

**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 September 24, 2022

Or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____

Commission file number: 000-50307

FormFactor, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

13-3711155
(I.R.S. Employer
Identification No.)

7005 Southfront Road, Livermore, California 94551
(Address of principal executive offices, including zip code)

(925) 290-4000
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, \$0.001 par value	FORM	Nasdaq Global 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 submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of the 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. (Check one):

Large Accelerated Filer	<input checked="" type="checkbox"/>	Accelerated Filer	<input type="checkbox"/>	Non-accelerated Filer	<input type="checkbox"/>
Smaller Reporting Company	<input type="checkbox"/>	Emerging Growth Company	<input type="checkbox"/>		

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 October 27, 2022, 77,025,103 shares of the registrant's common stock, par value \$0.001 per share, were outstanding.

FORMFACTOR, INC.
FORM 10-Q FOR THE QUARTERLY PERIOD ENDED SEPTEMBER 24, 2022
INDEX

<u>Part I.</u>	<u>Financial Information</u>	
<u>Item 1.</u>	<u>Financial Statements (Unaudited):</u>	
	<u>Condensed Consolidated Balance Sheets as of September 24, 2022 and December 25, 2021</u>	<u>3</u>
	<u>Condensed Consolidated Statements of Income for the three and nine months ended September 24, 2022 and September 25, 2021</u>	<u>4</u>
	<u>Condensed Consolidated Statements of Comprehensive Income for the three and nine months ended September 24, 2022 and September 25, 2021</u>	<u>5</u>
	<u>Condensed Consolidated Statement of Stockholders' Equity for the three and nine months ended September 24, 2022 and September 25, 2021</u>	<u>6</u>
	<u>Condensed Consolidated Statements of Cash Flows for the nine months ended September 24, 2022 and September 25, 2021</u>	<u>8</u>
	<u>Notes to Condensed Consolidated Financial Statements</u>	<u>10</u>
<u>Item 2.</u>	<u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	<u>22</u>
<u>Item 3.</u>	<u>Quantitative and Qualitative Disclosures About Market Risk</u>	<u>32</u>
<u>Item 4.</u>	<u>Controls and Procedures</u>	<u>32</u>
<u>Part II.</u>	<u>Other Information</u>	<u>33</u>
<u>Item 1A.</u>	<u>Risk Factors</u>	<u>33</u>
<u>Item 2.</u>	<u>Unregistered Sales of Equity Securities and use of proceeds</u>	<u>33</u>
<u>Item 6.</u>	<u>Exhibits</u>	<u>34</u>
<u>Signatures</u>		<u>35</u>

PART I - FINANCIAL INFORMATION

Item 1. Financial Statements

FORMFACTOR, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands, except share and per share amounts)
(Unaudited)

	September 24, 2022	December 25, 2021
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 120,602	\$ 151,010
Marketable securities	130,991	125,055
Accounts receivable, net of allowance for credit losses of \$190 and \$195	110,497	115,541
Inventories, net	132,029	111,548
Restricted cash	1,263	2,233
Prepaid expenses and other current assets	20,932	18,652
Total current assets	516,314	524,039
Restricted cash	1,840	2,099
Operating lease, right-of-use-assets	31,508	35,210
Property, plant and equipment, net of accumulated depreciation	163,384	146,555
Goodwill	209,105	212,299
Intangibles, net	28,208	36,342
Deferred tax assets	67,775	61,995
Other assets	4,229	1,981
Total assets	<u>\$ 1,022,363</u>	<u>\$ 1,020,520</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 75,021	\$ 57,862
Accrued liabilities	46,328	50,836
Current portion of term loans, net of unamortized issuance costs	2,734	8,931
Deferred revenue	31,974	23,224
Operating lease liabilities	7,699	7,901
Total current liabilities	163,756	148,754
Term loans, less current portion, net of unamortized issuance costs	14,653	15,434
Deferred tax liabilities	2,232	3,623
Long-term operating lease liabilities	27,858	31,009
Other liabilities	5,562	5,920
Total liabilities	214,061	204,740
Stockholders' equity:		
Common stock, \$0.001 par value:		
250,000,000 shares authorized; 77,265,099 and 78,240,506 shares issued and outstanding	77	78
Additional paid-in capital	843,453	898,945
Accumulated other comprehensive loss	(17,899)	(1,449)
Accumulated deficit	(17,329)	(81,794)
Total stockholders' equity	808,302	815,780
Total liabilities and stockholders' equity	<u>\$ 1,022,363</u>	<u>\$ 1,020,520</u>

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

FORMFACTOR, INC.
CONDENSED CONSOLIDATED STATEMENTS OF INCOME
(In thousands, except per share amounts)
(Unaudited)

	Three Months Ended		Nine Months Ended	
	September 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
Revenues	\$ 180,869	\$ 189,964	\$ 581,950	\$ 564,676
Cost of revenues	118,656	109,745	331,144	331,468
Gross profit	62,213	80,219	250,806	233,208
Operating expenses:				
Research and development	26,549	26,026	82,000	75,526
Selling, general and administrative	31,637	30,940	97,949	91,434
Total operating expenses	58,186	56,966	179,949	166,960
Operating income	4,027	23,253	70,857	66,248
Interest income	709	121	1,147	463
Interest expense	(152)	(151)	(463)	(447)
Other income, net	1,041	58	1,784	36
Income before income taxes	5,625	23,281	73,325	66,300
Provision for income taxes	1,274	2,784	8,860	8,273
Net income	\$ 4,351	\$ 20,497	\$ 64,465	\$ 58,027
Net income per share:				
Basic	\$ 0.06	\$ 0.26	\$ 0.83	\$ 0.75
Diluted	\$ 0.06	\$ 0.26	\$ 0.82	\$ 0.73
Weighted-average number of shares used in per share calculations:				
Basic	77,245	77,869	77,796	77,643
Diluted	77,688	79,029	78,492	79,190

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

FORMFACTOR, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In thousands)
(Unaudited)

	Three Months Ended		Nine Months Ended	
	September 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
Net income	\$ 4,351	\$ 20,497	\$ 64,465	\$ 58,027
Other comprehensive loss, net of tax:				
Translation adjustments	(7,348)	(1,511)	(13,902)	(3,258)
Unrealized losses on available-for-sale marketable securities	(674)	(62)	(2,425)	(290)
Unrealized losses on derivative instruments	(881)	(323)	(123)	(638)
Other comprehensive loss, net of tax:	(8,903)	(1,896)	(16,450)	(4,186)
Comprehensive income (loss)	<u>\$ (4,552)</u>	<u>\$ 18,601</u>	<u>\$ 48,015</u>	<u>\$ 53,841</u>

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

FORMFACTOR, INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands, except shares)
(Unaudited)

	Shares of Common Stock	Common Stock	Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total
Nine Months Ended September 24, 2022						
Balances, December 25, 2021	78,240,506	\$ 78	\$ 898,945	\$ (1,449)	\$ (81,794)	\$ 815,780
Issuance of common stock under the Employee Stock Purchase Plan	316,861	—	10,457	—	—	10,457
Issuance of common stock pursuant to exercise of options	6,000	—	42	—	—	42
Issuance of common stock pursuant to vesting of restricted stock units, net of stock withheld for tax	713,554	1	(15,564)	—	—	(15,563)
Purchase and retirement of common stock through repurchase program	(2,011,822)	(2)	(73,476)	—	—	(73,478)
Stock-based compensation	—	—	23,049	—	—	23,049
Other comprehensive loss	—	—	—	(16,450)	—	(16,450)
Net income	—	—	—	—	64,465	64,465
Balances, September 24, 2022	<u>77,265,099</u>	<u>\$ 77</u>	<u>\$ 843,453</u>	<u>\$ (17,899)</u>	<u>\$ (17,329)</u>	<u>\$ 808,302</u>
Three Months Ended September 24, 2022						
Balances, June 25, 2022	77,194,733	\$ 77	\$ 860,584	\$ (8,996)	\$ (21,680)	\$ 829,985
Issuance of common stock under the Employee Stock Purchase Plan	159,219	—	4,812	—	—	4,812
Issuance of common stock pursuant to vesting of restricted stock units, net of stock withheld for tax	479,478	1	(11,321)	—	—	(11,320)
Purchase and retirement of common stock through repurchase program	(568,331)	(1)	(19,149)	—	—	(19,150)
Stock-based compensation	—	—	8,527	—	—	8,527
Other comprehensive loss	—	—	—	(8,903)	—	(8,903)
Net income	—	—	—	—	4,351	4,351
Balances, September 24, 2022	<u>77,265,099</u>	<u>\$ 77</u>	<u>\$ 843,453</u>	<u>\$ (17,899)</u>	<u>\$ (17,329)</u>	<u>\$ 808,302</u>

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

FORMFACTOR, INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands, except shares)
(Unaudited)

	Shares of Common Stock	Common Stock	Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total
Nine Months Ended September 25, 2021						
Balances, December 26, 2020	77,437,997	\$ 78	\$ 903,838	\$ 5,886	\$ (165,718)	\$ 744,084
Issuance of common stock under the Employee Stock Purchase Plan	378,584	—	9,809	—	—	9,809
Issuance of common stock pursuant to exercise of options	100,000	—	844	—	—	844
Issuance of common stock pursuant to vesting of restricted stock units, net of stock withheld for tax	910,838	1	(19,602)	—	—	(19,601)
Purchase and retirement of common stock through repurchase program	(620,200)	(1)	(23,950)	—	—	(23,951)
Stock-based compensation	—	—	21,364	—	—	21,364
Other comprehensive loss	—	—	—	(4,186)	—	(4,186)
Net income	—	—	—	—	58,027	58,027
Balances, September 25, 2021	<u>78,207,219</u>	<u>\$ 78</u>	<u>\$ 892,303</u>	<u>\$ 1,700</u>	<u>\$ (107,691)</u>	<u>\$ 786,390</u>
Three Months Ended September 25, 2021						
Balances, June 26, 2021	77,454,800	\$ 77	\$ 894,062	\$ 3,596	\$ (128,188)	\$ 769,547
Issuance of common stock under the Employee Stock Purchase Plan	149,800	—	4,744	—	—	4,744
Issuance of common stock pursuant to vesting of restricted stock units, net of stock withheld for tax	602,619	1	(14,341)	—	—	(14,340)
Stock-based compensation	—	—	7,838	—	—	7,838
Other comprehensive income	—	—	—	(1,896)	—	(1,896)
Net income	—	—	—	—	20,497	20,497
Balances, September 25, 2021	<u>78,207,219</u>	<u>\$ 78</u>	<u>\$ 892,303</u>	<u>\$ 1,700</u>	<u>\$ (107,691)</u>	<u>\$ 786,390</u>

