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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of Earliest Event Reported):

February 2, 2017

MKS Instruments, Inc.

(Exact name of registrant as specified in its charter)

Massachusetts

(State or other jurisdiction  
of incorporation)

000-23621

(Commission  
File Number)

04-2277512

(I.R.S. Employer  
Identification No.)

2 Tech Drive, Suite 201, Andover, Massachusetts

(Address of principal executive offices)

01810

(Zip Code)

Registrant's telephone number, including area code:

978-645-5500

Not Applicable

Former name or former address, if changed since last report

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
  - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
  - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
  - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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**Item 2.02 Results of Operations and Financial Condition.**

On February 2, 2017, MKS Instruments, Inc. announced its financial results for the quarter and year ended December 31, 2016. The full text of the press release is attached as Exhibit 99.1 to this Current Report on Form 8-K.

The information in this Form 8-K and the Exhibit attached hereto shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act") or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933 of the Exchange Act, except as expressly set forth by specific reference in such a filing.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits

99.1 Press Release dated February 2, 2017

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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 hereunto duly authorized.

MKS Instruments, Inc.

February 2, 2017

By: */s/ Seth H. Bagshaw*

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*Name: Seth H. Bagshaw*

*Title: Vice President, Chief Financial Officer and Treasurer*

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Exhibit Index

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press Release dated February 2, 2017

## MKS Instruments Reports Fourth Quarter and Full Year 2016 Financial Results

*Achieved record fourth quarter and full year semi revenue*

*Increased expected synergies from Newport Corporation acquisition from \$35 million to \$40 million*

*Successful re-pricing of term loan in Q4 expected to save additional 20% in annual interest costs*

Andover, Mass., February 2, 2017 — MKS Instruments, Inc. (NASDAQ: MKSI), a global provider of technologies that enable advanced processes and improve productivity, today reported fourth quarter and full year 2016 financial results.

### GAAP Financial Results<sup>1</sup>

	Q4		Full Year	
	2015	2016	2015	2016
Net revenues (\$ millions)	\$ 172	\$ 405	\$ 814	\$1,295
Operating margin	12.9%	15.4%	19.3%	12.1%
Net income (\$ millions)	\$25.5	\$45.5	\$122.3	\$104.8
Diluted EPS	\$0.48	\$0.83	\$ 2.28	\$ 1.94

### Non GAAP Financial Results<sup>1</sup>

	Q4		Full Year	
	2015	2016	2015	2016
Net revenues (\$ millions)	\$ 172	\$ 405	\$ 814	\$1,295
Operating margin	14.4%	20.6%	20.1%	18.7%
Net income (\$ millions)	\$18.4	\$57.2	\$119.1	\$164.0
Diluted EPS	\$0.34	\$1.05	\$ 2.22	\$ 3.03

<sup>1</sup> The full year 2016 results include the results of Newport Corporation (now our Light & Motion segment) since the acquisition on April 29, 2016.

### Fourth Quarter Financial Results

Sales were \$405 million, an increase of 6% from \$381 million in the third quarter of 2016, and an increase of 26% from \$323 million in the fourth quarter of 2015 on a pro-forma basis.

Fourth quarter net income was \$45.5 million, or \$0.83 per diluted share, compared to net income of \$32.5 million, or \$0.60 per diluted share in the third quarter of 2016, and \$25.5 million, or \$0.48 per diluted share in the fourth quarter of 2015.

Non-GAAP net earnings, which exclude special charges and credits, were \$57.2 million, or \$1.05 per diluted share, compared to \$47.9 million, or \$0.88 per diluted share in the third quarter of 2016, and \$18.4 million, or \$0.34 per diluted share in the fourth quarter of 2015.

### Additional Financial Information

The Company had \$423 million in cash and short-term investments as of December 31, 2016 and \$627 million outstanding under its term loan. During the fourth quarter, MKS paid a dividend of \$9.1 million or \$0.17 per diluted share.

### Full Year Results

On a pro-forma basis, sales were \$1.47 billion, an increase of 4% from \$1.42 billion in 2015 driven by strong sales to our semiconductor customers. Sales to our semiconductor customers were \$790 million, an increase of 14% compared to 2015, also on a pro-forma basis.

