UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

Form 10-Q

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

For the quarterly period ended September 27, 2021

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 October 29, 2021: 104,358,560

TABLE OF CONTENTS

PART I. FINANCIAL INFORMATION

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

TTM TECHNOLOGIES, INC.

Consolidated Condensed Balance Sheets
As of September 27, 2021 and December 28, 2020

	As of	
	September 27, 2021	December 28, 2020
	(Unaudited) (In thousands, except par value)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 529,816	$ 451,565
Accounts receivable, net	388,233	381,105
Contract assets	325,774	273,256
Inventories	140,055	115,651
Prepaid expenses and other current assets	39,470	27,181
Total current assets	1,423,348	1,248,758
Property, plant and equipment, net	669,736	650,435
Operating lease right-of-use assets	16,794	24,340
Goodwill	637,324	637,324
Definite-lived intangibles, net	250,319	281,307
Deposits and other non-current assets	50,110	53,780
Total assets	$ 3,047,631	$ 2,895,944
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 386,705	$ 327,102
Contract liabilities	2,376	4,254
Accrued salaries, wages and benefits	85,104	97,268
Other current liabilities	93,257	89,422
Total current liabilities	567,442	518,046
Long-term debt, net of discount and issuance costs	926,922	842,853
Operating lease liabilities	12,077	17,211
Other long-term liabilities	74,601	73,825
Total long-term liabilities	1,013,600	933,889
Commitments and contingencies (Note 14)		
Equity:		
Common stock, $0.001 par value; 300,000 shares authorized; 108,165 and 106,770 shares issued as of September 27, 2021 and December 28, 2020, respectively; 105,692 and 106,770 shares outstanding as of September 27, 2021 and December 28, 2020, respectively	108	107
Treasury stock – common stock at cost;2,473 shares as of September 27, 2021	(34,349)	—
Additional paid-in capital	835,662	830,971
Retained earnings	697,871	651,844
Accumulated other comprehensive loss	(32,703)	(38,913)
Total stockholders' equity	1,466,589	1,444,009
Total liabilities and stockholders' equity	$ 3,047,631	$ 2,895,944

See accompanying notes to consolidated condensed financial statements.

TTM TECHNOLOGIES, INC.

Consolidated Condensed Statements of Operations
For the Quarter and Three Quarters Ended September 27, 2021 and September 28, 2020

	Quarter Ended		Three Quarters Ended	
	September 27, 2021	September 28, 2020	September 27, 2021	September 28, 2020
	(Unaudited) (In thousands, except per share data)			
Net sales	$ 556,784	$ 513,576	$ 1,650,599	$ 1,581,520
Cost of goods sold	463,605	424,298	1,375,910	1,310,470
Gross profit	93,179	89,278	274,689	271,050
Operating expenses:				
Selling and marketing	15,858	15,895	46,745	48,033
General and administrative	32,389	29,086	95,109	110,476
Research and development	4,423	5,223	13,075	15,166
Amortization of definite-lived intangibles	8,274	10,126	26,837	29,249
Impairment of goodwill	—	69,200	—	69,200
Total operating expenses	60,944	129,530	181,766	272,124
Operating income (loss)	32,235	(40,252)	92,923	(1,074)
Other (expense) income:				
Interest expense	(11,147)	(20,204)	(33,615)	(58,557)
Loss on extinguishment of debt	—	—	(15,217)	—
Other, net	2,525	(2,316)	5,338	641
Total other expense, net	(8,622)	(22,520)	(43,494)	(57,916)
Income (loss) from continuing operations before income taxes	23,613	(62,772)	49,429	(58,990)
Income tax (provision) benefit	(2,655)	1,300	(3,402)	3,644
Net income (loss) from continuing operations	20,958	(61,472)	46,027	(55,346)
Income from discontinued operations, net of income taxes	—	20,021	—	193,921
Net income (loss)	$ 20,958	$ (41,451)	$ 46,027	$ 138,575
Earnings (loss) per share:				
Basic earnings (loss) per share from continuing operations	$ 0.20	$ (0.58)	$ 0.43	$ (0.52)
Basic earnings per share from discontinued operations	—	0.19	—	1.83
Basic earnings (loss) per share	$ 0.20	$ (0.39)	$ 0.43	$ 1.31
Diluted earnings (loss) per share from continuing operations	$ 0.19	$ (0.58)	$ 0.42	$ (0.52)
Diluted earnings per share from discontinued operations	—	0.19	—	1.83
Diluted earnings (loss) per share	$ 0.19	$ (0.39)	$ 0.42	$ 1.31

See accompanying notes to consolidated condensed financial statements.

TTM TECHNOLOGIES, INC.

Consolidated Condensed Statements of Comprehensive Income (Loss)
For the Quarter and Three Quarters Ended September 27, 2021 and September 28, 2020

	Quarter Ended		Three Quarters Ended	
	September 27, 2021	September 28, 2020	September 27, 2021	September 28, 2020
	(Unaudited) (In thousands)			
Net income (loss)	$ 20,958	$ (41,451)	$ 46,027	$ 138,575
Other comprehensive income (loss), net of tax:				
Pension obligation adjustments, net	30	(17)	59	4
Reclassification adjustment for foreign currency translation	—	(346)	—	(346)
Derecognition of foreign currency translation adjustments due to sale of Mobility business unit	—	—	—	(27,341)
Foreign currency translation adjustments, net	(51)	1,049	363	778
Derecognition of unrealized losses on cash flow hedge due to sale of Mobility business unit	—	—	—	384
Net unrealized gain (loss) on cash flow hedges:				
Unrealized gain (loss) on effective cash flow hedges during the period, net	116	(655)	(87)	(8,667)
Loss realized in the statement of operations, net	1,891	2,098	5,875	4,727
Net	2,007	1,443	5,788	(3,940)
Other comprehensive income (loss), net of tax	1,986	2,129	6,210	(30,461)
Comprehensive income (loss), net of tax	$ 22,944	$ (39,322)	$ 52,237	$ 108,114

See accompanying notes to consolidated condensed financial statements.

TTM TECHNOLOGIES, INC.

Consolidated Condensed Statements of Stockholders' Equity
For the Three Quarters Ended September 27, 2021

	Common Stock		Treasury Stock		Additional Paid-In	Retained	Accumulated Other Comprehensive	Total Stockholders'
	Shares	Amount	Shares	Amount	Capital	Earnings	Loss	Equity
	(Unaudited) (In thousands)							
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
Net income	—	—	—	—	—	20,958	—	20,958
Other comprehensive income	—	—	—	—	—	—	1,986	1,986
Issuance of common stock for restricted stock units	20	—	—	—	—	—	—	—
Repurchases of common stock	—	—	(2,114)	(28,971)	—	—	—	(28,971)
Fair value of warrants reclassified to warrant liabilities	—	—	—	—	(2,699)	—	—	(2,699)
Issuance of stock from warrant exercises	—	—	2	22	(22)	—	—	—
Stock-based compensation	—	—	—	—	4,944	—	—	4,944
Balance, September 27, 2021	108,165	$ 108	(2,473)	$ (34,349)	$ 835,662	$ 697,871	$ (32,703)	$ 1,466,589

See accompanying notes to consolidated condensed financial statements.

TTM TECHNOLOGIES, INC.

Consolidated Condensed Statements of Stockholders' Equity
For the Three Quarters Ended September 28, 2020

(Unaudited)

(In thousands)

	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
Balance, December 30, 2019	105,510	$ 106	$ 814,708	$ 474,309	$ (10,086)	$ 1,279,037
Net loss	—	—	—	(1,174)	—	(1,174)
Other comprehensive loss	—	—	—	—	(5,498)	(5,498)
Issuance of common stock for performance-based restricted stock units	187	—	—	—	—	—
Issuance of common stock for restricted stock units	520	—	—	—	—	—
Stock-based compensation	—	—	4,835	—	—	4,835
Balance, March 30, 2020	106,217	$ 106	$ 819,543	$ 473,135	$ (15,584)	$ 1,277,200
Net income	—	—	—	181,200	—	181,200
Other comprehensive loss	—	—	—	—	(27,092)	(27,092)
Issuance of common stock for restricted stock units	484	1	(1)	—	—	—
Stock-based compensation	—	—	2,647	—	—	2,647
Balance, June 29, 2020	106,701	$ 107	$ 822,189	$ 654,335	$ (42,676)	$ 1,433,955
Net loss	—	—	—	(41,451)	—	(41,451)
Other comprehensive income	—	—	—	—	2,129	2,129
Exercise of stock options	20	—	191	—	—	191
Issuance of common stock for restricted stock units	21	—	—	—	—	—
Stock-based compensation	—	—	4,479	—	—	4,479
Balance, September 28, 2020	106,742	$ 107	$ 826,859	$ 612,884	$ (40,547)	$ 1,399,303

See accompanying notes to consolidated condensed financial statements.

TTM TECHNOLOGIES, INC.

