SECURITIES AND EXCHANGE COMMISSION WASHINGTON, DC 20549

SCHEDULE TO

(Rule 14d-100)

TENDER OFFER STATEMENT UNDER SECTION 14(d)(1) OR 13(e)(1) OF THE SECURITIES EXCHANGE ACT OF 1934

MKS Instruments, Inc.

(Name of Subject Company (Issuer) and Filing Person (Issuer))

Options to Purchase Common Stock, no par value

(Title of Class of Securities)

55306N104

(CUSIP Number of Common Stock Underlying Class of Securities)

Leo Berlinghieri
President and Chief Executive Officer
MKS Instruments, Inc.
2 Tech Drive, Suite 201, Andover, Massachusetts 01810
(978) 645-5500

(Name, Address and Telephone Numbers of Person Authorized to Receive Notices and Communications on Behalf of Filing Persons)

Copy to:

Mark G. Borden, Esq. Wilmer Cutler Pickering Hale and Dorr LLP 60 State Street, Boston, Massachusetts 02109 (617) 526-6000

CALCULATION OF FILING FEE

Transaction Valuation*	Amount of Filing Fee**
\$4,197,423*	\$234.22**

- * Calculated solely for purposes of determining the filing fee. This amount assumes that options to purchase 1,454,947 shares of common stock of MKS Instruments, Inc. having an aggregate value of \$4,197,423 as of July 31, 2009 will be exchanged or cancelled pursuant to this exchange offer. The actual transaction value will be based upon the number of options tendered, if any. The aggregate value of such securities was calculated based on the Black-Scholes option pricing model.
- ** The amount of the filing fee, calculated in accordance with the Securities Exchange Act of 1934, as amended, equals \$55.80 for each \$1,000,000 of the value of this transaction. The Transaction Value set forth above was calculated for the sole purpose of determining the Amount of Filing Fee and should not be used for any other purpose.
- o Check the box if any part of the fee is offset as provided by Rule 0-11(a)(2) and identify the filing with which the offsetting fee was previously paid. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

Amount Previously Paid: Not applicable.

Filing Party:

Not applicable.

Form or Registration No.:

Not applicable.

Date Filed:

Not applicable.

Check the box if the filing relates solely to preliminary communications made before the commencement of a tender offer.

Check the appropriate boxes below to designate any transactions to which the statement relates:

- o third party tender offer subject to Rule 14d-1.
- ☑ issuer tender offer subject to Rule 13e-4.
- o going-private transaction subject to Rule 13e-3.
- o amendment to Schedule 13D under Rule 13d-2.

Check the following box if the filing is a final amendment reporting the results of the tender offer: o

- *If applicable, check the appropriate box(es) below to designate the appropriate rule provision(s) relied upon:
 - o Rule 13e-4(i) (Cross-Border Issuer Tender Offer)
 - o Rule 14d-1(d) (Cross-Border Third-Party Tender Offer)



Item 1. Summary Term Sheet.

The information set forth under the caption "Summary Term Sheet and Questions and Answers" in the Offer to Exchange Certain Stock Options for Restricted Stock Units, dated August 3, 2009 (the "Offer to Exchange"), attached hereto as Exhibit (a)(1)(A), is incorporated herein by reference.

Item 2. Subject Company Information.

(a) Name and Address.

MKS Instruments, Inc., a Massachusetts corporation (the "Company") is the issuer and the subject company. The address of the Company's principal executive office is 2 Tech Drive, Suite 201, Andover, Massachusetts 01810, and the Company's telephone number at that address is (978) 645-5500.

(b) Securities.

This Tender Offer Statement on Schedule TO relates to an offer by the Company to certain employees, subject to specified conditions, to exchange some or all of their outstanding options to purchase shares of the Company's common stock, no par value. A stock option held by an eligible employee will be eligible for exchange and referred to herein as an "eligible option" if it has an exercise price per share greater than \$23.35 and was granted under the Company's Second Restated 1995 Stock Incentive Plan. Eligible employees (as defined below) surrendering eligible options will receive in exchange restricted stock units (the "RSUs") to be granted under the 2004 Stock Incentive Plan, as amended.

The Company is making the exchange offer to all employees located in the United States, Germany, Japan and the United Kingdom who hold eligible options and, as of the date the exchange offer commences, are actively employed by the Company or one of its subsidiaries but excluding the Company's executive officers and members of its board of directors (the "eligible employees"). To remain eligible to surrender eligible options for exchange and receive RSUs, the eligible employees must be employed by the Company or one of its subsidiaries on the date the exchange offer commences and remain employed through the date the RSUs are granted. The eligible employees also must be eligible to participate in the 2004 Stock Incentive Plan, as amended.

The actual number of RSUs to be exchanged in the exchange offer will depend on the number of shares of common stock subject to eligible options surrendered by eligible employees and accepted for exchange and will be based on the fair value of such option (determined using the Black-Scholes option valuation model) as of the expiration of the exchange offer. The Company will not accept tendered eligible options that would result in zero RSUs being granted. The Company is making the exchange offer upon the terms and subject to the conditions set forth in the Offer to Exchange and in the related accompanying Election Form, attached hereto as Exhibit (a)(1)(C) and Withdrawal Form, attached hereto as Exhibit (a)(1)(D).

The information set forth in the Offer to Exchange under the captions "Summary Term Sheet and Questions and Answers" and "Risks of Participating in the Exchange Offer" and under Section 1 ("Eligibility"), Section 2 ("Number of Restricted Stock Units; Expiration Time"), Section 6 ("Acceptance of Options for Exchange and Granting of Restricted Stock Units"), Section 8 ("Price Range of Shares Underlying the Options and Restricted Stock Units") and Section 9 ("Source and Amount of Consideration; Terms of Restricted Stock Units") is incorporated herein by reference. The Offer to Exchange applies only to the eligible options. As of July 31, 2009, there were eligible options to purchase 1,454,947 shares of the Company's common stock.

(c) Trading Market and Price.

The information set forth in the Offer to Exchange under Section 8 ("Price Range of Shares Underlying the Options and Restricted Stock Units") is incorporated herein by reference.

Item 3. Identity and Background of Filing Person.

(a) Name and Address.

The Company is the filing person and the issuer. The Company's business address is 2 Tech Drive, Suite 201, Andover, Massachusetts 01810, and the Company's business telephone number is (978) 645-5500.

Pursuant to General Instruction C to Schedule TO, the information set forth on Schedule A to the Offer to Exchange is incorporated herein by reference.

Item 4. Terms of the Transaction.

(a) Material Terms.

The information set forth in the section of the Offer to Exchange under the caption "Summary Term Sheet and Questions and Answers" and Section 1 ("Eligibility"), Section 2 ("Number of Restricted Stock Units; Expiration Time"), Section 3 ("Purposes of the Exchange Offer"), Section 4 ("Procedures for Electing to Exchange Options"), Section 5 ("Withdrawal Rights and Change of Election"), Section 6 ("Acceptance of Options for Exchange and Granting of Restricted Stock Units"), Section 7 ("Conditions of the Exchange Offer"), Section 8 ("Price Range of Shares Underlying the Options and Restricted Stock Units"), Section 9 ("Source and Amount of Consideration; Terms of Restricted Stock Units"), Section 12 ("Status of Options Acquired by Us in the Exchange Offer; Accounting Consequences of the Exchange Offer"), Section 13 ("Legal Matters; Regulatory Approvals"), Section 14 ("Material Income Tax Consequences") and Section 15 ("Extension of the Exchange Offer; Termination; Amendment") is incorporated herein by reference.

(b) Purchases.

The information set forth in the Offer to Exchange under Section 11 ("Interests of Directors and Executive Officers; Transactions and Arrangements Concerning Our Securities") is incorporated herein by reference.

Item 5. Past Contacts, Transactions, Negotiations and Arrangements.

(e) Agreements Involving the Subject Company's Securities.

The information set forth in the Offer to Exchange under the Section 11 ("Interests of Directors and Executive Officers; Transactions and Arrangements Concerning Our Securities") is incorporated herein by reference.

Item 6. Purposes of the Transaction and Plans or Proposals.

(a) Purposes.

The information set forth in the Offer to Exchange under the caption "Summary Term Sheet and Questions and Answers" and under Section 3 ("Purposes of the Exchange Offer") is incorporated herein by reference.

(b) Use of Securities Acquired.

The information set forth in the Offer to Exchange under Section 6 ("Acceptance of Options for Exchange and Granting of Restricted Stock Units") and Section 12 ("Status of Options Acquired by Us in the Exchange Offer; Accounting Consequences of the Exchange Offer") is incorporated herein by reference.

(c) Plans.

The information set forth in the Offer to Exchange under Section 3 ("Purposes of the Exchange Offer") is incorporated herein by reference.

Item 7. Source and Amount of Funds or Other Consideration.

(a) Source of Funds.

The information set forth in the Offer to Exchange under Section 9 ("Source and Amount of Consideration; Terms of Restricted Stock Units") is incorporated herein by reference.

(b) Conditions.

Not applicable.

(d) Borrowed Funds.

Not applicable.

Item 8. Interest in Securities of the Subject Company.

(a) Securities Ownership.

The information set forth in the Offer to Exchange under Section 11 ("Interests of Directors and Executive Officers; Transactions and Arrangements Concerning Our Securities") is incorporated herein by reference.

(b) Securities Transactions.

The information set forth in the Offer to Exchange under Section 11 ("Interests of Directors and Executive Officers; Transactions and Arrangements Concerning Our Securities") is incorporated herein by reference.

Item 9. Person/Assets, Retained, Employed, Compensated or Used.

(a) Solicitations or Recommendations.

Not applicable.

Item 10. Financial Statements.

(a) Financial Information.

The information set forth in Schedule B to the Offer to Exchange and under Section 10 ("Information Concerning MKS; Financial Information") and Section 17 ("Additional Information") is incorporated herein by reference. The Company's Annual Report on Form 10-K for the year ended December 31, 2008, as filed with the Securities and Exchange Commission (the "SEC") on February 27, 2009, and its Quarterly Report on Form 10-Q for the quarter ended March 31, 2009, as filed with the SEC on May 7, 2009, are incorporated by reference herein and can be accessed electronically on the SEC's website at http://www.sec.gov.

(b) Pro Forma Information.

Not applicable.

Item 11. Additional Information.

(a) Agreements, Regulatory Requirements and Legal Proceedings.

The information set forth in the Offer to Exchange under Section 11 ("Interests of Directors and Executive Officers; Transactions and Arrangements Concerning Our Securities") and Section 13 ("Legal Matters; Regulatory Approvals") is incorporated herein by reference.

(b) Other Material Information.

Not applicable.

Item 12. Exhibits.

Exhibit	Description
(a)(1)(A)	Offer to Exchange Certain Outstanding Options for Restricted Stock Units, dated August 3, 2009.
(a)(1)(B)	Form of E-Mail to Eligible Employees Regarding the Exchange Offer.
(a)(1)(C)	Form of Election Form.
(a)(1)(D)	Form of Withdrawal Form.
(a)(1)(E)	Form of Confirmation E-Mail/Memo to Employees who Elect to Participate in or Withdraw from the Exchange Program by Fax or E-Mail.
(a)(1)(F)	Form of Reminder E-Mail to Eligible Employees.

Exhibit	Description
(a)(1)(G)	Screen Shots of the Exchange Offer Website.
(a)(1)(H)	Screen Shots of Illustrative Calculator to Calculate Number of Restricted Stock Units.
(a)(1)(I)	Form of E-Mail Regarding Actual Exchange Ratios.
(a)(1)(J)	Form of E-Mail Regarding Conference Call on Day the Exchange Offer Expires.
(a)(1)(K)	Script For Phone Representatives.
(a)(1)(L)	Annual Report on Form 10-K for the year ended December 31, 2008, filed on February 27, 2009, is incorporated herein by reference.
(a)(1)(M)	Quarterly Report on Form 10-Q for the quarter ended March 31, 2009, filed on May 7, 2009, is incorporated herein by reference.
(a)(1)(N)	Definitive Proxy Statement on Schedule 14A, filed on March 23, 2009, is incorporated herein by reference.
(a)(1)(O)	Amendment No. 1 to Definitive Proxy Statement on Schedule 14A, filed on April 27, 2009, is incorporated herein by reference.
(b)	Not applicable.
(d)(1)	2004 Stock Incentive Plan, as amended, is incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on May 6, 2009.
(d)(2)	Second Restated 1995 Stock Incentive Plan is incorporated herein by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed November 13, 2002.
(d)(3)	Nonstatutory Stock Option Agreement Granted Under the Second Restated 1995 Stock Incentive Plan is incorporated herein by reference to Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q filed on August 9, 2004.
(d)(4)	Form of Restricted Stock Unit Agreement for Offer to Exchange.
(g)	Not applicable.
(h)	Not applicable.

Item 13. Information Required by Schedule 13E-3.

(a) Not applicable.

SIGNATURE

After due inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

MKS INSTRUMENTS, INC.

/s/ LEO BERLINGHIERI

Leo Berlinghieri President and Chief Executive Officer

Date: August 3, 2009

INDEX OF EXHIBITS

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(a)(1)(N)	Definitive Proxy Statement on Schedule 14A, filed on March 23, 2009, is incorporated herein by reference.					
(a)(1)(O)	Amendment No. 1 to Definitive Proxy Statement on Schedule 14A, filed on April 27, 2009, is incorporated herein by reference.					
(b)	Not applicable.					
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Exhibit	Description
	Quarterly Report on Form 10-Q filed on August 9, 2004.
(d)(4)	Form of Restricted Stock Unit Agreement for Offer to Exchange.
(g)	Not applicable.

MKS INSTRUMENTS, INC.

Offer to Exchange Certain Stock Options for Restricted Stock Units This exchange offer and withdrawal rights will expire at 11:59 p.m., Eastern Time, on August 28, 2009, unless extended.

MKS Instruments, Inc., which we refer to herein as "MKS," "we," "our" or "us," by this Offer to Exchange Certain Stock Options for Restricted Stock Units, or the exchange offer, is offering to our eligible employees the opportunity to voluntarily exchange eligible options for restricted stock units, or RSUs, granted under our 2004 Stock Incentive Plan, as amended. The "expiration time" of the exchange offer is 11:59 p.m., Eastern Time, on August 28, 2009, unless extended.

You are an "eligible employee" if you are:

- an employee of MKS or one of our subsidiaries located in the United States, Germany, Japan or the United Kingdom (employees located in countries other than the United States, Germany, Japan and the United Kingdom are not eligible to participate in the exchange offer);
- employed on the date the exchange offer commences and remain employed through the date the RSUs are granted;
- eligible to participate in the 2004 Stock Incentive Plan, as amended; and
- not an executive officer or a member of our board of directors.

"Eligible options" are stock options held by eligible employees that were granted under our Second Restated 1995 Stock Incentive Plan and have a per share exercise price greater than \$23.35, which is the highest closing price of our common stock on the NASDAQ Global Select Market, or Nasdaq, in the 52-week period preceding the commencement date of the exchange offer.

For purposes of the exchange offer, the term "option" generally refers to an option to purchase one share of our common stock, and the term "option grant" refers to each grant of one or more options. You will be permitted to exchange your eligible stock options for RSUs on a grant-by-grant basis. No partial exchanges of a stock option grant will be permitted. If you elect to exchange an eligible option grant, you must exchange the entire outstanding (i.e., unexercised) portion of that eligible option grant. Eligible options properly tendered in this exchange offer and accepted by us for exchange will be cancelled and the RSUs granted immediately upon the expiration time.

If you are an eligible employee and choose to participate in the exchange offer and surrender eligible options for exchange, and if we accept your surrendered eligible options, you will receive RSUs with the following terms:

• you will receive RSUs for a lesser number of shares of common stock than the cancelled eligible options that you tender. The number of RSUs will be determined using an exchange ratio that is intended to ensure that the fair value, for accounting purposes, of the RSUs are approximately equal to the fair value of the eligible option tendered for exchange at the time the RSUs are granted. The number of RSUs to be granted in exchange for each eligible option will be that number of RSUs (rounded down to the nearest whole) that would be derived by dividing the fair value of such eligible option grant (determined using the Black-

Scholes option valuation model) by the closing sale price of our common stock on the day the exchange offer expires. The Black-Scholes option valuation model used to value eligible option grants will take into account (i) the closing price of our common stock on Nasdaq on the day the exchange offer expires, (ii) the exercise price of the option grant, (iii) the expected volatility of our common stock over the projected life of the option grant, (iv) the estimated expected life of the option grant, (v) the risk-free interest rate over the projected life of the option grant and (vi) the expected dividends on our common stock. Because the Black-Scholes valuation model takes into account certain assumptions on the day the exchange offer expires, including the closing price of our common stock, the Black-Scholes value of the tendered eligible options, the exact exchange ratios and number of RSUs to be granted will not be known until shortly after 4:00 p.m., Eastern Time, on the day the exchange offer expires. Set forth below is a table identifying hypothetical exchange ratios that would be used in the exchange offer assuming various closing prices of our common stock on the day the exchange offer expires. After 4:00 p.m., Eastern Time, on the day the exchange offer expires, we will distribute by e-mail (or other method) to all eligible employees the exact ratios to be used in the exchange offer. The exchange ratios separately apply to each eligible option grant based upon the exercise price and grant date of such option grants. This means that if you hold various eligible options grants, each may be subject to different exchange ratios;

- the RSUs will be granted under our 2004 Stock Incentive Plan, as amended; and
- the RSUs will have a vesting period of one year. (See Section 9, "Source and Amount of Consideration; Terms of Restricted Stock Units.")

 Vesting of the RSUs will be conditioned upon your continued service with us, subject to limited exceptions for retirement, death or disability.

 This means that you will generally be required to remain employed with MKS for one year after the RSU grant date in order to be vested in the RSUs.

We will grant the RSUs immediately upon the expiration time, which we expect to be 11:59 p.m., Eastern Time, on August 28, 2009. If the expiration time is extended, the RSU grant date will be similarly extended.

Due to the Black-Scholes valuation model we are using, some eligible options will have exchange ratios that are so high that the number of RSUs that would be granted for any outstanding option grant would be zero. We strongly encourage you to:

- use the calculator on the exchange offer website, described below, to determine the number of RSUs that would be granted to you in exchange for each of your eligible option grants based upon the hypothetical exchange ratios; and
- when we provide you with the final exchange ratios, review and reconsider the number of RSUs that would be granted to you based up any election that you previously submitted.

We will not accept tendered eligible options that would result in zero RSUs being granted.

Table of Hypothetical Exchange Ratios Based on Various Assumed Closing Prices of Our Common Stock on August 28, 2009

In the following table, we have assumed that the closing price of our common stock on Nasdaq on the day the exchange offer expires will be \$17.00, which is equal to the trailing average closing price of our common stock for the 10-trading day period prior to July 24, 2009, rounded to the nearest dollar. We have also included additional closing prices that represent both 10% (\$18.70), 20% (\$20.40) and 30% (\$22.10) increases and 10% (\$15.30), 20% (\$13.60) and 30% (\$11.90) decreases to such assumed closing price. The valuation model underlying the table below assumes a volatility spread of up to 52%.

		Exchange Ratio(1)						
Grant Date of Options	Exercise Price of Options	Assumed Closing Price of \$11.90	Assumed Closing Price of \$13.60	Assumed Closing Price of \$15.30	Assumed Closing Price of \$17.00	Assumed Closing Price of \$18.70	Assumed Closing Price of \$20.40	Assumed Closing Price of \$22.10
1/4/2000	\$32.00	*	*	*	6136.4 to 1	1554.7 to 1	511.6 to 1	206.6 to 1
4/24/2000	\$41.88	*	*	*	*	*	901.4 to 1	429.2 to 1
5/1/2000	\$50.81	*	*	*	*	*	*	2489.9 to 1
5/5/2000	\$48.62	*	*	*	*	*	3323.1 to 1	1458.7 to 1
5/30/2000	\$41.50	*	*	*	2588.4 to 1	1038 to 1	481.7 to 1	251.1 to 1
6/30/2000	\$39.13	*	*	*	900 to 1	409.5 to 1	211.5 to 1	120.8 to 1
7/21/2000	\$32.25	2847.9 to 1	877.3 to 1	344.6 to 1	161.9 to 1	87.1 to 1	52.1 to 1	33.9 to 1
9/6/2000	\$29.50	702.6 to 1	266.5 to 1	123.7 to 1	66.7 to 1	40.2 to 1	26.4 to 1	18.6 to 1
9/25/2000	\$29.25	538.3 to 1	214.2 to 1	103.3 to 1	57.3 to 1	35.4 to 1	23.8 to 1	17 to 1
4/27/2001	\$24.62	54.2 to 1	31.3 to 1	20.2 to 1	14.2 to 1	10.6 to 1	8.4 to 1	6.8 to 1
5/30/2001	\$25.86	59.4 to 1	34.3 to 1	22.2 to 1	15.6 to 1	11.6 to 1	9.1 to 1	7.4 to 1
7/30/2001	\$26.50	53.2 to 1	31.7 to 1	21 to 1	15 to 1	11.3 to 1	9 to 1	7.4 to 1
8/13/2001	\$26.77	52.9 to 1	31.7 to 1	21 to 1	15.1 to 1	11.4 to 1	9.1 to 1	7.4 to 1
11/14/2001	\$24.50	29.4 to 1	19.1 to 1	13.5 to 1	10.2 to 1	8.1 to 1	6.6 to 1	5.6 to 1
1/30/2002	\$23.50	21.8 to 1	14.8 to 1	10.8 to 1	8.4 to 1	6.8 to 1	5.7 to 1	4.9 to 1
1/31/2002	\$24.03	23.3 to 1	15.7 to 1	11.4 to 1	8.9 to 1	7.2 to 1	6 to 1	5.1 to 1
2/1/2002	\$23.85	22.7 to 1	15.4 to 1	11.2 to 1	8.7 to 1	7 to 1	5.9 to 1	5.1 to 1
2/11/2002	\$25.90	28.9 to 1	19.1 to 1	13.7 to 1	10.5 to 1	8.3 to 1	6.9 to 1	5.9 to 1
3/5/2002	\$30.02	45.1 to 1	28.8 to 1	20 to 1	14.9 to 1	11.6 to 1	9.4 to 1	7.8 to 1
3/25/2002	\$32.00	53.7 to 1	33.9 to 1	23.4 to 1	17.2 to 1	13.3 to 1	10.7 to 1	8.8 to 1
6/3/2002	\$27.87	28.8 to 1	19.4 to 1	14.1 to 1	10.9 to 1	8.8 to 1	7.3 to 1	6.2 to 1
11/11/2003	\$27.11	12.6 to 1	9.7 to 1	7.8 to 1	6.5 to 1	5.6 to 1	4.9 to 1	4.4 to 1
12/3/2003	\$26.86	12.1 to 1	9.3 to 1	7.5 to 1	6.3 to 1	5.4 to 1	4.8 to 1	4.3 to 1
1/5/2004	\$29.93	14.7 to 1	11.2 to 1	8.9 to 1	7.4 to 1	6.3 to 1	5.5 to 1	4.9 to 1
3/1/2004	\$24.35	9.2 to 1	7.3 to 1	6 to 1	5.1 to 1	4.5 to 1	4 to 1	3.6 to 1

⁽¹⁾ Ratio of number of eligible options surrendered to the number of RSUs to be issued in exchange therefor.

^{*} Due to the Black-Scholes valuation model we are using, at the assumed closing price shown above, eligible options granted at this exercise price will have an exchange ratio that is so high that the number of RSUs that would be granted in exchange for any outstanding option grant would be zero. We will not accept tendered eligible options that would result in zero RSUs being granted.

The following are illustrative examples based upon the foregoing table, assuming no other changes in the Black-Scholes assumptions underlying the table above:

- assuming that the closing price of our common stock on the day the exchange offer expires is \$17.00, an eligible option to purchase 1,000 shares with a per share exercise price of \$29.25 will have an exchange ratio of 57.3:1. Therefore, this eligible option will be exchangeable for 17 RSUs, which is equal to the number of shares underlying the eligible option, or 1,000, divided by 57.3, rounded down to the nearest whole share
- assuming that the closing price of our common stock on the day the exchange offer expires is \$20.40, an eligible option to purchase 5,000 shares with a per share exercise price of \$48.62 will have an exchange ratio of 3323.1:1. Therefore, this eligible option would be exchangeable for one RSU, which is equal to the number of shares underlying the eligible option, or 5,000, divided by 3323.1, rounded down to the nearest whole share.
- assuming that the closing price of our common stock on the day the exchange offer expires is \$20.40, an eligible option to purchase 1,000 shares with a per share exercise price of \$48.62 will have an exchange ratio of 3323.1:1. Therefore, this eligible option would be exchangeable for zero RSUs, which is equal to the number of shares underlying the eligible option, or 1,000, divided by 3323.1, rounded down to the nearest whole share. Because the number of RSUs that would be granted is zero, we will not accept this option for exchange.

The exchange ratios shown in the table above illustrate the difference between the relatively lower estimated fair values of eligible options with higher exercise prices compared to the correspondingly higher estimated fair values of eligible options with lower exercise prices. The exchange ratios are derived from the eligible option's fair value using the Black-Scholes valuation model that weighs, among other things, exercise price and remaining term to expiration. The higher the eligible option's exercise price and the lower the closing price of our common stock on the day the exchange offer expires, the higher the exchange ratio will be, resulting in fewer RSUs. Similarly, options with longer terms to expiration result in lower exchange ratios and more RSUs.

The commencement date of this exchange offer is August 3, 2009. We are making this exchange offer upon the terms and subject to the conditions described in this exchange offer document and in the related Election Form distributed with this exchange offer document and available on the exchange offer website described below. You are not required to accept this exchange offer. You will be permitted to exchange your eligible stock options for RSUs on a grant-by-grant basis. No partial exchanges of a stock option grant will be permitted. If you elect to exchange an eligible option grant, you must exchange the entire outstanding (i.e., unexercised) portion of that eligible option grant. Eligible options properly tendered in this exchange offer and accepted by us for exchange will be cancelled and the RSUs granted immediately upon the expiration time.

Our common stock is traded on Nasdaq under the symbol "MKSI." On July 31, 2009, the closing price of our common stock was \$19.37 per share. You should evaluate the risks related to our business, our common stock, and this exchange offer, and review current market quotes for our common stock, among other factors, before deciding to participate in the exchange offer.

See "Risks of Participating in the Exchange Offer" for a discussion of risks that you should consider before participating in this exchange offer.

IMPORTANT

If you would like to participate in the exchange offer, you must properly complete and submit your election to MKS through the secure exchange offer website at https://mks.optionelection.com, which we refer to as the "exchange offer website." We will make computer and Internet access available at our office locations to any eligible employee who does not have Internet access. We encourage you to submit your election electronically via the exchange offer website. If you are unable to do so for any reason, including technical failures of the exchange offer website such as the exchange offer website being unavailable or the exchange offer website not accepting your election, you must complete a paper election form and return it via fax at (978) 557-5124 or e-mail to Marlene Maffe, the MKS stock plan administrator, at marlene_maffe@mksinst.com (via PDF or similar imaged document file). To obtain a paper election form, please e-mail Marlene Maffe at marlene_maffe@mksinst.com or call (978) 645-5654. You can also view and print the paper election form at https://mks.optionelection.com.

Only responses that are complete and actually received by MKS, whether via the exchange offer website or via fax or e-mail, before 11:59 p.m., Eastern Time, on August 28, 2009 (unless we extend the exchange offer) will be accepted. Responses submitted by any other means, including hand delivery, interoffice, U.S. mail (or other post) and Federal Express (or similar delivery service) are not permitted. The delivery of all documents, including election forms and withdrawal forms, is at your risk. If you make an election or withdrawal via the exchange offer website, you will receive a website confirmation. If you make an election or withdrawal via fax or e-mail, MKS will confirm the receipt of your election or withdrawal within two business days. If you have not received a confirmation, it is your responsibility to send an e-mail to Marlene Maffe at marlene maffe@mksinst.com or call (978) 645-5654.

For purposes of the exchange offer, a "business day" means any day other than a Saturday, Sunday or a U.S. federal holiday and consists of the time period from 12:00 a.m. through 11:59 p.m., Eastern Time.

Neither the U.S. Securities and Exchange Commission, or the SEC, nor any state securities commission has approved or disapproved of these securities or passed judgment upon the accuracy or adequacy of this exchange offer. Any representation to the contrary is a criminal offense.

