

MPI Corporation 6223.TT

READY FOR THE TEST™

Presentation Disclaimer

The information herein contains forward-looking statements. We have based these forward-looking statements on our current expectations and projections about future events. Although we believe that these expectations and projections are reasonable, such forward-looking statements are inherently subject to risks, uncertainties and assumptions about us, including, among other things: the intensely competitive Semi-conductor, and LED industries and markets; Cyclical nature of the semiconductor industry; Risks associated with global business activities; General economic and political conditions. All financial figures discussed herein are prepared pursuant to IFRS. All audited figures will be publicly announced upon the completion of our audited process.

MPI Divisions

Since 1995



Probe Card

Since 2001



Photonics Automation

Since 2014



Advanced Semiconductor Test

Since 2015



Thermal Test



Since 2021



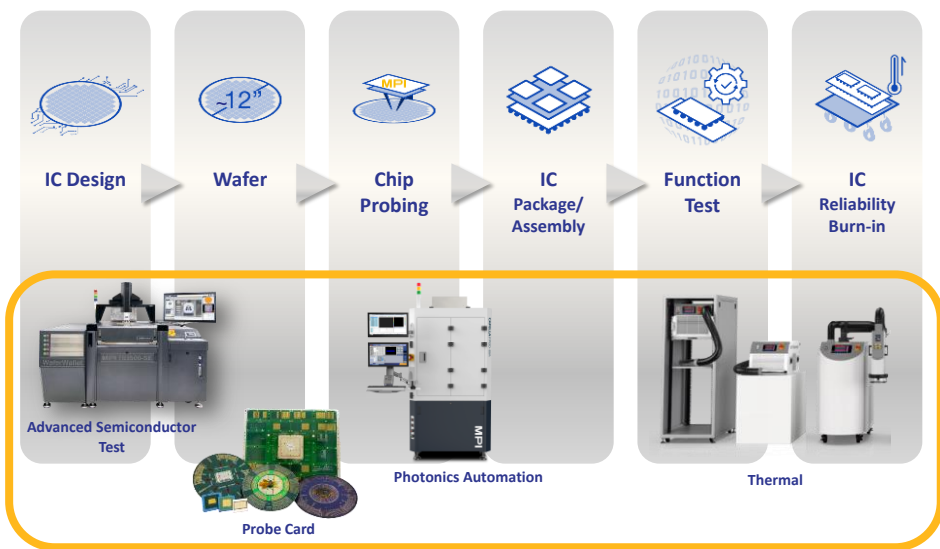
Celadon Systems

MPI Global Presence



Worldwide				Taiwan			
							
MPI America CA, USA (2017)	MPI Suzhou Jiangsu, CN (2017)	Celadon Systems MN, USA (2021)	Headquarters Hsinchu, TW (2000)	Luzhu Office Kaohsiung, TW (2006)	2 nd Production Site Hsinchu, TW (2012)	Xinyu Office Hsinchu, TW (2014)	3 rd Production Site Hsinchu, TW (2021)

