UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

Form 10-Q

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

For the quarterly period ended July 3, 2023

Or

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

For the transition period from ____________ to____________

Commission File Number: 000-31285

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 ☑

As of August 4, 2023, there were outstanding 103,871,225 shares of the registrant's Common Stock, $0.001 par value.

TTM TECHNOLOGIES, INC.
Form 10-Q
For the Quarter Ended July 3, 2023
TABLE OF CONTENTS

	Page
PART I: FINANCIAL INFORMATION	3
Item 1. Financial Statements (unaudited)	3
Consolidated Condensed Balance Sheets as of July 3, 2023 and January 2, 2023	3
Consolidated Condensed Statements of Operations for the quarter and two quarters ended July 3, 2023 and July 4, 2022	4
Consolidated Condensed Statements of Comprehensive Income (Loss) for the quarter and two quarters ended July 3, 2023 and July 4, 2022	5
Consolidated Condensed Statements of Stockholders' Equity for the two quarters ended July 3, 2023 and July 4, 2022	6
Consolidated Condensed Statements of Cash Flows for the two quarters ended July 3, 2023 and July 4, 2022	7
Notes to Consolidated Condensed Financial Statements	8
Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations	22
Item 3. Quantitative and Qualitative Disclosures About Market Risk	28
Item 4. Controls and Procedures	30
PART II: OTHER INFORMATION	31
Item 1. Legal Proceedings	31
Item 1A. Risk Factors	31
Item 2. Unregistered Sales of Equity Securities and Use of Proceeds	47
Item 3. Defaults Upon Senior Securities	47
Item 4. Mine Safety Disclosures	47
Item 5. Other Information	47
Item 6. Exhibits	48
SIGNATURES	49

PART I. FINANCIAL INFORMATION

Item 1. *Financial Statements (unaudited)*

TTM TECHNOLOGIES, INC.

Consolidated Condensed Balance Sheets
As of July 3, 2023 and January 2, 2023

	As of	
	July 3, 2023	January 2, 2023
	(Unaudited) (In thousands, except par value)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 398,716	$ 402,749
Accounts receivable, net	386,903	473,225
Contract assets	312,529	335,788
Inventories	186,765	170,639
Receivable from sale of Shanghai E-MS (SH E-MS) property	6,595	69,240
Prepaid expenses and other current assets	44,546	41,415
Total current assets	1,336,054	1,493,056
Property, plant and equipment, net	709,577	724,204
Operating lease right-of-use assets	14,041	18,862
Goodwill	746,835	760,437
Definite-lived intangibles, net	264,240	288,037
Deposits and other non-current assets	77,744	39,008
Total assets	$ 3,148,491	$ 3,323,604
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Short-term debt, including current portion of long-term debt	$ 3,500	$ 50,000
Accounts payable	306,298	361,788
Contract liabilities	115,246	103,981
Accrued salaries, wages and benefits	74,097	115,524
Other current liabilities	103,243	130,032
Total current liabilities	602,384	761,325
Long-term debt, net of discount and issuance costs	864,413	879,407
Operating lease liabilities	8,804	12,249
Other long-term liabilities	128,581	135,044
Total long-term liabilities	1,001,798	1,026,700
Commitments and contingencies (Note 14)		
Equity:		
Common stock, $0.001 par value; 300,000 shares authorized; 111,240 and 109,598 shares issued as of July 3, 2023 and January 2, 2023, respectively; 103,870 and 102,228 shares outstanding as of July 3, 2023 and January 2, 2023, respectively	111	110
Treasury stock – common stock at cost; 7,370 shares as of July 3, 2023 and January 2, 2023	(98,659)	(98,659)
Additional paid-in capital	868,437	858,077
Retained earnings	801,851	800,841
Accumulated other comprehensive loss	(27,431)	(24,790)
Total stockholders' equity	1,544,309	1,535,579
Total liabilities and stockholders' equity	$ 3,148,491	$ 3,323,604

See accompanying notes to consolidated condensed financial statements.

TTM TECHNOLOGIES, INC.

Consolidated Condensed Statements of Operations
For the Quarter and Two Quarters Ended July 3, 2023 and July 4, 2022

	Quarter Ended		Two Quarters Ended	
	July 3, 2023	July 4, 2022	July 3, 2023	July 4, 2022
	(Unaudited) (In thousands, except per share data)			
Net sales	$ 546,509	$ 625,550	$ 1,090,946	$ 1,206,810
Cost of goods sold	448,002	508,477	906,316	998,814
Gross profit	98,507	117,073	184,630	207,996
Operating expenses:				
Selling and marketing	18,180	17,557	39,482	35,829
General and administrative	37,840	48,350	72,913	81,120
Research and development	6,424	5,233	13,509	10,788
Amortization of definite-lived intangibles	3,852	8,275	25,816	16,549
Restructuring charges	10,803	456	14,970	640
Total operating expenses	77,099	79,871	166,690	144,926
Operating income	21,408	37,202	17,940	63,070
Other (expense) income:				
Interest expense	(11,843)	(10,711)	(24,650)	(22,072)
Loss on extinguishment of debt	(1,154)	—	(1,154)	—
(Loss) gain on sale of subsidiary	(69)	—	1,270	—
Other, net	5,068	7,638	6,266	9,608
Total other expense, net	(7,998)	(3,073)	(18,268)	(12,464)
Income (loss) before income taxes	13,410	34,129	(328)	50,606
Income tax (provision) benefit	(6,586)	(6,337)	1,338	(5,568)
Net income	$ 6,824	$ 27,792	$ 1,010	$ 45,038
Earnings per share:				
Basic earnings per share	$ 0.07	$ 0.27	$ 0.01	$ 0.44
Diluted earnings per share	$ 0.07	$ 0.27	$ 0.01	$ 0.43

See accompanying notes to consolidated condensed financial statements.

TTM TECHNOLOGIES, INC.

Consolidated Condensed Statements of Comprehensive Income (Loss)
For the Quarter and Two Quarters Ended July 3, 2023 and July 4, 2022

	Quarter Ended		Two Quarters Ended	
	July 3, 2023	July 4, 2022	July 3, 2023	July 4, 2022
	(Unaudited) (In thousands)			
Net income	$ 6,824	$ 27,792	$ 1,010	$ 45,038
Other comprehensive income (loss), net of tax:				
Pension obligation adjustments, net	(1)	—	—	—
Foreign currency translation adjustments	(463)	(1,700)	(433)	(1,736)
Derecognition of foreign currency translation adjustments due to sale of subsidiary	—	—	(6,627)	—
Net unrealized gain (loss) on cash flow hedges:				
Unrealized gain (loss) on effective cash flow hedges during the period, net	5,820	(129)	5,140	24
(Loss) gain realized in the statement of operations, net	(726)	1,053	(721)	3,087
Net	5,094	924	4,419	3,111
Other comprehensive income (loss), net of tax	4,630	(776)	(2,641)	1,375
Comprehensive income (loss), net of tax	$ 11,454	$ 27,016	$ (1,631)	$ 46,413

See accompanying notes to consolidated condensed financial statements.

TTM TECHNOLOGIES, INC.

Consolidated Condensed Statements of Stockholders' Equity
For the Two Quarters Ended July 3, 2023 and July 4, 2022

(Unaudited)

(In thousands)

	Common Stock Shares	Common Stock Amount	Treasury Stock Shares	Treasury Stock Amount	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive (Loss) Income	Total Stockholders' Equity
Balance, January 2, 2023	109,598	$ 110	(7,370)	$ (98,659)	$ 858,077	$ 800,841	$ (24,790)	$ 1,535,579
Net loss	—	—	—	—	—	(5,814)	—	(5,814)
Other comprehensive loss	—	—	—	—	—	—	(7,271)	(7,271)
Issuance of common stock for performance-based restricted stock units	337	—	—	—	—	—	—	—
Issuance of common stock for restricted stock units	21	—	—	—	—	—	—	—
Stock-based compensation	—	—	—	—	5,240	—	—	5,240
Balance, April 3, 2023	109,956	$ 110	(7,370)	$ (98,659)	$ 863,317	$ 795,027	$ (32,061)	$ 1,527,734
Net income	—	—	—	—	—	6,824	—	6,824
Other comprehensive income	—	—	—	—	—	—	4,630	4,630
Issuance of common stock for restricted stock units	1,284	1	—	—	(1)	—	—	—
Stock-based compensation	—	—	—	—	5,121	—	—	5,121
Balance, July 3, 2023	111,240	$ 111	(7,370)	$ (98,659)	$ 868,437	$ 801,851	$ (27,431)	$ 1,544,309

(Unaudited)

(In thousands)

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

See accompanying notes to consolidated condensed financial statements.

TTM TECHNOLOGIES, INC.

Consolidated Condensed Statements of Cash Flows
For the Two Quarters Ended July 3, 2023 and July 4, 2022

	Two Quarters Ended	
	July 3, 2023	July 4, 2022
	(Unaudited) (In thousands)	
Cash flows from operating activities:		
Net income	$ 1,010	$ 45,038
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation of property, plant and equipment	50,190	43,289
Amortization of definite-lived intangible assets	34,047	19,316
Amortization of debt discount and issuance costs	1,225	1,069
Loss on extinguishment of debt	1,154	—
Deferred income taxes	(495)	(322)
Stock-based compensation	10,361	8,661
Gain on sale of subsidiary	(1,270)	—
Other	(234)	(3,655)
Changes in operating assets and liabilities:		
Accounts receivable, net	76,590	(34,787)
Contract assets	22,110	(18,383)
Inventories	(19,082)	(6,091)
Prepaid expenses and other current assets	(7,580)	(18,586)
Accounts payable	(35,678)	39,556
Contract liabilities	11,265	17,669
Accrued salaries, wages and benefits	(40,911)	585
Other current liabilities	(21,740)	21,949
Net cash provided by operating activities	80,962	115,308
Cash flows from investing activities:		
Acquisition of Gritel Holding Co., Inc. and ISC Farmingdale Corp.	—	(299,212)
Proceeds from sale of SH E-MS property	61,769	—
Purchase of property, plant and equipment and other assets	(80,467)	(49,927)
Proceeds from sale of property, plant and equipment and other assets	343	113
Proceeds from sale of subsidiary, net of cash disposed	6,039	—
Net cash used in investing activities	(12,316)	(349,026)
Cash flows from financing activities:		
Repayment of long-term debt borrowings	(290,697)	—
Proceeds from long-term debt borrowing	234,818	—
Refund of customer deposits	(7,500)	—
Payment of debt issuance costs	(5,487)	—
Payment of original issue discount	(3,500)	—
Proceeds from borrowings of revolving loan	—	50,000
Repayment of revolving loan	—	(50,000)
Repurchases of common stock	—	(35,424)
Cash used to settle warrants	—	(887)
Net cash used in financing activities	(72,366)	(36,311)
Effect of foreign currency exchange rates on cash and cash equivalents	(313)	(1,103)
Net decrease in cash and cash equivalents	(4,033)	(271,132)
Cash and cash equivalents at beginning of period	402,749	537,678
Cash and cash equivalents at end of period	$ 398,716	$ 266,546
Supplemental cash flow information:		
Cash paid, net for interest	$ 26,050	$ 22,793
Cash paid, net for income taxes	25,618	2,013
Supplemental disclosure of noncash investing and financing activities:		
Cashless extinguishment of debt for issuance of new long-term debt borrowing	$ 115,182	$ —
Property, plant and equipment recorded in accounts payable	19,993	40,365
Issuance of common stock for warrant settlement	—	589

See accompanying notes to consolidated condensed financial statements.

(1) Nature of Operations and Basis of Presentation

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

The Company serves a diversified customer base in various markets throughout the world, including aerospace and defense, data center computing, automotive, medical, industrial and instrumentation related products, and networking. The Company's customers include original equipment manufacturers (OEMs), electronic manufacturing services (EMS) providers, original design manufacturers (ODMs), distributors and government agencies.

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. These consolidated condensed financial statements should be read in conjunction with the consolidated financial statements and the notes thereto included in the Company's most recent Annual Report on Form 10-K. The preparation of financial statements in accordance with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the Company's consolidated condensed financial statements and accompanying notes. Due, in part, to the on-going effects of the coronavirus (COVID-19) and its variants on the Company and the conflict between Russia and Ukraine, the global economy and financial markets have been volatile. In addition, both COVID-19 and the conflict in Ukraine have contributed to on-going disruptions in global supply chains, labor shortages, high inflation, and a potential recession, and there is a significant amount of uncertainty about the length and severity of the direct and indirect effects of COVID-19 variants and the conflict. 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. The actual results the Company experienced may differ materially and adversely from its estimates. The Company uses a 52/53 week fiscal calendar with the fourth quarter ending on the Monday nearest December 31.

Recently Adopted and Issued Accounting Standards

Recently Adopted Accounting Standards

In September 2022, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2022-04, *Liabilities - Supplier Finance Programs (Topic 450-50): Disclosure of Supplier Finance Program Obligations*, that requires entities that use supplier finance programs in connection with the purchase of goods and services to disclose the key terms of the programs and information about obligations outstanding at the end of the reporting period, including a rollforward of those obligations. The guidance does not affect the recognition, measurement or financial statement presentation of supplier finance program obligations. The amendments are effective for all entities for fiscal years beginning after December 15, 2022 on a retrospective basis, including interim periods within those fiscal years, except for the requirement to disclose rollforward information, which is effective prospectively for fiscal years beginning after December 15, 2023. The Company adopted ASU 2022-04 as of April 3, 2023. The Company has agreements with financial institutions to facilitate the payments to certain suppliers. Under the terms of the agreements, the Company confirms the validity of each supplier invoice to the respective financial institution upon receipt. The supplier receives payment from the financial institution, and the Company pays the financial institution based on the terms negotiated, which generally range from 160 days to 360 days, with a weighted average of 260 days. Liabilities associated with these agreements are recorded in accounts payable on the consolidated condensed balance sheets and amounted to $8,206 and $6,653 as of July 3, 2023 and January 2, 2023, respectively.

In December 2022, the FASB issued ASU 2022-06, *Reference Rate Reform (Topic 848): Deferral of the Sunset Date of Topic 848*, which deferred the sunset date of Topic 848 to December 31, 2024, after which entities will no longer be permitted to apply the optional expedients and exceptions in Topic 848. On March 23, 2023, the Company entered into a four-year pay-fixed, receive floating (1-month CME Term Secured Overnight Financing Rate (SOFR)), interest rate swap arrangement with a notional amount of $250,000 for the period beginning April 1, 2023 and ending on April 1, 2027. Under the terms of the interest rate swap, the Company pays a fixed rate of 3.49% against a portion of its Term SOFR-based debt and receives a floating 1-month CME Term SOFR during the swap period. The Company elected optional expedients provided in Topic 848 which allow the designation of the interest rate swap as a cash flow hedge.

(2) Acquisition of Gritel and ISC Farmingdale Corp.

On June 27, 2022, the Company completed its acquisition of all of the issued and outstanding capital stock of Gritel Holding Co., Inc. (Gritel) and ISC Farmingdale Corp. for a total consideration of $298,339 in cash. At the time of acquisition, Telephonics Corporation was wholly-owned by Gritel, and as a result of the acquisition, became an indirect, wholly-owned subsidiary of the Company (collectively with ISC Farmingdale Corp., Telephonics).

For the quarter and two quarters ended July 3, 2023, legal, accounting, and other professional service costs associated with the acquisition of $97 and $508, respectively, have been expensed and recorded as general and administrative expense in the consolidated condensed statements of operations. For the quarter and two quarters ended July 4, 2022, bank fees and legal, accounting, and other professional service costs associated with the acquisition of $9,854 and $10,708, respectively, were expensed and recorded as general and administrative expense in the consolidated condensed statements of operations.

Purchase Price Allocation

The purchase price was allocated to tangible and intangible assets acquired, and liabilities assumed based on the fair value at the date of the acquisition, June 27, 2022. The excess of the purchase price over the fair value of net assets acquired was allocated to goodwill. The fair values were based on management's analysis, including work performed by third-party valuation specialists. As of July 3, 2023, the Company has finalized the allocation of the purchase price.

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

	(In thousands)
Accounts receivable	$ 51,140
Contract assets	26,460
Inventories	38,616
Prepaid expenses and other current assets	5,605
Property, plant and equipment	69,253
Operating lease right-of-use assets	497
Goodwill	112,326
Identifiable intangible assets	101,000
Non-current deferred tax assets	913
Deposits and other non-current assets	3,129
Accounts payable	(16,026)
Contract liabilities	(65,262)
Accrued salaries, wages and benefits	(10,616)
Other current liabilities	(12,751)
Operating lease liabilities	(336)
Other long-term liabilities	(5,609)
Total	$ 298,339

Identifiable Intangible Assets

Acquired identifiable intangible assets include customer relationships, technology, backlog, and trade names. The fair value of the identifiable intangible assets was determined using various valuation methods including relief from royalty and excess earnings to determine the present value of expected future cash flows for each identifiable intangible asset based on discount rates. The expected cash flows were estimated using available historical data adjusted based on a market participant perspective. The Company used risk adjusted discount rates between 7.0% and 8.0% to discount the expected future cash flows. The fair value assigned to each class of intangible assets and the related weighted average amortization periods are as follows:

	Estimated Fair Value (In thousands)	Weighted Average Amortization Period (In years)
Customer relationships	$ 56,000	10.0
Technology	29,500	5.0
Backlog	13,000	2.0
Trade names	2,500	2.0
	$ 101,000	

In connection with the finalization of the acquired identifiable intangible asset valuation, the Company adjusted the amortization period of the intangible assets. As a result, the Company recorded a net reduction in amortization expense of $2,862 during the quarter ended July 3, 2023, which includes $4,813 of amortization expense and a reduction in amortization expense of $5,117 and $2,558 due to the change in amortization period, which corresponded to the year ended January 2, 2023 and quarter ended April 3, 2023, respectively. The Company recorded amortization expense of $15,252 related to the acquired identifiable intangible assets during the two quarters ended July 3, 2023 (of which $5,627 corresponded to the year ended January 2, 2023 due to the change in amortization period). For the quarter and two quarters ended July 3, 2023, $1,475 and $5,900 of amortization expense is included in cost of goods sold, respectively (of which $2,950 corresponded to the year ended January 2, 2023).

Goodwill

Goodwill represents the excess of the purchase price over the fair value of assets acquired and liabilities assumed. During the quarter ended July 3, 2023, the Company increased goodwill by $563 due to an adjustment to the estimate of fair value for deferred taxes. The Company believes that the acquisition of Telephonics will strengthen the Company's differentiated position in the Aerospace and Defense market. The Company believes that these factors support the amount of goodwill recognized as a result of the purchase price paid for Telephonics, in relation to other acquired tangible and intangible assets. The goodwill acquired in the acquisition is not deductible for income tax purposes.

Results of Operations

Included in the consolidated condensed statements of operations are net sales of $53,327 and $101,966, excluding intercompany sales, for the quarter and two quarters ended July 3, 2023, respectively. Included in the consolidated condensed statements of operations are pre-tax income of $4,414 and $11,199, excluding amortization of intangibles, for the quarter and two quarters ended July 3, 2023, respectively. The results of operations of Telephonics for the quarter and two quarters ended July 4, 2022 are not material to the Company's consolidated condensed statements of operations.

Pro forma Financial Information

The unaudited pro forma financial information below gives effect to this acquisition as if it had occurred at the beginning of fiscal 2022, or January 4, 2022. The pro forma financial information presented includes the effects of adjustments related to the amortization of acquired identifiable intangible assets, decrease in inventory markup, depreciation of acquired fixed assets, and other non-recurring transactions costs directly associated with the acquisition such as legal, accounting and banking fees.

