Consolidated Full Year Projections for FY March 2017 and Mid-Term Policy

公TDK

- 13 -

Takehiro Kamigama President and CEO

Copyright[©] 2016 TDK Corporation. All rights reserved.



Hello. I'm Takehiro Kamigama, President and CEO of TDK. Thank you for attending today's meeting. I will present our projections for the fiscal year ending March 2017, and our mid-term policy. Let's get started.

	FY March 2016 Full Year Results	FY March 2017 Full Year Projections	YoY Change	
(Yen billions)			Yen billions	%
Net sales	1,152.3	1,160.0	7.7	0.7%
Operating income	93.4	74.0	(19.4)	-20.8%
Operating income margin	8.1%	6.4%	-1.6 pt	-
Income before income taxes	91.8	73.0	(18.8)	-20.5%
Net income	64.8	50.0	(14.8)	-22.8%
Earning per share (JPY)	514.23	396.00	-	_
Dividends (JPY)	1st half : 60 2nd half : 60 Annual: 120	1st half : 60 2nd half : 60 Annual : 120	-	-
US\$(JPY)	120.13	110.00	-	
Ex-rate EURO(JPY)	132.67	125.00	-	
Capital expenditure	160.7	200.0	39.3	24.5%
Depreciation and amortization	83.2	95.0	11.8	14.2%
Research and development	84.9	90.0	5.1	6.0%

公TDK

For the fiscal year ending March 2017, TDK is projecting net sales of 1,160.0 billion yen, operating income of 74.0 billion yen, and an operating income margin of 6.4%. Income before income taxes is projected at 73.0 billion yen, and net income is projected at 50.0 billion yen. We are projecting earning per share of 396 yen. Looking at our dividend projections, TDK plans to pay an annual dividend of 120 yen per share, comprising an interim dividend of 60 yen and a year-end dividend of 60 yen, the same level of dividends as in the previous fiscal year. We are assuming exchange rates of 110 yen against the U.S. dollar and 125 yen against the euro. Capital expenditure is projected at approximately 200.0 billion yen, higher than in the fiscal year ended March 2016. Finally, we are projecting depreciation and amortization of 95.0 billion yen and research and development (R&D) expenses of 90.0 billion yen, 5.0 billion yen higher than in the previous fiscal year.

公TDK

Segment	FY March 2016 Full Year Results	FY March 2017 Full Year Projections (YoY Change)	
Passive Components	575.7	+3~+6%	
Magnetic Application Products	315.3	-11~-14%	
Film Application Products	2,22.4	+12~+15%	
Other	38.8	-	
Total	1,152.3	1,160.0	
		Forex assumptions	
US\$(JPY) EURO(JPY)	120.13 132.67	110.00 125.00	

This slide shows our image of changes in consolidated full-year sales in each segment. The Passive Components segment is expected to perform strongly, with net sales projected to grow 3-6% year on year, even after considering the yen's appreciation. Net sales in the Magnetic Application Products segment is projected to decrease 11-14%. The main factor behind the projected decrease is HDD heads. In the Film Application Products segment, net sales are forecast to increase by 12-15%. For the fiscal year ending March 2017, we are projecting total sales of 1,160.0 billion yen, with an exchange rate assumption of ¥110 to the dollar, largely unchanged from the previous fiscal year. The image of sales we would like you to have calls for passive components and rechargeable batteries to achieve positive growth by outweighing the negative impact of the stronger yen, while HDD heads will decline.

②TDK

Points of FY March 2017

Segment	Outlook for Priority Businesses
Passive Components	 Inductors: Share expansion of thin-film and multi-layered products in the ICT and automotive markets High-frequency Components: Sales expansion for small, high-performance, discrete components and modules Piezoelectric Material Products: Expansion of the OIS business (increased usage rate among smartphones in China)
Magnetic Application Products	 HDD heads: Contraction in HDD market volume with decline in PC demand and acceleration in switch to SSDs Approx. 444 million units in FY March 2016 ⇒ Approx. 400 million units (10% decrease) in FY March 2017 Sensors: Expansion in sensors for automotive market and contribution from Micronas
Film Application Products (Rechargeable Batteries)	 Rechargeable batteries: Continued expansion in demand for polymer batteries as a result of thinner profile mobile devices Expansion in new application demand Continuation of investment for production expansion and rationalization in line with demand
Copyright [©] 2016 TDK Corpora	tion. All rights reserved 17 -

