

Power Integrations First Quarter 2024 Earnings Call – May 7, 2024
Corrected Transcript

Joe Shiffler - Power Integrations Inc - Director - Investor Relations and Corporate Communications

Good afternoon. Thanks, everyone, for joining us. With me on the call today are Balu Balakrishnan, Chairman and CEO of Power Integrations and Sandeep Nayyar, our Chief Financial Officer. During this call, we will refer to financial measures not calculated according to GAAP. Non-GAAP measures exclude stock-based compensation expenses, amortization of acquisition-related intangible assets and the tax effects of these items. A reconciliation of non-GAAP measures to our GAAP results is included in today's press release. Our discussion today including the Q&A session will include forward-looking statements denoted by words like, will, would believe, should, expect, outlook, forecast, anticipate, and similar expressions that look toward future events or performance. Such statements are subject to risks and uncertainties that may cause actual results to differ materially from those projected or implied. Such risks are discussed in today's press release and in our most recent Form 10 K filed with the SEC on February 12th, 2024. This call is the property of Power Integrations, and any recording or rebroadcast is expressly prohibited without the written consent of Power Integrations. Now I'll turn it over to Balu.

Balu Balakrishnan - Power Integrations Inc – Chairman and CEO

Thanks, Joe, and good afternoon. Our first quarter results were on target with revenues of \$92 million, non-GAAP gross margin of 53% and non-GAAP earnings of \$0.18 per share. Channel inventories fell by more than a week and a half during the quarter, and the improvement in bookings that began in December has continued through the first quarter and the month of April. We expect revenues in the second quarter to be in the range of \$105 million plus or minus \$5 million. That would be a [sequential] increase of 15% at the midpoint. We also expect a further increase in gross margin driven by the favorable dollar/yen exchange rate and higher back-end manufacturing volumes.

Most importantly, design momentum has remained strong, especially in key strategic markets like high-power, motor drive and automotive, where big-picture trends like energy efficiency, clean energy and electrification are expanding the opportunity for our products.

We also continue to advance along our product and technology roadmaps with two key developments in recent weeks, starting with the introduction of InnoMux-2. InnoMux-2 is emblematic of our system-level approach to high-voltage power conversion, combining leading-edge switch technology, novel control schemes and proprietary packaging that is not only cost effective and thermally efficient, but also implements isolation and feedback through our FluxLink technology.

Most products with embedded AC-to-DC power supplies require multiple DC output voltages for different parts of the system. For example, a refrigerator might require 15 volts for the electronics controlling the compressor motor, 24 volts for the interior lighting, and 5 volts for the user-facing control panel. In a typical architecture, the power supply provides a single DC output, which is then converted into each of the different downstream voltages by low-voltage DC-to-DC converters. The energy losses at each conversion stage are compounded, significantly reducing the overall system efficiency.

InnoMux-2 offers a new architecture, eliminating the need for downstream DC-to-DC stages by providing up to three independently regulated DC outputs. This dramatically reduces component count and complexity and also enhances efficiency by eliminating the compounding of losses across multiple stages. The cherry on the top is that InnoMux-2 features our highly efficient PowiGaN switch, enabling overall system efficiency of better than 90%.

Contrast this with a traditional architecture, which is an AC-to-DC stage followed by a separate DC-to-DC stage. Even if both stages are 90% efficient, the compounded losses result in a total system efficiency of only 81%. In other words, with InnoMux-2 losses would be reduced by nearly half.

Because most products with embedded power supplies require multiple DC outputs, the addressable market opportunity for InnoMux-2 is large and diverse. We already have a pipeline of design activity across a wide range of applications, including displays, appliances, networking equipment, and more. Our first production design at desktop monitor at a top-tier PC OEM is expected to begin ramping in Q3.

The other notable development on our roadmap is our agreement to acquire the assets of Odyssey Semiconductor as announced earlier today. Odyssey is a developer of vertical GaN technology, which has higher current capability than lateral GaN devices and therefore has the potential to address much higher power levels. High-current GaN has been on our development roadmap for some time and we are bringing the Odyssey team on board to augment those efforts.

Power Integrations has led the way in development of GaN technology for power conversion, starting with our 750-volt GaN in 2018, and we are advancing our technology along multiple fronts.

One is cost as we continue to drive our GaN towards cost parity with silicon MOSFETs. Another is voltage, with the introductions of 900-volt and 1250-volt GaN technology last year and even higher-voltage technology coming soon. These higher voltages expand the opportunity for GaN in power supplies, and we are designing system-level products for applications such as data centers, comm equipment, and 800 volt EVs.