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

	Quarter Ended		Two Quarters Ended	
	July 3, 2023	July 4, 2022	July 3, 2023	July 4, 2022
	(In thousands, except per share amounts)			
Net sales	$ 546,509	$ 676,344	$ 1,090,946	$ 1,313,878
Net income	1,597	33,744	1,849	47,318
Basic earnings per share	$ 0.02	$ 0.33	$ 0.02	$ 0.46
Diluted earnings per share	$ 0.02	$ 0.33	$ 0.02	$ 0.46

(3) Leases

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

The components of lease expense were as follows:

	Quarter Ended		Two Quarters Ended	
	July 3, 2023	July 4, 2022	July 3, 2023	July 4, 2022
	(In thousands)			
Operating lease cost	$ 1,762	$ 1,792	$ 3,808	$ 3,676
Variable lease cost	217	208	495	454
Short-term lease cost	158	174	275	314
Finance lease costs:				
Amortization of right-of-use assets	343	344	687	687
Interest on lease liabilities	93	99	187	197

Supplemental cash flow information related to leases was as follows:

	Two Quarters Ended	
	July 3, 2023	July 4, 2022
	(In thousands)	
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows for operating leases	$ 3,827	$ 3,654
Right-of-use assets obtained in exchange for new lease obligations:		
Operating leases	728	5,368

Supplemental balance sheet information related to leases was as follows:

	Balance Sheet Location	As of	
		July 3, 2023	January 2, 2023
		(In thousands)	
Assets:			
Operating leases	Operating lease right-of-use assets	$ 14,041	$ 18,862
Finance leases	Property, plant and equipment, net	12,697	13,384
Total lease assets		$ 26,738	$ 32,246
Liabilities:			
Current:			
Operating leases	Other current liabilities	$ 5,942	$ 7,368
Finance leases	Other current liabilities	769	736
Long-term:			
Operating leases	Operating lease liabilities	8,804	12,249
Finance leases	Other long-term liabilities	13,189	13,579
Total lease liabilities		$ 28,704	$ 33,932

	As of	
	July 3, 2023	January 2, 2023
Weighted average remaining lease term (years):		
Operating leases	3.1	3.3
Finance leases	13.1	13.6
Weighted average discount rate:		
Operating leases	3.34 %	3.09 %
Finance leases	2.69 %	2.69 %

Maturities of lease liabilities were as follows:

	Operating Leases (1)	Finance Leases
	(In thousands)	
Less than one year	$ 6,303	$ 1,133
1 - 2 years	5,148	1,127
2 - 3 years	2,290	1,171
3 - 4 years	870	1,175
4 - 5 years	399	1,223
Thereafter	588	10,846
Total lease payments	15,598	16,675
Less imputed interest	(852)	(2,717)
Total	$ 14,746	$ 13,958

(1) Excludes $2,074 of legally binding minimum lease payments for leases signed but not yet commenced.

(4) Revenues

As of July 3, 2023, the aggregate amount of the transaction price allocated to remaining performance obligations for long-term contracts was $376,291. The Company expects to recognize revenue on approximately 50% of the remaining performance obligations for the Company's long-term contracts over the next twelve months with the remaining amount expected to be recognized thereafter.

For contracts in which anticipated total costs exceed the total expected revenue, an estimated loss is recognized in the period when identifiable. A provision for the entire amount of the estimated loss is recorded on a cumulative basis. The estimated remaining costs to complete for loss contracts as of July 3, 2023 and January 2, 2023 were $19,971 and $21,632, respectively.

Revenue recognized for the two quarters ended July 3, 2023 from amounts recorded as contract liabilities as of January 2, 2023 was $27,069.

Revenue from products and services transferred to customers over time and at a point in time accounted for 96% and 4%, respectively, of the Company's revenue for the quarter and two quarters ended July 3, 2023, and 97% and 3%, respectively, of the Company's revenue for the quarter and two quarters ended July 4, 2022.

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

	Quarter Ended July 3, 2023			Quarter Ended July 4, 2022		
	PCB	RF&S Components	Total	PCB	RF&S Components	Total
End Markets		(In thousands)				
Aerospace and Defense	$ 254,284	$ —	$ 254,284	$ 189,676	$ —	$ 189,676
Automotive	92,374	—	92,374	111,778	—	111,778
Data Center Computing	64,305	51	64,356	106,188	20	106,208
Medical/Industrial/Instrumentation	88,979	745	89,724	131,061	2,246	133,307
Networking	36,589	9,182	45,771	69,766	15,109	84,875
Other	—	—	—	960	(1,254)	(294)
Total	$ 536,531	$ 9,978	$ 546,509	$ 609,429	$ 16,121	$ 625,550

	Two Quarters Ended July 3, 2023			Two Quarters Ended July 4, 2022		
	PCB	RF&S Components	Total	PCB	RF&S Components	Total
End Markets			(In thousands)			
Aerospace and Defense	$ 486,576	$ —	$ 486,576	$ 361,856	$ —	$ 361,856
Automotive	185,841	—	185,841	227,014	—	227,014
Data Center Computing	122,175	51	122,226	197,972	20	197,992
Medical/Industrial/Instrumentation	189,747	1,662	191,409	251,423	3,784	255,207
Networking	86,303	18,591	104,894	133,409	28,866	162,275
Other	—	—	—	3,825	(1,359)	2,466
Total	$ 1,070,642	$ 20,304	$ 1,090,946	$ 1,175,499	$ 31,311	$ 1,206,810

(5) Composition of Certain Consolidated Condensed Financial Statement Captions

	As of	
	July 3, 2023	January 2, 2023
	(In thousands)	
Inventories:		
Raw materials	$ 148,707	$ 145,561
Work-in-process	33,506	20,114
Finished goods	4,552	4,964
	$ 186,765	$ 170,639
Property, plant and equipment, net:		
Land and land use rights	$ 76,811	$ 76,811
Buildings and improvements	445,969	443,353
Machinery and equipment	996,939	989,935
Furniture and fixtures and other	11,089	11,327
Construction-in-progress	32,891	27,774
	1,563,699	1,549,200
Less: Accumulated depreciation	(854,122)	(824,996)
	$ 709,577	$ 724,204
Other current liabilities:		
Restructuring	$ 13,249	$ 2,513
Sales return and allowances	10,659	12,319
Accrued facility operating costs	9,371	9,081
Housing fund	7,309	7,440
Interest	6,846	9,336
Warranty	5,960	8,045
Operating leases	5,942	7,368
Income taxes payable	4,302	28,057
Accrued professional fees	3,232	5,123
Derivative liabilities	783	1,622
Other	35,590	39,128
	$ 103,243	$ 130,032
Other long-term liabilities:		
Deferred income taxes	$ 54,470	$ 54,268
Customer deposits	31,250	38,750
Finance leases	13,189	13,579
Defined benefit pension plan liability	2,474	2,471
Other	27,198	25,976
	$ 128,581	$ 135,044

On December 22, 2022, land, building, and relevant ancillary assets related to the Company's former Shanghai E-MS (SH E-MS) manufacturing facility were expropriated by the Chinese government for a compensation fee of Renminbi (RMB) 477.6 million generating a gain on the sale of $51,804. The Company received 90% of the proceeds as of July 3, 2023 and expects to receive the remaining 10% of the proceeds before December 30, 2023. As of July 3, 2023 and January 2, 2023, the receivable from sale of SH E-MS property was $6,595 and $69,240, respectively.

(6) Goodwill

As of July 3, 2023 and January 2, 2023, goodwill by reportable segment was as follows:

	PCB	RF&S Components (In thousands)	Total
Balance as of January 2, 2023			
Goodwill	$ 823,837	$ 177,200	$ 1,001,037
Accumulated impairment losses	(171,400)	(69,200)	(240,600)
	652,437	108,000	760,437
Goodwill adjustment during the two quarters ended July 3, 2023	(10,787)	—	(10,787)
Derecognition of goodwill due to sale of subsidiary	(2,815)	—	(2,815)
Balance as of July 3, 2023			
Goodwill	810,235	177,200	987,435
Accumulated impairment losses	(171,400)	(69,200)	(240,600)
	$ 638,835	$ 108,000	$ 746,835

During the two quarters ended July 3, 2023, the Company decreased goodwill by $10,787 due to an adjustment to the estimate of fair value for identifiable intangible assets and deferred taxes. Goodwill recognized as a result of the acquisition of Telephonics is finalized as of July 3, 2023. See Note 2, *Acquisition of Gritel and ISC Farmingdale Corp.*, for further information.

(7) Definite-lived Intangibles

As of July 3, 2023 and January 2, 2023, the components of definite-lived intangibles were as follows:

	Gross Amount	Accumulated Amortization (In thousands)	Net Carrying Amount	Weighted Average Amortization Period (In years)
July 3, 2023				
Customer relationships	$ 416,230	$ (203,782)	$ 212,448	11.2
Technology	66,650	(22,608)	44,042	8.2
Backlog	13,000	(6,500)	6,500	2.0
Trade names	2,500	(1,250)	1,250	2.0
	$ 498,380	$ (234,140)	$ 264,240	
January 2, 2023				
Customer relationships	$ 366,071	$ (187,560)	$ 178,511	11.3
Technology	47,650	(24,876)	22,774	9.5
Acquired intangibles from acquisition				
Customer relationships	82,500	(3,173)	79,327	13.0
Trade names	8,250	(825)	7,425	5.0
	$ 504,471	$ (216,434)	$ 288,037	

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

Definite-lived intangibles are amortized using the straight-line method of amortization over the useful life. Amortization expense was $6,275 and $9,658 for the quarters ended July 3, 2023 and July 4, 2022, respectively, and $34,047 and $19,316 for the two quarters ended July 3, 2023 and July 4, 2022, respectively. For the quarter and two quarters ended July 3, 2023, $2,423 and $8,231, respectively, of amortization expense is included in cost of goods sold. For the quarter and two quarters ended July 4, 2022, $1,383 and $2,767, respectively, of amortization expense is included in cost of goods sold.

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

	(In thousands)
Remaining 2023	$ 27,530
2024	44,892
2025	36,897
2026	36,897
2027	34,543
Thereafter	83,481
	$ 264,240

(8) Long-term Debt and Letters of Credit

The following table summarizes the long-term debt of the Company as of July 3, 2023 and January 2, 2023:

	Interest Rate as of July 3, 2023	Principal Outstanding as of July 3, 2023	Interest Rate as of January 2, 2023	Principal Outstanding as of January 2, 2023
	(In thousands, except interest rates)			
Senior Notes due March 2029	4.00 %	$ 500,000	4.00 %	$ 500,000
Term Loan due May 2030	7.89	350,000	—	—
Asia ABL Revolving Loan due June 2028	6.44	30,000	5.79	30,000
Term Loan due September 2024	—	—	6.89	405,879
		880,000		935,879
Less: Long-term debt unamortized debt issuance costs		(8,616)		(6,080)
Long-term debt unamortized discount		(3,471)		(392)
		867,913		929,407
Less: current maturities		(3,500)		(50,000)
Long-term debt, less current maturities		$ 864,413		$ 879,407

Term Loan Facility

On May 30, 2023, pursuant to an Amended & Restated Term Loan Credit Agreement by and among the Company, JPMorgan Chase Bank, N.A., as Administrative Agent, and the several lenders from time to time parties thereto (Term Loan Credit Agreement), the Company closed its $350,000 senior secured Term Loan due 2030 (Term Loan Facility), of which $3,500 is included in short-term debt and $346,500 is included in long-term debt. The Term Loan Facility was issued with a 1.0% original issue discount and bears interest at a floating rate of 1-month CME Term SOFR plus an applicable margin of 2.75%. There is no provision, other than an event of default, for the interest margin to increase. The Company is required to make quarterly principal repayments in an aggregate annual amount equal to 1% of the initial aggregate principal amount of the Term Loan Facility beginning October 1, 2023. Such principal repayment is payable quarterly on January 1, April 1, July 1, and October 1 and ending with the last such day to occur prior to May 30, 2030. The remaining principal under the Term Loan Facility is scheduled to mature on May 30, 2030. In addition, the Term Loan Credit Agreement will permit the Company to add one or more senior secured incremental term loan facilities to the Term Loan Facility subject to the satisfaction of certain conditions.

The Company used $234,818 under the Term Loan Facility and $115,182 of cashless rollover from continuing lenders, together with cash on hand, to refinance the full amount of indebtedness outstanding under the Company's previous Term Loan Facility that was due to mature in 2024, as well as to pay related fees and expenses.

The obligations under the Term Loan Facility are unconditionally guaranteed by each Subsidiary Guarantor of the Company, subject to certain exceptions (Guarantors). The Term Loan Facility is secured by (i) a perfected first priority security interest in substantially all of the assets of the Company and the Guarantors (other than the U.S. ABL Priority Collateral (as defined below)), including all of the total outstanding voting capital stock held by the Company and the Guarantors (subject to a limitation of 65% on pledges of such capital stock of certain foreign subsidiaries and domestic holding companies of foreign subsidiaries) and (ii) a perfected second priority interest in all of the U.S. ABL Priority Collateral. The Term Loan Facility is structurally senior to the Company's Senior Notes due 2029.

Asset-Based Lending Agreements

The Company amended and restated its U.S. Asset-Based Lending Credit Agreement (U.S. ABL) on May 30, 2023 and its Asia Asset-Based Lending Credit Agreement (Asia ABL) on June 14, 2023. Both agreements were amended for the benchmark interest rate and margins and maturity was extended to May 2028 and June 2028 for the U.S. ABL and the Asia ABL, respectively.

The U.S. ABL is comprised of a revolving credit facility for up to $150,000 and a sublimit for letter of credit for up to $50,000, provided that at no time may amounts outstanding under the agreement exceed in the aggregate $150,000 or the applicable borrowing base, which is the sum of (i) a percentage of the principal amount of "Eligible Accounts", plus (ii) a percentage of the net orderly liquidation value of (x) "Eligible Inventory", minus (y) "Inventory Reserves" applicable thereto, minus (iii) "Reserves", each as defined in the U.S. ABL agreement.

Borrowings under the U.S. ABL bear interest at a floating rate of Term SOFR plus a margin ranging from 1.25% to 1.50%. The applicable margin can vary based on the remaining availability of the facility, from 125 to 150 basis points for Term SOFR-based loans and from 25 to 50 basis points for JPMorgan Chase Bank's prime rate-based loans. Other than availability and an event of default, there are no other provisions for the interest margin to increase. The Company is also required to pay certain fees in connection with the U.S. ABL agreement, including unused commitment fees based on the average daily unused portion of the U.S. ABL facility, equal to 0.25% on an annual basis.

The U.S. ABL is scheduled to mature on May 30, 2028. The Guarantors have also fully guaranteed the full and timely payment of all obligations in respect of the U.S. ABL. Loans made under the U.S. ABL are secured by a perfected first priority security interest in certain deposit accounts, cash and cash equivalents, accounts receivable and certain U.S. inventory (U.S. ABL Priority Collateral) as well as by a perfected second priority interest in all of the collateral securing the Term Loan Facility.

The Asia ABL is comprised of a revolving credit facility for up to $150,000 and a sublimit for letter of credit for up to $100,000, provided that at no time may amounts outstanding under the agreement exceed in aggregate $150,000 or the applicable borrowing base, which is a percentage of the principal amount of Eligible Accounts, as defined in the Asia ABL agreement.

Borrowings under the Asia ABL bear interest at a floating rate of Term SOFR plus 130 basis points. There is no provision, other than an event of default, for the interest margin to increase. The Company is also required to pay certain fees in connection with the Asia ABL agreement, including unused commitment fees based on the average daily unused portion of the Asia ABL facility, equal to 0.25% on an annual basis.

The Asia ABL is scheduled to mature on June 13, 2028. Loans made under the Asia ABL are secured by a portion of the Company's Asia Pacific cash and receivables and are structurally senior to the Company's domestic obligations, including the Senior Notes due 2029.

As of July 3, 2023, letters of credit in the amount of $6,191 were outstanding under the U.S. ABL and $14,039 were outstanding under the Asia ABL with various maturities through September 2024. Available borrowing capacity under the U.S. ABL and the Asia ABL was $143,809 and $105,961, respectively, which considers letters of credit outstanding as of July 3, 2023.

Debt Covenants

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

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

Debt Issuance and Debt Discount

As of July 3, 2023 and January 2, 2023, remaining unamortized debt discount and debt issuance costs for the Senior Notes due 2029 and Term Loan Facility are as follows:

	As of July 3, 2023			As of January 2, 2023		
	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	$ 4,435	$ —	4.18 %	$ 4,779	$ —	4.18 %
Term Loan due May 2030	4,181	3,471	8.25	—	—	—
Term Loan due September 2024	—	—	—	1,301	392	4.66
	$ 8,616	$ 3,471		$ 6,080	$ 392	

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.

The remaining unamortized debt issuance costs for the ABL Revolving Loans of $1,786 and $792 as of July 3, 2023 and January 2, 2023, respectively, are included in other non-current assets and are amortized to interest expense over the duration of the ABL Revolving Loans using the straight-line method of amortization.

As of July 3, 2023, the remaining weighted average amortization period for all unamortized debt discount and debt issuance costs was 6.3 years.

Loss on Extinguishment of Debt

During the quarter ended July 3, 2023, the Company recognized loss on extinguishment of debt of $1,154, primarily associated with the write-off of the remaining unamortized debt issuance and debt discount as a result of the repayment of the remaining outstanding balance of the Term Loan Facility that was due to mature September 2024.

(9) Income Taxes

The Company's effective tax rate is impacted by the mix of foreign and U.S. income, 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. No tax benefit was recorded on the losses incurred in certain foreign jurisdictions as a result of corresponding increases in the valuation allowances in these jurisdictions.

During the quarter and two quarters ended July 3, 2023, the Company's effective tax rate was impacted by a net discrete benefit of $1,079. This is primarily related to the release of uncertain tax positions due to the expiration of the statute of limitations in certain foreign jurisdictions.

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

(10) 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.

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

	Quarter Ended		Two Quarters Ended	
	July 3, 2023	July 4, 2022	July 3, 2023	July 4, 2022
	(In thousands)			
Net Sales:				
PCB	$ 536,531	$ 609,429	$ 1,070,642	$ 1,175,499
RF&S Components	9,978	16,121	20,304	31,311
Total net sales	$ 546,509	$ 625,550	$ 1,090,946	$ 1,206,810
Operating Segment Income (Loss):				
PCB	$ 58,479	$ 91,908	$ 110,113	$ 148,448
RF&S Components	3,202	6,678	5,370	12,428
Corporate and Other	(33,998)	(51,726)	(63,496)	(78,490)
Total operating segment income	27,683	46,860	51,987	82,386
Amortization of definite-lived intangibles (1)	(6,275)	(9,658)	(34,047)	(19,316)
Total operating income	21,408	37,202	17,940	63,070
Total other expense, net	(7,998)	(3,073)	(18,268)	(12,464)
Income (loss) before income taxes	$ 13,410	$ 34,129	$ (328)	$ 50,606

	As of	
	July 3, 2023	January 2, 2023
	(In thousands)	
Segment Assets:		
PCB	$ 1,838,717	$ 1,890,723
RF&S Components	193,169	202,619
Corporate and Other	1,116,605	1,230,262
Total assets	$ 3,148,491	$ 3,323,604

(1) Amortization of definite-lived intangibles relates to the PCB and RF&S Components reportable segments. For the quarter and two quarters ended July 3, 2023, $2,423 and $8,231, respectively, of amortization expense is included in cost of goods sold. For the quarter and two quarters ended July 4, 2022, $1,383 and $2,767, respectively, of amortization expense is included in cost of goods sold.

