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): August 07, 2024

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 (IRS 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)

	eck the appropriate box below if the Form 8-K filing iowing provisions:	is intended to simultaneously sa	atisfy the filing obligation of the registrant under any of the							
	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 R	ule 13e-4(c) under the Exchang	e Act (17 CFR 240.13e-4(c))							
	Securitie	es registered pursuant to Secti	ion 12(b) of the Act:							
		Trading								
	Title of each class	Symbol(s)	Name of each exchange on which registered							
	Common Stock, no par value	MKSI	Nasdaq Global Select Market							
cha	pter) or Rule 12b-2 of the Securities Exchange Act of		ed in Rule 405 of the Securities Act of 1933 (§ 230.405 of this oter).							
Em	erging growth company □									
	n emerging growth company, indicate by check mark ised financial accounting standards provided pursuant	e e	to use the extended transition period for complying with any new or age Act. \square							

Item 2.02 Results of Operations and Financial Condition.

On August 7, 2024, MKS Instruments, Inc. announced its financial results for the quarter ended June 30, 2024. 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 August 7, 2024

104 Cover Page Interactive Data File (embedded within the Inline XBRL document)

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.

By: /s/ Michelle M. McCarthy Date: August 7, 2024

Name: Michelle M. McCarthy
Title: Vice President and Chief Accounting Officer



MKS Instruments Reports Second Quarter 2024 Financial Results

- Quarterly revenue of \$887 million, at the high end of guidance
- Quarterly GAAP net income of \$23 million and net income per share of \$0.33
- Quarterly Adjusted EBITDA of \$228 million and Non-GAAP net earnings per diluted share of \$1.53, exceeding the high-end of guidance

Andover, MA, August 7, 2024 -- MKS Instruments, Inc. (NASDAQ: MKSI), a global provider of enabling technologies that transform our world, today reported second quarter 2024 financial results.

"Our continued execution, especially in our Semiconductor and Electronics & Packaging markets, drove strong financial results in the second quarter. Revenues of \$887 million were at the high end of our guidance while Adjusted EBITDA exceeded the upper end of that same guidance," said John T.C. Lee, President and Chief Executive Officer. "As a critical enabler of chipmaking, package substrates and printed circuit boards, we have been able to leverage our broad and differentiated product portfolio and commitment to prudent cost control to generate healthy profits, even in a muted semiconductor and advanced electronics environment."

Mr. Lee added, "The team continues to deliver robust gross margins as we closely manage the cost structure through the current cycle. In addition, we have taken proactive measures to improve our debt profile, including our convertible notes offering in May as well as another repricing and voluntary term loan prepayment of \$110 million in July. These actions set the stage for improved operating and earnings leverage when demand conditions recover."

Third Quarter 2024 Outlook

For the third quarter of 2024, the Company expects revenue of \$870 million, plus or minus \$40 million, Adjusted EBITDA of \$206 million, plus or minus \$23 million, and Non-GAAP net earnings per diluted share of \$1.43, plus or minus \$0.28.

Conference Call Details

A conference call with management will be held on Thursday, August 8, 2024 at 8:30 a.m. (Eastern Time). To participate in the call by phone, participants should visit the Investor Relations section of MKS' website at investor.mks.com and click on Events & Presentations, where you will be able to register online and receive dial-in details. We encourage participants to register and dial in to the conference call at least 15 minutes before the start of the call to ensure a timely connection. A live and archived webcast and related presentation materials will be available on the Investor Relations section of the MKS website.

About MKS Instruments

MKS Instruments enables technologies that transform our world. We deliver foundational technology solutions to leading edge semiconductor manufacturing, electronics and packaging, and specialty industrial applications. We apply our broad science and engineering capabilities to create instruments, subsystems, systems, process control solutions and specialty chemicals technology that improve process performance, optimize productivity and enable unique innovations for many of the world's leading technology and industrial companies. Our solutions are critical to addressing the challenges of miniaturization and complexity in advanced device manufacturing by enabling increased power, speed, feature enhancement, and optimized connectivity. Our solutions are also critical to addressing ever-increasing performance requirements across a wide array of specialty industrial applications. Additional information can be found at www.mks.com.

