Q2 2022 MPS Earnings Webinar

Monolithic Power Systems, Inc. (NASDAQ:MPWR)
Q2 2022 Earnings Call Transcript
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Company Participants:

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Bernie Blegen – *Vice President & Chief Financial Officer*

Analysts:

Rick Schafer – *Oppenheimer & Co, Inc.*

Matthew Ramsay - *Cowen and Company, LLC, Research Division*

William Stein - *Truist Securities, Inc.*

Quinn Bolton - *Needham & Company, LLC*

Tore Svanberg - *Stifel, Nicolaus & Company, Incorporated*

Ross Seymore - *Deutsche Bank AG*

Melissa Fairbanks – *Raymond James*

Alex Vecchi - *William Blair*

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Genevieve Cunningham

Welcome, everyone, to the MPS second quarter 2022 earnings webinar. Please note that this webinar is being recorded and will be archived for one year on our investor relations page at www.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.

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 Q2 earnings release and in our latest 10-K and 10-Q filings that can be found on our website. 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, other income, income before income taxes, 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 Q2 2022 earnings release which we have furnished to the SEC and is currently available on our website. Now, I'd like to turn the call over to Bernie Blegen.

Bernie Blegen

Thanks, Gen. MPS achieved record second quarter revenue of $461.0 million, 22.1% higher than the first quarter of 2022 and 57.2% higher than the second quarter of 2021. This broad-based year over year revenue growth was a result of consistent execution against our strategies.

Turning now to the second quarter 2022 revenue by market.

In our Enterprise Data market, second quarter 2022 revenue of $65.2 million increased 53.4% from the first quarter of 2022 primarily due to an accelerated ramp in our data center and workstation computing sales. Second quarter 2022 revenue was up 117.9% year over year. Enterprise Data revenue represented 14.2% of MPS's second quarter 2022 revenue compared with 10.2% in the second quarter of 2021.

Storage and Computing revenue of $122.3 million increased 26.6% from the first quarter of 2022. The sequential revenue improvement reflected higher commercial notebook and storage sales. Second quarter 2022 revenue was up 111.6% year over year. Storage and computing revenue represented 26.5% of MPS's second quarter 2022 revenue compared with 19.7% in the second quarter of 2021.

Second quarter Consumer market revenue of $97.3 million increased 21.7% from the first quarter of 2022. The sequential quarterly revenue improvement was broad-based, with particular strength noted in home appliances and gaming. Second quarter 2022 revenue was up 27.9% year over year. Consumer revenue represented 21.1% of MPS's second quarter 2022 revenue compared with 25.9% in the second quarter of 2021.

Second quarter 2022 Industrial revenue of $55.9 million increased 15.1% from the first quarter of 2022, reflecting increased sales of products for power source and security applications. Second quarter 2022 revenue was up 28.9% year over year. Industrial revenue represented 12.1% of our total second quarter 2022 revenue compared with 14.8% in the second quarter of 2021.

Second quarter Automobile revenue of $61.0 million increased 11.9% from the first quarter of 2022 due primarily to increased sales of applications for advanced driver assistance systems, the digital cockpit, and lighting products. Second quarter 2022 revenue was up 25.3% year over year. Automotive revenue represented 13.2% of MPS's second quarter 2022 revenue compared with 16.6% in the second quarter of 2021.

Second quarter 2022 Communications revenue of $59.3 million was up 6.7% from the first quarter of 2022. Most of this sequential revenue increase was related to 5G infrastructure. Second quarter 2022 revenue was up 58.3% year over year. Communication sales represented 12.9% of our total second quarter 2022 revenue compared with 12.8% in the second quarter of 2021.

Moving now to a few comments on gross margin.

GAAP gross margin was 58.8%, 90 basis points higher than the first quarter of 2022 and 280 basis points higher than the second quarter of 2021. Our GAAP operating income was $141.9 million compared to $96.1 million reported in the first quarter of 2022 and $60.6 million reported in the second quarter of 2021.

Non-GAAP gross margin for the second quarter of 2022 was 59.0%, up 70 basis points from the gross margin reported for the first quarter of 2022 and 270 basis points higher than the second quarter from a year ago. The quarter over quarter and year over year increases in both GAAP and non-GAAP gross margin is attributed largely to operational efficiency gains and a more favorable sales mix. Our non-GAAP operating income was $179.4 million compared to $133.6 million reported in the first quarter of 2022.

