

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

(Mark One)

**FORM 10-K**

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended **December 31, 2024**

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number: **0-10394**

**DATA I/O CORPORATION**

(Exact name of registrant as specified in its charter)

Washington  
(State or other jurisdiction of incorporation)

91-0864123  
(I.R.S. Employer Identification No.)

**6645 185<sup>th</sup> Ave NE, Suite 100, Redmond, Washington, 98052  
(425) 881-6444**

(Address, including zip code, of registrant's principal executive offices and telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock	DAIO	NASDAQ

Securities registered pursuant to Section 12(g) of the Act

None

Indicate by check mark whether the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes ☐ No ☒

Indicate by check mark whether the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer", "accelerated filer", "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Accelerated filer ☐

Large accelerated filer ☐

Smaller reporting company ☒

Non-accelerated filer ☐

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b) ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

Aggregate market value of voting and non-voting common equity held by non-affiliates on the registrant as of June 30, 2024:

\$23,523,648

Shares of Common Stock, no par value, outstanding as of March 18, 2025:

9,239,731

DOCUMENTS INCORPORATED BY REFERENCE

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b) ☐

**DATA I/O CORPORATION**  
**FORM 10-K**  
**For the Fiscal Year Ended December 31, 2024**

**INDEX**

Part I	Item 1.	Business	3
	Item 1A.	Risk Factors	10
	Item 1B.	Unresolved Staff Comments	18
	Item 1C.	Cybersecurity	18
	Item 2.	Properties	19
	Item 3.	Legal Proceedings	19
	Item 4.	Mine Safety Disclosures	19
Part II	Item 5.	Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	19
	Item 6.	Selected Financial Data	19
	Item 7.	Management’s Discussion and Analysis of Financial Condition and Results of Operations	19
	Item 7A.	Quantitative and Qualitative Disclosures About Market Risk	26
	Item 8.	Financial Statements and Supplementary Data	26
	Item 9.	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	47
	Item 9A.	Controls and Procedures	47
	Item 9B.	Other Information	48
	Item 9C.	Disclosure Regarding Foreign Jurisdictions that Prevent Inspections	48
Part III	Item 10.	Directors, Executive Officers and Corporate Governance	48
	Item 11.	Executive Compensation	49
	Item 12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	49
	Item 13.	Certain Relationships and Related Transactions and Director Independence	50
	Item 14.	Principal Accounting Fees and Services	50
Part IV	Item 15.	Exhibits, Financial Statement Schedules	50
	Item 16.	Form 10-K Summary	54
Signatures			55

## **Item 1. Business**

*This Annual Report on Form 10-K and the documents incorporated herein by reference contain forward-looking statements based on current expectations, estimates and projections about Data I/O Corporation's industry, management's beliefs and certain assumptions made by management. See "Management's Discussion and Analysis of Financial Condition and Results of Operations – Forward Looking Statements."*

### **General**

Data I/O Corporation ("Data I/O", "We", "Our", "Us") is a global market leader for advanced programming, security deployment, security provisioning and associated Intellectual Property ("IP") protection and management solutions used in electronics manufacturing with flash memory, microcontrollers, and flash memory-based intelligent devices as well as secure element devices, authentication devices and secure microcontrollers. We collectively refer to IP protection, security provisioning of devices, provisioning of security into devices, and related services such as cloud onboarding and device and provisioning documentation management as "security deployment". Data I/O® designs, manufactures and sells programming and security deployment systems and services for electronic device manufacturers, specifically targeting high-growth areas such as high-volume users of flash memory and flash memory-based microcontrollers. Most electronic products today incorporate a number of programmable semiconductor devices that contain data, operating instructions and security credentials essential for the proper operation of the product and more and more products require security deployment.

Our mission is to bring the world's electronic devices to life. Programmable devices are used in products such as automobile electronics, smartphones, HDTV, smart meters, gaming systems and a broad category called Internet of Things ("IoT"). IoT is a broad term that addresses the interconnectivity of devices and other electronic or smart products. Our solutions, some of which include security deployment and process control capabilities, enable us to address the demanding requirements of the electronic device market, where applications security and IP protection are essential to our customer's success. Our largest customers are heavy users of programmable semiconductor devices and include original equipment manufacturers ("OEMs") and tier 1 suppliers in automotive electronics, industrial electronics, consumer electronics and IoT markets as well as their programming center partners and electronic manufacturing service ("EMS") contract manufacturers.

Data I/O was incorporated in the State of Washington in 1969 and its business was founded in 1972. Our website address is [www.dataio.com](http://www.dataio.com).

### **Major Impacts on 2024**

Due to economic and automotive electronics uncertainties and slower customer capacity expansion, shipments of the Company's automated systems in the Americas and Europe were lower which was partially offset by revenue growth in Asia. COVID-19 impacts in past years were no longer an operational challenge with personnel staffing, inventory levels, supply chain and operational activities returning to normal levels. However, late in 2024 with the new incoming United States Administration, geo-political, economic and trade uncertainties have increased. The resulting future impact on the Company's markets, customers, supply chain and operations are uncertain. We will leverage the experience gained from the impacts of COVID-19, along with the expertise of our leadership and operational teams, to effectively navigate and mitigate these potential challenges.

After a period of stability which lasted over a decade, a key organizational leadership transition occurred in the fourth quarter of 2024 with the planned retirement of Anthony Ambrose and the appointment of a new CEO and President, William Wentworth. Subsequent changes have also occurred in the leadership of the Sales, Marketing and Engineering functions.

### **Industry Background**

We enable companies to improve productivity, increase supply-chain security and reduce costs by providing device data programming and security deployment solutions that allow our customers to take IP (large design and data files) and protect and program it into memory, microcontroller, security and logic devices quickly and cost-effectively. We also provide services related to hardware support, system installation and repair, and device programming. Companies that design and manufacture products utilizing programmable electronic devices, ranging from automobiles to cell phones, purchase programming solutions from us. Trends of increasing device densities, shrinking device packages, increased demands for security, and customers increasing their software content file sizes, combined with the increasing numbers of intelligent devices such as automotive electronics and IoT applications, are driving demand for our solutions.

Traditionally, our programming market opportunity focused on the number of semiconductor devices to be programmed, but because of the rapid increase in the density of devices, and increasing demands for supply-chain security, the focus has shifted in many cases, from the number and type of devices to the number and type of bits per device to be programmed or securely provisioned. With expected growth in IoT applications, the business opportunity for this market differs depending on quality, security and automation.

Some of our automated programming systems integrate data programming, automated handling functions and/or security deployment into a single product solution. Quality and security-conscious customers, particularly those in high-volume manufacturing and programming, drive this portion of our business.

## **Products**

To accommodate the expanding variety and quantities of programmable devices being manufactured today, we offer multiple solutions for the numerous types of device mix and volume usage by our customers in the various market segments and applications. We work closely with leading manufacturers of programmable devices to develop our products to meet the requirements of a particular device. Our newer products are positioned and recognized as some of the most advanced programming and security deployment solutions.

Our programming solutions include a broad range of products, systems, modules and accessories, grouped into two general categories: automated programming systems and manual programming systems. Our PSV family of automated programming systems delivers a broad range of programming capacity and capability to the marketplace. Our PSV2800 Automated Programming System focuses on dedicated high-volume manufacturing in a lower cost platform. Our PSV7000 Automated Programming System continues to be well adopted in the marketplace, in particular for automotive electronics customers and as a base for security deployment upgrades. Our PSV5000 Automated Programming System combines mid-range capacity and flexibility with competitive pricing and also supports security deployment. Our PSV3500 Automated Programming System is a lower cost platform for basic programming needs. Our PSV family of handlers has won multiple industry awards for technical excellence and innovation and has a large global installed base.

Our automated systems have list selling prices ranging from approximately \$62,000 to \$690,000 and our manual systems have list selling prices ranging from approximately \$10,000 to \$20,000. Our security deployment system, SentiX®, is offered as a software license added to existing programming systems or on a pay per part use basis along with related fees.

Data I/O programming technology is integrated with the PSV family to create highly-flexible systems that deliver outstanding performance with low total cost of ownership. The Lumen®X programming engine is our highest performance programming engine, designed to support eMMC and UFS programming of large NAND FLASH, as well as microcontrollers, serial FLASH and other devices. Increasing memory densities and the need for faster data interfaces are resulting in an expected transition to the use of UFS devices. LumenX is available on our PSV7000 and PSV5000 and as a standalone manual programmer. FlashCORE™, and our universal job setup tool, Tasklink™ for Windows®, are available in each family of our automated programming systems and in FlashPAK™, our manual programming system. The SentiX security system adds security capability to our data programming system. SentiX allows customers of any size and demand-profile to securely add keys, certificates, and other security information to specialized regions of authentication integrated circuits ("ICs"), secure elements and secure microcontrollers. We provide device support and service on all of our products. Device support is a critical aspect of our business and consists of writing software algorithms for devices and developing socket adapters to hold and connect to the device for programming.

Sales Percentage of Total Sales Breakdown by Type			
Sales Type	2024	2023	Drivers
Equipment Sales	51%	58%	Capacity, Process improvement, Technology
Adapter Sales	33%	29%	Capacity utilization, New customer products
Software and Maintenance Sales	16%	13%	Installed base, Added capabilities
<b>Total</b>	<b>100%</b>	<b>100%</b>	

The table below presents our main products and the key features that benefit our customers:

Products	Key Features	Customer Benefits
PSV Systems: Off-line (Automated)	<ul style="list-style-type: none"> <li>Fast program and verify speeds</li> <li>Up to 112 programming sites</li> <li>Up to 3000 devices per hour throughput</li> <li>UFS Support</li> <li>Supports LumenX and FlashCORE III programmers</li> <li>Supports multiple media types</li> <li>Supports quality options – fiber laser marking, ink dot marking, 2D inspection, 3D coplanarity</li> <li>ConneX Service Software enables connected factory integration and automation</li> </ul>	<ul style="list-style-type: none"> <li>Managed and secure programming</li> <li>High throughput for high-density flash memory programming</li> <li>Flexible I/O options (tray, tape, tube), marking/labeling and vision for coplanarity inspection</li> <li>Scalable solutions for low to high-volume manufacturing</li> <li>Access to system data for connected factory and traceability</li> </ul>
LumenX Programmer (Non-automated)	<ul style="list-style-type: none"> <li>Extensible architecture for fast programming, verify and download speeds</li> <li>Supports UFS memory, microcontrollers, serial flash, secure elements and other device types</li> <li>Large file size support</li> <li>Secure job creation</li> <li>Eight sockets with tool-less changeover with single-socket adapters</li> </ul>	<ul style="list-style-type: none"> <li>Managed and secure programming</li> <li>Fast setup and job changeover</li> <li>Highest yield and low total cost of programming</li> <li>High performance</li> <li>Create and validate designs before moving down the firmware supply chain</li> </ul>
FlashPAK III programmer: (Non-automated)	<ul style="list-style-type: none"> <li>Scalability</li> <li>Network control via Ethernet</li> <li>Stand-alone operation or PC compatible</li> <li>Parallel programming</li> <li>Four sockets</li> <li>Universal device support</li> </ul>	<ul style="list-style-type: none"> <li>Create and validate designs before moving down the firmware supply chain</li> <li>Unmatched ease of use in manual production systems</li> </ul>
SentriX Security Deployment System	<ul style="list-style-type: none"> <li>Unique ability to securely provision keys and certificates one device at a time</li> <li>Broad set of secure devices supported with wide range of silicon partners</li> <li>Software license model allows easy upgrades from deployed PSV data programming systems</li> <li>Pay per use model</li> </ul>	<ul style="list-style-type: none"> <li>Create secure IoT devices across a global network</li> <li>Maintain IP control over their product's lifecycle</li> <li>Secure supply chain and flexible key management architecture</li> </ul>

## Customers/Markets

We sell our solutions to customers worldwide, many of whom are world-class manufacturers of electronic devices used in a broad range of industries, as described in the following table:

	OEMs		EMS	Programming Centers
	Automotive Electronics	IoT, Industrial, Consumer Electronics, including Wireless	Contract Manufacturers	
<b>Notable end customers</b>	Borg Warner, Bosch, Alps Alpine, Visteon, Kostal, JVC Kenwood, Harman, Hitachi, Denso Ten, Continental, Aptiv Panasonic, Magna, Marelli, Tesla, Desay, BYD	LG, TCL, Siemens, Danfoss, Philips, Schneider, Endress+Hauser, Insta, Sony, UTEC, Nokia	Pegatron, Flex, Jabil, Wistron, Sanmina SCI, Foxconn, Salcomp, Calcomp, Plexus	Arrow, Avnet, BTV, CPS, Semitron, NOA Leading
<b>Business drivers</b>	Infotainment, Advanced Driver Assist (ADAS), electrification, connectivity, and security	Higher functionality driven by increasing electronic content. Shift from analog to connected intelligent devices, security	Production contract wins	Value-added services, logistics, security
<b>Programming equipment drivers</b>	Growing electronic content, global support, resilient supply chains, new product rollouts, growing file sizes, quality control, traceability, and security	Growing electronic content and need for IP protection. Process improvement and simplification as well as new product rollouts, memory and new technology, security	New contracts from OEMs, programming solutions specified by OEMs	Large algorithm device support library, contract wins, capacity utilization of their installed base of equipment, small parts handling, security
<b>Buying criteria</b>	Quality, throughput, reliability, configuration control, traceability, global support, IP protection, security	Quality, reliability, configuration control, traceability, global support, IP protection, security	Lowest equipment procurement cost, throughput, global support	Flexibility, lowest lifecycle cost per programmed part, low changeover time; use of multiple vendors provides negotiating leverage, device support availability
<b>Security Deployment</b>	End-customer focus	End-customer focus	End-customer and partner focus	Partner focus of our SentiX deployments

Our solutions address the data programming and security deployment needs of programmable semiconductor devices. Semiconductor devices are a large, growing market, in terms of units, bits programmed and need for security. We believe that our sales are driven by many of the same forces that propel the semiconductor industry as well as the automotive electronics industry. We sell to the manufacturers who are consumers of certain semiconductors. When their business grows, they buy more semiconductors which, in turn, require additional programming equipment to maintain production speeds or program new device technologies.

Our device programming solutions currently target two high volume growing markets: automotive electronics and IoT systems, including industrial and consumer devices.

### Growth drivers for automotive electronics

- Consumers desire advanced car features requiring higher levels of sophistication, including autonomous cars, infotainment options (audio, radio, dashboard displays, navigation), ADAS, wireless connectivity and electrification

- Proliferation of programmable microcontrollers to support the next-generation electronic car systems
- Increasing use of high-density flash to provide memory for advanced applications
- Increasing complexity to support autonomous vehicles
- Increasing need for security solutions for a secure supply chain and lifecycle firmware integrity
- Growing software size

#### Growth drivers for IoT, including industrial, consumer electronics and wireless

- Securely controlling groups of connected devices through a secure supply chain and lifecycle firmware integrity management
- Adding intelligence and processing into devices
- Connecting previously unconnected devices to networks and the internet (such as smart home, including intelligent thermostats and lighting)
- Emergence of new devices and applications (such as health and wellness wearable devices and applications)

#### Diversification of accounts receivable and net sales

During 2024, we sold products to approximately 197 customers throughout the world.

The following represented greater than 10% of net sales for the applicable year:

Percentage of Net Sales	2024	2023	2022
Number of customers	2	2	1
Approximate percentage of net sales	34%	24%	23%
Percentage of each	19%	13%	23%
Percentage of each	15%	11%	n/a

The following represented greater than 10% of our consolidated accounts receivable for the applicable years:

Percentage of Consolidated Accounts Receivable	2024	2023	2022
Number of customers	2	3	3
Approximate percentage of consolidated accounts receivable balance	43%	47%	39%
Percentage of each	30%	18%	15%
Percentage of each	13%	16%	13%
Percentage of each	-	13%	11%

#### **Geographic Markets and Distribution**

We market and sell our products through a combination of direct sales, indirect sales representatives and distributors, as well as services through programming centers. We continually evaluate our sales channels against our evolving markets and customers and realign them as necessary to ensure that we reach our existing and potential customers in the most effective and efficient manner possible.

#### U.S. Sales

We market our products throughout the U.S. using a variety of sales channels, including our own field sales management personnel, independent sales representatives and direct sales. Our U.S. independent sales representatives obtain orders on an agency basis, with shipments made directly to the customer by us. Net sales in the U.S. for 2024, 2023 and 2022 were (in millions) \$1.4, \$2.8 and \$1.8, respectively. Some of our customers' orders delivered internationally are heavily influenced by U.S. sales-based efforts.

#### International Sales

International sales represented approximately 94%, 90% and 93% of net sales in 2024, 2023 and 2022, respectively. We make foreign sales through our wholly-owned subsidiaries in Germany and China, as well as through independent distributors and sales

representatives operating in 32 countries. Our independent foreign distributors purchase our products for resale and we generally recognize the sale at the time of shipment to the distributor. As with U.S. sales representatives, sales made by international sales representatives are on an agency basis, with sales made directly to the customer by us.

Net international sales for 2024, 2023 and 2022 were (in millions) \$20.4, \$25.3 and \$22.4, respectively. We determine international sales by the international geographic destination into which the products are sold and delivered and include not only sales by foreign subsidiaries but also export sales from the U.S. to our foreign distributors and to our representatives' customers. International sales do not include transfers between Data I/O and our foreign subsidiaries. Export sales are subject to U.S. Department of Commerce regulations. We have not, however, experienced difficulties to date as a result of these requirements. Our products typically do not require export licenses. We have not made sales to Iran or any Iranian governmental entities or any other blacklisted companies or countries.

Fluctuating exchange rates and other factors beyond our control, such as the coronavirus, international monetary stability, tariff and trade policies and U.S. and foreign tax and economic policies, may affect the level and profitability of international sales. We cannot predict the effect of such factors on our business, but we try to consider and respond to changes in these factors, particularly as the majority of our costs are U.S. based while the vast majority of our sales are international.

## **Competition**

The competition in the programming systems market is fragmented with several companies selling directly competitive solutions. Our direct competition competes primarily based on price. Many of these competitors compete on a regional basis. Although competition in the security deployment market is developing, we expect competition in the market to increase as security deployment becomes more important. There are alternative security deployment solutions such as software-based security, rather than the hardware-based security of our SentiX equipment.

In addition, we compete with multiple substitute forms of device programming including "home grown" solutions. Programming after device placement may be done with In Circuit Test ("ICT"), In System Programming ("ISP"), and End of Line Downloading ("EOL"). Some automotive products may also be programmed over the air ("OTA"). IoT devices may also be programmed with ICT, ISP, EOL or OTA. In addition, new security devices may be required to be programmed using device-specific programmers developed by the semiconductor manufacturer.

While we are not aware of any published industry market information covering the programming systems or security deployment market, according to our internal analysis of competitors' revenues, we believe we continue to be the largest supplier in the programming systems market.

## **Manufacturing, Raw Materials and Backlog**

We strive to manufacture and provide the best solutions for advanced programming. We primarily assemble and test our products at our principal facilities in Redmond, Washington and Shanghai, China. Both of these locations are ISO 9001:2015 certified. We outsource our circuit board manufacturing and fabrication. As a resilient supply chain strategy, we manufacture various products in both of our production facilities. This strategy allows opportunity to mitigate some of the risks of having only one location, as well as enabling tariff and tax optimization strategies. We use a combination of standard components and fabricated parts manufactured to our specifications. Most components used are available from a number of different suppliers and subcontractors but certain items, such as some handler and programmer and security deployment subassemblies, custom integrated circuits, hybrid circuits and connectors, are purchased from single sources. We believe that additional sources can be developed for most present single-source components without significant difficulties. Single-source components may not always continue to be readily available or may be subject to part shortage delays. If we cannot develop alternative sources for these components, or if we experience deterioration in relationships with these suppliers, there may be price increases, minimum order quantities, end of life purchase requirements, costs associated with integrating alternatively sourced parts, and delays or reductions in product introductions or shipments, which may materially adversely affect our operating results.

In accordance with industry practices, generally all orders are subject to cancellation prior to shipment without penalty, except for contracts calling for custom configuration. To date, such cancellations have not had a material effect on our sales volume. To meet customers' delivery requirements, we manufacture certain products based upon a combination of backlog and anticipated orders. Most orders are scheduled for delivery within 1 to 90 days after receipt of the order. Our backlog of pending orders was approximately (in millions) \$3.5, \$2.8 and \$4.8 as of December 31, 2024, 2023 and 2022, respectively. The size of backlog at any date is not necessarily a meaningful indicator of the trend of our business.

## Research and Development

We believe that continued investment in research and development is critical to our future success. We continue to develop new technologies and products and enhance existing products. Future growth is largely dependent upon the timely development and introduction of new products, as well as the development of technology and algorithms to support the latest programmable devices. Where possible, we may pursue partnerships and other strategic relationships to add new products, capabilities and services, particularly in security deployment. We are currently focusing our research and development efforts on strategic growth markets, including automotive electronics, IoT and security deployment. We are continuing to develop technology for manual and automated systems to program new categories of semiconductors, including Secure Elements, TPMs, Authentication Chips, and Secure Microcontrollers. We plan to deliver new programming technology, automated handling systems, factory automation communications software, and enhancements for security deployment in the manufacturing environment. We also continue to focus on increasing our capacity and responsiveness for new device support requests from customers and programmable integrated circuit manufacturers by revising and enhancing our internal processes and tools. Our research and development efforts have resulted in the release of significant new products and product enhancements over the past several years.

During 2024, 2023 and 2022, we made expenditures for research and development of (in millions) \$6.2, \$6.5 and \$6.1, respectively, representing 29%, 23% and 25% of net sales, respectively. Research and development costs are generally expensed as incurred.

## Patents, Copyrights, Trademarks and Licenses

We rely on a combination of patents, copyrights, trade secrets and trademarks to protect our IP, as well as product development and marketing skills to establish and protect our market position and will continue to apply for and add new patents to our patent portfolio as we develop strategic new technologies.

We attempt to protect our rights in proprietary systems (architecture, implementations, software) including Lumen®X, FlashCORE, TaskLink, ConneX, SentiX and other software products, by retaining the title to and copyright of the software and documentation, by including appropriate contractual restrictions on use and disclosure in our licenses, and by requiring our employees to execute non-disclosure agreements. Our software products are not typically sold or licensed separately from sales of programming systems. However, when we license software separately, we recognize revenue upon the transfer of control of the software, which is generally upon shipment, provided that only inconsequential performance obligations remain on our part and substantive acceptance conditions, if any, have been met.

Because of the rapidly changing technology in the semiconductor, electronic equipment and software industries, portions of our products might infringe upon existing patents or copyrights, and we may be required to obtain licenses or discontinue the use of infringing technology. We believe that any exposure we may have regarding possible infringement claims is a reasonable business risk similar to that assumed by other companies in the electronic equipment and software industries. However, any claim of infringement, with or without merit, could be costly and a diversion of management's attention, and be an adverse determination could adversely affect our reputation, potentially preclude us from offering certain products, and subject us to substantial liability. As of December 31, 2024, we were not subject to any pending actions regarding infringement claims.

