UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 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 30, 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 000-32929

PERASO INC.
(Exact name of registrant as specified in its charter)

Delaware	**77-0291941**
(State or other jurisdiction of Incorporation or organization)	(I.R.S. Employer Identification Number)

2309 Bering Drive
San Jose, California 95131
(Address of principal executive office and zip code)

(408) 418-7500
(Registrant's telephone number, including area code)

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

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.001 per share	PRSO	The Nasdaq Stock Market, LLC

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 filing requirements for the past 90 days. YES ☒ NO ☐

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See 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 outstanding shares of the registrant's exchangeable shares, no par value, was 87,185 as of November 7, 2024.

The number of outstanding shares of the registrant's common stock, par value $0.001 per share, was 3,429,959 as of November 7, 2024.

PERASO INC.

FORM 10-Q

For the Quarterly Period Ended September 30, 2024

TABLE OF CONTENTS

PART I—FINANCIAL INFORMATION

Item 1. Financial Statements

PERASO INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands, except par value)

	September 30, 2024 (unaudited)	December 31, 2023
ASSETS		
Current assets		
Cash and cash equivalents	$ 1,317	$ 1,583
Accounts receivable, net	791	731
Inventories, net	2,503	2,606
Prepaid expenses and other	635	620
Total current assets	5,246	5,540
Property and equipment, net	643	1,156
Right-of-use lease assets	355	615
Intangible assets, net	830	3,280
Other	121	123
Total assets	$ 7,195	$ 10,714
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 1,705	$ 2,448
Accrued expenses and other	2,399	611
Deferred revenue	555	1,105
Short-term lease liabilities	214	370
Total current liabilities	4,873	4,534
Long-term lease liabilities	197	349
Warrant liabilities	99	1,748
Total liabilities	5,169	6,631
Commitments and contingencies (Note 5)		
Stockholders' equity		
Preferred stock, $0.01 par value; 20,000 shares authorized; none issued and outstanding	—	—
Series A, special voting preferred stock, $0.01 par value; one share authorized; and one share issued and outstanding at September 30, 2024 and December 31, 2023	—	—
Common stock, $0.001 par value; 120,000 shares authorized; 2,856 shares and 673 shares issued and outstanding at September 30, 2024 and December 31, 2023, respectively	3	1
Exchangeable shares, no par value; unlimited shares authorized; 87 shares and 95 shares outstanding at September 30, 2024 and December 31, 2023, respectively	—	—
Additional paid-in capital	177,583	170,474
Accumulated deficit	(175,560)	(166,392)
Total stockholders' equity	2,026	4,083
Total liabilities and stockholders' equity	$ 7,195	$ 10,714

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

PERASO INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(Unaudited)
(In thousands, except per share data)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Net revenue				
Product	$ 3,811	$ 4,262	$ 10,596	$ 11,385
Royalty and other	30	219	299	531
Total net revenue	3,841	4,481	10,895	11,916
Cost of net revenue	2,034	2,445	5,431	7,346
Gross profit	1,807	2,036	5,464	4,570
Operating expenses				
Research and development	2,158	3,484	7,615	11,038
Selling, general and administrative	2,349	2,112	6,592	6,331
Severance and software license obligations	—	—	2,063	—
Gain on license and asset sale	—	—	—	(406)
Total operating expenses	4,507	5,596	16,270	16,963
Loss from operations	(2,700)	(3,560)	(10,806)	(12,393)
Change in fair value of warrant liabilities	4	2,615	1,649	4,239
Other income (expense), net	(16)	322	(11)	297
Net loss	$ (2,712)	$ (623)	$ (9,168)	$ (7,857)
Other comprehensive loss, net of tax:				
Net unrealized gain on available-for-sale-securities	—	4	—	25
Comprehensive loss	$ (2,712)	$ (619)	$ (9,168)	$ (7,832)
Net loss per share				
Basic and diluted	$ (0.98)	$ (0.87)	$ (3.62)	$ (12.43)
Shares used in computing net loss per share				
Basic and diluted	2,780	715	2,530	632

Note: Share and per share amounts for the three and nine months ended September 30, 2023 have been adjusted to reflect the impact of a 1-for-40 reverse stock split effected in January 2024, as discussed in Note 1.

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

PERASO INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(Unaudited)
(In thousands)

	Series A Special Voting Preferred Stock		Common Stock		Exchangeable Shares		Additional Paid-In	Accumulated Other Comprehensive	Accumulated	
	Shares	Amount	Shares	Amount	Shares	Amount	Capital	Loss	Deficit	Total
Balance as of December 31, 2023	—	$ —	673	$ 1	95	$ —	$ 170,474	$ —	$ (166,392)	$ 4,083
Shares issued for reverse stock split	—	—	52	—	—	—	—	—	—	—
Sale of common stock and warrants, net	—	—	563	—	—	—	3,431	—	—	3,431
Issuance of common stock upon exercise of warrants	—	—	1,001	1	—	—	—	—	—	1
Stock-based compensation	—	—	—	—	—	—	1,222	—	—	1,222
Net loss	—	—	—	—	—	—	—	—	(2,031)	(2,031)
Balance as of March 31, 2024	—	—	2,289	2	95	—	175,127	—	(168,423)	6,706
Issuance of common stock upon exercise of warrants	—	—	307	1	—	—	—	—	—	1
Sale of common stock	—	—	100	—	—	—	127	—	—	127
Exchange of exchangeable shares	—	—	8	—	(8)	—	—	—	—	—
Issuance of common stock under stock plan, net	—	—	2	—	—	—	(4)	—	—	(4)
Stock-based compensation	—	—	—	—	—	—	1,155	—	—	1,155
Net loss	—	—	—	—	—	—	—	—	(4,425)	(4,425)
Balance as of June 30, 2024	—	—	2,706	3	87	—	176,405	—	(172,848)	3,560
At-the market sales of stock, net	—	—	110	—	—	—	164	—	—	164
Shares issued for services	—	—	40	—	—	—	54	—	—	54
Stock-based compensation	—	—	—	—	—	—	960	—	—	960
Net loss	—	—	—	—	—	—	—	—	(2,712)	(2,712)
Balance as of September 30, 2024	—	$ —	2,856	$ 3	87	$ —	$ 177,583	$ —	$ (175,560)	$ 2,026

	Series A Special Voting Preferred Stock		Common Stock		Exchangeable Shares		Additional Paid-In	Accumulated Other Comprehensive	Accumulated	
	Shares	Amount	Shares	Amount	Shares	Amount	Capital	Loss	Deficit	Total
Balance as of December 31, 2022	—	$ —	357	$ —	228	$ —	$ 164,879	$ (25)	$ (149,597)	$ 15,257
Exchange of exchangeable shares	—	—	8	—	(8)	—	—	—	—	—
Stock-based compensation	—	—	—	—	—	—	1,307	—	—	1,307
Unrealized gain on available-for-sale securities	—	—	—	—	—	—	—	14	—	14
Net loss	—	—	—	—	—	—	—	—	(3,148)	(3,148)
Balance as of March 31, 2023	—	—	365	—	220	—	166,186	(11)	(152,745)	13,430
Exchange of exchangeable shares	—	—	77	—	(77)	—	(3)	—	—	(3)
Issuance of common stock under stock plan, net	—	—	4	—	—	—	(36)	—	—	(36)
Sale of common stock and warrants	—	—	56	—	—	—	3,546	—	—	3,546
Issuance of common stock upon exercise of warrants	—	—	53	—	—	—	19	—	—	19
Initial recognition of fair value of warrant liability	—	—	—	—	—	—	(3,162)	—	—	(3,162)
Stock-based compensation	—	—	—	—	—	—	1,319	—	—	1,319
Unrealized gain on available-for-sale securities	—	—	—	—	—	—	—	7	—	7
Net loss	—	—	—	—	—	—	—	—	(4,086)	(4,086)
Balance as of June 30, 2023	—	—	555	—	143	—	167,869	(4)	(156,831)	11,034
Exchange of exchangeable shares	—	—	16	—	(16)	—	—	—	—	—
Issuance of common stock under stock plan, net	—	—	—	—	—	—	—	—	—	—
Issuance of common stock upon exercise of warrants	—	—	62	—	—	—	25	—	—	25
Stock-based compensation	—	—	—	—	—	—	1,308	—	—	1,308
Unrealized gain on available-for-sale securities	—	—	—	—	—	—	—	4	—	4
Net loss	—	—	—	—	—	—	—	—	(623)	(623)
Balance as of September 30, 2023	—	$ —	633	$ —	127	$ —	$ 169,202	$ —	$ (157,454)	$ 11,748

Note: Share and per share amounts for the three and nine months ended September 30, 2023 have been adjusted to reflect the impact of a 1-for-40 reverse stock split effected in January 2024, as discussed in Note 1.

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

PERASO INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)
(In thousands)

	Nine Months Ended September 30,	
	2024	2023
Cash flows from operating activities:		
Net loss	$ (9,168)	$ (7,857)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	2,964	2,764
Stock-based compensation	3,337	3,933
Change in fair value of warrant liabilities	(1,649)	(4,239)
Shares issued for services	54	—
Allowance for bad debt	—	(154)
Other	(8)	(14)
Changes in assets and liabilities		
Accounts receivable	(60)	334
Inventories	103	(348)
Prepaid expenses and other assets	(15)	(164)
Deferred cost of net revenue	—	600
Accounts payable	(743)	739
Right-of-use assets	260	500
Lease liabilities - operating	(205)	(335)
Deferred revenue, accrued expenses and other	1,238	(1,386)
Net cash used in operating activities	(3,892)	(5,627)
Cash flows from investing activities:		
Purchases of property and equipment	—	(93)
Proceeds from maturities of marketable securities	—	1,100
Net cash provided by investing activities	—	1,007
Cash flows from financing activities:		
Proceeds from sale of common stock and warrants, net	3,559	3,595
Proceeds from at-the-market sales of stock, net	164	—
Taxes paid to net share settle equity awards	(3)	(36)
Repayment of financing leases	(94)	(78)
Net cash provided by financing activities	3,626	3,481
Net decrease in cash and cash equivalents	(266)	(1,139)
Cash and cash equivalents at beginning of period	1,583	1,828
Cash and cash equivalents at end of period	$ 1,317	$ 689

Supplemental disclosure:				
Noncash investing and financing activities:				
Initial recognition of warrant liability	$	—	$	3,162
Unrealized gain on available-for-sale securities	$	—	$	(25)

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

PERASO INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

Note 1. The Company and Summary of Significant Accounting Policies

Peraso Inc., formerly known as MoSys, Inc. (the Company), was incorporated in California in 1991 and reincorporated in 2000 in Delaware. The Company is a fabless semiconductor company specializing in the development of millimeter wave (mmWave), which is generally described as the frequency band from 24 Gigahertz (GHz) to 300GHz, wireless technology. The Company derives revenue from selling its semiconductor devices and modules and performance of non-recurring engineering services. The Company also manufactures and sells high-performance memory semiconductor devices for a wide range of markets and receives royalties from licensees of its memory technology.

On September 14, 2021, the Company and its subsidiaries, 2864552 Ontario Inc. (Callco) and 2864555 Ontario Inc. (Canco), entered into an Arrangement Agreement (the Arrangement Agreement) with Peraso Technologies Inc. (Peraso Tech), a corporation existing under the laws of the province of Ontario, to acquire all of the issued and outstanding common shares of Peraso Tech (the Peraso Shares), including those Peraso Shares to be issued in connection with the conversion or exchange of secured convertible debentures and common share purchase warrants of Peraso Tech, as applicable, by way of a statutory plan of arrangement (the Arrangement) under the Business Corporations Act (Ontario). On December 17, 2021, following the satisfaction of the closing conditions set forth in the Arrangement Agreement, the Arrangement was completed and , the Company changed its name to "Peraso Inc." and began trading on the Nasdaq Stock Market (the Nasdaq) under the symbol "PRSO."

For accounting purposes, Peraso Tech, the legal subsidiary, was treated as the accounting acquirer and the Company, the legal parent, was treated as the accounting acquiree. The transaction was accounted for as a reverse acquisition in accordance with Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) 805, *Business Combinations*.

The accompanying condensed consolidated financial statements of the Company have been prepared without audit. The condensed consolidated balance sheet as of December 31, 2023 has been derived from the audited consolidated financial statements at that date. Certain information and disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States (GAAP) have been condensed or omitted in accordance with the rules and regulations of the Securities and Exchange Commission (SEC). The information in this report should be read in conjunction with the Company's consolidated financial statements and notes thereto included in its most recent annual report on Form 10-K filed with the SEC.

In the opinion of management, the accompanying unaudited condensed consolidated financial statements reflect all adjustments (consisting only of normal recurring adjustments) necessary to summarize fairly the Company's financial position, results of operations and cash flows for the interim periods presented. The operating results for the three and nine months ended September 30, 2024 are not necessarily indicative of the results that may be expected for the year ending December 31, 2024 or for any other future period.

Liquidity and Going Concern

The Company incurred net losses of approximately $ 9.2 million for the nine months ended September 30, 2024 and $ 16.8 million for the year ended December 31, 2023 and had an accumulated deficit of approximately $175.6 million as of September 30, 2024. These and prior year losses have resulted in significant negative cash flows and have required the Company to raise substantial amounts of additional capital. To date, the Company has primarily financed its operations through multiple offerings of its equity and equity-linked securities and the issuance of convertible notes and loans to investors and affiliates. As disclosed in Note 8, in February 2024, the Company completed a public offering of its common stock and common stock purchase warrants for net proceeds of $3.4 million.

