



Stock Symbol: **3167**

# Ta Liang Technology Co., Ltd.



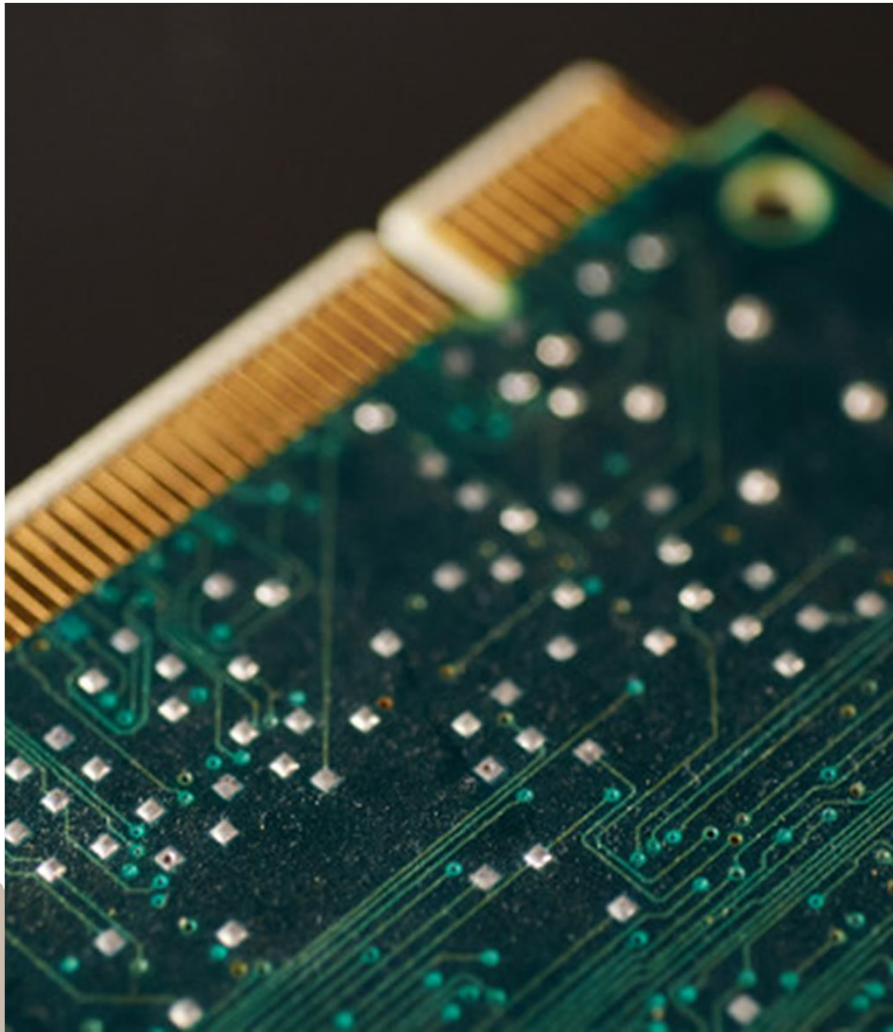
2022, Sep.



# Disclaimer

---

- The predictive information mentioned in this presentation, including operational outlook, business situation, etc., is obtained by the Company through internal and external sources.
- The company's actual operational results that may occur in the future due to factors including but not limited to market competition and the conditions of international economy.
- The outlook for the future in this presentation is the Company's external views until now. For these views, if there are updates or adjustments in the future, the Company is not responsible for reminding or updating again at any time.



# Company Profile



# Company Overview

Stock Symbol	3167
Capital	NTD 801,341,160
Chairman	Laurie Wang
General manager	Jerry Chen
Headquarter	No.49, Yulien St. Bader Dis. Tauyoun
Factories	Bade 、 Nanjing 、 Lianshui







# Milestone

**1980**

Ta Liang Industrial Co., Ltd. was established in Taoyuan, Taiwan.



1980~

**2000**

Company was renamed "Ta Liang Technology Co., Ltd."

**2001**

Second plant was completed for PCB drilling machine.

**2002**

Stock public offering and PCB routing machine was developed.

**2004**

Resin panel cutting machine was developed.

**2007**

Nanjing Taliang Numeric Control Tech. Co., Ltd. was established.



2000~

**2017**

IC Packaging & Testing Machine were developed.

**2018**

Semiconductor products has entered for mass production stage.

**2020**

IA equipment was developed.

Semiconductor business department was established and producing for key customers.

**2021**

Taiwan acquired a new factory and integrated.

2010~

2020~

**2011**

New factory location was located in Yangmei, Taoyuan, for expanding Production capability.

**2012**

TLSK Technology Co., Ltd. was established as joint venture with SAKI, Japan.

**2013**

Ta Liang Technology Co., Ltd. listed on TSEC.

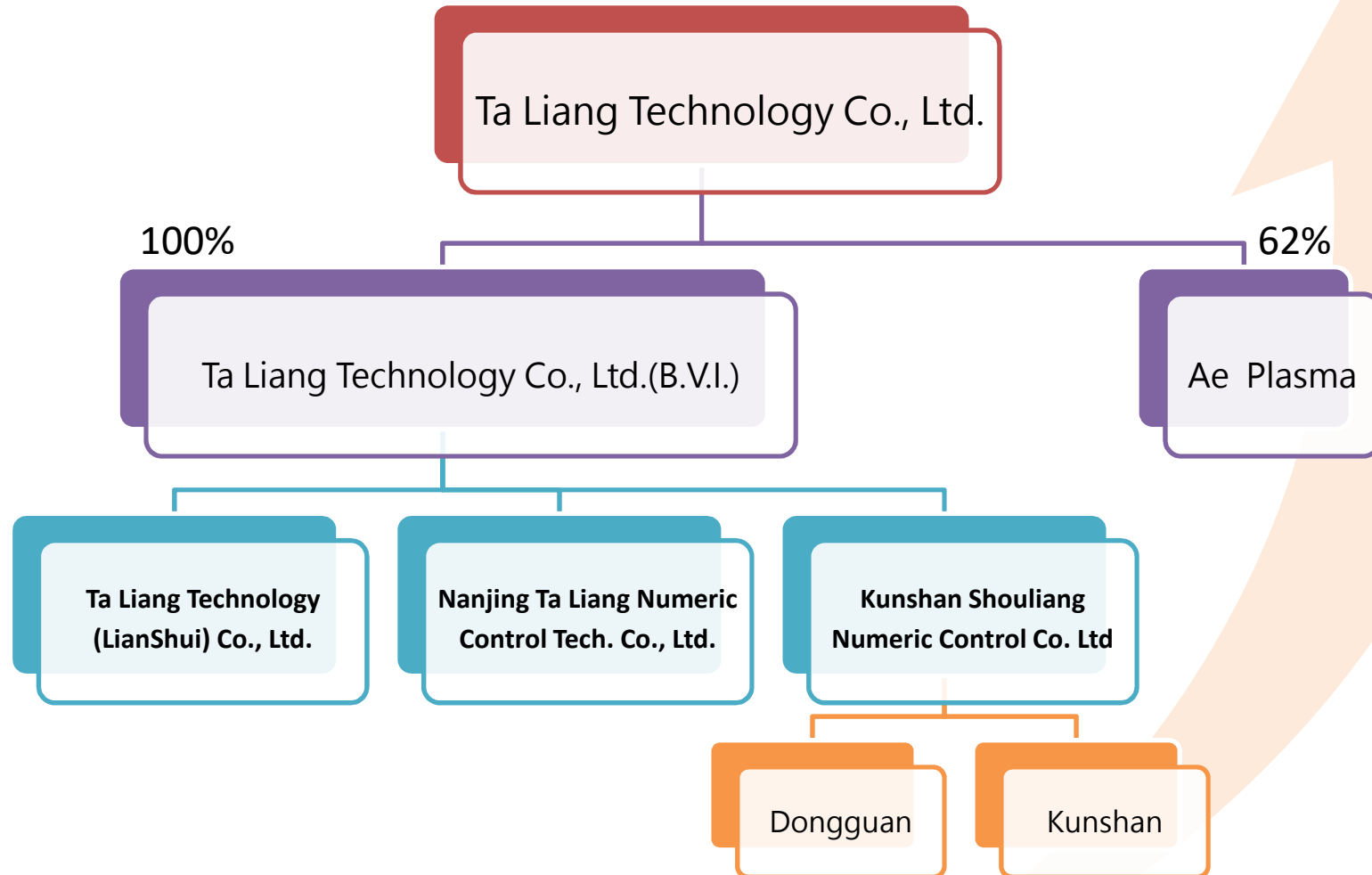
**2015**

Taliang Tech. (Lianshui) Co., Ltd. was established.



