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):	July	, 25	2	<u>י</u> ח1
Date of Report (Date of Earnest Event Reported).	July	1 20	. 4	∡U I

MKS Instruments, Inc.

(Exact name of registrant as specified in its charter)

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Massachusetts	000-23621	04-2277512
(State or other jurisdiction	(Commission	(I.R.S. Employer
of incorporation)	File Number)	Identification No.)
2 Tech Drive, Suite 201, Andover, Massachusetts		01810
(Address of principal executive offices)		(Zip Code)
Registrant's telephone number, including area code:		978-645-5500
	Not Applicable	
Former name or for	Former address, if changed since las	t report
	,	•
eck the appropriate box below if the Form 8-K filing is intended to	o simultaneously satisfy the filing of	obligation of the registrant under any of the followi
visions:	, , ,	
Written communications pursuant to Rule 425 under the Securities Soliciting material pursuant to Rule 14a-12 under the Exchange	. ,	
Pre-commencement communications pursuant to Rule 14d-2(b) u Pre-commencement communications pursuant to Rule 13e-4(c) u		

Top of the Form

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or
Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company []

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

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Item 2.02 Results of Operations and Financial Condition.

On July 25, 2017, MKS Instruments, Inc. announced its financial results for the quarter ended June 30, 2017. 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 or 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 July 25, 2017

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.

July 25, 2017 By: /s/ Seth H. Bagshaw

Name: Seth H. Bagshaw

Title: Senior Vice President, Chief Financial Officer and Treasurer

Exhibit Index

Exhibit No.	Description
99 1	Press Release dated July 25, 2017

MKS Instruments Reports Second Quarter 2017 Financial Results

Achieved new quarterly records for total semiconductor revenue and Non-GAAP net earnings

Total quarterly revenue up 34% compared to Q2 2016 on a pro-forma basis

Achieved new quarterly revenue record for Light and Motion Division

Andover, Mass., July 25, 2017 — MKS Instruments, Inc. (NASDAQ: MKSI), a global provider of technologies that enable advanced processes and improve productivity, today reported second quarter 2017 financial results.

Quarterly Financial Results
(in millions, except per share data)

	Q2 2017	Q1 2017
GAAP Results		
Net revenues	\$ 481	\$ 437
Gross margin	45.7%	47.0%
Operating margin	19.3%	19.1%
Net income	\$120.4	\$65.1
Diluted EPS	\$ 2.19	\$1.18
Non-GAAP Results		
Gross margin	45.9%	47.0%
Operating margin	24.0%	22.5%
Net earnings	\$ 77.7	\$70.0
Diluted EPS	\$ 1.41	\$1.27

Second Quarter 2017 Financial Results

Revenue was \$481 million, an increase of 10% from \$437 million in the first quarter of 2017 and an increase of 34% from \$359 million in the second quarter of 2016 on a pro-forma basis.

Net income was \$120.4 million, or \$2.19 per diluted share, compared to net income of \$65.1 million, or \$1.18 per diluted share in the first quarter of 2017, and \$9.2 million, or \$0.17 per diluted share in the second quarter of 2016.

Non-GAAP net earnings, which exclude special charges and credits, were \$77.7 million, or \$1.41 per diluted share, compared to \$70.0 million, or \$1.27 per diluted share in the first quarter of 2017, and \$38.7 million, or \$0.72 per diluted share in the second quarter of 2016.

"We are very pleased with our continued progress in 2017 in achieving our objective of sustainable and profitable growth," said Gerald Colella, Chief Executive Officer and President. Mr. Colella added, "This quarter, we set new records for quarterly revenue and Non-GAAP net earnings and our focus on integrating the Newport Corporation acquisition into our organization has produced both excellent results and new growth opportunities. We achieved our initial cost synergies ahead of plan, while also substantially improving the revenue growth profile and profitability of the Light and Motion Division."

