
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):

December 14, 2016

MKS Instruments, Inc.

(Exact name of registrant as specified in its charter)

Massachusetts

(State or other jurisdiction
of incorporation)

000-23621

(Commission
File Number)

04-2277512

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

2 Tech Drive, Suite 201, Andover, Massachusetts

(Address of principal executive offices)

01810

(Zip Code)

Registrant's telephone number, including area code:

978-645-5500

Not Applicable

Former name or former address, if changed since last report

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

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 1.01 Entry into a Material Definitive Agreement.

On December 14, 2016, MKS Instruments, Inc., a Massachusetts corporation (the "Company"), entered into Amendment No. 2 (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, and the Repricing Amendment, the "Credit Agreement"). The Repricing Amendment decreased the applicable margin for the Company's term loan under the Credit Agreement to 2.75% for LIBOR borrowings with a LIBOR floor of 0.75% and 1.75% for base rate borrowings with a base rate floor of 1.75% and reset the period during which a prepayment premium may be required for a "Repricing Transaction" (as defined in the Credit Agreement) until 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 of Barclays Bank PLC. On November 29, 2016, the Company prepaid \$40,000,000 of principal under the Credit Agreement, reducing the outstanding principal under the Credit Agreement to \$628,175,000.

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 December 14, 2016, 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

See Exhibit Index hereto.

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.

December 14, 2016

By: /s/ Seth H. Bagshaw

Name: Seth H. Bagshaw

Title: Vice President and Chief Financial Officer

Exhibit Index

<u>Exhibit No.</u>	<u>Description</u>
10.1	Amendment No. 2 to Term Loan Credit Agreement, dated as of December 14, 2016, 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 December 14, 2016

AMENDMENT NO. 2 TO TERM LOAN CREDIT AGREEMENT

dated as of
 December 14, 2016,
 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. 2 TO TERM LOAN CREDIT AGREEMENT

This AMENDMENT NO. 2 TO TERM LOAN CREDIT AGREEMENT, dated as of December 14, 2016 (this "Agreement"), by and among MKS Instruments, Inc., a Massachusetts corporation (the "Borrower"), the other Loan Parties party hereto, Barclays Bank PLC, as the administrative agent and the collateral agent (in such capacity, the "Administrative Agent") 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, 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 \$628,175,000 (the "Tranche B-2 Term Loans"); the commitments in respect of such Tranche B-2 Term Loans, the "Tranche B-2 Term Commitments"; and the Participating Lenders with Tranche B-2 Term Commitments and any permitted assignees thereof, the "Tranche B-2 Lenders"), which will be available on the Amendment No. 2 Effective Date (as defined below) to refinance all existing Tranche B-1 Term Loans outstanding under the Credit Agreement immediately prior to effectiveness of this Agreement (the "Existing Loans") and which Tranche B-2 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 \$628,175,000;

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-2 Term Loans in the form attached as Exhibit A hereto (a "Tranche B-2 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-2 Participation Notice or otherwise providing a Tranche B-2 Term Commitment, the "Participating Lenders") shall be deemed to have exchanged on the Amendment No. 2 Effective Date the aggregate outstanding principal amount of its Tranche B-1 Term Loans under the Credit Agreement for an equal aggregate principal amount of Tranche B-2 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-2 Term Loans;

WHEREAS, Barclays, in its capacity as lead arranger and bookrunner (the "Lead Arranger"), agrees to act as fronting bank for the syndication of the Tranche B-2 Term Loans (in such capacity, the "Fronting Bank"), 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-1 Term Loans of Existing Lenders that do not execute and deliver a Tranche B-2 Participation Notice (the "Non-Participating Lenders") and (ii) Tranche B-1 Term Loans of Existing Lenders that execute and deliver a Tranche B-2 Participation Notice and elect the cash settlement option therein (the "Non-Converting Lenders") (the Loans described in the foregoing clauses (i) and (ii), collectively, the "Reallocated Loans");

WHEREAS, to the extent there exist any Reallocated Loans, the Fronting Bank shall be deemed to exchange on the Amendment No. 2 Effective Date such Reallocated Loans on a cashless settlement basis for an equal aggregate principal amount of Tranche B-2 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-2 Term Loans, each in accordance with such Participating Lenders' respective Tranche B-2 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-2 Term Commitments the Borrower wishes to (a) make certain amendments to the Credit Agreement to provide for the incurrence of the Tranche B-2 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:

1. **Credit Agreement Amendments.** Effective as of the Amendment No. 2 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. 2” shall mean Amendment No. 2 to this Agreement, dated as of December 14, 2016, among the Borrower, the other Loan Parties party thereto, the Lenders party thereto, and the Administrative Agent.

“Amendment No. 2 Effective Date” shall mean the “Amendment No. 1 Effective Date” under and as defined in Amendment No. 2.