If you need additional copies of the exchange offer materials, including the election or withdrawal forms, you should send an e-mail to Marlene Maffe, the MKS stock plan administrator, at marlene_maffe@mksinst.com or call (978) 645-5654. Copies will be furnished promptly at our expense. You can also view and print materials from the exchange offer website at https://mks.optionelection.com. You should direct questions about the exchange offer to Marlene Maffe at marlene maffe@mksinst.com.

You should rely only on the information contained in this exchange offer document and the materials to which we have referred you. We have not authorized anyone to provide you with different information. You should not assume that the information provided in this document is accurate as of any date other than the date indicated, or if no date is indicated otherwise, the date of this exchange offer. This exchange offer summarizes various documents and other information. These summaries are qualified in their entirety by reference to the documents and information to which they relate.

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SUMMARY TERM SHEET AND QUESTIONS AND ANSWERS

The following are answers to some of the questions that you may have about the "exchange offer" by MKS Instruments, Inc., which we refer to herein as "MKS," "we," "our" or "us." By this Offer to Exchange Certain Stock Options for Restricted Stock Units, or the exchange offer, we are offering to our "eligible employees" (as described below) the opportunity to voluntarily exchange "eligible options" (as described below) for restricted stock units, or RSUs, granted under our 2004 Stock Incentive Plan, as amended. You should read carefully the entire exchange offer, the attached exhibits and the election and withdrawal forms, together with their associated instructions. This exchange offer is made subject to the terms and conditions of these materials as they may be amended from time to time hereafter. The information in this summary is not complete. Additional important information is contained in the remainder of this exchange offer and the other exchange offer materials. We have included in this summary references to other sections in the exchange offer to help you find more complete information with respect to these topics.

Q1. What is the exchange offer?

A1. The exchange offer is an opportunity for eligible employees to voluntarily exchange "eligible options" for a lesser number of RSUs. "Eligible options" are stock options held by eligible employees that were granted under our Second Restated 1995 Stock Incentive Plan and have a per share exercise price greater than \$23.35, which is the highest closing price of our common stock on the NASDAQ Global Select Market, or Nasdaq, in the 52-week period preceding the commencement date of the exchange offer.

The "expiration time" of the exchange offer is 11:59 p.m., Eastern Time, on August 28, 2009, unless extended.

You may tender for exchange any one or more of your eligible option grants or none at all. However, you must exchange all options received pursuant to each eligible option grant. If you have exercised a portion of an eligible option grant, your election will apply to the portion that remains outstanding and unexercised. For a complete listing of your options, including any eligible options you may have, please refer to your account at http://www.netbenefits.com (employees outside the U.S. should click on the "login to NetBenefits Worldwide" link). Your account also lists the grant date of your options, the exercise price of your options and the number of shares subject to your option grants. Please note that not all of your options may be eligible for exchange.

This is a one-time exchange offer, and we will strictly enforce the expiration time. We reserve the right to reject any eligible options tendered for exchange that we determine are not in appropriate form or are unlawful to accept. We will not accept tendered eligible options that would result in zero RSUs being granted. Subject to the terms and conditions of the exchange offer, we will accept all properly tendered options promptly after the expiration time. (See Section 4, "Procedures for Electing to Exchange Options.")

We may extend the exchange offer. If we extend the exchange offer, we will issue an e-mail or other communication disclosing the extension no later than 6:00 a.m., Eastern Time, on the business day immediately following the previously scheduled date of expiration. For purposes of the exchange offer, a "business day" means any day other than a Saturday, Sunday or a U.S. federal holiday and consists of the time period from 12:00 a.m. through 11:59 p.m., Eastern Time.

Only responses that are complete and actually received by MKS, whether via the exchange offer website or via fax or e-mail, before 11:59 p.m., Eastern Time, on August 28, 2009 (unless we extend the exchange offer) will be accepted. Responses submitted by any other means, including hand delivery, interoffice, U.S. mail (or other post) and Federal Express (or similar delivery service) are not permitted. The delivery of all documents, including election forms and withdrawal forms, is at your risk. If you make an election or withdrawal via the exchange offer website, you will receive a website confirmation. If you make an election or withdrawal via fax or e-mail, MKS will confirm the receipt of your election or withdrawal within two business days. If you have not received a confirmation, it is your responsibility to send an e-mail to Marlene Maffe at marlene_maffe@mksinst.com or call (978) 645-5654.

Q2. Who may participate in the exchange offer?

- 2. You may participate in the exchange offer if you are an "eligible employee" of MKS, which means you are:
 - an employee of MKS or one of our subsidiaries located in the United States, Germany, Japan or the United Kingdom;
 - employed on the date the exchange offer commences and remain employed through the date the RSUs are granted;
 - eligible to participate in the 2004 Stock Incentive Plan, as amended; and
 - not an executive officer or a member of our board of directors. (See Section 1, "Eligibility.")

Employees located in countries other than the United States, Germany, Japan and the United Kingdom are not eligible to participate in the exchange offer.

Q3. How many RSUs will I receive for the options that I exchange?

A3. You will receive RSUs for a lesser number of shares of common stock than the cancelled eligible options that you tender. The number of RSUs to be granted in exchange for each eligible option will be determined using an exchange ratio that is intended to ensure that the fair value, for accounting purposes, of the RSUs are approximately equal to the fair value of the eligible option tendered for exchange at the time the RSUs are granted. The number of RSUs to be granted in exchange for each eligible option will be the number of RSUs (rounded down to the nearest whole RSU) that would be derived by dividing the fair value of such eligible option (determined using the Black-Scholes option valuation model) by the closing sale price of our common stock on the day the exchange offer expires.

The Black-Scholes option valuation model we are using to value eligible option grants will take into account (i) the closing price of our common stock on Nasdaq on the day the exchange offer expires, (ii) the exercise price of the eligible option, (iii) the expected volatility of our common stock over the projected life of the eligible option, (iv) the estimated expected life of the eligible option, (v) the risk-free interest rate over the projected life of the eligible option and (vi) the expected dividends on our common stock. The exchange ratios separately apply to each eligible option grant. This means that if you hold various eligible options, each may be subject to a different exchange ratio.

We have provided a table in Section 2 ("Number of Restricted Stock Units; Expiration Time") setting forth hypothetical exchange ratios that would be used in the exchange offer assuming various closing prices on the day the exchange offer expires. However, to ensure that you will have the information you need to make an informed decision based on the number of RSUs that will be granted for exchanged eligible options, after Nasdaq closes on the day the exchange offer expires, we will deliver to you (by e-mail or other method) a notification of the final exchange ratios for the eligible options. At 5:30 p.m., Eastern Time, on the day the exchange offer expires, we will host a conference call for all eligible employees both as a further means of disclosing the final exchange ratios and to answer any remaining questions that you may have. We will have designated employees available by telephone from the time at which the final exchange ratios are delivered to you until 11:59, p.m., Eastern Time, on the day the exchange offer expires to respond to any questions that you may have with respect to the exchange offer or the final exchange ratios. You will have until 11:59 p.m., Eastern Time, on the day the exchange offer expires (currently expected to be August 28, 2009) to make an election by completing and submitting an election form or change any previous election you have made by completing and submitting a withdrawal through the exchange offer website at https://mks.optionelection.com or, if necessary completing a paper withdrawal form, by faxing it to Marlene Maffe, the MKS stock plan administrator, at (978) 557-5124, or e-mail to Marlene Maffe at marlene_maffe@mksinst.com (via PDF or similar imaged document file).

Due to the Black-Scholes valuation model, some eligible options will have exchange ratios that are so high that the number of RSUs that would be granted for any outstanding option grant would be zero. We strongly encourage you to:

- use the calculator on the exchange offer website to determine the number of RSUs that would be granted to you in exchange for each of your eligible option grants based upon the hypothetical exchange ratios; and
- when we provide you with the final exchange ratios, review and reconsider the number of RSUs that would be granted to you based up any election that you previously submitted.

We will not accept tendered eligible options that would result in zero RSUs being granted.

Q4. Why is MKS making the exchange offer?

A4. We are making the exchange offer to restore the retention and incentive benefits of our equity awards. We believe that the exchange offer will help us to retain our valuable employees and better align the interests of our employees and shareholders to maximize shareholder value. We issued the currently existing options to attract and retain the best available personnel and to provide additional incentives to our employees. However, our stock price, like that of many other companies in our industry, has declined significantly in the past year. As a result, most of our employees hold options with exercise prices significantly higher than the current market price of our common stock. These options are commonly referred to as being "underwater." By making the exchange offer, we intend to provide eligible employees with the opportunity to receive RSUs that have greater retention value because, unlike underwater options, such RSUs provide value to employees even if our stock price remains depressed. (See Section 3, "Purposes of the Exchange Offer.")

Q5. How do I elect to participate?

- A5. If you wish to participate in the exchange offer, you must:
 - submit your election to tender eligible options through our secure exchange offer website or, if necessary, by the paper-based method, as
 described below:
 - properly complete your election in the manner described in the prior bullet, during the period beginning on August 3, 2009 and ending at 11:59 p.m., Eastern Time, on August 28, 2009, or a later date if the exchange offer period is extended; and
 - qualify as an "eligible employee" (as described in Question 2), which generally means you are employed by us continuously throughout the period described in the prior bullet.

To participate, you may log onto the exchange offer website at https://mks.optionelection.com and indicate your election to participate on a grant-by-grant basis. If you are unable to do so for any reason, including technical failures of the exchange offer website such as the exchange offer website being unavailable or the exchange offer website not accepting your election, you must complete a paper election form and return it via fax at (978) 557-5124 or e-mail to Marlene Maffe, the MKS stock plan administrator, at marlene_maffe@mksinst.com (via PDF or similar imaged document file). To obtain a paper election form, please e-mail Marlene Maffe at marlene_maffe@mksinst.com or call (978) 645-5654. Please follow the directions set forth in Section 4 ("Procedures for Electing to Exchange Options") in connection with completing your election form.

We must receive your election before 11:59 p.m., Eastern Time, on August 28, 2009 (or, if we extend the exchange offer period, a later date). Elections not made via the exchange offer website nor received by MKS before 11:59 p.m., Eastern Time, on August 28, 2009, even if sent prior to the expiration time, will be disregarded. Accordingly, please allow time for delivery when sending your paper election form(s). If we do not receive your election by the expiration time, you will be deemed to have rejected the exchange offer.

YOU SHOULD REVIEW THIS DOCUMENT AND ALL OF THE RELATED ATTACHMENTS BEFORE MAKING YOUR ELECTION.

Q6. Are there circumstances under which I would not be granted RSUs?

A6. Yes. If, for any reason, you are no longer our employee when the RSUs are granted, which will be immediately upon the expiration time, you will not receive any RSUs. Instead, you will keep your current eligible options and the eligible options will vest and expire in accordance with their original terms. Except as provided by applicable law and/or any employment agreement between you and us, your employment with us will remain "at-will" regardless of your participation in the exchange offer and can be terminated by you or your employer at any time with or without cause or notice. (See Section 1, "Eligibility.")

We will not accept tendered eligible options that would result in zero RSUs being granted. Moreover, even if we accept your eligible options, we will not grant RSUs to you if we are prohibited from doing so by applicable laws. We do not anticipate any such prohibitions at this time. In such event, your eligible options will remain in effect, in accordance with their existing terms and conditions. (See Section 13, "Legal Matters; Regulatory Approvals.")

In addition, if you hold an option that expires after the commencement of, but before the cancellation of options under, the exchange offer, that particular option is not eligible for

exchange. Therefore, if you hold options that expire any time before the expiration time (whether or not extended), which we expect will be 11:59 p.m. on August 28, 2009, they will not be eligible for exchange and such options will continue to be governed by their original terms. (See Section 15, "Extension of the Exchange Offer; Termination; Amendment.")

In addition, due to the Black-Scholes valuation model we are using, some eligible options will have exchange ratios that are so high that the number of RSUs that would be granted for such outstanding option grant would be zero. We will not accept tendered eligible options that would result in zero RSUs being granted.

We also reserve the right, in our reasonable judgment, before the expiration time to terminate or amend the exchange offer and to postpone our acceptance and cancellation of any options elected to be exchanged if any of the events listed in Section 7 ("Conditions of the Exchange Offer") occurs, by giving oral or written notice of the termination or postponement to you or by making a public announcement of the termination. (See Section 15, "Extension of the Exchange Offer; Termination; Amendment.")

Only employees located in the United States, Germany, Japan and the United Kingdom are eligible to participate in the exchange offer.

Q7. Am I required to participate in this option exchange?

7. No. Participation in the exchange offer is completely voluntary.

Q8. When will my RSUs vest?

A8. Each RSU represents the right to receive one share of our common stock which will become vested 12 months from the RSU grant date. Vesting of the RSUs will be conditioned upon your continued service with us, subject to limited exceptions for retirement, death or disability. This means that you will generally be required to remain employed with MKS for one year after the RSU grant date in order to be vested in the RSUs. However, if your employment with us terminates by reason of retirement, death or disability, the vesting of the RSUs will accelerate such that your RSUs will be fully vested. Additionally, if, prior to any vesting of an RSU, and within two years after the effectiveness of a Change in Control (as defined in the RSU agreement), the participant is (i) terminated by MKS without Cause (as defined in the RSU agreement) or (ii) terminates his or her employment for Good Reason (as defined in the RSU agreement), then, 100% of the participant's RSUs shall become immediately and fully vested. (See Section 9, "Source and Amount of Consideration, Terms of Restricted Stock Units.")

Q9. If I participate in the exchange offer, do I have to exchange all of my eligible options?

A9. No. You may pick and choose which of your outstanding eligible options you wish to exchange. However, if you decide to exchange any eligible options received pursuant to a particular option grant, you must exchange all of the eligible options received pursuant to such grant (i.e., you must make your election to participate on a grant-by-grant basis), except that (a) you may partially tender an option grant covered by a domestic relations order (or comparable legal document as the result of the end of a marriage) (see Question 10), and (b) you may elect to exchange all of the options received pursuant to such eligible option grant that remain unexercised at the expiration time. (See Section 2, "Number of Restricted Stock Units; Expiration Time.")

Q10. What happens if I have an eligible option that is subject to a domestic relations order or comparable legal document as the result of the end of a marriage?

A10. If you have an eligible option that is subject to a domestic relations order (or comparable legal document as the result of the end of a marriage) and a person who is not an eligible employee of MKS beneficially owns a portion of that eligible option, you may tender only the portion beneficially owned by you. Any portion beneficially owned by a person who is not our employee may not be exchanged in the exchange offer (even if legal title to that portion of the option is held by you and you are an eligible employee). (See Section 2, "Number of Restricted Stock Units; Expiration Time.")

Q11. When will I receive the RSUs?

A11. We will grant the RSUs immediately upon the expiration time, which we expect to be 11:59 p.m., Eastern Time, on August 28, 2009. If the expiration time is extended, the RSU grant date will be similarly extended. You will receive your RSU agreement as soon as practicable after the expiration time. (See Section 6, "Acceptance of Options for Exchange and Granting of Restricted Stock Units.")

Q12. When will my tendered eligible options be cancelled?

A12. Your eligible options, properly tendered and not validly withdrawn, will be cancelled immediately upon the expiration time, which will be 11:59 p.m., Eastern Time, on August 28, 2009, unless we extend the exchange offer. Once we have accepted your eligible options and they have been cancelled, you will no longer have any rights under those options. (See Section 6, "Acceptance of Options for Exchange and Granting of Restricted Stock Units.")

Q13. Once I surrender my eligible options, is there anything I must do to receive the RSUs?

A13. No. Once your eligible options have been surrendered, there is nothing that you must do to receive your RSUs. Your RSUs will be granted to you on the same day that the properly tendered and not validly withdrawn eligible options are cancelled, provided that you are still an employee on such date (see Question 6). In order to vest in the shares covered by RSUs, you will need to remain in continued service with us through the vesting date, as described in Question 8. (See Section 1, "Eligibility.")

Q14. Can I exchange MKS common stock that I acquired upon a prior exercise of MKS options?

A14. No. The exchange offer relates only to certain options to purchase shares of MKS common stock. You may not exchange shares of MKS common stock in the exchange offer. (See Section 2, "Number of Restricted Stock Units; Expiration Time.")

Q15. Will the terms and conditions of my RSUs be the same as the terms and conditions of my eligible options?

A15. No. Your RSUs will be unvested as of the RSU grant date and will have a different vesting schedule from the vesting schedule of your eligible options.

In addition, your RSUs will be granted under the terms of a RSU agreement under our 2004 Stock Incentive Plan, as amended. The applicable form of RSU agreement is filed as an exhibit to the Schedule TO with which the exchange offer has been filed and is available on the U.S. Securities

and Exchange Commission, or SEC, website at http://www.sec.gov. (See Section 9, "Source and Amount of Consideration; Terms of Restricted Stock Units.") You may also contact Marlene Maffe, the MKS stock plan administrator, to receive a copy of the 2004 Stock Incentive Plan, as amended, and the form of RSU agreement. We will promptly furnish to you copies of these documents upon request at our expense.

Until your RSUs vest and you are issued shares for such RSUs, you will not have any of the rights or privileges of a shareholder of MKS related to such shares. Once your RSUs vest and you have been issued the underlying shares of common stock, you will have all of the rights and privileges of a shareholder with respect to those shares, including the right to vote and to receive dividends.

Q16. What happens to my eligible options if I choose not to participate or if my options are not accepted for exchange?

A16. If you choose not to participate or your eligible options are not accepted for exchange, your existing eligible options will remain outstanding until they expire by their terms and will retain their current exercise price, current vesting schedule and all of the other terms and conditions as set forth in the relevant agreement related to such eligible options. (See Section 6, "Acceptance of Options for Exchange and Granting of Restricted Stock Units.")

Q17. How does MKS determine whether an eligible option has been properly tendered?

A17. We will determine, in our discretion, all questions about the validity, form, eligibility (including time of receipt) and acceptance of any eligible options. Our determination of these matters will be final and binding on all persons. We reserve the right to reject any election form or any eligible options tendered for exchange that we determine are not in an appropriate form or are unlawful to accept. We will accept all properly tendered eligible options that are not validly withdrawn, subject to the terms of the exchange offer; provided, however, that we will not accept tendered eligible options that would result in zero RSUs being granted. No tender of eligible options will be deemed to have been made properly until all defects or irregularities have been cured or waived by us. Neither we nor any other person is obligated to give you notice of any defects or irregularities in any electronic election or paper election form, nor will anyone incur any liability for failure to give any notice. (See Section 4, "Procedures for Electing to Exchange Options.")

Q18. Will I have to pay taxes if I participate in the exchange offer?

A18. If you participate in the exchange offer and are a U.S. taxpayer, you generally will not be required under current U.S. law to recognize income for U.S. federal income tax purposes at the time of the exchange. However, you will have taxable income when your RSUs vest in an amount equal to the fair market value of the MKS shares on the vesting date. MKS has a withholding obligation with respect to this compensation income. In order for you to be issued shares of common stock when your RSUs vest, you must make satisfactory arrangements with respect to the payment of income, employment and other taxes that MKS determines must be withheld with respect to such shares. The RSU agreement provides that MKS will automatically deduct and retain from the shares of common stock that would otherwise be issued in settlement of RSUs the appropriate number of whole shares, valued at their then fair market value, to satisfy our tax withholding obligations at the applicable minimum statutory withholding rate. You will have taxable capital gain (or loss) when you sell the shares underlying the RSUs in the amount by which the sale price for the shares exceeds (or is less than) the fair market value of the shares on the vesting date. Note that the tax treatment of RSUs is significantly different from the tax

treatment of your eligible options, and participating in the exchange offer could result in your tax liability being higher than if you had kept your eligible options or you having income in a year that you had not expected. (See "Risks of Participating in the Exchange Offer.") Please see Section 14 ("Material Income Tax Consequences") for a description of the general tax consequences associated with options and RSUs.

If you participate in the exchange offer and are subject to tax or social insurance contributions in Germany, Japan or the United Kingdom, please refer to Schedules C, D and E of this exchange offer for a description of the tax and social insurance consequences that may apply to you.

You should consult with your tax advisor to determine the personal tax consequences to you of participating in the exchange offer. If you are a resident of or subject to the tax laws in more than one country, you should be aware that there may be additional or different tax and social insurance consequences that may apply to you.

Q19. Are there any conditions to the exchange offer?

A19. Yes. The completion of the exchange offer is subject to a number of customary conditions that are described in Section 7 ("Conditions of the Exchange Offer"). If any of these conditions are not satisfied, we will not be obligated to accept and exchange properly tendered eligible options, though we may do so at our discretion.

Q20. If you extend the exchange offer, how will you notify me?

A20. If we extend the exchange offer, we will issue an e-mail or other form of communication disclosing the extension no later than 6:00 a.m., Eastern Time, on the next business day following the previously scheduled expiration date. (See Sections 2, "Number of Restricted Stock Units; Expiration Time" and 15, "Extension of the Exchange Offer; Termination; Amendment.")

Q21. How will you notify me if the exchange offer is changed?

A21. If we change the exchange offer, we will issue an e-mail or other form of communication disclosing the change no later than 6:00 a.m., Eastern Time, on the next business day following the date on which we change the exchange offer. (See Sections 2, "Number of Restricted Stock Units; Expiration Time," and 15, "Extension of the Exchange Offer; Termination; Amendment.")

Q22. Can I change my mind and withdraw from the exchange offer?

A22. Yes. You may change your mind after you have submitted an election and withdraw some or all of your eligible options from the exchange offer at any time before the expiration time (expected to be August 28, 2009). Please note, however, that withdrawals must be made on a grant-by-grant basis. This means you cannot withdraw one option received pursuant to a particular option grant without also withdrawing all other options received pursuant to such option grant. If we extend the expiration time, you may withdraw your election at any time until the extended offer expires. You may change your mind as many times as you wish, but you will be bound by the last properly submitted election and/or withdrawal we receive before the expiration time. Although we do not expect this to occur, under SEC rules governing the exchange offer, if we have not accepted your properly tendered eligible options by 11:59 p.m., Eastern Time, on September 28, 2009, you may withdraw your eligible options at any time thereafter. (See Section 5, "Withdrawal Rights and Change of Election.")

Q23. Can I change my mind about which eligible options I want to exchange?

A23. Yes. You may change your mind after you have submitted an election and change the eligible options you tender for exchange at any time before the expiration time. If we extend the expiration time, you may change your election at any time until the extended offer expires. You may elect to exchange additional eligible options, fewer eligible options, all of your eligible options or none of your eligible options. You may change your mind as many times as you wish, but you will be bound by the last properly submitted election we receive before the expiration time. (See Section 4, "Procedures for Electing to Exchange Options" and Section 5, "Withdrawal Rights and Change of Election.")

Q24. How do I change my election?

- A24. To change your election, you must do the following before the expiration time:
 - access the exchange offer website at https://mks.optionelection.com and complete a new electronic election form; or
 - although we encourage you to submit your election electronically via the exchange offer website, if you are unable to do so for any reason, including technical failures of the exchange offer website such as the exchange offer website being unavailable or the exchange offer website not accepting your election, you must complete a paper election form and return it via fax at (978) 557-5124 or e-mail to Marlene Maffe, the MKS stock plan administrator, at marlene_maffe@mksinst.com (via PDF or similar imaged document file). To obtain a paper election form please e-mail Marlene Maffe at marlene_maffe@mksinst.com or call (978) 645-5654. You can also view and print the election form at https://mks.optionelection.com.

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Q25. What if I withdraw my election and then decide again that I want to participate in the exchange offer?

A25. If you have withdrawn your election to participate and then decide again that you would like to participate in the exchange offer, you may re-elect to participate by submitting a new, properly completed electronic election form (or faxed or e-mailed form) accepting the exchange offer before the expiration time, in accordance with the procedures described in Question 5 and Section 5 ("Withdrawal Rights and Change of Election").

Q26. Are you making any recommendation as to whether I should exchange my eligible options?

A26. No. We are not making any recommendation as to whether you should accept the exchange offer. We understand that the decision whether or not to exchange your eligible options in the exchange offer will be a challenging one for many employees. The program does carry risk, and there are no guarantees that you ultimately would receive greater value from the RSUs you will receive in exchange than you would if you had retained your corresponding options. (See "Risks of Participating in the Exchange Offer" for information regarding some of these risks.) As a result, you must make your own decision as to whether or not to participate in the exchange offer. For questions regarding personal tax implications or other investment- or tax-related questions, you should talk to your legal counsel, accountant, and/or financial advisor.

Q27. Whom can I contact if I have questions about the exchange offer, or if I need additional copies of the exchange offer materials?

A27. You should direct questions about the exchange offer and requests for additional copies of exchange offer materials to Marlene Maffe, the MKS stock plan administrator, at marlene_maffe@mksinst.com or (978) 645-5654. (See Section 10, "Information Concerning MKS; Financial Information.")

Q28. What will be the sequence of events should I decide to participate in this exchange offer?

Exchange Election Period	You may elect to participate in this exchange offer during this time.	From August 3, 2009 until August 28, 2009 at 11:59 p.m., Eastern Time, unless the exchange offer is extended or terminated.
Determination of Final Exchange Ratios and Number of RSUs	We will determine the exchange ratios based on the closing price of our common stock on August 28, 2009 unless we extend the exchange offer. We will notify you of the exact exchange ratios and the number of RSUs you will receive after 4:00 p.m., Eastern Time, on the day the exchange offer expires.	After 4:00 p.m., Eastern Time, on August 28, 2009, unless the exchange offer is extended or terminated.
Conference Call	We will host a conference call for all eligible employees both as a further means of disclosing the final exchange ratios and to answer any remaining questions that you may have.	5:30 p.m., Eastern Time, on August 28, 2009, unless the exchange offer is extended or terminated.
Cancellation Date and RSU Grant Date	All elections and withdrawals will be final as of 11:59 p.m., Eastern Time, on the day the exchange offer expires, and this is when exchanged options will be cancelled and RSUs will be granted.	August 28, 2009, unless the exchange offer is extended or terminated.

RISKS OF PARTICIPATING IN THE EXCHANGE OFFER

Participating in the exchange offer involves a number of risks, including those described below. This list and the risk factors in our Annual Report on Form 10-K for the year ended December 31, 2008, and in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2009, filed with the SEC highlight the material risks relating to MKS. You should carefully consider these risks and are encouraged to speak with an investment and/or tax advisor, as necessary, before deciding whether or not to participate in the exchange offer. In addition, we strongly urge you to read the sections in this exchange offer discussing the U.S. federal tax consequences of participating in the exchange offer, as well as the rest of this exchange offer, for a more in-depth discussion of the risks that may apply to you before deciding to participate in the exchange offer.

Economic Risks

If the price of our common stock increases after the date on which your eligible options are cancelled, your cancelled eligible options might have been worth more than the RSUs that you receive in exchange for them.

For example, using the hypothetical exchange ratios in the table in Section 2, if you exchange an eligible option grant covering 1,000 shares with an exercise price of \$29.25 per share, you would receive 17 RSUs (i.e., 1,000 divided by the exchange ratio of 57.3 applicable to the eligible option grant rounded down to the nearest whole share). Assume, for illustrative purposes only that, one year after the RSU grant date, the fair market value of our common stock had increased to \$39.25 per share. Under this example, if you had kept your exchanged eligible option, exercised it, and sold the underlying shares at \$39.25 per share, you would have realized a pre-tax income of \$10,000, but if you exchanged your eligible option and sold the RSUs for \$39.25 per share, you would only realize a pre-tax income of \$667.25.

Once you have tendered your eligible option and we have accepted it for exchange, there will be no way to return your surrendered eligible option to you even if the fair market value of our common stock on the RSU grant date exceeds the exercise price of your surrendered eligible option.

Any RSU you receive in the exchange offer will be completely unvested at the time it is granted, regardless of the extent to which the corresponding eligible option was vested upon surrender. This means that you will be vested in fewer shares under your RSU and that if your employment with us terminates during that new vesting period (other than as a result of retirement, death or disability), or if the RSU otherwise terminates under certain circumstances during the vesting period, you might have been better off if you had continued holding the eligible option rather than exchanging it for a RSU.

The RSUs will have a vesting period of one year. (See Section 9, "Source and Amount of Consideration; Terms of Restricted Stock Units.") Vesting of the RSUs will be conditioned upon your continued service with us, subject to limited exceptions for retirement, death or disability. This means that you will generally be required to remain employed with MKS for one year after the RSU grant date in order to be vested in the RSUs.

If your employment with us terminates for any reason (other than as a result of retirement, death or disability) during the vesting period of your RSU, you will forfeit your RSUs at that time.

You should carefully consider the relative benefit to you of the extent to which your eligible options have already vested, compared to the benefit of a RSU with a vesting period of one year. If our stock price increases in the future to a value above the exercise price of an eligible option you surrendered in the exchange offer, you may have been better off retaining the eligible option with its higher price and current vesting schedule rather than having tendered it for the RSU with a new vesting schedule.

