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PRESENTATION

Mark Lin - *Semtech Corp - Chief Financial Officer, Executive Vice President*

Good day everyone, and welcome to all those joining today's call, including analysts, investors, and my fellow employees. I am Mark Lin, Executive Vice President and Chief Financial Officer, and I'm joined today by Paul Pickle, President and Chief Executive Officer.

Today, after market close, we released our unaudited results for the fourth quarter and for fiscal year 2024, which are posted to our investor website at investors.semtech.com. Supplemental earnings materials, including net sales data by end market, reportable segment, and geography, as well as the share count table reflecting potential share issuances from our convertible notes at various stock prices are also posted to our investor website. I encourage participants on the call to access these materials.

Unless otherwise noted, all income statement related financial measures will be non-GAAP other than net sales. A discussion of why the company considers such non-GAAP financial measures useful along with reconciliations of such non-GAAP financial measures to the most comparable GAAP financial measures are included in today's press release.

Today's call will include forward-looking statements that include risks and uncertainties that could cause actual results to differ materially from the results anticipated in these statements. For a more detailed discussion of these risks and uncertainties, please review the Safe Harbor statement included in today's press release and in the Risk Factors section of our most recent periodic report filed with the Securities and Exchange Commission. As a reminder, comments made on today's call are current only as of today, and Semtech undertakes no obligation to update the information from this call should facts or circumstances change.

With that, I'll turn the call over to Paul to discuss our business and end markets.

Paul Pickle - *Semtech Corp - President, Chief Executive Officer*

Thank you, Mark. Semtech reported fourth-quarter financial performance generally within my expectations, with net sales slightly above the midpoint of guidance. I'll provide a bit more color on end market performance and note end market consumption sequentially increased in each of our end markets.

For the fourth quarter, infrastructure net sales were $39.4 million, a sequential decline of 9% and largely driven by an expected pause in North American hyperscale data center deployment and our intent to normalize channel inventories. For the fourth quarter, infrastructure POS sequentially increased approximately 14% and channel inventories declined as anticipated. In data center, we had strong market interest continue for our FiberEdge TIAs and laser drivers for 400 gig and 800 gig optical modules.

Our market-leading 200 gig per lane product started production in Q1 with support from key hyperscalers, and we continue to support customers undertaking 1.60T optical module designs using our FiberEdge offerings. We are pleased to report design in activity for our newly announced DirectEdge platform of TIAs and laser drivers, enabling 800 gig linear pluggable optics or LPO modules.

We demonstrated these products at the Optical Fiber Communication Conference this week with favorable market feedback, and we expect to begin shipping these products at the end of FY25. In addition to recent advances in our data center optical portfolio, we are pleased with growing demand for our CopperEdge linear re-drivers for 800 gig active copper cables, supporting AI and machine learning data center buildouts.

Compared to DSP-based active electrical cables, our linear CopperEdge power requirements are over 80% lower, operates with significantly lower latency and offers a cost advantage. We are currently sampling our 200 gig per lane CopperEdge chips and are very excited to be partnering on designs into 1.6T ACC applications. We expect 1.6T design in activity for both ACCs and optical modules to support leading-edge AI and ML data center deployments. Based on current design schedules and engagements with data centers as well as with cable and module manufacturers, we expect shipments to begin to ramp for these 1.6T designs at the end of FY25.

Moving to passive optical networks, we saw increased PON demand in the quarter, accelerating off of fairly low levels following the release of bidding tenders in the China market. Fourth-quarter POS increased sequentially, and based on the first weeks of first quarter activity, average weekly POS is nearing FY23 levels. Based on our analysis of recent tenders, PON demand includes both XGPON and XGSPON, supporting optical line terminal and optical network unit buildouts. Continued transition to 10 gig and higher speeds benefits Semetech based on our first-to-market position, our technical leadership, and our superior product performance.

We expect the global transition to 10 gig and higher speed PON will partially offset the slowdown in real estate development in China. We are also pleased with our engagements to support XGSPON deployments in North America, and though we are still in early innings, we expect demand trends requiring higher and higher speed access to the cloud will result in long-term market opportunities for Semtech in North America and EMEA.