The Company expects to continue to incur operating losses for the foreseeable future as it secures additional customers and continues to invest in the commercialization of its products. The Company will need to increase revenues substantially beyond levels that it has attained in the past in order to generate sustainable operating profit and sufficient cash flows to continue doing business without raising additional capital from time to time. As a result of the Company's expected operating losses and cash burn for the foreseeable future, as well as recurring losses from operations, if the Company is unable to raise sufficient capital through additional debt or equity arrangements, there will be uncertainty regarding the Company's ability to maintain liquidity sufficient to operate its business effectively, which raises substantial doubt as to the Company's ability to continue as a going concern within one year from the date of issuance of these condensed consolidated financial statements. In addition, the Company's independent registered public accounting firm, in its report on the Company's consolidated financial statements for the year ended December 31, 2023, expressed substantial doubt about the Company's ability to continue as a going concern. These condensed consolidated financial statements do not include any adjustments that might result from this uncertainty. There can be no assurance that such additional capital, whether in the form of debt or equity financing, will be sufficient or available and, if available, that such capital will be offered on terms and conditions acceptable to the Company. If the Company is unsuccessful in these efforts, it will need to implement additional cost reduction strategies, which could further affect its near- and long-term business plan. These efforts may include, but are not limited to, reducing headcount and curtailing business activities.

Basis of Presentation

The condensed consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All significant intercompany transactions and balances have been eliminated in consolidation. The Company's fiscal year ends on December 31 of each calendar year. Certain prior year amounts have been reclassified for consistency with the current period presentation. These reclassifications had no effect on the reported results of operations or cash flows.

Reverse Stock Split

On December 15, 2023, the Company filed a certificate of amendment to its amended and restated certificate of incorporation with the Secretary of State of the State of Delaware to effect a 1-for-40 reverse stock split of the Company's shares of common stock. Further, on January 2, 2024, Canco filed a certificate of amendment to its amended and restated certificate of incorporation under the Ontario Business Corporations Act to effect a 1-for-40 reverse stock split of the outstanding exchangeable shares. Such amendments and ratio were previously approved by the Company's stockholders and board of directors.

As a result of the reverse stock split, which was effective for trading purposes on January 3, 2024, every 40 shares of the Company's pre-reverse split outstanding common stock and exchangeable shares were combined and reclassified into one share of common stock. Proportionate voting rights and other rights of holders of common stock and exchangeable shares were not affected by the reverse stock split. Any fractional shares of common stock and exchangeable shares resulting from the reverse stock split were rounded up to the nearest whole share. All stock options and restricted stock units outstanding and common stock reserved for issuance under the Company's equity incentive plans and warrants outstanding immediately prior to the reverse stock split were adjusted by dividing the number of affected shares of common stock by 40 and, as applicable, multiplying the exercise price by 40, as a result of the reverse stock split. All share and per-share amounts in these condensed consolidated financial statements have been restated to reflect the reverse stock split as if it had occurred at the beginning of the earliest period presented.

Risks and Uncertainties

The Company is subject to risks from, among other things, competition associated with the industry in general, other risks associated with financing, liquidity requirements, rapidly changing customer requirements, limited operating history, pandemics, wars and acts of terrorism and the volatility of public markets. The Company may be unable to access the capital markets, and additional capital may only be available to the Company on terms that could be significantly detrimental to its existing stockholders and to its business.

Use of Estimates

The preparation of financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses recognized during the reported period. Material estimates may include assumptions made in determining reserves for uncollectible receivables, inventory write-downs, impairment of long-term assets, valuation allowance on deferred tax assets, accruals for potential liabilities and assumptions made in valuing equity instruments and warrant liabilities. Actual results could differ from those estimates.

Cash Equivalents and Investments

The Company invests its cash in money market accounts, certificates of deposit, corporate debt, government-sponsored enterprise bonds and municipal bonds and considers all highly liquid debt instruments purchased with an original maturity of three months or less to be cash equivalents. Investments with original maturities greater than three months and remaining maturities less than one year are classified as short-term investments. Investments with remaining maturities greater than one year are classified as long-term investments. Management generally determines the appropriate classification of securities at the time of purchase. All securities are classified as available-for-sale. The Company's available-for-sale short-term and long-term investments are carried at fair value, with the unrealized holding gains and losses reported in accumulated other comprehensive income (loss). Realized gains and losses and declines in the value judged to be other-than-temporary are included in the other income, net line item in the condensed consolidated statements of operations. The cost of securities sold is based on the specific identification method.

Fair Value Measurements

The Company measures the fair value of financial instruments using a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels:

Level 1—Inputs used to measure fair value are unadjusted quoted prices that are available in active markets for the identical assets or liabilities as of the reporting date.

Level 2—Pricing is provided by third party sources of market information obtained through the Company's investment advisors, rather than models. The Company does not adjust for, or apply, any additional assumptions or estimates to the pricing information it receives from advisors. The Company's Level 2 securities include cash equivalents and available-for-sale securities, which consisted primarily of certificates of deposit, corporate debt, and government agency and municipal debt securities from issuers with high-quality credit ratings. The Company's investment advisors obtain pricing data from independent sources, such as Standard & Poor's, Bloomberg and Interactive Data Corporation, and rely on comparable pricing of other securities because the Level 2 securities are not actively traded and have fewer observable transactions. The Company considers this the most reliable information available for the valuation of the securities.

Level 3—Unobservable inputs that are supported by little or no market activity and reflect the use of significant management judgment are used to measure fair value. These values are generally determined using pricing models for which the assumptions utilize management's estimates of market participant assumptions. The determination of fair value for Level 3 investments and other financial instruments involves the most management judgment and subjectivity.

The carrying amounts of financial assets and liabilities, such as cash and cash equivalents, accounts receivable, accounts payable, and other payables, approximate their fair values because of the short maturity of these instruments. The carrying values of lease obligations and long-term financing obligations approximate their fair values because interest rates on these obligations are based on prevailing market interest rates. The Company measures the fair value of its warrant liabilities using Level 3 inputs.

Derivatives and Liability-Classified Instruments

The Company accounts for common stock warrants as either equity-classified or liability-classified instruments based on an assessment of the specific terms of the warrants and the guidance provided by the Financial Accounting Standards Board (FASB) in ASC 480*, Distinguishing Liabilities from Equity (ASC 480)* and ASC 815, *Derivatives and Hedging (ASC 815)*. The assessment considers whether the warrants are freestanding financial instruments pursuant to ASC 480, meet the definition of a liability pursuant to ASC 480, and meet all of the requirements for equity classification under ASC 815, including whether the warrants are indexed to the Company's own stock and whether the holders of the warrants could potentially require net cash settlement in a circumstance outside of the Company's control, among other conditions for equity classification. This assessment, which requires the use of professional judgment, is conducted at the time of warrant issuance and as of each subsequent quarterly period end date while the warrants are outstanding.

Allowance for Doubtful Accounts

The Company establishes an allowance for doubtful accounts to ensure that its trade receivables balances are not overstated due to uncollectibility. The Company performs ongoing customer credit evaluations within the context of the industry in which it operates and generally does not require collateral from its customers. A specific allowance of up to 100% of the invoice value is provided for any problematic customer balances. Delinquent account balances are written off after management has determined that the likelihood of collection is remote. The Company grants credit only to customers deemed creditworthy in the judgment of management. The allowance for doubtful accounts receivable was approximately $30,000 as of September 30, 2024 and December 31, 2023.

Inventories

The Company values its inventories at the lower of cost, which approximates actual cost on a first-in, first-out basis, or net realizable value. Costs of inventories primarily consisted of material and third party assembly costs. The Company records write-downs for estimated obsolescence or unmarketable inventories based upon assumptions about future demand and market conditions. If actual market conditions are less favorable than those expected by management, additional adjustments to inventory valuation may be required. Charges for obsolete and slow-moving inventories are recorded based upon an analysis of specific identification of obsolete inventory items and quantification of slow moving inventory items. The Company determined that it had excess and obsolete inventory, primarily related to its mmWave products, and recorded write-downs of inventory of approximately $319,000 and $793,000 during the nine months ended September 30, 2024 and 2023, respectively. If the Company's recognition of excess or obsolete inventory is, or if its estimates of potential utility become, less favorable than currently expected, additional inventory write-downs may be required.

Intangible and Long-lived Assets

Intangible assets are recorded at cost and amortized on a straight-line method over their estimated useful lives of three to ten years. Amortization of developed technology and other intangibles directly related to the Company's products is included in cost of net revenue, while amortization of customer relationships and other intangibles not associated with the Company's products is included in selling, general and administrative expense in the condensed consolidated statements of operations.

The Company regularly reviews the carrying value and estimated lives of its long-lived assets and finite-lived intangible assets to determine whether indicators of impairment may exist which warrant adjustments to carrying values or estimated useful lives. The determinants used for this evaluation include management's estimate of the asset's ability to generate positive income from operations and positive cash flow in future periods as well as the strategic significance of the assets to the Company's business objective. Should an impairment exist, the impairment loss would be measured based on the excess of the carrying amount of the long-lived asset group over the asset's fair value.

Purchased Intangible Assets

Intangible assets acquired in business combinations are accounted for based on the fair value of assets purchased and are amortized over the period in which economic benefit is estimated to be received. Intangible assets subject to amortization, including those acquired in business combinations were as follows (amounts in thousands):

	September 30, 2024		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Developed technology	$ 5,726	$ (5,162)	$ 564
Customer relationships	2,556	(2,305)	251
Other	186	(171)	15
Total	$ 8,468	$ (7,638)	$ 830

	December 31, 2023			
	Gross Carrying Amount	Accumulated Amortization	Other Impairment	Net Carrying Amount
Developed technology	$ 5,726	$ (3,471)	$ —	$ 2,255
Customer relationships	2,556	(1,550)	—	1,006
Other	186	(61)	(106)	19
Total	$ 8,468	$ (5,082)	$ (106)	$ 3,280

Developed technology primarily consists of MoSys' products that had reached technological feasibility and primarily related to its memory semiconductor products and technology. The value of the developed technology was determined by discounting estimated net future cash flows of these products. Amortization related to developed technology of $0.6 million and $1.7 million for each of the three and nine-month periods ended September 30, 2024, respectively, has been included in cost of net revenue in the condensed consolidated statements of operations and comprehensive loss.

Customer relationships relate to the Company's ability to sell existing and future versions of its products to MoSys' customers existing at the time of the arrangement. The fair value of the customer relationships was determined by discounting estimated net future cash flows from the customer relationships. Amortization related to customer relationships of $0.3 million and $0.8 million for each of the three and nine month-periods ended September 30, 2024, respectively, has been included in selling, general and administrative expense in the condensed consolidated statements of operations and comprehensive loss.

Other amortization expense was approximately $2,000 and $5,000 for each of the three and nine-month periods ended September 30, 2024, respectively.

At September 30, 2024, the Company has not identified any intangible asset impairments. However, current macroeconomic conditions, which have been impacted by inflation and other world unrest, could negatively impact the Company's business and stock price and trigger the need to test for impairment. The Company will continue to evaluate for impairment indicators, as necessary, on a quarterly basis.

Revenue Recognition

The Company recognizes revenue in accordance with ASC Topic 606, *Revenue from Contracts with Customers*, and its amendments (ASC 606). As described below, the analysis of contracts under ASC 606 supports the recognition of revenue at a point in time, resulting in revenue recognition timing that is materially consistent with the Company's historical practice of recognizing product revenue when title and risk of loss pass to the customer.

The Company generates revenue primarily from sales of integrated circuits and antenna module products, performance of engineering services and licensing of its intellectual property. Revenues are recognized when control is transferred to customers in amounts that reflect the consideration the Company expects to be entitled to receive in exchange for those goods. Revenue recognition is evaluated through the following five steps: (i) identification of the contract, or contracts, with a customer; (ii) identification of the performance obligations in the contract; (iii) determination of the transaction price; (iv) allocation of the transaction price to the performance obligations in the contract; and (v) recognition of revenue when or as a performance obligation is satisfied.

Product revenue

Revenue is recognized when performance obligations under the terms of a contract with a customer are satisfied. The majority of the Company's contracts have a single performance obligation to transfer products. Accordingly, the Company recognizes revenue when title and risk of loss have been transferred to the customer, generally at the time of shipment of products. Revenue is measured as the amount of consideration the Company expects to receive in exchange for transferring products and is generally based upon a negotiated, formula, list or fixed price. The Company sells its products both directly to customers and through distributors generally under agreements with payment terms typically 60 days or less.

The Company may record an estimated allowance, at the time of shipment, for future returns and other charges against revenue consistent with the terms of sale.

Royalty and other

The Company's licensing contracts typically provide for royalties based on the licensee's use of the Company's memory technology in its currently shipping commercial products. The Company estimates its royalty revenue in the calendar quarter in which the licensee uses the licensed technology. Payments are received in the subsequent quarter. The Company also generates revenue from licensing its technology. The Company recognizes license fees as revenue at the point of time when the control of the license has been transferred and the Company has no continuing performance obligations to the customer.

Engineering services revenue

Engineering and development contracts with customers generally contain a single performance obligation that is delivered over time. Revenue is recognized using an output method that is consistent with the satisfaction of the performance obligation as a measure of progress.

Contract liabilities – deferred revenue

The Company's contract liabilities consist of advance customer payments and deferred revenue. The Company classifies advance customer payments and deferred revenue as current or non-current based on the timing of when the Company expects to recognize revenue. As of September 30, 2024 and December 31, 2023, contract liabilities were in a current position and included in deferred revenue.

During the nine months ended September 30, 2024, the Company recognized approximately $ 799,000 of revenue that had been included in deferred revenue as of December 31, 2023.

See Note 6 for disaggregation of revenue by geography.

The Company does not have significant financing components, as payments from customers are typically due within 60 days of invoicing, and the Company has elected the practical expedient to not value financing components that are less than one year. Shipping and handling costs are generally incurred by the customer, and, therefore, are not recorded as revenue.

Cost of Net Revenue

Cost of net revenue consists primarily of direct and indirect costs of product sales, including amortization of intangible assets and depreciation of production-related fixed assets.

