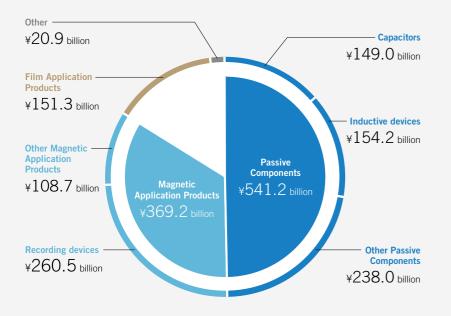
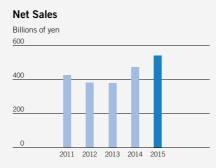
Segments at a Glance

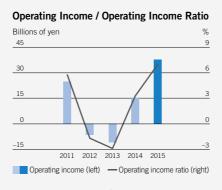
Fiscal years ended March 31

Sales by Segment (Fiscal 2015)



Passive Components





■ Inductive Devices Capacitors ■ Other Passive Components **Net Sales Net Sales Net Sales** Billions of yen Billions of yen Billions of yen 200 2011 2012 2013 2014 2015 2011 2012 2013 2014 2015 2011 2012 2013 2014 2015

Magnetic Application **Products**

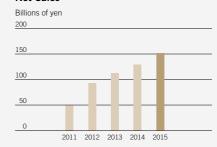


Operating Income / Operating Income Ratio

2011 2012 2013 2014 2015

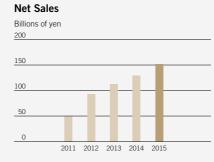
Operating income (left) — Operating income ratio (right)

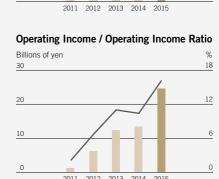
Billions of yen

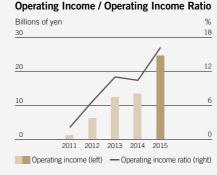


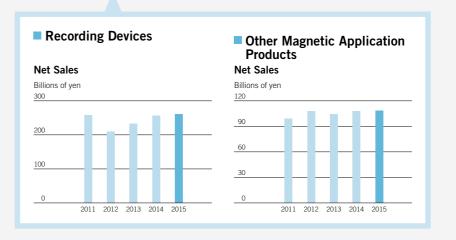
Film Application

Products









Business Environment of TDK



For Automotive

- Trend toward lighter weight and electrification of in-vehicle equipment, driven by customers' increased fuel economy awareness
- Increased demand for eco cars and hybrids, fanning outwards from Japan, North America, and Europe

For ICT Network

- Increased demand in the Chinese market and other emerging economies
- Market entry of new terminals
- Mobile terminals with lower profile, more functions, higher performance

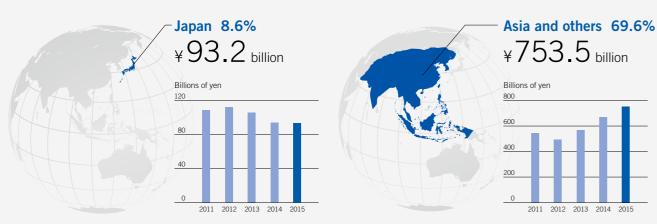
For Industrial Equipment & **Energy Applications**

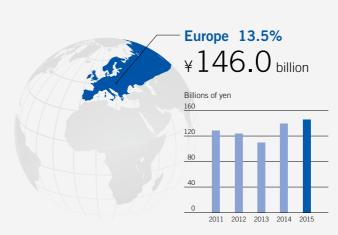
- Emergence of smart cities in various locations with smart grid (next-generation power distribution network) as energy infrastructure
- Increased demand for renewable energy systems such as wind power and solar power installations

Factors affecting the market

- New environment-related legislation in various countries
- Intensified measures by various governments aimed at saving energy and costs
- Strong pressure on prices due to commoditization of existing products leading to price wars
- Development of new technologies and products by competitors
- Higher prices for source materials including powders and boards due to increased
- Fluctuations in sales figures and raw material procurement costs due to exchange rate fluctuations
- General consumer trends in electronics products

