



Chroma

2024.2Q Earnings Conference

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Disclaimer

This presentation contains some forward-looking statements that are subject to substantial risks and uncertainties. Typically, these statements contain words such as “anticipate”, “believe”, “could”, “estimate”, “expect”, “intend”, “plan”, “forecast”, “project”, “predict”, “potential”, “continue”, “may”, “should”, “will”, and “would” or similar words. You should consider these forward-looking statements carefully because such statements are only our expectations or projections about future events, and actual results may differ materially from those expressed or implied by such statements. The forward-looking statements in this presentation include, but are not limited to, growth rates for various markets estimated by third party sources, future products and technology development, widespread market acceptance of the hosted delivery model, future revenue growth and profitability. You should be cautioned that the forward-looking statements are no guarantee of our future performance. The forward-looking statements contained in this presentation are made only as of the date of this presentation and we undertake no obligation to update the forward-looking statements to reflect subsequent events or circumstances, except as required by law.

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- **Financial Review**
- **Operation Highlights**
- **Q&A**

FINANCIAL REVIEW



Year 2024.2Q Condensed Consolidated Income Statement



Condensed Consolidated P&L

(In Million NTD, except for EPS in NTD)

	2024.2Q	%	2024.1Q	%	QoQ %	2023.2Q	%	YoY %
Net Sales	5,515	100%	4,418	100%	25%	4,416	100%	25%
Consolidated Sales of Testing Equipment Business	5,234	95%	4,259	96%	23%	4,198	95%	25%
Consolidated Sales of MAS	192	3%	86	2%	123%	167	4%	15%
Others	89	2%	73	2%	22%	51	1%	75%
Cost of Goods Sold	(2,249)	(41%)	(1,852)	(42%)	21%	(1,666)	(38%)	35%
Gross Profit	3,266	59%	2,566	58%	27%	2,750	62%	19%
Operating Expenses:								
General & Administration	(1,230)	(22%)	(1,181)	(27%)	4%	(1,103)	(25%)	12%
Research & Development	(522)	(9%)	(485)	(11%)	8%	(433)	(10%)	21%
Operating Income	1,514	28%	900	20%	68%	1,214	27%	25%
Non-Operating Income (Expenses), net	291	5%	319	7%	(9%)	144	3%	102%
Income (Loss) Before Tax	1,805	33%	1,219	27%	48%	1,358	30%	33%
Income Tax	(368)	(7%)	(243)	(5%)	51%	(304)	(6%)	21%
Net Income	1,437	26%	976	22%	47%	1,054	24%	36%
Net Income (Losses) Attributable To:								
Shareholders of the Parent	1,407	26%	955	22%	47%	1,018	23%	38%
Noncontrolling Interests	30	-	21	-	43%	36	1%	(17%)
	\$ 1,437	26%	\$ 976	22%	47%	\$ 1,054	24%	36%
EPS (Basic)	\$ 3.34		\$ 2.27		47%	\$ 2.42		38%
EPS (Diluted)	\$ 3.31		\$ 2.25		47%	\$ 2.42		37%

Year 2024.1H Condensed Consolidated Income Statement



Condensed Consolidated P&L

(In Million NTD, except for EPS in NTD)

	2024.1H	%	2023.1H	%	YoY %
Net Sales	9,933	100%	8,804	100%	13%
Consolidated Sales of Testing Equipment Business	9,493	96%	8,247	94%	15%
Consolidated Sales of MAS	278	3%	450	5%	(38%)
Others	162	1%	107	1%	51%
Cost of Goods Sold	(4,100)	(41%)	(3,388)	(38%)	21%
Gross Profit	5,833	59%	5,416	62%	8%
Operating Expenses:					
General & Administration	(2,412)	(24%)	(2,145)	(24%)	12%
Research & Development	(1,007)	(10%)	(870)	(10%)	16%
Operating Income	2,414	24%	2,401	28%	-
Non-Operating Income (Expenses), net	610	6%	203	2%	200%
Income (Loss) Before Tax	3,024	30%	2,604	30%	16%
Income Tax	(611)	(6%)	(587)	(7%)	4%
Net Income	2,413	24%	2,017	23%	20%
Net Income (Losses) Attributable To:					
Shareholders of the Parent	2,362	22%	1,955	22%	21%
Noncontrolling Interests	51	1%	62	1%	(18%)
	\$ 2,413	23%	\$ 2,017	23%	20%
EPS (Basic)	\$ 5.61		\$ 4.65		21%
EPS (Diluted)	\$ 5.56		\$ 4.61		21%

