



**ADVANTEST**<sup>®</sup>

**FY2022 2Q**  
**(Three months ended September 30<sup>th</sup>, 2022)**  
**Financial Briefing**

October 27<sup>th</sup>, 2022  
Advantest Corporation

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# NOTE

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## Accounting Standards

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

## Cautionary Statement with Respect to Forward-Looking Statements

– This presentation contains “forward-looking statements” that are based on Advantest’s current expectations, estimates and projections. These statements include, among other things, the discussion of Advantest’s business strategy, outlook and expectations as to market and business developments, production and capacity plans. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as “anticipate,” “believe,” “estimate,” “expect,” “intend,” “project,” “should” and similar expressions. Forward-looking statements are subject to known and unknown risks, uncertainties and other factors that may cause Advantest’s actual results, levels of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking statements.

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```
...mirror_object = ...
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 @
    @ob.select= 1
    @obj.select=1
    @context.scene.objects.active
    @obj.name = "Selected" + str(modifier)
    @mirror_ob.select = 0
```

## Financial Results for FY2022 2Q

Atsushi Fujita

Director, Senior Executive Officer, CFO & CCO

(Chief Financial Officer & Chief Compliance Officer),

Executive Vice President, Corporate Administration Group

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## FY22 2Q Summary of Results

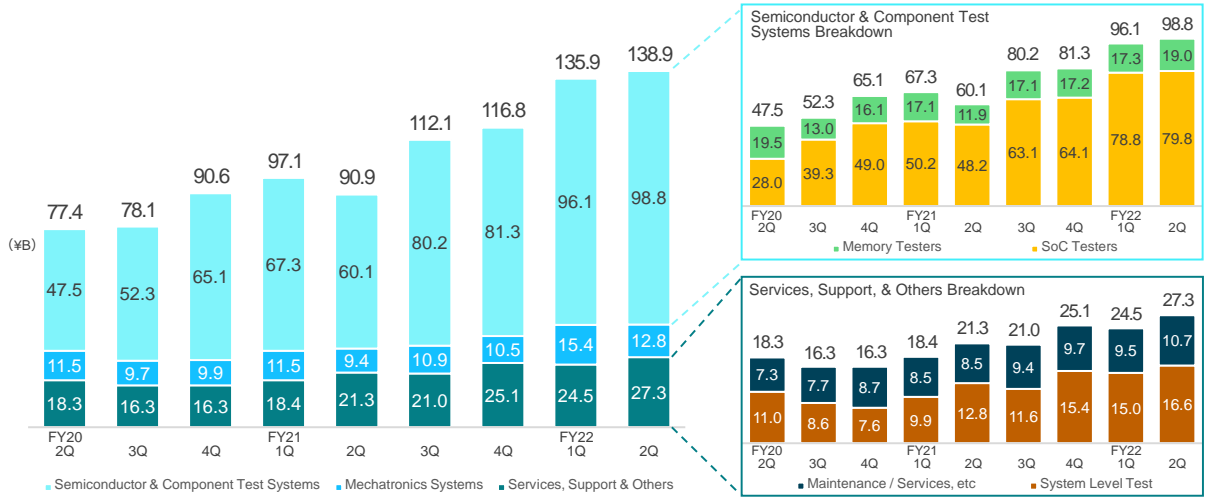
(¥B)

	FY21				FY22						
	1Q	2Q	3Q	4Q	1Q	2Q		QoQ		YoY	
						Forecast	Results	(Δ)	(%)	(Δ)	(%)
Sales	97.1	90.9	112.1	116.8	135.9	134.1	138.9	+2.9	+2.1%	+48.0	+52.8%
Gross Profit	54.7	50.1	64.8	66.3	78.9	-	79.9	+0.9	+1.2%	+29.8	+59.7%
Gross Margin	56.4%	55.0%	57.9%	56.7%	58.1%	-	57.5%	-0.6pts		+2.5pts	
Operating Income	26.1	21.4	33.5	33.7	44.8	40.5	43.1	-1.7	-3.7%	+21.8	+2.0x
Operating Margin	26.9%	23.5%	29.9%	28.8%	32.9%	30.2%	31.1%	-1.8pts		+7.6pts	
Income Before Tax	25.7	21.6	34.0	35.0	48.4	40.9	46.8	-1.6	-3.3%	+25.3	+2.2x
Net Income	19.3	15.9	25.7	26.4	36.5	30.5	34.7	-1.8	-5.0%	+18.8	+2.2x
Net Income Margin	19.9%	17.5%	22.9%	22.6%	26.8%	22.7%	25.0%	-1.8pts		+7.5pts	
Exchange Rate	1 US\$	¥109	¥110	¥112	¥115	¥124	¥130	¥135	¥11 Depreciation		¥25 Depreciation
	1 Euro	¥131	¥131	¥130	¥130	¥134	¥140	¥139	¥5 Depreciation		¥8 Depreciation

### ○ FY2022 2Q Summary of Results

- 2Q sales set a record high on a quarterly basis, exceeding the record set in the previous quarter.
