# NASDAQ:AAOI Q2 2026 Earnings Call Transcript

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### Conference Operator | Operator:

Good afternoon. I will be your conference operator, and at this time I would like to welcome everyone to Applied Optoelectronics' second quarter 2026 earnings conference call. All lines have been placed on mute to prevent any background noise. After the speaker's remarks, there will be a question and answer session. If you require operator assistance at any point, please press star, then zero, and then also please note that this call is being recorded. I would now like to turn the conference over to Lindsay Savarese, Investor Relations for ALI. Ms. Savarese, you may begin.

### Lindsay Savarese | Investor Relations, Applied Optoelectronics:

Thank you. I'm Lindsay Savarese, Investor Relations for Applied Optoelectronics. I am pleased to welcome you to AOI's second quarter, 2026, financial results conference call. After the market closed today, AOI issued a press release announcing its second quarter, 2026, financial results and provided its outlook for the third quarter of 2026. 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 one 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 details Financial Details, and the Outlook for the third quarter of 2026. A question and answer session will follow our prepared remarks. Before we begin, I would 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 achievements 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, suggests, intends, predicts, expects, plans, may, should, could, would, will, potential, or think. or by the negative of those terms or other 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 third quarter of 2026 and for the full year of 2026. 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 business are set forth in the Risk Factors section of AOI's Reports on File with the SEC, including the company's annual report on Forms 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 Rosenblatt's sixth annual Technology Summit virtually on August 18th. This discussion will be webcast live and a link to the webcast will be

available on the investor relations section of the AOI website. Lastly, I'd like to note that the date of AOI's third quarter 2026 earnings call currently scheduled for November 5th, 2026. Now, I would like to turn the call over to Dr. Thompson Lin, AOI's founder, chairman, and CEO. Thompson?

### Dr. Thompson Lin | Founder, Chairman and CEO, Applied Optoelectronics:

Thank you, Lindsay, and thank you for joining our call today. We are pleased to deliver a solid second quarter result that was in line with or better than our expectations, driven by robust demand in both our data center and CATB business. We generated our fifth consecutive quarter of record revenue, and we achieved an important milestone as we returned to Long Gate. Profitability Demand to support next-generation AI infrastructure remains so robust that our near-term revenue is bounded almost entirely by production capacity and key component availability. Because of this, we continue to anticipate steady sequential revenue growth this year and continue non-GAAP profitability. During the second quarter, we delivered revenue of $191.9 million and non-gate gross margin of 29.8%. In line with our expected guidance range and our non-gate income per share of $0.06 came in above our expectations. Importantly, during the quarter, we saw continued robust customer engagement around our 800G and 1.6G In line with our expectations, we saw a strong volume of our A100G product in Q2, which more than doubled sequentially. Looking ahead, forecast demand continues to outpace our production capacity through mid-2027. We are working hard to add additional capacity to meet this demand. We continue to believe our 2026 revenue will be around $1.1 billion this year. With that, I will turn the call over to Stefan to review the detail of our Q2 performance and our for Q3. Stefan. Thank you, Thompson.

### Dr. Stefan Murry | Chief Financial Officer and Chief Strategy Officer, Applied Optoelectronics:

As Thompson mentioned, we are pleased to deliver solid second quarter results that were in line with or better than our expectations. We generated our fifth consecutive quarter of record revenue, and we achieved an important milestone as we returned to non-gap profitability in the quarter. Our performance continues to be anchored by robust demand across both our data center and CATV businesses, validating the power of our dual growth strategy and diversified revenue streams. Demand to support next-generation AI infrastructure remains so robust that our near-term revenue is bounded almost entirely by our production capacity and key component availability. Because of this, we continue to anticipate steady, sequential revenue growth and continued non-gap profitability this year as more capacity comes online. In Q2, we delivered revenue of $191.9 million, which was in line with our guidance range of $180 million to $198 million. We recorded non-GAAP gross margin of 29.8%, which was in line with our guidance range of 29% to 30%, and our non-GAAP income per share of $0.06 was above our guidance range of a loss of $0.03 to earnings of $0.03. Notably, we continued to make progress on our key priorities in the second quarter, which included, one, Scaling our next generation data center products, including both our 400G and 800G solutions, by expanding our production capacity in a disciplined manner. Two, diversifying our revenue base. And three, strengthening operational execution to improve our margins and position us for long-term profitability. Today, that execution is directly translating into tangible business momentum. During Q2, we continued to see robust customer engagement around our 800G and 1.6 terabit products, particularly as AI-driven data center investments accelerate. In line with our expectations, we saw a strong volume ramp of our 800G products in the second quarter. 800G revenue of $12.8 million, or 11.9% of our total data center revenue, increased more than tenfold year-over-year and more than doubled sequentially in Q2. Looking ahead, we expect revenue from our 800G products to grow by nearly five times sequentially in the third quarter and expect continued strong growth gated by our production capacity and component supply in the fourth quarter. During the quarter, in line with our expectations, we saw continued strength in our 400G businesses. 400G revenue of $48.4 million, or 45% of our total data center revenue, increased more than fourfold year-over-year and 27.4% sequentially in the second quarter. As a reminder, in Q1, we announced that we received our first volume order for our 1.6 terabit transceivers from another one of our long-term major hyperscale customers. We also announced that we had received two new volume orders from this customer for our 800G single-mode