Balance Sheet Highlights & Financial Ratio

<u>Consolidated</u> (In Million NTD)	<u>2024. June</u>	<u>2023. Dec</u>	<u>+ / - %</u>
Balance Sheet Highlights			
Cash & Short Term Investments	6,394	4,794	33%
Inventory	4,865	4,675	4%
Short Term Debt	950	2,136	- 56%
Long Term Debt	1,464	990	48%
Shareholders Equity	22,279	22,517	- 1%
Total Assets	35,984	33,482	7%
Inventory Turnover (Day)	209	217	
AR Turnover (Day)	87	87	
AP Turnover (Day)	129	128	
Net Debt to Equity (%)	Net Cash	Net Cash	
ROE (%) ●	21%	18%	
ROA (%) ●	14%	12%	

Cash Position	<u>2024.1H</u>	<u>2023.1H</u>	YoY
EBITDA	3,423	2,978	15%
Cash Flow from Operation	2,994	1,105	171%
Free Cash Flow ●●	2,228	457	388%

● All ROE + ROA has been annualized.

●● Free Cash Flow = Net Cash Provided by Operating Activities + (Net Cash used by Investing Activities)

**OPERATION
HIGHLIGHT**



2024.2Q & 1H Product Mix and Consolidated Sales Breakdown

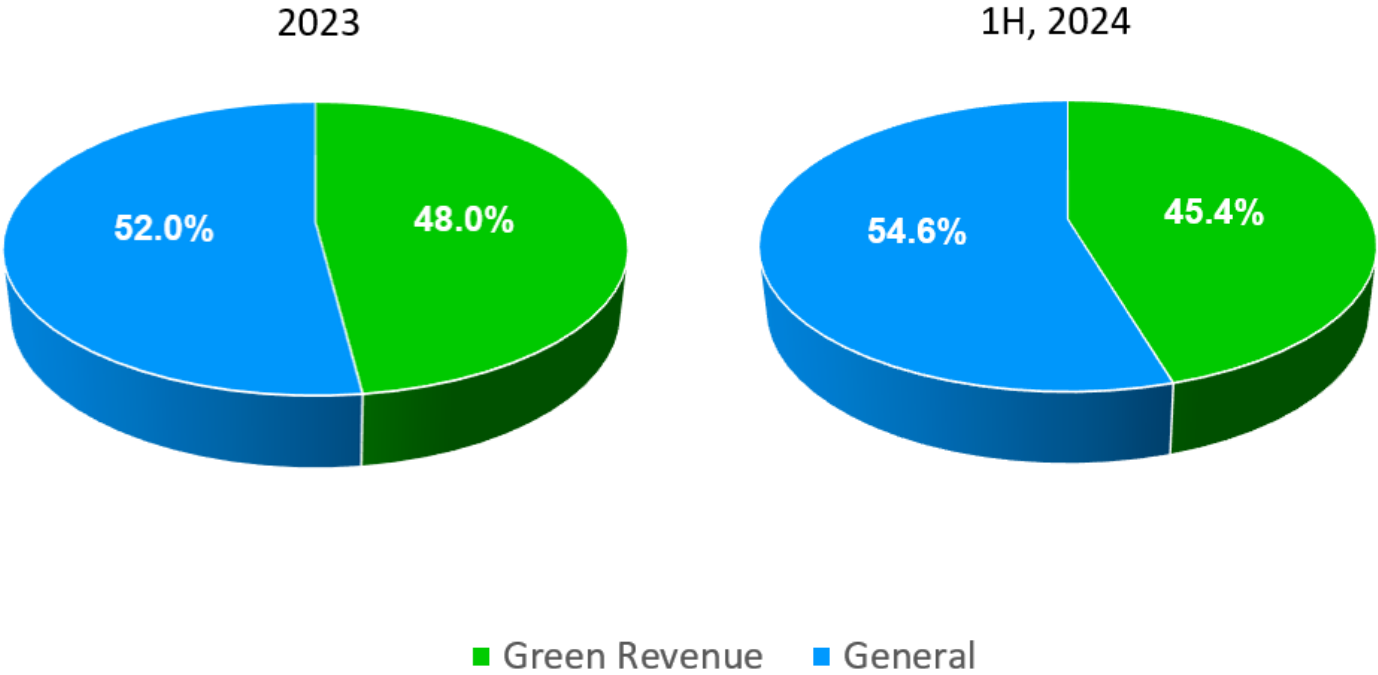


(Unit: Million NTD)

