PART I—FINANCIAL INFORMATION

Item 1. Financial Statements

NOVANTA INC.
CONSOLIDATED BALANCE SHEETS
(In thousands of U.S. dollars or shares)
(Unaudited)

	September 27, 2024	December 31, 2023
ASSETS		
Current assets		
Cash and cash equivalents	$ 92,690	$ 105,051
Accounts receivable, net of allowance of $630 and $571, respectively	164,502	139,410
Inventories	154,021	149,371
Prepaid income taxes and income taxes receivable	12,844	8,105
Prepaid expenses and other current assets	12,877	13,360
Total current assets	436,934	415,297
Property, plant and equipment, net	119,596	109,449
Operating lease assets	44,645	38,302
Deferred tax assets	19,239	27,862
Other assets	5,927	5,617
Intangible assets, net	198,394	145,022
Goodwill	594,088	484,507
Total assets	$ 1,418,823	$ 1,226,056
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Current portion of long-term debt	$ 5,016	$ 4,968
Accounts payable	68,720	57,195
Income taxes payable	15,414	7,767
Current portion of operating lease liabilities	9,981	8,189
Accrued expenses and other current liabilities	57,469	61,056
Total current liabilities	156,600	139,175
Long-term debt	452,502	349,404
Operating lease liabilities	42,672	37,345
Deferred tax liabilities	14,324	16,305
Income taxes payable	5,340	4,435
Other liabilities	5,190	5,932
Total liabilities	676,628	552,596
Commitments and contingencies (Note 15)		
Stockholders' equity:		
Preferred shares, no par value; Authorized shares: 7,000; No shares issued and outstanding	—	—
Common shares, no par value; Authorized shares: unlimited; Issued and outstanding: 35,916 and 35,814, respectively	423,856	423,856
Additional paid-in capital	79,928	70,180
Retained earnings	251,085	203,462
Accumulated other comprehensive loss	(12,674)	(24,038)
Total stockholders' equity	742,195	673,460
Total liabilities and stockholders' equity	$ 1,418,823	$ 1,226,056

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

NOVANTA INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands of U.S. dollars or shares, except per share amounts)
(Unaudited)

	Three Months Ended		Nine Months Ended	
	September 27, 2024	September 29, 2023	September 27, 2024	September 29, 2023
Revenue	$ 244,405	$ 221,503	$ 711,185	$ 670,093
Cost of revenue	135,190	119,912	397,865	366,751
Gross profit	109,215	101,591	313,320	303,342
Operating expenses:				
Research and development and engineering	23,253	22,022	70,230	68,230
Selling, general and administrative	44,319	39,648	132,642	122,758
Amortization of purchased intangible assets	6,589	5,131	19,246	15,344
Restructuring, acquisition, and related costs	2,499	4,481	7,325	8,191
Total operating expenses	76,660	71,282	229,443	214,523
Operating income	32,555	30,309	83,877	88,819
Interest income (expense), net	(8,079)	(6,756)	(24,599)	(19,898)
Foreign exchange transaction gains (losses), net	(202)	(370)	(787)	(373)
Other income (expense), net	(49)	(189)	(220)	(546)
Income before income taxes	24,225	22,994	58,271	68,002
Income tax provision	5,033	1,771	10,648	7,635
Net income	$ 19,192	$ 21,223	$ 47,623	$ 60,367
Earnings per common share (Note 5):				
Basic	$ 0.53	$ 0.59	$ 1.33	$ 1.68
Diluted	$ 0.53	$ 0.59	$ 1.32	$ 1.68
Weighted average common shares outstanding—basic	35,959	35,856	35,940	35,839
Weighted average common shares outstanding—diluted	36,129	36,041	36,116	36,024

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

NOVANTA INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(In thousands of U.S. dollars)
(Unaudited)

	Three Months Ended		Nine Months Ended	
	September 27, 2024	September 29, 2023	September 27, 2024	September 29, 2023
Net income	$ 19,192	$ 21,223	$ 47,623	$ 60,367
Other comprehensive income (loss):				
Foreign currency translation adjustments, net of tax [1]	14,869	(8,786)	11,053	(1,980)
Pension liability adjustments, net of tax [2]	(159)	515	311	676
Total other comprehensive income (loss)	14,710	(8,271)	11,364	(1,304)
Total consolidated comprehensive income	$ 33,902	$ 12,952	$ 58,987	$ 59,063

(1) The tax effect on this component of comprehensive income (loss) was nominal for all periods presented.

(2) The tax effect on this component of comprehensive income (loss) was nominal for all periods presented. See Note 4 to the Consolidated Financial Statements for the total amount of pension liability adjustments reclassified out of accumulated other comprehensive income (loss).

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

NOVANTA INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands of U.S. dollars or shares)
(Unaudited)

	Common Shares		Additional Paid-In	Retained	Accumulated Other Comprehensive	
	# of Shares	Amount	Capital	Earnings	Loss	Total
	Three Months Ended September 27, 2024					
Balance at June 28, 2024	35,895	$ 423,856	$ 73,627	$ 231,893	$ (27,384)	$ 701,992
Net income	—	—	—	19,192	—	19,192
Common shares issued under stock plans	23	—	—	—	—	—
Common shares withheld for taxes on vested stock awards	(2)	—	(63)	—	—	(63)
Share-based compensation	—	—	6,364	—	—	6,364
Other comprehensive income (loss), net of tax	—	—	—	—	14,710	14,710
Balance at September 27, 2024	35,916	$ 423,856	$ 79,928	$ 251,085	$ (12,674)	$ 742,195
	Nine Months Ended September 27, 2024					
Balance at December 31, 2023	35,814	$ 423,856	$ 70,180	$ 203,462	$ (24,038)	$ 673,460
Net income	—	—	—	47,623	—	47,623
Common shares issued under stock plans	159	—	—	—	—	—
Common shares withheld for taxes on vested stock awards	(57)	—	(8,924)	—	—	(8,924)
Share-based compensation	—	—	18,672	—	—	18,672
Other comprehensive income (loss), net of tax	—	—	—	—	11,364	11,364
Balance at September 27, 2024	35,916	$ 423,856	$ 79,928	$ 251,085	$ (12,674)	$ 742,195
	Three Months Ended September 29, 2023					
Balance at June 30, 2023	35,808	$ 423,856	$ 57,488	$ 169,728	$ (25,042)	$ 626,030
Net income	—	—	—	21,223	—	21,223
Common shares issued under stock plans	3	—	—	—	—	—
Common shares withheld for taxes on vested stock awards	(1)	—	(163)	—	—	(163)
Share-based compensation	—	—	6,037	—	—	6,037
Other comprehensive income (loss), net of tax	—	—	—	—	(8,271)	(8,271)
Balance at September 29, 2023	35,810	$ 423,856	$ 63,362	$ 190,951	$ (33,313)	$ 644,856
	Nine Months Ended September 29, 2023					
Balance at December 31, 2022	35,711	$ 423,856	$ 55,155	$ 130,584	$ (32,009)	$ 577,586
Net income	—	—	—	60,367	—	60,367
Common shares issued under stock plans	167	—	—	—	—	—
Common shares withheld for taxes on vested stock awards	(68)	—	(10,171)	—	—	(10,171)
Share-based compensation	—	—	18,378	—	—	18,378
Other comprehensive income (loss), net of tax	—	—	—	—	(1,304)	(1,304)
Balance at September 29, 2023	35,810	$ 423,856	$ 63,362	$ 190,951	$ (33,313)	$ 644,856

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

NOVANTA INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands of U.S. dollars)
(Unaudited)

