Net sales                                      |                   |                  |                             |  |            |
| Unaffiliated customers                         | ¥522,862          | 472,529          | \$4,932,660                 |  | 10.7       |
| Intersegment                                   | —                 | —                | —                           |  |            |
| Total revenue                                  | 522,862 (100.0%)  | 472,529 (100.0%) | 4,932,660 (100.0%)          |  | 10.7       |
| Operating expenses                             | 466,335 (89.2%)   | 451,993 (95.7%)  | 4,399,387 (89.2%)           |  | 3.2        |
| Operating income                               | ¥ 56,527 (10.8%)  | 20,536 (4.3%)    | \$ 533,273 (10.8%)          |  | 175.3      |
| Identifiable assets                            | 505,178           | 495,144          | 4,765,830                   |  |            |
| Depreciation and amortization                  | 46,800            | 53,015           | 441,509                     |  |            |
| Capital expenditures                           | 40,479            | 38,882           | 381,877                     |  |            |
| <b>RECORDING MEDIA AND SYSTEMS</b>             |                   |                  |                             |  |            |
| Net sales                                      |                   |                  |                             |  |            |
| Unaffiliated customers                         | ¥136,000          | 136,351          | \$1,283,019                 |  | −0.3       |
| Intersegment                                   | —                 | —                | —                           |  |            |
| Total revenue                                  | 136,000 (100.0%)  | 136,351 (100.0%) | 1,283,019 (100.0%)          |  | −0.3       |
| Operating expenses                             | 138,205 (101.6%)  | 134,807 (98.9%)  | 1,303,820 (101.6%)          |  | 2.5        |
| Operating income (loss)                        | ¥ (2,205) (−1.6%) | 1,544 (1.1%)     | \$ (20,801) (−1.6%)         |  | —          |
| Identifiable assets                            | 97,186            | 96,761           | 916,849                     |  |            |
| Depreciation and amortization                  | 4,433             | 4,774            | 41,821                      |  |            |
| Capital expenditures                           | 4,387             | 2,569            | 41,387                      |  |            |
| <b>ELIMINATIONS AND CORPORATE</b>              |                   |                  |                             |  |            |
| Corporate assets                               | ¥167,955          | 155,432          | \$1,584,481                 |  |            |
| <b>TOTAL</b>                                   |                   |                  |                             |  |            |
| Net sales                                      |                   |                  |                             |  |            |
| Unaffiliated customers                         | ¥658,862          | 608,880          | \$6,215,679                 |  | 8.2        |
| Intersegment                                   | —                 | —                | —                           |  |            |
| Total revenue                                  | 658,862 (100.0%)  | 608,880 (100.0%) | 6,215,679 (100.0%)          |  | 8.2        |
| Operating expenses                             | 604,540 (91.8%)   | 586,800 (96.4%)  | 5,703,207 (91.8%)           |  | 3.0        |
| Operating income                               | ¥ 54,322 (8.2%)   | 22,080 (3.6%)    | \$ 512,472 (8.2%)           |  | 146.0      |
| Identifiable and corporate assets              | 770,319           | 747,337          | 7,267,160                   |  |            |
| Depreciation and amortization                  | 51,233            | 57,789           | 483,330                     |  |            |
| Capital expenditures                           | 44,866            | 41,451           | 423,264                     |  |            |



## Geographic Segment Information

|                            | Yen<br>(Millions) |                 | U.S. Dollars<br>(Thousands) |  |            |
|----------------------------|-------------------|-----------------|-----------------------------|--|------------|
| Years ended March 31       | 2004              | 2003            | 2004                        |  | Change (%) |
| JAPAN                      |                   |                 |                             |  |            |
| Net sales                  | ¥329,782          | 334,882         | \$3,111,151                 |  | -1.5       |
| Operating income           | 8,538             | 5,193           | 80,547                      |  | 64.4       |
| Identifiable assets        | 316,695           | 326,128         | 2,987,689                   |  | -2.9       |
| AMERICAS                   |                   |                 |                             |  |            |
| Net sales                  | 104,400           | 101,784         | 984,906                     |  | 2.6        |
| Operating income (loss)    | 2,797             | (1,082)         | 26,387                      |  | -          |
| Identifiable assets        | 65,584            | 73,845          | 618,717                     |  | -11.2      |
| EUROPE                     |                   |                 |                             |  |            |
| Net sales                  | 80,641            | 78,462          | 760,764                     |  | 2.8        |
| Operating income (loss)    | (115)             | (3,547)         | (1,085)                     |  | 96.8       |
| Identifiable assets        | 51,797            | 48,108          | 488,651                     |  | 7.7        |
| ASIA AND OTHERS            |                   |                 |                             |  |            |
| Net sales                  | 380,781           | 314,918         | 3,592,273                   |  | 20.9       |
| Operating income           | 42,912            | 20,640          | 404,830                     |  | 107.9      |
| Identifiable assets        | 228,058           | 193,637         | 2,151,490                   |  | 17.8       |
| ELIMINATIONS AND CORPORATE |                   |                 |                             |  |            |
| Net sales                  | 236,742           | 221,166         | 2,233,415                   |  |            |
| Operating income (loss)    | (190)             | (876)           | (1,793)                     |  |            |
| Identifiable assets        | 108,185           | 105,619         | 1,020,613                   |  |            |
| TOTAL                      |                   |                 |                             |  |            |
| Net sales                  | ¥658,862          | 608,880         | \$6,215,679                 |  | 8.2        |
| Operating income           | 54,322            | 22,080          | 512,472                     |  | 146.0      |
| Identifiable assets        | 770,319           | 747,337         | 7,267,160                   |  | 3.1        |
| Overseas Sales             |                   |                 |                             |  |            |
| Americas                   | ¥ 89,657 (13.6%)  | 106,060 (17.4%) | \$ 845,821 (13.6%)          |  | -15.5      |
| Europe                     | 81,950 (12.4%)    | 78,740 (12.9%)  | 773,113 (12.4%)             |  | 4.1        |
| Asia and others            | 318,599 (48.4%)   | 258,577 (42.5%) | 3,005,651 (48.4%)           |  | 23.2       |
| Overseas sales total       | ¥490,206 (74.4%)  | 443,377 (72.8%) | \$4,624,585 (74.4%)         |  | 10.6       |

## Ten-Years Financial Summary

Years ended March 31

|  | Yen (Millions)  |         |          |         |         |
|--|-----------------|---------|----------|---------|---------|
|  | 2004            | 2003    | 2002     | 2001    | 2000    |
| Net sales                                    | <b>¥658,862</b> | 608,880 | 570,511  | 679,086 | 664,713 |
| Electronic materials and components          | <b>522,862</b>  | 472,529 | 432,886  | 552,072 | 525,696 |
| Recording media and systems                  | <b>136,000</b>  | 136,351 | 137,625  | 127,014 | 139,017 |
| (Overseas sales)                             | <b>490,206</b>  | 443,377 | 405,707  | 457,807 | 433,667 |
| Cost of sales                                | <b>474,106</b>  | 459,616 | 464,620  | 496,083 | 475,340 |
| Selling, general and administrative expenses | <b>130,434</b>  | 121,839 | 123,741  | 131,074 | 114,766 |
| Restructuring cost                           | <b>—</b>        | 5,345   | 25,872   | —       | —       |
| Income (loss) before income taxes            | <b>55,603</b>   | 18,081  | (43,697) | 64,516  | 73,414  |
| Income taxes                                 | <b>13,143</b>   | 5,296   | (16,994) | 19,792  | 22,245  |
| Net income (loss)                            | <b>42,101</b>   | 12,019  | (25,771) | 43,983  | 50,730  |
| Per common share (yen):                      |                 |         |          |         |         |
| Net income (loss)/Basic                      | <b>317.80</b>   | 90.56   | (193.91) | 330.54  | 380.89  |
| Net income (loss)/Diluted                    | <b>317.69</b>   | 90.56   | (193.91) | 330.54  | 380.89  |
| Cash dividends                               | <b>50.00</b>    | 45.00   | 60.00    | 60.00   | 65.00   |
| Working capital                              | <b>360,555</b>  | 315,948 | 288,865  | 306,771 | 310,842 |
| Stockholders' equity                         | <b>576,219</b>  | 553,885 | 583,927  | 637,749 | 571,013 |
| Total assets                                 | <b>770,319</b>  | 747,337 | 749,910  | 820,177 | 775,992 |
| Capital expenditures                         | <b>44,866</b>   | 41,451  | 58,777   | 99,452  | 84,780  |
| Depreciation and amortization                | <b>51,233</b>   | 57,789  | 61,920   | 67,973  | 53,846  |
| Research and development                     | <b>34,495</b>   | 31,862  | 38,630   | 36,970  | 26,948  |
| Number of employees                          | <b>36,804</b>   | 31,705  | 32,249   | 37,251  | 34,321  |

|  | Yen (Millions) |         |         |         |         |
|--|----------------|---------|---------|---------|---------|
|  | 1999           | 1998    | 1997    | 1996    | 1995    |
| Net sales                                    | 676,250        | 696,677 | 620,695 | 541,416 | 485,121 |
| Electronic materials and components          | 505,187        | 532,543 | 469,559 | 409,614 | 352,388 |
| Recording media and systems                  | 171,063        | 164,134 | 151,136 | 131,802 | 132,733 |
| (Overseas sales)                             | 442,908        | 432,362 | 374,076 | 315,934 | 275,520 |
| Cost of sales                                | 473,760        | 469,872 | 426,341 | 377,369 | 342,133 |
| Selling, general and administrative expenses | 126,174        | 128,501 | 117,106 | 109,989 | 104,668 |
| Restructuring cost                           | —              | —       | —       | —       | —       |
| Income (loss) before income taxes            | 75,425         | 99,620  | 103,304 | 51,933  | 30,767  |
| Income taxes                                 | 28,745         | 40,205  | 42,553  | 24,018  | 17,634  |
| Net income (loss)                            | 46,345         | 59,053  | 60,299  | 27,693  | 13,017  |
| Per common share (yen):                      |                |         |         |         |         |
| Net income (loss)/Basic                      | 347.96         | 443.38  | 454.51  | 210.59  | 98.99   |
| Net income (loss)/Diluted                    | 347.96         | 443.38  | 452.99  | 208.64  | 98.46   |
| Cash dividends                               | 60.00          | 60.00   | 55.00   | 50.00   | 50.00   |
| Working capital                              | 331,750        | 315,858 | 278,637 | 210,337 | 200,801 |
| Stockholders' equity                         | 535,398        | 530,791 | 484,994 | 415,984 | 381,093 |
| Total assets                                 | 743,512        | 733,104 | 667,227 | 644,854 | 583,466 |
| Capital expenditures                         | 54,330         | 61,768  | 49,948  | 46,150  | 37,457  |
| Depreciation and amortization                | 50,960         | 45,663  | 42,362  | 42,558  | 41,696  |
| Research and development                     | 26,333         | 25,547  | 23,305  | 27,147  | 25,353  |
| Number of employees                          | 31,305         | 29,747  | 28,055  | 29,070  | 27,276  |

TDK Corporation and Subsidiaries years ended March 31, 2004, 2003 and 2002

|  | Yen (except number of<br>common shares outstanding) |         |          | U.S. Dollars |
|--|---|---------|----------|--------------|
| <b>Amounts per share:</b>  |   |         |          |              |
| Basic net income (loss) per share (Note 18) . . . . .                                    | ¥ 317.80  | 90.56   | (193.91) | \$ 3.00      |
| Diluted net income (loss) per share (Note 18) . . . . .                                  | 317.69  | 90.56   | (193.91) | 3.00         |
| Weighted average basic common shares<br>outstanding (in thousands) (Note 18) . . . . .   | 132,475   | 132,716 | 132,900  |              |
| Weighted average diluted common shares<br>outstanding (in thousands) (Note 18) . . . . . | 132,523   | 132,716 | 132,900  |              |
| Cash dividends paid during the year (Note 9) . . . . .                                   | ¥ 50.00   | 45.00   | 60.00    | \$ 0.47      |

*See accompanying notes to consolidated financial statements.*

## Consolidated Balance Sheets

TDK Corporation and Subsidiaries March 31, 2004 and 2003

|  | Yen<br>(Millions) |             | U.S. Dollars<br>(Thousands)<br>(Note 2) |
|--|-------------------|-------------|---|
| <b>ASSETS</b>  | <b>2004</b>       | <b>2003</b> | <b>2004</b>                             |
| <b>Current assets:</b>                                       |                   |             |   |
| Cash and cash equivalents . . . . .                          | ¥227,155          | 170,551     | \$2,142,972                             |
| Marketable securities (Note 4) . . . . .                     | 402               | —           | 3,792                                   |
| Trade receivables (Note 19):                                 |                   |             |   |
| Notes . . . . .  | 6,431             | 7,750       | 60,670                                  |
| Accounts . . . . .   | 133,900           | 135,123     | 1,263,208                               |
| Allowance for doubtful receivables . . . . .                 | (2,000)           | (2,850)     | (18,868)                                |
| Net trade receivables . . . . .                              | 138,331           | 140,023     | 1,305,010                               |
| Inventories (Note 5) . . . . .                               | 77,301            | 73,917      | 729,255                                 |
| Income tax receivables (Note 7) . . . . .                    | 763               | 2,765       | 7,198                                   |
| Prepaid expenses and other current assets (Note 7) . . . . . | 31,821            | 33,706      | 300,198                                 |
| Total current assets . . . . .                               | 475,773           | 420,962     | 4,488,425                               |
| <br><b>Investments in securities</b> (Note 4) . . . . .      | <br>18,381        | <br>18,722  | <br>173,406                             |
| <br><b>Property, plant and equipment, at cost:</b>           |                   |             |   |
| Land . . . . .   | 20,464            | 21,284      | 193,057                                 |
| Buildings . . . . .  | 176,256           | 178,959     | 1,662,792                               |
| Machinery and equipment . . . . .                            | 471,247           | 489,131     | 4,445,726                               |
| Construction in progress . . . . .                           | 10,312            | 9,362       | 97,283                                  |
|  | 678,279           | 698,736     | 6,398,858                               |
| Less accumulated depreciation . . . . .                      | 469,334           | 472,829     | 4,427,679                               |
| Net property, plant and equipment . . . . .                  | 208,945           | 225,907     | 1,971,179                               |
| <br><b>Goodwill</b> (Note 17) . . . . .                      | <br>10,029        | <br>14,131  | <br>94,613                              |
| <b>Intangible assets</b> (Note 17) . . . . .                 | 15,027            | 16,418      | 141,764                                 |
| <b>Deferred income taxes</b> (Note 7) . . . . .              | 34,140            | 43,948      | 322,075                                 |
| <b>Other assets</b> (Note 12) . . . . .                      | 8,024             | 7,249       | 75,698                                  |
|  | ¥770,319          | 747,337     | \$7,267,160                             |

See accompanying notes to consolidated financial statements.