Regarding other products in the infrastructure end market, wireless demand remains muted. Though we are leveraging our expertise in data center market with demos at OFC aimed at 5G advanced, including Tri-Edge 50 gig combo drivers and CopperEdge 50 gig ACCs. We are currently participating qualifications of 50 gig fronthaul systems and expect sales in the latter half of FY25 for these products. Further, we believe our recently announced products in the FiberEdge family for 100 gig ZR will provide groundbreaking improvements in network power efficiency in the performance.

For the first quarter of fiscal year 2025, we expect net sales from the infrastructure end market to increase sequentially, with PON applications leading to growth. For the fourth quarter, high end consumer net sales were $32.1 million, a sequential decrease of 15%, coming off of a third-quarter seasonal high for TVS products. Encouragingly, high end consumer POS increased nominally in the fourth quarter compared to the third quarter, with proximity sensing offsetting an expected decrease in consumer TVS from smartphone seasonality.

On a year-over-year basis, high end consumer POS increased approximately 28%. Revenue and POS trends indicate normalizing channel inventory levels though we would like to see further reductions primarily through expectation for stronger end market demand. We believe market share for our consumer TVS products, particularly in USB Type-C applications, has increased as validated by fourth quarter POS levels that grew over 30% year over year and exceeded both the first and second quarters of FY24.

Proximity sensing products benefited from specific absorption rate standards that went into effect in China at the beginning of the year. And what was expected to be a seasonally down quarter for handset production, fourth quarter proximity sensing sales and POS both increased sequentially and year over year, indicating market adoption of Semtech's industry-leading PerSe sensing solution.

Fourth-quarter proximity sensing bookings were at their highest point in the fiscal year. In Chinese handset manufacturers, we believe we have a majority of the SAM for sensing products and at substantially higher percentage in their high-end smartphone models. For the first quarter, we expect net sales from the high-end consumer market to be flat to slightly up as we continue to evaluate channel inventory health.

For the fourth quarter, industrial net sales were $121.5 million, up 1% sequentially and within expectations. IoT systems reported fourth quarter net sales of $65.5 million, up 11% sequentially. Encouragingly, fourth quarter net sales for modules were up over 20% sequentially, benefiting from customer requested shipments on certain end-of-life models and higher LPWA sales into smart metering and asset tracking applications.

US government focus on suppliers into critical infrastructures also garnering attention in the European market where we have increased opportunities in markets, such as smart metering and payment processing. We believe Semtech's advantages and ultra-low power consumption, scalability through our selection of worldwide bands and high transmit power, supplements our position as a trusted North American supplier.

Module and customer inventories in many applications remained elevated, though, and visibility remains limited. As such, we believe time to meaningful recovery in this market will be extended. We continued to invest in the portfolio, though expanding our 5G and CAT 1 bis offerings in the middle of FY25.

For the fourth quarter, router net sales were down about 13% sequentially as we work to address elevated channel inventories. Consistent with last quarter, lack of a US federal budget freezes spending on all projects, federal and local not deemed essential and mission critical. As such, a typical uptick in fourth-quarter agency spending was muted.

In the fourth quarter, consumption was at the high point for the fiscal year, and at the end of the quarter, channel inventory at the low point of the fiscal year. That said, we believe our router business is still moving toward a recovery phase in the second half of fiscal '25 as we continue to monitor channel inventory health.

We are encouraged with the positive feedback on our recent launch of the XR60, the world's smallest rugged 5G router and builds on our core markets of industrial and public safety. Pipeline for the XR60 is strong, and we expect this product to contribute to revenue growth in fiscal '25 and beyond.

We are also encouraged from feedback at DISTRIBUTECH in the utility space where our product solutions support private networking spectrum and have resulted in sales and pipeline development. IoT connected services reported fourth quarter net sales of $24.2 million, flat sequentially and also within expectations for this relatively stable stream of recurring revenue. We continue to invest in our service platform, delivering reliable, high-quality connectivity, and cloud-based services, including smart connectivity, device control, data insights, and fully managed solutions.

Net sales of our RF industrial products, including LoRa enabled solutions, declined about 14% sequentially. But POS increased approximately 13%, consistent with our goal of healthier channel inventories. Bookings in the fourth quarter sequentially increased over 30% and have increased for the last six sequential quarters.