Consolidated Condensed Statements of Cash Flows
For the Three Quarters Ended September 27, 2021 and September 28, 2020

	Three Quarters Ended	
	September 27, 2021	September 28, 2020
	(Unaudited) (In thousands)	
Cash flows from operating activities:		
Net income	$ 46,027	$ 138,575
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation of property, plant and equipment	63,711	97,172
Amortization of definite-lived intangible assets	30,988	34,209
Amortization of debt discount and issuance costs	1,613	14,488
Loss on extinguishment of debt	15,217	—
Deferred income taxes	3,704	8,039
Stock-based compensation	12,503	11,961
Impairment of goodwill	—	69,200
Gain on sale of the Mobility business unit	—	(237,253)
Other	(4,005)	(242)
Changes in operating assets and liabilities:		
Accounts receivable, net	(7,128)	128,681
Contract assets	(52,518)	(33,500)
Inventories	(24,404)	(10,557)
Prepaid expenses and other current assets	(12,440)	(15,008)
Accounts payable	59,686	15,902
Contract liabilities	(1,878)	(839)
Accrued salaries, wages and benefits	(12,164)	(11,804)
Other current liabilities	(4,649)	22,661
Net cash provided by operating activities	114,263	231,685
Cash flows from investing activities:		
Proceeds from sale of the Mobility business unit, net of cash disposed	—	507,466
Purchase of property, plant and equipment and other assets	(62,086)	(84,042)
Proceeds from sale of property, plant and equipment and other assets	1,017	154
Other	—	(623)
Net cash (used in) provided by investing activities	(61,069)	422,955
Cash flows from financing activities:		
Proceeds from long-term debt borrowing	500,000	—
Repayment of long-term debt borrowings	(425,838)	(400,000)
Payment of debt issuance costs	(5,864)	—
Proceeds from exercise of stock options	—	191
Repurchases of common stock	(33,262)	—
Cash used to settle warrants	(3,177)	—
Other	(7,071)	7,321
Net cash provided by (used in) financing activities	24,788	(392,488)
Effect of foreign currency exchange rates on cash and cash equivalents	269	979
Net increase in cash and cash equivalents	78,251	263,131
Cash and cash equivalents at beginning of period	451,565	400,154
Cash and cash equivalents at end of period	$ 529,816	$ 663,285
Supplemental cash flow information:		
Cash paid, net for interest	$ 36,431	$ 40,540
Cash paid, net for income taxes	3,292	15,856
Net cash provided by operating activities from discontinued operations	—	39,462
Net cash provided by investing activities from discontinued operations	—	497,916
Net cash used in financing activities from discontinued operations	—	—
Supplemental disclosure of noncash investing and financing activities:		
Property, plant and equipment recorded in accounts payable	$ 37,550	$ 26,914
Issuance of common stock for warrant settlement	2,116	—
Repurchases of common stock recorded in accounts payable	1,854	—

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 printed circuit board (PCB) manufacturer, focusing on quick-turn and volume production of technologically advanced PCBs and backplane assemblies as well as a global designer and manufacturer of high-frequency radio frequency (RF) and microwave components and assemblies. 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 to the coronavirus (COVID-19) global pandemic, the global economy and financial markets have been volatile, have contributed to disruptions in global supply chains and labor shortages, and there is a significant amount of uncertainty about the length and severity of the consequences caused by the on-going 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. Fiscal 2021 ending on January 3, 2022 will be a 53-week year with the additional week included in the fourth quarter. Fiscal 2020 was a 52-week year.

On January 19, 2020, the Company entered into a definitive equity interests purchase agreement with AKMMeadville Electronics (Xiamen) Co., Ltd (the Purchaser) for the sale that was completed on April 17, 2020 of the following now former Company subsidiaries: Shanghai Kaiser Electronics Co., Ltd. (SKE), Shanghai Meadville Electronics Co., Ltd. (SME), Shanghai Meadville Science & Technology Co., Ltd. (SP) and Guangzhou Meadville Electronics Co., Ltd. (GME) (collectively, the Mobility business unit). For all periods presented in the consolidated condensed statements of operations, all sales, costs, expenses, income taxes and gain on sale attributable to the Mobility business unit have been aggregated under the caption "Income from discontinued operations, net of income taxes". Refer to Note 2, *Discontinued Operations*, for additional information.

Unless otherwise noted, amounts and disclosures throughout these notes to consolidated condensed financial statements relate to continuing operations. These consolidated condensed financial statements reflect all adjustments (consisting only of normal recurring adjustments) which, in the opinion of management, are necessary to present fairly the financial position, the results of operations and cash flows of the Company for the periods presented. The results of operations for the interim periods are not necessarily indicative of the results to be expected for the full year.

Reclassifications

The Company currently has two reportable segments: PCB and RF and Specialty Components (RF&S Components). On April 29, 2020, the Company announced the restructuring of its E-M Solutions business unit. In prior periods, the Company's E-M Solutions business unit consisted of three Chinese manufacturing facilities with two being in Shanghai (SH BPA and SH E-MS) and one in Shenzhen (SZ). The Company closed the SH E-MS and SZ facilities at the end of 2020 and integrated the SH BPA facility into its PCB operations. As of March 29, 2021, E-M Solutions no longer met the criteria for segment reporting. As a result of the restructuring of the E-M Solutions business unit, certain prior year amounts have been reclassified to conform to this new presentation.

Recently Adopted and Issued Accounting Standards

Recently Adopted Accounting Standards

In December 2019, the Financial Accounting Standards Board (FASB) issued ASU 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*, which is intended to simplify various aspects related to accounting for income taxes. ASU 2019-12 removes certain exceptions to the general principles in Topic 740 and also clarifies and amends existing guidance to improve consistent application. The guidance is effective for fiscal years beginning after December 15, 2020, including interim periods within those fiscal years. Early adoption is permitted. The Company adopted this ASU as of December 29, 2020 and it did not have a material impact on its consolidated condensed financial statements and related disclosures.

(2) Discontinued Operations

On January 19, 2020, the Company entered into a definitive equity interests purchase agreement for the sale of the Company's Mobility business unit. The sale was completed on April 17, 2020 for a base purchase price of $550,000, subject to customary purchase price adjustments. The base purchase price did not include certain accounts receivable of the divested business, which were estimated to total approximately $95,000. After the price adjustments, the final purchase price was $569,246, which did not include approximately $83,000 accounts receivable of the divested business.

On April 18, 2020, the Company entered into a Transition Services Agreement (TSA) with the Purchaser pursuant to which the Purchaser is receiving certain services (the Services) to enable it to operate the Mobility business unit after the closing of the sale of the Mobility business unit. The Services include finance and accounting, human resources, legal and compliance, sales, information technology, and other corporate support services. Under the TSA, the Services are being provided at cost for a period of up to 24 months. In addition, the Company entered into a Manufacturing Supply Agreement with the Purchaser pursuant to which the Purchaser will supply products to a few customers of the Company. There was no material impact on the Company's consolidated condensed financial statements.

Further, on June 29, 2020, the Company entered into a Sales Force Agreement with the Purchaser pursuant to which the Company's sales representatives assist the Purchaser in selling PCBs manufactured by the Purchaser to certain customers for a commission for a period up to April 17, 2021. There was no material impact on the Company's consolidated condensed financial statements.

As the sale of the Company's Mobility business unit represented a strategic shift that had a major effect on the Company's operations and financial results, in accordance with the provisions of FASB authoritative guidance on the presentation of financial statements, Mobility business unit results are classified as discontinued operations in the consolidated condensed statements of operations for all periods presented.

The following table summarizes the results of Mobility operations for the quarter and three quarters ended September 28, 2020 prior to sale:

	Quarter Ended September 28, 2020	Three Quarters Ended September 28, 2020
	(In thousands, except per share data)	
Net sales	$ —	$ 143,951
Cost of goods sold	—	136,800
Gross profit	—	7,151
Operating expenses:		
Selling and marketing	—	1,461
General and administrative	—	2,317
Research and development	—	147
Amortization of definite-lived intangibles	—	809
Total operating expenses	—	4,734
Operating income	—	2,417
Other (expense) income:		
Interest expense	—	(223)
Gain on sale of the Mobility business unit	—	237,253
Other, net	—	1,160
Total other income, net	—	238,190
Income from discontinued operations before income taxes	—	240,607
Income tax benefit (provision)	20,021	(46,686)
Income from discontinued operations, net of income taxes	$ 20,021	$ 193,921
Earnings per share from discontinued operations:		
Basic earnings per share	$ 0.19	$ 1.83
Diluted earnings per share	$ 0.19	$ 1.83

There was no depreciation expense related to the discontinued operations for the quarter ended September 28, 2020. Depreciation expense related to the discontinued operations for the three quarters ended September 28, 2020 was $21,382.

During the quarter and three quarters ended September 28, 2020, the Company's income tax expense related to the discontinued operations was impacted by a net discrete tax benefit of $20,021 and a net discrete tax expense of $46,686, respectively. As a result of the sale of the Mobility business unit, the discrete income tax benefit during the quarter ended September 28, 2020 is due to recognition of additional Internal Revenue Code (IRC) Section 250 deduction and foreign tax credit benefits. The net income tax expense for the three quarters ended September 28, 2020 is related mainly to (i) China withholding tax related to gain on sale, (ii) U.S. income tax related to Global Intangible Low Taxed Income (GILTI) inclusion net of IRC Section 250 deduction and foreign tax credits, offset by (iii) release of U.S. FIN 48 uncertain tax positions.