Sales in our Vacuum and Analysis segment, the historic MKS business, were \$872 million, an increase of 7% from \$814 million in 2015 driven by very strong sales to our semiconductor customers, which increased 15% from 2015.

“The fourth quarter was a strong finish to a transformational year for MKS. We are pleased with our sales of \$405 million in the quarter, which rose 6% sequentially after a strong Q3,” said Gerald Colella, Chief Executive Officer and President. Mr. Colella added, “The integration with Newport is proceeding very well, and exiting 2016 we have realized almost \$20 million of synergies on an annualized basis. We are tracking ahead of plan and are pleased to announce that we now expect to achieve total synergies of \$40 million by the end of 2018, up from our previously announced goal of \$35 million. The combination with Newport is allowing

us to create new, high-value solutions to address a wide array of applications for a broad set of customers. As we look to 2017 and beyond, we are excited about our prospects to deliver growth, generate strong cash flow, and deliver attractive financial returns.”

“We also continue to execute on our strategy to delever our balance sheet and reduce our interest cost. During the quarter we completed another successful re-pricing of our term loan resulting in an additional 75 basis point reduction in our interest rate. We also made a \$40 million voluntary pre-payment on our term loan facility, bringing our total pre-payments to date to \$150 million. These actions are expected to result in significant savings over the life of the loan and align with our strategy to delever our balance sheet and reduce our cost of capital. Since origination on April 29<sup>th</sup>, we have reduced our non-GAAP interest expense by approximately \$14 million or 36% on an annualized basis,” said Seth Bagshaw, Vice President and Chief Financial Officer.

### **First Quarter 2017 Outlook**

Based on current business levels, the Company expects that sales in the first quarter of 2017 may range from \$385 to \$425 million, and at these volumes, GAAP net income could range from \$0.72 to \$0.96 per diluted share and non-GAAP net earnings could range from \$0.93 to \$1.17 per diluted share.

### **Conference Call Details**

A conference call with management will be held today at 8:30 a.m. (Eastern Time). To participate in the conference call, please dial (877) 212-6076 for domestic callers and (707) 287-9331 for international callers, and an operator will connect you. Participants will need to provide the operator with the Conference ID of 47777201, which has been reserved for this call. A live and archived webcast of the call will be available on the Company’s website at [www.mksinst.com](http://www.mksinst.com).

### **About MKS Instruments**

MKS Instruments, Inc. is a global provider of instruments, subsystems and process control solutions that measure, control, power, monitor, and analyze critical parameters of advanced manufacturing processes to improve process performance and productivity. Our products are derived from our core competencies in pressure measurement and control, flow measurement and control, gas and vapor delivery, gas composition analysis, residual gas analysis, leak detection, control and information technology, ozone generation and delivery, RF & DC power, reactive gas generation, vacuum technology, lasers, photonics, sub-micron positioning, vibration isolation, and optics. Our primary served markets include semiconductor capital equipment, general industrial, life sciences, and research. Additional information can be found at [www.mksinst.com](http://www.mksinst.com).

### **Use of Non-GAAP Financial Results**

Non-GAAP amounts exclude amortization of acquired intangible assets, an asset impairment, costs associated with completed and announced acquisitions, acquisition integration costs, sale of previously written down inventory, an inventory step-up adjustment related to an acquisition, restructuring charges, certain excess and obsolete inventory charges, fees and expenses related to re-pricing of term loan, amortization of debt issuance costs, net proceeds from an insurance policy, the tax effect of a legal entity restructuring, other discrete tax benefits and charges, and the related tax effect of these adjustments. These non-GAAP measures are not in accordance with Accounting Principles Generally Accepted in the United States of America (GAAP). MKS’ management believes the presentation of these non-GAAP financial measures is useful to investors for comparing prior periods and analyzing ongoing business trends and operating results. Pro forma revenue amounts assume the acquisition of Newport had occurred as of the beginning of 2015.

