



ADVANTEST[®]

FY2023 1Q
(Three month ended June 30th, 2023)

Financial Briefing

July 26th, 2023
Advantest Corporation

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NOTE

Accounting Standards

– Our results and outlook, described in this presentation, have been prepared in accordance with IFRS.

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```
...mirror_ob.select-1
operation == "MIRROR_X":
mirror_mod.use_x = True
mirror_mod.use_y = False
mirror_mod.use_z = False
operation == "MIRROR_Y":
mirror_mod.use_x = False
mirror_mod.use_y = True
mirror_mod.use_z = False
operation == "MIRROR_Z":
mirror_mod.use_x = False
mirror_mod.use_y = False
mirror_mod.use_z = True

...
selection at the end -add
mirror_ob.select-1
context.scene.objects.active
["Selected" + str(modifier)]
mirror_ob.select-1
```

Financial Results for FY2023 1Q

Yasuo Mihashi
Senior Executive Officer, CFO & CSO (Chief Financial Officer & Chief Strategy Officer)
Executive Vice President, Corporate Strategy Group

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FY23 1Q Summary of Results

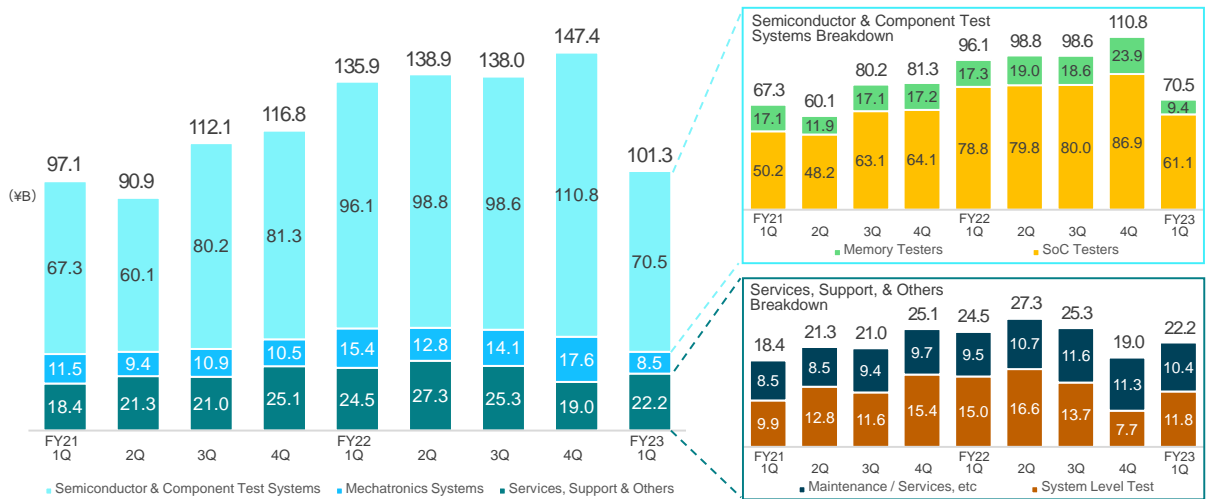
(¥B)

	FY22				1Q	FY23			
	1Q	2Q	3Q	4Q		QoQ		YoY	
						(Δ)	(%)	(Δ)	(%)
Sales	135.9	138.9	138.0	147.4	101.3	-46.1	-31.3%	-34.7	-25.5%
Gross Profit	78.9	79.9	81.6	78.7	51.0	-27.7	-35.3%	-28.0	-35.4%
Gross Margin	58.1%	57.5%	59.1%	53.4%	50.3%	-3.1pts		-7.8pts	
Operating Income	44.8	43.1	41.2	38.6	14.3	-24.3	-63.0%	-30.5	-68.1%
Operating Margin	32.9%	31.1%	29.9%	26.2%	14.1%	-12.1pts		-18.8pts	
Income Before Tax	48.4	46.8	37.7	38.4	13.0	-25.5	-66.3%	-35.5	-73.2%
Net Income	36.5	34.7	28.6	30.6	9.2	-21.4	-69.9%	-27.3	-74.8%
Net Income Margin	26.8%	25.0%	20.8%	20.8%	9.1%	-11.7pts		-17.7pts	
Exchange Rate	1 US\$	¥124	¥135	¥144	¥133	¥135	¥2 Depreciation		¥11 Depreciation
	1 Euro	¥134	¥139	¥144	¥142	¥146	¥4 Depreciation		¥12 Depreciation

○ FY2023 1Q Summary of Results

- Business environment in the 1st quarter was challenging, as we had predicted in April.
