NASDAQ:AXTI Q4 2025 Earnings Call Transcript

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Audra | Conference Coordinator:

Good afternoon, everyone, and welcome to AXT's fourth quarter 2025 financial conference call. Leading the call today is Dr. Morris Young, Chief Executive Officer, and Gary Fisher, Chief Financial Officer. In addition, Tim Bettles, VP of Business Development, will be participating in the Q&A portions of the call. My name is Audra, and I will be your coordinator today. I would now like to turn the call over to Leslie Green, Investor Relations for AXT. Please go ahead.

Leslie Green | Investor Relations, AXT:

Thank you, Audra, and good afternoon, everyone. Before we begin, I would like to remind you that during the course of this conference call, including comments made in response to your questions, we will provide projections or make other forward-looking statements regarding, among other things, the future financial performance of the company, market conditions and trends, emerging applications using chips or devices fabricated on our substrates, our product mix, global economic and political conditions, including trade tariffs and import and export restrictions, ability to obtain China export permits, timing of receipt of export permits, our plan to list our subsidiary Tongmei in China, our ability to increase orders in succeeding quarters, to control costs and expenses, to improve manufacturing yields and efficiencies, or to utilize our manufacturing capacity. We wish to caution you that such statements deal with future events, are based on management's current expectations, and are subject to risks and uncertainties that could cause actual results or events to differ materially. In addition to the matters just listed, these uncertainties and risks include but are not limited to the financial performance of our partially owned supply chain companies and increased environmental regulations in China. In addition to the factors just mentioned or that may be discussed in this call, we refer you to the company's periodic reports filed with the Securities and Exchange Commission. These are available online by link from our website and contain additional information on risk factors that could cause actual results to differ materially from our current expectations. This conference call will be available on our website through February 19, 2027. Also, I want to note that shortly following the close of market today, we issued a press release reporting financial results for the fourth quarter of 2025. This information is available on the investor relations portion of our website. I would now like to turn the call over to Gary Fisher for a review of our fourth quarter results. Gary?

Gary Fisher | Chief Financial Officer:

Thank you, Leslie, and good afternoon to everyone. Revenue for the fourth quarter of 2025 was $23.0 million, compared with $28.0 million in the third quarter of 2025. and 25.1 million in the fourth quarter of 2024. To break down our Q4-25 revenue for you by product category, indium phosphide was 8.0 million, primarily from data center applications. Gallium arsenide was 7.0 million. Germanium substrates were 231,000. Finally, revenue from our consolidated raw material joint venture companies in Q4 was 7.6 million. In the fourth quarter of 2025, revenue from Asia Pacific was 81.5%, Europe was 17.5%, and North America was 1%. The top five customers generated approximately 22.6% of total revenue, and no customers were over the 10% level. Non-GAAP