	Nine Months Ended	
	September 27, 2024	September 29, 2023
Cash flows from operating activities:		
Net income	$ 47,623	$ 60,367
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	41,200	35,065
Provision for inventory excess and obsolescence	7,325	6,563
Impairment of assets	—	1,421
Share-based compensation	18,672	18,378
Deferred income taxes	(11,908)	(12,328)
Inventory acquisition fair value adjustments	2,777	—
Other	1,273	1,289
Changes in assets and liabilities which (used)/provided cash, excluding effects from business acquisitions:		
Accounts receivable	(16,087)	(6,371)
Inventories	416	5,619
Prepaid income taxes, income taxes receivable, prepaid expenses and other current assets	(2,378)	(3,444)
Accounts payable, income taxes payable, accrued expenses and other current liabilities	7,506	(24,759)
Other non-current assets and liabilities	531	(717)
Net cash provided by operating activities	96,950	81,083
Cash flows from investing activities:		
Cash paid for business acquisitions, net of working capital adjustments	(191,200)	—
Purchases of property, plant and equipment	(14,913)	(13,741)
Net cash used in investing activities	(206,113)	(13,741)
Cash flows from financing activities:		
Borrowings under revolving credit facilities	198,000	—
Repayments under term loan and revolving credit facilities	(95,983)	(82,047)
Payments of withholding taxes from share-based awards	(8,924)	(10,171)
Other financing activities	(534)	(565)
Net cash provided by (used in) financing activities	92,559	(92,783)
Effect of exchange rates on cash and cash equivalents	4,243	1,297
Decrease in cash and cash equivalents	(12,361)	(24,144)
Cash and cash equivalents, beginning of the period	105,051	100,105
Cash and cash equivalents, end of the period	$ 92,690	$ 75,961
Supplemental disclosure of cash flow information:		
Cash paid for interest	$ 25,376	$ 19,290
Cash paid for income taxes	$ 18,807	$ 28,684
Income tax refunds received	$ 1,069	$ 275

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

NOVANTA INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
AS OF SEPTEMBER 27, 2024
(Unaudited)

1. Basis of Presentation

Novanta Inc. (collectively with its subsidiaries, referred to as "Novanta", the "Company", "we", "us", "our") is a leading global supplier of core technology solutions that give medical and advanced industrial original equipment manufacturers ("OEMs") a competitive advantage. Novanta combines deep proprietary technology expertise and competencies in precision medicine and manufacturing, medical solutions and robotics and automation with a proven ability to solve complex technical challenges. This enables Novanta to engineer core components and sub-systems that deliver extreme precision and performance, tailored to the customers' demanding applications.

The accompanying unaudited interim consolidated financial statements have been prepared by the Company in United States ("U.S.") dollars and pursuant to the rules and regulations of the United States Securities and Exchange Commission ("SEC"), the instructions to Form 10-Q and the provisions of Regulation S-X pertaining to interim financial statements. Accordingly, certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the U.S. have been condensed or omitted. The interim consolidated financial statements and notes included in this report should be read in conjunction with the consolidated financial statements and notes included in the Company's Annual Report on Form 10-K for the year ended December 31, 2023. In the opinion of management, these interim consolidated financial statements include all adjustments and accruals of a normal and recurring nature necessary to fairly state the results of the interim periods presented. The results for interim periods are not necessarily indicative of results to be expected for the full year or for any future periods.

The Company's unaudited interim consolidated financial statements are prepared for each quarterly period ending on the Friday closest to the end of the calendar quarter, with the exception of the fourth quarter which always ends on December 31.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the dates of the financial statements, and the reported amounts of revenue and expenses during the reporting periods. Estimates and assumptions are reviewed on an on-going basis and the effects of revisions are reflected in the period in which such revisions are deemed to be necessary. The Company evaluates its estimates based on historical experience, current conditions, and various other assumptions that it believes are reasonable under the circumstances. Actual results could differ significantly from these estimates.

Recent Accounting Pronouncements

The following table provides a brief description of recent Accounting Standards Updates ("ASU") issued by the Financial Accounting Standards Board ("FASB"):

Standard	Description	Effective Date	Effect on the Financial Statements or Other Significant Matters
In November 2023, the FASB issued ASU 2023-07, "Segment Reporting (Topic 280) - Improvements to Reportable Segment Disclosures."	ASU 2023-07 clarifies or improves financial reporting by requiring disclosure of incremental segment information. The amendments require disclosure, on an annual and interim basis for all public entities, of significant segment expenses included in segment profit or loss, an amount and description of "other segment items" included in segment profit or loss, and an explanation of how reported segment profit or loss is assessed and allocated.	The amendments in ASU 2023-07 are effective for fiscal years beginning after December 15, 2023 and interim periods within fiscal years beginning after December 15, 2024. Early adoption is permitted.	The Company is currently evaluating the impact of ASU 2023-07 on its consolidated financial statement disclosures.
In December 2023, the FASB issued ASU 2023-09, "Income Taxes (Topic 740) - Improvements to Income Tax Disclosures."	ASU 2023-09 provides more transparency about income tax information through improvements to income tax disclosures primarily related to the rate reconciliation and income taxes paid.	The amendments in ASU 2023-09 are effective for annual periods beginning after December 15, 2024. Early adoption is permitted.	The Company is currently evaluating the impact of ASU 2023-09 on its consolidated financial statement disclosures.

2. Revenue

The Company accounts for its revenue transactions in accordance with Accounting Standards Codification ("ASC") Topic 606, "Revenue from Contracts with Customers," which requires entities to recognize revenue in a way that depicts the transfer of control over goods or services to customers at an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services.

The Company recognizes revenue when control of promised goods or services is transferred to the customer. The transfer of control generally occurs upon shipment when title and risk of loss pass to the customer. The vast majority of the Company's revenue is generated from the sale of distinct products. Revenue is measured as the amount of consideration the Company expects to receive in exchange for such products, which is generally at contractually stated prices. Sales taxes and value added taxes collected concurrently with revenue generating activities are excluded from revenue.

Performance Obligations

Substantially all of the Company's revenue is recognized at a point in time, upon shipment, rather than over time.

At the request of its customers, the Company may perform professional services, generally for the maintenance and repair of products previously sold to those customers and for engineering services. Professional services are typically short in duration and aggregate to less than 3% of the Company's consolidated revenue. Revenue is typically recognized at a point in time when control transfers to the customer upon completion of professional services. These services generally involve a single distinct performance obligation. The consideration expected to be received in exchange for such services is normally the contractually stated amount.

The Company occasionally sells separately priced non-standard/extended warranty services or preventative maintenance plans with the sale of products. The transfer of control over the service plans is over time. The Company recognizes the related revenue ratably over the terms of the service plans. The transaction price of a contract is allocated to each performance obligation based on its relative standalone selling price. Standalone selling prices are generally determined based on the prices charged to customers or using the expected cost plus a margin.

Shipping & Handling Costs

The Company accounts for shipping and handling activities that occur after the transfer of control over the related goods as fulfillment activities rather than performance obligations. Shipping and handling fees charged to customers are recognized as revenue and the related costs are recorded in cost of revenue at the time of transfer of control.

Warranties

The standard warranty periods for the Company's products are typically 12 months to 36 months. The Company recognizes estimated liabilities associated with standard warranty periods for its products in accordance with the provisions of ASC 450, "Contingencies," as the Company has the ability to ascertain the likelihood of the liabilities and can reasonably estimate the amount of the liabilities. A provision for the estimated cost related to standard warranties is recorded as cost of revenue at the time revenue is recognized. The Company's estimate of the costs to service the warranty obligations is based on historical experience and expectations of future conditions. To the extent that the Company's experience in warranty claims or costs associated with servicing those claims differ from the original estimates, revisions to the estimated warranty liabilities are recorded at that time, with offsetting adjustments to cost of revenue.

Practical Expedients and Exemptions

The Company expenses incremental direct costs of obtaining a contract when incurred because the expected amortization period is typically one year or less. These costs are recorded within selling, general and administrative expenses in the consolidated statement of operations.

The Company does not adjust the promised amount of consideration for the effects of a financing component because the transfer of a promised good to a customer and the customer's payment for that good are typically one year or less. The Company does not disclose the value of the remaining performance obligation for contracts with an original expected length of one year or less.

