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

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

Date of Report (Date of Earliest Event Reported): April 11, 2018

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:					
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	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))				
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 \Box					
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. □					

Item 1.01 Entry into a Material Definitive Agreement.

On April 11, 2018, MKS Instruments, Inc., a Massachusetts corporation (the "Company"), entered into Amendment No. 4 (the "Repricing Amendment") to the Term Loan Credit Agreement, dated as of April 29, 2016, by and among the Company, the lenders party thereto (the "Lenders"), and Barclays Bank PLC, as administrative agent and collateral agent for the lenders (as amended from time to time, including by Amendment No. 1, dated June 9, 2016, Amendment No. 2, dated December 14, 2016, Amendment No. 3, dated July 6, 2017 and the Repricing Amendment, the "Credit Agreement"). The Repricing Amendment decreased the applicable margin for the Company's term loan under the Credit Agreement. The applicable margin for LIBOR borrowings will decrease to 1.75%, with a LIBOR floor of 0.75%. The margin for base rate borrowings will decrease to 0.75%. The period in which a prepayment premium may be required for a "Repricing Transaction" (as defined in the Credit Agreement) was reset to six months after the effective date of the Repricing Amendment. In connection with the execution of the Repricing Amendment, the Company paid certain fees and expenses to Barclays Bank PLC.

In addition, the Company prepaid \$50,000,000 of principal under the Credit Agreement, reducing the outstanding principal under the Credit Agreement to approximately \$348,000,000 as of March 31, 2018, from \$780 million at origination.

The foregoing description of the Repricing Amendment does not purport to be complete and is qualified in its entirety by reference to the full text of the Repricing Amendment, which is filed as Exhibit 10.1 to this Current Report on Form 8-K and incorporated herein by reference.

Item 2.03 Creation of a Direct Financial Obligation or an Obligation under an Off-Balance Sheet Arrangement of a Registrant.

The disclosure under Item 1.01 of the Current Report on Form 8-K is incorporated herein by reference.

Item 7.01 Regulation FD Disclosure.

On April 11, 2018, the Company issued a press release announcing the execution of the Repricing Amendment. A copy of the press release is attached as Exhibit 99.1 to this Current Report. The information in this Item 7.01 of this Current Report on Form 8-K, including the press release attached hereto as Exhibit 99.1, is being furnished pursuant to Item 7.01 and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that Section, nor shall it be deemed incorporated by reference into any filing under the Securities Act of 1933, as amended, except as expressly set forth in such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
10.1	Amendment No. 4 to Term Loan Credit Agreement, dated as of April 11, 2018, among the Company, the other loan parties party thereto, Barclays Bank PLC, as administrative agent and collateral agent, and each participating lender party thereto
99.1	Press Release issued by the Company on April 11, 2018

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.

April 11, 2018

By: /s/ Kathleen F. Burke

Name: Kathleen F. Burke

Title: Senior Vice President and General Counsel

AMENDMENT NO. 4 TO TERM LOAN CREDIT AGREEMENT

dated as of

April 11, 2018,

among

MKS INSTRUMENTS, INC., as the Borrower,

the other Loan Parties party hereto,

the Participating Lenders party hereto,

and

BARCLAYS BANK PLC, as Administrative Agent, Lead Arranger and Bookrunner

AMENDMENT NO. 4 TO TERM LOAN CREDIT AGREEMENT

This AMENDMENT NO. 4 TO TERM LOAN CREDIT AGREEMENT, dated as of April 11, 2018 (this "<u>Agreement</u>"), by and among MKS Instruments, Inc., a Massachusetts corporation (the "<u>Borrower</u>"), the other Loan Parties party hereto, Barclays Bank PLC, as the administrative agent and the collateral agent (in such capacity, the "<u>Administrative Agent</u>") under the Credit Agreement referred to below, and each Participating Lender (as defined below) party hereto.

RECITALS:

WHEREAS, reference is made to the Term Loan Credit Agreement, dated as of April 29, 2016 (as amended by Amendment No. 1 to Term Loan Credit Agreement, dated as of June 9, 2016, among the Borrower, the Loan Parties party thereto, the Administrative Agent and the other parties thereto, by Amendment No. 2 to Term Loan Credit Agreement, dated as of December 14, 2016, among the Borrower, the Loan Parties party thereto, the Administrative Agent and the other parties thereto, and by Amendment No. 3 to Term Loan Credit Agreement, dated as of July 6, 2017, among the Borrower, the Loan Parties party thereto, the Administrative Agent and the other parties thereto, and as many be further amended, restated, amended and restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), among the Borrower, the Lenders from time to time party thereto and the Administrative Agent (capitalized terms used but not defined herein having the meaning provided in the Credit Agreement), pursuant to which the Lenders provided the Borrower with Term Loans in an aggregate initial principal amount of \$780,000,000 (the "Initial Term Loans");

WHEREAS, this Agreement constitutes a Refinancing Amendment, and the Borrower is hereby notifying the Administrative Agent that it is requesting the establishment of Other Term Commitments and/or Other Term Loans, in each case, pursuant to Section 2.15 of the Credit Agreement;

