UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

☑ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the quarterly period ended June 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: 001-35435

Proto Labs, Inc.

(Exact name of registrant as specified in its charter)

Minnesota	**41-1939628**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
5540 Pioneer Creek Drive **Maple Plain, Minnesota**	**55359**
(Address of principal executive offices)	(Zip Code)

(763) 479-3680
(Registrant's telephone number, including area code)

Not Applicable
(Former name, former address and former fiscal year, if changed since last report)

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	PRLB	New York Stock Exchange

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ☑Yes ☐No

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

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

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date: 25,147,616 shares of Common Stock, par value $0.001 per share, were outstanding at July 30, 2024.

Proto Labs, Inc.
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PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

Proto Labs, Inc.
Consolidated Balance Sheets
(In thousands, except share and per share amounts)

	June 30, 2024	December 31, 2023
	(Unaudited)	
Assets		
Current assets		
Cash and cash equivalents	$ 96,149	$ 83,790
Short-term marketable securities	16,792	19,013
Accounts receivable, net of allowance for doubtful accounts of $2,610 and $2,499 as of June 30, 2024, and December 31, 2023, respectively	70,891	72,848
Inventory	12,357	13,657
Income taxes receivable	1,400	2,228
Prepaid expenses and other current assets	10,034	9,124
Total current assets	207,623	200,660
Property and equipment, net	243,710	253,655
Goodwill	273,991	273,991
Other intangible assets, net	23,427	25,584
Long-term marketable securities	—	8,019
Operating lease assets	3,790	4,628
Finance lease assets	826	960
Other long-term assets	4,839	4,856
Total assets	$ 758,206	$ 772,353
Liabilities and shareholders' equity		
Current liabilities		
Accounts payable	$ 15,910	$ 15,636
Accrued compensation	15,544	15,292
Accrued liabilities and other	17,656	16,872
Current operating lease liabilities	1,534	1,585
Current finance lease liabilities	302	296
Total current liabilities	50,946	49,681
Long-term operating lease liabilities	2,203	3,008
Long-term finance lease liabilities	443	595
Long-term deferred tax liabilities	14,588	18,742
Other long-term liabilities	4,790	5,032
Total liabilities	72,970	77,058
Shareholders' equity		
Preferred stock, $0.001 par value, authorized 10,000,000 shares; issued and outstanding 0 shares as of each of June 30, 2024, and December 31, 2023	—	—
Common stock, $0.001 par value, authorized 150,000,000 shares; issued and outstanding 25,147,616 and 25,721,957 shares as of June 30, 2024, and December 31, 2023, respectively	26	26
Additional paid-in capital	461,400	466,884
Retained earnings	253,242	256,398
Accumulated other comprehensive loss	(29,432)	(28,013)
Total shareholders' equity	685,236	695,295
Total liabilities and shareholders' equity	$ 758,206	$ 772,353

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

Proto Labs, Inc.
Consolidated Statements of Comprehensive Income
(In thousands, except share and per share amounts)
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2024	**2023**	**2024**	**2023**
Statements of Operations:				
Revenue	$ 125,631	$ 122,265	$ 253,521	$ 248,124
Cost of revenue	69,085	69,142	139,508	141,225
Gross profit	56,546	53,123	114,013	106,899
Operating expenses				
Marketing and sales	23,291	21,730	46,451	44,181
Research and development	10,661	9,865	21,828	20,542
General and administrative	16,595	15,822	32,908	32,655
Closure of Japan business	—	98	—	164
Total operating expenses	50,547	47,515	101,187	97,542
Income from operations	5,999	5,608	12,826	9,357
Other income (loss), net	1,361	(3,368)	2,260	(2,078)
Income before income taxes	7,360	2,240	15,086	7,279
Provision for income taxes	2,820	2,623	5,278	5,003
Net income (loss)	$ 4,540	$ (383)	$ 9,808	$ 2,276
Net income (loss) per share:				
Basic	$ 0.18	$ (0.01)	$ 0.39	$ 0.09
Diluted	$ 0.18	$ (0.01)	$ 0.38	$ 0.09
Shares used to compute net income (loss) per share:				
Basic	25,313,036	26,210,478	25,473,937	26,414,467
Diluted	25,372,972	26,210,478	25,573,344	26,445,427
Comprehensive Income (net of tax)				
Comprehensive income	$ 3,953	$ 3,890	$ 8,389	$ 7,410

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

Proto Labs, Inc.
Consolidated Statements of Shareholders' Equity
(In thousands, except share amounts)

	Common Stock		Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Total
	Shares	Amount				
Balance at December 31, 2023	25,721,957	26	466,884	256,398	(28,013)	695,295
Common shares issued on exercise of options and other, net of shares withheld for tax obligations	29,974	—	(533)	—	—	(533)
Stock-based compensation expense	—	—	4,276	—	—	4,276
Repurchases of common stock and other	(435,861)	—	(7,912)	(8,252)	—	(16,164)
Net income	—	—	—	5,268	—	5,268
Other comprehensive income						
Foreign currency translation adjustment	—	—	—	—	(925)	(925)
Net unrealized gains (losses) on investments in securities	—	—	—	—	93	93
Comprehensive income						4,436
Balance at March 31, 2024	25,316,070	$ 26	$ 462,715	$ 253,414	$ (28,845)	$ 687,310
Common shares issued on exercise of options and other, net of shares withheld for tax obligations	176,780	—	707	—	—	707
Stock-based compensation expense	—	—	4,244	—	—	4,244
Repurchases of common stock and other	(345,234)	—	(6,266)	(4,712)	—	(10,978)
Net income	—	—	—	4,540	—	4,540
Other comprehensive income						
Foreign currency translation adjustment	—	—	—	—	(678)	(678)
Net unrealized gains (losses) on investments in securities	—	—	—	—	91	91
Comprehensive income						3,953
Balance at June 30, 2024	25,147,616	$ 26	$ 461,400	$ 253,242	$ (29,432)	$ 685,236

	Common Stock		Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Total
	Shares	Amount				
Balance at December 31, 2022	26,888,425	27	473,740	258,236	(34,355)	697,648
Common shares issued on exercise of options and other, net of shares withheld for tax obligations	26,798	—	(401)	—	—	(401)
Stock-based compensation expense	—	—	3,695	—	—	3,695
Repurchases of common stock	(712,500)	(1)	(11,849)	(9,475)	—	(21,325)
Net income	—	—	—	2,659	—	2,659
Other comprehensive income						
Foreign currency translation adjustment	—	—	—	—	527	527
Net unrealized gains (losses) on investments in securities	—	—	—	—	334	334
Comprehensive income						3,520
Balance at March 31, 2023	26,202,723	$ 26	$ 465,185	$ 251,420	$ (33,494)	$ 683,137
Common shares issued on exercise of options and other, net of shares withheld for tax obligations	169,229	—	962	—	—	962
Stock-based compensation expense	—	—	3,675	—	—	3,675
Repurchases of common stock	(276,518)	—	(4,872)	(4,107)	—	(8,979)
Net loss	—		—	(383)	—	(383)
Other comprehensive income						
Foreign currency translation adjustment	—	—	—	—	4,254	4,254
Net unrealized gains (losses) on investments in securities	—	—	—	—	19	19
Comprehensive income						3,890
Balance at June 30, 2023	26,095,434	$ 26	$ 464,950	$ 246,930	$ (29,221)	$ 682,685

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

Proto Labs, Inc.
Consolidated Statements of Cash Flows
(In thousands)
(Unaudited)