MPI-The Powerhouse of Testing Solutions



Agenda



Business Contents

- Probe Card
- Photonics Automation
- Thermal & AST



Financial Statements

MPICORPORATION

Probe Card

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MPIProbe Card

Advanced Wafer Sort Test Solutions

Vertical / MEMS Probe Card

Cantilever Probe Card



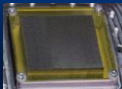
Features



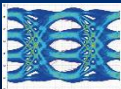
Fine Pitch



MEMS



High Pin Count



High Speed



Substrate



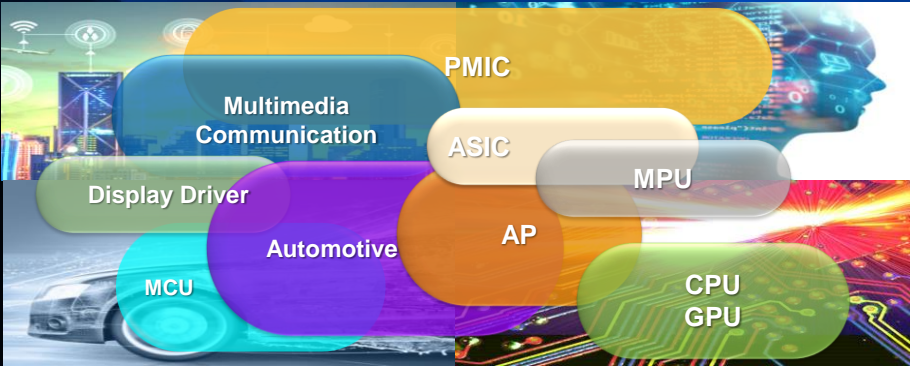
Hand-wired



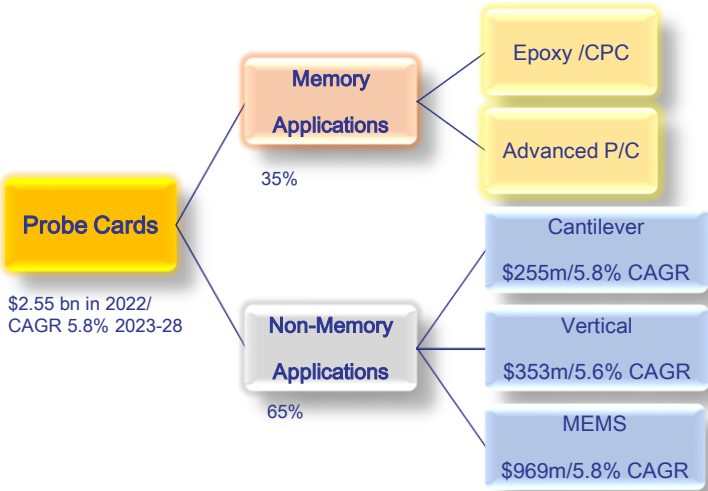
RF

Full range of products for the applications
sufficient coverage solutions to IC markets

Company Confidential C

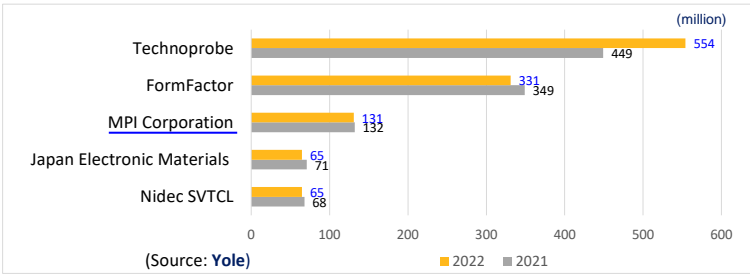


Global Probe Card Market Update



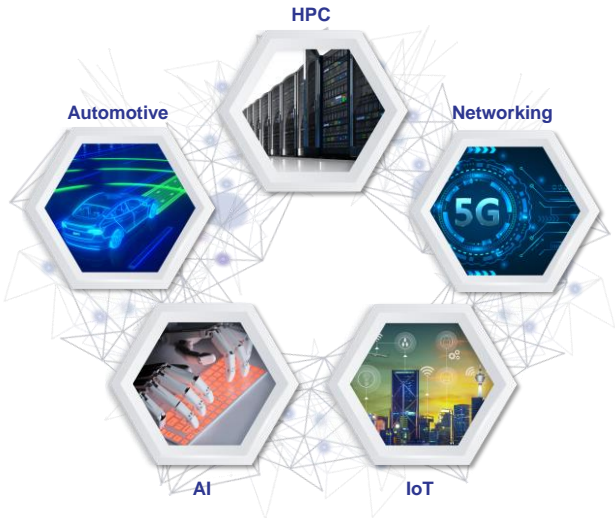
Top 5 Non-Memory Probe Card Vendors

	(Rank)		2017	2018	2019	2020	2021	2022
Technoprobe		Italy	2	2	2	2	1	1
FormFactor, Inc.		USA	1	1	1	1	2	2
MPI Corporation		Taiwan	3	3	3	3	3	3
Japan Electronic Materials		Japan	4	4	5	5	4	4
Nidec SVTCL		Singapore	5	5	4	4	5	5

