

SECURITIES AND EXCHANGE COMMISSION
 Washington, D.C. 20549

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

KLA-TENCOR CORPORATION
 (Exact name of registrant as specified in its charter)

<TABLE>		
<S>	<C>	
DELAWARE		04-2564110
(State of incorporation)		(I.R.S. Employer Identification No.)
</TABLE>		

160 Rio Robles
 San Jose, California 95134
 (Address, including zip code, of principal executive offices)

1998 OUTSIDE DIRECTOR OPTION PLAN
 (Full Titles of the Plans)

LISA C. BERRY
 VICE PRESIDENT, GENERAL COUNSEL
 KLA-TENCOR CORPORATION
 160 Rio Robles
 San Jose, California 95134
 (Name and address of agent for service)
 (408) 875-4200
 (Telephone number, including area code, of agent for service)

Copy to:
 JUDITH M. O'BRIEN, ESQ.
 WILSON SONSINI GOODRICH & ROSATI
 Professional Corporation
 650 Page Mill Road
 Palo Alto, California 94304

<TABLE>
 <CAPTION>

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered Fee	Proposed Maximum Amount to be Registered	Proposed Maximum Offering Price Per Share (1)	Aggregate Offering Price (1)	Amount of Registration Fee
Common Stock, \$.001 par value				
Newly reserved under 1998 Outside Director Option Plan	1,000,000	\$35.50	\$35,500,000.00	\$10,757.58

(1) The Proposed Maximum Offering Price Per Share was estimated in accordance with Rule 457(c) and Rule 457(h) under the Securities Act of 1933, as amended (the "SECURITIES ACT") solely for the purpose of calculating the

registration fee, based on the average between the high and low price of the Registrant's stock as reported in the Nasdaq National Market System on November 30, 1998.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE.

KLA-Tencor Corporation (the "REGISTRANT" or the "COMPANY") hereby incorporates by reference in this registration statement the following documents:

- (a) Registrant's Annual Report on Form 10-K for the fiscal year ended June 30, 1998 and Amendment No. 1 to Form 10-K (File No. 000-09992), pursuant to Section 13(a) of the Securities Exchange Act of 1934, as amended (the "EXCHANGE ACT");
- (b) Registrant's definitive proxy statement dated September 30, 1998 (File No. 000-09992), filed in connection with the November 17, 1998 Annual Meeting of Stockholders of the Company;
- (c) Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 1998 (File No. 000-09992), filed pursuant to Section 13(a) of the Exchange Act;
- (d) The description of the Registrant's Common Stock as set forth in the Registration Statement filed by the Registrant on Form 8-A on March 29, 1989 (File No. 000-09992) pursuant to Section 12(g) of the Exchange Act and any amendments or reports thereto filed with the Securities and Exchange Commission for the purpose of updating such description including Amendment No. 1 to Form 8-A filed September 25, 1995 and Amendment No. 2 to Form 8-A filed September 24, 1996.

ITEM 4. DESCRIPTION OF SECURITIES.

The class of securities to be offered is registered under Section 12 of the Exchange Act.

ITEM 5. INTERESTS OF NAMED EXPERTS AND COUNSEL.

Not applicable.

ITEM 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Section 145(a) of the Delaware General Corporation Law (the "DGCL") provides in relevant part that "[a] corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that he is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful." With respect to derivative actions, Section 145(b) of the DGCL provides in

II-1

relevant part that "[a] corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor... [by reason of his service in one of the capacities specified in the preceding sentence] against expenses (including attorneys' fees) actually and reasonably incurred by him in connection with the defense or settlement of such action or suit if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper."

The Company's Amended and Restated Certificate of Incorporation provides that to the fullest extent permitted by the DGCL, no director of the Company shall be personally liable to the Company or its stockholders for monetary damages for breach of fiduciary duty as a director. The Amended and Restated Certificate of Incorporation also provides that no amendment or repeal of such provision shall apply to or have any effect on the right to indemnification permitted thereunder with respect to claims arising from acts or omissions occurring in whole or in part before the effective date of such amendment or repeal whether asserted before or after such amendment or repeal.

