BERNSTEIN
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China Semiconductors

China Semis Tour 2H26: Demand Holds Up as Supply Tightens



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We conducted a China Semiconductors Tour in Wuxi, Suzhou, Jiaxing and Shanghai from Aug 31 to Sept 4, 2026, meeting with more than 20 companies. This call highlights our key findings. Semis demand is even stronger than 1H26, and most sectors start to worry about supply shortages, which created additional opportunity for localization across the board. **Our top picks are Montage and Semicap.**

Semicap: Matured logic expected to see a step change in localization, global component shortage is accelerating local vendor verification. On WFE demand, the biggest upside surprise comes from mature logic. Local fabs expect to boost localization from 20-30% by vol in previous projects to 80%+ by vol for new projects (50-60% value share), which we believe will drive mature logic order to fast growth next year. Strong memory demand is largely expected, with order at least doubling YoY confirmed by all vendors. Advanced logic demand is also better than expected, as the leading fabs has been able to ramp up the yield and start to expand capacity at scale. We also confirmed very strong demand growth on testers. Market start to worry about component supply shortage from global vendors, but discussion with local component vendors indicate that this created massive demand for localization, and they are expanding aggressively, thus the shortage likely could resolve within a few quarters.

Memory Interface Chip: CXL MXC adoption expected to surge with DDR4 recycling. Original thesis around CXL is all about memory pooling, which is still far from mass adoption. Recently CSP customers start to adopt a new use case for CXL due to memory shortage: CXL MXC can be used to recycle the retiring DDR4 module. Company is very positive on this new development and likely could boost further growth. Foundry and substrate supply is still expected to be tight and company is making prepayments to lock in supply. MRDIMM adoption is still in testing phase for 2H26 but expect 2027 vol to ramp up.

Analog: New product releases drive market share gain, pricing is surging with multiple rounds of price increase. Majority of local fabless growth is due to widening analog SKU breadth and increasing number of customers, rather than existing customer ordering more, so there is no concern about double booking. Orders are arriving faster than shipments, therefore expect the price increase will continue even after multiple rounds of price adjustment. Foundries' capacity among both 8 and 12 inch lines have already been fully utilized, most of the time analog fabless need to use prepayments to lock in foundry supply, expect shortage will continue till at least 2H27.

Power discrete: Foundry/IDM capacity is very tight, new capacity addition likely will be very limited until late 2027. 6 and 8 inch lines are already at full capacity and no expectation on new capacity addition. 12 inch supply is also tight, as there were limited new greenfield approval in 2024/25, new fabs approved in 2026 likely won't be able to deliver meaningful capacity to the market until 2H27, especially considering both approval procedures and equipment delays. Price hikes from foundry is being passed through to product ASP, so expect the GPM could start to go up in 2H26.

We also visited companies in materials, WFE components, optical modules, switch fabless etc., more details can be found in company sessions.

See the Disclosure Appendix of this report for required disclosures, analyst certifications and other important information. Alternatively, visit our Global Research Disclosure Website.

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BERNSTEIN TICKER TABLE

			8 Sep 2026		TTM		Reported EPS			Reported P/E (x)		
Ticker	Rating	Cur	Closing Price	Price Target	Rel. Perf.	Cur	2025A	2026E	2027E	2025A	2026E	2027E
002371.CH (NAURA)	O	CNY	647.87	1,380.00	43.0%	CNY	5.66	10.11	19.92	114.4	64.1	32.5
688012.CH (AMEC)	O	CNY	336.01	660.00	103.5%	CNY	2.28	5.30	7.26	147.3	63.5	46.3
688072.CH (Piotech)	O	CNY	632.00	1,200.00	225.9%	CNY	3.32	10.18	16.61	190.4	62.1	38.0
6809.HK (Montage)	O	HKD	276.00	520.00	NA	CNY	1.97	3.24	5.59	119.9	72.9	42.2
688008.CH (Montage)	O	CNY	195.65	400.00	47.1%	CNY	1.97	3.24	5.59	99.3	60.4	35.0
688256.CH (Cambricon)	O	CNY	1,058.99	1,340.00	(1.8)%	CNY	3.28	7.50	14.52	323.3	141.3	73.0
688041.CH (Hygon)	O	CNY	236.90	450.00	0.2%	CNY	1.10	2.04	3.59	215.4	115.9	65.9
688981.CH (SMIC-A)	O	CNY	121.52	220.00	(26.0)%	USD	0.09	0.13	0.17	208.0	142.4	105.3
981.HK (SMIC-H)	O	HKD	65.35	120.00	(19.5)%	USD	0.09	0.13	0.17	95.8	65.6	48.5
688347.CH (Hua Hong-A)	O	CNY	224.80	370.00	189.0%	USD	0.03	0.14	0.20	N/M	N/M	N/M
1347.HK (Hua Hong-H)	O	HKD	111.00	220.00	103.8%	USD	0.03	0.14	0.20	N/M	692.8	463.7
6415.TT (Silergy)	O	TWD	410.00	650.00	5.7%	TWD	6.40	9.54	16.69	64.0	43.0	24.6
ASIAX			2,003.84									

O - Outperform, M - Market-Perform, U - Underperform, NR - Not Rated, CS - Coverage Suspended

Source: Bloomberg, Bernstein estimates and analysis.

INVESTMENT IMPLICATIONS

We rate NAURA, AMEC, Piotech, SMIC, Hua Hong, Montage, Cambricon, Hygon, Silergy Outperform.

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DETAILS

SEMICAP

NAURA (002371.CH)

NAURA is the biggest domestic semiconductor-equipment vendor in China by process coverage. The catalog includes etch, deposition, thermal process and cleaning tools used through most of the line; high-end track/clean is complemented by Kingsemi rather than fully in-house. An electronic-components business sits beside the tool franchise. 2026 order growth is being driven by semiconductor equipment, with non-semi held flat.

