TTM Technologies, Inc. (TTMI) Q2 2025 Earnings Call Transcript

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TTM Technologies, Inc. (NASDAQ: TTMI) Q2 2025 Earnings Conference Call July 30, 2025 4:30 PM ET

Company Participants

Sameer Desai - Vice President of Corporate Development & Investor Relations Thomas Edman - President, CEO & Director Daniel Boehle - Executive VP & CFO

Conference Call Participants

James Ricchiuti - Needham & Company Ruben Roy - Stifel, Nicolaus & Company, Inc. William Stein - Truist Securities, Inc. Michael Crawford - B. Riley Securities, Inc.

Operator

Good afternoon. Thank you for standing by. Welcome to the TTM Technologies, Inc. Second Quarter 2025 Financial Results Conference Call. [Operator Instructions] As a reminder, this conference is being recorded today, July 30, 2025.

Sameer Desai, TTM's Vice President of Corporate Development and Investor Relations, will now review TTM's disclosure statement. Mr. Desai?

Sameer Desai

Thank you, Sri. Before we get started, I would like to remind everyone that today's call contains forward-looking statements, including statements related to TTM's future business outlook. Actual results could dier materially from these forward-looking statements due to one or more risks and uncertainties, including the risk factors we provide in our filings with the Securities and Exchange Commission, which we encourage you to review. These forward-looking statements represent management's expectations and assumptions based on currently available information. TTM does not undertake any obligation to publicly update or revise any of these forward-looking statements, whether as

a result of new information, future events or other circumstances, except as required by law.

We will also discuss on this call certain non-GAAP financial measures such as adjusted EBITDA. Such measures should not be considered as a substitute for the measures prepared and presented in accordance with GAAP, and we direct you to the reconciliations between GAAP and non-GAAP measures included in the company's earnings release, which is available on the Investor Relations section of TTM's website at investors.ttm.com. We have also posted on that website a slide deck that we will refer to during our call.

I will now turn the call over to Tom Edman, TTM's Chief Executive O icer. Please go ahead, Tom.

Thomas Edman

Thank you, Sameer. Good afternoon and thank you for joining us for our second quarter 2025 conference call. I'll begin with a review of our business highlights from the quarter and a discussion of our second quarter results, followed by an update of the current geopolitical environment and an update on our planned expansions. Dan Boehle, our CFO, will follow with an overview of our Q2 2025 financial performance and our Q3 2025 guidance. We will then open the call to your questions.

Highlights of the quarter's financial results are summarized on Slide 3 of the earnings presentation posted on TTM's website. We delivered a strong second quarter of 2025, and I would like to thank our employees for their part in delivering these results. In the second quarter of 2025, TTM achieved revenue and non-GAAP EPS above the high end of the guided range. Revenue grew 21% year-on-year due to demand strength from our aerospace and defense, data center computing, networking and medical, industrial and instrumentation end markets, partially o set by a slight decline in the automotive end market.

Revenue in our aerospace and defense market was much better than expected at 45% of total revenues for the quarter and continues to remain solid with a program backlog of approximately \$1.46 billion.

The company's non-GAAP operating margins of 11.1% were up 210 basis points year-on-year as we recorded the fourth consecutive quarter of double-digit operating margin performance, reflecting continued solid execution. Non-GAAP EPS of \$0.58 was a quarterly record for TTM, taking into account the adjustments for unrealized foreign exchange gains we previously announced.

Finally, cash flow from operations was a solid 13.4% of revenues with net leverage ending the quarter at a healthy 1.2x.

Last quarter, we reviewed in detail the new policies being implemented by the current administration and the potential impact to TTM. As a reminder, we have significantly reshaped the company over the last 10 years in order to strengthen the business, which has also helped to minimize the impact of tari s. We have diversified our end markets as well as our manufacturing footprint, divested consumer and lower-margin facilities in China, acquired new facilities in the U.S. and invested in new production capabilities in Malaysia. We currently have no direct consumer exposure. The aerospace and defense market is 45% of revenues and generative AI is close to 30% of revenues. As a result, we do not expect a significant short-term impact from tari s, whether through direct impact to revenue or direct impact to materials and equipment purchases.