	Six Months Ended June 30,	
	2024	**2023**
Operating activities		
Net income	$ 9,808	$ 2,276
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	18,075	18,883
Stock-based compensation expense	8,520	7,370
Deferred taxes	(4,144)	(5,605)
Interest on finance lease obligations	18	568
Loss on foreign currency translation	—	3,906
Gain on disposal of property and equipment	(20)	(428)
Other	64	215
Changes in operating assets and liabilities:		
Accounts receivable	113	1,106
Inventories	1,263	(551)
Prepaid expenses and other	(829)	4,193
Income taxes	825	3,524
Accounts payable	537	(961)
Accrued liabilities and other	1,551	(2,629)
Net cash provided by operating activities	35,781	31,867
Investing activities		
Purchases of property, equipment and other capital assets	(6,784)	(6,829)
Proceeds from sales of property, equipment and other capital assets	30	623
Proceeds from call redemptions and maturities of marketable securities	10,419	14,020
Net cash provided by investing activities	3,665	7,814
Financing activities		
Proceeds from exercises of stock options	2,094	1,986
Purchases of shares withheld for tax obligations	(1,920)	(1,425)
Repurchases of common stock	(26,940)	(30,064)
Principal repayments of finance lease obligations	(146)	(163)
Net cash used in financing activities	(26,912)	(29,666)
Effect of exchange rate changes on cash and cash equivalents	(175)	(80)
Net increase in cash and cash equivalents	12,359	9,935
Cash and cash equivalents, beginning of period	83,790	56,558
Cash and cash equivalents, end of period	$ 96,149	$ 66,493

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

Notes to Consolidated Financial Statements

Note 1 – Basis of Presentation

The unaudited interim Consolidated Financial Statements of Proto Labs, Inc. (Protolabs, the Company, we, us or our) have been prepared in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP) for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. In the opinion of management, the accompanying financial statements reflect all adjustments necessary for a fair presentation of the Company's statements of financial position, results of operations and cash flows for the periods presented. Except as otherwise disclosed herein, these adjustments consist of normal, recurring items. Operating results for interim periods are not necessarily indicative of results that may be expected for the fiscal year as a whole.

The preparation of the financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses, and the related disclosures at the date of the financial statements and during the reporting period. Actual results could materially differ from these estimates. For further information, refer to the audited Consolidated Financial Statements and Notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2023, as filed with the Securities and Exchange Commission (SEC) on February 16, 2024.

The accompanying Consolidated Balance Sheet as of December 31, 2023 was derived from the audited Consolidated Financial Statements but does not include all disclosures required by U.S. GAAP for a full set of financial statements. This Quarterly Report on Form 10-Q should be read in conjunction with the Company's Consolidated Financial Statements and Notes included in the Company's Annual Report on Form 10-K filed on February 16, 2024 as referenced above.

Note 2 – Recent Accounting Pronouncements

The Company did not recently adopt any accounting pronouncements that had a material impact on the Company's Consolidated Financial Statements.

In December 2023, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures*, that enhances the transparency of income tax disclosures by expanding annual disclosure requirements related to the rate reconciliation and income taxes paid. The Company is required to adopt this guidance for its annual year ending December 31, 2025. Early adoption is permitted. The Company is currently evaluating the impact of this guidance on its disclosures.

In November 2023, the FASB issued ASU No. 2023-07, *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures*, that updates reportable segment disclosure requirements primarily through enhanced disclosures about significant expenses and information used to assess segment performance on an annual and interim basis. The Company is required to adopt this guidance for its annual year ending December 31, 2024 and all interim periods thereafter. Early adoption is permitted. The Company is currently evaluating the impact of this guidance on its disclosures.

Note 3 – Net Income (Loss) per Common Share

Basic net income (loss) per share is computed based on the weighted-average number of common shares outstanding. Diluted net income (loss) per share is computed based on the weighted-average number of common shares outstanding, increased by the number of additional shares that would have been outstanding had potentially dilutive common shares been issued and reduced by the number of shares the Company could have repurchased from the proceeds from issuance of the potentially dilutive shares. Potentially dilutive shares of common stock include stock options and other stock-based awards granted under stock-based compensation plans and shares committed to be purchased under the employee stock purchase plan. Performance stock units are excluded from the calculation of dilutive potential common shares until the performance conditions have been satisfied. Anti-dilutive options were excluded from the calculation of diluted weighted average shares outstanding and were 452,239 and 380,848 for the three months ended June 30, 2024 and 2023, respectively, and 371,313 and 407,119 for the six months ended June 30, 2024 and 2023, respectively.

The table below sets forth the computation of basic and diluted net income (loss) per share:

(in thousands, except share and per share amounts)	Three Months Ended June 30, 2024	Three Months Ended June 30, 2023	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023
Net income (loss)	$ 4,540	$ (383)	$ 9,808	$ 2,276
Basic - weighted-average shares outstanding:	25,313,036	26,210,478	25,473,937	26,414,467
Effect of dilutive securities:				
Employee stock options and other[1]	59,936	0	99,407	30,960
Diluted - weighted-average shares outstanding:	25,372,972	26,210,478	25,573,344	26,445,427
Net income (loss) per share:				
Basic	$ 0.18	$ (0.01)	$ 0.39	$ 0.09
Diluted	$ 0.18	$ (0.01)	$ 0.38	$ 0.09

[1] For the three months ended June 30, 2023, 14,084 of dilutive securities for employee stock options and other were not included in the diluted weighted average shares outstanding due to the net loss for the three months ended June 30, 2023.

Note 4 – Goodwill and Other Intangible Assets

There were no changes in the carrying amount of goodwill during the three and six months ended June 30, 2024.

Intangible assets other than goodwill at June 30, 2024 and December 31, 2023 were as follows:

	June 30, 2024			December 31, 2023				
(in thousands)	Gross	Accumulated Amortization	Net	Gross	Accumulated Amortization	Net	Useful Life (in years)	Weighted Average Useful Life Remaining (in years)
Intangible assets with finite lives:								
Marketing assets	$ 930	$ (930)	$ —	$ 930	$ (900)	$ 30	10.0	0.0
Non-compete agreement	827	(653)	174	835	(603)	232	2.0 - 5.0	1.1
Software technology	13,229	(8,439)	4,790	13,229	(7,752)	5,477	10.0	3.5
Software platform	26,026	(7,563)	18,463	26,373	(6,575)	19,798	12.0	8.6
Tradenames	349	(349)	—	354	(347)	7	3.0	0.0
Customer relationships	12,195	(12,195)	—	12,223	(12,183)	40	3.0 - 9.0	0.0
Total intangible assets	$ 53,556	$ (30,129)	$ 23,427	$ 53,944	$ (28,360)	$ 25,584		

Intangible assets allocated to the Protolabs Network entities consisted of intangible assets of €11.6 million in Europe and $16.6 million in the United States as of the date of the acquisition. The Euro denominated intangible assets are translated at the end of each period using the current exchange rates resulting in a foreign currency translation adjustment that is recorded as a component of Other Comprehensive Income. Foreign currency unrealized losses related to intangible assets were $1.7 million and $1.3 million as of June 30, 2024 and December 31, 2023, respectively. Amortization expense for intangible assets was $0.9 million and $1.5 million for each of the three months ended June 30, 2024 and 2023, respectively, and $1.9 million and $3.1 million for each of the six months ended June 30, 2024 and 2023, respectively.

Estimated aggregated amortization expense based on the current carrying value of the amortizable intangible assets and current exchange rates is as follows:

(in thousands)	Estimated Amortization Expense
Remaining 2024	$ 1,815
2025	3,630
2026	3,529
2027	3,520
2028	2,151
Thereafter	8,782
Total estimated amortization expense	$ 23,427

Note 5 – Fair Value Measurements

Accounting Standards Codification, *Fair Value Measurement* (ASC 820), defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. ASC 820 also establishes a fair value hierarchy that requires classification based on observable and unobservable inputs when measuring fair value. There are three levels of inputs that may be used to measure fair value:

Level 1—Quoted prices in active markets for identical assets or liabilities.

Level 2—Observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities; quoted prices in markets that are *not* active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The Company's assets and liabilities that are required to be measured or disclosed at fair value on a recurring basis include cash and cash equivalents and marketable securities. The Company's cash consists of bank deposits and cash equivalents consist primarily of money market mutual funds. The Company determines the fair value of these investments using Level 1 inputs. The Company's marketable securities consist of short-term and long-term agency, municipal, corporate and other debt securities. Fair value for the corporate debt securities is primarily determined based on quoted market prices (Level 1). Fair values for the U.S. municipal securities, U.S. government agency securities, certificates of deposit and U.S. treasury securities are primarily determined using dealer quotes or quoted market prices for similar securities (Level 2).