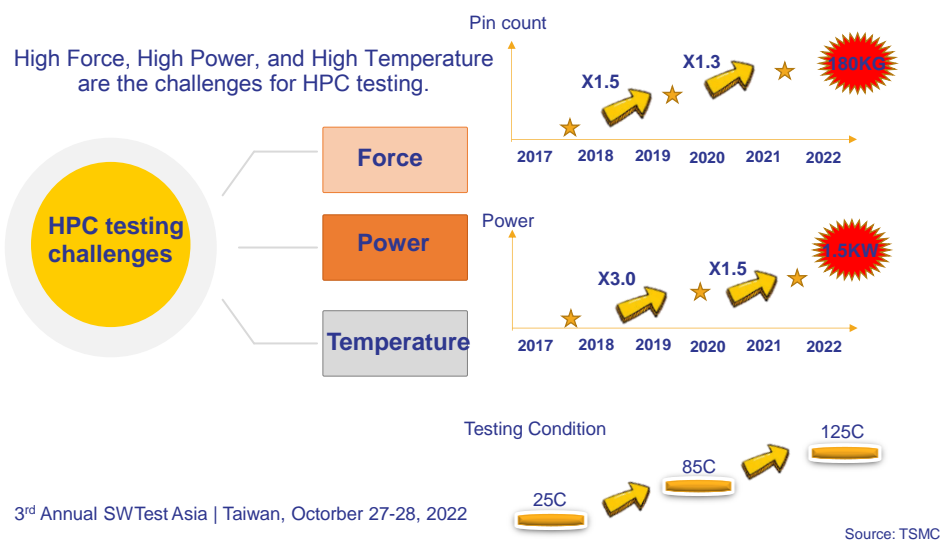


HPC Demand

The demand of HPC (High Performance Computing) growth rapidly.



HPC Challenges



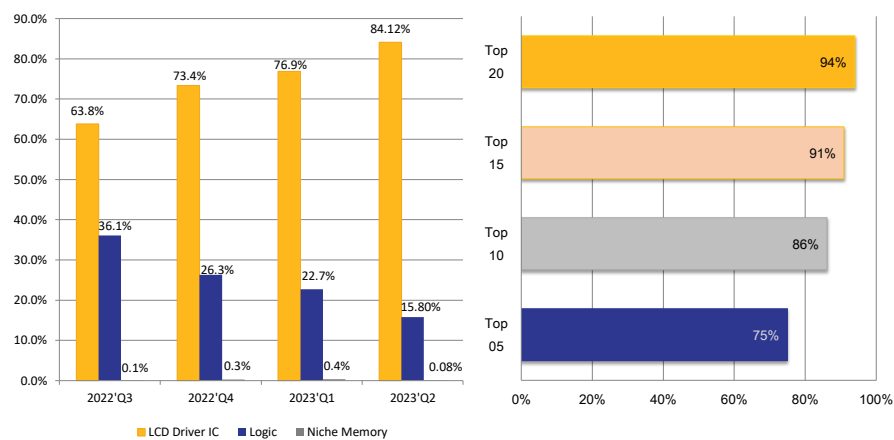
Interface Technical Complexity Check in

Complexity Trends are on pace to be at 2022 targets (1 Cycle) or in some cases beyond

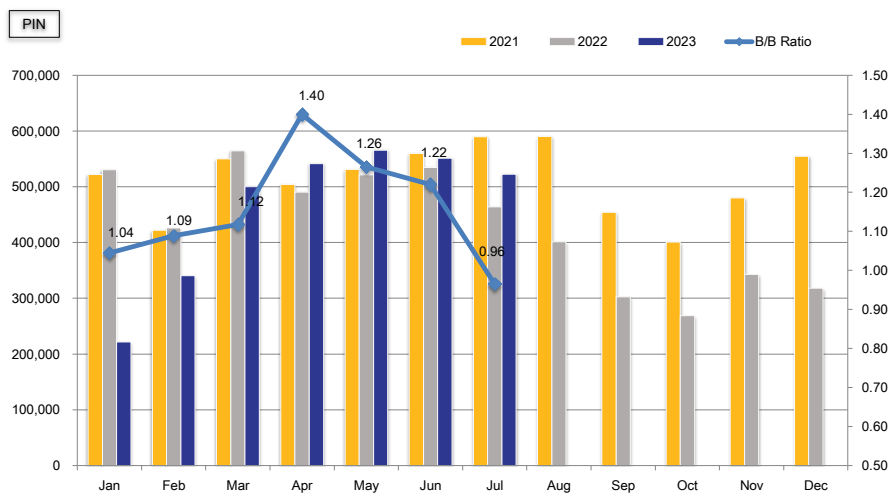
“2x4 Scaling”=2xPins, 2xPerformance, every 4 years