The Corporate and Other category primarily includes operating expenses that are not included in the segment operating performance measures. Corporate and Other 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 60 countries. Other than in the United States, the Company does not conduct business in any country in which its net sales in that country exceed 10% of the Company's total net sales. Net sales are as follows:

	Quarter Ended		Two Quarters Ended	
	July 3, 2023	July 4, 2022	July 3, 2023	July 4, 2022
	(In thousands)			
Net Sales:				
United States	$ 319,122	$ 274,480	$ 630,563	$ 538,881
China	31,775	75,771	75,812	152,976
Other	195,612	275,299	384,571	514,953
Total net sales	$ 546,509	$ 625,550	$ 1,090,946	$ 1,206,810

Net sales are attributed to countries by country invoiced.

(11) Accumulated Other Comprehensive Loss

The following provides a summary of the components of accumulated other comprehensive loss, net of tax, as of July 3, 2023 and January 2, 2023:

	Foreign Currency Translation	Pension Obligation	(Losses) Gains on Cash Flow Hedges	Total
	(In thousands)			
Ending balance as of January 2, 2023	$ (25,984)	$ 1,279	$ (85)	$ (24,790)
Other comprehensive (loss) income before reclassifications	(7,060)	—	5,140	(1,920)
Amounts reclassified from accumulated other comprehensive loss	—	—	(721)	(721)
Other comprehensive (loss) income	(7,060)	—	4,419	(2,641)
Ending balance as of July 3, 2023	$ (33,044)	$ 1,279	$ 4,334	$ (27,431)

(12) Significant Customers and Concentration of Credit Risk

Financial instruments that are potentially subject to concentrations of credit risk are primarily cash and cash equivalents and accounts receivable.

The Company had cash and cash equivalents held by its foreign subsidiaries of $232,479 and $161,708 as of July 3, 2023 and January 2, 2023, respectively. The Company maintains its cash and cash equivalents with major financial institutions and such balances exceed Federal Deposit Insurance Corporation insurance limits. The Company has not experienced any losses in such accounts and believes it is not exposed to any significant risk on cash and cash equivalents.

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 on-going 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. There were no customers that accounted for 10% or more of accounts receivable as of July 3, 2023. As of January 2, 2023, there was one customer that accounted for 11% of the Company's accounts receivable.

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

For the quarter and two quarters ended July 3, 2023, one customer accounted for approximately 13% of the Company's net sales. For the quarter and two quarters ended July 4, 2022, one customer accounted for approximately 11% and 10% of the Company's net sales, respectively.

(13) Fair Value Measures

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

The carrying amount and estimated fair value of the Company's financial instruments as of July 3, 2023 and January 2, 2023 were as follows:

	As of July 3, 2023		As of January 2, 2023	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
	(In thousands)			
Derivative assets, current	$ 4,342	$ 4,342	$ —	$ —
Derivative assets, non-current	1,514	1,514	—	—
Derivative liabilities, current	783	783	1,622	1,622
Senior Notes due March 2029	495,565	424,515	495,221	430,165
Term Loan due May 2030	342,348	347,813	—	—
Term Loan due September 2024	—	—	404,186	405,628
ABL Revolving Loans	30,000	30,000	30,000	30,000

The fair value of the derivative instruments was determined using pricing models developed based on the 1-month CME Term SOFR swap rate, foreign currency exchange rates, and other observable market data, including quoted market prices, as appropriate using Level 2 inputs. The values were adjusted to reflect non-performance risk of both the counterparty and the Company, as necessary.

The fair value of the long-term debt was estimated based on quoted market prices or discounting the debt over its life using current market rates for similar debt as of July 3, 2023 and January 2, 2023, which are considered Level 2 inputs.

As of July 3, 2023 and January 2, 2023, the Company's other financial instruments included cash and cash equivalents, accounts receivable, contract assets, accounts payable, and contract liabilities. The carrying amount of these instruments approximates fair value.

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

(14) Commitments and Contingencies

Legal Matters

The Company is subject to various legal matters, which it considers normal for its business activities. While the Company currently believes that the amount of any reasonably possible loss for known matters would not be material to the Company's financial condition, the outcome of these actions is inherently difficult to predict. In the event of an adverse outcome, the ultimate potential loss could have a material adverse effect on the Company's financial condition or results of operations in a particular period. The Company has accrued amounts for its loss contingencies which are probable and estimable as of July 3, 2023 and January 2, 2023 and included as a component of other current liabilities. However, these amounts are not material to the consolidated condensed financial statements of the Company.

Offset Agreements

The Company has and may continue to enter into industrial cooperation agreements, sometimes referred to as offset agreements, as a condition to obtaining orders for products and services from customers in foreign countries. These agreements are intended to promote investment in the applicable country, and the Company's obligations under these agreements may be satisfied through activities that do not require the Company to use cash, including transferring technology or providing manufacturing and other consulting support. The obligations under these agreements may also be satisfied through the use of cash for activities such as purchasing supplies from in-country vendors, setting up support centers, research and development investments, acquisitions, and building or leasing facilities for in-country operations. The amount of the offset requirement is determined by contract value awarded and negotiated percentages with customers. As of July 3, 2023, the Company had outstanding offset agreements of approximately $20,169, some of which extend through 2028. Offset programs usually extend over several years and in some cases provide for penalties in the event the Company fails to perform in accordance with contract requirements. Historically, the Company has not paid any such penalties, and as of July 3, 2023, no such penalties have been paid.

(15) Earnings Per Share

The following is a reconciliation of the numerator and denominator used to calculate basic earnings per share and diluted earnings per share for the quarter and two quarters ended July 3, 2023 and July 4, 2022:

	Quarter Ended		Two Quarters Ended	
	July 3, 2023	July 4, 2022	July 3, 2022	July 4, 2022
	(In thousands, except per share amounts)			
Net income	$ 6,824	$ 27,792	$ 1,010	$ 45,038
Basic weighted average shares	102,759	101,270	102,570	101,941
Dilutive effect of performance-based restricted stock units, restricted stock units and stock options	2,061	1,951	2,005	1,818
Dilutive effect of outstanding warrants	—	—	—	3
Diluted shares	104,820	103,221	104,575	103,762
Earnings per share:				
Basic	$ 0.07	$ 0.27	$ 0.01	$ 0.44
Diluted	$ 0.07	$ 0.27	$ 0.01	$ 0.43

Performance-based restricted stock units (PRUs), restricted stock units (RSUs), and stock options to purchase 524 and 345 shares of common stock for the quarter and two quarters ended July 3, 2023, respectively, and 1,054 and 1,014 shares of common stock for the quarter and two quarters ended July 4, 2022, respectively, were not included in the computation of diluted earnings per share. The PRUs were not included in the computation of diluted earnings per share because the performance conditions had not been met at July 3, 2023 and July 4, 2022, and for RSUs and stock options, the options' exercise prices or the total expected proceeds under the treasury stock method was greater than the average market price of common stock during the applicable quarter and two quarters and, as a result, the impact would be anti-dilutive.

(16) Stock-Based Compensation

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

	Quarter Ended		Two Quarters Ended	
	July 3, 2023	July 4, 2022	July 3, 2023	July 4, 2022
	(In thousands)			
Cost of goods sold	$ 1,497	$ 1,172	$ 3,159	$ 2,448
Selling and marketing	698	620	1,439	1,270
General and administrative	2,677	2,396	5,239	4,449
Research and development	249	239	524	494
Stock-based compensation expense recognized	$ 5,121	$ 4,427	$ 10,361	$ 8,661

Summary of Unrecognized Compensation Costs

The following is a summary of total unrecognized compensation costs as of July 3, 2023:

	Unrecognized Stock-Based Compensation Cost	Remaining Weighted Average Recognition Period
	(In thousands)	(In years)
RSU awards	$ 46,819	1.7
PRU awards	2,303	1.2
	$ 49,122	

(17) Restructuring Charges

On February 8, 2023, the Company announced a consolidation plan, which would include closing three of its manufacturing facilities and consolidating the operations of those facilities into other Company facilities. The three manufacturing facilities are PCB operations located in Anaheim and Santa Clara, California, and Hong Kong. As of July 3, 2023, the Company has ceased operations at the Hong Kong manufacturing facility. The Company expects the Anaheim and Santa Clara facilities to cease operations by the end of 2023. The Company expects to record between $22,000 and $28,000 in separation, accelerated depreciation and disposal costs related to this restructuring, primarily by the end of 2023. Approximately 80% of these costs are expected to be in the form of cash expenditures and the rest in the form of non-cash charges. As of July 3, 2023, the Company has incurred approximately $11,456 of restructuring charges and $2,649 of accelerated depreciation expense since the February 8, 2023 announcement.

In addition to this consolidation plan, the Company recognized employee separation, contract termination and other costs during the quarter and two quarters ended July 3, 2023 and July 4, 2022 in connection with other global realignment restructuring efforts. Contract termination and other costs primarily represented plant closure costs.

The below table summarizes such restructuring costs by reportable segment for the quarter and two quarters ended July 3, 2023 and July 4, 2022:

	Quarter Ended July 3, 2023			Two Quarters Ended July 3, 2023		
	Employee Separation/ Severance	Contract Termination and Other Costs	Total	Employee Separation/ Severance	Contract Termination and Other Costs	Total
	(In thousands)					
Reportable Segment:						
PCB	$ 7,385	$ 2,999	$ 10,384	$ 11,142	$ 3,185	$ 14,327
RF&S Components	14	—	14	14	—	14
Corporate and Other	179	226	405	305	324	629
	$ 7,578	$ 3,225	$ 10,803	$ 11,461	$ 3,509	$ 14,970

	Quarter Ended July 4, 2022			Two Quarters Ended July 4, 2022		
	Employee Separation/ Severance	Contract Termination and Other Costs	Total	Employee Separation/ Severance	Contract Termination and Other Costs	Total
	(In thousands)					
Reportable Segment: [(1)]						
PCB	$ —	$ 343	$ 343	$ —	$ 343	$ 343
Corporate and Other	—	113	113	31	266	297
	$ —	$ 456	$ 456	$ 31	$ 609	$ 640

(1) There were no restructuring costs incurred for RF&S Components reportable segment during the quarter and two quarters ended July 4, 2022.

Accrued restructuring costs are included as a component of other current liabilities in the consolidated condensed balance sheet. The below table shows the utilization of the accrued restructuring costs during the two quarters ended July 3, 2023:

	Employee Separation/ Severance	Contract Termination and Other Costs	Total
		(In thousands)	
Accrued as of January 2, 2023	$ 2,510	$ 3	$ 2,513
Charged to expense	11,461	3,509	14,970
Amount paid, net of government contributions eligible for offsetting	(1,316)	(2,918)	(4,234)
Accrued as of July 3, 2023	$ 12,655	$ 594	$ 13,249

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

Cautionary Statement Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements regarding future events or our future financial and operational performance. Forward-looking statements include statements regarding markets for our products; trends in net sales, gross profits and estimated expense levels; liquidity and anticipated cash needs and availability; and any statement that contains the words "anticipate," "believe," "plan," "forecast," "foresee," "estimate," "project," "expect," "seek," "target," "intend," "goal" and other similar expressions. The forward-looking statements included in this report reflect our current expectations and beliefs, and we do not undertake publicly to update or revise these statements, even if experience or future changes make it clear that any projected results expressed in this report or future quarterly reports to stockholders, press releases or company statements will not be realized. In addition, the inclusion of any statement in this report does not constitute an admission by us that the events or circumstances described in such statement are material. Furthermore, we wish to caution and advise readers that these statements are based on assumptions that may not materialize and may involve risks and uncertainties, many of which are beyond our control, that could cause actual events or performance to differ materially from those contained or implied in these forward-looking statements. These risks and uncertainties include the business and economic risks described in Item 1A "Risk Factors" of Part II below and elsewhere in this Quarterly Report on Form 10-Q. The following discussion and analysis 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, as well as the "Management's Discussion and Analysis of Financial Condition and Results of Operations" set forth in our Annual Report on Form 10-K for the fiscal year ended January 2, 2023, filed with the SEC.

COMPANY OVERVIEW

We are a leading global manufacturer of technology solutions including mission systems, radio frequency (RF) components/RF microwave/microelectronic assemblies, quick-turn and technologically advanced printed circuit boards (PCB). We focus on providing time-to-market and volume production of advanced technology products and offer a one-stop design, engineering, and manufacturing solution to our customers. This one-stop design, engineering, and manufacturing solution allows us to align technology development with the diverse needs of our customers and to enable them to reduce the time required to develop new products and bring them to market. We serve a diversified customer base consisting of approximately 1,500 customers in various markets throughout the world, including aerospace and defense, data center computing, automotive, medical, industrial and instrumentation, and networking. Our customers include original equipment manufacturers (OEMs), electronic manufacturing services (EMS) providers, original design manufacturers (ODMs), distributors and government agencies.

RECENT DEVELOPMENTS

While demand in the Aerospace and Defense end market remains strong, bookings in our commercial end markets have stabilized at a low level given continued customer inventory reductions and weaker end market demand. This resulted in a decline to revenues during the quarter ended July 3, 2023 when compared to the same quarter last year.

On May 30, 2023, we closed our $350.0 million senior secured Term Loan due 2030 (Term Loan Facility). The Term Loan Facility was issued with a 1.0% original issue discount and bears interest at a floating rate of 1-month CME Term Secured Overnight Financing Rate (SOFR) plus an applicable margin of 2.75%. We also amended and restated our U.S. Asset-Based Lending Credit Agreement (U.S. ABL) on May 30, 2023 and our Asia Asset-Based Lending Credit Agreement (Asia ABL) on June 14, 2023. Both agreements were amended for the benchmark interest rate and margins and maturity was extended to May 2028 and June 2028 for the U.S. ABL and the Asia ABL, respectively. Refer to 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 for further information.

On March 30, 2023, we completed the sale of our Shanghai Backplane Assembly entity for approximately $11.2 million to DBG Holdings Limited (DBG), which is wholly owned by DBG Technology Co. Ltd., a public company traded on the Shenzhen Stock Exchange. We recorded a gain on the sale of $1.3 million.

On February 8, 2023, we announced our plan to close PCB manufacturing operations in Anaheim and Santa Clara, California, and Hong Kong and to consolidate the business from these sites into our remaining facilities. The plant closures are expected to improve both facility and talent utilization across our footprint resulting in improved profitability. We expect to record between $22.0 million and $28.0 million in separation, accelerated depreciation and disposal costs related to this restructuring, primarily between now and the end of 2023. Approximately 80% of these costs are expected to be in the form of cash expenditures and the rest in the form of non-cash charges. As of July 3, 2023, we have substantially closed the Hong Kong manufacturing facility. We expect the Anaheim and Santa Clara facilities to be substantially closed by the end of 2023.

On December 22, 2022, our land, building, and relevant ancillary assets related to our former Shanghai E-MS (SH E-MS) manufacturing facility was expropriated by the Chinese government for a compensation fee of Renminbi (RMB) 477.6 million resulting in a gain on the sale of $51.8 million. We received 90% of the proceeds as of July 3, 2023 and expect to receive the remaining 10% of the proceeds before December 30, 2023. As of July 3, 2023 and January 2, 2023, the receivable from sale of SH E-MS property was $6.6 million and $69.2 million, respectively.

FINANCIAL OVERVIEW

While our customers include both OEMs and EMS providers, we measure customers based on OEM companies, as they are the ultimate end customers. Sales to our ten largest customers collectively accounted for 50% and 49% of our net sales for the quarter and two quarters ended July 3, 2023, respectively. Sales to our ten largest customers collectively accounted for 41% and 43% of our net sales for the quarter and two quarters ended July 4, 2022, respectively. We sell to OEMs both directly and indirectly through EMS providers.

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

	Quarter Ended		Two Quarters Ended	
End Markets (1)	July 3, 2023	July 4, 2022	July 3, 2023	July 4, 2022
Aerospace and Defense	47 %	30 %	45 %	30 %
Automotive	17	18	17	19
Data Center Computing	12	17	11	16
Medical/Industrial/Instrumentation	16	21	17	21
Networking	8	14	10	14
Total	100 %	100 %	100 %	100 %

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

We derive revenues primarily from the sale of PCBs, engineered systems using customer-supplied engineering and design plans as well as our long-term contracts related to the design and manufacture of highly sophisticated intelligence, surveillance and communications solutions, RF and microwave/microelectronics components, assemblies, and subsystems. Orders for products generally correspond to the production schedules of our customers and are supported with firm purchase orders. Our customers have continuous control of the work in progress and finished goods throughout the PCB and engineered systems 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, subsystems, and completed systems which service our RF and Specialty Components (RF&S Components) customers and certain aerospace and defense 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, supply chain issues, and yield.

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

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

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

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

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

See Item 7, *Management's Discussion and Analysis of Financial Condition and Results of Operations*, in our Annual Report on Form 10-K for the fiscal year ended January 2, 2023 for further discussion of critical accounting policies and estimates.

RESULTS OF OPERATIONS

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

	Quarter Ended		Two Quarters Ended	
	July 3, 2023	July 4, 2022	July 3, 2023	July 4, 2022
Net sales	100.0 %	100.0 %	100.0 %	100.0 %
Cost of goods sold	82.0	81.3	83.1	82.8
Gross profit	18.0	18.7	16.9	17.2
Operating expenses:				
Selling and marketing	3.3	2.8	3.6	2.9
General and administrative	6.9	7.7	6.7	6.7
Research and development	1.2	0.9	1.2	0.9
Amortization of definite-lived intangibles	0.7	1.3	2.4	1.4
Restructuring charges	2.0	0.1	1.4	0.1
Total operating expenses	14.1	12.8	15.3	12.0
Operating income	3.9	5.9	1.6	5.2
Other (expense) income:				
Interest expense	(2.2)	(1.7)	(2.2)	(1.8)
Loss on extinguishment of debt	(0.2)	—	(0.1)	—
(Loss) gain on sale of subsidiary	—	—	0.1	—
Other, net	0.9	1.3	0.6	0.8
Total other expense, net	(1.5)	(0.4)	(1.6)	(1.0)
Income before income taxes	2.4	5.5	—	4.2
Income tax (provision) benefit	(1.2)	(1.1)	0.1	(0.5)
Net income	1.2 %	4.4 %	0.1 %	3.7 %

The following discussion and analysis is for the quarter and the two quarters ended July 3, 2023, compared to the same periods ended July 4, 2022, unless otherwise stated.

Net Sales

Total net sales decreased $79.0 million, or 12.6%, to $546.5 million for the second quarter of 2023 from $625.6 million for the second quarter of 2022. The decrease in total net sales primarily resulted from a decrease in net sales for the PCB reportable segment of $72.9 million, or 12.0%, to $536.5 million for the second quarter of 2023 from $609.4 million for the second quarter of 2022. The primary driver of this decrease was demand weakness in our commercial end markets, partially offset by the inclusion of Telephonics as well as organic growth in our Aerospace and Defense end market. Net sales for the RF&S Components reportable segment decreased $6.1 million, or 38.1%, to $10.0 million for the second quarter of 2023 from $16.1 million for the second quarter of 2022, which was primarily due to lower demand in our Networking end market.

Total net sales decreased $115.9 million, or 9.6%, to $1,090.9 million for the first two quarters of 2023 from $1,206.8 million for the first two quarters of 2022. This decrease in total net sales primarily resulted from a decrease in net sales for the PCB reportable segment of $104.9 million, or 8.9%, to $1,070.6 million for the first two quarters of 2023 from $1,175.5 million for the first two quarters of 2022. The primary driver of this decrease was demand weakness in our commercial end markets, partially offset by the inclusion of Telephonics as well as organic growth in our Aerospace and Defense end market. Additionally, there was a decrease in net sales for the RF&S Components reportable segment of $11.0 million, or 35.2%, to $20.3 million for the first two quarters of 2023 from $31.3 million for the first two quarters of 2022 primarily due to lower demand in our Networking end market.

