

【Samsung Electronics Q1 Earnings Call】

[OPERATOR]

Good morning and good evening everyone, and welcome to the Samsung Electronics 2024 first quarter financial results conference call. I will be your coordinator.

At this time, all participants are in a listen-only mode until we conduct the question-and-answer session following the presentation. As a reminder, this call is being recorded.

Now, I would like to turn the conference over to Daniel Oh, EVP & Head of Investor Relations. Please go ahead.

Thank you, coordinator. Greetings, everyone, and welcome to Samsung Electronics' 2024 1st quarter earnings call. Thank you for joining us today.

For today's call, the following representatives from different business units are participating:

Starting with EVP Jaejune Kim, representing Memory;

VP Tommy Kwon, for System LSI;

Joining the call for the first time, for Foundry, VP Taejoong Song;

for Samsung Display Corp, EVP Charles Hur;

For the Mobile eXperience business, VP Daniel Araujo (다니엘 아라우호), and

last but not least, for Visual Display, VP KL Roh

We also have other business representatives joining the call to answer any questions, if necessary, for the Q&A session later.

Please also note that on the Samsung Electronics investor relations website at www.samsung.com/global/ir, you can find our earnings press release and

presentation deck, which are intended to supplement our prepared remarks during today's call.

I want to remind you that some of the statements we will be making during this call are forward-looking based on the environment we currently see. They are subject to certain risks and uncertainties that may cause our actual outcomes to differ materially from those expressed in today's discussion.

A webcast of this call will also be archived on our website. The information we're giving you on the call this morning is as of today's date, and we undertake no obligation to update the information subsequently.

First, I will start with our 2024 1st quarter consolidated financial performance.

Our revenue came in at 71.9 trillion won, up 6% quarter-on-quarter, thanks to strong sales of the flagship Galaxy S24 smartphone series and the effects of higher ASPs in Memory, led by improved memory market conditions.

Our gross profit was 26 trillion won, up 4.4 trillion won sequentially, attributable mainly to improvements in the cost of goods sold in Memory and the smartphone mix in the MX business. Gross margin was up 4.2%pts to 36.2%.

SG&A expenses increased 0.6 trillion won quarter on quarter to 19.4 trillion won as R&D expenses increased. However, as a percentage of sales, SG&A expenses decreased by 0.8%pts to 27% due to the increase in sales.

Operating profit increased 3.8 trillion won sequentially to 6.6 trillion won mainly thanks to improving IT market conditions, and operating margin increased by 5%pts quarter on quarter to 9.2%. We attribute the gains

primarily to the Memory business returning to profit as it achieved strong growth by addressing the demand for high-value-added products such as LPDDR5x and enterprise SSD; and to the MX business booking higher profits driven by robust sales of flagship smartphones. In addition, the Visual Display and the Digital Appliances businesses recorded higher profitability, while Display saw profits decline quarter on quarter due to weak seasonality.

Regarding currency effects, the Korean Won showed overall weakness against major currencies during the quarter, resulting in approximately 0.3 trillion won of consolidated operating profit, compared to the previous quarter.

Now, moving on to capital expenditures.

Capex in the first quarter increased by 0.6 trillion won from the same period last year to 11.3 trillion won, of which 9.7 trillion won was invested in the DS Division and 1.1 trillion won was invested in Display.

For Memory, we continued to invest in R&D to solidify our technological leadership. In the quarter, our investments focused on facilities and packaging technology to address the demand for HBM, DDR5, and other advanced products.

For Foundry, investments focused on establishing the infrastructure to meet medium- to long-term demand and on advanced R&D while we adjusted facility investment in line with market conditions.

In Display, we continued to invest in preparations for IT OLED products and advancing technology in flexible displays.

I will now share some of our key activities in sustainability management.

First, Samsung Electronics earned an overall rating of AA in the MSCI ESG Ratings during this quarter, the highest level among peers in the Korean ICT industry.

We improved our overall rating by one notch as our commitment to sustainability management led to improvements in the social and governance categories.

Specifically, we made substantial gains in the areas of human capital development, raw material sourcing and corporate governance.

Second, regarding water resource management, and building on last year's achievement at the Hwaseong Campus, our manufacturing sites in Giheung, Pyeongtaek, Suwon, Gumi, and Gwangju, along with Xian in China, achieved Platinum certification from the Alliance for Water Stewardship, a testament to our outstanding water stewardship.