Proceeds from the sale of the Company's Mobility business unit have been presented in the consolidated condensed statements of cash flows within net cash provided by investing activities from discontinued operations. The following is a reconciliation of the final gain recorded for the sale of the Company's Mobility business unit (*in thousands*):

Net proceeds from the sale of the Mobility business unit(1)	$	569,246
Mobility business unit assets:		
Cash and cash equivalents		12,513
Restricted cash		35,412
Accounts receivable, net		12
Contract assets		40,072
Inventories		4,988
Prepaid expenses and other current assets		4,593
Property, plant and equipment, net		328,648
Goodwill		68,267
Definite-lived intangibles, net		5,520
Deposits and other non-current assets		6,291
Total Mobility business unit assets		506,316
Mobility business unit liabilities:		
Accounts payable		142,636
Accrued salaries, wages and benefits		9,392
Other current liabilities		8,890
Other long-term liabilities		303
Total Mobility business unit liabilities		161,221
Derecognition of foreign currency translation adjustments and unrealized losses on cash flow hedges recorded in accumulated other comprehensive loss		26,957
Other transaction costs incurred as part of the sale of the Mobility business unit(2)		13,855
Gain on sale of the Mobility business unit before income taxes	$	237,253

(1) Net proceeds from the sale of the Mobility business unit are net of customary purchase price adjustments.
(2) Costs directly incurred as a result of the sale of the Company's Mobility business unit, including bank fees, legal fees, professional fees, and other costs.

(3) Leases

The Company leases some of its manufacturing and assembly plants, sales offices and equipment under non-cancellable operating leases that expire at various dates through 2049 and a manufacturing plant under a finance lease. 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		Three Quarters Ended	
	September 27, 2021	September 28, 2020	September 27, 2021	September 28, 2020
	(In thousands)			
Operating lease cost	$ 2,015	$ 2,333	$ 6,147	$ 7,041
Variable lease cost	193	133	567	376
Short-term lease cost	89	84	198	482

Supplemental cash flow information related to leases was as follows:

	Three Quarters Ended	
	September 27, 2021	September 28, 2020
	(In thousands)	
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	$ 6,321	$ 6,636
Right-of-use assets obtained in exchange for new lease obligations:		
Operating leases	1,954	6,559
Finance lease	15,256	—

Supplemental balance sheet information related to leases was as follows:

	Balance Sheet Location	As of	
		September 27, 2021	December 28, 2020
		(In thousands)	
Assets:			
Operating leases	Operating lease right-of-use assets	$ 16,794	$ 24,340
Finance lease	Property, plant and equipment, net	14,743	—
Total lease assets		$ 31,537	$ 24,340
Liabilities:			
Current:			
Operating leases	Other current liabilities	$ 5,528	$ 8,144
Finance lease	Other current liabilities	639	—
Long-term:			
Operating leases	Operating lease liabilities	12,077	17,211
Finance lease	Other long-term liabilities	14,124	—
Total lease liabilities		$ 32,368	$ 25,355

	As of	
	September 27, 2021	December 28, 2020
Weighted average remaining lease term (years):		
Operating leases	4.1	4.2
Finance lease	14.9	—
Weighted average discount rate:		
Operating leases	2.89 %	3.31 %
Finance lease	2.69 %	—

Maturities of the Company's lease liabilities were as follows(1):

	(In thousands)
Less than one year	$ 2,573
1 - 2 years	6,360
2 - 3 years	5,152
3 - 4 years	3,946
4 - 5 years	3,574
Thereafter	15,308
Total lease payments	36,913
Less imputed interest	(4,545)
Total	$ 32,368

(1) Excludes $851 of legally binding minimum lease payments for leases signed but not yet commenced.

(4) Revenues

As of September 27, 2021, the aggregate amount of the transaction price allocated to remaining performance obligations for long-term contracts was $11,008. The Company expects to recognize revenue on approximately 84% 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 three quarters ended September 27, 2021, and 98% and 2%, respectively, of the Company's revenue for the quarter and three quarters ended September 28, 2020.

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

	Quarter Ended September 27, 2021			Quarter Ended September 28, 2020			
	PCB	RF&S Components	Total	PCB	RF&S Components	Other (1)	Total
End Markets				(In thousands)			
Aerospace and Defense	$ 173,894	$ 12	$ 173,906	$ 182,558	$ 180	$ 18	$ 182,756
Automotive	99,205	—	99,205	63,114	—	10,097	73,211
Cellular Phone	—	—	—	38	—	—	38
Data Center Computing (2)	81,202	—	81,202	62,554	186	34	62,774
Medical/Industrial/Instrumentation	108,879	1,467	110,346	91,836	742	2,939	95,517
Networking/Communications	74,316	12,848	87,164	74,366	7,203	8,919	90,488
Other	3,622	1,339	4,961	6,845	3,431	(1,484)	8,792
Total	$ 541,118	$ 15,666	$ 556,784	$ 481,311	$ 11,742	$ 20,523	$ 513,576

	Three Quarters Ended September 27, 2021				Three Quarters Ended September 28, 2020			
	PCB	RF&S Components	Other (1)	Total	PCB	RF&S Components	Other (1)	Total
End Markets				(In thousands)				
Aerospace and Defense	$ 545,585	$ 24	$ —	$ 545,609	$ 555,882	$ 189	$ 38	$ 556,109
Automotive	293,890	—	3,642	297,532	182,970	—	28,693	211,663
Cellular Phone	—	—	—	—	1,334	—	—	1,334
Data Center Computing (2)	235,191	456	—	235,647	192,209	663	124	192,996
Medical/Industrial/Instrumentation	303,661	3,615	25	307,301	298,117	2,336	9,247	309,700
Networking/Communications	216,982	35,451	1	252,434	240,215	19,173	20,560	279,948
Other	9,775	2,713	(412)	12,076	21,429	10,913	(2,572)	29,770
Total	$ 1,605,084	$ 42,259	$ 3,256	$ 1,650,599	$ 1,492,156	$ 33,274	$ 56,090	$ 1,581,520

(1) Other represents results from the now closed SH E-MS and SZ facilities.

(2) Beginning in the first quarter of 2021, the Computing/Storage/Peripherals end market was renamed to Data Center Computing to better reflect the customer mix and growth prospects. There was no change to the customers included in this end market.

(5) Composition of Certain Consolidated Condensed Financial Statement Captions

	As of	
	September 27, 2021	December 28, 2020
	(In thousands)	
Inventories:		
Raw materials	$ 124,772	$ 103,890
Work-in-process	11,763	7,841
Finished goods	3,520	3,920
	$ 140,055	$ 115,651
Property, plant and equipment, net:		
Land and land use rights	$ 62,061	$ 61,781
Buildings and improvements	423,313	398,540
Machinery and equipment	875,587	832,723
Furniture and fixtures and other	10,210	10,304
Construction-in-progress	34,528	33,191
	1,405,699	1,336,539
Less: Accumulated depreciation	(735,963)	(686,104)
	$ 669,736	$ 650,435
Other current liabilities:		
Sales returns and allowances	$ 13,319	$ 13,015
Income taxes payable	9,877	2,428
Derivative liabilities	7,372	—
Interest	3,471	7,157
Operating lease	5,528	8,144
Restructuring	46	7,382
Other	53,644	51,296
	$ 93,257	$ 89,422
Other long-term liabilities:		
Deferred income taxes	$ 23,882	$ 23,704
Defined benefit pension plan liability	9,097	9,986
Derivative liabilities	—	14,968
Finance lease	14,124	—
Other	27,498	25,167
	$ 74,601	$ 73,825

(6) Goodwill

As of September 27, 2021 and December 28, 2020, goodwill by reportable segment was as follows:

	PCB	RF&S Components	Total
		(In thousands)	
Balance as of September 27, 2021 and December 28, 2020			
Goodwill	$ 700,724	$ 177,200	$ 877,924
Accumulated impairment losses	(171,400)	(69,200)	(240,600)
	$ 529,324	$ 108,000	$ 637,324

(7) Definite-lived Intangibles

As of September 27, 2021 and December 28, 2020, the components of definite-lived intangibles were as follows:

	Gross Amount	Accumulated Amortization	Net Carrying Amount	Weighted Average Amortization Period
		(In thousands)		(In years)
September 27, 2021				
Customer relationships	$ 397,500	$ (176,979)	$ 220,521	10.9
Technology	47,650	(17,852)	29,798	9.5
	$ 445,150	$ (194,831)	$ 250,319	
December 28, 2020				
Customer relationships	$ 397,500	$ (150,142)	$ 247,358	10.9
Technology	47,650	(13,701)	33,949	9.5
	$ 445,150	$ (163,843)	$ 281,307	

