UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

Form 10-Q

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

For the quarterly period ended July 4, 2022

Or

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

For the transition period from ____________ to ____________

Commission File Number: 0-31285

TTM TECHNOLOGIES, INC.

(Exact name of registrant as specified in its charter)

DELAWARE	**91-1033443**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

200 East Sandpointe, Suite 400, Santa Ana, California 92707

(Address of principal executive offices)

(714) 327-3000

(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.001 par value	TTMI	Nasdaq Global Select Market

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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 ☑

Number of shares of common stock, $0.001 par value, of registrant outstanding at August 8, 2022: 102,194,259

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PART I. FINANCIAL INFORMATION

Item 1. ***Financial Statements (unaudited)***

TTM TECHNOLOGIES, INC.

Consolidated Condensed Balance Sheets
As of July 4, 2022 and January 3, 2022

	As of	
	July 4, 2022	January 3, 2022
	(Unaudited) (In thousands, except par value)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 266,546	$ 537,678
Accounts receivable, net	474,829	386,347
Contract assets	376,367	324,862
Inventories	209,960	127,612
Prepaid expenses and other current assets	53,181	30,914
Total current assets	1,380,883	1,407,413
Property, plant and equipment, net	748,439	665,755
Operating lease right-of-use assets	22,618	20,802
Goodwill	715,591	637,324
Definite-lived intangibles, net	311,352	239,918
Deposits and other non-current assets	35,768	54,335
Total assets	$ 3,214,651	$ 3,025,547
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 425,135	$ 361,484
Contract liabilities	83,668	14,189
Accrued salaries, wages and benefits	100,584	89,446
Other current liabilities	112,922	93,029
Total current liabilities	722,309	558,148
Long-term debt, net of discount and issuance costs	928,605	927,818
Operating lease liabilities	15,832	15,252
Other long-term liabilities	73,825	68,912
Total long-term liabilities	1,018,262	1,011,982
Commitments and contingencies (Note 14)		
Equity:		
Common stock, $0.001 par value; 300,000 shares authorized; 109,555 and 108,194 shares issued as of July 4, 2022 and January 3, 2022, respectively; 102,185 and 103,533 shares outstanding as of July 4, 2022 and January 3, 2022, respectively	109	108
Treasury stock – common stock at cost; 7,370 and 4,661 shares as of July 4, 2022 and January 3, 2022, respectively	(98,659)	(63,807)
Additional paid-in capital	847,214	840,113
Retained earnings	751,296	706,258
Accumulated other comprehensive loss	(25,880)	(27,255)
Total stockholders' equity	1,474,080	1,455,417
Total liabilities and stockholders' equity	$ 3,214,651	$ 3,025,547

See accompanying notes to consolidated condensed financial statements.

TTM TECHNOLOGIES, INC.

Consolidated Condensed Statements of Operations
For the Quarter and Two Quarters Ended July 4, 2022 and June 28, 2021

	Quarter Ended		Two Quarters Ended	
	July 4, 2022	June 28, 2021	July 4, 2022	June 28, 2021
	(Unaudited) (In thousands, except per share data)			
Net sales	$ 625,550	$ 567,383	$ 1,206,810	$ 1,093,815
Cost of goods sold	508,477	467,473	998,814	912,305
Gross profit	117,073	99,910	207,996	181,510
Operating expenses:				
Selling and marketing	17,557	14,605	35,829	30,887
General and administrative	48,806	31,193	81,760	62,720
Research and development	5,233	4,182	10,788	8,652
Amortization of definite-lived intangibles	8,275	9,042	16,549	18,563
Total operating expenses	79,871	59,022	144,926	120,822
Operating income	37,202	40,888	63,070	60,688
Other (expense) income:				
Interest expense	(10,711)	(11,079)	(22,072)	(22,468)
Loss on extinguishment of debt	—	—	—	(15,217)
Other, net	7,638	306	9,608	2,813
Total other expense, net	(3,073)	(10,773)	(12,464)	(34,872)
Income before income taxes	34,129	30,115	50,606	25,816
Income tax provision	(6,337)	(1,854)	(5,568)	(747)
Net income	$ 27,792	$ 28,261	$ 45,038	$ 25,069
Earnings per share:				
Basic earnings per share	$ 0.27	$ 0.26	$ 0.44	$ 0.23
Diluted earnings per share	$ 0.27	$ 0.26	$ 0.43	$ 0.23

See accompanying notes to consolidated condensed financial statements.

TTM TECHNOLOGIES, INC.

Consolidated Condensed Statements of Comprehensive Income
For the Quarter and Two Quarters Ended July 4, 2022 and June 28, 2021

	Quarter Ended		Two Quarters Ended	
	July 4, 2022	June 28, 2021	July 4, 2022	June 28, 2021
	(Unaudited) (In thousands)			
Net income	$ 27,792	$ 28,261	$ 45,038	$ 25,069
Other comprehensive income (loss), net of tax:				
Pension obligation adjustments, net	—	29	—	29
Foreign currency translation adjustments, net	(1,700)	417	(1,736)	414
Net unrealized gain on cash flow hedges:				
Unrealized (loss) gain on effective cash flow hedges during the period, net	(129)	60	24	(203)
Loss realized in the statement of operations, net	1,053	1,932	3,087	3,984
Net	924	1,992	3,111	3,781
Other comprehensive (loss) income, net of tax	(776)	2,438	1,375	4,224
Comprehensive income, net of tax	$ 27,016	$ 30,699	$ 46,413	$ 29,293

See accompanying notes to consolidated condensed financial statements.

TTM TECHNOLOGIES, INC.

Consolidated Condensed Statements of Stockholders' Equity
For the Two Quarters Ended July 4, 2022

	Common Stock		Treasury Stock		Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive (Loss) Income	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
	(Unaudited) (In thousands)							
Balance, January 3, 2022	108,194	$ 108	(4,661)	$ (63,807)	$ 840,113	$ 706,258	$ (27,255)	$ 1,455,417
Net income	—	—	—	—	—	17,246	—	17,246
Other comprehensive income	—	—	—	—	—	—	2,151	2,151
Issuance of common stock for performance-based restricted stock units	182	—	—	—	—	—	—	—
Issuance of common stock for restricted stock units	7	—	—	—	—	—	—	—
Repurchases of common stock	—	—	(2,373)	(30,232)	—	—	—	(30,232)
Fair value of warrants reclassified to warrant liabilities	—	—	—	—	(987)	—	—	(987)
Issuance of stock from warrant exercises	—	—	38	572	(572)	—	—	—
Stock-based compensation	—	—	—	—	4,234	—	—	4,234
Balance, April 4, 2022	108,383	$ 108	(6,996)	$ (93,467)	$ 842,788	$ 723,504	$ (25,104)	$ 1,447,829
Net income	—	—	—	—	—	27,792	—	27,792
Other comprehensive income	—	—	—	—	—	—	(776)	(776)
Issuance of common stock for restricted stock units	1,172	1	—	—	(1)	—	—	—
Repurchases of common stock	—	—	(374)	(5,192)	—	—	—	(5,192)
Stock-based compensation	—	—	—	—	4,427	—	—	4,427
Balance, July 4, 2022	109,555	$ 109	(7,370)	$ (98,659)	$ 847,214	$ 751,296	$ (25,880)	$ 1,474,080

See accompanying notes to consolidated condensed financial statements.

TTM TECHNOLOGIES, INC.

Consolidated Condensed Statements of Stockholders' Equity
For the Two Quarters Ended June 28, 2021

	Common Stock		Treasury Stock		Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive (Loss) Income	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
Balance, December 28, 2020	106,770	$ 107	—	$ —	$ 830,971	$ 651,844	$ (38,913)	$ 1,444,009
Net loss	—	—	—	—	—	(3,192)	—	(3,192)
Other comprehensive income	—	—	—	—	—	—	1,786	1,786
Issuance of common stock for performance-based restricted stock units	135	—	—	—	—	—	—	—
Issuance of common stock for restricted stock units	203	—	—	—	—	—	—	—
Fair value of warrants reclassified to warrant liabilities	—	—	—	—	(4,345)	—	—	(4,345)
Issuance of common stock from warrant exercises	5	—	—	—	—	—	—	—
Stock-based compensation	—	—	—	—	4,209	—	—	4,209
Balance, March 29, 2021	107,113	$ 107	—	$ —	$ 830,835	$ 648,652	$ (37,127)	$ 1,442,467
Net income	—	—	—	—	—	28,261	—	28,261
Other comprehensive income	—	—	—	—	—	—	2,438	2,438
Issuance of common stock for restricted stock units	947	1	—	—	(1)	—	—	—
Repurchases of common stock	—	—	(411)	(6,145)	—	—	—	(6,145)
Issuance of stock from warrant exercises	86	—	50	745	(745)	—	—	—
Stock-based compensation	—	—	—	—	3,350	—	—	3,350
Balance, June 28, 2021	108,145	$ 108	(361)	$ (5,400)	$ 833,439	$ 676,913	$ (34,689)	$ 1,470,371

See accompanying notes to consolidated condensed financial statements.

TTM TECHNOLOGIES, INC.

Consolidated Condensed Statements of Cash Flows
For the Two Quarters Ended July 4, 2022 and June 28, 2021

	Two Quarters Ended	
	July 4, 2022	June 28, 2021
	(Unaudited) (In thousands)	
Cash flows from operating activities:		
Net income	$ 45,038	$ 25,069
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation of property, plant and equipment	43,289	42,717
Amortization of definite-lived intangible assets	19,316	21,330
Amortization of debt discount and issuance costs	1,069	1,074
Loss on extinguishment of debt	—	15,217
Deferred income taxes	(322)	1,407
Stock-based compensation	8,661	7,559
Other	(3,655)	(1,514)
Changes in operating assets and liabilities:		
Accounts receivable, net	(34,787)	2,343
Contract assets	(18,383)	(27,441)
Inventories	(6,091)	(10,704)
Prepaid expenses and other current assets	(18,586)	(13,284)
Accounts payable	39,556	45,344
Contract liabilities	17,669	(2,188)
Accrued salaries, wages and benefits	585	(9,504)
Other current liabilities	21,949	629
Net cash provided by operating activities	115,308	98,054
Cash flows from investing activities:		
Acquisition of Gritel Holding Co., Inc. and ISC Farmingdale Corp.	(299,212)	—
Purchase of property, plant and equipment and other assets	(49,927)	(44,636)
Proceeds from sale of property, plant and equipment and other assets	113	943
Net cash used in investing activities	(349,026)	(43,693)
Cash flows from financing activities:		
Proceeds from borrowings of revolving loan	50,000	—
Repayment of revolving loan	(50,000)	—
Repurchases of common stock	(35,424)	(6,145)
Cash used to settle warrants	(887)	(3,146)
Proceeds from long-term debt borrowing	—	500,000
Repayment of long-term debt borrowings	—	(425,838)
Payment of debt issuance costs	—	(5,776)
Other	—	(7,062)
Net cash (used in) provided by financing activities	(36,311)	52,033
Effect of foreign currency exchange rates on cash and cash equivalents	(1,103)	332
Net (decrease) increase in cash and cash equivalents	(271,132)	106,726
Cash and cash equivalents at beginning of period	537,678	451,565
Cash and cash equivalents at end of period	$ 266,546	$ 558,291
Supplemental cash flow information:		
Cash paid, net for interest	$ 22,793	$ 21,077
Cash paid, net for income taxes	2,013	2,826
Supplemental disclosure of noncash investing and financing activities:		
Property, plant and equipment recorded in accounts payable	$ 40,365	$ 27,625
Issuance of common stock for warrant settlement	589	2,095

See accompanying notes to consolidated condensed financial statements.

(1) Nature of Operations and Basis of Presentation

TTM Technologies, Inc. (the Company or TTM) is a leading global manufacturer of technology solutions including engineered systems, radio frequency (RF) components and RF microwave/microelectronic assemblies, and printed circuit boards (PCB). The Company provides time-to-market and volume production of advanced technology products and offers a one-stop design, engineering, and manufacturing solution to customers. This one-stop design, engineering, and manufacturing solution allows the Company to align technology developments with the diverse needs of the Company's customers and to enable them to reduce the time required to develop new products and bring them to market.

The Company serves a diversified customer base in various markets throughout the world, including aerospace and defense, data center computing, automotive components, medical, industrial and instrumentation related products, as well as networking/communications infrastructure products. The Company's customers include both original equipment manufacturers (OEMs) and electronic manufacturing services (EMS) providers.

The accompanying consolidated condensed financial statements have been prepared by the Company, without audit, pursuant to the rules and regulations of the Securities and Exchange Commission (SEC). Certain information and disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP) have been condensed or omitted pursuant to such rules and regulations. It is suggested that these consolidated condensed financial statements be read in conjunction with the consolidated financial statements and the notes thereto included in the Company's most recent Annual Report on Form 10-K. The preparation of financial statements in accordance with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the Company's consolidated condensed financial statements and accompanying notes. Due, in part, to the on-going coronavirus (COVID-19) global pandemic, the global economy and financial markets have been volatile, and the pandemic has contributed to disruptions in global supply chains, labor shortages and high inflation, and there is a significant amount of uncertainty about the length and severity of the consequences caused by the ongoing pandemic. The Company has considered information available to it as of the date of issuance of these financial statements and is not aware of any specific events or circumstances that would require an update to its estimates or judgments, or a revision to the carrying value of its assets or liabilities. Actual results could differ materially from those estimates. The Company uses a 52/53 week fiscal calendar with the fourth quarter ending on the Monday nearest December 31.

Recently Adopted and Issued Accounting Standards

Recently Adopted Accounting Standards

In October 2021, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2021-08, *Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers*, which requires that an acquirer recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with Accounting Standards Codification (ASC) 606, *Revenue from Contracts with Customers*, as if it had originated the contracts. Prior to this ASU, an acquirer generally recognizes contract assets acquired and contract liabilities assumed that arose from contracts with customers at fair value on the acquisition date. The ASU is effective for fiscal years beginning after December 15, 2022, with early adoption permitted. The ASU is to be applied prospectively to business combinations occurring on or after the effective date of the amendment (or if adopted early as of an interim period, as of the beginning of the fiscal year that includes the interim period of early application). The Company early adopted ASU 2021-08 on April 4, 2022 and did not have an impact on its consolidated condensed financial statements and related disclosures. The new guidance will be applied to the acquisition of Gritel Holding Co., Inc. (Gritel) and ISC Farmingdale Corp.

Recently Issued Accounting Standards Not Yet Adopted

In November 2021, the FASB issued ASU 2021-10, *Government Assistance (Topic 832): Disclosures by Business Entities about Government Assistance*, which provides guidance on disclosures for transactions with a government that are accounted for by applying a grant or contribution accounting model by analogy. The guidance is effective for annual periods beginning after December 15, 2021. Early adoption is permitted. The Company does not anticipate the adoption will have a material impact on the consolidated financial statements and related disclosures.

(2) Acquisition of Gritel and ISC Farmingdale Corp.

On June 27, 2022, the Company completed its acquisition of all of the issued and outstanding capital stock of Gritel and ISC Farmingdale Corp. for a preliminary total consideration of $299,212 in cash. Telephonics Corporation is wholly-owned by Gritel, and as a result of the acquisition, became an indirect, wholly-owned subsidiary of the Company (collectively with ISC Farmingdale Corp., Telephonics).

For the quarter and two quarters ended July 4, 2022, bank fees and legal, accounting, and other professional service costs associated with the acquisition of $9,854 and $10,708, respectively, have been expensed and recorded as general and administrative expense in the consolidated condensed financial statements. There were no bank fees or legal, accounting, or other professional service costs associated with the acquisition for the quarter and two quarters ended June 28, 2021.

Preliminary Purchase Price Allocation

The purchase price was allocated to tangible and intangible assets acquired, and liabilities assumed based on preliminary estimates of fair value at the date of the acquisition, June 27, 2022. The excess of the purchase price over the fair value of net assets acquired was allocated to goodwill. The fair values were based on management's analysis, including work performed by third-party valuation specialists.

The fair values assigned are based on reasonable methods applicable to the nature of the assets acquired and liabilities assumed. The following summarizes the preliminary estimated fair values of net assets acquired:

	(In thousands)
Accounts receivable	$ 53,695
Contract assets	33,122
Inventories	76,257
Prepaid expenses and other current assets	7,270
Property, plant and equipment	70,685
Operating lease right-of-use assets	3,466
Goodwill	78,267
Identifiable intangible assets	90,750
Deposits and other non-current assets	1,813
Accounts payable	(16,026)
Contract liabilities	(51,810)
Accrued salaries, wages and benefits	(10,553)
Other current liabilities	(7,379)
Operating lease liabilities	(2,392)
Non-current deferred tax liabilities	(27,912)
Other long-term liabilities	(41)
Total	$ 299,212

Because the acquisition closed shortly prior to the end of the Company's second fiscal quarter, the magnitude of the transaction, and the significant information to be obtained and analyzed, the Company's fair value estimates for all of the acquired assets and liabilities are preliminary and may change during the allowable measurement period, which is up to the point the Company obtains and analyzes the information that existed as of the date of the acquisition necessary to determine the fair values of the assets acquired and liabilities assumed, but in no case to exceed more than one year from the date of acquisition. Any subsequent changes to the purchase price allocation during the measurement period will be recorded in the reporting period in which the adjustment amounts are determined. Any changes in the fair values of the assets acquired and liabilities assumed during the measurement period may result in material adjustments to goodwill.

Goodwill represents the excess of the purchase price over the fair value of assets acquired and liabilities assumed. The Company believes that the acquisition of Telephonics will strengthen the Company's differentiated position in the Aerospace and Defense market and complement existing RF and microwave business. The Company believes that these factors support the amount of goodwill recognized as a result of the purchase price paid for Telephonics, in relation to other acquired tangible and intangible assets. The goodwill acquired in the acquisition is not deductible for income tax purposes.

The results of operations of Telephonics since the acquisition date are not material to the Company's consolidated condensed financial statements.

Preliminary Pro forma Financial Information

The unaudited preliminary pro forma financial information below gives effect to this acquisition as if it had occurred at the beginning of fiscal 2021, or December 29, 2020. The preliminary pro forma financial information presented includes the effects of adjustments related to the amortization of acquired identifiable intangible assets and other non-recurring transactions costs directly associated with the acquisition such as legal, accounting and banking fees. The Company will include the full pro forma financial information and historical financial statements of Telephonics as required by SEC rules by filing an amendment to its Current Report on Form 8-K dated June 27, 2022.

The preliminary pro forma financial information as presented below is for informational purposes only and is not necessarily indicative of the actual results that would have been achieved had the acquisition occurred at the beginning of the earliest period presented, or the results that may be achieved in future periods.

