UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
Form 10-Q

(Mark one)

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

For the quarterly period ended June 25, 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	**13-3711155**
(State or other jurisdiction of incorporation or organization)	(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 Section12(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	☒	Accelerated Filer	☐	Non-accelerated Filer	☐
Smaller Reporting Company	☐	Emerging Growth Company	☐		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of July 27, 2022, 77,132,681 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 JUNE 25, 2022
INDEX

PART I - FINANCIAL INFORMATION

Item 1. ***Financial Statements***

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

	June 25, 2022	December 25, 2021
ASSETS		
Current assets:		
Cash and cash equivalents	$ 136,395	$ 151,010
Marketable securities	129,919	125,055
Accounts receivable, net of allowance for credit losses of $193 and $195	107,726	115,541
Inventories, net	143,475	111,548
Restricted cash	2,102	2,233
Prepaid expenses and other current assets	17,447	18,652
Total current assets	537,064	524,039
Restricted cash	1,802	2,099
Operating lease, right-of-use-assets	33,499	35,210
Property, plant and equipment, net of accumulated depreciation	157,814	146,555
Goodwill	212,357	212,299
Intangibles, net	30,872	36,342
Deferred tax assets	65,059	61,995
Other assets	3,980	1,981
Total assets	$ 1,042,447	$ 1,020,520
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 60,927	$ 57,862
Accrued liabilities	54,835	50,836
Current portion of term loans, net of unamortized issuance costs	4,725	8,931
Deferred revenue	31,255	23,224
Operating lease liabilities	7,843	7,901
Total current liabilities	159,585	148,754
Term loans, less current portion, net of unamortized issuance costs	14,915	15,434
Deferred tax liabilities	2,909	3,623
Long-term operating lease liabilities	29,511	31,009
Other liabilities	5,542	5,920
Total liabilities	212,462	204,740
Stockholders' equity:		
Common stock, $0.001 par value:		
250,000,000 shares authorized; 77,194,733 and 78,240,506 shares issued and outstanding	77	78
Additional paid-in capital	860,584	898,945
Accumulated other comprehensive loss	(8,996)	(1,449)
Accumulated deficit	(21,680)	(81,794)
Total stockholders' equity	829,985	815,780
Total liabilities and stockholders' equity	$ 1,042,447	$ 1,020,520

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		Six Months Ended	
	June 25, 2022	**June 26, 2021**	**June 25, 2022**	**June 26, 2021**
Revenues	$ 203,907	$ 188,076	$ 401,081	$ 374,712
Cost of revenues	109,538	111,793	212,488	221,723
Gross profit	94,369	76,283	188,593	152,989
Operating expenses:				
Research and development	28,317	25,454	55,451	49,500
Selling, general and administrative	33,406	30,479	66,312	60,494
Total operating expenses	61,723	55,933	121,763	109,994
Operating income	32,646	20,350	66,830	42,995
Interest income	300	148	438	342
Interest expense	(119)	(116)	(311)	(296)
Other income (expense), net	551	(194)	743	(22)
Income before income taxes	33,378	20,188	67,700	43,019
Provision for income taxes	3,136	2,283	7,586	5,489
Net income	$ 30,242	$ 17,905	$ 60,114	$ 37,530
Net income per share:				
Basic	$ 0.39	$ 0.23	$ 0.77	$ 0.48
Diluted	$ 0.38	$ 0.23	$ 0.76	$ 0.47
Weighted-average number of shares used in per share calculations:				
Basic	77,897	77,463	78,071	77,530
Diluted	79,210	79,466	79,423	79,621

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		Six Months Ended	
	June 25, 2022	June 26, 2021	June 25, 2022	June 26, 2021
Net income	$ 30,242	$ 17,905	$ 60,114	$ 37,530
Other comprehensive income (loss), net of tax:				
Translation adjustments and other	(3,856)	632	(6,554)	(1,747)
Unrealized losses on available-for-sale marketable securities	(547)	(97)	(1,751)	(228)
Unrealized gains (losses) on derivative instruments	(116)	(89)	758	(315)
Other comprehensive income (loss), net of tax	(4,519)	446	(7,547)	(2,290)
Comprehensive income	$ 25,723	$ 18,351	$ 52,567	$ 35,240

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
	Six Months Ended June 25, 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	157,642	—	5,645	—	—	5,645
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	234,076	—	(4,243)	—	—	(4,243)
Purchase and retirement of common stock through repurchase program	(1,443,491)	(1)	(54,327)	—	—	(54,328)
Stock-based compensation	—	—	14,522	—	—	14,522
Other comprehensive loss	—	—	—	(7,547)	—	(7,547)
Net income	—	—	—	—	60,114	60,114
Balances, June 25, 2022	77,194,733	$ 77	$ 860,584	$ (8,996)	$ (21,680)	$ 829,985
	Three Months Ended June 25, 2022					
Balances, March 26, 2022	78,166,212	$ 78	$ 902,994	$ (4,477)	$ (51,922)	$ 846,673
Issuance of common stock pursuant to vesting of restricted stock units, net of stock withheld for tax	231,464	—	(4,171)	—	—	(4,171)
Purchase and retirement of common stock through repurchase program	(1,202,943)	(1)	(44,930)	—	—	(44,931)
Stock-based compensation	—	—	6,691	—	—	6,691
Other comprehensive loss	—	—	—	(4,519)	—	(4,519)
Net income	—	—	—	—	30,242	30,242
Balances, June 25, 2022	77,194,733	$ 77	$ 860,584	$ (8,996)	$ (21,680)	$ 829,985

