

# Zhen Ding Technology Holding (4958 TT)

## 1H23 Investor Conference

August 9<sup>th</sup>, 2023

- 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.



# AGENDA

1

## 1H23 Financial Results

Ms. Sharon Wang, CFO

2

## IC Substrate Business Update

Mr. D.J. Lee, Director

3

## Company Strategy

Mr. Charles Shen, Chairman & General Manager

# 1H23 Financial Results

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Ms. Sharon Wang, CFO

# 1H23 Results Highlights

1

**The unfavorable macro environment and weak end demand have led to an industry-wide overcapacity. This combined with pricing pressure from customers resulted in a 19.5% year-on-year decline in revenue for the first half of the year.**

2

**We remain optimistic about future industry trends, including IC substrates, and continue to invest in R&D and capex. For 1H23:**

- R&D expenses were NT\$4.24bn, increasing by NT\$0.74bn compared with 1H22, reflecting a growth of 21%.
- Capex was NT\$14.7bn, approximately at the same level of 1H22.
- Depreciation and amortization expenses were NT\$8.0billion, increasing by NT\$1.05bn compared with 1H22, reflecting a growth of 15%.

3

**Our financial position remains robust. As of June 30, 2023:**

- Net cash stood at NT\$12.5bn, increasing by NT\$7.0bn compared with the same period last year.
- Debt ratio was 43.9%, approximately at the same level as the same period last year.

# 1H23 Financial Results

	(Unit: NT\$ million, unless otherwise stated)		
	1H23	1H22	YoY (%)
Revenue	55,082	68,450	-19.5%
Gross Profit	7,198	12,990	-44.6%
<b>Gross Margin</b>	<b>13.1%</b>	<b>19.0%</b>	<b>-5.9ppts</b>
Operating Expense	7,867	7,303	+7.7%
Operating Profit	(669)	5,686	
<b>Operating Margin</b>	<b>-1.2%</b>	<b>8.3%</b>	<b>-9.5ppts</b>
Non-Operating Income/Expense	1,075	1,651	-34.9%
Net Income	1,013	6,506	-84.4%
<b>Net Margin</b>	<b>1.8%</b>	<b>9.5%</b>	<b>-7.7ppts</b>
Net Income to Parent	414	4,507	-90.8%
<b>EPS (NT\$) <sup>(1)</sup></b>	<b>0.44</b>	<b>4.77</b>	
Cash Inflow Generated from Operations	15,216	21,443	-29.0%
Capital Expenditures	14,684	15,246	-3.7%
Cash and Cash Equivalents <sup>(2)</sup>	59,916	44,480	+34.7%
<b>ROE(%) <sup>(3)</sup></b>	<b>1.6%</b>	<b>11.2%</b>	<b>-9.6ppts</b>

Note : (1) Weighted average shares outstanding as of 1H23: 944,956 thousand shares

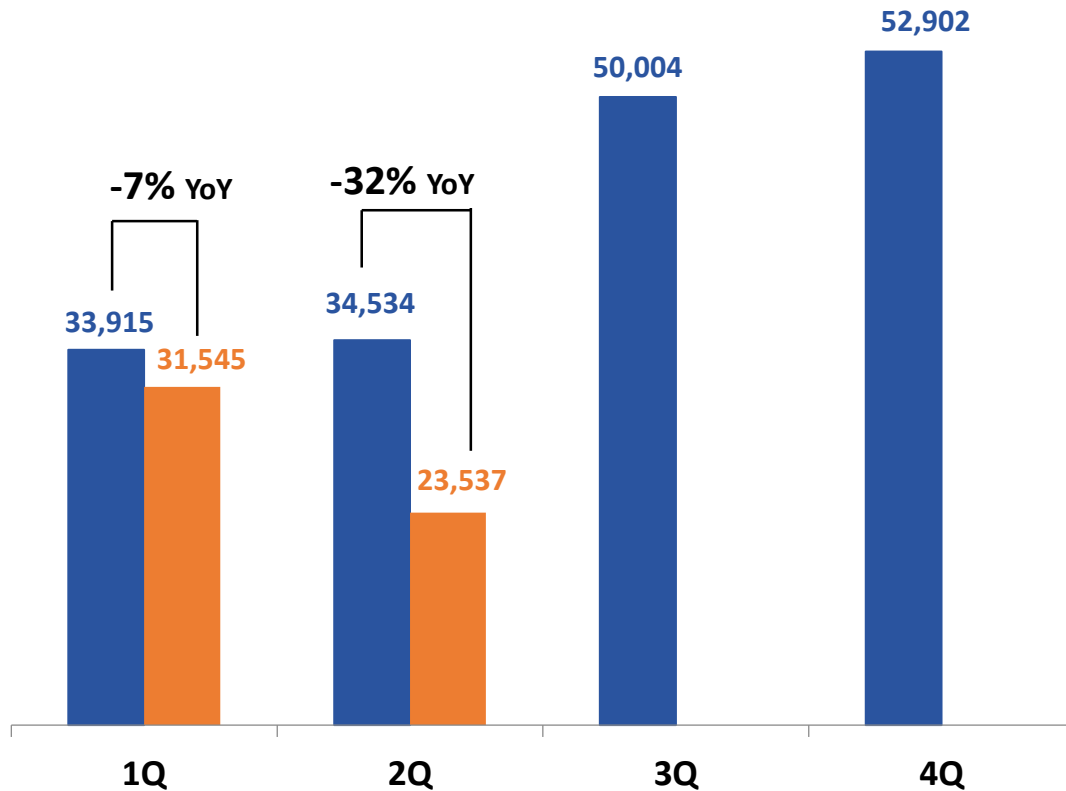
(2) Including current financial assets at amortized cost (time deposits, etc.)