transceivers. We began delivering these 800G orders in Q2, and we expect full qualification of our first 1.6 terabit product by this customer within the next couple of weeks, followed by shipments of 1.6 terabit beginning later this quarter. We continue to expect that shipments of these orders will return this customer as a 10% plus customer for us in Q3. Looking ahead, forecast demand for 800G and 1.6TB modules are projected to continue to exceed our production capacity through mid-2027. We are working to add additional capacity and secure necessary key components to meet this demand. During Q2, we continued to make solid progress on our production capacity ramp, particularly for our 800G and 1.6TB products. Once complete, we continue to believe that we will have the largest AI-focused data center transceiver production capacity in the United States. As a reminder, our U.S. manufacturing footprint is anchored in Sugar Land, just outside Houston. Through a combination of real estate acquisition and leases, we have expanded our Texas manufacturing footprint significantly to over 1.6 million square feet in the greater Houston area, and which are in various stages of development. During the quarter, we made further progress building out our 210,000 square foot facility, which is just a few hundred yards away from our headquarters. We continue to expect to begin initial production in this facility late in the third quarter. As a reminder, this facility will be entirely dedicated to the manufacturing of 800G and 1.6 terabit transceivers. While this will not directly increase our indium phosphide wafer capacity, We plan to move the existing transceiver production from our current headquarters facility to this new building, which will allow expansion of our antiphosphide capacity. The facilities in Pearland and Houston will be built out to expand our production capacity for 800G and 1.6 terabit transceivers. We began construction on these facilities in Pearland recently, and we're proud to have received strong local support to meet our manufacturing needs. We are excited to expand our presence in an area with such a strong workforce, excellent infrastructure, and room to scale our operations and continue to expect these facilities to come online in early 2027. Currently, our total manufacturing capacity is approaching 200,000 units per month, up from nearly 100,000 units per month of 800G and 1.6 terabit capacity at the end of Q1. Looking ahead, we continue to expect By the end of this year, we continue to expect to grow our production capacity to be able to produce over 930,000 pieces of 800G and 1.6TB products per month, with over half of that output coming from Texas. These investments reflect measured scaling of our footprint while aligning with strong and growing customer demand and Qualification Progress across both 800G and 1.6TB products. It's important to note, as a reminder, our 800G and 1.6TB products can be manufactured on the same production line with the same process. While our 1.6TB products will require a different final testing, our 800G automated manufacturing lines have been developed with an architecture that will allow us to support future high-speed products as customer demand materializes and evolves over time. Our automated manufacturing lines are engineered to scale efficiently from 800G to 1.6T with minimal incremental investment. This structural flexibility provides a powerful dual advantage. It accelerates our time to market for AI customers while expanding our long-term margin potential. Looking ahead, we continue to believe that our 800G products will drive our near-term data center ramp. followed by our 1.6 terabit products, which are on track to begin to contribute to our overall revenue later this year, with a bigger ramp beginning in 2027. At OFC, we also discussed our plans to increase our manufacturing capacity for our external light source, or ELSFP. That's for co-packaged optics, or CPO. This utilizes the ultra-narrow line width high power laser that we announced late last year. We have very limited production of these modules now, but we anticipate ramping production later this year and into 2027, ultimately culminating in about 400,000 pieces per month in 2028. We believe our in-house laser capabilities continue to be a strategic advantage for the company. As we have mentioned before, we've been manufacturing lasers internally for many years. This has allowed us to avoid some of the shortages that have affected others in the industry. As we continue to expand our footprint in Texas, Our in-house laser manufacturing positions us well to support both near-term customer needs and longer-term growth. We believe that in the future, CPO will continue to drive increased demand for high-power lasers, and we plan to continue to expand our laser manufacturing capacity in Texas in order to accommodate these future growth drivers. Notably, our expansion planning has been underway for several years. We have already secured orders for long lead equipment, and are partnering closely with vendors on delivery. Crucially, our reliance on proprietary, in-house developed machinery heavily insulates us from the broader equipment supply bottlenecks in the industry. There are exceptions to this, of course, but overall we feel that our in-house developed technologies give us an edge in ensuring reliable supply of production equipment. During the quarter, direct tariffs had a $1.9 million impact on our income statement. With the

