臻鼎科技控股
Zhen Ding Tech. Holding

Zhen Ding Technology Holding (4958 TT)

Investor Presentation

April 2025

臻鼎科技控股
Zhen Ding Tech. Holding

Safe Harbor Notice

- Zhen Ding Technology Holding's statements of its current expectations are forward looking statements subject to significant risks and uncertainties and actual results may differ materially from those contained in the forward-looking statements.
- Except as required by law, we undertake no obligation to update any forward-looking statement, whether as a result of new information, future events, or otherwise.

Zhen Ding (ZDT) at a Glance

Global No. 1

PCB Manufacturer

2006 Founded

(Former Foxconn Advanced Tech, 1978)

Taoyuan, Taiwan

Headquarter

48,141

Employees as of End-2024

29 Facilities

Located in Mainland China, Taiwan, Thailand and India

NT$171.7bn

Revenue in 2024 (13.4% YoY)

NT$103.3bn

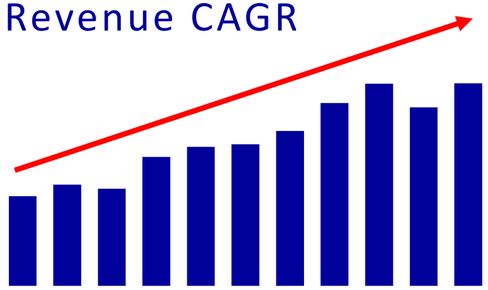
Market Cap (as of Apr.1, 2025)

13.3%

10-yr Average ROE (2015-2024)

+9%

2014-2024 Revenue CAGR



1,868

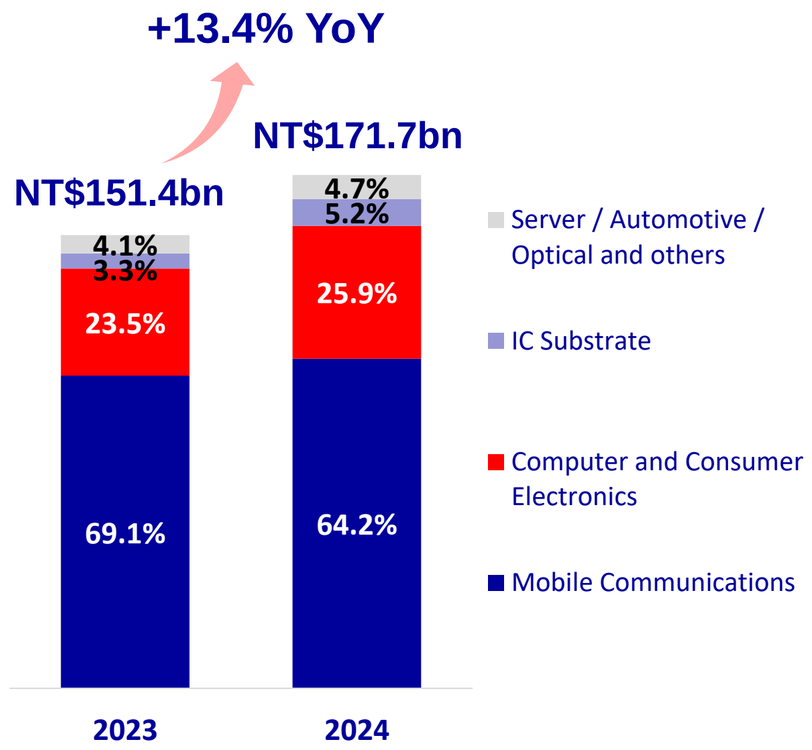
Accumulated Valid Patents

3,866

Accumulated Filing Patents (as of Dec. 31, 2024)

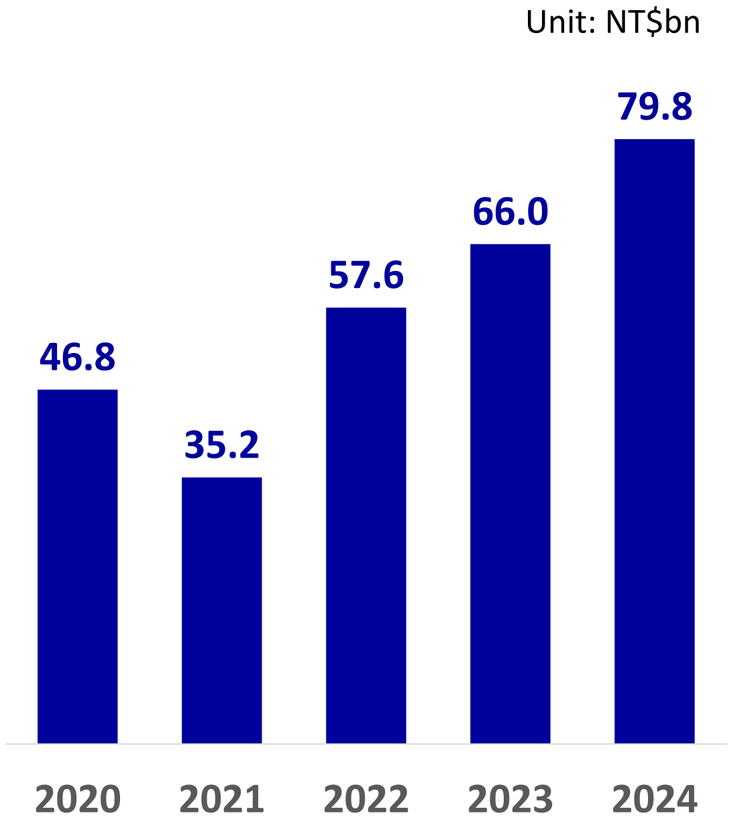
PATENDED

Revenue Breakdown – By Applications

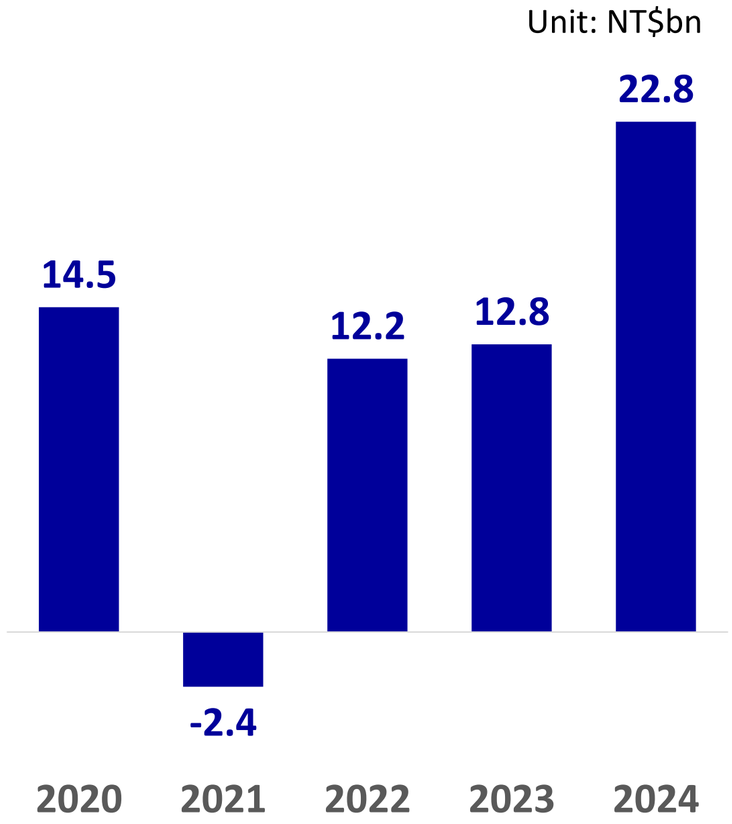


Robust Cash Position Provides Strategic Flexibility in Response to Evolving Economic Conditions

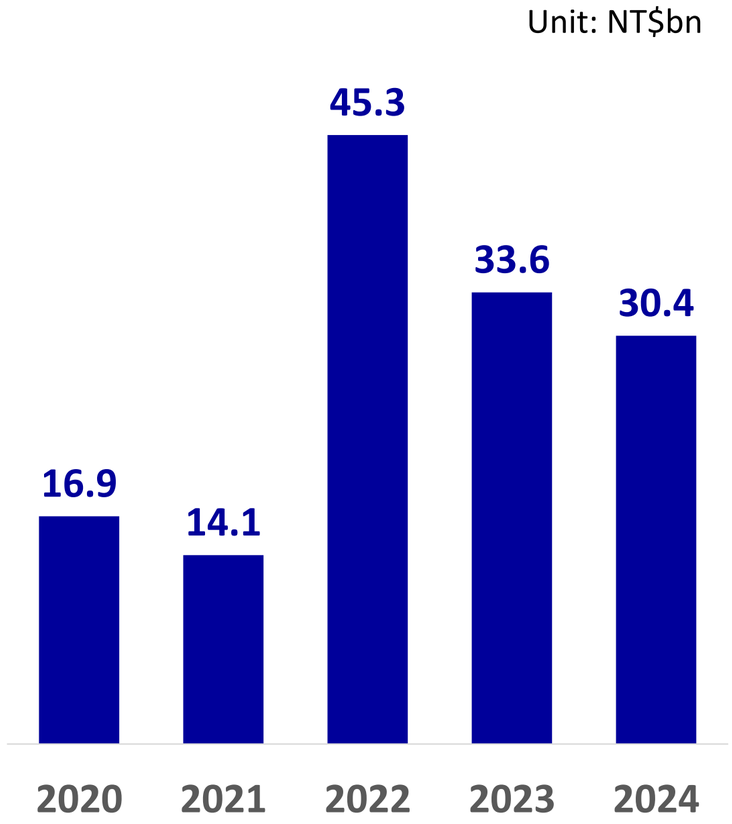
Cash & Cash Equivalents*



Net Cash



Operating Cash Flow



* Including current financial assets at amortized cost (time deposits, etc.)