gross margin in the fourth quarter was 21.5%. For comparison, we reported 22.6% gross margin in Q3 of 2025, and 18.0 gross margin in Q4 of last year. For those who prefer to track results on a gap basis, gross margin in the fourth quarter was 20, 20.9% compared with 22.3% in Q3 of 2025 and 17.6% in Q4 of 2024. We continue to be highly focused on driving continued improvement, including further recovery in Q1. Moving to operating expenses, Our total non-GAAP operating expense in Q4 was $7.8 million, compared with $6.5 million in Q3 of 2025. As a reminder, Q3 included some favorable adjustments in R&D that brought our OpEx down to a lower-than-normal level. Non-GAAP OpEx in Q4 of 2024 was $9.8 million. On a GAAP basis, total operating expense in Q4 of 2025 was $8.8 million, compared with $7.3 million in Q3. and 10.6 million in Q4 of 2024. Our non-GAAP operating loss in the fourth quarter of 2025 was 2.6 million compared with the non-GAAP operating loss in Q3 of 2025 of 384,000 and the non-GAAP operating loss of 5.4 million in Q4 of 2024. For reference, our GAAP operating line for the fourth quarter of 2025 was a loss of 3.8 million compared with an operating loss of 1.1 million in Q3 of 2025 and an operating loss of 6.2 million in Q4 of 2024. Non-operating other income and expense and other items below the operating line for the fourth quarter of 2025 was a net gain of 285,000. The details can be seen in the P&L included in our press release today. For Q4 of 2025, we had a non-GAAP net loss of 2.6 million or $0.06 per share compared with the non-GAAP net loss of $1.2 million or $0.02 per share in the third quarter of 2025. Non-GAAP net loss in Q4 of 2024 was $4.2 million or $0.10 per share. On a GAAP basis, net loss in Q4 was $3.6 million or $0.08 per share. By comparison, net loss was $1.9 million or $0.04 per share in the third quarter of 2025. GAAP net loss in Q4 of 2024 was $5.1 million or $0.12 per share. Weighted basic shares outstanding for the quarter was 44.7 million. Cash, cash equivalents and investments increased by 97.2 million to 128.4 million as of December 31st. This is primarily the result of our public offering of common stock, which closed on December 30th and generated approximately 93.9 million. By comparison, at September 30th, cash was 31.2 million, Accounts receivable decreased in the quarter by 2.6 million. Depreciation and amortization in the fourth quarter was 2.3 million. Total stock comp was 1.3 million. Net inventory was up by approximately 4 million in the fourth quarter to 81.7 million. This continues to be a focus for us, and we expect to bring it down in coming quarters. This concludes our discussion or comments about the quarterly financials. Turning to our plan to list our subsidiary Tongmei in China on the star market in Shanghai, we remain very interested in completing the IPO, particularly in light of the rapidly evolving AI infrastructure build-out in China, which is fueling increased China-based demand for Indian phosphide substrates. We've continued to keep our IPO application current, and Tongmei remains, quote, in process. as part of much of a more selective and smaller group of prospective listings than a few years ago. Though the current geopolitical environment is dynamic, Tang Mei is considered a Chinese company and continues to be regarded in China as a good IPO candidate. We will keep you informed of any updates. With that, I'll now turn the call over to Dr. Morris Young for a review of our business and markets. Morris.