The Company's Bylaws provide that the Company shall indemnify to the full extent permitted by the DGCL each of its directors, officers, employees and other agents against expenses actually and reasonably incurred in connection with any proceeding arising by reason of the fact that such person is or was an agent of the Company.

The Company has entered into indemnification agreements with its directors and executive officers and intends to enter into indemnification agreements with any new directors and executive officers in the future.

ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED

Not applicable.

ITEM 8. EXHIBITS

See Exhibit Index.

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 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.

(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.

II-2

(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 Act and will be governed by the final adjudication of such issue.

II-3

SIGNATURES

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 San Jose, State of California, on December 4, 1998.
KLA-TENCOR CORPORATION

By: /s/ Kenneth Levy

Kenneth Levy, Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Kenneth Levy and Lisa C. Berry, and each of them, their true and lawful attorneys and agents, with full power of substitution, each with power to act alone, to sign and execute on behalf of the undersigned any amendment or amendments to this Registration Statement on Form S-8 and to perform any acts necessary in order to file such amendments, and each of the undersigned does hereby ratify and confirm all that said attorneys and agents, or their or his or her substitutes, shall do or cause to be done by virtue hereof. Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<TABLE>
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Signature -----	Title -----	Date ----
<S> /s/ Kenneth Levy ----- Kenneth Levy	<C> Chief Executive Officer and Director (Principal-Executive-Officer)	<C> December 4, 1998
/s/ Jon D. Tompkins ----- Jon D. Tompkins	Chairman of the Board and Director	December 4, 1998
/s/ Kenneth L. Schroeder ----- Kenneth L. Schroeder	President, Chief Operating Officer and Director	December 4, 1998
/s/ Robert J. Boehlke ----- Robert J. Boehlke	Executive Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	December 4, 1998
/s/ James W. Bagley ----- James W. Bagley	Director	December 4, 1998
/s/ Edward W. Barnholt ----- Edward W. Barnholt	Director	December 4, 1998
/s/ Leo J. Chamberlain ----- Leo J. Chamberlain	Director	December 4, 1998
/s/ Richard J. Elkus, Jr. ----- Richard J. Elkus, Jr.	Director	December 4, 1998
/s/ Dean O. Morton ----- Dean O. Morton	Director	December 4, 1998
/s/ Samuel Rubinovitz ----- Samuel Rubinovitz	Director	December 4, 1998
/s/ Dag Tellefsen ----- Dag Tellefsen	Director	December 4, 1998
/s/ Lida Urbanek ----- Lida Urbanek	Director	December 4, 1998

</TABLE>

INDEX TO EXHIBITS

<TABLE> <CAPTION> Exhibit Number	Description
<S> 5.1	<C> Opinion re: legality
10.1	1998 Outside Director Option Plan
23.1	Consent of Counsel (included in Exhibit 5.1)
23.2	Consent of Independent Accountants
24.1	Power of Attorney (see Page II-4)

[Wilson Sonsini Goodrich & Rosati Letterhead]

December 4, 1998

KLA-Tencor Corporation
160 Rio Robles
San Jose, CA 95134

RE: REGISTRATION STATEMENT ON FORM S-8

Ladies and Gentlemen:

We have examined the Registration Statement on Form S-8 to be filed by you with the Securities and Exchange Commission on or about December 4, 1998 (the "Registration Statement"), in connection with the registration under the Securities Act of 1933, as amended, of 1,000,000 shares of Common Stock (the "Shares") reserved for issuance under the 1998 Outside Director Option Plan (the "Plan"). As your legal counsel, we have examined the proceedings taken and proposed to be taken in connection with the issuance, sale and payment of consideration for the Shares to be issued under the Plan.