WHEREAS, the Borrower requests Other Term Loans in an aggregate principal amount of \$348,463,687.50 (the "Tranche B-4 Term Loans"; the commitments in respect of such Tranche B-4 Term Loans, the "Tranche B-4 Term Commitments"; and the Participating Lenders with Tranche B-4 Term Commitments and any permitted assignees thereof, the "Tranche B-4 Lenders"), which will be available on the Amendment No. 4 Effective Date (as defined below) to refinance all existing Tranche B-3 Term Loans outstanding under the Credit Agreement immediately prior to effectiveness of this Agreement (the "Existing Loans") and which Tranche B-4 Term Loans shall constitute Other Term Loans and Term Loans (as applicable) for all purposes of the Credit Agreement and the other Loan Documents; it being understood that the aggregate principal amount of the Existing Loans immediately prior to effectiveness of this Agreement is \$348,463,687.50;

WHEREAS, each Lender holding Existing Loans under the Credit Agreement immediately prior to effectiveness of this Agreement (each, an "Existing Lender") executing and delivering a notice of participation in the Tranche B-4 Term Loans in the form attached as Exhibit A hereto (a "Tranche B-4 Participation Notice") and electing the cashless settlement option therein (each such Lender in such capacity and with respect to the Existing Loans so elected, a "Converting Lender" and, together with each other Person executing and delivering a Tranche B-4 Participation Notice or otherwise providing a Tranche B-4 Term Commitment, the "Participating Lenders") shall be deemed to have exchanged on the Amendment No. 4 Effective Date the aggregate outstanding principal amount of its Tranche B-3 Term Loans under the Credit Agreement for an equal aggregate principal amount of Tranche B-4 Term Loans under the Credit Agreement;

WHEREAS, the Borrower has appointed Barclays to act, and Barclays agrees to act, as lead arranger and bookrunner in respect of the Tranche B-4 Term Loans;

WHEREAS, Barclays, in its capacity as lead arranger and bookrunner (the "<u>Lead Arranger</u>"), agrees to act as fronting bank for the syndication of the Tranche B-4 Term Loans (in such capacity, the "<u>Fronting Bank</u>"), the Fronting Bank will purchase, and the Existing Lenders will sell to the Fronting Bank, immediately prior to effectiveness of this Agreement, (i) Tranche B-3 Term Loans of Existing Lenders that do not execute and deliver a Tranche B-4 Participation Notice (the "<u>Non-Participating Lenders</u>") and (ii) Tranche B-3 Term Loans of Existing Lenders that execute and deliver a Tranche B-4 Participation Notice and elect the cash settlement option therein (the "<u>Non-Converting Lenders</u>") (the Loans described in the foregoing clauses (i) and (ii), collectively, the "<u>Reallocated Loans</u>");

WHEREAS, to the extent there exist any Reallocated Loans, the Fronting Bank shall be deemed to exchange on the Amendment No. 4 Effective Date such Reallocated Loans on a cashless settlement basis for an equal aggregate principal amount of Tranche B-4 Term Loans under the Credit Agreement, and such Reallocated Loans shall promptly thereafter be purchased by Participating Lenders (other than Existing Lenders) (the "New Lenders"), Non-Converting Lenders, and Existing Lenders purchasing additional Tranche B-4 Term Loans, each in accordance with such Participating Lenders' respective Tranche B-4 Participation Notice and as allocated by the Lead Arranger (with the consent of the Borrower, not to be unreasonably withheld or delayed); and

WHEREAS, contemporaneously with the effectiveness of the Tranche B-4 Term Commitments the Borrower wishes to (a) make certain amendments to the Credit Agreement to provide for the incurrence of the Tranche B-4 Term Loans and (b) make certain other modifications to the Credit Agreement set forth herein.

NOW, THEREFORE, in consideration of the premises and agreements, provisions and covenants herein contained, the parties hereto agree as follows:

- . Credit Agreement Amendments. Effective as of the Amendment No. 4 Effective Date, the Credit Agreement is hereby amended as follows:
 - (a) Section 1.1 of the Credit Agreement is amended by inserting the following new definitions in their correct alphabetical order:
 - "Amendment No. 4" shall mean Amendment No. 4 to this Agreement, dated as of April 11, 2018, among the Borrower, the other Loan Parties party thereto, the Lenders party thereto, and the Administrative Agent.
 - "Amendment No. 4 Effective Date" shall mean the "Amendment No. 4 Effective Date" under and as defined in Amendment No. 4.
 - "Benefit Plan" shall mean any of (a) an "employee benefit plan" (as defined in ERISA) that is subject to Title I of ERISA, (b) a "plan" as defined in Section 4975 of the Code or (c) any Person whose assets include (for purposes of ERISA Section 3(42) or otherwise for purposes of Title I of ERISA or Section 4975 of the Code) the assets of any such "employee benefit plan" or "plan".

"PTE" shall mean prohibited transaction class exemption issued by the U.S. Department of Labor, as any such exemption may be amended from time to time.

