2025 Silicon Motion Company Profile

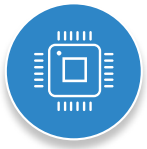
Silicon Motion at a Glance

Leading Merchant Supplier in NAND Flash Controllers

Silicon Motion's controllers are widely used in data centers, PCs, smartphones, automotive, commercial and industrial applications

22+ Year

Focus on NAND controller design



Over 10 Billion

NAND controllers shipped

30+% Market Share

In Client SSD controller market

Support **All** NAND flash makers

2002
Established in Hsinchu, Taiwan

2005
NASDAQ IPO
SIMO

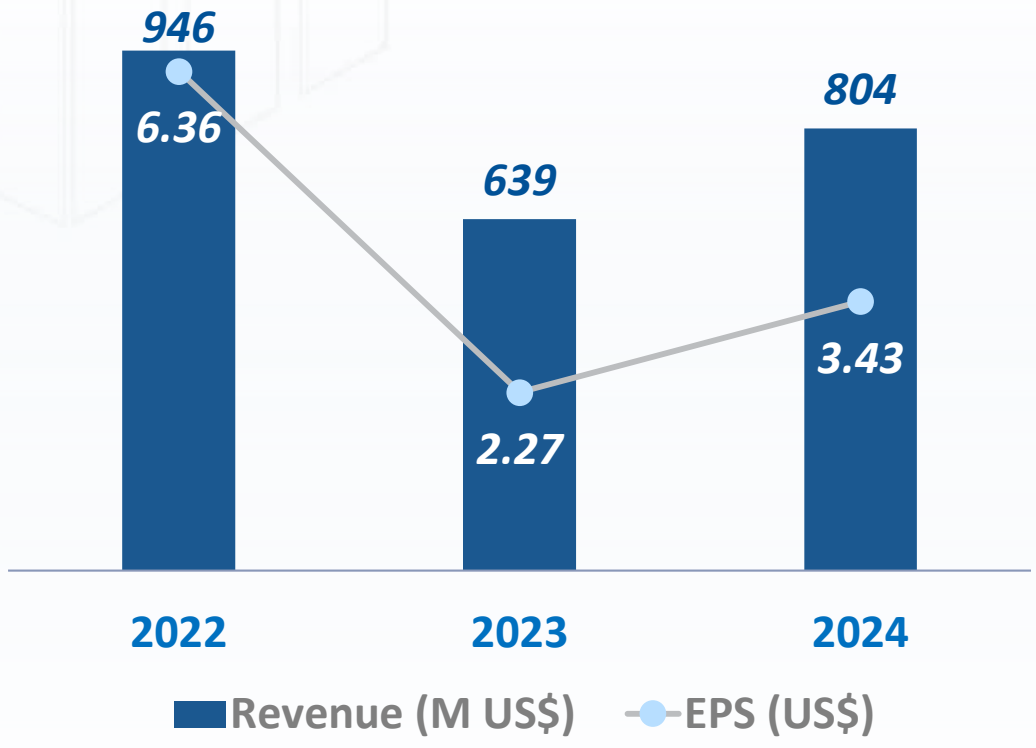
1800+
Employees
(Q4, 2024)

4200+
Patents & Applications
(Q4, 2024)