## Employees - Human Capital

As of December 31, 2024, we had a total of 95 employees, of which 45 were located outside the U.S. and 7 of which were part time. We also utilize independent contractors for specialty work, primarily in research and development, and utilize temporary workers to adjust capacity to fluctuating demand and for special projects. Many of our employees are highly skilled, trained and experienced in specialized areas and our continued success will depend in part upon our ability to attract and retain employees who can be in great demand within the industry. None of our employees are represented by a collective bargaining unit and we believe relations with our employees are favorable. In foreign countries we have employment agreements or, in China, the Shanghai Foreign Services Co., Ltd. ("FSCO") labor agreement. Because of the creation of specialized knowledge and skills in our business, there are extra short-term challenges to hiring and training replacements. Our hiring and retention strategies and efforts include emphasis on the advantages of working in a technology oriented, smaller, international, public company, and the culture of our organization. We utilize competitive pay practices, incentive compensation, equity awards, and benefits such as health care, life and disability insurance; paid time off; education and volunteer time.

## Environmental, Social and Governance ("ESG")

Data I/O is committed to the responsibilities associated with modern age ESG. The Company's key pillars for ESG support a framework for sustainable growth and include Leadership & Governance, Environment, Innovation, Human Capital, Social Capital, and Financial Excellence. Initiatives within these areas apply to the Company's daily global operations as well as within its supply chains. Our facilities are subject to numerous laws and regulations concerning the discharge of materials or otherwise relating to

the environment. In addition to this commitment, the Company has a track record of meeting its ESG regulatory obligations, being a solid corporate citizen, delivering superior value to its customers and partners, and demonstrating corporate stewardship including returning capital to shareholders through past share buybacks.

As the largest and only publicly traded company in its sector, according to our internal analysis, Data I/O has led its industry in disclosing significant operational and financial information. The Company's Board currently includes Data I/O's CEO and four Independent Directors. It is diverse in gender, education, professional experience and differences in viewpoints and skills. Through its continuous improvement practices and our operations' focus on assembly and test with no fabrication, the Company consumes relatively little energy, has minimal or no emissions or pollutants to air and wastewater, and complies with workplace labor, safety and business practices on three continents. Additionally, the Company started to purchase only sustainable (green) electric power (in our China & U.S. facilities in 2023; German facility in prior years) and started to purchase offsets for its carbon emissions from natural gas use in the U.S. facility. For our vehicles, we have been replacing company-owned cars with hybrid or electric vehicles where feasible. None of these actions have had a material financial impact. Recent developments to climate regulations and guidelines have increased customer demands for climate disclosures on their timelines as opposed to regulations applicability to the Company.

Data I/O is also committed to giving back to our local communities through volunteer and internship programs. The Company provide employees time-off to volunteer. In addition, the Company provides internships to local high school and college students through STEM and technical colleges.

Compliance with environmental laws has not had, nor is it currently expected to have, a material effect on our capital expenditures, financial position, results of operations or competitive position. Potential regulations regarding climate change measurements and disclosures could require significant effort and costs.

#### **Executive Officers of the Registrant**

Set forth below is certain information concerning the executive officers of Data I/O as of March 18, 2025:

<u>Name</u>	<u>Age</u>	<u>Position</u>
William Wentworth	59	President and Chief Executive Officer
Gerald Y. Ng	63	Vice President, Chief Financial Officer, Secretary and Treasurer

William Wentworth joined Data I/O as a member of the Board of Directors on May 2023 and assumed the President position on September 1, 2024 and Chief Executive Officer ("CEO") position on October 1, 2024. Bill Wentworth brings a wealth of industry experience spanning over 35 years, including private equity and M&A exposure. As the CEO of Source Electronics, the global market share leader in programming and test services, he was a Data I/O customer and led the sale of controlling interest of Source Electronics to HIG Capital in 2001 and the company's subsequent sale to Avnet in 2008 with significant investor return. Under Bill's leadership, Source developed compelling programming solutions for the automotive and consumer industries, expanding the business and limiting its industry and customer concentration. For the years prior to joining Data I/O, as President and owner of Wentworth Advisors, he has consulted in the programming, IT, and private equity markets, focusing on expanding deal flow, performing due diligence and Board service.

Gerald Y. Ng joined Data I/O in July 2023 as Data I/O's Vice President of Finance and, effective August 16, 2023, became Data I/O's Vice President and Chief Financial Officer. Gerry brings a wealth of experience in finance and treasury functions, business development, financial planning & forecasting, monthly reporting and business compliance. He was previously CFO for Kymeta Corporation, a broadband satellite and cellular networks communication company, and prior to that, held CFO titles at FUJIFILM SonoSite, Inc. and Fluke Networks. Gerry holds a Masters of Business Administration from Northwestern University – Kellogg School of Management and a Bachelor of Arts Finance and Accounting from the University of Washington.

#### **Item 1A. Risk Factors**

##### **Cautionary Factors That May Affect Future Results**

*Our disclosure and analysis in this Annual Report contains some forward-looking statements. Forward-looking statements include our current expectations or forecasts of future events. The reader can identify these statements by the fact that they do not relate strictly to historical or current facts. In particular, these include statements relating to future action, supply chain expectations,*

*semiconductor chip availability, Russia-Ukraine war impacts, prospective products, expected market growth, new technologies and trends, industry partnerships, foreign operations, economic expectations, future performance or results of current and anticipated products, sales efforts, expenses, outcome of contingencies, impact of regulatory requirements, tariffs and financial results.*

*Any or all of the forward-looking statements in this Annual Report or in any other public statement made may turn out to be wrong. They can be affected by inaccurate assumptions we might make or known or unknown risks and uncertainties can affect these forward-looking statements. Many factors -- for example, product competition and product development -- will be important in determining future results. Moreover, neither Data I/O nor anyone else assumes responsibility for the accuracy and completeness of these forward-looking statements. Actual future results may materially vary.*

*We undertake no obligation to publicly update any forward-looking statements after the date of this Annual Report, whether as a result of new information, future events or otherwise. The reader should not unduly rely on our forward-looking statements. The reader is advised, however, to consult any future disclosures we make on related subjects in our 10-Q, 8-K and 10-K reports to the SEC and press releases. Also, note that we provide the following cautionary discussion of risks, uncertainties and possible inaccurate assumptions relevant to our business. These are factors that we think could cause our actual results to differ materially from expected and historical results. Other factors besides those listed here could also adversely affect us. This discussion is permitted by the Private Securities Litigation Reform Act of 1995.*

## **RISK FACTORS:**

### **TARIFFS AND TRADE ISSUES**

Changes in tariffs and trade issues may adversely affect our business, including revenues and/or gross margins.

We produce products in the United States and China. Currently, certain of our products are subject to tariffs imposed by one country on goods manufactured in the other country. There is uncertainty regarding the tariffs expected to be imposed, and any increase in tariff rates and subjecting additional items to tariffs could increase our costs, revenues and the competitiveness of our products due to our manufacturing locations. Trade and tariff issues are creating business uncertainty and may spread to and impact other jurisdictions.

Additionally, ongoing trade tensions between the United States and China are impacting our ability to seamlessly design, build, market and sell our products. These tensions may increase suddenly at any time due to government policies or actions. Some customers have moved production away from China, further from our facilities and engineers. We endeavor to have multi-sourced manufacturing, but this is not currently practical for all products in all locations.

War based restrictions, embargos, and supply chain disruptions have and are occurring because of the Russian invasion of Ukraine, which could have economic and other indirect impacts to our business. We do not have any operations in Russia or Ukraine, nor do we rely on any software or hardware components sourced from these two countries. The Israel - Hamas war could have similar issues, although we have not experienced any material impacts.

### **NEW PRODUCTS OR SERVICES**

We are pursuing new product or service initiatives, and business models that may develop more slowly and/or to a lesser extent than expected.

In order to lead in new and potentially lucrative market opportunities, for example in security deployment of programmable devices, circuit boards and electronic systems, we are making significant investments in people, technology and business development while the market is developing and uncertain. Due to the length of time to market from design to production in security provisioning, if these markets develop more slowly than planned, or if our security deployment solutions are not widely accepted, then we may not achieve our expected return on investment in new technologies, which may significantly affect the results of our existing business.

In the security deployment area, we have introduced a pay per use business model and service fees that may not be accepted by our customers who are accustomed to paying for capital equipment upfront, rather than paying per use charges.

Failure to adapt to new technological trends in our industry may impact our competitiveness and financial results.

Product and service technology in our industry evolves rapidly, making timely product innovation essential to success in the marketplace. Introducing products and services with improved technologies or features may render our existing products obsolete and unmarketable. Technological advances and trends that may negatively impact our business include:

- new device package types, densities, chip interfaces and technologies requiring hardware and software changes in order to be programmed by our products, particularly certain segments of the high-density flash memory markets where after placement programming is recommended by certain semiconductor manufacturers;
- reduction in semiconductor process geometries for certain 3 Dimensional (3D), Multi Level Cell (MLC) and Triple Level Cell (TLC) NAND and eMMC FLASH memories impact the product data retention through Surface Mount Technology (SMT) reflow or X-ray inspection. Improper SMT process control can negatively impact the end customer's ability to successfully program devices. This can cause them to change their programming methods away from pre-programming to post placement programming techniques, including ISP, ICT. Data I/O has, and continues to work with several semiconductor manufacturers to develop best practices to minimize the impact of reflow and potential concerns about X-ray induced data loss so that preprogramming remains a supported alternative;
- changes in Flash technology speeds will eventually require us to change the architecture of our programming engines;
- electronics equipment manufacturing practices, such as widespread use of in-circuit programming or downloading;
- adoption of proprietary security and programming protocols and additional security capabilities and requirements;
- customer software platform preferences different from those on which our products operate;
- customer adoption of newer unsupported semiconductor device technologies such as NVMe memory or device interface methods, particularly if these technologies are adopted by automotive electronics, IoT or wireless customers; and/or
- more rigid industry standards, which would decrease the value-added element of our products and support services.

If we cannot develop products or services in a timely manner in response to industry changes, or if our products or services do not perform well, our business and financial condition may be adversely affected. Also, our new products or services may contain defects or errors that give rise to product liability claims against us or cause our products to fail to gain market acceptance. Our future success depends on our ability to successfully compete with other technology firms in attracting and retaining key technical personnel.

Failure to adapt to increasing automotive electronics customer requirements and a rapidly changing global automotive electronics ecosystem may impact our competitiveness and result in a decline in sales or increased costs.

Concentration in automotive electronics and our orders related to automotive electronics customers has been dominant in recent years at 59% in 2024, 63% in 2023 and 61% in 2022. As we have been concentrated on automotive electronics customers, any decrease in demand from these customers may materially impact our results, as it will take some time to transition our product line to other markets. Quality standards and business requirements by our automotive electronics customers, driven in turn by their automotive manufacturer customers, may demand processes and certifications at a higher level than we currently are structured to provide. For example, although we currently meet the ISO 9001:2015 standard, new quality standards, and environmental standards may be demanded by our customers with even more rigorous requirements. In addition, contractual provisions may expose us to greater potential liability and costs and we may be required to provide higher service levels than we currently provide. If we cannot adapt to these industry requirements or manage these contractual provisions, our business may be adversely affected.

We are also seeing a shift in the global automotive industry towards new entrants touting new methods, especially for all electric vehicles. These new entrants may not develop solutions through the traditional value chain. If Data I/O is not able to market and sell effectively to these new entrants, we risk losing market share in our largest market.

Delays in development, introduction and shipment of new products or services may result in a decline in sales or increased costs.

We develop new engineering and automated programming systems and services. Significant technological, supplier, manufacturing or other problems may delay the development, introduction or production of these products or services.

For example, we may encounter these problems:

- technical problems in the development of a new programming and/or security deployment systems or the robotics for new automated handling systems;
- inability to hire qualified personnel or turnover in existing personnel or inability to engage or retain key technology partners;
- delays or failures to perform by us or third parties, including some smaller early stage or recently acquired companies, involved in our development projects;

- dependence on large semiconductor companies for cooperation and support to securely provision their devices. These companies must enable us with specific technical information and support Data I/O as a qualified solution to their customers and channel partners;
- delays or failure to develop and utilize Artificial Intelligence (“AI”) for our offerings or services, potentially falling behind competitors exploiting the use of AI;
- development of new products or services that are not accepted by the market; and/or
- delays in supply chain for parts needed for new products.

These problems may result in a delay or decline in sales or increased costs.

We may pursue business acquisitions that could impair our financial position and profitability.

We may pursue acquisitions of complementary technologies, product lines or businesses. Acquisitions may include risks, such as:

- burdening management and our operating teams during the integration of the acquisition;
- diverting management’s attention from other business concerns;
- failing to successfully integrate, scale or monetize the acquired products or technologies;
- lack of acceptance of the acquired products by our sales channels or customers;
- entering markets where we have no or limited prior experience;
- potential loss of key employees of the acquired company; and/or
- additional burden of support for an acquired programmer architecture.

Future acquisitions may also affect our financial position. For example, we may use significant cash or incur debt, which would weaken our balance sheet, or issue additional shares, potentially diluting existing shareholders. We may also capitalize goodwill and intangible assets acquired, the amortization or impairment of which would reduce our profitability. We cannot guarantee that future acquisitions will improve our business or operating results.

If we are unable to protect our IP, we may not be able to compete effectively or operate profitably.

We rely on patents, copyrights, trade secrets and trademarks to protect our IP, as well as product development and marketing skill to establish and protect our market position. In particular, patents are a key part of our security deployment strategy, and if we are not able to successfully enforce these patents, we might lose our competitive advantage in the security deployment market. We attempt to protect our rights in proprietary software products, including our user interface, product firmware, software module options and other software products by retaining the title to and copyright of the software and documentation, by including appropriate contractual restrictions on use and disclosure in our licenses, and by requiring our employees to execute non-disclosure agreements.

Because of the rapidly changing technology in the semiconductor, electronic equipment and software industries, portions of our products might possibly infringe upon existing patents or copyrights, and we might be required to obtain licenses or discontinue the use of infringing technology. We believe that any exposure we may have regarding possible infringement claims is a reasonable business risk similar to that assumed by other companies in the electronic equipment and software industries. However, any claim of infringement, with or without merit, could be costly and a diversion of management’s attention, and an adverse determination could adversely affect our reputation, preclude us from offering certain products, and subject us to substantial liability.

We might face increased competition and might not be able to compete successfully with current and future competitors.

Technological advances have reduced the barriers of entry into the market in which we compete. We expect competition to increase from both established and emerging companies. If we fail to compete successfully against current and future sources of competition, our profitability and financial performance will be adversely impacted.

## THIRD PARTY RELATIONSHIPS

If we do not develop and enhance our relationships with semiconductor manufacturers, our business may be adversely affected.

We work closely with most semiconductor manufacturers to ensure that our data programming and security deployment systems comply with their requirements. In addition, many semiconductor manufacturers recommend our managed and secure programming systems for use by users of their programmable devices. These working relationships enable us to keep our programming systems product lines up to date and provide end-users with broad and current programmable device support. As technology changes occur, that could limit the effectiveness of pre-placement programming, particularly for very small high-density NAND, eMMC and UFS devices, certain semiconductor manufacturers may not recommend or may not continue recommending our programming systems for these devices. Our business may be adversely affected if our relationships with semiconductor manufacturers deteriorate or if semiconductor manufacturers are not willing to closely work with us on security deployment. Consolidation within the semiconductor industry may also impact us. As we develop more security deployment solutions, we will need to partner more closely with semiconductor manufacturers.

Our reliance on a small number of suppliers may result in a shortage of key components, which may adversely affect our business, and our suppliers may experience financial difficulties which could impact their ability to service our needs.

Certain parts or software used in our products are currently available from either a single supplier or from a limited number of suppliers. Our small relative level of business means we frequently lack influence and significant purchasing power. If we cannot develop alternative sources of these components, if sales of parts or software are discontinued by the supplier, if we experience deterioration in our relationship with these suppliers, or if these suppliers require financing which is not available, there may be delays or reductions in product introductions or shipments, which may materially adversely affect our operating results.

Because we rely on a small number of suppliers for certain parts, we are subject to possible price increases by these suppliers. Also, we may be unable to accurately forecast our production schedule. If we underestimate our production schedule, suppliers may be unable to meet our demand for components. This delay in the supply of key components may have a materially adverse effect on our business. For suppliers who discontinue parts, we may be required to make lifetime purchases covering future requirements. Over estimation of demand or excessive minimum order quantities may lead to excess inventories that may become obsolete. Part shortages impact availability, lead times and pricing that may be disruptive to our production plans, lead times, margins and may result in lost sales.

Some of our sockets, parts, subassemblies and boards are currently manufactured to our specifications by third-party foreign contract manufacturers and we are sourcing certain parts or options from foreign manufacturers, particularly in China. For example, due to geopolitical considerations, we may not be able to obtain sufficient quantity of these products if and when needed or the quality of these parts or options may not meet our standards, which may result in lost sales.

If we are unable to attract and retain qualified third-party distributors and representatives, our business may be adversely affected.

We utilize an internal sales force and third-party distributors and representatives. Therefore, the financial stability of these distributors and representatives is important. Their ability to operate, timely pay us, and to acquire any necessary financing may be affected by the current economic climate. Highly skilled professional engineers use most of our products. To be effective, third-party distributors and representatives must possess significant technical, security, marketing, customer relationships and sales resources and must devote their resources to sales efforts, customer education, training and support. These required qualities limit the number of potential third-party distributors and representatives. Our business will suffer if we cannot attract and retain a sufficient number of qualified third-party distributors and representatives to market our products.

## MARKET CONDITIONS

A decline in economic and market conditions may result in delayed or decreased capital spending and delayed or defaulted payments from our customers.

Current and future public health crisis, geo-political conflicts, and economic barriers, tariffs and constraints can adversely impact the Company's financial performance. Our business is highly impacted by capital spending plans and other economic cycles that affect the users and manufacturers of integrated circuits. The industries are highly cyclical and are characterized by rapid technological change, short product life cycles and fluctuations in manufacturing capacity and pricing and gross margin pressures. In a difficult economic climate, it may take us longer to receive payments from our customers and some of our customers' business may fail, resulting in non-payment. Our market growth outlook and related business decisions may be wrong. These factors could have a material adverse effect on our business and financial condition.

Our international operations may expose us to additional risks that may adversely affect our business.

International sales represented approximately 94%, 90% and 93% of net sales in 2024, 2023 and 2022, respectively. We expect that international sales will continue to be a significant portion of our net revenue. International sales may fluctuate due to various factors, including:

- current and future global health crisis, similar to COVID-19;
- economic trade barriers and constraints such as tariffs and taxes;
- economic challenges in China, Europe and Latin America, as these are major markets for our products, with China being a significant production location;
- foreign currency exchange rate fluctuations in our major international markets as volatile exchange rates may impact our competitiveness and margins, especially where we have subsidiary operations;
- unexpected changes in regulatory requirements;
- difficulties in staffing and managing foreign operations;
- longer average payment cycles and difficulty in collecting accounts receivable;
- compliance with applicable export licensing requirements and the Foreign Corrupt Practices Act;
- product safety and other certification requirements;
- ability to protect our intellectual property in multiple patent jurisdictions; and/or
- ability to move cash freely from subsidiaries.

Because we have customers located throughout the world, we have significant foreign receivables, although none are based in Russia or Ukraine. We may experience difficulties in collecting these amounts as a result of payment practices of certain foreign customers, economic uncertainty and regulations in foreign countries, the availability and reliability of foreign credit information, and potential difficulties in enforcing collection terms.

The European Union and European Free Trade Association (“EU”) has established certain electronic emission and product safety requirements (“CE”). As applicable, our products currently meet these requirements; however, failure to obtain either CE certification or a waiver for any product may prevent us from marketing that product in Europe. The EU also has directives concerning the Reduction of Hazardous Substances (“RoHS”) and we believe we are classified within the EU RoHS Directive category list as Industrial Monitoring and Control Equipment (category 9). We believe all current products meet the RoHS directives. Failure to meet applicable directives or qualifying exemptions may prevent us from marketing certain products in Europe or other territories with similar requirements.

We have subsidiaries in Germany and China and large balances of cash are in our foreign subsidiaries. Our business and financial condition is sensitive to currency exchange rates and any restrictions imposed on their currencies including restrictions on repatriation of cash. A repatriation of cash has, and could in the future, result in tax costs and corresponding deferred tax assets with related tax valuation allowances.

## **OPERATIONS**

Fluctuations in our quarterly operating results may adversely affect our stock price.

Our operating results tend to vary from quarter to quarter. Our revenue in each quarter substantially depends upon orders received within that quarter. Conversely, our expenditures are based on investment plans and estimates of future revenues. We may, therefore, be unable to quickly reduce our spending if our revenues decline in a given quarter. As a result, operating results for that quarter will suffer. Our operating results for any one quarter are not necessarily indicative of results for any future periods.

Other factors, which may cause our quarterly operating results to fluctuate, include:

- increased competition;
- timing of new product announcements and timing of development expenditures;
- product or service releases and pricing changes by us or our competitors;

- market acceptance or delays in the introduction of new products or services;
- production constraints, including part shortages impact on us and our supply chains;
- quality issues;
- labor or material constraints;
- timing of significant orders;
- timing of installation or customer acceptance requirements;
- sales channel mix of direct vs. indirect distribution;
- civil unrest, war or terrorism;
- health issues such as the outbreak of the coronavirus or other viruses impacting workers, suppliers, customers, travel, or our facilities;
- customers' budgets;
- changes in accounting rules, tax or other legislation;
- adverse movements in exchange rates, interest rates, inflation or tax rates;
- cyclical and seasonal nature of demand for our customers' products;
- general economic conditions in the countries where we sell products;
- expenses and delays obtaining authorizations in setting up new operations or locations; and/or
- facilities relocations.

Due to any of the foregoing factors, it is possible that in some future quarters, our operating results will be below the expectations of analysts and investors.

We have a history of operating losses and may be unable to generate enough revenue to achieve and maintain profitability.

We have incurred operating losses in five of the last ten years. We operate in a cyclical industry. We will continue to examine our level of operating expense based upon our projected revenues. Any planned increases in operating expenses may result in losses in future periods if projected revenues are not achieved or the investment level required is too large. As a result, we may need to generate greater revenues than we have recently in order to maintain profitability. However, we cannot provide assurance that our revenues will increase and our business strategies will be successful, resulting in future losses.

The loss of key employees may adversely affect our operations.

