VEECO INSTRUMENTS INC
Form 10-Q
November 03, 2017
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2017

OR

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

Commission file number 0-16244

VEECO INSTRUMENTS INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware	**11-2989601**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
Terminal Drive **Plainview, New York**	**11803**
(Address of Principal Executive Offices)	(Zip Code)

Registrant s telephone number, including area code:

(516) 677-0200

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 x No o

Indicate by check mark whether the registrant has 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 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 x No o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of large accelerated filer, accelerated filer smaller reporting company and emerging growth company in Rule 12b-2 of the Exchange Act.

Large accelerated filer	o	Accelerated filer	x
Non-accelerated filer	o (Do not check if a smaller reporting company)	Smaller reporting company	o
		Emerging growth company	o

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

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

Indicate the number of shares outstanding of each of the issuer s classes of common stock, as of the latest practicable date:

Title of Class	**Shares Outstanding**
Common Stock par value $0.01 per share	as of October 25, 2017 48,301,909

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VEECO INSTRUMENTS INC.

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Safe Harbor Statement

This quarterly report on Form 10-Q (the Report) contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Discussions containing such forward-looking statements may be found in Part I - Items 1, 2, and 3 hereof, as well as within this Report generally. In addition, when used in this Report, the words believes, anticipates, expects, estimates, targets, plans, intends, will, and similar expressions related to the future are intended forward-looking statements. All forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to differ materially from projected results.

In addition, the preparation of financial statements in conformity with U.S. Generally Accepted Accounting Principles (U.S. GAAP) requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Although these estimates and assumptions are based on knowledge of current events and planned actions to be undertaken in the future, they may ultimately differ from actual results. Operating results for the nine months ended September 30, 2017 are not necessarily indicative of the results that may be expected for the year ending December 31, 2017. All estimates and assumptions are subject to a number of risks and uncertainties that could cause actual results to differ materially from these estimates and assumptions.

The risks and uncertainties of Veeco Instruments Inc. (together with its consolidated subsidiaries, Veeco, the Company, we, us, and our, unl the context indicates otherwise) include, without limitation, the following:

- Unfavorable market conditions may adversely affect our operating results;

- A reduction or elimination of foreign government subsidies and economic incentives may adversely affect the future order rate for our MOCVD equipment;

- The cyclicality of the industries we serve directly affects our business;

- We operate in industries characterized by rapid technological change;

- We have a concentrated customer base, located primarily in a limited number of regions, which operate in highly concentrated industries;

- We face significant competition;

- The timing of our orders, shipments, and revenue recognition may cause our quarterly operating results to fluctuate significantly;

- Our sales cycle is long and unpredictable;

- Our backlog is subject to customer cancellation or modification which could result in decreased sales, increased inventory obsolescence, and/or liabilities to our suppliers for products no longer needed;

- Our failure to estimate customer demand accurately could result in inventory obsolescence, liabilities to our suppliers for products no longer needed, and/or manufacturing interruptions or delays which could affect our ability to meet customer demand;

- Our failure to successfully manage our outsourcing activities or failure of our outsourcing partners to perform as anticipated could adversely affect our results of operations and our ability to adapt to fluctuating order volumes;

- We rely on a limited number of suppliers, some of whom are our sole source for particular components;

- Our inability to attract, retain, and motivate employees could have a material adverse effect on our business;

- Our acquisition strategy subjects us to risks associated with evaluating and pursuing these opportunities and integrating these businesses;

- Timing of market adoption of LED technology for general lighting is uncertain;

- Our sales to manufacturers are highly dependent on sales of consumer electronics applications, which can experience significant volatility due to seasonal and other factors and materially adversely impact our future results of operations;

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- Our operating results have been, and may continue to be, adversely affected by tightening credit markets;

- We are exposed to the risks of operating a global business, including the need to obtain export licenses for certain of our shipments and political risks in the countries we operate;

- We may be exposed to liabilities under the Foreign Corrupt Practices Act and any determination that we violated these or similar laws could have a material adverse effect on our business;

- We are subject to internal control evaluations and attestation requirements of Section 404 of the Sarbanes-Oxley Act and any delays or difficulty in satisfying these requirements or negative reports concerning our internal controls could adversely affect our future results of operations and our stock price;

- Changes in accounting pronouncements or taxation rules or practices may adversely affect our financial results;

- Our income taxes can change;

- We may be required to take additional impairment charges on assets;

- We have indebtedness in the form of convertible senior notes which could adversely affect our financial position, prevent us from implementing our strategy, and dilute the ownership interest of our existing shareholders;

- The accounting method for convertible debt securities that may be settled in cash, such as the Convertible Senior Notes, could have a material effect on our reported financial results;

- The price of our common shares is volatile and could decline significantly;

- The enforcement and protection of our intellectual property rights may be expensive and/or divert our limited resources;

- We may be subject to claims of intellectual property infringement by others;

- We are subject to foreign currency exchange risks;

- If we are subject to cyber-attacks we could incur substantial costs and, if such attacks are successful, we could incur significant liabilities, reputational harm, and disruption to our operations;

- We have adopted certain measures that may have anti-takeover effects which may make an acquisition of our Company by another company more difficult;

- We are subject to risks of non-compliance with environmental, health, and safety regulations;

- Regulations related to conflict minerals will force us to incur additional expenses, may make our supply chain more complex, and may result in damage to our relationships with customers;

- We have significant operations in locations which could be materially and adversely impacted in the event of a natural disaster, an act of terrorism or other significant disruption; and

- We may not be able to successfully integrate the business of Ultratech with our own or realize the anticipated benefits of the merger.

Consequently, such forward looking statements and estimates should be regarded solely as the current plans and beliefs of Veeco. We do not undertake any obligation to update any forward looking statements to reflect future events or circumstances after the date of such statements.

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PART I FINANCIAL INFORMATION

Item 1. Financial Statements

Veeco Instruments Inc. and Subsidiaries

Consolidated Balance Sheets

(in thousands, except share amounts)

	September 30, 2017 (unaudited)	December 31, 2016
Assets		
Current assets:		
Cash and cash equivalents	$ 235,268	$ 277,444
Short-term investments	85,853	66,787
Accounts receivable, net	113,795	58,020
Inventories	113,681	77,063
Deferred cost of sales	17,594	6,160
Prepaid expenses and other current assets	36,396	16,034
Total current assets	602,587	501,508
Property, plant and equipment, net	84,403	60,646
Intangible assets, net	383,596	58,378
Goodwill	308,529	114,908
Deferred income taxes	2,528	2,045
Other assets	25,263	21,047
Total assets	$ 1,406,906	$ 758,532
Liabilities and stockholders equity		
Current liabilities:		
Accounts payable	$ 53,716	$ 22,607
Accrued expenses and other current liabilities	65,728	33,201
Customer deposits and deferred revenue	107,636	85,022
Income taxes payable	4,171	2,311
Current portion of long-term debt		368
Total current liabilities	231,251	143,509
Deferred income taxes	46,268	13,199
Long-term debt	272,825	826
Other liabilities	11,033	6,403
Total liabilities	561,377	163,937
Stockholders equity:		
Preferred stock, $0.01 par value; 500,000 shares authorized; no shares issued and outstanding		
Common stock, $0.01 par value; 120,000,000 shares authorized; 48,294,284 and 40,714,790 shares issued at September 30, 2017 and December 31, 2016, respectively; 48,294,284 and 40,588,194 shares outstanding at September 30, 2017 and December 31, 2016, respectively.	483	407
Additional paid-in capital	1,050,994	763,303
Accumulated deficit	(207,760)	(168,583)
Accumulated other comprehensive income	1,812	1,777

Treasury stock, at cost, 126,596 shares at December 31, 2016.				(2,309)
Total stockholders equity		845,529		594,595
Total liabilities and stockholders equity	$	1,406,906	$	758,532

See accompanying Notes to the Consolidated Financial Statements.

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Veeco Instruments Inc. and Subsidiaries

Consolidated Statements of Operations

(in thousands, except per share amounts)

(unaudited)

	Three months ended September 30,		Nine months ended September 30,	
	2017	2016	2017	2016
Net sales	$ 131,872	$ 85,482	$ 341,324	$ 238,842
Cost of sales	78,811	52,027	215,344	141,991
Gross profit	53,061	33,455	125,980	96,851
Operating expenses, net:				
Research and development	24,061	19,892	57,669	63,545
Selling, general, and administrative	29,771	18,396	71,574	58,230
Amortization of intangible assets	12,500	5,261	21,722	15,785
Restructuring	5,010	1,798	9,605	3,993
Acquisition costs	783		16,277	
Asset impairment	2	56,035	1,139	69,662
Other, net	(140)	795	(228)	884
Total operating expenses, net	71,987	102,177	177,758	212,099
Operating income (loss)	(18,926)	(68,722)	(51,778)	(115,248)
Interest income	357	283	1,933	879
Interest expense	(5,105)	(23)	(14,301)	(166)
Income (loss) before income taxes	(23,674)	(68,462)	(64,146)	(114,535)
Income tax expense (benefit)	(1,790)	1,136	(24,969)	2,677
Net income (loss)	$ (21,884)	$ (69,598)	$ (39,177)	$ (117,212)
Income (loss) per common share:				
Basic	$ (0.47)	$ (1.78)	$ (0.91)	$ (2.99)
Diluted	$ (0.47)	$ (1.78)	$ (0.91)	$ (2.99)
Weighted average number of shares:				
Basic	46,941	39,131	43,100	39,193
Diluted	46,941	39,131	43,100	39,193

See accompanying Notes to the Consolidated Financial Statements.

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Veeco Instruments Inc. and Subsidiaries

Consolidated Statements of Comprehensive Income (Loss)

(in thousands)

(unaudited)

	Three months ended September 30,		Nine months ended September 30,	
	2017	2016	2017	2016
Net income (loss)	$ (21,884)	$ (69,598)	$ (39,177)	$ (117,212)
Other comprehensive income, net of tax				
Unrealized gain (loss) on available-for-sale securities	70	(7)	10	32
Minimum pension liability		866		866
Foreign currency translation	1	(7)	25	20
Total other comprehensive income, net of tax	71	852	35	918
Comprehensive income (loss)	$ (21,813)	$ (68,746)	$ (39,142)	$ (116,294)

See accompanying Notes to the Consolidated Financial Statements.

