

FORMFACTOR INC  
Form 10-Q  
November 03, 2016

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

Form 10-Q

(Mark one)

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

For the quarterly period ended September 24, 2016

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 (I.R.S. Employer  
incorporation or organization) 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)

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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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of "large accelerated filer", "accelerated filer" and "smaller reporting

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company” in Rule 12b-2 of the Exchange Act. (Check one):

Large Accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

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 November 1, 2016, 70,749,569 shares of the registrant’s common stock, par value \$0.001 per share, were outstanding.

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FORMFACTOR, INC.

FORM 10-Q FOR THE QUARTERLY PERIOD ENDED SEPTEMBER 24, 2016

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## PART I. FINANCIAL INFORMATION

## Item 1. Financial Statements (Unaudited)

## FORMFACTOR, INC.

## CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except per share amounts)

(Unaudited)

	Three Months Ended		Nine Months Ended	
	September 24, 2016	September 26, 2015	September 24, 2016	September 26, 2015
Revenues	\$123,299	\$ 65,862	\$259,993	\$ 210,576
Cost of revenues	96,111	47,407	197,586	146,028
Gross profit	27,188	18,455	62,407	64,548
Operating expenses:				
Research and development	17,253	10,645	39,235	32,947
Selling, general and administrative	23,008	11,108	49,553	34,373
Restructuring and impairment charges, net	85	59	6,995	570
Total operating expenses	40,346	21,812	95,783	67,890
Operating loss	(13,158 )	(3,357 )	(33,376 )	(3,342 )
Interest income, net	52	65	267	213
Other income (expense), net	(1,042 )	982	(1,669 )	2,584
Loss before income taxes	(14,148 )	(2,310 )	(34,778 )	(545 )
Provision (benefit) for income taxes	50	215	(43,665 )	359
Net income (loss)	\$(14,198 )	\$ (2,525 )	\$8,887	\$ (904 )
Net income (loss) per share:				
Basic	\$(0.20 )	\$ (0.04 )	\$0.14	\$ (0.02 )
Diluted	\$(0.20 )	\$ (0.04 )	\$0.14	\$ (0.02 )
Weighted-average number of shares used in per share calculations:				
Basic	70,502	58,209	62,835	57,757
Diluted	70,502	58,209	63,662	57,757

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

## FORMFACTOR, INC.

## CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

(In thousands)

(Unaudited)

	Three Months Ended		Nine Months Ended	
	September 30, 2016	September 26, 2015	September 30, 2016	September 26, 2015
Net income (loss)	\$(14,198)	\$ (2,525 )	\$8,887	\$ (904 )
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustments	989	(161 )	2,508	(409 )
Unrealized gains on available-for-sale marketable securities	17	(7 )	58	4
Unrealized losses on derivative instruments	(233 )	—	(233 )	—
Other comprehensive income (loss), net of tax	773	(168 )	2,333	(405 )
Comprehensive income (loss)	\$(13,425)	\$ (2,693 )	\$11,220	\$ (1,309 )

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

## FORMFACTOR, INC.

## CONDENSED CONSOLIDATED BALANCE SHEETS

(In thousands, except share and per share amounts)

(Unaudited)

	September 24, 2016	December 26, 2015
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 99,908	\$ 146,264
Marketable securities	7,505	41,325
Accounts receivable, net	77,530	36,725
Inventories, net	60,677	27,223
Restricted cash	120	—
Refundable income taxes	1,391	—
Prepaid expenses and other current assets	12,946	6,481
Total current assets	260,077	258,018
Restricted cash	438	435
Property, plant and equipment, net	42,678	23,853
Goodwill	188,776	30,731
Intangibles, net	152,395	25,552
Deferred tax assets	3,966	3,281
Other assets	1,982	853
Total assets	\$ 650,312	\$ 342,723
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 41,584	\$ 18,072
Accrued liabilities	29,466	21,507
Current portion of term loan	8,960	—
Income taxes payable	86	110
Deferred revenue	4,934	3,892
Total current liabilities	85,030	43,581
Long-term income taxes payable	1,277	1,069
Term loan, less current portion	137,777	—
Deferred tax liabilities	5,779	—
Deferred rent and other liabilities	4,827	3,392
Total liabilities	234,690	48,042
Commitments and contingencies (Note 18)		
Stockholders' equity:		
Preferred stock, \$0.001 par value:		

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10,000,000 shares authorized; no shares issued and outstanding at September 24, 2016 and December 26, 2015, respectively	—	—
Common stock, \$0.001 par value:		
250,000,000 shares authorized; 70,724,569 and 58,088,969 shares issued and outstanding at September 24, 2016 and December 26, 2015, respectively	71	58
Additional paid-in capital	828,613	718,904
Accumulated other comprehensive income (loss)	110	(2,222 )
Accumulated deficit	(413,172 )	(422,059 )
Total stockholders' equity	415,622	294,681
Total liabilities and stockholders' equity	\$ 650,312	\$ 342,723

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

## FORMFACTOR, INC.

## CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

(Unaudited)

	Nine Months Ended	
	September 24, 2016	September 26, 2015
Cash flows from operating activities:		
Net income (loss)	\$8,887	\$ (904 )
Adjustments to reconcile net income (loss) to net cash used in operating activities:		
Depreciation and amortization	33,574	17,875
Accretion of discount on investments	(31 )	(1 )
Stock-based compensation expense	7,477	8,515
Amortization of debt issuance costs	116	—
Deferred income tax (benefit) provision	(43,751)	7
Provision (recovery) of doubtful accounts receivable	23	(11 )
Provision for excess and obsolete inventories	4,437	4,886
Acquired inventory step-up amortization	7,036	—
Loss (gain) on sale of long-lived assets	117	(1,009 )
Impairment of long-lived assets	—	8
Non-cash restructuring	964	500
Foreign currency transaction gains	(1,818 )	(191 )
Changes in assets and liabilities:		
Accounts receivable	(12,963)	8,327
Inventories	(8,733 )	(6,337 )
Prepaid expenses and other current assets	(1,310 )	143
Refundable income taxes	126	782
Other assets	(256 )	250
Accounts payable	10,881	1,242
Accrued liabilities	(492 )	(2,906 )
Income tax payable	(1,553 )	36
Deferred rent and other liabilities	293	79
Deferred revenues	(536 )	(2,090 )
Net cash provided by operating activities	2,488	29,201
Cash flows from investing activities:		
Acquisition of property, plant and equipment	(8,217 )	(6,644 )
Acquisition of Cascade Microtech, net of cash acquired	(228,031)	—
Proceeds from sale of subsidiary	33	44
Proceeds from sale of property, plant and equipment	53	1,200
Purchases of marketable securities	(10,587)	(41,253 )
Proceeds from maturities of marketable securities	44,500	49,500
Change in restricted cash	(112 )	—
Net cash (used in) provided by investing activities	(202,361)	2,847
Cash flows from financing activities:		
Proceeds from issuances of common stock	4,005	3,418
Purchase and retirement of common stock	—	(6,996 )
Proceeds from term loan debt	150,000	—
Payments on term loan debt	(1,875 )	—
Payments of term loan debt issuance costs	(1,506 )	—



Net cash provided by (used in) financing activities	150,624 (3,578 )
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## FORMFACTOR, INC.

## CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

(Unaudited)

Effect of exchange rate changes on cash and cash equivalents	2,893	(225 )
Net (decrease) increase in cash and cash equivalents	(46,356 )	28,245
Cash and cash equivalents, beginning of period	146,264	113,940
Cash and cash equivalents, end of period	\$99,908	\$142,185
Non-cash investing and financing activities:		
Fair value of stock issued in connection with the acquisition of Cascade Microtech	\$93,216	\$—
Fair value of stock options and restricted stock-based awards assumed in connection with acquisition of Cascade Microtech	\$7,776	\$—
Fair value of vested stock options and restricted stock-based awards paid in cash in connection with the acquisition of Cascade Microtech	\$12,815	\$—
Changes in accounts payable and accrued liabilities related to property, plant and equipment purchases	\$(987 )	\$(262 )
Supplemental disclosure of cash flow information:		
Income and property taxes paid (refunded), net	\$1,492	\$(94 )
The accompanying notes are an integral part of these condensed consolidated financial statements.		

FORMFACTOR, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(Unaudited)

Note 1 — Basis of Presentation and Summary of Significant Accounting Policies

Basis of presentation. The accompanying unaudited condensed consolidated interim financial statements of FormFactor, Inc. and our subsidiaries have been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) and pursuant to the instructions to Form 10-Q and Article 10 of Regulation S-X of the U.S. Securities and Exchange Commission (the “SEC”). Our interim financial statements do not include all of the information and footnotes required by generally accepted accounting principles for annual financial statements. In the opinion of management, all adjustments (consisting only of normal recurring adjustments) considered necessary to fairly present our financial position, results of operations and cash flows have been included. Operating results for the nine months ended September 24, 2016 are not necessarily indicative of the results that may be expected for the year ending December 31, 2016, or for any other period. The balance sheet at December 26, 2015 has been derived from the audited consolidated financial statements at that date but does not include all of the information and footnotes required by GAAP for complete financial statements. The condensed consolidated financial statements include our accounts as well as those of our wholly-owned subsidiaries after elimination of all inter-company balances and transactions.

The preparation of condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in our condensed consolidated financial statements and accompanying notes. Actual results could differ from those estimates, and may result in material effects on our consolidated operating results and financial position.

These financial statements and notes should be read with the consolidated financial statements and notes for the year ended December 26, 2015 included in our Annual Report on Form 10-K filed with the SEC on March 4, 2016.

Fiscal year. We operate on a 52/53 week fiscal year, whereby the fiscal year ends on the last Saturday of December. Fiscal 2016 and 2015 contain 53 weeks and 52 weeks, respectively and the nine months ended September 24, 2016 and September 26, 2015 each contained 39 weeks. Fiscal 2016 will end on December 31, 2016.

Business Acquisition. On June 24, 2016, we completed the acquisition of Cascade Microtech Inc. (“Cascade Microtech”), headquartered in Beaverton, Oregon. Our consolidated financial statements as of September 24, 2016 included the condensed consolidated balance sheet of Cascade Microtech as of September 24, 2016 whereas our condensed consolidated statements of operations for the three and nine months ended September 24, 2016 included the financial results of Cascade Microtech only for the third quarter of fiscal 2016. We excluded the financial results of Cascade Microtech for the second quarter of fiscal 2016 as the one-day stub period between the acquisition of Cascade Microtech on June 24, 2016 and the end of our second quarter of fiscal 2016 on June 25, 2016 was immaterial. See Note 3 to the Condensed Consolidated Financial Statements - Acquisition, for further details.

Critical Accounting Policies. Our critical accounting policies have not changed during the nine months ended September 24, 2016 from those disclosed in our Annual Report on Form 10-K for the year ended December 26, 2015.

Note 2 — Concentration of Credit and Other Risks

Financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash equivalents, marketable securities and trade receivables. Our cash equivalents and marketable securities are held in safekeeping by

large, credit worthy financial institutions. We invest our excess cash primarily in U.S. banks, government and agency bonds, money market funds and corporate obligations. We have established guidelines relative to credit ratings, diversification and maturities that seek to maintain safety and liquidity. Deposits in these banks may exceed the amounts of insurance provided on such deposits. To date, we have not experienced any losses on our deposits of cash and cash equivalents.

We market and sell our products to a narrow base of customers and generally do not require collateral. The following customers accounted for more than 10% of our revenues for the periods indicated:

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	Three Months Ended			Nine Months Ended		
	September 24, 2016	September 26, 2015	%	September 24, 2016	September 26, 2015	%
Intel	28.9%	18.1	%	34.8%	17.9	%
SK hynix *		15.6		*	15.3	
Samsung *		23.1		*	16.4	
Micron *		*		*	12.6	
	28.9%	56.8	%	34.8%	62.2	%

\* Less than 10% of revenues.

At September 24, 2016, one customer accounted for approximately 27% of gross accounts receivable. At December 26, 2015, one customer accounted for approximately 29% of gross accounts receivable. No other customers accounted for more than 10% of gross accounts receivable at either of these fiscal period ends.

We operate in the competitive semiconductor industry, including the Dynamic Random Access Memory, or DRAM, Flash memory, and Foundry & Logic (previously referred to as System-on-Chip, or SoC) markets, which have been characterized by price erosion, rapid technological change, short product life cycles and heightened foreign and domestic competition. Significant technological changes in the industry could adversely affect our operating results. Certain components for our products that meet our requirements are available only from a limited number of suppliers. The rapid rate of technological change and the necessity of developing and manufacturing products with short life cycles may intensify our reliance on such suppliers. The inability to obtain components as required, or to develop alternative sources, if and as required in the future, could result in delays or reductions in product shipments, which in turn could have a material adverse effect on our business, financial condition, results of operations or cash flows.

### Note 3 — Acquisition

On June 24, 2016, we acquired Cascade Microtech pursuant to the Agreement and Plan of Merger dated as of February 3, 2016 (the “Merger Agreement”) between Cascade Microtech and Cardinal Merger Subsidiary, Inc., an Oregon corporation and our wholly owned subsidiary. Cascade Microtech designs, develops, manufactures and markets advanced wafer probing, thermal and reliability solutions for the electrical measurement and testing of high performance semiconductor devices. Design, development and manufacturing operations are located in Beaverton, Oregon, United States and Munich and Dresden, Germany, and sales, service and support operations in the United States, Germany, Japan, Taiwan, China and Singapore. The acquisition of Cascade Microtech transforms our business into a broader test and measurement market leader with significant scale and increased diversification and demand for the combined company’s products and technologies.