Use of Non-GAAP Financial Results

This press release includes financial measures that are not in accordance with U.S. generally accepted accounting principles ("Non-GAAP financial measures"). These Non-GAAP financial measures should be viewed in addition to, and not as a substitute for, MKS' reported results under U.S. generally accepted accounting principles ("GAAP"), and may be different from Non-GAAP financial measures used by other companies. In addition, these Non-GAAP financial measures are not based on any comprehensive set of accounting rules or principles. 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.

MKS is not providing a quantitative reconciliation of forward-looking Non-GAAP net earnings per diluted share and Adjusted EBITDA to their most directly comparable GAAP financial measures because we are unable to estimate with reasonable certainty the ultimate timing or amount of certain significant items without unreasonable efforts. These items include, but are not limited to, acquisition and integration costs, amortization of intangible assets, restructuring expense, goodwill and intangible asset impairments, excess and obsolescence inventory charges, amortization of debt issuance costs, debt refinancing fee, loss on extinguishment of debt, and the income tax effect of these items. These items are uncertain, depend on various factors, including, but not limited to, the integration of our acquisition of Atotech Limited ("Atotech"), which we acquired in August 2022 (the "Atotech Acquisition"), and the interest rate and refinancing environment, and could have a material impact on GAAP reported results for the relevant period.

For further information regarding these Non-GAAP financial measures, including a change in the fourth quarter of 2023 to the definition of Adjusted EBITDA, please refer to the tables presenting reconciliations of our Non-GAAP results to our GAAP results and the "Notes on Our Non-GAAP Financial Information" at the end of this press release.

Selected GAAP and Non-GAAP Financial Measures (In millions, except per share data)

		Th	ree I	Months End	Six Months Ended				
	Q2	2024	(Q1 2024		Q2 2023	Q2 2024		Q2 2023
Net Revenues									
Semiconductor	\$	369	\$	351	\$	441 \$	720	\$	750
Electronics and Packaging		229		208		225	437		447
Specialty Industrial		289		309		337	598		600
Total net revenues	\$	887	\$	868	\$	1,003 \$	1,755	\$	1,797
GAAP Financial Measures									
Gross margin		47.3%	o	47.8%	6	46.9%	47.5%	6	44.8%
Operating margin		14.4%	ó	12.2%	6	(169.1%) 13.3%	6	(94.3%)
Net income (loss)	\$	23	\$	15	\$	(1,769)\$	37	\$	(1,812)
Diluted income (loss) per share	\$	0.33	\$	0.22	\$	(26.47)\$	0.55	\$	(27.14)
Non-GAAP Financial Measures									
Gross margin		47.3%	ó	47.8%	6	46.9%	47.5%	6	44.8%
Operating margin		21.7%	o	20.2%	6	22.6%	21.0%	6	17.9%
Net earnings	\$	103	\$	79	\$	88 \$	183	\$	120
Diluted earnings per share	\$	1.53	\$	1.18	\$	1.32 \$	2.71	\$	1.80

Additional Financial Information

At June 30, 2024, the Company had \$851 million in cash, cash equivalents and short-term investments, \$3.6 billion of secured term loan principal outstanding, \$1.4 billion of convertible senior notes outstanding and up to \$675 million of additional borrowing capacity under a revolving credit facility, subject to certain leverage ratio requirements. During the second quarter of 2024, the Company paid a cash dividend of \$15 million or \$0.22 per diluted share and made a voluntary prepayment of \$50 million on its USD term loan B. In May 2024, the Company completed a private offering of \$1.4 billion aggregate principal amount of 1.25% convertible senior notes due 2030. In connection with the offering, the Company entered into capped call transactions, which are expected to reduce the potential dilution to the Company's common stockholders upon conversion of any notes, subject to a cap. The Company used substantially all of the net proceeds of the offering to pay the cost of the capped call transactions and repay approximately \$1.2 billion in borrowings outstanding under its USD term loan B.