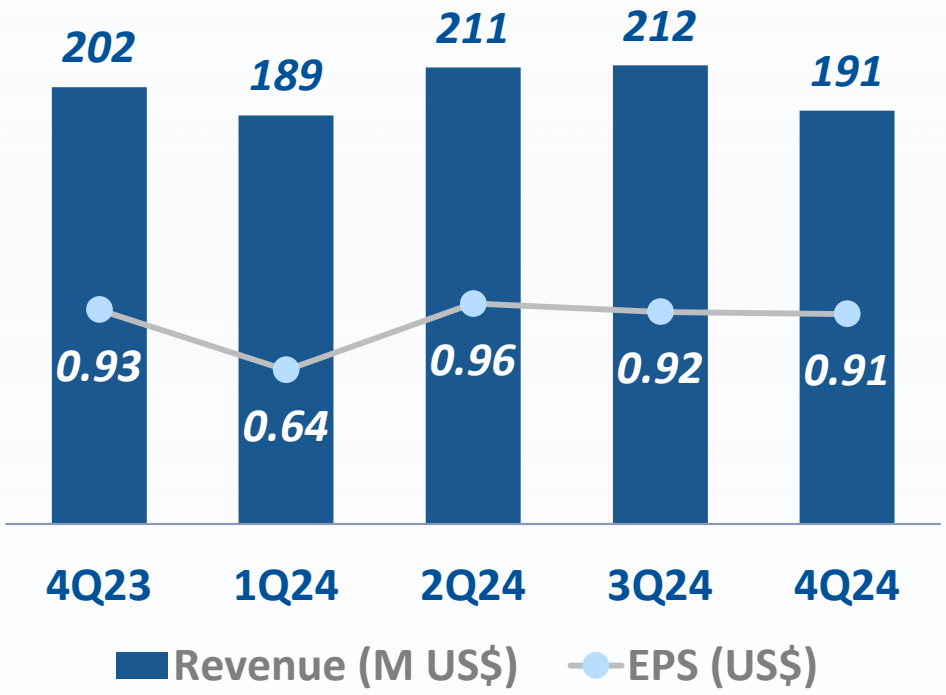
SiliconMotion

Silicon Motion Revenue Trend

Last 3 years



Last 5 quarters



SiliconMotion

More than NAND Flash Controllers

Silicon Motion is the Core Partner of NAND Storage Ecosystem

Enabling

Developing various NAND controllers & firmware technologies to enable quick time to market with new generation NAND

Collaboration

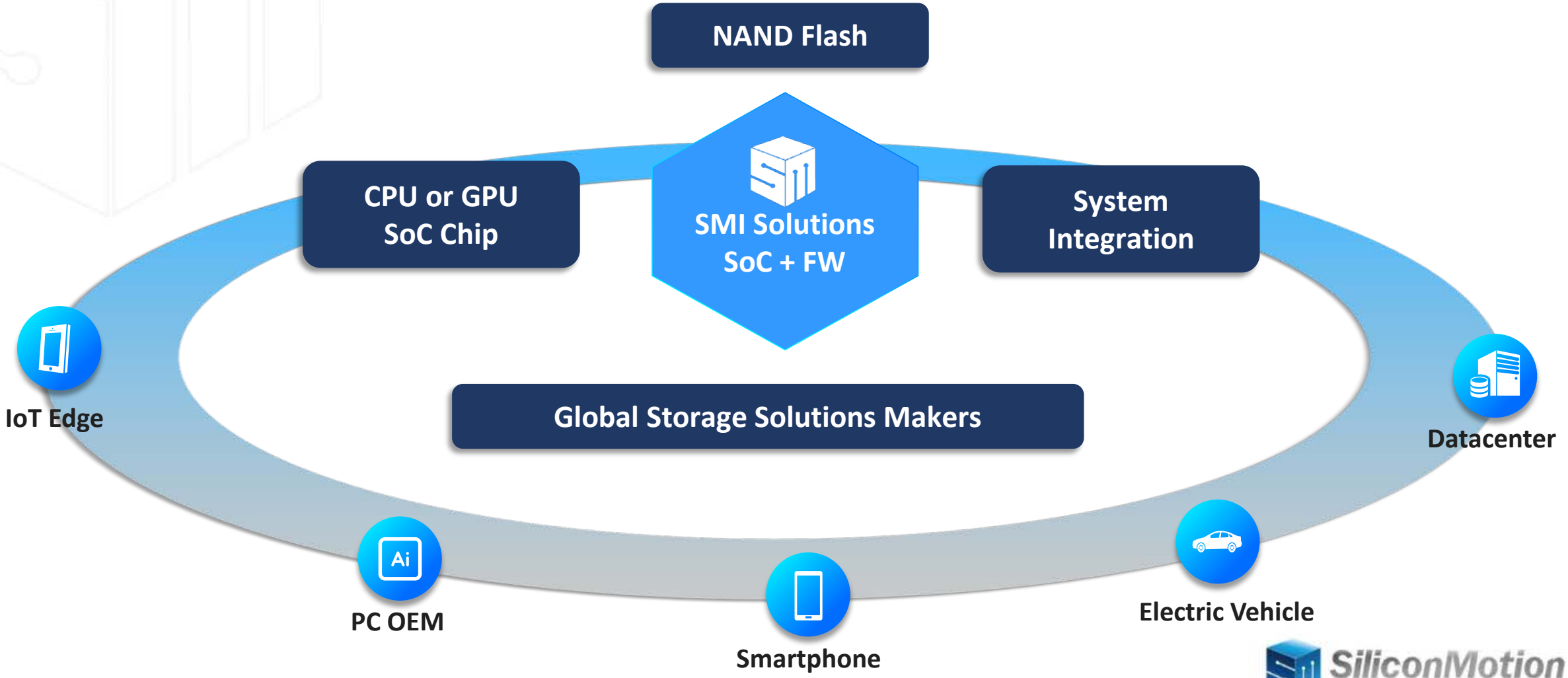
Actively engaging with all partners in every application ecosystem to drive innovative customer products

