

Innostar Service

The next shining star driven by innovation; initiate at OW

We initiate coverage of Innostar Service at OW with a Dec-27 PT of NT\$4,000, based on 25x 2028E P/E. Innostar is the leading MEMS probe card automation equipment supplier globally, with dominance in the needle assembly market. Given the strategic partnership/ investment by Technoprobe (TP, TPRO IM, Not Covered), one of the top-two probe card vendors worldwide, Innostar's probe card business outlook and exposure has been lifted to the next level, gathering steam to accelerate growth in 2026-28, with a multi-times increase of higher-spec needle assembly machine orders and TAM expansion to material kits and OEM services of needle assembly/repair. Innostar Service's penetration and smooth progress into the glass core substrate (GCS) market with its TGV (Through Glass Via) copper pillar mass transfer technology/product applied in advanced packaging should also become a new driver for the company from late 2027, followed by mass production schedule of US tier-1 networking customer's next-gen switch ASIC. We model an EPS CAGR of 200% in 2025-28, significantly above market expectations, as we believe the Street has underestimated the continued upward revision of probe card equipment orders from TP and the decent content of its TGV copper pillar in glass core substrate. With an undemanding valuation, these catalysts should continue to drive share price outperformance. Key risks include: TP's share loss, slower chip probing spec upgrade, and delay in GCS adoption.

- **Strong probe card equipment orders, driven by TP's accelerated capacity expansion for rising ASIC and advanced node demand.** We model the company's probe card equipment revenue to grow 2x/3x YoY in 2026/27 and another 2x YoY in 2028, backed by continued upward revisions of higher-end needle assembly machine shipment orders for TP's accelerated probe card capacity expansion, along with the material ASP growth from equipment spec upgrades (from single-arm to a dual-arm solution). We believe the stronger demand will be driven by TP's rising high-end probe card orders for new CSP ASIC and advanced node demand from foundry customers.
- **New copper pillar mass transfer business for glass core substrate TGV to drive the next wave of multi-times growth.** Innostar is engaging with a US tier-1 networking chip vendor to enable glass core substrate adoption in its next-gen switch ASIC, expected from late 2027/28, as it could become the sole supplier of the copper pillars applied for the TGV metallization of glass core substrates. With the high content and solid volume of the switch ASIC, we model the new copper pillar business to contribute 8%/20% of revenue in 2027/28, while there could be upside from another US GPU vendor that is also working with Innostar for its future networking chip.
- **Undemanding valuation.** Our Dec-27 PT of NT\$4,000 is based on 25x 2028E P/E, largely in line with probe card and glass core/TGV peers' 2028E-based valuation of 20-30x. With its leadership in probe card needle assembly and future TAM expansion to TGV, we believe Innostar Service could deliver accelerated earnings growth in 2026-28, which should support its valuation.

Sources for: Style Exposure – J.P. Morgan Global Markets Strategy; all other tables are company data and J.P. Morgan estimates.

Initiation Overweight

7828.TWO, 7828.TT

Price (22 Jun 26): NT\$2,040.00

Price Target (Dec-27): NT\$4,000.00

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Quarterly Forecasts (FYE Dec)

Adj. EPS (NT\$)	2025A	2026E	2027E
Q1	0.46	1.02A	2.33
Q2	(0.45)	3.39	6.69
Q3	1.37	3.72	20.36
Q4	4.92	6.33	34.59
FY	6.32	14.46	63.97

See page 27 for analyst certification and important disclosures, including non-US analyst disclosures.

Price Performance



	YTD	1m	3m	12m
Abs	278.5%	75.1%	44.7%	529.6%
Rel	213.7%	62.2%	2.4%	409.9%

Company Data

Shares O/S (mn)	37
52-week range (NT\$)	2,155.00-300.00
Market cap (\$ mn)	2,369
Exchange rate	31.58
Free float (%)	48.8%
3M ADV (mn)	0.50
3M ADV (\$ mn)	22.3
Volatility (90 Day)	104
Index	TAIEX
BBG ANR (Buy Hold Sell)	2 0 0

Key Metrics (FYE Dec)

NT\$ in millions	FY25A	FY26E	FY27E	FY28E
Financial Estimates				
Revenue	716	1,620	5,604	12,849
Adj. EBIT	278	683	3,133	7,903
Adj. EBITDA	319	758	3,397	8,381
Adj. net income	228	531	2,347	5,955
Adj. EPS	6.32	14.46	63.97	162.32
BBG EPS	-	18.08	43.18	100.76
Cashflow from operations	(86)	235	3,289	6,550
FCFF	(400)	(670)	2,216	5,151
Margins and Growth				
Revenue Growth Y/Y (%)	76.4%	126.2%	245.9%	129.3%
EBIT margin	38.9%	42.1%	55.9%	61.5%
EBIT Growth Y/Y (%)	84.9%	145.4%	358.8%	152.2%
EBITDA margin	44.6%	46.8%	60.6%	65.2%
EBITDA Growth Y/Y (%)	69.8%	137.2%	348.3%	146.7%
Net margin	31.8%	32.7%	41.9%	46.3%
Adj. EPS growth	19.8%	128.8%	342.4%	153.7%
Ratios				
Adj. tax rate	17.8%	23.6%	25.0%	25.0%
Interest cover	NM	NM	795.9	NM
Net debt/Equity	NM	0.3	NM	NM
Net debt/EBITDA	NM	0.6	NM	NM
ROE	25.0%	41.4%	100.8%	111.9%
Valuation				
FCFF yield	(0.5%)	(0.9%)	3.0%	6.9%
Dividend yield	0.1%	0.2%	0.6%	2.5%
EV/Revenue	101.7	45.6	12.9	5.3
EV/EBITDA	228.0	97.4	21.2	8.2
Adj. P/E	322.7	141.1	31.9	12.6

Summary Investment Thesis and Valuation

Investment Thesis

We rate Innostar Service OW, as we anticipate further stock outperformance to be driven by the next wave of earnings upgrade cycle in the next 2-3 years, with three solid growth drivers ahead: 1) probe card needle assembly machine order shipment to increase multiple times in 2026-28, thanks to the largest customer's surging demand, 2) TAM expansion by providing probe card material kits (mainly pins/needles) and needle assembly/repair OEM services, and 3) new TGV (Through Glass Via) copper pillar mass transfer business for the advanced packaging process of future-gen networking and AI chips (applying in CoWoS substrate for an ongoing networking project).

Valuation

Our Dec-27 PT of NT\$4000 is based on 25x 2028E P/E, below its historical 12M fwd P/E of ~38x since IPO in May 2025, but largely in line with probe card and glass core/TGV peers' 2028E-based valuation of 20-30x.

Investment summary

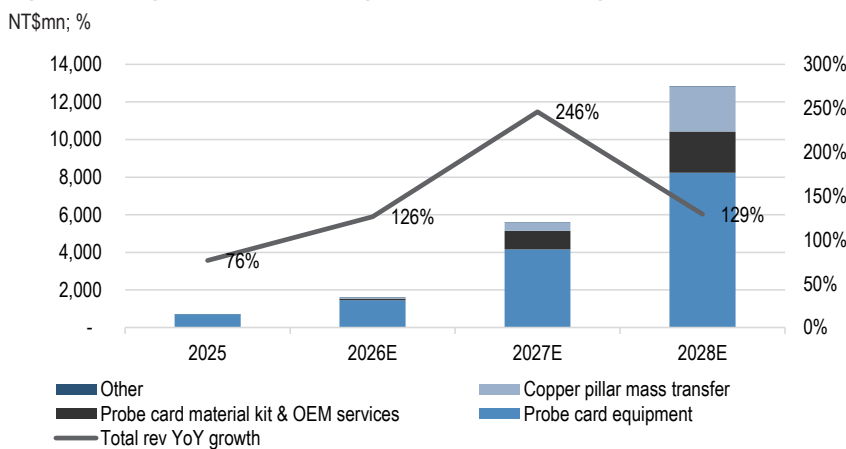
We initiate coverage of Innostar Service with an OW rating, and a Dec-27 PT of NT \$4000 (based on 25x 2028E P/E). The company undertook its IPO in May 2025; its share price has surged by ~500% in the past 12 months (vs the rise in Taiwan probe card vendors, MPI [NC] ~650% and WinWay [NC] ~700%, and the TAIEX ~110%), following remarkably strong demand in high-end (high pin count) probe cards and related equipment for AI chip testing. We expect further stock outperformance by Innostar Service to be driven by the next wave of the earnings upgrade cycle in the next 2-3 years, with three solid growth drivers ahead: 1) **probe card needle assembly machine** order shipments to increase multiple times in 2026-28, thanks to its largest customer's surging demand, 2) TAM expansion, by providing **probe card material kits (mainly pins/needles) and needle assembly/repair OEM services**, and 3) **new TGV (Through Glass Via) copper pillar mass transfer business** for the advanced packaging process of future-gen networking and AI chips, which are applied in CoWoS substrate for an ongoing networking project, not interposer.

Figure 1: Innostar Service's 3 solid growth drivers

#	INNOS'MEMS Probe Card Solutions	Customers	2026			
			Q1	Q2	Q3	Q4
Automated Probe Card Equipment	1. Dual-arm Probe Assembly machine	TP Group				
	2. Probe Card Repair Lineups: Probe replacement, probe reshaping, probe card inspection, laser cleaning, and sorting & alignment machines.	TP Group				
	3. Probe Card Automation Processing Equipment: Laser drilling, automated alignment & lamination, reshaping, electrical testing, and pin adjustment machines.	TP Group				
Material Kits & Contract Service	1. Probe Card Contract Service: pin insertion/reshaping/repair	TP Alliance				
	2. Probe Card Material Kits	TP Alliance				
Cu Pillar Products	1. Cu Pillar Modules: AiP, power modules	Wearable device manufacturer Array Antenna Module Manufacturers Power supply PMMIC Module Manufacturer				
	2. TVG-ICP (Cu pillar inserted) core layer substrates	AI networking chip vendors				

Source: Company presentation.

Figure 2: Strong 2026-2028E revenue growth from both existing and new businesses



Source: Company data, J.P. Morgan estimates.

