

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

FORM S-8
REGISTRATION STATEMENT
 UNDER
THE SECURITIES ACT OF 1933

APPLIED MATERIALS, INC.

(Exact name of registrant as specified in its charter)

Delaware
 (State or other jurisdiction
 of incorporation or organization)

94-1655526
 (I.R.S. Employer
 Identification No.)

3050 Bowers Avenue, P.O. Box 58039, Santa Clara, California 95052-8039
 (Address of Principal Executive Offices) (Zip Code)

**Stock options granted under the Varian Semiconductor Equipment Associates, Inc. Amended and Restated 2006
 Stock Incentive Plan and Varian Semiconductor Equipment Associates, Inc. Amended and Restated Omnibus Stock
 Plan and assumed by the registrant**
 (Full titles of the plans)

Joseph J. Sweeney
 Senior Vice President, General Counsel and Corporate Secretary
 Applied Materials, Inc.
 3050 Bowers Avenue, P.O. Box 58039, Santa Clara, California 95052-8039
 (Name and address of agent for service)

Telephone number, including area code, of agent for service: (408) 727-5555

Copy to:
 John E. Aguirre, Esq.
 Wilson Sonsini Goodrich & Rosati, PC
 650 Page Mill Road
 Palo Alto, California 94304

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Securities Exchange Act of 1934:

Large accelerated filer Accelerated filer
 Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company

CALCULATION OF REGISTRATION FEE

| Title of securities to be registered | Amount to be registered(1) | Proposed maximum offering price per share(4) | Proposed maximum aggregate offering price(4) | Amount of registration fee |
|--------------------------------------|----------------------------|--|--|----------------------------|
| Common stock, \$0.01 par value | 4,572,785 shares(2) | \$5.05 | \$23,092,564.25 | \$2,646.41 |
| Common stock, \$0.01 par value | 551,097 shares(3) | \$3.20 | \$1,763,510.40 | \$202.10 |
| Total: | 5,123,882 shares | | \$24,856,074.65 | \$2,848.51 |

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover any additional shares of the registrant's common stock ("Shares") that become issuable pursuant to the terms of stock options that were granted under the Varian Semiconductor Equipment Associates, Inc. Amended and Restated 2006 Stock Incentive Plan, as amended (the "2006 Plan"), and Varian Semiconductor Equipment Associates, Inc. Amended and Restated Omnibus Stock Plan (the "Omnibus Plan"), and have been assumed by the registrant pursuant to an Agreement and Plan of Merger, dated May 3, 2011, by and among the registrant, Barcelona Acquisition Corp., a wholly-owned subsidiary of the registrant, and Varian Semiconductor Equipment Associates, Inc. (the "Merger Agreement"), by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without the registrant's receipt of consideration that results in an increase in the number outstanding shares of the registrant's common stock.
- (2) Represents Shares issuable upon the exercise of stock options that were granted under the 2006 Plan and have been assumed by the registrant pursuant to the Merger Agreement (the "2006 Plan Options").
- (3) Represents Shares issuable upon the exercise of stock options that were granted under the Omnibus Plan and have been assumed by the registrant pursuant to the Merger Agreement (the "Omnibus Plan Options").
- (4) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(h) under the Securities Act, on the basis of the weighted-average per Share exercise price (rounded to the nearest cent) of the 2006 Plan Options and Omnibus Plan Options, as applicable.

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE

The following documents are incorporated by reference in this registration statement: (i) the latest annual report of Applied Materials, Inc. (the “Registrant”) filed pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”); (ii) all other reports filed pursuant to Section 13(a) or 15(d) of the Exchange Act since the end of the fiscal year covered by the annual report referred to in clause (i) above (other than the portions of these documents not deemed to be filed); and (iii) the description of the Registrant’s common stock set forth in the Registrant’s Registration Statement on Form 8-A relating thereto, including any amendment or report filed for the purpose of updating such description. All documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14, and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold (other than the portions of these documents not deemed to be filed), shall be deemed to be incorporated by reference in this registration statement and to be a part hereof from the date of filing of such documents.

ITEM 4. DESCRIPTION OF SECURITIES

Inapplicable.

ITEM 5. INTERESTS OF NAMED EXPERTS AND COUNSEL

Inapplicable.

ITEM 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 145 of the Delaware General Corporation Law (the “Delaware Law”) authorizes a court to award, or a corporation’s board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities (including reimbursement for expenses incurred) arising under the Securities Act of 1933, as amended. The Registrant’s Certificate of Incorporation provides for indemnification of the Registrant’s directors, officers, employees and other agents to the maximum extent permitted by Delaware Law. In addition, the Registrant has entered into indemnification agreements with its directors and certain of its officers.

ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED

Inapplicable.

ITEM 8. EXHIBITS

- 4.1 Varian Semiconductor Equipment Associates, Inc. Amended and Restated 2006 Stock Incentive Plan, as amended.
- 4.2 Varian Semiconductor Equipment Associates, Inc. Amended and Restated Omnibus Stock Plan.
- 5.1 Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation.
- 23.1 Consent of Independent Registered Public Accounting Firm.
- 23.2 Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation, is included in Exhibit 5.1 to this Registration Statement.
- 24.1 Power of Attorney of Directors.

ITEM 9. UNDERTAKINGS

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of the securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Securities and Exchange Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Securities and Exchange Commission by the Registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

Signatures

THE REGISTRANT

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Santa Clara, State of California on the 6th day of December, 2011.

APPLIED MATERIALS, INC.
(Registrant)

/s/ Michael R. Splinter

Michael R. Splinter
President,
Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

| Signature | Title | Date |
|---|---|------------------|
| Principal Executive Officer: <u>/s/ Michael R. Splinter</u> Michael R. Splinter | President, Chief Executive Officer | December 6, 2011 |
| Principal Financial Officer: <u>/s/ George S. Davis</u> George S. Davis | Executive Vice President, Chief Financial Officer | December 6, 2011 |
| Principal Accounting Officer: <u>/s/ Thomas S. Timko</u> Thomas S. Timko | Corporate Vice President, Corporate Controller and Chief Accounting Officer | December 6, 2011 |

Directors:

| | | |
|------------------------------------|-----------------------|------------------|
| * _____ Michael R. Splinter | Chairman of the Board | December 6, 2011 |
| * _____ Aart J. de Geus | Director | December 6, 2011 |
| * _____ Stephen R. Forrest | Director | December 6, 2011 |
| * _____ Thomas J. Iannotti | Director | December 6, 2011 |
| * _____ Susan M. James | Director | December 6, 2011 |
| * _____ Alexander A. Karsner | Director | December 6, 2011 |
| * _____ Gerhard H. Parker | Director | December 6, 2011 |
| * _____ Dennis D. Powell | Director | December 6, 2011 |
| * _____ Willem P. Roelandts | Director | December 6, 2011 |
| * _____ James E. Rogers | Director | December 6, 2011 |
| _____ Robert H. Swan | Director | |

* By /s/ Joseph J. Sweeney
 Joseph J. Sweeney
 Attorney-in-Fact**

** By authority of the Power of Attorney of Directors filed as Exhibit 24.1 to this Registration Statement.

EXHIBIT INDEX

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VARIAN SEMICONDUCTOR EQUIPMENT ASSOCIATES, INC.
AMENDED AND RESTATED 2006 STOCK INCENTIVE PLAN

1. Purpose

The purpose of this 2006 Stock Incentive Plan (the "Plan") of Varian Semiconductor Equipment Associates, Inc., a Delaware corporation (the "Company"), is to advance the interests of the Company's stockholders by enhancing the Company's ability to attract, retain and motivate persons who are expected to make important contributions to the Company and by providing such persons with equity ownership opportunities and performance-based incentives that are intended to align their interests with those of the Company's stockholders. Except where the context otherwise requires, the term "Company" shall include any of the Company's present or future parent or subsidiary corporations as defined in Sections 424(e) or (f) of the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder (the "Code") and any other business venture (including, without limitation, joint venture or limited liability company) in which the Company has a controlling interest, as determined by the Board of Directors of the Company (the "Board").

2. Eligibility

All of the Company's employees, officers, directors, consultants and advisors are eligible to receive stock options ("Options"), stock appreciation rights ("SARs"), restricted stock, restricted stock units and other stock-based awards (each, an "Award") under the Plan. Each person who receives an Award under the Plan is deemed a "Participant."

3. Administration and Delegation

(a) Administration by Board of Directors. The Plan will be administered by the Board. The Board shall have authority to grant Awards and to adopt, amend and repeal such administrative rules, guidelines, and practices relating to the Plan, as it shall deem advisable. The Board may correct any defect, supply any omission or reconcile any inconsistency in the Plan or any Award in the manner and to the extent it shall deem expedient to carry the Plan into effect and it shall be the sole and final judge of such expediency. All decisions by the Board shall be made in the Board's sole discretion and shall be final and binding on all persons having or claiming any interest in the Plan or in any Award. Notwithstanding the foregoing, only the Compensation Committee of the Board shall be responsible for the determination of Awards that may be granted to directors who are not employees of the Company at the time of grant. No director or person acting pursuant to the authority delegated by the Board shall be liable for any action or determination relating to or under the Plan made in good faith.

(b) Appointment of Committees. To the extent permitted by applicable law, the Board may delegate any or all of its powers under the Plan to one or more committees or subcommittees of the Board (a "Committee"). All references in the Plan to the "Board" shall mean the Board or a Committee of the Board or the officers referred to in Section 3(c) to the extent that the Board's powers or authority under the Plan have been delegated to such Committee or officers.

(c) Delegation to Officers. To the extent permitted by applicable law, the Board may delegate to one or more officers of the Company the power to grant Awards to employees or officers of the Company or any of its present or future subsidiary corporations and to exercise such other powers under the Plan as the Board may determine, provided that the Board shall fix the terms of the Awards to be granted by such officers (including the exercise price of such Awards, which may include a formula by which the exercise price will be determined) and the maximum number of shares subject to Awards that the officers may grant; provided further, however, that no officer shall be authorized to grant Awards to any "executive officer" of the Company (as defined by Rule 3b-7 under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) or to any "officer" of the Company (as defined by Rule 16a-1 under the Exchange Act).

