CORPORATE PARTICIPANTS

Giel Rutten  Amkor Technology, Inc. - President, CEO & Director
Jennifer Jue  Amkor Technology, Inc. - Senior Director of IR and Finance
Megan Faust  Amkor Technology, Inc. - Executive VP, CFO & Treasurer

CONFERENCE CALL PARTICIPANTS

Mon-Han Chung  D.A. Davidson & Co., Research Division - Senior VP & Senior Research Analyst
Randy Abrams  Crédit Suisse AG, Research Division - MD and Head of Taiwan Research in the Equity Research Department

PRESENTATION

Operator

Good day, ladies and gentlemen, and welcome to the Amkor Technology Third Quarter 2022 Earnings Conference Call. My name is Diego, and I will be your conference facilitator today. 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. - Senior Director of IR and Finance

Thank you, operator. Good afternoon, everyone, and thank you for joining us for Amkor’s Third Quarter 2022 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 U.S. 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

Thanks, Jennifer. Good afternoon, everyone, and thank you for joining the call today. Amkor delivered excellent results in the third quarter, reaching a record quarterly revenue of $2.1 billion and EPS of $1.24. All end markets achieved new records, driving revenue up 24% year-on-year. Sequentially, revenue was up 38%, which reflects growth and a successful recovery of our Shanghai factory.

While the industry is facing near-term macroeconomic headwinds and market forecasts have weakened in some areas, demand for our advanced packaging technology remains strong and momentum strengthened during the third quarter. Growth in advanced packaging came in at 33% year-on-year, close to 80% of our business in the third quarter.

Amkor continues executing on its strategy to leverage a leadership position in advanced packaging and its broad geographical footprint to capitalize on the industry megatrends of 5G, IoT, automotive and high-performance computing.
Now let me review the dynamics in each end market. Our communications business experienced significant growth in the third quarter, driven by high volume ramps supporting the launch of premium tier 5G smartphones. Communications revenue for the quarter increased 76% sequentially and 35% year-on-year. Although overall smartphone units are projected to be down this year, 5G units continue to proliferate.

Premium tier 5G phones are rich in silicon content and ongoing innovations continue to add functionality. Amkor supports a wide range of applications in multiple package formats throughout the phone, including devices for audio and power management, MEMS sensors, NAND memory and apps processors and modems in Package on Package technology. In addition, advanced system and package technology is deployed for RF devices, display controllers and camera applications.

With our advanced SiP platform for heterogeneous integration, we enable continuous innovation in form factors, functionality and performance by applying industry-leading technologies and design rules. Amkor’s high-volume manufacturing capability together with its broad technology portfolio are key enablers for growing our footprint in premium tier smartphones.

Revenue within the consumer end market increased 31% sequentially and 14% year-on-year, supported by new IoT wearable product ramps. We observed a trend of further miniaturization and integration of new functionality like sensors and connectivity and wearable IoT devices. Together with lead customers, we further innovate our advanced SiP assembly and test platform to incorporate these new requirements. We believe the IoT wearable segments will continue to diversify and grow. To support future customer demands, we are expanding our footprint to Vietnam, which is expected to start high-volume manufacturing in late 2023.

Revenue within the automotive and industrial markets grew 6% sequentially and 13% year-on-year. We observed continued improvements in material lead times and anticipate a more balanced supply chain by the end of this year. Market reports project automotive electronics to grow at mid-teens CAGR over the next few years.

Amkor’s 40-plus years of automotive experience together with our advanced packaging leadership, global manufacturing footprint and trusted partnership with leading automotive customers positions us well to capture growth from the acceleration of semiconductor content in cars. Amkor works closely with lead customers both to develop innovative technologies and to support changes in geographical manufacturing footprint.

We are expanding our capacity and technology portfolio for automotive solutions, notably in our factories in Europe and Japan in support of regional supply chains for critical automotive semiconductors. Revenue from the computing end market increased 12% sequentially and 22% year-on-year. Although the PC market is soft, we observe opportunities for growth driven by continued deverticalization and the growing adoption of an outsourced manufacturing supply chain.

