MICROLOOPS
Service for Cooling Innovation

Stock Code: 6831

Taiwan Microloops Corp.

2025 Business Performance Presentation

Disclaimer

The content of this report is based on currently available information, and the financial or related information contained herein may include statements regarding the future prospects of the Company and its subsidiaries. These statements are subject to significant risks and uncertainties that may cause actual results to differ materially from those originally stated. The Company hereby declares that the content in this report is published solely for information circulation purposes and does not constitute investment advice. The Company assumes no responsibility for the accuracy, completeness of the report content, or any damages arising from the use of this report content.

CONTENTS

01 | Company Overview

About Microloops

Establishment Date/Public Offering Date/OTC Date

November 8, 2002/March 11, 2021/August 11, 2021

Paid-in capital

NT$600,000,000

Chairman/General Manager/Spokesperson/Deputy Spokesperson

Mr. Chao Yuan-Shan/Mr. Lin Chun-Hung/Mr. Lin Chi-Wen (Manager)/Mr. Chen Chian-Heng (Vice President)

Main Business Operations

Thermal module research, development, manufacturing and sales

Company Address

Taiwan Microloops Corp.
11F., No. 788, Zhongzheng Road, Zhonghe District, New Taipei City
Huizhou Huiliqinn Technology Co., Ltd.
1-5Fl., (Building 1), No. 1, Chenjiang Street, Nantong Road, Zhongkai High-tech Industrial Park, Huizhou City, Guangdong Province, China

Company Website

www.microloops.com

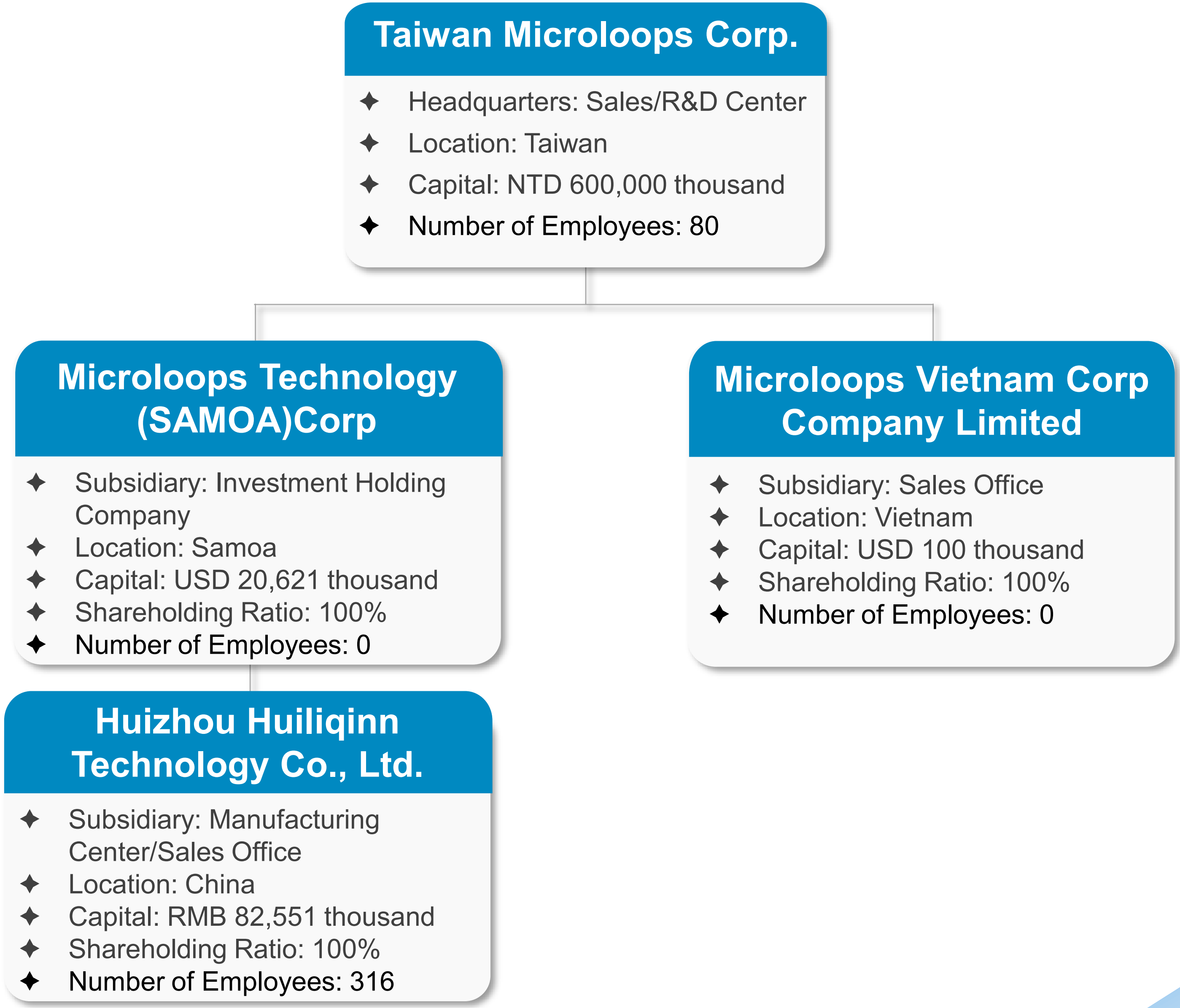
Lead Underwriter & Stock Transfer Agent

Horizon Securities Corporation

Certified Public Accountants

KPMG Taiwan - CPA Huang Yung-Hua/CPA Yu Sheng-Ho

Group Organizational Structure



Taiwan Microloops Corp.

- Headquarters: Sales/R&D Center
- Location: Taiwan
- Capital: NTD 600,000 thousand
- Number of Employees: 80

Microloops Technology (SAMOA)Corp

- Subsidiary: Investment Holding Company
- Location: Samoa
- Capital: USD 20,621 thousand
- Shareholding Ratio: 100%
- Number of Employees: 0

Microloops Vietnam Corp Company Limited

- Subsidiary: Sales Office
- Location: Vietnam
- Capital: USD 100 thousand
- Shareholding Ratio: 100%
- Number of Employees: 0

Huizhou Huiliqinn Technology Co., Ltd.

- Subsidiary: Manufacturing Center/Sales Office
- Location: China
- Capital: RMB 82,551 thousand
- Shareholding Ratio: 100%
- Number of Employees: 316

Key Milestones

2002

- Taiwan Microloops Corp. established

2006

- Successfully developed and mass-produced Taiwan’s first vapor chamber

2007

- Expanded production base to Zhuhai, Guangdong

2016

- Relocated production base to Xikeng, Huizhou, Guangdong
- Transitioned into a thermal module manufacturing center

2021

- Obtained ASUS certification
- Initial public offering and TPEx Emerging Stock Board listing

2022

- Relocated production base to Huizhou, Guangdong (Yuetaixiang)
- Established a Joint Advanced Thermal Technology Laboratory with Intel

2023

- Developed 3DVC technology
- Delivered the first liquid-cooled cabinet
- Introduced automated equipment and began transition toward a smart factory

2024

- Obtained U.S. CSP certification
- Acquired and relocated to Taipei Headquarters