We have employees located in the U.S., Germany and China. We also utilize independent contractors for specialty work, primarily in research and development, and utilize temporary workers to adjust capacity to fluctuating demand. Many of our employees are highly skilled, and our continued success will depend in part upon our ability to attract and retain employees who can be in great demand within the industry. None of our employees are represented by a collective bargaining unit, and we believe relations with our employees are favorable, though no assurance can be made that this will be the case in the future. In China, our workers have benefits and similar arrangements provided under a "FSCO" labor agreement, and we could be adversely affected if we were unable to continue that arrangement.

We may need to raise additional capital and our future access to capital is uncertain.

Our past revenues have sometimes been, and our future revenues may again be, insufficient to support the expense of our operations and any expansion of our business. We may therefore need additional equity or debt capital to finance our operations. If we are unable to generate sufficient cash flows from operations or to obtain funds through additional debt, lease or equity financing, we may have to reduce some or all of our development and sales and marketing efforts and limit the expansion of our business.

We believe that we have sufficient cash or working capital available under our operating plan to fund our operations and capital requirements through at least the next one-year period. In the event we require additional cash for U.S. operations or other needs, we may choose to repatriate some, or all, of the cash held in our foreign subsidiaries. There may be tax, legal and other impediments to any repatriation actions. Our working capital may be used to fund possible losses, business growth, project initiatives, share repurchases, and business development initiatives including acquisitions, which could reduce our liquidity and

result in a requirement for additional cash before that time. Any substantial inability to achieve our current business plan could have an adverse impact on our financial position, liquidity, or results of operations and may require us to reduce expenditures and/or seek additional financing.

Therefore, we may seek additional funding through public or private debt or equity financing or from other sources. We have no commitments for additional financing and given a potential future unfavorable economic climate and our financial results, we may experience difficulties in obtaining funding on favorable terms, if at all. Any financing we obtain may contain covenants that restrict our freedom to operate our business or may require us to issue securities that have rights, preferences or privileges senior to our Common Stock and may dilute your ownership interest.

Our stock price may be volatile and, as a result, our shareholders may lose some or all their investment.

The stock prices of technology companies tend to fluctuate significantly. We believe factors such as announcements of new products or services by us or our competitors and quarterly variations in financial results and outlook may cause the market price of our Common Stock to fluctuate substantially. In addition, overall volatility in the stock market, particularly in the technology sector, is often unrelated to the operating performance of companies. If these market fluctuations continue in the future, they may adversely affect the price of our Common Stock.

## **CYBERSECURITY RISKS**

Cybersecurity breaches or terrorism could result in liabilities or costs as well as damage to or loss of our data or customer access to our website and information systems. The collection, storage, transmission, use and disclosure of user data and personal information, if accessed improperly, could give rise to liabilities or additional costs as a result of laws, government regulations and evolving views of personal privacy rights.

Cybersecurity attacks may increase due to geo-political disagreements with countries and regions such as Russia, China, Korea and the Middle East. Cybersecurity breaches or terrorism could result in the exposure or theft of private or confidential information as well as interrupt our business, including denying customer access to our website and information systems. We transmit, and in some cases store, end-user data, including personal information. In jurisdictions around the world, personal information is becoming increasingly subject to legislation and regulations intended to protect consumers' privacy and security. The interpretation of privacy and data protection laws and regulations regarding collection, storage, transmission, use and disclosure of such information in some jurisdictions are unclear and evolving. These laws may be interpreted and applied in conflicting ways from country to country and in a manner that is not consistent with our current data protection practices. Complying with these varying international requirements could cause us to incur additional costs and change our business practices. Because our services are accessible in many foreign jurisdictions, some of these jurisdictions may claim that we are required to comply with their laws, even if we have no local entity, employees or infrastructure. We could be forced to incur significant expenses if we were required to modify our products, our services or our existing security and privacy procedures to comply with new or expanded regulations.

## **REGULATORY REQUIREMENTS**

Failure to comply with increasing regulatory requirements may adversely affect our stock price and business.

As a public company, we are subject to numerous governmental and stock exchange requirements which we believe, we are in compliance with. Our failure to meet regulatory requirements and exchange listing standards may result in actions such as: the delisting of our stock, impacting our stock's liquidity; SEC enforcement actions; and securities claims and litigation. Unfortunately, increased regulations pushed onto public companies may have a disproportionate impact to smaller public companies.

The Sarbanes-Oxley Act of 2002 and the Securities and Exchange Commission (SEC) have requirements that we may fail to meet or we may fall out of compliance with, such as the internal controls auditor attestation required under Section 404 of the Sarbanes-Oxley Act of 2002, with which we are not currently required to comply as we are a smaller reporting company. We assume that we will continue to have the status of a smaller reporting company based on the aggregate market value of the voting and non-voting shares held as of June 30, 2024. If we fail to achieve and maintain the adequacy of our internal controls, as such standards are modified, supplemented or amended from time to time, we may not be able to ensure that we can conclude on an ongoing basis that we have effective internal controls over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act of 2002. Moreover, effective internal controls, particularly those related to revenue recognition, are necessary for us to produce reliable financial reports and are important to help prevent financial fraud. If we cannot provide reliable financial reports or prevent fraud, our business and operating results could be harmed, investors could lose confidence in our reported financial information, and the trading price of our stock could drop significantly.

While we have policies and procedures in place designed to prevent corruption and bribery, because our business is significantly international, violations of the Foreign Corrupt Practices Act (FCPA) could have a significant adverse effect on our business due to the disruption and distraction of an investigation, financial penalties and criminal penalties.

Government regulations regarding the use of “conflict” minerals and potential climate and ESG requirements could adversely affect our prospects and results of operations.

Regulatory requirements regarding disclosure of our use of “conflict” minerals mined from the Democratic Republic of Congo and adjoining countries could affect the sourcing and availability of minerals used in the manufacture of certain products. Although we do not buy raw materials, manufacture, or produce any electronic equipment using conflict minerals directly, some components provided by our suppliers and contained in our products contain conflict minerals. Our goal is for our products to be conflict free. As a result, there may only be a limited pool of suppliers who provide conflict-free metals, and we cannot assure you that we will be able to obtain products in sufficient quantities or at competitive prices. Single source suppliers may not respond or respond negatively regarding conflict mineral sourcing, and we may be unable to find alternative sources to replace them. Also, because our supply chain is complex, we may face reputational challenges with our customers and other stakeholders if we are unable to sufficiently verify the origins for all metals used in the products that we sell. Further, if we are unable to comply with the new laws or regulations or if our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, regulatory authorities may initiate legal proceedings against us. We may need to incur additional costs and invest additional resources, including management’s time, to comply with the new regulations and additional reporting and disclosure obligations.

Climate focused regulations and related disclosures are a similar evolving regulatory area, and we may be required to invest in systems, processes and personnel to address new requirements in the ESG area. These will require significant costs, work and reputational risk for failing to meet requirements, with miniscule impact to the global environment.

#### **Item 1B. Unresolved Staff Comments**

None.

#### **Item 1C. Cybersecurity**

##### **CYBERSECURITY GOVERNANCE**

The Company’s Board of Directors has oversight responsibility for our strategic and operational risks. The Audit Committee of the Board of Directors is responsible for board-level oversight of cybersecurity risk; however, the full Board is typically present for Information Technology (IT) and Cybersecurity briefings. As part of its oversight role, the Audit Committee receives reporting about the Company’s cybersecurity program, activities, threats and incidents (if any) through periodic updates. The cybersecurity program is managed by our outsourced IT infrastructure team with oversight and coordination by our CFO, who reports directly to our CEO. Utilization of an outsourced IT infrastructure team allows Data I/O to access the necessary breadth and depth of leading cybersecurity programs, staff, expertise, and tools. The IT infrastructure team monitors the prevention, mitigation, detection, and remediation of cybersecurity incidents through their management of the cybersecurity function, including the operation of the Company’s incident response plans, which include appropriate escalation to the CFO, CEO and the Audit Committee.

##### **CYBERSECURITY RISK MANAGEMENT AND STRATEGY**

The Company has processes in place to identify, assess, and monitor material risks from cybersecurity threats, which are part of the Company’s overall cybersecurity risk management and have been embedded in the information systems operating procedures and internal controls. Our IT function manages IT operations and continually evolves and enhances our systems to meet the constantly changing digital environment. Periodic cybersecurity risk assessments are performed to identify, assess, and prioritize potential risks to information, data assets, infrastructure and third-party vendors. The Company addresses significant risks through corrective or mitigating actions as necessary.

The Company has also established cybersecurity and information security awareness training programs. Employees with access to the Company’s network receive annual training on topics such as phishing, malware, and other cybersecurity risks. Training is administered and tracked through online learning modules with ongoing follow-up testing. All employees and contractors enter into non-disclosure confidentiality agreements. We work to continually evolve our systems to meet the constantly changing digital environment and continue to invest in the cybersecurity and resiliency of our networks and to enhance our internal controls and processes, which are designed to help protect our systems and infrastructure, and the information they contain.

There have been no risks from cybersecurity threats that have materially affected or are reasonably likely to materially affect our business strategy, results of operations or financial condition. The nature of potential cybersecurity risks and threats are uncertain, and any future incidents, outages or breaches could have a material adverse effect on the Company's business, financial conditions or results of operations. For more information about the cybersecurity risks we face, refer to the Risk Factors in section "Cybersecurity Risks" in Part I, Item 1A, "Risk Factors".

## **Item 2. Properties**

The Company has three facilities with our headquarters and primary engineering and operational functions located in Redmond, Washington. Our two subsidiary facilities in Munich, Germany and Shanghai, China provide extended worldwide sales, service, engineering and operations services. The total annual gross or base lease payments during 2024 and 2023 were approximately \$795,000 and \$823,000, respectively. The lease payment decrease in 2024 was due primarily to a reduction in lease rates for our Redmond, Washington and Shanghai, China facilities. The lower rates reflect the real estate market conditions as part of the lease extensions which occurred in the fourth quarter of 2024. The Redmond lease was renewed and extended by 3.75 years and the Shanghai, China lease was renewed and extended by 3 years.

The Redmond, Washington headquarters facility lease runs to October 31, 2029, at approximately 20,460 square feet. The lease for the facility located in Shanghai, China runs to October 31, 2027, at approximately 19,400 square feet. The lease for the facility located near Munich, Germany runs to August 2027, at approximately 4,895 square feet.

## **Item 3. Legal Proceedings**

From time to time, we may be involved in litigation relating to claims arising out of our operations in the normal course of business. As of December 31, 2024, we were not a party to any legal proceedings or aware of any indemnification agreement claims, the adverse outcome of which in management's opinion, individually or in aggregate, would have a material adverse effect on our results of operations or financial position.

## **Item 4. Mine Safety Disclosures**

Not Applicable.

# **PART II**

## **Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities**

Our Common Stock is listed on the NASDAQ Capital Market (NASDAQ symbol is DAIO). The closing price was \$2.77 on December 31, 2024.

The approximate number of shareholders of record as of March 18, 2025 was 350.

Except for special cash dividend of \$4.15 per share paid on March 8, 1989, we have not paid cash dividends on our Common Stock and do not anticipate paying regular cash dividends in the foreseeable future.

No sales of unregistered securities were made by us during the periods ended December 31, 2024, 2023 or 2022.

See Item 12 for the Equity Compensation Plan Information.

## **Item 6. Selected Financial Data**

Not applicable.

## **Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations**

### **FORWARD-LOOKING STATEMENTS**

This Annual Report on Form 10-K includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. This Act provides a "safe harbor" for forward-looking statements to encourage companies to provide prospective information about themselves as long as they identify these statements as forward-looking and provide meaningful cautionary statements identifying important factors that could cause actual results to differ from the projected results. All statements other than statements of historical fact made in this Annual Report on Form 10-K are forward-looking. In particular, statements herein regarding industry prospects and trends; expected business recovery; industry partnerships; future results of operations or financial position; future spending; expected expenses, breakeven revenue point; expected market decline, bottom

or growth; market acceptance of our newly introduced or upgraded products or services; the sufficiency of our cash to fund future operations and capital requirements; development, introduction and shipment of new products or services; changing foreign operations; taxes, trade issues and tariffs; expected inventory levels; expectations for unsupported platform or product versions and related inventory and other charges; Russian invasion of Ukraine impacts; Israel – Hamas war impacts; supply chain expectations; semiconductor chip shortages and recovery; and any other guidance on future periods are forward-looking statements. Forward-looking statements reflect management’s current expectations and are inherently uncertain. Although we believe that the expectations reflected in these forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, achievements, or other future events. Moreover, neither Data I/O nor anyone else assumes responsibility for the accuracy and completeness of these forward-looking statements. We are under no duty to update any of these forward-looking statements after the date of this Annual Report. The Reader should not place undue reliance on these forward-looking statements. The following discussions and the section entitled “Risk Factors - Cautionary Factors That May Affect Future Results” describes some, but not all, of the factors that could cause these differences.

## OVERVIEW

The automotive and industrial electronics industry is cyclical. With increased market uncertainty and customer capacity expansion slowing in 2024, automated systems shipments declined in the Americas and Europe which was partially offset by revenue growth in Asia. Automotive electronics represented 59% of 2024 bookings compared to 63% for 2023. While automotive system sales were below expectations, the Company continues to expand its sales to service providers (franchise distribution, contract manufacturers and independent providers) and reoccurring revenue offerings. For the full year, consumable adapters and services revenue remained steady, representing 50% of total revenue and helping mitigate the decline in system sales.

COVID-19 impacts in past years were no longer an operational challenge with personnel staffing, inventory levels and supply chain and operational activities returning to normal levels. However late in 2024 with the new incoming United States Administration, geo-political, economic and trade uncertainties have increased. The resulting future impact on the Company’s markets, customers, supply chain and operations are uncertain. However, the operational and manufacturing resiliencies gained from the COVID-19 impact and the experience of leadership and operational teams can be leveraged to navigate and mitigate these potential future challenges. As our customers shift their supply chain and manufacturing locations to address changing economic and trade constraints, we will have the capacity and ability to adjust accordingly.

After a period of stability which lasted over a decade, key organizational leadership transition occurred in the fourth quarter of 2024 with the appointment of a new CEO and President, William Wentworth. Subsequent changes have also occurred in the leadership of the Sales, Marketing and Engineering functions and corresponding changes in the strategic and operational direction of these groups. We believe these changes will drive improved revenue growth, higher product innovation, greater operational efficiency and improved financial performance.

We continue to make investments in technologies, products and services to maintain market leadership in our Unified Programming Strategy. This strategy supports our customers’ preprogramming supply chain needs, from design to manufacturing and beyond. Our manual programmer offerings, such as LumenX and FlashCore, provide preprogramming solutions for our customers’ design, engineering, new product introduction, low-to-medium production, and test needs while our PSV system of products support medium-to-high volume production needs. Our strong cash position and balance sheet, combined with our long-term view of the market, gives us financial flexibility to make these investments.

## CRITICAL ACCOUNTING POLICY JUDGMENTS AND ESTIMATES

The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires that we make estimates and judgments, which affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosures of contingent assets and liabilities. On an on-going basis, we evaluate our estimates, including those related to revenue recognition, sales returns, credit losses, inventories, income taxes, warranty obligations, restructuring charges, contingencies such as litigation and contract terms that have multiple elements and other complexities typical in the capital equipment industry. We base our estimates on historical experience and other assumptions that we believe are reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions.

We believe the following critical accounting policies affect the more significant judgments and estimates used in the preparation of our financial statements:

**Revenue Recognition:** Accounting Standards Codification (ASC) Topic 606, *Revenue from Contracts with Customers* (ASC 606) provides a single, principles-based five-step model to be applied to all contracts with customers. It generally provides for the recognition of revenue in an amount that reflects the consideration to which the Company expects to be entitled, net of allowances

for estimated returns, discounts or sales incentives, as well as taxes collected from customers when control over the promised goods or services are transferred to the customer.

We expense contract acquisition costs, primarily sales commissions, for contracts with terms of one year or less and will capitalize and amortize incremental costs with terms that exceed one year. During 2024 and 2023, the impact of capitalization of incremental costs for obtaining contracts was immaterial. We exclude sales, use, value added, some excise taxes and other similar taxes from the measurement of the transaction price.

We recognize revenue upon transfer of control of the promised products or services to customers in an amount that reflects the consideration we expect to receive in exchange for those products or services. We have determined that our programming equipment has reached a point of maturity and stability such that product acceptance can be assured by testing at the factory prior to shipment and that the installation meets the criteria to be a separate performance obligation. These systems are standard products with published product specifications and are configurable with standard options. The evidence that these systems could be deemed accepted was based upon having standardized factory production of the units, results from batteries of tests of product performance to our published specifications, quality inspections and installation standardization, as well as past product operation validation with the customer and the history provided by our installed base of products upon which the current versions were based.

The revenue related to products requiring installation, that is perfunctory, is recognized upon transfer of control of the product to customers, which generally is at the time of shipment. Installation that is considered perfunctory includes any installation that is expected to be performed by other parties, such as distributors, other vendors, or the customers themselves. This analysis considers the complexity, skill and training needed, as well as customer expectations regarding installation.

We enter into arrangements with multiple performance obligations that arise during the sale of a system that could include hardware, software, installation, service and support, and extended maintenance components. We allocate the transaction price of each element based on the relative selling prices. Relative selling price is based on the selling price of the standalone system. For the installation and service and support performance obligations, we use the value of the discount given to distributors who perform these components. For software maintenance performance obligations, we use what we charge for annual software maintenance renewals after the initial year the system is sold. Revenue is recognized on the system based on shipping terms, software based on delivery, installation and services based on completion of work and software maintenance and extended warranty support ratably over the term of the agreement, typically one year.

When we license software separately, we recognize revenue upon the transfer of control of the software, which is generally upon shipment, provided that only inconsequential performance obligations remain on our part and substantive acceptance conditions, if any, have been met.

We recognize revenue when there is an approved contract that both parties are committed to perform, both parties rights have been identified, the contract has substance, collection of substantially all the consideration is probable, the transaction price has been determined and allocated over the performance obligations, the performance obligations, including substantive acceptance conditions, if any, in the contract have been met, the obligation is not contingent on resale of the product, the buyer's obligation would not be changed in the event of theft, physical destruction or damage to the product, the buyer acquiring the product for resale has economic substance apart from us, and we do not have significant obligations for future performance to directly bring about the resale of the product by the buyer. We establish a reserve for sales returns based on historical trends in product returns and estimates for new items. Payment terms are generally 30 to 60 days from shipment.

We transfer certain products out of service from their internal use and make them available for sale. The products transferred are typically our standard products in one of the following areas: service loaners, rental or test units; engineering test units; or sales demonstration equipment. Once transferred, the equipment is sold by our regular sales channels as used equipment inventory. These product units often involve refurbishing with standard equipment warranty provided and are conducted as sales in our normal and ordinary course of business. The transfer amount is the product unit's net book value, and the sale transaction is accounted for as revenue and cost of goods sold.

**Allowance for Credit Losses:** Allowance for credit losses is based on our assessment of the losses collectively expected for the future, as well as collectability of specific customer accounts and the aging of accounts receivable. If there is deterioration of a major customer's credit worthiness or actual defaults are higher than historical experience, or events forecast that collectively indicate some impairment is expected, our estimates of the recoverability of amounts due to us could be adversely affected.

**Inventory:** Inventories are stated at the lower of cost or net realizable value. Adjustments are made to standard cost, which approximates actual cost on a first-in, first-out basis. We estimate reductions to inventory for obsolete, slow-moving, excess and non-salable inventory by reviewing current transactions and forecasted product demand. We evaluate our inventories on an item-

by-item basis and record inventory adjustments accordingly. If there is a significant decrease in demand for our products, uncertainty during product line transitions, or a higher risk of inventory obsolescence because of rapidly changing technology and customer requirements, we may be required to increase our inventory adjustments, and our gross margin could be adversely affected.

**Warranty Accruals:** We accrue for warranty costs based on the expected material and labor costs to fulfill our warranty obligations. If we experience an increase in warranty claims, which are higher than our historical experience, our gross margin could be adversely affected.

**Tax Valuation Allowances:** Given the uncertainty created by our loss history capital and geographic spending, as well as income and current net deferred tax assets by entity and country, we expect to continue to limit the recognition of net deferred tax assets and accounting for uncertain tax positions and maintain the tax valuation allowances. At the current time, we expect, therefore, that reversals of the tax valuation allowance will take place as we are able to take advantage of the underlying tax loss or other attributes in carry forward or their use by future income or circumstances allow us to realize these attributes. The transfer pricing and expense or cost sharing arrangements are complex areas where judgments, such as the determination of arms-length arrangements, can be subject to challenges by different tax jurisdictions.

**Share-based Compensation:** We account for share-based awards provided to our employees and directors, including employee stock option awards, performance stock unit awards and restricted stock unit awards, using the estimated grant date fair value method of accounting. For options, we estimate the fair value using the Black-Scholes valuation model and an estimated forfeiture rate. Restricted stock unit awards and performance stock unit awards are valued based on the average of the high and low price on the date of the grant and an estimated forfeiture rate. For options, performance and restricted stock unit awards, expense is recognized as compensation expense on the straight-line basis. Employee Stock Purchase Plan ("ESPP") shares were issued under provisions that do not require us to record any equity compensation expense.

**RESULTS OF OPERATIONS:****NET SALES**

Net sales by product line	2024	Change	2023
(in thousands)			
Automated programming systems	\$16,940	(25.7%)	\$22,806
Non-automated programming systems	4,829	(8.2%)	5,258
Total programming systems	<u>\$21,769</u>	<u>(22.4%)</u>	<u>\$28,064</u>
Net sales by location	2024	Change	2023
(in thousands)			
United States	\$1,377	(50.8%)	\$2,799
% of total	6.3%		10.0%
International	\$20,392	(19.3%)	\$25,265
% of total	93.7%		90.0%
Net sales by type	2024	Change	2023
(in thousands)			
Equipment Sales	\$10,985	(32.8%)	\$16,343
Adapter Sales	7,250	(11.1%)	8,154
Software and Maintenance Sales *	3,534	(0.9%)	3,567
Total	<u>\$21,769</u>	<u>(22.4%)</u>	<u>\$28,064</u>

\* includes an insignificant amount of service and parts sales

Net sales for the year ended December 31, 2024 decreased approximately 22%, to \$21.8 million, compared to 2023. In 2024, automotive electronics uncertainty persisted and customer capacity expansion slowed, resulting in lower system shipments in the Americas and Europe which were partially offset by growth in Asia. Automotive electronics represented 59% of 2024 bookings compared to 63% for 2023. While automotive system sales were below expectations, the Company continues to expand its sales to service providers (franchise distribution, contract manufacturers and independent providers) and reoccurring revenue offerings. For the full year, consumable adapters and services revenue remained steady, representing 50% of total revenue and helping mitigate the decline in system sales.