- As recessionary concerns continue to intensify from the previous year, end demand remains sluggish with a slow down in data center investments combined with demand weakness in major consumer applications such as smartphones and PCs.
- In the semiconductor market as a whole, there was a growing sense of deceleration as semiconductor manufacturers continued to adjust inventories and control CapEx in areas such as memory semiconductors for major consumer applications.
- With the semiconductor market weakening, demand also fell in our business, as investment by customers, which continued over the past three years, has caused excess capacity in some of our customers' supply chains.
- As a result, both sales and profits fell significantly in the first quarter YoY as well as QoQ.
- Details of the results will be explained in turn in the following pages.

Quarterly Sales by Segment



Note: Intersegment transactions have been eliminated from totals

○ FY2023 1Q Sales by Segment

- Sales in the 1st quarter fell substantially compared to the previous quarter which recorded historical high quarterly sales.

○ Semiconductor & Component Test Systems

- ¥70.5 billion -36.3% QoQ
- SoC tester sales were ¥61.1 billion, a decrease of ¥25.7 billion QoQ. Sales for application processors (APU) and chips for high-performance computing decreased.
- Memory tester sales were ¥9.4 billion, a decrease of ¥14.5 billion QoQ. Sales for both DRAM and non-volatile memory testers decreased amid weak memory semiconductor market.

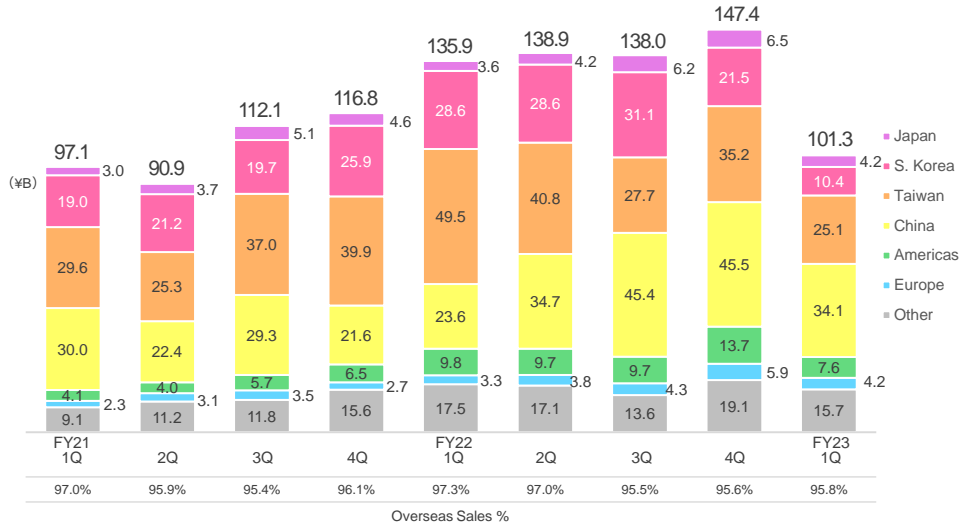
○ Mechatronics Systems

- ¥8.5 billion -51.3% QoQ
- Sales of device interface products and test handlers decreased in tandem with lower sales of testers. Sales of SEM metrology products also decreased, as product deliveries to customers progressed in the previous quarter.

○ Services, Support, & Others

- ¥22.2 billion +16.4% QoQ
- Sales increased QoQ in the system level test (SLT) business.

