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P: Richard Ewing Schafer; Oppenheimer & Co. Inc., Research Division; MD and Senior Analyst

P: Ross Clark Seymore; Deutsche Bank AG, Research Division; MD

P: Tore Egil Svanberg; Stifel, Nicolaus & Company, Incorporated, Research Division; MD

P: William Stein; Truist Securities, Inc., Research Division; MD

+++ presentation

Genevieve Cunningham^ Welcome, everyone, to the MPS Third Quarter 2020 Earnings Webinar. Please note that this webinar is being recorded and will be archived for 1 year on our Investor Relations page at monolithicpower.com. My name is Genevieve Cunningham, and I will be the moderator for this webinar.

Joining me today are Michael Hsing, CEO and Founder of MPS; and Bernie Blegen, VP and CFO. During this webinar, we will discuss our Q3 2020 financial results and guidance for Q4 2020, followed by a Q&A session.

(Operator Instructions)

In the course of today's webinar, we will be making forward-looking statements and projections that involve risk and uncertainty, which could cause results to differ materially from management's current views and expectations. Please refer to the safe harbor statement contained in the earnings release published today. Risks, uncertainties and other factors that could cause actual results to differ are identified in the safe harbor statements contained in the Q3 2020 earnings release and in our SEC filings, including our Form 10-K filed on February 28, 2020, and in our Form 10-Q filed on August 3, 2020, which are accessible through our website, monolithicpower.com.

MPS assumes no obligation to update the information provided on today's call. We will be discussing gross margin, operating expense, R&D and SG&A expense, operating income, interest and other income, net income and earnings on both a GAAP and a non-GAAP basis. These non-GAAP financial measures are not prepared in accordance with GAAP and should not be considered as a substitute for or superior to measures of financial performance prepared in accordance with GAAP. A table that outlines the reconciliation between the non-GAAP financial measures to GAAP financial measures is included in our earnings release, which we have filed with the SEC. I would refer investors to the Q3 2019, Q2 2020 and Q3 2020 releases as well as to the reconciling tables that are posted on our website.

Now I'd like to turn the call over to Bernie Blegen.

Bernie Blegen^ Thanks, Jen. MPS achieved record third quarter revenue of $259.4 million, 39.3% higher than revenue in the second quarter of 2020, and 53.7% higher than the comparable quarter in 2019. As noted in our September 14, 2020 update to our Q3 financial guidance, our revenue increased beyond expectations for 2 key reasons: First, we were able to fulfill our customers' demand that had been delinquent due to past capacity constraints; second, certain China-based customers requested previously scheduled shipment dates be pulled into the third quarter of 2020. We believe this request was related to trade and regulatory policy changes that occurred during the quarter. These 2 factors contribute significantly to this quarter's performance relative to the prior quarter of 2020 and to Q3 of 2019.

Looking at our revenue by market. Third quarter 2020 communications revenue of $54.7 million was up 81.8% from the second quarter of 2020, primarily due to a pull-in of customers requested ship dates. Communications sales represented 21.1% of our total third quarter 2020 revenue.

In our consumer markets, third quarter 2020 revenue of $70.2 million increased 47.4% from revenue reported for the prior quarter of 2020. This extraordinary growth in consumer reflects a combination of market share gains in gaming, wearables and IoT applications, along with normal seasonality. Consumer revenue represented 27.1% of our third quarter 2020 revenue.

In our computing and storage market, third quarter revenue of $75.3 million increased $11.2 million or 17.5% from the second quarter of 2020. The sequential quarterly revenue growth was broad-based with sales gains recorded in high-end notebooks, servers and storage. Computing and storage revenue represented 29.0% of MPS' third quarter 2020 revenue.

Third quarter automotive revenue of $28.5 million grew $10.7 million or 60.4% over the second quarter of 2020. This improvement reflects a more normal ordering level following the Q2 2020 industry-wide slowdown resulting from the pandemic. We believe MPS' market share will continue to expand in the coming years as we have been awarded multiple design wins in infotainment, smart lighting, ADAS and autonomous driving. Automotive revenue was 11.0% of MPS' total third quarter 2020 revenue.

Third quarter 2020 industrial revenue of $30.7 million increased 15.3% from the second quarter of 2020, due primarily to increased revenue for power sources and industrial meters. Industrial revenue represented 11.8% of our total third quarter 2020 revenue.