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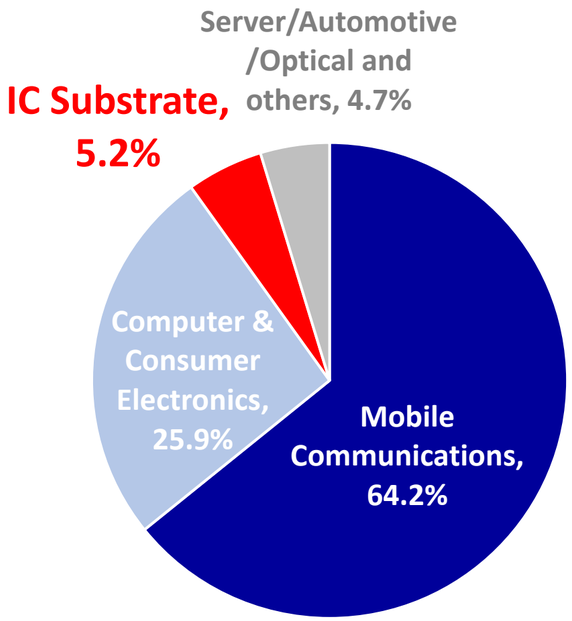
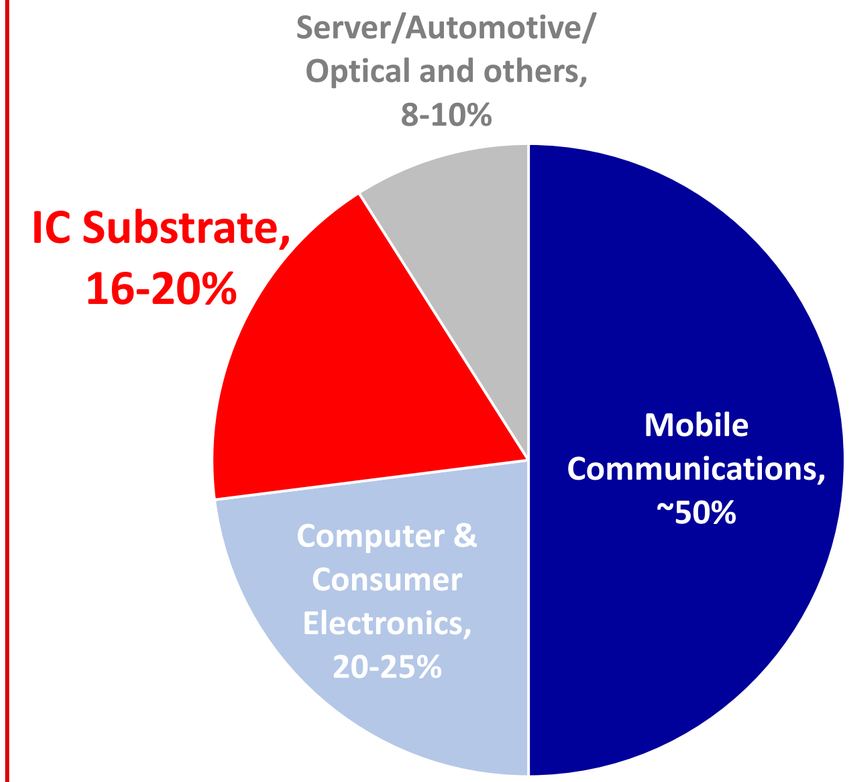
Advanced Technologies to Fuel Rapid Growth in IC Substrates

Steadily Advancing IC Substrate Business to Drive Increasing Revenue Contribution

ZDT: 2024 Revenue Breakdown by Applications



ZDT: 2030 Target Revenue Breakdown by Applications



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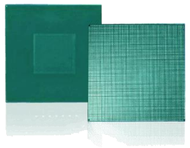
Embracing 'China for China' Demand, While Expanding the Outside China Customer Base with Advanced Packaging ABF Substrates

ZDT's IC Substrate Revenue Trend

Shenzhen ABF fab entered mass production



Yield rates of mid-to-large-size ABF substrates are on par with Tier 1 players.

Embrace 'China for China' demand from both domestic and Western customers. ABF substrate capacity utilization exceeded 40% by year-end. In 2024, ZDT ranked #12 globally in IC substrates.

'China for China' demand continues to grow. We target ABF substrate capacity utilization to surpass 80% by year-end.

Replicating the success of the Shenzhen ABF fab at the Kaohsiung AI Park to provide advanced packaging ABF substrates for global customers.

SZ fab to breakeven and turn profitable

Kaohsiung fab: Equipment installation and customer qualification

1Q22 2Q22 3Q22 4Q22 1Q23 2Q23 3Q23 4Q23 1Q24 2Q24 3Q24 4Q24 1Q25 2Q25 3Q25 4Q25 1Q26 2Q26 3Q26 4Q26

In 2023, over 130 ABF substrate samples were delivered, and progressively passed customer qualifications.

2024 IC substrate revenue increased by 75.6% YoY, significantly outperforming the industry average growth

Target to Rank among the Top Five Global IC Substrate Manufacturers by 2030

Focus on High-end Demand

- With the industry's most advanced IC substrate production base, we focus on meeting the high-end demands of customers.
- The rapid development of AI, HPC, and advanced packaging technologies continues to drive demand for high-end ABF substrates, particularly for large-size (70mm × 70mm and above) and high-layer-count (16 layers and above) products.
- We continue developing ABF substrates for new technology platforms, which may contribute to revenue in the second half of the year once customer qualification is completed.

Connect with the Semiconductor Supply Chain

- Actively engage with semiconductor industry organizations and collaborate closely with the supply chain to explore market opportunities in emerging technologies.

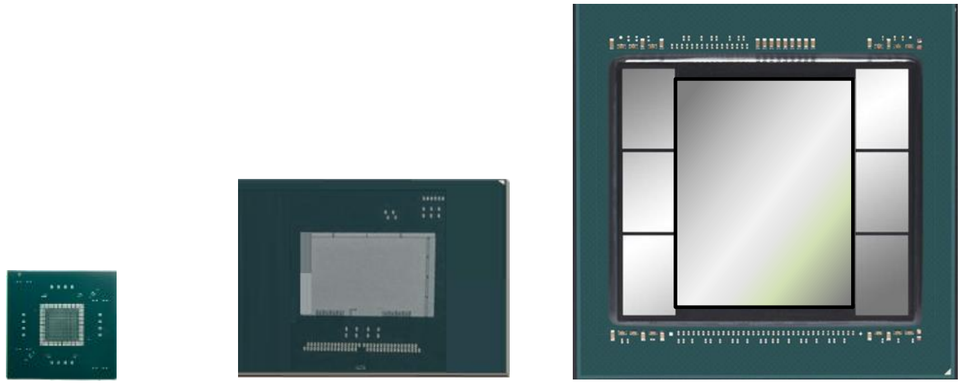
Replicate China Experience at Kaohsiung AI Park

- Our Mainland China ABF fab is highly recognized by customers for its high quality, yield, and efficiency, with capacity utilization steadily increasing.
- We will replicate the successful experience from Mainland China and establish a full-process advanced packaging FCBGA mass production site at the **Kaohsiung AI Park**, focusing on developing key semiconductor customers in Asia, the U.S, and Europe.
- We are the first PCB manufacturer to establish a presence in Taiwan's Science Park, meeting high standards in both technology and environmental protection.

ZDT's ABF Substrate Technology Capabilities are On Par with Tier 1 Players; We Actively Secure Global Leading Semiconductor Customers

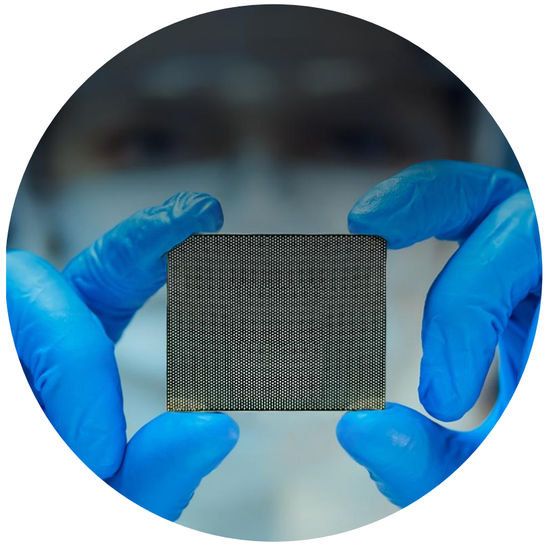
ABF Substrate Development Trends

High layer counts, **Large** body size, **Flat** surface,
Accurate production precision



	2005	2020	2026	
Body Size (mm)	31 x 31	75 x 60	120 x 140+	x20+
Layer count (L)	6	20	28+	x4+
Bump Count	1K	100K	300k+ ~ 500k+	x300+

Our technology capabilities have reached an industry-leading level



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We aim for the Shenzhen ABF fab to achieve breakeven by 4Q25-1Q26.