	Quarter Ended		Two Quarters Ended	
	July 4, 2022	June 28, 2021	July 4, 2022	June 28, 2021
	(In thousands, except per share amounts)			
Net sales	$ 676,344	$ 629,957	$ 1,313,878	$ 1,216,540
Net income	35,314	28,485	52,124	23,312
Basic earnings per share	$ 0.35	$ 0.27	$ 0.51	$ 0.22
Diluted earnings per share	$ 0.34	$ 0.26	$ 0.50	$ 0.21

(3) Leases

The Company leases some of its manufacturing and assembly plants, sales offices and equipment under non-cancellable operating leases and finance leases that expire at various dates through 2049. The majority of the Company's lease arrangements are comprised of fixed payments, and certain leases consist of variable payments based on equipment usage. These variable payments are not included in the measurement of the right-of-use (ROU) asset or lease liability due to uncertainty of the payment amount and are recorded as lease expense in the period incurred. Certain leases contain renewal provisions at the Company's option. Most of the leases require the Company to pay for certain other costs such as property taxes and maintenance. Certain leases also contain rent escalation clauses (step rents) that require additional rental amounts in the later years of the term. Rent expense for leases with step rents is recognized on a straight-line basis over the minimum lease term. The lease agreements do not contain any material residual value guarantees or material restrictive covenants.

The components of lease expense were as follows:

	Quarter Ended		Two Quarters Ended	
	July 4, 2022	June 28, 2021	July 4, 2022	June 28, 2021
	(In thousands)			
Operating lease cost	$ 1,792	$ 1,924	$ 3,676	$ 4,132
Variable lease cost	208	140	454	374
Short-term lease cost	174	55	314	109
Finance lease costs:				
Amortization of right-of-use assets	344	—	687	—
Interest on lease liabilities	99	—	197	—

Supplemental cash flow information related to leases was as follows:

	Two Quarters Ended	
	July 4, 2022	June 28, 2021
	(In thousands)	
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows for operating leases	$ 3,654	$ 4,104
Right-of-use assets obtained in exchange for new lease obligations:		
Operating leases	5,368	802

Supplemental balance sheet information related to leases was as follows:

	Balance Sheet Location	As of July 4, 2022	As of January 3, 2022
		(In thousands)	
Assets:			
Operating leases	Operating lease right-of-use assets	$ 22,618	$ 20,802
Finance leases	Property, plant and equipment, net	14,072	14,759
Total lease assets		$ 36,690	$ 35,561
Liabilities:			
Current:			
Operating leases	Other current liabilities	$ 7,606	$ 6,362
Finance leases	Other current liabilities	706	698
Long-term:			
Operating leases	Operating lease liabilities	15,832	15,252
Finance leases	Other long-term liabilities	13,959	14,317
Total lease liabilities		$ 38,103	$ 36,629

	As of July 4, 2022	As of January 3, 2022
Weighted average remaining lease term (years):		
Operating leases	3.7	3.9
Finance leases	14.1	14.6
Weighted average discount rate:		
Operating leases	3.00%	2.56%
Finance leases	2.68%	2.68%

Maturities of lease liabilities were as follows:

	Operating Leases [1]	Finance Leases
	(In thousands)	
Less than one year	$ 8,186	$ 1,089
1 - 2 years	7,008	1,133
2 - 3 years	5,488	1,128
3 - 4 years	2,226	1,171
4 - 5 years	966	1,175
Thereafter	987	12,068
Total lease payments	24,861	17,764
Less imputed interest	(1,423)	(3,099)
Total	$ 23,438	$ 14,665

(1) Excludes $884 of legally binding minimum lease payments for leases signed but not yet commenced.

(4) Revenues

As of July 4, 2022, the aggregate amount of the transaction price allocated to remaining performance obligations for long-term contracts was $308,915. The Company expects to recognize revenue on approximately 64% of the remaining performance obligations for the Company's long-term contracts over the next twelve months.

Revenue from products and services transferred to customers over time and at a point in time accounted for 97% and 3%, respectively, of the Company's revenue for the quarter and two quarters ended July 4, 2022, and 98% and 2%, respectively, of the Company's revenue for the quarter and two quarters ended June 28, 2021.

The following tables represent a disaggregation of revenue by principal end markets with the reportable segments:

	Quarter Ended July 4, 2022			Quarter Ended June 28, 2021		
	PCB	RF&S Components	Total	PCB	RF&S Components	Total
End Markets			(In thousands)			
Aerospace and Defense	$ 189,676	$ —	$ 189,676	$ 185,152	$ 6	$ 185,158
Automotive	111,778	—	111,778	102,893	—	102,893
Data Center Computing	106,188	20	106,208	82,230	24	82,254
Medical/Industrial/Instrumentation	131,061	2,246	133,307	104,012	1,067	105,079
Networking/Communications	69,766	15,109	84,875	75,728	11,950	87,678
Other	960	(1,254)	(294)	3,465	856	4,321
Total	$ 609,429	$ 16,121	$ 625,550	$ 553,480	$ 13,903	$ 567,383

	Two Quarters Ended July 4, 2022			Two Quarters Ended June 28, 2021			
	PCB	RF&S Components	Total	PCB	RF&S Components	Other [(1)]	Total
End Markets				(In thousands)			
Aerospace and Defense	$ 361,856	$ —	$ 361,856	$ 371,691	$ 12	$ —	$ 371,703
Automotive	227,014	—	227,014	194,685	—	3,642	198,327
Data Center Computing	197,972	20	197,992	153,989	456	—	154,445
Medical/Industrial/Instrumentation	251,423	3,784	255,207	194,782	2,148	25	196,955
Networking/Communications	133,409	28,866	162,275	142,666	22,603	1	165,270
Other	3,825	(1,359)	2,466	6,153	1,374	(412)	7,115
Total	$ 1,175,499	$ 31,311	$ 1,206,810	$ 1,063,966	$ 26,593	$ 3,256	$ 1,093,815

(1) Other represents results from the now closed Shanghai (SH E-MS) and Shenzhen (SZ) facilities previously utilized by the Company's former E-M Solutions business unit.

(5) Composition of Certain Consolidated Condensed Financial Statement Captions

	As of	
	July 4, 2022	January 3, 2022
	(In thousands)	
Inventories:		
Raw materials	$ 168,919	$ 114,653
Work-in-process	37,468	9,620
Finished goods	3,573	3,339
	$ 209,960	$ 127,612
Property, plant and equipment, net:		
Land and land use rights	$ 62,898	$ 62,015
Buildings and improvements	475,809	429,344
Machinery and equipment	954,619	891,925
Furniture and fixtures and other	11,417	10,360
Construction-in-progress	36,730	25,554
	1,541,473	1,419,198
Less: Accumulated depreciation	(793,034)	(753,443)
	$ 748,439	$ 665,755
Other current liabilities:		
Income taxes payable	$ 19,185	$ 7,162
Sales return and allowances	12,508	12,853
Operating lease	7,606	6,362
Interest	7,016	8,741
Derivative liabilities	3,649	4,295
Finance leases	706	698
Other	62,252	52,918
	$ 112,922	$ 93,029
Other long-term liabilities:		
Deferred income taxes	$ 31,533	$ 28,361
Finance leases	13,959	14,317
Defined benefit pension plan liability	4,747	5,276
Other	23,586	20,958
	$ 73,825	$ 68,912

(6) Goodwill

As of July 4, 2022 and January 3, 2022, goodwill by reportable segment was as follows:

	PCB	RF&S Components	Unallocated Telephonics Goodwill	Total
		(In thousands)		
Balance as of January 3, 2022				
Goodwill	$ 700,724	$ 177,200	$ —	$ 877,924
Accumulated impairment losses	(171,400)	(69,200)	—	(240,600)
	529,324	108,000	—	637,324
Goodwill recognized during the two quarters ended July 4, 2022	—	—	78,267	78,267
Balance as of July 4, 2022				
Goodwill	700,724	177,200	78,267	956,191
Accumulated impairment losses	(171,400)	(69,200)	—	(240,600)
	$ 529,324	$ 108,000	$ 78,267	$ 715,591

The assignment of goodwill related to the Telephonics acquisition to the Company's reporting units has not yet been completed. See Note 2, *Acquisition of Gritel and ISC Farmingdale Corp.* and Note 17, *Segment Information*, for further information.

(7) Definite-lived Intangibles

As of July 4, 2022 and January 3, 2022, the components of definite-lived intangibles were as follows:

	Gross Amount	Accumulated Amortization	Net Carrying Amount	Weighted Average Amortization Period
		(In thousands)		(In years)
July 4, 2022				
Customer relationships	$ 366,071	$ (171,010)	$ 195,061	11.3
Technology	47,650	(22,109)	25,541	9.5
Acquired intangibles from acquisition				
Customer relationships	82,500	—	82,500	13.0
Trade names	8,250	—	8,250	5.0
	$ 504,471	$ (193,119)	$ 311,352	
January 3, 2022				
Customer relationships	$ 366,071	$ (154,461)	$ 211,610	11.3
Technology	47,650	(19,342)	28,308	9.5
	$ 413,721	$ (173,803)	$ 239,918	

The Company has acquired customer relationships and trade names as a result of the acquisition. See Note 2, *Acquisition of Gritel and ISC Farmingdale Corp.*, for further information.

Definite-lived intangibles are amortized using the straight-line method of amortization over the useful life. Amortization expense was $9,658 and $10,425 for the quarters ended July 4, 2022 and June 28, 2021, respectively, and $19,316 and $21,330 for the two quarters ended July 4, 2022 and June 28, 2021, respectively. For the quarter and two quarters ended July 4, 2022, $1,383 and $2,767, respectively, of amortization expense is included in cost of goods sold. For the quarter and two quarters ended June 28, 2021, $1,383 and $2,767, respectively, of amortization expense is included in cost of goods sold.

Estimated aggregate amortization for definite-lived intangible assets for the next five years and thereafter is as follows:

		(In thousands)
Remaining 2022	$	23,314
2023		44,695
2024		37,513
2025		33,393
2026		33,393
Thereafter		139,044
	$	311,352

(8) Long-term Debt and Letters of Credit

The following table summarizes the long-term debt of the Company as of July 4, 2022 and January 3, 2022:

	Interest Rate as of July 4, 2022	Principal Outstanding as of July 4, 2022	Interest Rate as of January 3, 2022	Principal Outstanding as of January 3, 2022
		(In thousands, except interest rates)		
Senior Notes due March 2029	4.00 %	$ 500,000	4.00 %	$ 500,000
Term Loan due September 2024	4.28	405,879	2.60	405,879
Asia ABL Revolving Loan due June 2024	3.18	30,000	1.50	30,000
		935,879		935,879
Less: Long-term debt unamortized discount		(502)		(607)
Long-term debt unamortized debt issuance costs		(6,772)		(7,454)
		928,605		927,818
Less: current maturities		—		—
Long-term debt, less current maturities		$ 928,605		$ 927,818

Debt Covenants

Borrowings under the Senior Notes due 2029 and Term Loan Facility are subject to certain affirmative and negative covenants, including limitations on indebtedness, corporate transactions, investments, dispositions, and share payments.

Under the occurrence of certain events, the U.S. Asset-Based Lending Credit Agreement (U.S. ABL) and Asia Asset-Based Lending Credit Agreement (Asia ABL) (collectively, the ABL Revolving Loans), are subject to various financial covenants, including leverage and fixed charge coverage ratios.

Debt Issuance and Debt Discount

As of July 4, 2022 and January 3, 2022, remaining unamortized debt discount and debt issuance costs for the Senior Notes due 2029 and Term Loan Facility are as follows:

	As of July 4, 2022			As of January 3, 2022		
	Debt Issuance Costs	Debt Discount	Effective Interest Rate	Debt Issuance Costs	Debt Discount	Effective Interest Rate
			(In thousands, except interest rates)			
Senior Notes due March 2029	$ 5,114	$ —	4.18 %	$ 5,444	$ —	4.18 %
Term Loan due September 2024	1,658	502	4.66	2,010	607	4.66
	$ 6,772	$ 502		$ 7,454	$ 607	

The above debt discount and debt issuance costs are recorded as a reduction of the debt and are amortized into interest expense using an effective interest rate over the duration of the debt.

Remaining unamortized debt issuance costs for the ABL Revolving Loans of $1,073 and $1,355 as of July 4, 2022 and January 3, 2022, respectively, are included in other non-current assets and are amortized to interest expense over the duration of the ABL Revolving Loans using the straight-line method of amortization.

As of July 4, 2022, the remaining weighted average amortization period for all unamortized debt discount and debt issuance costs was 4.9 years.

Loss on Extinguishment of Debt

During the two quarters ended June 28, 2021, the Company recognized losses of $15,217 associated with the premium paid on extinguishment of debt and the write-off of the remaining unamortized debt issuance costs as a result of the repayment of the remaining outstanding balance of the Senior Notes due 2025.

(9) Income Taxes

The Company's effective tax rate is impacted by tax rates in China and Hong Kong, the U.S. federal income tax rate, apportioned state income tax rates, generation of credits and deductions available to the Company as well as changes in valuation allowances and certain non-deductible items. No tax benefit was recorded on the losses incurred in certain foreign jurisdictions as a result of corresponding increases in the valuation allowances in these jurisdictions.

During the quarter and two quarters ended July 4, 2022, the Company's effective tax rate was impacted by a net discrete expense of $1,222 and a net discrete benefit of $825, respectively. This is mainly related to the approval of the Company's renewal application for High and New Tax Enterprise status for two of the Company's manufacturing subsidiaries in China and a windfall tax benefit of the stock-based compensation releases, which were partially offset by accrued interest expense on existing uncertain tax positions.

The Company has various foreign subsidiaries formed or acquired to conduct or support its business outside the U.S. The Company expects its earnings attributable to most foreign subsidiaries may be repatriated back to the U.S. and so a deferred tax liability has been recorded for foreign withholding taxes and the estimated federal/state tax impact on any repatriation. For those other companies with earnings currently being reinvested outside of the U.S., no deferred tax liabilities on undistributed earnings are recorded.

(10) Financial Instruments

Derivatives

Interest Rate Swaps

The Company's business is exposed to risk resulting from fluctuations in interest rates on certain LIBOR-based variable rate debt. Increases in interest rates increase interest expenses relating to the outstanding variable rate borrowings and increase the cost of debt. Fluctuations in interest rates can also lead to significant fluctuations in the fair value of the debt obligations.

On May 15, 2018, the Company entered into a four-year pay-fixed, receive floating (1-month LIBOR), interest rate swap arrangement with a notional amount of $400,000 for the period beginning June 1, 2018 and ended on June 1, 2022. During the term of the interest rate swap, the Company paid a fixed rate of 2.84% against a portion of its LIBOR-based debt and received floating 1-month LIBOR during the swap period.

At inception, the Company designated the interest rate swap as a cash flow hedge and the fair value of the interest rate swap was zero. The change in the fair value of the interest rate swap is recorded as a component of accumulated other comprehensive loss, net of tax, in the Company's consolidated condensed balance sheets. No ineffectiveness was recognized for the quarter and two quarters ended July 4, 2022 and June 28, 2021. The interest rate swap increased interest expense by $1,399 and $2,763 for the quarters ended July 4, 2022 and June 28, 2021, respectively, and $4,105 and $5,503 for the two quarters ended July 4, 2022 and June 28, 2021, respectively.

Foreign Exchange Contracts

The Company's foreign subsidiaries may at times purchase forward exchange contracts to manage their foreign currency risks in relation to certain purchases of machinery denominated in foreign currencies other than the Company's functional currencies. The notional amount of the foreign exchange contracts as of July 4, 2022 was approximately $1,625 (Euro (EUR) 1.4 million). There were no foreign exchange contracts as of January 3, 2022.

Commodity Price Risk Management

The Company uses various raw materials in the manufacturing of PCBs. In particular, the Company has been experiencing increasing prices and lead times of copper clad laminates (CCLs), a key raw material for the manufacture of PCBs. CCLs are made from epoxy resin, glass cloth and copper foil, all of which are seeing limited supply and resulting increased prices. The Company only buys a small amount of copper directly. However, copper is a major driver of laminate cost. As such, the Company enters into commodity contracts to hedge copper as a proxy for hedging laminate. As of July 4, 2022, the Company has commodity contracts with a notional quantity of (i) 0.6 metric tonnes for the period beginning June 30, 2022 and ending on October 3, 2022, (ii) 0.7 metric tonnes for the period beginning October 4, 2022 and ending on January 3, 2023 (iii) 0.7 metric tonnes for the period beginning January 1, 2023 and ending on March 31, 2023, and (iv) 0.7 metric tonnes for the period beginning April 1, 2023 and ending on June 30, 2023. As of July 4, 2022, the fair value of the commodity contracts was recorded as a liability in the amount of $3,511 and included as a component of other current liabilities. The changes in the fair value of these commodity contracts are recorded in cost of goods sold in the consolidated condensed statements of operations. The commodity contracts increased cost of goods sold by $5,209 and $3,807 for the quarter and two quarters ended July 4, 2022, respectively. The commodity contracts decreased cost of goods sold by $99 for both the quarter and two quarters ended June 28, 2021. These commodity contracts are not designated as accounting hedges.