## LIABILITIES AND STOCKHOLDERS' EQUITY

|  | Yen<br>(Millions) | 2003       | U.S. Dollars<br>(Thousands)<br>(Note 2) |
|--|-------------------|------------|---|
|  | 2004              |            | 2004                                    |
| <b>Current liabilities:</b>  |                   |            |   |
| Short-term debt (Note 6) . . . . .   | ¥ 315             | 1,431      | \$ 2,972                                |
| Current installments of long-term debt (Note 6) . . . . .                    | 101               | 488        | 953                                     |
| Trade payables:  |                   |            |   |
| Notes . . . . .  | 635               | 824        | 5,990                                   |
| Accounts . . . . .   | 59,282            | 56,136     | 559,264                                 |
| Accrued salaries and wages . . . . .   | 12,085            | 11,483     | 114,009                                 |
| Accrued expenses (Note 16) . . . . .   | 33,449            | 28,088     | 315,557                                 |
| Income taxes payables (Note 7) . . . . .                                     | 4,689             | 1,057      | 44,236                                  |
| Other current liabilities (Note 7) . . . . .                                 | 4,662             | 5,507      | 43,981                                  |
| Total current liabilities . . . . .  | 115,218           | 105,014    | 1,086,962                               |
| <br><b>Long-term debt, excluding current installments</b> (Note 6) . . . . . | <br>27            | <br>94     | <br>255                                 |
| <br><b>Retirement and severance benefits</b> (Note 8) . . . . .              | <br>73,521        | <br>84,971 | <br>693,594                             |
| <br><b>Deferred income taxes</b> (Note 7) . . . . .                          | <br>215           | <br>13     | <br>2,028                               |
| <br><b>Other noncurrent liabilities</b> . . . . .                            | <br>1,843         | <br>—      | <br>17,387                              |
| <br><b>Commitments and contingent liabilities</b> (Note 13) . . . . .        | <br>—             | <br>—      | <br>—                                   |
| Total liabilities . . . . .  | 190,824           | 190,092    | 1,800,226                               |
| <br><b>Minority interests</b> . . . . .                                      | <br>3,276         | <br>3,360  | <br>30,906                              |
| <br><b>Stockholders' equity:</b>   |                   |            |   |
| Common stock   |                   |            |   |
| Authorized 480,000,000 shares;   |                   |            |   |
| issued 133,189,659 shares in 2004 and 2003;                                  |                   |            |   |
| outstanding 132,409,452 shares in 2004                                       |                   |            |   |
| and 132,625,184 shares in 2003 . . . . .                                     | 32,641            | 32,641     | 307,934                                 |
| Additional paid-in capital . . . . .   | 63,051            | 63,051     | 594,821                                 |
| Legal reserve (Note 9) . . . . .   | 16,497            | 15,953     | 155,632                                 |
| Retained earnings (Note 9) . . . . .   | 560,756           | 525,919    | 5,290,151                               |
| Accumulated other comprehensive  |                   |            |   |
| income (loss) (Notes 7, 8 and 11) . . . . .                                  | (90,387)          | (78,824)   | (852,708)                               |
| Treasury stock at cost; 780,207 shares in 2004                               |                   |            |   |
| and 564,475 shares in 2003 (Note 10) . . . . .                               | (6,339)           | (4,855)    | (59,802)                                |
| Total stockholders' equity . . . . .   | 576,219           | 553,885    | 5,436,028                               |
|  | ¥770,319          | 747,337    | \$7,267,160                             |

## Consolidated Statements of Stockholders' Equity

TDK Corporation and Subsidiaries years ended March 31, 2004, 2003, and 2002

|  |                 | Yen<br>(Millions) |                | U.S. Dollars<br>(Thousands)<br>(Note 2) |
|--|-----------------|-------------------|----------------|---|
|  | 2004            | 2003              | 2002           | 2004                                    |
| <b>Common stock:</b>   |                 |                   |                |   |
| Balance at beginning of period   | ¥ 32,641        | 32,641            | 32,641         | \$ 307,934                              |
| Balance at end of period   | 32,641          | 32,641            | 32,641         | 307,934                                 |
| <b>Additional paid-in capital:</b>   |                 |                   |                |   |
| Balance at beginning of period   | 63,051          | 63,051            | 63,051         | 594,821                                 |
| Balance at end of period   | 63,051          | 63,051            | 63,051         | 594,821                                 |
| <b>Legal reserve (Note 9):</b>   |                 |                   |                |   |
| Balance at beginning of period   | 15,953          | 15,683            | 13,409         | 150,500                                 |
| Transferred from retained earnings   | 544             | 270               | 2,274          | 5,132                                   |
| Balance at end of period   | 16,497          | 15,953            | 15,683         | 155,632                                 |
| <b>Retained earnings (Note 9):</b>   |                 |                   |                |   |
| Balance at beginning of period   | 525,919         | 520,143           | 556,165        | 4,961,500                               |
| Net income (loss)  | 42,101          | 12,019            | (25,771)       | 397,179                                 |
| Cash dividends   | (6,625)         | (5,973)           | (7,977)        | (62,500)                                |
| Losses on sales of treasury stock  | (95)            | —                 | —              | (896)                                   |
| Transferred to legal reserve   | (544)           | (270)             | (2,274)        | (5,132)                                 |
| Balance at end of period   | 560,756         | 525,919           | 520,143        | 5,290,151                               |
| <b>Accumulated other comprehensive income (loss)</b><br>(Notes 7, 8 and 11): |                 |                   |                |   |
| Balance at beginning of period   | (78,824)        | (43,999)          | (24,851)       | (743,623)                               |
| Other comprehensive income (loss) for the period,<br>net of tax              | (11,563)        | (34,825)          | (19,148)       | (109,085)                               |
| Balance at end of period   | (90,387)        | (78,824)          | (43,999)       | (852,708)                               |
| <b>Treasury stock (Note 10):</b>   |                 |                   |                |   |
| Balance at beginning of period   | (4,855)         | (3,592)           | (2,666)        | (45,802)                                |
| Acquisition of treasury stock  | (1,865)         | (1,263)           | (926)          | (17,594)                                |
| Exercise of stock option   | 381             | —                 | —              | 3,594                                   |
| Balance at end of period   | (6,339)         | (4,855)           | (3,592)        | (59,802)                                |
| <b>Total stockholders' equity</b>  | <b>¥576,219</b> | <b>553,885</b>    | <b>583,927</b> | <b>\$5,436,028</b>                      |
| <b>Disclosure of comprehensive income (loss):</b>                            |                 |                   |                |   |
| Net income (loss) for the period   | ¥ 42,101        | 12,019            | (25,771)       | \$ 397,179                              |
| Other comprehensive income (loss) for the period,<br>net of tax (Note 11)    | (11,563)        | (34,825)          | (19,148)       | (109,085)                               |
| Total comprehensive income (loss) for the period                             | ¥ 30,538        | (22,806)          | (44,919)       | \$ 288,094                              |

See accompanying notes to consolidated financial statements.

# Consolidated Statements of Cash Flows

TDK Corporation and Subsidiaries years ended March 31, 2004, 2003 and 2002

|   |          | Yen<br>(Millions) |          | U.S. Dollars<br>(Thousands)<br>(Note 2) |
|---|----------|-------------------|----------|---|
|   | 2004     | 2003              | 2002     | 2004                                    |
| <b>Cash flows from operating activities:</b>  |          |                   |          |   |
| Net income (loss) . . . . .   | ¥ 42,101 | 12,019            | (25,771) | \$ 397,179                              |
| Adjustments to reconcile net income (loss)<br>to net cash provided by operating activities: |          |                   |          |   |
| Depreciation and amortization . . . . .   | 51,233   | 57,789            | 61,920   | 483,330                                 |
| Loss on disposal of property and equipment . . . . .  | 1,789    | 4,845             | 6,436    | 16,877                                  |
| Deferred income taxes . . . . .   | 2,868    | 4,301             | (13,797) | 27,057                                  |
| Loss on securities, net . . . . .   | 1,093    | 3,298             | 207      | 10,311                                  |
| Changes in assets and liabilities:  |          |                   |          |   |
| Decrease (increase) in trade receivables . . . . .  | (7,582)  | (2,256)           | 18,517   | (71,528)                                |
| Decrease (increase) in inventories . . . . .  | (7,824)  | 14,277            | 28,776   | (73,811)                                |
| Increase (decrease) in trade payables . . . . .   | 8,171    | 6,691             | (14,806) | 77,085                                  |
| Increase (decrease) in accrued expenses . . . . .   | 8,660    | (5,971)           | (11,906) | 81,698                                  |
| Increase (decrease) in income taxes payables, net . . . . .                                 | 5,877    | 2,265             | (25,223) | 55,443                                  |
| Increase (decrease) in retirement and severance benefits . . . . .                          | 9,285    | 7,639             | (2,218)  | 87,594                                  |
| Other – net . . . . .   | (967)    | (539)             | 19,369   | (9,122)                                 |
| Net cash provided by operating activities . . . . .   | 114,704  | 104,358           | 41,504   | 1,082,113                               |
| <b>Cash flows from investing activities:</b>  |          |                   |          |   |
| Capital expenditures . . . . .  | (44,866) | (41,451)          | (58,777) | (423,264)                               |
| Proceeds from sales and maturities of available-for-sale<br>securities . . . . .            | 1,814    | 1,511             | 323      | 17,113                                  |
| Payment for purchase of available-for-sale securities . . . . .                             | (1)      | (700)             | (399)    | (9)                                     |
| Payment for purchase of other investments . . . . .   | (442)    | (6,606)           | (2,717)  | (4,170)                                 |
| Proceeds from sales of property, plant and equipment . . . . .                              | 4,571    | 4,590             | 3,967    | 43,123                                  |
| Acquisition of minority interests . . . . .   | (366)    | (3,967)           | (276)    | (3,453)                                 |
| Proceeds from sale of a subsidiary . . . . .  | 1,523    | –                 | –        | 14,368                                  |
| Other – net . . . . .   | (3)      | (22)              | (24)     | (29)                                    |
| Net cash used in investing activities . . . . .   | (37,770) | (46,645)          | (57,903) | (356,321)                               |
| <b>Cash flows from financing activities:</b>  |          |                   |          |   |
| Proceeds from long-term debt . . . . .  | 69       | 211               | 46       | 651                                     |
| Repayment of long-term debt . . . . .   | (479)    | (646)             | (777)    | (4,519)                                 |
| Increase (decrease) in short-term debt, net . . . . .                                       | (1,047)  | (254)             | (3,568)  | (9,877)                                 |
| Sale (purchase) of treasury stock, net . . . . .  | (1,579)  | (1,263)           | (926)    | (14,896)                                |
| Dividends paid . . . . .  | (6,625)  | (5,973)           | (7,977)  | (62,500)                                |
| Net cash used in financing activities . . . . .   | (9,661)  | (7,925)           | (13,202) | (91,141)                                |
| Effect of exchange rate changes on cash<br>and cash equivalents . . . . .                   | (10,669) | (4,998)           | 4,445    | (100,651)                               |
| Net increase (decrease) in cash and cash equivalents . . . . .                              | 56,604   | 44,790            | (25,156) | 534,000                                 |
| Cash and cash equivalents at beginning of period . . . . .                                  | 170,551  | 125,761           | 150,917  | 1,608,972                               |
| Cash and cash equivalents at end of period . . . . .  | ¥227,155 | 170,551           | 125,761  | \$2,142,972                             |

See accompanying notes to consolidated financial statements.

# Notes to Consolidated Financial Statements

TDK Corporation and Subsidiaries

## 1. Nature of Operations and Summary of Significant Accounting Policies

### (a) Nature of Operations

The Company is a multinational manufacturer of ferrite products and a producer of inductor, ceramic, magnetic head and other components and recording media and systems. The Company, a Tokyo-based company founded in 1935 to commercialize ferrite, now manufactures and sells a broad range of products. The Company's two business segments are electronic materials and components, and recording media and systems, which accounted for 79% and 21% of net sales, respectively, for the year ended March 31, 2004. The main products which are manufactured and sold by the two business segments are as follows:

#### **a) Electronic materials and components products:**

Ferrite cores, Ceramic capacitors, High-frequency components, Inductors, GMR heads, and Semiconductors

#### **b) Recording media and systems products:**

Audio tapes, Video tapes, CD-Rs, MDs, and DVDs

The Company sells electronic materials and components products to electric and communication equipment manufacturers and audio equipment manufacturers, mainly in Asia and Japan, and recording media and systems products to distribution agents and audio equipment manufacturers, mainly in Japan, Europe, and North America.

### (b) Basis of Presentation

The Company and its domestic subsidiaries maintain their books of account in conformity with financial accounting standards of Japan, and its foreign subsidiaries in conformity with those of the countries of their domicile.