4. Stock Available for Awards

(a) Number of Shares. Subject to adjustment under Section 9, Awards may be made under the Plan for up to 5,500,000 shares of common stock, \$0.01 par value per share, of the Company (the "Common Stock"). If any

Award expires or is terminated, surrendered or canceled without having been fully exercised or is forfeited in whole or in part (including as the result of shares of Common Stock subject to such Award being repurchased by the Company at the original issuance price pursuant to a contractual repurchase right) or results in any Common Stock not being issued, the unused Common Stock covered by such Award shall again be available for the grant of Awards under the Plan. However, in the case of Incentive Stock Options (as hereinafter defined), the foregoing provisions shall be subject to any limitations under the Code. Shares issued under the Plan may consist in whole or in part of authorized but unissued shares or treasury shares.

(b) Sub-limits. Subject to adjustment under Section 9, the following sub-limits on the number of shares of Common Stock subject to Awards shall apply:

(1) Section 162(m) Per-Participant Limit. The maximum number of shares of Common Stock with respect to which Awards may be granted to any Participant under the Plan shall be 1,000,000 per fiscal year. For purposes of the foregoing limit, the combination of an Option in tandem with an SAR (as each is hereafter defined) shall be treated as a single Award. The per-Participant limit described in this Section 4(b)(1) shall be construed and applied consistently with Section 162(m) of the Code or any successor provision thereto, and the regulations thereunder ("Section 162(m)").

(2) Limit on Awards to Directors. The maximum number of shares with respect to which Awards under this Plan may be granted to directors who are not employees of the Company at the time of grant shall be not more than 18,000 per fiscal year to any such director.

(c) Share Counting. An Award that is an Option or an SAR shall be counted against the share limit in Section 4(a) as one (1) share for each share of Common Stock subject to such Award, and an Award that is not an Option or an SAR (a "Full Value Award") shall be counted against the share limit specified in Section 4(a) as one and seventy-six hundredths (1.76) shares for each share of Common Stock subject to such Full Value Award.

5. Stock Options

(a) General. The Board may grant options to purchase Common Stock (each, an "Option") and determine the number of shares of Common Stock to be covered by each Option, the exercise price of each Option and the conditions and limitations applicable to the exercise of each Option, including conditions relating to applicable federal or state securities laws, as it considers necessary or advisable. An Option which is not intended to be an Incentive Stock Option (as hereinafter defined) shall be designated a "Nonqualified Stock Option."

(b) Incentive Stock Options. An Option that the Board intends to be an "incentive stock option" as defined in Section 422 of the Code (an "Incentive Stock Option") shall only be granted to employees of the Company, any of the Company's present or future parent or subsidiary corporations as defined in Sections 424(e) or (f) of the Code, and any other entities the employees of which are eligible to receive Incentive Stock Options under the Code, and shall be subject to and shall be construed consistently with the requirements of Section 422 of the Code. The Company shall have no liability to a Participant, or any other party, if an Option (or any part thereof) that is intended to be an Incentive Stock Option is not an Incentive Stock Option or for any action taken by the Board, including without limitation the conversion of an Incentive Stock Option to a Nonqualified Stock Option.

(c) Exercise Price. The Board shall establish the exercise price of each Option and specify such exercise price in the applicable option agreement; provided, however, that the exercise price shall not be less than 100% of the Fair Market Value (as defined below) at the time the Option is granted.

(d) Duration of Options. Each Option shall be exercisable at such times and subject to such terms and conditions as the Board may specify in the applicable option agreement; provided, however, that no Option will be granted for a term in excess of 8 years.

(e) Exercise of Option. Options may be exercised by delivery to the Company of a written notice of exercise signed by the proper person or by any other form of notice (including electronic notice) approved by the Board together with payment in full as specified in Section 5(f) for the number of shares for which the Option is exercised. Shares of Common Stock subject to the Option will be delivered by the Company following exercise either as soon as practicable or, subject to such conditions as the Board shall specify, on a deferred basis (with the Company's obligation to be evidenced by an instrument providing for future delivery of the deferred shares at the time or times specified by the Board).

(f) Payment Upon Exercise. Common Stock purchased upon the exercise of an Option granted under the Plan shall be paid for as follows:

(1) in cash or by check, payable to the order of the Company;

(2) except as the Board may otherwise provide in an option agreement, by (i) delivery of an irrevocable and unconditional undertaking by a creditworthy broker to deliver promptly to the Company sufficient funds to pay the exercise price and any required tax withholding, or (ii) delivery by the Participant to the Company of a copy of irrevocable and unconditional instructions to a creditworthy broker to deliver promptly to the Company cash or a check sufficient to pay the exercise price and any required tax withholding;

(3) when the Common Stock is registered under the Exchange Act, by delivery of shares of Common Stock owned by the Participant valued at their fair market value as determined by (or in a manner approved by) the Board (“Fair Market Value”), provided (i) such method of payment is then permitted under applicable law; (ii) such Common Stock, if acquired directly from the Company, was owned by the Participant for such minimum period of time, if any, as may be established by the Board in its discretion; and (iii) such Common Stock is not subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements;

(4) to the extent permitted by applicable law and by the Board, by (i) delivery of a promissory note of the Participant to the Company on terms determined by the Board, or (ii) payment of such other lawful consideration as the Board may determine; or

(5) by any combination of the above permitted forms of payment.

(g) Substitute Options. In connection with a merger or consolidation of an entity with the Company or the acquisition by the Company of property or stock of an entity, the Board may grant Options in substitution for any options or other stock or stock-based awards granted by such entity or an affiliate thereof. Substitute Options may be granted on such terms as the Board deems appropriate in the circumstances, notwithstanding any limitations on Options contained in the other sections of this Section 5 or in Section 2. Substitute Options shall not count against the overall share limit set forth in Section 4(a), except as may be required by reason of Section 422 and related provisions of the Code.

6. Stock Appreciation Rights.

(a) General. A Stock Appreciation Right, or SAR, is an Award entitling the holder, upon exercise, to receive an amount in Common Stock or cash or a combination thereof (such form to be determined by the Board) determined in whole or in part by reference to appreciation, from and after the date of grant, in the fair market value of a share of Common Stock. SARs may be based solely on appreciation in the fair market value of Common Stock or on a comparison of such appreciation with some other measure of market growth such as (but not limited to) appreciation in a recognized market index. The date as of which such appreciation or other measure is determined shall be the exercise date unless another date is specified by the Board in the SAR Award.

(b) Grants. SARs may be granted in tandem with, or independently of, Options granted under the Plan.

(c) Exercise. SARs may be exercised by delivery to the Company of a written notice of exercise signed by the proper person, or by any other form of notice (including electronic notice) approved by the Board, together with any other documents required by the Board.

7. Restricted Stock; Restricted Stock Units.

(a) General. The Board may grant Awards entitling recipients to acquire shares of Common Stock (“Restricted Stock”), subject to the right of the Company to repurchase all or part of such shares at their issue price or other stated or formula price (or to require forfeiture of such shares if issued at no cost) from the recipient in the event that conditions specified by the Board in the applicable Award are not satisfied prior to the end of the applicable restriction period or periods established by the Board for such Award. Instead of granting Awards for Restricted Stock, the Board may grant Awards entitling the recipient to receive shares of Common Stock to be delivered at the time such shares of Common Stock vest (“Restricted Stock Units”) (Restricted Stock and Restricted Stock Units are each referred to herein as a “Restricted Stock Award”).

(b) Limitation on Vesting.

(1) Restricted Stock Awards that vest based on the passage of time alone shall be zero percent vested prior to the first anniversary of the date of grant, no more than 43.75% vested prior to the second anniversary of the date of grant, and no more than 68.75% vested prior to the third anniversary of the date of grant. Restricted Stock Awards that vest upon the passage of time and provide for accelerated vesting based on performance shall not vest prior to the first anniversary of the date of grant.

(2) Notwithstanding any other provision of this Plan, the Board may, in its discretion, either at the time a Restricted Stock Award is made or at any time thereafter, waive its right to repurchase shares of Common Stock (or waive the forfeiture thereof) or remove or modify any part or all of the restrictions applicable to the Restricted Stock Award, provided that the Board may only exercise such rights in extraordinary circumstances which shall include, without limitation, death or disability of the Participant; estate planning needs of the Participant; a merger, consolidation, sale, reorganization, recapitalization, or change in control of the Company; or any other nonrecurring significant event affecting the Company, a Participant or the Plan.

(c) Terms and Conditions. The Board shall determine the terms and conditions of a Restricted Stock Award, including the conditions for repurchase (or forfeiture) and the issue price, if any.

(d) Stock Certificates. Any stock certificates issued in respect of a Restricted Stock Award shall be registered in the name of the Participant and, unless otherwise determined by the Board, deposited by the Participant, together with a stock power endorsed in blank, with the Company (or its designee). At the expiration of the applicable restriction periods, the Company (or such designee) shall deliver the certificates no longer subject to such restrictions to the Participant or if the Participant has died, to the beneficiary designated, in a manner determined by the Board, by a Participant to receive amounts due or exercise rights of the Participant in the event of the Participant's death (the "Designated Beneficiary"). In the absence of an effective designation by a Participant, "Designated Beneficiary" shall mean the Participant's estate.

8. Other Stock-Based Awards.

Other Awards of shares of Common Stock, and other Awards that are valued in whole or in part by reference to, or are otherwise based on, shares of Common Stock or other property, may be granted hereunder to Participants ("Other Stock Unit Awards"), including without limitation Awards entitling recipients to receive shares of Common Stock to be delivered in the future. Such Other Stock Unit Awards shall also be available as a form of payment in the settlement of other Awards granted under the Plan or as payment in lieu of compensation to which a Participant is otherwise entitled. Other Stock Unit Awards may be paid in shares of Common Stock or cash, as the Board shall determine. Subject to the provisions of the Plan, the Board shall determine the conditions of each Other Stock Unit Award, including any purchase price applicable thereto.

