GSI TECHNOLOGY

Creator of the Associative Processing Unit for AI and a leading provider of high-performance memory solutions

Doug Schirle, CFO
Didier Lasserre, VP of Sales and Investor Relations

Winter 2024

SAFE HARBOR

The statements contained in this presentation that are not purely historical are forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, including statements regarding GSI Technology's expectations, beliefs, intentions, or strategies regarding the future. All forward-looking statements included in this press release are based upon information available to GSI Technology as of the date hereof, and GSI Technology assumes no obligation to update any such forward-looking statements. Forward-looking statements involve a variety of risks and uncertainties, which could cause actual results to differ materially from those projected. These risks include those associated with the normal quarterly and fiscal year-end closing process, as well as the Company's ongoing strategic review. Examples of risks that could affect our current expectations regarding future revenues and gross margins include those associated with fluctuations in GSI Technology's operating results; GSI Technology's historical dependence on sales to a limited number of customers and fluctuations in the mix of customers and products in any period; global public health crises that reduce economic activity; the rapidly evolving markets for GSI Technology's products and uncertainty regarding the development of these markets; the need to develop and introduce new products to offset the historical decline in the average unit selling price of GSI Technology's products; intensive competition; delays or unanticipated costs that may be encountered in the development of new products based on our in-place associative computing technology and the establishment of new markets and customer and partner relationships for the sale of such products; and delays or unexpected challenges related to the establishment of customer relationships and orders for GSI Technology's radiation-hardened and tolerant semiconductor products. The strategic review is subject to risks related to the process by which GSI Technology evaluates its strategic alternatives, the terms, timing, structure, benefits and costs of any strategic transaction and whether one will be consummated at all and the impact of any strategic transaction on GSI Technology. Many of these risks are currently amplified by and will continue to be amplified by, or in the future may be amplified by, economic and geopolitical conditions, such as rising interest rates, worldwide inflationary pressures, military conflicts, and declines in the global economic environment. Further information regarding these and other risks relating to GSI Technology's business is contained in the Company's filings with the Securities and Exchange Commission.

GSI TECHNOLOGY KEY HIGHLIGHTS

LEGACY OF INNOVATION AND LEADERSHIP IN MEMORY SOLUTIONS

- Established in 1995 in Silicon Valley; IPO in 2007
- Over 25 years of collaboration with TSMC
- Pioneers in high-density, high-performance SRAM memory
- Legacy SRAM business funding ongoing APU R&D efforts
- Extensive patent portfolio in advanced memory, compute-in-memory hardware, and algorithms
- Invested $150 million into APU development

$21.8M
FY 2024 Annual Revenue

122
Employees Worldwide

136
Patents Granted

$18.4M (NO DEBT)
Cash and cash equivalents[1]

$94M
Market Cap[2]

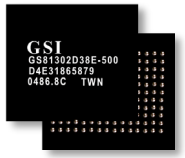
27%
Insider Ownership

1. Includes cash and cash equivalents, short-term investments, and long-term investments as of September 30, 2024.
2. Based on the closing share price of $3.36 on October 28, 2024, and common stock outstanding of 25,485,510.

MARKET LEADER IN HIGH-PERFORMANCE SRAM

UNMATCHED SPEED, DENSITY, AND POWER EFFICIENCY

GSI's SRAM memory devices are recognized for very high transaction rates, high density, low latency, high bandwidth, fast clock access times, and low power consumption