	2024.2Q	%	QoQ	YoY	2024.1H	%	YoY	2023	%
Test Instruments & Automatic Testing System (ATS)	1,736	43%	4%	(25%)	3,408	46%	(27%)	8,078	64%
Semiconductor / Photonics Test Solutions	1,869	46%	57%	196%	3,063	41%	200%	2,963	24%
Turnkey Solutions	161	4%	(41%)	11%	433	6%	100%	454	4%
Service & Others	315	7%	24%	27%	570	7%	20%	1,035	8%
Total of Parent Company Sales (TW)	4,081	100%	20%	22%	7,474	100%	18%	12,530	100%
+ Sales from Overseas Operations & Related Subsidiaries	1,153		33%	35%	2,019		7%	5,257	
Chroma Consolidated Testing Equipment Business	5,234	95%	23%	25%	9,493	96%	15%	17,787	92%
MAS	192	3%	123%	15%	278	3%	(38%)	658	4%
Other Subsidiaries	89	2%	22%	75%	162	1%	51%	231	1%
Consolidated Sales	5,515	100%	25%	25%	9,933	100%	13%	18,676	97%

Year 2024 Guidance

- In the first half of year 2024, Chroma total consolidated sales revenues reached 9.9 billion NTD, which presented a growth of 13% YoY. The Semiconductor / Photonics Test Solutions were major growth driver, which increased 200% compared to last year.
- Year 2024 Business Outlook:
 - ✓ The Company expects sales revenues in second half will be better than first half, growth momentum is continuously contributed from Semiconductor / Photonics sector.
 - ✓ The demand for SLT testers will be the key driver for Semiconductor / Photonics sector in second half.
 - ✓ The Test Instruments & ATS for power testing solutions remained steady.



Chroma 2024

FTSE Russell ESG Scores:

- Overall: 4.1, up 0.8 points from 2023
- Corporate Governance: 5.0
- Electronic & Electrical Equipment category ranking: 88th percentile

(Scores range from 0 to 5, with higher scores indicating better ESG performance.)

Note: Revenues are classified according to FTSE Russell’s Green Revenues Classification System (GRCS).

Technology & Solution Milestones

High Precision Test Solutions

Temperature-forcing Systems



- ✓ -40°C~ +150°C @Tc
- ✓ Up to 1,200W power dissipation



- ✓ -70°C~ +150°C @Tc
- ✓ Up to 1,000W power dissipation



- ✓ -40°C~ +150°C @Tc
- ✓ Up to 2,000W power dissipation



Hybrid Tri-temp Test Handler



- 3x3~120x120mm
- -70 ~ +150°C @Tc, up to 1.2kw dissipation
- 500 kgf contact
- TSD (Tj) available

Model 3110 Gen2

Single Site Test Handler



- 3x3~120x120mm
- -40 ~ +150°C @Tc, up to 1.8kw dissipation
- 500 kgf contact
- TSD (Tj) available

Model 3210

FT & SLT Hybrid Test System

UPGRADE



- 5x5~120x120mm
- 4~24 sites
- -40 ~ +150°C @Tc, up to 1.5kw/site dissipation
- 500 kgf/site contact
- TSD (Tj) available
- Warpage detection
- OHT integration

Model 3200

Advanced packaging of AI/HPC, automotive, IoT, cloud, network and data center chips

2D+3D Measurement

- XY / Z Resolution: 30nm / 0.05nm
- Sensor: BLiS
- Light Source: Multiple Light Sources
- Applications:
 - Probe Mark Indentation Depth
 - 2D/3D CD & Surface Topography

2D+3D Measurement

- XY / Z Resolution: 30nm / 0.05nm
- Sensor: BLiS
- Light Source: Multiple Light Sources
- Applications:
 - RDL: $\geq 2 \mu\text{m}$, AR3
 - TSV/VIA: $\geq 2 \mu\text{m}$, AR15
 - OVL $\leq 0.2 \mu\text{m}$

3D Metrology Measurement System

3D Metrology Measurement System



Model 7980



Model 7981



BLiS: Broadband Light integrated System (Multi-sensors with different functions are integrated.)

PD/APD Burn-in System



- Model 58606
- Temp. : 40° ~ 180°C
 - DUT pad size > 70um
 - ±2mA; ±80V

HP LD Burn-in System



- Model 58605
- Temp. : 20° ~ 85°C
 - Up to **6Amps** of Pulse Driving



VCSEL Module Test System



- Model 58625
- Temp.: -20° ~ 100°C
 - LIV/ NF/ FF test
 - Pulse width: ~ **100 us**

Crystal Wafer Probing System



- Model 58216
- 250B VNA
 - Frequency: **220MHz**
 - Min. die pitch: **0.4mm**

VCSEL Wafer Test System II



- Model 58636 Series
- Temp.: -20° ~ 100°C
 - LIV+NF **two-in-one**

OFC (optical fiber communication)

Consumer / Automotive Sensing; LiDAR

Technology & Solution Milestones

High Power Test Solutions

Bidirectional DC Source



Model 62000D Series

- Bidirectional: Source & Load with energy regen
- 6-18kW/3UH, Eff:92%
- 100V-1800V, 540A