The following table summarizes financial assets as of June 30, 2024 and December 31, 2023 measured at fair value on a recurring basis:

	June 30, 2024			December 31, 2023		
(in thousands)	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Financial Assets:						
Cash	$ 94,871	$ —	$ —	$ 77,423	$ —	$ —
Money market mutual fund	1,278	$ —	—	6,367	—	—
Marketable securities	2,465	14,327	—	4,482	22,550	—
Total	$ 98,614	$ 14,327	$ —	$ 88,272	$ 22,550	$ —

Note 6 – Marketable Securities

The Company invests in short-term and long-term agency, municipal, corporate and other debt securities. The securities are categorized as available-for-sale and are recorded at fair value. The following table summarizes information regarding the Company's short-term and long-term marketable securities as of June 30, 2024 and December 31, 2023:

	June 30, 2024			
(in thousands)	Cost	Unrealized Gains	Unrealized Losses	Fair Value
U.S. government agency securities	$ 13,310	$ —	$ (178)	$ 13,132
U.S. municipal securities	3,699	—	(39)	3,660
Total marketable securities	$ 17,009	$ —	$ (217)	$ 16,792

	December 31, 2023			
(in thousands)	Cost	Unrealized Gains	Unrealized Losses	Fair Value
U.S. government agency securities	$ 16,798	$ —	$ (278)	$ 16,520
Corporate debt securities	2,511	—	(19)	2,492
U.S. municipal securities	7,876	—	(105)	7,771
Certificates of deposit/time deposits	249	—	—	249
Total marketable securities	$ 27,434	$ —	$ (402)	$ 27,032

Fair values for the corporate debt securities are primarily determined based on quoted market prices (Level 1). Fair values for the U.S. municipal securities, U.S. government agency securities, certificates of deposit and U.S. treasury securities are primarily determined using dealer quotes or quoted market prices for similar securities (Level 2).

Classification of marketable securities as current or non-current is based upon the security's maturity date as of the date of these financial statements.

The June 30, 2024 balance of available-for-sale debt securities by contractual maturity is shown in the following table at fair value. Actual maturities may differ from contractual maturities because the issuers of the securities may have the right to prepay obligations without prepayment penalties.

(in thousands)	June 30, 2024
Due in one year or less	$ 16,792
Due after one year through five years	—
Total marketable securities	$ 16,792

Note 7 – Inventory

Inventory consists primarily of raw materials, which are recorded at the lower of cost and net realizable value using the standard cost method, which approximates first-in, first-out (FIFO) cost. The Company periodically reviews its inventory for slow-moving, damaged and discontinued items and provides allowances to reduce such items identified to their recoverable amounts.

The Company’s inventory consisted of the following as of the dates indicated:

(in thousands)	June 30, 2024	December 31, 2023
Total inventory	$ 13,042	$ 14,319
Allowance for obsolescence	(685)	(662)
Inventory, net of allowance	$ 12,357	$ 13,657

Note 8 – Stock-Based Compensation

Under the Amended and Restated Proto Labs Inc. 2022 Long-Term Incentive Plan, the Company has the ability to grant stock options, stock appreciation rights (SARs), restricted stock, restricted stock units, other stock-based awards and cash incentive awards, which was approved by the Company's shareholders at a Special Meeting of Shareholders on August 29, 2022 and was amended and restated by the Company's shareholders at its Annual Meeting of Shareholders on May 23, 2024 (as amended and restated, the 2022 Plan) to increase the number of shares available for issuance pursuant to awards under the 2022 Plan by an additional 430,000 shares, add a minimum vesting requirement, and extend the expiration date so that the term of the 2022 Plan runs for ten years from the date of the shareholder approval. Awards under the 2022 Plan have a maximum term of ten years from the date of grant. The compensation committee may provide that the vesting or payment of any award will be subject to the attainment of specified performance measures in addition to the satisfaction of any continued service requirements and the compensation committee will determine whether such measures have been achieved. The per-share exercise price of stock options and SARs granted under the 2022 Plan generally may not be less than the fair market value of a share of our common stock on the date of the grant.

The Company also has outstanding awards under the 2012 Long-Term Incentive Plan, as amended (the 2012 Plan), although the plan expired in February 2022 and no additional awards have since been or will be made under the 2012 Plan. The 2012 Plan provided the Company the ability to grant stock options, SARs, restricted stock, restricted stock units, other stock-based awards and cash incentive awards. Awards under the 2012 Plan that subsequently expired, were forfeited or cancelled, or settled in cash after August 29, 2022 became available for awards under the 2022 Plan.

Employee Stock Purchase Plan

The Company’s 2012 Employee Stock Purchase Plan (ESPP) allows eligible employees to purchase a variable number of shares of the Company’s common stock each offering period at a discount through payroll deductions of up to 15 percent of their eligible compensation, subject to plan limitations. The ESPP provides for six-month offering periods with a single purchase period ending May 15 and November 15, respectively. At the end of each offering period, employees are able to purchase shares at 85 percent of the lower of the fair market value of the Company’s common stock on the first trading day of the offering period or on the last trading day of the offering period.

Stock-Based Compensation Expense

Stock-based compensation expense was $4.2 million and $3.7 million for the three months ended June 30, 2024 and 2023, respectively, and $8.5 million and $7.4 million for the six months ended June 30, 2024 and 2023, respectively.

Stock Options

The following table summarizes stock option activity during the six months ended June 30, 2024:

	Stock Options	Weighted-Average Exercise Price
Options outstanding at December 31, 2023	371,313	$ 59.92
Granted	139,215	33.41
Exercised	—	—
Forfeited	(29,729)	76.23
Expired	(5,094)	67.78
Options outstanding at June 30, 2024	475,705	$ 51.06
Exercisable at June 30, 2024	190,014	$ 70.24

The outstanding options generally have a term of ten years. For employees, options granted become exercisable ratably over the vesting period, which is generally a period of four years, beginning on the first anniversary of the grant date, subject to the employee's continuing service to the Company.

The weighted-average grant date fair value of options that were granted during the six months ended June 30, 2024 was $18.15.

The following table provides the assumptions used in the Black-Scholes pricing model valuation of options during the six months ended June 30, 2024 and 2023:

	Six Months Ended June 30,	
	2024	2023
Risk-free interest rate	4.28% - 4.30%	3.90% - 4.55%
Expected life (years)	6.25	2.00 - 6.25
Expected volatility	50.62% - 50.72%	49.23% - 55.92%
Expected dividend yield	0%	0%

As of June 30, 2024, there was $5.0 million of unrecognized compensation expense related to unvested stock options, which is expected to be recognized over a weighted-average period of 2.9 years.

Restricted Stock

Restricted stock awards are share-settled awards and restrictions lapse ratably over the vesting period, which is generally a period from three to four years, beginning on the first anniversary of the grant date, subject to the employee's continuing service to the Company. For the board of directors, restrictions generally lapse in full on the first anniversary of the grant date.

The following table summarizes restricted stock activity during the six months ended June 30, 2024:

	Restricted Stock	Weighted-Average Grant Date Fair Value Per Share
Restricted stock at December 31, 2023	653,465	$ 45.89
Granted	336,785	33.02
Restrictions lapsed	(191,950)	54.48
Forfeited	(26,289)	42.36
Restricted stock at June 30, 2024	772,011	$ 38.26

As of June 30, 2024, there was $23.4 million of unrecognized compensation expense related to non-vested restricted stock, which is expected to be recognized over a weighted-average period of 2.9 years.