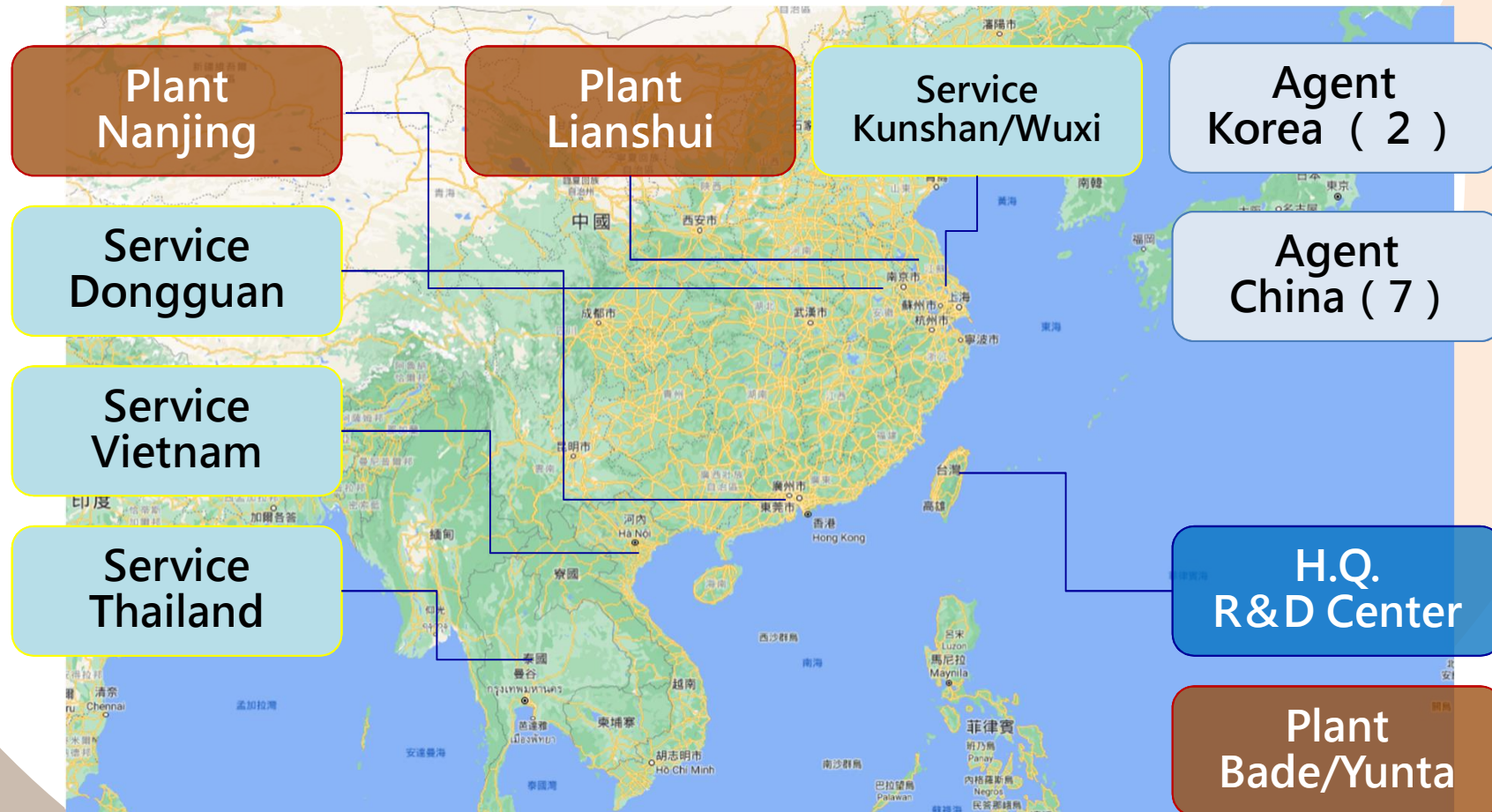


# Group Organization





# Production & Service Base





# Business Scope

- Standard & High end PCB Drilling Machine
- Standard & High end PCB Routing Machine
- Automation
- Others

PCB Industry



- Inspection Machine
  - Vision Series
  - Handler Series
- Metrology
  - CMP Pad metrology