We continue to invest in expanding capacity in Kaohsiung to strengthen our ABF footprint and capture long-term growth opportunities.

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Strengthen Leadership Position and Further Expand Market Presence

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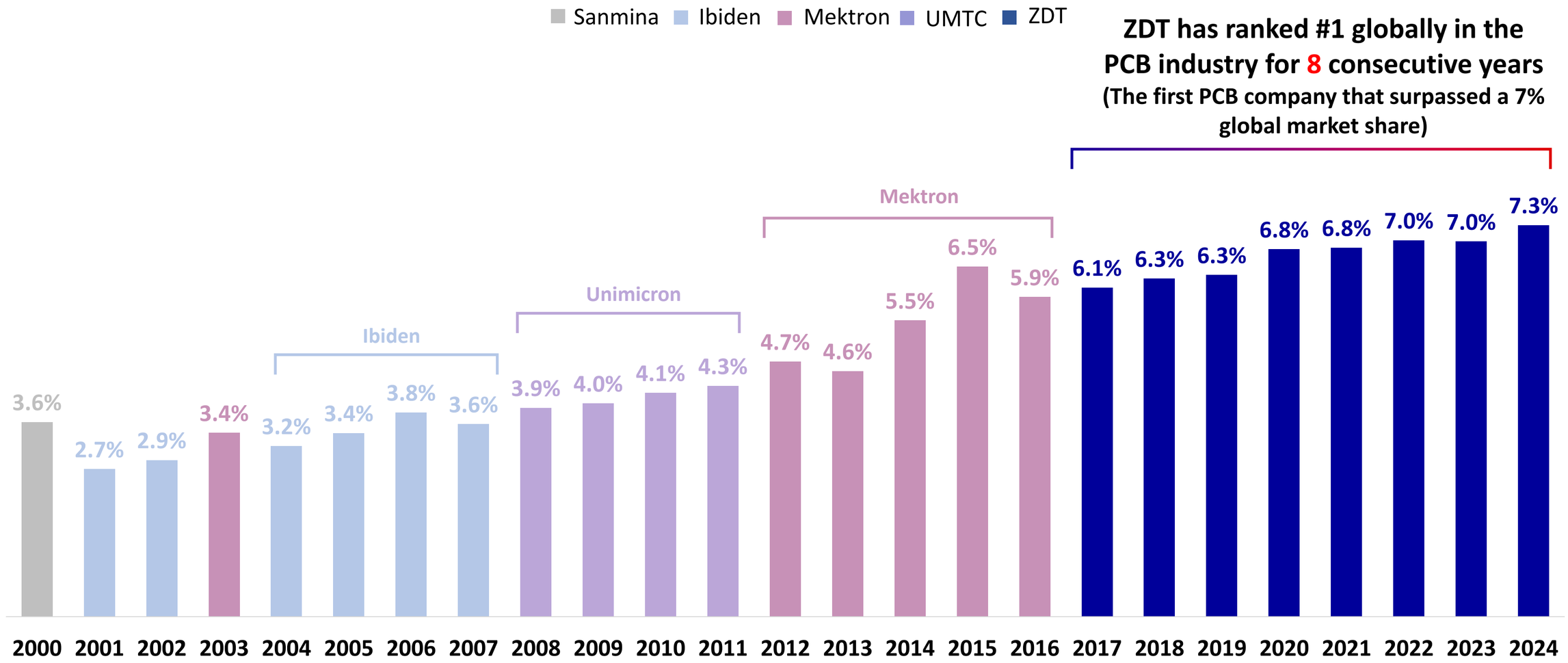
ZDT Sustains Its Leadership in the PCB Industry

Historical Market Share of Global #1 PCB Players

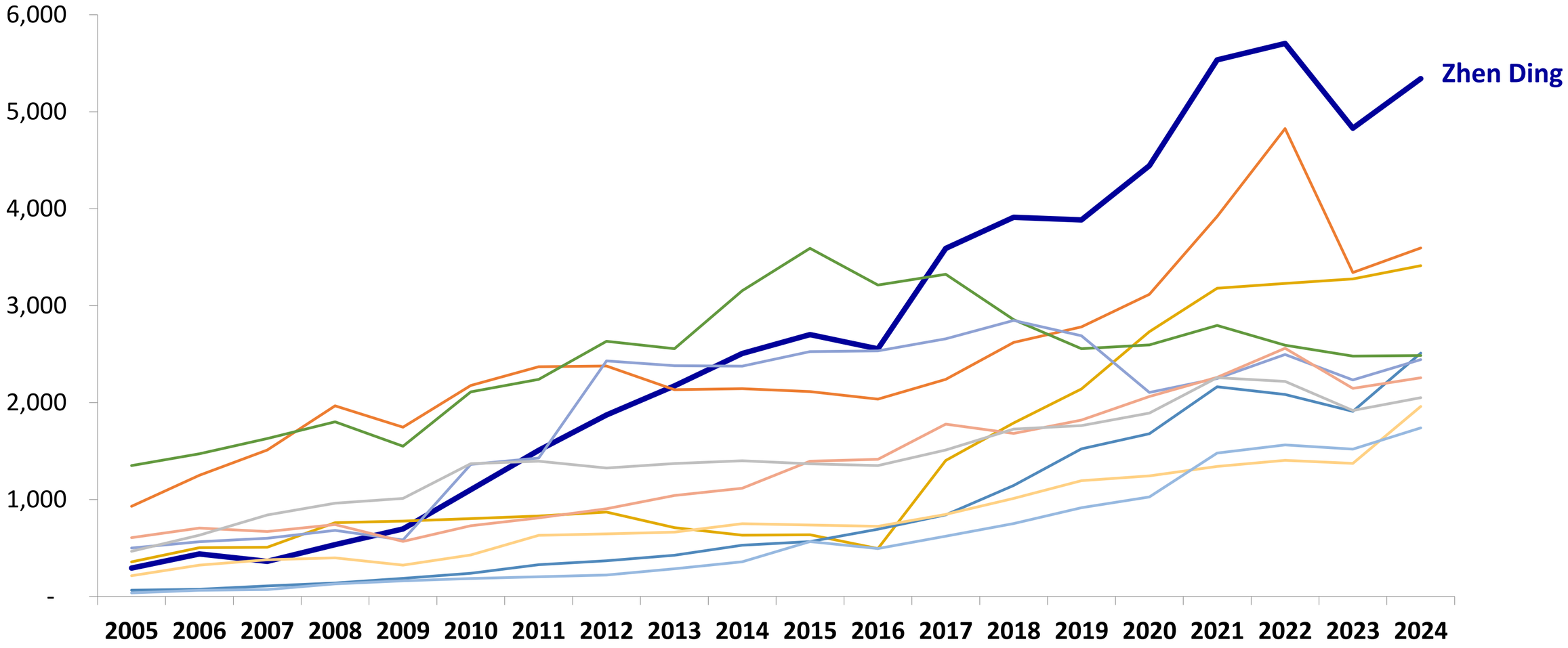


Source: Prismark

ZDT Maintains a Clear Lead Over Peers

2024 Global Top 10 PCB Companies Revenue Trend

Unit: US$ million



Source：NT Information；Prismark (2025/03)

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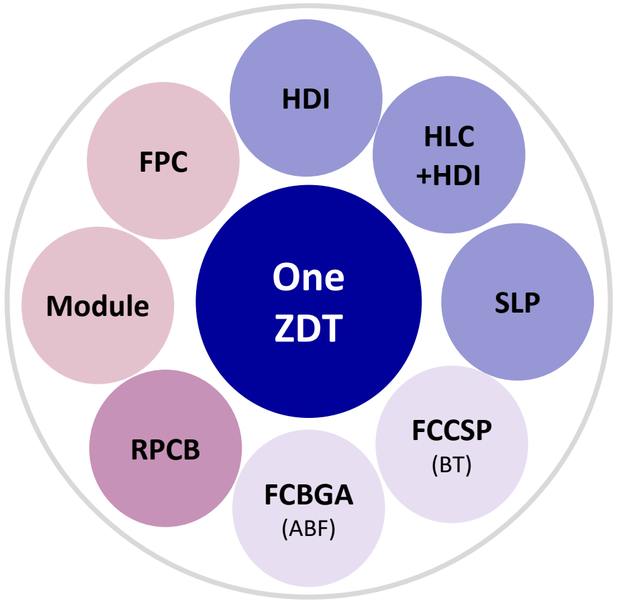
What enables ZDT to maintain our leadership position?