Gross Margin

Overall gross margin decreased to 18.0% for the second quarter of 2023 from 18.7% for the second quarter of 2022. Gross margin for the PCB reportable segment decreased to 18.6% for the second quarter of 2023 from 19.6% for the second quarter of 2022. This decrease was primarily due to the revenue decline in the commercial sector, including lower premium revenue and prices, and production inefficiencies including supply chain challenges in the integrated electronics portion of our Aerospace and Defense end market partially offset by better product mix, the inclusion of Telephonics and favorable exchange rates. Gross margin for the RF&S

Components reportable segment decreased to 57.4% for the second quarter of 2023 from 60.2% for the second quarter of 2022, primarily due to lower sales.

Overall gross margin decreased to 16.9% for the first two quarters of 2023 from 17.2% for the first two quarters of 2022. Gross margin for the PCB reportable segment increased to 17.6% for the first two quarters of 2023 from 17.2% for the first two quarters of 2022. This increase was primarily due to the inclusion of Telephonics, better product mix and favorable exchange rates partially offset by lower revenue, lower premium revenue and pricing, and production inefficiencies. Gross margin for the RF&S Components reportable segment decreased to 53.5% for the first two quarters of 2023 from 60.3% for the first two quarters of 2022, primarily due to lower sales.

Capacity utilization is a key driver for us, which is measured by the actual production as a percentage of capacity. This measure is particularly important in our high-volume facilities in Asia, as a significant portion of our operating costs are fixed in nature. Capacity utilization for the second quarter of 2023 in our Asia and North America PCB facilities was 46% and 38%, respectively, compared to 81% and 44%, respectively, for the second quarter of 2022. Capacity utilization for the first two quarters of 2023 in our Asia and North America PCB facilities was 49% and 38%, respectively, compared to 79% and 47%, respectively, for the first two quarters of 2022. The decrease in capacity utilization in our Asia PCB facilities was caused by a decline in production volumes due to demand weakness in our commercial end markets while the decrease in our North America PCB facilities was due to the additional plating capacity added as well as a greater mix of higher technology product that requires less plating.

Selling and Marketing Expenses

Selling and marketing expenses increased $0.6 million, to $18.2 million for the second quarter of 2023 from $17.6 million for the second quarter of 2022. As a percentage of net sales, selling and marketing expenses were 3.3% for the second quarter of 2023, as compared to 2.8% for the second quarter of 2022. The increase in selling and marketing expenses was primarily due to $2.1 million of selling and marketing expenses incurred by Telephonics post acquisition, partially offset by a $1.7 million decrease in commission expense.

Selling and marketing expenses increased $3.7 million, to $39.5 million for the first two quarters of 2023 from $35.8 million for the first two quarters of 2022. As a percentage of net sales, selling and marketing expenses were 3.6% for the first two quarters of 2023, as compared to 2.9% for the first two quarters of 2022. The increase in selling and marketing expenses for the first two quarters of 2023 was primarily due to $4.2 million of selling and marketing expenses incurred by Telephonics post acquisition and an increase in labor and travel costs, partially offset by a $2.0 million decrease in commission expense.

General and Administrative Expenses

General and administrative expenses decreased $10.5 million to $37.8 million, or 6.9% of net sales, for the second quarter of 2023 from $48.4 million, or 7.7% of net sales, for the second quarter of 2022. The decrease in general and administrative expenses was primarily due to $10.4 million of reduced acquisition and integration costs mainly related to the acquisition of Telephonics on June 27, 2022. In addition, there was a decrease of $1.9 million in incentive compensation. These decreases were partially offset by $2.4 million of general and administrative expenses incurred by Telephonics post acquisition.

General and administrative expenses decreased $8.2 million to $72.9 million, or 6.7% of net sales, for the first two quarters of 2023 from $81.1 million, or 6.7% of net sales, for the first two quarters of 2022. The decrease in general and administrative expenses primarily resulted from $10.9 million of reduced acquisition and integration costs mainly related to the acquisition of Telephonics on June 27, 2022, partially offset by $3.6 million of general and administrative expenses incurred by Telephonics post acquisition.

Research and Development Expenses

Research and development expenses increased $1.2 million to $6.4 million, or 1.2% of net sales, for the second quarter of 2023 from $5.2 million, or 0.9% of net sales, for the second quarter of 2022. The increase in expense was primarily due to $1.9 million of research and development expense incurred by Telephonics post acquisition.

Research and development expenses increased $2.7 million to $13.5 million, or 1.2% of net sales, for the first two quarters of 2023 from $10.8 million, or 0.9% of net sales, for the first two quarters of 2022. The increase in expense was primarily due to $3.2 million of research and development expense incurred by Telephonics post acquisition.

Total Other Expense, Net

Total other expense, net increased $4.9 million to $8.0 million for the second quarter of 2023 from $3.1 million for the second quarter of 2022. This increase was primarily the result of a decrease in other income of $2.6 million mainly due to foreign currency losses resulting from the strengthening RMB in the second quarter of 2023 compared to the second quarter of 2022, a loss on extinguishment of debt of $1.2 million, and an increase in interest expense of $1.1 million due to higher interest rates. We utilize the RMB at our China facilities for employee-related expenses, RMB denominated purchases, and other costs of running our operations in China.

Total other expense, net increased $5.8 million to $18.3 million for the first two quarters of 2023 from $12.5 million for the first two quarters of 2022. This increase was primarily the result of a decrease in other income of $3.3 million mainly due to foreign currency losses resulting from the strengthening RMB in the first two quarters of 2023 compared to the first two quarters of 2022, and an increase in interest expense of $2.6 million due to higher interest rates.

Income Taxes

Income tax expense increased by $0.3 million to $6.6 million for the second quarter of 2023 from $6.3 million for the second quarter of 2022. The increase in income tax expense was primarily due to a change in the mix of U.S. and foreign pre-tax income partially offset by the release of uncertain tax positions due to the expiration of the statute of limitation in foreign jurisdictions.

Income tax expense decreased by $6.9 million to a $1.3 million tax benefit for the first two quarters of 2023 from $5.6 million of tax expense for the first two quarters of 2022. The decrease in income tax expense for the first two quarters of 2023 was primarily due to a decrease in pre-tax income for the first two quarters of 2023, the release of uncertain tax positions due to the expiration of the statute of limitation in foreign jurisdictions, and the absence in the first quarter of 2023 of the High and New Tax Enterprise status renewal benefits that existed in the first quarter of 2022.

Our effective tax rate is primarily impacted by the mix of foreign and U.S. income, tax rates in China and Hong Kong, the U.S. federal income tax rate, apportioned state income tax rates, the generation of credits and deductions available to the Company as well as changes in valuation allowances and certain non-deductible items. We had a net deferred income tax liability of approximately $54.4 million and $20.7 million as of July 3, 2023 and July 4, 2022, respectively. The increase in the deferred income tax liability was primarily due to the recording of a full valuation allowance for the U.S. in the last quarter of 2022.

Liquidity and Capital Resources

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

Cash flow provided by operating activities during the first two quarters of 2023 was $81.0 million as compared to cash flow provided by operating activities of $115.3 million in the same period in 2022. The decrease in cash flow was primarily due to the $44.0 million decrease in net income.

Net cash used in investing activities was approximately $12.3 million for the first two quarters of 2023, primarily reflecting the use of $80.5 million for purchases of property, plant and equipment and other assets, partially offset by the receipt of $61.8 million of proceeds from the sale of property associated with our Shanghai E-MS subsidiary and $6.0 million of proceeds from the sale of our Shanghai Backplane Assembly subsidiary, net of cash disposed. Net cash used in investing activities was approximately $349.0 million for the first two quarters of 2022, primarily reflecting the $299.2 million acquisition of Telephonics and $49.9 million for purchases of property, plant and equipment and other assets.

Net cash used in financing activities during the first two quarters of 2023 was $72.4 million, primarily reflecting repayment of long-term debt borrowings of $290.7 million, refund of customer deposits of $7.5 million, payment of debt issuance costs of $5.5 million and payment of original issue discount of $3.5 million, partially offset by the receipt of proceeds from long-term debt borrowing of $234.8 million. Net cash used in financing activities during the first two quarters of 2022 was $36.3 million, primarily reflecting repurchases of common stock of $35.4 million and cash used to settle warrants of $0.9 million.

As of July 3, 2023, we had cash and cash equivalents of approximately $398.7 million, of which approximately $232.5 million was held by our foreign subsidiaries, primarily in Hong Kong. Should we choose to remit cash to the United States from our foreign locations, we may incur tax obligations which would reduce the amount of cash ultimately available to the United States. However, we believe there would be no material tax consequences not previously accrued for the repatriation of this cash.

Our 2023 capital expenditures are expected to be in the range of $130.0 million to $150.0 million.

Long-term Debt and Letters of Credit

As of July 3, 2023, we had $867.9 million of outstanding debt, net of discount and debt issuance costs, composed of $495.6 million of Senior Notes due March 2029, $342.3 million of a Term Loan due May 2030, and $30.0 million under the 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 restricted payments. Under the U.S. ABL and Asia ABL (collectively, the ABL Revolving Loans), we are also subject to various financial covenants, including leverage and fixed charge coverage ratios. As of July 3, 2023, we were in compliance with the covenants under the Term Loan Facility, Senior Notes due 2029 and ABL Revolving Loans.

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

Contractual Obligations and Commitments

As part of our on-going operations, we enter into contractual arrangements that obligate us to make future cash payments. These obligations impact our liquidity and capital resource needs. Our estimated future obligations consist of long-term debt obligations, interest on debt obligations, purchase obligations, and leases as of July 3, 2023. As of the date of this report, there were no material changes outside the ordinary course of business since January 2, 2023 to our contractual obligations and commitments and the related cash requirements, except for our interest on debt obligations. Our aggregate interest on debt obligations as of July 3, 2023 amounted to $312.9 million, which are expected to be settled as follows: $49.5 million within 1 year, $98.1 million within 1-3 years, $97.0 million within 4-5 years, and $68.3 million after 5 years. For debt obligations based on variable rates, interest rates used are as of July 3, 2023.

Offset Agreements

Following the acquisition of Telephonics on June 27, 2022, we have and may continue to enter into industrial cooperation agreements, sometimes referred to as offset agreements, as a condition to obtaining orders for our products and services from customers in foreign countries. These agreements are intended to promote investment in the applicable country, and our obligations under these agreements may be satisfied through activities that do not require us to use cash, including transferring technology or providing manufacturing and other consulting support. The obligations under these agreements may also be satisfied through the use of cash for such activities as purchasing supplies from in-country vendors, setting up support centers, research and development investments, acquisitions, and building or leasing facilities for in-country operations. The amount of the offset requirement is determined by contract value awarded and negotiated percentages with customers. As of July 3, 2023, we had outstanding offset agreements of approximately $20.2 million, some of which extend through 2028. Offset programs usually extend over several years and in some cases provide for penalties in the event we fail to perform in accordance with contract requirements. Historically, we have not paid any such penalties, and as of July 3, 2023, no such penalties have been paid.

Seasonality

We tend to experience modest seasonal softness in the first and third quarters due to holidays and vacation periods in China and North America, respectively, which limit production leading to stronger revenue levels in the second and fourth quarters.

Recently Issued Accounting Standards

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

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

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

Interest Rate Risks

Our business is exposed to risk resulting from fluctuations in interest rates. Our interest expense is more sensitive to fluctuations in the general level of Term Secured Overnight Financing Rate (SOFR) 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 March 23, 2023, we entered into a four-year pay-fixed, receive floating (1-month CME Term SOFR), interest rate swap arrangement with a notional amount of $250.0 million for the period beginning April 1, 2023 and ending on April 1, 2027. Under the terms of the interest rate swap, we pay a fixed rate of 3.49% against the first interest payments of a portion of our Term SOFR-based debt and receive floating 1-month CME Term SOFR 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 July 3, 2023, the fair value of the interest rate swap was recorded as an asset, of which $4.3 million is included as a component of prepaid expenses and other current assets and $1.5 million is included as a component of deposits and other non-current assets. No ineffectiveness was recognized for the quarter and two quarters ended July 3, 2023. During the quarter and two quarters ended July 3, 2023, the interest rate swap decreased interest expense by $1.0 million.

See *Liquidity and Capital Resources* and *Long-term Debt and Letters of Credit* appearing in Part I, Item 2 of this Quarterly Report on Form 10-Q for further discussion of our financing facilities and capital structure. As of July 3, 2023, approximately 85.2% of our total debt was based on fixed rates. Based on our borrowings as of July 3, 2023, an assumed 100 basis point change in variable rates would cause our annual interest cost to change by $1.3 million.

Foreign Currency Rate Risks

In the normal course of business, we are exposed to risks associated with fluctuations in foreign currency exchange rates related to transactions that are denominated in currencies other than our functional currencies, as well as the effects of translating amounts denominated in a foreign currency to the U.S. Dollar as a normal part of our financial reporting process. Most of our foreign operations have the U.S. Dollar as their functional currency, however, one of our China facilities utilizes 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. We do not engage in hedging to manage this foreign currency risk, except for certain equipment purchases. However, we may consider the use of derivatives in the future. Our primary foreign exchange exposure is to the RMB. In general, our Chinese customers pay us in RMB, which partially mitigates this foreign currency exchange risk.

Our foreign subsidiaries may at times enter into forward exchange contracts to manage foreign currency risks in relation to certain purchases of machinery denominated in foreign currencies other than our functional currencies. The notional amount of the foreign exchange contracts as of July 3, 2023 was approximately $1.9 million (EUR 1.8 million). There were no foreign exchange contracts as of January 3, 2022.

Commodity Price Risks

We are exposed to certain commodity risks associated with prices for various raw materials, particularly copper, which may negatively affect our profitability. Copper clad laminates (CCLs), a key raw material for the manufacture of PCBs, are made from epoxy resin, glass cloth, and copper foil, all of which are seeing limited supply and volatility in prices. We only buy a small amount of copper directly. However, copper is a major driver of laminate cost. We are hedging copper as a proxy for hedging laminate. As of July 3, 2023, we had commodity contracts with a notional quantity of (i) 700 metric tonnes for the period beginning July 1, 2023 and ending on September 30, 2023, (ii) 700 metric tonnes for the period beginning October 1, 2023 and ending on December 31, 2023, (iii) 675 metric tonnes for the period beginning January 1, 2024 and ending on March 31, 2024, and (iv) 600 metric tonnes for the period beginning April 1, 2024 and ending on June 30, 2024. As of July 3, 2023, the fair value of the commodity contracts was recorded as a liability in the amount of $0.2 million and included as a component of other current liabilities. We will continue to evaluate our commodity risks and may utilize commodity forward purchase contracts more in the future.

Debt Instruments

The table below presents the fiscal calendar maturities of our debt instruments through 2027 and thereafter as of July 3, 2023:

	As of July 3, 2023								
	Remaining 2023	2024	2025	2026	2027	Thereafter	Total	Fair Value	Weighted Average Interest Rate
	(In thousands)								
US$ Variable Rate [1]	$ 875	$ 3,500	$ 3,500	$ 3,500	$ 3,500	$ 365,125	$ 380,000	$ 377,813	7.78%
US$ Fixed Rate	—	—	—	—	—	500,000	500,000	424,515	4.00%
Total	$ 875	$ 3,500	$ 3,500	$ 3,500	$ 3,500	$ 865,125	$ 880,000	$ 802,328	

(1) Interest rate swap effectively fixed $250,000 of variable rate debt.

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 Rules 13a-15(e) and 15d-15(e)) under the Securities Exchange Act of 1934, as amended (Exchange Act), as of the end of the period covered by this Quarterly Report. Based on this evaluation, our CEO and CFO have concluded that, as of July 3, 2023 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 continue to roll out the ERP system to our remaining locations.

There were no other changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the quarter ended July 3, 2023 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

Global economic and market uncertainty may adversely impact our business and operating results.

Uncertain global economic conditions have in the past and may in the future adversely impact our business. The current uncertainty in the worldwide economic environment together with other unfavorable changes in economic conditions, such as higher than normal inflation and interest rate increases currently being experienced or implemented by most developed economies, as well as any recession, may negatively impact consumer confidence and spending, ultimately causing our customers to postpone purchases and may ultimately impact our profitability. Inflation and rapid fluctuations in inflation rates have had in the past, and may in the future have, negative effects on economies and financial markets. We could experience period-to-period fluctuations in operating results due to general industry or economic conditions and volatile or uncertain economic conditions can adversely impact our sales and profitability and make it difficult for us to accurately forecast and plan our future business activities. Furthermore, inflationary pressure and increases in interest rates may negatively impact revenue, earnings and demand for our products. During challenging economic times, our current or potential future customers may experience cash flow problems and as a result may modify, delay or cancel plans to purchase our products. Additionally, if our customers are not successful in generating sufficient revenue or are unable to secure financing, they may not be able to pay, or may delay payment of, accounts receivable that they owe us. Any inability of our current or potential future customers to pay us for our products may adversely affect our earnings and cash flow. Moreover, our key suppliers may reduce their output or become insolvent, thereby adversely impacting our ability to manufacture our products.

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

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

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

- failure of third parties on which we rely, including, without limitation, our suppliers, commercial banks, and other external business partners, to meet their obligations to us, caused by significant disruptions in their ability to do so or their own financial or operational difficulties;
- supply chain risks such as disruptions of supply chains, excess demand on suppliers, and scrutiny or embargoing of goods produced in infected areas;
- reduced workforces and labor shortages at all levels of our organization, which may be caused by, but not limited to, the temporary inability of the workforce to work due to illness, lockdowns, 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 our workforce or the businesses in the industries we service; or
- restrictions to our business as a result of federal or state laws, regulations, orders or other governmental or regulatory actions, if adopted.

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.

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

As part of our business strategy, we expect that we will continue to implement and align our strategy by pursuing potential divestitures of assets, such as our sale of Shanghai Backplane Assembly, and acquisitions of businesses, technologies, assets, or product lines that complement or expand our business, such as our acquisition of Gritel Holding Co., Inc. (Gritel) and ISC Farmingdale Corp. in June 2022. Telephonics Corporation is now a wholly-owned subsidiary of TTM by way of our acquisition of Gritel, the Telephonics direct parent company. Risks related to such activities and transactions may include:

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

Acquisitions may cause us to:

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

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

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

We may not fully realize the anticipated positive impacts to future financial results from our restructuring efforts.

In regards to our announcement in the first quarter of 2023 of the consolidation of our manufacturing footprint and the closure of three manufacturing facilities, if we do not achieve the transfer of the products from the facilities we are closing into other existing facilities or if economic conditions deteriorate, we may not achieve the expected increase in overall profitability as a result of the consolidation. Our ability to achieve the anticipated cost savings and other benefits from our restructuring efforts within expected time frames is subject to many estimates and assumptions, and may vary materially based on factors such as market conditions and the effect of our restructuring efforts on our work force. These estimates and assumptions are subject to significant economic, competitive and other uncertainties, some of which are beyond our control. There can be no assurance that we will fully realize the anticipated positive impacts to future financial results from our current or future restructuring efforts. If our estimates and assumptions are incorrect or if other unforeseen events occur, we may not achieve the cost savings expected from such restructurings, and our business and results of operations could be adversely affected.

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

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

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

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

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

In addition, for the quarter ended July 3, 2023, we generated approximately 43% 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 COVID-19 and its variants;
- labor unrest, rising wages, difficulties in staffing, and geographical labor shortages;
- government or political unrest;
- conflict or war between nations over territory that impacts the electronics supply chain leading to potential trade restrictions to and from the nations involved, including Russia, Ukraine and China;

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

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

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

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

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

In North America, we are experiencing wage inflation pressures, as a result of labor shortages, and certain pressures which are also mandated by local and state governments. Further, we are experiencing rising health care costs. While we strive to manage these challenges, there can be no assurance that our efforts will succeed which would result in higher costs and lower profits. The competition for talent and labor in North America and in general is currently extremely high. In this competitive environment, our business could be adversely impacted by increases in labor costs, which could include increases in wages and benefits necessary to attract and retain high quality employees with the right skill sets, increases triggered by regulatory actions regarding wages, scheduling, and benefits; increases in health care and workers' compensation insurance costs; and increases in benefits and costs related to COVID-19 and its variants from time to time. In light of the current challenging labor market conditions, our wages and benefits programs and any steps we take to increase our wages and benefits, may be insufficient to attract and retain talent at all levels of our organization. Existing labor shortages, and our inability to attract employees to maintain a qualified workforce, could adversely affect our production and our overall business and financial performance.