The exchange offer is not a promise of continued employment for any length of time. The exchange offer does not change the "at-will" nature of your employment. Your employment may be terminated by us or by you at any time, including prior to the expiration time, the RSU grant date or the date your RSU becomes vested, for any reason, with or without cause.

If we are acquired by or merge with another company, your cancelled eligible options might have been worth more than the RSU that you receive in exchange for them.

A transaction involving us, such as a merger or other acquisition, could have a substantial effect on our stock price, including significantly increasing the price of our common stock. Depending on the structure and terms of this type of transaction, eligible employees who elect to exchange their eligible options in the exchange offer might be deprived of the benefit of the appreciation in the price of our common stock resulting from the merger or acquisition. This could result in a greater financial benefit for those eligible employees who did not participate in the exchange offer and retained their eligible options.

Tax-Related Risks

We believe that the exchange of eligible options for RSUs pursuant to the exchange offer should be treated as a non-taxable exchange and neither we nor any of our employees should recognize any income for U.S. federal income tax purposes upon the surrender of eligible options and the grant of RSUs.

If you participate in this exchange offer, you should not recognize any income or be subject to income tax withholding upon the cancellation of your eligible options and receipt of your RSUs. However, in connection with the issuance of shares on the date that your RSUs vest, you will recognize income equal to the fair market value of the shares received, and we will generally have a corresponding deduction at the time you recognize income. When shares are delivered to you under your RSUs, you must make adequate provision for any sums required to satisfy applicable federal, state, local and foreign tax withholding obligations. The RSU agreement provides that MKS will automatically deduct and retain from the shares of common stock that would otherwise be issued in settlement of RSUs the appropriate number of whole shares, valued at their then fair market value, to satisfy our tax withholding obligations at the applicable minimum statutory withholding rate. Unless the foregoing tax withholding obligations are satisfied, we have no obligation to deliver any shares to you under your RSUs. You will have taxable income when you sell the shares delivered to you under your RSUs.

Business-Related Risks

In addition to the risks discussed above, you should carefully review the risk factors contained in our Annual Report on Form 10-K for the year ended December 31, 2008, and our Quarterly Report on Form 10-Q for the quarter ended March 31, 2009, as well as the information provided in this exchange offer and the other materials that we have filed with the SEC, before making a decision on whether or not to tender your eligible options. These filings and our other SEC filings may be examined, and copies may be obtained, at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the public reference room by calling the SEC at 1-800-SEC-0330. Our SEC filings also are available to the public on the SEC's Internet site at http://www.sec.gov. Each person to whom a copy of this exchange offer is delivered may obtain a copy of any or all of the documents to which we have referred you, other than exhibits to such documents, unless such exhibits are specifically incorporated by reference into such documents, at no cost, by writing to us at MKS Instruments, Inc., 2 Tech Drive, Suite 201, Andover, MA 01810, Attention: Marlene Maffe.

THE EXCHANGE OFFER

MKS Instruments, Inc., which we refer to herein as "MKS," "we," "our" or "us," by this Offer to Exchange Certain Stock Options for Restricted Stock Units, or the exchange offer, is offering to our eligible employees the opportunity to voluntarily exchange eligible options for restricted stock units, or RSUs, granted under our 2004 Stock Incentive Plan, as amended. This exchange offer and withdrawal rights will expire at the "expiration time," which is 11:59 p.m., Eastern Time, on August 28, 2009 unless we extend the exchange offer.

Section 1. Eligibility.

You are an "eligible employee" if you are:

- an employee of MKS or one of our subsidiaries located in the United States, Germany, Japan or the United Kingdom;
- employed on the date the exchange offer commences and remain employed through the date the RSUs are granted, hereinafter referred to as the RSU grant date;
- eligible to participate in the 2004 Stock Incentive Plan, as amended; and
- not an executive officer or a member of our board of directors.

Employees located in countries other than the United States, Germany, Japan and the United Kingdom are not eligible to participate in the exchange offer.

"Eligible options" are stock options held by eligible employees that were granted under our Second Restated 1995 Stock Incentive Plan and have a per share exercise price greater than \$23.35, which is the highest closing price of our common stock on Nasdaq in the 52-week period preceding the commencement date of the exchange offer.

For purposes of the exchange offer, the term "option" generally refers to an option to purchase one share of our common stock, and the term "option grant" refers to each grant of one or more options. You will be permitted to exchange your eligible stock options for RSUs on a grant-by-grant basis. No partial exchanges of a stock option grant will be permitted. If you elect to exchange an eligible option grant, you must exchange the entire outstanding (i.e., unexercised) portion of that eligible option grant. Eligible options properly tendered in this exchange offer and accepted by us for exchange will be cancelled and the RSUs granted immediately upon the expiration time.

If you do not remain employed by MKS through the RSU grant date, you will keep your current eligible options, and they will vest and expire in accordance with their terms. If we do not extend the exchange offer, the RSU grant date will be August 28, 2009. Except as provided by applicable law and/or any employment agreement between you and MKS, your employment with MKS will remain "at-will" and can be terminated by you or MKS at any time, with or without cause or notice. In order to vest in your RSUs, you must remain in continued service with MKS through the vesting date. If your employment with us terminates for any reason (other than as a result of retirement, death or disability) during the vesting period of your RSU, you will forfeit your RSUs at that time. See Section 9 ("Source and Amount of Consideration; Terms of Restricted Stock Units").

Nothing in this exchange offer should be construed to confer upon you the right to remain an employee of MKS or one of our subsidiaries. The terms of your employment with us remain

unchanged. We cannot guarantee or provide you with any assurance that you will not be subject to involuntary termination or that you will otherwise remain in our employ until the RSU grant date or thereafter.

Section 2. Number of Restricted Stock Units; Expiration Time.

Subject to the terms and conditions of the exchange offer, we will accept for exchange options granted with a per share exercise price greater than \$23.35, which is the highest closing price of our common stock on Nasdaq in the 52-week period preceding the commencement date of the exchange offer, that (i) are held by eligible employees, (ii) are outstanding and unexercised as of the expiration time and (iii) are properly tendered and not validly withdrawn before the expiration time; provided, however, we will not accept tendered eligible options that would result in zero RSUs being granted. In order to be eligible, options must be outstanding as of the expiration time. For example, if an option expires during the offer period, that particular option is not eligible for exchange.

For a complete listing of your options, including any eligible options you may have, please refer to your account at http://www.netbenefits.com (employees outside the U.S. should click on the "login to NetBenefits Worldwide" link). Your account also lists the grant date of your options, the exercise price of your options and the number of shares subject to your option grants. Please note that not all of your options may be eligible for exchange.

As noted above, for purposes of the exchange offer, the term "option" refers to an option to purchase one share of our common stock, and the term "option grant" refers to each grant of one or more options. You will be permitted to exchange your eligible stock options for RSUs on a grant-by-grant basis. No partial exchanges of a stock option grant will be permitted. If you elect to exchange an eligible option grant, you must exchange the entire outstanding (i.e., unexercised) portion of that eligible option grant. For example, assume that you have received options pursuant to three separate option grants. In the first grant, you received 1,000 options, 700 of which have been exercised and 300 of which remain outstanding. In the second grant, you received 1,000 options, none of which have been exercised, and in the third grant, you received 3,000 options, none of which have been exercised. Under this scenario, you may choose to exchange all of the eligible options received pursuant to any one of the three grants, all of the eligible options received pursuant to any one of the three grants, or none of the eligible options. However, you may not choose to exchange less than all of the eligible options received pursuant to any one or more of such grants (such as an election to exchange only 150 of the remaining 300 options received pursuant to the first grant).

However, the rule above will not apply to any options subject to a domestic relations order (or comparable legal document resulting in the end of marriage) to the extent that such options are beneficially owned by a person who is not an employee of MKS. Any such options may not be exchanged pursuant to the exchange offer, even if title to such options is held by an eligible employee. The options beneficially owned by the eligible employee may be tendered in the exchange offer if eligible, but only if all such options received pursuant to the same grant are tendered at the same time. For instance, if the 3,000 options received pursuant to the third grant above are subject to a domestic relations order such that your former spouse is the beneficial owner of 1,000 of such options and you are beneficial owner of 2,000 of such options, then you may elect to participate in the exchange offer and exchange all 2,000 options that you beneficially own and that were received as part of the same option grant.

Exchange Ratios.

If you are an eligible employee and choose to participate in the exchange offer and surrender eligible options for exchange, and if we accept your surrendered eligible options, you will receive RSUs with the following terms:

- you will receive RSUs for a lesser number of shares of common stock than the cancelled eligible options that you tender. The number of RSUs will be determined using an exchange ratio that is intended to ensure that the fair value, for accounting purposes, of the RSUs is approximately equal to the fair value of the eligible option tendered for exchange at the time the RSUs are granted. The number of RSUs to be granted in exchange for each eligible option will be that number of RSUs (rounded down to the nearest whole) that would be derived by dividing the fair value of such eligible option grant (determined using the Black-Scholes option valuation model) by the closing sale price of our common stock on the day the exchange offer expires. The Black-Scholes option valuation model used to value eligible option grants will take into account (i) the closing price of our common stock on Nasdaq on the day the exchange offer expires, (ii) the exercise price of the option grant, (iii) the expected volatility of our common stock over the projected life of the option grant, (iv) the estimated expected life of the option grant, (v) the risk-free interest rate over the projected life of the option grant and (vi) the expected dividends on our common stock. Because the Black-Scholes valuation model takes into account certain assumptions on the day the exchange offer expires, including the closing price of our common stock, the Black-Scholes value of the tendered eligible options, the exact exchange ratios and number of RSUs to be granted will not be known until shortly after 4:00 p.m., Eastern Time, on the day the exchange offer expires. Set forth below is a table identifying hypothetical exchange ratios that would be used in the exchange offer assuming various closing prices of our common stock on the day the exchange offer expires. After 4:00 p.m., Eastern Time, on the day the exchange offer expires, we will distribute by e-mail (or other method) to all eligible employees the exact ratios to be used in the exchange offer. The exchange ratios separately apply to each eligible option grant based upon the exercise price and grant date of such option grants. This means that if you hold various eligible options grants, each may be subject to different exchange ratios;
- the RSUs will be granted under our 2004 Stock Incentive Plan, as amended; and
- the RSUs will have a vesting period of one year. (See Section 9, "Source and Amount of Consideration; Terms of Restricted Stock Units.") Vesting of the RSUs will be conditioned upon your continued service with us, subject to limited exceptions for retirement, death or disability. This means that you will generally be required to remain employed with MKS for one year after the RSU grant date in order to be vested in the RSUs.

We will grant the RSUs immediately upon the expiration time, which we expect to be 11:59 p.m., Eastern Time, on August 28, 2009. If the expiration time is extended, the RSU grant date will be similarly extended.

Due to the Black-Scholes valuation model, some eligible options will have exchange ratios that are so high that the number of RSUs that would be granted for any outstanding option grant would be zero. We strongly encourage you to:

• use the calculator on the exchange offer website to determine the number of RSUs that would be granted to you in exchange for each of your eligible option grants based upon the hypothetical exchange ratios; and

• when we provide you with the final exchange ratios, review and reconsider the number of RSUs that would be granted to you based up any election that you previously submitted.

We will not accept tendered eligible options that would result in zero RSUs being granted.

Table of Hypothetical Exchange Ratios Based on Various Assumed Closing Prices of Our Common Stock on August 28, 2009

In the following table, we have assumed that the closing price of our common stock on Nasdaq on the day the exchange offer expires will be \$17.00, which is equal to the trailing average closing price of our common stock for the 10-trading day period prior to July 24, 2009, rounded to the nearest dollar. We have also included additional closing prices that represent both 10% (\$18.70), 20% (\$20.40) and 30% (\$22.10) increases and 10% (\$15.30), 20% (\$13.60) and 30% (\$11.90) decreases to such assumed closing price. The valuation model underlying the table below assumes a volatility spread of up to 52%.

					Exchange Ratio	o(1)		
Gran Date Optio	of Price of	Assumed Closing Price of \$11.90	Assumed Closing Price of \$13.60	Assumed Closing Price of \$15.30	Assumed Closing Price of \$17.00	Assumed Closing Price of \$18.70	Assumed Closing Price of \$20.40	Assumed Closing Price of \$22.10
1/4/2	000 \$32.00	*	*	*	6136.4 to 1	1554.7 to 1	511.6 to 1	206.6 to 1
4/24/2	000 \$41.88	*	*	*	*	*	901.4 to 1	429.2 to 1
5/1/2	000 \$50.81	*	*	*	*	*	*	2489.9 to 1
5/5/2	000 \$48.62	*	*	*	*	*	3323.1 to 1	1458.7 to 1
5/30/2	000 \$41.50	*	*	*	2588.4 to 1	1038 to 1	481.7 to 1	251.1 to 1
6/30/2	000 \$39.13	*	*	*	900 to 1	409.5 to 1	211.5 to 1	120.8 to 1
7/21/2	000 \$32.25	2847.9 to 1	877.3 to 1	344.6 to 1	161.9 to 1	87.1 to 1	52.1 to 1	33.9 to 1
9/6/2	000 \$29.50	702.6 to 1	266.5 to 1	123.7 to 1	66.7 to 1	40.2 to 1	26.4 to 1	18.6 to 1
9/25/2	000 \$29.25	538.3 to 1	214.2 to 1	103.3 to 1	57.3 to 1	35.4 to 1	23.8 to 1	17 to 1
4/27/2	001 \$24.62	54.2 to 1	31.3 to 1	20.2 to 1	14.2 to 1	10.6 to 1	8.4 to 1	6.8 to 1
5/30/2	001 \$25.86	59.4 to 1	34.3 to 1	22.2 to 1	15.6 to 1	11.6 to 1	9.1 to 1	7.4 to 1
7/30/2	001 \$26.50	53.2 to 1	31.7 to 1	21 to 1	15 to 1	11.3 to 1	9 to 1	7.4 to 1
8/13/2	001 \$26.77	52.9 to 1	31.7 to 1	21 to 1	15.1 to 1	11.4 to 1	9.1 to 1	7.4 to 1
11/14/2	001 \$24.50	29.4 to 1	19.1 to 1	13.5 to 1	10.2 to 1	8.1 to 1	6.6 to 1	5.6 to 1
1/30/2	002 \$23.50	21.8 to 1	14.8 to 1	10.8 to 1	8.4 to 1	6.8 to 1	5.7 to 1	4.9 to 1
1/31/2	002 \$24.03	23.3 to 1	15.7 to 1	11.4 to 1	8.9 to 1	7.2 to 1	6 to 1	5.1 to 1
2/1/2	002 \$23.85	22.7 to 1	15.4 to 1	11.2 to 1	8.7 to 1	7 to 1	5.9 to 1	5.1 to 1
2/11/2	002 \$25.90	28.9 to 1	19.1 to 1	13.7 to 1	10.5 to 1	8.3 to 1	6.9 to 1	5.9 to 1
3/5/2	002 \$30.02	45.1 to 1	28.8 to 1	20 to 1	14.9 to 1	11.6 to 1	9.4 to 1	7.8 to 1
3/25/2	002 \$32.00	53.7 to 1	33.9 to 1	23.4 to 1	17.2 to 1	13.3 to 1	10.7 to 1	8.8 to 1
6/3/2	002 \$27.87	28.8 to 1	19.4 to 1	14.1 to 1	10.9 to 1	8.8 to 1	7.3 to 1	6.2 to 1
11/11/2	003 \$27.11	12.6 to 1	9.7 to 1	7.8 to 1	6.5 to 1	5.6 to 1	4.9 to 1	4.4 to 1
12/3/2	003 \$26.86	12.1 to 1	9.3 to 1	7.5 to 1	6.3 to 1	5.4 to 1	4.8 to 1	4.3 to 1
1/5/2	004 \$29.93	14.7 to 1	11.2 to 1	8.9 to 1	7.4 to 1	6.3 to 1	5.5 to 1	4.9 to 1
3/1/2	004 \$24.35	9.2 to 1	7.3 to 1	6 to 1	5.1 to 1	4.5 to 1	4 to 1	3.6 to 1

⁽¹⁾ Ratio of number of eligible options surrendered to the number of RSUs to be issued in exchange therefor.

^{*} Due to the Black-Scholes valuation model we are using, at the assumed closing price shown above, eligible options granted at this exercise price will have an exchange ratio that is so high that the number of RSUs that

would be granted in exchange for any outstanding option grant would be zero. We will not accept tendered eligible options that would result in zero RSUs being granted.

The following are illustrative examples based upon the foregoing table, assuming no other changes in the Black-Scholes assumptions underlying the table above:

- assuming that the closing price of our common stock on the day the exchange offer expires is \$17.00, an eligible option to purchase 1,000 shares with a per share exercise price of \$29.25 will have an exchange ratio of 57.3:1. Therefore, this eligible option will be exchangeable for 17 RSUs, which is equal to the number of shares underlying the eligible option, or 1,000, divided by 57.3, rounded down to the nearest whole share.
- assuming that the closing price of our common stock on the day the exchange offer expires is \$20.40, an eligible option to purchase 5,000 shares with a per share exercise price of \$48.62 will have an exchange ratio of 3323.1:1. Therefore, this eligible option would be exchangeable for one RSU, which is equal to the number of shares underlying the eligible option, or 5,000, divided by 3323.1, rounded down to the nearest whole share.
- assuming that the closing price of our common stock on the day the exchange offer expires is \$20.40, an eligible option to purchase 1,000 shares with a per share exercise price of \$48.62 will have an exchange ratio of 3323.1:1. Therefore, this eligible option would be exchangeable for zero RSUs, which is equal to the number of shares underlying the eligible option, or 1,000, divided by 3323.1, rounded to the nearest whole share. Because the number of RSUs that would be granted is zero, we will not accept this option for exchange.

The exchange ratios shown in the table above illustrate the difference between the relatively lower estimated fair values of eligible options with higher exercise prices compared to the correspondingly higher estimated fair values of eligible options with lower exercise prices. The exchange ratios are derived from the eligible option's fair value using the Black-Scholes valuation model that weighs, among other things, exercise price and remaining term to expiration. The higher the eligible option's exercise price and the lower the closing price of our common stock on the day the exchange offer expires, the higher the exchange ratio will be, resulting in fewer RSUs. Similarly, options with longer terms to expiration result in lower exchange ratios and more RSUs.

The commencement date of this exchange offer is August 3, 2009. We are making this exchange offer upon the terms and subject to the conditions described in this exchange offer document and in the related Election Form distributed with this exchange offer document and available on the exchange offer website. You are not required to accept this exchange offer. You will be permitted to exchange your eligible stock options for RSUs on a grant-by-grant basis. No partial exchanges of a stock option grant will be permitted. If you elect to exchange an eligible option grant, you must exchange the entire outstanding (i.e., unexercised) portion of that eligible option grant. Eligible options properly tendered in this exchange offer and accepted by us for exchange will be cancelled and the RSUs granted as of the day the exchange offer expires of this exchange offer.

Our common stock is traded on Nasdaq under the symbol "MKSI." On July 31, 2009, the closing price of our common stock was \$19.37 per share. You should evaluate the risks related to our business, our common stock, and this exchange offer, and review current market quotes for our common stock, among other factors, before deciding to participate in the exchange offer. All RSUs will be subject to the terms of a RSU agreement between you and MKS under our 2004 Stock Incentive Plan, as amended. See Section 9 ("Source and Amount of Consideration; Terms of Restricted Stock Units").

The expiration time of the exchange offer will be 11:59 p.m., Eastern Time, on August 28, 2009, unless we extend the exchange offer. We may, in our discretion, extend the exchange offer, in which event the expiration time will refer to the latest time and date at which the extended offer expires. See Section 15 ("Extension of the Exchange Offer; Termination; Amendment") for a description of our rights to extend, terminate and amend the exchange offer.

Section 3. Purposes of the Exchange Offer.

Many of our employees now hold stock options with exercise prices significantly higher than the current market price of our common stock. For example, on July 31, 2009, the closing price of our common stock on Nasdaq was \$19.37 per share. On that date, holders of eligible options held an aggregate of 2,060,133 options, over 70% of which were "underwater," meaning that the exercise price of the outstanding stock option was higher than the market price for our common stock. On July 31, 2009, the weighted average exercise price of our eligible options was \$26.79. Although we continue to believe that equity awards are an important component of our employees' total compensation, many of our employees view their existing options as having little or no value due to the difference between the exercise prices and the current market price of our common stock. As a result, for many employees, these options are ineffective at providing the incentive and retentive values that our board of directors believes are necessary to motivate our employees and to increase long-term shareholder value. We believe that the exchange offer provides the following benefits:

- the exchange offer will provide renewed incentives and motivation for the eligible employees to contribute to achieving future stock price growth. By realigning the value of previously granted stock options with the current value of our common stock, based on the exchange ratios described in Section 2 ("Number of Restricted Stock Units; Expiration Time"), we believe that the RSUs will become an important tool to help motivate the eligible employees to continue to create shareholder value;
- the exchange offer is designed to benefit our shareholders by providing renewed retention value due to the extended vesting terms of the RSUs. All of the eligible options will be fully vested at the expiration time. The RSUs will have a new 12-month vesting period, thus providing an incentive for eligible employees to continue their employment;
- the exchange offer will also enable us to recapture value from compensation costs that we already are incurring with respect to outstanding equity awards that currently have very little motivational impact. By replacing options that have little or no retentive or incentive value with a lesser number of RSUs, we will increase the retentive and incentive value of equity awards for which we have already incurred costs. In addition, replacing these options will not create additional compensation expense; and
- outstanding underwater options expose our shareholders to potential dilution and may place downward pressure on our stock price even if they are underwater and not likely to be exercised. This potential dilution and downward pressure caused by outstanding stock options is referred to as overhang. We estimate a reduction in our overhang of outstanding stock options of approximately 1,288,027 shares as a result of granting a lesser number of RSUs in exchange for the eligible options, assuming (a) full participation in the exchange offer, (b) an assumed closing price of our common stock of \$17.00 per share and (c) exchange ratios that have been calculated in accordance with the Black-Scholes option valuation model described in Section 2. The actual reduction in our total overhang that could result from the

exchange offer could vary significantly and is dependent upon a number of factors, including the actual level of participation in the exchange offer.

MKS continually evaluates and explores strategic opportunities as they arise, including business combination transactions, strategic partnerships, capital infusions and the purchase of sale of assets. At any given time, we may be engaged in discussions or negotiations with respect to various corporate transactions. We also grant stock options and other stock awards, including restricted stock units and restricted stock grants, in the ordinary course of business to our current and new employees, including our executive officers. Our employees, including our executive officers, from time to time acquire or dispose of our securities. Additionally, in the ordinary course of business, MKS makes changes in the composition and structure of its board of directors and/or management. Subject to the foregoing, and except as otherwise disclosed in the exchange offer materials or in our filings with the SEC, we presently have no plans or proposals that relate to or would result in:

- any extraordinary transaction, such as a material merger, reorganization or liquidation, involving MKS or any of its subsidiaries;
- any purchase, sale or transfer of a material amount of our assets or the assets of any of our subsidiaries;
- any material change in our present dividend rate or policy, or our indebtedness or capitalization;
- any change in our present board of directors or management, including, but not limited to, any plans or proposals to change the number or term of
 directors or to fill any existing board vacancies or to change any material term of the employment contract of any executive officer;
- any other material change in our corporate structure or business;
- our common stock being delisted from Nasdaq or not being authorized for quotation in an automated quotation system operated by a national securities association;
- our common stock becoming eligible for termination of registration pursuant to Section 12(g)(4) of the Securities Exchange Act of 1934, as amended, or the Exchange Act;
- the suspension of our obligation to file reports pursuant to Section 15(d) of the Exchange Act;
- the acquisition by any person of additional of our securities or the disposition of our securities; or
- any changes in our certificate of incorporation or bylaws, or any actions that may impede the acquisition of control of us by any person.

Neither we nor our board of directors makes any recommendation as to whether you should accept the exchange offer, nor have we authorized any person to make any such recommendation. You should evaluate carefully all of the information in this exchange offer and consult your investment and tax advisors. You must make your own decision about whether to participate in the exchange offer.

Section 4. Procedures for Electing to Exchange Options.

Proper Election to Exchange Options.

Participation in the exchange offer is voluntary. If you are an eligible employee and you wish to surrender any of your eligible options for exchange in the exchange offer, you must notify MKS of your election before the exchange offer expires at 11:59 p.m., Eastern Time, on August 28, 2009 (or such later date as may apply if the exchange offer is extended). If we extend the exchange offer beyond that time, you may surrender your eligible options for exchange at any time until the extended expiration time.

You will be permitted to exchange your eligible stock options for RSUs on a grant-by-grant basis. No partial exchanges of a stock option grant will be permitted. If you elect to exchange an eligible option grant, you must exchange the entire outstanding (i.e., unexercised) portion of that eligible option grant. If you elect to surrender one eligible option grant in the exchange offer, you do not need to surrender any other eligible option grants you may hold. If you attempt to exchange a portion but not all of an outstanding eligible option grant, your election form will be rejected.

You must notify MKS of your election to exchange such eligible options before the exchange offer expires. You may notify MKS of your election in one of the following two ways:

- by making an election online at the exchange offer website, which is available at https://mks.optionelection.com. Your online election must be submitted before the expiration deadline of 11:59 p.m., Eastern Time, on August 28, 2009 (or such later date as may apply if the exchange offer is extended); or
- by completing and returning the paper election form included in the materials provided to you with this exchange offer document and delivering it to MKS according to the instructions contained in the materials so that MKS receives it before the expiration deadline of 11:59 p.m., Eastern Time, on August 28, 2009 (or such later date as may apply if the exchange offer is extended).

You must allow for delivery time based on the method of submission that you choose to ensure that MKS receives your election form by the deadline.

We encourage you to submit your election electronically via the exchange offer website. Only responses that are complete and actually received by MKS (whether via the exchange offer website or via fax or e-mail) by the expiration time will be accepted. Responses submitted by any other means, including hand delivery, interoffice, U.S. mail (or other post) and Federal Express (or similar delivery service) are not permitted. The delivery of all documents, including election forms and withdrawal forms, is at your risk. If you make an election or withdrawal via the exchange offer website, you will receive a website confirmation. If you make an election or withdrawal via fax or e-mail, MKS will confirm the receipt of your election or withdrawal within two business days. If you have not received a confirmation, it is your responsibility to send an e-mail to Marlene Maffe at marlene_maffe@mksinst.com or call (978) 645-5654.

You must complete the election process in the foregoing manner before 11:59 p.m., Eastern Time, on August 28, 2009. If we extend the exchange offer beyond that date, you must complete the process before the extended expiration time.

You may change your mind about which of your eligible options you wish to have exchanged. If you wish to add additional eligible options to your election, you must complete and submit a new election

form before the expiration time by following the procedures described above. This new election form must be properly completed and dated after your prior election form and must list all eligible options you wish to exchange. Any prior election form will be disregarded. If, instead, you wish to withdraw some or all of the eligible options you selected for exchange, you may do so at any time before the expiration time by following the procedures described in Section 5 ("Withdrawal Rights and Change of Election").

Your election to participate becomes irrevocable after 11:59 p.m., Eastern Time, on August 28, 2009, unless we extend the exchange offer, in which case your election will become irrevocable after 11:59 p.m., Eastern Time, on the new expiration date. The exception to this rule is that if we have not accepted your properly tendered options by 11:59 p.m., Eastern Time, on September 28, 2009, you may withdraw your options at any time thereafter. You may change your mind after you have submitted an election form and withdraw from the exchange offer at any time before the expiration time, as described in Section 5 ("Withdrawal Rights and Change of Election"). You may change your mind as many times as you wish, but you will be bound by the last properly submitted election form we receive before the expiration time.

This is a one-time offer, and we are required to and will strictly enforce the expiration time. Elections after the expiration time will not be honored under any circumstances. We reserve the right to reject any eligible options tendered for exchange that we determine are not in appropriate form or are unlawful to accept. We will not accept tendered eligible options that would result in zero RSUs being granted. Subject to the terms and conditions of the exchange offer, we will accept all properly tendered options promptly after the expiration time.

We may extend the exchange offer. If we extend the exchange offer, we will issue an e-mail or other communication disclosing the extension no later than 6:00 a.m., Eastern Time, on the business day immediately following the previously scheduled expiration time.