The third vector of GaN development is current. Today's lateral GaN is the optimal switch technology for up to about 10 kilowatts, but does not support high enough current to deliver more power. High-current technology is the next frontier in GaN development and will enable GaN to deliver hundreds of kilowatts of power. This would dramatically expand the competitive overlap between GaN and silicon carbide and make GaN a compelling alternative for applications like EV drivetrain inverters.

While there are a number of significant technical challenges to solve before high-current GaN becomes a market-ready technology, we are pleased with the progress we have made to-date and we are doubling down with the addition of the Odyssey team.

With that, I'll turn it over to Sandeep for a review of the financials.

Sandeep Nayyar - Power Integrations Inc - Chief Financial Officer, Vice President - Finance

Thanks, Balu, and good afternoon. As usual, I will focus my remarks on the non-GAAP results, which are reconciled to GAAP in our press release.

First-quarter revenues were \$92 million, slightly higher than the midpoint of our guidance, while non-GAAP earnings were \$0.18 per diluted share, above the level implied in our guidance as we came in better on both gross margin and operating expenses.

On a sequential basis, revenue was up 2% with three of the four end-market categories up versus the prior quarter. Consumer revenues increased more than 40%, partly reflecting seasonality in air conditioning, but more importantly, a much-improved inventory picture at distributors and end customers in the appliance market. Channel inventory associated with the consumer market was slightly below normal entering the quarter and fell even further as the quarter progressed. The

computer category was up more than 30% sequentially on new design ramps in notebooks and an uptick in tablets as the key end customer has largely worked through its excess inventory. The industrial category was up mid-single digits sequentially as seasonal softness in high power was offset by strength in metering applications and improvement in broad-based industrial.

The communication category was down more than 50% sequentially. The decline was partially driven by market dynamics, including share gains Huawei at the expense of our customers, and some of the incremental share gain at Chinese OEMs during the pandemic shortages now reverting back to domestic suppliers. However, the decrease also reflects seasonality and continued inventory workdowns, and we do expect a healthy recovery over the balance of the year as these transitory factors should be largely behind us.

Revenue mix for the quarter was 41% consumer, 37% industrial, 11% communication and 11% computer. Distribution inventory ended the quarter at 8.8 weeks, down more than a week and a half from the prior quarter as sell-through exceeded sell-in by about \$10 million.

Non-GAAP gross margin for the first quarter was 53%, up 30 basis points from the prior quarter as a more favorable end-market mix was largely offset by the effects of low manufacturing volumes. I expect a further sequential improvement in Q2 as we convert more wafers to finished goods and we recognize a further benefit from the favorable dollar-yen exchange rate, which affects the cost of wafers from our Japanese foundry partners.

Non-GAAP operating expenses for the quarter were \$41.2 million, up sequentially as expected, due mainly to seasonal factors such as resumption of fine-cut taxes. Other income of \$3.5 million was up slightly from the prior quarter, reflecting higher returns on our investment portfolio.

Non-GAAP earnings for the first quarter was \$0.18 per diluted share. Diluted share count for the quarter was 57.1 million, down about 100,000 from the prior quarter, driven by share repurchases. We used \$15 million for repurchases during the quarter, buying back 207,000 shares. \$11 million dollars remained on our repurchase authorization as of March 31st.

The other primary use of cash in the quarter was \$11 million for dividends with an additional \$4 million for CapEx. Cash flow from operations for the quarter was \$16 million, and inventory days were at 349 at quarter end, up five days from the prior quarter. We expect inventory days to begin declining in Q2, driven by the anticipated upturn in revenues.

Turning to the Q2 outlook, we expect revenues to be \$105 million dollars plus or minus \$5 million, a sequential increase of 15% at the midpoint. Non-GAAP gross margin should be between 53.5% and 54%, up 50 to 100 basis points sequentially. The puts and takes here will be the positive impacts from the favorable yen exchange rate and higher manufacturing utilization, offset by less favorable mix as we anticipate a sequential rebound in the communication category. I expect full year non-GAAP gross margin to be approximately 54%.

Non-GAAP operating expenses should be between \$44.5 and \$45 million, driven by headcount growth as well as annual merit increases, which took effect early in the quarter. For the full year, I expect non-GAAP OpEx to be up roughly 7% versus the prior year, including the impact of Odyssey, which adds about one and a half million dollars of expenses in the second half of the year.

Now, operator, let's begin the Q&A.