		2018	2022	2026
		Level 4	Level 5	Level 6
Pin Density	Pin Pitch	90um	70um	50um
	Total Contact Force	80kg	150kg	250kg
I/O Speed	Digital	32Gpbs	64Gpbs	128Gpbs
	RF/mmWave	< 12 GHz	29 GHz	+60 GHz
Device Power	Main Power	900 mV	750mV	625mV
	Single Rail	35A	50A	100A
	Impedance	2.2 mOhm	1.4 mOhm	0.8 mOhm
Thermal	Self Heating	75 W		
	Operating Range	0 to +80C	0 to +105C	-20 to +125C
Most Expensive Probe Card		\$400K*	>\$500K	>\$700K

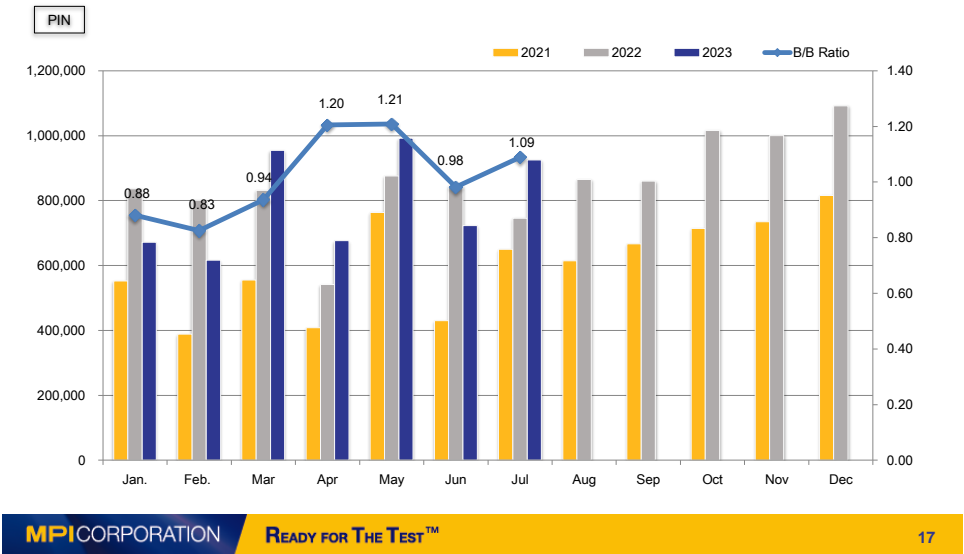
Product Mix of CPC (Cantilever)