overturn of the IEPA tariffs, we have received a refund of approximately $5.7 million. We are still evaluating the potential impact of the new tariffs recently announced in the U.S., but at the present time we don't expect any material change from tariffs as a result of this announcement. Turning to our second quarter results, our total revenue was a record $191.9 million, which increased 86% year-over-year and increased 27% sequentially off a strong Q1 and was in line with our guidance range of $180 million to $198 million. During the second quarter, 56% of revenue was from data center products, 42% was from CATV products and the remaining 2% was from FTTH, telecom and others. In our data center business, Q2 revenue of $107.7 million increased 140.4% year over year and 32.3% sequentially. Sales of our 100G products increased 31.3% year-over-year, while sales for our 400G products increased more than fourfold year-over-year, and sales of our 800G products increased more than tenfold year-over-year. In the second quarter, 38.3% of data center revenue was from 100G products, 45% was from 200G and 400G transceiver products, 11.9% was from 800G transceiver products, and 4.4% was from 10G and 40G transceiver products. We currently expect to see a decline in 100G business in Q3 due to one of our customers' inability to source sufficient 100G switches to meet their initial forecast. We believe that this shortage of switches is related to memory shortage and expect that 100G weakness will persist until the memory supply recovers. Even with this temporary weakness of 100G, we continue to believe that by mid-2027, 100G and 400G revenue will be approximately $90 million, 800G revenue will be approximately $217 million, and 1.6 terabit revenue will be approximately $164 million monthly. In total, this is about $471 million per month of data center transceiver revenue. In our CATV business, we saw record CATV revenue of $80.6 million, which was up 43.8% year-over-year and 20.6% sequentially and was slightly above our expectations of $75 million and $80 million. Similar to the last couple of quarters, we shipped a significant quantity of 1.8 GHz amplifiers to our largest CATB customer in Q2. We also continued to see momentum with the newer set of MSO customers that we have talked about on our prior few earnings calls. We continue to see a broad-based appeal of our amplifiers and QuantumLink software across our potential customer base. During the quarter, we announced that Mediacom selected AOI as the primary vendor to accelerate its DOCSIS 4.0 network upgrades, driving multi-operator commercial adoption of AOI's next-generation 1.8 GHz quantum bandwidth smart amplifiers and software solutions. We're excited to partner with Mediacom to deliver more reliable service while lowering operational costs. Looking ahead to Q3, we expect our CATV revenue will be between $100 and $110 million. Looking further ahead, we continue to expect to generate over $325 million annually in CATV. While the vast majority of our CATV revenue expectations for this year are related to our amplifiers, we do anticipate that we will generate some revenue from our software solutions this year. For the second quarter, our top 10 customers represented 99% of revenue compared to 98% of revenue in Q2 of last year. We had three greater than 10% customers, one in the CATV market, which contributed 42% of total revenue, and two in the data center market, which contributed 26% and 24% of total revenue, respectively. In Q2, we generated non-GAAP gross margin of 29.8%, which was in line with our guidance range of 29% to 30% and compared to 29.2% in Q1 2026 and 30.4% in Q2 2025. As we discussed on our last quarterly earnings call, while we do expect continued gradual improvement in gross margins, we continue to expect that the revenue mix and data center in the short term will be a slight headwind. We remain committed to our long-term objective of returning non-GAAP gross margins to around 40% and believe that this goal is achievable as our mix shifts toward higher margin products and as we capture additional efficiencies across our operations. The revenue figures presented above are net of a contra revenue amount due to the accounting for warrants provided to customers. As a reminder, this amounts to approximately 2.5% of revenue derived from certain customers to whom AOI has provided warrants in exchange for future revenue. In Q2, the amount of this contra revenue was $1.2 million. Total non-GAAP operating expenses in the second quarter were $67.6 million, or 35% of revenue, which compared to $42.1 million, or 41% of revenue, in Q2 of the prior year. Our OPEX this quarter was higher than expected due mainly to higher shipping costs associated with the rapid ramp in CATV revenue in the quarter, combined with higher than expected R&D spending, as we have been asked by customers to qualify new 800G and 1.6T products in the quarter. We believe that R&D spending will continue to be elevated, however, we do not expect additional shipping costs to recur in Q3 or subsequent quarters. Looking ahead, we expect non-GAAP operating expenses to be in the range of $70 million to $80 million per quarter. Non-GAAP operating loss in the second quarter was $10.3 million compared to an operating loss of $10.8 million in Q2 of the prior year. Gap net loss for Q2 was $22.8 million, or a loss of 28 cents per basic

