

# Jefferies US Mining and Industrials Conference

## Company Participants

- Daniel L. Boehle, Executive Vice President and Chief Financial Officer

## Other Participants

- Analyst

## Presentation

### Analyst

Thank you, everyone. We appreciate you joining us here for TTM Technologies and for attending the Jefferies 2025 Industrial Conference. I am joined by Dan Boehle, CFO at TTM.

And without further ado, I will pass the mic and the presentation to him to share some thoughts, and then we can open up to questions at the end. Thanks.

### Daniel L. Boehle {[BIO](#) [21911876](#) <GO>}

All right. Thank you, Steve, for that. Hello, everyone, here today. Thanks for joining us. I will skip through the normal legal disclosures. We've got forward-looking statements and non-GAAP financial metrics. You've heard this before.

TTM is a technology solutions provider. We do from top level mission systems down to subsystems, component assemblies, microelectronics. And then at the base, we do printed circuit boards. The company grew up as a printed circuit board company and still does probably about 75% of our business is printed circuit boards. Mostly, more complex, where we're designed in to unique characteristics, not consumer type of boards.

So we're about a \$2.5 billion company in revenues last year, growing a bit this year. And we're diversifying again from that PCB background into the more what we call integrated electronics and moving up the value chain through subsystems, microelectronics and other RF microwave devices up to full radar mission systems. You can see on the right, we talk about five different end markets that we play in. Data center computing, networking, those two move quite similarly. Aerospace and defense is about half of our business now.

The other four end markets, we segment into what we call commercial. So those are on the commercial side of the business. The fourth there is medical, industrial and instrumentation. Think about robotics in those different areas using our PCBs to run the circuitry. And then automotive, the final market there.

Next slide just gives you a little bit about our history. You can see that the growth, most of the rapid growth moments, the step functions were as a result of different acquisitions. So we have grown through acquisition and also diversified from that printed circuit board earth into their capability to engineer products, build subsystems and then build full mission system applications mostly around radar, so.

We've been transforming, as I mentioned, over the probably the last 7 to 10 years into that more differentiated company. Those acquisitions kind of showed you how we got there. As a result, we are now a highly valued partner. What we -- again, as part of what we've been trying to do is to be more value added, get designed into the products, our move towards more aerospace and defense, longer cycle products. Once you get designed in, right, you stay in there for decades, maybe generations depending upon the size of the programs, what have you.

So, as we've been able to get early engagement with our customers, be designed in, show them our capabilities. And then we've also been able to then climb the food chain from, right, from just providing the PCB into that system into doing more of the subsystems and full systems above that.

So, we're investing in engineering and technology and then we're also investing in our footprint. So we've expanded. We have a global footprint. And I'll show you a picture of that, but we have on the commercial side manufacturing out in Asia, mostly China, but also now Penang. In the U.S., most of the aerospace and defense is serviced by 13 or 14 sites that we have in the U.S. And we've got another one coming online later next year.

We have reduced our exposure over the years to the more cyclical commercial products. That timeline would have showed some divestitures. The last one major being we got out of the mobility business. We used to make printed circuit boards for Apple iPhones, but that market was a roller coaster ride. So we got out of that. We got out of the EMS business. And we sold our backplanes business a few years back now. And so we've got out of the more commercial business, the more commoditized printed circuit boards and got out of the commercial seasonality of that.

So that's the diversification strategy. We'll go into a little bit more in detail there. In the near term, this was structured as -- since this is industrial meeting, to talk about more about aerospace and defense and the growth we've done in there. But you can see that second item there, data center computing and networking has grown quite a bit over the last couple of years with the onset of generative AI, and our printed circuit boards go into a lot of the data center applications.

So I'll start with aerospace and defense, which of those end markets is our largest, represented 46% of our net sales in 2024. And with the increased use of radar systems, AESA radar, increased electronification of military equipment and what have you, this has been a good growth driver for us.

We look at our end markets, and we don't give annual guidance, we give quarterly guidance, because on the commercial side we just don't have visibility generally beyond three months. So these slides are here to kind of give you a benchmark to think about what this end market is growing at.

So you've got this, we use Prismark that gives you the five-year CAGR of about three to five in this business is what you would expect. In our current 2025 year, we've grown about 15% year-to-date. So we will grow above that CAGR in this year.