- "Tranche B-4 Commitments" shall mean the "Tranche B-4 Term Commitments" as defined in Amendment No. 4.
- "Tranche B-4 Term Loans" shall mean the "Tranche B-4 Term Loans" as defined in Amendment No. 4.
- (b) The definition of "Applicable Margin" is hereby amended and restated in its entirety as follows:
 - ""Applicable Margin" means a percentage *per annum* equal to (i) for Tranche B-4 Term Loans that are Eurodollar Loans, 1.75% and (ii) for Tranche B-4 Term Loans that are Base Rate Loans, 0.75%."
- (c) The definition of "Term Lender" is hereby amended and restated and replaced in its entirety with the following:
 - ""Term Lender" means, collectively, (x) prior to the Amendment No. 4 Effective Date, each Lender identified on Schedule 2.01 as having a Term Commitment on the Closing Date and the "Tranche B-3 Lenders" under Amendment No. 3, (y) on and after the Amendment No. 4 Effective Date, the "Tranche B-4 Lenders" under Amendment No. 4, and (z) each Eligible Assignee which acquires a Term Loan pursuant to Section 10.06(b) and their respective permitted successors, in each case, other than any such Person that has ceased to be a party hereto pursuant to an Assignment and Assumption, Amendment No. 1, Amendment No. 2, Amendment No. 3 or Amendment No. 4".
- (d) The definition of "Term Loans" is amended by replacing the proviso appearing at the end of such definition with the following text:
 - "; <u>provided</u> that from and after the effectiveness of Amendment No. 4, "Term Loans" shall mean all Tranche B-4 Term Loans made on the Amendment No. 4 Effective Date (through exchange or otherwise) pursuant to Amendment No. 4.".
- (e) Section 2.01 of the Credit Agreement is hereby amended and restated and replaced in its entirety with the following::
 - "Subject solely to the terms and conditions set forth herein, each Term Lender severally agrees to make a Term Loan to the Borrower in Dollars on the Closing Date in a principal amount equal to its Term Commitment. The Term Borrowing shall be made from the several Term Lenders ratably in proportion to their respective Term Commitments. The Term Commitments are not revolving in nature, and amounts repaid or prepaid prior to the Maturity Date may not be reborrowed. The Term Commitments shall terminate automatically immediately after the making of the Term Loans on the Closing Date (and for the avoidance of doubt, any Term Commitments not funded on the Closing Date will be terminated). Subject to the terms and conditions hereof and of Amendment No. 1, each Lender with a Tranche B-1 Commitment severally made or exchanged, as applicable, on the Amendment No. 1 Effective Date, a Tranche B-1 Term Loan to the Borrower in Dollars in an amount equal to such Lender's Tranche B-1 Commitment. The aggregate principal amount of Tranche B-1 Commitments as of the Amendment No. 1 Effective Date for all Lenders was \$730,000,000. For the avoidance of doubt, the Borrower made one borrowing under the Tranche B-1 Commitments, which was on the Amendment No. 1 Effective Date,

and each Lender's Tranche B-1 Commitment terminated immediately and without further action on the Amendment No. 1 Effective Date after giving effect to the funding of such Lender's Tranche B-1 Commitment on such date. Subject to the terms and conditions hereof and of Amendment No. 2, each Lender with a Tranche B-2 Commitment severally made or exchanged, as applicable, on the Amendment No. 2 Effective Date, a Tranche B-2 Term Loan to the Borrower in Dollars in an amount equal to such Lender's Tranche B-2 Commitment. The aggregate principal amount of Tranche B-2 Commitments as of the Amendment No. 2 Effective Date for all Lenders was \$628,175,000. For the avoidance of doubt, the Borrower made one borrowing under the Tranche B-2 Commitments, which was on the Amendment No. 2 Effective Date, and each Lender's Tranche B-2 Commitment terminated immediately and without further action on the Amendment No. 2 Effective Date after giving effect to the funding of such Lender's Tranche B-2 Commitment on such date. Subject to the terms and conditions hereof and of Amendment No. 3, each Lender with a Tranche B-3 Commitment severally made or exchanged, as applicable, on the Amendment No. 3 Effective Date, a Tranche B-3 Term Loan to the Borrower in Dollars in an amount equal to such Lender's Tranche B-3 Commitment. The aggregate principal amount of Tranche B-3 Commitments as of the Amendment No. 3 Effective Date for all Lenders was \$573,463,687.50. For the avoidance of doubt, the Borrower made one borrowing under the Tranche B-3 Commitments, which was on the Amendment No. 3 Effective Date, and each Lender's Tranche B-3 Commitment terminated immediately and without further action on the Amendment No. 3 Effective Date after giving effect to the funding of such Lender's Tranche B-3 Commitment on such date. Subject to the terms and conditions hereof and of Amendment No. 4, each Lender with a Tranche B-4 Commitment severally agrees to make and/or exchange, on the Amendment No. 4 Effective Date, a Tranche B-4 Term Loan to the Borrower in Dollars in an amount equal to such Lender's Tranche B-4 Commitment. The aggregate principal amount of Tranche B-4 Commitments as of the Amendment No. 4 Effective Date for all Lenders is \$348,463,687.50. The Borrower may make only one borrowing under the Tranche B-4 Commitments, which shall be on the Amendment No. 4 Effective Date. Each Lender's Tranche B-4 Commitment shall terminate immediately and without further action on the Amendment No. 4 Effective Date after giving effect to the funding of such Lender's Tranche B-4 Commitment on such date.".