The 'One ZDT' Strategy Empowers ZDT to Widen Its Lead over Competitors

Zhen Ding: The Only PCB Leader with a Full-Range Product Portfolio

Leveraging our full product portfolio under the 'One ZDT' strategy, we deliver end-to-end solutions across cloud, channel, and edge applications in the AI era — reinforcing our leadership in an increasingly complex PCB landscape.



AI

Cloud


AI Server


Edge Server


High Performance Memory

Channel


Optical Communication


Switch


Base Station

Device


AI Smartphone/ Chip


AI PC/ Tablet


Humanoid Robot


Smart Glasses/ AR/VR

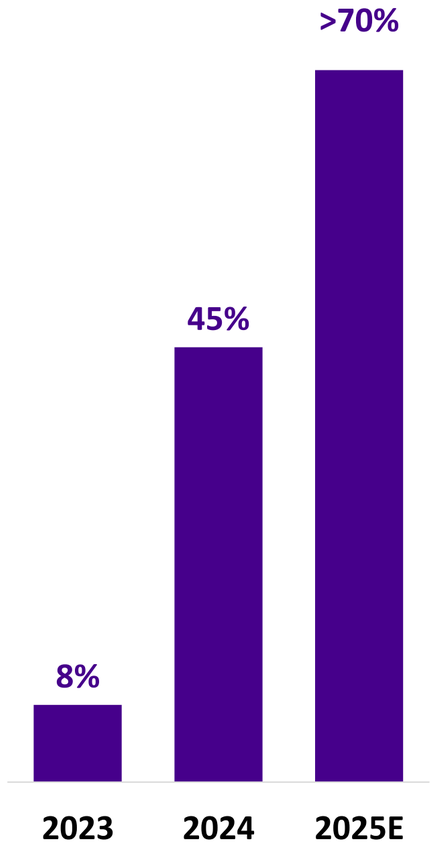

Wearable Device


Intelligent Vehicle/ Smart Cockpit/ Domain Controller


Autopilot Chip/ mmWave Radar


NEV/ Battery

ZDT: Revenue Contribution for AI Related Products



Why is ‘One ZDT’ the Key to Our Success?

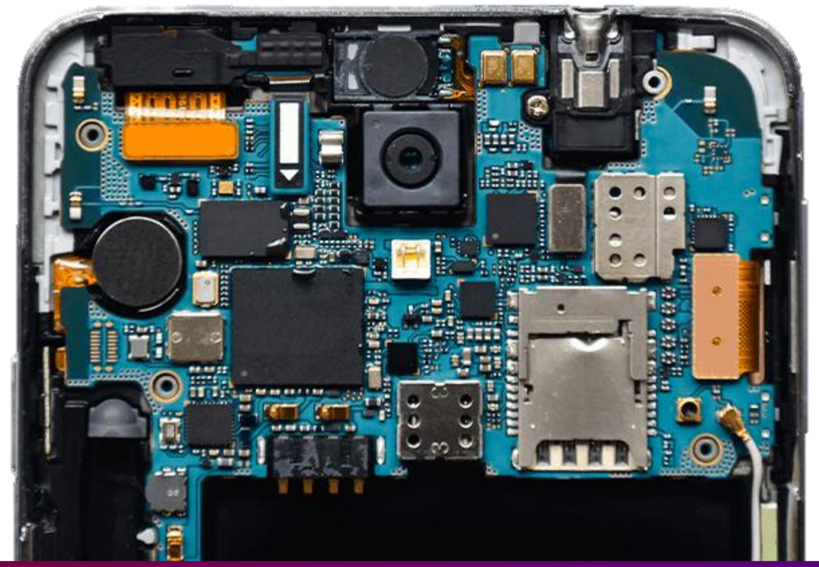
FPC

SLP

HDI

Rigid-flex PCB

IC Substrate



RPCB

Take smartphones as an example—One ZDT enables customers to optimize overall product design, enhance product performance, and accelerate time-to-market.

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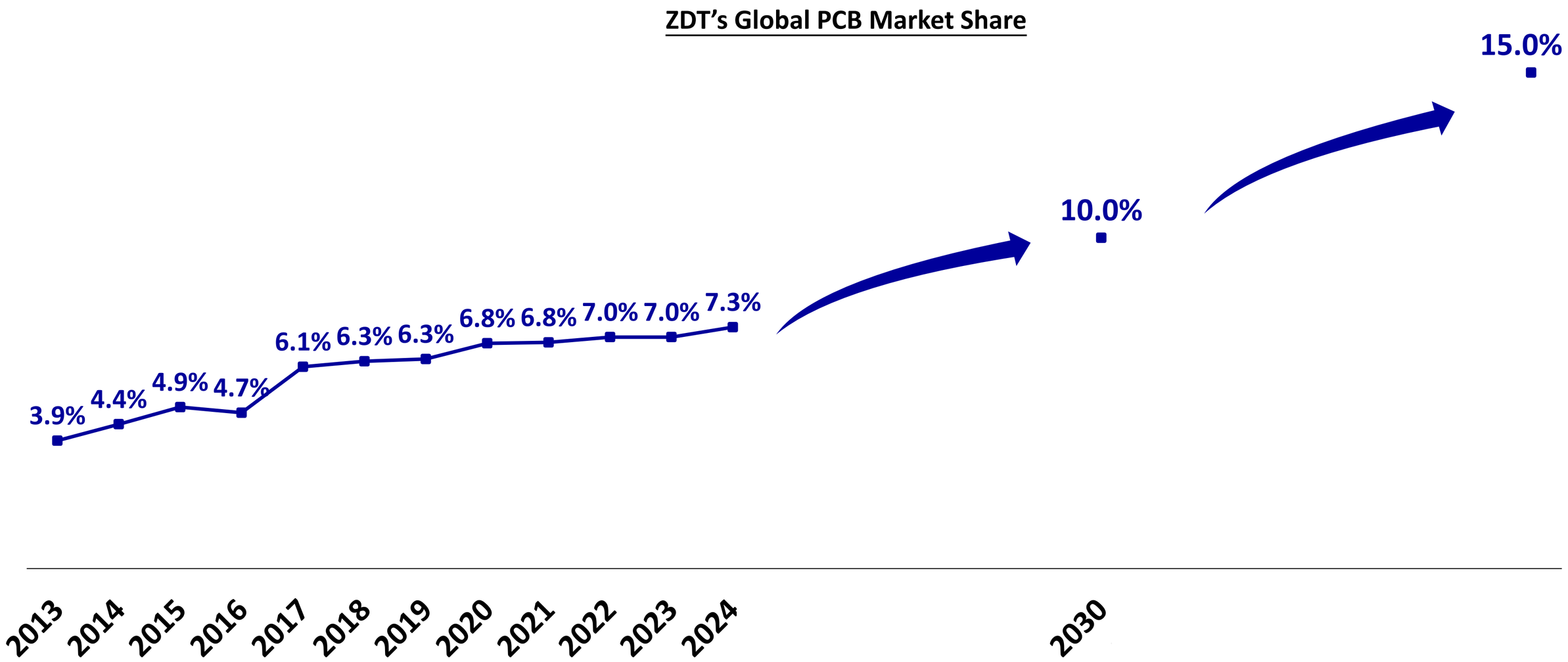
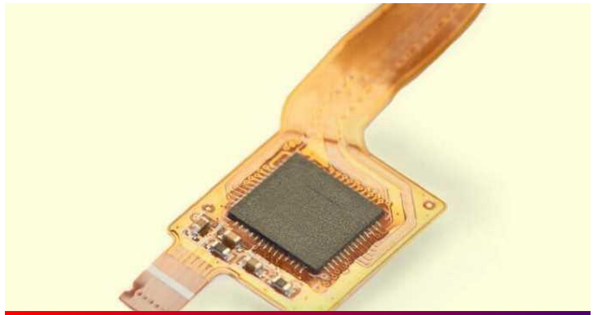
Strive to Further Grow Our Presence in the Global PCB Market



Sustained Growth Across All Four Product Lines

IC Substrate

2030 Target **Global Top 5**

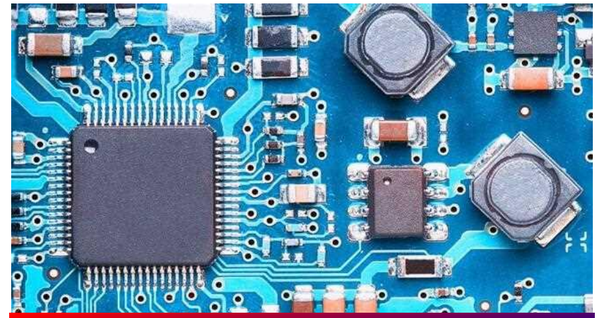


Flexible Printed Circuit (FPC)

2030 Target **Maintain Global #1**

High Density Interconnect (HDI)

2030 Target **Global #1**



Rigid PCB (RPCB)

2030 Target **Global Top 10**

Deepening collaboration with customers and supply chain partners to deliver above-industry-average revenue and profit growth

Rising Design Complexity in Edge AI Devices is Accelerating PCB Demand

We continue working closely with leading global customers to develop high-end products featuring high precision and high density, reinforcing our leadership in edge AI applications.

AI Smartphone/Tablet/PC

- AI development accelerates the upgrade of PCB specifications.
- We work closely with leading global customers to co-develop high-value products, including foldable smartphones.