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

FORMFACTOR, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)
(Unaudited)

	Nine Months Ended	
	September 24, 2022	September 25, 2021
Cash flows from operating activities:		
Net income	\$ 64,465	\$ 58,027
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation	21,189	19,256
Amortization	7,056	16,362
Reduction in the carrying amount of right-of-use assets	5,900	5,412
Stock-based compensation expense	21,873	21,585
Deferred income tax benefit	(6,881)	(873)
Provision for excess and obsolete inventories	16,078	11,621
Non-cash restructuring charges	710	1,592
Gain on contingent consideration	—	(95)
Other adjustments to reconcile net income to net cash provided by operating activities	3,356	2,500
Changes in assets and liabilities:		
Accounts receivable	1,654	1,157
Inventories	(33,023)	(30,335)
Prepaid expenses and other current assets	(2,016)	3,631
Other assets	(117)	(333)
Accounts payable	17,613	1,488
Accrued liabilities	(5,035)	(6,951)
Other liabilities	276	47
Deferred revenues	3,776	2,000
Operating lease liabilities	(5,826)	(5,654)
Net cash provided by operating activities	111,048	100,437
Cash flows from investing activities:		
Acquisition of property, plant and equipment	(39,024)	(51,353)
Acquisition of business	(3,350)	—
Purchases of marketable securities	(80,249)	(114,898)
Purchase of promissory note receivable	(1,000)	—
Proceeds from maturities and sales of marketable securities	71,610	71,275
Net cash used in investing activities	(52,013)	(94,976)
Cash flows from financing activities:		
Proceeds from issuances of common stock	10,499	10,647
Purchase of common stock through stock repurchase program	(73,478)	(23,951)
Tax withholdings related to net share settlements of equity awards	(15,564)	(12,643)
Payment of contingent consideration	—	(3,873)
Principal repayments on term loans	(6,421)	(7,049)
Net cash used in financing activities	(84,964)	(36,869)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(5,708)	(2,216)
Net decrease in cash, cash equivalents and restricted cash	(31,637)	(33,624)
Cash, cash equivalents and restricted cash, beginning of period	155,342	191,098
Cash, cash equivalents and restricted cash, end of period	\$ 123,705	\$ 157,474

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

FORMFACTOR, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)
(Unaudited)

	Nine Months Ended	
	September 24, 2022	September 25, 2021
Non-cash investing and financing activities:		
Increase in accounts payable and accrued liabilities related to property, plant and equipment purchases	\$ 341	\$ 4,684
Increase in accrued liabilities related to tax withholdings related to net share settlements of equity awards	—	6,952
Operating lease, right-of-use assets obtained in exchange for lease obligations	3,457	11,699
Supplemental disclosure of cash flow information:		
Cash paid for income taxes, net	\$ 9,911	\$ 6,795
Cash paid for interest	455	496
Operating cash outflows from operating leases	6,670	6,553
Reconciliation of cash, cash equivalents and restricted cash:		
Cash and cash equivalents	\$ 120,602	\$ 153,781
Restricted cash, current	1,263	2,019
Restricted cash, non-current	1,840	1,674
Total cash, cash equivalents and restricted cash	<u>\$ 123,705</u>	<u>\$ 157,474</u>

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

FORMFACTOR, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

Note 1 — Basis of Presentation and New Accounting Pronouncements

Basis of Presentation

The accompanying condensed consolidated financial information of FormFactor, Inc. is unaudited and has been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) and pursuant to the rules and regulations of the Securities and Exchange Commission (“SEC”). However, such information reflects all adjustments, consisting only of normal recurring adjustments, which are, in the opinion of management, necessary for a fair presentation of the financial position, results of operations and cash flows for the interim periods. The condensed consolidated financial statements included herein should be read in conjunction with the consolidated financial statements and the notes thereto included in our 2021 Annual Report on Form 10-K filed with the SEC on February 18, 2022. The results of operations for the interim periods presented are not necessarily indicative of the results to be expected for the full year.

Fiscal Year

We operate on a 52/53 week fiscal year, whereby the fiscal year ends on the last Saturday of December. Fiscal 2022 and 2021 contain 53 weeks and 52 weeks, respectively, and the nine months ended September 24, 2022 and September 25, 2021 each contained 39 weeks. Fiscal 2022 will end on December 31, 2022.

Significant Accounting Policies

Our significant accounting policies have not changed during the nine months ended September 24, 2022 from those disclosed in our Annual Report on Form 10-K for the year ended December 25, 2021.

Reclassifications

Certain immaterial reclassifications were made to the prior year financial statements to conform to the current year presentation.

New Accounting Pronouncements

ASU 2021-08

In October 2021, the FASB issued ASU 2021-08, Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers. The new guidance requires contract assets and contract liabilities acquired in a business combination to be recognized and measured by the acquirer on the acquisition date in accordance with Accounting Standards Codification 606, “Revenue from Contracts with Customers,” as if it had originated the contracts. The Company elected to early adopt on a prospective basis during the second quarter of fiscal 2022. The adoption did not have a material effect on the Company’s Consolidated Financial Statements.

Note 2 — Concentration of Credit and Other Risks

Each of the following customers accounted for 10% or more of our revenues for the periods indicated:

	Three Months Ended		Nine Months Ended	
	September 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
Intel Corporation	17.0 %	20.8 %	19.7 %	21.7 %
SK Hynix Inc.	10.7	*	*	*
Samsung Electronics., LTD.	*	12.9 %	*	10.5 %
	<u>27.7 %</u>	<u>33.7 %</u>	<u>19.7 %</u>	<u>32.2 %</u>

At September 24, 2022, one customer accounted for 18.1% of gross accounts receivable. At December 25, 2021, one customer accounted for 13.8% of gross accounts receivable.

Note 3 — Inventories, net

Inventories are stated at the lower of cost (principally standard cost, which approximates actual cost on a first in, first out basis) or net realizable value.

Inventories, net, consisted of the following (in thousands):

	September 24, 2022	December 25, 2021
Raw materials	\$ 61,312	\$ 57,673
Work-in-progress	48,439	35,935
Finished goods	22,278	17,940
	<u>\$ 132,029</u>	<u>\$ 111,548</u>

Note 4 — Acquisition

Woburn Acquisition

On June 9, 2022, we acquired the assets of the dilution refrigerator product line of American ULT Cryogenics, formerly d/b/a JanisULT (“Woburn”), for total consideration of \$3.4 million. This acquisition adds cryogen-free dilution refrigerators capable of cooling to sub-10 millikelvin to our product portfolio, which is required for operation of superconducting quantum computers.

The acquisition price was allocated to the tangible and identified intangible assets acquired and liabilities assumed as of the closing date of the acquisition based upon their respective fair values. The fair values assigned to assets acquired and liabilities assumed were based on management’s assumptions as of the reporting date. Goodwill represents the excess of purchase price over the fair value assigned to the assets acquired and liabilities assumed and is allocated to the HPD reporting unit within the Systems reportable segment. The identified intangible asset, developed technology, has a useful life of three years.

Our purchase accounting remains open as of the reporting date, with the purchase price preliminarily allocated to acquired assets and liabilities assumed that are subject to change as more information becomes available. The primary areas of the purchase price allocation that are not yet finalized relate to the valuation of inventories, developed technology intangible asset, and residual goodwill. The preliminary fair value of assets acquired, including goodwill and intangibles, and liabilities assumed for the purchase as follows (in thousands):

	Amount
Accounts receivable	\$ 178
Inventories	7,041
Property, plant and equipment	479
Prepaid expenses and other current assets	117
Other assets	28
Tangible assets acquired	7,843
Deferred revenue	(5,513)
Accounts payable and accrued liabilities	(30)
Total tangible assets acquired and liabilities assumed	2,300
Developed technology intangible asset	500
Goodwill	550
Net assets acquired	<u>\$ 3,350</u>

Note 5 — Goodwill and Intangible Assets

Goodwill by reportable segment was as follows (in thousands):

	Probe Cards	Systems	Total
Goodwill, as of December 26, 2020	\$ 178,072	\$ 34,689	\$ 212,761
Addition - Baldwin Park Acquisition	352	—	352
Addition - HPD Acquisition	—	1,254	1,254
Foreign currency translation	—	(2,068)	(2,068)
Goodwill, as of December 25, 2021	178,424	33,875	212,299
Addition - Woburn Acquisition	—	550	550
Foreign currency translation	—	(3,744)	(3,744)
Goodwill, as of June 25, 2022	\$ 178,424	\$ 30,681	\$ 209,105

We have not recorded goodwill impairments for the nine months ended September 24, 2022.

Intangible assets were as follows (in thousands):

Intangible Assets	September 24, 2022			December 25, 2021		
	Gross	Accumulated Amortization	Net	Gross	Accumulated Amortization	Net
Existing developed technologies	\$ 169,246	\$ 148,916	\$ 20,330	\$ 172,259	\$ 148,784	\$ 23,475
Customer relationships	50,316	43,094	7,222	51,270	39,254	12,016
Trade name	7,835	7,579	256	8,054	7,603	451
Backlog	—	—	—	1,896	1,896	—
In-process research and development	400	—	400	400	—	400
	<u>\$ 227,797</u>	<u>\$ 199,589</u>	<u>\$ 28,208</u>	<u>\$ 233,879</u>	<u>\$ 197,537</u>	<u>\$ 36,342</u>

Amortization expense was included in our Condensed Consolidated Statements of Income as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	September 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
Cost of revenues	\$ 824	\$ 858	\$ 2,420	\$ 11,453
Selling, general and administrative	1,530	1,604	4,636	4,909
	<u>\$ 2,354</u>	<u>\$ 2,462</u>	<u>\$ 7,056</u>	<u>\$ 16,362</u>

The estimated future amortization of definite-lived intangible assets, excluding in-process research and development, is as follows (in thousands):

Fiscal Year	Amount
Remainder of 2022	\$ 2,307
2023	6,944
2024	4,393
2025	4,062
2026	3,011
Thereafter	7,091
	<u>\$ 27,808</u>

Note 6 — Accrued Liabilities

Accrued liabilities consisted of the following (in thousands):

	September 24, 2022	December 25, 2021
Accrued compensation and benefits	\$ 23,398	\$ 29,706
Accrued income and other taxes	11,835	8,086
Accrued warranty	3,806	2,805
Employee stock purchase plan contributions withheld	1,979	4,693
Accrued restructuring charges	—	2,478
Other accrued expenses	5,310	3,068
	<u>\$ 46,328</u>	<u>\$ 50,836</u>

Note 7 — Restructuring Charges

On September 25, 2021, we adopted restructuring plans to improve our business effectiveness and streamline our operations by consolidating certain manufacturing facilities for both the Probe Cards segment and the Systems segment. This included plans to consolidate or relocate certain leased locations in the United States to other locations in the United States, Germany and Asia. As a result of these changes to certain work locations, we have incurred personnel-related costs to sever, relocate, or retain select employees. Additionally, this included plans to adjust capacity for certain product offerings, which resulted in contract termination costs and receipt of inventories ultimately deemed to be impaired to satisfy contract obligations. We expect the actions defined under these plans will be largely completed by the end of December 2022, except facilities charges which may extend beyond that time.

