

Advantest Corporation
FY2024 2Q (Three months ended September 30, 2024) Financial Briefing
Q & A Summary

October 30, 2024

2H FY2024 outlook – SoC testers

- Q1: You presented a plan for lower SoC tester sales in 2H than in 1H. In your explanation of that, you referenced production capacity and procurement, but what bottlenecks are you currently facing? Also, how much upside potential do you see versus your 2H sales forecast?
- A1: It is not that we are facing any pronounced bottlenecks at present. We have learned from the previous supply chain crunch and are working carefully to ensure the health of our entire supply chain so that we can adequately respond to customer demand.
- 1H sales were very strong as increased test content for HPC devices drove SoC tester demand higher. Given our exchange rate assumptions, we expect 2H sales to be nearly flat HoH. There could be some upside, but growth in test content is difficult for both us and our customers to forecast. In such an environment, supporting shorter delivery lead times for our products is something we will continue to do, but it is challenging.
- Q2: Does your 2H SoC tester sales plan assume that you will be selling more in 3Q or in 4Q? Also, you booked more than 100 billion yen in sales in 2Q, but does that owe to significant progress on deliveries in September?
- A2: While a great deal of uncertainty is involved, we do not expect a huge difference between 3Q and 4Q. Our July-September tester sales were also the result of our efforts to continuously add to our shipment counts every month and do not owe to a September spike. There are many moving parts across our customers' supply chains, including semiconductor assembly capacity and planned deliveries for a wide range of equipment, including our own products. Changes in their production plans are resulting in changes to their desired delivery dates for our testers.
- Q3: I would like to ask your thoughts on 2H SoC tester sales. My understanding is that you expect over 70 billion yen in sales in both 3Q and 4Q. Are you seeing any deceleration in 2H as a result of an excessive front-loading of deliveries in 2Q?
- A3: We saw a massive increase in test content in 1Q, and we believe that some of that is going to continue. We are at an inflection point, and test times are growing longer as new

devices come out. This makes it difficult to determine whether customers have ample testing capacity or not. However, when you look at AI devices, you see reticle limits, I/O chips being split into chiplets, new bus architectures, and other factors adding to device complexity. We expect that test times will therefore be difficult to reduce. Also, the ASPs are high on these complex devices, so customers are increasingly willing to perform more tests in order to avoid the cost of having to throw them away.

These are things that we did not have a couple of years ago or even last year. Now we have this new wave of complexity driving test content and test time. Growth in test demand is now informed much more by test content, which itself is a product of device complexity, than by semiconductor production volume. In addition to test time, another key contributor to test demand is efforts to bolster quality assurance and reliability.

FY2025 demand outlook – SoC testers

Q4: I would like to ask about your SoC tester demand outlook for FY2025. I expect GPU speed and performance gains, ASICs for AI, and other factors to drive additional tester demand.

A4: At present, we expect to see solid tester demand through the first half of CY2025 and are cautiously optimistic about the full year. It is difficult to forecast the extent to which the tester market may grow given our limited visibility on FY2025. It is especially difficult to predict changes in test times and test content for AI devices. That being said, if you look at the architecture of next-generation SoC devices, the complexity is only increasing, so there is no reason for us to believe that the test content is going to do anything but continue to increase.

CY2025 tester market outlook

Q5: What is your outlook for the size of the SoC and memory tester markets in CY2025?

A5: We are still just trying to determine the market size and growth percentages. We think it will not be until next year that we are able to provide you with forecast numbers. Demand for SoC testers is likely to continue to expand as device complexity increases. The providers of AI-related ASICs are also a growing presence. They are working with what is commonly referred to as the “Magnificent 7” and are expanding their production capacity. We believe that that will also add to the scale of the tester market. On the memory side, growth in high bandwidth memory (HBM) stack counts and other architectural changes are likely to impact tester demand.

Lead times – SoC testers

Q6: What are lead times like on your SoC testers?

A6: Our standard lead time is around three months, but we are currently at roughly three to six months. We are seeing growth in tester demand that is difficult to predict, driven by increases in device test times and test content. Responding quickly to this is challenging, but we intend to further enhance our operational capabilities so that we are able to keep pace with our customers as they continue to add to their test capacity.

R&D investment & future market share trends

Q7: It seems that your competitor is investing more in R&D in an attempt to close its gap with you. What is your thinking on the risk of market share changes in CY2025?

A7: We are spending as much as we need to achieve the right technology road maps that our customers require. As our sales expand, our R&D spending may drop as a percentage of sales, but that does not necessarily mean that it will decline in absolute terms. We have consistently pursued our development efforts based on the close connections we have established with our customers, and this has proven successful. As such, we have in recent years seen a higher hit rate in terms of our R&D contributing to earnings. We see no need to lower the market share target of 58% or greater that we have set under our third mid-term management plan (MTP3).

Market share

Q8: MTP3, which you unveiled in June this year, included a market share target of 58% or greater. Given that you are growing faster in the SoC tester market than your competitor, would it be fair to assume that you are trending ahead of that target at least for the moment?

