ON Semiconductor Corporation, Q3 2022 Earnings Call, Oct 31, 2022 (EditedCopy)

TEXT version of Transcript

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Presentation

Operator [1]

Good day, and thank you for standing by. Welcome to the Onsemi Third Quarter 2022 Earnings Conference Call. [Operator Instructions] Please be advised that today's conference is being recorded.

I would now like to hand the conference over to your speaker today, Parag Agarwal, Vice President of Investor Relations and Corporate Development. Please go ahead.

Parag Agarwal, ON Semiconductor Corporation - Vice President of Investor Relations & Corporate Development [2]

Thank you, Liz. Good morning, and thank you for joining onsemi's Third Quarter 2022 quarterly results conference call. I'm joined today by Hassane El-Khoury, our President and CEO; and Thad Trent, our CFO. This call is being webcast on the Investor Relations section of our website at www.onsemi.com. A replay of this webcast, along with our 2022 third quarter earnings release, will be available on our website approximately 1 hour following this conference call, and the recorded webcast will be available for approximately 30 days following this conference call. . Additional information is posted on the investor relations section of our website.

Our earnings release and this presentation include certain non-GAAP financial measures. In consideration of these non-GAAP financial measures to the most directly comparable GAAP measures under GAAP financial measures are included in our earnings release, which is posted separately on our website in the Investor Relations section.

During the course of this conference call, we'll make projections or other forward-looking statements regarding future events or future financial performance of the company. We wish to caution that such statements are subject to risks and uncertainties that could cause actual events or results to differ materially from projections.

Important factors that can affect our business, including factors that could cause actual results to differ from our forward-looking statements, are described in most recent 10-K and Form 10-Qs in our current filings with the Securities and Exchange Commission and in our earnings for the -- earnings release for the third quarter of 2022. Our estimates or other forward-looking statements may change, and the company assumes no obligation to update forward-looking statements to reflect actual results, changed assumptions or other events that may occur except as required by law.

Now let me turn it over to Hassane. Hassane?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [3]

Thank you, Parag, and thank you, everyone, for joining the call. We have closed our sixth consecutive quarter of record financial results with revenue of $2.2 billion and a non-GAAP EPS of $1.45 in the third quarter.

Onsemi is now a very different company. Our strategy has proven successful and our employees are the one to thank for their commitment and dedication to excellence through these changes. Congratulations to our worldwide teams. I am proud of your steadfast and consistent execution, and I'm confident we will continue to deliver on our long-term growth plans.

Now let me address the current demand environment. In the third quarter, we saw continued strong demand in the automotive and industrial end markets, with revenue increasing sequentially 11%, 5%, respectively. As we noted last quarter, we saw softening in our nonstrategic end markets of consumer and computing with both markets declining mid-single digits sequentially. We expect the weakness in these markets to persist and

extend to some legacy areas of industrial, while demand and design activity remain robust for EV, ADAS and energy infrastructure. Today, more than 30% of our revenue is generated from the sales of new products at accretive margins and the third quarter new product revenue was a record for the company.

Over the last 18 months, we have taken a concerted approach to improve the predictability and reduce the volatility of our business. We have transformed the company into one with a sustainable long-term growth outlook and attractive financial profile and a resilient operating model, and we made proactive structural changes to prepare us for eventual headwinds.

We rationalized our product portfolio and exited $277 million of business to eliminate our exposure to price-sensitive, nondifferentiated products at diluted gross margins. We addressed price-to-value discrepancies and instill the discipline in the company to capture the right value of our products. We executed our fab-lighter strategy with planned exits of 4 fabs to reduce our fixed costs. We secured long-term supply agreements that provide committed and transparent supply assurance against long-term customer demand. We decreased wafer starts by 20% from the peak in Q1 to limit the inventory build with distribution now at an all-time low under 7 weeks. We drove efficiencies and streamlined operations to control OpEx below our 17% target.

These changes set onsemi apart from the legacy semiconductor and we are now well equipped to navigate through the coming quarters. And while we are planning for short-term uncertainty, long-term demand for our highly differentiated intelligent power and sensing solutions continue to grow with Q3 design wins increasing 19% quarter-over-quarter.

Our intelligent power revenues grew by 35% year-over-year and 6% quarter-over-quarter, driven by the accelerating momentum in electric vehicles and alternative energy. In these markets, customers are increasingly relying on us to enable their long-term product road maps with the market-leading efficiency of our solutions and our end-to-end supply chain capabilities.

Our progress to our silicon carbide leadership is accelerating. As compared to our exit rate in Q4 of '21, we tripled our silicon carbide revenue in the third quarter and we continue to install capacity across the entire supply chain. We just passed the 1-year mark since acquiring GTAT, and we remain on track to expand our growth capacity by 5x year-over-year exiting 2022. We have also increased silicon carbide wafer fab starts by 3x this year to keep up with our full output, a number which we plan to double again next year. We remain on track to triple our SiC revenue in 2022 and deliver $1 billion of revenue in '23 based on committed revenue from LTSAs.

To limit our long-term CapEx investments, most of the silicon carbide equipment we are installing around the world is 200-millimeter capable, and we are on track for 200-millimeter wafer qualification in 2024 and related revenue ramp in '25.