Semi con. Industry



- R&D/purchasing/production/sales/service/management

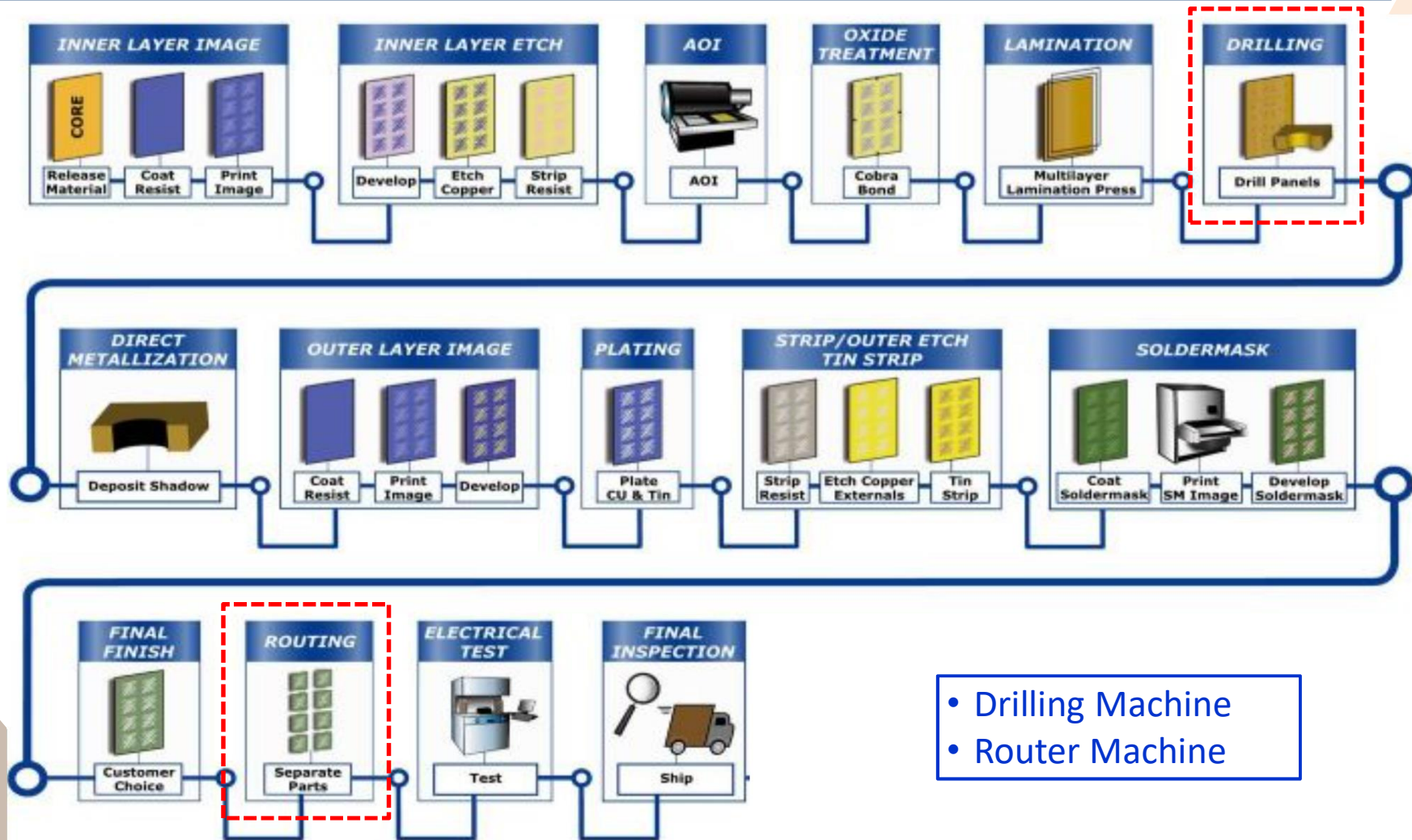
TL Technology Team





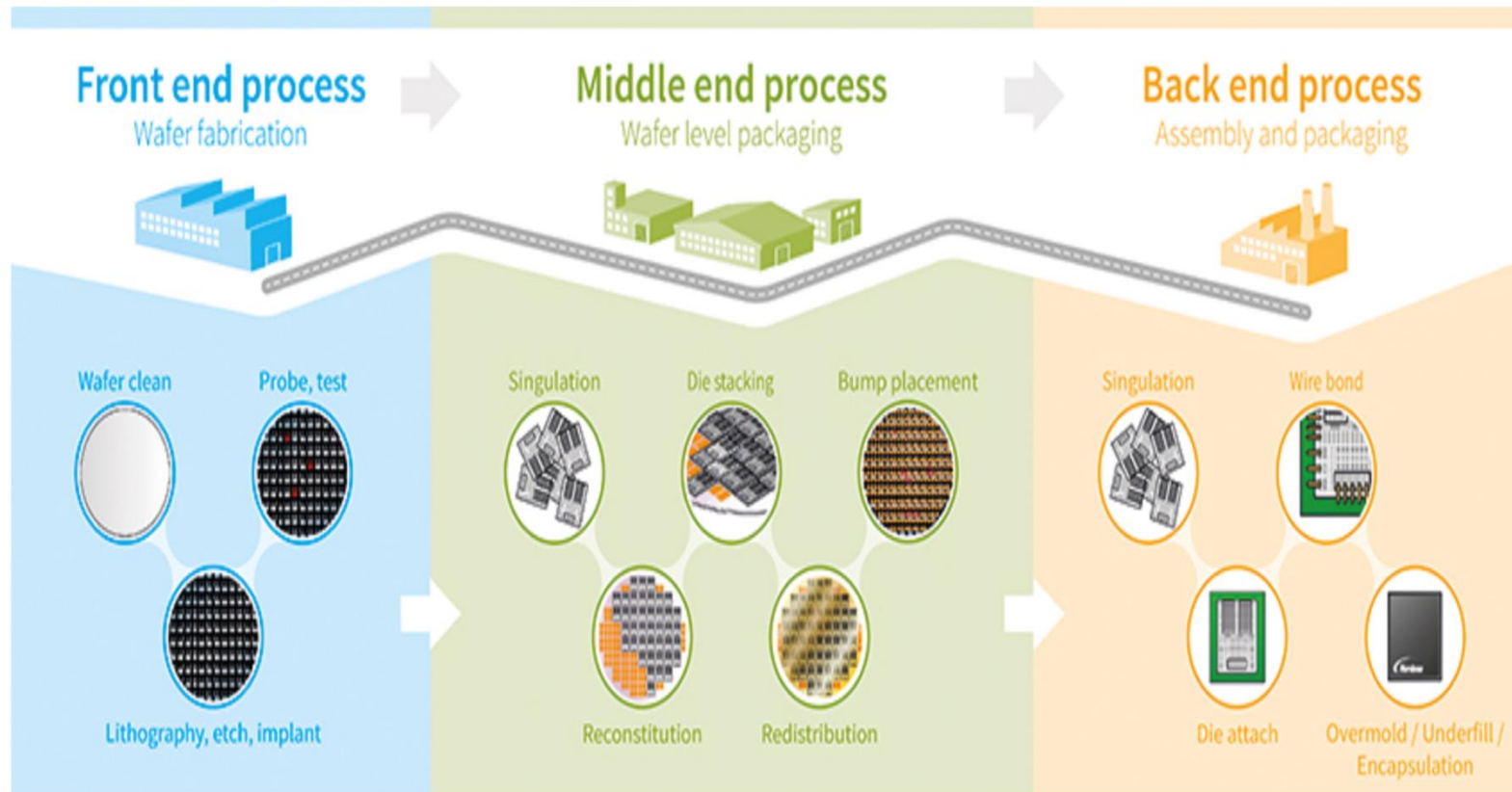


# TL PCB Machines





# TL Semiconductor Machines



- CMP Pad Metrology

- Metrology Series
- Vision Series
- Handler Series



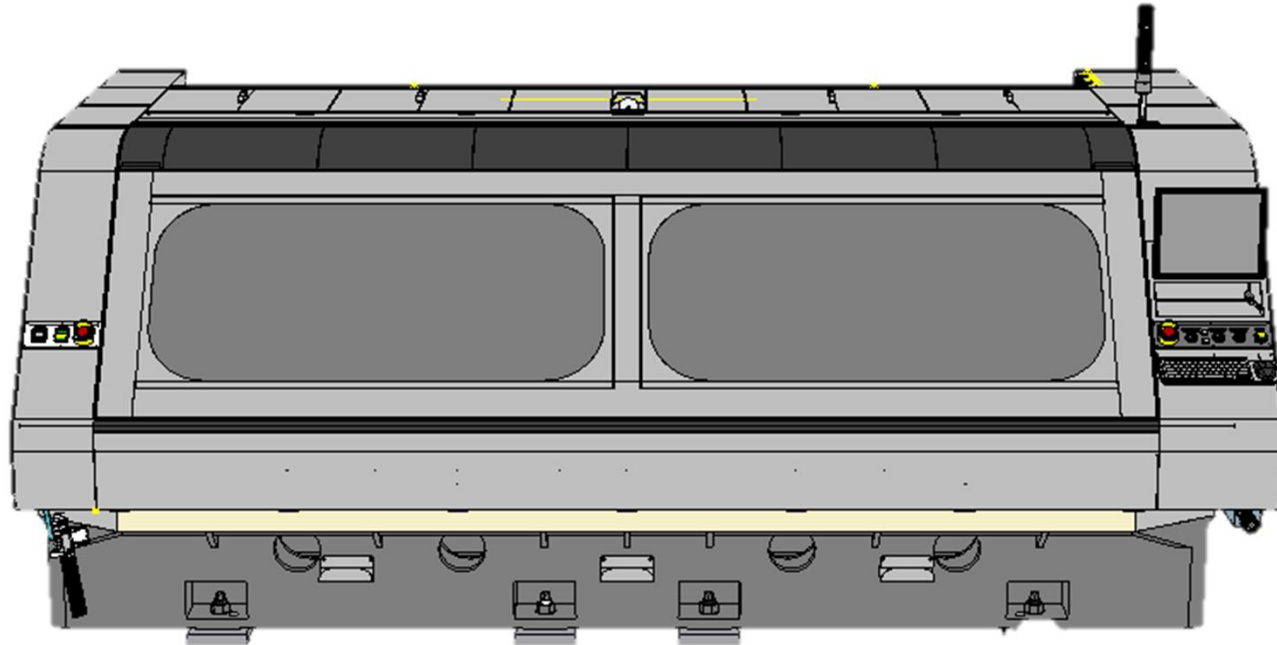
# Important Events in 2022

---

1. PCB BU has been developing high-margin machines.
  - 1) ABF process machine.
  - 2) High-end automatic router.
  - 3) Measuring the inner copper.
2. Semi BU.
  - 1) Marketing CMP Pad Metrology.
  - 2) Developing and marketing Vision and Handler machines.