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Veeco Instruments Inc. and Subsidiaries

Consolidated Statements of Cash Flows

(in thousands)

(unaudited)

	Nine months ended September 30,	
	2017	**2016**
Cash Flows from Operating Activities		
Net income (loss)	$ (39,177)	$ (117,212)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Depreciation and amortization	32,295	26,010
Non-cash interest expense	7,641	
Deferred income taxes	(21,235)	1,529
Share-based compensation expense	19,976	12,133
Asset impairment	1,139	69,662
Provision for bad debts	99	160
Changes in operating assets and liabilities:		
Accounts receivable	(10,409)	(1,184)
Inventories and deferred cost of sales	9,486	(10,909)
Prepaid expenses and other current assets	(331)	3,661
Accounts payable and accrued expenses	3,165	(13,995)
Customer deposits and deferred revenue	17,779	3,568
Income taxes receivable and payable, net	(16)	
Long-term income tax liability	(4,877)	80
Other, net	(259)	2,189
Net cash provided by (used in) operating activities	15,276	(24,308)
Cash Flows from Investing Activities		
Acquisitions of businesses, net of cash acquired	(399,478)	
Capital expenditures	(17,403)	(10,717)
Proceeds from the sale of investments	307,757	131,297
Payments for purchases of investments	(279,945)	(78,376)
Proceeds from held for sale assets	2,284	693
Other		(230)
Net cash provided by (used in) investing activities	(386,785)	42,667
Cash Flows from Financing Activities		
Proceeds (net of tax withholdings) from option exercises and employee stock purchase plan	2,546	1,192
Restricted stock tax withholdings	(7,797)	(1,184)
Purchases of common stock		(13,349)
Proceeds from long-term debt borrowings	335,752	
Principal payments on long-term debt	(1,193)	(252)
Net cash provided by (used in) financing activities	329,308	(13,593)
Effect of exchange rate changes on cash and cash equivalents	25	20
Net increase (decrease) in cash and cash equivalents	(42,176)	4,786
Cash and cash equivalents - beginning of period	277,444	269,232
	$ 235,268	$ 274,018

Supplemental Disclosure of Cash Flow Information		
Interest paid	$ 4,667	$ 179
Income taxes paid	1,767	1,456
Non-cash operating and financing activities		
Net transfer of inventory to property, plant and equipment	33	

See accompanying Notes to the Consolidated Financial Statements

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Note 1 - Basis of Presentation

The accompanying unaudited Consolidated Financial Statements of Veeco have been prepared in accordance with U.S. GAAP as defined in Financial Accounting Standards Board (FASB) Accounting Standards Codification 270 for interim financial information and with the instructions to Rule 10-01 of Securities and Exchange Commission Regulation S-X. Accordingly, they do not include all of the information and footnotes required by U.S. GAAP for complete financial statements as the interim information is an update of the information that was presented in Veeco s most recent annual financial statements. For further information, refer to Veeco s Consolidated Financial Statements and Notes thereto included in the Annual Report on Form 10-K for the year ended December 31, 2016 (2016 Form 10-K). In the opinion of management, all adjustments considered necessary for a fair presentation have been included. All such adjustments are of a normal, recurring nature. Certain amounts previously reported have been reclassified in the financial statements to conform to the current presentation.

Veeco reports interim quarters on a 13-week basis ending on the last Sunday of each quarter. The fourth quarter always ends on the last day of the calendar year, December 31. The 2017 interim quarters end on April 2, July 2, and October 1, and the 2016 interim quarters ended on April 3, July 3, and October 2. These interim quarters are reported as March 31, June 30, and September 30 in Veeco s interim consolidated financial statements.

Revenue recognition

Veeco recognizes revenue when all of the following criteria have been met: persuasive evidence of an arrangement exists with a customer; delivery of the specified products has occurred or services have been rendered; prices are contractually fixed or determinable; and collectability is reasonably assured. Revenue is recorded including shipping and handling costs and excluding applicable taxes related to sales.

Contracts with customers frequently contain multiple deliverables, such as systems, upgrades, components, spare parts, maintenance, and service plans. Judgment is required to properly identify the accounting units of the multiple-element arrangements and to determine how the revenue should be allocated among the accounting units. Veeco also evaluates whether multiple transactions with the same customer or related parties should be considered part of a single, multiple-element arrangement based on an assessment of whether the contracts or agreements are negotiated or executed within a short time frame of each other or if there are indicators that the contracts are negotiated in contemplation of one another. Moreover, judgment is used in interpreting the commercial terms and determining when all criteria have been met in order to recognize revenue in the appropriate accounting period.

When there are separate units of accounting, Veeco allocates revenue to each element based on the following selling price hierarchy: vendor-specific objective evidence (VSOE) if available; third party evidence (TPE) if VSOE is not available; or the best estimate of selling price (BESP) if neither VSOE nor TPE is available. Veeco uses BESP for the elements in its arrangements. The maximum revenue recognized on a delivered element is limited to the amount that is not contingent upon the delivery of additional items.

Veeco considers many facts when evaluating each of its sales arrangements to determine the timing of revenue recognition including its contractual obligations, the customer s creditworthiness, and the nature of the customer s post-delivery acceptance provisions. Veeco s system sales arrangements, including certain upgrades, generally include field acceptance provisions that may include functional or mechanical test procedures. For the majority of the arrangements, a customer source inspection of the system is performed in Veeco s facility or test data is sent to the customer documenting that the system is functioning to the agreed upon specifications prior to delivery. Historically, such source inspection or test data replicates the field acceptance provisions that are performed at the customer s site prior to final acceptance of the system. When Veeco objectively demonstrates that the criteria specified in the contractual acceptance provisions are achieved prior to delivery, revenue is recognized upon system delivery since there is no substantive contingency remaining related to the acceptance provisions at that date, subject to the retention amount constraint described below for certain contracts. For new products, new applications of existing products, or for products with substantive customer acceptance provisions where Veeco cannot objectively demonstrate that the criteria specified in the contractual acceptance provisions have been achieved prior to delivery, revenue and the associated costs are deferred and fully recognized upon the receipt of customer acceptance, assuming all other revenue recognition criteria have been met.

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The Company s system sales arrangements, including certain upgrades, generally do not contain provisions for the right of return, forfeiture, refund, or other purchase price concession. In the rare instances where such provisions are included, all revenue is deferred until such rights expire. The sales arrangements generally include installation. The installation process is not deemed essential to the functionality of the equipment since it is not complex; it does not require significant changes to the features or capabilities of the equipment or involve constructing elaborate interfaces or connections subsequent to factory acceptance. Veeco has a demonstrated history of consistently completing installations in a timely manner and can reliably estimate the costs of such activities. Most customers engage Veeco to perform the installation services, although there are other third-party providers with sufficient knowledge who could complete these services. Based on these factors, installation is deemed to be inconsequential or perfunctory relative to the system sale as a whole, and as a result, installation service is not considered a separate element of the arrangement. As such, Veeco records the cost of the installation at the earlier of the time of revenue recognition for the system or when installation services are performed.

In certain cases Veeco s products are sold with a billing retention, typically 10% of the sales price, which is billed by Veeco and payable by the customer when field acceptance provisions are completed. The amount of revenue recognized upon delivery of a system or upgrade, if any, is limited to the lower of i) the amount billed that is not contingent upon acceptance provisions or ii) the value of the arrangement consideration allocated to the delivered elements, if such sale is part of a multiple-element arrangement.

The Company recognizes revenue related to maintenance and service contracts ratably over the applicable contract term. Veeco recognizes revenue from the sales of components, spare parts, and specified service engagements at the time of delivery in accordance with the terms of the applicable sales arrangement.

Incremental direct costs incurred related to the acquisition of a customer contract, such as sales commissions, are expensed as incurred, even if the related revenue is deferred in accordance with the above policy.

Recent accounting pronouncements

The FASB issued ASU 2014-09, as amended: *Revenue from Contracts with Customers*, which has been codified as Accounting Standards Codification 606 (ASC 606). ASC 606 requires the Company s revenue recognition to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which it expects to be entitled in exchange for those goods or services. ASC 606 outlines a five-step model to make the revenue recognition determination and requires new financial statement disclosures. Publicly-traded companies are required to adopt ASC 606 for reporting periods beginning after December 15, 2017. The Company is still completing its evaluation of the impact of adopting this standard; however, the Company currently expects the most significant financial statement impacts of adopting ASC 606 will be the elimination of the constraint on revenue associated with the billing retention related to the receipt of customer final acceptance as well as the identification of installation services as a performance obligation. The elimination of the constraint on revenue related to customer final acceptance, which is usually about 10 percent of a system sale, will generally be recognized at the time the Company transfers control of the system to the customer, which is earlier than under the Company s current revenue recognition model for certain contracts that are subject to the billing retention constraint described above. The new performance obligation related to installation services under the new standard will generally be recognized as the installation services are performed, which is later than under the Company s current revenue recognition model. Taken together, the Company currently believes there will be a net acceleration of a small percentage of its revenue under ASC 606 as compared to its current revenue recognition model. ASC 606 provides for different transition alternatives, and the Company is evaluating which method of adoption to select.

In January 2016, the FASB issued ASU 2016-01: *Financial Instruments Overall*, which requires certain equity investments to be measured at fair value, with changes in fair value recognized in net income. Publicly-traded companies are required to adopt the update for reporting periods beginning after December 15, 2017; early adoption is permitted. The Company does not expect this ASU will have a material impact on the consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02: *Leases*, which generally requires operating lessee rights and obligations to be recognized as assets and liabilities on the balance sheet. In addition, interest on lease liabilities is to be

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recognized separately from the amortization of right-of-use assets in the Statement of Operations. Further, payments of the principal portion of lease liabilities are to be classified as financing activities while payments of interest on lease liabilities and variable lease payments are to be classified as operating activities in the Statement of Cash Flows. When the standard is adopted, the Company will be required to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, with early application permitted. The Company is evaluating the anticipated impact of adopting the ASU on the consolidated financial statements.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows: Classification of Certain Cash Receipts and Cash Payments*, which provides guidance on eight specific cash flow issues, including debt prepayments or debt extinguishment costs. Publicly-traded companies are required to adopt the update for reporting periods beginning after December 15, 2017. This ASU will not have a material impact on the consolidated financial statements.

In October 2016, the FASB issued ASU 2016-16, *Income Taxes: Intra-Entity Transfers of Assets Other Than Inventory*, which requires that entities recognize the income tax consequences of an intra-entity transfer of an asset, other than inventory, when the transfer occurs. Publicly-traded companies are required to adopt the update for reporting periods beginning after December 15, 2017. This ASU will not have a material impact on the consolidated financial statements.

The Company is also evaluating other pronouncements recently issued but not yet adopted. The adoption of these pronouncements is not expected to have a material impact on our consolidated financial statements.

Note 2 - Income (Loss) Per Common Share

The Company considers unvested share-based awards that have non-forfeitable rights to dividends prior to vesting to be participating shares, which are treated as a separate class of security from the Company s common shares for calculating per share data. Therefore, the Company applies the two-class method when calculating income (loss) per share. The two-class method is an earnings allocation formula that determines earnings per share for each class of common stock and participating security according to dividends declared and participation rights in undistributed earnings. However, since the holders of the participating shares are not obligated to fund losses, participating shares are excluded from the calculation of loss per share.

The dilutive effect of the Convertible Senior Notes on income (loss) per share is calculated using the treasury stock method since the Company has both the current intent and ability to settle the principal amount of the Convertible Senior Notes in cash. See Note 5, Liabilities, for additional information on the Convertible Senior Notes.