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	Shares of Treasury Stock	Treasury Stock	Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total
	Six Months Ended June 26, 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	228,784	—	—	—	5,065	—	—	5,065
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	308,219	—	—	—	(5,261)	—	—	(5,261)
Purchase and retirement of common stock through repurchase program	(620,200)	(1)	—	—	(23,950)	—	—	(23,951)
Stock-based compensation	—	—	—	—	13,526	—	—	13,526
Other comprehensive loss	—	—	—	—	—	(2,290)	—	(2,290)
Net income	—	—	—	—	—	—	37,530	37,530
Balances, June 26, 2021	77,454,800	$ 77	—	$ —	$ 894,062	$ 3,596	$ (128,188)	$ 769,547
	Three Months Ended June 26, 2021							
Balances, March 27, 2021	77,758,530	$ 78	(136,402)	$ (5,738)	$ 915,136	$ 3,150	$ (146,093)	$ 766,533
Issuance of common stock pursuant to exercise of options	50,000	—	—	—	422	—	—	422
Issuance of common stock pursuant to vesting of restricted stock units, net of stock withheld for tax	266,470	—	—	—	(4,120)	—	—	(4,120)
Purchase and retirement of common stock through repurchase program	(620,200)	(1)	136,402	5,738	(23,950)	—	—	(18,213)
Stock-based compensation	—	—	—	—	6,574	—	—	6,574
Other comprehensive income	—	—	—	—	—	446	—	446
Net income	—	—	—	—	—	—	17,905	17,905
Balances, June 26, 2021	77,454,800	$ 77	—	$ —	$ 894,062	$ 3,596	$ (128,188)	$ 769,547

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

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

	Six Months Ended	
	June 25, 2022	**June 26, 2021**
Cash flows from operating activities:		
Net income	$ 60,114	$ 37,530
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation	14,146	12,678
Amortization	4,702	13,900
Reduction in the carrying amount of right-of-use assets	4,414	3,652
Stock-based compensation expense	13,878	13,665
Provision for excess and obsolete inventories	4,726	6,898
Non-cash restructuring charges	710	—
Gain on contingent consideration	—	(95)
Other adjustments to reconcile net income to net cash provided by operating activities	(567)	1,211
Changes in assets and liabilities:		
Accounts receivable	5,530	(1,194)
Inventories	(32,268)	(20,388)
Prepaid expenses and other current assets	1,295	3,179
Other assets	(40)	(344)
Accounts payable	7,521	(2,028)
Accrued liabilities	4,102	(235)
Other liabilities	73	184
Deferred revenues	2,727	1,522
Operating lease liabilities	(4,262)	(3,980)
Net cash provided by operating activities	86,801	66,155
Cash flows from investing activities:		
Acquisition of property, plant and equipment	(30,116)	(31,322)
Acquisition of business	(3,121)	—
Purchases of marketable securities	(52,344)	(71,186)
Purchase of promissory note receivable	(1,000)	—
Proceeds from maturities and sales of marketable securities	45,470	42,695
Net cash used in investing activities	(41,111)	(59,813)
Cash flows from financing activities:		
Proceeds from issuances of common stock	5,687	5,909
Purchase of common stock through stock repurchase program	(54,328)	(23,951)
Tax withholdings related to net share settlements of equity awards	(4,243)	(5,261)
Payment of contingent consideration	—	(3,873)
Principal repayments on term loans	(4,379)	(4,740)
Net cash used in financing activities	(57,263)	(31,916)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(3,470)	(1,558)
Net decrease in cash, cash equivalents and restricted cash	(15,043)	(27,132)
Cash, cash equivalents and restricted cash, beginning of period	155,342	191,098
Cash, cash equivalents and restricted cash, end of period	$ 140,299	$ 163,966

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

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

	Six Months Ended	
	June 25, 2022	**June 26, 2021**
Non-cash investing and financing activities:		
Increase (decrease) in accounts payable and accrued liabilities related to property, plant and equipment purchases	$ (4,165)	$ 2,906
Operating lease, right-of-use assets obtained in exchange for lease obligations	3,438	11,629
Supplemental disclosure of cash flow information:		
Cash paid for income taxes, net	$ 6,473	$ 4,559
Cash paid for interest	294	339
Operating cash outflows from operating leases	4,379	4,352
Reconciliation of cash, cash equivalents and restricted cash:		
Cash and cash equivalents	$ 136,395	$ 160,273
Restricted cash, current	2,102	1,857
Restricted cash, non-current	1,802	1,836
Total cash, cash equivalents and restricted cash	$ 140,299	$ 163,966

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

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 six months ended June 25, 2022 and June 26, 2021 each contained 26 weeks. Fiscal 2022 will end on December 31, 2022.

Significant Accounting Policies

Our significant accounting policies have not changed during the six months ended June 25, 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 2020-04

In March 2020, the FASB issued ASU 2020-04, "Referenced Rate Reform (Topic 848) - Facilitation of the Effects of Reference Rate Reform on Financial Reporting." The ASU provides temporary optional expedients and exceptions for applying generally accepted accounting principles to contract modifications and hedging relationships, subject to meeting certain criteria, that reference the London Interbank Offered Rate ("LIBOR") or another reference rate expected to be discontinued. In January 2021, the FASB issued ASU 2021-01, "Reference Rate Reform (Topic 848)," which permits entities to apply optional expedients in Topic 848 to derivative instruments modified because of discounting transition resulting from reference rate reform. ASU 2020-04 became effective upon issuance and may be applied prospectively to contract modifications made on or before December 31, 2022. ASU 2021-01 became effective upon issuance and may be applied on a full retrospective basis as of any date from the beginning of an interim period that includes or is subsequent to March 12, 2020 or prospectively for contract modifications made on or before December 31, 2022. The Company has not yet applied the relief afforded by these standard amendments and is currently assessing contracts that will require modification due to reference rate reform to which these standard amendments may be applied.