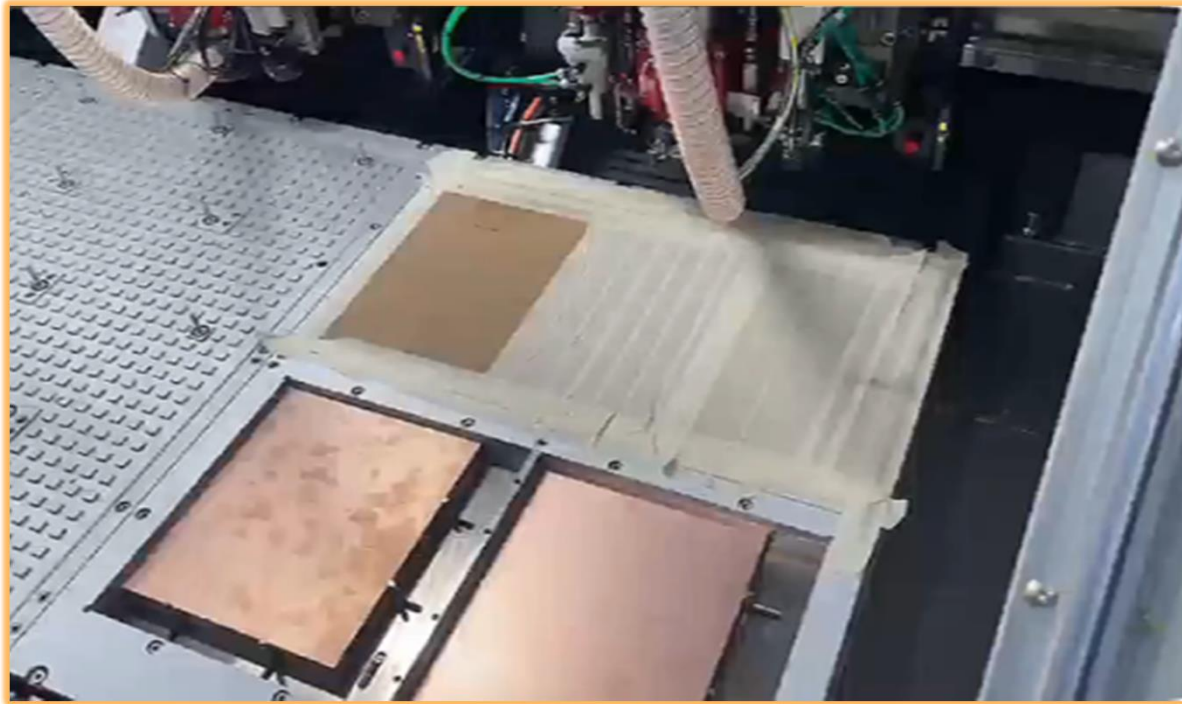
# ABF/BT process Machine



- High speed drilling.
- For ABF or BT process.
- For small hole drilling.



# High-end Automatic Router Machine



- It will be modular designed and can be flexible adjusted.
- Router efficiency will be doubled.

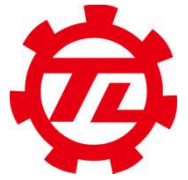




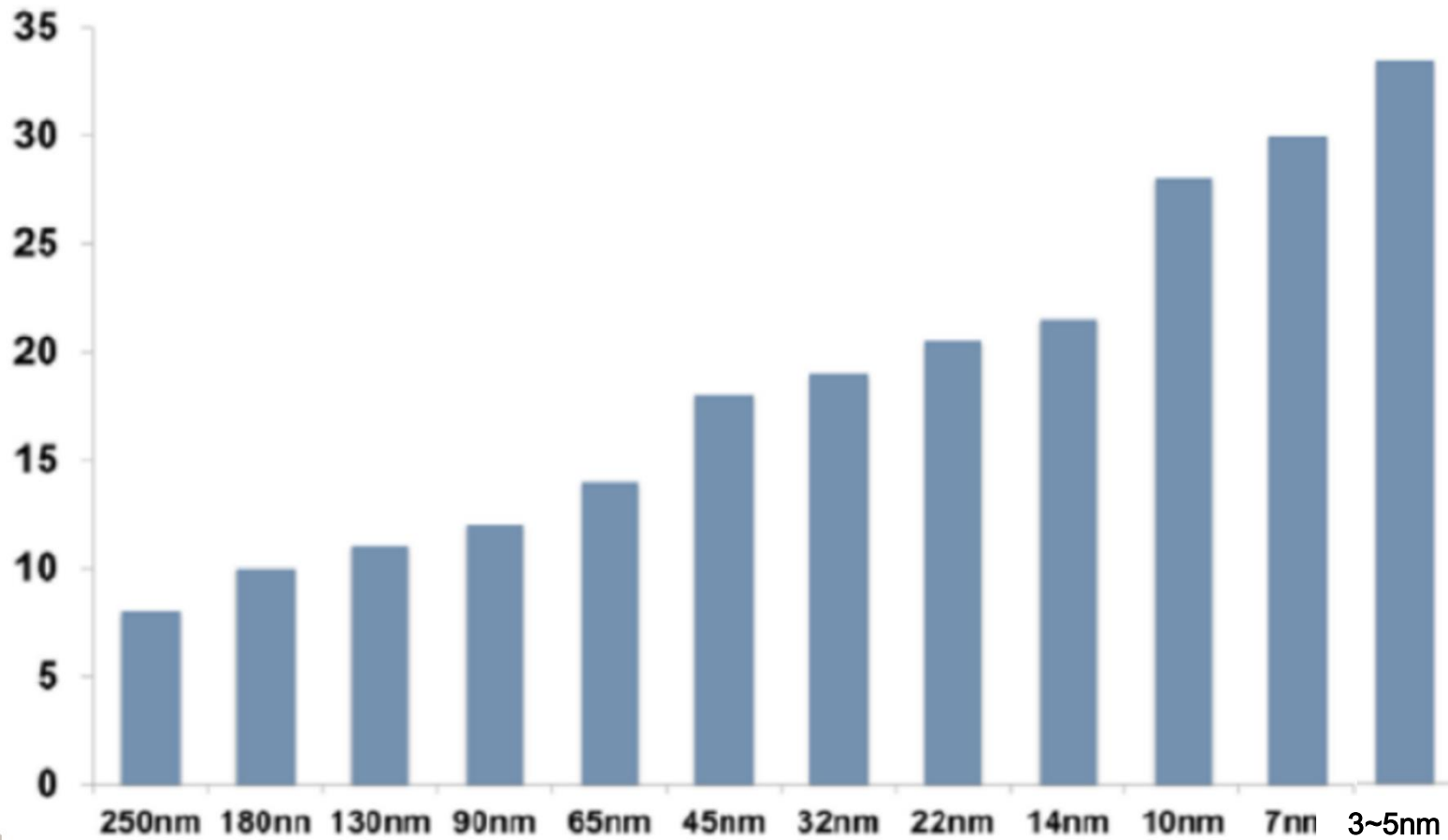
# Measuring inner copper Machine



- It will assist the producing in servo boards, communication boards and automotive boards.
- It will enhance/upgrade the accuracy of high-end drilling machines.
- It will further expand the sales revenue and market share in high-end drilling machines.