Definite-lived intangibles are amortized using the straight-line method of amortization over the useful life. Amortization expense was $9,658 and $11,510 for the quarters ended September 27, 2021 and September 28, 2020, respectively, and $30,988 and $33,400 for the three quarters ended September 27, 2021 and September 28, 2020, respectively. For both the quarter and three quarters ended September 27, 2021 and September 28, 2020, $1,384 and $4,151, 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 2021	$ 10,191
2022	38,631
2023	36,713
2024	29,713
2025	25,397
Thereafter	109,674
	$ 250,319

(8) Long-term Debt and Letters of Credit

The following table summarizes the long-term debt of the Company as of September 27, 2021 and December 28, 2020:

	Interest Rate as of September 27, 2021	Principal Outstanding as of September 27, 2021	Interest Rate as of December 28, 2020	Principal Outstanding as of December 28, 2020
		(In thousands)		
Senior Notes due March 2029	4.00 %	$ 500,000	— %	$ —
Term Loan due September 2024	2.59	405,879	2.65	405,879
Senior Notes due October 2025	—	—	5.63	375,000
U.S. ABL Revolving Loan due June 2024	—	—	1.40	40,000
Asia ABL Revolving Loan due June 2024	1.49	30,000	1.55	30,000
		935,879		850,879
Less: Long-term debt unamortized discount		(660)		(814)
Long-term debt unamortized debt issuance costs		(8,297)		(7,212)
		926,922		842,853
Less: current maturities		—		—
Long-term debt, less current maturities		$ 926,922		$ 842,853

Pursuant to the Term Loan Credit Agreement, the Company may reinvest the cash proceeds received from the sale of the Mobility business unit for a period of twelve months commencing September 3, 2020. If the proceeds are not reinvested during that time, the Company is required to use the proceeds to prepay the Term Loan. The Company used a portion of the cash proceeds to repay $400,000 of the Term Loan during the year ended December 28, 2020 and used the remaining cash proceeds for reinvestment pursuant to the Term Loan Credit Agreement. Permitted investments, as defined in the Term Loan Credit Agreement, include extensions of trade credit in the ordinary course of business, investments in cash and cash equivalents, permitted acquisitions, investments in assets useful in the business of the Company and its restricted subsidiaries, investments in joint ventures and unrestricted subsidiaries among others.

Senior Notes due 2029

On March 10, 2021, the Company issued $500,000 of Senior Notes due 2029, which are included in long-term debt and bear interest at a rate of 4.0% per annum. Interest is payable semiannually in arrears on March 1 and September 1 of each year beginning September 1, 2021. The Senior Notes due 2029 will mature on March 1, 2029.

The Company used a portion of the net proceeds from the issuance of the Senior Notes due 2029 during the quarter ended March 29, 2021 to: (i) fund the early retirement of $375,000 Senior Notes due 2025, (ii) fund the repayment of $40,000 outstanding under the U.S. Asset-Based Lending Credit Agreement (U.S. ABL) Revolving credit facility (but not terminate the commitments thereunder), and (iii) pay related premiums, fees and expenses. The Company has and intends to use the remaining net proceeds for general corporate purposes.

Asset-Based Lending Agreements

As of September 27, 2021, letters of credit in the amount of $12,346 were outstanding under the U.S. ABL and $2,606 were outstanding under the Asia Asset-Based Lending Credit Agreement (Asia ABL) with various expiration dates through September 2021. Available borrowing capacity under the U.S. ABL and the Asia ABL was $137,654 and $117,394, respectively, which considers letters of credit outstanding as of September 27, 2021.

Debt Covenants

Borrowings under the Term Loan and Senior Notes due 2029 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. ABL and 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 September 27, 2021 and December 28, 2020, remaining unamortized debt discount and debt issuance costs for the Senior Notes due 2029, Term Loan Facility and Senior Notes due 2025 are as follows:

	As of September 27, 2021			As of December 28, 2020		
	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	$ 6,114	$ —	4.19 %	$ —	$ —	— %
Term Loan due September 2024	2,183	660	4.66	2,695	814	4.66
Senior Notes due October 2025	—	—	—	4,517	—	5.92
	$ 8,297	$ 660		$ 7,212	$ 814	

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 $1,496 and $1,919 as of September 27, 2021 and December 28, 2020, 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 September 27, 2021, the remaining weighted average amortization period for all unamortized debt discount and debt issuance costs was 5.5 years.

Loss on Extinguishment of Debt

During the three quarters ended September 27, 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. Additionally, 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 three quarters ended September 27, 2021, the Company's effective tax rate was impacted by a net discrete expense of $1,157 and a net tax benefit of $1,069, respectively. This is related mainly due to an increase in uncertain tax positions in the United States netted against (i) the release of uncertain tax positions due to the expiration of the statute of limitation in foreign jurisdictions, (ii) stock based compensation releases, (iii) 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 (including the impact on the respective Company's deferred tax amounts), and (iv) the reduction in the deferred tax liability for the foreign withholding tax accrual with respect to the Company's indefinite reinvestment policy outside of the United States.

The Company has various foreign subsidiaries formed or acquired to conduct or support its business outside the United States. 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 and the estimated federal/state tax impact. 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 would 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 ending on June 1, 2022. Under the terms of the interest rate swap, the Company pays a fixed rate of 2.84% against a portion of its LIBOR-based debt and receives 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. As of September 27, 2021, the fair value of the interest rate swap was recorded as a liability in the amount of $7,372 and included as a component of other current liabilities. The change in the fair value of the interest rate swap is recorded as a component of accumulated other comprehensive loss, net of tax. No ineffectiveness was recognized for the quarter and three quarters ended September 27, 2021 and September 28, 2020. The interest rate swap increased interest expense by $2,775 and $2,707 for the quarters ended September 27, 2021 and September 28, 2020, respectively, and $8,278 and $6,224 for the three quarters ended September 27, 2021 and September 28, 2020, respectively.

Foreign Exchange Contracts

The Company enters into foreign currency forward contracts to mitigate the impact of changes in foreign currency exchange rates and to reduce the volatility of purchases and other obligations generated in currencies other than its functional currencies. 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 September 27, 2021 and December 28, 2020 was approximately $1,245 (Japanese Yen (JPY) 132.3 million) and $1,181 (JPY 125.0 million), respectively. The Company has designated certain of these foreign exchange contracts as cash flow hedges.

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 September 27, 2021, the Company has commodity contracts with a notional quantity of 0.5 metric tonnes each for the periods (i) beginning September 28, 2021 and ending on December 30, 2021, (ii) beginning January 4, 2022 and ending on March 31, 2022, and (iii) beginning April 5, 2022 and ending on June 29, 2022, and 0.6 metric tonnes for the period beginning June 30, 2022 and ending on October 3, 2022. As of September 27, 2021, the fair value of the commodity contracts was recorded as a liability in the amount of $65 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 $164 and $65 for the quarter and three quarters ended September 27, 2021, respectively. 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 September 27, 2021	Asset/(Liability) Fair Value December 28, 2020
		(In thousands)	
Cash flow derivative instruments designated as hedges:			
Interest rate swap	Other current liabilities	$ (7,372)	$ —
Interest rate swap	Other long-term liabilities	—	(14,968)
Foreign exchange contracts	Other current liabilities	(48)	—
Cash flow derivative instruments not designated as hedges:			
Foreign exchange contracts	Prepaid expenses and other current assets	—	28
Commodity contracts	Other current liabilities	(65)	—

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 three quarters ended September 27, 2021 and September 28, 2020:

	Financial Statement Caption	Quarter Ended September 27, 2021		Quarter Ended September 28, 2020	
		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	$ (147)	$ (2,775)	$ (586)	$ (2,707)

	Financial Statement Caption	Three Quarters Ended September 27, 2021		Three Quarters Ended September 28, 2020	
		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	$ (682)	$ (8,278)	$ (11,618)	$ (6,224)

The following table provides a summary of the activity associated with the designated cash flow hedges reflected in accumulated other comprehensive loss for the three quarters ended September 27, 2021 and September 28, 2020:

	Three Quarters Ended September 27, 2021	Three Quarters Ended September 28, 2020
	(In thousands)	
Beginning balance, net of tax	$ (11,231)	$ (9,617)
Changes in fair value loss, net of tax	(87)	(8,667)
Reclassification to earnings	5,875	4,727
Derecognition of unrealized losses on cash flow hedge due to sale of Mobility business unit	—	384
Ending balance, net of tax	$ (5,443)	$ (13,173)

Based on the current yield curve, the Company expects that losses of approximately $6,022 of the accumulated other comprehensive loss will be reclassified into the statement of operations, net of tax, in the next twelve months.