Let's review our operating expenses.

Our GAAP operating expenses were $129.1 million in the second quarter of 2022 compared with $122.7 million in the first quarter of 2022 and $103.6 million in the second quarter of 2021. Our non-GAAP second quarter 2022 operating expenses were $92.7 million, up from the $86.6 million we spent in the first quarter of 2022, and up from the $70.3 million reported in the second quarter of 2021.

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

For the second quarter of 2022, total stock compensation expense, including approximately $1.2 million charged to cost of goods sold was $42.9 million compared with $39.8 million recorded in the first quarter of 2022. Our second quarter 2022 GAAP other income-- other expense was $5.1 million compared with $634,000 in the first quarter of 2022.

Our second quarter 2022 non-GAAP other expense was $7,000 compared with non-GAAP other income of $1.6 million in the first quarter of 2022. The decrease is due to a $2 million increase in charitable contributions, partly offset by the favorable impact of currency exchange rates.

The difference in non-GAAP other income and GAAP other income is the income or loss on an unfunded deferred compensation plan.

Switching to the bottom line.

Second quarter 2022 GAAP net income was $114.7 million, or $2.37 per fully diluted share compared with $79.6 million or $1.65 per share in the first quarter of 2022, and $55.2 million or $1.16 per share in the second quarter of 2021.

Second quarter 2022 non-GAAP net income was $157.8 million, or $3.25 per fully diluted share compared with $118.3 million or $2.45 per fully diluted share in the first quarter of 2022, and $86.5 million or $1.81 on a per share-- per fully diluted share in the second quarter of 2021. Fully diluted shares outstanding at the end of Q2 2022 were 48.3 million.

Now let's look at the balance sheet. Cash, cash equivalents, and investments were $814.1 million at the end of the second quarter of 2022 compared with $775.9 million at the end of the first quarter of 2022. For the quarter, MPS generated operating cash flow of approximately $105.2 million compared with Q1 2022 operating cash flow of $107.4 million.

Accounts receivable ended the second quarter of 2022 at $125.5 million, representing 25 days of sales outstanding, which was four days lower than the 29 days recorded at the end of the first quarter of 2022 and one day higher than the 24 days in the second quarter of 2021.

Our internal inventories at the end of the second quarter of 2022 were $359.6 million, up from the $311 million at the end of the first quarter of 2022. Days of inventory of 172 days at the end of the second quarter of 2022 were six days lower than at the end of the first quarter of 2022.

Historically, we have calculated days of inventory on hand as a function of current order revenue. We believe comparing current inventory levels with the following quarter's revenue provides a better economic match. On this basis, you can see days of inventory of 162 days at the end of the second quarter of 2022, which were 13 days higher than the 149 days at the end of the first quarter of 2022, and 44 days higher than the 118 days at the end of the second quarter of 2021.

I would like now to turn to our outlook for the third quarter of 2022.

We are forecasting Q3 revenue in the range of $480 to $500 million.

GAAP gross margin in the range of 58.4 to 59.0%.

Non-GAAP gross margin in the range of 58.7 to 59.3%.

Total stock-based compensation expense in the range of $42.8 million to $44.8 million, including approximately $1.3 million that would be charged to cost of goods sold.

GAAP R&D and SG&A expenses between $136.2 million and $148.2 million.

Non-GAAP R&D and SG&A expenses in the range of $94.7 million to $96.7 million.

Litigation expense in the range between $2.3 and $2.7 million. Interest and other income in the range from $1.3 to $1.7 million before foreign exchange gains and losses.

Fully diluted shares in the range of 47.9 to 48.9 million shares.

In conclusion, we are continuing to execute on our growth strategies, including expansion and diversification of our R&D centers and manufacturing partnerships in multiple countries. I will now open the webinar up for questions.

Genevieve Cunningham
Thank you, Bernie.
Analysts, I would now like to begin our Q&A session. As a reminder, if you would like to ask a question, please click on the participants icon on the menu bar and then click the Raise Hand button.

Our first question is from Rick Schafer of Oppenheimer. Rick, your line is now open.

Rick Schafer
Well, thanks. And congratulations, you guys. Another great quarter. This may seem like a silly question given the guidance. But I'm just curious, are you seeing any impact from the delayed launch of Sapphire Rapids?