2026 revenue expected to grow sequentially, with exponential EPS growth of 130% YoY and another 340% YoY in 2026E and 2027E, driven by probe card equipment

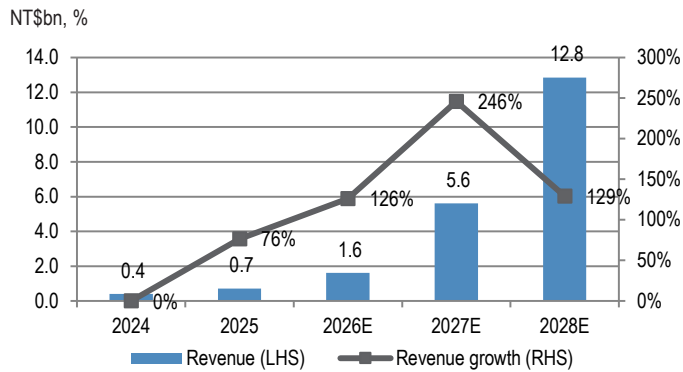
Innostar Service is currently a micro-electro-mechanical systems (MEMS) probe card needle assembly machine provider; its largest customer is Technoprobe (TPRO.MI), the second-largest probe card vendor worldwide (mainly competing with Form Factor as the leading player and MPI as the third-largest player in the probe card market). Driven by Technoprobe's multiple new AI probe card order wins (e.g., CSP ASIC) with its aggressive capacity expansion plans, followed by rising demand in MEMS probe cards with the spec upgrade in needle assembly machines, we model Innostar Service's probe card equipment revenue to grow ~100%/~200% YoY in 2026/27, with dual-arm needle assembly machine (spec upgraded version, with 2x content growth vs single-arm) shipments increasing to 40/150 units (even 300 units in 2028), based on our conservative estimates.

Further strong EPS growth in 2028 of 150% YoY (and likely more in 2029) with a meaningful contribution from TGV copper pillar business in advanced packaging

Post strong earnings growth of 2x and 4.5x YoY in 2026E and 2027E, we forecast Innostar Service to deliver a further 2.5x YoY EPS growth in 2028, driven by its new business contribution from the TGV copper pillar in advanced packaging (e.g. CoWoS). Based on our industry checks, the company is now working with a leading US fabless company for glass core substrate adoption in its next-gen switch ASIC solution, which is expected to enter mass production in late 2027-2028. Innostar Service will function as the sole supplier of the copper pillars in the TGV metallization process for the glass core substrate, if adopted. With the high content value (US\$200-300/glass core substrate) and the dominant supply position for this project, we model Innostar Service's TGV copper pillar mass transfer business revenue to grow from NT\$400mn in 2027 to NT\$2.4bn in 2028, reaching ~20% revenue contribution with a solid GM at 70+%.

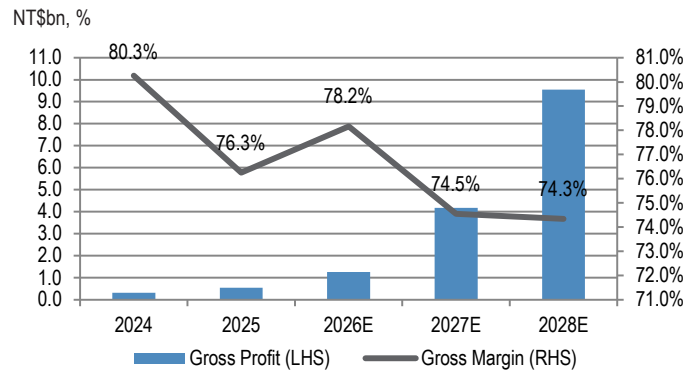
With the more aggressive TGV copper pillar capacity expansion plan by another 3x in 2028-29 (to 120k/month, merely for one customer's demand forecasts), we think it is worth monitoring whether another potential customer will kick-in in 2029. If this were to happen, 2029 would be another meaningful growth year for Innostar Service as we also see a US tier-1 GPU brand is working with Innostar Service for some samples. This could be a source of potential upside to Innostar Service's 2029 earnings and onward.

Figure 3: Innostar Service's revenue and revenue YoY growth



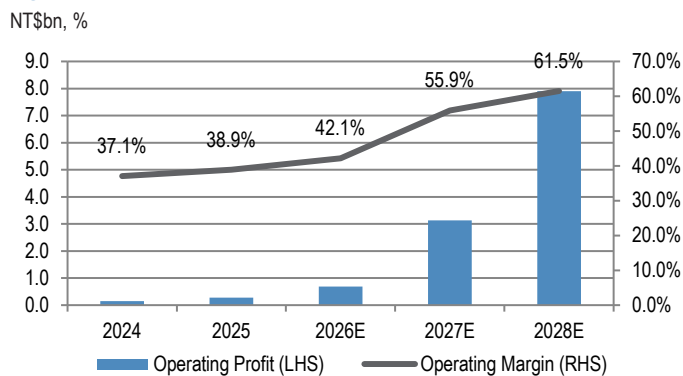
Source: Company data, J.P. Morgan estimates.

Figure 4: Innostar Service's GP and GPM



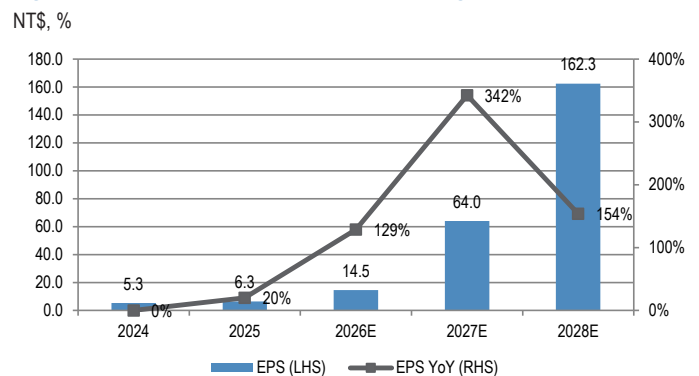
Source: Company data, J.P. Morgan estimates.

Figure 5: Innostar Service's OP and OPM



Source: Company data, J.P. Morgan estimates.

Figure 6: Innostar Service's EPS and EPS YoY growth



Source: Company data, J.P. Morgan estimates.

Key downside risks to our earnings estimates include a slowdown in chip probing density/spec upgrades, market share shift of Technoprobe in the MEMS probe card market given high customer concentration (~50% revenue concentration in 2025), and any delayed adoption of glass core substrate in advanced packaging (due to any potential manufacturing issues during qualification).

Valuation

Our Dec-27 PT of NT\$4,000 is based on 25x 2028E P/E, below its one-year trading average of ~38x 12-month forward P/E, but largely in line with its peers' valuation on a 2028 basis, based on Bloomberg consensus estimates. We believe our target multiple for Innostar Service is undemanding, given our estimated earnings CAGR of ~200% in 2025-28, backed by the company's stronger probe card business growth with TAM expansion and new contribution from the glass core substrate TGV business for CoWoS applications.

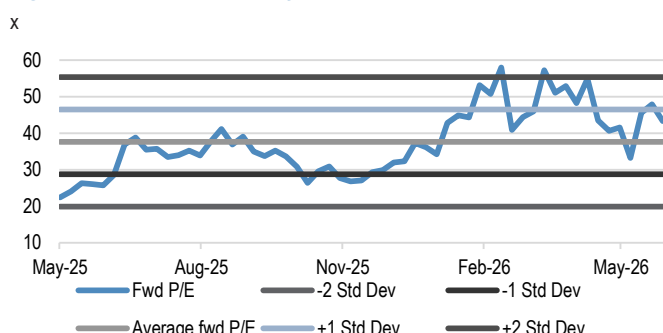
Historical trading multiples

Table 1: Innostar Service's trading multiples since IPO in May 2025

x	12M trailing P/E	12M fwd P/E	12M trailing P/B	12M fwd P/B
Standard deviation	40.8	8.9	11.6	7.0
Max	175.9	58.0	47.0	30.0
Minimum	36.3	22.4	8.8	6.0
Median	72.3	35.7	15.5	12.1
Average	92.5	37.6	21.6	15.7

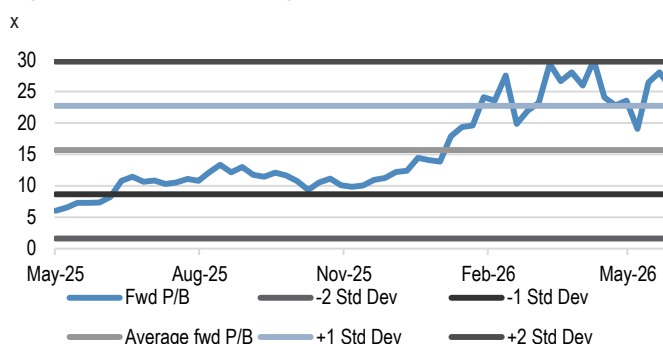
Source: Bloomberg Finance L.P., J.P. Morgan estimates.

Figure 7: Innostar Service's 1yr forward P/E vs mean



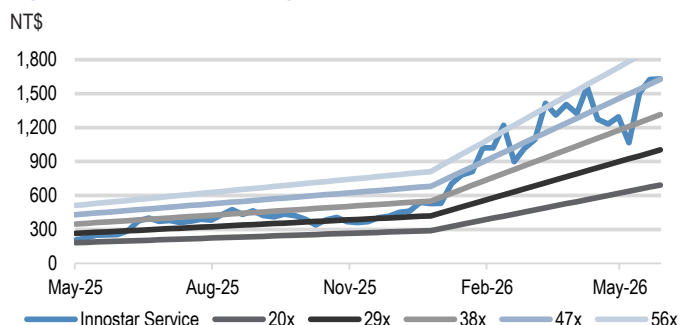
Source: Bloomberg Finance L.P., J.P. Morgan estimates.

Figure 9: Innostar Service's 1yr forward P/B vs mean



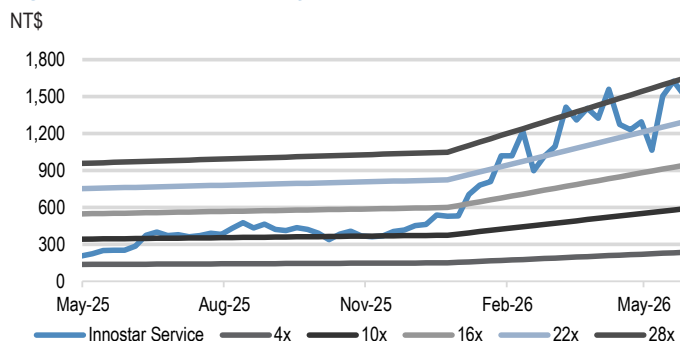
Source: Bloomberg Finance L.P., J.P. Morgan estimates.

Figure 8: Innostar Service's 1yr forward P/E



Source: Bloomberg Finance L.P., J.P. Morgan estimates.

Figure 10: Innostar Service's 1yr forward P/B



Source: Bloomberg Finance L.P., J.P. Morgan estimates.

Peer valuations

Innostar Service's stock has traded at 25-55x 12-month forward P/E since its IPO in May 2025 with the average at ~38x, slightly below its probe card (and TGV) peers' valuation of >40x 12M fwd P/E, as the company is regarded as an equipment name that generally trades lower vs semi material/component names, while it is still not well covered by the Street given its new presence in the market (IPO in May 2025 and OTC-listed in April 2026).

