UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 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: 001-35451

MACOM Technology Solutions Holdings, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**27-0306875**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

100 Chelmsford Street
Lowell, MA 01851
(Address of principal executive offices and zip code)

(978) 656-2500
(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 exchange on which registered
Common Stock, par value $0.001 per share	MTSI	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 July 31, 2023, there were 70,987,756 shares of the registrant’s common stock outstanding.

MACOM TECHNOLOGY SOLUTIONS HOLDINGS, INC.
FORM 10-Q
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PART I—FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

MACOM TECHNOLOGY SOLUTIONS HOLDINGS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited, in thousands)

	June 30, 2023	September 30, 2022
ASSETS		
Current assets:		
Cash and cash equivalents	$ 121,520	$ 119,952
Short-term investments	466,072	466,580
Accounts receivable, net	105,893	101,551
Inventories	139,008	114,960
Prepaid and other current assets	19,558	10,040
Total current assets	852,051	813,083
Property and equipment, net	155,376	123,701
Goodwill	323,734	311,417
Intangible assets, net	66,288	51,254
Deferred income taxes	210,675	237,415
Other long-term assets	34,587	34,947
Total assets	$ 1,642,711	$ 1,571,817
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Current portion of long-term debt	$ 120,307	$ —
Current portion of finance lease obligations	4,935	1,006
Accounts payable	27,409	30,733
Accrued liabilities	57,986	65,475
Total current liabilities	210,637	97,214
Long-term debt, less current portion	446,848	565,920
Finance lease obligations, less current portion	32,081	27,032
Financing obligation	9,371	9,544
Other long-term liabilities	29,066	29,359
Total liabilities	728,003	729,069
Commitments and contingencies (see Note 12)		
Stockholders’ equity:		
Common stock	71	70
Treasury stock, at cost	(330)	(330)
Accumulated other comprehensive loss	(2,883)	(5,851)
Additional paid-in capital	1,205,009	1,203,145
Accumulated deficit	(287,159)	(354,286)
Total stockholders’ equity	914,708	842,748
Total liabilities and stockholders' equity	$ 1,642,711	$ 1,571,817

See notes to condensed consolidated financial statements.

MACOM TECHNOLOGY SOLUTIONS HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited, in thousands, except per share data)

	Three Months Ended		Nine Months Ended	
	June 30, 2023	July 1, 2022	June 30, 2023	July 1, 2022
Revenue	$ 148,522	$ 172,259	$ 498,032	$ 497,027
Cost of revenue	62,396	67,717	198,861	199,353
Gross profit	86,126	104,542	299,171	297,674
Operating expenses:				
Research and development	36,668	37,625	111,037	108,550
Selling, general and administrative	32,152	30,914	96,341	93,481
Total operating expenses	68,820	68,539	207,378	202,031
Income from operations	17,306	36,003	91,793	95,643
Other income (expense):				
Interest income (expense), net	2,344	(845)	4,580	(3,928)
Other (expense) income, net	(29)	13	(207)	114,866
Total other income (expense), net	2,315	(832)	4,373	110,938
Income before income taxes	19,621	35,171	96,166	206,581
Income tax expense	7,768	2,937	29,039	5,962
Net income	$ 11,853	$ 32,234	$ 67,127	$ 200,619
Net income per share:				
Income per share - Basic	$ 0.17	$ 0.46	$ 0.95	$ 2.88
Income per share - Diluted	$ 0.17	$ 0.45	$ 0.94	$ 2.82
Weighted average shares used:				
Basic	70,937	69,946	70,739	69,712
Diluted	71,408	71,060	71,395	71,130

See notes to condensed consolidated financial statements.

MACOM TECHNOLOGY SOLUTIONS HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Unaudited, in thousands)

	Three Months Ended		Nine Months Ended	
	June 30, 2023	July 1, 2022	June 30, 2023	July 1, 2022
Net income	$ 11,853	$ 32,234	$ 67,127	$ 200,619
Unrealized (loss) gain on short term investments, net of tax	(409)	(1,219)	2,971	(4,171)
Foreign currency translation loss, net of tax	(1,041)	(1,742)	(3)	(2,745)
Other comprehensive (loss) income, net of tax	(1,450)	(2,961)	2,968	(6,916)
Total comprehensive income	$ 10,403	$ 29,273	$ 70,095	$ 193,703

See notes to condensed consolidated financial statements.

MACOM TECHNOLOGY SOLUTIONS HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(Unaudited, in thousands)

	Three Months Ended							
	Common Stock		Treasury Stock		Accumulated Other Comprehensive Income	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
Balance as of March 31, 2023	70,897	$ 71	(23)	$ (330)	$ (1,433)	$ 1,194,719	$ (299,012)	$ 894,015
Vesting of restricted common stock and units	66	—	—	—	—	—	—	—
Issuance of common stock pursuant to employee stock purchase plan	69	—	—	—	—	3,254	—	3,254
Shares repurchased for tax withholdings on restricted stock awards	(21)	—	—	—	—	(1,226)	—	(1,226)
Share-based compensation	—	—	—	—	—	8,262	—	8,262
Other comprehensive loss, net of tax	—	—	—	—	(1,450)	—	—	(1,450)
Net income	—	—	—	—	—	—	11,853	11,853
Balance as of June 30, 2023	71,011	$ 71	(23)	$ (330)	$ (2,883)	$ 1,205,009	$ (287,159)	$ 914,708

	Nine Months Ended							
	Common Stock		Treasury Stock		Accumulated Other Comprehensive Income	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
Balance as of September 30, 2022	70,022	$ 70	(23)	$ (330)	$ (5,851)	$ 1,203,145	$ (354,286)	$ 842,748
Vesting of restricted common stock and units	1,404	1	—	—	—	—	—	1
Issuance of common stock pursuant to employee stock purchase plan	121	—	—	—	—	5,574	—	5,574
Shares repurchased for tax withholdings on equity awards	(536)	—	—	—	—	(32,479)	—	(32,479)
Share-based compensation	—	—	—	—	—	28,769	—	28,769
Other comprehensive income, net of tax	—	—	—	—	2,968	—	—	2,968
Net income	—	—	—	—	—	—	67,127	67,127
Balance as of June 30, 2023	71,011	$ 71	(23)	$ (330)	$ (2,883)	$ 1,205,009	$ (287,159)	$ 914,708

See notes to condensed consolidated financial statements.

MACOM TECHNOLOGY SOLUTIONS HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(Unaudited, in thousands)

Three Months Ended

	Common Stock		Treasury Stock		Accumulated Other Comprehensive Income	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
Balance as of April 1, 2022	69,910	$ 70	(23)	$ (330)	$ 195	$ 1,180,204	$ (625,856)	$ 554,283
Vesting of restricted common stock and units	67	—	—	—	—	—	—	—
Issuance of common stock pursuant to employee stock purchase plan	66	—	—	—	—	2,917	—	2,917
Shares repurchased for tax withholdings on equity awards	(23)	—	—	—	—	(1,178)	—	(1,178)
Share-based compensation	—	—	—	—	—	10,345	—	10,345
Other comprehensive loss, net of tax	—	—	—	—	(2,961)	—	—	(2,961)
Net income	—	—	—	—	—	—	32,234	32,234
Balance as of July 1, 2022	70,020	$ 70	(23)	$ (330)	$ (2,766)	$ 1,192,288	$ (593,622)	$ 595,640

Nine Months Ended

	Common Stock		Treasury Stock		Accumulated Other Comprehensive Income	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
Balance as of October 1, 2021	68,877	$ 69	(23)	$ (330)	$ 4,150	$ 1,269,601	$ (801,754)	$ 471,736
Stock option exercises	190	—	—	—	—	2,688	—	2,688
Vesting of restricted common stock and units	1,351	1	—	—	—	—	—	1
Issuance of common stock pursuant to employee stock purchase plan	122	—	—	—	—	5,364	—	5,364
Shares repurchased for tax withholdings on equity awards	(520)	—	—	—	—	(35,935)	—	(35,935)
Share-based compensation	—	—	—	—	—	30,260	—	30,260
Other comprehensive loss, net of tax	—	—	—	—	(6,916)	—	—	(6,916)
Cumulative-effect adjustment from adoption of ASU 2020-06	—	—	—	—	—	(79,690)	7,513	(72,177)
Net income	—	—	—	—	—	—	200,619	200,619
Balance as of July 1, 2022	70,020	$ 70	(23)	$ (330)	$ (2,766)	$ 1,192,288	$ (593,622)	$ 595,640

See notes to condensed consolidated financial statements.

MACOM TECHNOLOGY SOLUTIONS HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited, in thousands)

	Nine Months Ended	
	June 30, 2023	**July 1, 2022**
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	$ 67,127	$ 200,619
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and intangibles amortization	38,415	43,052
Share-based compensation	28,769	30,260
Deferred income taxes	27,431	2,110
Amortization on marketable securities, net	(8,627)	790
Gain on equity method investment, net	—	(114,908)
Other adjustments, net	3,345	406
Change in operating assets and liabilities:		
Accounts receivable	(2,387)	(22,024)
Inventories	(12,208)	(27,529)
Prepaid expenses and other assets	(2,923)	897
Accounts payable	(4,135)	14,128
Accrued and other liabilities	(16,607)	(12,657)
Income taxes	(1,637)	1,845
Net cash provided by operating activities	116,563	116,989
CASH FLOWS FROM INVESTING ACTIVITIES:		
Acquisition of businesses, net of cash acquired	(87,692)	—
Proceeds from sale of equity method investment	—	127,750
Purchases of property and equipment	(18,890)	(18,818)
Proceeds from sale of property and equipment	8,005	23
Proceeds from sales and maturities of short-term investments	364,116	165,998
Purchases of short-term investments	(352,900)	(386,762)
Net cash used in investing activities	(87,361)	(111,809)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Payments on finance leases and other	(890)	(726)
Proceeds from stock option exercises and employee stock purchases	5,574	8,052
Repurchase of common stock - tax withholdings on equity awards	(32,479)	(35,935)
Net cash used in financing activities	(27,795)	(28,609)
Foreign currency effect on cash	161	(938)
NET CHANGE IN CASH AND CASH EQUIVALENTS	1,568	(24,367)
CASH AND CASH EQUIVALENTS — Beginning of period	119,952	156,537
CASH AND CASH EQUIVALENTS — End of period	$ 121,520	$ 132,170

See notes to condensed consolidated financial statements.