I mean, I know your accelerator content is a lot higher than your CPU core power content. I think 48 volt-- and please correct me if I'm wrong-- I think our math shows 48 volt track into sort of 100 million this year. So I guess I'm just looking at sort of the puts and takes. And I know this is pretty much a monster guide. But I just was curious if you were seeing any drag there from that delayed launch.

Michael Hsing
So far, we see it for the next year or so. All our growth is-- these are, as you know, these are green fields. And again, we don't-- all the products that we designed in the last few years, and I mean for whatever version of it. And so, if there's a delay, the one thing is that we actually care less. And it's out of MPS control.

But overall, we have a higher power processor in the-- MPS can provide a much higher benefit to those market segments. So if it's off about 1/2 years and a year, it's OK, and we don't notice it as in this period. And where when gain more market shares, and in a way we grow from it. The existing business, we have plenty of it to grow.

Rick Schafer
Thanks a lot, Michael, for the color. And if I could follow up maybe on the supply question. A majority of your wafer supply is still in China, plus you've got your big Chengdu back-end facility.
So I guess, how concerned are you with trying to de-risk supply chain as we keep watching headlines with the US government trying to tighten restrictions et cetera on equipment and everything in China? So just curious your thoughts there. And maybe as part of that, if you could talk about where things stand now with TSMC and give a sense maybe of timing and capacity plans there? Thanks.

Michael Hsing
Yes. We, and just like any other companies, and clearly we're transitioning from the last 20 years of manufacturing from China to other places. And all these infrastructure had to be built up. And we're just like other companies. And we're in the transition.

So actually, we started transitioning earlier. And we first started from our engineering manpower. So I mean, we transition out of six, seven years ago-- And six years ago. And the manufacturers, we started two-- about three years ago. And as you know, we always use a trailing edge DRAM fab or digital fab.

And three or four years ago, then they clearly said, OK, with these higher nodes, 60 nanometers and the 40 nanometers fabs, they all engaged with MPS. And as we have a reputation, we will fill up all these fab. And now, it opens up in Korea, and I mean Taiwan, and these other places now.

So we're only talking about a fab at this point now. And in the next few years, it will be-- I can't say to a move out of China. So we are going to still bigger capacities [INAUDIBLE]. And we have a large market segment in-- our 30% of our revenue is still from China. So in the next year or a couple of years later, next year, we probably will be very diversified.

Bernie Blegen
And just to add to that, as the capacity restrictions are becoming less of a concern for the market in general, customers are asking for diversification, as in a China plus one strategy. So we're working along those lines in companion to expanding our overall capacity.

Michael Hsing
They all require-- each regions and they're required-- they are the local supplied. That's what we're playing the games. And that can mean that's our customer request. And so, we're fully aware of that. And so, we engage with all these fabs across the South Asia, and Europe, and Korea, and Japan. And so, that's how I see it.

Rick Schafer
Thanks a lot for the color. Congrats again.

Genevieve Cunningham
Our next question is from Matt Ramsay of Cohen. Matt, your line is now open.

Matt Ramsay
Thank you very much, guys. Hopefully you can hear me OK. Congratulations on the results. So I had two questions. And I'll just go ahead and ask them both at the same time because I think we got multiple calls going tonight.

The first one, Michael, both in the server business, so the new enterprise data segment and in the PC business, can you give us some indication of how far ahead of the unit sales do your power-- your core CPU power or accelerator power products actually sell in versus the unit shipments that get reported by the end customers?

And Bernie, the second question completely unrelated, $800 million bucks in cash, give or take, if you could walk us through some of the uses of cash there. I'm sure Michael would like to build some inventory, which is always the case. But if you have any new things to say there, that would be really helpful. Thanks, guys.

Michael Hsing
Well, your first question, honestly, say I don't really know. I mean, it's difficult. And as you know, we sell-- these are building blocks. And for more or less in the server, in the data centers areas. And these are more generic parts, and they can be used in multiple ways. And it's hard to track.

And frankly, we don't really care as long as we-- our revenue goes up. And for very high powers, and these are power like a 48 volts of power, so we are a pretty good dominant player in that segment. And so, the-- I think a ramp hasn't really-- just started recently. And I mean, and will be-- in the future it will be a lot more.

But you mentioning about notebooks. I mean, we're mostly in high performance gaming or mostly in a commercial notebook. And number of assets and versus the CPUs is also hard to match in the-- because we are selling these power devices. So they can be through two-phase, they can be three-phase, they can be four-phase. I mean, we don't quite know. I mean, and also, we care less.