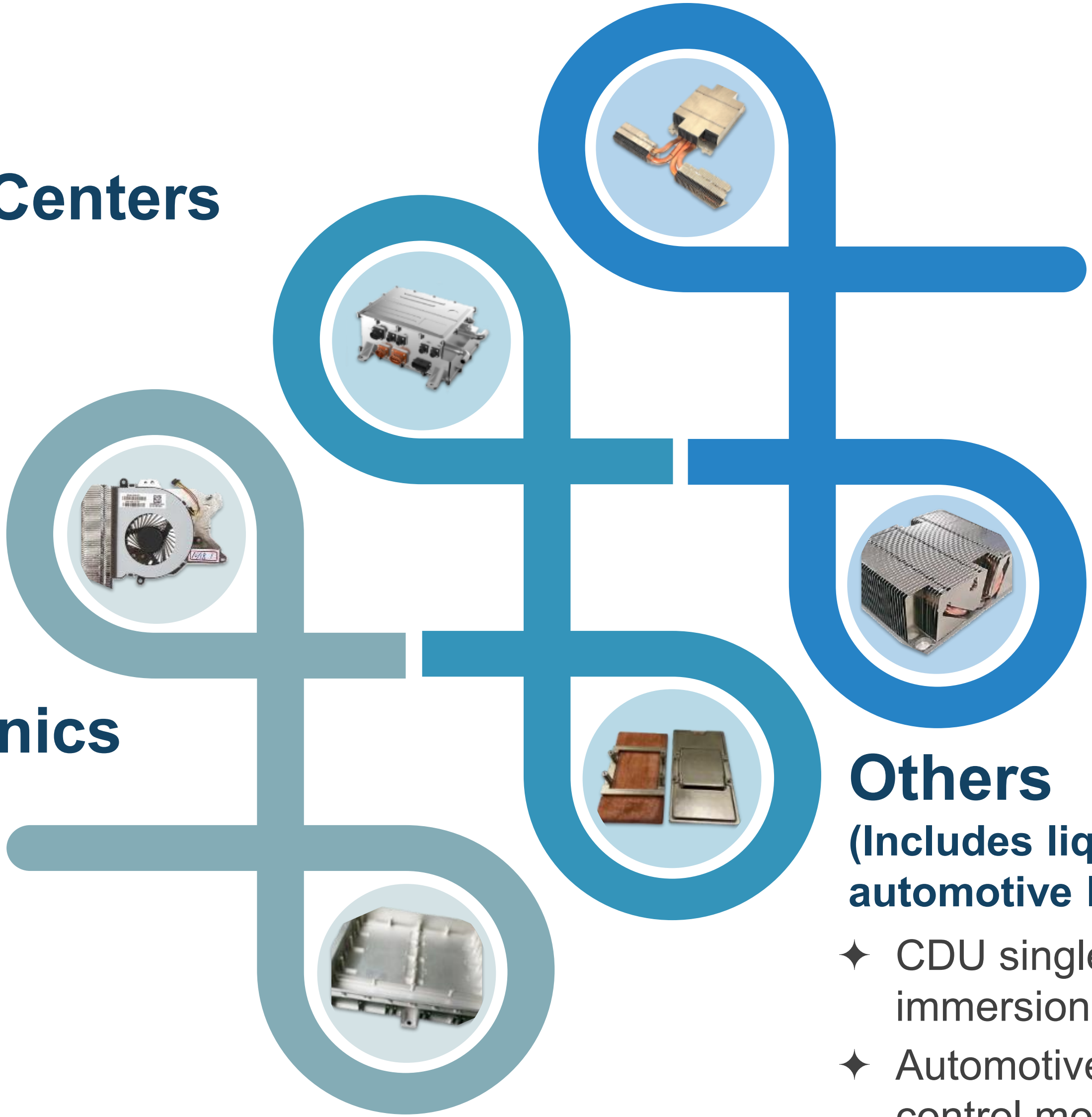
2025

- Applied for TWSE main board listing. Approved by Board of Directors on June 17

MICROLOOPS GROUP Service for Cooling Innovation

02 | Products and R&D

Main Products and Applications



Servers and Data Centers

- ✦ GPU thermal systems
- ✦ IoT real-time data processing systems
- ✦ AI accelerator cards

5G Applications and Network Communications

- ✦ 5G base station antenna modules and baseband modules
- ✦ Network switches

Consumer Electronics

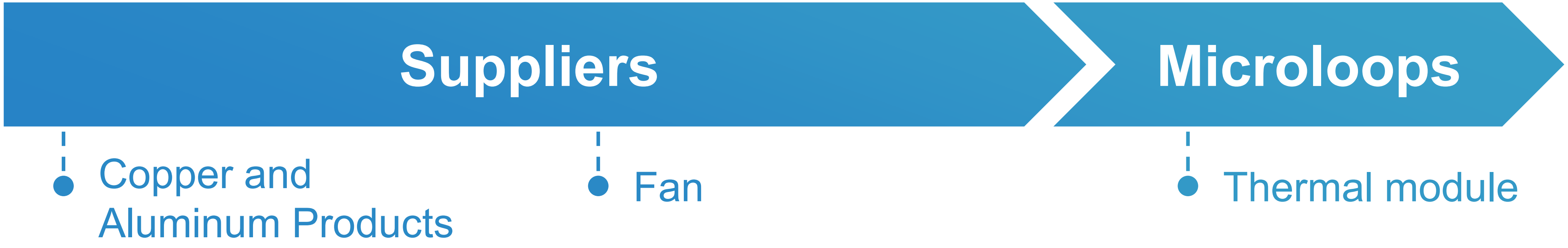
- ✦ Notebooks
- ✦ High-end graphics cards

Others

(Includes liquid-cooled servers and automotive liquid cooling systems)

- ✦ CDU single/dual-direction immersion liquid cooling
- ✦ Automotive electronic control modules

Raw Materials and Major Sources



Suppliers

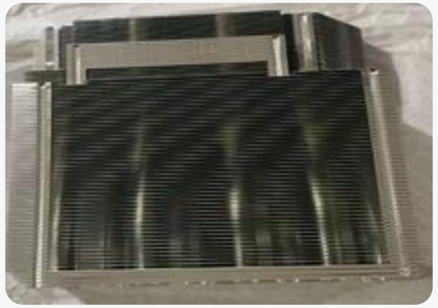
- Copper and Aluminum Products
- Fan

Microloops

- Thermal module

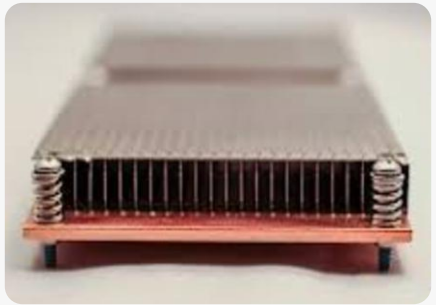
- Copper Products

- Aluminum Products



- Fan Assemblies

- Thermal Modules



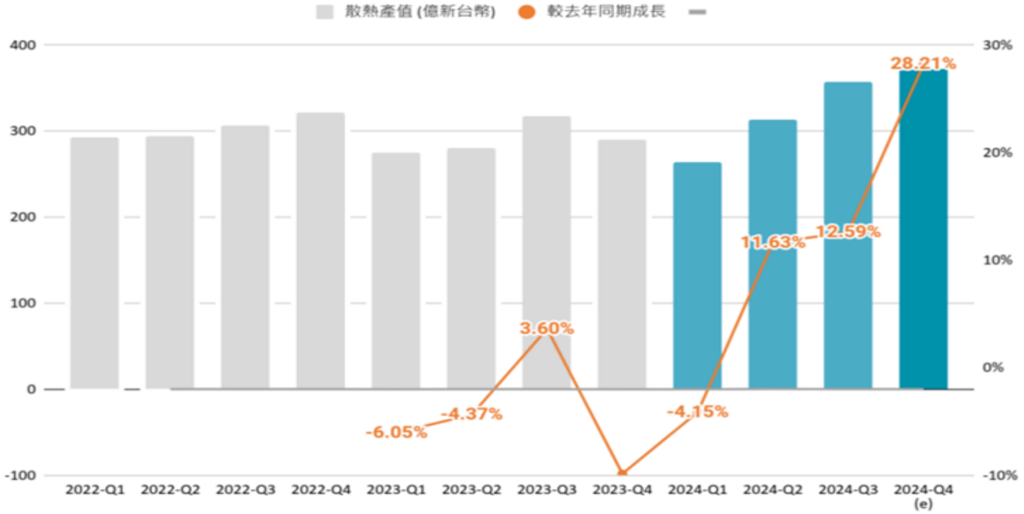
Industry Overview and Trends

(Industry Trend Analysis)

Thermal Module Industry Outlook and Trends

According to a report by Maximize Market Research, the global thermal management and heat sink market has been strongly driven by the emergence of new applications and advancements in electronic technologies. Companies worldwide are actively developing thermal solutions to achieve superior heat dissipation performance. The report forecasts that the global heat sink market will grow at a compound annual growth rate (CAGR) of 7.5% from 2024 to 2030, reaching USD 11.78 billion. This highlights the strong correlation between the demand for heat dissipation and technological advancement, indicating continuous year-on-year growth.