Christopher Rolland - Susquehanna Financial Group LLLP

Hey, guys. Congrats on the results and just a quick clarification, Sandeep, did you say 54 for next quarter and then Balu or Sandeep, either of you could talk about more trends in Q1 month of March month of April, what end markets were affected or rebounded the most and then and then how that should play into the outlook for next quarter by end market? Thanks.

Sandeep Nayyar - Power Integrations Inc - Chief Financial Officer, Vice President - Finance

What I said was for the gross margin, it was 53.5 to 54 for Q2. And I also said for the whole year, I expect it to be around 54%.

Christopher Rolland - Susquehanna Financial Group LLLP

Okay, thank you.

Balu Balakrishnan - Power Integrations Inc - Chairman and CEO

In terms of bookings, as I mentioned, December was a strong month and that strength continued throughout Q1, except, of course, took a dip in February because of the Lunar New Year, which is expected, and then the strength continued through April. So that's very good news. And in Q1, our book-to-bill was more than one for the first time in a year. So that's, again a very good sign. In terms of where we saw the strength was, I would say the biggest is consumer and then also a portion of the industrial also came back. The cellphones was weak. That communications was weak primarily because there is still inventory correction going on. And also Q1 is a seasonally low quarter for us. We do expect the communications to come back strongly in Q2 now that the inventory issues are gone away and Q2 is also a stronger seasonally stronger quarter for cellphones.

Christopher Rolland - Susquehanna Financial Group LLLP - Analyst

That is great color. Thank you very much for that. And then I guess I need to know more about this Odyssey and how big do you think this market could be? How much are you investing here? Or are there synergies or how are you looking at it? And then just a quick one for Sandeep. Do you still think you lead the market by one quarter in terms of the cyclical recovery? Just curious, thanks.

Balu Balakrishnan - Power Integrations Inc - Chairman and CEO

Again, let me answer the Odyssey question. As we have mentioned before, we have been working on higher-current GaN technology because the current technology, it goes up to about 10 kilowatts or so beyond that you really need to change the technology significantly to be able to handle much higher current levels.

In terms of voltage, we have already been able to achieve up to 1250 volts and we expect to go even higher with the current technology. The reason we acquired the assets of Odyssey is that the Odyssey people have been working at a vertical GaN technology to achieve very high current levels and very high power levels as a result of that. And we believe with this acquisition of the assets, we have multiple benefits. One is it comes with a clean room facility for working on the new technology. It's a – you can call it a small fab or what we call a “flab,” a fab-slash-lab. Number two, we are taking on all of the key employees who have lot of knowledge in the high-current GaN technology. Just to be clear, the technology we are working on is our own technology. It is different from what Odyssey and many others have been working on in terms of vertical GaN. Our technology, we believe will be very cost-

effective. We still have a lot of work to do, but our goal is to get GaN to much higher power levels like hundreds of kilowatts, so that we can be a very compelling alternative to silicon carbide. Silicon carbide is fundamentally more expensive, whereas GaN, there is no fundamental reason why it can't be very much less expensive than silicon carbide. So that's the reason we are pushing the power levels and this acquisition of Odyssey assets, we'll speed up that process.

Sandeep Nayyar - Power Integrations Inc - Chief Financial Officer, Vice President - Finance

To handle your other question, yes, we typically do see earlier than others because our product goes into power supply. But having said that, I think the way to look at it as we've been talking about, we would see keep seeing growth in our revenues sequentially, given the visibility is lower for the second half, but we still believe that we will grow sequentially each quarter through the year. You're seeing a real comeback in appliances, which you saw nice big growth. Our industrial segment, we're expecting for that to come back more in the third and fourth quarter. And even communication should start coming back in the following quarter. And we're doing very well in the computer segment with the design wins.

Christopher Rolland - Susquehanna Financial Group LLLP

Excellent. Thank you so much.

David Williams - The Benchmark Company LLC

First, just congrats on the improving backdrop here and the Odyssey Semi acquisition. And so I guess if you kind of think about what Odyssey brings clearly that's a different type of different process than what you all are working on. Can you talk maybe a little bit about how you think this will integrate just kind of given the differences between the vertical GaN that they're working on relative to your process, start to understand how you're going to incorporate that and the two different roadmaps and progress points or do those come together over time?

Balu Balakrishnan - Power Integrations Inc - Chairman and CEO

Thanks, David. So the best way I can explain it is that there are a number of companies working on vertical GaN technology. They've been working on it for some time now. There's another company called NexGen which just closed down. There are a lot of challenges with the type of technology they were working on. We think we have a very different way to achieve the same result and where we can get the help from Odyssey is their knowledge of GaN and vertical GaN devices. They have a number of patents that is part of the assets we are purchasing. They have a clean room, which is also very useful for us to add to try our new technologies. So those are the reasons. If we didn't do that, we could have done it on our own, but it would have taken more time. And this really helps us reduce the time to market of this technology by somewhere in the one to two year range. And so it speeds up our process because of the knowledge they bring, because of the patents, because of the clean room.