And so, it's difficult to answer it. So all these notebooks, all the high end gaming notebooks and the commercial. And so, these are the ones that they have a variety of use.

Bernie Blegen
And on the issue as far as our cash position, which let's put it on the table, it's sort of an enviable position to have, over $800 million of cash and cash equivalents. And there's probably three things that we look at.

The first is we've been consistently paying out a routine dividend. This year it's 75 cents per quarter, or $3 for the full year. And we're evaluating the sustainability at an even higher level. We generally announce dividend increases in February companion with our Q4 operating results. And we'd expect to do so again this year.

Another area that we found is very key and strategic to us is building out capacity. And we're looking, as Michael said earlier, for different avenues in order to build out additional capacity. And in some cases, that may require additional investment.

And then finally, as you also added is working capital, making sure that we have adequate inventory on hand in order to sustain our customers' demand profile. And so, right now we're still below our target of 180 to 200 days of inventory. So we'll continue to be investing in inventories as well.

Michael Hsing
Yeah, might as well, all these are, Bernie, and all the expenses, they are small. Compared-- relatively compared to the cash that we generate every year. And so, what we want to do is-- that's probably MPS know the best, be consistent. And we give an increase in our revenue a year later. And that's what we have been doing in the past few years and will continue to do so. And also, we don't want-- we will do some acquisitions but not acquisition for revenues.

Genevieve Cunningham
Our next question is from William Stein of Truist. William, your line is now open.

William Stein
Great. Thanks for taking my question. And congrats on the great results and outlook. Something I tend to ask about is traction in the module business, because I know that this is something that's helping boost

the revenue growth and the margins. I'm hoping you can maybe update us on the traction in that business, please.

Michael Hsing

Yeah. The modules is doing well. And I mean, but the revenue is still quite small, so about $100 some million. But I know the next few years will grow double or triple it. And that's what we're seeing in the pipeline, in the design win activities.

And so, as we said, in a few years ago we do e-commerce, and we do programmable modules. These are show true benefits to our-- our customers truly realize it in the end.

Bernie Blegen

Yeah. I'd say that particularly as we had this supply demand imbalance, and our customers were also looking for enabling technologies, that the decision process for earning a design win, where historically had been just on the lowest cost provider, now things like the programmability, the flexibility, the time to market, the total cost of ownership are taking a larger weighting in the decision process. And we feel like we were very strategically positioned to take advantage of that change in the market.

William Stein

That's great. And as a follow-up if I can, I'm wondering if you can talk about your lead times now and how they might have changed in the last, I don't know, couple of months, and the degree to which that's been a competitive advantage.

My understanding is that you're offering lead times that enable customers to switch away from competitors' products that have lead times that are so long that it suddenly makes sense to switch. Any sort of comment or update on that would help a lot. Thanks, guys.

Michael Hsing

Our lead time really hasn't changed much. And we're still in a lot of delinquencies. And that's a good thing. Because as Bernie said earlier, and all the benefit of our product technologies, and finally our customers realize it. And it became a high demand.

And even though I think it's due to the new design win activities. And they all switch to this type of a new technology or new design methodologies. And that will really benefit MPS. And the same times, we had to increase our capacities. And not only from China but in a globally that's what our customer demand.

Bernie Blegen

Yeah. And just to top off that answer is that I don't think our lead times were necessarily different from anybody else necessarily in the industry. But we had the advantage of having so many new products coming on the market, Greenfield opportunities, that we invested ahead of the curve. And that's where we were able to have product availability when others didn't.

William Stein
Thanks, guys.

Genevieve Cunningham
Our next question is from Quinn Bolton of Needham. Quinn, your line is now open.

Quinn Bolton
Hey, guys. Congratulations on the nice results. I guess I would love to ask, obviously we've seen some in the compute space, Intel and Micron, offering much more subdued outlooks for the second half. I think there's clearly some inventory purge going on in the channel. And I'm just wondering, obviously your September guidance is very strong. But as you look at the order book, have you started to see any changes in the notebook or computing storage and enterprise data center segment that might echo some of the comments we've heard from folks like Intel and Micron in the broader market? And then I've got a follow-up.

Michael Hsing
We for the notebooks, and for our side, and still the demand still pretty good. And still good and [INAUDIBLE]. And I think it's the orders and the orders slow down than before. And but we still have delinquency time. And for memory side, and there's a lot of a new format starting. We're still facing shortages now.

