

FY2018 2Q
(Three months ended September 30th, 2018)
Information Meeting

October 30th, 2018
Advantest Corporation

Agenda

- **Financial Results for FY2018 2Q**

Atsushi Fujita
Managing Executive Officer

- **FY2018 Business Outlook**

Yoshiaki Yoshida
Representative Director, President & CEO

ADVANTEST.

FY18 2Q Summary of Results

	FY17				FY18		QoQ		YoY	
	1Q	2Q	3Q	4Q	1Q	2Q	(Δ)	(%)	(Δ)	(%)
Orders	49.4	56.2	56.8	85.4	70.6	76.2	5.5	7.8%	19.9	35.5%
Sales	40.7	47.7	50.9	67.9	70.9	72.7	1.7	2.4%	24.9	52.2%
Gross Profit	20.6	24.9	23.2	37.9	38.2	38.9	0.7	1.9%	14.0	56.4%
Gross Margin	50.6%	52.1%	45.8%	55.7%	53.9%	53.6%	▲0.3pts		1.5pts	
Operating Income	2.2	5.2	3.2	13.9	15.8	18.0	2.1	13.4%	12.8	x3.5
Operating Margin	5.5%	10.9%	6.4%	20.4%	22.3%	24.7%	2.4pts		13.8pts	
Income Before Tax	1.6	4.8	3.4	14.5	16.5	18.6	2.0	12.2%	13.8	x3.9
Net Income	1.0	3.9	2.6	10.6	13.9	16.2	2.4	17.0%	12.3	x4.1
Net Income Margin	2.4%	8.2%	5.0%	15.6%	19.6%	22.4%	2.8pts		14.2pts	
IFRS15 Backlog adjustment					▲3.0					
Backlog	50.9	59.4	65.3	82.8	79.5	83.0	3.5	4.4%	23.6	39.7%
Exchange Rate	1 US\$	¥112	¥111	¥112	¥111	¥108	¥111	¥3 Depreciation	¥0 Appreciation	
	1 Euro	¥121	¥128	¥132	¥134	¥131	¥129	¥2 Appreciation	¥1 Depreciation	

ADVANTEST.

2018/10/30

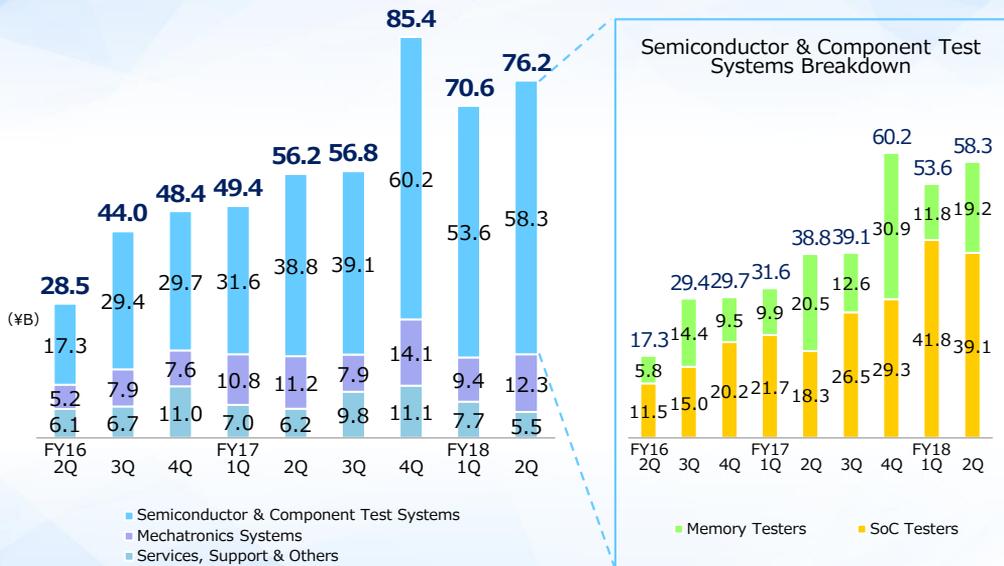
All Rights Reserved - ADVANTEST CORPORATION