Dr. Morris Young | Chief Executive Officer:

Thank you, Gary. We were disappointed

Audra | Conference Coordinator:

And pardon the interruption, this is the operator. We have lost our speakers. Give me one moment to reconnect.

Dr. Morris Young | Chief Executive Officer:

Hello? Yes, we can hear you now.

Audra | Conference Coordinator:

Am I back on?

Dr. Morris Young | Chief Executive Officer:

Yes, you are. Thank you. Okay, let me start from the beginning again, just in case I missed part of it. We were disappointed that we didn't receive as many export permits in Q4 as we had hoped. based on the average processing time we had seen up to that point in October. The good news is now that we have received permits in Q1, and we are in a stronger position today than we were at the same time in the prior quarter. Gary will take you through our full quarter guidance in a few minutes, but we do expect to achieve sequential growth in revenue in Q1, driven primarily by growth in Indian Phosphine for data center build out for AI. We're also very pleased to note that we are seeing a welcome expansion of our customer base for Indian Phosphine. We're beginning to support leading customers in the optical space that we have limited exposure to prior to this time. This includes tier one laser manufacturers and optical transceiver module makers, both in China and around the world. We're excited to be able to demonstrate the technological advantage of our low EPD wafers as the market moves to optical devices with higher speed and greater sophistication for both scale up and scale out applications. In total, Our backlog for indium phosphide wafers have reached a new high of over $60 million. As we mentioned last quarter, customers are planning for longer lead time by placing longer term orders and giving us more visibility into their expected demand. As many of you know, the supply chain for optical transceiver is quite complex. and highly globalized. We believe this geographical interdependence is providing both opportunity and incentives for the ecosystem to work together in new ways to solve global supply chain shortages. Beyond pluggable receivers, we're seeing a very large developing market for co-packaged optics for both scale-up and scale-out applications. We're actively engaging in discussions with our customers about their technical and timing requirements and believe this could represent yet another inflection point in our business developing in late 2027 and beyond. From a geographic demand perspective, The massive AI infrastructure build-out and planned capex spending by cloud services and AI platform providers in the United States is the primary driver for EML and silicon photonics-based optical transceivers. We believe that today our materials are being used in multiple U.S. hyperscale, and we expect that end customers use will continue to broaden. In China, the data center build out is early in its ramp, but we are seeing rapid growth as China moves to accelerate its data center expansion and AI capabilities. Our revenue related to the data center market in China are expected to grow by more than 60% in Q1 over Q4. Highlighting both increased investment in these tier one data centers as well as the strong desire for Chinese domestic suppliers to secure local source at every level of the AI infrastructure supply chain. Given the strong demand environment, it is important to know that AXC is well positioned to handle increased demand for Indian phosphide wafers. Since we have last reported to you in October, We have already added approximately 25% more capacity, and we are on track with our current plan to double our capacity from Q4 2025 level by the end of this year. Beyond our current plan for capacity expansion, we're working closely with our customer base to understand their long-term requirement and to align our plans globally. Our recent capital raise will be a fundamental to our future expansion as we enter our next significant phase of growth. A major focus of this expansion will be an increased investment in our six-inch indium phosphide product. And we are excited to work with our customers to meet the vigorous requirements of next-generation EML and silicon photonics-based devices. Now turning to gallium arsenide, we continue to see demand for semi-insulating wafers for wireless RF devices and believe that we have strong opportunity for market share expansion, gated primarily by our ability to obtain export permits. In Q4, We saw an uptick in semiconducting wafers for both industrial laser applications and data center laser applications. VIXO lasers for data center applications typically do not require a lot of gallium oxide material. The devices are small, so they don't move the needle much as a growth driver for us. We're seeing an increased demand for VIXO for autonomous vehicles in China, Chinese automobile market, which is currently expanding rapidly. High growth expansions, in addition to our watching, we are watching with interest an emerging application in robotics for VIXOs that increase the precision and dexterity of a modern robotic hand. Counter the VIXO used in data center applications, machine vision VIXOs tend to be very large and use more gallium oxide substrates. They also require high quality material, which we are very well positioned to supply. Again, demand is more today, primarily China-based, and covers a diverse set of customers But the breadth of use case and the development is very exciting. Finally, our raw material business was up in Q4 with growth from our subsidiary BoYu, which manufactures PBN crucibles used in manufacturing of indium phosphide crucibles. In addition, we're pleased to report that our subsidiary JingMei has begun to refine high-quality indium, which gave us now direct control of a guaranteed supply of yet another critical material for our indium phosphide substrates. Globally, there continues to be a greater awareness of the importance of earth's materials, and we are ahead of the curve in developing our unique integrated supply chain. In closing, This is a very dynamic, exciting time for our company. As we enter into 2026, we're a fundamental supplier to the multi-year optical build out in the AI infrastructure market. We have a broadening customer base of tier one companies and a strong balance sheet to support our continued business expansion. And with growing backlog, The receipt of Indium Phosphide and gallium oxide export license remains the single most significant gating factor for our growth. As such, we are highly focused on ensuring that we are proactive, organized, and disciplined about managing the process on behalf of our customers. We also know that we must be laser focused on running our business with the greatest efficiency. This includes our continued effort to drive gross margin improvement, op-ex disciplines, and inventory reduction. With strong ongoing market trends fueling the data center upgrade cycle, we believe that we have tremendous opportunity in 2026 to drive meaningful growth in our business and return to profitability. I would like to personally thank our employees for their dedication and tireless effort during this singular moment in AXD history. And I would also like to express my sincere gratitude to our customers, partners, and shareholders for their ongoing support and believe that in the future, we are building together. We look forward to reporting to you on our progress. With that, I will turn the call back to Gary for our fiscal quarter guidance.

