

## Consolidated Results for First Half of FY March 2023

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Executive Vice President

Hello, I'm Tetsuji Yamanishi, Executive Vice President of TDK. Thank you for taking the time to attend TDK's performance briefing for the first half of the fiscal year ending March 2023. I will be presenting an overview of our consolidated results.

## Key points concerning earnings for first half of FY March 2023

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**Despite a drop in demand mainly in the ICT market, due partly to geopolitical risks and economic slowdown concerns, both net sales and operating profit reached record highs on the back of EX-related demand, among other factors.\***

- **Net sales increased 25.5% year on year. Operating profit increased 47.4% year on year.**
- **Sharp depreciation of the yen significantly affected earnings.**

- Automobile production remained on a moderate recovery trend, despite the negative impact of the shortage of component supply. Component demand remained brisk thanks to the spread of xEVs and ADAS. Sales of Passive Components and Sensors contributed to earnings.
- In the ICT market, sales of HDD Heads decreased due to a substantial decline in demand related to PCs and tablets on top of slowing demand related to data centers. Despite sluggish demand related to smartphones on the whole, sales of Rechargeable Batteries and Sensors for new models contributed to earnings.
- Demand related to residential energy storage systems expanded due to soaring energy prices. Sales of medium-sized rechargeable batteries increased.
- Sales of Power Supplies for industrial equipment and Passive Components for renewable energy and energy-saving equipment applications expanded.

\*Operating profit is compared on the basis excluding a gain on sale of business recorded in FY March 2017.

First, let's take a look at the key points concerning the earnings for the first half of the fiscal year ending March 2023. While there were signs of recovery from the lockdowns imposed in China due to the resurgence of COVID-19, heightened geopolitical risks resulting from Russia's invasion of Ukraine increased concerns over global economic slowdown. Despite a slowdown in demand mainly in the ICT market, demand related to EX remained brisk. In addition, due to the positive effect of the rapid depreciation of the yen, net sales increased 25.5% year on year, setting a record high on a half-yearly basis, and operating profit increased 47.4% year on year.

In the automotive market, while supply chain constraints continued, such as semiconductor shortage, overall demand recovered moderately mainly in China and component demand remained brisk thanks to an increase in the xEV ratio and the spread of ADAS. As a result, sales of Passive Components and Sensors increased.

In the ICT market, demand related to PCs and tablets, which had been strong amid the COVID-19 pandemic, significantly slowed, and demand related to data centers declined rapidly due to economic slowdown and inventory adjustment in the supply chain. As a result, sales of HDD Heads and HDD Suspension Assemblies decreased considerably.

While demand related to smartphones has been sluggish on the whole as demand has not recovered in China, sales of Rechargeable Batteries and Sensors grew due to the launch of new smartphone models by TDK's major customers.

Meanwhile, demand related to residential energy storage systems rapidly expanded due to global concerns over energy supply and soaring energy prices reflecting the heightened geopolitical risks. Against such background, sales of medium-sized rechargeable batteries continued to increase. Reflecting growing demand related to renewable energy and energy-saving, sales of Power Supplies for industrial equipment and Passive Components expanded for relevant equipment applications.

Amid the increasing uncertainty over the outlook of the global economy, there have been rapid changes in component demand. Under such circumstances, we will aim to thoroughly capture EX-related demand through the expansion of business foundations and capitalize on DX-related demand to expand sales by offering distinctive products on an ongoing basis, thus continuing to increase both net sales and operating profit in the future.

