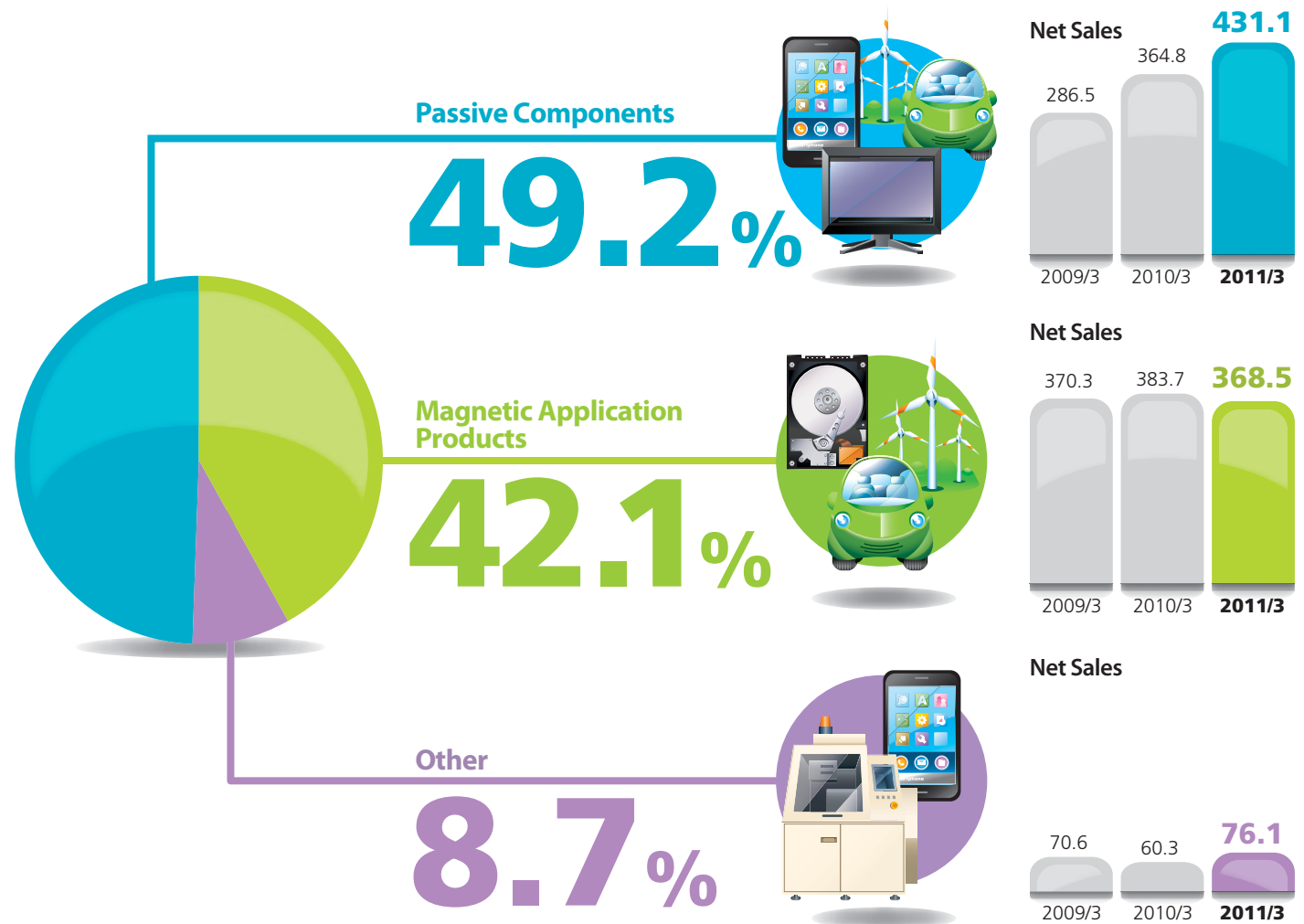


Sales Results

Net sales of the TDK Group for the fiscal year ended March 2011 were 875,737 million yen, up 8.3% year on year, and operating income was 63,842 million yen, up 147.7% year on year. A number of different trends affected performance in the electronics market, depending on the type of end product using TDK components.