- (f) Section 2.07 of the Credit Agreement is amended by replacing the text "Amendment No. 3 Effective Date" with the text "Amendment No. 4 Effective Date" appearing therein.
- (g) Section 2.08(f) of the Credit Agreement is amended by replacing the text "Amendment No. 3 Effective Date" with the text "Amendment No. 4 Effective Date".
- (h) Section 2.05 of the Credit Agreement is amended by adding the following text as subclause (f) thereto:

"If at any time the Administrative Agent determines (which determination shall be conclusive absent manifest error) that (i) the circumstances set forth in Section 3.03 have arisen and such circumstances are unlikely to be temporary or (ii) the circumstances set forth in Section 3.03 have not arisen but the supervisor for the administrator of the Eurodollar Rate or a Governmental Authority having jurisdiction over the Administrative Agent has made a public statement identifying a specific date after which the Eurodollar Rate shall no longer be used for determining interest rates for loans, then the Administrative Agent and the Borrower shall endeavor to establish an alternate rate of interest to the Eurodollar Rate that gives due consideration to the then prevailing market

convention for determining a rate of interest for syndicated loans in the United States at such time, and shall enter into an amendment to this Agreement to reflect such alternate rate of interest and such other related changes to this Agreement as may be applicable. Notwithstanding anything to the contrary in Section 10.01, such amendment shall become effective without any further action or consent of any other party to this Agreement so long as the Administrative Agent shall not have received, within five (5) Business Days of the date notice of such alternate rate of interest is provided to the Lenders, a written notice from the Required Lenders stating that such Required Lenders object to such amendment. Provided that, if such alternate rate of interest shall be less than zero, such rate shall be deemed to be zero for the purposes of this Agreement."

- (i) Article 9 of the Credit Agreement is amended by adding the following text as Section 9.14 thereto:
 - "9.14 Certain ERISA Matters.
 - (a) Each Lender (x) represents and warrants, as of the date such Person became a Lender party hereto, to, and (y) covenants, from the date such Person became a Lender party hereto to the date such Person ceases being a Lender party hereto, for the benefit of, the Administrative Agent and the Arrangers and their respective Affiliates, and not, for the avoidance of doubt, to or for the benefit of the Borrower or any other Loan Party, that at least one of the following is and will be true:
 - (i) such Lender is not using "plan assets" (within the meaning of 29 CFR § 2510.3-101, as modified by Section 3(42) of ERISA) of one or more Benefit Plans in connection with the Term Loans or the Term Commitments,
 - (ii) the transaction exemption set forth in one or more PTEs, such as PTE 84-14 (a class exemption for certain transactions determined by independent qualified professional asset managers), PTE 95-60 (a class exemption for certain transactions involving insurance company general accounts), PTE 90-1 (a class exemption for certain transactions involving insurance company pooled separate accounts), PTE 91-38 (a class exemption for certain transactions involving bank collective investment funds) or PTE 96-23 (a class exemption for certain transactions determined by in-house asset managers), is applicable with respect to such Lender's entrance into, participation in, administration of and performance of the Term Loans and the Term Commitments and this Agreement,
 - (iii) (A) such Lender is an investment fund managed by a "Qualified Professional Asset Manager" (within the meaning of Part VI of PTE 84-14), (B) such Qualified Professional Asset Manager made the investment decision on behalf of such Lender to enter into, participate in, administer and perform the Term Loans and the Term Commitments and this Agreement, (C) the entrance into, participation in, administration of and performance of the Term Loans and the Term Commitments and this Agreement satisfies the requirements of sub-sections (b) through (g) of Part I of PTE 84-14 and (D) to the best knowledge of such Lender, the requirements of subsection (a) of Part I of PTE 84-14 are satisfied with respect to such Lender's entrance into, participation in, administration of and performance of the Term Loans and the Term Commitments and this Agreement, or
 - (iv) such other representation, warranty and covenant as may be agreed in writing between the Administrative Agent, in its sole discretion, and such Lender.

- (b) In addition, unless sub-clause (i) in the immediately preceding clause (a) is true with respect to a Lender or such Lender has not provided another representation, warranty and covenant as provided in sub-clause (iv) in the immediately preceding clause (a), such Lender further (x) represents and warrants, as of the date such Person became a Lender party hereto, to, and (y) covenants, from the date such Person became a Lender party hereto to the date such Person ceases being a Lender party hereto, for the benefit of, the Administrative Agent and the Arrangers and their respective Affiliates, and not, for the avoidance of doubt, to or for the benefit of the Borrowers or any other Loan Party, that:
- (i) none of the Administrative Agent or the Arrangers or any of their respective Affiliates is a fiduciary with respect to the assets of such Lender (including in connection with the reservation or exercise of any rights by the Administrative Agent under this Agreement, any Loan Document or any documents related to hereto or thereto),
- (ii) the Person making the investment decision on behalf of such Lender with respect to the entrance into, participation in, administration of and performance of the Term Loans, the Term Commitments and this Agreement is independent (within the meaning of 29 CFR § 2510.3-21) and is a bank, an insurance carrier, an investment adviser, a broker-dealer or other person that holds, or has under management or control, total assets of at least \$50 million, in each case as described in 29 CFR § 2510.3-21(c)(1)(i)(A)-(E),
- (iii) the Person making the investment decision on behalf of such Lender with respect to the entrance into, participation in, administration of and performance of the Term Loans, the Term Commitments and this Agreement is capable of evaluating investment risks independently, both in general and with regard to particular transactions and investment strategies (including in respect of the Obligations),
- (iv) the Person making the investment decision on behalf of such Lender with respect to the entrance into, participation in, administration of and performance of the Term Loans, the Term Commitments and this Agreement is a fiduciary under ERISA or the Code, or both, with respect to the Term Loans, the Term Commitments and this Agreement and is responsible for exercising independent judgment in evaluating the transactions hereunder, and
- (v) no fee or other compensation is being paid directly to the Administrative Agent or the Arrangers or any their respective Affiliates for investment advice (as opposed to other services) in connection with the Term Loans, the Term Commitments or this Agreement.
- (c) The Administrative Agent and the Arrangers hereby inform the Lenders that each such Person is not undertaking to provide impartial investment advice, or to give advice in a fiduciary capacity, in connection with the transactions contemplated hereby, and that such Person has a financial interest in the transactions contemplated hereby in that such Person or an Affiliate thereof (i) may receive interest or other payments with respect to the Term Loans, the Term Commitments and this Agreement, (ii) may recognize a gain if it extended the Term Loans or the Term Commitments for an amount less than the amount being paid for an interest in the Term Loans or the Term Commitments by such Lender or (iii) may receive fees or other payments in connection with the transactions contemplated hereby, the Loan Documents or otherwise, including structuring fees, commitment fees, arrangement fees, facility fees, upfront fees, underwriting fees, ticking fees, agency fees, administrative agent or collateral agent fees, utilization fees, minimum usage fees, letter of

