



## II-VI Incorporated

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**Samik Chatterjee:** Good morning. Thank you all for dialing in. I'm Samik Chatterjee. I cover the IT Hardware and Networking Equipment stocks at J.P. Morgan.

We're starting off these sessions for our coverage companies this morning with two sets. We have the privilege of hosting CEO Chuck Mattera, CFO Mary Jane Raymond for the virtual fireside chat this morning.

Thank you both for joining in. Before I start with the Q&A portion, I would like to remind everyone listening in that there is the option that you can send your questions through the Q&A option on the Zoom platform. If you send it to that, we'll pick it up and try to answer your questions as best as possible.

Let me get started here. Chuck, Mary Jane, thanks for joining the conference. Great set of results yesterday. I was just wondering if you could start with a brief recap for those who haven't maybe part of the earnings yesterday, and then we can get started from there. Thank you.

**Mary Jane Raymond:** Hi, it's Mary Jane. Yes, so we reported last night our press release, our investor presentation, and actually, our 10-Q are all already filed. You should be able to find those, and I would imagine that pretty shortly the transcript'll be up too.

It was a really, really great quarter for II-VI. We ended up having results that were actually five percent above the top end of our guidance of 600. We ended up reporting \$627 million of revenue, which is somewhere in the neighborhood of about half of what we expected from a COVID impact.

We were only six percent down on what had been a remarkable quarter in the sequentially prior quarter of 666.

The bookings were probably the main story. We had \$640 million of bookings, and we reported a backlog that was 893 million. The operating income on a GAAP basis was good, and our GAAP net income was positive in this quarter.

From a margin point of view, the company's non-GAAP gross margin was 38.3, which is higher than our standalone margin in this quarter, the March 31 quarter of 2019. The non-GAAP operating margin at 13.3 was equivalent to the company's standalone non-GAAP margin, also at 3/31 of 2019.

We are qualified in Sherman. We are shipping from Sherman. We have also had our first shipments of Indian phosphide components which, for those of you who will remember the basic strategy of Finisar, one of the planks was that we would begin to sell previously captive components to the merchant market. That has just begun.

That's exciting because that adds about \$2 billion to our composite TAM.

Finally, I would also say that the liquidity in the quarter was very good, \$746 million, so we have 388 in cash. We have 358 available on our revolver. We are well within all of our covenants.

With respect to our synergies, you may remember that we had \$35 million as the first year target. Now, we're halfway through the first year. Remember, the first year will end on September 23rd.

At this point, our thinking is that we will probably be, in the first year, about 50 percent ahead of that by the end of the first year. 50 percent ahead of that \$35 million target.

We're not changing the full three year target of 150 yet on just six months into it, but still very, very good progress there.

Let me just see if Chuck Mattera, our CEO, would like to add anything.

**Chuck Mattera:** Thank you very much, Mary Jane. Good morning. Thank you, J.P. Morgan for hosting us this morning.

It is an exciting time for us. After finishing a remarkable quarter, in addition to what Mary Jane summarized for you I'd like to say that I'm so pleased about the pace of the integration. It's a remarkable fact, two companies who have come together just a little more than six months ago operating as if we've worked together for 20 years.

It's made all the difference here in the quarter. We're anxious to take your questions. Samik?

**Samik:** Thank you. Thanks for that brief introduction to the results.

Let me just try and breakdown. You mentioned the COVID impact coming in much lower than you had anticipated in the quarter. If you can break down the supply piece of that, I think if I remember correctly, when you were speaking in calendar 1Q there was going to be anticipation that we would have supply chain related constraints.

Where do you stand today as you exit into calendar 2Q? How are you looking at constraints as well as what are the constraints that it resolved in the meantime?

[crosstalk]

**Mary Jane:** When we...Go ahead.

**Chuck:** Mary Jane, please. Go ahead. Go ahead.

**Mary Jane:** When we were giving guidance for this 3/31 quarter, actually, there were a large number of things we were thinking about. Number one, keep in mind that, our factory in China was going to be shut for at least two weeks with probably a good two thousand people still working over Chinese New Year, but we have 12,000 people in China.

The first thing was, are the factories even operating? That's number one. Second one was the supply chain -- exactly right, Samik.

The third one was a concern about whether or not, when people began to reaggregate -- they had been home for their Chinese New Year, many people in a different province -- they come back to their working province, recongregate in the factory.

We had actually a concern about whether the virus would spike -- the very same conversation going on in the United States right now.