New fabless entrants and OEMs with in-house silicon design, together with the introduction of an ARM-based architecture for PCs, laptops and tablets are expected to drive future growth. Furthermore, the introduction of AI and anticipated upgrades of data centers and networks require advanced packaging and enhanced semiconductor contents.

Our test business grew 32% sequentially and 80% year-on-year to a record $266 million. We have invested in broadening the scale and capability of our test services through our global factory footprint. Multistage testing has become more important with the increasing complexity and cost of assembled products. Customers value our turnkey service to ensure quality, reliability and reduce cycle time.

In the third quarter, our manufacturing organization demonstrated great flexibility to ramp our Shanghai factory back to full capacity after the COVID lockdown in Q2 and to manage a record ramp in output from our Korea factory, supporting new products for premium tier smartphones and IoT wearable devices.

Geopolitical dynamics and COVID-related disruptions continue to impact the semiconductor supply chain. Globally, our customers are evaluating their supply chain strategies to reduce risk and secure sustainable and cost-effective manufacturing basis. We are working closely with our customers to adapt to these changing requirements.
In Asia, our factory project in Vietnam is progressing as planned, and we are expanding in R&D and manufacturing capability in Japan to offer a secure supply chain for automotive semiconductors and sensors. In Europe, we are investing in technology and capacity and are partnering with lead customers in our Portugal factory in support of a European automotive supply chain. In the U.S., we see more interest from customers following the passage of the CHIPS and Science Act.

We believe Amkor’s broad geographical footprint is a key differentiator and positions us uniquely to support our customers and benefit from the shifting global supply chain trends. While the U.S. export controls announced in early October are not focused on OSAT operations, we expect regionalization trends may accelerate in response to these new U.S. export controls.

Now let me turn to our fourth quarter revenue outlook. After our record third quarter, we expect Q4 revenue of $1.85 billion at the midpoint of guidance. This would represent a year-on-year increase of 7%. The higher than seasonal Q4 sequential decline of 11% is primarily due to 3 factors: first, customers accelerating builds in the third quarter, taking advantage of better material availability in selected areas. Second, an impact of recently issued U.S. export controls estimated in the low single-digits percent of revenue. And finally, softening in some areas of the market, reflecting inventory corrections by certain customers.

Second half revenue is expected to increase 16% over prior year second half, with all end markets contributing to the growth. We expect that our strong position in advanced packaging and deep relationship with leading customers will moderate volatility throughout these near-term macroeconomic headwinds.

Megan will now provide more detailed financial information.

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

Thank you, Giel, and good afternoon, everyone. Amkor achieved record performance in the third quarter, reaching 2 new milestones. One, revenue crossed the $2 billion mark at $2.1 billion; and 2, EPS is over $1 at $1.24. Amkor’s outstanding top line and bottom line results are due to our leadership position in advanced packaging technology and quality execution on high-volume ramps of new products.

Demand was better than expected, primarily due to strength in the communications market, supporting new launches of premium tier smartphones utilizing our advanced SiP technology and material availability allowing for upside supporting customer demand. With expanding content and market share gains, the communications market grew more than 30% over prior year Q3.

Gross margin for the third quarter was over 20%, the highest Q3 performance in over a decade, supported by high utilization across our factory footprint. We also set a new quarterly record for gross profit in Q3 at $421 million. Operating expenses came in lower than expected at $102 million, primarily due to timing of new product introductions, lower labor costs and favorable foreign currency rates.

Operational excellence contributed to robust profitability and record quarterly operating income of $319 million for the third quarter. Operating income margin for the quarter was 15.3%. Q3 income tax expense came in lower than expected due to foreign currency exchange rate movements and a discrete income tax benefit related to changes in the valuation of certain deferred tax assets.

Net income for the quarter was $306 million, resulting in EPS of $1.24, both of which are new all-time quarterly records. Q3 EBITDA was $481 million and EBITDA margin was 23.1%. Overall, we are very pleased with our Q3 performance, including quarterly revenue records in all of our end markets.