credit fees, fronting fees, deal-away or alternate transaction fees, amendment fees, processing fees, term out premiums, banker's acceptance fees, breakage or other early termination fees or fees similar to the foregoing."

- 2. <u>Tranche B-4 Term Loans</u>. Subject to the terms and conditions set forth herein, each Tranche B-4 Lender severally agrees to exchange Existing Loans for Tranche B-4 Term Loans and/or make Tranche B-4 Term Loans to the Borrower in a single borrowing in Dollars on the Amendment No. 4 Effective Date. The Tranche B-4 Term Loans shall be subject to the following terms and conditions:
 - (a) **Terms Generally**. Other than as set forth herein, for all purposes under the Credit Agreement and the other Loan Documents, the Tranche B-4 Term Loans shall have the same terms as the initial Term Loans made on the Closing Date and shall be treated for purposes of voluntary and mandatory prepayments (including for scheduled principal payments) and all other terms as Term Loans made on the Closing Date. The parties acknowledge that each of the initial Term Loans, Tranche B-1 Term Loans, Tranche B-2 Term Loans, Tranche B-3 Term Loans and Tranche B-4 Term Loans may be referred to as "Tranche B-4 Loans" solely for administrative and operational purposes of the Administrative Agent, and that such references shall not affect the rights or obligations of the Borrower under the Credit Agreement and the Term Notes.
 - (b) **Proposed Borrowing.** This Agreement represents a request by the Borrower to borrow Tranche B-4 Term Loans from the Tranche B-4 Lenders as set forth on the applicable Notice of Borrowing to be delivered by the Borrower under the Credit Agreement.
 - (c) New Lenders. Each New Lender (i) confirms that it has received a copy of the Credit Agreement and the other Loan Documents and the exhibits and schedules thereto, together with copies of the financial statements referred to therein and such other documents and information as it has deemed appropriate to make its own credit analysis and decision to enter into this Agreement; (ii) agrees that it will, independently and without reliance upon the Administrative Agent, the Collateral Agent, or any other Lender and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit decisions in taking or not taking action under the Credit Agreement; (iii) appoints and authorizes the Administrative Agent and the Collateral Agent to take such action as agent on its behalf and to exercise such powers under the Credit Agreement and the other Loan Documents as are delegated to the Administrative Agent or the Collateral Agent, as the case may be, by the terms thereof, together with such powers as are reasonably incidental thereto; and (iv) agrees that it will perform in accordance with their terms all of the obligations which by the terms of the Credit Agreement are required to be performed by it as a Lender, as the case may be. Each New Lender acknowledges and agrees that it shall become a "Lender" under, and for all purposes of, the Credit Agreement and the other Loan Documents, and shall be subject to and bound by the terms thereof, and shall have all rights of a Lender thereunder.
 - (d) **Credit Agreement Governs.** Except as set forth in this Agreement, the Tranche B-4 Term Loans shall otherwise be subject to the provisions of the Credit Agreement and the other Loan Documents.
 - (e) Exchange Mechanics.

- (i) On the Amendment No. 4 Effective Date, upon the satisfaction or waiver of the conditions set forth in Section 4 hereof, the outstanding amount of Existing Loans of each Converting Lender exchanged pursuant to this Agreement shall be deemed to be exchanged for an equal outstanding amount of Tranche B-4 Term Loans under the Credit Agreement. Such exchange shall be effected by book entry in such manner, and with such supporting documentation, as may be reasonably determined by the Administrative Agent in its sole discretion. It is acknowledged and agreed that each Converting Lender has agreed to accept as satisfaction in full of its right to receive payment on the outstanding amount of Existing Loans of such Converting Lender the conversion of its Existing Loans into Tranche B-4 Term Loans in accordance herewith, in lieu of the prepayment amount that would otherwise be payable by the Borrower pursuant to the Credit Agreement in respect of the outstanding amount of Existing Loans of such Converting Lender. Notwithstanding anything to the contrary herein, each Converting Lender hereby waives any break funding payments in respect of such Lender's Existing Loans.
- (ii) To the extent there exist any Reallocated Loans, (x) on the Amendment No. 4 Effective Date, the Fronting Bank shall provide such Reallocated Loans to the Borrower in the amount set forth opposite the Fronting Bank's name on Annex I hereto by purchase of Existing Loans in such amount and exchange for Tranche B-4 Term Loans on a cashless settlement basis and (y) promptly following the Amendment No. 4 Effective Date (but not later than 30 days following the Amendment No. 4 Effective Date (or such later date as may be agreed to by the Fronting Bank in its sole discretion)), each New Lender, each Non-Converting Lender and each Existing Lender purchasing additional Tranche B-4 Term Loans shall purchase Reallocated Loans from the Fronting Bank as directed by the Lead Arranger in accordance with such Participating Lender's Tranche B-4 Participation Notice and as allocated by the Lead Arranger. Purchases and sales of Reallocated Loans shall be without representations from the Fronting Bank other than as provided for in the relevant Assignment and Assumption.
- 3. <u>Effective Date Conditions</u>. This Agreement will become effective on the date (the "<u>Amendment No. 4 Effective Date</u>"), on which each of the following conditions have been satisfied (or waived by the Lead Arranger) in accordance with the terms therein:
 - (a) the Administrative Agent (or its counsel) shall have received from each of the Borrower and the Participating Lenders, either (i) a counterpart of this Agreement signed on behalf of such party or (ii) written evidence satisfactory to the Administrative Agent (which may include facsimile or other electronic transmission of a signed counterpart of this Agreement) that such party has signed a counterpart to this Agreement (which, in the case of the Participating Lenders, may be in the form of a Tranche B-4 Participation Notice);
 - (b) the Administrative Agent shall have received an executed Notice of Borrowing in accordance with the terms hereof and Section 2.02 of the Credit Agreement;
 - (c) the Administrative Agent shall have received fully executed and delivered Tranche B-4 Participation Notices from Participating Lenders and the Fronting Bank representing 100% of the aggregate outstanding principal amount of the Existing Loans;
 - (d) the Administrative Agent shall have received a certificate of the Borrower dated as of the Amendment No. 4 Effective Date signed by a Responsible Officer of the Borrower (i) (A)