Our energy infrastructure revenue is accelerating with a year-over-year increase of 70% in the third quarter. For '22, we expect our energy infrastructure revenue to grow by 60%, exceeding our target of 50% year-over-year growth. The volatility in global energy markets is driving an accelerated transition to alternative energy. And with a broad portfolio of silicon carbide and silicon power modules, we have emerged as a leader in this market. The top 10 solar inverter providers in the world collectively have a market share of 80%, and we have now signed LTSAs with 8 of them.

As countries around the world strive for energy security and lower greenhouse gas emissions associated with fossil fuels, we can expect to see strong long-term growth in our alternative energy business. Traction for our silicon carbide solutions is complemented by continued growth in our silicon power business. A key differentiating advantage for onsemi is our ability to offer silicon and silicon carbide solutions across a wide range of power and voltage requirements.

Many EV customers use our silicon carbide solution for rear axle and a silicon solution for the front axle. Similarly, solar inverter customers choose our silicon carbide or silicon solutions based on power and efficiency requirements. Customers who use a combination of power solutions value our ability to offer a complete range of products, which enables us to gain market share across both technologies.

In the third quarter alone, our IGBT and MOSFET businesses grew 37% year-over-year, driven by high-growth mega trends in automotive and industrial. Our intelligent sensing revenue increased 43% year-over-

year and 11% quarter-over-quarter. The growth was driven by additional semiconductor content required in automotive and industrial applications as well as an increase in units shipped. The number of sensors per car will continue to grow and the level of sophistication delivered by the latest generation systems is also driving ASPs higher. Safety rating requirements for new vehicles continue to increase, such as a broader field of view and higher-resolution sensors, accelerating the shift from 1 megapixel image sensors to 8 megapixel sensors for ADAS applications.

Onsemi was the first to market with 8 megapixel automotive-grade sensors that provide both high detection range and a wide field of view, delivering consistent performance across all temperature and lighting conditions. Based on this industry-leading dynamic range, dark noise performance and LED flicker mitigation feature of our sensor, we are winning new designs. And in the third quarter, we displayed the large incumbent at local Japanese automotive OEMs.

We expanded the internal back-end capacity to ensure to support the growth of our business and enhance our margins. Demand has been outpacing our ability to supply, but our early investments in capacity expansions allowed us to deliver 38% more automotive sensors in Q3 than in the quarter a year ago. In addition to our technology advantage, we are the only image sensor supplier with internal and external capabilities across every manufacturing stage of the supply chain for automotive and industrial sensors.

We are a much stronger company today because of our commitment to our transformation and the structural changes we have implemented over the last 18 months. We have executed our strategy in one of the most challenging environments we have ever seen, not only for our industry but for the world, and we've set ourselves up for the leadership position in our target markets. Driven by exposure to secular mega trends of vehicle electrification ADAS, energy infrastructure and factory automation, we are well positioned to continue to outgrow the semiconductor market.

Now I will turn the call over to Thad to provide additional details on our financials and guidance. Thad?

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [4]

Thanks, Hassane. Our third quarter results clearly demonstrate the success of our transformation strategy with record revenue, operating income and free cash flow. The steps we have taken to strengthen our operating model will not only enable us to get through short-term market volatility, but also propel us to scale in the long term. .

Defining our primary areas of focus has enabled us to double down on intelligent power and sensing technologies and lead where we bring differentiation to the automotive and industrial markets. Our customers now choose onsemi as a strategic partner to enable their success in emerging in disruptive areas such as electric vehicles, ADAS, energy infrastructure and factory automation. Customers are entering new agreements with us, while others are expanding the scope and duration of their existing LTSAs to secure even longer supply.

Revenue committed through our LTSAs increased $5.3 billion in the third quarter and now totals $14.1 billion with LTS revenue over multiple years and often includes hundreds of parts. As Hassane mentioned, we also made additional structural changes to improve the sustainability of margins by rationalizing our product portfolio and eliminating our exposure to price-sensitive nondifferentiated products. So far, we have walked away from $277 million of revenue at an average gross margin of 25%. $39 million of this revenue was in the third quarter at gross margins of 35%.

We continue to execute our fab-lighter strategy through the rationalization of our manufacturing footprint. Following the sale of Belgium and South Portland fabs in the first half of the year, we closed the sale of our 8-inch fab in Pocatello, Idaho in October, and we also entered into a definitive agreement to sell our 6-inch fab in Nagata, Japan. We expect the Nagata transaction to close in the fourth quarter.

Exiting these 4 fabs will reduce our annual fixed cost by $160 million, exceeding our target of $125 million to $150 million. The full benefit of these divestitures will be realized over the next several years as we transition production to other fabs in our network further supporting our long-term gross margin expansion plans.

Turning to results for the third quarter. As I mentioned, Q3 was another quarter of record results. Total revenue was $2.2 billion, an increase of 26% over the third quarter of 2021 and 5% quarter-over-quarter. We reported record revenue for our strategic end markets of automotive and industrial, which together accounted for 68% of revenue as compared to 61% in the quarter a year ago. Weakness persisted in our nonstrategic end markets of computing and consumer, offset by sequential growth in automotive and industrial of 11% and 5%, respectively.

Revenue from both intelligent power and intelligent sensing is also at record levels. Intelligent power grew 35% year-over-year and intelligent sensing grew by 43% year-over-year. Additionally, all 3 business units reported record revenue in the third quarter.