9. Adjustments for Changes in Common Stock and Certain Other Events.

(a) Changes in Capitalization. In the event of any stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event, or any distribution to holders of Common Stock other than an ordinary cash dividend, (i) the number and class of securities available under this Plan; (ii) the sub-limits set forth in Section 4(b); (iii) the number and class of securities and exercise price per share of each outstanding Option; (iv) the share- and per-share provisions of each SAR; (v) the repurchase price per share subject to each outstanding Restricted Stock Award; and (vi) the share- and per-share-related provisions of each outstanding Other Stock Unit Award, shall be appropriately adjusted by the Company (or substituted Awards may be made, if applicable) to the extent determined by the Board.

(b) Reorganization Events.

(1) Definition. A "Reorganization Event" shall mean: (i) 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 or is cancelled; (ii) any exchange of all of the Common Stock of the Company for cash, securities or other property pursuant to a share exchange transaction; or (iii) any liquidation or dissolution of the Company.

(2) Consequences of a Reorganization Event on Awards Other than Restricted Stock Awards. In connection with a Reorganization Event, the Board shall take any 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 shall be assumed, or substantially equivalent Awards shall be substituted, by the acquiring or succeeding corporation (or an affiliate thereof); (ii) upon written notice to a Participant, provide that the Participant's unexercised Options or other unexercised Awards shall become exercisable in full and will terminate immediately prior to the consummation of such Reorganization Event unless exercised by the Participant within a specified period following the date of such notice; (iii) provide that outstanding Awards shall become realizable or deliverable, or restrictions applicable to an Award shall lapse, in whole or in part prior to or upon such Reorganization Event; (iv) in the event of a Reorganization Event under the terms of which holders of Common Stock will receive upon consummation thereof a cash payment for each share surrendered in the Reorganization Event (the "Acquisition Price"), make or provide for a cash payment to a Participant equal to (a) the Acquisition Price times the number of shares of Common Stock subject to the Participant's Options or other Awards (to the extent the exercise price does not exceed the Acquisition Price) minus (b) the aggregate exercise price of all such outstanding Options or other Awards, in exchange for the termination of such Options or other Awards; (v) provide that, in connection with a liquidation or dissolution of the Company, Awards shall convert into the right to receive liquidation proceeds (if applicable, net of the exercise price thereof); and (vi) any combination of the foregoing.

For purposes of clause (i) above, an Option shall be considered assumed if, following consummation of the Reorganization Event, the Option confers the right to purchase, for each share of Common Stock subject to the Option immediately prior to the consummation of the Reorganization Event, the consideration (whether cash, securities or other property) received as a result of the Reorganization Event by holders of Common Stock for each share of Common Stock held immediately prior to the consummation of the Reorganization Event (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding shares of Common Stock); provided, however, that if the consideration received as a result of the Reorganization Event is not solely common stock of the acquiring or succeeding corporation (or an affiliate thereof), the Company may, with the consent of the acquiring or succeeding corporation, provide for the consideration to be received upon the exercise of Options to consist solely of common stock of the acquiring or succeeding corporation (or an affiliate thereof) equivalent in value to the per share consideration received by holders of outstanding shares of Common Stock as a result of the Reorganization Event.

To the extent all or any portion of an Option becomes exercisable solely as a result of clause (ii) above, the Board may provide that upon exercise of such Option the Participant shall receive shares subject to a right of repurchase by the Company or its successor at the Option exercise price; such repurchase right (a) shall lapse at the same rate as the Option would have become exercisable under its terms; and (b) shall not apply to any shares subject to the Option that were exercisable under its terms without regard to clause (ii) above.

(3) Consequences of a Reorganization Event on Restricted Stock Awards. Upon the occurrence of a Reorganization Event other than a liquidation or dissolution of the Company, the repurchase and other rights of the Company under each outstanding Restricted Stock Award shall inure to the benefit of the Company's successor and shall apply to the cash, securities or other property which the Common Stock was converted into or exchanged for pursuant to such Reorganization Event in the same manner and to the same extent as they applied to the Common Stock subject to such Restricted Stock Award. Upon the occurrence of a Reorganization Event involving the liquidation or dissolution of the Company, except to the extent specifically provided to the contrary in the instrument evidencing any Restricted Stock Award or any other agreement between a Participant and the Company, all restrictions and conditions on all Restricted Stock Awards then outstanding shall automatically be deemed terminated or satisfied.

10. General Provisions Applicable to Awards

(a) Transferability of Awards. Awards shall not be sold, assigned, transferred, pledged or otherwise encumbered by the person to whom they are granted, either voluntarily or by operation of law, except by will or the laws of descent and distribution or, other than in the case of an Incentive Stock Option, pursuant to a qualified domestic relations order, and, during the life of the Participant, shall be exercisable only by the Participant; provided, however, that the Board may permit or provide in an Award for the gratuitous transfer of the Award by the Participant to or for the benefit of any immediate family member, family trust or family partnership established solely for the benefit of the Participant and/or an immediate family member thereof if, with respect to such proposed transferee, the Company would be eligible to use a Form S-8 for the registration of the sale of the Common Stock

subject to such Award under the Securities Act of 1933, as amended; provided, further, that the Company shall not be required to recognize any such transfer until such time as the Participant and such permitted transferee shall, as a condition to such transfer, deliver to the Company a written instrument in form and substance satisfactory to the Company confirming that such transferee shall be bound by all of the terms and conditions of the Award. References to a Participant, to the extent relevant in the context, shall include references to authorized transferees.

(b) Documentation. Each Award shall be evidenced in such form (written, electronic or otherwise) as the Board shall determine. Such written instrument may be in the form of an agreement signed by the Company and the Participant or a written confirming memorandum to the Participant from the Company. Each Award may contain terms and conditions in addition to those set forth in the Plan.

(c) Board Discretion. Except as otherwise provided by the Plan, each Award may be made alone or in addition or in relation to any other Award. The terms of each Award need not be identical, and the Board need not treat Participants uniformly.

(d) Termination of Status. The Board shall determine the effect on an Award of the disability, death, retirement, authorized leave of absence, or other change in the employment or other status of a Participant and the extent to which, and the period during which, the Participant, or the Participant's legal representative, conservator, guardian or Designated Beneficiary, may exercise rights under the Award.

(e) Withholding. Each Participant shall pay to the Company, or make provision satisfactory to the Company for payment of, any taxes required by law to be withheld in connection with an Award to such Participant. Except as the Board may otherwise provide in an Award, for so long as the Common Stock is registered under the Exchange Act, Participants may satisfy such tax obligations in whole or in part by delivery of shares of Common Stock, including shares retained from the Award creating the tax obligation, valued at their Fair Market Value; provided, however, except as otherwise provided by the Board, that the total tax withholding where stock is being used to satisfy such tax obligations cannot exceed the Company's minimum statutory withholding obligations (based on minimum statutory withholding rates for federal and state tax purposes, including payroll taxes, that are applicable to such supplemental taxable income). Shares surrendered to satisfy tax withholding requirements cannot be subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements. The Company may deduct, to the extent permitted by law, any such tax obligations from any payment of any kind otherwise due to a Participant.

(f) Amendment of Award. The Board may amend, modify or terminate any outstanding Award, including but not limited to, substituting therefor another Award of the same or a different type, changing the date of exercise or realization, and converting an Incentive Stock Option to a Nonqualified Stock Option, provided that the Participant's consent to such action shall be required unless the Board determines that the action, taking into account any related action, would not materially and adversely affect the Participant. Notwithstanding the foregoing, without approval of the Company's stockholders, the Board may not (i) amend any outstanding Option to provide an exercise price per share that is lower than the then-current exercise price per share of such Option or (ii) other than pursuant to Section 5(g), cancel any outstanding Award in connection with the granting of a substitute Award of the same or different type.

(g) Conditions on Delivery of Stock. The Company will not be obligated to deliver any shares of Common Stock pursuant to the Plan or to remove restrictions from shares previously delivered under the Plan until (i) all conditions of the Award have been met or removed to the satisfaction of the Company; (ii) in the opinion of the Company's counsel, all other legal matters in connection with the issuance and delivery of such shares have been satisfied, including any applicable securities laws and any applicable stock exchange or stock market rules and regulations; and (iii) the Participant has executed and delivered to the Company such representations or agreements as the Company may consider appropriate to satisfy the requirements of any applicable laws, rules or regulations.

(h) Acceleration. Except as otherwise provided in Section 7, the Board may at any time provide that any Award shall become immediately exercisable in full or in part, free of some or all restrictions or conditions, or otherwise realizable in full or in part, as the case may be.

(i) Book Entry. Notwithstanding anything to the contrary in this Plan, the Company may, in lieu of issuing a stock certificate representing any shares of Common Stock issued pursuant to the Plan, have such shares held in book entry by the Company's transfer agent in the name of the Participant.

(j) Performance Awards.

(1) Grants. Restricted Stock Awards and Other Stock Unit Awards under the Plan may be made subject to the achievement of performance goals pursuant to this Section 10(j) (“Performance Awards”), subject to the limit in Section 4(b)(1) on shares covered by such grants. Subject to Section 10(j)(4), no Performance Awards shall vest prior to the first anniversary of the date of grant.

(2) Section 162(m) Committee. Grants of Performance Awards to any Covered Employee intended to qualify as “performance-based compensation” under Section 162(m) (“Performance-Based Compensation”) shall be made only by a committee (or subcommittee of a committee) comprised solely of two or more directors eligible to serve on a committee making Awards qualifying as “performance-based compensation” under Section 162(m) (the “Section 162(m) Committee”). In the case of such Awards granted to Covered Employees, references to the Board or to a committee shall be treated as referring to the Section 162(m) Committee. “Covered Employee” shall mean any person who is, or whom the committee, in its discretion, determines may be, a “covered employee” under Section 162(m)(3) of the Code.