Basic income (loss) per share is calculated by dividing net income (loss) by the weighted average number of shares outstanding during the period under the two-class method. Diluted income per share is calculated by dividing net income by the weighted average number of shares used to calculate basic income (loss) per share plus the weighted average number of common share equivalents outstanding during the period. The dilutive effect of outstanding options to purchase common stock and non-participating share-based awards is considered in diluted income per share by application of the treasury stock method. The dilutive effect of performance share units is included in diluted income per common share in the periods the performance targets have been achieved. The computations of basic and diluted income (loss) per share for the three and

nine months ended September 30, 2017 and 2016 are as follows:

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	Three months ended September 30,		Nine months ended September 30,	
	2017	2016	2017	2016
	(in thousands, except per share amounts)			
Net income (loss)	$ (21,884)	$ (69,598)	$ (39,177)	$ (117,212)
Net income (loss) per common share:				
Basic	$ (0.47)	$ (1.78)	$ (0.91)	$ (2.99)
Diluted	$ (0.47)	$ (1.78)	$ (0.91)	$ (2.99)
Basic weighted average shares outstanding	46,941	39,131	43,100	39,193
Effect of potentially dilutive share-based awards				
Diluted weighted average shares outstanding	46,941	39,131	43,100	39,193
Unvested participating shares excluded from basic weighted average shares outstanding since the securityholders are not obligated to fund losses	166	469	166	469
Common share equivalents excluded from the diluted weighted average shares outstanding since Veeco incurred a net loss and their effect would be antidilutive	220	140	275	45
Potentially dilutive non-participating shares excluded from the diluted calculation as their effect would be antidilutive	1,956	2,030	1,628	2,042
Maximum potential shares to be issued for settlement of Convertible Senior Notes excluded from the diluted calculation as their effect would be antidilutive	8,618		8,618	

Note 3 Business Combinations

Ultratech

On May 26, 2017, the Company completed its acquisition of Ultratech, Inc. (Ultratech). Ultratech designs, manufactures, and markets lithography, laser annealing, and inspection equipment for manufacturers of semiconductor devices, including front-end semiconductor manufacturing and advanced packaging. Ultratech also designs, manufactures, and markets atomic layer deposition (ALD) equipment for scientific and industrial applications. Ultratech s customers are primarily located throughout the United States, EMEA, China, Japan, Taiwan, Singapore, and Korea. With the addition of Ultratech, the Company establishes itself as a leading equipment supplier in the advanced packaging market, forming a strong technology portfolio to address critical advanced packaging applications. The results of Ultratech s operations have been included in the consolidated financial statements since the date of acquisition.

Ultratech shareholders received (i) $21.75 per share in cash and (ii) 0.2675 of a share of Veeco common stock for each Ultratech common share outstanding on the acquisition date. In connection with the Company s continued finalization of purchase accounting, during the three months ended September 30, 2017, the Company decreased the fair value of acquired inventory and property, plant and equipment by $4.1 million and

$1.2 million, respectively, resulting in a corresponding increase in goodwill. The Company plans to finalize the purchase accounting within the measurement period, which may include additional adjustments to the fair values of assets acquired and liabilities assumed. The preliminary acquisition date fair value of the consideration totaled $633.4 million, net of cash acquired, which consisted of the following:

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		Acquisition Date (May 26, 2017) (in thousands)
Cash consideration, net of cash acquired	$	404,489
Equity consideration (7.2 million shares issued)		228,644
Replacement equity awards attributable to pre-acquisition service		228
Acquisition date fair value	$	633,361

The following table summarizes the preliminary estimated fair values of the assets acquired and liabilities assumed at the acquisition date:

		Acquisition Date (May 26, 2017) (in thousands)
Short-term investments	$	47,161
Accounts receivable		45,465
Inventory and deferred cost of sales		57,570
Prepaid expense and other current assets		7,217
Property, plant, and equipment		18,332
Intangible assets		346,940
Other assets		6,442
Total identifiable assets acquired		529,127
Accounts payable and accrued expenses		40,123
Customer deposits and deferred revenue		4,834
Deferred income taxes		32,478
Other liabilities		11,952
Total liabilities assumed		89,387
Net identifiable assets acquired		439,740
Goodwill		193,621
Net assets acquired	$	633,361

The gross contractual value of the acquired accounts receivable was approximately $46.0 million. The fair value of the accounts receivables is the amount expected to be collected by the Company. Goodwill generated from the acquisition is primarily attributable to expected synergies from future growth and strategic advantages provided through the expansion of product offerings as well as assembled workforce and is not expected to be deductible for income tax purposes.

The preliminary classes of intangible assets acquired and the estimated useful life of each class is presented in the table below:

		Acquisition Date (May 26, 2017) Amount (in thousands)	Useful life
Technology	$	158,390	8 years
Customer relationships		116,710	12 years
Backlog		3,080	6 months
In-process research and development		43,340	*
Trademark and tradenames		25,420	7 years

Intangible assets acquired	$	346,940

*In-process research and development will be amortized (or impaired) upon completion (or abandonment) of the development project.

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The Company determined the estimated fair value of the identifiable intangible assets based on various factors including: cost, discounted cash flow, income method, loss-of-revenue/income method, and relief-from-royalty method in determining the purchase price allocation.

In-process research and development (IPR&D) represents the estimated fair values of incomplete Ultratech research and development projects that had not reached the commercialization stage and meet the criteria for recognition as IPR&D 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 an income approach and costs to complete the project and expected commercialization timelines are considered key assumptions. This valuation approach 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 $43.3 million, approximately half of which is related to Ultratech s lithography technologies and one-third of which is related to Ultratech s laser annealing technologies.

For the three and nine months ended September 30, 2017, acquisition related costs were approximately $0.8 million and $16.3 million, respectively, including non-cash charges of $4.2 million for the nine months ended September 30, 2017 related to accelerated share-based compensation for employee terminations.

The amounts of revenue and income (loss) from operations before income taxes of Ultratech included in the Company s consolidated statement of operations for the three and nine months ended September 30, 2017 are as follows:

	Three months ended September 30, 2017	Nine months ended September 30, 2017
	(in thousands)	
Revenue	$ 21,236	$ 45,286
Loss from operations before income taxes	$ (21,556)	$ (44,374)

Loss from operations before income taxes of Ultratech for the three month period ended September 30, 2017 of $21.6 million includes acquisition costs of $0.8 million, release of inventory fair value step-up related to purchase accounting of $1.9 million, amortization expense on intangible assets of $9.6 million, and restructuring charges of $2.1 million. Loss from operations before income taxes of Ultratech for the nine month period ended September 30, 2017 of $44.4 million includes acquisition costs of $16.3 million, release of inventory fair value step-up related to purchase accounting of $9.2 million, amortization expense on intangible assets of $13.1 million, and restructuring charges of $3.3 million.

The following table presents unaudited pro forma financial information as if the acquisition of Ultratech had occurred on January 1, 2016:

	Three months ended September 30,		Nine months ended September 30,	
	2017	2016	2017	2016
	(in thousands, except per share amounts)			
Revenue	$ 131,872	$ 134,093	$ 412,066	$ 381,586
Loss from operations	(14,957)	(74,197)	(45,309)	(187,499)
Diluted earnings per share	$ (0.40)	$ (1.67)	$ (1.01)	$ (4.34)

The pro-forma results were calculated by combining the unaudited results of the Company with the stand-alone unaudited results of Ultratech for the pre-acquisition period, and adjusting for the following:

(i) Additional amortization expense related to identified intangibles valued as part of the purchase price allocation that would have been incurred starting on January 1, 2016.

(ii) Additional depreciation expense for the property, plant, and equipment fair value adjustments that would have been incurred starting on January 1, 2016.

(iii) All acquisition related costs incurred by the Company as well as by Ultratech pre-acquisition have been removed from their respective periods and included in the three months ended March 31, 2016, as such expenses would have been incurred in the first quarter following the acquisition.

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(iv) All amortization of inventory step-up has been removed from their respective periods and recorded in the first two quarters of 2016, as such costs would have been incurred as the corresponding inventory was sold.

(v) Additional interest expense related to the Convertible Senior Notes (see Note 5, Liabilities) as if they had been issued on January 1, 2016.

(vi) Income tax expense (benefit) was adjusted for the impact of the above adjustments for each period.

Note 4 - Assets

Investments

Short-term investments are generally classified as available-for-sale and reported at fair value, with unrealized gains and losses, net of tax, presented as a separate component of stockholders equity under the caption Accumulated other comprehensive income in the Consolidated Balance Sheets. These securities may include U.S. treasuries, government agency securities, corporate debt, and commercial paper, all with maturities of greater than three months when acquired. All realized gains and losses and unrealized losses resulting from declines in fair value that are other than temporary are included in Other, net in the Consolidated Statements of Operations.

Fair value is the price that would be received for an asset or the amount paid to transfer a liability in an orderly transaction between market participants. Veeco classifies certain assets based on the following fair value hierarchy:

Level 1: Quoted prices in active markets that are unadjusted and accessible at the measurement date for identical, unrestricted assets or liabilities;

Level 2: Quoted prices for identical assets and liabilities in markets that are not active, quoted prices for similar assets and liabilities in active markets or financial instruments for which significant inputs are observable, either directly or indirectly; and

Level 3: Prices or valuations that require inputs that are both significant to the fair value measurement and unobservable.

A financial instrument s level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Veeco has evaluated the estimated fair value of financial instruments using available market information and valuations as

provided by third-party sources. The use of different market assumptions and/or estimation methodologies could have a significant effect on the estimated fair value amounts.

The following table presents the portion of Veeco s assets that were measured at fair value on a recurring basis at September 30, 2017 and December 31, 2016:

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	Level 1	Level 2	Level 3	Total
		(in thousands)		
September 30, 2017				
Cash equivalents				
Corporate debt	$	$ 1,500	$	$ 1,500
Total	$	$ 1,500	$	$ 1,500
Short-term investments				
U.S. treasuries	$ 58,806	$	$	$ 58,806
Corporate debt		10,911		10,911
Commercial paper		16,136		16,136
Total	$ 58,806	$ 27,047	$	$ 85,853
December 31, 2016				
Cash equivalents				
Corporate debt	$	$ 1,501	$	$ 1,501
Total	$	$ 1,501	$	$ 1,501
Short-term investments				
U.S. treasuries	$ 40,008	$	$	$ 40,008
Government agency securities		10,012		10,012
Corporate debt		13,773		13,773
Commercial paper		2,994		2,994
Total	$ 40,008	$ 26,779	$	$ 66,787

There were no transfers between fair value measurement levels during the three and nine months ended September 30, 2017.

At September 30, 2017 and December 31, 2016, the amortized cost and fair value of available-for-sale securities consist of:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
		(in thousands)		
September 30, 2017				
U.S. treasuries	$ 58,816	$ 3	$ (13)	$ 58,806
Corporate debt	10,912	1	(2)	10,911
Commercial paper	16,135	1		16,136
Total	$ 85,863	$ 5	$ (15)	$ 85,853
December 31, 2016				
U.S. treasuries	$ 40,013	$	$ (5)	$ 40,008
Government agency securities	10,020		(8)	10,012
Corporate debt	13,780		(7)	13,773
Commercial paper	2,994			2,994
Total	$ 66,807	$	$ (20)	$ 66,787

Available-for-sale securities in a loss position at September 30, 2017 and December 31, 2016 consist of:

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	September 30, 2017		December 31, 2016	
	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses
	(in thousands)			
U.S. treasuries	$ 41,864	$ (13)	$ 20,002	$ (5)
Government agency securities			10,012	(8)
Corporate debt	7,909	(2)	13,774	(7)
Total	$ 49,773	$ (15)	$ 43,788	$ (20)

At September 30, 2017 and December 31, 2016, there were no short-term investments that had been in a continuous loss position for more than 12 months.

The available-for-sale securities at September 30, 2017 all contractually mature in one year or less. Actual maturities may differ from contractual maturities. Veeco may sell these securities prior to maturity based on the needs of the business. In addition, borrowers may have the right to call or prepay obligations prior to scheduled maturities.

There were minimal realized gains for the three and nine months ended September 30, 2017 and no realized gains for the three and nine months ended September 30, 2016. The cost of securities liquidated is based on specific identification.

Accounts receivable

Accounts receivable is presented net of an allowance for doubtful accounts of $0.3 million at September 30, 2017 and December 31, 2016.

