

GSI TECHNOLOGY

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

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*Didier Lasserre, VP of Sales and
Investor Relations*

August 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 BACKGROUND

LEVERAGING DECADES OF MEMORY CHIP EXPERTISE

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

1. Based on the closing share price of \$2.65 on June 28, 2024, and common stock outstanding of 25,446,380.

2. Includes cash and cash equivalents, short-term investments, and long-term investments as of June 30, 2024.

\$21.8M

FY 2024 Annual Revenue

147

Employees Worldwide

132

Patents Granted

\$21.8M (NO DEBT)

Cash and cash equivalents²

\$50.0M

Market Cap¹

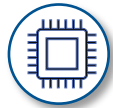
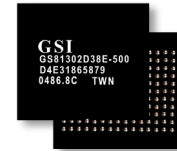
34%

Insider Ownership

SRAM LEADER

FASTEST, HIGHEST DENSITY PRODUCTS IN MARKET

GSI's SRAM memory devices 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

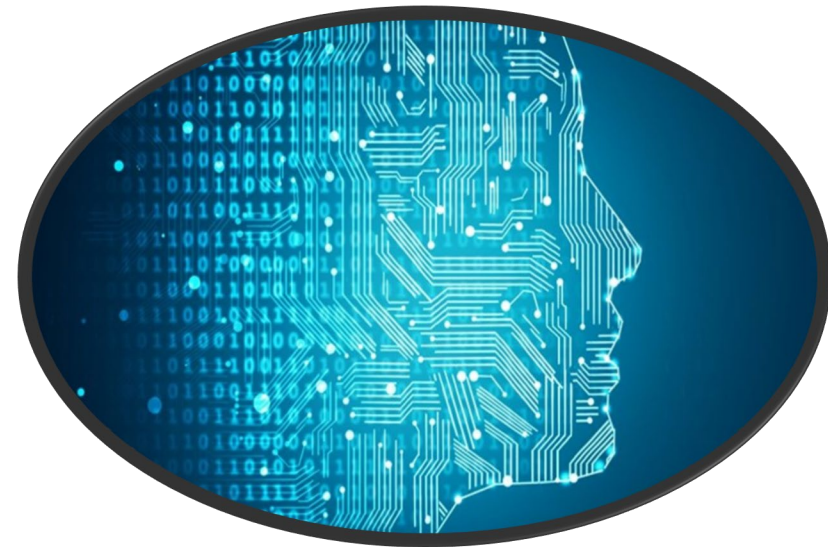
BUILDING ON OUR CORE MEMORY EXPERTISE

TAKING OUR DEEP-ROOTED MEMORY PROFICIENCY INTO NEW MARKETS

Aerospace & Defense Applications



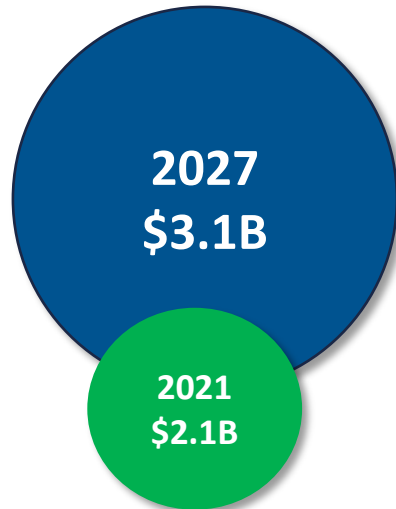
Search, HPC, & AI Applications



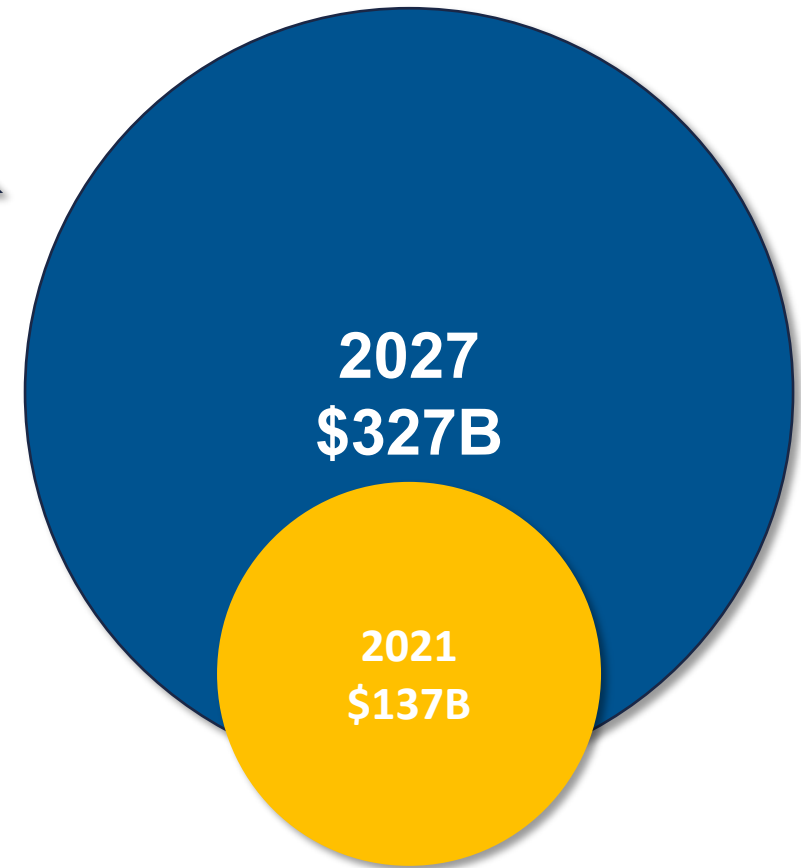
HIGHER ASP, HIGHER MARGIN PRODUCTS WITH HIGH GROWTH TAMs

NEW MARKETS HAVE LARGE, FAST GROWTH TAM

Space Semiconductor TAM



AI Semiconductor TAM