Order bookings were \$22.5 million in 2024, down approximately 12.6% compared to \$25.8 million in 2023 due to similar market challenges noted for revenue. The order backlog on December 31, 2024, was \$3.5 million, up \$0.7 million from the fourth quarter of 2023, which will benefit revenue recognition in the first half of 2025 as systems are shipped. Additionally, deferred revenue was approximately \$1.6 million on December 31, 2024.

GROSS MARGIN	2024	Change	2023
(in thousands)			
Gross margin	\$11,606	(28.3%)	\$16,186
Percentage of net sales	53.3%		57.7%

Gross margin as a percentage of sales for the year ended December 31, 2024, was 53.3%, compared to 57.7% in 2023. The decrease in gross margin as a percentage of sales primarily reflects lower sales volume and lower related absorption of fixed manufacturing and service operating costs. Actual 2024 production and service spending decreased by \$250,000 or 4% from the prior year.

**RESEARCH AND DEVELOPMENT**

	2024	Change	2023
(in thousands)			
Research and development	\$6,240	(4.4%)	\$6,524
Percentage of net sales	28.7%		23.2%

Research and development ("R&D") expense decreased \$284,000 for the year ended December 31, 2024 compared to 2023. The decrease was primarily related to contracted services and incentive compensation.

We believe it is essential to invest in R&D to significantly enhance our existing solutions and create new products as markets develop and technologies change. During 2024, we continued to invest in the creation of new and enhancement of existing capabilities for our PSV family of automated systems, LumenX and FlashPAK family of non-automated programmers and related software. In addition to product development, a significant part of R&D spending is on creating algorithm software and support for new devices introduced by the semiconductor companies. Our R&D spending fluctuates based on the number, type, and the development stage of our product initiatives and projects.

#### SELLING, GENERAL AND ADMINISTRATIVE

	2024	Change	2023
(in thousands)			
Selling, general & administrative	\$8,404	(8.8%)	\$9,214
Percentage of net sales	38.6%		32.8%

Selling, General and Administrative (“SG&A”) expenses decreased approximately \$810,000 thousand for the year ended December 31, 2024 compared to 2023. The decrease was primarily related to lower sales commissions on lower revenue and lower outside services from efficiency improvements and cost controls. Cost control measures remain in effect. Salary and wages remained flat with lower headcount savings offset by staff separation charges of approximately \$430,000 in the fourth quarter of 2024.

#### INTEREST

	2024	Change	2023
(in thousands)			
Interest income	\$273	43.7%	\$190

Interest income was higher for the year ended December 31, 2024 compared to 2023 primarily due to higher average interest rates and higher invested balances.

#### INCOME TAXES

	2024	Change	2023
(in thousands)			
Income tax (expense) benefit	(\$386)	99.0%	(\$194)

Income tax (expense) increased by \$192,000 for the year ended December 31, 2024 compared to 2023. The increase was primarily a result of the withholding tax of \$337,000 on the repatriation of cash from China subsidiary in 2024. Income tax (expense) in 2024 and 2023 is primarily the result of foreign subsidiary income tax and minimal U.S. state income tax.

The effective tax rate for 2024 of (14.3%) and 2023 of 28.6% differed from the statutory tax rates in our tax reporting jurisdictions primarily due to subsidiary income with consolidated losses and the effect of valuation allowances. We have a valuation allowance of \$8.2 million and \$8.7 million as of December 31, 2024 and 2023, respectively. Our deferred tax assets and valuation allowance have increased by approximately \$442,000 and \$430,000 associated with the requirements of accounting for uncertain tax positions as of December 31, 2024 and 2023, respectively. Given the uncertainty created by our loss history, particularly in the U.S., which is where most of our net deferred tax assets are located, and the ongoing uncertain economic outlook for our industry, as well as capital and geographic spending, we currently expect to continue to limit the recognition of net deferred tax assets and maintain the tax valuation allowances.

#### INFLATION AND CHANGES IN FOREIGN CURRENCY EXCHANGE RATES

Sales and expenses incurred by foreign subsidiaries are denominated in the subsidiary’s local currency and translated into U.S. Dollar amounts at average rates of exchange during the year. We recognized foreign currency transaction gains of \$58,000 in 2024 and \$42,000 in 2023. The transaction gains resulted primarily from translation adjustments to foreign inter-company accounts and U.S. Dollar accounts held by foreign subsidiaries and sales by our German subsidiary to certain customers, which were invoiced in U.S. Dollars. Because approximately 94% of sales are to international markets, volatile exchange rates may also impact our competitiveness and margins. Product and service price increases have been increased in response to cost increases caused by inflation, tariffs and part shortages.

## FINANCIAL CONDITION:

### LIQUIDITY AND CAPITAL RESOURCES

	2024	Change	2023
(in thousands)			
Working capital	\$16,085	(\$2,340)	\$18,425

At December 31, 2024, our principal sources of liquidity consisted of existing cash and cash equivalents. Cash at December 31, 2024 and 2023 was \$10.3 million and \$12.3 million, respectively. Working capital decreased by \$2.3 million during 2024 due primarily to the revenue decline and resulting operating loss. Our current ratio improved and was 4.2 and 4.0 for December 31, 2024 and 2023, respectively. The company continues to have no debt.

Although we have no significant external capital expenditure plans currently, we expect to continue to carefully make and manage capital expenditures to support our business. We plan to increase our internally developed rental, sales demonstration and test equipment as we develop and release new products. Capital expenditures are currently expected to be funded by existing and internally generated funds.

As a result of our cyclical and seasonal industry, significant product development, factory resilience strategies, customer support and selling and marketing efforts, we require substantial working capital to fund our operations. We have implemented or have initiatives to implement geographic shifts in our operations, optimize real estate usage, adjust pricing for cost inflation, lower unit costs, lower tariff expenses, reduce exposure to the impact of currency volatility, increase product development differentiation, and reduce other costs. We believe that we have sufficient cash or working capital available under our operating plan to fund our operations and capital requirements through the next one-year period, and beyond.

We may require additional cash at the U.S. headquarters, which could cause potential repatriation of cash that is held in our foreign subsidiaries. For any repatriation, there may be tax and other impediments to any repatriation actions. As many repatriations typically have associated withholding taxes, those withheld will be a current tax without generating a current or deferred tax benefit recognition. In the second quarter of 2024, we completed a \$3.4 million dividend distribution from our China subsidiary operation, incurring a \$337,000 foreign tax withholding expense. This was undertaken to optimize the cash position and operating needs of each subsidiary, increase the interest earning potential of our cash holdings and ensure available liquidity at the U.S. headquarters to support future strategic and operational initiatives.

Our working capital may be used to fund possible losses, business growth, project initiatives, share repurchases and business development initiatives including acquisitions, which could reduce our liquidity and result in a requirement for additional cash before that time. Any substantial inability to achieve our current business plan could have a material adverse impact on our financial position, liquidity, or results of operations and may require us to reduce expenditure and/or seek possible additional financing.

### OFF-BALANCE SHEET ARRANGEMENTS

Except as noted in the accompanying consolidated financial statements in Note 7, "Other Commitments" we had no material off-balance sheet arrangements.

### SHARE REPURCHASE PROGRAMS

Data I/O did not have a share repurchase program in 2024 or 2023.

### NON-GENERALLY ACCEPTED ACCOUNTING PRINCIPLES (GAAP) FINANCIAL MEASURES

Earnings Before Interest, Taxes, Depreciation, and Amortization ("EBITDA") and Adjusted EBITDA excluding equity compensation and impairment & related charges (non-cash, one-time items) are set forth below. Non-GAAP financial measures should not be considered a substitute for, or superior to, measures of financial performance prepared in accordance with GAAP. We believe that these non-GAAP financial measures provide meaningful supplemental information regarding our results and facilitate the comparison of results.

A reconciliation of net income to EBITDA and Adjusted EBITDA follows:

	For Year Ended December 31,	
	2024	2023
(in thousands)		
Net Income (loss)	(\$3,093)	\$486
Interest (income)	(273)	(190)
Taxes	386	194
Depreciation and amortization	565	608
EBITDA	(\$2,415)	\$1,098
Equity compensation	976	1,190
Adjusted EBITDA, excluding equity compensation	(\$1,439)	\$2,288

#### NEW ACCOUNTING PRONOUNCEMENTS - STANDARDS ISSUED AND IMPLEMENTED

Effective January 1, 2024, the Company adopted ASU 2023-07, Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures. This update requires entities, including those with a single reportable segment, to disclose significant segment expenses regularly provided to the Chief Operating Decision Maker (CODM) and included in the reported measure of segment profit or loss.

The Company operates as a single reportable segment. The CODM evaluates the Company's performance based on operating income, as presented in the consolidated statements of operations. Significant segment expenses are those that are already disclosed in operating income and regularly reviewed by the CODM for purposes of assessing performance and allocating resources. Additional significant single segment expense categories are provided in Note 13 – Segment Information.

#### NEW ACCOUNTING PRONOUNCEMENTS - STANDARDS ISSUED AND NOT YET IMPLEMENTED

In December 2023, the FASB issued ASU 2023-09 "Income Taxes (Topics 740): Improvements to Income Tax Disclosures" to expand the disclosure requirements for income taxes, specifically related to the rate reconciliation and income taxes paid. ASU 2023-09 is effective for our annual periods beginning January 1, 2025, with early adoption permitted. We are currently evaluating the potential effect that the updated standard will have on our financial statement disclosures.

In November 2024, FASB issued ASU 2024-03, Income Statement – Reporting Comprehensive Income – Expense Disaggregation (Subtopic 220-40), which requires disclosure of specific information about costs and expenses within relevant expense captions on the face of the income statement, qualitative descriptions for expense captions not specifically disaggregated quantitatively, and the total amount and definition of selling expenses for interim and annual reporting periods. This standard is effective for the annual reporting period beginning January 1, 2027 and interim reporting periods beginning January 1, 2028 and should be applied retrospectively to all comparative periods. Early adoption is permitted. The Company is currently evaluating the effects of adopting this new accounting guidance.

#### Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Not applicable.

#### Item 8. Financial Statements and Supplementary Data

See pages 27 through 47.

---

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

---

Board of Directors and Stockholders  
Data I/O Corporation

### Opinion on the financial statements

We have audited the accompanying consolidated balance sheets of Data I/O Corporation (a Washington corporation) and subsidiaries (the "Company") as of December 31, 2024 and 2023, the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for each of the two years in the period ended December 31, 2024, and the related notes and financial statement schedules included under Item 15(a)(2) (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2024 and 2023, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2024, in conformity with accounting principles generally accepted in the United States of America.

### Basis for opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

### Critical audit matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

#### *Net Realizable Value of Inventory*

As described further in Note 1 to the financial statements, management measures the net realizable value of inventory based on estimated reductions to inventory for obsolete, slow-moving, excess and non-salable inventory by reviewing current transactions and forecasted demand. We identified net realizable value of inventory specifically as a critical audit matter.

The principal considerations for our determination that the net realizable value of inventory represents a critical audit matter are that the assessment of the valuation of inventory is complex and includes an estimate of forecasted demand. The demand estimate is subjective and requires the Company to consider significant assumptions such as economic conditions, technological advances, historical usage, and consumer trends, which are subject to significant uncertainty and therefore require significant auditor judgement.

Our audit procedures related to the net realizable value of inventory included the following, among others:

- To test the adequacy of the Company's allowance for excess and obsolete inventories, we performed substantive audit procedures that included, among others, testing the completeness and accuracy of the underlying data used in the estimation calculations, specifically those related to inventory movements and aging. We also evaluated the reasonableness of significant assumptions including the estimated reserve percentage and other significant assumptions through inquiry of management and personnel outside of finance team and analytical procedures.

/s/ GRANT THORNTON LLP

We have served as the Company's auditor since 2001.

Bellevue, Washington

March 31, 2025

**DATA I/O CORPORATION**  
**CONSOLIDATED BALANCE SHEETS**  
(in thousands, except share data)

	<b>December 31, 2024</b>	<b>December 31, 2023</b>
<b>ASSETS</b>		
<b>CURRENT ASSETS:</b>		
Cash and cash equivalents	\$10,326	\$12,341
Trade accounts receivable, net of allowance for credit losses of \$22 and \$72, respectively	3,960	5,707
Inventories	6,212	5,875
Other current assets	659	690
<b>TOTAL CURRENT ASSETS</b>	<b>21,157</b>	<b>24,613</b>
 Property, plant and equipment – net	 1,001	 1,359
Other assets	2,812	1,429
<b>TOTAL ASSETS</b>	<b>\$24,970</b>	<b>\$27,401</b>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
<b>CURRENT LIABILITIES:</b>		
Accounts payable	\$820	\$1,272
Accrued compensation	1,517	2,003
Deferred revenue	1,535	1,362
Other accrued liabilities	1,161	1,438
Income taxes payable	39	113
<b>TOTAL CURRENT LIABILITIES</b>	<b>5,072</b>	<b>6,188</b>
Operating lease liabilities	2,160	702
Long-term other payables	112	192
<b>STOCKHOLDERS' EQUITY</b>		
Preferred stock -		
Authorized, 5,000,000 shares, including 200,000 shares of Series A Junior Participating		
Issued and outstanding, none	-	-
Common stock, at stated value -		
Authorized, 30,000,000 shares		
Issued and outstanding, 9,236,040 shares as of December 31, 2024 and 9,020,819 shares as of December 31, 2023	23,475	22,731
Accumulated earnings (deficit)	(5,738)	(2,645)
Accumulated other comprehensive income	(111)	233
<b>TOTAL STOCKHOLDERS' EQUITY</b>	<b>17,626</b>	<b>20,319</b>
<b>TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY</b>	<b>\$24,970</b>	<b>\$27,401</b>

*See notes to consolidated financial statements*

**DATA I/O CORPORATION**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
(in thousands, except per share amounts)

	<b>For the Years Ended December 31,</b>	
	<b>2024</b>	<b>2023</b>
Net sales	\$21,769	\$28,064
Cost of goods sold	10,163	11,878
Gross margin	11,606	16,186
Operating expenses:		
Research and development	6,240	6,524
Selling, general and administrative	8,404	9,214
Total operating expenses	14,644	15,738
Operating income (loss)	(3,038)	448
Non-operating income (loss):		
Interest income	273	190
Foreign currency transaction gain (loss)	58	42
Total non-operating income (loss)	331	232
Income (loss) before income taxes	(2,707)	680
Income tax (expense) benefit	(386)	(194)
Net income (loss)	(\$3,093)	\$486
Basic earnings (loss) per share	(\$0.34)	\$0.05
Diluted earnings (loss) per share	(\$0.34)	\$0.05
Weighted-average basic shares	9,150	8,941
Weighted-average diluted shares	9,150	9,073

*See notes to consolidated financial statements*

**DATA I/O CORPORATION**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)**  
(in thousands)

	<b>For the Years Ended</b>	
	<b>December 31,</b>	
	<b>2024</b>	<b>2023</b>
Net Income (loss)	(\$3,093)	\$486
Other comprehensive income:		
Foreign currency translation gain (loss)	(344)	(110)
Comprehensive income (loss)	<u>(\$3,437)</u>	<u>\$376</u>

*See notes to consolidated financial statements*

**DATA I/O CORPORATION**  
**CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY**  
(in thousands, except share amounts)

	Common Stock		Accumulated	Accumulated	Total
	Shares	Amount	Earnings	and Other	Stockholders'
			(Deficit)	Comprehensive	Equity
				Income (Loss)	
<b>Balance at December 31, 2022</b>	8,816,381	\$21,897	(\$3,131)	\$343	\$19,109
Stock awards issued, net of tax withholding	201,172	(370)	-	-	(370)
Issuance of stock through:					
Employee Stock Purchase Plan	3,266	14	-	-	14
Share-based compensation	-	1,190	-	-	1,190
Net income (loss)	-	-	486	-	486
Other comprehensive income gain (loss)	-	-	-	(110)	(110)
<b>Balance at December 31, 2023</b>	<u>9,020,819</u>	<u>\$22,731</u>	<u>(\$2,645)</u>	<u>\$233</u>	<u>\$20,319</u>
Stock awards issued, net of tax withholding	210,202	(246)	-	-	(246)
Issuance of stock through:					
Employee Stock Purchase Plan	5,019	14	-	-	14
Share-based compensation	-	976	-	-	976
Net income (loss)	-	-	(3,093)	-	(3,093)
Other comprehensive income gain (loss)	-	-	-	(344)	(344)
<b>Balance at December 31, 2024</b>	<u>9,236,040</u>	<u>\$23,475</u>	<u>(\$5,738)</u>	<u>(\$111)</u>	<u>\$17,626</u>

*See notes to consolidated financial statements*

**DATA I/O CORPORATION**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(in thousands)

	<b>For the Twelve Months Ended December 31,</b>	
	<b>2024</b>	<b>2023</b>
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Net income (loss)	(\$3,093)	\$486
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Depreciation and amortization	564	608
Equipment transferred to cost of goods sold	260	301
Share-based compensation	977	1,190
Net change in:		
Trade accounts receivable	1,711	(719)
Inventories	(358)	815
Other current assets	29	(48)
Accounts payable and accrued liabilities	(1,263)	109
Deferred revenue	122	(267)
Other long-term liabilities	1,458	(684)
Deposits and other long-term assets	(1,402)	637
Net cash provided by (used in) operating activities	(995)	2,428
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Purchases of property, plant and equipment	(467)	(1,195)
Cash provided by (used in) investing activities	(467)	(1,195)
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>		
Net proceeds from issuance of common stock, less payments for shares withheld to cover tax	(232)	(356)
Cash provided by (used in) financing activities	(232)	(356)
Increase (decrease) in cash and cash equivalents	(1,694)	877
Effects of exchange rate changes on cash	(321)	(46)
Cash and cash equivalents at beginning of period	12,341	11,510
Cash and cash equivalents at end of period	<u>\$10,326</u>	<u>\$12,341</u>
<b>Supplemental disclosure of cash flow information:</b>		
Cash paid during the period for:		
Income taxes	\$459	\$171

*See notes to consolidated financial statements*

**DATA I/O CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

Nature of Operations

Data I/O Corporation (“Data I/O”, “We”, “Our”, “Us”) designs, manufactures and sells programming systems used by designers and manufacturers of electronic products. Our programming system products are used to program integrated circuits (“ICs” or “devices” or “semiconductors”) with the specific unique data necessary for the ICs contained in various products and are an important tool for the electronics industry experiencing growing use of programmable ICs. Customers for our programming system products are located around the world, primarily in Asia, Europe and the Americas. Our manufacturing operations are currently located in Redmond, Washington, United States and Shanghai, China.

Principles of Consolidation

The consolidated financial statements include the accounts of Data I/O Corporation and wholly owned subsidiaries. Intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America (“U.S. GAAP”) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Significant estimates include:

- Revenue Recognition
- Allowance for Credit Losses
- Inventory Obsolescence Allowances
- Warranty Accruals
- Tax Valuation Allowances
- Share-based Compensation

Foreign Currency Translation

Assets and liabilities of foreign subsidiaries are translated at the exchange rate on the balance sheet date. Revenues, costs and expenses of foreign subsidiaries are translated at average rates of exchange prevailing during the year. Translation adjustments resulting from this process are charged or credited to stockholders’ equity. Realized and unrealized gains and losses resulting from the effects of changes in exchange rates on assets and liabilities denominated in foreign currencies are included in non-operating expense as foreign currency transaction gains and losses.

Cash and Cash Equivalents

All highly liquid investments purchased with an original maturity of 90 days or less are considered cash equivalents. We maintain our cash and cash equivalents with major financial institutions in the United States of America, which are insured by the Federal Deposit Insurance Corporation (FDIC), and in foreign jurisdictions. Deposits in U.S. banks exceed the FDIC insurance limit. We have not experienced any losses on our cash and cash equivalents. Cash and cash equivalents held in foreign bank accounts, typically in local currency, in China and Germany, totaled \$4.3 and \$6.6 million at December 31, 2024 and 2023, respectively. This cash held in subsidiaries have restrictions and costs associated with repatriations, currency conversions, and complying with government policies, regulations and controls, especially in China.

Fair Value of Financial Instruments

Certain financial instruments are carried at cost on the consolidated balance sheets, which approximates fair value due to their short-term, highly liquid nature. These instruments include cash and cash equivalents, accounts receivable, accounts payable and accrued expenses, and other short-term liabilities.

### Accounts Receivable

Majority of our accounts receivable are due from companies in the electronics manufacturing industries. Credit is extended based on an evaluation of a customer's financial condition and, generally, collateral is not required. Account receivables are typically due within 30 to 60 days and are stated at amounts due net of an allowance for credit losses. Accounts receivable outstanding longer than the contractual payment terms are considered past due. We determine the allowance by considering a number of factors, including a forward-looking expectation based upon the condition of the general economy and the industry as a whole and our previous bad debt experience, as well as the length of time trade accounts receivable are past due, the industry and geographic payment practices involved, and the customer's current ability to pay their obligation to us. We write off accounts receivable when they become uncollectible, and payments subsequently received on such receivables are credited to the allowance for credit losses.

### Inventories

Inventories are stated at the lower of cost or net realizable value with cost being the currently adjusted standard cost, which approximates cost on a first-in, first-out basis. We estimate changes to inventory for obsolete, slow-moving, excess and potential non-salable inventory by reviewing current transactions and forecasted product demand. We evaluate our inventories on an item-by-item basis and record an adjustment (lower of cost or net realizable value) accordingly.

### Property, Plant and Equipment

Property, plant and equipment, including leasehold improvements, are stated at cost, and depreciation is calculated over the estimated useful lives of the related assets or lease terms on the straight-line basis. We depreciate substantially all property, plant and equipment over periods of three to seven years. We depreciate leasehold improvements over the remaining portion of the lease or over the expected life of the asset if less than the remaining term of the lease.

Property, plant and equipment are reviewed for impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable. If the total of future undiscounted cash flows is less than the carrying amount of these assets, an impairment loss, if any, based on the excess of the carrying amount over the fair value of the assets, is recorded. Based on these evaluations, for the years ended December 31, 2024 and 2023, no impairment was noted or recorded for property, plant and equipment.

### Patent Costs

We expense external costs, such as filing fees and associated attorney fees, incurred to obtain initial patents, but capitalize patents obtained through acquisition as intangible assets. We also expense costs associated with maintaining and defending issued patents.

### Income Taxes

Income taxes are computed at current enacted tax rates, less tax credits, using the asset and liability method. Deferred taxes are adjusted both for items that do not have tax consequences and for the cumulative effect of any changes in tax rates from those previously used to determine deferred tax assets or liabilities. Tax provisions include amounts that are currently payable, changes in deferred tax assets and liabilities that arise because of temporary differences between the timing of when items of income and expense are recognized for financial reporting and income tax purposes, and any changes in the valuation allowance caused by a change in judgment about the realization of the related deferred tax assets. A valuation allowance is established when necessary to reduce deferred tax assets to amounts expected to be realized.