The fair values of derivative instruments in the consolidated condensed balance sheets are as follows:

	Balance Sheet Location	Asset/(Liability) Fair Value July 4, 2022	Asset/(Liability) Fair Value January 3, 2022
		(In thousands)	
Cash flow derivative instruments designated as hedges:			
Foreign exchange contracts	Other current liabilities	$ (138)	$ —
Interest rate swap	Other current liabilities	—	(4,295)
Cash flow derivative instruments not designated as hedges:			
Commodity contracts	Prepaid expenses and other current assets	—	297
Commodity contracts	Other current liabilities	(3,511)	—

The following table provides information about the amounts recorded in accumulated other comprehensive loss related to derivatives designated as cash flow hedges, as well as the amounts recorded in each caption in the consolidated condensed statements of operations when derivative amounts are reclassified out of accumulated other comprehensive loss for the quarter and two quarters ended July 4, 2022 and June 28, 2021:

	Financial Statement Caption	Quarter Ended July 4, 2022		Quarter Ended June 28, 2021	
		Loss Recognized in Other Comprehensive Loss	Loss Reclassified into Income	Loss Recognized in Other Comprehensive Loss	Loss Reclassified into Income
		(In thousands)			
Cash flow hedge:					
Interest rate swap	Interest expense	$ (14)	$ (1,399)	$ (184)	$ (2,763)

	Financial Statement Caption	Two Quarters Ended July 4, 2022		Two Quarters Ended June 28, 2021	
		Gain Recognized in Other Comprehensive Income	Loss Reclassified into Income	Loss Recognized in Other Comprehensive Loss	Loss Reclassified into Income
		(In thousands)			
Cash flow hedge:					
Interest rate swap	Interest expense	$ 190	$ (4,105)	$ (535)	$ (5,503)

The following table provides a summary of the activity associated with the designated cash flow hedges reflected in accumulated other comprehensive loss for the two quarters ended July 4, 2022 and June 28, 2021:

	Two Quarters Ended July 4, 2022	Two Quarters Ended June 28, 2021
	(In thousands)	
Beginning balance, net of tax	$ (3,223)	$ (11,231)
Changes in fair value gain (loss), net of tax	24	(203)
Reclassification to earnings	3,087	3,984
Ending balance, net of tax	$ (112)	$ (7,450)

(11) Accumulated Other Comprehensive Loss

The following provides a summary of the components of accumulated other comprehensive loss, net of tax, as of July 4, 2022 and January 3, 2022:

	Foreign Currency Translation	Pension Obligation	(Losses) Gains on Cash Flow Hedges	Total
		(In thousands)		
Ending balance as of January 3, 2022	$ (23,899)	$ (133)	$ (3,223)	$ (27,255)
Other comprehensive (loss) income before reclassifications	(1,736)	—	24	(1,712)
Amounts reclassified from accumulated other comprehensive loss	—	—	3,087	3,087
Other comprehensive (loss) income	(1,736)	—	3,111	1,375
Ending balance as of July 4, 2022	$ (25,635)	$ (133)	$ (112)	$ (25,880)

(12) Significant Customers and Concentration of Credit Risk

In the normal course of business, the Company extends credit to its customers. Some customers to whom the Company extends credit are located outside the United States. The Company performs ongoing credit evaluations of customers, does not require collateral, and considers the credit risk profile of the entity from which the receivable is due in further evaluating collection risk.

The Company's customers include both OEMs and EMS companies. The Company's OEM customers often direct a significant portion of their purchases through EMS companies. While the Company's customers include both OEM and EMS providers, the Company measures customer concentration based on OEM companies, as they are the ultimate end customers.

For the quarter and two quarters ended July 4, 2022, one customer accounted for approximately 11% and 10% of the Company's net sales, respectively. There were no customers that accounted for 10% or more of net sales for the quarter ended June 28, 2021. For the two quarters ended June 28, 2021, one customer accounted for approximately 11% of the Company's net sales.

(13) Fair Value Measures

The Company measures at fair value its financial and non-financial assets by using a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, essentially an exit price, based on the highest and best use of the asset or liability.

The carrying amount and estimated fair value of the Company's financial instruments as of July 4, 2022 and January 3, 2022 were as follows:

	As of July 4, 2022		As of January 3, 2022	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
		(In thousands)		
Derivative assets, current	$ —	$ —	$ 297	$ 297
Derivative liabilities, current	3,649	3,649	4,295	4,295
Senior Notes due March 2029	494,886	420,005	494,556	498,200
Term Loan due September 2024	403,719	401,569	403,262	406,135
ABL Revolving Loans	30,000	30,000	30,000	30,000

The fair value of the derivative instruments was determined using pricing models developed based on the LIBOR swap rate, foreign currency exchange rates, and other observable market data, including quoted market prices, as appropriate using Level 2 inputs. The values were adjusted to reflect non-performance risk of both the counterparty and the Company, as necessary.

The fair value of the long-term debt was estimated based on quoted market prices or discounting the debt over its life using current market rates for similar debt as of July 4, 2022 and January 3, 2022, which are considered Level 2 inputs.

As of July 4, 2022 and January 3, 2022, the Company's other financial instruments included cash and cash equivalents, accounts receivable, contract assets, accounts payable, and contract liabilities. Due to short-term maturities, the carrying amount of these instruments approximates fair value. The Company's cash and cash equivalents as of July 4, 2022 consisted of $67,175 held in the U.S., with the remaining $199,371 held by foreign subsidiaries.

The majority of the Company's non-financial assets and liabilities, which include goodwill, intangible assets, inventories, and property, plant and equipment, are not required to be carried at fair value on a recurring basis. However, if certain triggering events occur (or are tested at least annually in the case of goodwill) such that a non-financial instrument is required to be evaluated for impairment, based upon a comparison of the non-financial instrument's fair value to its carrying value, an impairment is recorded to reduce the carrying value to the fair value, if the carrying value exceeds the fair value.

(14) Commitments and Contingencies

Legal Matters

The Company is subject to various legal matters, which it considers normal for its business activities. While the Company currently believes that the amount of any reasonably possible loss for known matters would not be material to the Company's financial condition, the outcome of these actions is inherently difficult to predict. In the event of an adverse outcome, the ultimate potential loss could have a material adverse effect on the Company's financial condition or results of operations in a particular period. The Company has accrued amounts for its loss contingencies which are probable and estimable as of July 4, 2022 and January 3, 2022. However, these amounts are not material to the consolidated condensed financial statements of the Company.

(15) Earnings Per Share

The following is a reconciliation of the numerator and denominator used to calculate basic earnings per share and diluted earnings per share for the quarter and two quarters ended July 4, 2022 and June 28, 2021:

	Quarter Ended		Two Quarters Ended	
	July 4, 2022	June 28, 2021	July 4, 2022	June 28, 2021
	(In thousands, except per share amounts)			
Net income	$ 27,792	$ 28,261	$ 45,038	$ 25,069
Basic weighted average shares	101,270	107,148	101,941	106,987
Dilutive effect of performance-based restricted stock units, restricted stock units and stock options	1,951	1,845	1,818	1,862
Dilutive effect of outstanding warrants	—	802	3	401
Diluted shares	103,221	109,795	103,762	109,250
Earnings per share:				
Basic	$ 0.27	$ 0.26	$ 0.44	$ 0.23
Diluted	$ 0.27	$ 0.26	$ 0.43	$ 0.23

Performance-based restricted stock units (PRUs), restricted stock units (RSUs), and stock options to purchase 1,054 and 1,014 shares of common stock for the quarter and two quarters ended July 4, 2022, respectively, and 1,452 and 802 shares of common stock for the quarter and two quarters ended June 28, 2021, respectively, were not included in the computation of diluted earnings per share. The PRUs were not included in the computation of diluted earnings per share because the performance conditions had not been met at July 4, 2022 and June 28, 2021, and for RSUs and stock options, the options' exercise prices or the total expected proceeds under the treasury stock method was greater than the average market price of common stock during the applicable quarter and two quarters and, as a result, the impact would be anti-dilutive.

(16) Stock-Based Compensation

Stock-based compensation expense is recognized in the accompanying consolidated condensed statements of operations as follows:

	Quarter Ended		Two Quarters Ended	
	July 4, 2022	June 28, 2021	July 4, 2022	June 28, 2021
	(In thousands)			
Cost of goods sold	$ 1,172	$ 861	$ 2,448	$ 2,026
Selling and marketing	620	442	1,270	1,088
General and administrative	2,396	2,015	4,449	4,370
Research and development	239	32	494	75
Stock-based compensation expense recognized	$ 4,427	$ 3,350	$ 8,661	$ 7,559

Summary of Unrecognized Compensation Costs

The following is a summary of total unrecognized compensation costs as of July 4, 2022:

	Unrecognized Stock-Based Compensation Cost	Remaining Weighted Average Recognition Period
	(In thousands)	(In years)
RSU awards	$ 38,698	1.7
PRU awards	3,506	1.8
Stock options	11	0.3
	$ 42,215	

(17) Segment Information

The reportable segments shown below are the Company's segments for which separate financial information is available and upon which operating results are evaluated by the chief operating decision maker to assess performance and to allocate resources. On June 27, 2022, the Company completed its acquisition of Telephonics. As of July 4, 2022, the chief operating decision maker is still in the process of determining how to allocate resources and assess performance in relation to the acquisition of Telephonics.

The Company, including the chief operating decision maker, evaluates segment performance based on reportable segment income, which is operating income before amortization of intangibles. Interest expense and interest income are not presented by segment since they are not included in the measure of segment profitability reviewed by the chief operating decision maker. All inter-segment transactions have been eliminated.

	Quarter Ended		Two Quarters Ended	
	July 4, 2022	June 28, 2021	July 4, 2022	June 28, 2021
	(In thousands)			
Net Sales:				
PCB	$ 609,429	$ 553,480	$ 1,175,499	$ 1,063,966
RF&S Components	16,121	13,903	31,311	26,593
Other [(1)]	—	—	—	3,256
Total net sales	$ 625,550	$ 567,383	$ 1,206,810	$ 1,093,815
Operating Segment Income (Loss):				
PCB	$ 91,908	$ 73,055	$ 148,448	$ 130,287
RF&S Components	6,678	4,730	12,428	8,592
Corporate and Other [(1)]	(51,726)	(26,472)	(78,490)	(56,861)
Total operating segment income	46,860	51,313	82,386	82,018
Amortization of definite-lived intangibles [(2)]	(9,658)	(10,425)	(19,316)	(21,330)
Total operating income	37,202	40,888	63,070	60,688
Total other expense	(3,073)	(10,773)	(12,464)	(34,872)
Income before income taxes	$ 34,129	$ 30,115	$ 50,606	$ 25,816

	As of	
	July 4, 2022	January 3, 2022
	(In thousands)	
Segment Assets:		
PCB	$ 1,744,414	$ 1,655,401
RF&S Components	211,136	216,737
Corporate and Other [(1)]	1,259,101	1,153,409
Total assets	$ 3,214,651	$ 3,025,547

(1) Other represents results from the now closed SH E-MS and SZ facilities. As of July 4, 2022, Other includes assets acquired from the acquisition of Telephonics.
(2) Amortization of definite-lived intangibles primarily relates to the PCB and RF&S Components reportable segments. For the quarter and two quarters ended July 4, 2022, $1,383 and $2,767, respectively, of amortization expense is included in cost of goods sold. For the quarter and two quarters ended June 28, 2021, $1,383 and $2,767, respectively, of amortization expense is included in cost of goods sold.

The Corporate category primarily includes operating expenses that are not included in the segment operating performance measures. Corporate consists primarily of corporate governance functions such as finance, accounting, information technology and human resources personnel, as well as global sales and marketing personnel, research and development costs, and acquisition and integration costs associated with acquisitions and divestitures.

The Company markets and sells its products in approximately 50 countries. Other than in the United States and China, the Company does not conduct business in any country in which its net sales in that country exceed 10% of the Company's total net sales. Net sales are as follows:

	Quarter Ended		Two Quarters Ended	
	July 4, 2022	June 28, 2021	July 4, 2022	June 28, 2021
	(In thousands)			
Net Sales:				
United States	$ 274,480	$ 260,944	$ 538,881	$ 529,411
China	75,771	80,160	152,976	161,869
Other	275,299	226,279	514,953	402,535
Total net sales	$ 625,550	$ 567,383	$ 1,206,810	$ 1,093,815

Net sales are attributed to countries by country invoiced.

(18) Share Repurchase Program

On February 3, 2021, the Company's Board of Directors authorized and approved a share repurchase program. Under the program, the Company was authorized to repurchase up to $100,000 in value of the Company's outstanding shares of common stock from time to time through February 3, 2023. The program permitted the Company to repurchase shares through open market purchases, privately-negotiated transactions, or otherwise in accordance with applicable federal securities laws, including Rule 10b-18 of the Securities Exchange Act of 1934, as amended (the Exchange Act) which sets certain restrictions on the method, timing, price, and volume of open market stock repurchases. In addition, the Company adopted a trading plan, which may be amended from time to time, in accordance with Rule 10b5-1 of the Exchange Act to facilitate certain purchases effected under the share repurchase program. The timing, manner, price, and amount of any repurchases were determined at the Company's discretion. The repurchase program did not obligate the Company to acquire any specific number of shares.

During the quarter ended July 4, 2022, the Company repurchased 374 shares of common stock for a total cost of $5,192 (including commissions) and during the two quarters ended July 4, 2022, the Company has repurchased a total of 2,747 shares of common stock for a total cost of $35,424 (including commissions). As of July 4, 2022, there are no amounts available for repurchase.

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

The following discussion of our financial condition and results of operations should be read in conjunction with our consolidated condensed financial statements and the related notes and the other financial information included in this Quarterly Report on Form 10-Q. This discussion and analysis contains forward-looking statements that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of specified factors, including those set forth in Item 1A "Risk Factors" of Part II below and elsewhere in this Quarterly Report on Form 10-Q. This discussion and analysis should also be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" set forth in our Annual Report on Form 10-K for the fiscal year ended January 3, 2022, filed with the SEC.

COMPANY OVERVIEW

We are a leading global manufacturer of technology solutions including engineered systems, radio frequency (RF) components and RF microwave/microelectronic assemblies, and printed circuit boards (PCB). We focus on providing time-to-market and volume production of advanced technology products and offer a one-stop design, engineering, and manufacturing solution to our customers. This one-stop design, engineering, and manufacturing solution allows us to align technology development with the diverse needs of our customers and to enable them to reduce the time required to develop new products and bring them to market. We serve a diversified customer base consisting of approximately 1,000 customers in various markets throughout the world, including aerospace and defense, data center computing, automotive components, medical, industrial and instrumentation related products, as well as networking/communications infrastructure products. Our customers include both original equipment manufacturers (OEMs) and electronic manufacturing services (EMS) providers.

RECENT DEVELOPMENTS

On June 27, 2022, we completed our acquisition of all of the issued and outstanding common stock of Gritel Holding Co., Inc. (Gritel) and ISC Farmingdale Corp. for a preliminary total consideration of $299.2 million in cash. Telephonics Corporation is wholly-owned by Gritel, and as a result of the acquisition, became an indirect, wholly-owned subsidiary of the Company (collectively with ISC Farmingdale Corp., Telephonics). Telephonics is recognized globally as a leading provider of highly sophisticated military intelligence, surveillance and communications solutions that are deployed across a wide range of land, sea, and air applications. Because the acquisition closed shortly prior to the end of our second fiscal quarter, the results of operations of Telephonics since the acquisition date were not material to our consolidated condensed financial statements.

On March 1, 2022, we announced that we will open a new highly automated PCB manufacturing facility in Penang, Malaysia. We recently commenced construction, which we expect will take 12 to 15 months, with equipment installation in late 2023. We expect that the total capital spending for this facility will be approximately $130.0 million and this investment will be spread from 2022 through 2025.

The coronavirus (COVID-19) pandemic initially caused business disruption to our operations in China in January 2020. By March 2020, the situation escalated as the scope of the COVID-19 pandemic worsened outside of the Asia-Pacific region, with Europe and North America being affected by the pandemic. With the development and deployment of vaccines, certain of the adverse societal and economic effects of the pandemic have declined. However, as new variants of the virus emerge and evolve, we could see a rebound in the severity of the adverse effects of the pandemic. As a result, we expect continued impacts on our production, as well as ongoing significant uncertainty relating to the actual and potential impacts of the COVID-19 pandemic, and we cannot reasonably estimate its duration or severity. For example, during the first quarter of the 2022 fiscal year, an outbreak in Mainland China forced temporary lockdown orders in several cities in which we operate. Further, in North America, there was a surge in cases resulting from the Omicron variant from December 2021 through January 2022 which resulted in production inefficiencies caused by a combination of quarantine impacts and direct labor shortages on our overall production. The COVID-19 pandemic has created and continues to create various global macroeconomic, customer demand, operational and supply chain risks and has contributed to high inflation, each of which could have a material and adverse impact on our business going forward. See Item 1A, *Risk Factors*, of Part II below for further information related to the COVID-19 pandemic.

We have taken active measures to seek to protect our employees, suppliers, and customers by implementing extensive pandemic related protocols, establishing situational leadership teams in Asia-Pacific and North America along with regularly scheduled executive reviews and planning calls, implementing global travel restrictions, and conforming to the guidance and direction of local governments and global health organizations. We are monitoring the impacts the COVID-19 pandemic has had, and continues to have, on our supply chain and are collaborating with our third-party partners with the goal of mitigating, to the extent reasonably practicable, significant delays in delivery of our products.

We continue to experience supply chain constraints and inflationary pressures. We have been actively taking measures intended to manage both supply chain constraints and higher raw materials costs, including, without limitation, through such measures as supplier diversification, ongoing operational efficiency efforts and quotation adjustments to mitigate the impact on our business.

We also continue to see challenges in attracting and retaining labor in North America. We actively seek to demonstrate employees' value to our business through a combination of financial and non-financial methods. However, a number of factors may continue to adversely affect the labor force available to us, including high employment levels, government regulations, and wage inflation. An overall labor shortage, lack of skilled labor, increased turnover or labor inflation could have a material adverse impact on our business.

FINANCIAL OVERVIEW

While our customers include both OEMs and EMS providers, we measure customers based on OEM companies, as they are the ultimate end customers. Sales to our ten largest customers collectively accounted for 41% and 43% of our net sales for the quarter and two quarters ended July 4, 2022, respectively. Sales to our ten largest customers accounted for 40% and 42% of our net sales for the quarter and two quarters ended June 28, 2021, respectively. We sell to OEMs both directly and indirectly through EMS providers.

The following table shows the percentage of our net sales attributable to each of the principal end markets we served for the periods indicated:

	Quarter Ended		Two Quarters Ended	
End Markets (1)	July 4, 2022	June 28, 2021	July 4, 2022	June 28, 2021
Aerospace and Defense	30 %	33 %	30 %	34 %
Automotive	18	18	19	18
Data Center Computing	17	14	16	14
Medical/Industrial/Instrumentation	21	19	21	18
Networking/Communications	14	15	14	15
Other (2)	—	1	—	1
Total	100 %	100 %	100 %	100 %

(1) Sales to EMS companies are classified by the end markets of their OEM customers.

(2) Other end market reflects direct sales to EMS and distributor customers.

We derive revenues primarily from the sale of PCBs, custom electronic assemblies using customer-supplied engineering and design plans as well as our long-term contracts related to the design and manufacture of RF and microwave/microelectronics components, assemblies, and subsystems. Orders for products generally correspond to the production schedules of our customers and are supported with firm purchase orders. Our customers have continuous control of the work in progress and finished goods throughout the PCB and custom electronic assemblies manufacturing process, as these are built to customer specifications with no alternative use, and there is an enforceable right of payment for work performed to date. As a result, we recognize revenue progressively over time based on the extent of progress towards completion of the performance obligation. We recognize revenue based on a cost method as it best depicts the transfer of control to the customer which takes place as we incur costs. Revenues are recorded proportionally as costs are incurred.

We also manufacture certain components, assemblies, and subsystems which service our RF and Specialty Components (RF&S Components) customers. We recognize revenue at a point in time upon transfer of control of the products to our customer. Point in time recognition was determined as our customers do not simultaneously receive or consume the benefits provided by our performance and the asset being manufactured has alternative uses to us.