(3) Performance Measures. For any Award that is intended to qualify as Performance-Based Compensation, the Section 162(m) Committee shall specify that the degree of granting, vesting and/or payout shall be subject to the achievement of one or more objective performance measures established by the Section 162(m) Committee, which shall be based on the relative or absolute attainment of specified levels of one or any combination of the following: earnings per share, net income, earnings before or after discontinued operations, interest, taxes, depreciation and/or amortization, operating profit before or after discontinued operations and/or taxes, sales, sales growth, earnings growth, cash flow or cash position, gross margins, stock price, market share, return on sales, assets, equity or investment, improvement of financial ratings, new business development, achievement of balance sheet or income statement objectives or total shareholder return. Such goals may reflect absolute entity or business unit performance or a relative comparison to the performance of a peer group of entities or other external measure of the selected performance criteria and may be absolute in their terms or measured against or in relationship to other companies comparably, similarly or otherwise situated. The Section 162(m) Committee may specify that such performance measures shall be adjusted to exclude any one or more of (i) extraordinary items, (ii) gains or losses on the dispositions of discontinued operations, (iii) the cumulative effects of changes in accounting principles, (iv) the writedown of any asset, and (v) charges for restructuring and rationalization programs. Such performance measures: (i) may vary by Participant and may be different for different Awards; (ii) may be particular to a Participant or the department, branch, line of business, subsidiary or other unit in which the Participant works and may cover such period as may be specified by the Section 162(m) Committee; and (iii) shall be set by the Section 162(m) Committee within the time period prescribed by, and shall otherwise comply with the requirements of, Section 162(m). Awards that are not intended to qualify as Performance-Based Compensation may be based on these or such other performance measures as the Board may determine.

(4) Adjustments. Notwithstanding any provision of the Plan, with respect to any Performance Award that is intended to qualify as Performance-Based Compensation, the Section 162(m) Committee may adjust downwards, but not upwards, the number of Shares payable pursuant to such Award, and the Section 162(m) Committee may not waive the achievement of the applicable performance measures except in the case of the death or disability of the Participant or a change in control of the Company.

(5) Other. The Section 162(m) Committee shall have the power to impose such other restrictions on Performance Awards as it may deem necessary or appropriate to ensure that such Awards satisfy all requirements for Performance-Based Compensation.

11. Miscellaneous

(a) No Right To Employment or Other Status. No person shall have any claim or right to be granted an Award, and the grant of an Award shall not be construed as giving a Participant the right to continued employment or any other relationship with the Company. The Company expressly reserves the right at any time to dismiss or otherwise terminate its relationship with a Participant free from any liability or claim under the Plan, except as expressly provided in the applicable Award.

(b) No Rights As Stockholder. Subject to the provisions of the applicable Award, no Participant or Designated Beneficiary shall have any rights as a stockholder with respect to any shares of Common Stock to be distributed with respect to an Award until becoming the record holder of such shares. Notwithstanding the foregoing, in the event the Company effects a split of the Common Stock by means of a stock dividend and the exercise price of and the number of shares subject to such Option are adjusted as of the date of the distribution of the dividend (rather than as of the record date for such dividend), then an optionee who exercises an Option between the record date and the distribution date for such stock dividend shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock acquired upon such Option exercise, notwithstanding the fact that such shares were not outstanding as of the close of business on the record date for such stock dividend.

(c) Effective Date and Term of Plan. The Plan shall become effective on the date on which it is adopted by the Board, but no Award may be granted unless and until the Plan has been approved by the Company's stockholders. No Awards shall be granted under the Plan after the completion of 10 years from the earlier of (i) the date on which the Plan was adopted by the Board; or (ii) the date the Plan was approved by the Company's stockholders, but Awards previously granted may extend beyond that date.

(d) Amendment of Plan. The Board may amend, suspend or terminate the Plan or any portion thereof at any time, provided that, to the extent required by Section 162(m), no Award granted to a Participant that is intended to comply with Section 162(m) after the date of such amendment shall become exercisable, realizable or vested, as applicable to such Award, unless and until such amendment shall have been approved by the Company's stockholders if required by Section 162(m) (including the vote required under Section 162(m)); and provided further that, without approval of the Company's stockholders, no amendment may (i) increase the number of shares authorized under the Plan (other than pursuant to Section 9), (ii) materially increase the benefits provided under the Plan, (iii) materially expand the class of participants eligible to participate in the Plan, (iv) expand the types of Awards provided under the Plan or (v) make any other changes that require stockholder approval under the rules of the NASDAQ National Market. In addition, if at any time the approval of the Company's stockholders is required as to any other modification or amendment under Section 422 of the Code or any successor provision with respect to Incentive Stock Options, the Board may not effect such modification or amendment without such approval. No Award shall be made that is conditioned upon stockholder approval of any amendment to the Plan.

(e) Provisions for Foreign Participants. The Board may modify Awards or Options granted to Participants who are foreign nationals or employed outside the United States or establish sub-plans or procedures under the Plan to recognize differences in laws, rules, regulations or customs of such foreign jurisdictions with respect to tax, securities, currency, employee benefit or other matters.

(f) Compliance With Code Section 409A. No Award shall provide for deferral of compensation that does not comply with Section 409A of the Code, unless the Board, at the time of grant, specifically provides that the Award is not intended to comply with Section 409A of the Code.

(g) Governing Law. The provisions of the Plan and all Awards made hereunder shall be governed by and interpreted in accordance with the laws of the State of Delaware, excluding choice-of-law principles of the law of such state that would require the application of the laws of a jurisdiction other than such state.

VARIAN SEMICONDUCTOR EQUIPMENT ASSOCIATES, INC.

AMENDED AND RESTATED OMNIBUS STOCK PLAN

INCORPORATING AMENDMENTS

EFFECTIVE ON OR

BEFORE FEBRUARY 24, 2005

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**VARIAN SEMICONDUCTOR EQUIPMENT ASSOCIATES, INC.
AMENDED AND RESTATED OMNIBUS STOCK PLAN**

**SECTION 1
BACKGROUND, PURPOSE AND DURATION**

1.1 Purpose of the Plan. The Plan is intended to increase incentives and to encourage Share ownership on the part of (1) employees of the Company and its Affiliates, (2) consultants who provide significant services to the Company and its Affiliates, and (3) directors of the Company who are employees of neither the Company nor any Affiliate. The Plan also is intended to further the growth and profitability of the Company. The Plan is intended to permit the grant of Awards that qualify as performance-based compensation under section 162(m) of the Code.

**SECTION 2
DEFINITIONS**

The following words and phrases shall have the following meanings unless a different meaning is plainly required by the context:

2.1 "1934 Act" means the Securities Exchange Act of 1934, as amended. Reference to a specific section of the 1934 Act or regulation thereunder shall include such section or regulation, any valid regulation promulgated under such section, and any comparable provision of any future legislation or regulation amending, supplementing or superseding such section or regulation.

2.2 "Affiliate" means any corporation or any other entity (including, but not limited to, partnerships and joint ventures) controlling, controlled by, or under common control with the Company.

2.3 "Award" means, individually or collectively, a grant under the Plan of Non-qualified Stock Options, Incentive Stock Options, SARs, Restricted Stock, Performance Units or Performance Shares.

2.4 "Award Agreement" means the written agreement setting forth the terms and provisions applicable to each Award granted under the Plan.

2.5 "Board" means the Board of Directors of the Company.

2.6 "Code" means the Internal Revenue Code of 1986, as amended. Reference to a specific section of the Code or regulation thereunder shall include such section or regulation, any valid regulation promulgated thereunder, and any comparable provision of any future legislation or regulation amending, supplementing or superseding such section or regulation.

2.7 "Committee" means the committee appointed by the Board (pursuant to Section 3.1) to administer the Plan.

2.8 "Company" means Varian Semiconductor Equipment Associates, Inc., a Delaware corporation, or any successor thereto.

2.9 "Consultant" means any consultant, independent contractor, or other person who provides significant services to the Company or its Affiliates, but who is neither an Employee nor a Director.

2.10 "Director" means any individual who is a member of the Board.

2.11 "Disability" means a permanent and total disability within the meaning of section 22(e)(3) of the Code, provided that in the case of Awards other than Incentive Stock Options, the Committee in its discretion may determine whether a permanent and total disability exists in accordance with uniform and non-discriminatory standards adopted by the Committee from time to time.

2.12 “EBIT” means as to any Performance Period, the Company’s or a business unit’s income before reductions for interest and taxes, determined in accordance with generally accepted accounting principles.

2.13 “EBITDA” means as to any Performance Period, the Company’s or a business unit’s income before reductions for interest, taxes, depreciation and amortization, determined in accordance with generally accepted accounting principles.

2.14 “Earnings Per Share” means as to any Performance Period, the Company’s or a business unit’s Net Income, divided by a weighted average number of common shares outstanding and dilutive common equivalent shares deemed outstanding, determined in accordance with generally accepted accounting principles.

2.15 “Employee” means any employee of the Company or of an Affiliate, whether such employee is so employed at the time the Plan is adopted or becomes so employed subsequent to the adoption of the Plan.

2.16 “Exercise Price” means the price at which a Share may be purchased by a Participant pursuant to the exercise of an Option.

2.17 “Fair Market Value” means the last quoted per share selling price for Shares on the relevant date, or if there were no sales on such date, the arithmetic mean of the highest and lowest quoted selling prices on the nearest day before and the nearest day after the relevant date, as determined by the Committee. Notwithstanding the preceding, for federal, state and local income tax reporting purposes, fair market value shall be determined by the Committee in accordance with uniform and nondiscriminatory standards adopted by it from time to time.

2.18 “Fiscal Year” means the fiscal year of the Company.

2.19 “Grant Date” means, with respect to an Award, the date that the Award was granted.

2.20 “Incentive Stock Option” means an Option to purchase Shares which is designated as an Incentive Stock Option and is intended to meet the requirements of section 422 of the Code.

2.21 “Net Income” means as to any Performance Period, the Company’s or a business unit’s income after taxes, determined in accordance with generally accepted accounting principles.

2.22 “Non-employee Director” means a Director who is an employee of neither the Company nor of any Affiliate.

2.23 “Non-qualified Stock Option” means an option to purchase Shares which is not intended to be an Incentive Stock Option.

2.24 “Operating Cash Flow” means as to any Performance Period, the Company’s or a business unit’s sum of Net Income plus depreciation and amortization less capital expenditures plus changes in working capital comprised of accounts receivable, inventories, other current assets, trade accounts payable, accrued expenses, product warranty, advance payments from customers and long-term accrued expenses, determined in accordance with generally acceptable accounting principles.

2.25 “Option” means an Incentive Stock Option or a Non-qualified Stock Option.