I will now go over the main points in each segment. Beginning with the Passive Components segment, in inductors, we expect to expand our share of thin-film and multi-layered products in the ICT and automotive markets. In high-frequency components, sales expansion is projected for small discrete components and modules. In piezoelectric material products, we are projecting expanded sales of optical image stabilizers (OISs) for correcting hand-induced camera shake. We anticipate an increased usage rate among smartphones in China. In the Magnetic Application Products segment, we anticipate a contraction in HDD market volume in line with declining PC demand and the accelerated switch to SSDs. In the year ended March 2016, HDD market volume was 444 million units. However, in the year ending March 2017, HDD market volume was 444 million units. However, in the year ending March 2017, HDD market volume was 444 million units. However, in the year ending March 2017, HDD market volume was 444 million units. However, in the year ending March 2017, HDD market volume is expected to decrease by around 10% to approximately 400 million units. In magnetic sensors, we anticipate expansion in sensors for the automotive market. We have completed the acquisition of Micronas, so we expect its earnings to contribute to TDK's full-year earnings in the current fiscal year. In the Film Application Products segment, particularly rechargeable batteries, we foresee continued expansion in demand for polymer batteries as a result of thinner profile mobile devices. Demand for new applications, such as drones and power tools, is also expected to expand. In rechargeable batteries, we plan to continue making investments in production expansion and rationalization in line with business requirements. That, in short, is our outlook for consolidated results for the fiscal year ending March 2017.





I would now like to discuss our mid-term policy. Until now, we have described our priority businesses for the medium term in terms of our priority five businesses in the three priority fields of automobiles, ICT and industrial equipment / energy. However, at this juncture, HDD conditions have deteriorated and the high-frequency components business will transferred to a joint venture to be established with Qualcomm Incorporated. Against this backdrop, today I would like to explain our policy with particular emphasis on the three strategic growth products shown on the far right of this slide, namely sensors and actuators, energy units, and next-generation electronic components.



But before I begin, let me say a few words about HDD heads, as the situation surrounding the HDD head business may be of concern. As I mentioned earlier, HDD market volume is declining. However, we foresee growth in demand for HDDs for near-line, external and surveillance camera applications. Demand for the market volume of HDD heads is expected to remain mostly level. This outlook is based on the expectation that the number of heads per HDD will increase to 4.22 in the fiscal year ending March 2020, compared with 3.43 in the fiscal year ended March 2016.

⊗TDK



What actions will TDK need to take to address these market conditions going forward? Actually, we have already taken certain actions, while others have yet to be taken. The first action is internal right-sizing. This involves the optimization of production facilities. We have consolidated two front-end processing plants into one plant. As for back-end processing plants, in March we restructured our plants in China, and recorded the related restructuring costs. Furthermore, we have started production of passive components in the Philippines. This means we have already started to convert our HDD head processing facilities into electronic component production facilities. The second action is to contribute to industry right-sizing. This area may be quite difficult to understand. For a non-captive customer who does not internally manufacture HDD heads, we will strengthen vertical collaboration in development and manufacturing that transcends conventional frameworks. For captive customers who internally manufacture HDD heads, we will pursue horizontal labor division to avoid overlapping investment and cost increases. We will also focus on the development of advanced technologies that contribute to Time-To-Market. The third action is to provide products and services through advanced technological capabilities. In this field, we have continuously pursued research to date, and we will continue to step up our research activities in future. Our efforts will be focused on developing new technologies such as thermal assisted magnetic recording (TAMR) head, two-dimensional magnetic recording (TDMR), and micro dual state actuator (DSA) technologies. Regrettably, the HDD market will continue to contract. However, TDK will seek to continue to be "an entity that is relied upon by the market" even in this challenging market environment.



Next, I'd like to discuss our strategic growth products (1. Sensors / Actuators, 2. Energy Units, and 3. Next-generation Electronic Components). As I explained earlier, synergies with Qualcomm are incorporated into our outlook to a considerable extent. In fact, we believe that these synergies will have a bearing on almost all of these products.



First, let's take a look at projections for the sensor market in "1. Sensors / Actuators." This slide shows the outlook for the non-optical sensor market. The size of the market was US\$6.8 billion in 2014, and it is estimated to grow to US\$10.6 billion in 2019. From bottom to top, the bar graph shows Inertia, Temperature, Magnetic and Pressure sensors. TDK intends to be engaged in all of these products. Until now, we have often discussed magnetic sensors. Now that the future course of magnetic sensors has been largely determined, our next step is to expand primarily into temperature and pressure sensors for the automotive market. In addition, we intend to get involved in inertial sensors going forward.