In July 2024, the Company completed the repricing of its USD term loan B and its EUR term loan B and made a voluntary prepayment of \$110 million, consisting of \$69 million to its USD term loan B and €38 million to its EUR term loan B.

SAFE HARBOR FOR FORWARD-LOOKING STATEMENTS

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 regarding the future financial performance, business prospects and growth of MKS Instruments, Inc. ("MKS," the "Company," "our," or "we"). These statements are only predictions based on current assumptions and expectations. Any statements that are not statements of historical fact (including statements containing the words "will," "projects," "intends," "believes," "plans," "anticipates," "expects," "estimates," "forecasts," "continues" and similar expressions) should be considered to be forward-looking statements. 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 that we make are the level and terms of our substantial indebtedness; our entry into the chemicals technology business through the Atotech Acquisition. which may expose us to significant additional liabilities; the risk that we are unable to integrate the Atotech Acquisition successfully or realize the anticipated synergies, cost savings and other benefits of the Atotech Acquisition; legal, reputational, financial and contractual risks resulting from the ransomware incident we identified in February 2023, and other risks related to cybersecurity, data privacy and intellectual property; competition from larger, more advanced or more established companies in our markets; the ability to successfully grow our business, including through growth of the Atotech business and growth of the Electro Scientific Industries, Inc. business, which we acquired in February 2019, and financial risks associated with those and potential future acquisitions, including goodwill and intangible asset impairments; manufacturing and sourcing risks, including those associated with limited and sole source suppliers and the impact and duration of supply chain disruptions, component shortages, and price increases; changes in global demand; the impact of a pandemic or other widespread health crisis; risks associated with doing business internationally, including geopolitical conflicts, such as the conflict in the Middle East, trade compliance, regulatory restrictions on our products, components or markets, particularly the semiconductor market, and unfavorable currency exchange and tax rate fluctuations, which risks become more significant as we grow our business internationally and in China specifically; conditions affecting the markets in which we operate, including fluctuations in capital spending in the semiconductor, electronics manufacturing and automotive industries, and fluctuations in sales to our major customers; disruptions or delays from third-party service providers upon which our operations may rely; the ability to anticipate and meet customer demand; the challenges, risks and costs involved with integrating or transitioning global operations of the

companies we have acquired; risks associated with the attraction and retention of key personnel; potential fluctuations in quarterly results; dependence on new product development; rapid technological and market change; acquisition strategy; volatility of stock price; risks associated with chemical manufacturing and environmental regulation compliance; risks related to defective products; financial and legal risk management; and the other important factors described under the heading "Risk Factors" in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2023 and any subsequent Quarterly Reports on Form 10-Q, each as filed with the U.S. Securities and Exchange Commission. MKS is under no obligation to, and expressly disclaims any obligation to, update or alter these forward-looking statements, whether as a result of new information, future events or otherwise, even if subsequent events cause our views to change, after the date of this press release. Amounts reported in this press release are preliminary and subject to finalization prior to the filing of our Quarterly Report on Form 10-Q for the quarter ended June 30, 2024.

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Company Contact:
Paretosh Misra
Vice President, Investor Relations
Telephone: (978) 284-4705
Email: paretosh.misra@mksinst.com