In accordance with the terms of the Merger Agreement, each outstanding share of Cascade Microtech common stock was canceled and converted into the right to receive \$16.00 in cash, without interest, and 0.6534 of a share of FormFactor common stock. At the effective time of the merger (the “Effective Time”), each in-the-money Cascade Microtech stock option which was outstanding and vested prior to the Effective Time (or that vested as a result of the consummation of the merger) was canceled and converted into the right to receive an amount in cash equal to the excess, if any, of \$21.47 over the applicable per share exercise price of such option. Each out-of-the-money option to purchase shares of Cascade Microtech common stock was canceled without any cash payment. Also at the Effective Time, each Cascade Microtech restricted stock unit which was outstanding and vested immediately prior to the Effective Time (or that vested as a result of the consummation of the Merger) was canceled and converted into the right to receive an amount of cash (without interest) equal to \$21.47 per share underlying such restricted stock unit.

Additionally, all of the equity awards originally granted by Cascade Microtech which were outstanding and unvested immediately prior to the consummation of the merger (and that did not vest as a result of the consummation of the merger) were assumed by us on substantially the same terms at the Effective Time, except that the number of shares of our common stock that underlie the assumed award and the exercise price of any assumed option were determined pursuant to a formula intended to preserve the intrinsic value of the original award, resulting in the assumption of stock options exercisable for an aggregate of 152,276 shares of our common stock and restricted stock units representing 777,444 shares of our common stock as of the acquisition date. The fair value of the stock options assumed was determined using a Black-Scholes valuation model with market-based assumptions. The fair value of the restricted stock units assumed was \$8.92 per unit, based on the FormFactor closing stock price on June 24, 2016. The fair value of unvested equity awards relating to future services, and not

yet earned, will be recorded as operating expense over the remaining service periods. Option pricing models require the use of highly subjective market assumptions, including expected stock price volatility, which if changed can materially affect fair value estimates. See Note 14 to the Condensed Consolidated Financial Statements - Stockholder's Equity, for further details.

The acquisition was accounted for using the acquisition method of accounting in accordance with the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic No. 805, Business Combinations, with FormFactor treated as the acquirer. The acquired assets and liabilities of Cascade Microtech were recorded at their respective fair values including an amount for goodwill representing the difference between the acquisition consideration and the fair value of the identifiable net assets. As a result of the acquisition, Cascade Microtech shares ceased to trade on the NASDAQ Global Market effective June 24, 2016.

The total acquisition consideration of \$325.1 million, net of cash acquired of \$40.7 million was determined based on the terms of the Merger Agreement which consisted of the a) payment of \$255.9 million in cash to former shareholders of Cascade Microtech, b) issuance of 10,450,189 shares of FormFactor's common stock to former shareholders of Cascade Microtech which was valued at the closing market price of \$8.92 per share on June 24, 2016 and amounted to \$93.2 million in the aggregate, c) payment of \$12.8 million at the commencement of the third quarter of fiscal 2016, in cash, to Cascade Microtech outstanding and vested equity award holders, and d) \$3.9 million attributable to the fair value of the assumed unvested equity awards for services performed by Cascade Microtech employees for the period leading up to the effective date of the acquisition.

During the three and nine months ended September 24, 2016, we incurred approximately \$0.4 million and \$6.3 million, respectively, in transaction costs related to the acquisition, which primarily consisted of investment banking, legal, accounting and valuation-related expenses. These expenses were recorded in selling, general and administrative expense in the accompanying Condensed Consolidated Statements of Operations.

Our consolidated financial statements as of September 24, 2016 included the condensed consolidated balance sheet of Cascade Microtech as of September 24, 2016 whereas our condensed consolidated statements of operations for the three and nine months ended September 24, 2016 included the financial results of Cascade Microtech only for the third quarter of fiscal 2016. We excluded the financial results of Cascade Microtech for the second quarter of fiscal 2016 as the one-day stub period between the acquisition of Cascade Microtech on June 24, 2016 and the end of our second quarter of fiscal 2016 on June 25, 2016 was immaterial.

To finance a portion of the acquisition consideration, we entered into a credit agreement with certain lenders to provide a senior secured term loan facility in an aggregate amount of \$150 million. See Note 5 to the Condensed Consolidated Financial Statements - Debt, for further details.

The acquisition price was allocated to the tangible and identified intangible assets acquired and liabilities assumed as of the closing date of the acquisition based upon their respective fair values. Asset categories acquired included working capital, long-term assets and liabilities and identifiable intangible assets, including in-process research and development ("IPR&D"). The allocation of the acquisition price has been prepared on a preliminary basis and changes to that allocation may occur as additional information becomes available. The fair values assigned to assets acquired and liabilities assumed are based on management's best estimates and assumptions as of the reporting date and are considered preliminary pending finalization of valuation analyses pertaining to intangible assets acquired, liabilities assumed and tax liabilities assumed including calculation of deferred tax assets and liabilities. Changes to amounts recorded as assets or liabilities may result in corresponding adjustments to goodwill, recognized deferred tax assets and liabilities including changes to release of valuation allowance during the measurement period (up to one year from the acquisition date). Any such revisions or changes may be material as we finalize the fair values of the tangible and intangible assets acquired and liabilities assumed.





The table below summarizes the assets acquired and liabilities assumed as follows (in thousands):

	Amount
Cash and cash equivalents	\$40,681
Accounts receivable	27,112
Inventory	35,915
Prepaid expenses and other current assets	6,249
Property, plant and equipment	19,875
Other long-term assets	818
Deferred revenue	(1,829 )
Accounts payable and accrued liabilities	(22,901 )
Deferred tax liabilities	(43,330 )
Other long-term liabilities	(6,623 )
Total tangible assets acquired and liabilities assumed	55,967
Intangible assets	152,053
Goodwill	157,772
Total acquisition price	\$365,792

The intangible assets as of the closing date of the acquisition included (in thousands):

	Amount	Weighted Average Useful Life (in years)
Developed technologies	\$91,100	4.7
Customer relationships	23,153	6.8
Order backlog	17,800	0.5
Trade names	7,600	3.5
In-process research and development	12,400	
Total intangible assets	\$152,053	

Indications of fair value of the intangible assets acquired in connection with the acquisition were determined using either the income, market or replacement cost methodologies. The intangible assets are being amortized over periods which reflect the pattern in which economic benefits of the assets are expected to be realized. Order backlog is expected to be fully amortized by the second quarter of fiscal 2017.

#### Identifiable intangible assets

Developed technology acquired primarily consist of Cascade Microtech's existing technologies related to manufacturing wafer testing stations (150mm, 200mm, 300 mm), thermal chuck systems used in wafer testing stations for testing wafers at specific temperatures, engineering and production probes used in testing wafers as well as reliability test systems. A Multi-Period Excess Earnings (MPEE) Method was used to value the developed technologies. Along with the cash flow forecast associated with each developed technology, other key assumptions in MPEE method are remaining life of technology, technology migration pattern (or technology decay curve), level of R&D required to maintain the technology, discount rate and applicable tax rate. Using this approach, the estimated fair values were calculated using expected future cash flows from specific products discounted to their net present values at an appropriate risk-adjusted rate of return that resulted in a value of \$91.1 million and will be amortized over their useful lives.

Customer relationships represent the fair value of future projected revenues that will be derived from the sale of products to existing customers of the acquired company. The fair value of the customer relationships is determined based on the With and Without Method and resulted in a value of \$23.2 million which will be amortized over their useful lives. The With and Without Method is appropriate for valuing non-primary customer-related assets for which reasonable estimates can be made for both the time and resources required to recreate those assets, as well as the

economic impact over the period of time in which

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the assets are recreated. The Without scenario incorporates lost revenue and lost profits over the period necessary to retain the asset. Key assumptions in this valuation are attrition rate, time to recreate customer relationships, composition of costs into fixed versus variable costs, tax rates and discount rates.

Trade names and trademarks are considered a type of guarantee of a certain level of quality or performance represented by the brands owned including the Cascade Microtech brand. Trade names and trademarks were valued using the "relief-from-royalty income" approach. This method is based on the assumption that in lieu of ownership, a market participant would be willing to pay a royalty in order to exploit the related benefits of this asset. Key assumptions involved in valuation of trade names include royalty rate, expected utilization of the trade names, tax rates and discount rates. The value of the trade names acquired was determined to be \$7.6 million and will be amortized over their useful lives.

IPR&D represents the estimated fair values of incomplete Cascade Microtech research and development projects that had not reached commercialization stage and meet the criteria for recognition as IPR&D as described in the American Institute of Certified Public Accountants IPR&D guide as of the date of the acquisition. In the future, the fair value of each project at the acquisition date will be either amortized or impaired depending on whether the projects are completed or abandoned. The fair value of IPR&D was determined using the MPEE method. For IPR&D, costs to complete the project and expected commercialization timeline are considered as key assumptions. This method reflects the present value of the projected cash flows that are expected to be generated by the IPR&D less charges representing the contribution of other assets to those cash flows. The value of the IPR&D was determined to be \$12.4 million and the amortization will commence upon completion of the IPR&D projects.

#### Goodwill

The excess of purchase price over the fair value amounts assigned to the assets acquired and liabilities assumed represents the amount of goodwill resulting from the acquisition. We believe the factors that contributed to goodwill include synergies that are specific to our consolidated business such as cost savings and operational efficiencies and the acquisition of a talented workforce that expands our expertise in business development and commercializing semiconductor test products, none of which qualify for recognition as a separate intangible asset. We do not expect any portion of this goodwill to be deductible for tax purposes. The goodwill attributable to the acquisition has been recorded as a non-current asset and is not amortized, but is subject to an annual review for impairment.

The goodwill arising from the acquisition was preliminarily allocated to our reporting units based on the relative fair values of the expected incremental cash flows that the acquisition is expected to provide to each reporting unit within our reportable segments. The allocation of goodwill, which was prepared on a preliminary basis, may be subject to changes as additional information becomes available as the allocation was based on estimates and assumptions made by management at the time of acquisition. Goodwill is not expected to be deductible for tax purposes.

#### Operating and reporting segments, and reporting units

Upon acquisition of Cascade Microtech, we re-evaluated our operating and reportable segments as well as our reporting units for goodwill impairment consideration in accordance with Financial Accounting Standards Board's Accounting Standards Codification ("ASC") Topics Nos. 280, Segment Reporting and 350, Intangibles-Goodwill and Other. See Note 20 to the Condensed Consolidated Financial Statements - Operating Segments, for further details.

#### Pro forma consolidated results of operations

The following unaudited pro forma results of operations for the three and nine months ended September 24, 2016 and September 26, 2015 presents the combined results of operations of FormFactor and Cascade Microtech as if the

acquisition had been completed at the beginning of fiscal 2015. The pro forma information includes adjustments to amortization and depreciation for intangible assets and property, plant and equipment, adjustments to stock-based compensation expense, interest expense for the incremental indebtedness incurred, and interest income for the cash paid in connection with the transaction. The pro forma results for the nine months ended September 26, 2015 include non-recurring adjustments related to deferred tax asset valuation allowance release of \$43.9 million which increases pro-forma net income, and acquisition-related transaction costs of \$14.3 million and restructuring charges of \$6.9 million which decreases pro-forma net income.

The pro forma results also include utilization of the net increase in the cost basis of acquired inventory and acquisition related expenses. The pro forma data are for informational purposes only and are not necessarily indicative of the consolidated results of operations of the combined business had the acquisition actually occurred at the beginning of fiscal year 2015 and

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2016 or of the results of future operations of the combined business. Consequently, actual results may differ from the unaudited pro forma information presented below (in thousands, except per share data):

	Three Months Ended		Nine Months Ended	
	September 24, 2016	September 26, 2015	September 24, 2016	September 26, 2015
Revenues	\$123,299	\$ 101,643	\$331,825	\$ 314,143
Net loss	(11,272 )	(4,218 )	(20,846 )	(2,525 )
Net loss per share - basic	\$(0.14 )	\$( 0.06 )	\$(0.28 )	\$( 0.04 )
Net loss per share - Diluted	\$(0.14 )	\$( 0.06 )	\$(0.28 )	\$( 0.04 )

Note 4 — Goodwill and Intangible Assets

Goodwill recorded from the acquisition of Cascade Microtech on June 24, 2016 was \$157.8 million as of September 24, 2016. The Company determined the total consideration paid for its acquisition of Cascade Microtech as well as the fair value of the assets acquired and liabilities assumed as of the acquisition date. The fair values assigned to assets acquired and liabilities assumed are based on management's best estimates and assumptions as of the reporting date and are considered preliminary pending finalization of valuation analyses pertaining to intangible assets acquired, liabilities assumed and tax liabilities assumed including calculation of deferred tax assets and liabilities. Changes to amounts recorded as assets or liabilities may result in corresponding adjustments to goodwill, recognized deferred tax assets and liabilities including changes to release of valuation allowance during the measurement period (up to one year from the acquisition date). Any such revisions or changes may be material as we finalize the fair values of the tangible and intangible assets acquired and liabilities assumed. See Note 3 to the Condensed Consolidated Financial Statements - Acquisition, for further details.

Goodwill recorded from the acquisition of MicroProbe Inc. on October 16, 2012 was \$30.7 million as of September 24, 2016 and remained unchanged from the amounts recorded as of December 26, 2015.

The Company has not recorded any historical goodwill impairments as of September 24, 2016.

The changes in intangible assets during the nine months ended September 24, 2016 and the net book value of intangible assets as of September 24, 2016 and December 26, 2015 were as follows (in thousands):

Other Intangible Assets (1)	Intangible Assets, Gross Amount		Accumulated Amortization		Intangible Assets, Net		Weighted Average Useful Life		
	December 26, 2015	September 24, 2016	December 26, 2015	Expense, September 24, 2016	December 26, 2015	September 24, 2016	September 24, 2016	September 24, 2016	
Existing developed technologies	\$52,200	\$91,184	\$ 143,384	\$39,581	\$ 10,797	\$ 50,378	\$12,619	\$ 93,005	4.6
Trade name	4,388	7,610	11,998	1,409	900	2,309	2,979	9,689	4.2
Customer relationships	17,000	23,178	40,178	7,046	2,451	9,497	9,954	30,681	6.0
Backlog	—	17,821	17,821	—	11,201	11,201	—	6,620	0.4
Total finite-lived intangible assets	73,588	139,793	213,381	48,036	25,349	73,385	25,552	139,995	
	—	12,400	12,400	—	—	—	—	12,400	

In-process  
research and  
development

Total intangible assets	\$ 73,588	\$ 152,193	\$ 225,781	\$ 48,036	\$ 25,349	\$ 73,385	\$ 25,552	\$ 152,395
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(1) Excludes fully amortized intangible assets

Intangible asset additions during the nine months ended September 24, 2016 related to Cascade Microtech acquisition-see Note 3 to the Condensed Consolidated Financial Statements - Acquisition, for further details.