Contract Liabilities

Contract liabilities consist of deferred revenue and advance payments from customers, including amounts that are refundable. These contract liabilities are classified as either current or long-term liabilities in the consolidated balance sheet based on the timing of when the Company expects to recognize the related revenue. As of September 27, 2024 and December 31, 2023, contract liabilities were $8.3 million and $5.8 million, respectively, and are included in accrued expenses and other current liabilities and other liabilities in the accompanying consolidated balance sheets. The increase in the contract liability balance during the nine months ended September 27, 2024 is primarily due to cash payments received in advance of satisfying performance obligations, partially offset by $4.5 million of revenue recognized during the period that was included in the contract liability balance as of December 31, 2023.

Disaggregated Revenue

See Note 16 for the Company's disaggregation of revenue by segment, geography and end market.

3. Business Combinations

On January 2, 2024, the Company completed the acquisition of Motion Solutions Parent Corp. ("Motion Solutions"), an Irvine, California-based provider of highly engineered integrated solutions, specializing in proprietary precision motion and advanced motion control solutions, for a total purchase price of $192.0 million in cash, net of working capital adjustments. The acquisition was financed with borrowings under the Company's revolving credit facility. The addition of Motion Solutions enhances the Company's product portfolio and further expands its presence in attractive medical and precision medicine spaces. Motion Solutions is included in the Medical Solutions reportable segment.

Allocation of Purchase Price

The acquisition of Motion Solutions has been accounted for as a business combination. The purchase price is allocated based upon a valuation of the fair values of assets acquired and liabilities assumed. Assets acquired and liabilities assumed have been recorded at their estimated fair values as of the acquisition date. The excess of the purchase price over the fair values of the acquired tangible assets, identifiable intangible assets and assumed liabilities was recorded as goodwill. The fair values of identifiable intangible assets were based on valuations using an income approach, specifically the multi-period excess earnings method for customer relationships and the relief-from-royalty method for developed technologies. The process for estimating the fair values of identifiable intangible assets requires the use of significant estimates and assumptions, including revenue growth rates, customer attrition rates, royalty rates, discount rates, technology obsolescence curves, and EBITDA margins. The Company's estimates and assumptions in determining the estimated fair value of certain assets and liabilities are subject to change within the measurement period (up to one year from the acquisition date) as a result of additional information to be obtained with regard to facts and circumstances that existed as of the acquisition date.

Based upon the Company's preliminary valuation, the purchase price for Motion Solutions was allocated as follows (in thousands):

	Purchase Price Allocation
Cash	$ 776
Accounts receivable	8,515
Inventory	14,032
Property, plant and equipment	3,126
Operating lease assets	8,076
Intangible assets	83,000
Goodwill	106,569
Other assets	1,002
Total assets acquired	225,096
Accounts payable	5,305
Operating lease liabilities	8,514
Deferred tax liabilities	18,171
Other liabilities	1,130
Total liabilities assumed	33,120
Total assets acquired, net of liabilities assumed	191,976
Less: cash acquired	776
Purchase price, net of cash acquired	$ 191,200

The purchase price allocation is preliminary as the Company is in the process of collecting additional information. The estimated purchase price allocation previously disclosed in the Form 10-Q for the period ended March 29, 2024 was revised during the second and third quarter of 2024 as new information was received and analyzed resulting in an increase in Inventory of $0.5 million, an increase in Intangible assets of $2.6 million, an increase in Other assets of $0.4 million, an increase in Deferred tax liabilities of $0.6 million, an increase in Other liabilities of $0.7 million and a decrease in Goodwill of $2.2 million.

The fair value of intangible assets for Motion Solutions is comprised of the following:

	Estimated Fair Value (In thousands)	Amortization Period
Developed technologies	$ 34,400	7 years
Customer relationships	43,100	13 years
Backlog	5,500	1 year
Total	$ 83,000	

The preliminary purchase price allocation resulted in $83.0 million of identifiable intangible assets and $106.6 million of goodwill. As the Motion Solutions acquisition was structured as a stock acquisition for income tax purposes, the goodwill is not deductible. The goodwill recorded represents the anticipated incremental value of future cash flows potentially attributable to: (i) Motion Solution's ability to grow the business with existing and new customers, including leveraging the Company's customer base; (ii) Motion Solution's ability to grow the business through new product introductions; and (iii) cost improvements due to the integration of Motion Solution's operations into the Company's existing infrastructure.

The operating results of Motion Solutions were included in the Company's results of operations beginning January 2, 2024. Motion Solutions contributed revenues of $62.6 million and a loss before income taxes of $1.3 million to the Company's operating results for the nine months ended September 27, 2024. The loss before income taxes from Motion Solutions for the period from the acquisition date through September 27, 2024 included amortization of inventory fair value adjustments of $2.8 million and amortization of purchased intangible assets of $9.7 million.

Unaudited Pro Forma Information

The pro forma information for all periods presented below includes the effect of business combination accounting resulting from the acquisition of Motion Solutions, including amortization of inventory fair value adjustments, amortization of intangible assets, interest expense on borrowings in connection with the acquisition, and the related tax effects, assuming that the acquisition had been consummated as of January 1, 2023. The pro forma financial information is presented for comparative purposes only and is not necessarily indicative of the results of operations that actually would have been achieved if the acquisition had taken place on January 1, 2023.

	Three Months Ended		Nine Months Ended	
	September 27, 2024	September 29, 2023	September 27, 2024	September 29, 2023
Revenue	$ 244,405	$ 244,686	$ 711,185	$ 734,378
Net income	$ 19,003	$ 17,159	$ 50,184	$ 45,555

Acquisition Costs

Acquisition costs are included in restructuring and acquisition related costs in the consolidated statements of operations. Acquisition-related costs for Motion Solutions was $1.0 million for the nine months ended September 27, 2024.

4. Accumulated Other Comprehensive Loss

Changes in accumulated other comprehensive loss were as follows (in thousands):

	Total Accumulated Other Comprehensive Loss	Cumulative Translation Adjustments	Pension Liability Adjustments
Balance at December 31, 2023	$ (24,038)	$ (16,604)	$ (7,434)
Other comprehensive income (loss)	10,699	11,053	(354)
Amounts reclassified from accumulated other comprehensive loss	665	—	665
Balance at September 27, 2024	$ (12,674)	$ (5,551)	$ (7,123)

The amounts reclassified from accumulated other comprehensive loss were included in other income (expense) in the consolidated statements of operations.

5. Earnings per Common Share

Basic earnings per common share is computed by dividing net income by the weighted average number of common shares outstanding during the period. Fully vested restricted stock units and deferred stock units granted to members of the Company's Board of Directors are included in the calculation of weighted average number of common shares outstanding.

For diluted earnings per common share, the denominator includes the dilutive effect of outstanding common share equivalents. The dilutive effects of outstanding common share equivalents, including outstanding service-based restricted stock units, stock options and performance-based restricted stock units, are determined using the treasury stock method. Performance-based restricted stock units are considered contingently issuable shares, the vesting of which may be based on achievement of specified company financial performance metrics (“attainment-based PSUs”), certain market conditions (“market-based PSUs”) or a hybrid of company financial performance metrics and market conditions (“hybrid PSUs”). The dilutive effects of market-based PSUs are included in the weighted average common share calculation based on the number of shares, if any, that would be issuable as of the end of the reporting period, assuming the end of the reporting period is also the end of the performance period. The dilutive effects of attainment-based and hybrid PSUs are included in the weighted average common share calculation based on the cumulative achievement against the performance targets only when the performance targets have been achieved as of the end of the reporting period.

