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

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 28, 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: 0-27598

IRIDEX CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**77-0210467**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification Number)**
1212 Terra Bella Avenue Mountain View, California	**94043-1824**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (650) 940-4700

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

Title of Class	Trading Symbol	Name of Exchange on Which Registered
Common Stock, par value $0.01 per share	IRIX	Nasdaq Capital Market

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, 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.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☑	Smaller reporting company	☑
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 is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☑

The number of shares of common stock, $0.01 par value, issued and outstanding as of November 8, 2024 was 16,636,380.

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NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, which statements involve substantial risks and uncertainties. Forward-looking statements generally relate to future events or our future financial or operating performance. In some cases, you can identify forward-looking statements because they contain words such as "may," "will," "should," "expects," "plans," "anticipates," "could," "intends," "target," "projects," "contemplates," "believes," "estimates," "predicts," "potential," or "continue" or the negative of these words or other similar terms or expressions that concern our expectations, strategy, plans, or intentions. Forward-looking statements contained in this Quarterly Report on Form 10-Q include, but are not limited to, statements about:

- our future financial performance, including our expectations regarding our revenue, cost of revenue, gross profit or gross margin, operating expenses (including changes in sales and marketing, research and development and general and administrative expenses), and our ability to achieve and maintain future profitability;
- success of our strategic alternatives;
- macroeconomic conditions, including impact of global pandemics or other public health emergencies or outbreaks, foreign exchange fluctuation, inflation concerns, and changing interest rates on our business and results of operations;
- customer acceptance and purchase of our existing products and new products;
- our ability to maintain and expand our customer base;
- competition from other products;
- the impact of foreign currency exchange rate and interest rate fluctuations on our results and sales;
- the pace of change and innovation in the markets in which we participate and the competitive nature of those markets;
- our business strategy and our plan to build our business;
- our ability to effectively manage our growth;
- the success of our strategic partnership with Topcon Corporation;
- our costs of manufacturing and reliance on third party manufacturers;
- our ability to forecast and meet product demand;
- our ability to discover defects in our products and systems;
- our international expansion and sales strategy;
- our operating results and cash flows;
- our beliefs and objectives for future operations;
- our relationships with third parties;
- our ability to maintain, protect, and enhance our intellectual property rights;
- our ability to maintain, protect, and enhance our information technology systems and data;
- our ability to maintain our facilities in good working order;
- our ability to recover the carrying value of goodwill;
- the impact of expensing stock options and other equity awards;
- our ability to successfully defend litigation brought against us;
- our ability to indemnify our directors and officers;
- our ability to repay indebtedness and have indebtedness forgiven;
- our ability to successfully expand in our existing markets and into new markets;
- sufficiency of cash to meet cash needs for at least the next 12 months;
- our ability to comply with laws, policies, and regulations that currently apply or become applicable to our business both in the United States and internationally;
- our ability to attract and retain qualified employees and key personnel, and source suppliers;
- our ability to raise additional capital;

- the future trading prices of our common stock; and
- our ability to pay dividends in the future.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this Quarterly Report on Form 10-Q, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

You should not rely upon forward-looking statements as predictions of future events. We have based the forward-looking statements contained in this Quarterly Report on Form 10-Q primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition, results of operations, and prospects. You should read this Quarterly Report on Form 10-Q and the documents that we reference in this Quarterly Report on Form 10-Q and have filed with the Securities and Exchange Commission ("SEC") as exhibits to this Quarterly Report on Form 10-Q with the understanding that our actual future results, levels of activity, performance and events and circumstances may be materially different from what we expect. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties, and other factors described in and should be read in conjunction with the section titled "Risk Factors" and elsewhere in this Quarterly Report on Form 10-Q. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this Quarterly Report on Form 10-Q. We cannot assure you that the results, events, and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results, events, or circumstances could differ materially from those described in the forward-looking statements.

The forward-looking statements made in this Quarterly Report on Form 10-Q relate only to events as of the date on which such statements are made. We undertake no obligation to update any forward-looking statements made in this Quarterly Report on Form 10-Q to reflect events or circumstances after the date of this Quarterly Report on Form 10-Q or to conform such statements to actual results or revised expectations, except as required by law. We may not actually achieve the plans, intentions, or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures, or investments we may make.

As used in this Quarterly Report on Form 10-Q, the terms "Company," "IRIDEX," "we," "us" and "our" refer to IRIDEX Corporation, and its consolidated subsidiaries.

PART I. FINANCIAL INFORMATION

Item 1. Condensed Consolidated Financial Statements (Unaudited)

IRIDEX Corporation
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited, in thousands except share and per share data)

	September 28, 2024	December 30, 2023
ASSETS		
Current assets:		
Cash and cash equivalents	$ 3,860	$ 7,034
Accounts receivable, net	5,954	6,727
Receivable from related party	1,826	2,927
Inventories	10,942	9,906
Prepaid expenses and other current assets	1,755	856
Total current assets	24,337	27,450
Property and equipment, net	157	351
Intangible assets, net	1,391	1,642
Goodwill	965	965
Operating lease right-of-use assets, net	2,034	2,632
Other long-term assets	1,270	1,396
Total assets	$ 30,154	$ 34,436
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 6,201	$ 4,499
Payable to related party	579	228
Accrued compensation	1,842	1,619
Accrued expenses	1,007	1,996
Convertible note payable, current	1,314	—
Other current liabilities	1,579	1,233
Deferred revenue, current	2,335	2,404
Operating lease liabilities, current	995	995
Total current liabilities	15,852	12,974
Long-term liabilities:		
Deferred revenue	8,759	10,025
Operating lease liabilities	1,155	1,751
Convertible note payable	1,444	—
Other long-term liabilities	321	164
Total liabilities	27,531	24,914
Commitments and contingencies (Note 9)		
Stockholders' equity:		
Preferred stock, $0.01 par value, 2,000,000 shares authorized, no shares issued and outstanding	—	—
Common stock, $0.01 par value:		
Authorized: 30,000,000 shares;		
Issued and outstanding 16,636,380 shares as of September 28, 2024 and 16,252,813 as of December 30, 2023	174	172
Additional paid-in capital	89,565	88,444
Accumulated other comprehensive income (loss)	2	(52)
Accumulated deficit	(87,118)	(79,042)
Total stockholders' equity	2,623	9,522
Total liabilities and stockholders' equity	$ 30,154	$ 34,436

The accompanying notes are an integral part of these condensed consolidated financial statements.

IRIDEX Corporation
Condensed Consolidated Statements of Operations
(Unaudited, in thousands except per share data)

	Three Months Ended		Nine Months Ended	
	September 28, 2024	September 30, 2023	September 28, 2024	September 30, 2023
Total revenues	$ 11,581	$ 12,850	$ 35,973	$ 39,411
Cost of revenues	7,258	7,229	22,057	22,489
Gross profit	4,323	5,621	13,916	16,922
Operating expenses:				
Research and development	1,299	1,541	4,336	5,135
Sales and marketing	2,646	3,823	9,879	12,370
General and administrative	2,248	1,945	7,501	6,343
Total operating expenses	6,193	7,309	21,716	23,848
Loss from operations	(1,870)	(1,688)	(7,800)	(6,926)
Other income (expense), net	(46)	(58)	(202)	346
Loss from operations before provision for income taxes	(1,916)	(1,746)	(8,002)	(6,580)
Provision for income taxes	17	8	74	30
Net loss	$ (1,933)	$ (1,754)	$ (8,076)	$ (6,610)
Net loss per share:				
Basic	$ (0.12)	$ (0.11)	$ (0.49)	$ (0.41)
Diluted	$ (0.12)	$ (0.11)	$ (0.49)	$ (0.41)
Weighted average shares used in computing net loss per common share:				
Basic	16,581	16,231	16,374	16,089
Diluted	16,581	16,231	16,374	16,089

The accompanying notes are an integral part of these condensed consolidated financial statements.

IRIDEX Corporation
Condensed Consolidated Statements of Comprehensive Loss
(Unaudited, in thousands)

	Three Months Ended		Nine Months Ended	
	September 28, 2024	September 30, 2023	September 28, 2024	September 30, 2023
Net loss	$ (1,933)	$ (1,754)	$ (8,076)	$ (6,610)
Change in foreign currency translation adjustments	—	21	54	5
Comprehensive loss	$ (1,933)	$ (1,733)	$ (8,022)	$ (6,605)

The accompanying notes are an integral part of these condensed consolidated financial statements.

IRIDEX Corporation
Condensed Consolidated Statements of Stockholders' Equity
(Unaudited, in thousands, except share data)

For the three months ended September 28, 2024	Common Stock		Additional Paid-in	Accumulated Other Comprehensive	Accumulated	Total Stockholders
	Shares	Amount	Capital	Loss	Deficit	Equity
Balances, June 29, 2024	16,449,283	$ 172	$ 89,257	$ 2	$ (85,185)	$ 4,246
Issuance of common stock under the stock option plan	1,875	—	4	—	—	4
Issuance of incentive shares under convertible note	126,968	1	249	—	—	250
Stock-based compensation expense	—	—	114	—	—	114
Release of restricted stock, net of taxes paid	58,254	1	(59)	—	—	(58)
Net loss	—	—	—	—	(1,933)	(1,933)
Balances, September 28, 2024	16,636,380	$ 174	$ 89,565	$ 2	$ (87,118)	$ 2,623

For the nine months ended September 28, 2024	Common Stock		Additional Paid-in	Accumulated Other Comprehensive	Accumulated	Total Stockholders
	Shares	Amount	Capital	Loss	Deficit	Equity
Balances, December 30, 2023	16,252,813	$ 172	$ 88,444	$ (52)	$ (79,042)	$ 9,522
Issuance of common stock under the stock option plan	2,010	—	4	—	—	4
Issuance of incentive shares under convertible note	126,968	1	249	—	—	250
Stock-based compensation expense	—	—	927	—	—	927
Release of restricted stock, net of taxes paid	254,589	1	(59)	—	—	(58)
Other comprehensive income	—	—	—	54	—	54
Net loss	—	—	—	—	(8,076)	(8,076)
Balances, September 28, 2024	16,636,380	$ 174	$ 89,565	$ 2	$ (87,118)	$ 2,623

For the three months ended September 30, 2023	Common Stock		Additional Paid-in	Accumulated Other Comprehensive	Accumulated	Total Stockholders
	Shares	Amount	Capital	Loss	Deficit	Equity
Balances, July 1, 2023	16,206,382	$ 171	$ 87,647	$ (40)	$ (74,328)	$ 13,450
Stock-based compensation expense	—	—	371	—	—	371
Release of restricted stock, net of taxes paid	26,091	1	(25)	—	—	(24)
Other comprehensive income	—	—	—	21	—	21
Net loss	—	—	—	—	(1,754)	(1,754)
Balances, September 30, 2023	16,232,473	$ 172	$ 87,993	$ (19)	$ (76,082)	$ 12,064

For the nine months ended September 30, 2023	Common Stock		Additional Paid-in	Accumulated Other Comprehensive	Accumulated	Total Stockholders
	Shares	Amount	Capital	Loss	Deficit	Equity
Balances, December 31, 2022	15,989,662	$ 169	$ 86,802	$ (24)	$ (69,716)	$ 17,231
Adoption of ASU 2016-13	—	—	—	—	244	244
Issuance of common stock under the stock option plan	17,499	—	37	—	—	37
Stock-based compensation expense	—	—	1,244	—	—	1,244
Release of restricted stock, net of taxes paid	225,312	3	(90)	—	—	(87)
Other comprehensive income	—	—	—	5	—	5
Net loss	—	—	—	—	(6,610)	(6,610)
Balances, September 30, 2023	16,232,473	$ 172	$ 87,993	$ (19)	$ (76,082)	$ 12,064

The accompanying notes are an integral part of these condensed consolidated financial statements.

IRIDEX Corporation
Condensed Consolidated Statements of Cash Flows
(Unaudited, in thousands)

	Nine Months Ended	
	September 28, 2024	**September 30, 2023**
Operating activities:		
Net loss	$ (8,076)	$ (6,610)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	449	479
Amortization of operating lease right-of-use assets	598	777
Accretion of original issue discount	59	—
Amortization of debt issuance costs	72	—
Stock-based compensation	927	1,244
Changes in operating assets and liabilities:		
Accounts receivable	773	363
Receivable from related party	1,101	1,534
Inventories	(1,036)	409
Prepaid expenses and other current assets	(899)	339
Other long-term assets	126	(227)
Accounts payable	1,702	(1,247)
Payable to related party	351	(12)
Accrued compensation	223	(251)
Accrued expenses	(989)	(377)
Deferred revenue	(1,335)	(1,442)
Operating lease liabilities	(596)	(774)
Other liabilities	503	29
Net cash used in operating activities	(6,047)	(5,766)
Investing activities:		
Acquisition of property and equipment	(4)	(141)
Net cash used in investing activities	(4)	(141)
Financing activities:		
Net proceeds from issuance of convertible note payable	3,370	—
Cash paid for debt issuance costs	(493)	—
Proceeds for stock option exercises	4	37
Taxes paid related to net share settlements of equity awards	(58)	(87)
Net cash provided by (used in) financing activities	2,823	(50)
Effect of foreign exchange rate changes	54	16
Net decrease in cash and cash equivalents	(3,174)	(5,941)
Cash and cash equivalents, beginning of period	7,034	13,922
Cash and cash equivalents, end of period	$ 3,860	$ 7,981
Supplemental disclosure of cash flow information:		
Cash paid during the period for income taxes	$ 17	$ 54
Supplemental disclosure of non-cash activities:		
Transfer of inventory to property and equipment	—	$ 70
ROU assets obtained with extension of operating lease	—	$ 1,901
Issuance of incentive shares under convertible note payable	$ 250	—

The accompanying notes are an integral part of these condensed consolidated financial statements.

IRIDEX Corporation
Notes to Unaudited Condensed Consolidated Financial Statements

1. Basis of Presentation

The accompanying unaudited condensed consolidated financial statements of IRIDEX Corporation ("IRIDEX", the "Company", "we", "our", or "us") have been prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP") for interim financial information and pursuant to the instructions to Form 10-Q and Article 10-01 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by U.S. GAAP for complete financial statements. In the opinion of management, all adjustments, consisting of normal recurring adjustments, considered necessary for a fair presentation of the financial statements have been included.

The accompanying unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto, together with management's discussion and analysis of the Company's financial condition and results of operations, contained in our Annual Report on Form 10-K for the fiscal year ended December 30, 2023, which was filed with the SEC on March 29, 2024. The results of operations for the three and nine months ended September 28, 2024 and September 30, 2023 are not necessarily indicative of the results for the fiscal year ending December 28, 2024 or any future interim period. The three months ended September 28, 2024 and September 30, 2023 each had 13 weeks. For purposes of reporting the financial results, the Company's fiscal years end on the Saturday closest to the end of December. Periodically, the Company includes a 53rd week to a year in order to end that year on the Saturday closest to the end of December.

Liquidity and Management Plans

The accompanying condensed consolidated financial statements have been prepared assuming the Company will continue as a going concern. For the nine months ended September 28, 2024, the Company implemented cost savings initiatives to increase operational efficiencies across all departments, which the Company expects will decrease its operating expenses and increase working capital through January 3, 2026. Based on these cost savings initiatives implemented by the Company and the closing of the $3.4 million Note with The Lind Partners, LLC ("Lind") (with an option to have an additional $1.5 million in a Subsequent Note), management believes it has alleviated substantial doubt about the Company's ability to satisfy its liquidity needs over the next 12 months.

2. Summary of Significant Accounting Policies

The Company's significant accounting policies are disclosed in our Annual Report on Form 10-K for the year ended December 30, 2023, which was filed with the SEC on March 29, 2024.

Financial Statement Presentation

The unaudited condensed consolidated financial statements include the accounts of the Company and our wholly-owned subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of condensed consolidated financial statements in conformity with U.S. GAAP requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues, and expenses and the related disclosure of contingent assets and liabilities. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates. In addition, any change in these estimates or their related assumptions could have an adverse effect on our operating results.

Revenue Recognition

Our revenues arise from the sale of laser consoles, delivery devices, consumables, service, and support activities. We also derive revenue from royalties from third parties which are typically based on the licensees' net sales of products that utilize our technology. Our revenue is recognized in accordance with Accounting Standards Codification ("ASC") Topic 606, *"Revenue from Contracts with Customers."* The Company recognizes revenue using the five-step model: (1) identifying the contract with the customer, (2) identifying the performance obligations in the contract, (3) determining expected transaction price, (4) allocating the transaction price to the distinct performance obligations in the contract, and (5) recognizing revenue when (or as) the performance obligations are satisfied.

The Company has the following revenue transaction types: (1) Product Sale Only, (2) Service Contracts, (3) System Repairs (outside of warranty), (4) Royalty Revenue and (5) Exclusive Distribution Rights.

1. Product Sale Only: The Company's products consist of laser consoles, delivery devices and consumable instrumentation, including laser probes. The Company's products are currently sold for use by ophthalmologists specializing in the

treatment of glaucoma and retinal diseases. Inside the United States and Germany the products are sold directly to the end users. In other countries outside of the United States and Germany, the Company utilizes independent, third-party distributors to market and sell the Company's products. There is no continuing obligation after shipment is made to these distributors.

The Company recognizes revenue from product sales at a point in time subject to the allocation of transaction price to additional performance obligations, if any.

2. Service Contracts: The Company offers a standard two-year warranty on all system sales. The Company also offers a service contract which is sold to customers in incremental, one-year periods that begin subsequent to the expiration of the standard two-year warranty. The customer can opt to purchase the service contract at the time of the system sale or after the initial system sale.

   The Company recognizes revenue from service contracts ratably over the service period. Revenue recognition for the sale of a service contract is largely dependent on the timing of the sale as follows:

   a) Service Contract Sale in Conjunction with System Sale: If the customer opts to purchase a service contract at the time of the system sale, the Company allocates the transaction price of the distinct performance obligations in the contract by determining stand-alone selling price using historical pricing net of any variable consideration or discounts to specifically allocate to a particular performance obligation.

   b) Service Contract Sale Subsequent to System Sale: If the customer opts to purchase a service contract after the initial system sale, the Company determines the amount of time that has elapsed since the initial system sale. If the service contract is purchased within 60 days of the initial sale, the Company considers this sale to be an additional element of the original sale and allocates the transaction price of the distinct performance obligations in the contract by determining stand-alone selling price using historical pricing net of any variable consideration or discounts to specifically allocate to a particular performance obligation. If the service contract is purchased subsequent to 60 days after the initial sale, the sale of the service contract is deemed a separate contract and is deferred at the selling price and recognized ratably over the extended warranty period as the performance obligation is satisfied.

3. System Repairs (outside of warranty): Customers will occasionally request repairs from the Company subsequent to the expiration of the standard warranty and outside of a service contract.

   The Company recognizes revenue from system repairs (outside of warranty) at a point in time. When the customer requests repairs from the Company subsequent to the expiration of the standard warranty and outside of a service contract, these repair contracts are considered separate from the initial sale. As such, revenue is recognized as the repair services are rendered and the performance obligation satisfied.

4. Royalty Revenue: The Company has royalty agreements with two customers related to the sale of the Company's intellectual property. Under the terms of these agreements, one customer is to remit a percentage of sales to the Company as the sales occur and one customer is to remit fixed amount royalty payments based on the quantity sold as the sales occur.

   The arrangements with three customers are for sales-based licenses of intellectual property, for which the guidance in paragraph ASC 606-10-55-65 applies. Therefore, the Company recognizes revenue at a point in time, only as the subsequent sale occurs. However, the Company notes that such sales being reported by the licensee with a quarter in arrears, such revenue is recognized at the time it is reported and paid by the licensee given that any estimated variable consideration would have to be fully constrained due to the unpredictability of such estimate and the unavoidable risk that it may lead to significant revenue reversals. For the arrangement with one customer, the Company had concluded that there is one combined performance obligation to be satisfied. Therefore, the Company recognizes revenue related to this arrangement over time.

5. Exclusive Distribution Rights: On March 2, 2021, the Company and Topcon Corporation ("Topcon") entered into a distribution agreement ("Distribution Agreement"), pursuant to which the Company granted Topcon the exclusive right to distribute the Company's retina and glaucoma products in certain geographies outside the United States. The exclusivity arrangement with Topcon obligates the Company to provide training, customer support, and exclusive territorial rights to Topcon for certain international regions, for a period of 10 years, commencing upon regulatory approval to transfer existing (non-exclusive) distribution rights from the current distributors in those regions to Topcon. The Company has the right to terminate the exclusive distribution rights granted to Topcon for any of the regions at any point in time during the 10 year exclusivity term for a termination fee that is based on a multiple of 1.2 times the revenue generated by the Company in 2019 for the respective region. Management has determined that the exclusivity rights, training, and customer support represents a single combined performance obligation for each region, to be recognized as exclusivity fee revenue on a straight-line basis over the 10 year period for each region, commencing on the date that regulatory approval is obtained for each region, based on the standalone selling price for such combined performance obligation for each region. The estimated fair value of the exclusive distribution rights for all regions combined totaled approximately $14.8 million. Of this amount, management has fully-constrained and returned to Topcon the arrangement fee allocated to Belarus (approximately $0.2 million) because obtaining the necessary regulatory approvals and termination of existing distributor relationship was not feasible. For each of the three months ended September 28, 2024 and September 30, 2023, $0.4 million in revenue related to the exclusive distribution rights were recorded. For each of the nine months ended September 28, 2024 and September 30, 2023, $1.1 million in revenue related to the exclusive distribution rights were recorded.

Costs of Obtaining Revenue Contracts

The Company recognized assets from certain costs incurred to obtain revenue contracts. These costs relate to sales commissions arising from the sale of our products. The costs are considered incremental and recoverable of obtaining revenue contracts with customers. These deferred costs are amortized on a straight-line basis over the estimated period of benefit, which typically ranges from 2 to 3 years. As of September 28, 2024, the Company recognized deferred costs incurred to obtain revenue contracts with customers, net of accumulated amortization, of $42 thousand and included these amounts in Prepaid expenses and other current assets and Other long-term assets in the Company's condensed consolidated balance sheets. Amortization expense was $19 thousand and $57 thousand for both of the three and nine months ended September 28, 2024 and September 30, 2023. There were no impairment expenses for both of the three and nine months ended September 28, 2024 and September 30, 2023.

Sales commissions that do not represent incremental and recoverable costs of obtaining a contract are expensed as incurred. As a practical expedient, the Company will not recognize such sales commission as a contract asset but rather recognize as an expense when incurred if the amortization period of the asset that the Company would have otherwise recognized is one year or less.

Contract Fulfillment Costs

The Company recognized an asset from the costs incurred to fulfill a contract. These costs relate directly and must be incurred to satisfy performance obligations on certain specific contract with a customer. These costs are expected to be recovered over time and are amortized on a systematic basis that is consistent with the recognition of revenue to which it relates. As of September 28, 2024, the Company recognized deferred costs incurred to fulfill a contract with a customer, net of accumulated amortization, of $0.6 million, and included these amounts in Prepaid expenses and other current assets and Other long-term assets in the Company's condensed consolidated balance sheets. Amortization expense was $21 thousand and $62 thousand for both of the three and nine months ended September 28, 2024 and September 30, 2023. There were no impairment expenses for each of three and nine months ended September 28, 2024 and September 30, 2023.

Leases

We determine if an arrangement is a lease at inception. Operating leases are included in Operating lease right-of-use ("ROU") assets, net and Operating lease liabilities in our condensed consolidated balance sheets. As of September 28, 2024 and December 30, 2023, the Company was not a party to any finance lease arrangements.

ROU assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at the commencement date based on the present value of lease payments over the lease term. As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on information available at the commencement date in determining the present value of lease payments. We use the implicit rate when readily determinable. The operating lease ROU asset also includes any lease payments made and excludes lease incentives. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

Under the available practical expedient, we account for the lease and non-lease components as a single lease component.

Concentration of Credit Risk and Other Risks and Uncertainties

Our cash and cash equivalents are deposited in demand and money market accounts. Deposits held with banks may exceed the amount of insurance provided on such deposits. Generally, these deposits may be redeemed upon demand.

We market our products to distributors and end-users throughout the world. Sales to international distributors are generally made on open credit terms and letters of credit. Management performs ongoing credit evaluations of our customers and maintains a provision for potential credit losses. Historically, we have not experienced any significant losses related to individual customers or a group of customers in any particular geographic area. For the three and nine months ended September 28, 2024, one customer, Topcon, accounted for more than 10% of total revenues, each representing 33%. For the three and nine months ended September 30, 2023, one customer, Topcon, accounted for more than 10% of total revenues, representing 34% and 29%, respectively. As of September 28, 2024, one customer, Topcon, accounted for over 10% of our accounts receivable, representing 23%. As of December 30, 2023, one customer, Topcon, accounted for more than 10% of our accounts receivable, representing 30%.