A couple things from that. One, our factory was up and running by the middle of March. We did not see a virus spike in China. As COVID restrictions moved around the world, every one of our factories continued to work. All of our factories are operating at this point.

We did not see a virus spike. We had significant amounts of work done on social distancing, protective equipment, etc., etc. All of that has worked very well. From a supply chain point of view, I wouldn't say that we had a significant amount of disruption.

Keep in mind, we are our own supply chain to a lot of our factories. While we have every third day a report that looks at critical supply constraints that we begin to work, we were not unduly hampered by that, and we do not see that necessarily as a significant problem going into the fourth quarter.

Things could change.

I would also remark that sitting here on bookings of 840 million and a very, very strong lift that we're seeing on our communications market, actually if we see supply chain constraints, it could be just because the market is growing, and we're back to the same place we were in 2016 and '17, which is that we had a lot of our own lines sold out and some of our suppliers were sold out.

Chuck, would you like to add?

**Chuck:** I think just in summary, our supply chain -- as a vertically integrated supplier, we have to manage, for our assembly and testing factories, strategic components we buy both from the outside and that we make inside.

In the March quarter, our main focus was on the strategic supply chain outside the company. In our June quarter, as the lockdown started in both US and in Europe, and that's where our wafer fabs are, then we started focusing on the impact or potential impact to our ability to ship from inside the company.

Our guidance, with a 50-million-dollar range in 650 to 700 million for this quarter reflects the possibility that we still may have some impact from the supply chain, maybe in the June month.

So far, through April and the first few days of May, we have not experienced a problem. OK?

**Samik:** Maybe then if we move to the demand side, we have heard about increasing bandwidth needs from all the telecom service providers as a result of COVID-led destruction.

You mentioned as well the record backlog that you have. Maybe just share your thoughts about

what you're seeing on the demand side for telecom as well as the other comm segments, and how much do you think is as a consequence of the COVID-led destruction?

**Chuck:** We reported, in the last 12 months, how our passive component business was already beginning to feel the uptick associated with the 5G turn-on. This has been going on for us for almost a year.

In comes Finisar, and in the last six months, I think a couple of things have happened.

In the December quarter, we had the opportunity to meet and to communicate with all of the customers of Finisar and settle into a set of expectations of each other that the integration was on its way, that the scalable capacity we had in place and our willingness to work hard to be able to ramp for them in the coming two to four quarters, which would have been a month -- the calendar year 2020.

I think that positioned us really well to be able to take additional business. I think we've won some business from our competitors. I think the baseline demand for 5G, the ongoing deployments of the build out of the legacy networks, and market share gains on the telecom side.

On datacom, in November, I said that I expected the datacom market would start to warm up in the second half of the calendar year. I was wrong. It started in the March quarter for us, and it feels quite strong still.

I think what we're seeing is, legacy telecom, 5G telecom, and datacom all firing at the same time, along with having scalable capacity in the right place at the right time, with large and growing customers, who are quite satisfied with the broad portfolio and the experience that they have doing business with II-IV.

**Samik:** Maybe if you can dive a bit into the details of the telecom growth. You've now had a couple quarters of a strong sequential growth in the datacom business. How should we think about the sustainability here?

You mentioned you visibility into it ramping in half in the second half. What's driving that visibility? If you can also share what you're seeing in demand prints for 400 gig, versus 100 gig, which is the mainstay at this point.

**Chuck:** OK. I think our incredible backlog, along with ongoing bookings that are happening right

now. Meaning in the month of April, the month of May, conversations that are happening in June, and the scheduling of the deliveries, in as many as 12 months out, is one evidence.

The second evidence is we're being asked in that same set of conversations how much faster and how much more capacity can we put in place, beyond what we already have?

Those conversations are, in my opinion, not a result of somebody who is trying to double or triple book existing capacity, but is looking out beyond the horizon, and seeing a need for even more capacity to satisfy their requirements.

That's the essence of it. Our intimacy with very large and growing customers in every region of the world tell us that this is not confined to a customer, a market segment, or a region.

**Samik:** Staying on datacom, we've seen the datacom module business being challenging for the companies in relation to margins. You mentioned yesterday you've had strong growth in component sales, but I think at the same time you mentioned a flag on transceiver sales.

So I just wanted to understand how to think about the mix of modules versus components in the datacom business. And what are the drivers that you are looking to improve margins in that business [inaudible] ?