- Operating income, income before income taxes, and net income grew dramatically YoY, but declined QoQ due to higher SG&A expenses.
- Advantest's business environment grew increasingly uncertain due to concerns about global recession and signs of a slowdown in the semiconductor market, but sales of testers for high-performance semiconductors were strong in 2Q, driving sales results in line with our plan.
- Details of these achievements will be explained in the following slides.

# Quarterly Sales by Segment

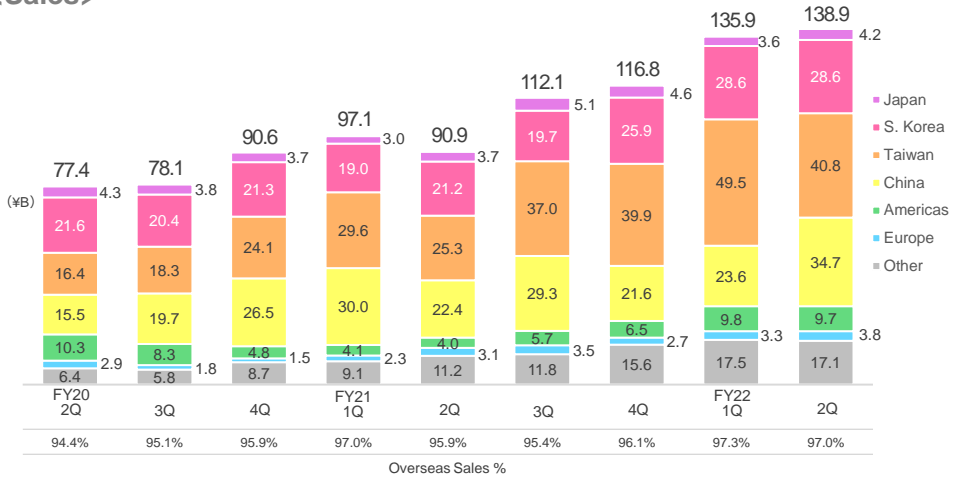


Note: Intersegment transactions have been eliminated from totals

- FY2022 2Q Sales by Segment
- Semiconductor & Component Test Systems
  - ¥98.8 billion, a slight increase from the previous quarter
  - SoC tester sales were ¥79.8 billion. While tester demand for smartphones and other consumer electronics decreased, tester demand for high-performance computing (HPC) and AI-related semiconductor development and production continued.
  - Memory tester sales were ¥19.0 billion, with customers' long-term strategic capital investment plans supporting demand on a similar high level to the previous quarter.
- Mechatronics Systems
  - ¥12.8 billion                   -17.5% QoQ
  - Sales of nanotechnology products decreased QoQ.
- Services, Support & Others
  - ¥27.3 billion                   +11.8% QoQ
  - Maintenance and system level test (SLT) sales were stable, supported by high demand for semiconductor testers.