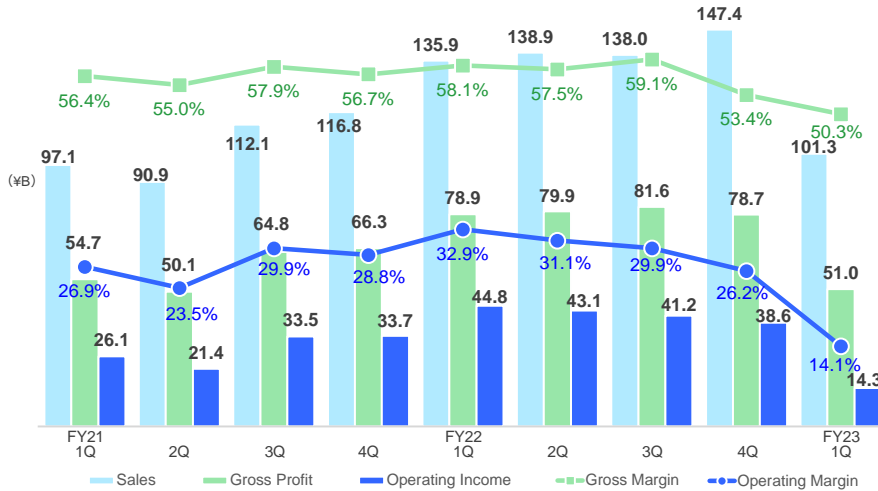
Quarterly Sales by Region



○ FY2023 1Q Sales by Region

- In the 1st quarter, all regions saw its sales decrease QoQ.
- South Korea
Sales of memory testers and related device interfaces fell sharply.
- China, Taiwan
Sales decreased in SoC testers and memory testers respectively.

Sales / Gross Profit / Operating Income



* SG&A includes total other income and expenses

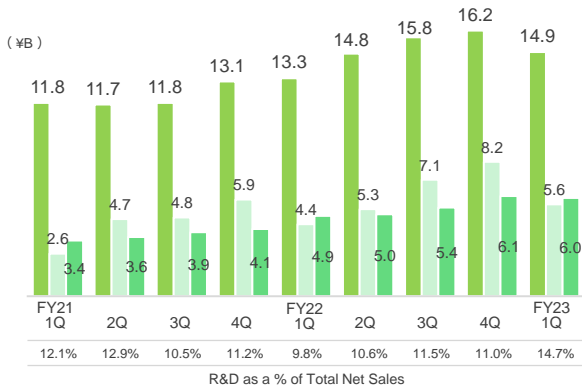
○ FY2023 1Q Sales / Gross Profit / Operating Income

- Gross profit margin 50.3%
- In addition to a significant decline in sales, the gross margin fell due to a deteriorating mix, mainly due to a lower sales composition of testers for high-end SoCs.
- The gross profit margin is expected to improve from the 2nd quarter onwards with the 1st quarter being the bottom.
- SG&A (including all other income and expenses) ¥36.7 billion
- Operating income ¥14.3 billion
- Operating margin 14.1%

Investments / Cash Flow

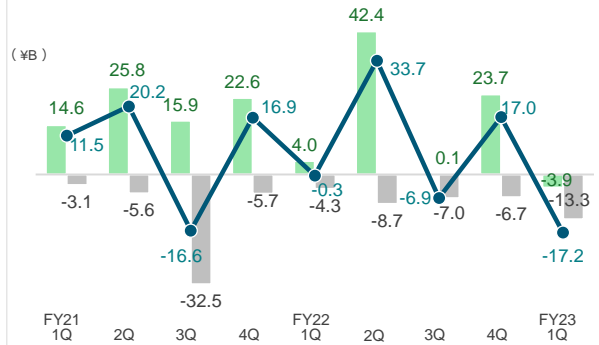
<Investments>

- R&D Expenses
- Capital Expenditure
- Depreciation & Amortization



<Cash Flow>

- Cash flows from operating activities
- Cash flows from investing activities
- Free cash flows



* Free Cash Flows = Cash flows from operating activities + Cash flows from investing activities

○ FY2023 1Q R&D/CapEx/D&A

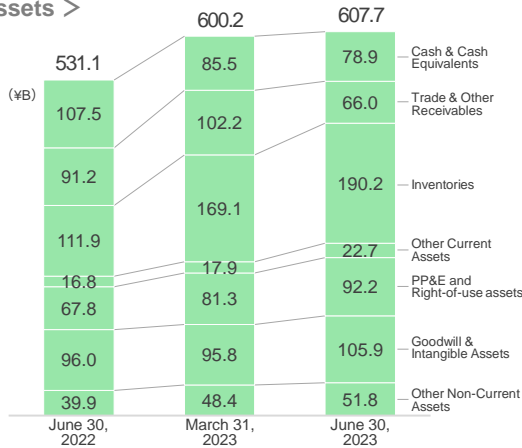
- R&D ¥14.9 billion
- CapEx ¥5.6 billion
- D&A ¥6 billion

○ FY2023 1Q Cash Flow

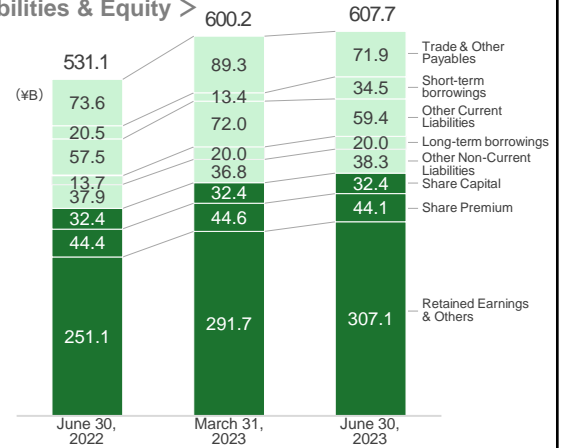
- Operating cash flow was negative in the 1st quarter due to an increase in inventories as well as an outflow associated with corporate tax, bonus payments, and other items.
- In addition, free cash flow was a negative ¥ 17.2 billion due to expenditure in investment cash flow such as the acquisition of Shin Puu.

Financial Position

< Assets >



< Liabilities & Equity >



Equity Attributable to Owners of the Parent	327.9	368.7	383.6
Ratio of Equity Attributable to Owners of the Parent	61.7%	61.4%	63.1%

○ Balance Sheet for Period Ending June 30th, 2023

- Total Assets ¥607.7billion
- Cash & Cash Equivalents ¥78.9 billion
- Trade & Other Receivables ¥66 billion
Trade and other receivables decreased compared to the previous quarter, as progress was made in the collection of receivables in the 1st quarter.
- Inventories ¥190.2 billion