**Chuck:** OK, all right. First of all, the transceiver business was the biggest business of Finisar, without a doubt. We have a large transceiver business in our company today, and datacom transceivers, they were the market maker and number one, and I believe they still are. That is, they mean the transceiver business unit of II-IV.

I think it's going to be a long time before the magnitude of our component sales approaches the magnitude of our transceivers. Meaning, we have a long way to go to increase our component sales, and we're going to do that.

As you all know, that's an explicit part of our strategy, is to serve the fullness of the market opportunity in front of us, and to fully utilize our assets and our technology for the best possible outcome for II-IV.

A large function of the costs are the utilization of our factories. That's number one. We intend to fully utilize and figure out how to more fully utilize what we have.

We'll be slow to add capital. You've seen us being a little bit slower than our published plans to add capital. We have an intense focus on our costs, our operational excellence, and a relentless drive to squeeze more out of what we have.

We're going to keep doing that. At the same time, our strategic supply chain organization is doing a fantastic job. We're seeing price reductions in our supply chain that we never would have seen as part of II-IV. The Finisar strategic supply chain organization was well managed, well organized, and we're leveraging it across the company.

As a large buyer, with long term orders from customers, we're also able to negotiate long term supply agreements, in order to get the best deals we can to drive the costs down in our existing products.

**Mary Jane:** I would just also say something just to make sure we're all level set. Chuck answered perfectly, of course, on the components. But I want to make sure we're also together here on something.

First of all, our whole company, if you compare it to the 12/31 quarter, had declined due to the disruptions we had earlier in the quarter on COVID. The fact that transceivers in the quarter were down, they were down exactly as much as the whole rest of the communications business. There was no change there.

If I compare that to what we reported 12/31, when we were \$40 million over the top end of our own forecast, we are still seeing a transceiver business that itself is beginning to recover, even on the module side.

That's actually important. When we talk about datacom, it is a breakthrough, because it hadn't been done before, to be talking about the start of sales of components.

But our comments about the rise of datacom here are not limited just to the component sales. We actually are beginning to see, as Chuck said earlier in the call, the refreshing of the sale of the so called modules as well.

And as he said, that helps quite a lot on the margin to be able to have the assets more fully utilized.

**Chuck:** I'm driving this company, with its vertically integrated model, and I've issued a challenge

to the team, that in a relatively short period of time inside our five year plan, that our transceiver business could be the most profitable business of II-IV.

That's how determined we are, to be able to make a difference.

**Samik:** Got it. Let me move on from the datacom piece to the broader topic of 5G investments that you are benefiting from. You're in a favorable position, but you mentioned a couple of times that you're very confident in your win share in 5G investments that are happening globally.

Maybe just outline what you're seeing that's driving that visibility into share growth. Similarly, how are you looking at the competitive landscape? What's driving your confidence about the share wins as well?

**Chuck:** Our differentiated portfolio for pumps, passive components, amplifiers, switches and line cards, along with the lasers and the transceivers. That's it, in a nutshell. We offer a full line of components for lasers, optics, and integrated circuits for what people need to be able to build their equipment for 5G.

We have that view. We have a clear view from our customers and a clear view of their position in the marketplace, including regionally. Our capacity additions, the forecasted additions in our capacity, and the growth in the output and the design wins that we have give us great confidence that we're really in a strong, differentiated position, Samik.

**Samik:** Maybe if we focus on China as a geography here, as we've gone through this earnings season, multiple other optical companies have mentioned to us expectations that there's an acceleration in 5G infrastructure deployment in China in the back half of the year. Just wanted to get your take on what you're hearing and what your expectations are for that acceleration in the back half.

**Chuck:** The comment about the second half of the calendar year is consistent with my earlier remarks about scheduling of orders up to 12 months. Conversations about how fast we can take up our capacity beyond the next 12 months, those are all consistent with it.

For a company like ours, we're not able just to take a look only two quarters out. That wouldn't be of that much interest to us. What we see is a straight line up to the right on 5G for three to five years or five to seven years out. It will have some spikes and some peaks and some valleys, but we see it up and to the right for many, many years to come.

**Samik:** Got it. Just diving into the telecom business here, can you break it down in terms of transport versus transmission products? Is there a separate trend that you're seeing individual in those segments? Is that at all an indicator where the different geographies are in terms of their 5G investments?

**Mary Jane:** We have not disclosed that difference between transport versus transmission. I would say generally what we have been seeing though, when I look across our various divisions and their demands for capex, I would say that we are seeing demand across the board on all the products that we have. Chuck may want to add something to this. That's the first thing.