MACOM TECHNOLOGY SOLUTIONS HOLDINGS, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. BASIS OF PRESENTATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Unaudited Interim Financial Information—The accompanying unaudited, condensed consolidated financial statements have been prepared according to the rules and regulations of the United States (the “U.S.”) Securities and Exchange Commission (the “SEC”) and, in the opinion of management, reflect all adjustments, which include normal recurring adjustments, necessary for a fair statement of the condensed consolidated balance sheets, condensed consolidated statements of operations, comprehensive income, stockholders' equity and cash flows of MACOM Technology Solutions Holdings, Inc. (“MACOM,” the “Company,” “us,” “we” or “our”) for the periods presented. We prepare our interim financial information using the same accounting principles we use for our annual audited consolidated financial statements. Certain information and note disclosures normally included in the annual audited consolidated financial statements have been condensed or omitted in accordance with prescribed SEC rules. We believe that the disclosures made in our condensed consolidated financial statements and the accompanying notes are adequate to make the information presented not misleading.

The condensed consolidated balance sheet as of September 30, 2022 is as reported in our audited consolidated financial statements as of that date. Our accounting policies are described in the notes to our September 30, 2022 consolidated financial statements, which were included in our Annual Report on Form 10-K for our fiscal year ended September 30, 2022 filed with the SEC on November 14, 2022 (the “2022 Annual Report on Form 10-K”). We recommend that the financial statements included in this Quarterly Report on Form 10-Q be read in conjunction with the consolidated financial statements and notes included in our 2022 Annual Report on Form 10-K.

Principles of Consolidation, Basis of Presentation and Reclassification—The accompanying condensed consolidated financial statements include our accounts and the accounts of our majority-owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation. In the condensed consolidated financial statements, certain balances have been reclassified to conform to the current year presentation.

We have a 52- or 53-week fiscal year ending on the Friday closest to the last day of September. Fiscal years 2023 and 2022 each include 52 weeks. To offset the effect of holidays, for fiscal years in which there are 53 weeks, we include the extra week arising in such fiscal years in the first fiscal quarter.

Use of Estimates—The preparation of condensed consolidated financial statements in conformity with U.S. generally accepted accounting principles (“GAAP”) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities during the reporting periods, the reported amounts of revenue and expenses during the reporting periods and the disclosure of contingent assets and liabilities at the date of the financial statements. On an ongoing basis, we base estimates and assumptions on historical experience, currently available information and various other factors that management believes to be reasonable under the circumstances. Actual results may differ materially from these estimates and assumptions. The accounting policies which our management believes involve the most significant application of judgment or involve complex estimation, are inventories and associated reserves; revenue reserves; goodwill and intangible asset valuation; share-based compensation valuations and income taxes.

Recent Accounting Pronouncements—Our Recent Accounting Pronouncements are described in our 2022 Annual Report on Form 10-K.

Pronouncements for Adoption in Subsequent Periods

The FASB issued ASU 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*, amended by ASU 2022-06, *Reference Rate Reform (Topic 848): Deferral of the Sunset Date of Topic 848*, which provides optional expedients and exceptions to applying the guidance on contract modifications, hedge accounting, and other transactions, to simplify the accounting for transitioning from the London Interbank Offered Rate, and other interbank offered rates expected to be discontinued, to alternative reference rates. The guidance in this update was effective upon its issuance. If elected, the guidance is to be applied prospectively through December 31, 2024. We do not expect to adopt this standard in relation to our Credit Agreement (defined below), and, therefore, we do not expect this standard to have a material effect on our financial position or results of operations. For additional information regarding our Credit Agreement, refer to *Note 9 - Debt.*

2. REVENUE

Disaggregation of Revenue

We disaggregate revenue from contracts with customers by markets and geography, as we believe it best depicts how the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors.

The following tables present our revenue disaggregated by markets and geography (in thousands):

	Three Months Ended		Nine Months Ended	
	June 30, 2023	July 1, 2022	June 30, 2023	July 1, 2022
Revenue by Market:				
Telecommunications	$ 38,333	$ 61,988	$ 153,670	$ 180,738
Industrial & Defense	83,549	75,509	237,911	215,794
Data Center	26,640	34,762	106,451	100,495
Total	$ 148,522	$ 172,259	$ 498,032	$ 497,027

	Three Months Ended		Nine Months Ended	
	June 30, 2023	July 1, 2022	June 30, 2023	July 1, 2022
Revenue by Geographic Region:				
United States	$ 73,262	$ 77,434	$ 244,685	$ 226,407
China	24,296	47,613	98,776	129,705
Asia Pacific, excluding China (1)	23,400	27,225	72,942	83,756
Other Countries (2)	27,564	19,987	81,629	57,159
Total	$ 148,522	$ 172,259	$ 498,032	$ 497,027

(1) Asia Pacific primarily represents Australia, Japan, Malaysia, Singapore, South Korea, Taiwan and Thailand.
(2) No country or region represented greater than 10% of our total revenue as of the dates presented, other than the United States, China and Asia Pacific region as presented above.

Contract Balances

We record contract assets or contract liabilities depending on the timing of revenue recognition, billings and cash collections on a contract-by-contract basis. Our contract liabilities primarily relate to deferred revenue, including advanced consideration received from customers for contracts prior to the transfer of control to the customer, and, therefore, revenue is subsequently recognized upon delivery of products and services.

The following table presents the changes in contract liabilities during the nine months ended June 30, 2023 (in thousands, except percentage):

	June 30, 2023	September 30, 2022	$ Change	% Change
Contract liabilities	$ 3,600	$ 3,916	$ (316)	(8)%

During the three and nine months ended June 30, 2023, we recognized sales of $0.6 million and $3.5 million, respectively, that were included in the contract liabilities balance as of the beginning of the period. The decrease in contract liabilities during the nine months ended June 30, 2023 was primarily related to recognition of revenue that was previously deferred for products and services invoiced prior to when certain of our customers obtained control of such products and/or services.

3. ACQUISITIONS

Linearizer Technology, Inc.—On March 3, 2023, we completed the acquisition of Linearizer Technology, Inc. (“Linearizer”), a developer of modules and subsystems, including solid state amplifiers (SSPAs), microwave predistortion linearizers and microwave photonics based in Hamilton, New Jersey (the “Linearizer Acquisition”). We acquired Linearizer to further strengthen our component and subsystem design expertise in our target markets. In connection with the Linearizer Acquisition, we acquired all of the outstanding shares of Linearizer for total cash consideration of approximately $51.6 million, subject to customary purchase price adjustments. We funded the Linearizer Acquisition with cash-on-hand. During the three and nine months ended June 30, 2023, we incurred acquisition-related transaction costs of approximately $0.2 million and $2.1 million, respectively, which are included in selling, general and administrative expense. There were no transaction costs for the three and nine months ended July 1, 2022. The Linearizer Acquisition was accounted for as a business combination and the operations of Linearizer have been included in our consolidated financial statements since the date of acquisition.

The purchase price for the Linearizer Acquisition has been allocated based on preliminary estimates of fair values of the acquired assets and assumed liabilities at the date of acquisition as follows (in thousands):

		At Acquisition Date as Reported June 30, 2023
Current assets	$	2,819
Inventory		8,907
Property and equipment		5,485
Intangible assets		29,600
Goodwill		12,332
Total assets acquired		59,143
Current liabilities		7,544
Total liabilities assumed		7,544
Purchase Price	$	51,599

Intangible assets consist of customer relationships, technology and trade name with fair values of $20.7 million, $7.1 million and $1.8 million, respectively, and useful lives of 8.6 years, 7.6 years and 7.6 years, respectively. We used the income approach to determine the fair value of the definite-lived intangible assets and the cost and market approaches to determine the fair value of our property, plant and equipment. We amortize definite-lived assets based on the pattern over which we expect to receive the economic benefit from these assets. The intangible assets and goodwill acquired will be amortizable for tax purposes due to the Section 338 election filed.

The determination and allocation of purchase price consideration is based on preliminary estimates of fair value; such estimates and assumptions are subject to change within the measurement period (up to one year from the acquisition date). As of June 30, 2023, the purchase price allocation for Linearizer remains open as we gather additional information regarding the assets acquired and the liabilities assumed, primarily in relation to the valuation of intangibles, inventory, fixed assets, leases and contingencies.

On March 3, 2023, we entered into a lease agreement with an entity that is majority-owned by certain former Linearizer employees, which is deemed to be a related party agreement. We have the option to purchase the facility for $3.8 million. As of the date of this Quarterly Report on Form 10-Q, we have not exercised such right. During the nine months ended June 30, 2023, we made lease-related payments of $0.4 million. This lease is classified as a finance lease on our condensed consolidated balance sheet and the lease asset is included in property and equipment of $5.5 million in the purchase price allocation table above.

Pro forma financial information for the three and nine months ended June 30, 2023 and July 1, 2022 and the actual results of operations for Linearizer since the acquisition date are not material to our condensed consolidated financial statements for the periods presented.

OMMIC SAS—On May 31, 2023, we completed the acquisition of the key manufacturing facilities, capabilities, technologies and other assets and certain specified liabilities of OMMIC SAS, a semiconductor manufacturer based in Limeil-Brévannes, France with expertise in wafer fabrication, epitaxial growth and monolithic microwave integrated circuit ("MMIC") processing and design. We are referring to this asset acquisition as the MACOM European Semiconductor Center Acquisition (the "MESC Acquisition"). We completed the MESC Acquisition to expand our European footprint and to enable us to offer higher frequency Gallium Arsenide and Gallium Nitride MMICs. Total cash consideration paid for the MESC Acquisition was approximately $36.9 million and was funded with cash-on-hand. During the three and nine months ended June 30, 2023, we incurred acquisition-related transaction costs of approximately $1.0 million and $2.6 million, respectively, which are included in selling, general and administrative expense. As of June 30, 2023, cumulative acquisition-related transaction cost expense incurred is $3.4 million. There were no transaction costs for the three and nine months ended July 1, 2022.

The purchase price for the MESC Acquisition has been allocated based on preliminary estimates of fair values of the acquired assets and assumed liabilities at the date of acquisition as follows (in thousands):

	At Acquisition Date as Reported June 30, 2023
Current assets	$ 297
Inventory	3,790
Property and equipment	30,538
Intangible assets	5,966
Total assets acquired	40,591
Current liabilities	3,734
Total liabilities assumed	3,734
Purchase Price	$ 36,857

As part of the acquisition, we assumed a lease agreement for the manufacturing facilities in France that gives us the option to purchase the real property at the end of the lease term, in October 2024. We expect to exercise this bargain purchase option and have recorded a right-of-use-asset of $24.7 million in Property and equipment. The real property was valued using a market approach.