It is our opinion that, when issued and sold in compliance with applicable prospectus delivery requirements and in the manner referred to in the Plan and pursuant to the agreements which accompany the Plan, the Shares will be legally and validly issued, fully paid and non-assessable.

We consent to the use of this opinion as an exhibit to the Registration Statement and further consent to the use of our name wherever appearing in the Registration Statement and any amendments thereto.

Sincerely,

WILSON SONSINI GOODRICH & ROSATI
Professional Corporation

/s/ Wilson Sonsini Goodrich & Rosati

KLA-TENCOR CORPORATION

1998 OUTSIDE DIRECTOR OPTION PLAN

1. Purposes of the Plan. The purposes of this 1998 Outside Director Option Plan are to attract and retain the best available personnel for service as Outside Directors (as defined herein) of the Company, to provide additional incentive to the Outside Directors of the Company to serve as Directors, and to encourage their continued service on the Board.

All options granted hereunder shall be nonstatutory stock options.

2. Definitions. As used herein, the following definitions shall apply:

(a) "Board" means the Board of Directors of the Company.

(b) "Code" means the Internal Revenue Code of 1986, as amended.

(c) "Common Stock" means the common stock of the Company.

(d) "Company" means KLA-Tencor Corporation.

(e) "Director" means a member of the Board.

(f) "Disability" means total and permanent disability as defined in section 22(e)(3) of the Code.

(g) "Employee" means any person, including officers and Directors, employed by the Company or any Parent or Subsidiary of the Company. The payment of a Director's fee by the Company shall not be sufficient in and of itself to constitute "employment" by the Company.

(h) "Exchange Act" means the Securities Exchange Act of 1934, as amended.

(i) "Fair Market Value" means, as of any date, the value of Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the Nasdaq National Market or The Nasdaq SmallCap Market of The Nasdaq Stock Market, its Fair Market Value shall be the closing sales price for such stock (or the closing bid, if no sales were reported) as quoted on such exchange or system on the date of determination as reported in The Wall Street Journal or such other source as the Administrator deems reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, the Fair Market Value of a Share of Common Stock shall be the mean between the high bid and low asked prices for the Common Stock on the date of determination, as reported in The Wall Street Journal or such other source as the Board deems reliable; or

(iii) In the absence of an established market for the Common Stock, the Fair Market Value thereof shall be determined in good faith by the Board.

(j) "Inside Director" means a Director who is an Employee.

(k) "Option" means a stock option granted pursuant to the Plan.

(l) "Optioned Stock" means the Common Stock subject to an Option.

(m) "Optionee" means a Director who holds an Option.

(n) "Outside Director" means a Director who is not an Employee.

(o) "Parent" means a "parent corporation," whether now or hereafter existing, as defined in Section 424(e) of the Code.

(p) "Plan" means this 1998 Director Option Plan.

(q) "Share" means a share of the Common Stock, as adjusted in accordance with Section 10 of the Plan.

(r) "Subsidiary" means a "subsidiary corporation," whether now or hereafter existing, as defined in Section 424(f) of the Code.

3. Stock Subject to the Plan. Subject to the provisions of Section 10 of the Plan, the maximum aggregate number of Shares which may be optioned and sold under the Plan is one million Shares (the "Pool"). The Shares may be authorized, but unissued, or reacquired Common Stock.

If an Option expires or becomes unexercisable without having been exercised in full, the unpurchased Shares which were subject thereto shall become available for future grant or sale under the Plan (unless the Plan has terminated). Shares that have actually been issued under the Plan shall not be returned to the Plan and shall not become available for future distribution under the Plan.

4. Administration and Grants of Options under the Plan.

(a) Discretionary Grants. The Board (or its committee) shall have the authority, in its discretion, to make discretionary grants of Options hereunder to Outside Directors and to specify the terms and conditions of such discretionary Option grants.