(11) Accumulated Other Comprehensive Loss

The following provides a summary of the components of accumulated other comprehensive loss, net of tax, as of September 27, 2021 and December 28, 2020:

	Foreign Currency Translation	Pension Obligation	(Losses) Gains on Cash Flow Hedges	Total
	(In thousands)			
Ending balance as of December 28, 2020	$ (24,827)	$ (2,855)	$ (11,231)	$ (38,913)
Other comprehensive income (loss) before reclassifications	363	59	(87)	335
Amounts reclassified from accumulated other comprehensive loss	—	—	5,875	5,875
Other comprehensive income	363	59	5,788	6,210
Ending balance as of September 27, 2021	$ (24,464)	$ (2,796)	$ (5,443)	$ (32,703)

(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.

There were no customers that accounted for 10% or more of net sales for the quarter ended September 27, 2021. For the three quarters ended September 27, 2021, one customer accounted for approximately 10% of the Company's net sales. For the quarter and three quarters ended September 28, 2020, one customer accounted for approximately 13% and 10% of the Company's net sales, respectively.

(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 September 27, 2021 and December 28, 2020 were as follows:

	As of September 27, 2021		As of December 28, 2020	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
	(In thousands)			
Derivative assets, current	$ —	$ —	$ 28	$ 28
Derivative liabilities, current	7,485	7,485	—	—
Derivative liabilities, non-current	—	—	14,968	14,968
Senior Notes due March 2029	493,886	504,565	—	—
Term Loan due September 2024	403,036	407,150	402,370	407,909
Senior Notes due October 2025	—	—	370,483	383,974
ABL Revolving Loans	30,000	30,000	70,000	70,000

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 September 27, 2021 and December 28, 2020, which are considered Level 2 inputs.

As of September 27, 2021 and December 28, 2020, the Company's other financial instruments included cash and cash equivalents, accounts receivable, and accounts payable. Due to short-term maturities, the carrying amount of these instruments approximates fair value. The Company's cash and cash equivalents as of September 27, 2021 consisted of $355,243 held in the U.S., with the remaining $174,573 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 September 27, 2021 and December 28, 2020. 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 from continuing operations for the quarter and three quarters ended September 27, 2021 and September 28, 2020:

	Quarter Ended		Three Quarters Ended	
	September 27, 2021	September 28, 2020	September 27, 2021	September 28, 2020
	(In thousands, except per share amounts)			
Net income (loss) from continuing operations	$ 20,958	$ (61,472)	$ 46,027	$ (55,346)
Basic weighted average shares	107,098	106,729	106,917	106,130
Dilutive effect of performance-based restricted stock units, restricted stock units and stock options	1,247	—	1,655	—
Dilutive effect of outstanding warrants	—	—	267	—
Diluted shares	108,345	106,729	108,839	106,130
Earnings (loss) per share:				
Basic	$ 0.20	$ (0.58)	$ 0.43	$ (0.52)
Diluted	$ 0.19	$ (0.58)	$ 0.42	$ (0.52)

Performance-based restricted stock units (PRUs), restricted stock units (RSUs), and stock options to purchase 997 and 866 shares of common stock for the quarter and three quarters ended September 27, 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 September 27, 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 three quarters and, as a result, the impact would be anti-dilutive.

For the quarter and three quarters ended September 28, 2020, potential shares of common stock, consisting of stock options to purchase approximately 80 shares of common stock at exercise prices ranging from $11.83 to $16.60 per share, 3,187 RSUs, and 216 PRUs were not included in the computation of diluted earnings per share because the Company incurred a net loss and as a result, the impact would be anti-dilutive.

Outstanding warrants for the quarter ended September 27, 2021, and the quarter and three quarters ended September 28, 2020 to purchase common stock were not included in the computation of dilutive earnings per share because the strike price of the warrants to purchase the Company's common stock was greater than the average market price of common stock during the applicable quarter, and therefore, the effect 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		Three Quarters Ended	
	September 27, 2021	September 28, 2020	September 27, 2021	September 28, 2020
	(In thousands)			
Cost of goods sold	$ 1,284	$ 1,173	$ 3,310	$ 2,643
Selling and marketing	731	557	1,819	1,299
General and administrative	2,542	2,705	6,912	7,872
Research and development	387	44	462	147
Stock-based compensation expense recognized	$ 4,944	$ 4,479	$ 12,503	$ 11,961

Summary of Unrecognized Compensation Costs

The following is a summary of total unrecognized compensation costs as of September 27, 2021:

	Unrecognized Stock-Based Compensation Cost	Remaining Weighted Average Recognition Period
	(In thousands)	(In years)
RSU awards	$ 29,156	1.5
PRU awards	2,348	1.1
Stock options	69	0.9
	$ 31,573	

(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 April 29, 2020, the Company announced the restructuring of its E-M Solutions business unit. In prior periods, the Company's E-M Solutions business unit consisted of three Chinese manufacturing facilities with two being in Shanghai (SH BPA and SH E-MS) and one in Shenzhen (SZ). The Company closed the SH E-MS and SZ facilities at the end of 2020 and integrated the SH BPA facility into its PCB operations. As of March 29, 2021, E-M Solutions no longer met the criteria for segment reporting. As a result of the restructuring of the E-M Solutions business unit, certain prior year amounts have been reclassified to conform to this new presentation.

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		Three Quarters Ended	
	September 27, 2021	September 28, 2020	September 27, 2021	September 28, 2020
	(In thousands)			
Net Sales:				
PCB	$ 541,118	$ 481,311	$ 1,605,084	$ 1,492,156
RF&S Components	15,666	11,742	42,259	33,274
Other (1)	—	20,523	3,256	56,090
Total net sales	$ 556,784	$ 513,576	$ 1,650,599	$ 1,581,520
Operating Segment Income (Loss):				
PCB	$ 61,424	$ 65,179	$ 191,711	$ 203,131
RF&S Components	6,537	(66,098)	15,129	(59,880)
Corporate and Other (1)	(26,068)	(27,823)	(82,929)	(110,925)
Total operating segment income (loss)	41,893	(28,742)	123,911	32,326
Amortization of definite-lived intangibles (2)	(9,658)	(11,510)	(30,988)	(33,400)
Total operating income (loss)	32,235	(40,252)	92,923	(1,074)
Total other expense	(8,622)	(22,520)	(43,494)	(57,916)
Income (loss) before income taxes	$ 23,613	$ (62,772)	$ 49,429	$ (58,990)

	As of	
	September 27, 2021	December 28, 2020
	(In thousands)	
Segment Assets:		
PCB	$ 1,596,648	$ 1,529,102
RF&S Components	219,294	227,990
Corporate and Other (1)	1,231,689	1,138,852
Total assets	$ 3,047,631	$ 2,895,944

(1) Other represents results from the now closed SH E-MS and SZ facilities.
(2) Amortization of definite-lived intangibles primarily relates to the PCB and RF&S Components reportable segments. For both the quarter and three quarters ended September 27, 2021 and September 28, 2020, $ 1,384 and $4,151, 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		Three Quarters Ended	
	September 27, 2021	September 28, 2020	September 27, 2021	September 28, 2020
	(In thousands)			
Net Sales:				
United States	$ 245,940	$ 271,050	$ 775,351	$ 802,681
China	77,022	80,696	238,891	252,736
Other	233,822	161,830	636,357	526,103
Total net sales	$ 556,784	$ 513,576	$ 1,650,599	$ 1,581,520

Net sales are attributed to countries by country invoiced.

(18) Restructuring Charges

On April 29, 2020, the Company announced the restructuring of its E-M Solutions business unit. The E-M Solutions business unit consisted of three Chinese manufacturing facilities with two being in Shanghai (SH BPA and SH E-MS) and one in Shenzhen (SZ). The Company ceased operations at the SH E-MS and SZ facilities while integrating the SH BPA facility into its PCB operations. The restructuring is another step in advancing the Company's stated strategy of increasing its focus on differentiated higher margin products that more fully leverage the Company's early engagement capabilities and industry leading engineering-based technology solutions. The Company closed the SH E-MS and SZ facilities at the end of 2020. As of September 27, 2021, the Company had incurred approximately $19,868 of restructuring charges and $6,702 of accelerated depreciation expense since the April 29, 2020 announcement.

In connection with the restructuring of its E-M Solutions business unit and other global realignment restructuring efforts, the Company recognized employee separation, contract termination and other costs during the quarter and three quarters ended September 27, 2021 and September 28, 2020. Contract termination and other costs primarily represented plant closure costs.

The table below summarizes such restructuring costs by reportable segment, which are included as a component of general and administrative expenses in the consolidated condensed statements of operations, for the quarter and three quarters ended September 27, 2021 and September 28, 2020:

	Quarter Ended September 27, 2021			Three Quarters Ended September 27, 2021		
	Employee Separation/ Severance	Contract Termination and Other Costs	Total	Employee Separation/ Severance	Contract Termination and Other Costs	Total
	(In thousands)					
Reportable Segment:						
PCB	$ —	$ —	$ —	$ 470	$ 123	$ 593
Corporate and Other (1)	—	243	243	415	3,026	3,441
	$ —	$ 243	$ 243	$ 885	$ 3,149	$ 4,034

	Quarter Ended September 28, 2020			Three Quarters Ended September 28, 2020		
	Employee Separation/ Severance	Contract Termination and Other Costs	Total	Employee Separation/ Severance	Contract Termination and Other Costs	Total
			(In thousands)			
Reportable Segment:						
PCB	$ —	$ —	$ —	$ (8)	$ 14	$ 6
Corporate and Other (1)	979	109	1,088	14,373	451	14,824
	$ 979	$ 109	$ 1,088	$ 14,365	$ 465	$ 14,830

(1) Other represents results from the now closed SH E-MS and SZ facilities.