Engaging

Providing turnkey or SDK solutions with flexible business model to support all module makers and OEM customers to achieve qualification & validation with all applications

SiliconMotion

Silicon Motion Participates in The Entire Storage Ecosystem

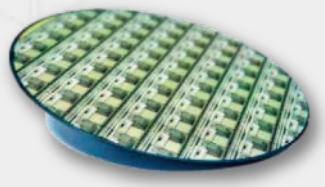


SiliconMotion

Breaking New Ground of NAND Controllers

Silicon Motion Develops Full Turnkey Controllers with Firmware Solutions

NAND Controller Expert



- Over 22 years NAND controller & firmware development experience with all NAND makers
- Deep knowledge in NAND

High Speed and Low Power

- Leading-edge process technology nodes
- High speed SerDes IPs
- Unique ASIC and FW design methodology

Low Latency and QoS

- State-of-the-art firmware algorithms & architecture
- Patented ECC technology

Flexible and Fully Support

- Various advanced packaging solutions to support different storage products and PCB design

SiliconMotion

Flexible Solutions Enabling Customer Application Success

Silicon Motion provides a flexible development model to help customers design products for diverse applications

Applications

SMI supports Applications Systems Integration : Testing & Validation

Client/Enterprise/Industrial SSD | eMMC | UFS | SD | UFD

SMI NAND Flash Controllers & SSD Solutions

Flexible development model

NAND Flash Controllers

SSD Solutions

Turnkey Solution	Customers' FW develop	Customization	FerriSSD
MP Tool	SDK Solution	PCB Board	
SMI FW	Controller IC + SDK Source Code	Customized FW	
Controller IC		Enterprise Layered FW Stack	
		Controller IC	