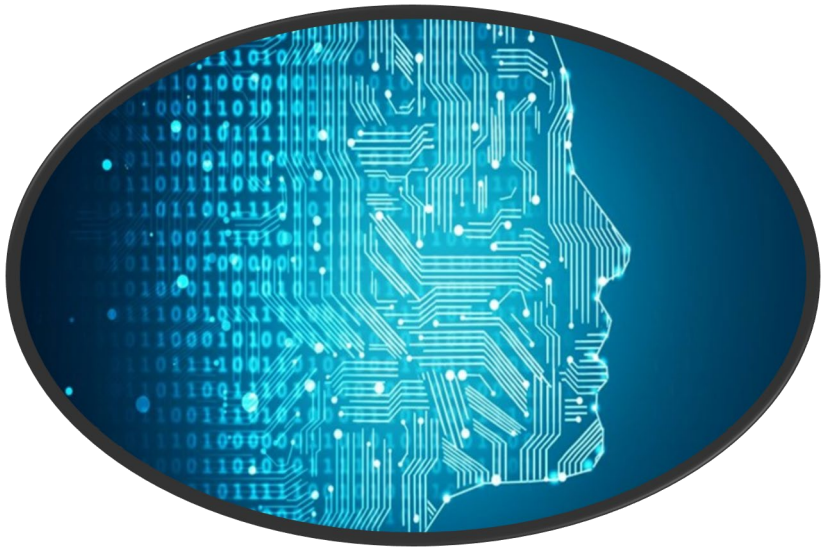
- Industry leader with largest portfolio of high-performance memory products
- SigmaQuad™ and SigmaDDR™ core business growth drivers
- SigmaQuad™ SRAMs recognized for industry-leading density and speeds
- 3rd and 4th Generation SRAM fastest off-the-shelf SRAM on market

EXPANDING CORE MEMORY EXPERTISE INTO HIGH-GROWTH MARKETS

LEVERAGING MEMORY SOLUTIONS FOR NEW MARKETS—ADVANCED AEROSPACE, DEFENSE & AI APPLICATIONS WITH HIGHER ASPS AND GROSS MARGIN