We have assigned a 25x 2028E P/E target multiple, which is within the range of peers' valuation at 20-30x on a 2028E basis. We believe Innostar Service's stronger-than-peers earnings growth of ~130%/350%/150% YoY in 2026E/27E/28E (vs peers' average of 115%/85%/60% YoY, per Bloomberg consensus, see table below) should support its valuation, and may even deserve a premium or re-rating potentially in the future when this name is more known to the Street.

Table 2: Innostar Service's peer valuations

Company	Ticker	Price (LC)	Mkt Cap (\$Mn)	P/E (x)			P/BV (x)			EPS growth (%)			ROE (%)			Price 12M
				FY26E	FY27E	FY28E	FY26E	FY27E	FY28E	FY26E	FY27E	FY28E	FY26E	FY27E	FY28E	
Innostar Service	7828 TT	2,000	2,323	138.3	31.3	12.3	53.6	22.3	10.0	128.8	342.4	153.7	41.4	100.8	111.9	517%
Technoprobe	TPRO IM	38	28,281	89.1	57.4	44.6	15.9	12.7	10.0	178.3	55.1	28.6	19.2	22.5	23.1	433%
FormFactor	FORM US	150	11,658	60.7	46.9	51.7	N/A	N/A	N/A	89.5	29.5	-9.4	15.4	18.7	N/A	359%
MPI	6223 TT	6,415	19,900	99.2	51.0	27.7	32.4	19.5	13.0	92.1	94.6	83.9	38.6	49.7	56.9	640%
Winway	6515 TT	9,450	10,782	101.1	51.9	30.0	41.4	24.3	15.8	103.8	94.7	73.0	43.8	53.1	62.8	704%
CHPT	6510 TT	3,610	3,748	51.1	29.1	20.6	10.8	8.2	N/A	125.4	75.9	41.4	21.9	31.8	56.0	328%
Median of chip probing (probe card) and final testing (SLT) vendors				94.2	48.9	28.9	32.4	19.5	11.5	114.6	85.3	57.2	30.2	40.8	56.9	475%
Ingentec	4768 TT	382	574	1475.0	37.6	23.7	11.1	3.3	1.9	-33.3	3825.0	58.7	2.8	45.3	8.1	301%
LPKF Laser & Electronics	LPK GY	26	730	N/A	92.2	34.7	14.8	10.9	8.0	56.8	225.5	165.6	-8.2	10.3	24.0	214%
AGC (Asahi)	5201 JP	7,564	10,188	19.3	16.2	13.9	1.1	1.0	1.0	21.7	19.3	16.3	5.7	6.6	7.2	77%
Corning	GLW US	195	167,439	61.1	46.8	34.1	12.9	11.9	9.8	26.5	30.6	37.4	21.2	25.5	30.5	287%
Median global glass core substrate/TGV supply chain names				61.1	42.2	28.9	12.0	7.1	4.9	24.1	128.0	48.1	4.2	17.9	16.0	250%

Source: Bloomberg Finance L.P., J.P. Morgan estimates (for Innostar Service). Priced as of 18 June 2026.

Driver 1: Copper Pillar Mass Transfer in TGV – key to Glass Core Substrate from 2H27

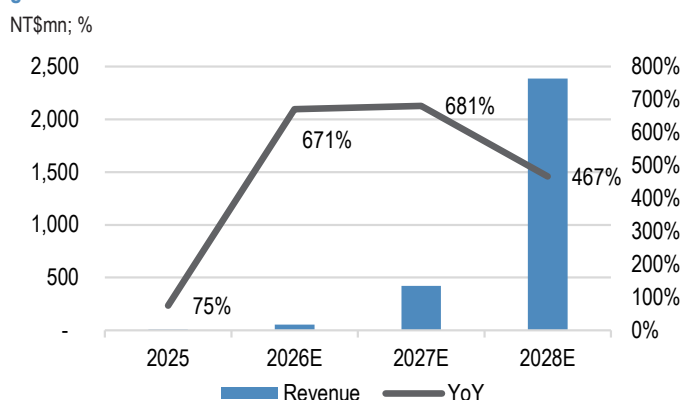
Glass core substrate adoption in advanced packaging could be faster than expected, Innostar Service the main beneficiary

We are more constructive on the glass core substrate adoption timeline, compared to the Street, as we believe a leading US networking fabless company is aggressively working with the TGV (Through-Glass Via) supply chain to develop and test the glass core substrate product for its future switch ASIC solution. Based on the current smooth qualification process within the supply chain (with substrate vendors qualifying/doing RDL on the TGV-completed glass core substrate now), we think the first official glass core substrate adoption could take place in 2H27, with next-gen switch ASIC entering mass production.

We believe Innostar Service could become one of the major beneficiaries of the switch ASIC's potential glass core substrate adoption, as the company will function as the key enabler of the TGV metallization process by applying its copper pillar mass transfer technology (into the vias). Given the high content value of TGV copper pillar (JPMe US \$200-300 of content per glass core substrate/per chip) along with Innostar Service's dominant supply position, we forecast the company to see meaningful revenue contribution from this new TGV copper pillar mass transfer business from 2H27 and materially ramp in 2028 with 4x of new capacity expected to kick in, followed by the chip's mass production schedule.

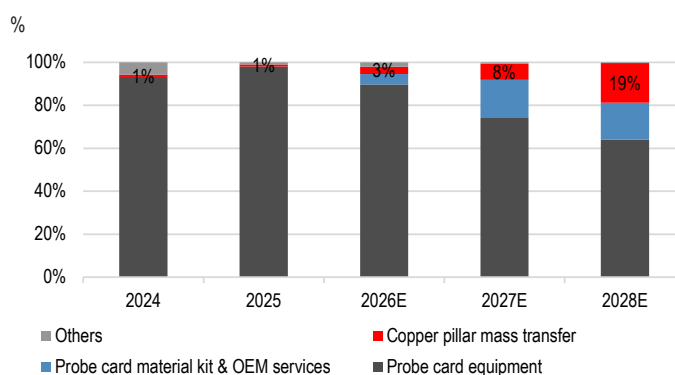
We model TGV copper pillar business to contribute ~NT\$400mn of revenue in 2027 and increase 6x to ~NT\$2.4bn in 2028, accounting for 8% and ~20% of revenue, driving Innostar Service's corporate revenue to grow by ~250% YoY in 2027 and another ~130% YoY in 2028. Of note, our revenue forecasts merely factor in 1 switch IC project from its first TGV customer.

Figure 11: Copper pillar mass transfer business revenue and YoY growth



Source: Company data, J.P. Morgan estimates.

Figure 12: Copper pillar revenue contribution to increase to 20% in 2028E



Source: J.P. Morgan estimates.

In addition, we believe some US GPU vendors also have some TGV projects working with Innostar Service, mainly for its networking/switch chips as well. If the first glass core substrate project for the switch ASIC can successfully go into mass production in 2H27 and 2028, we think the US tier-1 GPU company could likely become the 2nd TGV copper pillar customer from 2029 or 2030, starting from its future-gen networking chip adoption of glass core substrates. We have not factored the potential second customer in Innostar Service's model, but we believe the company has already started looking for new manufacturing sites for the 4th TGV copper pillar capacity expansion plan, in order to prepare for these potential opportunities with very strong expected demand in the next 3-5 years.

Why adopt Glass Core Substrate? To fundamentally address warpage and data transmission loss issues for larger-sized chips

Potential bottleneck to future advanced packaging: more severe warpage issues from CTE mismatch of materials

As the packaging size continues to get larger, the chip is more likely to undergo warpage and deformation issues under high temperature during the advanced packaging process (e.g., CoWoS). The core issue lies in the massive mismatch in the Coefficient of Thermal Expansion (CTE) between the materials of silicon interposer and organic substrates.

When a large-sized packaged chip is heated, the expansion of the bottom organic substrate will be much greater than that of the silicon interposer, so this intense stress mismatch could cause severe chip warpage (increasingly significant as the packaged size gets larger). This could be a fundamental physical limitation that currently prevents a yield breakthrough in large-sized advanced packaging.

Current solution: Glass fiber cloth as the mainstream, but still with a physical ceiling in the long term

To suppress warpage, the industry has started to adopt glass fiber cloth into the core layer of the substrate to enhance its mechanical strength. However, glass fiber cloth essentially serves only as a reinforcing skeleton for the organic resin. As long as resin material exists, the entire substrate will still expand when heated. Consequently, although the adoption of high-end glass fiber cloth in organic substrates could contribute to a reduction in CTE, the stress gap between them and the silicon interposer will still become harder to mitigate as the packaging size continues to get larger.

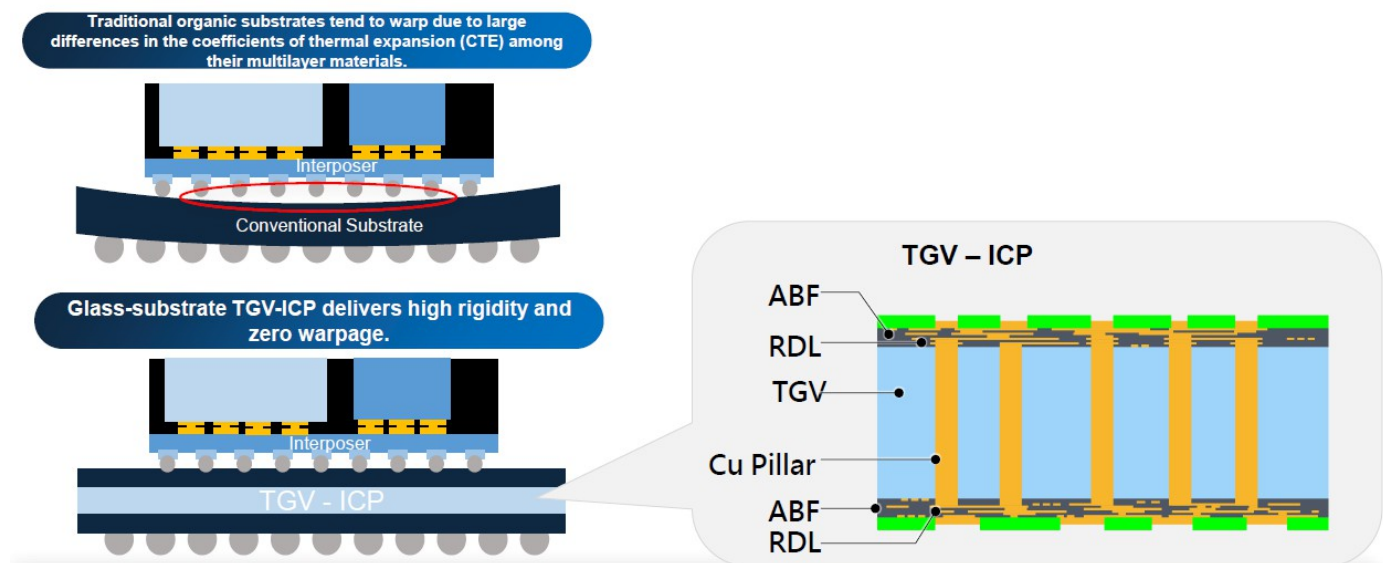
We believe glass fiber cloth could remain the mainstream solution for the strengthening of organic substrates for the next few years. However, from a longer-term perspective, there should still be a physical ceiling for its effectiveness to suppress warpage if chip packaging size is enlarged to some extent. Hence, we expect the industry should gradually trend to the adoption of glass core substrates, in order to “fundamentally” deal with the warpage issues for the breakthrough to the next stage of large-sized advanced packaging.