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		Six Months Ended	
	June 25, 2022	June 26, 2021	June 25, 2022	June 26, 2021
Intel Corporation	20.9 %	16.2 %	20.9 %	22.1 %
Samsung Electronics., LTD.	*	14.7 %	*	*
Taiwan Semiconductor Manufacturing Co., LTD.	*	11.0 %	*	11.2 %
	20.9 %	41.9 %	20.9 %	33.3 %

At June 25, 2022, one customer accounted for 20.0% 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):

	June 25, 2022	December 25, 2021
Raw materials	$ 68,247	$ 57,673
Work-in-progress	52,619	35,935
Finished goods	22,609	17,940
	$ 143,475	$ 111,548

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 $3.1 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.

As of the reporting date, we have not completed the valuation of assets acquired and liabilities assumed. Upon the completion of purchase accounting, we expect certain amounts provisionally recorded as goodwill will be ultimately allocated to developed technologies, but at this time we do not have an estimate of the allocation of value between amortizing and non-amortizing intangible assets. We do expect that some amount of intangible assets provisionally recorded as goodwill will ultimately be allocated to an amortizing intangible asset. At the time such amount is estimable, we will record any amortization required between the acquisition date and the date at which the amounts become estimable. While we do not yet have a reasonable basis on which to record any such amortization, the impact to the financial statements as a whole is not expected to be material assuming typical lives of these assets and ranges of potential allocation of value.

The amounts presented below represent provisional amounts of assets acquired and liabilities assumed, which are recorded based on the best information available, and are subject to revision as the fair value of the associated assets acquired and liabilities assumed are finalized. The total estimated purchase price has been provisionally allocated to the underlying assets acquired and liabilities assumed, as follows (in thousands):

	Amount
Accounts receivable	$ 178
Inventories	6,064
Property, plant and equipment	479
Prepaid expenses and other current assets	117
Other assets	28
Tangible assets acquired	6,866
Deferred revenue	(5,513)
Accounts payable and accrued liabilities	(30)
Total tangible assets acquired and liabilities assumed	1,323
Goodwill	1,798
Net Assets Acquired	$ 3,121

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	—	1,798	1,798
Foreign currency translation	—	(1,740)	(1,740)
Goodwill, as of June 25, 2022	$ 178,424	$ 33,933	$ 212,357

We have not recorded goodwill impairments for the six months ended June 25, 2022.

Intangible assets were as follows (in thousands):

	June 25, 2022			December 25, 2021		
Intangible Assets	**Gross**	**Accumulated Amortization**	**Net**	**Gross**	**Accumulated Amortization**	**Net**
Existing developed technologies	$ 170,627	$ 149,338	$ 21,289	$ 172,259	$ 148,784	$ 23,475
Customer relationships	50,827	41,966	8,861	51,270	39,254	12,016
Trade name	7,952	7,630	322	8,054	7,603	451
Backlog	—	—	—	1,896	1,896	—
In-process research and development	400	—	400	400	—	400
	$ 229,806	$ 198,934	$ 30,872	$ 233,879	$ 197,537	$ 36,342

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

	Three Months Ended		Six Months Ended	
	June 25, 2022	**June 26, 2021**	**June 25, 2022**	**June 26, 2021**
Cost of revenues	$ 788	$ 5,505	$ 1,596	$ 10,595
Selling, general and administrative	1,545	1,590	3,106	3,305
	$ 2,333	$ 7,095	$ 4,702	$ 13,900

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	$	4,650
2023		6,968
2024		4,390
2025		4,142
2026		3,134
Thereafter		7,188
	$	30,472

Note 6 — Accrued Liabilities

Accrued liabilities consisted of the following (in thousands):

		June 25, 2022		December 25, 2021
Accrued compensation and benefits	$	32,001	$	29,706
Accrued income and other taxes		9,468		8,086
Accrued warranty		3,978		2,805
Employee stock purchase plan contributions withheld		4,789		4,693
Accrued restructuring charges		592		2,478
Other accrued expenses		4,007		3,068
	$	54,835	$	50,836

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, and expect to incur, 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 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 $5.0 million to $8.5 million, estimated to be comprised primarily of $1.0 million to $2.0 million of severance and employee-related costs, $1.5 million to $2.5 million in contract and lease termination costs, $2.0 million to $3.0 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 $2.5 million to $4.5 million is expected within each of the Probe Cards and Systems segments, respectively.

The Company has recognized to date restructuring and other charges in the aggregate amount of $5.0 million, comprised of $1.2 million of severance and employee-related costs, $1.5 million in contract and lease termination costs, $2.0 million in inventory impairments, and $0.3 million of cost related to impairment of leasehold improvements, facility exits and other costs.

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

	Three Months Ended June 25, 2022			Six Months Ended June 25, 2022		
	Probe Cards	Systems	Total	Probe Cards	Systems	Total
Cost of revenues	$ 227	$ 227	$ 454	$ 266	$ 327	$ 593
Research and development	—	53	53	—	199	199
Selling, general and administrative	—	74	74	3	99	102
	$ 227	$ 354	$ 581	$ 269	$ 625	$ 894

Changes to the restructuring accrual in the six months ended June 25, 2022 were as follows (in thousands):

	Employee Severance and Benefits	Inventory Impairments	Contract Termination Costs	Total
December 25, 2021	$ 1,028	$ —	$ 1,450	$ 2,478
Restructuring charges	185	646	—	894
Cash payments	(621)	—	(1,450)	(2,071)
Non-cash settlement	—	(646)	—	(709)
June 25, 2022	$ 592	$ —	$ —	$ 592

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 six months ended June 25, 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, Accrued liabilities, and Term loans, net of unamortized issuance costs, approximate fair value due to their short maturities.