Demand & setup

- 1H26 order growth at 40–50%, driven by semiconductor equipment. Non-semi is flat.
- Memory and leading-edge logic are the order engines. The order is concentrating on the top few accounts.
- Leading-edge 1H ran ahead of plan. Full year on track to reach 60k order.
- Memory customers have compressed delivery lead time to a quarter. NAURA prioritize these large customers.
- Client from Hefei ordered more in 1H; client from Wuhan will catch up and become the largest client in 2H. The capacity expansion bottleneck for memory clients this year is cleanroom capacity, not demand.
- Mature logic is utilization-first this year. A larger step comes next year if utilization holds; new factory permits are tightening.
- Kingsemi's high-end cleaning equipment is complementary to NAURA's mid/low-end cleaning equipments. Kingsemi orders are ramping fast off a small base.
- Next year's order growth YoY is expected to be even faster than this year.

Financials & operations

- Blended GPM guided around 40%. Leading-edge is the high mix; memory is lower on bulk-buy ASP pressure; mature/SiC tools sit well below.
- Revenue recognition cycle (from order to revenue) is typically around12 months — a bit longer on leading-edge logic, a bit shorter on memory.
- Service is shifting toward install and debug rather than components resale. Fabs increasingly go to the components' maker for consumables.
- Kingsemi's 2Q consolidation was a net-profit drag. Adding it back, the group's GPM barely moved.

Watch items

- Global component supply (non-US, now JP/EU) is the binding constraint. The next one to two quarters will still be tight.
- Component shortage is accelerating localization, most local vendors have passed verification, but the vol is still small.
- Hard bits are vacuum valves, ESC, and NAURA's own MFC line, which is already full and still short.
- Next year's memory capacity expansion bottleneck may switch from cleanroom capacity to process/tool/facilities headcount.
- Overseas remains a dual-track market with little breakthrough. Foreign-invested China fabs are the realistic door, but the overall volume will be limited.

AMEC (688012.CH)

AMEC is China's leading equipment vendor mainly focus on etch but also expanding to deposition and other tools, CCP and ICP tools are the core franchise, sold mainly into domestic logic and memory fabs. The catalog now also includes Etch, deposition (PECVD, metal, EPI) and MOCVD. Etch remains the commercial core, deposition is the second product line being built out with fast growth.

Demand & setup

- Six new tools shown in CSEAC 2026 are already customer-qualified; some have volume orders. The set spans etch, PECVD, molybdenum metal and SiC MOCVD.

- NAND high-aspect-ratio etch is now at 90:1, third globally after Lam/TEL. Customer lines are not yet at that ratio; but the tool is ready.
- Deposition 1H26 revenue was more than doubled compared with that in 1H25. Coverage of relevant deposition steps is targeted at ~70–80% by year-end; internally, deposition is expected to reach scale similar to Etch over time.
- Advanced-packaging etch orders jumped sharply versus last year's revenue. MOCVD orders have beaten the internal plan, with optical communication EPI equipment in development.
- Backlog already exceeds scheduled output and will not migrate — some demands can only be satisfied by AMEC. Management sees demand growth will be stronger in 2H than 1H, and even stronger in 2027.
- 2027 is described as the first time the whole industrial chain expands together. The bottleneck narrative has been migrated from compute power to memory capacity, and will move into equipment in the next year.

Financials & operations

- 1H26 total R&D expense was ~30.5% of sales. Management had hoped to ease the ratio; but demand did not allow it.
- Headcount is still growing with sales per headcount held at a level they do not want to push higher.
- No list-price hikes unless supplier inflation exceeds GPM tolerance. Prepayment terms are unchanged; contracts are frameworks plus batch releases.

Watch items

- 2026 is a supply-chain transition year. Most of the components have already been localized; RF and vacuum are the hard remaining bits.
- Delivery on-time ratio has been kept at 100% so far. Overseas components vendors rank AMEC as their top prior client in China to secure supply.
- Plant space has great elasticity. Actual output still depends on components and employee.
- Overseas sales are still small. At one Korean-owned China fab, AMEC is the second-largest etch supplier behind LAM; deposition equipment is still in qualification stage.

PIOTECH (688072.CH)

Piotech supplies deposition equipment, with PECVD as the commercial platform and PEALD, SACVD and hybrid bonding as smaller adjacencies. Customer mix is memory-heavy, with logic mostly at mature nodes.

Demand & setup

- PECVD is still the volume product. PEALD and bonding-class tools remain relatively small.
- Memory contributes about two-thirds of orders, split evenly between the two largest memory names. Logic is mostly mature nodes; advanced packaging is expanding but is not comparable to memory.
- Order growth reasonably expected at least 50%. Order growth in 2H 2026 will be faster than that in 1H 2026, with great elasticity as well.
- Mature-node localization is a commercial story (price and lead-time), not a policy story. Single-account orders can surprise because already-approved fabs are swapping a whole kit.
- An overseas repeat PECVD order is already in. PEALD switching from a European incumbent has started this year on commercial terms.

- Advanced logic capacity is still growing, but it is a drag on reported results because of process mix.

Financials & operations

- Long-term GPM/NPM targets 45% / 25–30%. Near-term GPM "stable to up" as last year's heavy new-process mix fades.
- Customer-type GPMs do not diverge as much as mix tables imply. Leading-edge is diluted by new processes, memory by volume discounts, mature nodes by cheaper components.
- Service takes around 10% of sales and should grow with the installed base. One year's deliveries now equal the prior two years combined.
- R&D spend is normal. The R&D ratio fell because capitalization rose, not because the R&D program was cut.

Watch items

- Components are tight but not blocking shipment. Piotech started dual-sourcing early and aims to be a top-account at each vendor rather than chasing tier-1 brands only.
- The growth-curve limit is installing labor, not orders. Fabs still have to be staffed to bring tools up.
- Repeat orders, not first-tool press releases, are the share test. Next year's slope can be cross-checked against gas-station tenders.