## Consolidated results for first half of FY March 2023

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(Yen billions)	FY March 2022 Results through 2Q (2021.4.1-2021.9.30)	FY March 2023 Results through 2Q (2022.4.1-2022.9.30)	Change	
			Yen billions	%
Net sales	894.2	1,122.0	227.8	25.5
Operating profit	81.6	120.3	38.7	47.4
Operating profit margin	9.1%	10.7%	+1.6%	-
Profit before tax	84.8	119.9	35.0	41.3
Net profit	68.9	87.0	18.1	26.3
Earnings per share (JPY)	181.71	229.39	-	-
Ex-rate	US\$ (JPY)	109.79	133.80	Depreciated by 21.9%
	EURO (JPY)	130.86	138.67	Depreciated by 6.0%
Ex-rate impact to net sales & operating profit		Net sales : Increased by about 164.1 billion Yen Operating profit : Increased by about 36.9 billion Yen		

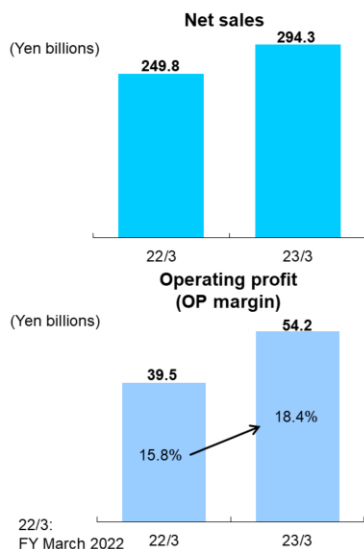
(Note) TDK has voluntarily adopted International Financial Reporting Standards (IFRS) on its consolidated financial statements in the Securities Reports from FY March 2022 in place of the U.S. GAAP. The figures for the previous fiscal year shown in this document are also presented in accordance with IFRS..

Next, I would like to present an overview of our results. There was an increase of about 164.1 billion yen in net sales and an increase of about 36.9 billion yen in operating profit due to exchange rate fluctuations against the U.S. dollar and other currencies. Including this impact, net sales were 1,122.0 billion yen, an increase of 227.8 billion yen, or 25.5% year on year. Operating profit was 120.3 billion yen, an increase of 38.7 billion yen, or 47.4%. Profit before tax was 119.9 billion yen, net profit was 87.0 billion yen, and earnings per share were 229.39 yen.

With regard to exchange rate sensitivity, we estimate that a change of 1 yen against the U.S. dollar will affect actual operating profit by about 2.0 billion yen a year, while a 1-yen change against the euro will have an impact of about 0.6 billion yen a year, in light of the rapid depreciation of the yen and the euro against the U.S. dollar as well as the change in the revenue structure.

## First half results - Passive Components segment

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**Net sales 294.3 billion yen (up 17.8% year on year)**  
**Operating profit 54.2 billion yen (up 37.0% year on year)**

- **Ceramic Capacitors**
  - Sales and profit increased year on year.
  - Sales increased to the automotive market, especially for xEVs.
- **Aluminum Electrolytic Capacitors and Film Capacitors**
  - Sales and profit increased year on year.
  - Sales to the industrial equipment market for renewable energy applications as well as sales to the automotive market increased.
- **Inductive Devices**
  - Sales and profit increased year on year.
  - Sales increased to the automotive and the industrial equipment markets.
- **High-Frequency Components**
  - Sales increased and profit decreased year on year.
  - Sales increased to the industrial equipment and the automotive markets.
- **Piezoelectric Material Products and Circuit Protection Components**
  - Sales and profit increased year on year.
  - Sales increased mainly to the industrial equipment and the automotive markets.

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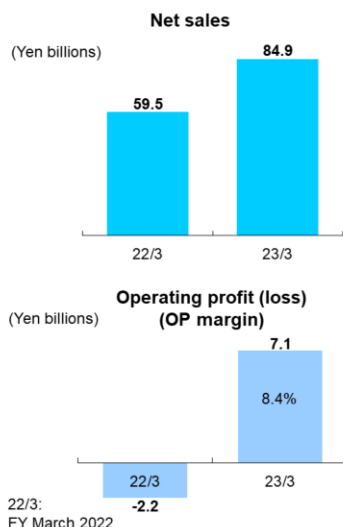
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Next, I would like to explain our business segment performance for the first half.