Value of Taiwan’s Thermal Management Market



Source: Industry, Science and Technology International Strategy Center (ISTI), ITRI (IEK Consulting), November 2024.

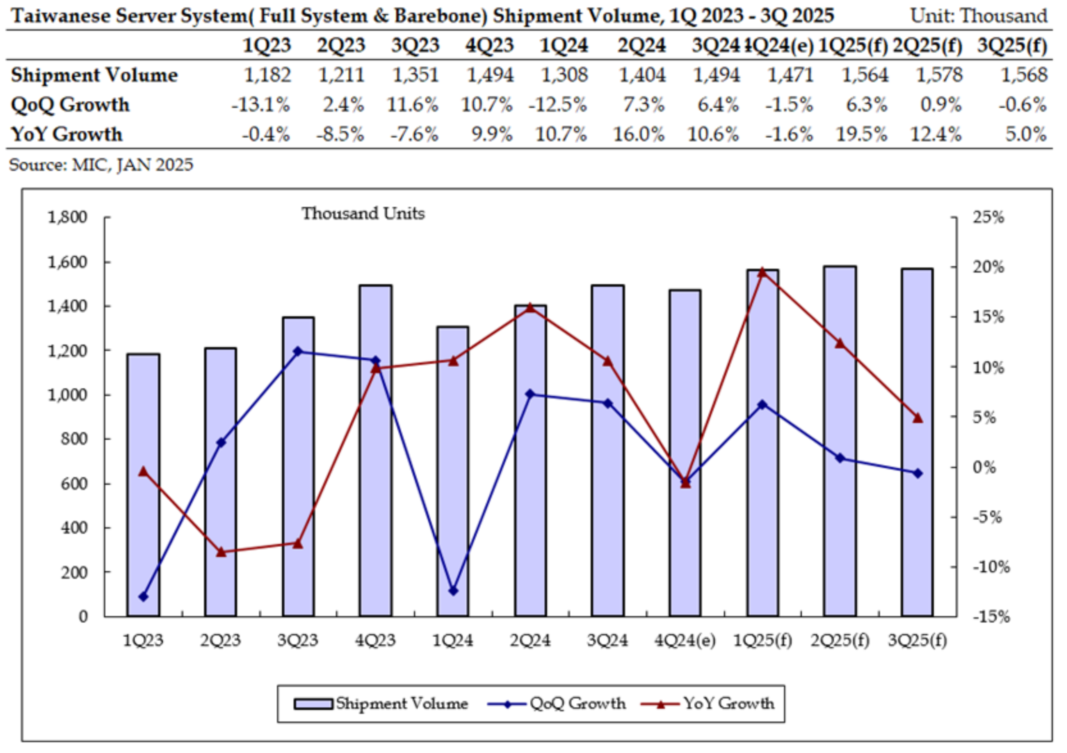
Source: Maximize Market Research, July 2024.

Source: Maximize Market Research, July 2024.

Application Product Development Trends (1/3)

1. Servers and Data Centers

Taiwan's Server Shipment Volume



Taiwanese Server System(Full System & Barebone) Shipment Volume, 1Q 2023 - 3Q 2025 Unit: Thousand

	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24	3Q24	4Q24(e)	1Q25(f)	2Q25(f)	3Q25(f)
Shipment Volume	1,182	1,211	1,351	1,494	1,308	1,404	1,494	1,471	1,564	1,578	1,568
QoQ Growth	-13.1%	2.4%	11.6%	10.7%	-12.5%	7.3%	6.4%	-1.5%	6.3%	0.9%	-0.6%
YoY Growth	-0.4%	-8.5%	-7.6%	9.9%	10.7%	16.0%	10.6%	-1.6%	19.5%	12.4%	5.0%

Source: MIC, JAN 2025

Source: MIC, January 2025.

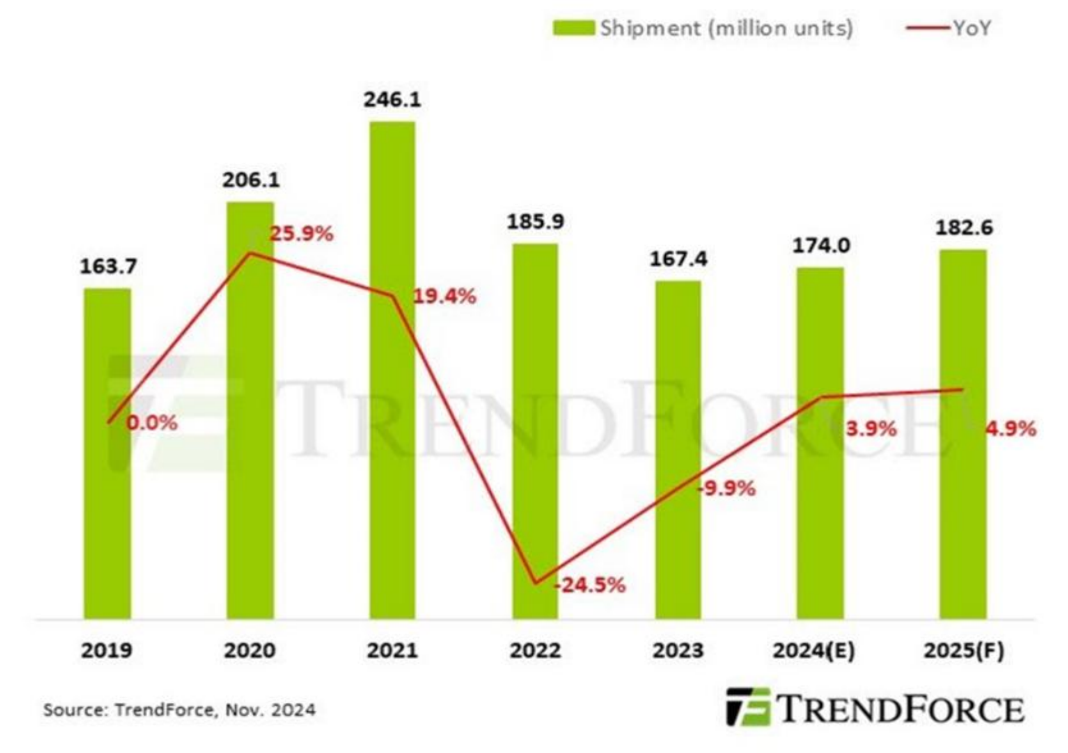
Global AI Server Shipment Volume

Source: Compiled by MIC, TrendForce, and TEJ.