share, compared with a gap net loss of $9.1 million, or a loss of 16 cents per basic share, in Q2 of the prior year. On a non-gap basis, net income for Q2 was $5.5 million, or 6 cents per diluted share, which was above our guidance range of a loss of $2.5 million to income of $2.8 million, or non-GAAP income per share in the range of a loss of 3 cents to earnings of 3 cents. This was largely due to foreign tax benefits and modest government subsidy income, which we expect to continue in subsequent quarters. This compares to a non-GAAP net loss of $8.8 million or 16 cents per share in Q2 of the prior year. The weighted average fully diluted shares outstanding used for computing the earnings per share in Q2 were $88.1 million. Turning now to the balance sheet. We ended the second quarter with $508.8 million in total cash, cash equivalents, short-term investments, and restricted cash. This compares with $449.4 million at the end of the first quarter of 2026. We ended the second quarter with total debt excluding convertible debt of $92.8 million, which compared to $77 million at the end of last quarter. As of June 30, We had $278.8 million in inventory, which compared to $206.2 million at the end of Q1. The increase in inventory is primarily due to increased inventory of raw materials for near-term production as we rank capacity. As we disclosed in May, we initiated a new at-the-market offering. To date, we have raised $538.8 million net of commissions and fees under this new program. We intend to use these proceeds to continue to make investments in the business, including new equipment and machinery for production and research and development use. We made a total of $565.5 million in capital investments in the second quarter, including $280 million in prepayments on equipment we have on order. These expenditures are mainly for manufacturing capacity expansion for our 400G, 800G, and 1.6 terabit transceiver product. We expect CAPEX intensity in the second half of the year will be higher than in the first half as we prepare for increased 400G, 800G, and 1.6 terabit data center production. We expect to finance these investments through a combination of cash on hand, cash generated from operations, and some equity sales, along with additional debt. Looking ahead, we believe we are uniquely positioned to capture two distinct growth engines. The rapid AI-driven demand acceleration in our data center business, alongside a robust runway in our CATV business. Our current capital investments are designed to scale our advanced manufacturing footprint, structurally lower our long-term production costs, and enable our path toward sustained profitability. Moving now to our Q3 outlook. We expect Q3 revenue to be between $255 million and $290 million. representing 130% year-over-year growth at the midpoint. We expect non-GAAP gross margin to be in the range of 29% to 30.5%. Non-GAAP net income is expected to be in the range of $10.1 million to $24 million and non-GAAP earnings per share between 11 cents per share and 26 cents per share using a weighted average diluted share count of approximately 92.8 million shares. Looking more broadly at 2026, we believe our 2026 revenue will be around $1.1 billion. As we have discussed previously, this revenue level is limited by our production capacity and supply chain, not market demand, which we believe is much larger. With that, I will turn it back over to the operator for the Q&A session. Operator?

### Conference Operator | Operator:

Thank you. We will now begin the question and answer session. To ask a question, you may press star then 1 on your touchtone phone. If you're using a speakerphone, please pick up your handset before pressing the keys. To withdraw your question, please press the star, then 2. And our first question today will come from George Nodder with Wolf Research. Please go ahead.

### George Nodder | Analyst, Wolf Research:

Hi, guys. Thanks very much. I wanted to ask about all the stuff that's been in the news of late around Chinese transceivers and the potential for a U.S. ban on those transceivers being shipped into the U.S., Could you just talk about your perspective on that? What are you seeing, hearing? How might that affect AOI? Does that change anything in terms of your capacity planning? Does it change anything with your conversations with customers? Any insights would be great.

### Dr. Stefan Murry | Chief Financial Officer and Chief Strategy Officer, Applied Optoelectronics:

Thanks. You know, it's a little early to say. That report that came out a couple of days ago was, you know, obviously – somewhat speculative in terms of the fact that this ban or whatever it ultimately turns out to be isn't in place yet and the details aren't really out there. I think AOI's U.S. manufacturing presence has been a very important, probably the most important element of our appeal to our customers, and clearly that announcement tightens that appeal. As we said in our prepared remarks earlier, we believe that we are and expect to remain the largest manufacturer domestically of optical transceivers for AI. So certainly anything that would heighten interest in that is good for us. But it's hard to point to any specific ramifications at this point since it's still kind of early.

### Dr. Thompson Lin | Founder, Chairman and CEO, Applied Optoelectronics:

I think this is really not news at all. I think this kind of discussion for quite a while. So as I mentioned, we have been working very closely with Three customers for a long-term agreement, especially, you know, AOI making our own laser, and we are maybe the only one company committed to really invest heavily in U.S. for U.S. manufacturers, not only laser, including the transceiver. So with some early, I would say, early feedback, I would say customers are more aggressive. will give us much more shares, especially for U.S. manufacturers. But how serious or how big it is, we will know because, as I said, right now our capacity has been pre-booked already from now until Q2 next year. The best we can do is maybe we can be more aggressive and add more capacity maybe from Q3 next year, especially for the and the, I would say, U.S. manufacturer.