Our balance sheet remains solid and allows us to invest in advanced packaging technology to capitalize on the long-term growth catalysts of 5G, IoT, automotive and high-performance computing. We ended the quarter with $932 million of cash and short-term investments and total liquidity of $1.6 billion. Our total debt as of the end of the third quarter is $1.1 billion, and our debt-to-EBITDA ratio is 0.7x.

Amkor is not immune to the near-term macroeconomic uncertainty, but even in the case of a market slowdown, we have the financial strength to continue to expand our global footprint in response to customer demand.
Construction on our new facility in Vietnam is progressing as planned, and we expect to be ready in late 2023 to support high-volume manufacturing for lead customers. Vietnam is a strategic long-term investment for Amkor as it will offer our customers an opportunity to diversify their global supply chain.

Moving on to our fourth quarter outlook. We are expecting Q4 revenue between $1.8 billion and $1.9 billion, representing year-on-year growth of 7% and contributing to full year growth of around 15%, well above the semi industry growth estimates for 2022 of mid-single digits.

Gross margin is expected to be between 16% and 18%. We expect operating expenses of around $110 million. Assuming continued strength in the U.S. dollar, we expect our full year effective tax rate to be around 10% before discrete tax items. Fourth quarter net income is expected to be between $150 million and $195 million, resulting in EPS of $0.60 to $0.80.

Considering our fourth quarter guide, our second half 2022 estimated performance results in revenue growth of 16% and EPS expansion of around 20% compared to the prior year second half. Our forecast for capital expenditures for the year is projected at $900 million, about 5% lower than the previous target. The update is due to timing of payment terms and delays in equipment delivery.

Our plan to support long-term growth is unchanged given the secular trends in the market. To strengthen our advanced packaging leadership position, our investments are focused on increasing capacity and capability within technologies such as advanced SiP, flip chip, wafer level and test as well as associated investments in quality and factory automation. We are also selectively expanding our facilities in response to customer demand.

Our global footprint is a key differentiator for us and provides support for the development of regional supply chains. We see strong interest in Japan and Europe, which are attractive to many customers for introduction and ramp-up of new technologies, notably for the automotive market.

Looking ahead to 2023, we are monitoring macroeconomic uncertainty and working closely with our customers to manage changes in the demand environment. We are confident in our long-term outlook as we do not see a change in the growth catalysts for advanced packaging in which Amkor maintains a leadership position.

With that, we will now open the call up for your questions. Operator?
Randy Abrams - Crédit Suisse AG, Research Division - MD and Head of Taiwan Research in the Equity Research Department

Yes, that’s right. And then also the impact if you saw any earlier shift of seasonality with the component availability where the premium you may have built a bit earlier, and so that might be affecting the fourth quarter compare?

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

Yes, let me start with the last part of your question, the earlier builds or the accelerated builds in the third quarter because of material availability. We saw that most notably in the Communications segment, both on the iOS as well as on the Android side, Randy. And the availability was broadly, it was both components as well as some other materials, but that’s made customers decide to prebuild also giving some other supply chain uncertainties later in the year.

With respect to the China recovery and the impact of the third quarter, I mean, when we look to the quarter-on-quarter improvement of revenue, then we see about 25% of that being attributed to the recovery of our ATC factories, and the rest is growth. So 75% is growth, 25% is due to recovery.

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

Then still a good number -- in the core business. First off, the forward look on fourth quarter, if you could give a view just on the different applications, how you’re seeing the trends by application? And then initial view for 2023 at this stage, like how you see your own business and how do you see the industry and the context with that just as we go into early part of the year, there’s some calling for a kind of cyclical correction downturn, if there’s an additional view how you see first quarter versus seasonal?

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

Well, let me start with the first part. I think that’s the quarter-on-quarter revenue change and then per application. I mean we don’t guide per application, but I can give you some high-level impacts. I mean the 2 segments where we see the most prominent changes are in communication and consumers often computing are less impacted than a quarter-on-quarter. And that’s generally what we see.

Now going into -- and this is from Q3 into Q4 going into Q1, I mean, we don’t guide Q1. I mean there are multiple uncertainties still, and we’re working closely with customers to understand their forecast and forecast changes. We watch also closely what the market is doing. So we don’t share guidance yet in -- for Q1. Megan, do you have anything to add with respect to the quarter-on-quarter specifics?