-2-

(b) Automatic Grants. Outside Directors under this Plan shall receive automatic Option grants as follows:

(i) Each Outside Director shall be automatically granted an Option to purchase ten thousand (10,000) Shares (the "First Option") on the date on which such person first becomes an Outside Director, whether through election by the shareholders of the Company or appointment by the Board to fill a vacancy; provided, however, that an Inside Director who ceases to be an Inside Director but who remains a Director shall not receive a First Option.

(ii) Each Outside Director shall be automatically granted an Option to purchase five thousand (5,000) Shares (a "Subsequent Option") on the day of the Company's annual meeting of shareholders of each year provided he or she is then an Outside Director, and if as of such date, he or she shall have served on the Board for at least the preceding six (6) months.

(iii) The terms of a First Option granted hereunder shall be as follows:

(A) the term of the First Option shall be ten (10) years.

(B) the First Option shall be exercisable only while the Outside Director remains a Director of the Company, except as set forth in Sections 8 and 10 hereof.

(C) the exercise price per Share shall be 100% of the Fair Market Value per Share on the date of grant of the First Option.

(D) subject to Section 10 hereof, the First Option shall become exercisable as to 100% of the Shares on the date of grant.

(iv) The terms of a Subsequent Option granted hereunder shall be as follows:

(A) the term of the Subsequent Option shall be ten (10) years.

(B) the Subsequent Option shall be exercisable only while the Outside Director remains a Director of the Company, except as set forth in Sections 8 and 10 hereof.

(C) the exercise price per Share shall be 100% of the Fair Market Value per Share on the date of grant of the Subsequent Option.

-3-

(D) subject to Section 10 hereof, the Subsequent Option shall become exercisable as to 100% percent of the Shares on the date of the grant.

(c) Powers of the Board. Subject to the provisions of the Plan and, in the case of a committee, the specific duties delegated by the Board to such committee, and subject to the approval of any relevant authorities, the Board (or its committee) shall have the authority, in its discretion:

(i) to modify or amend each Option, including the

discretionary authority to change prospectively the vesting schedules of options, to extend the post-termination exercisability period of outstanding Options longer than is otherwise provided for and/or to accelerate the vesting of any outstanding Option.

(ii) to construe and interpret the terms of the Plan and awards granted pursuant to the Plan.

(d) Share Shortfalls. In the event that any Option granted under the Plan would cause the number of Shares subject to outstanding Options plus the number of Shares previously purchased under Options to exceed the Pool, then the remaining Shares available for Option grant shall be granted under Options to the Outside Directors on a pro rata basis. No further grants shall be made until such time, if any, as additional Shares become available for grant under the Plan through action of the Board or the shareholders to increase the number of Shares which may be issued under the Plan or through cancellation or expiration of Options previously granted hereunder.

5. Eligibility. Options may be granted only to Outside Directors. The Plan shall not confer upon any Optionee any right with respect to continuation of service as a Director or nomination to serve as a Director, nor shall it interfere in any way with any rights which the Director or the Company may have to terminate the Director's relationship with the Company at any time.

6. Term of Plan. The Plan shall become effective upon the date upon which it is approved by the Company's stockholders. It shall continue in effect until it is terminated under Section 11 of the Plan.

7. Form of Consideration. The consideration to be paid for the Shares to be issued upon exercise of an Option, including the method of payment, shall consist of (i) cash, (ii) check, (iii) other shares which (x) in the case of Shares acquired upon exercise of an option, have been owned by the Optionee for more than six (6) months on the date of surrender, and (y) have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which said Option shall be exercised, (iv) consideration received by the Company under a cashless exercise program implemented by the Company in connection with the Plan, or (v) any combination of the foregoing methods of payment.

-4-

8. Exercise of Option.

(a) Procedure for Exercise; Rights as a Shareholder. Any Option granted hereunder shall be exercisable at such times as are set forth in Section 4 hereof.

An Option may not be exercised for a fraction of a Share.