### George Nodder | Analyst, Wolf Research:

Yeah, okay, and then just as a follow-up, I was just curious about the ramp in 800 gig. It looks like the growth in the business right now is coming from, you know, 100, 200 and 400, just based on your comments about the mix of transceivers in the quarter. It seems like at this point, the 800 gig has got to be the driver on the growth in data center, and so I'm Kind of wondering exactly where you guys are. Is all that tooling fully installed and ready? Are those laser data comp chips built and sitting on the shelf? Do you need to get qualifications on any of this? Any more you can tell us on the ramp, and the readiness would be great. Thanks.

### Dr. Stefan Murry | Chief Financial Officer and Chief Strategy Officer, Applied Optoelectronics:

No, I mean, as we said in our prepared remarks, our ability to deliver revenue in general, and specifically when it comes to AT&T products, is limited by our production capacity right now. So if we could produce more, we could ship more right now. So to answer your question directly, no, not all the manufacturing capacity that we have or expect to have is online at this point. In fact, we're going to continue to add more and more capacity really most likely through next year, but certainly into next year. We've only begun, as we mentioned in our prepared remarks, we have 1.6 million square feet of manufacturing space here in Houston. A year ago at this time, we had about 65,000 square feet. So clearly all of that manufacturing space has not been built out, doesn't have equipment in it yet. So there's tremendous room for expansion and we plan to expand. However, over the next couple of quarters, the first increment of that manufacturing Thank you. Thank you.

### Dr. Thompson Lin | Founder, Chairman and CEO, Applied Optoelectronics:

But by the way, I think I want to emphasize one thing. Right now, the Q3, you can see, compared to Q2, average, we're talking about 40% growth, something like that, 35% to 45% growth. But the growth is mainly from 800G. At the same time, in the screen, we already mentioned, because of memory issue for the switch, Actually, the 1NG will decrease by $20 to $25 million. Otherwise, our Q3 revenue will be, you know, the goal should be more than 50%, as I have mentioned. So, but this is a short-term effect. We believe the 1NG demand will come back to normal within a few months, okay, either by the end of this year or the next years. All right. And don't forget, and we mentioned by June, July, The overall transit rate will increase from today's number to $471 million per month. This is huge growth. And all growth actually from 800G and 1.60G and 100G will go down. And all this is because the additional capacity we are building, not only in Asia, most of the increased capacity will be in the U.S. But even so, let me say that, like I keep emphasizing, That is not good enough for the customer demand. The customer demand is 20% to 40% higher. And actually, we are getting this kind of demand from several big customers almost every week, every month to speed up our delivery schedule. And we are doing everything we can. The other is working very close with our key supplier. Because as you know, I've seen the DSP, TIA, Good News, they are making their own laser. Also, a laser is the biggest bottleneck right now for the transceiver business. but this is not the only one. That's why we are working with several key suppliers to increase the volume in the next few quarters to maintain our demand.

### George Nodder | Analyst, Wolf Research:

Great. Thank you very much.

### Conference Operator | Operator:

And our next question will come from Simon Leopold with Raymond James. Please go ahead.

### Simon Leopold | Analyst, Raymond James:

Thanks for taking the question. I appreciate you've given us a lot of guidance, commentary, Quick Arithmetic suggests that in the fourth quarter, you're anticipating the combination of 800 gig and 1.6T revenue in the neighborhood of $330 million. I want to make sure that I'm thinking about this correctly first, and then I've got to follow up.

### Dr. Stefan Murry | Chief Financial Officer and Chief Strategy Officer, Applied Optoelectronics:

Yeah, that's about right, directionally.

### Simon Leopold | Analyst, Raymond James:

Great. And then I recall in the spring that you were talking about the 1.6T ramp and having a commitment for $200 million through an order. And I'm trying to get a better sense of how to think about the timing of that particular project in that it sounds like it may start in the fourth quarter of this year, but maybe... The majority of it is a 2027 event. How should we think about that 200 million order you had talked about for 1.6T in the past?

### Dr. Stefan Murry | Chief Financial Officer and Chief Strategy Officer, Applied Optoelectronics:

So actually, we'll start deliveries on that probably very late in the third quarter and then ramp into the fourth quarter. I think the bulk of it should get delivered in the fourth quarter. And then there may be a tail end of the first quarter. But the important part about that is that's just the first quarter. The beginning of what we expect to be significant orders from this customer for 1.6T for the foreseeable future. So I wouldn't get too wrapped up on that particular order. That's just the very beginning of it.

### Simon Leopold | Analyst, Raymond James:

Great. And then I want to ask a different China-related question. Apart from the potential regulatory issues, We've been getting a lot of questions about the suggestion that there will be new manufacturing of lasers coming out of China. And just trying to get a sense of how you're thinking about that potential and if that were to occur, if new Chinese manufacturing came online to make lasers, what could that possibly mean to your business? Thank you.

