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CONFERENCE CALL PARTICIPANTS

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PRESENTATION

Operator
Good day, ladies and gentlemen and welcome to the Amkor Technology First Quarter 2023 Earnings Conference Call. My name is Diego and I will be your conference facilitator today. (Operator Instructions) As a reminder, this conference is being recorded.

I would now like to turn the call over to Jennifer Jue, Head of Investor Relations, Ms. Jue, please go ahead.

Jennifer Jue - Amkor Technology, Inc. - Vice President of IR and Finance
Thank you, operator. Good afternoon, everyone and thank you for joining us for Amkor's first quarter 2023 earnings conference call. Joining me today are Giel Rutten, our Chief Executive Officer and Megan Faust, our Chief Financial Officer. Our earnings press release was filed with the SEC this afternoon and is available on the Investor Relations page of our website along with the presentation slides that accompany today's call.

During this presentation, we will use non-GAAP financial measures and you can find the reconciliation to the US GAAP equivalent on our website. We will make forward-looking statements about our expectations for Amkor's future performance based on the environment as we currently see it. Of course, actual results could differ. Please refer to our press release and SEC filings for information on risk factors, uncertainties and exceptions that could cause actual results to differ materially from these expectations. Please note that the financial results discussed today are preliminary and final data will be included in our Form 10-Q.

And now, I would like to turn the call over to Giel.

Giel Rutten - Amkor Technology, Inc. - President, CEO & Director
Thank you, Jennifer. Good afternoon, everyone and thank you for joining the call today. Amkor delivered first quarter revenue of $1.47 billion and EPS of $0.18, both above the midpoint of our guidance. These results demonstrate Amkor's strength in navigating through this industry cycle. Our automotive and industrial end-market posted another quarterly revenue records, driven by resilient demand and building on Amkor's leadership position in this market.

Our strong footprint in premium tier smartphones also generated positive results, with low-single digit year-on-year growth in our communication business. Challenging macroeconomic conditions and weakening demand in consumer and computing contributed to a total year-on-year revenue decline of 8% for the first quarter. The semiconductor industry is facing near-term headwinds, mainly caused by high inventory and weak end-market demand. Most recent market forecast projecting a further decline for this year.

Our advanced packaging portfolio accounted for 73% of first quarter revenue and has a strong project pipeline. We expect to perform better than the market, based on this leading position in advanced packaging, our broad and diverse global footprint and our focus on industry megatrends.
Now let me review the dynamics in each of our end-markets. Revenue from the communications market was up 2% year-on-year, driven by strength in our advanced SiP portfolio supporting multiple functions throughout the phone. We observed customers continuing to work through excess inventory, especially within the Android supply chain. Current estimates project smartphone units to be down low-single digits this year. However, semiconductor content in premium tier phones continues to increase and innovations are improving performance and adding functionality.

Amkor holds a leadership position in advanced packaging throughout premium tier smartphones and has a strong track-record as a trusted partner for innovative solutions and for delivering operational excellence. Revenue from the automotive and industrial market increased 14% year-on-year, driven by growth in ADAS, electrification and industrial applications.

Advanced driver assistance systems generate growth in multiple applications from cameras and high-performance processors, to sensors like radar and LiDAR. EV adoption is leading innovations in electrification, especially with the introduction of wide band gap materials like silicon carbide and gallium nitride. These materials enable improvements in power efficiency and charging infrastructure. The trend has accelerated by government initiatives to support a clean-energy transition.

ADAS, electrification, infotainment and telematics will drive continued expansion of semiconductor content per car. Market reports project automotive electronics to grow at a mid-teens CAGR for the next several years, one of the highest-growth areas in the semiconductor market. As the leading automotive OSAT with qualified manufacturing lines in multiple geographies and a broad technology offering, we expect ongoing strength in this market.

Revenue from the consumer end-market decreased 43% versus the first quarter last year. We observed multiple near-term headwinds impacting the consumer market including product lifecycles changeovers in the IoT wearable markets, reduced consumer demand and excess inventories. We continue to work on building the pipeline for IoT devices, utilizing our advanced SiP solutions and on diversifying our product and customer portfolio.

We recently began ramping new products for the emerging AR VR experience and expect the proliferation of IoT devices to drive revenue growth beyond to current semi-cycle. Revenue from the computing end-market decreased 17% year-on-year, driven by weakness in personal computing and storage. In data center, we support all areas from CPU, GPU, memory and AI accelerators to routers and switches. High-performance computing devices supporting artificial intelligence require the use of the latest silicon nodes and are enabled by advanced packaging [technologies] (corrected by company after the call) such as 2.5D and high-density fan-out.