### **SAFE HARBOR FOR FORWARD-LOOKING STATEMENTS**

This release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 regarding the future financial performance of MKS, our future business prospects, our future growth, and our expected synergies and cost savings from our recent acquisition of Newport Corporation. These statements are only predictions based on current assumptions and expectations. Actual events or results may differ materially from those in the forward-looking statements set forth herein. Among the important factors that could cause actual events to differ materially from those in the forward-looking statements are the conditions affecting the markets in which we operate, including the fluctuations in capital spending in the semiconductor industry, and other advanced manufacturing markets, fluctuations in net sales to our major customers, our ability to successfully integrate Newport’s operations and employees, unexpected costs, charges or expenses resulting from the Newport acquisition, the terms of the term loan financing, MKS’ ability to realize anticipated synergies and cost savings from the Newport acquisition, our ability to successfully grow our business, potential adverse reactions or changes to business relationships resulting from the Newport acquisition, potential fluctuations in quarterly results, the challenges, risks and costs involved with integrating the operations of any other acquired companies, dependence on new product development, rapid technological and market change, acquisition strategy, manufacturing and sourcing risks, volatility of stock price, international operations, financial risk management, and the other factors described in MKS’ Quarterly Report for the quarter ended June 30, 2016 on Form 10-Q filed with the SEC. MKS is under no obligation to, and expressly disclaims any obligation to, update or alter our forward-looking statements, whether as a result of new information, future events or otherwise after the date of this press release.

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Company Contact: Seth H. Bagshaw  
Vice President, Chief Financial Officer and Treasurer  
Telephone: 978.645.5578

**MKS Instruments, Inc.**  
**Unaudited Consolidated Statements of Operations**  
(In thousands, except per share data)

	Three Months Ended		
	December 31, 2016	December 31, 2015	September 30, 2016
Net revenues:			
Products	\$359,765	\$143,286	\$335,156
Services	45,375	29,101	45,504
Total net revenues	405,140	172,387	380,660
Cost of revenues:			
Products	194,716	79,553	183,789
Services	27,016	20,035	28,486
Total cost of revenues	221,732	99,588	212,275
Gross profit	183,408	72,799	168,385
Research and development	32,870	16,841	32,268
Selling, general and administrative	67,626	31,555	68,016
Acquisition and integration costs	2,089	—	2,641
Restructuring	618	505	—
Asset impairment	5,000	—	—
Amortization of intangible assets	12,691	1,693	12,452
Income from operations	62,514	22,205	53,008
Interest income	702	852	404
Interest expense	10,085	11	12,008
Other (expense) income, net	(3,575)	—	844
Income from operations before income taxes	49,556	23,046	42,248
Provision (benefit) for income taxes	4,069	(2,476)	9,699
Net income	<u>\$ 45,487</u>	<u>\$ 25,522</u>	<u>\$ 32,549</u>
Net income per share:			
Basic	\$ 0.85	\$ 0.48	\$ 0.61
Diluted	\$ 0.83	\$ 0.48	\$ 0.60
Cash dividends per common share	\$ 0.17	\$ 0.17	\$ 0.17
Weighted average shares outstanding:			
Basic	53,617	53,217	53,574
Diluted	54,518	53,554	54,315
<b>The following supplemental Non-GAAP earnings information is presented to aid in understanding MKS' operating results:</b>			
Net income	\$ 45,487	\$ 25,522	\$ 32,549
Adjustments:			
Acquisition and integration costs (Note 1)	2,089	—	2,641
Acquisition inventory step-up (Note 2)	—	—	4,971
Fees and expenses relating to re-pricing of term loan (Note 3)	526	—	—
Amortization of debt issuance costs (Note 4)	2,430	—	2,838
Restructuring (Note 5)	618	505	—
Net proceeds from an insurance policy (Note 6)	—	—	(1,323)
Tax (benefit) expense from legal entity restructuring (Note 7)	(6,570)	—	1,532
Release of tax reserves (Note 8)	—	(7,692)	—
Tax benefit and tax credits (Note 9)	—	(1,378)	—
Excess and obsolete charge (Note 10)	—	488	—
Asset impairment (Note 11)	5,000	—	—
Withholding tax on dividends (Note 12)	1,362	—	—
Amortization of intangible assets	12,691	1,693	12,452
Pro forma tax adjustments	(6,437)	(761)	(7,790)
Non-GAAP net earnings (Note 13)	<u>\$ 57,196</u>	<u>\$ 18,377</u>	<u>\$ 47,870</u>
Non-GAAP net earnings per share (Note 13)	<u>\$ 1.05</u>	<u>\$ 0.34</u>	<u>\$ 0.88</u>
Weighted average shares outstanding	54,518	53,554	54,315
Income from operations	\$ 62,514	\$ 22,205	\$ 53,008
Adjustments:			
Acquisition and integration costs (Note 1)	2,089	—	2,641
Acquisition inventory step-up (Note 2)	—	—	4,971
Fees and expenses relating to re-pricing of term loan (Note 3)	526	—	—
Restructuring (Note 5)	618	505	—
Excess and obsolete charge (Note 10)	—	488	—
Asset impairment (Note 11)	5,000	—	—
Amortization of intangible assets	12,691	1,693	12,452
Non-GAAP income from operations (Note 14)	<u>\$ 83,438</u>	<u>\$ 24,891</u>	<u>\$ 73,072</u>
Non-GAAP operating margin percentage (Note 14)	<u>20.6%</u>	<u>14.4%</u>	<u>19.2%</u>