No changes were made to our valuation techniques during the first six 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):

June 25, 2022	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents:				
Money market funds	$ 39,228	$ —	$ —	$ 39,228
Commercial paper	—	3,393	—	3,393
U.S. agency securities	—	2,558	—	2,558
U.S. treasuries	1,995	—	—	1,995
	41,223	5,951	—	47,174
Marketable securities:				
Corporate bonds	—	64,930	—	64,930
U.S. treasuries	35,894	—	—	35,894
Commercial paper	—	22,480	—	22,480
U.S. agency securities	—	5,912	—	5,912
Certificates of deposit	—	703	—	703
	35,894	94,025	—	129,919
Promissory note receivable	—	—	1,007	1,007
Interest rate swap derivative contracts	—	1,990	—	1,990
Total assets	$ 77,117	$ 101,966	$ 1,007	$ 180,090
Liabilities:				
Foreign exchange derivative contracts	$ —	$ (1,146)	$ —	$ (1,146)

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
	12,026	6,556	—	18,582
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
	38,985	86,070	—	125,055
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 (expense), 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 June 25, 2022 will mature by the second quarter of fiscal 2023.

The following table provides information about our foreign currency forward contracts outstanding as of June 25, 2022 (in thousands):

Currency	Contract Position	Contract Amount (Local Currency)	Contract Amount (U.S. Dollars)
Euro Dollar	Buy	(21,445)	$ (24,117)
Japanese Yen	Sell	2,247,411	16,633
Korean Won	Buy	(1,010,988)	(779)
Taiwan Dollar	Sell	28,890	974
Total USD notional amount of outstanding foreign exchange contracts			$ (7,289)

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 six months ended June 25, 2022 or June 26, 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):

	Six Months Ended	
	June 25, 2022	**June 26, 2021**
Balance at beginning of period	$ 2,805	$ 3,918
Accruals	3,846	3,472
Settlements	(2,673)	(3,132)
Balance at end of period	$ 3,978	$ 4,258

Note 10 — Property, Plant and Equipment, net

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

	June 25, 2022	**December 25, 2021**
Land	$ 4,751	$ 4,751
Building and building improvements	44,429	41,722
Machinery and equipment	263,851	252,632
Computer equipment and software	45,727	44,667
Furniture and fixtures	7,434	7,293
Leasehold improvements	83,127	82,266
Sub-total	449,319	433,331
Less: Accumulated depreciation and amortization	(323,779)	(312,700)
Net, property, plant and equipment	125,540	120,631
Construction-in-process	32,274	25,924
Total	$ 157,814	$ 146,555

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 six months ended June 25, 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 three months ended June 25, 2022, we repurchased and retired 767,083 shares of common stock for $28.4 million under the program. As of June 25, 2022, $46.6 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	63,697	41.25
Awards vested	(338,825)	16.73
Awards forfeited	(51,941)	30.23
RSUs at June 25, 2022	1,839,865	31.22

Performance Restricted Stock Units

We may grant Performance RSUs ("PRSUs") to certain executives, which vest based upon us achieving certain market performance criteria. There were no PRSUs granted during the six months ended June 25, 2022. 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:

	Six Months Ended June 25, 2022
Shares issued	157,642
Weighted average per share purchase price	$ 35.81
Weighted average per share discount from the fair value of our common stock on the date of issuance	$ (6.93)

Stock-Based Compensation

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

	Three Months Ended		Six Months Ended	
	June 25, 2022	June 26, 2021	June 25, 2022	June 26, 2021
Cost of revenues	$ 734	$ 1,079	$ 1,812	$ 2,414
Research and development	1,695	1,663	3,681	3,352
Selling, general and administrative	3,929	3,846	8,385	7,899
Total stock-based compensation	$ 6,358	$ 6,588	$ 13,878	$ 13,665

Unrecognized Compensation Costs

At June 25, 2022, the unrecognized stock-based compensation was as follows (dollars in thousands):

	Unrecognized Expense	Average Expected Recognition Period in Years
Restricted stock units	$ 27,430	1.80
Performance restricted stock units	7,202	1.74
Employee stock purchase plan	285	0.61
Total unrecognized stock-based compensation expense	$ 34,917	1.77

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		Six Months Ended	
	June 25, 2022	June 26, 2021	June 25, 2022	June 26, 2021
Weighted-average shares used in computing basic net income per share	77,897	77,463	78,071	77,530
Add potentially dilutive securities	1,313	2,003	1,352	2,091
Weighted-average shares used in computing diluted net income per share	79,210	79,466	79,423	79,621
Securities not included as they would have been antidilutive	23	128	—	118

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 June 25, 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 June 25, 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 7 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 6 years as of June 25, 2022 and the weighted-average discount rate was 3.69%.

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

	Three Months Ended		Six Months Ended	
	June 25, 2022	June 26, 2021	June 25, 2022	June 26, 2021
Lease expense:				
Operating lease expense	$ 2,183	$ 2,048	$ 4,404	$ 4,171
Short-term lease expense	76	45	116	82
Variable lease expense	677	426	1,135	963
	$ 2,936	$ 2,519	$ 5,655	$ 5,216

Future minimum payments under our non-cancelable operating leases were as follows as of June 25, 2022 (in thousands):

Fiscal Year	Amount
Remainder of 2022	$ 4,319
2023	7,564
2024	7,224
2025	7,187
2026	6,505
Thereafter	9,143
Total minimum lease payments	41,942
Less: interest	(4,588)
Present value of net minimum lease payments	37,354
Less: current portion	(7,843)
Total long-term operating lease liabilities	$ 29,511

Note 15 — Revenue

Transaction price allocated to the remaining performance obligations: On June 25, 2022, we had $9.7 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 66.9% of our remaining performance obligations as revenue in the remainder of fiscal 2022, approximately 27.7% in fiscal 2023, and approximately 5.4% 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 June 25, 2022 and December 25, 2021 were $2.0 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 June 25, 2022 and December 25, 2021 were $32.2 million and $24.2 million, respectively. During the six months ended June 25, 2022, we recognized $16.5 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							
	June 25, 2022				June 26, 2021			
	Probe Cards	Systems	Corporate and Other	Total	Probe Cards	Systems	Corporate and Other	Total
Revenues	$ 167,708	$ 36,199	$ —	$ 203,907	$ 153,641	$ 34,435	$ —	$ 188,076
Gross profit	78,420	18,276	(2,327)	94,369	66,600	16,907	(7,224)	76,283
Gross margin	46.8 %	50.5 %		46.3 %	43.3 %	49.1 %		40.6 %

