

**Advantest Corporation**  
**FY2023 1Q (Three months ended June 30, 2023) Financial Briefing**  
**Q & A Summary**

July 26, 2023

**Q:** Much of what you discussed in your briefing made conditions for FY2024 sound promising. You had suggested at your April results briefing that the 2024 tester market could exceed the 2022 peak. Does that now look more likely? What is the basis of your outlook?

**A:** At our April briefing, we noted the possibility of our FY2024 sales returning to the FY2022 level. The smartphone and PC spaces are sluggish at present, but we do not expect that to remain the case forever. While we believe recoveries will be somewhat slow to come, tester utilization has already begun to rise at some of our customers, and we expect excess capacity to gradually be filled as we head toward FY2024. The earnings of the players in the memory market are weak, but they are beginning to make anticipatory investments to address demand sparked by generative AI. Our key foundry and fabless customers are also saying that they expect demand to expand at a sharp pitch as generative AI technologies are rolled out.

In light of all the above, we see a possibility that as deep as the slump is in FY2023, the subsequent rise in demand could be just as steep. That said, our visibility on tester demand is limited at present. We also need to carefully assess factors including global economic conditions, the Chinese economy, and geopolitical risks.

**Q:** I understand that Advantest has a large share of the test business for processors like GPUs and ASICs used in generative AI. How do you expect your market share to trend given the competitive environment?

**A:** It is true that we have a large share of the test market for processors used in generative AI. That is because we have deepened our engagement with customers around the world in the AI space, including the leading GPU company, by continuously providing them with engineering support and building a relationship of trust with them. In addition, we have over numerous years established collaborative relationships with the foundries and OSATs that work with the fabless players. We believe that we will be able to continue to provide them with the solutions that they need and maintain our strong position.

Q: I would like to ask about the quarterly expectations on which your FY2023 guidance is premised. You expect your 2Q sales to rise by more than 10% QoQ, and your 2H sales outlook assumes a nearly 25% HoH rise. What are your expectations for 3Q and 4Q?

A: Our expectation for 2H sales growth is premised on higher OSAT utilization rates and demand for high-end memory. We expect sales to grow QoQ with each passing quarter, so we believe that sales will be higher in 4Q than in 3Q. Our sense is that we can expect the same level of sales in 4Q that we did a year earlier.

Over the past few years, our SoC tester business has booked strong sales, driven by smartphone-related demand, and our installed base has grown, especially at OSAT customers. While it is true that utilization is down quite a bit in FY2023 because of the slump in smartphone-related demand, it has begun to pick up gradually, and we are expecting additional demand to rise little by little in 2H, including in the form of the installation of new testers. Meanwhile, in the memory space, we are seeing concrete indications of growth in demand associated with high-end memory, specially HBM for use in generative AI applications.

Q: You said that 4Q FY2023 sales would likely be close to those of 4Q FY2022. Is it correct to understand that demand will rise in 4Q? What will drive that?

A: It would be premature for us to discuss 3Q or 4Q sales in any definitive terms, but we are expecting demand to rise, driven especially by investment in the memory space. In terms of testers for AI-related memory like HBM, we have gotten the impression that our customers intend to use their budgets for next year to start investing at a rapid pace in increasing their production volumes. We therefore expect higher sales in 4Q than in 3Q.

Q: You said earlier that the 2024 tester market might be on par with that of 2022. What sort of impact do you expect generative AI to have on the tester market?

A: It is difficult at present to speak in quantitative terms about the size of tester market that generative AI is likely to create, but we expect AI/HPC-related tester demand to reach at least the same scale as tester demand for application processors going forward. Over the past five years, advances in smartphone technologies drove demand for testers and grew our sales. Smartphone-related demand is weak at the moment, but technological advances are likely to continue to spur growth in test demand, so we expect to see some degree of recovery in 2024 and beyond. Furthermore, with the addition of growth in the AI/HPC space, test demand for high-performance semiconductors is likely to expand.

Q: How does the outlook for smartphone-related demand compare to three months ago? Why did you leave your FY2023 earnings forecast unchanged despite having cut your outlook for the 2023 SoC tester market?