GAAP gross margin was 55.1%, matching the second quarter of 2020 and 10 basis points lower than the third quarter of 2019. Our GAAP operating income was $60.0 million compared to $28.0 million reported in the second quarter of 2020, and $30.0 million reported in the third quarter of 2019.

Non-GAAP gross margin for the second quarter of 2020 was 55.5%, 20 basis points below the gross margin reported for the second quarter of 2020 and 10 basis points lower than the third quarter from a year ago. Our non-GAAP operating income was $84.9 million compared to $53.0 million reported in the prior quarter and $51.4 million reported in the third quarter of 2019.

Let's review our operating expenses. Our GAAP operating expenses were $83.1 million in the third quarter of 2020 compared with $74.6 million in the second quarter of 2020 and $63.1 million in the third quarter of 2019. Our non-GAAP third quarter 2020 operating expenses were $59.1 million, up from the $50.7 million we spent in the second quarter of 2020 and up from the $42.5 million reported in the third quarter of 2019. The sequential increase in Q3 non-GAAP operating expenses primarily reflected higher variable costs associated with the increase in revenue and an increased level of investment in securing foundry capacity.

The differences between non-GAAP operating expenses and GAAP operating expenses for the quarters discussed here are stock compensation expense, an income or loss on an unfunded deferred compensation plan.

For the third quarter of 2020, total stock compensation expense, including approximately $707,000 charged to cost of goods sold, was $23.0 million compared with $21.0 million recorded in the second quarter of 2020.

Switching to the bottom line. Third quarter 2020 GAAP net income was $55.6 million or $1.18 per fully diluted share compared with $30.2 million or $0.64 per share in the second quarter of 2020, and $29.5 million or $0.64 per share in the third quarter of 2019. Q3 non-GAAP net income was $79.4 million or $1.69 per fully diluted share compared with $50.6 million or $1.08 per share in the second quarter of 2020, and $49.5 million or $1.08 per share in the third quarter of 2019. Fully diluted shares at the end of Q3 2020 were $47.0 million.

Now let's look at the balance sheet. Cash, cash equivalents and investments were $554.5 million at the end of the third quarter of 2020 compared to $515.4 million at the end of the second quarter of 2020. For the quarter, MPS generated operating cash flow of about $77.4 million compared with Q2 2020 operating cash flow of $59.3 million. Third quarter 2020 capital spending totaled $19.6 million.

Accounts receivable ended the third quarter of 2020 at $93.5 million, representing 33 days of sales outstanding, which was 6 days higher than the 27 days reported at the end of the second quarter of 2020 and 2 days higher than the 31 days at the end of the third quarter of 2019.

Our internal inventories at the end of the third quarter of 2020 were $148.1 million, down from the $152.1 million at the end of the second quarter of 2020. Days of inventory of 116 days at the end of the third quarter 2020 were 50 days lower than at the end of the second quarter of 2020. The sequential drop in days' inventory on hand represented an anomaly due to a decrease in the dollar value of inventory and a 39% increase in quarterly revenue. Currently, our inventory levels are lean. We are working very hard to return inventory to the 180 to 200-day level necessary to support our future growth.

I would now like to turn to the outlook for the fourth quarter of 2020.

We are forecasting Q4 revenue in the range of $218 million to $230 million.

We also expect the following: GAAP gross margin in the range of 55.1% to 55.7%; non-GAAP gross margin in the range of 55.4% to 56.0%; total stock-based compensation expense of $21.8 million to $23.8 million, including approximately $700,000 that would be charged to cost of goods sold; GAAP R&D and SG&A expenses between $81.3 million and $85.3 million; non-GAAP R&D and SG&A expenses to be in the range of $60.2 million to $62.2 million; litigation expense should range between $1.8 million to $2.2 million; interest income is expected to range from $1.0 million to $1.4 million; fully diluted shares to be in the range of 47.1 million to 48.1 million shares.

In conclusion, we will monitor market conditions closely and continue to execute. I'll now open the webinar up for questions.

+++ q-and-a

Genevieve Cunningham^ (Operator Instructions)

Our first question comes from Tore Svanberg from Stifel.