(3) ROE is annualized data calculated based on the average of equity attributable to owners of parent

# Quarterly Operation Results

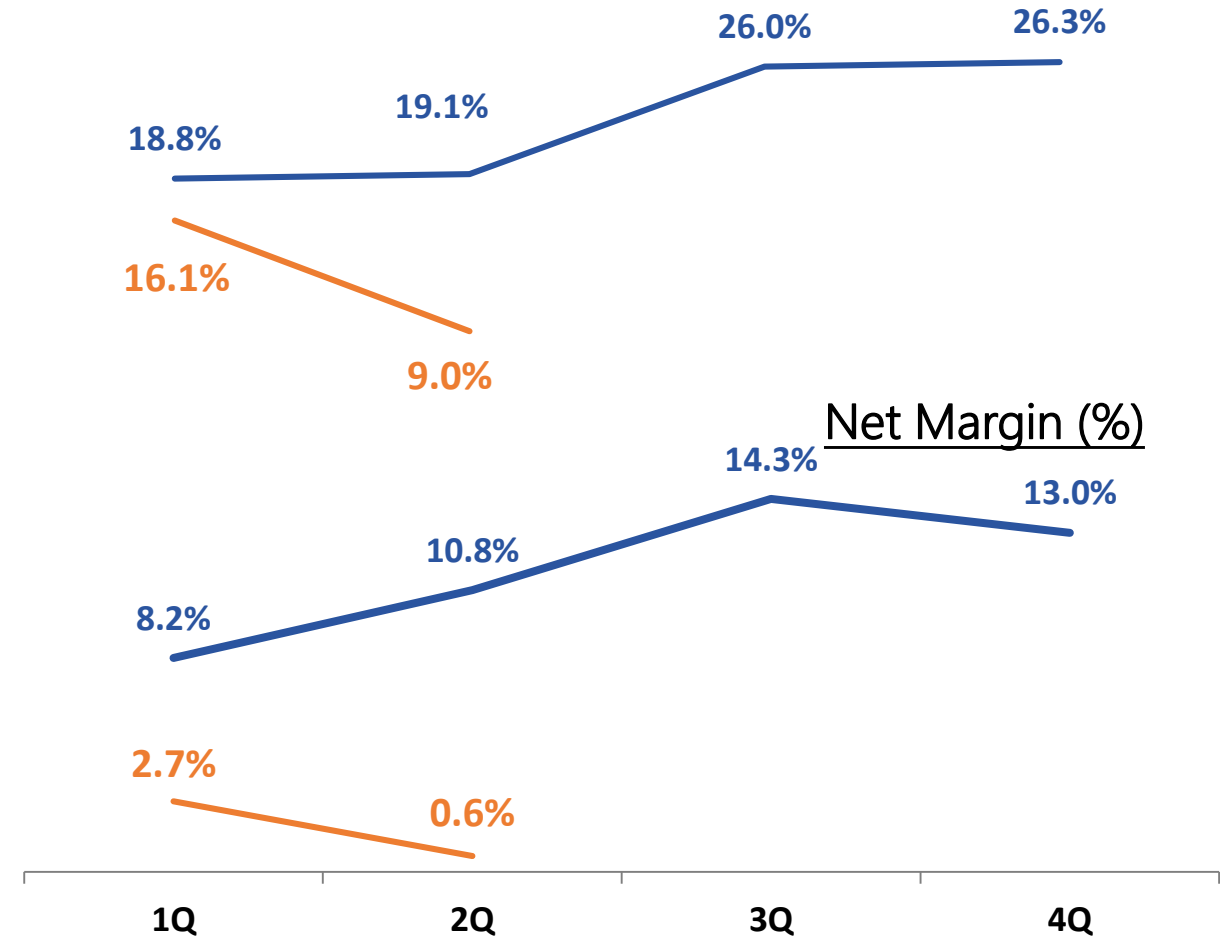
Revenue

■ 2022 ■ 2023 Unit: NT\$ million

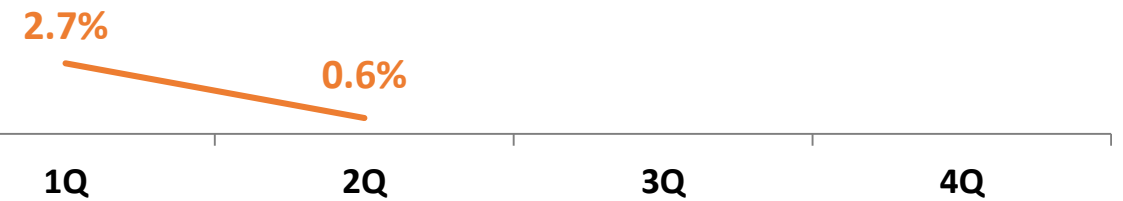


Gross Margin (%)