Stock-Based Compensation

The Company periodically issues stock options and restricted stock units to employees and non-employees. The Company accounts for such awards based on ASC 505 and ASC 718, whereby the value of the award is measured on the date of award and recognized as compensation expense on a straight-line basis over the vesting period. The fair value of the Company's stock options is estimated using the Black-Scholes-Merton Option Pricing (Black Scholes) model, which uses certain assumptions related to risk-free interest rates, expected volatility, expected life of the options, and future dividends. Compensation expense is recorded based upon the value derived from the Black-Scholes model. The assumptions used in the Black-Scholes model could materially affect compensation expense recorded in future periods.

Foreign Currency Transactions

The functional currency of the Company is the U.S. dollar. All foreign currency transactions are initially measured and recorded in an entity's functional currency using the exchange rate on the date of the transaction. All monetary assets and liabilities are remeasured at the end of each reporting period using the exchange rate at that date. All non-monetary assets and related expense, depreciation or amortization are not subsequently remeasured and are measured using the historical exchange rate. An average exchange rate may be used to recognize income and expense items earned or incurred evenly over a period. Foreign exchange gains and losses resulting from the settlement of such transactions are recognized in the statement of operations, except for the gains and losses arising from the conversion of the carrying amount of the foreign currency denominated convertible preferred shares into the functional currency that are presented as adjustment to the net loss to arrive at net loss attributable to common stockholders.

Per-Share Amounts

Basic net loss per share is computed by dividing net loss for the period by the weighted-average number of exchangeable shares and shares of common stock outstanding (WASO) during the period. In addition, the Company includes the number of shares of common stock issuable upon exercise of pre-funded warrants as outstanding. Diluted net loss per share gives effect to all potentially dilutive exchangeable and common shares outstanding during the period. Potentially dilutive common shares consist of incremental exchangeable shares and shares of common stock issuable upon the achievement of escrow terms, exercise of stock options, vesting of stock awards and exercise of warrants.

Prior to June 30, 2023, the Company excluded shares of common stock issuable upon exercise of pre-funded warrants from the computation of WASO. The pre-funded warrant shares are now included in the computation of WASO. Prior period amounts have been conformed to the current-period presentation. The impact of the change reduced the previously reported loss per share by $0.20, and increased WASO by approximately 10,000 shares for the nine months ended September 30, 2023. The reclassification had no impact on the Company's net loss or cash flows for the nine months ended September 30, 2023.

The following table sets forth securities outstanding that were excluded from the computation of diluted net loss per share as their inclusion would be anti-dilutive (in thousands):

	September 30,	
	2024	**2023**
Escrow shares - exchangeable shares	33	33
Escrow shares - common stock	13	13
Options to purchase common stock	33	36
Unvested restricted common stock units	9	23
Warrants classified as equity	8,094	—
Warrants classified as liabilities	235	237
Total	8,417	342

Recently Issued Accounting Pronouncements

In November 2023, the FASB issued ASU No. 2023-07, *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures,* which requires disclosure of incremental segment information on an annual and interim basis. ASU No. 2023-07 is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024, and it requires retrospective application to all prior periods presented in the financial statements. The Company is evaluating the impact that this ASU will have on the presentation of its consolidated financial statements.

In December 2023, the FASB issued ASU No. 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures*, which expands disclosures in an entity's income tax rate reconciliation table and disclosures regarding cash taxes paid both in the U.S. and foreign jurisdictions. The update will be effective for annual periods beginning after December 15, 2024. The Company is evaluating the impact that this ASU will have on the presentation of its consolidated financial statements.

In November 2024, the FASB issued ASU No. 2024-03, Income Statement – Reporting Comprehensive Income – Expense Disaggregation Disclosures (Subtopic 220-40): Disaggregation of Income Statement Expenses. The new standard requires disclosures about specific types of expenses included in the expense captions presented on the face of the income statement as well as disclosures about selling expenses. The standard is effective for the Company for annual periods beginning January 1, 2027 and interim periods beginning January 1, 2028, with early adoption permitted. The standard may be applied either prospectively to financial statements issued for reporting periods after the effective date or retrospectively to any or all prior periods presented in the financial statements. The Company is evaluating the impact that this ASU will have on the presentation of its consolidated financial statements.

Other recent authoritative guidance issued by the FASB (including technical corrections to the ASCs), the American Institute of Certified Public Accountants, and the Securities and Exchange Commission (the SEC) did not, or is not expected to, have a material impact on the Company's consolidated financial statements and related disclosures.

Note 2. Fair Value of Financial Instruments

The following tables represent the Company's assets and liabilities measured at fair value on a recurring basis and the basis for that measurement (in thousands):

	September 30, 2024			
	Fair Value	**Level 1**	**Level 2**	**Level 3**
Assets:				
Money market funds (1)	$ 1	$ —	$ —	$ —
Liabilities:				
Warrant liabilities	$ 99	$ —	$ —	$ 99

	December 31, 2023			
	Fair Value	**Level 1**	**Level 2**	**Level 3**
Assets:				
Money market funds (1)	$ 1	$ —	$ —	$ —
Liabilities:				
Warrant liabilities	$ 1,748	$ —	$ —	$ 1,748

(1) Amounts are included in cash and cash equivalents on the condensed consolidated balance sheets.

The following tables represent the Company's determination of fair value for its financial assets (cash equivalents) (in thousands):

	September 30, 2024		
	Unrealized	**Unrealized**	**Fair**

	Cost	Gains	Losses	Value
Cash and cash equivalents	$ 1,317	$ —	$ —	$ 1,317

	December 31, 2023			
	Cost	Unrealized Gains	Unrealized Losses	Fair Value
Cash and cash equivalents	$ 1,583	$ —	$ —	$ 1,583

Note 3. Balance Sheet Detail

	September 30, 2024	December 31, 2023
	(in thousands)	
Inventories:		
Raw materials	$ 108	$ 209
Work-in-process	1,407	1,517
Finished goods	988	880
	$ 2,503	$ 2,606

	September 30, 2024	December 31, 2023
	(in thousands)	
Accrued Expenses and Other:		
Accrued wages and employee benefits	$ 422	$ 405
Professional fees, legal and consulting	203	158
Software license obligations (see Note 4)	1,048	—
Severance benefits (see Note 4)	250	—
Warranty accrual	29	37
Other	447	11
	$ 2,399	$ 611

Note 4. Severance and Software License Obligations

In November 2023, the Company implemented an employee lay-off and terminated certain consulting positions (the “Reductions”) to reduce operating expenses and cash burn, as the Company prioritized business activities and projects that it believes will have a higher return on investment. As part of the Reductions, the Company implemented a temporary lay-off that impacted 16 employees (the “Employees”) of Peraso Tech. During the six months ended June 30, 2024, the Company determined that it would not recall any of the 11 Employees that remained on the Company’s payroll and commenced notifying the remaining Employees that their employment would be terminated. As a result of the termination of the Employees’ employment, the Company recorded severance charges of approximately $446,000 during the six months ended June 30, 2024. As of September 30, 2024, the remaining severance liabilities of approximately $250,000 are expected to be paid through October 2025.

As a result of the decision to not recall the Employees, the Company determined that it was probable that a number of its non-cancelable licenses for computer-aided design software would not be utilized during the remaining license terms. During the three months ended June 30, 2024, the Company accrued the value of the remaining contractual liabilities of approximately $1,617,000, which are expected to be paid through September 30, 2025. As of September 30, 2024, the remaining contractual liabilities of approximately $1.0 million and $0.5 million are included in accrued expenses and other (see Note 3) and accounts payable, respectively.

Note 5. Commitments and Contingencies

Leases

The Company has operating leases for its corporate headquarters facility in San Jose, California and facilities in Toronto and Markham, Ontario, Canada and recognizes lease expense on a straight-line basis over the respective lease terms.

In November 2023, the Company renewed the San Jose facility lease for a one-year term, which commenced January 15, 2024 (the Renewal Term), and, effective with the commencement of the Renewal Term, the Company ceased accounting for the lease under ASC 842. In December 2023, the Company renewed the Toronto office lease for a reduced amount of square footage for a one-year term, which commenced January 1, 2024. In May 2022, the Company entered into a lease for the facility in Markham with a 60-month term, which commenced June 21, 2022. The Markham landlord also provided a lease incentive of approximately $286,200 (the Incentive). In 2023, the Company received payment of $ 143,100 from the Markham landlord of the first installment of the Incentive. The remaining balance of the Incentive is paid to the Company in the form of an adjustment to rent during the last three months of each year during the remaining lease term. During 2023, a credit of $35,775 was made against the rent during the three months ended December 31, 2023. As of September 30, 2024, the pending Incentive to be received was $107,325.

Upon the renewal of the Toronto lease in December 2023, the Company recognized a right-of-use asset of approximately $ 137,700. The discount rate used to measure the lease assets and liabilities for the renewal was 8%.

The initial right-of-use asset and corresponding liability of approximately $ 1.0 million for the Markham facility lease were measured at the present value of the future minimum lease payments. The discount rate used to measure the lease assets and liabilities was 8%.

On March 1, 2022, the Company entered into a 36-month finance lease agreement for the lease of equipment resulting in the recognition of a right-of-use asset and lease liability of approximately $274,000.

On November 1, 2022, the Company entered into a 36-month finance lease agreement for the lease of equipment resulting in the recognition of a right-of-use asset of approximately $124,000 and lease liability of approximately $ 117,000.

The following table provides the details of right-of-use assets and lease liabilities as of September 30, 2024 (in thousands):

Right-of-use assets:		
Operating leases	$	265
Finance leases		90
Total right-of-use assets	$	355
Lease liabilities:		
Operating leases	$	320
Finance leases		91
Total lease liabilities	$	411

Future minimum payments under the leases at September 30, 2024 are listed in the table below (in thousands):

Year ending December 31,		
2024	$	81
2025		164
2026		108
2027		100
Total future lease payments		453
Less: imputed interest		(42)
Present value of lease liabilities	$	411

The following table provides the details of supplemental cash flow information (in thousands):

	Nine Months Ended September 30,	
	2024	2023
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows for leases	$ 319	$ 492

Rent expense was approximately $0.2 million for each of the three-months ended September 30, 2024 and 2023. Rent expense was approximately $0.4 million and $0.6 million for the nine-months ended September 30, 2024 and 2023, respectively. In addition to the minimum lease payments, the Company is responsible for property taxes, insurance and certain other operating costs related to the leased facilities and equipment.

Indemnification

In the ordinary course of business, the Company enters into contractual arrangements under which it may agree to indemnify the counterparties from any losses incurred relating to breach of representations and warranties, failure to perform certain covenants, or claims and losses arising from certain events as outlined within the particular contract, which may include, for example, losses arising from litigation or claims relating to past performance. Such indemnification clauses may not be subject to maximum loss clauses. The Company has also entered into indemnification agreements with its officers and directors. No material amounts were reflected in the Company's condensed consolidated financial statements for the three and nine months ended September 30, 2024 and 2023 related to these indemnifications.

The Company has not estimated the maximum potential amount of indemnification liability under these agreements due to the limited history of prior claims and the unique facts and circumstances applicable to each particular agreement. To date, the Company has not made any payments related to these indemnification agreements.

Product Warranties

The Company warrants certain of its products to be free of defects generally for a period of three years. The Company estimates its warranty costs based on historical warranty claim experience and includes such costs in cost of net revenues. Warranty costs were not material for the three and nine months ended September 30, 2024 and 2023.

Legal Matters

The Company is not a party to any legal proceeding that the Company believes is likely to have a material adverse effect on its condensed consolidated financial position or results of operations. From time to time the Company may be subject to legal proceedings and claims in the ordinary course of business. These claims, even if not meritorious, could result in the expenditure of significant financial resources and diversion of management efforts.

Purchase Obligations

The Company's primary purchase obligations include non-cancelable purchase orders for inventory. At September 30, 2024, the Company had outstanding non-cancelable purchase orders for inventory, primarily wafers and substrates, and related expenditures of approximately $2.9 million.

Note 6. Business Segments, Concentration of Credit Risk and Significant Customers

The Company determines its reporting units in accordance with ASC 280, *Segment Reporting* (ASC 280). Management evaluates a reporting unit by first identifying its operating segments under ASC 280. The Company then evaluates each operating segment to determine if it includes one or more components that constitute a business. If there are components within an operating segment that meet the definition of a business, the Company evaluates those components to determine if they must be aggregated into one or more reporting units. If applicable, when determining if it is appropriate to aggregate different operating segments, the Company determines if the segments are economically similar and, if so, the operating segments are aggregated.

Management has determined that the Company has one consolidated operating segment. The Company's reporting segment reflects the manner in which its chief operating decision maker reviews results and allocates resources. The Company's reporting segment meets the definition of an operating segment and does not include the aggregation of multiple operating segments.

The Company recognized revenue from shipments of product, licensing of its technologies and performance of services to customers by geographical location as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
United States	$ 3,680	$ 3,359	$ 9,219	$ 7,868
Hong Kong	25	321	471	614
Taiwan	24	544	185	2,535
Rest of world	112	257	1,020	899
Total net revenue	$ 3,841	$ 4,481	$ 10,895	$ 11,916

The following is a breakdown of product revenue by category (in thousands):

	Three months Ended September 30,		Nine Months Ended September 30,	
Product category	2024	2023	2024	2023
Memory ICs	$ 3,677	$ 3,384	$ 9,487	$ 7,181
mmWave ICs	67	576	272	2,614
mmWave modules	60	302	817	1,586
mmWave other products	7	—	20	4
	$ 3,811	$ 4,262	$ 10,596	$ 11,385

The following table lists significant customers that represented more than 10% of the Company's total revenue during each respective period:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Customer A	68%	25%	58%	10%
Customer B	26%	45%	23%	34%
Customer C	*	11%	*	20%

The following table lists significant customers that represented more than 10% of the Company's net accounts receivable balance at each respective balance sheet date:

	Accounts Receivable	
	September 30, 2024	December 31, 2023
Customer A	51%	36%
Customer B	33%	33%
Customer C	*	14%

The following table lists significant vendors that represented more than 10% of the Company's total accounts payable balance at each respective balance sheet date:

	Accounts Payable	
	September 30, 2024	December 31, 2023
Vendor A	20%	47%
Vendor B	16%	*
Vendor C	*	12%

* Represents less than 10%

Note 7. Stock-Based Compensation

Common Stock Equity Plans

In 2010, the Company adopted the 2010 Equity Incentive Plan and later amended it in 2014, 2017 and 2018 (the Amended 2010 Plan). The Amended 2010 Plan was terminated in August 2019 and remains in effect as to outstanding equity awards granted prior to the date of expiration. No new awards may be made under the Amended 2010 Plan.