The IPR&D intangible assets are classified as indefinite lived assets that are not currently subject to amortization but are reviewed for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. The IPR&D assets will be subject to amortization upon completion of their respective research projects and when commercialization begins. The fair value assigned to IPR&D assets was determined using the MPEE approach based on estimates and judgments regarding risks inherent in the development process, including the likelihood of achieving technological success and market acceptance. If an IPR&D project is abandoned, the acquired technology attributable to the project will be written-off.

For the three months ended September 24, 2016, amortization expense of \$17.8 million and \$2.1 million were included in cost of revenues and selling, general and administrative expenses, respectively. For the nine months ended September 24, 2016, amortization expense of \$22.0 million and \$3.4 million were included in cost of revenues and selling, general and administrative expenses, respectively.

For the three months ended September 26, 2015, amortization expense of \$2.7 million and \$0.7 million were included in cost of revenues and selling, general and administrative expenses, respectively. For the nine months ended September 26, 2015, amortization expense of \$7.8 million and \$2.0 million were included in cost of revenues and selling, general and administrative expenses, respectively.

Based on the carrying values of the intangible assets recorded as of September 24, 2016 and assuming no subsequent additions to or impairment of the underlying assets, the remaining estimated annual amortization expense is expected to be as follows (in thousands):

Fiscal Year	Amount
2016	\$14,450
2017	28,783
2018	28,506
2019	25,842
2020	23,773
and thereafter	18,641
Total	\$139,995

As of the Effective Date of the acquisition of Cascade Microtech, we began operating under new reportable segments consisting of Probe Cards Segment and Systems Segment. See Note 20 to the Condensed Consolidated Financial Statements - Operating Segments, for further details. The following table summarizes the changes in the carrying amount of goodwill, by reportable segments, for the nine months ended September 24, 2016, applying the segment changes as of June 24, 2016, which was the date when we acquired Cascade Microtech.

	Probe Cards	Systems	Total
	(in thousands)		
Goodwill, gross, as of December 26, 2015	\$30,731	\$—	\$30,731
Additions-Cascade Microtech	141,482	16,290	157,772
Foreign currency translation	—	273	273
Balance as of September 24, 2016	\$172,213	\$16,563	\$188,776

#### Note 5 — Debt

##### Senior Secured Term Loan Facility

Long-term debt as of September 24, 2016 consisted of the following (in thousands):

	September 24, 2016
Senior secured term loan	\$148,126
Less debt issuance costs	(1,389 )

Long-term debt less debt issuance costs \$146,737



On June 24, 2016, we entered into a Credit Agreement (the "Credit Agreement") with HSBC Bank USA, National Association ("HSBC"), as administrative agent, co-lead arranger, sole bookrunner and syndication agent, other lenders that may from time-to-time be a party to the Credit Agreement, and certain guarantors. Pursuant to the Credit Agreement, the lenders have provided us with a senior secured term loan facility of \$150 million (the "Term Loan"). The proceeds of the Term Loan were used to finance a portion of the purchase price paid in connection with the Cascade Microtech acquisition and to pay related bank fees and expenses.

The Term Loan bears interest at a rate equal to, at our option, (i) the applicable London Interbank Offered Rate ("LIBOR") rate plus 2.00% per annum or (ii) Base Rate (as defined in the Credit Agreement) plus 1.00% per annum. We have initially elected to pay interest at 2.00% over the one-month LIBOR rate. Interest payments are payable in quarterly installments over a five-year period. The Term Loan will amortize in equal quarterly installments, beginning June 30, 2016, in an annual amount equal to 5% for year one, 10% for year two, 20% for year three, 30% for year four and 35% for year five.

On July 25, 2016, we entered into an interest-rate swap agreement with HSBC and other lenders to hedge the interest payments on our Term Loan entered into on June 24, 2016. See Note 19 to the Condensed Consolidated Financial Statements - Derivative Financial Instruments, for further details.

The obligations under the Term Loan are and will be fully and unconditionally guaranteed by certain of our existing and subsequently acquired or organized direct and indirect domestic subsidiaries and are secured by a perfected first priority security interest in substantially all of our assets and the assets of those guarantors, subject to certain customary exceptions. See Note 18 to the Condensed Consolidated Financial Statements - Commitments and Contingencies, for a schedule of our principal and interest payment commitments under the Term Loan.

The Credit Agreement contains negative covenants customary for financing of this type, including covenants that place limitations on the incurrence of additional indebtedness, the creation of liens, the payment of dividends; dispositions; fundamental changes, including mergers and acquisitions; loans and investments; sale leasebacks; negative pledges; transactions with affiliates; changes in fiscal year; sanctions and anti-bribery laws and regulations, and modifications to charter documents in a manner materially adverse to the Lenders. The Credit Agreement also contains affirmative covenants and representations and warranties customary for financing of this type.

In addition, the Credit Agreement contains financial maintenance covenants requiring, at the end of, and for, each period of four consecutive fiscal quarters, beginning as of June 30, 2016, (a) a ratio of total debt to earnings before interest, taxes, depreciation and amortization ("EBITDA") not in excess of 2.75 to 1.00, stepping down to 2.50 to 1.00 at the end of the fiscal quarter ending June 30, 2017; and (b) a fixed charge coverage ratio of not less than 1.50 to 1.00, stepping down to 1.30 to 1.00 at the end of the fiscal quarter ending June 30, 2018 and to 1.20 to 1.00 at the end of the fiscal quarter ending June 30, 2019. As of September 24, 2016, the Company was in compliance with all of the financial covenants under the senior secured term loan facility.

The Credit Agreement contains customary events of default, including (subject to certain materiality thresholds and grace periods) payment default, failure to comply with covenants, material inaccuracy of representation or warranty, bankruptcy or insolvency proceedings, change of control, certain material Employee Retirement Security Act ("ERISA") events and cross event of default and cross-acceleration in respect of other material debt.

The foregoing description of the Credit Agreement does not purport to be complete and is subject to and qualified in its entirety by reference to the full text of the Credit Agreement, which is filed as Exhibit 10.1 to our Current Report on Form 8-K filed on June 28, 2016.

Note 6 — Restructuring Charges

Restructuring charges are comprised of costs related to employee termination benefits.

During the three months ended September 24, 2016, we recorded approximately \$0.1 million of severance charges as a result of the consolidation of our operations. During the nine months ended September 24, 2016, we recorded approximately \$0.6 million of severance charges and \$0.3 million of stock-based compensation expense relating to the modification of certain equity-based awards as a result of the consolidation of our operations. In addition, in the same period, we also recorded approximately \$5.4 million of severance charges and \$0.7 million of stock-based compensation expense relating to the acceleration of certain equity-based awards of certain executives of Cascade Microtech who were terminated upon our

acquisition of Cascade Microtech and in accordance with their contractual change of control agreements. The cash payments associated with the restructuring activities are expected to be completed by the end of the second quarter of fiscal 2017.

Restructuring charges recorded during the three months ended September 26, 2015 were insignificant. During the nine months ended September 26, 2015, we recorded stock-based compensation expense of approximately \$0.5 million relating to the modification of an equity-based award.

The activities in the restructuring accrual for the nine months ended September 24, 2016 were as follows (in thousands):

	Employee Severance and Benefits	Stock-based Compensation	Total
Accrual at December 26, 2015	\$ 2	\$ —	\$ 2
Restructuring charges	6,029	964	6,993
Cash payments	(5,550 )	—	(5,550)
Non-cash settlement	—	(964 )	(964 )
Accrual at September 24, 2016	\$ 481	\$ —	\$ 481

The activities in the restructuring accrual for the nine months ended September 26, 2015 were as follows (in thousands):

	Employee Severance and Benefits	Stock-based Compensation	Total
Accrual at December 27, 2014	\$ 584	\$ —	\$ 584
Restructuring charges	59	500	559
Cash payments	(618 )	—	(618 )
Adjustment to restructuring charges	3	—	3
Non-cash settlement	—	(500 )	(500 )
Accrual at September 26, 2015	\$ 28	\$ —	\$ 28

#### Note 7 — Fair Value

##### Assets Measured at Fair Value on a Recurring Basis

We measure and report certain assets and liabilities at fair value on a recurring basis, including money market funds, U.S. Treasury securities, agency securities and derivatives comprised of foreign currency forward contracts and interest-rate swap contracts (see Note 19 to the Condensed Consolidated Financial Statements - Derivative Financial Instruments, for further details).

Assets measured at fair value on a recurring basis as of September 24, 2016 were as follows (in thousands):

	Level 1	Level 2	Total
Assets:			
Cash equivalents			
Money market funds	\$ 19,315	\$ —	\$ 19,315
Marketable securities			

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U.S. Treasuries	—	7,505	7,505
Total assets	\$19,315	\$7,505	\$26,820

Liabilities measured at fair value on a recurring basis as of September 24, 2016 were as follows (in thousands):

	Level 1	Level 2	Total
Liabilities:			
Interest rate swap derivative contracts	\$	—\$233	\$233
Foreign exchange derivative contracts	\$	—\$211	\$211
Total liabilities	\$	—\$444	\$444

Assets measured at fair value on a recurring basis as of December 26, 2015 was as follows (in thousands):

	Level 1	Level 2	Total
Assets:			
Cash equivalents			
Money market funds	\$82,935	\$—	\$82,935
Marketable securities			
U.S. Treasuries	—	18,853	18,853
Agency securities (Federal)	—	22,472	22,472
Total	\$82,935	\$41,325	\$124,260

The Level 1 assets consist of our money market fund deposits. The Level 2 assets consist of our available-for-sale investment portfolio, which are valued utilizing a market approach. Our investments are priced by pricing vendors who provided 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 values in the market in which the investment trades. Our broker-priced investments are labeled as Level 2 investments because fair values of these investments are based on similar assets without applying significant judgments. In addition, all of our investments have a sufficient level of trading volume to demonstrate that the fair values used are appropriate for these investments.

Derivative liabilities include foreign currency forward contracts and interest rate swap contracts. The fair value of foreign currency forward contracts represents the estimated amount required to settle the contracts using current market exchange rates, and is based on the current foreign currency exchange rates and forward points. The fair value of interest rate swaps is estimated based on valuation models that use interest rate yield curves as inputs. The inputs used to estimate the fair value of the Company's derivatives are classified as Level 2.

We did not have any transfers of assets measured at fair value on a recurring basis to or from Level 1 and Level 2 during the nine months ended September 24, 2016 and September 26, 2015.

#### Assets Measured at Fair Value on a Non-Recurring Basis

We measure and report 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. Refer to Note 4 to the Condensed Consolidated Financial Statements—Goodwill and Intangible Assets, for further details. The only assets that were measured at fair value on a nonrecurring basis during the three and nine months ended September 24, 2016 related to the Cascade Acquisition. See Note 3 to the Condensed Consolidated Financial Statements - Acquisition, for further details. There were no assets measured at fair value on a nonrecurring basis during the three and nine months ended September 26, 2015.

#### Note 8 — Marketable Securities

We classify our marketable securities as available-for-sale. All marketable securities represent the investment of funds available for current operations, notwithstanding their contractual maturities. Such marketable securities are recorded at fair value and unrealized gains and losses are recorded in accumulated other comprehensive income until realized.

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Marketable securities at September 24, 2016 consisted of the following (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. Treasuries	\$ 7,504	\$ 3	\$ (2 )	\$7,505
	\$ 7,504	\$ 3	\$ (2 )	\$7,505

Marketable securities at December 26, 2015 consisted of the following (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. Treasuries	\$ 18,896	\$ 1	\$ (44 )	\$18,853
Agency securities (Federal)	22,484	—	(12 )	22,472
	\$ 41,380	\$ 1	\$ (56 )	\$41,325

The marketable securities with gross unrealized losses have been in a loss position for less than twelve months as of September 24, 2016 and December 26, 2015, respectively.

When evaluating the investments for other-than-temporary impairment, we review factors such as the length of time and extent to which fair value has been below the amortized cost basis, current market liquidity, interest rate risk, financial condition of the issuer, and credit rating downgrades. We believe that the unrealized losses are not other-than-temporary and anticipate recovering the full cost of the securities either as market conditions improve or as the securities mature.

Contractual maturities of marketable securities as of September 24, 2016 were as follows (in thousands):

	Amortized Cost	Fair Value
Due in one year or less	\$ 2,507	\$2,505
Due after one year to five years	4,997	5,000
	\$ 7,504	\$7,505

There were no realized gains and losses on sales and maturities of marketable securities during the three and nine months ended September 24, 2016 and September 26, 2015, respectively.