### Dr. Thompson Lin | Founder, Chairman and CEO, Applied Optoelectronics:

Let me answer the question. I think the investor may be far underestimate how big is laser market. Let me say that. Right now, for the CPO laser used in the USAP is a 300 milliwatt laser compared to 70 milliwatt laser used at the 800G transceiver and 100 milliwatt used for the 1.6 terabit transceiver. But people don't understand, not only the power is made several times bigger, but the size, okay, the size is about six times or even higher or even more. But the E is lower. So all in all, you're talking about to meet the demand, just for the, I would say the first one, the ESP is only the 1310 nanometer, okay, for weapons. But I think the next generation of ESP will be using DWDM. So that means because the wavelength is so tight, I think the ear loss will be easily 40% to 50% compared to 1310. So that means to meet the demand for the CPU market, the operating system market needs to be 8 to 10 times bigger compared to today. This is not only AOI. Lumpian, Coedan, ProCom, everybody will invest huge money to meet the demand in the next three years. Because for lasers, from today, if I order the equipment, it will take a minimum of 21 months to 24 months to start manufacturing at high volume. Okay, that's how long it takes. Because it's a semiconductor process. Build a long term of the equipment, everything. So I think, yes, there will be some new suppliers in China. We are not surprised because that's what the market needs. But most of them are still working maybe 70 milliwatts, or very few can really do 100 milliwatts. But for 300 milliwatts laser, especially DWD and SPEC, we don't see that, not in the next two or three years, especially the demand is so big. even combine AOI, Louboutin, Cohesion program all together. It's still very tough to maintain the customer demand in the next few years. And we are doing everything to speed up the process to expand our capacity. So I think this, for me, I think no effect at all because the demand is much bigger than the worldwide capacity, even including all companies in Taiwan, China, or other countries.

### Simon Leopold | Analyst, Raymond James:

Thank you for taking the questions.

### Conference Operator | Operator:

Thanks, Simon. And once again, if you would like to ask a question, please press star then 1. Our next question will come from Ryan Kuntz with Needham & Company. Please go ahead.

### Ryan Kuntz | Analyst, Needham & Company:

Great, thanks. Maybe just following up on the question about laser supply and thinking about your own constraints there, bringing in phosphide, how are you guys feeling about Substrates, and other raw materials that you need to ramp, and is that a current bottleneck for your products, and which products are the most challenging for you to ramp at the moment?

### Dr. Stefan Murry | Chief Financial Officer and Chief Strategy Officer, Applied Optoelectronics:

No, I mean, as Thompson mentioned on our last earnings call, and the situation hasn't changed, I mean, we've secured supply out into next year, so we're not currently limited by substrate capacity, and we've had A lot of discussions with substrate suppliers going back into last year and continuing even until very recently. We feel pretty good about the substrate supply situation. I would say it's incrementally better than it was last earnings call and prior to that. So things I think are getting somewhat better, but we're feeling pretty good at least as far as we can see into the future for the substrate supply.

### Dr. Thompson Lin | Founder, Chairman and CEO, Applied Optoelectronics:

Yeah, I think especially right now AOI, We just moved into a four-inch substrate running the manufacturer. As I mentioned, we already had two suppliers in Europe, two suppliers in Japan, plus three suppliers in China. So right now, we are very aggressive to have some kind of partnership with two, three suppliers, even maybe the possible, I would say, potential joint venture. because as you can see, how much laser capacity AOI will increase in the next few years? Let me say that it's much, much more than a factor of 10, okay, especially for the CPO laser market. So I would say right now we have enough inventory, we have enough supply until end of next year, but what we are looking for is I would say the volume we will need in, I would say, 2028, 2029. That's why we are very careful and very aggressive to working with all the suppliers for the expansion.

### Ryan Kuntz | Analyst, Needham & Company:

Great, really helpful. And then maybe following up on George's question earlier about 1.6T, how are you feeling about Your broad market traction with that product. Obviously, we're expecting a pretty big uptick in demand with Tomahawk 6 at the end of the year. How are you feeling about your traction with other customers besides the one order you have in hand now?

### Dr. Stefan Murry | Chief Financial Officer and Chief Strategy Officer, Applied Optoelectronics:

No, I think we have pretty broad-based interest among customers. I think, as Thompson mentioned, and we've talked about pretty extensively, we're still in the process of adding capacity. Until we have sufficient capacity to service multiple customers, we have to be careful about taking too many orders. So we're trying to balance the capacity additions against the customer demand. As Thompson mentioned, the customer demand is a lot bigger than what we can provide, especially in the short term. As we get further out, then our capacity expands and we have A little more breathing room, if you will, with respect to new customer orders. But we're trying to be careful in what we... We definitely don't want to over-promise what we can actually deliver. So we're being appropriately circumspect.