Aerospace, Satellite & Defense

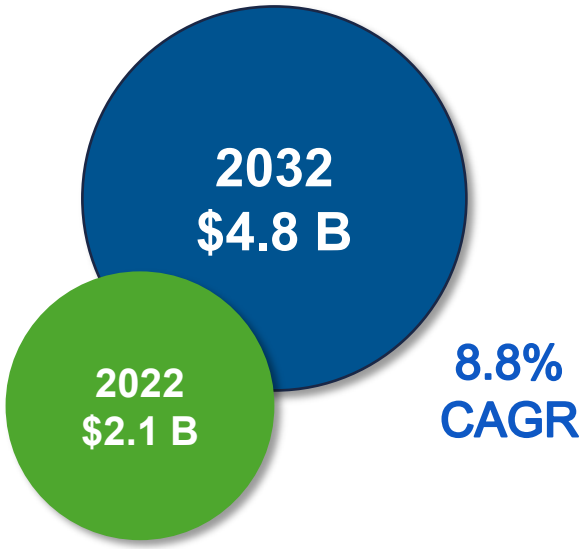
Search, HPC, & AI



HIGH-GROWTH MARKET OPPORTUNITIES

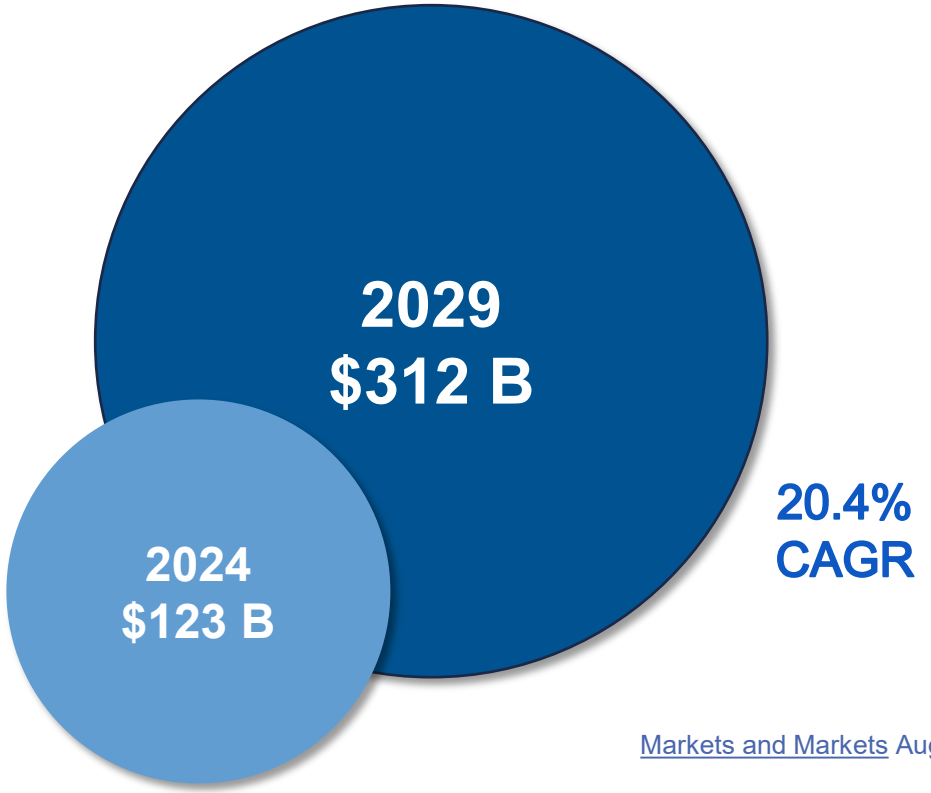
EXPANDING TAMS FOR SRAM AND APU

Space Semiconductor TAM



Allied Market Research February 2024

AI Semiconductor TAM



Markets and Markets August 2024

SRAM SOLUTIONS FOR AEROSPACE & DEFENSE

RADIATION-HARDENED/TOLERANT CHIPS

- Targeting space, satellites, and aerospace and defense
- Expands addressable market
  - Ability to add new target customers / prime contractors
  - Potential to access revenue from new divisions at existing customers
- 90%+ gross margin, up to $30K ASP

Addressing a >$100 million annual market opportunity—including radiation-tolerant applications—with long design cycles but long, recurring revenue lifecycle of 10+years

ASSOCIATIVE PROCESSING UNIT (APU)

REVOLUTIONIZING DATA PROCESSING WITH POWER-EFFICIENT, HIGH-DENSITY APU SOLUTIONS

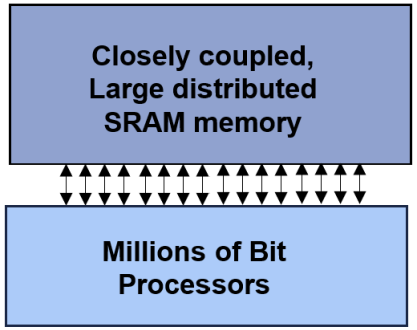
- **True CIM Architecture**: Massively parallel data processing, computation, and on-chip storage
- **High-Density, Power-Efficient SRAM**: Millions of memory bits optimized for processing
- **Gemini-I®**: Enhances efficiency in Fast Vector Search and high-performance computing
- **Gemini-II®**: Lower power ideal for AI at the edge and data center applications
- **Advanced Applications**: AI models and computer vision applications in satellites, drones and data centers
- **Roadmap:** for LLM applications – Plato

AI/COMPUTE—WHAT'S GSI DOING DIFFERENTLY?

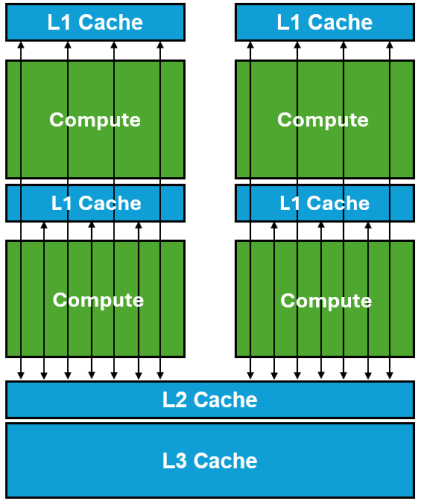
Compute-in-memory (CIM) occurs directly in memory APU has logic built into memory line circuits, supported by large distributed working memory

- **Flexibility - Single-bit up to any width** → allows development of dynamic precision → Futureproofing
  - Allows customization to any precision for maximum efficiency
- **Excellent power efficiency - Close coupling of bit processors** (BP) and memory enables immediate function processing
- **Eliminates memory bottleneck for stored models**
  - Achieve 100% core utilization during continuous operation
- **Scalable and Modular**

APU Architecture



GPU/CPU Architecture



APU SOLUTIONS ADDRESS AI MARKET NEEDS

AI Market Needs	APU Solutions
Higher power consumption in data centers	CIM architecture reduces power consumption
Increasing demand for GPUs and CPUs	Scalable architecture
Edge performance for data-intensive functions	Gemini-II APU brings data center performance to the edge
Achieving LLM density growth with GPUs	Single-bit structure better supports larger models

