# Applied Optoelectronics (AAOI) / 7 Nov 24 / 2024 Q3 Earnings call transcript

Company Profile

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Chih-Hsiang Lin executive
Stefan Murry executive
Michael Genovese analyst
Timothy Savageaux analyst
Jeffrey Koche analyst

## Operator

Good day, and welcome to the Applied Optoelectronics Third Quarter 2024 Financial Results Conference Call. [Operator Instructions] Please note this event is being recorded. I would now like to turn the conference over to [Cassidy Patterson], Investor Relations for AOI. Mrs. Patterson, you may begin.

#### **Unknown Executive**

Thank you. I'm Cassidy Patterson, Investor Relations for Applied Optoelectronics. I'm pleased to welcome you to AOI's Third Quarter 2024 Financial Results Conference Call. After the market closed today, AOI issued a press release announcing its third quarter 2024 financial results and provided its outlook for the fourth quarter of 2024. The release is also available on the company's website at ao-inc.com. This call is being recorded and webcast live.

A link to the recording can be found on the Investor Relations section of the AOI website and will be archived for 1 year.

Joining us on today's call is Dr. Thompson Lin, AOI's Founder, Chairman and CEO; and Dr. Stefan Murry, AOI's Chief Financial Officer and Chief Strategy Officer. Thompson will give an overview of AOI's Q2 results, and Stefan will provide financial details and the outlook for the fourth quarter of 2024.

A question-and-answer session will follow our prepared remarks.

Before we begin, I'd like to remind you to review AOI's safe harbor statement. On today's call, management will make forward-looking statements. These forward-looking statements involve risks and uncertainties as well as assumptions and current expectations, which could cause the company's actual results, levels of activity, performance or achievement of the company or its industry to differ materially from those expressed or implied in such forward-looking statements.

In some cases, you can identify forward-looking statements by terminology such as believes, forecasts, anticipates, estimates, suggest, intends, predicts, expects, plans, may, should, could, would, will, potentially or thinks or by the negative of those terms or similar expressions that convey uncertainty of future events or outcomes. The company has based these forward-looking statements on its current expectations, assumptions, estimates and projections.

While the company believes these expectations, assumptions, estimates and projections are reasonable, such forward-looking statements are only predictions and involve known and unknown risks and uncertainties, many of which are beyond the company's control.

Forward-looking statements also include statements regarding management's beliefs and expectations related to the expansion of the reach of its products into new markets and customer responses to its innovations as well as statements regarding the company's outlook for the fourth quarter of 2024. Except as required by law, AOI assumes no obligation to update these forward-looking statements for any reason after the date of this earnings call to conform these statements to actual results or to changes in the company's expectations.

More information about other risks that may impact the company's businesses are set forth in the Risk Factors section of AOI's report on file with the SEC, including the company's annual report on Form 10-K and quarterly reports on Form 10-Q. Also, all financial results and other financial measures discussed today are on a non-GAAP basis, unless specifically noted otherwise. Non-GAAP financial measures are not intended to be considered in isolation or as a substitute for results prepared in accordance with GAAP.

A reconciliation between our GAAP and non-GAAP measures as well as a discussion of why we present non-GAAP financial measures are included in the company's earnings press release that is available on AOI's website.

Before moving to the financial results, I'd like to note that AOI management is attending the Needham Virtual Security, Networking, & Communications Conference on November 19, the ROTH 13th Annual Technology Event on November 20 in New York; the Raymond James TMT and Consumer Conference on December 10 in New York and Northland's Virtual Growth Conference on December 12.

We'd like to note that the date of AOI's fourth quarter and full year 2024 earnings call is currently scheduled for February 26, 2025.

Now I'd like to turn the call over to Dr. Thompson Lin, AOI's Founder, Chairman and CEO. Thompson?

## Chih-Hsiang Lin

Thank you, Cassidy, and thank you for joining our call today. We had a solid third quarter performance as we ramp up production capacity to meet our customer rollout schedules. We recorded strong double-digit sequential growth in our data center business, driven by new wins for our 400G products, while our CATV business more than tripled from the second quarter as our customers actively transitioned to new architectures.