Performance Stock

Performance stock units (PSUs) are expressed in terms of a target number of PSUs, with anywhere between 0 percent and 200 percent of that target number capable of being earned and vesting at the end of a three-year performance period depending on the Company's performance in the final year of the performance period and the award recipient's continued employment. Certain PSUs granted by the Company in 2021 are based on performance conditions and the related compensation cost is based on the probability that the performance conditions will be achieved. The Company's PSUs granted in 2022, 2023, 2024 and certain PSUs granted in 2021 are based on market conditions and the related compensation cost is based on the fair value at grant date calculated using a Monte Carlo pricing model.

The following table summarizes performance stock activity during the six months ended June 30, 2024:

	Performance Stock	Weighted-Average Grant Date Fair Value Per Share
Performance stock at December 31, 2023	107,097	$ 74.08
Granted	79,436	48.20
Restrictions lapsed	—	—
Performance change	(2,772)	227.14
Forfeited	—	
Performance stock at June 30, 2024	183,761	$ 60.58

The following table provides the assumptions used in the Monte Carlo pricing model valuation of PSUs during the six months ended June 30, 2024 and 2023:

	Six Months Ended June 30,	
	2024	**2023**
Risk-free interest rate	4.37%	4.35%
Expected life (years)	2.88	2.88
Expected volatility	51.40%	58.00%
Expected dividend yield	0%	0%

As of June 30, 2024, there was $6.2 million of unrecognized compensation expense related to non-vested performance stock, which is expected to be recognized over a weighted-average period of 2.1 years.

Employee Stock Purchase Plan

The following table presents the assumptions used to estimate the fair value of the ESPP during the six months ended June 30, 2024 and 2023:

	Six Months Ended June 30,	
	2024	**2023**
Risk-free interest rate	5.07% - 5.16%	4.60% - 4.82%
Expected life (months)	6.00	6.00
Expected volatility	30.97% - 47.92%	47.38% - 67.84%
Expected dividend yield	0%	0%

Note 9 – Accumulated Other Comprehensive Income (Loss)

Other comprehensive income (loss) is comprised of foreign currency translation adjustments and net unrealized gains (losses) on investments in securities.

The following table presents the changes in accumulated other comprehensive income (loss) balances during the three and six months ended June 30, 2024 and 2023:

	Three Months Ended June 30,		Six Months Ended June 30,	
(in thousands)	2024	2023	2024	2023
Balance at beginning of period	$ (28,845)	$ (33,494)	$ (28,013)	$ (34,355)
Foreign currency translation adjustments				
Other comprehensive (loss) income before reclassifications	(678)	348	(1,603)	875
Amounts reclassified from accumulated other comprehensive loss	—	3,906	—	3,906
Net current-period other comprehensive (loss) income	(678)	4,254	(1,603)	4,781
Net unrealized gains (losses) on investments in securities				
Other comprehensive income (loss) before reclassifications	91	19	184	353
Amounts reclassified from accumulated other comprehensive loss	—	—	—	—
Net current-period other comprehensive income (loss)	91	19	184	353
Balance at end of period	$ (29,432)	$ (29,221)	$ (29,432)	$ (29,221)

Note 10 – Income Taxes

The Company is subject to income tax in multiple jurisdictions and the use of estimates is required to determine the provision for income taxes. For the three months ended June 30, 2024 and 2023, the Company recorded an income tax provision of $2.8 million and $2.6 million, respectively. For the six months ended June 30, 2024 and 2023, the Company recorded an income tax provision of $5.3 million and $5.0 million, respectively. The income tax provision is based on the estimated annual effective tax rate for the year applied to pre-tax income. The effective income tax rate for the three months ended June 30, 2024 was 38.3 percent compared to 117.1 percent in the same period of the prior year. The effective tax rate decreased by 78.8 percent for the three months ended June 30, 2024 when compared to the same period in 2023, primarily due to the prior year one-time tax impact of the foreign currency translation loss from the closure of our Japan business. The effective income tax rate for the six months ended June 30, 2024 was 35.0 percent compared to 68.7 percent in the same period of the prior year. The effective tax rate decreased by 33.7 percent for the six months ended June 30, 2024 when compared to the same period in 2023, primarily due to the prior year one-time tax impact of the foreign currency translation loss from the closure of our Japan business.

The effective income tax rate for the three and six months ended June 30, 2024 differs from the U.S. federal statutory rate of 21.0 percent due to various factors, including operating in multiple state and foreign jurisdictions partially offset by tax credits for which the Company qualifies.

The Company had unrecognized tax benefits totaling $3.6 million as of June 30, 2024 and $3.6 million as of December 31, 2023, respectively, that if recognized would result in a reduction of the Company's effective tax rate. The liabilities are classified as other long-term liabilities in the accompanying consolidated balance sheets. The Company recognizes interest and penalties related to income tax matters in income tax expense and reports the liability in current or long-term income taxes payable as appropriate.

Note 11 – Segment Reporting

The Company's reportable segments are based on the internal reporting used by the Company's Chief Executive Officer, who is the chief operating decision maker (CODM), to assess operating performance and make decisions about the allocation of resources. The Corporate Unallocated and Japan category includes non-reportable segments, as well as research and development and general and administrative costs, that the Company does not allocate directly to its operating segments.

Intercompany transactions primarily relate to intercontinental activity and have been eliminated and are excluded from the reported amounts. The difference between income from operations and pre-tax income relates to foreign currency-related gains and losses and interest income on cash balances and investments, which are not allocated to business segments.

Revenue and income from operations by reportable segment for the three and six months ended June 30, 2024 and 2023 were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
(dollars in thousands)	2024	2023	2024	2023
Revenue:				
United States	$ 98,541	$ 96,321	$ 200,022	$ 194,067
Europe	27,090	25,944	53,499	54,057
Total revenue	$ 125,631	$ 122,265	$ 253,521	$ 248,124

	Three Months Ended June 30,		Six Months Ended June 30,	
(in thousands)	2024	2023	2024	2023
Income (Loss) from Operations:				
United States	$ 24,241	$ 22,053	$ 50,573	$ 42,534
Europe	(1,732)	(3,380)	(4,176)	(5,863)
Corporate Unallocated and Japan	(16,510)	(13,065)	(33,571)	(27,314)
Total Income from Operations	$ 5,999	$ 5,608	$ 12,826	$ 9,357

Total long-lived assets at June 30, 2024 and December 31, 2023 were as follows:

(in thousands)	June 30, 2024	December 31, 2023
Total long-lived assets:		
United States	$ 192,873	$ 201,388
Europe	50,837	52,267
Total Long-lived Assets	$ 243,710	$ 253,655

Revenue by product line for the three and six months ended June 30, 2024 and 2023 were as follows:

(dollars in thousands)	Three Months Ended June 30, 2024	Three Months Ended June 30, 2023	Six Months Ended June 30, 2024	Six Months Ended June 30, 2023
Revenue:				
Injection Molding	$ 49,080	$ 48,819	$ 101,743	$ 100,767
CNC Machining	51,239	48,297	101,171	96,401
3D Printing	21,281	21,005	42,863	42,330
Sheet Metal	3,922	3,939	7,475	8,187
Other Revenue	109	205	269	439
Total Revenue	$ 125,631	$ 122,265	$ 253,521	$ 248,124

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our unaudited consolidated financial statements and related notes appearing elsewhere in this Quarterly Report on Form 10-Q and our Annual Report on Form 10-K for the year ended December 31, 2023.

Forward-Looking Statements

Statements contained in this report regarding matters that are not historical or current facts are "forward-looking statements" within the meaning of The Private Securities Litigation Reform Act of 1995. In some cases, you can identify forward-looking statements by the following words: "may," "will," "could," "would," "should," "expect," "intend," "plan," "anticipate," "believe," "estimate," "predict," "project," "potential," "continue," "ongoing" or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words. These statements involve known and unknown risks, uncertainties and other factors that may cause our results to be materially different than those expressed or implied in such statements. Certain of these risk factors and others are described in Item 1A. "Risk Factors" of this Form 10-Q, as well as our most recent Annual Report on Form 10-K as filed with the Securities and Exchange Commission (SEC). Other unknown or unpredictable factors also could have material adverse effects on our future results. We cannot guarantee future results, levels of activity, performance or achievements. Accordingly, you should not place undue reliance on these forward-looking statements. Finally, we expressly disclaim any intent or obligation to update any forward-looking statements to reflect subsequent events or circumstances.