Tore Egil Svanberg^ Congratulations on the $1 billion run rate. First question is Q4 guidance. Could you talk a little bit about which are some of the end markets that's going to be performing in Q4? Obviously, I know communications is going to be down, but what about some of the other markets for the December quarter?

Bernie Blegen^ Tore, thanks for commenting on the $1 billion run rate. Yes, if you compare ourselves against Q3, obviously, that was a high watermark. So probably a more relevant comparison is against Q4 of 2019. And on that basis, we're expecting all of our major markets to be up significantly from the prior year. And then when you do the comparison against Q3, you'll see that there'll probably be declines in communications and computing and also in consumer. The consumer is seasonally adjusted, but we'll still expect to see improvements in industrial and automotive.

Tore Egil Svanberg^ Very good. And as my follow-up, you mentioned inventories are pretty lean. So can you just elaborate a little bit on what you're doing to try and get the inventories back up? You said you had some OpEx to maybe secure some foundry capacity, but anything else you can add on sort of how you're going to get back to that 180 days of inventory?

Bernie Blegen^ Sure. I think as we acknowledged in Q3 that we were able to catch up as far as having adequate capacity in order to service near-term demand, and in giving guidance for Q4, that expectation follows along. When we look ahead over the course of the next 24 months, we previously mentioned that we're entering into new relationships with other fabs and expect to grow our overall capacity. So this will be an ongoing investment that we would project for at least about the next 6 quarters.

Tore Egil Svanberg^ Great, and congratulations again.

Bernie Blegen^ Thanks Tore.

Genevieve Cunningham^ Our next question comes from David Williams from Loop Capital.

William Stein^ Can you hear me?

Bernie Blegen^ Yes, David, I can.

William Stein^ I think there is a mistake. It's Will Stein from Truist. I guess I'll just go. Bernie, first a clarification. The inventory target that you called out in your script, I think you said 180 to 200. I think that's 20 days higher than what you said on the last conference call. Is that correct? And if so, can you help us understand what's changed?

Bernie Blegen^ The previous metrics that we had been using were about 20 days lower, but we've really made this change as far as what we've been trying to explain to the analysts and to investors over the course of about the last 2 to 3 quarters. But nonetheless, I do want to address your question, which is in order for us to sustain the level of growth that we have in excess of our market, the industry that we have to have a higher level of inventory. So in other words, there is a mismatch. In other words, we are building the inventory today, but we're not going to -- for the sales that will occur 1 or 2 quarters out. And so it's not a perfect reflection for other companies where they're not growing as fast. They can maintain lower levels in terms of days, but here, again, we have to make an incremental investment in order to allow to support our growth.

Michael R. Hsing^ Let me add it. As you remember, end of the last year and we are at around 200 days of inventory. If we use that model and to meet this year growth, that probably -- that's about the right numbers. That's the basis. We -- that's where this 20 more days come from. And -- so if you go to a little more details, and MPS is a fabless company, and yet, we have own technologies. This is very unique. I can't think of any of our competitors, they have -- they're in the same way of manufacturing, and I'll do the -- to fulfill their manufacturing. Most of them, they have their old fab. And so given the volatilities and also given the growth that we have and also number of product and address all the greenfield market segment, we need probably more than 200 days inventories.

William Stein^ Okay. That helps a lot. If I can have one quick follow-up. The guidance, while great overall on revenue and EPS, the margins are a little bit different from what maybe some would have expected. And Bernie, I'm just wondering if you can tell us if the model we should be thinking about, which historically was that gross -- would grow at 10 to 20 bps a quarter. And op margin, either there was a, I guess, change in that view that perhaps we wouldn't get an operating margin leverage for the next year or 2. Maybe you could just update us on that model for both those lines.

Bernie Blegen^ Sure. And I think that you captured it very well is that obviously, our model has been to improve gross margin 10 to 20 basis points sequentially. Now a lot of factors weigh into being able to deliver against those results, including both our mix of business as well as what the market looks like. So again, you have to use these as guidelines, not as an absolute guarantee of what our performance will look like. And then on the operating expenses, right now, we are going to be continuing to invest in capacity, as I said, in each of the next 6 quarters. So that will be an additional layer of investment from what we've seen, and so as a result, we're not projecting our operating margins to improve significantly over the course of the next 2 years.