Revenue for the Power Solutions Group, or PSG, was $1.12 billion, an increase of 25% year-over-year. Revenue for the Advanced Solutions Group, or ASG, was $734 million, an increase of 20% year-over-year. And revenue for the Intelligent Sensing Group, or ISG, was $342 million, an increase of 45% year-over-year.

Gross margin -- GAAP gross margin for the third quarter was 48.3% and non-GAAP gross margin was 49.3%. Our non-GAAP gross margin declined as expected by 40 basis points quarter-over-quarter, primarily due to an accelerating ramp in silicon carbide and lower factory utilization at 75% as we proactively slowed wafer starts by 20% from the beginning of the year.

As indicated in previous conference calls, we expect silicon carbide start-up costs to be 100 to 200 basis points dilutive to gross margins during the initial revenue ramp.

GAAP operating margin for the quarter was 19.4% and non-GAAP operating margin was a record of 35.4%, an increase of 90 basis points quarter-over-quarter and approximately 1,100 basis points year-over-year. GAAP earnings per diluted share for the third quarter was $0.70, flat as compared to the quarter a year ago. Non-GAAP earnings per diluted share was at a record high of $1.45 as compared to $0.87 in the third quarter of 2021.

Now let me give you some additional numbers for your models. GAAP operating expenses for the third quarter were $634 million as compared to $322 million in the third quarter of 2021. Non-GAAP operating expenses were $304 million as compared to $296 million in the quarter a year ago.

Non-GAAP operating expenses were below our guidance due to a pushout of certain programs into the fourth quarter, delayed hirings and proactive management of discretionary spending across the company.

For the third quarter, our non-GAAP tax rate was 15.8%, and we expect to remain in the 15.5% to 16.5% range. Our GAAP diluted share count was 449 million shares, and our non-GAAP diluted share count was 441 million shares. We repurchased 1.2 million shares or $80.1 million in the third quarter. Please note that we have an updated reference table on the Investor Relations section of our website to assist you calculating our diluted share count and various share prices.

Turning to the balance sheet. Cash and cash equivalents was $2.45 billion, and we had $1.5 billion undrawn on our revolver. Cash from operations was $1 billion, and free cash flow was $731 million at a record level of 21% of revenue on an LTM basis.

Capital expenditures during the third quarter were $271 million, which equates to a capital intensity of 12.4%. As we indicated previously, we are directing a significant portion of our capital expenditures towards silicon carbide and enabling our 300-millimeter capability at the East Fishkill fab.

Accounts receivable of $857 million declined by $281 million and DSO of 36 days declined by 14 days quarter-over-quarter. Days of inventory declined by 7 days to 129 days from 136 in Q2. This includes approximately 23 days rich inventory to support transitions in the intending silicon carbide ramp. Distribution weeks of inventory declined to 6.9 weeks, down from 7.0 in Q2 as we proactively manage inventory at historically low levels for our distribution partners. And total debt was $3.2 billion.

Turning to the guidance for the fourth quarter. A table detailing our GAAP and non-GAAP guidance is provided in the press release related to our third quarter results. Let me now provide you elements of our non-GAAP guidance for the fourth quarter.

We continue to see strong demand from our automotive end markets, driven by electrification and ADAS. We are beginning to see softening in certain industrial applications, and we expect increased weakness in our nonstrategic end markets that we plan to exit as we continue our portfolio rationalization.

Given the macro uncertainty, we are taking a cautious stance in our guidance for the fourth quarter. As such, we anticipate revenue will be in the range of $2.01 billion to $2.14 billion. We expect non-GAAP gross margin to be between 47% and 49% due to lower factory utilization and the dilutive impact of ramping silicon carbide. This also includes share-based compensation of $3 million.

Due to the delayed hiring and project spending in the third quarter, we expect non-GAAP operating expenses to increase to $305 million to $320 million, including share-based compensation of $21 million. We anticipate our non-GAAP OIE will be $22 million to $26 million. We expect our non-GAAP tax rate to be in the range of 15.5% to 16.5% and our non-GAAP diluted share count for the fourth quarter is expected to be approximately 441 million shares. This results in non-GAAP per share to be in the range of $1.18 to $1.34.

We expect capital expenditures of $300 million to $330 million in the fourth quarter as we continue to ramp our silicon carbide production and invest in 300-millimeter capability to support our long-term growth we expect our capital intensity to be in the mid- to high-teen percentage range.

In summary, our transformation strategy is made onsemi a more resilient and sustainable company. We have recently been named to investor business dailies, 100 best ESG companies for 2022 as we drive to net zero by 2040. We are well positioned to invest in our and deliver long-term financial performance for our shareholders while extending our competitive lead.

With that, I'd like to turn the call over to Liz to open up for Q&A.

Question And Answer

Operator [1]

[Operator Instructions] Our first question comes from the line of Ross Seymore with Deutsche Bank.

Ross Clark Seymore, Deutsche Bank AG, Research Division - Managing Director [2]

I guess the first one is on is on the revenue side and the demand side of the equation. You mentioned uncertainties and then you talked about auto staying strong, but weakness in other places. Can you just talk a little bit about the linearity of demand and maybe dive a little bit deeper into what you're seeing in the industrial market? I think people understand your other segments have been weekend markets and aren't strategically a focus for you, but the industrial side is. So a little bit of color on those metrics would be helpful.