Inventories have increased QoQ. This is because of an increase in the arrival of long-lead time components which were procured strategically in anticipation of mid/long-term sales, while there are some requests from customers to push out deliveries of our products against the backdrop of a slow recovery in demand for consumer application. In response to changing market conditions, we will promote measures to improve our ability to keep up with customer requirements and strengthen our inventory management.
- Goodwill & Intangible Assets ¥105.9 billion
- Short-term Borrowings ¥34.5 billion
Additional borrowing was carried out, taking into account the seasonal expenditure in the 1st quarter.
- Equity Attributable to Owners of the Parent ¥383.6 billion
- Ratio of Equity Attributable to Owners of the Parent 63.1%



FY2023 Outlook

Yoshiaki Yoshida
Representative Director, President, Group CEO

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Business Environment / Semiconductor Tester Market Trends: July 2023 Outlook

< Business Environment : Highly uncertain conditions persist >

– Business environment remains highly uncertain with recessionary concerns due to inflation and rising interest rates as well as risks around geopolitical factors and pronounced exchange rate fluctuations.

< Semiconductor Market : Demand remains weak for major consumer electronics applications >

– Production adjustment are expected to continue for the time being due to a slow down in investments in data centers combined with a decline in demand for chips used in major consumer electronic products, although some semiconductors, such as those used in automotive and industrial equipment, are firm.

< Semiconductor Tester Market : Contraction expected for the second straight year >

– While test volumes for high-performance semiconductors are increasing, the recovery in tester demand is likely to be milder than originally expected due to excess capacity in customers' supply chains.

	CY22 Actual	CY23 Estimate	New CY23 Estimate vs April Estimate
SoC Tester Market	Approx. \$4.0B	Approx. \$3.2B-3.5B (April estimate: approx. \$3.4B - 3.8B)	Revised estimate downward mainly for smartphone-related applications
Memory Tester Market	Approx. \$1.2B	Approx. \$0.9B-1.1B (April estimate: approx. \$0.9B - 1.1B)	–

○ Business Environment / Semiconductor Tester Market Trends

- Business environment remains highly uncertain with recessionary concerns due to inflation and rising interest rates as well as risks around geopolitical factors and pronounced exchange rate fluctuations.