In addition, innovative thermal materials we [develop] (corrected by company after the call) in our packaging solutions help our customers resolve technical challenges. With our broad advanced packaging portfolio and established relationship with lead customers and foundries, Amkor is well positioned to capitalize on opportunities in the computing market.

Our global manufacturing organization continued to demonstrate operational excellence and supply reliability across our factories. With lower capacity utilization, the team is focused on managing cost, while maintaining our high-performance standards. Geopolitical dynamics continue to impact the semiconductor supply chain. With our diversified geographic footprint, Amkor is uniquely positioned to support our customers with reliable and cost-effective manufacturing.

We are actively securing new programs with our customers, in support of diversifying and de-risking their supply chains. Investments in our new Vietnam factory continue as planned with the goal to start high-volume manufacturing late this year. Additionally, we are expanding our silicon carbide and power technology capabilities to both our Portugal and Japan factories. In the US, we continue to be actively engaged in discussions with customers, partners and economic development agencies to establish semiconductor supply chain.

Now let me turn to our second quarter outlook. We expect second quarter to be similar to first quarter, with revenue of $1.475 billion at the midpoint of guidance. For the second half of this year, we remain optimistic that demand as well as supply chain inventory will improve. We are poised to accelerate with our leading technology portfolio and diversified manufacturing in end-market footprints. We believe that the secular growth drivers for the semiconductor industry remain in place and we are well-positioned to outgrow the market.
With that, I will now turn the call over to Megan to provide more detailed financial information.

Megan Faust - Amkor Technology, Inc. - Executive VP, CFO & Treasurer

Thank you, Giel and good afternoon, everyone. First quarter revenue of $1.47 billion exceeded our guidance midpoint. Year-on-year, revenue was down 8%, a decline that reflects the current semiconductor cycle. We believe that Amkor's diversified end-market exposure is mitigating cyclical variability and will provide stability and resilience as we work-through this cycle. The automotive and industrial end-market representing 26% of our Q1 revenue continued to run at record revenue level.

Our technology leadership in advanced packaging enabled us to win new programs in premium tier smartphones, growing our revenue and market share year-on-year in the communications end-market despite challenging market condition. The resilience in these markets partially offset the softening of the consumer and computing end-markets, which are being impacted by macroeconomic factors and inventory build up in the supply chain.

Our enhanced focus on cost discipline during a downturn is essential to maintaining profitability and generating free cash flow throughout the cycle. As a reminder, our financial model allows for significant incremental flow through to gross margin of around 40% as revenue increases. The same model applies when revenue declines, profit drops faster than revenue.

Gross margin for the first quarter was 13.2% and gross profit was $194 million. During the quarter, our factory teams were able to lower manufacturing costs by around $30 million, to help offset the impact of underutilization and foreign currency losses. Headcount control, overtime reduction and reduced work weeks, all contributed to lower labor costs. Lower supplies and maintenance and less electricity usage contributed to a decrease in O COGS. These temporary cost containment measures are flexible tools, allowing us to reduce cost, while maintaining the ability to support the anticipated increase in-demand for the second half of 2023.

Operating expenses for the first quarter were $126 million. Research and development expense increased over Q4, primarily due to incremental new product introduction activity, including development of test solutions, supporting new products targeted to launch in the second half of 2023.

Operating income was $69 million and operating income margin for the quarter was 4.7%. Net income for the quarter was $45 million, resulting in EPS of $0.18. First quarter EBITDA was $229 million and EBITDA margin was 15.6%. Our balance sheet is strong. We ended the quarter with $1.3 billion of cash and short-term investments and our total liquidity was $1.9 billion. Our total debt as of the end of the first quarter is $1.2 billion and our debt-to-EBITDA ratio is 0.9 times. Our financial strength provides flexibility to continue to invest in our future through this short-term semiconductor cycle.

Moving on to our second quarter outlook. We expect Q2 performance to be similar to Q1. While there continues to be uncertainty with respect to the duration of the cycle, we anticipate an improved second half of the year, driven by the introduction of new phone models, resilience in automotive and industrial and more balanced inventory levels.

For Q2, we expect revenue of $1.475 billion at the midpoint, representing a year-on-year decrease of 2%. For comparability, a reminder that our Q2 2022 results were adversely affected by the COVID lockdown of our Shanghai factory. We expect gross margin to be between 12% and 14%. We expect Q2 operating expenses of around $125 million. We expect our full-year effective tax-rate to be around 17%. Second quarter net income is expected to be between USD30 million and USD70 million, resulting in EPS of $0.12 to $0.28.