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

		T	e Months Ended		Six Months Ended				
	Jı	une 30,		March 31,	June 30,	June 30,		June 30,	
		2024	_	2024	 2023		2024		2023
Net revenues:									
Products	\$	770	\$		\$ 885	\$	1,524	\$	1,597
Services		117	_	114	 118		231		200
Total net revenues		887		868	1,003		1,755		1,797
Cost of revenues:									
Products		412		398	470		810		878
Services		56		55	 63		111		113
Total cost of revenues (exclusive of amortization shown separately below)		468		453	 533		921		991
Gross profit		419		415	470		834		806
Research and development		66		70	75		136		147
Selling, general and administrative		161		170	172		331		348
Acquisition and integration costs		2		1	5		3		11
Restructuring and other		2		3	11		5		12
Fees and expenses related to amendments to the Term Loan Facility		_		3	_		3		_
Amortization of intangible assets		61		62	76		123		157
Goodwill and intangible asset impairments				<u> </u>	 1,827		<u> </u>		1,827
Income (loss) from operations		127		106	(1,696)		233		(1,696)
Interest income		(5)		(6)	(4)		(11)		(7)
Interest expense		79		87	88		166		173
Loss on extinguishment of debt		38		9	_		47		_
Other (income) expense, net		(7)		(3)	 11		(10)		9
Income (loss) before income taxes		22		19	(1,791)		41		(1,871)
(Benefit) provision for income taxes		(1)		4	(22)		4		(59)
Net income (loss)	\$	23	\$	15	\$ (1,769)	\$	37	\$	(1,812)
Net income (loss) per share:						_			
Basic	\$	0.34	\$	0.22	\$ (26.47)	\$	0.56	\$	(27.14)
Diluted	\$	0.33	\$	0.22	\$ (26.47)	\$	0.55	\$	(27.14)
Cash dividend per common share	\$	0.22	\$	0.22	\$ 0.22	\$	0.44	\$	0.44
Weighted average shares outstanding:									
Basic		67.3		67.0	66.8		67.2		66.8
Diluted		67.5		67.4	66.8		67.5		66.8

MKS Instruments, Inc. Unaudited Consolidated Balance Sheets (In millions)

	ine 30, 2024	Dec	ember 31, 2023
ASSETS			
Cash and cash equivalents	\$ 850	\$	875
Short-term investments	1		_
Accounts receivable, net	597		603
Inventories	938		991
Other current assets	 262		227
Total current assets	2,648		2,696
Property, plant and equipment, net	759		784
Right-of-use assets, net	229		225
Goodwill	2,495		2,554
Intangible assets, net	2,418		2,619
Other assets	 314		240
Total assets	\$ 8,863	\$	9,118
LIABILITIES AND STOCKHOLDERS' EQUITY			
Short-term debt	\$ 50	\$	93
Accounts payable	291		327
Other current liabilities	 399		428
Total current liabilities	740		848
Long-term debt, net	4,832		4,696
Non-current deferred taxes	588		640
Non-current accrued compensation	144		151
Non-current lease liabilities	202		205
Other liabilities	124		106
Total liabilities	6,630		6,646
Stockholders' equity			
Common stock	_		_
Additional paid-in capital	2,042		2,195
Retained earnings	381		373
Accumulated other comprehensive (loss) income	(190)		(96)
Total stockholders' equity	2,233		2,472
Total liabilities and stockholders' equity	\$ 8,863	\$	9,118

MKS Instruments, Inc. Unaudited Consolidated Statements of Cash Flows (In millions)

	Three Months Ended							Six Months Ended			
	June 30, 2024			arch 31, 2024	J	une 30, 2023		June 30, 2024	J	une 30, 2023	
Cash flows from operating activities:											
Net income (loss)	\$	23	\$	15	\$	(1,769)	\$	37	\$	(1,812)	
Adjustments to reconcile net income (loss) to net cash provided by (used											
in) operating activities:											
Depreciation and amortization		86		88		101		175		208	
Goodwill and intangible asset impairments		_		_		1,827		_		1,827	
Unrealized (gain) loss on derivatives not designated as hedging											
instruments		(3)		3		6		_		20	
Amortization of debt issuance costs and original issue discounts		8		8		7		16		15	
Loss on extinguishment of debt		38		9		_		47		_	
Stock-based compensation		11		15		13		26		31	
Provision for excess and obsolete inventory		14		11		12		25		30	
Deferred income taxes	(59)		(36)		(109)		(95)		(120)	
Other		2		2		1		4		1	
Changes in operating assets and liabilities		2		(48)		(148)		(46)		(222)	
Net cash provided by (used in) operating activities	1	22		67		(59)		189		(22)	
Cash flows from investing activities:											
Proceeds from sale of long-lived assets		_		_		_		1		1	
Purchases of property, plant and equipment	(26)		(18)		(18)		(45)		(35)	
Net cash used in investing activities	(26)		(18)		(18)		(44)		(34)	
Cash flows from financing activities:								<u> </u>			
Proceeds from borrowings	1,4	00		761		_		2,161		1	
Payments of borrowings	(1,2	69)		(806)		(22)		(2,075)		(45)	
Purchase of capped calls related to Convertible Notes	(1	67)		_		_		(167)		_	
Payments of deferred financing fees	(31)		(2)		_		(33)		_	
Dividend payments	(15)		(15)		(15)		(30)		(29)	
Net (payments) proceeds related to employee stock awards		(2)		(9)		1		(11)		(5)	
Other financing activities		(3)		(1)		1		(4)		_	
Net cash used in financing activities		87)	-	(72)		(35)		(159)		(78)	
Effect of exchange rate changes on cash and cash equivalents		(4)		(7)		(11)		(11)		(18)	
Increase (decrease) in cash and cash equivalents		5		(30)		(123)		(25)		(152)	
Cash and cash equivalents at beginning of period	8	45		875		880		875		909	
Cash and cash equivalents at end of period		50	\$	845	\$	757	\$	850	\$	757	
cash and tubil equitations at one of portor	-	<i>-</i>	Ψ	313	Ψ	131	Ψ	050	Ψ	757	