William Stein^ Or OpEx, I think, is that right? In other words, op margin would just expand with gross, which is 10 to 20 bps a quarter? Or...

Bernie Blegen^ Yes.

Genevieve Cunningham^ Our next question comes from David Williams from Loop Capital.

Our next question comes from Quinn Bolton from Needham.

Quinn Bolton^ Let me offer my congratulations on a very strong September and good December outlook. Bernie and Michael, these are sort of unprecedented times in the business, and I know you don't typically look out more than a quarter. But I guess, one of the questions I'm hearing from investors is, whether there is any sort of inflated demand still impacting the business in the December quarter. And wondering, to the extent you can give us any sort of thoughts on March, would March show a typical seasonal decline from the December quarter of, say, 3% to 5%, what you would see in a typical year? Or do you think it could show a greater seasonal factor? I know you don't typically go out 2 quarters, but again, this is really strong results here in the near term.

Michael R. Hsing^ Let me answer that question. If you're talking about normal seasonality, then the outlook is great. And we have so many design in activities, and we see so many award projects. And -- but and as well as you know as well as I know, okay, this way in unprecedented era. Pandemics and geopolitical issues, and I can't predict, and frankly, I care less.

Bernie Blegen^ And if I can just add to that is that. I really think that there are certain aspects of our business that we have in good control, as Michael hit on as far as the design win activity, but right now, we do not have control over what the end customer demand is ultimately going to be about. So I think that as far as executing against our strategy and seeing it show up in our results, I think we're going to continue along that path, but there are just too many factors for us. It would be pure speculation at this point.

Quinn Bolton^ Okay. Maybe I could ask, in past calls, you've oftentimes given us some idea of your sort of starting backlog coverage, and I know that typically runs a very high percentage of the revenue guidance. I guess it's with some of the delinquencies you had a past quarter, you had very strong backlog. But as you head into the December quarter, so backlog sort of back to more normal levels that it would have typically run in the last couple of years? Is it still elevated? Can you give us any thoughts on kind of the backlog coverage?

Michael R. Hsing^ Well, as the December quarter -- go into December quarters, we are still facing delinquencies. So the capacity is still limited.

Bernie Blegen^ And I think what we're seeing here is that, as I said, in the guidance that we offered is it anticipates both the demand, including the backlog that we had coming into the quarter, and it's matched with what our supply chain and capacity limits are. So I guess that I would probably offer that we have some ability for upside, but it's going to be a little bit limited by supply chain.

Genevieve Cunningham^ Next question comes from Alex Vecchi from William Blair.

Alessandra Maria Elena Vecchi^ Michael and Bernie, congratulations, again, in a very volatile environment. If we can just touch base a little more on the automotive segment, this appears to be the highest revenue quarter you guys have posted since really starting to gain traction in the segment. I've realized the environment is just starting now to get a little bit better. But can you maybe update us on how we should think about the long-term growth targets there? In the past, you've said 40% to 60% growth. Obviously, that may be a little premature at this point, but perhaps, update us on how you're feeling on that segment.

Bernie Blegen^ I would probably say that automotive is one of the more exciting end markets for us for the next several years. Now if you look at our track record in 2019 and 2020, 2019 was affected by the recession, 2020 by factory closings related to the COVID-19 pandemic. So again, those are circumstances that were largely outside of our control. But what we're seeing is that we're expanding now from our traditional infotainment base into some of these more exciting technologies, including the lighting systems, the ADAS and the autonomous driving. So we think that this is a sustainable revenue growth should be well ahead of what our corporate average is going to be. At one time, we were promoting concept of being able to grow consistently at 20% to 60% per year, but that would probably back off of that, down to a more reasonable between 30% and 40%, but still a very exciting end market for us.

Michael R. Hsing^ That's a (inaudible) talking. Okay. I -- frankly, we don't have -- I don't have it on the clear pictures. And what's the growth? Frankly, I never put MPS' as we have to grow a certain percentage, okay? And what I'm looking at it is, which -- what kind of product, which project and how well we're positioned, and which customers, which projects we want designing. And a lot more importantly, okay, what kind of products in the pipeline. That really drives the top line. And so how we predicted what's the next lowest growth percentage, I can't tell you.