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

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

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

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

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

To manufacture PCBs, we use raw materials such as laminated layers of fiberglass, copper foil, chemical solutions, gold, copper, and other commodity products, which we order from our suppliers. For Hybrid Microelectronics and RF components, we use various high-performance materials such as Rad Hard & Space active components, Silicon transistors, IGBTs, FETs, Signal & Zener diodes, magnets, inductors, coils, BeO and SiN substrates, as well 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. For our Radar, Communication and Surveillance systems, we use highly sophisticated electronic assemblies including Transmitter and Receiver CCA's/Modules, Travelling Wave Tube Assemblies, Exciters, Wave Form Generators and Frequency Generators which are specifically designed for their application.

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

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

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

We are subject to risks of currency fluctuations.

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

The worldwide electronics industry is intensely competitive and volatile.

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

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

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

In addition, we generally schedule our quick turnaround production facilities at less than full capacity to retain our ability to respond to unexpected additional quick-turn orders. However, if these orders are not received, we may forego some production and could experience continued excess capacity. If we conclude we have significant, long-term excess capacity, we may decide to permanently close one or more of our facilities and lay off some of our employees, such as our decision announced in February 2023 to close certain facilities in Hong Kong and California. Closures or lay-offs could result in our recording of restructuring charges such as severance, other exit costs, and asset impairments, as well as potentially causing disruptions in our ability to supply customers.

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

As of July 3, 2023, our consolidated condensed balance sheet included $1,011.1 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 are relatively fixed in nature, and planned expenditures are based in part on anticipated orders. Accordingly, unexpected revenue shortfalls may decrease our gross margins. In addition, we have experienced sales fluctuations due to seasonal patterns in the capital budgeting and purchasing cycles, as well as inventory management practices of our customers and the end markets we serve. These seasonal trends have caused fluctuations in our operating results in the past and may continue to do so in the future. Results of operations in any period should not be considered indicative of the results that may be expected for any future period. In addition, our future quarterly operating results may fluctuate and may not meet the expectations of securities analysts or investors.

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

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

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

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

Sales to EMS companies represented approximately 30% and 34% of our net sales for the quarters ended July 3, 2023 and July 4, 2022, 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 40% and 30% of our net sales for the quarters ended July 3, 2023 and July 4, 2022, respectively, and one customer represented 13% of our net sales for the quarter ended July 3, 2023. 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 supply to defense prime companies, the U.S. government and its agencies, as well as foreign governments and agencies. The contracts between our direct customers and the government end user are subject to political and budgetary constraints and processes, changes in short-range and long-range strategic plans, the timing of contract awards, the congressional budget authorization and appropriation processes, the government's ability to terminate contracts for convenience or for default, as well as other risks, such as contractor suspension or debarment in the event of certain violations of legal and regulatory requirements.

For the quarter ended July 3, 2023, aerospace and defense sales accounted for approximately 47% of our total net sales. The substantial majority of aerospace and defense sales are related to both U.S. and U.S. government approved foreign military and defense programs. Consequently, our sales are affected by changes in the defense budgets of the U.S. and foreign governments and may be affected by federal budget sequestration measures.

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

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

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

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

Additionally, our OEM customers often direct a significant portion of their purchases through a relatively limited number of EMS companies. Sales to EMS companies represented approximately 30% and 34% of our net sales for the quarters ended July 3, 2023 and July 4, 2022, 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. We are subject to the reporting requirements of the Exchange Act, and regulators are considering new regulations which are expected to require, among other things, that we report our climate related costs and activities and our customers and suppliers. Such regulations could cause us to incur significant costs to monitor and report, which would have negative impact on our profitability. 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. In addition, we could yield lower or no profit from the sale of our products if we price our products aggressively in response to market conditions.

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 2023 in our PCB segment, we expect to continue to make capital expenditures to expand our HDI, RF technology, and other advanced manufacturing capabilities while in our RF&S Components segment, we are designing products that we hope our customers adopt and incorporate into their products. We may not be able to obtain access to additional sources of funds in order to respond to technological changes as quickly as our competitors. In addition, our failure to adopt and implement technological improvements quickly may cause inefficiencies in our production process as our product yields or quality may decrease, resulting in increased costs, and may lead to customers not adopting our product designs.

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

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

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

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

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

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

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

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

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

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

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

Risks Related to our Indebtedness

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

We have substantial debt and, as a result, we have significant debt service obligations. As of July 3, 2023, we maintain $350.0 million outstanding under our Term Loan Facility due 2030 (Term Loan Facility) at a floating rate of Term Secured Overnight Financing Rate (SOFR) plus 2.75%, $500.0 million of Senior Notes due 2029 (Senior Notes due 2029) at an interest rate of 4.0%, and $30.0 million outstanding under a $150.0 million Asia Asset-Based Lending Credit Agreement (Asia ABL). We and a number of our direct and indirect subsidiaries also have various credit facilities and letters of credit. Such agreements also contain certain financial covenants which require us to maintain, under the occurrence of certain events, a consolidated fixed charge coverage ratio.

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

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

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

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

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

Our Term Loan Facility and our Asia ABL are subject to interest at a floating rate of Term SOFR plus a margin, and as a result, we have exposure to interest rate risk. Certain central banks, such as the U.S. Federal Reserve, effected multiple interest rate increases in 2022 and 2023. Increases in interest rates increase our cost of borrowing and/or potentially make it more difficult to refinance our existing indebtedness, if necessary. We have attempted to mitigate this risk by entering into a four-year pay-fixed, receive floating (1-month CME Term SOFR), interest rate swap arrangement in March 2023 with such swap having a notional amount of $250.0 million for the period beginning April 1, 2023 and ending on April 1, 2027. Under the terms of the interest rate swap, we pay a fixed rate of 3.49% against the first interest payments of a portion of our Term SOFR-based debt and receive floating 1-month CME Term SOFR during the swap period. Although we have taken measures to mitigate our risk to interest rate increases, our swap instruments may not be wholly effective in mitigating this risk or otherwise provide an effective hedge against all interest rate volatility. See *Quantitative and Qualitative Disclosures About Market Risk* and *Interest Rate Risks* appearing in Part 1, Item 3 of this Quarterly Report on Form 10-Q for further information.

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

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

Our ability to make scheduled payments on or to refinance our debt obligations and to fund planned capital expenditures and expansion efforts depends on our ability to generate cash in the future and our financial condition and operating performance, which are subject to prevailing economic and competitive conditions and to certain regulatory, competitive, financial, business, and other factors beyond our control.

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

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

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

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

Regulatory Risks

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

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

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

A facility security clearance is required in order to be awarded and perform on classified contracts for the Department of Defense and certain other agencies of the U.S. government. As a cleared entity, we must comply with the requirements of the NISPOM, and any other applicable U.S. government industrial security regulations. Further, our Board has adopted a Special Board Resolution (SBR) that has been approved by the Defense Counterintelligence and Security Agency (DCSA) that requires for the Company to adopt certain corporate constructs, policies and procedures.

If we were to violate the terms and requirements of the SBR, 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 and adverse effects of political tensions that arise from time to time with China.

The government of China is adopting evolving policies regarding foreign and domestic trade. No assurance can be given that the government of China will continue to pursue policies that allow for open trade with foreign countries, 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 trade and travel restrictions that the United States and China have implemented in recent years. Despite progress in developing its legal system, China does not have a comprehensive and highly developed system of laws, particularly with respect to foreign investment activities and foreign trade. Enforcement of existing and future laws and contracts is uncertain, and implementation and interpretation thereof may be inconsistent. As the Chinese legal system develops, the promulgation of new laws, changes to existing laws, and the preemption of local regulations by national laws may adversely affect foreign investors. Further, any litigation in China may be protracted and may result in substantial costs and diversion of resources and management's attention. Also, the evolving landscape of the interrelation between China and Hong Kong may have an adverse impact on our operations in Hong Kong and may impact our ability to attract and maintain necessary talent in that area. In addition, though changes in government policies and rules are timely published or communicated, there is usually no indication of the duration of any grace period before which full implementation and compliance will be required. As a result, it is possible that we might operate our business in violation of new rules and policies before full compliance can be achieved. These uncertainties could limit the legal protections available to us and adversely impact our results of operations.

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

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

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

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

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

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

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

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

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

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

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

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

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

We incur significant costs as a result of operating as a public company, and our management is required to devote substantial time to current and evolving compliance initiatives and corporate governance practices.

As a public company we incur significant legal, accounting and other expenses that we likely would not incur as a private company. We are subject to the reporting requirements of the Exchange Act, which require, among other things, that we file with the SEC annual, quarterly and current reports with respect to our business and financial condition. In addition, the Sarbanes-Oxley Act of 2002 and rules subsequently implemented by the SEC and Nasdaq have imposed various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Our management and other personnel devote a substantial amount of time to these compliance initiatives. Further, in July 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act, or the Dodd-Frank Act, was enacted. There are significant corporate governance and executive compensation related provisions in the Dodd-Frank Act that require the SEC, from time to time, to adopt additional rules and regulations in these areas, such as “say on pay” and proxy access. Stockholder activism, the current political environment and the current high level of government intervention and regulatory reform may lead to further substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact the manner in which we operate our business in ways we cannot currently anticipate. The rules and regulations applicable to public companies substantially increase our legal and financial compliance costs and make some activities more time-consuming and costly. When these requirements divert the attention of our management and personnel from other business concerns, they could have a material adverse effect on our business, financial condition and results of operations. The increased costs may decrease our net income (or increase our net loss) and may require us to reduce costs in other areas of our business or increase the prices of our products or services. We cannot predict or estimate the amount or timing of additional costs we may incur to respond to these requirements.

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

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

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

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

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

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

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

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

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

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

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 earnings and analysis, we believe we may not utilize our deferred income tax assets in future periods in the U.S. and certain subsidiaries in foreign jurisdictions and as a result have established a valuation allowance against those deferred tax assets. If our estimates of future earnings and analysis changes, we may change our determination to have a valuation allowance against our deferred income tax assets, which will result in an increase or decrease to our income tax provision that can impact 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 or regulations such as those proposed by the Organization for Economic Co-operation and Development (OECD), 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***

Not applicable.

Item 3. ***Defaults Upon Senior Securities***

Not applicable.

Item 4. ***Mine Safety Disclosures***

Not applicable.

Item 5. ***Other Information***

Rule 10b5-1 Trading Plans

During the fiscal quarter ended July 3, 2023, none of the Company's directors or executive officers adopted or terminated any contract, instruction or written plan for the purchase or sale of Company securities that was intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) or any "non-Rule 10b5-1 trading arrangement."

Item 6. ***Exhibits***

Exhibit Number	Exhibits
10.1	Amended & Restated Term Loan Credit Agreement, dated as of May 30, 2023, by and among TTM Technologies, Inc., as Borrower, the several Lenders from time to time parties thereto, and JPMorgan Chase Bank, N.A., as Administrative Agent (1)
10.2	Amended & Restated ABL Credit Agreement, dated as of May 30, 2023, by and among TTM Technologies, Inc., as Borrower, the several Lenders from time to time parties thereto, JPMorgan Chase Bank, N.A., as Administrative Agent, Barclays Bank PLC, Bank of America, N.A. and Truist Securities, Inc. as Syndication Agents, and HSBC Securities (USA) Inc., as Documentation Agent (2)
10.3	Amended & Restated Facility Agreement, dated as of June 14, 2023, by and among TTM Technologies China Limited and TTM Technologies Trading (Asia) Company Limited, as borrowers, TTM Technologies (Asia Pacific) Limited and other parties as guarantors, The Hongkong and Shanghai Banking Corporation Limited and Barclays Bank PLC as original lenders, and The Hongkong and Shanghai Banking Corporation Limited as arranger, facility agent, security trustee and issuing bank (3)
10.4‡	TTM Technologies, Inc. 2023 Incentive Compensation Plan (4)
10.5*‡	TTM Technologies, Inc. 2023 Form of Restricted Stock Unit Award Grant Notice and Award Agreement (for U.S. taxpayers) pursuant to TTM Technologies, Inc. 2023 Incentive Compensation Plan
10.6*‡	TTM Technologies, Inc. 2023 Form of Restricted Stock Unit Award Grant Notice and Award Agreement (for non-U.S. taxpayers) pursuant to TTM Technologies, Inc. 2023 Incentive Compensation Plan
10.7*‡	TTM Technologies, Inc. 2023 Form of Performance-Based RSU Grant Notice and Award Agreement pursuant to TTM Technologies, Inc. 2023 Incentive Compensation Plan
31.1*	CEO Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2*	CFO Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1**	CEO Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2**	CFO Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Documents
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Documents
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Documents
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Documents
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

(1) Incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K as filed with the Commission on May 30, 2023, SEC File Number 000-31285.

(2) Incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K as filed with the Commission on May 30, 2023, SEC File Number 000-31285.

(3) Incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K as filed with the Commission on June 20, 2023, SEC File Number 000-31285.

(4) Incorporated by reference to Exhibit 99.1 to the Registrant's Form S-8 as filed with the Commission on June 7, 2023, SEC File Number 333-272490.

‡ Management contract or compensatory plan.

* Filed herewith.

** Furnished herewith. The certifications attached as Exhibits 32.1 and 32.2 that accompany this Quarterly Report on Form 10-Q are not deemed filed with the Commission and are not to be incorporated by reference into any filing of Registrant under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date of this Quarterly Report on Form 10-Q, irrespective of any general incorporation language contained in such filing.

SIGNATURES

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

TTM Technologies, Inc.

/s/ Thomas T. Edman

Dated: August 10, 2023

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

/s/ Todd B. Schull

Dated: August 10, 2023

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

Exhibit 10.5

TTM TECHNOLOGIES, INC.
2023 INCENTIVE COMPENSATION PLAN

«Grant_Year» RESTRICTED STOCK UNIT AWARD GRANT NOTICE

NORTH AMERICA EMPLOYEE

TTM Technologies, Inc. (the "Company"), pursuant to the TTM Technologies, Inc. 2023 Incentive Compensation Plan, as may be amended from time to time (the "Plan"), hereby grants to Participant a right to receive the number of shares of the common stock of the Company (the "Shares") set forth below. This Restricted Stock Unit award (the "RSU") is subject to all of the terms and conditions as set forth herein, in the Restricted Stock Unit Award Agreement (the "Award Agreement") and in the Plan, all of which are attached hereto and incorporated herein in their entirety.

Participant: «First_Name» «Middle_Initial» «Last_Name»

Grant Date: «Grant_Date», «Grant_Year»

Number of RSU: «RSU_Shares_Granted»

Expiration Date: Subject to termination as provided in Section 3(c) of the Award Agreement.

Vesting Schedule: One-third of the RSU vest on each of the following vesting dates, provided that the Participant continues to remain in Continuous Service with the Company and its Related Entities on and through the applicable Vesting Date(s):

1. First Vesting Date «Grant_Date», «Vest_Year_1»
2. Second Vesting Date «Grant_Date», «Vest_Year_2»
3. Third Vesting Date «Grant_Date», «Vest_Year_3»

In addition, the RSU are subject to vesting acceleration pursuant to Section 3(b) of the Award Agreement.

Delivery Schedule: Delivery schedule to be set forth in Section 4(b) of the Award Agreement.

Additional Terms/Acknowledgements: The Participant acknowledges receipt of, and understands and agrees to, this Restricted Stock Unit Award Grant Notice, the Award Agreement and the Plan. Participant further acknowledges that as of the Grant Date, this Restricted Stock Unit Award Grant Notice, the Award Agreement and the Plan set forth the entire understanding between Participant and the Company regarding the acquisition of Shares of the Company and supersede all prior oral and written agreements on that subject except as provided in Section 5 of any Change in Control Severance Agreement between the Company and Participant.

____
Thomas T. Edman
President and Chief Executive Officer
TTM Technologies, Inc.

ATTACHMENTS: Grant_Year «Grant_Year» Restricted Stock Unit Award Agreement to the 2023 Incentive Compensation Plan.

TTM TECHNOLOGIES, INC.
2023 INCENTIVE COMPENSATION PLAN

«Grant_Year» RESTRICTED STOCK UNIT AWARD AGREEMENT

NORTH AMERICA EMPLOYEE

TTM Technologies, Inc. (the "Company") wishes to grant to the person (the "Participant") named in the Notice of Grant of Restricted Stock Unit Award (the "Notice of Grant") a Restricted Stock Unit award (the "Award") pursuant to the provisions of the TTM Technologies, Inc. 2023 Incentive Compensation Plan, as may be amended from time to time (the "Plan"). The Award will entitle Participant to shares of common stock of the Company (the "Shares") if Participant meets the vesting requirements described herein. Pursuant to the terms of the attached Notice of Grant and this Restricted Stock Unit Award Agreement (the "Agreement"), the Company grants Participant the number of Restricted Stock Units ("RSU") listed in the Notice of Grant.

The details of the Award are as follows:

1. Grant Pursuant to Plan. This Award is granted pursuant to the Plan, which is incorporated herein for all purposes. Participant hereby acknowledges receipt of a copy of the Plan and agrees to be bound by all of the terms and conditions of this Agreement and of the Plan. All capitalized terms in this Agreement shall have the meaning assigned to them in this Agreement, or, if such term is not defined in this Agreement, such term shall have the meaning assigned to it under the Plan.

2. Restricted Stock Unit Award. The Company hereby grants to Participant the RSU listed in the Notice of Grant as of the grant date specified in the Notice of Grant (the "Grant Date"). Such number of RSU may be adjusted from time to time pursuant to Section 10(c) of the Plan.

3. Vesting and Forfeiture of Restricted Stock Units.

(a) Vesting. Participant shall become vested in the RSU in accordance with the vesting schedule in the Notice of Grant, except as otherwise accelerated pursuant to Section 3(b) hereof.

(b) Acceleration of Vesting.

(i)Upon the consummation of a Change in Control during Participant's Continuous Service with the Company and its Related Entities, the unvested RSU (to the extent such unvested RSU are assumed or continued by the successor corporation after the close of the Change in Control by a Proper Assumption) shall continue to vest in accordance with the original vesting schedule, so that the result is that the RSU shall, subject to the other conditions of this Agreement, fully vest according to the original vesting schedule.

(ii)Upon (A) the termination of Participant's Continuous Service due to your Voluntary Retirement (as defined below) or by reason of Participant's death or Disability, or (B) in the event of the termination by the Company of Participant's Continuous Service without Cause and Participant otherwise satisfies the conditions for Voluntary Retirement provided below, an additional number of RSU shall immediately vest, upon the date of termination of Continuous Service, equal to the product of (x) number of unvested RSU that would vest during the 12 month period commencing on the Grant Date (or, if later, the last anniversary of the Grant Date) multiplied by (y) a fraction equal to the number of whole months elapsed from the Grant Date (or, if later, the last anniversary of the Grant Date) until such termination of Continuous Service, divided by 12, rounded down to the nearest whole Share. For purposes of this Agreement, "Voluntary Retirement" means that Participant elects to terminate his or her Continuous Service with the Company at the age of at least sixty-two (62) and after a minimum of five (5) years of Continuous Service with the Company, provided that at the time of the Voluntary Retirement, Participant is not subject to any disciplinary action, in violation of any Company policy, or on any type of performance improvement plan.

(iii)If the Continuous Service of Participant is terminated without Cause by the Company or for Good Reason by the Recipient within twelve (12) months after the consummation of a Change in Control, then the unvested RSU (to the extent such unvested RSU are assumed or continued by the successor corporation after the close of Change in Control by a Proper Assumption) shall become fully vested as of the date of such termination of Continuous Service.