A: We expect the recovery in smartphone-related demand to take longer than we did three months ago. Market research companies are also forecasting annual sales of fewer than 1.2 billion smartphones as opposed to the 1.3-1.4 billion of the past. In considering test demand, we therefore also think it will take some time for OSAT utilization rates to improve. The recovery may not be complete until late 2023 or until early FY2024, which is why we lowered our outlook for market size. Meanwhile, one of the reasons that we maintained our earnings estimates for FY2023 is that we now assume a weaker yen for 2Q onward. In addition, while smartphone-related demand is weak, we are seeing localized instances of other tester demand picking up by more than we had initially expected, including in the case of Display Driver ICs and CMOS image sensors. Strong demand associated with memory such as HBM is also offsetting the weakness in SoCs. We therefore thought it fair to maintain our initial plan.

Q: Until the end of FY2022, you were disclosing your order backlog. Using that data as a starting point and considering that your product lead times remained long at the time because of difficulties procuring parts and materials, I had estimated slightly higher 1Q sales for you. Is it fair to say that your lead times are no longer extended and that you are no longer facing procurement bottlenecks?

A: There are some exceptions with semiconductors, but otherwise, the procurement bottlenecks are for the most part working themselves out. Whereas the lead times on our products were at around 12 months as of the end of 2022, they have now shrunk to around six months. The 1Q sales result reflects the fact that a portion of our order backlog will not be translating into sales until later because customers have asked for their deliveries to be postponed.

Q: Your 1Q sales were down by roughly ¥35 billion, but your SG&A spending was up by around ¥3 billion. It is understandable that your R&D spending rose by ¥1.5 billion, but what else drove that increase? Also, is it fair to assume that your SG&A spending will not rise as much as your sales in 2Q and subsequent quarters given that most of that spending will take the form of fixed costs?

A: The rise in SG&A spending was driven in part by higher personnel costs, including for R&D personnel. In addition, our overseas headcount has grown substantially, so the weak yen has also been a significant driver of higher costs. For the sake of profitability, we will

exercise solid control over our SG&A spending and deliver on our full-year sales target of ¥480 billion. At the same time, we expect the market to pick back up in FY2024 and beyond, so we believe we need to continue investing in the human capital that we will need when that happens. We intend to cut expenses that should be cut and otherwise work to secure our profits while also continuing to make the investments in R&D and human capital that we require.

Q: Your inventories are up, but does that owe more to inventories of finished products or to your strategic procurement of long-lead-time components?

A: Our increased receipt of semiconductor materials is the primary driver. We have been strategically procuring long-lead-time components, and our books reflect our receipt of components that we ordered in the first half of 2022. At the same time, customers are asking us to push out our product shipments, so we need to keep an eye on our sales as we work to control our inventories, including by negotiating the timing of inbound deliveries. The percentage of our inventories accounted for by finished products is not very large.

Q: You said that the number of customers you have in the HPC space is growing. Could you share what developments you have seen with customers other than the top GPU player that is your customer? You said at your April briefing that some customers had completed their development efforts and would be going into volume production, but how has that progress been?

A: While we are aware that a growing number of diverse semiconductor development efforts are underway, we think it will take a little more time before demand for testers for volume production materializes. We are looking forward to 2024. AI chips for servers cannot go into volume production until both the chips that the hyperscalers are developing in-house and the related semiconductors such as GPUs and HBMs are ready. Foundries, OSATs, and other players also need to finish capacity additions at their volume-production facilities. For example, our GPU customers will be able to move into volume production if those capacity additions become a reality.

There are also companies working to develop chips for non-server applications, but they will need to assess market conditions before finalizing their volume production plans.

Q: Could you tell us about the test time for high-end SoCs? Assuming that they are on the same process node, how long is the per-chip test time for an AI processor versus a smartphone processor?

A: We will refrain from speaking to specific test times as that is the confidential information of our customers. However, the AI processors used in data centers, for example, require higher levels of quality assurance. We expect test volume to increase during the wafer and packaging testing for chips with mission-critical applications as our customers alter temperatures and other environmental characteristics, along with other parameters when testing.

#### 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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