During the third quarter, we delivered revenue of \$65.2 million, which was at the high end of our guidance range of \$60 million to \$66 million. We recorded non-GAAP gross margin of 25%, which was in line with our guidance range of 24% to 26%.

Our non-GAAP loss per share of \$0.21 was larger than expected and above our guidance range of a loss of \$0.14 to \$0.20 per share due primarily to accelerated R&D spending due to greater that anticipate new customer requests, especially in our data center business, where we saw notable interest in our 1.6 terabit transceivers.

Total revenue for our data center products of \$40.9 million was down 16% year-over-year, but up 19% sequentially. Revenue for our 100G products decreased 24% year-over-year, while revenue for our 400G products increased 140% in the same period.

We are pleased to report that we have begun to receive initial orders for 400G products from another large hyperscale customer, and we are very excited about this new customer interaction.

We have already begun shipment on this relative small initial orders.

We expect additional orders from this customer in this quarter and into 2025 for both 400G and 800G products. Total revenue in our CATV segment was \$20.9 million, which was up 104% year-over-year and low 260% sequentially, largely driven by shipment of our 1.8 gigahertz amplifiers for our major MSO customers.

As we have discussed on our prior earnings calls, our MSO customers are in the process of transition from DOCSIS 3.1 to DOCSIS 4.0. This initial ramp in CATV sales in Q3 was in line with our expectations, and we continue to expect additional growth as MSO upgrades increase in intensity next year.

With that, I will turn the call over to Stefan to review the details of our Q3 performance and outlook for Q4. Stefan? Stefan Murry

Thank you, Thompson.

As Thompson mentioned, our revenue and non-GAAP gross margin for the third quarter were in line with our expectations.

Our non-GAAP loss per share was unfavorable compared to our expectations due to higher-than-expected operating expenses as we accelerated R&D spending due to greater-than-anticipated new customer requests, especially in our data center business, where we saw notable interest in our 1.6 terabit transceivers after our strong showing at the European Conference on Communications in Frankfurt in September.

During the third quarter, we continued to execute on many of the initiatives that we laid out earlier this year. We discussed on our Q2 call how we have begun to receive orders for the 400G products from another large hyperscale customer.

This quarter, we continued to receive new orders from this customer, and we remain very excited about this opportunity.

We have already begun shipments on these relatively small initial orders, and we expect additional orders from this customer in the fourth quarter and into 2025 for both 400G and 800G products.

We also discussed on our Q2 call how we have begun to receive forecasted orders for the VCSEL-based 400G active optical cables for which Microsoft provided development funding last year.

We have continued to see additional orders and shipments for our AOC products and new forecasts that indicate stronger growth in 2025.

Lastly, in our CATV business, in line with our expectations, we saw a vast improvement in our CATV results in Q3.

Our MSO customers need to place these orders in order to stock their distribution pipelines ahead of their more aggressive upgrade plans in 2025.

Turning to our third quarter results.

Our total revenue was \$65.2 million, which was up 4% year-over-year and up 51% sequentially and was at the high end of our guidance range of \$60 million to \$66 million.

During the third quarter, 63% of revenue was from our data center products, 32% was from CATV products with the remaining 5% from FTTH, telecom and other.

In our data center business, Q3 revenue came in at \$40.9 million, which decreased 16% year-over-year and increased 19% sequentially. The decline in revenue from Q3 2023 is largely due to price reductions with certain customers that took effect earlier this year, along with nonrecurring engineering revenue from Microsoft last year, which did not recur this year. The sequential increase is due to new customer wins in the past several quarters, along with the continued growth of 400G with existing customers.

In the third quarter, 67% of data center revenue was from 100G products, 27% was from 200G and 400G transceiver products and 4% was from 40G transceiver products.

As we have discussed on several prior earnings calls, we signed 2 agreements with Microsoft in 2023 for the development of 400G products and beyond. This included a development program to make next-generation lasers for its data centers and for the development of its 400G and next-generation active optical cables.

While not guaranteed, we continue to believe that the revenue opportunity for our 400G and 800G products could be greater and longer duration than the revenue contribution we saw from this customer during the peak of the 40G product cycle, which suggests that revenue from these products may exceed \$300 million over the several years of these build-outs. In Q3, we are pleased to report that we saw a slight increase in business as we received additional orders and began shipments for our AOC products.