SRAM AEROSPACE & DEFENSE APPLICATIONS

RADIATION-HARDENED & TOLERANT PRODUCTS

- 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
- Long design cycles but long recurring revenue lifecycle of 10+years



ASSOCIATIVE PROCESSING UNIT (APU)

TRUE COMPUTE-IN-MEMORY (CIM) ARCHITECTURE

- APU's groundbreaking true CIM architecture enables massively parallel data processing, computation, and search in the APU → storage and processing on-chip
- Features millions of parallel compute memory structures closely coupled with high-density SRAM optimized for power-efficient processing
- Gemini-I®—Ideal for improving efficiency in Fast Vector Search and High-Performance Compute
- Gemini-II®—High-density memory, efficient power consumption, and single-bit capability
 - Targets AI models at the edge, computer vision processing in satellites and vehicles, and delivers more memory density in data center applications

APU ADDRESSES KEY AI MARKET TRENDS

Market Trends

AI causing dramatic and unsustainable power consumption in data centers

More GPUs and CPUs needed to meet demand growth

ADAS and other data-intensive functions need higher performance at the edge

LLM density growth is not achievable with GPU frameworks

Our Solutions

APU's CIM architecture reduces workload power consumption up to 90%

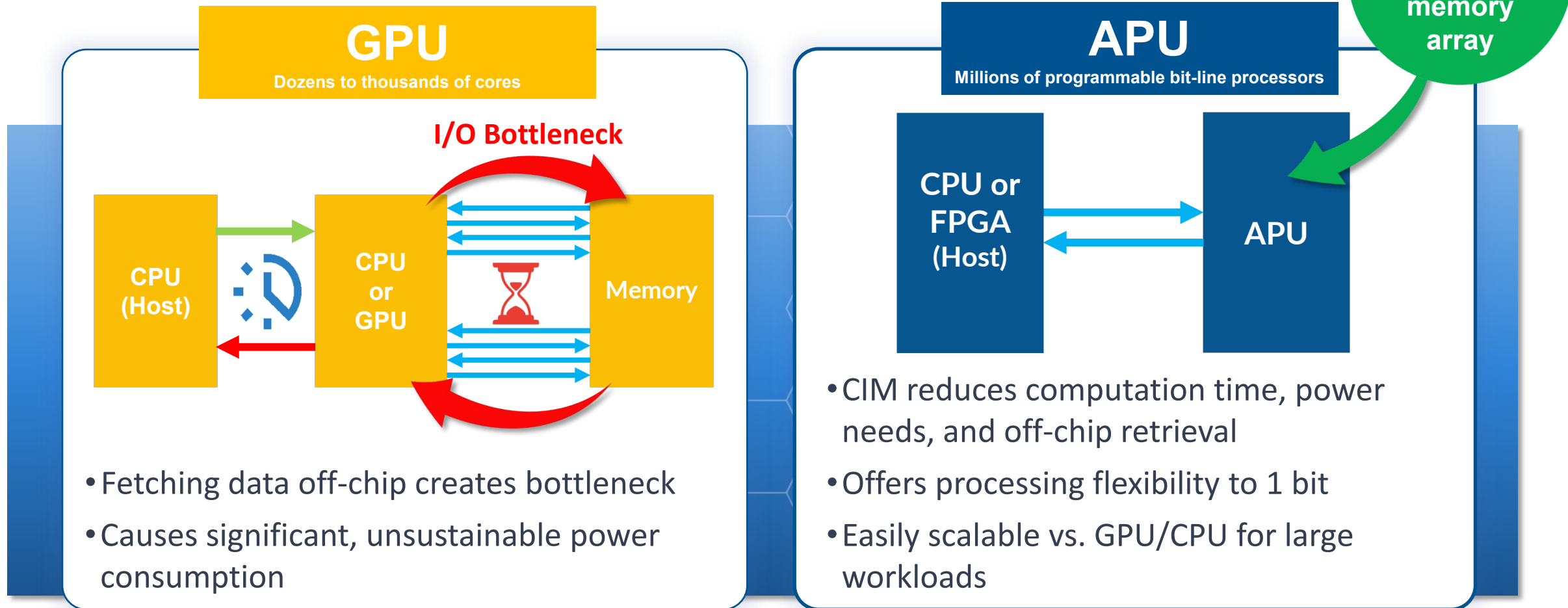
APU's scalable architecture requires less hardware to meet increased demand