We also have mitigation strategies in place to minimize potential tari impacts. And while it is possible that there could be an indirect impact such as overall end market demand weakness and economic slowdown, we have not seen that as of yet.

On the positive side, we are seeing growing interest from companies to invest in new facilities in the U.S., particularly for generative AI. Most recently, Google said that it will invest \$25 billion and CoreWeave will invest \$6 billion in data center buildouts across Pennsylvania and neighboring states. Meta announced that they are building a 5-gigawatt data center in Louisiana and a 1-gigawatt super cluster data center in Ohio. Previously, Jabil announced on their earnings call that they are investing \$500 million to build a new facility in North Carolina to target AI demand.

In line with these announcements, we also recently announced the acquisition of a 750,000 square foot facility in Eau Claire, Wisconsin to enhance the company's ability to support future high-volume U.S. production of advanced technology PCBs across key markets, particularly data center computing and networking for generative AI applications. The Eau Claire, Wisconsin facility was previously owned and operated by HTI for the production of disk drive products. The facility is in excellent condition and comes with the necessary infrastructure to support advanced technology PCB production. As a result, TTM will significantly shorten the lead time required to bring new U.S. domestic capacity online as required by customers. The timing of equipment installation will be closely coordinated with customer end demand.

Turning to defense budgets. The fiscal year 2025 reconciliation bill was signed into law on July 4 and included an additional \$150 billion in defense spending, which should help to grow defense spending in future years. Key priorities in the bill include the Golden Dome

missile defense, shipbuilding, nuclear forces, munitions, supply chain and unmanned ships and drones. Approximately \$25 billion of the \$175 billion Golden Dome project was in the reconciliation bill. And while it is still in the definition stage, the project bodes well for further growth and will likely use some level of existing programs, such as LTAMDS, a key program for TTM. Note that roughly half of TTM's Aerospace and Defense business is tied to radar systems, which would benefit from more missile and space-related defense spending.

Outside the U.S., NATO leaders have agreed to significantly increase defense spending, setting a new target of 5% of GDP. Foreign military sale notifications have been strong so far this year at the \$80 billion level, providing an additional tailwind to defense market growth. Due to the relatively small size of foreign defense contractors, we expect much of the foreign military sales in the near-term to benefit the Tier 1 defense contractors in the U.S., our key customers. To that point, the President recently announced that the United States will provide Ukraine with Patriot air defense systems with the cost to be covered by the European Union.

Next, I will provide an update on our new facilities in Penang and Syracuse. While we continue to make progress with customer qualifications in Penang with increasing revenues in the second quarter to a level of \$5.2 million, the rate of increase will likely be insu-icient to reach breakeven by the end of the third quarter. The slower-than-expected revenue ramp is caused by growing pains inherent in a greenfield start-up of a facility charged with manufacturing complex multilayer product. We expect the revenue ramp to continue in the fourth quarter as we bring on additional new programs, but we are not yet sure of when we will reach the breakeven level of \$30 million to \$35 million in quarterly revenue.

Customer interest in our Penang facility remains strong, while we work towards a top priority for us of achieving breakeven revenue levels and beyond in the new facility. Our long-term confidence in our growth in Malaysian production is reflected in our recent announcement that we have acquired land rights for 10 additional acres of land in Penang to establish a second new production site in Malaysia that aligns with our customers' increasing interest in supply chain diversification beyond China.

The second facility in Malaysia will be in close proximity to TTM's existing facility and is expected to support similar commercial markets such as data center computing, networking and medical, industrial and instrumentation. The timing of construction of this new facility will be aligned with longer-term customer demand. And as of now, we have not broken ground.

Progress on our new facility in Syracuse, New York continues as external construction of the building is largely complete, and we shift our focus to the internal fabrication of the facility. We have placed orders for equipment and pending uninterrupted delivery expect installation to begin in short order with volume production slated to start in the second half of 2026.

Now I'd like to review our end markets, which are referenced on Page 4 of the earnings presentation on our website. The aerospace and defense end market represented 45% of total second quarter sales compared to 45% of Q2 2024 sales and 48% of sales in Q1 2025. Revenues in this end market grew 21% year-on-year to a record high and were significantly better than expected. The solid demand in the defense market is a result of a positive tailwind in defense budgets, our strong strategic program alignment and key bookings for ongoing franchise programs.