Accrued restructuring costs are included as a component of other current liabilities in the consolidated condensed balance sheet. The table below shows the utilization of the accrued restructuring costs during the three quarters ended September 27, 2021:

	Employee Separation/ Severance	Contract Termination and Other Costs	Total
		(In thousands)	
Accrued as of December 28, 2020	$ 7,063	$ 319	$ 7,382
Charged to expense	885	3,149	4,034
Amount paid	(7,940)	(3,430)	(11,370)
Accrued as of September 27, 2021	$ 8	$ 38	$ 46

(19) Share Repurchase Program

On February 3, 2021, the Company announced that its Board of Directors authorized and approved a share repurchase program. Under the program, the Company may 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 Company may 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 that may be effected under the share repurchase program. The timing, manner, price and amount of any repurchases will be determined at the Company's discretion, and the share repurchase program may be suspended, terminated or modified at any time for any reason. The repurchase program does not obligate the Company to acquire any specific number of shares.

During the quarter ended September 27, 2021, the Company repurchased 2,114 shares of common stock for a total cost of $28,971 and during the three quarters ended September 27, 2021, the Company has repurchased a total of 2,525 shares of common stock for a total cost of $35,116. As of September 27, 2021, the remaining amount available to be repurchased under the Company's share repurchase program was $64,884.

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 December 28, 2020, filed with the SEC.

COMPANY OVERVIEW

We are a leading global printed circuit board (PCB) manufacturer, focusing on quick-turn and volume production of technologically advanced PCBs and backplane assemblies as well as a global designer and manufacturer of high-frequency radio frequency (RF) and microwave components and assemblies. 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 1,400 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

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, the pandemic has declined. However, as new variants evolve, we could see a rebound in the severity 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. The COVID-19 pandemic has created and continues to create various global macroeconomic, customer demand, operational and supply chain risks, any one 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 protect our employees, suppliers and customers by implementing extensive pandemic recovery protocols, establishing situational leadership teams in Asia-Pacific and North America along with regularly scheduled executive review 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 managing both supply chain constraints and higher raw materials costs 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 more 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

Results related to our Mobility business unit are reported as discontinued operations for all periods presented. See Part I, Item 1, Note 2, *Discontinued Operations*, of the Notes to Consolidated Condensed Financial Statements included in this Quarterly Report on Form 10-Q for further information. Unless otherwise noted, amounts and disclosures throughout our Management's Discussion and Analysis of Financial Condition and Results of Operations relate to our continuing operations. We use a 52/53 week fiscal calendar with the fourth quarter ending on the Monday nearest December 31. Fiscal 2021 ending on January 3, 2022 will be a 53-week year with the additional week included in the fourth quarter. Fiscal 2020 was a 52-week year.

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% of our net sales for both the quarter and three quarters ended September 27, 2021. Sales to our ten largest customers accounted for 40% and 38% of our net sales for the quarter and three quarters ended September 28, 2020, 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		Three Quarters Ended	
End Markets (1)	**September 27, 2021**	**September 28, 2020**	**September 27, 2021**	**September 28, 2020**
Aerospace and Defense	31 %	36 %	33 %	35 %
Automotive	18	14	18	13
Data Center Computing (2)	14	12	14	12
Medical/Industrial/Instrumentation	20	19	19	20
Networking/Communications	16	18	15	18
Other (3)	1	1	1	2
Total	100 %	100 %	100 %	100 %

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

(2) Beginning in the first quarter of 2021, the Computing/Storage/Peripherals end market was renamed to Data Center Computing to better reflect the customer mix and growth prospects. There was no change to the customers included in this end market.

(3) 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 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 forthe fiscal year ended December 28, 2020 for further discussion of critical accounting policies and estimates. There were no material changes to our critical accounting policies and estimates since December 28, 2020.

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		Three Quarters Ended	
	September 27, 2021	September 28, 2020	September 27, 2021	September 28, 2020
Net sales	100.0 %	100.0 %	100.0 %	100.0 %
Cost of goods sold	83.3	82.6	83.4	82.9
Gross profit	16.7	17.4	16.6	17.1
Operating expenses:				
Selling and marketing	2.8	3.1	2.8	3.0
General and administrative	5.8	5.7	5.8	7.0
Research and development	0.8	1.0	0.8	0.9
Amortization of definite-lived intangibles	1.5	2.0	1.6	1.8
Impairment of goodwill	—	13.4	—	4.4
Total operating expenses	10.9	25.2	11.0	17.1
Operating income (loss)	5.8	(7.8)	5.6	—
Other (expense) income:				
Interest expense	(2.0)	(3.9)	(2.0)	(3.7)
Loss on extinguishment of debt	—	—	(0.9)	—
Other, net	0.5	(0.5)	0.3	—
Total other expense, net	(1.5)	(4.4)	(2.6)	(3.7)
Income (loss) from continuing operations before income taxes	4.3	(12.2)	3.0	(3.7)
Income tax (provision) benefit	(0.5)	0.3	(0.2)	0.2
Net income (loss) from continuing operations	3.8 %	(11.9) %	2.8 %	(3.5) %

As of March 29, 2021, E-M Solutions no longer met the criteria for segment reporting and the SH BPA facility has been integrated into the PCB reportable segment. As a result, we reclassified prior periods to reflect these changes to our segments.

Net Sales

Total net sales increased $43.2 million, or 8.4%, to $556.8 million for the third quarter of 2021 from $513.6 million for the third quarter of 2020. This increase in total net sales primarily resulted from an increase in net sales for the PCB reportable segment of $59.8 million, or 12.4%, to $541.1 million for the third quarter of 2021 from $481.3 million for the third quarter of 2020 primarily due to higher demand in our Automotive, Data Center Computing, and Medical/Industrial/Instrumentation end markets partially offset by lower demand in our Aerospace and Defense end market. These changes in the PCB reportable segment resulted in a 16.8% increase in the volume of PCB shipments. Additionally, there was an increase in net sales for the RF&S Components reportable segment of $3.9 million, or 33.4%, to $15.7 million for the third quarter of 2021 from $11.7 million for the third quarter of 2020 primarily due to higher demand in our Networking/Communications end market. Partially offsetting the PCB and RF&S increases was a $20.5 million reduction in net sales due to the closure of the two plants from our discontinued E-M Solutions segment.

Total net sales increased $69.1 million, or 4.4%, to $1,650.6 million for the first three quarters of 2021 from $1,581.5 million for the first three quarters of 2020. This increase in total net sales primarily resulted from an increase in net sales for the PCB reportable segment of $112.9 million, or 7.6%, to $1,605.1 million for the first three quarters of 2021 from $1,492.2 million for the first three quarters of 2020 primarily due to higher demand in our Automotive and Data Center Computing end markets, partially offset by lower demand in our Networking/Communications and Aerospace and Defense end markets. These changes in the PCB reportable segment resulted in a 25.8% increase in the volume of PCB shipments. Also contributing to the increase in total net sales was an increase in net sales for the RF&S Components reportable segment of $9.0 million, or 27.0%, to $42.3 million for the first three quarters of 2021 from $33.3 million for the first three quarters of 2020 primarily due to higher demand in our Networking/Communications and Medical/Industrial/Instrumentation end markets. Partially offsetting the PCB and RF&S increases was a $52.8 million reduction in net sales due to the closure of the two plants from our discontinued E-M Solutions segment.

Gross Margin

Overall gross margin decreased to 16.7% for the third quarter of 2021 from 17.4% for the third quarter of 2020. Gross margin for the PCB reportable segment decreased to 15.8% for the third quarter of 2021 from 18.3% for the third quarter of 2020. This decline was primarily due to unfavorable foreign exchange rates which increased our cost of operations in China and production inefficiencies in North America. During the quarter, we did experience significant material cost increases, but we were able to mitigate the profit impact of those increases through customer price increases and manufacturing efficiencies. Gross margin for the RF&S Components reportable segment increased to 57.9% for the third quarter of 2021 from 48.1% for the third quarter of 2020, primarily due to higher sales.

Overall gross margin decreased to 16.6% for the first three quarters of 2021 from 17.1% for the first three quarters of 2020. This decrease was primarily driven by a decrease in gross margin for the PCB reportable segment to 16.3% for the first three quarters of 2021 from 18.3% for the first three quarters of 2020. This decline was primarily due to unfavorable foreign exchange rates which increased our cost of operations, higher raw material costs due to increased commodity prices, primarily copper, and production and labor inefficiencies. We were able to mitigate most of these costs through higher revenue and production and spending efficiencies including savings from the closure of two of our E-M Solutions factories. Gross margin for the RF&S Components reportable segment increased to 54.2% for the first three quarters of 2021 from 50.8% for the first three quarters of 2020, primarily due to higher sales.