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [3]

Sure, Ross. So at a high level, automotive, we see the strength -- we see the strength in and supported all by the LTSA that we -- Thad and I have been talking about, including the renewed LTSAs and the extended LTSAs that cover the demand outlook that we have, and that's why we're building capacity for. You've seen the strength in our business even this quarter as we ramp the electrification as we ramp ADAS. Those are the megatrends that are driving our automotive demand. We don't see that changing in the outlook we have.

On the industrial side, you see factory automation. You see renewable energy, that strengths what we made including our medical business, where we see a little bit of softness in the industrial is really in the segments that are closer to the consumer. I think like white goods or so. We see that. Obviously, it's a macro-driven softness. We're watching it, but that's kind of the pockets that we see softness in the industrial.

Ross Clark Seymore, Deutsche Bank AG, Research Division - Managing Director [4]

Anything in the linearity side of the equation, just the back half of that question?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [5]

It's up into to the right.

Ross Clark Seymore, Deutsche Bank AG, Research Division - Managing Director [6]

And I guess as my follow-up, one for Thad, on the gross margin side of things. It's good that you guys are still sticking with the 1 to 2 percentage point headwind from the silicon carbide ramp, but you've heard a number of your competitors talk about the difficulty in that ramp. So can you us a little bit more color on what gives you the confidence in maintaining that hit as you're ramping so significantly? And if the revenue side of the equation and the demand side is up as high as it is, doesn't the CapEx have to rise accordingly? If you're going to do over $1 billion in revenues, how is your capital intensity staying roughly the same, shouldn't those 2 lines move in sync?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [7]

Yes. Look, I'll cover the first part of that as far as the difficulty and let Thad talk about the CapEx. Look, yes, this is hard stuff. So I sympathize with our competitors because it's not easy stuff to do. We've been facing standard ramping challenges, but we're able to leverage our scale worldwide and the worldwide manufacturing scale that we''ve had and the experience to address these issues as they come up. We have an excellent and very experienced operations team and that's what they do every day. We have mature processes. We have a very strong scale of manufacturing playbook.

So any excursion, if they do happen, we're able to tackle it quickly, we're able to resolve it quickly, and that impact is always minimal. That's why you've seen us always focusing on the ramp and more importantly, our confidence in our ramp against the difficulties of what that silicon carbide ramp will bring in. So our targets that we've been giving and our targets that we've been talking specifically on the revenue ramp are all within our capabilities, and we do believe -- strongly believe the risks are very manageable for us.

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [8]

Yes. Ross, on the capital intensity, as I said in my prepared remarks, we expect our capital intensity to go up to the mid- to high single -- mid- to high teens over the next several quarters. Clearly, we're having to place orders for equipment further out to support this revenue ramp, but we do expect our capital intensity to go up.

Operator [9]

Our next question comes from the line of Chris Danely with Citi.

Christopher Brett Danely, Citigroup Inc., Research Division - MD & Analyst [10]

So as part of this weakness, have your pricing expectations changed for 2023? And then do you expect the weakness to bleed over into the automotive end market as well?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [11]

This is Hassane. No, we don't see any movement on pricing. Obviously, we've been talking about the LTSAs that we have in our strategic products are based on the value of the products. And that does not change based on the outlook and the demand and the LTSAs provide that certainty of both volume and pricing, as we've said in the past. .

So I don't expect that to be any place in the equation, not even in automotive and industrial. Obviously, where the pricing would be potentially volatile is in the businesses that are not core that we plan to exit, and that has always been part of our exit strategy that would actually be favorable to margin. So we're not worried about the pricing environment at this point.

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [12]

And Chris, the one thing I would add is as we see input costs going up, we are passing that on to our customers, and we'll continue to do that as well. So the pricing environment is very stable.

Christopher Brett Danely, Citigroup Inc., Research Division - MD & Analyst [13]

Great. And for my follow-up, have you seen or are you seeing any change in your lead times? And then are there any -- as part of that, are there any shortages existing for the products? Or are those all gone?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [14]

Lead times is flat, is very consistent. As far as shortages, yes, we do have technologies that have -- are remaining in short supply the demand that we have. And we expect those technologies to remain supply constrained even through 2023. And those are the ones we're covered with LTSAs with our customers to make sure -- strategic customer to make sure we cover the whole bomb for our customers in order to sustain our ramps in new products next year. .

Operator [15]

Our next question comes from the line of Vivek Arya with Bank of America.

Vivek Arya, BofA Securities, Research Division - MD in Equity Research & Research Analyst [16]

Hassane, I just wanted to follow up on the question, Chris also asked, which is on just the supply-demand balance on the automotive side. There is a concern that automotive could be kind of this next show to drop in this rolling correction in semis. What are you hearing from your auto customers about? Are they building inventory right now? What is the supply-demand balance when you look at OEMs and Tier 1s, especially towards the first half of next year?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [17]

Look, the visibility we have, there is no inventory. Are there small pockets because the golden screw problem? Yes. We work with our customers to make sure when we batch build something, we will give them a few weeks or 2 to 3 weeks ahead and then they drain it over the next few weeks. So those are -- those -- I'm not worried about because we work with our customers directly. .

