

PCB sector

Overweight · Maintained

Key message

1. The ABF substrate industry has entered a new investment boom in 2025-28F, with capex rising by 51% compared to the previous cycle.
2. Accelerating AI-memory integration is driving larger, higher-layer ABF substrates, with area demand projected to grow at a 39% CAGR over 2025-28F.
3. ABF substrates to enter a widening structural supply-demand imbalance in 2027-28F.

ABF to see widening supply shortages in 2027-28F

Event

We expect the ABF substrate industry to enter a period of widening structural undersupply in 2027-28F, with supply-demand gaps expanding to 22% and 29%, respectively.

Impact

The ABF substrate industry has entered a new investment boom in 2025-28F, with capex rising by 51% compared to the previous cycle. We estimate cumulative capex by major global ABF substrate suppliers will reach US\$19.1bn during 2025-28F, up 51% from the prior expansion cycle (US\$12.7bn in 2020-23). Among all suppliers, Zhen Ding Technology (4958 TT, NT\$478.5, OP) is expected to be the most aggressive capacity expander, with cumulative capex of US\$4.35bn during 2025-28F, the highest in the industry. We estimate the firm's monthly production area capacity will increase by 86% over 2025 levels by 2028F. The two largest ABF substrate suppliers, Unimicron (3037 TT, NT\$750, OP) and Ibiden (JP), are expected to account for roughly 52% of global capacity by 2028F (Figures 1-5).

Advanced AI packaging & HBM integration are driving larger, higher-layer ABF substrates; area demand to grow at a 39% CAGR in 2025-28F. To shorten data transfer paths and improve GPU utilization, more high-bandwidth memory (HBM) stacks are being deployed alongside GPUs, driving a significant increase in ABF substrate area requirements. For example, Nvidia's (US) Rubin platform is expected to require ABF substrates measuring 100 × 91 mm with 18-20 layers, implying a 71% increase in substrate area demand over the Blackwell platform. Looking further ahead, the adoption of co-packaged optics (CPO), which integrates optical transceivers into the package, is expected to drive ABF substrate sizes beyond 150 × 150 mm. TSMC's (2330 TT) CoWoS advanced packaging roadmap calls for package sizes to expand from 3.3x reticle size in 2024 to 5.5x in 2026F, and eventually 14x reticle size by 2028F, supporting the integration of 8, 12, and 20 HBM stacks, respectively. Against this backdrop, we forecast global ABF substrate area demand to grow at a 39% CAGR during 2025-28F, driven by a 63% CAGR in AI computing applications and a 30% CAGR in server applications. By 2028F, we estimate AI computing chips will account for 59% of total ABF substrate area demand, while servers and networking applications will account for 25% (Figures 6-9).

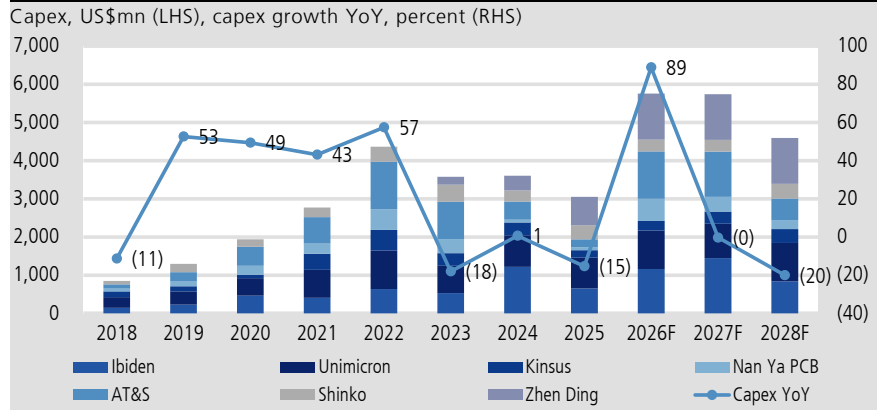
ABF substrates to enter a widening structural supply-demand imbalance in 2027-28F. We forecast industry oversupply will narrow to 1-2% in 2026F, supported by 20% YoY growth in general-purpose server shipments and 61% YoY shipments growth for AI servers. We believe that, as Nittobo's (JP) capacity ramps up from 1Q27F and qualification of alternative materials is completed, T-glass supply could increase by 100% YoY in 2027F and 300% YoY in 2028F. The removal of this key upstream bottleneck should enable ABF substrate capacity expansion to accelerate after 2H27F. Nevertheless, demand growth is expected to continue outpacing supply growth, leading the industry to transition into structural undersupply. We forecast supply-demand deficits will widen to 22% in 2027F and 29% in 2028F. Furthermore, as Taiwanese and Korean manufacturers steadily reduce BT capacity to shift toward ABF, price increases are expected to persist into 2027F, even with the rollout of new T-glass fiber cloth supply.

Stocks for Action

Given that the ABF substrate industry is entering a period of widening shortages in 2027-28F, we expect industry profitability to improve further, supported by strong pricing tailwinds and product mix improvement. We maintain Outperform ratings on Unimicron, Nan Ya PCB (8046 TT, NT\$1105, OP), and Kinsus (3189 TT, NT\$679, OP). We raise our target prices to NT\$1175, NT\$1480, and NT\$935, respectively, implying 36x, 38x, and 36x 2027F PE.

Risks

Substantial ABF capacity additions leading to ASP declines; weaker-than-expected end-market demand.

Figure 1: 2025-28 ABF capex to rise by 51% compared to the previous cycle


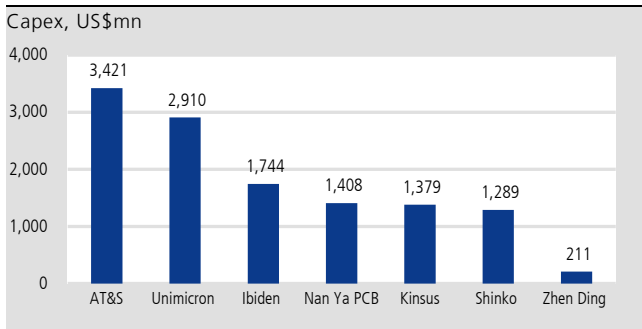
Source: Company data; Bloomberg; KGI Research estimates

Figure 2: Zhen Ding is expected to be the most aggressive capacity expander during 2025-28F

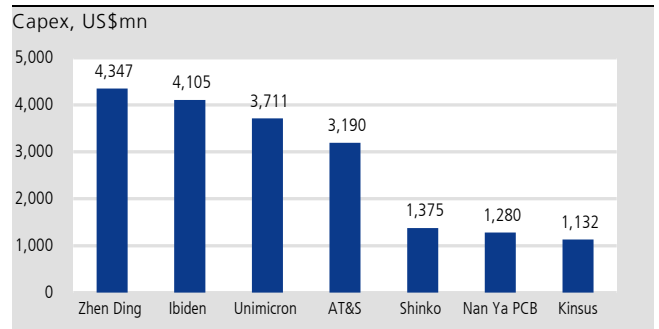
Capex (US\$m)	2018	2019	2020	2021	2022	2023	2024	2025	2026F	2027F	2028F	2020-23	2025-28F
Ibiden	145	230	466	409	638	528	1,221	656	1,162	1,446	841	2,041	4,105
Unimicron	277	346	456	729	1,005	719	827	805	1,004	900	1,002	2,910	3,711
Kinsus	152	133	90	423	541	326	333	195	254	317	365	1,379	1,132
Nan Ya PCB	72	122	233	267	535	373	75	77	580	390	234	1,408	1,280
AT&S	115	249	499	690	1,254	978	474	204	1,242	1,180	565	3,421	3,190
Shinko	88	216	195	255	394	445	287	371	309	309	386	1,289	1,375
Zhen Ding						211	386	741	1,207	1,200	1,200	211	4,347
Total	850	1,297	1,938	2,774	4,367	3,580	3,602	3,049	5,758	5,742	4,592	12,659	19,142
YoY (%)													
Ibiden	25	59	102	(12)	56	(17)	131	(46)	77	24	(42)		101
Unimicron	(11)	25	32	60	38	(28)	15	(3)	25	(10)	11		28
Kinsus	(23)	(12)	(33)	372	28	(40)	2	(41)	30	25	15		(18)
Nan Ya PCB	30	69	91	15	100	(30)	(80)	2	657	(33)	(40)		(9)
AT&S	(29)	117	100	38	82	(22)	(52)	(57)	508	(5)	(52)		(7)
Shinko	(23)	144	(10)	31	54	13	(36)	29	(17)	0	25		7
Zhen Ding								92.2	62.8	(0.6)	0.0		1,960
Total	(11)	53	49	43	57	(18)	1	(15)	89	(0)	(20)		51

Source: Bloomberg; KGI Research estimates

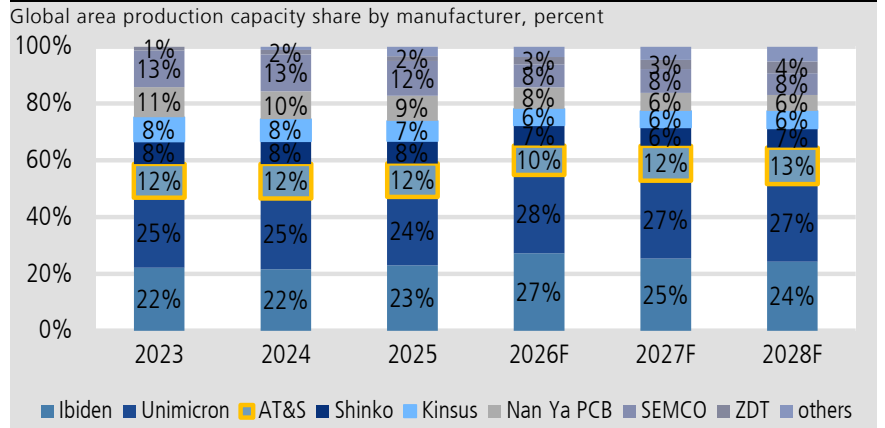
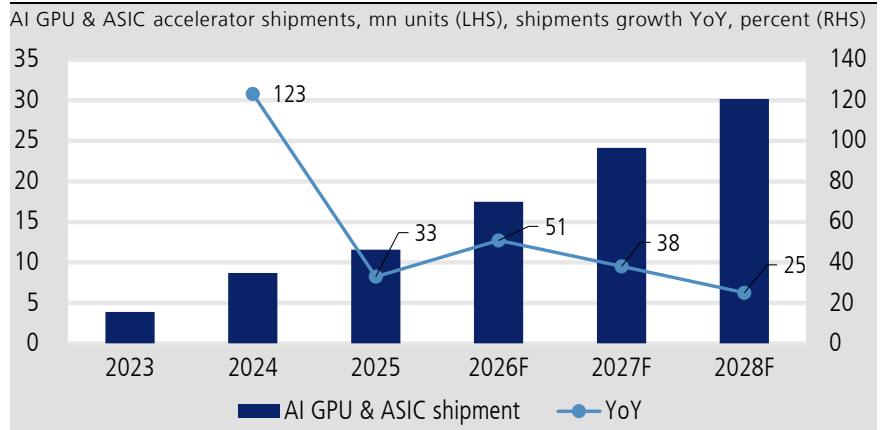
Note: Zhen Ding accounts only for ABF-related capital expenditures

Figure 3: 2020-23 capex by major substrate suppliers


Source: Bloomberg; KGI Research estimates

Figure 4: 2025-28F capex by major substrate suppliers


Source: Bloomberg; KGI Research estimates

Figure 5: 2023-28F global ABF substrate area capacity share by manufacturer

Figure 6: 2023-28F AI accelerator shipments

Figure 7: Generations of Nvidia AI accelerators, memory capacity & substrate sizes

Specification	Hopper (2022)	Blackwell (2024)	Rubin (2026)	Rubin Ultra (2026)
Compute Die Size	32.5×25mm	32.5×50mm	32.4×58.8mm	124×32.4mm
Interposer Size	35×46mm (1.9R)	57.8×50mm (3.5R)	58.8×54.4mm (3.5R)	124×50mm (7.4R)
Substrate Size	54.7×55.8mm	81.5×74.8mm	100×91mm	153×77.5mm
HBM Stack #	6	8	8	16
HBM Generation	3	3E	4	4E

Source: Prismark; KGI Research estimates

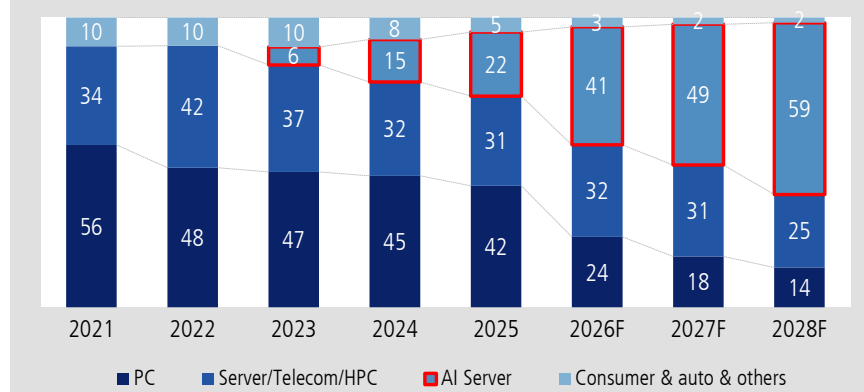
Figure 8: TSMC CoWoS advanced packaging roadmap

	2016	2020	2023	2024	2026	2027	2028
Technology	CoWoS-S	CoWoS-S	CoWoS-S	CoWoS-L/R	CoWoS-L/R	CoWoS-L	CoWoS-L
Interposer size	1.5-reticle	2-reticle	3.3-reticle	3.3-reticle	5.5-reticle	9.5-reticle	14-reticle
Logic process	N16 SoC	N7 SoC	N5 SoC / SoIC	N3 SoC	N3 / N2 SoC / SoIC	A16 SoC / SoIC	
HBM generation	HBM2	HBM2E	HBM3	HBM3	HBM3E / HBM4	HBM4E	HBM5
HBM stack #	4	6	8	8	12	≥12	20

Source: TSMC; KGI Research estimates

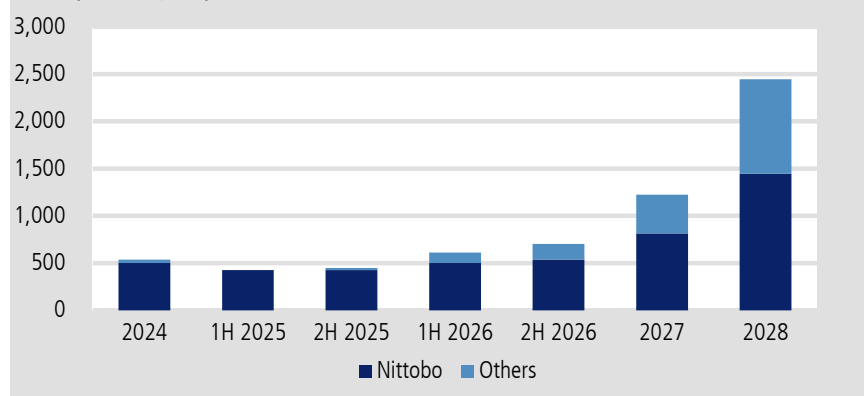
Figure 9: AI computing chips will account for 59% of total ABF substrate area demand in 2028F

Area demand share by application, percent



Source: KGI Research estimates

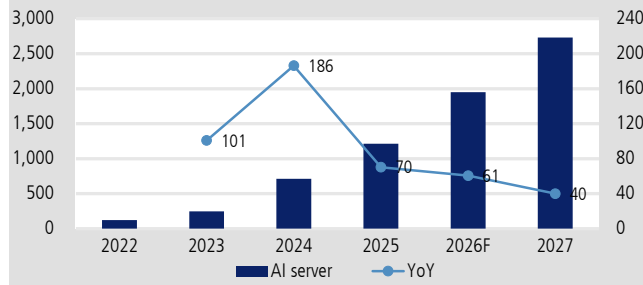
Figure 10: T-glass supply could increase by 100% YoY in 2027F & 300% YoY in 2028F

Monthly area capacity area, m²


Source: Prismark; KGI Research

Figure 11: 2022-27F AI server shipment estimates

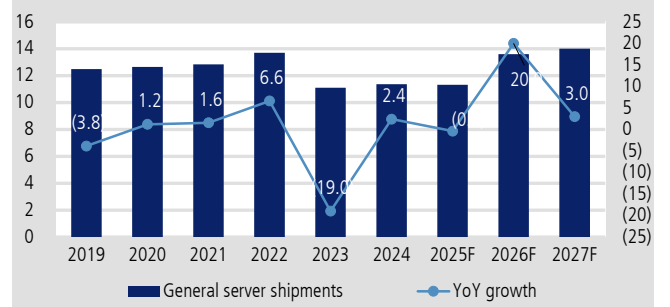
AI server shipments, mn units (LHS); YoY growth, percent (RHS)