These plans are expected to result in FormFactor recording restructuring and other charges in the aggregate amount of approximately \$10.5 million to \$12.6 million, estimated to be comprised primarily of \$1.0 million to \$1.2 million of severance and employee-related costs, \$1.5 million to \$1.9 million in contract and lease termination costs, \$7.5 million to \$8.5 million in inventory impairments, and \$0.5 million to \$1.0 million of cost related to impairment of leasehold improvements, facility exits, and other costs. Approximately \$8.7 million to \$9.7 million is expected within the Probe Cards segment and \$1.8 million to \$2.9 million is expected within the Systems segments.

The Company has recognized restructuring and other charges to date in the aggregate amount of \$11.2 million, comprised of \$1.2 million of severance and employee-related costs, \$1.5 million in contract and lease termination costs, \$8.0 million in inventory impairments, and \$0.6 million of cost related to impairment of leasehold improvements, facility exits and other costs.

During the three months ended September 24, 2022 we reassessed the estimate for excess inventory received to satisfy our contract obligations from our adjustment of certain product offerings. As a result of receiving additional clarity regarding future customer demand, we recorded an additional \$5.9 million inventory impairment not included in our original estimate of restructuring charges.

Restructuring charges by reportable segment included in our Condensed Consolidated Statements of Income were as follows (in thousands):

	Three Months Ended					
	September 24, 2022			September 25, 2021		
	Probe Cards	Systems	Total	Probe Cards	Systems	Total
Cost of revenues	\$ 5,928	\$ 132	\$ 6,060	\$ 4,070	\$ 252	\$ 4,322
Research and development	38	29	67	—	289	289
Selling, general and administrative	—	47	47	—	22	22
	<u>\$ 5,966</u>	<u>\$ 208</u>	<u>\$ 6,174</u>	<u>\$ 4,070</u>	<u>\$ 563</u>	<u>\$ 4,633</u>
	Nine Months Ended					
	September 24, 2022			September 25, 2021		
	Probe Cards	Systems	Total	Probe Cards	Systems	Total
Cost of revenues	\$ 6,194	\$ 459	\$ 6,653	\$ 4,070	\$ 420	\$ 4,490
Research and development	38	228	266	—	694	694
Selling, general and administrative	3	146	149	—	83	83
	<u>\$ 6,235</u>	<u>\$ 833</u>	<u>\$ 7,068</u>	<u>\$ 4,070</u>	<u>\$ 1,197</u>	<u>\$ 5,267</u>

Changes to the restructuring accrual in the nine months ended September 24, 2022 were as follows (in thousands):

	Employee Severance and Benefits	Inventory Impairments	Property and Equipment Impairments and Move Costs	Contract Termination Costs	Total
December 25, 2021	\$ 1,028	\$ —	\$ —	\$ 1,450	\$ 2,478
Restructuring charges	152	6,580	292	44	7,068
Cash payments	(1,180)	(31)	(228)	(1,494)	(2,933)
Non-cash settlement	—	(6,549)	(64)	—	(6,613)
September 24, 2022	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>

Note 8 — Fair Value and Derivative Instruments

Whenever possible, the fair values of our financial assets and liabilities are determined using quoted market prices of identical securities or quoted market prices of similar securities from active markets. The three levels of inputs that may be used to measure fair value are as follows:

- Level 1 valuations are obtained from real-time quotes for transactions in active exchange markets involving identical securities;
- Level 2 valuations utilize significant observable inputs, such as quoted prices for similar assets or liabilities, quoted prices near the reporting date in markets that are less active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; and
- Level 3 valuations utilize unobservable inputs to the valuation methodology and include our own data about assumptions market participants would use in pricing the asset or liability based on the best information available under the circumstances.

We did not have any transfers of assets or liabilities measured at fair value on a recurring basis to or from Level 1, Level 2 or Level 3 during the three and nine months ended September 24, 2022 or the year ended December 25, 2021.

The carrying values of Cash, Accounts receivable, net, Restricted cash, Prepaid expenses and other current assets, Accounts payable, and Accrued liabilities approximate fair value due to their short maturities.

No changes were made to our valuation techniques during the first nine months of fiscal 2022.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

Assets and liabilities measured at fair value on a recurring basis were as follows (in thousands):

September 24, 2022	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents:				
Money market funds	\$ 27,581	\$ —	\$ —	\$ 27,581
Commercial paper	—	1,398	—	1,398
Corporate bonds	—	2,995	—	2,995
	<u>27,581</u>	<u>4,393</u>	<u>—</u>	<u>31,974</u>
Marketable securities:				
Corporate bonds	—	69,548	—	69,548
U.S. treasuries	32,820	—	—	32,820
Commercial paper	—	16,881	—	16,881
U.S. agency securities	—	11,041	—	11,041
Certificates of deposit	—	701	—	701
	<u>32,820</u>	<u>98,171</u>	<u>—</u>	<u>130,991</u>
Promissory note receivable	—	—	1,019	1,019
Interest rate swap derivative contracts	—	2,420	—	2,420
Total assets	\$ 60,401	\$ 104,984	\$ 1,019	\$ 166,404
Liabilities:				
Foreign exchange derivative contracts	\$ —	\$ (2,457)	\$ —	\$ (2,457)
	<u>—</u>	<u>(2,457)</u>	<u>—</u>	<u>(2,457)</u>
December 25, 2021				
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents:				
Money market funds	\$ 9,526	\$ —	\$ —	\$ 9,526
U.S. agency securities	—	5,556	—	5,556
U.S. treasuries	2,500	—	—	2,500
Commercial paper	—	1,000	—	1,000
	<u>12,026</u>	<u>6,556</u>	<u>—</u>	<u>18,582</u>
Marketable securities:				
Corporate bonds	—	52,709	—	52,709
U.S. treasuries	38,985	—	—	38,985
Commercial paper	—	32,162	—	32,162
Certificates of deposit	—	1,199	—	1,199
	<u>38,985</u>	<u>86,070</u>	<u>—</u>	<u>125,055</u>
Interest rate swap derivative contracts	—	629	—	629
Total assets	\$ 51,011	\$ 93,255	\$ —	\$ 144,266
Liabilities:				
Foreign exchange derivative contracts	\$ —	\$ (489)	\$ —	\$ (489)
Interest rate swap derivative contracts	—	(55)	—	(55)
Total liabilities	\$ —	\$ (544)	\$ —	\$ (544)

Cash Equivalents

The fair value of our cash equivalents is determined based on quoted market prices for similar or identical securities.

Marketable Securities

We classify our marketable securities as available-for-sale and value them utilizing a market approach. Our investments are priced by pricing vendors who provide observable inputs for their pricing without applying significant judgment. Broker pricing is used mainly when a quoted price is not available, the investment is not priced by our pricing vendors or when a broker price

is more reflective of fair value. Our broker-priced investments are categorized as Level 2 investments because fair value is based on similar assets without applying significant judgments. In addition, all investments have a sufficient trading volume to demonstrate that the fair value is appropriate.

Unrealized gains and losses were immaterial and were recorded as a component of Accumulated other comprehensive loss in our Condensed Consolidated Balance Sheets. We did not have any other-than-temporary unrealized gains or losses at either period end included in these financial statements.

Interest Rate Swaps

The fair value of our interest rate swap contracts is determined at the end of each reporting period based on valuation models that use interest rate yield curves as inputs. For accounting purposes, our interest rate swap contracts qualify for, and are designated as, cash flow hedges. The cash flows associated with the interest rate swaps are reported in Net cash provided by operating activities in our Condensed Consolidated Statements of Cash Flows and the fair value of the interest rate swap contracts are recorded within Prepaid expenses and other current assets and Other assets in our Condensed Consolidated Balance Sheets.

Foreign Exchange Derivative Contracts

We operate and sell our products in various global markets. As a result, we are exposed to changes in foreign currency exchange rates. We utilize foreign currency forward contracts to hedge against future movements in foreign exchange rates that affect certain existing foreign currency denominated assets and liabilities and forecasted foreign currency revenue and expense transactions. Under this program, our strategy is to have increases or decreases in our foreign currency exposures mitigated by gains or losses on the foreign currency forward contracts in order to mitigate the risks and volatility associated with foreign currency transaction gains or losses.

We do not use derivative financial instruments for speculative or trading purposes. For accounting purposes, certain of our foreign currency forward contracts are not designated as hedging instruments and, accordingly, we record the fair value of these contracts as of the end of our reporting period in our Condensed Consolidated Balance Sheets with changes in fair value recorded within Other income, net in our Condensed Consolidated Statement of Income for both realized and unrealized gains and losses. Certain of our foreign currency forward contracts are designated as cash flow hedges, and, accordingly, we record the fair value of these contracts as of the end of our reporting period in our Condensed Consolidated Balance Sheets with changes in fair value recorded as a component of Accumulated other comprehensive loss and reclassified into earnings in the same period in which the hedged transaction affects earnings, and in the same line item on the Condensed Consolidated Statements of Income as the impact of the hedge transaction.

The fair value of our foreign exchange derivative contracts was determined based on current foreign currency exchange rates and forward points. All of our foreign exchange derivative contracts outstanding at September 24, 2022 will mature by the third quarter of fiscal 2023.