Gross profit	\$ 183,408	\$ 72,799	\$ 168,385
Acquisition inventory step-up (Note 2)	—	—	4,971
Excess and obsolete charge (Note 10)	—	488	—
Non-GAAP gross profit (Note 15)	\$ 183,408	\$ 73,287	\$ 173,356
Non-GAAP gross profit percentage (Note 15)	45.3%	42.5%	45.5%
Interest expense	\$ 10,085	\$ 11	\$ 12,008
Amortization of debt issuance costs (Note 4)	2,430	—	2,838
Non-GAAP interest expense	\$ 7,655	\$ 11	\$ 9,170

Note 1: We recorded \$2.1 million and \$2.6 million of acquisition and integration costs during the three months ended December 31, 2016 and September 30, 2016, respectively, related to the Newport Corporation acquisition.

Note 2: We recorded \$5.0 million of amortization expense during the three months ended September 30, 2016, related to the step-up of inventory to fair value as a result of the Newport Corporation acquisition.

Note 3: We recorded \$0.5 million of fees and expenses during the three months ended December 31, 2016 related to the second re-pricing of our Term Loan Credit Agreement.

Note 4: We recorded \$2.4 million and \$2.8 million of additional interest expense during the three months ended December 31, 2016 and September 30, 2016, respectively, related to the amortization of debt issuance costs affiliated with our Term Loan Credit Agreement and ABL Facility.

Note 5: We recorded \$0.6 million of restructuring costs during the three months ended December 31, 2016, related to the restructuring of one of our international facilities. We recorded \$0.5 million of restructuring costs during the three months ended December 31, 2015 related to the consolidation of an international manufacturing operation.

Note 6: We recorded net proceeds of \$1.3 million from a Company owned life insurance policy during the three months ended September 30, 2016.

Note 7: We recorded a tax benefit of \$6.6 million during the three months ended December 31, 2016 and a tax expense of \$1.5 million during the three months ended September 30, 2016, related to a legal entity restructuring.

Note 8: We recorded credits of \$7.7 million for reserve releases related to the settlement of audits and expiration of the statute of limitations during the three months ended December 31, 2015.

Note 9: We recorded a tax benefit of \$1.8 million during the three months ended December 31, 2015 from the reinstatement of the U.S. research tax credit, representing a full year benefit. We excluded the benefit applicable to the first three quarters of 2015, which is \$1.4 million, from Non-GAAP net earnings.

Note 10: We recorded \$0.5 million of excess and obsolete inventory charges, related to the discontinuation of a product line during the three months ended December 31, 2015.

Note 11: We recorded a \$5.0 million impairment charge related to a minority interest investment in a privately held company during the three months ended December 31, 2016.

Note 12: We recorded \$1.4 million for withholding tax on intercompany dividends during the three months ended December, 31, 2016.

Note 13: The Non-GAAP net earnings and Non-GAAP net earnings per share amounts exclude acquisition and integration costs, an inventory step-up adjustment related to an acquisition, fees and expenses related to the re-pricing of a term loan credit agreement, amortization of debt issuance costs, restructuring costs, net proceeds from an insurance policy, the tax effect of a legal entity restructuring, reserve releases related to the settlement of audits and expiration of the statute of limitations, tax benefit and tax credits, an excess and obsolete inventory charge, an asset impairment charge, a withholding tax on dividends, amortization of intangible assets and the related tax effect of these adjustments to reflect the expected full year effective tax rate in the related period.