An Option shall be deemed to be exercised when written notice of such exercise has been given to the Company in accordance with the terms of the Option by the person entitled to exercise the Option and full payment for the Shares with respect to which the Option is exercised has been received by the Company. Full payment may consist of any consideration and method of payment allowable under Section 7 of the Plan. Until the issuance (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company) of the stock certificate evidencing such Shares, no right to vote or receive dividends or any other rights as a shareholder shall exist with respect to the Optioned Stock, notwithstanding the exercise of the Option. A share certificate for the number of Shares so acquired shall be issued to the Optionee as soon as practicable after exercise of the Option. No adjustment shall be made for a dividend or other right for which the record date is prior to the date the stock certificate is issued, except as provided in Section 10 of the Plan.

Exercise of an Option in any manner shall result in a decrease in the number of Shares which thereafter may be available, both for purposes of the Plan and for sale under the Option, by the number of Shares as to which the Option is exercised.

(b) Termination of Continuous Status as a Director. Subject to Section 10 hereof, in the event an Optionee's status as a Director terminates (other than upon the Optionee's death or Disability), the Optionee may exercise his or her Option, but only within thirty (30) days following the date of such termination, and only to the extent that the Optionee was entitled to exercise it on the date of such termination (but in no event later than the expiration of its ten (10) year term). To the extent that the Optionee was not entitled to exercise an Option on the date of such termination, and to the extent that the Optionee does not exercise such Option (to the extent otherwise so entitled) within the time specified herein, the Option shall terminate.

(c) Disability of Optionee. In the event Optionee's status as a

Director terminates as a result of Disability, the Optionee may exercise his or her Option, but only within twelve (12) months following the date of such termination, and only to the extent that the Optionee was entitled to exercise it on the date of such termination (but in no event later than the expiration of its ten (10) year term). To the extent that the Optionee was not entitled to exercise an Option on the date of termination, or if he or she does not exercise such Option (to the extent otherwise so entitled) within the time specified herein, the Option shall terminate.

(d) Death of Optionee. In the event of an Optionee's death, the Optionee's estate or a person who acquired the right to exercise the Option by bequest or inheritance may exercise the Option, but only within twelve (12) months following the date of death, and only to the extent that

-5-

the Optionee was entitled to exercise it on the date of death (but in no event later than the expiration of its ten (10) year term). To the extent that the Optionee was not entitled to exercise an Option on the date of death, and to the extent that the Optionee's estate or a person who acquired the right to exercise such Option does not exercise such Option (to the extent otherwise so entitled) within the time specified herein, the Option shall terminate.

9. Non-Transferability of Options. The Option may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the Optionee, only by the Optionee.

10. Adjustments Upon Changes in Capitalization, Dissolution, Merger or Asset Sale.

(a) Changes in Capitalization. Subject to any required action by the shareholders of the Company, the number of Shares covered by each outstanding Option, the number of Shares which have been authorized for issuance under the Plan but as to which no Options have yet been granted or which have been returned to the Plan upon cancellation or expiration of an Option, as well as the price per Share covered by each such outstanding Option, (but not the number of Shares issuable pursuant to the automatic grant provisions of Section 4 hereof) shall be proportionately adjusted for any increase or decrease in the number of issued Shares resulting from a stock split, reverse stock split, stock dividend, combination or reclassification of the Common Stock, or any other increase or decrease in the number of issued Shares effected without receipt of consideration by the Company; provided, however, that conversion of any convertible securities of the Company shall not be deemed to have been "effected without receipt of consideration." Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of Shares subject to an Option.

(b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, to the extent that an Option has not been previously exercised, it shall terminate immediately prior to the consummation of such proposed action.