certifying and attaching the resolutions or similar consents adopted by the Borrower approving or consenting to this Agreement and the Tranche B-4 Term Loans, (B) certifying that the certificate or articles of organization or formation and by-laws or operating (or limited liability company) agreement of the Borrower either (x) have not been amended since the Closing Date or (y) are attached as an exhibit to such certificate, and (C) certifying as to the incumbency and specimen signature of each officer executing this Agreement and any related documents on behalf of the Borrower and (ii) certifying as to the matters set forth in clauses (f) and (g) below;

- (e) (i) the Administrative Agent shall have received all fees and other amounts previously agreed to in writing by the Lead Arranger and the Borrower to be due on or prior to the Amendment No. 4 Effective Date, including, to the extent invoiced at least two (2) Business Days prior to the Amendment No. 4 Effective Date (or such later date as is reasonably agreed by the Borrower), including legal fees and expenses and the fees and expenses of any other advisors in accordance with the terms of the Credit Agreement and (ii) all accrued interest and fees in respect of the Existing Loans outstanding immediately prior to effectiveness of this Agreement shall have been paid;
- (f) the representations and warranties of the Borrower and the other Loan Parties contained in <u>Article V</u> of the Credit Agreement and in any other Loan Document shall be (x) in the case of representations and warranties qualified by "materiality," "Material Adverse Effect" or similar language, true and correct in all respects on the Amendment No. 4 Effective Date and (y) in the case of all other representations and warranties, true and correct in all material respects, in each case, on and as of the Amendment No. 4 Effective Date, except to the extent that such representations and warranties specifically refer to an earlier date, in which case they shall be true and correct on the basis set forth above as of such earlier date;
- (g) no Default or Event of Default shall exist on the Amendment No. 4 Effective Date before or after giving effect to the effectiveness of this Agreement and the incurrence of the Tranche B-4 Term Loans;
- (h) the Administrative Agent shall have received a solvency certificate executed by a Financial Officer of the Borrower, substantially in the form of Exhibit K to the Credit Agreement, dated and certifying as to solvency as of the Amendment No. 4 Effective Date; and
- (i) the Loan Parties shall have provided the documentation and other information to the Lenders required by regulatory authorities under the applicable "know-your-customer" rules and regulations, including the Patriot Act, in each case at least three (3) Business Days prior to the Amendment No. 4 Effective Date, as has been requested to the Borrower in writing reasonably prior to the Amendment No. 4 Effective Date.
- 4. Representations and Warranties. By its execution of this Agreement, each Loan Party hereby represents and warrants that:
 - (a) such Loan Party has all requisite corporate or other organizational power and authority to execute, deliver and perform its obligations under this Agreement;
 - (b) the execution, delivery and performance by such Loan Party of this Agreement (x) have been duly authorized by all necessary corporate, partnership, limited liability company or other organizational action, and (y) do not and will not (i) contravene the terms of any of such Loan Party's Organization Documents, (ii) conflict with or result in any breach or

contravention of, or the creation of any Lien (other than Permitted Liens) under, any Contractual Obligation to which such Loan Party is a party or any order, injunction, writ or decree of any Governmental Authority or any arbitral award to which such Person or its property is subject except in the case of this <u>clause (ii)</u> any such conflict, breach or contravention that would not reasonably be expected individually or in the aggregate to have a Material Adverse Effect or (iii) violate any Law, except in any case for such violations that would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect;