My next topic is our expansion strategy for the magnetic sensor business. We will implement the strategy in four steps. The first step is to expand the automotive TMR sensor business. Development of the core product lineup will be completed in the fiscal year ending March 2017. We also expect qualification now under way at around 40 client companies to be completed.

Efforts will also be made to expand the application and customer base. The next step will be to expand business through initiatives to capture demand for consumer applications. We believe that TMR sensors have extremely strong potential as they are rated strongly in terms of their high precision and outstanding energy saving characteristics. Currently, most of our TMR sensors have been adopted for use as automotive sensors. Once our TMR sensors are adopted for consumer applications, we expect to see considerable growth in volume compared with automotive applications, and the product size will be reduced to around one-tenth that of automotive sensors. That, in turn, will substantially boost our share in terms of the number of components, enabling us to expand business efficiently. The third step is to maximize synergies with Micronas. Micronas specializes in hall sensors. TDK specializes in TMR sensors. Together, we will support a diverse array of needs by developing hall and TMR-hybrid sensors for the automotive market. Moreover, Micronas' ASIC and packaging technology will be developed for use in TDK products. In these and other ways, TDK expects to capture a variety of synergies with Micronas by integrating TDK's technologies with those of Micronas in fields where Micronas is extremely strong. The fourth step is to expand sensor units, modules, and sensor systems. We would like to raise products up to the systems level. Another priority is to expand local business utilizing Chinese production bases. Through these four steps, we will expand the magnetic sensor business.



Let me also say a few words about actuators. This slide says "business creation by proprietary technologies + new technology utilization." Although there are a variety of actuator products, the actuators included in our strategic growth products are Optical Image Stabilizers (OISs) that are mainly used to prevent hand-induced camera shake in smartphone camera modules. At present, we are mass producing OISs following qualification by Chinese smartphone manufacturers. The graph on the slide shows an image of our sales projections for sensors and actuators going forward. Sensor sales include sales of Micronas, the acquisition of which was recently completed by TDK.



Next, let's take a look at energy units. Energy units are defined as units that combine hardware and software with power conversion functions, electricity storage functions, and energy management system functions. For example, looking at the types of products related to power conversion functions, TDK has AC-DC and DC-DC convertors, invertors, chargers, bidirectional AC-DC converters for regenerative energy applications, and wireless charging systems. We aim to offer all of these products as units. Until now, TDK has sold these products as standalone products. However, we now believe that it would be better to combine them into systems. Looking at electricity storage functions, TDK has a lineup of products including industrial lithium-ion batteries, automotive lithium-ion batteries, and Electric Double Layer Capacitors (EDLCs), and will supply these products going forward. In terms of energy management system functions, TDK has battery management units and systems, along with various sensors used therein, especially current sensors and temperature sensors. For this function too, we are considering manufacturing all of the items internally, and combining them together and selling them as energy units.



Examples of energy units for industrial equipment include Auto Guided Vehicles (AGVs). Wireless charging systems will also be incorporated into energy units. Other examples include mobile robots and the hands of robots. The energy units will be used in the arm of these robots, essentially in the rotating parts.



This slide shows a schematic diagram of an automotive wireless charging system. As shown in the diagram, we seek to sell systems that combine the main wireless charging system with items ranging from onboard chargers to DC-DC converters and various sensors.



This slide shows our image of sales projections for energy units. Although the scale of business is still small at present, we expect sales to start picking up from the fiscal year ending March 2018. Since these sales are for the automotive market, you may assume that the portion of sales for the fiscal year ending March 2018 has already completed the qualification process. That is why we have not blurred the bar for the March 2018 fiscal year. From the fiscal year ending March 2019 onward, some sales have not yet clearly completed qualification, so we have blurred the bars slightly. However, as this rough image suggests, we expect energy unit sales to steadily increase.



Next, I'd like to discuss next-generation electronic components. This is an area where TDK will generate fairly large synergies with Qualcomm. In essence, we will provide high value-added next-generation electronic components and modules by combining Semiconductor Embedded Substrate (SESUB) technology, thin-film technology, and materials technology. Some of these products are currently under development, while others have already entered mass production.



Our next-generation electronic products will include SESUB, compound products, thin-film high-frequency filters, thin-film capacitors, thin-film common mode filters, embedded capacitors, MEMS microphones, and low-profile inductors.