In August 2019, the Company's stockholders approved the 2019 Stock Incentive Plan (the 2019 Plan) to replace the Amended 2010 Plan. The 2019 Plan authorizes the board of directors or the compensation committee of the board of directors to grant a broad range of awards including stock options, stock appreciation rights, restricted stock, performance-based awards, and restricted stock units. Under the 2019 Plan, 4,563 shares were initially reserved for issuance. In November 2021, in connection with the approval of the Arrangement, the Company's stockholders approved an amendment increasing the number of shares reserved for issuance under the 2019 Plan by 77,674 shares.

Under the 2019 Plan, the term of all incentive stock options granted to a person who, at the time of grant, owns stock representing more than

10% of the voting power of all classes of the Company's stock may not exceed five years. The exercise price of stock options granted under the 2019 Plan must be at least equal to the fair market value of the shares on the date of grant. Generally, awards under the 2019 Plan will vest over a three to four-year period, and options will have a term of 10 years from the date of grant. In addition, the 2019 Plan provides for automatic acceleration of vesting for options granted to non-employee directors upon a change of control of the Company.

In connection with the Arrangement, the Company assumed the Peraso Technologies Inc. 2009 Share Option Plan (the 2009 Plan) and all outstanding options granted pursuant to the terms of the 2009 Plan. Each outstanding, unexercised and unexpired option under the 2009 Plan, whether vested or unvested, was assumed by the Company and converted into options to purchase shares of the Company's common stock. No further awards will be made under the 2009 Plan.

The 2009 Plan, the Amended 2010 Plan and the 2019 Plan are referred to collectively as the "Plans."

Stock-Based Compensation Expense

The Company reflected compensation costs of $2.7 million and $3.1 million related to the vesting of stock options during each of the nine-month periods ended September 30, 2024 and 2023, respectively. At September 30, 2024, the unamortized compensation cost was approximately $0.3 million related to stock options and is expected to be recognized as expense over a weighted average period of approximately 1.1 years. The Company reflected compensation costs of $0.6 million and $0.8 million related to the vesting of restricted stock units during each of the nine-month periods ended September 30, 2024 and 2023, respectively. The unamortized compensation cost at September 30, 2024 was $0.2 million related to restricted stock units and is expected to be recognized as expense over a weighted average period of approximately 0.6 years. There were no stock options granted or exercised during the nine months ended September 30, 2024 and 2023.

Common Stock Options and Restricted Stock

The term of all incentive stock options granted to a person who, at the time of grant, owns stock representing more than 10% of the voting power of all classes of the Company's stock may not exceed five years. The exercise price of stock options granted under the 2019 Plan must be at least equal to the fair market value of the shares on the date of grant. Generally, options granted under the 2019 Plan will vest over a three to four-year period and have a term of 10 years from the date of grant. In addition, the 2019 Plan provides for automatic acceleration of vesting for options granted to non-employee directors upon a change of control (as defined in the 2019 Plan) of the Company.

The following table summarizes the activity in the shares available for grant under the Plans during the three and nine months ended September 30, 2024 and options outstanding as of September 30, 2024 (in thousands, except exercise price):

		Options Outstanding	
	Shares Available for Grant	**Number of Shares**	**Weighted Average Exercise Prices**
Balance as of December 31, 2023	39	36	$ 127.00
RSUs granted	(2)	—	—
RSUs cancelled and returned to the 2019 Plan	2	—	—
Options cancelled	—	(1)	$ 147.64
Balance as of March 31, 2024	39	35	$ 126.70
RSUs cancelled and returned to the 2019 Plan	3	—	—
Options cancelled	—	(1)	$ 150.19
Balance as of June 30, 2024	42	34	$ 125.99
RSUs cancelled and returned to the 2019 Plan	1	—	—
Options cancelled	—	(1)	$ 103.60
Balance as of September 30, 2024	43	33	$ 126.35

The following table summarizes significant ranges of outstanding and exercisable options as of September 30, 2024 (in thousands, except contractual life and exercise price):

	Options Outstanding			Options Exercisable		
Range of Exercise Price	**Number Outstanding**	**Weighted Average Remaining Contractual Life (in Years)**	**Weighted Average Exercise Price**	**Number Exercisable**	**Weighted Average Exercise Price**	**Aggregate Intrinsic value**
$0.00 - $62.80	2	5.14	$ 62.80	2	$ 62.80	$ —
$62.81 - $599.60	31	5.98	$ 108.21	29	$ 108.13	$ —
$0.00 - $599.60	33	5.92	$ 126.35	31	$ 127.51	$ —

A summary of RSU activity under the Plans is presented below (in thousands, except for fair value):

	Number of Shares	**Weighted Average Grant-Date Fair Value**
Non-vested shares as of December 31, 2023	15	$ 69.63
Granted	2	$ 1.55

Cancelled	(2)	$	53.54
Non-vested shares as of March 31, 2024	15	$	62.04
Vested	(5)	$	1.48
Non-vested shares as of June 30, 2024	10	$	52.73
Cancelled	(1)	$	86.94
Non-vested shares as of September 30, 2024	9	$	50.63

Note 8. Equity

Exchangeable Shares and Preferred Stock

As discussed in Note 1, on December 17, 2021, following the satisfaction of the closing conditions set forth in the Arrangement Agreement, the Arrangement was completed. Pursuant to the completion of the Arrangement, each Peraso Share that was issued and outstanding immediately prior to December 17, 2021 was converted into either newly issued shares of common stock of the Company or shares of Canco, which are exchangeable for shares of the Company's common stock (Exchangeable Shares), at the election of each former Peraso Tech stockholder. Of the shares issued to the holders of Peraso Tech Shares, pursuant to the terms of the Agreement, the Company held in escrow an aggregate of 32,822 Exchangeable Shares and 12,564 shares of common stock (collectively, the Escrow Shares). The Escrow Shares are escrowed pursuant to the terms of an escrow agreement on a pro rata basis from the aggregate consideration received by the holders of Peraso Shares, subject to the offset by the Company for any losses in accordance with the Agreement. Such Escrow Shares shall be released, subject to any offset claim, upon the satisfaction of the earlier of: (a) any date following the first anniversary of December 17, 2021 and prior to December 17, 2024 where the volume weighted average price of the common stock for any 20 trading days within a period of 30 consecutive trading days is at least $342.80 per share, subject to adjustment for stock splits or other similar transactions; (b) the date of any sale of all or substantially all of the assets or shares of the Company; or (c) the date of any bankruptcy, insolvency, restructuring, receivership, administration, wind-up, liquidation, dissolution, or similar event involving the Company. All and any voting rights and other stockholder rights, other than with respect to dividends and distributions, with respect to the Escrow Shares are suspended until the Escrow Shares are released from escrow.

The Exchangeable Share structure is commonly used for cross-border transactions of this nature so as to provide non-tax-exempt Canadian shareholders with the same economic rights and benefits as holders of the Company's shares into which the Exchangeable Shares are exchangeable, while allowing those Canadian shareholders to benefit from the tax-rollover available on the issuance of the Exchangeable Shares. In general terms, by choosing to acquire Exchangeable Shares from Canco, such a former Peraso Tech shareholder was able to rely on a rollover rule in the Income Tax Act (Canada) in order to defer any capital gain that he/she/it would have otherwise realized.

Callco was incorporated to exercise the call rights, while Canco was incorporated to acquire the shares of Peraso Tech from Canadian shareholders that wished to receive Exchangeable Shares as consideration, so it was a tax deferred transaction for such Canadian shareholders. The use of a separate entity, Callco, helps maximize cross border paid-up capital, which represents the amount that can generally be distributed free of Canadian withholding tax. The call rights also allow Callco to "purchase" the Exchangeable Shares rather than having them redeemed by Canco on a redemption or retraction or in connection with a liquidity event, thus avoiding the adverse deemed dividend tax consequences to shareholders that may arise from a redemption or retraction of Exchangeable Shares.

Holders of Exchangeable Shares have the right at any time (the Retraction Right) to retract or redeem any or all of the Exchangeable Shares owned by them for an amount per share equal to the market price of a share of the Company's common stock plus the full amount of all declared and unpaid dividends on such Exchangeable Share (the Exchangeable Share Purchase Price). The Exchangeable Share Purchase Price is payable only by the Company delivering or causing to be delivered to the relevant holder one share of the Company's common stock for each Exchangeable Share purchased plus a cash amount equal to the amount of any accrued and unpaid dividends on such Exchangeable Share. The Company and Callco each have an overriding right, in the event that a holder of Exchangeable Shares exercises its Retraction Right, to redeem from such holder all, but not less than all, of the Exchangeable Shares tendered for redemption.

The Exchangeable Shares are subject to redemption by the Company, Callco and Canco at the Exchangeable Share Purchase Price, on the "Redemption Date," which date shall be no earlier than the seventh anniversary of the date on which Exchangeable Shares are first issued, unless: (a) less than 10% of the aggregate number of Exchangeable Shares issued remain outstanding; (b) there is a change in control of the Company (defined generally as (i) any merger, amalgamation, arrangement, takeover bid or tender offer, material sale of shares or rights or interests that results in the holders of outstanding voting securities of the Company directly or indirectly owning, or exercising control or direction over, voting securities representing less than 50% of the total voting power of all of the voting securities of the surviving entity; or (ii) any sale or disposition of all or substantially of the Company's assets), and (c) upon the occurrence of certain other events. The Exchangeable Share Purchase Price is payable only by the Company delivering or causing to be delivered to the relevant holder one share of the Company's common stock for each Exchangeable Share purchased plus a cash amount equal to the amount of any accrued and unpaid dividends on such Exchangeable Share.

In the event of the liquidation, dissolution or winding-up of Canco, holders of Exchangeable Shares have the right to receive in respect of each Exchangeable Share held by such holder, an amount per share equal to the Exchangeable Share Purchase Price, which shall be satisfied in full by Canco by delivering to such holder one Company Share, plus an amount equal to the Dividend Amount. The Company and Callco each have an overriding right to purchase from all holders all but not less than all of the Exchangeable Shares upon the occurrence of such events.

In addition, the Company and Callco have the right to purchase all outstanding Exchangeable Shares at the Exchangeable Share Purchase Price if there is a change of law that permits holders of Exchangeable Shares to exchange their Exchangeable Shares for shares of common stock on a basis that will not require holders to recognize any gain or loss or any actual or deemed dividend for Canadian tax purposes.

The holders of Exchangeable Shares have an "automatic exchange right" in the event of any insolvency, liquidation, dissolution or winding-up or in general, related proceedings, of the Company for an amount per share equal to the Exchangeable Share Purchase Price.

It is expected that Callco will exercise its call rights, as that is more beneficial to the holders of the Exchangeable Shares. Once Callco acquires the Exchangeable Shares from a holder, it (Callco and the Company) is obligated to deliver the Company shares to the holder. Callco discharges this obligation by arranging for the Company to issue and deliver those shares to the holders on behalf of Callco. As consideration for satisfying the delivery obligation, Callco would issue its own shares to the Company.

There are no cash redemption features, as all redemption and exchange scenarios are payable in a share of the Company's common stock. Neither Canco, Callco, or the Company assume any tax liabilities of a former Peraso Tech shareholder who acquired Exchangeable Shares under the plan of arrangement. The purchase price computed upon the exercise of rights pertaining to retraction, redemption, or liquidation, or otherwise giving rise to a purchase or cancellation of an Exchangeable Share, will, in all cases, consist of a 1:1 exchange involving the Company's common stock, regardless of the market price of a share of the Company's common stock.

In connection with the Arrangement, on December 15, 2021, the Company filed the Certificate of Designation of Series A Special Voting Preferred Stock (the Certificate) with the Secretary of State of the State of Delaware to designate Series A Special Voting Preferred Stock (the Special Voting Share) in accordance with the terms of the Arrangement Agreement in order to enable the holders of Exchangeable Shares to exercise their voting rights. The Special Voting Share was issued to a third-party administrative agent (the Agent) solely to facilitate the exercise of rights by holders of Exchangeable Shares. The rights of the Agent, as holder of the Special Voting Share, are limited to effecting the rights of the holders of the Exchangeable Shares; the Special Voting Share does not confer any independent rights to the Agent. Under the Certificate, when all of the Exchangeable Shares have been converted into shares of the Company's common stock, the Special Voting Share shall be automatically cancelled and shall not be reissued. Each Exchangeable Share is exchangeable for one share of common stock of the Company and while outstanding, the Special Voting Share enables holders of Exchangeable Shares to cast votes on matters for which holders of the common stock are entitled to vote, and by virtue of the share terms relating to the Exchangeable Shares, enable the Exchangeable Shares to receive dividends that are economically equivalent to any dividends declared with respect to the shares of common stock. As the Special Voting Share does not participate in dividends (only the Exchangeable Shares participate in dividends) and is not entitled to participate in the residual interest of the Company, it is not classified as an equity instrument in the Company's financial statements.