— 2022 — 2023

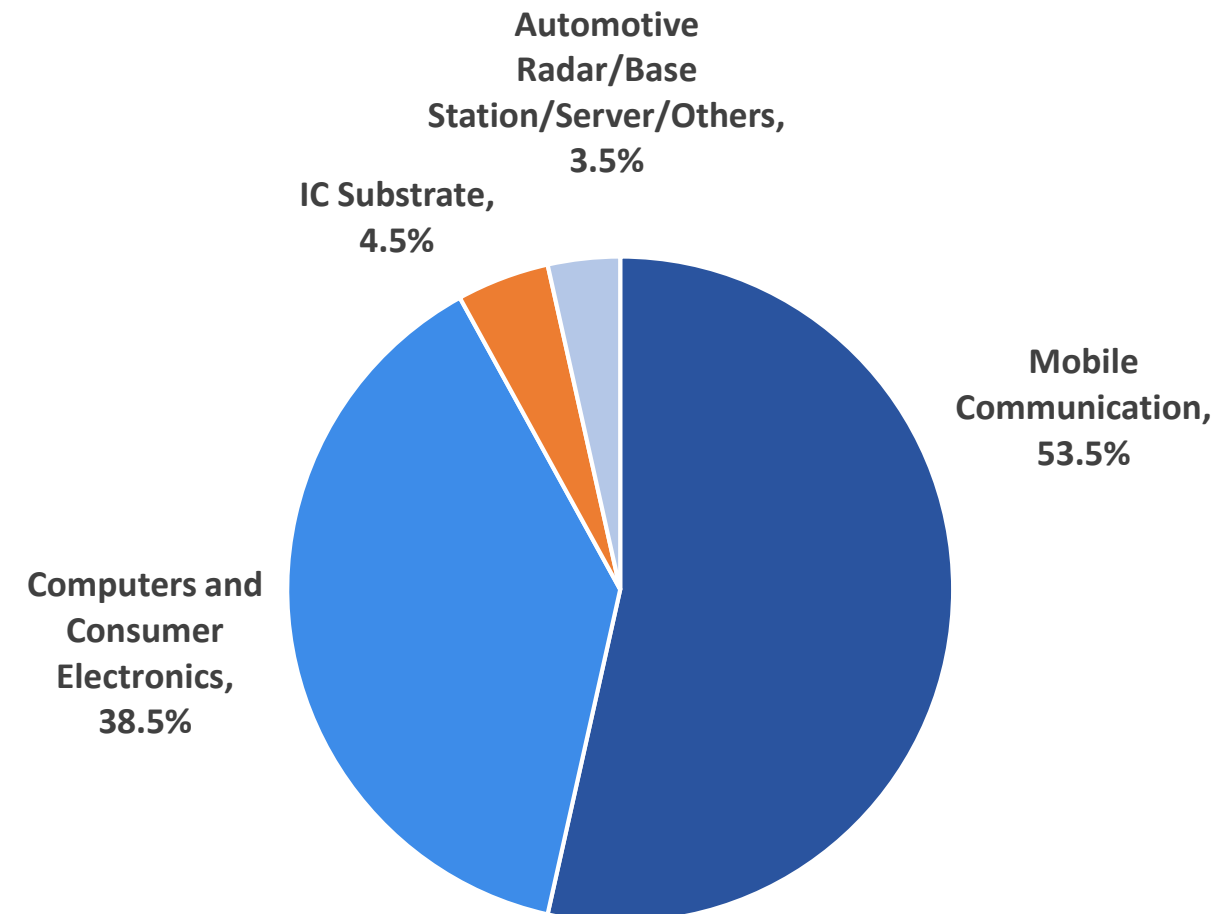


Net Margin (%)