Inventories

Inventories are stated at the lower of cost or net realizable value, with cost determined on a first-in, first-out basis. Inventories at September 30, 2017 and December 31, 2016 consist of the following:

	September 30, 2017	December 31, 2016
	(in thousands)	
Materials	$ 59,767	$ 46,457
Work-in-process	37,884	25,250
Finished goods	16,030	5,356
Total	$ 113,681	$ 77,063

Prepaid expenses and other current assets

Prepaid expenses and other current assets primarily consist of supplier deposits, prepaid value-added tax, lease deposits, prepaid insurance, and prepaid licenses. Veeco had deposits with its suppliers of $6.7 million and $7.8 million at September 30, 2017 and December 31, 2016, respectively. Additionally, included within prepaid expenses and other current assets at September 30, 2017 was a non-trade receivable of approximately $12.8 million.

Property, plant, and equipment

Property, plant, and equipment at September 30, 2017 and December 31, 2016 consist of the following:

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	September 30, 2017	December 31, 2016
	(in thousands)	
Land	$ 5,669	$ 5,669
Building and improvements	50,367	50,814
Machinery and equipment(1)	126,631	99,370
Leasehold improvements	10,471	3,652
Gross property, plant and equipment	193,138	159,505
Less: accumulated depreciation and amortization	108,735	98,859
Net property, plant, and equipment	$ 84,403	$ 60,646

(1) Machinery and equipment also includes software, furniture and fixtures

For the three and nine months ended September 30, 2017, depreciation expense was $4.2 million and $10.6 million, respectively, and $3.5 million and $10.2 million for the comparable 2016 periods.

Goodwill

Goodwill represents the future economic benefits arising from assets acquired in a business combination that are not individually identified and separately recognized. The following table presents the changes in goodwill balances for the nine months ended September 30, 2017:

	Gross carrying amount	Accumulated impairment	Net amount
		(in thousands)	
Balance at December 31, 2016	$ 238,108	$ 123,200	$ 114,908
Acquisition	193,621		193,621
Balance at September 30, 2017	$ 431,729	$ 123,200	$ 308,529

Intangible assets

Intangible assets consist of purchased technology, customer-related intangible assets, in-process research and development, trademarks (both long-lived and indefinite-lived), patents, backlog, and licenses and are initially recorded at fair value. Long-lived intangibles are amortized over their estimated useful lives in a method reflecting the pattern in which the economic benefits are consumed or amortized on a straight-line basis if such pattern cannot be reliably determined.

The components of purchased intangible assets were as follows:

Technology	7.5	$ 307,588	$ 125,154	$ 182,434	$ 149,198	$ 113,904	$ 35,294
Customer relationships	11.6	164,595	35,653	128,942	47,885	28,659	19,226
In-process R&D		43,340		43,340			
Trademarks and tradenames	6.6	28,010	3,272	24,738	2,590	1,948	642
Indefinite-lived trademark		2,900		2,900	2,900		2,900
Other	0.5	3,686	2,444	1,242	2,026	1,710	316
Total	9.0	$ 550,119	$ 166,523	$ 383,596	$ 204,599	$ 146,221	$ 58,378

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Other intangible assets primarily consist of patents, backlog, and licenses.

Other assets

Veeco has an ownership interest of less than 20% in a non-marketable investment, Kateeva, Inc. (Kateeva). Veeco does not exert significant influence over Kateeva and therefore the investment is carried at cost. There was no change to the $21.0 million carrying value of the investment during the nine months ended September 30, 2017. The investment is included in Other assets on the Consolidated Balance Sheets. The investment is subject to a periodic impairment review; as there are no open-market valuations, the impairment analysis requires judgment. The analysis includes assessments of Kateeva s financial condition, the business outlook for its products and technology, its projected results and cash flow, business valuation indications from recent rounds of financing, the likelihood of obtaining subsequent rounds of financing, and the impact of equity preferences held by Veeco relative to other investors. Fair value of the investment is not estimated unless there are identified events or changes in circumstances that could have a significant adverse effect on the fair value of the investment. No such events or circumstances are present.

Also included within Other assets at September 30, 2017 are deferred compensation plan assets of approximately $3.3 million representing the cash surrender value of life insurance policies held by the Company related to an executive non-qualified deferred compensation plan that was assumed from Ultratech that allows qualifying executives to defer cash compensation. The related plan liability of approximately $4.5 million is included in Other liabilities on the Consolidated Balance Sheet.

Note 5 - Liabilities

Accrued expenses and other current liabilities

The components of accrued expenses and other current liabilities at September 30, 2017 and December 31, 2016 consist of:

	September 30, 2017	December 31, 2016
	(in thousands)	
Payroll and related benefits	$ 27,816	$ 18,780
Merger consideration payable	17,844	
Warranty	6,555	4,217
Professional fees	3,349	1,827
Installation	1,418	1,382
Sales, use, and other taxes	1,961	1,282
Restructuring liability	1,893	1,796
Interest	2,307	
Other	2,585	3,917
Total	$ 65,728	$ 33,201

Warranty

Warranties are typically valid for one year from the date of system final acceptance, and Veeco estimates the costs that may be incurred under the warranty. Estimated warranty costs are determined by analyzing specific product and historical configuration statistics and regional warranty support costs and are affected by product failure rates, material usage, and labor costs incurred in correcting product failures during the warranty period. Unforeseen component failures or exceptional component performance can also result in changes to warranty costs. Changes in product warranty reserves for the nine months ended September 30, 2017 include:

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		(in thousands)
Balance - December 31, 2016	$	4,217
Warranties issued		4,314
Addition from Ultratech acquisition		1,889
Consumption of reserves		(4,741)
Changes in estimate		876
Balance - September 30, 2017	$	6,555

Restructuring accruals

During 2016, the Company undertook restructuring activities as part of its initiative to streamline operations, enhance efficiencies, and reduce costs, as well as reducing future investments in certain technology development, which together impacted approximately 75 employees. In addition, during 2017, the Company began the acquisition integration process to enhance efficiencies, resulting in additional employee terminations and other facility closing costs. Over the next few quarters, the Company expects to incur additional restructuring costs of $1 million to $5 million as it finalizes all of these activities.

		Personnel Severance and Related Costs		Facility Closing Costs (in thousands)		Total
Balance - December 31, 2016	$	1,796	$		$	1,796
Provision		3,628		4,269		7,897
Payments		(3,531)		(4,269)		(7,800)
Balance - September 30, 2017	$	1,893	$		$	1,893

Included within restructuring expense in the Consolidated Statements of Operations for the nine months ended September 30, 2017 is approximately $1.7 million of non-cash charges related to accelerated share-based compensation for employee terminations.

Customer deposits

Customer deposits totaled $27.6 million and $22.2 million at September 30, 2017 and December 31, 2016, respectively.

Mortgage Payable

At December 31, 2016, the Company had a mortgage note payable associated with its property in St. Paul, Minnesota, which, during the third quarter of 2017 was fully extinguished in connection with the sale of the building. The carrying value of the property exceeded the carrying value of the mortgage note of $1.2 million at December 31, 2016. The annual interest rate on the note was 7.91%. The Company determined the mortgage was a Level 3 liability in the fair-value hierarchy and, using a discounted cash flow model, estimated its fair value as $1.2 million at December 31, 2016.

Convertible Senior Notes

On January 10, 2017, the Company issued $345.0 million of 2.70% convertible senior unsecured notes due (the Convertible Senior Notes). The Company received net proceeds, after deducting underwriting discounts and fees and expenses payable by the Company, of approximately $335.8 million. The Convertible Senior Notes bear interest at a rate of 2.70% per year, payable semiannually in arrears on January 15 and July 15 of each year, commencing on July 15, 2017. The Convertible Senior Notes mature on January 15, 2023, unless earlier purchased by the Company, redeemed, or converted.

The Convertible Senior Notes are unsecured obligations of Veeco and rank senior in right of payment to any of Veeco s subordinated indebtedness; equal in right of payment to all of Veeco s unsecured indebtedness that is not subordinated;

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effectively subordinated in right of payment to any of Veeco s secured indebtedness to the extent of the value of the assets securing such indebtedness; and structurally subordinated to all indebtedness and other liabilities (including trade payables) of Veeco s subsidiaries.

The Convertible Senior Notes are convertible into cash, shares of the Company s common stock, or a combination thereof, at the Company s election, upon the satisfaction of specified conditions and during certain periods as described below. The initial conversion rate is 24.9800 shares of the Company s common stock per $1,000 principal amount of Convertible Senior Notes, representing an initial effective conversion price of $40.03 per share of common stock. The conversion rate may be subject to adjustment upon the occurrence of certain specified events as provided in the indenture governing the Convertible Senior Notes, dated January 18, 2017 between the Company and U.S. Bank National Association, as trustee (the Indenture), but will not be adjusted for accrued but unpaid interest.

Holders may convert all or any portion of their notes, in multiples of one thousand dollar principal amount, at their option at any time prior to the close of business on the business day immediately preceding October 15, 2022 only under the following circumstances:

(i) During any calendar quarter (and only during such calendar quarter), if the last reported sale price of the common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day;

(ii) During the five consecutive business day period after any five consecutive trading day period (the measurement period) in which the trading price per one thousand dollar principal amount of Convertible Senior Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of Veeco s common stock and the conversion rate on each such trading day;

(iii) If the Company calls any or all of the Convertible Senior Notes for redemption at any time prior to the close of business on the scheduled trading day immediately preceding the redemption date; or

(iv) Upon the occurrence of specified corporate events.

On or after October 15, 2022, until the close of business on the business day immediately preceding the Maturity Date, holders may convert their notes at any time, regardless of the foregoing circumstances.

Upon conversion by the holders, the Company may elect to settle such conversion in shares of its common stock, cash, or a combination thereof. As a result of its cash conversion option, the Company segregated the liability component of the instrument from the equity component. The liability component was measured by estimating the fair value of a non-convertible debt instrument that is similar in its terms to the Convertible

Senior Notes. The calculation of the fair value of the debt component required the use of Level 3 inputs, including utilization of convertible investors credit assumptions and high yield bond indices. Fair value was estimated through discounting future interest and principal payments, an income approach, due under the Convertible Senior Notes at a discount rate of 7.00%, an interest rate equal to the estimated borrowing rate for similar non-convertible debt. The excess of the aggregate face value of the Convertible Senior Notes over the estimated fair value of the liability component of $72.5 million was recognized as a debt discount and recorded as an increase to additional paid-in capital, and will be amortized over the expected life of the Convertible Senior Notes using the effective interest rate method. Amortization of the debt discount is recognized as non-cash interest expense.

The transaction costs of $9.2 million incurred in connection with the issuance of the Convertible Senior Notes were allocated to the liability and equity components based on their relative values. Transaction costs allocated to the liability component are being amortized using the effective interest rate method and recognized as non-cash interest expense over the expected term of the Convertible Senior Notes. Transaction costs allocated to the equity component of $1.9 million reduced the value of the equity component recognized in stockholders equity.