GEMINI-I® PLATFORM : PIONEERING APU TECHNOLOGY

Markets & Applications

- **SAR applications for planes, military drones, mobile and traditional data centers**
  - Processing images in satellites and planes, not just data collection (in alpha)
- **GXL index builds applications 4x faster than tuned GPU**
  - Updates e-commerce searches with faster index (database) with refreshes ~100x faster than CPU (in alpha)
- **Fast Vector Search** (FVS)
  - Facial and body recognition capabilities onsite to identify repeat offenders API (available)

Framework

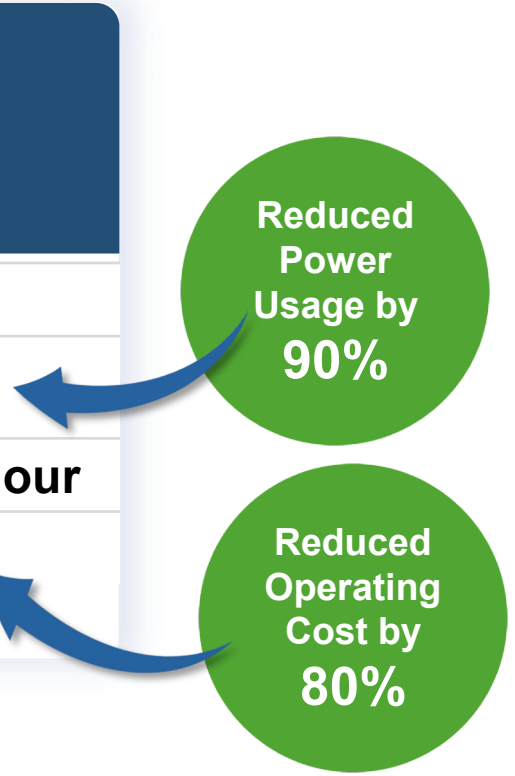
- C library, Python application editing, low level library

AWS BENCHMARK 1 BILLION DATASET

INFERENCE EFFICIENCY*

APU Reduces Infrastructure Cost & Carbon Footprint

	r5.12xlarge (Intel Xeon Platinum)	APU Gemini-I
Nodes	12	1
Power consumption per node	~200 W	~40 W
Total power consumption	**2400 W/hour**	**240 W (incl. host) / hour**
Operating cost	**$54K / Month**	**$10.8K / Month**



*AWS engineers published a benchmark for 1B dataset (Sept. 2022)

GEMINI-II® PLATFORM CAPABILITIES & MARKETS

SECOND GENERATION APU & GEMINI-II-L

Markets & Applications

- **Edge search** appliances with automatic, fast database updating
- **Imaging and real-time decisions** in small satellites and UAVs
  - Gemini-II-L optimized for **on-board satellite and small drone for SAR** and **computer vision** applications
- **ADAS support, data fusion at the edge** for remote AI infrastructure
  - **High capacity at low power**, ideal for HPC and search applications in data centers

Framework (mass adoption approach)

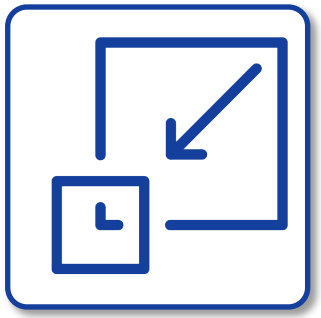
- Pytorch, Tensorflow, C, MLIR-based compiler

INTRODUCING PLATO

A VERSATILE ARCHITECTURE

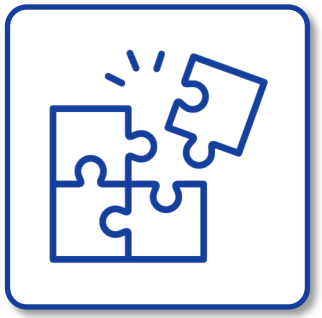
Broad LLM Support

Compatible with many open-source large language models, including state-of-the-art architectures



Efficient Quantization

Can effectively quantize LLMs to low-precision formats without compromising accuracy