Glass core substrate the next big thing - the long-term solution to fundamentally deal with warpage and enables higher I/O density meanwhile

Glass core substrates could potentially become the long-term solution for advanced packaging, by offering superior mechanical, electrical, and optical properties. This could “fundamentally” deal with the warpage issues derived from CTE mismatch, which would be increasingly indispensable when chip/substrate sizes get larger more rapidly with higher TDP (Thermal Design Power).

Mechanically, its **Coefficient of Thermal Expansion (CTE)** closely matches silicon, which minimizes thermal stress and eliminates the catastrophic warpage seen in organic substrates. This exceptional flatness enables ultra-fine line spacing and a **significantly higher copper pillar density**, allowing for a massive increase in I/O routing. Electrically, the **low dielectric constant (Dk)** and **ultra-low loss tangent (Df)** of glass drastically reduce signal attenuation and propagation delay at high frequencies. Furthermore, its rigid structure allows for high-density Through-Glass Vias (TGVs) to optimize power delivery, while its optical transparency could be an optimal solution that enables seamless integration for co-packaged optics (CPO) in the future. Consequently, glass bridges the gap between mechanical reliability and high-speed performance for next-generation AI and networking chips.

Figure 13: TGV glass core substrate vs current organic substrate in CoWoS structure



Source: Company presentation.

Copper Pillar Mass Transfer vs Copper Plating for TGV: the key process to enable signaling in glass core substrate

After securing glass from the glass vendors, it will need to go through the TGV (Through Glass Via) manufacturing process to enable the glass (dielectric) with power/ electricity and signal/data transmission capabilities.

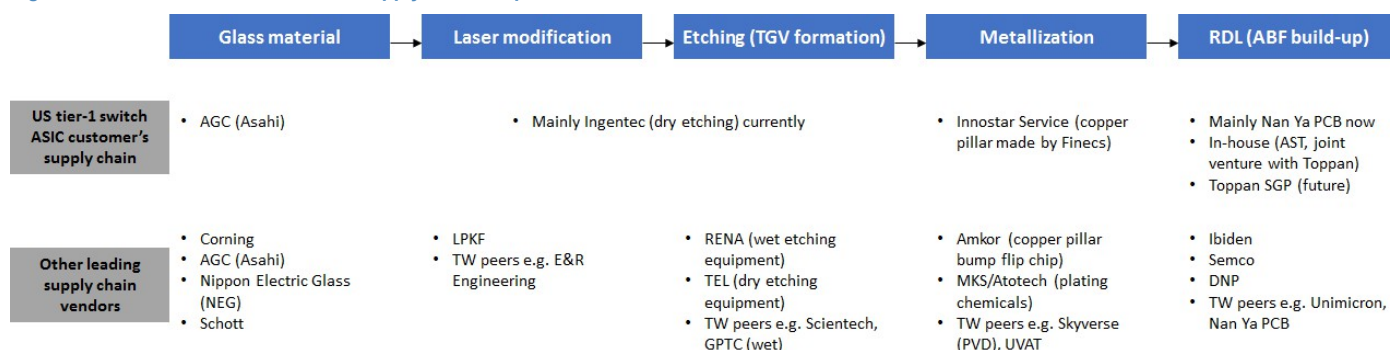
TGV manufacturing process

Through-glass vias (TGVs) are the vertical pathways/connections for power and data/ signal transmission in glass (or glass core substrate here). To make TGVs, the process includes adopting laser technology to first chemically alter the molecular structure inside the glass (to create a laser-modified zone), and using etching to hollow out the materials of the laser-modified zones to form the “vias” through the glass, then followed by the **metallization step - either by coating the via sidewalls with copper and then electroplating the remaining space or by directly filling the vias with copper pillars.**

After all the above process, which are simplified with the few steps below, the TGVs become functional conductive pathways with metal (copper) through glass, and can be sent to substrate vendors for RDL (to do RDL and build up ABF layers on the top and bottom of the glass core substrate with TGVs).

1. **Laser modification:** Uses ultra-fast lasers to induce physical-chemical changes inside the glass, defining the via positions
2. **Etching:** Uses selective chemical etching solution (wet or dry) to remove the modified regions, forming high-aspect-ratio vias.
3. **Metallization:** Fills the vias with copper pillars or creates a seed layer deposition, establishing vertical electrical connections.
4. **RDL:** Integrates ABF build-up films and subsequent routing processes, completing substrate fabrication.

Figure 14: Glass core substrate TGV supply chain map



Source: Company data, J.P. Morgan.

Copper pillar mass transfer an enhanced method for TGV metallization vs the current mainstream copper plating, accelerating glass core substrate MP timing

Currently, the mainstream metallization process in glass core substrate TGV is by copper (electro)plating (as it is already a mainstream metallization technology adopted in TSV (Through Silicon Via) process for current packaging). However, we believe there are quite a few bottlenecks during the TGV copper plating process, which makes the copper pillar mass transfer technology a more effective (higher yield) method in TGV metallization, especially when the glass size continues to increase with the chip size.

Aspect ratio (with increasing glass size and higher thickness requirement)

- Copper plating: Currently, (electro)plating for TGVs can only achieve an aspect ratio of <10:1 (depth vs width), much lower than that for TSVs (Through Silicon Vias) given smaller pitch size/fine pitch. As the bump pitch continues to shrink, the aspect ratio of the photoresist template will eventually reach its physical limit. Furthermore, it becomes incredibly difficult for the plating solution to flow and react inside such microscopic cavities, leading to void defects.
- Copper pillar mass transfer: According to Innostart Service, its mass-transferred copper pillar for TGVs can already achieve an aspect ratio of **30:1** now, **meeting the thickness requirement of the glass core substrate (1.7-1.8mm now)**. As the glass size continues to increase along with the chip size, the thickness requirement will also be lifted, which makes this technology a more indispensable solution for future TGV metalization. The company's technology demonstrates superior control at the ultra-fine pitch level given supreme precision (based on the company's decade-long technology and expertise in needle assembly for probe cards).

Uniformity and coplanarity (Height/Width of copper pillar)

- Copper plating: Plating could suffer from current density distribution issues, especially within fine pitch. Across a larger-sized glass, plating speeds vary between the center and the edges, or between dense and isolated patterns. This leads to height variations among the plated copper pillars, which can cause non-wetting (open circuits) or bridging (short circuits) during fine-pitch assembly.
- Copper pillar mass transfer: Since the pillars are pre-fabricated on a specialized, perfectly flat carrier, their height could be completely uniform. When transferred to a glass core substrate, every single pillar is identical in height, drastically improving assembly yield for high-density bumping.

Process speed and throughput

- Copper plating: This is a time-consuming process where thickness scales with plating time. Especially for the TGVs with higher aspect ratios, the plating time increases significantly, followed by tedious photoresist stripping and seed-layer etching steps.
- Copper pillar mass transfer: The mass transfer technology is more like parallel processing. The transfer step is a "gang transfer" (all-at-once). For now, Innostar Service can mass-transfer >10k units of copper pillars onto one piece of glass core substrate, which significantly boosts backend manufacturing throughput.

What exactly does Innostar Service's copper pillar mass transfer technology do?

What Innostar Service does is precisely insert the pre-made copper pillars into the vias all at once, which could serve as a more efficient and accurate "pre-fabricated plug-in" method, instead of relying on the traditional chemical electroplating process to grow copper.

The steps Innostar Service does/provides for glass core substrate TGV metallization:

- **Step 1: Procure pre-made copper pillars.** Innostar Service does not make the copper pillars itself, but procures them from the metal component manufacturing vendors. We believe the company **procures the customized copper pillars from Finecs**, a Japanese manufacturer (C-TECH as its Taiwan agent), with perfectly uniform dimensions, lengths, and conductivity.
- **Step 2: Mass Transfer & Insert copper pillars.** Leveraging Innostar Service's expertise in the needle assembly for MEMS probe card and ultra-high-precision automated equipment, the company can manage to **mass transfer 30-50k units of the procured copper pillars and precisely insert them into the glass core substrate's TGV** simultaneously.
- **Step 3: Adhesive filling.** When mass-transferring the copper pillars into TGVs, Innostar Service will apply a **specialized adhesive (Innostar Service's patent)** between the copper pillar and the glass wall. The adhesive serves a dual purpose: securely locking the copper pillar into place and **filling all the space seamlessly to ensure zero voids** (to ensure smooth power/data transmission with no signal/transmission loss from voids), and acting as a **"shock absorber"** to soak up thermal stress when the chip runs hot, preventing the glass matrix from cracking.

After the above three steps, the glass core substrate with TGVs formations is done, and Innostar Service will send the whole glass core substrate to substrate vendors for RDL (to complete the entire substrate fabrication with ABF layer build-up).

What is Innostar Service's edge in copper pillar mass transfer? Expertise from probe card needle assembly creating its dominance and high entry barrier

The Copper Pillar Mass Transfer technology that Innostar Service demonstrates for TGV is, at its core, **the scaling and evolution of its mature "automated probe card needle assembly/pin insertion" expertise** the company has spent over decades perfecting, now applied to advanced packaging glass substrates.

In terms of technical essence, these two are "the same core technology applied to two different fields." We can see how seamlessly they transferred this core competence through the below two main dimensions:

From "Needle Assembly" to "Copper Pillar Insertion": Leveraging the Expertise of Micron-Scale Alignment

- **Probe card needle assembly:** MEMS probe cards require tens of thousands of needles/pins, with diameters of only a few dozen microns (μm), to be stuffed into a probe head just a few centimeters square. Innostar Service originally built its reputation by developing one of the world's fastest and most precise automated needle assembly machines using proprietary "vision recognition + ultra-high precision mechanical alignment."

- **TGV copper pillar mass transfer:** The TGVs drilled/etched into glass core substrates have similarly tiny micron-scale diameters, and their quantities are also up to tens of thousands and even hundreds of thousands in the future. Innostar Service directly upgraded the alignment and gripping mechanisms of their needle assembly machines into mass transfer/alignment and insertion at once with extreme precision for TGV.

Seamless Migration of "Fixation Adhesives" (This directly ties back to the core adhesive patent mentioned above)

- **Probe card needle assembly:** After the needles/pins are inserted into the probe head, they are secured with a special adhesive/colloid.
- **TGV copper pillar mass transfer:** When copper pillars are stuffed into glass vias, Innostar Service similarly utilizes a very similar customized fixation adhesive to fill the voids between the glass walls and copper pillars, while keeping the tens of thousands of pillars behaving properly in formation without shifting during the transfer process.