Net sales consist of gross sales less an allowance for returns, which typically have been approximately 2% of gross sales. We provide our customers a limited right of return for defective PCBs including components, subsystems, and assemblies. We record an estimate for sales returns and allowances at the time of sale based on historical results and anticipated returns.

Cost of goods sold consists of materials, labor, outside services, and overhead expenses incurred in the manufacture and testing of our products. Shipping and handling fees and related freight costs and supplies associated with shipping products are also included as a component of cost of goods sold. Many factors affect our gross margin, including capacity utilization, product mix, production volume, and yield. While we have entered into supply assurance agreements with some of our key suppliers to maintain the continuity of supply of some of the key materials we use, we generally do not participate in any significant long-term contracts with suppliers, and we believe there are a number of potential suppliers for most of the raw materials we use.

Selling and marketing expenses consist primarily of salaries, labor related benefits, and commissions paid to our internal sales force, independent sales representatives, and our sales support staff, as well as costs associated with marketing materials and trade shows.

General and administrative costs primarily include the salaries for executive, finance, accounting, information technology, and human resources personnel, as well as expenses for accounting and legal assistance, incentive compensation expense, and gains or losses on the sale or disposal of property, plant, and equipment.

Research and development expenses consist primarily of salaries and labor related benefits paid to our research and development staff, as well as material costs.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Our consolidated condensed financial statements included in this report have been prepared in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP). The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, net sales and expenses, and related disclosure of contingent assets and liabilities.

See Item 7, *Management's Discussion and Analysis of Financial Condition and Results of Operations*, in our Annual Report on Form 10-K for the fiscal year ended January 3, 2022 for further discussion of critical accounting policies and estimates. There were no material changes to our critical accounting policies and estimates since January 3, 2022.

RESULTS OF OPERATIONS

The following table sets forth the relationship of various items to net sales in our consolidated condensed statements of operations:

	Quarter Ended		Two Quarters Ended	
	July 4, 2022	June 28, 2021	July 4, 2022	June 28, 2021
Net sales	100.0 %	100.0 %	100.0 %	100.0 %
Cost of goods sold	81.3	82.4	82.8	83.4
Gross profit	18.7	17.6	17.2	16.6
Operating expenses:				
Selling and marketing	2.8	2.6	2.9	2.8
General and administrative	7.8	5.5	6.8	5.7
Research and development	0.9	0.7	0.9	0.8
Amortization of definite-lived intangibles	1.3	1.6	1.4	1.7
Total operating expenses	12.8	10.4	12.0	11.0
Operating income	5.9	7.2	5.2	5.6
Other (expense) income:				
Interest expense	(1.7)	(2.0)	(1.8)	(2.1)
Loss on extinguishment of debt	—	—	—	(1.4)
Other, net	1.3	0.1	0.8	0.3
Total other expense, net	(0.4)	(1.9)	(1.0)	(3.2)
Income before income taxes	5.5	5.3	4.2	2.4
Income tax provision	(1.1)	(0.3)	(0.5)	(0.1)
Net income	4.4 %	5.0 %	3.7 %	2.3 %

Net Sales

Total net sales increased $58.2 million, or 10.3%, to $625.6 million for the second quarter of 2022 from $567.4 million for the second quarter of 2021. The primary driver for the increase in total net sales was an increase in net sales for the PCB reportable segment of $55.9 million, or 10.1%, to $609.4 million for the second quarter of 2022 from $553.5 million for the second quarter of 2021, which was primarily due to strong growth in most of our commercial end markets. The increase in PCB net sales also benefitted from an 18.6% increase in the average price per square foot driven mainly by better pricing, higher levels of quick-turn revenue and a favorable shift in product mix, partially offset by a 7.3% decrease in the volume of PCB shipments as compared to the second quarter of 2021. Additionally, there was an increase in net sales for the RF&S Components reportable segment of $2.2 million, or 16.0%, to $16.1 million for the second quarter of 2022 from $13.9 million for the second quarter of 2021, which was primarily due to higher demand in our Networking/Communications end market.

Total net sales increased $113.0 million, or 10.3%, to $1,206.8 million for the first two quarters of 2022 from $1,093.8 million for the first two quarters of 2021. This increase in total net sales primarily resulted from an increase in net sales for the PCB reportable segment of $111.5 million, or 10.5%, to $1,175.4 million for the first two quarters of 2022 from $1,064.0 million for the first two quarters of 2021 primarily due to strong growth in most of our commercial end markets, partially offset by lower demand in our Aerospace and Defense end market. The increase in PCB net sales also benefitted from an 11.0% increase in the average price per square foot driven mainly by better pricing, higher levels of quick-turn revenue and a favorable shift in product mix. Volume was essentially unchanged. Additionally, there was an increase in net sales for the RF&S Components reportable segment of $4.7 million, or 17.7%, to $31.3 million for the first two quarters of 2022 from $26.6 million for the first two quarters of 2021 primarily due to higher demand in our Networking/Communications end market.

Gross Margin

Overall gross margin increased to 18.7% for the second quarter of 2022 from 17.6% for the second quarter of 2021. Gross margin for the PCB reportable segment increased to 19.6% for the second quarter of 2022 from 17.4% for the second quarter of 2021. This increase was primarily due to price increases, higher levels of quick-turn revenue, higher sales, and improved product mix, partially offset by higher labor and material costs. Gross margin for the RF&S Components reportable segment increased to 60.2% for the second quarter of 2022 from 52.4% for the second quarter of 2021, primarily due to higher sales.

Overall gross margin increased to 17.2% for the first two quarters of 2022 from 16.6% for the first two quarters of 2021. Gross margin for the PCB reportable segment increased to 17.2% for the first two quarters of 2022 from 16.6% for the first two quarters of 2021. This increase was primarily due to price increases, higher levels of quick-turn revenue, higher sales, and improved product mix, partially offset by higher labor and material costs. Gross margin for the RF&S Components reportable segment increased to 60.3% for the first two quarters of 2022 from 52.0% for the first two quarters of 2021, primarily due to higher sales.

Capacity utilization is a key driver for us, which is measured by the actual production as a percentage of maximum capacity. This measure is particularly important in our high-volume facilities in Asia, as a significant portion of our operating costs are fixed in nature. Capacity utilization for the second quarter of 2022 in our Asia and North America PCB facilities was 88% and 42%, respectively, compared to 88% and 49%, respectively, for the second quarter of 2021. Capacity utilization for the first two quarters of 2022 in our Asia and North America PCB facilities was 86% and 44%, respectively, compared to 84% and 52%, respectively, for the first two quarters of 2021. The increase in capacity utilization in our Asia PCB facilities during the first two quarters of 2022 was due to an increase in production resulting from increased sales in our commercial end markets. The decrease in our capacity utilization in our North America PCB facilities was primarily due to increased capacity resulting from additional plating capacity, bottlenecks in non-plating processes and direct labor shortages in certain regions.

Selling and Marketing Expenses

Selling and marketing expense increased $3.0 million, to $17.6 million for the second quarter of 2022 from $14.6 million for the second quarter of 2021. As a percentage of net sales, selling and marketing expense was 2.8% for the second quarter of 2022, as compared to 2.6% for the second quarter of 2021. The increase in selling and marketing expenses was primarily due to an increase in commission expense and labor costs.

Selling and marketing expenses increased $4.9 million, to $35.8 million for the first two quarters of 2022 from $30.9 million for the first two quarters of 2021. As a percentage of net sales, selling and marketing expenses was 2.9% for the first two quarters of 2022, as compared to 2.8% for the first two quarters of 2021. The increase in selling and marketing expense for the first two quarters of 2022 was primarily due to an increase in commission expense and labor costs.

General and Administrative Expenses

General and administrative expense increased $17.6 million to $48.8 million, or 7.8% of net sales, for the second quarter of 2022 from $31.2 million, or 5.5% of net sales, for the second quarter of 2021. The increase in expense primarily resulted from $9.9 million of costs incurred in connection with the acquisition of Telephonics on June 27, 2022. In addition, there were increases in labor costs, incentive compensation, and other general and administrative spending.

General and administrative expenses increased $19.0 million to $81.8 million, or 6.8% of net sales, for the first two quarters of 2022 from $62.7 million, or 5.7% of net sales, for the first two quarters of 2021. The increase in expense primarily resulted from $10.7 million of costs incurred in connection with the acquisition of Telephonics on June 27, 2022. In addition, there were increases in labor costs, incentive compensation, bad debt, and other general and administrative spending. These increases were partially offset by the decrease in restructuring charges of $3.2 million associated with the restructuring of our E-M Solutions business unit during the first two quarters of 2021.

Other Expense

Other expense, net decreased $7.7 million to $3.1 million for the second quarter of 2022 from $10.8 million for the second quarter of 2021. This decrease was primarily the result of foreign currency gains due to the weakening of the Chinese Renminbi (RMB) in the second quarter of 2022 compared to the second quarter of 2021. We utilize the RMB at our China facilities for employee-related expenses, RMB denominated purchases, and other costs of running our operations in China.

Other expense, net decreased $22.4 million to $12.5 million for the first two quarters of 2022 from $34.9 million for the first two quarters of 2021. This decrease was primarily the result of the absence of $15.2 million of loss on extinguishment of debt. In addition, there were foreign currency gains due to the weakening of the RMB in the first two quarters of 2022 compared to the first two quarters of 2021, partially offset by lower government subsidies.

Income Taxes

Income tax expense increased by $4.5 million to $6.3 million of tax expense for the second quarter of 2022 from $1.8 million of tax expense for the second quarter of 2021. The increase in income tax expense for the second quarter of 2022 was primarily due to an increase in pre-tax income and a lower uncertain tax position release benefit, which resulted from the expiration of the statute of limitation in foreign jurisdictions.

Income tax expense increased by $4.8 million to $5.6 million of tax expense for the first two quarters of 2022 from $0.8 million of tax expense for the first two quarters of 2021. The increase in income tax expense for the first two quarters of 2022 was primarily due to an increase in pre-tax income for the first two quarters of 2022 and a lower uncertain tax position release benefit, which resulted from the expiration of the statute of limitation in foreign jurisdictions, partially offset by the approval of the Company's renewal application for High and New Enterprise status for two of the Company's manufacturing subsidiaries in China in the current year.

Our effective tax rate is primarily impacted by tax rates in China and Hong Kong, the U.S. federal income tax rate, apportioned state income tax rates, the generation of credits and deductions available to the Company as well as changes in valuation allowances and certain non-deductible items. We had a net deferred income tax liability of approximately $20.7 million and a net deferred income tax asset of approximately $15.2 million as of July 4, 2022 and June 28, 2021, respectively. The decrease in the deferred income tax asset was primarily due to recording of a deferred income tax liability of $27.9 million related to the tax impact of the Telephonics' opening balance sheet.

Liquidity and Capital Resources

Our principal sources of liquidity have been cash provided by operations, the issuance of debt, and borrowings under our Revolving Credit Facility. Our principal uses of cash have been to finance capital expenditures, finance acquisitions, fund working capital requirements, to repay debt obligations, and to repurchase common stock. We anticipate that financing capital expenditures, financing acquisitions, funding working capital requirements, and servicing debt will be the principal demands on our cash in the future.

Cash flow provided by operating activities during the first two quarters of 2022 was $115.3 million as compared to cash flow provided by operating activities of $98.1 million in the same period in 2021. The increase in cash flow was primarily due to an increase in net income of $20.0 million.

Net cash used in investing activities was approximately $349.0 million for the first two quarters of 2022, primarily reflecting $299.2 million for the acquisition of Telephonics and $49.9 million for purchases of property, plant and equipment and other assets. Net cash used in investing activities was approximately $43.7 million for the first two quarters of 2021, reflecting $44.6 million for purchases of property, plant and equipment and other assets less $0.9 million for proceeds from sale of property, plant and equipment and other assets.

Net cash used in financing activities during the first two quarters of 2022 was $36.3 million, primarily reflecting repurchases of common stock of $35.4 million and cash used to settle warrants of $0.9 million. Net cash provided by financing activities during the first two quarters of 2021 was $52.0 million, primarily reflecting proceeds from long-term debt borrowing of $500.0 million, less the repayment of long-term debt borrowings of $425.8 million, capital equipment financing of $7.1 million, repurchases of common stock of $6.1 million, payment of debt issuance costs of $5.8 million, and cash used to settle warrants of $3.1 million.

As of July 4, 2022, we had cash and cash equivalents of approximately $266.5 million, of which approximately $199.4 million was held by our foreign subsidiaries, primarily in Hong Kong. Should we choose to remit cash to the United States from our foreign locations, we may incur tax obligations which would reduce the amount of cash ultimately available to the United States. However, we believe there would be no material tax consequences not previously accrued for the repatriation of this cash.

Our total 2022 capital expenditures are expected to be in the range of $110.0 million to $130.0 million.

Share Repurchases

On February 3, 2021, our board of directors authorized a share repurchase program allowing us to repurchase up to $100.0 million of our common stock. During the second quarter of 2022, we repurchased a total of 0.4 million shares of our common stock for $5.2 million (including commissions) and during the two quarters ended July 4, 2022, we repurchased a total of 2.7 million shares of our common stock for a total cost of $35.4 million (including commissions). As of July 4, 2022, there are no amounts available for repurchase. We repurchased a total of 7.5 million shares of our common stock for $100.0 million under the share repurchase program.

Long-term Debt and Letters of Credit

As of July 4, 2022, we had $928.6 million of outstanding debt, net of discount and debt issuance costs, composed of $494.9 million of Senior Notes due March 2029, $403.7 million of a Term Loan due September 2024, and $30.0 million under the Asia Asset-Based Lending Credit Agreement (Asia ABL).

Pursuant to the terms of the Term Loan Facility and Senior Notes due 2029, we are subject to certain affirmative and negative covenants, including limitations on indebtedness, corporate transactions, investments, dispositions, and share payments. Under the occurrence of certain events, under the U.S. Asset-Based Lending Credit Agreement (U.S. ABL) and Asia ABL (collectively, the ABL Revolving Loans), we are also subject to various financial covenants, including leverage and fixed charge coverage ratios. As of July 4, 2022, we were in compliance with the covenants under the Term Loan Facility, Senior Notes due 2029 and ABL Revolving Loans.

Based on our current level of operations, we believe that cash generated from operations, cash on hand and cash from the issuance of term and revolving debt will be adequate to meet our currently anticipated capital expenditure, debt service, and working capital needs for the next twelve months. Additional information regarding our indebtedness, including information about the credit available under our debt facilities, interest rates and other key terms of our outstanding indebtedness, is included in Part I, Item 1, Note 8, *Long-term Debt and Letters of Credit*, of the Notes to Consolidated Condensed Financial Statements included in this Quarterly Report on Form 10-Q.

Contractual Obligations and Commitments

As part of our ongoing operations, we enter into contractual arrangements that obligate us to make future cash payments. These obligations impact our liquidity and capital resource needs. Our estimated future obligations consist of long-term debt obligations, interest on debt obligations, purchase obligations, and leases as of July 4, 2022. As of the date of this report, our contractual obligations have not changed materially since January 3, 2022, except for additional purchase obligations resulting from the Telephonics acquisition. As of July 4, 2022, additional purchase obligations resulting from the Telephonics acquisition amounted to $121.1 million, which are expected to be settled as follows: $109.3 million within 1 year, $11.7 million within 1-3 years, and $0.1 million within 4-5 years.

Seasonality

Historically, we experienced significant seasonality in revenues with a softer first half of the fiscal year and generally ramping volumes in the third quarter which usually peaked in the fourth quarter. After the divestiture of our former Mobility business unit in 2020, this pattern has changed. Barring end market demand changes, we now tend to experience modest seasonal softness in the first and third quarters due to holidays and vacation periods in China and North America, respectively, which limit production leading to stronger revenue levels in the second and fourth quarters.

Recently Issued Accounting Standards

For a description of recently adopted and issued accounting standards, including the respective dates of adoption and the expected effects on our results of operations and financial condition, see Part I, Item 1, Note 1, *Nature of Operations and Basis of Presentation*, of the Notes to Consolidated Condensed Financial Statements included in this Quarterly Report on Form 10-Q.

Item 3. ***Quantitative and Qualitative Disclosures About Market Risk***

In the normal course of business operations, we are exposed to risks associated with fluctuations in interest rates, foreign currency exchange rates, and commodity prices. We seek to address these risks through controlled risk management that includes, from time to time, the use of derivative financial instruments to economically hedge or reduce these exposures. We do not enter into derivative financial instruments for trading or speculative purposes.

We have not experienced any losses to date on any derivative financial instruments due to counterparty credit risk.

To ensure the adequacy and effectiveness of our foreign exchange and commodity price hedge positions, we continually monitor our foreign exchange forward positions and commodity hedge price positions, both on a stand-alone basis and in conjunction with their underlying foreign currency and commodity price exposures, from an accounting and economic perspective. However, given the inherent limitations of forecasting and the anticipatory nature of the exposures intended to be hedged, we cannot be assured that such programs will offset more than a portion of the adverse financial impact resulting from unfavorable movements in either foreign exchange rates or commodity prices. In addition, the timing of the accounting for recognition of gains and losses related to mark-to-market instruments for any given period may not coincide with the timing of gains and losses related to the underlying economic exposures and, therefore, may adversely affect our consolidated operating results and financial position.

Interest Rate Risks

Our business is exposed to risk resulting from fluctuations in interest rates. Our interest expense is more sensitive to fluctuations in the general level of LIBOR interest rates than to changes in rates in other markets. Increases in interest rates would increase interest expense relating to our outstanding variable rate borrowings and increase the cost of debt. Fluctuations in interest rates can also lead to significant fluctuations in the fair value of our debt obligations.

On May 15, 2018, we entered into a four-year pay-fixed, receive floating (1-month LIBOR), interest rate swap arrangement with a notional amount of $400.0 million for the period beginning June 1, 2018 and ended on June 1, 2022. During the term of the interest rate swap, we paid a fixed rate of 2.84% against the first interest payments of a portion of our LIBOR-based debt and received floating 1-month LIBOR during the swap period. At inception, we designated the interest rate swap as a cash flow hedge and the fair value of the interest rate swap was zero. No ineffectiveness was recognized for the quarter and two quarters ended July 4, 2022. During the quarter and two quarters ended July 4, 2022, the interest rate swap increased interest expense by $1.4 million and $4.1 million, respectively. After June 1, 2022, our $400.0 million LIBOR-based variable debt is more sensitive to fluctuations in interest rates due to the expiration of the interest rate swap arrangement. We currently do not expect to enter into a new interest rate swap arrangement.