If you look at the demand environment and where our growth and our demand is coming from, it's coming from EVs. No matter what report you look at or what customer you talk to an OEM, pure-play EV OEM or a broad OEM, there's one thing consistent. No matter what the SAAR does, they will build more EVs next year than they do this year. That's where our growth is coming from, both power and then more and more safety is getting into cars. That's where our sensing comes in. Between those 2 megatrends, our content is going to grow and remain growing even through '23, no matter what the SAAR does in this case, based on a lot of the prediction. So that's what gives us the confidence. Again, we have secured that outlook with LTSAs. So I'm not worried about that part of it.

Is ICE engine going to have some softness because of rates going up or demand going down? Potentially. But again, the EV plants are the ones that we focus on the ones that our OEMs want to make sure they secure their EV penetration or they're going to lose share. So that's what we work on. But it is not because of any inventory. If anything, it's potentially just demand. But at this point, we don't see it for our business and our exposure to EV.

Vivek Arya, BofA Securities, Research Division - MD in Equity Research & Research Analyst [18]

Got it. And for my follow-up, on gross margins. Thad, I think on the last call, you said you feel comfortable staying in this 48% to 50% range. So when I look at the Q4 outlook, you are at 48% already. How should we think about the puts and takes for -- from a calendar '23 perspective? Because you'll be taking on the East Fishkill fab, right, which you have outlined some headwinds from and then, of course, silicon carbide ramps. So there is some headwind and your utilization right now is 75%. So can you stay in this 48 -- plus kind of range for next year? Just what are kind of the puts and takes of gross margins for next year?

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [19]

Yes. Look, for '23 -- and by no means I'm trying to provide a guidance here, but for '23, you've got a couple of headwinds, as you mentioned, right, 100 to 200 basis points for silicon carbide. You've got 40 to 70 basis points for the East Fishkill foundry business that are -- that will be dilutive for next year. I think more than

anything, this will be driven by the market dynamics in terms of what our margins will do. We're very comfortable in pricing for next year. I think it really comes down to utilization. In this environment, I think we're going to be very cautious. We're seeing utilization and starts down already.

As we go into next year, I think we're modeling it very conservatively. But we feel pretty comfortable sitting here based on what we can see today that there's a floor on our gross margins in the mid-40% range. That will be driven by the market more than anything.

Operator [20]

Our next question comes from the line of Matt Ramsay with Cowen.

Joshua Louis Buchalter, Cowen and Company, LLC, Research Division - Vice President [21]

This is Josh Buchalter on behalf of Matt. Congrats on the result. I wanted to ask about CapEx. It seems like at least next year or the next couple of quarters, it's going to be running materially higher than the initial 12% outlook. Were there any -- can you walk us through what's driving the increased spending and in particular, why the uptick now?

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [22]

Yes, the uptick is to support the LTSA revenue that we continue to lock-in. I referred to the increase that we had in Q3. But clearly, we're locking up more and more open carbide wins and the ramp will go out for the years and that requires additional capital. And that's the reason that we're -- we continue to make investments.

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [23]

Then obviously, Thad mentioned the equipment lead time, we want to make sure we stay ahead of it. So that's forcing us to place order materially earlier than we typically would need to. We don't want to run the risk of not being able to support our ramp. So we're being very proactive given the environment and the lead time of equipment vendors.

Joshua Louis Buchalter, Cowen and Company, LLC, Research Division - Vice President [24]

I appreciate the color there. And then you sort of mentioned the issue at one of your competitors with the yields that we found out about last week. Since then, we've been getting a lot of questions on is there any read-through into your own internal substrate ambitions? Can you walk us through your thinking there? Is it sort of just a normal part of coming up the yield curve? Or was it from your view, some specific to design decisions that they made?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [25]

Look, I can't comment on what decisions or what assumptions they made. I can only comment on our business and what we are doing. We've always given the same outlook for our business as far as the ramp, as far as the margin targets at scale and the headwinds from the ramp with the start-up cost that we include all of them in our reported results.

Those have not changed, and we've been very consistent over the last few quarters since we started disclosing them. And that should give you an idea that -- and really the confidence from our side -- that the numbers and the models we're giving are all well within our capabilities, inclusive of any challenges we may or may not have. We've had all those baked in. Because as I mentioned, we have a very strong process and a very strong playbook given our scale of manufacturing of power products over the last 2 decades with IGBTs.

So our ability to scale power products and walk through all the yield and walk through all the production ramp challenges that we have, we're still at exactly where we were since we started disclosing those numbers. We're meeting both the top line and the margin. And at scale, those margins will be accretive. There's no change from our side.

Operator [26]

Our next question comes from the line of Toshiya Hari with Goldman Sachs.

Toshiya Hari, Goldman Sachs Group, Inc., Research Division - Managing Director [27]

Thad, you mentioned that you guys exited from $39 million in revenue in Q3. 3 months ago, you talked about, I think, $150 million in the second half of this year and an incremental $450 million in 2023. Is that still the plan? Or given the weakness in the consumer end markets, could some initiatives be accelerated?

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [28]

Yes. We've always said that the exit would be market driven. And the faster we could exit, the better off we'd be, we exited $35 million as you referred to. As we forward to Q4, we think we're going to exit somewhere between $65 million to $75 million in Q4. And for 2023, we still think we're on track and be market dependent, but we think it will be in the neighborhood of 400 to 450 exits for next year as well.