Source: Gartner; KGI Research estimates

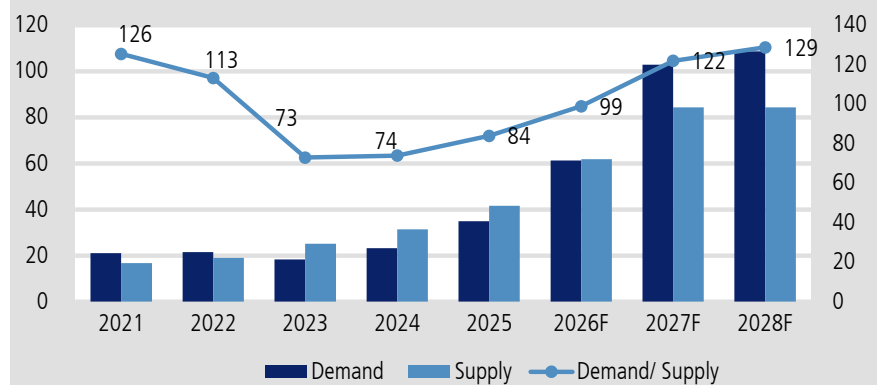
Figure 12: 2019-27F general server shipment estimates

General server shipments, mn units (LHS); YoY growth, percent (RHS)



Source: Gartner; KGI Research estimates

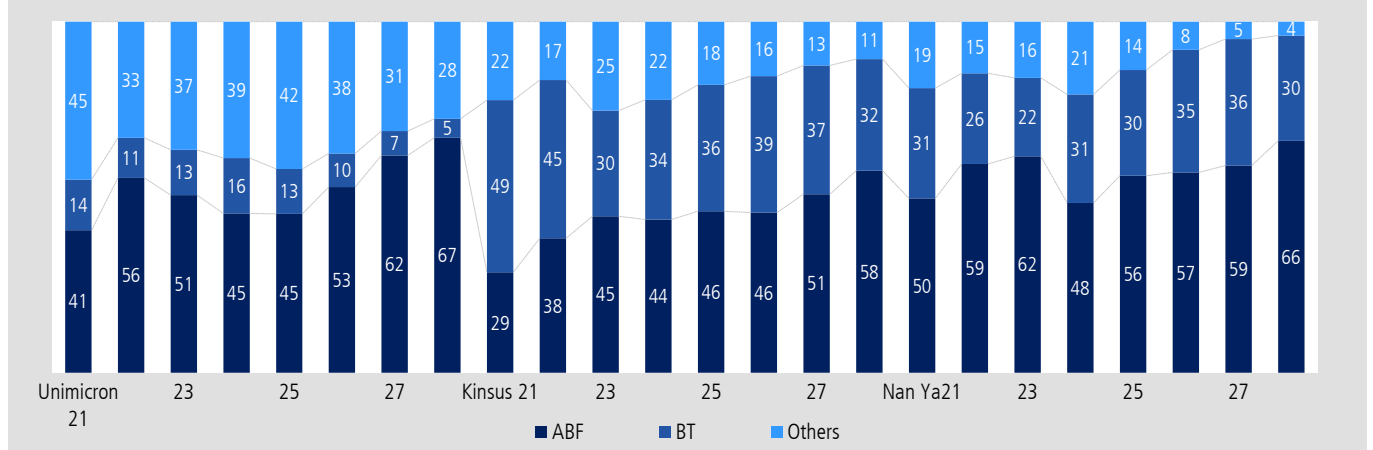
Figure 13: ABF supply deficit to be 22% in 2027F & 29% in 2028F.

Annual ABF substrate consumption, mn m² (LHS); demand/ supply ratio, percent (RHS)


Source: KGI Research estimates

Figure 14 : Taiwan's substrate product mix by technology

Product mix by technology, percent



資料來源: LightCounting, 凱基

Figure 15: Peer comparison – Valuations

Company	Ticker	Mkt Cap (US\$m)	Price (LCY)	EPS (LCY)			PE (x)			PB (x)			ROE (%)			Dividend yield (%)		
				2025	2026F	2027F	2025	2026F	2027F	2025	2026F	2027F	2025	2026F	2027F	2025	2026F	2027F
Unimicon	3037 TT	36,925	750.0	4.38	16.10	32.71	171.2	46.6	22.9	12.68	9.14	6.95	6.9	22.6	35.8	0.0	1.0	2.0
Kinsus	3189 TT	11,086	679.0	3.51	10.92	25.93	193.7	62.2	26.2	9.48	7.52	6.22	5.0	15.6	30.0	0.3	0.8	1.9
Nanya	8046 TT	22,125	1,105.0	3.01	17.27	38.88	366.8	64.0	28.4	15.48	12.90	9.65	4.3	22.0	38.9	0.2	0.9	2.1
Zhen Ding	4958 TT	16,442	478.5	6.91	16.92	26.71	69.3	28.3	17.9	4.13	3.69	3.25	5.8	13.8	19.3	0.7	1.8	2.8
Ibiden	4062 JP	27,231	15,685.0	228.16	255.83	383.82	68.7	61.3	40.9	7.96	7.18	6.10	12.2	12.1	17.1	0.2	0.2	0.3
AT&S	ATS AV	6,956	156.6	(1.11)	7.39	8.51	N.M.	21.2	18.4	8.65	4.55	3.69	(6.0)	23.0	20.1	-	-	0.2
SEMCO	009150 KS	65,570	1,301,000.0	9,345.0	18,703.6	39,038.4	139.2	69.6	33.3	9.64	9.16	7.39	8.7	13.8	23.2	0.2	0.2	0.4

Source: Bloomberg; KGI Research estimates

Outperform · Maintained

Price as of July 20 (NT\$)	750
12M target price (NT\$)	1,175
Previous target price (NT\$)	1,000
Revised up (%)	17.5
Upside (%)	56.7

Key message

1. 2Q26 revenue met expectations.
2. 2H26F earnings to be supported by larger substrate price hikes & an optical module ramp-up.
3. Wider ABF substrate supply gap in 2027-28F; LTAs extended through 2030F.

Trading data

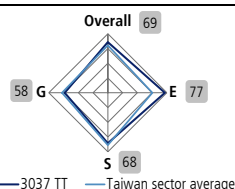
Mkt cap (NT\$/US\$mn)	1,231 / 37,942
Outstanding shares (mn)	1,641
Foreign ownership (mn)	610
3M avg. daily trading (mn)	17.76
52-week trading range (NT\$)	128.5 – 1,085

Performance	3M	6M	12M
Absolute (%)	10.6	143.5	463.9
Relative (%)	-4.3	109.8	382.4

Quarterly EPS

NT\$	1Q	2Q	3Q	4Q
2025	0.60A	0.02A	1.44A	2.32A
2026	3.28A	3.36F	4.15F	5.42F
2027	6.09F	7.70F	8.76F	10.15F

ESG score card



Source: Refinitiv; KGI Research

Unimicron

(3037.TW/3037 TT)



2Q26 results in line; larger substrate price hikes in 2H26F

Event

Unimicron Technology's June revenue reached NT\$14.90bn, up 6% MoM and 36% YoY. 2Q26 revenue totaled NT\$42.9bn, up 15% QoQ and 32% YoY, achieving 100.6% of our forecast and broadly in line with consensus.

Impact

2Q26 revenue met expectations. We estimate utilization rates for ABF, BT, HDI, and PCB to have exceeded 90% during the quarter. The company continues to optimize BT substrate facilities and production lines, aiming to reduce 2026F BT capacity by 15% YoY while reallocating capacity toward higher-end products. The capacity reshuffle is intended to support high-margin ABF substrate production. For HDI, production line adjustments at China facilities were completed last year. Following the completion of optimization efforts at the Taiwan plant in 2Q26, AI-related HDI output is expected to improve, supporting a strong performance trajectory in 2H26F.

2H26F to be supported by larger substrate price hikes & optical module ramp-up.

We expect substrate price increases in both 3Q26F and 4Q26F to exceed 10% QoQ, above our previous 5-10% expectation. Among substrate products, BT substrate pricing is expected to outpace ABF. Currently, AI-related products account for 60% of ABF substrate revenue and 50% of HDI revenue, with management targeting 65-70% for PCB businesses over time. Meanwhile, demand for 800G and 1.6T optical modules is expected to accelerate meaningfully in 2H26F. 2H26F production capacity could increase by more than 50% versus 1H26, and management targets 30-50% capacity growth in 2027F. Optical modules currently contribute 4-5% of revenue, with the weighting expected to rise to 6-7% in 2H26F.

Wider ABF substrate supply gap in 2027-28F; LTAs extended through 2030F. We believe T-glass fiberglass cloth supply will improve steadily during 2027-28F, supported by capacity additions from Nittobo (JP) and the successful qualification of alternative material sources. As upstream raw material constraints ease, ABF substrate capacity expansion should accelerate from 2H27F onward. However, high-end ABF substrates continue to migrate toward larger package sizes and higher layer counts, driving demand growth above supply growth. We estimate the ABF substrate market could enter a meaningful supply deficit in 2027-28F, with supply-demand gaps reaching 22% and 29%, respectively. Management views 2026-28F as a peak investment cycle for substrate capex, laying the groundwork for significant revenue upside in the years ahead.

Valuation & Action

Given that the ABF substrate market is entering an expanding supply-deficit cycle in 2027-28F, we expect stronger pricing tailwinds and continued product-mix improvement to support earnings growth. Accordingly, we raise 2026-27F earnings by a respective 13% and 18%, and project 2028F earnings growth of 65% YoY. We therefore lift our target price to NT\$1175, based on a 2027F PE of 36x. Maintain Outperform.

Risks

Oversupply drags down pricing; benefits of expansion and demand miss expectations.

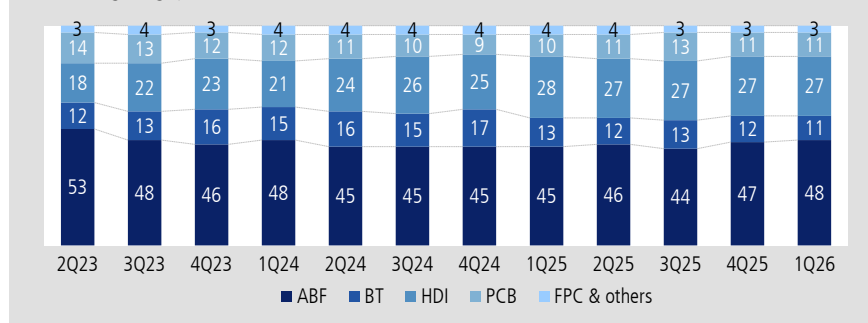
Key financials and valuations

	Dec-24A	Dec-25A	Dec-26F	Dec-27F	Dec-28F
Revenue (NT\$mn)	115,373	131,241	183,187	266,019	364,629
Gross profit (NT\$mn)	16,315	18,292	42,871	84,965	131,969
Operating profit (NT\$mn)	4,984	6,347	26,499	63,277	105,178
Net profit (NT\$mn)	5,082	6,673	25,588	51,979	85,760
EPS (NT\$)	3.34	4.38	16.10	32.71	53.96
Cash DPS (NT\$)	1.50	2.00	7.25	14.72	24.28
EPS growth (%)	(57.6)	31.1	267.5	103.1	65.0
PE (x)	224.5	171.2	46.6	22.9	13.9
PB (x)	12.3	12.7	9.1	6.9	5.1
EV/EBITDA (x)	45.4	40.7	23.1	12.8	8.3
Net debt to equity (%)	0.0	2.1	Net cash	Net cash	Net cash
Dividend yield (%)	0.2	0.3	1.0	2.0	3.2
Return on average equity (%)	5.5	6.9	22.6	35.8	43.9

Source: Company data; KGI Research estimates

Figure 1: Product shipments by technology

Product weighting, percent



Source: Company data; KGI Research

Figure 2: Breakdown of 2Q26 & 3Q26 forecast revisions vs. consensus

NT\$m	2Q26F					3Q26F				
	Revision	Previous	Chg. (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	Consensus	Diff. (%)
Sales	42,890	42,627	0.6	42,616	0.6	48,804	48,159	1.3	49,521	(1.4)
Gross profits	9,147	8,928	2.5	9,052	1.1	11,943	11,283	5.8	11,821	1.0
Operating profit	5,416	5,506	(1.6)	5,331	1.6	7,761	7,529	3.1	7,682	1.0
Net income	5,335	4,588	16.3	5,257	1.5	6,591	5,666	16.3	6,490	1.6
EPS (NT\$)	3.36	2.89	16.3	3.45	(2.7)	4.15	3.57	16.3	4.07	1.8
Gross margin (%)	21.3	20.9	0.4 ppts	21.2	0.1 ppts	24.5	23.4	1.0 ppts	23.9	0.6 ppts
OP margin (%)	12.6	12.9	(0.3)ppts	12.5	0.1 ppts	15.9	15.6	0.3 ppts	15.5	0.4 ppts
Net margin (%)	12.4	10.8	1.7 ppts	12.3	0.1 ppts	13.5	11.8	1.7 ppts	13.1	0.4 ppts

Source: Bloomberg; KGI Research

Figure 3: Breakdown of 2026-27 forecast revisions vs. consensus

NT\$m	2026F					2027F				
	Revision	Previous	Chg. (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	Consensus	Diff. (%)
Sales	183,187	179,107	2.3	184,198	(0.5)	266,019	246,767	7.8	265,701	0.1
Gross profit	42,871	40,088	6.9	42,056	1.9	84,965	72,039	17.9	82,104	3.5
Operating profit	26,499	24,965	6.1	26,176	1.2	63,277	53,368	18.6	63,130	0.2
Net profit	25,588	22,737	12.5	24,994	2.4	51,979	44,138	17.8	51,965	0.0
EPS (NT\$)	16.10	14.31	12.5	15.92	1.1	32.71	27.77	17.8	32.91	(0.6)
Gross margin (%)	23.4	22.4	1.0 ppts	22.8	0.6 ppts	31.9	29.2	2.7 ppts	30.9	1.0 ppts
OP margin (%)	14.5	13.9	0.5 ppts	14.2	0.3 ppts	23.8	21.6	2.2 ppts	23.8	0.0 ppts
Net margin (%)	14.0	12.7	1.3 ppts	13.6	0.4 ppts	19.5	17.9	1.7 ppts	19.6	(0.0)ppts

Source: Bloomberg; KGI Research

Figure 4: Peer comparison – Valuations

Company	Ticker	Mkt Cap (US\$m)	Price (LCY)	EPS (LCY)			PE (x)			PB (x)			ROE (%)			Dividend yield (%)		
				2025	2026F	2027F	2025	2026F	2027F	2025	2026F	2027F	2025	2026F	2027F	2025	2026F	2027F
Unimicron	3037 TT	36,925	750.0	4.38	16.10	32.71	171.2	46.6	22.9	12.68	9.14	6.95	6.9	22.6	35.8	0.0	1.0	2.0
Kinsus	3189 TT	11,086	679.0	3.51	10.92	25.93	193.7	62.2	26.2	9.48	7.52	6.22	5.0	15.6	30.0	0.3	0.8	1.9
Nanya	8046 TT	22,125	1,105.0	3.01	17.27	38.88	366.8	64.0	28.4	15.48	12.90	9.65	4.3	22.0	38.9	0.2	0.9	2.1
Ibiden	4062 JP	27,234	15,685.0	228.16	255.83	383.82	68.7	61.3	40.9	7.96	7.18	6.10	12.2	12.1	17.1	0.2	0.2	0.3
AT&S	ATS AV	6,930	156.0	(1.11)	7.39	8.51	N.M.	21.1	18.3	8.62	4.53	3.68	(6.0)	23.0	20.1	-	-	0.3
SEMCO	009150 KS	65,628	1,302,000.0	9,345.0	18,703.6	39,038.4	139.3	69.6	33.4	9.64	9.17	7.40	8.7	13.8	23.2	0.2	0.2	0.4

Source: Bloomberg; KGI Research

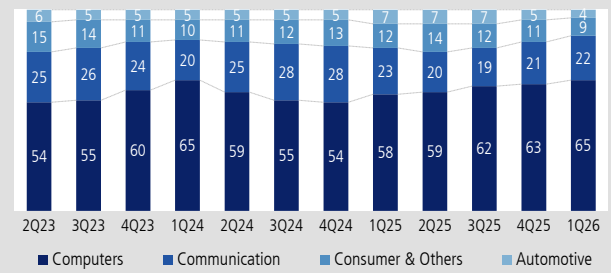
Figure 5: Company profile

Founded in 1990, Unimicron is a PCB and IC carrier maker headquartered in Taoyuan, Taiwan. The company expanded its market share through a number of M&As, and became the world's largest PCB supplier after merging with Phoenix Precision in 2009. 2024 sales by technology were IC carrier 6%, HDI 24%, PCB 10%, and FPCB and other 4%. By application, computer manufacturing was 58%, communications 26%, consumer & other 14%, and automotive 6%.