See *Liquidity and Capital Resources* and *Long-term Debt and Letters of Credit* appearing in Part I, Item 2 of this Quarterly Report on Form 10-Q for further discussion of our financing facilities and capital structure. As of July 4, 2022, approximately 53.4% of our total debt was based on fixed rates. Based on our borrowings as of July 4, 2022, an assumed 100 basis point change in variable rates would cause our annual interest cost to change by $4.4 million.

On July 27, 2017, the Financial Conduct Authority (FCA) announced the desire to phase out the use of LIBOR by the end of 2021. More recently, on March 5, 2021, the FCA announced that all LIBOR settings will either cease to be provided by any administrator or no longer be representative. Specifically, this occurred immediately after December 31, 2021, in the case of all Sterling, Euro (EUR), Swiss franc and Japanese yen settings, and the 1-week, and 2-month U.S. dollar settings; and immediately after June 30, 2023, in the case of the remaining U.S. dollar settings. However, U.S. banking regulators have made it clear that U.S.-dollar LIBOR originations should end by no later than December 31, 2021, and that new LIBOR originations prior to that date must provide for an alternative reference rate in existing contracts. On July 29, 2021, the Alternative Reference Rates Committee (ARRC) announced that it is now formally recommending CME Group’s forward-looking Secured Overnight Financing Rate term rates (SOFR Term Rates). In accordance with recommendations from ARRC, U.S.-dollar LIBOR is expected to be replaced with the Secured Overnight Financing Rate (SOFR) and SOFR Term Rates, a new index calculated by reference to short-term repurchase agreements for U.S. Treasury securities. Further, the International Swaps and Derivatives Association, Inc. recently announced fallback language for LIBOR-referencing derivatives contracts that also provides for SOFR as the primary replacement rate in the event of a LIBOR cessation.

The market transition from LIBOR to SOFR is expected to be complicated, including the development of term SOFR rates and credit adjustments to accommodate differences between LIBOR and SOFR. During the transition period, LIBOR may exhibit increased volatility or become less representative, and the overnight Treasury repurchase market underlying SOFR may also experience disruptions from time to time, which may result in unexpected fluctuations in SOFR.

Foreign Currency Rate Risks

In the normal course of business, we are exposed to risks associated with fluctuations in foreign currency exchange rates related to transactions that are denominated in currencies other than our functional currencies, as well as the effects of translating amounts denominated in a foreign currency to the U.S. Dollar as a normal part of our financial reporting process. Most of our foreign operations have the U.S. Dollar as their functional currency, however, two of our China facilities utilize the Renminbi (RMB), which results in recognition of translation adjustments included as a component of other comprehensive income (loss). Our foreign exchange exposure results primarily from employee-related and other costs of running our operations in foreign countries, foreign currency denominated purchases and translation of balance sheet accounts denominated in foreign currencies. Our primary foreign exchange exposure is to the RMB. Except for certain equipment purchases, we do not engage in hedging to manage this foreign currency risk. However, we may consider the use of derivatives in the future. In general, our Chinese customers pay us in RMB, which partially mitigates this foreign currency exchange risk.

Our foreign subsidiaries may at times enter into forward exchange contracts to manage foreign currency risks in relation to certain purchases of machinery denominated in foreign currencies other than our functional currencies. The notional amount of the foreign exchange contracts as of July 4, 2022 was approximately $1.6 million (EUR 1.4 million). There were no foreign exchange contracts as of January 3, 2022.

Commodity Price Risks

We are exposed to certain commodity risks associated with prices for various raw materials. In particular, we have been experiencing increasing prices and lead times of copper clad laminates (CCLs), a key raw material for the manufacture of PCBs. This may negatively affect our profitability. CCLs are made from epoxy resin, glass cloth, and copper foil, all of which are seeing limited supply and increased prices. We only buy a small amount of copper directly. However, copper is a major driver of laminate cost. We are hedging copper as a proxy for hedging laminate. As of July 4, 2022, we had commodity contracts with a notional quantity of (i) 630 metric tonnes for the period beginning June 30, 2022 and ending on October 3, 2022, (ii) 700 metric tonnes for the period beginning October 4, 2022 and ending on January 3, 2023, (iii) 700 metric tonnes for the period beginning January 1, 2023 and ending on March 31, 2023, and (iv) 700 metric tonnes for the period beginning April 1, 2023 and ending on June 30, 2023. As of July 4, 2022, the fair value of the commodity contracts was recorded as a liability in the amount of $3.5 million and included as a component of other current liabilities. We will continue to evaluate our commodity risks and may utilize commodity forward purchase contracts more frequently in the future.

Debt Instruments

The table below presents the fiscal calendar maturities of long-term debt through 2026 and thereafter of our debt instruments as of July 4, 2022:

	As of July 4, 2022								
	Remaining 2022	2023	2024 (1)	2025	2026	Thereafter	Total	Fair Value	Weighted Average Interest Rate
				(In thousands)					
US$ Variable Rate	$ —	$ —	$ 435,879	$ —	$ —	$ —	$ 435,879	$ 431,569	4.20%
US$ Fixed Rate	—	—	—	—	—	500,000	500,000	420,005	4.00%
Total	$ —	$ —	$ 435,879	$ —	$ —	$ 500,000	$ 935,879	$ 851,574	

(1) Interest rate swap effectively fixed $400,000 of variable rate debt through June 1, 2022. After June 1, 2022, the $400,000 variable rate debt is more sensitive to fluctuations in interest rates due to the expiration of the interest rate swap arrangement.

Interest Rate Swap Contracts

Our interest rate swap arrangement ended on June 1, 2022. The table below presents information regarding our interest rate swap during the two quarters ended July 4, 2022:

	Two Quarters Ended July 4, 2022
	(In thousands, except interest rates)
Average interest payout rate	2.84%
Interest payout amount	$ (4,669)
Average interest received rate	0.34%
Interest received amount	$ 564

Item 4. *Controls and Procedures*

Evaluation of Disclosure Controls and Procedures

Our management, under the supervision and with the participation of our Chief Executive Officer (CEO) and Chief Financial Officer (CFO), has evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) as of the end of the period covered by this Quarterly Report. Based on this evaluation, our CEO and CFO have concluded that, as of July 4, 2022 such disclosure controls and procedures were effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and (ii) accumulated and communicated to our management, including our CEO and CFO, as appropriate to allow timely decisions regarding required disclosures.

In designing and evaluating our disclosure controls and procedures, our management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their desired control objectives, and our management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Changes in Internal Control over Financial Reporting

On June 27, 2022, the Company acquired Gritel Holding Co., Inc. (Gritel) and ISC Farmingdale Corp. Telephonics Corporation is wholly-owned by Gritel, and as a result of the acquisition, became an indirect, wholly-owned subsidiary of the Company (collectively with ISC Farmingdale Corp., Telephonics). Management is in the process of reviewing internal control over financial reporting relating to Telephonics. Certain changes have been made, and will continue to be made, to our internal controls until management has completed its evaluation and integrated Telephonics' information and accounting systems and processes. In reliance on interpretive guidance issued by the SEC staff permitting a company to exclude an acquired business from management's assessment of the effectiveness of internal control over financial reporting for one year following the date that the acquisition is completed, we have elected to exclude disclosure of changes in internal control over financial reporting related to Telephonics from this Quarterly Report on Form 10-Q.

We continue to expand our implementation of an enterprise resource planning (ERP) system on a worldwide basis, which is expected to improve the efficiency of the financial reporting and related transaction processes. During the quarter ended July 4, 2022, we did not complete any implementations. As we continue to implement the ERP system at our remaining locations, we will continue to assess the impact on our internal control over financial reporting.

There have been no other changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the quarter ended July 4, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. *Legal Proceedings*

From time to time, we may become a party to various legal proceedings arising in the ordinary course of our business. There can be no assurance that we will prevail in any such litigation. We believe that the amount of any reasonably possible or probable loss for known matters would not be material to our financial statements; however, the outcome of these actions is inherently difficult to predict. In the event of an adverse outcome, the ultimate potential loss could have a material adverse effect on our financial condition, results of operations, or cash flows in a particular period.

Item 1A. *Risk Factors*

An investment in our common stock involves a high degree of risk. You should carefully consider the factors described below, in addition to those discussed elsewhere in this report, in analyzing an investment in our common stock. If any of the events described below occurs, our business, financial condition, and results of operations would likely suffer, the trading price of our common stock could fall, and you could lose all or part of the money you paid for our common stock. The risk factors described below are not the only ones we face. Risks and uncertainties not known to us currently, or that may appear immaterial, also may have a material adverse effect on our business, financial condition, and results of operations.

In addition, the following risk factors and uncertainties could cause our actual results to differ materially from those projected in our forward-looking statements, whether made in this report or the other documents we file with the SEC, or our annual or quarterly reports to stockholders, future press releases, or orally, whether in presentations, responses to questions, or otherwise.

Risks Related to our Business

We serve customers and have manufacturing facilities throughout the world and are subject to risks caused by local and global pandemics and other similar risks, including without limitation, the COVID-19 pandemic, which could materially adversely affect our business, financial condition, and results of operations.

Local and global pandemics or other disasters or public health concerns in regions of the world where we have operations or source material or sell products could result in the disruption of our business. Specifically, these pandemics, disasters and health concerns can result in increased travel restrictions and extended shutdowns of certain businesses in the regions in which we operate, as well as social, economic, or labor instability. Disruptions in our product shipments or impacts on our manufacturing in affected regions over a prolonged period could have a material adverse impact on our business and our financial results.

On March 11, 2020, the World Health Organization announced that COVID-19 infections had become a pandemic, and on March 13, 2020, the U.S. President announced a National Emergency relating to the disease. Federal, state, and local government responses to COVID-19 and our responses to the outbreak have all, at times, disrupted and will likely continue to disrupt our business. In the United States, individuals at times and in certain locations are being required to practice social distancing, in many places have been restricted from gathering in large groups, and in some cases have been placed on complete restriction from non-essential movements outside of their homes. Even as efforts to contain the pandemic have made progress and many restrictions have relaxed, new variants of the virus have arisen globally. At times, variants of COVID-19 have caused a surge in COVID-19 cases, both regionally, such as the recent outbreak in Mainland China that forced temporary lockdown orders in several cities in which we operate, and globally. The ultimate impact of new variants that have emerged from time to time, such as the Delta variant and Omicron variant, or other variants that may emerge, cannot be predicted at this time, and could depend on numerous factors, including the availability of vaccines in different parts of the world, vaccination rates among the population, the effectiveness of COVID-19 vaccines, and the response by governmental bodies to reinstate restrictive measures.

In particular, multiple facets of our business may be negatively impacted by the fear of exposure to or actual effects of COVID-19 and other disease outbreaks, epidemics, pandemics and similar widespread public health concerns. These impacts include but are not limited to:

- failure of third parties on which we rely, including, without limitation, our suppliers, commercial banks, and other external business partners, to meet their obligations to us, caused by significant disruptions in their ability to do so or their own financial or operational difficulties;
- supply chain risks such as disruptions of supply chains, excess demand on suppliers, and scrutiny or embargoing of goods produced in infected areas;
- reduced workforces and labor shortages at all levels of our organization, which may be caused by, but not limited to, the temporary inability of the workforce to work due to illness, quarantine, or government mandates and incentives;
- temporary business closures due to reduced workforces or government mandates;
- reduced demand for our products and services caused by, but not limited to, the effect of quarantine or other travel restrictions or financial hardship on the businesses in the industries we service;

- restrictions to our business as a result of federal or state laws, regulations, orders or other governmental or regulatory actions, if adopted; or
- lawsuits from employees and others exposed to COVID-19 at our facilities, which may involve large demands or substantial defense costs that our professional and general liability insurance may not cover.

Any of the foregoing factors, or other cascading effects that are not currently foreseeable, could materially increase our costs, negatively impact our sales, or damage the Company's financial condition, results of operations, cash flows and its liquidity position, possibly to a significant degree. The duration of any such impacts cannot be predicted because of the sweeping, ongoing and uncertain nature of the circumstances involving the COVID-19 pandemic.

We have pursued and intend to continue to pursue potential divestitures of assets and acquisitions of other businesses and may encounter risks associated with these activities, which could harm our business and operating results. If we are unable to manage our growth effectively, our business, financial condition, and results of operations could be materially adversely affected.

As part of our business strategy, we expect that we will continue to implement and align our strategy by pursuing potential divestitures of assets and acquisitions of businesses, technologies, assets, or product lines that complement or expand our business, such as our acquisition of Gritel Holding Co., Inc. (Gritel) and ISC Farmingdale Corp. in June 2022. Risks related to such activities and transactions may include:

- the potential inability to successfully integrate acquired operations and businesses or to realize anticipated synergies, economies of scale, or other expected value;
- diversion of management's attention from normal daily operations of our existing business to focus on integration of the newly acquired business;
- unforeseen expenses associated with the integration of the newly acquired business or assets;
- difficulties in managing production and coordinating operations at new sites;
- the potential loss of key employees of acquired or divested operations;
- the potential inability to retain existing customers of acquired companies when we desire to do so;
- insufficient revenues to offset increased expenses associated with acquisitions;
- the potential decrease in overall gross margins associated with acquiring a business with a different product mix;
- the inability to identify certain unrecorded liabilities;
- the inability to consummate a potential divestiture due to regulatory constraints or other closing conditions;
- the separation of business infrastructure involved in a potential divestiture may create disruption in our business;
- the tax burden related to the divestiture may be larger than expected;
- the potential divestiture of assets or product lines could create dis-synergies and change our profitability;
- the potential need to restructure, modify, or terminate customer relationships of the acquired or divested assets or company;
- an increased concentration of business from existing or new customers; and
- the potential inability to identify assets best suited to our business plan.

Acquisitions may cause us to:

- enter lines of business and/or markets in which we have limited or no prior experience;
- issue debt and be required to abide by stringent loan covenants;
- assume liabilities;
- record goodwill and intangible assets that will be subject to impairment testing and potential periodic impairment charges;
- become subject to litigation and environmental issues, which include product material content certifications related to conflict minerals;
- incur unanticipated costs;
- incur large and immediate write-offs; and
- incur substantial transaction-related costs, whether or not a proposed acquisition is consummated.

Acquisitions of high technology companies and assets are inherently risky, and no assurance can be given that our prior or future acquisitions will be successful. Failure to manage and successfully integrate acquisitions we make could have a material adverse effect on our business, financial condition, and results of operations. Even when an acquired company has already developed and marketed products, product enhancements may not be made in a timely fashion. In addition, unforeseen issues might arise with respect to such products after any such acquisition.

As we continue to experience growth in the scope and complexity of our operations, we may be required to implement additional operating and financial controls and hire and train additional personnel. There can be no assurance that we will be able to do so in the future, and failure to do so could jeopardize our expansion plans and seriously harm our operations. In addition, growth in our capacity could result in reduced capacity utilization and a corresponding decrease in gross margins.

Uncertainty, volatility and adverse changes in the global economy and financial markets, including those resulting from the conflict between Russia and Ukraine, could have an adverse impact on our business and operating results.

Uncertainty, volatility or adverse changes in the economy could lead to a significant decline in demand for the end products manufactured by our customers, which, in turn, could result in a decline in the demand for our products and increase pressure to reduce our prices. Any decrease in demand for our products could have an adverse impact on our financial condition, operating results, and cash flows. Uncertainty and adverse changes in the economy could also increase the cost and decrease the availability of potential sources of financing and increase our exposure to losses from bad debts, either of which could have a material adverse effect on our financial condition, operating results, and cash flows.

In February 2022, Russia commenced military hostilities against Ukraine, which has contributed to volatility in the global economy and markets and is expected to create on-going geopolitical instability and have further global economic consequences, including on-going disruptions of the global supply chain and energy markets. The effects of the conflict have contributed to significant volatility in credit and capital markets, changes in laws and regulations that may affect our business, sanctions or counter-sanctions and increased cybersecurity threats and concerns. As a result, there is a risk that supplies of our products may be significantly delayed by or may become unavailable as a result of the conflict between Russia and Ukraine affecting us or our suppliers. The conflict may also reduce demand for our products because of reduced global or national economic activity, disruptions and extreme volatility in global financial markets, increased rates of default and bankruptcy, and reduced levels of business and consumer spending. The effects of the conflict between Russia and Ukraine could heighten or exacerbate many of the risk factors described in this Item 1A, *Risk Factors*, and may adversely affect our business, financial condition, and results of operation.

We have manufacturing facilities and serve customers outside the United States and are subject to the risks characteristic of international operations, including tariffs.

We have significant manufacturing operations in Asia and Canada and sales offices located in Asia and Europe. We continue to consider additional opportunities to make foreign investments and construct new foreign facilities.

In addition, for the quarter ended July 4, 2022, we generated approximately 58% of our net sales from non-U.S. operations, and a significant portion of our manufacturing material was provided by international suppliers during this period. The United States' trade policies and those of foreign countries are subject to change which could adversely affect our ability to purchase and sell goods and materials without significant tariffs, taxes or duties that may be imposed on the materials we purchase or the goods we sell, thereby increasing the cost of such materials and potentially decreasing our margins. Further, our revenues could be impacted if our customers' ability to sell their goods is reduced by such tariffs, taxes or duties. Both the U.S. and Chinese governments have included PCBs among items subjected to tariffs imposed on imports from such countries, which may negatively impact our revenue and profitability. In addition, we are subject to risks relating to significant international operations, including but not limited to:

- managing international operations;
- imposition of governmental controls;
- unstable regulatory environments;
- compliance with employment laws;
- implementation of disclosure controls, internal controls, financial reporting systems, and governance standards to comply with U.S. accounting and securities laws and regulations;
- limitations on imports or exports of our product offerings;
- fluctuations in the value of local currencies;
- inflation or changes in political and economic conditions;
- public health crises, such as the COVID-19 pandemic;
- labor unrest, rising wages, difficulties in staffing, and geographical labor shortages;
- government or political unrest;

- conflict or war between nations over territory that impacts the electronics supply chain leading to potential trade restrictions to and from the nations involved, including Russia, Ukraine and China;
- longer payment cycles;
- language and communication barriers, as well as time zone differences;
- cultural differences;
- increases in duties and taxation levied on our products;
- other potentially adverse tax consequences;
- imposition of restrictions on currency conversion or the transfer of funds;
- travel restrictions;
- expropriation of private enterprises;
- the potential reversal of current favorable policies encouraging foreign investment and trade;
- the potential for strained trade relationships between the United States and its trading partners, including trade tariffs which could create competitive pricing risk; and
- government imposed sanction laws and regulations.

Further, the conflict between Russia and Ukraine described in the previous risk factors, and the effects thereof, may adversely affect our manufacturing facilities and our customers.