Note 14: The Non-GAAP income from operations and Non-GAAP operating margin percentages exclude acquisition and integration costs, an inventory step-up adjustment related to an acquisition, fees and expenses related to the re-pricing of a term loan credit agreement, restructuring costs, an excess and obsolete inventory charge, an asset impairment charge and amortization of intangible assets.

Note 15: The Non-GAAP gross profit amounts and Non-GAAP gross profit percentages exclude an inventory step-up adjustment related to an acquisition and excess and obsolete inventory charges.

**MKS Instruments, Inc.**  
**Unaudited Consolidated Statements of Operations**  
(In thousands, except per share data)

	Twelve Months Ended December 31,	
	2016	2015
Net revenues:		
Products	\$1,134,013	\$697,104
Services	161,329	116,420
Total net revenues	1,295,342	813,524
Cost of revenues:		
Products	627,850	373,764
Services	101,873	76,888
Total cost of revenues	729,723	450,652
Gross profit	565,619	362,872
Research and development	110,579	68,305
Selling, general and administrative	229,171	129,087
Acquisition and integration costs	27,279	30
Restructuring	642	2,074



Asset impairment	5,000	—
Amortization of intangible assets	35,681	6,764
Income from operations	157,267	156,612
Interest income	2,560	2,999
Interest expense	30,611	143
Other (expense), net	(1,239)	—
Income from operations before income taxes	127,977	159,468
Provision for income taxes	23,168	37,171
Net income	\$ 104,809	\$122,297
Net income per share:		
Basic	\$ 1.96	\$ 2.30
Diluted	\$ 1.94	\$ 2.28
Cash dividends per common share	\$ 0.68	\$ 0.675
Weighted average shares outstanding:		
Basic	53,472	53,282
Diluted	54,051	53,560
<b>The following supplemental Non-GAAP earnings information is presented to aid in understanding MKS' operating results:</b>		
Net income	\$ 104,809	\$122,297
Adjustments:		
Acquisition and integration costs (Note 1)	27,279	30
Acquisition inventory step-up (Note 2)	15,090	—
Fees and expenses relating to re-pricing of term loan (Note 3)	1,239	—
Amortization of debt issuance costs (Note 4)	6,897	—
Restructuring (Note 5)	642	2,074
Sale of previously written down inventory (Note 6)	—	(2,098)
Net proceeds from an insurance policy (Note 7)	(1,323)	—
Tax benefit from legal entity restructuring (Note 8)	(5,038)	—
Release of tax reserves (Note 9)	—	(7,692)
Excess and obsolete charge (Note 10)	—	488
Asset impairment (Note 11)	5,000	—
Withholding tax on dividends (Note 12)	1,362	—
Amortization of intangible assets	35,681	6,764
Pro forma tax adjustments	(27,617)	(2,790)
Non-GAAP net earnings (Note 13)	\$ 164,021	\$119,073
Non-GAAP net earnings per share (Note 13)	\$ 3.03	\$ 2.22
Weighted average shares outstanding	54,051	53,560
Income from operations	\$ 157,267	\$156,612
Adjustments:		
Acquisition and integration costs (Note 1)	27,279	30
Acquisition inventory step-up (Note 2)	15,090	—
Fees and expenses relating to re-pricing of term loan (Note 3)	1,239	—
Restructuring (Note 5)	642	2,074
Sale of previously written down inventory (Note 6)	—	(2,098)
Excess and obsolete charge (Note 10)	—	488
Asset impairment (Note 11)	5,000	—
Amortization of intangible assets	35,681	6,764
Non-GAAP income from operations (Note 14)	\$ 242,198	\$163,870
Non-GAAP operating margin percentage (Note 14)	18.7%	20.1%
Gross profit	\$ 565,619	\$362,872
Acquisition inventory step-up (Note 2)	15,090	—
Sale of previously written down inventory (Note 6)	—	(2,098)
Excess and obsolete charge (Note 10)	—	488
Non-GAAP gross profit (Note 15)	\$ 580,709	\$361,262
Non-GAAP gross profit percentage (Note 15)	44.8%	44.4%
Interest expense	\$ 30,611	\$ 143
Amortization of debt issuance costs (Note 4)	6,897	—
Non-GAAP interest expense	\$ 23,714	\$ 143

Note 1: We recorded \$27.3 million of acquisition and integration costs during the twelve months ended December 31, 2016 related to the Newport Corporation acquisition, which closed during the second quarter of 2016. We recorded \$0.03 million of acquisition costs during the twelve months ended December 31, 2015 related to the Precise LLC acquisition, which closed during the first quarter of 2015.

