Taiwan Technology: Semiconductors: Day 1: Key takeaways from SEMICON Taiwan 2026: CPO in focus

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We attended SEMICON Taiwan 2026 and hosted a SEMICON Booth Tour during 3-4th September 2026. On 3rd Sep, we hosted 8 companies including Ebara (6361.T, Buy), Tokyo Seimitsu (7729.T, Sell), Shibaura (6590.T, not covered), Lasertec (6920.T, Buy), MPI (6223.TWO, Buy), WinWay (6515.TW, Buy), Hermes Testing Solutions (HTSI, 7856.TWO, not covered) and All Ring (6187.TWO, Buy).

Our key takeaways include: **1)** AI-related advanced-packaging demand remains strong into 2027, with OSAT orders accelerating alongside foundry demand; **2)** CPO equipment is moving closer to mass production in late 2026 with a broader ramp up in 2027, although the testing flow remains fluid and some suppliers increasingly expect Insertion 3 testing step to represent the larger near-term equipment opportunity as some Insertion 2 demand could shift from foundry to OSATs; **3)** rising AI/HPC test complexity continues to drive higher test equipment and test interface content, including testers, prober, probe-card, socket and thermal-management content, etc.; and **4)** FOPLP (fan out panel level packaging) and hybrid bonding are emerging as the next equipment opportunities. Below, we provide more detailed takeaways for the Taiwan Semiconductors we visited.

MPI (6223.TWO; Buy)

MPI showcased its new CPO prober solution - TS3500-IFE, a fully automated platform designed for the Insertion 2 stage of CPO testing. Management said development and customer engagement are progressing smoothly across multiple customers and are not limited to foundry demand, and is on track for initial volume shipments by end-2026. MPI views automation as a key differentiator vs. its key peer.

As for CPO Insertion 3, MPI believes its solution is not a head-to-head compete with competitors (e.g. Ficontec etc.) as its uses probe cards whereas the others use a socket-based architecture. Management highlighted that a device can pass through multiple test and inspection steps at die-level testing and therefore does not view the two solutions as directly comparable.

MPI also showcased its new 100k-pin probe card, which is already in mass production for AI/HPC devices featuring micro-bump interconnects. This probe card

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supports 4-die testing per touchdown, equivalent to approximately 25k pins per die. Management said the product is in mass production with multiple customers. Management also cited recent customer wins. The US CPU customer started approaching MPI in 1Q26 and placed order at MPI in mid-2026, with management characterizing the share gain as being against its key overseas peer.

WinWay (6515.TW; Buy)

Capacity expansion supports rising AI test-interface content. WinWay currently has pogo-pin capacity of approximately 6mn units per month, with 40-50% produced in-house and the rest outsourced mainly from Japanese suppliers (and some Korean suppliers). The company targets annual micro-drilling capacity to double to 180-200mn holes in 2026 from less than 100mn in 2025 (equivalent to 36k-40k socket, based on 5k pins per socket).

The company is also co-developing a liquid-cooling test socket with a customer, although the product is not yet ready for volume production. For Hypersocket adoption, management continue to expect it to account for around 5% of its revenue in 2027. In terms of new customers, the company sees potential new progress with a US IDM customer in 2027.

Hermes Testing Solutions Inc. (HTSI; 7856 TT; not covered)

Company background: Hermes Testing Solutions Inc. (HTSI) is a Taiwan-based semiconductor testing equipment and engineering-service provider. Its portfolio spans 1) probe cards and probe-card cleaning materials, 2) prober (TEL prober) installation and engineering services, thermal-control modules, and 3) equipment for CPO and advanced packaging, including optical alignment and reflow tools. The company operates as both a product supplier and a system-integration/OEM partner to global equipment vendors.

HTSI sees its thermal module as one of its key growth drivers for 2026 and into 2027. Its thermal module is installed on probers to cool the probe card and reduce the risk of burned probe needles. The product has contributed more than 30% of revenue in 2026 to date and is currently used mainly for US GPU customers' devices. Management noted the attachment ratio of roughly 80-90% to prober shipment. A second-generation module, now under verification for CPU and TPU customers, could carry a 30-50% higher ASP. Management sees potential for at least around 30% penetration for the new module in 2027.