We maintain a solid A&D program backlog of approximately \$1.46 billion at the end of the second quarter compared to \$1.45 billion in the year ago quarter. During the quarter, we saw significant bookings for the SABER and LTAMDS-related programs. We expect sales in Q3 from this end market to represent about 43% of total sales. Bookings in the aerospace and defense market ship over a longer period of time than the commercial markets and provide good visibility into future revenue growth.

Sales in the data center computing end market represented 21% of total sales in the second quarter compared to 21% in Q2 of 2024 and 21% in the first quarter of 2025. This end market saw 20% year-on-year growth, which was better than expected and a record high due to continued strength from our data center customers, building products for generative AI applications. We expect an acceleration of growth and revenues in this end market to represent 24% of third quarter sales.

The medical/industrial/instrumentation end market contributed 15% of our total sales in the second quarter compared to 14% in the year ago quarter and 13% in the first quarter of 2025. This end market saw an acceleration of year-on-year growth to 28% as the Industrial segment saw increased demand from robotics and the Instrumentation segment saw increased demand for automated test equipment for generative AI applications. For the third quarter, we expect the medical/industrial/instrumentation end market to be 15% of revenues.

Automotive sales represented 11% of total sales during the second quarter of 2025 compared to 14% in the year ago quarter and 11% during the first quarter of 2025. The slight year-over-year decline for automotive was due primarily to continued inventory

adjustments and soft demand at several customers. We expect our automotive business to contribute 10% of total sales in Q3.

Networking accounted for 8% of revenue during the second quarter of 2025. This compares to 6% of revenue in the year ago quarter and 7% during the first quarter of 2025. Year-on-year growth was 52% and continued to be the strongest in many quarters due to increased switch-related demand from certain networking customers. In Q3, we expect this end market to be 8% of revenues as this market continues to show strong growth, driven by Alrelated demand and new products.

Next, I'll cover some details from the second quarter. The information is also available on Page 5 of our earnings presentation. In the past, we have disclosed advanced technology and engineered products as a percentage of revenues as well as our utilization rates in both North America and Asia Pacific. However, as our mix shift has changed with a focus on aerospace and defense and data center computing end markets, we do not believe these previous disclosures are helpful in understanding the business, particularly when it comes to profitability.

As a result, we will not be disclosing these metrics going forward. I would note that we are instituting a new segment reporting structure, which should give investors a clearer idea of our relative financial performance.

Our top 5 customers contributed 41% of total sales in the second quarter of 2025 compared to 42% in the second quarter of 2024. We had one customer with over 10% of our total sales in the quarter. At the end of Q2, our 90-day backlog, which is subject to cancellations, was \$496.8 million compared to \$484.8 million in the second quarter of last year. As I mentioned earlier, our aerospace and defense program backlog was \$1.46 billion at the end of Q2 this year compared to \$1.45 billion in the second quarter of last year.

Our overall book-to-bill ratio was 0.89 for the 3 months ending June 30, with a book-to-bill for the Commercial segment to be 1.07, the book-to-bill of the A&D segment to be 0.69 and the book-to-bill of RF&S segment to be 0.95. The A&D book-to-bill below 1 is due to order timing and not an indication of overall demand, which remains healthy. It is normal to see shifts in defense bookings. And while orders in the A&D market can be more lumpy than the commercial market, A&D customers provide longer-term multiyear orders, which create greater certainty as evidenced by our strong A&D backlog.

Finally, we also announced in a separate press release this afternoon, my intention to retire as President and CEO of TTM. The Board of Directors has commenced a search for my successor, and I will remain in my current role until a successor is named, which we anticipate to occur before the end of this year. I will also remain a member of the Board of

Directors following the appointment of a new President and CEO. Succession planning is a key priority for TTM. And as such, I have been sharing my thoughts regarding retirement with the Board for several years.

Now Dan will review our financial performance for the second quarter. Dan?

Daniel Boehle

Thanks, Tom, and good afternoon, everyone. Highlights of our second quarter financial results were included in the press release distributed today and are summarized on Slide 6 of the earnings presentation posted on our website.