The following table provides information about our foreign currency forward contracts outstanding as of September 24, 2022 (in thousands):

Currency	Contract Position	Contract Amount (Local Currency)	Contract Amount (U.S. Dollars)
Euro Dollar	Buy	(29,215)	\$ (31,087)
Japanese Yen	Sell	2,145,851	14,995
Korean Won	Buy	(847,855)	(603)
Taiwan Dollar	Sell	27,157	857
Total USD notional amount of outstanding foreign exchange contracts			<u>\$ (15,838)</u>

Our foreign currency contracts are classified within Level 2 of the fair value hierarchy as they are valued using pricing models that utilize observable market inputs.

Assets and Liabilities Measured at Fair Value on a Non-Recurring Basis

We measure and report our non-financial assets such as Property, plant and equipment, Goodwill and Intangible assets at fair value on a non-recurring basis if we determine these assets to be impaired or in the period when we make a business acquisition. Other than as discussed in Note 4, *Acquisition*, and Note 7, *Restructuring Charges*, there were no assets or liabilities measured at fair value on a nonrecurring basis during the three and nine months ended September 24, 2022 or September 25, 2021.

Note 9 — Warranty

We offer warranties on certain products and record a liability for the estimated future costs associated with warranty claims at the time revenue is recognized. The warranty liability is based upon historical experience and our estimate of the level of future costs. While we engage in product quality programs and processes, our warranty obligation is affected by product failure rates, material usage and service delivery costs. We regularly monitor product returns for warranty and maintain a reserve for the related expenses based upon our historical experience and any specifically identified failures. As we sell new products to our customers, we must exercise considerable judgment in estimating the expected failure rates. This estimating process is based on historical experience of similar products, as well as various other assumptions that we believe to be reasonable under the circumstances. We provide for the estimated cost of product warranties at the time revenue is recognized as a component of Cost of revenues in our Condensed Consolidated Statement of Income.

Changes in our warranty liability were as follows (in thousands):

	Nine Months Ended	
	September 24, 2022	September 25, 2021
Balance at beginning of period	\$ 2,805	\$ 3,918
Accruals	5,653	4,688
Settlements	(4,652)	(5,803)
Balance at end of period	<u>\$ 3,806</u>	<u>\$ 2,803</u>

Note 10 — Property, Plant and Equipment, net

Property, plant and equipment, net consisted of the following (in thousands):

	September 24, 2022	December 25, 2021
Land	\$ 4,751	\$ 4,751
Building and building improvements	44,447	41,722
Machinery and equipment	267,612	252,632
Computer equipment and software	45,533	44,667
Furniture and fixtures	7,375	7,293
Leasehold improvements	83,682	82,266
Sub-total	453,400	433,331
Less: Accumulated depreciation and amortization	(327,884)	(312,700)
Net, property, plant and equipment	125,516	120,631
Construction-in-process	37,868	25,924
Total	<u>\$ 163,384</u>	<u>\$ 146,555</u>

Note 11 — Stockholders' Equity and Stock-Based Compensation**Common Stock Repurchase Programs**

On October 26, 2020, our Board of Directors authorized a two-year program to repurchase up to \$50 million of outstanding common stock to offset potential dilution from issuances of common stock under our stock-based compensation programs. During fiscal 2021 we repurchased and retired 622,400 shares of common stock for \$24.0 million. During the nine months ended September 24, 2022, we repurchased and retired 676,408 shares of common stock for \$26.0 million, utilizing the remaining funds available for repurchase.

On May 20, 2022, our Board of Directors authorized an additional program to repurchase up to \$75 million of outstanding common stock, also with the primary purpose to offset potential dilution from issuances of common stock under our stock-based compensation programs. The share repurchase program will expire on May 20, 2024. During the nine months ended September 24, 2022, we repurchased and retired 1,335,414 shares of common stock for \$47.5 million under the program. As of September 24, 2022, \$27.5 million remained available for future repurchases.

Our policy related to repurchases of our common stock is to charge the excess of cost over par value to additional paid-in capital once the shares are retired. All repurchases were made in compliance with Rule 10b-18 under the Securities Exchange Act of 1934, as amended.

Restricted Stock Units

Restricted stock unit (“RSU”) activity under our equity incentive plan was as follows:

	Units	Weighted Average Grant Date Fair Value
RSUs at December 25, 2021	2,166,934	\$ 28.63
Awards granted	1,338,278	34.95
Awards vested	(1,133,782)	22.45
Awards forfeited	(66,279)	31.07
RSUs at September 24, 2022	<u>2,305,151</u>	<u>35.27</u>

Performance Restricted Stock Units

We may grant Performance RSUs (“PRSUs”) to certain executives, which vest based upon us achieving certain market performance criteria.

On August 1, 2022, we granted 204,903 PRSUs to certain senior executives for a total grant date fair value of \$8.6 million which will be recognized ratably over the requisite service period. The performance criteria are based on Total Shareholder Returns (“TSR”) for the period of July 1, 2022 - June 30, 2025, relative to the TSR of the companies identified as being part of the S&P Semiconductors Select Industry Index (FormFactor peer companies) as of the grant date.

Of the 273,000 PRSUs granted in fiscal 2019, 36,000 shares were forfeited, resulting in 237,000 shares vesting in 2022. These shares achieved 147% TSR performance, which resulted in an additional 110,605 shares issued in fiscal 2022 related to the fiscal 2019 PRSU grant.

PRSUs are included as part of the RSU activity above.

Employee Stock Purchase Plan

Information related to activity under our Employee Stock Purchase Plan (“ESPP”) was as follows:

	Nine Months Ended September 24, 2022
Shares issued	316,861
Weighted average per share purchase price	\$ 33.00
Weighted average per share discount from the fair value of our common stock on the date of issuance	\$ (6.13)

Stock-Based Compensation

Stock-based compensation was included in our Condensed Consolidated Statements of Income as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	September 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
Cost of revenues	\$ 1,022	\$ 1,392	\$ 2,834	\$ 3,806
Research and development	2,027	2,010	5,708	5,362
Selling, general and administrative	4,946	4,518	13,331	12,417
Total stock-based compensation	<u>\$ 7,995</u>	<u>\$ 7,920</u>	<u>\$ 21,873</u>	<u>\$ 21,585</u>

Unrecognized Compensation Costs

At September 24, 2022, the unrecognized stock-based compensation was as follows (dollars in thousands):

	Unrecognized Expense	Average Expected Recognition Period in Years
Restricted stock units	\$ 54,872	2.31
Performance restricted stock units	14,239	2.25
Employee stock purchase plan	1,694	0.36
Total unrecognized stock-based compensation expense	<u>\$ 70,805</u>	<u>2.25</u>

Note 12 — Net Income per Share

The following table reconciles the shares used in calculating basic net income per share and diluted net income per share (in thousands):

	Three Months Ended		Nine Months Ended	
	September 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
Weighted-average shares used in computing basic net income per share	77,245	77,869	77,796	77,643
Add potentially dilutive securities	443	1,160	696	1,547
Weighted-average shares used in computing diluted net income per share	<u>77,688</u>	<u>79,029</u>	<u>78,492</u>	<u>79,190</u>
Securities not included as they would have been antidilutive	<u>897</u>	<u>121</u>	<u>266</u>	<u>109</u>

Note 13 — Commitments and Contingencies

Leases

See Note 14, *Leases*.

Contractual Obligations and Commitments

Our contractual obligations and commitments have not materially changed as of September 24, 2022 from those disclosed in our Annual Report on Form 10-K for the year ended December 25, 2021.

Legal Matters

From time to time, we may be subject to legal proceedings and claims in the ordinary course of business. As of September 24, 2022, and as of the filing of this Quarterly Report on Form 10-Q, we were not involved in any material legal proceedings.

Note 14 — Leases

We lease real estate space under non-cancelable operating lease agreements for commercial and industrial space, as well as for a portion of our corporate headquarters located in Livermore, California. Our leases have remaining terms of 1 to 6 years, and some leases include options to extend up to 20 years. We also have operating leases for automobiles with remaining lease terms of 1 to 3 years. We did not include any of our renewal options in our lease terms for calculating our lease liability as the renewal options allow us to maintain operational flexibility and we are not reasonably certain we will exercise these options at this time. The weighted-average remaining lease term for our operating leases was 5 years as of September 24, 2022 and the weighted-average discount rate was 3.75%.

The components of lease expense were as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	September 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
Lease expense:				
Operating lease expense	\$ 2,118	\$ 2,167	\$ 6,522	\$ 6,338
Short-term lease expense	135	51	251	133
Variable lease expense	590	461	1,725	1,424
	<u>\$ 2,843</u>	<u>\$ 2,679</u>	<u>\$ 8,498</u>	<u>\$ 7,895</u>

Future minimum payments under our non-cancelable operating leases were as follows as of September 24, 2022 (in thousands):

Fiscal Year	Amount
Remainder of 2022	\$ 4,275
2023	7,545
2024	7,236
2025	7,170
2026	6,450
Thereafter	9,042
Total minimum lease payments	41,718
Less: interest	(6,161)
Present value of net minimum lease payments	35,557
Less: current portion	(7,699)
Total long-term operating lease liabilities	<u>\$ 27,858</u>

Note 15 — Revenue

Transaction price allocated to the remaining performance obligations: On September 24, 2022, we had \$8.3 million of remaining performance obligations, which were comprised of deferred service contracts and extended warranty contracts and contracts with overtime revenue recognition that are not yet delivered. We expect to recognize approximately 40.0% of our remaining performance obligations as revenue in the remainder of fiscal 2022, approximately 49.8% in fiscal 2023, and approximately 10.2% in fiscal 2024 and thereafter. The foregoing excludes the value of other remaining performance obligations as they have original durations of one year or less, and also excludes information about variable consideration allocated entirely to a wholly unsatisfied performance obligation.

Contract balances: The timing of revenue recognition may differ from the timing of invoicing to customers. Accounts receivable is recorded at the invoiced amount, net of an allowance for credit losses. A receivable is recognized in the period we deliver goods or provide services or when our right to consideration is unconditional. A contract asset is recorded when we have performed under the contract but our right to consideration is conditional on something other than the passage of time. Contract assets as of September 24, 2022 and December 25, 2021 were \$3.0 million and \$0.9 million, respectively, and are reported on the Condensed Consolidated Balance Sheets as a component of Prepaid expenses and other current assets.