# Quarterly Sales by Region

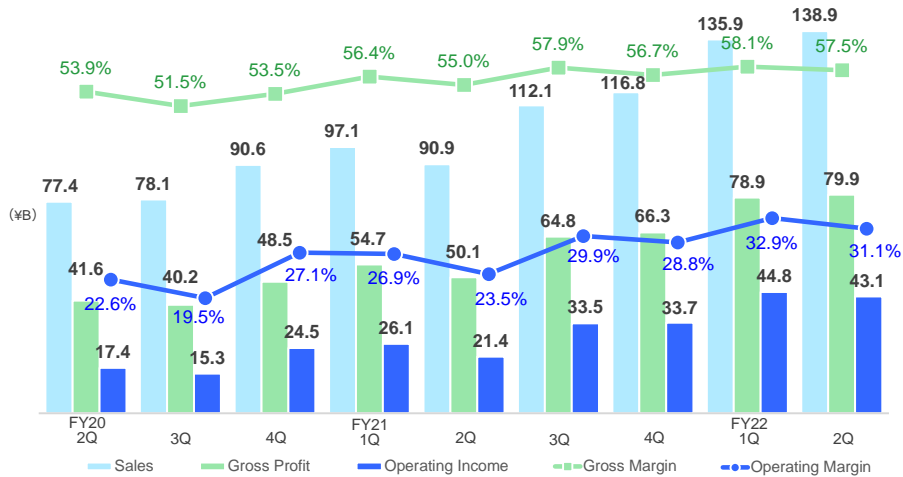
<Sales>



## ○ FY2022 2Q Sales by Region

- China  
Sales grew, led by SoC testers.
- Taiwan  
Sales of testers for smartphone-related applications slowed down.
- Advantest's percentage of sales to overseas customers remained high, at 97.0%.

## Sales / Gross Profit / Operating Income



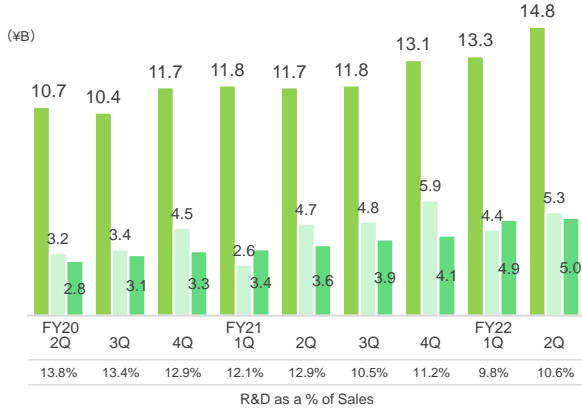
### ○ FY2022 2Q Sales / Gross Profit / Operating Income

- Gross margin 57.5%  
Despite the impact of rising parts procurement costs, our sales mix remained favorable and gross profit margin stayed high.
- SG&A (including all other income and expenses) ¥36.8 billion  
SG&A expenses increased QoQ due to increased hiring and development-related expenses.
- Operating income ¥43.1 billion
- Operating margin 31.1%
- As in the previous quarter, we maintained an operating margin of over 30%.

# Investments / Cash Flow

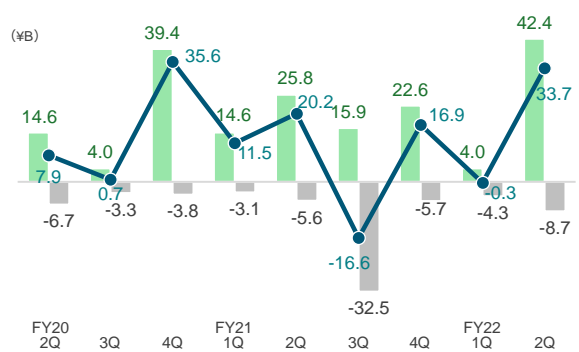
## <Investments>

- 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

### ○ FY2022 2Q R&D Expenses/CapEx/D&A

- R&D Expenses ¥14.8 billion
- CapEx ¥5.3 billion
- Depreciation and Amortization ¥5.0 billion

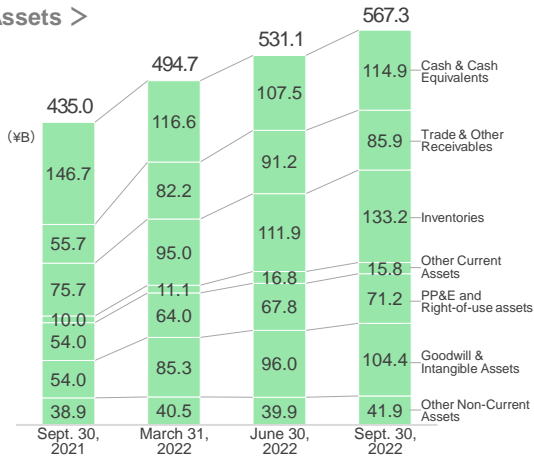
### ○ FY2022 2Q Cash Flow

- Free cash flow ¥33.7 billion
- Operating cash flow reached the high figure of ¥42.4 billion. On the other hand, regarding investment cash flow, the acquisition of CREA in August and other factors resulted in expenditures of ¥8.7 billion, bringing free cash flow to ¥33.7 billion.