Application Product Development Trends (2/3)

2. Notebook Computers

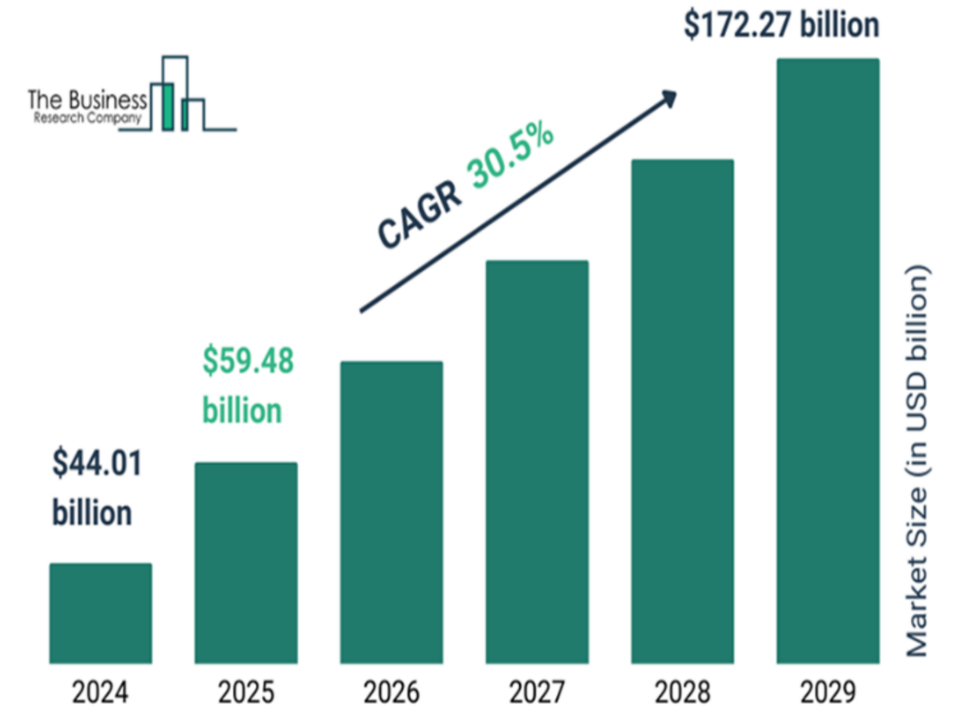
Global Laptop Shipment Volume



Source: TrendForce, November 2024.

3. Graphics Cards (GPUs)

2025 Market Size and Growth Rate of the Graphics Card Industry



Source: The Business Research Company, January 2025.

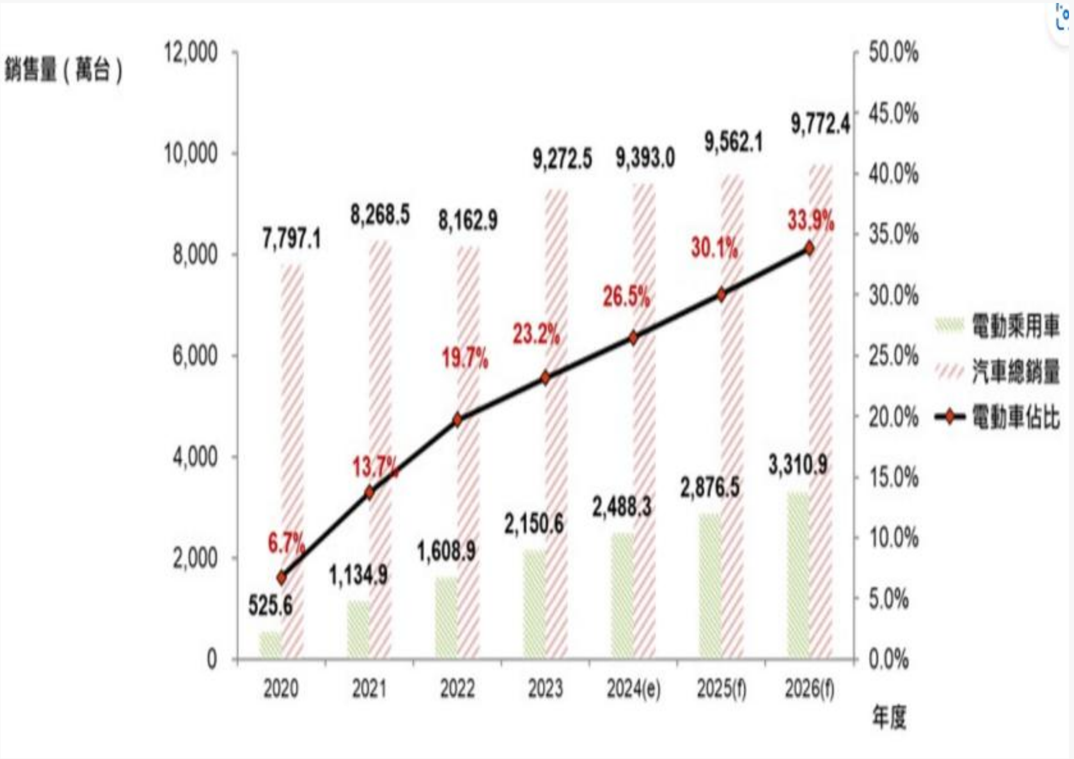
Application Product Development Trends (3/3)

4. 5G Equipment

With the continued advancement of 5G and wireless power transmission technologies, the demand for 5G wireless power transmission is expected to become the next major market. Whether in the Internet of Things (IoT), electric vehicles, smart homes, or smart city applications, the inconvenience of wired power supply will inevitably drive the rapid development of wireless power solutions. According to a report by Knowledge Sourcing Intelligence, the global wireless power transmission market is projected to reach nearly USD 40 billion by 2029, growing at a compound annual growth rate (CAGR) of 20%.

5. Automotive

Global Automotive Sales and Forecasts



Source: Industry, Science and Technology International Strategy Center (ISTI), ITRI (IEK Consulting), January 2025.

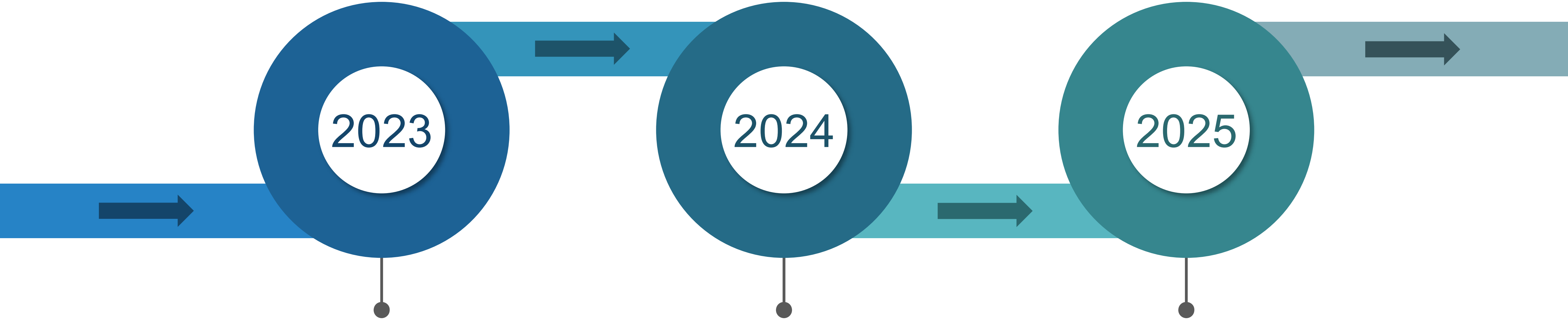
Product Application & Development

✦ Short-term Goals

Deepen and expand product lines, focus on existing product lines as the main force, maintain current production line capacity utilization and lean factory operations.