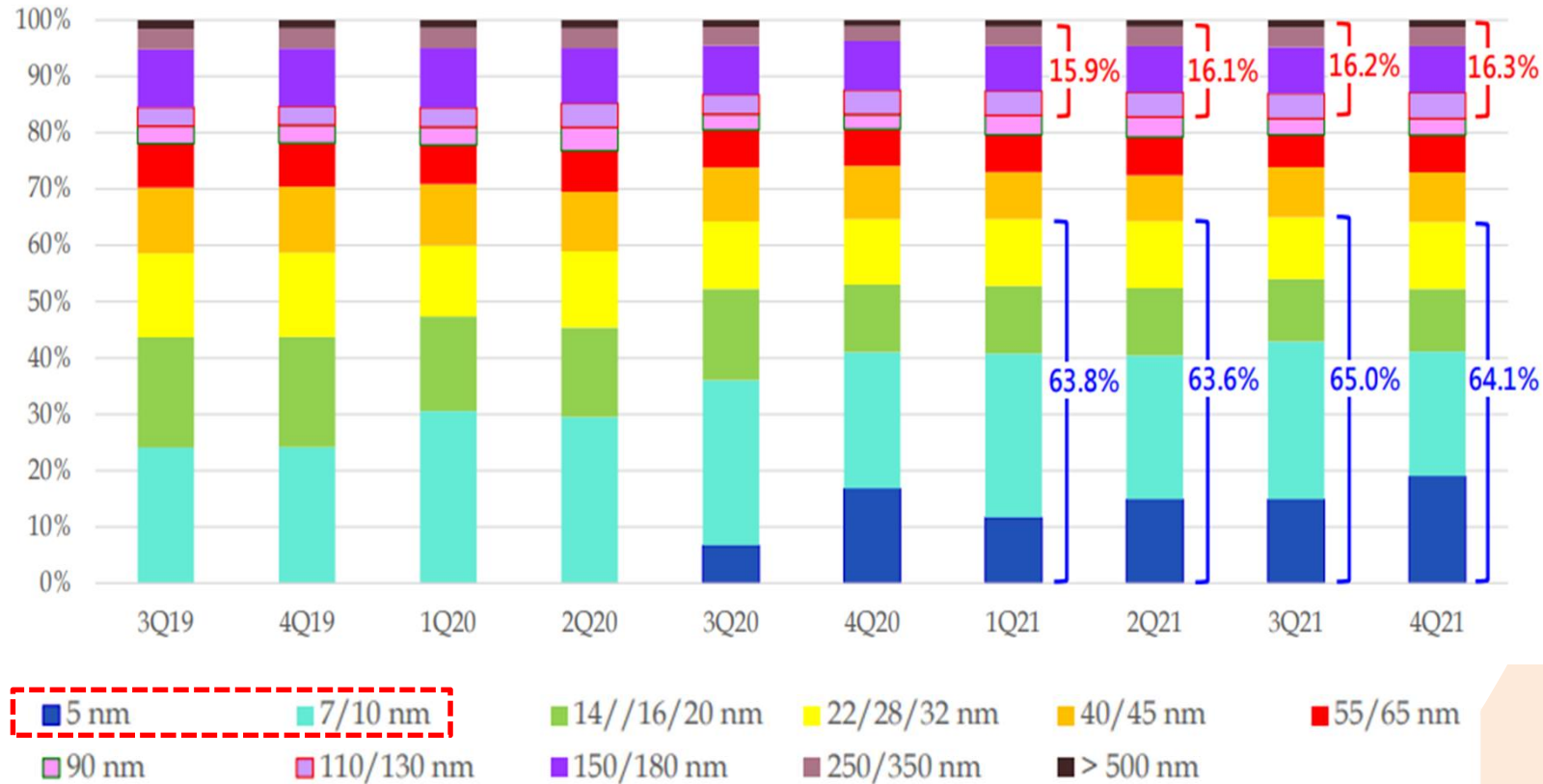


# CMP polishing process is increasing

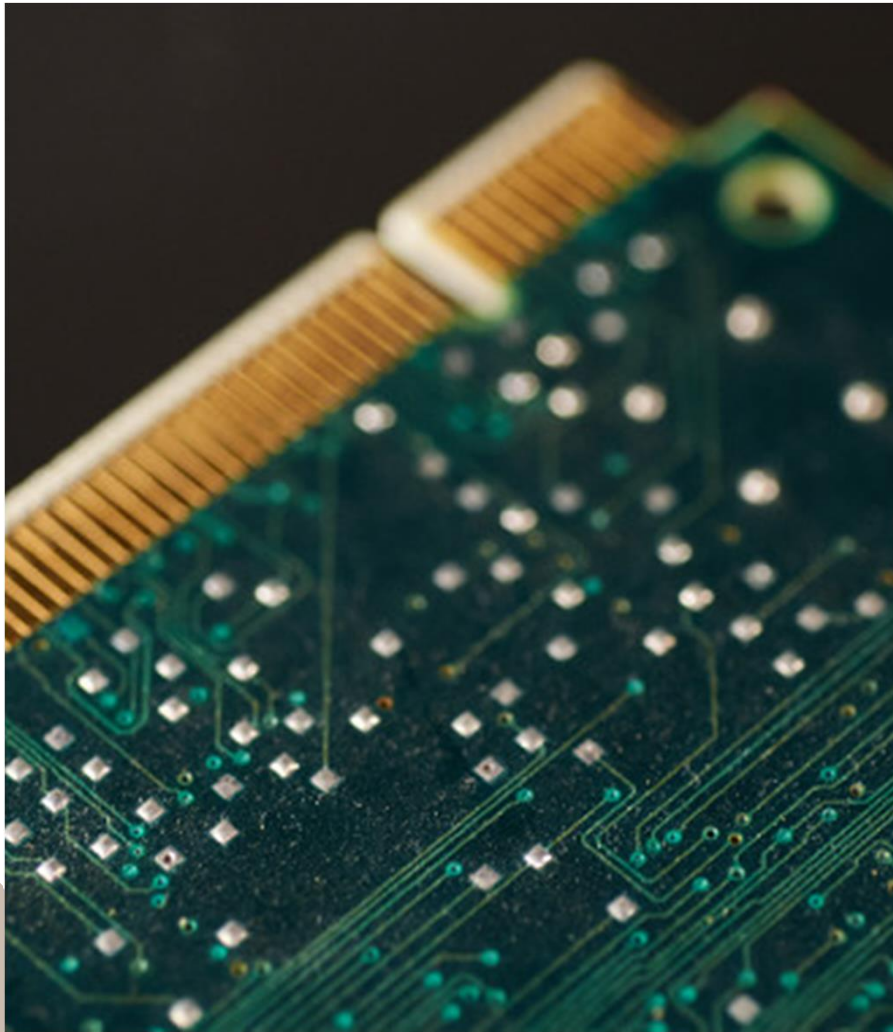




# Advanced process capacity in Semiconductor is growing



Source: TW MIC 2022.05.



# Operational Performance



# Income Statement

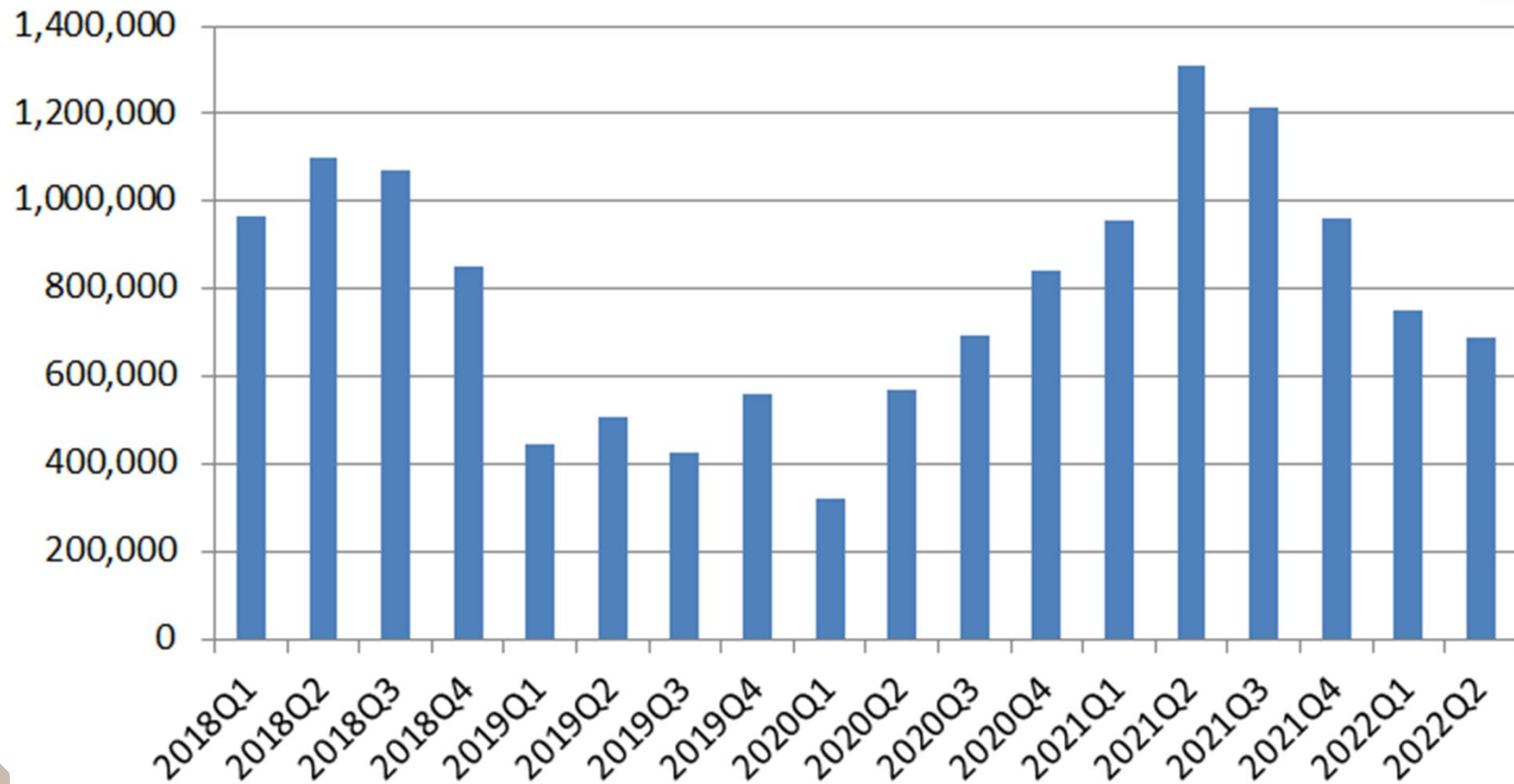
NTD Thousand	2022Q2		2021Q2		2022H1		2021H1	
	Amount	%	Amount	%	Amount	%	Amount	%
OPERATING REVENUE	690,817	100.00	1,311,148	100.00	1,442,066	100.00	2,269,150	100.00
OPERATING COSTS	492,093	71.23	982,248	74.92	1,033,417	71.66	1,709,586	75.34
GROSS PROFIT	198,724	28.77	328,900	25.08	408,649	28.34	559,564	24.66
Selling and marketing expenses	45,433	6.58	55,802	4.26	89,945	6.24	106,709	4.70
General and administrative expenses	44,955	6.51	46,827	3.57	75,408	5.23	81,245	3.58
Research and development expenses	48,117	6.97	71,400	5.45	94,237	6.53	113,257	4.99
OPERATING EXPENSES	141,673	20.51	175,112	13.36	276,128	19.15	288,916	12.73
OPERATING PROFIT	57,051	8.26	153,788	11.73	132,521	9.19	270,648	11.93
NON-OPERATING INCOME AND EXPENSES	193,414	28.00	(8,378)	(0.64)	224,535	15.57	(3,252)	(0.14)
PROFIT BEFORE INCOME TAX	250,465	36.26	145,410	11.09	357,056	24.76	267,396	11.78
NET PROFIT FOR THE PERIOD	217,094	31.43	121,242	9.25	307,105	21.30	201,477	8.88
BASIC EARNINGS PER SHARE(NTD)	2.71		1.52		3.84		2.53	