Intangible assets consist of customer relationships and technology of $1.1 million and $4.9 million, respectively, and useful lives of 8.3 years and 8.3 years, respectively. We used the income approach to determine the fair value of the definite-lived intangible assets and the cost and market approaches to determine the fair value of our property, plant and equipment. We amortize definite-lived assets based on the pattern over which we expect to receive the economic benefit from these assets.

The determination and allocation of purchase price consideration is based on preliminary estimates of fair value; such estimates and assumptions are subject to change within the measurement period (up to one year from the acquisition date). As of June 30, 2023, the purchase price allocation for the MESC Acquisition remains open as we gather additional information regarding the assets acquired and the liabilities assumed, primarily in relation to the valuation of intangibles, inventory, property and equipment, leases, liabilities and contingencies.

Pro forma financial information for the three and nine months ended June 30, 2023 and July 1, 2022 and the actual results of operations for MESC since the acquisition date are not material to our condensed consolidated financial statements for the periods presented.

4. INVESTMENTS

All investments are short-term in nature and are invested in corporate bonds, commercial paper, and U.S. Treasury securities and are classified as available-for-sale. These corporate bonds, commercial paper and U.S. Treasury securities are owned directly by the Company and are segregated in brokerage custody accounts. The amortized cost, gross unrealized holding gains or losses and fair value of our available-for-sale investments by major investment type are summarized in the tables below (in thousands):

	June 30, 2023			
	Amortized Cost	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Aggregate Fair Value
Corporate bonds	$ 153,572	$ —	$ (3,392)	$ 150,180
Commercial paper	304,204	—	(424)	303,780
U.S. Treasury securities	12,116	—	(4)	12,112
Total short-term investments	$ 469,892	$ —	$ (3,820)	$ 466,072

	September 30, 2022			
	Amortized Cost	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Aggregate Fair Value
Corporate bonds	$ 146,163	$ 5	$ (4,492)	$ 141,676
Commercial paper	326,318	—	(1,414)	324,904
Total short-term investments	$ 472,481	$ 5	$ (5,906)	$ 466,580

The contractual maturities of available-for-sale investments were as follows (in thousands):

	June 30, 2023	September 30, 2022
Less than one year	$ 377,103	$ 368,141
Over one year	88,969	98,439
Total available-for-sale investments	$ 466,072	$ 466,580

We have determined that the gross unrealized losses on available for sale securities as of June 30, 2023 and September 30, 2022 are temporary in nature and/or do not relate to credit loss, and therefore there is no expense for credit losses recorded in our condensed consolidated statements of operations. Unrealized gains and losses on available-for-sale investments are reported as a separate component of stockholders' equity within accumulated other comprehensive income.

During the three months ended June 30, 2023 and July 1, 2022, Interest income (expense), net included interest income on short-term investments of $6.0 million and $1.3 million, respectively. During the nine months ended June 30, 2023 and July 1, 2022, Interest income (expense), net included interest income on short-term investments of $14.8 million and $2.1 million, respectively.

Other Investments—As of June 30, 2023, we held a non-marketable equity investment in Series B preferred stock of a privately held manufacturing corporation with preferred liquidation rights over other equity shares. As the equity securities do not have a readily determinable fair value and do not qualify for the practical expedient under Accounting Standards Codification 820, *Fair Value Measurement*, we have elected to account for this investment at cost less any impairment. We evaluate this investment for impairment at each balance sheet date. As of June 30, 2023 and September 30, 2022, the carrying value of this investment was $2.5 million and it was classified as a long-term investment.

On December 23, 2021, we sold our non-controlling investment of less than 10% in the outstanding equity of a private company to one of the other limited liability company members, pursuant to the terms of a previously negotiated call option included in the private company's limited liability company agreement, as amended and restated (the "LLC Agreement"), in exchange for a predetermined fixed price as set forth in the LLC Agreement of approximately $127.8 million in cash consideration. As of December 23, 2021, the carrying value of this investment was approximately $9.5 million. As a result of this transaction, during the three months ended December 31, 2021, we recorded a gain of $118.2 million in Other (expense) income, net in our condensed consolidated statements of operations. The nine months ended July 1, 2022 includes a gain on the sale of our equity method investment of $118.2 million, and we recorded net losses of $3.3 million associated with such equity method investment.

5. FAIR VALUE

We group our financial assets and liabilities measured at fair value on a recurring basis in three levels, based on the markets in which the assets and liabilities are traded, and the reliability of the assumptions used to determine fair value. These levels are:

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

Level 2 *- Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets with insufficient volume or infrequent transactions (less active markets), or model-driven valuations in which all significant inputs are observable or can be derived principally from, or corroborated with, observable market data.*

Level 3 *- Fair value is derived from valuation techniques in which one or more significant inputs are unobservable, including assumptions and judgments made by us.*

Assets and Liabilities Measured and Recorded at Fair Value on a Recurring Basis

We measure certain assets and liabilities at fair value on a recurring basis such as our financial instruments. There have been no transfers between Level 1, 2 or 3 assets or liabilities during the three and nine months ended June 30, 2023.

Assets and liabilities measured at fair value on a recurring basis consist of the following (in thousands):

	June 30, 2023			
	Fair Value	Active Markets for Identical Assets (Level 1)	Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Assets				
Money market funds	$ 70,161	$ 70,161	$ —	$ —
U.S. Treasury securities	12,112	12,112	—	—
Commercial paper	303,780	—	303,780	—
Corporate bonds	150,180	—	150,180	—
Total assets measured at fair value	$ 536,233	$ 82,273	$ 453,960	$ —

	September 30, 2022			
	Fair Value	Active Markets for Identical Assets (Level 1)	Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Assets				
Money market funds	$ 1,392	$ 1,392	$ —	$ —
Commercial paper	324,904	—	324,904	—
Corporate bonds	141,676	—	141,676	—
Total assets measured at fair value	$ 467,972	$ 1,392	$ 466,580	$ —

6. INVENTORIES

Inventories consist of the following (in thousands):

	June 30, 2023	September 30, 2022
Raw materials	$ 82,395	$ 72,595
Work-in-process	18,317	12,455
Finished goods	38,296	29,910
Total inventory, net	$ 139,008	$ 114,960

7. PROPERTY AND EQUIPMENT

Property and equipment consists of the following (in thousands):

	June 30, 2023	September 30, 2022
Construction in process	$ 8,502	$ 10,837
Machinery and equipment	237,856	227,844
Leasehold improvements	35,359	35,651
Furniture and fixtures	3,017	2,535
Computer equipment and software	18,014	18,347
Finance lease assets	68,858	34,417
Total property and equipment	371,606	329,631
Less accumulated depreciation and amortization	(216,230)	(205,930)
Property and equipment, net	$ 155,376	$ 123,701

The increase in Finance lease assets between September 30, 2022 and June 30, 2023 is primarily related to a lease acquired as part of the MESC Acquisition. For additional information regarding the MESC Acquisition, refer to *Note 3 - Acquisitions.*

Depreciation and amortization expense related to property and equipment for the three and nine months ended June 30, 2023 was $5.9 million and $17.7 million, respectively. Depreciation and amortization expense related to property and equipment for the three and nine months ended July 1, 2022 was $5.9 million and $17.7 million, respectively. Accumulated amortization on finance lease assets as of June 30, 2023 and September 30, 2022 was $7.3 million and $5.8 million, respectively.

8. INTANGIBLE ASSETS

Amortization expense related to intangible assets is as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	June 30, 2023	July 1, 2022	June 30, 2023	July 1, 2022
Cost of revenue	$ 1,131	$ 1,779	$ 3,028	$ 6,062
Selling, general and administrative	5,976	6,276	17,644	19,334
Total	$ 7,107	$ 8,055	$ 20,672	$ 25,396

Intangible assets consist of the following (in thousands):

	June 30, 2023	September 30, 2022
Acquired technology	$ 191,550	$ 179,434
Customer relationships	267,660	245,870
Trade name [(1)]	5,200	3,400
Total	464,410	428,704
Less accumulated amortization	(398,122)	(377,450)
Intangible assets — net	$ 66,288	$ 51,254

(1) Includes an indefinite-lived trade name of $3.4 million that is not amortized.

A summary of the activity in gross intangible assets and goodwill is as follows (in thousands):

	Intangible Assets				
	Total Intangible Assets	Acquired Technology	Customer Relationships	Trade Name	Goodwill
Balance as of September 30, 2022	$ 428,704	$ 179,434	$ 245,870	$ 3,400	$ 311,417
Acquired	35,566	12,001	21,765	1,800	12,333
Currency translation adjustment	140	115	25	—	(16)
Balance as of June 30, 2023	$ 464,410	$ 191,550	$ 267,660	$ 5,200	$ 323,734

As of June 30, 2023, our estimated amortization of our intangible assets in future fiscal years was as follows (in thousands):

	2023 Remaining	2024	2025	2026	2027	Thereafter	Total
Amortization expense	$ 7,433	19,376	8,114	7,130	6,573	14,262	$ 62,888

Accumulated amortization for acquired technology and customer relationships were $178.2 million and $219.8 million, respectively, as of June 30, 2023, and $175.2 million and $202.3 million, respectively, as of September 30, 2022.

9. DEBT

The following represents the outstanding balances and effective interest rates of our borrowings as of June 30, 2023 and September 30, 2022, (in thousands, except percentages):

	June 30, 2023		September 30, 2022	
	Principal Balance	Effective Interest Rate	Principal Balance	Effective Interest Rate
LIBOR plus 2.25% term loans due May 2024	$ 120,766	7.40 %	$ 120,766	4.77 %
0.25% convertible notes due March 2026	450,000	0.54 %	450,000	0.54 %
Total principal amount outstanding	570,766		570,766	
Less: Current portion of long-term debt	120,307		—	
Unamortized discount on term loans and deferred financing costs	(3,611)		(4,846)	
Total long-term debt, less current portion	$ 446,848		$ 565,920	

Term Loans

As of June 30, 2023, we are party to a credit agreement, dated as of May 8, 2014, with a syndicate of lenders and Goldman Sachs Bank USA, as administrative agent (as amended on February 13, 2015, August 31, 2016, March 10, 2017, May 19, 2017, May 2, 2018 and May 9, 2018, the "Credit Agreement").