The consolidated financial statements presented herein reflect certain adjustments, not recorded on the primary books of the Company and subsidiaries, to present the financial position, results of operations, and cash flows in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP"). Such adjustments relate principally to accounting for issue costs for debt with stock purchase warrants, retirement and severance benefits and impairment of long-lived assets including goodwill.

### (c) Consolidation Policy

The consolidated financial statements include the accounts of the Company and its subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation.

In December 2003, the Financial Accounting Standards Board ("FASB") issued FASB Interpretation No. 46 (revised December 2003) ("FIN 46R"), "Consolidation of Variable Interest Entities", which addresses the consolidation by primary beneficiary of variable interest entities ("VIEs") as defined in the Interpretation. FIN 46R replaces FASB Interpretation No. 46, "Consolidation of Variable Interest Entities", which was issued in January 2003. FIN 46R is effective immediately for all VIEs created or acquired after January 31, 2003 and effective for other VIEs as of March 31, 2004. The Company has not created or acquired any VIEs after January 31, 2003. For VIEs created or acquired before February 1, 2003, the adoption of FIN 46R for these entities did not have a material effect on the Company's consolidated financial statements.

The investments in affiliates in which the Company's ownership is 20% to 50% and the Company exercises significant influence over their operating and financial policies are accounted for by the equity method. All significant intercompany profits from these affiliates have been eliminated.

### (d) Cash Equivalents

Cash equivalents include all highly liquid debt instruments purchased with an original maturity of three months or less.

### (e) Allowance for Doubtful Receivables

The allowance for doubtful receivables is the Company's best estimate of the amount of probable credit losses in the Company's existing accounts receivables. An additional reserve for individual receivables is recorded when the Company becomes aware of a customer's inability to meet its financial obligations, such as in case of bankruptcy filings or deterioration in the customer's operating results or financial position. If circumstances related to customers change, estimates of the recoverability of receivables would be further adjusted.



#### **(f) Investments in Securities**

The Company classifies its debt and equity securities into one of three categories: trading, available-for-sale, or held-to-maturity. Trading securities are bought and held principally for the purpose of selling them in the near term. Held-to-maturity securities are those securities in which the Company has the ability and intent to hold the security until maturity. All securities not included in trading or held-to-maturity are classified as available-for-sale.

Trading and available-for-sale securities are recorded at fair value. Held-to-maturity securities are recorded at amortized cost, adjusted for the amortization or accretion of premiums or discounts. Unrealized holding gains and losses on trading securities are included in earnings. Unrealized holding gains and losses, net of the related tax effect, on available-for-sale securities are excluded from earnings and are reported as a separate component of accumulated other comprehensive income (loss) until realized. As of March 31, 2004 and 2003, the Company did not hold any trading or held-to-maturity securities. Available-for-sale securities, which mature or are expected to be sold in less than one year, are classified as current assets.

A decline in the fair value of any available-for-sale security below cost that is deemed to be other-than-temporary results in a reduction in carrying amount to fair value. The impairment is charged to earnings and a new cost basis for the security is established. To determine whether an impairment is other-than-temporary, the Company periodically reviews fair value of available-for-sale security for possible impairment by taking into consideration of the financial and operating conditions of the issuer, the general market conditions in the issuer's industry, degree and period of the decline in fair value and other relevant factors.

Nonmarketable securities are recorded at cost as fair value is not readily determinable. The Company periodically evaluates the values of nonmarketable securities for possible impairment by taking into consideration of the financial and operating conditions of the issuer, the general market conditions in the issuer's industry and period of the decline in the estimated fair value and other relevant factors. If the impairment is determined to be other-than-temporary, nonmarketable securities is written down to its impaired value through a charge to earnings.

#### **(g) Inventories**

Inventories are stated at the lower of cost or market. Cost is determined principally by the average method.

#### **(h) Property, Plant and Equipment**

Depreciation of property, plant and equipment is principally computed by the declining-balance method for assets located in Japan and of certain foreign subsidiaries and by the straight-line method for assets of other foreign subsidiaries based on the following estimated useful lives:

|                                   |               |
|-----------------------------------|---------------|
| Buildings . . . . .               | 3 to 60 years |
| Machinery and equipment . . . . . | 2 to 22 years |

In June 2001, the FASB issued Statement of Financial Accounting Standards No. 143 ("SFAS 143"), "Accounting for Asset Retirement Obligations", which addresses financial accounting and reporting for obligations associated with the retirement of tangible long-lived assets and associated asset retirement costs. SFAS 143 applies to legal obligations associated with the retirement of long-lived assets that result from the acquisition, construction, development and (or) the normal operation of a long-lived asset, except for certain obligations of lessees. SFAS 143 requires that the fair value of a liability for an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. The associated asset retirement costs are capitalized as part of the carrying amount of the long-lived asset and subsequently allocated to expense over the asset's useful life. The Company adopted SFAS 143 on April 1, 2003. The adoption of SFAS 143 did not have a material effect on the Company's consolidated financial statements.

#### **(i) Income Taxes**

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards.

Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

#### **(j) Stock Option Plan**

In December 2002, the FASB issued Statement of Financial Accounting Standards No. 148 ("SFAS 148"), "Accounting for Stock-Based Compensation - Transition and Disclosure", which amends FASB Statement No. 123 ("SFAS 123"), "Accounting for Stock-Based Compensation". SFAS 148 provides alternative methods of transition for a voluntary change to the fair value based method of accounting for stock-based employee compensation. In addition, SFAS 148 amends the disclosure requirements of SFAS 123 to require more prominent and more frequent disclosures in financial statements about the effects of stock-based compensation. However, it gives an entity a choice of recognizing related compensation expense by adopting the fair value method or to continue to measure compensation using the intrinsic value-based method prescribed under Accounting Principles Board Opinion No.25 ("APB 25"), "Accounting for Stock Issued to Employees", the former standard. The Company has chosen to use the measurement principle prescribed by APB 25. As such, stock-based compensation cost is recognized by the Company only if the market price of the underlying common stock exceeds the exercise price on the date of grant. Accordingly, no stock option related compensation cost has been recognized in fiscal 2004, fiscal 2003 and fiscal 2002 for the Company's stock based compensation plan. The Company was required to adopt SFAS 148 for the year ended March 31, 2003. The adoption of SFAS 148 did not have an impact on the consolidated results of operation or financial position of the Company for fiscal 2004 and 2003. The following table illustrates the effect on net income (loss) and net income (loss) per share if the fair-value-based method had been applied to all outstanding and unvested stock based awards with such costs recognized ratably over the vesting period of the underlying instruments.

|  |                | Yen<br>(Millions) |          | U.S. Dollars<br>(Thousands) |
|--|----------------|-------------------|----------|-----------------------------|
|  | 2004           | 2003              | 2002     | 2004                        |
| Net income (loss), as reported   | <b>¥42,101</b> | 12,019            | (25,771) | <b>\$397,179</b>            |
| Deduct total stock-based employee compensation<br>expense determined under fair-value-based method for<br>all awards, net of tax | <b>(330)</b>   | (241)             | (280)    | <b>(3,113)</b>              |
| Pro forma net income (loss)  | <b>41,771</b>  | 11,778            | (26,051) | <b>394,066</b>              |
|  |                | Yen               |          | U.S. Dollars                |
| Basic net income (loss) per share:   |                |                   |          |                             |
| As reported  | <b>¥317.80</b> | 90.56             | (193.91) | <b>\$3.00</b>               |
| Pro forma  | <b>315.31</b>  | 88.74             | (196.02) | <b>2.97</b>                 |
| Diluted net income (loss) per share:   |                |                   |          |                             |
| As reported  | <b>¥317.69</b> | 90.56             | (193.91) | <b>\$3.00</b>               |
| Pro forma  | <b>315.20</b>  | 88.74             | (196.02) | <b>2.97</b>                 |

#### **(k) Advertising Costs**

Advertising costs are expensed as incurred.

#### **(l) Foreign Currency Translation**

Foreign currency financial statements have been translated in accordance with Statement of Financial Accounting Standards No. 52 ("SFAS 52"), "Foreign Currency Translation". Under SFAS 52, the assets and liabilities of the Company's subsidiaries located outside Japan are translated into Japanese yen at the rates of exchange in effect at the balance sheet date. Revenue and expense items are translated at the average exchange rates prevailing during the year. Gains and losses resulting from foreign currency transactions are included in other income (deductions), and those resulting from translation of financial statements are excluded from the statements of operations and are accumulated in stockholders' equity as a component of accumulated other comprehensive income (loss).

#### **(m) Use of Estimates**

Management of the Company has made a number of estimates and assumptions relating to the reporting of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities to prepare these consolidated financial statements in conformity with U. S. GAAP. Significant items subject to such estimates and assumptions include the valuation of intangible assets, property, plant and equipment, trade receivables, inventories, and deferred income tax assets, and assumptions related to the estimation of actuarial determined employee benefit obligations. Actual results could differ from those estimates.

#### **(n) Accounting for the Impairment or Disposal of Long-Lived Assets**

In August 2001, the FASB issued Statement of Financial Accounting Standards No. 144 ("SFAS 144"), "Accounting for the Impairment or Disposal of Long-Lived Assets" which supersedes both Statement of Financial Accounting Standards No. 121 ("SFAS 121"), "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of" and the accounting and reporting provisions of APB Opinion No. 30 ("Opinion 30"), "Reporting the Results of Operations—Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions", for the disposal of a segment of a business (as previously defined in that Opinion). SFAS 144 retains the fundamental provisions in SFAS 121 for recognizing and measuring impairment losses on long-lived assets held for use and long-lived assets to be disposed of by sale, while also resolving significant implementation issues associated with SFAS 121. The Company adopted the provision of SFAS 144 on April 1, 2002.

The Company's long-lived assets and certain identifiable intangibles with finite useful lives are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future net cash flows (undiscounted and without interest charges) expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceed the fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or fair value less costs to sell.

#### **(o) Goodwill and Other Intangible Assets**

In June 2001, the FASB issued Statement of Financial Accounting Standards No. 141 ("SFAS 141"), "Business Combinations", and Statement of Financial Accounting Standards No. 142 ("SFAS 142"), "Goodwill and Other Intangible Assets". SFAS 141 requires the use of the purchase method of accounting for business combinations. SFAS 141 also specifies the types of acquired intangible assets that are required to be recognized and reported separately from goodwill and those acquired intangible assets that are required to be included in goodwill. Under SFAS 142 goodwill is no longer amortized, but instead is tested for impairment at least annually. Intangible assets are amortized over their respective estimated useful lives and reviewed for impairment in accordance with Statement of Financial Accounting Standards No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets". Any recognized intangible asset determined to have an indefinite useful life will not be amortized, but instead is tested for impairment until its life is determined to no longer be indefinite.

The Company conducts its annual impairment test at the end of each fiscal year.

#### **(p) Derivative Financial Instruments**

In June 1998, the FASB issued Statement of Financial Accounting Standards No. 133 ("SFAS 133"), "Accounting for Derivative Instruments and Hedging Activities". In June 2000, the FASB also issued Statement of Financial Accounting Standards No. 138 ("SFAS 138"), "Accounting for Certain Derivative Instruments and Certain Hedging Activities, an amendment of the FASB Statement No. 133". Both standards establish accounting and reporting standards for derivative instruments and for hedging activities, and require that an entity recognize all derivatives as either assets or liabilities in the balance sheets and measure those instruments at fair value. SFAS 133, as amended, and 138 are effective for fiscal years beginning after June 15, 2000. The Company adopted SFAS 133 and 138 as of April 1, 2001. The Company has not elected to apply hedge accounting. Accordingly, changes in the fair value of derivatives are recognized in earnings in the period of the changes.

#### **(q) Net Income per Share**

Basic net income per share has been computed by dividing net income available to common stockholders by the weighted-average number of common shares outstanding during each year. Diluted net income per share reflects the potential dilution that could occur if securities or other contracts to issue common stock were exercised or converted into common stock or resulted in the issuance of common stock of the Company. Stock options were not included in the calculation of diluted earnings per share for the years ended March 31, 2003 and 2002 as their effect would be antidilutive. For the year ended March 31, 2004, stock options to purchase 170,400 shares were excluded from the calculation of diluted earnings per share as the effect would have been antidilutive.

#### **(r) Revenue Recognition**

The Company generates revenue principally through the sale of electronic materials & components and recording media & systems under separate contractual arrangements for each. The Company recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred and title and risk of loss have been transferred to the customer, the sales price is fixed or determinable, and collectibility is probable.

Revenue from sales of electronic materials & components including electronic materials, electronic devices and recording devices is recognized when the products are received by customers based on the free-on board destination sales term. With regards to sales of electronic materials & components, the Company's policy is not to accept product returns unless the products are defective. The conditions of acceptance are governed by the terms of the contract or customer arrangement and those not meeting the predetermined specification are not recorded as revenue.

Revenue from sales of recording media & systems products such as videotape and DVD sold is also recognized when the products are received by customers based on the free-on board destination sales term. With regards to sales of recording media & systems products, the Company provides sales incentive programs to resellers and retailers. The sales incentive programs include product discount, volume-based rebates and consumer promotion to support retailers' advertisement expenses. The Company records estimated reductions in sales at the time of sales for sales incentive program. Estimated reduction in sales are based upon historical trends and other known factors at the time of sales. The Company allows limited right of returns in certain cases and reduces revenue for estimated future returns based upon historical experience at the time the related revenue is recorded.

No products warranties are offered on the Company's products.

In November 2002, the Emerging Issues Task Force reached a consensus on Issue 00-21 ("EITF 00-21"), "Accounting for Revenue Arrangements with Multiple Deliverables". EITF 00-21 provides guidance on when and how to account for arrangements that involve the delivery or performance of multiple products, services and/or rights to use assets. The Company adopted EITF 00-21 on July 1, 2003. The adoption of EITF 00-21 did not have a material effect on the Company's consolidated financial position and results of operations.