Source: KGI Research

Figure 6: Sales mix

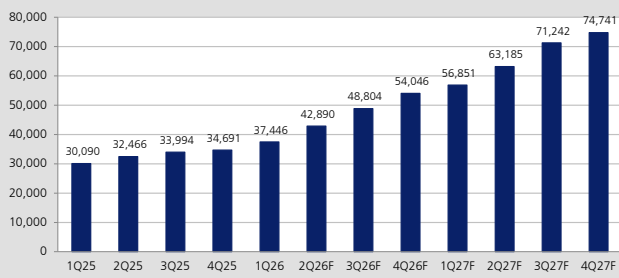
Sales weighting, percent



Source: Company data; KGI Research

Figure 7: Sales

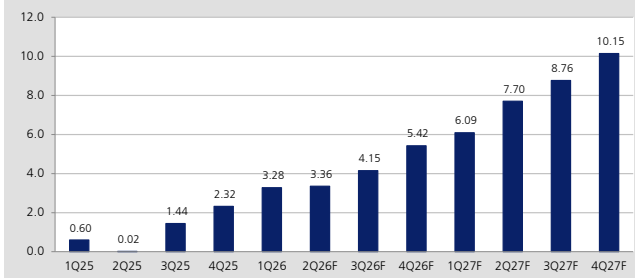
Sales, NT\$m



Source: KGI Research

Figure 8: EPS

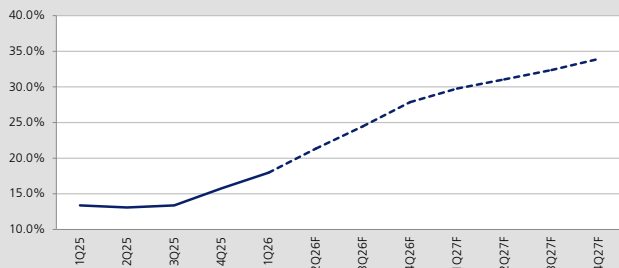
EPS, NT\$



Source: KGI Research

Figure 9: Gross Margin

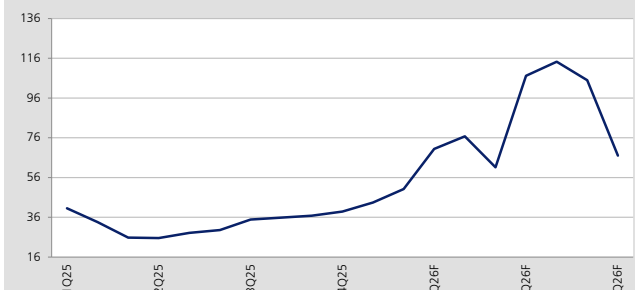
Gross margin, percent



Source: KGI Research

Figure 10: Rolling PE

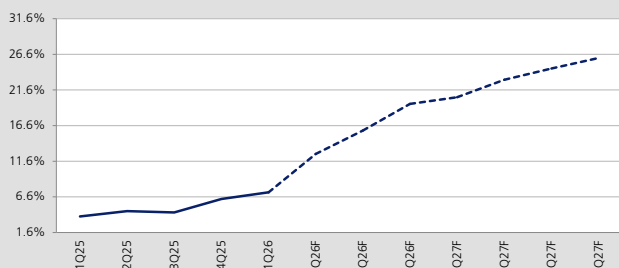
Rolling PE, times



Source: KGI Research

Figure 11: Operating Margin

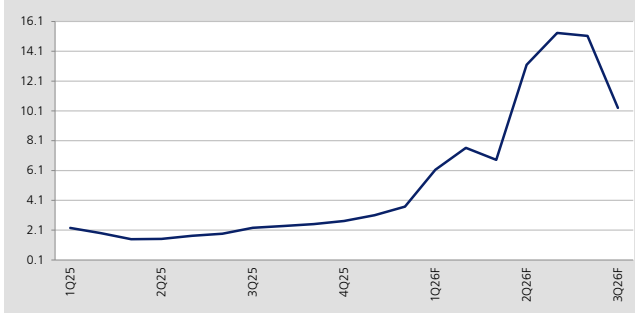
Operating margin, percent



Source: KGI Research

Figure 12: Rolling PB

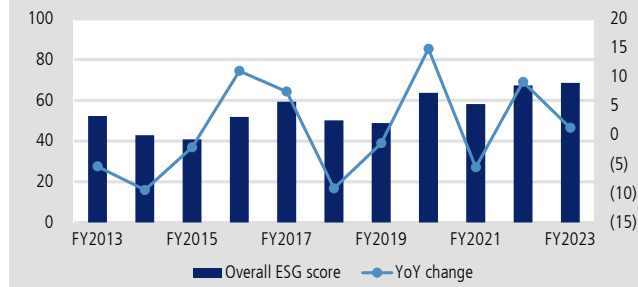
Rolling PB, times



Source: KGI Research

Figure 13: Overall ESG score

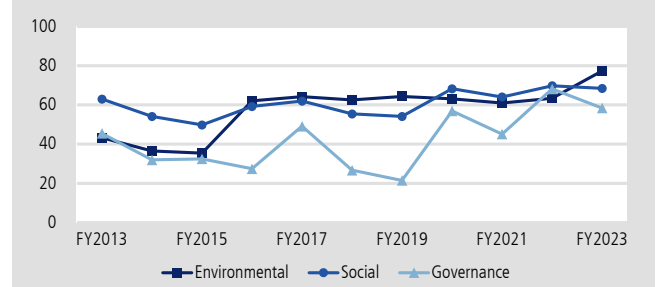
Overall ESG score, points (LHS); YoY change, points (RHS)



Source: Refinitiv; KGI Research; Company data

Figure 14: ESG score by category

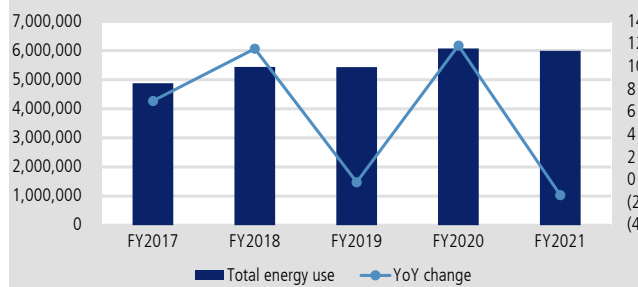
ESG score, points



Source: Refinitiv; KGI Research; Company data

Figure 15: Energy use

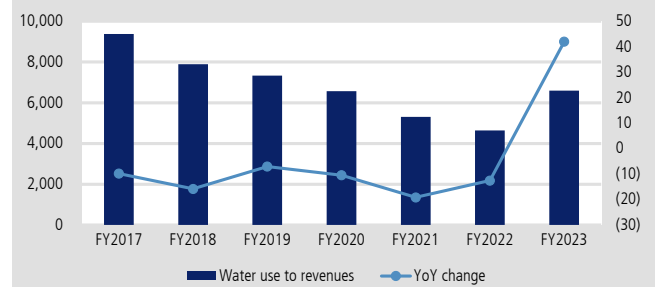
Energy use, gigajoules (LHS); YoY change, percent (RHS)



Source: Refinitiv; KGI Research; Company data

Figure 16: Water use to revenue

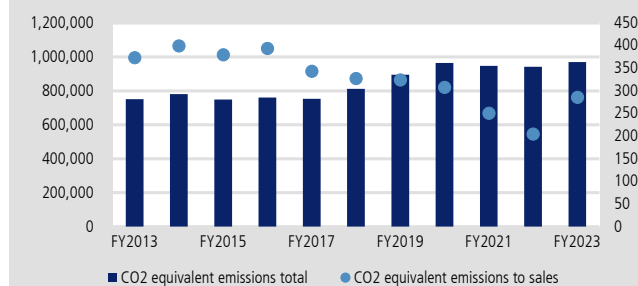
Water use to revenue, m3/ US\$m (LHS); YoY change, percent (RHS)



Source: Refinitiv; KGI Research; Company data

Figure 17: CO2 equivalent emissions

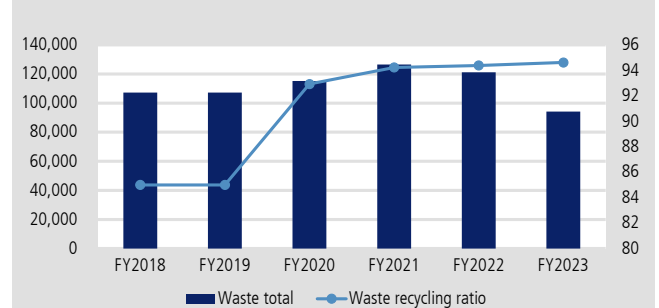
CO2 equivalent emissions, mt (LHS); emissions to revenue, mt/ US\$m (RHS)



Source: Refinitiv; KGI Research; Company data

Figure 18: Waste total

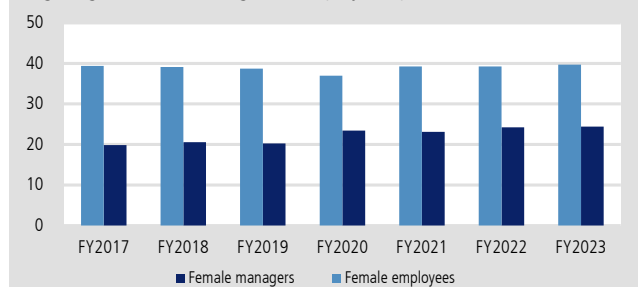
Waste total, mt (LHS); waste recycling ratio, percent (RHS)



Source: Refinitiv; KGI Research; Company data

Figure 19: Gender diversification

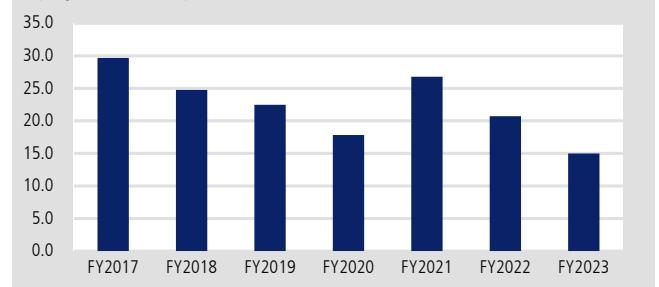
Weighting of female managers & employees, percent



Source: Refinitiv; KGI Research; Company data

Figure 20: Employee turnover

Employee turnover, percent



Source: Refinitiv; KGI Research; Company data

ESG chart definition

Item	Definition	Remarks
Energy use	Total direct and indirect energy consumption in gigajoules. - the total amount of energy that has been consumed within the boundaries of the company's operations - total energy use = total direct energy consumption + indirect energy consumption - purchased energy and produced energy are included in total energy use - for utilities, transmission/ grid loss as part of its business activities is considered as total energy consumed and data does not consider electricity produced to answer energy use (utility company produces to sell) - for utilities, raw materials such as coal, gas or nuclear used in the production of energy are not considered under 'total energy use'	
Renewable energy purchased	Total primary renewable energy purchased in gigajoules. - energy consumed by the company from various sources and among the purchased energy, how much energy is renewable in nature (solar, wind, hydro, biomass, geothermal) are in scope - if there is no evidence that renewable energy is produced by the company, then we consider the reported energy figure as renewable energy purchased	
Renewable energy use ratio	Renewable energy to total energy used	
CO2 equivalent emissions	Direct CO2 and CO2 equivalent emissions in metric tons. - direct emissions from sources that are owned or controlled by the company (scope 1 emissions) - following gases are relevant: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorinated compound (PFCS), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3)	
CO2 equivalent emissions to sales	Direct CO2 and CO2 equivalent emissions (metric tons) to sales (NT\$mn) - direct emissions from sources that are owned or controlled by the company (scope 1 emissions) - following gases are relevant: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorinated compound (PFCS), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3)	
Waste total	Total amount of waste produced in metric tons. - total waste = non-hazardous waste + hazardous waste - only solid waste is taken into consideration, exceptionally if liquid waste is reported in metric tons, then we do the summation to derive total including liquid waste - for sectors like mining, oil & gas, waste generation like tailings, waste rock, coal and fly ash are also considered	
Waste recycling ratio	The waste recycling ratio as reported by the company. - waste recycling ratio = waste recycled/total waste*100 - waste to energy or waste incinerated with energy recovery are considered as waste recycled - waste recovered via composting is considered as recycled waste	
Water withdrawal total	Total water withdrawal in cubic meters. - the total volume of water withdrawn from any water source that was either withdrawn directly by the reporting organization or through intermediaries such as water utilities - different sources of water like wells, town/utility/municipal water, river water, and surface water are considered	
Environmental expenditures	Total amount of environmental expenditures. - all environmental investment & expenditures for environmental protection or to prevent, reduce, control environmental aspects, impacts, and hazards. It also includes disposal, treatment, sanitation, and clean-up expenditures	
Turnover of employees	Percentage of employee turnover. - includes employees who left the company for any reason (voluntary or involuntary), such as resignations, retirement, natural departure/death, medical incapacitation, redundancy, layoffs, restructuring, dismissal, retrenchment or end of a fixed-term contract - employees turnover rate = (employees leaving/average number of employees)*100 - where the average number of employees = (employees at the end of the current year + employees at the end of the previous year)/2 - employees at the end of the current fiscal year = employees at the end of the previous fiscal year + new employees - employees leaving	
Women managers	Percentage of women managers. - percentage of women managers among total managers of the company - if there is a breakdown by category in percentage, such as top, senior, middle, and junior management, then we consider the percentage of middle women managers - percentage of women managers = number of women managers/total number of managers*100	
Women employees	Percentage of women employees. - percentage of women employees to the total number of employees of the company - percentage of women employees = number of women/total number of employees*100	
Training hours total	Total training hours performed by all employees. - consider only employee training hours - includes all types of training given to general employees (such as health & safety, environmental, emergency response, skills & career development training) - if the value is given in days, multiply by 8, assuming that 1 day = 8 hours worked	
Training hours per employee	Training hours per employee per year	

Source: Refinitiv; KGI Research

Income statement

	Quarterly								Annually		
	Mar-26A	Jun-26F	Sep-26F	Dec-26F	Mar-27F	Jun-27F	Sep-27F	Dec-27F	Dec-26F	Dec-27F	Dec-28F
Income statement (NT\$m)											
Revenue	37,446	42,890	48,804	54,046	56,851	63,185	71,242	74,741	183,187	266,019	364,629
Cost of goods sold	(30,720)	(33,743)	(36,861)	(38,992)	(39,924)	(43,556)	(48,188)	(49,386)	(140,316)	(181,054)	(232,660)
Gross profit	6,726	9,147	11,943	15,055	16,927	19,629	23,055	25,355	42,871	84,965	131,969
Operating expenses	(4,017)	(3,731)	(4,182)	(4,441)	(5,231)	(5,074)	(5,520)	(5,863)	(16,372)	(21,688)	(26,792)
Operating profit	2,709	5,416	7,761	10,613	11,695	14,555	17,534	19,492	26,499	63,277	105,178
Depreciation of fixed assets	(4,917)	(5,075)	(5,075)	(5,233)	(5,446)	(5,446)	(5,446)	(5,446)	(20,300)	(21,785)	(23,012)
Amortisation of intangible assets	(111)	(129)	(129)	(146)	(130)	(130)	(130)	(130)	(515)	(520)	(525)
EBITDA	7,737	10,620	12,965	15,992	17,271	20,131	23,111	25,068	47,314	85,582	128,715
Interest income	319	283	283	283	283	283	283	283	1,168	1,132	1,132
Investment income	-	-	-	-	-	-	-	-	-	-	-
Other non-op income	316	1,450	1,450	450	750	750	750	750	3,666	3,000	3,000
Non-operating income	634	1,733	1,733	733	1,033	1,033	1,033	1,033	4,833	4,132	4,132
Interest expense	(298)	(251)	(251)	(251)	(251)	(251)	(251)	(251)	(1,051)	(1,004)	(1,004)
Investment loss	(10)	-	-	-	-	-	-	-	(10)	-	-
Other non-op expenses	3,216	(100)	(100)	(100)	(100)	(100)	(100)	(100)	2,916	(400)	(400)
Non-operating expenses	2,908	(351)	(351)	(351)	(351)	(351)	(351)	(351)	1,855	(1,404)	(1,404)
Pre-tax profit	6,251	6,798	9,143	10,995	12,377	15,237	18,216	20,174	33,188	66,005	107,906
Current taxation	(918)	(1,224)	(2,286)	(1,979)	(2,352)	(2,743)	(4,008)	(3,631)	(6,407)	(12,733)	(20,808)
Minorities	(338)	(240)	(267)	(397)	(345)	(252)	(280)	(416)	(1,241)	(1,293)	(1,347)
Normalised net profit	4,995	5,335	6,591	8,620	9,681	12,243	13,929	16,126	25,540	51,979	85,750
Extraordinary items	48	-	-	-	-	-	-	-	48	-	10
Net profit	5,043	5,335	6,591	8,620	9,681	12,243	13,929	16,126	25,588	51,979	85,760
EPS (NT\$)	3.28	3.36	4.15	5.42	6.09	7.70	8.76	10.15	16.10	32.71	53.96
Margins (%)											
Gross profit margin	18.0	21.3	24.5	27.9	29.8	31.1	32.4	33.9	23.4	31.9	36.2
Operating margin	7.2	12.6	15.9	19.6	20.6	23.0	24.6	26.1	14.5	23.8	28.8
EBITDA margin	20.7	24.8	26.6	29.6	30.4	31.9	32.4	33.5	25.8	32.2	35.3
Pretax profit margin	16.7	15.9	18.7	20.3	21.8	24.1	25.6	27.0	18.1	24.8	29.6
Net profit margin	13.5	12.4	13.5	15.9	17.0	19.4	19.6	21.6	14.0	19.5	23.5
Sequential growth (%)											
Revenue growth	7.9	14.5	13.8	10.7	5.2	11.1	12.8	4.9			
Gross profit growth	22.9	36.0	30.6	26.1	12.4	16.0	17.5	10.0			
Operating profit growth	23.8	100.0	43.3	36.7	10.2	24.5	20.5	11.2			
EBITDA growth	9.4	37.3	22.1	23.3	8.0	16.6	14.8	8.5			
Pretax profit growth	57.3	8.8	34.5	20.3	12.6	23.1	19.6	10.7			
Net profit growth	42.7	5.8	23.5	30.8	12.3	26.5	13.8	15.8			
YoY growth (%)											
Revenue growth	24.5	32.1	43.6	55.8	51.8	47.3	46.0	38.3	39.6	45.2	37.1
Gross profit growth	67.1	115.5	162.6	175.1	151.7	114.6	93.0	68.4	134.4	98.2	55.3
Operating profit growth	133.7	262.1	416.1	385.1	331.8	168.7	125.9	83.7	317.5	138.8	66.2
EBITDA growth	34.7	74.3	109.0	126.0	123.2	89.6	78.3	56.8	88.4	80.9	50.4
Pretax profit growth	393.8	1881.8	213.3	176.8	98.0	124.1	99.2	83.5	290.5	98.9	63.5
Net profit growth	451.4	17918.7	200.3	143.9	92.0	129.5	111.3	87.1	283.4	103.1	65.0