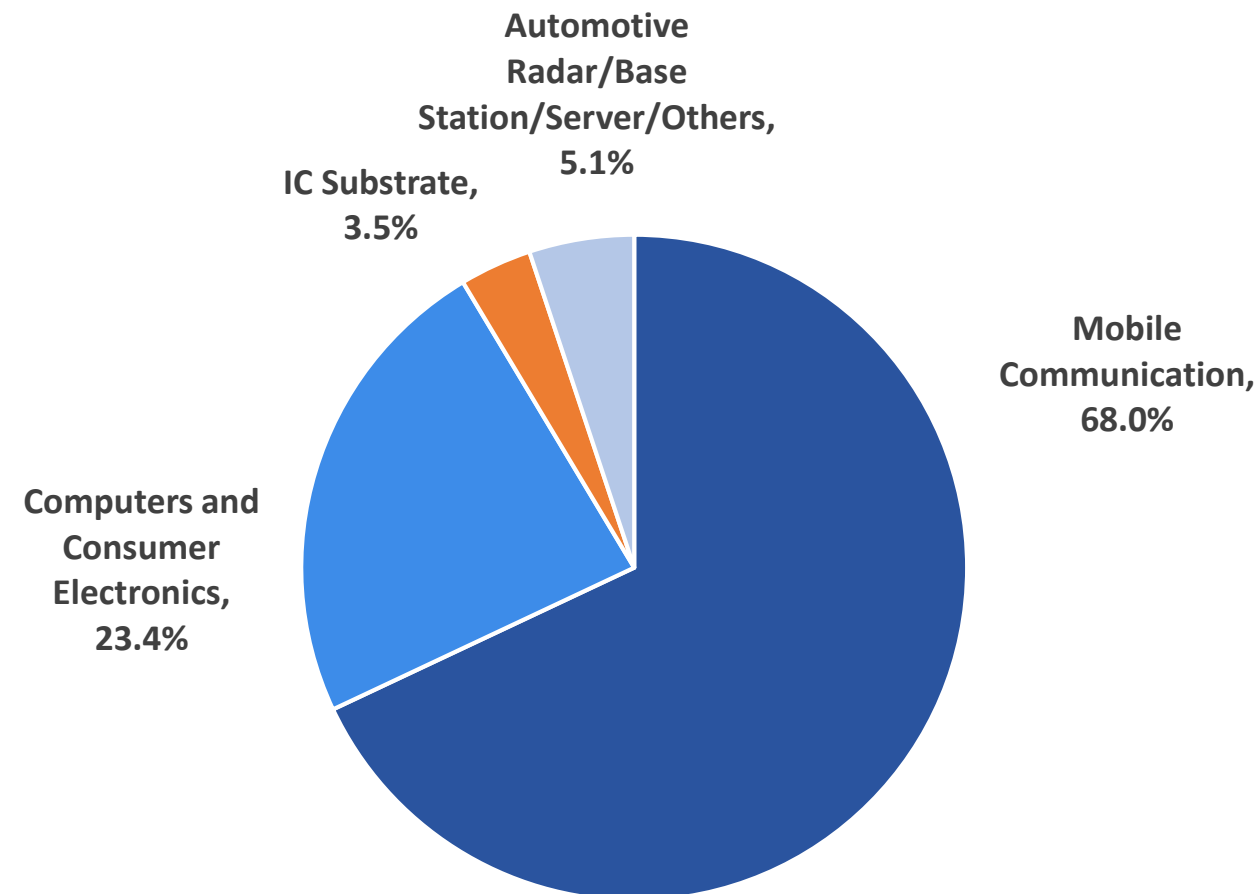


# Revenue Breakdown – By Applications

**1H2022 Revenue NT\$68.5bn**



**1H2023 Revenue NT\$55.1bn**





# Consolidated Balance Sheet and Key Indices

	2023-6-30		2022-6-30		Unit: NT\$ million Change	
	Amount	%	Amount	%	Amount	%
Cash and Cash Equivalents <sup>(2)</sup>	59,916	26.8%	44,480	21.5%	15,436	+5.3ppts
Notes & Accounts Receivable	17,496	7.5%	24,951	12.1%	(7,455)	-4.6ppts
Inventories	13,784	5.9%	20,941	10.1%	(7,157)	-4.2ppts
Property, Plant and Equipment <sup>(3)</sup>	108,559	48.5%	96,597	46.7%	11,962	+1.8ppts
<b>Total Assets</b>	<b>223,833</b>	<b>100.0%</b>	<b>206,793</b>	<b>100.0%</b>	<b>17,040</b>	
Debt	47,455	21.2%	39,019	18.9%	8,436	+2.3ppts
Notes & Accounts Payable	35,325	15.8%	37,136	18.0%	(1,811)	-2.2ppts
<b>Total Liabilities</b>	<b>98,219</b>	<b>43.9%</b>	<b>88,242</b>	<b>42.7%</b>	<b>9,977</b>	
<b>Total Equity</b>	<b>125,615</b>	<b>56.1%</b>	<b>118,551</b>	<b>57.3%</b>		

## Key Indices

A/R Turnover Days	78	83	(5)
Inventory Turnover Days	66	67	(1)
Current Ratio (x)	1.30	1.43	(0.13)
PPE Turnover (x) <sup>(4)</sup>	1.03	1.50	(0.47)

Note : (1) Weighted average shares outstanding as of June 30, 2023 : 944,956 thousand shares (2) Including current financial assets at amortized cost (time deposits, etc.)

(3) Property, Plant and Equipment includes investment property (4) PPE Turnover = annualized net revenue / average net property, plant and equipment

# 2011-2022 Financial Summary

Unit: NT\$ million

Period	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Revenue	44,280	55,369	64,483	75,954	85,738	82,393	109,238	117,913	120,068	131,279	155,022	171,356