So we think we're on track for that. We think the softness in this market kind of supports this exit allows us to reallocate that capacity somewhere else that's more valuable to us. So those are the numbers that we have line of sight to right now.

Toshiya Hari, Goldman Sachs Group, Inc., Research Division - Managing Director [29]

Great. And then as my follow-up, another one on gross margins. I'm curious what your plans are from a wafer start or utilization rate perspective into Q4? You said 75% utilization rate in Q3. I'm guessing it continues to move, move south, but curious what the assumption is there? And in response to another question to a prior question you said, you expect the mid-40s to be a floor for gross margins. In making that statement, what kind of volume and pricing assumptions are you making for '23?

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [30]

Okay. So -- so look, when coming back, I'll start in reverse order here on the floor of what we think is the mid-40s in a downturn next year. Pricing remains very, very steady in terms of next year. We think the business is -- well, I'm not going to provide you guidance on that one, we'll let you guys figure out what that is, it's going to be more market-driven. You guys will model it the way you model it. What was the first part of the question?

Toshiya Hari, Goldman Sachs Group, Inc., Research Division - Managing Director [31]

Utilization rates in Q4, what the plans are? .

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [32]

Yes. Thanks for the reminder. So Q2, we were at 77%. We dropped to 75% here in Q3. As we look forward into Q4, again, we assume incremental softness here. So we think it's flat to down slightly in Q4 as our assumption.

Operator [33]

Our next question comes from the line of Rajvindra Gill with Needham.

Rajvindra S. Gill, Needham & Company, LLC, Research Division - Senior Analyst [34]

Question on the guidance on the top line. Can you give us any kind of direction by the nonstrategic or strategic?

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [35]

Yes, Raji, let me break it out by end market. Auto, we think, is going to be up kind of low single digits. We think industrial is down kind of mid-single digits. And we think our other category, nonstrategic, is down kind of mid- to high single digits. That's the way that we think about the guidance there.

Rajvindra S. Gill, Needham & Company, LLC, Research Division - Senior Analyst [36]

Got it. So on the industrial being down mid-single and kind of seeing a deceleration in kind of the year-over-year growth rate, quarter-by-quarter, that growth rate has been decelerating. And obviously, we've heard commentary about softness in industrial from some competitors. I'm just curious if you think this softness in white goods is just kind of relegated to that particular market. And that seems to be -- even if it is relegated to that small segment of the market, it's still a relatively decent percentage of your industrial if you're seeing kind of a mid-single decline quarter-over-quarter.

So just wondering if that's the case? Or are there other kind of indications that you're seeing with respect to your customers? Outside of alternative energy, are you seeing slower industrial production in medical or other different segments?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [37]

Now look, the industrial -- factory automation, alternative energy is going to be up. The white goods, I gave it as an example of what we call legacy industrial, meaning the industrial segment that is the closest to the consumer, and that is driven by consumer spending or even real estate. The industrial market is very broad, and we're starting to see the softness kind of in multiple of these legacy industrial areas.

Our focus specifically is on factory automation and alternative energy. And that's what we've really been investing in, in driving new products through, and that remains strong and that remains growing. But obviously, automotive or industrial is a very broad market.

Rajvindra S. Gill, Needham & Company, LLC, Research Division - Senior Analyst [38]

And just for my follow-up, I appreciate that Hassane. Just that on the OpEx, it's been kind of bold quarter-by-quarter based on kind of pushouts some programs. So 3 12.5% for Q4, as you kind of go into 2023, wondering how you're thinking about the OpEx ramp? Is there going to be continued investment in R&D? I'm just curious if there -- you obviously are managing an OpEx system that's going to be conducive if the demand environment slows down, same thing where you're managing inventory. Just curious how you're thinking about the OpEx controls into calendar 2023?

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [39]

Yes. Look, we've already been managing discretionary spending very carefully. Some of the lumpiness, as I mentioned in my prepared remarks with the timing of some R&D projects. What you'll see us continue to do is reallocate some of the spending into R&D as we grow. As we think into next year, we've set our model at 17%. We've been running well below that, I think, kind of too low at this point. As I look into next year, I don't think we're going to get to 17%. I think we're probably going to be somewhere around 15.5%, maybe max out at 16% of the top end. That would be my thinking for next year. .

Operator [40]

Our next question comes from the line of Tore Svanberg with Stifel.

Tore Egil Svanberg, Stifel, Nicolaus & Company, Incorporated, Research Division - Managing Director [41]

Yes. This is Jeremy Kwan calling for Tore. I guess just 2 quick questions here. The first, regarding your launch or supply agreement, are there any upfront cash commitments or peak pace associated with this? I just want to get a sense of any kind of financial commitments that your customers have given.

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [42]

Can you repeat the first part of your question, you broke up a little bit?

Tore Egil Svanberg, Stifel, Nicolaus & Company, Incorporated, Research Division - Managing Director [43]

Sorry about that. Yes, the long-term supply agreement, just wondering if there's any prepayments associated with these?

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [44]

Yes, absolutely. I mean our customers have been co-investing with us. We've been saying that for a while. That's -- that has to be prepayments, it can be on payments for capital. It could be co-investing in R&D, that's very typical.

Tore Egil Svanberg, Stifel, Nicolaus & Company, Incorporated, Research Division - Managing Director [45]

Any chance you could quantify that for us?

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [46]

No. They vary by agreement and duration. So I wouldn't want to try and put a number on it.