ACM RESEARCH (688082.CH, NOT COVERED)

ACM Research mainly designs wafer cleaning and electrochemical-plating (ECP) equipment. The volume shipment of its high-end tools such as high-temperature SPM is the current focus. Plating, including advanced-packaging ECP, is the second growth product. Track, PECVD and furnace are in demonstration or early shipment and are not yet the main P&L contributors.

Demand & setup

- Their top-selling product is a wet cleaning equipment that combines tank and single-wafer cleaning, used in both logic and memory. TEL is copying the architecture. The tank does cost-down; the single-wafer spray hits specification.
- High-temp SPM is the upgrade ramping this year. Logic demand is larger than memory. Japanese SPM substitution is still slow.
- New orders +105%, of which clean is the larger share. Plating is the faster grower and drove most of the order acceleration in 1H 2026.
- Plating is a 0-to-1 swap, with more chambers than Lam and less competition. Some customers can only buy domestic.
- Memory localization is the 2026 breakthrough. Some mature logic adds order volume at the same wafer count because of localization requirement for SOEs.

Financials & operations

- Revenue in 1H 2026 has already increased by low-teens YoY. GPM guided 42–48%, volatility is caused by product mix changes.
- Lead-time is less than 12 months, delivery cycle is around 6 months.
- A new factory is due to release in November. Components inventories are held at healthy level; localizations for cleaning equipment components are already high.

Watch items

- Valves and MFCs are stretching, even as local vendors are being brought on.

- Track and PECVD are still in demo. Furnace has shipped only tens of tools.
- DRAM this year flipped from mostly US tools to domestic. Supercritical CO2 equipment is still in customer test.

LEADMICRO NANO (688147.CH, NOT COVERED)

Leadmicro Nano develops ALD- and PECVD-based deposition tools. The company crossed over from photovoltaic ALD into semiconductor deposition; semiconductor is now more than half of revenue and about 80% of new orders, concentrated in memory (NAND the bulk).

Demand & setup

- Semiconductor segment accounts more than half of 1H 2026 revenue and about 80% of new orders. Within new orders, memory (NAND the bulk) is the concentration.
- Logic was the first shipment historically, but this year's logic order is still small. They do not sell ALD to mature nodes fabs (mature nodes production does not need ALD equipment).
- New-order guide at the beginning of the year: RMB 2bn in 2025, RMB 4bn in 2026, and RMB 6bn in 2027. Now they are more positive than this but cannot give a number as major customer ask them not to do so.
- A few SKUs (TiN, high-temp mask ALD) already have high market share. Category coverage is broad; CVD is being filled out and PVD is starting to ship.
- Advanced packaging equipment is ready but secondary. 7/5nm equipments are in development and gated by the customer's line not being ready.

Financials & operations

- Reported GPM is still at low-20s because most tools are in their first-generation. GPMs for new orders are already ay high-30s; long-term GPM target is around 40%. The low GPM is mainly due to high COGS rather than low pricing, and the high COGS will come down once the equipment become repeating shipment.
- Logic and memory GPMs are similar; pricing model is cost-plus.
- Capacities/cleanrooms are rented, the company does not own shells. A cleanroom can be built up in a quarter; they have sufficient capacity to fullfill the demand and if needed can expand fast.
- Near-term earnings stay pressured while new categories are opened. R&D is still heavy.

Watch items

- People, not floor space, are the capacity expansion constraint. High-end process talent is being poached across the industry.
- Critical-parts localization is still very low. 2026 is being bridged with inventory; 2027 is the shortage year if growth continues.
- RF cannot be bought overseas. Valves are still limited; ESCs are qualified but used only as a last resort.
- New orders from photovoltaic business have shrunk to a few hundred million. Export controls block overseas photovoltaic orders, and a recovery from local demand is not visible.

BEIJING E-TOWN SEMICONDUCTOR (688729.CH, NOT COVERED)

Beijing E-Town Semiconductor is a front-end equipment company built on Mattson Technology, taken private in 2016. Dry strip holds roughly 35% global / 70% China share and RTP takes about 14% global share; etch and surface treatment are the expansion categories. More than 30% of sales are overseas, contracted through the Mattson legal entity — a larger export mix than most China-listed WFE names.

Demand & setup

- New orders increased over 50% YoY from Jan to May 2026. Strip and RTP still dominate the book; etch and surface treatment are the smaller, but rising legs.
- Dry strip is a global-share product, stronger in logic than in memory (where it is over qualified with higher cost). A double-throughput strip tool will go to a large domestic memory customer for verification next quarter.
- Overseas has already surpassed 30% of sales, with Korea, Taiwan and Europe all increased. SK Hynix Dalian expansion has restarted with a new etch collaboration.
- Surface treatment equipments already have repeat orders from two overseas clients, plus a new gate-ox application.
- High-selectivity etch and ICP etch have been displacing a domestic leader at some accounts. Stepped into memory sector last year, logic sector this year, and the volume will increase greatly next year.

Financials & operations

- 1H 2026 core GPM was 40.6%. GPM for flagship tools are in the 40s.
- Overseas GPM is still teens of points below GPM achieved in China. Strip/etch components supply chain sits in the US and RTP supply chain in Europe; for overseas markets, the company is now sourcing supply chain vendors in Southeast Asia rather than copying those in China.
- Beijing factory covers China customers. Factories in Silicon Valley and Germany are still built for non-China customers; Products shipped to Taiwan are US/Germany-built.

Watch items

- Entity-list risk sits on the parent company in China; the overseas legal entity is still Mattson. Customers have been willing to file licenses — risk is real, management calls it controllable.
- RF supply has eased; critical valves are the stretched item. In-hand orders are covered; overall supply chain will still be tight in 2H 2026.
- 2027 visibility is poor because E-Town can only see one process module, instead of whole manufacturing processes.