The Exchangeable Shares, which can be converted into common stock at the option of the holder and have the same voting and dividend rights as common stock, are similar in substance to shares of common stock. Further, Canco and Callco are non-substantive entities, which are looked through with the Exchangeable Shares being, in substance, common stock of the Company. Therefore, the Exchangeable Shares have been included in the determination of outstanding common stock. The Special Voting Share was issued to a third-party administrative agent (the Agent) solely to facilitate the exercise of rights by holders of Exchangeable Shares. The rights of the Agent, as holder of the Special Voting Share, are limited to effecting the rights of the holders of the Exchangeable Shares; the Special Voting Share does not confer any independent rights to the Agent. Under the Certificate, when all of the Exchangeable Shares have been converted into shares of the Company's common stock, the Special Voting Share shall be automatically cancelled and shall not be reissued.

February 2024 Public Offering

On February 6, 2024, the Company entered into an underwriting agreement (the Underwriting Agreement) with Ladenburg Thalmann & Co. Inc., as the sole underwriter (Ladenburg), relating to the issuance and sale in a public offering (the Offering) of: (i) 480,000 shares of common stock, (ii) pre-funded warrants to purchase up to 1,424,760 shares of common stock, (iii) Series A warrants to purchase up to 3,809,520 shares of common stock, (iv) Series B warrants to purchase up to 3,809,520 shares of common stock, and (v) up to 285,714 additional shares of common stock, Series A warrants to purchase up to 571,428 shares of common stock and Series B warrants to purchase up to 571,428 shares of common stock that may be purchased pursuant to a 45-day option to purchase additional securities granted to Ladenburg by the Company. Ladenburg partially exercised this option on February 7, 2024 for 82,500 shares of common stock, Series A warrants to purchase up to 165,000 shares of common stock and Series B warrants to purchase up to 165,000 shares of common stock. The combined public offering price of each share of common stock, together with the accompanying Series A warrants and Series B warrants, was $2.10, less underwriting discounts and commissions. The combined public offering price of each pre-funded warrant, together with the accompanying Series A warrants and Series B warrants, was $2.099, less underwriting discounts and commissions. The Offering, including the additional shares of common stock, Series A warrants and Series B warrants sold pursuant to the partial exercise of Ladenburg's option, closed on February 8, 2024.

The net proceeds from the Offering, including the additional shares of common stock, Series A warrants and Series B warrants sold pursuant to the partial exercise of Ladenburg's option, after deducting underwriting discounts and commissions and other estimated Offering expenses payable by the Company and excluding any proceeds from the exercise of the Series A warrants, Series B warrants and pre-funded warrants, were approximately $3.4 million.

The Series A warrants and Series B warrants each have an exercise price of $ 2.25 per share and were immediately exercisable upon issuance. The Series A warrants expire on February 8, 2029, and the Series B warrants had an initial expiration date of August 8, 2024. On August 6, 2024, the Company extended the expiration date of its outstanding Series B warrants to October 7, 2024, by entering into an amendment to the Warrant Agency Agreement dated as of February 8, 2024 by and between the Company and the warrant agent, Equiniti Trust Company, LLC (the Warrant Agency Agreement).

The pre-funded warrants have an exercise price of $0.001 per share, were exercisable immediately and may be exercised at any time until all of the pre-funded warrants are exercised in full. The exercise price and number of shares of common stock issuable upon exercise of the warrants is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting the common stock and the exercise price. Subject to limited exceptions, a holder may not exercise any portion of its warrants to the extent that the holder would beneficially own more than 9.99% or 4.99% (at the election of the holder) of the Company's outstanding common stock after exercise.

On February 8, 2024, pursuant to the Underwriting Agreement, the Company issued Series A warrants to Ladenburg to purchase up to 139,108 shares of common stock at an exercise price of $2.625, subject to adjustments, which are exercisable at any time and from time to time, in whole or in part, until February 8, 2029.

June 2024 Private Sale

On June 11, 2024, the Company entered into a Stock Purchase Agreement (the Purchase Agreement) with a member of the Company's board of directors, pursuant to which the Company sold and the board member purchased 100,000 shares (the Shares) of common stock resulting in net proceeds of $127,000. The Shares sold pursuant to the Purchase Agreement were issued as restricted securities as defined in Rule 144 of the Securities Act of 1933, as amended.

Shares Issued for Services

During the three months ended September 30, 2024, the Company issued 40,000 restricted shares of common stock with a fair value of approximately $54,400 to a service provider.

ATM Offering

On August 30, 2024, the Company entered into an At The Market Offering Agreement (the Sales Agreement) with Ladenburg with respect to an "at the market" offering program, under which the Company may, from time to time, in its sole discretion, issue and sell through Ladenburg, acting as agent or principal, shares of the Company's common stock initially having an aggregate offering price of up to $1,425,000. The Sales Agreement provides that Ladenburg will be entitled to compensation for its services equal to 3.0% of the gross proceeds from sales of any shares of common stock under the Sales Agreement in addition to the reimbursement of certain expenses. The Company has no obligation to sell any shares under the Sales Agreement and either the Company or Ladenburg may terminate the Sales Agreement in accordance with its terms. During the three months ended September 30, 2024, under the Sales Agreement, the Company sold 110,688 shares of common stock for net proceeds of approximately $ 164,000.

Warrants Classified as Equity

As of September 30, 2024, the Company had the following equity-classified common stock purchase warrants outstanding (share amounts in thousands):

	Number of Shares	Exercise Price	Expiration
Balance as of December 31, 2023	7	$ 28.00	June 2, 2028
Pre-funded warrants issued	1,425	$ 0.001	—
Pre-funded warrants exercised	(1,001)	$ 0.001	—
Series A warrants issued	3,974	$ 2.250	February 8, 2029
Series A warrants issued	139	$ 2.625	February 8, 2029
Series B warrants issued	3,974	$ 2.250	October 7, 2024
Balance as of March 31, 2024	8,518		
Pre-funded warrants exercised	(307)	$ 0.001	—
Balance as of June 30, 2024	8,211		
Warrant activity	—	$ 0.001	—
Balance as of September 30, 2024	8,211		

Note 9. Warrants Classified as Liabilities

In November 2022 and June 2023, the Company completed registered direct offerings and sold shares of its common stock and common stock purchase warrants (the “Purchase Warrants”). The securities purchase agreements governing the Purchase Warrants provide for a value calculation for such warrants using the Black Scholes model in the event of certain fundamental transactions. The fair value calculation provides for a floor on the volatility amount utilized in the value calculation at 100% or greater. The Company has determined this provision introduces leverage to the holders of the Purchase Warrants that could result in a value that would be greater than the settlement amount of a fixed-for-fixed option on the Company’s own equity shares. Therefore, pursuant to ASC 815, the Company has classified the Purchase Warrants as liabilities in its condensed consolidated balance sheets. The classification of the Purchase Warrants, including whether the Purchase Warrants should be recorded as liabilities or as equity, is evaluated at the end of each reporting period with changes in the fair value reported in other income (expense) in the consolidated statements of operations and comprehensive loss.

As of September 30, 2024 and December 31, 2023, the Company had the following Purchase Warrants outstanding (share amounts in thousands):

	Number of Shares	Exercise Price	Expiration Date
Warrants issued - November 2022	92	$ 40.00	May 28, 2028
Warrants issued - June 2023	143	$ 28.00	June 2, 2028
	235		

The following table sets forth changes in the fair value of the Purchase Warrants outstanding (amounts in thousands):

	Number of Shares	Fair Value
Balance as of December 31, 2023	235	$ 1,748
Change in fair value of warrants	—	(1,591)
Balance as of March 31, 2024	235	157
Change in fair value of warrants	—	(54)
Balance as of June 30, 2024	235	103
Change in fair value of warrants	—	(4)
Balance as of September 30, 2024	235	$ 99

The fair value of the Purchase Warrants at September 30, 2024 was determined using the Black Scholes model with the assumptions in the following table.

	2022 Purchase Warrant	2023 Purchase Warrant
Expected term based on contractual term	3.7 years	3.7 years
Interest rate (risk-free rate)	3.51%	3.51%
Expected volatility	121%	121%
Expected dividend yield	—	—
Fair value of warrants (in thousands)	$ 35	$ 64

The fair value of the Purchase Warrants at December 31, 2023 was determined using the Black Scholes model with the assumptions in the following table.

	2022 Purchase Warrant	2023 Purchase Warrant
Expected term based on contractual term	4.4 years	4.4 years
Interest rate (risk-free rate)	3.84%	3.84%

Expected volatility		116%		116%
Expected dividend yield		—		—
Fair value of warrants (in thousands)	$	653	$	1,095

Note 10. Related Party Transactions

A family member of one of the Company's executive officers is an employee of the Company. The Company recorded compensation expense of approximately $30,300 and $85,600 for the employed family member during the three and nine months ended September 30, 2024, respectively. The Company recorded compensation expense of approximately $28,000 and $83,800 for the employed family member during the three and nine months ended September 30, 2023, respectively.

See Note 8 for a discussion of the Company's sale of common stock to a member of the board of directors in June 2024.

Note 11. License and Asset Sale Transaction

On August 5, 2022, the Company entered into a Technology License and Patent Assignment Agreement (the Intel Agreement) with Intel Corporation (Intel), pursuant to which Intel: (i) licensed from the Company, on an exclusive basis, certain software and technology assets related to the Company's Stellar packet classification intellectual property, including its graph memory engine technology, and any roadmap variant, in the form existing as of the date of the Intel Agreement (the Licensed Technology); (ii) acquired from the Company certain patent applications and patents owned by the Company; and (iii) assumed a professional services agreement, dated March 24, 2020, between Fabulous Inventions AB (Fabulous) and the Company, pursuant to which, among other things, the Company licensed from Fabulous certain technology incorporated into the Licensed Technology.

As consideration for the Company to enter into the Intel Agreement, Intel agreed to pay the Company $ 3,062,500 at the closing of the transaction (the Closing) and $437,500 (the Holdback) upon the satisfaction by the Company, as mutually agreed upon by the parties in good faith, of certain release criteria set forth in the Intel Agreement relating to various due diligence activities of Intel regarding the Licensed Technology.

The Company determined that the license and asset sale did not qualify as a sale of a business, but as a sale of a non-financial asset, with the resultant gain recorded as income from operations in accordance with ASC 610-20, *Other Income - Gains and Losses from the Derecognition of Nonfinancial Assets*. During the year ended December 31, 2022, the Company recognized a $ 2.6 million gain on this transaction, net of transaction costs. In 2023, Intel paid the Holdback, and the Company recognized a $0.4 million gain, net of transaction costs, which was recorded as a reduction of operating expenses in the condensed consolidated statements of operations and comprehensive loss.

Note 12. Memory IC Product End-of-Life

Taiwan Semiconductor Manufacturing Corporation (TSMC) is the sole foundry that manufactures the wafers used to produce the Company's memory IC products. TSMC has informed the Company that TSMC is discontinuing the foundry process used to produce wafers, in turn, necessary to manufacture the Company's memory ICs. As a result, in May 2023, the Company informed its customers that the Company would be initiating an end-of-life (EOL) of its memory IC products. During the three months ended September 30, 2024 the Company received an additional EOL purchase order for $0.2 million. As of September 30, 2024, the Company had a non-cancelable purchase order backlog for its memory IC products of approximately $ 5.7 million. The Company expects to fulfill this backlog and complete final shipments of its memory IC products by March 31, 2025.

Note 13. Subsequent Events

Amendment of Series B Warrants

On October 3, 2024, the Company extended the expiration date of the Series B warrants issued in the Offering to November 8, 2024, by entering into an amendment to the Warrant Agency Agreement. The Series B warrants would otherwise have expired on October 7, 2024. See Note 8 for additional information about the Series B warrants and the Offering.

Warrant Inducement Offering

On November 5, 2024, the Company entered into inducement offer letter agreements (the Inducement Letters) with certain holders (the Holders) of existing Series B warrants (the Existing Warrants) to purchase up to an aggregate of 2,246,030 shares of the Company's common stock, having an original exercise price of $2.25 per share, issued to the Holders on February 8, 2024 in the Offering (see Note 8). Pursuant to the Inducement Letters, the Holders agreed to exercise for cash their Existing Warrants at a reduced exercise price of $1.30 per share (the Reduced Exercised Price) in consideration for the Company's agreement to issue in a private placement (i) new Series C common stock purchase warrants (the Series C Warrants) to purchase an aggregate of 2,246,030 shares of common stock, and (ii) new Series D common stock purchase warrants (the Series D Warrants, and collectively with the Series C Warrants, the New Warrants) to purchase an aggregate of 2,246,030 shares of common stock. Each New Warrant has an exercise price equal to $1.61 per share, subject to adjustment as provided in the New Warrants. The Series C Warrants were exercisable upon issuance and expire on the six-month anniversary of the date of issuance. The Series D Warrants were exercisable upon issuance and expire on the five-year anniversary of the date of issuance.