Net sales in the Passive Components segment were 294.3 billion yen, an increase of 17.8% year on year. Component demand from the automotive market, especially for xEVs and ADAS, has remained brisk. In addition, demand from the industrial equipment market has also been firm, particularly for renewable energy and production equipment. On the other hand, demand related to smartphones declined in the ICT market. As a result, sales and profit of products other than High-Frequency Components, which have a high ratio of smartphone-related sales, increased year on year. In particular, the profitability of MLCCs has increased significantly as full-scale production has continued and there have been positive changes in the product mix.

## First half results - Sensor Application Products segment

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**Net sales 84.9 billion yen (up 42.7% year on year)**  
**Operating profit 7.1 billion yen (up —% year on year)**

### ● Sensors

- ↪ Sales surged year on year. The segment achieved profitability.
- ↪ Sales of Temperature and Pressure Sensors increased to the automotive market.
- ↪ In Magnetic Sensors, sales of Hall Sensors increased to the automotive market as well as to the ICT market, and sales of TMR Sensors increased significantly year on year, thanks to such as their increased adoption by the ICT market.
- ↪ In MEMS Sensors, sales of Motion Sensors and Microphones increased significantly to the ICT market, etc., owing to the expansion of the customer base and applications. Earnings also improved greatly.

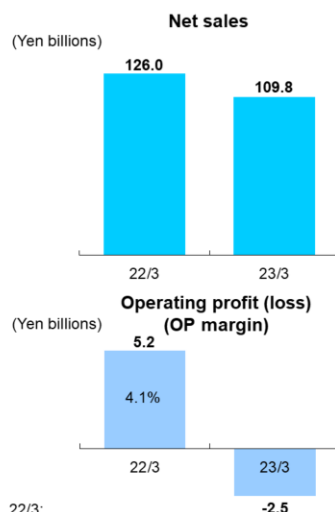
Net sales in the Sensor Application Products segment amounted to 84.9 billion yen, up 42.7% year on year, recording a significant increase. Operating profit was 7.1 billion yen, improving substantially reflecting increased sales, compared with the same period of the previous fiscal year when an operating loss was recorded.

Sales and profit of Temperature and Pressure Sensors decreased year on year, reflecting mainly a decline in orders related to automobiles in Europe due to the supply chain constraints of automotive components as a result of the conflict between Russia and Ukraine. On the other hand, in Magnetic Sensors, sales of Hall Sensors expanded for smartphone as well as automotive applications. Sales of TMR Sensors increased substantially as sales to the automotive market remained firm and smartphone applications expanded. Consequently, the profit of Magnetic Sensors on the whole increased considerably on a year-on-year basis.

Sales of MEMS Sensors increased year on year, owing to the expansion of the customer base and applications for game machines and industry equipment, such as drones, as well as in the automotive market, on top of the expansion of sales to the ICT market where demand had been sluggish. As a result, profitability improved despite a slight loss.

## First half results - Magnetic Application Products segment

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**Net Sales 109.8 billion yen (down 12.8% year on year)**  
**Operating loss -2.5 billion yen (down —% year on year)**

- **HDD Heads and HDD Suspension Assemblies**

- ↳ Sales and profit of HDD Heads and HDD Suspension Assemblies decreased year on year due to sluggish production volume of HDDs for PC applications and data centers.

- **Magnets**

- ↳ Operating loss increased year on year.

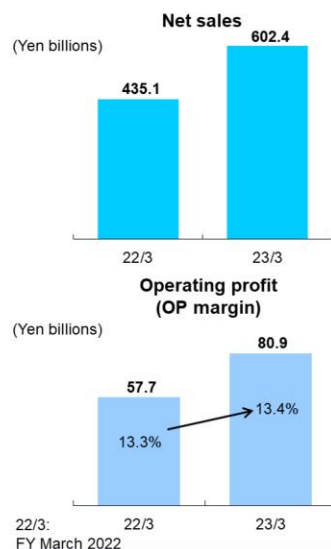
In the Magnetic Application Products segment, net sales decreased 12.8% year on year to 109.8 billion yen, and an operating loss of 2.5 billion yen was posted.