Smart Glasses/VR/AR

- Demand for related products is projected to multiply in 2025.
- We collaborate with leading global customers to develop new products, maintaining our position as a key supplier.

Humanoid Robot

- Humanoid robots have high technical requirements for PCBs, primarily used in core functions such as the main control system, sensor modules, power management, and joint actuators.

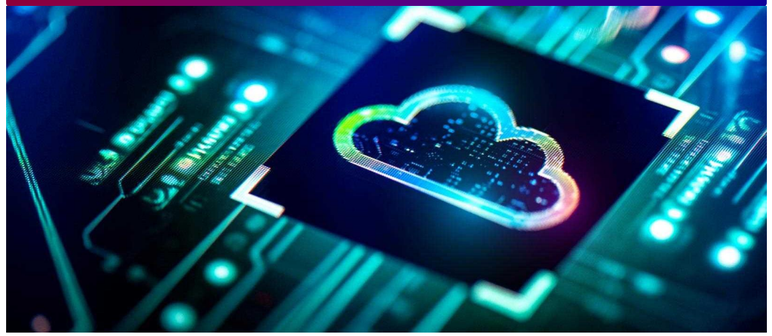
Wearable Devices

- AI functions are gradually being integrated into wearable devices, with 'light, thin, and compact' as the main R&D direction. This drives hardware specification upgrades and fuels growing demand from customers for high-layer count and fine-line products.

Aim to Secure More High-end Customer Orders in Servers, Automotive, and Optical Applications to Increase Market Share

New capacity in Thailand is coming online in 2025. It is well-positioned to meet rising demand in high-growth applications including servers, automotive, and optical.

AI Server



- We have successfully expanded from general-purpose servers into AI servers. With the expertise in key manufacturing processes, we have secured stable AI server orders to drive revenue growth.
- Actively expand collaborations with customers on projects for Intel, AMD, and ASIC-based architectures.
- Support the AI ASIC product development plans of our two major cloud customers.

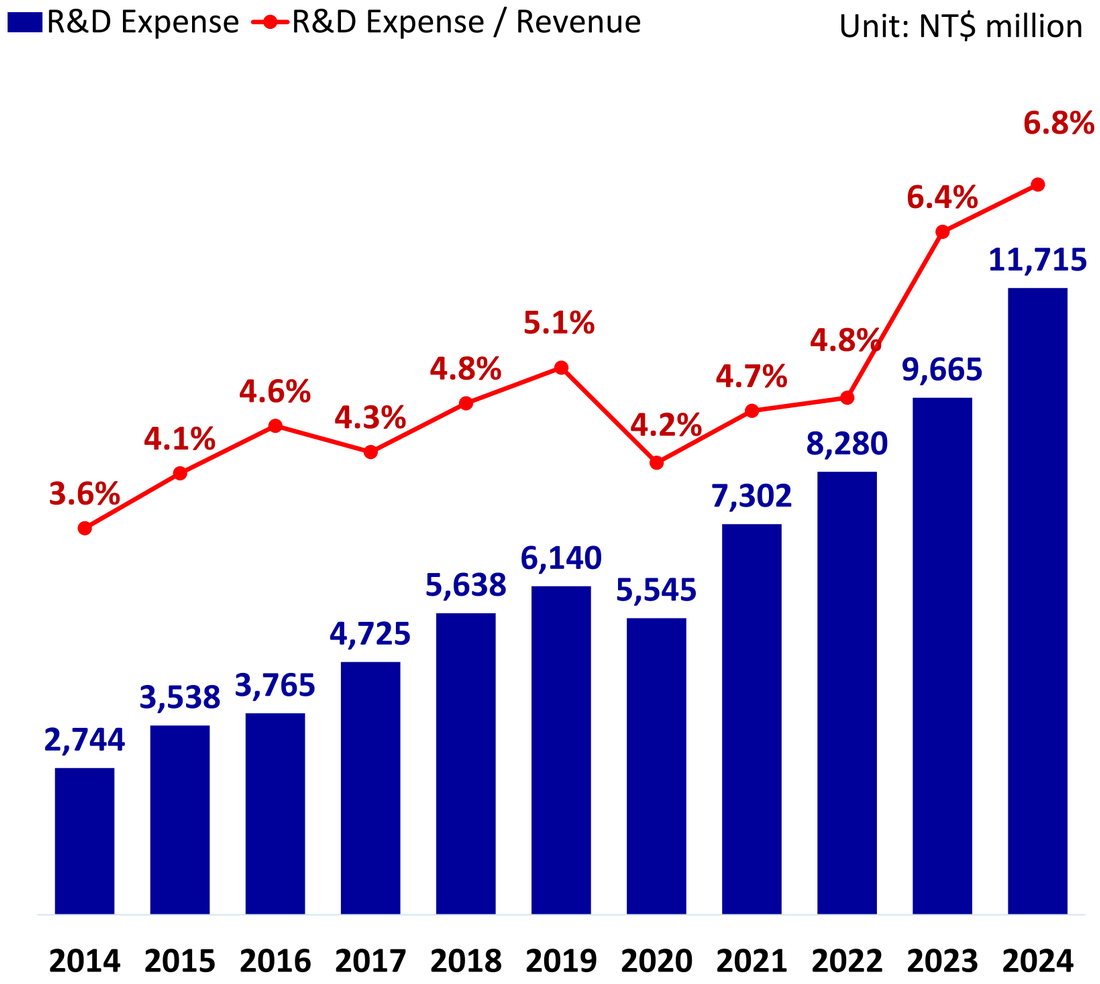
Optical

- After passing customer qualifications last year, our optical products entered mass production. This year, we are focusing on high-end 800G/1.6T mSAP designs, aiming to secure more customers and orders, while 3.2T products have also entered the R&D and design phase.
- As AI continues to evolve, the demand for high-end products is primarily driven by mSAP technology. This trend is expected to sustain strong growth over the next 3 to 5 years.

Automotive

- Actively expand our presence in high-end high-layer-count HDI products for autonomous driving, with ADAS domain control motherboards and high-end sensors entering mass production.
- For EV related products, shipments of battery-related products continue to grow.
- For automotive connectivity, we are working closely with customer to develop products, with high-end SLP applications emerging.

Ongoing R&D Investment in Advanced Products to Sustain Market Leadership



ZDT follows 12 R&D principles in our PCB and semiconductor development initiatives, focusing on the R&D of advanced technologies and their application in next-generation products.

12 R&D Principles:

Light	Thin	Short Process	Compact
High Frequency/ High Speed/ High Heat Dissipation	Low Pollution/ Low Cost/ Low Power Consumption	Multi-Function/ Multi-Layer	Fast R&D/ Fast Manufacturing
Precise	Appealing	Fine Line	Intelligent

We have established R&D centers in both Taiwan and Mainland China. We continue to enhance our new technology development capabilities to maintain leadership in high-end products and technologies.

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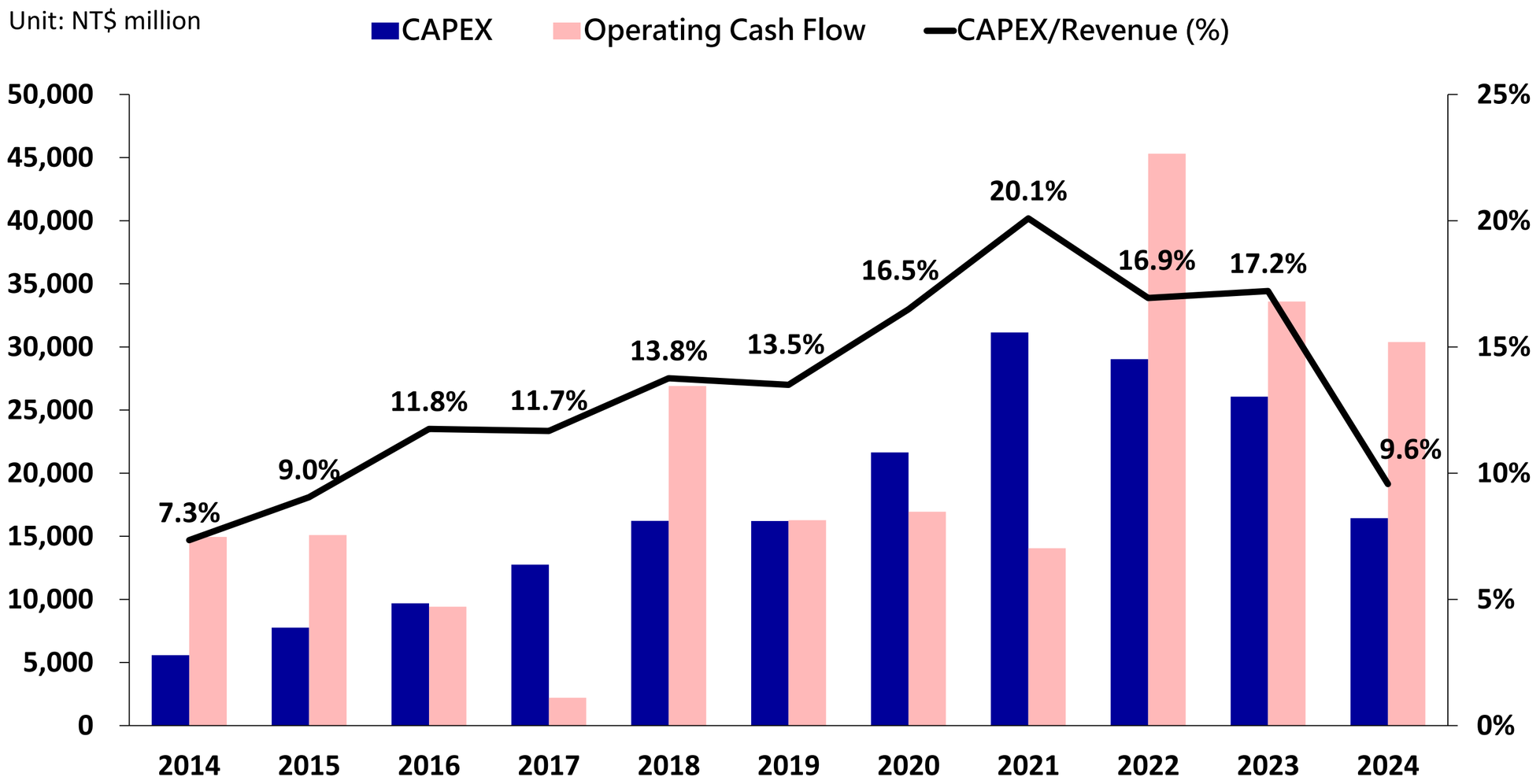
Disciplined Capacity Expansion,