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

This Management's Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with the accompanying condensed consolidated financial statements and notes included in this report. This 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 include, without limitation, statements about the market for our technology, our strategy, competition, expected financial performance and capital raising effort, the impacts of COVID-19 on our business, and inflation, which could cause customers to delay or reduce purchases of our products or delay payments to us, which would adversely affect our financial results, including cash flows, and other aspects of our business identified in our most recent annual report on Form 10-K filed with the Securities and Exchange Commission on March 29, 2024 and in other reports that we file from time to time with the Securities and Exchange Commission. Any statements about our business, financial results, financial condition and operations contained in this Form 10-Q that are not statements of historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, the words "believes," "anticipates," "expects," "intends," "plans," "projects" or similar expressions are intended to identify forward-looking statements. Our actual results could differ materially from those expressed or implied by these forward-looking statements as a result of various factors, including the risk factors *described under Item 1A of our annual report on Form 10-K for the year ended December 31, 2023 and the risk factors described below under Item 1A of this Form 10-Q. We undertake no obligation to update publicly any forward-looking statements for any reason, except as required by law, even as new information becomes available or events occur in the future.*

Overview

We were formerly known as MoSys, Inc. ("MoSys"), and we were incorporated in California in 1991 and reincorporated in 2000 in Delaware. On September 14, 2021, we and our subsidiaries, 2864552 Ontario Inc. and 2864555 Ontario Inc., entered into an Arrangement Agreement (the "Arrangement Agreement") with Peraso Technologies Inc. ("Peraso Tech"), a corporation existing under the laws of the province of Ontario, to acquire all of the issued and outstanding common shares of Peraso Tech (the "Peraso Shares"), including those Peraso Shares to be issued in connection with the conversion or exchange of secured convertible debentures and common share purchase warrants of Peraso Tech, as applicable, by way of a statutory plan of arrangement (the "Arrangement") under the Business Corporations Act (Ontario). On December 17, 2021, following the satisfaction of the closing conditions set forth in the Arrangement Agreement, the Arrangement was completed and we changed our name to "Peraso Inc." and began trading on the Nasdaq Stock Market (the "Nasdaq") under the symbol "PRSO."

Our strategy and primary business objective is to be a profitable, IP-rich fabless semiconductor company offering integrated circuits, or ICs, antenna modules and related non-recurring engineering services. We specialize in the development of mmWave semiconductors, primarily in the unlicensed 60 GHz spectrum band for 802.11ad/ay- compliant devices and in the 28/39 GHz spectrum bands for 5G-compliant devices. We derive our revenue from selling semiconductor devices, as well as antenna modules based on using those mmWave semiconductor devices. We have pioneered a high-volume mmWave IC production test methodology using standard, low-cost production test equipment. It has taken us several years to refine performance of this production test methodology, and we believe this places us in a leadership position in addressing operational challenges of delivering mmWave products into high-volume markets. We also produce and sell complete mmWave antenna modules. The primary advantage provided by our antenna modules is that our proprietary mmWave ICs and the antenna are integrated into a single device. A differentiating characteristic of mmWave technology is that the RF amplifiers must be as close as possible to the antenna to minimize loss. With our module, we can guarantee the performance of the amplifier/antenna interface and simplify customers' radio frequency ("RF") engineering, facilitating more opportunities for customer prospects that have not provided RF-type systems, as well as shortening the time to market for new products.

We also acquired a memory product line comprising our Bandwidth Engine IC products. These products integrate our proprietary, 1T-SRAM high-density embedded memory and a highly-efficient serial interface protocol resulting in a monolithic memory IC solution optimized for memory bandwidth and transaction access performance. Taiwan Semiconductor Manufacturing Corporation, or TSMC, is the sole foundry that manufactures the wafers used to produce our memory IC products. TSMC has informed us that it would be discontinuing the foundry process used to produce wafers, in turn, necessary to manufacture our memory ICs. As a result, in May 2023, we initiated an end-of-life, or EOL, of our memory IC products, and we commenced initial EOL shipments during the quarter ended September 30, 2023. We have requested customers to pay a deposit upon purchase order placement to reserve supply and provide funding for our required inventory purchases. In addition, we have requested customers to accelerate payments to improve our cash flows. Under our EOL plan, we expect to complete shipments of our memory products by March 31, 2025. However, the timing of EOL shipments will be dependent on the potential receipt of additional purchase orders from customers, deliveries from our suppliers, and the delivery schedules requested by our customers.

We incurred net losses of approximately $9.2 million for the nine months ended September 30, 2024 and $16.8 million for the year ended December 31, 2023, and we had an accumulated deficit of approximately $175.6 million as of September 30, 2024. These and prior year losses have resulted in significant negative cash flows and historically have required us to raise substantial amounts of additional capital. As discussed below, this raises significant doubt about our ability to continue as a going concern. We will need to increase revenues substantially beyond levels that we have attained in the past in order to generate sustainable operating profit and sufficient cash flows to continue doing business without raising additional capital from time to time.

Reverse Stock Split

On December 15, 2023, at our annual meeting of stockholders, our stockholders approved a certificate of amendment to our Second Amended and Restated Certificate of Incorporation (the "Charter Amendment") to effect a reverse stock split of our outstanding shares of common stock at a ratio to be determined by our board of directors. On December 15, 2023, we filed the Charter Amendment with the Secretary of State of Delaware which effected a 1-for-40 reverse stock split of our outstanding shares of common stock as of 4:01 p.m. Eastern Time on January 2, 2024. As a result of the reverse stock split, every forty shares of common stock were combined into one issued and outstanding share of common stock, with no change in the $0.001 par value per share. Holders of fractional shares received, in lieu of any fractional share, the number of shares rounded up to the next whole number. All equity awards outstanding and common stock reserved for issuance under our equity incentive plans and warrants outstanding immediately prior to the reverse stock split were appropriately adjusted by dividing the number of affected shares of common stock by 40 and, as applicable, multiplying the exercise price by 40, as a result of the reverse stock split. Exchangeable shares, which can be converted to common stock at any time by their respective holders, were also adjusted to reflect the reverse stock split.

Risks and Uncertainties

We are subject to risks from, among other things, competition associated with the industry in general, other risks associated with financing, liquidity requirements, rapidly changing customer requirements, limited operating history, pandemics, wars and acts of terrorism and the volatility of public markets. We may be unable to access the capital markets, and additional capital may only be available to us on terms that could be significantly detrimental to our existing stockholders and to our business.

For additional information on risks that could impact our future results of operations, please refer to "Risk Factors" in Part II, Item 1A. of this quarterly report on Form 10-Q.

Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations are based upon our condensed consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States (GAAP). The preparation of these condensed consolidated financial statements requires us to make certain estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses. On an ongoing basis we make these estimates based on our historical experience and on assumptions that we consider reasonable under the circumstances. Actual results may differ from these estimates and reported results could differ under different assumptions or conditions. Our significant accounting policies and estimates are disclosed in Note 1 of the "Notes to Condensed Consolidated Financial Statements" included in Part I, Item 1 of this report and Note 1 of the "Notes to Consolidated Financial Statements" in our annual report on Form 10-K for the year ended December 31, 2023. As of September 30, 2024, there have been no material changes to our significant accounting policies and estimates.

Results of Operations

Net Revenue

	September 30, 2024	September 30, 2023	Change 2023 to 2024	
	(dollar amounts in thousands)			
Product - three months ended	$ 3,811	$ 4,262	$ (451)	(11)%
Percentage of total net revenue	99%	95%		
Product - nine months ended	$ 10,596	$ 11,385	$ (789)	(7)%
Percentage of total net revenue	97%	96%		

The following table details revenue by product category for the three and nine months ended September 30, 2024 and 2023:

	Three months Ended September 30,		Nine Months Ended September 30,	
Product category	**2024**	**2023**	**2024**	**2023**
Memory ICs	$ 3,677	$ 3,384	$ 9,487	$ 7,181
mmWave ICs	67	576	272	2,614
mmWave modules	60	302	817	1,586
mmWave other products	7	—	20	4
	$ 3,811	$ 4,262	$ 10,596	$ 11,385

Product revenue decreased for the three and nine months ended September 30, 2024 compared with the same periods of 2023 primarily due to the decrease in shipments of our mmWave ICs and antenna modules, which was partially offset by increases in shipments of our memory IC products. The increase in memory IC product shipments during 2024 was attributable to the increase in EOL shipments. We initiated price increases on certain of our antenna module products in 2022, however, through September 30, 2024, we had not realized any material increase in revenue as a result of those price increases.

Taiwan Semiconductor Manufacturing Corporation (TSMC) is the sole foundry that manufactures the wafers used to produce our memory IC products. TSMC informed us that TSMC is discontinuing the foundry process used to produce wafers, in turn, necessary to manufacture our memory ICs. As a result, in May 2023, we informed our customers that we would be initiating an end-of-life (EOL) of our memory IC products. As of September 30, 2024, we had non-cancelable purchase order backlog from customers for our memory IC products of $5.7 million. We expect to fulfill this backlog and complete final shipments of our memory IC products by March 31, 2025.

We expect revenues to increase in 2024 as compared with 2023, as we anticipate increased sales of our memory IC products based on our EOL purchase order backlog. In addition, we expect sales of our mmWave products to increase from a volume and revenue perspective over the next 12 months, as we expect to commence production shipments to new customers beginning in early 2025.

	September 30, 2024	September 30, 2023	Change 2023 to 2024	
	(dollar amounts in thousands)			
Royalty and other - three months ended	$ 30	$ 219	$ (189)	(86)%
Percentage of total net revenue	1%	5%		
Royalty and other - nine months ended	$ 299	$ 531	$ (232)	(44)%
Percentage of total net revenue	3%	4%		

Royalty and other includes royalty, non-recurring engineering services and license revenues. The decrease in royalty and other revenue for the three and nine months ended September 30, 2024 compared with the same periods of 2023 was primarily due to a decrease in royalty revenues from licensees of our memory technology due to reduced shipments by these licensees, which we attribute to the EOL initiated by TSMC, as partially offset by increases in non-recurring engineering services revenue related to our mmWave technology.

Cost of Net Revenue and Gross Profit

	September 30, 2024	September 30, 2023	Change 2023 to 2024	
	(dollar amounts in thousands)			
Cost of net revenue -three months ended	$ 2,034	$ 2,445	$ (411)	(17)%
Percentage of total net revenue	53%	55%		
Cost of net revenue -nine months ended	$ 5,431	$ 7,346	$ (1,915)	(26)%
Percentage of total net revenue	50%	62%		

Cost of net revenue is primarily comprised of direct and indirect costs related to the sale of our products, including amortization of intangible assets and depreciation of production-related fixed assets.

Cost of net revenue decreased for the three months ended September 30, 2024 when compared with the same period in 2023, primarily due to a decrease in sales of our mmWave IC and module products, which was partially offset by an increase in shipments of our memory IC products in 2024 and $0.2 million of inventory write downs of our mmWave product inventory. Cost of net revenue decreased for the nine months ended September 30, 2024 when compared with the same period in 2023, primarily due to the decrease in sales of our mmWave IC and module products, which was partially offset by an increase in shipments of our memory IC products in 2024, $0.3 million of inventory write downs of our mmWave product inventory and increased amortization of developed technology of approximately $0.3 million, as we reduced the useful life of the assets in May 2023 as a result of the EOL of our memory products.

	September 30,		Change
	2024	2023	2023 to 2024

	(dollar amounts in thousands)			
Gross profit -three months ended	$ 1,807	$ 2,036	$ (229)	(11)%
Percentage of total net revenue	47%	45%		
Gross profit -nine months ended	$ 5,464	$ 4,570	$ 894	20%
Percentage of total net revenue	50%	38%		

Gross profit decreased for the three months ended September 30, 2024 compared with the same period of 2023 primarily due to a decrease in sales of our mmWave IC and module products and royalty and other revenues, partially offset by an increase in shipment volumes of our memory IC products to fulfill EOL purchase orders. Gross profit increased for the nine months ended September 30, 2024 compared with the same period of 2023 due to the increase in shipments of our memory IC products, as these products carry higher gross margins, and this increase was partially offset by a decrease in shipments of our mmWave products. The increase in our gross profit margin percentage for the nine months ended September 30, 2024 compared with the prior year period was primarily attributable to the increase in shipments of our memory IC products, which carry higher gross margins than our mmWave products. During the nine months ended September 30, 2024, we recorded revenue of $81,000 from inventory that had been written down in prior periods.

Research and Development

	September 30,		Change	
	2024	2023	2023 to 2024	
	(dollar amounts in thousands)			
Research and development -three months ended	$ 2,158	$ 3,484	$ (1,326)	(38)%
Percentage of total net revenue	56%	78%		
Research and development -nine months ended	$ 7,615	$ 11,038	$ (3,423)	(31)%
Percentage of total net revenue	70%	93%		

Our research and development, or R&D, expenses include costs related to the development of our products. We expense R&D costs as they are incurred.

The decrease for the three and nine months ended September 30, 2024 compared with the same periods of 2023 was primarily due to reduced salary and consulting costs, as we implemented reductions in force in February and November 2023 and terminated consultant contracts, as well as a decrease in rent expense for the Toronto office lease, as we reduced the space we rent effective January 2024, and reduced software license expense. As disclosed in Note 4 to the condensed consolidated financial statements, in June 2024, we recorded a charge of approximately $1.6 million for non-cancelable license commitments for computer-aided design software.

We expect that total R&D expenses will decrease during 2024 compared with 2023, as a result of our cost reduction initiatives initiated during 2023.

Selling, General and Administrative

	September 30,		Change	
	2024	2023	2023 to 2024	
	(dollar amounts in thousands)			
SG&A -three months ended	$ 2,349	$ 2,112	$ 237	11%
Percentage of total net revenue	61%	47%		
SG&A -nine months ended	$ 6,592	$ 6,331	$ 261	4%
Percentage of total net revenue	61%	53%		

Selling, general and administrative, or SG&A, expenses consist primarily of personnel and related overhead costs for sales, marketing, finance, human resources and general management and amortization of certain intangible assets.

The increase for the three and nine months ended September 30, 2024 compared with the same periods of 2023 was primarily attributable to increased consulting and professional services costs and increased amortization of purchased intangible assets for customer relationships, as we reduced the estimated life of these intangibles. These increases were partially offset by the impact of headcount reductions initiated in 2023, including the elimination of certain employee and consulting positions and reductions of other discretionary operating expenses during 2023. We expect that total SG&A expense will remain flat or slightly decrease for the remainder of 2024 compared with 2023 due to our continued cost reduction initiatives.