	Six Months Ended							
	June 25, 2022				June 26, 2021			
	Probe Cards	Systems	Corporate and Other	Total	Probe Cards	Systems	Corporate and Other	Total
Revenues	$ 327,691	$ 73,390	$ —	$ 401,081	$ 312,539	$ 62,173	$ —	$ 374,712
Gross profit	$ 155,622	$ 37,683	$ (4,712)	$ 188,593	$ 136,915	$ 30,506	$ (14,432)	$ 152,989
Gross margin	47.5 %	51.3 %		47.0 %	43.8 %	49.1 %		40.8 %

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					
	June 25, 2022			June 26, 2021		
	Probe Cards	Systems	Total	Probe Cards	Systems	Total
Market:						
Foundry & Logic	$ 122,380	$ —	$ 122,380	$ 103,726	$ —	$ 103,726
DRAM	36,843	—	36,843	42,088	—	42,088
Flash	8,485	—	8,485	7,827	—	7,827
Systems	—	36,199	36,199	—	34,435	34,435
Total	$ 167,708	$ 36,199	$ 203,907	$ 153,641	$ 34,435	$ 188,076
Timing of revenue recognition:						
Products transferred at a point in time	$ 166,701	$ 33,081	$ 199,782	$ 153,129	$ 30,884	$ 184,013
Products and services transferred over time	1,007	3,118	4,125	512	3,551	4,063
Total	$ 167,708	$ 36,199	$ 203,907	$ 153,641	$ 34,435	$ 188,076
Geographical region:						
Taiwan	$ 45,188	$ 4,832	$ 50,020	$ 46,737	$ 5,147	$ 51,884
China	40,578	9,157	49,735	23,996	7,831	31,827
United States	21,539	9,703	31,242	24,174	8,476	32,650
South Korea	27,418	1,337	28,755	35,426	751	36,177
Malaysia	16,157	87	16,244	3,034	161	3,195
Japan	6,716	3,221	9,937	3,477	4,227	7,704
Europe	3,824	4,267	8,091	6,466	5,544	12,010
Singapore	5,131	1,977	7,108	8,602	1,360	9,962
Rest of the world	1,157	1,618	2,775	1,729	938	2,667
Total	$ 167,708	$ 36,199	$ 203,907	$ 153,641	$ 34,435	$ 188,076

	Six Months Ended					
	June 25, 2022			June 26, 2021		
	Probe Cards	Systems	Total	Probe Cards	Systems	Total
Market:						
Foundry & Logic	$ 236,501	$ —	$ 236,501	$ 217,136	$ —	$ 217,136
DRAM	71,280	—	71,280	75,986	—	75,986
Flash	19,910	—	19,910	19,417	—	19,417
Systems	—	73,390	73,390	—	62,173	62,173
Total	$ 327,691	$ 73,390	$ 401,081	$ 312,539	$ 62,173	$ 374,712
Timing of revenue recognition:						
Products transferred at a point in time	$ 325,537	$ 68,497	$ 394,034	$ 311,605	$ 55,555	$ 367,160
Products and services transferred over time	2,154	4,893	7,047	934	6,618	7,552
Total	$ 327,691	$ 73,390	$ 401,081	$ 312,539	$ 62,173	$ 374,712
Geographical region:						
Taiwan	$ 87,710	$ 15,379	$ 103,089	$ 91,471	$ 5,993	$ 97,464
China	73,369	14,765	88,134	61,827	12,625	74,452
United States	41,515	15,374	56,889	45,482	16,654	62,136
South Korea	52,299	3,957	56,256	53,427	1,835	55,262
Malaysia	37,674	769	38,443	22,922	203	23,125
Japan	11,501	7,818	19,319	8,726	8,299	17,025
Singapore	15,415	2,589	18,004	16,229	2,291	18,520
Europe	6,206	10,280	16,486	9,299	12,710	22,009
Rest of the world	2,002	2,459	4,461	3,156	1,563	4,719
Total	$ 327,691	$ 73,390	$ 401,081	$ 312,539	$ 62,173	$ 374,712

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 the impact of our responses to it, 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 $60.1 million in the first six months of fiscal 2022 as compared to $37.5 million in the first six months of fiscal 2021. The increase in net income was primarily due to increased revenue with improved gross margins from a change in product mix and a reduction in the amortization of intangibles from significant intangibles becoming fully amortized, partially offset by higher operating expenses.

Impact of COVID-19

The COVID-19 pandemic continues to cause serious illness and death in many of the regions that we, our customers and our suppliers operate. The COVID-19 pandemic has resulted in significant governmental actions designed to control the spread of the virus, including the imposition of safety requirements and other orders in locations where we have manufacturing and other activities.

We continue to operate our manufacturing sites at production levels greater than those prior to the pandemic, albeit subject to certain safety and related constraints. Our other operations are continuing with substantial work-from-home activities.

If the provisions of governmental health orders or other safety requirements applicable to us or our customers or suppliers become more restrictive for an extended period of time, or if we have repeated occurrences of COVID-19 in any of our facilities, we may experience disruptions or delays in manufacturing, product design, product development, customer support, manufacturing and sales, and an overall loss of productivity and efficiency.

While the disruptions in our operations, supply chain and customer demand as a result of the COVID-19 pandemic have been somewhat limited, we continue to see impacts on elements in the supply chain and believe that the COVID-19 pandemic represents a sustained threat that may give rise to a variety of more significant adverse impacts on our business and financial results. The semiconductor industry is experiencing various supply constraints due to the pandemic. While we are working with our global supply chain partners to mitigate this risk, the duration and extent of the supply chain disruptions remain uncertain. For a further description of the uncertainties and business risks associated with the COVID-19 pandemic, see the risk factors discussed in our Annual Report on Form 10-K for the year ended December 25, 2021.