As of June 30, 2023, the Credit Agreement consisted of term loans with an initial aggregate principal amount of $700.0 million (the "Term Loans") that will mature in May 2024 and bear interest at: (i) for LIBOR loans for any interest period, a rate per annum equal to the LIBOR rate as determined by the administrative agent, plus an applicable margin of 2.25%; and (ii) for base rate loans, a rate per annum equal to the greater of (a) the prime rate quoted in the print edition of the Wall Street Journal, Money Rates Section, (b) the federal funds rate plus one-half of 1.00% and (c) the LIBOR rate applicable to a one-month interest period plus 1.00% (but, in each case, not less than 1.00%), plus an applicable margin of 1.25%. Effective July 1, 2023, the LIBOR rate is no longer published and our interest rate will be calculated using synthetic USD LIBOR during the fourth quarter of fiscal 2023. The change to synthetic USD LIBOR did not require an amendment to the Credit Agreement.

As of June 30, 2023, there are no minimum principal repayments on the Term Loans until May 2024 when the remaining principal balance of $120.8 million becomes due. The fair value of the Term Loans was estimated to be approximately $120.3 million and $120.2 million as of June 30, 2023 and September 30, 2022, respectively, and was determined using Level 2 inputs, including a quoted price from a financial institution.

For the three and nine months ended June 30, 2023, total interest expense for the Term Loans was $2.2 million and $6.1 million, respectively. For the three and nine months ended July 1, 2022, total interest expense for the Term Loans was $0.9 million and $2.4 million, respectively.

As of June 30, 2023, approximately $0.3 million of deferred financing costs remain unamortized related to the Term Loans and is recorded as a direct reduction of the recognized debt liabilities in our accompanying condensed consolidated balance sheet.

The Term Loans are secured by a first priority lien on substantially all of our assets and provide that we must comply with certain financial and non-financial covenants.

On August 2, 2023, we paid the total outstanding principal balance on our Term Loans of $120.8 million and accrued interest of less than $0.1 million with cash-on-hand.

2026 Convertible Notes

On March 25, 2021, we issued 0.25% convertible senior notes due in fiscal year 2026, pursuant to an indenture dated as of such date (the "Indenture"), between the Company and U.S. Bank National Association, as trustee, with an aggregate principal amount of $400.0 million (the "Initial Notes"), and on April 6, 2021, we issued an additional $50.0 million aggregate principal amount (the "Additional Notes") (together, the "2026 Convertible Notes"). The aggregate principal balance of the 2026 Convertible Notes is $450.0 million. The 2026 Convertible Notes will mature on March 15, 2026, unless earlier converted, redeemed or repurchased.

The Additional Notes were issued and sold to the initial purchaser of the Initial Notes, pursuant to the option to purchase the Additional Notes granted by the Company to the initial purchaser and have the same terms as the Initial Notes.

Holders of the 2026 Convertible Notes may convert their notes at their option at any time prior to the close of business on the business day immediately preceding December 15, 2025 in multiples of $1,000 principal amount, only under the following circumstances: (i) during any fiscal quarter commencing after the fiscal quarter ending on July 2, 2021 (and only during such fiscal quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding fiscal quarter is greater than or equal to 130% of the conversion price for the notes on each applicable trading day; (ii) during the five business day period after any five consecutive trading day period (the “Measurement Period”) in which the “trading price” (as defined in the Indenture) per $1,000 principal amount of the notes for each trading day of the Measurement Period was less than 98% of the product of the last reported sale price of our common stock and the conversion rate for the notes on each such trading day; (iii) if we call such notes for redemption, at any time prior to the close of business on the second scheduled trading day immediately preceding the applicable redemption date; or (iv) upon the occurrence of specified corporate events described in the Indenture. On or after December 15, 2025 until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert their notes in multiples of $1,000 principal amount, regardless of the foregoing circumstances.

The initial conversion rate for the 2026 Convertible Notes is 12.1767 shares of common stock per $1,000 principal amount of the notes, equivalent to an initial conversion price of approximately $82.12 per share of common stock. The conversion rate will be subject to adjustment upon the occurrence of certain specified events in the Indenture.

In November 2021, we made an irrevocable election to pay cash for the aggregate principal amount of notes to be converted. Upon conversion of the 2026 Convertible Notes, we are required to pay cash up to the aggregate principal amount of the notes to be converted and pay or deliver, as the case may be, cash, shares of our common stock or a combination of cash and shares of our common stock, at our election, in respect of the remainder, if any, of our conversion obligation in excess of the aggregate principal amount of the notes being converted (subject to, and in accordance with, the settlement provisions of the Indenture). We may not redeem the notes prior to March 20, 2024. We may redeem for cash all or any portion of the notes, at our option, on or after March 20, 2024 if the last reported sale price per share of our common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive), including the trading day immediately preceding the date on which we provide notice of redemption, during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which we provide notice of redemption, at a redemption price equal to 100% of the principal amount of the notes to be redeemed, plus accrued and unpaid interest, to, but not including, the redemption date.

The Indenture does not contain any financial or operating covenants or restrictions on the payments of dividends, the making of investments, the incurrence of indebtedness or the purchase or prepayment of securities by us or any of our subsidiaries.

In connection with the adoption of ASU 2020-06, *Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity’s Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity’s Own Equity,* on October 2, 2021 we reclassified $72.2 million, consisting of $73.1 million of principal and issuance costs of $0.9 million, previously allocated to the conversion feature, from additional paid-in capital to long-term debt on our condensed consolidated balance sheet as of October 2, 2021. The reclassification was recorded to combine the two legacy units of account into a single instrument classified as a liability. We also recognized a cumulative effect adjustment of $7.5 million to accumulated deficit on our condensed consolidated balance sheet as of October 2, 2021, that was primarily driven by the derecognition of interest expense related to the accretion of the Debt Discount as required under the legacy accounting guidance. Under ASU 2020-06, we will no longer incur non-cash interest expense related to the accretion of the debt discount associated with the embedded conversion option.

For the three and nine months ended June 30, 2023, total interest expense for the 2026 Convertible Notes was $0.3 million and $0.8 million, respectively. For the three and nine months ended July 1, 2022, total interest expense for the 2026 Convertible Notes was $0.3 million and $0.9 million, respectively.

The fair value of our 2026 Convertible Notes was $448.7 million and $411.4 million as of June 30, 2023 and September 30, 2022, respectively, and was determined based on quoted prices in markets that are not active, which is considered a Level 2 valuation input.

There are no future minimum principal payments under the notes as of June 30, 2023; the full amount of $450.0 million is due in fiscal year 2026.

10. FINANCING OBLIGATION

We are party to a power purchase agreement for the use of electric power and thermal energy producing systems at our fabrication facility in Lowell, Massachusetts. These systems are expected to reduce our consumption of energy while delivering sustainable, resilient energy for heating and cooling. We do not own these systems; however, we control the use of the assets during operation. As of June 30, 2023 and September 30, 2022, the net book value of the systems in Property and equipment, net was $9.0 million and $9.8 million, respectively, and the corresponding liability was $9.6 million and $9.8 million, respectively, primarily classified in Financing obligation on our condensed consolidated balance sheet. The financing obligation was calculated based on future fixed payments allocated to the power generator of $16.8 million over the 15-year term, discounted at an implied discount rate of 7.4%, and the remaining future minimum payments are for power purchases. In total, we have $27.2 million in fixed payments associated with the power purchase agreement, which has a 15-year term.

As of June 30, 2023, expected future minimum payments for the financing obligation were as follows (in thousands):

Fiscal year ending:	Amount
2023	$ 235
2024	958
2025	982
2026	1,007
2027	1,031
Thereafter	11,914
Total payments	$ 16,127
Less: interest	6,509
Present value of liabilities	$ 9,618

11. EARNINGS PER SHARE

The following table sets forth the computation for basic and diluted net income per share of common stock (in thousands, except per share data):

	Three Months Ended		Nine Months Ended	
	June 30, 2023	July 1, 2022	June 30, 2023	July 1, 2022
Numerator:				
Net income attributable to common stockholders	$ 11,853	$ 32,234	$ 67,127	$ 200,619
Denominator:				
Weighted average common shares outstanding-basic	70,937	69,946	70,739	69,712
Dilutive effect of stock options, restricted stock and restricted stock units	471	1,114	656	1,418
Weighted average common shares outstanding-diluted	71,408	71,060	71,395	71,130
Net income to common stockholders per share-Basic:	$ 0.17	$ 0.46	$ 0.95	$ 2.88
Net income to common stockholders per share-Diluted:	$ 0.17	$ 0.45	$ 0.94	$ 2.82

The 2026 Convertible Notes did not have an impact on diluted net income per share for the three and nine months ended June 30, 2023 or July 1, 2022.

12. COMMITMENTS AND CONTINGENCIES

From time to time, we may be subject to commercial disputes, employment issues, claims by other companies in the industry that we have infringed their intellectual property rights and other similar claims and litigation. Any such claims may lead to future litigation and material damages and defense costs. We were not involved in any material pending legal proceedings during the three and nine months ended June 30, 2023.

13. STOCKHOLDERS' EQUITY AND SHARE-BASED COMPENSATION

We have authorized 10 million shares of $0.001 par value preferred stock and 300 million shares of $0.001 par value common stock as of June 30, 2023.

Stock Plans

As of June 30, 2023, we had 4.5 million shares available for issuance under our 2021 Omnibus Incentive Plan (the "2021 Plan"), which replaced our 2012 Omnibus Incentive Plan (as amended and restated) (the "2012 Plan"), and 1.3 million shares available for issuance under our 2021 Employee Stock Purchase Plan (the "Employee Stock Purchase Plan"), which replaced our 2012 Employee Stock Purchase Plan. We have outstanding awards under the 2021 Plan and the 2012 Plan. Following the adoption of the 2021 Plan, no additional awards have been or will be made under the 2012 Plan. Under the 2021 Plan, we have the ability to issue incentive stock options ("ISOs"), non-statutory stock options ("NSOs"), stock appreciation rights ("SARs"), restricted stock awards ("RSAs"), unrestricted stock awards, stock units (including restricted stock units ("RSUs") and performance-based restricted stock units ("PRSUs")), performance awards, cash awards, and other share-based awards to employees, directors, consultants and advisors. The ISOs and NSOs must be granted at an exercise price, and the SARs must be granted at a base value, per share of not less than 100% of the closing price of a share of our common stock on the date of grant (or, if no closing price is reported on that date, the closing price on the immediately preceding date on which a closing price was reported) (110% in the case of certain ISOs). Options granted under the 2012 Plan primarily vested based on certain market-based and performance-based criteria and generally have a term of four years to seven years. Certain of the share-based awards granted and outstanding as of June 30, 2023 are subject to accelerated vesting upon a change in control of the Company.