Advancing Steadily to Seize Market Opportunities

With Strong Cash Flow, We Prudently Manage CAPEX, Ensuring Stability in the Face of Macroeconomic Changes



Global Production Base Expansion Plan

Mainland China

- In 2025, we will expand capacity for automotive and energy storage FPCs and collaborate with customers to build up high-end capacity to de-bottlenecks.

Thailand Prachinburi Park

- The phase 1 of the new fab began equipment installation in February, with trial production scheduled for May 8th and small-scale volume production expected in the second half of the year. Meanwhile, the phase 2 fab is scheduled to break ground on May 8th.
- Phase 1 capacity will focus on high-end server, automotive, and optical applications, providing high-end RPCB and HDI products.

Kaohsiung AI Park

- To invest NT$8bn in equipment to establish a full-process FCBGA mass production facility for advanced packaging.
- To invest NT$2bn in equipment to build HDI+HLC PCB production capacity.
- FPC production lines have entered trial production.

Benefits of Capacity Expansion are Expected to Materialize from 2026-2027, Contributing to Profitability

Mainland China Fabs

- Each fab will implement smart manufacturing and digital transformation in phases to improve operational efficiency, increase per capita productivity, and further enhance overall profitability.

Thailand Prachinburi Park

- Manufacture mid-to-high-end RPCB/HDI products for servers, automotive, and optical, which will help improve gross margins.
- We are actively allocating resources and developing new products, aiming to secure more Tier-1 customers after production capacity comes online.

Kaohsiung AI Park

- Plan to manufacture ultra-high-end products (30L–80L).
- Customer qualifications are expected to begin gradually in early 2026.

Establish Diverse Production Bases with Advanced Capacities To Meet Global Customer Demands

India

Chennai Park

FPC and advanced module

Thailand

Prachinburi Park

To enter trial production on May 8

Shenzhen

Shenzhen Park 1

FPC and advanced module/HDI

Shenzhen Park 2

FPC and advanced module

ABF Substrate Park

Phase 1 entered mass production in 2023

Qinhuangdao

Qinhuangdao Park

FPC & advanced module/SLP High end HDI

BT Substrate Park

FC-CSP/WB-CSP/Memory, phase 1 entered mass production in 2022

Huai'an

Huai'an Park 1

RPCB/HDI

Huai'an Park 2

FPC & advanced module/HDI/ Mini LED

Huai'an Park 3

High-end HDI/MSAP, entered mass production in 2023

Taiwan

Kaohsiung AI Park

R&D and Manufacturing Site for AI Products

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Leverage Smart Manufacturing to Increase Per Capita Productivity and Enhance Profitability

Smart Manufacturing
for Industry 3.5/4.0

PLM | **SCM** | **ERP** | **HRM** | **i-Foundry**

Unstructured Data System | Structured Data System | Data Warehouse System | AI Computing Platform

MES — Smart Production, Manufacturing Execution System, APS/Data-driven DSS

QMS — Yield Improvement, Quality Management System, SPC/APC/AQC/AEC

EAP (Equipment Automation System) / IIOT

SEMI Equipment Communication Standard (SECS)/ Generic Equipment Model (GEM)/ IPC-CFX /WEBAPI/SebService/


Lamination


Laser


Laser Direct Imaging (LDI)

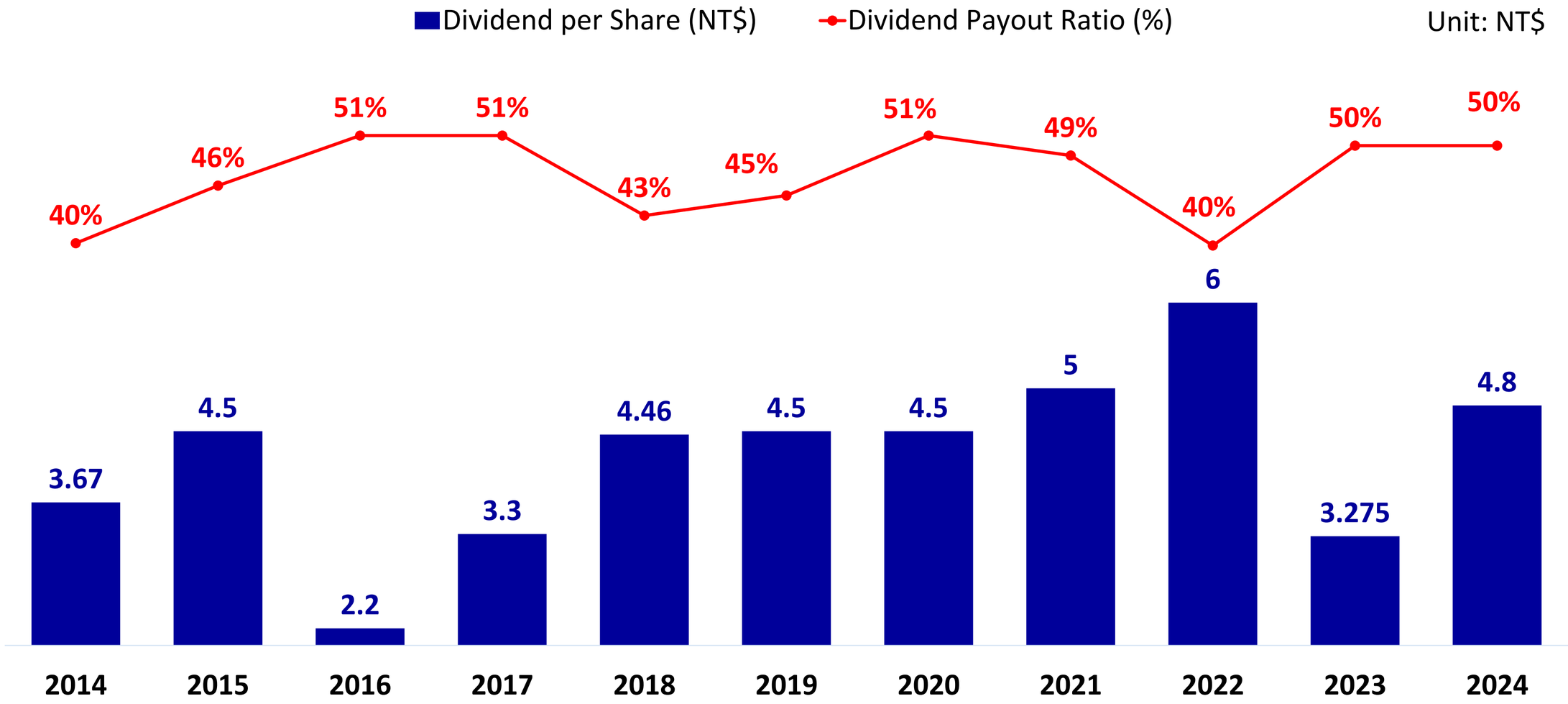

Vertical Develop


Solder Mask


Inspection

Operational Digitization, Platform Digitalization, Platform Intelligence, and Intelligent Implementation

Maintain High Dividend Payout Ratios; Share Business Success With Shareholders



EPS + ESG – Improvement of ESG Ratings

▶ Corporate Governance Evaluation Ranking

Ranked between 6% to 20% in the 2024 Corporate Governance Evaluation for listed companies and **re-selected for inclusion in the TWSE Corporate Governance 100 Index.**

▶ S&P Global ESG Rating

In 2024, our S&P ESG Score improved to 78 and was **selected as the only PCB company in the S&P Global Sustainability Yearbook** for the third consecutive year.