In the IT communications sector, the enormous growth in smartphones and tablet computers acted as a stimulus, resulting in considerable production figure gains. The automotive and industrial equipment sectors also continued to perform well. In the field of flat panel TVs, notebook computers, and related products, production volumes underwent an adjustment.

Due to the Great East Japan Earthquake, as well as the rolling blackouts and other events in its aftermath, several manufacturing and development bases in the Tohoku and Kanto areas had to be temporarily shut down. However, thanks to concerted efforts by the entire Group, as well as cooperation and support by suppliers and other related parties, all bases have since resumed operations.



Passive Components

This business segment is made up of Capacitors, Inductive Devices, and Other Passive Components. The Capacitors category encompasses ceramic capacitors, aluminum electrolytic capacitors, and film capacitors. The Other Passive Components category comprises high-frequency components and piezoelectric material components, as well as circuit protection devices and sensors.



Ceramic Capacitors

Aluminum Electrolytic Capacitors

Film Capacitors

Inductive Devices

High-frequency Devices

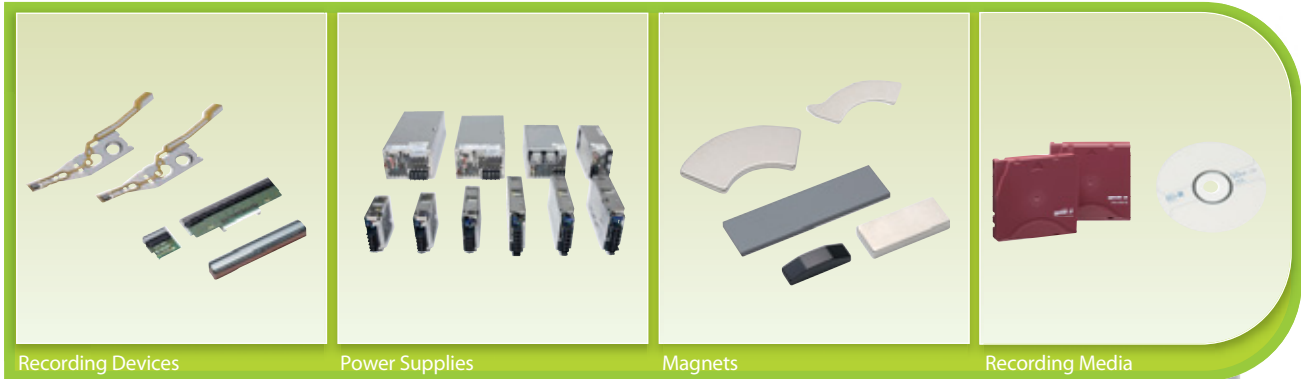
Piezoelectric Material Components

Circuit Protection Devices

Sensors

Magnetic Application Products

This segment is made up of Recording Devices and Other Magnetic Application Products. The Recording Devices category encompasses HDD heads and HDD suspension assemblies, while the Other Magnetic Application Products category comprises power supplies, magnets, and recording media.



Recording Devices

Power Supplies

Magnets

Recording Media

Other

This segment includes Energy Devices (Rechargeable Batteries), Mechatronics (Production Equipment), and other businesses.



Energy Devices (Rechargeable Batteries)

Mechatronics (Production Equipment)

Flash Memory Applied Devices



Passive Components



Thanks to growing demand in the communications device market as well as the automotive and industrial equipment sectors, sales increased by 18.2 percent.

Combined net sales in this business category for the fiscal year ended March 2011 were 431,111 million yen, up 18.2% year on year, and operating income was 24,722 million yen, an increase of 34,973 million over the previous year. The breakdown by product type is given below.