Incentive Stock Units

Aside from the equity plans described above, we also grant incentive stock units ("ISUs") to certain of our international employees which typically vest over three or four years and for which the fair value is determined by our underlying stock price, which are classified as liabilities and settled in cash upon vesting.

As of June 30, 2023 and September 30, 2022, the fair value of outstanding ISUs was $4.2 million and $4.9 million, respectively, and the associated accrued compensation liability was $2.4 million and $3.6 million, respectively. During the three and nine months ended June 30, 2023, we recorded an expense for ISU awards of $0.3 million and $2.2 million, respectively. During the three and nine months ended July 1, 2022, we recorded a benefit for ISU awards of $0.4 million and expense of $0.2 million, respectively. These expenses are not included in the share-based compensation expense totals below.

Share-Based Compensation

The following table shows a summary of share-based compensation expense included in the condensed consolidated statements of operations (in thousands):

	Three Months Ended		Nine Months Ended	
	June 30, 2023	July 1, 2022	June 30, 2023	July 1, 2022
Cost of revenue	$ 1,078	$ 929	$ 3,239	$ 3,035
Research and development	3,281	3,709	11,255	10,818
Selling, general and administrative	3,903	5,707	14,275	16,407
Total share-based compensation expense	$ 8,262	$ 10,345	$ 28,769	$ 30,260

As of June 30, 2023, the total unrecognized compensation costs related to RSAs, RSUs and PRSUs was $62.1 million, which we expect to recognize over a weighted-average period of 2.0 years. As of June 30, 2023, total unrecognized compensation cost related to our Employee Stock Purchase Plan was $0.8 million.

Restricted Stock, Restricted Stock Units and Performance-Based Restricted Stock Unit Awards

A summary of stock award activity for the nine months ended June 30, 2023 is as follows:

	Number of shares (in thousands)	Weighted-Average Grant Date Fair Value
Balance as of September 30, 2022	1,872	$ 40.44
Granted	783	63.19
Performance-based adjustment (1)	311	27.13
Vested and released	(1,404)	28.23
Forfeited, canceled or expired	(62)	49.83
Balance as of June 30, 2023	1,500	$ 60.60

(1) The amount shown represents performance adjustments for performance-based awards. These were granted in prior fiscal years and vested during the nine months ended June 30, 2023 based on the Company's achievement of adjusted earnings per share performance conditions.

Stock awards that vested during the nine months ended June 30, 2023 and July 1, 2022 had combined fair values of $85.1 million and $92.7 million, respectively, as of the vesting date. RSUs granted generally vest over a period of three or four years.

We granted 166,452 market-based PRSUs during the nine months ended June 30, 2023, at a weighted average grant date fair value of $80.38 per share, and none were forfeited. Recipients may earn between 0% and 200% of the target number of shares based on the Company's achievement of total stockholder return in comparison to a peer group of companies in the PHLX Semiconductor Sector Index (^SOX) over a period of approximately 3 years. The fair value of the awards was estimated using a Monte Carlo simulation and compensation expense is recognized ratably over the service period based on the grant date fair value of the awards subject to the market condition. The expected volatility of the Company's common stock was estimated based on the historical average volatility rate over the three-year period. The dividend yield assumption was based on historical and anticipated dividend payouts. The risk-free rate assumption was based on observed interest rates consistent with the three-year measurement period. The assumptions used to value the awards are as follows:

	Nine Months Ended June 30, 2023
Grant date stock price	$ 56.15
Average stock price at the start of the performance period	$ 54.12
Risk free interest rate	4.2%
Years to maturity	2.90
Expected volatility rate	52.4%
Expected dividend yield	—

Stock Options

As of June 30, 2023 and September 30, 2022, there were 15,000 stock options outstanding with a weighted-average exercise price per share of $16.06. As of June 30, 2023, the weighted-average remaining contractual term was 2.35 years and the aggregate intrinsic value was $0.7 million. Aggregate intrinsic value is calculated using the difference between our closing stock price on June 30, 2023 and the exercise price of outstanding, in-the-money options. The total intrinsic value of options exercised during the nine months ended July 1, 2022 was $11.0 million. There were no options exercised during the three and nine months ended June 30, 2023 and three months ended July 1, 2022, respectively.

14. INCOME TAXES

We are subject to income tax in the U.S. as well as other tax jurisdictions in which we conduct business. Earnings from non-U.S. activities are subject to local country income tax and may also be subject to current U.S. income tax. For interim periods, we record a tax provision or benefit based upon the estimated effective tax rate expected for the full fiscal year, adjusted for material discrete taxation matters arising during the interim periods. Our quarterly tax provision or benefit, and its quarterly estimate of the annual effective tax rate, are subject to significant variation due to several factors. These factors include items such as: variability in accurately predicting pre-tax income/loss, the mix of jurisdictions in which we operate, intercompany transactions, changes in how we do business, tax law developments, the realizability of our deferred tax assets and related valuation allowance and relative changes in permanent tax benefits or expenses.

The provision for income taxes and effective income tax rate are as follows (in thousands, except percentages):

	Three Months Ended		Nine Months Ended	
	June 30, 2023	July 1, 2022	June 30, 2023	July 1, 2022
Income tax expense	$ 7,768	$ 2,937	$ 29,039	$ 5,962
Effective income tax rate	39.6 %	8.4 %	30.2 %	2.9 %

The difference between the U.S. federal statutory income tax rate of 21% and our effective income tax rate for the three and nine months ended June 30, 2023 was primarily driven by tax on global intangible low-taxed income ("GILTI") including changes to Section 174 requiring the capitalization of certain R&D expenses, resulting in a 16% increase from the statutory income tax rate for both periods, non-deductible compensation and state income taxes partially offset by income taxed in foreign jurisdictions generally at lower tax rates and research and development ("R&D") tax credits. The difference between the U.S. federal statutory income tax rate of 21% and our effective income tax rate for the three and nine months ended July 1, 2022 was primarily driven by the full valuation allowance against any expense associated with income in the U.S. and income taxed in foreign jurisdictions generally at lower tax rates, where a valuation allowance does not apply.

On September 30, 2022, we released the majority of the valuation allowances against U.S. federal and state deferred tax assets including operating loss ("NOL") carryforwards, R&D tax credit carryforwards and other deferred tax items relating to temporary differences. We continued our ongoing assessment of the realizability of our deferred tax assets and did not note any significant changes from our assessment on September 30, 2022. We continue to maintain a partial valuation allowance against certain of our deferred tax assets primarily relating to state NOLs and R&D tax credit carryforwards which are not expected to be realized. We recognize deferred tax assets to the extent that we believe that these assets are more likely than not to be realized. In making this determination, we consider available positive and negative evidence. We look at factors that may impact the valuation of our deferred tax assets including results of recent operations, future reversals of existing taxable temporary differences, projected future taxable income and tax-planning strategies.

There were no unrecognized tax benefits as of June 30, 2023 and September 30, 2022. It is our policy to recognize any interest and penalties accrued related to unrecognized tax benefits in income tax expense. During the fiscal quarter ended June 30, 2023, we did not make any accrual or payment of interest or penalties.

15. SUPPLEMENTAL CASH FLOW INFORMATION

The following is a summary of supplemental cash flow information for the periods presented (in thousands):

	Nine Months Ended	
	June 30, 2023	July 1, 2022
Cash paid for interest	$ 8,140	$ 4,332
Cash paid for income taxes	$ 2,771	$ 1,792
Non-cash activities:		
Operating lease right-of-use assets obtained in exchange for new lease liabilities	$ 4,434	$ 2,367
Finance lease assets obtained in exchange for new lease liabilities	$ 9,725	$ —
Additions to property and equipment, net included in liabilities	$ 195	$ 1,241

During the nine months ended July 1, 2022, we capitalized $0.9 million of non-cash costs to property and equipment associated with construction of a power generator that were paid by our service provider and is included in Additions to property and equipment, net included in liabilities above. See *Note 10 - Financing Obligation*.

16. GEOGRAPHIC AND SIGNIFICANT CUSTOMER INFORMATION

We have one reportable operating segment that designs, develops, manufactures and markets semiconductors and modules. The determination of the number of reportable operating segments is based on the chief operating decision maker's ("CODM") use of financial information provided for the purposes of assessing performance and making operating decisions. The Company's CODM is its President and Chief Executive Officer. In evaluating financial performance and making operating decisions, the CODM primarily uses consolidated metrics. The Company assesses its determination of operating segments at least annually. We continue to evaluate our internal reporting structure and the potential impact of any changes on our segment reporting.

For information about our revenue in different geographic regions, based upon customer locations, see *Note 2 - Revenue*.

Information about net property and equipment in different geographic regions is presented below (in thousands):

	June 30, 2023	September 30, 2022
United States	$ 116,993	$ 108,569
France	31,929	775
Other Countries [1]	6,454	14,357
Total	$ 155,376	$ 123,701

(1) Other than the United States and France, no country or region represented greater than 10% of the total net property and equipment as of the dates presented.

Customer Concentration

Customer A represented 11% of revenue in the three months ended July 1, 2022. Customer A did not represent more than 10% of revenue for the three and nine months ended June 30, 2023 and nine months ended July 1, 2022. No other customer represented more than 10% of revenue and none of our customers represented more than 10% of accounts receivable in the periods presented in the accompanying condensed consolidated financial statements. For the three and nine months ended June 30, 2023, our top ten customers represented 44% and 47%, respectively, of total revenue, and for the three and nine months ended July 1, 2022, our top ten customers represented 51% and 47%, respectively, of total revenue.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion of our financial condition and results of operations should be read in conjunction with the condensed consolidated financial statements and the notes thereto included elsewhere in this Quarterly Report on Form 10-Q and our Annual Report on Form 10-K for the fiscal year ended September 30, 2022 filed with the United States Securities and Exchange Commission ("SEC") on November 14, 2022 (the "2022 Annual Report on Form 10-K").