✦ Medium to Long-term Goals

New industry and new customer development, CSP and diversified development, develop niche markets and niche products.



2023

IT Consumer Electronics
Servers / Network Communication Products
Telecommunication / 5G Products
Liquid Cooling / Automotive Products

2024

AI Industry Applications
Non-IT Applications

2025

Export Market / CSP

Product Advantages and Core Technologies

Multi-Field Applications

- ✓ Server
- ✓ Display card
- ✓ Notebooks
- ✓ Network Communication Equipment
- ✓ Automotive Thermal Systems

Core Thermal Conduction Technologies

- ✓ Vapor Chambers (VCs)
- ✓ Heat Pipes
- ✓ 3D Vapor Chambers (3DVCs)

New Technology Development

- ✓ Liquid Cooling System Development
- ✓ Immersion Cooling Solutions

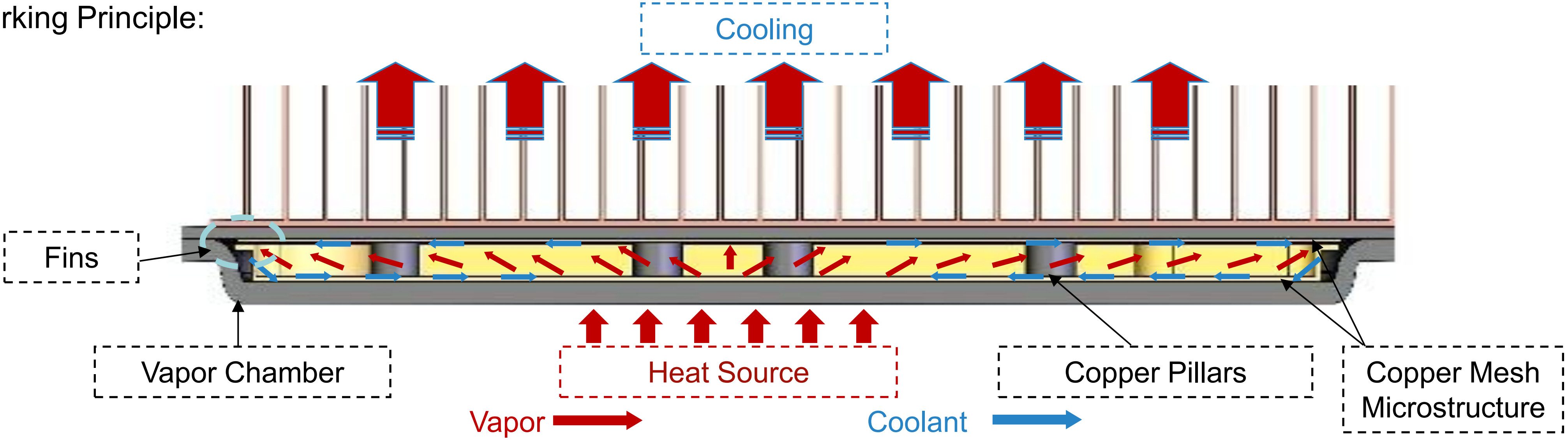
Professional Customization Capabilities

- ✓ Product Design Consultation
- ✓ Prototype Fabrication
- ✓ Product Optimization
- ✓ Customized Mass Production

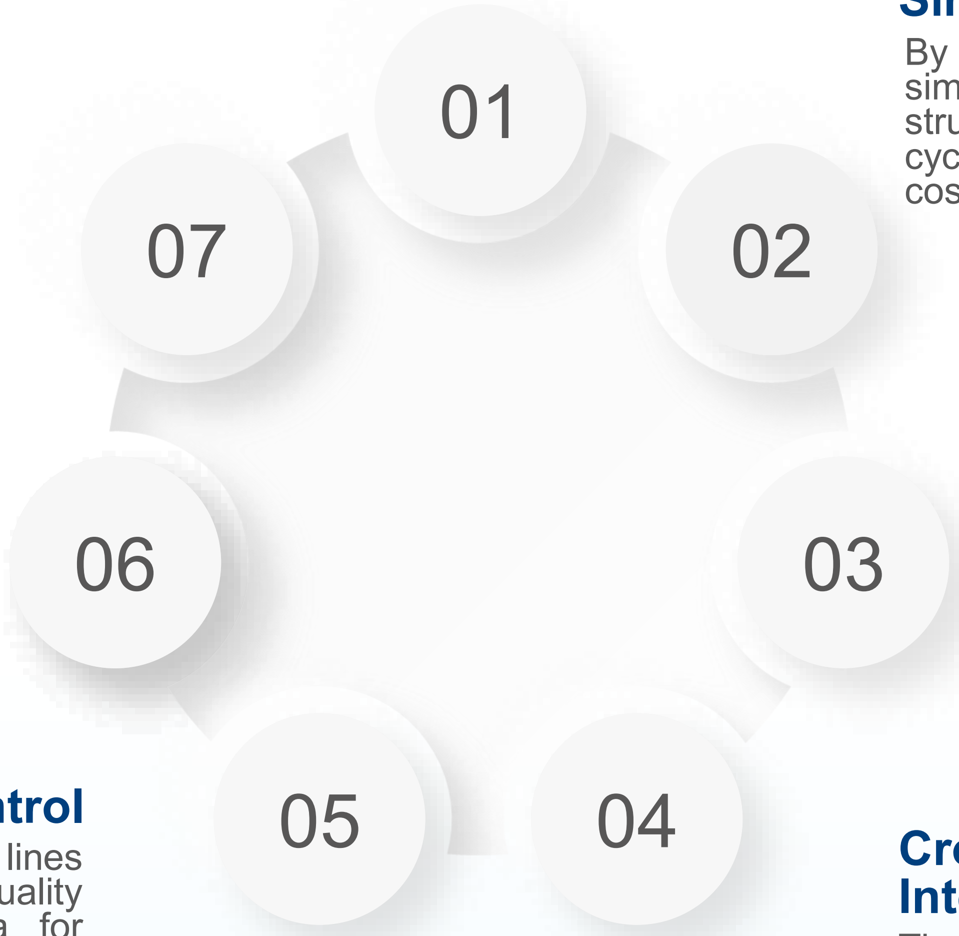
Competitive Edge – Core Technologies

Product Advantages

- The vapor chamber is a highly efficient heat-conducting structure that transfers concentrated heat from the source to a larger surface area for rapid dissipation, achieving thermal performance significantly superior to that of copper.
- Its structure is a sealed container with internal capillary wicking. After vacuum processing, a working fluid is injected and hermetically sealed.
- Through phase change between liquid and vapor states, it enables highly efficient thermal transfer.
- Working Principle:



Competitive Edge – Core Technical Capabilities



Thermal Design and Simulation Capabilities

By leveraging advanced software simulation, we optimize thermal structures, shorten development cycles, and reduce trial-and-error costs.

Precision Manufacturing and Process Capabilities

Key components are independently developed and produced in-house. The Company possesses multiple manufacturing processes that ensure component hermeticity and structural strength.

Integration of Active and Passive Cooling

Based on customer requirements, Microloops innovates and designs hybrid cooling solutions that achieve high-efficiency thermal transfer.

Cross-Disciplinary System Integration

Thermal design incorporates intelligent heat management by integrating temperature sensors and linking with equipment control systems.

Automation and Quality Control

High-precision automated production lines ensure product consistency. AI-driven quality inspection monitors full-process data for traceable management.