Source: Company data; KGI Research estimates

Balance sheet

NT\$m	Dec-24A	Dec-25A	Dec-26F	Dec-27F	Dec-28F
Total assets	230,847	255,792	304,417	373,592	463,916
Current assets	86,869	105,298	140,192	202,971	288,135
Cash & ST securities	43,972	55,049	74,718	113,676	170,301
Inventory	14,863	17,802	22,115	28,536	36,569
Accounts receivable	23,617	27,570	38,482	55,883	76,389
Other current assets	4,418	4,877	4,877	4,877	4,877
Non-current assets	143,978	150,494	164,225	170,621	175,780
LT investments	17,152	17,146	17,175	17,233	17,281
Net fixed assets	120,536	125,866	139,568	145,906	151,017
Other assets	6,291	7,482	7,482	7,482	7,482
Total liabilities	131,260	148,785	171,124	199,454	228,200
Current liabilities	58,382	75,455	88,888	110,628	132,207
Accounts payable	15,117	17,494	21,733	28,043	35,938
Interest bearing ST liabilities	10,871	22,206	22,469	25,437	27,634
Other current liabilities	32,394	35,754	44,686	57,148	68,635
Non-current liabilities	72,878	73,330	82,235	88,826	95,993
Long-term debt	32,905	34,873	43,778	50,369	57,536
Other L-T liabilities	37,984	35,639	35,639	35,639	35,639
Total equity	99,587	107,007	133,294	174,138	235,716
Share capital	15,300	17,003	17,003	17,003	17,003
Retained earnings reserve	49,729	54,835	68,340	95,775	145,504
Minority interests	6,322	6,438	7,679	8,971	10,318
Preferred shareholders funds	-	-	-	-	-

Key ratios

	Dec-24A	Dec-25A	Dec-26F	Dec-27F	Dec-28F
Growth					
Revenue growth	10.9%	13.8%	39.6%	45.2%	37.1%
Operating profit growth	(42.9%)	27.3%	317.5%	138.8%	66.2%
EBITDA growth	(6.8%)	13.1%	88.4%	80.9%	50.4%
Net profit growth	(57.6%)	31.3%	283.4%	103.1%	65.0%
EPS growth	(57.6%)	31.1%	267.5%	103.1%	65.0%
Profitability					
Gross profit margin	14.1%	13.9%	23.4%	31.9%	36.2%
Operating margin	4.3%	4.8%	14.5%	23.8%	28.8%
EBITDA margin	19.3%	19.1%	25.8%	32.2%	35.3%
Net profit margin	4.4%	5.1%	14.0%	19.5%	23.5%
Return on average assets	2.3%	2.7%	9.1%	15.3%	20.5%
Return on average equity	5.5%	6.9%	22.6%	35.8%	43.9%
Stability					
Gross debt to equity	44.0%	53.3%	49.7%	43.5%	36.1%
Net debt to equity	0.0%	2.1%	Net cash	Net cash	Net cash
Interest coverage (x)	10.1	8.7	32.6	66.7	108.5
Interest & ST debt coverage (x)	0.4	0.2	0.6	0.7	0.8
Cash flow interest coverage(x)	13.1	13.6	33.7	56.5	88.3
Cash flow/int. & ST debt (x)	0.9	0.6	1.5	2.1	3.1
Current ratio (x)	1.5	1.4	1.6	1.8	2.2
Quick ratio (x)	1.2	1.2	1.3	1.6	1.9
Net debt (NT\$m)	23	2,207	(8,293)	(37,692)	(84,953)
Per share data					
EPS (NT\$)	3.34	4.38	16.10	32.71	53.96
CFPS (NT\$)	6.77	9.83	22.29	35.72	55.78
BVPS (NT\$)	60.96	59.15	82.10	107.95	147.32
Adj BVPS (NT\$)	61.31	66.02	79.04	103.93	141.83
SPS (NT\$)	75.84	86.16	115.27	167.39	229.44
EBITDA/share (NT\$)	14.60	16.49	29.77	53.85	80.99
Cash DPS (NT\$)	1.50	2.00	7.25	14.72	24.28
Activity					
Sales / avg assets	0.52	0.54	0.65	0.78	0.87
Days receivable	74.9	76.7	76.7	76.7	76.7
Days inventory	54.9	57.5	57.5	57.5	57.5
Days payable	55.9	56.5	56.5	56.5	56.5
Cash cycle	74.0	77.7	77.7	77.7	77.7

Source: Company data; KGI Research estimates

Profit & loss

NT\$m	Dec-24A	Dec-25A	Dec-26F	Dec-27F	Dec-28F
Revenue	115,373	131,241	183,187	266,019	364,629
Cost of goods sold	(99,058)	(112,949)	(140,316)	(181,054)	(232,660)
Gross profit	16,315	18,292	42,871	84,965	131,969
Operating expenses	(11,331)	(11,946)	(16,372)	(21,688)	(26,792)
Operating profit	4,984	6,347	26,499	63,277	105,178
Non-operating income	2,338	2,363	4,833	4,132	4,132
Interest income	1,280	1,287	1,168	1,132	1,132
Investment income	49	58	-	-	-
Other non-op income	1,010	1,018	3,666	3,000	3,000
Non-operating expenses	(134)	(210)	1,855	(1,404)	(1,404)
Interest expense	(786)	(1,104)	(1,051)	(1,004)	(1,004)
Investment loss	(21)	(50)	(10)	-	-
Other non-op expenses	673	943	2,916	(400)	(400)
Pre-tax profit	7,188	8,499	33,188	66,005	107,906
Current taxation	(1,765)	(1,277)	(6,407)	(12,733)	(20,808)
Minorities	(474)	(877)	(1,241)	(1,293)	(1,347)
Extraordinary items	132	328	48	-	10
Net profit	5,082	6,673	25,588	51,979	85,760
EBITDA	22,215	25,119	47,314	85,582	128,715
EPS (NT\$)	3.34	4.38	16.10	32.71	53.96

Cash flow

NT\$m	Dec-24A	Dec-25A	Dec-26F	Dec-27F	Dec-28F
Operations cash flow	10,294	14,967	35,426	56,772	88,653
Net profit	5,082	6,673	25,588	51,979	85,760
Depreciation & amortisation	17,231	18,773	20,815	22,305	23,537
Decrease in working capital	(5,229)	(4,449)	(10,987)	(17,511)	(20,645)
Other operating cash flow	(6,791)	(6,030)	10	0	(0)
Investing cash flow	(29,230)	(23,018)	(34,556)	(28,701)	(28,696)
Sale of ST investment	(3,050)	1,807	-	-	-
New investments	-	(77)	(39)	(58)	(48)
Capital expenditure	(26,128)	(25,617)	(34,002)	(28,123)	(28,123)
Others investing cashflow	(52)	870	(515)	(520)	(525)
Free cash flow	(10,865)	(6,340)	(3,305)	27,220	59,140
Financing cash flow	8,336	19,073	18,799	10,887	(3,332)
Increase in short term debt	4,827	4,331	-	-	-
Increase in long term loans	8,388	9,950	9,169	9,559	9,364
New ordinary shares issued	-	2,150	-	-	-
Ordinary dividends paid	(4,575)	(2,295)	(3,151)	(12,083)	(24,544)
Other financing cashflow	(303)	4,938	12,781	13,410	11,849
Forex effects	1,494	96	-	-	-
Total cash generated	(9,106)	11,118	19,669	38,958	56,625

ROIC

	Dec-24A	Dec-25A	Dec-26F	Dec-27F	Dec-28F
1 - COGS/revenue					
- Operating exp./revenue	9.8%	9.1%	8.9%	8.2%	7.3%
= Operating margin	4.3%	4.8%	14.5%	23.8%	28.8%
1 / (Working capital/revenue	(0.0)	(0.0)	(0.0)	0.0	0.0
+ Net PPE/revenue	1.0	1.0	0.8	0.5	0.4
+ Other assets/revenue)	0.0	0.0	0.0	0.0	0.0
= Capital turnover	1.0	1.1	1.3	1.8	2.2
Operating margin	4.3%	4.8%	14.5%	23.8%	28.8%
x Capital turnover	1.0	1.1	1.3	1.8	2.2
x (1 - tax rate)	75.5%	85.0%	80.7%	80.7%	80.7%
= After-tax ROIC	3.2%	4.4%	15.4%	34.0%	51.6%

Source: Company data; KGI Research estimates

Outperform · Maintained

Price as of July 20 (NT\$)	1,105
12M target price (NT\$)	1,480
Previous target price (NT\$)	600
Revised up (%)	146.7
Upside (%)	33.9

Key message

1. We raise 2Q26F gross margin on product price hikes.
2. ASIC & high-end switch to shore up operations.
3. Current global ABF supply shortage likely to worsen in 2027-28F.

Trading data

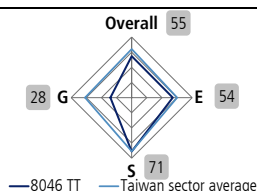
Mkt cap (NT\$bn/US\$mn)	714 / 22,013
Outstanding shares (mn)	646
Foreign ownership (mn)	85
3M avg. daily trading (mn)	12.82
52-week trading range (NT\$)	163.0 – 1,415

Performance	3M	6M	12M
Absolute (%)	38.8	223.6	546.2
Relative (%)	23.9	189.9	464.7

Quarterly EPS

NT\$	1Q	2Q	3Q	4Q
2025	0.32A	(0.29)A	1.12A	1.86A
2026	2.03A	3.41F	4.71F	7.12F
2027	8.33F	9.40F	9.74F	11.42F

ESG score card



Source: Refinitiv; KGI Research

Nan Ya PCB

(8046.TW/8046 TT)



2Q26 sales beat on product price hikes

Event

Nan Ya PCB reported June sales of NT\$4.68bn, up 5.5% MoM and 50% YoY, resulting in 2Q26 sales of NT\$13.58bn, up 21.5% QoQ and 42% YoY, achieving 107% of our forecast.

Impact

We raise 2Q26F gross margin on product price hikes. ABF and BT substrate contributed 55-60% and 30-35% of 1Q26 sales, respectively, thanks to robust demand for high-end switch and memory, as well as more significant price increases compared to 1Q26. In 1H26, ABF capacity utilization was stable at 80-85%, while BT capacity was almost fully utilized. The PCB business mainly serviced consumer applications and was unprofitable. Going forward, management plans to convert PCB capacity for the production of BT substrate. We raise 2Q26F gross margin to 22.6% and EPS by 25% to NT\$3.41.

ASIC & high-end switch to shore up operations. AI and data center (800G switch) applications account for about 60% of ABF sales. The current business strategy is to focus on legacy ASIC and high-end switch. Management aims to capture a 50-70% share in the high-end (800G and 1.6T) switch market. More than 50% of existing ABF capacity is capable of producing large-size substrate, and scheduled capacity expansions won't be operational before 2029F. As such, we believe any product spec upgrades in 2026-28F can only be achieved through upgrading existing capacity.

Significant ABF substrate undersupply in 2027-28F. We believe global T-glass fiberglass cloth supply will improve steadily in 2027-28F, supported by capacity additions by Nitto Boseki (JP) and the certification of alternative material sources. As upstream raw material constraints ease, global ABF substrate capacity expansion should accelerate from 2H27F. However, high-end ABF substrate continues to migrate toward larger package sizes and higher layer counts, resulting in demand growth that exceeds supply growth. We expect the ABF substrate market will enter a period of significant undersupply in 2027-28F, with an estimated supply-demand gap of 22% and 29%, respectively. Management guides 2026-28F will be the peak investment cycle for the firm's ABF substrate capex, laying the groundwork for significant revenue upside in the years ahead. Also, as Taiwanese and Korean substrate makers are reducing the conversion of BT-to-ABF capacity, we expect ABF substrate prices to continue rising in 2027F, even if raw material (i.e. T-glass fiberglass cloth) supply increases.

Valuation & Action

The current global ABF substrate shortage is likely to worsen in 2027-28F, driving further price hikes and product mix optimization for Nan Ya PCB. Given the upcoming ABF industry upcycle, we revise up 2026-27F earnings by a respective 23% and 50%, and forecast that 2028F earnings will grow 58% YoY. We raise our target price to NT\$1480, based on 38x 2027F EPS. Maintain Outperform.

Risks

Priming pressure on aggressive capacity expansion; weak end-market demand.

Key financials and valuations

	Dec-24A	Dec-25A	Dec-26F	Dec-27F	Dec-28F
Revenue (NT\$mn)	32,283	40,173	59,052	88,409	123,313
Gross profit (NT\$mn)	358	3,647	15,117	33,097	51,935
Operating profit (NT\$mn)	(1,267)	1,982	12,995	30,380	48,360
Net profit (NT\$mn)	204	1,947	11,157	25,125	39,642
EPS (NT\$)	0.32	3.01	17.27	38.88	61.35
Cash DPS (NT\$)	1.00	2.00	10.36	23.33	36.81
EPS growth (%)	(96.5)	855.6	473.1	125.2	57.8
PE (x)	3,504.8	366.8	64.0	28.4	18.0
PB (x)	15.7	15.5	12.9	9.7	7.2
EV/EBITDA (x)	134.5	78.6	34.6	17.4	11.4
Net debt to equity (%)	Net cash	Net cash	Net cash	Net cash	Net cash
Dividend yield (%)	0.1	0.2	0.9	2.1	3.3
Return on average equity (%)	0.4	4.3	22.0	38.9	45.7

Source: Company data; KGI Research estimates

Figure 1: Breakdown of 2Q-3Q26 forecast revisions vs. consensus

NT\$m	2Q26F					3Q26F				
	Revision	Previous	Chg. (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	Consensus	Diff. (%)
Sales	13,575	12,677	7.1	13,393	1.4	15,965	15,366	3.9	16,073	(0.7)
Gross profits	3,043	2,427	25.4	2,714	12.1	4,333	3,497	23.9	3,848	12.6
Operating profit	2,539	1,953	30.0	2,422	4.8	3,757	2,967	26.6	3,614	4.0
Net income	2,203	1,759	25.2	2,035	8.2	3,045	2,463	23.6	3,004	1.4
EPS (NT\$)	3.41	2.72	25.2	3.24	5.3	4.71	3.81	23.6	4.70	0.3
Gross margin (%)	22.4	19.1	3.3 pts	20.3	2.1 pts	27.1	22.8	4.4 pts	23.9	3.2 pts
OP margin (%)	18.7	15.4	3.3 pts	18.1	0.6 pts	23.5	19.3	4.2 pts	22.5	1.1 pts
Net margin (%)	16.2	13.9	2.3 pts	15.2	1.0 pts	19.1	16.0	3.0 pts	18.7	0.4 pts

Source: Bloomberg; KGI Research

Figure 2: Breakdown of 2026-27 forecast revisions vs. consensus

NT\$m	2026F					2027F				
	Revision	Previous	Chg. (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	Consensus	Diff. (%)
Sales	59,052	55,879	5.7	58,565	0.8	88,409	73,378	20.5	94,809	(6.8)
Gross profit	15,117	12,146	24.5	13,311	13.6	33,097	22,247	48.8	32,984	0.3
Operating profit	12,995	10,178	27.7	12,121	7.2	30,380	19,812	53.3	31,373	(3.2)
Net profit	11,157	9,084	22.8	10,301	8.3	25,125	16,763	49.9	26,055	(3.6)
EPS (NT\$)	17.27	14.06	22.8	15.51	11.3	38.88	25.94	49.9	38.98	(0.2)
Gross margin (%)	25.6	21.7	3.9 pts	22.7	2.9 pts	37.4	30.3	7.1 pts	34.8	2.6 pts
OP margin (%)	22.0	18.2	3.8 pts	20.7	1.3 pts	34.4	27.0	7.4 pts	33.1	1.3 pts
Net margin (%)	18.9	16.3	2.6 pts	17.6	1.3 pts	28.4	22.8	5.6 pts	27.5	0.9 pts