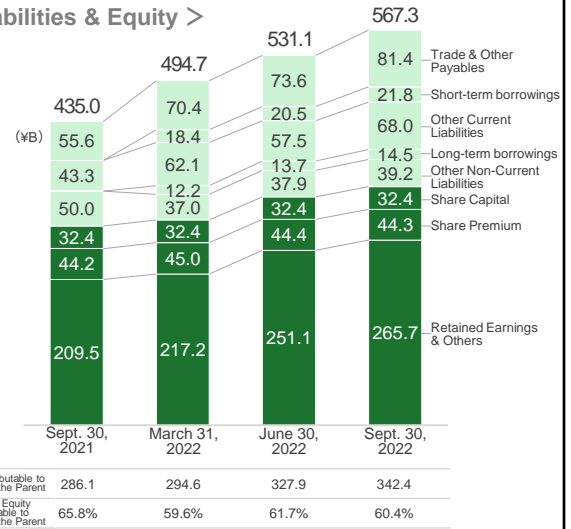


## Financial Position

### < Assets >



### < Liabilities & Equity >



### ○ Balance Sheet for Period Ending September 30th, 2022

- Total Assets                        ¥567.3billion
- Cash & Cash Equivalents        ¥114.9 billion
- Inventories                      ¥133.2 billion  
While parts procurement challenges continue, we are building sufficient inventory assets to meet solid customer demand.
- Goodwill & Intangible Assets    ¥104.4 billion  
Goodwill and intangible assets increased due to exchange rate fluctuations and the acquisition of CREA.
- Equity Attributable to Owners of the Parent                        ¥342.4 billion
- Ratio of Equity Attributable to Owners of the Parent    60.4%
- Regarding the progress of the share repurchase announced in July, by the end of September, 3.45 million shares of common stock had been acquired for ¥27.3 billion, equaling 34% of our upper limit of 10 million shares, and 55% of our upper limit of ¥50.0 billion.
- In addition, we canceled 8 million shares of treasury stock on September 9th.



## **FY2022 Outlook**

Yoshiaki Yoshida  
Representative Director, President and CEO

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## Business Environment / Semiconductor Tester Market Trends: Oct. 2022 Outlook

### <Business Environment : Fears of recession are deepening>

– Uncertainty about the future of the global economy has increased further due to growing geopolitical risks, higher inflation, and rising interest rates. In addition, uncertainty in the semiconductor market is rising due to factors such as the new U.S. restrictions on chip exports to China

### <Semiconductor Market : Overall picture of semiconductor demand is patchy by customers and applications >

– Demand for chips used in cornerstone consumer electronics products such as smartphones, personal computers, and televisions is declining, and suppliers of devices for these applications are adjusting their inventories and production equipment investment plans

– The digitalization macrotrend remains firm, supporting demand for chips used in data centers and AI-related products. Furthermore, in the medium to long term, growth in demand is expected in areas such as automotive and industrial semiconductors

### <Semiconductor Tester Market : Same levels in CY21 are estimated for CY22>

– Despite the present decline in demand and altered investment plans for test equipment for devices used in consumer electronics, we expect that tester demand stemming from higher reliability needs and technological advances in the high-performance semiconductors used in high-performance computing (HPC) for data centers, AI-related applications, high-end memory, and other sectors will compensate

	CY21 Actual	CY22 Estimate
SoC Tester Market	Approx. \$4.3B	Approx. \$4.1-4.4B (July estimate: Approx. \$4.4B - 4.8B)
Memory Tester Market	Approx. \$1.3B	Approx. \$1.2-1.3B (July estimate: Approx. \$1.2B - 1.3B)

Source: Advantest

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## ○ Business Environment / Semiconductor Tester Market Trends

- Concerns about growing geopolitical risks, higher inflation, and rising interest rates have deepened fears of recession. In addition, uncertainty in the semiconductor market is rising due to factors such as the new U.S. restrictions on chip exports to China.