### (s) Reclassifications

Certain reclassifications have been made to the prior year's consolidated financial statements to conform to the presentation used for the year ended March 31, 2004.

## 2. Financial Statement Translation

The consolidated financial statements are expressed in yen, the functional currency of the Company. Supplementally, the Japanese yen amounts as of and for the year ended March 31, 2004, have also been translated into U.S. dollar amounts, solely for the convenience of the reader, at the rate of ¥106=U.S.\$1, the approximate exchange rate on the Tokyo Foreign Exchange Market on March 31, 2004. This translation should not be construed as a representation that the amounts shown could be converted into U.S. dollars at such rate.

## 3. Foreign Operations

Amounts included in the consolidated financial statements relating to subsidiaries operating in foreign countries are summarized as follows:

|                   |          | Yen<br>(Millions) |          | U.S. Dollars<br>(Thousands) |
|-------------------|----------|-------------------|----------|-----------------------------|
|                   | 2004     | 2003              | 2002     | 2004                        |
| Net assets        | ¥318,915 | 304,645           | 312,539  | \$3,008,632                 |
| Net sales         | 497,255  | 436,062           | 391,740  | 4,691,085                   |
| Net income (loss) | 37,477   | 9,101             | (20,519) | 353,557                     |

## 4. Marketable Securities and Investments in Securities

Marketable securities and investments in securities at March 31, 2004 and 2003, are as follows:

|                                  |         | Yen<br>(Millions) |  | U.S. Dollars<br>(Thousands) |
|----------------------------------|---------|-------------------|--|-----------------------------|
|                                  | 2004    | 2003              |  | 2004                        |
| Short-term marketable securities | ¥ 402   | —                 |  | \$ 3,792                    |
| Long-term marketable securities  | 4,535   | 4,180             |  | 42,783                      |
| Nonmarketable securities         | 419     | 2,681             |  | 3,953                       |
| Investments in affiliates        | 13,427  | 11,861            |  | 126,670                     |
|                                  | ¥18,783 | 18,722            |  | \$177,198                   |



Marketable securities and investments in securities include available-for-sale securities. Information with respect to such securities at March 31, 2004 and 2003, is as follows:

|                             | 2004            |                                |                                 |               | 2003  |                                |                                 |            |
|-----------------------------|-----------------|--------------------------------|---------------------------------|---------------|-------|--------------------------------|---------------------------------|------------|
|                             | Cost            | Gross Unrealized Holding Gains | Gross Unrealized Holding Losses | Fair Value    | Cost  | Gross Unrealized Holding Gains | Gross Unrealized Holding Losses | Fair Value |
| Yen (Millions):             |                 |                                |                                 |               |       |                                |                                 |            |
| Equity securities . . . . . | <b>¥2,782</b>   | <b>1,054</b>                   | —                               | <b>3,836</b>  | 1,500 | 193                            | 11                              | 1,682      |
| Debt securities . . . . .   | <b>1,101</b>    | —                              | —                               | <b>1,101</b>  | 2,495 | 3                              | —                               | 2,498      |
|                             | <b>¥3,883</b>   | <b>1,054</b>                   | —                               | <b>4,937</b>  | 3,995 | 196                            | 11                              | 4,180      |
| U.S. Dollars (Thousands):   |                 |                                |                                 |               |       |                                |                                 |            |
| Equity securities . . . . . | <b>\$26,246</b> | <b>9,943</b>                   | —                               | <b>36,189</b> |       |                                |                                 |            |
| Debt securities . . . . .   | <b>10,386</b>   | —                              | —                               | <b>10,386</b> |       |                                |                                 |            |
|                             | <b>\$36,632</b> | <b>9,943</b>                   | —                               | <b>46,575</b> |       |                                |                                 |            |

Debt securities classified as available-for-sale at March 31, 2004 mature in fiscal 2005 through 2006 (weighted average remaining term of 1.3 years).

The proceeds from sale and settlement of available-for-sale securities are ¥1,814 million (\$17,113 thousand), ¥1,511 million and ¥323 million for the years ended March 31, 2004, 2003 and 2002, respectively. The gross realized gains on the sale and settlement of available-for-sale securities are ¥135 million (\$1,274 thousand), ¥4 million and ¥120 million for the years ended March 31, 2004, 2003 and 2002, respectively. The Company recorded a write-down of ¥1,228 million (\$11,585 thousand), ¥3,302 million and ¥327 million on certain available-for-sale securities and nonmarketable securities representing other-than-temporary declines in the fair value of the available-for-sale securities for the years ended March 31, 2004, 2003 and 2002, respectively.

Investments in affiliates accounted for by the equity method consist of 26.1% of the common stock of Semiconductor Energy Laboratory Co., Ltd., a research and development company, 50.0% of the common stock of Tokyo Magnetic Printing Co., Ltd., a magnetic products manufacturing company, and six other affiliated companies, collectively, which are not significant. The unamortized amounts of goodwill related to affiliated companies were ¥1,231 million (\$11,613 thousand) at March 31, 2004. In accordance with SFAS 142, this equity-method goodwill is no longer amortized, but is being analyzed for impairment.

## 5. Inventories

Inventories at March 31, 2004 and 2003, are summarized as follows:

|                           | Yen (Millions) | 2003   | U.S. Dollars (Thousands) |
|---------------------------|----------------|--------|--------------------------|
|                           | 2004           |        | 2004                     |
| Finished goods . . . . .  | <b>¥34,104</b> | 33,151 | <b>\$321,736</b>         |
| Work in process . . . . . | <b>21,351</b>  | 21,681 | <b>201,425</b>           |
| Raw materials . . . . .   | <b>21,846</b>  | 19,085 | <b>206,094</b>           |
|                           | <b>¥77,301</b> | 73,917 | <b>\$729,255</b>         |

## 6. Short-Term and Long-Term Debt

Short-term debt and weighted average interest rates at March 31, 2004 and 2003, are as follows:

|                                 | Yen (Millions) | 2003  | U.S. Dollars (Thousands) | Weighted average interest rate |
|---------------------------------|----------------|-------|--------------------------|--------------------------------|
|                                 | 2004           |       | 2004                     | 2003                           |
| Short-term bank loans . . . . . | <b>¥315</b>    | 1,431 | <b>\$2,972</b>           | <b>1.36%</b> 2.54%             |

At March 31, 2004, unused short-term credit facilities for issuance of commercial paper amounted to ¥31,971 million (\$301,613 thousand).

Long-term debt at March 31, 2004 and 2003, is set forth below:

|   | Yen<br>(Millions) |      | U.S. Dollars<br>(Thousands) |
|---|-------------------|------|-----------------------------|
|   | 2004              | 2003 | 2004                        |
| Lease obligation (weighted average: 2004 4.25%, 2003 9.98%) | <b>¥128</b>       | 582  | <b>\$1,208</b>              |
|   | <b>128</b>        | 582  | <b>1,208</b>                |
| Less current installments                                   | <b>101</b>        | 488  | <b>953</b>                  |
|   | <b>¥ 27</b>       | 94   | <b>\$ 255</b>               |

The aggregate annual maturities of long-term debt outstanding at March 31, 2004, are as follows:

|                       | Yen<br>(Millions) | U.S. Dollars<br>(Thousands) |
|-----------------------|-------------------|-----------------------------|
| Year ending March 31, |                   |                             |
| 2005                  | ¥101              | \$ 953                      |
| 2006                  | 24                | 227                         |
| 2007                  | 3                 | 28                          |
|                       | <b>¥128</b>       | <b>\$1,208</b>              |

Short-term and long-term bank loans are made under general agreements that provide that under certain circumstances security and guarantees for present and future indebtedness will be given upon request of the bank, and that the bank shall have the right, as the obligations become due, or in the event of their default, to offset cash deposits against such obligations due the bank.

## 7. Income Taxes

The Company and its domestic subsidiaries are subject to a national corporate tax of 30%, an inhabitants tax of between 5.2% and 6.2% and a deductible enterprise tax of between 9.6% and 10.1%, which in the aggregate resulted in a statutory rate of approximately 41% in the years ended March 31, 2004, 2003 and 2002.

Amendments to Japanese tax regulations were enacted into law on March 24, 2003. As a result of this amendment, the statutory income tax rate was reduced from approximately 41% to 40% effective from April 1, 2004. Current income taxes were calculated at the rate of 41%, in effect for the years ended March 31, 2004, 2003 and 2002, respectively. Deferred tax assets and liabilities expected to be realized or settled on or after April 1, 2004 have been calculated at the rate of 40%.

The effects of the income tax rate reduction on deferred income tax balances as of March 31, 2003 reduced the net deferred tax asset by approximately ¥1,044 million.

The effective tax rate of the Company for the years ended March 31, 2004, 2003 and 2002, are reconciled with the Japanese statutory tax rate in the following table:

|   | 2004          | 2003   | 2002    |
|---|---------------|--------|---------|
| Japanese statutory tax rate                               | <b>41.0%</b>  | 41.0%  | (41.0)% |
| Expenses not deductible for tax purposes                  | <b>1.2</b>    | 0.5    | 0.2     |
| Non taxable income  | <b>(0.0)</b>  | (2.4)  | (1.0)   |
| Difference in statutory tax rates of foreign subsidiaries | <b>(23.1)</b> | (22.6) | (3.0)   |
| Change in the valuation allowance                         | <b>6.4</b>    | 14.8   | 4.8     |
| Change in enacted tax laws and rates                      | <b>0.3</b>    | 5.8    | —       |
| Currency translation adjustment                           | <b>(0.0)</b>  | (3.3)  | —       |
| Investment tax credit                                     | <b>(1.6)</b>  | (4.5)  | (1.0)   |
| Other   | <b>(0.6)</b>  | 0.0    | 2.1     |
| Effective tax rate  | <b>23.6%</b>  | 29.3%  | (38.9)% |

Total income taxes for the years ended March 31, 2004, 2003 and 2002 are allocated as follows:

|  | Yen<br>(Millions) |          |          | U.S. Dollars<br>(Thousands) |
|--|-------------------|----------|----------|-----------------------------|
|  | 2004              | 2003     | 2002     | 2004                        |
| Income (loss) before income taxes . . . . .                          | <b>¥13,143</b>    | 5,296    | (16,994) | <b>\$123,991</b>            |
| Stockholders' equity, accumulated other comprehensive income (loss): |                   |          |          |                             |
| Foreign currency translation adjustments . . . . .                   | <b>245</b>        | (242)    | 642      | <b>2,311</b>                |
| Net unrealized gains (losses) on securities . . . . .                | <b>348</b>        | (166)    | 436      | <b>3,283</b>                |
| Minimum pension liability adjustments . . . . .                      | <b>9,422</b>      | (10,950) | (24,901) | <b>88,887</b>               |
| Total income taxes . . . . .   | <b>¥23,158</b>    | (6,062)  | (40,817) | <b>\$218,472</b>            |

Income (loss) before income taxes and income taxes for the years ended March 31, 2004, 2003 and 2002, are summarized as follows:

|                           |                    | Income (loss)<br>Before Income<br>Taxes | Income Taxes |          |          |
|---------------------------|--------------------|---|--------------|----------|----------|
|                           |                    |   | Current      | Deferred | Total    |
| Yen (Millions):           | 2004               |   |              |          |          |
|                           | Japanese . . . . . | ¥ 8,611                                 | 4,411        | (7)      | 4,404    |
|                           | Foreign . . . . .  | 46,992                                  | 5,864        | 2,875    | 8,739    |
|                           |                    | ¥ 55,603                                | 10,275       | 2,868    | 13,143   |
|                           | 2003               |   |              |          |          |
|                           | Japanese . . . . . | 6,932                                   | (1,929)      | 5,977    | 4,048    |
|                           | Foreign . . . . .  | 11,149                                  | 2,924        | (1,676)  | 1,248    |
|                           |                    | 18,081                                  | 995          | 4,301    | 5,296    |
|                           | 2002               |   |              |          |          |
|                           | Japanese . . . . . | (20,395)                                | (660)        | (14,483) | (15,143) |
| U.S. Dollars (Thousands): | Foreign . . . . .  | (23,302)                                | (2,537)      | 686      | (1,851)  |
|                           |                    | (43,697)                                | (3,197)      | (13,797) | (16,994) |
|                           | 2004               |   |              |          |          |
|                           | Japanese . . . . . | \$ 81,236                               | 41,613       | (66)     | 41,547   |
|                           | Foreign . . . . .  | 443,321                                 | 55,321       | 27,123   | 82,444   |
|                           |                    | \$524,557                               | 96,934       | 27,057   | 123,991  |

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities at March 31, 2004 and 2003, are as follows:

|   | Yen<br>(Millions) |         | U.S. Dollars<br>(Thousands) |
|---|-------------------|---------|-----------------------------|
|   | 2004              | 2003    | 2004                        |
| Deferred tax assets:  |                   |         |                             |
| Trade accounts receivable,<br>principally due to allowance for doubtful receivables . . . . . | ¥ 217             | 486     | \$ 2,047                    |
| Inventories . . . . .   | 251               | 625     | 2,368                       |
| Accrued business tax . . . . .  | 344               | 31      | 3,245                       |
| Accrued expenses . . . . .  | 3,605             | 3,215   | 34,009                      |
| Retirement and severance benefits . . . . .   | 12,334            | 9,465   | 116,358                     |
| Net operating loss carryforwards . . . . .  | 12,427            | 13,215  | 117,236                     |
| Tax credit carryforwards . . . . .  | 559               | 1,429   | 5,273                       |
| Minimum pension liability adjustments . . . . .   | 29,133            | 38,613  | 274,840                     |
| Property, plant, and equipment, principally due to<br>differences in depreciation . . . . .   | 1,219             | —       | 11,500                      |
| Other . . . . .   | 1,276             | 2,218   | 12,037                      |
| Total gross deferred tax assets . . . . .   | 61,365            | 69,297  | 578,913                     |
| Less valuation allowance . . . . .  | (11,028)          | (9,690) | (104,037)                   |
| Net deferred tax assets . . . . .   | ¥ 50,337          | 59,607  | \$ 474,876                  |
| Deferred tax liabilities:   |                   |         |                             |
| Investments, principally due to differences in valuation . . . . .                            | (7,329)           | (6,420) | (69,142)                    |
| Undistributed earnings of foreign subsidiaries . . . . .                                      | (2,773)           | (738)   | (26,160)                    |
| Property, plant, and equipment, principally due to<br>differences in depreciation . . . . .   | —                 | (515)   | —                           |
| Net unrealized gains on securities . . . . .  | (420)             | (77)    | (3,962)                     |
| Other . . . . .   | (1,068)           | (514)   | (10,075)                    |
| Total gross deferred tax liabilities . . . . .  | (11,590)          | (8,264) | (109,339)                   |
| Net deferred tax assets . . . . .   | ¥ 38,747          | 51,343  | \$ 365,537                  |

The net changes in the total valuation allowance for the years ended March 31, 2004, 2003 and 2002, are an increase of ¥1,338 million (\$12,623 thousand), ¥2,246 million and ¥1,798 million, respectively. The valuation allowance primarily relates to valuation allowance for deferred tax assets associated with net operating loss carryforwards incurred by certain foreign subsidiaries. Decrease in the valuation allowance attributable to preacquisition tax benefits recognized during the year ended March 31, 2004 amounted to ¥1,122 million. The reversal of the valuation allowance upon realization of tax benefits resulted in the reduction of goodwill. In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considered the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning strategies in making this assessment. Based upon the level of historical taxable income and projections for future taxable income over the periods which the deferred tax assets are deductible, management believes it is more likely than not the Company will realize the benefits of these deductible differences, net of the existing valuation allowance at March 31, 2004.