Taxes Collected from Customers and Remitted to Governmental Authorities

Total revenues are recognized net of taxes collected from customers and remitted to governmental authorities in the accompanying condensed consolidated statements of operations.

Shipping and Handling Costs

Our shipping and handling costs billed to customers are included in revenues and the associated expense is recorded in cost of revenues for all periods presented.

Deferred Revenue

Deferred revenue represents contract liabilities and exclusivity fees. Revenue related to service contracts is deferred and recognized on a straight-line basis over the period of the applicable service contract. Costs associated with these service arrangements are recognized as incurred. Revenue related to exclusivity fees is deferred and recognized over the related exclusivity period.

A reconciliation of the changes in the Company's deferred revenue balance for the nine months ended September 28, 2024 and September 30, 2023, is as follows:

	Nine Months Ended	
	September 28, 2024	September 30, 2023
Balance, beginning of period	$ 12,429	$ 14,153
Additions to deferral	958	938
Revenue recognized	(2,293)	(2,380)
Balance, end of the period	11,094	12,711
Non-current portion of deferred revenue	8,759	10,472
Current portion of deferred revenue	$ 2,335	$ 2,239

During the nine months ended September 28, 2024 and September 30, 2023, approximately $1.9 million and $1.3 million was recognized pertaining to amounts deferred as of December 30, 2023 and December 31, 2022, respectively. As of September 28, 2024, approximately $8.6 million of the non-current portion of deferred revenue and $1.5 million of the current portion of deferred revenue pertain to exclusivity distribution rights deferred revenue.

Warranty

The Company currently provides a two-year full warranty on its products. The associated costs of these warranties are accrued for upon shipment of the products. The Company's warranty policy is applicable to products which are considered defective in their performance or fail to meet the product specifications. Warranty costs are reflected in the condensed consolidated statements of operations as cost of revenues.

As warranty reserves do not meet the criteria to have separate captions on the face of the condensed consolidated balance sheet, we removed these captions and included those amounts in other current and long-term liabilities.

Implementation Costs Incurred in a Cloud Computing Service Arrangement

The Company has implemented a new enterprise resource planning ("ERP") system. The new ERP system operates in a cloud-based environment. The Company concluded that this cloud computing arrangement does not include a license, and therefore, will account for this arrangement as one that is a service contract. The Company capitalized $1.1 million in implementation costs and began utilizing the ERP system near the end of the third quarter of 2023 and is recognizing amortization of the capitalized implementation costs over five years on a straight-line basis. For the nine months ended September 28, 2024 and September 30, 2023 approximately $0.2 million and $12 thousand of amortization expenses were recorded, respectively.

Recent Accounting Standards Not Yet Adopted

In November 2023, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2023-07 "Segment Reporting (Topic 280): *Improvements to Reportable Segment Disclosures*", which expands annual and interim disclosure requirements for reportable segments, primarily through enhanced disclosures about significant segment expenses. ASU 2023-07 is effective for our annual periods beginning after December 15, 2023, and for interim periods beginning after December 15, 2024, with

early adoption permitted. The Company is currently evaluating the potential effect that the updated standard will have on its financial statement disclosures.

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 the Company's annual periods beginning after December 15, 2024, with early adoption permitted. The Company is currently evaluating the potential effect that the updated standard will have on its condensed consolidated financial statement disclosures.

3. Accounts Receivable and Provision for Credit Losses

The Company has trade receivables with various individual customers such as private businesses, hospitals, universities, government and non-profit entities, and distributors. The Company has determined that geography is the similar risk characteristic to pool our trade receivables balances, and accordingly, groups such balances into either the domestic pool or the international pool. The domestic pool is primarily comprised of individual customers, and the international pool is primarily comprised of distributors.

The provision for credit losses represents an estimate of the lifetime expected credit losses inherent in trade receivables as of the consolidated balance sheet date. We assess the adequacy of the provision for credit losses on a quarterly basis based on historical information and current economic conditions and forecasts. Subsequent changes in the provision for credit losses are recorded in current earnings and reversal of previous losses are permitted under the current guidance.

While we believe we have exercised prudent judgment and applied reasonable assumptions, there can be no assurance that in the future, changes in economic conditions or other factors would not cause changes in the financial health of our customers. If the financial health of our customers deteriorates, the timing and level of payments received could be impacted and therefore, could result in a change to our estimated losses.

The following table presents the activity in the provision for credit losses for accounts receivable by pool type for the nine months ended September 28, 2024 (in thousands):

	Domestic	International	Total
Balance, beginning of period	$ (94)	$ (52)	$ (146)
Change to provision	16	18	34
Balance, end of period	$ (78)	$ (34)	$ (112)

4. Related Party - Topcon

As of September 28, 2024, Topcon holds a 9.9% voting interest in the Company, which qualifies it to be a principal owner and considered a related party, even though it currently does not have significant influence over the Company's operations.

Topcon resells certain of our products as our exclusive distributor in certain international regions. At the same time, the Company also purchases certain raw materials from Topcon. During the three and nine months ended September 28, 2024, the Company's revenues related to Topcon amounted to approximately $3.8 million and $12.0 million, including $0.4 million and $1.1 million, respectively, in recognized exclusive distribution rights revenue. During the three and nine months ended September 30, 2023, the Company's revenues related to Topcon amounted to approximately $4.3 million and $11.2 million, respectively, including $0.4 million and $1.1 million, respectively, in recognized exclusive distribution rights revenue. The Company's purchases from Topcon during the three and nine months ended September 28, 2024 amounted to approximately $0.2 million and $0.5 million, respectively. As of September 28, 2024, the amounts receivable from and payable to Topcon were $1.8 million and $0.6 million, respectively. As of December 30, 2023, the amounts receivable from and payable to Topcon were $2.9 million and $0.2 million, respectively.

5. Inventories

The components of the Company's inventories as of September 28, 2024 and December 30, 2023 are as follows:

	September 28, 2024	December 30, 2023
Raw materials	$ 4,625	$ 5,288
Work in process	15	156
Finished goods	6,302	4,462
Total inventories	$ 10,942	$ 9,906

6. Goodwill and Intangible Assets

Goodwill

The carrying value of goodwill was $1.0 million as of both September 28, 2024 and December 30, 2023.

Goodwill represents the excess of the purchase price over the fair value of the net tangible and identifiable intangible assets acquired in a business combination. The Company reviews goodwill for impairment on an annual basis or whenever events or changes in circumstances indicate the carrying value may not be recoverable. The Company performs an annual impairment test by comparing the fair value of a reporting unit with its carrying amount. An impairment charge should be recognized for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. In addition, income tax effects from any tax-deductible goodwill carrying amount of the reporting unit should be considered when measuring the goodwill impairment loss, if applicable. The Company has determined that it has a single reporting unit for purposes of performing its goodwill impairment test. As the Company uses the market approach to assess impairment, its common stock price is an important component of the fair value calculation. If the Company's stock price continues to experience significant price and volume fluctuations, this will impact the fair value of the reporting unit and can lead to potential impairment in future periods. The Company performed its annual impairment test during the second quarter of fiscal year 2024 and determined that its goodwill was not impaired.

*Intangi*ble Assets

The following table summarizes the components of gross and net of intangible assets carrying amounts (in thousands):

	September 28, 2024				December 30, 2023		
	Gross Carrying Value	Accumulated Amortization	Net Carrying Value	Useful Lives Remaining	Gross Carrying Value	Accumulated Amortization	Net Carrying Value
Customer relations	$ 340	$ 283	$ 57	3.01 Years	$ 340	$ 260	$ 80
Developed technology	1,899	746	1,153	4.40 Years	1,899	543	1,356
Trade names	300	119	181	5.42 Years	300	94	206
Patents	600	600	—	Varies	600	600	—
	$ 3,139	$ 1,748	$ 1,391		$ 3,139	$ 1,497	$ 1,642

For each of the nine months ended September 28, 2024, and September 30, 2023 amortization expense totaled $0.3 million.

The amortization of developed technology was charged to research and development expense and the amortization of customer relations and trade names was charged to sales and marketing expense. Estimated future amortization expense for purchased intangible assets is as follows (in thousands):

Fiscal Year:	
Remainder of 2024 (three months)	$ 84
2025	323
2026	319
2027	319
2028	200
Thereafter	146
Total	$ 1,391

7. Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy distinguishes between (1) market participant assumptions developed based on market data obtained from independent sources (observable inputs) and (2) an entity's own assumptions about market participant assumptions developed based on the best information available in the circumstances (unobservable inputs). The fair value hierarchy consists of three broad levels, which gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are described below:

- Level 1: Quoted prices (unadjusted) in active markets that are accessible at the measurement date for assets or liabilities.
- Level 2: Directly or indirectly observable inputs as of the reporting date through correlation with market data, including quoted prices for similar assets and liabilities in active markets and quoted prices in markets that are not active. Level 2 also includes assets and liabilities that are valued using models or other pricing methodologies that do not require significant judgment since the input assumptions used in the models, such as interest rates and volatility factors, are corroborated by readily observable data from actively quoted markets for substantially the full term of the financial instrument.

- Level 3: Unobservable inputs that are supported by little or no market activity and reflect the use of significant management judgment. These values are generally determined using pricing models for which the assumptions utilize management's estimates of market participant assumptions.

In determining fair value, the Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible and considers counterparty credit risk in its assessment of fair value.

The carrying amounts of the Company's financial assets and liabilities, including cash and cash equivalents, accounts receivable, accounts payable, and accrued expenses as of September 28, 2024 and December 30, 2023, approximate fair value because of the short maturity of these instruments.

As of September 28, 2024 and December 30, 2023, financial assets measured and recognized at fair value on a recurring basis and classified under the appropriate level of the fair value hierarchy as described above were as follows (in thousands):

	As of September 28, 2024				As of December 30, 2023			
	Fair Value Measurements				Fair Value Measurements			
(in thousands)	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets:								
Money market funds	$ 2,315	$ —	$ —	$ 2,315	$ 43	$ —	$ —	$ 43

The Company's Level 1 financial assets are money market funds whose fair values are based on quoted market prices. The Company does not have any Level 2 and Level 3 financial assets or liabilities.

8. Convertible Debt

On August 4, 2024, the Company entered into a securities purchase agreement (the "Purchase Agreement") with Lind Global Asset Management IX LLC ("Lind"), an entity managed by The Lind Partners, LLC, relating to (i) the issuance and sale to Lind of a senior convertible promissory note in the principal amount of $4.2 million for a purchase price of $3.5 million (the "Initial Note") and (ii) a subsequent contingent senior convertible promissory note in the amount of $1.8 million for a purchase price of $1.5 million (the "Subsequent Note" and, together with the Initial Note, the "Notes" and together with the Purchase Agreement and the Notes, the "Transaction Documents"). The Initial Note was issued on August 7, 2024 and the Subsequent Note has not been issued as of the date hereof. The Notes are convertible into shares of the Company's common stock, $0.01 par value (the "Common Stock" and such shares issued upon conversion, the "Note Shares") at Lind's option at an initial conversion price of $2.44, subject to any adjustments as set forth in the Notes; provided that no adjustment shall result in a conversion price that is less than $0.39 per share.

Commencing on the date that is one hundred twenty (120) days after the issuance of the applicable Note, provided that no Event of Default (as defined in each of the Notes and further described below) shall have occurred, the Company will repay the Outstanding Principal Amount of such Note in twenty (20) consecutive monthly installments of $210 thousand (the "Monthly Payments") on each one (1) month anniversary of the issuance date, until the Outstanding Principal Amount of such Note has been paid in full on or prior to the applicable Maturity Date or, if earlier, upon acceleration, repayment, conversion or redemption of such Note in accordance with its terms. At the Company's option, each month, the Monthly Payments can be made in: (i) cash; (ii) shares of the Common Stock (the "Repayment Shares"); or (iii) a combination of cash and Repayment Shares; provided, that the number of Repayment Shares to be delivered in accordance with clause (ii) or (iii) shall be determined by dividing (X) the portion of the Principal Amount being paid in shares of Common Stock, by (Y) ninety percent (90%) of the average of the five (5) lowest daily VWAPs during the twenty (20) trading days prior to the applicable payment date; provided, further, that no portion of the Principal Amount may be paid in Repayment Shares unless such Repayment Shares (A) may be immediately resold pursuant to Rule 144 ("Rule 144") under the Securities Act of 1933, as amended (the "1933 Act"), by a person that is not an affiliate of the Company, or (B) are registered for resale under the 1933 Act and the Registration Statement (defined below) is in effect and lawfully usable to effect immediate sales of such Repayment Shares. If the Company makes a Monthly Payment in cash, the Company must also pay Lind a 4% premium of such Monthly Payment and such premium will not be applied towards the Outstanding Principal Amount. Furthermore, with respect to no more than two (2) Monthly Payments, Lind may elect to increase the amount of such Monthly Payment up to $800 thousand; provided that any such increased Monthly Payment is made in Repayment Shares. Following any such increased Monthly Payment, the amount of such increase shall be deducted from the amount of the last Monthly Payment owing under such Note until such Monthly Payment is reduced to zero.

Provided no Event of Default has occurred, from the date that is thirty (30) days following the earlier date on which the Conversion Shares may be (i) offered or sold pursuant to an effective Registration Statement, or (ii) immediately resold under Rule 144 by persons other than the Company's affiliates or holders of the Conversion Shares that have been the Company's affiliates at a time during the immediately preceding three (3) months without restriction on the number of shares to be sold or manner of sale, the Company may repay all, but not less than all, of the then Outstanding Principal Amount at a repayment price equal to (a) if the applicable prepayment occurs on or prior to the date that is one hundred and eighty (180) days following the issuance of the applicable Note, 90% of the Outstanding Principal Amount of such Note, (b) if the applicable prepayment occurs on the date that is on or after the date that is one hundred eighty one (181) days following the date of issuance of the applicable Note but prior to the date that is three hundred sixty-five (365) days from the date of issuance of the applicable Note, 93.3333333% of the Outstanding Principal Amount of such Note, and (c) if the applicable prepayment occurs on the date that is on or after the date that is three hundred sixty-six

(366) days following the date of issuance of the applicable Note but on or prior to the applicable Maturity Date, the Outstanding Principal Amount of such Note. If the Company elects to prepay a Note, Lind may elect to convert up to one-third (1/3) of the Outstanding Principal Amount of such Note in connection with the prepayment.

Pursuant to the terms of the Purchase Agreement, the Company issued 126,968 shares of the Common Stock (the "First Incentive Share Installment") to Lind. In the event the Company fails to repay the Initial Note in full by February 3, 2025 (one hundred eighty (180) days of the issuance date of the Initial Note), the Company shall be required to issue to Lind, on the trading day immediately following such date, additional shares of the Common Stock (the "Second Incentive Share Installment" and, together with the First Incentive Share Installment, the "Incentive Shares") in an amount equal to $250,000 divided by the greater of (i) the average volume weighted average price of the Common Stock over the five trading days immediately preceding such trading date and (ii) $0.39, subject to any adjustments provided in the Initial Note.

The total number of shares of Common Stock issuable pursuant to the terms of the Transaction Documents is capped at (i) prior to the receipt of Stockholder Approval, 3,300,231 (equal to 19.99% of the number of shares of Common Stock outstanding as of August 4, 2024), and (ii) following the receipt of Stockholder Approval, 4,952,823 (equal to 30% of the number of shares of Common Stock outstanding as of August 4, 2024).

The $4.2 million convertible debt was issued with an original issue discount ("OID") of $0.7 million. In addition, the Company incurred $0.9 million debt issuance costs, including $0.5 million legal expenses, $250 thousand relating to the First Incentive Share Installment and $105 thousand in commitment fees. During both the three and nine month period ended September 28, 2024, $58 thousand of the original issue discount (as an interest expense) and $72 thousand debt issuance costs (as operating expenses) were recorded on a straight-line basis over the term of the debt. The accretion of the OID and amortization of debt issuance costs under that method is deemed materially consistent with the effective interest rate method.

As of September 28, 2024, the convertible note payable outstanding totaled $2.7 million of debt, net of the remaining balances of $0.6 million of OID and $0.8 million of debt issuance costs. As of September 28,2024, the short term and long term debt (Notes Payable) were $1.3 million and $1.4 million, respectively.

The following represents the payments of notes payables as of September 28, 2024 (in thousands):

Fiscal Year	Payments
Remainder of 2024 (three months)	210
2025	2,520
2026	1,470
Total payments	$ 4,200

9. Leases and Commitments and Contingencies

Operating Leases

Our operating leases consist of facility and office equipment leases. Operating lease expenses for each of the nine months ended September 28, 2024 and September 30, 2023 was $0.8 million. The weighted average discount rate used in calculating the present value of lease payments was 4.8%. As of September 28, 2024, the weighted average remaining lease term for our operating leases was 1.9 years.

The following represents maturities of operating lease liabilities as of September 28, 2024 (in thousands):

Fiscal Year	Operating Lease Payments
Remainder of 2024 (three months)	$ 403
2025	1,132
2026	781
2027	20
2028	20
2029	9
Total lease payments	2,365
Less: Imputed interest	(215)
Total lease liabilities	2,150
Non-current portion of lease liabilities	(1,155)
Current portion of lease liabilities	$ 995

Purchase Commitments

Our purchase commitments consist primarily of non-cancellable purchase commitments with vendors to manufacture certain components and ophthalmic instrumentation. As of September 28, 2024, our future minimum payments through fiscal year 2027 for our purchase commitments were approximately $12.1 million, with $11.3 million committed for the next 12 months.

Indemnities

We enter into standard indemnification arrangements in the ordinary course of business. Pursuant to these arrangements, we indemnify, hold harmless, and agree to reimburse the indemnified parties for losses suffered or incurred by the indemnified parties (generally our business partners or customers) in connection with any trade secret, copyright, patent or other intellectual property infringement claim by any third-party with respect to our products. The term of these indemnification agreements is generally perpetual any time after the execution of the agreement. The maximum potential amount of future payments that we could be required to make under these agreements is not determinable. We have never incurred costs to defend lawsuits or settle claims related to these indemnification agreements. As a result, we believe the estimated fair value of these agreements is minimal.

We have entered into indemnification agreements with our directors and officers that may require us to indemnify our directors and officers against liabilities that may arise by reason of their status or service as directors or officers, other than liabilities arising from willful misconduct of a culpable nature. These agreements also require us to advance their expenses incurred as a result of any proceeding against them as to which they could be indemnified and to make good faith determination whether or not it is practicable for us to obtain directors and officers insurance. We currently have directors and officers liability insurance.

Legal Proceedings

From time to time, we may be involved in legal proceedings arising in the ordinary course of business. Although the results of litigation and claims cannot be predicted with certainty, we currently believe that the final outcome of these ordinary course matters will not have a material adverse effect on our business, condensed consolidated operating results, financial condition or cash flows. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

10. Stock-Based Compensation

The Company accounts for stock-based compensation granted to employees and directors, including stock option awards, restricted stock and restricted stock units ("RSUs") in accordance with FASB ASC Topic 718*, "Compensation – Stock Compensation"* ("ASC 718"). Accordingly, stock-based compensation cost is measured at grant date, based on the fair value of the award, and is recognized as an expense over the employee's service period. The Company recognizes compensation expense on a ratable basis over the requisite service period of the award.

The Company values options using the Black-Scholes option pricing model. Time-based RSUs are valued at the grant date fair value of the underlying common shares. Performance-based RSUs without market conditions are valued at grant date fair value of the underlying common shares. Performance-based RSUs granted with market conditions and performance-based stock options with market conditions are valued using the Monte Carlo simulation model. The Black-Scholes option pricing model requires the use of highly subjective and complex assumptions which determine the fair value of stock-based awards, including the option's expected term and the price volatility of the underlying stock. The Monte Carlo simulation model incorporates assumptions for the holding period, risk-free interest rate, stock price volatility and dividend yield.

2008 Equity Incentive Plan, as amended.

The terms of awards granted during the nine months ended September 28, 2024 were consistent with those described in the consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 30, 2023.

The following table shows stock-based compensation expense included in the condensed consolidated statements of operations for the three and nine months ended September 28, 2024 and September 30, 2023 (in thousands):

	Three Months Ended		Nine Months Ended	
	September 28, 2024	September 30, 2023	September 28, 2024	September 30, 2023
Cost of revenues	$ 68	$ 55	$ 201	$ 150
Research and development	25	63	129	167
Sales and marketing	(43)	56	178	262
General and administrative	64	197	419	665
Total stock-based compensation expense	$ 114	$ 371	$ 927	$ 1,244

Stock-based compensation expense capitalized to inventory was immaterial for the nine months ended September 28, 2024 and September 30, 2023.

As of September 28, 2024, there was $1.6 million of total unrecognized compensation cost, net of expected forfeitures, related to non-vested stock-based compensation arrangements. The cost is expected to be recognized over a weighted average period of 1.87 years.

Summary of Stock Options

The following table summarizes stock options information during the nine months ended September 28, 2024:

	Number of Shares	Weighted Average Exercise Price Per Share	Aggregate Intrinsic Value (thousands)
Outstanding as of December 30, 2023	2,757,921	$ 3.60	
Granted	27,000	$ 2.67	
Exercised	(2,010)	$ 1.85	
Canceled or forfeited	(625,030)	$ 4.48	
Outstanding as of September 28, 2024	2,157,881	$ 3.34	$ 0.1

The weighted average grant date fair value of the options granted was $1.66 and $1.32 per share for the nine months ended September 28, 2024 and September 30, 2023, respectively.

The Company uses the Black-Scholes option-pricing model to estimate the fair value of stock-based awards (options) with the following weighted-average assumptions:

	Three Months Ended		Nine Months Ended	
	September 28, 2024	September 30, 2023	September 28, 2024	September 30, 2023
Average risk free interest rate	4.35%	4.60%	4.35%	4.57%
Expected life (in years)	4.40	4.40	4.40	4.40
Dividend yield	—	—	—	—
Average volatility	77%	77%	77%	77%

Option-pricing models require the input of various subjective assumptions, including the option's expected life and the price volatility of the underlying stock. The expected stock price volatility is based on an analysis of the Company's stock price history over a period commensurate with the expected term of the options, trading volume of the Company's stock, look-back volatilities and Company-specific events that affected volatility in a prior period. The expected term of employee stock options represents the weighted average period the stock options are expected to remain outstanding and is based on the history of exercises and cancellations on all past option grants made by the Company, the contractual term, the vesting period and the expected remaining term of the outstanding options. The risk-free interest rate is based on the U.S. Treasury interest rates whose term is consistent with the expected life of the stock options. No dividend yield is included as the Company has not issued any dividends and does not anticipate issuing any dividends in the future.

Information regarding stock options outstanding, vested, expected to vest, and exercisable as of September 28, 2024 is summarized below:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value (thousands)
Options outstanding	2,157,881	$ 3.34	4.08	$ 0.1
Options vested and expected to vest	2,113,592	$ 3.37	4.04	$ 0.1
Options exercisable	1,564,648	$ 3.74	3.44	—

The aggregate intrinsic value in the table above represents the pre-tax intrinsic value, based on the Company's closing price as of September 28, 2024, that would have been received by option holders had all option holders exercised their stock options as of that date. This amount changes based on the fair market value of the Company's common stock. The total intrinsic value of options exercised for the nine months ended September 28, 2024 and September 30, 2023 was approximately$1 thousand and $4 thousand, respectively.

Summary of RSUs

Information regarding RSUs activity for the nine months ended September 28, 2024 is summarized below:

	Number of Shares
Outstanding as of December 30, 2023	353,212
RSUs granted	375,246
RSUs released	(282,012)
RSUs forfeited	(16,669)
Outstanding as of September 28, 2024	429,777

11. Income Taxes

Provision for Income Tax

The Company calculates its interim tax provision in accordance with the provisions of ASC Topic 740-270, *Income Taxes; Interim Reporting*. For interim periods, the Company estimates its annual effective income tax rate and applies the estimated rate to the year-to-date income or loss before income taxes. The Company also computes the tax provision or benefit related to items reported separately and recognizes the items net of their related tax effect in the interim periods in which they occur. The Company also recognizes the effect of changes in enacted tax laws or rates in the interim periods in which the changes occur. The Company recorded a provision for income tax of $74 thousand and $30 thousand for the nine months ended September 28, 2024 and September 30, 2023, respectively.