Tore Egil Svanberg, Stifel, Nicolaus & Company, Incorporated, Research Division - Managing Director [47]

Got it. Okay. And then just circling back to the pricing question. Are there -- is there anything that you might want to highlight in terms of maybe the timing of these price increases that you're passing along versus the price increase that you're seeing in the supply chain? And any way to quantify this as well?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [48]

No, we're not giving quantitative because we're just passing whatever we get. So from the outlook and from our margin, you can think about it as being neutral. So as we get it, we pass it on. .

Operator [49]

Our next question comes from the line of Harlan Sur with JPMorgan.

Harlan Sur, JPMorgan Chase & Co, Research Division - Senior Analyst [50]

Your intelligent sensing group, primarily image sensor solutions, which is where you have quite a bit of the portfolio, which is outsourced as -- I remember it was capacity constrained back last year. This business has been outperforming this year. I think it's up like 41% for the first 9 months. I assume you guys are getting better capacity allocation from your foundry partners. Is image sensor demand still tracking higher than supply and can you just give us an update on the in-sourcing initiatives?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [51]

Yes. Demand -- look, I'll give you the demand environment. Obviously, demand still outpaces supply based on a lot of the penetration that we see in ADAS for automotive, which is agnostic of EVs or ICE engines. So a very healthy demand environment and more importantly, very healthy position that we hold in that market. We also have a lot of new products that we've launched, both in automotive and industrial that are fit for purpose for these markets individually and that is driving some of our new product ramps as well. .

On the supply side, we have been getting incrementally more supply over time. Every quarter, we get incrementally more as our road map with our foundry partners are. And internally, what we've been doing also is expanding some of our -- that I mentioned in my prepared remarks, increasing some of our capacity for back-end in order to get closer to the demand environment as we get more wafers from foundry partners. So both of these have enabled us to increase our units as well as our revenue because of the higher ASPs given the technology advancements that I talked to you about in my prepared remarks. We don't see that slowing down. We're going to keep increasing capacity, we're going to keep getting more wafers from foundry partners, and that's going to keep driving the growth in that business even through next year.

Harlan Sur, JPMorgan Chase & Co, Research Division - Senior Analyst [52]

Great. Hassane, you also talked about this a little bit in your prepared remarks. Being a leader in power, you guys have a pretty broad portfolio of solutions, right? So in addition to the silicon carbide traction inverter for EV and onboard charging, like how successful has the team been in also pulling in, for example, the gate driver module, which uses your MOSFET portfolio, the front-wheel drive, IGBT traction inverters?

This, I assume, is not included in the $4 billion pipeline, but it does sit alongside your silicon carbide solutions and represent sort of further content gain opportunity. So how successful has the team been in sort of attaching these other components, 2-year silicon carbide pipeline?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [53]

That's a good question. So the team has been very successful. What we -- what I refer to as cross-selling, it's something that our sales team drives with the business unit that I track as well. So just to give some more specifics, the $4 billion committed revenue we talked about for silicon carbide, that's purely on the silicon carbide. Thad talked about our LTSAs in general, being north of the $14 billion and increasing more than $5 billion last quarter and including hundreds of parts.

So you can think about that's the cross-selling at a customer where we want to make sure that everything on that bond that the customer needs is secured in the LTSA. The worst thing you can have is have 99 parts, and you're missing the golden screw from us also, and we can ship to 99. So we have the full content on per bomb. And per new designs, we pull a lot of our other content that will support that system level sell.

I've mentioned in the past, we do that even with image sensors where new and highly advanced image sensors also carry a PMIC with them. So it's not just power. Within power, we carry power even our intelligent sensing business as a cross-selling. So we do that as a matter of day to day. Our sales team is focused on it, and our business units are focused on it.

Operator [54]

Our next question comes from the line of Timothy Arcuri with UBS.

Timothy Michael Arcuri, UBS Investment Bank, Research Division - MD and Head of Semiconductors & Semiconductor Equipment [55]

I wondered if you could quantify in Q4, the gross margin headwinds from the underutilization and then maybe help us think about does that get better in Q1 or worse?

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [56]

Well, look, the way we're thinking about the market right now is we think it remains soft. I think utilization kind of stays in this level, maybe even goes backwards slightly as we go into Q1. So I don't expect that to improve just based on what we're all seeing in the news.

In terms of the quantification, we said silicon carbide is 100 to 200 basis points dilutive there. And the utilization is a factor in addition to that.

Timothy Michael Arcuri, UBS Investment Bank, Research Division - MD and Head of Semiconductors & Semiconductor Equipment [57]

Okay. And then, I guess, can you help quantify -- you just talked about the LTSAs, and it sounds like most of the increases you're kind of sweeping other content inside of the silicon carbide business given the importance of that. Can you just talk about how much of the $2.2 billion right now is moving inside of LTSAs?

I guess the question really goes to -- there's just a lot of general skepticism typically around LTSAs. And maybe can you just talk broadly about any change in customer behavior inside of an LTSA versus revenue that moves outside of an LTSA?

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [58]

Yes. Look, as I said, customers are extending their LTSAs. They are coming back and increasing them as well. So I think that the age has been very consistent with our customers trying to lock up long-term supply. And just to clarify, our LTSA -- our committed revenue in LTSA over a multiyear period now is over $14 billion. It was up over $5 billion -- $5.3 billion in the third quarter.