Looking ahead, we continue to believe that this business will ramp further in Q4 and into 2025.

As our data center customers work on building out their next-generation Al-focused data center architectures, we remain very active in our 800G qualification efforts with several hyperscale customers.

We continue to believe that we will begin to receive orders for 800G products in Q4 of this year with a ramp expected thereafter. In our CATV business, revenue in the third quarter was \$20.9 million, which was up 104% year-over-year and up 260% sequentially.

As I mentioned before, the significant increase is due to the ramp in orders for our 1.8 gigahertz amplifier products.

We continue to believe our CATV revenue will ramp further in Q4 and into 2025. I'd like to take a moment to provide some additional color on the upcoming DOCSIS 4.0 transition.

As MSOs look to expand upstream bandwidth by increasing the frequency content available for upstream transmission, they need to change and replace their current amplifiers and nodes.

By using DOCSIS 4.0, which expands frequencies up to 1.8 gigahertz, MSOs are able to replace their current hardware without cutting into their downstream bandwidth.

As I mentioned before, while some MSOs have stated that they do not plan to deploy DOCSIS 4.0 upgrades until 2025 or later, we have begun delivering initial orders so that they are capable of deployments when they are ready to make the transition. With this in mind, however, the timing of deployment by our MSO customers of our amplifiers does not depend on the timing of DOCSIS 4.0.

In fact, we believe at least one major MSO is committed to an AMP-first strategy, whereby amplifiers capable of DOCSIS 4.0 are deployed ahead of the nodes and RPDs that will be needed to fully enable DOCSIS 4.0 in the future. By deploying new AMPs, an MSO can enable higher bandwidth splits in the upstream direction, which provides much needed additional bandwidth.

In addition, MSOs could take advantage of AOI's revolutionary QuantumLink technology to gain insight into their network operation and we believe improve their customers' experience while reducing maintenance spend, all while waiting for DOCSIS 4.0 nodes and RPD hardware to be available.

Now turning to our telecom segment. Revenue from our telecom products of \$2.8 million was down 9% year-over-year and up 18% sequentially.

Looking ahead, we continue to expect telecom sales to fluctuate from quarter-to-quarter.

For the third quarter, our top 10 customers represented 96% of revenue, in line with Q3 of last year. We had 3 greater than 10% customers, 2 in the data center market, which contributed 41% and 16% of total revenue, respectively; and 1 in the CATV market, which contributed 34% of total revenue.

In addition to these 3 customers, we have had meaningful conversations with an additional hyperscale customer who has begun to reengage with us in preparation for future data center upgrades. We believe we are in a position to ramp production to meet their needs and have already received some small initial orders with additional orders expected in Q4 and into 2025. In Q3, we generated non-GAAP gross margin of 25%, which was within our guidance range of 24% to 26% and was up from 22.5% in Q2 of 2024 and down from 32.5% in Q3 of 2023.

Looking ahead, we expect gross margins to improve as we see the impact of manufacturing efficiencies in our CATV production and improving product mix. We remain committed to our long-term goal of returning our non-GAAP gross margin to around 40% and continue to believe that this goal is achievable. Total non-GAAP operating expenses in the third quarter were \$27.9 million or 42.9% of revenue, which compared to \$21.4 million or 34.2% of revenue in Q3 of the prior year, primarily due to accelerated R&D spending due to greater-than-anticipated new customer requests, especially in our data center business, where we saw notable interest in our 1.6 terabit transceivers.

Also increasing year-over-year were R&D expenses related to our 1.8 gigahertz CATV amplifier products and additional expenses related to expedited shipping costs for the production ramp-up of these products and nonrecurring trade show expenses that were incurred in the third quarter, which we do not expect to incur in the fourth quarter.

Looking ahead, we expect non-GAAP operating expenses to tick up slightly next quarter and range from \$28 million to \$30 million due to higher R&D spend, largely generated by additional new customer opportunities we are pursuing.