Sales by Region (FY March 2015)







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Passive Components

Overview of Fiscal 2015

In the ceramic capacitor field, automotive sales were strong and productivity also improved, resulting in a higher profit margin. Sales of inductive devices for the American and Chinese smartphone markets rose sharply, and automotive sales increased as well, with an improved product mix also providing benefits. As a result, profits increased significantly. Sales of high-frequency components for LTE applications became stronger, and productivity also increased, providing higher earnings. In the

piezoelectric material components sector, sales of automotive parts and VCMs for camera modules rose, generating increased sales and profits.

The passive components segment generated sales of ¥541.2 billion, an increase of 14.7% year on year, and operating income rose by 145.3% to ¥37.9 billion. Boosted by strong overseas demand and the depreciation of the yen, net sales increased, contributing greatly to the improvement in profit margin.

		Capacitors	Inductive Devices	Other Passive Components	
Main Products		For Automotive Multilayer ceramic chip capacitors with soft conductive resin terminal electrodes Aluminum electrolytic capacitors For ICT Network 3-terminal feed-through capacitors For Industrial Equipment & Energy Film capacitors Aluminum electrolytic capacitors	For Automotive SMD inductors with guaranteed high temperature ratings Common mode filters for automotive LAN For ICT Network SMD inductors Thin-film common mode filters For Industrial Equipment & Energy Transformers EMC filters	For Automotive Piezo actuators Various sensors (Gear tooth, Pressure, Current, Temperature) For ICT Network SAW / BAW filters, RF modules, VCM, Multilayer chip varistors For Industrial Equipment & Energy Varistors Arresters	
Important Requirements for Future Products		 Smaller form factor, higher capacitance Lower profile for embedding Lower ESL to enable decoupling applications Higher temperature resistance for automotive use, higher structural reliability with soft conductive resin terminal electrodes 	Smaller dimensions, lower height, higher current rating, higher efficiency, lower losses Develop product lineup according to usage environment Strengthen EMC control products for reception sensitivity of smartphones with support for more bands Develop filters for automotive networks	Enlarge product mix to cover all RF bands Increase production of camera module actuators Adapt angle sensors to automotive applications	
Customers		Car manufacturers, communication equipment manufacturers, industrial equipment manufacturers, infrastructure manufacturers, electrical home appliance manufacturers, precision instruments manufacturers etc.			
Com- petitors	Domestic	Murata Manufacturing, TAIYO YUDEN, etc.	Murata Manufacturing, TAIYO YUDEN, SUMIDA CORPORATION, etc.	Murata Manufacturing, TAIYO YUDEN, ALPS ELECTRIC, etc.	
	Overseas	SEMCO (Korea), Yageo (Taiwan), KEMET (U.S.), AVX (U.S.), etc.	SEMCO (Korea), Cyntec (Taiwan), etc.	Avago Technologies (U.S.), Quovo (U.S.), etc.	
World Market Share of Representative Products (TDK Data)		Ceramic capacitor for automobiles 40–45%	• Inductors 20–25%	 SAW filters 30–35% Varistors 45–50% Surge arresters 75–80% 	

Medium-to Long-Term Growth Strategy

The recent structural reform promoted the allocation of management resources to the passive components segment as a field with high profitability. In particular, inductive devices, high-frequency components, and piezoelectric material components have been designated as key businesses. Strategic investments and technological development are being implemented, with the aim of pushing the operating income ratio over 10% by fiscal 2018.

A stable supply situation is expected with regard to products for the automotive sector, with the potential for growth, as we are responding to demands by manufacturers and consumers for reduced energy consumption and lower power operation. In the ICT sector, the expansion of the smartphone and tablet market will bring about more business opportunities for TDK through technological innovation.