SEICHI TECH (688627.CH, NOT COVERED)

Seichi Tech manufactures automated test equipment. Display inspection was the original business; the growth franchise is now memory automated testing equipment (ATE) — wafer probe (CP), final test (FT), burn-in and probe cards — sold primarily into domestic leading memory vendors.

Demand & setup

- Semiconductor segment now accounts the majority of sales, and CXMT is the core account. January backlog was already at last year's full-year order scale.
- Full-year new-order goal is RMB 3.5bn, likely can be hit early; more than half of new orders will come from the core memory account.
- Display segment is steady. Meta-related XR inspection is the new growth point based on a small base.
- 9G FT ATE has been shipped to clients; the development of 18G FT ATE for DDR6 is on track and the core ch
also in-house developed; it cannot be purchased on the market. For HBM related equipments, the company
ATE; 2027 will be the important year of mass production.

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- NAND-platform is a DRAM-platform derivative. New-order from NAND is still small.
- Probe cards are being elevated from a consumable to a second growth engine. Seichi Tech is the only memory-test vendor that also provides the probe cards.

Financials & operations

- 1H 2026 revenue grew very fast, with blended GPM has already been above display's historical band as semiconductor segment mix rose.
- For mature products, it takes about 6 months from delivery to revenue recognition. HBM CP ATE and new FT ATE will stretch that.
- Probe cards revenue should be more than double this year.
- R&D investment will stay high as a share of sales; share-based payment will keep squeezing reported profit.
- Follow-on issuing is in the closing stage, the raised fund will help with increasing mass production capability (Shenzhen manufacturing base and Shanghai advanced R&D center).

Watch items

- Capacity is tight. Overseas still dominates the installed tester base.
- FT ATE share on the customer's incremental production lines is still low.
- Near-term China domestic competition risk is low. The competitors that matters are Advantest/Teradyne, not local peers.
- SoC (93000-class, focusing on compute chip testing) sample equipment will be delivered in Sep 2026, and is not included in the current order goal. Orders is expected to be received in about six months after the sample delivery.

MEMORY INTERFACE CHIP

MONTAGE (688008.CH/6809.HK)

Montage Technology designs memory-interface and interconnect chips. Registered clock drivers and data buffers on the DDR5/DDR6 DIMM path are the commercial core; PCIe retimers and CXL controllers are the adjacency. MRDIMM and CXL remain a future upside on top of the DIMM-attached base.

Demand & setup

- MRDIMM is still trial this year. Volume waits on next-gen Intel and AMD CPUs, which will start to have vol next year.
- Agentic inference has turned RDIMM from "steady" into a multi-year growth book. CPU:GPU talk has moved toward parity, and CPUs are already tight.
- Framework to 2030: CPU units × more channels × DDR6 dual-RCD transfer to 4–8x DIMM-attached silicon. That is the base; MRDIMM and CXL are options on top.
- This year is still the CPU-unit expansion story. Channel count expansion starts next year. 1H 2026 growth in the 20s can accelerate in 2H 2026 on that first dimension alone.
- CXL's first breakout use case is likely DDR4 reuse. In a tight DRAM supply environment, CXL enables next-generation CPU platforms to leverage existing DDR4 memory, extending asset life and reducing upgrade costs. This becomes particularly attractive during periods of memory shortages and price inflation. We expect DDR4 reuse to be the key driver of CXL adoption, supporting a meaningful volume ramp starting next year. Fast projects may enter grey test this year; not 2026 P&L.
- SOCAMM is not a simple substitute. PCIe retimer Gen6 is done; a PCIe switch will tape out in 2H26 as planned, limited revenue contribution this year.

Financials & operations

- 2Q 2026 stepped up after four quarters stuck in a lower band. Interconnect GPM eased on mix (older SKUs plus Jintide CPU), not a list-price cut.
- 2H 2026 GPM "stable to up" if higher-gen SKUs offset foundry cost that starts to hit in 2H 2026. Next year, annual price cuts could slow; a few SKUs could even hike.
- Die-to-revenue takes a few months. Downstream inventory feels thin.

Watch items

- Substrate is the 2027 bottleneck. Wafer and OSAT will also bind. Prepayments are up at long-standing suppliers, not take-or-pay.
- US and Korea antitrust inquiries: no allegation of wrongdoing; customers have not used it in talks. Disclose-and-cooperate posture.
- Jintide CPU is not strategy. A full interconnect platform is; Ethernet switch only after PCIe switch is real.

ANALOG

NOVOSENSE (688052.CH/02676.HK, NOT COVERED)

Novosense designs analog, isolation, sensor and MCU products. Isolation ICs are the franchise that opened automotive and server-PSU sockets; the rest of the catalog is a broad mixed-signal set rather than a compute chip. Foundry capacity is 8- and 12-inch, with SMIC a large share of China wafers.

Demand & setup

- Product lines include analog, sensors, and MCU. Isolation is the franchise that opened auto and server PSU. 1H 2026 was already a large step versus last year's full year.
- Auto mix fell even as auto revenue hit a record quarter, because the rest grew faster. Isolation is already high-penetration in auto; other SKUs are still mid-single-digit.
- Server-PSU exposure more than doubled YoY and is already a double-digit slice. Isolation is most of that wallet, on first and second stage.
- 48V→1V / tertiary does not have matured product.
- Storage inside pan-energy doubled; industrial is slower.
- Overseas is still small, with a later-decade hope of a larger share.

Financials & operations

- Isolation GPM was competed down by TI follow-pricing. Steady-state GPM seen in the 40s, not 50s — 50% would invite a domestic attack.
- 2Q–3Q 2026 still the trough. 4Q 2026 is not steady state either; late decade is the horizon. New AI-PSU demand prints a bit better.
- 8/12-inch foundry is under full utilization. Cash has been used to lock a baseline capacity path through late decade, excluding an AI blow-up.
- SMIC is the large share of China wafers. Inventory is elevated on purpose. R&D headcount is still rising; total headcount growth is capped.