2.26 “Participant” means an Employee, Consultant, or Non-employee Director who has an outstanding Award.

2.27 “Performance Goals” means the goal(s) determined by the Committee, in its sole discretion, to be applicable to a Participant eligible for an Award and which may be selected from, but not limited to, (a) earnings per share, (b) return on average equity in relation to a peer group (the “Peer Group”) of companies designated by the Committee, (c) return on average assets in relation to the Peer Group, or (d) such other performance goals as may be established by the Committee which may be based on earnings, earnings growth, earnings before interest, taxes, depreciation and amortization (EBITDA), operating income, operating margins, revenues, expenses, stock price, market share, charge-offs, reductions in non-performing assets, regulatory compliance, satisfactory internal or

external audits, improvement of financial ratings, achievement of balance sheet or income statement objectives, net cash provided from continuing operations, stock price appreciation, total shareholder return, cost control, strategic initiatives, market share, pre-tax or after-tax income, or any other objective goals established by the Committee, and may be absolute in their terms or measured against or in relationship to other companies comparably, similarly or otherwise situated. Such performance goals may be particular to a Participant or the division, department, branch, line of business, Subsidiary or other unit in which the Participant works, or may be based on the performance of the Corporation generally, and may cover such period as may be specified by the Committee. Such Performance Goals may be applied by excluding the impact of charges for restructurings, discontinued operations, extraordinary items, and other unusual or non-recurring items, and the cumulative effects of accounting changes, each as defined by generally accepted accounting principles. The Performance Goals may differ from Participant to Participant and from Award to Award. Prior to the Determination Date, the Committee shall determine whether any significant element(s) shall be included in or excluded from the calculation of any Performance Goal with respect to any Participant. "Determination Date" means the latest possible date that will not jeopardize an Award's qualification as performance-based compensation under section 162(m) of the Code. Notwithstanding the previous sentence, for Awards not intended to qualify as performance-based compensation, "Determination Date" shall mean such date as the Committee may determine in its discretion.

2.28 "Performance Period" means any fiscal period not to exceed three consecutive Fiscal Years, as determined by the Committee in its sole discretion.

2.29 "Performance Share" means a Performance Share granted to a Participant pursuant to Section 8.

2.30 "Performance Unit" means a Performance Unit granted to a Participant pursuant to Section 8.

2.31 "Period of Restriction" means the period during which Shares of Restricted Stock are subject to forfeiture and/or restrictions on transferability, which shall begin on the Grant Date and shall end at such times, and be subject to such restrictions and conditions, as the Committee shall determine in its sole discretion.

2.32 "Plan" means the Varian Semiconductor Equipment Associates, Inc. Omnibus Stock Plan, as set forth in this instrument and as hereafter amended from time to time.

2.33 "Restricted Stock" means an Award granted to a Participant pursuant to Section 7.

2.34 "Retirement" means, in the case of an Employee or a Non-employee Director, "Retirement" as defined pursuant to the Company's or the Board's Retirement Policies, as they may be established from time to time. With respect to a Consultant, no Termination of Service shall be deemed to be on account of "Retirement."

2.35 "Return on Assets" means as to any Performance Period, the percentage equal to the Company's or a business unit's EBIT before incentive compensation, divided by average net Company or business unit, as applicable, assets, determined in accordance with generally accepted accounting principles.

2.36 "Return on Equity" means as to any Performance Period, the percentage equal to the Company's Net Income divided by average stockholder's equity, determined in accordance with generally accepted accounting principles.

2.37 "Return on Sales" means as to any Performance Period, the percentage equal to the Company's or a business unit's EBIT before incentive compensation, divided by the Company's or the business unit's, as applicable, Revenue, determined in accordance with generally accepted accounting principles.

2.38 "Revenue" means as to any Performance Period, the Company's or a business unit's net sales, determined in accordance with generally accepted accounting principles.

2.39 "Rule 16b-3" means Rule 16b-3 promulgated under the 1934 Act, as amended, and any future regulation amending, supplementing or superseding such regulation.

2.40 “Section 16 Person” means a person who, with respect to the Shares, is subject to section 16 of the 1934 Act.

2.41 “Shareholder Return” means as to any Performance Period, the total return (change in share price plus reinvestment of any dividends) of a Share.

2.42 “Shares” means shares of the Company’s common stock, \$.01 par value.

2.43 “Stock Appreciation Right” or “SAR” means an Award, granted alone, in connection or in tandem with a related Option, that pursuant to Section 6 is designated as a SAR.

2.44 “Subsidiary” means any corporation in an unbroken chain of corporations beginning with the Company if each of the corporations other than the last corporation in the unbroken chain then owns stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain.

2.45 “Termination of Service” means (a) in the case of an Employee, a cessation of the employee-employer relationship between an Employee and the Company or an Affiliate for any reason, including, but not by way of limitation, a termination by resignation, discharge, death, Disability, Retirement, or the disaffiliation of an Affiliate, but excluding any such termination where there is a simultaneous reemployment by the Company or an Affiliate; (b) in the case of a Consultant, a cessation of the service relationship between a Consultant and the Company or an Affiliate for any reason, including, but not by way of limitation, a termination by resignation, discharge, death, Disability, or the disaffiliation of an Affiliate, but excluding any such termination where there is a simultaneous re-engagement of the consultant by the Company or an Affiliate; and (c) in the case of a Non-employee Director, a cessation of the Non-employee Director’s service on the Board for any reason.

2.46 “VAI” means Varian Associates, Inc., a Delaware corporation.

SECTION 3 ADMINISTRATION

3.1 The Committee. The Plan shall be administered by the Committee. The Committee shall consist of not less than two (2) Directors. The members of the Committee shall be appointed from time to time by, and serve at the pleasure of, the Board. Each member of the Committee shall qualify as (a) a “non-employee director” under Rule 16b-3, and (b) an “outside director” under section 162(m) of the Code. If it is later determined that one or more members of the Committee do not so qualify, actions taken by the Committee prior to such determination shall be valid despite such failure to qualify.

3.2 Authority of the Committee. It shall be the duty of the Committee to administer the Plan in accordance with the Plan’s provisions. The Committee shall have all powers and discretion necessary or appropriate to administer the Plan and to control its operation, including, but not limited to, the power to (a) determine which Employees and Consultants shall be granted Awards, (b) prescribe the terms and conditions of the Awards (other than the Options granted to Non-employee Directors pursuant to Section 9), (c) interpret the Plan and the Awards, (d) adopt such procedures and subplans as are necessary or appropriate to permit participation in the Plan by Employees, Consultants and Directors who are foreign nationals or employed outside of the United States, (e) adopt rules for the administration, interpretation and application of the Plan as are consistent therewith, and (f) interpret, amend or revoke any such rules. Notwithstanding any contrary provision of the Plan, the Committee may reduce the amount payable under any Award (other than an Option) after the grant of such Award.

3.3 Delegation by the Committee. The Committee, in its sole discretion and on such terms and conditions as it may provide, may delegate all or any part of its authority and powers under the Plan to one or more directors and/or officers of the Company; provided, however, that the Committee may not delegate its authority and powers (a) with respect to Section 16 Persons, (b) in any way which would jeopardize the Plan’s qualification under Rule 16b-3, or (c) with respect to awards which are intended to qualify as performance-based compensation under section 162(m) of the Code.

3.4 Non-employee Directors. Notwithstanding any contrary provision of this Section 3, the Board shall administer Section 9 of the Plan, and the Committee shall exercise no discretion with respect to Section 9. In the Board's administration of Section 9 and the Options and any Shares granted to Non-employee Directors, the Board shall have all of the authority and discretion otherwise granted to the Committee with respect to the administration of the Plan.

3.5 Decisions Binding. All determinations and decisions made by the Committee, the Board, and any delegate of the Committee pursuant to the provisions of the Plan shall be final, conclusive, and binding on all persons, and shall be given the maximum deference permitted by law.

SECTION 4 SHARES SUBJECT TO THE PLAN

4.1 Number of Shares. Subject to adjustment as provided in Section 4.3, the total number of Shares available for grant under the Plan shall not exceed 9,700,000, plus such number of Shares as are granted pursuant to substitute Options under Sections 5.3.3 and 9.3 in connection with the distribution of Shares to the stockholders of VAI. Shares granted under the Plan may be either authorized but unissued Shares or treasury Shares.

4.2 Lapsed Awards. If an Award terminates, expires, or lapses for any reason, any Shares subject to such Award again shall be available to be the subject of an Award. In addition, any Shares issued pursuant to Awards assumed or granted in substitution of other awards in connection with the acquisition of the Company of an unrelated entity shall not reduce the maximum number of Shares issuable under Section 4.1. However, the following Shares shall not be added back to the maximum number of Shares issuable under Section 4.1 and shall not be available again to be the subject of an Award (i) the number of Shares tendered to the Company (whether by physical delivery or attestation) as full or partial payment for the Exercise Price of an Option or to satisfy a Participant's tax withholding obligations in connection with any Award and (ii) the number of Shares withheld to pay the Exercise Price of an Option or withheld from any Award to satisfy a Participant's tax withholding obligations. In addition, any Shares that are granted pursuant to a Reload Option (as defined in Section 5.9 below) shall be deemed delivered for purposes of determining the maximum number of Shares that may be delivered under Section 4.1 and shall not be available again to be the subject of an Award.

4.3 Adjustments in Awards and Authorized Shares. In the event of any merger, reorganization, consolidation, recapitalization, separation, liquidation, stock dividend, split-up, Share combination, or other change in the corporate structure of the Company affecting the Shares, the Committee shall adjust the number and class of Shares which may be delivered under the Plan, the number, class, and price of Shares subject to outstanding Awards, and the numerical limit of Section 5.1 in such manner as the Committee (in its sole discretion) shall determine to be appropriate to prevent the dilution or diminution of such Awards. In the case of Options granted to Non-employee Directors pursuant to Section 9, the foregoing adjustments shall be made by the Board, and any such adjustments also shall apply to the future grants provided by Section 9. Notwithstanding the preceding, the number of Shares subject to any Award always shall be a whole number.