Overview

We are one of the world's largest, fastest and most comprehensive digital manufacturers of custom parts. Our vision is accelerating innovation by revolutionizing manufacturing. Our mission is to empower companies to bring new ideas to market by offering the fastest and most comprehensive digital manufacturing service in the world. We accomplish this by offering a variety of manufacturing capabilities fulfilled through a combination of owned manufacturing factories and a worldwide network of premium manufacturing partners. Our automated quoting and manufacturing systems are highly integrated with our manufacturing and fulfillment systems, which allow us to offer a vast array of manufacturing technologies in a variety of materials across a continuum of lead times and prices. Our technology-enabled digital engineering and manufacturing applications enable us to produce commercial-grade plastic, metal, and liquid silicone rubber parts in as fast as one day. We utilize injection molding, computer numerical control (CNC) machining, 3D printing and sheet metal fabrication to manufacture custom parts for our customers.

Our customers conduct nearly all of their business with us over the Internet. We target our products to the millions of product developers and engineers who use three-dimensional computer-aided design (3D CAD) software to design products across a diverse range of end-markets, to the procurement and supply chain professionals seeking to easily and efficiently source custom parts, and to a wide variety of customers seeking to purchase custom made parts. We believe our use of advanced technology enables us to offer significant advantages at competitive prices to many customers and is the primary reason we have become a leading supplier of custom parts.

We have established our operations in the United States and Europe. Our primary manufacturing product lines currently include Injection Molding, CNC Machining, 3D Printing and Sheet Metal. We continually seek to expand the range of sizes and geometric complexity of the parts we can make with these processes, to extend the variety of materials we are able to support, and to identify additional manufacturing processes to which we can apply our technology or incorporate into our manufacturing network in order to better serve the evolving preferences and needs of our customers. With the addition of the Protolabs Network in 2021, our global network of premium manufacturing partners significantly expands the breadth and depth of our manufacturing capabilities, enabling us to offer customers a wider variety of lead times and pricing options, and an expanded envelope of parts (complexity, size, etc.).

Key Financial Measures and Trends

Revenue

Our operations are comprised of two geographic operating segments in the United States and Europe. On May 27, 2022, the Company's board of directors approved a plan for the closure of our manufacturing facility in Japan and announced an intention to cease operations in the region. The Company dissolved its Japan operations in December 2023. Revenue is derived from our Injection Molding, CNC Machining, 3D Printing and Sheet Metal product lines. Injection Molding revenue consists of sales of custom injection molds and injection-molded parts. CNC Machining revenue consists of sales of CNC-machined custom parts. 3D Printing revenue consists of sales of 3D-printed parts. Sheet Metal revenue consists of

sales of fabricated sheet metal custom parts. Our revenue is generated from a diverse customer base and our historical and current efforts to increase revenue have been directed at gaining new customers and selling to our existing customer base by increasing marketing and selling activities, including:

- expanding the breadth and scope of our products by adding more sizes and materials to our offerings;
- the introduction of our 3D Printing product line through our acquisition of FineLine in 2014;
- expanding 3D Printing to Europe through our acquisition of Alphaform in 2015;
- the introduction of our Sheet Metal product line through our acquisition of Rapid Manufacturing Group, LLC in 2017;
- continuously improving the usability of our product lines such as our web-centric applications; and
- providing customers with on-demand access to a global network of premium manufacturing partners through our acquisition of Hubs in 2021.

Cost of Revenue, Gross Profit and Gross Margin

Cost of revenue consists primarily of raw materials, equipment depreciation, employee compensation including benefits and stock-based compensation, facilities costs and overhead allocations associated with the manufacturing process for molds and customer parts. We expect our personnel-related costs to increase in order to retain and attract top talent and remain competitive in the market. Overall, we expect cost of revenue to increase in absolute dollars.

We define gross profit as our revenue less our cost of revenue, and we define gross margin as gross profit expressed as a percentage of revenue. Our gross profit and gross margin are affected by many factors, including our mix of revenue by product line, pricing, sales volume, manufacturing costs, the costs associated with increasing production capacity, the mix between domestic and foreign revenue sources, the mix between revenue produced in our internal manufacturing operations and outsourced to our external manufacturing partners, and foreign currency exchange rates.

Operating Expenses

Operating expenses consist of marketing and sales, research and development and general and administrative expenses. Personnel-related costs are the most significant component in each of these categories.

Our business strategy is to continue to be a leading online and technology-enabled manufacturer of quick-turn, on-demand injection-molded, CNC-machined, 3D-printed and sheet metal custom parts for prototyping and low-volume production. In order to achieve our goals, we anticipate continued substantial investments in technology and personnel, resulting in increased operating expenses in the future.

Marketing and sales. Marketing and sales expense consists primarily of employee compensation, benefits, commissions, stock-based compensation, marketing demand generation costs such as electronic, print and pay-per-click advertising, trade shows and other related overhead. We expect sales and marketing expense to increase in the future as we increase the number of marketing and sales professionals and marketing demand generation costs targeted to increase our customer base and grow revenue.

Research and development. Research and development expense consists primarily of personnel and outside service costs related to the development of new processes and product lines, enhancement of existing product lines, development of software for internal use, maintenance of internally developed software, quality assurance and testing. Costs for internal use software are evaluated by project and capitalized where appropriate under ASC 350-40, *Intangibles — Goodwill and Other, Internal-Use Software*. We expect research and development expense to increase in the future as we seek to enhance our e-commerce interface technology, internal software and supporting business systems, and continue to expand our product lines.

General and administrative. General and administrative expense consists primarily of employee compensation, benefits, stock-based compensation, professional service fees related to accounting, tax and legal, and other related overhead. We expect general and administrative expense to increase in the future as we continue to grow and expand as a global organization.

Closure of Japan business. Closure of Japan business expense is driven by our decision to close the Japan manufacturing facility and exit the Japan market. The expenses consist primarily of operating expense, including employee severance, write-down of fixed assets, facility-related charges and goodwill impairment charges.

Other Income, net

Other income, net primarily consists of foreign currency-related gains and losses and interest income on cash balances and investments. Our foreign currency-related gains and losses will vary depending upon movements in underlying foreign currency exchange rates. Our interest income will vary each reporting period depending on our average cash balances during the period, composition of our marketable security portfolio and the current level of interest rates.

Provision for Income Taxes

Provision for income taxes is comprised of federal, state, local and foreign taxes based on pre-tax income. Overall, our effective tax rate for 2024 and beyond may differ from historical effective tax rates due to increases in losses in foreign operations that are not eligible for tax benefits on account of valuation allowances, as well as any future tax law changes that may impact our effective tax rate.

Results of Operations

The following table summarizes our results of operations and the related changes for the periods indicated. The results below are not necessarily indicative of the results for future periods.