We are holding our CapEx forecast for 2023 at $800 million. We are being prudent with our spend and our CapEx forecast is 12% lower than 2022. Our investment plan is focused on strengthening specific advanced packaging technology in growth areas such as advanced SiP and flip chip, as well as investments in our diversified geographic footprint.

With decades of semiconductor industry experience and successfully operating through prior cycles, we are confident in our long-term outlook supported by the industry's secular growth trend. Our technology leadership, broad geographic footprint and strong financial position enable us to continue to outperform the semiconductor market.
With that, we will now open the call up for your questions. Operator?

QUESTIONS AND ANSWERS

Operator

Thank you. (Operator Instructions) Our first question comes from Randy Abrams with Credit Suisse.

Randy Abrams - Credit Suisse AG, Research Division - MD and Head of Taiwan Research in the Equity Research Department

Yeah, wanted to ask the first question just about the application, the view on your applications. I think just from one-side, the auto industrial has been quite strong and I believe you mentioned resilience. So the outlook from here, I'm just curious if you see that strength sustaining it. We've had the foundry feedback get a bit softer from the high base and flip side on some of the applications going through correction. If you could give a view with the consumer SiP where we saw a sharp decline, if you expect that headwind or when new projects could rebound momentum? And then if you could give a comment on the other areas like PC and compute. So, yeah just curious more on the applications, how you're seeing the relative resilience and also the weakness on the consumer side.

Giel Rutten - Amkor Technology, Inc. - President, CEO & Director

Let me start trying to shed some light on the automotive and industrial part first. We experienced indeed a resilient demand in the first quarter and expect that to continue the second quarter and actually we have strong indications that, that will remain strong in the remaining part of the year, so in the second half of the year. Just as a reminder, from the foundry side, within the automotive market, there is a significant volume of silicon being produced by IBM's in their internal factory. So it's not only driven by advanced silicon from the foundry side. So we continue to expect resilient, we don't see any indications of increasing inventory in that automotive market.

Go back to the second part of your question, on the consumer system and package. Yeah, we saw some headwinds in the first quarter as we already mentioned in the earlier part of our earnings call. We see new programs coming up in the second half of the year. There was definitely also -- I had spent with respect to market demand. So going forward, we expect a recovery that will start towards the end of the second quarter, a little bit in the ongoing part of the second quarter and we feel comfortable that towards the later part of the year, there will be continued strength in this market.

I mean given -- having said that, long-term, we believe that the wearable market, specifically on the consumer side, the IoT wearable market is a product category that will further grow. It's little bit choppy short-term, it's very much exposed to the swings in-market demand, but overall we are confident that longer-term, this is a good market for us.

With respect to the other parts of our SiP portfolio, a large part of that is related at a very-high level to the swings in the communication market, whether it's on the Android side or on the iOS side and it ebbs and flows with that market. So although, we saw strength and that strength very much underpins by market-share increases in the share in the phone, specifically the premium tier phones, but it's -- we expect definitely there will be an upswing in the second half of the year attributed to the launch of new premium tier phones.

Does that answer your question, Randy?

Randy Abrams - Credit Suisse AG, Research Division - MD and Head of Taiwan Research in the Equity Research Department

Yeah, that does. I mean, if I can follow-up on the implication for second half, how do you see the inventory, do you see some spill over where it could have a bit of a dampening factor or are you seeing, I guess one on the inventory situation in the slower markets do we get through that and
get back to usual third quarter or even just factoring low base, you can pick-up from there. So just curious if this initial stage second-half view and following on that the full-year if you have a view now your outlook versus industry outlook?

**Giel Rutten** - *Amkor Technology, Inc. - President, CEO & Director*

Yeah, it’s difficult to predict what will happen exactly in the second half. I mean, in our view the share reduction of inventory which is ongoing currently in the critical markets like PC and also the smartphone market, specifically on the Android side mid range and low-end Android phones. So we expect that to further improve in the second quarter, although it has gone slower-than-expected. And going into the second-half of the year, the recovery for the communication market specifically is partly, of course, attributed to the let’s say the burn-off of our inventory and the industry inventory, but is also very much attributed to end market demand and that’s difficult to predict our macroeconomic elements with respect to consumer demand for new mobile phone models.

But overall, we are optimistic that there is much more balanced inventory situation going into the second half of the year and further improvement during the second quarter.