For the second quarter, net sales were \$730.6 million compared to \$605.1 million in the second quarter of 2024. The 21% year-over-year increase was due to growth in our aerospace and defense, data center computing, networking and medical, industrial and instrumentation end markets, partially o set by a slight decline in our automotive end market.

GAAP operating income for the second quarter of 2025 was \$61.8 million compared to GAAP operating income for the second quarter of 2024 of \$39 million.

On a GAAP basis, net income in the second quarter of 2025 was \$41.5 million or \$0.40 per diluted share. This compares to GAAP net income for the second quarter of 2024 of \$26.4 million or \$0.25 per diluted share.

Beginning in the second quarter, we have made changes to our reportable segments to better reflect how the business operates, consistent with the reorganization at the beginning of the year that we disclosed in our 2024 annual report on Form 10-K. We now have 3 segments: Aerospace and defense; Commercial; and RF and Specialty Components, and we have provided historical comparisons for these segments and a historical recasting of our end markets in supplemental schedules attached to our earnings release.

In the second quarter of 2025, the A&D segment recorded \$327.6 million in net sales and \$45.3 million in operating income compared to \$274.5 million in net sales and \$25.5 million in operating income in the year ago quarter.

In the second quarter of 2025, the Commercial segment recorded \$395.6 million in net sales and \$60.1 million in operating income compared to \$323.3 million in net sales and \$49.7 million in operating income in the year ago quarter.

In the second quarter of 2025, the RF&S segment recorded \$10.1 million in net sales and \$2.9 million in operating income compared to \$9.1 million in net sales and \$2.1 million in operating income in the year ago quarter.

The remainder of my comments will focus on our non-GAAP financial performance. Our non-GAAP performance excludes M&A-related costs, restructuring costs, certain noncash expense items such as amortization of intangibles, impairment of goodwill, stock compensation, gains on the sale of property, unrealized gains or losses on foreign exchange and other unusual or infrequent items. We present non-GAAP financial information to enable investors to see the company through the eyes of management and to facilitate comparisons with expectations in prior periods.

Gross margin in the second quarter was 20.9% compared to a 20% in the second quarter of 2024. The year-over-year increase was due to higher sales volume, particularly in the aerospace and defense, medical, industrial and instrumentation, data center computing and networking end markets and improved operational execution.

Selling and marketing expense was \$20.3 million in the second quarter or 2.8% of net sales versus \$19 million or 3.1% of net sales a year ago. Second quarter general and administrative expense was \$44.3 million or 6.1% of net sales compared to \$39.4 million or 6.5% of net sales in the same quarter a year ago. The dollar increase was primarily driven by an increase in the incentive compensation accrual.

In the second quarter of 2025, research and development was \$7 million or 1% of net sales compared with \$8.2 million or 1.4% of net sales in the same quarter last year.

Our operating margin in the second quarter of 2025 was 11.1%, a 210 basis points increase from 9% in the same quarter last year due to the increase in gross margins and slower rate of growth of selling, general and administrative costs. Interest expense was \$10.6 million in the second quarter of 2025 compared to \$11.7 million in the same quarter last year.

During the second quarter of 2025, there was a \$1.4 million of realized foreign exchange loss below the operating income line compared to a \$0.6 million realized foreign exchange gain in the second quarter of 2024.

Government incentives and interest income totaling \$2 million resulted in a net \$0.6 million gain or a \$0.01 positive impact to EPS in the current quarter. This compares to a net gain of \$3.9 million or a \$0.03 positive impact on EPS in the same quarter of last year.

Our e ective tax rate was 15% in the second quarter, resulting in tax expense of \$10.7 million. This compares to a rate of 14% or a tax expense of \$6.5 million in the same quarter last year.

Second quarter 2025 net income was \$60.8 million or \$0.58 per diluted share. This compares to second quarter 2024 net income of \$40.2 million or \$0.39 per diluted share.

Adjusted EBITDA for the second quarter of 2025 was \$109.7 million or 50% of net sales compared with the second quarter 2024 adjusted EBITDA of \$84.6 million or 14% of net sales. Depreciation for the quarter was \$27.7 million.

Net capital spending for the quarter was \$60.2 million. Cash flow from operations in the second quarter of 2025 was \$97.8 million or 13.4% of net sales. Cash and cash equivalents at the end of the first quarter of 2025 totaled \$448 million. Our net debt divided by last 12 months EBITDA was 1.2x.