In this document, the words "Company," "we," "our," "us," and similar terms refer only to MACOM Technology Solutions Holdings, Inc. and its consolidated subsidiaries, and not any other person or entity.

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Cautionary Note Regarding Forward-Looking Statements

This Item 2, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and other sections of this Quarterly Report on Form 10-Q contain "forward-looking statements." In addition, we may make other written and oral communications from time to time that contain such statements. Forward-looking statements include statements regarding our business outlook, strategic plans and priorities, expectations, anticipated drivers of future revenue growth, our ability to better address certain markets, expand our capabilities and extend our product offerings through the Linearizer Acquisition and the MESC Acquisition, industry trends, the potential impacts of COVID-19 on our future operations and results, our estimated annual effective tax rate, our plans for use of our cash and cash equivalents and short-term investments, interest rate and foreign currency risks, our ability to meet working capital requirements, estimates and objectives for future operations, our future results of operations and our financial position, including liquidity, and other matters that do not relate strictly to historical facts. Forward-looking statements generally may be identified by terms such as "anticipates," "believes," "could," "continue," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "projects," "seeks," "should," "targets," "will," "would" or similar expressions or variations or the negatives of those terms. These statements are based on management's beliefs and assumptions as of the date of this Quarterly Report on Form 10-Q, based on information currently available to us. Such forward-looking statements are subject to risks, uncertainties and other factors that could cause actual results to differ materially from future results expressed or implied by such forward-looking statements. Important factors that could cause actual results to differ materially from the forward-looking statements include, among others, the risks described in the section entitled "Risk Factors" in this Quarterly Report on Form 10-Q and the 2022 Annual Report on Form 10-K. We caution the reader to carefully consider such factors. Furthermore, such forward-looking statements speak only as of the date of this Quarterly Report on Form 10-Q. Except as required by law, we undertake no obligation to update any forward-looking statements to reflect events or circumstances after the date of such statements.

Overview

We design and manufacture semiconductor products for Telecommunications ("Telecom"), Industrial and Defense ("I&D") and Data Center industries. Headquartered in Lowell, Massachusetts, with operational facilities throughout North America, Europe and Asia, we design, develop and manufacture differentiated semiconductor products for customers who demand high performance, quality and reliability. We have more than 70 years of application expertise, combined with expertise in analog and mixed signal circuit design, compound semiconductor fabrication (including gallium arsenide, gallium nitride, indium phosphide and specialized silicon), advanced packaging and back-end assembly and test. We offer a broad portfolio of thousands of standard and custom devices, which include integrated circuits ("IC"), multi-chip modules, diodes, amplifiers, switches and switch limiters, passive and active components and complete subsystems, across dozens of product lines serving over 6,000 end customers in three primary markets. Our semiconductor products are electronic components that our customers generally incorporate into larger electronic systems, such as wireless communication systems including basestations, high capacity optical networks, data center applications, radar, medical systems and test and measurement applications. Our primary end markets are: (1) Telecom, which includes carrier infrastructure such as long-haul/metro, 5G and Fiber-to-the-X/passive optical network, among others; (2) I&D, which includes military and commercial radar, radio frequency ("RF") jammers, electronic countermeasures, communication data links, satellite communications and multi-market applications, which include industrial, medical, test and measurement and scientific applications; and (3) Data Center, which includes intra-Data Center, Data Center Interconnect applications, at 100G, 200G, 400G, 800G and higher speeds, enabled by our broad portfolio of analog ICs and photonic components for high speed optical module customers.

COVID-19 Impact

As a result of the numerous government and related measures that have been implemented around the world where we operate to address COVID-19 and the spread of COVID-19, we have modified our business practices and may further modify our practices as required, or as we determine appropriate. While these measures, as well as other disruptions, have impacted our operations, the operations of our customers and those of our respective vendors and suppliers, such impacts did not, through the nine months ended June 30, 2023, have a material impact on our consolidated operating results. However, the degree to which COVID-19 may impact our business, financial condition, results of operations, liquidity and cash flows will continue to depend on future developments, which remain highly uncertain and cannot be predicted.

For additional information on risk factors that could impact our future results, please refer to the section entitled "Risk Factors" in this Quarterly Report on Form 10-Q and the 2022 Annual Report on Form 10-K.

Description of Our Revenue

Revenue. Our revenue is derived from sales of high-performance RF, microwave, millimeter wave, optical and photonic semiconductor products. We design, integrate, manufacture and package differentiated, semiconductor-based products that we sell to customers through our direct sales organization, our network of independent sales representatives and our distributors.

We believe the primary drivers of our future revenue growth will include:

- continued growth in the demand for high-performance analog, digital and optical semiconductors in our three primary markets;
- introducing new products using advanced technologies, added features, higher levels of integration and improved performance;
- increasing content of our semiconductor solutions in customers' systems through cross-selling our product lines;
- leveraging our core strength and leadership position in standard, catalog products that service all of our end applications; and
- engaging early with our lead customers to develop custom and standard products.

Our core strategy is to develop and innovate high-performance products that address our customers' most difficult technical challenges in our primary markets: Telecom, I&D and Data Center.

We expect our revenue in the Telecom market to be driven by 5G deployments, with continued upgrades and expansion of communications equipment, and increasing adoption of our high-performance RF, millimeter wave, optical and photonic components.

We expect our revenue in the I&D market to be driven by the expanding product portfolio that we offer which services applications such as test and measurement, satellite communications, civil and military radar, industrial, automotive, scientific and medical applications, further supported by growth in applications for our multi-market catalog products.

We expect our revenue in the Data Center market to be driven by the adoption of cloud-based services and the upgrade of data center architectures to 100G, 200G, 400G and 800G interconnects, which we expect will drive adoption of higher speed optical and photonic components.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations are based on our condensed consolidated financial statements. The preparation of financial statements, in conformity with GAAP, requires management to make estimates and judgments that affect the reported amounts of assets and liabilities, the reported amounts of revenue and expenses during the reporting period and disclosure of contingent assets and liabilities at the date of the financial statements. By their nature, these estimates and judgments are subject to an inherent degree of uncertainty and could be material if our actual or expected experience were to change unexpectedly. On an ongoing basis, we re-evaluate our estimates and judgments.

We base our estimates and judgments on our historical experience and on other assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making the judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results could differ from those estimates and material effects on our operating results and financial position may result. The accounting policies which our management believes involve the most significant application of judgment or involve complex estimation, are inventories and associated reserves; revenue reserves; goodwill and intangible asset valuation; share-based compensation valuations and income taxes.

Significant management judgment is required in our valuation of goodwill and intangible assets, many of which are based on the creation of forecasts of future operating results that are used in the valuation, including (i) estimation of future cash flows, (ii) estimation of the long-term rate of growth for our business, (iii) estimation of the useful life over which cash flows will occur, (iv) terminal values, if applicable and (v) the determination of our weighted average cost of capital, which helps determine the discount rate. It is possible that these forecasts may change, and our performance projections included in our forecasts of future results may prove to be inaccurate. The value of our goodwill and purchased intangible assets could also be impacted by future adverse changes such as a decline in the valuation of technology company stocks, including the valuation of our common stock, or a significant slowdown in the worldwide economy or in the optical communications equipment or semiconductor industry.

For additional information related to these and other accounting policies refer to *Note 2 - Summary of Significant Accounting Policies* to our Consolidated Financial Statements included in Item 8 of Part II, “Financial Statements and Supplementary Data,” of the 2022 Annual Report on Form 10-K and *Note 1 - Basis of Presentation and Summary of Significant Accounting Policies* to our Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q.

Results of Operations

The following table sets forth, for the periods indicated, our statements of operations data (in thousands):

	Three Months Ended		Nine Months Ended	
	June 30, 2023	**July 1, 2022**	**June 30, 2023**	**July 1, 2022**
Revenue	$ 148,522	$ 172,259	$ 498,032	$ 497,027
Cost of revenue [1]	62,396	67,717	198,861	199,353
Gross profit	86,126	104,542	299,171	297,674
Operating expenses:				
Research and development [1]	36,668	37,625	111,037	108,550
Selling, general and administrative [1]	32,152	30,914	96,341	93,481
Total operating expenses	68,820	68,539	207,378	202,031
Income from operations	17,306	36,003	91,793	95,643
Other income (expense):				
Interest income (expense), net	2,344	(845)	4,580	(3,928)
Other (expense) income, net [2]	(29)	13	(207)	114,866
Total other income (expense), net	2,315	(832)	4,373	110,938
Income before income taxes	19,621	35,171	96,166	206,581
Income tax expense	7,768	2,937	29,039	5,962
Net income	$ 11,853	$ 32,234	$ 67,127	$ 200,619

(1) Includes (a) Amortization expense related to intangible assets arising from acquisitions and (b) Share-based compensation expense included in our condensed consolidated statements of operations as set forth below (in thousands):

	Three Months Ended		Nine Months Ended	
	June 30, 2023	July 1, 2022	June 30, 2023	July 1, 2022
(a) Intangible amortization expense:				
Cost of revenue	$ 1,131	$ 1,779	$ 3,028	$ 6,062
Selling, general and administrative	5,976	6,276	17,644	19,334
(b) Share-based compensation expense:				
Cost of revenue	$ 1,078	$ 929	$ 3,239	$ 3,035
Research and development	3,281	3,709	11,255	10,818
Selling, general and administrative	3,903	5,707	14,275	16,407

(2) The nine months ended July 1, 2022 includes a gain on the sale of our equity method investment of $118.2 million and net losses of $3.3 million associated with such equity method investment. See *Note 4 - Investments* to our Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q for additional information.

The following table sets forth, for the periods indicated, our statements of operations data expressed as a percentage of our revenue:

	Three Months Ended		Nine Months Ended	
	June 30, 2023	July 1, 2022	June 30, 2023	July 1, 2022
Revenue	100.0 %	100.0 %	100.0 %	100.0 %
Cost of revenue	42.0	39.3	39.9	40.1
Gross profit	58.0	60.7	60.1	59.9
Operating expenses:				
Research and development	24.7	21.8	22.3	21.8
Selling, general and administrative	21.6	17.9	19.3	18.8
Total operating expenses	46.3	39.8	41.6	40.6
Income from operations	11.7	20.9	18.4	19.2
Other income (expense):				
Interest income (expense), net	1.6	(0.5)	0.9	(0.8)
Other (expense) income, net	0.0	—	0.0	23.1
Total other income (expense), net	1.6	(0.5)	0.9	22.3
Income before income taxes	13.2	20.4	19.3	41.6
Income tax expense	5.2	1.7	5.8	1.2
Net income	8.0 %	18.7 %	13.5 %	40.4 %

Comparison of the Three and Nine Months Ended June 30, 2023 to the Three and Nine Months Ended July 1, 2022

Revenue. Our revenue decreased by $23.7 million, or 13.8%, to $148.5 million for the three months ended June 30, 2023, from $172.3 million for the three months ended July 1, 2022, and our revenue increased by $1.0 million, or 0.2%, to $498.0 million for the nine months ended June 30, 2023, from $497.0 million for the nine months ended July 1, 2022. The decrease in revenue in the three months ended June 30, 2023 and increase in revenue in the nine months ended June 30, 2023 is described by end market in the following paragraphs.