Contract liabilities include payments received and payments due in advance of performance under a contract and are satisfied as the associated revenue is recognized. Contract liabilities are reported on the Condensed Consolidated Balance Sheets at the end of each reporting period as a component of Deferred revenue and Other liabilities. Contract liabilities as of September 24, 2022 and December 25, 2021 were \$33.1 million and \$24.2 million, respectively. During the nine months ended September 24, 2022, we recognized \$19.0 million of revenue that was included in contract liabilities as of December 25, 2021.

Costs to obtain a contract: We generally expense sales commissions when incurred as a component of Selling, general and administrative expense, as the amortization period is typically less than one year.

Revenue by Category: Refer to Note 16, *Operating Segments and Enterprise-Wide Information*, for further details.

Note 16 — Operating Segments and Enterprise-Wide Information

Our chief operating decision maker (“CODM”) is our Chief Executive Officer, who reviews operating results to make decisions about allocating resources and assessing performance for the entire company. We operate in two reportable segments consisting of the Probe Cards segment and the Systems segment. The following table summarizes the operating results by reportable segment (dollars in thousands):

	Three Months Ended							
	September 24, 2022				September 25, 2021			
	Probe Cards	Systems	Corporate and Other	Total	Probe Cards	Systems	Corporate and Other	Total
Revenues	\$ 139,365	\$ 41,504	\$ —	\$ 180,869	\$ 154,850	\$ 35,114	\$ —	\$ 189,964
Gross profit	48,252	22,284	(8,323)	62,213	69,868	17,553	(7,202)	80,219
Gross margin	34.6 %	53.7 %		34.4 %	45.1 %	50.0 %		42.2 %

	Nine Months Ended							
	September 24, 2022				September 25, 2021			
	Probe Cards	Systems	Corporate and Other	Total	Probe Cards	Systems	Corporate and Other	Total
Revenues	\$ 467,056	\$ 114,894	\$ —	\$ 581,950	\$ 467,389	\$ 97,287	\$ —	\$ 564,676
Gross profit	203,874	59,967	(13,035)	250,806	206,783	48,059	(21,634)	233,208
Gross margin	43.7 %	52.2 %		43.1 %	44.2 %	49.4 %		41.3 %

Operating results provide useful information to our management for assessment of our performance and results of operations. Certain components of our operating results are utilized to determine executive compensation along with other measures.

Corporate and Other includes unallocated expenses relating to amortization of intangible assets, inventory and fixed asset fair value adjustments due to acquisitions, share-based compensation, and restructuring charges which are not used in evaluating the results of, or in allocating resources to, our reportable segments.

Certain revenue category information by reportable segment was as follows (in thousands):

	Three Months Ended					
	September 24, 2022			September 25, 2021		
	Probe Cards	Systems	Total	Probe Cards	Systems	Total
Market:						
Foundry & Logic	\$ 90,605	\$ —	\$ 90,605	\$ 104,640	\$ —	\$ 104,640
DRAM	34,922	—	34,922	39,816	—	39,816
Flash	13,838	—	13,838	10,394	—	10,394
Systems	—	41,504	41,504	—	35,114	35,114
Total	\$ 139,365	\$ 41,504	\$ 180,869	\$ 154,850	\$ 35,114	\$ 189,964
Timing of revenue recognition:						
Products transferred at a point in time	\$ 138,602	\$ 37,842	\$ 176,444	\$ 154,217	\$ 33,564	\$ 187,781
Products and services transferred over time	763	3,662	4,425	633	1,550	2,183
Total	\$ 139,365	\$ 41,504	\$ 180,869	\$ 154,850	\$ 35,114	\$ 189,964
Geographical region:						
United States	\$ 25,909	\$ 12,180	\$ 38,089	\$ 18,530	\$ 6,938	\$ 25,468
Taiwan	32,227	4,611	36,838	34,100	7,474	41,574
China	27,973	8,755	36,728	46,011	5,036	51,047
South Korea	28,118	819	28,937	27,895	1,077	28,972
Europe	3,682	8,116	11,798	3,595	6,891	10,486
Singapore	7,983	2,374	10,357	6,841	711	7,552
Japan	4,533	3,159	7,692	5,767	4,961	10,728
Malaysia	6,272	237	6,509	11,353	280	11,633
Rest of the world	2,668	1,253	3,921	758	1,746	2,504
Total	\$ 139,365	\$ 41,504	\$ 180,869	\$ 154,850	\$ 35,114	\$ 189,964

	Nine Months Ended					
	September 24, 2022			September 25, 2021		
	Probe Cards	Systems	Total	Probe Cards	Systems	Total
Market:						
Foundry & Logic	\$ 327,106	\$ —	\$ 327,106	\$ 321,776	\$ —	\$ 321,776
DRAM	106,202	—	106,202	115,802	—	115,802
Flash	33,748	—	33,748	29,811	—	29,811
Systems	—	114,894	114,894	—	97,287	97,287
Total	\$ 467,056	\$ 114,894	\$ 581,950	\$ 467,389	\$ 97,287	\$ 564,676
Timing of revenue recognition:						
Products transferred at a point in time	\$ 464,139	\$ 106,339	\$ 570,478	\$ 465,822	\$ 89,119	\$ 554,941
Products and services transferred over time	2,917	8,555	11,472	1,567	8,168	9,735
Total	\$ 467,056	\$ 114,894	\$ 581,950	\$ 467,389	\$ 97,287	\$ 564,676
Geographical region:						
Taiwan	\$ 119,937	\$ 19,990	\$ 139,927	\$ 125,571	\$ 13,467	\$ 139,038
China	101,342	23,520	124,862	107,838	17,661	125,499
United States	67,424	27,554	94,978	64,012	23,592	87,604
South Korea	80,417	4,776	85,193	81,322	2,912	84,234
Malaysia	43,946	1,006	44,952	34,275	483	34,758
Singapore	23,398	4,963	28,361	23,070	3,002	26,072
Europe	9,888	18,396	28,284	12,894	19,601	32,495
Japan	16,034	10,977	27,011	14,493	13,260	27,753
Rest of the world	4,670	3,712	8,382	3,914	3,309	7,223
Total	\$ 467,056	\$ 114,894	\$ 581,950	\$ 467,389	\$ 97,287	\$ 564,676

Note 17 — Subsequent Events

On October 25, 2022, we adopted a restructuring plan to align our cost structure with reduced demand levels within the Probe Cards segment by streamlining and improving the efficiency and business effectiveness of our operations. The plan includes lowering headcount by approximately 13% of our workforce, which is expected to result in recognizing restructuring charges of approximately \$6.6 million in cash, consisting of severance and employee-related costs. We expect the actions defined under this plan will be largely completed by the end of the fourth quarter of fiscal 2022. Upon completion, this action is expected to reduce our cost structure by approximately \$25 to \$30 million on an annualized basis.

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

Cautionary Statement Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of the Securities Exchange Act of 1934 and the Securities Act of 1933, which are subject to risks and uncertainties. The forward-looking statements include statements concerning, among other things, our business strategy, financial and operating results, gross margins, liquidity and capital expenditure requirements and impact of accounting standards. In some cases, you can identify these statements by forward-looking words, such as “may,” “might,” “will,” “could,” “should,” “expect,” “plan,” “anticipate,” “believe,” “estimate,” “predict,” “intend” and “continue,” the negative or plural of these words and other comparable terminology.

The forward-looking statements are only predictions based on our current expectations and our projections about future events. All forward-looking statements included in this Quarterly Report on Form 10-Q are based upon information available to us as of the filing date of this Quarterly Report on Form 10-Q. You should not place undue reliance on these forward-looking statements. We have no obligation to update any of these statements. These forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to differ materially from those expressed or implied by these statements, including risks related to general market trends, the benefits of acquisitions and investments, our supply chain, uncertainties related to COVID-19 and other global, regional or national public health-related crises and the impact of our responses to them, the interpretation and impacts of changes in export controls and other trade barriers, military conflicts, political volatility and similar factors, our ability to execute our business strategy and other risks discussed in the section titled “Risk Factors” and elsewhere in our Annual Report on Form 10-K for the

year ended December 25, 2021 and in this Quarterly Report on Form 10-Q. You should carefully consider the numerous risks and uncertainties described under these sections.

The following discussion and analysis should be read in conjunction with our condensed consolidated financial statements and the accompanying notes contained in this Quarterly Report on Form 10-Q. Unless expressly stated or the context otherwise requires, the terms “we,” “our,” “us” and “FormFactor” refer to FormFactor, Inc. and its subsidiaries.

Overview

FormFactor, Inc., headquartered in Livermore, California, is a leading provider of essential test and measurement technologies along the full semiconductor product lifecycle - from characterization, modeling, reliability, and design de-bug, to qualification and production test. We provide a broad range of high-performance probe cards, analytical probes, probe stations, metrology systems, thermal systems, and cryogenic systems to both semiconductor companies and scientific institutions. Our products provide electrical and physical information from a variety of semiconductor and electro-optical devices and integrated circuits from early research, through development, to high-volume production. Customers use our products and services to accelerate profitability by optimizing device performance and advancing yield knowledge.

We operate in two reportable segments consisting of the Probe Cards segment and the Systems segment. Sales of our probe cards and analytical probes are included in the Probe Cards segment, while sales of our probe stations, metrology systems, thermal systems and cryogenic systems are included in the Systems segment.

We generated net income of \$64.5 million in the first nine months of fiscal 2022 as compared to \$58.0 million in the first nine months of fiscal 2021. The increase in net income was primarily due to increased revenue with improved gross margins from a reduction in the amortization of intangibles due to significant intangibles becoming fully amortized, partially offset by higher operating expenses. The first half of fiscal 2022 was strong, realizing \$60.1 million of the \$64.5 million net income in the first nine months of fiscal 2022 with \$401.1 million in revenue and 47.0% gross margins. For the third quarter of fiscal 2022, we generated net income of \$4.4 million with \$180.9 million in revenue and 34.4% gross margins, which was a significant decline in results after a strong first half.

In October 2022, the United States government imposed new controls, including expanded export license requirements that significantly impact trade with China for advanced U.S. semiconductor technology sold in China. The impact of this on our business is still being evaluated and updated guidance is being provided by the U.S. Government on an ongoing basis and subject to change. We expect these regulatory conditions, on top of the slowing business environment seen in the third quarter of fiscal 2022, to negatively impact our financial results over the next few quarters. Given the rapidly evolving situation, the impacts beyond that time frame are uncertain.