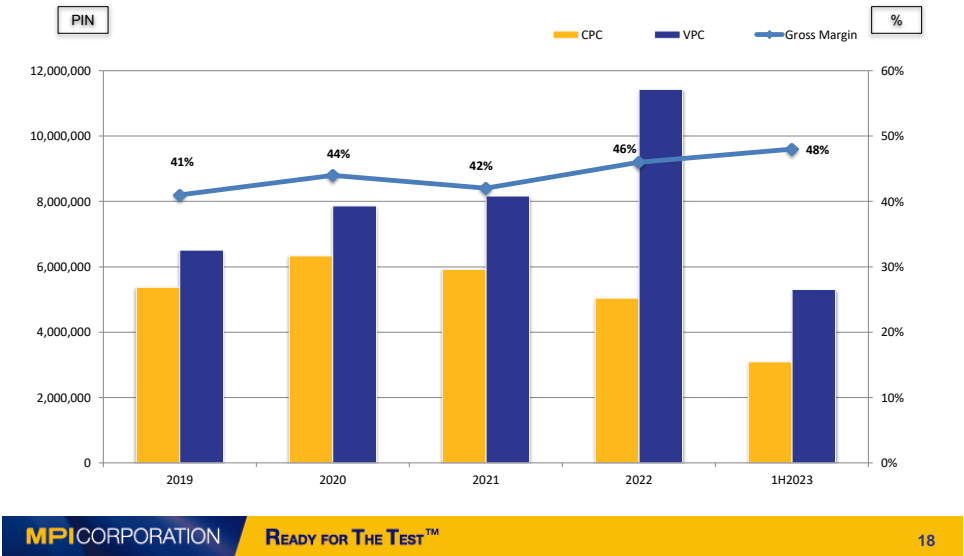
CPC Pin-Shipment



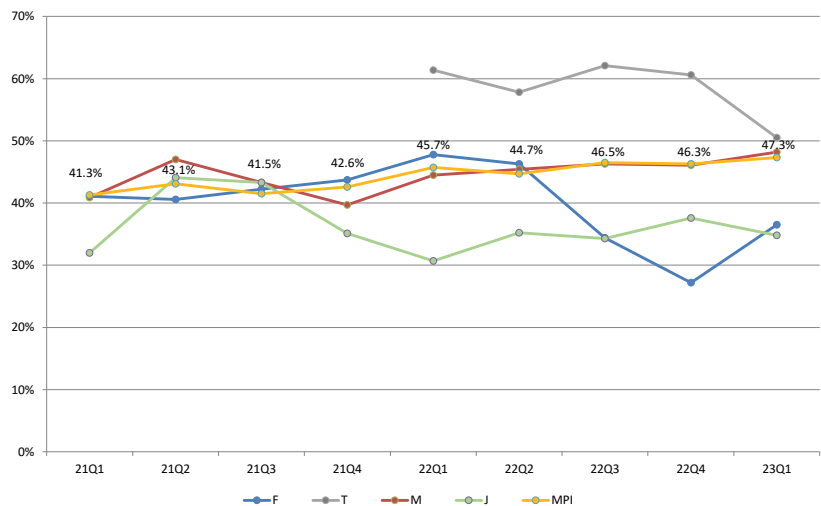
VPC Pin-Shipment



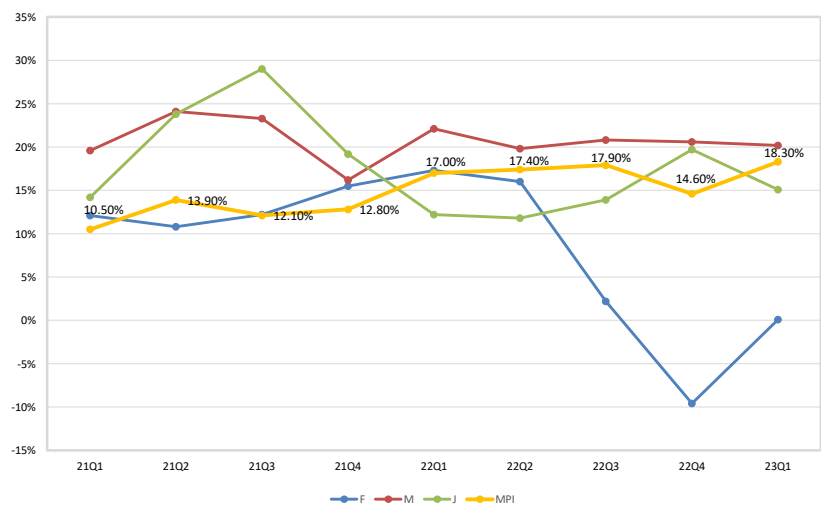
CPC and VPC Yearly Status



Gross Margin Between Global Peers



Operating Margin Between Global Peers



MPI Probe Card

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Our Customer

The MPI is committing more than 800 customers globally to contribute to industrial development as well as providing testing industry advanced technology needs.



MPI CORPORATION

Photonics Automation

READY FOR THE TEST™

Product Portfolio and Capability



- **High Power VCSEL Wafer Testing**
Wafer / Board Prober Development
Testing methodology Development

➤ **High Power VCSEL PKG Testing**
PKG Handler Development
Testing methodology Development
- **VCSEL / Photo-Detector Testing**
Wafer / Board Prober Development
Testing methodology Development

➤ **RF Character**
Wafer Level RF Testing Integration

➤ **SiPh Die/PKG Platform**
SiPh Handler Development
- **uLED Mass Production Methodology**
Wafer prober for large quantity die testing method

➤ **Panel testing platform development**
Panel / Panel in-process testing platform

Development Plan by Application



Optical Sensing	Optical Communications	Micro Display
<div>➤ Focus on Sensing VCSEL Testing</div> <div>➤ Production Wafer Prober in Low Temperature</div> <div>➤ High Power Measurement Tool and Technology Development</div> <div>➤ Flip Chip Wafer VCSEL testing Solution</div> <div>➤ Package / Hybrid Device testing tool</div>	<div>➤ Focus on VCSEL/Photodetector Testing</div> <div>➤ Wafer Prober for Dark / Responsivity / Capacity measurement</div> <div>➤ RF Measurement Capability Development</div> <div>➤ SiPh package testing approaching</div>	<div>➤ Lab and production wafer testing tool development</div> <div>➤ Contacting Accuracy Improvement</div> <div>➤ Innovative testing methodology</div> <div>➤ Optical measurement in production methodology</div>