3

○ FY2018 2Q Results Summary

- Orders +7.8% QoQ +35.5% YoY ¥76.2 billion
- Sales +2.4% QoQ +52.2% YoY ¥72.7 billion
- Operating Income +13.4% QoQ 3.5x YoY ¥18.0 billion
- Net Income +17.0% QoQ 4.1x YoY ¥16.2 billion
- There were no major fluctuations in customer tester investment, and our favorable business environment continued.
- As semiconductor performance improves, test times have tended to increase, which brought figures to a level exceeding our original assumptions.
- Thanks to a continued high level of orders and improved parts procurement, we achieved a fifth consecutive quarterly increase in sales, and operating income margin exceeded 20% for the third consecutive quarter.
- Our FY2018 2Q quarterly net income margin achieved a record high.

Orders by Segment



Note: Intersegment transactions have been eliminated from totals

ADVANTEST.

2018/10/30

All Rights Reserved - ADVANTEST CORPORATION

4

○ FY2018 2Q Orders by Segment

○ Semiconductor & Component Test Systems

- ¥58.3 billion +8.9% QoQ
- SoC tester orders were driven principally by application processors, which are steadily becoming more sophisticated, and display driver ICs.
- Memory tester orders grew again, mainly for DRAM.

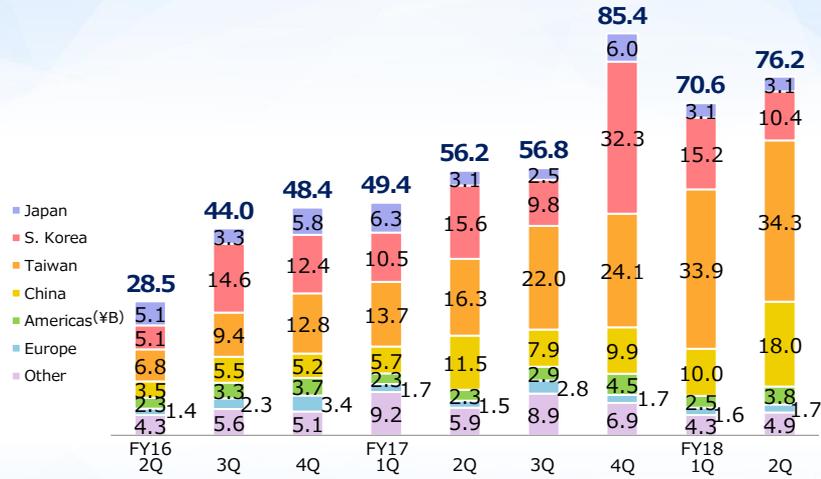
○ Mechatronics Systems

- ¥12.3 billion +32.0% QoQ
- Orders for device interfaces and test handlers grew in step with memory testers.

○ Services, Support & Others

- ¥5.5 billion -29.1% QoQ
- This decrease was due to seasonality in maintenance contracts and a drop-off in our second-hand business.

Orders by Region

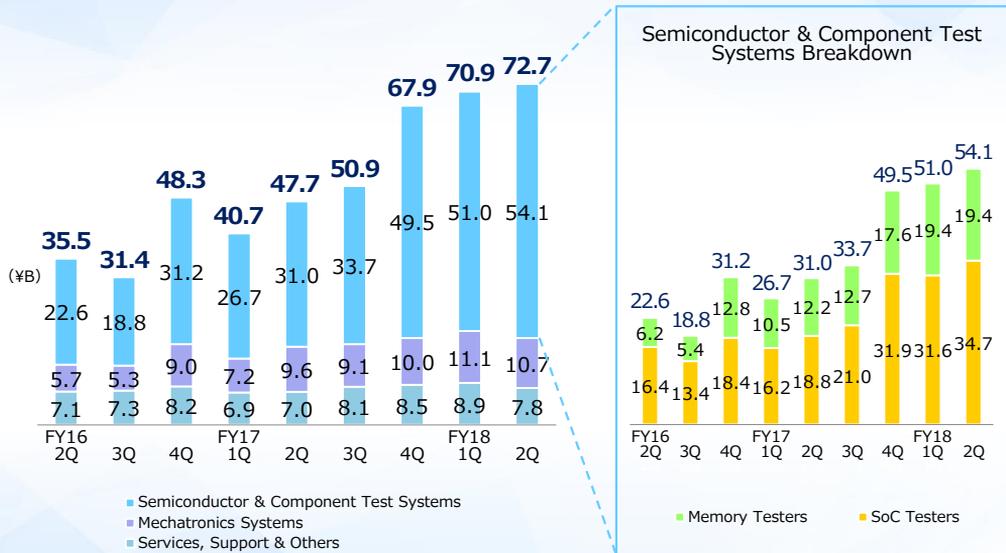


ADVANTEST.

