Advantest Corporation
Briefing on Mid-/Long-Term Management Policy
Q＆A Summary

June 25, 2024

Q1: I have high expectations for your potential to grow sales and gain market share as GPUs and other AI devices drive tester demand. What is your outlook for SoC tester demand growth and your market share?

A1: There are multiple fronts to AI demand. AI demand for data centers remains brisk, and we expect not only SoC tester demand, but also strong demand for memory testers in light of heterogeneous integration. Moreover, AI is moving to the edge, and when that trend reaches consumer devices, we can expect to benefit in terms of volumes. Historically, consumer applications have been a greater driver for Advantest than infrastructure, so this move to the edge is an encouraging sign.

As regards market share, we achieved 58% in CY2023. This growth in our market share as the overall tester market was experiencing a year-on-year contraction suggests that we were able to lay some powerful groundwork for the future. We expect the aforementioned expansion in demand for AI-related semiconductors to drive tester demand going forward. Given our strong positioning on both the cloud and edge sides of the AI space, we expect to be able to grow our market share further.

Q2: In your presentation, you mentioned increasing sales of your “superior test solutions” as a means of improving your gross margin. Could you elaborate?

A2: Product mix is the variable with the greatest impact on our gross margin. Memory testers have increased as a percentage of our sales due to the growth in AI demand, resulting in a decline in our total margin as memory testers currently average less favorable margins. We are therefore focused on improving the profitability of our memory testers.

In the case of HBM, for example, the technology is evolving rapidly from HBM3 to HBM3E and onward to HBM4, adding new interrelated test requirements that include not only higher speeds and increased densities, but also things like thermal control, power management, and device handling. Technological inflection points like this represent an opportunity to increase the added value of products and services that we provide. We therefore intend through our platform strategy to develop and provide superior test solutions that command higher margins. As part of our platform strategy, we also plan to enhance our economies of scale, lower our component procurement costs, and improve our manufacturing efficiency.

It is through these initiatives that we plan to bolster our memory tester and total margins.

Q3: You are assuming the start of a new growth cycle for the ATE market in CY2024. What notable demand drivers do you see? Do you anticipate two straight years of demand growth in CY2025 and CY2026, and if so, which year do you think will see the sharper acceleration in growth?

A3: In terms of our outlook for CY2025 and CY2026, we are seeing the start of an upward cycle in CY2024, and we think it should last at least into the next year and possibly multiple years. We are currently at the beginning of what some people are calling the "AI era," meaning that we are witnessing an inflection point in terms of the agent that is the major driver of semiconductor demand. While cyclicality will remain inevitable in the semiconductor industry, we believe that it is fair to expect structural growth in tester demand over the mid/long term as more semiconductors are used, albeit with ups and downs along the way.

In terms of drivers of growth in tester demand, we expect AI-related semiconductor demand to result in a long demand cycle spurred not only by sustained growth in demand for data centers and other infrastructure, but also by demand expanding to the edge.

We also expect chiplets to add to semiconductor complexity and drive test demand. Heterogeneous integration, of which chiplets are a prime example, is likely to spread to the mobility and consumer spaces. With AI applications, training will increasingly take place at the edge, which should drive the use of advanced packaging in the consumer space. Such trends will increase test content and test insertions. Ensuring total chiplet yields is critical for the entire semiconductor industry, and that should translate into greater tester demand in the form of more test content and insertions.

Q4: I want to ask about your market share. You are targeting a market share of 58%, which would be on par with CY2023. However, I would think that you could expect to gain more market share given the sizable portion of the HPC space that you hold. You are assuming that the overall ATE market will grow by 16%, but what sort of growth are you anticipating for demand in what you categorize as computing/comms applications over the next three years? What is the nature of your competitive dynamic with your North American peer at present?

A4: We enjoy the position that we do today because we worked very hard to earn the trust of the markets and the customers that have grown thus far, and we expect demand in those

growth domains to continue to expand. While our total market share as a company is 58%, we command considerably higher market shares in such high-growth domains. As such, even if our market share were to fluctuate going forward, our position in both the SoC and memory tester areas is one that we are very comfortable with.
We will refrain at present from describing our demand outlook for the computing/comms market in quantitative terms, but we expect to see broader application of AI in the consumer and infrastructure spaces over the next three years, including at the edge. The associated memory market should also grow. As we noted in our presentation today, we expect increased semiconductor testing complexity to drive test demand in these domains, and by extension growth in market size and our sales.

Q5: Your R&D budget is 1.2x greater than under MTP2 in absolute terms but lower as a percentage of your sales. You said that your strong customer base makes your R&D efforts highly efficient, which makes sense, but does that not mean that your R&D budget is based on continued growth in demand from your existing customers? Do you believe that the R&D budget you have presented will prove sufficient when you think about R&D designed to capture demand from a potential second or third key customer that could serve as a demand driver for you or when you think about your need to address technological inflections?

A5: The platform strategy that we have adopted enables us to respond to demand from multiple customers when we develop a solution. Test solutions represent a need for a wide range of customers that includes everything from major existing customers to new semiconductor market entrants. As such, there are some needs for customization, but there is also quite a lot of consistency in their requirements. Our platform strategy, which enables us to provide comprehensive coverage for those needs, gives us the best R&D efficiency. We have always stayed abreast of long-term technological trends by maintaining dialogues on test solution needs with the semiconductor designers that work for multiple key customers with whom we have established close relations. We repay our customers for that engagement by providing them with the optimal test solutions. We expect our platform strategy to also put us at an advantage in terms of welcoming new customers to the ecosystem that we have built around us, which should lead to even greater R&D efficiency.

Note

This document is prepared for those who were unable to attend the briefing on Mid-/Long-Term Management Policy 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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