Bernie Blegen
Yeah. And if I could just add to that is that we are looking at any areas of our business that might be susceptible to either backlog that is canceled or is pushed out. And keep in mind that cancellations are always a part of all semiconductor companies. It's not just a one time or new event and the fact of the matter is, is that any influence relative to the size of our overall backlog today is very minor. And so, that's what's given us very confident outlook for the second half.

Michael Hsing
The rate of booking and the rate of cancellations, and I would say are they're very similar in the last few years. Yeah. I mean, last few quarters. Yeah.

Quinn Bolton
So no noticeable uptick in cancellations or push-outs it sounds like is what you're saying?

Michael Hsing
Yes.

Quinn Bolton
Got it. The second question was just enterprise data showing very strong growth. And I think that's going to be one of the biggest drivers for the business over the next couple of years, given the Greenfield

opportunities and just, can you guys size for us, is the accelerator card and 48-volt opportunity larger than the share gain on CPU power? Do you think they're both equally driving the growth? I'm just trying to sort of-- what's the biggest driver do you think for the enterprise data segment?

Michael Hsing
I think it's a both. And not only that the CPU size for the servers. And we gained a market share. We stepped into that game a couple of years ago. But the very small percentage. And we start to ramp. But we're still far distance than is a bigger suppliers. And that's on from the server side. And the 48 volts, as you know, we talk about it. And we talk about it since 2017 or '18.

Bernie Blegen
Yeah.

Michael Hsing
And we said that this is the inevitable trend. You have to move up to 48 volt. And we are now seeing the forefront of it. And we're not replacing anybody. And we set up this market trend. And so, and also in the data center and the rack powered-- rack itself, there's a big opportunities. MPS ramping of revenue from there. From the AC powers, and these are 380 volts and 240 volts input converting into 48 volt. And also, the battery backup. And we provide the same-- we provide the solutions for battery management and also cooling side. And so, MPS is almost a one-stop shopping place for data center.

Quinn Bolton
Thank you, Michael.

Genevieve Cunningham
Our next question is from Tore Svanberg of Stifel. Tore, your line is now open.

Tore Svanberg
Yes, thank you. First one for Michael. Michael, you're known for driving a lot of new innovative business models and as we now start to think about adding capacity to get to four billion, given the geopolitical dynamics and so on and so forth and I know you've talked a little bit about this. But are you thinking of working on new business models to try and secure more capacity for your continuous growth?

Michael Hsing
Well, there's a one thing. We do, of course, we have to-- the fab, we have to move, and we will have increased more capacities outside of China. We started about a couple of years ago, or so more than a couple of years ago. So I mean, and now we engage with some of the bigger DRAM fabs and we will fill that up in the next couple of years. And but going to a futures, MPS actually require less semiconductors. And that because a lot of products are more programmable and we can use it for multiple use and same times, we will growing revenues. And we're selling a lot more than semiconductor, we're selling power

solutions, more modules. And so, we kind of move up the food chain. So as the new requirement comes in, and we play in a market. We're not competing with anybody. And we just provides the solutions.

And so, those are manufacturing, these are clearly different-- they're different, they're building modules. And we signed up as a partnership for assemble these new modules. And it is unprecedented. And a lot of testings, a lot of qualifications, MPS designed the whole system from a ground up. And so, these are the-- there is no such a facility out there. So now we have to invent it, that one.

Bernie Blegen

Yeah. And I think just to echo a point there is, if you look at our revenue for the quarter we grew 57%. And keep in mind that we've had one price increase and that was in February this year for 5% and so, if you actually look at where the source of the revenue growth came from, about half of it is volume-related and the other half is higher ASPs because of higher value products that we're selling. So that means that we've differentiated our supply chains. We're not just dependent on silicon-based products. It's making total solutions.

Michael Hsing

But these are-- the bigger effect, and that hasn't really taken place yet. That would be a year or a couple of years down the road. You will see much bigger effect. And so, there is a lot of new-- a lot of work to do ahead of us. And these are-- particularly, these are new type of module. Nobody else has built that kind of things. We're ground up, we developed it. And we even develop the manufacturing. And as well as testing the qualifications part of it.

Tore Svanberg

That's great perspective. Thank you for that, Michael. As my follow-up, and this is related to what you just mentioned there, Bernie, which is pricing. I know you're obviously growing by adding more value and higher ASP products but you mentioned that 5% price increases. I think it's well documented that your competitors have raised prices by more than that. So I guess my question is just simply that, are you gaining a lot of share because you didn't engage in as aggressive price increases as some of your customers? I mean your competitors, sorry.