Note 9 — Allowance for Doubtful Accounts

A reconciliation of the changes in our allowance for doubtful accounts receivable for the nine months ended September 24, 2016 and September 26, 2015, respectively, is as follows (in thousands):

	September 24, 2016	September 26, 2015
Balance at beginning of period	\$ 284	\$ 266
Additions	62	—

Reductions	(39	)	(11	)
Balance at end of period	\$ 307		\$ 255	



## Note 10 — Inventories

Inventories consisted of the following (in thousands):

	September 24, December 26,	
	2016	2015
Raw materials	\$ 28,468	\$ 12,996
Work-in-progress	19,849	12,492
Finished goods	12,360	1,735
	\$ 60,677	\$ 27,223

## Note 11 — Warranty

A reconciliation of the changes in our warranty liability for the nine months ended September 24, 2016 and September 26, 2015, respectively, is as follows (in thousands):

	September 24, September 26,	
	2016	2015
Balance at beginning of period	\$ 1,116	\$ 1,592
Warranty reserve from acquisition-Cascade Microtech	795	—
Accruals	3,106	1,855
Settlements	(2,730	) (2,284
Balance at the end of period	\$ 2,287	\$ 1,163

## Note 12 — Long-lived Assets

## Long-lived Assets

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

	September 24, December 26,	
	2016	2015
Machinery and equipment	\$ 168,164	\$ 150,983
Computer equipment and software	30,228	27,951
Furniture and fixtures	6,114	5,380
Leasehold improvements	73,185	67,121
Sub total	277,691	251,435
Less: accumulated depreciation and amortization	(240,539	) (232,005
Net long-lived assets	37,152	19,430
Construction-in-progress	5,526	4,423
Total	\$ 42,678	\$ 23,853

During the nine months ended September 24, 2016 and September 26, 2015, we ceased using fully depreciated assets with an acquired cost of \$1.1 million and \$0.6 million, respectively.

Refer to Note 4 to the Condensed Consolidated Financial Statements - Goodwill and Intangible Assets for further details relating to our intangible long-lived assets.

Note 13 — Accumulated Other Comprehensive Income (Loss)

Accumulated other comprehensive income (loss) includes foreign currency translation adjustments, unrealized losses on derivative instruments and unrealized losses on available-for-sale securities, net of tax, the impact of which has been excluded from earnings and reflected as components of stockholders' equity as shown below (in thousands):

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	September 24, 2016	December 26, 2015
Unrealized loss on marketable securities, net of tax of \$382 at September 24, 2016 and \$428 at December 26, 2015, respectively	\$ (427 )	\$ (483 )
Cumulative translation adjustments	770	(1,739 )
Unrealized loss on derivative instruments	(233 )	—
Accumulated other comprehensive income (loss)	\$ 110	\$ (2,222 )

#### Note 14 — Stockholders' Equity

##### Common Stock Repurchase Program

On April 16, 2015, our Board of Directors authorized a program to repurchase up to \$25.0 million of outstanding common stock on the open market and which expired on April 15, 2016. During the nine months ended September 24, 2016, we did not repurchase any shares under this program. During the nine months ended September 26, 2015, we repurchased 873,162 shares of common stock for approximately \$7.0 million.

Repurchased shares are retired upon the settlement of the related trade transactions. Our policy related to repurchases of our common stock is to charge the excess of cost over par value to additional paid-in capital. 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 during the nine months ended September 24, 2016 is set forth below:

	Units	Weighted Average Grant Date Fair Value
Restricted stock units at December 26, 2015	2,578,138	\$ 7.63
Awards granted	2,265,210	8.67
Awards vested	(1,541,940)	7.16
Awards canceled	(156,988 )	6.39
Restricted stock units at September 24, 2016	3,144,420	\$ 8.67

On June 24, 2016, pursuant to the Agreement and Plan of Merger with Cascade Microtech, we granted 777,444 RSUs with a total grant date fair value of approximately \$6.9 million, of which approximately \$3.6 million was attributable to the fair value of the assumed unvested RSUs for services performed by Cascade Microtech employees for the period leading up to the effective date of the acquisition and which was included as part of the purchase price consideration. See Note 3 to the Condensed Consolidated Financial Statements - Acquisition, for further details.

On August 19, 2016, we issued 155,000 RSUs to six senior executives which will vest based on certain market performance criteria. The performance criteria are based on a metric called our Total Shareholder Return (TSR) for the period from April 1, 2016 to March 31, 2019 relative to the TSR of the companies identified as being part of the S&P Semiconductor Select Industry Index (FormFactor peer companies), as of April 1, 2016. The total stock-based compensation cost of approximately \$1.7 million will be recognized ratably over the requisite service period.

On May 2, 2016, we issued 40,000 RSUs to a senior executive which will vest based on certain market performance criteria. The performance criteria are based on a metric called our TSR for the period from April 1, 2016 to March 31, 2019 relative to the TSR of the companies identified as being part of the S&P Semiconductor Select Industry Index (FormFactor peer companies), as of April 1, 2016. The total stock-based compensation cost of approximately \$0.3 million will be recognized ratably over the requisite service period.

On May 28, 2015, we issued 195,000 RSUs to seven senior executives of our company that will vest based on certain market performance criteria. The performance criteria are based on a metric called our TSR for the period from April 1, 2015 to March 31, 2017 relative to the TSR of the companies identified as being part of the S&P Semiconductor Select Industry Index

(FormFactor peer companies), as of April 1, 2015. The total stock-based compensation cost of approximately \$1.5 million will be recognized ratably over the requisite service period.

On May 5, 2014, we issued 350,000 RSUs to seven senior executives of our company that will vest based on certain market performance criteria. The performance criteria are based on our TSR for the period from April 1, 2014 to March 31, 2016 relative to the TSR of the companies identified as being part of the S&P Semiconductor Select Industry Index (FormFactor peer companies), as of April 1, 2014. Upon the review of the market performance criteria on April 4, 2016, our Compensation Committee certified a total earn out of 328,600 RSUs which immediately vested as of that date.

The total fair value of RSUs vested during the three and nine months ended September 24, 2016 was \$1.3 million and \$11.7 million, respectively. The total fair value of RSUs vested during the three months ended September 26, 2015 was insignificant and the total fair value of RSUs vested during the nine months ended September 26, 2015 was \$17.5 million.

### Stock Options

On June 24, 2016, pursuant to the Agreement and Plan of Merger with Cascade Microtech, we granted 152,276 stock options with a total grant date fair value of approximately \$0.8 million, of which approximately \$0.3 million was attributable to the fair value of the assumed unvested options for services performed by Cascade Microtech employees for the period leading up to the effective date of the acquisition and which was included as part of the purchase price consideration. See Note 3 to the Condensed Consolidated Financial Statements - Acquisition, for further details.

During the nine months ended September 26, 2015, we granted 450,000 stock options to our Chief Executive Officer (in February 2015) with a grant-date fair value of approximately \$1.7 million which will be recognized as stock-based compensation expense ratably over the service period. The following weighted average assumptions were used in the estimated grant-date fair value calculations using the Black-Scholes option pricing model:

#### Stock Options:

Dividend yield	— %
Expected volatility	47.5 %
Risk-free interest rate	1.57 %
Expected term (in years)	5.52

### Note 15 — Stock-Based Compensation

We account for all stock-based compensation to employees and directors, including grants of RSUs and stock options, as stock-based compensation costs based on the fair value measured as of the date of grant. These costs are recognized as an expense in the Condensed Consolidated Statements of Income over the requisite service period.

The table below shows stock-based compensation charges included in the Condensed Consolidated Statements of Income (in thousands):

	Three Months Ended		Nine Months Ended	
	September 24, 2016	September 26, 2015	September 24, 2016	September 26, 2015
Stock-based compensation included in:				
Cost of revenues	\$674	\$ 756	\$1,712	\$ 1,941
Research and development	913	973	2,251	2,544
Selling, general and administrative	1,615	1,371	3,514	4,030

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Total stock-based compensation	3,202	3,100	7,477	8,515
Tax effect of stock-based compensation	—	—	—	—
Total stock-based compensation, net of tax	\$3,202	\$ 3,100	\$7,477	\$ 8,515

During the nine months ended September 24, 2016, we recorded approximately \$0.3 million of stock-based compensation expense relating to the modification of certain equity-based awards as a result of the consolidation of our operations. In addition, we also recorded approximately \$0.7 million of stock-based compensation expense relating to the acceleration of

certain equity-based awards of an executive of Cascade Microtech who was terminated upon our acquisition of Cascade Microtech and in accordance with his contractual change of control agreement with Cascade Microtech.

During the nine months ended September 26, 2015, we recorded stock-based compensation expense of approximately \$0.5 million relating to the modification of an equity-based award.

We classified these stock-based compensation expenses as restructuring-related expenses. Refer to Note 6 to the Condensed Consolidated Financial Statements - Restructuring Charges for further details.

#### Employee Stock Purchase Plan

Under our 2012 Employee Stock Purchase Plan ("ESPP"), the offering periods are 12 months commencing on February 1 of each calendar year and ending on January 31 of the subsequent calendar year, and a six-month fixed offering period commencing on August 1 of each calendar year and ending on January 31 of the subsequent calendar year. The 12 month offering period consists of two six-month purchase periods and the six-month offering period consists of one six-month purchase period. The price of the common stock purchased is 85% of the lesser of the fair market value of the common stock on the first day of the applicable offering period or the last day of each purchase period.

During the three months ended September 24, 2016 and September 26, 2015, we issued 253,696 and 262,788 ESPP shares. During the nine months ended September 24, 2016 and September 26, 2015, we issued 557,281 and 565,493 ESPP shares, respectively.

The following weighted-average assumptions were used in estimating the fair value of employees' purchase rights under our approved employee stock purchase plans:

	Three Months Ended		Nine Months Ended	
	September 26, 2015		September 26, 2015	
	2016	2015	2016	2015
ESPP:				
Dividend yield	— %	— %	— %	— %
Expected volatility	45.3 %	52.2 %	45.2 %	52.1 %
Risk-free interest rate	0.45 %	0.14 %	0.43 %	0.10 %
Expected term (in years)	0.75	0.81	0.71	0.66

#### Unrecognized Compensation Costs

At September 24, 2016, the unrecognized stock-based compensation, adjusted for estimated forfeitures, was as follows (in thousands):

	Unrecognized Expense	Average Expected Recognition Period in years
Stock options	\$ 1,208	2.31
Restricted stock units	22,266	2.58
Employee stock purchase plan	717	0.35
Total unrecognized stock-based compensation expense	\$ 24,191	

Note 16 — Net Income (Loss) per Share

Basic net income (loss) per share for the three and nine months ended September 24, 2016 and September 26, 2015 was computed by dividing net income (loss) by the weighted-average number of common shares outstanding for the period. Diluted net loss per share for the three months ended September 24, 2016 and three and nine months ended September 26, 2015 was computed by dividing net loss by the weighted-average number of common shares outstanding for the period because the inclusion of any common stock equivalents would have been anti-dilutive. Diluted net income per share for the nine months ended September 24, 2016 was computed by dividing net income by the diluted weighted-average number of shares outstanding during that period.



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A reconciliation of the numerator and denominator used in the calculation of basic and diluted net income per share is as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	September 24,	September 26,	September 24,	September 26,
	2016	2015	2016	2015
Numerator:				
Net income (loss) used in computing basic and diluted net income per share	\$ (14,198)	\$ (2,525 )	\$ 8,887	\$ (904 )
Denominator:				
Weighted-average shares used in computing basic net income (loss) per share	70,502	58,209	62,835	57,757
Add potentially dilutive securities	—	—	827	—
Weighted-average shares used in computing basic and diluted net income (loss) per share	70,502	58,209	63,662	57,757

The following securities were excluded from the calculation of diluted net income (loss) per share because their effect would have been anti-dilutive for the periods presented (in thousands):

	Three Months Ended		Nine Months Ended	
	September 24,	September 26,	September 24,	September 26,
	2016	2015	2016	2015
Options to purchase common stock	2,345	2,710	1,804	2,380
Restricted stock units	3,144	1,717	155	1,550
Employee stock purchase plan	15	—	—	30
Total potentially dilutive securities	5,504	4,427	1,959	3,960

Note 17 — Income Taxes

We recorded an income tax provision of \$50 thousand for the three months ended September 24, 2016 and an income tax benefit of \$43.7 million for the nine months ended September 24, 2016, and an income tax provision of \$0.2 million and \$0.4 million for the three and nine months ended September 26, 2015, respectively. The income tax benefit for the nine months ended September 24, 2016 was primarily due to the release of valuation allowance on a portion of our deferred tax assets ("DTAs"). In connection with our acquisition of Cascade Microtech on June 24, 2016, deferred tax liabilities ("DTLs") were established on the acquired identifiable intangible assets. These DTLs exceeded the acquired DTAs by approximately \$43.9 million and created additional sources of income to realize a tax benefit for a portion of our DTAs. As such, authoritative guidance under United States GAAP requires the impact on the acquiring company's deferred tax assets and liabilities caused by an acquisition be recorded in the acquiring company's financial statements outside of acquisition accounting. Accordingly, the valuation allowance on a portion of our DTAs was released and resulted in an income tax benefit of approximately \$43.9 million.

Note 18 — Commitments and Contingencies

Contractual Commitments

We lease facilities under non-cancelable operating leases with various expiration dates through 2024. The facilities generally require us to pay property taxes, insurance and maintenance costs. Several lease agreements contain rent escalation clauses or limited rent holidays. For purposes of recognizing minimum rental expenses on a straight-line basis over the terms of the leases, we use the date of initial possession to begin amortization. We have the option to

extend or renew many of our leases, the exercise of which may increase the future minimum lease commitments. Purchase obligations are primarily for purchases of inventory and manufacturing related service contracts. Purchase obligations are defined as agreements that are enforceable and legally binding and that specify all significant terms, including: fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions; and the approximate timing of the transaction. Timing of payments and actual amounts paid may be different depending on the time of receipt of goods or services or changes to agreed-upon amounts for some obligations.

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Our contractual obligations and commitments have not materially changed as of September 24, 2016 from those disclosed in our Annual Report on Form 10-K for the year ended December 26, 2015, apart from Cascade Microtech's lease and purchase obligations which are disclosed below as of September 24, 2016, and apart from those arising as a result of the financing of our acquisition of Cascade Microtech on June 24, 2016. See Note 3 to the Condensed Consolidated Financial Statements - Acquisition, for further details.