The carrying value of the Convertible Senior Notes is as follows:

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	September 30, 2017 (in thousands)
Principal amount	$ 345,000
Unamortized debt discount	(65,570)
Unamortized transaction costs	(6,605)
Net carrying value	$ 272,825

Total interest expense related to the Convertible Senior Notes is as follows:

	Three months ended September 30, 2017	Nine months ended September 30, 2017
	(in thousands)	
Cash Interest Expense		
Coupon interest expense	$ 2,329	$ 6,573
Non-Cash Interest Expense		
Amortization of debt discount	2,502	6,942
Amortization of transaction costs	252	699
Total Interest Expense	$ 5,083	$ 14,214

The Company determined the Convertible Senior Notes is a Level 2 liability in the fair value hierarchy and estimated its fair value as $330.9 million at September 30, 2017.

Other Liabilities

Other liabilities at September 30, 2017 included deferred compensation of $4.5 million, asset retirement obligations of $3.3 million, medical and dental benefits of $2.5 million, and acquisition related accruals of $0.7 million. At December 31, 2016, other liabilities primarily consisted of a non-current income tax payable of $4.9 million.

Note 6 - Commitments and Contingencies

Minimum lease commitments

At September 30, 2017, Veeco s total future minimum lease payments under non-cancelable operating leases (exclusive of renewal options) are payable as follows:

		Operating Leases (in thousands)
Payments due by period:		
2017	$	1,678
2018		5,474
2019		5,002
2020		4,763
2021		1,807
Thereafter		4,505
Total	$	23,229

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Purchase commitments

Veeco has purchase commitments of $151.7 million at September 30, 2017, substantially all of which become due within one year.

Bank guarantees

Veeco has bank guarantees and letters of credit issued by a financial institution on its behalf as needed. At September 30, 2017, outstanding bank guarantees and letters of credit totaled $3.7 million, and unused bank guarantees and letters of credit of $67.9 million were available to be drawn upon.

Legal proceedings

On September 21, 2017, Blueblade Capital Opportunities LLC et al., on behalf of purported beneficial owners of 440,100 shares of Ultratech common stock, filed an action against Ultratech in Delaware Court of Chancery requesting an appraisal of the value of their Ultratech stock pursuant to 8 Del. C. §262. The Company believes that the merger price, which was the product of arms-length negotiations, was fair and reasonable, and intends to contest the appraisal claim. Discovery in the matter has commenced.

On April 12, 2017, the Company filed a patent infringement complaint in the U.S. District Court for the Eastern District of New York against SGL Carbon, LLC and SGL Carbon SE (collectively, SGL), alleging infringement of patents relating to wafer carrier technology used in MOCVD equipment. The complaint alleges that SGL infringes Veeco s patents by making and selling certain wafer carriers to Veeco s competitor, Advanced Micro-Fabrication Equipment, Inc. (AMEC). On November 2, 2017, the U.S. District Court granted the Company s motion for a preliminary injunction prohibiting SGL from shipping wafer carriers using the Company s patented technology without the Company s express authorization. The Company continues to seek a post-trial permanent injunction and monetary damages against SGL.

On July 13, 2017, AMEC filed a patent infringement complaint against Veeco Instruments Shanghai Co., Ltd. (Veeco Shanghai) with the Fujian High Court in China, alleging that the Company s MOCVD products infringed a Chinese utility model patent relating to the synchronous movement engagement mechanism in a chemical vapor deposition reactor and seeking injunctive relief and monetary damages against Veeco Shanghai. The Company believes this complaint is without merit and intends to vigorously defend against these allegations. The Company has filed a petition for invalidation of this patent with the Chinese Patent Reexamination Board (PRB). The Fujian High Court has suspended the infringement case against Veeco pending the outcome of the invalidation proceeding at the PRB.

The Company is involved in various other legal proceedings arising in the normal course of business. The Company does not believe that the ultimate resolution of these matters will have a material adverse effect on its consolidated financial position, results of operations, or cash flows.

Note 7 - Equity

Accumulated Other Comprehensive Income (AOCI)

The following table presents the changes in the balances of each component of AOCI, net of tax:

	Foreign Currency Translation	Unrealized Gains (Losses) on Available for Sale Securities	Total
		(in thousands)	
Balance - December 31, 2016	$ 1,797	$ (20)	$ 1,777
Other comprehensive income (loss)	25	10	35
Balance - September 30, 2017	$ 1,822	$ (10)	$ 1,812

There were minimal reclassifications from AOCI into net income for the nine months ended September 30, 2017.

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For the nine months ended September 30, 2017, Additional Paid-in Capital increased approximately $228.8 million related to 7.2 million shares issued for the Ultratech merger consideration, $47.5 million related to the issuance of the Convertible Senior Notes including deferred tax impact, and $11.4 million related to on-going share-based compensation activities.

Note 8 - Share-based compensation

Restricted share awards are issued to employees that are subject to specified restrictions and a risk of forfeiture. The restrictions typically lapse over one to five years and may entitle holders to dividends and voting rights. Other types of share-based compensation include performance share awards, performance share units, and restricted share units (collectively with restricted share awards, restricted shares), as well as options to purchase common stock.

Share-based compensation expense was recognized in the following line items in the Consolidated Statements of Operations for the three and nine months ended September 30, 2017 and 2016:

	Three months ended September 30,		Nine months ended September 30,	
	2017	2016	2017	2016
	(in thousands)			
Cost of sales	$ 740	$ 607	$ 1,898	$ 1,639
Research and development	849	993	1,986	3,032
Selling, general, and administrative	3,714	2,143	10,182	7,462
Restructuring	867		1,707	
Acquisition costs			4,203	
Total	$ 6,170	$ 3,743	$ 19,976	$ 12,133

For the nine months ended September 30, 2017, equity activity related to stock options was as follows:

	Number of Shares (in thousands)	Weighted Average Exercise Price
Balance - December 31, 2016	1,576	$ 35.18
Granted		
Exercised	(18)	30.03
Expired or forfeited	(129)	37.03
Balance - September 30, 2017	1,429	35.07

For the nine months ended September 30, 2017, equity activity related to non-vested restricted shares and performance shares was as follows:

		Weighted Average

	Number of Shares (in thousands)	Grant Date Fair Value
Balance - December 31, 2016	1,949	$ 23.85
Granted	642	29.35
Assumed from Ultratech	338	31.75
Vested	(695)	27.12
Forfeited	(173)	26.39
Balance - September 30, 2017	2,061	25.85

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Note 9 - Income Taxes

Income taxes are estimated for each of the jurisdictions in which the Company operates. Deferred income taxes reflect the net tax effect of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes, as well as the tax effect of carryforwards. Realization of net deferred tax assets is dependent on future taxable income. At September 30, 2017, the Company s U.S. deferred tax assets are fully offset by a valuation allowance since the Company cannot conclude that it is more likely than not that these future benefits will be realized.

At the end of each interim reporting period, the effective tax rate is aligned with expectations for the full year. This estimate is used to determine the income tax provision on a year-to-date basis and may change in subsequent interim periods. If necessary, the year-to-date tax benefit for interim period losses is limited to the amount that could be recognizable at the end of the fiscal year. Income (loss) before income taxes and income tax expense (benefit) for the three and nine months ended September 30, 2017 and 2016 were as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2017	2016	2017	2016
	(in thousands)			
Income (loss) before income taxes	$ (23,674)	$ (68,462)	$ (64,146)	$ (114,535)
Income tax expense (benefit)	$ (1,790)	$ 1,136	$ (24,969)	$ 2,677

The net income tax benefit for the three months ended September 30, 2017 was comprised of a net benefit of $2.2 million related to the Company s U.S. operations, and a net tax expense of $0.4 million related to the Company s non-U.S. operations. The net income tax benefit for the nine months ended September 30, 2017 was comprised of a net benefit of $21.6 million and $3.4 million related to the Company s U.S. and non-U.S. operations, respectively.

The net income tax benefit from the Company s U.S. operations was primarily attributable to a tax benefit of $2.2 million and $23.5 million for losses incurred during the three and nine months ended September 30, 2017, respectively. Under the intraperiod tax allocation rules, the deferred tax liability created upon the issuance of the Convertible Senior Notes and recorded through Additional Paid-in Capital is treated as a source of income, which enables the Company to recognize a benefit for the U.S. loss before income taxes through operations during fiscal 2017. The tax benefit related to the issuance of the Convertible Senior Notes will not recur in future years. This benefit was partially offset by a deferred provision of approximately $1.9 million related to tax amortization on indefinite-lived intangible assets for the nine months ended September 30, 2017.

The net income tax benefit of $3.4 million for the nine months ended September 30, 2017, from the Company s non-U.S. operations was primarily attributable to the Company s determination in the first quarter of 2017 that it was more likely than not that it will meet the requirements of an existing foreign tax incentive agreement. As a result, the Company remeasured this uncertain tax position and recognized a $6.3 million benefit during the first quarter, which is comprised of a reversal of a $4.9 million tax liability established in previous periods and the recognition of a deferred tax benefit of $1.4 million related to certain foreign net operating losses generated in prior years that are now determined to be realizable. This benefit was partially offset by a current year tax expense of approximately $3.1 million attributed to the profitable non-U.S. operations, of which approximately $0.4 million was recorded during the three months ended September 30, 2017.

For the three and nine months ended September 30, 2016, the Company did not provide a current tax benefit on U.S. pre-tax losses since the Company could not conclude that it is more likely than not that the benefits would be realized. The tax expense is primarily related to indefinite-lived intangible assets that are amortized for tax purposes but not for financial reporting purposes, as well as taxes attributed to the profitable non-U.S. operations. The deferred tax liability created by the tax deductible expense cannot be used to offset existing deferred tax assets.

Note 10 - Segment Reporting and Geographic Information

Veeco operates and measures its results in one operating segment and continues to do so with the integration of

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Ultratech s business activities. As a result, the Company has one reportable segment: the design, development, manufacture, and support of semiconductor process equipment primarily sold to make electronic devices.

Veeco categorizes its revenue by the key markets into which it sells. As a result of the acquisition of Ultratech, the Company s four key markets are now: LED Lighting, Display & Compound Semiconductor (formerly Lighting, Display & Power Electronics); Advanced Packaging, MEMS & RF; Scientific & Industrial, which now includes Data Storage, which was formerly a separate category; and Front-End Semiconductor, which was formerly included in the Scientific & Industrial market category.

LED Lighting, Display & Compound Semiconductor

LED Lighting refers to Light Emitting Diode (LED) and semiconductor illumination sources used in various applications including, but not limited to, displays such as backlights, general lighting, automotive running lights, and headlamps. Display refers to LEDs used for displays and Organic Light Emitting Diode (OLED) displays found in outdoor display/signage applications, TVs, smartphones, wearable devices, and tablets. Compound Semiconductor includes Photonics, Power Electronics, and Radio Frequency (RF) Devices. Photonics refers to laser diodes, Vertical Cavity Surface Emitting Lasers (VCSEL) in 3D sensing and communications, and various other optical devices. Power Electronics refers to semiconductor devices such as rectifiers, inverters, and converters for the control and conversion of electric power. RF devices refers to radio frequency emitting and receiving devices that enable wireless communications. Such devices include power amplifiers, switches, and transceivers for applications such as mobile (including handsets and base stations), defense, automotive, and the internet of things.

Advanced Packaging, MEMS & RF Filters

Advanced Packaging includes a portfolio of wafer-level assembly technologies that enable the miniaturization and performance improvement of electronic products, such as smartphones, smartwatches, tablets, and laptops. Micro-Electro Mechanical Systems (MEMS) includes tiny mechanical devices such as sensors, switches, mirrors, and actuators embedded in semiconductor chips used in vehicles, smartphones, tablets, and games. RF Filters refers to RF filters used in smartphones, tablets, and mobile devices.