○ FY2018 2Q Orders by Region

- South Korea ¥10.4 billion
Display driver IC and image sensor tester orders declined in reaction to strong orders in the first quarter. Memory tester orders also decreased slightly.
- Taiwan ¥34.3 billion
Both SoC tester and memory tester orders stayed high.
- China ¥18.0 billion
Display driver IC tester and memory tester orders increased.

Sales by Segment

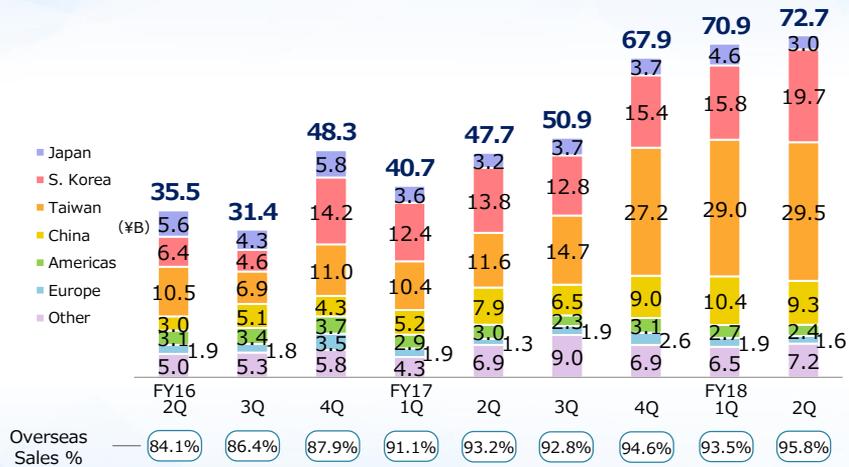


Note: Intersegment transactions have been eliminated from totals

ADVANTEST.

- FY2018 2Q Sales by Segment
- Semiconductor & Component Test Systems
 - +6.2% QoQ ¥54.1 billion
 - SoC testers were strong overall, leading to record high quarterly sales.
 - Memory testers sustained high sales on a par with the previous quarter.
 - Parts procurement status improved, allowing us to further expand sales.
- Mechatronics Systems
 - -3.6% QoQ ¥10.7 billion
- Services, Support, & Others
 - -11.9% QoQ ¥7.8 billion
 - The tester demand environment negatively impacted sales of second-hand products.

Sales by Region



ADVANTEST.

○ FY2018 2Q Sales by Region

- Sales continued to hold a high level, especially in Asia, where semiconductor mass production facilities are concentrated.
- As a result, our overseas sales ratio in 2Q was 95.8%, a record high.

Sales / Gross Profit / Operating Income



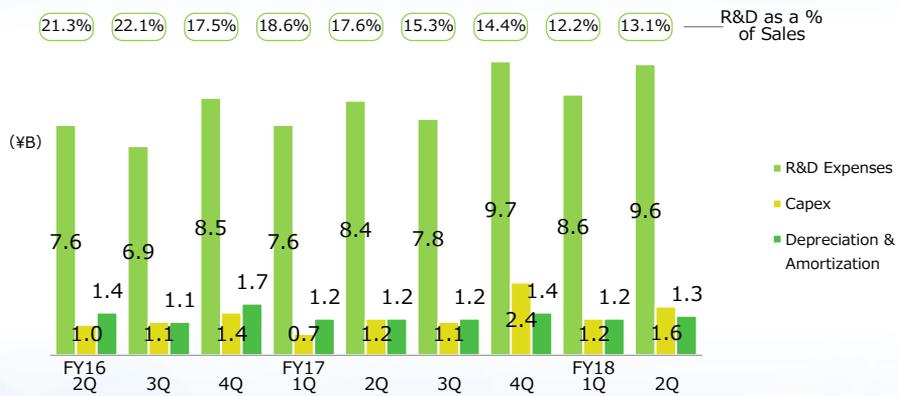
※In FY17 3Q, a ¥3.3 billion write-down of inventories was recorded in our nanotechnology business.
The gross margin in FY17 3Q excluding the effect of the write-down was 52.3%.