▶ Sustainalytics ESG Risk Rating

Our latest Sustainalytics ESG Risk Ratings was 15.7, classified as **low risk.**

▶ ISS ESG Rating

ISS has upgraded our ESG Rating from "C" to "C+," granting Zhen Ding **"Prime" status.**

▶ CDP

In 2024, we received an **'A' leadership** rating for water security, marking a one-notch improvement from last year. Additionally, we achieved a 'B' rating from CDP for climate change.

▶ FTSE Russell ESG Rating

Our FTSE Russell ESG Rating reached 4.4 (out of 5) and ranked in the **5th place among all listed companies in Taiwan.**

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Financial Summary

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4Q24 Financial Results

Unit: NT$ million, unless otherwise stated

	4Q24	4Q23	YoY (%)
Revenue	56,133	54,396	+3.2%
Gross Profit	11,471	11,679	-1.8%
Gross Margin	**20.4%**	**21.5%**	**-1.1ppts**
Operating Expense	5,917	5,424	+9.1%
Operating Profit	5,554	6,254	-11.2%
Operating Margin	**9.9%**	**11.5%**	**-1.6ppts**
Non-Operating Income/Expense	2,206	(409)	
Net Income	6,242	5,070	+23.1%
Net Margin	**11.1%**	**9.3%**	**+1.8ppts**
Net Income to Parent	4,363	3,504	+24.5%
EPS (NT$) (1)	**4.59**	**3.71**	
R&D Expense	3,048	2,866	+6.3%
Depreciation and Amortization	4,655	4,199	+10.8%
Cash Inflow Generated from Operations	20,933	13,239	+58.1%
Cash and Cash Equivalents (2)	79,830	65,970	+21.0%
ROE(%) (3)	**17.4%**	**15.2%**	+2.2ppts

Note：(1) Weighted Average Shares outstanding as of 2024 : 949,394 thousand shares (actual issuance 956,653 thousand shares, with 2,093 thousand shares held in treasury (2) Including current financial assets at amortized cost (time deposits, etc.) (3) ROE is annualized data calculated based on the average of equity attributable to owners of parent

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2024 Financial Results

(Unit: NT$ million, unless otherwise stated)

	2024	2023	YoY (%)
Revenue	171,664	151,398	+13.4%
Gross Profit	32,461	27,459	+18.2%
Gross Margin	**18.9%**	**18.1%**	**+0.8ppts**
Operating Expense	20,875	18,300	+14.1%
Operating Profit	11,586	9,160	+26.5%
Operating Margin	**6.8%**	**6.1%**	**+0.7ppts**
Non-Operating Income/Expense	3,459	888	+289.5%
Net Income	13,096	9,432	+38.9%
Net Margin	**7.6%**	**6.2%**	**+1.4ppts**
Net Income to Parent	9,180	6,189	+48.3%
EPS (NT$) (1)	**9.67**	**6.55**	
R&D Expense	11,715	9,665	+21.2%
Depreciation and Amortization	17,749	16,323	+8.7%
Cash Inflow Generated from Operations	30,385	33,599	-9.6%
Cash and Cash Equivalents (2)	79,830	65,970	+21.0%
ROE(%) (3)	**9.1%**	**7.1%**	+2.0ppts

Note：(1) Weighted Average Shares outstanding as of 2024 : 949,394 thousand shares (actual issuance 956,653 thousand shares, with 2,093 thousand shares held in treasury (2) Including current financial assets at amortized cost (time deposits, etc.) (3) ROE is annualized data calculated based on the average of equity attributable to owners of parent

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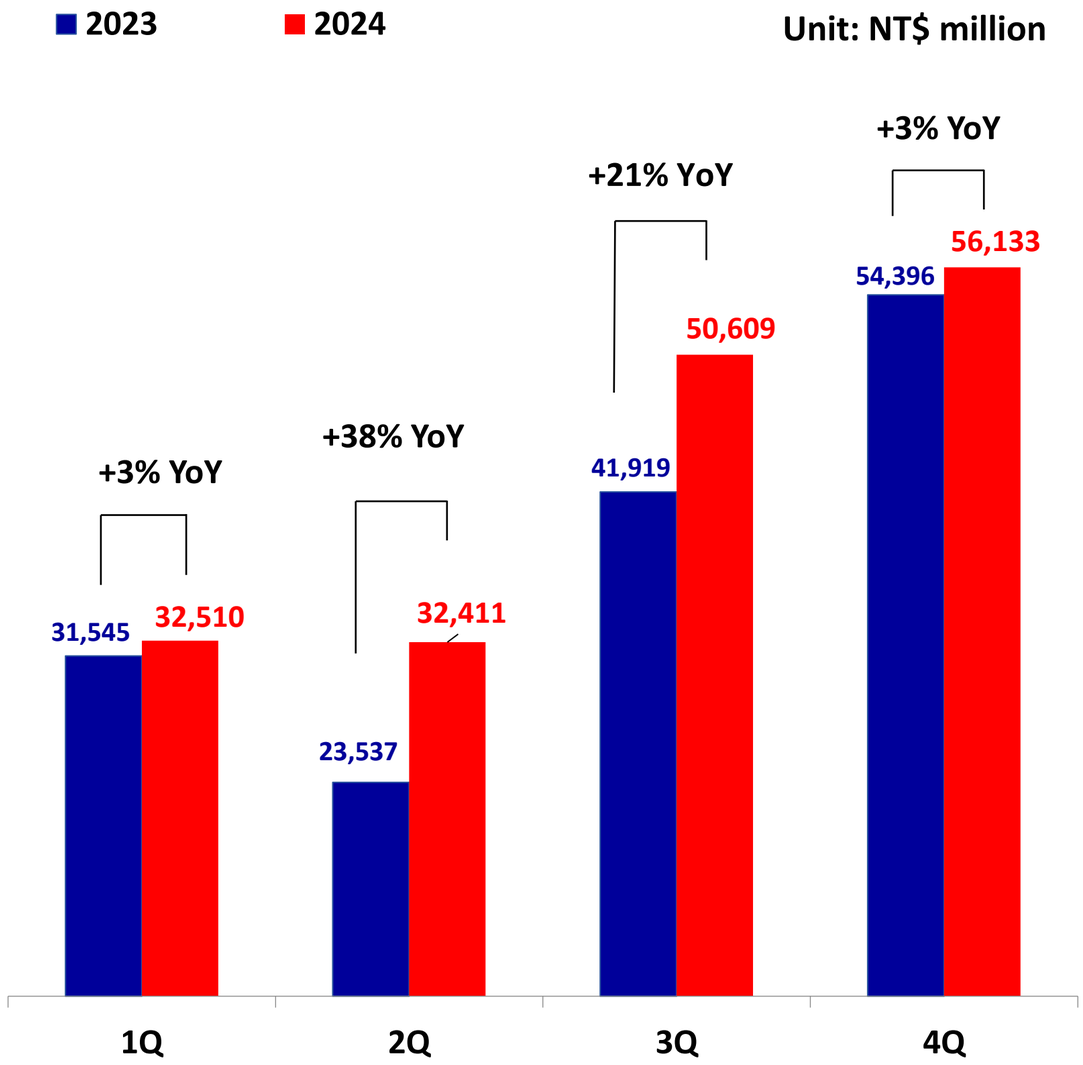
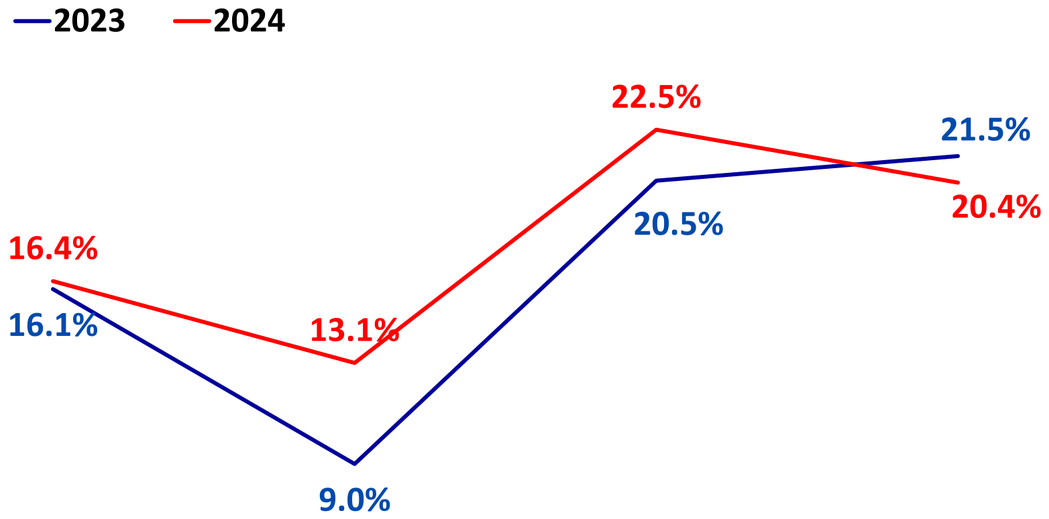
Quarterly Operation Results