Watch items

- Price hikes: March price letter barely landed. Auto is the hardest to hike. 2Q 2026 GPM is not the inflection.
- TI also changed pricing strategy later in the summer. Analog is still a buyer's market, but capacity is tighter because of AI crowding.
- Analog SKU breadth is so wide that tightness here is a cycle signal, not a one-name story.
- Orders are arriving faster than shipments, without 2020-style panic. Humanoid magnetics are still small.

POWER DISCRETE

CR MICRO (688396.CH, NOT COVERED)

CR Micro operates as a power-semiconductor IDM with a foundry service attached, covering design, mask, wafer and assembly. The product set is power devices, sensors and intelligent-control ICs, sold into auto, new energy and appliances. The manufacturing footprint is the strategic difference versus fabless peers.

Demand & setup

- Utilization has already been above nameplate via retrofit. 6- and 8-inch production capacities are full; retrofit adds little. Orders far exceed capacity.
- Next greenfield is expected at 2H27, after state/local approvals plus WFE move-in delays. A 50% step needs both central and local government sign-off.
- Shenzhen and Chongqing 12-inch capacities will add 50% each. Chongqing will be faster.
- CXMT orders has not been counted in current capacity. About half of expanded output is earmarked, with a self-imposed cap on single-customer dependence.
- Auto plus new energy are the large block. Appliances are increasing in product mix; localization is still very low.
- Auto growth is content. GaN products in data center are still in qualification. MCU lead-times are the longest.

Financials & operations

- 2Q 2026 GPM was well below last-cycle peak; this year aiming 29–30%. The process will be a directionally increase, not a one-step jump.
- There were two round of price increase in 1H 2026; more coverage will be possible around Sep–Oct for accounts the first rounds missed. SMEs are transmitting; BYD is tight.
- Full-capacity scheduling is itself a GPM tool — high-quality, high-GPM lots first.
- Two 12-inch lines are still off-balance-sheet pending consolidation. Distributor is the smaller channel; auto is direct sell.

Watch items

- Capacity, not demand, is the constraint. Sales have not seen channel stuffing.
- Tiny accounts that suddenly order large lots are sent back for end-customer files — lesson of 2021.
- Memory foundry is a small set of baked-off partners, mostly mature nodes.
- Panel-level advanced packaging production line is in Chongqing. CoWoS is not CR Micro's line.

NCE POWER (605111.CH, NOT COVERED)

NCE Power designs discrete power semiconductors on a fabless model, with MOSFETs as the volume franchise and IGBT, modules and a small SiC/GaN book as smaller lines. Foundry wafers have historically come from Hua Hong; second and third sources are now coming on. End-markets span industrial, automotive and, increasingly, storage and AI power-supply sockets.

Demand & setup

- SGT MOSFET is the most compatible and profitable SKU. Mid/low-voltage is the major book; SiC and GaN are smaller lines.

- Hua Hong is the historical foundry. High-end auto/AI/DJI stays there; mature SKUs can move. Second and third sources are now on.
- Full-year wafers are stepping up this year, with a path toward a million next year if Hua Hong holds and 2nd/3rd sources add.
- Segment mix: industrial the largest block; auto about one-fifth; storage jumped in 1H 2026 and will slow down in 2H 2026. MPS is the strategic AI-PSU account.
- MPS products: board VRMs (orders expected after a scheme interruption), e-fuse shipping, 800V samples. SST is later. Datacentre is still a small share, same as peers.

Financials & operations

- Three rounds of price increase have been conducted this year (2 rounds in 1H 2026, another round in Sep 2026). 1H 2026 average was well up versus pre-hike; some storage customers bid extra to pull.
- Hua Hong raised price first in the industry; NCE ate the first round last year (GPM drop) and is now passing through. 2Q 2026 was a record quarter but barely showed the hike — still reflecting 1Q 2026 orders.
- SGT MOSFET tightness will likely be held into 2H27. Backlog is a multiple of last year.
- Distributor is the larger channel, but NCE also tracks the goods ship to the end accounts.

Watch items

- Not a channel-stuffing cycle yet — end market demands are visible. MPS, then auto, get the wafers; the long tail accounts wait.
- International suppliers' shortages are pushing industrial/consumer onto Chinese SGT suppliers. Mid/low-voltage was under-invested while the industry chased HV/SiC.
- SiC and modules are still a small slice of sales. GaN is not the customer's base case at the GPU on yield/reliability.

STARPOWER (603290.CH, NOT COVERED)

StarPower designs and sells IGBT power modules, about 80% of sales, with SiC modules as the extension. Auto traction is the largest application; industrial drives and PV/storage fill out the book. Manufacturing is fab-light, with most wafers purchased (Hua Hong as the main source) and a rising in-house wafer and SiC capacity.

Demand & setup

- IGBT-module specialist; auto modules still growing this year despite a weak China auto print.
- 1H 2026: volume increased, price down double-digit, auto worse. July hike is not in the 1H 2026 print; no further price cuts into year-end.
- Demands from overseas auto offset a domestic auto decline. Industrial is the strong block; new energy is down on a high rush-install base.
- SiC vs IGBT price gap has collapsed. SiC is now calculable on cheaper EVs, so auto IGBT content per car is falling as SiC takes share.
- Kilowatts per car have stepped up sharply. 800V AI PSU / SST is a 2027–28 story, not 2026 revenue.

Financials & operations

- Peak GPM was around 40% in 2023, now the GPM is at low-20s, on a similar sales base. IGBT capacity is still ample; MOSFET is tighter.

- Fab-light: most wafers still come from Hua Hong, own wafers ramping. Own vs foundry GPM is similar. SiC 6-inch capacity is already full; next expansion is likely 8-inch.
- Malaysia is the overseas module site still being fixed. R&D will not be cut for a weak profit year.