Gary Fisher | Chief Financial Officer:

Thank you, Morris. To reiterate a couple of key points from Morris' commentary, we are seeing a strong increase in our Indian phosphide wafer demand related to AI and the ongoing data center upgrade cycle. Given the geopolitical complexity surrounding this market trend, our customer base is diversifying and expanding, and customers are placing longer-term orders and providing greater visibility into their needs. With all of these positive market and AXT-specific growth drivers, the most significant single factor to our growth in Q1 and beyond is the success and timing of getting export permits. Therefore, guiding for the future is somewhat tricky for us right now as we cannot predict future timing of permits or our success in obtaining them for any customer or individual order. But drawing on what we know and what we've experienced thus far in the export permitting process, we can offer the following insight to our expectations for Q1. As of today, we have approximately $26 million in revenue that can be realized in Q1 across our substrate product lines and raw materials for which we either already have a permit to ship or for which an export permit is not required. We have a high degree of confidence in recognizing this revenue in Q1. We could see significant upside to this number in Q1 should we receive more permits for additional orders between now and the end of the quarter. But we want to stress that as we experience in Q4, the timing for permit issuance is not predictable nor in our control and doesn't necessarily align with our quarterly reporting. As Morris mentioned, we continue to focus strongly on gross margin. Further improvement depends on a number of factors, including total revenue as it relates to absorption of fixed costs, revenue mixed by product, and our ability to continue to drive better manufacturing efficiency. With regards to OPEX, we expect that it will remain at approximately $9.0 million in Q1. With these factors in mind, we believe our non-GAAP net loss will be in the range of $0.02 to $0.04. and gap net loss will be in the range of four to six cents. This represents substantial year-over-year progress towards our return to profitability. We estimate share count in Q1 will be approximately 53.2 million shares. Okay, this concludes our prepared comments. We'd be glad to answer your questions now. Audra, operator?

Audra | Conference Coordinator:

Thank you. We will now begin the question and answer session. If you have dialed in and would like to ask a question, please press star one on your telephone keypad to raise your hand and join the queue. If you would like to star your question, simply press star one again. We'll go first to Richard Shannon at Craig Hallam.

Richard Shannon | Analyst, Craig Hallam:

Well, great. Thanks, Morris and Gary, for taking my questions here. Gary, I'm going to have to do a quick request to give me the revenue number you gave for the quarter. My line got garbled here. I heard about 26 that you believe you can get, highly likely get, Was there a number to the upside there? Apologies for needing to ask this.

Gary Fisher | Chief Financial Officer:

We normally give you guys a range, but we discussed before the call today that we're very, very confident at the 26 number. We did say just a moment ago that we believe we could go higher if we get more permits, but it could even be more than just a normal range, which we usually have a $2 or $3 million range for you guys.

Dr. Morris Young | Chief Executive Officer:

Well, let me try to add on to this point. That is, our manufacturing are doing the manufacturing as if we can get a permit. So there's a lot of these so-called semi-finished goods or finished goods staging in our clean room ready to be shipped if we can get an actual permit.

Gary Fisher | Chief Financial Officer:

Yeah, we... We are building to forecast and to the backlog whether or not – we're not building to permits. We're not waiting until we get a permit and then say, okay, let's get going. And so it's building, and, you know, we're enthusiastic, we're excited, and, of course, yeah, we're a little bit frustrated because it would be pretty big numbers if we can get some more of these permits. And we think that we will. We can comment more in this call. We're hanging in there. We're not discouraged in giving up.

Richard Shannon | Analyst, Craig Hallam:

Okay. Appreciate understanding your approach to the guidance. It certainly makes a lot of sense in this environment. Let me ask about the licensing process here. Last quarter you said it was about a 60-business day or three-month process here, and obviously that didn't turn out as we saw from your preannouncement, which is unfortunate, but we all know how governments can work from time to time here. Do you have any new insights as to how they're working here? And I guess are there – Are there any permits that are being rejected that you don't think should be? Just more insights here on this licensing process.

Tim Bettles | VP of Business Development:

Yeah, I can answer that one. So this process is not transparent at all. And we're seeing quite a lot of variability. We started off in the end of Q3 by saying it was looking like we're seeing a fairly consistent 60 business day process cycle. We're now seeing a lot more variability as we go through that. And as I say, there's just no transparency to that. It's reasonable to assume that there's geopolitics playing into this as well. It's really hard to determine what and why. And it's difficult, therefore, to figure out which permits are coming in on time, which are taking longer. I'll answer the second question as well, which you asked whether there had been any permits that had been denied and why. We have actually received a couple of denials with the instruction that we can resubmit that application with more information. So this is the first time we've actually received denials on permits, and we're not utterly sure why. Again, no transparency to this. We don't see any particular reason why any of these permits should not be approved. And it's a process that we're just working through. So these permits that have been denied, we've already resubmitted with MOFCOM and we're hopeful that we continue to talk to MOFCOM and they will get reviewed quickly and could potentially turn around fairly quickly. Could even make an impact on Q1 numbers if we can get a quick turnaround on them.