Meanwhile, Management also expects the TEL prober installation volumes to accelerate into 2027. HTSI is currently the sole service provider for TEL prober installation (mainly for Taiwan). Management expects installation volumes to double in 2026 and more than double in 2027. Management noted that while it is still too early to comment on 2028, they see at least another 30-50% of growth into 2028.

A lot of discussions also surrounded CPO. For Insertion 1, the company provides alignment equipment, and it is now waiting for its partner to finalize the software side ahead of an initial shipment to a customer in Singapore. It will also do alignment technique licensing to foundry partner.

For Insertion 2, HTSI works with Ficontec as an OEM partner. While HTSI sees the possibility for foundry to bypass Insertion 2 when entering mass production, it sees

leading GPU customers still wanting to do Insertion 2 testing with potential demand shifting to the OSAT side. In terms of Insertion 3, HTSI is also collaborating with Ficontec for handler. HTSI cited potential industry demand of around 600 units in 2027. Overall, HTSI is preparing CPO capacity ahead of a broader 2027 ramp. The company expects cleanroom capacity of 20-30 units per month to be ready in 1Q27.

Probe-card development adds another potential leg of growth. HTSI's membrane probe card targets 30-50μm-pitch, high-speed/high-frequency applications and is already supplied to foundry customers. The company is also trying to penetrate the TIA market with a US fabless customer, with qualification progress checkpoint expected by end-2026. For vertical probe cards, HTSI currently has capacity of around 30-50k pin per month, with expansion under way. In MEMS, HTSI is working with MJC and expects its first AI-related sample out in 2Q27.

Reflow equipment is moving from initial shipment toward broader OSAT adoption. HTSI has shipped its first reflow tool to one OSAT customer and expects another 1 to 2 shipments to other OSATs by end-2026. Management expects around 5-10 units shipments in 2027, followed by a larger ramp in 2028. Overall, management is targeting total group revenue to roughly double in 2027 and sees the potential for an even stronger growth in 2028.

All Ring (6187.TWO; Buy)

All Ring showcased a broadened CPO-related equipment portfolio across inspection, optical coupling and post-clean inspection. The company showcased three key CPO solutions: 1) IQC 3D metrology - automated optical inspection and metrology equipment, 2) CPO active alignment coupling system - optical-coupling equipment for both packaging and die level, and 3) CO2 cleaning AOI detection machine, which can address particle risk after coupling and during product transfer.

Management believes the key differentiation for its CPO active alignment coupling system lies in its in-house six-axis module design. All Ring designs the full six-axis active-alignment system internally, unlike many peers that source standard modules from third parties.

While remaining under qualification, the company addressed its positiveness towards its advanced underfill dispenser for the Chip-on-Wafer (CoW) side and Chip-on-Panel (CoP) side of the process, which could create more dollar content as currently All Ring's equipment solutions are mostly for the WoS (wafer-on-substrate) side.

Price Target Risks and Methodology – WinWay (6515.TW)
Valuation: We are Buy rated on WinWay. Our 12-month TP of NT$14,800 is based on a target P/E of 40x applied to our 2028E EPS, and discounted back to 2027E at 13.6% CoE. Our key assumptions for CoE include: (1) 1.5x beta (sourcing Bloomberg), (2) a 4.25% risk-free rate (inline with GS house-view), and (3) a market risk premium of 6.25% (in line with our GS house view).

Key risks to our views: 1) softer AI/HPC demand, 2) slower penetration into new TAM, and 3) intensifying competition.

Price Target Risks and Methodology - All Ring (6187.TWO)
Valuation: We are Buy rated on All Ring. Our 12m TP of NT$1,450 is based on a target P/E multiple of 35x (derived from growth-adjusted historical valuation) applied to our FY27E EPS.

Key risks to our views: 1) slower advanced packaging expansion, 2) delay in adoption of new packaging technologies, and 3) intensifying competition.

Price Target Risks and Methodology – MPI (6223.TWO)
Valuation: We are Buy rated on MPI. Our 12-month TP of NT$8,500 is based on a target P/E of 40x (1.7x of 3-year average forward P/E) applied to our 2028E EPS, and discounted back to 2027E at 12.4% CoE. Our key assumptions for CoE include: (1) 1.3x beta (sourcing Bloomberg), (2) a 4.25% risk-free rate, and (3) a market risk premium at 6.25% (in line with GS house view).

Key risks to our views: 1) softer AI/HPC demand, 2) slower penetration into new TAM, and 3) intensifying competition.