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Thermal/AST

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MPI Thermal

Hot and Cold Air Flow
Environmental Temperature Test

-100°C  +300°C

ThermalAir Series
Temperature Testing Systems



Applications & Industry Segments



Semiconductor



Automotive



Aerospace



Telecommunications



Fiber Optic



Electronics



Sensors



Advanced Technology

MPI Advanced Semiconductor Test

Engineering Probe Systems
and
RF Probe Products

50 – 300 mm

26 – 110 GHz

Applications & Industry Segments

Device Characterization	High Power	RF & mmW	Design Validation	Failure Analysis	Wafer Level Reliability	Silicon Photonics	Laser Cutter

MPI's Ideation

■ To Combine Two Very Unique Values

■ The MPI Corporation

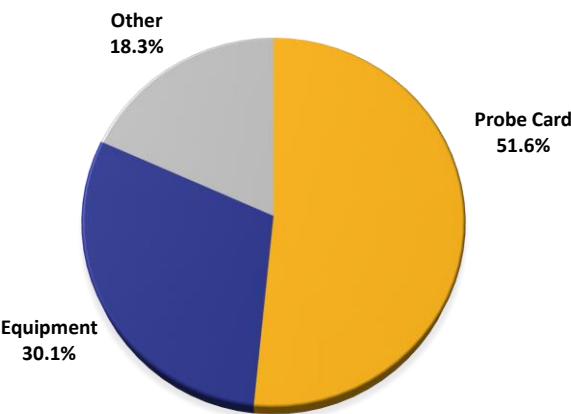
- Operational Excellence – High quality, on time
- Production Test Experience – 24/7 systems reliability
- Customer Centric – Highest value without compromise

■ Management & Market Expertise

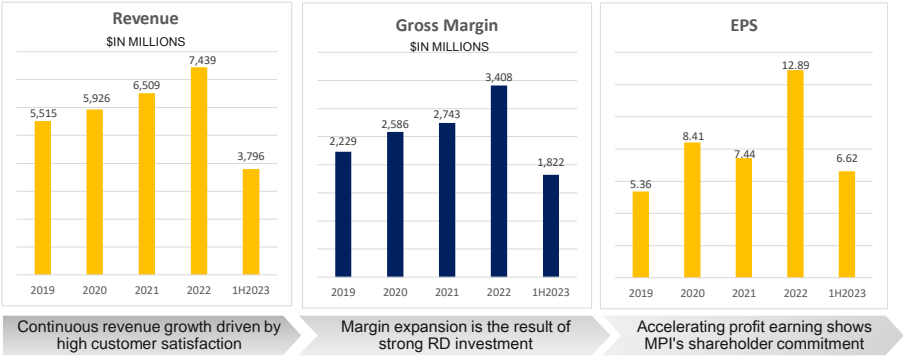
- More than 50 years together in Device Modeling, RF & mmW, WLR, High-Power, Failure Analysis, Thermal solutions...
- Visionary and Innovative Ideas
- Worldwide Partner Relationships

Financial Statements

1H 2023 Revenue Breakdown



Solid Performance



Balance Sheet Highlight

NT\$ Million	1H 2023		1H 2022	
Cash and Cash Equivalents	1,993	17%	1,589	15%
Fixed Assets	5,396	46%	4,418	42%
Total Assets	11,765	100%	10,401	100%
LT Debt	953	8%	1,091	11%
Shareholders' Equity	6,924	59%	6,286	60%
EBITDA	739	19%	738	21%

*EBITDA=operating income + depreciation & amortization expenses

P&L

NT\$ Million	1H 2023		1H 2022	
Net Sales	3,796,614	100%	3,588,079	100%
Cost of Goods Sold	1,973,971	52%	1,963,111	55%
Gross Profit	1,822,643	48%	1,624,968	45%
Operating Expense	1,106,169	29%	1,003,009	28%
Operating Income	716,474	19%	621,959	17%
Investment Income & Others	22,557		116,871	
Net Income (after tax)	622,676	16%	607,788	17%
EPS (after tax)	6.62		6.46	

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Thank You



<http://www.mpi-corporation.com>

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