Source: Bloomberg; KGI Research

Figure 3: Peer comparison – Valuations

Company	Ticker	Mkt Cap (US\$m)	Price (LCY)	EPS (LCY)			PE (x)			PB (x)			ROE (%)			Dividend yield (%)		
				2025	2026F	2027F	2025	2026F	2027F	2025	2026F	2027F	2025	2026F	2027F	2025	2026F	2027F
Nan Ya PCB	8046 TT	22,125	1,105.00	3.01	17.27	38.88	366.8	64.0	28.4	15.5	12.9	9.7	4.3	22.0	38.9	0.2	0.9	2.1
Compeq	2313 TT	7,349	199.00	5.51	8.04	12.88	36.1	24.7	15.4	5.0	4.3	3.7	14.2	18.7	25.8	1.4	2.0	3.2
Kinsus	3189 TT	11,086	679.00	3.51	10.92	25.93	193.7	62.2	26.2	9.5	7.5	6.2	5.0	15.6	30.0	0.3	0.8	1.9
Unimicron	3037 TT	36,925	750.00	4.38	16.10	32.71	171.2	46.6	22.9	12.7	9.1	6.9	6.9	22.6	35.8	0.3	1.0	2.0
Ibiden	4062 JP	27,233	15,685.00	192.61	255.83	383.82	81.4	61.3	40.9	7.6	7.2	6.1	10.5	12.1	17.1	10.5	0.2	0.2
SEMCO	009150 KS	65,628	1,302,000	9,345.00	18,703.57	39,038.35	139.3	69.6	33.4	9.6	9.2	7.4	8.7	13.8	23.2	8.7	0.1	0.2

Source: Bloomberg; KGI Research

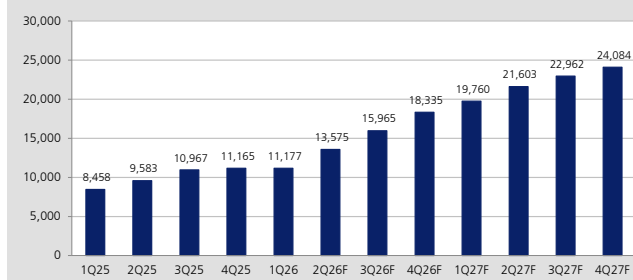
Figure 4: Company profile

Established in 1997, Nan Ya PCB ramped up production of flip-chip substrates in 2001 and began mass production of PCB in Kunshan in 2002. In 2022, the sales breakdown by technology type was 15% from PCB, 26% from BT substrates and 59% from ABF substrates, while the terminal application product mix was 46% networking and communications, 20% PC, 17% consumer electronics, 8% automotive, and 8% others (AI/ HPC). As of 2022, Nan Ya PCB can produce 41mn units of ABF substrate, 600k sq. ft. of BT substrate, and 900k sq. ft. of PCB (360k sq. ft. HDI), per month. Broadcom (US), Nvidia (US), AMD (US), and Apple (US) are among its main clients.

Source: KGI Research

Figure 6: Sales

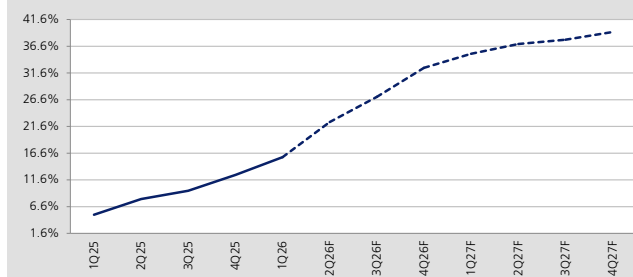
Sales, NT\$m



Source: KGI Research

Figure 8: Gross Margin

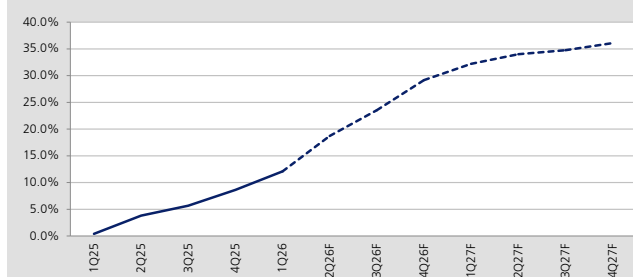
Gross margin, percent



Source: KGI Research

Figure 10: Operating Margin

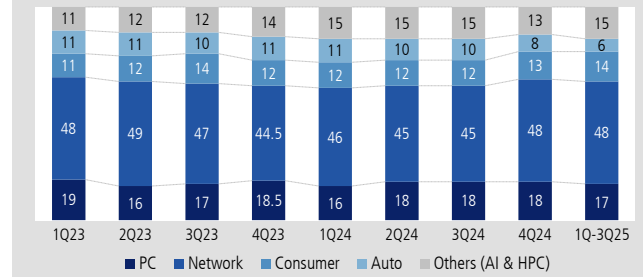
Operating margin, percent



Source: KGI Research

Figure 5: AI, GPU, & 5G have boosted network sales

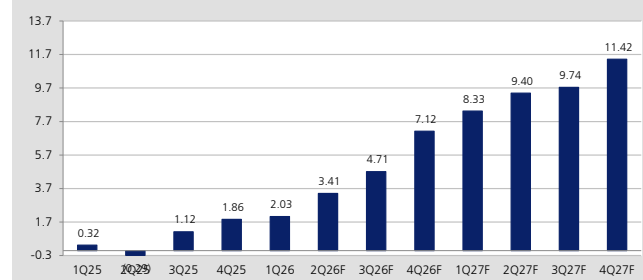
Sales weighting by application, percent



Source: Company data; KGI Research

Figure 7: EPS

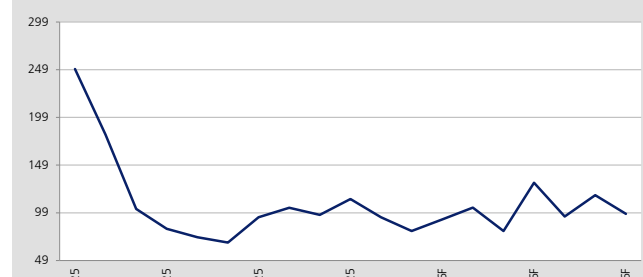
EPS, NT\$



Source: KGI Research

Figure 9: Rolling PE

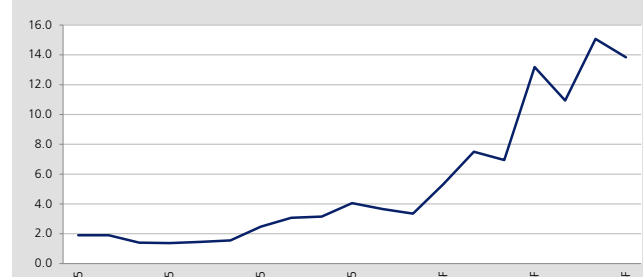
Rolling PE, times



Source: KGI Research

Figure 11: Rolling PB

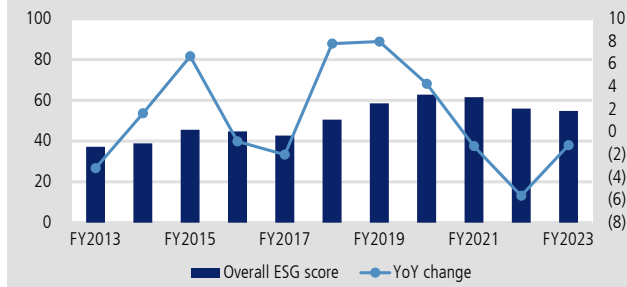
Rolling PB, times



Source: KGI Research

Figure 12: Overall ESG score

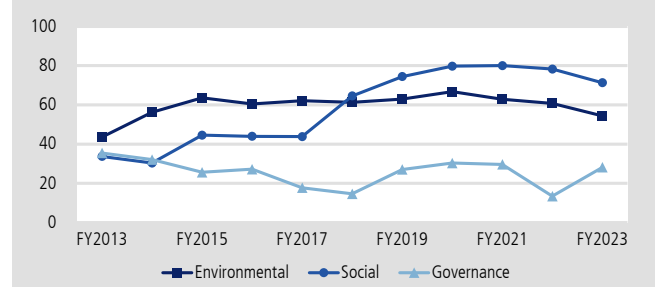
Overall ESG score, points (LHS); YoY change, points (RHS)



Source: Refinitiv; KGI Research; Company data

Figure 13: ESG score by category

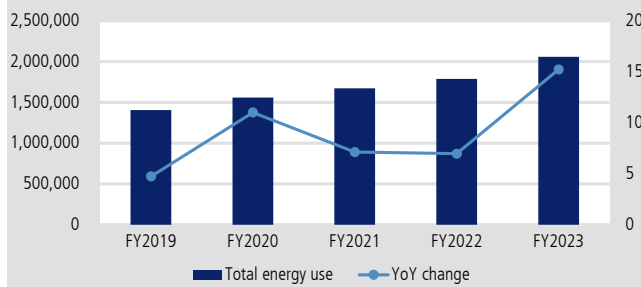
ESG score, points



Source: Refinitiv; KGI Research; Company data

Figure 14: Energy use

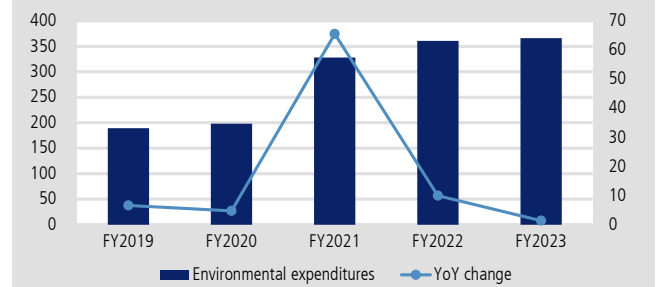
Energy use, gigajoules (LHS); YoY change, percent (RHS)



Source: Refinitiv; KGI Research; Company data

Figure 15: Environmental expenditures

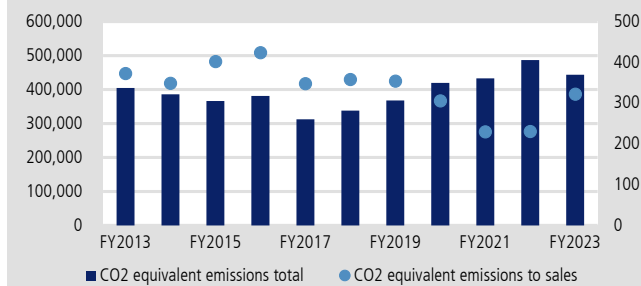
Environmental expenditures, NT\$m (LHS); YoY change, percent (RHS)



Source: Refinitiv; KGI Research; Company data

Figure 16: CO2 equivalent emissions

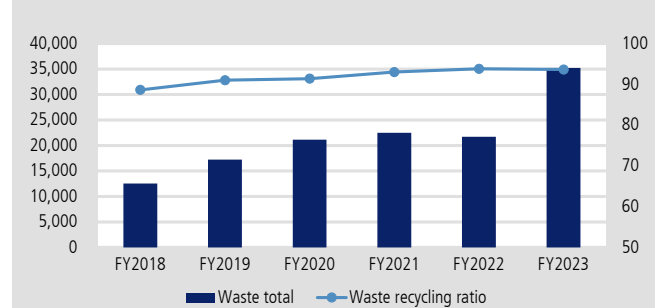
CO2 equivalent emissions, mt (LHS); emissions to revenue, mt/ US\$m (RHS)



Source: Refinitiv; KGI Research; Company data

Figure 17: Waste total

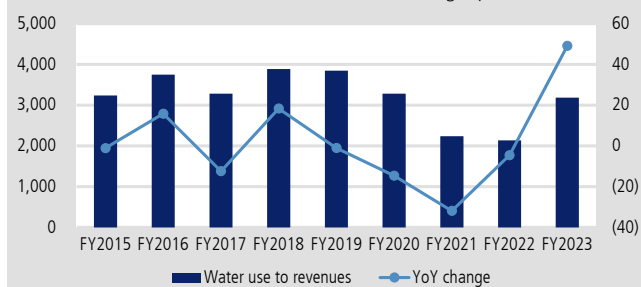
Waste total, mt (LHS); waste recycling ratio, percent (RHS)



Source: Refinitiv; KGI Research; Company data

Figure 18: Water use to revenue

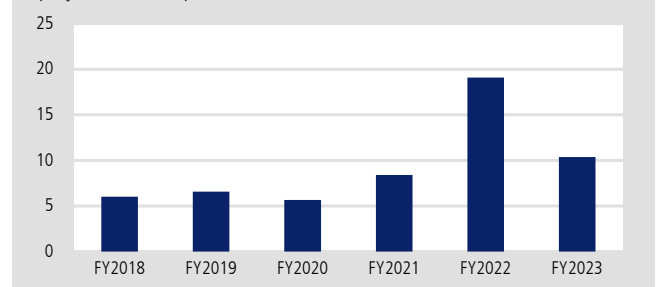
Water use to revenue, m³/ US\$m (LHS); YoY change, percent (RHS)



Source: Refinitiv; KGI Research; Company data

Figure 19: Employee turnover

Employee turnover, percent



Source: Refinitiv; KGI Research; Company data

ESG chart definition

Item	Definition	Remarks
Energy use	Total direct and indirect energy consumption in gigajoules. - the total amount of energy that has been consumed within the boundaries of the company's operations - total energy use = total direct energy consumption + indirect energy consumption - purchased energy and produced energy are included in total energy use - for utilities, transmission/ grid loss as part of its business activities is considered as total energy consumed and data does not consider electricity produced to answer energy use (utility company produces to sell) - for utilities, raw materials such as coal, gas or nuclear used in the production of energy are not considered under 'total energy use'	
Renewable energy purchased	Total primary renewable energy purchased in gigajoules. - energy consumed by the company from various sources and among the purchased energy, how much energy is renewable in nature (solar, wind, hydro, biomass, geothermal) are in scope - if there is no evidence that renewable energy is produced by the company, then we consider the reported energy figure as renewable energy purchased	
Renewable energy use ratio	Renewable energy to total energy used	
CO2 equivalent emissions	Direct CO2 and CO2 equivalent emissions in metric tons. - direct emissions from sources that are owned or controlled by the company (scope 1 emissions) - following gases are relevant: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorinated compound (PFCs), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3)	
CO2 equivalent emissions to sales	Direct CO2 and CO2 equivalent emissions (metric tons) to sales (NT\$mn) - direct emissions from sources that are owned or controlled by the company (scope 1 emissions) - following gases are relevant: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorinated compound (PFCs), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3)	
Waste total	Total amount of waste produced in metric tons. - total waste = non-hazardous waste + hazardous waste - only solid waste is taken into consideration, exceptionally if liquid waste is reported in metric tons, then we do the summation to derive total including liquid waste - for sectors like mining, oil & gas, waste generation like tailings, waste rock, coal and fly ash are also considered	
Waste recycling ratio	The waste recycling ratio as reported by the company. - waste recycling ratio = waste recycled/total waste * 100 - waste to energy or waste incinerated with energy recovery are considered as waste recycled - waste recovered via composting is considered as recycled waste	
Water withdrawal total	Total water withdrawal in cubic meters. - the total volume of water withdrawn from any water source that was either withdrawn directly by the reporting organization or through intermediaries such as water utilities - different sources of water like wells, town/utility/municipal water, river water, and surface water are considered	
Environmental expenditures	Total amount of environmental expenditures. - all environmental investment & expenditures for environmental protection or to prevent, reduce, control environmental aspects, impacts, and hazards. It also includes disposal, treatment, sanitation, and clean-up expenditures	
Turnover of employees	Percentage of employee turnover. - includes employees who left the company for any reason (voluntary or involuntary), such as resignations, retirement, natural departure/death, medical incapacitation, redundancy, layoffs, restructuring, dismissal, retrenchment or end of a fixed-term contract - employees turnover rate = (employees leaving/average number of employees)*100 - where the average number of employees = (employees at the end of the current year + employees at the end of the previous year)/2 - employees at the end of the current fiscal year = employees at the end of the previous fiscal year + new employees - employees leaving	
Women managers	Percentage of women managers. - percentage of women managers among total managers of the company - if there is a breakdown by category in percentage, such as top, senior, middle, and junior management, then we consider the percentage of middle women managers - percentage of women managers = number of women managers/total number of managers*100	
Women employees	Percentage of women employees. - percentage of women employees to the total number of employees of the company - percentage of women employees = number of women/total number of employees*100	
Training hours total	Total training hours performed by all employees. - consider only employee training hours - includes all types of training given to general employees (such as health & safety, environmental, emergency response, skills & career development training) - if the value is given in days, multiply by 8, assuming that 1 day = 8 hours worked	
Training hours per employee	Training hours per employee per year	