The following supplemental Non-GAAP earnings information is presented to aid in understanding MKS' operating results:

MKS Instruments, Inc. Schedule Reconciling Selected Non-GAAP Financial Measures (In millions, except per share data)

		Three Months Ended						Six Months Ended			
	June 30, March 31, June 30,				June 30,		June 30,				
		2024	20)24		2023	2024		2023		
Net income (loss)	\$	23	\$	15	\$	(1,769)	\$ 37	\$	(1,812)		
Acquisition and integration costs (Note 1)		2		1		5	3		11		
Restructuring and other (Note 2)		2		3		11	5		12		
Amortization of intangible assets		61		62		76	123		157		
Goodwill and intangible asset impairments (Note 3)		_		_		1,827	_		1,827		
Amortization of debt issuance costs (Note 4)		5		6		5	11		11		
Fees and expenses related to amendments to the Term Loan Facility (Note 5)		_		3		_	3		_		
Ransomware incident (Note 6)		_		_		4	_		11		
Loss on extinguishment of debt (Note 7)		38		9		_	47		_		
Foreign tax rate adjustment (Note 8)		_		_		_	_		(2)		
Tax effect of Non-GAAP adjustments (Note 9)		(28)		(20)		(71)	(46)		(95)		
Non-GAAP net earnings	\$	103	\$	79	\$	88	\$ 183	\$	120		
Non-GAAP net earnings per diluted share	\$	1.53	\$	1.18	\$	1.32	\$ 2.71	\$	1.80		
Weighted average diluted shares outstanding		67.5		67.4		67.0	67.5		66.9		
Net cash provided by (used in) operating activities	\$	122	\$	67	\$	(59)	\$ 189	\$	(22)		
Purchases of property, plant and equipment		(26)		(18)		(18)	(45)		(35)		
Free cash flow	\$	96	\$	49	\$	(77)	\$ 144	\$	(57)		

MKS Instruments, Inc. Schedule Reconciling Selected Non-GAAP Financial Measures (In millions)