Capacitors

Sales of ceramic capacitors for communications devices and automotive use increased, as did sales of aluminum electrolytic capacitors and film capacitors for the industrial equipment market.

This resulted in net sales of 145,393

million yen, up 9.2% year on year.

Inductive devices

Sales to the communications device market, particularly for smartphones, showed large gains, while sales to the home information appliance, automotive, and industrial equipment sectors also continued to perform well.

As a result, net sales were 135,762 million yen, up 21.3% year on year.

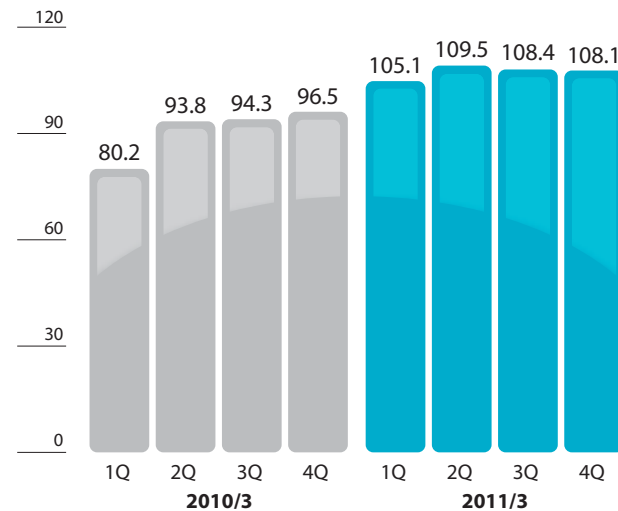
Other passive components

Sales of high-frequency components for smartphones and other communications

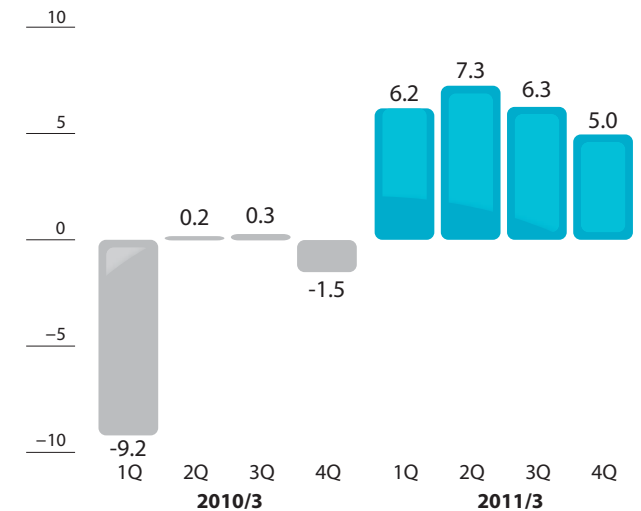
devices increased significantly. Piezoelectric material components and circuit protection devices for use in communications devices and industrial equipment also performed well, as did sensors for the automotive market.

Overall, the sector showed a healthy upward trend, resulting in net sales of 149,956 million yen, up 25.2% year on year.

Net Sales (Billions of yen/quarter)



Segment Profit (Billions of yen/quarter)



Topics

Developing the industry's first thin film common mode filter for combined noise suppression and static electricity control

TDK developed the industry's first thin film common mode filter (TCE1210) combining suppression of common mode noise (identical noise in two signal lines occurring during high-speed differential transmission) with electrostatic charge suppression in a single component. Mass production began in April 2010.

This breakthrough was made possible by TDK's proprietary thin film circuit shaping technology and materials technology. While existing products incorporated only EMI (electromagnetic interference) control, the new product features an added ESD (electrostatic discharge) suppressor function.