Our receipt of your Election Form is not by itself an acceptance of your options for exchange. For purposes of the exchange offer, we will be deemed to have accepted eligible options for exchange that are properly tendered and not validly withdrawn as of the time when we give oral or written notice of our acceptance of options for exchange. We may issue this notice of acceptance by e-mail or other form of communication. Eligible options accepted for exchange will be cancelled immediately upon expiration time which we presently expect will be 11:59 p.m., Eastern Time, on August 28, 2009.

Determination of Validity; Rejection of Options Tendered For Exchange; Waiver of Defects; No Obligation To Give Notice Of Defects.

We will determine, in our discretion, all questions about the validity, form, eligibility (including time of receipt) and acceptance of any eligible options. Our determination of these matters will be final and binding on all persons. We reserve the right to reject any election form or any options tendered for exchange that we determine are not in appropriate form or are unlawful to accept. We will not accept tendered eligible options that would result in zero RSUs being granted. We will accept all properly tendered options that are not validly withdrawn. We also reserve the right to waive any of the conditions of the exchange offer or any defect or irregularity in any tender of any particular options or for any particular option holder, provided that if we grant any such waiver, it will be granted with respect to all option holders and tendered options. No tender of options will be deemed to have been properly made until all defects or irregularities have been cured by the tendering option holder or waived by us. Neither we nor any other person is obligated to give you notice of any defects or irregularities in any electronic election or paper election form, nor will anyone incur any liability for failure to give any notice.

Your election to exchange options through the procedures described above constitutes your acceptance of the terms and conditions of the exchange offer. Our acceptance of your eligible options for exchange will constitute a binding agreement between MKS and you upon the terms and subject to the conditions of the exchange offer.

Section 5. Withdrawal Rights and Change of Election.

You may change your election with respect to your eligible options only in accordance with the provisions of this section at any time before the expiration time, which is expected to be 11:59 p.m., Eastern Time, on August 28, 2009. If we extend the exchange offer, you may withdraw your tendered options at any time until the extended expiration time.

You will be permitted to withdraw your election to exchange your eligible stock options for RSUs on a grant-by-grant basis. No partial exchanges of a stock option grant will be permitted. If you withdraw an eligible option grant, you must withdraw the entire outstanding (i.e., unexercised) portion of that eligible option grant.

In addition, although we intend to accept all properly tendered options promptly upon the expiration time, if we have not accepted your options by 11:59 p.m., Eastern Time, on September 28, 2009, you may withdraw your tendered options at any time thereafter.

We encourage you to submit your withdrawals or election changes electronically via the exchange offer website. If you are unable to do so for any reason, including technical failures of the exchange offer website such as the exchange offer website being unavailable or the exchange offer website not accepting your election, you must complete a paper election form and return it via fax at (978) 557-5124 or e-mail to Marlene Maffe, the MKS stock plan administrator, at marlene_maffe@mksinst.com (via PDF or similar imaged document file), before 11:59 p.m., Eastern Time, on August 28, 2009, unless we extend the exchange offer. To obtain a paper election form please send an e-mail to Marlene Maffe at marlene_maffe@mksinst.com or call (978) 645-5654. You can also view and print the election form from the exchange offer website at https://mks.optionelection.com.

If you submit an election form declining the exchange offer and you later decide that you would like to exchange your eligible options for RSUs, you may elect to participate at any time by submitting a new properly completed electronic election form (or paper election form) accepting the exchange offer before the expiration time, by following the procedures described in Section 4 ("Procedures for Electing to Exchange Options").

Neither we nor any other person is obligated to give you notice of any defects or irregularities in any electronic election or paper election form, nor will anyone incur any liability for failure to give any notice. We will determine, in our discretion, all questions about the validity, form, eligibility (including time of receipt) and acceptance of any eligible options. Our determination of these matters will be final and binding on all persons.

You may change your mind as many times as you wish, but you will be bound by the last properly submitted election and/or withdrawal form we receive before the expiration time. Any eligible option grants that you do not withdraw will be bound pursuant to your prior election form.

Only responses that are complete and actually received by MKS (whether via the exchange offer website or via fax or e-mail) by the expiration time will be accepted. Responses submitted by any other means, including hand delivery, interoffice, U.S. mail (or other post) and Federal Express (or similar delivery service) are not permitted. The delivery of all documents, including election

forms and withdrawal forms, is at your risk. If you make a withdrawal via the exchange offer website, you will receive a website confirmation. If you make a withdrawal via fax or e-mail, MKS will confirm the receipt of your withdrawal within two business days. If you have not received a confirmation, it is your responsibility to send an e-mail to Marlene Maffe at marlene_maffe@mksinst.com or call (978) 645-5654.

Section 6. Acceptance of Options for Exchange and Granting of Restricted Stock Units.

Upon the terms and conditions of the exchange offer and promptly following the expiration time, we will accept for exchange and cancel all eligible options properly tendered for exchange and not validly withdrawn before the expiration time; provided, however, that we will not accept tendered eligible options that would result in zero RSUs being granted. Once the eligible options are cancelled, you no longer will have any rights with respect to such options. Subject to the terms and conditions of the exchange offer, if your options are properly tendered by you for exchange and accepted by us, such options will be cancelled as of expiration time, which we anticipate to be 11:59 p.m., Eastern Time, on August 28, 2009. None of the shares subject to cancelled options will be available for future awards under our equity incentive plans.

Subject to our rights to terminate the exchange offer, as discussed in Section 15 ("Extension of the Exchange Offer; Termination; Amendment"), we will accept promptly upon the expiration time all properly tendered options that are not validly withdrawn except options that would result in zero RSUs being granted. We will give oral or written notice to the eligible employees generally of our acceptance for exchange of the eligible options. This notice may be made by e-mail or other method of communication.

We will grant the RSUs immediately upon the expiration time, which we expect to be 11:59 p.m., Eastern Time, on August 28, 2009. All RSUs will be granted under the 2004 Stock Incentive Plan, as amended, and will be subject to a RSU agreement between you and MKS. The number of RSUs you will receive will be determined using an exchange ratio that is intended to ensure that the fair value, for accounting purposes, of the RSUs are approximately equal to the fair value of the eligible option tendered for exchange at the time the RSUs are granted as described in Section 2 ("Number of Restricted Stock Units; Expiration Time"). As soon as practicable after the expiration time, we will send you your RSU agreement. You will be issued shares of common stock when and if your RSUs vest in accordance with the vesting schedule described in Section 9 ("Source and Amount of Consideration; Terms of Restricted Stock Units").

Options that we do not accept for exchange will remain outstanding until they expire by their terms and will retain their current exercise price and current vesting schedule.

Section 7. Conditions of the Exchange Offer.

Notwithstanding any other provision of the exchange offer, we will not be required to accept any options tendered for exchange, and we may terminate the exchange offer, or postpone our acceptance and cancellation of any options tendered for exchange, in each case, subject to Rule 13e-4(f)(5) under the Exchange Act, if at any time on or after the date the exchange offer commences, and before the expiration time, any of the following events has occurred, or has been determined by us, in our reasonable judgment, to have occurred:

• there has been threatened in writing or instituted or is pending any action, proceeding or litigation seeking to enjoin, make illegal or delay completion of the exchange offer or otherwise relating in any manner, to the exchange offer;

- any order, stay, judgment or decree has been issued by any court, government, governmental authority or other regulatory or administrative authority
 and is in effect, or any statute, rule, regulation, governmental order or injunction has been proposed, enacted, enforced or deemed applicable to the
 exchange offer, any of which might restrain, prohibit or delay completion of the exchange offer or impair the contemplated benefits of the exchange
 offer to us (see Section 3, "Purposes of the Exchange Offer," for a description of the contemplated benefits of the exchange offer to us);
- there has occurred:
 - any general suspension of trading in, or limitation on prices for, our securities on any national securities exchange or in an over-the-counter market in the United States;
 - the declaration of a banking moratorium or any suspension of payments in respect of banks in the United States;
 - any limitation, whether or not mandatory, by any governmental, regulatory or administrative agency or authority on, or any event that, in our reasonable judgment, might affect the extension of credit to us by banks or other lending institutions in the United States;
 - in our reasonable judgment, any extraordinary or material adverse change in U.S. financial markets generally, including, a decline of at least 10% in the Dow Jones Industrial Average, the Nasdaq Index or the Standard & Poor's 500 Index from the date of commencement of the exchange offer;
 - the commencement, continuation or escalation of a war or other national or international calamity directly or indirectly involving the United States, which reasonably could be expected to affect materially or adversely, or to delay materially, the completion of the exchange offer; or
 - if any of the situations described above existed at the time of commencement of the exchange offer and that situation, in our reasonable judgment, deteriorates materially after commencement of the exchange offer;
- a tender or exchange offer, other than this exchange offer by us, for some or all of our shares of outstanding common stock, or a material merger, acquisition or other business combination proposal involving us or our subsidiaries, has been proposed, announced or made by another person or entity or has been disclosed publicly or we have learned that:
 - any person, entity or "group" within the meaning of Section 13(d)(3) of the Exchange Act has acquired more than 5% of our outstanding common stock, other than a person, entity or group that had publicly disclosed such ownership with the SEC prior to the date of commencement of the exchange offer;
 - any such person, entity or group that had publicly disclosed such ownership prior to such date will acquire additional common stock constituting more than 1% of our outstanding shares; or
 - any new group has been formed that beneficially owns more than 5% of our outstanding common stock that in our judgment in any such case, and regardless of the circumstances,

makes it inadvisable to proceed with the exchange offer or with such acceptance for exchange of eligible options;

- there has occurred any change, development, clarification or position taken in generally accepted accounting principles that could or would require us to record for financial reporting purposes compensation expense against our earnings in connection with the exchange offer, other than as contemplated as of the commencement date of the exchange offer (as described in Section 12, "Status of Options Acquired by Us in the Exchange Offer; Accounting Consequences of the Exchange Offer");
- any event has occurred that has resulted or is reasonably likely to result, in our reasonable judgment, in a material adverse change in our business or financial condition;
- any event has occurred that has resulted or may result, in our reasonable judgment, in a material impairment of the contemplated benefits of the exchange offer to us (see Section 3, "Purposes of the Exchange Offer," for a description of the contemplated benefits of the exchange offer to us); or
- any rules or regulations by any governmental authority, Nasdaq or other regulatory or administrative authority or any national securities exchange
 have been enacted, enforced or deemed applicable to MKS.

If any of the above events occur, we may:

- terminate the exchange offer and all tendered eligible options will continue to remain outstanding;
- · complete and/or extend the exchange offer and, subject to your withdrawal rights, retain all tendered eligible options until the extended offer expires;
- amend the terms of the exchange offer; or
- waive any unsatisfied condition and, subject to any requirement to extend the period of time during which the exchange offer is open, complete the exchange offer.

The conditions to the exchange offer are for our benefit. We may assert them in our discretion regardless of the circumstances giving rise to them before the expiration time. We may waive any condition, in whole or in part, at any time and from time to time before the expiration time, in our discretion, whether or not we waive any other condition to the exchange offer. Our failure at any time to exercise any of these rights will not be deemed a waiver of any such rights, but will be deemed a waiver of our ability to assert the condition that was triggered with respect to the particular circumstances under which we failed to exercise such rights. Subject to any order or decision by a court or arbiter of competent jurisdiction, any determination we make concerning the events described in this Section will be final and binding upon all persons.

Section 8. Price Range of Shares Underlying the Options and Restricted Stock Units.

The MKS common stock underlying your eligible options and the RSUs is traded on Nasdaq under the symbol "MKSI." The following table shows, for the periods indicated, the high and low intraday sales price per share of our common stock as reported by Nasdaq.

	High	Low
Fiscal Year Ending December 31, 2009		
3 rd Quarter (through July 31, 2009)	\$20.12	\$12.75
2nd Quarter	\$17.50	\$12.75
1st Quarter	\$16.29	\$11.38
Fiscal Year Ended December 31, 2008		
4 th Quarter	\$19.79	\$11.76
3 rd Quarter	\$25.00	\$19.00
2nd Quarter	\$25.88	\$20.91
1st Quarter	\$22.24	\$15.90
Fiscal Year Ended December 31, 2007		
4th Quarter	\$21.71	\$16.94
3 rd Quarter	\$28.15	\$18.91
2nd Quarter	\$28.47	\$25.46
1st Quarter	\$26.00	\$21.11

On July 31, 2009, the last reported sale price of our common stock, as reported by Nasdaq, was \$19.37 per share.

You should evaluate current market quotes for our common stock, among other factors, before deciding whether or not to accept the exchange offer.

Section 9. Source and Amount of Consideration; Terms of Restricted Stock Units.

Consideration.

We will grant RSUs in exchange for eligible options properly tendered by you and accepted by us for such exchange. RSUs are equity awards under which MKS promises to issue common stock in the future, providing the vesting criteria have been satisfied.

Subject to the terms and conditions of the exchange offer, upon our acceptance of your properly tendered eligible options, you will be entitled to receive RSUs determined using an exchange ratio that is intended to ensure that the fair value, for accounting purposes, of the RSUs are approximately equal to the fair value of the eligible option tendered for exchange at the time the RSUs are granted as described in Section 2 ("Number of Restricted Stock Units; Expiration Time"). Fractional RSUs will be rounded down to the nearest whole RSU on a grant-by-grant basis.

If we receive and accept tendered options from eligible employees of all options eligible to be tendered (a total of options to purchase 1,454,947 shares subject to the terms and conditions of the exchange offer), based upon the Black-Scholes option pricing model described in Section 2 and assuming a closing price of our common stock of \$17.00, we will grant RSUs covering a total of approximately 166,920 shares of our common stock, or approximately 0.34% of the total shares of our common stock outstanding as of July 31, 2009.

General terms of RSUs.

RSUs will be granted under our 2004 Stock Incentive Plan, as amended, and subject to a RSU agreement between you and MKS. The following description summarizes the material terms of the RSUs and our 2004 Stock Incentive Plan, as amended, under which the RSUs will be granted. Our statements in this exchange offer concerning the 2004 Stock Incentive Plan, as amended, and the RSUs are merely

summaries and do not purport to be complete. The statements are subject to, and are qualified in their entirety by reference to, the 2004 Stock Incentive Plan, as amended, and the form of RSU agreement, which are incorporated herein by reference. The 2004 Stock Incentive Plan, as amended, and the applicable form of RSU agreement are incorporated by reference or filed as exhibits to the Schedule TO with which this exchange offer has been filed and are available on the or filed SEC website at http://www.sec.gov. You may also contact Marlene Maffe, the MKS stock plan administrator, to receive a copy of the 2004 Stock Incentive Plan, as amended, and the form of RSU agreement. We will promptly furnish to you copies of these documents upon request at our expense.

Each recipient of an award under the 2004 Stock Incentive Plan, as amended, is referred to as a participant.

Purchase Price. The purchase price, if any, of a RSU granted under the 2004 Stock Incentive Plan, as amended, is generally determined by the administrator of such plan. There will be no purchase price for the RSUs granted in the exchange offer. As a result, you do not have to make any cash payment to MKS to receive your RSUs or the common stock to be issued upon vesting, but you will be required to satisfy your tax obligation associated with the vesting of the shares.

Vesting. Each RSU will have a vesting period of one year. Vesting of the RSUs will be conditioned upon your continued service with us, subject to limited exceptions for retirement, death or disability. This means that you will generally be required to remain employed with MKS for one year after the RSU grant date in order to be vested in the RSUs. However, if your employment with us terminates by reason of retirement, death or disability, the vesting of the RSUs will accelerate such that your RSUs will be fully vested. Under the RSU agreement, "retirement" means a voluntary termination of employment by the participant after he or she is at least age sixty (60) and has a combination of years of age plus Years of Service with MKS equal to seventy (70) or more, and "Years of Service" means full years of employment since the participant's original hire date with MKS (or parent or subsidiary of MKS).

Additionally, if, prior to any vesting of a RSU, and within two years after the effectiveness of a Change in Control (as defined in the RSU agreement), the participant is (i) terminated by MKS without Cause (as defined in the RSU agreement) or (ii) terminates his or her employment for Good Reason (as defined in the RSU agreement), then 100% of the participant's RSUs shall become immediately and fully vested.

Transferability of RSUs. RSUs granted in the exchange offer may not be transferred, except to or for the benefit of any spouse, children, parents, uncles, aunts, siblings, grandchildren and any other relatives approved by the board of directors or to a trust established solely for the benefit of the participant and/or such relatives. In the event of your death, any person who acquires the RSUs by bequest or inheritance may be issued the shares subject to the RSUs.

Registration and Sale of Shares Underlying RSUs. All of the shares of MKS common stock issuable upon the vesting of the RSUs have been registered under the Securities Act of 1933, as amended (the "Securities Act") on registration statements on Form S-8 filed with the SEC. Unless you are an employee who is considered an affiliate of MKS for purposes of the Securities Act, you will be able to sell the shares issuable upon the vesting of your RSUs free of any transfer restrictions under applicable U.S. securities laws.

Federal income tax consequences. You should refer to Section 14 ("Material Income Tax Consequences — Material U.S. Federal Income Tax Consequences") for a discussion of the U.S. federal income tax consequences of the RSUs and eligible options, as well as the consequences of accepting or

rejecting the exchange offer. If you are a taxpayer of the United States, but also are subject to the tax laws of another non-U.S. jurisdiction, you should be aware that there might be other tax and social insurance consequences that may apply to you. If you are a taxpayer in Germany, Japan or the United Kingdom, the tax consequences of the exchange offer to you are described in Schedules C, D and E, respectively. We strongly recommend that you consult with your advisors to discuss the consequences to you of this transaction.

2004 Stock Incentive Plan, as amended.

The 2004 Stock Incentive Plan, as amended, provides for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, awards of restricted stock and unrestricted stock, and other stock-based awards, including RSUs and performance shares. As of January 1, 2009, an aggregate of 13,442,295 shares of common stock was authorized for issuance under the 2004 Stock Incentive Plan, as amended (subject to adjustment for certain changes in our capitalization).

Incentive Stock Options and Nonstatutory Options. Optionees receive the right to purchase a specified number of shares of common stock at some time in the future at an option price and subject to such terms and conditions as are specified at the time of the grant. Incentive stock options and options that the board of directors or Compensation Committee intends to qualify as performance-based compensation under Section 162(m) of the Internal Revenue Code may not be granted at an exercise price less than the fair market value of the common stock on the date of grant (or less than 110% of the fair market value in the case of incentive stock options granted to optionees holding 10% or more of the total combined voting stock of MKS or any of its subsidiaries). Non-qualified options may be granted with an exercise price that may be less than, equal to or greater than the fair market value of the common stock on the date of grant. The 2004 Stock Incentive Plan, as amended, permits the following forms of payment of the exercise price of options: (i) payment by cash, check or in connection with a "cashless exercise" through a broker, (ii) delivery to MKS of a promissory note, (iii) any other lawful means or (iv) any combination of these forms of payment.

Restricted Stock. Restricted stock awards entitle recipients to acquire shares of common stock, subject to the right of MKS to repurchase all or part of such shares at their issue price from the recipient in the event that the conditions specified in the applicable stock award are not satisfied prior to the end of the applicable restriction period established for such award, or portion of such award, in the case of restrictions that lapse ratably.

RSUs. RSUs awards entitle recipients to acquire shares of common stock to be delivered at the time the RSU vests. RSU awards to executive officers typically vest in equal annual installments over three years, with half of the award subject to achievement of the performance goal. RSU awards to non-executive officers (other than those granted in the exchange offer) typically vest on the third anniversary of the date of grant.

Stock Appreciation Rights and Performance Shares. A stock appreciation right is based on the value of common stock and entitles the holder to receive consideration to the extent that the fair market value on the date of exercise of the shares of common stock underlying the right exceeds the fair market value of the underlying shares on the date the right was granted. A performance share award entitles the recipient to acquire shares of common stock upon the attainment of specified performance goals.

Administration. The 2004 Stock Incentive Plan, as amended, is administered by the board of directors and the Compensation Committee. The board of directors has the authority to grant awards under the 2004 Stock Incentive Plan, as amended, and to accelerate, waive or amend certain provisions of outstanding awards. The board of directors has authorized the Compensation Committee to administer

certain aspects of the 2004 Stock Incentive Plan, as amended. The board of directors has authorized the Chief Executive Officer of MKS to make awards to non-executive officer employees, subject to the limitations that (i) option awards may not be for more than 35,000 shares, and restricted stock and RSU awards may not be for more than 15,000 shares, each subject to adjustment as set forth in the plan, and (ii) in addition, such awards may not exceed a maximum fair market value on the date of grant of \$150,000. The maximum number of shares with respect to which awards may be granted to any one participant in any calendar year is 900,000 shares.

Subject to any applicable limitations contained in the 2004 Stock Incentive Plan, as amended, the board of directors or any committee or individual to whom the board of directors delegates authority, as the case may be, selects the recipients of awards and determines (i) the number of shares of common stock covered by awards and the dates upon which such options become exercisable, (ii) the exercise price of options, (iii) the duration of options (which may not exceed 10 years) and (iv) the number of shares of common stock subject to any restricted stock, RSU or other stock-based awards and the terms and conditions of such awards, including conditions for repurchase or vesting, and any issue price or repurchase price.

The board of directors is required to make appropriate adjustments in connection with the 2004 Stock Incentive Plan, as amended, and any outstanding awards to reflect stock splits, stock dividends, recapitalizations, spin-offs and other similar changes in capitalization. The 2004 Stock Incentive Plan, as amended, also contains provisions addressing the consequences of any Reorganization Event, which is defined as (a) any merger or consolidation of the company with or into another entity as a result of which all of the common stock of the company is converted into or exchanged for the right to receive cash, securities or other property, (b) any exchange of all of the common stock of the company for cash, securities or other property pursuant to a share exchange transaction or (c) the liquidation or dissolution of the company. Upon the occurrence of a Reorganization Event, the board of directors will take one or more of the following actions as to all or any outstanding awards on such terms as the board determines: (i) provide that awards are assumed or be substituted by the acquiring or succeeding corporation, (ii) upon written notice to a participant, provide that the participant's unexercised options or other unexercised awards become exercisable in full and will terminate immediately prior to the consummation of the Reorganization Event unless exercised by the participant within a specified period following the date of such notice, (iii) provide that outstanding awards become realizable or deliverable, or restrictions applicable to an award lapse, in whole or in part prior to or upon such Reorganization Event, (iv) make or provide for a cash payment to a participant, (v) provide that, in connection with a liquidation or dissolution of the company, awards convert into the right to receive liquidation proceeds and (vi) any combination of the foregoing. Upon the occurrence of a Reorganization Event, the repurchase and other rights of the company under each outstanding restricted stock award will inure to the ben

If any award expires or is terminated, surrendered, canceled or forfeited, the unused shares of common stock covered by such award will again be available for grant under the 2004 Stock Incentive Plan, as amended, subject, however, in the case of incentive stock options, to any limitations under the Code. Notwithstanding the foregoing, none of the shares subject to options cancelled in the exchange offer will be available for future awards under our equity incentive plans.

Eligibility to Receive Awards. Employees, officers, directors, consultants and advisors of MKS and its subsidiaries are eligible to be granted awards under the 2004 Stock Incentive Plan, as amended. Under present law, however, incentive stock options may only be granted to employees of MKS and its subsidiaries. The maximum number of shares with respect to which awards may be granted to any

participant under the 2004 Stock Incentive Plan, as amended, may not exceed 900,000 shares per calendar year.

Plan Benefits. The granting of awards under the 2004 Stock Incentive Plan, as amended, is discretionary, and we cannot determine the number or type of awards to be granted in the future to any particular person or group. All of the employees, officers, directors, consultants and advisors of MKS and its subsidiaries who are expected to contribute to MKS' future growth and success are eligible to participate in the 2004 Stock Incentive Plan, as amended.

Amendment or Termination. No award may be made under the 2004 Stock Incentive Plan, as amended, after March 3, 2014, but awards previously granted may extend beyond that date. The board of directors may at any time amend, suspend or terminate the 2004 Stock Incentive Plan, as amended, except that no award designated as subject to Section 162(m) of the Code by the board of directors after the date of such amendment shall become exercisable, realizable or vested (to the extent such amendment was required to grant such award) unless and until such amendment shall have been approved by our shareholders.

Section 10. Information Concerning MKS; Financial Information.

Information Concerning MKS.

Our principal executive offices are located at 2 Tech Drive, Suite 201, Andover, Massachusetts 01810, and our main telephone number is (978) 645-5500. Questions regarding the exchange offer should be directed to:

Marlene Maffe

MKS Instruments, Inc. 2 Tech Drive, Suite 201 Andover, MA 01810 E-Mail: marlene_maffe@mksinst.com

Telephone: (978) 645-5654 Fax: (978) 557-5124

MKS Instruments, Inc. was founded in 1961 and is a leading worldwide provider of instruments, subsystems and process control solutions that measure, control, power, monitor and analyze critical parameters to improve process performance and productivity of advanced manufacturing processes. MKS is managed as one operating segment which is organized around three product groups: Instruments and Control Systems, Power and Reactive Gas Products and Vacuum Products. MKS' products are derived from its core competencies in pressure measurement and control, materials delivery, gas composition analysis, electrostatic change management, control and information technology, power and reactive gas generation and vacuum technology.

Financial Information.

The financial information, including financial statements and the notes thereto, included under the caption "Item 8. Financial Statements and Supplementary Data" in our Annual Report on Form 10-K for the year ended December 31, 2008, filed with the SEC on February 27, 2009, and under the caption "Part I. Financial Information" in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2009, filed with the SEC on May 7, 2009 are incorporated herein by reference. Attached as Schedule B to

this Offer to Exchange is a summary of certain financial information contained in the above-referenced reports.

Our book value per share as of March 31, 2009 was \$7.55.

We recommend that you review the materials that we have filed with the SEC before making a decision on whether or not to surrender your eligible options for exchange. See Section 17 ("Additional Information") for more information regarding reports we file with the SEC and how to obtain copies of or otherwise review such reports.

Section 11. Interests of Directors and Executive Officers; Transactions and Arrangements Concerning Our Securities.

A list of our directors and executive officers is attached to this exchange offer as Schedule A. Our executive officers and the members of our board of directors may not participate in the exchange offer. As of July 31, 2009, our executive officers and directors (14 persons) as a group held options unexercised and outstanding under each of our stock incentive plans to purchase a total of 1,256,916 our shares, which represented approximately 31% of the shares subject to all options outstanding under each of our stock incentive plans as of that date. We also refer you to our 2009 annual meeting proxy statement, filed with the SEC on March 23, 2009, for information concerning agreements, arrangements and understandings between us and our officers and directors.

Neither we nor any of our executive officers or directors or any affiliates of ours were engaged in transactions involving eligible options during the past 60 days. Our executive officers and directors are not eligible employees and do not hold eligible options.

Except for outstanding options to purchase shares of our common stock and other stock awards, such as restricted stock units, granted or to be granted from time to time to certain of our employees (including executive officers) and non-employee directors pursuant to our equity compensation plans, and the purchase rights that are outstanding from time to time under our employee stock purchase plan, and except as set forth in this document, neither we nor any person controlling us nor, to our knowledge, any of our directors or executive officers, is a party to any contract, arrangement, understanding or relationship with any other person relating, directly or indirectly, to the exchange offer with respect to any of our securities (including, but not limited to, any contract, arrangement, understanding or relationship concerning the transfer or the voting of any such securities, joint ventures, loan or option arrangements, puts or calls, guarantees of loans, guarantees against loss or the giving or withholding of proxies, consents or authorizations).

Section 12. Status of Options Acquired by Us in the Exchange Offer; Accounting Consequences of the Exchange Offer.

Options that we acquire through the exchange offer will be cancelled. None of the shares subject to cancelled options will be available for future awards under our equity incentive plans.

As of January 1, 2006, we adopted the provisions of Financial Accounting Standards Board Statement of Financial Accounting Standards No. 123 (Revised), or SFAS 123(R), on accounting for share-based payments. Under SFAS 123(R), we will recognize incremental compensation expense, if any, resulting from the RSUs granted in the exchange program. The incremental compensation cost will be measured as the excess, if any, of the fair value of each RSU granted to employees in exchange for surrendered eligible options, measured as of the date the RSUs are granted, over the fair value of the eligible options surrendered in the exchange for the RSUs, measured immediately prior to the exchange.

The number of RSUs will be determined using an exchange ratio that is intended to ensure that the fair value, for accounting purposes, of the RSUs are approximately equal to the fair value of the eligible option tendered for exchange at the time the RSUs are granted. As a result, the exchange offer may allow us to realize real incentive and retention benefits from the RSUs issued, while recognizing only minimal incremental compensation expense due to the exchange. The actual amount of compensation expense will depend on the exchange ratios, Black-Scholes values and vesting schedules for options actually exchanged as part of the exchange offer, as well as the market price of our common stock on the date of the exchange. In the event that any of the RSUs are forfeited prior to their vesting due to termination of employment, the compensation expense for the forfeited RSUs will not be recognized.