### Share-Based Compensation

All stock-based compensation awards are measured based on estimated fair values on the date of grant and recognized as compensation expense on the straight-line method. Our share-based compensation is reduced for estimated forfeitures at the time of grant and revised as necessary in subsequent periods if actual forfeitures differ from those estimates.

## Revenue Recognition

Accounting Standards Codification (ASC) Topic 606, Revenue from Contracts with Customers (ASC 606) provides a single, principles-based five-step model to be applied to all contracts with customers. It generally provides for the recognition of revenue in an amount that reflects the consideration to which the Company expects to be entitled, net of allowances for estimated returns, discounts or sales incentives, as well as taxes collected from customers when control over the promised goods or services are transferred to the customer.

We expense contract acquisition costs, primarily sales commissions, for contracts with terms of one year or less and will capitalize and amortize incremental costs with terms that exceed one year. During 2024 and 2023, the impact of capitalization of incremental costs for obtaining contracts was immaterial. We exclude sales, use, value added, some excise taxes and other similar taxes from the measurement of the transaction price.

We recognize revenue upon transfer of control of the promised products or services to customers in an amount that reflects the consideration we expect to receive in exchange for those products or services. We have determined that our programming equipment has reached a point of maturity and stability such that product acceptance can be assured by testing at the factory prior to shipment and that the installation meets the criteria to be a separate performance obligation. These systems are standard products with published product specifications and are configurable with standard options. The evidence that these systems could be deemed accepted was based upon having standardized factory production of the units, results from batteries of tests of product performance to our published specifications, quality inspections and installation standardization, as well as past product operation validation with the customer and the history provided by our installed base of products upon which the current versions were based.

The revenue related to products requiring installation, that is perfunctory, is recognized upon transfer of control of the product to customers, which generally is at the time of shipment. Installation that is considered perfunctory includes any installation that is expected to be performed by other parties, such as distributors, other vendors, or the customers themselves. This analysis considers the complexity, skill and training needed as well as customer expectations regarding installation.

We enter into arrangements with multiple performance obligations that arise during the sale of a system that could include hardware, software, installation, services and support and extended maintenance components. We allocate the transaction price of each element based on the relative selling prices. Relative selling price is based on the selling price of the standalone system. For the installation and service and support performance obligations, we use the value of the discount given to distributors who perform these components. For software maintenance performance obligations, we use what we charge for annual software maintenance renewals after the initial year the system is sold. Revenue is recognized on the system based on shipping terms, software based on delivery, installation and services based on completion of work and software maintenance and extended warranty support ratably over the term of the agreement, typically one year. Total deferred revenue which represents undelivered performance obligations for installation, service, support and extended maintenance contracts was \$1.7 million and \$1.6 million and the portion expected to be recognized within one year was \$1.5 million and \$1.4 million for December 31, 2024 and 2023, respectively.

When we sell software separately, we recognize revenue upon the transfer of control of the software, which is generally upon delivery, provided that only immaterial items in the context of the contract with the customer remain on our part and substantive acceptance conditions, if any, have been met.

We recognize revenue when there is an approved contract that both parties are committed to perform, both parties rights have been identified, the contract has substance, collection of substantially all the consideration is probable, the transaction price has been determined and allocated over the performance obligations, the performance obligations including substantive acceptance conditions, if any, in the contract have been met, the obligation is not contingent on resale of the product, the buyer's obligation would not be changed in the event of theft, physical destruction or damage to the product, the buyer acquiring the product for resale has economic substance apart from us and we do not have significant obligations for future performance to directly bring about the resale of the product by the buyer. We establish a reserve for sales returns based on historical trends in product returns and estimates for new items. Payment terms are generally 30 to 60 days from shipment.

We transfer certain products out of service from their internal use and make them available for sale. The products transferred are typically our standard products in one of the following areas: service loaners, rental or test units; engineering test units; or sales demonstration equipment. Once transferred, the equipment is sold by our regular sales channels as used equipment inventory. These product units often involve refurbishing and an equipment warranty and are conducted as sales in our normal and ordinary course of business. The transfer amount is the product unit's net book value, and the sale transaction is accounted for as revenue and cost of goods sold.

The following table represents our revenues by major categories:

Net sales by type (in thousands)	2024	Change	2023
Equipment Sales	\$10,985	(32.8%)	\$16,343
Adapter Sales	7,250	(11.1%)	8,154
Software and Maintenance Sales *	3,534	(0.9%)	3,567
Total	<u>\$21,769</u>	<u>(22.4%)</u>	<u>\$28,064</u>

\* includes an insignificant amount of service and parts sales

#### Leases - Accounting Standards Codification 842

Leases arise from contracts which convey the right to control the use of identified property or equipment for a period of time in exchange for consideration. Our leasing arrangements are primarily for office and manufacturing facility space we use to conduct our operations. In addition, there are automobiles, and a small amount of office equipment leased. We determine whether contracts include a lease at the inception date, which is generally upon contract signing, considering factors such as whether the contract includes an asset which is physically distinct, which party obtains substantially all of the capacity and economic benefit of the asset, and which party directs how, and for what purpose, the asset is used during the contractual period of use. Our leases commence when the lessor makes the asset available for our use. At commencement, we record a lease liability at the present value of future lease payments, net of any future lease incentives to be received. Some of our lease agreements include cancellable future periods subject to termination or extension options. We include cancellable lease periods in our future lease payments when we are reasonably certain to continue to utilize the asset for those periods. We calculate the present value of future lease payments at commencement using a discount rate which we estimate as the collateralized borrowing rate we believe would be incurred on our future lease payments over a similar term. At commencement, we record a corresponding right-of-use asset, which is calculated based on the amount of the lease liability, adjusted for any advance lease payments paid, initial direct costs incurred or lease incentives received prior to commencement. Right-of-use assets are subject to evaluation for impairment or disposal on a basis consistent with other long-lived assets.

Leases are classified at commencement as either operating or finance leases. As of December 31, 2024, all leases are classified as operating leases. Rent expense for operating leases is recognized on the straight-line method over the term of the agreement beginning on the lease commencement date.

In accounting for leases, we utilize certain practical expedients and policy selections available under the lease accounting standard. For example, we do not record right-of-use assets or lease liabilities for leases with terms of 12 months or less. For contracts containing real estate leases, we do not combine lease and non-lease components. The primary impact of this policy election is that we do not include in our calculation of lease liabilities any fixed and non-cancelable future payments due under the contract for items such as common area maintenance, utilities and other costs. Lease-related costs which are variable rather than fixed are expensed in the period incurred.

Assumptions, judgments and estimates impacting the carrying value of our right-of-use assets and liabilities include evaluating whether an arrangement contains a lease, determining whether the lease term should include any cancellable future periods, estimating the discount rate used to calculate our lease liabilities, estimating the fair value and useful life of the leased asset for the purpose of classifying the lease as an operating or finance lease, evaluating whether a lease contract amendment represents a new lease agreement or a modification to the existing lease and evaluating our right-of-use assets for impairment.

#### Research and Development

Research and development costs are generally expensed as incurred.

#### Advertising Expense

Advertising costs are expensed as incurred. Total advertising expenses were approximately \$92,000 and \$196,000 in 2024 and 2023, respectively.

### Warranty Expense

We record a liability for an estimate of costs that we expect to incur under our basic limited warranty when product revenue is recognized. Factors affecting our warranty liability include the number of units sold and historical and anticipated rates of claims and costs per claim. We normally provide a warranty for our products for defects for periods ranging from ninety days to one year. We provide for the estimated cost that may be incurred under our product warranties and periodically assess the adequacy of our warranty liability based on changes in the above factors. We record revenues on extended warranties on a straight-line basis over the term of the related warranty contracts. Service costs are expensed as incurred.

### Earnings (Loss) Per Share

Basic earnings (loss) per share exclude any dilutive effects of stock options. Basic earnings (loss) per share are computed using the weighted-average number of common shares outstanding during the period. Diluted earnings per share are computed using the weighted-average number of common shares and common stock equivalent shares outstanding during the period. The common stock equivalent shares from equity awards used in calculating diluted earnings per share were 74,000 and 133,000 for the years ended December 31, 2024 and 2023, respectively. Excluded from the computation of diluted earnings per share were options to purchase 200,000 and 12,500 shares of common stock because of the loss in 2024 and options' purchase price exceeding market price (underwater) in 2023, thus the options were anti-dilutive for the years ended December 31, 2024 and 2023, respectively.

### Diversification of Credit Risk

Financial instruments, which potentially subject us to concentrations of credit risk, consist primarily of trade receivables. Our trade receivables are geographically dispersed and include customers in many different industries. Our consolidated accounts receivable balance as of December 31, 2024 and 2023 includes foreign accounts receivable in the functional currency of our foreign subsidiaries amounting to \$1.2 and \$1.0 million, respectively. We generally do business with our foreign distributors in U.S. Dollars. We believe that the risk of loss is significantly reduced due to the diversity of our end customers and sales geographies. We perform on-going credit evaluations of our customers' financial conditions and require collateral, such as letters of credit and bank guarantees, or prepayment whenever deemed necessary.

The following represented greater than 10% of our consolidated accounts receivable for the applicable years:

<u>Percentage of Consolidated Accounts Receivable</u>	<u>2024</u>	<u>2023</u>
Number of customers	2	3
Approximate percentage of consolidated accounts receivable balance	43%	47%
Percentage of each	30%	18%
Percentage of each	13%	16%
Percentage of each	-	13%

### Diversification of net sales

The following represented greater than 10% of net sales for the applicable years:

<u>Percentage of Net Sales</u>	<u>2024</u>	<u>2023</u>
Number of customers	2	2
Approximate percentage of net sales	34%	24%
Percentage of each	19%	13%
Percentage of each	15%	11%

## New Accounting Pronouncements - Standards Issued and Implemented

Effective January 1, 2024, the Company adopted ASU 2023-07, Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures. This update requires entities, including those with a single reportable segment, to disclose significant segment expenses regularly provided to the Chief Operating Decision Maker (CODM) and included in the reported measure of segment profit or loss.

The Company operates as a single reportable segment. The CODM evaluates the Company's performance based on operating income, as presented in the consolidated statements of operations. Significant segment expenses are those that are already disclosed in operating income and regularly reviewed by the CODM for purposes of assessing performance and allocating resources. Additional significant single segment expense categories are provided in Note 13 – Segment Information.

## New Accounting Pronouncements - Standards Issued and Not Yet Implemented

In December 2023, the FASB issued ASU 2023-09 "Income Taxes (Topics 740): Improvements to Income Tax Disclosures" to expand the disclosure requirements for income taxes, specifically related to the rate reconciliation and income taxes paid. ASU 2023-09 is effective for our annual periods beginning January 1, 2025, with early adoption permitted. We are currently evaluating the potential effect that the updated standard will have on our financial statement disclosures.

In November 2024, FASB issued ASU 2024-03, Income Statement – Reporting Comprehensive Income – Expense Disaggregation (Subtopic 220-40), which requires disclosure of specific information about costs and expenses within relevant expense captions on the face of the income statement, qualitative descriptions for expense captions not specifically disaggregated quantitatively, and the total amount and definition of selling expenses for interim and annual reporting periods. This standard is effective for the annual reporting period beginning January 1, 2027 and interim reporting periods beginning January 1, 2028 and should be applied retrospectively to all comparative periods. Early adoption is permitted. The Company is currently evaluating the effects of adopting this new accounting guidance.

### **NOTE 2 – ACCOUNTS RECEIVABLE, NET**

	December 31, 2024	December 31, 2023
(in thousands)		
Trade accounts receivable	\$3,982	\$5,779
Less allowance for credit losses	22	72
Trade accounts receivable, net	<u>\$3,960</u>	<u>\$5,707</u>

Changes in Data I/O's allowance  
for credit losses are as follows:

	December 31, 2024	December 31, 2023
(in thousands)		
Beginning balance	\$72	\$147
Credit loss (reversal)	(3)	(75)
Accounts written off	(47)	-
Ending balance	<u>\$22</u>	<u>\$72</u>

### **NOTE 3 – INVENTORIES**

	December 31, 2024	December 31, 2023
(in thousands)		
Raw material	\$3,273	\$3,328
Work-in-process	1,845	1,596
Finished goods	1,094	951
Inventories	<u>\$6,212</u>	<u>\$5,875</u>

**NOTE 4 – PROPERTY, PLANT AND EQUIPMENT, NET**

	December 31, 2024	December 31, 2023
(in thousands)		
Leasehold improvements	\$343	\$394
Equipment	3,777	4,977
Sales demonstration equipment	1,031	1,396
	<u>5,151</u>	<u>6,767</u>
Less accumulated depreciation	<u>4,150</u>	<u>5,408</u>
Property and equipment, net	<u>\$1,001</u>	<u>\$1,359</u>

Total depreciation expense recorded for 2024 and 2023 was \$564,000 and \$608,000, respectively.

**NOTE 5 – OTHER ACCRUED LIABILITIES**

Other accrued liabilities consisted of the following components:

	December 31, 2024	December 31, 2023
(in thousands)		
Lease liability - short term	\$640	\$798
Product warranty	350	449
Sales return reserve	32	32
Other taxes	69	69
Other	70	90
Other accrued liabilities	<u>\$1,161</u>	<u>\$1,438</u>

The changes in our product warranty liability for the year ending:

	December 31, 2024	December 31, 2023
(in thousands)		
Liability, beginning balance	\$449	\$425
Net expenses	901	902
Warranty claims	(901)	(902)
Accrual revisions	(99)	24
Liability, ending balance	<u>\$350</u>	<u>\$449</u>

**NOTE 6 – OPERATING LEASE COMMITMENTS**

We have commitments under non-cancellable operating leases and other agreements, primarily for factory and office space, with initial or remaining terms of one year or more for the year ending December 31 are as follows:

	Dec. 31, 2024 Operating Lease Commitments
(in thousands)	
2025	\$759
2026	757
2027	683
2028	433
2029 & thereafter	369
Total	<u>\$3,001</u>
Less imputed interest	<u>(297)</u>
Total operating lease liabilities	<u>\$2,704</u>

Payments for operating lease liabilities for the twelve months ending December 31, 2024 and 2023, respectively, were \$833,000 and \$894,000 which included short-term lease costs of \$38,000 and \$25,000. The total annual lease expense in 2024 and 2023, including operating lease expenses and short-term lease expenses, was approximately \$845,000 and \$745,000, respectively. Variable payments were not material and were treated as non-lease components and were recognized in the period for which the costs occur.

For the largest lease component, the company has three facilities with our headquarters and primary engineering and operational functions located in Redmond, Washington. Our two subsidiary facilities in Munich, Germany and Shanghai, China provide extended worldwide sales, service, engineering and operations services. The total annual gross or base lease payments during 2024 and 2023 were approximately \$795,000 and \$823,000, respectively. The lease payment decrease in 2024 was due primarily to a reduction in lease rates for our Redmond, Washington and Shanghai, China facilities. The lower rates reflect the real estate market conditions as part of the lease extensions which occurred in the fourth quarter of 2024. The Redmond lease was renewed and extended by 3.75 years and the Shanghai, China lease was renewed and extended by 3 years.

The Redmond, Washington headquarters facility lease runs to October 31, 2029, at approximately 20,460 square feet. The lease for the facility located in Shanghai, China runs to October 31, 2027, at approximately 19,400 square feet. The lease for the facility located near Munich, Germany runs to August 2027, at approximately 4,895 square feet.

The following table presents supplemental balance sheet information related to leases as of December 31, 2024 and 2023:

	Year Ended December 31,	
	2024	2023
(in thousands)		
Right-of-use assets (Long-term other assets)	\$2,704	\$1,363
Lease liability-short term (Other accrued liabilities)	\$640	\$798
Lease liability-long term (Operating lease liabilities)	\$2,064	\$703

At December 31, 2024, the weighted average remaining lease term is 4.1 years and the weighted average discount rate used is 5%.

#### **NOTE 7 – OTHER COMMITMENTS**

We have purchase obligations for inventory and production costs, as well as other obligations such as capital expenditures, service contracts, marketing, and development agreements. Arrangements are considered purchase obligations if a contract specifies all significant terms, including fixed or minimum quantities to be purchased, a pricing structure and approximate timing of the transaction. Most arrangements are cancelable without a significant penalty, and with short notice, typically less than 90 days. On December 31, 2024, we had four contracts with a commitment of approximately \$389,000 to be paid in 2025 and \$1,630,000 to be paid beyond one year.

#### **NOTE 8 – CONTINGENCIES**

As of December 31, 2024, we were not a party to any legal proceedings or aware of any indemnification agreement claims, the adverse outcome of which in management's opinion, individually or in aggregate, would have a material adverse effect on our results of operations or financial position.

#### **NOTE 9 – STOCK AND RETIREMENT PLANS**

##### Stock Option Plans

At December 31, 2024, there were 492,843 shares available for future grant under the Data I/O Corporation 2023 Omnibus Incentive Compensation Incentive Plan (the "2023 Plan"). At December 31, 2024, there were shares of Common Stock reserved for issuance for outstanding awards, consisting of 61,250 inducement reserve shares, 79,875 shares under the 2000 Plan, and 530,775 shares under the 2023 Plan. The inducement reserve shares remaining that were granted in 2023 consisted of 56,250 RSU and 5,000 PSU, (which were not from the 2023 Plan, but were made under the terms of the 2023 Plan). Pursuant to the 2000 and 2023 Plans, options are granted to our officers and key employees with exercise prices equal to the fair market value of the Common Stock at the date of grant and generally vest over four years. Options granted under the plan have a maximum term of six years from the date of grant. Stock awards are now granted under the 2023 Plan (previously the 2000 Plan) which for RSU awards generally vest over three or four years and one year for non-employee Directors. Performance Share Unit (PSU) awards vesting based upon the three-year performance achievement on December 31, 2025 and 2026. The performance measures for the PSUs awarded are revenue growth targets for the three-year period ending December 31, 2025. The performance measures

for the PSUs awarded in 2024 are revenue growth targets, EBITDA targets and for Engineers, project objectives for the three-year period ending December 31, 2026. Achieving a threshold measure earns 50% of the PSU target award; achieving the target measure earns 100% of the PSU target award; and achieving the maximum target measure earns 150% of the PSU target award.

#### Employee Stock Purchase Plan

Under the Employee Stock Purchase Plan (“ESPP”), eligible employees may purchase shares of our Common Stock at six-month intervals at 95% of the fair market value on the last day of each six-month period. Employees may purchase shares having a value not exceeding ten percent of their gross compensation during an offering period. During 2024 and 2023, a total of 5,019 and 3,341 shares, respectively, were purchased under the plan at average prices of \$2.85 and \$4.16 per share, respectively. At December 31, 2024 and 2023, 16,955 and 21,525 shares were reserved for future grant respectively.

#### Stock Appreciation Rights Plan

We have a Stock Appreciation Rights (“SAR”) Plan under which each director, executive officer or holder of 10% or more of our Common Stock has a SAR with respect to each exercisable stock option. The SAR entitles the SAR holder to receive cash from us for the difference between the market value of the stock and the exercise price of the option in lieu of exercising the related option. SARs are only exercisable following a tender offer or exchange offer for our stock or following approval by shareholders of Data I/O of any merger, consolidation, reorganization or other transaction providing for the conversion or exchange of more than 50% of the common shares outstanding. As no event has occurred, which would make the SARs exercisable, and no such event is deemed probable, no compensation expense has been recorded under this plan. At December 31, 2024 and 2023, there were 200,000 and 12,500 SARs outstanding, respectively.

#### Retirement Savings Plan

We have a savings plan that qualifies as a cash or deferred salary arrangement under Section 401(k) of the Internal Revenue Code. Under the plan, participating U.S. employees may defer their pre-tax salary or post-tax salary if Roth is elected, subject to IRS limitations. In fiscal year 2024, we contributed one dollar for each dollar contributed by a participant on the first two percent and \$.50 for each dollar contributed by participant on the next four percent of a participant’s eligible earnings, and as a result this requires a minimum six percent contribution to receive a four percent matching contribution. Our matching contribution expense for the savings plan, net of forfeitures, was approximately \$217,000 and \$253,000 in 2024 and 2023, respectively. Employer matching contributions owed to the plan were \$230,000 and \$248,000 at December 31, 2024 and 2023, respectively.

### **NOTE 10 – SHARE-BASED COMPENSATION**

For share-based awards granted, we have recognized compensation expense based on the estimated grant date fair value method. For these awards we have recognized compensation expense using a straight-line amortization method and reduced for estimated forfeitures. The impact on our results of operations of recording share-based compensation for the years ended December 31, 2024 and 2023 was as follows:

	Year Ended December 31,	
	2024	2023
(in thousands)		
Cost of goods sold	\$112	\$95
Research and development	228	257
Selling, general and administrative	636	838
Total share-based compensation	<u>\$976</u>	<u>\$1,190</u>

An immaterial amount of share-based compensation was capitalized into inventory as overhead for the years ended December 31, 2024 and 2023, respectively.

The following table summarizes stock option activity under our stock option plans for the twelve months ended December 31, 2024 and 2023:

	2024			2023		
	Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life in Years	Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life in Years
Outstanding at beginning of year	12,500	\$4.98		12,500	\$4.98	
Granted	200,000	\$2.39		-	-	
Exercised	-	-		-	-	
Cancelled, Expired or Forfeited	(12,500)	\$4.98		-	-	
Outstanding at end of year	<u>200,000</u>	<u>\$2.39</u>	<u>5.67</u>	<u>12,500</u>	<u>\$4.98</u>	<u>1.33</u>
Vested or expected to vest at the end of the period	182,676	\$2.39	1.33	12,500	\$4.98	1.33
Exercisable at end of year	12,500	\$2.39	1.33	12,500	\$4.98	1.33

The aggregate intrinsic value of outstanding options is \$81,540. There were no stock option awards exercised in 2024.

Restricted stock award activity including performance-based stock award activity under our share-based compensation plan was as follows:

	2024		2023	
	Awards	Weighted - Average Grant Date Fair Value	Awards	Weighted - Average Grant Date Fair Value
Outstanding at beginning of year	728,625	\$4.17	665,200	\$3.94
Granted	363,150	2.87	387,100	4.36
Vested	(296,209)	4.12	(284,925)	3.93
Cancelled	(323,666)	3.66	(38,750)	3.96
Outstanding at end of year	<u>471,900</u>	<u>\$3.55</u>	<u>728,625</u>	<u>\$4.17</u>

During the years ended December 31, 2024 and 2023, 86,007 and 83,753 shares, respectively, were withheld from issuance related to restricted stock units vesting and stock option exercises to cover employee taxes and stock options exercise price.

Non-employee directors Restricted Stock Units (“RSUs”) typically vest over the earlier of one year or the next annual meeting of shareholders and Non-Qualified stock options vest over three years and have a six-year exercise period. Employee RSUs typically vest annually over three or four years and employee Non-Qualified stock options typically vest quarterly over four years and have a six-year exercise period. Performance Stock Units (“PSUs”) typically cliff vest at the end of the performance period and the performance metric for 2023 awards is cumulative revenue growth over the three-year period ending December 31, 2025 with a cumulative revenue threshold, target, and maximum performance measure. For 2024 awards, the performance metrics included revenue growth, EBITDA and project objective targets over the three-year period ending December 31, 2026. The table above includes performance shares granted in 2024 of 124,000 shares at the target performance level (the threshold level would be 50% and the maximum level would be 150% of the target level).