SiliconMotion

Organization of Business Units

To deliver the best-in-class NAND storage solutions, enablement and support

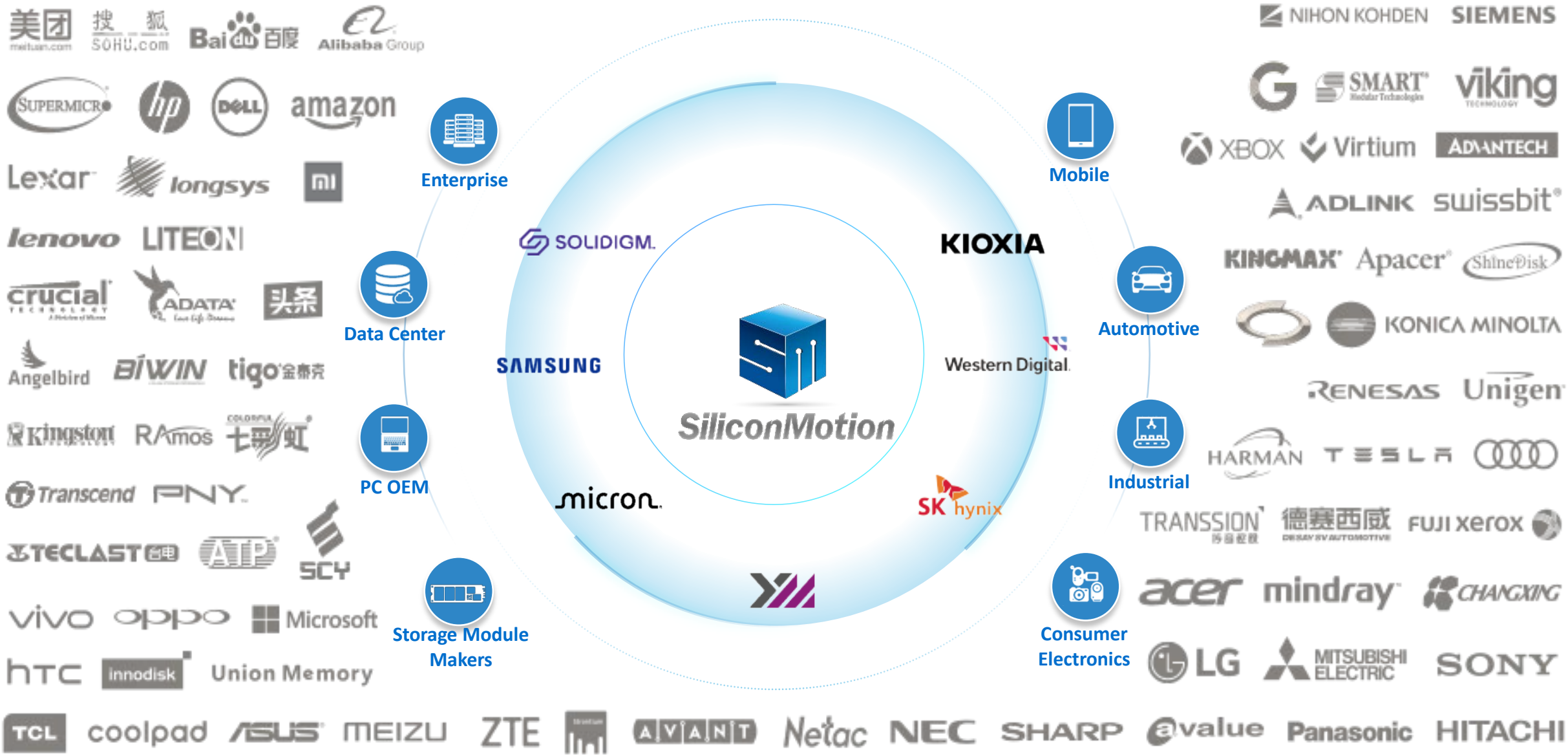
SiliconMotion

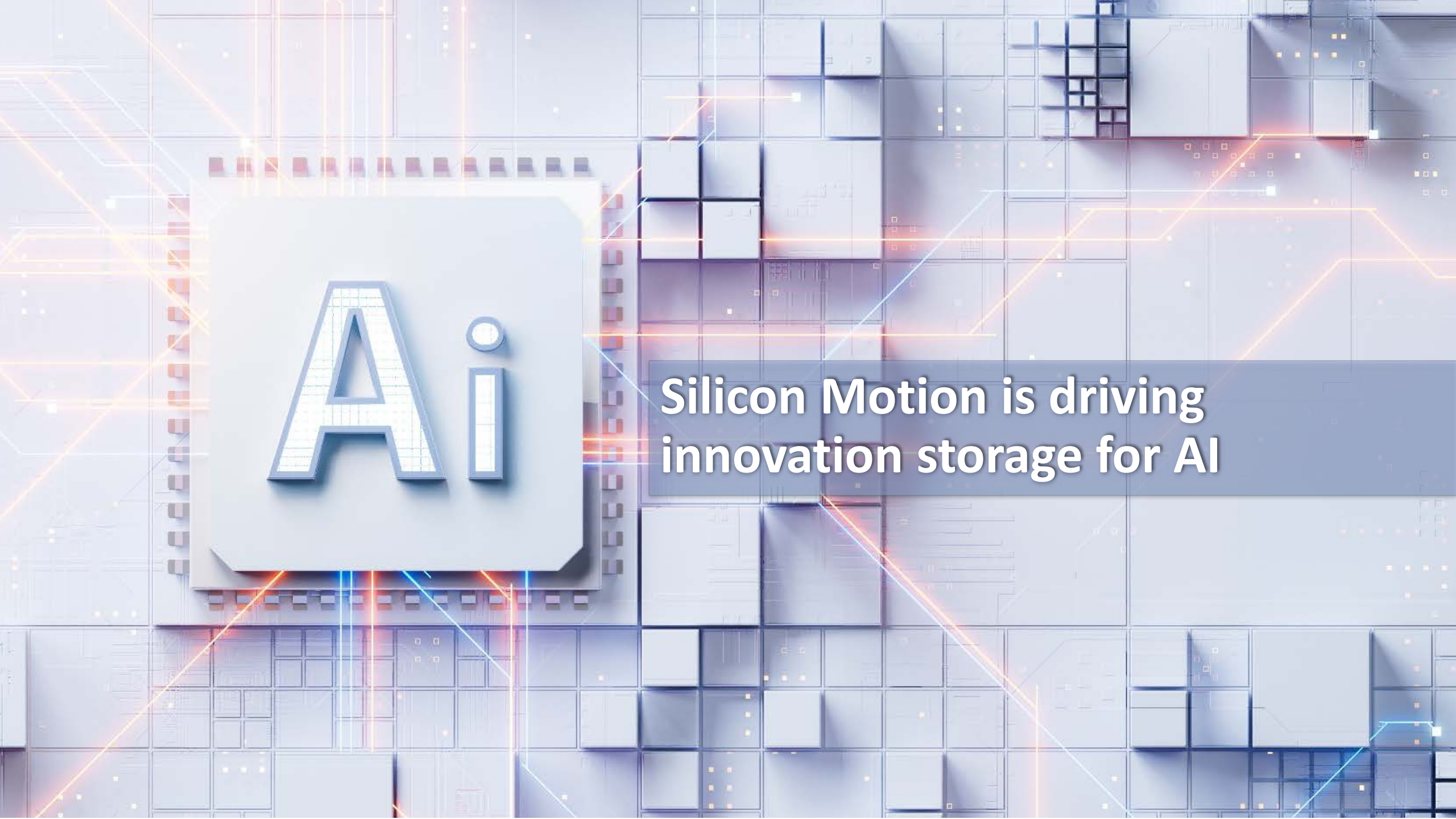
Broad Portfolio Product Lines

Silicon Motion Provides Comprehensive Products from Client to Enterprise Data Center

	Computer	Mobile	Industrial	Automotive	Enterprise
SSD Controllers	• PCIe/NVMe • SATA • USB 3.2 (pSSD)	• USB 3.2	• PCIe/NVMe • SATA	• PCIe/NVMe	• PCIe/NVMe • SATA
Mobile Storage Controllers		• eMMC • UFS	• eMMC • UFS	• eMMC • UFS	
Ferri Embedded Storage			Single Chip Storage • FerriSSD • Ferri-eMMC • Ferri-UFS	Single Chip Storage • FerriSSD • Ferri-eMMC • Ferri-UFS	Single Chip Storage • FerriSSD
Expandable Storage Controller	• UFD • SD	• UFD • SD	• UFD • SD	• UFD • SD	
Display Solutions	• SM768/SM770		• SM768/SM770		