Alessandra Maria Elena Vecchi^ No, no, that's fair, but it's good to hear that the trajectory seems to be sort of back on track. And then similarly, I don't think in the prepared comments you guys commented on the extent of the pull-ins into Q3. Is it fair to say that the vast majority of the sequential decline in Q4 is related to the pull-in activities? Or is there also a little bit of normalization of demand in there as well?

Michael R. Hsing^ Well, we had a lot of pulling from Q3 and partially in Q4. And well still -- as I said earlier, we're still facing delinquencies. And so I think that's a combination of the growth and also in a capacity shortage from that past. Okay.

Alessandra Maria Elena Vecchi^ From that past, okay. And then lastly, if I can, on -- just on the days inventory, the 180 to 200 days, how long will it take you to get back to that level? Is that something you can achieve in Q4? Are we really looking to more the first half of 2021?

Michael R. Hsing^ Well, if the market slows down, we'll get there quickly. I think that -- okay, we -- again, and this is -- we're at uncomfortable levels. I can meet that. And so we want to increase as much as we can. And now our engineers working the fabs, okay, working at the different fabs and to get the -- to qualify the process and technologies. And so we hope that in the next 6 months, we can catch up.

Genevieve Cunningham^ Our next question comes from Joshua Buchalter from Cowen.

Joshua Louis Buchalter^ Let me echo my congrats. As for my first question, earlier this year, you'd mentioned bringing in additional 12-inch fab online in the second half. I was wondering, was this the primary driver of the additional capacity you were able to secure in the third quarter? And then looking ahead, how much more capacity do you feel you need to both serve your customers and get the inventory levels up to that that you raise 180 to 200 days?

Michael R. Hsing^ Yes. Okay. The first question is, yes, absolutely, okay. We said earlier this year, we expanded another 12-inch fab, we had -- wasn't in our plan, but we hurried up in get that thing going, okay? And we start shipping product in Q3, okay? That's a very, very -- that's unprecedented, and thanks to our people. And they really worked day and night to manage that -- to manage and qualify these products. Going forward, it's a -- we just want to expand the capacity to reach 180 to 200 days inventory. And going in future, if we have a very linear world, and I came with that is very easy to calculate, okay? I think we are living in a very nonlinear environment and 200 days inventory, that's what we want to do.

Joshua Louis Buchalter^ Got it. That's very helpful. And then for my follow-up, a bit of a bigger picture question. I mean, you guys are now $1 billion -- or you reached $1 billion run rate this quarter. Are you seeing any increase or changes in the competitive responses from your peers as you move higher on both a unit basis and as well in the socket value?

Michael R. Hsing^ Our ASP is increasing and as -- when we move to high-end market segments. And so that's -- our competitions are always pretty similar. I mean our customer doesn't even know MPS' is $1 billion. There are no MPS. MPS is very small potatoes against all these giants.

Bernie Blegen^ But I think you go back to what our competitive basis is, and it really is that we're winning with superior technology and a higher level of customer service, and I think that's what our customers are recognizing as far.

Michael R. Hsing^ That's right, yes.

Joshua Louis Buchalter^ Congrats, again.

Michael R. Hsing^ Thank you.

Genevieve Cunningham^ Our next question comes from Rick Schafer from Oppenheimer.

Richard Ewing Schafer^ I'll add my congratulations as well. Maybe just a quick follow-on, if I can, on that production question. I know you guys have been pulling in new production and foundry partners pretty aggressively. I mean, I know you've spoken, I think, in the past about sort of once it's done, the goal is to kind of be at that $1.2 billion or so in kind of annual revenues. And that's not a lot of headroom for you guys at your current run rate at your current growth rate. So I'm curious, is that $1.2 billion still the right number we should be thinking of in terms of your capacity when all said and done? And maybe what does the time line look like for that now since you're pulling stuff in?

Michael R. Hsing^ Yes. Okay. Obviously, the $1.2 billion is not enough, okay? And if you want to building a fast on the 200 days inventories, it's more than double right now. So that's what we try to do, and it's not easy. And that's what we're aiming for, just to double it.

Bernie Blegen^ And I think that in the past, securing fab capacity and being able to introduce new products at the rate that we are is really nothing new to MPS. But the scale has been getting bigger, and so that's why the investments and the time that we have to plan ahead makes a difference. And so all we're doing is preparing both for the capacity, but also recognizing, acknowledging the investment that goes with it.