Deferred Income Taxes

The Company accounts for income taxes in accordance with ASC Topic 740, *Income Taxes* ("ASC 740"), which requires that deferred tax assets and liabilities be recognized using enacted tax rates for the effect of temporary differences between the book and tax bases of recorded assets and liabilities. ASC 740 also requires that deferred tax assets be reduced by a valuation allowance if it is more likely than not that some or all of the deferred tax assets will not be realized. As of the second quarter of fiscal year 2024, based on the Company's recent history of losses and its forecasted losses, management believes it is more likely than not that a full valuation allowance is required. Accordingly, the Company continues to provide a full valuation allowance on its federal and states deferred tax assets.

Uncertain Tax Positions

The Company accounts for its uncertain tax positions in accordance with ASC 740. As of December 30, 2023, the Company had $1.4 million of unrecognized tax benefits, none of the unrecognized tax benefits would result in a change in the Company's effective tax rate if recognized in future years.

The Company is not aware of any other uncertain tax positions that could result in significant additional payments, accruals, or other material deviation in this estimate during the fiscal year.

The Company is subject to United States federal income tax as well as to income taxes in state jurisdictions. The Company's federal and state income tax returns are open to examination by tax authorities for three years and three to five years, respectively.

12. Computation of Basic and Diluted Net Loss Per Share

Basic and diluted net loss per share is based upon the weighted average number of common shares outstanding during the period. Common stock equivalents consist of incremental common shares issuable upon the exercise of stock options, and the release (vesting) of RSUs and awards and are calculated under the treasury stock method. Common stock equivalent shares from unexercised stock options, and unvested RSUs and awards are excluded from the computation for periods in which we incur a net loss or if the exercise price of such options is greater than the average market price of our common stock for the period as their effect would be anti-dilutive.

For the three months ended September 28, 2024 and September 30, 2023, potential shares from stock options and RSUs totaling 2,640,263 and 2,272,510 shares, respectively, were excluded from the computation of diluted weighted average shares outstanding. For the nine months ended September 28, 2024 and September 30, 2023, potential shares from stock options and RSUs totaling 2,800,477 and 2,280,017 shares, respectively, were excluded from the computation of diluted weighted average shares outstanding.

A reconciliation of the numerator and denominator of basic and diluted net loss per common share is provided as follows (in thousands except per share data):

	Three Months Ended		Nine Months Ended	
	September 28, 2024	September 30, 2023	September 28, 2024	September 30, 2023
Numerator:				
Net loss	$ (1,933)	$ (1,754)	$ (8,076)	$ (6,610)
Denominator:				
Weighted average shares of common stock (basic)	16,581	16,231	16,374	16,089
Weighted average shares of common stock (diluted)	16,581	16,231	16,374	16,089
Per share data:				
Basic net loss per share	$ (0.12)	$ (0.11)	$ (0.49)	$ (0.41)
Diluted net loss per share	$ (0.12)	$ (0.11)	$ (0.49)	$ (0.41)

13. Business Segments

The Company operates in one segment: ophthalmology. The Company develops, manufactures and markets medical devices. Our revenues arise from the sale of consoles, delivery devices, consumables, service, and support activities.

Revenue information shown by product group is as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	September 28, 2024	September 30, 2023	September 28, 2024	September 30, 2023
Cyclo G6	$ 3,127	$ 3,042	$ 9,416	$ 10,369
Retina	6,450	7,865	20,519	21,936
Other(1)	2,004	1,943	6,038	7,106
Total revenues	$ 11,581	$ 12,850	$ 35,973	$ 39,411

(1) Includes service contract revenues of $47 thousand and $0.4 million, and $0.4 million and $1.2 million recognized during the three and nine months ended September 28, 2024 and September 30, 2023, respectively. Includes $0.4 million and $1.1 million recognized revenue related to the exclusive distribution rights during both of the three and nine months ended September 28, 2024 and September 30, 2023, respectively. Other also includes revenues from paid service, royalty, freight and legacy G probes.

Revenue information shown by geographic region, based on the sales destination, is as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	September 28, 2024	September 30, 2023	September 28, 2024	September 30, 2023
United States	$ 5,464	$ 6,140	$ 16,383	$ 19,656
Europe, Middle East and Africa	2,802	4,197	9,167	11,217
Asia/Pacific Rim	2,708	2,136	8,750	6,761
Americas, excluding the U.S.	607	377	1,673	1,777
	$ 11,581	$ 12,850	$ 35,973	$ 39,411

Revenues are attributed to countries based on the location of end customers.

Other than the United States, the Netherlands accounted for at least 10% of the Company's revenues during the three and nine months ended September 28, 2024, representing 13.1% and 15.2%, respectively. Other than the United States, the Netherlands accounted for at least 10% of the Company's revenues during the three and nine months ended September 30, 2023, representing 20% and 16%, respectively. The United States accounted for 47.2% and 47.8% of revenues for the three months ended September 28, 2024and September 30, 2023, respectively, and 45.5% and 49.9% for the nine months ended September 28, 2024 and September 30, 2023, respectively.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the condensed consolidated financial statements and related notes thereto included elsewhere in this Quarterly Report on Form 10-Q. This discussion and other parts of this Quarterly Report on Form 10-Q contain forward-looking statements that involve risks and uncertainties, such as statements of our plans, objectives, expectations and intentions, that are based on the beliefs of our management, as well as assumptions made by, and information currently available to, our management and should be read in conjunction with the section of this Quarterly Report on Form 10-Q entitled "Risk Factors." Our actual results could differ materially from those discussed in these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in the section entitled "Risk Factors."

Overview

IRIDEX is an ophthalmic medical technology company focused on the development and commercialization of breakthrough products and procedures used to treat sight-threatening eye conditions, including glaucoma and retinal diseases.

Our propriety MicroPulse® Technology and Endpoint Management™ Technology are used for the treatment of glaucoma and retina disorders. Both technologies are offered as optional treatment modes in select laser consoles in addition to the standard continuous-wave ("CW") treatment mode. They allow low-energy, subvisible, tissue-sparing laser therapy by different means: MicroPulse technology uses short, microsecond-long laser pulses that allow tissue to cool between pulses giving physicians finer control of thermal elevation to minimize tissue damage. Endpoint Management technology uses a delivery algorithm to titrate the laser energy. CW laser photocoagulation can stabilize vision over the long term but can also result in varying degrees of vision loss. Both MicroPulse and Endpoint Management technologies have demonstrated clinical efficacy with a safer profile compared to standard high-energy CW laser for the treatment of both retinal diseases and glaucoma.

Our products consist of laser consoles, delivery devices and consumable probes.

Our laser consoles consist of the following product lines:

- **Glaucoma** – Our primary glaucoma console line is the Cyclo G6® laser system with MicroPulse technology. In addition, our medical retina consoles have features supporting glaucoma laser treatments.
- **Medical Retina** – Our medical-retina product line includes our portable IQ 532® and IQ 577® laser systems with MicroPulse technology; and the Pattern Scanning Laser ("PASCAL") System, an integrated workstation with Endpoint Management technology and MicroPulse technology. These systems are ideal for multispecialty practices because these lasers also can be used to treat glaucoma, i.e., single-spot laser trabeculoplasty using MicroPulse technology, iridotomy, and iridectomy using the IQ lasers; and pattern scanning laser trabeculoplasty ("PSLT") using the PASCAL laser system.
- **Surgical Retina** – Our surgical-retina product line includes our OcuLight® TX and OcuLight® SLx (with MicroPulse technology) laser photocoagulation systems. These systems are often used in vitrectomy procedures, which are used to treat proliferative diabetic retinopathy, macular holes, retinal tears and detachments.

Our business generates recurring revenues through sales of consumable products, predominantly single-use laser probe devices and other instrumentation, as well as repair, service and extended service contracts for our laser systems.

Our laser probes consist of the following product lines:

- **Glaucoma** – Probes used in our glaucoma product line include our patented single-use delivery devices - MicroPulse P3®, G-Probe®, and G-Probe Illuminate®.
- **Surgical Retina** – Probes used in our surgical-retina product line include our family of single-use EndoProbe® handpieces.

Ophthalmologists typically use our laser systems in hospital operating rooms and ambulatory surgical centers, as well as their offices and clinics. In operating rooms and ambulatory surgical centers, ophthalmologists use our laser systems with either an indirect laser ophthalmoscope or a single-use consumable probe, including MicroPulse P3®, G-Probe® and G-Probe Illuminate® delivery devices, and EndoProbe handpieces. In the offices and clinics, ophthalmologists use our laser systems with either an indirect laser ophthalmoscope or a slit-lamp adapter.

Our products are sold in the United States and Germany predominantly through a direct sales force and internationally (aside from Germany) primarily through independent distributors.

Sales to international distributors are made on open credit terms or letters of credit and are currently denominated in U.S. dollars and accordingly, are not subject to risks associated with currency fluctuations. However, increases in the value of the U.S. dollar against any local currencies could cause our products to become relatively more expensive to customers in a particular country or region, leading to reduced revenue or profitability in that country or region. Sales to direct end users transacted through our German office are denominated in Euros and are subject to risks associated with currency fluctuations.

Cost of revenues consists primarily of our direct manufacturing costs which include the cost of components and sub-systems, assembling, packaging, shipping and testing components at our facility, direct labor and associated overhead, warranty, royalty and

amortization of intangible assets and depot service costs. For certain of our products, we are responsible for the cost of the fully assembled product that is manufactured by a third-party.

Research and development expenses consist primarily of personnel costs, materials to support new product development and research support provided to clinicians at medical institutions developing new applications, which utilize our products and regulatory expenses. Research and development costs have been expensed as incurred.

Sales and marketing expenses consist primarily of costs of personnel, sales commissions, travel expenses, advertising and promotional expenses.

General and administrative expenses consist primarily of costs of personnel, legal, accounting and other public company costs, insurance and other expenses not allocated to other departments.

Impact of Macroeconomic Conditions to our Business

Current macroeconomic conditions exhibit challenges that can affect capital equipment purchasing demand and timing, including recessionary fears, inflation concerns, changing interest rates, concerns related to the upcoming presidential election in the United States, as well as other geopolitical developments, have impacted and may continue to impact business spending and the economy as a whole. As a result, we have seen customers extend purchase decision cycles. We have also experienced some demand softness due to pricing effects from the strength of the U.S. Dollar that have impacted and may continue to impact our operations.

The macroeconomic conditions on our business and operations remain uncertain, and it is not possible for us to predict the duration and extent to which they will affect our business, future results of operations, and financial condition.

For more information on risks associated with the current macroeconomic conditions, see the section titled “Risk Factors” in Item 1A of Part II.

Results of Operations

The following table sets forth certain operating data as a percentage of revenues:

	Three Months Ended		Nine Months Ended	
	September 28, 2024	September 30, 2023	September 28, 2024	September 30, 2023
Revenues	100.0%	100.0%	100.0%	100.0%
Cost of revenues	62.7%	56.3%	61.3%	57.1%
Gross margin	37.3%	43.7%	38.7%	42.9%
Operating expenses:				
Research and development	11.2%	12.0%	12.1%	13.0%
Sales and marketing	22.8%	29.8%	27.5%	31.4%
General and administrative	19.4%	16.6%	20.9%	16.5%
Total operating expenses	53.4%	58.4%	60.5%	60.9%
Loss from operations	(16.1%)	(14.7%)	(21.8%)	(18.0%)
Other income, net	(0.4%)	(0.5%)	(0.6%)	0.9%
Loss from operations before provision for income taxes	(16.5%)	(15.2%)	(22.4%)	(17.1%)
Provision for income taxes	0.1%	0.1%	0.2%	0.1%
Net loss	(16.6%)	(15.3%)	(22.6%)	(17.2%)

The following comparisons are between the three months ended September 28, 2024 and September 30, 2023 (in thousands):

Revenues

	Three Months Ended		Change in $	Change in %
	September 28, 2024	September 30, 2023		
Cyclo G6	$ 3,127	$ 3,042	$ 85	2.8%
Retina	6,450	7,865	(1,415)	(18.0%)
Other	2,004	1,943	61	3.1%
Total revenues	$ 11,581	$ 12,850	$ (1,269)	(9.9%)

Our total revenues decreased by $1.3 million, or 9.9%, from $12.9 million to $11.6 million. The decrease was driven by overall softer demand in our Retina product lines and lower royalties due to the expiration of licensed patents, partially offset by increases Glaucoma "Cyclo G6" product lines.

While we believe that the market for our products remains strong, the overall capital expenditure landscape within hospitals, surgical centers and physician offices may continue to be negatively impacted by persistent macroeconomic concerns.

Gross Profit and Gross Margin

Gross profit decreased $1.3 million, or 23.1% from $5.6 million to $4.3 million. Gross margin decreased by 6.4% from 43.7% to 37.3%. The decrease in gross margin was driven by lower royalty revenues.

Gross margins may fluctuate due to changes in the relative proportion of domestic and international sales, the product mix of sales, introduction of new products, manufacturing variances, total unit volume changes that lead to greater or lesser production efficiencies and other factors.

Research and Development

Research and development expenses decreased by $0.2 million, or 15.7% from $1.5 million to $1.3 million. Spending on investment in PASCAL product line and on new and expanded product portfolio decreased as we completed these projects.

Sales and Marketing

Sales and marketing expenses decreased $1.2 million, or 30.8%, from $3.8 million to $2.6 million. The decrease was related to lower sales costs associated with lower commissions and reduction on headcount.

General and Administrative

General and administrative expenses increased by $0.3 million, or 15.6% from $1.9 million to $2.2 million. The increase is a result of higher consulting costs and deal related legal expenses.

Other Income (Expense), Net

Other expense, net was $46 thousand for the three months ended September 28, 2024 compared to other expense, net, of $58 thousand for the three months ended September 30, 2023. Other income (expense), net, consisted primarily of interest income or expense and foreign currency transaction gain or loss.

Income Taxes

We recorded an income tax provision of $17 thousand and $8 thousand for the three months ended September 28, 2024 and September 30, 2023, respectively.

The following comparisons are between the nine months ended September 28, 2024 and September 30, 2023 (in thousands):

Revenues

	Nine Months Ended		Change in $	Change in %
	September 28, 2024	September 30, 2023		
Cyclo G6	$ 9,416	$ 10,369	$ (953)	(9.2%)
Retina	20,519	21,936	(1,417)	(6.5%)
Other	6,038	7,106	(1,068)	(15.0%)
Total revenues	$ 35,973	$ 39,411	$ (3,438)	(8.7%)

Our total revenues decreased by $3.4 million, or 8.7%, from $39.4 million to $36.0 million. The decrease was driven by softer demand in our Glaucoma and Retina product lines, and by lower royalties due to the expiration of licensed patents.

While we believe that the market for our products remains strong, the overall capital expenditure landscape within hospitals, surgical centers and physician offices may continue to be negatively impacted by persistent macroeconomic concerns discussed above.

Gross Profit and Gross Margin

Gross profit decreased $3.0 million, or 17.8%, from $16.9 million to $13.9 million. Gross margin decreased by 4.2% from 42.9% to 38.7%. The decrease in gross margin was driven by lower revenues and higher manufacturing overhead absorbed by less revenue.

Gross margins may fluctuate due to changes in the relative proportion of domestic and international sales, the product mix of sales, introduction of new products, manufacturing variances, total unit volume changes that lead to greater or lesser production efficiencies and other factors.

Research and Development

Research and development expenses decreased by $0.8 million, or 15.6%, from $5.1 million to $4.3 million. Spending on investment in PASCAL product line and on new and expanded product portfolio decreased as we completed these new projects. We implemented cost savings measures including reductions in workforce that resulted in lower headcount expenses.

Sales and Marketing

Sales and marketing expenses decreased by $2.5 million, or 20.1%, from $12.4 million to $9.9 million. The decrease was related to the reduction in headcount and lower consulting and travel expenses.

General and Administrative

General and administrative expenses increased by $1.2 million, or 18.3%, from $6.3 million to $7.5 million. The increase is a result of higher consulting costs and deal related legal expenses.

Other Income (Expense), Net

Other expense, net increased by $0.5 million from net income of $0.3 million to net other expense, net of $0.2 million for the nine months ended September 28 2024. Other income (expense), net, consisted primarily of interest income or expense and foreign currency transaction gain or loss.

Income Taxes

We recorded an income tax provision of $74 thousand and $30 thousand for the nine months ended September 28, 2024 and September 30, 2023, respectively.

Liquidity, Capital Resources and Management Plans

Liquidity is our ability to generate sufficient cash flows from operating activities to meet our obligations and commitments. In addition, liquidity includes the ability to obtain appropriate financing or to raise capital.

As of September 28, 2024, we had cash and cash equivalents of $3.9 million and working capital of $8.5 million compared to cash and cash equivalents of $7.0 million and working capital of $14.5 million as of December 30, 2023.

Net cash used in operating activities was $6.0 million in the nine months ended September 28, 2024 compared to net cash used in operating activities of $5.8 million in the nine months ended September 30, 2023. The increase in net cash used in operating activities, expressed in direct cash flow terms, was primarily due to cash used in inventory, prepaids, and other current assets and accrued expenses, partially offset by decreases in cash paid to accounts payable and increased cash collections from accounts receivable.

For the nine months ended September 28, 2024, and September 30, 2023 net cash used in investing activities was $4 thousand and $141 thousand, respectively, which consisted of capital expenditures.

For the nine months ended September 28, 2024, net cash $2.8 million was provided by financing activities of issuance of convertible notes, net. For the nine months ended September 30, 2023, net cash used in financing activities was $50 thousand.

We have historically funded our operations primarily through sales of our products to customers, sales of our common stock and borrowing arrangements. As of September 28, 2024, our principal sources of liquidity consisted of cash and cash equivalents of $3.9 million. We have incurred net losses over the last several years, and as of September 28, 2024, have an accumulated deficit of approximately $89.6 million. We expect to continue to incur operating losses and negative cash flows from operations.

Management evaluates whether there are relevant conditions and events that, in the aggregate, raise substantial doubt about the Company's ability to continue as a going concern and to meet its obligations as they become due within one year after the date that the financial statements are issued.

The accompanying condensed consolidated financial statements have been prepared assuming we will continue as a going concern. For the nine months ended September 28, 2024, we implemented cost savings initiatives to increase operational efficiencies across all departments, which we expect will decrease our operating expenses and increase working capital through January 3, 2026. Based on these cost savings initiatives implemented by us and the closing of the $3.4 million Note with Lind (with an option to have an additional $1.5 million in a Subsequent Note), management believes we have alleviated substantial doubt about our ability to satisfy our liquidity needs over the next 12 months.

On August 7, 2024, we closed a Note with Lind and raised net proceeds of approximately $3.4 million. These funds are sufficient to meet our immediate and near-term capital requirements. Our future capital requirements will depend on many factors, including our strategic alternatives, the timing and extent of our spending to support research and development activities, the timing and cost of establishing additional sales and marketing capabilities, the introduction of new and enhanced products and our costs to implement new manufacturing technologies. In the event that additional financing is required from outside sources, we may not be

able to raise it on terms acceptable to us or at all. Any debt financing obtained by us in the future could also involve restrictive covenants relating to our capital-raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. Additionally, if we raise additional funds through further issuances of equity, our existing stockholders could suffer dilution in their percentage ownership of our company, and any new equity securities we issue could have rights, preferences and privileges senior to those of holders of our common stock. If we are unable to obtain adequate financing or financing on terms satisfactory to us, when we require it, our ability to continue to grow or support our business and to respond to business challenges could be limited.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements that have or are reasonably likely to have a material current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

Item 3. Quantitative and Qualitative Disclosure about Market Risk

As a "smaller reporting company," as defined in Rule 12b-2 of the Exchange Act, we are not required to provide the information called for by this Item.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We maintain "disclosure controls and procedures," as such term is defined in Rules 13a-15(e) or 15d-15(e) under the Exchange Act, that are designed to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and that such information is accumulated and communicated to our management, including our Principal Executive Officer and our Principal Financial Officer, as appropriate to allow timely decisions regarding required disclosure. In designing and evaluating our disclosure controls and procedures, management recognized that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met. Additionally, in designing disclosure controls and procedures, our management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures. The design of any disclosure controls and procedures also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

As required by SEC Rule 13a-15(b), we carried out an evaluation, under the supervision and with the participation of our management, including our Principal Executive Officer and our Principal Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of September 28, 2024. Based on the foregoing, our Principal Executive Officer and our Principal Financial Officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting that occurred during the period covered by this Form 10-Q that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

From time to time, we may be involved in legal proceedings arising in the ordinary course of business. Although the results of litigation and claims cannot be predicted with certainty, we currently believe that the final outcome of these ordinary course matters will not have a material adverse effect on our business, condensed consolidated operating results, financial condition or cash flows. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

Item 1A. Risk Factors

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information in this Quarterly Report on Form 10-Q, including the sections titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our condensed consolidated financial statements and related notes, before making a decision to invest in our common stock. Our business, financial condition, results of operations, or prospects could also be harmed by risks and uncertainties not currently known to us or that we currently do not believe are material. If any of the risks actually occur, our business, financial condition, results of operations, and prospects could be adversely affected. In that event, the market price of our common stock could decline, and you could lose part or all of your investment.

Risk Factor Summary

Our business operations are subject to numerous risks, factors and uncertainties outside of our control that could cause our actual results to be harmed, including risks regarding the following:

General economic factors

- general macroeconomic conditions, including inflationary pressures and changing interest rates, a reduction in business confidence and activity, global pandemics and responsive measures and the Russia-Ukraine and Israel-Hamas conflicts.

Operational factors

- we may need additional funding and may not be able to raise capital when needed, which could force us to delay or reduce commercialization efforts;
- our financial condition raises serious doubt as to our ability to continue to operate as a going concern;
- our convertible note agreement contains restrictive and financial covenants that may limit our operating flexibility and the failure to comply with such covenants could cause our outstanding debt to become accelerated;
- the success of our relationship with our strategic partner and main distributor Topcon;
- quality control and production issues;
- the complexity of our laser systems;
- defects in our laser systems;
- direct and independent sales forces and a network of international distributors to sell our products;
- dependence on international sales;
- new products and applications and improving existing products;
- fluctuations in our sales and operating results;
- the ophthalmology market;
- competition in our industry;
- the loss of key personnel;
- the collaborative relationships used to enhance products and applications;
- costs, sales volumes, results of operations, and revenues;
- meeting product demand;
- dependence on sole source and limited source suppliers;

- catastrophic loss;
- disruptions to our information technology system and breaches of data security;
- maintaining relationships with health-care providers;
- the misuse of our products;
- our reputation and brand;
- the inability of our customers to obtain credit or material increases in interest rates;
- recalls of our products; and
- managing growth effectively.

Regulatory and legal factors

- healthcare reform measures and changes in third-party coverage and reimbursement policies;
- compliance with healthcare laws;
- our compliance with potential governmental, regulatory and other legal proceedings relative to advertising, promotion and marketing;
- patents and proprietary rights related to our intellectual property;
- compliance with government regulations, including the FDA's quality system regulation and laser performance standards;
- regulatory approval for clinical trials;
- compliance with product liability claims;
- developments in trade policies;
- tax laws;
- federal, state and foreign laws, including changes to those laws; and
- environmental requirements.

Financing and transactional risks

- divestitures of our businesses or product lines; and
- provisions in our charter documents, Delaware law and contractual provisions that could delay or prevent an acquisition or sale of our company.

Governance risks and risks related to ownership of our common stock

- the volatility of the trading price of our common stock;
- our intention not to pay dividends for the foreseeable future;
- the publication of research about us by analysts;
- the concentration of ownership of our common stock; and
- our ability to maintain an effective system of internal control over financial reporting

Factors That May Affect Future Results

In addition to the other information contained in this Quarterly Report on Form 10-Q, we have identified the following risks and uncertainties that may have a material adverse effect on our business, common stock price, financial condition or results of operations. You should carefully consider the risks described below before making an investment decision.

Risks Relating to our Business

We may need additional funding and may not be able to raise capital when needed, which could force us to delay or reduce our commercialization efforts.

We are actively engaged in a review of our near-, medium- and long-term financing needs, which includes seeking to raise additional capital through strategic alternatives, equity offerings and debt financings. Such additional financing may not be available to us on acceptable terms or at all. Given the current market price of our common stock, any equity financing would result in

significant dilution to our existing stockholders. In addition, any additional equity or debt financing that we raise may contain terms that are not favorable to us or our stockholders. For example, if we raise funds by issuing equity or equity-linked securities, the issuance of such securities could result in dilution to our stockholders. Any equity securities issued may also provide for rights, preferences, or privileges senior to those of holders of our common stock. In addition, the issuance of additional equity securities by us, or the possibility of such issuance, may cause the market price of our common stock to decline.