Outlook for Fiscal 2016

In fiscal 2016, we expect net sales to grow from 7% to 10%. Among inductive devices, the share of thin-film products and multilayer products for the ICT market and the automotive market is expected to grow. In the area of high-frequency components, SAW, TC-SAW, BAW, and other filters for the LTE market expanded, and further growth in sales is expected, thanks to development efforts aimed at smaller dimensions and further improved characteristics. An expansion in sales is also projected for piezoelectric material components, key products being parts for the automotive market and optical image stabilizers for camera modules on the Chinese market.

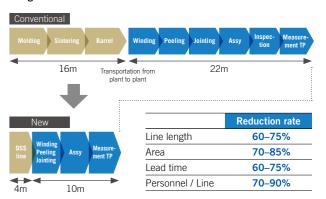
Initiatives Based on Growth Strategy

In the conventional manufacturing pattern of coils made from ferrite, separate plants were used for the processes from forming to polishing, and for the processes from winding to

measurement. Therefore, transportation from one site to the other was required during production.

In the pursuit of increased process efficiency, TDK is currently developing so-called "location free" production lines that are able to deliver products of equally high quality regardless of the geographic location of the site. The first step are two strategic production sites that are being built in the Akita Prefecture. The concept is of course not limited to inductive devices. Rather, we are preparing the stage for sharing elemental technology and improved processes across the passive components segment, resulting in faster response to customer requirements and eventually also faster development of new businesses and new products. In concrete terms, two new production sites are to be constructed in our key locations in Akita Prefecture (at the Honjo Plant and Inakura Plant), with one slated to become a mother plant mainly for multilayer products and the other for ferrite products. For the future, it is planned to gradually expand the location free concept that will be implemented at the new sites to manufacturing sites around the world. This is aimed at realizing optimal production in optimum locations, thereby enabling us to always supply customers with products of equally high quality.

Integrated Production and Location Free





Electronic components – look inside

Inductive Devices

Inductor is another word for coil, derived from the term for the phenomenon of inductance. The current flowing in a coil generates a magnetic field, which in turn generates a current. This property for purposes such as producing or adjusting an electromagnetic signal, storing energy, and stabilizing voltage. Many different kinds of inductors for various applications exist, classified as wound inductors, thin-film types, multilayer types, etc. TDK offers a full lineup with particular emphasis on ICT and automotive applications. Working in close cooperation with chip manufacturers, we will also be producing more customized modular products in the future.



Structure of thin-film common mode filter with ESD function

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Magnetic Application Products

Overview of Fiscal 2015

Net sales in fiscal 2015 rose 1.4% year on year to ¥369.2 billion, and operating income rose by 2.0% to ¥28.7 billion. Shipping quantities of HDD heads actually dropped compared to the previous term, but increased sales of suspension parts resulted in increased income. The results of productivity improvements, and the fact that sales to data centers have started to increase improved the product mix and also

contributed to earnings growth. On the other hand, magnet sales dropped, and in addition, impairment of metallic magnet related equipment on the order of ¥3.1 billion was carried out. With regard to power supplies, sales of products for semiconductor and industrial equipment did well, but goodwill impairment of about ¥2.2 billion was carried out.

		Recording Devices	Other Magnetic Application Products	
		For ICT (Including for data center) HDD magnetic heads HDD suspensions, etc.	For Automotive DC-DC converters Battery chargers Magnets for motors (Cooling fan, Door lock) Batteries for xEV	
			For ICT (base station) High Current Digital POL Converter HDD magnets	
Main P	roducts		For Industrial Equipment & Energy Bidirectional DC-DC converters High efficiency AC-DC power supplies Magnets for industrial equipment	
		Further increase in storage capacity and miniaturization	Supply magnets that reduce use of rare resources to a minimum	
Important Requirements for Future Products		 Development of high-spec and high-reliability products New technologies such as thermal assisted magnetic recording head 	 Supply magnets with high magnetic properties (high magnetic force and high heat resistance) that contribute to miniaturization and higher efficiency of electric motors 	
		Development of high-efficiency power supplies Car manufacturers, communication equipment manufacturers, industrial equipment manufacturers, infrastructure manu-		
Customers		facturers, electrical home appliance manufacturers, precision instruments manufacturers etc.		
Com-	Domestic	None	Power supplies: Cosel Magnet: Shin-Etsu Chemical, Hitachi Metals, etc.	
petitors	Overseas	HDD magnetic heads: Seagate Technology (U.S.) Western Digital Technologies (U.S.) HDD suspension: Hutchinson Technology (U.S.)	Power supplies: XP-Power (Singapore), MEAN WELL (Taiwan) Magnet: ZHONG KE SAN HUAN (China), Zhejiang Dongyang Magnetic Enterprise Group (China), etc.	
World Market Share of Representative Products (TDK Data)		HDD magnetic heads: 25–30% HDD suspensions: 40–45%	Power supplies for industrial equipment: 15–20% Ferrite magnets: 20–25%	