So you can see that this is customers locking in supply on silicon carbide, but beyond that as well across the entire portfolio. What we're not doing is we're not doing LTSAs on the business we're looking to exit, obviously, because -- we don't want to have a commitment there.

Operator [59]

Our next question comes from the line of Tristan Gerra with Baird.

Tristan Gerra, Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst [60]

Just a follow-up on this. So in industry-wide in analog outside of LTSAs, we know that another companies had implemented earlier this year, noncancelable orders to. So are those holding into next year or at least into the first half of next year in terms of how you're dealing with or outside of your LTSAs?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [61]

Yes. Look, it's not about just, it's also with the end customers. Obviously, LTSAs is a broader view, and it's a multiyear. As far as NCNR, it depends. We've had -- we have NCNRs that extend up to 12 months of backlog. But it always remains our cautious outlook even if you have an NCNR order, but there's inventory at the disty will you still ship it? You've seen us be very, very disciplined on inventory and trying to make sure we -- it doesn't balloon out of control.

We've kept it around the 7 weeks. We're comfortable with the visibility we have at that. We have the NCNR orders to support all of the demand that we have, but we are very cautious and disciplined about how much we ship and when we ship it because we have to ensure that it does POS at the end of the day during the quarter. So it doesn't get above our expectations as far as weeks of inventory with our partners.

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [62]

Yes. Tristan, I would add that of our $14.1 billion of LTSA, it does not include the NCNR orders. So when you combine the 2, we have very good visibility into our backlog and what we're truly.

Tristan Gerra, Robert W. Baird & Co. Incorporated, Research Division - Senior Research Analyst [63]

Okay. That's great. And then for my follow-up, it looks like based on the specs provided on your website, your silicon carbide products already at 650 volts. I know there's some silicon carbide products from other suppliers out there going all the way to 1,200 volt. So could you talk about this in terms of specs? And what's your expectation? Because I'm assuming that increasing the voltage also increases your TAM within EVs.

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [64]

Yes, I don't know where you're referring to, but we have 1,200 volts already in production and supplying to customers. So I'm very comfortable with our road map and the breadth of our portfolio, both in silicon and silicon carbide, but our 1,200 volts is already in production, and it has been.

Operator [65]

Our next question comes from the line of Vijay Rakesh with Mizuho.

Vijay Raghavan Rakesh, Mizuho Securities USA LLC, Research Division - MD of Americas Research & Senior Semiconductor Analyst [66]

Just a quick question. On the silicon carbide side, obviously, you're seeing pretty solid traction. Just wondering if you could give us an idea of what the dollar content you're getting per car in terms of the range, if you can as you go from a dual motor to quad motor, et cetera?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [67]

Yes. Look, Vijay, I'll give you a couple of comments because it depends on how much power for the drivetrain or the inverter and so on. So it's a broad range. But just to give you an idea for an equivalent reference. For us on EVs, you can think about incremental content, it's about $700 for an EV versus ICE. Obviously, the majority of it is from the traction inverter, then you add onboard chargers and so on. .

And then as far as the ASP, you can think about it as the silicon carbide ASP is about 3x that of an IGBT. So that gives you kind of an apples-to-apples as far as if you normalize it on a specific power output.

Vijay Raghavan Rakesh, Mizuho Securities USA LLC, Research Division - MD of Americas Research & Senior Semiconductor Analyst [68]

Got it. And then the second question is, as you look at your design win pipeline is growing very nicely. You talked about how you're displacing some legacy suppliers as well incumbents. Just wondering if you could kind of go through what are the top 3 things that are helping you drive the design wins, I think that would be very helpful? And if we had an updated backlog you can cover backlog number there as well?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [69]

So from an overall, obviously, there are 2 things driving a lot of our design wins and the new product revenue and all of the forward-looking revenue confidence. One is always starts with technology. Our technology and a lot of our focus area and our strategic area is compelling, and it's very competitive against what's in the market today.

Obviously, we've talked about silicon carbide and why we win, both on the technology and the packaging as far as module, getting more power in a smaller and smaller module, reducing costs and so on and improving efficiency. So that's on the silicon carbide.

Image sensing, I'll give you a few examples. LED flicker mitigation is a great example of where our superior technology in a market need where a lot of the signs are LED and standard camera or a competitive camera cannot detect an LED sign. We have technologies that address that. Global shutter is what is needed for detection and/or factory automation. Every single strategic market we are going after, we have products that are tailored made with specific technology to address real problems that the customers have. That's what creates value. And that's what, number one, puts us in the lead for new designs and also puts us in the lead when there's a refresh and the design for us to capture share. But it always starts with technology and capability.

Operator [70]

That concludes today's question-and-answer session. I'd like to turn the call back to Hassane El-Khoury, President and CEO, for closing remarks.

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [71]

Thank you all for joining us today. Our teams have yet again delivered outstanding results in the third quarter. I'm excited about our future as we have not yet reached our full potential and we have everything we need to lead in the fastest-growing markets, superior technology, committed customers and a talented workforce that will continue to expand to support our long-term growth. And as always, we remain consistent and committed to executing with the highest degree of excellence. We look forward to seeing you at various investor events during the quarter. Thank you. .

Operator [72]

This concludes today's conference call. Thank you for participating. You may now disconnect.