Lastly, hearing aid applications, which integrate LoRa into custom SOCs, are expected to result in meaningful revenue in FY25. ITA TVS faced a headwind from elevated channel inventory, but we are pleased with the progress of SurgeSwitch with customer count across a broad spectrum of industrial, medical, and automotive companies more than doubling in the last year. Our strategy leverages customer engagement and adoption of our best-in-class consumer products to capture meaningful SAM.

We are pleased with healthy fourth-quarter sequential growth in POS for ITA TVS. Similarly, we are engaged in the industrial and automotive space for our sensing products and are encouraged by design wins in the fourth quarter. Our consumer products are gradually providing incremental momentum to the ITA flywheel. For the first quarter, we expect industrial net sales to be down with continued inventory digestion in modules and routers and the aforementioned public sector headwind, but stable net sales from our managed connectivity offerings and growing LoRa net sales.

Now I'll turn the call back over to Mark.

Mark Lin - *Semtech Corp - Chief Financial Officer, Executive Vice President*

Thank you, Paul. First, a few housekeeping items on our segment reporting. The primary change is our newly created analog mixed signal and wireless segment, which combines the former APS segment with LoRa from the IoT systems segment and SDVoE from the signal integrity segment.

From a functional perspective, this change aligns similar development teams under one general manager and streamlines allocation of R&D resources. The ISP segment now consists of our routers and modules business. Supplemental earnings materials reflect this change for all periods presented.

Turning to our fourth-quarter results, we recorded net sales of $192.9 million, slightly above the midpoint of our guidance. Paul discussed end market net sales performance with infrastructure down 9% sequentially, high end consumer down 15% sequentially, and industrial up 1% sequentially. These results were largely in line with our expectations and reflective of our objectives to support a healthier channel.

Gross margin was 48.9% at the high end of our guidance for the quarter, reflecting favorable overhead spending, offset by a higher mix of lower margin module sales. Operating expenses were $76.5 million, down 7% sequentially, but above guidance in total.

R&D expense decreased 13% sequentially from $43.9 million in the third quarter to $38.2 million in the fourth quarter. SG&A declined slightly from $38.6 million in the third quarter compared to $38.3 million in the fourth quarter. SG&A came in above expectations with higher costs to support key customer engagements and lower than expected vacation usage to support integration efforts, especially around our migration to a single ERP, which went live at the beginning of the first quarter. There were also some cost savings modeled into operating expenses that we realized in cost of goods sold.

Net interest expense was $19.9 million. Other expense, which consisted primarily of foreign exchange losses, was $2 million. We recorded net loss per share of $0.06 based on a diluted share count of 64.4 million shares. For fiscal year 2024, we recorded net sales of $868.8 million, gross margin of 49.5% and diluted earnings per share of $0.14.

Moving to the balance sheet, we ended the fourth quarter with a cash balance of $128.6 million. Working capital moved in a favorable direction with accounts receivables decreasing $22.3 million sequentially and inventories decreasing $15.6 million sequentially. Principal outstanding on our debt was $1.4 billion with a weighted average interest rate of 5.86%. At the end of our fourth quarter, our consolidated net leverage ratio calculated in accordance with the credit facility is 9.11.

Operating cash flow for the fourth quarter turned positive at $13.9 million and free cash flow was $12.2 million. Consistent with our capital allocation priority to reduce leverage, we made a $5 million optional prepayment on our credit facility in the fourth quarter. Adjusted EBITDA for the fourth quarter was $24 million compared to $28.1 million in the third quarter.

Before I discuss our first quarter guidance, I'd like to touch upon the non-cash goodwill and intangibles impairment charge we recorded in the fourth quarter. In conjunction with our annual goodwill assessment, which occurs on the first day of the fourth quarter of each fiscal year, we recorded a non-cash impairment charge to goodwill and intangible assets of $605 million in the ISP and ICS segments. Our assessment of near-term headwinds and moderated outlook for ISP and ICS contributed to the charge. We will also report material weaknesses in our Form 10-K, which primarily relate to Sierra Wireless and for which we believe a single ERP will substantially contribute to remediation.