"We also continue to execute on our strategy to delever our balance sheet and significantly reduce our interest cost. I am pleased to report that as of June 30, the Company was in a net cash position. In addition, in early July, we completed our third successful repricing of our Term Loan and completed another \$50 million voluntary pre-payment on our Term Loan facility, which brought our cumulative pre-payments to date to \$250 million. Since origination on April 29, 2016, we have reduced our non-GAAP interest expense by \$20 million or approximately 50% on an annualized basis," said Seth Bagshaw, Senior Vice President and Chief Financial Officer.

Additional Financial Information

The Company had \$577 million in cash and short-term investments as of June 30, 2017 and \$573 million outstanding under its Term Loan (reduced to \$523 million on July 11, 2017). During the second quarter of 2017, MKS paid a dividend of \$9.5 million or \$0.175 per diluted share.

In April, the Company completed the sale of its Data Analytics Solutions Business Unit and recognized a net after tax gain of \$72 million in the second quarter.

Third Quarter 2017 Outlook

Based on current business levels, the Company expects that revenue in the third quarter of 2017 may range from \$450 to \$490 million.

At these volumes, GAAP net income could range from \$1.12 to \$1.37 per diluted share and non-GAAP net earnings could range from \$1.32 to \$1.56 per diluted share.

Conference Call Details

A conference call with management will be held on Wednesday, July 26, 2017 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 40213368, 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.

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 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.

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, restructuring charges, certain excess and obsolete inventory charges, fees and expenses related to re-pricing of our Term Loan, amortization of debt issuance costs, net proceeds from an insurance policy, costs associated with the sale of a business, 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 generally accepted accounting principles 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. Annualized GAAP interest expense based upon \$780 million principal outstanding and using the LIBOR based interest rate spread in effect on April 29, 2016, was \$44.0 million. Annualized GAAP interest expense based upon \$523 million in principal currently outstanding and LIBOR plus 225 basis points would be \$24.1 million. Pro-forma revenue amounts assume the acquisition of Newport Corporation had occurred as of the beginning of 2016.

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 risks, costs, charges or expenses resulting from the Newport acquisition or other acquisitions, the terms of the Term Loan financing, fluctuations in interest rates, MKS' ability to realize anticipated synergies and cost savings from the Newport acquisition, our ability to successfully grow our business, potential fluctuations in quarterly results, 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' most recent Annual Report on Form 10-K for the year ended December 31, 2016 filed with 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

Senior Vice President, Chief Financial Officer and Treasurer

Telephone: 978.645.5578

Investor Relations Contacts:

Monica Gould The Blueshirt Group Telephone: 212.871.3927

Email: monica@blueshirtgroup.com

Lindsay Grant Savarese The Blueshirt Group Telephone: 212.331.8417

Email: lindsay@blueshirtgroup.com

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

		Three Months Ended	
	June 30, 2017	June 30, 2016	March 31, 2017
Net revenues: Products	\$431,950	\$285,471	\$392,922
Services	48,807	40,390	44,231
Total net revenues	480,757	325,861	437,153
Cost of revenues:	220 204	1.62.002	205.060
Products Services	229,304 31,870	163,993 25,955	205,060 26,546
Total cost of revenues	261,174	189,948	231,606
Gross profit	219,583	135,913	205,547
Research and development	33,680	28,214	33,282
Selling, general and administrative Acquisition and integration costs	71,979 790	59,579 20,055	74,220 1,442
Restructuring	2,064	24	522
Asset impairment	6,719	_	_
Amortization of intangible assets	11,468	8,855	12,501
Income from operations Interest income	92,883 507	19,186 530	83,580 516
Interest income Interest expense	6,997	8,474	8,832
Gain on sale of business	74,856	_	_
Other (expense) income, net	(3,277)	1,126	2,021
Income from operations before income taxes	157,972	12,368	77,285
Provision for income taxes Net income	\$\frac{37,532}{120,440}\$	\$\frac{3,158}{9,210}	\$\frac{12,225}{65,060}
	\$ 120,440	\$ 9,210	\$ 05,000
Net income per share: Basic	\$ 2.22	\$ 0.17	\$ 1.21
Diluted	\$ 2.19	\$ 0.17	\$ 1.18
Cash dividends per common share	\$ 0.175	\$ 0.17	\$ 0.175
Weighted average shares outstanding: Basic	54,178	53,461	53,769
Diluted	55,001	53,806	54,958
The following supplemental Non-GAAP earnings information is			, , , , , ,
presented to aid in understanding MKS' operating results:	Ф1 2 0.440	Ф. 0.210	Φ (5.060
Net income Adjustments:	\$120,440	\$ 9,210	\$ 65,060
Acquisition and integration costs (Note 1)	790	20,055	1,442
Acquisition inventory step-up (Note 2)	_	10,119	_
Expenses related to sale of a business (Note 3)	436	_	423
Exess and obsolete inventory charge (Note 4) Fees and expenses relating to re-pricing of term loan (Note 5)	1,160	713	_
Amortization of debt issuance costs (Note 6)	694	1,629	2,414
Restructuring (Note 7)	2,064	24	522
Asset impairment (Note 8)	6,719	_	_
Gain on sale of business (Note 9) Amortization of intangible assets	(74,856) 11,468	8,855	12,501
Windfall tax benefit on stock-based compensation (Note 10)	(3,169)	_	(6,650)
Taxes related to sale of business (Note 11)	15,007	_	-
Pro-forma tax adjustments	(3,047)	(11,896)	(5,718)
Non-GAAP net earnings (Note 12)	\$ 77,706	\$ 38,709	\$ 69,994
Non-GAAP net earnings per share (Note 12)	\$ 1.41	\$ 0.72	\$ 1.27
Weighted average shares outstanding Income from operations	55,001 \$ 92,883	53,806 \$ 19,186	54,958 \$ 83,580
Adjustments:	Ψ 92,003	Ψ 17,100	Ψ 05,500
Acquisition and integration costs (Note 1)	790	20,055	1,442
Acquisition inventory step-up (Note 2)	436	10,119	423
Expenses related to sale of a business (Note 3) Excess and obsolete inventory charge (Note 4)	1,160	_	423
Fees and expenses relating to re-pricing of term loan (Note 5)	_	713	_
Restructuring (Note 7)	2,064	24	522
Asset impairment (Note 8) Amortization of intangible assets	6,719 11,468	— 8,855	12,501
Non-GAAP income from operations (Note 13)	\$115,520	\$ 58,952	\$ 98,468
Non-GAAP operating margin percentage (Note 13)	24.0%	18.1%	22.5%
Gross profit	\$219,583	\$135,913	\$205,547
Acquisition inventory step-up (Note 2)		10,119	
Excess and obsolete inventory charge (Note 4)	1,160		
Non-GAAP gross profit (Note 14)	\$ <u>220,743</u>	\$ <u>146,032</u>	\$ <u>205,547</u>
Non-GAAP gross profit percentage (Note 14)	45.9%	44.8%	47.0%

Interest synongs	\$ 6,997	\$ 8,474	\$ 8,832
Interest expense	. ,	. ,	
Amortization of debt issuance costs (Note 6)	694	1,629	2,414
Non-GAAP interest expense	\$6,303	\$ 6,845	\$ 6,418
Net income	\$120,440	\$ 9,210	\$ 65,060
Interest expense (income), net	6,490	7,944	8,316
Provision for income taxes	37,532	3,158	12,225
Depreciation	9,120	7,575	9,332
Amortization	11,468	8,855	12,501
EBITDA (Note 15)	\$185,050	\$ 36,742	\$107,434
Stock-based compensation	6,207	10,517	8,782
Acquisition and integration costs (Note 1)	790	20,055	1,442
Acquisition inventory step-up (Note 2)	<u> </u>	10,119	_
Expenses related to sale of a business (Note 3)	436	_	423
Excess and obsolete inventory charge (Note 4)	1,160	_	_
Fees and expenses relating to re-pricing of term loan (Note 5)	_	713	_
Restructuring (Note 7)	2,064	24	522
Asset impairment (Note 8)	6,719	_	_
Gain on sale of business (Note 9)	(74,856)	_	_
Other adjustments	822	661	747
Adjusted EBITDA (Note 16)	\$128,392	\$ 78,831	\$ 119,350

Note 1: We recorded \$0.8 million, \$1.4 million and \$20.1 million of acquisition and integration costs during the three months ended June 30, 2017, March 31, 2017 and June 30, 2016, respectively, related to the Newport Corporation acquisition, which closed during the second quarter of 2016.