To strengthen its next-generation electronic components, particularly thin-film components, TDK will acquire the Tsuruoka Factory of Renesas Semiconductor Manufacturing Co., Ltd. Until now, TDK has been undertaking thin-film component operations ranging from development to mass production through a business unit called the Thin-Film Device Center at the Kofu Plant. However, there was a need for a new plant because the Kofu Plant's capacity had started to become stretched. Although we are building a new plant in Akita, we intend to use the plant for a different purpose. Therefore, we needed a separate production base with an advanced clean room. We decided to acquire the Tsuruoka Factory of Renesas Semiconductor Manufacturing because it has extremely appealing features. Notably, it is a plant that possesses manufacturing experience in automotive products, along with employees with experience and expertise in this field, as well as related resources. Going forward, we aim to further expand thin-film components at the Tsuruoka Factory.



The graph on this slide shows our image of sales projections for next-generation electronic components.



Here are TDK's consolidated sales projections, including sales of the strategic growth products discussed so far. The yellow parts of the bars represent sales of strategic growth products, while the blue parts represent organic sales. Consolidated sales are projected to remain largely flat in the fiscal year ending March 2017. In the fiscal year ending March 2018, organic sales are projected to decrease based on the transfer of the high-frequency components business to a joint venture established with Qualcomm. However, we expect to cover this drop in sales with strategic growth products. From the fiscal year ending March 2019 onward, we will seek to achieve overall sales growth by further expanding sales of strategic growth products.



This slide shows our image of consolidated operating income projections. We expect operating income to start growing again from the fiscal year ending March 2018. We aim to deliver a double-digit consolidated operating income margin as early as possible.

		⊗TD	
lanagement Target in N	Mid-Term		
Growth Investment	 Investment in new products, new businesses, and M&A Increase production capacity of existing businesses 		
Return to Shareholders	Stabilize or increase dividends through EPS growthTarget a 30% dividend payout ratio		
	FY March 2015	FY March 2018	
	Results	Target	
Operating Income Margin	6.7%	Over 10%	
ROE	7.2%	Over 10%	
		TDV C	

These targets are the same as those announced in the Medium-Term Plan. We have not changed our target of an operating income margin of 10% or more for the fiscal year ending March 2018. We are strongly determined to achieve this target.



In closing, I'd like to take a look at capital expenditure and R&D expenses. Under the previous capital expenditure plan, we had announced total investment over the three-year period of the Medium-Term Plan (from the fiscal year ended March 2016 to the fiscal year ending March 2018) of between 350 and 400 billion yen. However, considering the need to invest in strategic growth products and existing priority products, we have increased the total investment by 80.0 billion yen. Therefore, we now plan to invest between 430 and 480 billion yen. Our projection for R&D expenses has also been increased by 20.0 billion yen to 250.0 billion yen. Both investment and development have been increased for the plan's three-year period. We will seek to anticipate various businesses by executing this investment and development ahead of schedule to the maximum extent possible. On that note, I would like to bring my presentation to a close. As I'm sure you are aware from our press releases, I have decided to hand the role of president to a new talented leader. I will take up the position of Chairman and guide TDK in this role. I have attended these investor relations meetings for the past 15 years, but today's meeting will probably be my last opportunity to give presentations to you in this capacity. Starting with the next meeting, our new president is likely to assume this role. I'd like to take this opportunity to express my deepest gratitude to you all for your support to date, and I hope that you will offer even stronger support to TDK in the years to come. Thank you very much.

会TDK

Cautionary Statements with Respect to Forward-Looking Statements

This material contains forward-looking statements, including projections, plans, policies, management strategies, targets, schedules, understandings, and evaluations about TDK, or its group companies (TDK Group). These forward-looking statements are based on the current forecasts, estimates, assumptions, plans, beliefs, and evaluations of the TDK Group in light of the information currently available to it, and contain known and unknown risks, uncertainties, and other factors. The TDK Group therefore wishes to caution readers that, being subject to risks, uncertainties, and other factors, the TDK Group's actual results, performance, achievements, or financial position could be materially different from any future results, and the TDK Group undertakes no obligation to publicly update or revise any forward-looking statements after the issue of this material except as provided for in laws and ordinances.

The electronics markets in which the TDK Group operates are highly susceptible to rapid changes, risks, uncertainties, and other factors that can have significant effects on the TDK Group including, but not limited to, shifts in technology, fluctuations in demand, prices, interest and foreign exchange rates, and changes in economic environments, conditions of competition, laws and regulations. Also, since the purpose of these materials is only to give readers a general outline of business performance, many numerical values are shown in units of a billion yen. Because original values, which are managed in units of a million yen, are rounded off, the totals, differences, etc. shown in these materials may appear inaccurate. If detailed figures are necessary, please refer to our financial statements and supplementary materials.

Copyright[©] 2016 TDK Corporation. All rights reserved.