Revenue from our primary markets, the percentage of change between the periods presented, and revenue by primary markets expressed as a percentage of total revenue in the periods presented were (in thousands, except percentages):

	Three Months Ended			Nine Months Ended		
	June 30, 2023	July 1, 2022	% Change	June 30, 2023	July 1, 2022	% Change
Telecom	$ 38,333	$ 61,988	(38.2)%	$ 153,670	$ 180,738	(15.0)%
Industrial & Defense	83,549	75,509	10.6 %	237,911	215,794	10.2 %
Data Center	26,640	34,762	(23.4)%	106,451	100,495	5.9 %
Total	$ 148,522	$ 172,259	(13.8)%	$ 498,032	$ 497,027	0.2 %
Telecom	25.8 %	36.0 %		30.9 %	36.4 %	
Industrial & Defense	56.3 %	43.8 %		47.8 %	43.4 %	
Data Center	17.9 %	20.2 %		21.3 %	20.2 %	
Total	100.0 %	100.0 %		100.0 %	100.0 %	

In the three months ended June 30, 2023, our Telecom market revenue decreased by $23.7 million, or 38.2%, compared to the three months ended July 1, 2022. In the nine months ended June 30, 2023, our Telecom market revenue decreased by $27.1 million, or 15.0%, compared to the nine months ended July 1, 2022. The decrease for the three and nine months ended June 30, 2023 was primarily driven by a decrease in sales of products targeted for 5G applications, a decrease in sales of carrier-based optical semiconductor products, a decrease in sales of RF and microwave products for broadband access and video infrastructure and a decrease in sales of legacy backhaul products, primarily in China.

In the three months ended June 30, 2023, our I&D market revenue increased by $8.0 million, or 10.6%, compared to the three months ended July 1, 2022. In the nine months ended June 30, 2023, our I&D market revenue increased by $22.1 million, or 10.2%, compared to the nine months ended July 1, 2022. The increase in the three and nine months ended June 30, 2023 was primarily driven by defense program shipments, which includes incremental revenue from recent acquisitions, and expansion of high-performance analog product lines into the I&D market.

In the three months ended June 30, 2023, our Data Center market revenue decreased by $8.1 million, or 23.4%, compared to the three months ended July 1, 2022. In the nine months ended June 30, 2023, our Data Center market revenue increased by $6.0 million, or 5.9%, compared to the nine months ended July 1, 2022. The decrease in the three months ended June 30, 2023 was primarily driven by a decrease in sales of high-performance analog Data Center products. The increase in the nine months ended June 30, 2023 was primarily driven by an increase in sales of our legacy connectivity products, which were supply constrained in prior periods, partially offset by a decrease in sales of optical semiconductor products and high-performance analog Data Center products.

We continue to be negatively impacted by the current macroeconomic conditions, which we expect may result in weaker near-term demand for our products.

Gross profit. Gross margin was 58.0% and 60.7% for the three months ended June 30, 2023 and July 1, 2022, respectively, and 60.1% and 59.9% for the nine months ended June 30, 2023 and July 1, 2022, respectively. Gross profit was $86.1 million and $104.5 million for the three months ended June 30, 2023 and July 1, 2022, respectively, and $299.2 million and $297.7 million for the nine months ended June 30, 2023 and July 1, 2022, respectively. Gross profit decreased for the three months ended June 30, 2023 as compared to the three months ended July 1, 2022 primarily as a result of lower sales, increases in production supplies, employee headcount, employee-related costs and variable costs, partially offset by lower intangible amortization. Gross profit increased for the nine months ended June 30, 2023 as compared to the nine months ended July 1, 2022 primarily as a result of higher sales and lower intangible amortization, partially offset by increases in production supplies, employee headcount primarily due to acquisitions, employee-related costs, depreciation expense and variable costs.

Research and development. Research and development expense decreased by $1.0 million, or 2.5%, to $36.7 million, or 24.7% of our revenue, for the three months ended June 30, 2023, compared to $37.6 million, or 21.8% of our revenue, for the three months ended July 1, 2022. Research and development expense increased by $2.5 million, or 2.3%, to $111.0 million, or 22.3% of our revenue, for the nine months ended June 30, 2023, compared to $108.6 million, or 21.8% of our revenue, for the nine months ended July 1, 2022. Research and development expense decreased in the three months ended June 30, 2023 primarily as a result of lower supply costs and design software costs, partially offset by increases in employee-related costs. Research and development expense increased in the nine months ended June 30, 2023 primarily as a result of increases in employee headcount primarily due to acquisitions, employee-related costs and development foundry costs, partially offset by decreases in design software costs and depreciation expense.

Selling, general and administrative. Selling, general and administrative expense increased by $1.2 million, or 4.0%, to $32.2 million, or 21.6% of our revenue, for the three months ended June 30, 2023, compared to $30.9 million, or 17.9% of our revenue, for the three months ended July 1, 2022. Selling, general and administrative expense increased by $2.9 million, or 3.1%, to $96.3 million, or 19.3% of our revenue, for the nine months ended June 30, 2023, compared to $93.5 million, or 18.8% of our revenue, for the nine months ended July 1, 2022. Selling, general and administrative expense increased in the three and nine months ended June 30, 2023 primarily due to an increase in acquisition-related professional fees, employee headcount and travel expense, partially offset by decreases in employee-related costs, share-based compensation expense and intangible amortization.

Interest income (expense), net. In the three months ended June 30, 2023, interest income, net was $2.3 million, compared to interest expense, net of $0.8 million for the three months ended July 1, 2022. In the nine months ended June 30, 2023, interest income, net was $4.6 million, compared to interest expense, net of $3.9 million for the nine months ended July 1, 2022. The change for the three and nine months ended June 30, 2023 is primarily due to an increase in short-term investments and associated interest income, partially offset by an increase in interest expense on the Term Loans.

Provision for income taxes. Our income tax expense and effective income tax rates for the periods indicated were (in thousands, except percentages):

	Three Months Ended		Nine Months Ended	
	June 30, 2023	July 1, 2022	June 30, 2023	July 1, 2022
Income tax expense	7,768	2,937	29,039	5,962
Effective income tax rate	39.6 %	8.4 %	30.2 %	2.9 %

The difference between the U.S. federal statutory income tax rate of 21% and our effective income tax rate for the three and nine months ended June 30, 2023, was primarily driven by tax on GILTI including changes to Section 174 requiring the capitalization of certain R&D expenses, resulting in a 16% increase from the statutory income tax rate for both periods, non-deductible compensation and state income taxes partially offset by income taxed in foreign jurisdictions generally at lower tax rates and R&D tax credits. Our effective income tax rate for the three and nine months ended July 1, 2022 was primarily driven by the full valuation allowance against any expense associated with income in the U.S. and income taxed in foreign jurisdictions generally at lower tax rates, where a valuation allowance does not apply. Our estimated annual effective tax rate for the year ending September 29, 2023 is expected to be approximately 30%, adjusted for discrete taxation matters arising during the interim periods.

For additional information refer to *Note 14 - Income Taxes* to our Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q.

Liquidity and Capital Resources

The following table summarizes our cash flow activities (in thousands):

	Nine Months Ended	
	June 30, 2023	July 1, 2022
Cash and cash equivalents, beginning of period	$ 119,952	$ 156,537
Net cash provided by operating activities	116,563	116,989
Net cash used in investing activities	(87,361)	(111,809)
Net cash used in financing activities	(27,795)	(28,609)
Foreign currency effect on cash	161	(938)
Cash and cash equivalents, end of period	$ 121,520	$ 132,170

Cash Flow from Operating Activities

Our cash flow from operating activities for the nine months ended June 30, 2023 of $116.6 million consisted of a net income of $67.1 million plus adjustments of $89.3 million, to reconcile our net income to cash provided by operating activities, less cash used in operating assets and liabilities of $39.9 million. Adjustments to reconcile our net income to cash provided by operating activities primarily included depreciation and intangible amortization expense of $38.4 million, share-based compensation expense of $28.8 million, deferred income tax expense of $27.4 million. In addition, cash used in operating assets and liabilities was $39.9 million for the nine months ended June 30, 2023, primarily driven by an increase in inventories of $12.2 million and a decrease of $16.6 million in accrued and other liabilities.

Our cash flow from operating activities for the nine months ended July 1, 2022 of $117.0 million consisted of a net income of $200.6 million, less adjustments of $38.3 million, to reconcile our net income to cash provided by operating activities and cash used in operating assets and liabilities of $45.3 million. Adjustments to reconcile our net income to cash provided by operating activities primarily included a net gain of $114.9 million related to the sale of our equity method investment offset by equity method investment losses, depreciation and intangible amortization expense of $43.1 million and share-based compensation expense of $30.3 million. In addition, cash used in operating assets and liabilities was $45.3 million for the nine months ended July 1, 2022, primarily driven by an increase in accounts receivable of $22.0 million, an increase in inventories of $27.5 million and a decrease of $12.7 million in accrued and other liabilities, partially offset by an increase in accounts payable of $14.1 million.

Cash Flow from Investing Activities

Our cash flow used in investing activities for the nine months ended June 30, 2023 of $87.4 million consisted primarily of $87.7 million for acquisitions, net of cash acquired, capital expenditures of $18.9 million and purchases of $352.9 million of short-term investments, offset by proceeds of $364.1 million for the sale and maturity of short-term investments and proceeds from the sale of equipment of $8.0 million. For additional information on the cash paid for our acquisitions, net of cash acquired, see *Note 3 - Acquisitions* to our Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q.