Regenerative AC Load



Model 63800R Series

- Programmable AC Load with energy regen
- High Power Density: 15kW/3UH, Eff:90%
- 9kW-15kW, 350VLN



Regenerative Grid Simulator



Model 61800-100HV

- High power AC source with energy regen
- Optional regen AC Load
- Parallel up to 1MVA
- 105kVA, 500VLN-800VLN

Bidirectional DC Source

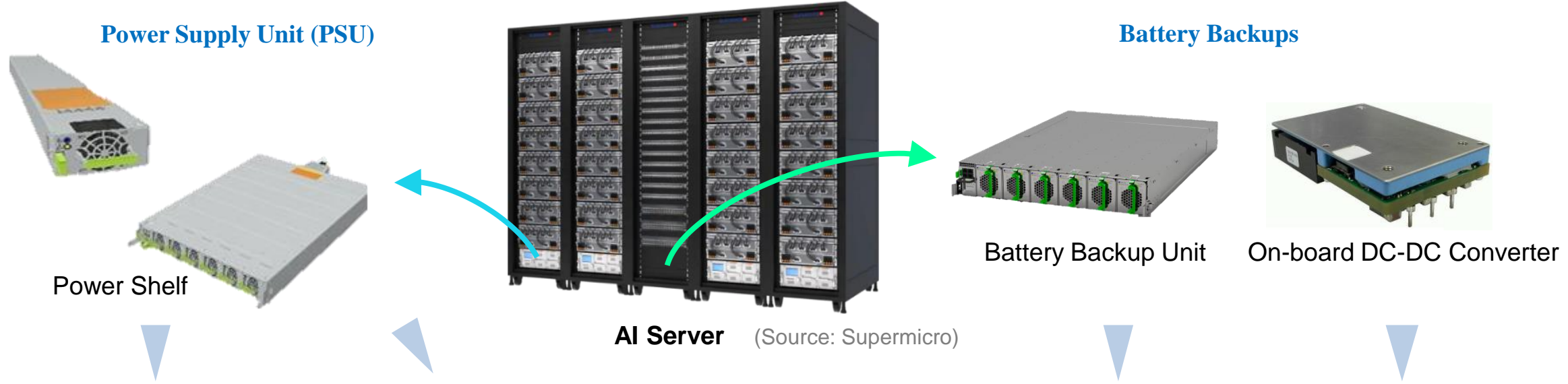


Model 62450D-2000HL

- Bidirectional: Source & Load with energy regen
- High Power Density: 36-45kW/4UH,
- 2000V/180A, Dual range



AI Server Power Test Solutions



Regenerative Grid Simulator

DC Electronic Load

Power Conversion Device ATS

Bidirectional DC Source

DC Electronic Load

Model 61800
• 105kVA

Model 61815
• 15kVA

Model 63200A Series
• 2kW – 24kW

Model 8000 ATS
• Up to 500kW

Model 62000D Series
• 0 – 2000V
• 0 – 540A
• 6kW – 45kW

Model 63202A-20-1000
63202A-20-2000
• 2KW/Up to 2000A

BMS Power HIL Testbed

Model 8630

- 1,200V/900A and 5V/5A
- For **EV** and **ESS**



E-Propulsion Test System

Model 1210

- 370kW/426Nm/25,000rpm
- For **E-Scooter**, **EV** and **E-Bus**



E-Axle Test System

Model 1220

- 219kW/2,988Nm/3,300rpm (Per dyno motor)
- For **EV**, **E-Bus** and **E-Truck**



NEW



Battery Pack Power HIL Testbed

Model 8610

- 1.2MW 1,700V 4,800A
- For **EV** and **ESS**



OBC and DC-DC Converter Power HIL Testbed

Model 8620

- 22kW/800V/75A
- 6.6kW/12V/550A
- For **EV** and **ESS**



EVSE ATS



Model 61800-100 Grid Simulator

- 105kVA max./set

Model 17040 Battery Simulator

- 360kW*2ch or 180kW*4ch
- Test Max. 720kW High Power DC EVSE

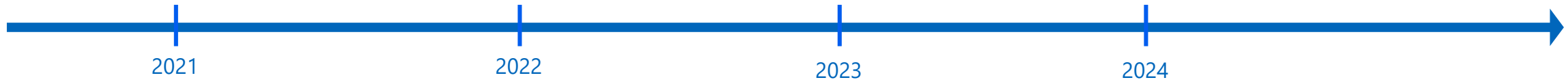
Model 17040E Battery Simulator :

- 200kW /set => 1.2MW max



Model 8000 EVSE ATS

- Supports multi-coupler testing with different EV charging interface, include the newest NACS (former TPC)



DC EVSE : 360kW



Chroma

Advancing Excellence

Thank You