		Т	hree M	Ionths Ended		Six Months Ended				
	June 30, March 31, June			une 30,	June 30, June 30			June 30,		
		2024		2024		2023		2024		2023
GAAP and Non-GAAP gross profit	\$	419	\$	415	\$	470	\$	834	\$	806
GAAP and Non-GAAP gross margin		47.3 %)	47.8 %	,	46.9 %)	47.5 %)	44.8 %
Operating expenses	\$	292	\$	309	\$	2,166	\$	601	\$	2,502
Acquisition and integration costs (Note 1)		2		1		5		3		11
Restructuring and other (Note 2)		2		3		11		5		12
Amortization of intangible assets		61		62		76		123		157
Goodwill and intangible asset impairments (Note 3)		_		_		1,827		_		1,827
Fees and expenses related to amendments to the Term Loan Facility (Note 5)		_		3		_		3		_
Ransomware incident (Note 6)		<u> </u>		<u> </u>		4		<u> </u>		11
Non-GAAP operating expenses	\$	227	\$	240	\$	243	\$	467	\$	484
Income (loss) from operations	\$	127	\$	106	\$	(1,696)	\$	233	\$	(1,696)
Operating margin		14.4%)	12.2 %	,	(169.1%	5)	13.3 %)	(94.3 %)
Acquisition and integration costs (Note 1)		2		1		5		3		11
Restructuring and other (Note 2)		2		3		11		5		12
Amortization of intangible assets		61		62		76		123		157
Goodwill and intangible asset impairments (Note 3)		_		_		1,827		_		1,827
Fees and expenses related to amendments to the Term Loan Facility (Note 5)		_		3		_		3		_
Ransomware incident (Note 6)		_		_		4		_		11
Non-GAAP income from operations	\$	192	\$	175	\$	227	\$	367	\$	322
Non-GAAP operating margin		21.7 %)	20.2 %)	22.6 %	,	21.0 %	,	17.9 %
Interest expense, net	\$	74	\$	81	\$	84	\$	155	\$	166
Amortization of debt issuance costs (Note 4)		5		6		5		11		11
Non-GAAP interest expense, net	\$	69	\$	75	\$	79	\$	144	\$	155
Net income (loss)	\$	23	\$	15	\$	(1,769)	\$	37	\$	(1,812)
Interest expense, net		74		81		84		155		166
Other (income) expense, net (Note 10)		(7)		(3)		11		(10)		9
(Benefit) provision for income taxes		(1)		4		(22)		4		(59)
Depreciation		25		26		25		52		51
Amortization of intangible assets		61		62		76		123		157
Stock-based compensation		11		15		13		26		31
Acquisition and integration costs (Note 1)		2		1		5		3		11
Restructuring and other (Note 2)		2		3		11		5		12
Goodwill and intangible asset impairments (Note 3)		_		_		1,827		_		1,827
Fees and expenses related to amendments to the Term Loan Facility (Note 5)		_		3		_		3		
Ransomware incident (Note 6)		_		_		4		_		11
Loss on extinguishment of debt (Note 7)		38		9				47		<u> </u>
Adjusted EBITDA (Note 10)	\$	228	\$	217	\$	265	\$	445	\$	404
Adjusted EBITDA margin		25.7 %		25.0 %		26.4 %		25.4 %	5	22.5 %

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

	Three Mo	onths Ended	June 30, 2024			Three Mo	nths Ended	March 31, 202	:4
	 me Before me Taxes		(Benefit) Provision Effective Tax Rate			Income Before ome Taxes	Prov for Inco	ision me Taxes	Effective Tax Rate
GAAP	\$ 22	\$	(1)	(3.6%)	\$	19	\$	4	23.1%
Acquisition and integration costs (Note 1)	2		_			1		_	
Restructuring and other (Note 2)	2		_			3		_	
Amortization of intangible assets	61		_			62		_	
Amortization of debt issuance costs (Note 4)	5		_			6		_	
Fees and expenses related to amendments to the Term Loan Facility (Note 5)	_		_			3		_	
Loss on extinguishment of debt (Note 7)	38		_			9		_	
Tax effect of Non-GAAP adjustments (Note 9)	_		28			_		20	
Non-GAAP	\$ 130	\$	27	20.5%	\$	103	\$	24	23.3%

	Three Months Ended June 30, 2023					
	,	ss) Income Before ome Taxes	(Benefit) Pro	Effective Tax Rate		
GAAP	\$	(1,791)	\$	(22)	1.2%	
Acquisition and integration costs (Note 1)		5		_		
Restructuring and other (Note 2)		11		_		
Amortization of intangible assets		76		_		
Goodwill and intangible asset impairments (Note 3)		1,827		_		
Amortization of debt issuance costs (Note 4)		5		_		
Ransomware incident (Note 6)		4		_		
Tax effect of Non-GAAP adjustments (Note 9)		_		71		
Non-GAAP	\$	137	\$	49	35.5%	