Richard Ewing Schafer^ So if we fast forward 18 months, 24 months, I mean, is there a bogey for what -- where you think your capacity will be? I mean if it's not $1.2 billion, is it -- I assume higher than that, but I'm just just curious if there is a number you can share or if you know at this point?

Michael R. Hsing^ We're doing -- I'm sorry, I wasn't said clear. We're shooting for $2 billion.

Richard Ewing Schafer^ $2 billion? I'm sorry, I misunderstood. Sorry. Thanks Michael. And then just maybe a question, if I could, on 5G. And maybe I was hoping you could talk a little bit about your exposure to the Tier 1 5G ramp, OEMS, the one that you're allowed to sell to, of course. Where you are in terms of of revenue ramp or design win activity? I mean, are any of these guys buying QSMod yet? Or are you sort of initially seeing more POL issues kind of similar to what you saw in the early stages of your cloud server ramp?

Michael R. Hsing^ I think 5G overall at an early stage. And all I can say now that we engage with all the 5G station makers. And we do have a designing activity, and we do have award projects, and -- but it's not significant revenue yet.

Genevieve Cunningham^ Our next question comes from Ross Seymore from Deutsche Bank.

Ross Clark Seymore^ I want to give the same congrats that everybody else did this to pen this work here. A couple of quick questions. First, when do you expect the delinquencies to be gone?

Michael R. Hsing^ If the market slows down, we're going to do that next quarter. If the demand is still that strong, we continue to face that. And we see some not as bad as last quarters -- last 2 quarters.

Ross Clark Seymore^ And then on the supply side of the equation somewhat, but maybe even more of a regulatory issue. What's the exposure? And how are you dealing with the Huawei ban? And does the SMIC band have any impact on you, whether it's in the supply side or otherwise?

Michael R. Hsing^ Well, Huawei is not our -- not our suppliers, okay? But SMIC, okay, it is our supplier. So far, it's not affecting us, and we don't know. We can't speculating, okay, what does all these policy means that came in. But on the other hand, and we diversified our foundry sources, okay? We're starting from a beginning of this year. We speed it up.

Ross Clark Seymore^ So on the Huawei side, just to be clear, you had them as a customer, I believe, in the first half of the year one way or the other. And I assume you're no longer shipping to them, and I just wondered if that's part of fourth quarter guidance is then going to 0.

Michael R. Hsing^ Well, we can say 0 or some nonzero, okay and so far, we cannot ship. And -- but there is other rules and regulations coming out and all the other permits, I mean, we cannot speculating or what kind of things we can do. And it's all depending on our government now.

Ross Clark Seymore^ I guess the last question then away from government type questions is, Bernie, you and Michael have had a framework in -- for many, many years about the percentage superior growth versus the analog market that you guys have delivered. I think it's been kind of a 10% to 15% positive delta in your favor. Is that rule just thrown out the window now? This year is 25, 30 points above that peer group. And I know 1 year doesn't make a trend, but as you look at it, is there something that's creating some semblance of escape velocity where that delta expands meaningfully just due to the breadth of your design wins, the markets you're targeting? Or do we expect a little bit of a reversion to the mean in 2021 after such a great 2020?

Michael R. Hsing^ Well, I can't -- as I said, the world is not linear. And I remember and I was facing a lot of -- I was a face -- I was facing a lot of questions about when our model is like a 20% to 25% growth rate. In 2016, '17 or 2015, '16, and we will criticize and will never get there, although we're somewhere around 17%, 18%, okay? And so -- and you asked so many times, you forced me say it at the time. I think around 2016, I said that -- but 2018, '19, we're going to get it over 20%, okay? And that comment is pulling off from my ears, okay? I don't have a -- this is not a science, okay? I mean in a nonlinear world, it's very difficult to predict. And so I said earlier, okay, we only anticipating and by staffing the inventories and by stock inventories. And just get ready, and of course, and the world crashes, okay. Of course, we're not we're going to start to depleting inventories. And okay, we're not building as many as much, okay? And so we can modulate the inside a little bit, okay? But for the growth rate, I see all these designing activities and all these projects. I will say last couple of years is better than 2, 3 years before. And we awarded a lot more high-value products, high-value sockets.

Genevieve Cunningham^ Our next question comes from Tore Svanberg from Stifel.