Now turning to first-quarter guidance. We currently expect net sales of $200 million plus or minus $5 million. Our infrastructure market is expected to be up sequentially, reflecting PON and data center gains. High end consumer is expected to be flat to slightly up sequentially as higher channel inventory levels on specific SKUs offset generally our demand. Industrial end market is expected to be down, reflecting softness in the hardware business, partially offset by growing LoRashipments.

In the fourth quarter, end customer demand consisting of direct shipments plus POS improved sequentially across all of our end markets. That said, our net sales guidance for the first quarter continues to reflect our goal of a healthier channel.

Based on expected product mix revenue levels, gross margin is expected to be 49.5% plus or minus 100 basis points. Operating expenses are expected to be $78.5 million, plus or minus $1.5 million. SG&A expenses are expected to be $36.5 million at the midpoint. Research and development expenses are expected to be $42 million at the midpoint, reflecting incremental investments supporting key products. We expect net interest expense to be $20.5 million and a non-GAAP tax rate of 12%. These amounts are expected to result in a net income per share at breakeven plus or minus $0.04.

I'd now like to turn the call back over to the operator for Q&A.

QUESTIONS AND ANSWERS

Operator

(Operator Instructions) Tristan Gerra, Baird.

Tristan Gerra - *Robert W. Baird & Co Inc - Senior Research Analyst*

Hi, good afternoon. The first question is whether you could expand a little bit on the China tenders earlier this year, the timing in terms of revenue contribution and what potentially does that mean in revenue and specifically within the signal integrity business?

Paul Pickle - *Semtech Corp - President, Chief Executive Officer*

Yes. Thank you, Tristan. I would say that right now, the China tenders, they came in the January timeframe. Just to rewind, if we look back, we were expecting them in the October-November timeframe, which they typically do come in. It was announced there was going to be a delay.

They went public in January and the numbers are pretty good in them. I think if you analyze the two-year financial data, it looks like roughly flattish spend to the previous timeframe, but we are coming off of considerable low. And within that tender, a couple of positives for us. So it's not necessarily more infrastructure, it's upgraded infrastructure as a lot of the tender was skewed towards 10 gig PON. And that's good for us, higher ASPs, better margin, less competition.

We've got about a 70% to 80% market share in that business, and so we're in a pretty good position. In terms of timing of contribution, it's relatively immediate for us. It comes out of the gate, not giving a lot of visibility when those orders started coming in. But we should see some appreciable contribution and I believe in the prepared remarks, we talked about POS levels being roughly back to previous levels, a pretty healthy demand if we look back in previous years. So not quite at the peak, but very strong demand right out the gate, so we expect immediate contribution.

Tristan Gerra - *Robert W. Baird & Co Inc - Senior Research Analyst*

Great. Thanks for the feedback. And then as a follow up, if you could also expand on the opportunities in AI interconnect, trying to quantify the opportunity as the engagement you have in AI for notably CopperEdge technology? And is that multiple AI platform? Any color here would be appreciated.

Paul Pickle - *Semtech Corp - President, Chief Executive Officer*

Sure. I'd say, right now, the market is really frothy. I have said this before that the fundamentals in data center are really strong, expect them to be strong at least for the next three to five. The horizon looks really, really good.

The pace at which adoption is happening, it seems to be slightly accelerated. If we look at previous node changes, we're on an accelerated cycle here. And we're looking at really technological changes that are happening in order trying to save power. So our engagement in ACC, for us, this stands to be a considerable contributor if we look at next fiscal year. So this is really a calendar year '25 phenomenon, but starts to ramp in the back half of '24.

But to put a number on it, I'll say that we'll see a significant increase in demand this next year, and we're probably looking at 20%-plus growth the year thereafter. So it's really hard to put an exact quantity on it because the numbers that people are talking about just appear really high and difficult to make. And so we want to see those sockets get solidified and start to see these forecasts rollout. But the ramp is pretty stiff, so the question is just how stiff.

Operator

Quinn Bolton, Needham & Company.

Quinn Bolton - *Needham & Company LLC - Senior Analyst*

Hey, Paul, I wanted to follow up on Tristan's questions just about the opportunity. We're starting to see 200 gig per lane being introduced within the data center. You've got the 100, already 200 gig. I'm sure we'll see that from other optical DSPs and processors here over the next year. And so I guess can you quantify --?