Scientific & Industrial

Scientific refers to advanced materials research at university research institutions, industry research institutions, industry consortiums, and government research agencies. Industrial refers to large-scale product manufacturing applications including data storage and optical coatings: thin layers of material deposited on a lens or mirror that alters how light reflects and transmits.

Front-End Semiconductor

Front-End Semiconductor refers to the early steps in the process of integrated circuit fabrication where the microchips are created but still remain on the silicon wafer. This category includes Laser Spike Anneal, Ion Beam etch for front-end semiconductor applications, and Ion Beam deposition for EUV mask blanks.

Sales by end-market and geographic region for the three and nine months ended September 30, 2017 and 2016 were as follows:

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	Three months ended September 30,		Nine months ended September 30,	
	2017	2016	2017	2016
	(in thousands)			
Sales by end-market				
LED Lighting, Display & Compound Semiconductor	$ 59,721	$ 49,427	$ 170,546	$ 97,985
Advanced Packaging, MEMS & RF	22,775	12,092	55,756	52,400
Scientific & Industrial	33,145	20,997	86,917	82,726
Front-End Semiconductor	16,231	2,966	28,105	5,731
Total	$ 131,872	$ 85,482	$ 341,324	$ 238,842
Sales by geographic region				
United States	$ 34,723	$ 19,104	$ 73,256	$ 66,550
China	15,197	21,238	81,811	54,621
EMEA(1)	17,243	19,703	57,312	61,999
Rest of World	64,709	25,437	128,945	55,672
Total	$ 131,872	$ 85,482	$ 341,324	$ 238,842

(1) EMEA consists of Europe, the Middle East, and Africa

For geographic reporting, sales are attributed to the location in which the customer facility is located.

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

Cautionary Statement Regarding Forward Looking Statements

Our discussion below constitutes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. When used in this Report, the words believes, anticipates, expects, estimates, targets, plans, intends, will, and similar expressions related to the future are intended to identify forward-looking statements. All forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to differ materially from projected results. You should not place undue reliance on any forward-looking statements, which speak only as of the dates they are made.

Executive Summary

On May 26, 2017, we completed the acquisition of Ultratech. Ultratech designs, manufactures, and markets lithography, laser annealing, and inspection equipment for manufacturers of semiconductor devices, including front-end semiconductor manufacturing and advanced packaging. Ultratech also designs, manufactures, and markets atomic layer deposition (ALD) equipment for scientific and industrial applications. Ultratech s customers are primarily located throughout the United States, EMEA, China, Japan, Taiwan, Singapore, and Korea. The results of Ultratech s operations have been included in the consolidated financial statements since the date of acquisition.

Together with Ultratech, we design, manufacture, and market semiconductor process equipment aligned to meet the demands of key global trends such as energy conservation, mobility, and connectivity. Our MOCVD, lithography, laser annealing, ion beam, and single wafer etch and clean technologies play an integral role in producing LEDs for solid-state lighting and displays and in the fabrication of advanced semiconductor devices. With equipment designed to optimize performance, yield, and cost of ownership, we hold technology leadership positions in all these served markets.

We categorize our revenue by the key markets into which we sell. Our four key markets are: LED Lighting, Display & Compound Semiconductor; Advanced Packaging, MEMS & RF; Scientific & Industrial; and Front-End Semiconductor.

Sales in the LED Lighting, Display & Compound Semiconductor market were driven by the continued shipment of MOCVD and PSP systems to customers in Europe, China, and Southeast Asia, along with a large MBE system shipment in the Solar application space. The largest applications for LEDs are solid state lighting, followed by TV displays. Over the past few quarters, demand has increased for larger LCD TV displays, which require relatively more LEDs to backlight than smaller display sizes. We have also seen an increase in LED demand for fine-pitch digital signage. These trends have driven an increase in demand for our MOCVD equipment and build-up in our MOCVD backlog. Our broad portfolio of MOCVD technologies has been developed to support the most significant industry trends, including developing mid-power LEDs, utilizing larger wafer sizes, and optimizing cost-of-ownership. Our TurboDisc® EPIK 700 GaN MOCVD system continues to win new business for blue LEDs. Our TurboDisc K475i AsP MOCVD system targets red-orange-yellow LEDs, laser diodes, and high-efficiency triple junction photovoltaic solar cells and continues to gain market momentum. During the quarter we released our latest MOCVD system, the EPIK868, offering a lower cost and higher productivity solution for our customers. The EPIK868 was designed to meet the needs of our customers in China,

demonstrating our long-term commitment to this region. We believe that the expected profits from increased revenues may be partially offset by lower margins based on the current competitive environment.

Sales in the Advanced Packaging, MEMS & RF markets continue to be influenced by the mobility trend and increasing functionality in mobile devices and were driven by Ultratech and PSP sales in Advanced Packaging and continued PSP sales for MEMs and RF Filter applications. Sales into the Advanced Packaging market have slowed, largely tied to large Lithography system purchases in 2016 and early 2017, combined with delays in FOWLP (Fan Out Wafer Level Packaging) adoption by some smartphone manufacturers and weak smartphone sales. We remain well positioned for growth as FOWLP and other advance packaging applications grow over the longer term. Our versatile PSP product architecture has allowed us to continue to generate solid business in the MEMs and RF Filter portion of this category.

Sales in the Scientific & Industrial markets were supported by shipments of AD&E systems for optical coatings and data storage applications, as well as shipments of MBE systems to universities and laboratories. While equipment demand from

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each individual market may fluctuate quarter to quarter, the diverse customer base has historically provided a relatively stable revenue stream for the company on a combined basis.

Sales in the Front-End Semiconductor market were primarily driven by Ultratech s Laser Annealing systems and AD&E s Photomask systems.

Results of Operations

For the three months ended September 30, 2017 and 2016

The following table presents revenue and expense line items reported in our Consolidated Statements of Operations for 2017 and 2016 and the period-over-period dollar and percentage changes for those line items. Our results of operations are reported as one business segment, represented by our single operating segment, including the Ultratech business acquired.

	Three months ended September 30,				Change Period to Period	
	2017		2016			
	(dollars in thousands)					
Net sales	$ 131,872	100%	$ 85,482	100%	$ 46,390	54%
Cost of sales	78,811	60%	52,027	61%	26,784	51%
Gross profit	53,061	40%	33,455	39%	19,606	59%
Operating expenses, net:						
Research and development	24,061	18%	19,892	23%	4,169	21%
Selling, general, and administrative	29,771	23%	18,396	22%	11,375	62%
Amortization	12,500	9%	5,261	6%	7,239	138%
Restructuring	5,010	4%	1,798	2%	3,212	179%
Acquisition costs	783	1%		0%	783	*
Asset impairment	2	0%	56,035	66%	(56,033)	(100)%
Other, net	(140)	(0)%	795	1%	(935)	(118)%
Total operating expenses, net	71,987	55%	102,177	120%	(30,190)	(30)%
Operating income (loss)	(18,926)	(14)%	(68,722)	(80)%	49,796	*
Interest income (expense), net	(4,748)	(4)%	260	0%	(5,008)	*
Income (loss) before income taxes	(23,674)	(18)%	(68,462)	(80)%	44,788	*
Income tax expense (benefit)	(1,790)	(1)%	1,136	1%	(2,926)	*
Net income (loss)	$ (21,884)	(17)%	$ (69,598)	(81)%	$ 47,714	*

* Not meaningful

Net Sales

The following is an analysis of sales by market and by region:

	Three months ended September 30,				Change	
	2017		2016		Period to Period	
	(dollars in thousands)					
Sales by market						
LED Lighting, Display & Compound Semiconductor	$ 59,721	45%	$ 49,427	58%	$ 10,294	21%
Advanced Packaging, MEMS & RF	22,775	17%	12,092	14%	10,683	88%
Scientific & Industrial	33,145	25%	20,997	25%	12,148	58%
Front-End Semiconductor	16,231	13%	2,966	3%	13,265	447%
Total	$ 131,872	100%	$ 85,482	100%	$ 46,390	54%
Sales by geographic region						
United States	$ 34,723	26%	$ 19,104	22%	$ 15,619	82%
China	15,197	12%	21,238	25%	(6,041)	(28)%
EMEA	17,243	13%	19,703	23%	(2,460)	(12)%
Rest of World	64,709	49%	25,437	30%	39,272	154%
Total	$ 131,872	100%	$ 85,482	100%	$ 46,390	54%

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Total sales increased across all market categories for the three months ended September 30, 2017 against the comparable prior year period, driven by ongoing improvements in LED industry conditions, as well as additional sales from the Ultratech business acquired in May 2017, spread across all markets. Pricing was not a significant driver of the change in total sales. By geography, sales increased in the United States and Rest of World regions, offset by decreases in China and EMEA. The most significant increase occurred in the Rest of World region, which was attributable to the increased sales in the LED Lighting, Display & Compound Semiconductor market in Malaysia, as well as additional sales from the Ultratech business acquired. Additionally, increased sales in the United States were primarily attributable to increased sales in the Scientific & Industrial market, as well as additional sales from the Ultratech business acquired. We expect there will continue to be year-to-year variations in our future sales distribution across markets and geographies.

Orders increased to $161.9 million for the three months ended September 30, 2017 from $118.0 million for the comparable prior year period. The increase in orders was primarily attributable to increases in the LED Lighting, Display & Compound Semiconductor and Scientific & Industrial markets, including additional bookings from the Ultratech acquisition.

One of the performance measures we use as a leading indicator of the business is the book-to-bill ratio. The ratio is defined as orders recorded in a given period divided by revenue recognized in the same period. A ratio greater than one indicates we are adding orders faster than we are recognizing revenue. For the three months ended September 30, 2017, the ratio was 1.2, compared to 1.4 for the comparable prior period. Our backlog at September 30, 2017 was $299.2 million, which was higher than the backlog at June 30, 2017 of $269.5 million. During the three months ended September 30, 2017, we recorded backlog adjustments of approximately $0.1 million relating to orders that no longer met our bookings criteria.

Gross Profit

In the third quarter of 2017, gross profit increased compared to the third quarter of 2016 due to a sharp increase in sales volume, including the acquisition of Ultratech. Gross margins remained relatively consistent for the three months ended September 30, 2017 against the comparable prior period, as the increase in gross margins due to product and region mix of sales in the period was offset by an inventory fair value step-up that was recorded in connection with the purchase accounting relating to the Ultratech acquisition. Given the current competitive environment in MOCVD business, we may see a decline in gross margins as we move beyond this calendar year.

Research and development

The markets we serve are characterized by continuous technological development and product innovation, and we invest in various research and development initiatives to maintain our competitive advantage and achieve our growth objectives. Research and development expenses increased in the third quarter of 2017 compared to the third quarter of 2016 primarily as a result of the addition of the acquired Ultratech related research and development projects, partially offset by our decision to significantly reduce investments in certain technology, as well as decreases in other personnel-related expenses and professional fees as a result of our initiative to streamline operations, enhance efficiency, and reduce costs.

Selling, general, and administrative

Selling, general, and administrative expenses increased primarily due to the addition of the acquired Ultratech related selling, general and administrative costs, as well as increased professional and legal fees.

Amortization expense

The increase in amortization expense is a result of the additional intangibles acquired as part of the acquisition of Ultratech, offset by the lower amortization resulting from the impairment of the certain technology assets in the prior year as well as certain other intangible assets becoming fully amortized during 2016.