# Quarterly Revenue

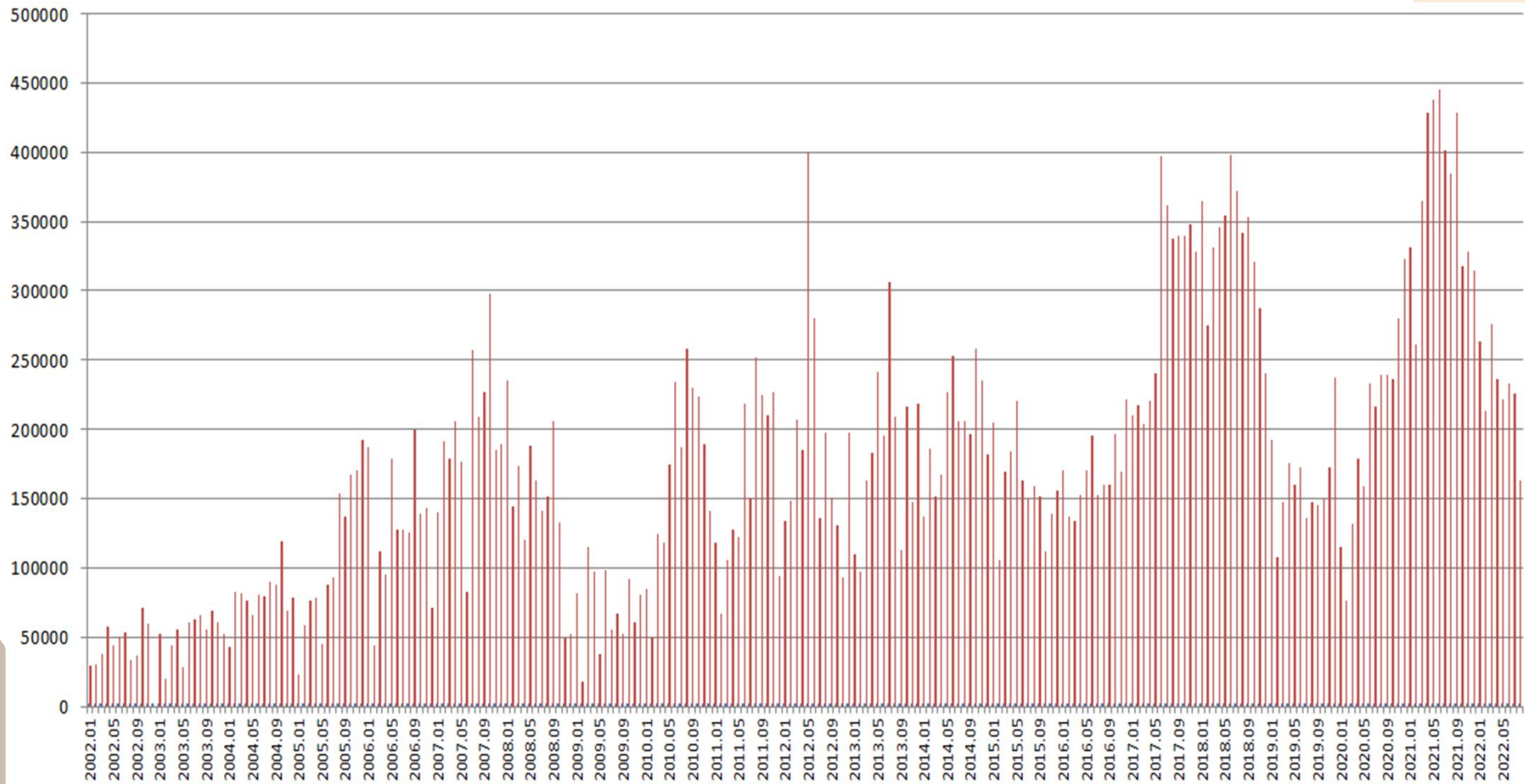
NTD Thousand





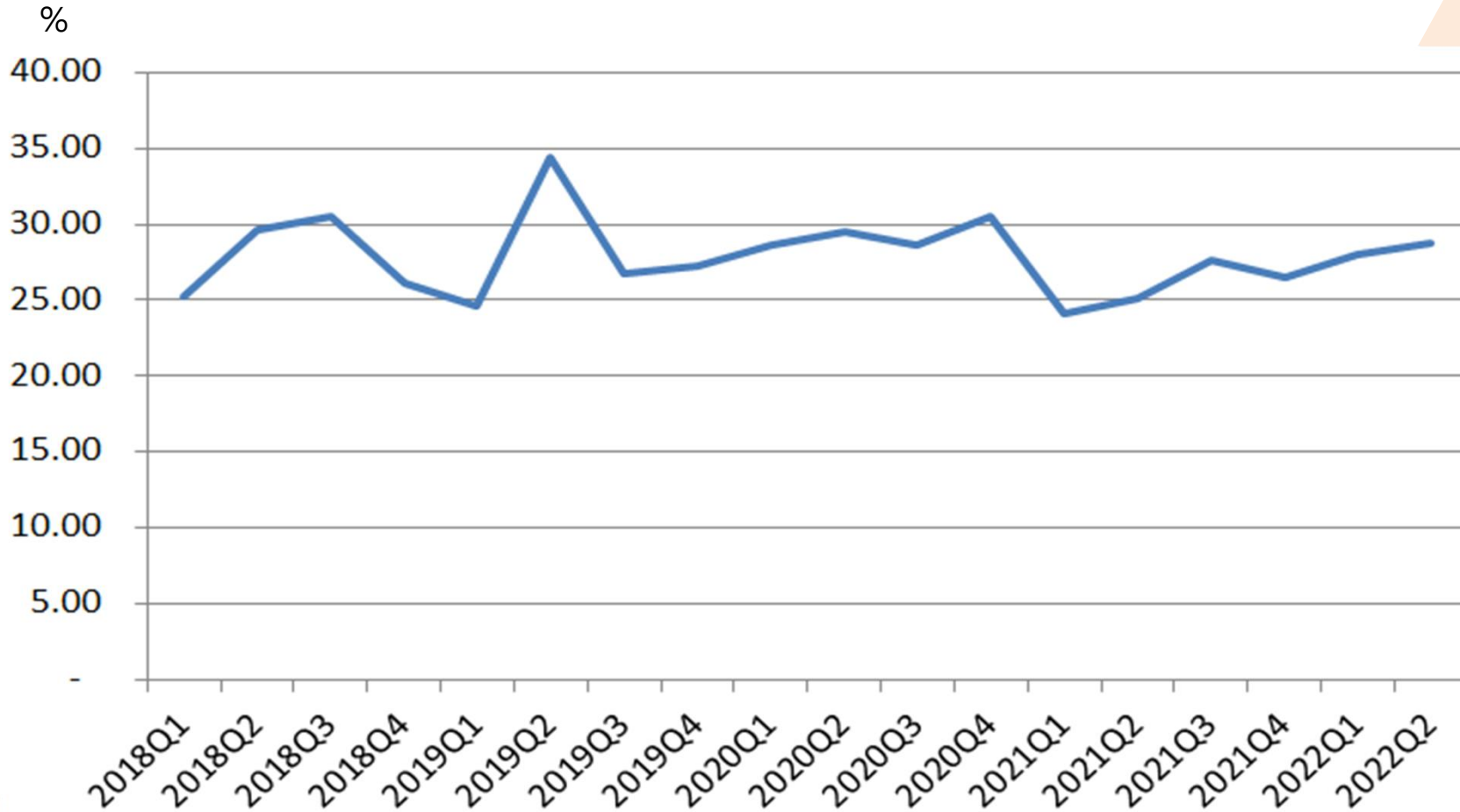
# Monthly Revenue

NTD Thousand



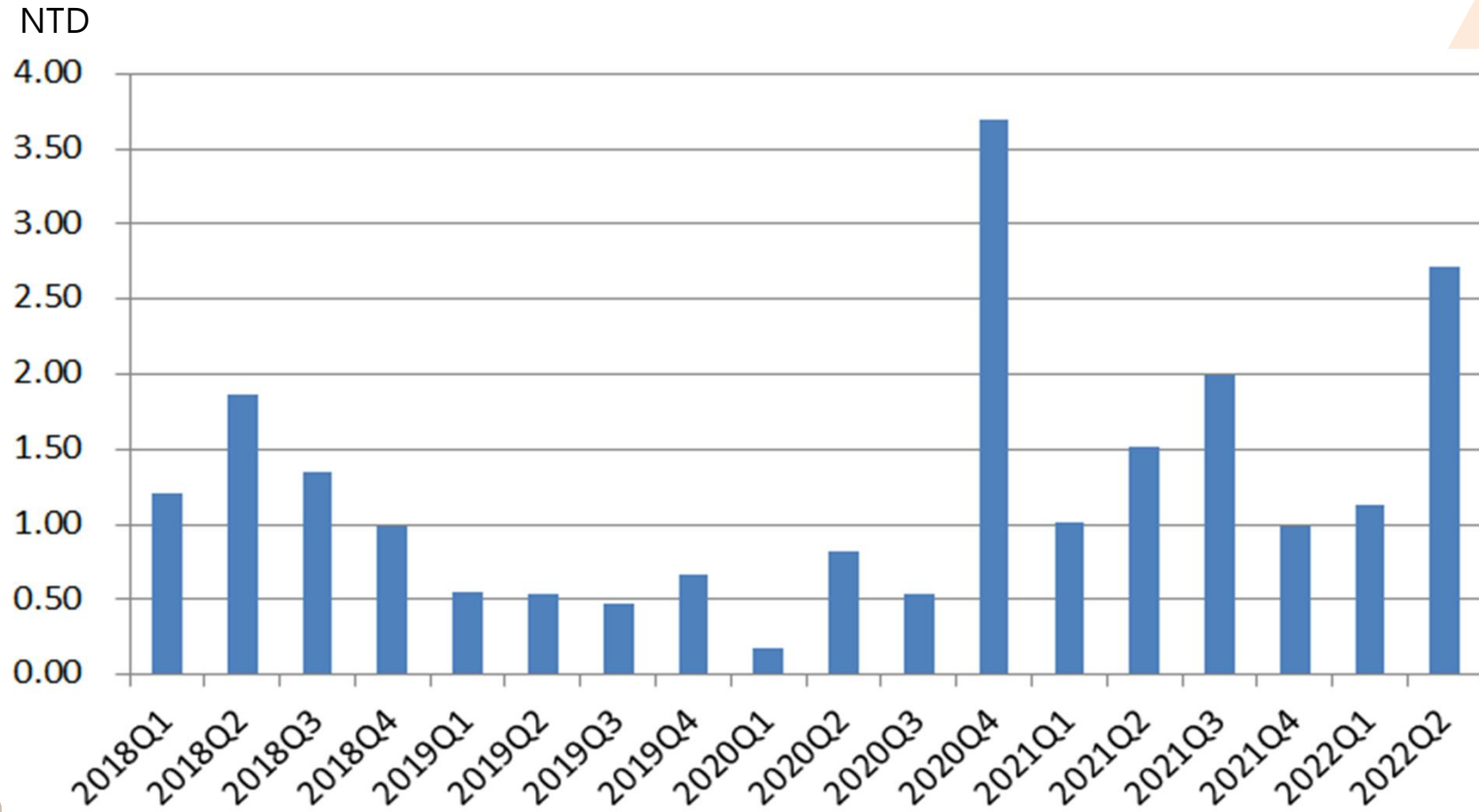


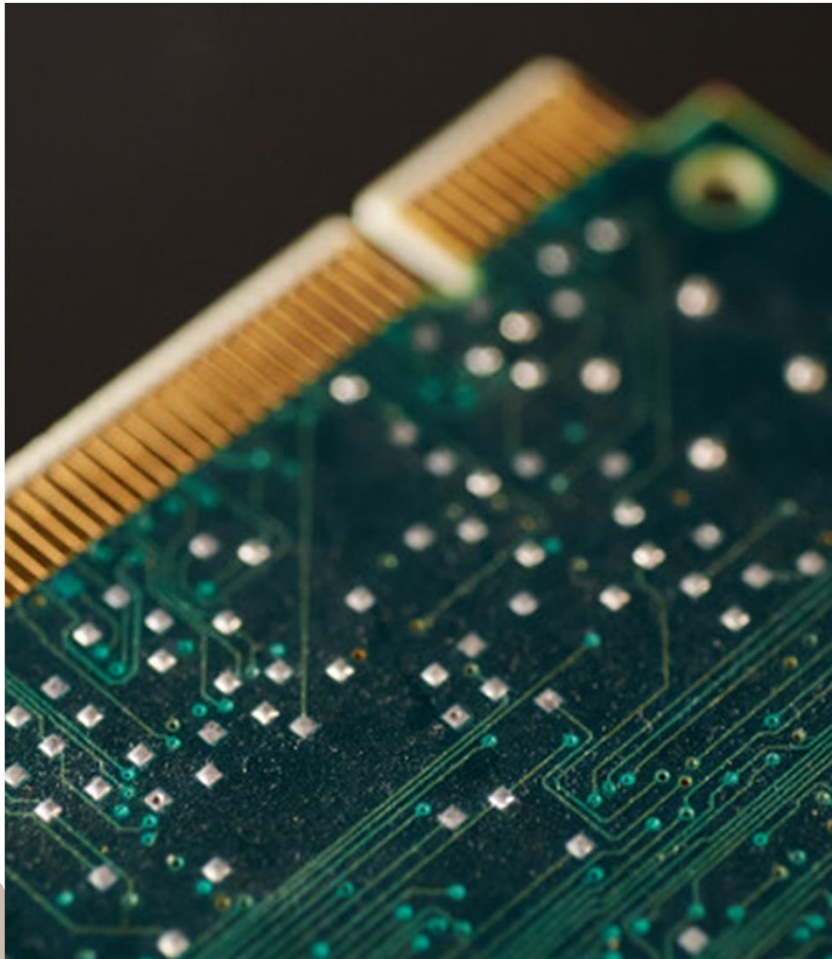
# Gross Margin





# Quarterly EPS





# Appendix





# Products in PCB industry

PCB  
Drilling M/C



Standard type



CCD type



Depth Control

PCB  
Routing M/C



Standard type



CCD type

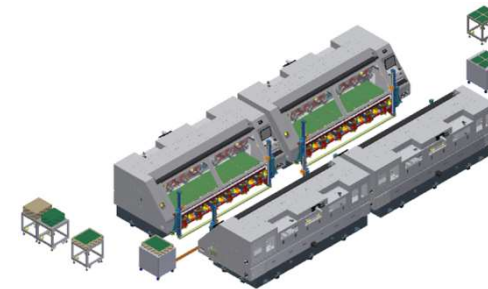


Depth Control

PCB  
Automation



Adapted with 1 Spindle Drilling machine



Adapted with 6 Spindle Drilling machines



# Advantages to meet New requirements

Method	Feasibility	Current Situation
Enhancing mechanical performance	Not Easy to reach	<ol style="list-style-type: none"><li>1. The precision requirements for PCB equipment are getting higher and higher.</li><li>2. The various functional advantages in the past are now the basic standard equipment in every manufacturer.</li></ol>
Upgrade Software	High Entry Barrier	<ol style="list-style-type: none"><li>1. New PCB designs have characteristics of high-density, multi-layer, high-frequency or high-speed, thus the requirements of accuracy are much higher in position, depth controlling and precision.</li><li>2. We(Ta Liang) improve the visual measurement , Cloud management and eliminate PCB expansion and contraction by software program (the position of X, Y axis, and the depth of Z axis).</li><li>3. TL has self-developed controller and abilities to develop the programs to meet customers' demands, unlike other competitors still using outsourcing software and programs.</li></ol>



# Products in Semi con. industry

## Handler Series



IC Chips-Test Handler