Gross Profit	6,993	10,775	11,894	14,323	16,427	12,542	17,833	26,061	27,222	26,584	30,537	39,888
Net Income	2,356	4,056	5,471	6,735	7,731	3,456	6,772	11,536	12,402	11,508	13,694	20,535
Net Income to Parent	2,356	4,056	5,471	6,735	7,731	3,456	5,172	8,448	8,685	8,095	9,651	14,197
Depreciation & Amortization	3,008	3,375	3,742	4,293	4,850	5,295	5,679	6,820	7,955	8,405	11,875	14,638
EPS (NT\$)	3.30	5.49	7.41	9.12	9.80	4.29	6.43	10.50	9.93	8.90	10.21	15.02
DPS (NT\$)	1.50	2.50	3.00	3.67	4.50	2.20	3.30	4.46	4.50	4.50	5.00	6.00
Payout Ratio (%)	45.5%	45.5%	40.5%	40.2%	45.9%	51.3%	51.3%	42.5%	45.3%	50.6%	49.0%	40.0%
Cash and Cash Equivalents*	4,084	8,756	10,016	23,482	31,572	30,241	33,296	49,154	43,071	46,775	35,179	57,599
Property, Plant and Equipment	27,097	26,637	27,843	30,073	32,074	32,262	36,681	41,913	46,243	68,177	86,073	104,814
Capital	6,699	7,034	7,386	7,386	8,047	8,047	8,047	8,047	9,022	9,470	9,470	9,470
ROE (%)	15.34%	21.27%	23.77%	23.33%	20.82%	8.59%	14.49%	17.30%	14.72%	11.84%	12.59%	16.67%
Debt Ratio (%)	67.03%	66.28%	64.06%	62.54%	53.70%	59.72%	55.33%	44.25%	35.41%	42.56%	42.01%	42.87%

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

# IC Substrate Business Update

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Mr. D.J. Lee, Director

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## **Bottoming out in the first half of the year, gradually recovering in the second half:**

- The current market downturn is primarily attributable to high customer inventories. However, the ABF market continues to perform well in certain applications such as AI and HPC. Overall industry may start to recover at the end of the year.