Michael Hsing

It's a gaining share-- gaining share is difficult to count. Because gaining share, if it's an equal product, is a gaining shares in a similar product. And so, you-- our price better, performance better, we're gaining share. Now we're talking about a completely different things. And those markets segment we want to get in there, it's less price-sensitive, but quality, performance are a lot more important. And now, it's OK, we offer some things as a lot more than that. And 10 years ago, we said that who do we compete with? And a lot of companies sell controller and the power MOSFET. They're separate. MPS's is integrated. And now, you're talking about MPS, our product, and even on the silicon side. And we have a microcontroller, we have a memory, we have a digital, we have a power. And very unique. That's how we-- what do we-- who do we displace, it's difficult to set. And now, it's getting to with the use this type of a silicon-based technology, we migrate out. We become provides a total solutions. So how do-- we who do we displace it and how do we gain market share it's very difficult to say.

Tore Svanberg
Yeah. No, it sounds like you're displacing more companies now than before. Just one last quick one for you, Bernie. Most companies' DSOs were up this quarter because of the China lockdowns, shipments being later in the quarter. Your DSOs actually went down this quarter. So can you just talk a little bit about how the China lockdown impacted you? I mean, obviously it didn't impact you the same way. But any other color you can share with us, that'd be great. Thanks.

Bernie Blegen
No, we really didn't have much impact from the China shutdown. Obviously, we were able to record revenue growth that is well above the industry average. And the concern we might have had is if our customer supply chains got impacted but we continued to hit our delivery schedules. And if there was an impact, I'm sure we felt some of it. But it was very marginal.

Tore Svanberg
Great. Thank you, and congrats on the strong results.

Michael Hsing
Thank you.

Bernie Blegen
Thank you.

Genevieve Cunningham
Our next question is from Ross Seymour of Deutsche Bank. Ross, your line is now open.

Ross Seymore
Thanks, guys. First question is really a high level one. Over the years, you guys have generally outperformed the analog market by maybe 10 or 15 percentage points of growth and gain share et cetera et cetera. Even last year wasn't terribly outside of that range but this year it seems like that delta probably doubles at least, maybe something more. So, I do get investors that are concerned that your increased availability versus the peers allows you to ship and then it can be double shipping in response to the double ordering. And so it's a cyclical phenomenon that's widening that gap. Can you just talk about the reasons you think that gap is sustainable, and then looking forward, do you think that gap will continue to grow despite the fact that you're operating off of a larger base?

Michael Hsing
Yeah. I think what you said partially is correct. I mean, the other company couldn't ship. We have inventories and we have a capacity to ship. But this year, particularly, we see things are very different. And a lot of product in them, especially we ship to these tier one companies from industrial side from

automotive side and I mean, even the data centers. And they didn't intend to have MPS has a bigger-- has a majority, as a bigger supply. Where they give us as a backup and to test that out. And in the last years, we ship all these units. Our PP failures were far better than everybody else. And that's the one thing, the quality is everything [INAUDIBLE]. But they took a chance when they have a shortage and so, we prove that. We give us a big opportunity. We proved it. These products as better-- as good as, are better than our-- whatever the parts they design them out.

And in the last year and this year, all the new product, or the other new segment start to grow and as our product, we can change it. We can reconfigure it and that will continue to grow. And as we see it, I mean, we cannot handle it, all the projects. And so, in the foreseeable future, these products will continue to grow.

Bernie Blegen
And keep in mind that we're still facing large delinquencies ourself. And so, we've had to be very cautious and opportunistic as far as how we allocate our wafer starts in order to meet real customer demand. So I think we've been clear that during the first half of the year we did a cleanup of double orders and have confirmed, as I said earlier, that the MPS's backlog still remains very healthy. And then, when you look at the inventory in the channel, we're at lows. It's very lean and we believe-- we don't have perfect insight, but that the inventory on our customer shelves is likewise very lean, because we've only been doing partial shipments there. So as far as the markets, we feel reasonably confident. Obviously, notebook or some of the consumer could give us-- we're trying to stay very close to that and evaluate its impact. But as Michael said, a lot of our new growth opportunities are in these large tier one opportunities. And it's that secular growth that's really driving it. And that's different from just building up in the channel or on customer shelves.