Source: Refinitiv; KGI Research

Income statement

	Quarterly								Annually		
	Mar-26A	Jun-26F	Sep-26F	Dec-26F	Mar-27F	Jun-27F	Sep-27F	Dec-27F	Dec-26F	Dec-27F	Dec-28F
Income statement (NT\$m)											
Revenue	11,177	13,575	15,965	18,335	19,760	21,603	22,962	24,084	59,052	88,409	123,313
Cost of goods sold	(9,406)	(10,532)	(11,632)	(12,365)	(12,806)	(13,604)	(14,276)	(14,626)	(43,935)	(55,312)	(71,379)
Gross profit	1,771	3,043	4,333	5,971	6,954	7,998	8,687	9,458	15,117	33,097	51,935
Operating expenses	(419)	(504)	(575)	(624)	(590)	(652)	(709)	(766)	(2,122)	(2,717)	(3,575)
Operating profit	1,352	2,539	3,757	5,346	6,364	7,346	7,977	8,692	12,995	30,380	48,360
Depreciation of fixed assets	(1,803)	(1,810)	(1,810)	(1,816)	(2,246)	(2,246)	(2,246)	(2,246)	(7,239)	(8,982)	(9,341)
Amortisation of intangible assets	-	-	-	-	-	-	-	-	-	-	-
EBITDA	3,155	4,349	5,567	7,163	8,610	9,592	10,223	10,938	20,234	39,362	57,701
Interest income	37	37	37	37	37	37	37	37	148	148	148
Investment income	13	-	-	-	-	-	-	-	13	-	-
Other non-op income	87	160	160	160	160	160	160	160	567	640	640
Non-operating income	137	197	197	197	197	197	197	197	728	788	788
Interest expense	(3)	-	-	-	-	-	-	-	(3)	-	-
Investment loss	-	-	-	-	-	-	-	-	-	-	-
Other non-op expenses	112	-	-	-	-	-	-	-	112	-	-
Non-operating expenses	109	-	-	-	-	-	-	-	109	-	-
Pre-tax profit	1,598	2,736	3,954	5,543	6,561	7,543	8,174	8,889	13,832	31,168	49,148
Current taxation	(290)	(534)	(910)	(942)	(1,181)	(1,471)	(1,880)	(1,511)	(2,675)	(6,043)	(9,506)
Minorities	-	-	-	-	-	-	-	-	-	-	-
Normalised net profit	1,309	2,203	3,045	4,601	5,380	6,073	6,294	7,378	11,157	25,125	39,642
Extraordinary items	0	-	-	-	-	-	-	-	-	-	-
Net profit	1,309	2,203	3,045	4,601	5,380	6,073	6,294	7,378	11,157	25,125	39,642
EPS (NT\$)	2.03	3.41	4.71	7.12	8.33	9.40	9.74	11.42	17.27	38.88	61.35
Margins (%)											
Gross profit margin	15.8	22.4	27.1	32.6	35.2	37.0	37.8	39.3	25.6	37.4	42.1
Operating profit margin	12.1	18.7	23.5	29.2	32.2	34.0	34.7	36.1	22.0	34.4	39.2
EBITDA margin	28.2	32.0	34.9	39.1	43.6	44.4	44.5	45.4	34.3	44.5	46.8
Pretax profit margin	14.3	20.2	24.8	30.2	33.2	34.9	35.6	36.9	23.4	35.3	39.9
Net profit margin	11.7	16.2	19.1	25.1	27.2	28.1	27.4	30.6	18.9	28.4	32.1
Sequential growth (%)											
Revenue growth	0.1	21.5	17.6	14.8	7.8	9.3	6.3	4.9			
Gross profit growth	26.7	71.8	42.4	37.8	16.5	15.0	8.6	8.9			
Operating profit growth	40.4	87.8	48.0	42.3	19.0	15.4	8.6	9.0			
EBITDA growth	14.5	37.8	28.0	28.7	20.2	11.4	6.6	7.0			
Pretax profit growth	13.4	71.2	44.5	40.2	18.4	15.0	8.4	8.7			
Net profit growth	8.9	68.3	38.2	51.1	16.9	12.9	3.7	17.2			
YoY growth (%)											
Revenue growth	32.1	41.7	45.6	64.2	76.8	59.1	43.8	31.4	47.0	49.7	39.5
Gross profit growth	311.7	295.8	312.7	327.0	292.6	162.9	100.5	58.4	314.5	118.9	56.9
Operating profit growth	3986.4	593.6	505.8	455.2	370.6	189.3	112.3	62.6	555.5	133.8	59.2
EBITDA growth	83.9	111.3	137.2	159.9	172.9	120.6	83.6	52.7	128.0	94.5	46.6
Pretax profit growth	524.0		336.0	293.5	310.5	175.7	106.7	60.4	489.7	125.3	57.7
Net profit growth	530.7		320.1	282.8	311.1	175.7	106.7	60.4	473.1	125.2	57.8

Source: Company data; KGI Research estimates

Balance sheet

NT\$mn	Dec-24A	Dec-25A	Dec-26F	Dec-27F	Dec-28F
Total assets	62,938	61,207	76,917	105,305	141,137
Current assets	20,675	23,623	28,509	53,531	91,366
Cash & ST securities	8,587	8,706	8,076	24,539	51,952
Inventory	4,101	5,068	6,096	7,674	9,876
Accounts receivable	6,996	9,552	14,041	21,022	29,241
Other current assets	991	296	296	296	296
Non-current assets	42,263	37,585	48,408	51,774	49,772
LT investments	460	500	505	473	441
Net fixed assets	39,991	35,373	46,205	49,603	47,633
Other assets	1,813	1,711	1,698	1,698	1,698
Total liabilities	17,488	15,085	21,546	31,351	41,731
Current liabilities	6,664	7,189	13,650	23,455	33,836
Accounts payable	1,518	1,711	2,058	2,591	3,334
Interest bearing ST liabilities	-	-	-	-	-
Other current liabilities	5,147	5,478	11,592	20,864	30,501
Non-current liabilities	10,824	7,896	7,896	7,896	7,896
Long-term debt	-	-	-	-	-
Other L-T liabilities	9,607	6,909	6,909	6,909	6,909
Total equity	45,450	46,123	55,371	73,954	99,406
Share capital	6,462	6,462	6,462	6,462	6,462
Retained earnings reserve	11,601	13,482	17,233	25,679	39,006
Minority interests	-	-	-	-	-
Preferred shareholders funds	-	-	-	-	-

Key ratios

	Dec-24A	Dec-25A	Dec-26F	Dec-27F	Dec-28F
Growth					
Revenue growth	(23.6%)	24.4%	47.0%	49.7%	39.5%
Operating profit growth	(120.0%)	-	555.5%	133.8%	59.2%
EBITDA growth	(57.5%)	70.9%	128.0%	94.5%	46.6%
Net profit growth	(96.5%)	855.6%	473.1%	125.2%	57.8%
EPS growth	(96.5%)	855.6%	473.1%	125.2%	57.8%
Profitability					
Gross profit margin	1.1%	9.1%	25.6%	37.4%	42.1%
Operating margin	(3.9%)	4.9%	22.0%	34.4%	39.2%
EBITDA margin	16.1%	22.1%	34.3%	44.5%	46.8%
Net profit margin	0.6%	4.8%	18.9%	28.4%	32.1%
Return on average assets	0.3%	3.1%	16.2%	27.6%	32.2%
Return on average equity	0.4%	4.3%	22.0%	38.9%	45.7%
Stability					
Gross debt to equity	0.0%	0.0%	0.0%	0.0%	0.0%
Net debt to equity	Net cash	Net cash	Net cash	Net cash	Net cash
Interest coverage (x)	10.3	170.8	4,555.6	-	-
Interest & ST debt coverage (x)	0.9	1.0	1.0	1.0	1.0
Cash flow interest coverage(x)	123.2	219.2	4,357.6	-	-
Cash flow/int. & ST debt (x)	123.2	219.2	4,357.6	-	-
Current ratio (x)	3.1	3.3	2.1	2.3	2.7
Quick ratio (x)	2.5	2.6	1.6	2.0	2.4
Net debt (NT\$mn)	(8,481)	(8,590)	(7,959)	(24,422)	(51,835)
Per share data					
EPS (NT\$)	0.32	3.01	17.27	38.88	61.35
CFPS (NT\$)	3.34	4.68	20.48	40.41	60.88
BVPS (NT\$)	70.34	71.38	85.69	114.45	153.84
Adj BVPS (NT\$)	70.34	71.38	85.69	114.45	153.84
SPS (NT\$)	49.96	62.17	91.39	136.82	190.84
EBITDA/share (NT\$)	8.04	13.74	31.31	60.92	89.30
Cash DPS (NT\$)	1.00	2.00	10.36	23.33	36.81
Activity					
Sales / avg assets	0.48	0.65	0.86	0.97	1.00
Days receivable	79.3	86.8	86.8	86.8	86.8
Days inventory	47.0	50.6	50.6	50.6	50.6
Days payable	17.4	17.1	17.1	17.1	17.1
Cash cycle	108.9	120.3	120.3	120.3	120.3

Source: Company data; KGI Research estimates

Profit & loss

NT\$mn	Dec-24A	Dec-25A	Dec-26F	Dec-27F	Dec-28F
Revenue	32,283	40,173	59,052	88,409	123,313
Cost of goods sold	(31,926)	(36,526)	(43,935)	(55,312)	(71,379)
Gross profit	358	3,647	15,117	33,097	51,935
Operating expenses	(1,624)	(1,665)	(2,122)	(2,717)	(3,575)
Operating profit	(1,267)	1,982	12,995	30,380	48,360
Non-operating income	897	558	728	788	788
Interest income	255	158	148	148	148
Investment income	30	20	13	-	-
Other non-op income	612	380	567	640	640
Non-operating expenses	533	(195)	109	-	-
Interest expense	(18)	(14)	(3)	-	-
Investment loss	-	-	-	-	-
Other non-op expenses	550	(181)	112	-	-
Pre-tax profit	163	2,346	13,832	31,168	49,148
Current taxation	41	(399)	(2,675)	(6,043)	(9,506)
Minorities	-	-	-	-	-
Extraordinary items	-	0	0	-	-
Net profit	204	1,947	11,157	25,125	39,642
EBITDA	5,193	8,876	20,234	39,362	57,701
EPS (NT\$)	0.32	3.01	17.27	38.88	61.35

Cash flow

NT\$mn	Dec-24A	Dec-25A	Dec-26F	Dec-27F	Dec-28F
Operations cash flow	2,160	3,027	13,234	26,113	39,337
Net profit	204	1,947	11,157	25,125	39,642
Depreciation & amortisation	6,460	6,894	7,239	8,982	9,341
Decrease in working capital	(1,779)	(3,218)	(5,170)	(8,026)	(9,678)
Other operating cash flow	(2,725)	(2,596)	8	32	32
Investing cash flow	(2,602)	(1,723)	(18,070)	(12,380)	(7,371)
Sale of ST investment	-	-	-	-	-
New investments	-	-	-	-	-
Capital expenditure	(2,379)	(2,422)	(18,070)	(12,380)	(7,371)
Others investing cashflow	(223)	700	-	-	-
Free cash flow	720	2,899	(5,519)	13,066	31,299
Financing cash flow	(3,843)	(887)	4,205	2,730	(4,553)
Increase in short term debt	-	-	-	-	-
Increase in long term loans	-	-	-	-	-
New ordinary shares issued	-	-	-	-	-
Ordinary dividends paid	(3,554)	(646)	(1,292)	(7,407)	(16,679)
Other financing cashflow	(289)	(241)	5,498	10,137	12,126
Forex effects	436	(309)	-	-	-
Total cash generated	(3,849)	109	(631)	16,463	27,413

ROIC

	Dec-24A	Dec-25A	Dec-26F	Dec-27F	Dec-28F
1 - COGS/revenue	-	-	-	-	-
- Operating exp./revenue	5.0%	4.1%	3.6%	3.1%	2.9%
= Operating margin	(3.9%)	4.9%	22.0%	34.4%	39.2%
1 / (Working capital/revenue	0.2	0.2	0.1	0.1	0.0
+ Net PPE/revenue	1.2	0.9	0.8	0.6	0.4
+ Other assets/revenue)	0.0	0.0	0.0	0.0	0.0
= Capital turnover	0.7	0.9	1.1	1.6	2.3
Operating margin	(3.9%)	4.9%	22.0%	34.4%	39.2%
x Capital turnover	0.7	0.9	1.1	1.6	2.3
x (1 - tax rate)	124.9%	83.0%	80.7%	80.6%	80.7%
= After-tax ROIC	(3.5%)	3.8%	19.8%	44.4%	73.3%

Source: Company data; KGI Research estimates

Kinsus Interconnect

(3189.TW/3189 TT)



2Q26 sales beat; strategic client additions to support capacity expansion in 2028-29

Event

Kinsus reported June sales of NT\$4.22bn, up 0.6% MoM and 32% YoY, for 2Q26 sales of NT\$12.5bn, up 13% QoQ and 31% YoY, beating our forecast by 5%.

Impact

Price hikes continued in 2Q26 & will likely accelerate in 2H26. We estimate that substrate prices en masse rose 5% in 2Q26, versus our prior forecast of 3-5%, with BT substrate prices rising more significantly than those of ABF substrates. 1Q26 ABF and BT capacity utilization both improved QoQ to a respective 85% and 75%, and management guides full-year utilization of 90% and 80%. 2Q26 gross margin and opex ratio should return to normal levels in the absence of share placement expenses. We forecast substrate prices will rise more than 10% per quarter in 2H26, which in turn will drive over 10% QoQ sales growth in 3Q-4Q26.

Adding clients strategically to support capacity expansion in 2028-29. Management guides respective 2026-28 capex of NT\$8.0bn, NT\$10bn, and more than NT\$10bn, and notes that capacity expansion in 2028-29 will be funded mainly via strategic client additions. Current guidance for 2026-29 ABF production capacity is 40mn, 50mn, 65mn, and 80mn units per month, respectively. 2026F ABF sales by application is: CPU 5-10%; gaming GPU 10%; PC 5-10%; and the remainder by others, including FPGA, AI ASIC, and consumer electronics. Nvidia (US) and AMD (US) will respectively contribute 15% and 5-6% of ABF sales in 2026F.

ABF supply shortages will deteriorate in 2027-28. We believe T-glass fiberglass cloth supply will improve steadily in 2027-28, supported by capacity additions by Nitto Boseki (JP) and the successful qualification of alternative material sources. As upstream raw material constraints ease, ABF substrate capacity expansion should accelerate from 2H27. However, high-end ABF substrates continue to migrate toward larger package sizes and higher layer counts, resulting in demand growth that exceeds supply growth. We estimate the ABF substrate market will enter a significant supply deficit in 2027-28, with supply-demand gaps reaching 22% and 29%, respectively. Also, as Taiwan and Korean substrate makers are reducing the conversion of BT-to-ABF capacity, we expect ABF substrate prices to remain on the rise in 2027, even if raw material (i.e. T-glass fiberglass cloth) supply increases.

Valuation & Action

As the ABF substrate market will enter an intensifying supply-deficit cycle in 2027-28F, we expect stronger pricing tailwinds and continued product mix improvement to support earnings growth. Accordingly, we raise 2026-27F earnings by a respective 37% and 66%, with 2028F earnings growth of 74% YoY. We therefore revise up our target price to NT\$935, based on 2027F PE of 36x, and maintain Outperform.

Risks

Higher penetration of InFO; slow adoption of SiP and PA; poor production yields and ramp-up of AiP.

Key financials and valuations

	Dec-24A	Dec-25A	Dec-26F	Dec-27F	Dec-28F
Revenue (NT\$m)	30,535	39,351	54,187	75,982	103,337
Gross profit (NT\$m)	8,668	8,314	15,239	27,536	43,342
Operating profit (NT\$m)	1,095	2,670	8,239	18,259	30,777
Net profit (NT\$m)	49	1,596	5,754	13,664	23,716
EPS (NT\$)	0.11	3.51	10.92	25.93	45.01
Cash DPS (NT\$)	1.00	1.75	5.46	12.97	22.50
EPS growth (%)	2.5	3153.4	211.5	137.5	73.6
PE (x)	6,302.0	193.7	62.2	26.2	15.1
PB (x)	9.8	9.5	7.5	6.2	4.9
EV/EBITDA (x)	54.2	39.9	27.9	16.1	10.3
Net debt to equity (%)	12.2	14.9	Net cash	Net cash	Net cash
Dividend yield (%)	0.1	0.3	0.8	1.9	3.3
Return on average equity (%)	0.2	5.0	15.6	30.0	41.7

Source: Company data; KGI Research estimates

Outperform·Maintained

Price as of July 20 (NT\$)	679
12M target price (NT\$)	935
Previous target price (NT\$)	650
Revised up (%)	43.8
Upside (%)	37.7

Key message

1. Substrate price hikes continued in 2Q26 and will likely accelerate in 2H26.
2. Kinsus Interconnect is adding clients strategically to support capacity expansion in 2028-29.
3. ABF supply shortage to deteriorate in 2027-28F.