The following table sets forth the computation of basic and diluted earnings per common share (amounts in thousands, except per share data):

	Three Months Ended		Nine Months Ended	
	September 27, 2024	September 29, 2023	September 27, 2024	September 29, 2023
Numerators:				
Net income	$ 19,192	$ 21,223	$ 47,623	$ 60,367
Denominators:				
Weighted average common shares outstanding— basic	35,959	35,856	35,940	35,839
Dilutive common share equivalents	170	185	176	185
Weighted average common shares outstanding— diluted	36,129	36,041	36,116	36,024
Antidilutive common share equivalents excluded from above	102	49	113	101
Earnings per Common Share:				
Basic	$ 0.53	$ 0.59	$ 1.33	$ 1.68
Diluted	$ 0.53	$ 0.59	$ 1.32	$ 1.68

For the three and nine months ended September 27, 2024, 174 thousand shares of attainment-based PSUs and hybrid PSUs were excluded from the calculation of the denominator because they were considered contingently issuable shares and the related performance targets had not been achieved as of September 27, 2024.

For the three and nine months ended September 29, 2023, 143 thousand shares of attainment-based PSUs and hybrid PSUs were excluded from the calculation of the denominator because they were considered contingently issuable shares and the related performance targets had not been achieved as of September 29, 2023.

6. Fair Value Measurements

ASC 820, “Fair Value Measurements,” establishes a fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the third is considered unobservable:

- Level 1: Quoted prices for identical assets or liabilities in active markets which the Company can access
- Level 2: Observable inputs other than those described in Level 1
- Level 3: Unobservable inputs

Current Assets and Liabilities

The Company’s cash equivalents are highly liquid investments with original maturities of three months or less, which represent assets measured at fair value on a recurring basis. The Company determines the fair value of cash equivalents using a market approach based on quoted prices in active markets. The fair values of cash equivalents, accounts receivable, income taxes receivable, accounts payable, income taxes payable and accrued expenses and other current liabilities approximate their carrying values because of their short-term nature.

Foreign Currency Contracts

The Company addresses market risks from changes in foreign currency exchange rates through a risk management program that includes the use of derivative financial instruments to mitigate certain balance sheet foreign currency transaction exposures. The Company uses foreign currency forward contracts as a part of its strategy to manage exposures related to foreign currency denominated monetary assets and liabilities. The fair value of these foreign currency forward contracts is reported either in other current assets or in other current liabilities as of the end of the period.

Summary by Fair Value Hierarchy

The following table summarizes the fair values of the Company's assets and liabilities measured at fair value on a recurring basis as of September 27, 2024 (in thousands):

	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)
Assets				
Prepaid expenses and other current assets:				
Foreign currency forward contracts	$ 14	$ —	$ 14	$ —
	$ 14	$ —	$ 14	$ —
Liabilities				
Accrued expenses and other current liabilities:				
Contingent considerations - Current	$ 48	$ —	$ —	$ 48
Foreign currency forward contracts	250	—	250	—
Other liabilities:				
Contingent considerations - Long-term	313	—	—	313
	$ 611	$ —	$ 250	$ 361

The following table summarizes the fair values of the Company's assets and liabilities measured at fair value on a recurring basis as of December 31, 2023 (in thousands):

	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)
Assets				
Cash equivalents	$ 1,392	$ 1,392	$ —	$ —
Prepaid expenses and other current assets:				
Foreign currency forward contracts	379	—	379	—
	$ 1,771	$ 1,392	$ 379	$ —
Liabilities				
Accrued expenses and other current liabilities:				
Contingent considerations - Current	$ 48	$ —	$ —	$ 48
Foreign currency forward contracts	312	—	312	—
Other liabilities:				
Contingent considerations - Long-term	311	—	—	311
	$ 671	$ —	$ 312	$ 359

Changes in the fair value of Level 3 contingent considerations during the nine months ended September 27, 2024 were as follows (in thousands):

	Amount
Balance at December 31, 2023	$ 359
Payments	—
Fair value adjustments	—
Effect of foreign exchange rates	2
Balance at September 27, 2024	$ 361

See Note 10 to Consolidated Financial Statements for a discussion of the estimated fair value of the Company's outstanding debt.

7. Foreign Currency Contracts

The Company addresses market risks from changes in foreign currency exchange rates through a risk management program that includes the use of derivative financial instruments to mitigate certain foreign currency transaction exposures from future settlement of non-functional currency monetary assets and liabilities as of the end of a period. The Company does not enter into derivative transactions for speculative purposes. Gains and losses on these derivative financial instruments substantially offset losses and gains on the underlying hedged exposures and are included in foreign exchange transaction gains (losses) in the consolidated statements of operations. Furthermore, the Company manages its exposures to counterparty risks on derivative instruments by entering into contracts with a diversified group of major financial institutions and by actively monitoring outstanding positions.

As of September 27, 2024, the aggregate notional amount and fair value of the Company's foreign currency forward contracts was $187.9 million and a net loss of $0.2 million, respectively. As of December 31, 2023, the aggregate notional amount and fair value of the Company's foreign currency forward contracts was $172.3 million and a net gain of $0.1 million, respectively.

The Company recognized an aggregate net gain of $2.1 million and $4.3 million for the three and nine months ended September 27, 2024. The Company recognized an aggregate net loss of $0.2 million and an aggregate net gain of $2.5 million for the three and nine months ended September 29, 2023. These amounts were included in foreign exchange transaction gains (losses) in the consolidated statements of operations.

8. Goodwill and Intangible Assets

Goodwill

Goodwill is recorded when the consideration paid for a business combination exceeds the fair value of net tangible and identifiable intangible assets acquired. The Company tests its goodwill balances for impairment annually as of the beginning of the second quarter or more frequently if indicators are present or changes in circumstances suggest that an impairment may exist. The Company performed the most recent annual goodwill and indefinite-lived intangible asset impairment test as of the beginning of the second quarter of 2024 and noted no impairment.

The following table summarizes changes in goodwill during the nine months ended September 27, 2024 (in thousands):

	Amount
Balance at beginning of the period	$ 484,507
Goodwill acquired from Motion Solutions acquisition	106,569
Effect of foreign exchange rate changes	3,012
Balance at end of the period	$ 594,088

Goodwill by reportable segment as of September 27, 2024 was as follows (in thousands):

	Reportable Segment			
	Precision Medicine and Manufacturing	Medical Solutions	Robotics and Automation	Total
Goodwill	$ 213,407	$ 276,676	$ 255,234	$ 745,317
Accumulated impairment of goodwill	(102,461)	(31,722)	(17,046)	(151,229)
Total	$ 110,946	$ 244,954	$ 238,188	$ 594,088

Goodwill by reportable segment as of December 31, 2023 was as follows (in thousands):

	Reportable Segment			
	Precision Medicine and Manufacturing	Medical Solutions	Robotics and Automation	Total
Goodwill	$ 211,380	$ 169,738	$ 254,618	$ 635,736
Accumulated impairment of goodwill	(102,461)	(31,722)	(17,046)	(151,229)
Total	$ 108,919	$ 138,016	$ 237,572	$ 484,507

Intangible Assets

Intangible assets as of September 27, 2024 and December 31, 2023, respectively, are summarized as follows (in thousands):

	September 27, 2024			December 31, 2023		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Amortizable intangible assets:						
Patents and developed technologies	$ 223,048	$ (158,765)	$ 64,283	$ 187,092	$ (146,342)	$ 40,750
Customer relationships	270,286	(158,032)	112,254	225,183	(142,478)	82,705
Customer backlog	5,500	(4,125)	1,375	—	—	—
Trademarks and trade names	23,861	(16,406)	7,455	23,628	(15,088)	8,540
Amortizable intangible assets	522,695	(337,328)	185,367	435,903	(303,908)	131,995
Non-amortizable intangible assets:						
Trade names	13,027	—	13,027	13,027	—	13,027
Total intangible assets	$ 535,722	$ (337,328)	$ 198,394	$ 448,930	$ (303,908)	$ 145,022

All definite-lived intangible assets are amortized either on a straight-line basis or an economic benefit basis over their remaining estimated useful life. Amortization expense for patents and developed technologies is included in cost of revenue in the accompanying consolidated statements of operations. Amortization expense for customer relationships and definite-lived trademarks, trade names and other intangibles is included in operating expenses in the accompanying consolidated statements of operations. Amortization expense for the three and nine months ended September 27, 2024 and September 29, 2023, respectively, was as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	September 27, 2024	September 29, 2023	September 27, 2024	September 29, 2023
Amortization expense – cost of revenue	$ 3,708	$ 3,051	$ 11,086	$ 9,119
Amortization expense – operating expenses	6,589	5,131	19,246	15,344
Total amortization expense	$ 10,297	$ 8,182	$ 30,332	$ 24,463