ADVANTEST.

○ FY2018 2Q Sales / Gross Profit / Operating Income

- Gross margin 53.6%, flat QoQ
- SG&A ¥20.9 billion
Even amidst increased sales, SG&A declined thanks to restrained costs.
- Operating income ¥18.0 billion
- Operating margin 24.7%, an improvement of 2.4 points

R&D Expenses/Capex/Depreciation & Amortization



ADVANTEST.

2018/10/30

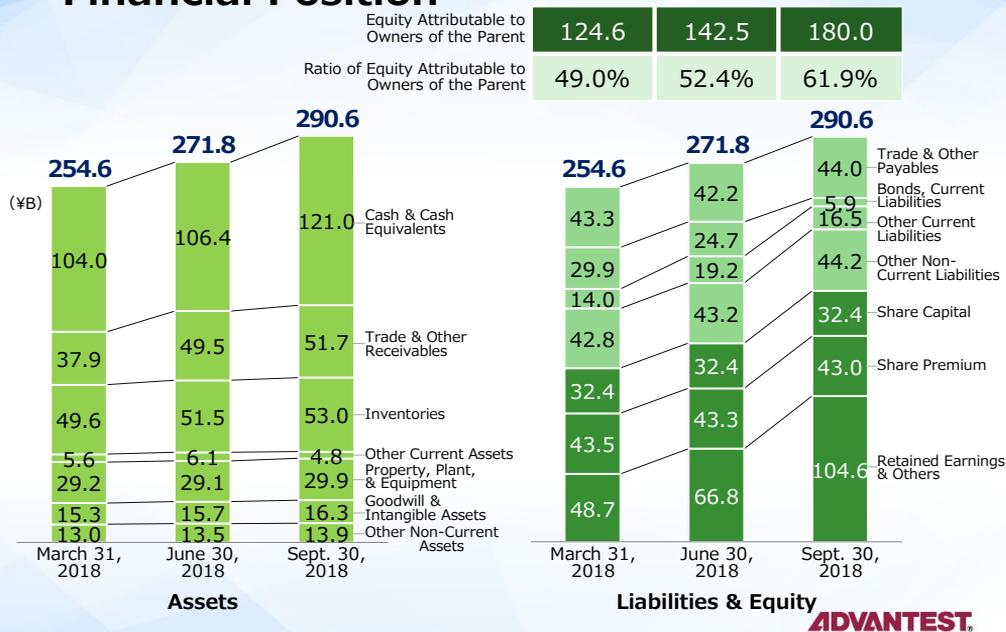
All Rights Reserved - ADVANTEST CORPORATION

9

○ FY2018 2Q R&D Expenses/Capex/Depreciation and Amortization

- R&D Expenses ¥9.6 billion
- R&D to sales ratio 13.1%
- Capex ¥1.6 billion
- Depreciation and Amortization ¥1.3 billion

Financial Position



2018/10/30

All Rights Reserved - ADVANTEST CORPORATION

10

○ Balance Sheet for Period Ending September 30th, 2018

- Total Assets ¥290.6 billion
- Cash and cash equivalents ¥121.0 billion, an increase of ¥14.5 billion
- Bonds (current) ¥5.9 billion, a reduction of ¥18.8 billion
The conversion rate of convertible bonds exercisable by February 2019 was about 80% at the end of September.
- Equity attributable to owners of the parent ¥180.0 billion
Ratio of equity attributable to owners of the parent increased by 9.5 points to 61.9%

Agenda

- **Financial Results for FY2018 2Q**

Atsushi Fujita
Managing Executive Officer

- **FY2018 Business Outlook**

Yoshiaki Yoshida
Representative Director, President & CEO

ADVANTEST.