- Although there are potential signs of an upturn in investment for high-end semiconductors, driven by applications such as generative AI, production adjustment for semiconductors for areas such as consumer electronics applications is expected to continue for the time being.
- For the CY2023 SoC tester market, we will revise down our market size estimate to \$3.2 billion-3.5 billion USD. While tester demand for automotive and industrial equipment is expected to be resilient, demand for testers for consumer applications such as smartphones is expected to be affected by continued weakness for the time being.
- For the CY2023 memory tester market, we maintain our original market size estimate of \$0.9 billion - \$1.1 billion USD, as improving tester demand for high-performance memory is being offset by demand decline from worsening memory market conditions for consumer applications.
- While test volumes for high-performance semiconductors are increasing, the recovery in tester demand is likely to be milder than originally expected due to excess capacity in customers' supply chains.

FY23 Forecast

	FY22		FY23					vs. FY22		Change vs. Prior Full-Year Forecast	
	Results	1Q	2Q	1H	2H	Full-year Forecast	(Δ)	(%)	FY23 Forecast as of April	(Δ)	
		Results	Forecast	Forecast	Forecast						
Sales*1	560.2	101.3	112.7	214.0	266.0	480.0	-80.2	-14.3%	480.0	-	
Operating Income	167.7	14.3	22.3	36.6	68.4	105.0	-62.7	-37.4%	105.0	-	
Operating Margin	29.9%	14.1%	19.8%	17.1%	25.7%	21.9%	-8.0pts		21.9%	-	
Income Before Tax	171.3	13.0	22.2	35.2	68.3	103.5	-67.8	-39.6%	103.5	-	
Net Income	130.4	9.2	16.8	26.0	52.0	78.0	-52.4	-40.2%	78.0	-	
Net Income Margin	23.3%	9.1%	14.9%	12.1%	19.5%	16.3%	-7.0pts		16.3%	-	
R&D Expenses	60.1	14.9	16.1	31.0	32.0	63.0	+2.9	+4.8%	63.0	-	
CapEx	25.0	5.6	5.2	10.8	10.2	21.0	-4.0	-16.0%	21.0	-	
D&A	21.4	6.0	5.8	11.8	12.2	24.0	+2.6	+12.1%	23.0	+1.0	
Exchange Rate*2	1US\$	¥134	¥135	¥135	¥135	¥135	¥1 Depreciation		¥130	¥5 Depreciation	
	1Euro	¥140	¥146	¥150	¥148	¥150	¥9 Depreciation		¥140	¥9 Depreciation	

*1: Intersegment transactions have been eliminated from totals

*2: Our latest forecast for the impact of exchange rate fluctuations on FY23 operating income is plus ¥1.1 billion per 1 yen of JPY depreciation vs USD, and minus ¥0.3 billion per 1 yen of JPY depreciation vs the Euro

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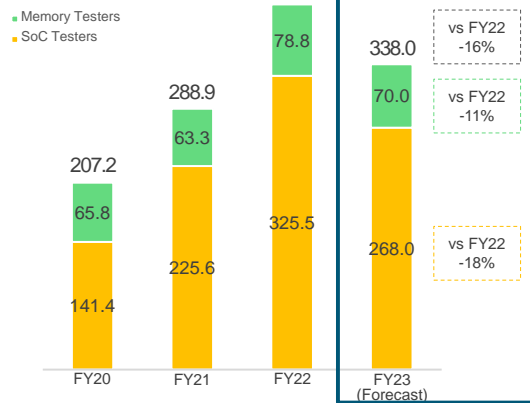
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○ FY2023 Forecast

- In light of the 1st quarter results and the outlook going forward, we are maintaining the full-year consolidated forecasts announced in April. However, exchange rate assumptions from the 2nd quarter onward have been revised to 1 USD to 135 JPY and 1 Euro to 150 JPY.
- Our forecast calls for sales of ¥480 billion yen, operating income of ¥105 billion yen, Income Before Tax of ¥103.5 billion yen, Net Income of ¥78 billion yen.
- Production adjustments by customers are expected to continue for the time being, and sales in 1H is expected to decrease HoH. However, we expect sales to gradually shift to an upward trend from 1H.