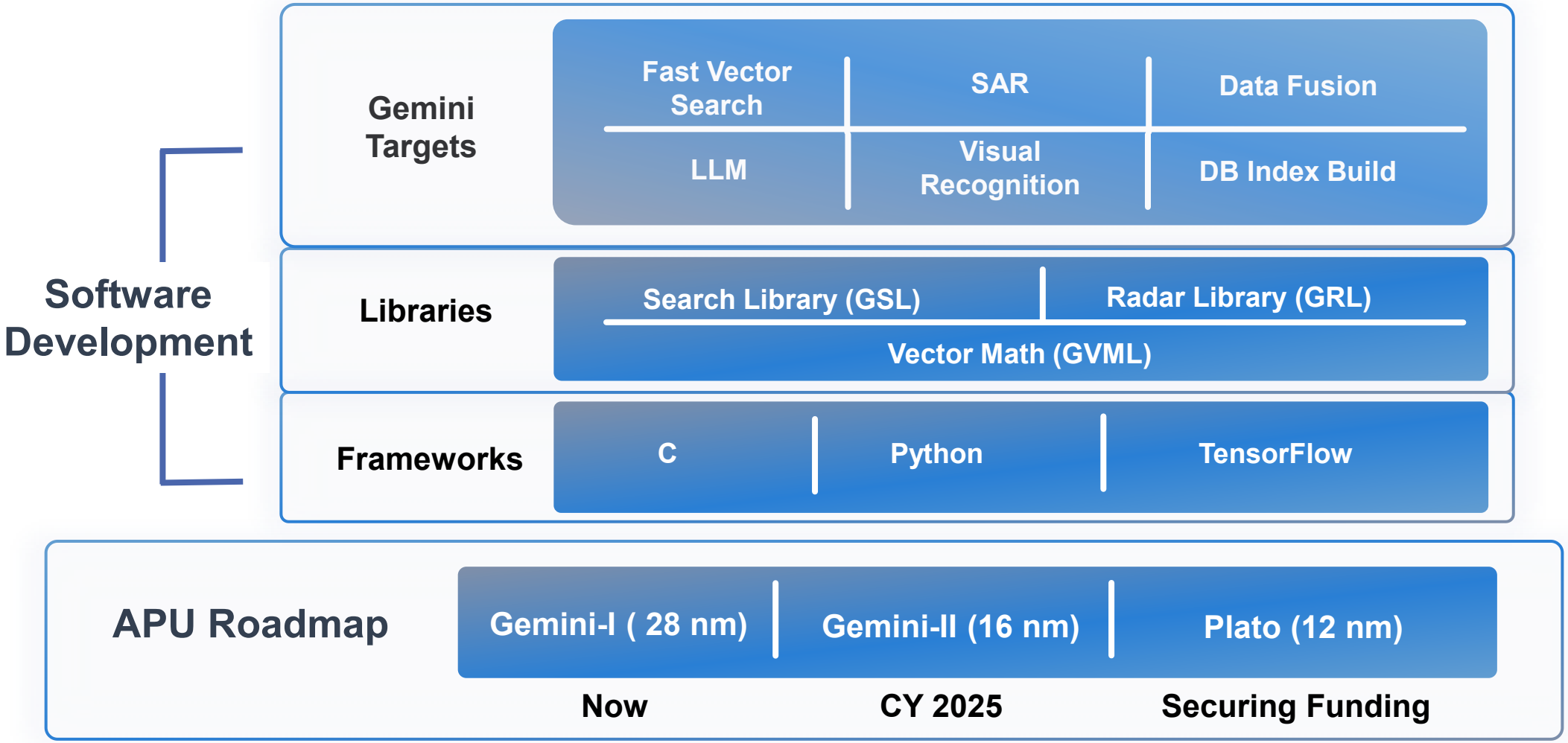


Seamless CNN Integration

Works seamlessly with a broad spectrum of convolutional neural network (CNN) architectures

Plato's versatile architecture empowers developers to leverage a wide range of AI models, from state-of-the-art LLMs to custom CNN architectures