	Remainder of 2016	2017-2018	2019-2020	2021 and Beyond	Total
	(In thousands)				
Operating leases	\$664	\$ 4,048	\$ 1,868	\$ 383	\$6,963
Purchase order commitments obligations (1)	10,380	2,722	—	—	13,102
Total	\$11,044	\$ 6,770	\$ 1,868	\$ 383	\$20,065

Purchase order commitments primarily (1) represent open orders for inventory and capital expenditures.

In addition to the obligations disclosed in the table above, our contractual obligations as of September 24, 2016 include our commitments under the senior secured term loan facility, as disclosed below. See Note 5 to the Condensed Consolidated Financial Statements - Debt for further details.

	Remainder of 2016	2017-2018	2019-2020	2021	Total
	(In thousands)				
Principal payments	\$3,750	\$ 39,375	\$ 91,875	\$ 13,126	\$148,126
Interest payments*	1,117	5,336	2,763	66	9,282
Total	\$4,867	\$ 44,711	\$ 94,638	\$ 13,192	\$157,408

\* Represents our minimum interest payment commitments at 2.00% per annum

#### Environmental Matters

We are subject to U.S. Federal, State, local, and foreign governmental laws and regulations relating to the protection of the environment, including those governing the discharge of pollutants into the air and water, the management and disposal of hazardous substances and wastes, the clean-up of contaminated sites and the maintenance of a safe workplace. We believe that we comply in all material respects with the environmental laws and regulations that apply to us, including those of the California Department of Toxic Substances Control, the Bay Area Air Quality Management District, the City of Livermore Water Resources Division, County of Santa Clara Department of Environmental Health, County of San Diego Hazardous Materials Division and Encino Water District, and the California Division of Occupational Safety and Health. We did not receive any notices of violations of environmental laws and regulations during the nine months ended September 24, 2016, or in our fiscal 2015. In the future, we may receive notices of violations of environmental regulations, or otherwise learn of such violations. Environmental contamination or violations may negatively impact our business.

#### Indemnification Arrangements

We have entered, and may from time to time in the ordinary course of our business enter, into contractual arrangements with third parties that include indemnification obligations. Under these contractual arrangements, we have agreed to defend, indemnify and/or hold the third party harmless from and against certain liabilities. These arrangements include indemnities in favor of customers in the event that our products or services infringe a third party's intellectual property or cause property or other indemnities in favor of our lessors in connection with facility leasehold liabilities that we may cause. In addition, we have entered into indemnification agreements with our directors and certain of our officers, and our bylaws contain indemnification obligations in favor of our directors, officers and agents. These indemnity arrangements may limit the type of the claim, the total amount that we can be required to pay in connection with the indemnification obligation and the time within which an indemnification claim can be made. The duration of the indemnification obligation may vary, and for most arrangements, survives the agreement term and is indefinite. We believe that substantially all of our indemnity arrangements provide either for limitations on the maximum potential future payments we could be obligated to make, or for limitations on the types of claims and damages we could be obligated to indemnify, or both. However, it is not possible to determine or reasonably estimate the maximum potential amount of future payments under these indemnification obligations due to the varying terms of such obligations, a lack of history of prior indemnification claims, the unique facts and circumstances involved in each particular contractual arrangement and in each potential future claim for indemnification, and the contingency of any potential liabilities

upon the occurrence of events that are not reasonably determinable. We have not had any material requests for indemnification under these arrangements. We have not recorded any liabilities for these indemnification arrangements on our condensed consolidated balance sheet as of September 24, 2016.

#### Legal Matters

From time to time, we may be subject to legal proceedings and claims in the ordinary course of business. We identify below in "Other Litigation" legal proceedings which (i) includes allegations that could potentially result in a material legal proceeding, or (ii) could result in material costs to defend the proceedings through trial. In the future we may become a party to additional legal proceedings that may require us to spend significant resources, including proceedings designed to protect our intellectual property rights. Litigation can be expensive and disruptive to normal business operations. Moreover, the results of legal proceedings are difficult to predict, and the costs incurred in litigation can be substantial, regardless of outcome.

On April 8, 2016, an individual plaintiff filed a putative class action lawsuit on behalf of Cascade Microtech's shareholders against Cascade Microtech, its directors, FormFactor and Cascade Merger Sub, in connection with Cascade Microtech and FormFactor entering into a merger agreement. The lawsuit, captioned Solak v. Cascade Microtech, Inc., et al., No. 16CV11809, was filed in Multnomah County Circuit Court in the State of Oregon.

The Solak lawsuit alleges that the individual members of Cascade Microtech's board of directors breached their fiduciary duties owed to Cascade Microtech's shareholders by approving the proposed merger for inadequate consideration; approving the merger to obtain unique benefits not shared equally with Cascade Microtech's other shareholders; failing to take steps to maximize the value paid to Cascade Microtech shareholders; failing to take steps to ensure a fair process leading up to the proposed merger; and agreeing to preclusive deal protection devices in the merger agreement. The lawsuit also alleges claims against FormFactor and one of its subsidiaries for aiding and abetting the alleged breaches of fiduciary duties by the individual members of Cascade Microtech's board of directors. In the Solak lawsuit, the plaintiff has sought, among other things, rescission of the merger, plaintiff's attorney's fees and costs, and other relief.

Under a memorandum of understanding signed by the parties and filed with the court in the Solak case, Cascade Microtech and FormFactor agreed with the plaintiff's counsel to supplement the disclosures made in connection with the merger. The supplemental disclosures were made on June 14, 2016. Under the memorandum of understanding, the parties to the Solak lawsuit agreed to use their collective best efforts to obtain final approval of the proposed settlement and the dismissal of the Solak litigation with prejudice. Subject to completion of certain confirmatory discovery by counsel to the plaintiff, the memorandum of understanding contemplates that the parties will enter into a stipulation of settlement. The stipulation of settlement will be subject to customary conditions, including court approval following notice to Cascade Microtech's former shareholders within the proposed class.

In addition, in connection with the settlement, the parties contemplate that plaintiff's counsel in the Solak lawsuit will file a petition in the Oregon court for an award of attorneys' fees and expenses. Cascade Microtech will pay any attorneys' fees and expenses awarded by the Oregon court. There can be no assurance that the parties will ultimately enter into a stipulation of settlement or that the Oregon court will approve the settlement even if the parties were to enter into such stipulation. In such event, the proposed settlement as contemplated by the memorandum of understanding may be terminated.

#### Other Litigation

In August 2013, a former employee filed a class action lawsuit against the Company in the Superior Court of California, alleging violations of California's wage and hour laws and unfair business practices on behalf of himself and all other similarly situated current and former employees at the Company's Livermore facilities from August 21,

2009, to the present. On January 4, 2016, the court certified the plaintiff class. The lawsuit is currently proceeding with merits discovery. The Company denies the allegations contained in the lawsuit, and, based on available information, believes it has significant defenses to the allegations of the lawsuit.

Note 19 — Derivative Financial Instruments

Foreign Currency Derivatives

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

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affect certain existing foreign currency denominated assets and liabilities. Under this program, our strategy is to have increases or decreases in our foreign currency exposures offset by gains or losses on the foreign currency forward contracts 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, our foreign currency forward contracts are not designated as hedging instruments as defined under ASC 815, Derivatives and Hedging. We record the fair value of these contracts as of the end of our reporting period to our Condensed Consolidated Balance Sheet with changes in fair value recorded within "Other income (expense), net" in our Condensed Consolidated Statements of Income for both realized and unrealized gains and losses.

We also are exposed to changes in interest rates on the interest payments on our Term Loan entered into on June 24, 2016 and we utilize interest rate swap contracts to hedge against future movements in interest rates. For accounting purposes, our interest-rate swap contracts are designated as hedging instruments as defined under ASC 815. See Interest Rate Swaps below for further details.

The following table provides information about our foreign currency forward contracts outstanding as of September 24, 2016 (in thousands):

Currency	Contract Position	Contract Amount (Local Currency)	Contract Amount (U.S. Dollars)
Taiwan Dollar	Buy	(48,313 )	(1,551 )
Korean Won	Buy	(815,419 )	(746 )
Euro	Buy	(1,225 )	(1,367 )
Euro	Buy	(567 )	(629 )
Japanese Yen	Sell	257,689	2,552
Euro	Sell	1,764	1,990
Euro	Sell	17,011	18,858
Japanese Yen	Sell	156,243	1,560
Japanese Yen	Sell	28,000	267
Total USD notional amount of outstanding foreign exchange contracts			\$20,934

The contracts were entered into during the third quarter of fiscal 2016 will mature during the fourth quarter of fiscal 2016. 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.

The location and amount of losses related to non-designated derivative instruments that matured in the three and nine months ended September 24, 2016 and September 26, 2015 in the Condensed Consolidated Statements of Operations are as follows (in thousands):

Derivatives Not Designated as Hedging Instruments	Location of Loss Recognized on Derivatives	Amount of Loss Recognized on Derivatives			
		Three Months Ended		Nine Months Ended	
		September 24, 2016	September 26, 2015	September 24, 2016	September 26, 2015
Foreign exchange forward contracts	Other income (expense), net	\$(224)	\$ (902 )	\$ (1,927 )	\$ (217 )

Interest Rate Swaps

Pursuant to our interest rate and risk management strategy, on July 25, 2016, we entered into an interest-rate swap agreement with HSBC and other lenders to hedge the interest payments on our Term Loan entered into on June 24, 2016. The Term Loan has a LIBOR based floating interest rate and matures on March 31, 2021. As future levels of LIBOR over the life of the loan are uncertain, we entered into these interest-rate swap agreements to hedge the exposure in interest rate risks associated with movement in LIBOR rates. See Note 5 to the Condensed Consolidated Financial Statements - Debt, for further details of the Term Loan.



For accounting purposes, the interest-rate swap contracts qualified and were designated as cash flow hedges as defined under ASC 815, Derivatives and Hedging. All hedging relationships are formally documented, and the hedges are designed to offset changes to future cash flows on hedged transactions. We recognize derivative instruments from hedging activities as either assets or liabilities on the balance sheet and measure them at fair value on a quarterly basis. We record changes in the effective portion of our cash flow hedges in accumulated other comprehensive income on the Condensed Consolidated Balance Sheets, until the forecasted transaction occurs. Amounts expected to be reclassified from other comprehensive income into earnings in the next twelve months are approximately \$0.2 million. We evaluate hedge effectiveness at hedge inception and on an ongoing basis, and record any ineffective portion of the hedge in Other income (expense), net, in our Condensed Consolidated Statements of Operations. No hedge ineffectiveness was recorded for the three months ended September 24, 2016. The cash flows associated with the interest rate swaps are reported in net cash provided by (used in) operating activities on the Condensed Consolidated Statements of Cash Flows.

The estimated fair value of the interest rate swaps was \$(0.2) million as of September 24, 2016, and this amount was reported as a derivative liability included within the accrued liabilities (current) line on the Company's Condensed Consolidated Balance Sheet.

#### Note 20—Operating Segments

Until the acquisition of Cascade Microtech, we operated in one reportable segment consisting of one operating segment relating to the design, development, manufacture and sale of high performance advanced probe cards. 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.

Upon the acquisition of Cascade Microtech (See Note 3 to the Condensed Consolidated Financial Statements - Acquisition, for further details), we re-evaluated our CODM's decision process for allocating resources and assessing performance for the company and determined that we now operate in two reportable segments consisting of the Probe Cards Segment and Systems Segment, and three operating segments consisting of FormFactor Probes, Cascade Microtech Probes and Systems. These three operating segments have been aggregated into two reportable segments as noted above based on common economic and qualitative characteristics.

For the purposes of our goodwill impairment analysis, until and up to the acquisition of Cascade Microtech, we concluded that we had one reporting unit, which relates to the design, development, manufacture and sale of high performance advanced probe cards. Upon the acquisition of Cascade Microtech, we now believe that we have four reporting units consisting of FormFactor Probes, Cascade Microtech Probes, Systems, and Advanced Temperature Test Systems GmbH ("ATT").

Long-lived assets, comprising of net property, plant and equipment, goodwill and net intangibles assets are not disclosed by geographic location as our CODM does not review these assets in order to make decisions about allocating resources and assessing performance for the entire combined company.

The following table summarizes the operating results by reportable segments for the three and nine months ended September 24, 2016 (in thousands, except percentages):

	Three Months Ended September 24, 2016				Nine Months Ended September 24, 2016			
	Probe Cards	Systems	Corporate and Other	Total	Probe Cards	Systems	Corporate and Other	Total
Revenues	\$102,670	\$20,629	\$—	\$123,299	\$239,364	\$20,629	\$—	\$259,993
Gross profit	\$41,653	\$11,090	\$(25,555)	\$27,188	\$82,138	\$11,090	\$(30,821)	\$62,407
Gross margin	40.6	% 53.8	% —	% 22.1	% 34.3	% 53.8	% —	% 24.0
Operating income (loss)	\$20,805	\$3,988	\$(37,951)	\$(13,158)	\$31,411	\$3,988	\$(68,775)	\$(33,376)



The following table summarizes the operating results by reportable segments for the three and nine months ended September 26, 2015 (in thousands, except percentages):

	Three Months Ended September 26, 2015				Nine Months Ended September 26, 2015			
	Probe Cards	Systems	Corporate and Other	Total	Probe Cards	Systems	Corporate and Other	Total
Revenues	\$65,862	\$ —	\$—	\$65,862	\$210,576	\$ —	\$—	\$210,576
Gross profit	\$21,967	\$ —	\$(3,512 )	\$18,455	\$74,607	\$ —	\$(10,059)	\$64,548
Gross margin	33.4	% —	% —	28.0	35.4	% —	% —	30.7
Operating income (loss)	\$7,820	\$ —	\$(11,177)	\$(3,357 )	\$30,079	\$ —	\$(33,421)	\$(3,342 )

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, share-based compensation expense, acquisition-related costs, including charges related to inventory stepped up to fair value, and other costs, which are not used in evaluating the results of, or in allocating resources to, our reportable segments.