As of September 27, 2024, estimated amortization expense for each of the five succeeding years and thereafter was as follows (in thousands):

Year Ending December 31,	Cost of Revenue	Operating Expenses	Total
2024 (remainder of year)	$ 3,727	$ 6,620	$ 10,347
2025	14,425	22,544	36,969
2026	13,533	20,209	33,742
2027	10,669	16,032	26,701
2028	8,917	12,917	21,834
Thereafter	13,012	42,762	55,774
Total	$ 64,283	$ 121,084	$ 185,367

9. Supplementary Balance Sheet Information

The following tables provide the details of selected balance sheet items as of the periods indicated (in thousands):

Inventories

	September 27, 2024	December 31, 2023
Raw materials	$ 98,731	$ 104,643
Work-in-process	26,581	21,010
Finished goods	28,344	23,311
Demo and consigned inventory	365	407
Total inventories	$ 154,021	$ 149,371

Accrued Expenses and Other Current Liabilities

	September 27, 2024	December 31, 2023
Accrued compensation and benefits	$ 27,511	$ 32,703
Accrued warranty	4,982	5,292
Contract liabilities, current portion	8,342	5,553
Finance lease obligations	749	718
Other	15,885	16,790
Total	$ 57,469	$ 61,056

Accrued Warranty

	Nine Months Ended	
	September 27, 2024	September 29, 2023
Balance at beginning of the period	$ 5,292	$ 5,127
Provision charged to cost of revenue	888	1,837
Warranty liabilities acquired from acquisitions	76	—
Use of provision	(1,322)	(1,467)
Foreign currency exchange rate changes	48	1
Balance at end of the period	$ 4,982	$ 5,498

Other Long-Term Liabilities

	September 27, 2024	December 31, 2023
Finance lease obligations	$ 3,369	$ 3,934
Accrued contingent considerations and earn-outs	313	311
Other	1,508	1,687
Total	$ 5,190	$ 5,932

10. Debt

Outstanding debt consisted of the following (in thousands):

	September 27, 2024	December 31, 2023
Senior Credit Facilities – term loan	$ 5,037	$ 4,994
Less: unamortized debt issuance costs	(21)	(26)
Total current portion of long-term debt	$ 5,016	$ 4,968
Senior Credit Facilities – term loan	$ 71,518	$ 74,655
Senior Credit Facilities – revolving credit facility	383,772	278,404
Less: unamortized debt issuance costs	(2,788)	(3,655)
Total long-term debt	$ 452,502	$ 349,404
Total Senior Credit Facilities	$ 457,518	$ 354,372

Senior Credit Facilities

On December 31, 2019, the Company entered into an amended and restated credit agreement (the "Third Amended and Restated Credit Agreement") with existing lenders for an aggregate credit facility of $450.0 million, consisting of a $100.0 million U.S. dollar equivalent euro-denominated (approximately €90.2 million) 5-year term loan facility and a $350.0 million 5-year revolving credit facility (collectively, the "Senior Credit Facilities"). The Third Amended and Restated Credit Agreement had an original maturity date of December 31, 2024.

On March 27, 2020, the Company entered into an amendment (the "First Amendment") to the Third Amended and Restated Credit Agreement and exercised a portion of the uncommitted accordion option. The First Amendment increased the revolving credit facility commitment by $145.0 million, from $350.0 million to $495.0 million, and reset the uncommitted accordion option to $200.0 million for potential future expansion.

On October 5, 2021, the Company entered into an amendment (the "Fourth Amendment") to the Third Amended and Restated Credit Agreement to exercise the accordion option. The Fourth Amendment increased the revolving credit facility commitment by $200.0 million, from $495.0 million to $695.0 million, and reset the uncommitted accordion option to $200.0 million for potential future expansion.

On March 10, 2022, the Company entered into an amendment (the "Fifth Amendment") to the Third Amended and Restated Credit Agreement to extend the maturity date from December 31, 2024 to March 10, 2027, update the pricing grid, replace LIBOR with SOFR as the reference rate for U.S. dollar borrowings, and increase the uncommitted accordion option from $200 million to $350 million.

The outstanding principal balance under the term loan facility is payable in quarterly installments of €1.1 million that began in March 2020, with the remaining balance due upon maturity. The Company may make additional principal payments at any time, which will reduce the next quarterly installment payment due. Borrowings under the revolving credit facility may be repaid at any time until maturity. The Company made principal payments of €3.4 million ($3.7 million) towards its term loan and $92.3 million towards its revolving credit facility during the nine months ended September 27, 2024.

The Company is required to satisfy certain financial and non-financial covenants under the Third Amended and Restated Credit Agreement. The Third Amended and Restated Credit Agreement also contains customary events of default. The Company was in compliance with these covenants as of September 27, 2024.

Liens

The Company's obligations under the Senior Credit Facilities are secured, on a senior basis, by a lien on substantially all of the assets of Novanta Inc.

Fair Value of Debt

As of September 27, 2024 and December 31, 2023, the outstanding balance of the Company's debt approximated its fair value based on current rates available to the Company for debt of similar maturities. The fair value of the Company's debt is classified as Level 2 under the fair value hierarchy.

11. Leases

Most leases held by the Company expire between 2024 and 2036. In the U.K., where longer lease terms are more common, the Company has a land lease that extends through 2078. Certain leases include one or more options to renew the lease terms from one to ten years and options to terminate the leases within one year. The exercise of lease renewal or termination options is at the Company's sole discretion; therefore, the majority of renewal options to extend the lease terms are not included in the Company's right-of-use assets and operating lease liabilities as they are not reasonably certain of being exercised. The Company regularly evaluates the renewal options and includes the renewal periods in the lease term when they are reasonably certain of being exercised. The depreciable lives of the right-of-use assets and leasehold improvements are limited to the expected lease terms.

The following table summarizes the components of lease costs (in thousands):

	Three Months Ended		Nine Months Ended	
	September 27, 2024	September 29, 2023	September 27, 2024	September 29, 2023
Operating lease cost	$ 3,466	$ 2,639	$ 9,267	$ 7,916
Finance lease cost				
Amortization of right-of-use assets	151	150	452	452
Interest on lease liabilities	58	68	180	208
Variable lease cost	303	227	895	787
Total lease cost	$ 3,978	$ 3,084	$ 10,794	$ 9,363

The following table provides additional details of balance sheet information related to the Company's leases (in thousands, except lease term and discount rate):

	September 27, 2024	December 31, 2023
Operating leases		
Operating lease right-of-use assets	$ 44,645	$ 38,302
Current portion of operating lease liabilities	$ 9,981	$ 8,189
Operating lease liabilities	42,672	37,345
Total operating lease liabilities	$ 52,653	$ 45,534
Finance leases		
Property, plant and equipment, gross	$ 9,582	$ 9,582
Accumulated depreciation	(6,724)	(6,272)
Finance lease assets included in property, plant and equipment, net	$ 2,858	$ 3,310
Accrued expenses and other current liabilities	$ 749	$ 718
Other liabilities	3,369	3,934
Total finance lease liabilities	$ 4,118	$ 4,652
Weighted-average remaining lease term (in years):		
Operating leases	7.5	7.6
Finance leases	4.8	5.5
Weighted-average discount rate:		
Operating leases	4.78%	4.84%
Finance leases	5.54%	5.54%

The following table provides additional details of cash flow information related to the Company's leases (in thousands):

	Nine Months Ended	
	September 27, 2024	September 29, 2023
Cash paid for lease liabilities:		
Operating cash outflows related to finance leases	$ 180	$ 208
Operating cash outflows related to operating leases	$ 6,723	$ 5,916
Financing cash outflows related to finance leases	$ 534	$ 484
Supplemental non-cash information:		
Right-of-use assets obtained in exchange for new operating lease liabilities[(1)]	$ 12,733	$ 3,893

[(1)]The amount for the nine months ended September 27, 2024 includes $8.1 million of right-of-use assets acquired as part of the Motion Solutions acquisition.

