

Advantest Corporation
FY2021 1Q (Three months ended June 30, 2021) Financial Briefing
Q & A Summary

July 28, 2021

Q: Trends such as the increasing prevalence of system level tests (SLTs) and chiplets, the expansion of the Chinese market, and the drive to reduce server power consumption are presenting Advantest with a diverse range of business opportunities. Taken as a whole, these trends suggest that structural change is underway in the tester market. Which driver of structural change does Advantest think is the most significant?

A: Technological advances, such as those that are adding to semiconductor functionality or reducing their power consumption, are very strong tailwinds for Advantest. Node shrinkage and increasingly complex production techniques have always led to a greater role for testers in ensuring semiconductor quality, and we expect for that to remain the case. Moreover, advances in chiplets and other devices with 3D structures will encourage manufacturers not only to thoroughly test individual chips, but additionally to perform SLTs to ensure the quality of the device once the multiple chips have been integrated. This will also serve as a tailwind for test demand growth.

Q: Shipments of semiconductor production equipment to China are up, but some believe that that is because China is ordering more than it actually needs out of fear of harsher sanctions from the US. What is Advantest's thinking on the Chinese market?

A: Most of our memory tester sales in China are to Chinese companies, but our SoC testers serve a mixture of demand from Chinese and non-Chinese customers. We do not believe that there is China risk associated with all the growth from China. While we do expect ongoing risk associated with national economic security interests, we do not believe that it would be easy for the US and China to maintain supply chains that completely exclude one another and think it unlikely that they would impose sanctions on one another that cause significant damage. That said, we are unsure what might happen politically and therefore remain vigilant.

Q: Did the overshoot in 1Q orders owe primarily to artificial demand from China and other regions?

- A: The growth we saw in 1Q orders owed in part to customers placing orders to cover needs farther in the future than usual because of the longer lead times for our testers, but we still see that growth as real demand.
- Q: I believe that longer test times for high-end SoCs played a role in 1Q growth in tester orders. How much longer are test times now than they have been in the past?
- A: Quantifying the growth in test times for high-end SoCs is difficult as they differ from device to device. Generally speaking, the finer the process rules the more complicated the device is, and the longer test times are. We expect this to remain the case.
- Q: Brisk orders in 1Q typically contribute to sales growth the following quarter. However, you are guiding for a QoQ decline in sales in 2Q. Is this because of the longer lead times?
- A: Our lead times are now at roughly six months rather than the usual 3-4 months because of difficulties in procuring semiconductors and electronic components. We are forecasting a slight QoQ decline in sales in 2Q in part because the order-to-sales cycle looks different than it has before. However, the number we have issued is somewhat conservative in light of the likelihood that we will be able to source sufficient parts and materials. We see ample possibility of our sales beating our guidance if our procurement efforts prove successful.
- Q: Could you speak to how successful you have been at further penetrating the market with the V93000 EXA Scale that you unveiled last year?
- A: We are seeing very good adoption among our key customers. We have established a broad installed base covering everything from engineering needs for individual customers' newly designed products to mass production needs. We see the V93000 EXA Scale as a product that will make substantial contributions to our SoC test business.
- Q: You raised your full-year order outlook for FY2021 by ¥50 billion. Could you break that down by application?
- A: Most of the upward revision to our order guidance owes to an increase to our outlook for SoC testers, which breaks down to nearly 70% for computing/communications; just over 20% for automotive, industrial machinery, and consumer products; and almost 10% for DDICs.
- Q: It might be too early to ask, but how big do you expect the tester market to be in 2022, and what factors do you expect to drive change in the size of the market?

A: In part because of the longer lead times for our products, we have even poorer visibility than usual on 2H FY2021 and beyond, making it difficult to predict what lies ahead. Moreover, our major customers have not yet finalized their tester investment plans for 2022. That said, based on the information we have been able to gather, we expect the 2022 tester market to be on par with or greater than that of 2021. This is a good year, and we believe that these positive conditions will persist in 2022.

Q: You raised your full-year order outlook for FY2021 by ¥50 billion. If you were to split that ¥50 billion into the part that owes to temporary growth driven by the semiconductor shortage and the part that owes to structural demand growth stemming from advances in semiconductor technology, what would those percentages look like?