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 six months ended June 25, 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		Six Months Ended	
	June 25, 2022	June 26, 2021	June 25, 2022	June 26, 2021
Revenues	100.0 %	100.0 %	100.0 %	100.0 %
Cost of revenues	53.7	59.4	53.0	59.2
Gross profit	46.3	40.6	47.0	40.8
Operating expenses:				
Research and development	13.9	13.5	13.8	13.2
Selling, general and administrative	16.4	16.2	16.5	16.1
Total operating expenses	30.3	29.7	30.3	29.3
Operating income	16.0	10.9	16.7	11.5
Interest income	0.1	0.1	0.1	0.1
Interest expense	(0.1)	(0.1)	(0.1)	(0.1)
Other income (expense), net	0.3	(0.1)	0.2	—
Income before income taxes	16.3	10.8	16.9	11.5
Provision for income taxes	1.5	1.2	1.9	1.5
Net income	14.8 %	9.6 %	15.0 %	10.0 %

Revenues by Segment and Market

	Three Months Ended		Six Months Ended	
	June 25, 2022	June 26, 2021	June 25, 2022	June 26, 2021
	(In thousands)			
Probe Cards	$ 167,708	$ 153,641	$ 327,691	$ 312,539
Systems	36,199	34,435	73,390	62,173
	$ 203,907	$ 188,076	$ 401,081	$ 374,712

	Three Months Ended					
	June 25, 2022	% of Revenues	June 26, 2021	% of Revenues	$ Change	% Change
	(Dollars in thousands)					
Probe Cards Markets:						
Foundry & Logic	$ 122,380	60.0 %	$ 103,726	55.1 %	$ 18,654	18.0 %
DRAM	36,843	18.0	42,088	22.4	(5,245)	(12.5)
Flash	8,485	4.2	7,827	4.2	658	8.4
Systems Market:						
Systems	36,199	17.8	34,435	18.3	1,764	5.1
Total revenues	$ 203,907	100.0 %	$ 188,076	100.0 %	$ 15,831	8.4 %

	Six Months Ended					
	June 25, 2022	% of Revenues	June 26, 2021	% of Revenues	$ Change	% Change
	(Dollars in thousands)					
Probe Cards Markets:						
Foundry & Logic	$ 236,501	58.9 %	$ 217,136	57.9 %	$ 19,365	8.9 %
DRAM	71,280	17.8	75,986	20.3	(4,706)	(6.2)
Flash	19,910	5.0	19,417	5.2	493	2.5
Systems Market:						
Systems	73,390	18.3	62,173	16.6	11,217	18.0
Total revenues	$ 401,081	100.0 %	$ 374,712	100.0 %	$ 26,369	7.0 %

The increase in Foundry & Logic product revenue for the three and six months ended June 25, 2022, compared to the three and six months ended June 26, 2021, was driven principally by the increased demand and increased unit sales to other large semiconductor foundries and integrated device manufacturers.

The decrease in DRAM product revenue for the three and six months ended June 25, 2022, compared to the three and six months ended June 26, 2021, was driven by decreased design wins and customer demand.

The increase in Flash product revenue for the three and six months ended June 25, 2022, compared to the three and six months ended June 26, 2021, was driven by increased customer demand.

The increase in Systems market revenue for the three and six months ended June 25, 2022, compared to the three and six months ended June 26, 2021, was driven by both increased sales of metrology systems and our 200 and 300 millimeter probe stations.

Revenues by Geographic Region

	Three Months Ended				Six Months Ended			
	June 25, 2022	% of Revenue	June 26, 2021	% of Revenue	June 25, 2022	% of Revenue	June 26, 2021	% of Revenue
	(Dollars in thousands)							
Taiwan	$ 50,020	24.5 %	$ 51,884	27.6 %	$ 103,089	25.7 %	$ 97,464	26.0 %
China	49,735	24.4	31,827	16.9	88,134	22.0	74,452	19.9
United States	31,242	15.3	32,650	17.4	56,889	14.2	62,136	16.6
South Korea	28,755	14.1	36,177	19.2	56,256	14.0	55,262	14.7
Malaysia	16,244	8.0	3,195	1.7	38,443	9.6	23,125	6.2
Japan	9,937	4.9	7,704	4.1	19,319	4.8	17,025	4.5
Europe	8,091	4.0	12,010	6.4	16,486	4.1	22,009	5.9
Singapore	7,108	3.5	9,962	5.3	18,004	4.5	18,520	4.9
Rest of the world	2,775	1.3	2,667	1.4	4,461	1.1	4,719	1.3
Total revenues	$ 203,907	100.0 %	$ 188,076	100.0 %	$ 401,081	100.0 %	$ 374,712	100.0 %

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 six months ended June 25, 2022, compared to the three and six months ended June 26, 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 China and Malaysia were driven principally by a single large U.S.-based company with operations in China and Malaysia. Further increases in China were driven 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			
	June 25, 2022	June 26, 2021	$ Change	% Change
Gross profit	$ 94,369	$ 76,283	$ 18,086	23.7 %
Gross margin	46.3 %	40.6 %		

	Six Months Ended			
	June 25, 2022	June 26, 2021	$ Change	% Change
Gross profit	$ 188,593	$ 152,989	$ 35,604	23.3 %
Gross margin	47.0 %	40.8 %		

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

	Three Months Ended							
	June 25, 2022				June 26, 2021			
	Probe Cards	Systems	Corporate and Other	Total	Probe Cards	Systems	Corporate and Other	Total
Gross profit	$ 78,420	$ 18,276	$ (2,327)	$ 94,369	$ 66,600	$ 16,907	$ (7,224)	$ 76,283
Gross margin	46.8 %	50.5 %		46.3 %	43.3 %	49.1 %		40.6 %