- (c) this Agreement has been duly executed and delivered by each Loan Party that is party hereto, and this Agreement constitutes a legal, valid and binding obligation of such Loan Party, enforceable against each Loan Party that is party thereto in accordance with its terms, except (i) as such enforceability may be limited by applicable bankruptcy, insolvency, examinership, reorganization, moratorium or similar laws affecting the enforcement of creditors' rights generally and (ii) that rights of acceleration and the availability of equitable remedies may be limited by equitable principles of general applicability (regardless of whether enforcement is sought by proceedings in equity or at law); and
- (d) both immediately before and after giving effect to the Amendment No. 4 Effective Date and the incurrence and/or exchange of the Tranche B-4 Term Loans, (i) the representations and warranties contained in the Credit Agreement and in the other Loan Documents shall be (x) in the case of representations and warranties qualified by "materiality," "Material Adverse Effect" or similar language, true and correct in all respects on the Amendment No. 4 Effective Date and (y) in the case of all other representations and warranties, true and correct in all material respects, in each case, on and as of the Amendment No. 4 Effective Date, except to the extent that such representations and warranties specifically refer to an earlier date, in which case they shall be true and correct on the basis set forth above as of such earlier date and (ii) no event shall have occurred and be continuing or would result from the consummation of this Agreement that would constitute an Event of Default.
- 5. **Use of Proceeds.** The Borrower covenants and agrees that it will use the proceeds of the Tranche B-4 Term Loans to prepay in full the aggregate principal amount of Existing Loans outstanding on the Amendment No. 4 Effective Date and to pay any interest, fees and/or expenses related thereto.
- 6. Reaffirmation of the Loan Parties; Reference to and Effect on the Credit Agreement and the other Loan Documents.
 - (a) Each Loan Party hereby consents to the amendment of the Credit Agreement effected hereby and confirms and agrees that, notwithstanding the effectiveness of this Agreement, each Loan Document to which such Loan Party is a party is, and the obligations of such Loan Party contained in the Credit Agreement, this Agreement or in any other Loan Document to which it is a party are, and shall continue to be, in full force and effect and are hereby ratified and confirmed in all respects, in each case as amended by this Agreement. For greater certainty and without limiting the foregoing, each Loan Party hereby confirms that the existing security interests granted by such Loan Party in favor of the Senior Credit Parties pursuant to the Loan Documents in the Collateral described therein shall continue to secure the obligations of the Loan Parties under the Credit Agreement and the other Loan Documents as and to the extent provided in the Loan Documents. Except as specifically amended by this Agreement, the Credit Agreement and the other Loan Documents shall remain in full force.

- (b) The execution, delivery and performance of this Agreement shall not constitute a waiver of any provision of, or operate as a waiver of any right, power or remedy of any Agent or Lender under, the Credit Agreement or any of the other Loan Documents.
- (c) On and after the Amendment No. 4 Effective Date, each reference in the Credit Agreement to "this Agreement", "hereunder", "hereof", "herein" or words of like import referring to the Credit Agreement, and each reference in the other Loan Documents to the "Credit Agreement", "thereunder", "thereof" or words of like import referring to the Credit Agreement shall mean and be a reference to the Credit Agreement as amended by this Agreement.
- 7. **Prepayment Notice**. The Participating Lenders and the Fronting Bank party hereto, which constitute the Required Lenders, and the Administrative Agent hereby waive the requirement under Section 2.08(d) of the Credit Agreement to provide notice to the Administrative Agent not less than three (3) Business Days prior to the prepayment of Existing Loans to be made hereunder. It is understood and agreed that this Agreement shall serve as the notice referred to in Section 2.08(d) of the Credit Agreement.
- 8. **Request for Borrowing**. Pursuant to this Agreement, the Borrower hereby requests a Borrowing of Tranche B-4 Term Loans in an aggregate principal amount of \$348,463,687.50, with such Borrowing to be made on the Amendment No. 4 Effective Date and to have an Interest Period ending on April 30, 2018 (and, notwithstanding anything to the contrary herein, each Participating Lender hereby consents to such non-conforming Interest Period).
- 9. **Notice**. For purposes of the Credit Agreement, the initial notice address of each New Lender shall be as separately identified to the Administrative Agent.
- 10. **Tax Forms**. For each New Lender, delivered herewith to the Administrative Agent are such forms, certificates or other evidence with respect to United States federal income tax withholding matters as such New Lender may be required to deliver to the Administrative Agent pursuant to Section 3.01(f) of the Credit Agreement.
- 11. **Recordation of the New Loans**. Upon execution and delivery hereof, the Administrative Agent will record the Tranche B-4 Term Loans made by each Participating Lender in the Register.
- 12. <u>Amendment, Modification and Waiver</u>. This Agreement may not be amended, modified or waived except as permitted by Section 10.01 of the Credit Agreement.
- 13. <u>Integration</u>. This Agreement, the other Loan Documents and any separate letter agreements with respect to fees payable to the Lead Arranger and/or the Administrative Agent or the syndication of the Tranche B-4 Term Loans and commitments related thereto constitute the entire contract among the parties relating to the subject matter hereof and supersede any and all previous agreements and understandings, oral or written, relating to the subject matter hereof. This Agreement shall not constitute a novation of any amount owing under the Credit Agreement and all amounts owing in respect of principal, interest, fees and other amounts pursuant to the Credit Agreement and the other Loan Documents shall, to the extent not paid or exchanged on or prior to the Amendment No. 4 Effective Date, continue to be owing under the Credit Agreement or such other Loan Documents until paid in accordance therewith.
- 14. **Severability**. The provisions of Section 10.12 of the Credit Agreement are hereby incorporated by reference, mutatis mutandis, as if originally made a part hereof.