In HDD Heads and HDD Suspension Assemblies, we predicted that HDD demand for PCs would decline further while demand for Nearline HDD Heads would start to recover from the beginning of the second quarter. However, due to the effect of economic slowdown among other factors, investment in data centers declined rapidly and HDD inventory adjustment accelerated. As a result, sales volume of Nearline HDD Heads and HDD Suspension Assemblies during the first half decreased about 13% and about 18%, respectively, from the previous forecast, recording significantly decreased sales and profit year on year.

Sales of Magnets increased year on year reflecting a rise in sales related to xEVs. Profitability has improved on an actual basis, excluding the effect of fluctuations in foreign exchange rates, despite ongoing losses.

## First half results - Energy Application Products segment

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**Net Sales 602.4 billion yen (up 38.5% year on year)**

**Operating profit 80.9 billion yen (up 40.1% year on year)**

- **Energy Devices (Rechargeable Batteries)**

- ↳ Sales and profit increased year on year.
- ↳ Production volume for mobile applications (smartphones, tablets, notebook PCs) remained sluggish, while sales of small-sized rechargeable batteries for new models expanded.
- ↳ Sales of medium-sized rechargeable batteries for residential energy storage systems and other applications expanded.

- **Power Supplies**

- ↳ Sales and profit from Power Supplies for industrial equipment increased year on year due to strong corporate capital expenditures demand.

In the Energy Application Products segment, net sales increased 38.5% year on year to 602.4 billion yen and operating profit surged 40.1% year on year to 80.9 billion yen.

In Rechargeable Batteries, while sales volume for mobile applications, such as smartphones, tablets, and notebook PCs decreased, sales of small-sized rechargeable batteries increased year on year as a result of the improvement in the product mix among other factors. In addition, sales of medium-sized rechargeable batteries steadily expanded, mainly for residential energy storage systems and other applications. Consequently, sales of Rechargeable Batteries exceeded the previous year's level on an actual basis excluding the effect of fluctuations in foreign exchange rates and surcharges. Operating profit increased year on year on an actual basis excluding the effect of fluctuations in foreign exchange rates as a result of our efforts to reduce overall costs including SG&A expenses as well as to increase the profitability of medium-sized rechargeable batteries, despite the negative impact on profit from the decline in sales volume of small-sized rechargeable batteries.

In Power Supplies for Industrial Equipment, demand for semiconductor manufacturing equipment and other industrial equipment remained robust, resulting in year-on-year increases in both sales and profit.

## Breakdown of operating profit changes

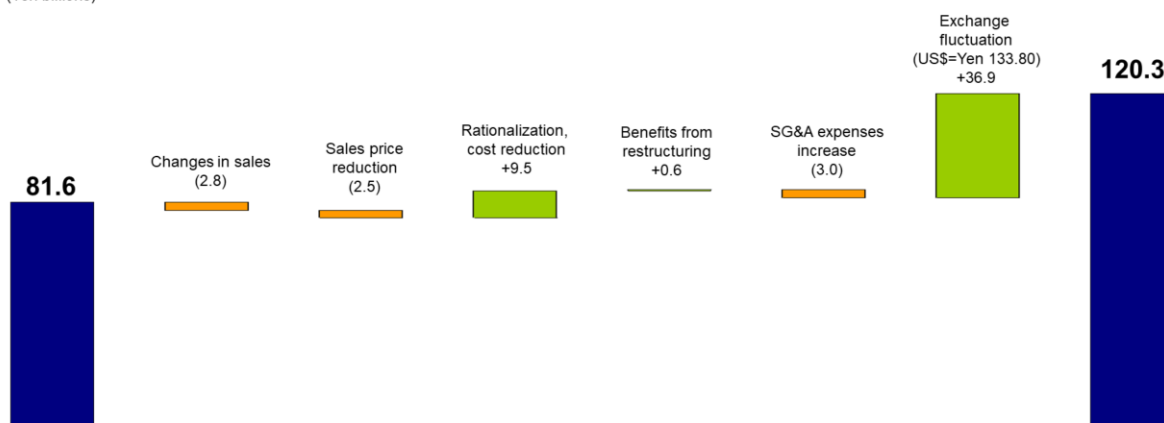
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First half of  
FY March 2022  
81.6 billion yen