Multiple US tier-1 chip customers' TGV projects, expected MP from 2H27 and more in 2028-29

1st TGV project for switch ASIC, expected MP in 2H27 with meaningful content value and rev contribution

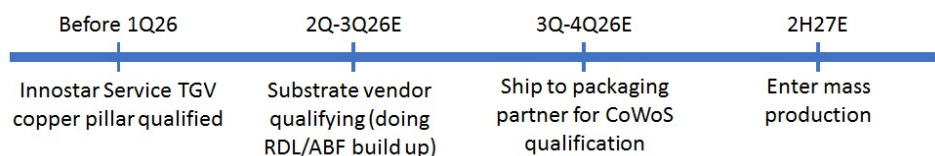
Based on our latest industry check, the leading US networking chip company could potentially lead the shift as an early adopter of glass core substrates, likely integrating them into its **next-gen switch ASIC by 2H27**. This transition is primarily driven by the need to mitigate the warpage issues from larger-size substrates when the heat rises significantly during high-speed data transmission.

We believe the US switch ASIC vendor has laid out its own glass core substrate supply chain, and Innostar Service plays a critical role as the sole TGV metallization vendor by adopting its copper pillar mass transfer technology. Currently, **the glass suppliers (such as AGC (Asahi))** will ship the large-sized glass to the laser modification vendors and etching vendors (currently mainly **Ingentec doing "dry" etching**, instead of adopting the mainstream wet-etching technology) to form the TGVs on the glass, and then ship to **Innostar Service to do the TGV metallization process by mass-transferring the copper pillars** (currently **made from Finecs**, a Japanese copper product manufacturer) into the TGVs. After that, the glass core substrate (with metallized TGVs in glass) is completed, so Innostar Service will ship "the whole glass core substrate" to **ABF substrate vendors (such as Nan Ya PCB)** to do the RDL part.

According to Innostar Service's pre-OTC listing investor conference in 1Q26, the company's copper pillar mass transfer technology/TGV product has already been qualified by chip customer, and its first TGV project is now sampling small volume of products to substrate vendors for next step RDL and ABF substrate fabrication (NTI phase). We believe the substrate vendors will complete their part and have results in the next few months (around August 2026), and then ship the RDL/ABF completed substrate product (with glass core in the middle) to the CoWoS partner for the final stage of packaging, expected another 3 months at packaging side, with results out by Nov or Dec 2026. Hence, we expect the entire sampling and qualification process will be

completed by the end of 2026, and then finally enter the NPI phase. The expected mass production timing is in 2H27 (if all processes are on track).

Figure 15: Current glass core substrate qualification and expected production timeline of the 1st switch ASIC TGV project



Source: Company data, J.P. Morgan estimates.

US tier-1 GPU companies' networking chips to potentially follow suit in 2029 or 2030

The company is also engaging with some US tier-1 GPU companies for potential glass core substrate adoption in their future networking chips. Innostar Service will also support the TGV metallization process with its leading copper pillar mass transfer technology.

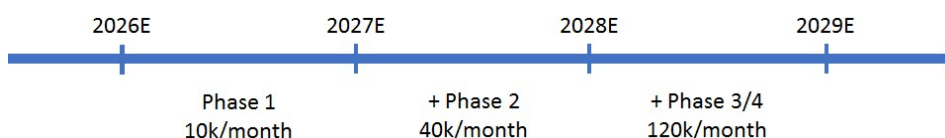
We believe US GPU vendors will more likely use glass core substrates from late 2028 and gradually ramp in 2029 and 2030, serving as Innostar Service's potential second customer. The progress of GPU companies' projects is worth monitoring going forward, especially with more capacity kicking in expected in 2029 (if the 4th phase of expansion goes smoothly).

Significant TGV capacity expansion to meet strong demand, driving rapid revenue growth from 2H27 and more in 2028-29

Given the strong TGV copper pillar mass transfer demand, Innostar Service is aggressively planning its TGV capacity expansion sites and schedule. According to its pre-listing conference presentation, the company acquired land in Taichung in Aug 2025 for the new copper pillar module and TGV production lines. The 1st phase construction was completed in 1Q26, including TGV capacity expanding to 10k/month (pieces of glass core substrate) with 12 production lines.

Based on the TGV order forecast for the next 2-3 years from the first potential customer, Innostar Service is aggressively expanding its TGV copper pillar capacity to meet the remarkably strong demand. Recently, the company started its 2nd phase construction (also in Taichung), which will increase its TGV copper pillar capacity by 3x by the end of 2027 and 2028. Meanwhile, it is also planning for the 3rd and 4th phases of expansion. The company is now targeting to have a total of 40k/month in 2027-28 (up from 10k/month now) and 120k/month of TGV copper pillar capacity in 2028-29 from the 3rd/4th phase of expansion.

Figure 16: Innostar Service's TGV copper pillar capacity expansion plan

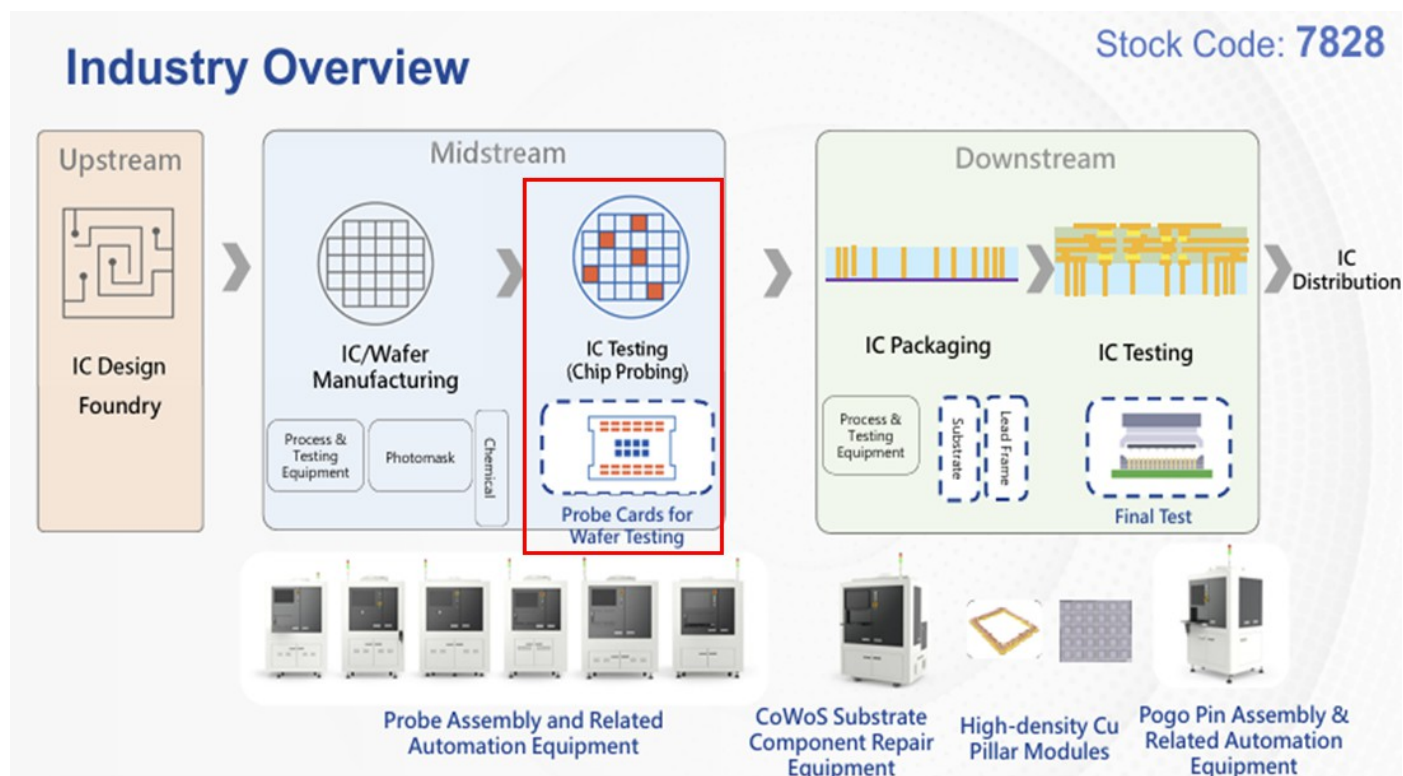


Source: Company data.

Driver 2: Probe card equipment & material kit + OEM services - TAM expansion by standing at giant's (Technoprobe) shoulder

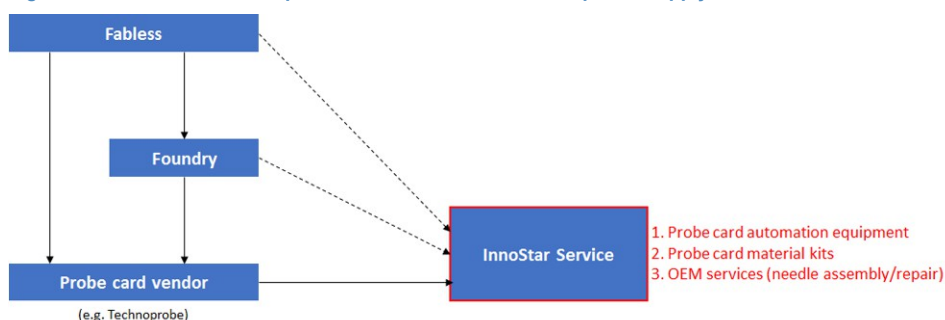
Where Innostar Service sits in the probe card supply chain

Figure 17: Innostar Service's fundamental business mainly lies in the midstream chip probing phase (probe card equipment + material kits)



Source: Company presentation.

Figure 18: Innostar Service's probe card TAM and relationship with supply chain vendors



Source: J.P. Morgan.

Existing business accelerating growth: Probe card equipment to grow 2x in 2026 and another 3x in 2027

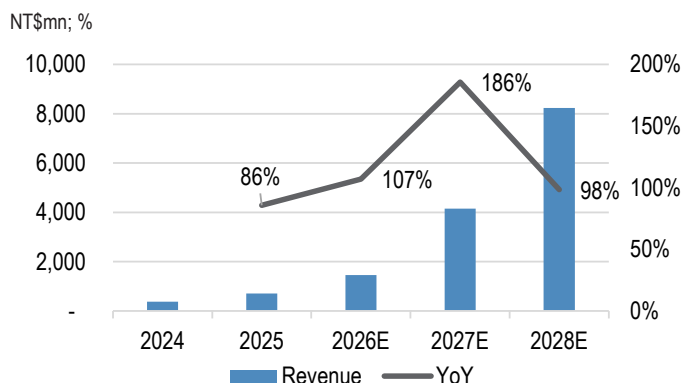
Continued upward revisions of dual-arm needle assembly machine orders from Technoprobe, with multi-times shipment increases in 2026-28

In 2025, Innostar Service reached an agreement with Technoprobe (TPRO IM, also known as TP) that the company will solely supply its MEMS probe card needle assembly machine to TP in the future. That said, Innostar Service's needle assembly machine business will only have 1 customer, Technoprobe, in the future, in order to deepen their technology and strategic partnership. Before the partnership with Technoprobe in 2025, Innostar Service had already shipped quite a few single-arm needle assembly machines to the major probe card vendors, such as MPI (6223.TW, NC), in the past 2-3 years (during late 2022 to 2025).