(iv)If the unvested RSU are not converted by a Proper Assumption at the time of the Change in Control, then all unvested RSU shall vest immediately prior to the Change in Control.

(v)A Proper Assumption shall be defined as an assumption or substitution of awards as such relate to (i) the Company's stock, (ii) common stock for which the Company's stock is exchanged at the exchange ratio or for cash consideration provided for the Company's stock upon the Change in Control or (iii) common stock of a successor or acquirer entity, for which there is a generally recognized U.S. public market, and the awards remain subject to such terms and conditions that are no less favorable to the employee than such terms and conditions that were applicable to the awards prior to the Change in Control.

(c) Forfeiture. Participant shall forfeit any unvested RSU, if any, in the event that Participant's Continuous Service is terminated for any reason, including a layoff or termination with or without Cause, except (i) as otherwise provided in this Agreement or the Plan or (ii) as otherwise determined by the Committee in its sole discretion, which determination need not be uniform as to all Participants. The Committee shall have the power and authority to enforce on behalf of the Company any rights of the Company under this Agreement in the event of Participant's forfeiture of the RSU pursuant to this Section 3(c).

4. Settlement of Restricted Stock Unit Award.

(a) Settlement of Units for Shares. The Company shall deliver to Participant one share of common stock of the Company for each vested RSU subject of this Award on the appropriate Delivery Date (as defined in Section 4(b)). The Company shall not have any obligation to settle this Award for cash.

(b) Delivery Date. Subject to Sections 4(c) and (d) below, Shares of common stock shall be delivered within thirty (30) days following the first to occur of any of the following while Participant is in Continuous Service: (i) the date on which the RSU (or a portion thereof) vests; (ii) the termination of Participant's Continuous Service with the Company for any reason (including death or Disability); or (iii) the consummation of a Change in Control, provided such Change in Control would constitute a "change in control event" as that term is defined in Treasury Regulations or other applicable guidance issued under Section 409A of the Code.

(c) Delivery to Specified Employees. Notwithstanding the foregoing, if Participant is a "Specified Employee" (as defined below) then the delivery of Shares otherwise required to be made under this Agreement on account of the termination of Participant's Continuous Service shall be made within thirty (30) days after the sixth (6^{th}) month anniversary of the date of the termination of Participant's Continuous Service or, if earlier, the date of Participant's death if such deferral is required to comply with Section 409A of the Code. For purposes of this Agreement, a "Specified Employee" shall mean any individual who, at the time of his or her separation from Continuous Service with the Company and its Related Entities, is a "key employee", within the meaning of Section 416(i) of the Code, of the Company or any Related Entity, the stock of which is publicly traded on an established securities market or otherwise.

(d) Deferral of Delivery. Notwithstanding the foregoing, Participant may elect, in writing received by the Committee at least twelve (12) months prior to a Delivery Date, to defer that date until any later date specified in such writing (which such date is at least five years after the original Delivery Date).

5. No Rights as Shareholder until Delivery. Participant shall not have any rights, benefits or entitlements with respect to any Shares subject to this Agreement unless and until the Shares has been delivered to Participant. On or after delivery of the Shares, Participant shall have, with respect to the Shares delivered, all of the rights of an equity interest holder of the Company, including the right to vote the Shares and the right to receive all dividends, if any, as may be declared on the Shares from time to time.

6. Tax Provisions.

(a) Tax Consequences. Participant has reviewed with Participant's own tax advisors the federal, state, local and foreign tax consequences of this investment and the transactions contemplated by this Agreement. Participant is relying solely on such advisors and not on any statements or representations of the Company or any of its agents. Participant understands that Participant (and not the Company) shall be responsible for any tax liability that may arise as a result of the transactions contemplated by this Agreement.

(b) Withholding Obligations. At the time the Award is granted, or at any time thereafter as requested by the Company, Participant hereby authorizes withholding from payroll and any other amounts payable to Participant, including Shares deliverable pursuant to this Award, and otherwise agrees to make adequate provision for, any sums required to satisfy the minimum federal, state, local and foreign tax withholding obligations of the Company or a Related Entity, if any, which arise in connection with the Award.

The Company, in its sole discretion, and in compliance with any applicable legal conditions or restrictions, may withhold from fully vested Shares otherwise deliverable to Participant upon the vesting of the Award a number of whole Shares having a Fair Market Value, as determined by the Company as of the date Participant recognizes income with respect to those Shares, not in excess of the amount of minimum tax required to be withheld by law (or such lower amount as may be necessary to avoid adverse financial accounting treatment). Any adverse consequences to Participant arising in connection with such Share withholding procedure shall be Participant's sole responsibility.

In addition, the Company, in its sole discretion, may establish a procedure whereby Participant is required to make an irrevocable election to direct a broker (determined by the Company) to sell sufficient Shares subject to the Award to cover the tax withholding obligations of the Company or any Related Entity and deliver such proceeds to the Company.

Unless the tax withholding obligations of the Company or any Related Entity are satisfied, the Company shall have no obligation to issue a certificate for such Shares.

(c) Compliance with Section 409A.

(i) It is the intention of both the Company and Participant that the benefits and rights to which Participant could be entitled pursuant to this Agreement comply with Section 409A of the Code and the Treasury Regulations and other guidance promulgated or issued thereunder ("Section 409A"), to the extent that the requirements of Section 409A are applicable thereto, and the provisions of this Agreement shall be construed in a manner consistent with that intention. If Participant or the Company believes, at any time, that any such benefit or right that is subject to Section 409A does not so comply, it shall promptly advise the other and shall negotiate reasonably and in good faith to amend the terms of such benefits and rights such that they comply with Section 409A (with the most limited possible economic effect on Participant and on the Company).

(ii) Neither the Company nor Participant, individually or in combination, may accelerate any payment or benefit that is subject to Section 409A, except in compliance with Section 409A and the provisions of this Agreement, and no amount that is subject to Section 409A shall be paid prior to the earliest date on which it may be paid without violating Section 409A.

(iii) For purposes of applying the provisions of Section 409A to this Agreement, each separately identified amount to which Participant is entitled under this Agreement shall be treated as a separate payment. In addition, to the extent permissible under Section 409A, any series of installment payments under this Agreement shall be treated as a right to a series of separate payments.

7. Consideration. With respect to the value of the Shares to be delivered pursuant to the Award, such Shares are granted in consideration for the services Participant shall provide to the Company during the vesting period.

8. Transferability. The RSU granted under this Agreement are not transferable otherwise than by will or under the applicable laws of descent and distribution. In addition, the RSU shall not be assigned, negotiated, pledged or hypothecated in any way (whether by operation of law or otherwise), and the RSU shall not be subject to execution, attachment or similar process.

9. General Provisions.

(a) Employment At Will. Nothing in this Agreement or in the Plan shall confer upon Participant any right to Continuous Service with the Company or any Related Entity for any period of specific duration or interfere with or otherwise restrict in any way the rights of the Company (or any Related Entity employing or retaining Participant) or of Participant, which rights are hereby expressly reserved by each, to terminate Participant's Continuous Service at any time for any reason, with or without Cause.

(b) Notices. Any notice required to be given under this Agreement shall be in writing and shall be deemed effective upon personal delivery or upon deposit in the U.S. mail, registered or certified, postage prepaid and properly addressed to the party entitled to such notice at the address on file with the Company or at such other address as such party may designate by ten (10) days' advance written notice under this paragraph to all other parties to this Agreement.

(c) No Limit on Other Compensation Arrangements. Nothing contained in this Agreement shall preclude the Company from adopting or continuing in effect other or additional compensation arrangements, and those arrangements may be either generally applicable or applicable only in specific cases.

(d) Severability. If any provision of this Agreement is or becomes or is deemed to be invalid, illegal, or unenforceable in any jurisdiction or would disqualify this Agreement or the Award under any applicable law, that provision shall be construed or deemed amended to conform to applicable law (or if that provision cannot be so construed or deemed amended without materially altering the purpose or intent of this Agreement and the Award, that provision shall be stricken as to that jurisdiction and the remainder of this Agreement and the Award shall remain in full force and effect).

(e) No Trust or Fund Created. Neither this Agreement nor the grant of the Award shall create or be construed to create a trust or separate fund of any kind or a fiduciary relationship between the Company and Participant or any other person. The RSU subject to this Agreement represent only the Company's unfunded and unsecured promise to issue Shares to Participant in the future. To the extent that Participant or any other person acquires a right to receive Shares from the Company pursuant to this Agreement, that right shall be no greater than the right of any unsecured general creditor of the Company.

(f) Cancellation of Award. If any RSU subject to this Agreement are forfeited, then from and after such time, Participant (and any other person from whom such RSU are forfeited) shall no longer have any rights to such RSU or the corresponding Shares. Such RSU shall be deemed forfeited in accordance with the applicable provisions hereof.

(g) Participant Undertaking. Participant hereby agrees to take whatever additional action and execute whatever additional documents the Company may deem necessary or advisable in order to carry out or effect one or more of the obligations or restrictions imposed on either Participant or the Shares deliverable pursuant to the provisions of this Agreement.

(h) Amendment, Modification, and Entire Agreement. No provision of this Agreement may be modified, waived or discharged unless that waiver, modification or discharge is agreed to in writing and signed by Participant and the Committee. This Agreement constitutes the entire contract between the parties hereto with regard to the subject matter hereof. This Agreement is made pursuant to the provisions of the Plan and shall in all respects be construed in conformity with the terms of the Plan. In the event of a conflict between the Plan and this Agreement, the terms of the Plan shall govern. Participant further acknowledges that as of the Grant Date, this Agreement and the Plan set forth the entire understanding between Participant and the Company regarding the acquisition of Shares pursuant to this Award and supersede all prior oral and written agreements on that subject with the exception of awards from the Company previously granted and delivered to Participant. No agreements or representations, oral or otherwise, express or implied, with respect to the subject matter hereof have been made by either party which are not set forth expressly in this Agreement.

(i) Governing Law. This Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware without regard to the conflict-of-laws rules thereof or of any other jurisdiction.

(j) Interpretation. Participant accepts this Award subject to all the terms and provisions of this Agreement and the terms and conditions of the Plan. Participant hereby accepts as binding, conclusive and final all decisions or interpretations of the Committee upon any questions arising under this Agreement.

(k) Successors and Assigns. The provisions of this Agreement shall inure to the benefit of, and be binding upon, the Company and its successors and assigns and upon Participant, Participant's assigns and the legal representatives, heirs and legatees of Participant's estate, whether or not any such person shall have become a party to this Agreement and have agreed in writing to join herein and be bound by the terms hereof. The Company may assign its rights and obligations under this Agreement, including, but not limited to, the forfeiture provision of Section 3(c) to any person or entity selected by the Board.

(l) Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed to be an original, but all of which together shall constitute one and the same instrument.

(m) Headings. Headings are given to the Paragraphs and Subparagraphs of this Agreement solely as a convenience to facilitate reference. The headings shall not be deemed in any way material or relevant to the construction or interpretation of this Agreement or any provision thereof.

10. Clawback of Benefits. The Company may (i) cause the cancellation of the RSU, (ii) require reimbursement of any benefit conferred under the RSU to Participant or Beneficiary, and (iii) effect any other right of recoupment of equity or other compensation provided under the Plan or otherwise in accordance with any Company policies that currently exist or that may from time to time be adopted or modified in the future by the Company and/or applicable law (each, a "Clawback Policy"). In addition, Participant may be required to repay to the Company certain previously paid compensation, whether provided under the Plan or an Award Agreement or otherwise, in accordance with any Clawback Policy By accepting this Award, Participant agrees to be bound by any existing or future Clawback Policy adopted by the Company, or any amendments that may from time to time be made to the Clawback Policy in the future by the Company in its discretion (including without limitation any Clawback Policy adopted or amended to comply with applicable laws or stock exchange requirements) and further agrees that all of Participant's Award Agreements may be unilaterally amended by the Company, without Participant's consent, to the extent that the Company in its discretion determines to be necessary or appropriate to comply with any Clawback Policy.

11. Representations. Participant acknowledges and agrees that Participant has reviewed the Agreement in its entirety, has had an opportunity to obtain the advice of counsel prior to executing and accepting the Award and fully understands all provisions of the Award.

[Remainder of page is intentionally blank]

IN WITNESS WHEREOF, the parties have executed this Agreement on the day and year first indicated above.

TTM TECHNOLOGIES, INC.

By:________________________________

Thomas T. Edman
President and Chief Executive Officer

PARTICIPANT

By:________________________________

«First_Name» «Middle_Initial» «Last_Name»

Exhibit 10.6

TTM TECHNOLOGIES, INC.
2023 INCENTIVE COMPENSATION PLAN

«Grant_Year» RESTRICTED STOCK UNIT AWARD GRANT NOTICE

NON-US EMPLOYEE

TTM Technologies, Inc. (the "Company"), pursuant to the TTM Technologies, Inc. 2023 Incentive Compensation Plan, as may be amended from time to time (the "Plan"), hereby grants to Participant a right to receive the number of shares of the common stock of the Company (the "Shares") set forth below. This Restricted Stock Unit award (the "RSU") is subject to all of the terms and conditions as set forth herein, in the Restricted Stock Unit Award Agreement (the "Award Agreement") and in the Plan, all of which are attached hereto and incorporated herein in their entirety.

Participant: «First_Name» «Last_Name»

Grant Date: «Grant_Date», «Grant_Year»

Number of RSU: «RSU_Shares_Granted»

Expiration Date: Subject to termination as provided in Section 3(c) of the Award Agreement.

Vesting Schedule: One-third of the RSUs vest on each of the following vesting dates, provided that the Participant continues to remain in Continuous Service with the Company and its Related Entities on and through the applicable Vesting Date(s):

1. First Vesting Date «Grant_Date», «Vest_Year_1»
2. Second Vesting Date «Grant_Date», «Vest_Year_2»
3. Third Vesting Date «Grant_Date», «Vest_Year_3»

In addition, the RSUs are subject to vesting acceleration pursuant to Section 3(b) of the Award Agreement.

Delivery Schedule: Delivery schedule to be set forth in Section 4(b) of the Award Agreement.

Additional Terms/Acknowledgements: The Participant acknowledges receipt of, and understands and agrees to, this Restricted Stock Unit Award Grant Notice, the Award Agreement and the Plan. Participant further acknowledges that as of the Grant Date, this Restricted Stock Unit Award Grant Notice, the Award Agreement and the Plan set forth the entire understanding between Participant and the Company regarding the acquisition of Shares of the Company and supersede all prior oral and written agreements on that subject except as provided in Section 5 of any Change in Control Severance Agreement between the Company and Participant.

____
Thomas T. Edman
President and Chief Executive Officer
TTM Technologies, Inc.

ATTACHMENTS: «Grant_Year» Restricted Stock Unit Award Agreement and 2023 Incentive Compensation Plan.

TTM TECHNOLOGIES, INC.
2023 INCENTIVE COMPENSATION PLAN

«Grant_Year» RESTRICTED STOCK UNIT AWARD AGREEMENT
NON-US EMPLOYEE

TTM Technologies, Inc. (the "Company") wishes to grant to the person (the "Participant") named in the Notice of Grant of Restricted Stock Unit Award (the "Notice of Grant") a Restricted Stock Unit award (the "Award") pursuant to the provisions of the TTM Technologies, Inc. 2023 Incentive Compensation Plan, as may be amended from time to time (the "Plan"). The Award will entitle Participant to shares of common stock of the Company (the "Shares") if Participant meets the vesting requirements described herein. Therefore, pursuant to the terms of the attached Notice of Grant and this Restricted Stock Unit Award Agreement (the "Agreement"), the Company grants Participant the number of Restricted Stock Units ("RSU") listed in the Notice of Grant.

The details of the Award are as follows:

1. Grant Pursuant to Plan. This Award is granted pursuant to the Plan, which is incorporated herein for all purposes. Participant hereby acknowledges receipt of a copy of the Plan and agrees to be bound by all of the terms and conditions of this Agreement and of the Plan. All capitalized terms in this Agreement shall have the meaning assigned to them in this Agreement, or, if such term is not defined in this Agreement, such term shall have the meaning assigned to it under the Plan.

2. Restricted Stock Unit Award. The Company hereby grants to Participant the RSU listed in the Notice of Grant as of the grant date specified in the Notice of Grant (the "Grant Date"). Such number of RSU may be adjusted from time to time pursuant to Section 10(c) of the Plan.

3. Vesting and Forfeiture of Restricted Stock Units.

(a) Vesting. Participant shall become vested in the RSU in accordance with the vesting schedule in the Notice of Grant, except as otherwise accelerated pursuant to Section 3(b) hereof.

(b) Acceleration of Vesting.

(i) Upon the consummation of a Change in Control during Participant's Continuous Service with the Company and its Related Entities, the unvested RSU (to the extent such unvested RSU are assumed or continued by the successor corporation after the close of the Change in Control by a Proper Assumption) shall continue to vest in accordance with the original vesting schedule, so that the result is that the RSU shall, subject to the other conditions of this Agreement, fully vest according to the original vesting schedule.

(ii) Upon (A) the termination of Participant's Continuous Service due to your Voluntary Retirement (as defined below) or by reason of Participant's death or Disability, or (B) in the event of the termination by the Company of Participant's Continuous Service without Cause and Participant otherwise satisfies the conditions for Voluntary Retirement provided below, an additional number of RSU shall immediately vest, upon the date of termination of Continuous Service, equal to the product of (x) number of unvested RSU that would vest during the 12 month period commencing on the Grant Date (or, if later, the last anniversary of the Grant Date) multiplied by (y) a fraction equal to the number of whole months elapsed from the Grant Date (or, if later, the last anniversary of the Grant Date) until such termination of Continuous Service, divided by 12, rounded down to the nearest whole Share. For purposes of this Agreement, "Voluntary Retirement" means that Participant elects to terminate his or her Continuous Service with the Company at the age of at least sixty-two (62) and after a minimum of five (5) years of Continuous Service with the Company (age of at least 60 in China due to government mandated retirement age), provided that at the time of the Voluntary Retirement, Participant is not subject to any disciplinary action, in violation of any Company policy, or on any type of performance improvement plan.

(iii) If the Continuous Service of Participant is terminated without Cause by the Company or for Good Reason by the Recipient within twelve (12) months after the consummation of a Change in Control, then the unvested RSU (to the extent such unvested RSU are assumed or continued by the successor corporation after the close of Change in Control by a Proper Assumption) shall become fully vested as of the date of such termination of Continuous Service.

(iv) If the unvested RSU are not converted by a Proper Assumption at the time of the Change in Control, then all unvested RSU shall vest immediately prior to the Change in Control.

(v) A Proper Assumption shall be defined as an assumption or substitution of awards as such relate to (i) the Company's stock, (ii) common stock for which the Company's stock is exchanged at the exchange ratio or for cash consideration provided for the Company's stock upon the Change in Control or (iii) common stock of a successor or acquirer entity, for which there is a generally recognized U.S. public market, and the awards remain subject to such terms and conditions that are no less favorable to the employee than such terms and conditions that were applicable to the awards prior to the Change in Control.

(c) Forfeiture. Participant shall forfeit any unvested RSU, if any, in the event that Participant's Continuous Service is terminated for any reason, including a layoff or termination with or without Cause, except (i) as otherwise provided in this Agreement or the Plan or (ii) as otherwise determined by the Committee in its sole discretion, which determination need not be uniform as to all Participants. The Committee shall have the power and authority to enforce on behalf of the Company any rights of the Company under this Agreement in the event of Participant's forfeiture of the RSU pursuant to this Section 3(c).

4. Settlement of Restricted Stock Unit Award.

(a) Settlement of Units for Shares. The Company shall deliver to Participant one Share of common stock of the Company for each vested RSU subject of this Award on the appropriate Delivery Date (as defined in Section 4(b)). The Company shall not have any obligation to settle this Award for cash.