Now I will turn to our guidance for the third quarter of 2025. We project net sales for the second quarter of 2025 to be in the range of \$690 million to \$730 million and non-GAAP earnings to be in the range of \$0.57 to \$0.63 per diluted share, which is inclusive of operating costs associated with starting up our Penang facility. The EPS forecast is based on a diluted share count of approximately 104 million shares, which includes the dilutive e ect of outstanding stock options and other stock awards.

We expect SG&A expense to be about 8.9% of net sales in the third quarter and R&D to be about 1% of net sales. We expect interest expense of approximately \$10.5 million and interest income of approximately \$2.6 million. We estimate our e ective tax rate will be between 13% and 17%.

Further, we expect to record depreciation of approximately \$28.2 million, amortization of intangibles of approximately \$9.2 million, stock-based compensation expense of approximately \$11.8 million and noncash interest expense of approximately \$0.5 million.

Finally, I'd like to announce that we will be participating in the Needham Virtual Industrial Technology, Robotics and Clean Tech one-on-one Conference, August 19 and 20, the Je eries Semiconductor IT Hardware and Communications Technology Conference in Chicago on August 25, the Evercore ISI Semiconductor IT Hardware and Networking Conference in Chicago on August 26 and the Je eries Industrials Conference in New York on September 4.

That concludes our prepared remarks. Now we'd like to open the line for questions. Sri?

Question-and-Answer Session

Operator

[Operator Instructions] And our first question will come from the line of Jim Ricchiuti with Needham & Co.

James Ricchiuti

First o , Tom, congratulations. You're certainly leaving on a strong note. So I wish you the best, and we'll certainly be talking, I'm sure, over the next couple of quarters.

I had a couple of questions, and I apologize, this may have been in the presentation. I joined a little bit late. But did you provide -- did you guys provide a time line to the new capacity in Wisconsin? And was the decision there to make the investment being driven by customer requests? And maybe if so, which of the market verticals was that coming from?

Thomas Edman

Sure thing, Jim. And thank you. It's -- yes, absolutely. We'll stay in touch. I appreciate the words. So yes, on Eau Claire, there's a few things driving Eau Claire. Number one, there -- in the National Defense Authorization Act of several years ago, there was a call out for the Secretary of Defense to -- in the next year, so within -- in 2026 to define the term critical infrastructure and printed circuit boards related to critical infrastructure and for defense purposes needing to be sourced outside of China and a few other countries. So that's taking e ect in 2027. We know that's coming. Beyond that, absolutely, we've been in general discussions with customers around supply chain resiliency requirements. Certainly, the amount of investment going into the U.S. right now from the hyperscalers and from the EMS companies as well, it just creates a climate in which we can have those discussions.

Having said that, Jim, we have not laid out any definitive plans. What we really are doing with this facility is we are prepared from an infrastructure standpoint, if -- or I should say, when customers engage more aggressively around U.S. capacity requirements. So thrilled to have the facility in place. It is large, over 700,000 square feet and -- but it is also modular. So we'll be able to -- if you think about that 700,000-plus square feet and you divide it into 3 modules, sort of equal size, we'll be able to turn on one module at a time. Each module actually has its own power station as well as being set up to handle all the clean room requirements. So relatively -- from an infrastructure standpoint, relatively ready for equipment installation. Of course, we'd have to finish out the clean rooms prior to that, but we could do that within equipment lead times.

So from that standpoint, we stand ready. We're having discussions, as you can guess, many of those discussions are around the data center space. But we will only move when we have really customer commitment behind the investments that we make as we have done in Penang and as we have done in Syracuse.

James Ricchiuti

Got it. That's helpful. And just switching over to Malaysia. How much of a concern is it the slippage that you hope to get to breakeven, I guess, exiting Q3 there? How much of a concern is that slippage? And it sounds like it's a little bit more open-ended. Does this also potentially impact your competitive position or the near-term growth prospects in the data center portion of the business?

Thomas Edman

Sure. I don't think -- let me start with the last part of that first. I don't think it impacts our competitive position. We have -- I think we still have a pretty significant head start. There are operations -- competitive operations starting up in Thailand. I would just say that we're pleased we're in Malaysia right now, given the number of companies that are trying to start up facilities of di erent sorts in Thailand and some of the challenges there. Of course, that doesn't negate the fact that we have our own challenges with Penang.