- We expect full year gross profit margin to be approximately 55%. We forecast a decline from the previous fiscal year primarily due to changes in our product mix.
- Our latest forecast for the impact of exchange rate fluctuations on FY23 operating income is plus ¥1.1 billion per 1 yen of JPY depreciation vs USD, and minus ¥0.3 billion per 1 yen of JPY depreciation vs the Euro.
- Regarding the tightening of restrictions on the export controls of semiconductor production equipment to China by the United States and its allies, the direct impact on our FY2023 earnings is currently expected to be limited, but we will continue to closely monitor the situation.

FY23 Outlook by Segment

Semiconductor & Component Test Systems Sales Trends (¥B)



Semiconductor & Component Test Systems

< SoC Testers > (+¥3.0B vs April forecast)

– Despite relative strength in automotive/industrial applications, demand for advanced processes is expected to decline due to weakness in the smartphone market

Applications	FY20	FY21	FY22	FY23*2
Computing / Comms	55%	60%	65%	60%
Automotive / Industrial / Consumer / DDIC*1	45%	40%	35%	40%

Numbers are rounded to the nearest 5%

< Memory Testers > (unchanged vs April forecast)

– Sales are expected to decline due to worsening memory market conditions for consumer applications despite a likely increase in demand for high performance memory

Applications	FY20	FY21	FY22	FY23*2
DRAM	60%	60%	60%	80%
Non-Volatile Memory	40%	40%	40%	20%

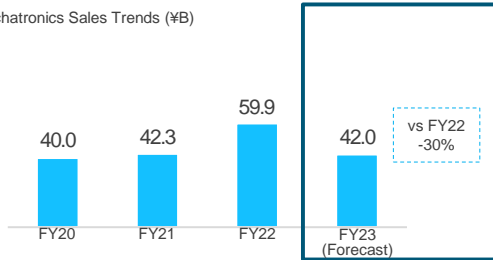
Numbers are rounded to the nearest 5%

○ FY2023 Semiconductor & Component Test Systems Outlook

- Our full-year FY23 SoC tester sales forecast is ¥268 billion.
- The forecast has been raised by ¥3 billion from the April forecast, as the assumed exchange rate for the US dollar has been revised towards a weaker yen.
- Despite relative firmness of demand for automotive and industrial application, we expect sales to decline YoY due to a decrease in demand for advanced process applications against a backdrop of sluggish demand for smartphones.
- For the memory tester business, we are maintaining our full-year sales forecast at ¥70 billion.
- In high-performance memory applications such as DDR5 and HBM, customer investment in anticipation of long-term demand growth is expected to increase YoY. However, the impact of the worsening market conditions for memory semiconductors in the consumer applications is substantial. Therefore, sales are expected to decline.

FY23 Outlook by Segment

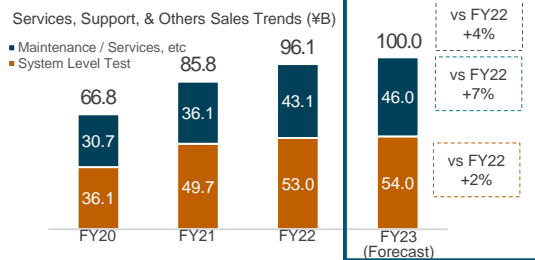
Mechatronics Sales Trends (¥B)



Mechatronics Systems (-¥3.0B vs April forecast)

–Sales of device interface products and test handlers are expected to decline in step with the slowdown in tester investment

Services, Support, & Others Sales Trends (¥B)



Services, Support, & Others (unchanged vs April forecast)

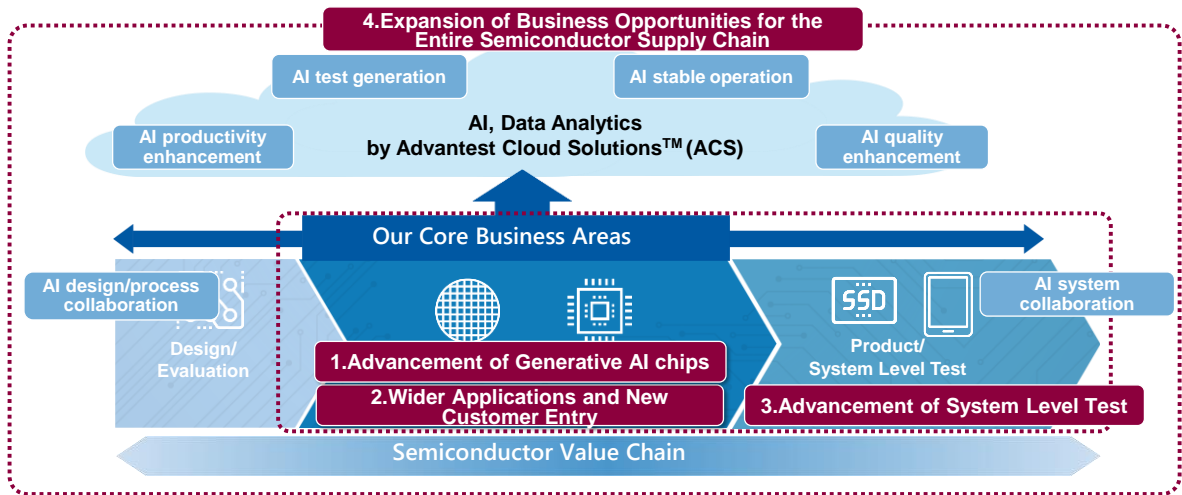
–We expect solid demand for maintenance services due to the steady growth of our installed base

–System level test sales are expected to be flat year-on-year, although it is impacted by sluggish market conditions in consumer applications

○ FY2023 Mechatronics / Services, Support, & Others Business Outlook

- We have lowered our full-year FY23 Mechatronics Systems sales forecast by ¥3 billion from our April forecast to ¥42 billion.
- Sales of device interface products and test handlers are expected to decline in step with the slowdown in tester investment.