- In this uncertain global situation, which also affects the semiconductor market, final demand for cornerstone consumer electronics products such as smartphones, personal computers, and televisions is set to decline further, and more semiconductor manufacturers are likely to adjust inventories and revise their plans to invest in semiconductor production equipment.
- On the other hand, the digitalization macrotrend remains firm, supporting demand for chips used in data centers and AI-related products. Additionally, shortages of automotive semiconductors, needed to support electrification, and of industrial semiconductors continue, making for a patchy demand picture overall.
- In the tester market, some customers are moving to adjust tester utilization rates and review investment plans due to slowing demand for consumer products. However, we expect that tester demand stemming from higher reliability needs and technological advances in high-performance semiconductors, such as (HPC) for data centers and high-end memory, will compensate for the decline.
- In the SoC tester market, our latest overall market outlook anticipates a smaller market than estimated three months ago. On the other hand, we expect our sales to progress according to plan, and we also expect to grow our market share.
- In the memory tester market, amidst worsening memory market conditions, some customers are reconsidering their equipment introduction plans, but others are promoting strategic capital investment plans in anticipation of long-term semiconductor demand growth. On balance, considering these varying investment attitudes, demand is expected to remain firm, and our market size estimate remains unchanged from three months ago.

## FY22 Forecast

(¥B)

	FY21	FY22							
	Results	1Q	2Q	1H	2H	Full-Year Forecast	vs. FY21		
		Results	Results	Results	Forecast		(Δ)	(%)	
Sales* <sup>1</sup>	416.9	135.9	138.9	274.8	275.2	550.0	+133.1	+31.9%	
Operating Income	114.7	44.8	43.1	87.9	82.1	170.0	+55.3	+48.2%	
Operating Margin	27.5%	32.9%	31.1%	32.0%	29.8%	30.9%	+3.4pts		
Income Before Tax	116.3	48.4	46.8	95.2	78.8	174.0	+57.7	+49.6%	
Net Income	87.3	36.5	34.7	71.2	58.8	130.0	+42.7	+48.9%	
Net Income Margin	20.9%	26.8%	25.0%	25.9%	21.4%	23.6%	+2.7pts		
R&D Expenses	48.4	13.3	14.8	28.1	31.9	60.0	+11.6	+24.0%	
CapEx	18.0	4.4	5.3	9.7	17.3	27.0	+9.0	+50.0%	
D&A	15.0	4.9	5.0	9.9	11.1	21.0	+6.0	+40.0%	
Exchange Rate* <sup>2</sup>	1 US\$	¥112	¥124	¥135	¥130	¥130	¥130	¥18 Depreciation	
	1 Euro	¥130	¥134	¥139	¥137	¥140	¥138	¥8 Depreciation	

\*1: Intersegment transactions have been eliminated from totals

\*2: Our latest forecast for the impact of exchange rate fluctuations on FY22 operating income is plus ¥1.3 billion per 1 yen of JPY depreciation vs USD, and minus ¥0.2 billion per 1 yen of JPY depreciation vs Euro

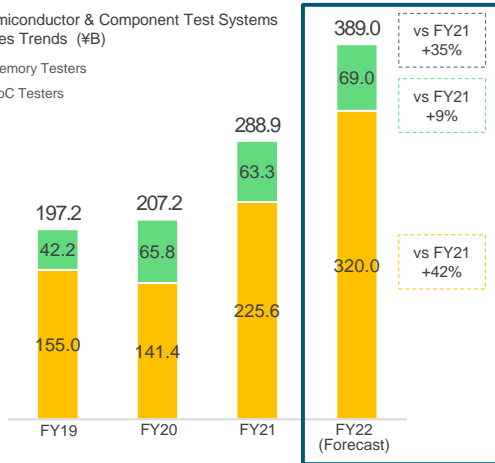
### ○ FY2022 Forecast

- In light of growing uncertainty about the future, our full-year consolidated earnings forecast for FY2022 remains unchanged from the forecast announced in July 2022.