Note 2: We recorded \$10.1 million in cost of sales during the three months ended June 30, 2016 related to the step-up of inventory to fair value as a result of the Newport Corporation acquisition.

Note 3: We recorded \$0.4 million during the three months ended June 30, 2017 and March 31, 2017, respectively, related to the sale of a business, which was completed in April of 2017.

Note 4: We recorded \$1.2 million of excess and obsolete inventory charges in cost of sales during the three months ended June 30, 2017, related to the discontinuation of a product line in connection with the consolidation of two manufacturing sites.

Note 5: We recorded \$0.7 million of fees and expenses during the three months ended June 30, 2016, related to the re-pricing of our Term Loan Credit Agreement.

Note 6: We recorded \$0.7 million, \$2.4 million and \$1.6 million of additional interest expense during the three months ended June 30, 2017, March 31, 2017 and June 30, 2016, respectively, related to the amortization of debt issuance costs affiliated with our Term Loan Credit Agreement and ABL Facility.

Note 7: We recorded \$2.1 million of restructuring costs during the three months ended June 30, 2017, related to the consolidation of two manufacturing plants and \$0.5 million of restructuring costs during the three months ended March 31, 2017, related to the restructuring of one of our international facilities and the consolidation of sales offices.

Note 8: We recorded a \$6.7 million asset impairment charge, primarily related to the write-off of goodwill and intangible assets during the three months ended June 30, 2017, in conjunction with the consolidation of two manufacturing plants.

Note 9: We recorded a \$74.9 million gain on the sale of our Data Analytics Solutions business during the three months ended June 30, 2017.

Note 10: We recorded a windfall tax benefit on the vesting of stock-based compensation of \$3.2 million and \$6.6 million during the three months ended June 30, 2017 and March 31, 2017, respectively, relating to the implementation of a new accounting standard issued by the Financial Statement Accounting Standards Board (Accounting Standards Update 2016-09).

Note 11: We recorded \$15.0 million of taxes related to the sale of our Data Analytics Solutions business during the three months ended June 30, 2017.

Note 12: The Non-GAAP net earnings and Non-GAAP net earnings per share amounts exclude acquisition and integration costs, an inventory step-up adjustment to fair value, expenses related to the sale of a business, an excess and obsolete inventory charge, fees and expenses related to the re-pricing of a term loan credit agreement, amortization of debt issuance costs, restructuring costs, an asset impairment charge, a gain on the sale of a business, amortization of intangible assets, a windfall tax benefit related to stock-based compensation expense, taxes related to the sale of a business and the related tax effect of these adjustments to reflect the expected full year effective tax rate in the related period.

Note 13: The Non-GAAP income from operations and Non-GAAP operating margin percentages exclude acquisition and integration costs, an inventory step-up adjustment to fair value, expenses related to the sale of a business, an excess and obsolete inventory charge, fees and expenses related to the re-pricing of a term loan credit agreement, restructuring costs, an asset impairment charge and amortization of intangible assets.

Note 14: The Non-GAAP gross profit amounts and Non-GAAP gross profit percentages exclude an inventory step-up adjustment and an excess and obsolete inventory charge.

Note 15: EBITDA excludes net interest, income taxes, depreciation and amortization of intangible assets.

Note 16: Adjusted EBITDA excludes stock-based compensation, acquisition and integration costs, expenses related to the sale of a business, an excess and obsolete inventory charge, fees and expenses related to the re-pricing of a term loan credit agreement, restructuring costs, an asset impairment charge, a gain on the sale of a business and other adjustments as defined in our Term Loan Credit Agreement.