Rising labor costs and labor shortages, including due to pandemics and other disasters, employee strikes and other labor-related disruptions may materially adversely affect our business, financial condition, and results of operations.

Our business is labor intensive, utilizing large numbers of engineering and manufacturing personnel. There is uncertainty with respect to rising labor costs. Furthermore, labor disputes and strikes based partly on wages have in the past slowed or stopped production by certain manufacturers in China. In some cases, employers have responded by significantly increasing the wages of workers at such plants. Any increase in labor costs due to minimum wage laws or customer requirements about scheduling and overtime that we are unable to recover in our pricing to our customers could materially adversely affect our business, financial condition, and results of operations. In addition, general labor shortages (such as occurred during 2021 and that have continued in 2022), a high turnover rate and our difficulty in recruiting and retaining qualified employees at any level of our organization could result in a potential for defects in our products, production disruptions or delays, or the inability to ramp production to meet increased customer orders, resulting in order cancellation or imposition of customer penalties if we are unable to deliver products in a timely manner.

To respond to competitive pressures and customer requirements, we may further expand internationally in lower-cost locations. If we pursue such expansions, we may be required to make additional capital expenditures. For instance, in March 2022 we announced our plans to construct a new plant in Penang, Malaysia, which we project will require approximately $130.0 million in capital expenditures over a three-year period. In addition, the cost structure in certain countries that are now considered to be favorable may increase as economies develop or as such countries join multinational economic communities or organizations, causing local wages to rise. As a result, we may need to continue to seek new locations with lower costs and the employee and infrastructure base to support PCB manufacturing. We cannot assure investors that we will realize the anticipated strategic benefits of our international operations, including our new plant, or that our international operations will contribute positively to our operating results.

In North America, we are experiencing wage inflation pressures, some of which are mandated by local and state governments. Further, we are experiencing rising health care costs. While we strive to manage these challenges, there can be no assurance that our efforts will succeed which would result in higher costs and lower profits.

The competition for talent and labor in general is currently extremely high. In this competitive environment, our business could be adversely impacted by increases in labor costs, which could include increases in wages and benefits necessary to attract and retain high quality employees with the right skill sets, increases triggered by regulatory actions regarding wages, scheduling, and benefits; increases in health care and workers' compensation insurance costs; and increases in benefits and costs related to the COVID-19 pandemic and its resurgence from time to time. In light of the current challenging labor market conditions, due in part to the COVID-19 pandemic, our wages and benefits programs and any steps we take to increase our wages and benefits, may be insufficient to attract and retain talent at all levels of our organization. Existing labor shortages, and our inability to attract employees to maintain a qualified workforce, could adversely affect our production and our overall business and financial performance.

Strikes or labor disputes with our unionized employees, primarily in China, may adversely affect our ability to conduct our business. If we are unable to reach agreement with any of our unionized work groups on future negotiations regarding the terms of their collective bargaining agreements, we may be subject to work interruptions or stoppages. Any of these events could be disruptive to our operations and could result in negative publicity, loss of contracts, and a decrease in revenues. We may also become subject to additional collective bargaining agreements in the future if more employees or segments of our workforce become unionized, including any of our employees in the United States.

We may be unable to hire and retain sufficient qualified personnel at all levels of our organization, and the loss of any of our key executive officers, or the inability to maintain a sufficient workforce to satisfy production demands, could materially adversely affect our business, financial condition, and results of operations.

We believe that our future success will depend in large part on our ability to attract and retain highly skilled, knowledgeable, sophisticated, and qualified managerial and professional personnel. Furthermore, we have limited patent or trade secret protection for our manufacturing processes and rely on the collective experience of our employees involved in our manufacturing processes to ensure that we continuously evaluate and adopt new technologies in our industry. We may not be able to retain our executive officers and key personnel or attract additional qualified management in the future. We can make no assurances that future changes in executive management will not have a material adverse effect on our business, financial condition, or results of operations. Our business also depends on our continuing ability to recruit, train, and retain highly qualified employees, particularly engineering and sales and marketing personnel. The competition for these employees is intense, and the loss of these employees could harm our business.

In addition, our industry experienced in 2021, and continues to experience, a shortage of workers. Although we believe this shortage is due, in part, to the COVID-19 pandemic, the shortage may be systemic and may continue after the pandemic ends. We rely on maintaining a sufficient workforce at all levels of our organization to design, manufacture and distribute our products. If the labor markets remain tight and we are unable to adequately staff our facilities due to a shortage of qualified workers, our operations and financial performance would likely be adversely affected.

We rely on suppliers and equipment manufacturers for the timely delivery of raw materials, components, equipment, and spare parts used in manufacturing our PCBs. If a raw material supplier or equipment manufacturer goes bankrupt, liquidates, consolidates out of existence, experiences excess demands or other disruptions to their supply chain or operations, or otherwise fails to satisfy our product quality standards, or if the prices or availability of raw materials change, it could harm our ability to purchase new manufacturing equipment, service the equipment we have, or timely produce our products, thereby affecting our customer relationships.

To manufacture PCBs, we use raw materials such as laminated layers of fiberglass, copper foil, chemical solutions, gold, copper, and other commodity products, which we order from our suppliers. For RF components, we use various high-performance materials such as ceramics and printed circuit board materials. In the case of backplane assemblies, components include connectors, sheet metal, capacitors, resistors, and diodes, many of which are custom made and controlled by our customers' approved vendors.

Our success is due in part to our ability to deliver products timely to our customers, which requires successful planning and logistics infrastructure, including, ordering, transportation and receipt processing, and the ability of suppliers to meet our materials requirements.

Consolidations and restructuring in our supplier base and equipment fabricators related to our raw materials purchases or the manufacturing equipment we use to fabricate our products may result in adverse changes in pricing of materials due to reduction in competition among our raw material suppliers or an elimination or shortage of equipment and spare parts from our manufacturing equipment supply base. Suppliers and equipment manufacturers may be impacted by other events outside our control including macro-economic events, financial instability, environmental occurrences, or supplier interruptions due to fire, natural catastrophes, public health crises or otherwise. Several of these factors, including the ongoing COVID-19 pandemic, have contributed to supply chain constraints we have experienced during 2021 and into 2022. As a result, suppliers and equipment manufacturers have extended lead times, limited supplies, and/or increased prices due to capacity constraints and other factors. These have impacted our ability to deliver our products on a timely basis, our inventory levels and cash flow, and could negatively impact our financial results. The severity of the constraints in the supply chain is continuously changing, which creates substantial uncertainties in our business. In addition, in extreme circumstances, the suppliers we purchase from could cease production altogether due to a fire, natural disaster, consolidation or liquidation of their businesses. The supply chain constraints and other factors discussed above may continue to impact our ability to deliver our products on a timely basis, harm our customer relationships and negatively impact our financial results.

In particular, the current macroeconomic trends towards increasing inflation could increase the cost of our raw materials and components. If raw material and component prices increase or if there is inflationary pressure on the cost of the metals that we use to produce our product, especially if the prices of copper, gold, palladium, and other precious metals we use to manufacture our products increase, it may reduce our gross margins. Should the supply of materials used in the above manufacturing processes become limited, our ability to obtain the quantities necessary to meet our customers' demand may be impacted which could cause us to encounter reduced revenue levels or price increases which would impact our profit margins. If either of these situations occurs, our financial condition and results of operations could be negatively impacted.

We are subject to risks of currency fluctuations.

A portion of our cash, other current assets and current liabilities is held in currencies other than the U.S. dollar. Changes in exchange rates among other currencies and the U.S. dollar will affect the value of these assets or liabilities as re-measured to U.S.

dollars on our balance sheet. To the extent that we ultimately decide to repatriate some portion of these funds to the United States, the actual value transferred could be impacted by movements in exchange rates. Any such type of movement could negatively impact the amount of cash available to fund operations or to repay debt. Additionally, we have revenues and costs denominated in currencies other than the U.S. dollar (primarily the Renminbi (RMB)). Fluctuations in the exchange rates between the U.S. dollar and the RMB could result in increases or decreases in our costs or revenues which could negatively impact our business, financial condition, and results of operations. Significant inflation or disproportionate changes in foreign exchange rates could occur as a result of general economic conditions, acts of war or terrorism, changes in governmental monetary or tax policy, or changes in local interest rates Further, China's government imposes controls over the convertibility of RMB into foreign currencies, which subjects us to further currency exchange risk.

The worldwide electronics industry is intensely competitive and volatile.

A majority of our revenue is generated from the electronics industry, which is characterized by intense competition, relatively short product life cycles, and significant fluctuations in product demand. The industry is subject to economic cycles and recessionary periods. Due to the uncertainty in the end markets served by most of our customers, we have a low level of visibility with respect to future financial results. Consequently, our past operating results, earnings, and cash flows may not be indicative of our future operating results, earnings, and cash flows.

If we are unable to maintain satisfactory capacity utilization rates, our business, financial condition, and results of operations would be materially adversely affected.

Given the high fixed costs of our operations, decreases in capacity utilization rates can have a significant effect on our business. Accordingly, our ability to maintain or enhance gross margins will continue to depend, in part, on maintaining satisfactory capacity utilization rates. In turn, our ability to maintain satisfactory capacity utilization will depend on the demand for our products, the volume of orders we receive, our ability to maintain a sufficient workforce at our facilities, and our ability to offer products that meet our customers' requirements at competitive prices. If current or future production capacity fails to match current or future customer demands, our facilities would be underutilized, our sales may not fully cover our fixed overhead expenses, and we would be less likely to achieve expected gross margins. If forecasts and assumptions used to support the realizability of our long-lived assets change in the future, significant impairment charges could result that would materially adversely affect our business, financial condition, and results of operations.

In addition, we generally schedule our quick turnaround production facilities at less than full capacity to retain our ability to respond to unexpected additional quick-turn orders. However, if these orders are not received, we may forego some production and could experience continued excess capacity. If we conclude we have significant, long-term excess capacity, we may decide to permanently close one or more of our facilities and lay off some of our employees. Closures or lay-offs could result in our recording restructuring charges such as severance, other exit costs, and asset impairments, as well as potentially causing disruptions in our ability to supply customers.

We have a significant amount of goodwill and other intangible assets on our consolidated condensed balance sheet. If our goodwill or other intangible assets become impaired in the future, we would be required to record a non-cash charge to earnings, which may be material and would also reduce our stockholders' equity.

As of July 4, 2022, our consolidated condensed balance sheet included $1,026.9 million of goodwill and definite-lived intangible assets. We periodically evaluate whether events and circumstances have occurred, such that the potential for reduced expectations for future cash flows coupled with further decline in the market price of our stock and market capitalization may indicate that the remaining balance of goodwill and definite-lived intangible assets may not be recoverable. If factors indicate that assets are impaired, we would be required to reduce the carrying value of our goodwill and definite-lived intangible assets, which could harm our results during the periods in which such a reduction is recognized.

Our results of operations are often subject to demand fluctuations and seasonality. With a high level of fixed operating costs, even small revenue shortfalls would decrease our gross margins.

Our results of operations fluctuate for a variety of reasons, including:

- timing of orders from and shipments to major customers;
- the levels at which we utilize our manufacturing capacity;
- price competition;
- changes in our mix of revenues generated from quick-turn versus standard delivery time services;
- expenditures, charges or write-offs, including those related to acquisitions, facility restructurings, or asset impairments; and
- expenses relating to expanding existing manufacturing facilities.

A significant portion of our operating expenses is relatively fixed in nature, and planned expenditures are based in part on anticipated orders. Accordingly, unexpected revenue shortfalls may decrease our gross margins. In addition, we have experienced sales fluctuations due to seasonal patterns in the capital budgeting and purchasing cycles, as well as inventory management practices of our customers and the end markets we serve. These seasonal trends have caused fluctuations in our operating results in the past and may continue to do so in the future. Results of operations in any period should not be considered indicative of the results that may be expected for any future period. In addition, our future quarterly operating results may fluctuate and may not meet the expectations of securities analysts or investors.

We participate in competitive industries, including the automotive industry, which requires strict quality control standards. Failure to meet these standards may adversely affect our business, financial condition, and results of operations.

Our customer base demands the highest customer service, on time delivery and quality standards in a competitive market. Failure to meet these ever-increasing standards may result in a loss of market share for our products and services to our competitors, which may result in a decline in our overall revenue.

In addition, a significant portion of our sales are to customers within the automotive industry. The automotive industry has historically experienced multi-year cycles of growth and decline. If sales of automobiles should decline or go into a cyclical downturn, our sales could decline, and this could have a materially adverse impact on our business, financial condition, and result of operations. For safety reasons, automotive customers have strict quality standards that generally exceed the quality requirements of other customers. If such products do not meet these quality standards, our business, financial condition, and results of operations may be materially adversely affected. These automotive customers may require long periods of time to evaluate whether our manufacturing processes and facilities meet their quality standards. If we were to lose automotive customers due to quality control issues, we might not be able to regain those customers or gain new automotive customers for long periods of time, which could have a material adverse effect on our business, financial condition, and results of operations. Moreover, we may be required under our contracts with automotive industry customers to indemnify them for the cost of warranties and recalls relating to our products.

The prominence of EMS companies as our customers could reduce our gross margins, potential sales, and customers.

Sales to EMS companies represented approximately 34% and 36% of our net sales for the quarters ended July 4, 2022 and June 28, 2021, respectively. Sales to EMS providers include sales directed by OEMs as well as orders placed with us at the EMS providers' discretion. EMS providers source on a global basis to a greater extent than OEMs. The growth of EMS providers increases the purchasing power of such providers and has in the past, and could in the future, result in increased price competition or the loss of existing OEM customers. In addition, some EMS providers, including some of our customers, have the ability to directly manufacture PCBs and create backplane assemblies. If a significant number of our other EMS customers were to acquire these abilities, our customer base might shrink, and our sales might decline substantially. Moreover, if any of our OEM customers outsource the production of PCBs and creation of backplane assemblies to these EMS providers, our business, financial condition, and results of operations may be materially adversely affected.

We depend upon a relatively small number of OEM customers for a large portion of our sales, and a decline in sales to major customers would materially adversely affect our business, financial condition, and results of operations.

A small number of customers are responsible for a significant portion of our sales. Our five largest OEM customers collectively accounted for approximately 30% and 29% of our net sales for the quarters ended July 4, 2022 and June 28, 2021, respectively. Furthermore, our business has benefited from OEMs deciding to outsource their PCB manufacturing and backplane assembly needs to us, and our future revenue growth partially depends on new outsourcing opportunities from OEMs. Sales attributed to OEMs include both direct sales as well as sales that the OEMs place through EMS providers. Our customer concentration could fluctuate, depending on future customer requirements, which will depend in large part on market conditions in the electronics industry segments in which our customers participate. The loss of one or more significant customers or a decline in sales to our significant customers would materially adversely affect our business, financial condition, and results of operations. In addition, we generate significant accounts receivable in connection with providing manufacturing services to our customers. If one or more of our significant customers were to become insolvent or were otherwise unable to pay for the manufacturing services provided by us, our business, financial condition, and results of operations would be materially adversely affected.

In addition, during industry downturns, we may need to reduce prices to limit the level of order losses, and we may be unable to collect payments from our customers. There can be no assurance that key customers would not cancel orders, that they would continue to place orders with us in the future at the same levels as experienced by us in prior periods, that they would be able to meet their payment obligations, or that the end-products that use our products would be successful. This concentration of customer base may materially adversely affect our business, financial condition, and results of operations due to the loss or cancellation of business from any of these key customers, significant changes in scheduled deliveries to any of these customers or decreases in the prices of the products sold to any of these customers.

We depend on the U.S. government for a significant portion of our business, which involves unique risks. Changes in government defense spending or regulations could have a material adverse effect on our business, financial condition, and results of operations.

A significant portion of our revenues is derived from products and services that are ultimately sold to the U.S. government by our OEM and EMS customers and is therefore affected by, among other things, the federal government budget process. We are a supplier, primarily as a subcontractor, to the U.S. government and its agencies, as well as foreign governments and agencies. The contracts between our direct customers and the government end user are subject to political and budgetary constraints and processes, changes in short-range and long-range strategic plans, the timing of contract awards, the congressional budget authorization and appropriation processes, the government's ability to terminate contracts for convenience or for default, as well as other risks, such as contractor suspension or debarment in the event of certain violations of legal and regulatory requirements.

For the quarter ended July 4, 2022, aerospace and defense sales accounted for approximately 30% of our total net sales. The substantial majority of aerospace and defense sales are related to both U.S. and foreign military and defense programs. While we do not sell any significant volume of products directly to the U.S. government or to foreign governments and agencies, we are a supplier to OEMs that sell to these entities. Consequently, our sales are affected by changes in the defense budgets of the U.S. and foreign governments and may be affected by federal budget sequestration measures.

The domestic and international threat of terrorist activity, emerging nuclear states, and conventional military threats have generally led to an increase in demand for defense products and services and homeland security solutions in the recent past. The termination or failure to fund one or more significant defense programs or contracts by the U.S. government could have a material adverse effect on our business, financial condition, and results of operations.

Future changes to the U.S. Munitions List could reduce or eliminate restrictions that currently apply to some of the products we produce. If these regulations or others are changed in a manner that reduces restrictions on products being manufactured overseas, we would likely face an increase in the number of competitors and increased price competition from overseas manufacturers, who are restricted by the current export laws from manufacturing products for U.S. defense systems.

We are exposed to the credit risk of our customers and to credit exposures in weakened markets.

Most of our sales are on an "open credit" basis, with standard industry payment terms. We monitor individual customer payment capability in granting such open credit arrangements, seek to limit such open credit to amounts we believe the customers can pay, and maintain reserves we believe are adequate to cover exposure for doubtful accounts. During periods of economic downturn in the electronics industry and the global economy, our exposure to credit risks from our customers increases. Although we have programs in place to monitor and mitigate the associated risks, such programs may not be effective in reducing our credit risks.

Additionally, our OEM customers often direct a significant portion of their purchases through a relatively limited number of EMS companies. Sales to EMS companies represented approximately 34% and 36% of our net sales for the quarters ended July 4, 2022 and June 28, 2021, respectively. Our contractual relationship is often with the EMS companies, who are obligated to pay us for our products. Because we expect our OEM customers to continue to direct our sales to EMS companies, we expect to continue to be subject to this credit risk with a limited number of EMS customers. If one or more of our significant customers were to become insolvent or were otherwise unable to pay us, our business, financial condition, and results of operations would be materially adversely affected.

Our business, financial condition, and results of operations could be materially adversely affected by climate change initiatives.