Severance and Software License Obligations

	September 30,		Change	
	2024	2023	2023 to 2024	
	(dollar amounts in thousands)			
Severance and software license obligations -three months ended	$ —	$ —	$ —	—
Percentage of total net revenue	—	—		
Severance and software license obligations -nine months ended	$ 2,063	$ —	$ 2,063	—
Percentage of total net revenue	19%	—		

In November 2023, we implemented an employee lay-off and terminated certain consulting positions (the “Reductions”) to reduce operating expenses and cash burn, as we prioritized business activities and projects that we believe will have a higher return on investment. As part of the Reductions, we implemented a temporary lay-off that impacted 16 employees (the “Employees”) of Peraso Tech. During the six months ended June 30, 2024, we determined that we would not recall any of the 11 Employees that remained on our payroll and commenced notifying the remaining Employees that their employment would be terminated. As a result, we recorded severance charges of approximately $0.4 million for each of the three and six months ended June 30, 2024, respectively.

As a result of the decision to not recall the Employees, we determined that it was probable that a number of our non-cancelable licenses for computer-aided design software would not be utilized during the remaining license terms. During the three months ended June 30, 2024, we expensed the value of the remaining contractual liabilities and recorded liabilities of approximately $1.6 million.

Liquidity and Capital Resources; Changes in Financial Condition

Cash Flows

As of September 30, 2024, we had cash and cash equivalents of $1.3 million and working capital of $0.4 million.

Net cash used in operating activities was $3.9 million for the first nine months of 2024, which primarily resulted from our net loss of $9.2 million, as adjusted for a $1.6 million non-cash gain on the change in fair value of warrant liability, as partially offset by non-cash charges of $3.0 million of depreciation and amortization, $3.3 million of stock based compensation and $0.6 million in net changes in assets and liabilities. The changes in assets and liabilities primarily related to the timing of accruals for software licenses, accrued severance benefits and accounts receivable collections, and other vendor payables and prepayments.

Net cash used in operating activities was $5.6 million for the first nine months of 2023, which primarily resulted from our net loss of $7.9 million, as adjusted for a $4.2 million non-cash gain on the change in fair value of warrant liability and $0.2 million in other non-cash changes, and was partially offset by non-cash charges of $2.8 million of depreciation and amortization and $3.9 million of stock based compensation.

Net cash provided by investing activities of $1.0 million for the nine months ended September 30, 2023 represented $1.1 million in proceeds from maturities of short-term investments, partially offset by $0.1 million of purchases of property and equipment. For the nine months ended September 30, 2024, no cash was provided by or used in investing activities.

Net cash provided by financing activities of $3.6 million for the nine months ended September 30, 2024 primarily comprised $3.4 million in net proceeds from a public offering of our common stock and common stock purchase warrants completed in February 2024 and a $0.1 million sale of unregistered stock to a member of our board of directors, $0.2 million of net proceeds from at-the-market sales of stock, which was partially offset by $0.1 million for repayment of finance lease liabilities.

Net cash provided by financing activities for the nine months ended September 30, 2023 consisted of $3.5 million, which primarily comprised $3.6 million in net proceeds from a registered direct offering of our common stock and common stock purchase warrants completed in September 2023, as partially offset by taxes paid to net share settle equity awards and repayment of finance lease liabilities.

Our future liquidity and capital requirements are expected to vary from quarter-to-quarter, depending on numerous factors, including:

- level of revenue;
- cost, timing and success of technology development efforts;
- inventory levels, as supply chain disruption during the COVID-19 pandemic required us to maintain higher inventory levels and place purchase orders with our suppliers longer into the future, which exposes us to additional inventory risk;
- timing of product shipments, which may be impacted by supply chain disruptions;
- length of billing and collection cycles, which may be impacted in the event of a global recession or economic downturn;
- fabrication costs, including mask costs, of our ICs, currently under development;
- variations in manufacturing yields, material lead time and costs and other manufacturing risks;
- costs of acquiring other businesses and integrating the acquired operations; and
- profitability of our business.

Purchase Obligations

Our primary purchase obligations include non-cancelable purchase orders for inventory. At September 30, 2024, we had outstanding non-cancelable purchase orders for inventory, primarily wafers and substrates, and related expenditures of approximately $2.9 million.

Going Concern - Working Capital

We incurred net losses of approximately $9.2 million for the nine months ended September 30, 2024 and $16.8 million for the year ended December 31, 2023, and we had an accumulated deficit of approximately $175.6 million as of September 30, 2024. These and prior year losses have resulted in significant negative cash flows and have required us to raise substantial amounts of additional capital. To date, we have primarily financed our operations through offerings of equity and equity-linked securities, issuance of convertible notes and loans.

We expect to continue to incur operating losses for the foreseeable future as we continue to secure new customers for and continue to invest in the development of our products, and we expect our cash expenditures to continue to exceed receipts for the foreseeable future, as our revenues will not be sufficient to offset our operating expenses. We will need to increase revenues beyond the levels that we have attained in the past in order to generate sustainable operating profit and sufficient cash flows to continue doing business without raising additional capital from time to time.

As a result of our expected operating losses and cash burn and recurring losses from operations, if we are unable to raise sufficient capital through additional equity or debt arrangements, there will be uncertainty regarding our ability to maintain liquidity sufficient to operate our business effectively, which raises substantial doubt as to our ability to continue as a going concern within one year from the date of issuance of these condensed consolidated financial statements. The condensed consolidated financial statements presented in Part I, Item 1 of this Report have been prepared assuming that we will continue as a going concern, and do not include any adjustments that might result from the outcome of this uncertainty. There can be no assurance that such additional capital, whether in the form of equity or debt financing, will be sufficient or available and, if available, that such capital will be offered on terms and conditions acceptable to us. We are currently seeking additional financing in order to meet our cash requirements for the foreseeable future. If we are unsuccessful in these efforts, we will need to implement additional cost reduction strategies, which could further affect our near- and long-term business plan. These efforts may include, but are not limited to, reducing headcount and curtailing business activities. In 2023, we implemented cost-reduction initiatives, including headcount reductions, to reduce operating expenses.

As discussed in Note 13 of the "Notes to Condensed Consolidated Financial Statements" included in Part I, Item 1 of this report, on November 5, 2024, we entered into inducement offer letter agreements (the "Inducement Letters") with certain holders (the "Holders") of existing Series B warrants (the "Existing Warrants") to purchase up to an aggregate of 2,246,030 shares of our common stock, having an original exercise price of $2.25 per share, issued to the Holders on February 8, 2024. Pursuant to the Inducement Letters, the Holders agreed to exercise for cash their existing warrants at a reduced exercise price of $1.30 per share (the "Reduced Exercised Price") in consideration for our agreement to issue in a private placement (i) new Series C common stock purchase warrants (the "Series C Warrants") to purchase an aggregate of 2,246,030 shares of common stock, and (ii) new Series D common stock purchase warrants (the "Series D Warrants" and, collectively with the Series C Warrants, the "New Warrants") to purchase an aggregate of 2,246,030 shares of our common stock. In connection with this offering, we also agreed to reduce the exercise price of the Existing Warrants to purchase an aggregate of 1,728,490 shares of common stock for all holders of the Existing Warrants not participating in this offering to the Reduced Exercise Price for the remaining term of the Existing Warrants.

Further, as discussed in Note 8 of the "Notes to Condensed Consolidated Financial Statements" included in Part I, Item 1 of this report, on August 30, 2024, we entered into an At The Market Offering Agreement (the "Sales Agreement") with Ladenburg Thalmann & Co. Inc. ("Ladenburg") with respect to an "at the market" offering program, under which the Company may, from time to time, in its sole discretion, issue and sell through Ladenburg, acting as agent or principal, shares of the Company's common stock initially having an aggregate offering price of up to $1,425,000. The Sales Agreement provides that Ladenburg will be entitled to compensation for its services equal to 3.0% of the gross proceeds from sales of any shares of common stock under the Sales Agreement in addition to the reimbursement of certain expenses. During the three months ended September 30, 2024, under the Sales Agreement, we sold 110,688 shares of common stock for net proceeds of approximately $164,000.

As we have and may raise additional capital through sales of our equity securities, our stockholders will suffer dilution of their equity ownership. If we engage in debt financing, we may be required to accept terms that restrict our ability to incur additional indebtedness, prohibit us from paying dividends, repurchasing our stock or making investments, and force us to maintain specified liquidity or other ratios, any of which could harm our business, operating results and financial condition. If we need additional capital and cannot raise it on acceptable terms, we may not be able to, among other things:

- develop or enhance our products;
- continue to expand our product development and sales and marketing organizations;
- acquire complementary technologies, products or businesses;
- expand operations, in the United States or internationally;
- hire, train and retain employees; or
- respond to competitive pressures or unanticipated working capital requirements.

Discontinuing any of the above-mentioned activities could seriously harm our ability to execute our business strategy and may force us to curtail our existing operations.

We believe that our existing cash and cash equivalents as of September 30, 2024, plus the proceeds from the warrant inducement offering and expected receipts associated with forecasted product sales, will provide us with liquidity to fund our planned operating needs into the second quarter of 2025. Variability in our operating forecast, driven primarily by (i) product sales and collections, (ii) potential customer licensing and non-recurring engineering (NRE) transactions, (iii) timing of operating expenditures, and (iv) unanticipated changes in net working capital, will impact our cash runway. Likewise, we may decide to revise our financial priorities and operating plans, depending on the level of customer shipments, licensing and NRE arrangements and timing of related collections. This could impact our ability to enter into strategic arrangements and to access additional capital.

We will need additional funding to continue our operating activities beyond those activities currently included in our operating forecast and related cash projection. Therefore, we will need to secure additional capital or financing and/or significantly delay, defer or reduce our cash expenditures over the next two quarters. There can be no assurance that we will be able to obtain additional capital or financing on terms acceptable to us, on a timely basis or at all.

Off-Balance Sheet Arrangements

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

Indemnifications

In the ordinary course of business, we enter into contractual arrangements under which we may agree to indemnify the counter-party from losses relating to a breach of representations and warranties, a failure to perform certain covenants, or claims and losses arising from certain external events as outlined within the contract, which may include, for example, losses arising from litigation or claims relating to past performance. Such indemnification clauses may not be subject to maximum loss clauses. We have also entered into indemnification agreements with our officers and directors. No material amounts related to these indemnifications are reflected in our condensed consolidated financial statements for the three and nine months ended September 30, 2024.

Recent Accounting Pronouncements

See Note 1 to the condensed consolidated financial statements for a discussion of recently-issued accounting pronouncements.

ITEM 4. Controls and Procedures

Disclosure Controls and Procedures. Our management is responsible for establishing and maintaining adequate internal control over our financial reporting. Because of inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934. Based on this evaluation, our management concluded that, as of September 30, 2024, our disclosure controls and procedures were effective.

Changes in Internal Control over Financial Reporting. During the three months ended September 30, 2024, there was no change in our internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

ITEM 1. Legal Proceedings

The discussion of legal matters in Note 5 of the Notes to Condensed Consolidated Financial Statements included in Part I, Item 1 of this report under the heading "Legal Matters" is incorporated by reference in response to this Part II, Item 1.

ITEM 1A. Risk Factors

We face many significant risks in our business, some of which are unknown to us and not presently foreseen. These risks could have a material adverse impact on our business, financial condition and results of operations in the future. Other than as set forth below, there have been no material changes with respect to the risk factors disclosed under Item 1A of our annual report on Form 10-K for the year ended December 31, 2023, which we filed with the SEC on March 29, 2024.

If we are unable to satisfy the continued listing requirements of the Nasdaq, our common stock could be delisted and the price and liquidity of our common stock may be adversely affected.

Our common stock may lose value and could be delisted from Nasdaq due to several factors or a combination of such factors. While our common stock is currently listed on Nasdaq, we can give no assurance that we will be able to satisfy the continued listing requirements of Nasdaq in the future, including, but not limited to, the corporate governance requirements and the minimum closing bid price requirement or the minimum equity requirement.

Specifically, as of September 30, 2024, our stockholders' equity was below Nasdaq's $2.5 million minimum stockholders' equity continued listing requirement. However, we believe that, as a result of our receipt of net proceeds of approximately $2.6 million from the warrant inducement offering in November 2024, our current stockholders' equity is now above such requirement. If we are unable to demonstrate to Nasdaq's satisfaction that we subsequently regained compliance with this requirement, Nasdaq will notify us of such non-compliance. If we receive such notice from Nasdaq, in accordance with Nasdaq rules, we will have 45 calendar days from the date of the notification to submit a plan to regain compliance with Nasdaq Listing Rule 5550(b)(1). If our compliance plan is accepted, we may be granted up to 180 calendar days from the date of the initial notification to evidence compliance.

There can be no assurance that we will be able to maintain compliance with the continued listing requirements for Nasdaq. If we fail to maintain compliance with any such continued listing requirement, there can also be no assurance that we will be able to regain compliance with any such continued listing requirement in the future or that our common stock will not be delisted in the future.

If we were to be delisted, we would expect our common stock to be traded in the over-the-counter market which could adversely affect the liquidity of our common stock. Additionally, we could face significant material adverse consequences, including:

- a limited availability of market quotations for our common stock;
- a decreased ability to issue additional securities or obtain additional financing in the future;
- reduced liquidity for our stockholders;
- potential loss of confidence by customers, collaboration partners and employees; and
- loss of institutional investor interest.

In the event of a delisting, we can provide no assurance that any action taken by us to restore compliance with listing requirements would allow our common stock to become listed again, stabilize the market price or improve the liquidity of our common stock, prevent our common stock from dropping below the Nasdaq minimum bid price requirement, or prevent future non-compliance with Nasdaq's listing requirements.

We might not be able to continue as a going concern.