Our cash flow used in investing activities for the nine months ended July 1, 2022 of $111.8 million consisted primarily of purchases of $386.8 million of short-term investments and capital expenditures of $18.8 million, offset by proceeds from the sale of our equity method investment of $127.8 million and proceeds of $166.0 million for the sale and maturity of short-term investments. For additional information on the sale of our equity method investment, see *Note 4 - Investments* to our Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q.

Cash Flow from Financing Activities

During the nine months ended June 30, 2023, our cash used in financing activities of $27.8 million was primarily related to $32.5 million of repurchases of common stock associated with employee tax withholdings on vested equity awards, partially offset by $5.6 million of proceeds from employee stock purchases.

During the nine months ended July 1, 2022, our cash used in financing activities of $28.6 million was primarily related to $35.9 million of repurchases of common stock associated with employee tax withholdings on vested equity awards, partially offset by $8.1 million of proceeds from stock option exercises and employee stock purchases.

Liquidity

As of June 30, 2023, we held $121.5 million of cash and cash equivalents, primarily deposited with financial institutions, as well as $466.1 million of liquid short-term investments. The undistributed earnings of certain foreign subsidiaries are considered indefinitely reinvested for the periods presented and we do not intend to repatriate such earnings. We believe the decision to reinvest these earnings will not have a significant impact on our liquidity. As of June 30, 2023, cash held by our indefinitely reinvested foreign subsidiaries was $20.8 million, which, along with cash generated from foreign operations, is expected to be used in the support of international growth and working capital requirements as well as the repayment of certain intercompany loans.

On August 2, 2023, we paid the total outstanding principal balance on our Term Loans of $120.8 million and accrued interest of less than $0.1 million with cash-on-hand.

We plan to use our remaining available cash and cash equivalents and short-term investments for general corporate purposes, including working capital, or for the acquisition of or investment in complementary technologies, design teams, products and businesses. We believe that our cash and cash equivalents, short-term investments and cash generated from operations will be sufficient to meet our working capital requirements for at least the next twelve months. We may need to raise additional capital from time to time through the issuance and sale of equity or debt securities, and there is no assurance that we will be able to do so on favorable terms or at all.

As of June 30, 2023, we had no off-balance sheet arrangements.

For additional information related to our Liquidity and Capital Resources, see *Note 9 - Debt* to our Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q.

Recent Accounting Pronouncements

See *Note 1 - Basis of Presentation and Summary of Significant Accounting Policies* to our Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q for information about recent accounting pronouncements.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risk in the ordinary course of business, which consists primarily of interest rate risk associated with our cash and cash equivalents, short-term investments and our variable rate debt, as well as foreign exchange rate risk.

Interest rate risk. The primary objectives of our investment activity are to preserve principal, provide liquidity and invest excess cash for an average rate of return. To minimize market risk, we maintain our portfolio in cash and diversified investments, which may consist of corporate bonds, bank deposits, money market funds, commercial paper and U.S. Treasury securities. The interest rates are variable and fluctuate with current market conditions. The risk associated with fluctuating interest rates is limited to this investment portfolio. We believe that a 10% change in interest rates would not have a material impact on our financial position or results of operations. We do not enter into financial instruments for trading or speculative purposes.

On August 2, 2023, we paid the total outstanding principal balance on our Term Loans. The interest rates on our 2026 Convertible Notes are fixed and therefore not subject to interest rate risk. For additional information regarding our Term Loans and Convertible Notes, refer to *Note 9 - Debt.*

Foreign currency risk. To date, our international customer agreements have been denominated primarily in U.S. dollars. Accordingly, we have limited exposure to foreign currency exchange rates. The functional currency of a majority of our foreign operations continues to be in U.S. dollars with the remaining operations being local currency. Changes in the value of the U.S. dollar relative to other currencies could make our products more expensive, which could negatively impact demand in certain regions, reduce or delay customer orders, or otherwise negatively affect how customers do business with us. The effects of exchange rate fluctuations on the net assets of the majority of our operations are accounted for as transaction gains or losses. We believe that a change of 10% in such foreign currency exchange rates would not have a material impact on our financial position or results of operations. In the future, we may enter into foreign currency exchange hedging contracts to reduce our exposure to changes in exchange rates.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

As of the end of the period covered by this Quarterly Report on Form 10-Q, we carried out an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”)). Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) were effective as of June 30, 2023.

Changes in Internal Control over Financial Reporting

There were no changes to our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) that occurred during our most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on Controls

Our disclosure controls and procedures and internal control over financial reporting are designed to provide reasonable assurance of achieving the desired control objectives. Our management recognizes that any control system, no matter how well designed and operated, is based upon certain judgments and assumptions and cannot provide absolute assurance that its objectives will be met. Similarly, an evaluation of controls cannot provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been detected.

PART II—OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

See *Note 12 - Commitments and Contingencies* to our Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q for information about our legal proceedings.

ITEM 1A. RISK FACTORS

Our business involves a high degree of risk. In addition to the other information set forth in this Quarterly Report on Form 10-Q, you should carefully consider the factors discussed in Part I, “Item 1A. Risk Factors” in our 2022 Annual Report on Form 10-K, which could materially affect our business, financial condition or future results. As of the date of this Quarterly Report on Form 10-Q, there have been no material changes in any of the risk factors described in our 2022 Annual Report on Form 10-K, except as discussed in Part II, “Item 1A. Risk Factors” in our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2023, as filed with the SEC on May 4, 2023, and as noted below.

Adverse global economic conditions could have a negative impact on our business, results of operations and financial condition and liquidity.

A general slowdown in the global economy, including a recession, or in a particular region or industry, an increase in trade tensions with U.S. trading partners, inflation or a tightening of the credit markets could negatively impact our business, financial condition and liquidity. Adverse global economic conditions have, from time to time, caused or exacerbated significant slowdowns in the industries and markets in which we operate, which have adversely affected our business and results of operations. Geopolitical issues, macroeconomic weakness and uncertainty also make it more difficult for us to accurately forecast revenue, gross margin and expenses. An escalation of trade tensions between the U.S. and China has resulted in trade restrictions and increased tariffs that harm our ability to participate in Chinese markets or compete effectively with Chinese companies. Sustained uncertainty about, or worsening of, current global economic conditions and further escalation of trade tensions between the U.S. and its trading partners could result in a global economic slowdown and long-term changes to global trade. Such events may also (i) cause our customers and consumers to reduce, delay or forgo technology spending, (ii) result in customers sourcing products from other suppliers not subject to such restrictions or tariffs, (iii) lead to the insolvency or consolidation of key suppliers and customers and (iv) intensify pricing pressures. Any or all of these factors could negatively affect demand for our products and our business, financial condition and results of operations.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Issuer Purchases of Equity Securities

The following table presents information with respect to purchases of common stock we made during the fiscal quarter ended June 30, 2023.

Period	Total Number of Shares (or Units) Purchased (1)	Average Price Paid per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs
April 1, 2023-April 28,2023	5,773	$ 63.19	—	—
April 29,2023-May 26,2023	13,838	57.09	—	—
May 27, 2023-June 30, 2023	1,164	61.11	—	—
Total	20,775	$ 59.01	—	—

(1) We employ “withhold to cover” as a tax payment method for vesting of restricted stock awards for our employees, pursuant to which, we withheld from employees the shares noted in the table above to cover tax withholding related to the vesting of their awards. The average prices listed in the above table are averages of the fair market prices at which we valued shares withheld for purposes of calculating the number of shares to be withheld.

ITEM 5. OTHER INFORMATION

Insider Trading Arrangements

During the three months ended June 30, 2023, no director or officer of the Company adopted or terminated a “Rule 10b5-1 trading arrangement” or “non-Rule 10b5-1 trading arrangement,” as each term is defined in Item 408(a) of Regulation S-K.

ITEM 6. EXHIBITS

Exhibit Number	Description
3.1	Fifth Amended and Restated Certificate of Incorporation, as amended by the Certificate of Amendment dated March 2, 2023.
3.2	Fourth Amended and Restated Bylaws (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed on January 6, 2023).
31.1	Certification of Principal Executive Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.
31.2	Certification of Principal Financial Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.
32.1	Certification of Principal Executive Officer and Principal Financial Officer Required Under Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. §1350.
101	The following material from the Quarterly Report on Form 10-Q of MACOM Technology Solutions Holdings, Inc. for the fiscal quarter ended June 30, 2023, formatted in Inline XBRL: (i) Consolidated Balance Sheets, (ii) Consolidated Statements of Operations, (iii) Consolidated Statements of Comprehensive Income, (iv) Consolidated Statements of Stockholders' Equity, (v) Consolidated Statements of Cash Flows, (vi) Notes to Consolidated Financial Statements and (vii) document and entity information, tagged as blocks of text and including detailed tags.
104	The cover page for the Quarterly Report on Form 10-Q of MACOM Technology Solutions Holdings, Inc. for the fiscal quarter ended June 30, 2023, formatted in Inline XBRL and included as Exhibit 101.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this Quarterly Report on Form 10-Q to be signed on its behalf by the undersigned thereunto duly authorized.

MACOM TECHNOLOGY SOLUTIONS HOLDINGS, INC.

Dated: August 3, 2023	By:	/s/ Stephen G. Daly
		Stephen G. Daly
		President and Chief Executive Officer
		(Principal Executive Officer)
Dated: August 3, 2023	By:	/s/ John F. Kober
		John F. Kober
		Senior Vice President and Chief Financial Officer
		(Principal Accounting and Principal Financial Officer)

Exhibit 31.1

CERTIFICATION OF THE PRESIDENT AND CEO PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Stephen G. Daly, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of MACOM Technology Solutions Holdings, 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.

Date: August 3, 2023

/s/ Stephen G. Daly

Stephen G. Daly
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF THE CFO PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, John F. Kober, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of MACOM Technology Solutions Holdings, 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.

Date: August 3, 2023

/s/ John F. Kober
John F. Kober
SVP and Chief Financial Officer
(Principal Financial Officer)

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 of MACOM Technology Solutions Holdings, Inc. (the “Company”) on Form 10-Q for the quarter ended June 30, 2023 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), Stephen G. Daly, as President and Chief Executive Officer of the Company, and John F. Kober, as SVP and Chief Financial Officer of the Company, each hereby certifies, pursuant to and solely for the purpose of 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; and

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

Date: August 3, 2023

By: /s/ Stephen G. Daly
Stephen G. Daly
President and Chief Executive Officer
(Principal Executive Officer)

By: /s/ John F. Kober
John F. Kober
SVP and Chief Financial Officer
(Principal Financial Officer)