**Randy Abrams** - *Credit Suisse AG, Research Division - MD and Head of Taiwan Research in the Equity Research Department*

And actually that one other question I had on the [HPC] related. If you could talk, I think in prepared remarks, you mentioned high-density fan-out in 2.5D. So on HPC and especially as we talk about the AI, where a lot use the things like CoWoS, do you supply and figuring content on those areas as far as 2.5D to fan-out or is high-volume opportunity the like working on the high-end flip-chip in test? So just curious, your exposure and how you see the opportunity especially for more AI type accelerators?

**Giel Rutten** - *Amkor Technology, Inc. - President, CEO & Director*

Yes, with respect to the let’s say AI devices, the most advanced AI devices using 2.5D, we have them in production and we started producing them last year using 2.5D technology and we are ramping them further going into this year. And we believe that that will continue for the let’s say, the remaining part of this year, contributing to let’s say growth in our compute segment in general. So it is 2.5D and I think that it’s a common 2.5D technology that’s being applied for these devices, Randy.

**Randy Abrams** - *Credit Suisse AG, Research Division - MD and Head of Taiwan Research in the Equity Research Department*

And I’ll just ask one other technology follow-up. The mobile market, do you see much, I mean there is been talk about disaggregating diodes and but it’s kind of stayed as a flip-chip process. Do you see much shift in how those mobile communication and for that this high-density fan-out is there growing adoption whether in computer, mobile?

**Giel Rutten** - *Amkor Technology, Inc. - President, CEO & Director*

Yeah, it’s our belief that the adoption of high-density fan-out and also the segregation of SoCs will first happen in the compute market and specifically the most demanding compute segment like AI, where we go to the next-generation technology fairly quickly. Now, the next adoption would be in the mobile market, but that may take a few more years. We think that in the current solution for the mobile processors, be it the most common apps processors that would happen, let’s say, in the time frame after ’25 -- ’25 to ’27 where they adopt 3-nanometer and below processor technology.

**Randy Abrams** - *Credit Suisse AG, Research Division - MD and Head of Taiwan Research in the Equity Research Department*

And if I could follow up on -- like if we move toward hybrid bonding for some of these applications, whether processor and memory, high-bandwidth memory, do you see much of a role or would that be foundry process? Just curious if you have plans to get involved in that supply chain?
Yeah, we believe that when it comes to chiplet technology desegregation of monolithic SoCs utilizing, let’s say hybrid bonding technology the first generation, second generation probably will be covered in a foundry environment. The technology is very much an extension of the wafer manufacturing and it requires also technologies that will call for a very high investment level.

Next generation when there is a broader proliferation of these technologies that will definitely go into the OSAT domain and that would only happen when we get a cost down on the technology side and further standardization for these technology domains. So yes, longer term, it will move into OSAT domain, but the initial generations would be in the foundry domain.

First quarter market, we see that market forecast, Tom, for the year is actually deteriorating quarter-on-quarter. If you look to the latest numbers, which come out from market firms like Gartner, it comes to, let’s say, a correction downward for the full year of 2023 of high single digits to low double digit decline for the total semiconductor market. So for the first quarter, it’s difficult really to judge, but we believe it was down close to the same level, high single digit, low double-digit decline on a year-on-year basis.

Okay. So I guess when we talk about outgrowing the market, is it just where you’re located in the marketplace? Or is there share shifting going on? Or is it just a fact that your leverage to the high end and your leverage to automotive creates a better scenario for you specifically?

Yeah, I think that say it’s indeed the last part that you mentioned, Tom. We believe that our market footprint is very much into the automotive market, which is the highest growth segment of the semiconductor market in the premium tier of the smartphone market where we feel that we gain market share, specifically with new technologies being introduced. And then on the computing segment, the trends in the computing segment going from a vertical industry to a deverticalized industry, that offers opportunities for Amkor as a leading OSAT to grow faster than the market.

And it sounds like there’s a reason to be little optimistic about each of the markets improving in the second half. But when you look at the total performance of the company, which of these end markets do you think it will be the biggest contributor to half-over-half growth in second half?
Giel Rutten - Amkor Technology, Inc. - President, CEO & Director

Yeah, the biggest contributor for the second half versus first half growth for Amkor is the biggest market that we’re also observing that’s the communication market. Communications is still above 40% of the total company revenue and the growth in the second half will be driven by the introduction of new premium tier smartphones across the industry, definitely on the iOS side, where we see a growing market share for our self, but also on the Android side. So recovery of the smartphone market, together with the introduction of new phone types will drive growth in the second half.