A little bit more detail on the defense. For Q2 revenue growth year-over-year was about 21%. As I said, year-to-date, it's about 15% year-over-year. We have program backlog almost \$1.5 billion of sales that are about 50% of our business right now. So the sales are about \$1.2 billion [ph] a year. And so you've got backlog beyond a full year. That backlog will probably stretch out about two years, and then we've got some quick turn or book-to-bill that happens in the year. So.

We're aligned with key defense programs. I'll show you some pictures of those in the next slide. And we focus on engineered products. You can see on the right there, over the years we've been focusing on doing more than just printed circuit boards for the U.S. Defense Department. 90% of our business in aerospace and defense is defense. And we started out being -- we're the largest U.S. based provider of printed circuit boards.

But we've been adding those other colors under that bar chart, doing integration and assembly of components, doing RF components and RF microwave and microelectronic devices. And then full mission systems where we got the capability from our last acquisition of Telephonics to do full radar systems. So we're developing an AESA radar for maritime application, so.

The rest of the pie chart there, commercial aero is about 5% of the business and then commercial and defense space is there as only 4%. So, opportunity to grow in those areas, but most of A&D is mostly defense right now.

Here's just a picture of our program portfolio. Our top customers are the OEMs, the Tier 1s, many of them you would know and recognize. The programs on the right are some of our larger programs, F-35 probably being the single largest one. Then the SPY-6, SPY-7 radars that are on the ships. And then we have quite a few rotary aircraft radars or components of radars. MH-60 is our largest one there, so. The LTAMDS, which supports PAC-3 missile systems, that's ours as well. We do components of that.

We do some direct work with U.S. government agencies, the Army, the Navy, Air Force and other international ministries of defense. Some of that direct, most of that through FMS [ph]. And then again, as I mentioned, future expansion where we see opportunity in commercial space as that's a lot of different companies doing commercial space now. And we're not tapping into that market too much in our current numbers, but planning to grow there in our strategic plan.

The commercial side of the business is led by some megatrends. However, the largest of that being the one at the bottom right now, generative AI. And so the hyperscalers and the LLMs, all this stuff that generates the information going into generative AI. This is a picture that's beyond my technical knowledge, but we added this in there to kind of show data center architecture at all these different levels. There's printed circuit boards being used for the computing, the switching, the connecting and what have you.

And so on the right side there just talks about the technology development over the coming years. And then that yellow box kind of shows you where we're focusing our technological development and innovation, asymmetric boards, oversized panels, high layer count and advanced high density interconnect boards that are -- the technology is moving faster and faster in this area. We're one of the largest companies that does printed circuit boards in this area, where we can compete and try to keep up the demand. We're adding capacity year-after-year to try to keep up with the current demand going on here, so.

The rest of the end markets, just to round that out. So I talked about aerospace and defense, which is almost half of the business. The rest of the four we put in a segment that we call commercial applications, data center computing being the largest one of those at 20%. Kind of add networking to that, the 7% here of last year's revenues, it's grown a bit this year. It's being uplifted by the data center computing, the generative AI. The switches and networking is becoming obviously more complicated and more complex as well, and that swell is lifting that.

So if you look at data center computing, networking and aerospace and defense, you've got about 75%, 80% of our business, which are in industries that are going through good growth right now, strong future for us in the near term.

Automotive on the other hand, challenged, right? And so the 3% to 5% CAGR of that benchmark, we -- our 2025 year is going to be below that. We're not going to grow. We may be flat to slightly down in automotive. Our applications are more -- we have more content on EV cars in the U.S. We don't sell into China. So China is where EV is growing, but we have the U.S. and international markets or European markets.

EV hasn't picked up as much there, hasn't sold as much as I think the industry expected in the last couple of years. But the other place that we do provide printed circuit boards to is even in internal combustion cars, a lot of them are putting more of the ADAS systems, the security systems, the safety systems that stop you when you're trying to drive too fast or get too close to another car and beep at you. That uses our sensors or sensors that use our boards.