David Williams - The Benchmark Company LLC

Thanks, I appreciate the color there, it was very helpful. And then we didn't talk much about automotive this quarter like you have in the past. Just wondering if you could give us an update there how those design wins are tracking and maybe if there's been any positive or developments during the quarter? Thank you.

Balu Balakrishnan - Power Integrations Inc - Chairman and CEO

It's a good question. And the only reason we didn't talk about it is we have talked about it in the past, and we have a lot of other things to talk about today, but really automotive is doing exceedingly well. We already have a dozen cars in production today. We will have another dozen introduced this year and another dozen next year and we really expect this to grow nicely. The inflection point is probably a couple of years away before we see a strong growth in terms of dollar revenue and our expectation is by 2028, this could be something on the order of \$100 million in revenue. So it's doing really well overall. The product is incredibly compelling to customers and the one example I can give you is a Japanese tier one customer who just recently qualified us. They did the audit of our systems—quality management systems—and they have qualified and we passed the audit with flying colors. So that shows that we can address the Japanese market, which is one of the hardest markets to address in terms of automotive. So that's also a great sign for us.

Matt Ramsay - TD Cowen - Analyst

Thank you very much. Good afternoon, guys. One of the questions I had was Balu, if you don't mind going into a little bit more detail on the InnoMux product and specifically and what end markets you think are the most attractive there? It seems like an architecture that might be suited for the data center market and I wonder if you've gotten a toehold there or how those conversations are going at, in fact are happening in the data center power space? Thanks.

Balu Balakrishnan - Power Integrations Inc - Chairman and CEO

Thanks, Matt. The first product we introduced, which is the InnoMux-1, I guess, was really directed towards displays. The displays is really the only market it was designed to address. InnoMux-2 is much broader. It can address any embedded power supply that has more than one output requirement at the system level. So that includes appliances, that includes industrial applications, that includes servers that you say data center servers, server power supplies, typically inside a server you need multiple output voltages – 12 volts for the fans and 5 volts and 3.3 volts. So it's a perfect match for that as an auxiliary power supply. So in terms of design wins, what we are seeing is a lot of activity across all of those markets. The first design win that we received is a major OEM that has a display requirement, efficiency requirement, that we can very easily meet with InnoMux-2 and that will go into production next quarter. That particular customer is already using InnoMux-1, but InnoMux-2 will be a much broader application across a broader number of models, so we are looking forward to that. But we are also working with the TVs, it's a good match for TVs. And then appliances have a number of designs going on in appliances. And several industrial applications will also use that. As far as data centers go, we are just beginning to sample customers and we'll keep you updated on that. This is for the what they call the standby and auxiliary power supply, it's in the 50 to 70 watt range and that will require multiple outputs.

Now, I think the question you had is on the main power supply. That is evolving as we speak for artificial intelligence – they need to dramatically improve the power level. Right now, most of the server power supplies are in that 2.5 to 3 kilowatt range. But now for AI racks, they need a five-kilowatt power supply in the same form factor, which makes it really challenging, especially without wide bandgap solutions. So there, I think our GaN will play an important role, but that's still being defined as we speak. We will work with multiple customer OEMs and ODMs to understand the requirements. And we are working, as you know, on products for that and that those products are not quite ready yet. That'll take a couple of years. But in the meanwhile, we can get into the auxiliary power supply, which also has to be extremely efficient. So our GaN technology with our zero voltage switching capability will be very attractive for that application with the InnoMux-2 device.

Matt Ramsay - TD Cowen - Analyst

Thank you Balu, I appreciate all the color. That was really helpful. I guess as my next question, Sandeep, a couple of things. One, you talked a little bit about in your script how you are seeing channel inventory levels and order patterns. I wonder if you might comment a bit about customer level inventories that to the extent that you have visibility, has that visibility improved any as you work through these and some of the challenges in the channel with the customer base? And I guess the second question totally unrelated on gross margin, you said 54 for the year. I guess if you could help with the puts and takes there and what kind of assumptions you have on the yen and that 54 number, that would be helpful.