Watch items

- Module pricing is sticky because the module is a large slice of the customer's inverter components. Hikes lag costs.
- Another price hike requires the market one notch tighter: volume is fine, profits are low enough that peers want to hike, but not yet desperate.
- Do not underwrite 2026 AI power supply unit revenue. GaN is still pre-industrial. White-goods IPM is a later story.

INNOSCIENCE (02577.HK, NOT COVERED)

Innoscience is a GaN-on-silicon power-device company running 8-inch IDM lines in Zhuhai and Suzhou, listed in Hong Kong Stock Exchange. Devices are used in consumer fast-charge, industrial power, and AI data center (still at low-single-digit sales mix currently). Cumulative shipments are about 2.5 billion devices; the 800V NVIDIA stack is in small volume, with the valuable last conversion stage tied to 2H 2027.

Demand & setup

- 8-inch GaN-on-Si: consumers share of sales has fallen to about one-third and is still growing even as the charger/phone end - market is flat.
- Industrial segment is the 1H 2026 surprise. More than half of industrial growth is CATL formation-and-grading tools — including old-line conversion after a fire, which became the NVIDIA reliability reference.
- AI data center is still less than 5% of sales. Auto is similarly small. About 90% of sales is still price-sensitive consumer and industrial products.
- NVIDIA 800V stack: early stages in small volume this year. The valuable last conversion stage is 2H 2027-tied to Rubin Ultra. Not a drop-in for SiC at SST voltages.
- Still cooperate with other CSP/ ASIC vendors to define the tech roadmap.
- Auto is a two-to-three-year bake. Robots are real but early (humanoid and quadruped joints).

Financials & operations

- 1H 2026 revenue RMB 840mn; FY guide RMB 2.0–2.5bn. End-Aug backlog already above the low end of that guide, so new orders queue.
- GPM last year high-single to ~10%; this year can be doubled. Mid-40s GPM needs very high utilization at a much larger wafer load.
- Depreciation is the fixed drag. Aim: operating profit break even this year, net profit break even next year. Guidance assumes no ASP hike.
- Mix, not list-price hikes, is the ASP growth driven. Most application R&D is already on auto/AI/robots, which are still a small slice of sales.

Watch items

- Zhuhai and Suzhou are already fully utilized. Near-term expansion relies on equipment move in, not new shells, for next two to three years.
- They will not add as fast if utilization cannot stay high. Move-in to full takes a few months.
- Patent litigation against Infineon was won. Products are not US/EU-restricted now.

MATERIALS & COMPONENTS

KONFOONG MATERIALS (300666.CH, NOT COVERED)

Konfoong Materials produces ultra-high-purity sputtering target used in PVD, and is building a second line in precision components that sit inside semiconductor tools. Sputtering targets shipments have ranked first globally since 2022, in a duopoly that holds about 80% of the market; TSMC and Fujitsu were day-one customers. Sputtering targets consume with wafer starts, not with tool shipments.

Demand & setup

- Sputtering targets shipments have ranked No. 1 globally since 2022, in a duopoly that holds most of the market. This is not a localization-only story — TSMC and Fujitsu were day-one customers.
- Sputtering targets consume together with wafer starts, not with tool shipments. As long as a fab is running the current interconnect stack, it buys target materials.
- Sputtering targets applied in advanced nodes shift from Al/Ti to Cu/Ta. Tantalum product has global pricing power after a peer exited; tungsten is the fastest-growing metal.
- Components segment is the second business growth engine. The company entered the segment due to customers' requirement. The build-out is metal-first, domestic semicap companies first, PVD-first, then CVD/etch.
- The company's ambition is to grow into a platform covering most of the components used in semiconductor equipments. Ceramic ESCs have been framed as a third business growth curve.

Financials & operations

- 1H 2026 revenue mix is still dominated by sputtering targets, rest are components. Both are picks-and-shovels, but components today ride on trends of new equipment application and China localization.
- GPM for sputtering targets benefits as product mix rolls to Cu/Ta. Components' GPM is still relatively low.
- Overseas sales are mostly target materials. Politics factors have slowed some US sales volume; tariff impact is not large.
- Domestic fab ramps are still gated by litho/equipment arrival. Logic for components segment growth is still local-for-local.

Watch items

- Components plants are built to follow equipment customers on dedicated lines. Customers do not want interchangeable parts across OEMs.
- Looking ahead, high-end SKUs will lift GPM for components segment. Cluster replacement at fabs has not started.
- Sputtering targets intensity per wafer is a read-through on fab ramps. Price hike is not the core factor driven future performance.

ANJI MICRO (688019.CH, NOT COVERED)

Anji Micro formulates semiconductor process chemicals, led by CMP slurries and extended into wet cleaners and, at very small scale, plating chemicals. Products are qualified at the process-of-record level, so customer cycles are long.

Demand & setup

- CMP slurry is the fundamental business segment. Wet cleaning chemicals and a still-tiny plating-chemicals line are the extensions.

- Coverage already includes polish, clean and some deposition, plus advanced-packaging / CoWoS / glass at polish and clean.
- HBM and 3D NAND raise polish/clean steps, chemicals usage will increase but not one-for-one with stack count.
- Moly-for-tungsten is a new material problem, not a lost wallet. Anji Micro does not bind to a pad brand and has not heard an official demand for a pad+slurry+cleaner kit from customers.
- Most of today's P&L still comes from mainland markets. Products sending to overseas and foreign-owned China fabs are still under sampling stage, and has not created revenue.

Financials & operations

- Blended GPM around 50% is the right anchor. Product mix, new lines and lower-GPM SKUs customers still need will keep the print noisy.
- The company does not recognize this quarter's number as a floor. More plants and different ramp dates are coming.
- Plating chemicals are still less than1% of sales. Cleaning is already comparable to CMP on GPM on some SKUs and has become the real second curve.
- Three-to-five-year goal for cleaning is to become the largest supplier in China, as CMP was, then a global-tier push.