SECTION 5 STOCK OPTIONS

5.1 Grant of Options. Subject to the terms and provisions of the Plan, Options may be granted to Employees and Consultants at any time and from time to time as determined by the Committee in its sole discretion. The Committee, in its sole discretion, shall determine the number of Shares subject to each Option, provided that during any Fiscal Year, no Participant shall be granted Options covering more than 1,000,000 Shares. The Committee may grant Incentive Stock Options, Non-qualified Stock Options, or a combination thereof.

5.2 Award Agreement. Each Option shall be evidenced by an Award Agreement that shall specify the Exercise Price, the expiration date of the Option, the number of Shares to which the Option pertains, any conditions to exercise of the Option, and such other terms and conditions as the Committee, in its discretion, shall determine.

The Award Agreement shall specify whether the Option is intended to be an Incentive Stock Option or a Non-qualified Stock Option.

5.3 Exercise Price. Subject to the provisions of this Section 5.3, the Exercise Price for each Option shall be determined by the Committee in its sole discretion.

5.3.1 Non-qualified Stock Options. In the case of a Non-qualified Stock Option, the Exercise Price shall be not less than one hundred percent (100%) of the Fair Market Value of a Share on the Grant Date.

5.3.2 Incentive Stock Options. In the case of an Incentive Stock Option, the Exercise Price shall be not less than one hundred percent (100%) of the Fair Market Value of a Share on the Grant Date; provided, however, that if on the Grant Date, the Employee (together with persons whose stock ownership is attributed to the Employee pursuant to section 424(d) of the Code) owns stock possessing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or any of its Subsidiaries, the Exercise Price shall be not less than one hundred and ten percent (110%) of the Fair Market Value of a Share on the Grant Date.

5.3.3 Substitute Options. Notwithstanding, the provisions of Sections 5.3.1 and 5.3.2, in the event that the Company or an Affiliate consummates a transaction described in section 424(a) of the Code (e.g., the acquisition of property or stock from an unrelated corporation), persons who become Employees or Consultants on account of such transaction may be granted Options in substitution for options granted by their former employer. If such substitute Options are granted, the Committee, in its sole discretion and consistent with section 424(a) of the Code, shall determine the exercise price of such substitute Options.

5.4 Expiration of Options.

5.4.1 Expiration Dates. Each Option shall terminate no later than the first to occur of the following events:

(a) The expiration of eight (8) years from the Grant Date; or

(b) The expiration of three (3) months, or such longer period not longer than the period described in Section 5.4.1(a) as determined by the Committee in its discretion, from the date of the Participant's Termination of Service for a reason other than the Participant's death, Disability or Retirement; or

(c) The expiration of one (1) year from the date of the Participant's Termination of Service by reason of Disability; or

(d) The expiration of eight (8) years from the Grant Date in the case of the Participant's Retirement (subject to Section 5.8.2 regarding Incentive Stock Options); or

(e) The date of the Participant's Termination of Service by the Company for cause (as determined by the Company); or

(f) The date for termination of the Option determined by the Committee in its sole discretion and set forth in the written Award Agreement.

5.4.2 Death of Participant. Notwithstanding Section 5.4.1, if a Participant who is an Employee dies prior to the expiration of his or her Options, his or her Options shall be exercisable until the expiration of three (3) years after the date of death. If a Participant who is a Consultant dies prior to the expiration of his or her Options, the Committee, in its discretion, may provide that his or her Options shall be exercisable for up to three (3) years after the date of death.

5.4.3 Committee Discretion. Subject to the limits of Sections 5.4.1 and 5.4.2, the Committee, in its sole discretion, (a) shall provide in each Award Agreement when each Option expires and becomes unexercisable, and (b) may, after an Option is granted and before such Option expires, extend the maximum term of the Option (subject to Section 5.8.4 regarding Incentive Stock Options).

5.5 Exercisability of Options. Options granted under the Plan shall be exercisable at such times and be subject to such restrictions and conditions as the Committee shall determine in its sole discretion. After an Option is granted, the Committee, in its sole discretion, may accelerate the exercisability of the Option. With respect to Options granted on or after November 17, 2000, if a Participant who is an Employee dies, incurs a Disability or terminates service by reason of his or her Retirement, the exercisability of his or her Options shall be fully accelerated to the date of Termination of Service. With respect to Options granted prior to November 17, 2000, if a Participant dies while an Employee, the exercisability of his or her Options shall be fully accelerated to the date of Termination of Service.

5.6 Payment. Options shall be exercised by the Participant's delivery of a written notice of exercise to the Secretary of the Company (or its designee), setting forth the number of Shares with respect to which the Option is to be exercised, accompanied by full payment for the Shares.

Upon the exercise of any Option, the Exercise Price shall be payable to the Company in full in cash or its equivalent. The Committee, in its sole discretion, also may permit exercise (a) by tendering previously acquired Shares having an aggregate Fair Market Value at the time of exercise equal to the total Exercise Price, or (b) by any other means which the Committee, in its sole discretion, determines to both provide legal consideration for the Shares, and to be consistent with the purposes of the Plan.

As soon as practicable after receipt of a written notification of exercise and full payment for the Shares purchased, the Company shall deliver to the Participant (or the Participant's designated broker), Share certificates (which may be in book entry form) representing such Shares.

5.7 Restrictions on Share Transferability. The Committee may impose such restrictions on any Shares acquired pursuant to the exercise of an Option as it may deem advisable, including, but not limited to, restrictions related to applicable Federal securities laws, the requirements of any national securities exchange or system upon which Shares are then listed or traded, or any blue sky or state securities laws.

5.8 Certain Additional Provisions for Incentive Stock Options.

5.8.1. Exercisability. The aggregate Fair Market Value (determined on the Grant Date(s)) of the Shares with respect to which Incentive Stock Options are exercisable for the first time by any Employee during any calendar year (under all plans of the Company and its Subsidiaries) shall not exceed \$100,000.

5.8.2 Termination of Service. If any portion of an Incentive Stock Option is exercised more than three (3) months after the Participant's Termination of Service for any reason other than Disability or death (unless (a) the Participant dies during such three-month period, and (b) the Award Agreement or the Committee permits later exercise), the portion so exercised shall be deemed a Non-qualified Stock Option.

5.8.3 Company and Subsidiaries Only. Incentive Stock Options may be granted only to persons who are employees of the Company or a Subsidiary on the Grant Date.

5.8.4 Expiration. No Incentive Stock Option may be exercised after the expiration of ten (10) years from the Grant Date; provided, however, that if the Option is granted to an Employee who, together with persons whose stock ownership is attributed to the Employee pursuant to section 424(d) of the Code, owns stock possessing more than ten percent (10%) of the total combined voting power of all classes of the stock of the Company or any of its Subsidiaries, the Option may not be exercised after the expiration of five (5) years from the Grant Date.

5.9 Grant of Reload Options. The Committee may provide in an Award Agreement that a Participant who exercises all or part of an Option by payment of the Exercise Price with already-owned Shares, shall be granted an additional option (a "Reload Option") for a number of shares of stock equal to the number of Shares tendered to exercise the previously granted Option plus, if the Committee so determines, any Shares withheld or delivered in satisfaction of any tax withholding requirements, subject to Section 4.2. As determined by the Committee, each Reload Option shall (a) have a Grant Date which is the date as of which the previously granted Option is exercised, and (b) be exercisable on the same terms and conditions as the previously granted Option, except that the Exercise Price shall be determined as of the Grant Date.

SECTION 6
STOCK APPRECIATION RIGHTS

6.1 Grant of SARs. Subject to the terms and conditions of the Plan, SARs may be granted to Employees and Consultants at any time and from time to time as shall be determined by the Committee, in its sole discretion, provided that the aggregate number of Shares to be granted pursuant to Sections 6, 7 and 8 of the Plan shall not exceed 400,000 Shares. The Committee shall have complete discretion to determine the number of SARs granted to any Participant, provided that during any Fiscal Year, no Participant shall be granted SARs covering more than 100,000 Shares.

6.2 Exercise Price and Other Terms. The Committee, subject to the provisions of the Plan, shall have complete discretion to determine the terms and conditions of SARs granted under the Plan. However, the exercise price of an SAR shall be not less than one hundred percent (100%) of the Fair Market Value of a Share on the Grant Date.

6.3 SAR Agreement. Each SAR grant shall be evidenced by an Award Agreement that shall specify the exercise price, the term of the SAR, the conditions of exercise, and such other terms and conditions as the Committee, in its sole discretion, shall determine.

6.4 Expiration of SARs. A SAR granted under the Plan shall expire upon the date determined by the Committee, in its sole discretion, and set forth in the Award Agreement. Notwithstanding the foregoing, the rules of Section 5.4 also shall apply to SARs.

6.5 Payment of SAR Amount. Upon exercise of a SAR, a Participant shall be entitled to receive payment from the Company in an amount determined by multiplying:

- (a) The difference between the Fair Market Value of a Share on the date of exercise over the exercise price; times
- (b) The number of Shares with respect to which the SAR is exercised.

6.6 Payment Upon Exercise of SAR. Any payment by the Company in respect of such right may be made in cash, Shares, other property, or any combination thereof, as the Committee, in its sole discretion, shall determine.

SECTION 7
RESTRICTED STOCK

7.1 Grant of Restricted Stock. Subject to the terms and provisions of the Plan, the Committee, at any time and from time to time, may grant Shares of Restricted Stock to Employees and Consultants in such amounts as the Committee, in its sole discretion, shall determine, provided that the aggregate number of Shares to be granted pursuant to Sections 6, 7 and 8 of the Plan shall not exceed 400,000 Shares. The Committee, in its sole discretion, shall determine the number of Shares to be granted to each Participant, provided that during any Fiscal Year, no Participant shall be granted more than 100,000 Shares of Restricted Stock.

7.2 Restricted Stock Agreement. Each Award of Restricted Stock shall be evidenced by an Award Agreement that shall specify the Period of Restriction, the number of Shares granted, any price to be paid for the Shares, and such other terms and conditions as the Committee, in its sole discretion, shall determine. Unless the Committee determines otherwise, Shares of Restricted Stock shall be held by the Company as escrow agent until the restrictions on such Shares have lapsed.

7.3 Transferability. Shares of Restricted Stock may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated until the end of the applicable Period of Restriction.