Sandeep Nayyar - Power Integrations Inc - Chief Financial Officer, Vice President - Finance

Yes, I think definitely, especially in the consumer segment, you've seen that in the not only the channel, but even customer inventory. As you remember in the past, we talked about our major customers in Korea, you know who haven't taken [parts] for a long time and we are starting to see orders there. So clearly you're seeing a movement and the channel inventory in consumer is well below our what I call a normal average, but industrial is still a bit higher, so that we know will work out. But I think definitely if you really look at it's playing out as we expected. As far as the gross margin, it's basically as you will see you're going to see the yen is going to be favorable. The volume increase for the back-end utilization gets better as we go. Obviously, the mix will go a bit unfavorable as the year progresses as communication starts coming back. But if you want to look at the whole year, it is really everything mix, yen and basically the utilization, but the input costs as they had been and even for next year, I think that's going to be the case where, yen continues. Now in Q1, the yen was actually a little bit down. The reason being, if you remember last year, the yen had moved down to about 130 level for a period of time. And you know, it takes a while for it to flow in the P&L. But as you can see, the yen has strengthened and I mean, the dollar has strengthened, and as a result with the inventory accounting, I think that benefit will even flow quite a bit into next year. So I kind of feel that even for next year, we will stay at a higher level, even though input costs maybe are a headwind, but will remain, if you look at our model, on the higher end of our model.

Jeremy Kwan - Stifel Nicolaus and Company

Yes, good afternoon. This is Jeremy calling for Tore. Two things here. Maybe if we could just circle back on the InnoMux-2. It looks like a really fantastic product here. I was wondering, in terms of the DC-to-DC power conversion, it seems like you've had to develop some expertise there. Are there other areas where you want to take this from where it's maybe more standalone DC-to-DC conversion products? Or where is the, you know, the AC-to-DC plus DC-to-DC market big enough near term to take up all your resources at this point.

Balu Balakrishnan - Power Integrations Inc - Chairman and CEO

Thanks, Jeremy. Just to clarify, we don't actually implement DC-to-DC converters. What we have done with InnoMux-2 is that with a single power supply and single magnetics, that is a single transformer, we are able to deliver multiple output voltages, or current for that matter, that are individually regulated, meaning that they can be independently controlled and regulated. For example, one output could be an LED driver where the voltage can vary with the intensity of LED and so on, but the rest of the outputs will not be impacted by that. And that's a unique topology we have developed. We have a number of patents on that. So it actually eliminates the DC-to-DC converter. So we don't build basically DC converters, we just eliminate them because you don't need them anymore. So we are still focused on high voltage as still a single-stage high-voltage power supply. So this uses a flyback topology, which is useful up to several hundred watts, so anything that falls within that power range that requires

more than one output voltage is a good market for that. So basically that's everything other than adapters. Adapters typically only have one output voltage, but literally everything else that's inside the product, whether it's a TV monitor, appliance, or any industrial application, requires more than one output voltage and that's where InnoMux-2 becomes very attractive. It is actually quite an amazing invention, I think. When we tell people that, they are quite surprised, and it's made possible by two things. One is a very unique control scheme. Number two, our FluxLink technology. Without FluxLink you cannot implement this because it requires very precise control of how much energy is delivered to each output to the same transformer. There's just one transformer.

Jeremy Kwan - Stifel Nicolaus and Company

Got it. Thank you. That's very helpful for the clarification there. And I guess maybe switching gears again back to Odyssey, I guess a couple of questions within here. First is in terms of the technology, is it something where you're, it sounds like you're integrating their vertical GaN into what you're developing internally or do you see like a slight bifurcation within the supply of GaN where there's one focus on low cost, there's a different technology focus on this very high-power and you need both technologies in order to address this the full range of GaN applications.

Balu Balakrishnan - Power Integrations Inc - Chairman and CEO

Okay, good question. I have to be careful how far I want to go with this. We normally don't discuss our R&D efforts. Let me see how I can answer this question first, let me make one thing very clear, what Odyssey was doing, what NexGen was doing, and others are doing are very different from what we are doing. The reason to acquire Odyssey is to get the expertise, not their technology but expertise. Now there are many aspects to our development. There are two or three challenges to overcome, and we believe that the team at Odyssey can help us with that because they just have fundamental background in GaN, especially vertical GaN. So we think they can help us accelerate our efforts. And beyond that, I'm not comfortable giving a lot of information because it's very competitive information, I think for competitive reasons, we would like not to discuss that too much in detail.

Jeremy Kwan - Stifel Nicolaus and Company

Fair enough. Thank you very much, Balu.

Joe Shiffler - Power Integrations Inc

Well, it seems as if we have no further questions. So thanks everyone for listening. There will be a replay of this call available on our website, which is investors.power.com. Thanks again, and good afternoon.