I mean, I think NVIDIA in its presentation back at GTC was talking about being able to drive signals potentially as far as 2 meters. That seems a lot longer than I've heard this week at OFC. And so I guess as you get to 200 gig per lane, what do you think the reach is of 200 gig per lane? How big is that ACC opportunity? Do you have multiple programs that you're engaged in for those ACCs or the linear equalizers?

Paul Pickle - *Semtech Corp - President, Chief Executive Officer*

Yeah. So 200 gig ACC, definitely, at 2 meters, we're demoing those products today. And we demoed a few solutions at OFC that as you're probably well aware. I think we could probably achieve up to 5 meters even possibly. We need to see the specs settle out and determine exactly where that's going to fall in play. But when you get into active copper, it's a nice intermediary or intermediate solution between copper interconnects and active electrical cables that would require retiming.

And right now, you're talking about significantly lower power requirements as well, about 20% of what an ACC application would be. So right now, as we look at power budget, that's driving a lot. 800 gig certainly a possibility; we're looking at 1.6T as well for ACC applications. There's multiple areas where those could go, multiple programs where those could go, and it's considerable upside opportunity as you look beyond this calendar year.

Quinn Bolton - *Needham & Company LLC - Senior Analyst*

Yeah. I'm sorry. I was meaning that the passive copper, it sounds like you can't drive the signal that far overpassed, so you got to go at it. I assume you guys agree with that statement?

Paul Pickle - *Semtech Corp - President, Chief Executive Officer*

Yes. So right now, they're running out of gas on just copper interconnects. And they can do that within the GPU cluster in a lot of cases. But if you're looking at 1 meter to 5 meters, you're going to need an active copper solution.

Operator

Cody Acree, The Benchmark Company.

Cody Acree - *The Benchmark Company, LLC - Analyst*

Yeah, thanks for taking my questions and congrats on the progress. I guess, Paul, just continuing on with that prior question, staying with what we're seeing from NVIDIA with their SpectrumX solution and even guys like Broadcom that are definitely leaning into ether nets, keeping things in copper as long as possible. How do you see the industry shifting or transitioning between copper and optical? And do you happen to have a benefit one way or the other?

Paul Pickle - *Semtech Corp - President, Chief Executive Officer*

Yeah, it's going to be an optimization. Depending on who you talk to, you can see there's roughly half of the power budget in a data center that's dedicated to interconnects, transport of data. There's some people that would say 70% of the cost in the data center would come from optics alone. It's always going to be -- copper has got some significant advantages if you don't have to use fiber optics. Power is certainly one of those.

If you look at thermal variances in terms of performance over a wider temperature range or under some intense thermal conditions, copper is going to have an advantage as well. And so it just comes down to what are the requirements. You're starting to see GPU clusters, those racks needing interconnectivity. Those are not -- they don't have to be plugged into a fiber plant. And so they're looking at these shorter reach interconnect solutions between GPU clusters, but the fiber plant is not going away either anytime soon. So it's really just about optimizing. Optimizing cost, although cost is a secondary concern in AI today, but power certainly is one for the performance.

Cody Acree - *The Benchmark Company, LLC - Analyst*

And from your competitive positioning, do you benefit one way or the other?

Paul Pickle - *Semtech Corp - President, Chief Executive Officer*

Not really. I think when you -- it comes down to the portfolio once you get to a 200 gig node and you can work out a really linear drive pattern then you've got some optimization around or some IP around that circuitry, it really comes down to just knowing what the parameters are of the application, whether it be optics or whether it be copper. But copper is really interesting right now, and it sits right in our wheelhouse in terms of technical competency. But we can take that competency and apply it to optics as well.

Operator

Tore Svanberg, Stifel.

Tore Svanberg - *Stifel - Analyst*

Yes, thank you. Paul, I had a question on the industrial market, I guess, in this case, the IoT hardware business. So there was a lot of moving parts there. And I was just hoping you could clarify a little bit of exactly what's going on there because certainly that business held up pretty well this quarter. It sounds like it's going to step down next quarter, and then you also talked about there still being some inventory. So if you could just clarify a little bit some of the moving parts there that would be really helpful.