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

Randy, it's Meghan. So I think Giel covered the color on the end markets well. And with respect to your question about ‘23 Q1, as Giel mentioned, we’re monitoring. We would say though, for the full year ‘23, we would expect to continue to outgrow the semi market. I think you see that well for ‘22. And then -- and the reason for that is our position in support of advanced packaging where those needs are more diversified and we are less exposed in some of the areas of weakness.

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

No, that’s helpful. One follow-up question just on the gross margin. The sales delivered quite a bit of upside. It was still a good gross margin on a historical perspective. But just to leverage, given the sales strength, I’m curious on the gross margin because also in fourth quarter with sales coming down, there’s a few points lower gross margin. Like traditionally, at that revenue level, you could be a few points higher. So if there’s mix impact or other factors affecting the gross margin where it just did fall a little bit short on the leverage?
Megan Faust - Amkor Technology, Inc. - Executive VP, CFO & Treasurer

Sure. So with respect to Q3, we did have an increase in material content between Q2 and Q3. And that's product mix changes what's causing, I would say, a more, mild gross margin percentage. However, we did have very robust profitability with records throughout gross profit dollars, operating income dollars and EPS for Q3.

As it relates to the change for Q4, that sequential change between Q3 and Q4 having a decline in gross margin percentage is truly around the reduction in utilization. That incremental margin is around 45%, which is what we typically guide with our financial model. So there is no change in our structural costs. And I would also point to the full second half performance given the significant outperformance in Q3, followed by more than seasonal decline in Q4 with some of those accelerated builds mix shifting, the profit levels are expanding on a second half view compared to the prior year second half. So even with gross margin percentage decline, gross profit dollars, operating income dollars and even bottom line EPS is expanding around 20%. And again, that's even with significant increase in the product mix shift to advanced SiP.

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

No, that's helpful. Actually last one -- maybe one 2-part follow-up. Just one clarification on the SiP if you can give a framework how this year looks like it will track relative to last year? Because I think that's some of your mix impact. And then the other question I wanted to ask was on the CapEx. It sounds like a tool device, just the nature of it because supply chain is improving a bit or just where the delay is? And then if there's an initial view on the capital intensity for next year, if we should think with the push-out, it would be that capital intensity plus the $50 million or you'll take into account business environment, so it might be actually a little bit of a lower capital intensity into next year?

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

Okay. Let me start, Randy, with the SiP part and then Megan can pick up on the capital intensity for next year. I mean SiP, certainly in the third quarter, had significant growth also coming from last quarter. Now we see year-on-year changes, let's say, close to 50% when it comes to year-on-year changes in our full SiP -- advanced SiP portfolio. So significant change, of which the change in both communication as well as consumer or the large -- were driving the larger part of this growth. With respect to the capital intensity -- is that answering your question, Randy?

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

Yes. Sorry, yes, that is helpful, just the close to 50% growth. So it explains a bit enough for the mix for the margin. And then the capital intensity, I guess Megan can take that one?

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

Yes, sure. So Randy, the update to our guide of reducing $900 million is really around as we're fine-tuning, timing of payments and equipment delivery. As it relates to looking forward, we would still use a rule of thumb of 13% or so capital intensity. We will have our spend for Vietnam included in that. And then of course, we'll take into account any sort of changes in the environment. But at this time, I would say the rule of thumb of 13% is a good mark.

Operator

(Operator Instructions) Our next question comes from Hans Chung with D.A. Davidson.
Mon-Han Chung - D.A. Davidson & Co., Research Division - Senior VP & Senior Research Analyst

So first, I want to touch base on the 4Q. I know you comment the China, there is some impact from China, the export restricts, I remember a low to mid-single-digit percent impact. And then should we think about that the -- just the average level going to '23, we will -- they will continue to see that kind of impact next year?