Tore Egil Svanberg^ I just had a follow-up, Michael, on e-commerce. That's obviously a business model that could help you manage capacity, inventory and so on and so forth. Have you been able to keep up with the investments there in this environment? Maybe you could just update us on where the e-commerce business stands today.

Michael R. Hsing^ We didn't prepare the numbers. We're doing really good. And I thought that there was nobody going to ask the question because...

Bernie Blegen^ We have so much other news.

Michael R. Hsing^ It is okay. I think that we -- I can -- I feel -- I can say, we've figured out the way to do it. And so until we prove ourselves wrong again, the new website I think you see it, okay? It's very different, and we increased a whole lot more clicks and the customers stay on the pages for a lot longer. And also, we're creating a virtual labs and that part also help the e-commerce. So we don't have the product FAEs and have them pounding the pavement to generate opportunities, and we're using the website. And the numbers and the increase by increased weekly, and I'm very pleased and the -- and so we're talking about a few hundred percentage increase from a small number. It doesn't mean a lot, but for us, and we learned it. That's the trick. That's the area we're going to do, okay? We're going to enhance that.

Bernie Blegen^ I didn't know that there's an even higher arching strategy here where e-commerce is a significant part of, and it's really how do you go after underserved customers. And what was surprising to me is, we did a look at the last 3 years as far as how many customers did we have that were under $100,000 and how is that base growing. Because if you can use the linear model, where what they used to do is get in there early...

Michael R. Hsing^ you mean Linear Technology.

Bernie Blegen^ yes Linear Technology, getting there early and then develop these long-term relationships and then you grow with their growth. And so as a part of that strategy, I think we're -- the numbers I looked at, we're doing a very good job. They're starting to bear dividends.

Michael R. Hsing^ We increased these number like 3 or 4 times.

Bernie Blegen^ Yes.

Michael R. Hsing^ And from a small base. And that is a significant, and it's happened in the last few years. And now clearly, we can put the metrics. And so old saying, this is what you measure what you get, okay? And we know how -- start to know how to -- what to measure it, and that's, to me, is very important. But I'm looking at the revenue-wise, okay, it became meaningful, but I don't have a clear details. I don't want to have a pull out my hair numbers.

Genevieve Cunningham^ Our next question comes from Rick Schafer from Oppenheimer.

Richard Ewing Schafer^ Michael and Bernie. And speaking of things that haven't been talked about as much maybe in the last couple of quarters. I'm curious if you could give us an update on the design win pipeline or revenue color for your converter business. Has -- I'm just curious, has ADI, Maxim opened any doors for you guys? And have you seen the level of engagement with customers increase maybe as a side note or are you seeing more analog, does it line into your resumes? Or is it easier to find guys? So I'm just curious if you could give us any update there.

Michael R. Hsing^ It's -- finding good people as always hard. All these good company that keep the good people, and that's always a challenge, okay? And so we know that we need a diversified. And that came in a lot of times, okay, in the last 10, 15 years or more likely the last 20 years. We have a lot of people from China. And now 2 or 4, 5 years ago, we migrated to Europe and the Taiwan and outside of the Mainland China, okay? Now in the last couple of years, it will come back to U.S., and we do see, not necessarily in the Bay Area, but other parts of the countries, we do find some talents there.

Richard Ewing Schafer^ And Michael, any update on what's happening with converters for you guys?

Michael R. Hsing^ The converters, which...

Richard Ewing Schafer^ The signal chain stuff the team you brought in. I think it's been a couple of quarters since we talked about ADAS.

Bernie Blegen^ High-performance analog, yes.

Michael R. Hsing^ Oh, yes. The data converters. Okay. Yes, yes, yes. Okay. I think we received the first chip, okay?

Bernie Blegen^ Prototype.

Michael R. Hsing^ Yes. And I think we're building a solutions and as most of the time, the first chip will have some bugs, but we -- it's weekly, and we are building a prototype, okay? We still can't put in a system yet now.

Genevieve Cunningham^ Our next question comes from William Stein of Truist.

William Stein^ Follow-up from before. We're just -- someone else asked about e-commerce, but I'm hoping you might give us an update on the eMotion and module business and maybe the programmable traction generally. I think about these as sort of separate from e-commerce, maybe they're not as separate, but an update on this part of it would be really helpful.