Innostar Service successfully developed the “dual-arm” MEMS probe card needle assembly machine in 2025, which was an upgraded solution from its previous “single-arm” needle assembly machine. We believe this new solution was tailored for TP's rising demand for high-end probe card/head (e.g. up to 150k needles/pins per AI chip probe card), as the dual-arm machine can assemble ~10k needles/pins a day, doubling the efficiency of the previous single-arm machine of ~5k needles per day (vs manual assembly of only ~600 needles per day).

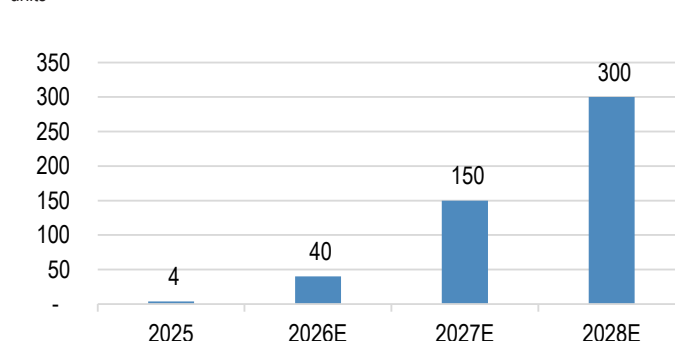
In 4Q25, Innostar Service's dual-arm needle assembly machine officially entered mass production, with 4 units of machine shipment to TP. Coupled with the continued single-arm needle assembly machine shipment, Innostar Service's 2025 probe card equipment revenue reached NT\$700mn (almost doubling from 2024). Looking forward to 2026-2028, we believe there have been meaningful upward revisions of Technoprobe's dual-arm machine order forecast recently, given TP's aggressive probe card capacity expansion plan over the next few years. Hence, we are now modeling 2x probe card equipment revenue in 2026, and another 3x and 2x in 2027 and 2028 to meet TP's remarkably strong demand for high-end AI chip probe cards/heads (pin count per probe card also continues to increase).

Figure 19: Probe card equipment revenue to grow 2x in 2026E, 3x in 2027E and another 2x in 2028E



Source: Company data, J.P. Morgan estimates.

Figure 20: Dual-arm probe card needle assembly machine shipment units



Source: Company data, J.P. Morgan estimates.

Riding on Technoprobe's aggressive probe card capacity expansion, underpinned by TP's new AI ASIC order win + leading share in foundry's advanced node

Technoprobe announced in its Nov 2025 conference call that it plans to double its probe card capacity by the end of 1Q27 with an increase in its capex investment. Given the recent surge in demand, the company's capacity expansion schedule has been accelerated, according to its mid-May 2026 earnings call, which implies the 2x capacity is expected to kick in by the end of this year. We believe this is in line with Innostar Service's recent upward revision of dual-arm needle assembly machine orders.

Based on our supply chain checks, Technoprobe has secured a new AI ASIC probe card project from a US tier-1 CSP customer. Given the meaningful volume along with the high pin-count of this CSP ASIC, Technoprobe has to expand and accelerate its related equipment investment significantly.

In addition, Technoprobe has a leading market share in supplying high-spec/high-density probe cards to advanced nodes from foundry's turnkey business model, so the stronger capacity expansion of advanced nodes (as per TSMC's recent earnings call) in the next few years should drive stronger demand for both Technoprobe and Innostar Service's probe card equipment directly, in our view.

In our view, Technoprobe's new AI ASIC probe card order win and stronger advanced node demand will continue to drive upward revisions for Innostar Service's dual-arm needle assembly machine shipment in the next 2-3 years. Coupled with Technoprobe's solid market share in the MEMS probe card market (it is the second-largest supplier, as shown in the figure below), we believe Innostar Service will be the direct beneficiary and keep riding on the probe card TAM increase trend.

Please note that JPM does not cover Technoprobe (TPRO IM) and the above views are based on the company's earnings call and Bloomberg consensus estimates.

Figure 21: Overall probe card vendor market share allocation (TP is the second-largest)

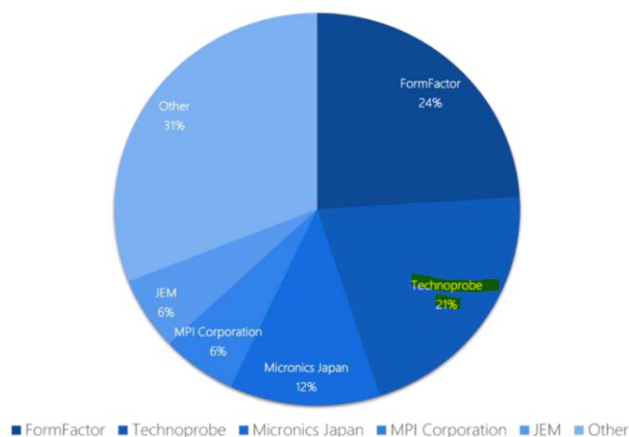
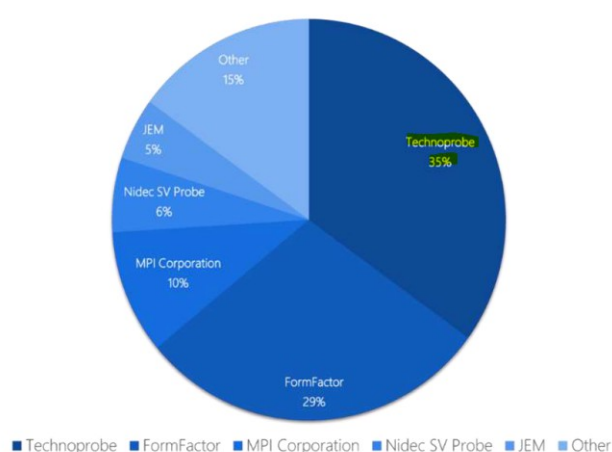


Figure 22: Global non-memory probe card vendor market share allocation (TP leads with a 35% market share)



Source: Techinsight (2024/12,2025E), company OTC prospectus.

Source: Techinsight (2024/12,2025E), company OTC prospectus.

New business to drive TAM expansion with recurring rev: new material kit and OEM services as Technoprobe's Taiwan agent

Inflection point from Technoprobe's strategic investment: TAM expansion by providing material kit and needle assembly/repair OEM services to TP's customers

Technoprobe's strategic investment in Innostar Service in 2025 (with 8.4% of stake) was to better fulfill customers' demand in Taiwan and enhance the effectiveness of problem-shooting (e.g. probe card pin/needle inspection/repair), by leveraging Innostar Service's geographical advantages (cluster effect) and local connections with upstream and downstream probe card supply chain vendors.

Thanks to the partnership with Technoprobe, Innostar Service has become TP's agent in Taiwan to supply the probe card material kits (incl. TP's pins/needles) for its customers in Taiwan. For example, Keystone Microtech (also known as KSMT, 6683.TW, NC), a Taiwan-based load board and probe card vendor, procures the high-end probe heads/pins from Technoprobe and integrates them with its own load board/burn-in board. Furthermore, the other business model is with the foundries. Not only can Innostar Service provide probe equipment to the foundries, but also the material kits to the outsourced probe card customers to Technoprobe.

In addition to the material kit business, Innostar Service has another TAM expansion opportunity into the probe card OEMs services, including the needle assembly and repair, for Technoprobe's Taiwan customers as well. Leveraging Innostar Service's self-developed probe card needle assembly and repair equipment, the company can serve as a total solution provider, from material kits (needles/pins) to needle assembly and even to the future repair services. This could grow into a sizeable market for Innostar Service, as probe cards become highly sophisticated for AI chips, more and more customers will require these needle assembly and repair OEM services for better yield.

Figure 23: Probe card TAM expansion to material kits and OEM services

Timeline of MEMS Probe Card Automation/Repair Equipment and Material Kit Sales

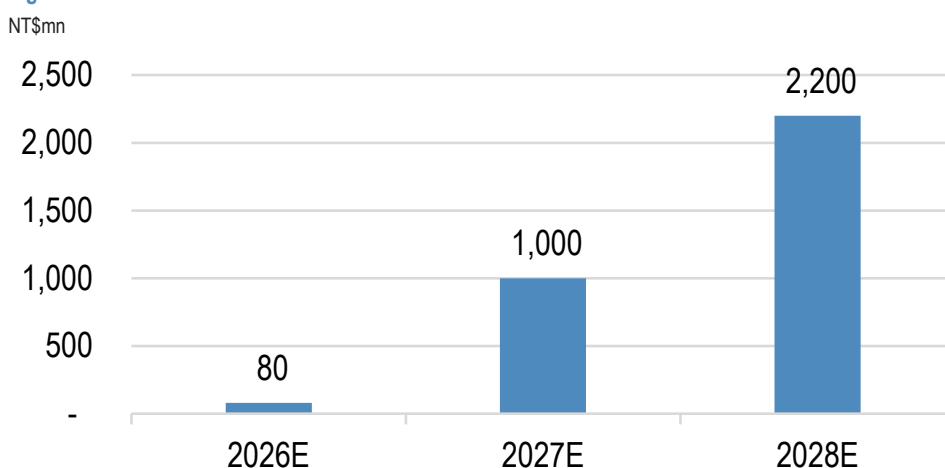
Stock Code: 7828

#	MEMS probe card-related product	2016-2021	2022-2023	2024	2025				2026			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Single-arm Needle Assembly Machine	Needle assembly OEM	Sales start	Scaled sales								
2	Dual-arm Needle Assembly Machine				Under Development	Under Development	Under Development	Mass production & shipments				
3	Probe Card Inspection Machine					Under Development	Under Development	Mass production & shipments				
4	Laser Reshaping Machine & Laser Cleaning Machine					Under Development	Under Development	Mass production & shipments				
5	Auto Probe Change Machine					Under Development	Under Development	Mass production & shipments				
6	Probe Binning and Aligning Machine						Under Development	Under Development	Mass production & shipments			
7	Laser Drilling Machine				Under Development	Under Development	Under Development	Under Development	Mass production & shipments			
8	Guide Plate Inspection and Lamination Machine					Under Development	Under Development	Under Development	Mass production & shipments			
9	Probe Card Analyzer							Under Development	Under Development	Mass production & shipments		
10	Probe card repair OEM service								Production line build	Production line build	Contract manufacturing	Contract manufacturing
11	Probe card material kits					Contract signing/market promotion	Applied to customers' designs	Limited shipments	Sales start			

Source: ompany presentation.