- We expect sales of ¥550.0 billion, operating income of ¥170.0 billion, income before income taxes of ¥174.0 billion, and net income of ¥130.0 billion.
- Due to the difficulty of predicting movements in foreign exchange markets, exchange rate assumptions for our 2H forecast remain unchanged at 1 USD to 130 JPY and 1 EUR to 140 JPY, as previously announced.
- Our latest forecast for the impact of exchange rate fluctuations on FY22 operating income is plus ¥1.3 billion per 1 yen of JPY depreciation vs USD, and minus ¥0.2 billion per 1 yen of JPY depreciation vs the euro.
- Gross profit margin for the full year will be around 58%, unchanged from our previous forecast, but we expect that operating margin will decline in 2H because of increased hiring and future-oriented R&D spending.
- Although we are paying close attention to changes in the external environment, such as the new US restrictions on chip exports to China and changes in the macroeconomy, we continue to reinforce our parts procurement capabilities, and expect to set new annual records for both sales and profits for the third consecutive year.

# FY22 Outlook by Segment

Semiconductor & Component Test Systems Sales Trends (¥B)

■ Memory Testers  
■ SoC Testers



## Semiconductor & Component Test Systems

### < SoC Testers > (+¥5.5B vs July forecast)

– Declining tester demand for consumer electronics such as smartphones will be offset by solid demand from data centers, AI-related products, and the automotive sector

Applications	FY19	FY20	FY21	FY22*2
Computing / Comms	70%	55%	60%	70%
Automotive / Industrial / Consumer / DDIC*1	30%	45%	40%	30%

Numbers are rounded to the nearest 5%

### < Memory Testers > (-¥1.5B vs July forecast)

– Although we expect softer market conditions to have a certain amount of impact on tester demand, customers have a strong strategic investment stance, mainly for high-end memory semiconductors, and we estimate demand trends will stay firm

Applications	FY19	FY20	FY21	FY22*2
DRAM	70%	60%	60%	65%
Non-Volatile Memory	30%	40%	40%	35%

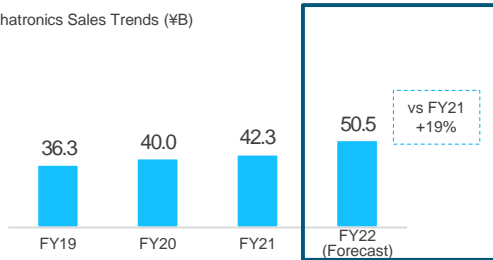
Numbers are rounded to the nearest 5%

## ○ FY2022 Semiconductor & Component Test Systems Outlook

- We have raised our full-year SoC tester sales forecast for FY2022 by ¥5.5 billion from our July forecast, to ¥320.0 billion.
- Tester demand for application processors (APU) and display drivers ICs (DDIC) used in consumer electronics such as smartphones and PCs is declining due to the impact of reduced production plans.
- On the other hand, tester demand for devices used in data centers and AI-related products is steadily increasing due to the adoption of advanced processes for manufacturing high-performance semiconductors. In addition, the increase in semiconductor production accompanying quicker and wider adoption of electric vehicles is also expected to drive tester demand.