Furthermore, we continue to progress on numerous other fronts in water resource management—including signing MOUs with government agencies and local governments—to achieve zero increase in the DS Division's water intake and restore water 100% for the amount used by the DX Division by 2030.

As a responsible corporation to our stakeholders, we maintain committed to strengthening sustainability management and expanding ESG initiatives throughout our business.

Next, I would like to address the first quarter dividend.

Today, the Board of Directors approved a quarterly dividend of 361 won per share for both common and preferred stock.

Based on the current dividend policy, the total quarterly payout is 2.45 trillion won, which will be paid toward the end of May.

Now, without any further ado, I will turn the conference call over to the representatives from each business unit to present first-quarter performances and outlooks for their respective business segments in more detail. The Memory Business will start the next session followed by S.LSI, Foundry, Samsung Display, Mobile eXperience, and Visual Display. We will start with EVP Jaejune Kim of the Memory Business.

Good morning,

This is Jaejune Kim from Memory Global Sales & Marketing.

In the memory market in the first quarter, we saw customers' overall purchase demand was strong due to market expectations that prices will keep rising.

For server and storage, the demand for generative AI showed solid trend, and the demand for DDR5 and high-density SSDs stayed strong following the previous quarter.

In particular, the high-density SSDs linked with generative AI showed additional demand growth, as customers' upside demand surged.

In the case of PC and mobile, content-per-box continued to grow for both DRAM and NAND.

Furthermore, demand remained strong following the previous quarter, thanks to an active sell-in mainly driven by Chinese mobile OEM customers.

Along with the increase in ASP, we achieved qualitative growth of the business by addressing the demand, focusing on high value-added products such as HBM, DDR5, server SSD, and UFS 4.0 and so on. As a result, our memory business returned to profit.

Now, let's move to the outlook for the second quarter.

We expect the industry's recovery trend to continue throughout the quarter, mainly led by the demand for generative AI.

In particular, the continuously increasing supply of AI servers and subsequent expansion of associated cloud services should increase the demand for not only HBM, which is directly linked with AI, but also conventional servers and storage in parallel.

Therefore, we expect overall server-related demand to remain strong.

And for mobile, as the sell-in drive mainly led by Chinese OEM customers continues, demand is expected to be stable in the second quarter as well. However, for PC, under the effects of slow seasonality, it appears that in the second quarter, customers are likely to temporarily adjust their finished-goods inventories in distribution channels in preparation for new product launches focused on on-device AI in the second half of the year.

Thus, in the second quarter, it is expected that the demand centering on server and storage products will be getting strong and, in addition to this, as supply constraints for cutting-edge products are expected in the second half of the year, the overall increase of market prices is predicted, although there might be differences by application.

In this market environment, in order to optimize our business portfolio, we plan to allocate production more to server and storage related products such as HBM, DDR5, and high-density SSDs than to PC and mobile products.

From a product deployment standpoint, we started mass production of HBM3E 8H this month to address the demand for generative AI, and we plan to mass-produce 12H products within the second quarter.

Also in the second quarter, we plan to strengthen our leadership in the server market by mass producing a 128GB product based on 1b nanometer 32Gb DDR5 and shipping it to customers.

Also, for NAND, we plan to expand SSD sales for servers and timely respond to AI demand by developing and providing samples of ultra-high-density 64TB SSDs during the second quarter.

In addition, we will enhance our sustainable technology leadership by mass producing V9 for the first time in the industry.

Now I will share our outlook for the market in the second half of the year.

We expect business conditions to stay positive despite some volatility related to macroeconomic trends, geopolitical issues, and so on.

As industry supply of HBM improves in the second half, we expect the spread of AI servers to accelerate, and thanks to this, associated cloud services are also expected to expand further.

Sequentially, this should lead to increased demand from not only AI servers but also conventional servers and storage, and we expect this virtuous circle to clearly occur.

As for PC, replacement cycles of some products that showed significant sales growth during the pandemic is expected to be approaching.

In addition, we expect to see positive impacts on set shipments and content-per-box, thanks to the growth in the number of on-device AI featured models which will be newly launched in the second half.