Gary Fisher | Chief Financial Officer:

And what does MOFCOM stand for?

Tim Bettles | VP of Business Development:

Oh, that's the Ministry of Commerce in China.

Dr. Morris Young | Chief Executive Officer:

Yeah. So let me add what Optimix's viewpoint, the comment about Tim just gave you. That is, although there is a denial of an application, but they come with a specific instruction how to strengthen the application, which we think is a good indication. In other words, If they really want to deny it, they can just let it sit there. I mean, the fact that they want more information about... Actually, I think it's a sizable permit application we have, and that means, hey, you know, they are taking a very serious look at it, and hopefully that, you know, will turn to be a permit.

Richard Shannon | Analyst, Craig Hallam:

Yeah. Okay. That is helpful. Thanks for that insight. Second question here is... kind of the backlog here and also following up on Morris, your comments about customers looking farther out. So we went from a backlog of 49 to above 60 here. And you also commented that people or customers are boarding farther out. Could you suggest how far out they're going right now? And also how far out are you hearing forecasts from these customers as well?

Dr. Morris Young | Chief Executive Officer:

Yeah, let me see how to answer that. Actually, Let me first answer my part of the question, and I will turn it over to Tim. Well, the reason why is that Tim really works with customers, hearing what their demand is. Actually, one of the interesting comments we have was that we have important meetings with our customers this week, and they're telling us, Tim, at least in two locations, people are saying, gee, you know, our demand forecast increases every week. So that's the kind of level I think, I mean, we know it is tight and we know it's going up, but I think, you know, people are upsizing their demand and they're telling us, you know, what they want to do, whether they're going to go to 4-inch, how much they want to switch from 4-inch three to four and four to six. Okay. And as far as how much inventory they're building, I think that depends upon customers. Some of the customers, we suspect that they're buying into the inventory, but they also tell us, you know, I'm going to take it all if we can cover. Whereas others, I think they are telling us the real demand in the quarter because I think you know, as of now, we cannot deliver enough of their demand. So they are giving us longer lead time to give us more incentive to, you know, build up the expansion plan and build the capacity for them. And also, I think the other thing is, Tim, you want to comment on long-term commitment that you're talking to customer about?

Tim Bettles | VP of Business Development:

Yeah, I'll comment a little bit on that, and I'll also comment a little bit more on backlog and what we're seeing from this. So a lot of this backlog, remember, is scaled up based on the permit dynamics. So the permit dynamics, once we receive a permit to export material, we have a six-month window to export. So a lot of backlog is built that the moment that permit comes in, we have a six-month window maximum to deliver. And in many cases, that window, the window of which the customers are looking to receive material, is a lot shorter than six months. So really and truthfully, this is all being gated by permits, as we mentioned during the discussion. In terms of what we're seeing in build out for inventory, I think at this moment in time, people would like to keep more inventory. But as Morris mentioned, just about everybody we're talking to is telling us that the demand is growing literally on a weekly basis. So we just see the numbers expanding and expanding over and over. Turning to forecasts and what kind of visibility we have, we are definitely talking about long-term supply agreements with a number of customers right now. And we're planning our business according to those long-term supply agreements. We're seeing forecasts out beyond 2030 for many of these customers. But of course, as I've just said, those numbers are increasing on a week-by-week basis. So it's difficult to keep track of things, but people are talking about minimum demand requirements moving forward for at least the next two to three years, giving us forecasts out beyond 2030. So all in all, I think this backlog is real, it's achievable, and it's kind of being...