Non-GAAP operating loss in the third quarter was \$11.7 million compared to an operating loss of \$1 million in Q3 of the prior year. GAAP net loss for Q3 was \$17.8 million or a loss of \$0.42 per basic share compared with GAAP net loss of \$9 million or a loss of \$0.27 per basic share in Q3 of 2023. On a non-GAAP basis, net loss for Q3 was \$8.8 million or \$0.21 per share, which was unfavorable to our guidance range of a loss of \$5.9 million to \$8.6 million or a loss per share in the range of \$0.14 to \$0.20 per basic share.

This compares to a non-GAAP net loss of \$1.7 million or a loss of \$0.05 per basic share in Q3 of the prior year. The fully diluted shares outstanding used for computing the earnings per share in Q3 were 42.3 million.

Turning now to the balance sheet. We ended the third quarter with \$41.4 million in total cash, cash equivalents, short-term investments and restricted cash.

This compares with \$16.1 million at the end of the second quarter. We ended the quarter with total debt, excluding convertible debt of \$39.4 million compared to \$27.5 million at the end of last quarter.

As of September 30, we had \$64.4 million in inventory, which compared to \$54.3 million at the end of Q2. The increase in inventory is primarily for raw materials to be used for anticipated Q4 production. We made a total of \$11.4 million in capital investments in the third quarter, which was mainly used for production and R&D equipment as well as building improvements to accommodate new production capacity.

Looking ahead, we expect to make sizable CapEx investments over the next several quarters as we prepare for increased 400G, 800G and 1.6 terabit data center product production in 2025.

We expect to finance these investments through a combination of cash on hand, cash generated from operations and some equity sales, including possible strategic investments that we are discussing.

We believe that we are poised for a sustained period of growth in both our data center and CATV businesses and that these capital commitments will be transformational to our company as we execute on these opportunities.

As we disclosed in August, we increased the size of our existing at-the-market offering with a total of \$60 million authorized. To date, we have raised \$59.9 million net of commissions and fees under this new program, including \$38.6 million raised in Q3.

Moving now to our Q4 outlook.

We expect Q4 revenue to be between \$94 million and \$104 million and non-GAAP gross margin to be in the range of 27.5% to 29.5%.

We expect operating expenses to remain elevated in the near term in the range of \$28 million to \$30 million, resulting in non-GAAP net income expected to be in the range of a loss of \$1.9 million to income of \$1.7 million and non-GAAP earnings per share between a loss of \$0.04 per share and earnings of \$0.04 per share using a weighted average basic share count of approximately 46 million shares.

Looking ahead, we remain optimistic about the long-term demand drivers for both our data center and CATV businesses. We believe that we're well positioned to benefit from the tailwinds driven by the adoption of generative AI, which we continue to believe will require our data center customers to deploy more infrastructure, including more optical interconnects.

Due to our U.S.-based production ability and our automated manufacturing capabilities and experience, we believe we are uniquely positioned to help our customers meet these significant demands. Also, we believe that we are very well positioned with the right team, product portfolio and strategy in place as our CATV customers transition to next-generation architectures and implement new technologies to improve their network performance.

With that, I will turn it back over to the operator for the Q&A session. Operator?

#### Operator

[Operator Instructions] our first question comes from Michael Genovese from Rosenblatt.

#### Michael Genovese

Congratulations on the revenues and the outlook. I guess my first question is just on 400G, right? I mean it seems like maybe you've seen this coming for a little while that there's higher 400G demand now from multiple customers.

Just what do you think is driving that? And do you think that, that's sustainable? Or will it start to roll off when we go to higher speeds?

#### Stefan Murry

No. It's being driven by demand from our data center customers for interconnections, primarily for their Al networks. And I would not anticipate that, that demand is going to decrease in the near term or even medium term. 400 gig is what they're using for their next-generation architectures for these applications, and we expect the demand to continue or perhaps even grow from here.

As I mentioned, we have at least one new customer that's only beginning to purchase 400 gig from us. And I think there's significant room to ramp with that customer as well as potentially an overall growth in the market as more AI gets deployed.

### Michael Genovese

And I guess on 800G, can you comment what kind of transceivers you expect to be selling within this discussion of VCSELs, EMLs and silicon photonics? Will you participate in all 3 or 1 or 2 more than the other?

#### Stefan Murry

Our primary focus has been historical for us, mainly on the edge emitting technology.