^{*} TDK is the only manufacturer in the world specializing in magnetic heads. Currently, the production of such heads is concentrated on three companies: TDK, Seagate Technology, and Western Digital Technologies.

Medium-to Long-Term Growth Strategy

The scale of the HDD market continuously expanded in keeping with the increase in PC shipping numbers until around 2011, but demand has bottomed out and is expected to continue to decline. But the age of Big Data and associated high capacity storage for data centers and similar applications is about to begin. This means that the demand for HDDs is likely to shift from the personal computing and consumer sector to data centers. HDDs used in data centers must support extremely high storage capacities, and the number of heads in such disks is much higher than in HDDs for PCs. In this sector, TDK will continuously introduce leading-edge products enabling high capacity. We are forging ahead with new technologies to meet the requirements of the age, such as the development of the micro DSA (Dual Stage Actuator) and thermal assisted magnetic recording head technology that will enable a drastic leap in storage capacity.

In the domain of magnets, TDK is also working hard at new developments. Fiscal 2015 was a difficult year where we had to take measures such as implementing an impairment, but we intend to restore revenue and get back on track by focusing on growth areas such as automotive applications and renewable energy and by developing market-leading new products.

The power supply business is expected to experience a growth in demand for industrial equipment products. We will continue to develop high-efficiency power supplies that contribute to saving energy for industrial equipment overall.

Outlook for Fiscal 2016

In fiscal 2016, demand for PCs is expected to decrease, leading to a projected drop in the size of the HDD head market from some 551 million in fiscal 2015 to 490 million in fiscal 2016. This is likely to result in a net sales reduction in this area, but because sales of data center application products are gradually expanding, the overall result in the segment is expected to remain at about the same level.

Initiatives Based on Growth Strategy

Development of heads for thermal assisted magnetic recording

Along with the advent of the age of Big Data, HDDs that realize a further increase in storage capacity are called for. Increasing the number of platters in an HDD is one way of enabling the storage of more data, but there are physical limits to how many such platters can be accommodated. While exploring ways to solve this dilemma, TDK is prioritizing the development of a technique called thermal assisted magnetic recording. A laser integrated in the head heats up a narrow spot on the magnetic medium to temporarily weaken the coercive force, which enables a drastic jump in the recording density. Work is currently progressing to bring the technique from the laboratory to practical application and mass production, with the market expected to emerge from 2017 onwards. TDK intends to capture this opportunity from early on, thereby solidifying its position as a leading company in the HDD market.



The advancement of cloud computing means that HDDs, the main form of data storage in data centers—need to offer even higher storage capacities.



Thermal assisted magnetic recording head with integrated laser



Principle of thermal assis magnetic recording



Electronic components - look inside

Magnetic Head

A magnetic head is a device that either generates a magnetic field to magnetize the medium and write data, or that detects a change in the field to read the recorded data. Advances in head technology have contributed to increases in the storage capacity of HDDs. TDK successfully established the technology for thin-film magnetic heads in 1994, and we are currently holds a market share of about 25% worldwide. We continue to make heads smaller and capable of higher capacities through the application of thin-film technology and utilization of advanced elements.



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Film Application Products

Overview of Fiscal 2015

In the film application products segment, sales of energy devices (rechargeable batteries) rose due to an expansion of the customer portfolio in the Chinese market and the successful launch of new smartphone models. As a result, we achieved

net sales of ¥151.3 billion, a 17.0% increase over the previous term, and operating income was ¥24.6 billion, a 83.9% year-on-year increase.