Section 13. Legal Matters; Regulatory Approvals.

We are not aware of any material pending legal proceedings relating to the exchange offer or any margin requirements or anti-trust laws applicable to the exchange offer. We are not aware of any regulatory requirements that must be complied with or approvals that must be obtained in connection with the exchange offer. Should any additional approval or other action be required, we presently contemplate that we will seek such approval or take such other action. We cannot assure you that any such approval or other action, if needed, could be obtained or what the conditions imposed in connection with such approvals would entail or whether the failure to obtain any such approval or other action would result in adverse consequences to our business. Our obligation under the exchange offer to accept tendered options for exchange and to grant RSUs for tendered options is subject to the conditions described in Section 7 ("Conditions of the Exchange Offer").

If we are prohibited by applicable laws or regulations from granting RSUs on the RSU grant date, we will not grant any RSUs. We are unaware of any such prohibition at this time, and we will use reasonable efforts to effect the grant, but if the grant is prohibited on the RSU grant date, we will not grant any RSUs and you will not receive any other benefit for the eligible options you tendered and your eligible options will not be accepted for exchange.

Section 14. Material Income Tax Consequences.

Material U.S. Federal Income Tax Consequences.

The following is a summary of the material U.S. federal income tax consequences of the exchange of eligible options for RSUs pursuant to the exchange offer for those eligible employees subject to U.S. federal income tax. The summary includes a description of the tax consequences of participating and of not participating in the offer. This discussion is based on the United States Internal Revenue Code, its legislative history, treasury regulations promulgated thereunder and administrative and judicial interpretations as of the date of this exchange offer, all of which are subject to change, possibly on a retroactive basis. This summary does not discuss all of the tax consequences that may be relevant to you in light of your particular circumstances, nor is it intended to be applicable in all respects to all categories of option holders. We strongly recommend that you consult with your own advisors to discuss the consequences to you of this exchange offer.

Tax Consequences of Participating in the Exchange Offer.

Eligible employees who exchange options for RSUs will not be required to recognize income for U.S. federal income tax purposes at the time of the exchange. We believe that the exchange of eligible options for RSUs will be treated as a non-taxable exchange. You will not recognize income upon the receipt of the RSUs.

You will recognize ordinary compensation income when the RSUs vest in an amount equal the fair market value of the shares on the vesting date. The compensation income is subject to income and employment tax withholding. The RSU agreement provides that MKS will automatically deduct and retain from the shares of common stock that would otherwise be issued in settlement of RSUs the appropriate number of whole shares, valued at their then fair market value, to satisfy our tax withholding obligations at the applicable minimum statutory withholding rate. Unless the foregoing tax withholding obligations are satisfied, we have no obligation to deliver any shares to you under your RSUs. When you sell the shares, you will recognize capital gain (or loss) equal to the amount by which the sale price exceeds (or is less than) the fair market value of the stock on the vesting date. This capital gain (or loss) will be long-term if you have held the shares for at least one year at the time of sale and otherwise will be short-term. For this purpose, your holding period will start the day after the vesting date.

We recommend that you consult your tax advisor with respect to the federal, state and local tax consequences of participating in the exchange offer, as the tax consequences to you are dependent on your individual tax situation.

In addition, if you are a resident of more than one country, you should be aware that there might be tax and social insurance consequences for more than one country that may apply to you. We strongly recommend that you consult with your own advisors to discuss the consequences to you of this transaction.

Tax Consequences of Not Participating in the Exchange Offer.

If you participate in the exchange offer, your eligible options will be exchanged for RSUs. If you do not participate in the exchange offer, you will continue to hold your outstanding stock options, which are treated as nonstatutory stock options for U.S. federal income tax purposes. So that you are able to compare the tax consequences of the RSUs to that of your eligible options, we have included the following summary as a description of the tax consequences generally applicable to nonstatutory stock options under U.S. federal tax law.

When you exercise a nonstatutory stock option, you recognize ordinary compensation income in an amount equal to the excess of the fair market value of the shares on the date of exercise over your exercise price. The compensation income is subject to income and employment tax withholding.

Upon disposition of the shares, you will recognize capital gain (or loss) equal to the amount by which the sale price exceeds (or is less than) the fair market value of the stock on the date of exercise. The capital gain or loss and will be long-term if the shares were held for more than one year and otherwise will be long-term. The holding period for the shares generally will begin the day after exercise.

Material Income Tax and Other Considerations for Employees Who Reside Outside the U.S.

Attached as Schedules C, D and E to this exchange offer are short summaries of the general tax consequences of the exchange offer in countries other than the U.S. where residents are eligible to participate in the exchange offer. If you are subject to the tax laws in any of these countries, please see the relevant section(s) under Schedules C, D and E for information regarding the tax consequences to you of participating in the exchange offer. You should review the information carefully and consult your own tax advisor regarding your personal situation before deciding whether or not to participate in the exchange offer.

We recommend that you consult your tax advisor with respect to the federal, state and local tax consequences of participating in the exchange offer. In addition, if you are a resident of more

than one country, you should be aware that there might be tax and social insurance consequences for more than one country that may apply to you. We strongly recommend that you consult with your advisors to discuss the consequences to you of this transaction.

Section 15. Extension of the Exchange Offer; Termination; Amendment.

We reserve the right, in our discretion, at any time and regardless of whether or not any event listed in Section 7 ("Conditions of the Exchange Offer") has occurred or is deemed by us to have occurred, to extend the period of time during which the exchange offer is open and delay the acceptance for exchange of any eligible options. If we elect to extend the period of time during which the exchange offer is open, we will give you oral or written notice of the extension and delay, as described below. If we extend the expiration time, we also will extend your right to withdraw tenders of eligible options until such extended expiration time. In the case of an extension, we will issue an e-mail or other form of communication no later than 6:00 a.m., Eastern Time, on the next business day after the previously scheduled expiration time.

We also reserve the right, in our reasonable judgment, before the expiration time to terminate or amend the exchange offer and to postpone our acceptance and cancellation of any options elected to be exchanged if any of the events listed in Section 7 ("Conditions of the Exchange Offer") occurs, by giving oral or written notice of the termination or postponement to you or by making a public announcement of the termination. Our reservation of the right to delay our acceptance and cancellation of options elected to be exchanged is limited by Rule 13e-4(f)(5) under the Exchange Act, which requires that we must pay the consideration offered or return the eligible options promptly after termination or withdrawal of a tender offer.

Subject to compliance with applicable law, we further reserve the right, before the expiration time, in our discretion and regardless of whether any event listed in Section 7 ("Conditions of the Exchange Offer") has occurred or is deemed by us to have occurred, to amend the exchange offer in any respect. As a reminder, if a particular option expires after commencement, but before cancellation under the exchange offer, that particular option is not eligible for exchange. Therefore, if we extend the exchange offer for any reason and if a particular option that was tendered before the originally scheduled expiration time expires after such originally scheduled expiration time but before the actual cancellation date under the extended offer, that option would not be eligible for exchange.

The minimum period during which the exchange offer will remain open following material changes in the terms of the exchange offer or in the information concerning the exchange offer will depend on the facts and circumstances of such change, including the relative materiality of the terms or information changes. Because our shareholders approved the option exchange and the basis for determining the number of eligible options being sought in the exchange offer and the method of determining the consideration being offered by us for the eligible options in the exchange offer, we cannot amend the offer to change the number of eligible options being sought in the exchange offer or the consideration being offered by us. If any term of the exchange offer is amended in a manner that we determine constitutes a material change adversely affecting any holder of eligible options, we will promptly disclose the amendments in a manner reasonably calculated to inform holders of eligible options of such amendment, and we will extend the exchange offer's period so that at least five business days, or such longer period as may be required by the tender offer rules, remain after such change.

For purposes of the exchange offer, a "business day" means any day other than a Saturday, Sunday or a U.S. federal holiday and consists of the time period from 12:00 a.m. through 11:59 p.m., Eastern Time.

Section 16. Fees and Expenses.

We will not pay any fees or commissions to any broker, dealer or other person for soliciting options to be exchanged through the exchange offer.

Section 17. Additional Information.

This exchange offer is part of a Tender Offer Statement on Schedule TO that we have filed with the SEC. This exchange offer does not contain all of the information contained in the Schedule TO and the exhibits to the Schedule TO. We recommend that you review the Schedule TO, including its exhibits, and the following materials that we have filed with the SEC before making a decision on whether to elect to exchange your eligible options:

- our annual report on Form 10-K for our fiscal year ended December 31, 2008, filed with the SEC on February 27, 2009;
- our quarterly report on Form 10-Q for the quarter ended March 31, 2009, filed with the SEC on May 7, 2009;
- our definitive proxy statement on Schedule 14A for our 2009 annual meeting of shareholders, filed with the SEC on March 23, 2009 and amended on April 27, 2009;
- the information contained in our current reports on Form 8-K filed with the SEC; and
- the description of our common stock contained in our Registration Statement on Form 8-A filed with the SEC on March 2, 1999, including any
 amendments or reports filed for purposes of updating such description.

These filings, our other annual, quarterly and current reports, our proxy statements and our other SEC filings may be examined, and copies may be obtained, at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the public reference room by calling the SEC at 1-800-SEC-0330. Our SEC filings also are available to the public on the SEC's Internet site at http://www.sec.gov.

Each person to whom a copy of this exchange offer is delivered may obtain a copy of any or all of the documents to which we have referred you, other than exhibits to such documents, unless such exhibits are specifically incorporated by reference into such documents, at no cost, by writing to us at MKS Instruments, Inc., 2 Tech Drive, Suite 201, Andover, MA 01810, attention Marlene Maffe.

As you read the documents listed above, you may find some inconsistencies in information from one document to another. If you find inconsistencies between the documents, or between a document and this exchange offer, you should rely on the statements made in the most recent document.

The information contained in this exchange offer about us should be read together with the information contained in the documents to which we have referred you, in making your decision as to whether or not to participate in the exchange offer.

Section 18. Miscellaneous.

We have not authorized any person to make any recommendation on our behalf as to whether you should elect to exchange your options through the exchange offer. You should rely

only on the information in this document or materials to which we have referred you. We have not authorized anyone to give you any information or to make any representations in connection with the exchange offer other than the information and representations contained in this document and in the related exchange offer materials. If anyone makes any recommendation or representation to you or gives you any information, you must not rely upon that recommendation, representation or information as having been authorized by us.

MKS Instruments, Inc. August 3, 2009

SCHEDULE A INFORMATION CONCERNING THE EXECUTIVE OFFICERS AND DIRECTORS OF MKS

The directors and executive officers of MKS are set forth in the following table:

Position and Offices Held
Director, Chairman
Director
Director
Director
Director, Chief Executive Officer and President
Director, Secretary
Director
Director
Director
Vice President, Chief Business Officer and Acting Group Vice President, PRG
Products
Group Vice President, CIT Products
Vice President and Chief Technology Officer
Group Vice President, Vacuum Products and PFM&C Products
Vice President, Chief Financial Officer and Treasurer

The address of each executive officer and director is c/o MKS Instruments, Inc., 2 Tech Drive, Suite 201, Andover, Massachusetts 01810. Our executive officers and members of our board of directors are not eligible to participate in the exchange offer.

SCHEDULE B SUMMARY FINANCIAL INFORMATION OF MKS INSTRUMENTS, INC.

We have presented below a summary of our consolidated financial data. The following summary consolidated financial data should be read in conjunction with the "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and the notes thereto included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2008 and with "Part I. Financial Information" of our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2009, both of which are incorporated herein by reference. The selected consolidated statements of operations data for the fiscal years ended December 31, 2008 and 2007 and the selected consolidated balance sheet data as of December 31, 2008 and 2007 are derived from our audited consolidated financial statements that are included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2008. The selected consolidated statements of operations data for the fiscal quarter ended March 31, 2009 and the selected consolidated balance sheet data as of March 31, 2009 are derived from our unaudited condensed consolidated financial statements included in our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2009. Our interim results are not necessarily indicative of results for the full fiscal year, and our historical results are not necessarily indicative of the results to be expected in any future period.

	Quarter Ended	Year Ended	
	March 31, 2009	December 31, 2008	December 31, 2007
	(unaudited) (ii	n thousands, except per share d	ata)
Consolidated Statements of Operations Data:	(-	,	,
Net sales	\$ 76,719	\$646,994	\$780,487
Gross profit	\$ 10,591	\$259,943	\$331,487
Income (loss) from operations	\$(40,609)	\$ 35,533	\$106,985
Net (loss) income	\$(16,499)	\$ 30,117	\$ 86,360
Earnings per share:			
Basic	\$ (0.34)	\$ 0.61	\$ 1.53
Diluted	\$ (0.34)	\$ 0.59	\$ 1.51
Shares used in computing earnings per share:			
Basic	48,994	49,717	56,349
Diluted	48,994	50,754	57,173
		As of	
	March 31, 2009 (unaudited)	December 31, 2008	December 31, 2007
	, ,	(in thousands)	
Consolidated Balance Sheet Data:			
Cash and cash equivalents	\$ 97,405	\$119,261	\$ 223,968
Short-term investments	\$ 15,799	\$159,608	\$ 99,797
Working capital	\$433,271	\$452,793	\$ 514,235
Long-term investments	\$ —	\$ —	\$ —
Total assets	\$946,064	\$984,939	\$1,076,260

Short-term obligations

Stockholders' equity

Long-term obligations, less current portion

\$ 9,827

\$864,150

\$

262

\$ 18,678

\$886,698

\$

396

20,203

5,871

\$ 954,009

\$

SCHEDULE C GUIDE TO TAX ISSUES IN GERMANY

The following is a general summary of the material tax consequences of the voluntary cancellation of eligible options in exchange for the grant of restricted stock units ("RSUs") for eligible employees subject to tax in Germany. This summary is based on the tax laws in effect in Germany as of June 2009. This summary is general in nature and does not discuss all of the tax consequences that may be relevant to you in light of your particular circumstances, nor is it intended to be applicable in all respects to all categories of eligible employees. Also, please note that tax laws change frequently and occasionally on a retroactive basis. As a result, the information contained in this summary may be out-of-date at grant or vesting of the RSUs, or when you sell shares acquired at vesting of the RSUs.

This summary may also include other country-specific requirements that may affect your participation in the Stock Option Exchange Program.

If you are a citizen or resident of more than one country, or are considered a resident of more than one country for local law purposes, the information contained in this summary may not be applicable to you. Accordingly, you are strongly advised to seek appropriate professional advice as to how the tax or other laws in your country apply to your specific situation.

Tax Information

Option Exchange/Grant of RSUs

You likely will not be subject to tax as a result of the exchange of eligible options for the grant of RSUs. As a general rule, options and RSUs are taxed at the moment when the employee gains economic ownership in the respective shares, i.e., at vesting. However, tax authorities may hold that a portion of the value / built-in gain of an option or RSU will be realized at an earlier stage when old options are traded against RSUs. However, it is rather unlikely that German tax authorities will take this position, although neither court law nor clear guidance by the tax authorities are currently available.

Vesting

You will be subject to income tax and social insurance contributions (to the extent you have not reached already the applicable contribution ceiling) when the RSUs vest and shares are issued to you. The taxable amount will be the fair market value of the shares issued to you at vesting.

Please note that a personal allowance of €360 per calendar year may be available pursuant to Section 3 No. 39 of the German Income Tax Act (Einkommensteuergesetz) because the income results from the acquisition of stock in your employer's parent company. Please consult your personal tax advisor to determine whether this deduction may apply at vesting of the RSUs.

Sale of Shares

When you subsequently sell any shares acquired at vesting of the RSUs, you will be subject to capital gains tax at a flat rate of 25% (plus 5.5% solidarity surcharge thereon plus church tax, if any) provided you do not own 1% or more of the stated capital of MKS (and have not owned 1% or more at any time in the last five years) and the shares are not held as a business asset. Please note that you may elect to be taxed at your marginal tax rate if the 25% flat rate exceeds your marginal tax rate. The amount, whether at the flat rate or at your marginal tax rate, will be the difference between the sale price and the fair market value of the shares issued at vesting.

Withholding and Reporting

Your German employer will withhold and report income tax and social security contributions (to the extent applicable) when the RSUs vest. To qualify as a German employer, the employing company must either have its place of management, a permanent establishment or a representative in Germany. As a guideline you may check whether tax is withheld on your cash salary in which case tax would also be withheld on the vested RSUs. However, you are responsible for reporting and paying any additional taxes due if your tax liability exceeds the amount withheld and for reporting and paying any tax resulting from the sale of shares.

SCHEDULE D GUIDE TO TAX ISSUES IN JAPAN

The following is a general summary of the material tax consequences of the voluntary cancellation of eligible options in exchange for the grant of restricted stock units ("RSUs") for eligible employees subject to tax in Japan. This summary is based on the tax laws in effect in Japan as of June 2009. This summary is general in nature and does not discuss all of the tax consequences that may be relevant to you in light of your particular circumstances, nor is it intended to be applicable in all respects to all categories of eligible employees. Also, please note that tax laws change frequently and occasionally on a retroactive basis. As a result, the information contained in this summary may be out-of-date at grant or vesting of the RSUs, or when you sell shares acquired at vesting of the RSUs.

This summary may also include other country-specific requirements that may affect your participation in the Stock Option Exchange Program.

If you are a citizen or resident of more than one country, or are considered a resident of more than one country for local law purposes, the information contained in this summary may not be applicable to you. Accordingly, you are strongly advised to seek appropriate professional advice as to how the tax or other laws in your country apply to your specific situation.

Tax Information

Option Exchange

You likely will not be subject to tax as a result of the exchange of eligible options for the grant of RSUs. Please note, however, that the Japanese tax treatment of an exchange of stock options for RSUs is uncertain because there are no specific tax provisions related to such an exchange. *Therefore*, we recommend that you consult your personal tax advisor regarding the potential tax consequences of the Stock Option Exchange Program.

Grant

Although the tax treatment of RSUs is uncertain in Japan, under the current practice of the tax authorities, you likely will not be subject to tax when the RSUs are granted to you.

Vesting

You likely will be subject to income tax, but not social insurance contributions, when the RSUs vest and shares are issued to you. The taxable amount will be the fair market value of the shares issued to you at vesting. This income likely will be characterized as remuneration income.

Sale of Shares

When you subsequently sell any shares acquired at vesting of the RSUs, you will be subject to capital gains tax on any gain you realize. The taxable gain will be the difference between the sale price and the fair market value of the shares at vesting. Generally, you will be subject to capital gains tax at a flat rate of 20%. However, you may be eligible for a reduced tax rate if certain conditions are met. *Please consult your personal tax advisor to determine whether you may be eligible for a reduced capital gains rate.*

Withholding and Reporting

Your employer will not withhold or report tax at the vesting of the RSUs. You are responsible for reporting and paying any tax resulting from the vesting of the RSUs and the sale of shares.

Other Information

Exchange Control

If the value of shares you acquire in a single transaction exceeds ¥100 million, you must submit a Securities Acquisition Report to the Minister of Finance through the Bank of Japan within 20 days after such acquisition.

SCHEDULE E GUIDE TO TAX ISSUES IN THE UNITED KINGDOM

The following is a general summary of the material tax consequences of the voluntary cancellation of eligible options in exchange for the grant of restricted stock units ("RSUs") for eligible employees subject to tax in the United Kingdom ("U.K."). This summary is based on the tax laws in effect in the U.K. as of June 2009. This summary is general in nature and does not discuss all of the tax consequences that may be relevant to you in light of your particular circumstances, nor is it intended to be applicable in all respects to all categories of eligible employees. Also, please note that tax laws change frequently and occasionally on a retroactive basis. As a result, the information contained in this summary may be out-of-date at grant or vesting of the RSUs, or when you sell shares acquired at vesting of the RSUs.

This summary may also include other country-specific requirements that may affect your participation in the Stock Option Exchange Program.

If you are a citizen or resident of more than one country or are considered a resident of more than one country for local law purposes, or if you are not treated as resident and ordinarily resident in the U.K., the information contained in this summary may not be applicable to you. Accordingly, you are strongly advised to seek appropriate professional advice as to how the tax or other laws in your country apply to your specific situation.

Tax Information

Option Exchange

You likely will not be subject to tax as a result of the exchange of eligible options for the grant of RSUs.

Grant

You will not be subject to tax when RSUs are granted to you.

Vesting

You will be subject to income tax and employee national insurance contributions ("NICs") when the RSUs vest and shares are issued to you. The taxable amount will be the fair market value of the shares issued to you at vesting.

Sale of Shares

When you subsequently sell any shares acquired at vesting of the RSUs, you will be subject to capital gains tax if your total capital gain exceeds the annual exemption amount (£10,100 for the tax year April 6, 2009 to April 5, 2010), in which case you will be subject to tax at a flat rate of 18% on the difference between the sale price and the fair market value of the shares at vesting.

Please note that, when you sell any shares acquired at vesting, you may need to take into account the share-identification rules in calculating your capital gains tax liability, particularly if you have acquired shares of MKS common stock from other sources. *Please consult your personal tax advisor to determine how share-identification rules apply in your particular situation.*

Withholding and Reporting

Your employer will calculate the income tax and employee and employer NICs due at the vesting of RSUs and account for these amounts to Her Majesty's Revenue & Customs ("HMRC"). Your employer will account for and withhold any applicable income tax and employee and employer NICs under the Pay As You Earn system or by any other means set forth in your RSU agreement.

If a sufficient amount is not accounted for, you must reimburse your employer for the income tax due within 90 days of the vesting of the RSUs to avoid further tax consequences. If you fail to pay this amount to the employer within that time limit, the income tax paid by your employer on your behalf and not reimbursed within 90 days of vesting will constitute a loan owed by you to your employer. The loan will be effective as of the date of vesting, will be immediately due and repayable, will bear interest at the then-current official rate of HMRC and may be recovered by MKS or your employer at any time by any of the means set forth in your RSU agreement.

Your employer also is required to report the grant and vesting of the RSUs, the acquisition of shares and the tax withheld on its annual tax returns filed with HMRC.

In addition to your employer's reporting obligations, you are responsible for reporting any income resulting from the vesting of the RSUs and the sale of shares on your annual tax return. You also are responsible for paying any tax resulting from the sale of shares.

MKS INSTRUMENTS, INC. FORM OF E-MAIL TO ELIGIBLE EMPLOYEES REGARDING THE EXCHANGE OFFER

Participate in your company's stock option exchange program

Dear [[FIRST:REQUIRED,CONVERT_CASE("FIRSTNAME")]] [[LAST: REQUIRED,CONVERT_CASE("LASTNAME")]],

We are pleased to offer you the opportunity to participate in the MKS Instruments, Inc. Stock Option Exchange Program.

Through this special program, you will have the opportunity to exchange some of your existing MKS stock options for MKS restricted stock units. You have been identified as having received a stock option grant with an exercise price greater than \$23.35 per share. As a result, you are eligible to participate in this option exchange program, subject to your being an eligible employee, as discussed in the offer materials.

The MKS exchange program will allow you to exchange these options for a lesser number of restricted stock units, pursuant to calculations as described in the offer materials available on the option exchange website.

To participate or learn more about the program, please click on https://mks.optionelection.com. For U.S. employees, your user name is the last four digits of your social security number. For employees outside the U.S., your user name is the last four digits of your employee ID number. Your initial password is the first four letters of your last name, all uppercase, excluding spaces or characters.

You have until August 28, 2009, to decide whether you would like to participate, unless MKS extends the exchange offer.

If you have questions, please call a Fidelity Stock Plan Services Representative at the following number:

- In the United State: 1-800-544-9354 between the hours of 5 p.m. Sunday and midnight Friday, Eastern time, excluding holidays of the New York Stock Exchange.
- Outside the United States: 1-800-544-0275 between the hours of 8 a.m. and 8 p.m., local time, Monday through Friday, excluding holidays of the New York Stock Exchange. For additional information on dialing from outside the U.S., refer to your country access details contained in the web link above.

Thank you for your contributions to the success of MKS.

Sincerely,

Leo Berlinghieri,

Chief Executive Officer and President

Stock plan recordkeeping and administrative services are provided by Fidelity Stock Plan Services, LLC.



MKS INSTRUMENTS, INC. FORM OF ELECTION FORM

To: MKS Instruments, Inc. Attention: Marlene Maffe Fax: (978) 557-5124

E-Mail: marlene_maffe@mksinst.com

Concepts and terms used herein are further described and defined in the Offer to Exchange Certain Stock Options for Restricted Stock Units dated August 3, 2009, referred to herein as the exchange offer. Please read the exchange offer in its entirety.

I acknowledge that:

- 1. I understand that, upon acceptance by MKS Instruments, Inc., this Election Form will constitute a binding agreement between MKS and me.
- 2. I understand that if I validly tender all of my eligible options for exchange, and such eligible options are accepted, I will receive RSUs for a lesser number of shares of common stock than the cancelled eligible options that I tender. The number of RSUs will be determined using an exchange ratio that is intended to ensure that the fair value, for accounting purposes, of the RSUs is approximately equal to the fair value of the eligible options tendered for exchange at the time the RSUs are granted. The number of RSUs to be granted in exchange for each eligible option will be that number of RSUs (rounded down to the nearest whole) that would be derived by dividing the fair value of such eligible option grant (determined using the Black-Scholes option valuation model) by the closing sale price of MKS common stock on the day the exchange offer expires. The Black-Scholes option valuation model used to value eligible option grants will take into account (i) the closing price of the MKS common stock on Nasdaq on the day the exchange offer expires, (ii) the exercise price of the option grant, (iii) the expected volatility of MKS common stock over the projected life of the option grant, (iv) the estimated expected life of the option grant, (v) the risk-free interest rate over the projected life of the option grant and (vi) the expected dividends on MKS common stock. Because the Black-Scholes valuation model takes into account certain assumptions on the day the exchange offer expires, including the closing price of MKS common stock, the Black-Scholes value of the tendered eligible options, the exact exchange ratios and number of RSUs to be granted will not be known until shortly after 4:00 p.m., Eastern Time, on the day the exchange offer expires.
- 3. I understand that the RSUs will have a vesting period of one year. Vesting of the RSUs will be conditioned upon my continued service with MKS, subject to limited exceptions for retirement, death or disability. This means that I will generally be required to remain employed with MKS for one year after the RSU grant date in order to be vested in the RSUs.
- 4. I understand that RSUs will be granted under and subject to the provisions of the MKS Instruments 2004 Stock Incentive Plan, as amended.
- 5. MKS has advised me to consult with my own advisors, including personal investment, tax and legal advisors, as to the consequences of participating or not participating in this exchange offer.

- 6. To remain eligible to tender eligible options for exchange pursuant to the exchange offer, I understand that I must remain an eligible employee and must not have received nor have given a notice of termination of employment prior to the expiration time, which is scheduled to be 11:59 p.m., Eastern Time, on August 28, 2009, unless the exchange offer is extended. I understand that if I die or do not remain in continued service with MKS through the expiration time, MKS will not accept my eligible options for cancellation and I or my estate or beneficiaries, as the case may be, will retain my eligible options with their current terms and conditions.
- 7. I understand that neither the ability to participate in the exchange offer nor actual participation in the exchange offer will be construed as a right to continued employment with MKS or any of its subsidiaries.
- 8. I understand that in accordance with the exchange offer, MKS may terminate, modify or amend the exchange offer and postpone its acceptance and cancellation of any eligible options that I have tendered for exchange. As a result, I understand that if my eligible options tendered for exchange are not accepted, they will remain in effect with their current terms and conditions.
- 9. I understand that this election is entirely voluntary, and I am aware that I may change or withdraw my decision to tender my eligible options at any time until the exchange offer expires as described in the exchange offer materials. I understand that this decision to tender my eligible options will become irrevocable at 11:59 p.m., Eastern Time, on August 28, 2009, unless the exchange offer is extended.
- 10. I sell, assign and transfer to MKS all right, title and interest in and to all of the eligible options that I am tendering, and I agree that I shall have no further right or entitlement to purchase any shares of MKS common stock under the tendered eligible options on the date MKS accepts those eligible options for exchange and cancellation. I understand that my subsequent death or incapacity will not affect the authority of MKS to take the actions described in the exchange offer with respect to eligible options that I have tendered for exchange and that have been accepted for cancellation, and such authority will survive my death or incapacity. All of my obligations under this Election Form will be binding upon my heirs, personal representatives, successors and assigns.
- 11. I agree to all of the terms and conditions of the exchange offer contained in the Offer to Exchange Certain Stock Options for Restricted Stock Units dated August 3, 2009 and related exhibits.
- 12. I hereby represent and warrant that I have full power and authority to elect to surrender the eligible stock options listed for exchange in the table below and that, when and to the extent such eligible stock options are accepted by MKS, such eligible stock options will be free and clear of all security interests, liens, restrictions, charges, encumbrances, conditional sales agreements or other obligations relating to the sale or transfer thereof, and such eligible stock options will not be subject to any adverse claims. Without limiting the foregoing, I hereby represent and warrant that either I am not married and do not have a registered domestic partner, my spouse or registered domestic partner has no community or other marital property rights in the eligible stock options or RSUs, or my spouse or registered domestic partner has consented to and agreed to be bound by the election form. Upon request, I will execute and deliver any additional documents deemed by MKS to be necessary or desirable to complete the exchange of the eligible stock options I am electing to exchange.