CY18 Market Forecast

	CY17	CY18 estimate	YoY Change
SoC tester market	Approx. \$2.2B	Approx. \$2.4B (Previous Forecast in July: Approx. \$2.2B~2.3B)	Approx. +9%
Memory tester market	Approx. \$750M	Approx. \$1.0B (Previous Forecast in July: Approx. \$900M)	Approx. +33%

- ✓ The 2018 tester market is healthy.
- ✓ In the SoC tester market, test capabilities are being reinforced across a wide variety of customers and devices, raising the floor of the market.
- ✓ In the memory tester market, data-center related demand is driving steady growth centered on DRAM.
- ✓ Amidst growing demand in all arenas, our market share will greatly increased.

ADVANTEST.

○ CY2018 Market Forecast

- This is a view of the tester market in 2018, with only 2 months remaining in the year.
- We have been closely watching the potential for negative impact on semiconductor demand by trade friction between the US and China, but demand for semiconductors has remained steady up to this point.
- Customer tester investment has not fluctuated significantly, and remains strong. Our market prospects also improved.
- We previously estimated the 2018 SoC tester market at \$2.2B~2.3B, but now we expect that it will grow 9% YoY to \$2.4B.
- The memory tester market was \$750M in 2017, and we expect it to grow 33% YoY to \$1.0B in 2018.
- As a result of higher performance in various semiconductors used in end products such as smartphones, industrial equipment, automobiles, displays, etc., a wide range of customers in the SoC tester market have reinforced their test capabilities.
- With regard to memory testers, there is some concern that device supply-demand balance adjustments and restrained investment by some customers will result in a slowdown, but we anticipate that tester investment will hold steady, principally for high-end memory, at least through the end of the year.
- As stated in our mid- to long-term management policy announced in April, increasing demand for semiconductors that require higher performance and higher reliability, even amidst the overall growth of the semiconductor market, represent an opportunity for Advantest.
- The 2018 tester market bears out this prediction. This is an ideal situation in which we can capture demand from all directions, thanks to our broad product portfolio and customer base.
- At this pace, we expect our 2018 market share to improve greatly over the previous year.

FY18 Forecast

	FY17	FY18 Forecast	vs. FY17		FY18 forecast
			(Δ)	(%)	as of July
Orders	247.8	255.0	7.2	2.9%	220.0
Sales*	207.2	265.0	57.8	27.9%	230.0
Semiconductor & Component Test systems	140.9	191.0	50.1	35.5%	160.0
Mechatronics Systems	35.9	42.0	6.1	17.0%	38.0
Services, Support & Others	30.5	32.0	1.5	5.0%	32.0
Operating Income	24.5	53.0	28.5	x2.2	34.5
Operating Margin	11.8%	20.0%	8.2pts		15.0%
Income Before Tax	24.3	54.5	30.2	x2.2	34.8
Net Income	18.1	46.0	27.9	x2.5	27.8
Net Income Margin	8.7%	17.4%	8.7pts		12.1%
IFRS15 Backlog adjustment		▲3.0			▲3.0
Backlog	82.8	69.8	▲13.0	▲15.7%	69.8
Exchange Rate**	1 US\$	¥111	¥110	¥1 Appreciation	¥105
	1 Euro	¥129	¥132	¥3 Depreciation	¥135
Dividend per share	¥32	¥75	up ¥43		—

* Intersegment transactions have been eliminated from totals

**Exchange rate assumptions for FY18 2H: USD \$1 = ¥110, 1 Euro = ¥135.
FY18 1H rates were USD \$1 = ¥109 and 1 Euro = ¥130.

ADVANTEST.