In addition, the terms of debt securities issued, or borrowings, could impose significant restrictions on our operations including restrictive covenants, such as limitations on our ability to incur additional debt or issue additional equity, limitations on our ability to pay dividends, limitations on our ability to acquire or license intellectual property rights, and other operating restrictions that could adversely affect our ability to conduct our business. In the event that we enter into collaborations or licensing arrangements to raise capital, we may be required to accept unfavorable terms, such as relinquishment or licensing of certain technologies or products that we otherwise would seek to develop or commercialize ourselves, or reserve for future potential arrangements when we might otherwise be able to achieve more favorable terms.

If we are unable to obtain adequate financing on terms satisfactory to us when we require it, we may terminate or delay sales and marketing efforts or other activities necessary to commercialize our products. If this were to occur, our ability to grow and support our business and to respond to market challenges could be significantly limited, which could have a material adverse effect on our business, financial condition, and results of operations.

The current macroeconomic conditions have disrupted, and may continue to disrupt our operations, including our ability to manufacture and supply products and perform research and development activities, and our customers' usage of our products, all of which have had and may continue to have a material and adverse effect on our business, future revenues and financial condition. We are unable to predict the extent to which any future global pandemic or other public health emergencies or outbreaks and related macroeconomic impacts may adversely impact our business operations, financial performance, results of operations, financial position and the achievement of our strategic objectives.

Our business, results of operation and financial performance were negatively impacted by the COVID-19 pandemic and related public health responses, such as travel restrictions in countries and regions in which we have operations or manufacturing partners. Due to these impacts and measures, we have experienced and may continue to experience significant and unpredictable interruptions in the supply of raw materials, components and sub-assemblies necessary to manufacture and assemble our products and reductions in the demand for our products if healthcare customers divert medical resources and priorities towards the treatment of COVID-19 or any future outbreak of disease. In addition, our customers may delay, cancel or redirect planned capital expenditures in order to focus resources on any future outbreak of disease, global pandemic or in response to macroeconomic disruption related to any future global pandemic. In the near term, a future outbreak of disease or global pandemic may negatively impact the use of our products and the number of ophthalmic treatments and procedures performed. If the volume of elective procedures declines, our results of operations and financial condition will be adversely affected.

The volatile macroeconomic environment has created economic uncertainty and volatility in the financial markets around the world, resulting in an economic downturn that has affected and may likely continue to affect demand for our products and impact our results of operations. As a result, this may lead to a period of regional, national, and global economic slowdown or regional, national, or global recessions that would curtail or delay spending by hospitals and affect demand for our products as well as increase the risk of customer defaults or delays in payments. Our customers may terminate or amend their agreements for the purchase, lease, or service of our products due to bankruptcy, lack of liquidity, lack of funding, operational failures, or other reason. The ultimate impact of the volatile macroeconomic conditions on our operations and financial performance depends on many factors that are not within our control, including, but not limited, to: the recommendations by medical authorities on whether hospitals should and may perform elective surgical procedures; hospitals' abilities and willingness to devote resources to elective surgical procedures; governmental, business and individuals' actions that have been and may continue to be taken in response to any future resurgence of the COVID-19 pandemic or other public health emergencies or outbreaks (including restrictions on travel and transport and workforce pressures); the impact of other public health emergencies or any future outbreak of disease and actions taken in response on global and regional economies, travel, and economic activity; the availability of federal, state, local or non-U.S. funding programs; general economic uncertainty in key global markets and financial market volatility; global economic conditions and levels of economic growth; and the pace of recovery when the current volatile macroeconomic conditions subside. We have experienced and may continue to experience in subsequent periods, disruptions to our business that may adversely impact our business, financial condition and results of operations.

Servicing our existing and future debt, including the Note, may require a significant amount of cash, and we may not have sufficient cash flow from our business to pay our indebtedness.

On August 7, 2024, we issued the Note to Lind, which has a principal amount of $4,200,000, and we may, in the future, issue the Subsequent Note to Lind which would have a principal amount of up to $1,800,000. Our ability to make scheduled payments of the principal of, to pay interest on or to refinance our indebtedness, including the Lind Notes, depends on our future performance, which is subject to economic, financial, competitive, and other factors beyond our control. We may not generate cash flow from

operations in the future sufficient to service our debt and make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt, or obtaining additional debt financing or equity capital on terms that may be onerous or highly dilutive. Our ability to refinance any future indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations. In addition, the Securities Purchase Agreement and the Note contain, and any of our future debt agreements may contain, restrictive covenants that may prohibit us from adopting any of these alternatives. Our failure to comply with these covenants could result in an event of default which, if not cured or waived, could result in the acceleration of our debt.

We may not have the ability to raise the funds necessary to settle repayments of the Note in cash, and our future debt may contain limitations on our ability to make cash payments as required by the Note.

Following the occurrence of a Change of Control (as defined in the Securities Purchase Agreement), Lind may require us to prepay, effective immediately prior to the consummation of such Change of Control, the Note in an amount equal to 105% of the outstanding principal amount of the Note as of such date. In addition, commencing 120 days from the issuance date of the Note, the Company will be required to repay the outstanding principal amount of the Note in twenty consecutive monthly installments of cash, Repayment Shares, or a combination of cash and Repayment Shares, at the Company's option, *provided that* no portion of the outstanding principal amount may be paid in Repayment Shares unless such Repayment Shares (A) may be immediately resold pursuant to Rule 144 under the Securities Act of 1933, as amended (the "1933 Act"), by a person that is not an affiliate of the Company, or (B) are registered for resale under the 1933 Act and a registration statement is in effect and lawfully usable to effect immediate sales of such Repayment Shares. If we do not meet the conditions for repayment in Repayment Shares, we will be required to make such monthly payments in cash. However, we may not have enough available cash or be able to obtain financing at the time we are required to make such payments on the Note or at its maturity. In addition, any cash payments would reduce the amount of cash available for our operations, which could have a material and adverse effect on our business.

Our ability to make cash payments in connection with the Note may be limited by law, regulatory authority or agreements governing our future indebtedness. Our failure to make payments as required by the Note would constitute a default under the Note. A default under the Note could also lead to a default under agreements governing any of our existing or future indebtedness. Moreover, the occurrence of a Change of Control under the Note could constitute an event of default under other agreements. If the payment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness. Any failure by us to repay indebtedness, in each case, when required to do so pursuant to the terms of the Note, could have a material adverse effect on our business, financial condition, and results of operations.

Lind has conversion rights under the Note, the exercise of which could result in the issuance of a substantial amount of our common stock at a significant discount to the trading price of our common stock.

The Note is convertible at Lind's option into shares of our common stock at an initial conversion price of $2.44, subject to any adjustments set forth in the Note. However, upon the occurrence of a Delisting Event or an Event of Default (each as defined in the Note), the Notewill become immediately due and payable, and Lind may declare an amount equal to 120% of the then outstanding principal amount of the Note due and payable, in addition to any other remedies under the Transaction Documents. Additionally, the occurrence of a Delisting Event, an Event of Default or an event which with the passage of time may result in an Event of Default, Lind may convert all or a portion of the outstanding principal amount of the Note at the lower of (i) the then-current conversion price and (ii) the greater of (a) eighty-percent (80%) of the average of the three (3) lowest daily VWAPs during the twenty (20) trading days prior to the delivery of the notice of conversion and (b) a floor price of $0.39, which would significantly dilute our stockholders. If we experience a Delisting Event or an Event of Default under the Note, we may experience a material adverse effect on our liquidity, financial condition, and results of operations.

Divestitures of our businesses or product lines may materially and adversely affect our financial condition, results of operations or cash flows and require us to raise additional capital to replace revenue from those business units or product lines.

We have two main businesses: glaucoma and retina, domestic and international operations within each and many product lines within the two businesses. We periodically evaluate the performance and strategic fit of our businesses and may sell businesses or product lines. Divestitures involve risks, including difficulties in the separation of operations, services, products and personnel, the diversion of management's attention from other business concerns, the disruption of our business, the potential loss of key employees and the retention of uncertain environmental or other contingent liabilities related to the divested business. In addition, divestitures may result in significant asset impairment charges, including those related to goodwill and other intangible assets, and the loss of revenue which could have a material adverse effect on our financial condition and results of operations. In addition, we may not realize the expected value from the divestiture of a business or product lines and may need to raise additional capital to replace the revenue generated from the business or product line that is divested. We can provide no assurance that such capital will be available or available on terms that are acceptable to us. We cannot assure you that we will be successful in managing these or any other significant risks that we encounter in divesting a business or product line, and any divestiture we undertake could materially and

adversely affect our business, financial condition, results of operations and cash flows, and may also result in a diversion of management attention, operational difficulties and losses.

We may not be successful in our strategic partnership with Topcon and the relationship may divert resources away from existing operations or expose us to liabilities, which could adversely affect our business, results of operations and financial condition.

On March 2, 2021, we entered into a series of strategic transactions with Topcon, Topcon America Corporation (the "Investor") and Topcon Medical Laser Systems, Inc., a subsidiary of Topcon ("TMLS"), which included (i) an asset purchase agreement with TMLS, pursuant to which we acquired substantially all the assets (except for cash and cash equivalents) of TMLS, including rights to the PASCAL product (the "Asset Purchase Agreement"), (ii) a distribution agreement dated March 2, 2021, pursuant to which we granted Topcon the exclusive right to distribute our retina and glaucoma products in certain geographies outside the United States (the "Distribution Agreement"), and (iii) an investment agreement dated March 2, 2021 (the "Investment Agreement"), pursuant to which we sold the Investor 1,618,122 shares of our common stock for an aggregate purchase price of $10 million.

Pursuant to the Asset Purchase Agreement, the transferred assets include substantially all of TMLS' assets including the rights to the PASCAL product (the "Transferred Assets"). We assumed only those liabilities arising after the closing in connection with the Transferred Assets. In the Asset Purchase Agreement, our company and TMLS made certain customary representations and warranties and agreed to certain customary covenants. The Agreement provides that our company and TMLS will each indemnify the other for losses arising from certain breaches of the Agreement and for certain other liabilities subject to customary caps and deductibles. If there are claims under the indemnification provisions for which we are liable we will need to use some or all our cash to settle those claims.

Pursuant to the Distribution Agreement, we appointed Topcon as the exclusive distributor of our glaucoma and retina products, including PASCAL product, in certain countries outside of the United States. Topcon agreed to use commercially reasonable efforts to commercialize our products in each region throughout the territory, including achieving certain sales baselines by product category and region. If Topcon fails to achieve the baselines in a region, we will have the right to, subject to payment of a fee, terminate Topcon's appointment in such region. The Distribution Agreement and Topcon's appointment will, unless terminated earlier, continue on a country-by-country basis for a period of 10 years from the date exclusivity is granted. The Distribution Agreement includes customary termination rights and effects of termination, including a termination for convenience right in favor of Topcon and, subject to payment of a fee, a termination right in our favor upon a change of control of our company, as well as customary indemnification provisions.

As a result of the Distribution Agreement, we terminated our relationships with our prior distributors in certain geographies and we are using Topcon as our exclusive distributor. If Topcon is unable to generate as much revenue under the Distribution Agreement as we received from our prior distributors, our business, results of operations and financial condition could be adversely affected. If there are claims under the indemnification provisions of the Distribution Agreement for which we are liable, we will need to use some or all our cash to settle those claims or make payments to Topcon pursuant to the terms of the Distribution Agreement.

We are investing a substantial amount of time, resources and efforts in connection with our relationship with Topcon, including commercializing our products in certain geographies and working to achieve certain sales baselines by product category and region. All of these actions divert resources away from our other initiatives and operations, particularly with respect to product sales in the United States. These efforts may not result in the anticipated additional products, efficiencies or revenues for our company, which could adversely affect our business, operating results and financial condition as a result.

We may face quality control and other production issues that could materially and adversely impact our sales and financial results and the acceptance of our products.

The manufacture of our infrared and visible laser consoles and related delivery devices is a highly complex and precise process. We may experience manufacturing difficulties, quality control issues or assembly constraints.

If our sales increase substantially, we may need to increase our production capacity and may not be able to do so in a timely, effective or cost-efficient manner. We may not be able (ourselves or through third parties) to manufacture or supply sufficient quantities of our products, which may require that we qualify other manufacturers for our products. Furthermore, we may experience delays, disruptions, capacity constraints or quality control problems in our manufacturing operations.

In the past several years, we have experienced supply chain, production and training issues as we have expanded our product lines and sales volumes, and may experience similar issues in the future as we continue to grow our business. These issues have caused, and may in the future cause, us to reduce or delay the shipment of our products and incur costs to service or replace products already shipped to customers. We have also incurred, and may in the future incur, additional costs to rectify or prevent similar issues in the future. Our efforts to address these supply chain, production and training issues may not be successful, and if we are unable to address these issues in a timely and cost-effective manner, product shipments to our customers could be delayed, our sales levels may suffer and manufacturing and operational costs may increase, any of which would negatively impact our business, results of operations and financial condition.

Some of our laser systems are complex in design and may contain defects that are not detected until deployed by our customers, which could increase our costs and reduce our revenues.

Laser systems are inherently complex in design and require regular maintenance. The manufacture of our lasers, laser products and systems involves a highly complex and precise process. As a result of the technical complexity of our products, changes in our or our suppliers' manufacturing processes or the inadvertent use of defective materials by us or our suppliers could result in a material adverse effect on our ability to achieve acceptable manufacturing yields and product reliability. To the extent that we do not achieve such yields or product reliability, our business, operating results, financial condition and customer relationships would be adversely affected. We provide warranties on certain of our product sales, and allowances for estimated warranty costs are recorded during the period of sale. The determination of such allowances requires us to make estimates of failure rates and expected costs to repair or replace the products under warranty. We currently establish warranty reserves based on historical warranty costs. If actual return rates and/or repair and replacement costs differ significantly from our estimates, adjustments to recognize additional cost of revenues may be required in future periods.

Our customers may discover defects in our products after the products have been fully deployed and operated under peak stress conditions. In addition, some of our products are combined with products from other vendors, which may contain defects. As a result, should problems occur, it may be difficult to identify the source of the problem. If we are unable to identify and fix defects or other problems, we could experience, among other things:

- loss of customers;
- increased costs of product returns and warranty expenses;
- damage to our brand reputation;
- failure to attract new customers or achieve market acceptance;
- diversion of development and engineering resources; and
- legal actions by our customers.

The occurrence of any one or more of the foregoing factors could seriously harm our business, financial condition and results of operations.

We rely on our direct and independent sales forces and international distributors to sell our products and if we lose our sales force or distributor relationships, it could harm our business.

Our ability to sell our products and generate revenues depends upon our direct and independent sales forces within the United States, direct sales force in Germany and relationships with independent international distributors. Currently our direct and independent sales forces within the United States consist of approximately 30 employees and one independent representatives, respectively, and our direct sales force in Germany consists of one employee. Our international independent distributors are managed by a team of seven people. We generally grant our distributors exclusive territories for the sale of our products in specified countries and regions. The amount and timing of resources dedicated by our distributors to the sales of our products is not within our control. Our international sales are largely dependent on the efforts of these third parties. If any distributor breaches the terms of its distribution agreement with us or fails to generate sales of our products, we may be forced to replace the distributor and our ability to sell our products into that exclusive sales territory could be adversely affected.

We do not have any long-term employment contracts with the members of our direct sales force. We may be unable to replace our direct sales force personnel with individuals of equivalent technical expertise and qualifications, which may harm our revenues and our ability to maintain market share. Similarly, our independent contractor and distributor agreements are generally terminable at will by either party and independent contractors and distributors may terminate their relationships with us, which would affect our sales and results of operations. Any loss of the members of our existing direct or indirect sales organizations, or any failure to execute on our plans to further develop our sales function, could have an adverse impact on our business, results of operations and financial condition.

We depend on international sales for a significant portion of our operating results.

We derive, and expect to continue to derive, a large portion of our revenues from international sales. For the third quarter of fiscal year 2024, our international sales were $6.1 million, or 52.8% of total revenues. We anticipate that international sales will continue to account for a significant portion of our revenues in the foreseeable future. All of our international revenues and costs for the second quarter of fiscal year 2024 have been denominated in U.S. dollars except for sales transacted through our German subsidiary. As a result, an increase in the value of the U.S. dollar relative to foreign currencies makes our U.S. dollar-denominated products more expensive and thus less competitive in foreign markets and may negatively affect our reported revenue in any particular reporting period. Our international operations and sales are subject to a number of risks and potential costs, including:

- fluctuations in foreign currency exchange rates;
- product and production issues;

- performance of our international channel of distributors;
- longer accounts receivable collection periods;
- impact of recessions in global economies and availability of credit;
- political and economic instability;
- change in international regulatory agreements and requirements;
- trade sanctions and embargoes;
- impact of international conflicts, terrorist and military activity, civil unrest;
- foreign certification requirements, including continued ability to use the "CE" mark in Europe, and other local regulatory requirements, pending MDR approvals;
- differing local product preferences and product requirements;
- cultural differences;
- changes in foreign medical reimbursement and coverage policies and programs;
- reduced or limited protections of intellectual property rights in jurisdictions outside the United States;
- potentially adverse tax consequences, such as those related to changes in tax laws or tax rates or their interpretations;
- protectionist, adverse and changing foreign governmental laws and regulations;
- greater risk of our employees failing to comply with both U.S. and foreign laws, including anti-trust regulations, the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act of 2010 and any trade regulations designed to ensure fair trade practices; and
- compliance costs and risks of non-compliance with multiple regulatory regimes governing the production, marketing, sale and use of our products.

Any one or more of these factors stated above could have a material adverse effect on our business, financial condition or results of operations.

Our operating results may be adversely affected by uncertainty regarding healthcare reform measures and changes in third-party coverage and reimbursement policies.

Our products are typically purchased by doctors, clinics, hospitals and other users, which bill various third-party payers, such as governmental programs and private insurance plans, for the health-care services provided to their patients. Changes in government legislation or regulation or in private third-party payers' policies toward reimbursement for procedures employing our products may prohibit adequate reimbursement. There have been a number of legislative and regulatory proposals to change the healthcare system, reduce the costs of healthcare and change medical reimbursement policies. Doctors, clinics, hospitals and other users of our products may decline to purchase our products to the extent there is uncertainty regarding reimbursement of medical procedures using our products and any healthcare reform measures. Further proposed legislation, regulation and policy changes affecting third-party reimbursement are likely. Among other things, Congress has in the past proposed changes to and the repeal of the Patient Protection and Affordable Care Act and the Health Care and Education Reconciliation Act of 2010, collectively, the "Affordable Care Act", and the current U.S. presidential administration has announced certain policy changes that could impact the availability of benefits under the Affordable Care Act. For example, tax reform legislation enacted at the end of 2017 eliminated the tax penalty for individuals who did not maintain sufficient health insurance coverage beginning in 2019 (the "individual mandate"). We anticipate continued Congressional interest in modifying provisions of the Affordable Care Act. At this time, it remains unclear whether there will be any changes made to or any repeal of the Affordable Care Act, with respect to certain of its provisions or in its entirety or related administrative policies. Various healthcare reform proposals have also emerged at the state level.

We are unable to predict what legislation or regulation, if any, relating to the health-care industry or third-party coverage and reimbursement may be enacted in the future at the state or federal level, or what effect such legislation or regulation may have on us. Furthermore, existing legislation and regulation related to the health-care industry and third-party coverage reimbursement, including the Affordable Care Act, has been subject to judicial challenge, and may be subject to similar challenges from time to time in the future (such as the *California v. Texas* case). In June 2021, the U.S. Supreme Court held that Texas and other challengers had no legal standing to challenge the Affordable Care Act, dismissing the case on procedural grounds without specifically ruling on the constitutionality of the Affordable Care Act. Denial of coverage and reimbursement of our products, or the revocation or changes to coverage and reimbursement policies, could have a material adverse effect on our business, results of operations and financial condition.

Third-party payers are increasingly scrutinizing and continue to challenge the coverage of new products and the level of reimbursement for covered products. Doctors, clinics, hospitals and other users of our products may not obtain adequate reimbursement for use of our products from third-party payers. While we believe that the laser procedures using our products have generally been reimbursed, payers may deny coverage and reimbursement for our products if they determine that the device was not reasonable and necessary for the purpose used, was investigational or was not cost-effective.

If we fail to develop and successfully introduce new products and applications or fail to improve our existing products, our business prospects and operating results may suffer.

Our ability to generate incremental revenue growth will depend, in part, on the successful outcome of research and development activities, which may include clinical trials that lead to the development of new products and new applications using our products. Our research and development process is expensive, prolonged, and entails considerable uncertainty. Due to the complexities and uncertainties associated with ophthalmic research and development, products we are currently developing may not complete the development process or obtain the regulatory approvals required to market such products successfully. Should the current macroeconomic conditions worsen, it could delay and disrupt our research and development processes even further.

Successful commercialization of new products and new applications will require that we effectively transfer production processes from research and development to manufacturing and effectively coordinate with our suppliers. In addition, we must successfully sell and achieve market acceptance of new products and applications and enhanced versions of existing products. The extent of, and rate at which, market acceptance and penetration are achieved by future products is a function of many variables, which include, among other things, price, safety, efficacy, reliability, marketing and sales efforts, the development of new applications for these products, the availability of third-party reimbursement of procedures using our new products, the existence of competing products and general economic conditions affecting purchasing patterns.

Our ability to market and sell new products is subject to government regulation, including approval or clearance by the FDA and foreign government agencies. Any failure in our ability to successfully develop and introduce new products or enhanced versions of existing products and achieve market acceptance of new products and new applications could have a material adverse effect on our operating results and would cause our net revenues to decline.

We are exposed to risks associated with worldwide economic slowdowns and related uncertainties.

We are subject to macroeconomic fluctuations in the U.S. and worldwide economy including inflationary pressures that may cause the cost of manufacturing our products or servicing our products to increase. Concerns about consumer and investor confidence, the upcoming presidential election in the United States, volatile corporate profits and reduced capital spending, international conflicts, terrorist and military activity, civil unrest and pandemic-related illness could reduce customer orders or cause customer order cancellations. For example, political and social turmoil related to international conflicts, such as that occurring in Russia-Ukraine and Israel-Hamas, and terrorist acts may put further pressure on economic conditions in the United States and abroad.

Weak economic conditions and declines in consumer spending and consumption may harm our operating results. Purchases of our products are often discretionary. During uncertain economic times, customers or potential customers may delay, reduce or forgo their purchases of our products and services, which may impact our business in a number of ways, including lower prices for our products and services and reducing or delaying sales. There could be a number of follow-on effects from economic uncertainty on our business, including insolvency of key suppliers resulting in product delays, delays in customer payments of outstanding accounts receivable and/or customer insolvencies, counterparty failures negatively impacting our operations, and increasing expense or inability to obtain future financing. In addition, negative macroeconomic conditions in the United States (including elevated interest rates) have had, and may continue to have, an adverse impact on capital market conditions, which could limit our ability to obtain additional debt or equity financing on acceptable terms or at all.

If economic uncertainty persisted, or if the economy entered a prolonged period of decelerating growth, our results of operations may be harmed.

We maintain cash deposits in excess of federally insured limits. Adverse developments affecting financial institutions, including bank failures, could adversely affect our liquidity and financial performance.

We maintain cash deposits in financial institutions that may be higher than the $250,000 limit insured by the FDIC or similar agencies. Bank failures, events involving limited liquidity, defaults, non-performance, or other adverse developments that affect financial institutions, or concerns or rumors about such events, may lead to liquidity constraints. For example, on March 10, 2023, SVB failed and was taken into receivership by the FDIC. The failure of a bank, or other adverse conditions in the financial or credit markets impacting financial institutions at which we maintain balances, could adversely impact our liquidity and financial performance. There can be no assurance that our deposits in excess of the FDIC or other comparable insurance limits will be backstopped by the U.S. or applicable foreign government, or that any bank or financial institution with which we do business will be able to obtain needed liquidity from other banks, government institutions, or by acquisition in the event of a failure or liquidity crisis.

Our operating results may fluctuate from quarter to quarter and year to year.