A: It is difficult to break test demand down accurately by individual drivers, so my response will be based on my perception, but I believe that the primary driver of order growth is an increase in real demand spurred by technological advances. Investment in node shrinkage continues, and in recent years—including 2021—migration to more advanced process nodes has become an annual occurrence. With each migration, semiconductors become more complex, and lead times grow longer. It is this trend that has driven the growth in our orders, and we expect for it to continue for some time.

Q: You also increased your estimate of the CY2021 tester market. Could you share your current market share outlook?

A: We now estimate the size of the CY2021 SoC tester market at \$3.8 billion, a \$400 million increase versus our estimate as of April. \$250 million of the increase relates to computing/communications and \$150 million to automotive and other applications. Based on this revised estimate, we expect our share of the SoC tester market to be around 50%. We meanwhile raised our estimate of the memory tester market by \$100 million versus where it had been in April. DRAM and flash memory each account for roughly half of that increase, and based on that assumption, we expect our share of that market to also be around 50%.

Q: Because of the upward revision that you have made, your FY2021 sales guidance is now above the ¥350-380 billion range set as your target under your second mid-term management plan, which you released in May. Given the prospects for the business environment over the next three years, I feel that you already need to increase the mid-term targets you unveiled in May. What is your latest view on the business environment over the mid-term?

A: We formulated our second mid-term management plan based on our outlook for the industry as of April, but it is true that we are currently performing quite a bit better than what we had

assumed at the time. However, we do not yet have an outlook based on which we could confidently revise our current mid-term plan. Even if conditions remain favorable through FY2022, we may see a slight decline in FY2023. On the other hand, we also see potential upside. In response to the semiconductor shortage, we are seeing plans for factories cropping up one after the other around the world as manufacturers work to increase their capacity to supply semiconductors. We may see another substantial wave of tester demand when those factories go into operation.

Q: What parts or materials seem to be in short supply at the moment? Also, how are the ongoing lockdowns in Malaysia affecting you?

A: I will refrain from mentioning any specific suppliers by name, but I will say that we are seeing parts and materials shortages such as we have never experienced before in that they are quite wide-ranging and may take several years to fundamentally resolve. As such, our ability to procure parts and materials for our products is quite restricted. In response to this, the industry is working to stabilize procurement so that we do not find ourselves in a situation where testers cannot be produced because of the lack of semiconductors and semiconductors cannot be produced because of the lack of testers. As regards the lockdowns in Malaysia, we are not seeing any major impact and have been able to maintain our production capacity.

Q: Could you tell us when it was that you decided to upgrade your earnings guidance?

A: In part because of how substantial our January-March 2021 orders had been, we as of April had anticipated a downturn in April-June orders. However, we booked a succession of sizable orders at the end of April, in May, and in June, which put us well above our earlier assumptions. We had not foreseen such a development when we formulated our initial earnings guidance in April.

Q: Your revised full-year guidance for FY2021 assumes sales will be flat between 1H and 2H. Is this outlook based on your assumption that the tight supply of parts and materials will not be easily resolved? Could you describe the assumptions that underlie your procurement plan?

A: Given the global shortage in semiconductors, we think that the situation with the procurement of parts and materials is unlikely to improve rapidly. As such, our revised full-year sales guidance is based on the level of parts and materials we believe we will be able to consistently procure. Should the situation with procurement improve with the passage of

time, we may be able to achieve the sales we are targeting based on the current procurement plan somewhat earlier than we are anticipating.

Q: You took a stake in PDF Solutions last year. Could you tell us what benefits you have seen from that partnership? Just about one year has passed since you formed that partnership, but how would you assess what you have achieved from an ROIC perspective?

A: This initiative was based on our mid-term ambition to expand our software business by getting directly involved in the field of data analytics. As such, we had from the outset not planned on generating ROIC in the short term. Thus far, we have implemented our cloud environment on their cloud platform, rolled out a variety of applications in that environment, and seen usage among our customers expand. We have yet to achieve any outwardly visible expansion in our software business, but if we include the overall ripple effects that this initiative has had for our business, we have already seen benefits from the partnership. We have joint development efforts underway with customers that should lead directly to hardware sales for us, so if we consider the tester sales that we have generated as a result, I believe that we have already recouped quite a bit of our investment.

Note

This document is prepared for those who were unable to attend the information meeting 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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