2

## **Reflecting the industry's supply and demand dynamics, the development of the IC substrate industry is expected to be delayed by 1.5 years from previous expectation:**

- The long-term prospects of the semiconductor industry remain promising. Leading companies such as TSMC and Intel continue to expand their production capacities.
- In terms of IC substrates, in the mid-to low-end market, there are many new entrants, and production capacity is largely concentrated in mainland China, lacking the ability and experience to expand internationally to serve global customers. In the mid-to high-end market, despite the fluctuations in the near term, the industry may still be in shortage in the mid-to long-term.

3

## **Receiving certifications from international customers:**

- The semiconductor industry is predominantly reliant on international clients. We have been successfully obtaining certifications from international customers, including those from the United States, Europe, and Japan. Customers have shown a high level of recognition for our new fab.

4

## **Focusing on developing high density and fine line products:**

- For ABF substrates, we have collaborated with customers to develop high-end substrates for Chiplet. Currently, we are shipping products with 18-20 layers and a maximum body size of 92mm x 92mm to customers. Within just 6 months, our yield has improved to on par with Tier 1 ABF substrate suppliers. We plan to further advance our products to over 20 layers and over 100mm x 100mm body size in the future.
- For BT substrates, we can offer fine-line 6/8um Embedded Trace Substrate (ETS), and the yield is also on par with Tier 1 players.

## AI

**High-speed  
Computing**

**Data  
Transmission**

AI applications require high-speed computing capabilities and the integration of fast read-write memory.

## Chip Solution

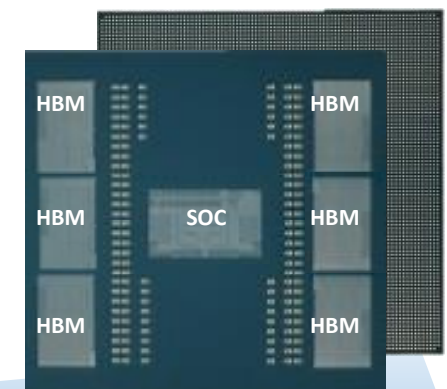
**Single SOC  
(System on Chip)**

Larger die size, more complicated manufacturing process, and higher costs






**Chiplet**

Chiplet packaging increases efficiency

## Chiplet Substrate



### IC Substrate Technology

High Layer Counts	Large Body Size	Micro-drilling	Fine Line	Surface Finish Process
 18~20 Layers	 90x90 ~ 95x95mm	 40~60 um	 9~15 um	 Low roughness, high cohesion

**Zhen Ding's  
IC Substrate**



# ABF Fab's Yield is On Par with Tier 1 Players

Qinghuangdao BT Substrate Fab:  
FC-CSP/WB-CSP/Memory



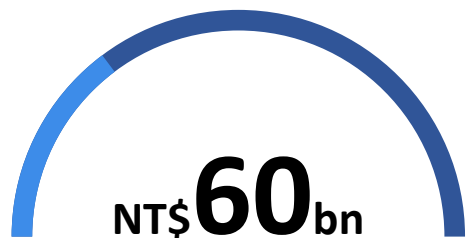
Shenzhen ABF Substrate Fab: FCBGA



# IC Substrate Capacity Expansion Plan

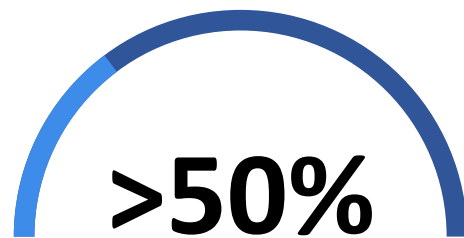
		2023				2024				2025				2026			
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
SZ ABF Substrate Plant (Two Fabs’ floor area in total: 170,000 m²)	Fab 1 (Mid-to high-end products)	Installation															
		Sample certification															
		Mass production, target yield: comparable to tier 1 peers										Full utilization, target yield: comparable to tier 1 peers					
	Fab 2 (High end products)										Installation						
									Sample certification								
												Mass production					
QHD BT Substrate Plant (Two Fabs’ floor area in total: 60,000 m²)	Fab 1	Industry Leading Quality															
	Fab 2	Mass Production				Utilization at 60%+		Utilization at 80%+									

# IC Substrate Goals



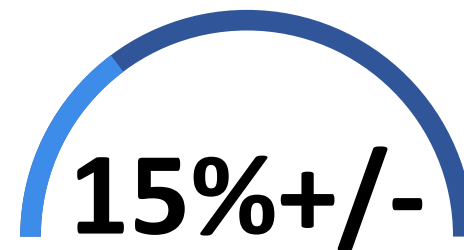
## IC Substrate Capex:

Plan to invest NT\$60bn  
from 2022~2027



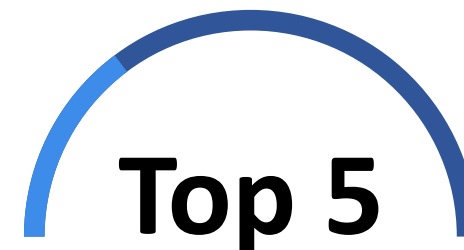
## IC Substrate Revenue:

2023~2027 Revenue  
CAGR >50%



## IC Substrate Revenue:

Account for 15 %+/- of  
company's consolidated  
revenue in 2027



## IC Substrate Market Share:

Aim to become one of the  
global top 5 companies in the  
IC substrate market in 2030





臻鼎科技控股

Zhen Ding Tech. Holding

# Company Strategy

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Mr. Charles Shen, Chairman & General Manager

# 1H23 Review and Outlook

1

## **In 1H23, we faced headwinds, and focused on product development and operational efficiency optimization:**

Affected by weak demand in consumer electronics and customer product transitions, our 1H23 revenue decreased in line with industry trends. However, during this period, we have been focusing on product development and efficiency optimization. These efforts drove a year-on-year increase in gross margin for Mobile Communication products despite the economic downturn in the first half of the year.

2

## **Maintain stable market share for customers' new products, continue to invest in R&D, and work with customers to jointly develop new product applications:**

We continue to work with world-class customers closely, maintaining our role as a primary supplier for customers' new products. Additionally, we are committed to invest in R&D and further diversify our product applications. With the products and technology in the server (including AI servers) and automotive areas, we are well positioned to benefit from the industry trends.

3

## **Introduce smart manufacturing into each plant step by step, and further improve operational efficiency:**

Under the One ZDT strategy, we have been introducing smart manufacturing into each plant step by step. Currently, Huai'an Park 3 is the 9<sup>th</sup> smart fab. We will continue to improve overall operational efficiency.

4

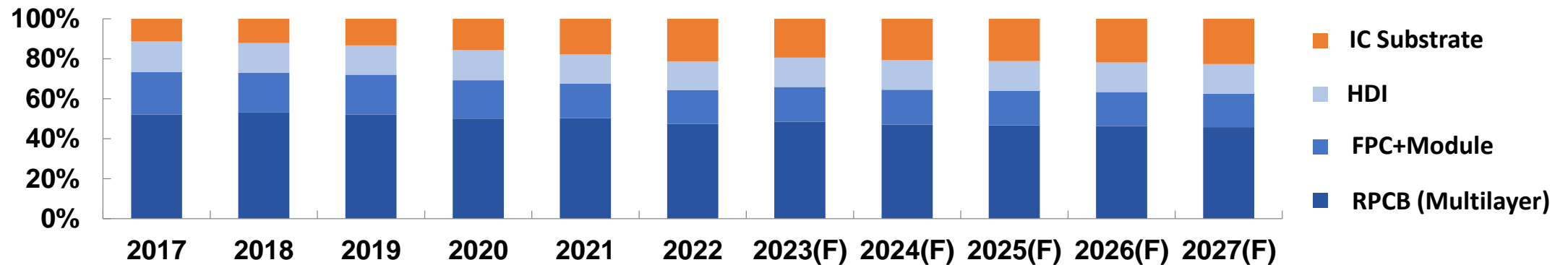
## **Remain optimistic about the mid-to long-term demand for IC substrates:**

In the short-term, demand for BT substrates has bottomed out in the first quarter and is gradually recovering. For ABF substrates, the industry is still under inventory adjustments. During this period, we focused on rapidly improving the yield and efficiency of the new fabs. Currently, the yield is on par with Tier 1 players. We remain optimistic about the mid-to long-term demand for IC substrates. The high-speed computing demand driven by 5G, AI servers, and automotive electronics will boost the growth of ABF substrates. Over the next three years, our revenue and profit from IC substrates will increase significantly.