Note 2: We recorded \$15.1 million of amortization expense during the twelve months ended December 31, 2016 related to the step-up of inventory to fair value as a result of the Newport Corporation acquisition.

Note 3: We recorded \$1.2 million of fees and expenses during the twelve months ended December 31, 2016, related to the two re-pricings of our Term Loan Credit Agreement.

Note 4: We recorded \$6.9 million of amortization expense during the twelve months ended December 31, 2016 related to the amortization of debt issuance costs affiliated with our Term Loan Credit Agreement and ABL Facility.

Note 5: We recorded \$0.6 million of restructuring costs during the twelve months ended December 31, 2016, related to the restructuring of one of our international facilities. We recorded \$2.1 million of restructuring costs during the twelve months ended December 31, 2015 related to the outsourcing of an

international manufacturing operation and the consolidation of certain other foreign manufacturing locations.

Note 6: Cost of sales for 2015 includes a \$2.1 million reversal of an excess and obsolete inventory charge for inventory that was subsequently sold.

Note 7: We recorded net proceeds of \$1.3 million from a Company owned life insurance policy during the twelve months ended December 31, 2016.

Note 8: We recorded a tax benefit of \$5.0 million related to a legal entity restructuring during the twelve months ended December 31, 2016.

Note 9: We recorded credits of \$7.7 million for reserve releases related to the settlement of audits and expiration of the statute of limitations during the twelve months ended December 31, 2015.

Note 10: We recorded \$0.5 million of excess and obsolete inventory charges, related to the discontinuation of a product line during the twelve months ended December 31, 2015.

Note 11: We recorded a \$5.0 million impairment charge related to a minority interest investment in a privately held company during the twelve months ended December 31, 2016.

Note 12: We recorded \$1.4 million for withholding tax on intercompany dividends during the twelve months ended December 31, 2016.

Note 13: The Non-GAAP net earnings and Non-GAAP net earnings per share amounts exclude acquisition and integration costs, an inventory step-up adjustment related to an acquisition, fees and expenses related to re-pricings of a term loan credit agreement, amortization of debt issuance costs, restructuring costs, the reversal of an excess and obsolete inventory charge for inventory that was subsequently sold, net proceeds from an insurance policy, the tax effect of a legal entity restructuring, excess and obsolete inventory charges, an asset impairment charge, a withholding tax on dividends, reserve releases related to the settlement of audits and expiration of the statute of limitations, amortization of intangible assets and the related tax effect of these adjustments to reflect the expected full year effective tax rate in the related period.

Note 14: The Non-GAAP income from operations and Non-GAAP operating margin percentages exclude acquisition and integration costs, an inventory step-up adjustment related to an acquisition, fees and expenses related to re-pricings of a term loan credit agreement, restructuring costs, the reversal of an excess and obsolete inventory charge for inventory that was subsequently sold, excess and obsolete inventory charges, an asset impairment charge and amortization of intangible assets.

Note 15: The Non-GAAP gross profit amounts and Non-GAAP gross profit percentages exclude an inventory step-up adjustment related to an acquisition, the reversal of an excess and obsolete inventory charge for inventory that was subsequently sold and excess and obsolete inventory charges.