	Six Months	Ended June 30,
	2017	2016
Net revenues: Products	\$824,872	\$439,092
Services	93,038	70,450
Total net revenues Cost of revenues:	917,910	509,542
Products	434,364	249,345
Services	58,416	46,371
Total cost of revenues	492,780	295,716
Gross profit Research and development	425,130	213,826
Research and development Selling, general and administrative	66,962 146,199	45,441 93,529
Acquisition and integration costs	2,232	22,549
Restructuring	2,586	24
Asset impairment	6,719	_
Amortization of intangible assets	23,969	10,538
Income from operations	176,463	41,745
Interest income	1,023	1,454
Interest expense Gain on sale of business	15,829 74,856	8,519
Other (expense) income, net	(1,256)	1,493
Income from continuing operations before income taxes	235,257	36,173
Provision for income taxes	49,757	9,400
Net income	\$185,500	\$ 26,773
Net income per share:		
Basic	\$ 3.44	\$ 0.50
Diluted	\$ 3.37	\$ 0.50
Cash dividends per common share	\$ 0.35	\$ 0.34
Weighted average shares outstanding: Basic	52.072	52.240
Diluted	53,973 54,979	53,348 53,685
The following supplemental Non-GAAP earnings information is presented to aid in	54,777	33,003
understanding MKS' operating results:		
Net income	\$185,500	\$ 26,773
Adjustments:		
Acquisition and integration costs (Note 1)	2,232	22,549
Acquisition inventory step-up (Note 2) Expenses related to sales of a business (Note 3)	— 859	10,119
Excess and obsolete inventory charge (Note 4)	1,160	_
Fees and expenses relating to re-pricing of term loan (Note 5)		713
Amortization of debt issuance costs (Note 6)	3,108	1,629
Restructuring (Note 7)	2,586	24
Asset impairment (Note 8)	6,719	_
Gain on sale of business (Note 9) Amortization of intangible assets	(74,856) 23,969	10,538
Windfall tax benefit on stock-based compensation (Note 10)	(9,819)	10,556
Taxes related to sale of business (Note 11)	15,007	_
Pro-forma tax adjustments	(9,710)	(13,489)
Non-GAAP net earnings (Note 12)	\$146,755	\$ 58,856
Non-GAAP net earnings per share (Note 12)	\$ 2.67	\$ 1.10
Weighted average shares outstanding	54,979	53,685
Income from operations	\$176,463	\$ 41,745
Adjustments:		
Acquisition and integration costs (Note 1)	2,232	22,549
Acquisition inventory step-up (Note 2) Expenses related to sale of a business (Note 3)	<u> </u>	10,119
Excess and obsolete inventory charge (Note 4)	1,160	_
Fees and expenses relating to re-pricing of term loan (Note 5)		713
Restructuring (Note 7)	2,586	24
Asset impairment (Note 8)	6,719	_
Amortization of intangible assets	23,969	10,538
Non-GAAP income from operations (Note 13)	\$ <u>213,988</u>	\$ 85,688
Non-GAAP operating margin percentage (Note 13)	23.3%	16.8%
Gross profit	\$425,130	\$213,826
Acquisition inventory step-up (Note 2)	1.160	10,119
Excess and obsolete inventory charge (Note 4)	1,160	ф <u>ооз 045</u>
Non-GAAP gross profit (Note 14)	\$426,290	\$223,945
Non-GAAP gross profit percentage (Note 14)	46.4%	44.0%
Interest expense	\$ 15,829	\$ 8,519
Amortization of debt issuance costs (Note 6)	3,108	1,629
Non-GAAP interest expense	\$ 12,721	\$ 6,890
Net income	\$185,500	\$ 26,773

Interest expense (income), net	14,806	7,065
Provision for income taxes	49,757	9,400
Depreciation	18,452	11,170
Amortization	23,969	10,538
EBITDA (Note 15)	\$292,484	\$ 64,946
Stock-based compensation	14,989	14,668
Acquisition and integration costs (Note 1)	2,232	22,549
Acquisition inventory step-up (Note 2)	_	10,119
Expenses related to sale of a business (Note 3)	859	_
Excess and obsolete inventory charge (Note 4)	1,160	_
Fees and expenses relating to re-pricing of term loan (Note 5)	_	713
Restructuring (Note 7)	2,586	24
Asset impairment (Note 8)	6,719	_
Gain on sale of business (Note 9)	(74,856)	_
Other adjustments	1,569	661
Adjusted EBITDA (Note 16)	\$247,742	\$113,680