For mobile, we expect the demand in terms of content-per-box to be robust with the spread of On-device AI, but there are chances that growth in set demand will be limited in the second half as customer inventories in distribution channels have increased somewhat due to the customers' active sell-in in the first half of the year.

Likewise, we expect memory demand to stay strong in the second half, mainly around generative AI.

However, on the supply side, we expect to see constraints in overall bit production as capacity concentrates on HBM in DRAM, and industry's limited execution of capex in NAND has continued since last year.

Therefore, we plan to flexibly adjust our product mix in accordance to demand for each application, and actively respond to demand for high value-added products for AI.

In the case of HBM, we will continue increasing supply and expanding capacity, in order to respond to growing demand for generative AI.

In addition, we also plan to accelerate the ramp-up of our industry's first developed HBM3E 12H product in line with the increasing needs for high-density products in the industry.

In DRAM, we plan to accelerate 1b nanometer based 32Gb DDR5 supply with fast ramp-up speed, and further strengthen our competitiveness in the high-density DDR5 module market, which is linked with AI servers.

In NAND as well, with the growth of AI demand, we will improve our profitability by proactively addressing the demand for high value-added server products, such as V8-based Gen5 SSDs, high-density V7 QLC SSDs and so on.

In addition, based on our industry-first experience entering the UFS 3.1 market with QLC technology, we plan to introduce a QLC solution further to the UFS 4.0 market in the second half, thereby strengthening our product competitiveness in the mobile market.

For V9, following the industry-first mass production of TLC in the second quarter, we plan to further enhance our technology leadership by mass producing QLC in the third quarter.

We will continue to strengthen our market leadership based on leading-edge technologies and timely execution of investments.

Thank you.

Good morning, this is Tommy Kwon from the System LSI Business.

In the first quarter, the U.S. Manufacturing PMI exceeded 50, indicating a rebound in market sentiment in manufacturing industries as well. This, along with reduced semiconductor inventory levels, has helped stabilize component prices upward.

However, macroeconomic uncertainties have been exacerbated by global conflicts, volatile oil prices, and fluctuating exchange rates. Although smartphone production increased in the fourth quarter, early indicators this year suggested a slowdown in sell-out rates

During the first quarter, we increased our supply of SoCs and sensors for key product launches. Demand for on-device AI and high-resolution features continue to drive our production. However, Display Driver IC (DDI) sales have dropped due to decreased panel demand, and overall performance improvements have been slower than anticipated.

In the second quarter, the external economic pressures on consumer spending could challenge smartphone manufacturers in passing increased Bill of Materials costs onto consumers. The need to reduce component prices is becoming more acute, as manufacturers may use early slow sell-out rates to justify price negotiations.

Despite a slow start, smartphone sell-out is now showing signs of recovery, highlighting on-device AI as a significant growth opportunity for us. We remain committed to ensuring a stable supply of flagship SoCs. We are gearing up to deliver more advanced process product for new wearable device.

For mobile sensors, channel inventory is at a healthy level, and major SET manufacturers' sell-in targets continue to grow year-over-year. We anticipate high utilization rates in Q2 as well, including the mass production of 50M big

pixel sensors. Our Fab lite strategy will bolster our ability to meet timely pixel wafer demands.

Regarding DDIs, we are focused on maintaining market leadership with 22-nanometer low power chips, expecting performance enhancements from upcoming IT and TV product releases.

Looking at the year as a whole, the increase in Bill of Materials costs associated with the adoption of On-Device AI, we are encountering intensified pressure for component pricing. The impact of this pricing pressure are likely to be uneven across components, influenced by selective specification downgrades within the smartphone line-up. We are proactively planning to adjust our product mix to navigate these challenges effectively.

Thank you.

Hello everyone, this is Taejoong Song from Foundry Business.

In the first quarter, weak market demand due to seasonal effects caused a delay in sales improvements in addition to the continued inventory adjustments at major customers. Even so, we narrowed our losses slightly by operating Fab efficiently.

Advanced technologies such as 3- and 2-nanometer are under development smoothly, and in particular, yield of 4-nanometer technology has been stabilized and significantly expanded product output of Tier-1 customers. Thanks to this improvement in advanced technologies, we achieved our highest ever order backlog for the first quarter.

In the second quarter, amid a likely gradual recovery in market conditions, the winding down of inventory adjustments at customers and increases in our line utilization should lead sales to rebound and reach double-digit quarter to quarter growth after bottoming in the first quarter.