**MKS Instruments, Inc.**  
**Reconciliation of GAAP Income Tax Rate to Non-GAAP Income Tax Rate**  
(In thousands)

	Three Months Ended December 31, 2016			Three Months Ended September 30, 2016		
	Income Before Income Taxes	Provision (benefit) for Income Taxes	Effective Tax Rate	Income Before Income Taxes	Provision (benefit) for Income Taxes	Effective Tax Rate
GAAP	\$ 49,556	\$ 4,069	8.2%	\$ 42,248	\$ 9,699	23.0%
Adjustments:						
Acquisition and integration costs (Note 1)	2,089	—		2,641	—	
Acquisition inventory step-up (Note 2)	—	—		4,971	—	
Fees and expenses relating to re-pricing of term loan (Note 3)	526	—		—	—	
Amortization of debt issuance costs (Note 4)	2,430	—		2,838	—	
Restructuring (Note 5)	618	—		—	—	
Net proceeds from an insurance policy (Note 6)	—	—		(1,323)	—	
Tax (benefit) expense from legal entity restructuring (Note 7)	—	6,570		—	(1,532)	
Asset impairment (Note 8)	5,000	—		—	—	
Withholding tax on dividends (Note 12)	—	(1,362)		—	—	
Amortization of intangible assets	12,691	—		12,452	—	
Tax effect of pro forma adjustments	—	6,437		—	7,790	
Non-GAAP	<u>\$ 72,910</u>	<u>\$ 15,714</u>	21.6%	<u>\$ 63,827</u>	<u>\$ 15,957</u>	25.0%

	Three Months Ended December 31, 2015		
	Income Before Income Taxes	Provision (benefit) for Income Taxes	Effective Tax Rate
GAAP	\$ 23,046	\$ (2,476)	-10.7%
Adjustments:			
Restructuring (Note 5)	505	—	
Excess and obsolete inventory charge (Note 9)	488	—	
Amortization of intangible assets	1,693	—	
Release of tax reserves (Note 11)	—	7,692	
Tax benefit and tax credits (Note 13)	—	1,378	
Tax effect of pro forma adjustments	—	761	
Non-GAAP	<u>\$ 25,732</u>	<u>\$ 7,355</u>	28.6%

	Twelve Months Ended December 31, 2016			Twelve Months Ended December 31, 2015		
	Income Before Income Taxes	Provision (benefit) for Income Taxes	Effective Tax Rate	Income Before Income Taxes	Provision (benefit) for Income Taxes	Effective Tax Rate
GAAP	\$ 127,977	\$ 23,168	18.1%	\$ 159,468	\$ 37,171	23.3%
Adjustments:						
Acquisition and integration costs (Note 1)	27,279	—		30	—	
Acquisition inventory step-up (Note 2)	15,090	—		—	—	
Fees and expenses relating to re-pricing of term loan (Note 3)	1,239	—		—	—	
Amortization of debt issuance costs (Note 4)	6,897	—		—	—	
Restructuring (Note 5)	642	—		2,074	—	
Sale of previously written down inventory (Note 10)	—	—		(2,098)	—	
Net proceeds from an insurance policy (Note 6)	(1,323)	—		—	—	
Tax expense from legal entity restructuring (Note 7)	—	5,038		—	—	
Release of tax reserves (Note 11)	—	—		—	7,692	
Excess and obsolete inventory charge (Note 9)	—	—		488	—	
Asset impairment (Note 8)	5,000	—		—	—	
Withholding tax on dividends (Note 12)	—	(1,362)		—	—	
Amortization of intangible assets	35,681	—		6,764	—	
Tax effect of pro forma adjustments	—	27,617		—	2,790	
Non-GAAP	<u>\$ 218,482</u>	<u>\$ 54,461</u>	24.9%	<u>\$ 166,726</u>	<u>\$ 47,653</u>	28.6%

Note 1: We recorded \$2.1 million and \$27.3 million of acquisition and integration costs during the three and twelve months ended December 31, 2016, respectively, related to the Newport Corporation acquisition, which closed during the second quarter of 2016. We recorded \$0.03 million of acquisition costs during the twelve months ended December 31, 2015 related to the Precise LLC acquisition, which closed during the first quarter of 2015.

Note 2: We recorded \$5.0 million and \$15.1 million of amortization expense during the three months ended September 30, 2016 and twelve months ended December 31, 2016, respectively, related to the step-up of inventory to fair value as a result of the Newport Corporation acquisition.

Note 3: We recorded \$0.5 million and \$1.2 million of fees and expenses during the three and twelve months ended December 31, 2016, respectively, related to the re-pricing of our Term Loan Credit Agreement.

Note 4: We recorded \$2.4 million and \$6.9 million of additional interest expense during the three and twelve months ended December 31, 2016, respectively, related to the amortization of debt issuance costs affiliated with our Term Loan Credit Agreement and ABL Facility.