APU PLATFORM & ROADMAP



GEMINI'S ROLE IN GSI'S GROWTH

- Actively engaging target SAR customers with the Gemini-I solution
- Showcasing Gemini-II edge capabilities to the DoD via SBIRs
- Marketing cost-effective Database Index build solution for Search with superior performance compared to GPU cloud providers
- Gemini-II-L, tailored solution for mobile edge vehicles and satellites
- Pursuing strategic partnerships for APU technology to generate service or licensing revenue and support ongoing APU development

DoD SBIRS & GOVERNMENT FUNDS

GENERATING REVENUE & CREATING APU AWARENESS WITHIN DoD

- Phase II SBIR* contract with Space Development Agency valued at $1.25 million, over 50% complete
- Phase II SBIR contract with Air Force worth $1.1 million, now over 25% complete
- Next submission for Phase II SAR Space-level on-board contract worth $1.25 million
- Secured a Phase I SBIR with US Army, with value of up to $250K
- Additional SBIR proposals in queue for a total pipeline value of $6 million
- Pursuing new government funding sources for Gemini-II and Plato advanced AI development

*SBIR – Small Business Innovation Research is a United States government program to stimulate technological innovation by funding small businesses to engage in federal R&D with the potential for commercialization. The DoD is one of the largest participants in the SBIR program.

FINANCIAL OVERVIEW

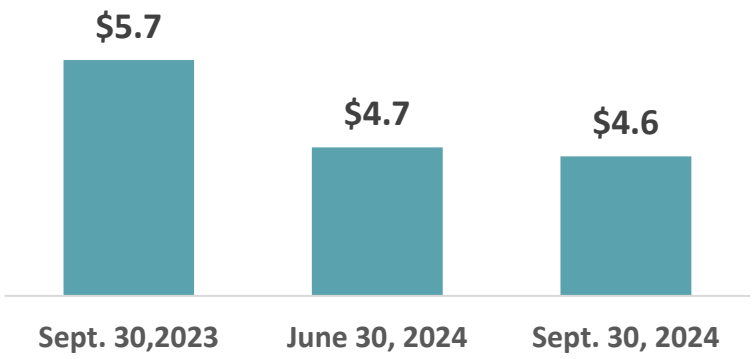
STABILIZING/IMPROVING SRAM REVENUE & MANAGING CASH

SRAM revenue expected to improve as existing customers resume orders, with a significant increase anticipated from one customer over the next 12 months.

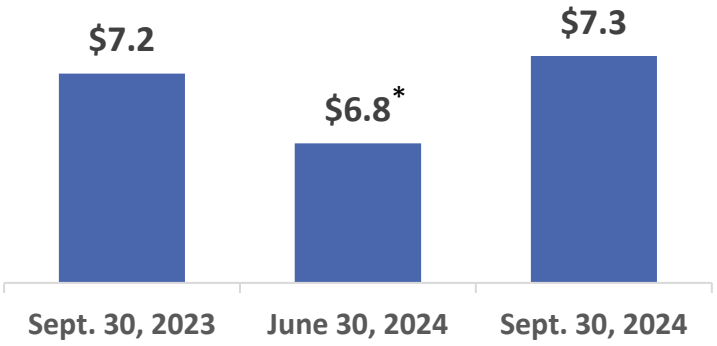
Strategic cost-cutting measures in Q2 FY2025 expected to generate annualized savings of about $3.5 million

Improved balance sheet with $11.3 million from the June 2024 sale and lease-back of Sunnyvale, CA HQ

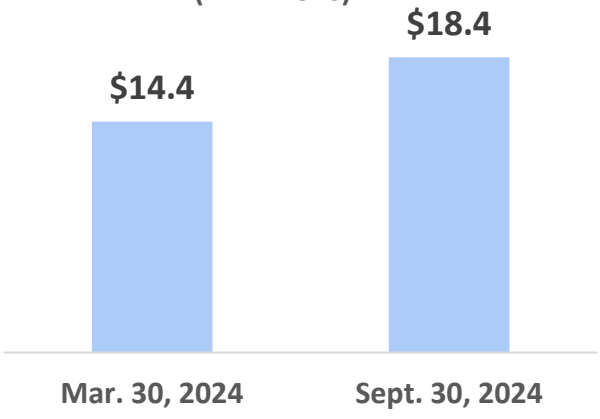
Quarterly Net Revenues
(in millions)