Acquisition-related costs include transaction costs and any costs directly related to the acquisition and integration of acquired businesses.

#### Note 21 — Business Interruption Insurance Claim Recovery

During the nine months ended September 26, 2015, we received approximately \$1.5 million as a result of a payment from our insurer arising from a business interruption insurance claim related to a factory fire at a customer during the second half of fiscal 2013. We recorded this cash receipt within “Other income (expense), net” in our Condensed Consolidated Statements of Operations.

## 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 (including anticipated trends and developments in, and management plans for, our business and the markets in which we operate), financial results, operating results, revenues, gross margin, operating expenses, products, projected costs and capital expenditures, research and development programs, sales and marketing initiatives and competition. 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. These factors include the matters discussed in the section titled "Risk Factors" and elsewhere in our Annual Report on Form 10-K for the year ended December 26, 2015 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

We design, develop, manufacture, sell and support advanced semiconductor probe card products, and are the largest supplier worldwide of those products. With our acquisition of Cascade Microtech Inc. ("Cascade Microtech"), we also design, develop, manufacture and market advanced wafer probing, thermal and reliability solutions for the electrical measurement and testing of semiconductor devices.

On June 24, 2016, we completed the acquisition of Cascade Microtech, headquartered in Beaverton, Oregon. Our condensed consolidated financial statements as of September 24, 2016 included the condensed consolidated balance sheet of Cascade Microtech as of September 24, 2016 whereas our condensed consolidated statements of operations for the three and nine months ended September 24, 2016 included the financial results of Cascade Microtech only for the third quarter of fiscal 2016. We excluded the financial results of Cascade Microtech for the second quarter of fiscal 2016 as the one-day stub period between the acquisition of Cascade Microtech on June 24, 2016 and the end of our second quarter of fiscal 2016 on June 25, 2016 was immaterial. See Note 3 to the Condensed Consolidated Financial Statements - Acquisition, for further details.

Therefore, our consolidated financial results for the nine months ended September 24, 2016 may not be directly comparable to our consolidated financial results for the nine months ended September 26, 2015 due to the inclusion of Cascade Microtech's pre-acquisition financial results for the third quarter of our fiscal 2016.

To finance a portion of the Cascade Microtech acquisition consideration, we entered into a senior secured term loan facility in an aggregate amount of \$150 million. We also entered into an interest-rate swap agreement to hedge the interest payments on our term loan. See Note 5 to the Condensed Consolidated Financial Statements - Debt, for

further details. Also See Contractual Obligations and Commitments in this section of the Management's Discussion and Analysis of Financial Condition and Results of Operations for further details of our contractual commitments as of September 24, 2016.

We generated net income of \$8.9 million in the first nine months of fiscal 2016 as compared to a net loss of \$0.9 million in the first nine months of fiscal 2015. The increase in the net income was primarily due to the release of valuation allowance on a portion of our deferred tax assets as a result of the acquisition of Cascade Microtech resulting in an income tax benefit of approximately \$43.9 million as well as additional post-acquisition revenues and associated net income generated from Cascade Microtech's operations during the three months ended September 24, 2016, which was partially offset by higher restructuring expenses, transaction and integration costs related to our acquisition activities, acquisition-related amortization charges and

other operational expenses in the nine months ended September 24, 2016 as compared to the corresponding period in the prior year.

Our cash, cash equivalents and marketable securities and restricted cash totaled approximately \$108.0 million as of September 24, 2016, as compared to approximately \$188.0 million at December 26, 2015. The decrease was primarily due to the consideration paid for the acquisition of Cascade Microtech partially offset by the \$150 million term loan used to partially fund the acquisition. We believe we will meet our working capital requirements for at least the next twelve months with the liquidity provided by our existing cash, cash equivalents and marketable securities. If we are unsuccessful in maintaining or growing our revenues, or maintaining or reducing our cost structure in an industry downturn, or increasing our available cash through financing, our cash, cash equivalents and marketable securities could decline in future periods.

### Summary of Segments and Products

Subsequent to the acquisition of Cascade Microtech, we determined that we now operate in two reportable segments consisting of Probe Cards Segment and Systems Segment.

#### Probe Cards Segment

Our Probe Cards Segment consists of probe card products which are used in the semiconductor manufacturing industry to perform wafer test (also known as wafer sort), which is the testing of the semiconductor die, or chips, while those die are still constituted on the semiconductor wafer. Wafer test enables semiconductor manufacturers to determine whether chips will meet specifications and be saleable before the wafer is diced, and the die are singulated and individually packaged.

Our probe cards are used to test chips for a variety of end use applications including logic devices, DRAM and flash memory and radio frequency transceivers. In both engineering and production use, the probe card serves as the critical electrical and mechanical interface between the chip(s) being tested and the test instrument that generates the electrical signal used to evaluate the integrated circuit ("IC") performance.

#### Systems Segment

Our Systems Segment consists of advanced wafer probing, thermal and reliability products to enable precision on-wafer measurement of integrated circuits. Our Systems products are often used in the early phases of the development of semiconductor processes where the accuracy and repeatability of measurements is critical to achieving yield from advanced process nodes. Many of our Systems products are also used in production applications to test semiconductor devices prior to completion of the manufacturing process and include probe stations, thermal subsystems, and reliability test systems.

### Critical Accounting Policies and the Use of Estimates

Preparation of our financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses. Management bases its estimates on historical experience and on various other assumptions that it believes to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

When we acquire businesses, we allocate the purchase price to the tangible assets, liabilities and identifiable intangible assets acquired. Any residual purchase price is recorded as goodwill. The allocation of the purchase price

requires management to make significant estimates in determining the fair value of acquired assets and assumed liabilities, especially with respect to intangible assets. These estimates are based on information obtained from management of the acquired companies, market participant data and historical experience. These estimates can include, but are not limited to: the time and expenses that would be necessary to recreate the asset; the profit margin a market participant would receive; cash flows that an asset is expected to generate in the future; and discount rates.

These estimates are inherently uncertain and unpredictable. A change in these estimates could impact our allocation of purchase price to the acquired assets and assumed liabilities. During the measurement period, which is not to exceed one year from the acquisition date, we may record adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill based on updated estimate information or facts and circumstances existing as of the acquisition date. Following the earlier of 1) receipt of all necessary information to determine the fair value of assets acquired and liabilities assumed, or 2) one year from the acquisition date, any subsequent adjustments are recorded to earnings.

Management's Discussion and Analysis and Note 1 to the Consolidated Financial Statements in our 2015 Annual Report on Form 10-K describe the significant accounting estimates and policies used in preparation of the Consolidated Financial Statements. Actual results in these areas could differ from management's estimates. During the nine months ended September 24, 2016, there were no significant changes in our critical accounting policies or estimates from those reported in our Annual Report on Form 10-K for the year ended December 26, 2015, which was filed with the Securities and Exchange Commission on March 4, 2016.

## Results of Operations

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

	Three Months Ended		Nine Months Ended	
	September 24, 2016	September 26, 2015	September 24, 2016	September 26, 2015
Revenues	100.0 %	100.0 %	100.0 %	100.0 %
Cost of revenues	77.9	72.0	76.0	69.3
Gross profit	22.1	28.0	24.0	30.7
Operating expenses:				
Research and development	14.0	16.1	15.0	15.6
Selling, general and administrative	18.7	16.9	19.1	16.3
Restructuring and impairment charges, net	0.1	0.1	2.7	0.3
Total operating expenses	32.8	33.1	36.8	32.2
Operating loss	(10.7 )	(5.1 )	(12.8 )	(1.5 )
Interest income, net	—	0.1	0.1	0.1
Other income (expense), net	(0.8 )	1.5	(0.7 )	1.2
Loss before income taxes	(11.5 )	(3.5 )	(13.4 )	(0.2 )
Provision (benefit) for income taxes	—	0.3	(16.8 )	0.2
Net income (loss)	(11.5 )%	(3.8 )%	3.4 %	(0.4 )%

Three and nine months ended September 24, 2016 and September 26, 2015:

## Revenues by Segment

	Three Months Ended		Nine Months Ended	
	September 24, 2016	September 26, 2015	September 24, 2016	September 26, 2015
	(In thousands)			
Probe Cards	\$ 102,670	\$ 65,862	\$ 239,364	\$ 210,576
Systems	20,629	—	20,629	—
Total	\$ 123,299	\$ 65,862	\$ 259,993	\$ 210,576

The increase in Probe Cards Segment revenues for the three months ended September 24, 2016 was primarily due to additional revenues (approximately \$18.4 million) generated during the third quarter of fiscal 2016 from sale of probe card products as a result of our acquisition of Cascade Microtech on June 24, 2016, and strong demand for our foundry & logic and flash products.

The increase in Probe Cards Segment and Systems Segment revenues for the nine months ended September 24, 2016 was primarily due to additional revenues generated during the third quarter of fiscal 2016 from sale of probe cards



(approximately \$18.4 million) and probe stations, services and thermal sub-systems (approximately \$20.6 million) products as a result of our acquisition of Cascade Microtech on June 24, 2016, and strong demand for our Foundry & Logic products. Prior to the acquisition of Cascade Microtech, we only operated in the Probe Cards Segment and did not generate any Systems Segment revenue.

## Revenues by Market

Our product revenues by market was as follows for the periods indicated:

	Three Months Ended			Nine Months Ended		
	September 2016	September 2015	% Change	September 2016	September 2015	% Change
(In thousands, except percentages)						
<b>Probe Cards Markets:</b>						
Foundry & Logic	\$75,114	\$ 36,479	105.9 %	\$169,137	\$ 104,461	61.9 %
DRAM	22,278	27,443	(18.8 )	62,788	97,268	(35.4 )
Flash	5,278	1,940	172.1	7,439	8,847	(15.9 )
<b>Systems Market:</b>						
Systems	20,629	—	100.0	20,629	—	100.0
Total revenues	\$123,299	\$ 65,862	87.2 %	\$259,993	\$ 210,576	23.5 %

For the three months ended September 24, 2016, our Foundry & Logic products experienced strong demand across all our applications including microprocessors, radio-frequency, mobile, industrial and automotive. In addition, the overall increase in Foundry & Logic revenues for the three and nine months ended September 24, 2016 was also due to additional revenues generated during the third quarter of fiscal 2016 as a result of our acquisition of Cascade Microtech. All of Cascade Microtech's probe card revenues are included in our Foundry and Logic revenues.

The decrease in our DRAM revenues for the three and nine months ended September 24, 2016 was due to lower probe card demand driven by a volatile DRAM market, as compared to the same periods last year, as DRAM manufacturers continue their technology node transitions. The increase in Flash memory revenues for the three months ended September 24, 2016 was due to several 3-D NAND design wins on our Vector and TouchMatrix product architectures. The overall decline in Flash memory demand for the nine months ended September 24, 2016 was due to reduced demand for our legacy TouchMatrix product.

The increase in Systems Market revenues for the three and nine months ended September 24, 2016 was due to the acquisition of Cascade Microtech on June 24, 2016. Prior to the acquisition, we only operated in the Probe Cards Segment and did not generate any Systems Segment revenue.

## Revenues by Geographic Region

The following table sets forth our revenues by geographic region for the periods indicated:

	Three Months Ended				Nine Months Ended			
	September 2016	% of Revenue	September 2015	% of Revenue	September 2016	% of Revenue	September 2015	% of Revenue
(In thousands, except percentages)								
North America	\$39,625	32.1 %	\$ 10,142	15.4 %	\$88,779	34.1 %	\$ 45,994	21.8 %
Taiwan	17,714	14.4	12,327	18.7	43,264	16.6	43,913	20.9
South Korea	17,584	14.3	21,134	32.1	44,042	16.9	53,593	25.5
Asia-Pacific (1)	17,501	14.2	8,317	12.6	25,479	9.8	26,744	12.8
Europe	16,499	13.4	8,944	13.6	36,384	14.0	20,378	9.7
Japan	14,057	11.4	4,998	7.6	21,726	8.5	19,954	9.5
Rest of the world	319	0.2	—	—	319	0.1	—	—
Total revenues	\$123,299	100.0 %	\$ 65,862	100.0 %	\$259,993	100.0 %	\$ 210,576	100.0 %

(1)

Asia-Pacific includes all countries in the region except Taiwan, South Korea, and Japan, which are disclosed separately.

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 North American 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 North America.

The overall increase in geographical revenues across the regions except for South Korea was primarily attributable to additional revenues generated in the third quarter of fiscal 2016 as a result of our acquisition of Cascade Microtech and strong demand for our probe stations, services, thermal sub-systems and logic and flash products. South Korea revenues decreased primarily due to a combination of reduced demand for our DRAM products and less demand for our legacy TouchMatrix product used to test NAND Flash devices.

#### Cost of Revenues and Gross Margins

Cost of revenues consists primarily of manufacturing materials, payroll, 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. Cost of revenues was affected primarily by our Cascade Microtech acquisition and additional factors as discussed below.

Our gross profit and gross margin by segment for the three months ended September 24, 2016 and September 26, 2015 is as below (in thousands, except percentages):

	Three Months Ended September 24, 2016				Three Months Ended September 26, 2015			
	Probe Cards	Systems	Corporate and Other	Total	Probe Cards	Systems	Corporate and Other	Total
Gross profit	\$41,653	\$11,090	\$(25,555)	\$27,188	\$21,967	\$ —	\$(3,512 )	\$18,455
Gross margin	40.6	% 53.8	% —	22.1	% 33.4	% —	% —	28.0

Our gross profit and gross margin by segment for the nine months ended September 24, 2016 and September 26, 2015 is as below (in thousands, except percentages):

	Nine Months Ended September 24, 2016				Nine Months Ended September 26, 2015			
	Probe Cards	Systems	Corporate and Other	Total	Probe Cards	Systems	Corporate and Other	Total
Gross profit	\$82,138	\$11,090	\$(30,821)	\$62,407	\$74,607	\$ —	\$(10,059)	\$64,548
Gross margin	34.3	% 53.8	% —	24.0	% 35.4	% —	% —	30.7

For the three months ended September 24, 2016, gross margin in the Probe Cards Segment increased as a result of the inclusion of the Cascade Microtech acquisition for its product sales, and improvements in overall gross margins driven by a more favorable product mix and improved manufacturing efficiency in our Foundry & Logic factories.