- Note 1: We recorded \$2.2 million and \$22.5 million of acquisition and integration costs during the six months ended June 30, 2017 and 2016, respectively, related to the Newport Corporation acquisition, which closed during the second quarter of 2016.
- Note 2: We recorded \$10.1 million in cost of sales during the six months ended June 30, 2016 related to the step-up of inventory to fair value as a result of the Newport Corporation acquisition.
- Note 3: We recorded \$0.9 million during the six months ended June 30, 2017, which is comprised of legal and consulting and compensation related expenses related to the sale of a business, which was completed in April of 2017.
- Note 4: We recorded \$1.2 million of excess and obsolete inventory charges in cost of sales during the six months ended June 30, 2017 related to the discontinuation of a product line in connection with the consolidation of two manufacturing plants.
- Note 5: We recorded \$0.7 million of fees and expenses during the six months ended June 30, 2016, related to the re-pricing of our Term Loan Credit Agreement.
- Note 6: We recorded \$3.1 million and \$1.6 million of additional interest expense during the six months ended June 30, 2017 and 2016, respectively, related to the amortization of debt issuance costs affiliated with our Term Loan Credit Agreement and ABL Facility.
- Note 7: We recorded \$2.6 million of restructuring costs during the six months ended June 30, 2017, related to the consolidation of two manufacturing plants, a restructuring of one of our international facilities and the consolidation of sales offices.
- Note 8: We recorded a \$6.7 million asset impairment charge, primarily related to the write-off of goodwill and intangible assets during the six months ended June 30, 2017, in connection with the consolidation of two manufacturing plants.
- Note 9: We recorded a \$74.9 gain on the sale of our Data Analytics Solutions business during the six months ended June 30, 2017.
- Note 10: We recorded a windfall tax benefit on the vesting of stock-based compensation of \$9.8 million, relating to the implementation of a new accounting standard issued by the Financial Statement Accounting Standards Board (Accounting Standards Update 2016-09).
- Note 11: We recorded \$15.0 million of taxes related to the sale of our Data Analytics Solutions business during the six months ended June 30, 2017.
- Note 12: The Non-GAAP net earnings and Non-GAAP net earnings per share amounts exclude acquisition and integration costs, an inventory step-up adjustment to fair value, expenses related to the sale of a business, an excess and obsolete inventory charge, fees and expenses related to the re-pricing of a term loan credit agreement, amortization of debt issuance costs, restructuring costs, an asset impairment charge, a gain on the sale of a business, amortization of intangible assets, a windfall tax benefit related to stock-based compensation expense, taxes related to the sale of a business and the related tax effect of these adjustments to reflect the expected full year effective tax rate in the related period.
- Note 13: The Non-GAAP income from operations and Non-GAAP operating margin percentages exclude acquisition and integration costs, an inventory stepup adjustment to fair value, expenses related to the sale of a business, an excess and obsolete inventory charge, fees and expenses related to the re-pricing of a term loan credit agreement, restructuring costs, an asset impairment charge and amortization of intangible assets.
- Note 14: The Non-GAAP gross profit amounts and Non-GAAP gross profit percentages exclude an inventory step-up adjustment and an excess and obsolete inventory charge.
- Note 15: EBITDA excludes net interest, income taxes, depreciation and amortization of intangible assets.
- Note 16: Adjusted EBITDA excludes stock-based compensation, acquisition and integration costs, expenses related to the sale of a business, an excess and obsolete inventory charge, fees and expenses related to the re-pricing of a term loan credit agreement, restructuring costs, an asset impairment charge, a gain on the sale of a business and other adjustments as defined in our Term Loan Credit Agreement.