Our sales and operating results may vary significantly from quarter to quarter and from year to year in the future. Our operating results are affected by a number of factors, many of which are beyond our control. Factors contributing to these fluctuations include the following:

- general macroeconomic conditions, including inflationary pressures and changing interest rates, upcoming presidential election in the United States, global pandemics and responsive measures and the Russia-Ukraine and Israel-Hamas conflicts;
- changes in the prices at which we can sell our products, including the impact of changes in foreign currency exchange rates;
- introduction of new products, product enhancements and new applications by our competitors, including new drugs, entry of new competitors into our markets, pricing pressures and other competitive factors;
- any delays or reductions in product shipments, or product recalls, resulting from manufacturing, distribution or other operational issues;
- the timing of the introduction and market acceptance of new products, product enhancements and new applications;
- changes in demand for our existing line of ophthalmology products;
- the cost and availability of components and subassemblies, including the willingness and ability of our sole or limited source suppliers to timely deliver components at the times and prices that we have planned;
- our ability to maintain sales volumes at a level sufficient to cover fixed manufacturing and operating costs;
- fluctuations in our product mix within ophthalmology products and foreign and domestic sales;
- the effect of regulatory approvals and changes in domestic and foreign regulatory requirements;
- our long and highly variable sales cycle;
- changes in customers' or potential customers' budgets as a result of, among other things, reimbursement policies of government programs and private insurers for treatments that use our products;
- variances in shipment volumes as a result of product, supply chain due to global constraints or other factors and training issues; and
- increased product innovation costs.

In addition to these factors, our quarterly results have been, and are expected to continue to be, affected by seasonal factors.

Our expense levels are based, in part, on expected future sales. If sales levels in a particular quarter do not meet expectations, we may be unable to adjust operating expenses quickly enough to compensate for the shortfall of sales, and our results of operations may be adversely affected. In addition, we have historically made a significant portion of each quarter's product shipments near the end of the quarter. If that pattern continues, any delays in shipment of products could have a material adverse effect on results of operations for such quarters. Due to these and other factors, we believe that quarter to quarter and year to year comparisons of our past operating results may not be meaningful. You should not rely on our results for any quarter or year as an indication of our future performance. Our operating results in future quarters and years may be below expectations, which would likely cause the price of our common stock to fall.

We rely on continued market acceptance of our existing products and any decline in sales of our existing products would adversely affect our business and results of operations.

We currently market visible and infrared medical laser systems and delivery devices to the ophthalmology market. We believe that continued and increased sales, if any, of these medical laser systems is dependent upon a number of factors including the following:

- the impact of any future resurgence of any future global pandemic or other public health emergencies on timing of ophthalmic treatment procedures;
- acceptance of product performance, features, ease of use, scalability and durability, including with respect to our MicroPulse laser photocoagulation systems, and our PASCAL product;
- recommendations and opinions by ophthalmologists, other clinicians, and their associated opinion leaders;
- marketing and clinical study outcomes;
- price of our products and prices of competing products and technologies, particularly in light of the current macro-economic environment where healthcare systems and healthcare operators are becoming increasingly price sensitive;

- availability of competing products, technologies and alternative treatments; and
- level of reimbursement for treatments administered with our products.

In addition, we derive a meaningful portion of our sales in the form of recurring revenues from selling consumable instrumentation, including our probe for the Cyclo G6 Laser and EndoProbe devices. Our ability to increase recurring revenues from the sale of consumable products will depend primarily upon the features of our current products and product innovation, the quality of, ease of use and prices of our products, including the relationship to prices of competing products. The level of our service revenues will depend on the quality of service we provide and the responsiveness and the willingness of our customers to use our products and services rather than purchase competing products or services. Any significant decline in market acceptance of our products or our revenues associated therewith may have a material adverse effect on our business, results of operations and financial condition.

We face strong competition in our markets and expect the level of competition to grow in the foreseeable future.

Competition in the market for laser systems and delivery devices used for ophthalmic treatment procedures is expected to increase. This market is also characterized by technological innovation and change. We compete by providing features and services that are valued by our customers such as: enhanced product performance and clinical outcomes, ease of use, durability, versatility, customer training services and rapid repair of equipment.

Our principal ophthalmic laser competitors are Alcon Inc., Bausch Health Companies Inc., Carl Zeiss Meditec AG, Lumenis Ltd., Nidek Co. Ltd., Lumibird, ARC Gmbh, Meridian, OD-OS GmBh and Norlase. We also compete with alternative glaucoma surgical device companies such as Alcon, Inc., Novartis AG, Allergan, Inc., Glaukos Corporation and New World Medical, Inc. Pharmaceuticals represent alternative treatments to our laser procedures. Some of our principal pharmaceutical competitors are Alcon, Inc., Allergan, Inc., Astellas Pharma Inc., Pfizer Inc., Regeneron Pharmaceuticals, Inc., and Roche Holding Ltd. (Genentech). Some of our competitors have substantially greater financial, engineering, product development, manufacturing, marketing and technical resources than we do. Some companies also have greater name recognition than us and long-standing customer relationships. In addition, other medical device companies, academic and research institutions, or others, may develop new technologies or therapies, including medical devices, surgical procedures or pharmacological treatments and obtain regulatory approval for products utilizing such techniques that are more effective in treating the conditions targeted by us, or are less expensive than our current or future products. Our technologies and products could be rendered obsolete by such developments. Any such developments could have a material adverse effect on our business, financial condition and results of operations.

If we lose key personnel or fail to integrate replacement personnel successfully, our ability to manage our business could be impaired.

Our future success depends upon the continued service of our key management, technical, sales, and other critical personnel. Our officers and other key personnel are employees-at-will, and we cannot provide assurance that we will be able to retain them. Key personnel have left our company in the past, and there likely will be additional departures of key personnel from time to time in the future. Additionally, our common stock is currently trading at a price below the exercise price of many of our outstanding options. As a result, these “underwater” options are less useful as a motivation and retention tool for our existing employees. The loss of any key employee could result in significant disruptions to our operations, including adversely affecting the timeliness of product releases, the successful implementation and completion of company initiatives, and the results of our operations. Competition for these individuals is intense, and we may not be able to attract, assimilate or retain highly qualified personnel. Competition for qualified personnel in our industry and the San Francisco Bay Area, as well as other geographic markets in which we recruit, is highly competitive and characterized by increasing salaries, which may increase our operating expenses or hinder our ability to recruit qualified candidates. In addition, the integration of replacement personnel could be time consuming, may cause additional disruptions to our operations, and may be unsuccessful.

If we fail to comply with healthcare laws, we could face substantial penalties and financial exposure, and our business, operations and financial condition could be adversely affected.

While we do not bill directly to Medicare, Medicaid or other third-party payors, because payment is in many cases available for our products from such payors, many healthcare laws place limitations and requirements on the manner in which we conduct our business (including our sales and promotional activities and interactions with healthcare professionals and facilities) and could result in liability and exposure for us. The laws that may affect our ability to operate include (i) the federal Anti-Kickback Statute, which prohibits, among other things, persons from knowingly and willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual for, or the purchase, order or recommendation of, any good or service for which payment may be made under federal healthcare programs such as Medicare or Medicaid, (ii) federal false claims laws which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid, or other third-party payors that are false or fraudulent, and which may apply to entities like us if we provide coding and billing advice to customers, or under theories of "implied certification" where the government and qui tam relators may allege that device companies are liable where a product that was paid for by the government in whole or in part was promoted "off-label," lacked necessary clearance or approval, or failed to comply with good manufacturing practices or other laws; (iii) transparency laws and related reporting and disclosures requirements such as the federal Sunshine Act, now known as Open Payments; and/or (iv) state law equivalents of each of the above federal laws, including, without limitation anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payor, including commercial insurers, many of which differ from their federal counterparts in significant ways, thus complicating compliance efforts.

If our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, exclusion from participation in government healthcare programs, damages, fines and the curtailment or restructuring of our operations. Any penalties, damages, fines, curtailment or restructuring of our operations could adversely affect our ability to operate our business and our financial results. The risk of our operations being found in violation of these laws is increased by the fact that the government's provisions are open to a variety of evolving interpretations and enforcement discretion. Compliance with Open Payments, commonly known as the Sunshine Act, has presented a number of challenges to companies such as ours, in terms of interpretation of the law and its implementation. Under the Sunshine Act, Centers for Medicare & Medicaid Services ("CMS") has the potential to impose penalties of up to $1.26 million per year for violations, depending on the circumstances and adjusted annually for inflation, although enforcement has been negligible to date. Payments reported under the Sunshine Act also have the potential to draw scrutiny on payments to and relationships with physicians, which may have implications under the Anti-Kickback Statute and other healthcare laws. The risk that we may be found in violation of these laws may be increased by the fact that we do not have a formal healthcare compliance program in place. Further, while safe harbors may in some instances be available and utilized by companies to reduce risks associated with the Anti-Kickback Statute and certain other healthcare laws, we have not necessarily utilized such safe harbors nor fully followed all elements required to claim the benefit of such safe harbors in all possible instances. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business.

We depend on collaborative relationships to develop, introduce and market new products, product enhancements and applications.

We depend on both clinical and commercial collaborative relationships. We have entered into collaborative relationships with academic medical centers and physicians in connection with the research and innovation and clinical testing of our products. Commercially, we have licensing agreements with strategic partners. The failure to obtain any additional future clinical or commercial collaborations and the resulting failure or success of such collaboration relationships could have a material adverse effect on our ability to introduce new products or applications and therefore could have a material adverse effect on our business, results of operations and financial condition.

If we cannot increase our sales volumes, reduce our costs or introduce higher margin products to offset potential reductions in the average unit price of our products, our operating results may suffer.

The average unit price of our products may decrease in the future in response to changes in product mix, competitive pricing pressures, new product introductions by our competitors or other factors. If we are unable to offset the anticipated decrease in our average selling prices by increasing our sales volumes or through new product introductions, our net revenues will decline. In addition, to maintain our gross margins we must continue to reduce the manufacturing cost of our products. If we cannot maintain our gross margins our business could be seriously harmed, particularly if the average selling price of our products decreases significantly without a corresponding increase in sales.

Our promotional practices are subject to extensive government scrutiny. We may be subject to governmental, regulatory and other legal proceedings relative to advertising, promotion and marketing that could have a significant negative effect on our business.

We are subject to governmental oversight and associated civil and criminal enforcement relating to drug and medical device advertising, promotion, and marketing, and such enforcement is evolving and intensifying. In the United States, we are subject to potential enforcement from the FDA, the U.S. Federal Trade Commission, the Department of Justice, the CMS, other divisions of the Department of Health and Human Services and state and local governments. Other parties, including private plaintiffs, also are commonly initiating lawsuits against pharmaceutical and medical device companies, alleging off-label marketing and other violations. We may be subject to liability based on the actions of individual employees and contractors carrying out activities on our behalf, including sales representatives who may interact with healthcare professionals.

We rely on patents and proprietary rights to protect our intellectual property and business.

Our success and ability to compete is dependent, in part, upon our proprietary information. We rely on a combination of patents, trade secrets, copyright and trademark laws, nondisclosure and other contractual agreements and technical measures to protect our intellectual property rights. We file patent applications to protect technology, inventions and improvements that are significant to the development of our business. As of September 28, 2024, our patent portfolio includes 67 active United States patents and 94 active international patents on the technologies related to our products and processes. In addition, as of September 28, 2024, we have 12 patent applications pending in the United States and 19 international patent applications pending. Our patent applications may not be approved. Any patents granted now or in the future may offer only limited protection against potential infringement and development by our competitors of competing products. Moreover, our competitors, many of which have substantial resources and have made substantial investments in competing technologies, may seek to apply for and obtain patents that will prevent, limit or interfere with our ability to make, use or sell our products either in the United States or in international markets. Patents have a limited lifetime and once a patent expires competition may increase.

In addition to patents, we rely on trade secrets and proprietary know-how which we seek to protect, in part, through proprietary information agreements with employees, consultants and other parties. Our proprietary information agreements with our employees and consultants contain industry standard provisions requiring such individuals to assign to us, without additional consideration, any inventions conceived or reduced to practice by them while employed or retained by us, subject to customary exceptions. Proprietary information agreements with employees, consultants and others may be breached, and we may not have adequate remedies for any breach. Also, our trade secrets may become known to or independently developed by competitors.

The laser and medical device industry is characterized by frequent litigation regarding patent and other intellectual property rights. Companies in the medical device industry have employed intellectual property litigation to gain a competitive advantage.

Numerous patents are held by others, including academic institutions and our competitors. Patent applications filed in the United States generally will be published eighteen months after the filing date. However, since patent applications continue to be maintained in secrecy for at least some period of time, both within the United States and internationally, we cannot provide assurance that our technology does not infringe any patents or patent applications held by third parties. We have, from time to time, been notified of, or have otherwise been made aware of, claims that we may be infringing upon patents or other proprietary intellectual property owned by others. If it appears necessary or desirable, we may seek licenses under such patents or proprietary intellectual property. Although patent holders commonly offer such licenses, licenses under such patents or intellectual property may not be offered or the terms of any offered licenses may not be reasonable.

Any claims, with or without merit, and regardless of whether we are successful on the merits, would be time-consuming, result in costly litigation and diversion of technical and management personnel, cause shipment delays or require us to develop non-infringing technology or to enter into royalty or licensing agreements. An adverse determination in a judicial or administrative proceeding and failure to obtain necessary licenses or develop alternate technologies could prevent us from manufacturing and selling our products, which would have a material adverse effect on our business, results of operations and financial condition.

If we fail to accurately forecast demand for our product and component requirements for the manufacture of our product, we could incur additional costs or experience manufacturing delays and may experience lost sales or significant inventory carrying costs.

We use quarterly and annual forecasts based primarily on our anticipated product orders to plan our manufacturing efforts and determine our requirements for components and materials. It is very important that we accurately predict both the demand for our product and the lead times required to obtain or manufacture the necessary components, materials, and fully assembled products. Lead times for components and fully assembled products vary significantly and depend on numerous factors, including the specific supplier, the size of the order, contract terms and current market demand for such products. If we overestimate the demand for our product, we may have excess inventory, which would increase our costs. If we underestimate demand for our product and consequently, our components, materials and fully assembled product requirements, we may have inadequate inventory, which could interrupt our

manufacturing, delay delivery of our product to our customers and result in the loss of customer sales. Any of these occurrences would negatively impact our business and operating results.

We depend on sole source or limited source suppliers.

We rely on third parties to manufacture substantially all of the components used in our products, including optics, laser diodes and crystals. We have some long term or volume purchase agreements with our suppliers and currently purchase components and fully-assembled products on a purchase order basis. Some of our suppliers and manufacturers are sole or limited source suppliers. In addition, some of these suppliers are relatively small private companies whose operations may be disrupted or discontinued at any time. There are risks associated with the use of independent manufacturers, including the following:

- the impact of macroeconomic conditions, including any future global pandemic and inflationary pressures on global supply chains and market stability;
- unavailability of shortages or limitations on the ability to obtain supplies of components and products in the quantities that we require, or that satisfy the environmental requirements to which we are subject;
- delays in delivery or failure of suppliers to deliver critical components and products on the dates we require;
- failure of suppliers to manufacture and assemble components and products to our specifications, and potentially reduced quality; and
- inability to obtain components and products in a timely manner or at acceptable prices due to global supply chain constraints or other factors.

Our business and operating results may suffer from the lack of alternative sources of supply for critical sole and limited source components and fully-assembled products. The process of qualifying suppliers is complex, requires extensive testing with our products, and may be lengthy, particularly as new products are introduced. New suppliers would have to be educated in our production processes. In addition, the use of alternate components may require design alterations to our products and additional product testing under FDA and relevant foreign regulatory agency guidelines, which may delay sales and increase product costs. Any failures by our vendors to adequately supply limited and sole source components or products may impair our ability to offer our existing products, delay the submission of new products for regulatory approval and market introduction, materially harm our business and financial condition and cause our stock price to decline. Establishing our own capabilities to manufacture these components or products would be expensive and could significantly decrease our profit margins. Our business, results of operations and financial condition would be adversely affected if we are unable to continue to obtain components or fully-assembled products in the quantity and quality desired and at the prices we have budgeted.

If our facilities were to experience catastrophic loss, our operations would be seriously harmed.

Our facilities could be subject to catastrophic loss such as fire, flood, unpredictable power outages, or earthquake. All of our research and development activities, manufacturing, our corporate headquarters and other critical business operations are located near major earthquake faults in Mountain View, California. California can experience earthquakes, catastrophic wildfires, and intermittent power outages. Any such loss at any of our facilities caused by fires, flooding, power outages, or earthquakes could disrupt our operations, delay production, shipments and revenue and result in large expenses to repair and replace our facilities.

If we experience a significant disruption in our information technology systems or breaches of data security, our business could be adversely affected.

We rely on information technology systems to keep financial records and corporate records, communicate with staff and external parties and operate other critical functions, including sales and manufacturing processes. Our information technology systems and those of our third-party service providers are potentially vulnerable to disruption, breakdown, damage, service interruption, system malfunction, power outage, natural disaster, malicious intrusion, ransomware, denial-of-service attacks, phishing attacks, social engineering, computer viruses, security breaches and other cyber-attacks. For example, companies have experienced an increase in phishing and spoofing attacks from third parties in connection with working remotely, either permanently or temporarily. If we were to experience a prolonged system disruption in our information technology systems, it could negatively impact the coordination of our sales, planning and manufacturing activities, which could adversely affect our business. In addition, to maximize our information technology efficiency, we have physically consolidated our primary corporate data and computer operations. This concentration, however, exposes us to a greater risk of disruption to our internal information technology systems. Although we maintain offsite back-ups of our data, if operations at our facilities were disrupted, it may cause a material disruption in our business if we are not capable of restoring function on an acceptable time frame.

In addition, our information technology systems and those of our third-party service providers are potentially vulnerable to cyber-attacks or other data security breaches-whether by employees or others-which may expose sensitive data to unauthorized persons. Such data security breaches could lead to the loss of trade secrets or other intellectual property, or could lead to the public exposure of sensitive and confidential information of our employees, customers, suppliers and others, any of which could have a material adverse effect on our business, financial condition and results of operations.

While we have implemented a number of protective measures, including firewalls, antivirus and malware detection tools, patches, log monitors, routine back-ups, system audits, routine password modifications and disaster recovery procedures, we have experienced and may in the future experience spoofing attacks. In addition, our measures to secure our information technology systems may not be adequate or implemented properly to prevent or fully address the adverse effect of such events, and in some cases we may be unaware of an incident or its magnitude and effects. If we are unable to, or perceived or reported to have been or be unable to, prevent such security breaches or privacy violations or implement satisfactory remedial measures, our operations could be disrupted, and we may be exposed to claims, demands, and litigation or governmental investigations and other proceedings and suffer loss of reputation, financial loss and other regulatory penalties because of lost or misappropriated information. In addition, these breaches and other inappropriate access can be difficult to detect, and any delay in identifying them may lead to increased harm of the type described above.

Furthermore, we may not have adequate insurance coverage to protect us from, or adequately mitigate, liabilities or damages resulting from cyber-attacks or security breaches. The successful assertion of one or more large claims against us that exceeds our available insurance coverage, or results in changes to our insurance policies (including premium increases or the imposition of large deductible or co-insurance requirements), could have an adverse effect on our business. In addition, we cannot be sure that our existing insurance coverage will continue to be available on acceptable terms or that our insurers will not deny coverage as to any future claim.

If we fail to maintain our relationships with health-care providers, customers may not buy our products and our revenue and profitability may decline. At the same time, relationships with these individuals and entities are the subject of heightened scrutiny and may present the potential for healthcare compliance risks.

We market our products to numerous health-care providers, including physicians, hospitals, ambulatory surgical centers, government affiliated groups and group purchasing organizations. We have developed and strive to maintain close relationships with members of each of these groups who assist in product research and development and advise us on how to satisfy the full range of surgeon and patient needs. We rely on these groups to recommend our products to their patients and to other members of their organizations. The failure of our existing products and any new products we may introduce to retain the support of these various groups could have a material adverse effect on our business, financial condition and results of operations. In addition, our interactions, communications, and financial relationships with these individuals and entities present potential healthcare compliance risks.

We are subject to government regulations which may cause us to delay or withdraw the introduction of new products or new applications for our products.

The medical devices that we market and manufacture are subject to extensive regulation by the FDA and by foreign and state governments. Under the FD&C Act and the related regulations, the FDA regulates the design, development, clinical testing, manufacture, labeling, sale, distribution and promotion of medical devices. Before a new device can be introduced into the market, the product must be shown to meet regulatory requirements established by the FD&C Act and implemented by the FDA. Unless otherwise exempt, a device manufacturer must obtain marketing "clearance" through the 510(k) premarket notification process, or "approval" through the lengthier pre-market approval application ("PMA") process or other processes such as the "de novo" process. Not all devices are eligible for the 510(k) clearance process. Depending upon the type, complexity and novelty of the device and the nature of the disease or disorder to be treated, the PMA process can take several years, require extensive clinical testing and result in significant expenditures. Even if regulatory clearance or approval is obtained, later discovery of previously unknown safety issues may result in restrictions on the product, including withdrawal of the product from the market. Other countries also have extensive regulations regarding clinical trials and testing prior to new product introductions. Our failure to obtain government approvals or any delays in receipt of such approvals would have a material adverse effect on our business, results of operations and financial condition.

The FDA imposes a broad range of additional requirements on medical device companies. Our products must be produced in compliance with the Quality System Regulation ("QSR") and our manufacturing facilities are subject to establishment registration and device listing requirements from the FDA, and similar requirements from certain state authorities, and ongoing periodic inspections by the FDA, including unannounced inspections for compliance with applicable requirements. We are subject to monitoring, recordkeeping, and reporting obligations for medical device adverse events and malfunctions; notification of our products' defects or failure to comply with the FDA's laser regulations; and reporting of recalls, corrections, or removals of our products. The FDA also imposes requirements for the labeling of our products, and places limitations on claims we are permitted to make about our products in promotional labeling. The Federal Trade Commission has jurisdiction over the advertising of all of our products, which are non-restricted devices, and exercises oversight in coordination with the FDA.

Noncompliance with the applicable requirements can result in, among other things, regulatory citations (including "483 Observations") and warning letters, fines, injunctions, civil penalties, recall or seizure of products, total or partial suspension of production, withdrawal of marketing approvals, and criminal prosecution. The FDA also has the authority to request repair, replacement or refund of the cost of any device we manufacture or distribute. Any of these actions by the FDA would materially and adversely affect our ability to continue operating our business and the results of our operations. Such enforcement action can also result in negative publicity.

In addition, we are also subject to varying product standards, packaging requirements, labeling requirements, tariff regulations, duties and tax requirements. As a result of our sales in Europe, we are required to have all medical device products "CE" marked, an international symbol, affixed to all our medical device products demonstrating compliance with the European Medical Device Directives and/or Medical Device Regulations ("MDR") and all applicable standards. While currently all our released medical device products are CE marked, continued certification is based on the successful review of our quality system by our European Registrar during their periodic audits. Any loss of certification would have a material adverse effect on our business, results of operations and financial condition. There are several major regulatory changes occurring in the regulation of medical devices in the European Union (the "EU"). The revision of the quality system regulation (ISO 13485:2016) has been released that substantially increased the requirements for a medical device quality system. The MDR has replaced the medical device directives (93/42/EEC), and it substantially changes the way that medical devices are brought to market in the EU and how they maintain compliance throughout the product's life cycle. Due to the UK's exit from EU ("Brexit"), different rules will apply in Great Britain (England, Wales and Scotland), Northern Ireland and the EU after the Brexit transition period, which began January 1, 2021. Similarly, Switzerland has changed its relationship with the EU and in May 2022, will require medical device manufacturers, including us, to contract with a Swiss authorized representative. Additionally, the new revision 4 of the clinical evaluation report guidance document (MEDDEV 2.7.1) and the Medical Device Coordination Group (MDCG) guidance regarding clinical evidence (MDCG 2020-6) severely restricts the use of substantial equivalence for new products, resulting in the need for formal clinical trial data for many products. These and future changes will increase the cost for compliance and for product development, and they lengthen product introduction cycles. Failure to comply with these changes and any future changes can have an adverse effect on our ability to release new products in a timely manner.

Any clinical trials necessary that we may undertake for regulatory approval or marketing reasons will be an expensive, lengthy, costly, and uncertain process, and could result in delays in new product introductions or even an inability to release a product.

We may be required to undertake clinical trials often required to obtain regulatory approvals or may choose to undertake such trials for marketing or other reasons. Clinical trials for products such as ours are complex and expensive and their outcomes are uncertain. Any clinical trials that we may undertake would require the investment of significant financial and administrative resources. Moreover, the results of clinical trials are uncertain, and inconclusive or negative results may not support, or may impair, the sale and adoption of our products. We may suffer significant setbacks in clinical trials, even after earlier clinical trials showed promising results. Any of our products could produce undesirable side effects that could cause us or regulatory authorities to interrupt, delay or halt clinical trials of a product candidate. We, the FDA, or another regulatory authority could suspend or terminate clinical trials at any time if we or they believed the trial participants faced unacceptable health risks.