The remaining unamortized expected future compensation expense and remaining amortization period associated with unvested option grants and restricted stock awards are:

	December 31, 2024	December 31, 2023
Unamortized future compensation expense	\$1,413,500	\$2,317,524
Remaining weighted average amortization period in years	2.31	2.44

The weighted average number of shares outstanding used to compute earnings (loss) per share included the following:

	Year Ended December 31,	
	2024	2023
Weighted average shares outstanding	9,149,538	8,940,612
Restricted and Performance Stock Units	-	132,360
Stock Options	-	216
Weighted average shares	<u>9,149,538</u>	<u>9,073,188</u>

#### NOTE 11 – SHARE REPURCHASE PROGRAMS

Data I/O did not have a share repurchase program in 2024.

#### NOTE 12 – INCOME TAXES

Components of income (loss) before taxes:

	Year Ended December 31,	
	2024	2023
(in thousands)		
U.S. operations	(\$3,591)	(\$536)
Foreign operations	884	1,216
Total income (loss) before taxes	<u>(\$2,707)</u>	<u>\$680</u>

Income tax expense (benefit) consists of:

	Year Ended December 31,	
	2024	2023
(in thousands)		
Current tax expense (benefit)		
U.S. federal	\$0	\$0
State	4	20
Foreign	382	174
	<u>386</u>	<u>194</u>
Deferred tax expense (benefit) – U.S. federal	-	-
Total income tax expense (benefit)	<u>\$386</u>	<u>\$194</u>

Income tax (expense) increased by \$192,000 for the year ended December 31, 2024, compared to 2023. The increase was primarily a result of the withholding tax of \$337,000 on the repatriation of cash from China subsidiary in 2024. Income tax (expense) in 2024 and 2023 is primarily the result of foreign subsidiary income tax and minimal U.S. state income tax.

A reconciliation of our effective income tax and the U.S. federal tax rate is as follows:

	Year Ended December 31,	
	2024	2023
(in thousands)		
Statutory tax	(\$568)	\$143
State and foreign income tax, net of federal income tax benefit	150	(178)
Valuation allowance for deferred tax assets	804	139
Foreign sourced deemed dividend income	175	322
Stock based compensation	(168)	(250)
Other	(7)	18
Total income tax expense (benefit)	<u>\$386</u>	<u>\$194</u>

The tax effects of temporary differences that gave rise to significant portions of the deferred tax assets are presented below:

(in thousands)	Year Ended December 31,	
	2024	2023
Deferred income tax assets:		
Allowance for credit losses	\$4	\$14
Inventory and product return reserves	1,666	1,168
Compensation accruals	2,791	2,750
Accrued liabilities	(22)	65
Book-over-tax depreciation and amortization	12	18
Foreign net operating loss carryforwards	241	184
U.S. net operating loss carryforwards	2,983	2,899
U.S. credit carryforwards	1,564	1,557
	9,239	8,655
Valuation Allowance	(9,239)	(8,655)
Total Deferred Income Tax Assets	\$ -	\$ -

The valuation allowance for deferred tax assets increased \$584,000 and decreased \$639,000 during the years ended December 31, 2024 and 2023, respectively. The net deferred tax assets have a full valuation allowance provided due to uncertainty regarding our ability to utilize such assets in future years. This full valuation allowance evaluation is based upon our volatile history of losses and the cyclical nature of our industry and capital spending. Credit carryforwards consist primarily of research and experimental and foreign tax credits. We intend to continue to reinvest foreign earnings of our operating subsidiaries.

U.S. net operating loss carryforwards are \$14.2 million on December 31, 2024 with expiration years from 2024 to 2035. Utilization of net operating loss and credit carryforwards is subject to certain limitations under Section 382 of the Internal Revenue Code of 1986, as amended. We have not had a Section 382 ownership change, but if we did the usage of these tax assets would have an income usage limitation based on the value of the Company at the time of the change times the federal long-term tax-exempt rate.

The gross changes in uncertain tax positions resulting in unrecognized tax benefits are presented below:

(in thousands)	Year Ended December 31,	
	2024	2023
Unrecognized tax benefits, opening balance	\$430	\$422
Prior period tax position increases	-	(6)
Additions based on tax positions related to current year	12	14
Unrecognized tax benefits, ending balance	\$442	\$430

Historically, we have incurred minimal interest expense, and no penalties associated with tax matters. We have adopted a policy whereby amounts related to penalties associated with tax matters are classified as general and administrative expense when incurred and amounts related to interest associated with tax matters are classified as interest income or interest expense.

Tax years that remain open for examination include 2021, 2022, 2023 and 2024 in the United States of America. In addition, various tax years from 2004 to 2014 may be subject to examination if we utilize the net operating losses and credit carryforwards from those years in our current or future year tax returns.

#### NOTE 13 –SEGMENT INFORMATION

Data I/O operates as a single segment entity, with the sole objective to design, manufacture, and sell programming systems. We operate in three separate locations — Redmond, WA; Shanghai, China; and Munich, Germany — these locations function as part of a single, integrated business and all operations are strategically aligned to support this objective.

The accounting policies of the programing system segment are the same as those described in the summary of significant accounting policies. The measure of segment assets is reported on the balance sheet as total consolidated assets.

Our chief operating decision maker (CODM) is the President/CEO who reviews the company's financial performance on a consolidated basis without distinguishing between different business lines or geographic areas for the purpose of making operating decisions, allocating resources and evaluating financial performance. Financial performance is assessed using operating results, actual net income vs. plan, balance sheet fluctuations, and other key performance indicators. Significant single segment expense categories that are provided to the chief operating decision maker and included in the reported segment operating profits are outlined in the following table:

	Year Ended December 31,	
	2024	2023
(in thousands)		
Net sales	\$21,769	\$28,064
Cost of goods sold	10,163	11,878
Gross margin	11,606	16,186
Operating Expenses:		
Employee expenses	9,715	9,840
Customer acquisition costs	1,268	1,916
Professional and outside services	2,025	2,133
Occupancy costs (OPEX portion)	787	761
Depreciation & amortization	540	597
Other	309	491
Total operating expense	14,644	15,738
Operating income (loss)	(\$3,038)	\$448

#### NOTE 14 –GEOGRAPHIC INFORMATION

Major operations outside the U.S. include sales, engineering and service support by subsidiaries in Germany as well as in China, which also manufactures some of our products. None of our employees are represented by a collective bargaining agreement.

We determine international sales by the international geographic destination into which the products are sold and delivered and include not only sales by foreign subsidiaries but also export sales from the U.S. to our foreign distributors and to our representatives' customers. International sales do not include transfers between Data I/O and our foreign subsidiaries. Operating income by region is based on sales noted above less direct costs and allocated costs including U.S. headquarter operations, engineering and SG&A.

The following tables provide summary operating information by geographic area:

	Year Ended December 31,	
	2024	2023
(in thousands)		
Net sales by region		
Americas	\$5,453	\$9,719
Europe	6,237	9,469
Asia and others	10,079	8,876
	<u>\$21,769</u>	<u>\$28,064</u>
Operating income:		
Americas	(\$1,216)	(\$386)
Europe	(857)	638
Asia and others	(965)	196
	<u>(\$3,038)</u>	<u>\$448</u>
Identifiable assets:		
Americas (primarily U.S.)	\$14,292	\$14,606
Europe (primarily Germany)	4,561	4,966
Asia & others (primarily China)	6,117	7,829
	<u>\$24,970</u>	<u>\$27,401</u>

## **NOTE 15 – SUBSEQUENT EVENTS**

In preparing the financial statements, the Company has reviewed all known events which occurred after December 31, 2024 through the date on which the financial statements are available for issuance, for potential recognition or disclosure in the consolidated financial statements and footnotes.

There were no other subsequent events which would require additional disclosures to the financial statements other than those already disclosed throughout the Notes to Consolidated Financial Statements.

### **Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure**

None.

### **Item 9A. Controls and Procedures**

(a) Evaluation of disclosure controls and procedures.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) and Rule 15d-15(e) under the Exchange Act) as of the end of the period covered by this report (the "Evaluation Date"). Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that, as of the Evaluation Date, our disclosure controls and procedures were not effective due to a material weakness in our internal control over financial reporting as described below.

(b) Management's Report on Internal Control Over Financial Reporting.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control systems are designed to provide reasonable assurance to the Company's management and board of directors regarding reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Internal control over financial reporting is defined in Rule 13a-15(f) promulgated under the Exchange Act and includes those policies and procedures that:

- (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company;
- (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and
- (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

Management, including the Company's Chief Executive Officer and Chief Financial Officer, does not expect that the Company's internal controls will prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of internal controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. Also, any evaluation of the effectiveness of controls in future periods is subject to the risk that those internal controls may become inadequate because of changes in business conditions, or that the degree of compliance with the policies or procedures may deteriorate. A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the Company's annual or interim financial statements will not be prevented or detected on a timely basis.

Our management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2024. In making this assessment, we used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in Internal Control – Integrated Framework (2013). Based on this assessment our Chief Executive Officer and Chief Financial Officer have concluded that, as of December 31, 2024, our internal control over financial reporting was not effective as of December 31, 2024 because of an identified material weakness in our internal control over financial reporting as described below:

## Material Weakness Identified by Management

Management determined the following material weakness in internal control over financial reporting as of December 31, 2024.

- In the areas of user access and segregation of duties related to the information technology system that support the Company's financial reporting processes.

As set forth below, management has taken and will continue to take steps to remediate the material weakness identified as of December 31, 2024. Notwithstanding this material weakness, we have performed additional analyses and procedures to enable management to conclude that our consolidated financial statements included in this 2024 Form 10-K fairly present in all material respects our financial condition and results of operations as of and for the year ended December 31, 2024.

## Management's Remediation Plan

In response to the material weakness discussed above, we plan to continue and expand efforts already underway to remediate internal control over financial reporting, which include the following:

- We are enhancing our processes around reviewing and provisioning access to key financial systems and ensuring appropriate segregation of duties;
- We continue to enhance governance and reporting over the execution of these remediation action items, including expansion of mitigating controls where appropriate.

Management and our Audit Committee will monitor these specific remedial measures and the effectiveness of our overall control environment. A material weakness will not be considered remediated; however, until the applicable controls operate for a sufficient period of time and Management has concluded, through testing, that these controls are operating effectively.

This annual report does not include an attestation report of the company's registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by the company's registered public accounting firm pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act, which permanently exempts smaller reporting companies from complying with Section 404(b) of the Sarbanes-Oxley Act of 2002.

## (c) Changes in internal controls.

There were no changes made in our internal controls during the period covered by this report that has materially affected or is reasonably likely to materially affect our internal control over financial reporting.

## **Item 9B. Other Information**

During the year ended December 31, 2024, no director or officer adopted or terminated any Rule 10b5-1 trading arrangement or non-Rule 10b5-1 trading arrangement, as each term is defined in Item 408(a) of Regulation S-K.

## **Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections**

Not applicable.

## **PART III**

## **Item 10. Directors, Executive Officers and Corporate Governance**

Information regarding the Registrant's directors is set forth under "Election of Directors" in our Proxy Statement relating to our annual meeting of shareholders to be held on May 15, 2025, and is incorporated herein by reference. Proxy Statement will be filed within 120 days of our year-end. Information regarding the Registrant's executive officers is set forth in Item 1 of Part I herein under the caption "Executive Officers of the Registrant."

## Code of Ethics

We have adopted a Code of Ethics that applies to all directors, officers and employees of Data I/O, including the Chief Executive Officer and Chief Financial Officer. The key principles of the Code of Ethics are to act legally and with integrity in all work for Data I/O. The Code of Ethics is posted on the corporate governance page of our website:

<http://www.dataio.com/Company/InvestorRelations/CorporateGovernance.aspx>

We will post any amendments to our Code of Ethics on our website. In the unlikely event that the Board of Directors approves any sort of waiver to the Code of Ethics for our executive officers or directors, information concerning such waiver will also be posted on our website. In addition to posting information regarding amendments and waivers on our website, the same information will be included in a Current Report on Form 8-K within four business days following the date of the amendment or waiver, unless website posting of such amendments or waivers is permitted by NASDAQ's rules.

## **Item 11. Executive Compensation**

Information called for by Part III, Item 11, is included in our Proxy Statement relating to our annual meeting of shareholders to be held on May 15, 2025 and is incorporated herein by reference. The information appears in the Proxy Statement under the caption "Executive Compensation." Proxy Statement will be filed within 120 days of our year-end.

## **Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters**

Information called for by Part III, Item 12, is included in our Proxy Statement relating to our annual meeting of shareholders to be held on May 15, 2025 and is incorporated herein by reference. The information appears in the Proxy Statement under the caption "Voting Securities and Principal Holders." Proxy Statement will be filed within 120 days of our year end.

## Equity Compensation Plan Information

The following table gives information about our Common Stock that may be issued upon the exercise of options and rights under all of our existing equity compensation plans as of December 31, 2024. See Notes 9 and 10 of "Notes to Consolidated Financial Statements."

	(a) Number of securities to be issued upon the exercise of outstanding options, warrants and rights	(b) Weighted-average exercise price of outstanding options, warrants and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by the security holders <sup>(1) (2)</sup>	201,932	\$2.40	509,798
Equity compensation plans not approved by the security holders <sup>(3)</sup>	-		-
Total	201,932	\$2.40	509,798

<sup>(1)</sup> Represents shares of our Common Stock issuable pursuant to the Data I/O Corporation 2023 Omnibus Incentive Compensation Incentive Plan, 2000 Stock Compensation Incentive Plan, and 1982 Employee Stock Purchase Plan. Table excludes unvested: RSU awards of 79,875 from the 2000 Plan, RSU awards of 325,525 from the 2023 Plan, and PSU awards of 61,500 from the 2023 Plan.

<sup>(2)</sup> Stock Appreciation Rights Plan ("SAR") provides that directors, executive officers or holders of 10% or more of our Common Stock have an accompanying SAR with respect to each exercisable option. While the plan has been approved by the security holders, no amounts are included in columns (a), (b), or (c) relating to the SAR.

<sup>(3)</sup> Table excludes unvested inducement grants to Gerald Ng of 56,250 RSU and 5,000 PSU awards.

### **Item 13. Certain Relationships and Related Transactions, and Director Independence**

The information required by this Item is incorporated by reference to the section captioned “Certain Relationships and Related Transactions” in the Proxy Statement relating to our annual meeting of shareholders to be held on May 15, 2025. Proxy Statement will be filed within 120 days of our year-end.

### **Item 14. Principal Accounting Fees and Services**

The information required by this Item with respect to principal accountant fees and services is incorporated by reference to the section captioned “Principal Accountant’s Fees and Services” in the Proxy Statement relating to our annual meeting of shareholders to be held on May 15, 2025. Proxy Statement will be filed within 120 days of our year-end.

## **PART IV**

### **Item 15. Exhibits, Financial Statement Schedules**

#### **Executive Compensation Plans and Arrangements**

The following list is a subset of the list of exhibits described below and contains all compensatory plans, contracts or arrangements in which any director or executive officer of Data I/O is a participant, unless the method of allocation of benefits thereunder is the same for management and non-management participants:

- (1) Amended and Restated 1982 Employee Stock Purchase Plan. See Exhibit 10.5.
- (2) Data I/O Corporation Tax Deferral Retirement Plan and Trust with Empower Retirement (formerly known as Great West Financial (formerly known as Orchard Trust Company)). See Exhibits 10.11, 10.12, 10.13, 10.23, 10.34 and 10.31.
- (3) Summary of Amended and Restated Management Incentive Compensation Plan. See Exhibit 10.2.
- (4) Amended and Restated 1983 Stock Appreciation Rights Plan. See Exhibit 10.1.
- (5) Amended and Restated Executive Agreements. See Exhibit 10.20, and 10.32
- (6) 1996 Director Fee Plan (terminated in 2023). See Exhibit 10.4.
- (7) Data I/O Corporation 2000 Stock Compensation Incentive Plan. See Exhibit 10.6, 10.10, 10.16, 10.19, 10.29 and 10.33.
- (8) Form of Option Agreement. See Exhibit 10.7.
- (9) Form of Indemnification Agreement. See Exhibit 10.14.
- (10) Letter Agreement with Anthony Ambrose. See Exhibit 10.15.
- (11) Letter Agreement with Rajeev Gulati. See Exhibit 10.17.
- (12) Form of Executive Agreement. See Exhibit 10.20 and 10.32.
- (13) Form of Restricted Stock Unit Award Agreement. See Exhibit 10.18 and 10.36.
- (14) Letter Agreement with Michael Tidwell. See Exhibit 10.28.
- (15) Data I/O Corporation 2023 Omnibus Incentive Compensation Incentive Plan. See Exhibit 10.34.
- (16) Form of Performance Stock Unit Award Agreement. See Exhibit 10.35.
- (17) Letter Agreement with Gerald Y. Ng. See Exhibit 10.37.

(18) Executive Employment Agreement with William Wentworth. See Exhibit 10.38.

(19) Transition Agreement with Anthony Ambrose. See Exhibit 10.39.

<b>(a) <u>List of Documents Filed as a Part of This Report:</u></b>	<b><u>Page</u></b>
<b>(1) <u>Index to Financial Statements:</u></b>	
Report of Independent Registered Public Accounting Firm (PCAOB ID 248)	27
Consolidated Balance Sheets as of December 31, 2024 and December 31, 2023	29
Consolidated Statements of Operations for each of the two years ended December 31, 2024 and December 31, 2023	30
Consolidated Statements of Comprehensive Income (Loss) for each of the two years ended December 31, 2024 and December 31, 2023	31
Consolidated Statements of Stockholders' Equity for each of the two years ended December 31, 2024 and December 31, 2023	32
Consolidated Statements of Cash Flows for each of the two years ended December 31, 2024 and December 31, 2023	33
Notes to Consolidated Financial Statements	34
<b>(2) <u>Index to Financial Statement Schedules:</u></b>	
Schedule II – Consolidated Valuation and Qualifying Accounts	56
All other schedules not listed above have been omitted because the required information is included in the consolidated financial statements or the notes thereto, or is not applicable or required.	
<b>(3) <u>Index to Exhibits:</u></b>	
<b>3 <u>Articles of Incorporation:</u></b>	
3.1 Data I/O's restated Articles of Incorporation filed November 2, 1987 (Incorporated by reference to Exhibit 3.1 of Data I/O's 1987 Annual Report on Form 10-K (File No. 0-10394) and attached as a PDF to Exhibit 3.1 in our 2017 Annual Report on Form 10-K).	
3.2 Data I/O's Bylaws as amended and restated as of July 20, 2011 (Incorporated by reference to Data I/O's Current Report on Form 8-K filed July 26, 2011).	
3.3 Certification of Designation, Preferences and Rights of Series A Junior Participating Preferred Stock (Incorporated by reference to Exhibit 1 of Data I/O's Registration Statement on Form 8-A filed March 13, 1998 (File No. 0-10394)).	
<b>4 <u>Instruments Defining the Rights of Security Holders, Including Indentures:</u></b>	
4.1 Rights Agreement dated as of April 4, 1998, between Data I/O Corporation and Chase Mellon Shareholder Services, L.L.C. as Rights Agent, which includes: as Exhibit A thereto, the Form of Right Certificate; and, as Exhibit B thereto, the Summary of Rights to Purchase Series A Junior Participating Preferred Stock (Incorporated by reference to Data I/O's Current Report on Form 8-K filed on March 13, 1998).	
4.2 Description of Data I/O Corporation's Common Stock (Incorporated by reference to Data I/O's 2022 Annual Report on Form 10-K (File No. 0-10394)).	

## 10 Material Contracts:

- 10.1 Amended and Restated 1983 Stock Appreciation Rights Plan dated February 3, 1993 (Incorporated by reference to Exhibit 10.23 of Data I/O's 1992 Annual Report on Form 10-K (File No. 0-10394) and attached as a PDF to Exhibit 10.1 in our 2017 Annual Report on Form 10-K).
- 10.2 Amended and Restated Management Incentive Compensation Plan dated January 1, 1997 (Incorporated by reference to Exhibit 10.25 of Data I/O's 1997 Annual Report on Form 10-K (File No. 0-10394)).
- 10.3 Amended and Restated Performance Bonus Plan dated January 1, 1997 (Incorporated by reference to Exhibit 10.26 of Data I/O's 1997 Annual Report on Form 10-K (File No. 0-10394)).
- 10.4 Amended and Restated Data I/O Corporation 1996 Director Fee Plan (Incorporated by reference to Exhibit 10.32 of Data I/O's 1997 Annual Report on Form 10-K (File No. 0-10394)). (Plan cancelled February 22, 2023.)
- 10.5 Amended and Restated 1982 Employee Stock Purchase Plan dated May 16, 2003 (Incorporated by reference to Data I/O's 2003 Proxy Statement dated March 31, 2003).
- 10.6 Amended and Restated Data I/O Corporation 2000 Stock Compensation Incentive Plan dated May 24, 2006 (Incorporated by reference to Data I/O's 2006 Proxy Statement dated April 6, 2006).
- 10.7 Lease, Redmond East Business Campus between Data I/O Corporation and Carr Redmond PLLC dated February 28, 2006 (Incorporated by reference to Data I/O's 2005 Annual Report on Form 10K (File No. 0-10394)).
- 10.8 Second Amendment to Lease, (Redmond East) between Data I/O Corporation and Arden Realty Limited Partnership, made as of January 31, 2011. (Incorporated by reference to Data I/O's 2010 Annual Report on Form 10-K (File No. 0-10394)).
- 10.9 Amended and Restated Data I/O Corporation 2000 Stock Compensation Incentive Plan approved May 17, 2011 (Incorporated by reference to Data I/O's 2011 Proxy Statement filed April 5, 2011).
- 10.10 Empower Retirement (formerly known as Great West Financial (formerly known as Orchard Trust Company) Defined Contribution Prototype Plan and Trust (Incorporated by reference to Data I/O's 2007 Annual Report on Form 10-K (File No. 0-10394)).
- 10.11 Empower Retirement (formerly known as Great West Financial (formerly known as Orchard Trust Company) Non-standardized 401(k) Plan (Incorporated by reference to Data I/O's 2007 Annual Report on Form 10-K (File No. 0-10394)).
- 10.12 Empower Retirement (formerly known as Great West Financial (formerly known as Orchard Trust Company) Defined Contribution Prototype Plan and Trust Amendment for Pension Protection Act and Heart Act. (Incorporated by reference to Data I/O's 2009 Annual Report on Form 10-K (File No. 0-10394)).
- 10.13 Form of Indemnification Agreement. (Incorporated by reference to Data I/O's 2010 Annual Report on Form 10-K (File No. 0-10394)).
- 10.14 Letter Agreement with Anthony Ambrose (Incorporated by reference to Data I/O's Current Report on Form 8-K filed on October 29, 2012).
- 10.15 Amended and Restated Data I/O Corporation 2000 Stock Compensation Incentive Plan approved May 10, 2012 (Incorporated by reference to Data I/O's 2012 Proxy Statement filed April 3, 2012).