At March 31, 2004, the Company and certain subsidiaries have net operating loss carryforwards for income tax purposes of ¥39,573 million (\$373,330 thousand) which are available to offset future taxable income, if any.

Periods available to offset future taxable income vary in each tax jurisdiction and range from one year to an indefinite period as follows:

|                              | Yen<br>(Millions) | U.S. Dollars<br>(Thousands) |
|------------------------------|-------------------|-----------------------------|
| Within 1 year . . . . .      | ¥ 11              | \$ 104                      |
| 1 to 5 years . . . . .       | 7,848             | 74,038                      |
| 5 to 20 years . . . . .      | 14,043            | 132,481                     |
| Indefinite periods . . . . . | 17,671            | 166,707                     |
|                              | <u>¥39,573</u>    | <u>\$373,330</u>            |

Certain subsidiaries have tax credit carryforwards for income tax purposes of ¥559 million (\$5,273 thousand) which are available to reduce future income taxes, if any. Approximately ¥151 million (\$1,425 thousand) and ¥269 million (\$2,538 thousand) of the tax credit carryforwards expire in fiscal 2005 and through 2018, respectively, while the remainder have an indefinite carry-forward period.

Net deferred income tax assets and liabilities at March 31, 2004 and 2003, are reflected in the accompanying consolidated balance sheets under the following captions:

|  | Yen<br>(Millions) | 2003          | U.S. Dollars<br>(Thousands) |
|--|-------------------|---------------|-----------------------------|
|  | 2004              |               | 2004                        |
| Prepaid expenses and other current assets . . . . .      | ¥ 5,105           | 7,555         | \$ 48,160                   |
| Deferred income taxes (noncurrent assets) . . . . .      | 34,140            | 43,948        | 322,075                     |
| Other current liabilities . . . . .                      | (283)             | (147)         | (2,670)                     |
| Deferred income taxes (noncurrent liabilities) . . . . . | (215)             | (13)          | (2,028)                     |
|  | <u>¥38,747</u>    | <u>51,343</u> | <u>\$365,537</u>            |

As of March 31, 2004 and 2003, the Company did not recognize deferred tax liabilities of approximately ¥50,714 million (\$478,434 thousand) and ¥43,083 million, respectively, for certain portions of undistributed earnings of foreign subsidiaries because the Company currently does not expect those unremitted earnings to reverse and become taxable to the Company in the foreseeable future. A deferred tax liability will be recognized when the Company expects that it will recover those undistributed earnings in a taxable manner, such as through receipt of dividends or sale of the investments. As of March 31, 2004 and 2003, the undistributed earnings of these subsidiaries are approximately ¥208,991 million (\$1,971,613 thousand) and ¥178,373 million, respectively.

## 8. Retirement and Severance Benefits

The Company and certain subsidiaries have noncontributory retirement and severance plans that provide for pension or lump-sum payment benefits, based on length of service and certain other factors, to employees who retire or terminate their employment for reasons other than dismissal for cause. In addition, the majority of the employees of the Company are covered by a contributory pension plan, whose benefits are based on length of service and certain other factors and include a portion representing the government social security welfare pension. The Company's funding consists of the Employees' Pension Fund ("EPF") in accordance with welfare pension regulations, the fund in accordance with income tax regulations and the voluntary pension fund. The Company also has an unfunded retirement plan for statutory auditors.

Net periodic benefit cost included in cost of sales and selling, general and administrative expenses for the Company's employee retirement and severance defined benefit plans for the years ended March 31, 2004, 2003 and 2002 consisted of the following components:

|  |                | Yen<br>(Millions) |         | U.S. Dollars<br>(Thousands) |
|--|----------------|-------------------|---------|-----------------------------|
|  | 2004           | 2003              | 2002    | 2004                        |
| Service cost—benefits earned during the year . . . . .           | <b>¥10,341</b> | 9,383             | 8,924   | <b>\$97,557</b>             |
| Interest cost on projected benefit obligation . . . . .          | <b>6,271</b>   | 5,985             | 6,359   | <b>59,160</b>               |
| Expected return on plan assets . . . . .                         | <b>(2,640)</b> | (3,678)           | (4,321) | <b>(24,906)</b>             |
| Amortization of transition assets . . . . .                      | <b>(1,331)</b> | (1,331)           | (1,331) | <b>(12,556)</b>             |
| Recognized actuarial loss . . . . .                              | <b>7,480</b>   | 5,963             | 3,461   | <b>70,566</b>               |
| Amortization of unrecognized prior service benefit . . . . .     | <b>(1,353)</b> | (1,342)           | —       | <b>(12,764)</b>             |
|  | <b>¥18,768</b> | 14,980            | 13,092  | <b>\$177,057</b>            |
| Weighted-average assumptions:                                    |                |                   |         |                             |
| Discount rate . . . . .  | <b>2.1%</b>    | 2.6%              | 3.0%    |                             |
| Assumed rate of increase in future compensation levels . . . . . | <b>3.0%</b>    | 3.0%              | 3.0%    |                             |
| Expected long-term rate of return on plan assets . . . . .       | <b>2.2%</b>    | 2.6%              | 3.0%    |                             |

Reconciliations of beginning and ending balances of the benefit obligations and the fair value of the plan assets are as follows:

|   | Yen<br>(Millions) |           | U.S. Dollars<br>(Thousands) |
|---|-------------------|-----------|-----------------------------|
|   | 2004              | 2003      | 2004                        |
| Change in benefit obligations:                                |                   |           |                             |
| Benefit obligations at beginning of period                    | ¥250,625          | 238,838   | \$2,364,386                 |
| Service cost  | 10,341            | 9,383     | 97,557                      |
| Interest cost   | 6,271             | 5,985     | 59,160                      |
| Plan participants' contributions                              | 405               | 621       | 3,821                       |
| Plan amendments   | 68                | (4,838)   | 642                         |
| Actuarial loss (gain)   | (1,223)           | 11,594    | (11,538)                    |
| Benefits paid   | (6,692)           | (10,346)  | (63,132)                    |
| Translation adjustment  | (804)             | (612)     | (7,585)                     |
| Benefit obligations at end of period                          | 258,991           | 250,625   | 2,443,311                   |
| Change in plan assets:  |                   |           |                             |
| Fair value of plan assets at beginning of period              | 146,573           | 166,253   | 1,382,764                   |
| Actual return on plan assets                                  | 21,458            | (17,914)  | 202,434                     |
| Employer contributions  | 6,434             | 7,293     | 60,698                      |
| Plan participants' contributions                              | 405               | 621       | 3,821                       |
| Benefits paid   | (5,588)           | (9,400)   | (52,717)                    |
| Translation adjustment  | (369)             | (280)     | (3,481)                     |
| Fair value of plan assets at end of period                    | 168,913           | 146,573   | 1,593,519                   |
| Funded status   | (90,078)          | (104,052) | (849,792)                   |
| Unrecognized net transition obligation being recognized       |                   |           |                             |
| over 18 years   | (5,046)           | (6,377)   | (47,604)                    |
| Unrecognized net actuarial loss                               | 113,550           | 142,621   | 1,071,226                   |
| Unrecognized prior service benefit                            | (18,891)          | (20,312)  | (178,217)                   |
| Net amount recognized   | ¥ (465)           | 11,880    | \$ (4,387)                  |
| Amounts recognized in consolidated balance sheets consist of: |                   |           |                             |
| Retirement and severance benefits                             | (73,521)          | (84,971)  | (693,594)                   |
| Intangible assets   | 64                | 251       | 603                         |
| Accumulated other comprehensive income                        | 72,992            | 96,600    | 688,604                     |
| Net amount recognized   | ¥ (465)           | 11,880    | \$ (4,387)                  |
| Actuarial present value of accumulated benefit obligations    |                   |           |                             |
| at end of period  | ¥237,868          | 229,466   | \$2,244,038                 |
| Weighted-average assumptions:                                 |                   |           |                             |
| Discount rate   | 2.1%              | 2.1%      |                             |
| Assumed rate of increase in future compensation levels        | 3.0%              | 3.0%      |                             |
| Expected long-term rate of return on plan assets              | 2.2%              | 2.2%      |                             |

In December 2003, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 132 (revised 2003) ("SFAS 132R"), "Employers' Disclosures about Pensions and Other Postretirement Benefits". SFAS 132R revises and prescribes employers' disclosures about pension plans and other postretirement benefits plans; it does not change the measurement or recognition of those plans. SFAS 132R retains the disclosure requirements contained in the original SFAS 132. It also requires additional disclosures about the assets, obligations, cash flows, and net periodic benefit cost of defined benefit pension plans and other postretirement benefit plans. SFAS 132R is generally effective for fiscal years ending after December 15, 2003. The adoption of SFAS 132R did not have a material impact on the Company's consolidated financial statements.

Information with respect to domestic plans is as follows:

### Measurement date

The Company and its domestic subsidiaries use a January 1 measurement date for their plans:

### Assumptions

|   |      |      |
|---|------|------|
| Weighted-average assumptions used to determine benefit obligations at March 31: | 2004 | 2003 |
| Discount rate . . . . .   | 2.0% | 2.0% |
| Assumed rate of increase in future compensation levels . . . . .                | 3.0% | 3.0% |

|  |      |      |      |
|--|------|------|------|
| Weighted-average assumptions used to determine net periodic benefit cost for the years ended March 31: | 2004 | 2003 | 2002 |
| Discount rate . . . . .  | 2.0% | 2.5% | 3.0% |
| Assumed rate of increase in future compensation levels . . . . .                                       | 3.0% | 3.0% | 3.0% |
| Expected long-term rate of return on plan assets . . . . .   | 2.0% | 2.5% | 3.0% |

The Company determines the expected long-term rate of return based on the expected long-term return of the various asset categories in which it invests. The Company considers the current expectations for future returns and the actual historical returns of each plan asset category.

### Obligations

The accumulated benefit obligation for all domestic defined benefit plans was ¥229,566 million (\$2,165,717 thousand) and ¥222,679 million at March 31, 2004 and 2003, respectively.

### Plan assets

The Company's domestic benefit plan weighted-average asset allocations at March 31, 2004 and 2003 by asset category are as follows:

### Asset Category

|                             |        |        |
|-----------------------------|--------|--------|
|                             | 2004   | 2003   |
| Equity securities . . . . . | 54.5%  | 50.8%  |
| Debt securities . . . . .   | 19.8%  | 40.7%  |
| Cash . . . . .              | 20.3%  | 3.4%   |
| Other . . . . .             | 5.4%   | 5.1%   |
|                             | 100.0% | 100.0% |

The Company's investment policies are designed to ensure adequate plan assets are available to provide future payments of pension benefits to eligible participants. Taking into account the expected long-term rate of return on plan assets, the Company formulates a "model" portfolio comprised of the optimal combination of equity securities and debt securities. Plan assets are invested in individual equity and debt securities using the guidelines of the "model" portfolio in order to produce a total return that will match the expected return on a mid-term to long-term basis. The Company evaluates the gap between expected return and actual return of invested plan assets on an annual basis to determine if such differences necessitate a revision in the formulation of the "model" portfolio. The Company revises the "model" portfolio when and to the extent considered necessary to achieve the expected long-term rate of return on plan assets.

### Cash flows

The Company expects to contribute ¥3,386 million (\$31,943 thousand) to its domestic defined benefit plan in the year ending March 31, 2005.

The domestic EPF plan is composed of (1) a corporate defined benefit portion established by the Company and (2) a substitutional portion based on benefits prescribed by the government (similar to social security benefits in the United States). The Company has been exempted from contributing to the Japanese Pension Insurance ("JPI") program that would otherwise have



been required if it had not elected to fund the government substitutional portion of the benefit through an EPF arrangement. The plan assets of the EPF are invested and managed as a single portfolio for the entire EPF and are not separately attributed to the substitutional and corporate portions. In June 2001, the Japanese pension law was amended to permit an employer to elect to transfer the entire substitutional portion benefit obligation from the EPF to the government together with a specified amount of plan assets pursuant to a government formula. After such transfer, the employer would be required to make periodic contributions to JPI, and the Japanese government would be responsible for all benefit payments. The corporate portion of the EPF would continue to exist exclusively as a corporate defined benefit pension plan.