Watch items

- Abrasive self-supply is a hedge, and is still a small share of volume. Long-run bulk accounts rarely add a second source.
- Korea-in-China is the nearer overseas door (greenfield plus China-for-China). Taiwan has more government overlay.
- Anji will not drop foreign abrasive partners for autarky's sake. Even products' formulations can be identified at 99%, competitors will still fail without on-site retune.

HUBEI DINGLONG (300054.CH, NOT COVERED)

Dinglong is a specialty-materials company that has repositioned from printing supplies into semiconductor consumables. It is the only domestic vendor offering CMP pad, slurry and cleaner as a kit, with pads already at about 70–80% share at China fabs. Photoresist (KrF, then ArF) is the incubation line; printing remains a cash cow business. Semiconductor material is about 70% of sales.

Demand & setup

- The only domestic company with pad, slurry and cleaner as a CMP kit. Pads already hold most of the share at domestic fabs; foreign-invested China fabs still contribute little.
- Hard pads are the bulk. Soft pads are still mostly Japanese, with Dinglong's product in qualification process.
- Slurry still trails Anji on the easy SKUs. Dinglong entered via difficult SKUs that Anji had not solved, and via captive abrasive.
- Photoresist is the open-glue window: ArF barely localized, KrF still low. Along with the Sino-Japan relationship changes, more and more customers are willing to verify domestic products.
- Print/cartridge was disposed. Lithium-battery auxiliaries came in via acquisition.

Financials & operations

- After cartridge disposal, 2Q 2026 GPM >60%, NPM ~30%. Semiconductor is about 70% of sales. Print is cash cow, not growth engine.

- R&D is heavy, both in absolute spend and as a ratio once cartridges are out. Hubei capacity is pre-built for fab ramps and overseas.
- Listing in Hong Kong Stock Exchange is underway. Slurry plus cleaner reached break even last year and is in profit this year.

Watch items

- Captive abrasive is the edge while Fuso Chemical's capacity remains tight. Pad+slurry+cleaner as a kit is the commercial argument when CMP fails.
- Foreign-invested China fabs started accepting local qualification from 2H 2025. Malaysia has some overseas customers through qualification, with small orders next.
- ArF/KrF conversion is a two-to-three-year window, not a 2026 P&L event.

KEMATEK (301611.CH, NOT COVERED)

Kematek manufactures ceramic components used in etch and deposition chambers — structural ceramics, ceramic heaters and electrostatic chucks. Semiconductor is a little over 80% of sales; equipment vendors take about 70% and fabs 30%. Applied Materials and Lam Research qualification is the scarce asset among China ceramic suppliers.

Demand & setup

- Process-chamber ceramics include structural parts, heaters and ESCs. Semiconductor segment is a little over 80% of sales. Panel surface-treatment segment is stable in volume but shrinking in mix.
- Equipment vendors take ~70% of sales, fabs ~30%. Applied Materials remains one of the top-five accounts even as NAURA and AMEC grow.
- One of the few China ceramic names qualified at Applied Materials and Lam Research. Geopolitical tensions make a second China ceramic qualification at those OEMs unlikely.
- Heaters mostly go onto imported tools. ESC revenue only started in a small base last year, mainly from AMEC; just passed qualification at NAURA.
- In 2H 2026, overseas supply trouble will pull both domestic etch vendors into larger pull-ins. Qualification is 0-to-1; mass production is still the hard part.

Financials & operations

- Orders in 1H 2026 are growing faster than revenue. Structural-ceramic lead-times have stretched from about 60 days toward 6 months.
- Customers have not broadly expedited shipment yet. Kematek wants to ship before they do.
- Heater/ESC can hold ~50% GPM at a large discount to imports. Structural ceramics have stable GPM; heater/ESC GPM is still climbing with yield and life.
- Heater deliveries are still well below theoretical capacity. ESC volume is tiny versus an etch vendors annual demands.

Watch items

- Sintering furnaces and skilled ceramic operators. Oxide kilns cannot be moved; AlN/SiC furnaces can.
- Qualification is months on structural parts and years on heaters/ESCs. Once in, chambers are not dual-sourced lightly.
- The plant financed by convertible-bond is the ESC capacity step, will not be finished this year. Alumina powder supplier is still European, with a newly-built Qingdao site of the same company to requalify.

HANBELL PRECISE MACHINERY (002158.CH, NOT COVERED)

Hanbell Precision Machinery designs compressors and vacuum pumps. Compressors for HVAC and data center cooling are the established business; dry pumps for PV and semiconductor vacuum are the adjacent product. Local pumps are entering cleaner fab processes first.

Demand & setup

- Three books: refrigeration compressors, air compressors, and vacuum pumps. Screw refrigeration is the domestic-share leader; air compressors have no pricing power.
- Semi dry-pump sales are still early innings versus a multi-billion domestic pump TAM. Local names together roughly match the clean-process share of fab vacuum spend.
- Clean processes will take local pumps. Harsh CVD and furnace are still dominated by Edwards/Ebara/Kashiyama; there has been no demos been sent to the harshest recipes so far.
- Demands from 8-inch lines are replacements, not greenfield build up. Hanbell has sent products to a large logic fabs for qualification this year, and have not received orders; 2026/27 ramps are the volume step.
- Data center compressor is a growing adjacency: screw compressor has mainly adopted by overseas markets, while mag-lev compressors are the major choice for domestic players.

Financials & operations

- 1H 2026 GPM reached mid-30s. Service is a small but steady share. Cumulative dividends have already exceeded the capital raised since listing.
- The similar screw rotor in nuclear/marine can carry very high GPM versus a low-teen print at a volume HVAC client.
- Hanbell is a Taiwaness company, and has established a US subsidiary focusing on semi-pump business in 2024.