Future minimum lease payments under operating and finance leases expiring subsequent to September 27, 2024, including operating leases associated with facilities that have been vacated as a result of the Company's restructuring actions, are summarized as follows (in thousands):

Year Ending December 31,	Operating Leases	Finance Leases
2024 (remainder of year)	$ 1,866	$ 238
2025	11,888	954
2026	10,445	979
2027	8,949	1,003
2028	6,204	1,003
Thereafter	25,183	503
Total minimum lease payments	64,535	4,680
Less: Interest	(11,882)	(562)
Present value of lease liabilities	$ 52,653	$ 4,118

12. Preferred and Common Shares and Share-Based Compensation

Preferred Shares

In May 2021, the Company's shareholders approved a special resolution to amend the Company's articles to authorize up to 7.0 million preferred shares for future issuance. The Company's Board of Directors is authorized to designate and issue one or more series of preferred shares, fix the rights, preferences and designation, as deemed necessary or advisable, relating to the preferred shares, provided that no shares of any series may be entitled to more than one vote per share. As of September 27, 2024, no preferred shares had been issued and outstanding.

Common Share Repurchases

In February 2020, the Company's Board of Directors approved a share repurchase plan (the "2020 Repurchase Plan"), authorizing the repurchase of $50.0 million worth of the Company's common shares. During 2022, the Company repurchased 4 thousand shares under the 2020 Repurchase Plan for an aggregate purchase price of $0.5 million and an average price of $116.95 per share. During the nine months ended September 27, 2024, the Company did not repurchase any shares. As of September 27, 2024, the Company had $49.5 million available for future share repurchases under the 2020 Repurchase Plan.

Share-Based Compensation Expense

The table below summarizes share-based compensation expense recorded in the consolidated statements of operations (in thousands):

	Three Months Ended		Nine Months Ended	
	September 27, 2024	September 29, 2023	September 27, 2024	September 29, 2023
Selling, general and administrative	$ 5,357	$ 5,229	$ 16,006	$ 15,631
Research and development and engineering	636	510	1,796	1,495
Cost of revenue	371	298	870	1,252
Total share-based compensation expense	$ 6,364	$ 6,037	$ 18,672	$ 18,378

Share-based compensation expense reported in selling, general and administrative expenses included expenses related to restricted stock units and deferred stock units granted to the members of the Company's Board of Directors of $1.6 million and $1.2 million during the nine months ended September 27, 2024 and September 29, 2023, respectively.

Restricted Stock Units

The Company's restricted stock units ("RSUs") have generally been issued with vesting periods ranging from zero to five years and vest based solely on service conditions. Accordingly, the Company recognizes compensation expense on a straight-line basis over the requisite service period. The Company reduces the compensation expense by an estimated forfeiture rate which is based on anticipated forfeitures and historical forfeiture experience.

The table below summarizes activities relating to RSUs issued and outstanding under the Company's Amended and Restated 2010 Incentive Plan during the nine months ended September 27, 2024:

	Shares (In thousands)	Weighted Average Grant Date Fair Value
Unvested at December 31, 2023	206	$ 143.97
Granted	102	$ 159.52
Vested	(102)	$ 140.93
Forfeited	(10)	$ 152.90
Unvested at September 27, 2024	196	$ 153.16
Expected to vest as of September 27, 2024	178	

The total fair value of RSUs that vested during the nine months ended September 27, 2024 was $16.2 million based on the market price of the underlying shares on the date of vesting.

Performance Stock Units

The Company typically grants PSUs that are based on the Company's financial performance metrics, market conditions, or a hybrid of company financial performance metrics and market conditions. These PSUs generally cliff vest on the first day following the end of the specified performance period.

The number of common shares to be issued upon settlement following vesting of attainment-based PSUs is determined based on the Company's financial performance metrics over the specified performance period against the targets established by the Company's Board of Directors at the time of grant and will be in the range of zero to 200% of the target number of shares. The Company recognizes the related compensation expense ratably over the performance period based on the number of shares that are deemed probable of vesting at the end of the specified performance period. This probability assessment is performed quarterly and the cumulative effect of a change in the estimated compensation expense, if any, is recognized in the consolidated statement of operations in the period in which such determination is made.

The number of common shares to be issued upon settlement following vesting of market-based PSUs is determined based on the relative market performance of the Company's common stock compared to the Russell 2000 Index over the specified performance period using a payout formula established by the Company's Board of Directors at the time of grant and will be in the range of zero to 200% of the target number of shares. The Company recognizes the related compensation expense based on the fair value of the market-based PSUs, determined using the Monte-Carlo valuation method as of the grant date, on a straight-line basis from the grant date to the end of the specified performance period. Compensation expense on market-based PSUs will not be affected by the number of shares that will ultimately vest at the end of the specified performance period.

The number of common shares to be issued upon settlement following vesting of PSU awards that are based on the achievement of a hybrid of company financial performance metrics and market conditions ("Hybrid PSUs") is determined based on the Company's financial performance metrics achieved over the specified performance period against the targets established by the Company's Board of Directors at the time of grant and a market-based multiplier based on the percentile ranking of the relative market performance of the Company's common stock compared to the Russell 2000 Index companies. The payout will be in the range of zero to 260% of the target number of shares. The Company determines the fair value of these Hybrid PSUs using the Monte-Carlo valuation method as of the grant date. The Company recognizes compensation expense associated with the Hybrid PSUs ratably over the performance period based on the fair value of the PSUs as of the grant date and the number of shares that are deemed probable of vesting based on the estimated achievement of the pertinent company financial performance metrics at the end of the specified performance period. The probability assessment is performed quarterly and the cumulative effect of a change in the estimated compensation expense, if any, is recognized in the consolidated statement of operations in the period in which such determination is made.

The table below summarizes the activities relating to the performance-based awards issued and outstanding under the Company's Amended and Restated 2010 Incentive Plan during the nine months ended September 27, 2024:

	Shares (In thousands)	Weighted Average Grant-Date Fair Value
Unvested at December 31, 2023	205	$ 160.24
Granted	80	$ 177.06
Performance adjustments[1]	16	$ 166.64
Vested	(45)	$ 168.60
Forfeited	(11)	$ 168.05
Unvested at September 27, 2024	245	$ 165.03
Expected to vest as of September 27, 2024	228	

[1] The amount shown represents performance adjustments related to the performance-based awards vested during the nine months ended September 27, 2024.

The unvested PSUs are shown at target payout levels in the table above. As of September 27, 2024, the maximum number of common shares that could be earned under these PSU grants was approximately 470 thousand shares.

The total fair value of PSUs that vested during the nine months ended September 27, 2024 was $7.5 million based on the market price of the underlying common shares on the date of vesting.

The grant-date fair value per unit of the hybrid PSUs granted during the nine months ended September 27, 2024 was estimated using the Monte Carlo valuation method with the following assumptions:

	Nine Months Ended September 27, 2024
Grant-date stock price	$ 157.48
Expected volatility	36.90%
Risk-free interest rate	4.35%
Expected annual dividend yield	—
Fair value	$ 180.98

Stock Options

In February 2024, the Company granted 53 thousand nonqualified stock options to certain members of the executive management team to purchase common shares of the Company at a strike price equal to the closing market price on the date of grant. The stock options vest ratably over three years on the anniversary of the date of grant and expire on the seventh anniversary of the date of grant. The Company estimates the fair value of stock options using the Black-Scholes valuation model. The Company recognizes compensation expense related to the stock options on a straight-line basis over the vesting period in the consolidated statement of operations.