**Operating profit +38.7 billion yen**

First half of  
FY March 2023  
120.3 billion yen

(Yen billions)



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Next is a breakdown of changes in operating profit. Let's take a look at the main factors behind the 38.7 billion yen increase in operating profit. First, operating profit increased by 1.8 billion yen excluding the effect of fluctuations in foreign exchange rates. While there was a decrease in operating profit of 5.3 billion yen due mainly to a decline in the sales volume of HDD Heads and HDD Suspension Assemblies and the discounts on selling prices, this was offset by the positive effects of rationalization and cost reduction mainly for Rechargeable Batteries and Passive Components, as well as the benefits from restructuring in the fourth quarter of the previous fiscal year.

While SG&A expenses increased by 3.0 billion yen year on year, actual SG&A expenses decreased year on year, given the fact that license fees to CATL of about 4.1 billion yen had not been recorded in the first quarter of the previous fiscal year, contributing to the year-on-year increase in operating profit. Amid the uncertainties surrounding the demand environment, we have been endeavoring to increase profitability by enhancing management efficiency.



## Consolidated results for 2Q of FY March 2023

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(Yen billions)		FY March 2022 2Q results	FY March 2023 2Q results	Change	
				Yen billions	%
Net sales		474.1	611.5	137.4	29.0
Operating profit		50.3	75.7	25.4	50.5
Operating profit margin		10.6%	12.4%	+1.8 pt	-
Profit before tax		52.4	76.0	23.6	45.0
Net profit		41.9	55.5	13.6	32.5
Earnings per share (JPY)		110.59	146.51	-	-
Ex-rate	US\$ (JPY)	110.07	138.20	Depreciated by 25.6% Depreciated by 7.4%	
	EURO (JPY)	129.83	139.39		
Ex-rate impact to net sales & operating profit		Net sales : Increased by about 100.4 billion Yen Operating profit : Increased by about 24.3 billion Yen			

Next, I would like to present an overview of our consolidated results for the second quarter of the fiscal year ending March 2023.

In the second quarter of the fiscal year ending March 2023., net sales rose 29.0% year on year to 611.5 billion yen, operating profit surged 50.5% year on year to 75.7 billion yen, profit before tax was 76.0 billion yen, and net profit was 55.5 billion yen, setting new record highs for all items on a quarterly basis.

## Quarterly results by segment

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(Yen billions)		2Q of FY March 2022 (A)	1Q of FY March 2023 (B)	2Q of FY March 2023 (C)	YoY change (C)-(A)		QoQ change (C)-(B)	
					Yen billions	%	Yen billions	%
Net sales	Capacitors	49.8	57.6	62.9	13.0	26.2	5.3	9.1
	Inductive Devices	45.3	49.3	52.8	7.5	16.5	3.5	7.0
	Other Passive Components	32.9	34.7	37.0	4.1	12.5	2.3	6.7
	<b>Passive Components</b>	<b>128.0</b>	<b>141.6</b>	<b>152.7</b>	<b>24.6</b>	<b>19.3</b>	<b>11.0</b>	<b>7.8</b>
	Sensor Application Products	32.7	39.0	45.9	13.2	40.5	6.9	17.7
	Magnetic Application Products	65.4	55.1	54.7	(10.7)	-16.3	(0.4)	-0.8
	Energy Application Products	235.5	260.1	342.3	106.8	45.3	82.2	31.6
	Other	12.5	14.6	15.9	3.4	26.8	1.3	8.6
<b>Total</b>		<b>474.1</b>	<b>510.5</b>	<b>611.5</b>	<b>137.4</b>	<b>29.0</b>	<b>101.0</b>	<b>19.8</b>
Operating profit	Passive Components	21.5	24.6	29.6	8.1	37.8	5.0	20.3
	Sensor Application Products	1.0	2.8	4.4	3.4	347.3	1.6	56.7
	Magnetic Application Products	2.3	(0.7)	(1.8)	(4.1)	-	(1.1)	-
	Energy Application Products	34.3	27.3	53.5	19.2	55.9	26.2	95.7
	Other	(0.3)	0.4	(0.2)	0.1	-	(0.5)	-
	<b>Sub total</b>	<b>58.7</b>	<b>54.4</b>	<b>85.5</b>	<b>26.8</b>	<b>45.5</b>	<b>31.1</b>	<b>57.2</b>
	Corporate and eliminations	(8.5)	(9.8)	(9.8)	(1.3)	-	(0.0)	-
	<b>Total</b>	<b>50.3</b>	<b>44.6</b>	<b>75.7</b>	<b>25.4</b>	<b>50.5</b>	<b>31.1</b>	<b>69.7</b>
Operating income margin		10.6%	8.7%	12.4%	+1.8pt	-	+3.7pt	-
Ex-US\$	US\$ (JPY)	110.07	129.36	138.20				
Ex-Euro	EURO (JPY)	129.83	137.95	139.39				