Previously, a common mode filter for noise suppression had to be combined with separate ESD components such as

Product designation	TCE1210-900-2P-T000
Common mode impedance [Ω]	90 \pm 25
Cutoff frequency	5.0GHz
Rated voltage	10V
Rated current	100mA
Size [mm]	1.25 \times 1.00 \times 0.60mm ³

a varistor or ESD suppressor, but the new product replaces all of these. This of course has the benefit of reducing parts count and footprint requirements, an especially beneficial point for mobile devices and similar applications where compact dimensions are essential.

The new product is also optimal for EMI and ESD control during high-speed, high-throughput data transfer in consumer equipment, including HDMI, USB 3.0, and serial ATA applications. ESD resistance ratings comply with the requirements of the international surge standard IEC 61000-4-2.



Thin film common mode filter TCE1210 combines common mode noise suppression and electrostatic discharge control in a single component.

Chip size package technology enables mass production of compact, low-profile duplexer

TDK has launched mass production of the compact, low-profile duplexer model 2016 (case size 20 x 16 mm). Duplexers are vital components for mobile phones. They combine send and receive filters that allow simultaneous transmission and reception in a specific frequency band.

TDK duplexers are noted for their ability to accommodate a wide range of different frequencies. They are the result of close cooperation with carriers and other players in the communications sector, and are developed with the future needs of the industry in mind.

In the field of high-frequency components for mobile phones and similar devices, TDK not only offers duplexers but also has the facilities for mass production of SAW (surface acoustic wave) filters*¹, as well as for BAW (bulk acoustic wave) filters*² that are designed for optimum performance in a specific frequency.

In the mobile devices market, from now on also smartphones will become increasingly popular and, with the appearance of 3.9G and 4G data communication standards, frequency range can be expected to increase and communication speeds to accelerate.

While further refining its advanced

know-how in packaging technology, TDK is developing modules that integrate chips and high-frequency components in extremely small and low-profile packages. These packages are carefully designed to meet the ever evolving demands for higher performance in the mobile sector.

*1 SAW filter: Surface Acoustic Wave filter. A filter device that selects an electrical signal using acoustic waves that propagate on the surface of a piezoelectric substrate.

*2 BAW filter: Bulk Acoustic Wave filter. A filter device that selects an electrical signal using bulk acoustic waves that resonate in the thickness direction of a piezoelectric substrate.



Chip-scale packaging (CSP) technology was introduced to produce this miniaturized 2016 duplexer (20 x 16 mm size), which enables the production of smaller, thinner mobile phones.



Magnetic Application Products



Although sales volume of HDD heads increased, a drop in prices and appreciation of the yen resulted in a 4.0% contraction over the preceding year

Combined net sales in this category for the fiscal year ended March 2011 were 368,481 million yen, down 4.0% year on year, while operating income was 46,931 million yen, an increase of 0.4% over the previous year. The breakdown by product type is given below.

Recording devices

Sales of HDD heads, the mainstay of this category, rose slightly, but the yen's appreciation against the U.S. dollar, as well

as a drop in sales prices resulted in net sales of 257,522 million yen, down 8.0% year on year.

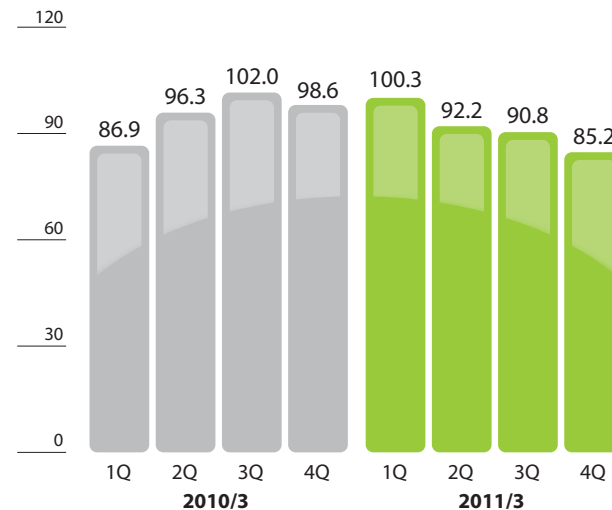
TDK successfully completed development of HDD heads supporting a capacity of 500 GB per 2.5 inch platter, and mass production of the devices has already begun. From now on also, TDK will promote the development of large-capacity, high-added-value products and link them to improved business results from fiscal 2012.