Our Worldwide Top Tier Customers & Market Play





Silicon Motion is driving innovation storage for AI

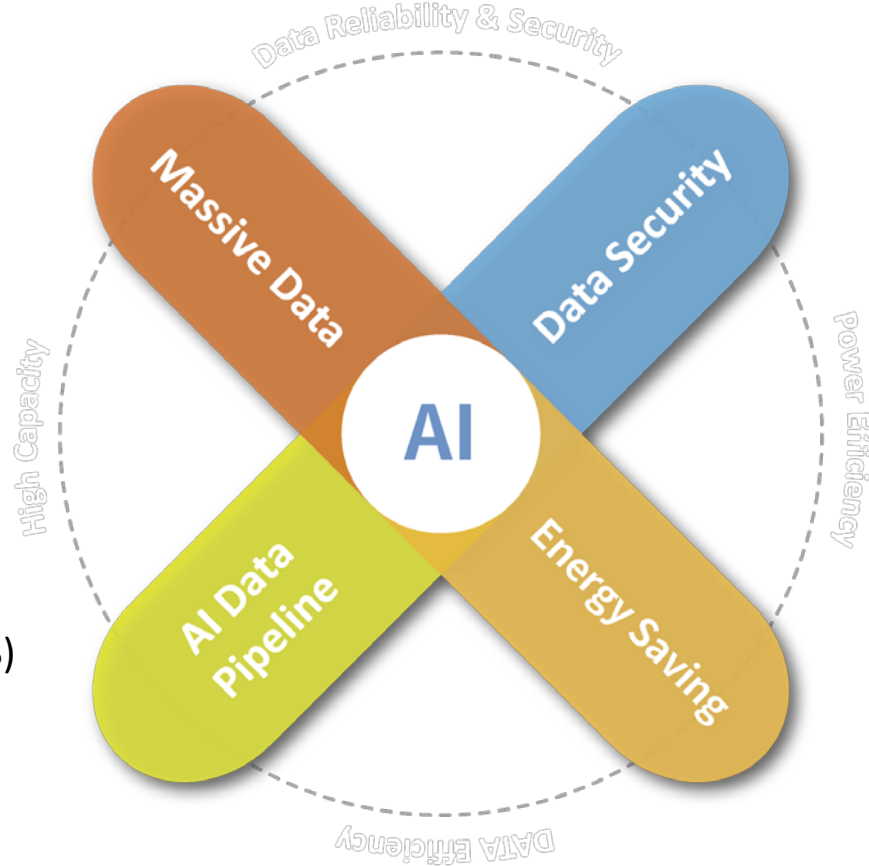
Cutting-Edge Technology Empowering Storage with AI

High Capacity

- Silicon Motion's controller enables all QLC NAND
- 8th Gen. NANDXtend with On Disk Training Algorithm

Data Efficiency

- Optimizing direct data placement technologies: Zoned Namespaces (ZNS) and Flexible Data Placement (FDP)



Data Security

- Privacy Protection: Multi-Factor Authentication (MFA)
- Preventive Measures: Tamper-resistant hardware, Advanced Encryption Standard.
- IntelligentGuard™ Data Encryption with Authenticated Firmware Protection
- End to End Data Protection

Power Efficiency

- Re-arranging power islands in ASIC
- Re-architecture LDPC engines and Data Pipes
- Advanced EUV process
- On Disk Training algorithm
- 8th Gen. NANDXtend® ECC Technology

SiliconMotion

The Best Power/Data Efficient Client PCIe 5.0 SSD Controller

3x
Data Efficiency

<7W
SSD Power

SM2508

- PCIe Gen5x4, NVMe2.0
- 8 NAND channels, up to 3600MT/s
- TSMC 6nm process
- 4x arm™ Cortex-R8+ 1x Cortex™-M0
- Supports up to 8TB
- Sequential read: up to 14.5GB/s
- Sequential write: up to 13.6GB/s
- Up to 2.5M IOPS random performance

SiliconMotion

Maximizing Storage Efficiency in AI Smartphones

SiliconMotion
UFS 4.0

SM2756

1.5x

Lower Power better

2x

Extended flash life cycle

- JEDEC UFS 4.0 Compliant
- Support HS-Gear-5 x 2-lane
- MPHY v5.0
- UniPro standard v 2.0
- Supports up to 2TB

- 2 Channel, support 1.8V/1.2V I/O,
- Toggle DDR 5.1, ONFI 5.1
- Sequential read : 4300MB/s
- Sequential write: 4000MB/s

SiliconMotion

The World's First Automotive PCIe Gen4 SSD Controller

>30% **SM2264XT-AT**

Host Power Reduction

up to 8

Virtual Function

- PCIe Gen4x4 NVMe1.4 adding on NVMe2.0 key features
- Support up to 8 Virtual Function
- Smart bandwidth and latency shaping for SR-IOV

- Enhanced security support
- TSMC 12nm process
- 4x ARM Cortex-R8

SiliconMotion

Maximizing AI Pipeline Storage Performance

MonTitan

SM8366

Up to 25%

Random Read Performance improvement to competitive controllers

Faster LLM Training and GNN completion times

Enterprise Features

- PCIe Gen5, Dual Ported.
- NVMe 2.0
- OCP NVMe SSD Spec.
- SR-IOV / MPF
- Namespaces
- SMART Monitoring
- E2E Data Protection
- Secure Boot
- AES-256
- TCG Opal
- Attestation

High Performance

- Sequential : 14+ GB/s
- Random: 3.5M IOPS (4KB)

SiliconMotion

SiliconMotion

Thank You!