		Energy Devices		
Main Products		For ICT Network Lithium polymer batteries for smartphone For Automotive Lithium-ion batteries for automobiles For Industry Equipment & Energy High-capacity lithium ion batteries for power storage systems		
Important Requirements for Future Products		 Provide comprehensive solutions from battery cells to packaging deign for batteries Maintain pricing competitiveness Minimize malfunction risks 		
Customers		Car manufacturers, communication equipment manufacturers, industrial equipment manufacturers, infrastructure manufacturers, electrical home appliance manufacturers, precision instruments manufacturers, etc.		
Com- petitors	Domestic	Panasonic, Sony, Hitachi Maxell, etc.		
	Overseas	Samsung SDI (Korea), LG Chem (Korea), BYD (China), etc.		
World Market Share of Representative Products (TDK Data)		Lithium-ion polymer batteries 20–25%		

Medium-to Long-Term Growth Strategy

TDK's film application products business is mainly conducted by our Hong Kong subsidiary Amperex Technology (ATL). With regard to energy devices for the ICT sector, the trend towards thinner mobile devices suggests that the demand for lithium polymer batteries will rise, taking the place of conventional square lithium-ion batteries. Taking advantage of this change-over, we intend to broaden our customer portfolio and thereby increase our market share. In the existing products category, we will promote sales of special types, such as batteries with support for rapid charging, 3D products* that enable higher

capacity through effective use of surplus space, and types with improved throughput.

Furthermore, in addition to current sales for mobile devices centered around smartphones, we also expect an increase in demand for energy storage systems (ESS) for use in solar power and wind power installations. Our active approach to demand also in such areas besides mobile devices will contribute to the realization of growth.

* Batteries using electrodes with a three-dimensional structure. This increases the battery capacity and enables more efficient energy supply.

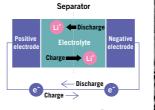
Outlook for Fiscal 2016

We expect net sales of applied film products to grow by about 25% in comparison to fiscal 2015. Sales of lithium polymer batteries are set to grow, not only to our established major customer in North America but also to customers in China and South Korea. The move away from heavy reliance on one client company and toward a broader spectrum of customers will result in a more balanced customer portfolio and further contribute to the stabilization of our operations.

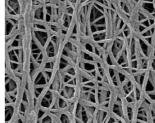
Initiatives Based on Growth Strategy

Aggressive investments to stay competitive

The rechargeable battery business is a field where considerable growth is foreseen. TDK is therefore investing aggressively in the development of special products, such as rapid-charge batteries and 3D batteries. Unlike passive components, batteries are a field where the final form of the product also plays a role, requiring mastery not only of battery technology but also of design and packaging aspects. In order to strengthen our capabilities in packaging technology, we acquired the Chinese company Navitasys Technology in 2012, giving us an advantage in the lithium polymer battery package business. We are strengthening our R&D power in the entire field, from development of new materials to manufacturing methods and design, which will enable us to offer comprehensive solutions to customers.



Principle of lithium-ion battery



Enlarged photograph of separator

Other

Regarding areas other than the three segments reported previously, we are also active in mechatronics (production equipment) and some other fields. Net sales for fiscal 2015 rose by 8.3% over the previous term to ¥20.9 billion. Whereas we had an operating loss of ¥3.2 billion in fiscal 2014, we went into the black by ¥300 million in fiscal 2015.

Main Products

Mechatronics (production equipment) TDK's expertise in mechatronics gained in the production of outstanding electronic components is available in the form of production equipment.



Radio wave anechoic chamber

High-performance antennas and automated measurement systems with dedicated software improve the efficiency of EMC measurements. TDK offers EMC solutions comprising highly accurate EMC measurement services to support effective noise countermeasures in electronic devices.



Flash memory application devices

TDK supplies solid state drives (SSDs) with proprietary memory control chips and CompactFlash cards for industrial use.



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