7.4 Other Restrictions. The Committee, in its sole discretion, may impose such other restrictions on Shares of Restricted Stock as it may deem advisable or appropriate, in accordance with this Section 7.4.

7.4.1 General Restrictions. The Committee may set restrictions based upon the achievement of specific performance objectives (Company-wide, business unit or individual), applicable federal or state securities laws, or any other basis determined by the Committee in its discretion.

7.4.2 Section 162(m) Performance Restrictions. For purposes of qualifying grants of Restricted Stock as “performance-based compensation” under section 162(m) of the Code, the Committee, in its discretion, may set restrictions based upon the achievement of Performance Goals. The Performance Goals shall be set by the Committee on or before the latest date permissible to enable the Restricted Stock to qualify as “performance-based compensation” under section 162(m) of the Code. In granting Restricted Stock which is intended to qualify under section 162(m) of the Code, the Committee shall follow any procedures determined by it from time to time to be necessary or appropriate to ensure qualification of the Restricted Stock under section 162(m) of the Code (e.g., in determining the Performance Goals).

7.4.3 Legend on Certificates. The Committee, in its discretion, may legend the certificates representing Restricted Stock to give appropriate notice of such restrictions. For example, the Committee may determine that some or all certificates representing Shares of Restricted Stock shall bear the following legend:

“The sale or other transfer of the shares of stock represented by this certificate, whether voluntary, involuntary, or by operation of law, is subject to certain restrictions on transfer as set forth in the Varian Semiconductor Equipment Associates, Inc. Omnibus Stock Plan, and in a Restricted Stock Agreement. A copy of the Plan and such Restricted Stock Agreement may be obtained from the Secretary of Varian Semiconductor Equipment Associates, Inc.”

7.5 Removal of Restrictions. Shares of Restricted Stock covered by each Restricted Stock grant made under the Plan shall be released from escrow as soon as practicable after the last day of the Period of Restriction. The Committee, in its discretion, may accelerate the time at which any restrictions shall lapse, and remove any restrictions. After the restrictions have lapsed, the Participant shall be entitled to have any legend or legends under Section 7.4 removed from his or her Share certificate, and the Shares shall be freely transferable by the Participant.

7.6 Voting Rights. During the Period of Restriction, Participants holding Shares of Restricted Stock granted hereunder may exercise full voting rights with respect to those Shares, unless otherwise provided in the Award Agreement.

7.7 Dividends and Other Distributions. During the Period of Restriction, Participants holding Shares of Restricted Stock shall be entitled to receive all dividends and other distributions paid with respect to such Shares unless otherwise provided in the Award Agreement. If any such dividends or distributions are paid in Shares, the Shares shall be subject to the same restrictions on transferability and forfeitability as the Shares of Restricted Stock with respect to which they were paid.

7.8 Return of Restricted Stock to Company. On the date set forth in the Award Agreement, the Restricted Stock for which restrictions have not lapsed shall revert to the Company and again shall become available for grant under the Plan.

SECTION 8

PERFORMANCE UNITS AND PERFORMANCE SHARES

8.1 Grant of Performance Units and Shares. Performance Units and Performance Shares may be granted to Employees and Consultants at any time and from time to time, as shall be determined by the Committee, in its sole discretion, provided that the aggregate number of Shares to be granted pursuant to Sections 6, 7 and 8 of the Plan shall not exceed 400,000 Shares. The Committee shall have complete discretion in determining the number of Performance Units and Performance Shares granted to any Participant, provided that during any Fiscal Year no more than 100,000 Performance Units or Performance Shares may be granted to any Participant.

8.2 Initial Value. Each Performance Unit shall have an initial value that is established by the Committee on or before the Grant Date, provided that such value shall not exceed the Fair Market Value of a Share on the Grant Date. Each Performance Share shall have an initial value equal to the Fair Market Value of a Share on the Grant Date.

8.3 Performance Objectives and Other Terms. The Committee shall set performance objectives in its discretion which, depending on the extent to which they are met, will determine the number or value of Performance Units or Shares that will be paid out to the Participants. The Committee may set performance objectives based upon the achievement of Company-wide, business unit, or individual goals, or any other basis determined by the Committee in its discretion. The time period during which the performance objectives must be met shall be called the "Performance Period." Each Award of Performance Units or Shares shall be evidenced by an Award Agreement that shall specify the Performance Period, and such other terms and conditions as the Committee, in its sole discretion, shall determine.

8.3.1 General Performance Objectives. The Committee may set performance objectives based upon the achievement of Company-wide, business unit or individual goals, or any other basis determined by the Committee in its discretion.

8.3.2 Section 162(m) Performance Objectives. For purposes of qualifying grants of Performance Units or Shares as "performance-based compensation" under section 162(m) of the Code, the Committee, in its discretion, may determine that the performance objectives applicable to Performance Units or Shares shall be based on the achievement of Performance Goals. The Performance Goals shall be set by the Committee on or before the latest date permissible to enable the Performance Units or Shares to qualify as "performance-based compensation" under section 162(m) of the Code. In granting Performance Units or Shares which are intended to qualify under section 162(m) of the Code, the Committee shall follow any procedures determined by it from time to time to be necessary or appropriate to ensure qualification of the Performance Units or Shares under section 162(m) of the Code (e.g., in determining the Performance Goals).

8.4 Earning of Performance Units and Performance Shares. After the applicable Performance Period has ended, the Participant shall be entitled to receive a payout of the number of Performance Units or Shares earned during the Performance Period, depending upon the extent to which the applicable performance objectives have been achieved. After the grant of a Performance Unit or Share, the Committee, in its sole discretion, may reduce or waive any performance objectives for Award.

8.5 Form and Timing of Payment. Payment of earned Performance Units or Performance Shares shall be made as soon as practicable after the expiration of the applicable Performance Period. The Committee, in its sole discretion, may pay such earned Awards in cash, Shares or a combination thereof.

8.6 Cancellation. On the date set forth in the Award Agreement, all unearned or unvested Performance Units or Performance Shares shall be forfeited to the Company, and again shall be available for grant under the Plan.

SECTION 9 NON-EMPLOYEE DIRECTORS

9.1 Granting of Options to Non-Employee Directors

Each Non-employee Director shall be granted an Option to purchase 12,000 Shares (an "Initial Grant") on the later of the Effective Date of the Plan or the date of the Non-employee Director's appointment or initial election as a Non-employee Director. Beginning on the first business day after the first Annual Meeting of Stockholders following the Non-employee Director's appointment or initial election, and on the first business day after each Annual Meeting of Stockholders thereafter, for so long as the Non-employee Director serves as such, he or she annually shall be granted an Option for an additional 6,000 Shares (each a "Subsequent Grant"), but only if the Non-employee Director has continuously served as such through the Grant Date.

9.2 Terms of Options.

9.2.1 Option Agreement. Each Option granted pursuant to this Section 9 shall be evidenced by a written stock option agreement which shall be executed by the Non-employee Director and the Company.

9.2.2 Exercise Price. The Exercise Price for the Shares subject to each Option granted pursuant to this Section 9 shall be one hundred percent (100%) of the Fair Market Value of such Shares on the Grant Date.

9.2.3 Exercisability. Each Option granted pursuant to this Section 9 shall be fully exercisable on the Grant Date.

9.2.4 Expiration of Options. Each Option shall terminate upon the first to occur of the following events:

(a) The expiration of eight (8) years from the Grant Date; or

(b) The expiration of three (3) months from the date of the Non-employee Director's Termination of Service for a reason other than death, Disability, resignation or Retirement; or

(c) The expiration of eight (8) years from the Grant Date in the case of the Non-employee Director's Termination of Service by reason of completion of the Participant's term as a Director, Disability, Retirement or death; or

(d) The expiration of one (1) month from the date of the Non-employee Director's Termination of Service by reason of resignation.

9.2.5 Non Incentive Stock Options. Options granted pursuant to this Section 9 shall not be designated as Incentive Stock Options.

9.2.6 Other Terms. All provisions of the Plan not inconsistent with this Section 9 shall apply to Options granted to Non-employee Directors; provided, however, that Section 5.1 (relating to the Committee's discretion to set the terms and conditions of Options) shall be inapplicable with respect to Non-employee Directors.

9.3 Substitute Options. Notwithstanding the provisions of Section 9.2.2, in the event that the Company or an Affiliate consummates a transaction described in section 424(a) of the Code (e.g., the acquisition of property or stock from an unrelated corporation), persons who become Non-employee Directors on account of such transaction may be granted Options in substitution for options granted by their former employer. If such substitute Options are granted, the Committee, in its sole discretion and consistent with section 424(a) of the Code, shall determine the exercise price of such substitute Options.

SECTION 10 MISCELLANEOUS

10.1 No Effect on Employment or Service. Nothing in the Plan shall interfere with or limit in any way the right of the Company to terminate any Participant's employment or service at any time, with or without cause. For purposes of the Plan, transfer of employment of a Participant between the Company and any one of its Affiliates (or between Affiliates) shall not be deemed a Termination of Service. Employment with the Company and its Affiliates is on an at-will basis only.

10.2 Participation. No Employee or Consultant shall have the right to be selected to receive an Award under this Plan, or, having been so selected, to be selected to receive a future Award.

10.3 Indemnification. Each person who is or shall have been a member of the Committee, or of the Board, shall be indemnified and held harmless by the Company against and from (a) any loss, cost, liability, or expense that may be imposed upon or reasonably incurred by him or her in connection with or resulting from any claim, action,

suit, or proceeding to which he or she may be a party or in which he or she may be involved by reason of any action taken or failure to act under the Plan or any Award Agreement, and (b) from any and all amounts paid by him or her in settlement thereof, with the Company's approval, or paid by him or her in satisfaction of any judgment in any such claim, action, suit, or proceeding against him or her, provided he or she shall give the Company an opportunity, at its own expense, to handle and defend the same before he or she undertakes to handle and defend it on his or her own behalf. The foregoing right of indemnification shall not be exclusive of any other rights of indemnification to which such persons may be entitled under the Company's Certificate of Incorporation or Bylaws, by contract, as a matter of law, or otherwise, or under any power that the Company may have to indemnify them or hold them harmless.