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

Well, Hans, this is Giel. Let me try to answer that. We're still evaluating how that further develops. This is a judgment of our -- the impact of the fourth quarter and the measures -- the new measures of the restrictions are just being announced. We don't know whether we can recover this. But definitely, in the fourth quarter, it's a low single-digit impact. And there is an expectation that either it will continue at that level or we are able to recover that when it shifts -- that same business it shifts to other customers.

Mon-Han Chung - D.A. Davidson & Co., Research Division - Senior VP & Senior Research Analyst

I see. And then regarding the inventory correction, how would you characterize the inventory level in the supply chain or at your customers? When do you think that correction could end? When do you think we can see the bottom? Is that Q2, Q1 or even later second half?

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

Yes, that's a good question, Hans. We see the inventory and the industry being different in different parts of the market. If you take, for example, the automotive market, then the larger part of that market, we see inventories still being slightly below the target level of some of the customers. So I would characterize that at low. While in, for example, the communication market, we see specifically inventory pockets in the low and mid-range of Android smartphones. And that will take, in our expectations, still 1 quarter, maybe 1 to 2 quarters to build that inventory down.

Now if we take the computing market, then in the PC market, we see similar trends that there is an inventory at the midrange to lower-end PCs. We also expect that, that will, let's say, normalize towards the second quarter of 2023. Other parts of the compute market that cater for the data center and networking part of that market, we see inventories at a normal level.

Now the consumer part of the market, we also see some inventory in some pockets. But on the -- for example, on the IoT wearable market, where we saw a significant increase quarter-on-quarter from the second to the third quarters. We don't believe that there is a huge inventory buildup. So we see that in normal inventory.

So in summary, I think inventory is different in different segments of the market, but the pockets in the market with high inventory, we expect that to normalize towards the second quarter of 2023.

Mon-Han Chung - D.A. Davidson & Co., Research Division - Senior VP & Senior Research Analyst

Got you. That's helpful. So one other utilization right now and how is that trending I suppose they are trending down in fourth quarter. And then just kind of curious like how -- what's the current utilizing rate? And then when do you think that could flatten out?

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

Yes, let me make some more comments on the utilization rates. I mean we don't report that specifically, but some indications in the third quarter, we're running -- we were running at maximum utilization. There were limited pockets with slides underutilization, and that was specifically in our Japan factories. But the remaining factories were running at full utilization. Going into the fourth quarter, we still see a high utilization rate, some
fallback in our Korea factories with respect to a correction in the communication markets and in the consumer market. But the remaining factories will stay at very high utilization.

Mon-Han Chung - D.A. Davidson & Co., Research Division - Senior VP & Senior Research Analyst

Great. And then I think last one. So as we are in the downturn of the industry cycle, so I was wondering like how variable the cost structure in both COGS and OpEx?

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

Can I leave it to Megan? Megan, the question is about the cost structure going forward when there is a slight correction in the industry.

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

Yes. Sure, Hans. So from our financial model, what you would expect on the behavior related to down cycles is typically, we've shared a 40% to 50% incremental margin, and that's how you can measure the behavior of our fixed cost structure with changes in revenue. That's what's playing out here in Q4. With respect to OpEx, OpEx is fairly, has been fairly well controlled even in the face of very significant revenue increases. So I would anticipate there would only be mild changes in OpEx associated with potentially lower employee compensation as it relates to a downturn cycle.

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

Thank you. Let me recap the key messages. Amkor delivered record third quarter results with revenue of 24% year-on-year growth and EPS of $1.24. Advanced packaging revenue increased 33% year-on-year to around 80% of total quarterly revenue. We expect fourth quarter revenue of $1.85 billion, resulting in a second half growth of 16% compared to second half 2021. Amkor continues to execute on its 3 strategic pillars of leveraging our advanced packaging technology leadership, focusing on industry makeup trends and strengthening our broad geographical footprint.

Although we observed macroeconomic headwinds and weakened market forecast in some areas, we believe the long-term growth drivers for the semiconductor industry remain in place, and we are confident our strategic focus and leadership position in key semiconductor markets will continue to drive future growth. Thank you for joining the call today.

Operator

Thank you. Ladies and gentlemen, this does conclude today's conference call. You may now disconnect.