In this regard, the Company has elected to transfer the substitutional portion of its EPF to the government. The Company will account for the transfer in accordance with the Emerging Issues Task Force issue 03-2 ("EITF 03-2"), "Accounting for the Transfer to the Japanese Government of the Substitutional Portion of Employee Pension Fund Liabilities".

EITF 03-2 addresses accounting for a transfer to the Japanese government of a substitutional portion of an EPF plan, which is a defined benefit pension plan established under the Welfare Pension Insurance Law. EITF 03-2 requires employers to account for the separation process of the substitutional portion from the entire EPF plan (which includes a corporation portion) upon completion of the transfer to the government of the substitutional portion of the benefit obligation and related plan assets. The separation process is considered the culmination of a series of steps in a single settlement transaction. Under this approach, the difference between the fair value of the obligation and the assets required to be transferred to the government should be accounted for and separately disclosed as a subsidy.

On September 25, 2003, the Company was approved by the minister of Health, Labour and Welfare for an exemption from the obligation to pay benefits for future employee service related to the substitutional portion of an EPF plan and will transfer the benefit obligation and related plan assets to government, which is presently expected to be completed by February, 2005. Accordingly, there is no effect on the Company's consolidated financial statement for the fiscal year ended March 31, 2004. The aggregate effect of this separation will be determined based on the Company's total pension benefits obligation as of the date the transfer is completed and the amount of plan assets required to be transferred.

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## 9. Legal Reserve and Dividends

The Japanese Commercial Code ("JCC") had provided that earnings in an amount equal to at least 10 percent of appropriations of retained earnings to be paid in cash should be appropriated as a legal reserve until such reserve equals 25 percent of the common stock by each legal-entity.

Effective October 1, 2001, the JCC was amended to require earnings in an amount to at least 10 percent of appropriations of retained earnings to be paid in cash should be appropriated as a legal reserve until total additional paid-in capital and legal reserve equals 25 percent of common stock by each legal-entity. Either additional paid-in capital or legal reserve may be available for dividends by resolution of the shareholders to the extent that the amount of total additional paid-in capital and legal reserve exceeds 25 percent of common stock by each legal-entity.

Certain foreign subsidiaries are also required to appropriate earnings to legal reserve, under the laws of the respective countries.

Cash dividends and appropriations to the legal reserve charged to retained earnings during the periods represent dividends paid out during the periods and related appropriations to the legal reserve. The accompanying consolidated financial statements do not include any provision for the dividend proposed by the Board of Directors of ¥30 (\$0.28) per share aggregating ¥3,972 million (\$37,472 thousand) in respect of the year ended March 31, 2004, or for the related appropriation to the legal reserve.

Cash dividends per common share are computed based on dividends paid for the year.

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## 10. Stock Option Plan

The Company obtained approval of the Ordinary General Meeting of Shareholders held on June 27, 2003 regarding the issuance of stock acquisition rights as stock options (the Stock Acquisition Rights) to Board members, Corporate Officers and select senior executives, pursuant to Articles 280-20 and 280-21 of the Japanese Commercial Code. Upon approval, the Board of Directors has adopted resolutions to issue at no charge an aggregate of 2,547 Stock Acquisition Rights, each representing a stock option to purchase 100 shares of common stock of the Company, to the 179 Directors, Corporate Officers and select senior executives of the Company, and the Directors and select senior executives of affiliates. The Stock Acquisition Rights issued on August 7, 2003 are exercisable during the period from August 1, 2005 to July 31, 2009. The amount to be paid by qualified persons upon the exercise of each Stock Acquisition Rights is set at ¥6,954 (\$65.60) per share of common stock, which was calculated by a formula approved by shareholders at the said annual shareholders meeting and is subject to an adjustment in certain events, including but not limited to a stock split, stock dividend and issue of new shares at a price less than the current market price of the shares of the Company. The exercise price of each Stock Acquisition Right was equal to or greater than the fair market value of the Company's common stock on the date of grant. To cover these options the Company purchased on the Tokyo Stock Exchange a total of 260,000 common shares with an aggregate purchase price of ¥1,847 million (\$17,425 thousand) from August 8, 2003 through August 18, 2003.

The Company obtained approval of the Ordinary General Meetings of Shareholders held on June 27, 2002 regarding the issuance of the Stock Acquisition Rights to Board members, Corporate Officers and select senior executives, pursuant to Articles 280-20 and 280-21 of the Japanese Commercial Code as amended. Upon approval, the Board of Directors has adopted resolutions to issue at no charge an aggregate of 2,236 Stock Acquisition Rights, each representing a stock option to purchase 100 shares of common stock of the Company, to the 197 Directors, Corporate Officers and select senior executives of the Company, and the Directors and select senior executives of affiliates. The Stock Acquisition Rights issued on August 9, 2002 are exercisable during the period from August 1, 2004 to July 31, 2008. The amount to be paid by qualified persons upon the exercise of each Stock Acquisition Rights is set at ¥5,909 per share of common stock, which was calculated by a formula approved by shareholders at the said annual shareholders meeting and is subject to an adjustment in certain events, including but not limited to a stock split, stock dividend and issue of new shares at a price less than the current market price of the shares of the Company. The exercise price of each Stock Acquisition Right was equal to or greater than the fair market value of the Company's common stock on the date of grant. To cover these options the Company purchased on the Tokyo Stock Exchange a total of 223,600 common shares with an aggregate purchase price of ¥1,209 million from August 12, 2002 through August 19, 2002.

The Ordinary General Meeting of Shareholders held on June 28, 2001 approved to implement the Company's stock option plan for Directors and certain employees of the Company, and to purchase the Company's own shares for transfer to them under the plan, pursuant to Article 210-2 of the Japanese Commercial Code. Stock options (rights to purchase common shares) were provided to the then 12 Directors on the Board and 184 associate directors and officials in amounts ranging from 500 to 10,000 common shares each, exercisable from August 1, 2003 to April 30, 2007, at an exercise price of ¥6,114 per share, which was calculated by a formula approved by shareholders at the said annual shareholders meeting and is subject to an adjustment in certain events, including but not limited to a stock split, stock dividend and issue of new shares at price less than the current market price of the shares of the Company. The exercise price of each Stock Acquisition Right was equal to or greater than the fair market value of the Company's common stock on the date of grant. To cover these options the Company purchased on the Tokyo Stock Exchange a total of 158,000 common shares with an aggregate purchase price of ¥917 million from July 2, 2001 through July 23, 2001.

The Ordinary General Meeting of Shareholders held on June 29, 2000 approved to implement the Company's stock option plan for Directors and certain employees of the Company, and to purchase the Company's own shares for transfer to them under the plan, pursuant to Article 210-2 of the Japanese Commercial Code. Stock options (rights to purchase common shares) were provided to the then 13 Directors on the Board and 191 associate directors and officials in amounts ranging from 500 to 10,000 common shares each, exercisable from August 1, 2002 to April 30, 2006, at an exercise price of ¥15,640 per share, which was calculated by a formula approved by shareholders at the said annual shareholders meeting and is subject to an adjustment in certain events, including but not limited to a stock split, stock dividend and issue of new shares at price less than the current market price of the shares of the Company. The exercise price of each Stock Acquisition Right was equal to or greater than the fair market value of the Company's common stock on the date of grant. To cover these options the Company purchased on the Tokyo Stock Exchange a total of 170,400 common shares with an aggregate purchase price of ¥2,665 million from July 3, 2000 through August 2, 2000.

The Company currently accounts for these four stock option plans as fixed plans pursuant to APB 25.

A summary of the status of the Company's four stock option plans as of March 31, 2004, 2003 and 2002, and of the activity during the years ending on those dates is as follows:

|                            | 2004                |  | 2003                |  | 2002                |  | 2004                                     |
|----------------------------|---------------------|--|---------------------|--|---------------------|--|--|
|                            | Number of<br>shares | Weighted<br>average<br>exercise<br>price | Number of<br>shares | Weighted<br>average<br>exercise<br>price | Number of<br>shares | Weighted<br>average<br>exercise<br>price | Weighted<br>average<br>exercise<br>price |
|                            |                     | Yen                                      |                     | Yen                                      |                     | Yen                                      | U.S.<br>Dollars                          |
| Outstanding at beginning   |                     |  |                     |  |                     |  |  |
| of year                    | 551,000             | 8,977                                    | 328,400             | 11,057                                   | 170,400             | 15,640                                   | 84.69                                    |
| Granted                    | 254,700             | 6,954                                    | 223,600             | 5,909                                    | 158,000             | 6,114                                    | 65.60                                    |
| Exercised                  | 46,900              | 6,114                                    | —                   | —  | —                   | —  | 57.68                                    |
| Forfeited or Expired       | 2,300               | 6,136                                    | 1,000               | 5,909                                    | —                   | —  | 57.89                                    |
| Outstanding at end of year | 756,500             | 8,482                                    | 551,000             | 8,977                                    | 328,400             | 11,057                                   | 80.02                                    |
| Exercisable at end of year | 281,500             | 11,880                                   | 170,400             | 15,640                                   | —                   | —  | 112.08                                   |

Information about stock options outstanding at March 31, 2004 is as follows:

| Range of<br>exercise prices | Options Outstanding                           |   |                                    |              |
|-----------------------------|---|---|------------------------------------|--------------|
|                             | Number<br>outstanding<br>at March 31,<br>2004 | Weighted average<br>remaining<br>contractual life | Weighted average<br>exercise price |              |
|                             |   |   | Yen                                | U.S. Dollars |
| Yen                         |   |   |                                    |              |
| 6,954 .....                 | <b>254,200</b>                                | 5.3   | 6,954                              | 65.60        |
| 5,909 .....                 | <b>220,800</b>                                | 4.3   | 5,909                              | 55.75        |
| 6,114 .....                 | <b>111,100</b>                                | 3.1   | 6,114                              | 57.68        |
| 15,640 .....                | <b>170,400</b>                                | 2.1   | 15,640                             | 147.55       |
| 5,909 to 15,640 .....       | <b>756,500</b>                                | 3.7   | 8,482                              | 80.02        |

The fair value of these stock options was estimated on the date of grant using the Black-Scholes option pricing model with the following assumptions:

|                               | 2004                    | 2003      | 2002      |
|-------------------------------|-------------------------|-----------|-----------|
| Grant-date fair value .....   | <b>¥1,849 (\$17.44)</b> | ¥1,569    | ¥1,567    |
| Expected life .....           | <b>4.0 years</b>        | 4.0 years | 3.9 years |
| Risk-free interest rate ..... | <b>0.47%</b>            | 0.35%     | 0.34%     |
| Expected volatility .....     | <b>39.65%</b>           | 39.96%    | 39.86%    |
| Expected dividend yield ..... | <b>0.75%</b>            | 0.80%     | 1.03%     |

## 11. Other Comprehensive Income (Loss)

Change in accumulated other comprehensive income (loss) for the years ended March 31, 2004, 2003 and 2002, are as follows:

|  | 2004             | Yen<br>(Millions) | 2003     | 2002 | U.S. Dollars<br>(Thousands) |
|--|------------------|-------------------|----------|------|-----------------------------|
|  |                  |                   |          |      | 2004                        |
| Foreign currency translation adjustments:            |                  |                   |          |      |                             |
| Balance at beginning of period .....                 | <b>¥(26,520)</b> | (7,773)           | (23,798) |      | <b>\$(250,189)</b>          |
| Adjustments for period .....                         | <b>(26,287)</b>  | (18,747)          | 16,025   |      | <b>(247,990)</b>            |
| Balance at end of period .....                       | <b>(52,807)</b>  | (26,520)          | (7,773)  |      | <b>(498,179)</b>            |
| Net unrealized gains (losses) on securities:         |                  |                   |          |      |                             |
| Balance at beginning of period .....                 | <b>110</b>       | 379               | (329)    |      | <b>1,038</b>                |
| Adjustments for period .....                         | <b>538</b>       | (269)             | 708      |      | <b>5,075</b>                |
| Balance at end of period .....                       | <b>648</b>       | 110               | 379      |      | <b>6,113</b>                |
| Minimum pension liability adjustments:               |                  |                   |          |      |                             |
| Balance at beginning of period .....                 | <b>(52,414)</b>  | (36,605)          | (724)    |      | <b>(494,472)</b>            |
| Adjustments for period .....                         | <b>14,186</b>    | (15,809)          | (35,881) |      | <b>133,830</b>              |
| Balance at end of period .....                       | <b>(38,228)</b>  | (52,414)          | (36,605) |      | <b>(360,642)</b>            |
| Total accumulated other comprehensive income (loss): |                  |                   |          |      |                             |
| Balance at beginning of period .....                 | <b>(78,824)</b>  | (43,999)          | (24,851) |      | <b>(743,623)</b>            |
| Adjustments for period .....                         | <b>(11,563)</b>  | (34,825)          | (19,148) |      | <b>(109,085)</b>            |
| Balance at end of period .....                       | <b>¥(90,387)</b> | (78,824)          | (43,999) |      | <b>\$(852,708)</b>          |