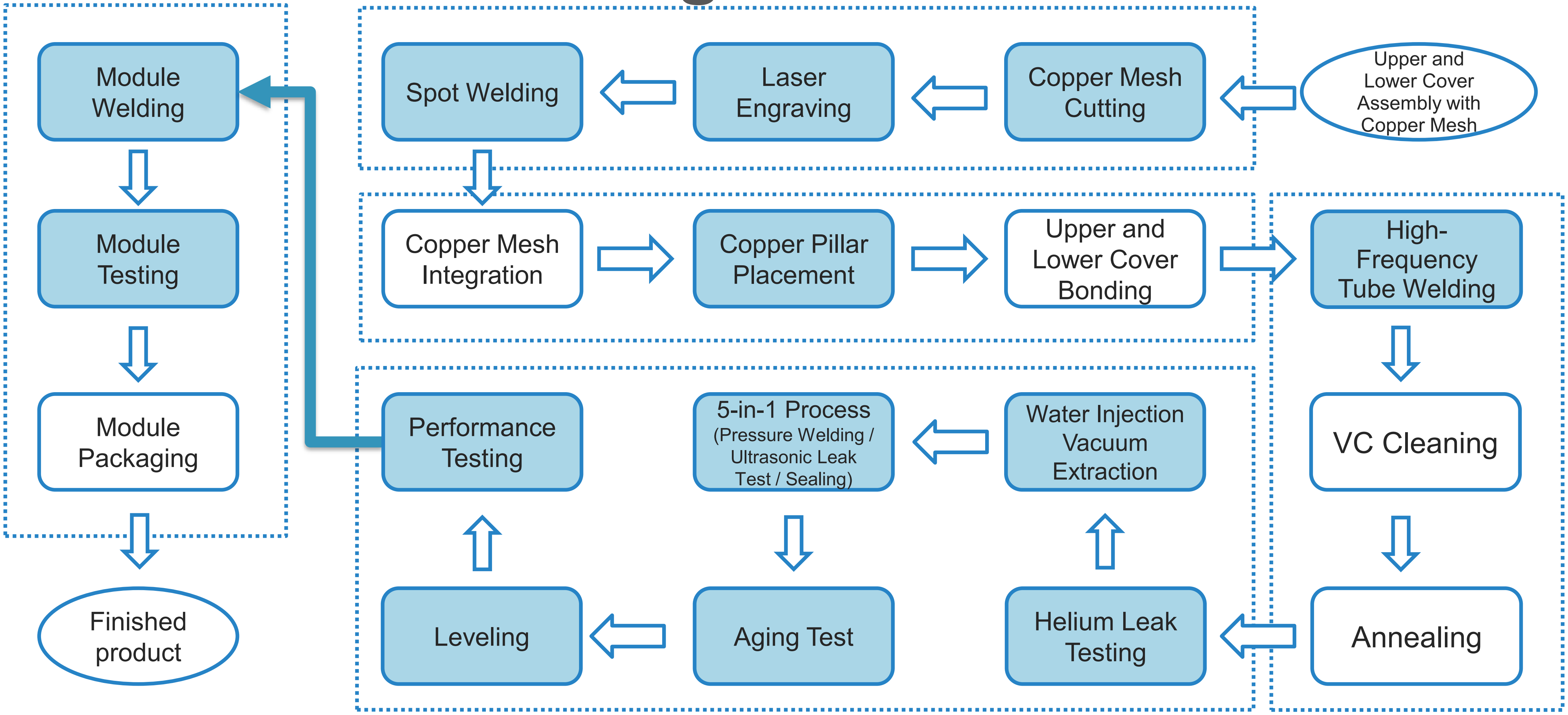
New Technology R&D and Patent Deployment

With proprietary key technologies and patents, the Company continuously invests in next-generation product R&D to maintain technological leadership.

Testing and Verification Capabilities

Rigorous thermal performance and reliability testing ensure product quality. Standardized and customized testing systems are designed to meet diverse customer requirements.

Production Flow Overview and Automation Advantages



Upper and Lower Cover Assembly with Copper Mesh

Copper Mesh Cutting

Laser Engraving

Spot Welding

Copper Mesh Integration

Copper Pillar Placement

Upper and Lower Cover Bonding

High-Frequency Tube Welding

VC Cleaning

Annealing

Helium Leak Testing

Water Injection Vacuum Extraction

5-in-1 Process (Pressure Welding / Ultrasonic Leak Test / Sealing)