	Three Months Ended June 30,				Change		Six Months Ended June 30,				Change	
(dollars in thousands)	2024		2023		$	%	2024		2023		$	%
Revenue	$ 125,631	100.0	$ 122,265	100.0	$ 3,366	2.8	$ 253,521	100.0	$ 248,124	100.0	$ 5,397	2.2
Cost of revenue	69,085	55.0	69,142	56.6	(57)	(0.1)	139,508	55.0	141,225	56.9	(1,717)	(1.2)
Gross profit	56,546	45.0	53,123	43.4	3,423	6.4	114,013	45.0	106,899	43.1	7,114	6.7
Operating expenses												
Marketing and sales	23,291	18.5	21,730	17.8	1,561	7.2	46,451	18.3	44,181	17.8	2,270	5.1
Research and development	10,661	8.5	9,865	8.1	796	8.1	21,828	8.6	20,542	8.3	1,286	6.3
General and administrative	16,595	13.2	15,822	12.9	773	4.9	32,908	13.0	32,655	13.2	253	0.8
Closure of Japan business	—	—	98	0.1	(98)	(100.0)	—	—	164	0.1	(164)	(100.0)
Total operating expenses	50,547	40.2	47,515	38.9	3,032	6.4	101,187	39.9	97,542	39.3	3,645	3.7
Income from operations	5,999	4.8	5,608	4.6	391	7.0	12,826	5.1	9,357	3.8	3,469	37.1
Other income (loss), net	1,361	1.1	(3,368)	(2.8)	4,729	(140.4)	2,260	0.9	(2,078)	(0.8)	4,338	(208.8)
Income before income taxes	7,360	5.9	2,240	1.8	5,120	228.6	15,086	6.0	7,279	2.9	7,807	107.3
Provision for income taxes	2,820	2.2	2,623	2.1	197	7.5	5,278	2.1	5,003	2.0	275	5.5
Net income (loss)	$ 4,540	3.6 %	$ (383)	(0.3 %)	$ 4,923	(1285.4)%	$ 9,808	3.9 %	$ 2,276	0.9 %	$ 7,532	330.9 %

Stock-based compensation expense included in the statements of operations data above for the three and six months ended June 30, 2024 and 2023 were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
(dollars in thousands)	2024	2023	2024	2023
Stock options, restricted stock and performance stock	$ 3,938	$ 3,267	$ 7,893	$ 6,588
Employee stock purchase plan	306	408	627	782
Total stock-based compensation expense	$ 4,244	$ 3,675	$ 8,520	$ 7,370
Cost of revenue	$ 468	$ 461	$ 927	$ 927
Operating expenses:				
Marketing and sales	819	855	1,651	1,548
Research and development	667	641	1,360	1,213
General and administrative	2,290	1,718	4,582	3,682
Total stock-based compensation expense	$ 4,244	$ 3,675	$ 8,520	$ 7,370

Comparison of Three Months Ended June 30, 2024 and 2023

Revenue

Revenue by reportable segment and the related changes for the three months ended June 30, 2024 and 2023 were as follows:

	Three Months Ended June 30,					
	2024		2023		Change	
(dollars in thousands)	$	% of Total Revenue	$	% of Total Revenue	$	%
Revenue:						
United States	$ 98,541	78.4 %	$ 96,321	78.8 %	$ 2,220	2.3 %
Europe	27,090	21.6 %	25,944	21.2 %	1,146	4.4
Total revenue	$ 125,631	100.0 %	$ 122,265	100.0 %	$ 3,366	2.8 %

Our revenue increased $3.4 million, or 2.8%, for the three months ended June 30, 2024 compared to the same period in 2023. By reportable segment, revenue in the United States increased $2.2 million, or 2.3%, for the three months ended June 30, 2024 compared to the same period in 2023. Revenue in Europe increased $1.1 million, or 4.4%, for the three months ended June 30, 2024 compared to the same period in 2023. Revenue generated from the Protolabs Network was $24.7 million and $20.2 million for the three months ended June 30, 2024 and 2023, respectively. International revenue was minimally impacted during the three months ended June 30, 2024 compared to the same period in 2023 as a result of foreign currency movements.

During the three months ended June 30, 2024, we served 22,456 unique customer contacts, which is a decrease of 3.9% from the same period in 2023. Our customer contacts served decreased compared to an increase in revenue. This was primarily due to our strategic focus to earn larger orders from our customers as we strive to be their supplier of choice by serving their custom parts needs through the comprehensive offer of our factory and the Protolabs Network.

Revenue by product line and the related changes for the three months ended June 30, 2024 and 2023 were as follows:

	Three Months Ended June 30,					
	2024		2023		Change	
(dollars in thousands)	$	% of Total Revenue	$	% of Total Revenue	$	%
Revenue:						
Injection Molding	$ 49,080	39.1 %	$ 48,819	39.9 %	$ 261	0.5 %
CNC Machining	51,239	40.8	48,297	39.5	2,942	6.1
3D Printing	21,281	16.9	21,005	17.2	276	1.3
Sheet Metal	3,922	3.1	3,939	3.2	(17)	(0.4)
Other Revenue	109	0.1	205	0.2	(96)	(46.8)
Total Revenue	$ 125,631	100.0 %	$ 122,265	100.0 %	$ 3,366	2.8 %

By product line, our revenue increase was driven by a 6.1% increase in CNC Machining revenue, a 1.3% increase in 3D Printing revenue and a 0.5% increase in Injection Molding revenue, which was partially offset by a 0.4% decrease in Sheet Metal revenue and a 46.8% decrease in Other Revenue, in each case for the three months ended June 30, 2024 compared to the same period in 2023.

Cost of Revenue, Gross Profit and Gross Margin

Cost of Revenue. Cost of revenue decreased $0.1 million, or 0.1%, for the three months ended June 30, 2024 compared to the same period in 2023, while revenue increased 2.8% for the three months ended June 30, 2024 compared to the same period in 2023. The decrease in the cost of revenue of $0.1 million was primarily driven by reductions in headcount and overtime leading to lower personnel and related costs of $0.8 million primarily in our digital manufacturing factory business during the three months ended June 30, 2024 compared to the same period in 2023. The cost reductions in our digital factories were the result of focused management of resources aligned to order volumes, partially supported by increased automation. Partially offsetting the lower personnel and related costs were increases in raw material in our factory business and production costs of $0.4 million primarily within the our digital network business as a result of higher revenue volumes and equipment and facility related costs of $0.3 million during the three months ended June 30, 2024 compared to the same period in 2023.

Gross Profit and Gross Margin. Gross profit increased from $53.1 million in the three months ended June 30, 2023 to $56.5 million in the three months ended June 30, 2024. Gross margin increased from 43.4% in the three months ended June 30, 2023 to 45.0% in the three months ended June 30, 2024.

Operating Expenses, Other (Loss) Income, net and Provision for Income Taxes

Marketing and Sales. Marketing and sales expenses increased $1.6 million, or 7.2%, during the three months ended June 30, 2024 compared to the same period in 2023. The increase in marketing and sales expenses was primarily driven by increases in personnel and related costs of $1.0 million, marketing demand generation costs increases of $0.3 million and other operating costs of $0.3 million during the three months ended June 30, 2024 when compared to the same period in 2023.

Research and Development. Our research and development expenses increased $0.8 million, or 8.1%, during the three months ended June 30, 2024 compared to the same period in 2023 primarily due to increases in personnel and related costs of $0.4 million, $0.2 million in professional services and $0.2 million of other operating costs.

General and Administrative. Our general and administrative expenses increased $0.8 million, or 4.9%, during the three months ended June 30, 2024 compared to the same period in 2023 primarily due to increases in stock-based compensation of $0.6 million, personnel and related costs increases of $0.5 million and $0.5 million in administrative costs and professional services, partially offset by decreases of $0.4 million in intangible amortization expense and $0.4 million of other operating costs.

Closure of Japan business. We had no expenses related to the closure of our Japan business during the three months ended June 30, 2024. Our decision to close our Japan business resulted in $0.1 million in operating expenses during the three months ended June 30, 2023.

Other income (loss), net. We recognized other income, net of $1.4 million for the three months ended June 30, 2024, an increase of $4.7 million compared to other loss, net of $3.4 million for the three months ended June 30, 2023. Other income, net for the three months ended June 30, 2024 primarily consisted of $1.5 million in interest income on investments and other income, partially offset by $0.1 million of foreign currency losses. Other loss, net for the three months ended June 30, 2023 primarily consisted of a $3.9 million foreign currency translation loss from the substantial completion on the closure of our Japan business, partially offset by $0.5 million in interest income on investments and other income.

Provision for Income Taxes. Our effective tax rate of 38.3% for the three months ended June 30, 2024 decreased 78.8% compared to 117.1% for the same period in 2023. The decrease in the effective tax rate is primarily due to the prior year one-time tax impact of the foreign currency translation loss on the closure of our Japan business. Our income tax provision of $2.8 million for the three months ended June 30, 2024 increased $0.2 million as compared to our income tax provision of $2.6 million to the same period in 2023.