2018/10/30

All Rights Reserved - ADVANTEST CORPORATION

13

○ FY2018 Forecast

- We have now revised our full-year forecast based on results that exceeded our expectations in the first half.
- Orders and sales forecasts have been raised by ¥35.0 billion each.
- Operating income and net income have been raised by ¥18.5 billion and ¥18.2 billion respectively.
- We plan to post an additional profit of ¥2.5 billion due to Advantest Corporation's transition to a defined contribution pension plan in the third quarter. Including this sum, we forecast that full-year operating income will be ¥5.3 billion.
- Exchange rate assumptions underlying our 2H forecast are USD \$1 = ¥110, and 1 Euro = ¥135. Full year rate assumptions are USD \$1 = ¥110 and 1 Euro = ¥132.
- Regarding our foreign exchange sensitivity, annual operating income will rise by ¥500 million yen for each ¥1 of yen depreciation versus USD and will decline by ¥100 million yen for ¥1 of yen depreciation versus Euro.
- Our return to shareholders is based on a half year consolidated payout ratio of 30%. The dividend per share for the first half is ¥50, and is expected to be ¥25 for the second half. The dividend for the full year is expected to be ¥75. Last year it was ¥32, making this an increase of ¥43 from the previous year.
- Conditions in the fourth quarter are presently very hard to predict, but our new sales forecast is ¥265.0 billion, which would set a new annual sales record for Advantest for the first time in 18 years. We last set a new annual sales record in 2000.
- We anticipate that earnings per share for the full year will be approximately ¥230 and ROE will be almost 30%.

FY18 Key Measures

■ Towards Further Business Growth

- ✓ Advantest globally integrated our semiconductor test business in June 2018.
- ✓ The new organization will boost competitiveness in promising arenas such as AI, 5G communications, and ADAS.
- ✓ We will also focus on technology and human resources as sources of mid- and long-term corporate value creation.

■ FY18 Investment Outlook: Unchanged from Initial Plan

- ✓ R&D Expenses: ¥35.0 B (FY17 actual: ¥33.5 B)
- ✓ Capex: ¥7.0 B (FY17 actual: ¥5.4 B)
- ✓ Depreciation and amortization: ¥5.5 B (FY17 actual: ¥5.0 B)

ADVANTEST.

○ FY2018 Key Measures

- Our market share in 2018, which is the first year of our mid-term plan, is likely to be good. We will push forward with our growth strategy so that we can continue to secure a sustainable high market share over the medium to long term.
- Our mid-term plan is focused on improving market share despite market cyclicity.
- To achieve this, we integrated our tester business globally in June. With one business organization covering the whole world, we have strengthened our ability to respond globally to dramatically changing customer test requirements.
- With this organization as a growth foundation, we will provide test technologies to support future innovations that will change society, such as AI, 5G, and ADAS.
- Test needs for ensuring higher reliability are expected to grow further. Moreover, the ramp-up of the Chinese memory market is also an opportunity for Advantest.
- We intend to actively invest in boosting our competitiveness.
- As mentioned in our Grand Design, the long-term management vision announced in April, we plan to not only develop our current core business domain but also the processes surrounding it: the design / evaluation process, system level test, and cloud-based test technology using AI. We will utilize the cash we have presently amassed to make growth-oriented investments in these arenas going forward.
- Regarding our production situation, capacity for some products is unable to keep up with customer demand, but it has been stable overall. Going forward, we will shift focus to improving cost competitiveness.

FY18 Outlook by Segment

Semiconductor & Component Test System Sales trends (¥B)



■ Semiconductor & Component Test Systems <SoC Testers>

- ✓ Higher handset performance is driving strong demand for smartphone processors and sensors.
- ✓ The display sector, currently undergoing immense technological progress, is producing a high and sustained level of customer demand in our products.

ADVANTEST.

○ FY2018 Outlook by Segment: SoC Testers

- Smartphone unit growth is slowing down, but it is important to note that the increase in the number of semiconductor devices and end-products using them is not the only driver for tester demand.
- This year, our SoC tester business has benefitted broadly from semiconductor technology evolution and change.
- In 2018, performance improvement and further miniaturization of semiconductors used in smartphones and AI servers has progressed. As a result, reliability needs have expanded. Additionally, test complexity and test times have increased.
- Demand for display driver IC testers, which has been strong since last year, is also expected to sustain its current momentum in 2019.
- As an example of change in the tester market, customers are taking test even more seriously than they did before. The background to this change is greater public demand for reliability assurance.

FY18 Outlook by Segment

Semiconductor & Component Test System Sales trends (¥B)



■ Semiconductor & Component Test Systems <Memory Testers>

- ✓ In DRAM, extremely strong demand for back-end test process is expected to last throughout the year.
- ✓ In non-volatile memory, 2H tester is on track with our expectations, although set to decline compared with 1H. We expect demand to recover as soon as device market conditions improve.
- ✓ Tester demand creation in the NAND flash sector will continue in 2019, driven by higher performance including faster I/F protocol adoption and larger capacity enabled by 3D technology evolution.