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Now, I will explain some of the factors behind the changes in segment net sales and operating profit from the first quarter of the fiscal year ending March 2023.

First, in the Passive Components segment, net sales increased by 11.0 billion yen, or 7.8%, from the first quarter, and operating profit rose by 5.0 billion yen, or 20.3%, from the first quarter. Sales increased across all markets, especially to the automotive and industrial equipment markets, resulting in increased sales and profit in all businesses.

In the Sensor Application Products segment, net sales increased by 6.9 billion yen, or 17.7% from the first quarter, and operating profit increased by 1.6 billion yen, or 56.7% from the first quarter. Both sales and profit of Temperature and Pressure Sensors increased from the first quarter as demand from the automotive market picked up mainly in China. In Magnetic Sensors, sales of TMR Sensors and Hall Sensors rose from the first quarter thanks to seasonal factors such as a significant increase in sales related to new models launched by our major customers during the second quarter. Operating profit of TMR Sensors increased from the first quarter, despite the recording of one-time expenses related to the launch of new models. In MEMS Sensors, sales remained virtually unchanged from the first quarter on the back of an increase in sales of Microphones, despite a decline in sales of Motion Sensors for smartphone applications in China. Operating loss diminished from the first quarter reflecting an increase in sales of high value-added products.

In the Magnetic Application Products segment, net sales decreased by 0.4 billion yen, or 0.8%, from the first quarter, and operating profit decreased by 1.1 billion yen.

Sales volume of HDD Heads on the whole increased by only about 8% from the first quarter, contrary to the previous prediction of an about 40% increase from the first quarter due to the anticipated recovery in demand for Nearline HDD Heads. HDD assembly sales also decreased from the first quarter. Consequently, sales of HDD Heads on the whole increased only slightly from the first quarter. Sales and profit of HDD Suspension Assemblies on the whole decreased from the first quarter as demand from major customers declined sharply as in the case of HDD Heads. Sales of Magnets increased from the first quarter due to an increase in sales related to xEVs.

In the Energy Application Products segment, net sales increased by 82.2 billion yen, or 31.6%, from the first quarter, and operating profit increased by 26.2 billion yen or about 1.9 times, from the first quarter. Sales of rechargeable batteries to the ICT market increased from the first quarter on the back of an increase in sales related to the launch of new models by our major customers, while sales volume of small-sized rechargeable batteries for smartphone applications in China remained virtually unchanged from the first quarter. Meanwhile, sales of medium-sized rechargeable batteries increased mainly for residential energy storage systems and other applications. As a result, sales of Rechargeable Batteries on the whole significantly increased from the first quarter. The operating profit of Rechargeable Batteries also rose significantly from the first quarter as a result of our efforts to reduce costs, in addition to the absorption of the impact of soaring prices through surcharges. In addition, the operating profit of Power Supplies for Industrial Equipment increased from the first quarter reflecting increased sales, resulting in a significant improvement in profitability.

That concludes my presentation.

## Cautionary statements with respect to forward-looking statements

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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, performance, achievements, or financial position expressed or implied by these forward-looking statements, 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.



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