Starting from 1H26, Innostar Service will start shipping small volume of probe card material kits (pins/needles) to some TP's Taiwan customers, which would contribute ~NT\$80mn revenue in 2026 (5% rev mix, based on JPMe). Looking into 2027, we believe the material kit (pins/needles) shipment volume will start ramping to ~20k pins/needles level of shipment for the whole year (equivalent to ~500 units of probe card). Coupled with the start of the OEM production lines (both repair and needle assembly), we model ~NT\$1bn revenue contribution from Innostar Service's new probe card business (material kit + OEM services), which suggests 18% rev mix in 2027.

Figure 24: Probe card material kit + OEM services revenue

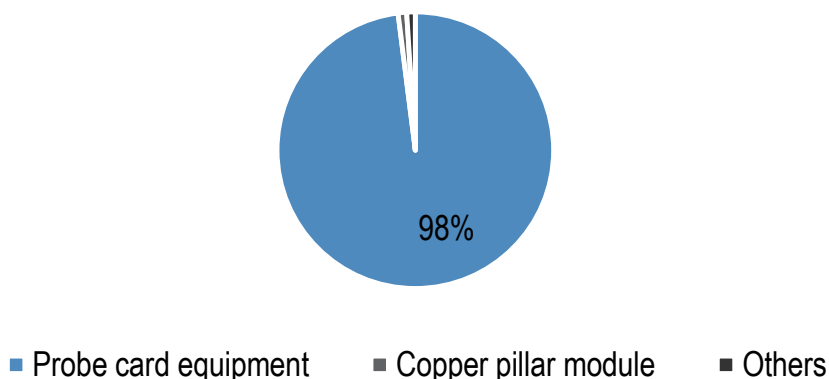


Source: J.P. Morgan estimates.

Company Overview

Founded in 2004, Innostar Service is a key player in the design and development of MEMS probe card automation equipment, mainly focusing on needle assembly, for the semiconductor and optoelectronics industries. In 2025, MEMS probe card automation equipment accounted for >90% of the company's revenue, primarily from the single-arm probe card assembly machine. To address the rising complexity of advanced chip probing/testing, Innostar Service successfully developed a dual-arm probe assembly machine (and full-line automation solutions), which has entered mass production since 4Q25, and will become a major driver for the company in the next few years with multiple times of shipment ramp.

Figure 25: Innostar Service 2025 revenue mix (>90% from probe card automation equipment)
%



Source: Company data.

Innostar Service's largest customer is Technoprobe, which owns an approximately 8% equity stake. Technoprobe's strategic investment in Innostar Service was to expand its exposure and presence in Asian markets, especially Taiwan, which gives Innostar Service new business opportunities by selling probe card material kits (mainly pins/needles) and providing needle assembly/repair OEM services for some Technoprobe's Taiwan customers (e.g. KSMT), which will become the 2nd revenue stream and growth driver for the company starting from 2026.

In addition to probe card businesses, InnoStar Service has expanded its business exposure to the advanced packaging (e.g. CoWoS) market through its "copper pillar mass transfer" technology, leveraging the company's expertise in the high-precision probe card needle assembly. The copper pillar mass transfer technology will be applied in the TGV (Through Glass Via) metallization process for glass core substrates (not interposer), which should be adopted in larger-sized AI or networking chips starting from 2H27, in our view. This could become the third growth driver for the company starting in late 2027 and more meaningfully in 2028.

Overall capacity and future expansion plans

Table 3: Innostar Service's capacity and expansion plan of all product lines

	Existing	New (based on capacity expansion plan)			
	Hsinchu Plant	Taichung Plant 1 (Dajia)	Taichung Plant 2 (near Dajia)	3rd new plant	4th new plant
Complete timing	Before 2026	1Q26	expected in late 2026 or beg 2027	expected in 2H26-1H27	expected in 2H27-2028
Probe card equipment	V	V (1.5x vs current) (1F)		V	
Probe card OEM services (needle assembly, repair, etc)	V				
Copper pillar module		V (800+k/month) (2F)		?	V (4x? vs TC1)
TGV-ICP (copper pillar mass transfer)		V (10k/month) (2F)	V (30k/month) (2F)	?	V (total ~120k/month)

Source: Company data, J.P. Morgan.

Management profiles

Table 4: Management profile overview

Title	Name	Selected Education and Past Positions
Chairman & President	Chih-Meng Wu	Master's Degree in Mechanical Engineering, National Central University (Taiwan) Director of R&D Department, Coretronic Corporation
VP of Sales Department	Chun-Chung Lin	Master's Degree in Public Affairs Management, National Sun Yat-sen University (Taiwan) GM Office Executive Assistant, Silicon Touch Technology Inc.
VP of R&D	I-Jen Chang Chien	Master's Degree in Information Technology, The National Australian University (Taiwan) Project Manager of Software Development Department, Sunnet Technology

Source: Company data.

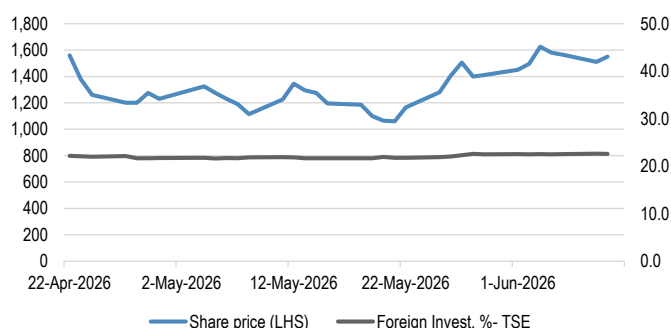
Shareholder structure and QFII holding ratio

Table 5: Innostar Service's top 10 shareholders

Shareholder list	%
Technoprobe SpA	8.4%
YQ TECHNOLOGY COMPANY LIMITED	8.4%
SHARP TEST TECHNOLOGY INC	8.4%
MANLI INDUSTRIAL CO LTD	6.7%
Powerchip Technology Corp	6.6%
SBI PSMC JV FUND LP	4.5%
FU CHI INVEST CO LTD	3.5%
RIVER CONFLUENCE CO LTD	2.8%
ART CONTROL SYSTEMS INC	2.7%
Wu Chih-Meng	2.6%
Top 10 total	54.6%

Source: Bloomberg Finance L.P., as of June 2026.

Figure 26: Innostar Service's QFII holding ratio post OTC-listed



Source: TEJ.

Investment risks

Slowdown in chip probing density/spec upgrades

Benefitting from the continued increasing chip probing density (higher pin count per probe card, such as for AI chips), the importance and penetration of probe card automation equipment, especially needle assembly machines, has risen rapidly in the past few years. There are even spec upgrade demands for probe card equipment (e.g. upgrading from single-arm needle assembly machine to dual-arm) in order to enhance the high-end probe card manufacturing efficiency and yield, which boosts the ASP of probe card equipment significantly. However, if the chip probing upgrade trend starts to slow down, probe card automation equipment vendors, such as Innostar Service that currently has >90% revenue from this business, will be negatively impacted in terms of earnings growth magnitude.

Customer concentration in probe card automation equipment business

In 2025, Technoprobe accounted for ~50% of Innostar Service's revenue and ~60% of core earnings, mainly from the single-arm probe card needle assembly machine. Looking into the next 2-3 years, with the remarkably strong demand for the upgraded dual-arm needle assembly machine customized for Technoprobe, we believe the customer concentration risk for Innostar Service will continue to rise.

Despite the rising customer concentration issue for Innostar Service, we don't think the company will lose share in Technoprobe, as Innostar Service holds a dominant position in the MEMS probe card needle assembly market with decades of technology expertise and customer experiences (e.g. provided needle assembly OEM services to foundry customers for several years previously). We believe the risk will lie in the market share shift of Technoprobe itself in the MEMS probe card market (currently the second-largest vendor with ~20% market share). Innostar Service's demand will be directly impacted by Technoprobe's customer/project wins and capacity expansion plans.

Delayed adoption of glass core substrates in advanced packaging

Innostar Service's new TGV copper pillar mass transfer business applied to glass core substrates serves as a meaningful earnings driver from late 2027/2028 and a breakthrough for the company, given the successful entry into the advanced packaging market. Of note, we currently model 8% and 20% revenue contribution from the TGV copper pillar business for one customer's switch ASIC in 2027 and 2028, respectively. Thus, any delay in glass core substrate adoption will provide downside to our 2027 and 2028 estimates.