(b) Delivery Date. Subject to Section 4(c) below, Shares of common stock shall be delivered within thirty (30) days following the date on which the RSU (or a portion thereof) vests. Once a Share of common stock is delivered with respect to a vested RSU, such vested RSU shall terminate and the Company shall have no further obligation to deliver Shares of common stock or any other property for such vested RSU.

(c) Deferral of Delivery. Notwithstanding the foregoing, Participant may elect, in writing received by the Committee at least twelve (12) months prior to a Delivery Date, to defer that date until any later date specified in such writing (which such date is at least five years after the original Delivery Date).

(d) Forced Sale of Shares for Participant from PRC. In the event that the Participant is a citizen in the People's Republic of China (excluding Hong Kong for the purpose of this Agreement) and his/her Continuous Service is terminated for any reason whatsoever, the Participant shall dispose of all the Shares obtained from this Award within four weeks from the date of such termination or within a specified period as required by applicable legislation, regulations, rules or directions or by the relevant authorities, if any, whichever is the shorter. For the purposes of the foregoing, the Participant hereby authorizes the Company (including any of its Subsidiaries involved) to instruct the relevant transfer agent and/or broker to make the aforesaid disposal for and on behalf of the Participant within the aforesaid time limitation. However, nothing herein shall bind the Company (including any of its Subsidiaries involved) or be deemed to impose liability on the Company (including any of its Subsidiaries involved) for failure to comply with the disposal obligations set forth herein or required by applicable legislation, regulations, rules or directions or by the relevant authorities. The sale proceeds from the disposal shall, after deduction of all expenses and applicable taxes (including withholding taxes), be returned to the Participant in the People's Republic of China.

(e) Foreign Exchange Control. In the event that there is foreign exchange control in the jurisdiction in which the Participant resides, the Participant shall comply with all the applicable laws, regulations, rules and directions of that jurisdiction in dealing with the sale proceeds of disposal of the Shares obtained from this Award. The Participant hereby authorizes and empowers the Company (including any of its Subsidiaries involved) to deal with the said sale proceeds in whatsoever way as the Company (or any of its Subsidiaries involved) deems appropriate for compliance with the applicable laws, regulations, rules and directions of that jurisdiction if and when the Company (or any of its Subsidiaries involved) is so required by such applicable laws, regulations, rules and directions and, if necessary, the Participant will execute further documents and/or do further act to enable the Company (including any of its Subsidiaries involved) to achieve the purposes as aforesaid.

5. No Rights as Shareholder until Delivery. Participant shall not have any rights, benefits or entitlements with respect to any Shares subject to this Agreement unless and until the Shares has been delivered to Participant. On or after delivery of the Shares, Participant shall have, with respect to the Shares delivered, all of the rights of an equity interest holder of the Company, including the right to vote the Shares and the right to receive all dividends, if any, as may be declared on the Shares from time to time.

6. Tax Provisions.

(a) Tax Consequences. Participant has reviewed with Participant's own tax advisors the federal, state, local and foreign tax consequences of this investment and the transactions contemplated by this Agreement. Participant is relying solely on such advisors and not on any statements or representations of the Company or any of its agents. Participant understands that Participant (and not the Company) shall be responsible for any tax liability that may arise as a result of the transactions contemplated by this Agreement.

(b) Withholding Obligations. At the time the Award is granted, or at any time thereafter as requested by the Company, Participant hereby authorizes withholding from payroll and any other amounts payable to Participant, including Shares deliverable pursuant to this Award, and otherwise agrees to make adequate provision for, any sums required to satisfy the minimum federal, state, local and foreign tax withholding obligations of the Company or a Related Entity, if any, which arise in connection with the Award.

The Company, in its sole discretion, and in compliance with any applicable legal conditions or restrictions, may withhold from fully vested Shares otherwise deliverable to Participant upon the vesting of the Award a number of whole Shares having a Fair Market Value, as determined by the Company as of the date Participant recognizes income with respect to those Shares, not in excess of the amount of minimum tax required to be withheld by law (or such lower amount as may be necessary to avoid adverse financial accounting treatment). Any adverse consequences to Participant arising in connection with such Share withholding procedure shall be Participant's sole responsibility.

In addition, the Company, in its sole discretion, may establish a procedure whereby Participant is required to make an irrevocable election to direct a broker (determined by the Company) to sell sufficient Shares subject to the Award to cover the tax withholding obligations of the Company or any Related Entity and deliver such proceeds to the Company.

Unless the tax withholding obligations of the Company or any Related Entity are satisfied, the Company shall have no obligation to issue a certificate for such Shares.

(c) Tax Legislation Amendments. The Company and Participant agree to cooperate to amend this Agreement to the extent either the Company or Participant deems necessary to avoid imposition of any additional tax or income recognition prior to actual payment to Participant under any tax legislation in the jurisdiction in which the Participant resides, but only to the extent such amendment would not have an adverse effect on the Company and would not provide Participant with any additional rights, in each case as determined by the Company, in its sole discretion.

7. Consideration. With respect to the value of the Shares to be delivered pursuant to the Award, such Shares are granted in consideration for the services Participant shall provide to the Company during the vesting period.

8. Transferability. The RSUs granted under this Agreement are not transferable otherwise than by will or under the applicable laws of descent and distribution. In addition, the RSUs shall not be assigned, negotiated, pledged or hypothecated in any way (whether by operation of law or otherwise), and the RSUs shall not be subject to execution, attachment or similar process.

9. General Provisions.

(a) Employment At Will. Nothing in this Agreement or in the Plan shall confer upon Participant any right to Continuous Service with the Company or any Related Entity for any period of specific duration or interfere with or otherwise restrict in any way the rights of the Company (or any Related Entity employing or retaining Participant) or of Participant, which rights are hereby expressly reserved by each, to terminate Participant's Continuous Service at any time for any reason, with or without Cause.

(b) Notices. Any notice required to be given under this Agreement shall be in writing and shall be deemed effective upon personal delivery or upon deposit in the U.S. mail (in the case that Participant resides in the U.S.) or in the mail of Hong Kong (in the case that the Participant resides in Hong Kong, Mainland China or elsewhere), registered or certified, postage prepaid and properly addressed to the party entitled to such notice at the address on file with the Company or at such other address as such party may designate by ten (10) days' advance written notice under this paragraph to all other parties to this Agreement.

(c) No Limit on Other Compensation Arrangements. Nothing contained in this Agreement shall preclude the Company from adopting or continuing in effect other or additional compensation arrangements, and those arrangements may be either generally applicable or applicable only in specific cases.

(d) Severability. If any provision of this Agreement is or becomes or is deemed to be invalid, illegal, or unenforceable in any jurisdiction or would disqualify this Agreement or the Award under any applicable law, that provision shall be construed or deemed amended to conform to applicable law (or if that provision cannot be so construed or deemed amended without materially altering the purpose or intent of this Agreement and the Award, that provision shall be stricken as to that jurisdiction and the remainder of this Agreement and the Award shall remain in full force and effect).

(e) No Trust or Fund Created. Neither this Agreement nor the grant of the Award shall create or be construed to create a trust or separate fund of any kind or a fiduciary relationship between the Company and Participant or any other person. The RSUs subject to this Agreement represent only the Company's unfunded and unsecured promise to issue Shares to Participant in the future. To the extent that Participant or any other person acquires a right to receive Shares from the Company pursuant to this Agreement, that right shall be no greater than the right of any unsecured general creditor of the Company.

(f) Cancellation of Award. If any RSUs subject to this Agreement are forfeited, then from and after such time, Participant (and any other person from whom such RSUs are forfeited) shall no longer have any rights to such RSUs or the corresponding Shares. Such RSUs shall be deemed forfeited in accordance with the applicable provisions hereof.

(g) Participant Undertaking. Participant hereby agrees to take whatever additional action and execute whatever additional documents the Company may deem necessary or advisable in order to carry out or effect one or more of the obligations or restrictions imposed on either Participant or the Shares deliverable pursuant to the provisions of this Agreement.

(h) Amendment, Modification, and Entire Agreement. No provision of this Agreement may be modified, waived or discharged unless that waiver, modification or discharge is agreed to in writing and signed by Participant and the Committee. This Agreement constitutes the entire contract between the parties hereto with regard to the subject matter hereof. This Agreement is made pursuant to the provisions of the Plan and shall in all respects be construed in conformity with the terms of the Plan. In the event of a conflict between the Plan and this Agreement, the terms of the Plan shall govern. Participant further acknowledges that as of the Grant Date, this Agreement and the Plan set forth the entire understanding between Participant and the Company regarding the acquisition of Shares pursuant to this Award and supersede all prior oral and written agreements on that subject with the exception of awards from the Company previously granted and delivered to Participant. No agreements or representations, oral or otherwise, express or implied, with respect to the subject matter hereof have been made by either party which are not set forth expressly in this Agreement.

(i) Governing Law. This Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, United States of America, without regard to the conflict-of-laws rules thereof or of any other jurisdiction.

(j) Interpretation. Participant accepts this Award subject to all the terms and provisions of this Agreement and the terms and conditions of the Plan. Participant hereby accepts as binding, conclusive and final all decisions or interpretations of the Committee upon any questions arising under this Agreement.

(k) Successors and Assigns. The provisions of this Agreement shall inure to the benefit of, and be binding upon, the Company and its successors and assigns and upon Participant, Participant's assigns and the legal representatives, heirs and legatees of Participant's estate, whether or not any such person shall have become a party to this Agreement and have agreed in writing to join herein and be bound by the terms hereof. The Company may assign its rights and obligations under this Agreement, including, but not limited to, the forfeiture provision of Section 3(c) to any person or entity selected by the Board.

(l) Personal Data. The Participant agrees to provide, and authorizes the provision of, his/her own personal data to the Company, its Subsidiaries and/or the professional parties engaged by the Company or its Subsidiaries, for the purpose of the Award and the transactions contemplated by this Agreement.

(m) Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed to be an original, but all of which together shall constitute one and the same instrument.

(n) Headings. Headings are given to the Paragraphs and Subparagraphs of this Agreement solely as a convenience to facilitate reference. The headings shall not be deemed in any way material or relevant to the construction or interpretation of this Agreement or any provision thereof.

10. Clawback of Benefits. The Company may (i) cause the cancellation of the RSUs, (ii) require reimbursement of any benefit conferred under the RSUs to Participant or Beneficiary, and (iii) effect any other right of recoupment of equity or other compensation provided under the Plan or otherwise in accordance with any Company policies that currently exist or that may from time to time be adopted or modified in the future by the Company and/or applicable law (each, a "Clawback Policy"). In addition, Participant may be required to repay to the Company certain previously paid compensation, whether provided under the Plan or an Award Agreement or otherwise, in accordance with any Clawback Policy. By accepting this Award, Participant agrees to be bound by any existing or future Clawback Policy adopted by the Company, or any amendments that may from time to time be made to the Clawback Policy in the future by the Company in its discretion (including without limitation any Clawback Policy adopted or amended to comply with applicable laws or stock exchange requirements) and further agrees that all of Participant's Award Agreements may be unilaterally amended by the Company, without Participant's consent, to the extent that the Company in its discretion determines to be necessary or appropriate to comply with any Clawback Policy.

11. Representations. Participant acknowledges and agrees that Participant has reviewed the Agreement in its entirety, has had an opportunity to obtain the advice of counsel prior to executing and accepting the Award and fully understands all provisions of the Award.

[Remainder of page is intentionally blank]

IN WITNESS WHEREOF, the parties have executed this Agreement on the day and year first indicated above.

TTM TECHNOLOGIES, INC.

By:________________________________

Thomas T. Edman
President and Chief Executive Officer

PARTICIPANT

By:________________________________

«First_Name» «Last_Name»

Exhibit 10.7

TTM TECHNOLOGIES, INC.
2023 INCENTIVE COMPENSATION PLAN

«Grant_Year» PERFORMANCE-BASED RSU
GRANT NOTICE AND AWARD AGREEMENT

THIS «Grant_Year» PERFORMANCE-BASED RSU GRANT NOTICE AND AWARD AGREEMENT (the "Agreement") is made and entered into as of **«Grant_Date», «Grant_Year»** (the "Grant Date"), between TTM Technologies, Inc. a Delaware corporation (the "Company") and **«First_Name» «Middle_Initial» «Last_Name»** (the "Recipient").

Recitals

WHEREAS, the Compensation Committee of the Board of Directors of the Company (the "Committee") has determined that it is in the best interests of the Company to recognize the Recipient's performance and to provide incentive to the Recipient to remain with the Company and its Related Entities by making this grant of performance-based Restricted Stock Units ("PRU") representing hypothetical shares of the Company's common stock (the "Common Stock"), in accordance with the terms of this Agreement; and

WHEREAS, the PRU are granted pursuant to the TTM Technologies, Inc. 2023 Incentive Compensation Plan, as the same may be amended and/or restated from time to time (the "Plan"), which is incorporated herein for all purposes.

Agreement

NOW, THEREFORE, in consideration of the premises set forth herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. Grant of PRU.

   Subject to the terms and conditions of this Agreement and the Plan, the Committee hereby grants to the Recipient a target number of **«PRU_Shares_Granted»** PRU (the "Target Amount"). The number of PRU actually awarded to Recipient will be determined at the end of the performance period commencing the beginning of fiscal Grant_Year «Grant_Year» and ending the end of fiscal Year_3 «Year_3» (the "Performance Period"). Each PRU will be equal in value to one Share of the Company's Common Stock.

2. Performance Criteria.

   The Recipient can earn the PRU based on the Company's performance in (a) achieving annual financial performance goals established by the Committee, and (b) achieving a total stockholder return ("TSR") over the three fiscal years ending with fiscal year «Year_3». The annual financial performance goals associated with this PRU Award will be communicated by the Company annually via Committee-supplied supplements to this Agreement. The «Grant_Year» supplement to this Agreement is attached hereto as Annex A, and reflects that the «Grant_Year» financial performance goals are based on the Company's «Year_1» revenue and "EBITDA" during the Company's fiscal year. The annual performance goals for fiscal «Year_2» and «Year_3» may or may not be based on the Company's revenue and/or EBITDA. The amount of the PRU Award will range from 0% to 200% of the Target Amount as determined after the end of the Performance Period based upon the Company's performance against the annual financial performance goals and three-year TSR as reviewed and approved by the Committee. No PRU will be awarded if performance is below minimum levels.

3. Milestones, Credits, Application of Modifier.

(a) Milestones and Credits. The annual performance criteria associated with the PRU Award will be established by the Committee. A percentage of the Target Amount is determined annually based upon actual Company performance against goals that are reviewed and approved annually by the Committee and will be made available through Committee-supplied supplements to this Agreement. The table below illustrates the multi-year components and weighting as a % of 100%

	Revenue	EBITDA	TSR (3 year)
FY «Year_1»	[ ]%	[ ]%	[ ]%
FY «Year_2»	[ ]%	[ ]%	
FY «Year_3»	[ ]%	[ ]%	
Totals	[ ]**%**	[ ]**%**	[ ]**%**

At the Target Level, [ ]**%** of the Target Amount will vest based on the Company's revenues in fiscal «Year_1» relative to the target milestone set forth on Annex A. [ ]**%** of the Target amount will vest based on the Company's EBITDA in fiscal «Year_1» relative to the target milestone set forth on Annex A. At the Target Levels, [ ]**%** of the Target Amount will be based on the Company's financial performance with respect to one or more target milestones established by the Committee for each of fiscal «Year_2» and fiscal «Year_3» as set forth in supplements to this Agreement delivered by the Company to the Recipient not later than the 90th day of the relevant year.

As milestones are achieved, a portion of the Target Amount shall be credited in the Recipient's name. The amounts credited for fiscal «Year_1» in connection with each of the annual revenue goal and EBITDA goal as a percentage of [ ]**%** will be as follows: [ ]**%** if performance is below minimum level, [ ]**%** if performance is at minimum level of [ ]**%** of the annual goal (the "Minimum Level vs. the Goal"), [ ]**%** if performance is equal to the annual goal (the "Target Level"), and [ ]**%** if performance is at or above maximum level of [ ]**%** of the annual goal (the "Maximum Level vs. the Goal"), each as set forth on Annex A. For performance between the Minimum level vs. the Goal and the Target Level, a proportionate percentage between [ ]**%** and [ ]**%** will be applied based on relative performance between. For performance between the Target Level and the Maximum Level vs. the Goal, a proportionate percentage between [ ]**%** and [ ]**%** will be applied based on relative performance between target and maximum.

The amount credited to the Recipient under this section 3(a) is the "Conditional PRU Award."

(b) TSR Component. Following the completion of the Performance Period, the Conditional PRU Award will be adjusted by adding the TSR calculation as set forth in this Section 3(b) (the "TSR Component"). A Recipient's PRU Award (if any) shall equal the Conditional PRU Award plus the TSR Portion, as approved by the Committee.

The threshold level of TSR performance is at the [ ] percentile of the TSR Peer Group at the end of the three year period (the "Minimum TSR Level"), the target level performance s [ ] percentile of the TSR Peer Group (the "Target Level") and the maximum level of TSR performance shall be at or above the [ ] percentile of the TSR Peer Group at the end of the three year period (the "Maximum TSR Level"). The TSR Component will be based on the Company's fiscal three-year performance as compared to the fiscal three-year performance of the TSR Peer Group over the same period. For performance between the Minimum TSR Level and the Target Level, a proportionate TSR Component percentage between [ ]% and [ ]% will be applied based on actual relative performance and for performance between the Target Level and the Maximum TSR Level, a proportionate TSR Component percentage between [ ]% and [ ]% will be applied based on actual relative performance. The TSR Component will be equal to zero if the Minimum TSR Level is not met, resulting in no payout for this stand-alone component under this Agreement. The TSR Component shall equal [ ]% of the Target Amount at the Target Level performance after the three year period. The TSR Component shall equal [ ]% of the Target Amount at or above the Maximum TSR Level performance at the end of the three year period.

The chart below illustrates the TSR Component with respect to the Company's TSR performance relative to the TSR of the TSR Peer Group during the Performance Period:

Payout of Target Amount Relative to TSR Peer Group TSR		
Minimum ([ ] percentile)	Target ([ ] percentile)	Maximum ([ ] percentile or above)
[ ]%	[ ]%	[ ]%

*Company TSR and TSR Peer Group will be computed using average six-month closing prices preceding the fiscal year «Grant_Year» and the end of fiscal year «Year_3» measurement dates, and shall in each case assume reinvestment of dividends paid during the Performance Period.

4. Payout of PRU.

If the Committee determines that the goals described in Section 3 have been met and certifies the extent to which those goals have been met, and the terms and conditions set forth in this Agreement are fulfilled, then the Recipient's PRU Award as determined under Section 3(b), 9, 10 or 11, as applicable, shall no longer be restricted and Shares will be transferred to the Recipient after the end of the Performance Period and on or before March 15, «Payout_Year», in an amount equal to the number of PRU earned pursuant to Section 3(b), 9, 10 or 11, as applicable, in each case, net of applicable withholdings.

5. Transferability.

The PRU awarded hereunder are not transferable otherwise than by will or under the applicable laws of descent and distribution, and the terms of this Agreement shall be binding upon the executors, administrators, heirs, successors, and assigns of the Recipient. Any attempt to effect a Transfer of any PRU shall be void ab initio. For purposes of this Agreement, "Transfer" shall mean any sale, transfer, encumbrance, gift, donation, assignment, pledge, hypothecation, or other disposition, whether similar or dissimilar to those previously enumerated, whether voluntary or involuntary, and including, but not limited to, any disposition by operation of law, by court order, by judicial process, or by foreclosure, levy or attachment.