### Dr. Thompson Lin | Founder, Chairman and CEO, Applied Optoelectronics:

And let me say, we already said, I think, as of today, I think AOI will be the fourth supplier qualified by one big hyperscale data center customer for 1.6 terabit transceiver. And right now, I think we will finish most of the qualification. Only the last stage, I think it should be finished within maybe, I would say, two, three weeks. So we can start to deliver, I would say, by end of this quarter. And as you know, right now, we have more than $200 million order in hand. So I would say right now, our target is to finish all the order by sometime in Q2. How much we can deliver in Q4 is... I always say, yes, I think good news, we have all of this. At the same time, we are working very close with all the DSP and TIS suppliers. But even so, we still believe we can deliver more than, I would say, $17 million of revenue in Q4 for 1.6 TIP transceiver. For sure, customers want everything. So right now, We are doing everything to speed up. So I think one of the big concerns in Q4 for 1.6 terabit transceiver is the material supply. I think our macrophage capacity should be already within two or three weeks. But the overall demand is very big. Right now, I think overall, based on the customer feedback, the volume we are talking about is more than 500,000 transceivers per month by the end of next year. So then you talk about how much money per month. I would say $300 million to $350 million. But as I said, we are a working vehicle with customers based on their schedule. We don't want to overpromise, and we don't want to be careful, especially in quality. It's very important, especially in most expenses in the U.S. It takes time. But I just say the demand is so big, especially right now, not only the Not only, I would say, the global industry is so big because of AI, the other for sure is the U.S. manufacturing. That's a very important factor for the customer. Okay? Right.

### Ryan Kuntz | Analyst, Needham & Company:

Yep. Thanks so much.

### Conference Operator | Operator:

And our next question will come from Michael Genovese with Rosenblatt. Please go ahead.

### Michael Genovese | Analyst, Rosenblatt:

Great. Thanks so much. Guys, The guide for the full year is on track and the milestones for next year seem to be on track, but there has been a push out this year into 4Q. Could you just give us a little bit more color on the challenges of ramping up capacity that were different than what you expected three months ago and that clearly are going to keep getting better as we go forward, but what are some of these specific challenges where 800G, for instance, wasn't quite as big as you thought it would be in 2Q?

### Dr. Thompson Lin | Founder, Chairman and CEO, Applied Optoelectronics:

Right now, let me say that, okay, as I mentioned, because of memory issues, okay, so the Q3, I think we lose about $20 to $25 million of revenue for 100G single mode transceiver. In Q4, I think based on our capacity, we should be able to deliver, I would say, more than $500 million of revenue. Okay, so you can see how big our goals will be. This is like 60%. of growth from Q3 to Q4. But right now, the big challenge, as I say, is the DSP and TIA, okay? For energy, a 1.6T transceiver. And that's why we are working very close with the supplier. With the 1.6T, I've seen the whole supply chain is very tight. But good news is I've seen the supplier put L as the fourth priority, and it's a long-term partnership. So we almost have very close discussion with all the key suppliers almost every week or twice a week.

### Simon Leopold | Analyst, Raymond James:

Okay, perfect.

### Dr. Thompson Lin | Founder, Chairman and CEO, Applied Optoelectronics:

That's very helpful. AI is much better than other competitors. Because the other competitors, their number one issue is not the DSPs and this and we don't have this problem, okay? Because AI is making our own issues. And that's why the customers come to AI, especially with our aggressive Expansion Plan in the next few years. Not only in Green EOSP, right now we already have about five customers. They will come up with some kind of very aggressive demand for the next three, four years. And that's why our cap is so big. Because as I said, if I promised any customer the latest, like Q3, Q4, 2028, I need to start to spend the money, buy the equipment, buy the building, build equipment. And that's the reason our cap is increasing so fast.

### Michael Genovese | Analyst, Rosenblatt:

Okay, great. That was a great color. Thank you so much. I guess my next question would be, you know, given that 1.6 will be a lot more in the mix in the fourth quarter, do we still expect to exit the year in the mid-30s of gross margin?