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

		Three I	Months Ei	nded June 30, 20	17		Three Mor	iths Ended	March 31, 201	7
	Inc	come Before	Provi	sion (benefit)	Effective			F	Provision	
	Inc	come Taxes		for	Tax Rate	Inco	ome Before	(be	enefit) for	Effective
			Inc	ome Taxes		Inc	ome Taxes	Inc	ome Taxes	Tax Rate
GAAP	\$	157,972	\$	37,532	23.8%	\$	77,285	\$	12,225	15.8%
Adjustments: Acquisition and		790		_			1,442		_	

integration costs						
(Note						
1)						
Expenses related to						
sale of a business	436	_		423	_	
(Note 3)						
Excess and obsolete						
inventory charge	1,160	_		_	_	
(Note 4)						
Amortization of debt						
issuance costs	694	_		2,414	_	
(Note 6)						
Restructuring (Note						
7)	2,064	_		522	_	
Asset impairment						
(Note 8)	6,719	_		_	_	
Gain on sale of						
business (Note 9)	(74,856)	_		_	_	
Amortization of						
intangible assets	11,468	_		12,501		
Windfall tax benefit						
on stock-based	_	3,169		_	6,650	
compensation (Note						
10)						
Tax related to sale of						
business (Note 11)	_	(15,007)		_		
Tax effect of pro-						
forma adjustments	_	3,047		_	5,718	
Non-GAAP	\$ 106,447	\$ 28,741	27.0%	\$ 94,587	\$ 24,593	26.0%

	Three Months Ended June 30, 2016				
	Income Before Income Taxes	Provision (benefit) for Income Taxes	Effective Tax Rate		
GAAP	\$ 12,368	\$ 3,158	25.5%		
Adjustments:	,-	7 2,222			
Acquisition and integration costs (Note 1)	20,055	_			
Acquisition inventory step-up (Note 2)	10,119	_			
Fees and expenses relating to re-pricing of term loan (Note 5)	713	_			
Amortization of debt issuance costs (Note 6)	1,629	_			
Restructuring	24	_			
Amortization of intangible assets	8,855	_			
Tax effect of pro-forma adjustments	<u> </u>	11,896			
Non-GAAP	\$ 53,763	\$ 15,054	28.0%		

	Six Months Ended June 30, 2017					Six Months Ended June 30, 2016				
	Inco	ome Before	Provision (benefit) for		Effective	Inc	Income Before		Provision (benefit) for	
	Income Taxes		Income Taxes		Tax Rate		Income Taxes		Income Taxes	
GAAP	\$	235,257	\$	49,757	21.2%	\$	36,173	\$	9,400	26.0%
Adjustments:	•	,	,	,,,,,,,		,	,	•	,	
Acquisition and										
integration costs		2,232					22,549		_	
(Note 1)		,					ŕ			
Acquisition										
inventory step-up							10,119			
(Note 2)										
Expenses related to										
sale of a		859		_			_		_	
business (Note 3)										
Excess and obsolete										
inventory		1,160		_			_		_	
charge (Note 4)										
Fees and expenses										
relating to		_					713			
re-pricing of term										
loan (Note 5)										
Amortization of										
debt issuance		3,108		_			1,629		_	
costs (Note 6)										
Restructuring (Note										
7)		2,586					24		_	
Asset impairment										
(Note 8)		6,719		_			_			
Gain on sale of										
business (Note 9)		(74,856)		_			_		_	
Amortization of										
intangible assets		23,969					10,538			
Windfall tax benefit				0.010						
on		_		9,819			_		_	

stock-based						
compensation						
(Note 10)						
Taxes related to sale						
of business		(15,007)		_	_	
(Note 11)						
Tax effect of pro-						
forma adjustments		9,710		_	13,489	
Non-GAAP	\$ 201,034	\$ 54,279	27.0%	\$ 81,745	\$ 22,889	28.0%