6. Custody of PRU.

The PRU subject hereto shall be held in a restricted book entry account in the name of the Recipient. Upon completion of the Performance Period, Shares issued pursuant to Section 4 above shall be released into an unrestricted book entry account; provided, however, that a portion of such Shares may be surrendered in payment of taxes in accordance with Section 15 below, unless the Company, in its sole discretion, establishes alternative procedures for the payment of such taxes.

7. Hypothetical Nature of PRU.

The Recipient shall not have any rights, benefits, or entitlements with respect to the Shares corresponding to the PRU unless and until those Shares are delivered to the Recipient (and thus shall have no voting rights, or rights to receive any dividend declared, before those Shares are so delivered). On or after delivery, the Recipient shall have, with respect to the Shares delivered, all of the rights of a holder of Shares granted pursuant to the certificate of incorporation and other governing instruments of the Company, or as otherwise available at law.

8. Termination of Continuous Service.

Except as set forth in Sections 9, 10, 11 and 12 below, if the Recipient's Continuous Service is terminated for any reason prior to the end of the Performance Period, then any and all PRU granted hereunder shall be forfeited immediately upon such termination of Continuous Service and revert back to the Company without any payment to the holder thereof. The Committee shall have the power and authority to enforce on behalf of the Company any rights of the Company under this Agreement in the event of the forfeiture of PRU pursuant to this Section 8.

9. Retirement of the Recipient.

If the Recipient's Continuous Service is terminated due to "Retirement," the Recipient shall be eligible to receive a pro rata amount of the PRU Award (if any) payable after the end of the Performance Period as described in Section 4 above. For each year or part of a year that the Recipient is in the Continuous Service with the Company and its Related Entities during the Performance Period, the amount credited towards the Conditional PRU Award will be determined by multiplying the amount otherwise credited at the end of the applicable year by a fraction equal to the number of whole months elapsed between the beginning of such year and the Recipient's Retirement, divided by 12. The resulting amount will be credited towards the Conditional PRU Award. The TSR Component will be measured at the end of the three year vesting period and will likewise be credited to the Recipient on a pro-rata basis based on the period of continuous service provided by the Recipient during the three year vesting period of the award.

To illustrate by example, in the event an eligible Recipient received a PRU award in the year «Grant_Year», and subsequently retired on September 1, «Year_2», the Recipient in this example would be entitled to the shares from the following grants.

For «Year_1», the Recipient would be entitled to 12/12 of the resulting amount to be credited towards the Conditional PRU Award.

For «Year_2», the Recipient would be entitled to 8/12 of the resulting amount to be credited towards the Conditional PRU Award.

For «Year_3», the Recipient would be entitled to 0/12 of the resulting amount to be credited towards the Conditional PRU Award.

At the end of «Year_3», the TSR Component will be calculated in accordance with the process detailed in Section 3(b) above and will be paid out to the Recipient on a pro-rata basis based on the total time during the three year vesting period that the employee served.

Performance Year	«Year_1»	«Year_2»	«Year_3»

Eligible Pro-rata Shares based on performance metrics	12/12	8/12	0/12
TSR Component at the end of «Year_3»	20/36		

10. Total and Permanent Disability of the Recipient.

If the Recipient's Continuous Service is terminated due to Disability, the Recipient (or a legally designated guardian or representative if the Recipient is legally incompetent) shall be eligible to receive a pro rata amount of the PRU Award (if any) payable after the end of the Performance Period as described in Section 4 above. For each year or part of a year that the Recipient is in the Continuous Service with the Company and its Related Entities during the Performance Period, the amount credited towards the Conditional PRU Award will be determined by multiplying the amount otherwise credited at the end of the applicable year by a fraction equal to the number of whole months elapsed between the beginning of such year and the Recipient's Retirement, divided by 12. The resulting amount will be credited towards the Conditional PRU Award and adjusted by adding the TSR Component. The illustration for section 9 applies.

11. Death of the Recipient.

If the Recipient's Continuous Service is terminated due to death, the Recipient's estate or designated beneficiary shall be eligible to receive a pro rata amount of the PRU Award (if any) payable after the end of the Performance Period as described in Section 4 above. For each year or part of a year that the Recipient is in the Continuous Service with the Company and its Related Entities during the Performance Period, the amount credited towards the Conditional PRU Award will be determined by multiplying the amount otherwise credited at the end of the applicable year by a fraction equal to the number of whole months elapsed between the beginning of such year and the Recipient's Retirement, divided by 12. The resulting amount will be credited towards the Conditional PRU Award and adjusted by adding the TSR Component. The illustration for section 9 applies.

12. Change-in-Control.

(a) In the event of a Change in Control, (the PRU are assumed by a Proper Assumption the successor corporation after the consummation of the Change in Control), the Company shall deliver to the Recipient at the end of the original Performance Period, subject to continued employment, the greater of (i) the Target Amount of Shares subject to the PRU Award or (ii) (A) the calculation of the PRU that would have been granted if the financial results and TSR results were measured as such results were at the time of the Change of Control on a pro-forma basis, pro-rated for the amount of the performance period elapsed plus (B) the remainder of the Target Amount of Shares that would have vested after the Change of Control.

(b) To the extent that, after a Change in Control, (i) the Recipient's Continuous Service is terminated without cause within 12 months of a Change in Control, (ii) the Recipient terminates his/her continuous service for Good Reason within 12 months of a Change in Control or (iii) the PRU provided for herein are not assumed or substituted in connection with the Change in Control by a Proper Assumption, the Shares the recipient would have been eligible to receive, subject to continued employment as set forth in Section 12(a) above, shall fully vest.

(c) The provisions of this Section 12 supersede any inconsistent provisions with respect to the impact of a Change in Control on the PRU Award made by this Agreement, including, but not limited to Section 5 of any Executive Change in Control Severance Agreement between the Company and the Recipient. In the event of any such inconsistency, this Agreement shall control.

13. Definitions.

For purposes of this Agreement:

"EBITDA" means the Company's consolidated net income, computed in accordance with generally accepted accounting principles but excluding any gains or losses from building and other significant asset sales, if any, plus, without duplication and to the extent reflected as a charge or expense in the calculation of net income, the sum of (i) income tax expense, (ii) interest expense and amortization of debt issuance costs, (iii) depreciation and amortization expense, (iv) stock-based compensation expense, including compensation expense attributable to this Agreement and the Company's other performance-based Stock Units, (v) goodwill impairment, (vi) asset write downs, (vii) plant closure and related layoff costs, (viii) acquisition costs, (ix) amortization of intangibles, and (x) loss on extinguishment of debt.

"Proper Assumption" means an assumption or substitution of awards as such relate to (i) the Company's stock, (ii) common stock for which the Company's stock is exchanged at the exchange ratio or for cash consideration provided for the Company's stock upon the Change in Control or (iii) common stock of a successor or acquirer entity, for which there is a generally recognized U.S. public market, and the awards remain subject to such terms and conditions that are no less favorable to the employee than such terms and conditions that were applicable to the awards prior to the Change in Control.

"Retirement" means (i) any voluntary termination of Continuous Service by the Recipient at age 62 or older, provided that the Recipient has at least five (5) years of Continuous Service prior to such termination, or (ii) any termination of the Recipient's Continuous Service by the Company, without Cause, provided that the Recipient is age 62 or older and has at least five (5) years of Continuous Service prior to such termination.

"TSR Peer Group" consists of the companies listed on the attached Annex B.

14. Section 409A.

Payments made pursuant to the Plan and this Agreement are intended to comply with or qualify for an exemption from Section 409A of the Internal Revenue Code of 1986, as amended ("Section 409A"). The Company reserves the right, to the extent the Company deems necessary or advisable in its sole discretion, to unilaterally amend or modify the Plan and/or this Agreement to ensure that all PRU Awards are made in a manner that complies with Section 409A (including, without limitation, the avoidance of penalties thereunder), provided, however, that the Company makes no representations that the PRU Awards will be exempt from any penalties that may apply under Section 409A and makes no undertaking to preclude Section 409A from applying to this PRU Award.

Notwithstanding anything to the contrary in this Agreement or the Plan, if the Recipient is a "Specified Employee" (as defined below) then the delivery of Shares otherwise required to be made under this Agreement on account of the termination of the Recipient's Continuous Service shall be made within thirty (30) days after the sixth (6^{th}) month anniversary of the date of the termination of the Recipient's Continuous Service or, if earlier, the date of the Recipient's death if such deferral is required to comply with Section 409A of the Code. For purposes of this Agreement, a "Specified Employee" shall mean any individual who, at the time of his or her separation from Continuous Service with the Company and its Related Entities, is a "key employee", within the meaning of

Section 416(i) of the Code, of the Company or any Related Entity, the stock of which is publicly traded on an established securities market or otherwise.

For purposes of applying the provisions of Section 409A to this Agreement, each separately identified amount to which the Recipient is entitled under this Agreement shall be treated as a separate payment. In addition, to the extent permissible under Section 409A, any series of installment payments under this Agreement shall be treated as a right to a series of separate payments.

15. Taxes.

(a) The Recipient shall be liable for any and all taxes, including withholding taxes and fringe benefit tax or such other taxes that the Recipient's employer (the "Employer") is legally allowed or permitted to recover from the Recipient, arising out of this grant or the issuance of Shares hereunder. In the event that the Company or the Employer is liable for taxes that are legally permitted to be recovered from the Recipient or is required to withhold taxes as a result of the grant of PRU or the issuance or subsequent sale of Shares acquired pursuant to such PRU, the Recipient shall surrender a sufficient number of whole Shares, make a cash payment or make adequate arrangements satisfactory to the Company and/or the Employer to withhold such taxes from the Recipient's wages or other cash compensation paid to the Recipient by the Company and/or the Employer at the election of the Company, in its sole discretion, or, if permissible under local law, the Company may sell or arrange for the sale of Shares that Recipient acquires as necessary to cover all applicable required withholding taxes, taxes that are legally recoverable from the Recipient (such as fringe benefit tax) and required social security contributions at the time the Shares subject to the PRU are issued. The Recipient will receive a cash refund for any fraction of a surrendered Share or Shares in excess of any required withholding taxes, taxes that are legally recoverable from the Recipient (such as fringe benefit tax), and required social security contributions. To the extent that any surrender of Shares or payment of cash or alternative procedure for such payment is insufficient, the Recipient authorizes the Company, the Employer, and the Related Entities, which are qualified to deduct tax at source, to deduct from the Recipient's compensation all applicable required withholding taxes, taxes that are legally recoverable from the Recipient (such as fringe benefit tax) and social security contributions. The Recipient agrees to pay any amounts that cannot be satisfied from wages or other cash compensation, to the extent permitted by law.

(b) Regardless of any action the Company or the Employer takes with respect to any or all income tax, social security, payroll tax, payment on account, taxes that are legally recoverable from the Recipient (such as fringe benefit tax) or other tax-related withholding ("Tax-Related Items"), the Recipient acknowledges and agrees that the ultimate liability for all Tax-Related Items legally due by him is and remains the Recipient's responsibility and that the Company and/or the Employer (i) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of this Agreement, including the grant of PRU, subsequent issuance of Shares related to such PRU and the subsequent sale of any Shares acquired pursuant to such PRU; and (ii) do not commit to structure the terms or any aspect of this grant of PRU to reduce or eliminate the Recipient's liability for Tax-Related Items. The Recipient shall pay the Company or the Employer any amount for Tax-Related Items that the Company or the Employer may be required to withhold as a result of the Recipient's participation in the Plan or the Recipient's receipt of PRU that cannot be satisfied by the means previously described. The Company may refuse to deliver the Shares pursuant to Section 4 if the Recipient fails to comply with the Recipient's obligations in connection with the Tax-Related Items.

(c) In accepting the PRU Award, the Recipient consents and agrees that in the event the PRU Award becomes subject to an employer tax that is legally permitted to be recovered from the Recipient, as may be determined by the Company and/or the Employer at their sole discretion, and whether or not the Recipient's Continuous Service is continuing at the time such tax becomes recoverable, the Recipient will assume any liability for any such taxes that may be payable by the Company and/or the Employer in connection with the PRU Award. Further, by accepting the PRU Award, the Recipient agrees that the Company and/or the Employer may collect any such taxes from the Recipient by any of the means set forth in this Section 15. The Recipient further agrees to execute any other consents or elections required to accomplish the above, promptly upon request of the Company.

16. Data Privacy Consent.

The Recipient hereby explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of the Recipient's personal data as described in this document by and among, as applicable, the Employer, the Company and/or its Related Entities for the exclusive purpose of implementing, administering and managing the Recipient's participation in the Plan. The Recipient understands that the Company, its Related Entities and the Employer hold certain personal information about the Recipient, including, but not limited to, name, home address and telephone number, date of birth, social insurance number or other identification number, salary, nationality, job title, any shares of stock or directorships held in the Company, details of all PRU, options or any other entitlement to shares of stock awarded, canceled, purchased, exercised, vested, unvested or outstanding in the Recipient's favor for the purpose of implementing, managing and administering the Plan ("Data"). The Recipient understands that the Data may be transferred to third parties assisting in the implementation, administration and management of the Plan, that these recipients may be located in the Recipient's country or elsewhere and that the recipient country may have different data privacy laws and protections than the Recipient's country. The Recipient authorizes the recipients to receive, possess, use, retain and transfer the Data, in electronic or other form, for the purposes of implementing, administering and managing the Recipient's participation in the Plan, including any requisite transfer of such Data, as may be required to a broker or other third party with whom the Recipient may elect to deposit any Shares acquired under the Plan. The Recipient understands that Data will be held only as long as is necessary to implement, administer and manage participation in the Plan. The Recipient understands that he may, at any time, view Data, request additional information about the storage and processing of the Data, require any necessary amendments to the Data or refuse or withdraw the consents herein, in any case without cost, by contacting the Company's senior human resources officer in writing. The Recipient understands that refusing or withdrawing consent may affect the Recipient's ability to participate in the Plan. For more information on the consequences of refusing to consent or withdrawing consent, the Recipient understands that he may contact the resources officer.

17. Acknowledgment and Waiver.

By accepting this grant of PRU, the Recipient acknowledges and agrees that: (i) the Plan is established voluntarily by the Company, it is discretionary in nature and may be modified, amended, suspended or terminated by the Company at any time unless otherwise provided in the Plan or this Agreement; (ii) the grant of PRU is voluntary and occasional and does not create any contractual or other right to receive future grants of Shares or PRU, or benefits in lieu of Shares or PRU, even if Shares or PRU have been granted repeatedly in the past; (iii) all decisions with respect to future grants, if any, will be at the sole discretion of the Company; (iv) the Recipient's participation in the Plan shall not create a right to further employment with the Employer and shall not interfere with the ability of the Employer to terminate the Recipient's employment relationship at any time with or without Cause, and it is expressly agreed and understood that employment is terminable at the will of either party, insofar as permitted by law; (v) the Recipient is participating voluntarily in the Plan; (vi) PRU grants and resulting benefits are an extraordinary item that is outside the scope of the Recipient's employment or service contract, if any; (vii) PRU grants and resulting benefits are not part of normal or expected compensation or salary for any purposes, including, but not limited to, calculating any severance, resignation, termination, redundancy, end of service payments, bonuses, long-service awards, pension or retirement benefits or similar payments insofar as permitted by law; (viii) this grant of PRU will not be interpreted to form an employment contract with the Company, the Employer or any Related Entity; (ix) the future value of the underlying Shares is unknown and cannot be predicted with certainty; (x) in consideration of this grant of PRU, no claim or entitlement to compensation or damages shall arise from termination of this grant of PRU or diminution in value of this grant of PRU resulting from termination of the Recipient's Continuous Service (for any reason whatsoever and whether or not in breach of local labor laws) and the Recipient irrevocably releases the Company and the Employer from any such claim that may arise; if, notwithstanding the foregoing, any such claim is found by a court of competent jurisdiction to have arisen, then, by accepting the terms of this Agreement, the Recipient shall be deemed irrevocably to have waived any entitlement to pursue such claim; (xi) notwithstanding any terms or conditions of the Plan to the contrary, in the event of involuntary termination of the Recipient's employment (whether or not in breach of local labor laws), the Recipient's right to receive benefits under this Agreement after termination of Continuous Service, if any, will be measured by the date of termination of the Recipient's active Continuous Service and will not be extended by any notice period mandated under local law; (xii) the Committee shall have the exclusive discretion to determine when the Recipient is no longer actively in the Continuous Service of the Company and its Related Entities for purposes of this grant of PRU; and (xiii) if the Company's performance is below minimum levels as set forth in this Agreement or any annual supplement hereto, no PRU will be awarded and no Shares will be issued to the Recipient.

18. Miscellaneous.

(a) The parties agree to execute such further instruments and to take such action as may reasonably be necessary to carry out the intent of this Agreement.

(b) Any notice required or permitted hereunder shall be given in writing and shall be deemed effectively given upon delivery to the Recipient at his or her address then on file with the Company and its Related Entities.

(c) The Plan is incorporated herein by reference. The Plan and this Agreement, together with each annual supplement hereto, constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company, its Related Entities and the Recipient with respect to the subject matter hereof, and may not be modified adversely to the Recipient's interest except by means of a writing signed by the Company and the Recipient. Notwithstanding the foregoing, nothing in the Plan or this Agreement shall affect the validity or interpretation of any duly authorized written agreement between the Company and the Recipient under which an Award properly granted under and pursuant to the Plan serves as any part of the consideration furnished to the Recipient, including without limitation, any agreement that imposes restrictions during or after employment regarding confidential information and proprietary developments. This Agreement is governed by the laws of the state of California.

(d) Neither this Agreement nor the grant of the Restricted Stock Units hereunder shall create or be construed to create a trust or separate fund of any kind or a fiduciary relationship between the Company and the Recipient or any other person. The Restricted Stock Units subject to this Agreement represent only the Company's unfunded and unsecured promise to issue Shares to the Recipient in the future. To the extent that the Recipient or any other person acquires a right to receive payments from the Company pursuant to this Agreement, that right shall be no greater than the right of any unsecured general creditor of the Company.

(e) If the Recipient has received this or any other document related to the Plan translated into a language other than English and if the translated version is different than the English version, the English version will control.

(f) The provisions of this Agreement are severable and if any one or more provisions are determined to be illegal or otherwise unenforceable, in whole or in part, the remaining provisions shall nevertheless be binding and enforceable.

(g) Any capitalized terms not defined herein shall have the same meaning they have in the Plan.

IN WITNESS WHEREOF, the parties have executed this Agreement on the day and year first indicated above.

TTM TECHNOLOGIES, INC.

By:______________________________

Thomas T. Edman
President and Chief Executive Officer

RECIPIENT

By:______________________________
«First_Name» «Middle_Initial» «Last_Name»

ANNEX A

to

«Grant_Year» Performance-Based RSU Grant Notice and Agreement

ANNEX B

FY 2023 (21 Peer Members)

«Grant_Year» Annual Supplemental to

ANNEX A

to

«Annex2» Performance-Based RSU Grant Notice and Agreement

Exhibit 31.1

CERTIFICATION

I, Thomas T. Edman, certify that:

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

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

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

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

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

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

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

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

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

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

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

/s/ Thomas T. Edman

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

August 10, 2023

Exhibit 31.2

CERTIFICATION

I, Todd B. Schull, certify that:

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

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

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

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

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

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

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

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

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

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

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

/s/ Todd B. Schull

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

August 10, 2023

Exhibit 32.1

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

In connection with the Quarterly Report on Form 10-Q of TTM Technologies, Inc. (the "Company") for the quarter and two quarters ended July 3, 2023, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Thomas T. Edman, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

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

By: /s/ Thomas T. Edman

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

August 10, 2023

Exhibit 32.2

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

In connection with the Quarterly Report on Form 10-Q of TTM Technologies, Inc. (the "Company") for the quarter and two quarters ended July 3, 2023, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Todd B. Schull, Executive Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

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

By: /s/ Todd B. Schull

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

August 10, 2023