- We have lowered our full-year sales forecast for memory testers for FY2022 by ¥1.5 billion from our July forecast, to ¥69.0 billion.
- In the memory semiconductor market, there are signs that some of our customers are revising their aggressive investment stances due to the trend of inventory adjustments and revised capital investment plans.
- However, we expect that tester demand from customers who continue to actively invest in anticipation of long-term growth in high-end memory semiconductors will remain firm, regardless of the present fluctuations.

## FY22 Outlook by Segment

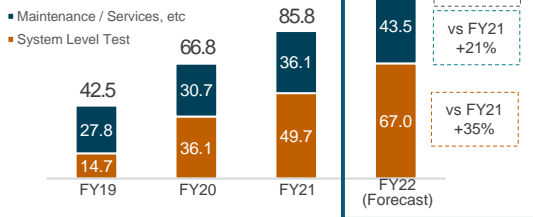
Mechatronics Sales Trends (¥B)



### Mechatronics Systems (-¥3.5B vs July forecast)

- We expect strong demand for device interface products to track tester demand
- In addition to the spreading adoption of EUV lithography, growing demand for masks for mature processes is driving demand for SEM metrology products

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



### Services, Support, & Others (-¥0.5B vs July forecast)

- Higher demand for device reliability is driving the adoption of system-level test for an increased number of product types, and spurring growth in demand for high-precision consumables
- Demand for maintenance services is increasing due to steady growth in our installed base

## ○ FY2022 Mechatronics / Services & Other Business Outlook

- Our full-year mechatronics-related business sales forecast for FY2022 is ¥50.5 billion.
- Although we have slightly lowered our forecast from July, we expect continued high demand for device interface products, while demand for SEM metrology will be supported by the wider adoption of EUV lithography and increased demand for masks for mature processes, maintaining an overall high level of demand for the segment.
- We have also slightly lowered our services and others sales forecast from July, to ¥110.5 billion.
- Higher demand for device reliability is driving the adoption of system-level test for an increased number of product types, and spurring growth in demand for high-precision consumables. Demand for maintenance services is also increasing due to steady growth in our installed base.

## Summary

- Fears of a global recession are intensifying due to growing geopolitical risks, higher inflation, and rising interest rates
- Uncertainty in the semiconductor market is increasing due to the new U.S. restrictions on chip exports to China
- Adjustments to inventories of semiconductors for cornerstone consumer electronics, and revisions of customer investment plans, have had a certain impact on tester demand
- Increased testing volume has been brought by the technological evolution of semiconductors. In addition, solid tester demand continues in areas such as automotive and industrial semiconductors
- The outlook for FY2022 remains unchanged

### ○ Summary

- Since the beginning of the fiscal year, semiconductor market trends have changed rapidly. Uncertainty about the future of the global economy has increased further, as has uncertainty in the semiconductor market due to factors such as the new US restrictions on chip exports to China announced this month.
- Tester demand for cornerstone consumer electronics will be affected to some extent by production plan revisions triggered by semiconductor inventory adjustments, which are expected to lead to lower tester utilization rates and may cause customers to revise their capital investment plans.
- In light of the growing uncertainty about the future, we have not changed our previously announced full-year earnings forecast for FY2022.
- However, demand driven by the reinforcement of test capabilities amidst semiconductor performance gains, and demand from customers planning strategic capital investments in anticipation of the long-term expansion of semiconductor demand, is expected to compensate for the present decline in demand for certain applications.
- Due to ongoing difficulties with parts procurement, our product supply is still unable to keep up with customer demand, but we expect to achieve our plan for the fiscal year through measures such as reallocating capacity from some customers whose demand has decreased to other customers.
- This is the end of the explanation for the Financial Results for FY2022 2Q and FY2022 Outlook. Although uncertainty is growing in our business environment, finally in the following slide, I would like to explain briefly about how we perceive tester demand, how we maintain a competitive advantage in the market, and how we are providing value to our customers.