As for is it one geography or more, first of all it does seem to me that there's a view that it's all about China. China certainly is a big market. If you think about it, it's perhaps not unusual. It is a physically very big country. The US market has also been strong. Frankly, Japan remains strong.

I would say we're seeing some activity, let's call it, in Europe. I don't know that that's as strong in Europe as it is every place else. We have seen some relatively general global demand for this on the major markets that are focused on upgrading their infrastructures. Chuck, what would you like to add?

**Chuck:** China, very strong. Asia, strong. North America, strong. Europe, moderate to strong. India, at least as end item demand for our customers, seems to be muted at the moment and, whether it be in the second half of this calendar year or in calendar year 2021, likely to begin to increase again.

We think it's just across the board, although in some spots it'll be a little bit faster. In other spots, it'll take a little bit longer time. We think it's up and to the right for quite some time to come.

**Samik:** Let me ask you a broader question here. Given how the optical component industry has been shaped over the past, what we've generally seen is that investors do hesitate to invest in the optical component industry looking at the fragmented base of different suppliers, which makes it very competitive landscape.

We've seen a lot of consolidation in the last couple of years itself, including your acquisition of Finisar. How have the fundamentals of the industry changed? Also the fundamentals that II-VI is now positioned in to benefit from that, how has that changed? Should that necessarily change investor perception as well about the optical component industry?

**Mary Jane:** First of all, let's just talk about II-VI for a minute. The fact that we are fundamentally a materials company and we are fundamentally a company that uses materials to harness and direct light power, that has led to what investor sometimes think is very complicated about us, which is our ability to play in multiple end markets.

What's interesting is that those very same materials are often usable both in optical communications as well as industrial or military, etc. All that long story to tell you that we are probably the best diversified bet on optical communications.

When we are supplying components into this market, we are focused on the ones that are critical. We are focused on the ones that are enabling. You can't live without them. We're actually focused on the ones that not everybody makes. Our 980 pump is the best example of that.

Consequently, when people come at the optical communications industry, it's important to look at what companies are actually making. If they, for example, are just buying all the components and reassembling them, that's not that difficult to copy.

If you think about somebody that's actually creating a laser diode, I'm not saying that someone couldn't figure that out in a lab or a very excellent PhD in chemistry, but it's awful hard to make millions of them unless you really know how to do it.

What people should look at when they're evaluating optical companies is what do they actually do. It's not that difficult to figure out which ones are not only making the critical components but are actually making them as opposed to just assembling stuff.

Then it's important to see how people react to the competitive area. At II-VI, we are a materials company. If we had a material that didn't end up having a 50-year life, it only had a 15-year life, we wouldn't keep it.

We've not had much experience of having to sunset a material, but we did do it once. We'd probably do it again if, basically, what we found was the market's already doing this. It's not that difficult. We don't have that barrier to entry of know-how.

I do think the consolidation helps. That allows more time with customers. That increases the customer intimacy. That allows companies like ours, for example, to really be able to position what we do. Chuck, what would you like to add?

**Chuck:** This is an interesting topic. As most of you know, I've been in this optical communications industry for almost 40 years, working, developing, innovating, observing. I would say that there are a few basic tenets over those 40 years.

You cannot build any communications networks or have any communications infrastructure without four basic components -- materials, lasers, optics, and integrated circuits. Everyone who builds networks drives their economics to have the most efficient integration of those four elements.

No matter how much innovation takes place at the subsystem level or at the system level or in the transmission format level, at the end of the day you've got four basic elements. You can't build a house without it. That's what we're focused on. We have the strongest portfolio of technology, IP, of vertical integration, knowledge, trade secrets, scale, differentiation, know-how.

As time-to-market and time-to-volume and time-to-cost advantages continue to accrue to the system level people, whether they be data center people or telecom people, they will continue to come back to the component in order to develop the next generation of disruption for them. That's where we're focused.

We think that we have an awful lot of room to drive more competitiveness and more enabling technology for the whole marketplace based on our unique characteristics and footprint as it relates to those four elements. We're going to stick to it.

**Samik:** Before I move to the interesting topic of 3D sensing, let me just remind attendees that they can submit a question if they want us to address it. Now, just moving to the next topic here, given the progress you have made with the Sherman plant, how should we think about the prospects of shipping to the primary customer for the upcoming product cycle?

Now that you're qualified, what are the key drivers of volume allocation to II-VI as a supplier now that you're qualified with that customer?