Comparison of Six Months Ended June 30, 2024 and 2023

Revenue

Revenue by reportable segment and the related changes for the six months ended June 30, 2024 and 2023 were as follows:

	Six Months Ended June 30,					
	2024		2023		Change	
(dollars in thousands)	$	% of Total Revenue	$	% of Total Revenue	$	%
Revenue:						
United States	$ 200,022	78.9 %	$ 194,067	78.2 %	$ 5,955	3.1 %
Europe	53,499	21.1 %	54,057	21.8 %	(558)	(1.0)
Total revenue	$ 253,521	100.0 %	$ 248,124	100.0 %	$ 5,397	2.2 %

Our revenue increased $5.4 million, or 2.2%, for the six months ended June 30, 2024 compared to the same period in 2023. By reportable segment, revenue in the United States increased $6.0 million, or 3.1%, for the six months ended June 30, 2024 compared to the same period in 2023. Revenue in Europe decreased $0.6 million, or 1.0%, for the six months ended June 30, 2024 compared to the same period in 2023. Revenue generated from Protolabs Network was $48.6 million and $37.5 million for the six months ended June 30, 2024 and 2023, respectively. International revenue was positively impacted by $0.9 million during six months ended June 30, 2024 compared to the same period in 2023 as a result of foreign currency movements, primarily the strengthening of the British Pound and Euro relative to the United States Dollar.

During the six months ended June 30, 2024, we served 34,338 unique product developers and engineers, a decrease of 3.9% from the same period in 2023. Our customer contacts served decreased compared to an increase in revenue. This was primarily due to our strategic focus to earn larger orders from our customers as we strive to be their supplier of choice by serving their custom parts needs through the comprehensive offer of our factory and the Protolabs Network.

Revenue by product line and the related changes for the six months ended June 30, 2024 and 2023 were as follows:

	Six Months Ended June 30,					
	2024		2023		Change	
(dollars in thousands)	$	% of Total Revenue	$	% of Total Revenue	$	%
Revenue:						
Injection Molding	$ 101,743	40.1 %	$ 100,767	40.6 %	$ 976	1.0 %
CNC Machining	101,171	39.9	96,401	38.9	4,770	4.9
3D Printing	42,863	16.9	42,330	17.1	533	1.3
Sheet Metal	7,475	3.0	8,187	3.3	(712)	(8.7)
Other Revenue	269	0.1	439	0.2	(170)	(38.7)
Total Revenue	$ 253,521	100.0 %	$ 248,124	100.0 %	$ 5,397	2.2 %

By product line, our revenue increase was driven by a 4.9% increase in CNC Machining revenue, a 1.0% increase in Injection Molding revenue, and a 1.3% increase in 3D Printing revenue, which was partially offset by a 8.7% decrease in Sheet Metal revenue and a 38.7% decrease in Other Revenue in each case for the six months ended June 30, 2024 compared to the same period in 2023.

Cost of Revenue, Gross Profit and Gross Margin

Cost of Revenue. Cost of revenue decreased $1.7 million, or 1.2%, for the six months ended June 30, 2024 compared to the same period in 2023, while revenue increased 2.2% for the six months ended June 30, 2024 compared to the same period in 2023. The decrease in cost of revenue of $1.7 million was driven by reductions in headcount and overtime leading to lower personnel and related costs of $2.3 million primarily in our digital manufacturing factory business during the six months ended June 30, 2024 compared to the same period in 2023. The cost reductions in our digital factories were the result of focused management of resources aligned to order volumes, partially supported by increased automation. Partially offsetting the lower personnel and related costs were increases in equipment and facility related costs of $0.6 million during the six months ended June 30, 2024 compared to the same period in 2023.

Gross Profit and Gross Margin. Gross profit increased from $106.9 million in the six months ended June 30, 2023 to $114.0 million in the six months ended June 30, 2024. Gross margin increased from 43.1% in the six months ended June 30, 2023 to 45.0% in the six months ended June 30, 2024.

Operating Expenses, Other Income (Loss), net and Provision for Income Taxes

Marketing and Sales. Marketing and sales expenses increased $2.3 million, or 5.1%, during the six months ended June 30, 2024 compared to the same period in 2023. The increase was driven by increases in personnel and related costs of $1.3 million, marketing demand generation costs increases of $0.5 million and other operating costs of $0.5 million during the six months ended June 30, 2024 when compared to the same period in 2023.

Research and Development. Our research and development expenses increased $1.3 million, or 6.3%, during the six months ended June 30, 2024 compared to the same period in 2023 primarily due to personnel and related cost increases of $0.4 million, professional services increases of $0.3 million and other operating cost increases of $0.6 million.

General and Administrative. Our general and administrative expenses increased $0.3 million, or 0.8%, during the six months ended June 30, 2024 compared to the same period in 2023 primarily due to increases in stock-based compensation of $0.9 million, personnel and related costs increases of $0.8 million and professional services of $0.6 million, partially offset by decreases in amortization costs of $0.7 million, administrative costs decreases of $0.6 million and other operating cost decreases of $0.7 million.

Closure of Japan business. We had no expenses related to the closure of our Japan business during the six months ended June 30, 2024. During the six months ended June 30, 2023, we recognized $0.2 million in operating expenses related to the closure.

Other income (loss), net. We recognized other income, net of $2.3 million for the six months ended June 30, 2024, an increase of $4.3 million compared to other loss, net of $2.1 million for the six months ended June 30, 2023. Other income, net for the six months ended June 30, 2024 primarily consisted of $2.6 million in interest income on investments and other

income, partially offset by $0.3 million of foreign currency losses. Other loss, net for the six months ended June 30, 2023 primarily consisted of a $3.9 million foreign currency translation loss from the substantial completion on the closure of our Japan business, which was partially offset by $1.8 million in interest income on investments and other income.

Provision for Income Taxes. Our effective tax rate of 35.0% for the six months ended June 30, 2024 decreased 33.7% compared to 68.7% for the same period in 2023. The decrease in the effective tax rate is primarily due to the prior year one-time tax impact of the foreign currency translation loss from the substantial completion on the closure of our Japan business. Our income tax provision of $5.3 million for the six months ended June 30, 2024 increased $0.3 million compared to our income tax provision of $5.0 million for the six months ended June 30, 2023.

Liquidity and Capital Resources

Cash Flows

The following table summarizes our cash flows during the six months ended June 30, 2024 and 2023:

	Six Months Ended June 30,	
(dollars in thousands)	**2024**	**2023**
Net cash provided by operating activities	$ 35,781	$ 31,867
Net cash provided by investing activities	3,665	7,814
Net cash used in financing activities	(26,912)	(29,666)
Effect of exchange rate changes on cash and cash equivalents	(175)	(80)
Net increase in cash and cash equivalents	$ 12,359	$ 9,935

Sources of Liquidity

Historically, we have primarily financed our operations and capital expenditures through cash flow from operations. We had cash and cash equivalents of $96.1 million as of June 30, 2024, an increase of $12.4 million from December 31, 2023. The increase in our cash was primarily due to cash provided by operating activities of $35.8 million and proceeds from call redemptions and maturities of marketable securities of $10.4 million, which were partially offset by $6.8 million for purchases of property, equipment and other capital assets, and $26.9 million in repurchases of common stock.

We believe that our existing cash and cash equivalents together with cash generated from operations will be sufficient to meet our working capital and capital expenditure requirements for at least the next 12 months.

Cash Flows from Operating Activities

Cash flows from operating activities were $35.8 million during the six months ended June 30, 2024 and primarily consisted of net income of $9.8 million, adjusted for certain non-cash items, including depreciation and amortization of $18.1 million, stock-based compensation expense of $8.5 million and changes in operating assets and liabilities and other items totaling $3.5 million, which were partially offset by deferred taxes of $4.1 million. Cash flows from operating activities were $31.9 million during the six months ended June 30, 2023 and primarily consisted of net income of $2.3 million, adjusted for certain non-cash items, including depreciation and amortization of $18.9 million, stock-based compensation expense of $7.4 million and a non-cash foreign currency translation loss of $3.9 million, interest on finance lease obligations of $0.6 million and changes in operating assets and liabilities and other items totaling $4.7 million, which were partially offset by deferred taxes of $5.6 million.