Medical, industrial and instrumentation is about 14% to 15% of the business. They're split kind of evenly. So they're each about 5%. Instrumentation is getting to pick up a little bit this year, also driven by some of the data center and semiconductor growth, because what we do there is test equipment, burn-in boards or what have you to do semiconductor testing.

Medical field growth by sensors, like, first robotics for surgical robotics, but also sensors for like diabetes and what have you, the monitors use our boards. And then industrial automation has been picking up this year as well. So as industry and things have been picked up, our industrial automation has been increasing slightly this year too. So, all areas, again, looking at the benchmarks, all these end markets we expect to grow this year above those benchmarks. Data center computing and aerospace probably quite a bit above those. It's set for automotive as I mentioned, so.

Second pillar of our strategic focus beyond diversification is more differentiation. So our depth of engineering, and so as we've gone through acquisitions and as we've developed our workforce going more into engineering rather than just building to spec, being early engaged with our customers, and helping them design their product around our printed circuit board or the ability that we have to put into there and design and help them design something for manufacturability. So, our breadth of technology across all those different areas and then providing a global footprint.

So, here's all the different areas, as I mentioned that the breadth of what we're capable of designing and engineering and manufacturing. And the commercial area, mostly printed circuit boards, conventional and advanced as I mentioned and then some RF components assembly. In aerospace and defense, we reach across all of these product applications. So from printed circuit boards all the way up to full radar systems and communications and surveillance systems that are on aircraft, rotorcraft or ships or ground-based radars, so.

This is just to kind of explain why we were transitioning more towards the aerospace and defense and integrated electronics. In the consumer market that we mostly have gotten out of now, your life cycle of a product could be six months to two years, and then, you're redesigning and got to compete again for the next product.

Automotive and networking is a little bit longer, maybe goes up to two to three, four years. But in aerospace and defense, from concept to prototype through piloting and production, it can be ten years plus as I mentioned before. And so, we wanted to have that engagement with our customers and have that partnership that kept us in the game, kept us designing and working with them to develop the next cutting edge of innovation on a longer term, so.

Our differentiation from a global standpoint. Again, on the right side, I'll start with all the commercial work, lot of the commercial work, especially like I was talking about data center, AI

growth. That's all being done over in Asia right now. So those boards that are done high volume, highly complex and becoming more and more complex, but very good workforce over there in China. We have added a China Plus alternative, which I'll show you a bit more of in Penang, Malaysia. So that as folks do, our customers do try to -- if they feel the pressure and or the desire or need to get out of China, we're now offering another alternative out in Southeast Asia in Penang.

In the U.S., the green sites there do also service the commercial market, but the majority of the sites in the U.S. and North America. So I think there's 14 of those that service the aerospace and defense market. So across the country that shows you where they are. As I mentioned, we've built a new facility in Penang. That is ramping up. It offers our customers that China Plus One alternative. 800,000 square feet, highly automated, shows great and we're ramping up production there now.

We had several anchor customers. We went through certification and qualification with them last year. We're starting to ramp up our revenue slowly into this year. And ultimately, we'll get this plan up to doing \$200 million in annual revenues.

We also just this year announced that we secured land rights next door to our current facility, so that as the demand continues to grow in Southeast Asia, we'll have the ability to then expand there with another facility that can share resources, so. In Syracuse, New York, we're building a facility that will service the aerospace and defense market, the need for ultra high density interconnect PCBs within military applications. This is a technology that is in a lot of commercial markets, but is coming to aerospace and defense in larger volumes.

We do this in low volumes right now at some of our 14 sites, I mentioned there, but at high volume we're building this facility specific purpose for that, for the increased volume that's coming, which is being messaged from the large prime contractors, so. It's adjacent to our existing building. Ultimately, it'll do about \$100 million of revenue in this facility. And we'll share resources with our current facility and provide a vertical integration opportunity as well. We'll serve these printed circuit boards over to the other facility for assembly and subassemblies, so.

We also announced at the same time as our Penang land purchase, we've acquired a facility, a building. And it's fully fitted out and everything else, doesn't have equipment in it yet but 750,000 square feet in the U.S. to provide for the messaging that we're hearing around bringing AI boards into the U.S. So if that onshoring does come and people are willing to pay that increased price, we're ready with the facility that we can fit out and start doing those boards in the U.S. So this is a little bit forward thinking, wanting to be strategically aligned and ready for that when that does happen. There's a lot of companies that are starting to talk about investment in the U.S. to build the manufacturing base, and we'll be there ready to serve them.