Our manufacturing processes require that we purchase significant quantities of energy from third parties, which results in the generation of greenhouse gases, either directly on-site or indirectly at electric utilities. Both domestic and international legislation to address climate change by reducing greenhouse gas emissions could create increases in energy costs and price volatility. Considerable international attention is now focused on development of an international policy framework to guide international action to address climate change. Proposed and existing legislative efforts to control or limit greenhouse gas emissions could affect our energy sources and supply choices, as well as increase the cost of energy and raw materials that are derived from sources that generate greenhouse gas emissions.

Competition in the PCB market is intense, and we could lose market share, or our profit margins may decrease, if we are unable to maintain our current competitive position in end markets using our quick-turn, high technology, and high-mix manufacturing services.

The PCB industry is intensely competitive, highly fragmented, and rapidly changing. We expect competition to continue, which could result in price reductions, reduced gross margins, and loss of market share. In addition, we increasingly compete on an international basis, and new and emerging technologies may result in new competitors entering our markets.

Some of our competitors and potential competitors have advantages over us, including:

- greater financial and manufacturing resources that can be devoted to the development, production, and sale of their products;
- more established and broader sales and marketing channels;

- more manufacturing facilities worldwide, some of which are closer in proximity to OEMs;
- manufacturing facilities that are located in countries with lower production costs;
- lower capacity utilization, which in peak market conditions can result in shorter lead times to customers;
- ability to add additional capacity faster or more efficiently;
- preferred vendor status with existing and potential customers;
- greater name recognition; and
- larger customer bases.

In addition, these competitors may respond more quickly to new or emerging technologies or adapt more quickly to changes in customer requirements than we do. We must continually develop improved manufacturing processes to meet our customers' needs for complex products, and our manufacturing process technology is generally not subject to significant proprietary protection. During recessionary periods in the electronics industry, our strategy of providing quick-turn services, an integrated manufacturing solution, and responsive customer service may take on reduced importance to our customers. As a result, we may need to compete more on the basis of price, which would cause our gross margins to decline.

We and some of our competitors have reduced average selling prices in the past. In addition, competitors may reduce their average selling prices faster than our ability to reduce costs, which can also accelerate the rate of decline of our selling prices. When prices decline, we may also be required to write down the value of our inventory.

If we are unable to adapt our design and production processes in response to rapid technological change and process development, we may not be able to compete effectively.

The markets for our products and manufacturing services are characterized by rapidly changing technology and continual implementation of new designs and production processes. The future success of our business will depend in large part upon our ability to maintain and enhance our technological capabilities, to design and manufacture products that meet changing customer needs, and to successfully anticipate or respond to technological changes on a cost-effective and timely basis. We expect that the investment necessary to maintain our technological position will increase as customers make demands for products and services requiring more advanced technology on a quicker turnaround basis. For example, in 2022 in our PCB segment, we expect to continue to make significant capital expenditures to expand our HDI, RF technology, and other advanced manufacturing capabilities while in our RF&S Components segment, we are designing products that we hope our customers adopt and incorporate into their products. We may not be able to obtain access to additional sources of funds in order to respond to technological changes as quickly as our competitors. In addition, our failure to adopt and implement technological improvements quickly may cause inefficiencies in our production process as our product yields or quality may decrease, resulting in increased costs, and may lead to customers not adopting our product designs.

We also could encounter competition from new or revised manufacturing, production and design technologies that render existing manufacturing, production, and design technology less competitive or obsolete. We may not respond effectively to the technological requirements of the changing market. If we need new technologies and equipment or if we are not able to design new products acceptable to customers to remain competitive, the development, acquisition, and implementation of those designs, technologies and equipment may require us to make significant capital investments.

Products we manufacture may contain design or manufacturing defects, which could result in reduced revenue from the sale of our products or services and may result in liability claims against us.

We manufacture products to our customers' specifications, which are highly complex and may contain design or manufacturing errors or failures, despite our quality control and quality assurance efforts. Defects in the products we manufacture, whether caused by a design, manufacturing, or materials failure or error, may result in delayed shipments, customer dissatisfaction, a reduction or cancellation of purchase orders, or liability claims against us. If these defects occur either in large quantities or too frequently, our business reputation may be impaired, and our customers may decrease the orders for products or services that they purchase from us, thereby decreasing our overall revenue. Since our products are used in products that are integral to our customers' businesses, errors, defects, or other performance problems could result in financial or other damages to our customers beyond the cost of the PCB, for which we may be liable. Although our invoices and sales arrangements generally contain provisions designed to limit our exposure to product liability and related claims, existing or future laws or unfavorable judicial decisions could negate these limitation of liability provisions. In addition, we manufacture products for a range of automotive customers. If any of our products are or are alleged to be defective, we may be required to participate in a recall of such products. As suppliers become more integral to the vehicle design process and assume more of the vehicle assembly functions, vehicle manufacturers are increasingly looking to their suppliers for contributions when faced with product liability claims or recalls. In addition, vehicle manufacturers, which have traditionally borne the costs associated with warranty programs offered on their vehicles, are increasingly requiring suppliers to guarantee or warrant their products and may seek to hold us responsible for some or all of the costs related to the repair and replacement of parts supplied by us to the vehicle manufacturer.

Infringement of our intellectual property rights could negatively affect us, and we may be exposed to intellectual property infringement claims from third parties that could be costly to defend, could divert management's attention and resources, and if successful, could result in liability.

We rely on a combination of copyright, patent, trademark, trade secret laws, confidentiality procedures, contractual provisions, and other measures to establish and protect our proprietary and confidential information. All of these measures afford only limited protection. These measures may be invalidated, circumvented, breached, or challenged, and others may develop intellectual property, technologies or processes that are similar, or superior to, our intellectual property or technology. We may not have adequate controls and procedures in place to protect our proprietary and confidential information. Despite our efforts to protect our intellectual property and proprietary rights, unauthorized parties may attempt to copy and succeed in copying our products or may obtain or use information that we regard as proprietary or confidential. If it becomes necessary for us to resort to litigation to protect our intellectual property rights, any proceedings could be burdensome, costly, and distracting to management, and we may not prevail. Further, adequate remedies may not be available in the event of an unauthorized use or disclosure of our proprietary or confidential information. Failure to successfully establish or enforce our intellectual property rights could materially and adversely affect our business, financial condition, and results of operations. Furthermore, there is a risk that we may infringe on the intellectual property rights of others. As is the case with many other companies in the PCB industry, we from time to time receive communications from third parties asserting patent rights over our products and enter into discussions with such third parties. Irrespective of the validity or the successful assertion of such claims, we could incur costs in either defending or settling any intellectual property disputes alleging infringement. If any claims, regardless of whether they have merit, are brought against our customers for such infringement, we could be required to expend significant resources in defending such claims, developing non-infringing alternatives, or obtaining licenses. We may not be successful in developing such alternatives or in obtaining such licenses on reasonable terms, or at all, and may be required to modify or cease marketing our products or services, which could disrupt the production processes, damage our reputation, and materially and adversely affect our business, financial condition, and results of operations.

Foreign laws may not afford us sufficient protections for our intellectual property, and we may not be able to obtain patent protection outside of the United States.

Certain nations that we operate in may not grant us certain intellectual property rights that are customarily granted in more developed legal systems. Patent law reform in the United States and other countries may also weaken our ability to enforce our patent rights or make such enforcement financially unattractive. For example, despite continuing international pressure on the Chinese government, intellectual property rights protection continues to present significant challenges to foreign investors and, increasingly, Chinese companies. Chinese commercial law is considered by some to be relatively undeveloped compared to the commercial law in our other major markets and only limited protection of intellectual property is available in China as a practical matter. Although we have taken precautions in the operations of our Chinese subsidiaries and in our joint venture agreement to protect our intellectual property, any local design or manufacture of products that we undertake in China could subject us to an increased risk that unauthorized parties will be able to copy or otherwise obtain or use our intellectual property, which could harm our business. We may also have limited legal recourse in the event we encounter patent or trademark infringement. Uncertainties with respect to the Chinese legal system may adversely affect the operations of our Chinese subsidiaries. China has put in place a comprehensive system of intellectual property laws; however, incidents of infringement are relatively common, and enforcement of rights can, in practice, be difficult. If we are unable to manage our intellectual property rights, our business and operating results may be seriously harmed.

Damage to any of our manufacturing facilities due to fire, natural disaster, or other events could materially adversely affect our business, financial condition, and results of operations.

The destruction or closure of any of our facilities for a significant period of time as a result of fire, explosion, blizzard, act of war or terrorism, flood, tornado, earthquake, lightning, other natural disasters, required maintenance, or other events could harm us financially, increasing our costs of doing business and limiting our ability to deliver our manufacturing services on a timely basis.

Our insurance coverage with respect to damages to our facilities or our customers' products caused by natural disasters is limited and is subject to deductibles and coverage limits. Such coverage may not be adequate or continue to be available at commercially reasonable rates and terms.

In the event one or more of our facilities is closed on a temporary or permanent basis as a result of a natural disaster, required maintenance or other event, our operations could be significantly disrupted. Such events could delay or prevent product manufacturing and shipment for the time required to transfer production or repair, rebuild, or replace the affected manufacturing facilities. This time frame could be lengthy and result in significant expenses for repair and related costs. While we have disaster recovery plans in place, there can be no assurance that such plans will be sufficient to allow our operations to continue in the event of every natural or man-made disaster, required repair or other extraordinary event. Any extended inability to continue our operations at unaffected facilities following such an event would reduce our revenue and potentially damage our reputation as a reliable supplier.

Risks Related to our Indebtedness

We have substantial outstanding indebtedness, and our outstanding indebtedness could adversely impact our liquidity and flexibility in obtaining additional financing, our ability to fulfill our debt obligations and our financial condition and results of operations.

We have substantial debt and, as a result, we have significant debt service obligations. We maintain $405.9 million outstanding in a Term Loan Facility due 2024 (Term Loan Facility) at a floating rate of LIBOR plus 2.5%, $500.0 million of Senior Notes due 2029 (Senior Notes due 2029) at an interest rate of 4.0%, and $30.0 million outstanding under a $150.0 million Asia Asset-Based Lending Credit Agreement (Asia ABL). We and a number of our direct and indirect subsidiaries also have various credit facilities and letters of credit. Such agreements also contain certain financial covenants which require us to maintain, under the occurrence of certain events, a consolidated fixed charge coverage ratio.

Subject to the limits contained in the credit agreements governing the Term Loan Facility, the U.S. Asset-Based Lending Credit Agreement (U.S. ABL), the Asia ABL, the indenture governing the Senior Notes due 2029, and our other debt instruments, we may be able to incur substantial additional debt from time to time to finance working capital, capital expenditures, investments, or acquisitions, or for other purposes. If we do so, the risks related to our high level of debt could intensify. Specifically, our high level of debt could have important consequences to us and our shareholders. For example, it could:

- make it more difficult for us to satisfy our obligations with respect to our indebtedness, which could in turn result in an event of default on such indebtedness;
- require us to use a substantial portion of our cash flow from operations for debt service payments, thereby reducing the availability of cash for working capital, capital expenditures, acquisitions and other general corporate purposes;
- impair our ability to obtain additional financing in the future for working capital, capital expenditures, acquisitions and other investments or general corporate purposes, which may limit our ability to execute our business strategy;
- diminish our ability to withstand a downturn in our business, the industry in which we operate or the economy generally and restrict us from exploiting business opportunities or making acquisitions;
- limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate or the general economy;
- increase our vulnerability to general adverse economic and industry conditions, including increases in interest rates, that result in increased borrowing costs;
- limit management's discretion in operating our business; and
- place us at a competitive disadvantage as compared to our competitors that have less debt as it could limit our ability to capitalize on future business opportunities and to react to competitive pressures or adverse changes.

In addition, the indenture governing the Senior Notes due 2029 and the credit agreements governing the Term Loan Facility, the U.S. ABL and the Asia ABL contain restrictive covenants that will limit our ability to engage in activities that may be in our long-term best interest. Our failure to comply with those covenants could result in an event of default which, if not cured or waived, could result in the acceleration of all our debt.

Furthermore, we and our subsidiaries may decide to incur significant additional indebtedness in the future. Although the indenture governing the Senior Notes due 2029 and the credit agreements governing the Term Loan Facility, the U.S. ABL and the Asia ABL will contain restrictions on the incurrence of additional indebtedness, these restrictions are subject to a number of qualifications and exceptions, and the additional indebtedness incurred in compliance with these restrictions could be substantial. These restrictions also will not prevent us from incurring obligations that do not constitute indebtedness.

Our variable rate indebtedness subjects us to interest rate risk, which could cause our debt service obligations to increase significantly.

The $405.9 million outstanding we maintain in our Term Loan Facility and the $30.0 million borrowed under our Asia ABL are subject to interest at a floating rate of LIBOR plus a margin, and as a result, we have exposure to interest rate risk. Certain central banks, such as the U.S. Federal Reserve, have effected multiple interest rate increases in 2022 and have signaled that further rate increases are likely to be implemented later in 2022. Increases in interest rates increase our cost of borrowing and/or potentially make it more difficult to refinance our existing indebtedness, if necessary. At times, we have sought to reduce our exposure to interest rate fluctuations by entering into interest rate hedging arrangements. Our four-year pay-fixed, receive floating (1-month LIBOR) interest rate swap arrangement ended on June 1, 2022, and we do not currently expect to enter into a new interest rate swap arrangement. As a result, as interest rates increase we will likely need to dedicate more of our cash flow from operations to service our debt obligations. See *Quantitative and Qualitative Disclosures About Market Risk* and *Interest Rate Risks* appearing in Part 1, Item 3 of this Quarterly Report on Form 10-Q for further information.

Servicing our debt requires a significant amount of cash and we may not be able to generate sufficient cash to service all of our debt and may be forced to take other actions to satisfy our obligations under our debt, which may not be successful.

Based on certain parameters defined in the Term Loan Facility, including a First Lien Leverage Ratio, we may be required to make an additional principal payment on an annual basis if our First Lien Leverage Ratio is greater than 2.0.

Our ability to make scheduled payments on or to refinance our debt obligations and to fund planned capital expenditures and expansion efforts depends on our ability to generate cash in the future and our financial condition and operating performance, which are subject to prevailing economic and competitive conditions and to certain regulatory, competitive, financial, business, and other factors beyond our control. We cannot assure you that we will maintain a level of cash flows from operating activities sufficient to permit us to pay the principal, premium, if any, and interest on our debt.

If our cash flows and capital resources are insufficient to fund our debt service obligations, we could face substantial liquidity problems and could be forced to reduce or delay investments and capital expenditures or to dispose of material assets or operations, seek additional capital (which could include obtaining additional equity capital on terms that may be onerous or highly dilutive) or restructure or refinance our indebtedness. We may not be able to effect any such alternative measures, if necessary, on commercially reasonable terms or at all and, even if successful, those alternative actions may not allow us to meet our scheduled debt service obligations. The credit agreements governing the Term Loan Facility, the U.S. ABL and the Asia ABL and the indenture governing the Senior Notes due 2029 restrict our ability to dispose of assets and use the proceeds from those dispositions and may also restrict our ability to raise debt or equity capital to be used to repay other indebtedness when it becomes due. We may not be able to consummate those dispositions or to obtain proceeds in an amount sufficient to meet any debt service obligations then due.

In addition, we conduct certain of our operations through our subsidiaries. Accordingly, repayment of our indebtedness may be dependent on the generation of cash flow by our subsidiaries and their ability to make such cash available to us, by dividend, debt repayment or otherwise. Unless they are guarantors of the Senior Notes due 2029 or our other indebtedness, our subsidiaries do not have any obligation to pay amounts due on our indebtedness or to make funds available for that purpose. Our subsidiaries may not be able to, or may not be permitted to, make distributions to enable us to make payments in respect of our indebtedness. Each subsidiary is a distinct legal entity, and under certain circumstances, legal and contractual restrictions may limit our ability to obtain cash from our subsidiaries. While the indenture governing the Senior Notes due 2029 and the credit agreements governing the Term Loan Facility, the U.S. ABL and the Asia ABL limit the ability of our subsidiaries to incur consensual restrictions on their ability to pay dividends or make other intercompany payments to us, these limitations are subject to qualifications and exceptions. In the event that we do not receive distributions from our subsidiaries, we may be unable to make required principal and interest payments on our indebtedness.

Our inability to generate sufficient cash flows to satisfy our debt obligations, or to refinance our indebtedness on commercially reasonable terms or at all, would materially and adversely affect our financial position and results of operations and our ability to satisfy our obligations under our indebtedness.

If we cannot make scheduled payments on our debt, we will be in default and holders of the Senior Notes due 2029 could declare all outstanding principal and interest to be due and payable, the lenders under the Term Loan Facility, the U.S. ABL and the Asia ABL could terminate their commitments to loan money, the lenders could foreclose against the assets securing their borrowings and we could be forced into bankruptcy or liquidation.

Regulatory Risks

Because of periodic power shortages in China, we may have to temporarily close our China operations, which would adversely impact our ability to manufacture our products, meet customer orders, and result in reduced revenues.

China is facing a generally persistent and growing power supply shortage. Instability in electrical supply can cause sporadic outages among residential and commercial consumers. As a result, the Chinese government from time to time has implemented power restrictions to ease the energy shortage. If we are required to make temporary closures of our facilities in China at any time, we may be unable to manufacture our products, and would then be unable to meet customer orders except from inventory on hand. As a result, we could lose sales, adversely impacting our revenues, and our relationships with our customers could suffer, impacting our ability to generate future sales.

We are subject to the requirements of the National Industrial Security Program Operating Manual (NISPOM) for our facility security clearance, which is a prerequisite to our ability to perform on classified contracts for the U.S. government.

A facility security clearance is required in order to be awarded and perform on classified contracts for the Department of Defense and certain other agencies of the U.S. government. As a cleared entity, we must comply with the requirements of the NISPOM, and any other applicable U.S. government industrial security regulations. Further, due to the fact that a portion of our voting equity is owned by a non-U.S. entity, we are required to be governed by and operate in accordance with the terms and requirements of a Special Security Agreement (SSA). The terms of the SSA have been previously disclosed in our SEC filings.

If we were to violate the terms and requirements of the SSA, the NISPOM, or any other applicable U.S. government industrial security regulations (which may apply to us under the terms of classified contracts), we could lose our security clearance. We cannot be certain that we will be able to maintain our security clearance. If for some reason our security clearance is invalidated or terminated, we may not be able to continue to perform on classified contracts and would not be able to enter into new classified contracts, which could materially adversely affect our business, financial condition, and results of operations.

Our operations in China and Hong Kong subject us to risks and uncertainties relating to the laws and regulations of China and Hong Kong.