Capacity utilization is a key driver for us, which is measured by 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 third quarter of 2021 in our Asia and North America PCB facilities was 91% and 50%, respectively, compared to 63% and 61%, respectively, for the third quarter of 2020. Capacity utilization for the first three quarters of 2021 in our Asia and North America PCB facilities was 86% and 52%, respectively, compared to 62% and 63%, respectively for the first three quarters of 2020. The increase in capacity utilization in our Asia PCB facilities was due to an increase in production resulting from increased sales in our Automotive and Data Center Computing end markets. The decrease in our capacity utilization in our North America PCB facilities was primarily due to increased capacity resulting from equipment expansion.

Selling and Marketing Expense

Selling and marketing expense was $15.9 million for both the third quarter of 2021 and 2020. As a percentage of net sales, selling and marketing expense was 2.8% for the third quarter of 2021, as compared to 3.1% for the third quarter of 2020.

Selling and marketing expense decreased $1.3 million, to $46.7 million for the first three quarters of 2021 from $48.0 million for the first three quarters of 2020. As a percentage of net sales, selling and marketing expense was 2.8% for the first three quarters of 2021, as compared to 3.0% for the first three quarters of 2020. The decrease in selling and marketing expense for the first three quarters of 2021 was primarily due to a decrease in commission expense and continued reduced travel costs due to the COVID-19 pandemic, which has decreased travel on what we believe to be a temporary basis.

General and Administrative Expense

General and administrative expense increased $3.3 million to $32.4 million, or 5.8% of net sales, for the third quarter of 2021 from $29.1 million, or 5.7% of net sales, for the third quarter of 2020. This increase was primarily due to an increase in labor costs and other spending.

General and administrative expense decreased $15.4 million to $95.2 million, or 5.8% of net sales, for the first three quarters of 2021 from $110.5 million, or 7.0% of net sales, for the first three quarters of 2020. This decrease was primarily due to a reduction in restructuring charges of $10.8 million associated with the restructuring of our E-M Solutions business unit and decreases in depreciation, supplies, stock-based compensation expense and bad debt, partially offset by higher incentive compensation.

Other Expense

Other expense, net decreased $13.9 million to $8.6 million for the third quarter of 2021 from $22.5 million for the third quarter of 2020. This decrease was primarily the result of a decrease in interest expense of $9.1 million due to overall lower levels of debt outstanding and the refinancing of our notes. Additionally, there was an increase in other income of $2.7 million for the third quarter of 2021 related to the change in fair value of warrant liabilities.

Other expense, net decreased $14.4 million to $43.5 million for the first three quarters of 2021 from $57.9 million for the first three quarters of 2020. This decrease was primarily the result of a decrease in interest expense of $24.9 million due to overall lower levels of debt outstanding and an increase in other income of $3.9 million for the first three quarters of 2021 related to the change in fair value of warrant liabilities, partially offset by $15.2 million of loss on extinguishment of debt.

Income Taxes

Income tax expense increased by $4.0 million to $2.7 million of tax expense for the third quarter of 2021 from $1.3 million of tax benefit for the third quarter of 2020. The increase in income tax expense for the third quarter of 2021 was primarily due to an increase in pre-tax income from continuing operations and an increase in uncertain tax positions in the United States, partially offset by the tax benefit resulting from a reduction in deferred tax liability for the foreign withholding tax accrual with respect to the Company's indefinite reinvestment policy outside of the United States.

Income tax expense increased by $7.0 million to $3.4 million of tax expense for the first three quarters of 2021 from $3.6 million of tax benefit for the first three quarters of 2020. The increase in income tax expense for the first three quarters of 2021 was primarily due to a lower uncertain tax position release benefit due to the expiration of the statute of limitation in foreign jurisdictions, and an increase in uncertain tax positions in the United States partially offset by (i) the absence of tax expense associated with the two E-M Solutions plants that we closed in 2020, (ii) 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, and (iii) the reduction in the deferred tax liability for the foreign withholding tax accrual with respect to the Company's indefinite reinvestment policy outside of the United States.

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 asset of approximately $12.9 million and $15.3 million as of September 27, 2021 and September 28, 2020, respectively.

On March 11, 2021, the President of the United States signed the American Rescue Plan (ARP) providing additional economic relief for the disruptions caused by the COVID-19 pandemic. Accounting Standard Codification (ASC) 740, *Accounting for Income Taxes*, requires companies to recognize the effect of tax law changes in the period of enactment regardless of the effective date of those tax law changes. We considered the impact to our financial statements of the corporate income tax aspects of the ARP and determined the impact is not material to our financial statements.

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 Facilities. Our principal uses of cash have been to finance capital expenditures, finance acquisitions, fund working capital requirements, and to repay existing debt. We anticipate that financing capital expenditures, financing acquisitions, funding working capital requirements, servicing debt, and potential share repurchases will be the principal demands on our cash in the future.

Cash flow provided by operating activities for continuing operations during the first three quarters of 2021 was $114.3million as compared to cash flow provided by operating activities for continuing operations of $192.2 million in the same period in 2020. The decrease in cash flow was primarily due to the collection of Mobility-related accounts receivable after the sale of the business unit in 2020, partially offset by an increase in net income from continuing operations of $101.4 million.

Net cash used in investing activities for continuing operations was approximately $61.1million for the first three quarters of 2021, reflecting $62.1 million for purchases of property, plant and equipment and other assets less $1.0 million for proceeds from sale of property, plant and equipment and other assets. Net cash used in investing activities for continuing operations was approximately $75.0 million for the first three quarters of 2020, comprised primarily of $74.5 million for purchases of property, plant and equipment and other assets.

Net cash provided by financing activities for continuing operations during the first three quarters of 2021 was $24.8million, primarily reflecting proceeds from long-term debt borrowing of $500.0 million, less the repayment of long-term debt borrowings of $425.8 million, repurchases of common stock of $33.2 million, capital equipment financing of $7.1 million, payment of debt issuance costs of $5.9 million, and cash used to settle warrants of $3.2 million. Net cash used in financing activities for continuing operations during the first three quarters of 2020 was $392.5 million, reflecting repayment of long-term debt of $400.0 million, offset by $7.3 million for capital equipment financing.

As of September 27, 2021, we had cash and cash equivalents of approximately $529.8 million, of which approximately $174.6million was held by our foreign subsidiaries, primarily in China. 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 2021 capital expenditures are expected to be in the range of $75.0 million to $95.0 million.

Long-term Debt and Letters of Credit

As of September 27, 2021, we had $926.9 million of outstanding debt, net of discount and debt issuance costs, composed of $493.9 million of Senior Notes due March 2029, $403.0 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 September 27, 2021, 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

The following table provides information on our contractual obligations as of September 27, 2021:

Contractual Obligations (1)	Total	Less Than 1 Year	1 - 3 Years	4 - 5 Years	After 5 Years
			(In thousands)		
Long-term debt obligations	$ 935,879	$ —	$ 435,879	$ —	$ 500,000
Interest on debt obligations (2)	181,570	31,280	61,901	40,000	48,389
Derivative liabilities	7,485	7,485	—	—	—
Purchase obligations	231,111	198,322	21,531	3,417	7,841
Total contractual obligations	$ 1,356,045	$ 237,087	$ 519,311	$ 43,417	$ 556,230

(1) Unrecognized uncertain tax benefits of $1.7 million are not included in the table above as the settlement timing is uncertain. Leases are not included in the table above – see Part I, Item 1, Note 3, *Leases*, of the Notes to Consolidated Condensed Financial Statements included in this Quarterly Report on Form 10-Q for further details.

(2) For debt obligations based on variable rates, interest rates used are as of September 27, 2021.

Off-Balance Sheet Arrangements

We do not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. In addition, we do not engage in trading activities involving non-exchange traded contracts. As a result, we are not materially exposed to any financing, liquidity, market, or credit risk that could arise if we had engaged in these relationships.

Seasonality

Historically, we experienced significant seasonality in revenues with a softer first half and ramping volumes in the third quarter which usually peaked in the fourth quarter. Post the Mobility divestiture, 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 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 address these risks through controlled risk management that includes 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 interest rate, foreign exchange, and commodity price hedge positions, we continually monitor our interest rate swap positions, foreign exchange forward positions, and commodity hedge price positions, both on a stand-alone basis and in conjunction with their underlying interest rate, 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 interest, 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 ending on June 1, 2022. Under the terms of the interest rate swap, we pay a fixed rate of 2.84% against the first interest payments of a portion of our LIBOR-based debt and receive 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. As of September 27, 2021, the fair value of the interest rate swap was recorded as a liability in the amount of $7.4 million and included as a component of other current liabilities. No ineffectiveness was recognized for the quarter and three quarters ended September 27, 2021. During the quarter and three quarters ended September 27, 2021, the interest rate swap increased interest expense by $2.8 million and $8.3 million, respectively.