	 Six Months Ended June 30, 2024					Six Months Ended June 30, 2023					
	me Before me Taxes		Provision ncome Taxes	Effective Tax Rate		Loss) Income Before Income Taxes	(Benefit) Pro		Effective Tax Rate		
GAAP	\$ 41	\$	4	8.9%	\$	(1,871)	\$	(59)	3.2%		
Acquisition and integration costs (Note 1)	3		_			11		_			
Restructuring and other (Note 2)	5		_			12		_			
Amortization of intangible assets	123		_			157		_			
Goodwill and intangible asset impairments (Note 3)	_		_			1,827		_			
Amortization of debt issuance costs (Note 4)	11		_			11		_			
Fees and expenses related to amendments to the Term Loan Facility (Note 5)	3		_			_		_			
Ransomware incident (Note 6)	_		_			11		_			
Loss on extinguishment of debt (Note 7)	47		_			_		_			
Foreign tax rate adjustment (Note 8)	_		_			_		2			
Tax effect of Non-GAAP adjustments (Note 9)	_		46			_		95			
Non-GAAP	\$ 233	\$	50	21.7%	\$	158	\$	38	24.2%		

MKS Instruments, Inc. Notes on Our Non-GAAP Financial Information

Non-GAAP financial measures adjust GAAP financial measures for the items listed below. These Non-GAAP financial measures should be viewed in addition to, and not as a substitute for, MKS' reported GAAP results, and may be different from Non-GAAP financial measures used by other companies. In addition, these Non-GAAP financial measures are not based on any comprehensive set of accounting rules or principles. 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. Totals presented may not sum and percentages may not recalculate using figures presented due to rounding.

- Note 1: Acquisition and integration costs related to the Atotech Acquisition.
- Note 2: Restructuring and other costs primarily related to severance costs due to global cost-saving initiatives.
- Note 3: During the three months ended June 30, 2023, we noted softer industry demand, particularly in the personal computer and smartphone markets and concluded there was a triggering event at our Materials Solutions Division, which represents the former Atotech business, and Equipment Solutions Business, which represents the former Electro Scientific Industries business and is a reporting unit of our Photonics Solutions Division. We performed a quantitative assessment which resulted in an impairment of \$1.3 billion for our Materials Solutions Division and \$0.5 billion for our Equipment Solutions Business.
- Note 4: We recorded additional interest expense related to the amortization of debt issuance costs associated with our term loan facility.
- Note 5: In the first quarter of 2024, we recorded fees and expenses related to an amendment to our term loan facility where we borrowed additional amounts under our USD term loan B and EUR term loan B and fully paid our term loan A.
- Note 6: We recorded costs, net of recoveries, associated with the ransomware incident we identified on February 3, 2023. These costs were primarily comprised of various third-party consulting services, including forensic experts, restoration experts, legal counsel, and other information technology and accounting professional expenses, enhancements to our cybersecurity measures, and costs to restore our systems and access our data.
- Note 7: During the three and six months ended June 30, 2024, we recorded a charge to write-off deferred financing fees and original issue discount costs related to extinguishment of debt on our USD term loan B and EUR term loan B. Additionally, during the three months ended March 31, 2024 and the six months ended June 30, 2024, we recorded a charge to write-off deferred financing fees related to the extinguishment of our term loan A.
- Note 8: During the six months ended June 30, 2023, we recorded a reduction in benefit for income taxes for a retrospective approval of an income tax rate reduction from a foreign jurisdiction.
- Note 9: Non-GAAP adjustments are tax effected at applicable statutory rates resulting in a difference between the GAAP and Non-GAAP tax rates.
- Note 10: In the fourth quarter of 2023, we modified our definition of Adjusted EBITDA to exclude other (income) expense, net from this Non-GAAP measure. Other (income) expense, net primarily relates to changes in foreign exchange rates. We believe this change enhances investor insight into our operational performance. We have applied this modified definition of Adjusted EBITDA to all periods presented.