- 10.16 Letter Agreement with Rajeev Gulati (Incorporated by reference to Data I/O's Current Report on Form 8-K filed on July 31, 2013).
- 10.17 Amended and Restated Data I/O Corporation 2000 Stock Compensation Incentive Plan approved April 30, 2014 (Incorporated by reference to Exhibit 10.30 of Data I/O's March 31, 2014 Quarterly Report on Form 10-Q (File No. 0-10394)).
- 10.18 Form of Executive Agreement (Incorporated by reference to Exhibit 10.31 of Data I/O's June 30, 2014 Quarterly Report on Form 10-Q (File No. 0-10394)).
- 10.19 Third Amendment to Lease, (Redmond East) between Data I/O Corporation and Arden Realty Limited Partnership, made as of June 1, 2015 (Incorporated by reference to Exhibit 10.29 of Data I/O's June 30, 2015 Quarterly Report on Form 10-Q (File No. 0-10394)).
- 10.20 Empower Retirement (formerly known as Great West Financial) Financial Adoption Agreement #005 Non-standardized 401(k) Plan (Incorporated by reference to Data I/O's 2015 Annual Report on Form 10-K (File No. 0-10394)).
- 10.21 Empower Retirement (formerly known as Great West Financial) Financial Adoption Agreement #005 Non-standardized 401(k) Plan (Incorporated by reference to Data I/O's 2016 Annual Report on Form 10-K (File No. 0-10394)).
- 10.22 Negotiation Protocol for the Purchase of Data I/O's PSV7000, a supply agreement executed July 20, 2016, between Data I/O Corporation and Bosch Car Multimedia Group (Incorporated by reference to Exhibit 10.31 of Data I/O's September 30, 2016 Quarterly Report on Form 10-Q (File No. 0-10394)). (Portions of this exhibit have been omitted based on confidential treatment granted by the SEC. The omitted portions of these exhibits have been filed separately with the SEC. The registrant undertakes to furnish on a supplemental basis a copy of any omitted schedules to the Securities and Exchange Commission upon request.).
- 10.23 Fifth Amendment to Lease, between Data I/O Corporation and BRE WA OFFICE OWNER LLC, made as of September 12, 2017 (Incorporated by reference to Data I/O's September 30, 2017 Quarterly Report on Form 10-Q (File No. 0-10394)).
- 10.24 1st Amendment to Negotiation Protocol executed on September 24, 2018 between Data I/O Corporation and Robert Bosch GmbH (Incorporated by reference to Exhibit 10.35 of Data I/O's September 30, 2018 Quarterly Report on Form 10-Q (File No. 0-10394)). (Portions of this exhibit have been omitted based on a request for confidential treatment made to the SEC. The omitted portions of these exhibits have been filed separately with the SEC. The registrant undertakes to furnish on a supplemental basis a copy of any omitted schedules to the Securities Exchange Commission upon request.).
- 10.25 Letter Agreement with Michael Tidwell (Incorporated by reference to Form 8-K filed on May 1, 2019).
- 10.26 Amended and Restated Data I/O Corporation 2000 Stock Compensation Incentive Plan approved May 20, 2021 (Incorporated by reference to Data I/O's 2021 Proxy Statement dated April 5, 2021).
- 10.27 Sixth Amendment to Lease, between Data I/O Corporation and Alco Redmond East, LLC, made as of October 4, 2021 (Incorporated by reference to Data I/O's 2021 Annual Report on Form 10-K (File No. 0-10394)).
- 10.28 Empower Retirement (formerly known as Great West Financial) Financial Adoption Agreement #001 Non-standardized 401(k) Plan (Incorporated by reference to Data I/O's 2021 Annual Report on Form 10-K (File No. 0-10394)).

10.29	Form of Executive Agreement (Incorporated by reference to Form 8-K filed on February 6, 2023).	
10.30	Amended and Restated Data I/O Corporation 2000 Stock Compensation Incentive Plan approved May 18, 2023 (Incorporated by reference to Data I/O's 2023 Proxy Statement dated April 3, 2023).	
10.31	Data I/O Corporation 2023 Omnibus Incentive Compensation Incentive Plan approved May 18, 2023 (Incorporated by reference to Data I/O's 2023 Proxy Statement dated April 3, 2023).	
10.32	Form of Performance Stock Unit Award Agreement (Incorporated by reference to Data I/O's 2023 Annual Report on Form 10-K (File No. 0-10394).	
10.33	Form of Restricted Stock Unit Award Agreement (Incorporated by reference to Data I/O's 2023 Annual Report on Form 10-K (File No. 0-10394).	
10.34	Letter Agreement with Gerald Y. Ng (Incorporated by reference to Form 8-K filed on June 30, 2023).	
10.35	Executive Employment Agreement with William Wentworth (Incorporated by reference to Form 10-Q filed on November 12, 2024).	
10.36	Transition Agreement with Anthony Ambrose (Incorporated by reference to Form 10-Q filed on November 12, 2024).	
10.37	Seventh Amendment to Lease, between Data I/O Corporation and Alco Redmond East, LLC, made as of October 17, 2024.	71
19.1	Insider Trading Policy	57
21.1	Subsidiaries of the Registrant	65
23.1	Consent of Independent Registered Public Accounting Firm	66
31	<b>Certification – Section 302:</b>	
31.1	Chief Executive Officer Certification	67
31.2	Chief Financial Officer Certification	68
32	<b>Certification – Section 906:</b>	
32.1	Chief Executive Officer Certification	69
32.2	Chief Financial Officer Certification	70
97	Data I/O Corporation INCENTIVE COMPENSATION RECOVERY POLICY (Incorporated by reference to Data I/O's 2023 Annual Report on Form 10-K (File No. 0-10394).	
101	<b>Interactive Data Files Pursuant to Rule 405 of Regulation S-T</b>	

## **Item 16. Form 10-K Summary**

None.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

### DATA I/O CORPORATION (REGISTRANT)

DATED: March 31, 2025

By: /s/William Wentworth  
William Wentworth  
President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

NAME & DATE	TITLE
By: <u>/s/William Wentworth</u> March 31, 2025 William Wentworth	President and Chief Executive Officer (Principal Executive Officer), Director
By: <u>/s/Gerald Y. Ng</u> March 31, 2025 Gerald Y. Ng	Chief Financial Officer Vice President Secretary, Treasurer (Principal Financial and Accounting Officer)
By: <u>/s/Douglas W. Brown</u> March 31, 2025 Douglas W. Brown	Director
By: <u>/s/Sally A. Washlow</u> March 31, 2025 Sally A. Washlow	Director
By: <u>/s/Edward J. Smith</u> March 31, 2025 Edward J. Smith	Director
By: <u>/s/Garrett Larson</u> March 31, 2025 Garrett Larson	Director

**DATA I/O CORPORATION**  
**SCHEDULE II – CONSOLIDATED VALUATION AND QUALIFYING ACCOUNTS**

	Balance at Beginning of Period	Charged/ (Credited) to Costs and Expenses	Deductions- Describe	Balance at End of Period
(in thousands)				
Year Ended December 31, 2023:				
Allowance for credit losses	\$147	(\$75)	\$ - <sup>(1)</sup>	\$72
Year Ended December 31, 2024:				
Allowance for credit losses	\$72	(\$3)	(\$ 47) <sup>(1)</sup>	\$22

<sup>(1)</sup> Uncollectable accounts  
written off, net of recoveries

**DATA I/O CORPORATION  
SECURITIES TRADING POLICY  
and  
SECURITIES LAW SUMMARY MEMORANDUM**

January 1999; updated 2005, 2007, 2012, 2019 & 2020

Data I/O Corporation (the "Company") has adopted policies and a compliance program to assist directors, officers, employees and consultants of the Company in complying with the requirements of the insider trading and short-swing profit laws. This memorandum sets forth the Company's policy on trading in the Company's securities, outlines procedures established as part of the compliance program and provides a summary of certain of your obligations under the federal securities laws.

Corporate Policy Relating to Trading in the Company's Stock

It is the Company's strict policy to ban: (a) trading of securities of the Company by any person while in possession of material, non-public information; (b) trading of securities of any other publicly-held company about which any such person learns non-public information through his or her relationship with the Company; (c) tipping or disclosure by any person of any material, non-public information regarding the Company or other publicly-held company if such information was acquired through such person's relationship with the Company; and (d) hedging of the Company's common stock.

"Material non-public information" is information that:

- (i) could reasonably be expected to have a significant effect on the market price or value of the Company's securities; or
- (ii) a reasonable investor would consider important in making an investment decision regarding the purchase or sale of the securities of the Company;

and that has not been previously disclosed or published by means of a broadly disseminated news release or securities filing with a reasonable amount of time having been given for investors to analyze the information.

Examples of material undisclosed information include but are not limited to: financial performance and significant changes in financial performance; projections and strategic plans; major corporate acquisitions and dispositions; significant changes to major assets and operations; changes in ownership of the Company's securities that may affect the control of the Company; significant changes in senior management or to the Board of Directors; significant litigation; changes in corporate structure, such as reorganizations; changes in capital structure; significant new debt or material events of default; public or private sale of additional securities; entering into or loss of significant contracts; major labor disputes or disputes with major contractors, customers or suppliers; takeover bids and issuer bids; and any decision to implement such a change by the Company's Board of Directors or by senior management who believe that confirmation of the decision by the Company's Board of Directors is probable.

If you have any doubt whether certain information is "material," you should not trade or communicate such information. Information is "non-public" until it has been made available to investors generally, such as in publicly available reports filed with the applicable stock exchange or securities commission or in press releases issued by a company. In general, information may be presumed to have been available to investors two business days after the formal release of such information.

Prohibited Activities

**Insider Trading:** You must not engage in transactions in any securities, whether of the Company or of any other public companies, while in possession of material, non-public information regarding such securities, ("insider trading").

Under this Policy, "trading" includes any sale or purchase of securities of the Company, including but not limited to: (a) hedging or monetization transactions or similar arrangements with respect to securities of the Company and (b) buying or selling puts or calls or other derivative securities on the Company's securities.

**Tipping:** You must not disclose material, non-public or other confidential information relating to the Company or other companies, when obtained in the course of service to the Company, to anyone, inside or outside of the Company (including family members) ("tipping"), except on a strict need-to-know basis as is necessary in the course of the Company's business and under circumstances that make it reasonable to believe that the information will not be misused or improperly disclosed by the recipient. You must treat all information concerning the Company as confidential and proprietary to the Company. Any uncertainty concerning the

disclosure of any such information to other persons in the course of the Company's business should be immediately brought to the attention of the Chief Financial Officer for resolution. You must also refrain from recommending or suggesting that any person engage in transactions in securities, whether of the Company or any other company, while in possession of material, nonpublic information about those securities or that company. Both the person who provides the information and the person who receives the information are liable under securities laws if the person who receives the information trades in securities based on the provided non-public information.

*Trading During Blackouts:* You must not, directly or indirectly, trade in securities of the Company during any blackout period.

*Hedging Transactions:* Hedging or monetization transactions can be accomplished through a number of possible mechanisms, including through the use of financial instruments such as prepaid variable forwards, equity swaps, collars and exchange funds. These transactions allow the person to continue to own the covered securities, but without the full risks and rewards of ownership. When that occurs, the person may no longer have the same objectives as the Company's other shareholders. Therefore, the Company prohibits you from engaging in such transactions.

#### Additional Policies Relating to Insiders

To facilitate compliance with the foregoing insider trading policy, and to assist officers and directors with compliance with their personal obligations under the beneficial ownership reporting requirements and short-swing profit recapture provisions of Section 16 of the Securities Exchange Act of 1934 (the "Exchange Act") and the resale procedures of Rule 144, no officer or director of the Company and certain other persons designated from time to time by the President or Chief Financial Officer ("Insiders") should purchase or sell securities of the Company without first contacting the Company's President or Chief Financial Officer. A determination will be made in each instance as to whether the Company is then in possession of material non-public information which could prohibit directors and officers from buying or selling the Company's securities. At that time, the Company can also assist the director or officer with determining whether a purchase or sale will result in a violation of the short-swing profit recapture provisions of Section 16.

Given the Company's financial reporting practices and procedures, a hold routinely will be imposed on all transactions in the Company's securities by Insiders beginning approximately 2 weeks preceding the end of each fiscal quarter and end after one full day of trading in the stock after financial results for that fiscal quarter have been publicly announced. It is the Company's practice to announce financial results during the fourth or fifth week following the end of each fiscal quarter. Accordingly, you should expect that there will be a trading hold of six or seven weeks each quarter and longer at year end due to the audit. The precise timing of these recurring hold periods may vary from period to period. In addition, other circumstances will occur from time to time requiring that there be a hold on any trading in the Company's securities by its Insiders. Accordingly, it is imperative that you strictly follow the procedure of contacting the President or Chief Financial Officer prior to making any purchase or sale of the Company's securities.

The remainder of this Memorandum is intended to familiarize you with the obligations of Insiders of public companies under the federal securities laws. In the interest of brevity, the following discussion of applicable rules and regulations has been condensed and is therefore not comprehensive. In addition, the legal requirements described are those which are currently in effect; these requirements may change from time to time. As a working guideline for action, we suggest, in any case where even the most remote doubt exists as to your personal obligations or the Company's responsibilities arising under the securities laws, that you seek further information and guidance from the Company.

#### I. Insider Trading Regulations.

The insider trading laws consist of several rules and regulations, including Rule 10b-5, promulgated pursuant to § 10(b) of the Exchange Act and the Insider Trading and Securities Fraud Enforcement Act of 1988 ("ITSFEA"). Those laws create corporate and personal liability in connection with (a) the purchase or sale of securities on the basis of material non-public information or (b) the disclosure of such information to another person who buys or sells securities based on it. The exposure under these laws is great; under ITSFEA, an individual who trades on or tips inside information is liable for civil penalties of up to three times the profit gained or loss avoided by the trade and criminal penalties of \$ fines and jail time. Also under ITSFEA, an employer or other "controlling person" may be liable for trading on material, non-public information by employees if the corporate employer or controlling person knew or recklessly disregarded facts that would lead a reasonable person to believe that a person within its control was likely to trade on material, non-public information and failed to take appropriate steps to prevent such trading. Under these circumstances, the Company or other controlling persons may face a civil penalty of the greater of \$ fines or three times the profit gained or loss avoided by the trade.

A. Who is an Insider for this Purpose?

An insider is anyone who has access to confidential information relating to the Company. Given their positions with the Company, directors and officers are typically deemed to have access to confidential information relating to the Company regardless of whether they have actual knowledge of such information.

B. What is Inside Information?

Inside information is any material information about the Company that is not available to the general public. Information is material if it would be considered important by a reasonable investor in making a decision to buy, sell or hold the security in question. The type of information most commonly found to be inside information relates to future sales, future earnings, interim financial results or acquisition negotiations.

C. What About Trading by Family Members?

Purchases and sales of securities by members of the immediate family or household of an insider may be deemed to be purchases and sales by the insider for purposes of the insider trading laws. Therefore, an insider and the Company could be liable for purchases or sales of securities by the insider's parents, spouse, children or other persons residing in the insider's household if such transactions are made at a time when material, non-public information is known or attributable to the insider.

Each insider is responsible for ensuring that members of his or her family and persons residing in his or her household comply with the Company's policy regarding insider trading. It is suggested that each insider closely monitor all purchases and sales of securities of the Company by such persons.

D. What is the Purpose of the Company's Policy?

Most violations of the insider trading rules are inadvertent, but liability for corporate insiders can be extreme. In addition, ITSFEA places responsibility on the Company and on management as "controlling persons" to take steps to prevent violations of the insider trading laws. Thus, it is important for the Company to adopt policies and procedures to (a) prevent valued employees from making career-ending mistakes, (b) protect the Company and its key executives from controlling person liability, and (c) avoid any situation which could damage the Company's reputation for integrity and ethical conduct.

In summary, whenever any doubt exists, the presumption should be against trading in the Company's stock by any person with access to inside information until at least 48 hours after the information has been publicly announced or it is no longer material. Each individual who has access to material information must exercise the utmost caution in preserving the confidentiality of that information within the Company. If anyone becomes aware of a leak of material information, whether inadvertent or otherwise, he or she should report the situation to management immediately.

II. Section 16 Reporting Requirements; Short-Swing Profit Recapture; and Prohibition on Short Sales

A. Applicability of Section 16.

Section 16 under the Exchange Act imposes certain reporting requirements and trading restrictions on the Company's directors and officers and beneficial owners of more than 10% of a class of the Company's equity securities ("10% Holders"). These persons are generally referred to herein as "Section 16 Insiders". The Section 16 rules limit the term "officer" to those officers generally considered "executive officers," including the Company's president, principal financial officer, principal accounting officer and any vice presidents in charge of a principal business unit, division or function. However, any other officer or other person who performs a significant policy-making function for the Company, who performs important executive duties, or is privy to non-public information of such character that he or she would be likely to obtain confidential information about the Company that would be useful in transactions in the Company's securities may also be considered an "officer" for Section 16 purposes. In determining whether a shareholder is a 10% Holder, they will be deemed to beneficially own all securities over which they have or share the power to vote or sell.

B. Reporting Requirements of Section 16(a).

Section 16 is enforced through the reporting requirements of Section 16(a). Section 16(a) requires every Section 16 Insider to report to the SEC and the Company each acquisition and disposition of shares of the Company's common stock or any other equity securities issued by the Company that are beneficially owned (as defined below) by such person, including the grant or exercise of options to purchase such securities.

1. Beneficial Ownership. Section 16 Insiders are only required to report transactions in securities that are beneficially owned by them. For purposes of determining the number of securities to report on a Section 16(a) form, Section 16 Insiders are deemed to beneficially own all securities in which they have a direct or indirect “pecuniary interest”. Generally a pecuniary interest is defined as the opportunity, directly or indirectly, to profit or share in any profit derived from a transaction in the subject securities. Section 16 Insiders are presumed to have a pecuniary interest in certain specified securities, including:

(i) any “derivative securities”, such as options, warrants or convertible securities, which give the Insider the right to acquire the Company’s securities through their exercise or conversion, whether the derivative securities are presently exercisable or not;

(ii) Company securities held by the Insider’s immediate family members who share the same household as the Insider;

(iii) Company securities held by a trust in which the Insider has an interest; and

(iv) Company securities held by a general partnership or limited partnership in which the Insider is a general partner (or limited partner which makes investments decisions), but only to the extent of such Insider’s proportionate interest in the securities held by the partnership.

2. Reporting Forms. Section 16 provides specific forms for reporting transactions in securities. Each Section 16 Insider is responsible for the preparation and filing of his or her required reports. Three reporting forms are in effect: the initial Form 3 to be filed upon becoming a Section 16 Insider, the monthly Form 4 for certain transactions in the Company’s stock, and the annual Form 5 filing for all other transactions in the Company’s stock.

(i) Initial Report on Form 3. A Form 3 must be filed with (and received by) the SEC within ten days after an individual (1) becomes a Section 16 Insider of the Company, whether or not such individual owns any Company stock at the time or (2) becomes a 10% Holder of the Company’s stock. The individual must report on the Form 3 not only the shares of Company stock which he or she holds directly or indirectly, but also any shares of Company stock which are beneficially owned (as defined above) and held by his or her spouse, children and other members of the immediate family residing in the same household. A copy of the Form 3 must also be delivered to the Company within the same 10-day reporting period.

(ii) Form 4 Report. Form 4 is used for reporting of all transactions which result in a change of beneficial ownership in the Company’s securities, other than those transactions which are exempt from Section 16(b) (such as gifts and inheritances) and other transactions entitled to be reported on a deferred basis such as “small acquisitions”. In addition, all grants, exercises and conversions of derivative securities (such as options granted under the Company’s option plan) must be reported currently on a Form 4. A Section 16 Insider must report total beneficial ownership for each class of securities in which a transaction was reported. Stock splits and stock dividends are exempt from reporting so long as the increase or decrease in the number of securities held as a result of the split or dividend applies equally to all securities of that class. If the exercise price or amount of shares underlying a derivative security are changed as a result of a stock split or stock dividend, a Section 16 Insider may note the reason for the change in the space provided on the next filed Form 4 or Form 5 (discussed below). Form 4 must be electronically filed with (and received by) the SEC by the second day after the reportable transaction is effected. As with the Form 3, the Form 4 must also be delivered to the Company.

(iii) Form 5 Annual Report. Form 5 is a year-end “clean up” filing, used primarily to report transactions involving changes in beneficial ownership that are not required to be reported earlier on Form 4, either because they are exempt from Section 16(b) liability (such as gifts or inheritances) or are otherwise entitled to be reported on a deferred basis (such as “small acquisitions”). Any person who was a Section 16 Insider at any time during the fiscal year must file a Form 5 unless all transactions otherwise required to be reported on Form 5 have been previously reported on a Form 4. Section 16 Insiders must also disclose on Form 5 all transactions during the fiscal year that should have been, but were not, reported earlier on a Form 3 or Form 4 and must state their total beneficial holdings as of fiscal year end. A Form 5 must be filed by a Section 16 Insider within 45 days after the end of each fiscal year. No Form 5 filing will be required if a Section 16 Insider has reported all transactions in the Company’s stock on previously filed Form 4 reports. However, the individual must provide the Company with a written representation that no Form 5 is required.

(iv) Changes in Form of Beneficial Ownership. Changes in the form of ownership (such as changes from indirect to direct ownership) which do not affect a Section 16 Insider’s previously-reported pecuniary interest in the Company’s securities (other than the exercise or conversion of a derivative security (such as a stock option) or the deposit into or withdrawal from a voting trust) do not need to be reported as line items on a Form 4 or Form 5. Instead, a Section 16 Insider that experiences a change in beneficial ownership should reflect the new form of beneficial ownership in the next otherwise required Form 4 or Form 5 involving the same class of equity securities which experienced the change.

3. Timing of Filing. As a general rule, Section 16(a) reports are considered filed only when received by the SEC in Washington, D.C. The forms must be filed electronically on EDGAR, the SEC's electronic filing system.