Michael R. Hsing^ Yes, I think we use that e-commerce platform to promote those products. And that eMotion side, I think the revenues -- I had to say some number now otherwise I don't know whether you guys think of whether I'm -- I do have a numbers. I want to have Bernie's, okay. Sometimes it increase almost double. The models -- the motion side.

Bernie Blegen^ Yes. The eMotion is right in that sort of transition phase because we have a lot of design wins that are going in. So last year, the revenue run rate was somewhere in the $10 million to $12 million, but now the doubling is going to start, particularly as we go into both automotive and industrial applications.

Michael R. Hsing^ Yes. Yes. So I'm correct. It was about double.

Bernie Blegen^ Okay. I think also when we look at the modules business, that is taking off very nicely.

Michael R. Hsing^ The modules started with a smaller base, like a few hundred percent increase, okay? That was $40 million -- $30 million, $40 million, okay.

William Stein^ And was the -- is the strength that you're seeing there at all related to the pull-ins and delivering against delinquencies that you had previously? Or is this part of the rest of the business? What I want to think of as core that might not have...

Michael R. Hsing^ No, it's a small part of it is due to delinquencies. I mean this is a new market segment. And people from -- order from online, and we never see those, okay? I mean -- and our -- it is not our own internet and our own website from our distributors, and these are very small customers. They never all those ports before. So -- and that's although the numbers is small, but the revenue is still small, but the large number of our customers, and they use these are plunging play modules. And so what we -- and they can just plug-in, and they don't have to do any design. And since you mentioned the programming portion and that's part of what we learned that our customer doesn't even want to do programs, okay? They want us to do it, okay? And so we created virtual labs, and we -- customer tell us what they want, okay? And we show, in our labs, we program everything, and then we ship, okay? It's -- so now we can talking about is -- it's really a custom design for each customer, and that is taking off, and I'm very glad to see it.

William Stein^ And just a final comment there is on the modules, they're not necessarily tied to any one end market. They're actually very broad-based. Initially, we thought that they would be plug-and-play solutions, particularly for prototyping or small volumes, but it turns out that they're actually going to mainstream production.

Michael R. Hsing^ Yes. Yes. And so that's something we learned, and I'm a former engineering, okay. I'm skilled engineers, our people and we created a great product that we see it, and we're parting like a slowly parameters, so many parameters on the website. They can program it and they can see what the result from simulations. And it turned out to be okay, and we put a lot there nobody looking at it and we're wondering why. And -- so we reduced to half, and then we cut another half the reduced to 5, 6, 7, they still don't want to see it. And they want to they want to take the numbers in a total, you do that for me, okay, and that's great. We can do the work, they pay for it, too. That's fine.

Genevieve Cunningham^ Our next question comes from Quinn Bolton from Needham.

Quinn Bolton^ Just wanted to see if you might be able to give us an update on your efforts in the GPU space for either desktop or data center GPUs. Just looking at the power consumption of those devices, I think you're seeing desktop GPUs now consuming up to 300 watts. I think data center, maybe up to 400 watts. You guys, I think I talked about that back at Analyst Day as a potential opportunity. Just wondering if you're starting to see any real traction or if you start to need in the curve on either the sort of the gaming or the data center side of GPUs.

Bernie Blegen^ Yes. We're seeing substantial movement on both. We probably started out earlier on the desktop, where we started generating revenues with this about 18 months to 2 years ago. And now we're moving into the data center where we actually are starting to ramp, and in particular, 48 volt for artificial intelligence. So the opportunities are significant, but we're still at the very early stages of this market. So fundamentally, we're very well positioned, but it's still going to be another year or 2 before we still -- we move the dial with revenue ramp.

Michael R. Hsing^ Those are AI Bernie is talking about, these are over 1,000 watts, and it's not 200 or 300 or 400-watt levels. If you get to that high level, you're only talking about only a few companies, they can supply those types of product. Again, in I think we are in good positions and -- but always can be better.

Genevieve Cunningham^ (Operator Instructions)

There appear to be no further questions. I would now like to turn the webinar back over to Bernie.

Bernie Blegen^ Great. Thanks, Gen. I'd like to thank you all for joining us for this conference and look forward to talking to you again about our fourth quarter results, which will likely be in early February. Thank you, and have a nice day.