- Note 1: Acquisition and integration costs during the three and six months ended June 30, 2017 relate to the Newport Corporation acquisition, which closed during the second quarter of 2016.
- Note 2: We recorded \$10.1 million in cost of sales during the three and six months ended June 30, 2016 related to the step-up of inventory to fair value as a result of the Newport Corporation acquisition.
- Note 3: We recorded \$0.4 million and \$0.9 million during the three and six months ended June 30, 2017, respectively, and \$0.4 million for the three months ended March 31, 2017, related to the sale of a business, which was completed in April of 2017.
- Note 4: We recorded \$1.2 million of excess and obsolete inventory charges in cost of sales during the three months ended June 30, 2017, related to the discontinuation of a product line in connection with the consolidation of two manufacturing plants.
- Note 5: We recorded \$0.7 million of fees and expenses during the three and six months ended June 30, 2016, related to the re-pricing of our Term Loan Credit Agreement.
- Note 6: Amortization of debt issuance costs for the three and six months ended June 30, 2017 and 2016, respectively, and the three months ended March 31, 2017, are affiliated with our Term Loan Credit Agreement and ABL Facility.
- Note 7: We recorded \$2.1 million and \$2.6 million of restructuring costs during the three and six months ended June 30, 2017, respectively, and \$0.5 million for the three months ended March 31, 2017, related to the consolidation of two manufacturing plants, a restructuring of one of our international facilities and the consolidation of sales offices.
- Note 8: We recorded a \$6.7 million asset impairment charge, primarily related to the write-off of goodwill and intangible assets during the three and six months ended June 30, 2017, in conjunction with the consolidation of two manufacturing plants.
- Note 9: We recorded a \$74.9 million gain on the sale of our Data Analytics Solutions business during the three and six months ended June 30, 2017.
- Note 10: We recorded a windfall tax benefit on the vesting of stock-based compensation of \$3.2 million and \$9.8 million during the three and six months ended June 30, 2017, respectively, and \$6.6 million for the three months ended March 31, 2017, relating to the implementation of a new accounting standard issued by the Financial Statement Accounting Standards Board (Accounting Standards Update 2016-09).
- Note 11: We recorded \$15.0 million of taxes related to the sale of our Data Analytics Solutions business during the three and six months ended June 30, 2017.

MKS Instruments, Inc. Reconciliation of Q3-17 Guidance — GAAP Net Income to Non-GAAP Net Earnings (In thousands, except per share data)

Three Months Ended September 30, 2017

		Timee World Ended September 30, 2017				
	Low C	Guidance	High Guidance			
	\$ Amount	\$ Per Share	\$ Amount	\$ Per Share		
GAAP net income	\$62,200	\$ 1.12	\$75,600	\$ 1.37		
Amortization	10,800	0.20	10,800	0.20		
Integration costs	1,700	0.03	1,700	0.03		
Deferred financing costs	2,300	0.04	2,300	0.04		
Tax effect of adjustments (Note 1)	(4,000)	(0.07)	(4,000)	(0.07)		
Non-GAAP net earnings	\$73,000	\$ 1.32	\$86,400	\$ 1.56		
Q3-17 forecasted shares		55,300		55,300		

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)

	June 30, 2017	December 31, 2016
ASSETS		
Cash and cash equivalents	\$ 422,830	\$ 228,623
Restricted cash	5,282	5,287
Short-term investments	149,016	189,463
Trade accounts receivable, net	268,544	248,757
Inventories	304,707	275,869
Other current assets	51,721	50,770
Total current assets	1,202,100	998,769
Property, plant and equipment, net	167,212	174,559
Goodwill	586,865	588,585
Intangible assets, net	386,075	408,004

Long-term investments	10,329	9,858
Other assets	32,102	32,467
Total assets	\$2,384,683	\$2,212,242
LIABILITIES AND STOCKHOLDERS' EQUITY		
Short-term debt	\$ 9,810	\$ 10,993
Accounts payable	73,291	69,337
Accrued compensation	65,243	67,728
Income taxes payable	42,142	22,794
Deferred revenue	9,975	14,463
Other current liabilities	57,795	51,985
Total current liabilities	258,256	237,300
Long-term debt, net	551,846	601,229
Non-current deferred taxes	71,895	66,446
Non-current accrued compensation	48,560	44,714
Other liabilities	24,370	20,761
Total liabilities	954,927	970,450
Stockholders' equity:		
Common stock	113	113
Additional paid-in capital	779,058	777,482
Retained earnings	661,341	494,744
Accumulated other comprehensive loss	(10,756)	(30,547)
Total stockholders' equity	1,429,756	1,241,792
Total liabilities and stockholders' equity	\$2,384,683	\$2,212,242