Richard Shannon | Analyst, Craig Hallam:

limited by our permits at the moment okay makes sense last one more question jump out of line here guys um this is on capacity additions um just a few kind of uh multi-part question here i think i heard you say you're going to double your capacity uh from the end of 25 to the end of 26. you could verify that and if so can you help us understand what level of cap access again requiring And then looking beyond that, and Tim, you just mentioned forecasts going out beyond 2030, which is interesting to hear, how much more capacity beyond that could you need? Let our minds wander about what kind of scale of opportunity you're thinking about here. Thank you.

Dr. Morris Young | Chief Executive Officer:

Yeah, I think we just said we have increased our capacity by 25%. now, and we do expect to double our capacity by the end of this year. And how much budget would we need? It could be about $30 million. And that is sort of on the low end, in a way, because the first phase of the expansion, which is doubling our capacity, mainly use Brownfield. In other words, in our existing tomei facility, we already have a clean room available. We have the building there already and power supply and clean water. So I think that budget is lower. Looking beyond 2026, we are looking at possibly doubling it again in 2027 and that budget is lying somewhere around $100 to $150 million, depends about how we want to build it, because then we're talking about a greenfield. We need building, we need clean, we need power, et cetera.

Richard Shannon | Analyst, Craig Hallam:

OK, great. Thank you, guys. Thanks, Richard.

Audra | Conference Coordinator:

We'll move next to Tim Savojo at Northland Securities.

Tim Savojo | Analyst, Northland Securities:

Hey, good afternoon. Let's continue with that capacity discussion, but maybe try to put some numbers around it. You know, if I look at where you've peaked historically, and I think we're talking exclusively about indium phosphide here, that's, you know, getting up toward $20 million a quarter in substrate revenue. And I imagine your capacity is now slightly above that given the increase you talked about in Q4. I guess question one, is that reasonable? And should we expect you to exit calendar 26 with revenue capacity roughly double those levels? And would you anticipate having the demand to fulfill that at that time where you're building maybe a little bit ahead?

Dr. Morris Young | Chief Executive Officer:

Let me first answer the question. I think we calculated, I think it's approximately $35 million a quarter by the end of the year rent rate. It could be a little bit more, given that the price environment is dynamic as the costs of Indian are going up. And can we use up all this capacity? I think looking at the backlog, we can certainly do, but the problem is the gating factor is the permits.

Tim Bettles | VP of Business Development:

I'll add something in here as well. Irrespective of permits, we mentioned we are seeing growth in this business in China as well. And look at it quarter to quarter. Q4 was probably double revenue in China than Q1 in 2025. And we would expect we're looking at potentially doubling again through 2026. So we're definitely seeing growth there in China that warrants expansion as well as growth outside of China where we would need permits for.

Dr. Morris Young | Chief Executive Officer:

Tim, I agree with you, but then I don't want to minimize the importance of outside of China. I think the AI growth, the budget we're seeing, is really fueling the demand for Indian phosphorus substrate.

Gary Fisher | Chief Financial Officer:

Yeah, Tim, this is Gary. And I'm supposed to be conservative, and I am. But I'm not sure you guys are getting the point, is that every customer is worried about getting enough for their needs. there's a general concern where the meetings we've had this week, we're not meeting with the purchasing manager. We're meeting with CEOs and general managers. They all want to talk to Morris about capacity and about future growth. So there's a phenomenon going on here that all of us, it's unusual for no matter what we do for our jobs, including the analysts, this is a very unique and unusual situation. I mean, I'm, I've been around the block a few times, and Morris has, and this is very, very unusual. And it's actually intense. We're excited, but we're scrambling. We're scrambling. And I don't see any into it near term. People are telling us that their demand is going to be going up three, four, five X over the next four or five years. And, you know, there's not, how many suppliers are there? You know the answer to that. Two. And we're one of them, so.

Dr. Morris Young | Chief Executive Officer:

Yeah, I think, let me add to that. I think, you know, the investor usually asks the CEO, the toughest question is, what keeps you up at night? I think what's keeping you up at night is calculating how we're going to expand that capacity, how we're going to get that product to our customers. and how to develop the technology that customer wants. I mean, it's very exciting, but it's also very straining. You know, we need to be very much aware of what the customer wants and satisfy their demand.