Other magnetic application products

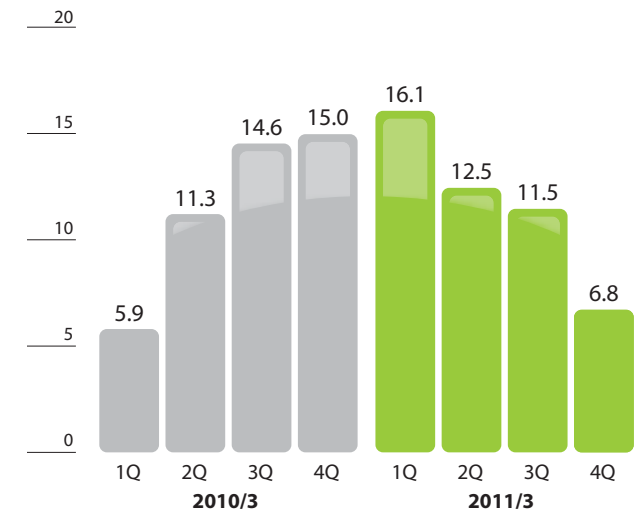
Sales of power supplies and magnets for both industrial equipment and automotive applications increased, while recording media sales showed a decline.

Combined net sales were 110,959 million yen, up 7.0% year on year.

Net Sales (Billions of yen/quarter)



Segment Profit (Billions of yen/quarter)



Topics

EFE300 series switching power supply starts domestic mass production

In June 2010, TDK started full-scale mass production in Japan of the unit type high-efficiency EFE300 series switching power supply, which for the first time enables fully digital control in a standard power supply.

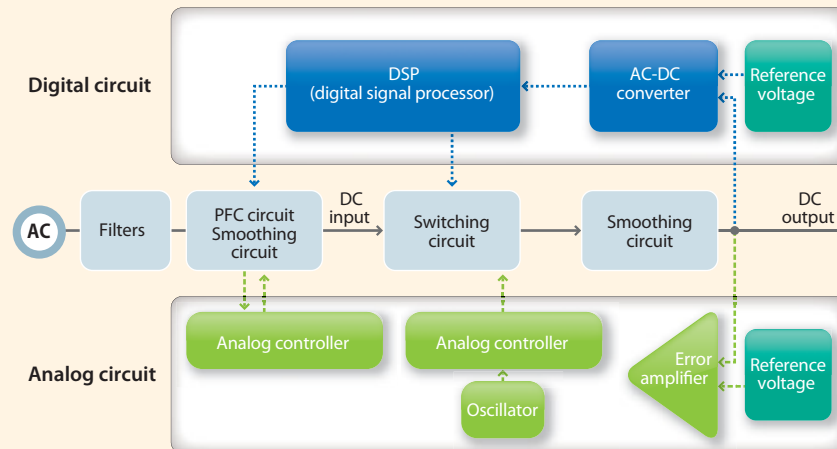
This product reflects TDK's technological expertise in unit type AC-DC switching power supplies. The adoption of digital control results in a 30 percent size reduction and 25 percent parts count reduction, compared to an analog supply of the same output rating.

The series enables precisely controlled power management for distributed power architecture systems in IT communications

and broadcasting equipment, measuring equipment, and other applications. The lineup also includes the EFE300M, specially designed for medical equipment.

TDK is leading the way in bringing the special features and advantages of digital control to the power supply sector. The EFE series combines compact dimensions, low profile, and high performance on a level not attainable with conventional analog products. The fully digital output control realizes high conversion efficiency on the order of 90 percent, while the low profile allows incorporation in a 1 unit rack.