Aging Test

Leveling

Performance Testing

Module Welding

Module Testing

Module Packaging

Finished product

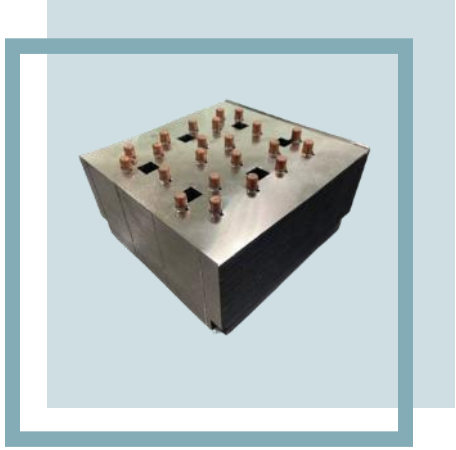
🟦 Automated Process

New Product - 3DVC Applications

NVIDIA H100

AWS MX1

Intel Gaudi 3

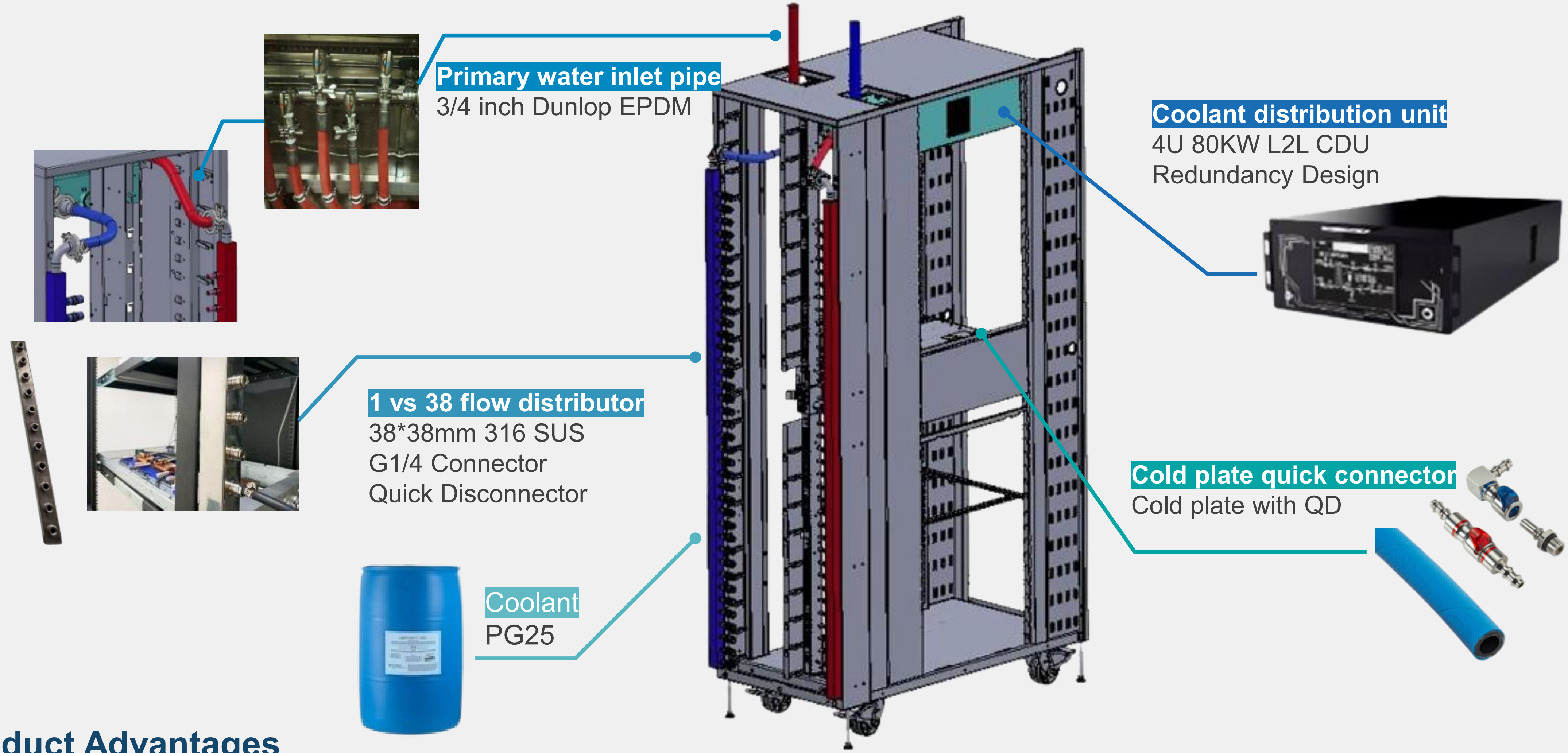


AMD MI 300

Product Advantages

- Longest Industry Expertise (Developed and mass-produced Taiwan’s first vapor chamber in 2006, marking the earliest entry into the field)
- Highest Performance (Capable of dissipating up to 1,500W of heat, delivering superior thermal efficiency)
- Longest Durability (Vacuum high-pressure welding ensures zero leakage for over 10 years)

New Product – Liquid Cooling Applications



Primary water inlet pipe
3/4 inch Dunlop EPDM

Coolant distribution unit
4U 80KW L2L CDU
Redundancy Design

1 vs 38 flow distributor
38*38mm 316 SUS
G1/4 Connector
Quick Disconnector

Cold plate quick connector
Cold plate with QD

Coolant
PG25

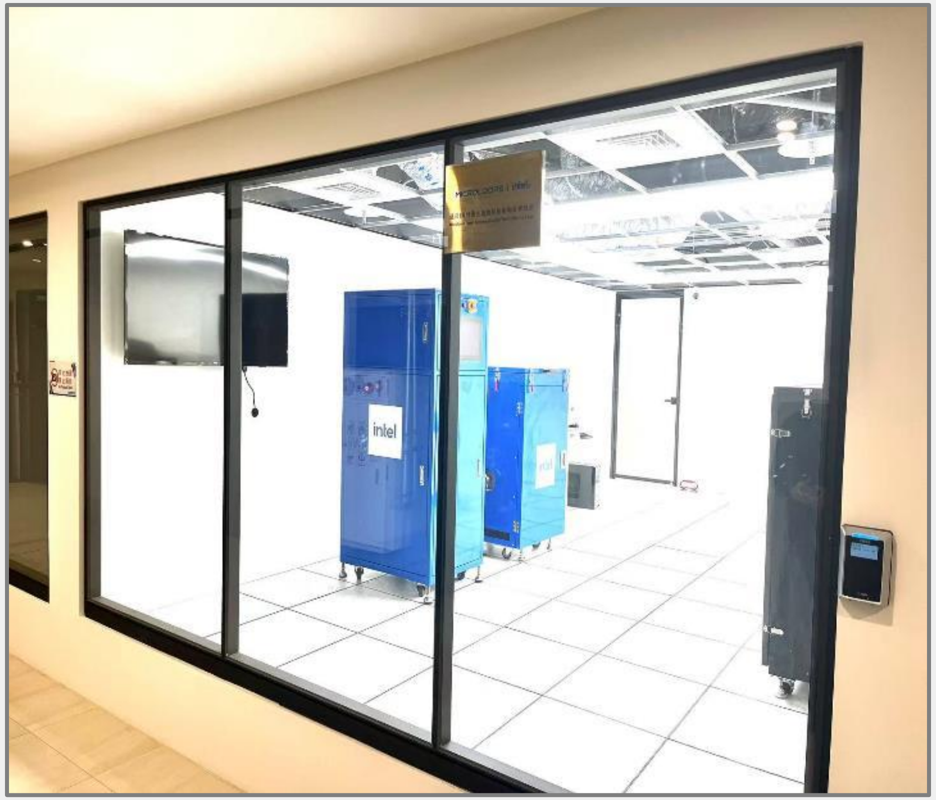
Product Advantages

- ✦ Industry's first cold plate adopting vacuum high-pressure welding, ensuring complete sealing and zero leakage.

New Product – Immersion Applications

(Co-developed with Intel)

MICROLOOPS GROUP Service for Cooling Innovation



Microloops & Intel Advanced Thermal Technology Joint Laboratory

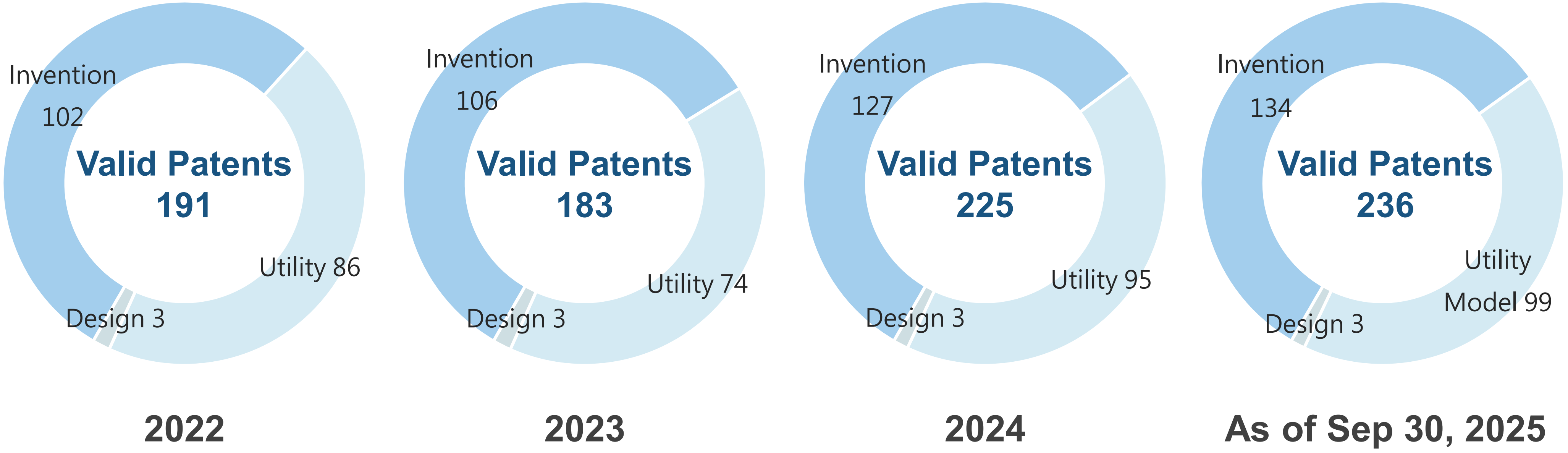
12U 15KW immersion liquid cooling tank
Fluid: Synthetic Oil (PAO Family)