The table below summarizes the activities relating to stock options issued and outstanding under the Company's Amended and Restated 2010 Incentive Plan during the nine months ended September 27, 2024:

	Shares (In thousands)	Weighted Average Exercise Price
Outstanding as of December 31, 2023	132	$ 102.86
Granted	53	$ 157.48
Exercised	(15)	$ 14.13
Forfeited or expired	—	$ —
Outstanding as of September 27, 2024	170	$ 128.03
Exercisable as of September 27, 2024	72	
Expected to vest as of September 27, 2024	98	

The aggregate Black-Scholes fair value of $3.3 million for the stock options granted during the nine months ended September 27, 2024 was estimated using the following assumptions as of the grant date:

	Nine Months Ended September 27, 2024
Expected option term in years	4.5
Expected volatility	40.3%
Risk-free interest rate	4.2%
Expected annual dividend yield	—

The expected option term was calculated using the simplified method permitted under Codification of Staff Accounting Bulletins Topic 14, "Share-Based Payment". The expected volatility was determined based on the historical volatility of the Company's common shares over the expected option term. The risk-free interest rate was based on treasury instruments whose terms were six months longer than the expected option term. The expected annual dividend yield is zero as the Company does not have plans to issue dividends.

13. Income Taxes

The Company determines its estimated annual effective tax rate at the end of each interim period based on full year forecasted pre-tax income and facts known at that time. The estimated annual effective tax rate is applied to the year-to-date pre-tax income at the end of each interim period with the cumulative effect of any changes in the estimated annual effective tax rate being recorded in the period in which the changes are determined. The tax effect of significant unusual items is reflected in the period in which they occur. Since the Company is incorporated in Canada, it is required to use Canada's statutory tax rate of 29.0% in the determination of the estimated annual effective tax rate.

The Company maintains a valuation allowance on deferred tax assets associated with certain U.S. state net operating losses, credits and certain non-U.S. tax attributes that the Company has determined are not more likely than not to be realized. A valuation allowance is required when, based upon an assessment of various factors, including recent operating loss history, anticipated future earnings, and prudent and reasonable tax planning strategies, it is more likely than not that some portion of the deferred tax assets will not be realized. In conjunction with the Company's ongoing review of its actual results and anticipated future earnings, the Company continuously reassesses the possibility of adding a new or additional valuation allowance or releasing the valuation allowance currently in place on its deferred tax assets.

The Company's effective tax rate of 20.8% for the three months ended September 27, 2024 differs from the Canadian statutory tax rate of 29.0% primarily due to the mix of income earned in jurisdictions with varying tax rates, estimated deductions for Foreign Derived Intangible Income, U.K. patent box deductions and R&D tax credits, partially offset by disallowed compensation deductions, uncertain tax position accruals, and Pillar Two inclusion.

The Company's effective tax rate of 18.3% for the nine months ended September 27, 2024 differs from the Canadian statutory tax rate of 29.0% primarily due to the mix of income earned in jurisdictions with varying tax rates, estimated deductions for Foreign Derived Intangible Income, U.K. patent box deductions, R&D tax credits, and windfall tax benefits upon vesting of share-based compensation awards, partially offset by disallowed compensation deductions, uncertain tax position accruals, and Pillar Two inclusion. For the nine months ended September 27, 2024, the tax benefits upon vesting of certain share-based compensation awards had a benefit of 3.1% on the Company's effective tax rate.

The Company's effective tax rate of 7.7% for the three months ended September 29, 2023 differs from the Canadian statutory tax rate of 29.0% primarily due to the mix of income earned in jurisdictions with varying tax rates, estimated deductions for Foreign Derived Intangible Income, U.K. patent box deductions, R&D tax credits, and windfall tax benefits upon vesting of share-based compensation awards, partially offset by disallowed compensation deductions and uncertain tax position accruals.

The Company's effective tax rate of 11.2% for the nine months ended September 29, 2023 differs from the Canadian statutory tax rate of 29.0% primarily due to the mix of income earned in jurisdictions with varying tax rates, estimated deductions for Foreign Derived Intangible Income, U.K. patent box deductions, R&D tax credits, and windfall tax benefits upon vesting of share-based compensation awards, partially offset by disallowed compensation deductions and uncertain tax position accruals. For the nine months ended September 29, 2023, the tax benefits upon vesting of certain share-based compensation awards had a benefit of 4.5% on the Company's effective tax rate.

14. Restructuring, Acquisition, and Related Costs

The following table summarizes restructuring, acquisition, and related costs in the accompanying consolidated statements of operations (in thousands):

	Three Months Ended		Nine Months Ended	
	September 27, 2024	September 29, 2023	September 27, 2024	September 29, 2023
2024 restructuring	$ 1,919	$ —	$ 4,990	$ —
2022 restructuring	—	2,450	—	5,324
2020 restructuring	—	1,880	—	2,613
Total restructuring charges	1,919	4,330	4,990	7,937
Acquisition and related charges	580	151	2,335	254
Total restructuring, acquisition, and related costs	$ 2,499	$ 4,481	$ 7,325	$ 8,191

2024 Restructuring

As a result of the Company's acquisitions and ongoing integration activities, the Company initiated the 2024 restructuring program in the first quarter of 2024 in order to reduce operating complexity. During the three and nine months ended September 27, 2024, the Company recorded $2.0 million and $5.0 million, respectively, in severance, facility related and other charges in connection with the 2024 restructuring program. As of September 27, 2024, the Company had incurred cumulative costs of $5.0 million related to this restructuring program. The Company anticipates substantially completing the 2024 restructuring program by the end of 2024 and expects to incur additional restructuring charges of $1.0 million to $2.0 million related to the 2024 restructuring program.

The following table summarizes restructuring costs associated with the 2024 restructuring program by reportable segment (in thousands):

	Three Months Ended		Nine Months Ended	
	September 27, 2024	September 29, 2023	September 27, 2024	September 29, 2023
Precision Medicine and Manufacturing	$ 795	$ —	$ 2,683	$ —
Medical Solutions	785	—	1,142	—
Robotics and Automation	266	—	676	—
Unallocated Corporate and Shared Services	73	—	489	—
Total	$ 1,919	$ —	$ 4,990	$ —

Rollforward of Accrued Expenses Related to Restructuring

The following table summarizes the accrual activities, by component, related to the Company's restructuring plans recorded in the accompanying consolidated balance sheets (in thousands):

	Total	Employee Related	Facility Related	Other
Balance at December 31, 2023	$ 2,850	$ 1,038	$ 1,680	$ 132
Restructuring charges	4,990	3,007	1,786	197
Cash payments	(4,241)	(2,229)	(1,687)	(325)
Non-cash write-offs and other adjustments	(584)	10	(598)	4
Balance at September 27, 2024	$ 3,015	$ 1,826	$ 1,181	$ 8

Acquisition and Related Charges

Acquisition costs in connection with business combinations, including finders' fees, legal, valuation, and other professional or consulting fees, totaled $0.6 million and $2.3 million for the three and nine months ended September 27, 2024, respectively, and $0.2 million and $0.3 million for the three and nine months ended September 29, 2023. The majority of acquisition and related costs for the three and nine months ended September 27, 2024 and the three and nine months ended September 29, 2023 were included in the Company's unallocated Corporate and Shared Services reportable segment.

15. Commitments and Contingencies

Purchase Commitments

There have been no material changes to the Company's purchase commitments since December 31, 2023.

Legal Contingencies

The Company is subject to various legal proceedings and claims that arise in the ordinary course of business. The Company reviews the status of each significant matter and assesses the potential financial exposure on a quarterly basis. If the potential loss from any claim or legal proceeding is considered probable and the amount can be reasonably estimated, the Company accrues a liability for the estimated loss. Significant judgment is required in both the determination of probability and the determination as to whether an exposure is reasonably estimable. Because of uncertainties related to these matters, accruals are based only on the best information available as of the date of the consolidated balance sheet. As additional information becomes available, the Company reassesses the potential liability related to any pending claims and litigation and may revise its estimates. When a material loss contingency is considered reasonably possible but not probable, the Company does not record a liability, but instead discloses the nature and the amount of the claim, and an estimate of the potential loss or a range of potential losses, if such an estimate can be reasonably made. Legal fees are expensed as incurred. The Company does not believe that the outcome of outstanding claims will have a material adverse effect on its consolidated financial statements but there can be no assurance that any such claims, or any similar claims, would not have a material adverse effect on its consolidated financial statements.