(c) Merger or Asset Sale. In the event of a merger of the Company with or into another corporation or the sale of substantially all of the assets of the Company, outstanding Options may be assumed or equivalent options may be substituted by the successor corporation or a Parent or Subsidiary thereof (the "Successor Corporation"). If an Option is assumed or substituted for, the Option or equivalent option shall continue to be exercisable as provided in Section 4 hereof for so long as the Optionee serves as a Director or a director of the Successor Corporation. Following such assumption or substitution, if the Optionee's status as a Director or director of the Successor Corporation, as applicable, is terminated other than upon a voluntary resignation by the Optionee, the Option or option shall become fully exercisable, including as to Shares for which it would not otherwise be exercisable. Thereafter, the Option or option shall remain exercisable in accordance with Sections 8(b) through (d) above.

-6-

If the Successor Corporation does not assume an outstanding Option or substitute for it an equivalent option, the Option shall become fully vested and exercisable, including as to Shares for which it would not otherwise be exercisable. In such event the Board shall notify the Optionee that the Option shall be fully exercisable for a period of thirty (30) days from the date of such notice, and upon the expiration of such period the Option shall terminate.

For the purposes of this Section 10(c), an Option shall be considered assumed if, following the merger or sale of assets, the Option confers the right to purchase or receive, for each Share of Optioned Stock subject to the Option immediately prior to the merger or sale of assets, the consideration (whether stock, cash, or other securities or property) received in the merger or sale of assets by holders of Common Stock for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares). If such consideration received in the merger or sale of assets is not solely common stock of the successor corporation or its Parent, the Administrator may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of the Option, for each Share of Optioned Stock subject to the Option, to be solely common stock of the successor corporation or its Parent equal in fair market value to the per share consideration received by holders of Common Stock in the merger or sale of assets.

11. Amendment and Termination of the Plan.

(a) Amendment and Termination. The Board may at any time amend, alter, suspend, or discontinue the Plan, but no amendment, alteration, suspension, or discontinuation shall be made which would impair the rights of any Optionee under any grant theretofore made, without his or her consent. In addition, to the extent necessary and desirable to comply with any applicable law, regulation or stock exchange rule, the Company shall obtain shareholder approval of any Plan amendment in such a manner and to such a degree as required.

(b) Effect of Amendment or Termination. Any such amendment or termination of the Plan shall not affect Options already granted and such Options shall remain in full force and effect as if this Plan had not been amended or terminated.

12. Time of Granting Options. The date of grant of an Option shall, for all purposes, be the date determined in accordance with Section 4 hereof.

13. Conditions Upon Issuance of Shares. Shares shall not be issued pursuant to the exercise of an Option unless the exercise of such Option and the issuance and delivery of such Shares pursuant thereto shall comply with all relevant provisions of law, including, without limitation, the Securities Act of 1933, as amended, the Exchange Act, the rules and regulations promulgated thereunder, state securities laws, and the requirements of any stock exchange upon which the Shares may then be listed, and shall be further subject to the approval of counsel for the Company with respect to such compliance.

-7-

As a condition to the exercise of an Option, the Company may require the person exercising such Option to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares, if, in the opinion of counsel for the Company, such a representation is required by any of the aforementioned relevant provisions of law.

Inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, shall relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority shall not have been obtained.

14. Reservation of Shares. The Company, during the term of this Plan, will at all times reserve and keep available such number of Shares as shall be sufficient to satisfy the requirements of the Plan.

15. Option Agreement. Options shall be evidenced by written option agreements in such form as the Board shall approve.

16. Shareholder Approval. The Plan shall be subject to approval by the shareholders of the Company within twelve (12) months after the date the Plan is adopted. Such shareholder approval shall be obtained in the degree and manner required under applicable state and federal law and any stock exchange rules.

-8-

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated July 28, 1998, which appears on page 34 of the 1998 Annual Report to Stockholders of KLA-Tencor Corporation, which is incorporated by reference in KLA-Tencor Corporation's Annual Report on Form 10-K for the year ended June 30, 1998.

PRICEWATERHOUSECOOPERS LLP

San Jose, California
December 3, 1998