In addition, we will strive to keep expanding business in advanced technologies by completing the development of 2-nanometer design infrastructure, and preparing for 3D IC based 4-nanometer technology. For mature technologies, we will also strive to enhance infrastructure for various applications, to be specific 14- and 8-nanometer.

Meanwhile, in June, we plan to hold Samsung Foundry Forum event in the US to share our vision for Samsung AI solutions.

In the second half of this year, as uncertainties are likely to exist in finished goods markets, we expect limited growth for foundry market. Despite the uncertainties, we expect to outpace the market growth rate in annual sales thanks to increased sales of leading-edge technologies.

In addition, we will start mass production of the second-generation of GAA 3-nanometer technology, and improve the maturity of 2-nanometer technology to expand orders focusing on AI, HPC in addition to mobile application.

That concludes the key messages from the Foundry Business.

Thank you.

Good morning,

This is Charles Hur from the Corporate Strategy Team
at Samsung Display.

I will now brief you on our results for the first quarter of 2024.

For the mobile display business,

Even though our performance declined quarter-on-quarter due to intensifying competition, we responded to the launches of a major customer's high-end smartphones with timely supply.

In rigid displays, we improved our utilization rate based on our sales increase.

For the large display business,

Despite weak demand and off-season effects, we narrowed our losses by introducing new QD-OLED monitors and strengthening our customer base.

Next, I will share our outlooks and strategies for 2Q and 2H.

For the mobile display business in the second quarter,

It is expected for sales to increase ahead of the launch of our major customer's foldable phone and growing demand for IT products. However, intensifying competition among panel makers is likely to limit earnings growth.

For the large display business,

We will address demand for TV panels from our major customers.

Also, we will strive to boost the sales of premium monitors where market expansion is expected.

For the mobile display business in the second half of the year,

In regards to the smartphone market,

We expect the market to grow moderately, and in particular, the OLED penetration rate is likely to keep rising.

For flexible displays, we will remain committed to maintaining our competitive edge and expanding sales through our differentiated technologies that deliver low-power consumption, enhanced durability, and more.

In rigid displays, we will continue to replace LCD by accelerating cost reductions.

In addition, we will strive to diversify our business portfolio by increasing the portion of our IT and Auto businesses, thereby strengthening operational stability.

Finally, for the large display business.

We will achieve year-on-year revenue growth by two methods. First, we will increase capacity without additional investments but instead we will focus on improving production efficiency of QD-OLED panels. Second, we will enhance our product mix around high-value-added offerings.

Thank you.

Hi everyone, this is Daniel Araujo from the Mobile eXperience Division.
I'll be sharing our results for Q1
and discussing the outlook for the MX Business.

As the smartphone market entered into the seasonally lower Q1, the premium and mass segments decreased sequentially in both volume and value.

The MX business recorded smartphone and tablet shipments of 60 million units and 7 million units, respectively, and smartphone ASP was \$336.

Despite the market decline, we achieved revenue and operating profit growth due to strong sales of our first AI phones, the S24 series.

In particular, Galaxy AI features in the S24, such as Circle to Search, have seen continued high usage rates and contributed to sales expansion.

Through this, MX's overall revenue grew, and even as we see component prices beginning to rise, we maintained solid double-digit profitability with our efforts to streamline resources.

Moving forward to Q2, the overall demand for smartphones will decrease QoQ due to continued seasonality effects.

The MX business in Q2 expects to see a decrease in smartphone shipments and ASP while tablet shipments should stay similar sequentially.

We plan to maintain our flagship-oriented sales and up-selling approach as we apply the S24's AI experience to other flagship models and maximize product competitiveness, and we'll push for continuing sales of the Galaxy S series by strengthening communication, especially around Galaxy AI functionality.

Externally, with escalating geopolitical instability, as well as price hikes in key components that are likely to materialize, we'll strive to secure solid profitability by continuing to streamline operations. At the same time, even in this difficult environment, we remain committed to investing in R&D, including in AI.

Looking further ahead to the second half of the year, while the smartphone market contracted in 2022 and 2023 amid prolonged economic uncertainty, it's expected to turn around this year thanks to stabilizing consumer sentiment following the Fed's signaling of interest rates cuts this year, an expansion of AI products and services, and economic growth in emerging markets.