C. Short Swing Profit Liability of Section 16(b).

Section 16(b) of the Exchange Act provides that any profit realized by a Section 16 Insider on a purchase and a sale, or sale and purchase, of the Company's securities within a six-month period is recoverable by the Company. For this purpose it does not matter whether the purchase or the sale occurred first, nor is it necessary for the same shares to be involved in each of the matched transactions. In addition, losses cannot be offset against gains. Transactions are paired so as to match the lowest purchase price and the highest sales price within any six-month period, thus finding the maximum spread. For example, a sale of common stock, followed by a purchase of common stock at a lower price within six months, would result in a profit recoverable by the Company. Purchases or sales by certain related persons or entities also may be imputed to a Section 16 Insider for purposes of Section 16(b). See the discussion of "beneficial ownership" above.

Although Section 16(b) is intended to prevent the unfair use of corporate information by an insider, the restrictions and consequences of Section 16(b) apply whether or not material inside information is in fact used. Thus, it is extremely important that Section 16 Insiders review any planned purchase or sale of Company securities prior to completing the transaction to ensure that it cannot be matched with other transactions during the preceding six months or with other transactions planned within the next six months. There are a substantial number of "professional plaintiffs" who review the reports required by Section 16 described above and bring lawsuits to recover such profits, even if not pursued by the Company.

Importantly, SEC Rule 16b-3 provides, under certain limited circumstances, that the acquisition or disposition of the Company's common stock or derivative securities thereof (such as options to purchase common stock) by or from the Company will not be treated as a purchase or sale of the Company's common stock for purposes of Section 16(b) against which transactions occurring within six months can be matched (although such transactions still need to be reported under Section 16(a)). Effective August 15, 1996, Rule 16b-3 provides three methods of exempting such grants or awards by the Company to its officers and directors: (a) advance approval by the Board of Directors or a committee solely composed of two or more nonemployee directors, (b) advance approval, or substantial ratification no later than the next annual meeting, by a majority of the Company's voting security holders, and (c) holding the securities for at least six months. In the case of derivative securities, such as options, the six month period begins upon acquisition of the derivative security and will include any time the underlying securities may be held after exercise and prior to disposition. This rule exempts a wide variety of transactions that otherwise would be subject to Section 16(b). Moreover, this exemption category affords a fail-safe mechanism to Section 16 Insiders, in the form of the six-month holding period alternative, for salvaging an exemption where it is belatedly discovered that a flawed approval procedure was employed.

It should be noted, however, that if the Company is relying on the board or shareholder approval alternatives of new Rule 16b-3 as the basis for an exemption, each transaction, i.e., each grant to each recipient, must be approved (whether by the board, committee or shareholders). Thus, approval of the plan as a whole would not be sufficient, except for the approval of a formula plan (where the specific terms and conditions of each transaction are fixed in advance).

D. Prohibition on "Short Sales".

Section 16(c) prohibits Section 16 Insiders from engaging in "short sales". Specifically, Section 16(c) makes it unlawful for any officer or director, directly or indirectly, to sell any equity security of the Company (other than securities exempt from Section 16(c)), if such person (1) does not own the security sold or (2) does own the security, but does not deliver it against such sale within twenty days thereafter, or does not, within five days after such sale, deposit it for delivery.

E. Pre and Post Insider Transactions. Generally, transactions in Company stock that occur before a person becomes an officer or director of a public company are exempt from both the reporting and short-swing profit recovery provisions of Section 16. Many types of transactions after a person ceases to be an officer or director are, however, reportable and subject to short-swing profit recovery under Section 16 if they occur within six months of a transaction that occurred while such person was an officer or director.

F. Serious Consequences for Section 16 Violations.

The Section 16 provisions are highly complex and impose serious consequences for failing to timely file required reports under Section 16(a) or engaging in transactions subject to short-swing profit recovery under Section 16(b). Such consequences include the following:

(i) The Company must identify by name in its annual proxy statement and Annual Report on Form 10-K those officers and directors who failed to file any required report or who filed any delinquent report in the prior fiscal year;

(ii) The SEC may impose monetary penalties for missing Section 16 reporting deadlines;

(iii) Under certain circumstances, a U.S. District Court may bar a Section 16 Insider who has violated Section 16(a) from serving as a director or officer of a public company; and

(iv) Officers and directors who engage in transactions subject to Section 16(b) may be required to disgorge any profits to the Company.

The Company will assist any officer or director who desires help in preparation of Forms 3, 4 and 5. Under the Company's Securities Trading Policy, directors, officers and certain designated employees are required to report in advance any transaction which may involve a change in their beneficial ownership of stock.

### III. Restrictions on Sales of Shares under Rule 144.

"Controlling persons" of the Company are restricted in their sale of stock whether or not the shares themselves are "restricted." Accordingly, all sales by controlling persons of shares of the Company's common stock, whether acquired in the public market or in private transactions, must be registered by the Company under the Securities Act or made in compliance with the requirements of Rule 144. Each of the Company's officers and directors is deemed to be a "controlling person" of the Company for this purpose. Absent registration, directors and officers are required to comply with the Rule 144 requirements in any sales of securities. These requirements include (a) selling within the volume limitations of Rule 144 (i.e. sales during a period of three months may not exceed the greater of (i) one percent of the Company's outstanding shares or (ii) the average weekly trading volume in the Company's common stock for the previous four weeks), and (b) filing a Form 144 with the SEC for sales of over 500 shares or \$10,000 in any three-month period. In addition, the sales must be made in "brokers transactions" or directly with a "market maker" who is subject to certain restrictions in the manner of sale. Therefore, be sure to advise your broker of your relationship with the Company whenever effecting trades in the Company's stock. Bear in mind that compliance with Rule 144 is not a substitute for compliance with the insider trading laws or the short-swing profit provisions of Section 16 of the Exchange Act. Thus, an exempt sale under Rule 144 may result in a short-swing profit recoverable by the Company (or any shareholder on behalf of the Company) under Section 16(b) if the sale occurs within six months before or after the seller's purchase of Company stock at a lower price.

### IV. Special Requirements for More-Than-Five-Percent-Shareholders

In addition to the requirements discussed above, shareholders who beneficially own more than five percent of the Company's common stock are subject to special reporting requirements discussed in Appendix B attached to this Memorandum.

## **APPENDIX A**

### **SECURITIES TRANSACTION CHECKLIST**

**SALES:** If a director, officer or 10% Holder (or any member of his or her immediate family) proposes to effect a sale Section 16 and Rule 144 pose the following considerations:

#### **Section 16 Considerations:**

1. Have there been any purchases by the Insider (or a member of his or her immediate family) within the past six months?
2. If the shares to be sold were acquired upon the exercise of an option, was the option granted more than six months ago?
3. Are any purchases (including non-exempt acquisitions of shares or options under employee benefit plans) anticipated within the next six months?
4. Has the person responsible for preparing the Form 4 been advised?

#### **Rule 144 Considerations:**

5. Is the amount of shares to be sold (together with all sales in the previous 3 months) less than the greater of (a) one percent of the Company's outstanding shares or (b) the average weekly trading volume in the Company's common stock for the previous four weeks?
6. Is the broker effecting the sale aware of the Insider's status as an affiliate?
7. Are more than 500 shares or shares valued at \$10,000 or more being sold? If so, has a Form 144 been prepared?

**PURCHASES:** If an insider proposes to effect a purchase (other than the exercise of an in-the-money option) Section 16 poses the following considerations:

1. Have there been any sales by the insider (or a member of his or her immediate family) within the past six months?
2. Are any sales anticipated within the next six months (such as tax-related or year-end transactions)?
3. Has the person responsible for preparing the Form 4 been advised?

#### **OPTION EXERCISES**

1. If any of the option shares are to be sold immediately, was the option granted in compliance with Rule 16b-3?
2. Has the person responsible for preparing the Form 4 been advised?
3. Is the sale in compliance with Rule 144 (See "Rule 144 Considerations" above)?

**NOTE:** IN ADDITION TO THE ABOVE, ALL TRANSACTIONS MUST COMPLY WITH THE COMPANY'S SECURITIES TRADING POLICY. BEFORE PROCEEDING WITH A PURCHASE OR SALE, CONSIDER WHETHER YOU ARE AWARE OF MATERIAL INSIDE INFORMATION THAT COULD AFFECT THE PRICE OF THE STOCK.

## **APPENDIX B**

### **FILING REQUIREMENTS FOR MORE THAN FIVE-PERCENT SHAREHOLDERS**

1. What special requirements apply to more-than-five-percent Shareholders? When a shareholder is a beneficial owner of more than five percent of the Company's stock, he or she is required to disclose certain information to the SEC by filing either a Schedule 13D or Schedule 13G. For purposes of determining if a shareholder holds more than five percent of the Company's stock, a person is deemed to own any securities which he or she has or shares the power to vote or to sell. Certain shares under options, as well as shares held by certain family members, partnerships, corporations, or trusts are included. Generally, acquisitions (a) before a company's initial public offering, or (b) of less than twenty percent of a class of stock which is not made for the purpose of changing or influencing control of the Company, may be reported on Schedule 13G.

2. What information is included in Schedule 13D and Schedule 13G? Disclosures required under Schedule 13G are less intense than Schedule 13D. Each schedule requires disclosure of the identity and background of the reporting person, the class of securities reported on, the percentage of beneficial ownership and the number of shares owned. In addition, Schedule 13D requires information about the source and amount of funds used to purchase the stock, the purpose of the acquisition and any understanding or other relationships between the reporting person and the Company.

3. When must a Schedule 13D or Schedule 13G be filed? If a shareholder is obligated to file a Schedule 13D, it must be filed within ten days after the purchase that triggers the obligation to file. Amendments to Schedule 13D reporting material changes in an earlier report must be filed "promptly"; filing an amendment within a day or two following the triggering event is generally advisable.

A Schedule 13G and any amendments generally must be filed within 45 days after the calendar year in which the obligation to file the Schedule 13G or the amendment arose. However, if a person is eligible to file Schedule 13G because they hold less than twenty percent of a class of securities, that Schedule 13G must be filed within ten days of the purchase triggering the obligation to file. In addition, a person who filed a Schedule 13G under such circumstances must file an amendment on Schedule 13G "promptly" upon acquiring ten percent of a class of stock and upon increasing or decreasing its holdings by more than five percent of such class. In addition, such person must file a Schedule 13D within ten days if they (i) have acquired securities for the purpose of changing or influencing control of the Company or (ii) hold more than twenty percent of the class. Both Schedule 13Ds and Schedule 13Gs must now be filed electronically via EDGAR. In order for an individual to file via EDGAR, he or she must first obtain an EDGAR identification number by submitting a written application to the SEC. In addition, both the Company and the filer must retain executed originals of the Schedule 13D or Schedule 13G for at least five years from the date of filing.

**EXHIBIT 21.1****DATA I/O CORPORATION  
SUBSIDIARIES OF THE REGISTRANT**

The following table indicates the name, jurisdiction of incorporation and basis of ownership of each of Data I/O's subsidiaries:

<b>Name of Subsidiary</b>	<b>State or Jurisdiction of Organization</b>	<b>Percentage of Voting Securities Owned</b>
Data I/O International, Inc.	Washington	100%
RTD, Inc.	Washington	100%
Data I/O FSC International, Inc.	Territory of Guam	100%
Data I/O GmbH	Germany	100%
Data I/O Electronics (Shanghai) Co., Ltd.	China	100%

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We have issued our report dated March 31, 2025, with respect to the consolidated financial statements included in the Annual Report of Data I/O Corporation on Form 10-K for the year ended December 31, 2024. We consent to the incorporation by reference of said report in the Registration Statements of Data I/O Corporation on Form S-3 (File No. 333-121566) and on Forms S-8 (File Nos. 002-76164, 002-86785, 002-98115, 002-78394, 33-95608, 33-66824, 33-42010, 33-26472, 33-54422, 333-20657, 333-55911, 33-02254, 33-03958, 333-107543, 333-81986, 333-48595, 333-121861, 333-151006, 333-166730, 333-175840, 333-224971, and 333-279057).

/s/ GRANT THORNTON LLP

Bellevue, Washington

March 31, 2025

**EXHIBIT 31.1**

Certification by Chief Executive Officer  
Pursuant to 18 U.S.C. Section 1350  
As Adopted Pursuant to  
Section 302(a) of the Sarbanes-Oxley Act of 2002

I, William Wentworth, certify that:

- 1) I have reviewed this annual report on Form 10-K of Data I/O Corporation;
- 2) Based upon my knowledge, this annual report does not contain any untrue statement of material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
- 3) Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
- 4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f)) for the registrant and we have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this annual report based on such evaluation; and
  - d) Disclosed in this annual report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected or is reasonably likely to materially affect, the registrant's internal control over financial reporting.
- 5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls over financial reporting.

Date: March 31, 2025

/s/ William Wentworth  
William Wenworth  
Chief Executive Officer  
(Principal Executive Officer)

## **EXHIBIT 31.2**

Certification by Chief Financial Officer  
Pursuant to 18 U.S.C. Section 1350  
As Adopted Pursuant to  
Section 302(a) of the Sarbanes-Oxley Act of 2002

I, Gerald Y. Ng, certify that:

- 1) I have reviewed this annual report on Form 10-K of Data I/O Corporation;
- 2) Based upon my knowledge, this annual report does not contain any untrue statement of material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
- 3) Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
- 4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f)) for the registrant and we have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purpose in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this annual report based on such evaluation; and
  - d) Disclosed in this annual report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected or is reasonably likely to materially affect, the registrant's internal control over financial reporting.
- 5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls over financial reporting.

Date: March 31, 2025

/s/ Gerald Y. Ng  
Gerald Y. Ng  
Chief Financial Officer  
(Principal Financial Officer)

**Exhibit 32.1**

Certification by Chief Executive Officer  
Pursuant to 18 U.S.C. Section 1350  
As Adopted Pursuant to  
Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the annual report of Data I/O Corporation (the “Company”) on Form 10-K for the period ended December 31, 2024 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, William Wentworth, Chief Executive Officer of the Company, certify, that pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of § 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ William Wentworth  
William Wentworth  
Chief Executive Officer  
(Principal Executive Officer)

Date: March 31, 2025

**Exhibit 32.2**

Certification by Chief Financial Officer  
Pursuant to 18 U.S.C. Section 1350  
As Adopted Pursuant to  
Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the annual report of Data I/O Corporation (the “Company”) on Form 10-K for the period ended December 31, 2024 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Gerald Y. Ng, Chief Financial Officer of the Company, certify, that pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Gerald Y. Ng  
Gerald Y. Ng  
Chief Financial Officer  
(Principal Financial Officer)

Date: March 31, 2025



**Alco Investment Company**  
PO Box 3558  
Federal Way, WA 98063-3558

© Commercial Brokers  
Association 1999-2005  
ALL RIGHTS RESERVED



CBA Form LA  
Lease Addendum  
Rev. 5/07

## SEVENTH AMENDMENT TO CBA LEASES DATA I/O CORPORATION

The following Amendment to the Commercial Lease Agreement is dated October 17, 2024 between Alco Redmond East, LLC ("Landlord"), and Data I/O Corporation, a Washington Corporation ("Tenant") regarding the Premises commonly known as: 6645 185<sup>th</sup> Avenue NE, Suite 100 & 200, Redmond, WA 98052.

IT IS AGREED BETWEEN THE LANDLORD AND TENANT AS FOLLOWS: Pursuant to the Original Lease dated February 28, 2006, the First Amendment dated August 24, 2006, the Second Amendment dated January 31, 2011, the Third Amendment dated April 8, 2015, the Fourth Amendment dated May 18, 2016, the Fifth Amendment dated September 12 2017, and the Sixth Amendment dated October 4, 2021 (jointly, the "Lease"), Landlord and Tenant now desire to further amend and extend the lease upon the terms and conditions set forth in this Seventh Amendment.

1. **Early Termination of the Third Extended Term.** The Third Extended Term, as provided in the Sixth Amendment and originally scheduled to expire on January 31, 2026, shall terminate early on October 31, 2024.
2. **Fourth Extended Term.** Immediately following the early termination of the Third Extended Term, the Lease Term shall be extended for a period of sixty (60) months, commencing on November 1, 2024, and expiring on October 31, 2029 ("the "Fourth Extended Term").
3. **Monthly Rent.** Monthly Base Rent for the Fourth Extended Term shall be as follows:

Months	Start Date	End Date	Monthly Base Rate	SF	Monthly Base Rent Due	Percent Increase
1-12	11/1/2024	10/31/2025	\$1.60	20,460	<b>32,821.25</b>	
13-24	11/1/2025	10/31/2026	\$1.65	20,460	<b>33,805.89</b>	3.00%
25-36	11/1/2026	10/31/2027	\$1.70	20,460	<b>34,820.06</b>	3.00%
37-48	11/1/2027	10/31/2028	\$1.75	20,460	<b>35,864.67</b>	3.00%
49-60	11/1/2028	10/31/2029	\$1.81	20,460	<b>36,940.61</b>	3.00%

4. **Tenant's Proportionate Share.** Notwithstanding anything to the contrary, Tenant's Proportionate Share shall be based on the ratio of the agreed rentable area of the Premises to the agreed rentable area of the Building for expenses related to the Building, and to the agreed rentable area of all other Buildings on the Project for expenses related to the Project.
5. **Electronic Signatures.** The parties acknowledge and agree that this Lease may be executed by electronic signature and notarized virtually, which shall be considered as an original signature for all purposes and shall have the same force and effect as an original signature. Without limitation, "electronic signature" shall include electronically scanned and transmitted versions (e.g., via pdf) of an original signature.

Initial  
GN

DS  
AR

**Alco Investment Company**  
 PO Box 3558  
 Federal Way, WA 98063-3558

© Commercial Brokers  
 Association 1999-2005  
 ALL RIGHTS RESERVED



CBA Form LA  
 Lease Addendum  
 Rev. 5/07

**SEVENTH AMENDMENT TO CBA LEASES  
 DATA I/O CORPORATION**

**EXHIBIT A**

**RIGHT OF FIRST OPPORTUNITY**

(a) **Grant of Right.** Beginning on the Effective Date and continuing throughout the Term, as may be extended, Tenant shall have an ongoing right of first opportunity with respect to lease Suite 250 on the 2<sup>nd</sup> floor of the 6645 185<sup>th</sup> Avenue NE Building, in the event any portion thereof becomes available (the "ROFO Space"). If, at any time from the Effective Date and continuing throughout the Lease term, the ROFO Space becomes available for lease, Landlord shall notify Tenant (the "Right of First Opportunity Notice"). The Right of First Opportunity Notice shall specify: (i) the location and rentable area of the space which Landlord intends to lease; (ii) the date upon which such space shall be available for occupancy; (iii) the economic terms to include the annual rate of base rent per square foot of rentable area which Landlord intends to charge for such space, including all fixed and/or indexed adjustments to said rate, any security deposit or prepaid rent, any other financial terms, and the proposed lease term for such space; and (iv) other material terms. Tenant specifically acknowledges that Landlord may offer the space for a term which is longer than the unexpired balance of the Lease Term, or as part of a larger space. Therefore, Landlord may offer such space or the applicable portion thereof to Tenant on terms which require Tenant (a) to extend the balance of the Lease Term (at a market rent reasonably acceptable to Landlord) to coincide with the length of the term being considered by Landlord, or (b) to lease the entirety of the larger space. Tenant shall have the right (the "Right of First Opportunity"), exercisable by Tenant, within seven (7) business days of Tenant's receipt of the Right of First Opportunity Notice, to decline to lease such space or to elect to lease it. To lease such space, Tenant shall enter into an amendment to this Lease pursuant to which Tenant shall lease the space which is the subject of the Right of First Opportunity Notice under the terms and conditions specified in the Right of First Opportunity Notice and this Lease. If Tenant does not so accept the Right of First Opportunity Notice by the end of the fifth (5<sup>th</sup>) business day, Landlord shall be free to lease the same to a third party on the terms offered to Tenant under the Right of First Opportunity Notice. Tenant's rights under this Section shall continue throughout the Term, as extended, and shall apply with respect to any subsequent offer in connection with ROFO Space, including space that Tenant did not accept at an earlier date. Notwithstanding the foregoing, in the event Tenant exercises said Right of First Opportunity within the first twenty four (24) months of the Fourth Extended Term the Monthly Rent shall mirror the rental rate schedule outlined in paragraph 3 herein.

(b) **Subordination.** This Right of First Opportunity shall be subject and subordinate to all expansion, first offer and similar rights currently set forth in any lease which has been executed in the Building prior to the Effective Date.

(c) **Financial Condition.** As a condition to Landlord executing a supplemental agreement with Tenant under this Section, Landlord shall have the right to review then current financial statements of Tenant. If Landlord is not satisfied, in its reasonable discretion, that the financial condition of Tenant is as strong or stronger than it is on the Effective Date, as demonstrated by such financial statements, or at least as strong as that of other tenants to whom Landlord would be willing to lease such space, then Landlord may proceed to lease the space as if Tenant had rejected the Right of First Opportunity Notice.

(d) **Rights Personal.** The Right of First Opportunity is personal to the original Tenant named herein and may not be exercised by any sublessee or assignee, or by any other successor or assign of Tenant unless any such entity has a net worth equal to or greater than Tenant. The Right of First Opportunity shall be effective only if no Event of Default is currently ongoing beyond expiration of any applicable notice and cure periods at the time of Tenant's acceptance of the Offer as set forth above.

Initial  
 GN

DS  
 DR

**Alco Investment Company**  
 PO Box 3558  
 Federal Way, WA 98063-3558

© Commercial Brokers  
 Association 1999-2005  
 ALL RIGHTS RESERVED



CBA Form LA  
 Lease Addendum  
 Rev. 5/07

**SEVENTH AMENDMENT TO CBA LEASES  
 DATA I/O CORPORATION**

(e) **No Promises.** Landlord shall have no liability for the failure of any space to become available; provided, however if Landlord is delayed delivering possession of the space which is the subject of the Right of First Opportunity Notice due to the holdover or unlawful possession of such space by any party, Landlord shall use commercially reasonable efforts to obtain possession of such space (including through litigation if required), and the commencement of the term for the space which is the subject of the Right of First Opportunity Notice shall be postponed until the date Landlord delivers possession of the subject ROFO Space to Tenant free from occupancy by any party and in the condition required pursuant to the Right of First Opportunity Notice. Notwithstanding the foregoing, Tenant may (at its option) upon written notice to Landlord, terminate its exercise of a Right of First Opportunity with respect to any ROFO Space (and any lease or amendment related thereto) if the ROFO Space is not delivered within ninety (90) days following the date on which delivery is required (which 90-day period shall not be subject to any extension for Force Majeure or otherwise, notwithstanding anything in this Lease to the contrary).

All other terms and conditions of the lease and the prior amendments shall remain unchanged and in full force.

Signature:

Landlord/Lessor:	<div>DocuSigned by:</div> <div><i>Adam Rosen</i></div> <div>Signed by:</div> <div>333FBF37B7FE443...</div>	Date: 11/3/2024   8:21 PM PST
Tenant/Lessee:	<div><i>Gerry Ng</i></div> <div>906A21D75B55484...</div>	Date: 11/1/2024   11:48 AM PDT

Initials: 

Initial  
GN

DS  
AR