A8: Yes.

Demand outlook – System level test (SLT) business

Q9: I have a question about SLT. You said that you have begun to see demand emerge in compute and automotive. What percentages of the SLT business do those two applications currently account for, and what is your outlook for the market three years from now?

A9: Our SLT business has relied heavily on the smartphone space, so it is slow at the moment. We have established a good position in the smartphone market, and we have added to our customer base in that area. We are also seeing new opportunities to expand sales in the compute market. In addition, GPU and ASIC providers are beginning to explore combining burn-in and SLT steps as they look for ways to improve their yields. Those

customers are intent on using SLT to improve their yields because of the higher ASPs on their devices. On the automotive side, compute is getting incorporated into applications like infotainment, cockpit sensing, and advanced driver assistance systems (ADAS), leading to increased demand for advanced semiconductors. Our SLT business is not large at present, but we are confident about its future prospects.

Estimating the size of the SLT market is difficult, partly because some customers have in-house solutions. However, we expect SLT to grow into more applications, so the market is definitely going to grow.

HPC/AI test content

Q10: You have upwardly revised your FY2024 guidance for a second time. Is that because test intensity per device has further increased in the form of additional test content for example, or does it owe to front-loaded deliveries of your testers? My understanding is that your previous guidance upgrade owed primarily to test content for HPC/AI devices exceeding your expectations.

A10: Our latest upward revision owes primarily to the fact that we were able to achieve a greater expansion in our supply capabilities than we had initially anticipated as we accelerated our procurement efforts in order to meet customers' requested delivery dates. We do not believe that there was any major change in customer test content or test times in the three months since July. Customers are developing devices on short cycles, making it difficult to predict how test times are going to change going forward.

HBM testers

Q11: Your competitor thinks that HBM tester sales will decline next year. Would this be true for you? If not, would that signify that you are gaining share even in HBM?

A11: We do not see HBM testers slowing down. In fact, we expect some growth there. With the generational shift in HBM, we are going to see higher DRAM densities and higher stack counts, and we should prosper from that.

Q12: How has the profitability of your HBM testers improved? Also, I have heard that your peer has begun supplying products for post-stacking HBM test insertions. How has that impacted your profitability?

A12: One of the things we are doing to enhance our profitability is to propose spec upgrades for existing equipment. As HBM progresses through future generations, customers who upgrade the configurations of their existing testers will be able to expand their test coverage to more advanced technologies and perform exacting testing. We believe that

heightened added value from our testers will translate into higher profitability. Different customers adopt upgrades at different times, so our profitability gains are proceeding at a slower pace than we had initially anticipated.

We are always in competition with our peer, but we have been building an installed base with our customers ever since HBM demand first ramped. We hope to leverage this installed base to engage in detailed technological discussions with our customers and thereby to maintain our strong market position.

Tester demand in the China market

Q13: Is there any change in your outlook for semiconductor tester demand in the China market? Earnings figures from some players in the semiconductor production equipment market reflect a slowdown in China. Also, are most of the testers you supply to China for mobile applications, or do you also supply them for HPC/AI applications?

A13: We will refrain from commenting on conditions at other companies. At Advantest, we have not seen any major change in our China business. The SoC testers that we supply to China serve not only the mobile space, but also other applications such as automotive. In addition, memory chip fabs continue to expand in China, so we are simultaneously engaging in a memory tester business there as well. As such, we see a good balance in the usage of our testers across a broad range of domains in the China market.

Prospects for a recovery in tester demand other than AI & tester supply capabilities

Q14: What is your outlook for a recovery in tester demand related applications other than AI, such as smartphones? Also, do you have the necessary supply capabilities in place for when demand does pick back up?

A14: We are hopeful that the smartphone market will pick back up in CY2025. Where we have seen signs of recovery lately is in edge AI. Products like smartphones and PCs are beginning to incorporate edge AI, but this has yet to drive a replacement cycle. In terms of our supply capabilities, we do have the capacity that will allow us to supply testers not only for HPC/AI needs but also for the testing of chips for edge AI applications.

Shareholder return policy

Q15: If your sales and profits were to continue to grow in FY2025, what would we be able to expect in terms of your share repurchase framework?

A15: The policy we have set under MTP3, which covers FY2024 through FY2026, is to use a cumulative total return ratio of 50% or more as a yardstick. How we reward our shareholders via either dividends or share repurchases is something we have to consider.

At the same time, we also want to steadily invest in our core business, as well as in expansion into adjacent businesses. When opportunities to invest in growth present themselves, borrowing will also be an option.

Growth investment

Q16: Given current market conditions, is there an area in which you feel you should make growth investments?

A16: In light of increasing device complexity, our focus is on the enhancement of our test solutions. This could take such forms as acquiring technologies to fill gaps, investing in a partner, or adding to our supply capabilities. We always keep a pretty robust list, but that is as much as we can say.

Note

This document is prepared for those who were unable to attend the financial briefing and is intended only for reference purposes. The original content has been revised and edited by Advantest for ease of understanding.

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