Figure 27: Income statement

	2024			2025				2026E				2027E				2028E				2024	2025	2026E	2027E	2028E
(NT\$ in Mn, year-end December)	1H	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2QE	3QE	4QE	1QE	2QE	3QE	4QE	1QE	2QE	3QE	4QE					
Revenue	81	3	322	100	65	157	394	152	372	437	658	358	748	1,738	2,759	2,248	2,976	3,444	4,182	406	716	1,620	5,604	12,849
D&A	19	9	9	9	10	10	12	13	13	18	31	56	61	67	80	105	112	123	139	38	41	75	264	478
COGS	21	6	54	38	18	32	81	30	79	97	148	90	199	429	709	598	777	873	1,049	80	170	354	1,426	3,297
Gross profit	61	-3	268	62	46	125	313	122	294	340	511	268	549	1,310	2,051	1,649	2,199	2,571	3,133	326	546	1,266	4,178	9,553
Operating expense	70	35	70	47	40	70	111	84	140	160	201	152	221	313	359	344	394	430	481	175	268	584	1,045	1,650
Operating income	-9	-38	198	15	7	54	202	39	154	180	310	116	329	997	1,692	1,305	1,805	2,140	2,653	151	278	683	3,133	7,903
Net Interest Income	2	2	3	4	5	3	1	2	2	2	-1	-2	-1	-1	0	5	8	13	11	7	13	5	-4	37
Net Other Income	6	-5	9	4	-30	5	7	6	0	0	0	0	0	0	0	0	0	0	0	10	-14	6	0	0
Non-op gain (loss)	8	-3	12	8	-25	8	8	8	2	2	-1	-2	-1	-1	0	5	8	13	11	17	-1	11	-4	37
Pre-tax profit	-2	-41	209	23	-18	62	210	47	156	182	309	114	327	996	1,692	1,310	1,813	2,153	2,664	167	277	694	3,129	7,940
Tax expense (credit)	0	0	17	6	-3	13	33	10	31	46	77	28	82	249	423	328	453	538	666	17	49	164	782	1,985
Net profit reported	-2	-41	192	17	-16	50	177	37	125	137	232	85	245	747	1,269	983	1,360	1,615	1,998	150	228	531	2,347	5,955
EPS (NT\$)	-0.1	-1.4	6.7	0.5	-0.4	1.4	4.9	1.0	3.4	3.7	6.3	2.3	6.7	20.4	34.6	26.8	37.1	44.0	54.5	5.3	6.3	14.5	64.0	162.3
Margins (%)																								
Gross Margin	74.8	-107.6	83.2	61.8	72.0	79.4	79.4	80.2	78.8	77.8	77.6	74.9	73.4	75.3	74.3	73.4	73.9	74.6	74.9	80.3	76.3	78.2	74.5	74.3
- Opex ratio	86.1	1,268.5	21.9	46.4	61.2	44.8	28.3	54.9	37.5	36.5	30.5	42.5	29.5	18.0	13.0	15.3	13.3	12.5	11.5	43.2	37.4	36.0	18.6	12.8
Operating Margin	-11.2	-1,376.1	61.4	15.4	10.8	34.6	51.1	25.3	41.3	41.3	47.1	32.4	43.9	57.3	61.3	58.1	60.6	62.1	63.4	37.1	38.9	42.1	55.9	61.5
EBITDA Margin	12.1	-1035.9	64.3	24.8	25.9	41.1	54.1	33.7	44.8	45.4	51.8	48.1	52.1	61.2	64.2	62.7	64.4	65.7	66.7	46.4	44.6	46.8	60.6	65.2
Net Margin	-1.9	-1,474.1	59.6	16.8	-24.6	31.7	44.9	24.5	33.4	31.2	35.3	23.8	32.8	43.0	46.0	43.7	45.7	46.9	47.8	36.9	31.8	32.7	41.9	46.3
Sequential Growth (%)																								
Revenue			11598.0	-68.8	-35.6	143.2	151.2	-61.4	144.5	17.5	50.5	-45.6	108.8	132.3	58.7	-18.6	32.4	15.7	21.4					
Gross Profit			n.m.	-76.9	-25.0	168.2	151.0	-61.0	140.4	15.8	50.2	-47.5	104.7	138.4	56.6	-19.6	33.3	16.9	21.9					
EBIT			n.m.	-92.2	-55.1	682.0	270.9	-80.9	299.5	17.2	71.9	-62.6	183.2	203.4	69.7	-22.8	38.3	18.6	23.9					
EPS			n.m.	-93.1	n.m.	n.m.	258.5	-79.3	233.8	9.7	69.9	-63.2	187.6	204.3	69.9	-22.6	38.4	18.8	23.7					
YoY Growth (%)																								
Revenue						5607.9	22.5	51.8	476.8	178.5	66.9	135.3	101.0	297.5	319.2	527.2	297.6	98.1	51.6		76.4	126.2	245.9	129.3
Gross Profit						-4312.5	16.8	97.0	531.5	172.7	63.2	119.8	87.1	285.2	301.4	514.6	300.3	96.3	52.8		67.6	131.9	229.9	128.6
EBIT						-243.5	2.0	149.0	2114.8	232.0	53.8	201.2	113.5	452.6	445.7	1024.9	449.3	114.7	56.8		84.9	145.4	358.8	152.2
EPS						-198.1	-26.8	118.8	-859.7	171.5	28.7	128.8	97.1	446.9	446.8	1051.3	453.9	116.2	57.4		19.8	128.8	342.4	153.7
Sales mix (%)																								
Probe card equipment (e.g. Needle assembly machine)	82%	0%	97%	97%	97%	97%	99%	89%	94%	89%	88%	77%	74%	79%	70%	61%	64%	64%	66%	93%	98%	90%	74%	64%
Probe card material kit & OEM services	0%	0%	0%	0%	0%	0%	0%	3%	3%	6%	6%	14%	20%	17%	18%	18%	17%	17%	17%	0%	0%	5%	18%	17%
Copper pillar mass transfer	1%	1%	1%	1%	1%	1%	1%	3%	1%	3%	5%	7%	5%	3%	11%	21%	19%	18%	17%	1%	1%	3%	8%	19%
Others	17%	99%	2%	2%	2%	2%	0%	5%	2%	2%	1%	2%	1%	0%	0%	0%	0%	0%	0%	6%	1%	2%	1%	0%

Source: Company data, J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

Innostar Service (*Overweight; Price Target: NT\$4,000.00*)

Investment Thesis

We rate Innostar Service OW, as we anticipate further stock outperformance to be driven by the next wave of earnings upgrade cycle in the next 2-3 years, with three solid growth drivers ahead: 1) probe card needle assembly machine order shipment to increase multiple times in 2026-28, thanks to the largest customer's surging demand, 2) TAM expansion by providing probe card material kits (mainly pins/needles) and needle assembly/repair OEM services, and 3) new TGV (Through Glass Via) copper pillar mass transfer business for the advanced packaging process of future-gen networking and AI chips (applying in CoWoS substrate for an ongoing networking project).

Valuation

Our Dec-27 PT of NT\$4000 is based on 25x 2028E P/E, below its historical 12M fwd P/E of ~38x since IPO in May 2025, but largely in line with probe card and glass core/TGV peers' 2028E-based valuation of 20-30x.

Risks to Rating and Price Target

Key downside risks include any slowdown in chip probing density/spec upgrades; a market share shift in the MEMS probe card market, given high customer concentration (~50% revenue concentration in 2025 from a key customer), and any delayed adoption of glass core substrate in advanced packaging (any potential manufacturing issues during qualification).

Innostar Service: Summary of Financials

Income Statement						Cash Flow Statement					
	FY24A	FY25A	FY26E	FY27E	FY28E		FY24A	FY25A	FY26E	FY27E	FY28E
Revenue	406	716	1,620	5,604	12,849	Cash flow from operating activities	321	(86)	235	3,289	6,550
COGS	(80)	(170)	(354)	(1,426)	(3,297)	o/w Depreciation & amortization	38	41	75	264	478
Gross profit	326	546	1,266	4,178	9,553	o/w Changes in working capital	136	(353)	(367)	688	134
SG&A	(67)	(113)	(257)	(463)	(730)	Cash flow from investing activities	(195)	(355)	(905)	(1,071)	(1,399)
Adj. EBITDA	188	319	758	3,397	8,381	o/w Capital expenditure	(165)	(314)	(904)	(1,073)	(1,399)
D&A	(38)	(41)	(75)	(264)	(478)	as % of sales	40.7%	43.9%	55.8%	19.1%	10.9%
Adj. EBIT	151	278	683	3,133	7,903	Cash flow from financing activities	490	533	47	(740)	(1,777)
Net Interest	7	13	5	(4)	37	o/w Dividends paid	0	(54)	(183)	(427)	(1,891)
Adj. PBT	167	277	694	3,129	7,940	o/w Shares issued/(repurchased)	0	0	0	0	0
Tax	(17)	(49)	(164)	(782)	(1,985)	o/w Net debt issued/(repaid)	0	182	349	(318)	80
Minority Interest	-	-	-	-	-	Net change in cash	616	92	(623)	1,477	3,374
Adj. Net Income	150	228	531	2,347	5,955	Adj. Free cash flow to firm	156	(400)	(670)	2,216	5,151
Reported EPS	5.28	6.32	14.46	63.97	162.32	y/y Growth	-	(356.7%)	67.3%	(430.9%)	132.5%
Adj. EPS	5.28	6.32	14.46	63.97	162.32						
DPS	0.00	1.56	5.00	11.65	51.54						
Payout ratio	0.0%	24.7%	34.6%	18.2%	31.8%						
Shares outstanding	28	36	37	37	37						
Balance Sheet						Ratio Analysis					
	FY24A	FY25A	FY26E	FY27E	FY28E		FY24A	FY25A	FY26E	FY27E	FY28E
Cash and cash equivalents	616	708	85	1,562	4,937	Gross margin	80.3%	76.3%	78.2%	74.5%	74.3%
Accounts receivable	42	321	824	3,497	5,275	EBITDA margin	46.4%	44.6%	46.8%	60.6%	65.2%
Inventories	68	211	808	1,554	2,298	EBIT margin	37.1%	38.9%	42.1%	55.9%	61.5%
Other current assets	2	27	105	442	669	Net profit margin	36.9%	31.8%	32.7%	41.9%	46.3%
Current assets	728	1,267	1,823	7,054	13,179	ROE	47.8%	25.0%	41.4%	100.8%	111.9%
PP&E	130	405	1,238	2,057	2,995	ROA	33.7%	17.3%	21.8%	38.1%	46.8%
LT investments	0	0	0	0	0	ROCE	43.1%	22.9%	31.9%	87.0%	106.4%
Other non current assets	30	71	71	70	69	SG&A/Sales	16.4%	15.8%	15.9%	8.3%	5.7%
Total assets	889	1,743	3,132	9,181	16,243	Net debt/Equity	NM	NM	0.3	NM	NM
Short term borrowings	0	11	11	11	11	Net debt/EBITDA	NM	NM	0.6	NM	NM
Payables	43	104	426	2,184	3,249	Sales/Assets (x)	0.9	0.5	0.7	0.9	1.0
Other short term liabilities	206	238	728	3,412	5,232	Assets/Equity (x)	1.4	1.4	1.9	2.6	2.4
Current liabilities	248	353	1,165	5,607	8,491	Interest cover (x)	NM	NM	NM	795.9	NM
Long-term debt	0	171	521	202	283	Operating leverage	-	111.1%	115.2%	145.9%	117.7%
Other long term liabilities	13	27	78	84	117	Tax rate	10.3%	17.8%	23.6%	25.0%	25.0%
Total liabilities	261	551	1,764	5,893	8,891	Revenue y/y Growth	-	76.4%	126.2%	245.9%	129.3%
Shareholders' equity	627	1,192	1,368	3,288	7,352	EBITDA y/y Growth	-	69.8%	137.2%	348.3%	146.7%
Minority interests	-	-	-	-	-	EPS y/y Growth	-	19.8%	128.8%	342.4%	153.7%
Total liabilities & equity	889	1,743	3,132	9,181	16,243						
BVPS	18.01	32.49	37.30	89.62	200.40						
y/y Growth	-	80.4%	14.8%	140.3%	123.6%						
Net debt/(cash)	(616)	(526)	446	(1,349)	(4,643)						
Valuation							FY24A	FY25A	FY26E	FY27E	FY28E
						P/E (x)	386.7	322.7	141.1	31.9	12.6
						P/BV (x)	113.2	62.8	54.7	22.8	10.2
						EV/EBITDA (x)	386.6	228.0	97.4	21.2	8.2
						Dividend Yield	0.0%	0.1%	0.2%	0.6%	2.5%

Source: Company reports and J.P. Morgan estimates.

Note: NT\$ in millions (except per-share data). Fiscal year ends Dec. o/w - out of which

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Innostar Service (7828.TWO, 7828 TT) Price Chart



Source: Bloomberg Finance L.P. and J.P. Morgan; price data adjusted for stock splits and dividends.

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