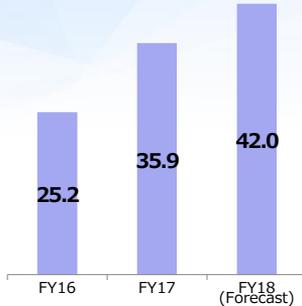
ADVANTEST.

○ FY2018 Outlook by Segment: Memory Testers

- Demand for DRAM testers is expected to remain stable due to strong data center-related demand.
- For non-volatile memories such as NAND, demand is expected to decline in the second half compared to the first half. Nonetheless, this is broadly in line with our market estimate dating back to April and July.
- We believe that adjustment of investments in memory testers due to memory market declines is inevitable, but will be limited. We do not expect to see a big decline such as has occurred at certain times during the last 20 years.
- Multiple new memory fab construction projects are planned for 2019. Challenges around increasing the capacity and speed of various types of memory will also continue. All of these are positive factors for memory tester demand.
- We also expect a certain amount of demand for tester replacement to improve production efficiency.

FY18 Outlook by Segment

Mechatronics Sales Trends (¥B)



■ Mechatronics Systems

- ✓ In 1H, demand for memory device interfaces and test handlers was strong.
- ✓ We anticipate 2H demand comparable to 1H, mainly for memory products.

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



■ Services, Support, & Others

- ✓ We expect field services sales growth, in line with robust customer tester utilization ratios.

ADVANTEST.

○ FY2018 Outlook by Segment: Mechatronics, Services & Others

- In our mechatronics business, demand for test handlers and device interfaces with a high correlation to memory testers was strong in the first half. We expect second-half demand to continue at a similar level.
- In our services, support, and others segment, field services are strong. Our leasing / second-hand sales business is sluggish, but we anticipate that growth in service revenues will compensate for it.

Summary

- ✓ The 2018 tester market is healthy.
- ✓ The competitive product portfolio we have amassed, and the breadth of our customer base, have driven a significant increase in Advantest's market share this year.
- ✓ The tester market is changing:
 - ① Applications for semiconductors are diversifying
 - ② The public is demanding, and customers are seeking to provide, greater semiconductor reliability
- ✓ We are boosting our investments in technology and human resources to achieve further sustainable business growth.

ADVANTEST.

○ Summary

- The 2018 tester market has been robust beyond our estimates. Both SoC testers and memory testers delivered significantly improved results in the first half.
- As a result, we have raised our forecast for sales and earnings for the full year. We see a possibility of achieving a new annual sales record.
- Our measures to strengthen our customer base and our product portfolio strategy are delivering, making it possible to increase our market share.
- Lastly, regarding Advantest's management strategy for the medium to long term:
- Although this year's business environment is favorable, the tester market will likely continue to go through phases of demand increase and deceleration, as in the past. However, the size of these demand waves has changed.
- A year and a half ago, we stated that we saw signs of change in the tester market. Those changes are now becoming a reality;
- We believe the reason for that is diversifying applications for semiconductors. In the past, PC demand fluctuations rippled through to the tester market in an amplified form, greatly affecting the demand for testers. That business environment no longer exists.
- Also, the public is demanding, and customers are seeking to provide, greater semiconductor reliability.
- Under these new circumstances, Advantest's test platforms, which can capture test demand from all kinds of semiconductors, not only give us an advantage in terms of capturing growth opportunities, but also reduce the impact of fluctuations on our results.
- As the Grand Design shows, we believe we can expand the fields where our company contributes to the semiconductor value chain.
- Therefore, we still have many things to do. It is important to enhance our internal infrastructure to support further growth. We will invest in technology and human resources, enhance our value creation capabilities, and strive to sustainably expand our corporate value.

NOTE

◆ **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.

◆ **Use of These Materials**

The information contained in this presentation is protected under intellectual property laws, such as copyright law, patent law, trademark law and design law, and other laws and statutes of each country and various treaties. Any use (modification, copying, diversion, etc.) of this information that goes beyond that which is clearly authorized by law and statutes, and is not approved in writing by our company in advance, is forbidden.

ADVANTEST.