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 September 27, 2021, approximately 96.2% of our total debt was based on fixed rates. Based on our borrowings as of September 27, 2021, an assumed 100 basis point increase in variable rates would cause our annual interest cost to increase by $0.4 million and an assumed 100 basis point decrease in variable rates would cause our annual interest cost to decrease by $0.1 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 will occur immediately after December 31, 2021, in the case of all Sterling, Euro, Swiss franc and Japanese yen (JPY) 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 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 Exchange 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 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.

We enter into foreign currency forward contracts to mitigate the impact of changes in foreign currency exchange rates and to reduce the volatility of purchases and other obligations generated in currencies other than our functional currencies. 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 September 27, 2021 and December 28, 2020 was approximately $1.2 million (JPY 132.3 million) and $1.2 million (JPY 125.0 million), respectively. We designated certain of these foreign exchange contracts as cash flow hedges.

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 resulting in 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 September 27, 2021, we had commodity contracts with a notional quantity of 500 metric tonnes each for the periods (i) beginning September 28, 2021 and ending on December 30, 2021, (ii) beginning January 4, 2022 and ending on March 31, 2022, and (iii) beginning April 5, 2022 and ending on June 29, 2022, and 630 metric tonnes for the period beginning June 30, 2022 and ending on October 3, 2022. As of September 27, 2021, the fair value of the commodity contracts was recorded as a liability in the amount of $65 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 2025 and thereafter of our debt instruments as of September 27, 2021:

	As of September 27, 2021								
	Remaining 2021	2022	2023	2024 (1)	2025	Thereafter	Total	Fair Market Value	Weighted Average Interest Rate
	(In thousands)								
US$ Variable Rate	$ —	$ —	$ —	$ 435,879	$ —	$ —	$ 435,879	$ 437,150	2.51%
US$ Fixed Rate	—	—	—	—	—	500,000	500,000	504,565	4.00%
Total	$ —	$ —	$ —	$ 435,879	$ —	$ 500,000	$ 935,879	$ 941,715	

(1) Interest rate swap effectively fixed $400,000 of variable rate debt.

Interest Rate Swap Contracts

As of September 27, 2021, the fair value of the interest rate swap was recorded as a liability and as a component of other current liabilities in the amount of $7.4 million. The table below presents information regarding our interest rate swap during the three quarters ended September 27, 2021:

	Three Quarters Ended September 27, 2021
	(In thousands, except interest rates)
Average interest payout rate	2.84 %
Interest payout amount	$ (8,612)
Average interest received rate	0.11 %
Interest received amount	$ 334

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 September 27, 2021, 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

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. We have completed the implementation with respect to the next phase and as a result, we made changes to our processes and procedures which, in turn, resulted in changes to our internal control over financial reporting, including the implementation of additional controls. We continue to roll out the ERP system to our remaining locations.

There have been no other changes in our internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) during the quarter ended September 27, 2021 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 global pandemic and other similar risks, including without limitation, COVID-19, which could materially adversely affect our business, financial condition, and results of operations.

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 region, 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. Widespread infection in the United States and abroad has the potential for catastrophic impact. National, state and local authorities have recommended social distancing and at times have imposed quarantine and isolation measures on large portions of the population, including mandatory business closures. These measures, while intended to protect human life, had, and in the future may have, serious adverse impacts on domestic and foreign economies of uncertain severity and duration. The effectiveness of economic stabilization efforts, including on-going and further potential government payments and benefits to affected citizens and industries, is uncertain. Even as efforts to contain the pandemic, including vaccinations, have made progress and some restrictions have been relaxed, new variants of the virus are causing additional outbreaks. The Delta variant of COVID-19 has caused a surge in COVID-19 cases globally. The impact of the Delta 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 against the Delta variant and other variants, and the response by governmental bodies to reinstate restrictive measures.

In particular, 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, 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, on-going and uncertain nature of the circumstances involving the COVID-19 pandemic.

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

For the quarter ended September 27, 2021, 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;
- 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.

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.

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 (including, but not limited to, the COVID-19 pandemic) or otherwise. Suppliers and equipment manufacturers may extend lead times, limit supplies, or increase prices due to capacity constraints or other factors, which could harm our ability to deliver our products on a timely basis and negatively impact our financial results. In addition, in extreme circumstances, the suppliers we purchase from could cease production due to a fire, natural disaster, consolidation or liquidation of their businesses. As such, this may impact our ability to deliver our products on a timely basis, harm our customer relationships and negatively impact our financial results.

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.

Rising labor costs, including due to 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, the high turnover rate and our difficulty in recruiting and retaining qualified employees 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. 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 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 is currently extremely high. In this competitive environment, our business could be adversely impacted by increases in labor costs, including wages and benefits, including those increases triggered by regulatory actions regarding wages, scheduling and benefits; increased health care and workers' compensation insurance costs; increased wages and costs of other benefits necessary to attract and retain high quality employees with the right skill sets and increased wages, and benefits and costs related to the COVID-19 pandemic and its resurgence. In addition, our wages and benefits programs, combined with the challenging conditions due to the COVID-19 pandemic, may be insufficient to attract and retain talent.

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 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 align our strategy by pursuing potential divestitures of assets and acquisitions of businesses, technologies, assets, or product lines that complement or expand our business. Risks related to such activities 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;
- 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 recent 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 continue 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 and adverse changes in the economy and financial markets, including the worldwide electronics industry, could have an adverse impact on our business and operating results.

Uncertainty 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 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.

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, 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 September 27, 2021, our consolidated condensed balance sheet included $887.6 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 down turn, 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 39% and 41% of our net sales for the quarters ended September 27, 2021 and September 28, 2020, 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 28% and 32% of our net sales for the quarters ended September 27, 2021 and September 28, 2020, 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 September 27, 2021, aerospace and defense sales accounted for approximately 31% 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 some 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 39% and 41% of our net sales for the quarters ended September 27, 2021 and September 28, 2020, 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 2021 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 reducedrevenue 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.

We may be unable to hire and retain sufficient qualified personnel, and the loss of any of our key executive officers 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. Further, our ability to successfully integrate acquired companies depends in part on our ability to retain key management and existing employees at the time of the acquisition.

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, and 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, whether or not 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 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 agreements 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 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 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. 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 movements in interest rates, which could 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.

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 will 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 will 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 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 currently facing a growing power supply shortage. Instability in electrical supply can cause sporadic outages among residential and commercial consumers. As a result, the Chinese government is implementing 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.

We are subject to risks for the use of certain metals from "conflict minerals" originating in the Democratic Republic of the Congo.

In 2012, the SEC adopted rules implementing the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank). These rules impose diligence and disclosure requirements regarding the use of "conflict minerals" mined from the Democratic Republic of Congo and neighboring countries. While these new rules continue to be the subject of ongoing litigation and, as a result, uncertainty, we submitted a conflict minerals report on Form SD with the SEC for the past eight years, most recently on May 21, 2021. Compliance with these rules results in additional costs and expenses, including costs and expenses incurred for due diligence to determine and verify the sources of any conflict minerals used in our products, in addition to the costs and expenses of remediation and other changes to products, processes, or sources of supply as a consequence of such verification efforts. These rules may also affect the sourcing and availability of minerals used in the manufacture of our PCBs, as there may be only a limited number of suppliers offering "conflict free" minerals that can be used in our products. There can be no assurance that we will be able to obtain such minerals in sufficient quantities or at competitive prices. Also, since our supply chain is complex, we may, at a minimum, face reputational challenges with our customers, stockholders, and other stakeholders if we are unable to sufficiently verify the origins of the minerals used in our products. We may also encounter customers who require that all of the components of our products be certified as conflict free. If we are not able to meet customer requirements, such customers may choose to disqualify us as a supplier, which could impact our sales and the value of portions of our inventory.

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 sanctions 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 sanctions 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 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; or
- to respond to competitive pressures or perceived opportunities, such as investment, acquisition, and international expansion activities.

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, break-ins, 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 net 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 September 27, 2021:

	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)			
June 29, 2021 - July 26, 2021	—	$ —	—	$ 93,855
July 27, 2021 - August 23, 2021	982	14.09	982	$ 80,024
August 24, 2021 - September 27, 2021	1,132	13.37	1,132	$ 64,884
Total for the quarter ended September 27, 2021	2,114	$ 13.71	2,114	

(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. This program will continue until the maximum is reached or the program is terminated by further action of our Board of Directors.

Item 6. ***Exhibits***

Exhibit Number	Exhibits
3.1(a)	Registrant's Certificate of Incorporation, as amended June 3, 2011 (1(a))
3.1(b)	Registrant's Certificate of Amendment of Certificate of Incorporation, dated May 12, 2016 (1(b))
3.2	Registrant's Fifth Amended and Restated Bylaws, as amended August 3, 2021 (2)
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 (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.

(2) 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: November 2, 2021

Thomas T. Edman
President and Chief Executive Officer

/s/ Todd B. Schull

Dated: November 2, 2021

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)

November 2, 2021

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)

November 2, 2021

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 three quarters ended September 27, 2021, 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)

November 2, 2021

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 three quarters ended September 27, 2021, 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)

November 2, 2021