Gemini-II APU brings data center performance to the edge

Gemini offers single-bit capability to support lower resolution, resulting in higher density

APU REMOVES THE I/O BOTTLENECK

DATA MEMORY WITH COMPUTE-IN-PLACE → TRUE CIM



GEMINI-I[®] PLATFORM

OUR FIRST VERSION OF THE APU

Markets:

- SAR applications for planes, military drones, mobile and traditional data centers (in alpha)
- GXL index build application 4x faster than tuned GPU, ~100x faster than CPU (in alpha)
- Fast Vector Search API (available)

Applicability:

- Update ecommerce searches with faster index (database) refreshes
- Processing images in satellites and planes ⇒ not just data collection
- Facial and body recognition capabilities onsite ⇒ identify repeat offenders



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

Power Usage
Reduced by
90%

Operating
Cost
Reduced by
80%

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

GEMINI-II[®] PLATFORM CAPABILITIES & MARKETS

SECOND GENERATION OF THE APU

Markets:

- Edge search appliances with automatic, fast database updating
- On-board satellite and small drone for SAR and computer vision applications

Applicability:

- High capacity at low power, ideal for HPC and search applications in data centers
- Imaging and real-time decisions in small satellites and UAVs
- ADAS support, data fusion at the edge for remote AI infrastructure

Framework: (mass adoption approach)

- Pytorch, Tensorflow, C, MLIR-based compiler, “bare metal library” (on hardware with no OS)