Gary Fisher | Chief Financial Officer:

Fortunately, we have recent experience at adding capacity. What, you know, it was almost about 10 years ago when we learned that we needed to get gallium arsenide moved out of Beijing. So we had 20, 17, 18 kind of time period where we did add capacity from green grass fields. So we have some strengths here, but it's going to tax us even though we are experienced.

Dr. Morris Young | Chief Executive Officer:

Yeah, I don't want to give the analyst a point to ask the question, but I think we're talking to each other. We're too excited, yeah. But I think it is a very good point. I think we, prior to this, we probably overspent because the IPO preparation, we actually expand from one facility to three facilities. But now I think we're looking at a great demand for Indian phosphide. which I think it's really meeting our challenge. And I think Gary is right. We are very well positioned to meet that demand. I think we are probably the best suited to increase capacity. And also because the variable integration we have in terms of supply chain, and we're in control of a lot of other material, which could be in short supply, you know, if Indian phosphide subsides continue to grow like what we're talking about, and we have plans for that as well.

Gary Fisher | Chief Financial Officer:

A good example is subsidiary Jinmei. Jinmei makes the Indian phosphide poly for Tongmei. So, you know, we have in our supply chain is supporting this growth process. Next question, Tim.

Tim Savojo | Analyst, Northland Securities:

Oh, I'm a little bit afraid now, but... You actually highlighted in the release even the increased presence with some big tier one customers. I guess in the commentary you mentioned, you know, maybe some in China, but elsewhere. You know, in terms of what's going on there, are we talking about orders with major new customers, qualification, any specific programs? And I'm not sure these two comments were related or not, but I'll ask if they were with regard to your increased investment in six-inch indium phosphide, if you can maybe cover both of those points. Appreciate it. Thanks.

Tim Bettles | VP of Business Development:

Yeah, I'll take a stab at that one, Tim. So yes, we are gaining more traction with customers, as we've said on previous calls as well, that we've not been so prolific in. So we're gaining design in, we're gaining qualifications on existing products, as well as new products as we move forward. And the customers are looking to expand on their demand for indium phosphide. As Morris mentioned in the call, there's already been a big move from three-inch to four-inch. So we've spent a lot of time and effort on scaling up our four-inch business. And we're also seeing a lot of interest now. And of course, we all know one customer that's really driving six inch demand. So we're really taking six inch very, very seriously. And we're expanding as we expand capacity, both now and our doubling capacity through 26 and beyond. We're looking at adding significant six inch capacity in there during that expansion. And we're just plowing through the numbers right now to see what we need to drive six-inch and how we scale six-inch compared to three and four and more of the traditional wafer sizes.

Dr. Morris Young | Chief Executive Officer:

Yeah, I think you'll... Sorry, Morris, please. Sure, Tim. I think, you know, One part of it perhaps is the cooperative effort. Usually when your customer don't go to me, they probably talk to the sales guy and give us orders. But I think now the dynamics is such that we sort of need to interact more to make sure that we're putting the right amount of attention to both in terms of development and capacity expansion to where they need it. Okay. And then, you know, virtually also to convince us this is the right investment we should have. Is that right?

Tim Bettles | VP of Business Development:

That's correct. We're also getting a lot more customer buy-in with commitments, NRE, purchase orders to drive that business forward as well. Okay. Thank you.

Audra | Conference Coordinator:

We'll move next to Matt Bryson at Wedbush Securities.

Matt Bryson | Analyst, Wedbush Securities:

Thanks for taking the question. Can you talk a little bit about what might have been unfettered demands or shipments in Q4 or what you might be guiding to in Q1 if you weren't restricted by permits?

Gary Fisher | Chief Financial Officer:

If we're not restricted by permits, then the basic question is our ability to manufacture high volume, because there's no issue about demand or backlog. So the variable that you're really focusing on is manufacturing capability.

Dr. Morris Young | Chief Executive Officer:

yeah i i i don't know whether the customer are telling us more demand than we can deliver but i think we definitely have more orders than we can actually manufacture now as we as we add the capacity we're counting on who we can supply to but of course there's the other beating factor which is the permits yeah so i i mean hypothetically assuming you could be manufacturing around 20 million dollars worth of new thoughts on

Matt Bryson | Analyst, Wedbush Securities:

You could ship it all if you could get permanent.