Paul Pickle - *Semtech Corp - President, Chief Executive Officer*

Yes. So hardware, definitely, we're looking at Q1 as a bottom for us in the hardware business. I would like to think that Q1 is going to be a bottom. We don't have a ton of visibility there, so it's a little bit hard to say. With the federal budget and some government buying, we could get some POS increases here that might make Q1 the bottom and start to see a rebound in Q2. But I'm looking at Q1 and Q2 somewhat flattish on hardware.

Industrial applications and modules is picking up a little bit ahead of broadband. Broadband is mostly a direct business, so we've got less visibility on what the customer inventory is. But they've had some muted POS due to government buying as well. And so it really comes down to what is that end market demand going to be for the router business. We should get a subsequent pickup in modules shortly after that as that channel or that customer inventory depletes. So it's a little hard to say at this point, but I would -- I am thinking that Q1 is going to be the bottom and Q2 will be somewhat flattish to Q1.

Tore Svanberg - *Stifel - Analyst*

That's very helpful. And my follow-up is for Mark. Mark, the new segments, you went through that pretty quickly. I was just hoping you could talk a little bit more about that. Because you said you want those business to be other one general manager. But yeah, just explain to us again the specifics of the new segments.

Mark Lin - *Semtech Corp - Chief Financial Officer, Executive Vice President*

Sure. I think the message is also that the ISP segment is now routers and modules. So we've moved LoRa out of there, out of that segment. So there'll be a little bit more visibility into what the legacy Sierra businesses are. Routers and models will be in ISP. ICS remains unchanged. And then we've moved the LoRa business, NIC business under Madhu and under the AMW new segment.

Operator

Craig Ellis, B. Riley Securities.

Craig Ellis - *B. Riley Securities - Analyst*

Yeah, maybe just starting off with a clarification on some of your comments, Paul, regarding the 1.6T program that gets going late this year. The question is, how should we think about the share position the company has? And how should we think about the way that design win activity and engagement activity can diversify over time?

Paul Pickle - *Semtech Corp - President, Chief Executive Officer*

Yeah, it's a good question. I think share is something that's going to be decided over time. I think it's reasonable to expect us to share that business with one of our largest competitors in the space, MACOM. Right now, we're in a very good position in both 100 gig and 200 gig. And we really like the position that we're in in terms of being first to address a market that's moving very, very quickly.

But I do think that it's reasonable to expect to see some share there as it settles down. I mean, in the beginning, it's definitely going to come down to performance. Best performance is going to win, but eventually, everybody's going to want to secure those supply chains.

Craig Ellis - *B. Riley Securities - Analyst*

Got it. (multiple speakers)

Paul Pickle - *Semtech Corp - President, Chief Executive Officer*

In terms of design win, the design-in and design-win cadence -- sorry, I didn't answer that second half of the question. It's something where we get a spec. There's not a ton of visibility on what it exactly goes for. These programs are typically under NDA.

We get a spec, we turn the device. They give us a thumbs up. They say they like it. And then we turn it into production material. Occasionally, you need some tweaks on the device. But right now, we're fairly confident where we sit.

Craig Ellis - *B. Riley Securities - Analyst*

Got it. Nice program. The question for you before I ask one for Mark is, I think if I look at just the arc of the business that you're describing, we're seeing some nice gains start to emerge here in fiscal first quarter, which is about a quarter earlier than I would have previously expected. And I think what you might have been mentioning previously with gains really coming in the second half of the fiscal year. So the question is this, Paul, are you just seeing a specific response to individual Semtech products or programs that's driving that? Or is inventory just in a little bit better shape than we all might have feared and you're starting to see some natural demand pull through in a number of the markets that you serve? Any color there would be helpful.

Paul Pickle - *Semtech Corp - President, Chief Executive Officer*

Yes. I would separate my comments into two buckets. One, we talk about recovery of business. We're definitely, when we talk about PON, we're talking about recovery of business. When we talk about these new programs, we're talking about driving a roadmap, a revitalized roadmap in which we have new leadership on the engineering side that engineering team is executing to. So it's moving at a bit of a faster pace in terms of market adoption. The market dynamics are absolutely fantastic. I would separate that though from the recovery of the business.