Similarly, the tablet market is expected to bounce back after contracting in 2022 and 2023 following the surge in demand related to remote work and education in 2021. Both volume and value are projected to rise in 2024 in line with the replacement cycle.

For wearables, a double-digit increase in value is expected in the smartwatch market, driven by consumers looking to upgrade, given increased interest in health-related features since the pandemic.

Meanwhile, TWS is expected to experience double-digit growth in both volume and value due to continued mass market volume growth as well as the release of new models from major vendors in the second half.

In the MX Business, we're aiming for annual smartphone sales growth as we maintain sales momentum by applying Galaxy AI beyond the S24 to existing flagship products.

For our new foldable devices in the 2nd half, we're planning to once again drive forward with the mainstreaming of foldables by improving the user experience and optimizing AI functionality for these form factors.

In tablets, we started providing Galaxy AI functionality in the Tab S9 series and we will continue to improve the user experience as we pursue sales growth focused on premium devices.

For wearables, we plan to strengthen the Galaxy Ecosystem experience by expanding sales of new models that will be launched in the 2nd half.

First of all, we plan to release the Galaxy Ring, a product with a new form factor designed to be worn comfortably 24/7. With the Galaxy Ring, we expect to improve our customers' sleep and overall daily healthcare.

We also plan to release new premium smartwatch models which will meet upgrade demand, and in TWS, we aim to expand sales with new products in the 2nd half that have highly improved competitiveness thanks to an innovative design and exceptional sound performance.

To address rising component costs, we'll continue to make efforts to realize operating efficiencies so that we can secure solid annual profitability.

And, even if the external situation is not favorable, we're committed to our role as a first mover pioneering the mobile AI experience.

We will continue R&D and proactive AI investments in order to advance and expand Galaxy AI, as we prepare for the future.

Thank you.

Hello, everyone.

I'm KL RHO from the Sales and Marketing Team of Visual Display.

Let me brief you on the market conditions and our results in the first quarter of 2024.

TV market demand decreased quarter-on-quarter after the year-end peak season, but the demand for QLED, OLED, and Big TVs above 75 inches remained solid.

Samsung solidified its leadership in the premium market and increased profitability quarter-on-quarter by focusing on premium products such as Neo QLED, OLED, and Big TVs above 75".

However, profitability decreased year-on-year due to stagnant TV market demand overall and increased costs caused by intensified market competition.

Next, I will share our market outlook and strategy for the second quarter and 2024.

We expect overall market demand to continue to decrease as TV demand is projected to decline in emerging markets; however, we believe there are still chances to achieve sales growth via opportunities such as global sporting events.

We will work to secure profitability by increasing sales of strategic products with our differentiated launch of 2024 models; and also by strengthening operational management in each business segment.

As for the second half of this year, we believe overall TV demand will recover gradually, but macroeconomic and geopolitical uncertainties are likely to continue.

Despite the uncertainties, we will continue to target the demand in various segments while promoting "AI Screen Leadership" driven by the innovation of premium TVs and Lifestyle screens.

Also, we will provide differentiated customer experiences through synergies with connected devices.

To lead the market growth, we will actively promote our advanced features involving Security and Sustainability, and boost our competitiveness in service businesses such as TV Plus.

Thank you.

Thank you, everyone. That wraps up our prepared remarks. The following Q&A session will be held in Korean and translated simultaneously to English.

Let's open the line for questions.

<Q – Sung-kyu Kim>:

I have one question for Memory and Display each. Could you provide more details about first quarter performance for Memory? And then what is your outlook for second quarter performance as well?

And also, for Display, recently, it seems that for foldable display, there are some concerns that the gap between you and the next player -- next competitor is narrowing. So can you explain your strategy in terms of how you intend to maintain that competitive gap?

<A>:

- Let me answer your question on our memory performance first.

In the first quarter, we saw a surge in demand from generative AI, and so we expanded our mix of high value-added products, including HBM and server SSD, and we focused on improving profitability through improved ASP over bit shipment growth as we undertook a qualitative improvement of our business portfolio.

As for bit growth, DRAM declined by mid-10%, NAND by a low-single digit, but the rise in ASP was actually above market expectations, nearly 20% for DRAM, low-30% for NAND. So this helped turn around the Memory business to profit for both DRAM and NAND. And due to rise in pricing, we were able to write-back provisioning on inventory valuation loss, which also contributed to our profits.