Dr. Morris Young | Chief Executive Officer:

Yes, correct. And we expect to increase it to about $35 million a quarter by the end of the year. And that way of making sure every point along the supply chain receives equal attention in terms of poly, in terms of crucibles, furnaces, et cetera, et cetera.

Matt Bryson | Analyst, Wedbush Securities:

Understood. And then, so you're completely confident that of that 35 million in capacity, if you can bring it on and you can get permits that come to end of this year, you could possibly be shipping 30 million, 35 million in orders. I guess, are there any customer commitments or LTAs or anything else that kind of solidifies that demand?

Dr. Morris Young | Chief Executive Officer:

What's that term?

Tim Bettles | VP of Business Development:

We've got a lot of purchase orders in there right now, and we're going through long-term agreements. Long-term agreements, I think, in terms of locking up capacity are easy, and we're talking to customers to lock that capacity up. The gating factor, and we've reiterated this a lot today and previously, Gating factor with long-term agreements is how much can we actually ship out of the country? What can we get permits for? So we're trying to address that through LTAs. But for sure, we can definitely cover this kind of revenue volume with purchase orders and LTAs.

Matt Bryson | Analyst, Wedbush Securities:

Thanks, Ken. And then, Gary, I think the last one I have is for you. If you get to those numbers in terms of shipments for indium phosphide, so 30 million plus. Can you give us some of the parameters we should be thinking about in terms of gross margins? What are the puts and takes? And, you know, hypothetically, would you be able to get back to the kind of COVID era highs that you were reporting back in 2021, 2022?

Gary Fisher | Chief Financial Officer:

Yes. I mean, we always like Indian phosphide. And, you know, if you have to pick of our three substrate products that you want to see go through the ceiling in terms of volume and demand, it's the right one for us. I think getting somewhere at, you know, $40 million a quarter in agri, not just Indian phosphide, but we should be getting...

Dr. Morris Young | Chief Executive Officer:

Hopefully somewhere close to 35% Gross margin so I will add other point, you know, I always describe AFC It's a fairly unique company because we I Describe our substrate business as the locomotive engine in the front Well, we have a lot of cars in the back following us such as Indian such as phosphorus, quartz, PBN crucibles, furnaces we make. So if our business is good, we're pulling these guys along. And that should help us. So what you're seeing here, I'm more optimistic. And Gary said, I think that 35% is the normal substrate business. If we can pull those guys along, that should help us even further.

Gary Fisher | Chief Financial Officer:

Yeah. Our internal goal is higher, Matt. But so that we don't overstate expectations from, you know, for your community, you know, we want to be a little bit cautious. So we're very optimistic. So it's pretty exciting.

Matt Bryson | Analyst, Wedbush Securities:

Just one quick follow-up. The shift to 4-inch and 6-inch, does that change the parameters at all on a gross market perspective?

Dr. Morris Young | Chief Executive Officer:

I think normally, the larger the size we go, the better the margin we will get. On the other hand, I'll be more cautious about six inches. We are still a little bit in development stage. So I think initially, we're looking at lower margin, but we're looking for ways to compensate that.

Tim Bettles | VP of Business Development:

Right, Tim? Right. And product mix is still very much geared towards three-inch and four-inch at the moment. And, you know, as Morris says, we're running six-inch up. It is still a bit of a development project at the moment. It will be growing through this year. But, again, remember, as we do that, three-inch and four-inch are still a big percentage of our business.

Gary Fisher | Chief Financial Officer:

Thank you. Thanks, Matt.

Audra | Conference Coordinator:

And that concludes our Q&A session. I will now turn the conference back over to Leslie Green for closing remarks.

Leslie Green | Investor Relations, AXT:

Thank you, Audra, and thank you all for participating in our conference call. We will be participating virtually in the Loop Capital Conference in March and hope to see many of you there. As always, feel free to contact us if you would like to set up a call, and we look forward to speaking with you soon. Thanks.

Audra | Conference Coordinator:

And this concludes today's conference call. Thank you for your participation. You may now disconnect.