Last pillar of our strategic focus is discipline, so just operational execution. We've entered a new era of complex execution with these greenfields. And so we've learned a lot from Penang. We'll use that learning as we bring up Syracuse and then continue improve our operational execution. But if you see the margin growth over the last couple of years, a lot of that is because of that execution, our ability to yield on a high level, even these complex boards and then enter into these more higher level value add integrated electronics as well. So increasing our earning power and then continue to sort of generate cash flow to allow us to make these internal growth investments.

Just a historical revenue and operating margins. We are up above this 9.6% now this year. We've done quite well. We've had I think three or four quarters of double-digit OM, and our target OM is

11% to 13%. We are at that 11% now in the last couple of quarters. The first half of 2025, we hit about 10.8% on average. So, we see the ability to get to the long-term target there of 11% to 13%. Frankly, Penang right now is about a 200 basis points drag on our OM. And so if Penang, once we get that up fully operational and to ramp up to the revenues that we expect there, we'll have hit the top end of this long-term target.

So, feeling pretty good about our expansion of our revenue and operating profits. Our revenue is growing beyond that 4% to 6% right now too. First half of the year, as I said, was 17%, so looking good against our long-term targets that we set a couple of years back.

This is kind of just what I just told you, the biggest piece of getting from 11% to 13% is 220 basis points from Penang. So getting that up and running is key for us. It's critical. And that's one of the focuses over this next probably 9 to 12 months, making sure we get to full scale there.

Strong cash flow, again, has allowed us, cash from ops has been strong, which has allowed us to invest in our organic growth in these facilities through adding facilities as well as adding new equipment that are capable of doing the new high technology printed circuit boards. And then our capital structure is in a very good position right now. Our leverage is only about 1.2x right now. We have a goal to keep it between 1.5x to 2x. So, we're well below that right now.

We don't have any debt maturing until 2028. And our cost of debt right now is pretty well manageable and it's mostly fixed rate. We have a swap on our floating rate term loan B that fixes about 2/3 of that. So again, very good capital structure and good liquidity.

From a capital allocation standpoint, as I mentioned, we're going to continue to invest our money in our own differentiation, making sure we have the capability to service those aerospace and defense demand that we saw coming in the Ultra HDI area for our Syracuse factory. And then generative AI on the commercial side, adding equipment and facilitation in China as well as getting to ramp up in Penang to service that industry. That demand continues to grow. And we're kind of at capacity. So we need to keep adding more so that we can grow year-after-year there.

So that's our first level of investment back in the company. And then repaying debt until we're under that. We're already under that, so we're not going to be repaying debt in the near term. And returning capital to shareholders. We do have a share buyback program that we just renewed in May. And we'll use that opportunistically to buy down shares when we think the stock has dropped below its value. And stock's been doing pretty well right now. So the last three months I think it's up double. So we'll continue on that path.

Going forward, continue to focus on these markets. Again, I think all those markets have been growing strong. Automotive is the one where we probably need to think twice about how continue to address that market. And then making those ongoing investments in our own internal differentiation as well as our global footprint.

So that's the end of my prepared remarks. So we've got about 10 minutes left, if you have any questions.

## Questions And Answers

### Q - Analyst

(Question And Answer)

A - Daniel L. Boehle {[BIO](#) [21911876](#) <GO>}



Yes.

### Q - Analyst

Can you talk about Golden Dome and (inaudible)?

### A - Daniel L. Boehle {BIO 21911876 <GO>}

Sure. Yes, so it's a little early as far as understanding exactly what Golden Dome will be. But our understanding is the administration is pushing to try to procure that pretty quickly, right? And we've got all the primes coming to us to talk about what their structure might look like and how we can play a part of that.

So we see a lot of opportunity in that. That's not in our current backlog. So \$1.5 billion backlog that we have in aerospace and defense doesn't reflect anything right now. Because we're a supplier into the primes, it takes probably 18 to 24 months after they get an award until we actually start seeing revenue as it flows down through the supply chain.