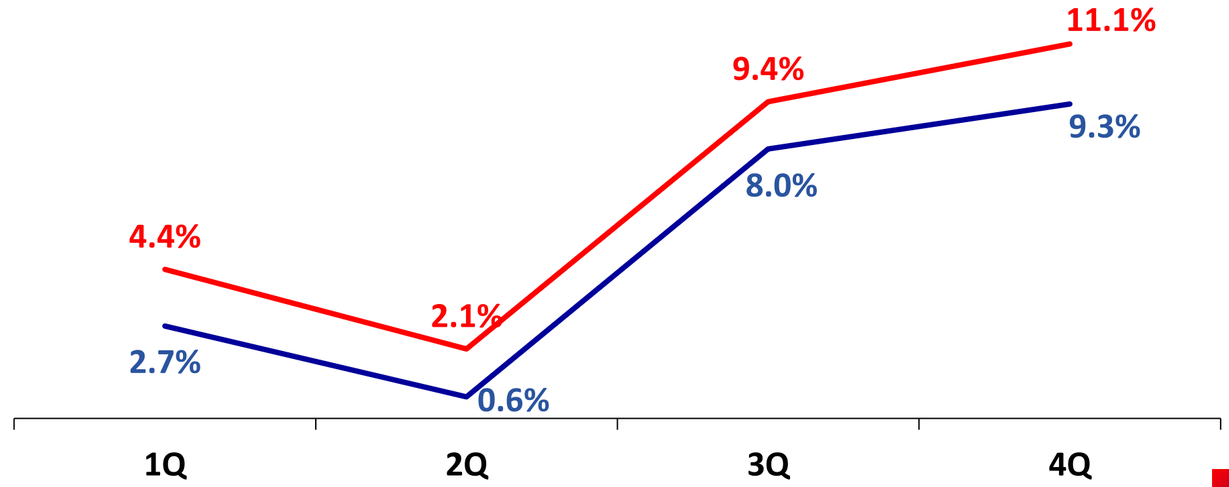
Revenue



Gross Margin (%)

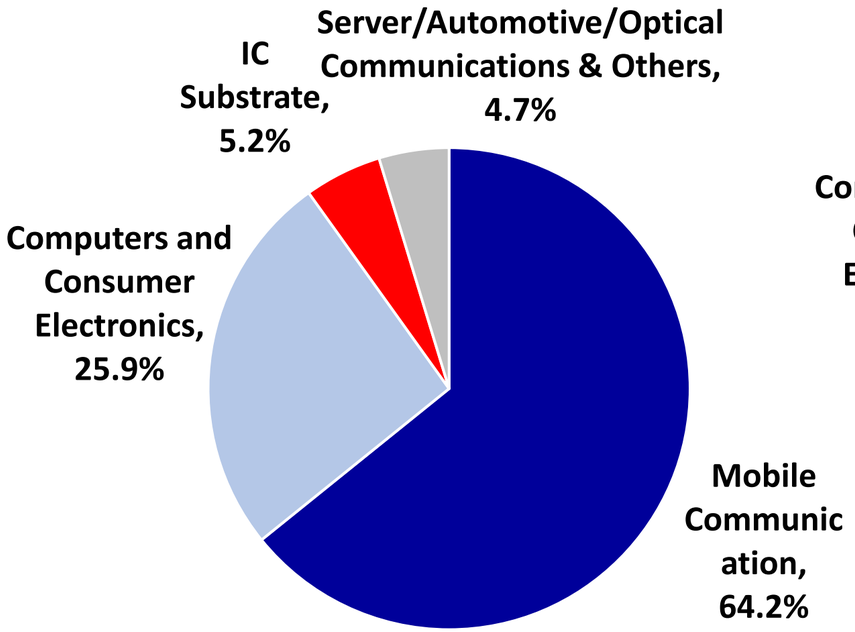


Net Margin (%)

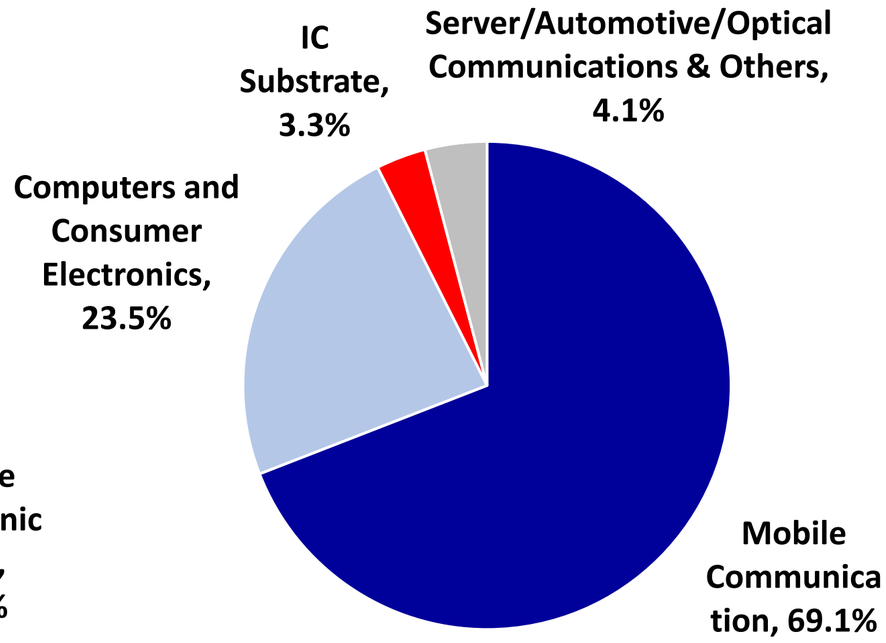


Revenue Breakdown – By Applications

2024 Revenue NT$171.7bn



2023 Revenue NT$151.4bn



Applications	2024 Revenue YoY%
Mobile Communication	5.5%
Computers and Consumer Electronics	24.8%
IC Substrate	75.6%
Automotive/Server/Optical Communications & Others	30.9%

Consolidated Balance Sheet and Key Indices

Unit: NT$ million

	2024-12-31		2023-12-31		Change	
	Amount	%	Amount	%	Amount	%
Cash and Cash Equivalents [2]	79,830	30.0%	65,970	27.2%	13,860	2.8ppts
Notes & Accounts Receivable	30,959	11.6%	29,503	12.2%	1,455	-0.5ppts
Inventories	17,990	6.8%	15,508	6.4%	2,482	0.4ppts
Property, Plant and Equipment [3]	113,462	42.7%	109,965	45.3%	3,497	-2.6ppts
Total Assets	**265,993**	**100.0%**	**242,932**	**100.0%**	**23,218**	
Debt	57,051	21.4%	53,130	21.9%	3,922	-0.4ppts
Notes & Accounts Payable	40,858	15.4%	37,853	15.6%	3,004	-0.2ppts
Total Liabilities	**113,970**	**42.8%**	**108,450**	**44.7%**	**5,520**	**-1.8ppts**
Total Equity	**152,024**	**57.2%**	**134,326**	**55.3%**		
Key Indices						
A/R Turnover Days	63		72		(9)	
Inventory Turnover Days	47		52		(5)	
Current Ratio (x)	1.91		1.44		0.47	
PPE Turnover (x) [4]	1.59		1.47		0.12	

Note：(1) Weighted Average Shares outstanding as of 2024 : 949,394 thousand shares (actual issuance 956,653 thousand shares, with 2,093 thousand shares held in treasury (2) Including current financial assets at amortized cost (time deposits, etc.) (3) PPE includes investment property (4) PPE Turnover = annualized net revenue / average net property, plant and equipment

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2015-2024 Financial Summary

Unit: NT$ million

Period	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Revenue	85,738	82,393	109,238	117,913	120,068	131,279	155,022	171,356	151,398	171,664
Gross Profit	16,427	12,542	17,833	26,061	27,222	26,584	30,537	39,888	27,459	32,461
Net Income	7,731	3,456	6,772	11,536	12,402	11,508	13,694	20,535	9,432	13,096
Net Income to Parent	7,731	3,456	5,172	8,448	8,685	8,095	9,651	14,197	6,189	9,180
Depreciation & Amortization	4,850	5,295	5,679	6,820	7,955	8,405	11,875	14,638	16,323	17,749
EPS (NT$)	9.80	4.29	6.43	10.50	9.93	8.90	10.21	15.02	6.55	9.67
DPS (NT$)	4.50	2.20	3.30	4.46	4.50	4.50	5.00	6.00	3.275	4.80
Payout Ratio (%)	46%	51%	51%	43%	45%	51%	49%	40%	50%	50%
Cash and Cash Equivalents*	31,572	30,241	33,296	49,154	43,071	46,775	35,179	57,599	65,970	79,830
Property, Plant and Equipment	32,074	32,262	36,681	41,913	46,243	68,177	86,073	104,814	109,965	113,462
Capital	8,047	8,047	8,047	8,047	9,022	9,470	9,470	9,470	9,470	9,567
ROE (%)	20.82%	8.59%	14.49%	17.30%	14.72%	11.84%	12.59%	16.67%	7.10%	9.15%
Debt Ratio (%)	53.70%	59.72%	55.33%	44.25%	35.41%	42.56%	42.01%	42.87%	44.67%	42.85%

* Including current financial assets at amortized cost (time deposits, etc.)

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Thank You