Cash flows from operating activities increased $3.9 million during the six months ended June 30, 2024 compared to the same period in 2023, primarily due to increases in net income of $7.5 million, stock-based compensation of $1.2 million and deferred taxes of $1.5 million, which were partially offset by decreases in changes in operating assets and liabilities totaling $1.2 million, interest on finance lease obligations of $0.6 million and depreciation and amortization of $0.8 million. The six months ended June 30, 2023 also included a $3.9 million non-cash foreign currency loss.

Cash Flows from Investing Activities

Cash provided by investing activities was $3.7 million during the six months ended June 30, 2024, consisting of $10.4 million in proceeds from call redemptions and maturities of marketable securities, which were partially offset by $6.7 million for net purchases of property, equipment and other capital assets.

Cash provided by investing activities was $7.8 million during the six months ended June 30, 2023, consisting of $14.0 million in proceeds from call redemptions and maturities of marketable securities, which were partially offset by $6.2 million for net purchases of property, equipment and other capital assets.

Cash Flows from Financing Activities

Cash used in financing activities was $26.9 million during the six months ended June 30, 2024, consisting of $26.9 million in repurchases of common stock, $1.9 million in purchases of shares withheld for tax obligations associated with equity transactions and $0.2 million for repayments of finance lease obligations, which were partially offset by $2.1 million in proceeds from exercises of stock options.

Cash used in financing activities was $29.7 million during the six months ended June 30, 2023, consisting of $30.1 million in repurchases of common stock, $1.4 million in purchases of shares withheld for tax obligations associated with equity transactions and $0.2 million for repayments of finance lease obligations, which were partially offset by $2.0 million in proceeds from exercises of stock options.

Critical Accounting Estimates

We have adopted various accounting policies to prepare the Consolidated Financial Statements in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP). The preparation of these financial statements requires us to make estimates, judgements and assumptions. Our significant accounting policies and estimates are disclosed in Note 2 to the Consolidated Financial Statements included Pat II, Item 8 in our Annual Report on Form 10-K for the year ended December 31, 2023. There were no material changes to our critical accounting policies and estimates during the six months ended June 30, 2024.

Recent Accounting Pronouncements

For information on recent accounting pronouncements, see Note 2 to the Consolidated Financial Statements appearing in Part I, Item 1 in this Quarterly Report on Form 10-Q.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Foreign Currency Risk

As a result of our foreign operations, we have revenue, expenses, assets and liabilities that are denominated in foreign currencies. We generate revenue and incur production and sourcing costs and operating expenses in British Pounds and Euros.

Our operating results and cash flows are adversely impacted when the United States Dollar appreciates relative to foreign currencies. Additionally, our operating results and cash flows are adversely impacted when the British Pound appreciates relative to the Euro. As we expand internationally, our results of operations and cash flows will become increasingly subject to changes in foreign currency exchange rates.

We have not used forward contracts or currency borrowings to hedge our exposure to foreign currency risk. Foreign currency risk can be assessed by estimating the change in results of operations or financial position resulting from a hypothetical 10% adverse change in foreign exchange rates. We believe such a change would generally not have a material impact on our financial position, but could have a material impact on our results of operations. During the three and six months ended June 30, 2023, we recognized a foreign currency translation loss of $3.9 million in connection with substantially completing our closure of our Japan business. We recognized foreign currency losses of $0.1 million for the three months ended June 30, 2024 and 2023, respectively. We recognized foreign currency losses of $0.3 million and foreign currency gains of $0.1 million during the six months ended June 30, 2024 and 2023, respectively. The changes in foreign exchange rates had a minimal impact on consolidated revenue for the three months ended June 30, 2024 and a positive impact on consolidated revenue of $0.9 million as for the six months ended June 30, 2024 compared to the same period in 2023.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934 (Exchange Act)) as of the end of the period covered by this report. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of the period covered by this quarterly report, our disclosure controls and procedures are effective and provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported accurately and within the time frames specified in the SEC's rules and forms and accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting (as such term is defined in Rule 13a-15(f) under the Exchange Act) during the period covered by this report that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

From time to time, we are subject to various legal proceedings and claims that arise in the ordinary course of our business activities. Although the results of litigation and claims cannot be predicted with certainty, as of the date of these financial statements, we do not believe we are party to any litigation the outcome of which, if determined adversely to us, would individually or in the aggregate be reasonably expected to have a material adverse effect on our business.

Item 1A. Risk Factors

Part I, Item 1A. "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2023 includes a discussion of our risk factors. There have been no material changes from the risk factors described in our Form 10-K.

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

On February 7, 2023 our board of directors approved a new stock repurchase program that added $50 million to our previous stock repurchase authorization, which increased the total stock repurchase authorized to $250 million. We have $61.4 million remaining under this authorization. The timing and amount of any share repurchases will be determined by our management based on market conditions and other factors.

During the three months ended June 30, 2024, we repurchased 345,234 shares of our common stock at a total purchase price of $10.9 million under this program. Common stock repurchase activity through June 30, 2024 was as follows:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (in thousands) (1)
April 1, 2024 through April 30, 2024	—	$ —	—	$ 72,365
May 1, 2024 through May 31, 2024	269,662	$ 31.68	269,662	$ 63,823
June 1, 2024 through June 30, 2024	75,572	$ 31.43	75,572	$ 61,449
	345,234	$ 31.62	345,234	$ 61,449

Item 3. Defaults Upon Senior Securities

No matters to disclose.

Item 4. Mine Safety Disclosures

No matters to disclose.

Item 5. Other Information

During the three months ended June 30, 2024, none of our directors or officers (as defined in Rule 16a-1(f) of the Exchange Act) adopted, modified or terminated any contract, instruction or written plan for the purchase or sale of our securities that was intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) of the Exchange Act or any non-Rule 10b5-1 trading arrangement (as defined in Item 408(c) of Regulation S-K).

Item 6. Exhibits

The following documents are filed as part of this report:

Exhibit Number	Description of Exhibit
3.1	Third Amended and Restated Articles of Incorporation of Proto Labs, Inc. (incorporated by reference to Exhibit 3.2 to the Company's Registration Statement on Form S-1/A, filed on February 13, 2012).
3.2	Articles of Amendment to Third Amended and Restated Articles of Incorporation of Proto Labs, Inc. dated May 20, 2015 (incorporated by reference to Exhibit 3.1 to the Company's Form 8-K, filed with the Commission on May 21, 2015).
3.3	Third Amended and Restated By-Laws of Proto Labs, Inc., as amended through November 15, 2022 (incorporated by reference to Exhibit 3.2 to the Company's Form 8-K, filed on November 15, 2022).
10.1	Amended and Restated Proto Labs, Inc. 2022 Long-Term Incentive Plan (as amended on May 23, 2024).*
10.2	Form of Restricted Stock Unit Agreement Grant Notice under the Amended and Restated 2022 Long-Term Incentive Plan (Non-Employee Director).*
10.3	Form of Deferred Stock Unit Agreement Grant Notice under the Amended and Restated 2022 Long-Term Incentive Plan (Non-Employee Director).*
31.1	Certification of the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act*
31.2	Certification of the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act*
32.1	Certification of the Chief Executive Officer and the Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act*
101.INS	Inline XBRL Instance Document (the Instance Document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document)*
101.SCH	Inline XBRL Taxonomy Extension Schema Document*
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document*
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document*
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document*
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document*
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)*

* Filed herewith.

SIGNATURE

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

Proto Labs, Inc.

Date: August 2, 2024

/s/ Robert Bodor

Robert Bodor

President and Chief Executive Officer
(Principal Executive Officer)

Date: August 2, 2024

/s/ Daniel Schumacher

Daniel Schumacher

Chief Financial Officer
(Principal Financial Officer)