Analog circuit and digital circuit configuration examples



Launching full-scale production of HDD heads supporting 750 Gbps recording density

TDK has successfully developed HDD heads that support a recording density of 750 Gbps^{*1}, and mass production is already in full swing. Compared to the previous product generation, recording density has jumped by 56 percent in the time of only 18 months, mainly driven by the following breakthroughs.

1. Highly advanced semiconductor micro-machining technology enables realization of 35 nm^{*2} reading element width.
2. Low-resistance, high-sensitivity tunnel magnetoresistive (TMR) film head supports 35 nm width reading.
3. Three-dimensional shaping of main magnetic pole made possible by micro-machining also provides enough power for recording medium writing at 60 nm width.
4. Ultra-low flying height of 1 nm accurately controlled by HDI sensor.

Parallel development of the above techniques has allowed TDK to contribute to HDD product development in a timely manner.

TDK is continuing its work to support even higher recording densities, with the goal of developing and producing HDD heads that meet the rapidly increasing market needs for handling high digital data storage volumes.

^{*1}: A recording density of 750 Gbps realizes a 500 GB storage capacity on a single 2.5 inch HDD platter. This is equivalent to about 125,000 MP3 songs or 63 hours of non-compressed terrestrial digital TV programming.

^{*2}: One nm (nanometer) is 1/100,000 mm.



HGA (Head Gimbal Assembly)



Increased sales of rechargeable batteries for tablet computers drive a 26.2% gain in revenue

Combined net sales in this business category for the fiscal year ended March 2011 were 76,145 million yen, up 26.2% year on year, and operating income was 5,492 million yen, an increase of 5.8% over the previous year.

Sales remained strong for rechargeable batteries, which along with mechatronics (production equipment) are the mainstay of this category. Batteries in particular did very well, owing to increased demand for use in small portable devices. The mechatronics

sector provides benefits not only through revenues from external sales but also through use in internal production facilities of the TDK Group, thereby contributing to the maintenance of high quality standards and improved production efficiency.

This sector is also characterized by intensive development and the pursuit of new and innovative technologies with a view toward the creation of new business ventures.

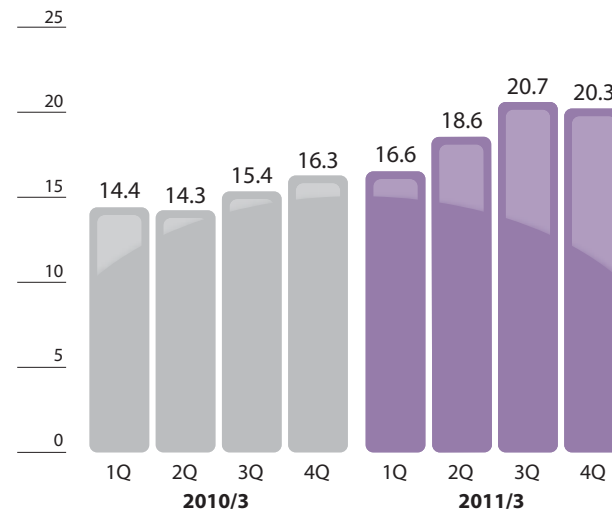
Topics

TDK supplies highly reliable FA equipment for the semiconductor industry

TDK also offers factory automation equipment for use in semiconductor production. These devices are based on its extensive expertise in areas such as factory automation, gained through the manufacture of electronic components, and also clean room technology, which is indispensable for magnetic head production.

One example of this is TDK's load ports for wafer transport in manufacturing lines with partial clean room conditions. TDK products in this area are highly renowned among semiconductor and semiconductor equipment manufacturers.

Net Sales (Billions of yen/quarter)



Segment Profit (Billions of yen/quarter)