Tax effects allocated to each component of other comprehensive income (loss) and reclassification adjustments for the years ended March 31, 2004, 2003 and 2002, are as follows:

|   | Yen<br>(Millions)    |                             |                      |
|---|----------------------|-----------------------------|----------------------|
|   | Before tax<br>amount | Tax (expense)<br>or benefit | Net-of-tax<br>amount |
| <b>2004</b>   |                      |                             |                      |
| Foreign currency translation adjustments:                                       |                      |                             |                      |
| Amount arising during the year on investments                                   |                      |                             |                      |
| in foreign entities held at end of period . . . . .                             | ¥(26,464)            | (245)                       | (26,709)             |
| Reclassification adjustments for the portion of gains and losses                |                      |                             |                      |
| realized upon liquidation and sale of investments in foreign entities . . . . . | 422                  | —                           | 422                  |
| Net foreign currency translation adjustments . . . . .                          | (26,042)             | (245)                       | (26,287)             |
| Unrealized gains (losses) on securities:  |                      |                             |                      |
| Unrealized holding gains (losses) arising for period . . . . .                  | 886                  | (348)                       | 538                  |
| Minimum pension liability adjustments . . . . .                                 | 23,608               | (9,422)                     | 14,186               |
| Other comprehensive income (loss) . . . . .                                     | ¥ (1,548)            | (10,015)                    | (11,563)             |
| <b>2003</b>   |                      |                             |                      |
| Foreign currency translation adjustments:                                       |                      |                             |                      |
| Amount arising during the year on investments                                   |                      |                             |                      |
| in foreign entities held at end of period . . . . .                             | ¥(19,751)            | 242                         | (19,509)             |
| Reclassification adjustments for the portion of gains and losses                |                      |                             |                      |
| realized upon liquidation of investments in foreign entities . . . . .          | 762                  | —                           | 762                  |
| Net foreign currency translation adjustments . . . . .                          | (18,989)             | 242                         | (18,747)             |
| Unrealized gains (losses) on securities:  |                      |                             |                      |
| Unrealized holding gains arising for period . . . . .                           | 104                  | (41)                        | 63                   |
| Reclassification adjustments for (gains) losses realized                        |                      |                             |                      |
| in net income . . . . .   | (539)                | 207                         | (332)                |
| Net unrealized gains (losses) . . . . .   | (435)                | 166                         | (269)                |
| Minimum pension liability adjustments . . . . .                                 | (26,759)             | 10,950                      | (15,809)             |
| Other comprehensive income (loss) . . . . .                                     | ¥(46,183)            | 11,358                      | (34,825)             |
| <b>2002</b>   |                      |                             |                      |
| Foreign currency translation adjustments . . . . .                              | ¥ 16,667             | (642)                       | 16,025               |
| Unrealized gains (losses) on securities:  |                      |                             |                      |
| Unrealized holding gains arising for period . . . . .                           | 1,144                | (436)                       | 708                  |
| Minimum pension liability adjustments . . . . .                                 | (60,782)             | 24,901                      | (35,881)             |
| Other comprehensive income (loss) . . . . .                                     | ¥(42,971)            | 23,823                      | (19,148)             |



|   | U.S. Dollars<br>(Thousands) |                             |                      |
|---|-----------------------------|-----------------------------|----------------------|
|   | Before tax<br>amount        | Tax (expense)<br>or benefit | Net-of-tax<br>amount |
| <b>2004</b>   |                             |                             |                      |
| Foreign currency translation adjustments:                                       |                             |                             |                      |
| Amount arising during the year on investments                                   |                             |                             |                      |
| in foreign entities held at end of period . . . . .                             | <b>\$(249,660)</b>          | <b>(2,311)</b>              | <b>(251,971)</b>     |
| Reclassification adjustments for the portion of gains and losses                |                             |                             |                      |
| realized upon liquidation and sale of investments in foreign entities . . . . . | <b>3,981</b>                | <b>—</b>                    | <b>3,981</b>         |
| Net foreign currency translation adjustments . . . . .                          | <b>(245,679)</b>            | <b>(2,311)</b>              | <b>(247,990)</b>     |
| Unrealized gains (losses) on securities:  |                             |                             |                      |
| Unrealized holding gains (losses) arising for period . . . . .                  | <b>8,358</b>                | <b>(3,283)</b>              | <b>5,075</b>         |
| Minimum pension liability adjustments . . . . .                                 | <b>222,717</b>              | <b>(88,887)</b>             | <b>133,830</b>       |
| Other comprehensive income (loss) . . . . .                                     | <b>\$ (14,604)</b>          | <b>(94,481)</b>             | <b>(109,085)</b>     |

## 12. Leases

The companies occupy offices and other facilities under various cancellable lease agreements expiring in fiscal 2005 through 2006. Lease deposits made under such agreements, aggregating ¥2,079 million (\$19,613 thousand) and ¥1,838 million, at March 31, 2004 and 2003, respectively, are included in other assets on the accompanying consolidated balance sheets.

The following is a schedule by years of future minimum rental payments required under operating leases that have initial or remaining noncancellable lease terms in excess of one year as of March 31, 2004:

|                       | Yen<br>(Millions) | U.S. Dollars<br>(Thousands) |
|-----------------------|-------------------|-----------------------------|
| Year ending March 31, |                   |                             |
| 2005 . . . . .        | ¥ 3,347           | \$ 31,575                   |
| 2006 . . . . .        | 2,444             | 23,057                      |
| 2007 . . . . .        | 1,892             | 17,849                      |
| 2008 . . . . .        | 1,266             | 11,943                      |
| 2009 . . . . .        | 731               | 6,896                       |
| Later years . . . . . | 1,229             | 11,595                      |
|                       | <b>¥10,909</b>    | <b>\$102,915</b>            |

## 13. Commitments and Contingent Liabilities

At March 31, 2004, commitments outstanding for the purchase of property, plant and equipment approximated ¥8,846 million (\$83,453 thousand). The Company has entered into several purchase agreements with certain suppliers whereby the Company committed to purchase minimum amount of raw materials to be used in the manufacture of its products. Future minimum purchase remaining under the agreements approximated ¥1,411 million (\$13,311 thousand) at March 31, 2004.

The Company and certain of its subsidiaries provide guarantees to third parties of bank loans of its employees. The guarantees for the employees are principally made for their housing loans. For each guarantees issued, if the employees default on a payment, the Company would be required to make payments under its guarantees. The maximum amount of undiscounted payments the Company would have to make in the event of default is ¥6,605 million (\$62,311 thousand) and ¥7,247 million at March 31, 2004 and 2003, respectively. As of March 31, 2004, the liability recognized for the Company's obligation under the guarantee arrangement is not material.

Several claims and legal actions against the Company and certain subsidiaries are pending. Provision has been made for the estimated liabilities for certain items. In the opinion of management, based upon discussion with counsel, any additional liability will not materially affect the consolidated financial position and results of operations of the Company.

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#### 14. Risk Management Activities and Derivative Financial Instruments

The Company and its subsidiaries operate internationally which exposes them to the risk of changes in foreign exchange rates and interest rates, and therefore utilize derivative financial instruments to reduce these risks. The Company and its subsidiaries do not hold or issue financial instruments for trading purposes. The Company is exposed to credit related losses in the event of nonperformance by the counterparties to those financial instruments, but does not expect any counterparties to fail to meet their obligations given their high credit ratings. The credit exposure of currency swaps, interest rate and currency swaps, forward foreign exchange contracts and currency option contracts is represented by the fair values of contracts.

The Company and one of its subsidiaries have currency swaps and interest rate and currency swaps with certain financial institutions to limit their exposure to fluctuations in foreign exchange rates and interest rates involved mainly in loans made by the Company to its subsidiaries in a total amount of ¥12,605 million (\$118,915 thousand) and ¥13,794 million at March 31, 2004 and 2003, respectively. These swaps require the Company and the subsidiary to pay principally euros and U.S. dollars and to receive Japanese yen at a specified rate on specific dates. The remaining terms of these swaps range from one month to six months as of March 31, 2004. Gains or losses on interest and currency swaps and currency swaps are included in interest expense and foreign exchange gain (loss) in the consolidated statements of operations, respectively. The swap contracts are measured at fair value and are included in prepaid expenses and other current assets or other current liabilities, as the case may be, in the consolidated balance sheets.

Forward exchange contracts and currency option contracts have been entered into to hedge adverse effects of foreign currency exchange rate fluctuations mainly on foreign-currency-denominated trade receivables and foreign-currency-denominated forecasted transactions.

At March 31, 2004 and 2003, the Company and certain of its subsidiaries had forward exchange contracts to sell and buy foreign currencies (principally U.S. dollars and Japanese Yen) and currency option contracts for a contract amount of ¥18,638 million (\$175,830 thousand) and ¥19,016 million, respectively. Gains or losses on forward exchange contracts and currency option contracts are included in foreign exchange gain (loss) in the consolidated statements of operations. These contracts are measured at fair value and are included in prepaid expenses and other current assets or other current liabilities, as the case may be, in the consolidated balance sheets.

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#### 15. Fair Value of Financial Instruments

The following methods and assumptions were used to estimate the fair value of financial instruments in cases for which it is practicable:

**(a) Cash and cash equivalents, Trade receivables, Other current assets, Short-term debt, Trade payables, Accrued salaries and wages, Accrued expenses, Income taxes payables and Other current liabilities.**

The carrying amount approximates fair value because of the short maturity of these instruments.

**(b) Marketable securities and Investments in securities**

The fair values of marketable securities and investments in securities are estimated based on quoted market prices for these instruments. For other securities for which there are no quoted market prices, a reasonable estimate of fair values could not be made without incurring excessive costs. Additional information pertinent to the value of unquoted investments is provided below.

**(c) Long-term debt**

The fair values of each of the Company's long-term debts are estimated based on the amount of future cash flows associated with each instrument discounted using the Company's current borrowing rate for similar debt of comparable maturity, or based on the quoted market prices for the same or similar issues.

**(d) Currency Swaps, Currency and Interest Rate Swaps, Forward Foreign Exchange Contracts and Foreign Currency Option Contracts**

The fair values of currency swaps, currency and interest rate swaps, forward foreign exchange contracts and foreign currency option contracts are estimated by obtaining quotes from financial institutions.

The carrying amounts and estimated fair values of the Company's financial instruments at March 31, 2004 and 2003, are summarized as follows:

|   | Yen<br>(Millions)  |                         |                    |                         | U.S. Dollars<br>(Thousands) |                         |
|---|--------------------|-------------------------|--------------------|-------------------------|-----------------------------|-------------------------|
|   | 2004               |                         | 2003               |                         | 2004                        |                         |
|   | Carrying<br>Amount | Estimated<br>Fair Value | Carrying<br>Amount | Estimated<br>Fair Value | Carrying<br>Amount          | Estimated<br>Fair Value |
| Nonderivatives:   |                    |                         |                    |                         |                             |                         |
| Assets:   |                    |                         |                    |                         |                             |                         |
| Investments in securities and other assets for which it is: |                    |                         |                    |                         |                             |                         |
| Practicable to estimate fair value . . . . .                | <b>¥6,180</b>      | <b>6,180</b>            | 5,205              | 5,205                   | <b>\$58,302</b>             | <b>58,302</b>           |
| Not practicable to estimate fair value . . . . .            | <b>1,135</b>       | <b>–</b>                | 3,290              | –                       | <b>10,708</b>               | <b>–</b>                |
| Liability:  |                    |                         |                    |                         |                             |                         |
| Long-term debt, including current portion . . . . .         | <b>(128)</b>       | <b>(128)</b>            | (582)              | (582)                   | <b>(1,208)</b>              | <b>(1,208)</b>          |
| Derivatives:  |                    |                         |                    |                         |                             |                         |
| Currency and interest rate swaps in a:                      |                    |                         |                    |                         |                             |                         |
| Gain position . . . . .                                     | <b>287</b>         | <b>287</b>              | 6                  | 6                       | <b>2,708</b>                | <b>2,708</b>            |
| Loss position . . . . .                                     | <b>(35)</b>        | <b>(35)</b>             | (293)              | (293)                   | <b>(330)</b>                | <b>(330)</b>            |
| Forward foreign exchange contracts in a:                    |                    |                         |                    |                         |                             |                         |
| Gain position . . . . .                                     | <b>403</b>         | <b>403</b>              | 42                 | 42                      | <b>3,802</b>                | <b>3,802</b>            |
| Loss position . . . . .                                     | <b>(7)</b>         | <b>(7)</b>              | (3)                | (3)                     | <b>(66)</b>                 | <b>(66)</b>             |
| Currency option contracts in a:                             |                    |                         |                    |                         |                             |                         |
| Gain position . . . . .                                     | <b>91</b>          | <b>91</b>               | –                  | –                       | <b>858</b>                  | <b>858</b>              |

The carrying amounts of the nonderivative assets and liabilities are included in the consolidated balance sheets under the indicated captions. The carrying amounts of the currency swaps, the currency and interest rate swaps, forward foreign exchange contracts and foreign currency option contracts in a gain position are included in prepaid expenses and other current assets, while those in a loss position are included in other current liabilities.

It is not practicable to estimate the fair value of investments in untraded companies. Management believes that the carrying amounts approximate fair value.

#### Limitations

Fair value estimates are made at a specific point in time, based on relevant market information and information about the financial instrument. These estimates are subjective in nature and involve uncertainties and matters of significant judgment and therefore cannot be determined with precision. Changes in assumptions could significantly affect the estimates.

## 16. Restructuring Charges

During the year ended March 31, 2003, the Company recorded a restructuring charge of ¥5,345 million. As a result of the restructuring, a total of 1,302 regular employees were terminated through March 31, 2003. The Company and domestic subsidiaries released 237 employees in Japan and overseas subsidiaries released 1,065 employees mainly in the Americas and Europe. The Company recorded a workforce reduction charge of approximately ¥2,346 million relating primarily to severances. The Company recorded a restructuring charge of ¥2,999 million mainly relating to losses in the disposal of property, plant and equipment in Japan, in the Americas and in Europe.

The downturn in the U.S. economy from the fourth quarter ended March 31, 2001 and the recent reduction in IT investment volume on a world-wide basis had an adverse effect on the Company. Under the circumstances, the Company believes offering competitive pricing is essential to maintaining its advantageous position in the market of electronic components. Additionally, many of the Company's customers who manufacture consumer products have transferred their manufacturing facilities to Asian countries, in particular China. As a result, the Company, as a supplier of electronic components to these customers, will be required to transfer certain of its factories to these Asian countries in order to meet the customer's logistical needs. Given the global economic conditions, the Company decided to restructure its organization to improve its competitive and financial position on a world-wide basis. The structural reforms implemented over the past two years, including manufacturing plant integration and closure, reduction of headcount and other rationalization plans, have almost been accomplished on schedule through March 31, 2003.