If we fail to comply with the FDA's quality system regulation and laser performance standards, our manufacturing operations could be halted, and our business would suffer.

We are currently required to demonstrate and maintain compliance with the FDA's QSR. The QSR is a complex regulatory scheme that covers the methods and documentation of the design, testing, control, manufacturing, labeling, quality assurance, packaging, storage and shipping of our products. Because our products involve the use of lasers, our products also are covered by a performance standard for lasers set forth in FDA regulations. The laser performance standard imposes specific recordkeeping, reporting, product testing and product labeling requirements. These requirements include affixing warning labels to laser products, as well as incorporating certain safety features in the design of laser products. The FDA enforces the QSR and laser performance standards through periodic unannounced inspections. We have been, and anticipate in the future being, subject to such inspections. Our failure to take satisfactory corrective action in response to an adverse QSR inspection or our failure to comply with applicable laser performance standards could result in enforcement actions, including a public warning letter, a shutdown of our manufacturing operations, a recall of our products, civil or criminal penalties, or other sanctions, which would cause our sales and business to suffer.

If we modify one of our FDA cleared devices, we may need to submit a new 510(k), or potentially a PMA, and if clearance or approval is not obtained, it would prevent us from selling our modified products or cause us to redesign our products.

Any modifications to an FDA-cleared device that would significantly affect its safety or effectiveness or that would constitute a major change in its intended use would require a new 510(k) clearance or possibly a PMA. We may not be able to obtain additional 510(k) clearances or premarket approvals for new products or for modifications to, or additional indications for, our existing products in a timely fashion, or at all. Delays in obtaining future clearances would adversely affect our ability to introduce new or enhanced products in a timely manner, which in turn would harm our revenues and future profitability. We have made modifications to our devices in the past and may make additional modifications in the future that we believe do not or will not require additional clearances or approvals. If the FDA disagrees, and requires new clearances or approvals for the modifications, we may be required to recall and to stop marketing the modified devices, which could harm our operating results and require us to redesign our products.

Efforts to acquire additional companies or product lines may divert our managerial resources away from our business operations, and if we complete additional acquisitions, we may incur or assume additional liabilities or experience integration problems.

As part of our growth strategy, we seek to acquire businesses or product lines for various reasons, including adding new products, adding new customers, increasing penetration with existing customers, adding new manufacturing capabilities or expanding into new geographic markets. Our ability to successfully grow through acquisitions depends upon our ability to identify, negotiate, complete and integrate suitable acquisitions and to obtain any necessary financings. These efforts could divert the attention of our management and key personnel from our business operations. If we complete future acquisitions, we may also experience:

- difficulties integrating any acquired products into our existing business;
- difficulties in integrating an acquired company's technologies, services, employees and other service providers, customers, partners, business operations and administrative and software management systems with ours;
- delays in realizing the benefits of the acquired products;
- diversion of our management's time and attention from other business concerns;
- adverse customer reaction to the product acquisition; and
- increases in expenses.

Moreover, we cannot assure you that the anticipated benefits of any acquisition or investment would be realized or that we would not be exposed to unknown liabilities. In connection with these types of transactions, we may issue additional equity securities that would dilute the ownership interest of existing investors or earnings per share, use cash that we may need in the future to operate our business, incur debt on terms unfavorable to us or that we are unable to repay, incur large charges or substantial liabilities, encounter difficulties integrating diverse business cultures and become subject to adverse tax consequences, substantial depreciation or deferred compensation charges. These challenges related to acquisitions or investments could adversely affect our business, operating results and financial condition.

Our products may be misused, which could harm our reputation and our business.

We market and sell our products for use by highly skilled physicians with specialized training and experience in the treatment of eye-related disorders. We, and our distributors, generally offer but do not require purchasers or operators of our products to attend training sessions, nor do we supervise the procedures performed with our products. The physicians who operate our products are responsible for their use and the treatment regime for each individual patient. In addition, non-physicians, particularly in countries outside of the United States, or poorly trained or inexperienced physicians, may make use of our products. Our efforts to market our MicroPulse systems as a fovea-friendly alternative to traditional continuous wavelength systems or alternative treatment methods may result in users failing to implement adequate safety precautions and thereby increase the risks associated with the misuse of our products. The lack of training and the purchase and use of our products by non-physicians or poorly trained or inexperienced physicians may result in product misuse and adverse treatment outcomes, which could harm our reputation and expose us to costly product liability litigation, or otherwise cause our business to suffer.

Inability of customers to obtain credit or material increases in interest rates may harm our sales.

Some of our products are sold to health-care providers in general practice. Many of these health care providers purchase our products with funds they secure through various financing arrangements with third-party financial institutions, including credit facilities and short-term loans. If availability of credit becomes more limited, or interest rates increase, these financing arrangements may be harder to obtain or become more expensive for our customers, which may decrease demand for our products. Any reduction in the sales of our products would cause our business to suffer.

Our products could be subject to recalls even after receiving FDA approval or clearance. A recall would harm our reputation and adversely affect our operating results.

The FDA and similar governmental authorities in other countries in which we market and sell our products have the authority to require the recall of our products in the event of material deficiencies or defects in the design or manufacture of our products, or in other cases we may determine that we will recall a product because we have determined that the product is violative, in order to avoid further enforcement action and protect the public health.

A government mandated recall, or a voluntary recall by us, could occur as a result of actual or potential component failures, adverse event reports, manufacturing errors or design defects, including defects in labeling. Furthermore, we may from time to time initiate a recall of a component or set of components comprising a portion of our laser systems, which could increase customer returns, warranty claims and associated reserve levels. A recall could divert management's attention, cause us to incur significant expenses, harm our reputation with customers and negatively affect our future sales and financial results.

If product liability claims are successfully asserted against us, we may incur substantial liabilities that may adversely affect our business or results of operations.

We may be subject to product liability claims from time to time. Our products are highly complex and the risk of significant patient injury is more likely with products and procedures involving the eye. Use of our products incorrectly can result in temporary or permanent loss in vision, burns, scarring, blind spots or other injuries of the eye and we may periodically become subject to product liability lawsuits as a result. We believe we maintain adequate levels of product liability insurance to cover such claims subject to certain deductibles. However, product liability insurance is expensive and we might not be able to obtain product liability insurance in the future on acceptable terms or in sufficient amounts to protect us, if at all. A successful claim brought against us in excess of our insurance coverage could have a material adverse effect on our business, results of operations and financial condition.

If we fail to manage growth effectively, our business could be disrupted which could harm our operating results.

We have experienced and may in the future experience growth in our business, both organically and through the acquisition of businesses and products. We have made and expect to continue to make significant investments to enable our future growth through, among other things, new product innovation and clinical trials for new applications and products. We must also be prepared to expand our work force and to train, motivate and manage additional employees as the need for additional personnel arises. Our personnel, systems, procedures and controls may not be adequate to support our future operations. Any failure to effectively manage future growth could have a material adverse effect on our business, results of operations and financial condition.

Significant developments resulting from recent and potential changes in U.S. trade policies could have a material adverse effect on us.

Certain of our materials may be subject to the effects of various trade agreements, treaties and tariffs. The prior U.S. presidential administration has imposed tariffs on various goods from various countries, including China, Canada and the EU. As a result, Canada, the EU, China and other countries responded with retaliatory tariffs on certain United States exports. We cannot predict the effect these and potential additional tariffs will have on our business, including in the context of escalating trade tensions. Further tariffs, additional taxes, or trade barriers, both domestically and internationally, may affect our selling and/or manufacturing costs and margins, the competitiveness of our products, or our ability to sell products or purchase necessary equipment and supplies, and consequently affect our business, results of operations, or financial conditions. To the extent that trade tariffs and other restrictions imposed by the United States increase the price of, or limit the amount of, raw materials and finished goods imported into the United States, the costs of our raw materials may be adversely affected and the demand from our customers for products and services may be diminished, which could adversely affect our revenues and profitability.

In addition, these potential developments and any market perceptions concerning these and related issues and the attendant regulatory uncertainty regarding, for example, the posture of governments with respect to international trade, could have a material adverse effect on global trade and economic growth which, in turn can adversely affect our business. Furthermore, changes in United States trade policy have resulted and could result in additional reactions from United States trading partners and other countries, including adopting responsive trade policies that make it more difficult or costly for us to export our products to those countries. We sell a significant majority of our products into countries outside the United States and we purchase a significant portion of equipment and supplies from suppliers outside the United States. These measures could also result in increased costs for goods imported into the United States or may cause us to adjust our worldwide supply chain. Any of these effects could require us to increase prices to our customers which may reduce demand, or, if we are unable to increase prices, may result in lowering our margin on products sold.

We cannot predict future trade policy or the terms of any renegotiated trade agreements and their impacts on our business. The adoption and expansion of trade restrictions, the occurrence of a trade war, or other governmental action related to tariffs or trade agreements or policies has the potential to adversely impact demand for our products, our costs, our customers, our suppliers, and the United States economy, which in turn could adversely impact our business, financial condition and results of operations.

Changes in U.S. tax laws could have a material adverse effect on our business, consolidated cash flow, results of operations or financial conditions.

The comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the "Tax Act") was enacted in the United States on December 22, 2017 and includes, among other items, a reduction in the federal corporate income tax rate from 35% to 21%, certain interest expense deduction limitations and changes in the timing of certain taxable income. We are required to recognize the effect of the tax law changes in the period of enactment, such as re-measuring our U.S. deferred tax assets and liabilities and reassessing the net realizability of our deferred tax assets and liabilities.

On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 ("SAB 118") which provides guidance on accounting for the tax effects of the Tax Act. We have completed our analysis and accounting with respect the Tax Act, and identified no additional changes from amounts previously recorded. However, changes in law, interpretations, and facts may result in adjustments to these amounts. Based on our net operating loss carryovers and valuation allowance, there is no impact to its consolidated financial statements as a result of the accounting for the tax effects of the Tax Act.

Subsequent legislation, guidance, regulations or audits that differ from our prior assumptions and interpretations, or other factors which were not anticipated at the time we estimated our tax provision could have a material adverse effect on our business, cash flow, results of operations or financial condition.

We are subject to federal, state and foreign laws governing our business practices which, if violated, could result in substantial penalties. Additionally, challenges to or investigation into our practices could cause adverse publicity and be costly to respond to and thus could harm our business.

The Dodd-Frank Wall Street Reform and Consumer Protection Act requires us to track and disclose the source of certain metals used in manufacturing which may stem from minerals (so-called "conflict minerals") which originate in the Democratic Republic of the Congo or adjoining regions. These metals include tantalum, tin, gold and tungsten. These metals are central to the technology industry and are present in some of our products as component parts. In most cases no acceptable alternative material exists which has the necessary properties. It is not possible to determine the source of the metals by analysis but instead a good faith description of the source of the intermediate components and raw materials must be obtained. The components which incorporate those metals may originate from many sources and we purchase fabricated products from manufacturers who may have a long and difficult-to-trace supply chain. As the spot price of these materials varies, producers of the metal intermediates can be expected to change the mix of sources used, and components and assemblies which we buy may have a mix of sources as their origin. We are required to carry out a diligent effort to determine and disclose the source of these materials. There can be no assurance we can obtain this information from intermediate producers not willing or not able to provide this information or further identify their sources of supply or to notify us if these sources change. These metals are subject to price fluctuations and shortages which can affect our ability to obtain the manufactured materials we rely on at favorable terms or from consistent sources. These changes could have an adverse impact on our ability to manufacture and market our devices and products.

If we fail to comply with environmental requirements, our business, financial condition, operating results and reputation could be adversely affected.

Our products and operations are subject to various federal, state, local and foreign environmental laws and regulations, including those governing the use, storage, handling, exposure to, and disposal of hazardous materials and a large and growing body of international standards which govern the design, manufacture, materials content and sourcing, testing, certification, packaging, installation, use and disposal of our products. We must continually keep abreast of these standards and requirements and integrate compliance to these with the development and regulatory documentation for our products. Failure to meet these standards could limit the ability to market our products in those regions which require compliance with such standards or subject us to fines and penalties. Examples of such standards include laws governing the hazardous material content of our devices and products, such as the EU Directive 2015/863 which is known as "RoHS 3" and that relates to Restrictions on the Use of Certain Hazardous Substances and the EU Directive 2012/19/EU on Waste Electrical and Electronic Equipment. Similar laws and regulations have been passed or are pending in several other jurisdictions and may be enacted in other regions, including in the United States, and we are, or may in the future be, subject to these laws and regulations.

Our failure to comply with past, present and future similar laws could result in reduced sales of our devices and products, inventory write-offs, reputational damage, penalties and other sanctions, any of which could harm our business and financial condition. We also expect that our devices and products will be affected by new environmental laws and regulations on an ongoing basis. New environmental laws and regulations will likely result in additional costs and may increase penalties associated with violations or require us to change the content of our devices and products or how they are manufactured, which could have a material adverse effect on our business, operating results and financial condition.

Risks Relating to Ownership of Our Common Stock

Our stock price has been and may continue to be volatile and an investment in our common stock could suffer a decline in value.

The trading price of our common stock has been subject to wide fluctuations in response to a variety of factors, some of which are beyond our control, including changes in foreign currency exchange rates, quarterly variations in our operating results, announcements by us or our competitors of new products or of significant clinical achievements, changes in market valuations of other similar companies in our industry and general market conditions, including deteriorating market conditions due to investor concerns regarding inflation and the Russia-Ukraine and Israel-Hamas conflicts. During the second quarter of fiscal year 2024, the trading price of our common stock fluctuated from a low of $1.97 per share to a high of $3.53 per share. There can be no assurance that our common stock trading price will not suffer declines. Our common stock may experience an imbalance between supply and demand resulting from low trading volumes and therefore broad market fluctuations could have a significant impact on the market price of our common stock regardless of our performance.

Because we do not intend to pay dividends, stockholders will benefit from an investment in our common stock only if it appreciates in value.

We expect to retain any earnings for use to further develop our business, and do not expect to declare cash dividends on our common stock in the foreseeable future. The declaration and payment of any such dividends in the future depends upon our earnings, financial condition, capital needs and other factors deemed relevant by the board of directors, and may be restricted by future agreements with lenders. As a result, the success of an investment in our common stock will depend entirely upon any future appreciation. There is no guarantee that our common stock will appreciate in value or even maintain the price at which stockholders have purchased their shares.

If securities or industry analysts do not continue to publish research or publish incorrect or unfavorable research about our business, our stock price and trading volume could decline.

The trading market for our common stock depends in part on the research and reports that securities or industry analysts publish about us, our market and our competitors. If no or few securities or industry analysts cover our company, the trading price for our stock could be negatively impacted. If one or more of the analysts who covers us downgrades our stock or publishes incorrect or unfavorable research about our business, our stock price could decline. If one or more of these analysts ceases coverage of our company or fails to publish reports on us regularly, demand for our stock could decrease, which could cause our stock price or trading volume to decline.

Ownership of our common stock is concentrated among a few investors, which may affect the ability of a third party to acquire control of us. Substantial sales by such investors could cause our stock price to decline.

Our directors, executive officers, current five percent or greater stockholders and affiliated entities together beneficially own a significant portion of our common stock outstanding. Having such a concentration of ownership may have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from seeking to acquire, a majority of our outstanding common stock or control of our board of directors through a proxy solicitation.

As a public company, we are obligated to develop and maintain proper and effective internal control over financial reporting. We may not complete our analysis of our internal control over financial reporting in a timely manner, or these internal controls may not be determined to be effective, which may adversely affect investor confidence in our company and, as a result, the value of our common stock.

We are required, pursuant to Section 404 of the Sarbanes-Oxley Act, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting. This assessment must include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. We may experience difficulty in meeting these reporting requirements in a timely manner, particularly if material weaknesses or significant deficiencies were to persist. Our independent registered public accounting firm will not be required to formally attest to the effectiveness of our internal control over financial reporting pursuant to Section 404 while we are a "smaller reporting company" as defined in the Exchange Act. If we are unable to comply with the requirements of Section 404 in a timely manner, the market price of our stock could decline and we could be subject to sanctions or investigations by the Nasdaq Stock Market, the SEC or other regulatory authorities, which could require additional financial and management resources.

Any failure to develop or maintain effective controls, or any difficulties encountered in their implementation or improvement, could harm our operating results or cause us to fail to meet our reporting obligations. Any failure to implement and maintain effective internal controls also could adversely affect the results of periodic management evaluations regarding the effectiveness of our internal control over financial reporting. Ineffective disclosure controls and procedures or internal control over financial reporting could also cause investors to lose confidence in our reported financial and other information, which could likely have a negative effect on the trading price of our common stock.

Implementing any appropriate changes to our internal controls may require specific compliance training of our directors, officers and employees, entail substantial costs in order to modify our existing accounting systems, and take a significant period of time to complete. Such changes may not, however, be effective in maintaining the adequacy of our internal controls, and any failure to maintain that adequacy, or consequent inability to produce accurate financial statements on a timely basis, could increase our operating costs and could materially impair our ability to operate our business. In the event that we are not able to demonstrate compliance with Section 404 of the Sarbanes-Oxley Act in a timely manner, that our internal controls are perceived as inadequate or that we are unable to produce timely or accurate financial statements, investors may lose confidence in our company and our stock price could decline.

Our charter documents, anti-takeover provisions of Delaware law, and contractual provisions could delay or prevent an acquisition or sale of our company.

Our certificate of incorporation empowers the board of directors to establish and issue a class of preferred stock, and to determine the rights, preferences and privileges of the preferred stock. These provisions give the board of directors the ability to deter, discourage or make more difficult a change in control of our company, even if such a change in control could be deemed in the interest of our stockholders or if such a change in control would provide our stockholders with a substantial premium for their shares

over the then-prevailing market price for the common stock. Our certificate of incorporation and bylaws contain other provisions that could have an anti-takeover effect, including the following:

- the authorized number of directors may be changed only by resolution of our board of directors;
- only our board of directors is authorized to fill vacant directorships, including newly created seats;
- special meetings of our stockholders may be called only by our board of directors, the chairman of the board, chief executive officer or president, thus prohibiting a stockholder from calling a special meeting;
- stockholders must give advance notice to nominate directors or propose other business; and
- stockholders are not permitted to cumulate votes in the election of directors.

In addition, we are generally subject to the anti-takeover provisions of Section 203 of the Delaware General Corporation Law, which regulates corporate acquisitions. These provisions could discourage potential acquisition proposals and could delay or prevent a change in control transaction. They could also have the effect of discouraging others from making tender offers for our common stock or prevent changes in our management.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Sales of Unregistered Securities

None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

Securities Trading Plans of Directors and Executive Officers.

During the three months ended September 28, 2024, the Company did not adopt or terminate, and no directors or officers, as defined in Rule 16a-1(f), adopted or terminated a “Rule 10b5-1 trading arrangement” or a “non-Rule 10b5-1 trading arrangement,” each as defined in Regulation S-K Item 408.

Item 6. Exhibits

Exhibit No.	Exhibit Title
4.1	Senior Convertible Promissory Note, dated August 7, 2024, by and between the Registrant and Lind Global Asset Management IX LLC.
31.1	Certification of Principal Executive Officer pursuant to Securities Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Principal Financial Officer pursuant to Securities Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File as its XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema With Embedded Linkbase Document.
104	Cover Page formatted as Inline XBRL and contained in Exhibit 101

* The certification furnished in Exhibit 32.1 and 32.2 hereto is deemed to accompany this Quarterly Report on Form 10-Q and will not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended. Such certification will not be deemed to be incorporated by reference into any filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, except to the extent that the registrant specifically incorporates it by reference.

Trademark Acknowledgments

Iridex, the Iridex logo, IRIS Medical, MicroPulse, OcuLight, EndoProbe, MicroPulse P3, G-Probe, G-Probe Illuminate, TruFocus LIO Premiere, IQ 577, IQ532, Cyclo G6, and TxCell are our registered trademarks. All other trademarks or trade names appearing in this Quarterly Report on Form 10-Q are the property of their respective owners.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

IRIDEX Corporation

Date: November 12, 2024

By: /s/ PATRICK MERCER

Name: Patrick Mercer
Title: Chief Executive Officer
(Principal Executive Officer)

Date: November 12, 2024

By: /s/ FUAD AHMAD

Name: Fuad Ahmad
Title: Interim Chief Financial Officer
(Principal Financial Officer)

Exhibit 4.1

THIS NOTE HAS NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS AS EVIDENCED BY A LEGAL OPINION OF COUNSEL TO THE TRANSFEROR TO SUCH EFFECT, THE SUBSTANCE OF WHICH SHALL BE REASONABLY ACCEPTABLE TO THE COMPANY. THIS NOTE AND THE SECURITIES ISSUABLE UPON CONVERSION OF THIS NOTE MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT SECURED BY SUCH SECURITIES.

THIS NOTE HAS BEEN ISSUED WITH "ORIGINAL ISSUE DISCOUNT" (WITHIN THE MEANING OF SECTION 1272 OF THE INTERNAL REVENUE CODE OF 1986, AS AMENDED). UPON WRITTEN REQUEST, ADDRESSED TO IRIDEX CORPORATION AT 1212 TERRA BELLA AVENUE, MOUNTAIN VIEW, CA 94043, THE ISSUER WILL PROMPTLY MAKE AVAILABLE TO ANY HOLDER OF THIS NOTE THE FOLLOWING INFORMATION: (1) THE ISSUE PRICE AND ISSUE DATE OF THE NOTE; (2) THE AMOUNT OF ORIGINAL ISSUE DISCOUNT ON THE NOTE; AND (3) THE YEILD TO MATURITY OF THE NOTE.

IRIDEX CORPORATION

Senior Convertible Promissory Note
due August 7, 2026

Note No. 1 $4,200,000
Dated: August 7, 2024 (the "Issuance Date")

For value received, IRIDEX Corporation, a Delaware corporation (the "Maker" or the "Company"), hereby promises to pay to the order of Lind Global Asset Management IX LLC, a Delaware limited liability company (together with its successors and representatives, the "Holder"), in accordance with the terms hereinafter provided, the principal amount of FOUR MILLION TWO HUNDRED THOUSAND DOLLARS ($4,200,000) (the "Principal Amount").

All payments under or pursuant to this Convertible Promissory Note (this "Note") shall be made in United States Dollars in immediately available funds to the Holder at the address of the Holder set forth in the Purchase Agreement (as hereinafter defined) or at such other place as the Holder may designate from time to time in writing to the Maker or by wire transfer of funds to the Holder's account, instructions for which are attached hereto as Exhibit A. The outstanding principal balance of this Note shall be due and payable on August 7, 2026 (the "Maturity Date")

or at such earlier time as provided herein. All calculations made pursuant to this Note shall be rounded down to three decimal places.

ARTICLE 1

1.1Purchase Agreement. This Note has been executed and delivered pursuant to the Securities Purchase Agreement, dated as of August 4, 2024 (as the same may be amended from time to time, the "Purchase Agreement"), by and between the Maker and the Holder. Capitalized terms used and not otherwise defined herein shall have the meanings set forth for such terms in the Purchase Agreement.

1.2Interest. Other than as set forth in Section 2.2 herein, this Note shall not bear interest.