- We are maintaining our full-year FY23 Services, Support, and Other sales forecast at ¥100 billion.
- We expect solid demand for maintenance services due to the steady growth of our installed base.
- In our system level test business, we expect sales to be flat YoY, although it is impacted by sluggish market conditions in consumer applications.

Emerging Opportunities from Generative AI #1



○ Emerging Opportunities from Generative AI #1

- Now that I have explained the business outlook for the current fiscal year, I would like to summarize our business opportunities and our competitive advantage in the mid/long-term, which will be brought about by generative AI, which has been a hot topic over the past six months or so. This slide illustrates the emerging opportunities based on our Grand Design chart.
- The implementation of generative AI technologies, such as Chat GPT, in society has only just begun. The trend towards larger scale and high-performance semiconductors including high-end SoCs with high computing power and high-end memories such as HBM, will continue. Also, the technical hurdle of improving yields is higher, and more thorough testing is required. We believe that the increase in production of such semiconductors will increase demand for testers over the mid/long-term, driving growth in our core business.
- In addition, demand for more diverse functionality, not only for servers but also on the end application side, is manifesting itself in the growing number of new players entering semiconductor design. The increase in the number of devices being developed will also drive tester demand.
- Heterogenous integration through the adoption of advanced packaging technology is also progressing to achieve even higher performance. We have been strengthening our system-level test technology. Therefore, we are able to contribute to improving the quality of semiconductors in a variety of test processes, including SoC and memory tests, as well as system-level tests.
- Furthermore, we believe that in the future, generative AI technology is likely to change the very process of semiconductor development and manufacturing. We hope to provide new solutions through our Advantest Cloud Solutions™ (ACS) initiatives that utilize various types of data and make the most of them in development and manufacturing.

Emerging Opportunities from Generative AI #2

- **Optimized product portfolio for testing high-performance devices for generative AI**
 - Extensive portfolio consisting of test platforms for SoC and memory devices necessary for complex, high-performance generative AI devices such as GPUs, CPUs and high-performance memories such as HBM
 - System-level test technology with demand driven by the adoption of advanced packaging such as 2.5D and 3 D
- **Solid customer base in AI/HPC market**
 - Well-established partnerships with entire supply chains of existing AI/HPC customers
 - Initiating collaboration with various emerging players to promote the adoption of generative AI in society
- **Data platform service utilizing generative AI to contribute to Time to Market, Time to Quality, Time to Volume in the semiconductor industry**
 - Data and analytics services developed with customers through Advantest Cloud Solutions™

○ Emerging Opportunities from Generative AI #2

- I will now summarize our advantages regarding the emerging opportunities mentioned in the previous page.