Trading data

Mkt cap (NT\$bn/US\$m)	357.8 / 11,030
Outstanding shares (mn)	527
Foreign ownership (mn)	92
3M avg. daily trading (mn)	16.53
52-week trading range (NT\$)	100.00 –891

Performance	3M	6M	12M
Absolute (%)	57.7	228.8	572.3
Relative (%)	42.8	195.1	490.8

Quarterly EPS

NT\$	1Q	2Q	3Q	4Q
2025	0.61A	0.74A	0.75A	1.41A
2026	1.17A	2.22F	3.19F	4.46F
2027	5.04F	6.13F	6.91F	7.85F

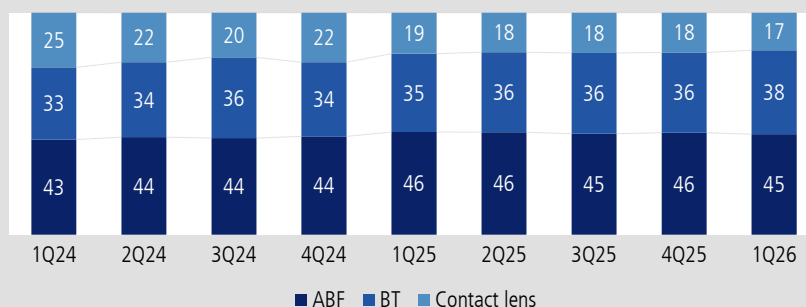
ESG score card



Source: Refinitiv; KGI Securities

Figure 1: Sales mix

Sales weighting, percent



Source: Company data; KGI Research

Figure 2: Breakdown of 2Q26 & 3Q26 forecast revisions

NT\$mnn	2Q26F					3Q26F				
	Revision	Previous	Chg. (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	Consensus	Diff. (%)
Sales	12,496	11,879	5.2	12,519	(0.2)	14,423	13,117	10.0	14,518	(0.7)
Gross profits	3,335	3,105	7.4	3,201	4.2	4,262	3,615	17.9	3,984	7.0
Operating profit	1,702	1,497	13.7	1,598	6.5	2,394	1,898	26.2	2,255	6.2
Net income	1,170	1,006	16.3	1,079	8.4	1,683	1,282	31.3	1,631	3.2
EPS (NT\$)	2.22	2.20	0.8	2.24	(1.0)	3.19	2.81	13.8	3.21	(0.6)
Gross margin (%)	26.7	26.1	0.5 ppts	25.6	1.1 ppts	29.5	27.6	2.0 ppts	27.4	2.1 ppts
OP margin (%)	13.6	12.6	1.0 ppts	12.8	0.9 ppts	16.6	14.5	2.1 ppts	15.5	1.1 ppts
Net margin (%)	9.4	8.5	0.9 ppts	8.6	0.7 ppts	11.7	9.8	1.9 ppts	11.2	0.4 ppts

Source: Bloomberg; KGI Research

Figure 3: Breakdown of 2026-27 forecast revisions vs. consensus

NT\$mnn	2026F					2027F				
	Revision	Previous	Chg. (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	Consensus	Diff. (%)
Sales	54,187	49,940	8.5	54,064	0.2	75,982	64,034	18.7	78,027	(2.6)
Gross profit	15,239	13,516	12.7	14,127	7.9	27,536	20,033	37.5	24,535	12.2
Operating profit	8,239	6,366	29.4	7,404	11.3	18,259	11,537	58.3	15,854	15.2
Net profit	5,754	4,186	37.4	5,551	3.7	13,664	8,239	65.8	12,709	7.5
EPS (NT\$)	10.92	9.16	19.2	10.19	7.1	25.93	18.04	43.8	23.43	10.7
Gross margin (%)	28.1	27.1	1.1 ppts	26.1	2.0 ppts	36.2	31.3	5.0 ppts	31.4	4.8 ppts
OP margin (%)	15.2	12.7	2.5 ppts	13.7	1.5 ppts	24.0	18.0	6.0 ppts	20.3	3.7 ppts
Net margin (%)	10.6	8.4	2.2 ppts	10.3	0.4 ppts	18.0	12.9	5.1 ppts	16.3	1.7 ppts

Source: Bloomberg; KGI Research

Figure 4: Peer comparison – Valuations

Company	Ticker	Mkt Cap (US\$mnn)	Price (LCY)	EPS (LCY)			PE (x)			PB (x)			ROE (%)			Dividend yield (%)		
				2025	2026F	2027F	2025	2026F	2027F	2025	2026F	2027F	2025	2026F	2027F	2025	2026F	2027F
Kinsus	3189 TT	11,086	679.0	3.51	10.92	25.93	193.7	62.2	26.2	9.5	7.5	6.2	5.0	15.6	30.0	0.3	0.8	1.9
Compeq	2313 TT	7,349	199.0	5.51	8.04	12.88	36.1	24.7	15.4	5.0	4.3	3.7	14.2	18.7	25.8	1.4	2.0	3.2
Unimicron	3037 TT	36,925	750	4.38	16.10	32.71	171.2	46.6	22.9	12.7	9.1	6.9	6.9	22.6	35.8	0.3	1.0	2.0
Nan Ya PCB	8046 TT	22,125	1,105.0	3.01	17.27	38.88	366.8	64.0	28.4	15.5	12.9	9.7	4.3	22.0	38.9	0.2	0.9	2.1
Ibiden	4062 JP	27,231	15,685	192.6	255.8	383.8	81.4	61.3	40.9	7.6	7.2	6.1	12.2	12.1	17.1	0.2	0.2	0.2
SEMCO	009150 KS	65,679	1,303,000	9,345	18,704	39,038	139.4	69.7	33.4	9.9	9.2	7.4	7.6	13.8	23.2	0.2	0.2	0.4

Source: Bloomberg; KGI Research

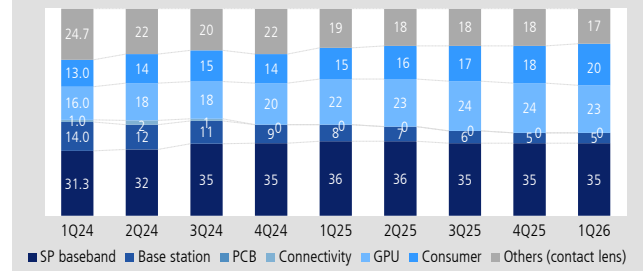
Figure 5: Company profile

Established in 2000, Kinsus Interconnect Technology is a top-tier IC substrate manufacturer, primarily supplying global mobile communication chip giants, such as Qualcomm (US), Broadcom (US), Texas Instruments (US), STMicroelectronics (CN), Marvell (US), SanDisk (US), Altera (US), and Xilinx (US). In 2024, consolidated sales came in at NT\$30.5bn, with ABF, BT, and contact lens accounting for a respective 44%, 34%, and 22% of sales.

Source: KGI Research

Figure 6: Sales mix

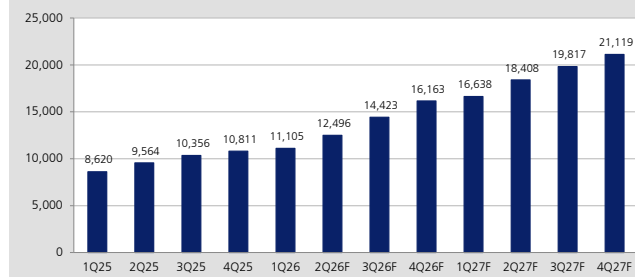
Sales weighting, percent



Source: Company data; KGI Research

Figure 7: Sales

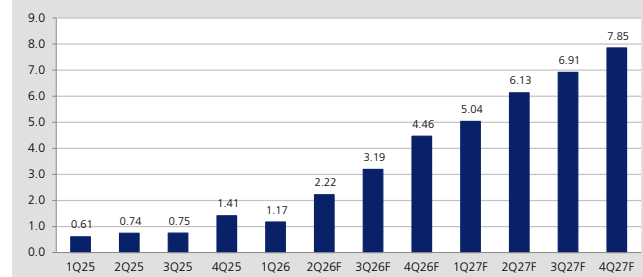
Sales, NT\$m



Source: KGI Research

Figure 8: EPS

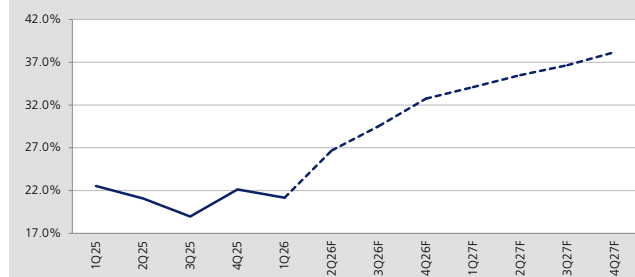
EPS, NT\$



Source: KGI Research

Figure 9: Gross Margin

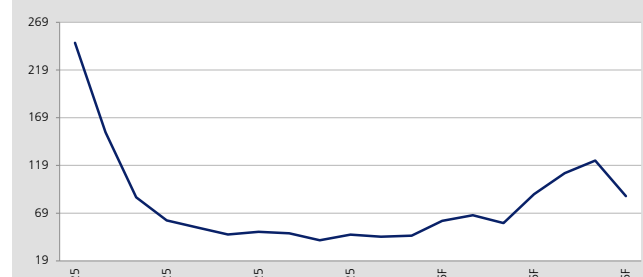
Gross margin, percent



Source: KGI Research

Figure 10: Rolling PE

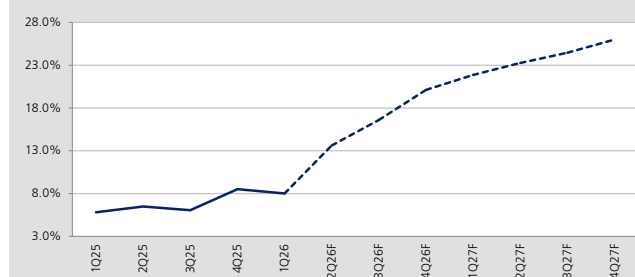
Rolling PE, times



Source: KGI Research

Figure 11: Operating Margin

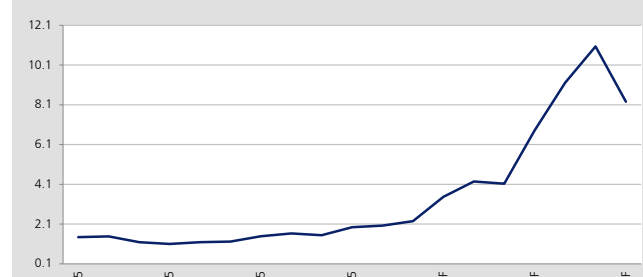
Operating margin, percent



Source: KGI Research

Figure 12: Rolling PB

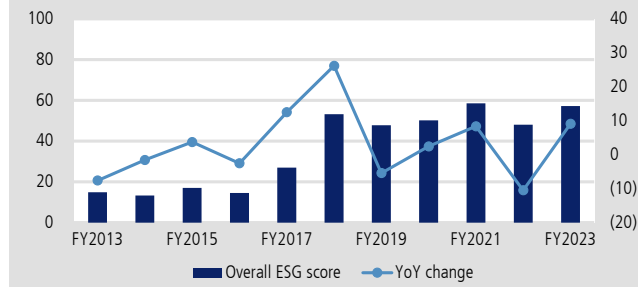
Rolling PB, times



Source: KGI Research

Figure 13: Overall ESG score

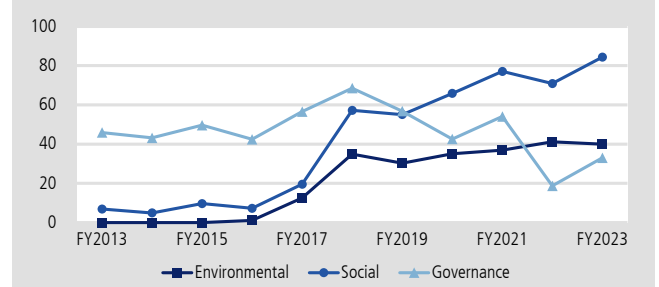
Overall ESG score, points (LHS); YoY change, points (RHS)



Source: Refinitiv; KGI Research; Company data

Figure 14: ESG score by category

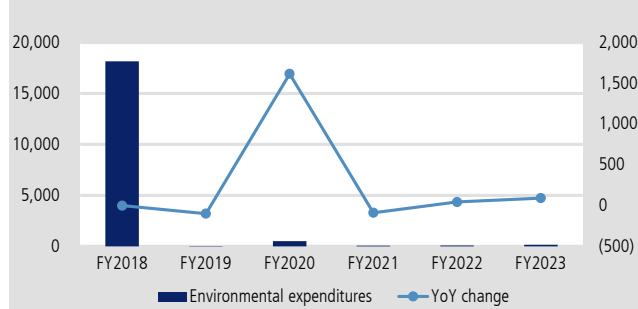
ESG score, points



Source: Refinitiv; KGI Research; Company data

Figure 15: Environmental expenditures

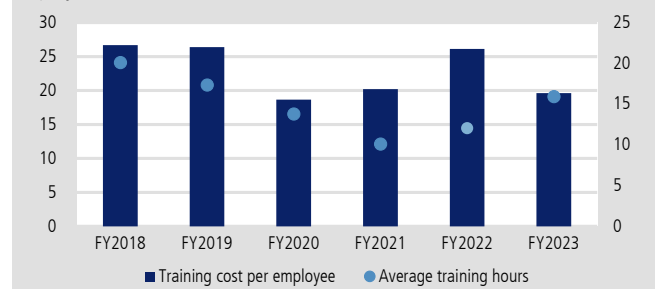
Environmental expenditures, NT\$m (LHS); YoY change, percent (RHS)



Source: Refinitiv; KGI Research; Company data

Figure 16: Employee training

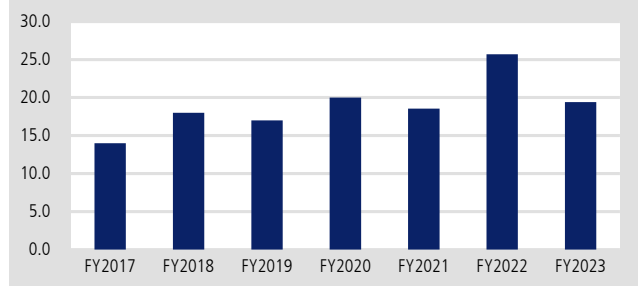
Training cost per employee, US\$ (LHS); average annual training hours per employee (RHS)



Source: Refinitiv; KGI Research; Company data

Figure 17: Employee turnover

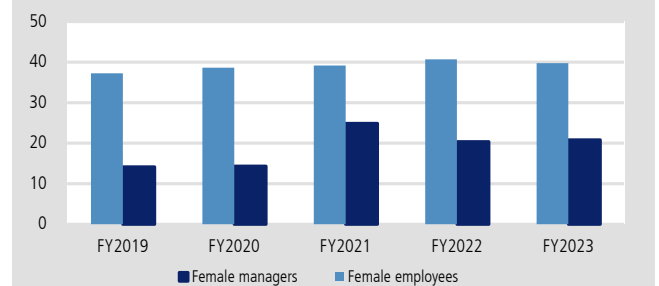
Employee turnover, percent



Source: Refinitiv; KGI Research; Company data

Figure 18: Gender diversification

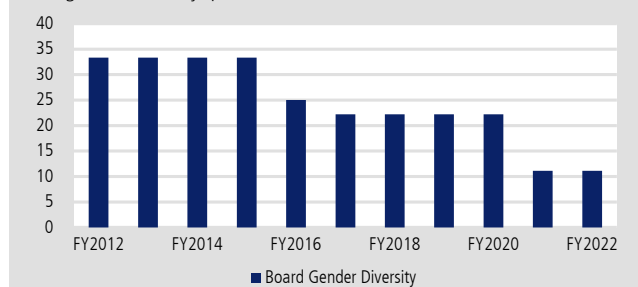
Weighting of female managers & employees, percent