For the nine months ended September 24, 2016, gross margins in the Probe Cards Segment decreased as a result of investments made in additional production capacity in our San Jose factory, late delivery fees on probe cards that missed our customer's required delivery date in the first quarter of fiscal 2016 and lower DRAM factory utilization in the first half of fiscal 2016.

Systems

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For the three and nine months ended September 24, 2016, gross margins in the Systems Segment increased due to the inclusion of Cascade's gross margin relating to its product sales as a result of our acquisition of Cascade Microtech on June 24, 2016. Prior to the acquisition, we operated in the Probe Cards Segment only and did not generate any Systems Segment revenue.

## Overall

The overall gross profit and gross margin for the three and nine months ended September 24, 2016 and September 26, 2015 is as below (in thousands, except percentages):

	Three Months Ended		Nine Months Ended	
	September 24, 2016	September 26, 2015	September 24, 2016	September 26, 2015
Gross profit	\$27,188	\$18,455	\$62,407	\$64,548
Gross margin	22.1	% 28.0	% 24.0	% 30.7

Gross profit fluctuates with revenue levels, product mix, selling prices, factory loading and material costs. For the three and nine months ended September 24, 2016 and September 26, 2015, gross margins decreased when compared to the corresponding periods in the prior year primarily due to the impact of decreased sales for our products resulting in lower first quarter (fiscal 2016) factory utilization, and inclusion of the intangible asset amortization expenses from our Cascade Microtech acquisition. In addition, we made investments in additional production capacity in our San Jose factory in the first half of fiscal 2016 to support a sales increase of our Foundry & Logic probe cards. We also incurred late delivery fees on probe cards that missed our customer's required delivery date in the first quarter of fiscal 2016. This impact was partially offset by strong sales and gross margins in our Foundry & Logic products including the sales and gross margins of Foundry & Logic products arising from our acquisition of Cascade Microtech.

Gross profit included stock-based compensation expense of \$0.7 million and \$1.7 million respectively, for the three and nine months ended September 24, 2016, compared to \$0.8 million and \$1.9 million, respectively, for the three and nine months ended September 26, 2015.

Future gross margins may be adversely impacted by lower levels of revenues and lower factory utilization even though we have taken significant steps to reduce our operating cost structure. Our gross margins may also be adversely affected if we are required to record additional inventory provision charges and inventory write-downs if estimated average selling prices of products held in finished goods and work in process inventories are below the manufacturing cost of those products.

## Research and Development

	Three Months Ended		Nine Months Ended	
	September 24, 2016	September 26, 2015	September 24, 2016	September 26, 2015
	(In thousands, except percentages)			
Research and development	\$17,253	\$10,645	\$39,235	\$32,947
% of revenues	14.0	% 16.2	% 15.1	% 15.6

The increase in the three months ended September 24, 2016 when compared to the corresponding period in the prior year was primarily due to our Cascade Microtech acquisition resulting in an increase of \$4.1 million in employee compensation costs, \$1.3 million in project and material costs, \$1.0 million in general operating expenses and \$0.2 million in depreciation costs.

The increase in the nine months ended September 24, 2016 when compared to the corresponding period in the prior year was primarily due to our Cascade Microtech acquisition resulting in an increase of \$4.1 million in employee compensation costs, \$1.3 million in project and material costs, \$1.0 million in general operating expenses and \$0.1

million in depreciation costs partially offset by a decrease of \$0.3 million in stock-based compensation expense.

Stock-based compensation expense included in research and development expenses was \$0.9 million and \$2.3 million for the three and nine months ended September 24, 2016, compared to \$1.0 million and \$2.5 million for the three and nine months ended September 26, 2015, respectively.

## Selling, General and Administrative

	Three Months Ended		Nine Months Ended				
	September 24, 2016	September 26, 2015	September 24, 2016	September 26, 2015			
	(In thousands, except percentages)						
Selling, general and administrative	\$23,008	\$ 11,108	\$49,553	\$ 34,373			
% of revenues	18.7	% 16.9	% 19.1	% 16.3			%

The increase in the three months ended September 24, 2016 when compared to the corresponding period in the prior year was primarily due to our Cascade Microtech acquisition resulting in an increase of \$6.1 million in employee compensation costs, \$1.4 million in depreciation and amortization charges, \$1.2 million in consulting fees, \$1.1 million in general operating costs, \$0.8 million in travel related costs, \$0.7 million in acquisition costs and \$0.2 million in stock-based compensation expense.

The increase in the nine months ended September 24, 2016 when compared to the corresponding period in the prior year was primarily due to our Cascade Microtech acquisition resulting in an increase of \$6.6 million in acquisition costs, \$5.3 million in employee compensation costs, \$1.4 million in depreciation and amortization charges, \$1.0 million in general operating costs, \$0.8 million in travel related costs and \$0.2 million in consulting fees, partially offset by a decrease of \$0.5 million in stock-based compensation expense.

Stock-based compensation expense included within selling, general and administrative expenses was \$1.6 million and \$3.5 million for the three and nine months ended September 24, 2016, respectively, compared to \$1.4 million and \$4.0 million for the three and nine months ended September 26, 2015, respectively.

## Restructuring Charges, net

	Three Months Ended		Nine Months Ended				
	September 24, 2016	September 26, 2015	September 24, 2016	September 26, 2015			
	(In thousands, except percentages)						
Restructuring charges, net	\$ 85	\$ 59	\$6,995	\$ 570			
% of revenues	0.1	% 0.1	% 2.7	% 0.4			%

Restructuring charges, net are comprised of costs related to employee termination benefits.

During the three months ended September 24, 2016, we recorded approximately \$0.1 million of severance charges as a result of the consolidation of our operations. During the nine months ended September 24, 2016, we recorded approximately \$0.6 million of severance charges and \$0.3 million of stock-based compensation expense relating to the modification of certain equity-based awards as a result of the consolidation of our operations. In addition, we also recorded approximately \$5.4 million of severance charges and \$0.7 million of stock-based compensation expense relating to the acceleration of certain equity-based awards of certain executives of Cascade Microtech who were terminated upon our acquisition of Cascade Microtech and in accordance with their contractual change of control agreements. See Note 3 to the Condensed Consolidated Financial Statements - Acquisition, for further details. The cash payments associated with the restructuring activities are expected to be completed by the end of the second quarter of fiscal 2017.

Restructuring charges recorded during the three months ended September 26, 2015 were insignificant. During the nine months ended September 26, 2015, we recorded stock-based compensation expense of approximately \$0.5 million relating to the modification of an equity-based award.





## Interest Income, Net and Other Income (Expense), Net

	Three Months Ended		Nine Months Ended	
	September 24, 2016	September 26, 2015	September 24, 2016	September 26, 2015
	(In thousands, except percentages)			
Interest income, net	\$52	\$ 65	\$267	\$ 213
% of revenue	—	% 0.1	% 0.2	% 0.1
Other income (expense), net	\$(1,042)	\$ 982	\$(1,669)	\$ 2,584
% of revenues	(0.8	)% 1.5	% (0.6	)% 1.2

Interest income, net is primarily earned on our cash, cash equivalents and marketable securities. The increase in interest income, net for the three and nine months ended September 24, 2016 when compared to the corresponding periods in the prior year was primarily the result of higher yields on our cash balances. The weighted-average yield on our cash, cash equivalents and marketable securities for the three and nine months ended September 24, 2016 and September 26, 2015 was 0.31% and 0.11%, and 0.30% and 0.12%, respectively. The decline in interest income for the three months ended September 24, 2016 was due to lower cash balances. Cash, cash equivalents, restricted cash and marketable securities were \$108.0 million at September 24, 2016 compared to \$184.3 million at September 26, 2015 and primarily decreased due to the cash portion of the consideration paid for the acquisition of Cascade Microtech at the end of our second quarter of fiscal 2016.

Other income (expense), net is comprised primarily of interest expense on our Term Loan and interest-rate swap derivative contracts, term loan issuance costs amortization charges, foreign currency impact and various other gains and losses. The decrease in other income (expense), net for the three and nine months ended September 24, 2016 when compared to the corresponding periods in the prior year was primarily due to approximately \$1.1 million of charges related to interest payments on our term loan and interest-rate swap derivative contracts and term loan issuance cost amortization charges. This was partially offset by the receipt of \$0.4 million of proceeds from the sale of intellectual property during the three months ended September 24, 2016.

During the three and nine months ended September 26, 2015, we received \$1.5 million as a result of a payment from our insurer arising from a business interruption insurance claim related to a factory fire at a customer during the second half of fiscal 2013. In addition, we recognized a net gain of \$1.0 million from the sale of intellectual property.

## Provision (Benefit) for Income Taxes

	Three Months Ended		Nine Months Ended		
	September 24, 2016	September 26, 2015	September 24, 2016	September 26, 2015	
	(In thousands, except percentages)				
Provision (benefit) for income taxes	\$50	\$ 215	\$(43,665)	\$ 359	
Effective tax rate	0.4	% (9.3	)%	125.6	% (65.9

We recorded an income tax provision of \$50 thousand for the three months ended September 24, 2016 and an income tax benefit of \$43.7 million for the nine months ended September 24, 2016, and an income tax provision of \$0.2 million and \$0.4 million for the three and nine months ended September 26, 2015, respectively. The income tax benefit for the nine months ended September 24, 2016 was primarily due to the release of valuation allowance on a portion of our deferred tax assets ("DTAs"). In connection with our acquisition of Cascade Microtech on June 24, 2016, deferred tax liabilities ("DTLs") were established on the acquired identifiable intangible assets. These DTLs exceeded the acquired DTAs by approximately \$43.9 million and created additional sources of income to realize a tax benefit for a portion of our DTAs. As such, authoritative guidance under United States GAAP requires the impact on the acquiring company's deferred tax assets and liabilities caused by an acquisition be recorded in the acquiring company's financial statements outside of acquisition accounting. Accordingly, the valuation allowance on a portion

of our DTAs was released and resulted in an income tax benefit of approximately \$43.9 million.

## Liquidity and Capital Resources

**Capital Resources:** Our working capital was \$175.0 million at September 24, 2016 and \$214.4 million at December 26, 2015. The decrease in working capital in the nine months ended September 24, 2016 was primarily due to the acquisition of Cascade Microtech. We reduced cash equivalents and marketable securities and increased our current liabilities for the current portion of term loan as part of the consideration paid for Cascade Microtech. See Note 3 to the Condensed Consolidated Financial Statements - Acquisition, for further details.

Cash and cash equivalents consist of deposits held at banks, money market funds and U.S. government agency securities that at the time of purchase had maturities of 90 days or less. Marketable securities consist of U.S. government and agency securities. 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 \$107.4 million at September 24, 2016, as compared to \$187.6 million at December 26, 2015. We believe that we will be able to satisfy our working capital requirements for at least the next twelve months with the liquidity provided by our existing cash, cash equivalents and marketable securities. If we are unsuccessful in maintaining or growing our revenues, or maintaining or reducing our cost structure in an industry down-turn, or increasing our available cash through financing, our cash, cash equivalents and marketable securities may decline in fiscal 2016.

We utilize a variety of tax planning and financing strategies in an effort to manage our worldwide cash and deploy funds to locations where they are needed. As part of these strategies, we indefinitely reinvest a significant portion of our foreign earnings and our current plans do not demonstrate a need to repatriate these 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. If we were to repatriate indefinitely reinvested foreign funds, we would be required to accrue and pay additional United States taxes less applicable foreign tax credits.

**Days Sales Outstanding:** Days sales outstanding from receivables, or DSO, were 58 days at September 24, 2016 compared with 45 days at December 26, 2015. Our DSO calculation is determined using the count back method and is based on gross accounts receivable (including accounts receivable for amounts in deferred revenue). The increase in DSO is primarily due to changes in customer mix as compared to the year ended December 26, 2015.

	Nine Months Ended	
	September 24, 2016	September 26, 2015
	(In thousands)	
Net cash provided by operating activities	\$2,488	\$ 29,201
Net cash (used in) provided by investing activities	(202,361 )	2,847
Net cash provided by (used in) financing activities	\$150,624	\$ (3,578 )

On June 24, 2016, we completed the acquisition of Cascade Microtech. Our consolidated financial statement as of September 24, 2016 included the condensed consolidated balance sheet of Cascade Microtech as of September 24, 2016 whereas our condensed consolidated statements of operations for the three and nine months ended September 24, 2016 included the financial results of Cascade Microtech only for the third quarter of fiscal 2016. We excluded the financial results of Cascade Microtech for the second quarter of fiscal 2016 as the one-day stub period between the acquisition of Cascade Microtech on June 24, 2016 and the end of our second quarter of fiscal 2016 on June 25, 2016 was deemed immaterial. See Note 3 to the Condensed Consolidated Financial Statements - Acquisition, for further details.

Cash flows from operating activities: Net cash provided by operating activities for the nine months ended September 24, 2016 was primarily attributable to improved operating results and additional revenues generated during the third quarter of fiscal 2016 as a result of our acquisition of Cascade Microtech. We had net income of \$8.9 million and non-cash income of \$8.1 million, including a deferred income tax benefit of \$43.8 million as a result of the release of valuation allowance and \$1.8 million of non-cash foreign currency transaction gains, which was partially offset by \$33.6 million of depreciation and amortization, \$7.5 million of stock-based compensation, \$7.0 million of acquisition-related inventory step-up amortization, \$4.4 million of provision for excess and obsolete inventories and \$1.0 million of non-cash restructuring charges.