So that will be coming. As I said, if that is a little bit more rapid than the normal acquisition time frame, we'll see that kind of coming quicker. But we certainly have good -- we're very positive I think on our ability to put products into that. Mostly via radar and sensing system, right? And so we play very well in that, the radars from ground through sea and marine and as well as aircraft. So we'll play very well in that.

You had a question in the back too.

### Q - Analyst

Yes. (inaudible)

### A - Daniel L. Boehle {BIO 21911876 <GO>}

Absolutely, yes. So, similar model to what we did with Penang, is we went after our customers again. And we did it, because we were starting to hear rumblings from our customers as well as other factions and commerce department and things that we're talking about maybe onshoring, especially for generative AI purposes and things like that, right? So we will and we are addressing talking to our customers right now about who wants in, right, who wants to be first, and similar to what we did in Penang, give us a commitment.

So we actually took dollar commitments from them and got cash upfront to help us buy the equipment to facilitate it. And then they will get that back in credits through putting products through in production, right? So that's how we kind of we'll build it and that's how we'll bring it online. So we'll bring it online slowly based on our customers' needs.

So -- but the -- so the buildings, it's actually three distinct buildings. So we could put them all together. We could divide them. We could do some of that as commercial, some of that as A&D. We could separate it that way too. So we'll see what the customer demand is and who wants to put money upfront and promise to put product through there, so.

Any other questions? Yes?

### Q - Analyst

Can you talk a little bit about -- a little bit more about sort of generative AI or the focus to AI (inaudible)? My sense is that everyone there was kind of expressing (inaudible) Does that mean

you have longer sort of lead times in (inaudible) with the customers? How are them?

**A - Daniel L. Boehle** {[BIO 21911876 <GO>](#)}

I wouldn't say -- we're not getting a lot of -- if you're asking how much visibility I have in the future, not a lot. I mean, the technology is changing pretty quickly. We're probably not as diversified as we'd like to be. We're working mostly with two top customers. We'd like to work across the other customers that are starting to do more work in that area.

So what we're trying to be is not -- we need to work with the folks that are pushing the envelope and developing the latest technology. We're also trying to figure out what technology is going to be more broadly applicable, right, adapted. I mean you're always going to have the front runners who are adapting the most turn. But we can work well across all these different capabilities. And so we want to find the one that's going to give us the most broad-based exposure and meets our manufacturing capabilities, and we can do high yields and what have you.

So going after the latest technology might be doing a few prototypes in small batches, and then it may not actually catch. And so you don't want to over invest in that. And then it doesn't go anywhere and leave behind the majority of the market. That's another place. So we're just trying to balance that. And again, we don't have a lot of visibility out past three to six months, so.

Good question though. Okay. Anything else? Sure.

**Q - Analyst**

(inaudible)

**A - Daniel L. Boehle** {[BIO 21911876 <GO>](#)}

So, no, he was not a member of the Board. So he is an external hire. Our current CEO will stay on the Board for a little while. The new CEO, he started two days ago officially, September 2. So we're still getting to know him. And we are just entering also our strategic planning process. We do a three-year strategic plan every year.

This is the beginning of that process. So he will have obviously plenty of input into that, and we'll learn what his focus on and what his objective is from the Board. But he does have a connection with our Chairman of the Board. Rex Geveden and he worked together at Teledyne years ago. So that's where there's some connection with the Board. So I think he'll be well aligned with what the Board objectives are, and obviously, wanting to grow shareholder value. But we'll learn more in coming weeks and months as to what his strategic direction might be.

Frankly, as I said, 75%, 80% of our business is in aerospace and defense or data center and computing and networking right now. Both of those are growing quite well. And so I think the majority of the business absolutely doing well and will stay on the track we are. He'll have to make decisions as to where we allocate our resources to continue to grow those. He also has a very -- he has a more technical background than our previous CEO.

Mostly our last -- he is only our third CEO in that 25-year history. The first 16, 17 years were the founder, and then the last ten years were Tom Edman. And so this is our third one. He is more technical. The others were more businessmen. And so he might be pushing some of the more technology and innovation as well.

Okay. If there are other questions, give three minutes and get the next guys in here to get prepared. But I thank you very much for attending and listening today. Thank you.



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