Under its current leadership, the government of China has been pursuing economic reform policies, including the encouragement of foreign trade and investment. No assurance can be given, however, that the government of China will continue to pursue such policies, that such policies will be successful if pursued, or that such policies will not be significantly altered from time to time, particularly in light of the increasingly tense trade climate with the United States. Despite progress in developing its legal system, China does not have a comprehensive and highly developed system of laws, particularly with respect to foreign investment activities and foreign trade. Enforcement of existing and future laws and contracts is uncertain, and implementation and interpretation thereof may be inconsistent. As the Chinese legal system develops, the promulgation of new laws, changes to existing laws, and the preemption of local regulations by national laws may adversely affect foreign investors. Further, any litigation in China may be protracted and may result in substantial costs and diversion of resources and management's attention. Also, the evolving landscape of the interrelation between China and Hong Kong may have an adverse impact on our operations in Hong Kong and may impact our ability to attract and maintain necessary talent in that area. In addition, though changes in government policies and rules are timely published or communicated, there is usually no indication of the duration of any grace period before which full implementation and compliance will be required. As a result, it is possible that we might operate our business in violation of new rules and policies before full compliance can be achieved. These uncertainties could limit the legal protections available to us and adversely impact our results of operations.

Our failure to comply with the requirements of environmental laws could result in litigation, fines, revocation of permits necessary to our manufacturing processes, or debarment from our participation in federal government contracts.

Our operations are regulated under a number of domestic and foreign environmental and safety laws and regulations that govern, among other things, the discharge of hazardous materials into the air and water, as well as the handling, storage, recycling, and disposal of such materials. These laws and regulations include the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, the Superfund Amendment and Reauthorization Act, the Comprehensive Environmental Response, Compensation and Liability Act, the Toxic Substances Control Act, and the Federal Motor Carrier Safety Improvement Act, as well as analogous state, local, and foreign laws. Compliance with these environmental laws is a major consideration for us because our manufacturing processes use and generate materials classified as hazardous. Because we use hazardous materials and generate hazardous wastes in our manufacturing processes, we may be subject to potential financial liability for costs associated with the investigation and remediation of our own sites, or sites at which we have arranged for the disposal of hazardous wastes, if such sites become contaminated. Even if we fully comply with applicable environmental laws and are not directly at fault for the contamination, we may still be liable. The wastes we generate include spent ammoniacal and cupric etching solutions, metal stripping solutions, waste acid solutions, waste alkaline cleaners, waste oil, and waste waters that contain heavy metals such as copper, tin, lead, nickel, gold, silver, cyanide, and fluoride, and both filter cake and spent ion exchange resins from equipment used for on-site waste treatment.

Environmental law violations, including the failure to maintain required environmental permits, could subject us to fines, penalties, and other sanctions, including the revocation of our effluent discharge permits. This could require us to cease or limit production at one or more of our facilities and could have a material adverse effect on our business, financial condition, and results of operations. Even if we ultimately prevail, environmental lawsuits against us would be time consuming and costly to defend.

Environmental laws have generally become more stringent, and we expect this trend to continue over time, especially in developing countries, imposing greater compliance costs, and increasing risks and penalties associated with violation. We operate in environmentally sensitive locations, and we are subject to potentially conflicting and changing regulatory agendas of political, business, and environmental groups. Changes or restrictions on discharge limits, emissions levels, material storage, handling, or disposal might require a high level of unplanned capital investment or relocation to another global location where prohibitive regulations do not exist. It is possible that environmental compliance costs and penalties from new or existing regulations may materially adversely affect our business, financial condition, and results of operations.

We are increasingly required to certify compliance with various material content restrictions in our products based on laws of various jurisdictions or territories such as the Restriction of Hazardous Substances (RoHS) and Registration, Evaluation, Authorization and Restriction of Chemicals, or REACH directives in the European Union and China's RoHS legislation. Similar laws have been adopted in other jurisdictions and may become increasingly prevalent. In addition, we must also certify as to the non-applicability of the EU's Waste Electrical and Electronic Equipment directive for certain products that we manufacture. The REACH directive requires the identification of Substances of Very High Concern, or SVHCs periodically. We must survey our supply chain and certify to the non-presence or presence of SVHCs to our customers. As with other types of product certifications that we routinely provide, we may incur liability and pay damages if our products do not conform to our certifications.

We are also subject to an increasing variety of environmental laws and regulations in China, which impose limitations on the discharge of pollutants into the air and water and establish standards for the treatment, storage, and disposal of solid and hazardous wastes for us and our vendors that assist us in managing the waste generated by our manufacturing processes. The manufacturing of our products generates gaseous chemical wastes, liquid wastes, wastewater, and other industrial wastes from various stages of the manufacturing process. Production sites, waste collectors, and vendors in China are subject to increasing regulation and periodic monitoring by the relevant environmental protection authorities. Environmental claims or the failure to comply with current or future regulations could result in the assessment of damages or imposition of fines against us, suspension of production, or cessation of operations.

The process to manufacture PCBs requires adherence to city, county, state, federal, and foreign environmental laws and regulations regarding the storage, use, handling, and disposal of chemicals, solid wastes, and other hazardous materials, as well as compliance with wastewater and air quality standards. We rely on our vendors for the transportation and disposal of our solid and hazardous wastes generated by our manufacturing processes. If we are not able to find such services, our ability to conduct our business and our results of operations may be adversely impacted. In China, the government has a history of changing legal requirements with no or minimal notice. We believe that our facilities in China comply in all material respects with current applicable environmental laws and regulations and have resources in place to maintain compliance to them. The capital expenditure costs expected for environmental improvement initiatives are included in our annual capital expenditure projections.

Our international sales are subject to laws and regulations relating to corrupt practices, trade, and export controls and economic sanctions. Any non-compliance could have a material adverse effect on our business, financial condition, and results of operations.

We operate on a global basis and are subject to anti-corruption, anti-bribery, and anti-kickback laws and regulations, including restrictions imposed by the Foreign Corrupt Practices Act (FCPA). The FCPA and similar anti-corruption, anti-bribery, and anti-kickback laws in other jurisdictions generally prohibit companies and their intermediaries and agents from making improper payments to government officials or any other persons for the purpose of obtaining or retaining business. We operate and sell our products in many parts of the world that have experienced governmental corruption to some degree and, in certain circumstances, strict compliance with anti-corruption, anti-bribery, and anti-kickback laws may conflict with local customs and practices. We also, from time to time, undertake business ventures with state-owned companies or enterprises.

Our global business operations must also comply with all applicable domestic and foreign export control laws, including International Traffic In Arms Regulations (ITAR) and Export Administration Regulations (EAR). Some items we manufacture are controlled for export by the U.S. Department of Commerce's Bureau of Industry and Security under EAR.

We train our employees concerning anti-corruption, anti-bribery, and anti-kickback laws and compliance with international regulations regarding trades and exports, and we have policies in place that prohibit employees from making improper payments. We cannot provide assurances that our internal controls and procedures will guarantee compliance by our employees or third parties with whom we work. If we are found to be liable for violations of the FCPA or similar anti-corruption, anti-bribery, or anti-kickback laws in international jurisdictions or for violations of ITAR, EAR, or other similar regulations regarding trades and exports, either due to our own acts or out of inadvertence, or due to the inadvertence of others, we could suffer criminal or civil fines or penalties or other repercussions, including reputational harm, which could have a material adverse effect on our business, financial condition, and results of operations.

Our global business operations also must be conducted in compliance with applicable economic sanction laws and regulations, such as laws administered by the U.S. Department of the Treasury's Office of Foreign Asset Control, the U.S. State Department, and the U.S. Department of Commerce. We must comply with all applicable economic sanction laws and regulations of the United States and other countries. Imposition of economic sanction laws and regulations on a company or country could impact our revenue levels. Violations of these laws or regulations could result in significant additional sanctions including criminal or civil fines or penalties, more onerous compliance requirements, more extensive debarments from export privileges, or loss of authorizations needed to conduct aspects of our international business.

In certain countries, we may engage third-party agents or intermediaries, such as customs agents, to act on our behalf, and if these third-party agents or intermediaries violate applicable laws, their actions may result in criminal or civil fines or penalties or other sanctions being assessed against us. We take specific measures designed to ensure our compliance with U.S. export and economic sanctions laws, anti-corruption laws and regulations, and export control laws. However, it is possible that some of our products were sold or will be sold to distributors or other parties, without our knowledge or consent, in violation of applicable law. There can be no assurances that we will be in compliance in the future. Any such violation could result in significant criminal or civil fines, penalties, or other sanctions and repercussions, including reputational harm, which could have a material adverse effect on our business, financial condition, and results of operations.

Other Risks

We may need additional capital in the future to fund investments in our operations, refinance our indebtedness, and to maintain and grow our business, and such capital may not be available on a timely basis, on acceptable terms, or at all.

Our business is capital-intensive, and our ability to increase revenue, profit, and cash flow depends upon continued capital spending. To the extent that the funds generated by our ongoing operations are insufficient to cover our liquidity requirements, we may need to raise additional funds through financings. If we are unable to fund our operations and make capital expenditures as currently planned or if we do not have sufficient liquidity to service the interest and principal payments on our debt, it would have a material adverse effect on our business, financial condition, and results of operations. If we do not achieve our expected operating results, we would need to reallocate our sources and uses of operating cash flows. This may include borrowing additional funds to service debt payments, which may impair our ability to make investments in our business. Looking ahead at long-term needs, we may need to raise additional funds for a number of purposes, including the following:

- to fund capital equipment purchases to increase production capacity, upgrade and expand our technological capabilities and replace aging equipment or introduce new products;
- to refinance our existing indebtedness;
- to fund our current or planned operations;
- to fund potential acquisitions or strategic relationships;
- to fund working capital requirements for future growth that we may experience;
- to enhance or expand the range of services we offer;
- to increase our sales and marketing activities;
- to respond to competitive pressures or perceived opportunities, such as investment, acquisition, and international expansion activities; or
- to fund our initiatives set forth in our ESG policies and practices.

Should we need to raise funds through incurring additional debt, we may become subject to covenants even more restrictive than those contained in our current debt instruments. There can be no assurance that additional capital, including any future equity or debt financing, would be available on a timely basis, on favorable terms, or at all. If such funds are not available to us when required or on acceptable terms, our business, financial condition, and results of operations could be materially adversely affected.

Outages, computer viruses, cyber-attacks, and similar events could disrupt our operations, and breaches of our security systems may cause us to incur significant legal and financial exposure.

We rely on information technology networks and systems, some of which are owned and operated by third parties, to collect, process, transmit, and store electronic information. In particular, we depend on our information technology infrastructure for a variety of functions, including worldwide financial reporting, inventory management, procurement, invoicing, and email communications. Any of these systems may be susceptible to outages due to fire, floods, power loss, telecommunications failures, hacking, terrorist attacks, and similar events. In addition, in the ordinary course of our business, we collect and store sensitive data in our data centers and on our networks, including intellectual property, our proprietary and confidential business information and that of our customers, suppliers and business partners, and personally identifiable information of our employees. The secure collection, processing, storage, maintenance and transmission of this information is critical to our operations. Despite the implementation of network security measures, our systems and those of third parties on which we rely may also be vulnerable to computer viruses, break-ins, cyber-attacks, attacks by hackers or breaches due to employee or third party (including suppliers and business partners) error, malfeasance, or other disruptions. If we or our vendors are unable to prevent such outages and breaches, our operations could be disrupted. If unauthorized parties gain access to our information systems or such information is used in an unauthorized manner, misdirected, altered, lost, or stolen during transmission, any theft or misuse of such information could result in, among other things, unfavorable publicity, governmental inquiry and oversight, difficulty in marketing our services, allegations by our customers that we have not performed our contractual obligations, loss of customers, litigation by affected parties, and possible financial obligations for damages related to the theft or misuse of such information, any of which could have a material adverse effect on our business, financial condition, and results of operations.

Issues arising during the upgrade of our enterprise resource planning system could affect our operating results and ability to manage our business effectively.

We are continuing the process of upgrading our enterprise resource planning, or ERP, management system to enhance operating efficiencies and provide more effective management of our business operations. We are investing significant financial and personnel resources into this project. However, there is no assurance that the system upgrade will meet our current or future business needs or that it will operate as designed. The transition to the new ERP system will affect numerous systems necessary for our operation. If we fail to correctly implement one or more components of the ERP system, we could experience significant disruption to our operations. Such disruptions could include, among other things, temporary loss of data, inability to process certain orders, failure of systems to communicate with each other and the inability to track or reconcile key data. We are heavily dependent on automated management systems, and any significant failure or delay in the system upgrade could cause a substantial interruption to our business and additional expense, which could result in an adverse impact on our operating results, cash flows or financial condition.

Our ability to use net operating loss carryforwards to offset future taxable income for U.S. federal, state and foreign income tax purposes is subject to limitations, and future transfers of shares of our common stock could cause us to experience an "ownership change" that could further limit our ability to utilize our net operating losses.

Under U.S. federal income tax law, a corporation's ability to utilize its net operating losses (NOLs) to offset future taxable income may be significantly limited if it experiences an "ownership change" as defined in Section 382 of the Internal Revenue Code of 1986, as amended. In general, an ownership change will occur if there is a cumulative change in a corporation's ownership by "5-percent shareholders" that exceeds 50 percentage points over a rolling three-year period.

A corporation that experiences an ownership change will generally be subject to an annual limitation on its pre-ownership change NOLs equal to the value of the corporation immediately before the ownership change, multiplied by the long-term tax-exempt rate (subject to certain adjustments). The annual limitation for a taxable year is generally increased by the amount of any "recognized built-in gains" for such year and the amount of any unused annual limitation in a prior year. As a result of our acquisition of Viasystems, the NOLs acquired were subject to this limitation. Future transfers or sales of our common stock during a rolling three-year period by any of our "5-percent shareholders" could cause us to experience an ownership change under Section 382, which could further limit our use of NOL.

If our net earnings do not remain at or above recent levels, or we are not able to predict with a reasonable degree of probability that they will continue, we may have to record a valuation allowance against our net deferred income tax assets.

Our U.S. entities and certain of our foreign subsidiaries have deferred income tax assets. Based on our forecast for future taxable earnings, we believe we will utilize the deferred income tax assets in future periods except with respect to certain amounts where we have recorded valuation allowances. If our estimates of future earnings decline, we may have to increase our valuation allowance against our deferred income tax assets, resulting in a higher income tax provision, which would reduce our results of operations.

Unanticipated changes in our tax rates or in our assessment of the realizability of our deferred income tax assets or exposure to additional income tax liabilities could affect our business, financial condition, and results of operations.

We are subject to income taxes in the United States and various foreign jurisdictions. Significant judgment is required in determining our provision for income taxes and, in the ordinary course of business, there are many transactions and calculations in which the ultimate tax determination is uncertain. Our effective tax rates could be materially adversely affected by changes in the mix of earnings in countries and states with differing statutory tax rates, changes in the valuation of deferred income tax assets and liabilities, changes in tax laws, as well as other factors. Our tax determinations are regularly subject to audit by tax authorities, and developments in those audits could adversely affect our income tax provision. Although we believe that our tax estimates are reasonable, the final determination of tax audits or tax disputes may be different from what is reflected in our historical income tax provisions, which could materially adversely affect our business, financial condition, and results of operations.

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

The following table provides information about repurchases by us of shares of our common stock during the quarter ended July 4, 2022:

	Total Number of Shares Purchased	Average Price Paid per Share(1)	Total Number of Shares Purchased As Part of Publicly Announced Program(2)	Maximum Value of Shares that May Yet be Purchased Under the Program(2)
	(In thousands, except average price paid per share)			
April 5, 2022 - May 2, 2022	362	$ 13.86	362	$ 175
May 3, 2022 - May 30, 2022	12	14.20	12	—
May 31, 2022 - July 4, 2022	—	—	—	—
Total for the quarter ended July 4, 2022	374	$ 13.87	374	

(1) Includes commissions.
(2) On February 3, 2021, we announced that our Board of Directors authorized and approved a share repurchase program. Under the program, we may repurchase up to $100.0 million in value of our outstanding shares of common stock from time to time through February 3, 2023. As of July 4, 2022, there are no amounts available for repurchase.

Item 6. *Exhibits*

Exhibit Number	Exhibits
2.1	Stock Purchase Agreement, dated as of April 18, 2022, by and among TTM Technologies, Inc., Griffon Corporation, and Exphonics, Inc. (1)
3.1(a)	Registrant's Certificate of Incorporation, as amended June 3, 2011 (2(a))
3.1(b)	Registrant's Certificate of Amendment of Certificate of Incorporation, dated May 12, 2016 (2(b))
3.2	Registrant's Fifth Amended and Restated Bylaws, as amended August 3, 2021 (3)
31.1*	CEO Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2*	CFO Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1*	CEO Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2*	CFO Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File 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 Documents
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Documents
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Documents
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Documents
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)

(1) Incorporated by reference to the Registrant's Current Report on Form 8-K as filed with the Commission on June 27, 2022.

(2) Incorporated by reference (a) to the Registrant's Current Report on Form 8-K as filed with the Commission on June 6, 2011 and (b) to the Registrant's Current Report on Form 8-K as filed with the Commission on May 18, 2016.

(3) Incorporated by reference to the Registrant's Current Report on Form 10-Q as filed with the Commission on August 4, 2021.

* Filed herewith

SIGNATURES

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.

TTM Technologies, Inc.

/s/ Thomas T. Edman

Dated: August 10, 2022

Thomas T. Edman
President and Chief Executive Officer

/s/ Todd B. Schull

Dated: August 10, 2022

Todd B. Schull
Executive Vice President and Chief Financial Officer

Exhibit 31.1

CERTIFICATION

I, Thomas T. Edman, certify that:

1. I have reviewed this quarterly report on Form 10-Q of TTM Technologies, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Thomas T. Edman

Thomas T. Edman
President and Chief Executive Officer
(Principal Executive Officer)

August 10, 2022

Exhibit 31.2

CERTIFICATION

I, Todd B. Schull, certify that:

1. I have reviewed this quarterly report on Form 10-Q of TTM Technologies, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Todd B. Schull

Todd B. Schull
Executive Vice President and Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

August 10, 2022

Exhibit 32.1

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

In connection with the Quarterly Report on Form 10-Q of TTM Technologies, Inc. (the "Company") for the quarter and two quarters ended July 4, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Thomas T. Edman, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a) or 78o(d)); and

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

By: /s/ Thomas T. Edman

Thomas T. Edman
President and Chief Executive Officer
(Principal Executive Officer)

August 10, 2022

Exhibit 32.2

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

In connection with the Quarterly Report on Form 10-Q of TTM Technologies, Inc. (the "Company") for the quarter and two quarters ended July 4, 2022, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Todd B. Schull, Executive Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a) or 78o(d)); and

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

By: /s/ Todd B. Schull

Todd B. Schull
Executive Vice President and Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

August 10, 2022