Source: Refinitiv; KGI Research; Company data

Figure 19: Board gender diversity

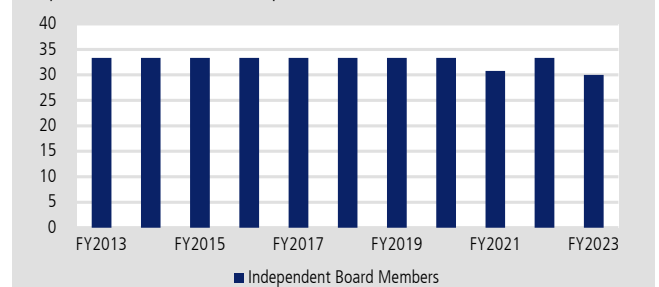
Board gender diversity, percent



Source: Refinitiv; KGI Research; Company data

Figure 20: Independent board members

Independent board members, percent



Source: Refinitiv; KGI Research; Company data

ESG chart definition

Item	Definition	Remarks
Energy use	Total direct and indirect energy consumption in gigajoules. - the total amount of energy that has been consumed within the boundaries of the company's operations - total energy use = total direct energy consumption + indirect energy consumption - purchased energy and produced energy are included in total energy use - for utilities, transmission/ grid loss as part of its business activities is considered as total energy consumed and data does not consider electricity produced to answer energy use (utility company produces to sell) - for utilities, raw materials such as coal, gas or nuclear used in the production of energy are not considered under 'total energy use'	
Renewable energy purchased	Total primary renewable energy purchased in gigajoules. - energy consumed by the company from various sources and among the purchased energy, how much energy is renewable in nature (solar, wind, hydro, biomass, geothermal) are in scope - if there is no evidence that renewable energy is produced by the company, then we consider the reported energy figure as renewable energy purchased	
Renewable energy use ratio	Renewable energy to total energy used	
CO2 equivalent emissions	Direct CO2 and CO2 equivalent emissions in metric tons. - direct emissions from sources that are owned or controlled by the company (scope 1 emissions) - following gases are relevant: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorinated compound (PFCS), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3)	
CO2 equivalent emissions to sales	Direct CO2 and CO2 equivalent emissions (metric tons) to sales (NT\$mn) - direct emissions from sources that are owned or controlled by the company (scope 1 emissions) - following gases are relevant: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorinated compound (PFCS), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3)	
Waste total	Total amount of waste produced in metric tons. - total waste = non-hazardous waste + hazardous waste - only solid waste is taken into consideration, exceptionally if liquid waste is reported in metric tons, then we do the summation to derive total including liquid waste - for sectors like mining, oil & gas, waste generation like tailings, waste rock, coal and fly ash are also considered	
Waste recycling ratio	The waste recycling ratio as reported by the company. - waste recycling ratio = waste recycled/total waste*100 - waste to energy or waste incinerated with energy recovery are considered as waste recycled - waste recovered via composting is considered as recycled waste	
Water withdrawal total	Total water withdrawal in cubic meters. - the total volume of water withdrawn from any water source that was either withdrawn directly by the reporting organization or through intermediaries such as water utilities - different sources of water like wells, town/utility/municipal water, river water, and surface water are considered	
Environmental expenditures	Total amount of environmental expenditures. - all environmental investment & expenditures for environmental protection or to prevent, reduce, control environmental aspects, impacts, and hazards. It also includes disposal, treatment, sanitation, and clean-up expenditures	
Turnover of employees	Percentage of employee turnover. - includes employees who left the company for any reason (voluntary or involuntary), such as resignations, retirement, natural departure/death, medical incapacitation, redundancy, layoffs, restructuring, dismissal, retrenchment or end of a fixed-term contract - employees turnover rate = (employees leaving/average number of employees)*100 - where the average number of employees = (employees at the end of the current year + employees at the end of the previous year)/2 - employees at the end of the current fiscal year = employees at the end of the previous fiscal year + new employees - employees leaving	
Women managers	Percentage of women managers. - percentage of women managers among total managers of the company - if there is a breakdown by category in percentage, such as top, senior, middle, and junior management, then we consider the percentage of middle women managers - percentage of women managers = number of women managers/total number of managers*100	
Women employees	Percentage of women employees. - percentage of women employees to the total number of employees of the company - percentage of women employees = number of women/total number of employees*100	
Training hours total	Total training hours performed by all employees. - consider only employee training hours - includes all types of training given to general employees (such as health & safety, environmental, emergency response, skills & career development training) - if the value is given in days, multiply by 8, assuming that 1 day = 8 hours worked	
Training hours per employee	Training hours per employee per year	

Source: Refinitiv; KGI Research

Income statement

	Quarterly								Annually		
	Mar-26A	Jun-26F	Sep-26F	Dec-26F	Mar-27F	Jun-27F	Sep-27F	Dec-27F	Dec-26F	Dec-27F	Dec-28F
Income statement (NT\$m)											
Revenue	11,105	12,496	14,423	16,163	16,638	18,408	19,817	21,119	54,187	75,982	103,337
Cost of goods sold	(8,755)	(9,162)	(10,161)	(10,870)	(10,966)	(11,873)	(12,551)	(13,056)	(38,948)	(48,446)	(59,995)
Gross profit	2,349	3,335	4,262	5,293	5,672	6,535	7,266	8,063	15,239	27,536	43,342
Operating expenses	(1,459)	(1,632)	(1,867)	(2,041)	(2,034)	(2,253)	(2,418)	(2,572)	(7,000)	(9,277)	(12,565)
Operating profit	891	1,702	2,394	3,252	3,638	4,282	4,848	5,491	8,239	18,259	30,777
Depreciation of fixed assets	(1,974)	(1,851)	(1,851)	(1,727)	(1,997)	(1,997)	(1,997)	(1,997)	(7,402)	(7,988)	(8,215)
Amortisation of intangible assets	(27)	(22)	(22)	(16)	(22)	(22)	(22)	(22)	(86)	(87)	(89)
EBITDA	2,891	3,574	4,266	4,996	5,656	6,301	6,867	7,509	15,727	26,334	39,081
Interest income	83	100	100	100	100	100	100	100	383	400	400
Investment income	-	-	-	-	-	-	-	-	-	-	-
Other non-op income	76	50	50	50	50	50	50	50	226	200	200
Non-operating income	159	150	150	150	150	150	150	150	609	600	600
Interest expense	(96)	(103)	(103)	(103)	(103)	(103)	(103)	(103)	(405)	(412)	(412)
Investment loss	(0)	-	-	-	-	-	-	-	(0)	-	-
Other non-op expenses	11	-	-	-	-	-	-	-	11	-	-
Non-operating expenses	(85)	(103)	(103)	(103)	(103)	(103)	(103)	(103)	(394)	(412)	(412)
Pre-tax profit	964	1,749	2,441	3,299	3,685	4,329	4,895	5,538	8,454	18,447	30,965
Current taxation	(89)	(350)	(469)	(633)	(700)	(866)	(954)	(1,080)	(1,541)	(3,600)	(6,043)
Minorities	(327)	(230)	(290)	(313)	(331)	(233)	(297)	(321)	(1,159)	(1,183)	(1,207)
Normalised net profit	549	1,170	1,683	2,353	2,653	3,230	3,643	4,137	5,754	13,664	23,716
Extraordinary items	0	-	-	-	-	-	-	-	-	-	-
Net profit	549	1,170	1,683	2,353	2,653	3,230	3,643	4,137	5,754	13,664	23,716
EPS (NT\$)	1.17	2.22	3.19	4.46	5.04	6.13	6.91	7.85	10.92	25.93	45.01
Margins (%)											
Gross profit margin	21.2	26.7	29.5	32.8	34.1	35.5	36.7	38.2	28.1	36.2	41.9
Operating margin	8.0	13.6	16.6	20.1	21.9	23.3	24.5	26.0	15.2	24.0	29.8
EBITDA margin	26.0	28.6	29.6	30.9	34.0	34.2	34.6	35.6	29.0	34.7	37.8
Pretax profit margin	8.7	14.0	16.9	20.4	22.1	23.5	24.7	26.2	15.6	24.3	30.0
Net profit margin	4.9	9.4	11.7	14.6	15.9	17.5	18.4	19.6	10.6	18.0	22.9
Sequential growth (%)											
Revenue growth	2.7	12.5	15.4	12.1	2.9	10.6	7.7	6.6			
Gross profit growth	(1.8)	41.9	27.8	24.2	7.1	15.2	11.2	11.0			
Operating profit growth	(3.3)	91.1	40.7	35.8	11.9	17.7	13.2	13.3			
EBITDA growth	2.0	23.6	19.4	17.1	13.2	11.4	9.0	9.4			
Pretax profit growth	(8.6)	81.3	39.6	35.1	11.7	17.5	13.1	13.1			
Net profit growth	(14.5)	113.0	43.9	39.8	12.8	21.8	12.8	13.5			
YoY growth (%)											
Revenue growth	28.8	30.7	39.3	49.5	49.8	47.3	37.4	30.7	37.7	40.2	36.0
Gross profit growth	21.0	65.4	117.0	121.2	141.4	96.0	70.5	52.3	83.3	80.7	57.4
Operating profit growth	77.7	174.5	281.3	253.2	308.4	151.6	102.5	68.8	208.6	121.6	68.6
EBITDA growth	29.7	48.2	74.9	76.3	95.7	76.3	60.9	50.3	58.6	67.4	48.4
Pretax profit growth	37.8	182.4	242.5	212.6	282.1	147.5	100.5	67.8	173.8	118.2	67.9
Net profit growth	98.9	245.9	395.9	266.2	383.1	176.2	116.5	75.8	260.6	137.5	73.6

Source: Company data; KGI Research estimates

Balance sheet

NT\$m	Dec-24A	Dec-25A	Dec-26F	Dec-27F	Dec-28F
Total assets	79,435	79,973	91,871	105,647	124,532
Current assets	29,677	28,938	40,225	51,978	68,067
Cash & ST securities	16,676	16,336	23,828	30,335	39,971
Inventory	2,981	4,828	6,059	7,537	9,308
Accounts receivable	5,284	6,804	9,369	13,137	17,818
Other current assets	4,735	970	970	970	970
Non-current assets	49,759	51,036	51,646	53,669	56,466
LT investments	100	138	138	138	138
Net fixed assets	36,409	41,937	42,547	44,570	47,367
Other assets	13,249	8,961	8,961	8,961	8,961
Total liabilities	39,557	38,600	40,807	44,812	48,460
Current liabilities	16,990	20,106	22,719	27,740	32,059
Accounts payable	2,500	3,900	4,894	6,087	7,518
Interest bearing ST liabilities	5,468	7,251	6,786	6,651	6,312
Other current liabilities	9,023	8,955	11,039	15,002	18,229
Non-current liabilities	22,567	18,494	18,088	17,073	16,400
Long-term debt	13,779	11,197	10,792	9,776	9,104
Other L-T liabilities	8,714	7,219	7,219	7,219	7,219
Total equity	39,878	41,373	51,064	60,835	76,073
Share capital	4,566	4,568	4,568	4,568	4,568
Retained earnings reserve	14,832	16,121	18,992	25,809	39,452
Minority interests	8,226	8,641	9,801	10,983	12,190
Preferred shareholders funds	-	-	-	-	-

Key ratios

	Dec-24A	Dec-25A	Dec-26F	Dec-27F	Dec-28F
Growth					
Revenue growth	13.8%	28.9%	37.7%	40.2%	36.0%
Operating profit growth	5.1%	143.7%	208.6%	121.6%	68.6%
EBITDA growth	13.1%	37.1%	58.6%	67.4%	48.4%
Net profit growth	2.9%	3164.4%	260.6%	137.5%	73.6%
EPS growth	2.5%	3153.4%	211.5%	137.5%	73.6%
Profitability					
Gross profit margin	28.4%	21.1%	28.1%	36.2%	41.9%
Operating margin	3.6%	6.8%	15.2%	24.0%	29.8%
EBITDA margin	23.7%	25.2%	29.0%	34.7%	37.8%
Net profit margin	0.2%	4.1%	10.6%	18.0%	22.9%
Return on average assets	0.1%	2.0%	6.7%	13.8%	20.6%
Return on average equity	0.2%	5.0%	15.6%	30.0%	41.7%
Stability					
Gross debt to equity	48.3%	44.6%	34.4%	27.0%	20.3%
Net debt to equity	12.2%	14.9%	Net cash	Net cash	Net cash
Interest coverage (x)	5.1	8.9	21.9	45.8	76.2
Interest & ST debt coverage (x)	0.2	0.3	0.5	0.7	0.8
Cash flow interest coverage(x)	19.5	20.7	25.8	42.9	65.5
Cash flow/int. & ST debt (x)	1.3	1.1	1.5	2.5	4.0
Current ratio (x)	1.7	1.4	1.8	1.9	2.1
Quick ratio (x)	1.6	1.2	1.5	1.6	1.8
Net debt (NT\$m)	4,848	6,167	(2,195)	(9,853)	(20,501)
Per share data					
EPS (NT\$)	0.11	3.51	10.92	25.93	45.01
CFPS (NT\$)	16.98	17.78	19.81	33.57	51.24
BVPS (NT\$)	69.31	71.66	90.33	109.13	139.85
Adj BVPS (NT\$)	69.76	71.89	78.31	94.61	121.24
SPS (NT\$)	67.29	86.43	102.84	144.20	196.12
EBITDA/share (NT\$)	15.93	21.77	29.85	49.98	74.17
Cash DPS (NT\$)	1.00	1.75	5.46	12.97	22.50
Activity					
Sales / avg assets	0.39	0.49	0.63	0.77	0.90
Days receivable	63.3	63.1	63.1	63.1	63.1
Days inventory	49.9	56.8	56.8	56.8	56.8
Days payable	41.8	45.9	45.9	45.9	45.9
Cash cycle	71.4	74.0	74.0	74.0	74.0

Source: Company data; KGI Research estimates

Profit & loss

NT\$m	Dec-24A	Dec-25A	Dec-26F	Dec-27F	Dec-28F
Revenue	30,535	39,351	54,187	75,982	103,337
Cost of goods sold	(21,867)	(31,037)	(38,948)	(48,446)	(59,995)
Gross profit	8,668	8,314	15,239	27,536	43,342
Operating expenses	(7,572)	(5,645)	(7,000)	(9,277)	(12,565)
Operating profit	1,095	2,670	8,239	18,259	30,777
Non-operating income	733	783	609	600	600
Interest income	530	386	383	400	400
Investment income	5	-	-	-	-
Other non-op income	198	398	226	200	200
Non-operating expenses	(225)	(366)	(394)	(412)	(412)
Interest expense	(394)	(391)	(405)	(412)	(412)
Investment loss	-	(1)	(0)	-	-
Other non-op expenses	169	27	11	-	-
Pre-tax profit	1,603	3,087	8,454	18,447	30,965
Current taxation	(272)	(370)	(1,541)	(3,600)	(6,043)
Minorities	(1,282)	(1,121)	(1,159)	(1,183)	(1,207)
Extraordinary items	-	0	0	-	-
Net profit	49	1,596	5,754	13,664	23,716
EBITDA	7,228	9,914	15,727	26,334	39,081
EPS (NT\$)	0.11	3.51	10.92	25.93	45.01

Cash flow

NT\$m	Dec-24A	Dec-25A	Dec-26F	Dec-27F	Dec-28F
Operations cash flow	7,705	8,093	10,441	17,686	26,998
Net profit	49	1,596	5,754	13,664	23,716
Depreciation & amortisation	6,133	7,244	7,488	8,075	8,304
Decrease in working capital	(905)	(1,960)	(2,802)	(4,052)	(5,021)
Other operating cash flow	2,429	1,213	0	0	(0)
Investing cash flow	(9,107)	(7,869)	(8,098)	(10,098)	(11,101)
Sale of ST investment	963	(1,594)	-	-	-
New investments	396	-	-	-	-
Capital expenditure	(10,408)	(6,117)	(8,012)	(10,011)	(11,012)
Others investing cashflow	(58)	(158)	(86)	(87)	(89)
Free cash flow	(4,339)	1,433	3,326	8,620	16,953
Financing cash flow	996	(3,270)	5,149	(1,081)	(6,261)
Increase in short term debt	1,934	(289)	-	-	-
Increase in long term loans	(310)	(1,431)	(871)	(1,151)	(1,011)
New ordinary shares issued	137	13	-	-	-
Ordinary dividends paid	(454)	(457)	(800)	(2,883)	(6,846)
Other financing cashflow	(310)	(1,107)	6,820	2,953	1,596
Forex effects	71	(39)	-	-	-
Total cash generated	(335)	(3,084)	7,492	6,507	9,637

ROIC

	Dec-24A	Dec-25A	Dec-26F	Dec-27F	Dec-28F
1 - COGS/revenue					
- Operating exp./revenue	24.8%	14.3%	12.9%	12.2%	12.2%
= Operating margin	3.6%	6.8%	15.2%	24.0%	29.8%
1 / (Working capital/revenue	0.0	(0.0)	0.0	0.0	0.0
+ Net PPE/revenue	1.2	1.1	0.8	0.6	0.5
+ Other assets/revenue)	0.4	0.2	0.1	0.1	0.1
= Capital turnover	0.6	0.8	1.1	1.4	1.8
Operating margin	3.6%	6.8%	15.2%	24.0%	29.8%
x Capital turnover	0.6	0.8	1.1	1.4	1.8
x (1 - tax rate)	83.0%	88.0%	81.8%	80.5%	80.5%
= After-tax ROIC	1.8%	4.7%	13.2%	27.6%	42.8%

Source: Company data, KGI Research estimates

All the above named KGI analyst(s) is SFC licensed person accredited to KGI Asia Ltd to carry on the relevant regulated activities. Each of them and/or his/her associate(s) does not have any financial interest in the respectively covered stock, issuer and/or new listing applicant.

Disclaimer

All the information contained in this report is not intended for use by persons or entities located in or residing in jurisdictions which restrict the distribution of this information by KGI Asia Limited ("KGI") or an affiliate of KGI. Such information shall not constitute investment advice, or an offer to sell, or an invitation, solicitation or recommendation to subscribe for or invest in any securities or investment products or services nor a distribution of information for any such purpose in any jurisdiction. In particular, the information herein is not for distribution and does not constitute an offer to sell or the solicitation of any offer to buy any securities in the United States of America, or to or for the benefit of United States persons (being residents of the United States of America or partnerships or corporations organised under the laws of the United States of America or any state, territory or possession thereof). All the information contained in this report is for general information and reference purpose only without taking into account of any particular investor's objectives, financial situation or needs. Such information is not intended to provide professional advice and should not be relied upon in that regard.

Some of KGI equity research and earnings estimates are available electronically on www.kgi.com.hk. Please contact your KGI representative for information. The information and opinions in this report are those of KGI internal research activity. KGI does not make any representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information and opinions contained in this report. The information and opinions contained in this report are subject to change without any notice. No person accepts any liability whatsoever for any loss however arising from any use of this report or its contents. This report is not to be construed as an invitation or offer to buy or sell securities and/or to participate in any investment activity. This report is being supplied solely for informational purposes and may not be redistributed, reproduced or published (in whole or in part) by any means for any purpose without the prior written consent of KGI. Members of the KGI group and their affiliates may provide services to any companies and affiliates of such companies mentioned herein. Members of the KGI group, their affiliates and their directors, officers and employees may from time to time have a position in any securities mentioned