Watch items

- Semi pump growth is 2026/27 fab ramps, not 2026. Molecular pumps are still almost entirely foreign.
- Foreign dry-pump lead-times have lengthened, but Hanbell has not yet felt a hard overseas shortage.
- New pumps must drop into existing water/gas/chemical envelopes. Photovoltaic mix inside vacuum is falling as PCB/semi/export rise.

OTHERS

CENTEC COMMUNICATIONS (688702.CH, NOT COVERED)

Centec Communications designs Ethernet switch ASICs. In traditional carrier and enterprise switching it already holds a large China share alongside Huawei. AI cluster scale-up and scale-out is a second, slower qualification cycle — 25.6T in the near book, 51.2T later. The company sells silicon, not systems.

Demand & setup

- Traditional China share already large in carrier and enterprise, with Huawei. That franchise does not automatically transfer to AI clusters.
- AI scale-up/out is a second qualification cycle with CSPs, GPU/TPU vendors and model builders. Domestic TPU teams had to be educated that the switch matters.
- 12.8T and 25.6T are shipping. Next several quarters of revenue are 25.6T. The bottleneck has been GPU-side interface integration, not switch bandwidth.
- 51.2T silicon around year-end or early next year; volume maybe late next year after a long CSP qual. At much higher bandwidth, scale-up and scale-out probably split.
- Thesis: connection consolidates to one open Ethernet, plus closed NVIDIA/Huawei. PCIe is a control bus, not a training fabric.
- IP-licensing of attach interfaces is already a P&L line, offered as an option in GPU designs rather than a private lock-in.

Financials & operations

- Revenue still ~RMB 1bn scale. Quarterly noise from one large chip's timing is not very informative at this size.
- R&D is in a two-year peak — two process paths, some custom, project dates slipping across quarter-ends.
- Heavy in-house manufacturing is not rational at today's sales.

Watch items

- Advanced-node access is the real gap vs US. They will not sit on 25.6T, but availability is the constraint.
- New local entrants are unlikely to land. CSP self-build of switches is architecture knowledge, not necessarily mass-production silicon.
- SOE major shareholder means follow-on capital raises run on a longer clock.

CREALIGHTS (01191.HK, NOT COVERED)

Crealights designs and manufactures optical interconnect modules for AI data centers, with an in-house silicon-photonics PDK. Telecom and legacy data center optics have been exited. The product path has moved from 400G/800G pluggables toward 1.6T and NPO/CPO; the company is not trying to win 800G share against Zhongji Innolight.

Demand & setup

- AI optical interconnect only. Telecom and legacy data center have been exited. One of two module vendors with its own silicon-photonics PDK; in-house SiPh in mass production last year.
- Product path: 400G → 800G → 1.6T → NPO/CPO. NPO/CPO is the point, not chasing Zhongji Innolight on 800G share — scale is the gap, hence the SiPh route.

- China CSPs are now core (Tencent the named exception). Overseas is still a small slice, and the products are not sold directly to CSPs.
- A confidential North America 1.6T order is in. NPO/CPO stack is what they bought.
- Optics is a mid-single-digit slice of an AI cluster's hardware and will rise as 1.6T replaces 800G. 2026 still supply-short; long-term price is down.
- No industry NPO/CPO volume orders yet. Fastest is next year. One China lead wants samples on the floor by year-end.

Financials & operations

- SiPh yield cited above 95% on millions of units. Nanjing module line is already under full utilization on the first floor; Nantong is the 2027 shell.
- Equipment orders already placed for year-end move-in. Wafer partners are SMIC in China and global foundries overseas.
- Overseas GPM is healthy; domestic GPM is lower, especially for those large-accounts.
- Listed last year. A follow-on raise is planned to fund Nantong factory.

Watch items

- Scale vs Zhongji Innolight is the gap — hence chose the SiPh/CPO route. DSP is the next bottleneck; a domestic sample has passed.
- Capex cadence has been "fear 4Q, scramble by CNY" four years running. 2023 under-build is why the IPO happened.
- NPO assists pluggables rather than replacing them, on serviceability. North America mix is the GPM lever.

HENGTONG OPTIC (600487.CH, NOT COVERED)

Hengtong Optics is a fiber and cable manufacturer. For this tour the relevant book is optical communication: preform, fiber, and finished jumpers/MPO sold into cloud operators, not only dark fiber to telcos. China operator mix is declining as North America data center and overseas contracts take share.

Demand & setup

- North America data center fiber is the large increment this year and next. China data center fiber is smaller but also doubling.
- Fiber accounts for 10–20% of a data center's capex. CSP cash swings do not kill the fiber bid.
- China operator mix is falling toward about 30% and still drifting down this year. Overseas is a mix of operators and jumper/device customers.
- They sell finished jumpers/MPO into CSPs, not just dark fiber. MPO is still a small share; fiber remains the profit pool.
- A Commscope A-fiber long-term sits well below current domestic spot — an inversion versus the US. Mix is shifting toward data center grades.

Financials & operations

- Optical GPM stepped up sharply from last year into 1H 2026, still carrying some cheap lots. 3Q 2026 needs those lots to roll off and the Mobile collection to land.
- Optical is now the large majority of profit. A to-be-divested book is shrinking in mix and stays in the consolidation after sale.
- Preform capacity is being added conservatively in Inner Mongolia. The 2017–18 scar still governs expansion.

- Overseas plants are mostly domestic preform, drawn locally. A US fiber plant would hit China-side element constraints.

Watch items

- Domestic operator tender slipped from March to August with multiple fails. Volumes are stable, not exploding. 5G-A/6G will not spike fiber.
- Hollow-core is demo-scale. Data center still buys cheaper ultra-low-loss, not hollow-core.
- Next expansion waits on orders: operator collection plus North America CSP progress. Japan looks aggressive but is raw-material bound.