Please check the appropriate box:

		OR	
	to participate in the exchange offer as to celled irrevocably on August 28, 2009, or		st). My eligible options specifically listed below
		Option Grant Number	Grant Date
UNDERSTAN	D THAT THIS ELECTION FORM WILI	REPLACE ANY ELECTION I PREVI	OUSLY SUBMITTED.
UNDERSTAN	D THAT THIS ELECTION FORM WILI	L REPLACE ANY ELECTION I PREVI	OUSLY SUBMITTED.
		Date	OUSLY SUBMITTED.
Signature of Elig	ble Employee	Date	
Signature of Elig		Date	ployee I.D. for non-U.S. employees) of Eligible
Signature of Elig	ble Employee Employee (please print or type)	Date Social Security Number (Em	ployee I.D. for non-U.S. employees) of Eligible
Signature of Elig Name of Eligible If you are mar eligible options, is	ble Employee Employee (please print or type) NOTE TO ELIGIBLE In the control of	Date Social Security Number (Employee EMPLOYEES IN COMMUNITY PROPorovide that a spouse or registered domestic as your spouse or registered domestic partner this Election Form. States with community	ployee I.D. for non-U.S. employees) of Eligible

INSTRUCTIONS TO PAPER ELECTION FORM

Concepts and terms used herein are further described and defined in the Offer to Exchange Certain Stock Options for Restricted Stock Units dated August 3, 2009, referred to herein as the exchange offer. Please read the exchange offer in its entirety. You may tender your election through the exchange offer website at https://mks.optionelection.com or by completing and delivering a paper Election Form by following the instructions below.

- 1. <u>Defined Terms</u>. All terms used in the Election Form but not defined have the meaning given them in the exchange offer. References in the Election Form to "MKS," "we," and "us" mean MKS Instruments, Inc.
- 2. <u>Expiration Time</u>. The exchange offer and any rights to tender or to withdraw a tender of eligible options expire at 11:59 p.m., Eastern Time, on August 28, 2009, unless the exchange offer is extended.
- 3. <u>Delivery of Election Form</u>. If you intend to tender eligible options under the exchange offer, you must tender your election through the exchange offer website at https://mks.optionelection.com or deliver, and MKS must receive, a signed copy paper Election Form before the expiration time noted above. If you do not tender your election through the exchange offer website, you must use one of the following means to deliver your signed Election Form:

By Fax: MKS Instruments, Inc. Attention: Marlene Maffe Fax: (978) 557-5124

By E-Mail (By PDF or similar imaged document file): marlene_maffe@mksinst.com

Your Election Form will be effective only upon receipt by us. MKS will accept delivery of the signed Election Form only by one of the methods of delivery described above. The method of delivery is at your own option and risk. You are responsible for making sure that the Election Form is delivered to the person indicated above. You must allow for delivery time based on the method of delivery that you choose to ensure that we receive your Election Form on time.

You are not required to exchange your eligible options. You may exchange fewer than all of your eligible options, but must exchange all options in each eligible option grant, as defined in the exchange offer. You do not need to return your stock option agreements relating to any exchanged eligible options, as they will be automatically cancelled if we accept your eligible options for exchange.

4. <u>Withdrawal of Election</u>. Exchanges of eligible options made under the exchange offer may be withdrawn at any time before 11:59 p.m., Eastern Time, on August 28, 2009, unless we extend the expiration time, in which case withdrawals must be received before such extended expiration time.

To withdraw tendered eligible options, you must withdraw through the exchange offer website at https://mks.optionelection.com or deliver, and MKS must receive, a signed Withdrawal Form no later than the expiration time. If you do not withdraw through the exchange offer website, you must use fax or email to deliver your Withdrawal Form to Marlene Maffe in accordance with section 3 above.

Withdrawals may not be rescinded and any eligible options withdrawn will not be considered to be properly tendered, unless the withdrawn eligible options are properly re-tendered before the expiration time by following the procedures described in Instruction 3 above.

- 5. <u>Signatures</u>. Please sign and date the Election Form, and provide your social security number or other tax identification number. Except as described in the following sentence, the Election Form must be signed by the eligible employee who holds the eligible options to be tendered exactly as such eligible employee's name appears on the applicable option agreement. If the signature is by an attorney-in-fact or another person acting in a fiduciary or representative capacity, the signer's full title and proper evidence of the authority of such person to act in such capacity must be provided on the Election Form.
- 6. Requests for Assistance or Additional Copies. Any questions or requests for assistance regarding the exchange offer (including requests for additional or hard copies of the exchange offer or the Election Form or the Withdrawal Form) should be directed to Marlene Maffe, the MKS stock plan administrator, by e-mail at marlene maffe@mksinst.com or by telephone at (978) 645-5654.
- Irregularities. We will determine all questions as to the number of shares subject to eligible options tendered and the validity, form, eligibility (including time of receipt) and acceptance of your tender of eligible options. We will not accept tendered eligible options that would result in zero RSUs being granted. Subject to any order or decision by a court or arbitrator of competent jurisdiction, or any other applicable regulatory authority, our determination of these matters will be final and binding on all persons. We may reject any tender of eligible options that we determine is not in the appropriate form or would be unlawful to accept. We may waive any defect or irregularity in your tender with respect to your eligible options tendered before 11:59 p.m., Eastern Time, on August 28, 2009 (or such later expiration time as may apply if the exchange offer is extended). Your eligible options will not be accepted for exchange until you have cured all defects or irregularities to our satisfaction, or they have been waived by us, prior to 11:59 p.m., Eastern Time, on August 28, 2009 (or such later expiration time as may apply if the exchange offer is extended). Neither we nor any other person is obligated to give you notice of any defects or irregularities in any electronic election or paper election form, nor will anyone incur any liability for failure to give any notice.
- 8. <u>Conditional or Contingent Offers</u>. MKS will not accept any alternative, conditional or contingent tenders.
- 9. <u>Important Tax Information</u>. You should refer to Section 14 ("Material Income Tax Consequences") of the exchange offer, which contains important tax information for U.S. employees. Schedules C, D and E of the exchange offer contain important tax information for non-U.S. employees. We encourage all eligible employees to consult with tax advisors if you have questions about your financial or tax situation.
- 10. <u>Eligible Option Information</u>. If you would like to review all of your eligible options, you may do so by visiting http://www.netbenefits.com (employees outside the U.S. should click on the "Login to NetBenefits Worldwide" link).

MKS INSTRUMENTS, INC. FORM OF WITHDRAWAL FORM

INSTRUCTIONS TO WITHDRAWAL FORM

Concepts and terms used herein are further described and defined in the Offer to Exchange Certain Stock Options for Restricted Stock Units dated August 3, 2009, referred to herein as the exchange offer. Please read the exchange offer in its entirety.

If you previously elected to accept the exchange offer by MKS Instruments, Inc., which we refer to as MKS, we or us, to exchange all of your outstanding eligible options for RSUs, subject to the terms and conditions set forth in the exchange offer, and you would like to change your election and withdraw the tender of your eligible options, you must (i) withdraw through the exchange offer website by completing a new election or (ii) complete and sign a paper Withdrawal Form and return it to MKS so that we <u>receive</u> it before the expiration time, which is **11:59 p.m., Eastern Time, on August 28, 2009** (or such later expiration time as may apply if the exchange offer is extended).

Once the Withdrawal Form is signed and complete, please return it to MKS by one of the following means:

By Fax: MKS Instruments, Inc. Attention: Marlene Maffe Fax: (978) 557-5124

By E-Mail (By PDF or similar imaged document file): marlene_maffe@mksinst.com

The method of delivery is at your own election and risk. You are responsible for making sure that the Withdrawal Form is delivered to the person indicated above. You must allow for delivery time based on the method of delivery that you choose to ensure that we receive your Withdrawal Form on time. Your tendered eligible options will not be considered withdrawn until we receive your properly completed and signed Withdrawal Form. If you miss the deadline to submit the Withdrawal Form but remain an eligible employee, any previously tendered eligible options will be cancelled and exchanged pursuant to the exchange offer.

You must sign the Withdrawal Form exactly as your name appears on the Election Form you previously submitted. If your signature is by an attorney-infact or another person acting in a fiduciary or representative capacity for you, the signer's full title and proper evidence of the authority of that person to act in that capacity must be provided on the Withdrawal Form.

If you do not receive a confirmation of receipt of your Withdrawal Form from us within two business days after the date your Withdrawal Form should have been <u>received</u> by us, or if you submit your Withdrawal Form less than two business days **before 11:59 p.m., Eastern Time, on August 28, 2009** (or such later expiration time as may apply if the exchange offer is extended), please contact Marlene Maffe, the MKS stock plan administrator, by phone at (978) 645-5654 or by e-mail at marlene _maffe@mksinst.com to confirm that we have received your Withdrawal Form.

YOU DO NOT NEED TO COMPLETE AND RETURN THE WITHDRAWAL FORM UNLESS YOU WISH TO WITHDRAW A PREVIOUS TENDER OF ELIGIBLE OPTIONS.

WITHDRAWAL FORM

To: MKS Instruments, Inc. 2 Tech Drive, Suite 201 Andover, MA 01810 Attention: Marlene Maffe Fax: (978) 557-5124

E-mail: marlene_maffe@mksinst.com

I previously received a copy of the exchange offer, dated August 3, 2009, and the Election Form. I signed and returned the Election Form or completed an election form via the exchange offer website, in which I elected to tender eligible options.

I understand that, by signing this Withdrawal Form and delivering it to MKS, I withdraw my acceptance of the exchange offer with respect to all or some of my eligible options and reject the exchange offer as to those eligible options. By rejecting the exchange offer with respect to all or some of my eligible options, I understand that I will not receive RSUs in exchange for those eligible options and I will retain those eligible options with their existing term, exercise price, vesting schedule and other terms and conditions. I agree that MKS has made no representations or warranties to me regarding my rejection of the exchange offer. The withdrawal of the eligible options is at my own discretion. I agree that MKS will not be liable for any costs, taxes, losses or damages I may incur as a result of my decision to withdraw the eligible options listed above.

Please check the appropriate box:

o I wish to withdraw my election to exchange and instead REJECT the exchange offer. I do not wish to exchange any options.

of wish to withdraw my election to exchange and instead	RESECT the exchange offer. I do not wis	on to exchange any options.
OR		
o I wish to withdraw my election to exchange options as to exchange, and have not validly withdrawn, will remain elenot wish to exchange:		
	Option Grant Number	Grant Date
		
I UNDERSTAND THAT THIS WITHDRAWAL FORM	M WILL REPLACE ANY WITHDRAW	AL I PREVIOUSLY SUBMITTED.
Signature of Eligible Employee	Date	
Name of Eligible Employee (please print or type)	Social Security Number (Eligible Employee	or Employee I.D. for non-U.S. employees) of

NOTE TO ELIGIBLE EMPLOYEES IN COMMUNITY PROPERTY STATES

If you are married and reside in a state the laws of which provide that a spouse or registered domestic partner has a community property interest in the eligible options, in order to elect to withdraw those eligible options, your spouse or registered domestic partner must consent, agree to be bound and agree that any such community property interest shall similarly be bound, by this Withdrawal Form. States with community property laws are Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, Washington and Wisconsin.

Your signature constitutes your representation and warranty to MKS that either you are not married and do not have a registered domestic partner, your spouse or registered domestic partner has no community or other marital property rights in the eligible stock options or RSUs or your spouse or registered domestic partner has consented to and agreed to be bound by this Withdrawal Form. You should consult your personal outside advisors if you have questions about the spousal consent.

MKS INSTRUMENTS, INC. FORM OF CONFIRMATION E-MAIL/MEMO TO EMPLOYEES WHO ELECT TO PARTICIPATE IN OR WITHDRAW FROM THE EXCHANGE OFFER BY FAX OR E-MAIL

Concepts and terms used herein are further described and defined in the Offer to Exchange Certain Stock Options for Restricted Stock Units dated August 3, 2009, referred to herein as the exchange offer. Please read the exchange offer in its entirety.

I. Confirmation E-mail/Memo to Employees who Elect to Participate in the Exchange Offer by Fax or E-Mail

Subject: Confirmation of Election to Participate in Option Exchange Program

From: Marlene Maffe
Dear [Employee Name],

MKS has received your election to have some or all of your outstanding options cancelled in exchange for Restricted Stock Units (RSUs), as follows:

Option Grant Number Grant Date

If you change your mind, you may withdraw your election by submitting a withdrawal through the exchange offer website at https://mks.optionelection.com. You also may withdraw your election by submitting a properly signed and completed paper Withdrawal Form by fax or email (via PDF or similar imaged document file) by 11:59 p.m., Eastern Time, on August 28, 2009, unless we extend the exchange offer, to:

Marlene Maffe

E-Mail: marlene_maffe@mksinst.com

Fax: (978) 557-5124

Only responses that are complete and actually received by MKS (whether via the exchange offer website or via fax or e-mail) by the expiration time will be accepted. Responses submitted by any other means, including hand delivery, interoffice, U.S. mail (or other post) and Federal Express (or similar delivery service) are not permitted. The delivery of all documents, including election forms and withdrawal forms, is at your risk. If you make an election or withdrawal via the exchange offer website, you will receive a website confirmation. If you make an election or withdrawal via fax or e-mail, MKS will confirm the receipt of your election or withdrawal within two business days. If you have not received a confirmation, it is your responsibility to send an e-mail to Marlene Maffe at marlene_maffe@mksinst.com or call (978) 645-5654.

Please note that our receipt of your election is not by itself an acceptance of the eligible options for exchange. For purposes of the exchange offer, MKS will be deemed to have accepted options for exchange that are validly tendered and not properly withdrawn when MKS gives written notice to the eligible employee of its acceptance for exchange of such options, which notice may be made by e-mail or other method of communication.

The full terms of the exchange offer are described in (1) the exchange offer, (2) the Election Form and (3) the Withdrawal Form. You may access these documents on the exchange offer website at https://mks.optionelection.com or through the SEC website at http://www.sec.gov.

II. Confirmation E-mail/Memo to Employees who Submit a Withdrawal Form by Fax or E-Mail

Subject: Confirmation of Withdrawal From Option Exchange Program

From: Marlene Maffe
Dear [Employee Name],

MKS has received your Withdrawal Form, by which you withdrew from the MKS Instruments offer to exchange some or all of your eligible outstanding options for restricted stock units (RSUs), as follows:

Option Grant Number	Grant Date

If you change your mind and decide you would like to participate in the exchange offer, you may submit a new election through the exchange offer website at https://mks.optionelection.com. You also may make an election by submitting a properly signed and completed paper Election Form by fax or email (via PDF or similar imaged document file) by 11:59 p.m., Eastern Time, on August 28, 2009, unless we extend the exchange offer, to:

Marlene Maffe

E-Mail: marlene_maffe@mksinst.com

Fax: (978) 557-5124

Only responses that are complete and actually received by MKS (whether via the exchange offer website or via fax or e-mail) by the expiration time will be accepted. Responses submitted by any other means, including hand delivery, interoffice, U.S. mail (or other post) and Federal Express (or similar delivery service) are not permitted. The delivery of all documents, including election forms and withdrawal forms, is at your risk. If you make an election or withdrawal via the exchange offer website, you will receive a website confirmation. If you make an election or withdrawal via fax or e-mail, MKS will confirm the receipt of your election or withdrawal within two business days. If you have not received a confirmation, it is your responsibility to send an e-mail to Marlene Maffe at marlene_maffe@mksinst.com or call (978) 645-5654.

The full terms of the exchange offer are described in (1) the exchange offer, (2) the Election Form and (3) the Withdrawal Form. You may access these documents on the exchange offer website at https://mks.optionelection.com or through the SEC website at http://www.sec.gov.

MKS INSTRUMENTS, INC. FORM OF REMINDER E-MAIL TO ELIGIBLE EMPLOYEES

Participate in your company's stock option exchange program

Dear [[FIRST:REQUIRED,CONVERT_CASE("FIRSTNAME")]] [[LAST: REQUIRED,CONVERT_CASE("LASTNAME")]],

Per the previous communication, this is a reminder that you have the opportunity to participate in the MKS Instruments, Inc. Stock Option Exchange Program.

To participate or learn more about the program, please click on https:// mks.optionelection.com. For U.S. employees, your user name is the last four digits of your social security number. For employees outside the U.S., your user name is the last four digits of your employee ID number. Your initial password is the first four letters of your last name, all uppercase, excluding spaces or characters.

You have until August 28, 2009 (unless MKS extends the exchange offer), to decide whether you would like to participate.

More details about the MKS Stock Option Exchange Program and frequently asked questions about the Program can be found on https://mks. optionelection.com and in the offer materials contained in the link above.

Sincerely,

Leo Berlinghieri, Chief Executive Officer and President

Quick Links

• The Exchange Program

MKS INSTRUMENTS, INC. SCREEN SHOTS OF THE EXCHANGE OFFER WEBSITE

Login Page



MKS Exchange Offer

The exchange offer expires at 11:59 p.m., Eastern Time, on August 28, 2009, unless extended by MKS Instruments, Inc.

YOU SHOULD KNOW:

After 15 minutes of After 15 minutes of inactivity, you will be timed out of the session and must begin again. Your work will not be saved if you are timed out.

Welcome!



This Website is intended to help you understand the number of RSUs you This Website is intended to help you understand the number of RSUs you will be granted in exchange for your outstanding eligible options if you elect to participate in the program according to the provisions of the Offer to Exchange and to provide a means of electing to participate. The Exchange Offer Calculator tool available through the Website will show you the number of RSUs you will receive in exchange for your current eligible options (based upon hypothetical exchange ratios) if you tender those options to MKS. The Offer to Exchange sets out all of the terms and conditions of the exchange offer.

To login, enter your Username, date of birth and login password. For U.S. employees, your Username is the last four digits of your social security number. For employees outside the U.S., your Username is the last four digits of your employee ID number. Your *initial* login password information was provided in a separate email to you. The initial password is case sensitive: use all caps. If you have already logged in and assigned yourself a password, use that password.

When you have entered the information, click "Login." If you do not have your login information, please contact:

- . U.S. employees may call 1-800-544-9354 between the hours of 5:00 p.m. on Sunday and Midnight on Friday, Eastern
- U.K., Germany or Japan employees may call 1-800-544-0275 Monday through Friday, 8 a.m. through 8 p.m., local time. See below for your country's access code.

 - U. K.: 0-800-89-0011 or 0-500-89-0011 Germany: 0800-225-5288 Japan: 00-539-111 (KDD), 00-665-5111 (IDC), or 00-441-1111 (JT)

This exchange offer website ("Website") provides information about MKS Instruments, Inc.'s offer to exchange eligible

Login Page (continued)



MKS Exchange Offer

The exchange offer expires at 11:59 p.m., Eastern Time, on August 28, 2009, unless extended by MKS Instruments, Inc.

YOU SHOULD KNOW:

After 15 minutes of inactivity, you will be timed out of the session and must begin again. Your work will not be saved if you are timed out.

To login, enter your Username, date of birth and login password. For U.S. employees, your Username is the last four digits of your social security number. For employees outside the U.S., your Username is the last four digits of your employee ID number. Your initial login password information was provided in a separate email to you. The initial password is case sensitive: **use all caps.** If you have already logged in and assigned yourself a password, use that password.

When you have entered the information, click "Login." If you do not have your login information, please contact:

- . U.S. employees may call 1-800-544-9354 between the hours of 5:00 p.m. on Sunday and Midnight on Friday, Eastern
- U.K., Germany or Japan employees may call 1-800-544-0275 Monday through Friday, 8 a.m. through 8 p.m., local time. See below for your country's access code.
 - O U. K.: 0-800-89-0011 or 0-500-89-0011

 - O Germany: 0800-225-5288 O Japan: 00-539-111 (KDD), 00-665-5111 (IDC), or 00-441-1111 (JT)

This exchange offer website ("Website") provides information about MKS Instruments, Inc.'s offer to exchange eligible options for a lesser number of restricted stock units (the "exchange offer"). In connection with the exchange offer, MKS has filed with the Securities and Exchange Commission ("SEC") a Tender Offer Statement on Schedule TO, which includes the Offer to Exchange Certain Stock Options for Restricted Stock Units and other exhibits (collectively, the

You must make an election for each grant of your outstanding eligible options prior to 11:59 p.m., Eastern Time, on rou must make an election for each grant or your outstanding eligible options prior to 11:59 p.m., Eastern Time, on August 28, 2009 or if MKS elects to extend the exchange offer, such later time (the "expiration time") if you wish to participate. You may withdraw your election at any time if your withdrawal is received before the expiration time. You then may change your mind and re-tender eligible options if your re-tender election is received before the expiration time. The system will remain open virtually 24 hours a day until the expiration time. You may tender for exchange any one or more of your eligible option grants or none at all. However, you must exchange all options received pursuant to each eligible option grant. If you do not make an election, your eligible options will remain in effect, in accordance with their existing terms and conditions.

Terms of Use



MKS Exchange Offer

Terms of Use

Terms of Use

Your use of the Website is subject to the following Terms of Use ("Terms"). By using or accessing the Website, you accept and agree to be bound by these Terms. Your use of the Website is governed by the version of the Terms in effect on the date the Website is accessed by you. MKS may modify these Terms at any time without prior notice.

This Website is the property of MKS and/or its licensors. Subject to the Terms set forth herein, you are hereby granted a non-exclusive, non-transferable right to access, use and display this Website and the information generated by the Website. MKS hereby authorizes you to view and/or download the information on this Website only for your personal non-commercial use. This authorization is not a transfer of title to the information downloaded. You may not use the Website in any way (other than to enter your own assumptions). You may not modify, copy, display, distribute, reverse engineer, decompile, disassemble or otherwise extract any source code, algorithms, methods or techniques embodied in the Website. The Website is protected by intellectual property laws worldwide.

The Website may contain inaccuracies and typographical errors. Neither MKS nor its licensors warrants the accuracy or completeness of the Website or the reliability thereof, subject to applicable law. The Website is not intended to provide legal, financial or tax advice or opinions, do not serve as a substitute for specific advice from a licensed professional and you may not rely on the contents of the Website as such. All examples are hypothetical and are intended for illustrative purposes only. We recommend that you consult with your own personal investment, tax and legal advisors for advice on your specific situation. Any actions that you take based on the Website are your sole responsibility.

You acknowledge that no expressed or implied warranties about the Website are made, including but not limited to implied warranties of merchantability, fitness for a particular use or purpose, title or non-infringement.

The Website is made available to you on an "as is", "as available" and "with all faults" basis. Neither MKS nor its licensors warrants that any defects or inaccuracies will be corrected, subject to applicable law. Although every effort has been made to provide a Website that is secure, timely and accurate, neither MKS nor its licensors warrant that the Website will meet your needs or that it will be uninterrupted, timely, secure or error-free. MKS and its licensors also make no warranty that the results obtained from the use of the Website will be accurate or reliable, or that the quality of any products, services, tools,

Terms of Use (continued)



MKS Exchange Offer

Terms of Use

worldwide.

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You acknowledge that no expressed or implied warranties about the Website are made, including but not limited to implied warranties of merchantability, fitness for a particular use or purpose, title or non-infringement.

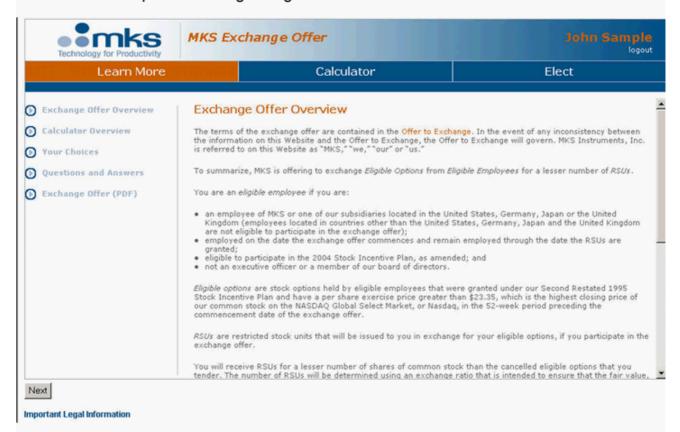
The Website is made available to you on an "as is", "as available" and "with all faults" basis. Neither MKS nor its licensors warrants that any defects or inaccuracies will be corrected, subject to applicable law. Although every effort has been made to provide a Website that is secure, timely and accurate, neither MKS nor its licensors warrant that the Website will meet your needs or that it will be uninterrupted, timely, secure or error-free. MKS and its licensors also make no warranty that the results obtained from the use of the Website will be accurate or reliable, or that the quality of any products, services, tools, information or other material obtained by you through this Website will meet your expectations. In no event shall MKS or any of its licensors be liable for any consequential, incidental, special, indirect or other losses or damages of whatsoever kind that result from use or loss of use of the Materials, however caused and to the fullest extent permitted by law, even if MKS has been advised of the possibility of such losses or damages. These Terms and their enforcement are governed by the laws of the State of Massachusetts, without regard to conflicts of law. The rights, exclusions and limitations of liability under these Terms operate to the benefit of MKS' subcontractors, licensors and vendors to the same extent that such provisions operate to the benefit of MKS.

By clicking "I Agree" below, I am indicating that I understand and accept the Terms.