### Dr. Thompson Lin | Founder, Chairman and CEO, Applied Optoelectronics:

The cost for sure will be still better, but because we need to pay some expertise fee for some key supplier, I would say be, I would say, I don't know, 32, 33%. The most important is how much is the 1.6T, because it's high cost margin product. The more we deliver for 1.6T, the higher cost margin it will be. For sure, by Q3, Q4 next year, when we deliver the CPO laser or ESFP module to different customers, the gross margin will be even higher because the gross margin for laser is about 55% to 65%. For ESFP, the gross margin should be more than 50%. But that's more like Q3, Q4 next year. But in the short term, the gross margin improvement For Shu-Hua, the most important factor is the percentage of 1.6 terabit transceiver because gross margin is very good. So that's why I say it will start to improve when we start to ramping the memory of 1.6 terabit transceiver in Q3, especially Q1 next year. As I said, right now, even customers want everything in Q4, but right now, how we can commit maybe, I would say, $70 million to $80 million in Q4 Not because of capacity, because of the, I would say, material constraint. Q4 should be much better. Q1 next year should be much better. OK? If we double, I will not be surprised. Therefore, Q1 remnuel. Oh, not for orbital remnuel. For 1.6 terabit transceiver remnuel. Q1 next year. We double Q4. Or more than double. That's our target right now.

### Michael Genovese | Analyst, Rosenblatt:

Final question for me to just kind of follow up on what you said about CPO. I don't think that all the investors kind of know exactly that you're in the CPO market or necessarily have high expectations for you guys in CPO. So any kind of additional update in terms of the number of customers that you're talking to and status that you're at with that program I think would be helpful. And that's it for me. Thank you.

### Dr. Thompson Lin | Founder, Chairman and CEO, Applied Optoelectronics:

Come on, AOI is a laser company since day one, okay? Maybe AOI, compared to other suppliers in the U.S., AOI is a pure laser supplier since day one, since 1997. Laser is our major technology, the core technology. We have been working very closely with at least five customers. But if you're talking about really high-volume

manufacturers, I would say more like the LAC-Q3 next year. As you can see right now, we are adding a lot more CBD. E. bean, stepper, everything in Houston. We even have a second FAB. And the size of current FAB will increase at least, I would say, the overall capacity will increase by almost 300% by Q3 next year. But that's not enough. So that's why we are We are building a green room of the second FAB in Houston area. The size will be about four times of the current facility. Just give you some rough idea how aggressive is our expensive brand. But let me say, even so, still not good enough for the customer demand in the next few years. So we are still working very hard to expand our laser, including the manufacturer of ERS-AP module based on customer demand.

### Dr. Stefan Murry | Chief Financial Officer and Chief Strategy Officer, Applied Optoelectronics:

Mike, if I can just interject there. I mean, when we've talked to several of the major CPO customers, they love our laser. We just can't make enough of them to be involved in their current first-generation deployments because there's just not enough capacity. We have to prioritize our ability to make lasers for our own transceivers first and then as we expand the FAB like Thompson mentioned, then we'll have more capacity for the ELSFP for the CPO type laser. So it has nothing to do with customer engagement. It has nothing to do with performance of the laser or not having the design. All those things are very good. In fact, I would argue our high power narrow line with laser is the best in the industry, the best in the world right now. But we just can't make enough of it and still manufacture enough lasers for our transceivers which has to be the priority. Again, it's all about the same story as we had on the transceiver side of things. It's all about our ability to add capacity, and Thompson just outlined kind of our plans on that.

### Dr. Thompson Lin | Founder, Chairman and CEO, Applied Optoelectronics:

I think the investor maybe can understand. AI has been working on high-power lasers, I would say, six, seven years ago for LiDAR. The lightweight demand is even much higher than CPU lasers. And that's why it's not tough for AI to get into the CPU laser market. So right now, I would say for 1310, CPO laser and EOSP, we, stable customers, have qualified ALI. But the focus, as I said, is DWDM. And right now, that's what customers really want to focus, because they'll be very challenged. For DWDM, CPO laser and CPO module, like we call it EOSP, I would believe only few companies can do that. because it's very high spec, a lot of change. Maybe some company can do it, but I don't believe their ear performance will be as good as like AOI, Lumentum, Coheedon, okay? So I think that's very important. And that's additional, it's your capacity.

### Michael Genovese | Analyst, Rosenblatt:

Let me sneak in one more question. I'm sorry to interrupt, but how far away do you think the Chinese are from having and 350 milliwatt lasers and do you think they'll ever have them or how many years away do you think they might be from having CPO lasers out of China?

### Dr. Thompson Lin | Founder, Chairman and CEO, Applied Optoelectronics:

You're talking about a reasonable year and no quality issue or performance issue. I would say easily at least two, three years or even longer.

### Michael Genovese | Analyst, Rosenblatt:

I should let somebody else ask a question. Thanks so much. That was great. Thompson and Stefan, thank you. All right. Thank you.

### Conference Operator | Operator:

And this will conclude our question and answer session. I'd like to turn the call back over to Dr. Thompson Lin for any closing remarks.

### Dr. Thompson Lin | Founder, Chairman and CEO, Applied Optoelectronics:

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. It is an exciting time for our industry and for ALI. We continue to believe in the fundamental driver of long-term demand for our business, The conference is now concluded. Thank you for attending today's presentation. You may now disconnect your lines at this time.