DOD SBIRS & GOVERNMENT FUNDS

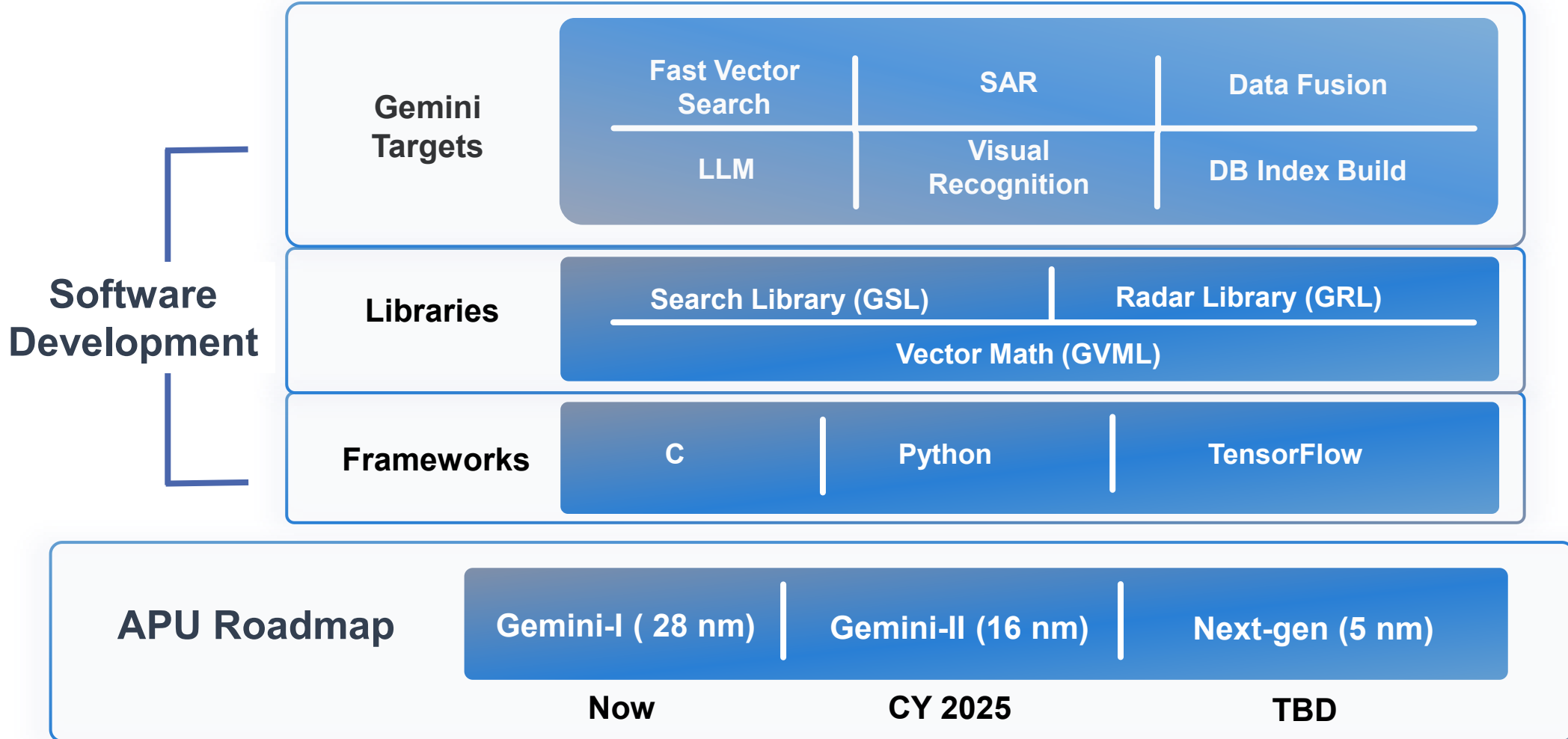
CREATING APU AWARENESS WITH DOD DEPARTMENTS

WHILE GENERATING NEW REVENUE SOURCES

- Phase II SBIR* contract with Air Force worth \$1.1 million, now over 25% complete.
- Phase II SBIR contract with Space Development Agency valued at \$1.25 million, over 50% complete
- Next submission for Phase II SAR Space-level on-board contract worth \$1.25 million
- Secured a Phase I SBIR with one of DoD's largest divisions, new to APU, 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's 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.

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
- Securing funding for the Gemini-II Mini, tailored solution for mobile edge vehicles and satellites
- Marketing cost-effective Database Index build solution for Search with superior performance compared to GPU cloud providers
- Pursuing strategic partnerships for APU technology to generate service or licensing revenue and support ongoing APU development

FINANCIAL OVERVIEW

STABILIZING REVENUE & MANAGING CASH



Declining revenue in legacy SRAM business likely to stabilize at current levels



Completed tape out of Gemini-II in Fall 2023; sampling in Q1 CY 2025 – expect to reduce R&D modestly afterward