Michael Hsing
Yeah. I come back to your questions. Now you said that you grow in a large basis, the growth is difficult to grow. That's kind of built in everybody's mind. In my mind, I don't have a limit. And the limit is within yourself what you do. And people told me it's not-- oh, $200 million, it's your barrier. $500 million is a barriers. And $200 million at the time, it was a barrier one time. It happened. And $500 million it was, and then are people telling me, OK, you're going to grow a billion dollars, you're going to slow down. So, and OK. And I will, at the time seriously that was 2017. 2017 or '18. Yeah. Yeah, '17. I actually said it, and OK, when we get to a billion dollars, we're going to accelerate it. And that's at the time, that's how I see it. And now, saying OK, we're not selling silicon anymore. We're selling a lot more than a silicon. And why not accelerating the growth?

So it's of course I'm not saying that now, so a lot of things are still depend on our execution. But only the things that the mindset we're not dwell on selling semiconductors. And the selling semiconductor is limited. But you have a lot of service engineering manpower we can-- our customer can benefit to it. That's not-- that's unlimited almost.

Bernie Blegen
And supporting Michael's point there, you might remember six or seven quarters ago, we made the statement that by the end of Q2 of '22 that we would have capacity to support $2 billion revenue run rate. And I think that the key there is the execution and the focus. And that's exactly what we've done.

Ross Seymore
Great. Thanks for all that color guys. I guess the hopefully quicker follow-up to all of this, as you expand beyond the semiconductor side you get into, I don't want to say systems, but more solutions in general. Some of the stuff you talked about with the entire rack, the AC/DC, the cooling, all the above. What do we look at the gross margin doing in that? That sounds like higher gross margin business.
And I know consistency of gross margin expansion is the mantra that you guys have lived by and delivered on. But it seems like mix would go in a big tail or would be a big tail wind for you going forward from a gross margin perspective. So just talk about what this changing in your revenue mix, means whether it's end market, or system solutions, versus chips to your gross margin.

Michael Hsing
Yeah. That's kind of a things that we're going to-- of course, I can-- I want to say, we can charge as much as our customers bear. So and that's kind of a half BS. [LAUGHS] And but the reality is, OK, I think we're comfortably stay around this mid to high 50s and a 55% to 60% in that range. I think that's a sweet spot for us. We're not going to print the quarter so for us to go to over 70%.

And when we get there, we get that. So far, we don't have a headwinds. And again, and I think the opportunity drives the model itself. In the next couple of years, I think that we're going to stay around this in as we are now. And maybe move up a slightly. And again, I mean, we don't have-- at least we don't have a headwind. And so, after three or four years, we'll see how we change our models.

Bernie Blegen
I would just add that I think that we reported a gross margin of 59.0%. And as Michael said, somewhere in that area is the sweet spot for our model that allows us also to accelerate our rate of revenue growth. So it's something that we'll continue to evaluate. But I think right now we're very comfortable with this being our model.

Michael Hsing
Yeah.

Ross Seymore
Thanks, guys. Congrats again.

Michael Hsing
We're not chasing the volumes and going down the-- we're not-- actually, MPS is not good at chasing a volume. We're not doing the volume-- these manufacturing. Actually, MPS doesn't manufacture anything. So and the high volume things, that's not MPS forte.

Ross Seymore
Thank you.

Genevieve Cunningham
Our next question is from Melissa Fairbanks of Raymond James. Melissa, your line is now open.

Melissa Fairbanks
Hi, guys. Thanks very much. I will echo the congratulations on another great quarter. I just had two really quick ones for you. First, could you remind us what your inventory target or ideal levels of inventory would be in order to maybe clear some of the delinquencies? And then second, on a somewhat related note, what should we be thinking about for CapEx this year, either as a percentage of revenue or absolute investment? And then, what's the longer term requirements you need in order to meet your demand or your growth plans?

Bernie Blegen
Good questions. So as far as inventory, keep in mind that being so much of our positioning is around growth, that as sort of a risk management decision we believe that 180 to 200 days of inventory is what's needed so that we can manage an upside in customer demand. But also, if we end up in an unfortunate situation where we have lots of inventory that aren't sellable, that we can compensate for that without having any disruption to our customers' production lines. So I think that it's been difficult to manage delinquencies while increasing inventories in order to support our model. But I think we've done a pretty good job in these really unusual times.