I Agree Close

7

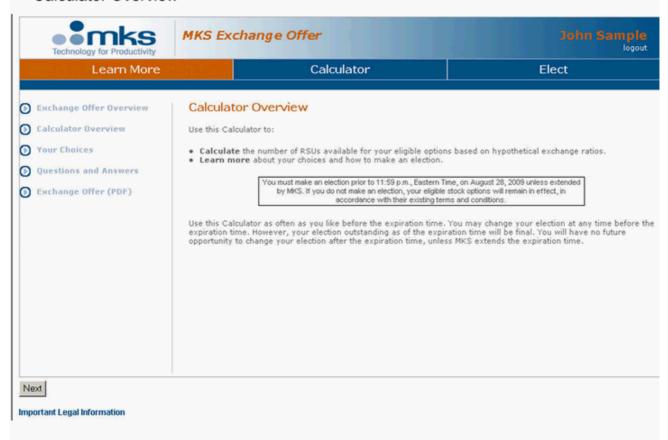
Overview of Option Exchange Program



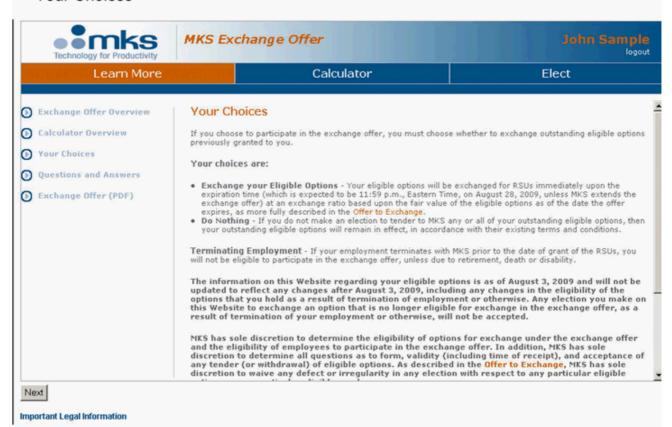
Overview of Option Exchange Program (continued)



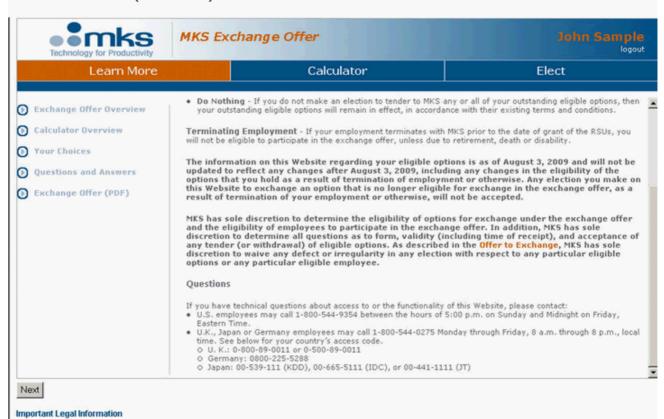
Calculator Overview



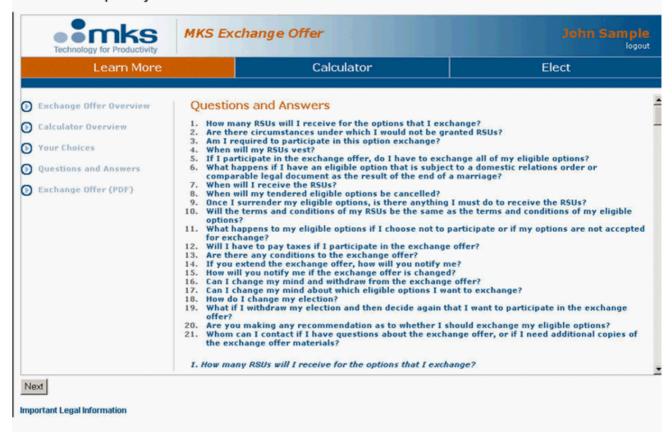
Your Choices

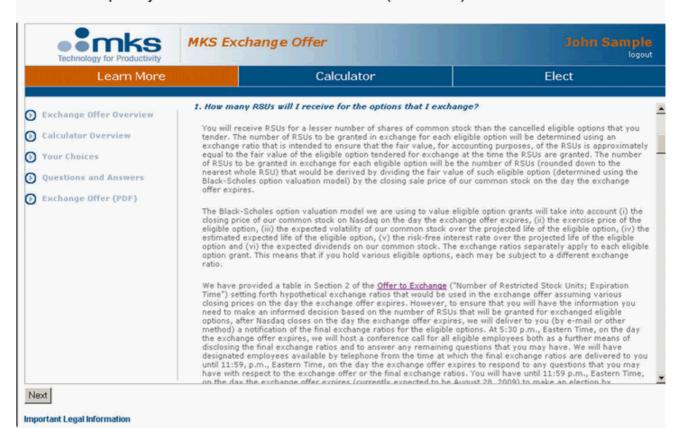


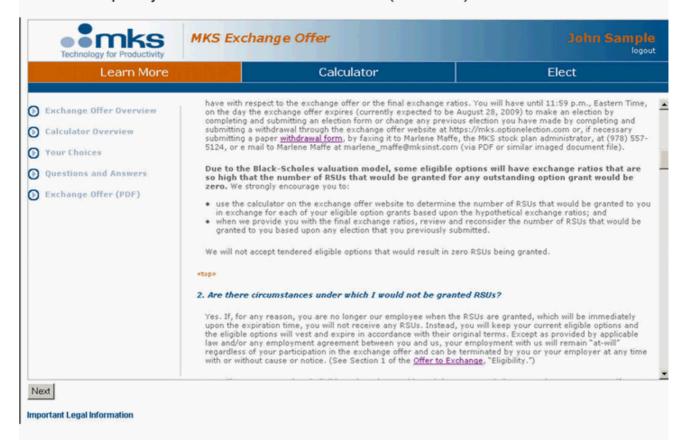
Your Choices (continued)

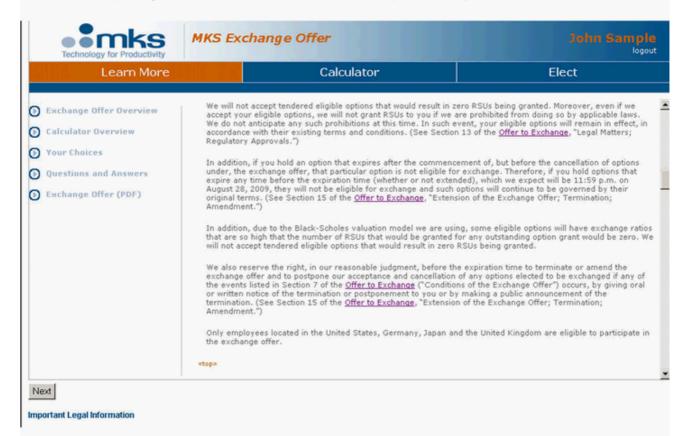


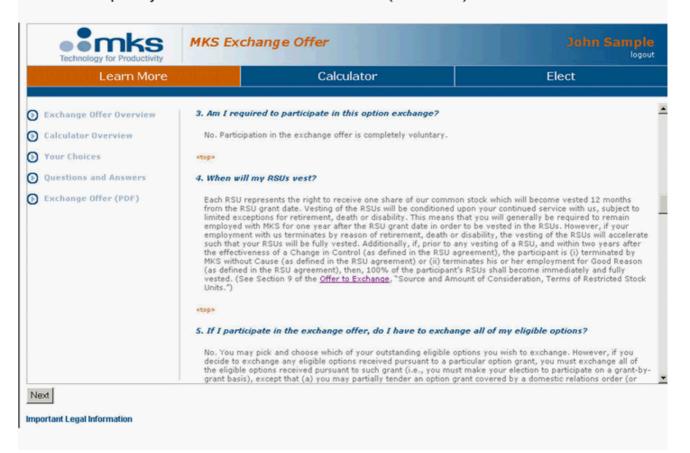
Most Frequently Asked Questions and Answers



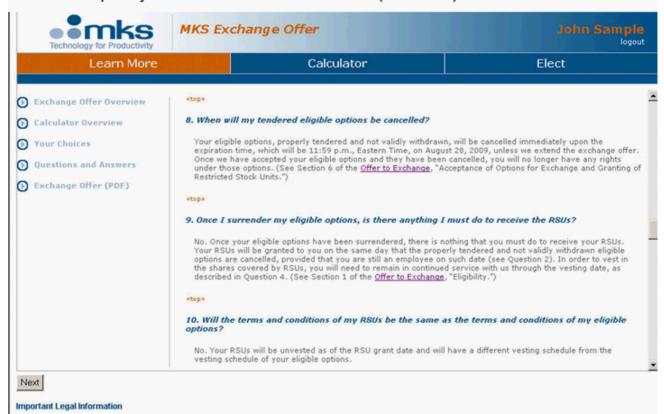


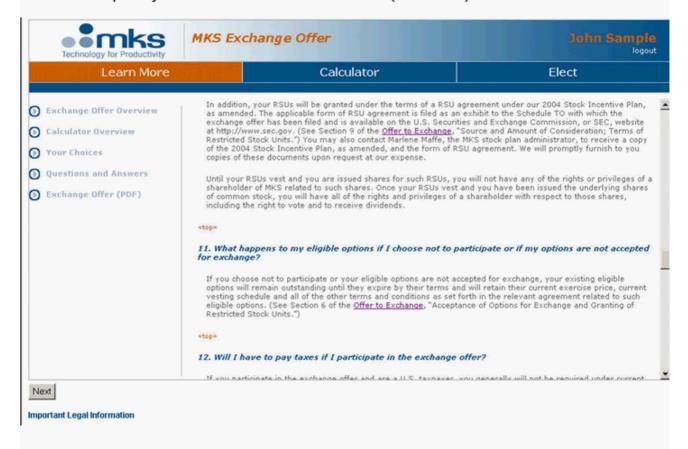


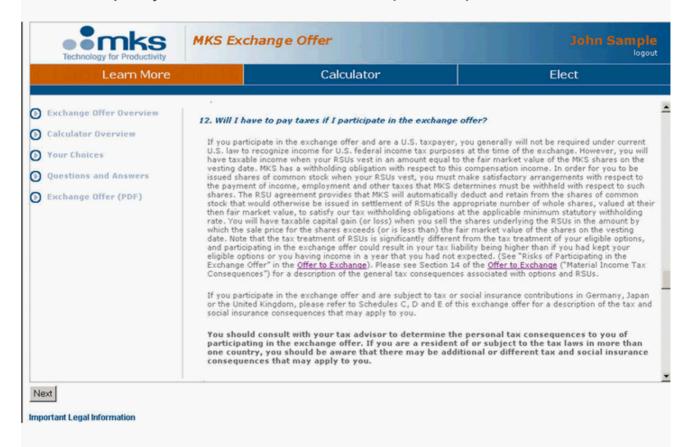


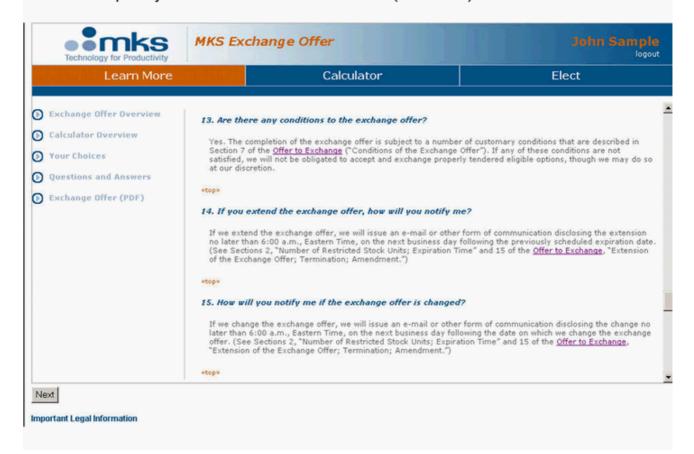


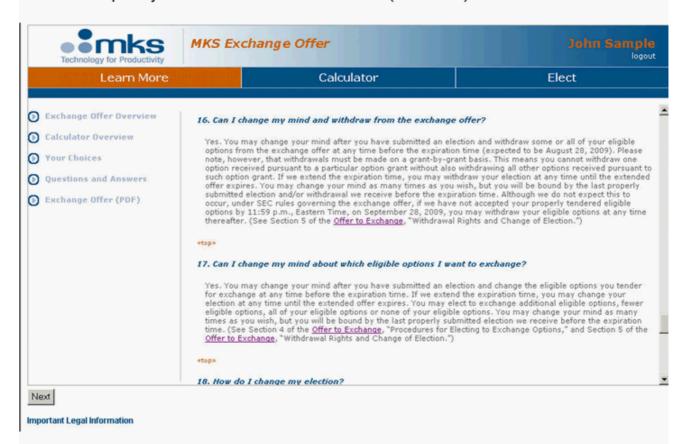




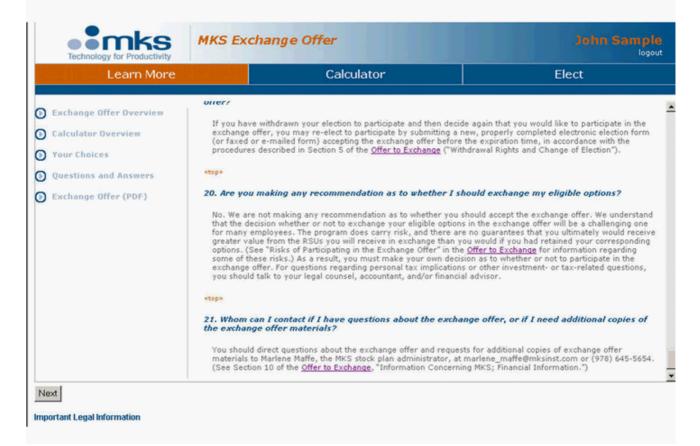












Elect tab



MKS Exchange Offer

John Sample logout

Learn More Calculator Elect

Exchange Offer Election Form

To exchange your eligible options by tendering them in the exchange offer, check the boxes below. To exchange all eligible options, check the box "Exchange All Eligible Options." To withdraw your decision to exchange eligible options by tendering them, uncheck the boxes below. You may re-tender your eligible options by checking the boxes once again.

Your Stock Options

Exchange All Eligible Options

Grant Year	Grant Date	Exercise Price	Eligible Vested Options*	I elect to exchange my eligible options
2000	01/04/2000	\$32.00	2,000	₽
2002	01/30/2002	\$23.50	3,000	₽
2002	01/30/2002	\$23.50	250	
2003	11/11/2003	\$27.11	1,500	
2004	01/05/2004	\$29.93	500	П

*May not reflect the expiration, termination or forfeiture of options prior to the expiration time (which is expected to be 11:59 p.m., Eastern Time, on August 28, 2009 unless MKS elects to extend the exchange offer).

For a paper election form, click here.

By election to exchange my eligible ontions by tendering them in the exchange offer. I acknowledge that:

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Elect tab (continued)



By electing to exchange my eligible options by tendering them in the exchange offer, I acknowledge that:

- 1. I understand that, upon acceptance by MKS Instruments, Inc., this Election Form will constitute a binding agreement between MKS and me.
- 2. I understand that if I validly tender all of my eligible options for exchange, and such eligible options are accepted, I will receive RSUs for a lesser number of shares of common stock than the cancelled eligible options that I tender. The number of RSUs will be determined using an exchange ratio that is intended to ensure that the fair value, for accounting purposes, of the RSUs is approximately equal to the fair value of the eligible options tendered for exchange at the time the RSUs are granted. The number of RSUs to be granted in exchange for each eligible option will be that number of RSUs (rounded down to the nearest whole) that would be derived by dividing the fair value of such eligible option grant (determined using the Black-Scholes option valuation model) by the closing sale price of MKS common stock on the day the exchange offer expires. The Black-Scholes option valuation model used to value eligible option grants will take into account (i) the closing price of the MKS common stock on Nasdaq on the day the exchange offer expires, (ii) the exercise price of the option grant, (iii) the expected volatility of MKS common stock over the projected life of the option grant, (iv) the estimated expected life of the option grant, (v) the risk-free interest rate over the projected life of the option grant and (vi) the expected dividends on MKS common stock. Because the Black-Scholes valuation model takes into account certain assumptions on the day the exchange offer expires, including the closing price of MKS common stock, the Black-Scholes value of the tendered eligible options, the exact exchange ratios and number of RSUs to be granted will not be known until shortly after 4:00 p.m., Eastern Time, on the day the exchange offer expires.
- I understand that the RSUs will have a vesting period of one year. Vesting of the RSUs will be conditioned upon my continued service with MKS, subject to
 limited exceptions for retirement, death or disability. This means that I will generally be required to remain employed with MKS for one year after the RSU
 grant date in order to be vested in the RSUs.
- 4. I understand that RSUs will be granted under and subject to the provisions of the MKS Instruments 2004 Stock Incentive Plan, as amended.
- MKS has advised me to consult with my own advisors, including personal, investment, tax and legal advisors, as to the consequences of participating or not participating in this exchange offer.
- 6. To remain eligible to tender eligible options for exchange pursuant to the exchange offer, I understand that I must remain an eligible employee and must not have received nor have given a notice of termination of employment prior to the expiration time, which is scheduled to be 11:59 p.m., Eastern Time, on August 28, 2009, unless the exchange offer is extended. I understand that if I die or do not remain in continued service with MKS through the expiration time, MKS will not accept my eligible options for cancellation and I or my estate or beneficiaries, as the case may be, will retain my eligible options with their current terms and conditions.

Back

Elect tab (continued)



their current terms and conditions.

- I understand that neither the ability to participate in the exchange offer nor actual participation in the exchange offer will be construed as a right to continued employment with MKS or any of its subsidiaries.
- I understand that in accordance with the exchange offer, MKS may terminate, modify or amend the exchange offer and postpone its acceptance and
 cancellation of any eligible options that I have tendered for exchange. As a result, I understand that if my eligible options tendered for exchange are not
 accepted, they will remain in effect with their current terms and conditions.
- I understand that this election is entirely voluntary, and I am aware that I may change or withdraw my decision to tender my eligible options at any time
 until the exchange offer expires as described in the exchange offer materials. I understand that this decision to tender my eligible options will become
 irrevocable at 11:59 p.m., Eastern Time, on August 28, 2009, unless the exchange offer is extended.
- 10. I sell, assign and transfer to MKS all right, title and interest in and to all of the eligible options that I am tendering, and I agree that I shall have no further right or entitlement to purchase any shares of MKS common stock under the tendered eligible options on the date MKS accepts those eligible options for exchange and cancellation. I understand that my subsequent death or incapacity will not affect the authority of MKS to take the actions described in the exchange offer with respect to eligible options that I have tendered for exchange and that have been accepted for cancellation, and such authority will survive my death or incapacity. All of my obligations under this Election Form will be binding upon my heirs, personal representatives, successors and assigns.
- I agree to all of the terms and conditions of the exchange offer contained in the Offer to Exchange Certain Stock Options for Restricted Stock Units dated August 3, 2009 and related exhibits.
- 12. I hereby represent and warrant that I have full power and authority to elect to surrender the eligible stock options listed for exchange in the table below and that, when and to the extent such eligible stock options are accepted by MKS, such eligible stock options will be free and clear of all security interests, liens, restrictions, charges, encumbrances, conditional sales agreements or other obligations relating to the sale or transfer thereof, and such eligible stock options will not be subject to any adverse claims. Without limiting the foregoing, I hereby represent and warrant that either I am not married and do not have a registered domestic partner, my spouse or registered domestic partner has no community or other marital property rights in the eligible stock options or RSUs, or my spouse or registered domestic partner has consented to and agreed to be bound by the election form. Upon request, I will execute and deliver any additional documents deemed by MKS to be necessary or desirable to complete the exchange of the eligible stock options I am electing to exchange.

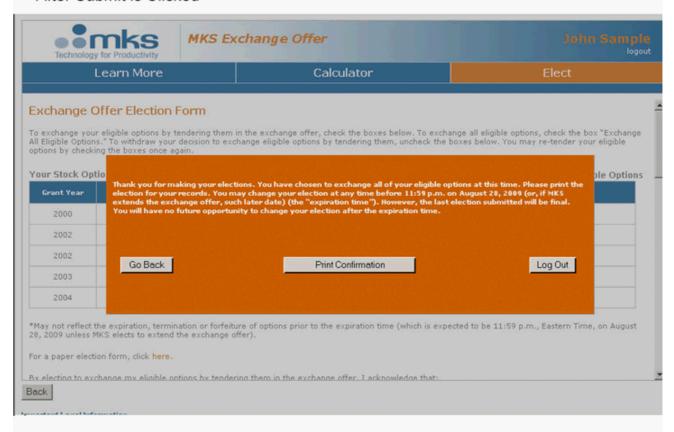
Back

Elect tab (continued)



Back

After Submit is Clicked



Print Confirmation



MKS Exchange Offer

Click here to print

Close this window

Print Confirmation John Sample

Confirmation Number: testcase1-20090731-110409

Print Elections

Your Stock Options

Grant Year	Grant Date	Exercise Price	Eligible Vested Options	I elect to 'Exchange' my Eligible Options
2000	01/04/2000	\$32.00	2,000	
2002	01/30/2002	\$23.50	3,000	п
2002	01/30/2002	\$23.50	250	п
2003	11/11/2003	\$27.11	1,500	п
2004	01/05/2004	\$29.93	500	П

To exchange your eligible options by tendering them in the exchange offer, check the boxes below. To exchange all eligible options, check the box "Exchange All Eligible Options." To withdraw your decision to exchange eligible options by tendering them, uncheck the boxes below. You may re-tender your eligible options by checking the boxes once again.

By electing to exchange my eligible options by tendering them in the exchange offer, I acknowledge that:

1. I understand that, upon acceptance by MKS Instruments, Inc., this Election Form will constitute a binding agreement between MKS and me.

Print Confirmation (continued)

- 2. I understand that if I validly tender all of my eligible options for exchange, and such eligible options are accepted, I will receive RSUs for a lesser number of shares of common stock than the cancelled eligible options that I tender. The number of RSUs will be determined using an exchange ratio that is intended to ensure that the fair value, for accounting purposes, of the RSUs is approximately equal to the fair value of the eligible options tendered for exchange at the time the RSUs are granted. The number of RSUs to be granted in exchange for each eligible option will be that number of RSUs (rounded down to the nearest whole) that would be derived by dividing the fair value of such eligible option grant all determined using the Black-Scholes option valuation model) by the closing sale price of MKS common stock on the day the exchange offer expires. The Black-Scholes option valuation model used to value eligible option grants will take into account (i) the closing price of the MKS common stock on Nasdaq on the day the exchange offer expires, (ii) the exercise price of the option grant, (ii) the expected volatility of MKS common stock over the projected life of the option grant, (iv) the estimated expected life of the option grant, (v) the risk-free interest rate over the projected life of the option grant and (vi) the expected dividends on MKS common stock. Because the Black-Scholes valuation model takes into account certain assumptions on the day the exchange offer expires, including the closing price of MKS common stock, the Black-Scholes value of the tendered eligible options, the exact exchange ratios and number of RSUs to be granted will not be known until shortly after 4:00 p.m., Eastern Time, on the day the exchange offer expires.
- I understand that the RSUs will have a vesting period of one year. Vesting of the RSUs will be conditioned upon my continued service with MKS, subject to
 limited exceptions for retirement, death or disability. This means that I will generally be required to remain employed with MKS for one year after the RSU
 arrant date in order to be vested in the RSUs.
- 4. I understand that RSUs will be granted under and subject to the provisions of the MKS Instruments 2004 Stock Incentive Plan, as amended.
- MKS has advised me to consult with my own advisors, including personal, investment, tax and legal advisors, as to the consequences of participating or not participating in this exchange offer.
- 6. To remain eligible to tender eligible options for exchange pursuant to the exchange offer, I understand that I must remain an eligible employee and must not have received nor have given a notice of termination of employment prior to the expiration time, which is scheduled to be 11:59 p.m., Eastern Time, on August 28, 2009, unless the exchange offer is extended. I understand that if I die or do not remain in continued service with MKS through the expiration time, MKS will not accept my eligible options for cancellation and I or my estate or beneficiaries, as the case may be, will retain my eligible options with their current terms and conditions.
- I understand that neither the ability to participate in the exchange offer nor actual participation in the exchange offer will be construed as a right to continued employment with MKS or any of its subsidiaries.
- 8. I understand that in accordance with the exchange offer, MKS may terminate, modify or amend the exchange offer and postpone its acceptance and cancellation of any eligible options that I have tendered for exchange. As a result, I understand that if my eligible options tendered for exchange are not accepted, they will remain in effect with their current terms and conditions.
- I understand that this election is entirely voluntary, and I am aware that I may change or withdraw my decision to tender my eligible options at any time
 until the exchange offer expires as described in the exchange offer materials. I understand that this decision to tender my eligible options will become
 irrevocable at 11:59 p.m., Eastern Time, on August 28, 2009, unless the exchange offer is extended.
- 10. I sell, assign and transfer to MKS all right, title and interest in and to all of the eligible options that I am tendering, and I agree that I shall have no further right or entitlement to purchase any shares of MKS common stock under the tendered eligible options on the date MKS accepts those eligible options for exchange and cancellation. I understand that my subsequent death or incapacity will not affect the authority of MKS to take the actions described in the exchange offer with respect to eligible options that I have tendered for exchange and that have been accepted for cancellation, and such authority will survive my death or incapacity. All of my obligations under this Election Form will be binding upon my heirs, personal representatives, successors and assigns.

Print Confirmation (continued)

- I agree to all of the terms and conditions of the exchange offer contained in the Offer to Exchange Certain Stock Options for Restricted Stock Units dated August 3, 2009 and related exhibits.
- 12. I hereby represent and warrant that I have full power and authority to elect to surrender the eligible stock options listed for exchange in the table below and that, when and to the extent such eligible stock options are accepted by MKS, such eligible stock options will be free and clear of all security interests, liens, restrictions, charges, encumbrances, conditional sales agreements or other obligations relating to the sale or transfer thereof, and such eligible stock options will not be subject to any adverse claims. Without limiting the foregoing, I hereby represent and warrant that either I am not married and do not have a registered domestic partner, my spouse or registered domestic partner has no community or other marital property rights in the eligible stock options or RSUs, or my spouse or registered domestic partner has consented to and agreed to be bound by the election form. Upon request, I will execute and deliver any additional documents deemed by MKS to be necessary or desirable to complete the exchange of the eligible stock options I am electing to exchange.

The exchange offer expires at 11:59 p.m., Eastern Time, August 28, 2009, unless extended by MKS Instruments. You can change your decision until August 28, 2009, as the system will remain open virtually 24 hours a day until such time. Your properly submitted and accepted election outstanding as of 11:59 p.m., Eastern Time, on August 28, 2009 (unless MKS Instruments extends the exchange offer) will be your final decision. If you do not make an election for any or all of your outstanding eligible option grants, they will not be exchanged and will remain outstanding in accordance with their existing terms and conditions.

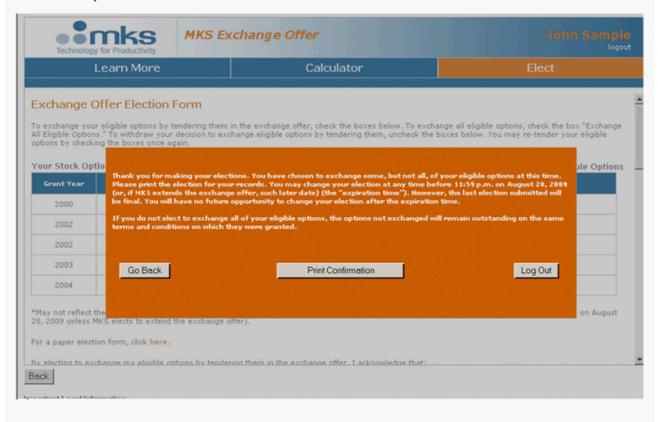
NOTE TO ELIGIBLE EMPLOYEES IN COMMUNITY PROPERTY STATES

If you are married and reside in a state the laws of which provide that a spouse or registered domestic partner has a community property interest in the eligible options, in order to elect to tender your eligible options your spouse or registered domestic partner must consent, agree to be bound and agree that any such community property interest shall similarly be bound, by this Election Form. States with community property laws are Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, Washington and Wisconsin.

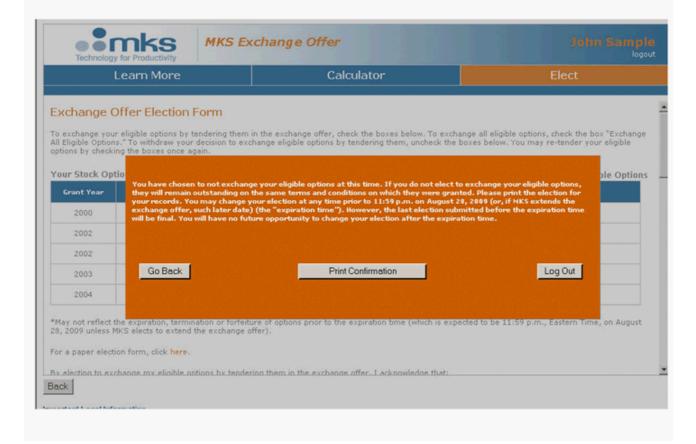
Your submission constitutes your representation and warranty to MKS that either you are not married and do not have a registered domestic partner, your spouse or registered domestic partner has no community or other marital property rights in the eligible stock options or RSUs or your spouse or registered domestic partner has consented to and agreed to be bound by this Election Form. You should consult your personal outside advisors if you have questions about spousal consent.

Friday July 31, 2009, 11:04 AM

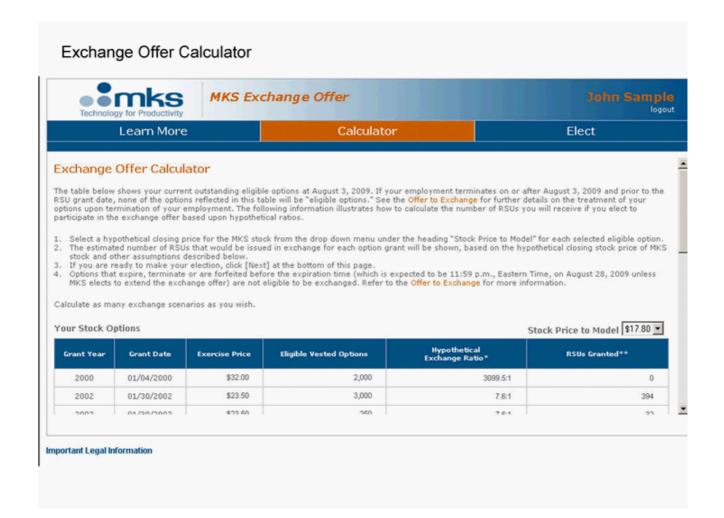
Additional Scenario: After You Click Submit After Electing to Exchange Some, But Not All Options



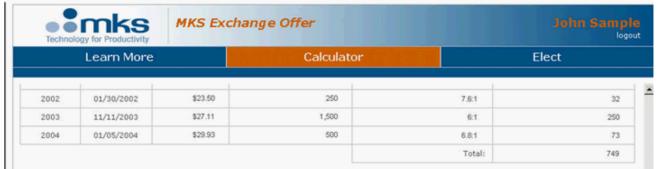
Additional Scenario: After You Click Submit After Electing to Exchange No Options



MKS INSTRUMENTS, INC. SCREEN SHOTS OF ILLUSTRATIVE CALCULATOR TO CALCULATE NUMBER OF RESTRICTED STOCK UNITS



Exchange Offer Calculator (continued)



*For purposes of applying exchange ratios, fractional RSUs will be rounded down to the nearest whole number on a grant by grant basis.