Operating Expenses
(in millions)



Cash & Cash Equivalents
(in millions)



* Excludes one-time gain of $5.7 million on the sale and leaseback transaction related to the sale of the Company's headquarters

EXPLORING STRATEGIC OPTIONS

ROADMAP TO IMPROVING SHAREHOLDER VALUE

Strategic Review Initiated to maximize stockholder value

Board's Perspective APU's significant potential or the $150 million investment in the technology not recognized by market

Exploring Alternatives with a focus on various strategic alternatives, including:

- **Asset Divestiture:** Possible sale or spin-off of assets to unlock value
- **Technology Licensing:** Exploring opportunities to license the company's technology
- **Equity Financing:** Source additional funding through a public market equity offering
- **Other Strategic Options:** may include mergers, acquisitions, or the sale of the company

INVESTMENT HIGHLIGHTS

KEY TAKEAWAYS

GSI Technology's priorities for CY2025

- Improved outlook for SRAM business over next 12 months reduces cash burn rate
- Ongoing development of Gemini-II, including software, for customer benchmarking in Q1 CY2025
- Exploring strategic options to maximize shareholder value

GSI TECHNOLOGY

GSI TECHNOLOGY

High Performance Components
for Leading-Edge Technology

GSITechnology.com / *IR Contact: GSIT@HaydenIR.com*

APPENDIX

GEMINI-II VERSUS GEMINI-I

Parameter	Gemini-II		Gemini-I
	Spec	vs. Gemini-I	Spec
Process Technology	16 nm		28 nm
Operating Frequency	1.4 GHz	2.33X	600 MHz
L1 Size (Memory)	768Mb	8X	96Mb
L1 <-> BP Data Bandwidth	367Tb/s	1.16X	315Tb/s
Die Size	26 mm x 21.5 mm	2X	20 mm x 14 mm
Package Size	37.5 mm x 37.5 mm	2.25X	25 mm x 25 mm

EXPERIENCED MANAGEMENT TEAM

Name	Title	Years of Experience	Years with GSI	Prior Companies
Lee-Lean Shu	Chairman and CEO	46	29	Sony, AMD
Doug Schirle	Chief Financial Officer	46	25	Cypress, Pericom
Didier Lasserre	VP Sales and IR	37	27	Cypress, Solectron
Avidan Akerib	VP of Associative Computing	44	9	MikaMonu, NeoMagic
Patrick Chaung	SR VP of Memory Design	50	15	Sony, AMD
Bor-Tay Wu	VP of Taiwan Operations	44	28	Atalent, AMD

INCOME STATEMENT

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)
(Unaudited)

	Three Months Ended		
	June 30, 2024	March 31, 2024	June 30, 2023
Net revenues	$4,671	$5,152	$5,587
Cost of goods sold	2,510	2,494	2,518
Gross profit	2,161	2,658	3,069
Gross Margin	46%	52%	55%
Operating expenses:			
Research & development	4,214	4,818	5,204
Selling, general and administrative	2,604	2,354	3,004
Total operating expenses	6,818	7,172	8,208
Operating loss	(4,657)	(4,514)	(5,139)
Interest and other income, net	5,792	108	80
Loss before income taxes	1,135	(4,406)	(5,059)
Provision (benefit) for income taxes	-	(85)	51
Net loss	$1,135	($4,321)	($5,110)
Net loss per share, basic	$0.04	($0.17)	($0.21)
Net loss per share, diluted	$0.04	($0.17)	($0.21)
Weighted-average shares used in computing per share amounts:			
Basic	25,467	25,297	24,866
Diluted	25,467	25,297	24,866

SUMMARY BALANCE SHEET

CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands)
(Unaudited)

	June 30, 2024	March 31, 2024
Cash and cash equivalents	$21,765	$14,429
Accounts receivable	2,718	3,118
Inventory	4,467	4,977
Other current assets	2,144	1,954
Assets held for sale	0	5,629
Net property and equipment	1,076	1,148
Other assets	20,157	11,209
Total assets	$52,327	$42,464
Current liabilities	$5,364	$5,365
Long-term liabilities	8,904	1,129
Stockholders' equity	38,059	35,970
Total liabilities and stockholders' equity	$52,327	$42,464