Product Advantages

✦ The only cooling solution certified by global tier 1 clients

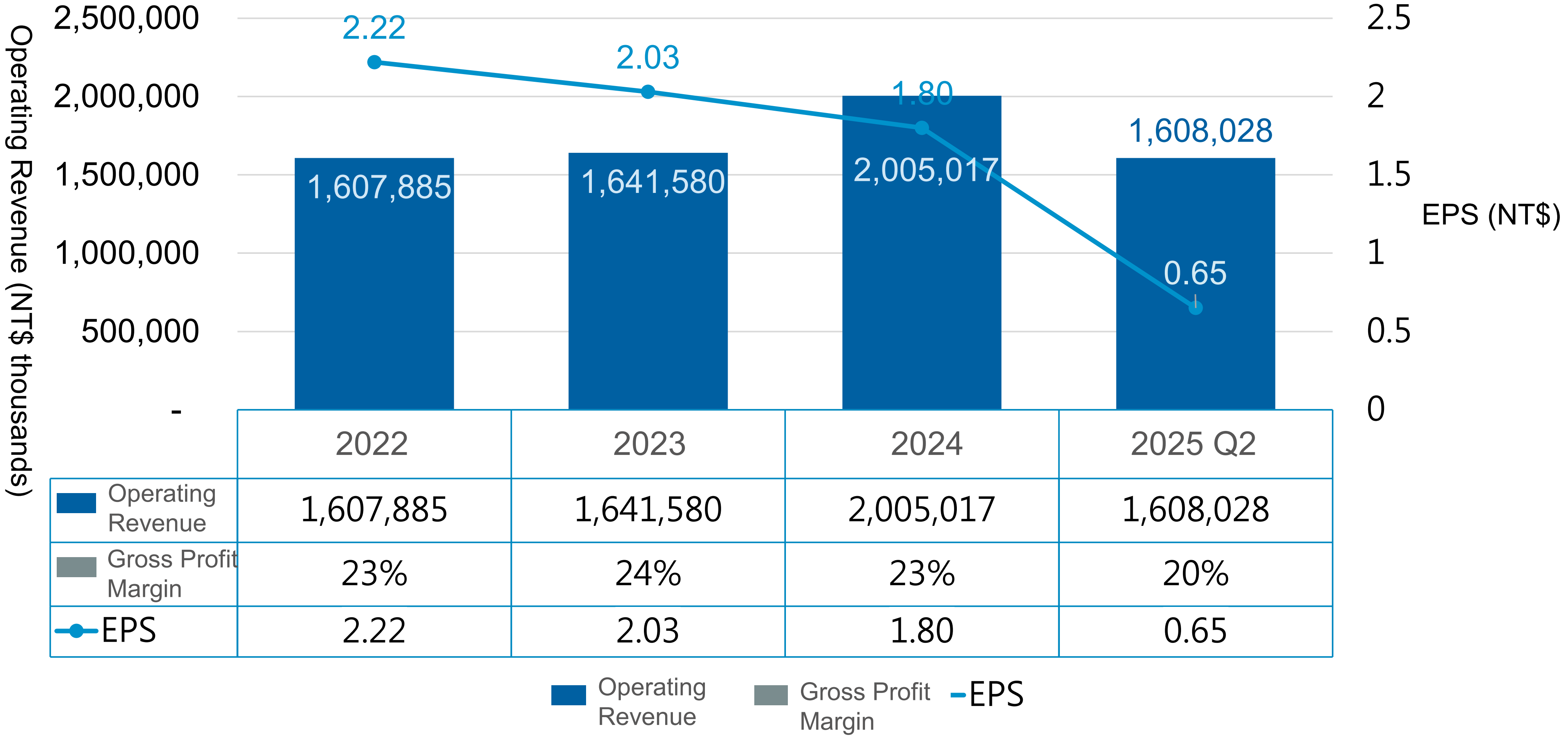
Group Patent Summary (1/2)

Active Patents Overview



03 | Operating Performance

Financial Information



	2022	2023	2024	2025 Q2
■ Operating Revenue	1,607,885	1,641,580	2,005,017	1,608,028
■ Gross Profit Margin	23%	24%	23%	20%
● EPS	2.22	2.03	1.80	0.65

04 | Sustainable Development

Corporate Social Responsibility

Corporate Governance

- ✓ Foster a corporate culture grounded in ethics and integrity.
- ✓ Establish transparent and accessible whistleblowing channels.

Environmental Sustainability

- ✓ Reduce negative climate impacts.
- ✓ Implement company-wide GHG inventory.

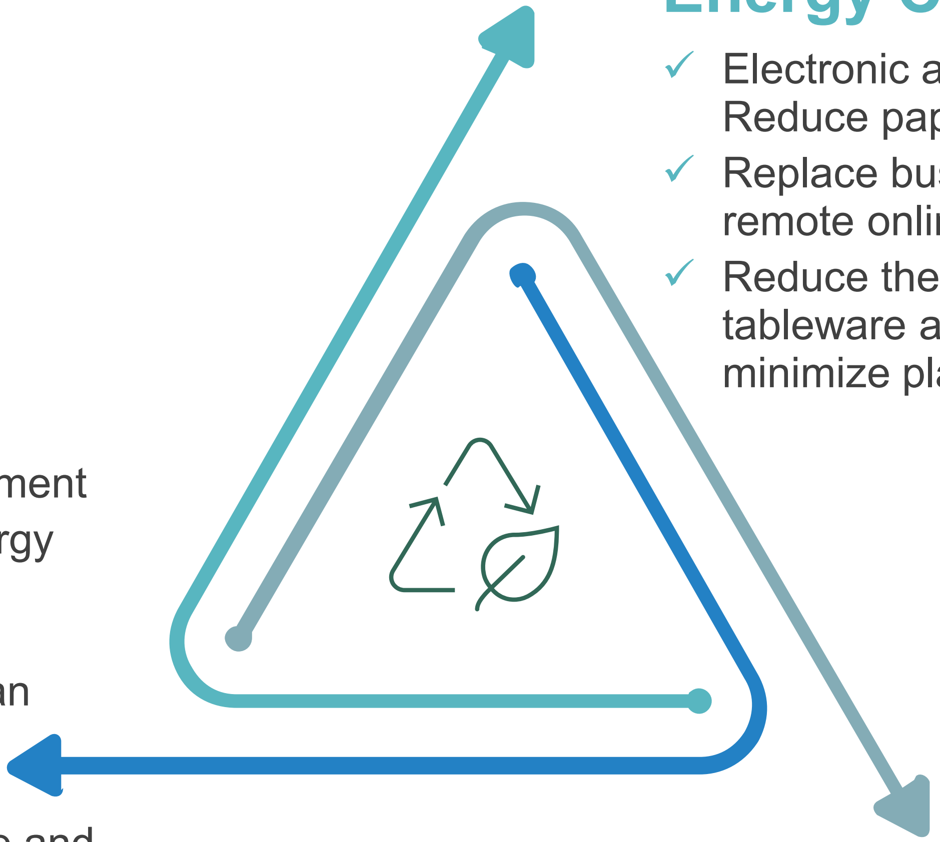
Employee Care

- ✓ Build a friendly and inclusive workplace environment.
- ✓ Ensure gender equality in employment opportunities.

Social Care

- ✓ Participate in charitable activities.
- ✓ Support and care for disadvantaged groups.

Environmental Protection



Energy Efficiency

- ✓ Adopt energy-saving equipment
- ✓ Increase investment in energy storage systems.
- ✓ Maintain air-conditioning temperature at no lower than 26°C.
- ✓ During lunch breaks: set computers to standby mode and turn off lights.
- ✓ After work: shut down computers and turn off lights.

Energy Conservation

- ✓ Electronic approvals → Reduce paper consumption.
- ✓ Replace business travel with remote online meetings.
- ✓ Reduce the use of disposable tableware and straws to minimize plastic waste.

Environmental Protection

- ✓ Implement waste sorting and recycling programs.
- ✓ Encourage employees to use public transportation.

Thanks a lot!