Yes, we were more optimistic that we would be able to do a rapid scale up. And really, what we've realized is, number one, qualifications, as I've highlighted in the past, are taking time. We are now qualified out of -- with 3 out of the 5 anchor customers, expect to complete qualifications with all 5 by the end of the year. But that has taken longer than certainly we anticipated -- we also found that as we've trained the personnel in a greenfield operation like this that it has been taking more time than expected. And we're doing a little bit more handholding, if you will, than we expected. That ties directly to yields and yield performance. And as we plan the ramp, we need to make sure that we are optimizing yields as we scale.

So for that reason, it made sense to slow down the pace of the ramp, but we still are obviously ramping at \$5.2 million last quarter. You can still -- you can expect that to move up linearly, and we're going to be -- we pretty much doubled last quarter. You can think of that as being sort of the pace that we're on. So it is still a rapid scale up, but just not as quickly as we had been anticipating. And I think from the standpoint of optimizing yields, that's what makes sense. So that's where we are in Penang. It certainly is really the first -- our first priority right now is that focus on ramping Penang because we have customer demand there and customer interest, and we need to service our customers successfully.

James Ricchiuti

Got it. Congrats on the results.

Thomas Edman

Thank you, Jim.

Operator

And just one moment for our next question. And that will come from the line of Roy Ruben with Stifel.

Ruben Roy

Tom, it's Ruben. And congrats from me as well. As Jim said, quite a bit of execution over the last ever many years, and it's sad to see announced retirement, but great job.

So I guess picking up on that utilization capacity question. Can you refresh me on what's going on with China, Tom? You've added some incremental capacity there, I think, 10% or so, and it's kind of qualifying some customer programs. Is that a facility where you can add additional capacity for data center specifically this year, if you could start there.

Thomas Edman

Thank you. Yes. Thank you, and thanks for the nice words. Yes, the -- absolutely. We had talked about scaling China, our facility in Dongguan, scaling that facility and also qualifying in our facility in Guangzhou. We've moved in accordance with that plan. That was targeted at adding 20% additional capacity for the data center area. We're pretty much there at this point. We continue to add additional programs into Guangzhou. And so room to continue to grow there. We are expanding additionally in Dongguan as well. Much of that capacity, though, is targeted at some of the newer technologies that our customers are requesting, particularly around some of the, what we call asymmetric designs, which are still multilayer, high layer count boards, but a little bit -- you essentially are running speeds to the top of the board and power to the bottom of the board, very di erent laminate structures that you bring together at the end of the process. That require -- that puts a pressure on a couple of areas, drill, drill being one, lamination and press being the other. And so we've been adding capacity there to handle that technology shift. So absolutely very active in China, continuing to both qualify additional programs in Guangzhou and add capability into Dongguan while we're obviously ramping Penang. So yes, quite a bit of activity going on here.

Ruben Roy

And as a follow-up, if we could drill into the data center segment, another very strong quarter. The guide suggests acceleration, as you mentioned, year-over-year into Q3. I was wondering on customer diversification in data center, if you could give us an update on how that's going and how you think that might trend as you exit '25 and into '26.

Thomas Edman

Yes, going well. We've -- we are, at this point, pretty well diversified in that space. I think I've covered in the past, by its nature, the hyperscale market is going to be more concentrated

than our other end markets such as networking and certainly MII. But as we look at that market and we look at the hyperscaler activity and you think about really if you include the chip folks and the major hyperscalers, let's just call it, 8 or so major customers, we are in good shape with most of those. Of course, we have a particular program concentration with, let's just call it, 2 moving to 3, but we are pretty well spread now, particularly as we've added that Guangzhou capability and with Penang coming on to service others as well.

So it's a case where you need to balance the capacity available to those real core customers while adding incremental capacity and qualifications for some of the newer customers that we didn't have a significant presence at in the past. So that's the balance that is essential here. That's going well.

Operator

And one moment for our next question. And that will come from the line of William Stein with Truist Securities.

William Stein

First, I want to congratulate the whole team for such great results and outlook and also to you, Tom, for announcing your departure on a very high note. Let's hope there's more good stu to come. But I do have a couple of questions.