**Chuck:** First of all, we have been qualified.

For those who may not have heard our remarks yesterday, I said that our operations that we have been investing in, centered our Warren, New Jersey wafer fab with inputs from our Champaign, Illinois epitaxial wafer facility, as well as our wafer probing facility in Easton, Pennsylvania, that

supply chain, all US-based, fully vertically integrated, six-inch, scalable manufacturing...

That we have achieved our overall technology objectives, clearly. We have shipped hundreds of millions of VCSEL arrays, produced hundreds of millions of them in that supply chain. We have a demonstrated process for high-yield and high-reliability predictable manufacturing.

This is part of our priorities for the integration with Finisar. We put together the knowledge that we had developed years ahead in that supply chain that I just mentioned. We covered the ground quite quickly in Sherman.

We need to walk before we run before we sprint. That's what we're doing in Sherman. We're off to the races.

For us to be able to achieve our overall business objectives, we need to have more business. In order to have more business, we need to be able to have a broad portfolio, which we have invested in, and we need to be able to win increased share to more fully utilize the assets that we have.

We're doing all of those. We're ramping now, and we have additional and new devices to ramp, both in Sherman and in Warren, as we look out to the second half of this calendar year and the early part of the next calendar year.

I think we're well positioned, and our goal is to be able to have the best 3D sensing pixel array that money can buy -- highest-quality, on time, and a value proposition both for our customer and for us to win enough business to be a great value proposition for our shareholder. We're working on it.

**Samik:** Moving to the industrial segment -- that's one of the segments that broadly investors had expected would be weak in the last quarter. I think overall, you had good performance on that in that segment as well, although I think you mentioned off-the-market was weak.

Maybe just one, both of you just remind us what that exposure is in terms of the industrial end market, and what are you seeing there, when obviously the recovery that you had expected seems to be maybe stretched out a bit more? What are your current expectations in terms of growth outlook for that business?

**Chuck:** Mary Jane, like to start?

**Mary Jane:** All of life would be easy if I could get off mute. Yeah, sure.

First of all, the industrial business is 12 percent of our company. Yes, what was interesting is, for those of you that might remember, in the 12/31 quarter, we saw what we thought was the pickup in the aftermarket, because we hadn't seen much demand yet on the component growth that would indicate that we were looking at new laser-built.

In this quarter, probably with people in some cases not being at work, and that's what's required to use the laser, so that we have to replace the aftermarket component, the component sales, particularly on the key enabling components -- they are the ones that are fundamentally required to actually make the laser and that look to us like it was more laser-built.

I would say it's a little bit challenging for us, because keep in mind that while we had some competitors -- largely makers of new laser systems -- reporting declines since the June 30th, 2018 quarter, we have not actually seen declines until the September 30th of 2019 quarter, so only for the last few quarters.

I think once COVID hit, we did kind of expect, and I think we talked about this at the time, that the pickup we saw at the 12/31 quarter in the aftermarket did have some good chance of not actually being completely sequentially continuing, even though we do think that's temporary.

First of all, let's be clear. I don't think people are going back to cutting metal with tools. For any of you who ever worked in a factory 20 years ago, the downtime for that is just ridiculous. I think laser power, laser cutting, laser utilization and processing is here to stay for absolute sure.

Generally, if you think about the economic impacts of COVID, people have to have the money to buy a new car. They have to have the money to buy a new washing machine.

Obviously, if the one they have is leaking into the basement, they'll get a new one, but those will tend to be ones that are of the smaller demand, not the ones that would be "OK, we're going to upgrade the whole house."

The need to cut goods is important. The desire to have consumer goods, for example, that employ laser marking and engraving -- all that demand has to happen. To some extent, that's the reason we always talk about that the industrial market is really tied to the GDP.

It is completely about not only factories being utilized but people buying those goods, such that they need to be made and typically cut with a laser.

I think that's really the parameter that we're watching. Fortunately, as I said earlier, we do tend to sell our materials and components for different kinds of things, and we do see still some very, very good growth on the semiconductor capital equipment side.

That's keeping that factory pretty busy. Generally speaking, I'd say those are the main things that we're thinking about and we're looking at when we get to considering when we think industrial will recover.

**Samik:** Unfortunately, we are out of time, but Chuck, Mary Jane, thanks a lot for participating at the conference and making this virtual conference happen. Thank you.

**Chuck:** Thank you.

**Mary Jane:** Oh, absolutely. Thanks to J.P. Morgan. See you soon. Bye bye.



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