Significant Accounting Policies and the Use of Estimates

Management’s Discussion and Analysis and Note 2, *Summary of Significant Accounting Policies*, to the Consolidated Financial Statements in our 2021 Annual Report on Form 10-K describe the significant accounting estimates and significant accounting policies used in preparation of the Consolidated Financial Statements. Actual results in these areas could differ from management’s estimates. During the nine months ended September 24, 2022, there were no significant changes in our significant accounting policies or estimates from those reported in our Annual Report on Form 10-K for the year ended December 25, 2021, which was filed with the Securities and Exchange Commission on February 18, 2022.

Results of Operations

The following table sets forth our operating results as a percentage of revenues for the periods indicated:

	Three Months Ended		Nine Months Ended	
	September 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
Revenues	100.0 %	100.0 %	100.0 %	100.0 %
Cost of revenues	65.6	57.8	56.9	58.7
Gross profit	34.4	42.2	43.1	41.3
Operating expenses:				
Research and development	14.7	13.7	14.1	13.4
Selling, general and administrative	17.5	16.3	16.8	16.2
Total operating expenses	32.2	30.0	30.9	29.6
Operating income	2.2	12.2	12.2	11.7
Interest income	0.4	0.1	0.2	0.1
Interest expense	(0.1)	(0.1)	(0.1)	(0.1)
Other income, net	0.6	0.1	0.3	—
Income before income taxes	3.1	12.3	12.6	11.7
Provision for income taxes	0.7	1.5	1.5	1.4
Net income	2.4 %	10.8 %	11.1 %	10.3 %

Revenues by Segment and Market

	Three Months Ended		Nine Months Ended	
	September 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
	(In thousands)			
Probe Cards	\$ 139,365	\$ 154,850	\$ 467,056	\$ 467,389
Systems	41,504	35,114	114,894	97,287
	<u>\$ 180,869</u>	<u>\$ 189,964</u>	<u>\$ 581,950</u>	<u>\$ 564,676</u>

	Three Months Ended					
	September 24, 2022	% of Revenues	September 25, 2021	% of Revenues	\$ Change	% Change
(Dollars in thousands)						
Probe Cards Markets:						
Foundry & Logic	\$ 90,605	50.1 %	\$ 104,640	55.1 %	\$ (14,035)	(13.4)%
DRAM	34,922	19.3	39,816	20.9	(4,894)	(12.3)
Flash	13,838	7.7	10,394	5.5	3,444	33.1
Systems Market:						
Systems	41,504	22.9	35,114	18.5	6,390	18.2
Total revenues	\$ 180,869	100.0 %	\$ 189,964	100.0 %	\$ (9,095)	(4.8)%
(Dollars in thousands)						
	Nine Months Ended					
	September 24, 2022	% of Revenues	September 25, 2021	% of Revenues	\$ Change	% Change
(Dollars in thousands)						
Probe Cards Markets:						
Foundry & Logic	\$ 327,106	56.3 %	\$ 321,776	57.0 %	\$ 5,330	1.7 %
DRAM	106,202	18.2	115,802	20.5	(9,600)	(8.3)
Flash	33,748	5.8	29,811	5.3	3,937	13.2
Systems Market:						
Systems	114,894	19.7	97,287	17.2	17,607	18.1
Total revenues	\$ 581,950	100.0 %	\$ 564,676	100.0 %	\$ 17,274	3.1 %

Foundry & Logic

The decrease in Foundry & Logic product revenue for the three months ended September 24, 2022, compared to the three months ended September 25, 2021, was driven principally by softening demand for the second half of fiscal 2022 causing decreased unit sales to integrated device manufacturers, offset slightly by increased demand at large semiconductor foundries.

Foundry & Logic product revenue increased slightly for the nine months ended September 24, 2022, compared to the nine months ended September 25, 2021. Although a slight increase year-over-year, demand has weakened from the slowdown in the semiconductor industry for the second half of fiscal 2022, and as previously described within the Overview.

DRAM

The decrease in DRAM product revenue for the three and nine months ended September 24, 2022, compared to the three and nine months ended September 25, 2021, was driven by decreased design wins and customer demand.

Flash

The increase in Flash product revenue for the three and nine months ended September 24, 2022, compared to the three and nine months ended September 25, 2021, was driven by increased customer demand.

Systems

The increase in Systems market revenue for the three months ended September 24, 2022, compared to the three months ended September 25, 2021, was driven by increased sales of our 200 and 300 millimeter probe stations and cryogenic systems.

The increase in Systems market revenue for the nine months ended September 24, 2022, compared to the nine months ended September 25, 2021, was driven by increased sales of our 200 and 300 millimeter probe stations and metrology systems.

Revenues by Geographic Region

	Three Months Ended				Nine Months Ended			
	September 24, 2022	% of Revenue	September 25, 2021	% of Revenue	September 24, 2022	% of Revenue	September 25, 2021	% of Revenue
(Dollars in thousands)								
Taiwan	\$ 36,838	20.4 %	\$ 41,574	21.9 %	\$ 139,927	24.0 %	\$ 139,038	24.6 %
China	36,728	20.3	51,047	26.8	124,862	21.5	125,499	22.2
United States	38,089	21.1	25,468	13.4	94,978	16.3	87,604	15.5
South Korea	28,937	16.0	28,972	15.3	85,193	14.6	84,234	14.9
Malaysia	6,509	3.6	11,633	6.1	44,952	7.7	34,758	6.2
Singapore	10,357	5.7	7,552	4.0	28,361	4.9	26,072	4.6
Europe	11,798	6.5	10,486	5.5	28,284	4.9	32,495	5.8
Japan	7,692	4.3	10,728	5.6	27,011	4.6	27,753	4.9
Rest of the world	3,921	2.1	2,504	1.4	8,382	1.5	7,223	1.3
Total revenues	<u>\$ 180,869</u>	<u>100.0 %</u>	<u>\$ 189,964</u>	<u>100.0 %</u>	<u>\$ 581,950</u>	<u>100.0 %</u>	<u>\$ 564,676</u>	<u>100.0 %</u>

Geographic revenue information is based on the location to which we ship the product. For example, if a certain South Korean customer purchases through their U.S. subsidiary and requests the products to be shipped to an address in South Korea, this sale will be reflected in the revenue for South Korea rather than the U.S.

Changes in revenue by geographic region for the three and nine months ended September 24, 2022, compared to the three and nine months ended September 25, 2021, were primarily attributable to changes in customer demand, shifts in customer regional manufacturing strategies, particularly with our large multinational customers, and product sales mix. More specifically, the increase in revenues for the United States, and decreases in revenues for China and Malaysia were driven principally by a single large U.S.-based company with operations in these regions. The decrease in China mentioned previously was partially offset by increased demand from a large Chinese DRAM integrated device manufacturer.

Cost of Revenues and Gross Margins

Cost of revenues consists primarily of manufacturing materials, compensation and benefits, shipping and handling costs, manufacturing-related overhead and amortization of certain intangible assets. Our manufacturing operations rely on a limited number of suppliers to provide key components and materials for our products, some of which are a sole source. We order materials and supplies based on backlog and forecasted customer orders. Tooling and setup costs related to changing manufacturing lots at our suppliers are also included in the cost of revenues. We expense all warranty costs, inventory provisions and amortization of certain intangible assets as cost of revenues.

Our gross profit and gross margin were as follows (dollars in thousands):

	Three Months Ended			
	September 24, 2022	September 25, 2021	\$ Change	% Change
Gross profit	\$ 62,213	\$ 80,219	\$ (18,006)	(22.4)%
Gross margin	34.4 %	42.2 %		
	Nine Months Ended			
	September 24, 2022	September 25, 2021	\$ Change	% Change
Gross profit	\$ 250,806	\$ 233,208	\$ 17,598	7.5 %
Gross margin	43.1 %	41.3 %		

Our gross profit and gross margin by segment were as follows (dollars in thousands):

	Three Months Ended							
	September 24, 2022				September 25, 2021			
	Probe Cards	Systems	Corporate and Other	Total	Probe Cards	Systems	Corporate and Other	Total
Gross profit	\$ 48,252	\$ 22,284	\$ (8,323)	\$ 62,213	\$ 69,868	\$ 17,553	\$ (7,202)	\$ 80,219
Gross margin	34.6 %	53.7 %		34.4 %	45.1 %	50.0 %		42.2 %

	Nine Months Ended							
	September 24, 2022				September 25, 2021			
	Probe Cards	Systems	Corporate and Other	Total	Probe Cards	Systems	Corporate and Other	Total
Gross profit	\$ 203,874	\$ 59,967	\$ (13,035)	\$ 250,806	\$ 206,783	\$ 48,059	\$ (21,634)	\$ 233,208
Gross margin	43.7 %	52.2 %		43.1 %	44.2 %	49.4 %		41.3 %

Probe Cards

For the three months ended September 24, 2022, gross margins decreased compared to the three months ended September 25, 2021, primarily due to greater inventory excess and obsolescence reserves, higher net manufacturing spending driven by higher labor and overhead costs, and lower standard margins related to a less favorable product mix. For the nine months ended September 24, 2022, gross margins decreased compared to the nine months ended September 25, 2021, primarily due to higher net manufacturing spending driven by higher labor and overhead costs, partially offset by improved standard margins related to a more favorable product mix.

Systems

For the three and nine months ended September 24, 2022, gross margins increased compared to the three and nine months ended September 25, 2021, primarily as a result of a more favorable product mix and improved leverage on fixed costs at higher revenues.

Corporate and Other

Corporate and Other includes unallocated expenses relating to share-based compensation and amortization of intangible assets, inventory and fixed asset fair value adjustments due to acquisitions, and restructuring which are not used in evaluating the results of, or in allocating resources to, our reportable segments.

The increase in Corporate and Other for the three months ended September 24, 2022 compared to the three months ended September 25, 2021 is primarily due to increased restructuring charges arising from a change in estimate of excess and obsolete inventories related to our third quarter of fiscal 2021 plan to adjust capacity for certain product offerings, partially offset by a reduction in the amortization of intangibles resulting from significant intangibles becoming fully amortized.