In the second quarter, we expect the business cycle to continue to improve, and the rise in ASP trend is also expected to continue, so we will maintain the same operational stance as we did in the first quarter.

As inventory levels improve and amid limited available supply, we are also focusing our production capacity on HBM, so we expect additional supply

constraint for advanced node processes for DRAM. Thus, we intend to focus mostly on addressing real demand. As for the bit growth for the company, we're expecting to be in the low-single-digit to mid- to high-single-digit range for DRAM, maybe similar to prior quarter for NAND.

In terms of the product mix, to address the surge in demand for advanced products driven by generative AI, we intend to expand our sales of advanced products for server application, and so DRAM bit growth is expected to be over 50% Y-o-Y, over 100% for server SSD. And so we hope to maintain our momentum for improved earnings into the second quarter. Thank you.

- I'll take your second question on SDC.

We started mass production of foldable displays in 2019, an industry-first, and have since been growing by accommodating launches of new products by various customers, including Samsung Electronics.

One of the most crucial points requested by our customer is to minimize the crease. We are developing various ways to reduce the crease, such as by improving materials and optimizing the curvature, radius, and foldable stacked structure.

The foldables to be released this year will reflect our latest technologies, bringing visible effects to the products. SDC will reduce the crease, increase durability against scratches and marks, and improve functions, such as low power. Through this, we will expand the quality gap between our competitors.

We are developing new form factors beyond existing products, including out folding, in-and-out folding, and slideable. Through discussions with our customers, we will timely launch new products. Thank you.

<Q – Sei-cheol Lee>:

I have a question on Memory and your Foundry business as well. First, on Memory. Recently, regarding HBM, there's a lot of market interest. So for next year, what is the size in terms of your HBM supply? How much supply expansion

are you planning? And could you provide us an update in terms of your HBM3E business?

And the second question has to do with Foundry. So your U.S. investment in the foundry fab, what is the direction for that investment? And what is your mass production timeline for the Taylor Fab in the short-term?

<A>:

- Let me address your question on HBM first.

In 2024, our HBM bit supply actually has been expanded by more than threefold versus last year. And we have already completed discussions with our customers for that committed supply. In 2025, we will continue to expand supply by at least 2x or more year-on-year. And we're already in smooth talks with our customers on that supply.

For HBM3E business initiative, while everything is moving along smoothly in line with customer timelines, we've already commenced early mass production for 8-layer. And we expect revenue to start to be recognized at the end of the second quarter at the early end.

And the main trend in generative AI is an increase in parameters and multimodality service expansion, leading to greater needs for high-density HBM. So we have already shipped samples of our 12-layer HBM3E, which was the first in the industry, with planned mass production for the second quarter of the year. And for a 12-layer product that supports a high capacity, 36-gigabyte capacity, well, we are deploying TC-NCF technology, which is very strong in stacking. So this gives us a very leading product competitiveness.

So with this product lineup, including the 12-layer, we intend to address the surge in demand as we expand our HBM business more quickly. We're going to make a quick transition to 3E in the second half of the year and focus on preemptively capturing high-capacity HBM demand. We expect the HBM3E mix to account for more than 2/3 of the total HBM sales volume by the end of the year. We will continue to build on our HBM supply capacity and technological competitiveness in order to establish strong leadership in HBM.

- Let me take your second question on our foundry investment in the U.S.

The purpose of the investment is to respond to demand for leading-edge semiconductor chips and also to contribute to global supply chain stability, which is why we decided on the Taylor Fab investment in '21.

We have signed a preliminary agreement with the U.S. government, and the scope of investment was expanded to include R&D and advanced packaging lines. We're expecting to execute \$40 billion going forward. However, final talks with the U.S. government still remain, and so things are subject to change. And so we are mindful of changing market conditions in Foundry. And given our approach of gradual investment in line with customer orders, we expect mass production to begin maybe 2026.

<Q – Nicolas Gaudois>:

The industry has perceived DRAM as being the main beneficiary for generative AI in memory, but we recently see hyperscale customers asking for high-density, fast write speed, solid-state drive solutions for AI servers, in particular to support training. Could we use flash for AI training and inference become a more meaningful demand driver? And how is Samsung preparing for it?

