Unimicron (3037 TT): EMIB-T Dominates the Discussion

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Intro

Unimicron is a leading supplier of high-end ABF substrates and AI server PCBs. Results were well ahead of expectations, but the analyst meeting was dominated by EMIB-T and its potential challenge to the TSM ecosystem.

Key Takes

The focus on EMIB-T was surprising for a product that is not yet in production and should remain small for several years. CoWoS remains the dominant platform, but the volume of questions shows investors increasingly view Intel packaging as a potential risk to the TSM ecosystem.

Unimicron provided far more detail on EMIB-T than in prior meetings. INTC will protect supplier profit during the early yield ramp and direct additional tools toward whichever vendor executes fastest. This reduces Unimicron's downside, but does not resolve the challenges around capacity, yield and customer qualification.

Management expects EMIB-T mass production in '27, aligned with GOOG TPU9's expected 2H27 ramp. Our checks across substrate, equipment and process suppliers still point to '28 for meaningful volume, suggesting '27 is more likely an initial qualification and production ramp. EMIB-T must still prove competitive cost, yield and scale before it becomes a credible alternative to CoWoS. We continue to believe investors are too optimistic, focused on the high-end narrative without drilling into the execution details.

Read-Throughs

Optical-module PCBs are becoming a meaningful profit pool for Unimicron, Zhen Ding and Compeq. Unimicron says 1.6T requires MSAP, supply remains short and retrofit capacity will only open gradually through 4Q26. Customer preference for non-China production further narrows the qualified field.

This is consistent with our recent Zhen Ding meeting. Zhen Ding claims the leading 1.6T position today and sees 40–50% gross margins on high-end optical boards, while Compeq expects the largest revenue ramp from a near-zero base. Unimicron's decision to add capacity confirms the opportunity is broadening across all three suppliers.

Results & Outlook

- Revenue rose 14.5% QoQ and 32.1% YoY in 2Q
- ABF and PCB revenue should continue to grow in 3Q
- Full-year substrate and PCB output forecasts were raised
- Guangfu adds capacity from 3Q, supporting ABF growth
- Gross margin reached 24.8% and should improve again in 3Q

EMIB-T

- Unimicron targets mass production in '27; our checks point to '28
- Initial supplier yield target is 50%
- INTC protects supplier profit during the early yield ramp
- Ibiden, Shinko & Unimicron begin with equal key-tool allocation
- Additional tools go first to the fastest-ramping supplier
- EMIB-T margins should exceed traditional ABF if it scales

AI Mix

- AI datacenter reached 61% of 2Q revenue

- Substrate AI mix could approach 70% in 2H
- PCB AI mix could reach 65–70% in 2H
- ABF revenue increased 22% QoQ
- BT revenue declined 30% QoQ

Capacity

- Capex was raised from NT$34.0bn to NT$53.7bn
- Roughly 85% of the additional spending is for ABF
- Guangfu begins adding capacity in 3Q
- Legacy plants can be upgraded faster than building new fabs
- Yangmei Plant 3 is tied to AI ASIC demand for ’29–’30

Margins

- Pricing drove more than half of the 6.8ppt QoQ margin increase
- Mix, utilization and yield drove the balance
- AI mix rises again across substrates and PCB in 2H
- Further price increases remain possible in 3Q
- ABF utilization remains above 90%

BT to ABF

- Consumer weakness is reducing BT demand
- Selected BT capacity is being converted to support ABF
- Conversion takes roughly 12–18 months
- Higher-end memory-controller BT remains profitable
- Unimicron does not plan to exit BT

Optical Modules

- Optical-module PCB capacity remains in short supply
- Retrofit capacity opens gradually through 4Q26
- 1.6T requires MSAP, limiting supply to advanced HDI vendors
- Unimicron, Zhen Ding and Compeq are the key suppliers
- Non-China production requirements narrow the qualified field

Background

- Roughly 60% of revenue comes from substrates
- The balance is primarily HDI and conventional PCB
- AI demand spans GPU, ASIC, server CPU, DPU and networking

Disclosures

12 month historical recommendation changes are available on request

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