Thomas Robert Diffely - D.A. Davidson & Co., Research Division - MD & Director of Research

And then I guess looking at the model making, how much variability is there in operating expenses on a quarterly basis?

Megan Faust - Amkor Technology, Inc. - Executive VP, CFO & Treasurer

Yeah. Hi, Tom. So with respect to varying throughout the year and we’ve given a general guideline that we would anticipate around $120 million per quarter. You can see that with our Q1 actuals and Q2 guide, that’s running a little ahead. That really has to do with the timing of our NPI activity, that’s going to contribute to some of those second half launches. So I would say there’s some variability, but albeit modest. So I would continue to look at a general run rate for the year of $120 million per quarter.

Thomas Robert Diffely - D.A. Davidson & Co., Research Division - MD & Director of Research

And at what point would you expect depreciation to go up for the new facility in Vietnam?

Megan Faust - Amkor Technology, Inc. - Executive VP, CFO & Treasurer

So with respect to our Vietnam facility, we are anticipating that, that would go online at the end of this year, so that again being depreciated over a fairly long period of time is going to have a pretty modest impact on depreciation as it rolls into ’24. And then we'll be bringing on the equipment in that facility basically in concert with the programs. And I would view that as a general growth perspective, we manage that with our overall CapEx forecast, so that would just be part of our regular M&A increases.

Thomas Robert Diffely - D.A. Davidson & Co., Research Division - MD & Director of Research

And just curious, for the first couple of lines, how much of the equipment is going to be new equipment versus relocated equipment from other facilities?

Megan Faust - Amkor Technology, Inc. - Executive VP, CFO & Treasurer

For the beginning, those lines will end up being new equipment to get those lines through NPI qualification and then into production. As we expand there, we will continue to look at our full capacity and ensure that we're balancing that appropriately. As you may know, our center of excellence for SiP is in Korea. And as we expand that product line in Vietnam, we will consider whether it would be optimal to transfer some of that equipment once we get things up and running.

Thomas Robert Diffely - D.A. Davidson & Co., Research Division - MD & Director of Research

Okay. And then final model question. When you look at the potential for growth in the second half, what would you estimate your incremental gross margin would be on that growth?
Megan Faust - Amkor Technology, Inc. - Executive VP, CFO & Treasurer

So, we have given a general guideline from our incremental margin drop through the gross margin of around 40%. I would say, with the anticipated increase in advanced SiP coming in into the second half supporting communications, you would probably see an incremental gross margin of slightly below that 40% in order to accommodate that product mix change.

Thomas Robert Diffely - D.A. Davidson & Co., Research Division - MD & Director of Research

Okay. Which of your groups would have the highest incremental gross margin?

Megan Faust - Amkor Technology, Inc. - Executive VP, CFO & Treasurer

It's not necessarily driven by end market, Tom, because we have, I would say, SiP supports not only communications and consumer. It's really -- while product mix has some impact, it's really a function of how well those lines are utilized moving into that step-up in revenue.

Thomas Robert Diffely - D.A. Davidson & Co., Research Division - MD & Director of Research

And then Giel, final question for you. When you look at the want to diversify manufacturing geographies with all of your customers, are you starting to see companies wanting to shift capacity from one region to another? Or is it still kind of in the early stages of just planning out how to do that in the future?

Giel Rutten - Amkor Technology, Inc. - President, CEO & Director

Well, what we're actually seeing currently, Tom, is indeed a very, let's say, active shift of capacity from one location to another. Another important trend is that customers look for a second source of existing capacity and that all related to supply chain disruptions in, let's say, in the last couple of years. And it also relies to the, let's say, geopolitical tension in some areas. So we see that this is ongoing on, let's say, on a very active basis where we shift, let's say, where we offer customers a second source. For example, in our Vietnam factory or where we work with customers to derisk their supply chain by moving volume from one territory or one region to another region. So it's ongoing.

Operator

At this time, I'm showing no further questions. I would like to turn the call back over to Giel for closing remarks.

Giel Rutten - Amkor Technology, Inc. - President, CEO & Director

Let me recap our key messages. Amkor delivered revenue of $1.47 billion and EPS of $0.18 in the first quarter, above mid-points of guidance. We are expecting second quarter to be similar to first quarter with revenue of $1.475 billion. We are confident that the secular growth drivers for the industry remain in place and will drive growth beyond the current cycle. With our leading technology portfolio and diversified manufacturing and end market portfolio, Amkor is well positioned to outperform the semiconductor market in 2023. Thank you for joining the call today.

Operator

Thank you. This concludes today's conference. All parties may disconnect. Have a great evening.