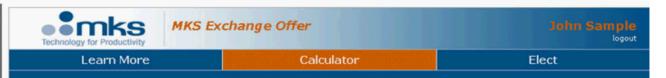
**May not reflect the expiration, termination or forfeiture of options prior to the expiration time (which is expected to be 11:59 p.m., Eastern Time, on August 28, 2009 unless MKS elects to extend the exchange offer).

Important Information about the Calculator

Please note that the number of RSUs listed using the calculator are based on the hypothetical closing price of the MKS stock that you have selected, and certain other assumptions underlying the Black-Scholes valuation model described below. The actual number of RSUs issuable upon exchange of each selected eligible option will depend on the Black-Scholes valuation of the eligible options as of the expiration of the exchange offer. Accordingly, the number of RSUs issuable to you in exchange for your eligible option may be higher or lower than the number of RSUs indicated in the calculator above.

To ensure that you will have the information you need to make an informed decision based on the number of RSUs that will be granted for exchanged eligible options, after Nasdaq closes on the day the exchange offer expires, we will deliver to you (by e-mail or other method) a notification of the final exchange ratios for the eligible options. At 5:30 p.m., Eastern Time, on the day the exchange offer expires, we will host a conference call for all eligible employees both as a further means of disclosing the final exchange ratios and to answer any remaining questions that you may have. We will have designated employees

Exchange Offer Calculator (continued)



To ensure that you will have the information you need to make an informed decision based on the number of RSUs that will be granted for exchange eligible options, after Nasdag closes on the day the exchange offer expires, we will deliver to you (by e-mail or other method) a notification of the final exchange ratios for the eligible options. At 5:30 p.m., Eastern Time, on the day the exchange offer expires, we will host a conference call for all eligible employees both as a further means of disclosing the final exchange ratios and to answer any remaining questions that you may have. We will have designated employees available by telephone from the time at which the final exchange ratios are delivered to you until 11:59, p.m., Eastern Time, on the day the exchange offer expires to respond to any questions that you may have with respect to the exchange offer or the final exchange ratios. You will have until 11:59 p.m., Eastern Time, on the day the exchange offer expires (currently expected to be August 28, 2009) to make an election by completing and submitting an election form or change any previous election you have made by completing and submitting a withdrawal through the exchange offer website at https://mks.optionelection.com or, if necessary submitting a paper withdrawal form, by faxing it to Marlene Maffe, the MKS stock plan administrator, at (978) 557-5124, or e mail to Marlene Maffe at marlene_maffe@mksinst.com (via PDF or similar imaged document file).

The Black-Scholes option valuation model used to value eligible option grants will take into account (i) the closing price of our common stock on Nasdaq on the day the exchange offer expires, (ii) the exercise price of the option grant, (iii) the expected volatility of our common stock over the projected life of the option grant, (iv) the estimated expected life of the option grant, (v) the risk-free interest rate over the projected life of the option grant and (vi) the expected dividends on our common stock. The valuation model underlying the calculator above assumes a volatility spread of up to 52%.

The terms and conditions applicable to the exchange offer and any decision to exchange eligible options by tendering them in the exchange offer are contained in the Offer to Exchange.

If you elect to exchange eligible options, those options accepted by MKS will be cancelled immediately after the expiration time. MKS believes any "exchange" election shall be treated as a non-taxable event for U.S. federal income tax purposes. Tax consequences for foreign jurisdictions may vary. Please see important tax information in the Offer to Exchange. MKS also recommends that you consult with your personal investment, tax and legal advisors before making your election.



Important Legal Information

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MKS INSTRUMENTS, INC. FORM OF E-MAIL REGARDING ACTUAL EXCHANGE RATIOS

To: Eligible Employees Date: August 28, 2009

Subject: MKS Instruments Offer to Exchange Certain Stock Options for Restricted Stock Units (RSUs)

Today is the last day to elect to exchange your eligible options as part of the MKS Instruments, Inc. Offer to Exchange Certain Options for Restricted Stock Units (referred to as the "exchange offer"). The exchange offer will expire at 11:59 p.m., Eastern Time, today, August 28, 2009.

If you would like to participate in this exchange offer, you must properly tender your election through the exchange offer website at https://mks.optionelection.com or complete and transmit a paper Election Form before 11:59 p.m., Eastern Time, today, August 28, 2009. If you do not use the exchange offer website to tender your election, you must use one of the following means to deliver your signed paper Election Form:

By Fax:

MKS Instruments, Inc. Attention: Marlene Maffe Fax: (978) 557-5124

By E-Mail (By PDF or similar imaged document file):

marlene_maffe@mksinst.com

Only elections that are complete and actually received by the deadline will be accepted.

If you have questions, please call me at (978) 645-5654 or direct them to me by e-mail at marlene_maffe@mksinst.com.

We are sending this e-mail to you to notify you of the final exchange ratios for determining the number of RSUs. Below is a table that you can use to calculate the number of RSUs that you would receive in exchange for your eligible options based on the final exchange ratios.

Final Exchange Ratios Applicable to Eligible Options.

Utilizing the Black-Scholes value of the RSUs and eligible options determined based on a per share stock price of \$[___], which was the closing price of our common stock on August 28, 2009 and a volatility of [___]%, the final exchange ratios applicable to eligible options granted under the MKS Instruments, Inc. Second Restated 1995 Stock Incentive Plan are as follows:

[INSERT TABLE WITH ACTUAL EXCHANGE RATIOS]

Conference Call

At 5:30 p.m., Eastern Time, today, we will host a conference call for all eligible employees both as a further means of disclosing the final exchange ratios disclosed above and to answer any remaining questions that you may have.

Below is the dial in information for the conference call:

- the domestic dial in number for the conference call is (888) 839-0965;
- the international dial in for the conference call is (617) 597-4110; and
- the participant code for the conference call is 6325 2831.

MKS INSTRUMENTS, INC. FORM OF E-MAIL REGARDING TIME OF CONFERENCE CALL ON DAY THE EXCHANGE OFFER EXPIRES

To: Eligible Employees

Date:

Subject: Conference Call August 28, 2009 at 5:30 p.m., Eastern Time — Regarding MKS Instruments Offer to Exchange Certain Stock Options for Restricted Stock Units

Shortly after 4:00 p.m., Eastern Time, on August 28, 2009, we will distribute by e-mail (or other method) to all eligible employees the exact ratios to be used in the exchange offer.

At 5:30 p.m., Eastern Time, on August 28, 2009, we will host a conference call for all eligible employees both as a further means of disclosing the final exchange ratios and to answer any remaining questions that you may have regarding the exchange offer.

Below is the dial in information for the conference call:

- the domestic dial in number for the conference call is (888) 839-0965;
- the international dial in for the conference call is (617) 597-4110; and
- the participant code for the conference call is 6325 2831.

MKS INSTRUMENTS, INC. SCRIPT FOR PHONE REPRESENTATIVES

Page 1 — Customer Service Rep Script

Overview:

As a Customer Service Representative helping with MKS Instruments, Inc. ("MKS") exchange offer, your role is to help eligible MKS option holders get the information they need. That information is in the offer to exchange and on the MKS exchange offer website in a variety of ways. The offer to exchange is the primary data source for employees and has been filed with the Securities and Exchange Commission ("SEC") as well as placed on the exchange offer website in a number of places. The attached script will help you in answering employee inquiries/requests for assistance.

Access to MKS Exchange Offer Website:

The exchange offer website address is https://mks.optioneelection.com. To access your account on the exchange offer website, use the following login steps:

- 1. Enter user ID. For U.S. employees, this is the last four digits of your social security number. For employees outside the U.S., your user name is the last four digits of your employee ID number.
- 2. Your initial password is the first four letters of your last name, all uppercase, excluding spaces or characters
- 3. Upon login, you will be prompted to create a new password.

If you have any further questions, please contact Marlene Maffe, the MKS stock plan administrator, at marlene_maffe@mksinst.com, or call her at (978) 645-5654.

Questions about access problems:

- A. Some people have problems with access if their laptop security is set too high, or if they are blocking "pop ups." Please check with us if you think this might be the case. In the U.S., the number is (800) 544-9354. Outside the U.S., the number is (800) 544-0275.
- B. It appears we may be experiencing some website difficulties. I will alert our technical department. Please try the website a little later or check back with us again later.
- C. If you have any further questions, please contact Marlene Maffe, the MKS stock plan administrator, at marlene_maffe@mksinst.com, or call her at (978) 645-5654.

Questions about Exchange Period:

The Exchange Offer will expire at 11:59, Eastern Time, on August 28, 2009, unless extended by MKS. If you choose to participate, your election must be received by MKS prior to the Expiration Time. All the other information about the MKS Exchange Offer is on the exchange offer website at https://mks.optioneelection.com.

If you have any further questions, please contact Marlene Maffe, the MKS stock plan administrator, at marlene_maffe@mksinst.com, or call her at (978) 645-5654.

Questions about the "Paper/Fax" Process:

1. First Response — encourage use of website:

We encourage you to submit your election electronically via the exchange offer website. The exchange offer website lists all of your eligible options and also has a calculator that you may use to determine the number of RSUs that would be granted to you in exchange for each of your eligible option grants based upon the hypothetical exchange ratios.

You can access the website at https://mks.optioneelection.com. Confirmation statements for submissions through the exchange offer website may be obtained by clicking on the "Print Confirmation" button after submitting your election or withdrawal. You should print and save a copy of the confirmation for your records.

Only responses that are complete and actually received by MKS (whether via the exchange offer website or via fax or e-mail) by the Expiration Time will be accepted. Responses submitted by any other means, including hand delivery, interoffice, U.S. mail (or other post) and Federal Express (or similar delivery service) are not permitted.

If you have any questions, please contact Marlene Maffe, the MKS stock plan administrator, at marlene_maffe@mksinst.com, or call her at (978) 645-5654.

2. Second Response — provide directions for E-Mail or Fax submissions:

If you are unable to use the exchange offer website, MKS has provided for a paper and fax process for election and withdrawal of your eligible options. All information about submitting an election or withdrawal via e-mail or facsimile is in the offer to exchange, which was distributed to all employees holding eligible options and is also on the exchange offer website and filed with the U.S. Securities and Exchange Commission.

The exchange offer will expire at 11:59, Eastern Time, on August 28, 2009 (the "Expiration Time"), unless extended by MKS. If you choose to participate, your election must be received by MKS prior to the Expiration Time. Facsimile election forms may be faxed to Marlene Maffe at (978) 557-5124. E-mail election forms (by PDF or similar imaged document file) may be sent to Marlene Maffe at marlene maffe@mksinst.com.

Only responses that are complete and actually received by MKS (whether via the exchange offer website or via fax or e-mail) by the expiration time will be accepted. Responses submitted by any other means, including hand delivery, interoffice, U.S. mail (or other post) and Federal Express (or similar delivery service) are not permitted.

If you make an election or withdrawal via fax or e-mail, MKS will confirm the receipt of your election or withdrawal within two business days. If you have not received a confirmation, it is your responsibility to send an e-mail to Marlene Maffe at marlene_maffe@mksinst.com or call (978) 645-5654.

If you have any further questions, please contact Marlene Maffe, the MKS stock plan administrator, at marlene_maffe@mksinst.com, or call her at (978) 645-5654.

Questions about the MKS Exchange Offer:

All information regarding the exchange offer is in the offer to exchange, which was distributed to all employees holding eligible options and is also on the exchange offer website and filed with the U.S. Securities and Exchange Commission. To access the exchange offer website, go to https://mks.optioneelection.com. If you have any further questions, please contact Marlene Maffe, the MKS stock plan administrator, at marlene_maffe@mksinst.com, or call her at (978) 645-5654.

Questions about eligible options for exchange:

Please refer to the website, at https://mks.optioneelection.com, to view a list of questions and answers regarding the exchange offer and to view a list of your eligible options.

If you do not have access to the website and have further questions, please contact Marlene Maffe, the MKS stock plan administrator, at marlene_maffe@mksinst.com, or call her at (978) 645-5654.

All other questions:

Refer to the exchange offer website at https://mks.optioneelection.com. If you have any further questions, please contact Marlene Maffe, the MKS stock plan administrator, at marlene_maffe@mksinst.com, or call her at (978) 645-5654.

MKS INSTRUMENTS, INC.

Restricted Stock Unit Agreement

Granted Under the 2004 Stock Incentive Plan

AGREEMENT made	(the "Grant Date"), between MKS Instruments, Inc., a Massachusetts corporation (the "Company"), and «First_N	Name»
«Last_Name» (the "Participant").		

For valuable consideration, receipt of which is acknowledged, the parties hereto agree as follows:

1. General.

The Company has granted to the Participant restricted stock units ("RSUs") with respect to the number of shares set forth in Exhibit A hereto (the "Shares") of common stock, no par value, of the Company ("Common Stock"), subject to the terms and conditions set forth in this Agreement and in the Company's 2004 Stock Incentive Plan (the "Plan"). The RSUs represent a promise by the Company to deliver Shares upon vesting.

- (a) <u>Definitions.</u> "Forfeiture" shall mean any forfeiture of RSUs pursuant to Section 2. "Vesting Date" is defined on Exhibit A hereto. "Determination Date" (if applicable) is defined on Exhibit A hereto. For purposes of this Agreement, "employ" or "employment" with the Company shall include employment with a parent or subsidiary of the Company as defined in Sections 424(e) or (f) of the Internal Revenue Code.
- (b) <u>Vesting Period</u>. Subject to the terms and conditions of this Agreement (including the Forfeiture provisions described in Section 2 below), the RSUs shall vest according to the terms set forth in Exhibit A. As soon as practicable after each applicable Vesting Date, but in any event, within the period ending on the later to occur of the date that is 2 ½ months from the end of (i) the Participant's tax year that includes the Vesting Date or (ii) the Company's tax year that includes the Vesting Date, the Company shall instruct its transfer agent to deposit the Shares subject to the RSUs into the Participant's existing equity account at Fidelity Stock Plan Services, LLC, or such other broker with which the Company has established a relationship ("Broker"), subject to payment in accordance with Section 6 of all applicable withholding taxes.

2. Forfeiture.

(a) <u>Cessation of Employment</u>. In the event that the Participant ceases to be employed by the Company for any reason or no reason (except for death, disability or retirement), with or without cause, prior to a Vesting Date, all of the Participant's unvested RSUs shall automatically be forfeited as of such cessation. In the event that the Participant ceases to be employed by the Company by reason of death, disability or retirement prior to a Vesting Date, then 100% of the Participant's RSUs shall become immediately and fully vested and shall no longer be subject to the Forfeiture provisions under this Agreement.

For the purpose of this Section 2, "disability" shall mean disability as defined in Section 216(i)(1) of the U.S. Social Security Act.

"Retirement" means a voluntary termination of employment by the Participant after he or she is at least age sixty (60) and has a combination of years of age plus Years of Service with the Company equal to seventy (70) or more. "Years of Service" means full years of employment since the Participant's original hire date with the Company (or parent or subsidiary of the Company).

(b) Change in Control. Notwithstanding the foregoing, if, prior to any Vesting Date, and within two years after the effectiveness of a Change in Control (as defined below), the Participant is (i) terminated by the Company without Cause (as defined below) or (ii) terminates his employment for Good Reason (as defined below), then, 100% of the Participant's RSUs shall become immediately and fully vested and shall no longer be subject to the Forfeiture provisions under this Agreement. For purposes of this section "Change in Control" means the first to occur of any of the following events: (I) any "person" (as that term is used in Section 13 and 14(d)(2) of the Securities Exchange Act of 1934 ("Exchange Act")) becomes the beneficial owner (as that term is used in Section 13(d) of the Exchange Act), directly or indirectly, of fifty percent (50%) or more of the Company's capital stock entitled to vote in the election of directors; (II) the shareholders of the Company approve any consolidation or merger of the Company, other than a consolidation or merger of the Company in which the holders of the common stock of the Company immediately prior to the consolidation or merger hold more than fifty percent (50%) of the common stock of the surviving corporation immediately after the consolidation or merger; or (III) the shareholders of the Company approve the sale or transfer of all or substantially all of the assets of the Company to parties that are not within a "controlled group of corporations" (as defined in Code Section 1563) in which the Company is a member. For purposes of this Agreement, "Cause" shall mean conviction for the commission of a felony, willful failure by the Participant to perform his responsibilities to the Company, or willful misconduct by the Participant. For purposes of this section, "Good Reason" shall mean termination of the Participant's employment by the Participant within 90 days following (I) a material diminution in the Participant's positions, duties and responsibilities from those described in the Participant's Employment Agreement, (II) a material reduction in the Participant's base salary (other than a reduction which is part of a general salary reduction program affecting senior executives of the Company), (III) a material reduction in the aggregate value of the pension and welfare benefits provided to the Participant from those in effect prior to the Change in Control (other than a reduction which is proportionate to the reductions applicable to other senior executives pursuant to a cost-saving plan that includes all senior executives), (IV) a material breach of any provision of the Participant's Employment Agreement by the Company or (V) the Company's requiring the Participant to be based at a location that creates for the Participant a one way commute in excess of 60 miles from his primary residence, except for required travel on the Company's business to an extent substantially consistent with the business travel obligations of the Participant under the Participant's Employment Agreement. Notwithstanding the foregoing, a termination shall not be treated as a termination for Good Reason (I) if the Participant shall have consented in writing to the occurrence of the event giving rise to the claim of termination for Good Reason or (II) unless the Participant shall have delivered a written notice to the Company within 30 days of his having actual knowledge of the occurrence of one of such events stating that he intends to terminate his employment for Good Reason and specifying the factual basis for such termination,

and such event, if capable of being cured, shall not have been cured within 30 days of the receipt of such notice.

3. Restrictions on Transfer.

The Participant shall not sell, assign, transfer, pledge, hypothecate or otherwise dispose of, by operation of law or otherwise (collectively "transfer") any RSUs, or any interest therein, except that the Participant may transfer such RSUs (i) to or for the benefit of any spouse, children, parents, uncles, aunts, siblings, grandchildren and any other relatives approved by the Board of Directors (collectively, "Approved Relatives") or to a trust established solely for the benefit of the Participant and/or Approved Relatives, <u>provided</u> that such RSUs shall remain subject to this Agreement (including without limitation the terms of Forfeiture and the restrictions on transfer set forth in this Section 3) and such permitted transferee shall, as a condition to such transfer, deliver to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of this Agreement.

4. Provisions of the Plan.

This Agreement is subject to the provisions of the Plan, a copy of which is furnished to the Participant with this Agreement.

5. <u>No Compensation Deferral</u>. Neither the Plan nor this Agreement is intended to provide for an elective deferral of compensation that would be subject to Section 409A ("Section 409A") of the U.S. Internal Revenue Code of 1986, as amended. The Company reserves the right, to the extent the Company deems necessary or advisable in its sole discretion, to unilaterally amend or modify the Plan and/or this Agreement to ensure that no awards (including without limitation, the RSUs) become subject to the requirements of Section 409A.

6. Withholding Taxes.

- (a) The Company's obligation to deliver Shares to the Participant upon the vesting of RSUs shall be subject to the satisfaction of all income tax (including federal, state and local taxes), social insurance, payroll tax, payment on account or other tax related withholding requirements ("Withholding Taxes"). In order to satisfy all Withholding Taxes due upon vesting of the Participant's RSUs, the Participant agrees to the following:
- (b) As a condition to receiving any Shares upon vesting of the RSUs, on the date of this Agreement, the Participant hereby irrevocably instructs the Company to take the actions described in this subsection 6(b). On each Vesting Date, the Participant hereby elects to satisfy all Withholding Taxes obligation then due through the retention by the Company of Shares. Accordingly, the Participant hereby instructs the Company, with no further action by the Participant, on each Vesting Date to deduct and retain from the number of Shares to which the Participant is entitled from the RSUs then scheduled to vest such number of Shares as is equal to the value of the Withholding Taxes. The Participant understands that the fair market value of the surrendered Shares will be based on the closing price of the Company's Common Stock on the trading day preceding the Vesting Date.

- (c) Participant has reviewed with the Participant's own tax advisors the federal, state, local and foreign tax consequences of this grant and the transactions contemplated by this Agreement. The Participant is relying solely on such advisors and not on any statements or representations of the Company or any of its agents. The Participant understands that the Participant (and not the Company) shall be responsible for the Participant's own tax liability that may arise as a result of this grant or the transactions contemplated by this Agreement.
- (d) The Participant represents to the Company that, as of the date hereof, he/she is not aware of any material nonpublic information about the Company or the Common Stock. The Participant and the Company have structured this Agreement to constitute a "binding contract" relating to the retention by the Company of Common Stock pursuant to this Section 6, consistent with the affirmative defense to liability under Section 10(b) of the Securities Exchange Act of 1934 under Rule 10b5-1(c) promulgated under such Act.
 - 7. Nature of the Grant. In signing this Agreement, the Participant acknowledges that:
 - (a) the Plan is established voluntarily by the Company, it is discretionary in nature and may be modified, amended, suspended or terminated by the Company at any time, unless otherwise provided in the Plan and this Agreement;
 - (b) the grant of RSUs is voluntary and occasional and does not create any contractual or other right to receive future awards of RSUs, or benefits in lieu of RSUs even if RSUs have been awarded repeatedly in the past;
 - (c) all decisions with respect to future grants of RSUs, if any, will be at the sole discretion of the Company;
 - (d) the Participant's participation in the Plan is voluntary;
 - (e) RSUs are an extraordinary item that do not constitute compensation of any kind for services of any kind rendered to the Company or to the Participant's employer, and RSUs are outside the scope of the Participant's employment contract, if any;
 - (f) RSUs are not part of normal or expected compensation or salary for any purpose, including, but not limited to, calculation of any severance, resignation, termination, redundancy, end of service payments, bonuses, long-service awards, pension or retirement benefits or similar payments and in no event should be considered as compensation for, or relating in any way to, past services for the Company or the Participant's employer;
 - (g) the future value of the underlying Shares is unknown and cannot be predicted with certainty;
 - (h) if the Participant receives Shares upon vesting, the value of such Shares acquired on vesting of RSUs may increase or decrease in value;

- (i) in consideration of the grant of RSUs, no claim or entitlement to compensation or damages arises from termination of the RSUs or diminution in value of the RSUs or Shares received upon vesting of RSUs resulting from termination of the Participant's employment by the Company or the Participant's employer (for any reason whatsoever and whether or not in breach of local labor laws) and the Participant irrevocably releases the Company and his or her employer from any such claim that may arise; if, notwithstanding the foregoing, any such claim is found by a court of competent jurisdiction to have arisen, then, by signing this Agreement, the Participant shall be deemed irrevocably to have waived his or her entitlement to pursue such claim; and
- (j) further, if the Participant ceases to be a employee (whether or not in breach of local labor laws), the Participant's right to receive RSUs and vest under the Plan, if any, will terminate effective as of the date that the Participant is no longer actively employed by the Company and will not be extended by any notice period mandated under local law (*e.g.*, active employment would not include a period of "garden leave" or similar period pursuant to local law); the Committee shall have the exclusive discretion to determine when the Participant is no longer actively employed for purposes of the Plan.
- 8. Data Privacy Notice and Consent. The Participant hereby explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of his or her personal data as described in this paragraph, by and among, as applicable, the Participant's employer and the Company and its subsidiaries and affiliates for, among other purposes, implementing, administering and managing the Participant's participation in the Plan. The Participant understands that the Company and its subsidiaries hold certain personal information about the Participant, including the Participant's name, home address and telephone number, date of birth, social security number or identification number, salary, nationality, job title, any Shares or directorships held in the Company, details of all options or any other entitlement to Shares awarded, canceled, exercised, vested, unvested or outstanding in the Participant's favor, for the purpose of managing and administering the Plan ("Data"). The Participant further understands that the Company and/or its subsidiaries will transfer Data amongst themselves as necessary for employment purposes, including implementation, administration and management of the Participant's participation in the Plan, and that the Company and/or any of its subsidiaries may each further transfer Data to Broker or such other stock plan service provider or other third parties assisting the Company with processing of Data. The Participant understands that these recipients may be located in the United States, and that the recipient's country may have different data privacy laws and protections than in the Participant's country. The Participant authorizes them to receive, possess, use, retain and transfer the Data, in electronic or other form, for the purposes described in this section, including any requisite transfer to Broker or such other stock plan service provider or other third party as may be required for the administration of the Plan and/or the subsequent holding of Shares of stock on the Participant's behalf. The Participant understands that he or she may, at any time, request access to the Data, request any necessary amendments to it or refuse or withdraw the consents herein, in any case without cost, by contacting in writing his or her local human resources representative. The Participant understands, however, that withdrawal of consent may affect the Participant's ability participate in or realize benefits from the Plan. For more information on the consequences of refusal to consent or withdrawal of consent, the Participant understands that he or she may contact his or her local human resources representative.

9. Miscellaneous.

- (a) No Rights to Employment. The Participant acknowledges and agrees that the vesting of the RSUs pursuant to Section 1 and Exhibit A hereof is earned only in accordance with the terms of such sections. The Participant further acknowledges and agrees that the transactions contemplated hereunder and the vesting schedule set forth herein do not constitute an express or implied promise of continued engagement as an employee for the vesting period, for any period, or at all.
- (b) <u>Severability</u>. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, and each other provision of this Agreement shall be severable and enforceable to the extent permitted by law.
- (c) <u>Waiver</u>. Any provision for the benefit of the Company contained in this Agreement may be waived, either generally or in any particular instance, by the Board of Directors of the Company.
- (d) <u>Binding Effect</u>. This Agreement shall be binding upon and inure to the benefit of the Company and the Participant and their respective heirs, executors, administrators, legal representatives, successors and assigns, subject to the restrictions on transfer set forth in Section 3 of this Agreement.
- (e) <u>Notice</u>. All notices required or permitted hereunder shall be in writing and deemed effectively given upon personal delivery or five days after deposit in the United States Post Office, by registered or certified mail, postage prepaid, addressed to the other party hereto at the address shown beneath his or its respective signature to this Agreement, or at such other address or addresses as either party shall designate to the other in accordance with this Section 9(e).
- (f) <u>Pronouns</u>. Whenever the context may require, any pronouns used in this Agreement shall include the corresponding masculine, feminine or neuter forms, and the singular form of nouns and pronouns shall include the plural, and vice versa.
- (g) <u>Language</u>. If the Participant has received this Agreement or any other document related to the Plan translated into a language other than English and if the translated version is different than the English version, the English version will control.
- (h) <u>Electronic Delivery</u>. The Company may, in its sole discretion, decide to deliver any documents related to participation in the Plan, RSUs granted under the Plan or future RSUs that may be granted under the Plan by electronic means or to request the Participant's consent to participate in the Plan by electronic means. The Participant hereby consents to receive such documents by electronic delivery and, if requested, to agree to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

- (i) <u>Entire Agreement</u>. This Agreement and the Plan constitute the entire agreement between the parties, and supersedes all prior agreements and understandings, relating to the subject matter of this Agreement.
 - (j) Amendment. This Agreement may be amended or modified only by a written instrument executed by both the Company and the Participant.
- (k) <u>Governing Law</u>. This Agreement shall be construed, interpreted and enforced in accordance with the internal laws of the Commonwealth of Massachusetts without regard to any applicable conflicts of laws.
- (l) <u>The Participant's Acknowledgments</u>. The Participant acknowledges that he or she: (i) has read this Agreement; (ii) has been represented in the preparation, negotiation, and execution of this Agreement by legal counsel of the Participant's own choice or has voluntarily declined to seek such counsel; and (iii) understands the terms and consequences of this Agreement; and (iv) is fully aware of the legal and binding effect of this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

MKS INSTRUMENTS, INC.

By:

Title: Chief Executive Officer & President
2 Tech Drive, Suite 201 Andover, MA 01810

«First_Name» «Last_Name»

Participants Signature

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Participant: «First_Name» «Last_Name»

Grant Date: _

Restricted Stock Units Granted: << NumShares>>

Subject to the terms and conditions of this Agreement (including the Forfeiture provisions described in Section 2 above), the participant shall vest all RSU's on the first anniversary of the date of grant (the "Vesting Date").