So the first half contribution from PON was something that we certainly were anticipating and looking forward to. And it's just we knew that there was a budget that was being allocated out of the China government for infrastructure stimulus. We didn't know how big it was going to be and it was obviously delayed and so that moved things sideways a little bit for us. But right now, it looks like that's moving quite well. And then I would say from a new business point, we're having increasing conversations with North American infrastructure companies, Comcast to be one of those where we are looking at high speed PON projects in the US as well. So I think PON has got a number of years. It's got lots of legs, lots of runway here that we're going to enjoy. But that near-term recovery was definitely needed.

Hopefully, that gave you a little bit of color. Some of it is inventory drawdown, but it's not all inventory drawdowns. It really comes down to the SKU that we're looking at. In some cases, it's very lean. In some cases, there's channel inventory, and we just have to wait for that inventory to be depleted.

Craig Ellis - *B. Riley Securities - Analyst*

That's really helpful. Thank you so much, Paul. Mark, if I could just wrap it up with you. If I look at gross margin in the fiscal first quarter, they are a little bit better than I expected and it seems to be occurring as you just realize a lot of optimization gains whether it's getting the ERP system in, just doing things that result in positive operating and free cash flow. So can you just talk a little bit about how you see the underlying drivers to gross margin? Is this mix? Is it some optimization benefit? What is it? And how do we think about the way the arc can play out beyond just fiscal 1Q? Thank you.

Mark Lin - *Semtech Corp - Chief Financial Officer, Executive Vice President*

Yes, sure. Yes, we are pleased with our gross margin performance. We came in at 48.9% non-GAAP for Q4, at the high-end of our guidance and we're guiding to 49.5%. A large part of that is mix though. So with the recovery in some of the businesses, especially in PON, right, those are above corporate averages. And but that said, as volumes are going up, I think we have a world class operations team. We are driving costs down and optimizing for a few basis points there, too. So, I'd say, though, primarily mix, but definitely some operational improvement as well.

Operator

Anthony Stoss, Craig-Hallum Capital Group.

Anthony Stoss - *Craig Hallum - Analyst*

Question for you Paul. I think your China PON business, if I'm not mistaken, back in 2022, quarterly peak about $37 million. I think you guys disclosed maybe a quarter ago, it dropped to about $12 million. Do you have any visibility on if you can get back towards the 2022 run rate and what timeframe? And then I had a follow-up.

Paul Pickle - *Semtech Corp - President, Chief Executive Officer*

Yes, if memory serves, I think we peaked closer to $39 million. But we're going to make some nice inroads towards that. I think you still have to consider that some of that buying back in that time frame, it was pretty frothy buying in a constrained supply environment. So I would probably discount some of those peaks just a little bit in terms of thinking what a normal run rate is. And then if you don't ask me to tell you what that normal run rate number is, I'd say that we're going to get right back to that normal run rate number.

Maybe besting it a little bit because the ASPs on the 10 gig is going to be a little bit higher. So not quite to the peak because obviously it was a frothy environment, but pretty close.

Anthony Stoss - *Craig Hallum - Analyst*

And if I could follow-up on the Cellular Modular Sierra business, you talked a couple of quarters ago about backlog and the actions that the FCC was taking. I'm just curious, I think at that time you talked about a bunch of design wins launching late calendar 2024? Can you maybe update us on that and what the backlog might look like?

Paul Pickle - *Semtech Corp - President, Chief Executive Officer*

Yes. Still making progress. We're not seeing backlog in place today if that's the question. We do expect this forward Q1 quarter, the quarter we're currently in, I've said that I think that it's going to be the low point for the hardware business. I'm certainly hopeful that it's going to be the low point. We might get a little sideways action with Q2.

I can't really point to share loss. And so given some decent POS, underlying POS at our customers, end market consumption at our customers, we should see a pretty quick snapback on that business. But if I reflect on comments I made three quarters ago, I would still handicap the business around 460 annually once we get back into a more normative buying environment. So off of the peaks of the COVID cycle, but a good 460 number with the ability to grow beyond that.

Operator

We have reached the end of our question-and-answer session. I would like to turn the conference back over to Paul for closing remarks.

Paul Pickle - *Semtech Corp - President, Chief Executive Officer*

Thank you for joining us and have a great day.