Taiwan Technology: Semiconductors: Day 2: Key takeaways from SEMICON Taiwan 2026: Stronger OSAT momentum into 2027

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We attended SEMICON Taiwan 2026 and hosted a SEMICON Booth Tour during 3-4th September 2026. On 4th Sep, we hosted 3 companies including Grand Process Technology (GPTC; 3131.TWO; Buy), Micronics Japan (MJC; 6871.T, Not Covered) and Hon Precision (7769.TW, Buy). Our key takeaways are: **1)** OSAT equipment demand momentum getting stronger into 2027 with better visibility, with GPTC seeing stronger demand upside for 2027 coming from OSATs; **2)** larger AI chip package size and rising thermal requirements are driving higher handler and thermal-control content; and **3)** integrated optical/electrical CPO testing are emerging as incremental equipment opportunities from 2027 onward. Below, we provide more detailed takeaways for the Taiwan Semiconductor companies that we visited.

Grand Process Technology (GPTC; 3131.TWO; Buy)

Management stated to have seen stronger order momentum especially from OSAT recently that might drive further potential demand upside into 2027. Demand in 1H27 is particularly strong, while available capacity for 2H27 is also nearly fully allocated. The strength is mainly driven by CoWoS and CoWoS-like advanced-packaging processes, with OSAT customers becoming an increasingly important source of growth.

GPTC's high OSAT market share should position the company as a key beneficiary. Management estimates that GPTC holds around 50% market share at foundry customer while more than 90% at OSAT customers. Although foundry tools generally have more complicated specifications, OSAT tools require greater production flexibility and therefore typically carry higher ASPs and GMs.

Given the stronger demand outlook, management sees possibility for further capacity expansion in 2027. To recall, management is currently guiding its annual capacity to reach 200-250 units in 2026, with another c.100 units of capacity scheduled to come online by end-2027. GPTC also pointed out that the lack of labor force is currently the main bottleneck. Management said the headcount has already increased from around 250 at end-2025 to 380 currently and is expected to reach approximately 500 by end-2027.

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In terms of technology migration, management expects SoIC and PLP to provide additional growth opportunities into 2028 and beyond. GPTC expects SoIC-related demand to improve in 2027 alongside customer's capacity addition, with a more meaningful ramp in 2028. For PLP, management expects a broader PLP ramp might be in 2028 and believes the technology could become mainstream around 2029 once production yields stabilize. As the tools for PLP are larger and more complicated, resulting in around 2-3x higher ASPs and GMs vs those of wafer-level equipment.

Hon Precision (7769.TW; Buy)

Capacity continues to expand alongside rising demand for customized test handlers. Management reiterated its capacity expansion guidance to increase by more than 40% in 2026. Management also noted that the consignment model is becoming increasingly common and that all of Hon Precision's handler platforms can be customized to customer requirements.

Larger package solution and higher power requirement are driving additional handler and thermal-control content. Hon Precision is developing handlers for packages as large as 120mm x 150mm, with management expecting these large-package models to account for 20-30% of shipments in 1H27 and to over 50% in 2H27. Given the different mechanical design, more automation and more advanced temperature-control requirements result in ASPs around 20-25% vs. the current mainstream handler. The company is also moving toward 10kW active temperature-control systems, initially for ASIC customers.

Integrated optical and electrical CPO testing is progressing toward customer qualification. Hon Precision is now integrating optical and electrical testing into the same platform. The system supports active thermal control up to 6kW and multi-zone temperature control, while active or passive optical alignment can be configured according to customer requirements. Hon Precision expects to ship mass-production model for qualification to its AI customer in October 2026, although the timing of volume production remains dependent on the customer's product design and ramp schedule.

Valuation & Key Risks

Investment Thesis - GPTC (3131.TWO)
GPTC is one of the premier suppliers of semiconductor wet processing equipment, primarily utilized in back-end advanced packaging processes. The company manufactures semiconductor wet processing equipment, including metal etching equipment and single-wafer cleaning equipment, as well as providing engineering and installation services to semiconductor manufacturers. GPTC is the main CoWoS wet clean equipment provider and has held 50% market share at TSMC and near 100% of market share at ASE/SPIL. GPTC is also the sole provider for SoIC wet clean equipment at TSMC given its leading technology versus local peers.

We favor GPTC as we expect its revenue/earnings CAGR to further accelerate to 40%/56% in 2025-28E, driven by 1) continued advanced packaging capacity expansion, and 2) equipment ASP increase amid rising advanced packaging (e.g. SoIC, CPO, FOPLP) technology complexity. The company is now trading below its AI cycle (2023-2025) average forward P/E of 29x; however, with proliferation of advanced packaging into non-AI application and increasing ASP thanks to rising technology complexity, we continue to see upside potential to its revenue and earnings growth and maintain a Buy rating on the name.

Investment Thesis - Hon Precision (7769.TW)
Hon Precision is a leading Taiwan-based semiconductor testing equipment provider specializing in test handler and Active Thermal Control (ATC) system, which are widely adopted in Final Test (FT) and System-Level Test (SLT). Hon Precision enjoys >90% of market share in the FT handler market for AI/HPC applications, enabling it to fully capture growth in both AI GPU and AI ASICs.

We like Hon Precision as we expect its revenue/earnings to accelerate in coming years driven by 1) growth in AI GPU/ASIC volume, 2) larger chip package size, 3) longer testing time, 4) higher power and thermal requirements, 5) rising adoption of SLT among AI ASICs, and 6) shorter chip upgrade cadence. Hon Precision shares are trading at a lower valuation versus its Taiwan/global peers in terms of forward P/E. We view the company as one of the most attractive names within our TW Advanced Semi Testing coverage, with meaningful re-rating potential as the market begins to reflect its strong earnings growth outlook.

Price Target Risks and Methodology - GPTC (3131.TWO)
Valuation: We are Buy rated on GPTC. Our 12m TP of NT$4,200 is based on a target P/E multiple of 35x (based on avg. fwd P/E during the CoWoS ramp-up in mid-2024 to 2025) applied to our FY2H27E-1H28E EPS.

Key risks to our views: 1) softer AI/HPC demand, 2) slower adoption of [illegible] packaging technologies, and 3) intensifying competition.

Price Target Risks and Methodology - Hon Precision (7769.TW)
Valuation: We are Buy rated on Hon Precision. Our 12-month TP of NT[illegible] on a target P/E of 32x (based on close peer correlation analysis) applied



EPS, and discounted back to 2027E at 13.6% CoE. Our key assumptions for CoE include: (1) 1.5x beta, (2) a 4.25% risk-free rate, and (3) a market risk premium at 6.25%.

Key downside risks to our views: (1) softer AI/HPC demand, (2) slower adoption of SLT among AI ASICs, and (3) intensifying competition.