10.4 Successors. All obligations of the Company under the Plan, with respect to Awards granted hereunder, shall be binding on any successor to the Company, whether the existence of such successor is the result of a direct or indirect purchase, merger, consolidation or otherwise, of all or substantially all of the business or assets of the Company.

10.5 Beneficiary Designations. If permitted by the Committee, a Participant under the Plan may name a beneficiary or beneficiaries to whom any vested but unpaid Award shall be paid in the event of the Participant's death. Each such designation shall revoke all prior designations by the Participant and shall be effective only if given in a form and manner acceptable to the Committee. In the absence of any such designation, any vested benefits remaining unpaid at the Participant's death shall be paid to the Participant's estate and, subject to the terms of the Plan and of the applicable Award Agreement, any unexercised vested Award may be exercised by the administrator or executor of the Participant's estate.

10.6 Nontransferability of Awards. No Award granted under the Plan may be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated, other than by will, by the laws of descent and distribution, or to the limited extent provided in Section 10.5. All rights with respect to an Award granted to a Participant shall be available during his or her lifetime only to the Participant.

10.7 No Rights as Stockholder. Except to the limited extent provided in Sections 7.6 and 7.7, no Participant (nor any beneficiary) shall have any of the rights or privileges of a stockholder of the Company with respect to any Shares issuable pursuant to an Award (or exercise thereof), unless and until certificates representing such Shares shall have been issued, recorded on the records of the Company or its transfer agents or registrars, and delivered to the Participant (or beneficiary).

10.8 Withholding Requirements. Prior to the delivery of any Shares or cash pursuant to an Award (or exercise thereof), the Company shall have the power and the right to deduct or withhold, or require a Participant to remit to the Company, an amount sufficient to satisfy federal, state, local and foreign taxes (including the Participant's FICA obligation) required to be withheld with respect to such Award (or exercise thereof). Notwithstanding any contrary provision of the Plan, if a Participant fails to remit to the Company such withholding amount within the time period specified by the Committee (in its discretion), the Participant's Award may, in the Committee's discretion, be forfeited and in such case the Participant shall not receive any of the Shares subject to such Award.

10.9 Withholding Arrangements. The Committee, in its sole discretion and pursuant to such procedures as it may specify from time to time, may permit or require a Participant to satisfy all or part of the tax withholding obligations in connection with an Award by (a) having the Company withhold otherwise deliverable Shares, or (b) delivering to the Company already-owned Shares having a Fair Market Value equal to the amount required to be withheld. The amount of the withholding requirement shall be deemed to include any amount which the Committee determines, not to exceed the amount determined by using the maximum federal, state, local or foreign jurisdiction marginal income tax rates applicable to the Participant with respect to the Award on the date that the amount of tax to be withheld is to be determined. The Fair Market Value of the Shares to be withheld or delivered shall be determined as of the date that the taxes are required to be withheld.

10.10 Deferrals. The Committee, in its sole discretion, may permit a Participant to defer receipt of the payment of cash or the delivery of Shares that would otherwise be delivered to a Participant under the Plan. Any such deferral elections shall be subject to such rules and procedures as shall be determined by the Committee in its sole discretion.

**SECTION 11
AMENDMENT, TERMINATION AND DURATION**

11.1 Amendment, Suspension or Termination. The Board, in its sole discretion, may amend or terminate the Plan, or any part thereof, at any time and for any reason. The amendment, suspension or termination of the Plan shall not, without the consent of the Participant, alter or impair any rights or obligations under any Award theretofore granted to such Participant. No Award may be granted during any period of suspension or after termination of the Plan.

11.2 Duration of the Plan. The Plan shall commence on the date specified herein, and subject to Section 11.1 (regarding the Board's right to amend or terminate the Plan), shall remain in effect thereafter. However, without further stockholder approval, no Incentive Stock Option may be granted under the Plan after ten (10) years from the Effective Date.

**SECTION 12
LEGAL CONSTRUCTION**

12.1 Gender and Number. Except where otherwise indicated by the context, any masculine term used herein also shall include the feminine; the plural shall include the singular and the singular shall include the plural.

12.2 Severability. In the event any provision of the Plan shall be held illegal or invalid for any reason, the illegality or invalidity shall not affect the remaining parts of the Plan, and the Plan shall be construed and enforced as if the illegal or invalid provision had not been included.

12.3 Requirements of Law. The granting of Awards and the issuance of Shares under the Plan shall be subject to all applicable laws, rules and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required. The Award Agreements for any Awards subject to section 409A of the Code and the regulations thereunder shall incorporate the necessary provisions so that such Awards shall comply with section 409A of the Code and the regulations thereunder to the extent that the Committee, in its discretion, shall determine.

12.4 Governing Law. The Plan and all Award Agreements shall be construed in accordance with and governed by the laws of the State of Delaware, but without regard to its conflict of law provisions.

12.5 Captions. Captions are provided herein for convenience only, and shall not serve as a basis for interpretation or construction of the Plan.

EXECUTION

IN WITNESS WHEREOF, Varian Semiconductor Equipment Associates, Inc., by its duly authorized officer, has executed the Plan on the date indicated below.

VARIAN SEMICONDUCTOR EQUIPMENT
ASSOCIATES, INC.

Dated: December 16, 2004

By: _____ /s/ GARY L. LOSER
Name: **Gary L. Loser**
Title: **Vice President and General Counsel**

December 6, 2011

Applied Materials, Inc.
3050 Bowers Avenue
P.O. Box 58039
Santa Clara, California 95052-8039

Re: Form S-8 Registration Statement

Ladies and Gentlemen:

At your request, we are rendering this opinion in connection with the proposed issuance of an aggregate of 5,123,882 shares of common stock, \$0.01 par value (the "Common Stock"), of Applied Materials, Inc., a Delaware corporation (the "Company"), pursuant to stock options that were granted by Varian Semiconductor Equipment Associates, Inc. ("Varian") under its Amended and Restated 2006 Stock Incentive Plan and Amended and Restated Omnibus Stock Plan and have been assumed by the Company pursuant to the Agreement and Plan of Merger, dated as of May 3, 2011, by and among the Company, Barcelona Acquisition Corp., a wholly-owned subsidiary of the Company and Varian (the "Assumed Options").

We have examined instruments, documents, and records which we deemed relevant and necessary for the basis of our opinion hereinafter expressed. In such examination, we have assumed the following: (a) the authenticity of original documents and the genuineness of all signatures; (b) the conformity to the originals of all documents submitted to us as copies; and (c) the truth, accuracy and completeness of the information, representations and warranties contained in the records, documents, instruments and certificates we have reviewed.

Based on such examination, we are of the opinion that the 5,123,882 shares of Common Stock to be issued by the Company pursuant to the Assumed Options are validly authorized shares of Common Stock and, when issued in accordance with the terms and conditions of the Assumed Options, will be legally issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion as an exhibit to this Registration Statement on Form S-8 (the "Registration Statement") and to the use of our name wherever it appears in the Registration Statement. In giving such consent, we do not consider that we are "experts" within the meaning of such term as used in the Securities Act of 1933, as amended, or the rules and regulations of the Securities and Exchange Commission issued thereunder, with respect to any part of the Registration Statement, including this opinion as an exhibit or otherwise.

Very truly yours,

/s/ Wilson Sonsini Goodrich & Rosati, PC

WILSON SONSINI GOODRICH & ROSATI,
Professional Corporation

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors
Applied Materials, Inc.:

We consent to the incorporation by reference in the registration statement on Form S-8 of Applied Materials, Inc. (the Company) of our reports dated December 6, 2011, with respect to the consolidated balance sheets of the Company as of October 30, 2011 and October 31, 2010, and the related consolidated statements of operations, stockholders' equity and comprehensive income (loss), and cash flows for each of the years in the three-year period ended October 30, 2011, and the related financial statement schedule, and the effectiveness of internal control over financial reporting as of October 30, 2011, which reports appear in the October 30, 2011 annual report on Form 10-K of the Company.

Our report dated December 6, 2011 refers to an accounting change upon adoption of Accounting Standards Codification Topic 805, *Business Combinations*, during the year ended October 31, 2010.

/s/ KPMG LLP
Mountain View, California
December 6, 2011

POWER OF ATTORNEY OF DIRECTORS

KNOW ALL PERSONS BY THESE PRESENTS:

Each of the undersigned directors of Applied Materials, Inc., a Delaware corporation (the "Company"), hereby constitutes and appoints Michael R. Splinter, George S. Davis and Joseph J. Sweeney and each of them with power to act alone, his or her true and lawful attorney-in-fact, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to execute a Registration Statement or Registration Statements on Form S-8 or other appropriate form, under the Securities Act of 1933, as amended, relating to such number of shares of common stock of the Company as are necessary to satisfy any stock options that were granted by Varian Semiconductor Equipment Associates, Inc. ("Varian") under its Amended and Restated 2006 Stock Incentive Plan and Amended and Restated Omnibus Stock Plan and are assumed by the Company pursuant to the Agreement and Plan of Merger, dated as of May 3, 2011, by and among the Company, Barcelona Acquisition Corp., a wholly-owned subsidiary of the Company, and Varian, and any and all amendments (including post-effective amendments) to such Registration Statement(s), and to file such Registration Statement(s) and any and all amendments thereto, with exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact full power and authority to do and perform each and every act and thing necessary or desirable to be done in and about the premises, as fully to all intents and purposes, as he or she might or could do in person, thereby ratifying and confirming all that said attorney-in-fact or his substitute or substitutes may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, we have hereunto set our hands this 13th day of September, 2011.

/s/ Michael R. Splinter

Michael R. Splinter

/s/ Aart J. de Geus

Aart J. de Geus

/s/ Stephen R. Forrest

Stephen R. Forrest

/s/ Thomas J. Iannotti

Thomas J. Iannotti

/s/ Susan M. James

Susan M. James

/s/ Alexander A. Karsner

Alexander A. Karsner

/s/ Gerhard H. Parker

Gerhard H. Parker

/s/ Dennis D. Powell

Dennis D. Powell

/s/ Willem P. Roelandts

Willem P. Roelandts

/s/ James E. Rogers

James E. Rogers

Robert H. Swan