	Six Months Ended							
	June 25, 2022				June 26, 2021			
	Probe Cards	Systems	Corporate and Other	Total	Probe Cards	Systems	Corporate and Other	Total
Gross profit	$155,622	$ 37,683	$ (4,712)	$ 188,593	$136,915	$ 30,506	$ (14,432)	$ 152,989
Gross margin	47.5 %	51.3 %		47.0 %	43.8 %	49.1 %		40.8 %

Probe Cards

For the three and six months ended June 25, 2022, gross margins increased compared to the three and six months ended June 26, 2021, primarily due to higher revenues and improved standard margins related to favorable product mix, partially offset by higher net manufacturing spending driven by higher material and labor costs, and — for the three month periods — unfavorable absorption of costs despite higher production volumes.

Systems

For the three and six months ended June 25, 2022, gross margins increased compared to the three and six months ended June 26, 2021, primarily as a result of favorable product mix primarily driven by increased sales of metrology tools at favorable margins, and improved leverage on fixed costs at these higher volumes.

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 reduction in Corporate and Other for the three and six months ended June 25, 2022 compared to the three and six months ended June 26, 2021 is primarily due to a reduction in the amortization of intangibles resulting from significant intangibles becoming fully amortized, partially offset by increased share-based compensation driven by increases in headcount to support our growth.

Overall

Gross profit and gross margins fluctuate with revenue levels, product mix, selling prices, factory loading and material costs. For the three and six months ended June 25, 2022, compared to the three and six months ended June 26, 2021, gross profit and gross margins have increased on higher revenue levels, favorable product mix, and less amortization of intangibles.

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

	Three Months Ended		Six Months Ended	
	June 25, 2022	June 26, 2021	June 25, 2022	June 26, 2021
Stock-based compensation	$ 734	$ 1,079	$ 1,812	$ 2,414

Research and Development

	Three Months Ended			
	June 25, 2022	June 26, 2021	$ Change	% Change
	(Dollars in thousands)			
Research and development	$ 28,317	$ 25,454	$ 2,863	11.2 %
% of revenues	13.9 %	13.5 %		

	Six Months Ended			
	June 25, 2022	June 26, 2021	$ Change	% Change
	(Dollars in thousands)			
Research and development	$ 55,451	$ 49,500	$ 5,951	12.0 %
% of revenues	13.8 %	13.2 %		

The increase in research and development expenses in the three and six months ended June 25, 2022 when compared to the corresponding period in the prior year was primarily driven by an increase in headcount 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 June 25, 2022 compared to Three Months Ended June 26, 2021	Six Months Ended June 25, 2022 compared to Six Months Ended June 26, 2021
Employee compensation costs	$ 1,006	$ 2,612
Other general operations	1,421	2,387
Stock-based compensation	32	329
Project material costs	404	623
	$ 2,863	$ 5,951

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

	Three Months Ended		Six Months Ended	
	June 25, 2022	June 26, 2021	June 25, 2022	June 26, 2021
Stock-based compensation	$ 1,695	$ 1,663	$ 3,681	$ 3,352

Selling, General and Administrative

	Three Months Ended			
	June 25, 2022	June 26, 2021	$ Change	% Change
	(Dollars in thousands)			
Selling, general and administrative	$ 33,406	$ 30,479	$ 2,927	9.6 %
% of revenues	16.4 %	16.2 %		

	Six Months Ended			
	June 25, 2022	June 26, 2021	$ Change	% Change
	(Dollars in thousands)			
Selling, general and administrative	$ 66,312	$ 60,494	$ 5,818	9.6 %
% of revenues	16.5 %	16.1 %		

The increase in selling, general and administrative expenses in the three and six months ended June 25, 2022 when compared to the corresponding period in the prior year was primarily driven by increased headcount, annual salary adjustments, increased travel related costs as restrictions related to COVID-19 relaxed, and higher stock-based compensation. We expect travel costs to continue to return to previous levels assuming travel restrictions continue to ease. These increases were partially offset by lower amortization of intangibles.

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

	Three Months Ended June 25, 2022 compared to Three Months Ended June 26, 2021	Six Months Ended June 25, 2022 compared to Six Months Ended June 26, 2021
Employee compensation costs	$ 1,249	$ 2,632
General operating expenses	831	1,465
Travel related costs	809	1,436
Stock-based compensation	83	486
Amortization of intangibles	(45)	(201)
	$ 2,927	$ 5,818

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

	Three Months Ended		Six Months Ended	
	June 25, 2022	June 26, 2021	June 25, 2022	June 26, 2021
Stock-based compensation	$ 3,929	$ 3,846	$ 8,385	$ 7,899

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 six months ended June 25, 2022 compared with the corresponding period of the prior year was attributable to a slight increase in investment yields due to the higher interest rate environment on higher invested balances.

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 six months ended June 25, 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 (Expense), Net

Other income (expense), net, primarily includes the effects of foreign currency impact and various other gains and losses.

Provision for Income Taxes

	Three Months Ended		Six Months Ended	
	June 25, 2022	June 26, 2021	June 25, 2022	June 26, 2021
	(In thousands, except percentages)			
Provision for income taxes	$ 3,136	$ 2,283	$ 7,586	$ 5,489
Effective tax rate	9.4 %	11.3 %	11.2 %	12.8 %

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 decrease in the effective tax rate in the three months ended June 25, 2022 when compared to the corresponding period in the prior year was primarily driven by an increased tax deduction from FDII.

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 $377.5 million at June 25, 2022, compared to $375.3 million at December 25, 2021.