“Tranche B-2 Commitments” shall mean the “Tranche B-2 Term Commitments” as defined in Amendment No. 2.

“Tranche B-2 Term Loans” shall mean the “Tranche B-2 Term Loans” as defined in Amendment No. 2.

(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-2 Term Loans that are Eurodollar Loans, 2.75% and (ii) for Tranche B-2 Term Loans that are Base Rate Loans, 1.75%.”

(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. 2 Effective Date, each Lender identified on Schedule 2.01 as having a Term Commitment on the Closing Date and the “Tranche B-1 Lenders” under Amendment No. 1, (y) on and after the Amendment No. 2 Effective Date, the “Tranche B-2 Lenders” under Amendment No. 2, 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 or Amendment No. 2.”

(d) The definition of “Term Loans” is amended by replacing the proviso appearing at the end of such definition with the following text:

“; provided that from and after the effectiveness of Amendment No. 2, “Term Loans” shall mean all Tranche B-2 Term Loans made on the Amendment No. 2 Effective Date (through exchange or otherwise) pursuant to Amendment No. 2.”

(e) Section 2.01 of the Credit Agreement is hereby amended by deleting the last four sentences of such Section and inserting in lieu thereof the following text:

“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 agrees to make and/or exchange, 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 is \$628,175,000. The Borrower may make only one borrowing under the Tranche B-2 Commitments, which shall be on the Amendment No. 2 Effective Date. Each Lender’s Tranche B-2 Commitment shall terminate 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.”

(f) Section 2.07 of the Credit Agreement is amended by replacing the text “Amendment No. 1 Effective Date” with the text “Amendment No. 2 Effective Date” appearing therein.

(g) Section 2.08(f) of the Credit Agreement is amended by replacing the text “Amendment No. 1 Effective Date” with the text “Amendment No. 2 Effective Date”.

3. **Tranche B-2 Term Loans.** Subject to the terms and conditions set forth herein, each Tranche B-2 Lender severally agrees to exchange Existing Loans for Tranche B-2 Term Loans and/or make Tranche B-2 Term Loans to the Borrower in a single borrowing in Dollars on the Amendment No. 2 Effective Date. The Tranche B-2 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-2 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.

(b) **Proposed Borrowing.** This Agreement represents a request by the Borrower to borrow Tranche B-2 Term Loans from the Tranche B-2 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-2 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. 2 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-2 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-2 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. 2 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-2 Term Loans on a cashless settlement basis and (y) promptly following the Amendment No. 2 Effective Date (but not later than 30 days following the Amendment No. 1 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-2 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-2 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.

4. **Effective Date Conditions.** This Agreement will become effective on the date (the "Amendment No. 2 Effective Date"), 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-2 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-2 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. 2 Effective Date signed by an 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-2 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 (g) and (h) 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. 2 Effective Date, including, to the extent invoiced at least two (2) Business Days prior to the Amendment No. 2 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 Article V 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. 2 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. 2 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. 2 Effective Date before or after giving effect to the effectiveness of this Agreement and the incurrence of the Tranche B-2 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. 2 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. 2 Effective Date, as has been requested to the Borrower in writing reasonably prior to the Amendment No. 2 Effective Date.

5. **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 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 clause (ii) 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. 2 Effective Date and the incurrence and/or exchange of the Tranche B-2 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. 2 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. 2 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.

6. **Use of Proceeds.** The Borrower covenants and agrees that it will use the proceeds of the Tranche B-2 Term Loans to prepay in full the aggregate principal amount of Existing Loans outstanding on the Amendment No. 2 Effective Date and to pay any interest, fees and/or expenses related thereto.

7. **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. 2 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.

8. **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.

9. **Request for Borrowing.** Pursuant to this Agreement, the Borrower hereby requests a Borrowing of Tranche B-2 Term Loans in an aggregate principal amount of \$628,175,000, with such Borrowing to be made on the Amendment No. 2 Effective Date and to have an

Interest Period ending on December 30, 2016 (and, notwithstanding anything to the contrary herein, each Participating Lender hereby consents to such non-conforming Interest Period).