The first is on the new segments. Can you talk about how the segments on the one hand, overlap with the products on the other hand? And I'm specifically talking about dissecting among printed circuit boards, the Anaren components and the Telephonics, I guess they're either systems or subsystems. Is there a direct overlap? Or is this all sort of mixed up when you look at the segments?

Thomas Edman

So probably the best visibility we can give you into that is in the investor presentation. And so you're right, Will, it is a mix. Having said that, if you look at the Commercial segment, you're looking at a segment that is -- all the material revenue is printed circuit boards. We have a small RF component business, but that's called out as RF&S from a segment standpoint. So that RF&S segment that has been there in the past, will continue to be there, very small. That is a Commercial segment, right? So that goes into our Commercial business. Then you can add in what we're calling the -- what we defined as the Commercial segment, and that's going to be printed circuit boards going into the commercial market, okay?

So then you cross over to aerospace and defense, about 50% of aerospace and defense is going to be printed circuit boards and the balance will be integrated electronics, which is a

mix of mission systems, microelectronics, the RF microwave business that we do and then the assembly business that we do, all for defense. So that's the division between the segments from a product standpoint.

William Stein

Okay. One other I'd like to ask about, there were very high incremental operating margins in the quarter, and it makes me wonder to what degree the great results were driven maybe a little bit more by pricing than by units. Do you have that data available that you could maybe help us understand whether this was more units or pricing or mix?

Daniel Boehle

I mean I think, as always, is often the case, it's probably all of the above, Will. But there's certainly mix probably the large driver there. And so some high ASPs in our current mix. And so I think that probably would be the main driver. Units have increased somewhat, but I think the mix is probably the larger driver.

Operator

[Operator Instructions] One moment for our next question. And that will come from the line of Mike Crawford with B. Riley Securities.

Michael Crawford

And I echo congratulations to you, Tom, on the job really well done and looking forward to more in the future.

But for questions, can I assume with the new land buy in Penang that, that means that the company already is committed to go to a second stage expansion in the existing Penang property, even though the ramp is slower? And can you remind us what capacity -- what annual revenue capacity will be in Stage 1, Stage 2 Penang plus what you might be able to achieve on top of that with the new land?

Thomas Edman

Yes. So yes, let me help you with that, Mike. The -- so think about the first phase, which is what we have in place with capacity of approximately \$200 million in that -- in the facility. We have with Phase 2, which you're right, we haven't started yet, but Phase 2 would add an incremental 20% to that capacity level. At that point, we'll have pretty much filled out the existing building. The additional plot of land has been purchased for what will end up being a multistory building. We are presently defining what product mix we would target into that building, again, having the right kind of discussions with our customers. But the key there was to make sure that we had reserved and purchased the adjacent land. As you know,

Penang is now a very popular spot for companies, particularly in the semiconductor industry to move into. Love that from the standpoint that the customers -- many customers are in close proximity. But at the same time, the land availability has been growing -- has been increasingly limited. So we needed to move in, make sure that we had that land available to us.

And we certainly will continue to keep all of you informed as our plans come together there. But you're right to identify, first and foremost, we still have available space in our existing building to expand into. So this is going to be a long-term opportunity for us.

Michael Crawford

Okay. And then similar regarding Syracuse, \$100 million capacity, maybe given that, that also is greenfield that we might expect a slight push out to when that ramps or not? And also what your investment plans are for Wisconsin, like in terms of capital spend?

Thomas Edman

Yes. So what is defined -- so Syracuse, we are -- as I said in the script, we are finishing at this point, the interior. We will be taking equipment deliveries here over the course of the summer. We'll be into qualifications as we finish the year. And we're looking at initial production in the second half of next year. So that's where we stand on Syracuse.

And you're right, I would put it more in the sort of \$115 million -- \$115 million, \$125 million territory in terms of revenue expected and actually \$125 million, I believe it is. And then as we look at capital requirements at Eau Claire, not yet defined. Obviously, a significant footprint you could -- we could fit 2 of our 3 -- sorry, 3 of our new Syracuse buildings into that space. I highlighted the modular nature of it. So not yet defined in terms of capital that we will put into that building. First and foremost, we just need to make sure that we have a commitment. It's a shared commitment with our customers here. So that's probably the best I can do for you at this point, Mike.