- Firstly, we already have a range of test platforms for testing high-performance semiconductors, such as SoC and memory, as well as system-level test solutions.
- Secondly, we have built up a strong customer base across a supply chain ranging from fabless, foundries and OSATs that are already using these platforms. Emerging players value this strong customer base and have started working with us in anticipation of our solutions.
- Finally, generative AI also has the potential to significantly change operation processes in the semiconductor supply chain. We expect that utilization of various data in the development, manufacturing, and testing of semiconductors will have a direct impact on competitiveness. We will provide our customers with a data platform around which they can link other data with test data, which is an essential part of the semiconductor manufacturing business.
- Furthermore, applications that utilize such data will be developed as Advantest Cloud Solutions™. We believe that collaborative development with our customers will be the key, and we are actively investing in this area, including the recruitment of talent with knowledge of the entire semiconductor process.

Summary

- **Highly uncertain business environment persists**

- Downward pressure on global macro continues against a backdrop of inflation, rising interest rates, foreign exchange rate fluctuations, U.S. export controls on China, geopolitical risks, etc.

- **Semiconductor tester market demand is mixed depending on applications**

- Excess tester capacity is still likely to take time to digest, even as test demand for high performance SoC semiconductors is on the rise
- Tester demand for high performance memory as well as SoC semiconductors for automotive applications is firm

- **Staying focused to achieve the full-year forecast while simultaneously executing key measures to prepare for the waves of demand in the mid/long-term**

- The implementation of generative AI technologies in society is just getting started. Continue to invest in order to maximize business opportunities in the semiconductor supply chain
- Review the CxO structure and business processes to further increase the speed of management decision-making process

○ Summary

- Business environment remains highly uncertain.
- The semiconductor tester market is currently undergoing a correction phase, with excess tester capacity due to the slow recovery of the global economy. Digestion of such excess capacity is taking time. Despite an upturn in test demand for high-performance semiconductors, the recovery in tester demand has been slower than anticipated at the beginning of the fiscal year.
- Although demand for testers for automotive and high-performance semiconductors is expected to be firm, it is still not strong enough to compensate for the decline in smart phones and PCs. Therefore, we will maintain our forecast of a decline in sales and profits for FY2023.
- While the business environment is weak, we will be agile in responding to changes in the environment and will strive to meet our full-year guidance. At the same time, we will be implementing key measures to prepare for future waves of demand in the mid/long-term.
- Although the implementation of generative AI in society has only just begun, we expect to see an increase in testing demand for high-performance semiconductors related to generative AI from next year onwards. We will implement measures from a mid/long-term perspective to maximize the uptake of related business opportunities.
- Moreover, to further increase the speed of management decision-making, we aim to build a stronger and more robust management foundation by reviewing the executive structure and improving business processes.

ESG & External Evaluation (April-July 2023)

- **Global Customers Rank Advantest THE BEST Test Equipment Supplier in 2023 and the #1 Large Supplier of Chip Making Equipment in Annual Customer Satisfaction Survey**

※Advantest press release : <https://www.advantest.com/news/2023/20230522.html>



- **Advantest, NXP and Arizona State University Collaborate to Launch New Test Engineering Curriculum**

※Advantest press release : <https://www.advantest.com/news/2023/20230621.html>



※Checking test circuits developed for a new curriculum

○ Topics on ESG and External Evaluation

- Finally, we would like to present our ESG and external evaluation topics for the current fiscal year. Enhancement of ESG initiatives is one of the five strategies of our Grand Design.
- This slide shows the most recent main achievements. We have been awarded the first place for the fourth consecutive year in the Customer Satisfaction Survey of semiconductor production equipment suppliers by an external evaluation. We are honored to be recognized in such high regard by our global customers and grateful to know that our partnering efforts are valued. We feel that it is a tribute to the power of our committed employees.
- By enhancement of ESG initiatives, we aim to develop our business while contributing to the development of the semiconductor industry and the sustainable development of society and meeting the expectations of our stakeholders.
- This concludes my presentation.

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