1.3Principal Installment Payments. Commencing on the date that is one hundred twenty (120) days from the Issuance Date, the Maker shall repay to the Holder the Outstanding Principal Amount hereunder in twenty (20) consecutive monthly installments (each, a "Monthly Payment"), on such date and each one (1) month anniversary thereof (each, a "Payment Date"), an amount equal to Two Hundred Ten Thousand and Zero/100 Dollars ($210,000.00), until the Outstanding Principal Amount has been paid in full prior to or on the Maturity Date or, if earlier, upon acceleration, repayment, conversion or redemption of this Note in accordance with the terms herein. The Monthly Payments shall, at the Maker's option, be made in (i) cash, (ii) Repayment Shares, or (iii) a combination of cash and Repayment Shares; provided that the number of Repayment Shares to be delivered in accordance with clause (ii) or (iii) shall be determined by dividing (X) the portion of the Principal Amount being paid in shares of Common Stock, by (Y) the Repayment Share Price; provided, however, that no portion of the Principal Amount may be paid in Repayment Shares unless such Repayment Shares (A) may be immediately resold pursuant to Rule 144 by Persons other than the Company's Affiliates or holders of Conversion Shares that have been the Company's Affiliates at a time during the immediately preceding three months, without restriction on the number of shares to be sold or manner of sale, or (B) are registered for resale under the 1933 Act and the registration statement is in effect and lawfully usable to effect immediate sales of such Repayment Shares. The Company must provide advance written notice to the Holder of whether it will elect to pay a Monthly Payment in cash, Repayment Shares or a combination thereof as follows: (i) with respect to the first Monthly Payment, at least ten (10) Business Days before the Payment Date, and (ii) with respect to each Monthly Payment thereafter, within three (3) Business Days of the prior Payment Date; provided, however, that if no such notice is provided within the timeframes set forth above, such Monthly Payments shall be made in Repayment Shares. Any Monthly Payment made in cash shall also include an additional payment in cash of four percent (4%) of such Monthly Payment which shall be in addition to any other amounts owing under this Note and shall not be applied towards the Outstanding Principal Amount. Notwithstanding the foregoing, with respect to no more than two of the Monthly Payments , the Holder may elect by delivering written notice to the Maker of its election to increase such Monthly Payment at least two (2) Trading Days prior to the applicable Payment Date for such Monthly Payment to increase the amount of such Monthly Payment to up to eight hundred thousand dollars ($800,000.00); provided that any such increased Monthly Payment shall be made in Repayment Shares. In respect of any particular Monthly Payment elected to be increased by the Holder, the Holder may provide one or more notices to the Maker of its election to increase such

Monthly Payment at least two (2) Trading Days prior to, or at any time following, the applicable Payment Date; provided that such notice shall be provided to the Company before the date that is two (2) Trading Days prior to the next succeeding Payment Date and that the amounts of the increases elected in such notices shall not cause the amount of such Monthly Payment to exceed in the aggregate $800,000.00. Following any such increased Monthly Payment, the amount of such increase shall be deducted from the amount of the last Monthly Payment owing hereunder until such Monthly Payment is reduced to zero and each Monthly Payment immediately preceding such Monthly Payment in reverse chronological order until such preceding Monthly Payment is also reduced to zero. Any Repayment Shares required to be delivered pursuant to this Section 1.3 as a result of notice given by the Holder to increase the Monthly Payment following the applicable Payment Date, will be required to delivered from such notice date in accordance with the time frames set forth in Section 3.2.

1.4Prepayment. The Maker may repay all, but not less than all, of the then Outstanding Principal Amount at a repayment price equal to the Prepayment Amount on any date following the Prepayment Right Date; provided that the Maker shall have given no less than ten (10) day's written notice to the Holder of such intended prepayment (the "Prepayment Notice"). If the Maker elects to prepay this Note pursuant to this Section 1.4, the Holder shall have the right to deliver a written notice to the Company (a "Prepayment Conversion Notice") within five (5) Business Days of the Holder's receipt of a Prepayment Notice, of the Holder's election to convert up to one third (1/3) of the Outstanding Principal Amount (the "Maximum Amount") in accordance with the provisions of Article 3. Such Prepayment Conversion Notice shall specify the portion of the Outstanding Principal Amount (up to the Maximum Amount) that the Holder is electing to convert pursuant to this Section 1.4. Upon delivery of a Prepayment Notice, the Maker irrevocably and unconditionally agrees to, within five (5) Business Days of receiving a Prepayment Conversion Notice, and if no Prepayment Conversion Notice is received, within ten (10) Business Days of delivery of a Prepayment Notice: (i) repay the Outstanding Principal Amount in cash at a repayment price equal to (X) the Prepayment Amount (as defined in the Purchase Agreement), minus (Y) the Outstanding Principal Amount to be converted pursuant to the Prepayment Conversion Notice and (ii) issue a number of Conversion Shares, if any, equal to (A) the Outstanding Principal Amount to be converted pursuant to such Prepayment Conversion Notice *divided by* (B) the lesser of (I) the Repayment Share Price or (II) the Conversion Price (each as defined below), in accordance with Article 3, as applicable. The foregoing notwithstanding, the Maker may not deliver a Prepayment Notice with respect to any Outstanding Principal Amount that is subject to a Conversion Notice delivered by the Holder in accordance with Article 3 prior to the date the Company delivers the Prepayment Notice.

1.5Delisting from a Trading Market. If at any time the Common Stock ceases to be listed on a Trading Market (a "Delisting Event"), (i) the Holder may deliver a demand for payment to the Company and, if such a demand is delivered, the Company shall, within ten (10) Business Days following receipt of the demand for payment from the Holder, pay all of the Outstanding Principal Amount or (ii) the Holder may, at its election, at any time following the Issuance Date, upon notice to the Company in accordance with Section 5.1, convert all or a portion of the Outstanding Principal Amount at a conversion price equal to the lower of (A) the then-current Conversion Price and (B) the greater of (x) the Floor Price and (y) eighty percent (80%) of the average of the three (3) lowest daily VWAPs during the twenty (20) Trading Days prior to delivery by the Holder of its notice of conversion pursuant to this Section 1.5. The Company and the Holder

each acknowledge that they intend to engage each other to discuss this provision upon the occurrence of a Delisting Event.

1.6Payment on Non-Business Days. Whenever any payment to be made shall be due on a day which is not a Business Day, such payment may be due on the next succeeding Business Day.

1.7Transfer. This Note may be transferred or sold, subject to the provisions of Section 5.8 of this Note; *provided* that such transfer or sale shall not be to a Person reasonably deemed to be a Competitor of the Company without the Company's consent.

1.8Replacement. Upon receipt of a duly executed and notarized written statement from the Holder with respect to the loss, theft or destruction of this Note (or any replacement hereof), or, in the case of a mutilation of this Note, upon surrender and cancellation of such Note, the Maker shall issue a new Note, of like tenor and amount, in lieu of such lost, stolen, destroyed or mutilated Note.

1.9Use of Proceeds. The Maker shall use the proceeds of this Note as set forth in the Purchase Agreement.

1.10Floor Price. Notwithstanding anything to the contrary contained in this Note or the other Transaction Documents, in no event shall any shares of Common Stock be issued pursuant to this Agreement or the other Transaction Documents, upon conversion of this Note or otherwise, at a price per share lower than the Floor Price.

ARTICLE 2

2.1Events of Default. An "Event of Default" under this Note shall mean the occurrence of any of the events described below:

(a)any default in the payment of the Principal Amount or any accrued and unpaid interest hereunder when due (whether on the Maturity Date or by acceleration) and such default continues for a period of two (2) Business Days;

(b)the Maker shall fail to observe or perform any other covenant, condition or agreement contained in this Note or any Transaction Document, other than those described in Sections 2.1(c), (d), (f), (i), (m), or (n) and such failure continues for a period of ten (10) Business Days;

(c)the Maker's notice to the Holder, including by way of public announcement, at any time, of its inability to comply or its intention not to comply with proper requests for conversion of this Note into Common Stock;

(d)the Maker shall fail to (i) timely deliver Investor Shares as and when required or (ii) make the payment of any fees and/or liquidated damages under this Note, the Purchase Agreement or the other Transaction Documents and such payment failure continues for five (5) Business Days;

(e)[Reserved];

(f)at any time the Maker shall fail to have the Required Minimum of shares of Common Stock authorized, reserved and available for issuance to satisfy the potential conversion in full of this Note (disregarding for this purpose any and all limitations of any kind on such conversion contained in the Transaction Documents other than the Floor Price);

(g)any representation or warranty made by the Maker or any of its Subsidiaries herein or in the Purchase Agreement, this Note or any other Transaction Document shall prove to have been false or incorrect or breached in a material respect as of the date on which it was made;

(h)[Reserved];

(i)the Maker or any of its Significant Subsidiaries shall (A) default in any payment of any amount or amounts of principal of on any Indebtedness (other than the Indebtedness hereunder), the aggregate principal amount of which Indebtedness is in excess of $250,000 or (B) default in the observance or performance of any other agreement or condition relating to any such Indebtedness or contained in any instrument or agreement evidencing, securing or relating thereto, or any other event shall occur or condition exist, the effect of which default or other event or condition is to cause, or to permit the holder or holders or beneficiary or beneficiaries of such Indebtedness to cause with the giving of notice if required, such Indebtedness to become due prior to its stated maturity and, in the case of clauses (A) and (B), such acceleration shall not, after the expiration of any applicable grace period, have been rescinded or annulled or such failure to pay or default shall not have been cured or waived, or such Indebtedness shall not have been paid or discharged, as the case may be, within 10 days;

(j)the Maker or any of its Significant Subsidiaries shall: (i) apply for or consent to the appointment of, or the taking of possession by, a receiver, custodian, trustee or liquidator of itself or of all or a substantial part of its property or assets; (ii) make a general assignment for the benefit of its creditors; (iii) commence a voluntary case under the United States Bankruptcy Code (as now or hereafter in effect) or under the comparable laws of any jurisdiction (foreign or domestic); (iv) file a petition seeking to take advantage of any bankruptcy, insolvency, moratorium, reorganization or other similar law affecting the enforcement of creditors' rights generally; (v) acquiesce in writing to any petition filed against it in an involuntary case under United States Bankruptcy Code (as now or hereafter in effect) or under the comparable laws of any jurisdiction (foreign or domestic); (vi) issue a notice of bankruptcy or winding down of its operations or issue a press release regarding same; or (vii) take any action under the laws of any jurisdiction (foreign or domestic) analogous to any of the foregoing;

(k)a proceeding or case shall be commenced in respect of the Maker or any of its Significant Subsidiaries, without its application or consent, in any court of competent jurisdiction, seeking: (i) the liquidation, reorganization, moratorium, dissolution, winding up, or composition or readjustment of its debts; (ii) the appointment of a trustee, receiver, custodian, liquidator or the like of it or of all or any substantial part of its assets in connection with the liquidation or dissolution of the Maker or any of its Significant Subsidiaries; or (iii) similar

relief in respect of it under any law providing for the relief of debtors, and such proceeding or case described in clause (i), (ii) or (iii) shall continue undismissed, or unstayed and in effect, for a period of forty-five (45) days or any order for relief shall be entered in an involuntary case under United States Bankruptcy Code (as now or hereafter in effect) or under the comparable laws of any jurisdiction (foreign or domestic) against the Maker or any of its Significant Subsidiaries or action under the laws of any jurisdiction (foreign or domestic) analogous to any of the foregoing shall be taken with respect to the Maker or any of its Subsidiaries and shall continue undismissed, or unstayed and in effect for a period of forty-five (45) days;

(l) one or more final judgments or orders for the payment of money aggregating in excess of $250,000 (or its equivalent in the relevant currency of payment) are rendered against one or more of the Company and its Significant Subsidiaries;

(m) the failure of the Maker to instruct the Transfer Agent to remove any legends from shares of Common Stock and issue such unlegended certificates to the Holder within as required pursuant to the terms of this Note;

(n) the Maker's Common Stock is no longer publicly traded or ceases to be listed on the Trading Market or, after the six month anniversary of the Issuance Date, any Investor Shares may not be immediately resold under Rule 144 without restriction on the number of shares to be sold or manner of sale, unless such Investor Shares have been registered for resale under the 1933 Act and may be sold without restriction;

(o) the Maker proposes to or does consummate a "going private" transaction as a result of which the Common Stock will no longer be registered under Sections 12(b) or 12(g) of the 1934 Act;

(p) there shall be any SEC or judicial stop trade order or trading suspension stop-order or any restriction in place with the Transfer Agent restricting the trading of such Common Stock and such order, suspension or restriction shall continue for two (2) Trading days;

(q) the Depository Trust Company places any restrictions on transactions in the Common Stock or the Common Stock are no longer tradeable through the Depository Trust Company Fast Automated Securities Transfer program;

(r) the Company's Market Capitalization is below $20,000,000.00 for ten (10) consecutive days; or

(s) the Maker challenges the enforceability of any provision of this Note or any Transaction Document days.

2.2 Remedies Upon an Event of Default.

(a) Upon the occurrence of any Event of Default , the Maker shall be obligated to pay to the Holder the Mandatory Default Amount, which Mandatory Default Amount shall be earned by the Holder on the date the Event of Default giving rise thereto occurs and shall be due and payable on the earlier to occur of the Maturity Date, upon conversion, redemption or

prepayment of this Note or the date on which all amounts owing hereunder have been accelerated in accordance with the terms hereof.

(b)Upon the occurrence of any Event of Default, the Maker shall, as promptly as possible but in any event within two (2) Business Days of the Company's knowledge of such Event of Default, notify the Holder of the occurrence of such Event of Default, describing the event or factual situation giving rise to the Event of Default and specifying the relevant subsection or subsections of Section 2.1 hereof under which such Event of Default has occurred.

(c)Upon the occurrence and during the continuance of an Event of Default, the Holder may at any time at its option (1) declare the Mandatory Default Amount due and payable, and thereupon, the same shall be accelerated and so due and payable, without presentment, demand, protest or notice, all of which are hereby expressly unconditionally and irrevocably waived by the Maker and (2) exercise all other rights and remedies available to it under the Transaction Documents; provided, however, that (x) upon the occurrence of an Event of Default described above or an event which with the passage of time may result in an Event of Default, the Holder, in its sole and absolute discretion (without the obligation to provide notice of such Event of Default or potential Event of Default), may: (a) from time-to-time demand that all or a portion of the Outstanding Principal Amount be converted into shares of Common Stock at the lower of (i) the then-current Conversion Price and (ii) the greater of (A) the Floor Price and (B) eighty-percent (80%) of the average of the three (3) lowest daily VWAPs during the twenty (20) Trading Days prior to the delivery by the Holder of the applicable notice of conversion or (b) exercise or otherwise enforce any one or more of the Holder's rights, powers, privileges, remedies and interests under this Note, the Purchase Agreement, the other Transaction Documents or applicable law and (y) upon the occurrence of an Event of Default described in Section 2.1(j) and (k) above, the Mandatory Default Amount shall become immediately due and payable without presentment, demand, protest or other notice of any kind, all of which are hereby waived by the Maker. Notwithstanding the foregoing and provided no other Event of Default has occurred or occurs the Company upon the occurrence of an Event of Default under Section 2.1(r) shall not be required to make a cash payment in respect of the Mandatory Default Amount for a period of one hundred twenty (120) days from the occurrence of such Event of Default; provided, however, that the Holder shall be entitled to exercise such other rights, powers, privileges, remedies and interests as are available to it under this Note, the Purchase Agreement, the other Transaction Documents or applicable law.

(d)No course of delay on the part of the Holder shall operate as a waiver thereof or otherwise prejudice the rights of the Holder.

(e)No remedy conferred hereby shall be exclusive of any other remedy referred to herein or now or hereafter available at law, in equity, by statute or otherwise.

ARTICLE 3

3.1Conversion.

(a)Conversion. At any time following the Issuance Date, this Note shall be convertible (in whole or in part), at the option of the Holder, into such number of fully paid and

non-assessable shares of Common Stock as is determined by dividing (x) that portion of the Outstanding Principal Amount that the Holder elects to convert (the "Conversion Amount") by (y) the Conversion Price then in effect on the date on which the Holder delivers a notice of conversion, in substantially the form attached hereto as Exhibit B (the "Conversion Notice"), in accordance with the instructions set forth in Section 5.1 to the Maker. The Holder shall deliver this Note to the Maker at the address designated in the Purchase Agreement at such time that this Note is fully converted. With respect to partial conversions of this Note, the Maker shall keep written records of the amount of this Note converted as of the date of such conversion (each, a "Conversion Date"). Any amounts of the Outstanding Principal Amount converted pursuant to this Section 3.1(a) shall be credited to the next scheduled Monthly Payment, or if any amount of the Outstanding Principal Amount converted hereunder exceeds the next scheduled Monthly Payment, the next succeeding scheduled Monthly Payment(s) shall be credited, as applicable.

(b)Conversion Price. The "Conversion Price" means, $2.44, and shall be subject to adjustment as provided herein, subject to the Floor Price.

3.2Delivery of Conversion Shares. As soon as practicable after the occurrence of any event requiring the issuance of Conversion Shares, and in any event within four (4) Trading Days for the first conversion hereunder and within two (2) Trading Days for any conversion thereafter (such date, the "Share Delivery Date"), the Maker shall, at its expense, cause to be issued in the name of and delivered to the Holder, or as the Holder may direct, a certificate or certificates evidencing the number of fully paid and nonassessable Common Stock to which the Holder shall be entitled, in such denominations as may be requested by the Holder, which certificate or certificates shall be free of restrictive and trading legends, except for any such legends as may be required under the Securities Act. In lieu of delivering physical certificates for the shares of Common Stock issuable upon the occurrence of any event requiring the issuance of Conversion Shares in accordance with this Note, provided the Transfer Agent is participating in the Depository Trust Company ("DTC") Fast Automated Securities Transfer program or a similar program, upon request of the Holder, the Company shall cause the Transfer Agent to electronically transmit such Conversion Shares so issuable to the Holder (or its designee), by crediting the account of the Holder's (or such designee's) broker with DTC through its Deposit and Withdrawal At Custodian ("DWAC") system (provided that the same time periods herein as for stock certificates shall apply) as instructed by the Holder (or its designee); provided, that such issuance shall only be made through DTC's DWAC system if such Conversion Shares will be issued free of restrictive legends.

3.3Ownership Cap. Notwithstanding anything to the contrary contained herein, the Holder shall not be entitled to receive shares representing Equity Interests upon conversion of this Note or as otherwise required pursuant to the terms of the Transaction Documents to the extent (but only to the extent) that such conversion or receipt, as applicable, would cause the Holder Group (as defined below) to become, directly or indirectly, a "beneficial owner" (within the meaning of Section 13(d) of the 1934 Act and the rules and regulations promulgated thereunder) of a number of Equity Interests of a class that is registered under the 1934 Act which exceeds the Maximum Percentage (as defined in the Purchase Agreement) of the Equity Interests of such class that are outstanding at such time. Any purported delivery of Equity Interests in connection with the conversion of this Note or as otherwise required pursuant to the terms of the Transaction Documents prior to the termination of this restriction in accordance herewith shall be void and

have no effect to the extent (but only to the extent) that such delivery would result in the Holder Group becoming the beneficial owner of more than the Maximum Percentage of the Equity Interests of a class that is registered under the 1934 Act that is outstanding at such time. If any delivery of Equity Interests owed to the Holder following conversion of this Note or as otherwise required pursuant to the terms of the Transaction Documents is not made, in whole or in part, as a result of this limitation, the Company's obligation to make such delivery shall not be extinguished and the Company shall deliver such Equity Interests as promptly as practicable after the Holder gives notice to the Company that such delivery would not result in such limitation being triggered or upon termination of the restriction in accordance with the terms hereof. To the extent limitations contained in this Section 3.3 apply, the determination of whether this Note is convertible and of which portion of this Note is convertible or whether Investor Shares are otherwise issuable shall be the sole responsibility and in the sole determination of the Holder, and the submission of a notice of conversion or other required issuance of Investor Shares shall be deemed to constitute the Holder's determination that the issuance of the full number of Conversion Shares or other Investor Shares requested in such notice is permitted hereunder, and the Company shall not have any obligation to verify or confirm the accuracy of such determination. For purposes of this Section 3.3, (i) the term "Maximum Percentage" shall mean 4.99%; provided, that if at any time after the date hereof the Holder Group beneficially owns in excess of 4.99% of any class of Equity Interests in the Company that is registered under the 1934 Act or exempt from the registration and qualification requirements under the 1933 Act, then the Maximum Percentage shall automatically increase to 9.99% so long as the Holder Group owns in excess of 4.99% of such class of Equity Interests (and shall, for the avoidance of doubt, automatically decrease to 4.99% upon the Holder Group ceasing to own in excess of 4.99% of such class of Equity Interests); and (ii) the term "Holder Group" shall mean the Holder plus any other Person with which the Holder is considered to be part of a group under Section 13 of the 1934 Act or with which the Holder otherwise files reports under Sections 13 and/or 16 of the 1934 Act. In determining the number of Equity Interests of a particular class outstanding at any point in time, the Holder may rely on the number of outstanding Equity Interests of such class as reflected in (x) the Company's most recent Annual Report on Form 10-K filed with the Securities and Exchange Commission, as the case may be, (y) a more recent public announcement by the Company or (z) a more recent notice by the Company or the Transfer Agent to the Holder setting forth the number of Equity Interests of such class then outstanding. For any reason at any time, upon written or oral request of the Holder, the Company shall, within two (2) Business Days of such request, confirm orally and in writing to the Holder the number of Equity Interests of any class then outstanding as of the date of such request. The provisions of this Section 3.3 shall be construed, corrected and implemented in a manner so as to effectuate the intended beneficial ownership limitation herein contained. Notwithstanding anything to the contrary contained in this Note or the other Transaction Documents, the Holder and the Company agree that nothing in the Transaction Documents shall require the Company to issue any Common Stock to Lender to the extent such issuance would result in the aggregate number of Investor Shares issued by the Company pursuant to the Transaction Documents (including any Incentive Shares) to exceed the Conversion Cap.

3.4Adjustment of Conversion Price.

(a) To the extent there is any Outstanding Principal Amount under the Note, the Conversion Price shall be subject to adjustment from time to time as follows (but shall not be increased, other than pursuant to Section 3.4(a)(i) hereof):

(i) Adjustments for Stock Splits and Combinations. If the Maker shall at any time or from time to time after the Issuance Date effect a split or other subdivision of the outstanding Common Stock, the applicable Conversion Price and Floor Price in effect immediately prior to the stock split shall be proportionately decreased. If the Maker shall at any time or from time to time after the Issuance Date, combine the outstanding Common Stock, the applicable Conversion Price and Floor Price in effect immediately prior to the combination shall be proportionately increased. Any adjustments under this Section 3.4(a)(i) shall be effective at the close of business on the date the stock split or combination occurs.

(ii)Adjustments for Certain Dividends and Distributions. If the Maker shall at any time or from time to time after the Issuance Date make or issue or set a record date for the determination of holders of Common Stock entitled to receive a dividend or other distribution payable in Common Stock, then, and in each event, the applicable Conversion Price in effect immediately prior to such event shall be decreased as of the Ex-Dividend Date for such dividend or distribution, by multiplying the applicable Conversion Price then in effect by a fraction:

(1) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date; and

(2) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution.

(iii)Adjustment for Other Dividends and Distributions. If the Maker shall at any time or from time to time after the Issuance Date make or issue or set a record date for the determination of holders of Common Stock entitled to receive a dividend or other distribution payable in other than Common Stock, then, and in each event, an appropriate revision to the applicable Conversion Price shall be made and provision shall be made (by adjustments of the Conversion Price or otherwise), in each case, on the Ex-Dividend Date for such dividend or distribution, so that the Holder of this Note shall receive upon conversions thereof, in addition to the number of shares of Common Stock receivable thereon, the number of securities of the Maker or other issuer (as applicable) or cash or the fair market value of such other property (as reasonably determined by the Board of Directors) that it would have received had this Note been converted into shares of Common Stock in full (without regard to any conversion limitations herein) on the date of such event and had thereafter, during the period from the date of such event to and including the Conversion Date, retained such securities (together with any distributions payable thereon during such period) or assets, giving application to all adjustments called for during such period under this Section 3.4(a)(iii) with respect to the rights of the holders of this Note.

(iv)Adjustments for Reclassification, Exchange or Substitution. If the shares of Common Stock at any time or from time to time after the Issuance Date shall be changed to the same or different number of shares or other securities of any class or classes of stock or other property, whether by reclassification, exchange, substitution or otherwise (other than by way of a stock split or combination of shares or stock dividends provided for in Sections 3.4(a)(i), (ii) and (iii) hereof, or a reorganization, merger, consolidation, or sale of assets provided for in Section

3.4(a)(vii) hereof), then, and in each event, a corresponding revision to the Conversion Price shall be made and provisions shall be made (by adjustments of the Conversion Price or otherwise) so that the Holder shall have the right thereafter to convert this Note into the kind and amount of shares of stock or other securities or other property receivable upon reclassification, exchange, substitution or other change, by holders of the number of shares of Common Stock into which such Note might have been converted at the effective time of such reclassification, exchange, substitution or other change, all subject to further adjustment as provided herein.

(v)Adjustments for Issuance of Additional Shares of Common Stock. In the event the Maker shall at any time or from time to time after the Issuance Date issue or sell any additional Common Stock ("Additional Common Stock"), other than (A) as provided in this Note (including the foregoing subsections (i) through (iv) of this Section 3.4(a)), pursuant to any Equity Plan (including pursuant to Common Stock Equivalents granted or issued under any Equity Plan), (B) pursuant to Common Stock Equivalents (as defined below) granted or issued prior to the Issuance Date, (C) Exempted Securities, or (D) pursuant to the terms of this Note, in any case, at an effective price per share that is less than the Conversion Price then in effect or without consideration, then the Conversion Price upon each such issuance shall be reduced to a price equal to the consideration per share paid for such Additional Common Stock. For purposes of clarification, the amount of consideration received for such Additional Common Stock shall not include the value of any additional securities or other rights received in connection with such issuance of Additional Common Stock (i.e., warrants, rights of first refusal or other similar rights).