Michael Crawford

Okay. And then just a final question is, I think you probably -- what we can see with rising margins, you're doing a good job of bringing the margins up at the old Telephonics business more closely to what you've achieved with Anaren. Regarding other potential defense product, RF M&A, are valuation expectations just too high right now? Or are there some good possibilities that you're able to consider?

Thomas Edman

I think the -- so there has been certainly a bit of a -- there was a bit of a pause here in the first half of the year in terms of what was properties that were coming to market. And I would say that, that was just in fact, private equity holdings, as an example, they were deliberately looking at the valuation -- potential valuation deterioration in those properties and not wanting to bring them to market.

I would expect that over the course of the next year to 1.5 years, we'll start to see more of those opportunities come to market. And certainly, as you know, we have an active M&A pipeline process. So continue to be looking at opportunities in the microelectronics space, RF microwave space is the highest priorities for the company as we look at those opportunities. Certainly, from my perspective, I think we'll start to see things move a little bit over the course of the next year to 1.5 years. But we've been in a short-term pause.

Operator

And we have a follow-up question, and that will come from the line of William Stein with Truist Securities.

William Stein

I wonder if you can talk, Tom, about the cost competitiveness that you'd anticipate getting in Eau Claire. Should we think that, that's so automated that perhaps you reach close to parity with either Penang or China? Or is this going to be significantly more expensive capacity? And if so, what are -- what is the customer appetite to pay that?

Thomas Edman

Yes. Well, that's -- thank you, Will. Yes, you hit the nail on the head with your question. It -- even with an automated facility, and certainly, you're right to highlight that, we're still looking at a cost dierential as it relates to everything from construction to power costs, to labor costs, material costs because, frankly, the infrastructure is still relatively small. There's limits in terms of production of -- volume production of laminates and chemistry in the U.S. So initially, there is -- there would be a substantial price dierence. In fact, what we're doing right now is modeling with -- now that we have the facility in place and can lay out the equipment from how we would place the equipment, we can lay that out in the design. We are developing the price models that we will be sharing with customers. But let's just -- I think you're looking at at least pricing that is at least 50% higher than what we would see in China. And I would say, in many cases, even higher than that. So the commitment needs to be there as it has been with Penang, but the commitment needs to be there in terms of understanding costs, agreeing to costs and then coming to terms on longer-term commitments clearly. So that's the priority with Eau Claire.

Do we -- I think on the other flip side of that, is there an appetite? I think there I think there is an appetite at some level to ensure that the there is some level of capacity available in the United States. But again, we'll leave that to the customers to balance how they wish to see their supply chain develop. So you're absolutely right to highlight that cost di erence. It does exist. It's something that we are modeling and certainly engaging with customers about.

William Stein

And then maybe one more still. Can you tell us what the margin drag in Penang was? I think it's been running about 170 bps to op margin. Is that still the case? Or has it narrowed at all?

Daniel Boehle

It's gotten up to about 210. So got about 30 bps worse year-over-year on the op margin -- at the op margin level.

Operator

I'm showing no further questions in the queue at this time. I would now like to turn the call back over to Mr. Tom Edman for any closing remarks.

Thomas Edman

Sure thing. Yes, I just wanted to close by summarizing some of the points that we made earlier. First, we delivered strong revenue and growth in Q2 of 21% year-on-year. That was growth that was coming from OUR Aerospace and defense, MII and data center computing markets as well as networking markets. So very broad growth there.

Second, our non-GAAP operating margin of 11.1% was up 210 basis points year-on-year.

Third, we had strong cash flow from operations of 13.4% of revenue that contributing to a solid balance sheet at TTM.

And finally, I would like to thank all of you, our investors, for your incredible support and your friendship over my total of 18 years as a public company CEO with 2 companies and with 12 of those years being at TTM.

I also wanted to take this opportunity to thank the employees of TTM who are just incredible and incredibly supportive. Our customers and our suppliers who have joined me on this ride. I'm so proud to have been able to work with all of you on building this company. Thank you again. Goodbye, everyone.

Operator

This concludes today's program. Thank you all for participating. You may now disconnect.