5

## **To comply with China's regulations and in accordance with our organization plan, General Manager D.J. Lee will transition to Leading Tech's Chairman and General Manager. Meanwhile, to meet corporate governance requirements, we have appointed an additional independent director, increasing the number of independent directors from 3 to 4.**

# All PCB Segments Will Resume Growth Next Year



Unit: US\$ million

Product	Item	2017	2018	2019	2020	2021	2022	2023(F)	2024(F)	2025(F)	2026(F)	2027(F)	2022-2027 CAGR
RPCB	Value	30,656	33,225	31,969	32,674	40,641	38,720	35,968	36,779	39,564	42,407	45,048	3.1%
	%	52.1%	53.2%	52.1%	50.1%	50.2%	47.4%	48.5%	47.0%	46.7%	46.4%	45.8%	
FPC	Value	12,523	12,395	12,195	12,483	14,058	13,842	12,843	13,668	14,545	15,479	16,473	3.5%
	%	21.3%	19.9%	19.9%	19.1%	17.4%	16.9%	17.3%	17.5%	17.2%	16.9%	16.7%	
HDI	Value	8,968	9,222	9,008	9,874	11,811	11,763	10,892	11,716	12,602	13,556	14,581	4.4%
	%	15.2%	14.8%	14.7%	15.1%	14.6%	14.4%	14.7%	15.0%	14.9%	14.8%	14.8%	
ICS	Value	6,696	7,554	8,139	10,188	14,410	17,415	14,436	16,091	17,937	19,993	22,286	5.1%
	%	11.4%	12.1%	13.3%	15.6%	17.8%	21.3%	19.5%	20.6%	21.2%	21.9%	22.7%	
Total		58,843	62,396	61,311	65,219	80,920	81,740	74,139	78,254	84,648	91,435	98,388	3.8%
YoY Change (%)		8.6%	6.0%	-1.7%	6.4%	24.1%	1.0%	-9.3%	5.6%	8.2%	8.0%	7.6%	

Source : Prismark(2023/5) ° \*Data from 2024 to 2026 is calculated based on Prismark's estimation

# Five Major Global Manufacturing Campuses

Multiple manufacturing campuses to fulfill clients' needs

## India



**Chennai Park**  
(FPC and advanced module)

## China Shenzhen



**Shenzhen Park 1**  
(FPC and advanced module/HDI)



**Shenzhen Park 2**  
(FPC and advanced module)



**ABF Substrate Park**  
**Phase 1: mass production in 2023**

## China Qinghuangdao



**Qinghuangdao Park**  
(FPC & advanced module /SLP High end HDI)

## China 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)  
**To enter mass production in 2023**

## Taiwan



**Kaohsiung Park**  
(FPC and advanced module)  
**To enter mass production in 2024**



**Taoyuan Boardtek Park**  
(PCB for networking, HPC, automotive related applications)



## Strategic Collaboration with Local Partner

- In response to customer demands and to expand the group's global footprint.
- Location will be in Prachinburi Province, Thailand.
- Investment amount of the first phase is US\$250 million.
- Plan to enter trail production in 1H25.

## ESG Evaluation Results

### ► Corporate Governance Evaluation Ranking

Ranked between 6% to 20% in the 2023 Corporate Governance Evaluation for listed companies, **re-selected for inclusion in the TWSE Corporate Governance 100 Index.**

### ► Sustainalytics ESG Risk Rating

Zhen Ding's Sustainalytics ESG Risk Ratings improved from 17.8 to 15.6, classified as **low risk.**

### ► S&P Global ESG Rating

In 2022, Zhen Ding's S&P ESG Score improved to 71 and was **selected as a member of the S&P Global Sustainability Yearbook.**

### ► FTSE Russell ESG Rating

In December 2022, Zhen Ding's FTSE Russell ESG Rating improved from 3.6 to 4.3 (out of 5), and ranked in the **3rd place among all listed companies in Taiwan.**

## ESG Highlights and Achievements

### ► Greenhouse Gas Emissions and Energy Management

In 2022, greenhouse gas emissions (scope 1 and scope 2) per unit revenue **decreased by 35%** compared to 2013.

Renewable energy usage in 2022 increased **16-fold** compared to the previous year.

### ► Water Resource Management

In 2022, water consumption per unit revenue **decreased by 40%** compared to 2013.

In 2022, wastewater reuse rate reached **50.5%**.

### ► Circular Economy and Green Procurement

Collaborative promotion of metal recycling with suppliers and customers. **90%** of Solder paste used are recycled. Total amount of potassium gold cyanide recycled reaches **42%** of the consumption.

### ► Board of Directors Structure

In 2023, after reelection, percentage of independent directors reached **57%**, while female directors account for **14%**.





# Q&A

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Zhen Ding Tech. Holding

THANK YOU