Note 5: We recorded \$0.6 million of restructuring costs during the three and twelve months ended December 31, 2016, related to the restructuring of one of our international facilities. We recorded \$0.5 million and \$2.1 million of restructuring costs during the three and twelve months ended December 31, 2015, respectively, related to the outsourcing of an international manufacturing operation.

Note 6: We recorded net proceeds of \$1.3 million during 2016 from a company owned life insurance policy.

Note 7: We recorded a tax benefit of \$6.6 million and \$5.0 million for the three and twelve months ended December 31, 2016, respectively, and a tax expense of \$1.5 million for the three months ended September 30, 2016, related to a legal entity restructuring.

Note 8: We recorded a \$5.0 million impairment charge during the three and twelve months ended December 31, 2016, related to a minority interest investment in a privately held company.

Note 9: We recorded \$0.5 million of excess and obsolete inventory charges, related to the discontinuation of a product line during the three and twelve months ended December 31, 2015.

Note 10: Cost of sales for 2015 includes a \$2.1 million reversal of an excess and obsolete inventory charge for inventory that was subsequently sold.

Note 11: We recorded credits for reserve releases related to the settlement of audits and expiration of the statute of limitations in 2015.

Note 12: We recorded \$1.4 million during the three and twelve months ended December 31, 2016 for withholding tax on intercompany dividends.

Note 13: We recorded a tax benefit of \$1.8 million from the reinstatement of the U.S. research tax credit, representing a full year benefit during the three months ended December 31, 2015. We excluded the benefit applicable to the first three quarters of 2015, which is \$1.4 million, from Non-GAAP net earnings.

**MKS Instruments, Inc.**  
**Reconciliation of Q1-17 Guidance — GAAP Net Income to Non-GAAP Net Earnings**  
(In thousands, except per share data)

	Three Months Ended March 31, 2017			
	Low Guidance		High Guidance	
	\$ Amount	\$ Per Share	\$ Amount	\$ Per Share
GAAP net income	\$39,200	\$ 0.72	\$52,500	\$ 0.96
Amortization	12,300	0.22	12,300	0.22
Debt issuance costs	1,000	0.02	1,000	0.02
Acquisition costs	300	0.01	300	0.01
Integration costs	2,600	0.05	2,600	0.05
Tax effect of adjustments (Note 1)	(4,700)	(0.09)	(4,900)	(0.09)
Non-GAAP net earnings	<u>\$50,700</u>	<u>\$ 0.93</u>	<u>\$63,800</u>	<u>\$ 1.17</u>
Q1 - 17 forecasted shares		54,700		54,700

Note 1: The Non-GAAP adjustments are tax effected at the applicable statutory rates and the difference between the GAAP and Non-GAAP tax rates.

**MKS Instruments, Inc.**  
**Unaudited Consolidated Balance Sheet**  
(In thousands)

	December 31, 2016	December 31, 2015
<b>ASSETS</b>		
Cash and cash equivalents	\$ 228,623	\$ 227,574
Restricted cash	5,287	—
Short-term investments	189,463	430,663
Trade accounts receivable, net	248,757	101,883
Inventories	275,869	152,631
Other current assets	50,770	26,760
Total current assets	<u>998,769</u>	<u>939,511</u>
Property, plant and equipment, net	174,559	68,856
Goodwill	588,585	199,703
Intangible assets, net	408,004	44,027
Long-term investments	9,858	—
Other assets	32,467	21,250
Total assets	<u>\$2,212,242</u>	<u>\$1,273,347</u>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Short-term debt	\$ 10,993	\$ —
Accounts payable	69,337	23,177
Accrued compensation	67,728	28,424
Income taxes payable	22,794	4,024
Other current liabilities	66,448	35,359
Total current liabilities	<u>237,300</u>	<u>90,984</u>
Long-term debt, net	601,229	—
Non-current deferred taxes	69,068	2,655
Non-current accrued compensation	44,714	13,395
Other liabilities	18,139	5,432
Total liabilities	<u>970,450</u>	<u>112,466</u>
Stockholders' equity:		
Common stock	113	113
Additional paid-in capital	777,482	744,725
Retained earnings	494,744	427,214
Accumulated other comprehensive loss	<u>(30,547)</u>	<u>(11,171)</u>

Total stockholders' equity  
Total liabilities and stockholders' equity

1,241,792  
\$2,212,242

1,160,881  
\$1,273,347