<A>:

So the impact on NAND demand from expansion of generative AI was your question. Well, recently, generative AI models continue to evolve in both training and inference. We're seeing an increase in requests for SSD supply. First, for training, so as AI parameters increase, the size of training data becomes proportionally bigger, leading to higher performance and data storage needs. So we're seeing a lot of incoming requests from the customers for Gen5 8-terabyte, 16-terabyte solutions, which have more than doubled I/O performance and capacity, compared with Gen4 4-terabyte SSD.

In inference, in order to improve coherence, vast amounts of database storage is required. So we're seeing increase in inquiries from customers for ultra-high-density SSD solutions, such as 64 and 128-terabyte. Traditionally, we are very strong in server and storage SSD, with relatively solid market leadership. So we expect to be able to address this demand with high priority.

So as the generative AI market grows, leading to demand growth not only for HBM, DDR5, and DRAM products, we clearly see that it is helping SSD demand grow as well. So we have a full lineup of SSD products, including TLC Gen5, and ultra-high-density QLC. Accordingly, we will respond to rising demand using our products. Our server SSD shipments this year is expected to grow 80% Y-o-Y, and also bit sales volume for QLC server SSDs is expected to surge 3x in the second half versus the first half of the year.

<Q – Gil-hyun Baek>:

I have a question on MX business. Second quarter has shown a trend of having the lowest profitability. How about this year? How do you think about the profitability and sales this year? Will BOM stay on its trend, and can you reach double-digit profitability?

<A>:

So profitability in Q2 is expected to be down slightly compared to Q1 and Q3, which is when we release new flagship products each year. In Q2, continuing from the first quarter, we expect to see cost increases of major components for Memory in particular, and there are also risks of rising geopolitical instability. In response, we're focusing on cost competitiveness throughout the R&D, manufacturing, and sales processes to achieve solid profitability.

At the same time, we're continuing to work on mix improvements, including by boosting flagship sales through the expansion of models that support Galaxy AI, promoting upselling within our smartphone lineup and expanding sales of ecosystem products. Despite the difficult environment, we will continue to invest

in AI, including AI R&D to strengthen and further mainstream Galaxy AI, all aimed at securing sustainable growth in the mid- to long-term. Thank you.

<Q – Dong-won Kim>:

Thank you for the opportunity to ask a question; one on Memory and one on Display. So this year, in your view, what is the outlook for supply and demand? And we're seeing a recovery in the business cycle. So what is your strategy on the supply side? And then, for Samsung Display, large-size QD-OLED business, what is your overall strategy for this business this year?

<A>:

So in terms of our supply-demand outlook, let me start there. Demand this year is expected to continue to recover. Driven by strong generative AI demand, server will continue to show solid demand, also, AI-based storage as well. And then, conventional server replacement has actually been postponed for many years, but that is set to accelerate amid a transition to new CPUs.

Likewise, for PC and mobile, a lot of the products that were sold early on during the pandemic are going to need replacement, and it will drive increase in on-device AI driven demand.

For mobile, due to aggressive sell-in by customers in the first half of the year, there is a bit of increase in distribution inventory, so this may act as a constraint on set demand growth in the second half.

On the supply side, for the industry, bit growth is likely to be limited. For DRAM, as most of the advanced process capacity is focused on HBM from generative AI demand, we think that non-HBM products will likely see constrained bit growth. Also, for NAND, there has been bit production constraint from reduced CapEx since last year, not to mention a natural production cut effect from node migration in our existing fabs.

Now, as we see a rapid surge in advanced process demand, we are seeing for

certain leading products a shortfall in supply relative to demand, and likely supply conditions may see additional tightening. Given the current market conditions, we expect the profitability of conventional DRAM products like DDR and LPDDR to continue to improve. For NAND, as we see growing demand for server SSD, we expect sales to increase and amid rising ASP, we expect performance improvement as well.

So building on the CapEx initiatives over the years, we want to continue to reinforce our advanced node capacity readiness so that we can smoothly capture and respond to customer demand.

- I'll take your second question on Display.

For QD-OLED, we plan to expand the scope of the self-emitting market, especially in premium TVs and monitors. Based on talks with key customers, we are building a stable sales base for TVs, and for monitors, we focus on tapping new markets by continually expanding functions and the lineups.