IC AVI Handler



IC P&P Test Handler

## Vision System Series

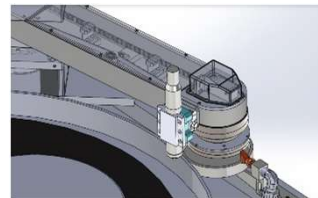


Wafer Type



None Wafer Type

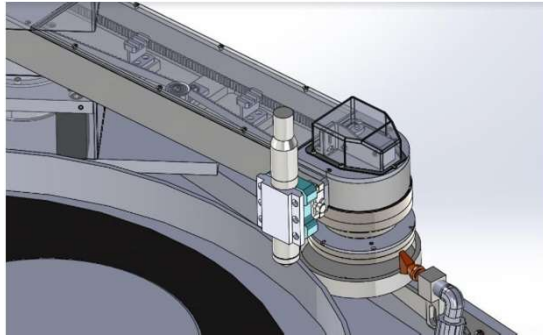
## Metrology



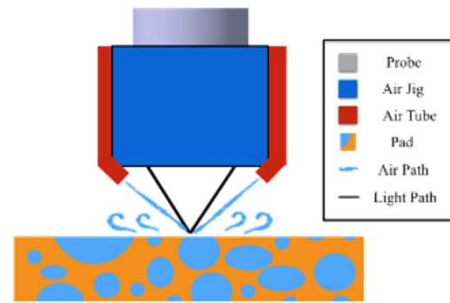
CMP Pad Metrology



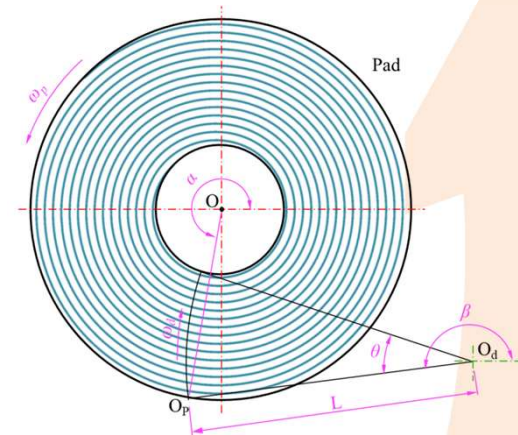
# CMP PAD Metrology



CMP PAD Metrology



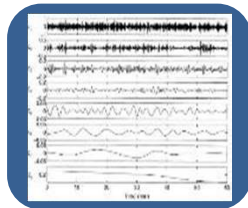
Water Layer Purge



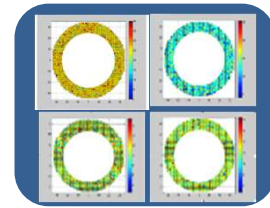
Trajectory Analysis and Reconstruction



Data Collection



In-process Data Monitor



Topography Analysis

## Roughness

- Know

## Uniformity

- Know



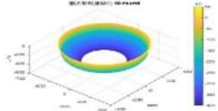
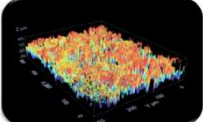
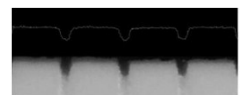
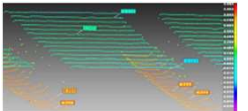
# Metrology Patent

CMP PAD Patent	Number/Application
Instant finishing method of CMP pad	I695754 (R.O.C.)
CMP pad Metrology method for chemical and mechanical equipment	Applying (R.O.C.)
Method for Repairing Polishing Pad in Real time	Applying (USA)
Detection Method and Detection Apparatus for Polishing Pad of Chemical Mechanical Polishing Device	Applying (USA)
Signal Analysis with AI module	Will Apply (R.O.C., USA)





# CMP Pad Metrology Advantage

Items	Ta Liang	Sensofar	WaferMasters	NOVACAM
Source	Self-developed	Foreign	Foreign	Foreign
Type	In-situ /Standalone	Standalone	Standalone	Standalone
Request	Dynamic	Static	Static	Static
Mode	Extensive	Single Point	Single Point	Single Point
Diagram				

Items	Before	After
Roughness	Can' t be Measured	Real-time Measured Monitoring
Morphology	Limited sampling Measured	Real-time Large Area Monitoring
Abrasion	Limited sampling Measured	Real-time Large Area or Zone Monitoring