Our consolidated financial statements as of September 30, 2024 have been prepared under the assumption that we will continue as a going concern for the next twelve months. As of September 30, 2024, we had cash and cash equivalents of $1.3 million and an accumulated deficit of $175.6 million. In November 2024, we completed a warrant inducement offering for estimated net proceeds of approximately $2.6 million. We believe that our existing cash and cash equivalents as of September 30, 2024, plus the proceeds from the warrant inducement offering completed in November 2024 and expected receipts associated with forecasted product sales, will enable us to meet our capital needs until the second quarter of 2025.

Our ability to continue as a going concern is dependent upon our ability to raise additional capital and to achieve sustainable revenues and profitable operations. We will need to increase revenues substantially beyond levels that we have attained in the past in order to generate sustainable operating profit and sufficient cash flows to continue doing business without raising additional capital from time to time. As a result of our expected operating losses and cash burn for the foreseeable future and recurring losses from operations, if we are unable to raise sufficient capital through additional debt or equity arrangements, there will be uncertainty regarding our ability to maintain liquidity sufficient to operate our business effectively, which raises substantial doubt as to our ability to continue as a going concern. If we cannot continue as a viable entity, our stockholders would likely lose most or all of their investment in us.

If we are unable to generate sustainable operating profit and sufficient cash flows, then our future success will depend on our ability to raise capital. We cannot be certain that raising additional capital, whether through selling additional debt or equity securities or obtaining a line of credit or other loan, will be available to us or, if available, will be on terms acceptable to us. If we issue additional securities to raise funds, these securities may have rights, preferences, or privileges senior to those of our common stock, and our current stockholders may experience dilution. If we are unable to obtain funds when needed or on acceptable terms, we may be required to curtail our current product development programs, cut operating costs, forego future development and other opportunities or even terminate our operations.

Our forecast of the period of time through which our financial resources will be adequate to support our operating requirements is a forward-looking statement and involves risks and uncertainties, and actual results could vary as a result of a number of factors, including the factors discussed elsewhere in this "*Risk Factors*" section and in Item 1A of our annual report on Form 10-K for the year ended December 31, 2023. We have based this estimate on a number of assumptions that may prove to be wrong and changing circumstances beyond our control may cause us to consume capital more rapidly than we currently anticipate. Our inability to obtain additional funding when we need it could seriously harm our business.

We intend to discontinue the production of our memory products.

Taiwan Semiconductor Manufacturing Corporation, or TSMC, is the sole foundry that manufactures the wafers used to produce our memory IC products. TSMC has informed us that it is discontinuing the foundry process used to produce the wafers necessary to produce our memory ICs. We are not in a position to transition wafer production to a new foundry and continue to manufacture these products. As a result, in May 2023, we initiated an end-of-life, or EOL, of our memory IC products. We expect to fulfill EOL product purchase orders by March 31, 2025. However, the timing of EOL shipments will be dependent on the potential receipt of additional purchase orders from customers, deliveries from our suppliers, and the delivery schedules requested by our customers. Our memory IC products represented over 60% of our revenues for the year ended December 31, 2023 and over 80% of our revenues for the nine months ended September 30, 2024. The discontinuation of the production and sale of our memory IC products will negatively impact our future revenues, gross margins, results of operations and cash flows.

We have a history of losses, and we will need to raise additional capital.

We incurred net losses of approximately $9.2 million for the nine months ended September 30, 2024 and $16.8 million for the year ended December 31, 2023, and we had an accumulated deficit of approximately $175.6 million as of September 30, 2024. These and prior-year losses have resulted in significant negative cash flows. To remain competitive and expand our product offerings to customers, we will need to increase revenues substantially beyond levels that we have attained in the past in order to generate sustainable operating profit and sufficient cash flows to continue doing business without raising additional capital from time to time. Given our history of fluctuating revenues and operating losses, and the challenges we face in securing customers for our products, we cannot be certain that we will be able to achieve and maintain profitability on either a quarterly or annual basis in the future. As a result, we may need to raise additional capital in the future, which may or may not be available to us at all or only on unfavorable terms.

Our recent reduction in force undertaken to significantly reduce our ongoing operating expenses may not result in our intended outcomes and may yield unintended consequences and additional costs.

In November 2023, we implemented an employee lay-off and terminated certain consulting positions (the "Reductions") to reduce operating expenses and cash burn, as we prioritized business activities and projects that we believe will have a higher return on investment. As part of the Reductions, we implemented a temporary lay-off that impacted 16 employees (the "Employees") of Peraso Tech. During the six months ended June 30, 2024, we determined that we would not recall any of the 11 Employees that remained on our payroll and commenced notifying the remaining Employees that their employment would be terminated. As a result, we recorded severance charges of approximately $0.4 million during the nine months ended September 30, 2024, and, as of September 30, 2024, we had a remaining liability for severance costs of approximately $0.3 million. The accrued severance costs are expected to be paid through October 2025.

As a result of the decision to not recall the Employees, we determined that it was probable that a number of our non-cancelable licenses for computer-aided design software would not be utilized during the remaining license terms. During the three months ended June 30, 2024, we expensed the value of the remaining contractual liabilities and recorded liabilities of approximately $1.6 million. As of September 30, 2024, we had a remaining liability of approximately $1.0 million, and we expect to pay these license fees through September 30, 2025.

In addition to the costs associated with the non-cancelable license commitments for computer-aided design software, the Reductions may result in other unintended consequences and costs, such as the loss of institutional knowledge and expertise, attrition beyond the intended number of employees, decreased morale among our remaining employees, and the risk that we may not achieve the anticipated benefits of the Reductions. In addition, while positions have been eliminated certain functions necessary to our operations remain, and we may be unsuccessful in distributing the duties and obligations of departed employees among our remaining employees. We may also be unsuccessful in negotiating any desired strategic alternative or partnership relating to such functions on a timely basis, on acceptable terms, or at all. The Reductions could also make it difficult for us to pursue, or prevent us from pursuing, new opportunities and initiatives due to insufficient personnel, or require us to incur additional and unanticipated costs to hire new personnel to pursue such opportunities or initiatives. Further, inflationary pressure may increase our costs, including employee compensation costs, or result in employee attrition to the extent our compensation does not keep up with inflation, particularly if our competitors' compensation does. If we are unable to realize the anticipated benefits from the Reductions, if we experience significant adverse consequences from the reduction in force, or if we are otherwise unable to retain our employees, our business, financial condition, and results of operations may be materially adversely affected.

Failure to comply with laws relating to employment could subject us to penalties and other adverse consequences.

We are subject to various employment-related laws in the jurisdictions in which our employees are based. We face risks if we fail to comply with applicable U.S. federal or state employment and wage laws, or employment wage laws applicable to our employees located in Canada. The Reductions create an additional risk of claims being made on behalf of affected employees. Recently, the Company has received and, may in the future receive, claims made on behalf of employees, whom were part of the Reductions, regarding statutory and common law severance payments. If such claims are successful and not mitigated by employment practices insurance coverage, our required payments may be higher than we have initially estimated. In addition, any violations of applicable wage laws or other labor- or employment-related laws could result in complaints by current or former employees, adverse media coverage, investigations, and damages or penalties which could have a materially adverse effect on our reputation, business, operating results, and prospects. In addition, responding to any such proceeding may result in a significant diversion of management's attention and resources, significant defense costs, and other professional fees.

We currently maintain and may expand operations outside of the United States which exposes us to significant risks.

The success of our business depends, in large part, on our ability to operate successfully from geographically disparate locations and to further expand our international operations and sales. Operating in international markets requires significant resources and management attention and subjects us to regulatory, economic, and political risks that are different from those we face in the United States. We cannot be sure that further international expansion will be successful. In addition, we face risks in doing business internationally that could expose us to reduced demand for our products, lower prices for our products or other adverse effects on our operating results. The success and profitability, as well as the expansion, of our international operations are subject to numerous risks and uncertainties, many of which are outside of our control, such as the following:

- public health issues, such as pandemics and epidemics, which can result in varying impacts to our business, employees, partners, customers, distributors or suppliers internationally;
- difficulties, inefficiencies and costs associated with staffing and managing foreign operations;
- longer and more difficult customer qualification and credit checks;
- greater difficulty collecting accounts receivable and longer payment cycles;
- the need for various local approvals to operate in some countries;
- difficulties in entering some foreign markets without larger-scale local operations;
- changes in import/export laws, trade restrictions, regulations and customs and duties and tariffs (foreign and domestic);
- compliance with local laws and regulations;
- unexpected changes in regulatory requirements;
- reduced protection for intellectual property rights in some countries;
- adverse tax consequences, including potential additional tax exposure if we are deemed to have established a permanent establishment outside of the United States;
- the effectiveness of our policies and procedures designed to ensure compliance with the Foreign Corrupt Practices Act of 1977 and similar regulations;
- fluctuations in currency exchange rates, which could increase the prices of our products to customers outside of the United States, increase the expenses of our international operations by reducing the purchasing power of the U.S. dollar and expose us to foreign currency exchange rate risk if, in the future, we denominate our international sales in currencies other than the U.S. dollar;
- new and different sources of competition;
- political, economic, and social instability;
- terrorism and acts of war, which could have a negative impact on the operations of our business or the businesses of our customers and vendors; and
- US Department of Commerce regulations or restrictions on exports of certain semiconductor products and technologies.

Our failure to manage any of these risks successfully could harm our operations and reduce our revenue.

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

Except as disclosed below, during the period covered by this Quarterly Report on Form 10-Q, the Company has not sold any equity securities that were not registered under the Securities Act that were not previously reported in a Current Report on Form 8-K.

On May 1, 2024, the Company entered into a consulting agreement with a service provider, pursuant to which the Company agreed to issue the service provider, as partial compensation, 40,000 restricted shares of common stock 90 days thereafter. The Company issued the shares to the service provider on August 5, 2024 in reliance on an exemption from registration provided by Section 4(a)(2) and/or Rule 506 of Regulation D of the Securities Act. The service provider represented in the consulting agreement that it was an “accredited investor,” as defined in Rule 501(a) of Regulation D under the Securities Act. The shares are subject to transfer restrictions, and the book-entry records evidencing the shares contain an appropriate legend stating that such shares have not been registered under the Securities Act and may not be offered or sold absent registration or pursuant to an exemption therefrom.

ITEM 5. Other Information

None of the Company’s directors or officers adopted, modified or terminated a Rule 10b-5 trading arrangement or a non-Rule 10b-5 trading arrangement during the fiscal quarter ended September 30, 2024, as such terms are defined under Item 408(a) of Regulation S-K.

ITEM 6. Exhibits

(a) Exhibits

		Reference				Filed or
Exhibit No.	**Exhibit Description**	**Form**	**File No.**	**Form Exhibit**	**Filing Date**	**Furnished Herewith**
10.1	Amendment to the Warrant Agency Agreement dated February 8, 2024 by and between Peraso Inc. and Equiniti Trust Company, LLC, as Warrant Agent, dated August 6, 2024	8-K	000-32929	10.1	August 7, 2024	
10.2	At The Market Offering Agreement, dated August 30, 2024, by and between Peraso Inc. and Ladenburg Thalmann & Co. Inc.	8-K	000-32929	10.1	August 30, 2024	
10.3	Amendment #2 to the Warrant Agency Agreement dated February 8, 2024 by and between Peraso Inc. and Equiniti Trust Company, LLC, as Warrant Agent, dated October 3, 2024	8-K	000-32929	10.1	October 4, 2024	

31.1	Rule 13a-14 Certification	X
31.2	Rule 13a-14 Certification	X
32.1	Section 1350 Certification	X
101	The following financial information from Peraso Inc.'s quarterly report on Form 10-Q for the period ended September 30, 2024, filed with the SEC on November 13, 2024, formatted in Inline Extensible Business Reporting Language (Inline XBRL): (i) the Condensed Consolidated Statements of Operations and Comprehensive Income (Loss) for the three and nine months ended September 30, 2024 and 2023, (ii) the Condensed Consolidated Balance Sheets as of September 30, 2024 and December 31, 2023, (iii) the Condensed Consolidated Statements of Stockholders' Equity for the three and nine months ended September 30, 2024 and 2023, (iv) the Condensed Consolidated Statements of Cash Flows for the nine months ended September 30, 2024 and 2023, and (v) Notes to Condensed Consolidated Financial Statements	X
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)	X

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.

Dated: November 13, 2024

PERASO INC.

By: /s/ Ronald Glibbery
Ronald Glibbery
Chief Executive Officer
(Principal Executive Officer)

By: /s/ James Sullivan
James Sullivan
Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 31.1

CERTIFICATION PURSUANT TO
RULE 13a-14 OF THE SECURITIES EXCHANGE ACT OF 1934

I, Ronald Glibbery, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Peraso Inc. for the period ended September 30, 2024;

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 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 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 13, 2024

/s/ Ronald Glibbery
Ronald Glibbery
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

**CERTIFICATION PURSUANT TO
RULE 13a-14 OF THE SECURITIES EXCHANGE ACT OF 1934**

I, James Sullivan, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Peraso Inc. for the period ended September 30, 2024;

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 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 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 13, 2024

/s/ James Sullivan
James Sullivan
Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

CERTIFICATION OF CEO AND CFO FURNISHED PURSUANT TO
18 U.S.C. § 1350,
AS ADOPTED PURSUANT TO
§ 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the quarterly report on Form 10-Q of Peraso Inc. (the “Company”) for the quarterly period ended September 30, 2024, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), each of Ronald Glibbery, Chief Executive Officer of the Company, and James Sullivan, Chief Financial Officer of the Company, hereby certifies, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, to the best of his knowledge, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Ronald Glibbery
Ronald Glibbery
Chief Executive Officer
(Principal Executive Officer)
November 13, 2024

/s/ James Sullivan
James Sullivan
Chief Financial Officer
(Principal Financial and Accounting Officer)
November 13, 2024

This certification accompanies this Report pursuant to § 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, or otherwise required, be deemed filed by the Company for purposes of § 18 of the Securities Exchange Act of 1934, as amended.