Restructuring expense

During 2016, we undertook restructuring activities as part of our initiative to streamline operations, enhance efficiencies, and reduce costs, as well as reducing future investments in certain technology development, which together impacted

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approximately 75 employees. In addition, during 2017, we began the acquisition integration process to enhance efficiencies, resulting in additional employee terminations and other facility closing costs. Over the next few quarters, we expect to incur additional restructuring costs of $1 million to $5 million as it finalizes all of these activities.

Acquisition costs

Acquisition costs are non-recurring charges incurred in connection with the acquisition of the Ultratech business.

Asset Impairment

During the third quarter of 2016 we decided to significantly reduce investments in certain technologies and recorded non-cash asset impairment charges of $57.6 million, partially offset by an adjustment to our assessment of the fair market value of an asset then held as available-for-sale of $1.6 million.

Interest Income (Expense)

For the three months ended September 30, 2017, we recorded net interest expense of $4.7 million compared with net interest income of $0.3 million in the prior year period. The change primarily relates to the Convertible Senior Notes issued in January 2017.

Income Taxes

At the end of each interim reporting period, we estimate the effective income tax rate expected to be applicable for the full year. This estimate is used to determine the income tax provision or benefit on a year-to-date basis and may change in subsequent interim periods.

Our tax benefit for the three months ended September 30, 2017 was $1.8 million compared to a tax expense of $1.1 million for the comparable prior period. The 2017 tax benefit included a $2.2 million benefit relating to our domestic operations and a $0.4 million expense relating to our non-U.S. operations, compared to 2016 when our expense included $0.3 million related to domestic operations and $0.8 million related to our non-U.S. operations. The current period domestic tax benefit is primarily attributable to an income tax benefit for losses incurred during the three months ended September 30, 2017, as the deferred tax liability created by the issuance of the Convertible Senior Notes is treated as a source of income in fiscal 2017, offset by a deferred provision related to tax amortization on indefinite-lived intangible assets. The current period non-U.S. tax expense is attributable to the profitable non-U.S. operations. The tax expense for the comparable period is primarily attributable to the tax amortization of indefinite-lived intangible assets that is not available to offset U.S. deferred tax assets.

For the nine months ended September 30, 2017 and 2016

The following table presents operating results as a percentage of net sales, as well as period-over-period dollar and percentage changes for those line items. Our results of operations are reported as one business segment, including the Ultratech business acquired.

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	Nine months ended September 30, 2017		2016		Change Period to Period	
	(dollars in thousands)					
Net sales	$ 341,324	100%	$ 238,842	100%	$ 102,482	43%
Cost of sales	215,344	63%	141,991	59%	73,353	52%
Gross profit	125,980	37%	96,851	41%	29,129	30%
Operating expenses, net						
Research and development	57,669	17%	63,545	27%	(5,876)	(9)%
Selling, general, and administrative	71,574	21%	58,230	24%	13,344	23%
Amortization	21,722	6%	15,785	7%	5,937	38%
Restructuring	9,605	3%	3,993	2%	5,612	141%
Acquisition costs	16,277	5%		0%	16,277	*
Asset impairment	1,139	0%	69,662	29%	(68,523)	(98)%
Other, net	(228)	(0)%	884	0%	(1,112)	(126)%
Total operating expenses, net	177,758	52%	212,099	89%	(34,341)	(16)%
Operating income (loss)	(51,778)	(15)%	(115,248)	(48)%	63,470	*
Interest income (expense), net	(12,369)	(4)%	713	0%	(13,082)	*
Income (loss) before income taxes	(64,146)	(19)%	(114,535)	(48)%	50,389	*
Income tax expense (benefit)	(24,969)	(7)%	2,677	1%	(27,646)	*
Net income (loss)	$ (39,177)	(11)%	$ (117,212)	(49)%	$ 78,035	*

* Not Meaningful

Net Sales

The following is an analysis of sales by market and by region:

	Nine months ended September 30, 2017		2016		Change Period to Period	
	(dollars in thousands)					
Sales by market						
LED Lighting, Display & Compound Semiconductor	$ 170,546	51%	$ 97,132	41%	$ 73,414	76%
Advanced Packaging, MEMS & RF	55,756	16%	52,400	22%	3,356	6%
Scientific & Industrial	86,917	25%	83,510	35%	3,407	4%
Front-End Semiconductor	28,105	8%	5,800	2%	22,305	385%
Total	$ 341,324	100%	$ 238,842	100%	$ 102,482	43%
Sales by geographic region						
United States	$ 73,256	21%	$ 66,550	28%	$ 6,706	10%
China	81,811	24%	54,621	23%	27,190	50%
EMEA	57,312	17%	61,999	26%	(4,687)	(8)%
Rest of World	128,945	38%	55,672	23%	73,273	132%
Total	$ 341,324	100%	$ 238,842	100%	$ 102,482	43%

Total sales increased across all market categories for the nine months ended September 30, 2017 against the comparable prior year period, driven by ongoing improvements in LED industry conditions, as well as additional sales from the Ultratech business acquired in May 2017, spread across all markets. Pricing was not a significant driver of the change in total sales. Sales also increased across most geographical regions, primarily due to the increased sales in the LED Lighting, Display & Compound Semiconductor market, as well as additional sales from the

Ultratech acquisition. Increased sales in the Rest of World region was principally driven by a significant increase in sales to customers located in Malaysia. We expect there will continue to be year-to-year variations in our future sales distribution across markets and geographies.

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Orders increased to $391.9 million for the nine months ended September 30, 2017 from $247.3 million for the comparable prior year period. The increase in orders was primarily attributable to an increase of over 80% in orders in the LED Lighting, Display, & Compound Semiconductor market, as well as a 41% increase in the Scientific & Industrial market.

One of the performance measures we use as a leading indicator of the business is the book-to-bill ratio. The ratio is defined as orders recorded in a given period divided by revenue recognized in the same period. A ratio greater than one indicates we are adding orders faster than we are recognizing revenue. For the nine months ended September 30, 2017 and September 30, 2016, the ratio was 1.1. Our backlog at September 30, 2017 was $299.2 million, which was higher than the backlog at December 31, 2016 of $209.2 million. During the nine months ended September 30, 2017, we increased backlog by approximately $41.6 million relating to backlog acquired from Ultratech, while adjusting for a decrease in backlog of approximately $1.7 million relating to orders that no longer met our bookings criteria.

Gross Profit

For the nine months ended September 30, 2017, gross profit increased compared to 2016 due to a sharp increase in sales volume, including the addition of the Ultratech acquisition, partially offset by decreased gross margins. Gross margins decreased principally due to an inventory fair value step-up that was recorded in connection with the purchase accounting relating to the Ultratech acquisition as well as product and region mix of sales in the period. Given the current competitive environment in MOCVD business, we may see a decline in gross margins as we move beyond this calendar year.

Research and development

The markets we serve are characterized by continuous technological development and product innovation, and we invest in various research and development initiatives to maintain our competitive advantage and achieve our growth objectives. Research and development expenses decreased for the nine months ended September 30, 2017 compared to 2016 primarily as a result of our decision to significantly reduce investments in certain technology, as well as decreases in other personnel-related expenses and professional fees as a result of our initiative to streamline operations, enhance efficiency, and reduce costs. These decreases were partially offset by the addition of the acquired Ultratech related research and development projects.

Selling, general, and administrative

Selling, general, and administrative expenses increased for the nine months ended September 30, 2017 compared to 2016 primarily due to the addition of the acquired Ultratech related selling, general and administrative costs.

Amortization expense

The increase in amortization expense is a result of the additional intangibles acquired as part of the acquisition of Ultratech, offset by the lower amortization resulting from the impairment of certain technology assets in the prior year as well as certain other intangible assets becoming fully amortized during 2016.

Restructuring expense

During 2016, we undertook restructuring activities as part of our initiative to streamline operations, enhance efficiencies, and reduce costs, as well as reducing future investments in certain technology development, which together impacted approximately 75 employees. In addition, during 2017, we began the acquisition integration process to enhance efficiencies, resulting in additional employee terminations and other facility closing costs. Over the next few quarters, we expect to incur additional restructuring costs of $1 million to $5 million as it finalizes all of these activities.

Acquisition costs

Acquisition costs are non-recurring charges incurred in connection with the acquisition of the Ultratech business, which included $4.2 million on non-cash charges related to accelerated share-based compensation for employee terminations for the nine months ended September 30, 2017.

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Asset Impairment expense

During the nine months ended September 30, 2016, we recorded non-cash impairment charges of $57.6 million relating to our decision to significantly reduce investments in certain technologies, $5.9 million relating to our assessments of the fair market value of assets held for sale, and $6.1 million relating to the disposal of certain lab equipment. Impairment charges for the nine months ended September 30, 2017 primarily relate to assessments of the fair market value of assets held for sale.

Interest Income (Expense)

For the nine months ended September 30, 2017, we recorded net interest expense of $12.4 million compared with net interest income of $0.7 million in the prior year period. The change primarily relates to the Convertible Senior Notes issued in January 2017.

Income Taxes

At the end of each interim reporting period, we estimate the effective income tax rate expected to be applicable for the full year. This estimate is used to determine the income tax provision or benefit on a year-to-date basis and may change in subsequent interim periods.

Our tax benefit for the nine months ended September 30, 2017 was $25.0 million compared to a tax expense of $2.7 million for the comparable prior period. The 2017 tax benefit included $21.6 million relating to our domestic operations and $3.4 million relating to our non-U.S. operations, compared to 2016 when our expense included $1.2 million related to domestic operations and $1.5 million related to our non-U.S. operations. The current period domestic tax benefit is primarily attributable to an income tax benefit for losses incurred during the nine months ended September 30, 2017, as the deferred tax liability created by the issuance of the Convertible Senior Notes is treated as a source of income in fiscal 2017, offset by a deferred provision related to tax amortization on indefinite-lived intangible assets. The current period non-U.S. tax benefit is primarily attributable to the remeasurement of an uncertain tax position, which included the reversal of a previously established non-U.S. tax liability and the recognition of a deferred tax benefit related to certain foreign net operating losses generated in prior years that are now determined to be realizable, offset by tax expense attributed to the profitable non-U.S. operations. The tax expense for the comparable period is primarily attributable to the tax amortization of indefinite-lived intangible assets that is not available to offset U.S. deferred tax assets.

Liquidity and Capital Resources

Our cash and cash equivalents, short-term investments, and restricted cash are as follows:

	September 30, 2017	**December 31, 2016**

	(in thousands)	
Cash and cash equivalents	$ 235,268	$ 277,444
Short-term investments	85,853	66,787
Total	$ 321,121	$ 344,231

A portion of our cash and cash equivalents is held by our subsidiaries throughout the world, frequently in each subsidiary s respective functional currency, which is typically the U.S. dollar. At September 30, 2017 and December 31, 2016, cash and cash equivalents of $194.7 million and $149.2 million, respectively, were held outside the United States. In order to fund continued international growth, it is our current intention to permanently reinvest the cash and cash equivalent balances held in China, Taiwan, and Malaysia, and our current forecasts do not require repatriation of these funds back to the United States. At September 30, 2017, we had $143.9 million in cash held outside the United States on which we may have to pay significant U.S. income taxes to repatriate or utilize net operating loss carryforwards. Additionally, local government regulations may restrict our ability to move cash balances under certain circumstances. We currently do not expect such regulations and restrictions to impact our ability to make acquisitions, pay vendors, or conduct operations. We believe that our projected cash flow from operations, combined with our cash and short term

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investments, will be sufficient to meet our projected working capital requirements, contractual obligations, and other cash flow needs for the next twelve months, including the scheduled interest payments on our Convertible Senior Notes issued in January 2017.