- 15. GOVERNING LAW; JURISDICTION; SERVICE OF PROCESS; WAIVER OF JURY TRIAL. THE PROVISIONS OF SECTION 10.13 OF THE CREDIT AGREEMENT ARE HEREBY INCORPORATED BY REFERENCE, MUTATIS MUTANDIS, AS IF ORIGINALLY MADE A PART HEREOF.
- 16. <u>Counterparts</u>. This Agreement may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page of this Agreement by telecopier shall be effective as delivery of a manually executed counterpart of this Agreement.
- 17. **Loan Document**. On and after the Amendment No. 4 Effective Date, this Agreement shall constitute a "Loan Document" for all purposes of the Credit Agreement and the other Loan Documents (it being understood that for the avoidance of doubt this Agreement may be amended or waived by the parties hereto solely as set forth in Section 12 above).

[Signature Pages Follow]

IN WITNESS WHEREOF, each of the undersigned has caused its duly authorized officer to execute and deliver this Agreement as of the date first set forth above.

MKS INSTRUMENTS, INC.

By: /s/ Seth H. Bagshaw

Name: Seth H. Bagshaw

Title: Sr. Vice President, Chief Financial Officer

and Treasurer

NEWPORT CORPORATION

By: /s/ Seth H. Bagshaw

Name: Seth H. Bagshaw Title: President

[Signature Page to Amendment No. 4 to Term Loan Credit Agreement]

BARCLAYS BANK PLC, as Administrative Agent

By: /s/ Peter C. Thomson

Name: Peter Thomson Title: Managing Director

[Signature Page to Amendment No. 4 to Term Loan Credit Agreement]

BARCLAYS BANK PLC, as Fronting Bank

By: /s/ Peter C. Thomson

Name: Peter Thomson Title: Managing Director

[Signature Page to Amendment No. 4 to Term Loan Credit Agreement]

EXHIBIT A Form of Tranche B-4 Participation Notice

Date: April [_], 2018

Barclays Bank PLC, as Administrative Agent 745 $7^{\mbox{\scriptsize th}}$ Avenue

New York NY 10019 Attn: Robert Walsh Phone: (212) 526 6047

Email: robert.xa.walsh@barclays.com

MKS Instruments, Inc. Tranche B-4 Participation Notice

Ladies and Gentlemen:

Reference is made to Amendment No. 4 (the "<u>Amendment</u>") to that certain Term Loan Credit Agreement, dated as of April 29, 2016 (as amended by Amendment No. 1 (as defined therein), Amendment No. 2 (as defined therein), Amendment No. 3 (as defined therein) and the Amendment, and as may be further amended, restated, amended and restated, supplemented or otherwise modified from time to time, the "<u>Credit Agreement</u>"), by and among MKS Instruments, Inc., a Massachusetts corporation (the "<u>Borrower</u>"), the Lenders from time to time party thereto, and Barclays Bank PLC, as administrative agent (in such capacity, the "<u>Administrative Agent</u>"). Unless otherwise specified herein, capitalized terms used but not defined herein are used as defined in the Amendment.

this Tranche B-4 Participation Notice and the Amendment (including, without limitation, with respect to any exchange contemplated hereby) and has taken all necessary corporate and other organizational action to authorize the execution, delivery and performance of this Tranche B-4 Participation Notice and the Amendment.

Notwithstanding anything to the contrary, each undersigned Lender hereby agrees to waive its right to compensation for any amounts owing under Sections 3.02 or 3.03 of the Credit Agreement.

[Signature Page Follows]

Very truly yours,
By: Name: Title:
By: Name:
Title:

ANNEX I

REALLOCATED LOANS

Barclays Bank PLC	\$32,690,206.57



MKS Instruments Completes Fourth Repricing of Secured Term Loan and Makes a Voluntary \$50 Million Prepayment of Principal

Cumulative Actions Since Origination Have Reduced Annual Non-GAAP Interest Expense by Over 70% and Have Resulted in Total Voluntary Prepayments of \$425 Million

ANDOVER, MA., April 11, 2018 (GLOBE NEWSWIRE) — MKS Instruments, Inc. (NASDAQ:MKSI), a global provider of technologies that enable advanced processes and improve productivity, announced today another successful repricing of its existing secured term loan. The lenders have agreed to an amendment that results in a reduction of the interest rate spread on the term loan by 25 basis points from LIBOR plus 2.00% to LIBOR plus 1.75% with a 0.75% floor on LIBOR.

In addition, the Company announced that it has made a voluntary \$50 million prepayment of principal on its secured term loan, reducing the outstanding principal to \$348 million as of March 31, 2018, from \$780 million at origination.

"We are very pleased to complete a fourth successful repricing of our existing secured term loan combined with our eighth voluntary prepayment. In less than two years since loan origination, we have reduced our non-GAAP interest expense by more than 70%, on an annualized basis, through these actions," said Seth H. Bagshaw, Senior Vice President and Chief Financial Officer.

Barclays acted as sole arranger for this term loan repricing and amendment.

About MKS Instruments

MKS Instruments, Inc. is a global provider of instruments, subsystems and process control solutions that measure, monitor, deliver, analyze, power, and control 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 control, 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 Measure

Non-GAAP interest expense excludes amortization of debt issuance costs. This non-GAAP measure is not in accordance with U.S. Generally Accepted Accounting Principles (GAAP). MKS management believes the presentation of this non-GAAP financial measure is useful to investors for comparing prior periods and analyzing ongoing business trends and financial 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 and included \$5 million in debt issuance costs. Annualized GAAP interest expense based upon \$348 million in principal currently outstanding and LIBOR plus 175 basis points is \$14.5 million and includes \$3.1 million in debt issuance costs.

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