So that would be the electro-absorption modulated lasers and also on the silicon photonics-based solutions. Both of those are the ones that we're pursuing most aggressively.

We do have some interest in VCSEL-based solutions, and we do have our own capability for manufacturing VCSELs.

So there'll probably be some sales, but we're expecting the bulk of the demand that we're going to satisfy to be on the longer distance transmitters.

#### Michael Genovese

And then based on all your comments, I mean, it seems like -- I guess maybe if we include Oracle's number 5, but if we're really talking about the 4 kind of household names on hyperscalers, it sounds like 3 are customers now and the other one you're talking to. Is that fair?

## Stefan Murry

Again, without talking about different names, I think we do think we have 3 out of the top 5 data center customers, yes.

### Michael Genovese

And then just finally for me, just kind of help us understand, I mean, the cable is good, and I guess that will get bigger. And then it's 800G and then 1.6, does that drive higher margins? Like what's the outlook for margins over time? Any detail you give there would be helpful. And I'll pass it on.

#### Stefan Murry

Sure.

So cable TV margins right now are higher than the data center margins. We do expect cable TV margins to improve.

As we noted in our prepared remarks earlier, there's economies of scale, efficiencies and things that we need to wring out of the manufacturing process there, and we expect that to happen over the next couple of quarters.

So there's some room for improvement on the cable TV margins.

With respect to data center, yes, the transition to 800G and 1.6 terabit should be accretive to gross margin as well.

So that's, again, as we said in our prepared remarks, we think a 40% margin is a good long-term target for us to have and growth in both 800G, 1.6 terabits and cable is really what it's going to take to get there.

Operator

The next question comes from Tim Savageaux from Northland Capital Markets.

Timothy Savageaux

I just want to talk about the guidance here.

You're obviously looking for a pretty sharp uptick here in Q4.

I think on the last call, you said you expected cable to be a primary driver in Q3, which it looks like it was and maybe shifting back over to data center in Q4 is the primary growth driver.

So the question is, does that remain the case? And then maybe try and comment on some details on what's driving that. It sounds like AOCs at Microsoft should be ramping up, also your new 400-gig transceiver customer.

You mentioned you also expect some 800-gig revenue.

If you look at that, I don't know if it's \$30 million or so sequential increase in data center. Can you give us a sense of what are the different factors and/or customers driving that?

Stefan Murry

Yes.

So overall, our expectations regarding Q4 are pretty much what we communicated last time. We do see continued growth in cable, but we also see strong growth in the data center, largely driven by 400G at this point, as has been the case for a while for us. We do actually see some continuing strength in 100G as well, interestingly enough.

And then the 800G will be a factor for us a little bit in Q4, but it won't be -- won't likely be material in Q4, but it should start to ramp in Q1.

So that's kind of how things break out. And then, of course, the cable, again, as I said earlier, the margins on cable should start to improve in Q4 and Q1 as well.

Timothy Savageaux

I just want to make sure I understand your customer commentary. I don't know if you snuck a new hyperscaler in there in the comments.

So you've had another 10% customer outside of Microsoft these last couple of quarters that I think you've described as a hyperscaler in the past.

I gather given your commentary about fairly early days in your new 400-gig customer that you haven't seen those sorts of volumes yet. I guess, would you expect to in Q4? And might that customer rise to the 10% level? And outside of those 3, are we missing anybody else in terms of advanced engagements from a hyperscale perspective?

# Stefan Murry

So the 10% customer that we have this quarter on the data center is the same 10% customer that we had last quarter, if that helps. And that would imply that this new hyperscale customer, which is really a reengaging customer from -- I mean it's not a brand-new customer to us. It's one that was formerly a pretty sizable customer for us, but we're sort of reengaging with them.

I think they'll likely grow in Q4. It's unclear that they're going to grow. I would not expect them to be a 10% customer in Q4, especially given the revenue growth that we're seeing, the bar to get to 10% certainly becomes higher. But we definitely think that they can ramp to be a 10% customer in the next few quarters.

**Timothy Savageaux** 

And maybe last one for me.

You've kind of estimated -- well, let me go to another one.