A summary of the cash flow activity at September 30, 2017 and 2016 is as follows:

Cash Flows from Operating Activities

	Nine months ended September 30,	
	2017	**2016**
	(in thousands)	
Net income (loss)	$ (39,177)	$ (117,212)
Non-cash items:		
Depreciation and amortization	32,295	26,010
Non-cash interest expense	7,641	
Deferred income taxes	(21,235)	1,529
Share-based compensation expense	19,976	12,133
Asset impairment	1,139	69,662
Provision for bad debts	99	160
Changes in operating assets and liabilities	14,538	(16,590)
Net cash provided by (used in) operating activities	$ 15,276	$ (24,308)

Net cash provided by operating activities was $15.3 million for the nine months ended September 30, 2017 and was due to the net loss of $39.2 million plus adjustments for non-cash items of $39.9 million, offset by an increase in cash flow from operating activities due to changes in operating assets and liabilities of $14.5 million.

Cash Flows from Investing Activities

	Nine months ended September 30,	
	2017	**2016**
	(in thousands)	
Acquisitions of businesses, net of cash acquired	$ (399,478)	$
Capital expenditures	(17,403)	(10,717)
Changes in investments, net	27,812	52,921
Other	2,284	463
Net cash provided by (used in) investing activities	$ (386,785)	$ 42,667

The net cash used in investing activities during the nine months ended September 30, 2017 was primarily attributable to the net cash used in the acquisition of Ultratech as well as capital expenditures. As part of our efforts to streamline operations, enhance efficiency, and reduce costs, we are making certain investments in our facilities to support the consolidation activities, and, in 2017, we expect to incur future capital expenditures related to these activities of approximately $2 million to $5 million.

Cash Flows from Financing Activities

	Nine months ended September 30,	
	2017	2016
	(in thousands)	
Settlement of equity awards, net of withholding taxes	$ (5,251)	$ 8
Purchases of common stock		(13,349)
Proceeds from long-term debt borrowings	335,752	
Repayments of long-term debt	(1,193)	(252)
Net cash provided by (used in) financing activities	$ 329,308	$ (13,593)

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The cash provided by financing activities for the nine months ended September 30, 2017 was primarily related to the net cash proceeds received from the issuance of the Convertible Senior Notes in January 2017. The cash used in financing activities for the nine months ended September 30, 2016 was primarily related to the share repurchase program, which commenced in November 2015. There were no share repurchases in 2017.

Convertible Senior Notes

On January 10, 2017, we issued $345.0 million of 2.70% convertible senior unsecured notes due (the Convertible Senior Notes). We received net proceeds, after deducting underwriting discounts and fees and expenses payable by the Company, of approximately $335.8 million. The Convertible Senior Notes bear interest at a rate of 2.70% per year, payable semiannually in arrears on January 15 and July 15 of each year, commencing on July 15, 2017. The Convertible Senior Notes mature on January 15, 2023, unless earlier purchased by the Company, redeemed, or converted. We believe that we have sufficient capital resources and cash flows from operations to support scheduled interest payments on this debt.

Business Combination

As discussed above, on May 26, 2017, the Company acquired 100% of Ultratech, Inc., a leading supplier of lithography, laser-processing, and inspection systems used to manufacture semiconductor devices and LEDs. The results of Ultratech s operations have been included in the consolidated financial statements since the date of acquisition.

Contractual Obligations and Commitments

We have commitments under certain contractual arrangements to make future payments for goods and services. These contractual arrangements secure the rights to various assets and services to be used in the future in the normal course of business. We expect to fund these contractual arrangements with cash generated from operations in the normal course of business.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements that have, or are reasonably likely to have, a current or future material effect on our financial condition, changes in financial condition, expenses, and results of operations, liquidity, capital expenditures or capital resources other than operating leases, bank guarantees, and purchase commitments disclosed in the preceding footnotes.

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Item 3. Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Risk

Our exposure to market rate risk for changes in interest rates primarily relates to our investment portfolio. We centrally manage our investment portfolios considering investment opportunities and risks, tax consequences, and overall financing strategies. Our investment portfolio includes fixed-income securities with a fair value of approximately $85.9 million at September 30, 2017. These securities are subject to interest rate risk and, based on our investment portfolio at September 30, 2017, a 100 basis point increase in interest rates would result in a decrease in the fair value of the portfolio of $0.2 million. While an increase in interest rates may reduce the fair value of the investment portfolio, we will not realize the losses in the Consolidated Statements of Operations unless the individual fixed-income securities are sold prior to recovery or the loss is determined to be other-than-temporary.

Currency Exchange Risk

We conduct business on a worldwide basis and, as such, a portion of our revenues, earnings, and net investments in foreign affiliates is exposed to changes in currency exchange rates. The economic impact of currency exchange rate movements is complex because such changes are often linked to variability in real growth, inflation, interest rates, governmental actions, and other factors. These changes, if material, could cause us to adjust our financing and operating strategies. Consequently, isolating the effect of changes in currency does not incorporate these other important economic factors.

From time to time, we manage our risks and exposures to currency exchange rates through the use of derivative financial instruments (e.g., forward contracts). We mainly use derivative financial instruments in the context of hedging and generally do not use them for speculative purposes. During the third quarter of 2017, we had an immaterial amount of foreign exchange derivatives designated as hedges. Accordingly, most foreign exchange derivatives are recorded in our Consolidated Balance Sheets at fair value and changes in fair value from these contracts are recorded in Other, net in our Consolidated Statements of Operations.

Our net sales to customers located outside of the United States represented approximately 74% and 79% of our total net sales for the three and nine months ended September 30, 2017, respectively and 78% and 72% for the comparable 2016 periods. We expect that net sales to customers outside the United States will continue to represent a large percentage of our total net sales. Our sales denominated in currencies other than the U.S. dollar represented 1% and 2% of total net sales in the three and nine months ended September 30, 2017, respectively, and 2% and 4% for the comparable 2016 periods.

A 10% change in foreign exchange rates would have an immaterial impact on the consolidated results of operations since most of our sales outside the United States are denominated in U.S. dollars.

Item 4. Controls and Procedures

Management s Report on Internal Control over Financial Reporting

Our principal executive and financial officers have evaluated and concluded that our disclosure controls and procedures are effective as of September 30, 2017. The disclosure controls and procedures are designed to ensure that the information required to be disclosed in this report filed under the Securities Exchange Act of 1934 is recorded, processed, summarized, and reported within the time periods specified in the Securities and Exchange Commission s rules and forms and is accumulated and communicated to our principal executive and financial officers as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

On May 26, 2017, we completed the acquisition of Ultratech, Inc., and are integrating the acquired business into our overall internal control over financial reporting process. Management is in the process of assessing the internal control over financial reporting and is implementing or revising internal controls where necessary. See Note 3 to the Consolidated Financial

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Statements *Business Combinations*, for further details. There were no other changes in internal control for the quarter ended September 30, 2017 that have materially affected or are reasonably likely to materially affect internal control over financial reporting.

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PART II OTHER INFORMATION

Item 1. Legal Proceedings

On September 21, 2017, Blueblade Capital Opportunities LLC et al., on behalf of purported beneficial owners of 440,100 shares of Ultratech common stock, filed an action against Ultratech in Delaware Court of Chancery requesting an appraisal of the value of their Ultratech stock pursuant to 8 Del. C. §262. The Company believes that the merger price, which was the product of arms-length negotiations, was fair and reasonable, and intends to contest the appraisal claim. Discovery in the matter has commenced.

On April 12, 2017, the Company filed a patent infringement complaint in the U.S. District Court for the Eastern District of New York against SGL Carbon, LLC and SGL Carbon SE (collectively, SGL), alleging infringement of patents relating to wafer carrier technology used in MOCVD equipment. The complaint alleges that SGL infringes Veeco s patents by making and selling certain wafer carriers to Veeco s competitor, Advanced Micro-Fabrication Equipment, Inc. (AMEC). On November 2, 2017, the U.S. District Court granted the Company s motion for a preliminary injunction prohibiting SGL from shipping wafer carriers using the Company s patented technology without the Company s express authorization. The Company continues to seek a post-trial permanent injunction and monetary damages against SGL.

On July 13, 2017, AMEC filed a patent infringement complaint against Veeco Instruments Shanghai Co., Ltd. (Veeco Shanghai) with the Fujian High Court in China, alleging that the Company s MOCVD products infringed a Chinese utility model patent relating to the synchronous movement engagement mechanism in a chemical vapor deposition reactor and seeking injunctive relief and monetary damages against Veeco Shanghai. The Company believes this complaint is without merit and intends to vigorously defend against these allegations. The Company has filed a petition for invalidation of this patent with the Chinese Patent Reexamination Board (PRB). The Fujian High Court has suspended the infringement case against Veeco pending the outcome of the invalidation proceeding at the PRB.

The Company is involved in various other legal proceedings arising in the normal course of business. The Company does not believe that the ultimate resolution of these matters will have a material adverse effect on its consolidated financial position, results of operations, or cash flows.

Item 1A. Risk Factors

Information regarding risk factors appears in the Safe Harbor Statement at the beginning of this quarterly report on Form 10-Q and in Part I Item 1A of our 2016 Form 10-K. There have been no material changes from the risk factors previously disclosed in our 2016 Form 10-K.

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

On October 28, 2015, our Board of Directors authorized a program to repurchase up to $100 million of our common stock to be completed through October 28, 2017. At September 30, 2017, $22.3 million of the $100 million had been utilized. No repurchases occurred after the first quarter of 2016. Repurchases may be made from time to time on the open market or in privately negotiated transactions in accordance with applicable federal securities laws. The timing and amount of future repurchases, if any, will depend upon market conditions, SEC regulations, and other factors. The repurchases would be funded using available cash balances and cash generated from operations. The program does not obligate us to acquire any particular amount of common stock and may be modified or suspended at any time at our discretion.

Item 3. Defaults upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not Applicable.

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Item 5. Other Information

None.

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Item 6. Exhibits

Unless otherwise indicated, each of the following exhibits has been filed with the Securities and Exchange Commission by Veeco under File No. 0-16244.

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed or Furnished Herewith
		Form	Exhibit	Filing Date	
10.1	Veeco Amended and Restated 2010 Stock Incentive Plan, effective March 3, 2017.				*
31.1	Certification of Chief Executive Officer pursuant to Rule 13a 14(a) or Rule 15d 14(a) of the Securities and Exchange Act of 1934.				*
31.2	Certification of Chief Financial Officer pursuant to Rule 13a 14(a) or Rule 15d 14(a) of the Securities and Exchange Act of 1934.				*
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes - Oxley Act of 2002.				*
32.2	Certification of 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.				**
101.XSD	XBRL Schema.				**
101.PRE	XBRL Presentation.				**
101.CAL	XBRL Calculation.				**
101.DEF	XBRL Definition.				**
101.LAB	XBRL Label.				**

* Filed herewith

** Filed herewith electronically

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on November 3, 2017.

Veeco Instruments Inc.

By: /S/ JOHN R. PEELER
John R. Peeler
Chairman and Chief Executive Officer

By: /s/ SHUBHAM MAHESHWARI
Shubham Maheshwari
Executive Vice President and Chief Financial Officer