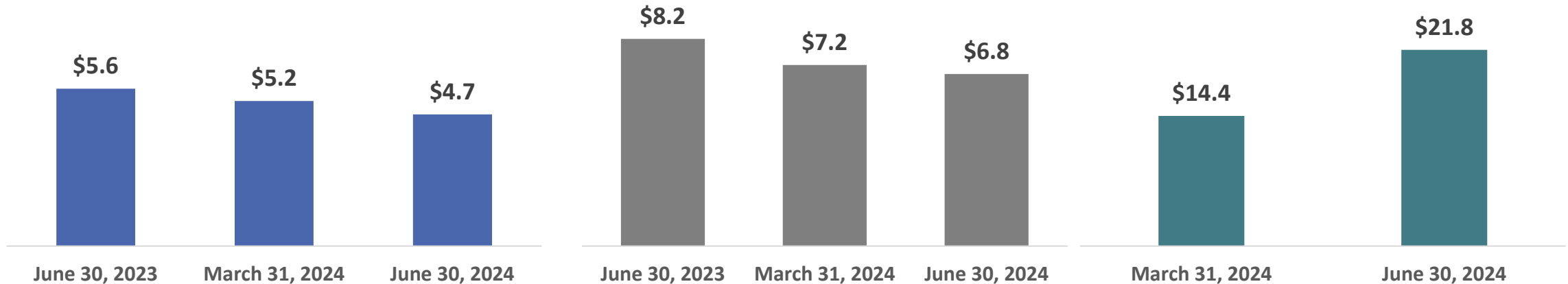


Improved balance sheet with \$12 million from recent sale and lease-back of Sunnyvale, CA headquarters

Quarterly Net Revenues
(in millions)

Operating Expenses
(in millions)

Cash & Cash Equivalents
(in millions)



EXPLORING STRATEGIC OPTIONS

ROADMAP TO IMPROVING SHAREHOLDER VALUE

Strategic Review Initiated: In May 2024, GSI announced the launch of a comprehensive strategic review aimed at maximizing stockholder value.

Board's Perspective: The Board of Directors believes market not recognizing APU's significant potential or the \$150 million investment in the technology.

Exploring Alternatives: Review to focus on exploring various strategic alternatives, including:

- **Asset Divestiture:** Considering the sale or spin-off of certain assets to unlock value.
- **Technology Licensing:** Exploring opportunities for licensing the company's technology.
- **Equity Financing:** Seek additional funding through a public market equity offering
- **Other Strategic options:** Including mergers, acquisitions, or the sale of the company.

INVESTMENT HIGHLIGHTS

KEY TAKEAWAYS

GSI Technology's priorities for CY2024

- Stabilizing SRAM business
- Launch database index build solution for search
- Accelerated development of Gemini-II, including software, for customer sampling in Q1 CY2025
- Exploring strategic options to maximize shareholder value



GSIT TECHNOLOGY

GSIT 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	36	26	Cypress, Solectron
Avidan Akerib	VP of Associative Computing	44	8	MikaMonu, NeoMagic
Patrick Chaung	SR VP of Memory Design	48	15	Sony, AMD
Robert Yau	VP of Engineering	47	29	Sony, Mosel Vitelic
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, <u>2024</u>	March 31, <u>2024</u>	June 30, <u>2023</u>
Net revenues	\$4,671	\$5,152	\$5,587
Cost of goods sold	2,510	2,494	2,518
Gross profit	<u>2,161</u>	<u>2,658</u>	<u>3,069</u>
Operating expenses:			
Research & development	4,214	4,818	5,204
Selling, general and administrative	2,604	2,354	3,004
Total operating expenses	<u>6,818</u>	<u>7,172</u>	<u>8,208</u>
Operating loss	(4,657)	(4,514)	(5,139)
Gain on sale and leaseback transaction	5,737	-	-
Interest and other income, net	55	108	80
Income (loss) before income taxes	1,135	(4,406)	(5,059)
Provision (benefit) for income taxes	57	(85)	51
Net income (loss)	<u>\$1,078</u>	<u>(\$4,321)</u>	<u>(\$5,110)</u>
Net income (loss) per share, basic	\$0.04	(\$0.17)	(\$0.21)
Net income (loss) per share, diluted	\$0.04	(\$0.17)	(\$0.21)
Weighted-average shares used in computing per share amounts:			
Basic	25,374	25,297	24,866
Diluted	25,686	25,297	24,866

SUMMARY BALANCE SHEET

CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands)
(Unaudited)

	<u>June 30, 2024</u>	<u>March 31, 2024</u>
Cash and cash equivalents	\$21,765	\$14,429
Accounts receivable	2,718	3,118
Inventory	4,467	4,977
Other current assets	2,143	1,954
Assets held for sale	0	5,629
Net property and equipment	1,076	1,148
Operating lease right-of-use assets	10,471	1,553
Other assets	9,687	9,656
Total assets	<u>\$52,327</u>	<u>\$42,464</u>
Current liabilities	\$5,422	\$5,365
Long-term liabilities	8,903	1,129
Stockholders' equity	38,002	35,970
Total liabilities and stockholders' equity	<u>\$52,327</u>	<u>\$42,464</u>