10. **Notice.** For purposes of the Credit Agreement, the initial notice address of each New Lender shall be as separately identified to the Administrative Agent.
11. **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.
12. **Recordation of the New Loans.** Upon execution and delivery hereof, the Administrative Agent will record the Tranche B-2 Term Loans made by each Participating Lender in the Register.
13. **Amendment, Modification and Waiver.** This Agreement may not be amended, modified or waived except as permitted by Section 10.01 of the Credit Agreement.
14. **Integration.** 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-2 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. 2 Effective Date, continue to be owing under the Credit Agreement or such other Loan Documents until paid in accordance therewith.
15. **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.
16. **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.
17. **Counterparts.** 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.
18. **Loan Document.** On and after the Amendment No. 2 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 13 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: CFO/VP

NEWPORT CORPORATION

By: /s/ Kathleen F. Burke
Name: Kathleen F. Burke
Title: Secretary

BARCLAYS BANK PLC, as Administrative Agent

By: /s/ Robert Chen
Name: Robert Chen
Title: Managing Director

BARCLAYS BANK PLC, as Fronting Bank

By: /s/ Robert Chen
Name: Robert Chen
Title: Managing Director

Barclays Bank PLC, as Administrative Agent
700 Prides Crossing
Newark, DE 19713
Attn: Tim O'Connell
Phone: (302) 286-2355
Fax: (214) 545-5230
Email: timothy.o'connell@barclays.com

**MKS Instruments, Inc.
Tranche B-2 Participation Notice**

Ladies and Gentlemen:

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

By delivery of this letter agreement (this "Tranche B-2 Participation Notice"), each of the undersigned (each a "Participating Lender"), hereby irrevocably consents to the Amendment and the amendment of the Credit Agreement contemplated thereby and (check as applicable):

NAME OF PARTICIPATING LENDER: ____

AMOUNT OF EXISTING LOANS OF SUCH PARTICIPATING LENDER: \$____

Cashless Settlement Option. Hereby (i) elects, upon the Amendment No. 2 Effective Date, to exchange the full amount (no partial amounts will be rolled) of the outstanding Existing Loans of such Participating Lender for an equal outstanding amount of Tranche B-2 Term Loans under the Credit Agreement and (ii) represents and warrants to the Administrative Agent that it has the organizational power and authority to execute, deliver and perform its obligations under this Tranche B-2 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-2 Participation Notice and the Amendment.

Cash Settlement Option. Hereby (i) elects to have the full amount of the outstanding Existing Loans of such Participating Lender repaid or purchased and agrees to promptly (but in any event, on or prior to the date that is 30 days following the Amendment No. 2 Effective Date) purchase (via assignment and assumption) an equal amount of Tranche B-2 Term Loans and (ii) represents and warrants to the Administrative Agent that it has the organizational power and authority to execute, deliver and perform its obligations under this Tranche B-2 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-2 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

\$41,481,925.93

MKS Instruments Completes Second Repricing of Term Loan and Makes a Voluntary \$40 Million Prepayment of Principal

Cumulative Actions Since Origination Reduce Annual Non-GAAP Interest Expense by 36% and Bring Total Pre-Payments to \$150 Million

Andover, Mass., December 14, 2016 — 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 75 basis points from LIBOR plus 3.50% to LIBOR plus 2.75% with a 0.75% floor on LIBOR.

In addition, the Company announced that it has prepaid \$40 million in principal on the term loan, utilizing previously repatriated cash and cash on hand, reducing the outstanding principal to \$628 million, down from \$780 million at origination.

“We are very pleased to complete a second successful repricing of our existing secured term loan as well as our third voluntary prepayment. These actions are expected to result in significant savings over the life of the loan and align with our strategy to deleverage our balance sheet and reduce our cost of capital. Since origination on April 29th, we have been able to reduce our non-GAAP interest expense by \$13.9 million on an annualized basis and made voluntary prepayments totaling \$150 million,” said Seth H. Bagshaw, 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, 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, materials delivery, gas composition analysis, control and information technology, power and reactive gas generation, vacuum technology, photonics, lasers, optics and motion control. Our primary served markets include semiconductor capital equipment, industrial manufacturing, environmental, medical, life sciences and scientific research. Additional information can be found at www.mksinst.com.

SAFE HARBOR FOR FORWARD-LOOKING STATEMENTS

Statements in this release regarding MKS management’s future expectations, beliefs, goals, plans or prospects constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements are only predictions based on current assumptions and expectations. Actual events or results may differ materially from those in the forward-looking statements. 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 MKS operates, including the fluctuations in capital spending in the semiconductor industry and other advanced manufacturing markets; fluctuations in net sales to MKS’ major customers; the ability of MKS to successfully integrate Newport Corporation’s operations and employees; unexpected costs, charges or expenses, or MKS’ ability to realize anticipated synergies and cost savings from the Newport acquisition or other acquisitions; MKS’ ability to meet its obligations under the term loan; fluctuations in interest rates; MKS’ ability to successfully grow its business outside of the semiconductor capital equipment industry; potential fluctuations in quarterly results; the challenges and dependence on new product development; rapid technological and market change; acquisition strategy; manufacturing and sourcing risks, volatility of stock price; international operations; financial risk management, and the other factors described in MKS’ Quarterly Report on Form 10-Q for the period ended June 30, 2016 filed with the SEC. MKS is under no obligation to, and expressly disclaims any obligation to, update or alter its forward-looking statements, whether as a result of new information, future events or otherwise after the date of this presentation.

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