And then, as far as the capital requirements, I think we've talked in the past as far as what our spending rate is. It tends to be, on a quarterly basis, can be somewhere between 14 and 18 million per quarter with a lot of that being testing equipment. Or even if we are purchasing buildings, we purchase our own office space. And the first half of this year was a little bit lighter than our normal run rate. But I think 14 to 18 absent a big building purchase is probably a good run rate.

Melissa Fairbanks
OK, great. Thanks very much. That's all for me.

Genevieve Cunningham
Our next question is from Alex Vecchi of William Blair. Alex, your line is now open.

Genevieve Cunningham
If there are any follow-up questions, please click the Raise Hand button.

Alex Vecchi
Sorry, it was muted. Apologies. I'll start over. Bernie, can you hear me? Michael, can you hear me?

Michael Hsing
Yes.

Bernie Blegen
Yeah. Hi, Alex.

Alex Vecchi
Apologies about that. User error here. I was saying apologies again if someone's already asked this question. But I wanted to expand a little bit on Ross's question, just in terms of the competitive dynamic and your products being superior to those of the competition as well as more of the solutions sale. How do we think about power management in particular and your positioning within the customer as these products become more complicated, you take up more space on the board, I would assume that those conversations are becoming more tightly coupled, and that you guys are becoming more important to the customer in terms of conversation.

Michael Hsing
Yes. I mean, we-- and as a matter of fact, in the former MPS and from the beginning, so we don't sell in the pin to pin comparable. We in the similar product and we offers a-- actually, we always offer far better product. And a much compact, much higher efficiencies, and then also cost effective without charge and arm and a legs. And that's is known for MPS. And at one time, it's early period of the times, the MPS is like a price correct kind of company and we actually, we didn't-- that means that we left a lot of dollars on the table. And of course, we're not competing in that market segment anymore. Now then, we offer either a total solutions and if you mention-- if you're talking about any applications, they need a power. And you're talking about electrical car, MPS can build the whole car and the user electronics. And you want to build the data centers, MPS provides the entire product for data centers. And we are mostly there. And that's how we sell values. And we're not competing on this product competes with that product. We have all software behind it. And we have a user interface software. That changes the games. We're not competing with a product per se anymore.

Bernie Blegen
I think an interesting dynamic that we've been observing is that power management was always an afterthought. It was the last thing after you designed your board. And you came up with the least bad solution. Now we are introduced at the very front end of the development of an application and the reason is because our power solutions enable our customers to be able to develop higher power solutions than they would otherwise. So that's an interesting twist in the relationship, where we're being introduced more earlier to the process and able to jointly come up with the development of shared solutions.

Michael Hsing
As you see it, as you remember, MPS four years ago, we actually built a car-- built a very advanced car, and the fall advanced than any car that you see in the market. And with the battery management and the same time all the modal controls, a lot more complex than the existing EV. And so just for the purpose so we can demonstrate we can do it. And now we can do it-- and the four years later, actually we can do a lot more now. And so, that's kind of examples.

Alex Vecchi
That's extremely helpful. And then, Bernie, just one last quick question. In terms of the guidance, any end market that we should think of, or how should we think about the end markets in terms of strength versus-- strongest versus weakest or any notable things to call out?

Bernie Blegen
Yeah. I think that the themes that you're going to be seeing for the next two to three years are the enterprise data and automotive. Automotive had a relatively slow first half. But that was exactly what we had in expectations. There was no new surprise there. And we believe that the second half looks very healthy as does the data center.

Alex Vecchi
Perfect.

Michael Hsing
Yeah. As we see it, and as we don't want to-- what we provide, it's not custom asphalt. Yes, we will do that. We'll ask them, customer do that. We should lead the customer. So what you should need. That's the game we are really playing. And we're playing ahead of games. And I think it's all the power stuff, like a 48 volts, we said this is like, it was said in 2017, and this is the futures. And we anticipated that. Electrical cars, we anticipated that. And so now, it's we can in the next few years, and we'll see the very similar things that we'll see all of these that will happens.

Alex Vecchi
Perfect. Thank you so much. Congratulations again.

Bernie Blegen
Thank you, Alex.

Michael Hsing
Thank you.

Genevieve Cunningham

If there are any follow-up questions, please click the Raise Hand button. As there are 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 on the webinar and look forward to talking to you again during the third quarter, which will likely be at the end of October. Thank you. Have a nice day.