The decrease in Corporate and Other for the nine months ended September 24, 2022 compared to the nine months ended September 25, 2021 is primarily due to a reduction in the amortization of intangibles resulting from significant intangibles becoming fully amortized, partially offset by increased restructuring charges in the third quarter of fiscal 2022 arising from a change in estimate of excess and obsolete inventories related to our fiscal 2021 plan to adjust capacity for certain product offerings.

Overall

Gross profit and gross margins fluctuate with revenue levels, product mix, selling prices, factory loading, labor costs, and material costs. For the three months ended September 24, 2022, compared to the three months ended September 25, 2021, gross profit and gross margins have decreased on lower revenue levels, a less favorable Probe Cards segment product mix, increased labor, overhead, and inventory excess and obsolescence reserves, and less amortization of intangibles. For the nine months ended September 24, 2022, compared to the nine months ended September 25, 2021, gross profit and gross margins have increased on higher revenue levels, improved product mix, and less amortization of intangibles, partially offset by higher labor and overhead costs.

Cost of revenues included stock-based compensation expense as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	September 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
Stock-based compensation	\$ 1,022	\$ 1,392	\$ 2,834	\$ 3,806

Research and Development

	Three Months Ended			
	September 24, 2022	September 25, 2021	\$ Change	% Change
	(Dollars in thousands)			
Research and development	\$ 26,549	\$ 26,026	\$ 523	2.0 %
% of revenues	14.7 %	13.7 %		

	Nine Months Ended			
	September 24, 2022	September 25, 2021	\$ Change	% Change
	(Dollars in thousands)			
Research and development	\$ 82,000	\$ 75,526	\$ 6,474	8.6 %
% of revenues	14.1 %	13.4 %		

Research and development expenses in the three months ended September 24, 2022 increased slightly when compared to the corresponding period in the prior year primarily due to an increase in headcount, which increased allocated costs within Other general operations. This increase was partially offset by a net decrease in employee compensation due to a decrease in performance based compensation, net of an increase in employee compensation due to annual salary adjustments. For the nine months ended September 24, 2022 when compared to the corresponding period in the prior year there was an increase in research and development expenses primarily driven by an increase in headcount which is to support our continued investment in technology leadership. Increased general operational costs, annual salary adjustments, project material costs, and stock-based compensation also contributed to the increase.

A detail of the changes is as follows (in thousands):

	Three Months Ended September 24, 2022 compared to Three Months Ended September 25, 2021	Nine Months Ended September 24, 2022 compared to Nine Months Ended September 25, 2021
Other general operations	\$ 1,700	\$ 4,168
Project material costs	249	850
Depreciation	70	(9)
Stock-based compensation	17	346
Restructuring charges	(222)	(428)
Employee compensation costs	(1,291)	1,547
	\$ 523	\$ 6,474

Research and development included stock-based compensation expense as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	September 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
Stock-based compensation	\$ 2,027	\$ 2,010	\$ 5,708	\$ 5,362

Selling, General and Administrative

	Three Months Ended			
	September 24, 2022	September 25, 2021	\$ Change	% Change
	(Dollars in thousands)			
Selling, general and administrative	\$ 31,637	\$ 30,940	\$ 697	2.3 %
% of revenues	17.5 %	16.3 %		
	Nine Months Ended			
	September 24, 2022	September 25, 2021	\$ Change	% Change
	(Dollars in thousands)			
Selling, general and administrative	\$ 97,949	\$ 91,434	\$ 6,515	7.1 %
% of revenues	16.8 %	16.2 %		

Selling, general and administrative expenses increased in the three and nine months ended September 24, 2022 when compared to the corresponding period in the prior year, primarily driven by increased headcount, annual salary adjustments, increased travel related costs as restrictions related to COVID-19 relaxed, and higher stock-based compensation. Furthermore, the increase for the three months ended September 24, 2022 when compared to the corresponding period in the prior year was partially offset by lower performance based compensation.

A detail of the changes is as follows (in thousands):

	Three Months Ended September 24, 2022 compared to Three Months Ended September 25, 2021	Nine Months Ended September 24, 2022 compared to Nine Months Ended September 25, 2021
Travel related costs	\$ 583	\$ 2,257
General operating expenses	576	2,046
Stock-based compensation	428	914
Restructure	25	66
Consulting fees	19	(319)
Amortization of intangibles	(73)	(273)
Employee compensation costs	(861)	1,824
	\$ 697	\$ 6,515

Selling, general and administrative included stock-based compensation expense as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	September 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
Stock-based compensation	\$ 4,946	\$ 4,518	\$ 13,331	\$ 12,417

Interest Income and Interest Expense

Interest income is earned on our cash, cash equivalents, restricted cash and marketable securities. The increase in interest income for the three and nine months ended September 24, 2022 compared with the corresponding period of the prior year was attributable to an increase in investment yields due to the higher interest rate environment.

Interest expense primarily includes interest on our term loans, interest rate swap derivative contracts, and term loan issuance costs amortization charges. The interest expense for the three and nine months ended September 24, 2022 compared to the same period of the prior year remained consistent despite a lower outstanding debt due to increased average interest rates on the outstanding debt.

Other Income, Net

Other income, net, primarily includes the effects of foreign currency impact and various other gains and losses. We partially mitigate our risks from currency movements by hedging certain balance sheet exposures, which minimizes the impacts during periods of foreign exchange volatility.

Provision for Income Taxes

	Three Months Ended		Nine Months Ended	
	September 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
	(In thousands, except percentages)			
Provision for income taxes	\$ 1,274	\$ 2,784	\$ 8,860	\$ 8,273
Effective tax rate	22.6 %	12.0 %	12.1 %	12.5 %

Provision for income taxes reflects the tax provision on our operations in foreign and U.S. jurisdictions, offset by tax benefits from tax credits and the foreign-derived intangible income (“FDII”) deduction. Our effective tax rate may vary from period to period based on changes in estimated taxable income or loss by jurisdiction, changes to the valuation allowance, changes to U.S. federal, state or foreign tax laws, changes in ASC 718 stock-based compensation expense/benefit, future expansion into areas with varying country, state, and local income tax rates, and deductibility of certain costs and expenses by jurisdiction.

We have utilized our previous net operating loss carryforwards, and expect the FDII deduction and corresponding benefit to be available, resulting in a decrease from the U.S. statutory rate for the year ending December 31, 2022.

The increase in the effective tax rate in the three months ended September 24, 2022 when compared to the corresponding period in the prior year was primarily driven by a change within the third quarter of fiscal 2022 to the estimated annual taxable income, including by jurisdiction, and lower discrete benefits from stock-based compensation.

As of January 1, 2022, the Tax Cuts and Jobs Act of 2017 eliminates the option to deduct research and experimental expenditures immediately in the year incurred and requires taxpayers to amortize such expenditures over five years in the U.S. and fifteen years in foreign jurisdictions. While it is possible that Congress may defer, modify, or repeal this provision, potentially with retroactive effect, we have no assurance that this provision will be deferred, modified, or repealed. If this provision is not deferred, modified, or repealed with retroactive effect to January 1, 2022, we expect our cash taxes to slowly increase over the next few years until we have fully utilized our Federal research and development credits to offset our Federal tax liability to the extent allowed by law.

Liquidity and Capital Resources

Capital Resources

Our working capital was \$352.6 million at September 24, 2022, compared to \$375.3 million at December 25, 2021.

Cash and cash equivalents primarily consist of deposits held at banks, money market funds, corporate bonds, and commercial paper. Marketable securities primarily consist of U.S. treasuries, corporate bonds, and commercial paper. We typically invest in highly rated securities with low probabilities of default. Our investment policy requires investments to be rated single A or better, and limits the types of acceptable investments, issuer concentration and duration of the investment.

Our cash, cash equivalents and marketable securities totaled approximately \$251.6 million at September 24, 2022, compared to \$276.1 million at December 25, 2021. Based on our historical results of operations, we expect that our cash, cash equivalents, and marketable securities on hand, and the cash we expect to generate from operations, will be sufficient to fund our short-term and long-term liquidity requirements primarily arising from: research and development, capital expenditures, working capital, outstanding commitments, and other liquidity requirements associated with existing operations. However, we cannot be certain that our cash, cash equivalents, and marketable securities on hand, and cash generated from operations, will be available in the future to fund all of our capital and operating requirements. In addition, any future strategic investments and significant acquisitions may require additional cash and capital resources. To the extent necessary, we may consider entering into short and long-term debt obligations, raising cash through a stock issuance, or obtaining new financing facilities, which may not be available on terms favorable to us. If we are unable to obtain sufficient cash or capital to meet our needs on a timely basis and on favorable terms, our business and operations could be materially and adversely affected.

If we are unsuccessful in maintaining or growing our revenues, maintaining or reducing our cost structure, or increasing our available cash through debt or equity financings, our cash, cash equivalents and marketable securities may decline.

We utilize a variety of tax planning and financing strategies to manage our worldwide cash and deploy funds to locations where needed. As part of these strategies, we indefinitely reinvest a portion of our foreign earnings. Should we require additional capital in the United States, we may elect to repatriate indefinitely-reinvested foreign funds or raise capital in the United States.

Cash Flows

The following table sets forth our net cash flows from operating, investing and financing activities:

	Nine Months Ended	
	September 24, 2022	September 25, 2021
	(In thousands)	
Net cash provided by operating activities	\$ 111,048	\$ 100,437
Net cash used in investing activities	\$ (52,013)	\$ (94,976)
Net cash used in financing activities	\$ (84,964)	\$ (36,869)

Operating Activities

Net cash provided by operating activities for the nine months ended September 24, 2022 was primarily attributable to net income of \$64.5 million and net non-cash expenses of \$69.3 million, which includes depreciation, amortization, stock-based compensation, and the provision for excess and obsolete inventories. This was partially offset by an increase in net working capital of \$22.7 million, primarily related to cash paid for inventories of \$33.0 million and a decrease in accrued liabilities for \$5.0 million, partially offset by cash provided by an increase in accounts payable of \$17.6 million.

Investing Activities

Net cash used in investing activities for the nine months ended September 24, 2022 was primarily related to \$39.0 million property, plant and equipment purchases, \$8.6 million of net cash used to purchase marketable securities, and \$3.4 million used for acquisition of a business.

Financing Activities

Net cash used in financing activities for the nine months ended September 24, 2022 primarily related to \$73.5 million used to purchase common stock under our stock repurchase programs, \$6.4 million of principal payments made towards the repayment of our term loans, and \$15.6 million related to tax withholdings associated with the net share settlements of our equity awards, partially offset by \$10.5 million of proceeds received from issuances of common stock under our employee stock purchase plan.