Micro Structure height	Limited sampling Measured	Real-time Measured Monitoring



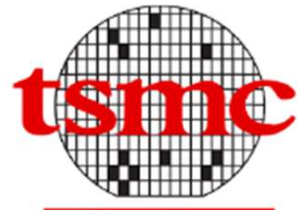
# Customers(PCB M/C)

The following table lists the customers shown in the image, organized by their logo's approximate position within the oval:

Customer Name	Logo Description
健鼎科技	IMPCO TECHNOLOGY CORPORATION
崇达 SUNTAK	Green arrow logo
PSA 瀚宇博德	Red and white text logo
GCE	Blue globe logo
金像电子股份有限公司	Gold Circuit Electronics Ltd.
COMPEQ	Blue and white text logo
華通電腦股份有限公司	Blue and white text logo
兴森科技	FASTPRINT logo
博敏电子	BOMIN ELECTRONICS logo
dynamic	Orange and white text logo
依顿电子	Green and white logo
臻鼎科技	Zhen Ding Tech. logo
MEIKO	Green and blue logo
FASTPRINT	Green and white logo
南亞	Blue and white logo
gbm 精成科技股份有限公司	Global Brands Manufacture Ltd.
深南电路	SCC logo
CHAMPION ASIA 广东骏亚	GUANGDONG CHAMPION ASIA logo
KINWONG 景旺电子	Red and white logo
沪电股份	Red and white logo
KB 建滔化工集团	Kingboard Chemical Holdings Ltd.
Unimicron	Blue and white logo
CEE 中京电子	Orange and white logo
世运 OLYMPIC	Blue and white logo
MULTEK	Yellow and white logo
SL 深联电路	Sun&Lynn Circuits logo
GOWORLD	Blue and white logo
KCE ELECTRONICS	Public Company Limited.
CHIN POON	Red and white logo
SAMSUNG	Blue oval logo
生益科技	SYTECH logo
tpt 志超科技股份有限公司	TAIWAN PCB TECHVEST CO., LTD
依利安達	Elec & Eltek logo
FOUNDER 方正	Red and white logo
景碩科技	Blue and white logo
相互股份有限公司	Mutual-Tek Industries Co. Ltd
胜宏科技	Red and white logo
競國集團	APCB GROUP logo
APEX CIRCUIT	Blue and white logo



# Customers(Semi con. M/C)



台灣積體電路製造股份有限公司  
Taiwan Semiconductor Manufacturing Company, Ltd.



ASE GROUP  
日月光集團



矽品精密



KL-TECH



泰科天润  
Global Power Technology Co., Ltd.



---

# Thank You!

Ta Liang Technology Co., Ltd.