To give more details on QD-OLED TVs, our products are positioned in the top segment of customers' lineups based on superior picture quality and functionality.

We are diversifying product lineups with our customers. Our monitors offer excellent low-gradation, wide color gamut, and high response speed, necessary for swift scene changes and clear representations in dark backgrounds for immersive gaming experiences. Through this, we are leading expansion of the gaming monitor market.

We plan to go beyond that and enter the B2B market by further improving the afterimage and the lifespan of the products.

<Q – Jae-hyun Kwon>:

I also have two questions. First, regarding the image sensor market. It seems that the downturn is winding down, and we are seeing some improvements in market conditions. So what is the strategy in terms of your image sensor business? There

is growing interest in AI in the electronic appliance space. So what is your business strategy in terms of AI-enabled appliances?

<A>:

So let me answer the question regarding image sensors. Well, our channel inventory has largely been depleted, and since then, we have seen increased utilization rise among major camera module providers and same for us in the first and second quarter. And more set makers are demanding more differentiated camera functionality, so we are seeing rising demand for our 100-megapixel, 200-megapixel type solutions.

Through a fab lite transition, for the pixel array, we are expanding our own production capacity while expanding our supplier base for larger clients through outsourcing.

So regarding pixel wafer, we will be able to benefit from better production efficiency and also cost efficiency as well to allow for more added supply flexibility.

- VP, Sangyoon Kim representing Digital Appliances will answer the questions.

I'll take the second question. According to a market research firm, as technology continues to develop and more people are changing their lifestyles that prioritize convenience and connectivity at home, the AI appliance market is anticipated to grow on average of 10% annually. Our connected appliances can detect situations and learn patterns, providing consumers with optimal solutions. We globally launched new BESPOKE AI products, featuring such AI functionality on April 3.

Reliable security lies at the core of AI appliances. For BESPOKE AI appliances, in order for our customers to safely use products and services, we apply Samsung Knox and Knox Matrix, a blockchain-based security solution, to build a safer ecosystem.

In the second half, through Smart Forward Service, our consistent software upgrade service based on SmartThings, we will implement a large language

model to realize natural voice control similar to conversations between people and elevate AI functionality.

We will also lead the AI market and fortify AI leadership with unique connectivity experiences across mobile, TV, and digital appliances. Thank you.

Thank you for your answer. Finally, we will answer questions that were submitted online in advance. We received a wide variety of questions for this quarter as well.

And I believe the majority of the submitted questions were sufficiently answered during the Q&A session. We will answer one more question on a topic that garnered a high level of interest from our shareholders but was not addressed during Q&A.

The question is, are the strong sales of S24 due to AI functionality? Which AI functions do customers usually use? And what are some new AI features that will be introduced in the future?

VP Daniel Araujo representing Mobile eXperience will answer this question.

The S24 has outpaced its predecessor by double-digits in terms of both volume and sales, and the consumer response has been positive thanks to the series' differentiated AI functionality.

Word is spreading about Galaxy AI, given the elevated customer interest in the technology and its utility and the overall product experience. We assess consumer interest to be higher in the S24 than it was in its predecessor and that Galaxy AI is driving this uptrend. We ran a customer survey and found that almost half (46%) of S24 buyers purchased the device with the intention of using AI functionality. The improved AP, display, camera, gaming experience, and design also contributed to the S24's strong sales.

Around 60% of S24 customers regularly use AI functionality, and the most used feature is Circle to Search, an intuitive search experience. The next most used features are Photo Assist, which provides convenient photo editing, and Live Translate.

In particular, we observed that Gen Z is more receptive to Galaxy AI and use the new features more often than other age groups do.

Looking at unit growth by age group for the S24 compared to its predecessor, Gen Z shows growth that is much higher than the average for all age groups, and their usage rate of AI features also exceeds the average.

We're using big data analysis and consumer research to assess user satisfaction and usage patterns of each AI feature; and we're looking to use these findings to improve AI functionality and introduce new experiences. We're also preparing to introduce AI features that are optimized to the form factor of each device, including foldables, large screen tablets, and wearables.

Thank you, everyone, who shared their valuable opinion. And we will be sure to refer to them in our decision-making process.

That completes our conference call for this quarter. We wish all of you and those close to you stay strong and in good health. We thank everyone for joining us today.

Thank you.