The net change in operating assets and liabilities for the nine months ended September 24, 2016 resulted in a net use of cash of \$14.5 million, which was primarily comprised of cash used of \$13.0 million in accounts receivable from higher sales and slower collections, \$8.7 million for inventory build, an increase of \$1.3 million in prepaid expenses and other current assets, payments of \$1.6 million in income taxes and an increase of \$0.5 million in deferred revenues. The above use of cash was partially offset by generation of cash of \$10.9 million in accounts payable driven by payment on vendor obligations.

The net change in operating assets and liabilities for the nine months ended September 26, 2015 resulted in a net use of cash of \$0.5 million, which was primarily comprised of \$6.3 million of cash used for inventory build, \$2.9 million of cash used in accrued liabilities due to payment of incentive compensation and a decrease of \$2.1 million in deferred revenues due to recognition of previously deferred revenues for which the revenue recognition criteria have been met. The above use of cash was offset by cash generation of \$8.3 million in accounts receivable from strong collections, \$1.2 million in accounts payable driven by payments on vendor obligations, \$0.8 million in income tax refunds and a decrease of \$0.1 million in prepaid expenses and other current assets.

Cash flows from investing activities: Net cash used in investing activities for the nine months ended September 24, 2016 was primarily related to \$228.0 million paid (net of cash acquired) as part of the consideration for the acquisition of Cascade Microtech, purchases of marketable securities totaling \$10.6 million and cash used in the acquisition of property and equipment of \$8.2 million, partially offset by \$44.5 million of proceeds from maturities of marketable securities. We carefully monitor our investments to minimize risks and have not experienced other than temporary investment losses for the nine months ended September 24, 2016.

Net cash provided by investing activities for the nine months ended September 26, 2015 was primarily related to \$49.5 million of proceeds from maturities of marketable securities and \$1.2 million of proceeds from the sale of long-lived assets offset by purchases of marketable securities totaling \$41.3 million and cash used in the acquisition of property and equipment of \$6.6 million.

Cash flows from financing activities: Net cash provided by financing activities for the nine months ended September 24, 2016 primarily related to \$150.0 million of proceeds from Term Loan debt used to partially fund the acquisition of Cascade Microtech and \$4.0 million from proceeds received from purchases under our 2012 Employee Stock Purchase Plan and option exercises, partially offset by \$1.9 million of principal payments made towards the repayment of our Term Loan and \$1.5 million used to pay for Term Loan debt issuance costs.

Net cash used in financing activities for the nine months ended September 26, 2015 included \$7.0 million used for the repurchase and retirement of our common stock partially offset by \$3.4 million from proceeds received from purchases under our 2012 Employee Stock Purchase Plan and stock option exercises.

Our cash, cash equivalents and marketable securities decreased by \$80.2 million in the nine months ended September 24, 2016 primarily due to the cash portion of the consideration paid for the acquisition of Cascade Microtech partially offset by proceeds from the \$150 million Term Loan entered into by the Company on June 24, 2016 to fund the acquisition. We continue to focus on improving our operating efficiency to increase operating cash flows. We believe that we will be able to satisfy our cash requirements for at least the next twelve months with the liquidity provided by our existing cash, cash equivalents and marketable securities. To the extent necessary, we may also 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. Our future capital requirements may vary materially from those now planned. However, if we are unsuccessful in maintaining or growing our revenues, or maintaining or reducing our cost structure in an industry down-turn, or increasing our available cash through financing, our cash, cash equivalents and marketable securities could decline in future fiscal quarters.

Contractual Obligations and Commitments

Our contractual obligations and commitments have not materially changed as of September 24, 2016 from those disclosed in our Annual Report on Form 10-K for the year ended December 26, 2015, apart from Cascade Microtech's lease and purchase obligations and contractual obligations under the senior secured term loan facility which are disclosed in Note 18 to the Condensed Consolidated Financials Statements-Commitments and Contingencies, each of which are incorporated herein by reference.

Off-Balance Sheet Arrangements

Historically, we have not participated in transactions that have generated relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been

established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. As of September 24, 2016, we were not involved in any such off-balance sheet arrangements.

#### Recent Accounting Pronouncements

In March 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-09, "Improvements to Employee Share-Based Payment Accounting", which amends Accounting Standards Codification ("ASC") Topic 718, "Compensation - Stock Compensation". The ASU includes provisions intended to simplify various aspects related to how share-based payments are accounted for and presented in the financial statements and is effective for us beginning in our fiscal 2017 though early adoption is permitted. We are evaluating the effects of the adoption of this ASU on our financial statements.

In February 2016, the FASB issued ASU 2016-02, Leases. ASU 2016-02 requires that lease arrangements longer than twelve months result in an entity recognizing an asset and liability. The updated guidance is effective for interim and annual periods beginning after December 15, 2018, and early adoption is permitted. We are evaluating the impact of the updated guidance on our consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers", and in August 2015 the FASB issued ASU 2015-14, "Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date," which defers the effective date of ASU 2014-09 by one year. ASU 2014-09 requires an entity to recognize revenue to depict the transfer of goods or services to customers in an amount that reflects the consideration to which an entity expects to be entitled in exchange for those goods or services. The guidance also requires expanded disclosures relating to the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. Additionally, qualitative and quantitative disclosures are required about customer contracts, significant judgments and changes in judgments, and assets recognized from the costs to obtain or fulfill a contract. The standard permits the use of either the retrospective or cumulative effect transition methods. This guidance will replace most existing revenue recognition guidance in United States GAAP when it becomes effective, which for us will be at the beginning of the first quarter of fiscal year 2018 using one of the two prescribed transition methods. Early adoption of one year prior to the required effective date is permitted. We are in the process of evaluating the impact of this guidance on our ongoing results and operations as well as in the transition methods prescribed above.

#### 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 26, 2015. Our exposure to market risk has not changed materially since December 26, 2015.

Our exposure to interest rate risk arising from our Term Loan debt (See Note 5 to the Condensed Consolidated Financial Statements - Debt for further details) is de-minimus as a result of the interest-rate swap agreement (See Note 19 to the Condensed Consolidated Financial Statements - Derivative Financial Instruments for further details) that we entered into with HSBC and other lenders to hedge the interest payments on our term loan entered into on June 24, 2016.

#### 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) except as described below 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.

On June 24, 2016, we completed the acquisition of Cascade Microtech, headquartered in Beaverton, Oregon and are integrating the acquired business into our overall internal control over financial reporting process. Our management is in the process of assessing the internal control over financial reporting and is implementing or revising internal controls where necessary.

### 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 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 1. Legal Proceedings

The information relating to "Legal Matters" set forth under Note 18 - Commitments and Contingencies of the Notes to Condensed Consolidated Financial Statements of this Quarterly Report on Form 10-Q is incorporated herein by reference.

### Item 1A. Risk Factors

The following risk factors update and supplement the risk factors previously disclosed in our Annual Report on Form 10-K for the year ended December 26, 2015. These updates pertain to our acquisition of Cascade Microtech on June 24, 2016 and the operation of the acquired business, as described below. See Note 3 to the Condensed Consolidated Financial Statements - Acquisition, for additional information regarding our acquisition of Cascade

Microtech.

If any of the identified risks actually occur, our business, financial condition and results of operations, or prospects could be adversely affected. 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 26, 2015 and this Quarterly Report on Form 10-Q are not the only ones we face. Additional risks that we currently do not know about, or that we do not currently believe to be among the most significant risk factors that apply to our business or to our common stock, may also adversely affect our business or our common stock.

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We may fail to realize the anticipated benefits and cost savings from our acquisition of Cascade Microtech, which could adversely affect our results of operations and the value of our common stock.

The success of our acquisition of Cascade Microtech will depend, in part, on our ability to realize the anticipated benefits and cost savings from combining that business with ours. Our ability to realize these anticipated benefits and cost savings is subject to certain risks including:

- \* whether the combined businesses will perform as expected;
- \* the possibility that we paid more for the acquisition of Cascade Microtech than the value we will derive from the acquisition;
- \* the reduction of our cash available for operations and other uses and the incurrence of indebtedness to finance the acquisition; and
- \* certain known and unknown liabilities of Cascade Microtech.

If we are unable to successfully integrate Cascade Microtech with our pre-existing business within the anticipated time frame, or at all: (i) the anticipated benefits and cost savings of the merger may not be fully realized, or at all, or may take longer to realize than expected; (ii) the merger may fail to be accretive to our total or per share results on a non-GAAP or GAAP basis to the extent anticipated, or at all, or may take longer to be accretive than expected, or may be dilutive; (iii) the combined businesses may not perform as expected; and (iv) the value of our common stock may be adversely affected.

We and Cascade Microtech operated independently until the consummation of the merger, and there can be no assurances that each company's businesses can be successfully integrated with the other. It is possible that the integration process could result in the loss of key employees, the disruption of either company's ongoing businesses, unexpected integration issues, higher than expected integration costs, or the overall post-closing integration process takes longer than originally anticipated. Issues that must be addressed to successfully integrate the operations of Cascade Microtech with our operations include:

- \* combining the companies' sales, manufacturing, marketing, distribution, purchasing, operations and research and development functions;
- \* integrating the companies' technologies, products and services;
- \* identifying and eliminating redundant or underperforming operations and assets;
- \* harmonizing the companies' operating practices, employee development and compensation programs, internal controls and other policies, procedures and processes;
  - \* addressing possible differences in business backgrounds, corporate cultures and management philosophies;
  - \* consolidating the companies' corporate, administrative and information technology infrastructure;
- \* coordinating sales, distribution and marketing efforts;
- \* managing the movement of certain positions to different locations;

maintaining existing agreements with customers, suppliers and distributors, including with those currently shared  
\* by the companies, and avoiding delays in entering into new agreements with prospective customers, suppliers and distributors; and

\* coordinating the combined organization across dispersed geographic locations.

Additionally, at times, the attention of certain members of our management and resources may be focused on the integration of the businesses of the two companies and diverted from day-to-day business operations or other strategic planning, which may disrupt our ongoing business.

We may have difficulty motivating and retaining executives and other key employees in light of the merger.

Our employees may experience uncertainty about the effect of our acquisition of Cascade Microtech. This uncertainty may impair our ability to retain and motivate key personnel during the integration process, particularly as employees may experience uncertainty about their future roles within the combined business. If key employees depart because of uncertainty or difficulties in integration, we may experience business disruptions and incur significant costs in replacing departing employees.

Our business relationships may be subject to disruption due to uncertainty associated with our acquisition of Cascade Microtech.

Parties with whom we and Cascade Microtech do business may experience uncertainty associated with our acquisition of Cascade Microtech. As a result of uncertainty, FormFactor's and Cascade Microtech's business relationships may be subject to disruption as customers, suppliers, distributors and others may attempt to negotiate changes in existing business relationships or consider entering into business relationships with other companies.

The use of cash and incurrence of substantial indebtedness in connection with the financing of the merger may have an adverse impact on our liquidity, limit our flexibility in responding to other business opportunities and increase our vulnerability to adverse economic and industry conditions.

Our acquisition of Cascade Microtech was financed in part by the use of cash on hand and the incurrence of a significant amount of indebtedness. As of September 24, 2016, we had approximately \$99.9 million of cash and cash equivalents, approximately \$7.5 million of short-term investments and \$146.7 million term loan debt outstanding, net of debt-related issuance costs. In connection with the merger, we entered into a new senior secured term loan facility with an aggregate principal amount of \$150 million to finance part of the cash portion of the transaction consideration. Our use of cash on hand and indebtedness to finance the cash portion of the transaction consideration reduced our liquidity. We must generate cash from operations to pay principal and interest on our debt, thereby reducing the availability of cash flow for working capital and capital expenditure needs or to pursue other initiatives. The senior secured term loan facility contains financial covenants requiring us to maintain a certain leverage ratio of consolidated total indebtedness to EBITDA and a fixed charge interest ratio. In addition, it also imposes limitations on our ability to incur liens and indebtedness or to pay dividends, make certain investments, or dispose of assets (in each case, subject to customary exceptions). Our ability to comply with these financial and restrictive covenants can be affected by events beyond our control. The indebtedness and restrictive covenants will also have the effect, among other things, of limiting our ability to obtain additional financing, if needed, which limits our flexibility in the conduct of our business and makes us more vulnerable to economic downturns and adverse competitive and industry conditions. In addition, a breach of the financial or restrictive covenants, among other things, could result in an event of default with respect to the senior secured term loan facility, which, if not cured or waived, could result in the obligations under the facility becoming immediately due and payable.

Our increased foreign operations expose us to additional risks relating to currency fluctuations.

Our international operations are significant to our revenues and net income, and we plan to continue to grow internationally. We acquired significant business operations located in Germany as part of our acquisition of Cascade Microtech. We also generate a substantial portion of our revenues outside of the United States. Since we incur certain costs in currencies other than U.S. dollars, and have certain foreign currency denominated assets and liabilities, but report our financial results in U.S. dollars, we face exposure to fluctuations in currency exchange rates. Although we

hedge a portion of our international currency exposure, significant fluctuations in exchange rates between the U.S. dollar and foreign currencies may adversely affect our revenues and earnings. Additionally, hedging programs are inherently risky and could expose us to additional risks that could adversely affect our financial condition and results of operations.

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Item 6. Exhibits

Exhibit Number	Exhibit Description	Incorporated by Reference Form Date	Filed Number	Herewith
3.01	Amended and Restated By-laws of FormFactor, Inc.	8-K	7/22/2016 3.2	
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.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

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



SIGNATURE

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

FormFactor, Inc.

Date: November 3, 2016 By: /s/ Michael M. Ludwig

Michael M. Ludwig  
Chief Financial Officer  
(Duly Authorized Officer, Principal Financial Officer, and Principal Accounting Officer)

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