Debt

FRT Term Loan

On October 25, 2019, we entered into a \$23.4 million three-year credit facility loan agreement (the "FRT Term Loan"), to fund the acquisition of FRT GmbH, which we acquired on October 9, 2019.

The FRT Term Loan bears interest at a rate equal to the Euro Interbank Offered Rate ("EURIBOR") plus 1.75% per annum and will be repaid in quarterly installments of approximately \$1.8 million plus interest. The interest rate at September 24, 2022 was 1.90%. As of September 24, 2022, the balance outstanding pursuant to the FRT term loan was \$1.7 million. The FRT Term Loan was fully paid as of October 25, 2022.

Building Term Loan

On June 22, 2020, we entered into an \$18.0 million 15-year credit facility loan agreement (the "Building Term Loan"). The proceeds of the Building Term Loan were used to finance the purchase of a building adjacent to our leased facilities in Livermore, California.

The Building Term Loan bears interest at a rate equal to the applicable LIBOR rate plus 1.75% per annum. Interest payments are payable in monthly installments over a fifteen-year period. The interest rate at September 24, 2022 was 4.31%. As of September 24, 2022, the balance outstanding pursuant to the Building Term Loan was \$15.8 million.

On March 17, 2020, we entered into a forward starting interest rate swap agreement to hedge the interest payments on the Building Term Loan for the notional amount of \$18.0 million, and an amortization period that matches the debt. As future levels of LIBOR over the life of the loan are uncertain, we entered into this interest-rate swap agreement to hedge the exposure in interest rate risks associated with movement in LIBOR rates. By entering into the agreement, we converted a floating interest

rate of one-month LIBOR plus 1.75% into a fixed interest rate of 2.75%. As of September 24, 2022, the notional amount of the loan that is subject to this interest rate swap is \$15.8 million.

Stock Repurchase Programs

On October 26, 2020, our Board of Directors authorized a two-year program to repurchase up to \$50 million of outstanding common stock to offset potential dilution from issuances of common stock under our stock-based compensation programs. During fiscal 2021 we repurchased and retired 622,400 shares of common stock for \$24.0 million. During the nine months ended September 24, 2022, we repurchased and retired 676,408 shares of common stock for \$26.0 million, utilizing the remaining funds available for repurchase.

On May 20, 2022, our Board of Directors authorized an additional program to repurchase up to \$75 million of outstanding common stock, also with the primary purpose of offsetting potential dilution from issuances of common stock under our stock-based compensation programs. The share repurchase program will expire on May 20, 2024. During the nine months ended September 24, 2022, we repurchased and retired 1,335,414 shares of common stock for \$47.5 million under this program. As of September 24, 2022, \$27.5 million remained available for future repurchases.

Contractual Obligations and Commitments

The following table summarizes our significant contractual commitments to make future payments in cash under contractual obligations as of September 24, 2022:

	Payments Due In Fiscal Year						
	Remainder 2022	2023	2024	2025	2026	Thereafter	Total
Operating leases	\$ 4,275	\$ 7,545	\$ 7,236	\$ 7,170	\$ 6,450	\$ 9,042	\$ 41,718
Term loans - principal payments	1,953	1,050	1,080	1,111	1,142	11,116	17,452
Term loans - interest payments	179	657	614	561	513	2,170	4,694
Total	\$ 6,407	\$ 9,252	\$ 8,930	\$ 8,842	\$ 8,105	\$ 22,328	\$ 63,864

⁽¹⁾ Represents our minimum interest payment commitments at 4.31% per annum for the Building Term Loan and 1.90% per annum for the FRT Term Loan. This excludes any amounts related to our interest rate swap.

Off-Balance Sheet Arrangements

Historically, we have not participated in transactions that have generated relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. As of September 24, 2022, we were not involved in any such off-balance sheet arrangements.

Recent Accounting Pronouncements

See Note 1, *Basis of Presentation and New Accounting Pronouncements*, of Notes to Condensed Consolidated Financial Statements.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

For financial market risks related to changes in interest rates and foreign currency exchange rates, reference is made to Item 7A “Quantitative and Qualitative Disclosures about Market Risk” contained in Part II of our Annual Report on Form 10-K for the fiscal year ended December 25, 2021. Our exposure to market risk has not changed materially since December 25, 2021.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Based on our management’s evaluation (with the participation of our principal executive officer and principal financial officer), as of the end of the period covered by this report, our principal executive officer and principal financial officer have concluded

that our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, (the “Exchange Act”)) are effective to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms and is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the period covered by this Quarterly Report on Form 10-Q that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on the Effectiveness of Controls

Control systems, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control systems’ objectives are being met. Further, the design of any control systems must reflect the fact that there are resource constraints, and the benefits of all controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within our company have been detected. These inherent limitations include the realities that judgments in decision making can be faulty and that breakdowns can occur because of a simple error or mistake. Control systems can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is based, in part, on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures.

CEO and CFO Certifications

We have attached as exhibits to this Quarterly Report on Form 10-Q the certifications of our Chief Executive Officer and Chief Financial Officer, which are required in accordance with the Exchange Act. We recommend that this Item 4 be read in conjunction with the certifications for a more complete understanding of the subject matter presented.

PART II - OTHER INFORMATION

Item 1A. Risk Factors

There have been no material changes during the nine months ended September 24, 2022 to the risk factors discussed in our Annual Report on Form 10-K for the year ended December 25, 2021. If any of the identified risks actually occur, our business, financial condition and results of operations could suffer. The trading price of our common stock could decline and you may lose all or part of your investment in our common stock. The risks and uncertainties described in our Annual Report on Form 10-K for the year ended December 25, 2021 are not the only ones we face. Additional risks that we currently do not know about or that we currently believe to be immaterial may also impair our business operations.

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

Repurchase of Common Stock

The following table summarizes our repurchases of outstanding common stock for the three months ended September 24, 2022:

Period (fiscal months)	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs ⁽¹⁾	Maximum Amount that May Yet Be Purchased Under the Plans or Programs
June 26, 2022 - July 23, 2022	256,084	\$ 36.48	256,084	\$ 37,292,828
July 24, 2022 - August 20, 2022	34,172	33.16	34,172	36,159,555
August 21, 2022 - September 24, 2022	278,075	31.20	278,075	27,484,925
	<u>568,331</u>	<u>\$ 33.70</u>	<u>568,331</u>	

¹ In May 2022, our Board of Directors authorized a program to repurchase up to \$75.0 million of outstanding common stock to offset potential dilution from issuances of our common stock under our employee stock purchase plan and equity incentive plan. This authorization is in addition to the program authorized to repurchase up to \$50.0 million of outstanding common stock that was fully utilized through June 2022 and expired October 2022. Under the authorized stock repurchase program, we may repurchase shares from time to time on the open market. The pace of repurchase activity will depend on levels of cash generation, current stock price and other factors. The program may be modified or discontinued at any time. This new share repurchase program will expire May 2024.

Item 6. Exhibits

The following exhibits are filed herewith and this list constitutes the exhibit index.

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Date	Number	
3.1	Certificate of Amendment of Amended and Restated Certificate of Incorporation of FormFactor, Inc.	8-K	June 3, 2022	3.01	
3.2	Restated Certificate of Incorporation of FormFactor, Inc.	8-K	June 3, 2022	3.02	
3.3	Amended and Restated By-laws of FormFactor, Inc.	8-K	June 3, 2022	3.03	
31.01	Certification of Chief Executive Officer pursuant to 15 U.S.C. Section 7241, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				X
31.02	Certification of Chief Financial Officer pursuant to 15 U.S.C. Section 7241, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				X
32.01	Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002				*
101	The following financial statements from the Company's Quarterly Report on Form 10-Q for the quarter ended September 24, 2022, formatted in Inline XBRL: (i) Condensed Consolidated Balance Sheets, (ii) Condensed Consolidated Statements of Income, (iii) Condensed Consolidated Statements of Comprehensive Income, (iv) Condensed Consolidated Statements of Stockholders' Equity, (v) Condensed Consolidated Statements of Cash Flows, and (vi) Notes to Condensed Consolidated Financial Statements, tagged as blocks of text and including detailed tags				X
101.INS	XBRL Instance Document				X
101.SCH	XBRL Taxonomy Extension Schema Document				X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document				X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document				X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document				X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document				X
104	The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended September 24, 2022, formatted in Inline XBRL (included as Exhibit 101)				X

* This exhibit shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, whether made before or after the date hereof and irrespective of any general incorporation language in any filings.

SIGNATURE

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

FormFactor, Inc.

Date: November 1, 2022

By: /s/ SHAI SHAHAR

Shai Shahar
Chief Financial Officer
*(Duly Authorized Officer, Principal Financial Officer, and
Principal Accounting Officer)*

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO 15 U.S.C. SECTION 7241, AS
ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Michael D. Slessor, certify that:

1. I have reviewed the quarterly report on Form 10-Q of FormFactor, 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 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 the quarterly report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.
5. The registrant's other certifying officer 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: November 1, 2022

/s/ MICHAEL D. SLESSOR

Michael D. Slessor
Chief Executive Officer
(Principal Executive Officer and Director)

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO 15 U.S.C. SECTION 7241,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Shai Shahar, certify that:

1. I have reviewed the quarterly report on Form 10-Q of FormFactor, 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 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 the quarterly report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.
5. The registrant's other certifying officer 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: November 1, 2022

/s/ SHAI SHAHAR

Shai Shahar

Chief Financial Officer

(Principal Financial Officer and Principal Accounting Officer)

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

In connection with the Quarterly Report on Form 10-Q of FormFactor, Inc., a Delaware corporation, for the period ended September 24, 2022, as filed with the Securities and Exchange Commission, each of the undersigned officers of FormFactor, Inc. certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to his respective knowledge:

1. The quarterly report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
2. The information contained in the quarterly report fairly presents, in all material respects, the financial condition and results of operations of FormFactor, Inc. for the periods presented therein.

Date: November 1, 2022

/s/ MICHAEL D. SLESSOR

Michael D. Slessor

Chief Executive Officer

(Principal Executive Officer and Director)

Date: November 1, 2022

/s/ SHAI SHAHAR

Shai Shahar

Chief Financial Officer

(Principal Financial Officer and Principal Accounting Officer)