Cash and cash equivalents primarily consist of deposits held at banks, money market funds, U.S. treasuries 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 $266.3 million at June 25, 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 (in response to a potential reduction in demand due to an industry downturn, COVID-19, or other event), 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:

	Six Months Ended	
	June 25, 2022	June 26, 2021
	(In thousands)	
Net cash provided by operating activities	$ 86,801	$ 66,155
Net cash used in investing activities	$ (41,111)	$ (59,813)
Net cash used in financing activities	$ (57,263)	$ (31,916)

Operating Activities

Net cash provided by operating activities for the six months ended June 25, 2022 was primarily attributable to net income of $60.1 million and net non-cash expenses of $42.0 million, which includes depreciation, amortization, stock-based compensation, and the provision for excess and obsolete inventories. These inflows were partially offset by net changes in working capital of $15.3 million, primarily related to cash paid for inventories of $32.3 million, partially offset by cash provided by an increase in accounts payable of $7.5 million, an increase in accrued liabilities for $4.1 million, and a reduction in accounts receivable of $5.5 million.

Investing Activities
Net cash used in investing activities for the six months ended June 25, 2022 was primarily related to $30.1 million property, plant and equipment purchases, $6.9 million net cash used to purchase marketable securities, and $3.1 million for acquisition of a business.

Financing Activities
Net cash used in financing activities for the six months ended June 25, 2022 primarily related to $54.3 million used to purchase common stock under our stock repurchase programs, $4.4 million of principal payments made towards the repayment of our term loans, and $4.2 million related to tax withholdings associated with the net share settlements of our equity awards, partially offset by $5.7 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 June 25, 2022 was 1.29%. As of June 25, 2022, the balance outstanding pursuant to the FRT term loan was $3.7 million. The FRT Term Loan is expected to be 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 June 25, 2022 was 2.81%. As of June 25, 2022, the balance outstanding pursuant to the Building Term Loan was $16.0 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 June 25, 2022, the notional amount of the loan that is subject to this interest rate swap is $16.0 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 six months ended June 25, 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 three months ended June 25, 2022, we repurchased and retired 767,083 shares of common stock for $28.4 million under this program. As of June 25, 2022, $46.6 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 June 25, 2022:

	Payments Due In Fiscal Year						
	Remainder 2022	2023	2024	2025	2026	Thereafter	Total
Operating leases	$ 4,319	$ 7,564	$ 7,224	$ 7,187	$ 6,505	$ 9,143	$ 41,942
Term loans - principal payments	4,208	1,050	1,080	1,111	1,142	11,116	19,707
Term loans - interest payments [1]	244	428	400	366	335	1,415	3,188
Total	$ 8,771	$ 9,042	$ 8,704	$ 8,664	$ 7,982	$ 21,674	$ 64,837

[1] Represents our minimum interest payment commitments at 2.81% per annum for the Building Term Loan and 1.29% per annum for the FRT Term Loan. This also 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 June 25, 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 six months ended June 25, 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 June 25, 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
March 27, 2022 - April 23, 2022	76,052	$ 35.93	76,052	$ 13,833,084
April 24, 2022 - May 21, 2022	242,975	37.49	242,975	4,723,942
May 22, 2022 - June 25, 2022	883,916	37.43	883,916	46,634,889
	1,202,943	$ 37.35	1,202,943	

[1] In May, 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 expires October 28, 2022. Under the authorized stock repurchase programs, 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 programs may be modified or discontinued at any time. This new share repurchase program will expire May 20, 2024.

Item 6. *Exhibits*

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

Exhibit Number	Exhibit Description	Incorporated by Reference Form	Date	Number	Filed Herewith
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	
10.1	First Amendment to FormFactor, Inc. Employee Stock Purchase Plan				X
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 June 25, 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 June 25, 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:	August 2, 2022	By:	/s/ SHAI SHAHAR
			Shai Shahar Chief Financial Officer *(Duly Authorized Officer, Principal Financial Officer, and Principal Accounting Officer)*

FIRST AMENDMENT TO
FORMFACTOR, INC. EMPLOYEE
STOCK PURCHASE PLAN

This First Amendment to FormFactor, Inc. Employee Stock Purchase Plan, dated as of July 20, 2022 (this "Amendment"), amends that certain Employee Stock Purchase Plan of FormFactor, Inc. (the "Company"), as amended and restated on May 18, 2018 (as so amended, the "Plan"). Capitalized terms not defined herein shall have the meanings ascribed thereto in the Plan.

Section 21 of the Plan is hereby amended and restated in its entirety as follows:

"21. Term; Stockholder Approval. This Plan shall be approved by the stockholders of the Company, in any manner permitted by applicable corporate law, within twelve (12) months before or after the date this Plan is adopted by the Board. This Plan shall continue until the earlier to occur of (a) termination of this Plan by the Board (which termination may be effected by the Board at any time), (b) issuance of all of the shares of Common Stock reserved for issuance under this Plan, or (c) the Company's annual meeting in 2023."

Except as and to the extent expressly modified by this Amendment, the remainder of the Plan remains in full force and effect.

The Compensation Committee and the Board of Directors of the Company have approved and adopted this Amendment effective as of the date first set forth above.

Exhibit 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**

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: August 2, 2022

/s/ MICHAEL D. SLESSOR

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

Exhibit 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

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:	August 2, 2022	/s/ SHAI SHAHAR
		Shai Shahar
		Chief Financial Officer
		(Principal Financial Officer and Principal Accounting Officer)

Exhibit 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

In connection with the Quarterly Report on Form 10-Q of FormFactor, Inc., a Delaware corporation, for the period ended June 25, 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:	August 2, 2022	/s/ MICHAEL D. SLESSOR
		Michael D. Slessor *Chief Executive Officer* *(Principal Executive Officer and Director)*
Date:	August 2, 2022	/s/ SHAI SHAHAR
		Shai Shahar *Chief Financial Officer* *(Principal Financial Officer and Principal Accounting Officer)*