Guarantees and Indemnifications

In the normal course of its operations, the Company executes agreements that provide for indemnification and guarantees to counterparties in transactions such as business dispositions, sale of assets, sale of products, and operating leases. Additionally, the by-laws of the Company require it to indemnify certain current or former directors, officers, and employees of the Company against expenses incurred by them in connection with each proceeding in which they are involved as a result of serving or having served in certain capacities. Indemnification is not available with respect to a proceeding as to which it has been adjudicated that the person did not act in good faith in the reasonable belief that the action was in the best interests of the Company. Certain of the Company's officers and directors are also a party to indemnification agreements with the Company. These indemnification agreements provide, among other things, that the director or officer shall be indemnified to the fullest extent permitted by applicable law against all expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred by such director or officer in connection with any proceeding by reason of their relationship with the Company. In addition, the indemnification agreements provide for the advancement of expenses incurred by such director or officer in connection with any proceeding covered by the indemnification agreement, subject to the conditions set forth therein and to the extent such advancement is not prohibited by law. The indemnification agreements also set out the procedures for determining entitlement to indemnification, the requirements relating to notice and defense of claims for which indemnification is sought, the procedures for enforcement of indemnification rights, the limitations on and exclusions from indemnification, and the minimum levels of directors and officers liability insurance to be maintained by the Company.

16. Segment Information

Reportable Segments

The Company's Chief Operating Decision Maker ("CODM") utilizes certain financial information to make decisions about allocating resources and assessing performance for the entire Company. The Company evaluates the performance of and allocates resources to its segments based on revenue, gross profit and operating profit. The Company's reportable segments have been identified based on commonality and adjacency of technologies, applications and customers amongst the Company's individual product lines. The Company determined that disclosing revenue by specific product is impracticable due to the highly customized and extensive portfolio of technologies offered to customers.

Based upon the information provided to the CODM, the Company has determined that it operates in three reportable segments: Precision Medicine and Manufacturing, Medical Solutions, and Robotics and Automation. The reportable segments and their principal activities are described below.

Precision Medicine and Manufacturing

The Precision Medicine and Manufacturing segment designs, manufactures and markets photonics-based solutions, including laser scanning, laser beam delivery, CO2 laser, solid state laser, ultrafast laser, and optical light engine products to customers worldwide. The segment serves highly demanding photonics-based applications for advanced industrial processes, medical and life science imaging, DNA sequencing, and medical laser procedures, particularly ophthalmology applications. The vast majority of the segment's product offerings are sold to OEM customers. The segment sells these products directly, utilizing a highly technical sales force, and indirectly, through resellers and distributors.

Medical Solutions

The Medical Solutions segment designs, manufactures and markets a range of medical grade technologies, including medical insufflators, pumps and related disposables; visualization solutions; wireless technologies, video recorder and video integration technologies for operating room integrations; optical data collection and machine vision technologies; radio frequency identification technologies; thermal chart recorders; spectrometry technologies; embedded touch screen solutions; and high precision customized subsystems. The vast majority of the segment's product offerings are sold to OEM customers. The segment sells these products directly, utilizing a highly technical sales force, and indirectly, through resellers and distributors.

Robotics and Automation

The Robotics and Automation segment designs, manufactures and markets optical and inductive encoders, precision motors, servo drives and motion control solutions, integrated stepper motors, intelligent robotic end-of-arm technology solutions, and air bearing spindles to customers worldwide. The vast majority of the segment's product offerings are sold to OEM customers. The segment sells these products directly, utilizing a highly technical sales force, and indirectly, through resellers and distributors.

Reportable Segment Financial Information

Revenue, gross profit, gross profit margin, operating income (loss), and depreciation and amortization expenses by reportable segment were as follows (in thousands, except percentage data):

	Three Months Ended		Nine Months Ended	
Revenue	September 27, 2024	September 29, 2023	September 27, 2024	September 29, 2023
Precision Medicine and Manufacturing	$ 60,595	$ 71,277	$ 189,781	$ 215,138
Medical Solutions	103,783	83,378	310,760	244,340
Robotics and Automation	80,027	66,848	210,644	210,615
Total	$ 244,405	$ 221,503	$ 711,185	$ 670,093

	Three Months Ended		Nine Months Ended	
Gross Profit	September 27, 2024	September 29, 2023	September 27, 2024	September 29, 2023
Precision Medicine and Manufacturing	$ 27,048	$ 36,208	$ 89,412	$ 107,054
Medical Solutions	42,373	34,027	122,128	100,170
Robotics and Automation	40,569	32,652	104,506	100,376
Unallocated Corporate and Shared Services	(775)	(1,296)	(2,726)	(4,258)
Total	$ 109,215	$ 101,591	$ 313,320	$ 303,342

	Three Months Ended		Nine Months Ended	
Gross Profit Margin	September 27, 2024	September 29, 2023	September 27, 2024	September 29, 2023
Precision Medicine and Manufacturing	44.6%	50.8%	47.1%	49.8%
Medical Solutions	40.8%	40.8%	39.3%	41.0%
Robotics and Automation	50.7%	48.8%	49.6%	47.7%
Total	44.7%	45.9%	44.1%	45.3%

	Three Months Ended		Nine Months Ended	
Operating Income (Loss)	September 27, 2024	September 29, 2023	September 27, 2024	September 29, 2023
Precision Medicine and Manufacturing	$ 11,879	$ 18,508	$ 40,367	$ 54,803
Medical Solutions	12,421	11,050	36,686	30,974
Robotics and Automation	22,086	12,208	48,950	39,456
Unallocated Corporate and Shared Services	(13,831)	(11,457)	(42,126)	(36,414)
Total	$ 32,555	$ 30,309	$ 83,877	$ 88,819

	Three Months Ended		Nine Months Ended	
Depreciation and Amortization Expenses	September 27, 2024	September 29, 2023	September 27, 2024	September 29, 2023
Precision Medicine and Manufacturing	$ 2,806	$ 2,644	$ 7,621	$ 7,901
Medical Solutions	6,891	3,860	20,216	11,877
Robotics and Automation	4,015	4,705	12,010	14,467
Unallocated Corporate and Shared Services	443	188	1,353	820
Total	$ 14,155	$ 11,397	$ 41,200	$ 35,065

Revenue by Geography

The Company aggregates geographic revenue based on the customer locations where products are shipped to. Revenue by geography was as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	September 27, 2024	September 29, 2023	September 27, 2024	September 29, 2023
United States	$ 124,328	$ 110,462	$ 364,800	$ 321,898
Germany	33,559	33,263	98,659	100,222
Rest of Europe	30,584	34,257	94,083	98,159
China	24,623	15,679	60,708	54,331
Rest of Asia-Pacific	27,147	24,060	79,737	79,561
Other	4,164	3,782	13,198	15,922
Total	$ 244,405	$ 221,503	$ 711,185	$ 670,093

The majority of revenue from Precision Medicine and Manufacturing, Medical Solutions and Robotics and Automation segments is generated from sales to customers within the United States and Europe. Each segment also generates revenue across the other geographies, with no significant concentration of any segment's remaining revenue.

Revenue by End Market

The Company primarily operates in two end markets: the medical market and the advanced industrial market. Revenue by end market was approximately as follows:

	Three Months Ended		Nine Months Ended	
	September 27, 2024	September 29, 2023	September 27, 2024	September 29, 2023
Medical	54%	57%	56%	54%
Advanced Industrial	46%	43%	44%	46%
Total	100%	100%	100%	100%

The majority of revenue from the Precision Medicine and Manufacturing and Robotics and Automation segments is generated from sales to customers in the advanced industrial market. The majority of revenue from the Medical Solutions segment is generated from sales to customers in the medical market.