(vi)Issuance, Amendment or Adjustment of Common Stock Equivalents. Except for Exempted Securities, if (x) the Maker, at any time after the Issuance Date, shall issue any Convertible Securities or Common Stock Equivalents and the price per share for which Common Stock may be issuable pursuant to any such Common Stock Equivalent shall be less than the Conversion Price then in effect, or (y) the price per share for which Common Stock may be issuable under any Common Stock Equivalents is amended or adjusted, pursuant to the terms of such Common Stock Equivalents or otherwise, and such price as so amended or adjusted shall be less than the Conversion Price in effect at the time of such amendment or adjustment, then, in each such case (x) or (y), the applicable Conversion Price upon each such issuance or amendment or adjustment shall be adjusted as provided in subsection (v) of this Section 3.4(a) as if the maximum number of shares of Common Stock issuable upon conversion, exercise or exchange of such Common Stock Equivalents had been issued on the date of such issuance or amendment or adjustment.

(vii)Consideration for Stock. In case any Common Stock or any Common Stock Equivalents shall be issued or sold:

(1) in connection with any merger or consolidation in which the Maker is the surviving corporation (other than any consolidation or merger in which the previously outstanding Common Stock of the Maker shall be changed to or exchanged for the stock or other securities of another corporation), the amount of consideration therefor shall be deemed to be the fair value, as determined reasonably and in good faith by the Board of Directors of the Maker and approved by the Holder, of such portion of the assets and business of the nonsurviving corporation as such Board of Directors may determine to be attributable to such shares of Common Stock, Convertible Securities, rights or warrants or options, as the case may be; or

(2) in the event of any consolidation or merger of the Maker in which the Maker is not the surviving corporation or in which the previously outstanding Common Stock of the Maker shall be changed into or exchanged for the stock or other securities of another corporation or other property, or in the event of any sale of all or substantially all of the assets of the Maker for stock or other securities or other property of any corporation, the Maker shall be deemed to have issued shares of Common Stock, at a price per share equal to the valuation of the Maker's Common Stock based on the actual exchange ratio on which the transaction was predicated, as applicable, and the fair market value on the date of such transaction of all such stock or securities or other property of the other corporation as determined in good faith by the Board of Directors of the Maker. If any such calculation results in adjustment of the Conversion Price, or the number of shares of Common Stock issuable upon conversion of the Note, the determination of the Conversion Price or the number of shares of Common Stock issuable upon conversion of the Note immediately prior to such merger, consolidation or sale, shall be made after giving effect to such adjustment of the number of shares of Common Stock issuable upon conversion of the Note.

(viii)Record Date. In case the Maker shall take record of the holders of its Common Stock for the purpose of entitling them to subscribe for or purchase shares of Common Stock or Convertible Securities, then the date of the issue or sale of the shares of Common Stock shall be deemed to be such record date.

(b) No Impairment. The Maker shall not, by amendment of its Articles of Incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Maker, but will at all times in good faith assist in the carrying out of all the provisions of this Section 3.4 and in the taking of all such action as may be necessary or appropriate in order to protect the conversion rights of the Holder against impairment. In the event the Holder shall elect to convert this Note as provided herein, the Maker cannot refuse conversion based on any claim that the Holder or anyone associated or affiliated with the Holder has been engaged in any violation of law, violation of an agreement to which the Holder is a party or for any reason whatsoever, unless, an injunction from a court, or notice, restraining and or adjoining conversion of this Note shall have issued and the Maker posts a surety bond for the benefit of the Holder in an amount equal to one hundred fifty percent (150%) of the Principal Amount of the Note the Holder has elected to convert, which bond shall remain in effect until the completion of arbitration/litigation of the dispute and the proceeds of which shall be payable to the Holder (as liquidated damages) in the event it obtains judgment.

(c) Certificates as to Adjustments. Upon occurrence of each adjustment or readjustment of the Conversion Price or number of shares of Common Stock issuable upon conversion of this Note pursuant to this Section 3.4, the Maker at its expense shall promptly compute such adjustment or readjustment in accordance with the terms hereof and furnish to the Holder a certificate setting forth such adjustment and readjustment, showing in detail the facts upon which such adjustment or readjustment is based. The Maker shall, upon written request of the Holder, at any time, furnish or cause to be furnished to the Holder a like certificate setting forth such adjustments and readjustments, the applicable Conversion Price in effect at the time, and the number of shares of Common Stock and the amount, if any, of other securities or property which at the time would be received upon the conversion of this Note. Notwithstanding the foregoing,

the Maker shall not be obligated to deliver a certificate unless such certificate would reflect an increase or decrease of at least one percent (1%) of such adjusted amount.

(d) Issue Taxes. The Maker shall pay any and all issue and transfer or other similar taxes, excluding for the avoidance of doubt any federal, state or local income taxes, that may be payable in respect of any issue or delivery of shares of Common Stock on conversion of this Note; provided, however, that the Maker shall not be obligated to pay any transfer taxes resulting from any transfer requested by the Holder in connection with any such conversion.

(e) Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of this Note. In lieu of any fractional shares to which the Holder would otherwise be entitled, the Maker shall pay cash equal to such fractional shares multiplied by the Conversion Price then in effect.

(f) Reservation of Shares of Common Stock. The Maker shall at all times while this Note shall be outstanding, reserve and keep available out of its authorized but unissued Common Stock, the Required Minimum of shares of Common Stock as shall from time to time be sufficient to effect the conversion of this Note (disregarding for this purpose any and all limitations of any kind on such conversion contained in the Transaction Documents other than the Floor Price). The Maker shall, from time to time, use all commercially reasonable efforts to increase the authorized number of shares of Common Stock or take other effective action if at any time the unissued number of authorized shares shall not be sufficient to satisfy the Maker's obligations under this Section 3.4(f).

(g) Regulatory Compliance. If any shares of Common Stock to be reserved for the purpose of conversion of this Note require registration or listing with or approval of any governmental authority, stock exchange or other regulatory body under any United States federal state or regulatory law before such shares may be validly issued or delivered upon conversion, the Maker shall, at its sole cost and expense, in good faith and as expeditiously as possible, use commercially reasonable efforts to secure such registration, listing or approval, as the case may be.

(h) Effect of Events Prior to the Issuance Date. If the Issuance Date of this Note is after the Closing Date, then, if the Conversion Price or any other right of the Holder of this Note would have been adjusted or modified by operation of any provision of this Note had this Note been issued on the Closing Date, such adjustment or modification shall be deemed to apply to this Note as of the Issuance Date as if this Note had been issued on the Closing Date.

3.5Prepayment Following a Change of Control.

(a) Mechanics of Prepayment at Option of Holder in Connection with a Change of Control. Promptly following entry into an agreement for a Change of Control, the Maker shall deliver written notice ("Notice of Change of Control") to the Holder. At any time after receipt of a Notice of Change of Control (or, upon the Holder's becoming aware of the occurrence of Change of Control), the Holder may require the Maker to prepay, effective immediately prior to the consummation of such Change of Control, an amount equal to the Outstanding Principal Amount plus five percent (5%) of the Outstanding Principal Amount (the "COC Repayment Price"), by

delivering written notice thereof ("Notice of Prepayment at Option of Holder Upon Change of Control") to the Maker.

(b) Payment of COC Repayment Price. Upon the Maker's receipt of a Notice(s) of Prepayment at Option of Holder Upon Change of Control from the Holder, the Maker shall deliver the COC Repayment Price to the Holder immediately prior to the consummation of the Change of Control; provided that the Holder's original Note shall have been so delivered to the Maker.

3.6Inability to Fully Convert.

(a) Holder's Option if Maker Cannot Fully Convert. If, upon the Maker's receipt of a Conversion Notice or as otherwise required under this Note, including with respect to repayment of principal in Common Stock as permitted under this Note, the Maker cannot issue Common Stock for any reason, including, without limitation, because the Maker (x) does not have a sufficient number of shares of Common Stock authorized and available or (y) is otherwise prohibited by applicable law or by the rules or regulations of any stock exchange, interdealer quotation system or other self-regulatory organization with jurisdiction over the Maker or any of its securities from issuing all of the shares of Common Stock which are to be issued to the Holder pursuant to this Note, then the Maker shall issue as many shares of Common Stock as it is able to issue and, with respect to the unconverted portion of this Note or with respect to any shares of Common Stock not timely issued in accordance with this Note, the Holder, solely at Holder's option, can elect to:

(i) require the Maker to prepay that portion of this Note for which the Maker is unable to issue Common Stock or for which shares of Common Stock were not timely issued (the "Mandatory Prepayment") at a price equal to the number of shares of Common Stock that the Maker is unable to issue multiplied by the VWAP on the date of the Conversion Notice (the "Mandatory Prepayment Price");

(ii)void its Conversion Notice and retain or have returned, as the case may be, this Note that was to be converted pursuant to the Conversion Notice (provided that the Holder's voiding its Conversion Notice shall not affect the Maker's obligations to make any payments which have accrued prior to the date of such notice); or

(iii)defer issuance of the applicable Conversion Shares until such time as the Maker can legally issue such shares; provided, that the Principal Amount underlying such Conversion Shares shall remain outstanding until the delivery of such Conversion Shares; provided, further, that if the Holder elects to defer the issuance of the Conversion Shares, it may exercise its rights under either clause (i) or (ii) above at any time prior to the issuance of the Conversion Shares upon two (2) Business Days' notice to the Maker.

(b) Mechanics of Fulfilling Holder's Election. The Maker shall immediately send to the Holder, upon receipt of a Conversion Notice from the Holder, which cannot be fully satisfied as described in Section 3.6(a) above, a notice of the Maker's inability to fully satisfy the Conversion Notice (the "Inability to Fully Convert Notice"). Such Inability to Fully Convert Notice shall indicate (i) the reason why the Maker is unable to fully satisfy the Holder's Conversion

Notice; and (ii) the amount of this Note which cannot be converted. The Holder shall notify the Maker of its election pursuant to Section 3.6(a) above by delivering written notice to the Maker ("Notice in Response to Inability to Convert").

(c) Payment of Mandatory Prepayment Price. If the Holder shall elect to have its Note prepaid pursuant to Section 3.6(a)(i) above, the Maker shall pay the Mandatory Prepayment Price to the Holder within five (5) Business Days of the Maker's receipt of the Holder's Notice in Response to Inability to Convert; provided that prior to the Maker's receipt of the Holder's Notice in Response to Inability to Convert the Maker has not delivered a notice to the Holder stating, to the satisfaction of the Holder, that the event or condition resulting in the Mandatory Prepayment has been cured and all Conversion Shares issuable to the Holder can and will be delivered to the Holder in accordance with the terms of this Note. If the Maker shall fail to pay the applicable Mandatory Prepayment Price to the Holder on the date that is one (1) Business Day following the Maker's receipt of the Holder's Notice in Response to Inability to Convert, in addition to any remedy the Holder may have under this Note and the Purchase Agreement, such unpaid amount shall bear interest at the rate of two percent (2%) per month (prorated for partial months) until paid in full. Until the full Mandatory Prepayment Price is paid in full to the Holder, the Holder may (i) void the Mandatory Prepayment with respect to that portion of the Note for which the full Mandatory Prepayment Price has not been paid and (ii) receive back such Note.

(d) No Rights as Stockholder. Nothing contained in this Note shall be construed as conferring upon the Holder, prior to the conversion of this Note, the right to vote or to receive dividends or to consent or to receive notice as a stockholder in respect of any meeting of stockholders for the election of directors of the Maker or of any other matter, or any other rights as a stockholder of the Maker.

3.7Compensation for Buy-In on Failure to Timely Deliver Conversion Shares. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder Conversion Shares or any other shares pursuant to a conversion on or before the Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Conversion Shares which the Holder anticipated receiving upon such conversion (a "Buy-In"), then the Company shall (a) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Conversion Shares that the Company was required to deliver to the Holder in connection with the conversion at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (b) at the option of the Holder, either reinstate the portion of the Note and equivalent number of Conversion Shares for which such conversion was not honored (in which case such conversion shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its conversion and delivery obligations hereunder. For example, if the Holder purchases shares of Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted conversion of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (a) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts

payable to the Holder in respect of the Buy-In and evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon conversion of the Note as required pursuant to the terms hereof.

3.8Nasdaq Ownership Limitation. Notwithstanding anything to the contrary contained herein, prior to the receipt of Stockholder Approval, the Holder shall not be entitled to receive shares representing Equity Interests upon conversion of this Note or as otherwise required pursuant to the terms of the Transaction Documents to the extent (but only to the extent) that such conversion or receipt, as applicable, would cause the Holder Group to become, directly or indirectly, a "beneficial owner" (within the meaning of Section 13(d) of the 1934 Act and the rules and regulations promulgated thereunder) of a number of Equity Interests of a class that is registered under the 1934 Act which exceeds the Conversion Cap.

ARTICLE 4

4.1Covenants. For so long as this Note is outstanding, without the prior written consent of the Holder:

(a) Compliance with Transaction Documents. The Maker shall, and shall cause its Subsidiaries to, comply with its obligations under this Note and the other Transaction Documents.

(b) Payment of Taxes, Etc. The Maker shall, and shall cause each of its Subsidiaries to, promptly pay and discharge, or cause to be paid and discharged, when due and payable, all lawful taxes, assessments and governmental charges or levies imposed upon the income, profits, property or business of the Maker and the Subsidiaries, except for such failures to pay that, individually or in the aggregate, have not had and would not reasonably be expected to have a Material Adverse Effect; provided, however, that any such tax, assessment, charge or levy need not be paid if the validity thereof shall currently be contested in good faith by appropriate proceedings and if the Maker or such Subsidiaries shall have set aside on its books reserves with respect thereto in accordance with generally accepted accounting principles, and provided, further, that the Maker and such Subsidiaries will pay all such taxes, assessments, charges or levies forthwith upon the commencement of proceedings to foreclose any lien which may have attached as security therefor.

(c) Corporate Existence. The Maker shall, and shall cause each of its Subsidiaries to, maintain in full force and effect its corporate existence, rights and franchises (other than the existence, rights and franchises of the Subsidiaries of the Maker that the board of directors of the Maker determine are no longer necessary or useful to the operation of the Maker's business) and all licenses and other rights to use property owned or possessed by it and reasonably deemed to be necessary to the conduct of its business.

(d) Investment Company Act. The Maker shall conduct its businesses in a manner so that it will not become subject to, or required to be registered under, the Investment Company Act of 1940, as amended.

(e) Prohibited Transactions. The Company hereby covenants and agrees not to enter into any Prohibited Transaction until thirty (30) days after such time as this Note has been converted into Conversion Shares or repaid in full.

(f) Issuance of Debt. Notwithstanding any other provisions set forth in the Transaction Documents, except for Exempted Securities, without the prior written consent of the Holder, the Company hereby covenants and agrees not to incur any Indebtedness (other than Permitted Indebtedness) while this Note remains unpaid in full.

(g) Repayment of This Note. If the Company or any Subsidiary issues any debt for borrowed money, including any subordinated debt or convertible debt (other than the Note or any other "Note" as defined in this Purchase Agreement), other than Exempted Securities and/or Permitted Indebtedness, in one or more transactions, unless otherwise waived in writing by and at the discretion of the Holder, the Company will immediately utilize the proceeds of such issuance to repay the Notes, or if the Company or any Subsidiary (i) issues any Equity Interests other than Exempted Securities, or (ii) sells any assets or asset in one more or more transactions, for aggregate proceeds in excess of ten million dollars ($10,000,000), unless otherwise waived in writing by and at the discretion of the Holder, the Company will direct twenty percent (20%) of the proceeds from such issuance or sale to repay amounts due and owing under the Notes.

4.2Set-Off. This Note shall be subject to the set-off provisions set forth in the Purchase Agreement.

ARTICLE 5

5.1Notices. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be in writing and shall be deemed given and effective on the earliest of (a) the date of transmission, if such notice or communication is delivered via email at the email address specified in this Section prior to 5:00 p.m. (New York time) on a Business Day, (b) the next Business Day after the date of transmission, if such notice or communication is delivered via email at the email address specified in this Section on a day that is not a Business Day or later than 5:00 p.m. (New York time) on any date and earlier than 11:59 p.m. (New York time) on such date, (c) the Business Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (d) upon actual receipt by the party to whom such notice is required to be given. The addresses for such notices and communications shall be as set forth in the Purchase Agreement.

5.2Governing Law. This Agreement shall be governed by and construed in accordance with the Laws of the State of Delaware, without reference to principles of conflict of laws or choice of laws.

5.3Headings. The headings herein are for convenience only, do not constitute a part of this Note and shall not be deemed to limit or affect any of the provisions hereof. The language used in this Note will be deemed to be the language chosen by the parties to express their mutual intent, and no rules of strict construction will be applied against any party. This Note shall be construed as if drafted jointly by the parties, and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any provisions of this Note.

5.4Remedies, Characterizations, Other Obligations, Breaches and Injunctive Relief. The remedies provided in this Note shall be cumulative and in addition to all other remedies available under this Note, at law or in equity (including, without limitation, a decree of specific performance and/or other injunctive relief), no remedy contained herein shall be deemed a waiver of compliance with the provisions giving rise to such remedy and nothing herein shall limit the Holder's right to pursue actual damages for any failure by the Maker to comply with the terms of this Note. Amounts set forth or provided for herein with respect to payments, conversion and the like (and the computation thereof) shall be the amounts to be received by the holder thereof and shall not, except as expressly provided herein, be subject to any other obligation of the Maker (or the performance thereof). The Maker acknowledges that a breach by it of its obligations hereunder will cause irreparable and material harm to the Holder and that the remedy at law for any such breach would be inadequate. Therefore, the Maker agrees that, in the event of any such breach or threatened breach, the Holder shall be entitled, in addition to all other available rights and remedies, at law or in equity, to equitable relief, including but not limited to an injunction restraining any such breach or threatened breach, without the necessity of showing economic loss and without any bond or other security being required.

5.5Enforcement Expenses. The Maker agrees to pay all costs and expenses of enforcement of the Notes, including, without limitation, attorneys' fees and expenses.

5.6Binding Effect. The obligations of the Maker and the Holder set forth herein shall be binding upon the successors and assigns of each such party, whether or not such successors or assigns are permitted by the terms herein.

5.7Amendments; Waivers. No provision of this Note may be waived or amended except in a written instrument signed by the Company and the Holder. No waiver of any default with respect to any provision, condition or requirement of this Note shall be deemed to be a continuing waiver in the future or a waiver of any subsequent default or a waiver of any other provision, condition or requirement hereof, nor shall any delay or omission of either party to exercise any right hereunder in any manner impair the exercise of any such right.

5.8Compliance with Securities Laws. The Holder of this Note acknowledges that this Note is being acquired solely for the Holder's own account and not as a nominee for any other party, and for investment, and that the Holder shall not offer, sell or otherwise dispose of this Note in violation of securities laws. This Note and any Note issued in substitution or replacement therefor shall be stamped or imprinted with a legend in substantially the following form:

> "THIS NOTE HAS NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE

REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS AS EVIDENCED BY A LEGAL OPINION OF COUNSEL TO THE TRANSFEROR TO SUCH EFFECT, THE SUBSTANCE OF WHICH SHALL BE REASONABLY ACCEPTABLE TO THE COMPANY."

5.9Jurisdiction; Venue. Any action, proceeding or claim arising out of, or relating in any way to this Note shall be brought and enforced in the New York Supreme Court, County of New York, or in the United States District Court for the Southern District of New York. The Company and the Holder irrevocably submit to the jurisdiction of such court, which jurisdiction shall be exclusive, and hereby waive any objection to such exclusive jurisdiction or that such court represents an inconvenient forum. The prevailing party in any such action shall be entitled to recover its reasonable and documented attorneys' fees and out-of-pocket expenses relating to such action or proceeding.

5.10Parties in Interest. This Note shall be binding upon, inure to the benefit of and be enforceable by the Maker, the Holder and their respective successors and permitted assigns.

5.11Failure or Indulgence Not Waiver. No failure or delay on the part of the Holder in the exercise of any power, right or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such power, right or privilege preclude other or further exercise thereof or of any other right, power or privilege.

5.12Maker Waivers. Except as otherwise specifically provided herein, the Maker and all others that may become liable for all or any part of the obligations evidenced by this Note, hereby waive presentment, demand, notice of nonpayment, protest and all other demands and notices in connection with the delivery, acceptance, performance and enforcement of this Note, and do hereby consent to any number of renewals of extensions of the time or payment hereof and agree that any such renewals or extensions may be made without notice to any such persons and without affecting their liability herein and do further consent to the release of any person liable hereon, all without affecting the liability of the other persons, firms or Maker liable for the payment of this Note, AND DO HEREBY WAIVE TRIAL BY JURY.

(a)No delay or omission on the part of the Holder in exercising its rights under this Note, or course of conduct relating hereto, shall operate as a waiver of such rights or any other right of the Holder, nor shall any waiver by the Holder of any such right or rights on any one occasion be deemed a waiver of the same right or rights on any future occasion.

(b)THE MAKER ACKNOWLEDGES THAT THE TRANSACTION OF WHICH THIS NOTE IS A PART IS A COMMERCIAL TRANSACTION, AND TO THE EXTENT ALLOWED BY APPLICABLE LAW, HEREBY WAIVES ITS RIGHT TO NOTICE AND HEARING WITH RESPECT TO ANY PREJUDGMENT REMEDY WHICH THE HOLDER OR ITS SUCCESSORS OR ASSIGNS MAY DESIRE TO USE.

[Signature Pages Follow]

IN WITNESS WHEREOF, the Maker has caused this Note to be duly executed by its duly authorized officer as of the date first above indicated.

IRIDEX CORPORATION

By: /s/ David I. Bruce
Name: David I. Bruce
Title: Chief Executive Officer

EXHIBIT A
WIRE INSTRUCTIONS

Name of Bank: [***]
Routing #: [***]
For credit to: [***]
Account #: [***]

EXHIBIT B

FORM OF CONVERSION NOTICE

(To be Executed by the registered Holder in order to convert the Note)

The undersigned hereby irrevocably elects to convert $ _____ of the principal amount of the above Note No. ___ into Common Stock of IRIDEX Corporation, a Delaware corporation (the "Maker") according to the conditions hereof, as of the date written below.

Date of Conversion:

Conversion Price:

Number of Shares of Common Stock beneficially owned or deemed beneficially owned by the Holder on the Conversion Date:

[HOLDER]

By: _____
Name:
Title:

Address:

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO SECTIONS 13(a)-14(a) AND 15(d)-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934 AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Patrick Mercer, certify that:s

1. I have reviewed this quarterly report on Form 10-Q of IRIDEX Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a 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 report;
3. Based on my knowledge, the financial statements, and other financial information included in this 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 report;
4. The registrant's other certifying officer(s) 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) and 15d-15(f)) for the registrant and 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 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 report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
    d) Disclosed in this 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; and
5. The registrant's other certifying officer(s) 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 the 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 control over financial reporting.

Date: November 12, 2024

By: /s/ PATRICK MERCER
Name: Patrick Mercer
Title: Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO SECTIONS 13(a)-14(a) AND 15(d)-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934 AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Fuad Ahmad, certify that:

1. I have reviewed this quarterly report on Form 10-Q of IRIDEX Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a 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 report;
3. Based on my knowledge, the financial statements, and other financial information included in this 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 report;
4. The registrant's other certifying officer(s) 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) and 15d-15(f)) for the registrant and 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 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 report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
    d) Disclosed in this 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; and
5. The registrant's other certifying officer(s) 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 the 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 control over financial reporting.

Date: November 12, 2024

By: /s/ FUAD AHMAD
Name: Fuad Ahmad
Title: Interim Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Patrick Mercer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, certify that the Quarterly Report of IRIDEX Corporation on Form 10-Q for the fiscal quarter ended September 28, 2024 (i) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and (ii) that information contained in such Quarterly Report on Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of IRIDEX Corporation.

Date: November 12, 2024

By: /s/ PATRICK MERCER
Name: Patrick Mercer
Title: Chief Executive Officer
(Principal Executive Officer)

Exhibit 32.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Fuad Ahmad, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, certify that the Quarterly Report of IRIDEX Corporation on Form 10-Q for the fiscal quarter ended September 28, 2024 (i) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and (ii) that information contained in such Quarterly Report on Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of IRIDEX Corporation.

Date: November 12, 2024

By: /s/ FUAD AHMAD
Name: Fuad Ahmad
Title: Interim Chief Financial Officer
(Principal Financial Officer)