During the year ended March 31, 2002, the Company recorded a restructuring charge of ¥25,872 million. As a result of the restructuring, a total of 5,066 regular employees were terminated across all business functions, operating units and geographic regions through March 31, 2002. The Company recorded a workforce reduction charge of approximately ¥19,884 million relating primarily to severances. In Japan, the Company released 853 employees and domestic subsidiaries released 1,709 employees.

Overseas subsidiaries released 2,504 employees mainly in the Americas and Asia (excluding Japan). The Company recorded a restructuring charge of ¥5,988 million mainly relating to losses in the disposal of property, plant and equipment in Japan and in the Americas. The Company reorganized several production lines to strengthen the competitive power of the existing plant in Asia.

Changes of the restructuring liabilities for the years ended March 31, 2004 and 2003, are outlined as follows:

|                    | Yen (Millions)      |   |       |                     |   |        |
|--------------------|---------------------|---|-------|---------------------|---|--------|
|                    | 2004                |   |       | 2003                |   |        |
|                    | Workforce reduction | Loss on disposal of property, plant and equipment | Total | Workforce reduction | Loss on disposal of property, plant and equipment | Total  |
| Beginning balance  | ¥226                | —   | 226   | 11,272              | —   | 11,272 |
| Costs and expenses | —                   | —   | —     | 2,346               | 2,999   | 5,345  |
| Payments           | 226                 | —   | 226   | 13,392              | 2,999   | 16,391 |
| Ending balance     | ¥ —                 | —   | —     | 226                 | —   | 226    |

|                    | U.S. Dollars (Thousands) |                          |            |
|--------------------|--------------------------|--------------------------|------------|
|                    | 2004                     | 2003                     | 2004       |
|                    | Gross Carrying Amount    | Accumulated Amortization | Net Amount |
| Beginning balance  | \$2,132                  | —                        | 2,132      |
| Costs and expenses | —                        | —                        | —          |
| Payments           | 2,132                    | —                        | 2,132      |
| Ending balance     | \$ —                     | —                        | —          |

Restructuring liabilities were included in Accrued expenses in the consolidated balance sheets as of March 31, 2003.

Through March 31, 2003, the Company had paid ¥5,119 million of the ¥5,345 million restructuring charges. The Company paid all of the remaining restructuring costs by the end of first quarter of fiscal 2004.

## 17. Goodwill and Other Intangible Assets

The Company adopted Statement of Financial Accounting Standards No. 142 ("SFAS 142"), "Goodwill and Other Intangible Assets", effective April 1, 2001. Under SFAS 142, goodwill is no longer amortized but is reviewed for impairment annually, or more frequently if certain indicators arise. In addition, the statement requires reassessment of the useful lives of previously recognized intangible assets. With the adoption of SFAS 142, the Company ceased amortization of goodwill as of April 1, 2001. As of March 31, 2004 and 2003, the Company completed a goodwill impairment test. No impairment was indicated at that time.

The components of acquired intangible assets excluding goodwill at March 31, 2004 and 2003, are as follows:

|                               | Yen (Millions)        |                          |            |                       |                          |            | U.S. Dollars (Thousands) |                          |            |
|-------------------------------|-----------------------|--------------------------|------------|-----------------------|--------------------------|------------|--------------------------|--------------------------|------------|
|                               | 2004                  |                          |            | 2003                  |                          |            | 2004                     |                          |            |
|                               | Gross Carrying Amount | Accumulated Amortization | Net Amount | Gross Carrying Amount | Accumulated Amortization | Net Amount | Gross Carrying Amount    | Accumulated Amortization | Net Amount |
| Amortized intangible assets:  |                       |                          |            |                       |                          |            |                          |                          |            |
| Patent                        | ¥10,349               | 1,259                    | 9,090      | 11,213                | 1,122                    | 10,091     | \$ 97,632                | 11,877                   | 85,755     |
| Software                      | 7,359                 | 4,207                    | 3,152      | 6,985                 | 3,471                    | 3,514      | 69,425                   | 39,689                   | 29,736     |
| Other                         | 2,739                 | 870                      | 1,869      | 2,235                 | 692                      | 1,543      | 25,840                   | 8,208                    | 17,632     |
| Total                         | 20,447                | 6,336                    | 14,111     | 20,433                | 5,285                    | 15,148     | 192,897                  | 59,774                   | 133,123    |
| Unamortized intangible assets | ¥ 916                 |                          | 916        | 1,270                 |                          | 1,270      | \$ 8,641                 |                          | 8,641      |

Aggregate amortization expense for the years ended March 31, 2004, 2003 and 2002 was ¥2,626 million (\$24,774 thousand), ¥1,762 million and ¥1,394 million, respectively. Estimated amortization expense for the next five years is: ¥2,364 million in 2005, ¥2,198 million in 2006, ¥1,677 million in 2007, ¥1,316 million in 2008, and ¥1,093 million in 2009.

The changes in the carrying amount of goodwill by segment for the year ended March 31, 2004 is as follows:

|                              | Yen<br>(Millions)                   |                             |                | U.S. Dollars<br>(Thousands)         |                             |                 |
|------------------------------|-------------------------------------|-----------------------------|----------------|-------------------------------------|-----------------------------|-----------------|
|                              | Electronic materials and components | Recording media and systems | Total          | Electronic materials and components | Recording media and systems | Total           |
| <b>April 1, 2002</b> .....   | ¥11,003                             | 497                         | 11,500         |                                     |                             |                 |
| Additions .....              | 3,553                               | —                           | 3,553          |                                     |                             |                 |
| Translation adjustment ..... | (922)                               | —                           | (922)          |                                     |                             |                 |
| <b>March 31, 2003</b> .....  | <b>13,634</b>                       | <b>497</b>                  | <b>14,131</b>  | <b>\$128,623</b>                    | <b>4,689</b>                | <b>133,312</b>  |
| Additions .....              | <b>76</b>                           | <b>—</b>                    | <b>76</b>      | <b>717</b>                          | <b>—</b>                    | <b>717</b>      |
| Deductions .....             | <b>(2,128)</b>                      | <b>(497)</b>                | <b>(2,625)</b> | <b>(20,076)</b>                     | <b>(4,689)</b>              | <b>(24,765)</b> |
| Translation adjustment ..... | <b>(1,553)</b>                      | <b>—</b>                    | <b>(1,553)</b> | <b>(14,651)</b>                     | <b>—</b>                    | <b>(14,651)</b> |
| <b>March 31, 2004</b> .....  | <b>¥10,029</b>                      | <b>—</b>                    | <b>10,029</b>  | <b>\$ 94,613</b>                    | <b>—</b>                    | <b>94,613</b>   |

Goodwill deductions during the year ended March 31, 2004 consists of a reclassification to intangible assets in the amount of ¥1,006 million resulting from the finalization of the purchase price allocation of a subsidiary acquired in 2003, a reclassification to deferred income taxes in the amount of ¥1,122 million related to post-acquisition adjustment resulting from recognition of preacquisition tax benefits, and sale of a certain subsidiary in the amount of ¥497 million.

Goodwill addition during the year ended March 31, 2003 principally represents the excess of purchase price over the fair value of assets acquired and liabilities assumed for several immaterial acquisitions made during the year.

## 18. Net Income per Share

A reconciliation of the numerators and denominators of the basic and diluted net income per share computations is as follows:

|  | Yen<br>(Millions) |         |          | U.S. Dollars<br>(Thousands) |
|--|-------------------|---------|----------|-----------------------------|
|  | 2004              | 2003    | 2002     | 2004                        |
| Net income (loss) available to common stockholders ..... | <b>¥42,101</b>    | 12,019  | (25,771) | <b>\$397,179</b>            |
| Number of shares (Thousands)                             |                   |         |          |                             |
|  | 2004              | 2003    | 2002     |                             |
| Weighted average common shares outstanding .....         | <b>132,475</b>    | 132,716 | 132,900  |                             |
| Effect of dilutive stock options .....                   | <b>48</b>         | —       | —        |                             |
| Diluted common shares outstanding .....                  | <b>132,523</b>    | 132,716 | 132,900  |                             |
| Yen  |                   |         |          |                             |
|  | 2004              | 2003    | 2002     | U.S. Dollars                |
| Net income (loss) per share:                             |                   |         |          |                             |
| Basic .....  | <b>¥317.80</b>    | 90.56   | (193.91) | <b>\$3.00</b>               |
| Diluted .....  | <b>317.69</b>     | 90.56   | (193.91) | <b>3.00</b>                 |

## 19. Business and Credit Concentrations

One significant customer related to electronic materials and components business accounted for 12.1% of the Company's net sales for the year ended March 31, 2004 and 10.2% of trade receivables at March 31, 2004.



## 20. Supplementary Information

|                                    |         | Yen<br>(Millions) |        | U.S. Dollars<br>(Thousands) |
|------------------------------------|---------|-------------------|--------|-----------------------------|
|                                    | 2004    | 2003              | 2002   | 2004                        |
| <b>(a) Statement of Operations</b> |         |                   |        |                             |
| Research and development . . . . . | ¥34,495 | 31,862            | 38,630 | \$325,425                   |
| Rent . . . . .                     | 8,230   | 9,410             | 11,538 | 77,642                      |
| Maintenance and repairs . . . . .  | 12,184  | 11,534            | 11,437 | 114,943                     |
| Advertising costs . . . . .        | 6,269   | 5,546             | 10,489 | 59,142                      |
| <b>(b) Statement of Cash Flows</b> |         |                   |        |                             |
| Cash paid during year for:         |         |                   |        |                             |
| Interest . . . . .                 | ¥ 350   | 646               | 1,162  | \$ 3,302                    |
| Income taxes . . . . .             | ¥ 4,299 | (1,270)           | 22,026 | \$ 40,557                   |

### Noncash activities

In 2004, 2003 and 2002, there were no material noncash investing and financing activities.

## Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders  
TDK Corporation:

We have audited the accompanying consolidated balance sheets of TDK Corporation and subsidiaries as of March 31, 2004 and 2003, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the years in the three-year period ended March 31, 2004, all expressed in yen. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

The Company's consolidated financial statements do not disclose certain information required by Statement of Financial Accounting Standards No. 131, "Disclosures about Segments of an Enterprise and Related Information". In our opinion, disclosure of this information is required by accounting principles generally accepted in the United States of America.

In our opinion, except for the omission of the segment information as discussed in the preceding paragraph, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of TDK Corporation and subsidiaries as of March 31, 2004 and 2003, and the results of their operations and their cash flows for each of the years in the three-year period ended March 31, 2004, in conformity with accounting principles generally accepted in the United States of America.

The accompanying consolidated financial statements as of and for the year ended March 31, 2004, have been translated into United States dollars solely for the convenience of the reader. We have recomputed the translation and, in our opinion, the consolidated financial statements expressed in yen have been translated into United States dollars on the basis set forth in note 2 to the consolidated financial statements.

*KPMG AZSA & Co.*

Tokyo, Japan  
April 28, 2004

## Investor Information

### TDK CORPORATION

#### CORPORATE HEADQUARTERS

1-13-1, Nihonbashi, Chuo-ku,  
Tokyo 103-8272, Japan

#### DATE OF ESTABLISHMENT

December 7, 1935

#### AUTHORIZED NUMBER OF SHARES

480,000,000 shares

#### ISSUED NUMBER OF SHARES

133,189,659 shares

#### NUMBER OF SHAREHOLDERS

25,950

### SECURITIES TRADED

Common stock: Tokyo, Osaka, London Stock Exchanges

ADRs: New York Stock Exchange

DRs: Brussels Stock Exchange (Euronext)

### TRANSFER AGENT

The Chuo Mitsui Trust & Banking Co., Ltd.

3-33-1, Shiba, Minato-ku, Tokyo 105-8574, Japan

### DEPOSITARY FOR AMERICAN DEPOSITARY RECEIPTS (ADRs)

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111 Wall Street, 20th Floor, Zone 7

New York, NY 10005, U.S.A.

### INDEPENDENT AUDITORS

KPMG AZSA & Co.



(As of March 31, 2004)

## QUARTERLY RESULTS AND STOCK PRICE DATA

Yen in millions, except per share amounts and stock price data

| Fiscal 2003                                    | I        | II       | III      | IV       |
|--|----------|----------|----------|----------|
| Net sales                                      | ¥148,708 | ¥147,672 | ¥161,678 | ¥150,822 |
| Net income                                     | 2,161    | 2,484    | 4,575    | 2,799    |
| Net income per share (basic and diluted) (Yen) | 16.27    | 18.71    | 34.49    | 21.09    |
| Stock price (Tokyo Stock Exchange) (Yen):      |          |          |          |          |
| High   | 7,380    | 5,970    | 5,500    | 5,310    |
| Low  | 5,340    | 4,700    | 4,060    | 4,300    |
| Fiscal 2004                                    | I        | II       | III      | IV       |
| Net sales                                      | ¥153,216 | ¥163,063 | ¥181,851 | ¥160,732 |
| Net income                                     | 8,025    | 11,232   | 14,132   | 8,712    |
| Net income per share (basic) (Yen)             | 60.51    | 84.76    | 106.75   | 65.78    |
| (diluted) (Yen)                                | 60.51    | 84.76    | 106.69   | 65.73    |
| Stock price (Tokyo Stock Exchange) (Yen):      |          |          |          |          |
| High   | 6,020    | 7,890    | 7,800    | 8,350    |
| Low  | 3,810    | 5,860    | 6,470    | 7,020    |

Note: All quarterly data are unaudited and have not been reviewed by the independent auditors.

### PUBLICATIONS

The following publications both in English and Japanese are also available on written request:

>> Semi-annual Report

>> Value and Performance Indicators

>> Company Profile

### INTERNET ADDRESS

<http://www.tdk.co.jp/>

Please visit the IR Information section of our website.

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### FURTHER INFORMATION

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