You mentioned elevated CapEx and capacity expansion. From a revenue capacity perspective, where are you in the U.S. right now? And where will these capacity investments take you over the next few quarters?

### Stefan Murry

We haven't disclosed the specific revenue number coming out of the U.S.

As you can imagine, our manufacturing operations are pretty integrated across multiple different locations. In other words, we're doing different operations in different places. But we do expect to continue to invest primarily in the U.S. and Taiwan for manufacturing capacity over the next few quarters, as we noted in our prepared remarks. And that will allow us to continue to execute on the revenue growth trajectory that we outlined.

Timothy Savageaux

Congrats on the results and the outlook, especially.

Stefan Murry

Thank you.

Operator

[Operator Instructions] Our next question comes from Jeff Koche from Raymond James.

#### Jeffrey Koche

Jeff on for Simon. It sounded like maybe I misheard, but it sounded like maybe the Microsoft supply revenue this quarter was maybe slightly weaker than what we were thinking. I mean it was up. It sounds like it was up, but maybe it was only like less than \$5 million still. Is that fair? And do you think that -- if that is the case, are you still confident in reaching -- trying to reach, I don't know, like low \$20 million run rate next quarter for that business?

## Stefan Murry

So yes, it was below \$5 million in this quarter. With respect to next quarter, it's hard to say. It's ramping a little slower than we expected. That is a fair statement. But we do -- we are still committed to reaching that \$25 million per quarter level. It's just unclear which quarter that's going to occur in at this point.

So it's more about timing.

What we are seeing is a lot of increase in demand, as I mentioned earlier, for the 400-gig transceiver solutions. And again, surprisingly, some strength in 100G as well.

#### Jeffrey Koche

Yes. I was going to ask about that, too. And especially the 400 gig, I guess there's -- the thinking is that everybody wants 800 gig for the back end.

So 400 gig, I'm surprised it's not more front end. And then strength in 100 gig sounds like maybe there's a catch-up in like, I guess, the legacy, maybe the legacy data center investment. But are you guys seeing that at all?

#### Stefan Murry

Yes.

I think on both accounts, yes. I mean it's easy for people to focus on one technology, I think, and say, okay, this is where the growth is going to be. But the reality is many of our hyperscale customers are growing their infrastructure in multiple different ways, right? It's not just one thing that they're doing. They're growing their existing infrastructure and they're growing their new Al-focused infrastructure at the same time.

So we're excited about all those opportunities. I just -- the reason why I highlighted the 100 gig is really that I want to draw people's attention to the fact that there's still some significant business opportunities and growth even outside the AI while we continue to focus our efforts in most of the industry on AI growth.

# Jeffrey Koche

And then maybe just to help on -- a little bit of help on the gross margin versus next quarter, like is the -- you said that CATV is running above average at this point. Is that -- as we go to next, should that be up again? Or where do you think the magnitude of the improvement? Where is the biggest part?

# Stefan Murry

Jeff, I'm sorry, you kind of broke up a little bit there. I understood you're asking about gross margins and what's driving the gross margin growth in Q4. I'll go ahead and answer that, and I hope that was the question that you asked. I mean CATV, as I mentioned earlier, we just started ramping this 1.8 gig product line.

You could see going from almost 0 to almost \$21 million in the quarter for those products. I mean that's a sizable ramp.

And as you can imagine, when we -- in the initial phases of that ramp, not everything is -- the efficiency in the manufacturing is not where we want it to be initially.

And so as we go forward in Q4 and in later quarters, we do expect there to be continued expansion in the gross margin in CATV.

In addition, on the data center side, Again, seeing more contribution from 400G and especially some initial contribution from 800G, which we expect to ramp next year will improve gross margins in that segment as well.

# Operator

At this time, we have no further questions, and I will turn the call over to Dr. Thompson Lin for closing remarks.

# Chih-Hsiang Lin

Again, thank you for joining us today.

As always, we want to extend a thank you to our investors, customers and employees for your continued support.

As we discussed today, we believe the long-term demand driver remains strong for both our data center and CATV business, and we believe we are well positioned to capitalize on this opportunity. Thank you.

Operator

The conference has now concluded. Thank you for attending today's presentation.

You may now disconnect.