## Structural Changes in the Semiconductor / Semiconductor Tester Markets & Advantest's Value Add

### Changes Affecting Our Customers & the Semiconductor Market

- ✓ Semiconductors becoming social infrastructure
- ✓ More new applications
- ✓ More emerging players in the semiconductor market
- ✓ Innovations in semiconductor energy efficiency and performance
- ✓ Customers' long-term strategic investments in R&D and CapEx

### Advantest's Accumulated Strengths & Assets

- ✓ Continuous, aggressive R&D investment
- ✓ Platform strategy & product portfolio covering a wide range of applications
- ✓ Solid customer base
- ✓ Global customer support
- ✓ Sound financial structure
- ✓ A cohesive and dynamic corporate culture

### Solutions for Customer Issues

- ✓ Comprehensive test solutions that accelerate innovation
- ↓
- ✓ Better semiconductor R&D and supply through faster time to market, time to quality, and time to volume
- ↓
- ✓ Test is transforming from a cost to a value-add that boosts the performance, quality and profitability of semiconductors

**Smaller fluctuations in tester demand**

**Our sustainable competitive advantage**

**Test becomes a value-enhancing contributor to increased profit**

**Business negotiations with customers have already shifted out to 2024 and beyond  
We are investing in sustainable growth in line with the long-term expansion of the semiconductor market**

## ○ Structural Changes in the Semiconductor / Semiconductor Tester Markets & Advantest's Value Add

- Semiconductors are becoming part of our social infrastructure. More new applications such as the "Metaverse" are expected to appear. Unlike the market environment for front-end process equipment, the semiconductor tester market has a wide range of customers, including fabless and OSAT. For example, more new players are entering the semiconductor market such as US hyperscalers, we expect they will be our new customers.
- In response to the dramatic increase in the amount of data being processed, semiconductors need to achieve higher functionality through improvements in circuit integration, such as miniaturization and the adoption of advanced packages. At the same time, there is a need to improve energy efficiency, such as by lowering power consumption to reduce the burden on the environment.
- In our view, the quest for innovation in the semiconductor market is leading to increases in semiconductor production, increases in test volume due to technological evolution, and customer's investment based on their long term perspective. Therefore, we feel that tester demand will fluctuate less than in the past.
- In response to these structural changes in the semiconductor and semiconductor tester markets, we contribute to the expansion of our customers' profits by leveraging our accumulated strengths and assets to offer value in both hardware and software. We believe our product portfolio that supports a wide range of applications is the source of our continued competitive advantage.
- Test used to be regarded as a manufacturing cost, but customers now see it as not merely guaranteeing semiconductor performance and quality, but also as a process that can boost their competitiveness through faster time to market, time to quality and time to volume.
- Due to the large number of orders we have received over the past year and a half, our lead time has been extended, and business negotiations with our customers have already shifted out to 2024 and beyond. As a part of enriching our power semiconductor test solution lineup, we have already begun offering our major customers products from CREA, which we acquired in August. In the evolving semiconductor value chain, we will add customer value through test at key points throughout the whole semiconductor development and manufacturing processes.



# Integrated Annual Report 2022 Published

## Highlights from the 2022 Edition

Based on feedback from our stakeholders on the previous editions, we have enhanced the descriptions of our value creation initiatives as well as our financial results, and added outside directors' perspectives on our corporate governance.

- **MTP2 Progress Report**
  - CEO Message (P.5-9)
  - Second Mid-Term Management Plan (MTP2) (P.14-16)
- **Strengths that Lead to Non-Financial Capital Value Creation (P.22-37)**
- **A Conversation With Outside Directors (P.65-68)**



Integrated Annual Report 2022 ([Link](#))  
Sustainability Data Book 2022 ([Link](#))

## ○ Integrated Annual Report 2022 Published

- Lastly, I would like to mention some highlights of this year's Integrated Annual Report, which we published last weekend.
- In the 2022 edition, we deliver an enhanced progress report on our second mid-term management plan, as well as fuller descriptions of Advantest's strengths that lead to non-financial capital value creation, and a conversation with outside directors that sheds new light on our corporate governance.
- Thank you for your attention.

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